APANTAC

Product
Reference Guide

Mulitivewers, Converters, Distribution Amplifiers, Extenders, Scalers, 12G/3G/HD/SD-SDI, Composite, Display Port, HDMI 2.1, 2.0, 1.4, HDBaseT, SDVoE, KVM over IP, KVM, Matrices, openGear, AV over IP, USB and more …

2024 v1

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APANTAC Multiviewers
Feature Overviews

LABELS

- Up to 4 labels per window -UMD (under monitor display, IMD(In monitor display), OMD (over monitor display)
- 2 Window labels can be placed over / outside the window
- 2 standalone labels can be placed outside the window
- 2 x 32 character labels and 2 x 16 character labels
- Adjustable background transparency
- Labels can be positioned anywhere
- Size, color and font styles are all adjustable
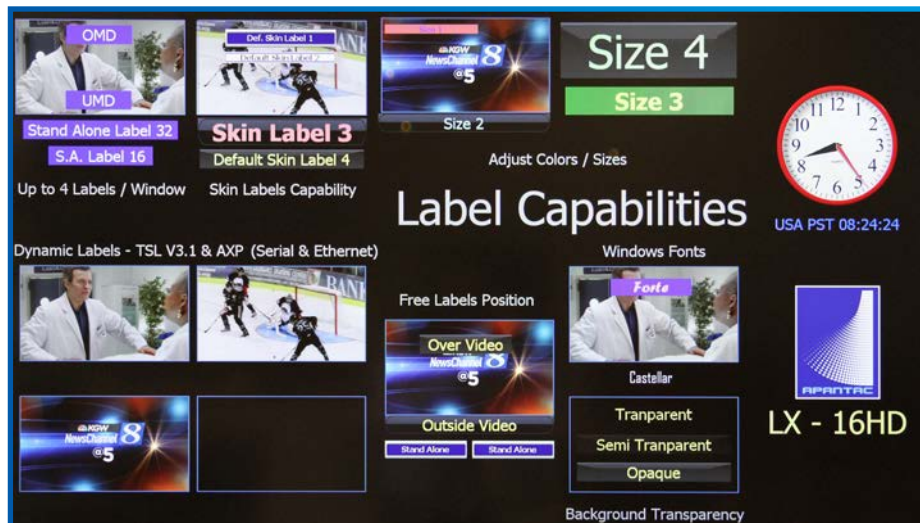
BORDERS

- Simple borders can be any width and color
- 6 default border skins
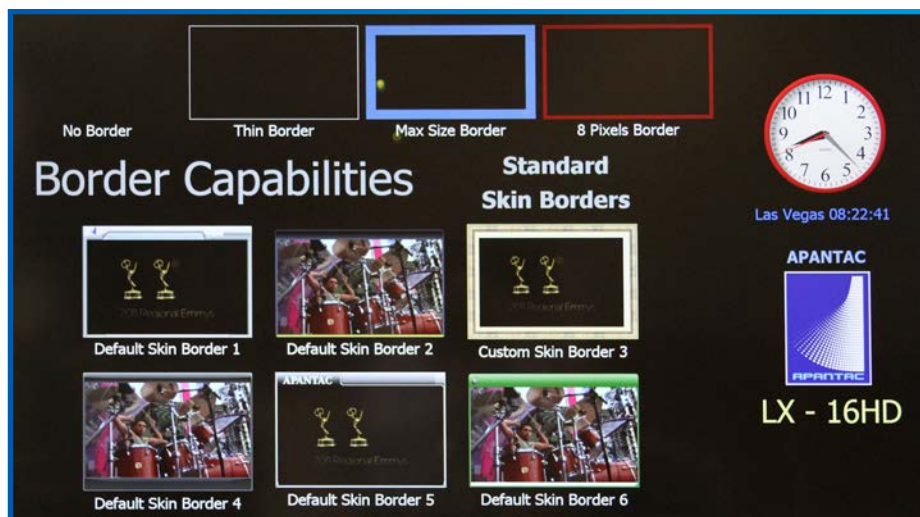
APANTAC Multiviewers
Feature Overviews

SAFE AREA, AUDIO METERS, VISUAL ALARMS

- 2 sets of safe-area / safe-title markers per source window
- 16 channels of embedded audio can be decoded and displayed
- Audio meters can be placed anywhere on the screen
    - Inside the video
    - Outside the video
    - Standalone
- Visual Alarms
  - Alarm tag size, position, color, message and behavior are all user-configurable
  - Alarm tags can be placed anywhere on the screen
    - Inside the video
    - Outside the video
  - Window borders can be set to blink any color based upon alarm conditions
- GPO relay can be set to close upon selected alarm conditions
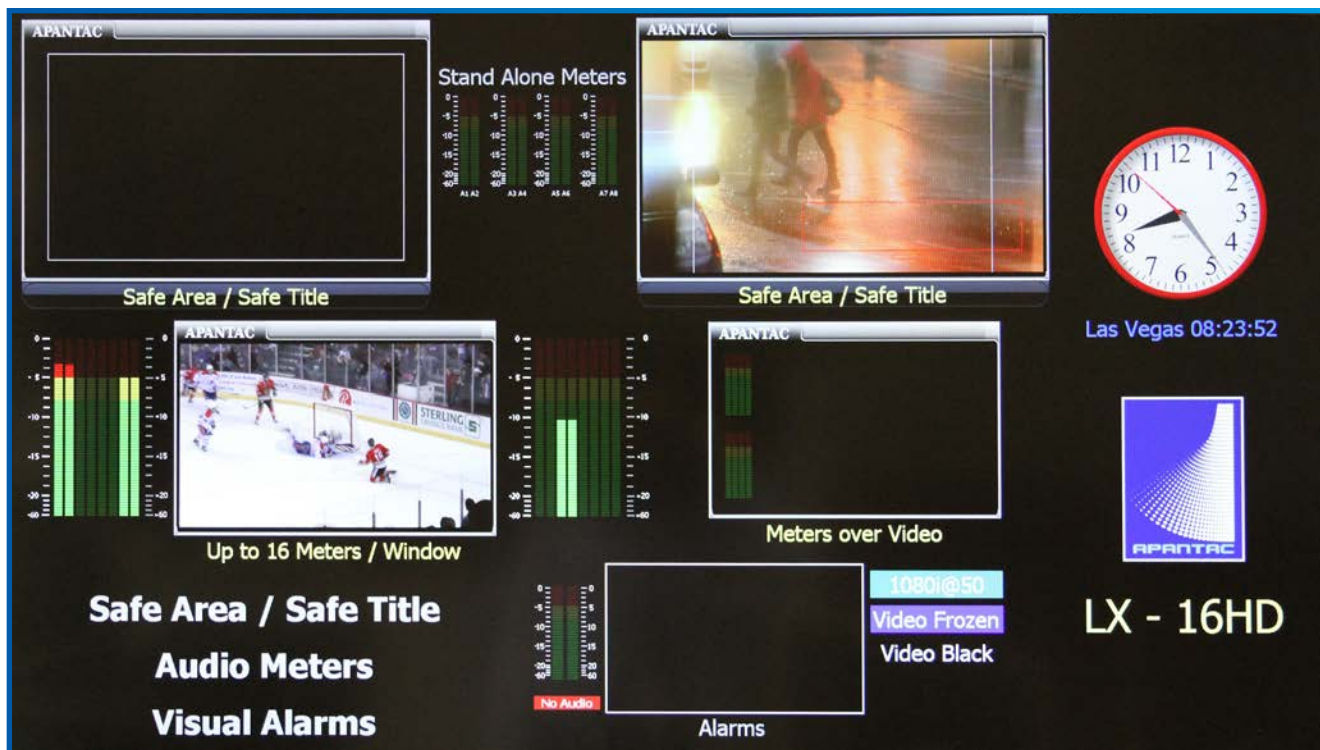
APANTAC Multiviewers
Feature Overviews

TALLY AND GPI/O

- Four levels of tallies - GPI & TSL interfaces
- Flexible tally displays
    - Two LEDs
    - UMD Text
    - UMD Background
    - Or a mix of all of the above
- TSL support over serial and IP
- Outputs - Electronic relays configured to report alarm conditions
- GPIs
  - Two GPI input contact closures per video - both can be used for tally control or one for tally control and one for counter countrol
  - Eight extra GPI/O on the control board can be configured as:
      - Inputs - Recall presets / launch any AXP commands
      - Outputs - Electronic relays configured to report alarm conditions
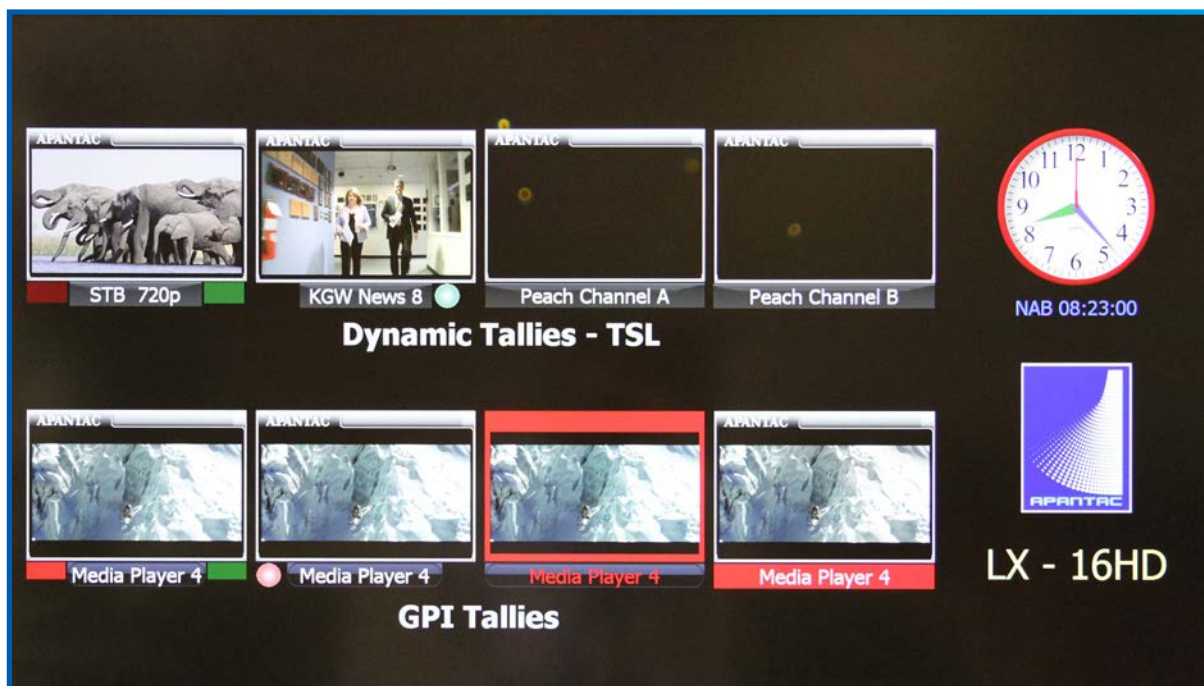
APANTAC Multiviewers
Feature Overviews

CLOCKS

- One analog clock and one digital clock per every 4 inputs
    - LTC or NTP locking capabilities
    - Digital clocks can be configured as count-up or count-down timers
    - Customize analog clock faces with any graphical tool that can export BMP format

LOGOS

- Can download any BMP file to be used as a logo
- Customize logos with any graphical tool
- One logo per every group of 4 windows

NOTE: All images in this section are actual screen captures.

APANTAC Multiviewers
Feature Overviews

PORTRAIT MODE

- Some Apantac multiviewers supports PORTRAIT MODE, simply connect the Output to the CRESCENT tWarp to turn the image 90 or 270 degrees
- This option can be purchased at any time

Equalization Adjustment

Power

IP Control

HDMI Input

HDMI Output

CATx Link In

Scan Button

Power Indicator

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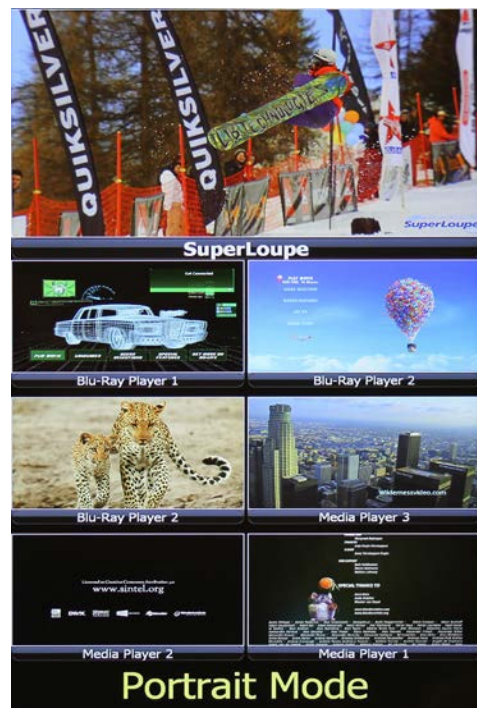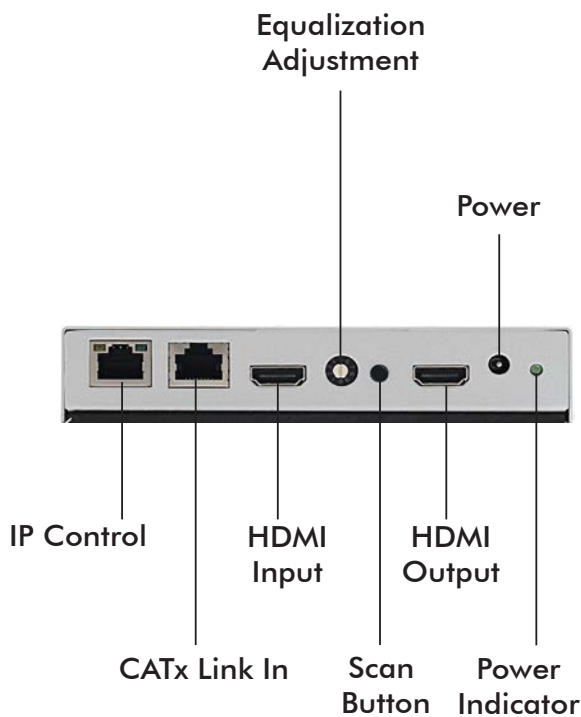
TAHOMA T#
Modular Multiviewers

The T# is a modular multiviewer architecture that accepts a mix of various input & output cards and allows sending any input to any output.

Two chassis with redundant power supplies are available: Single 4 RU with 8 input slots and 4 output slots can have a maximum 64 x 16 configuration, when two 4RU chassis are cascaded together can have a maximum of 128 x 16 configuration. A more economical 2RU chassis with 4 input slots and 1 output slot up to a maximum 32 x 4 configuration. More boards can be added to populate empty slots.

Each input slot can be equipped with one VSM input card - that handles 8 signals, associated with various rear input modules (UIM-xxx) accepting 4 or 8 inputs with different signal formats plus GPI inputs.

Each output slot can be equipped with one OPM output card. The OPM cards handle 4 outputs at a time, associated with various rear ouput modules that provide one HDMI (1080p) & SDI (1080p/i) pair for each of the four outputs. Depending on the rear output model, SDI can also be available over Fiber. . The UHD OPM cards handle a single UHD output, associated with the UHD rear output module.

The first output card has a daughter board that supports control signals: IP, RS-232, GPI, Reference & LTC inputs, AA and AES monitoring outputs.

On Screen Display (OSD): The T# has the following capabilities: Borders, UMDs, OMDs, standalone labels, meters, markers, various video and audio alarm tags, digital and analog clocks, logos. It supports the TSL protocol over IP for dynamic tallies and labels.

It is configured using the free JDirector Configuration SW and can store up to 30 Presets. It supports various control HW and SW control panels and the AXP control protocol.

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2 Frames sizes (2 RU and 4 RU), can mix and match 12G/3G/HD/SD-SDI/CVBS, HDMI 1.4, HDMI 2.0, NDI, H.264, ASI and fiber by adding input or output cards

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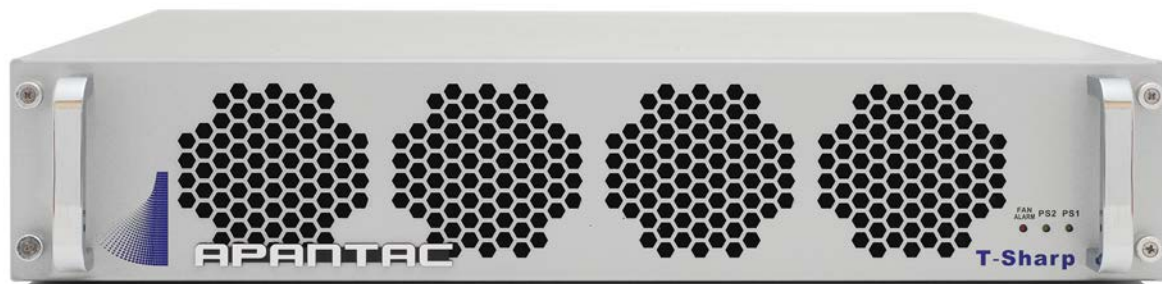
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Up to 128 inputs and 16 outputs multiviewer, any input is available to any output

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Key Features

- Fast boot up (< 10 seconds)
- Single frame of processing delay on baseband inputs
- Modular architecture
- **All input and output boards are hot swappable**
- **Supports Auto-detect inputs from 12G SDI to HD-SDI**
- **Supports Auto-detect inputs from 3G SDI to CVBS**
- HDMI 1.4 input cards
- HDMI 2.0 input cards
- High bandwidth NDI cards
- DP 1.2 input cards
- IP (H.264/Mpeg4, Mpeg2, ASI) input cards
- SFP input cards can accept SMPTE SDI fiber
- **Maximum of 128 auto-detect inputs of 3G/HD/SD-SDI/composite signals**
- Maximum of 64 auto-detect inputs of 12G/3G/HD-SDI inputs
- Maximum of 128 inputs of HDMI 1.4
- Maximum of 64 inputs of HDMI 2.0
- Maximum of 128 high bandwidth 1080P inputs
- **Maximum of 16 1080P outputs**
- **Maximum of 4 UHD 2160P outputs**
- Can support up to 64 windows on each output
- Any input can be routed to any output
- Any input can be duplicated up to 64 times
- Supports UMD, OMD, IMD and standalone labels up to 32 characters
- **Supports Unicode UMD/Labels, such as Chinese, Japanese and other double-byte characters**
- Supports multiple labels per window
- Supports dynamic UMD via TSL protocol v3.1 (IP and RS-232) or TSL protocol v5.0 (IP)
- Supports 2 sets of "safe area" markers per image
- **Multiple analog and digital clocks per multiviewer outputs that can be locked to LTC or NTP**
- Customizable logos
- Supports up to 30 presets per output
- **Video audio alarms includes - video presence/format, video black, video frozen, audio presence, audio high/low**
- Supports AXP2 (Apantac eXchange Protocol, version 2)
- Supports 3rd party routers and production switcher protocols*
- Hot swappable redundant power supplies - standard
- 3 year limited warranty

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Architectural Concepts

Frame sizes

- T# comes in 3 different frame sizes, 2 RU and 4 RU. All frames are modular, therefore different I/O modules can be inserted to form different sizes of multiviewers, and all boards are interchangeable between the frames
- T# comes standard with redundant power supplies
- Cooling flow is front to back

VIDEO INPUT PROCESSING MODULES

OUTPUT PROCESSING MODULES

REDUNDANT POWER SUPPLIES

CONTROL PROCESSING MODULES

OUTPUT PROCESSING MODULES

VIDEO INPUT PROCESSING MODULES

CONTROL PROCESSING MODULES

REDUNDANT POWER SUPPLIES

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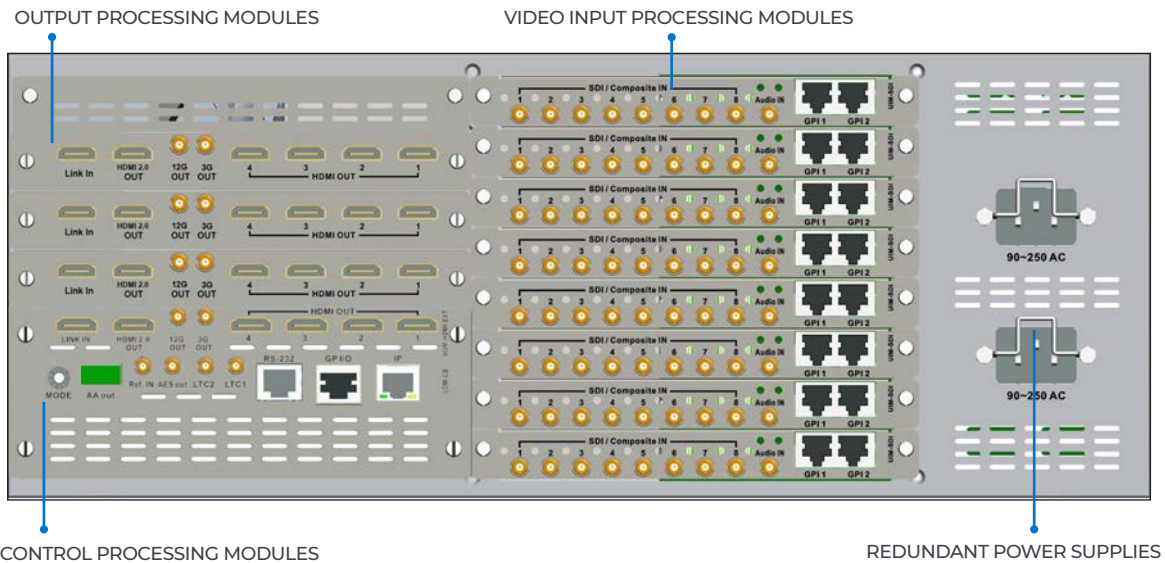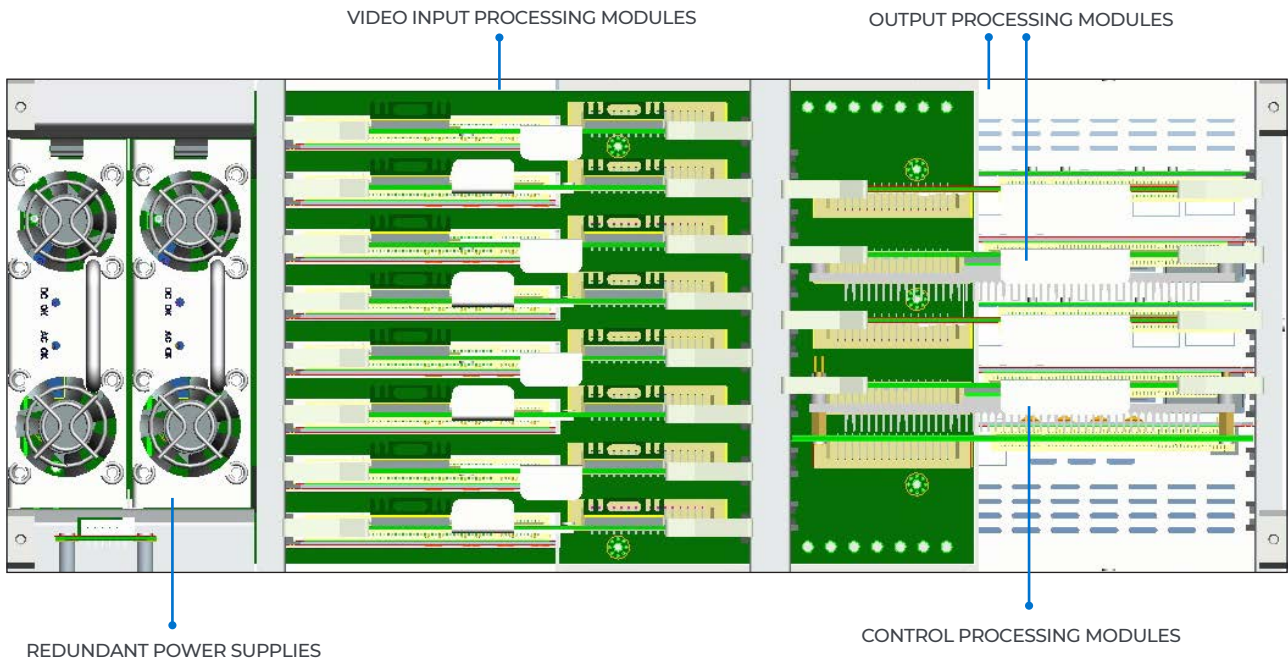
How to Cascade two T# 4RU frames together to expand up to 128 inputs
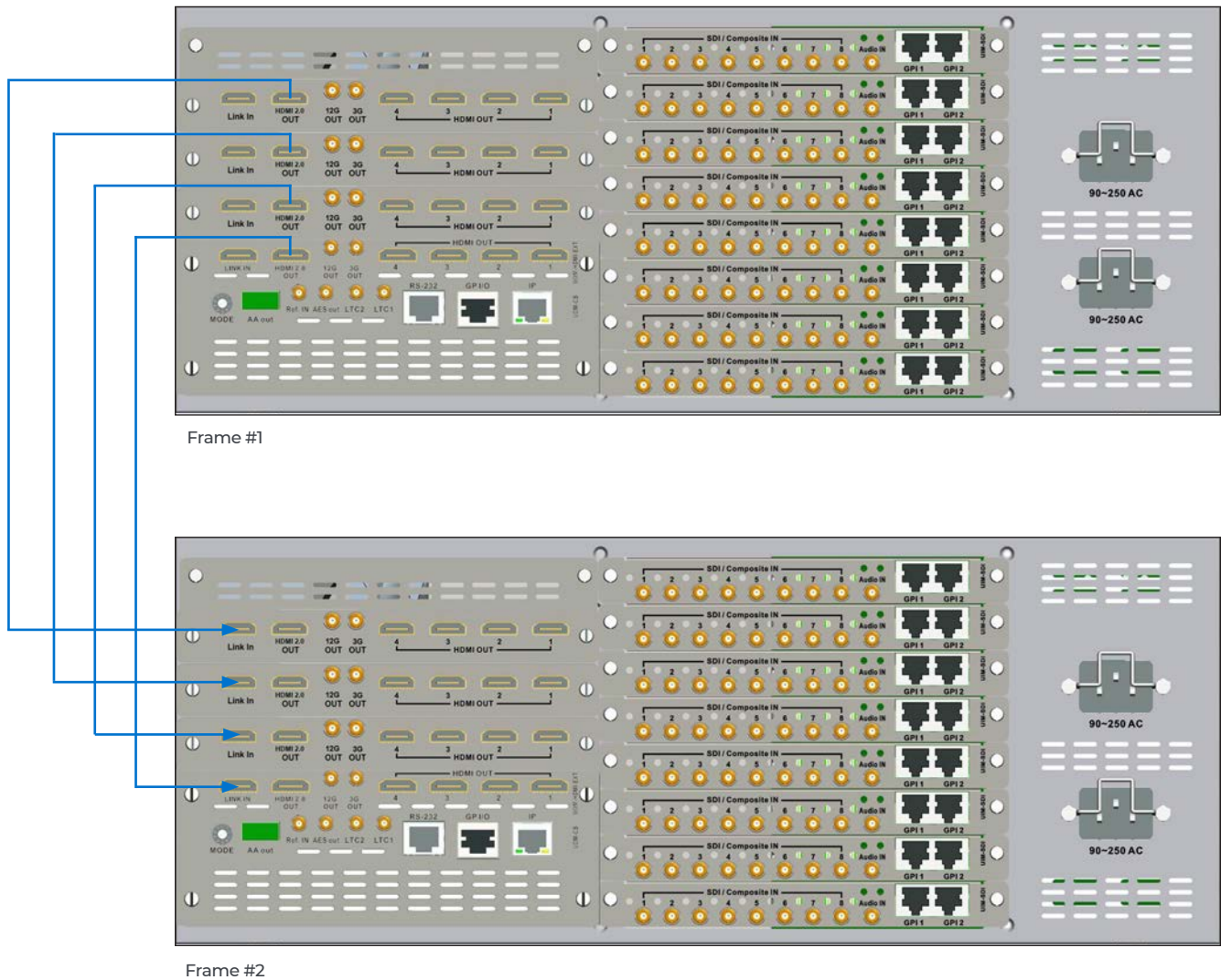
Frame #1

Frame #2

All the Outputs will come from Frame #2.

- The Maximum Configuration can be up to 128 (1080P) inputs and 16 (1080P) outputs in either SDI or HDMI
- The Maximum Configuration in UHD is 64 12G SDI or HDMI 2.0
- Different types of HDMI or SDI can be mixed and matched on the input as well as output
- The outputs resolutions are independent of input resolutions

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Standard Broadcast Input Boards (UIM-SDI)

- Each input card supports 8 video inputs
- All input cards are hot swappable
- Automatic input aspect ratio detection, by frequency or WSS and AFD
- Decodes closed captioning on line 21, CEA 608/708 on each input
- Decodes and displays 16 channels of embedded audio per SDI input
- When fully populated, can display up to 64 SDI/composite windows per display
- Can mix and match with other input cards

DISCRETE AUDIO INPUT (FUTURE)

8 X 3G/HD/SD-SDI/CVBS INPUTS

16 GPI INPUTS FOR TALLY AND UP/DOWN TIMER CONTROL
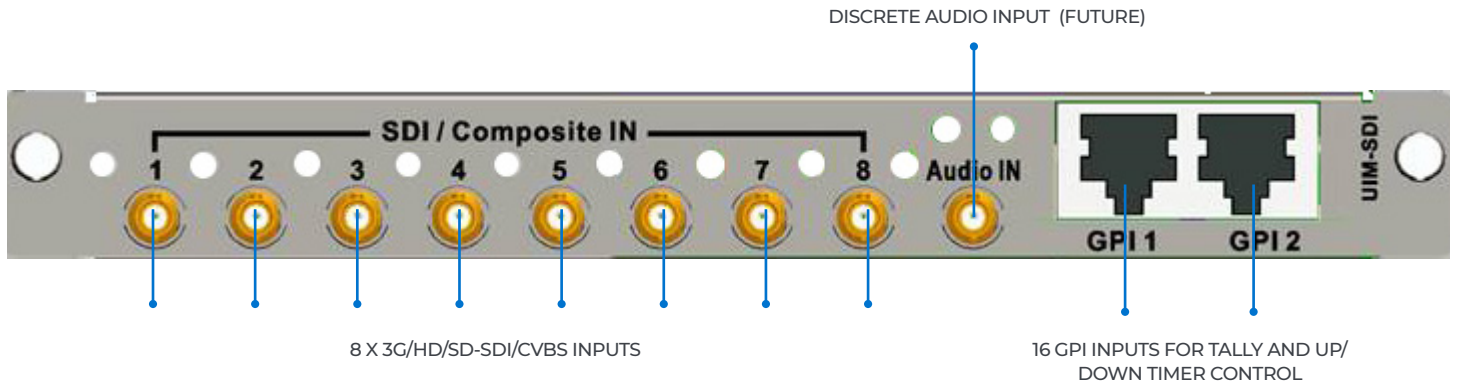
SFP Fiber Input Boards (UIM-SFP)

- Has all functionality of the standard broadcast input boards
- Instead of fixed BNCs, there are four dual input SFP slots
- SFP slots for SDI or IP fiber modules. SFP modules sold separately
- Can mix and match with other input cards

DISCRETE AUDIO INPUT (FUTURE)

4 Dual SFP SLOTS (SFP MODULES SOLD SEPARATELY)

16 GPI INPUTS FOR TALLY AND UP/DOWN TIMER CONTROL

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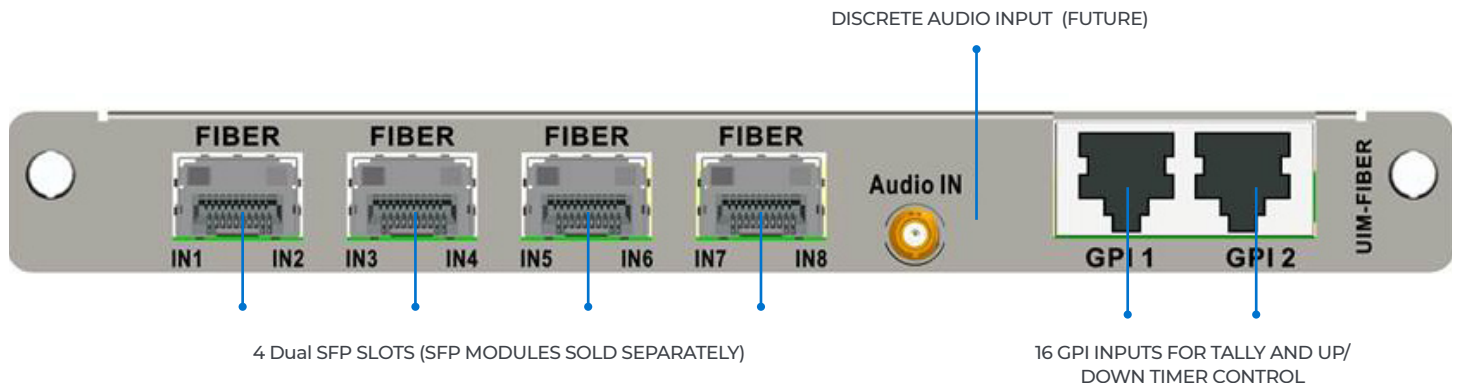
12G SDI Broadcast Input Boards (UIM-SDI-12G)

- Each input card supports 4 12G/3G/HD-SDI video inputs
- All input cards are hot swappable
- Decodes and displays 16 channels of embedded audio per SDI input
- When fully populated, can display up to 32 12G SDI windows per display
- Can mix and match with other input cards

4 X 12G INPUTS

16 GPI INPUTS FOR TALLY AND UP/
DOWN TIMER CONTROL
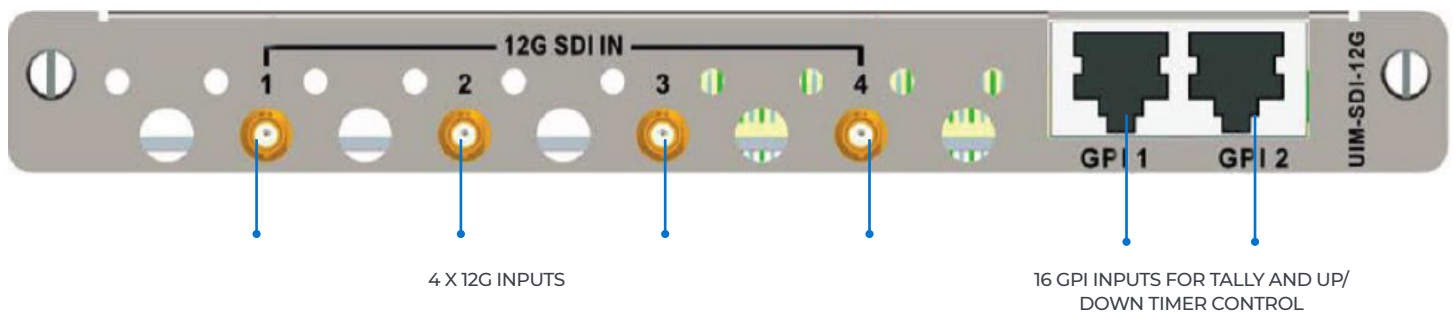
HDMI Input Boards (UIM-HDMI) - 4 Inputs

- Each input card supports 4 HDMI 1.4 inputs
- All input cards are hot swappable
- Decodes and displays 4 channels of embedded audio per HDMI input
- When fully populated, can display up to 32 HDMI windows per display
- Can mix and match with other input cards

4 x HDMI 1.4 (up to 1080P) INPUTS

16 GPI INPUTS FOR TALLY AND UP/
DOWN TIMER CONTROL
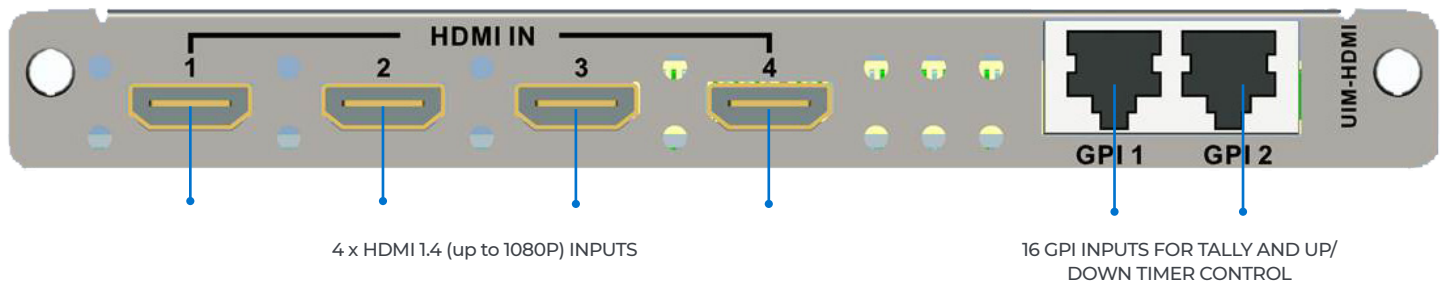
HDMI Input Boards (UIM-HDMI-8) - 8 Inputs

- Each input card supports 8 HDMI 1.4 inputs with Mini HDMI connectors
- All input cards are hot swappable
- Decodes and displays 4 channels of embedded audio per HDMI input
- When fully populated, can display up to 64 HDMI windows per display
- Can mix and match with other input cards

8 x HDMI 1.4 (up to 1080P) INPUTS

8 GPI INPUTS FOR TALLY AND UP/DOWN TIMER CONTROL
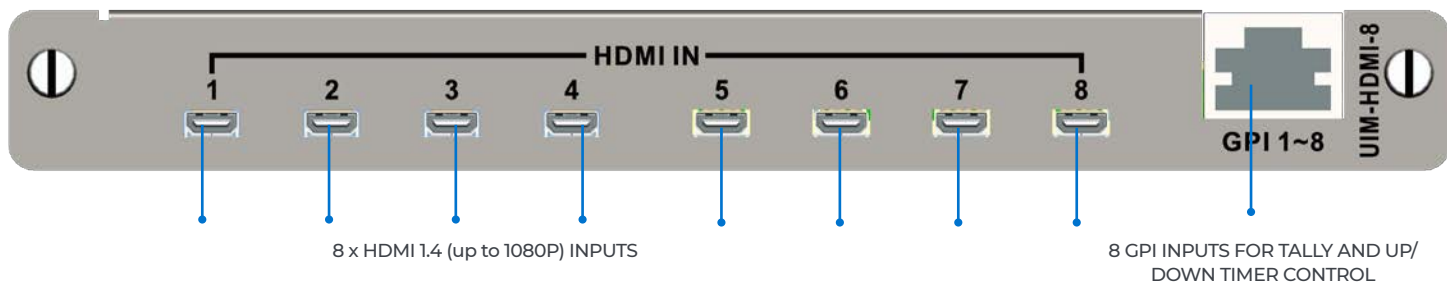
HDMI 2.0 UHD Input Boards (UIM-HDMI-4K)

- Each input card supports 4 HDMI 2.0 inputs
- All input cards are hot swappable
- Decodes and displays 4 channels of embedded audio per HDMI input
- When fully populated, can display up to 32 HDMI windows per display
- Can mix and match with other input cards
** Does not support 4:2:2 or HDR inputs

4 x HDMI 2.0 (up to 2160P) INPUTS

8 GPI INPUTS FOR TALLY AND UP/DOWN TIMER CONTROL
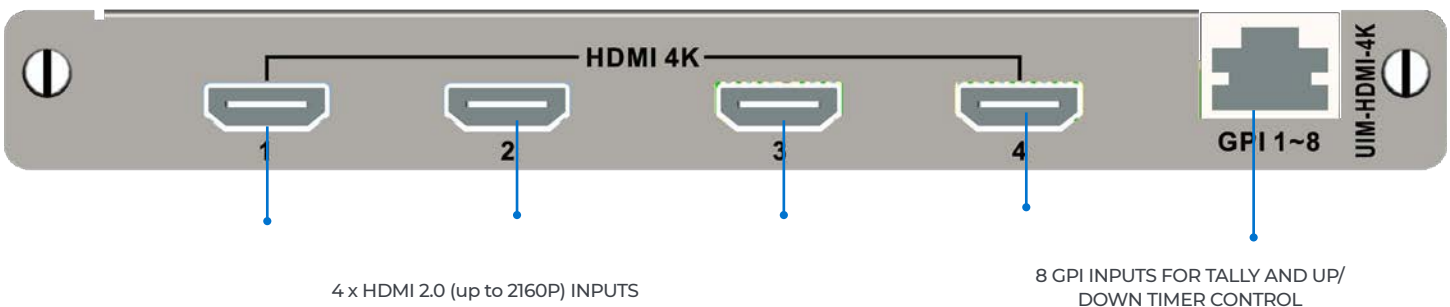
DP 1.2 Input Boards (UIM-DP-4K)

- Each input card supports 4 DP 1.2 inputs
- All input cards are hot swappable
- Decodes and displays 4 channels of embedded audio per DP input
- When fully populated, can display up to 32 HDMI windows per display
- Can mix and match with other input cards

4 x DP 1.2 (up to 2160P) INPUTS   8 GPI INPUTS FOR TALLY AND UP/
                                                    DOWN TIMER CONTROL
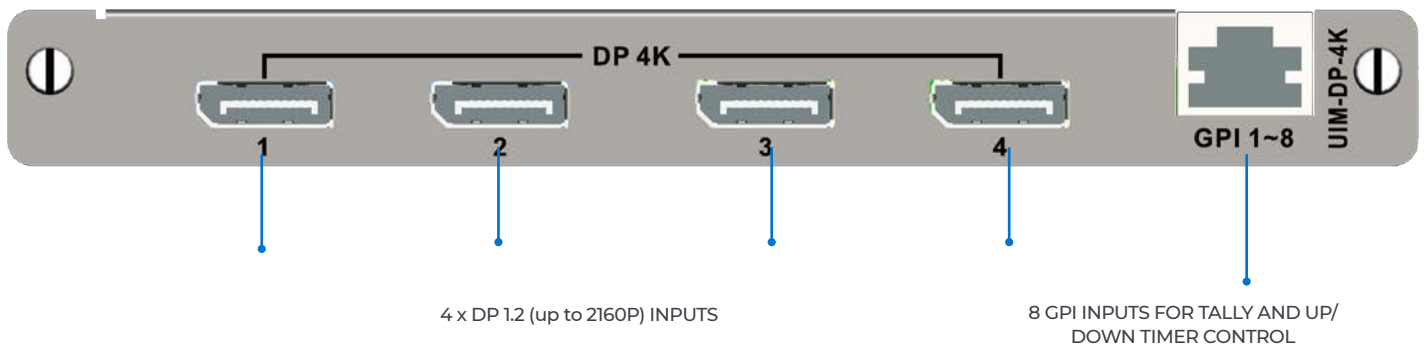
NDI High bandwidth Input Boards (UIM-NDI)

- Each input card supports 8 high bandwidth NDI inputs up to 1080P
- All input cards are hot swappable
- Decodes and displays 8 channels of embedded audio NDI input
- Can mix and match with other input cards

RS232   RESERVED   MICRO SD CARD for FW   NDI INPUT up to 8 STREAMS   16 GPI INPUTS FOR TALLY AND UP/
                                                                                 DOWN TIMER CONTROL
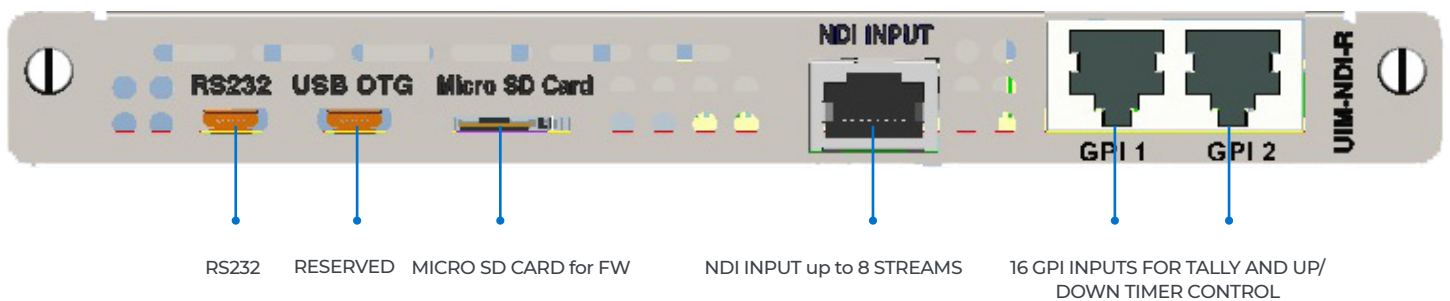
IP Input Boards (UIM-IP)

- Each input card has one RJ45 input and 2 ASI inputs with loop outs
- Each input card can deode up to 8 streams of IP or ASI
- Compliant to ISO/IEC 13818-1 MEG-2 transport stream specificaiton
- Demultiplexing incoming SPTS/MPTS
- MPEG2/H.264 decode, Mpeg2 MP@HL, resolution up to 1080P/1080i@60Hz/50Hz
- All input cards are hot swappable
- When fully populated can display up to 32 decoded IP windows per display

ASI INPUTS/LOOPOUTS   IP INPUT   16 GPI INPUTS FOR TALLY AND UP/
                                               DOWN TIMER CONTROL
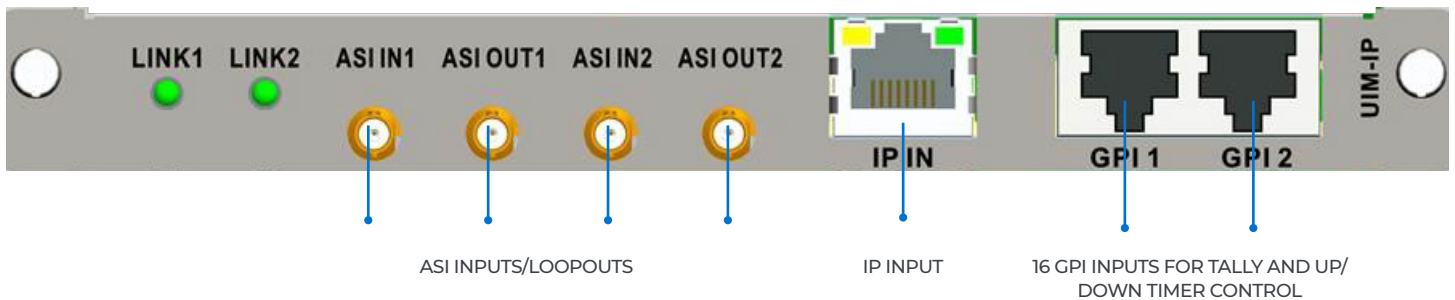
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Standard Output Board (UOM-H-A)

- 4 HDMI and 4 SDI outputs + control interfaces
- HDMI outputs resolution up to 1080P@50/60Hz
- SDI outputs resolution up to 1080P@50/59.94Hz
- IP, GPI/O, serial (RS-232), 2 x LTC, AES and AA audio monitoring outputs and genlock

RESERVED FOR FUTURE

SDI OUTPUTS WITH 2 CHANNELS OF EMBEDDED AUDIO FOR MONITORING

HDMI 1.4 OUTPUTS WITH 2 CHANNELS OF EMBEDDED AUDIO FOR MONITORING

RESERVED FOR FUTURE — AA MONITORING — GENLOCK (BB) — AES MONITORING — 2 X LTC INPUT — SERIAL CONTROL — GPI/O CONTROL — IP
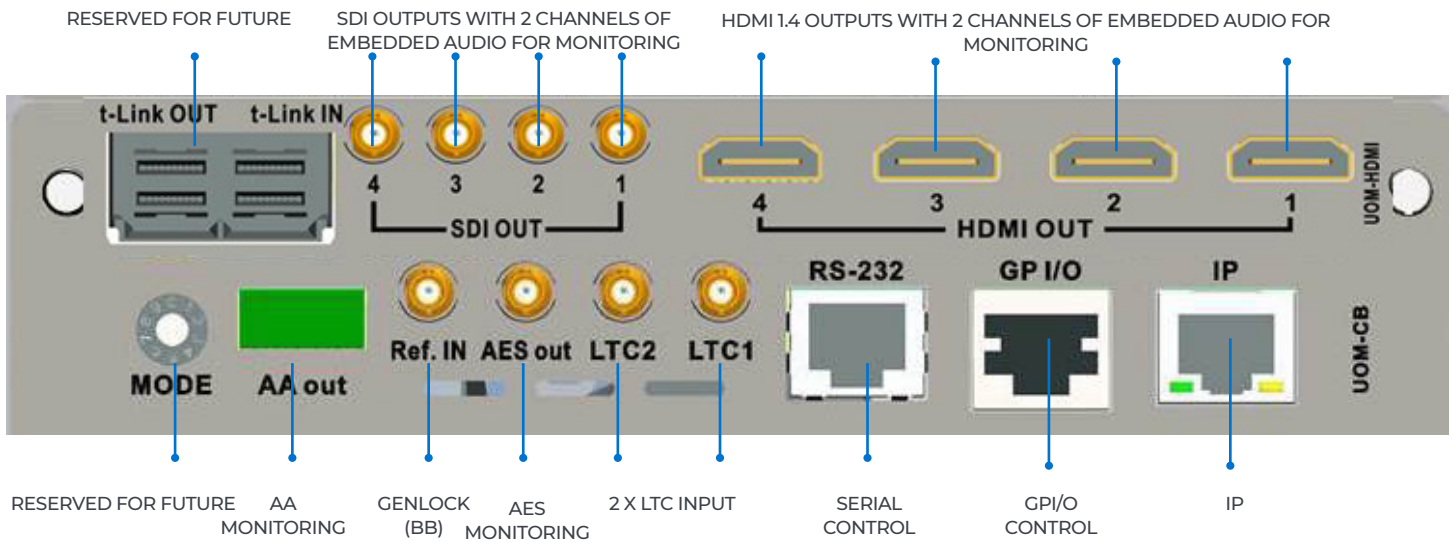
Expansion Output Board (UOM-H-B)

- Adds 4 more HDMI and SDI outputs
- HDMI outputs resolution up to 1080P@50/60Hz
- SDI outputs resolution up to 1080P@50/59.94Hz

RESERVED FOR FUTURE

SDI OUTPUTS WITH 2 CHANNELS OF EMBEDDED AUDIO FOR MONITORING

HDMI 1.4 OUTPUTS WITH 2 CHANNELS OF EMBEDDED AUDIO FOR MONITORING

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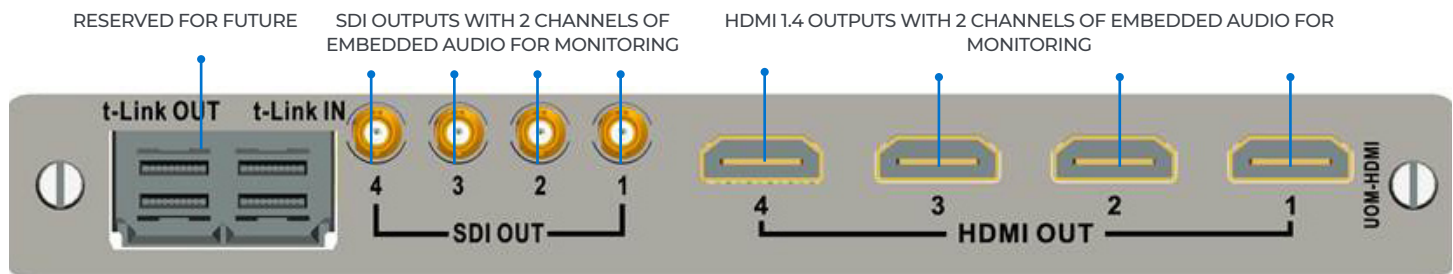
Optional CAT-6 Extender Output Board (UOM-CAT-A)

- 4 RJ45 HDMI extender and 4 SDI outputs + control interface
- HDMI outputs resolution up to 1080P@50/60Hz
- SDI outputs resolution up to 1080P@50/59.94Hz
- IP, GPI/O, serial (RS-232), 2 x LTC, AES and AA audio monitoring outputs and genlock

RESERVED FOR FUTURE   SDI OUTPUTS WITH 2 CHANNELS OF EMBEDDED AUDIO FOR MONITORING   RJ45 HDMI EXTENDER OUTPUTS WITH 2 CHANNELS OF EMBEDDED AUDIO FOR MONITORING

RESERVED FOR FUTURE   AA MONITORING   GENLOCK (BB)   AES MONITORING   2 X LTC INPUT   SERIAL CONTROL   GPI/O CONTROL   IP
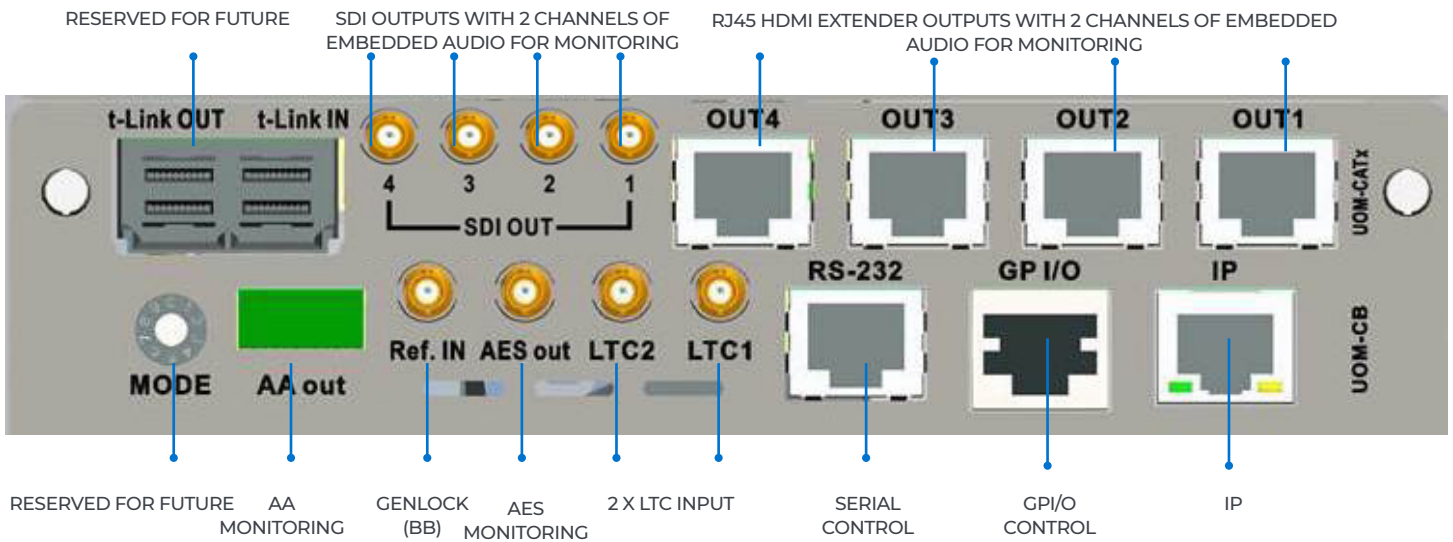
Optional Expansion CAT-6 Extender Output Board (UOM-CAT-B)

- Adds 4 more RJ45 HDMI extender and SDI outputs
- HDMI outputs resolution up to 1080P@50/60Hz
- SDI outputs resolution up to 1080P@50/59.94Hz

RESERVED FOR FUTURE   SDI OUTPUTS WITH 2 CHANNELS OF EMBEDDED AUDIO FOR MONITORING   HDMI 1.4 OUTPUTS WITH 2 CHANNELS OF EMBEDDED AUDIO FOR MONITORING

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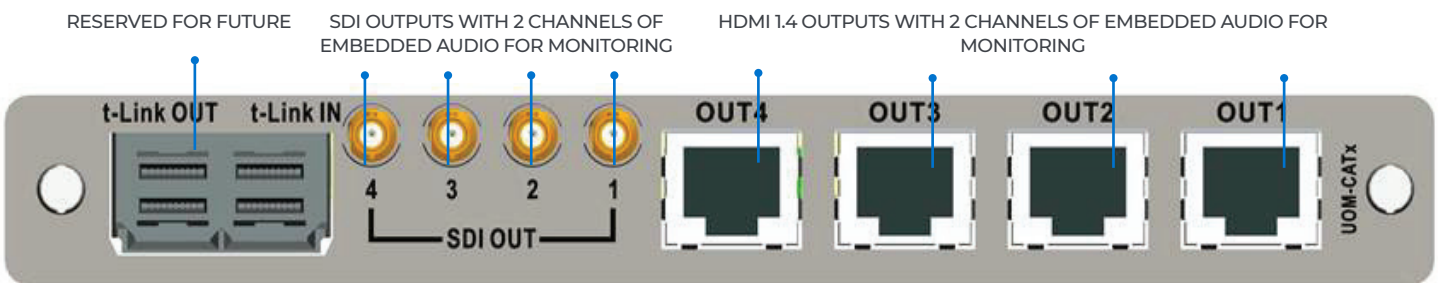
Optional Output Board with HDMI and SFP (UOM-H-SFP-A)

- 4 HDMI and 4 SFP outputs + control interfaces
- HDMI outputs resolution up to 1080P@50/60Hz
- SFP slots for SDI or IP fiber modules. SFP modules are sold separately
- IP, GPI/O, serial (RS-232), 2 x LTC, AES and AA audio monitoring outputs and genlock

RESERVED FOR FUTURE   2 DUAL SFP SLOTS FOR SDI OR IP   HDMI 1.4 OUTPUTS WITH 2 CHANNELS OF EMBEDDED AUDIO FOR MONITORING

RESERVED FOR FUTURE   AA MONITORING   GENLOCK (BB)   AES MONITORING   2 X LTC INPUT   SERIAL CONTROL   GPI/O CONTROL   IP
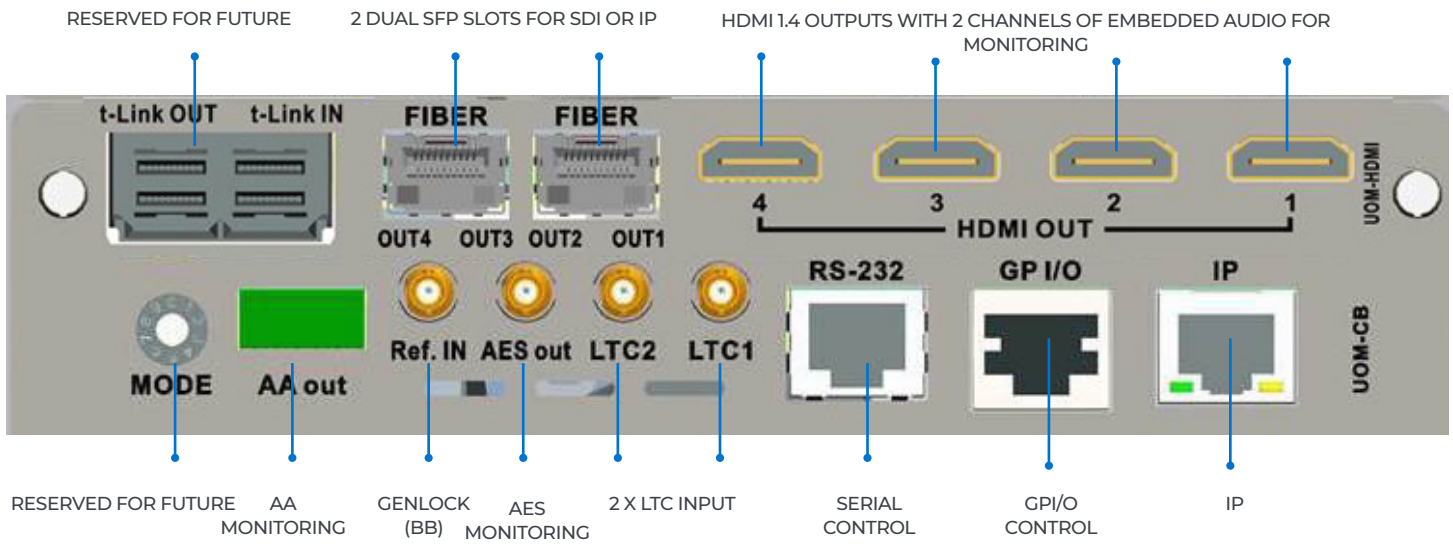
Expansion Output Board with HDMI and SFP (UOM-H-SFP-B)

- Adds 4 more HDMI and SDI outputs
- HDMI outputs resolution up to 1080P@50/60Hz
- SFP slots for SDI or IP fiber modules. SFP modules are sold separately

RESERVED FOR FUTURE   2 DUAL SFP SLOTS FOR SDI OR IP   HDMI 1.4 OUTPUTS WITH 2 CHANNELS OF EMBEDDED AUDIO FOR MONITORING

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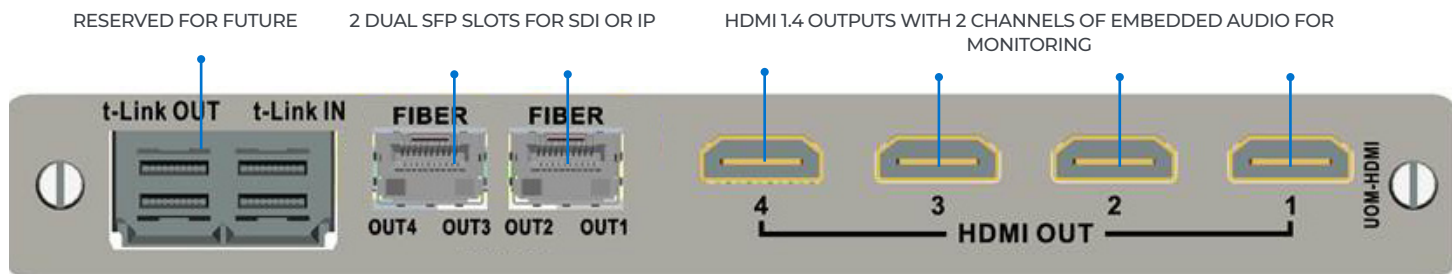
Optional CAT-6 Extender and SFP Output Board (UOM-CAT-SFP-A)

- 4 RJ45 HDMI extender and 4 SDI outputs + control interface
- HDMI outputs resolution up to 1080P@50/60Hz
- SFP slots for SDI or IP fiber modules. SFP modules are sold separately
- IP, GPI/O, serial (RS-232), 2 x LTC, AES and AA audio monitoring outputs and genlock

RESERVED FOR FUTURE   2 DUAL SFP SLOTS FOR SDI OR IP   RJ45 HDMI EXTENDER OUTPUTS WITH 2 CHANNELS OF EMBEDDED AUDIO FOR MONITORING

RESERVED FOR FUTURE   AA MONITORING   GENLOCK (BB)   AES MONITORING   2 X LTC INPUT   SERIAL CONTROL   GPI/O CONTROL   IP
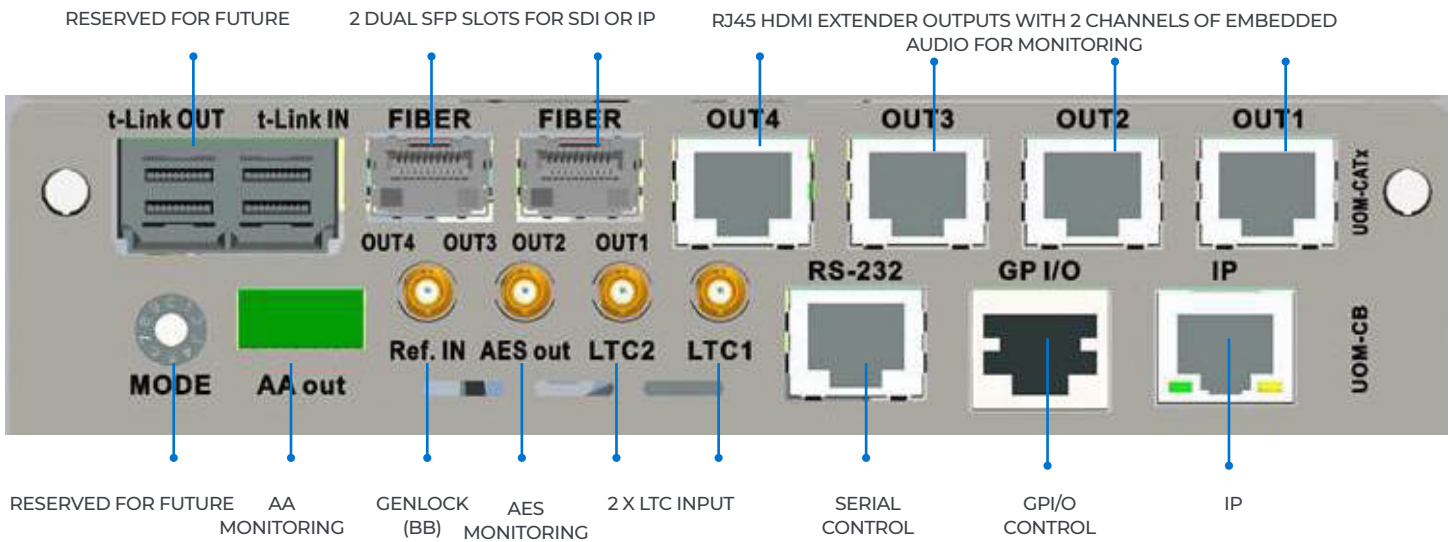
Optional Expansion CAT-6 Extender and SFP Output Board (UOM-CAT-SFP-B)

- Adds 4 more RJ45 HDMI extender and SDI outputs
- HDMI outputs resolution up to 1080P@50/60Hz
- SFP slots for SDI or IP fiber modules. SFP modules are sold separately

RESERVED FOR FUTURE   2 DUAL SFP SLOTS FOR SDI OR IP   RJ45 HDMI EXTENDER OUTPUTS WITH 2 CHANNELS OF EMBEDDED AUDIO FOR MONITORING
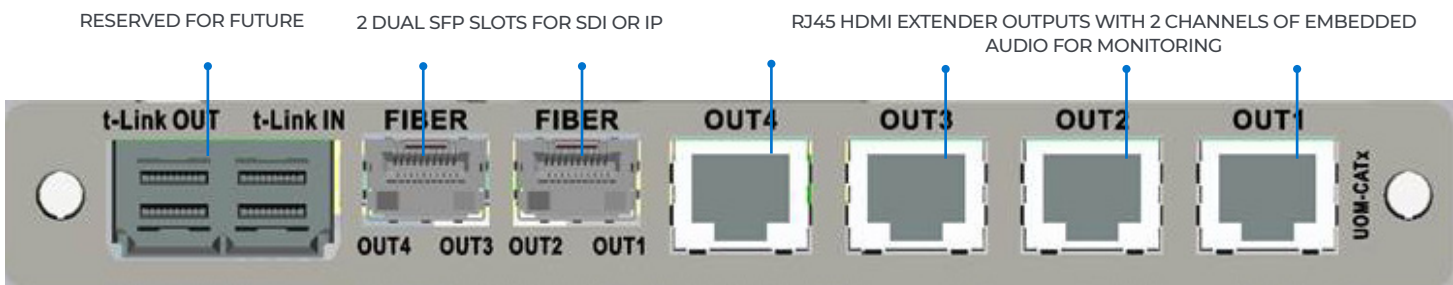
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Optional Output Board with HDMI 2.0 (UOM-UHD-A)

- 1 x HDMI 2.0 (UHD) and 4 x 3G UHD outputs + control interfaces
- HDMI 2.0 outputs resolution up to UHD@50/60Hz
- HDMI 1.4 outputs resolutions up to 1080P@50/50Hz
- IP, GPI/O, serial (RS-232), 2 x LTC, AES and AA audio monitoring outputs and genlock

HDMI 2.0 UHD OUTPUT / 4 x 3G UHD OUTPUT / HDMI 1.4 OUTPUTS WITH 2 CHANNELS OF EMBEDDED AUDIO FOR MONITORING

RESERVED FOR FUTURE / AA MONITORING / GENLOCK (BB) / AES MONITORING / 2 X LTC INPUT / SERIAL CONTROL / GPI/O CONTROL / IP
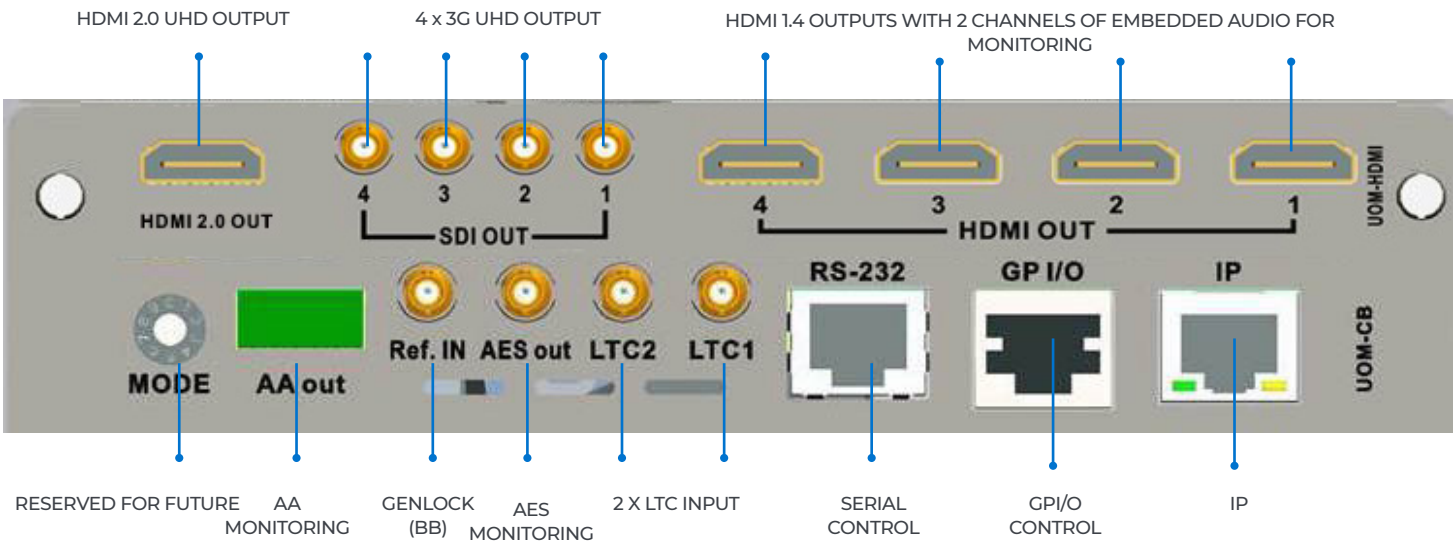
Optional HDMI 2.0 UHD Output Board (UOM-UHD-B)

- 1 x HDMI 2.0 (UHD) output
- 4 x 3G UHD outputs (Quad link UHD)

HDMI 2.0 UHD OUTPUT / 4 x 3G UHD (2SI) OUTPUT / 1080P HDMI 1.4 OUTPUTS are turned off when UHD ouptut is on
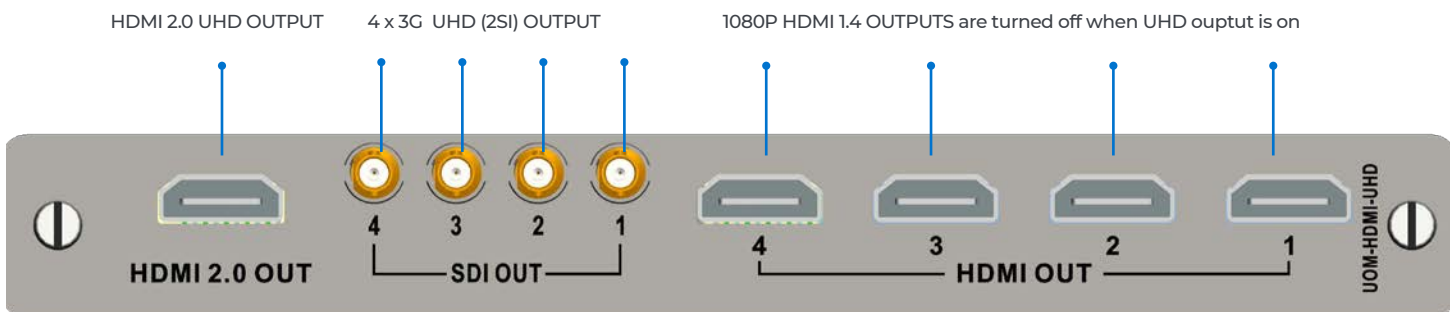
Optional HDBaseT Extender Board (UOM-HDBT)

- 4 HDBaseT extender outputs
- Must be used with UOM-CAT6-A or B or UOM-CAT6-SFP-A or B output boards
- Maximum 2 per T# frame

HDMI INPUTS VIA RJ45 FROM UOM-CAT6-A/B OR UOM-CAT-6-SFP-A/B

HDBaseT OUTPUTS TO HDBaseT RECEIVERS
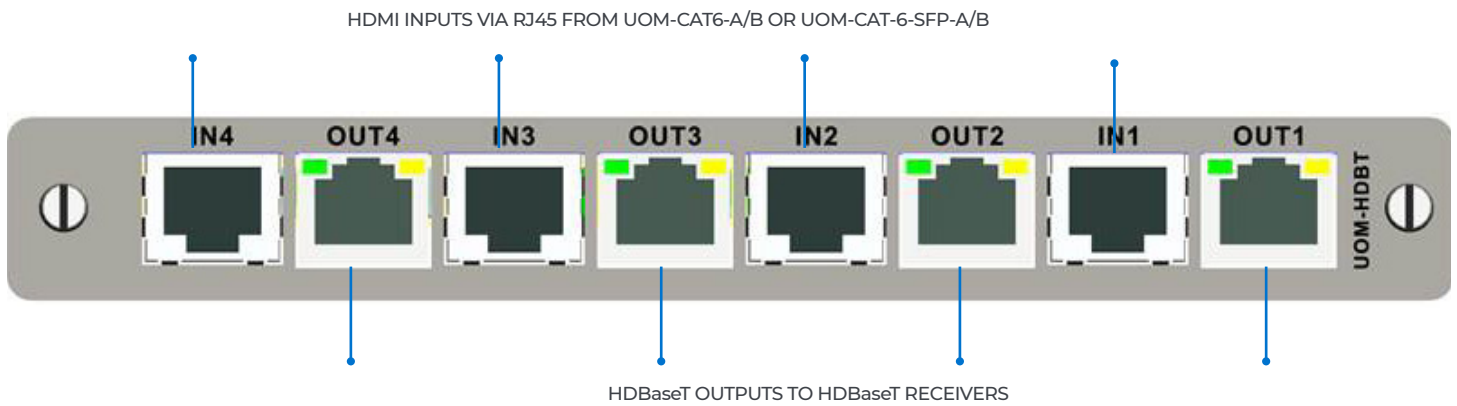
Optional Output Board for Cascading two frames (UOM-HDMI-EXT-A)

- 1 x Link input port for cascading two T# 4RU frames
- 1 x HDMI 2.0 output port cascading two T# 4RU frames
- 1 x 12G multiviewer output port
- 1 x 3G multiviewer output port
- 4 x HDMI 1.4 output port
- Analog audio monitoring
- Reference in (Blackburst)
- AES audio monitoring
- 2 x LTC inputs for locking the clocks
- 1 x RS-232 port for control and tally
- 1 x GPI/O port
- 1 x IP port for control and tally
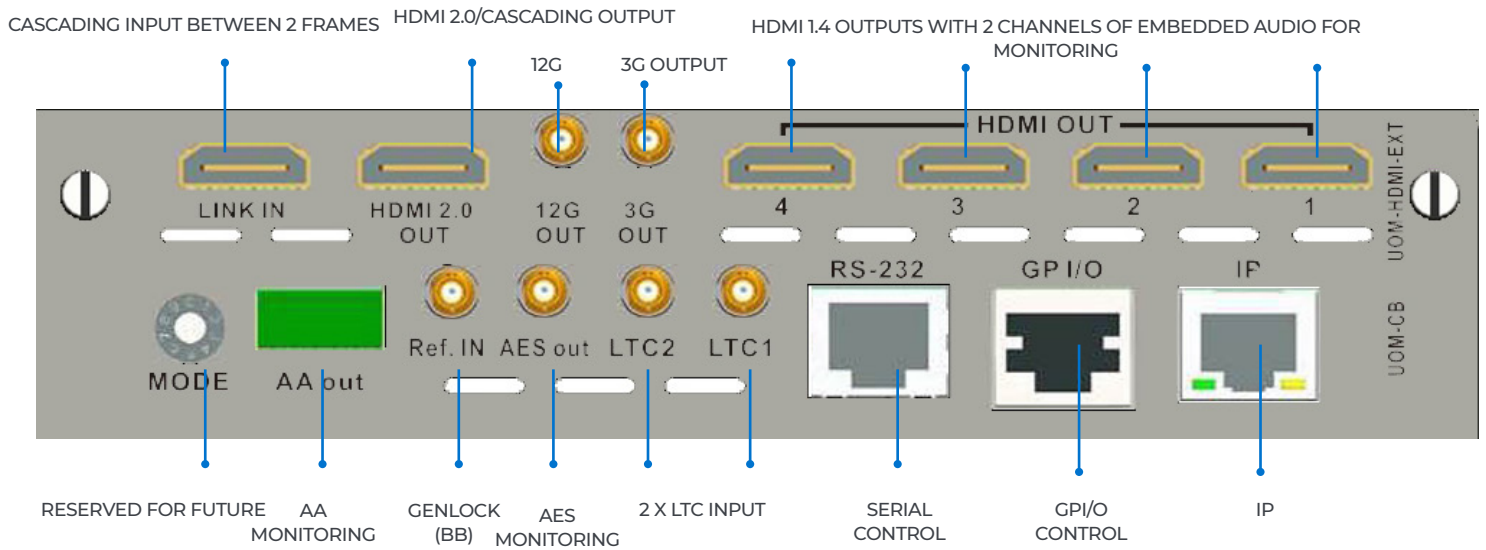
Optional Output Board for Cascading two frames (UOM-HDMI-EXT-B)

- · 1 x Link input port for cascading two T# 4RU frames
- · 1 x HDMI 2.0 output port cascading two T# 4RU frames
- · 1 x 12G multiviewer output port
- · 1 x 3G multiviewer output port
- · 4 x HDMI 1.4 output port

HDMI 2.0 UHD OUTPUT   4 x 3G UHD (2SI) OUTPUT   1080P HDMI 1.4 OUTPUTS are turned off when UHD ouptut is on
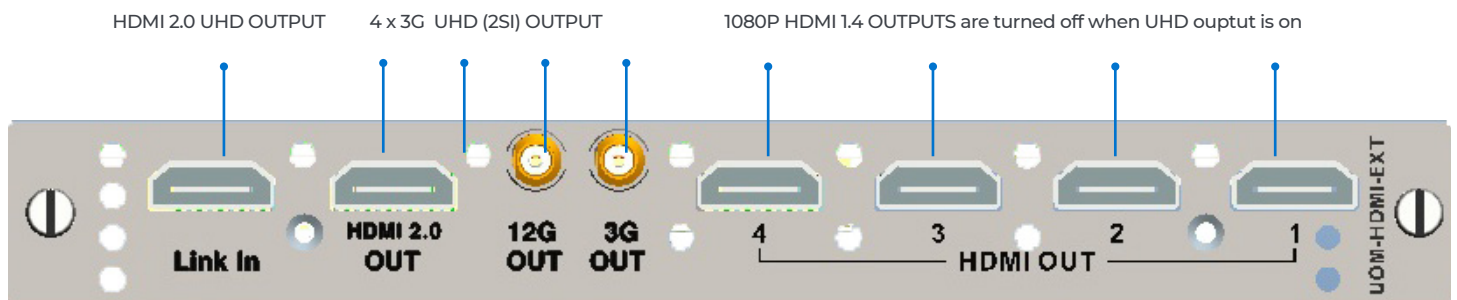
Specifications

VIDEO INPUTS		HDMI 2.0	
Connectors	HD BNC (75 ohm Impedance)	Signal	HDMI 2.0 up to 2160P
12G-SDI: SMPTE 2082(Auto-detect 12G-SDI, 3G-SDI, HD-SDI)		Max Resolution	3840x2160P@60Hz
Formats	3840x2160P60Hz, 3840x2160P59.94 3840x2160P50Hz	Audio	4 Channels of embedded audio
		Connectors	4 Type A HDMI
Audio	16 channels of embedded audio	**IP: ASI/H.264**	
3G-SDI (Auto-detect 3G-SDI, HD-SDI, SD-SDI, CVBS)		Signal	ASI/H.264
Signal	SMPTE 424M-2006, Level A and B	Compliant to ISO/IEC 13818-1 MPEG2 Transport Stream	
Formats	1920x1080P60Hz, 1920x1080P59.94 1920x1080P50Hz	De-multiplexing incoming SPTS/MPTS	
		MPEG2/H.264 decode, MPEG2 MP@HL, up to 1080P/i@50/60Hz	
Audio	SMPTE 299M	Connectors	4 HDBNC (2 in, 2 out for ASI), 1 RJ45
HD-SDI (Auto-detect HD-SDI, SD-SDI, CVBS)		**DP 1.2 (Display Port Connectors)**	
Signal	SMPTE 292M-C	Signal	Up to 3840x2160P with 4 channels of audio
Format	720p29.97 Hz, 720p25Hz, 720p24Hz, 720p59.94Hz 729p50Hz, 1080i59.94Hz 1080i29.97Hz (PSF), 1080p29.97Hz 1080i50Hz, 1080i25 (PSF) 1080p25Hz, 1080p23.98Hz/24Hz, 1080i50Hz	**ANALOG AUDIO OUT -** Phoenix Connector	
		Impedance	< 600 ohm
		VIDEO PROCESSING PERFORMANCE	
		Signal Path	8 bit Ycbcr to 24bit RGB
Audio	SMPTE 299M	Processing delay	1 frame
SD-SDI	4:2:2 SMPTE 259M-C (270 Mbps)	**REFERENCE - Not Required**	
Formats	525 and 625	External	BB
Audio	SMPTE 274-1994	Connector	HD-BNC
RETURN LOSS	>15 dB, up to 1.485 GHz, >10 dB, 1.485 to 2.97 GHz	**MULTIVIEWER OUTPUTS**	
IMPEDANCE	75 ohm	HDMI	4 to 16 HDMI 1.4, 1 to 4 HDMI 2.0
SIGNAL LEVEL	800 mV	Cable Reach	15ft
EQUALIZATION	Automatic, 350m for 270 Mb/s, 200m for 1.485 Gb/s,140m for 2.97 Gb/s. Belden 1694A	Format	2160P (UHD), 1080P, 50 and 59.94 Hz
		3G-SDI	4 to16 1080P, 1 to 4 Quadlink 12G
COMPOSITE: Impedance 75 ohm		Signal	3G/HD-SDI SMPTE 424M and 292M
Signal	NTSC (SMPTE-170M), PAL (ITU624-2)	Format	1920x1080p/i 59.95/50
Signal Level	1 V nominal / DC Offset / 0V, ± 0.1V	Connector	HD-BNC, impedance 75 ohm
HDMI 1.4		Return Loss	>15dB 10MHz to 1.5GHz >10dB 1.5GHz to 3GHz
Signal	HDMI 1.4 up to 1080P	Signal Level	800 mV ±10%
Max Resolution	1920x1080P@60Hz	DC Offset	0 V ± 0.5 V
Audio	4 Channels of embedded audio		
Connectors	4 Type A HDMI or 8 Mini HDMI		

Specifications

LTC INPUTS		T# (4 RU) FRAME	
Signal	SMPTE 12M-1995 (EBU3259-E)	Power supply	Built-in redundant hot swappable PS
Level	500 mV p-p to 10 V p-p	Input voltage	90 - 250 V
Impedance	> 10k ohm	Frequency	50 / 60 Hz
Refresh Rate	50/59.94	Power	500 W max
		Dimension	446 x 455 x 176 mm
COMMUNICATION		**TEMPERATURE**	
ETHERNET	10/100/1000 Base-T	Range	0 - 40 C
Connector	RJ-45	Weight	19.6 kg
SERIAL PORT	**RS-232**	**COMMUNICATIONS**	
Connector	RJ45	Ports	Ethernet 10/100/1000 Base-T
		Alarm	GPI contact
T# (2 RU) FRAME		**GPI In**	
Power supply	Built-in redundant power supplies	Connectors	RJ50
Input voltage	90 - 250 V	Number of inputs	16 per input card
Frequency	50 / 60Hz	Pull up voltage	+5 V
Power	200 W max	Source current	2 mA
Dimension	446 x 455 x 87 mm	Activation	0.1 V max
TEMPERATURE		Over voltage	+6.5 V
Range	0 - 40 C	Pulse duration	8 ms min
Weight	10.3 kg	**GPI BI-DIRECTIONAL**	
COMMUNICATIONS		Connectors	RJ50
Ports	Ethernet 10/100/1000 Base-T	Number of I/O	8
Alarm	GPI contacts	**INPUT MODE**	
		Pull up voltage	+5 V
		Source current	2 mA
		Activation	0.1 V max
		Over voltage	+6.5 V
		Pulse duration	8 ms min
		OUTPUT MODE	
		Current	50 mA max
		Reverse current	-100 mA max

UHD/4K HDMI

Standalone Multiviewers

	UE-4-II	UE-4-K-II	UE-8-II	UE-8-K-II
Configuration	4 x 1	4 x 1	8 x 1	
Cascadable	Yes[1]	No[1]	Yes[1]	No[1]
Form Factor	1 RU - 24 cm deep	1 RU - 24 cm deep	2 RU - 45 cm deep	
Redundant Power Supply	Option - External	Option - External	Yes - Standard	
Built-in KVM Capability	No	Yes	No	Yes
On Screen Display	Yes			
Input Formats / Connectors	HDMI 2.0. Input connectors: HDMI Type A			
Maximum Input Resolution	Any DVI / HDMI resolution up to 4K @ 60Hz			
Audio Support	Embedded audio (pairs 1 ~ 4)			
Output	HDMI 2.0, 12G, down converted 3G SDI			
Maximum Output Resolution	UHD @ 60Hz			
Processing Time	1 frame			
Power Consumption	55W		110W	
Window Sizes/Positions	Variable up to full screen. Windows can be any position			
Control	GPI, AXP over IP and Serial - CP16, SPP HW Control panels and free SW control panel			
Borders	Yes - Thickness from 0 to 20 pixels lines. Color is adjustable			
UMD (Under Monitor Display)	One per Window - Up to 32 characters. Static or dynamic names (via TSL)			
OMD (Over Monitor Display)	One per Window - Up to 32 characters. Static or dynamic names (via TSL)			
Standalone Labels	20 per Output - Free position. Up to 32 characters.			
Audio Meters	8 maximum per window			
GPI	16			
Tally	Yes - via GPI / TSL			
Tally Display	5 tally attributes - LEDs x 2, Border color, UMD text color, UMD background color			
Analog Clocks	Two[2]		Four[2]	
Digital Clock	Two[2]		Four[2]	
On Screen Logo	Four		Eight	
Safe Area Markers	2 sets per window			
Audio Monitoring Output	AA, AES, Embedded		AES, Embedded	
Visual Alarms	Video & Audio - No audio, audio high/low, no video, video format			
Presets	30			

Notes
(1) Cascade: Contact Apantac for detail configurations

(2) Can be synced to LTC or NTP. Each clock can be adjusted to its own time zone and daylight settings.

APANTAC

MinDE-4UHD	MiniDE-4-UHD-II	MiniDE-4-UHD-K
4 x 1		
No		
1 RU - 24 cm deep		
No		
No	No	Yes
No		
HDMI 2.0 /VGA/DP 1.2	HDMI 2.0. Input connectors: HDMI Type A	
Any DVI / HDMI resolution up to 4K @ 60Hz		
Embedded audio - first pair		
HDMI 2.0		
UHD @ 60Hz		
1 frame		
40W	40W	40W
Any position. Variable up to full screen		Fixed 2x2 & full screen
Protocol over IP/Serial		
N/A		
AA, Embedded		
Video presence & configurable tag with FW version, IP address and more		
2 fixed, 8 custom		2 fixed

Can also be configured as an up/down counter.

CRESCENT
UE-4-II

4 HDMI 2.0 input Multiviewer with HDMI 2.0 (UHD) output

Key Features

- Low latency - single frame processing delay
- Low energy - only uses 55W of power
- **Cascadable up to 5 levels to become 20x1 multiviewer**
- **Can cascade with 12G SDI multiviewers**
- Accepts UHD (HDMI 2.0) inputs
- Supports up to HDCP 2.3
- Supports up to 8 channels of LPCM audio (7.1, 5.1, 2.x)
- Windows can be sized and moved freely
- 1 x HDMI 2.0 (UHD) output, 1 x cascading output
- 1 x 12G-SDI and 1 x 3G-SDI
- Output resolution up to 3840x2160@60Hz
- Ethernet for configuration and external control
- Dynamic UMD/Label and Tallies (TSL)
- Standalone labels and 2 customizable logos
- 2 digital and 2 analog clocks can by synced with LTC or NTP
- 32 GPIs for tallies, count up/down triggers or preset recalls
- Borders can be turned on or off
- 2 sets of safe area markers
- Visual alarm tags for format, video/audio presence
- Audio monitoring outputs - stereo, AES, SDI or HDMI
- 1 RU with optional redundant power supply
- 3 year limited warranty

Accessories

Standard

- Rackmount
- 4x RJ50 to DB9 cables for GPI
- 4x breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)
- Analog audio breakout cable

Optional

- Redundant power supply

UE-4-II-01-2019

CRESCENT

UE-4-II

Rear View

4 x HDMI 2.0 INPUTS

GPI/O
AA OUT
DC 12V
BB
AES OUT
LTC IN
12G Out
3G Out
IP
RS-232
AC 90 ~ 250V
Cascading Ports
UHD OUT
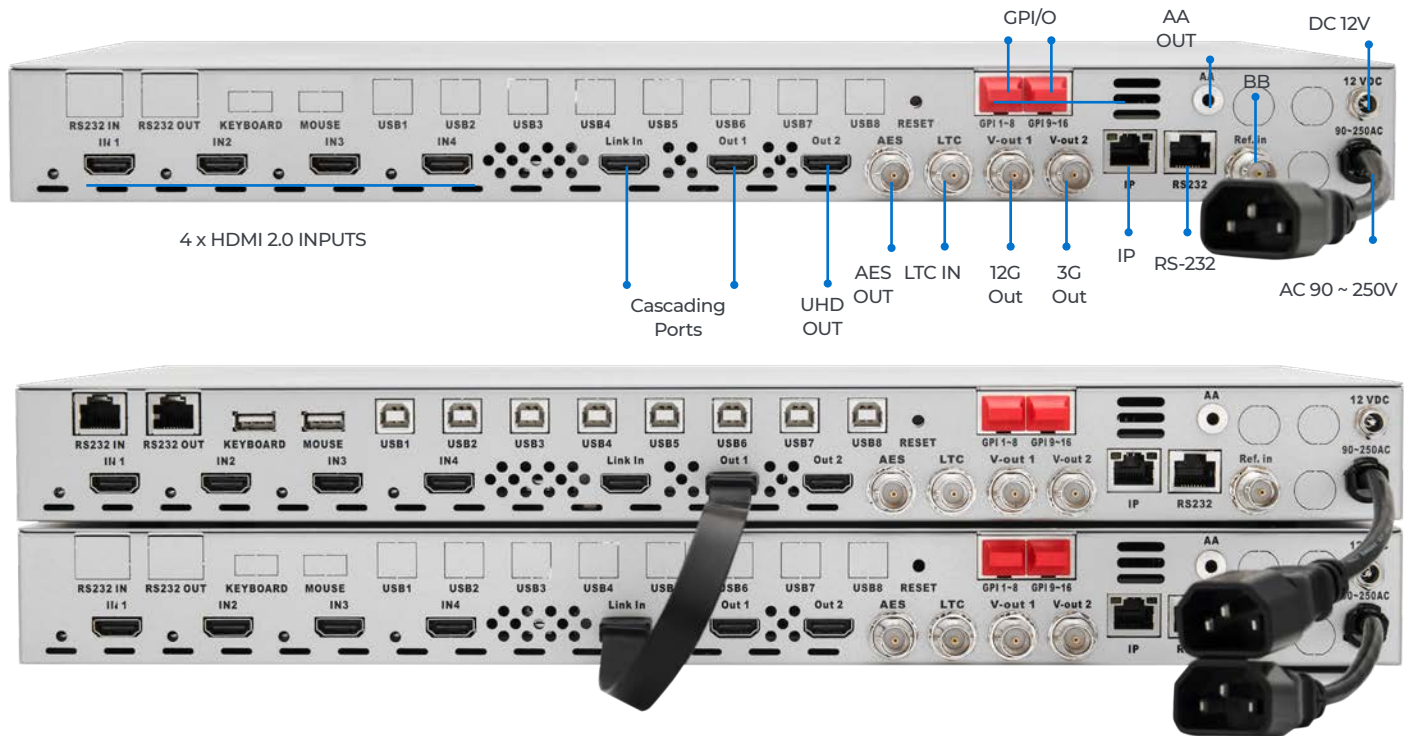
Specifications

Model	UE-4-II
Description	4 HDMI 2.0 UHD multiviewer with advanced on-screen display (OSD)
Inputs	4 x HDMI 2.0 with 1 x HDMI 2.0 cascading input, supports up to 8 channels of LPCM audio (7.1, 5.1, 2.x)
Output	1 x HDMI 2.0, 1 x cascading output
Cascade	Can cascade up to 5 levels to create a 20x1 multiviewer
Max Resolution	4096x2160 @ 60Hz 4:4:4
Power	AC 90 to 240V, optional DC redundant power supply
Power Consumption	55W
Environment	Operating temperature: 0 ~ 45 C
	Operating humidity: 20 ~ 90% RH
	Storage temperature: -20 ~ 60 C
Dimension	1RU. 446 x 452 x 87 mm (L x W x H)
Weight	4.3 kg

CRESCENT
UE-8-II

8 HDMI 2.0 input Multiviewer with HDMI 2.0 (UHD) output
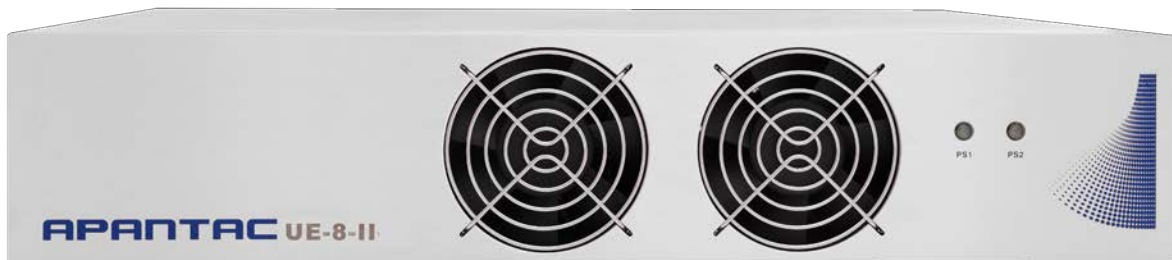
Key Features

- Low latency - single frame processing delay
- Accepts UHD (HDMI 2.0) inputs
- Supports up to HDCP 2.3
- **Cascadable up to 2 levels to become 16x1**
- **Can cascade with 12G SDI multiviewers**
- Supports up to 8 channels of LPCM audio (7.1, 5.1, 2.x)
- Windows can be sized and moved freely
- 1 x HDMI 2.0 (UHD) output
- 1 x 12G-SDI and 1 x 3G-SDI
- Output resolution up to 3840x2160@60Hz
- Ethernet for configuration and external control
- Dynamic UMD/Label and Tallies (TSL)
- Standalone labels and 2 customizable logos
- 2 digital and 2 analog clocks can by synced with LTC or NTP
- 32 GPIs for tallies, count up/down triggers or preset recalls
- Borders can be turned on or off
- 2 sets of safe area markers
- Visual alarm tags for format, video/audio presence
- Audio monitoring outputs - AES, SDI or HDMI
- 2 RU with redundant power supply
- 3 year limited warranty

Accessories

Standard

- Rackmount
- 2 x RJ50 to DB9 cables for GPI
- 2 x breakout terminal blocks
- 2 x RJ45 to DB9 cable for serial (RS-232)

CRESCENT
UE-8-II

Rear View

GPI/O

AC 90 ~ 250V

8 x HDMI 2.0 inputs

AES OUT LTC IN 12G Out 3G Out IP RS-232

AC 90 ~ 250V

Cascading Ports

UHD OUT
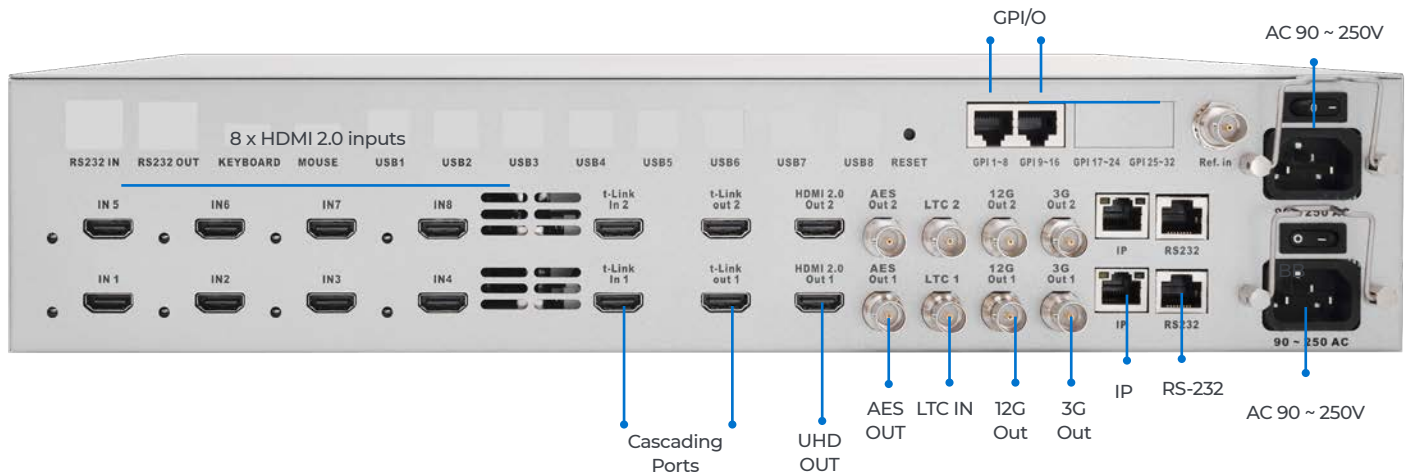
Related Products

UE-4-K
4 input 4K/UHD HDMI Multiviewer with KVM with advanced OSD

UE-8
8 input 4K/UHD HDMI Multiviewer with advanced OSD

UE-8-K
8 input 4K/UHD HDMI Multiviewer with KVM with advanced OSD

MiniDE-4-UHD-II
4 input 4K/UHD HDMI Multiviewer with no OSD

Specifications

Model	UE-8-II
Description	8 HDMI 2.0 UHD multiviewer with advanced on-screen display (OSD)
Inputs	8 x HDMI 2.0 inputs
Output	1 x HDMI 2.0, 1 x 12G SDI , 1 x 3G down converted SDI
Max Resolution	Up to 4096x2160 @ 60Hz 4:4:4
Cascade	Can cascade up to 2 levels to create a 16x1 multiviewer
Power	Redundant AC 90 to 250V
Power Consumption	110W
Environment	Operating temperature: 0 ~ 45 C
	Operating humidity: 20 ~ 90% RH
	Storage temperature: -20 ~ 60 C
Dimension	2RU. 446 x 452 x 174 mm (L x W x H)
Weight	8.3 kg

APANTAC

MT HOOD
MiniDE-4-UHD

Multi-format 4K Multiviewer with HDMI 2.0 UHD output

MiniDE-4-UHD

Key Features

- Can display up to 4 source windows
- Supports 4 x HDMI inputs as well as one Display Port and one analog VGA input (HDMI/DVI resolutions up to 4096x2106p60)
- Window position, size and aspect ratio can be adjusted freely
- Built-in web interface
- Can be controlled externally with ASCII protocols over serial and IP
- Supports true 4K/UHD inputs up to 4K@60Hz at 4:4:4
- Supports true 4K/UHD output up to 4K@60Hz at 4:4:4
- Supports deep color, HDCP 1.4 and 2.2
- Supports Dolby Digital 5.1 and uncompressed 7.1
- Analog stereo audio monitoring output
- 2 predefined and 8 custom layout presets

Layout Example: actual screen output captures

and not artist renderings

MiniDE-4-UHD-01-2019
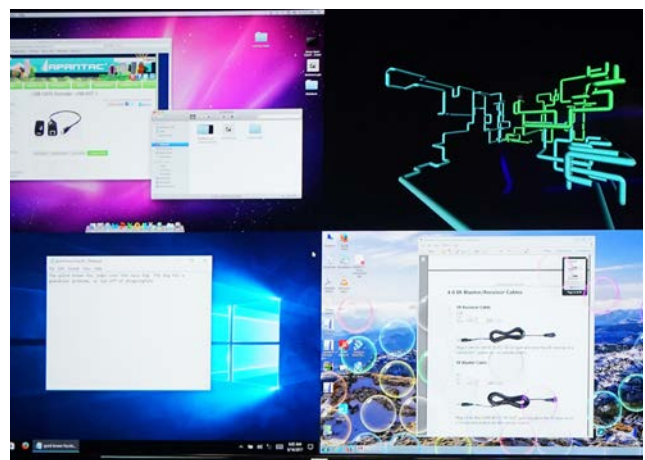
MT HOOD
MiniDE-4-UHD

Rear view
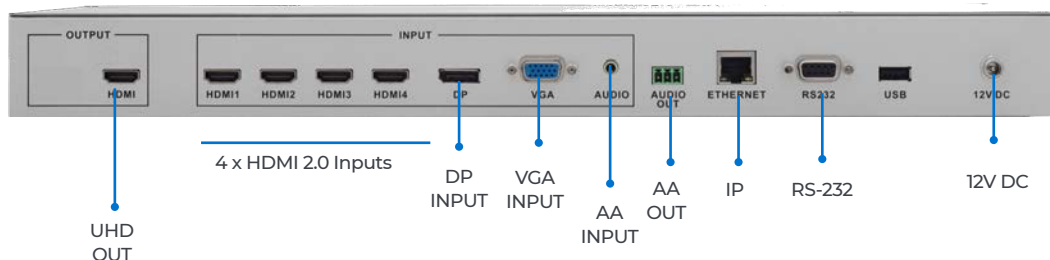
4 x HDMI 2.0 Inputs

UHD OUT
DP INPUT
VGA INPUT
AA INPUT
AA OUT
IP
RS-232
12V DC

Related Products

UE-4
4 input UHD mutliviewer with advance OSD, such as labels, borders and clock

UE-8
8 input UHD mutliviewer with advance OSD, such as labels, borders and clock

MiniDE-4-UHD
4 input UHD mutliviewer with both HDMI and DisplayPort

Specifications

Model	MiniDE-4-UHD
Description	UHD/4K Multiviewer
Inputs	4x HDMI 2.0, 1 DP, 1 x VGA
Output	HDMI 2.0 UHD 4:4:4
Max Resolution	4096x2160 @ 60Hz 4:4:4
Power	DC 12V, 3.34A, 40W
Power Consumption	15W
Environment	Operating temperature: 0 ~ 45 C
	Operating humidity: 20 ~ 90% RH
	Storage temperature: -20 ~ 60 C
Dimension	1RU - 440.4 x 230 x 45 mm (L x W x H)
Weight	2.72 kg

APANTAC

MT HOOD
MiniDE-4-UHD-II

4 Input HDMI 2.0 4K Multiviewer with HDMI 2.0 UHD output

MiniDE-4-UHD-II

Key Features

- Can display up to 4 source windows
- Low power consumption - only uses 15W
- Supports 4 x HDMI inputs
  (HDMI/DVI resolutions up to 4096x2160p60)
- Window position, size and aspect ratio can be
  adjusted freely (auto-source aspect ratio
  can be enabled)
- Built-in web interface
- Can be controlled externally with
  ASCII protocols over serial and IP

- Supports true 4K/UHD inputs up to 4K@60Hz at 4:4:4
- Supports true 4K/UHD output up to 4K@60Hz at 4:4:4
- Supports deep color, HDCP 1.4 and 2.2
- Supports Dolby Digital 5.1 and uncompressed 7.1
- Analog stereo audio monitoring output
- 2 predefined and 8 custom layout presets
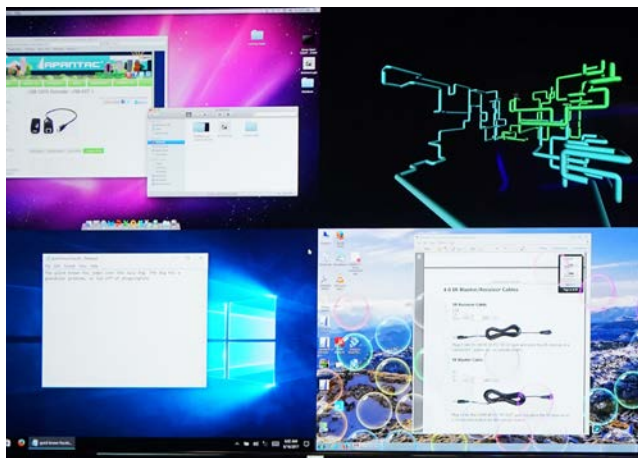
**Layout Example: actual screen output captures
and not artist renderings**

MT HOOD
MiniDE-4-UHD-II

Rear view
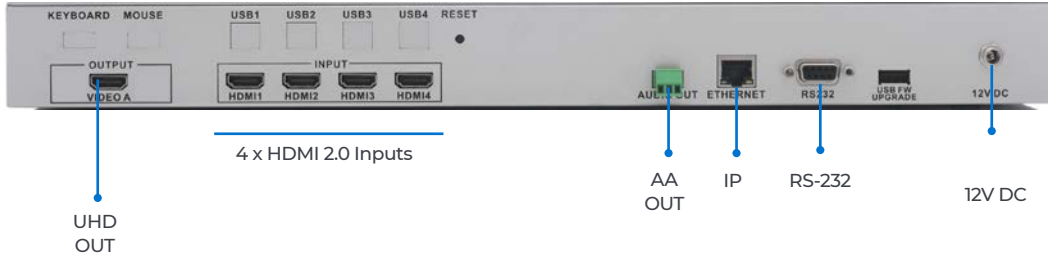
UHD
OUT

4 x HDMI 2.0 Inputs

AA
OUT

IP

RS-232

12V DC

Related Products

UE-4
4 input UHD mutliviewer with advance OSD, such as labels, borders and clock

UE-8
8 input UHD mutliviewer with advance OSD, such as labels, borders and clock

MiniDE-4-UHD
4 input UHD mutliviewer with both HDMI and DisplayPort

Specifications

Model	MiniDE-4-UHD-II
Description	UHD/4K Multiviewer
Inputs	4x HDMI 2.0, resolution up t 4096x2160@60Hz
Output	HDMI 2.0 UHD 4:4:4 with quad-split multiviewer
Max Output Resolution	4096x2160 @ 60Hz 4:4:4
Power	DC 12V, 3.34A, 40W
Power Consumption	15W
Environment	Operating temperature: 0 ~ 45 C
	Operating humidity: 20 ~ 90% RH
	Storage temperature: -20 ~ 60 C
Dimension	1RU - 440.4 x 230 x 45 mm (L x W x H)
Weight	2.72 kg

APANTAC

KVM CAPABLE
Multiviewers

	UE-4-K-II	UE-8-K-II	MiniDE-4-UHD-K	MiniDE-4-K
Configuration	4x1	8x1	4x1	
Cascadable	No[1]	No[1]	No[1]	
Form Factor	1 RU - 24 cm deep	2RU - 24 cm deep	1 RU - 24 cm deep	1 RU - 45 cm deep
Redundant Power Supply	Option - External	Standard	No	Option - External
Built-in KVM Capability	Yes	Yes	Yes	Yes
On Screen Display	Yes		No	
Input Formats / Connectors	HDMI 2.0. Input connectors: HDMI Type A			DVI-U
Maximum Input Resolution	Any DVI / HDMI resolution up to 4K @ 60Hz			1080P @ 60Hz
Audio Support	Embededed audio (pairs 1 ~ 4)		Embeddd first pair	No
Output	HDMI 2.0, 12G, down converted 3G SDI		HDMI 2.0	HDMI 1.4 (RJ 45)
Maximum Output Resolution	UHD @ 60Hz			1080P @ 60Hz
Processing Time	1 frame			
Power Consumption	55W	110W	40W	40W
Window Sizes/Positions	Variable up to full screen. Any Size/position		Fixed 2x2 & full screen	Any Size/Position
Control	RS-232/IP Protocols			
Borders	0 to 20 pixels/lines. Color is adjustable			
UMD (Under Monitor Display)	One per Window - Up to 32 characters			
OMD (Over Monitor Display)	One per Window - Up to 32 characters			
Standalone Labels	20 - Free position. Up to 32 characters			
Audio Meters	8 maximum per window			
GPI	24	16		
Tally	Yes - via GPI / TSL			
Tally Display	LEDs, Border color, text color, background			
Analog Clocks	Two[2]			
Digital Clock	Two[2]			
On Screen Logo	Four			
Safe Area Markers	2 sets per window			
Audio Monitoring Output	AA, AES Embedded	AES Embedded		
Visual Alarms	No video/audio, audio high/low, no video,			
Presets	30		2 fixed	30

Notes

(1) Cascade: Contact Apantac

(2) Can be synced to LTC or NTP. Each clock can be adjusted to its own time zone and daylight settings. Can also be configured as an up/down counter.

CRESCENT
UE-4-II-K

4 Input 4K/UHD HDMI Multiviewer with Advanced On-Screen Display (OSD) and KVM

Key Features

- 4 x HDMI 2.0 (4K@60Hz, 4:4:4) at full bandwidth
- Built-in KVM functionality by simply hovering over the selected window
- Low latency - single frame processing delay
- Low energy - only uses 110W of power
- Windows can be sized and moved freely
- Accepts UHD (HDMI 2.0) inputs
- Supports up to HDCP 2.3
- Supports up to 8 channels of LPCM audio (7.1, 5.1, 2.x)
- Output resolution up to 3840x2160@60Hz
- 1 x HDMI 2.0 (UHD) output
- 1 x 12G-SDI and 1 x 3G-SDI
- Ethernet for configuration and external control
- Dynamic UMD/Label and Tallies (TSL)
- Standalone labels and 2 customizable logos
- 1 digital and 1 analog clocks can by synced with LTC or NTP
- 32 GPIs for tallies, count up/down triggers or preset recalls
- Borders can be turned on or off
- 2 sets of safe area markers
- Visual alarm tags for format, video/audio presence
- Audio monitoring outputs - stereo, AES, SDI or HDMI
- 1 RU with redundant power supply
- 3 year limited warranty

Accessories

Standard

- Rackmount
- 4 x RJ50 to DB9 cables for GPI
- 4 x breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)

CRESCENT

UE-4-II-K

Rear View

GPI/O
Optional Redundant Power

2 x USB for Keyboard and Mouse   4 x USB to Computers

4 x HDMI 2.0 inputs

UHD OUT

AES OUT   LTC IN   12G Out   3G Out   IP   RS-232

AC 90 ~ 250V
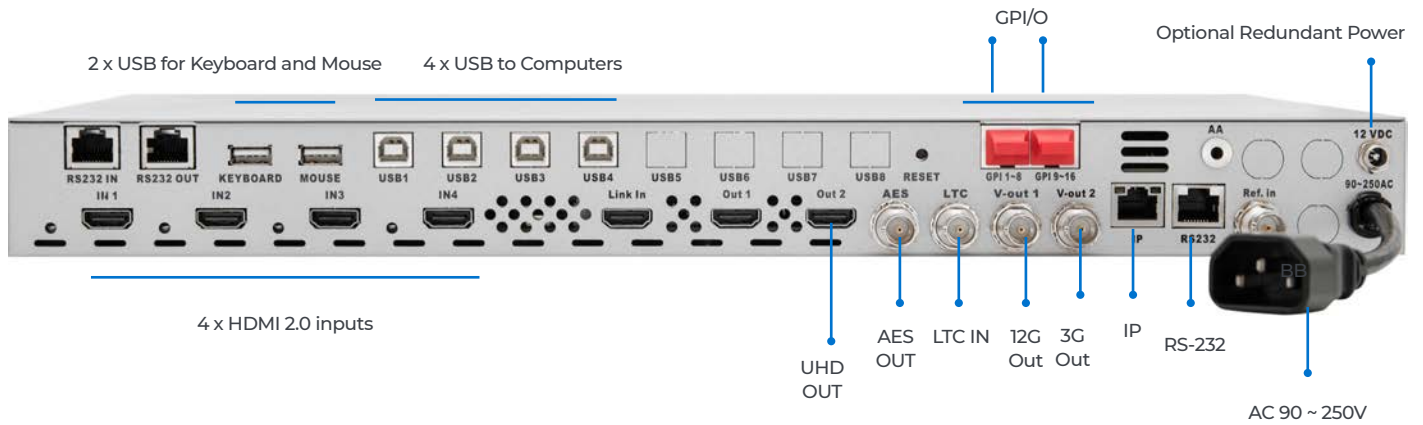
Related Products

UE-8-II-K
8 input 4K/UHD HDMI Multiviewer with KVM with advanced OSD

UE-8-II
8 input 4K/UHD HDMI Multiviewer with advanced OSD

UE-4-II
4 input 4K/UHD HDMI Multiviewer with advanced OSD

MiniDE-4-UHD-II
4 input 4K/UHD HDMI Multiviewer with no OSD

Specifications

Model	UE-4-II-K
Description	4 HDMI 2.0 UHD multiviewer with KVM functionality and advanced on-screen display (OSD)
Inputs	4 x HDMI 2.0 inputs + 4 USB to connecto to 4 computers, supports 8 channels of LPCM audio
Output	1 x HDMI 2.0, 1 x 12G SDI , 1 x 3G down converted SDI, 2 USB for keyboard and mouse
Max Resolution	Up to 3840x2160 @ 60Hz 4:4:4
Power	AC 90 to 250V with optional redundant power supply
Power Consumption	55W
Environment	Operating temperature: 0 ~ 45 C
	Operating humidity: 20 ~ 90% RH
	Storage temperature: -20 ~ 60 C
Dimension	1RU. 446 x 452 x 86 mm (L x W x H)
Weight	4.3 kg

APANTAC

CRESCENT
UE-8-II-K

8 Input 4K/UHD HDMI Multiviewer with Advanced On-Screen Display (OSD) and KVM
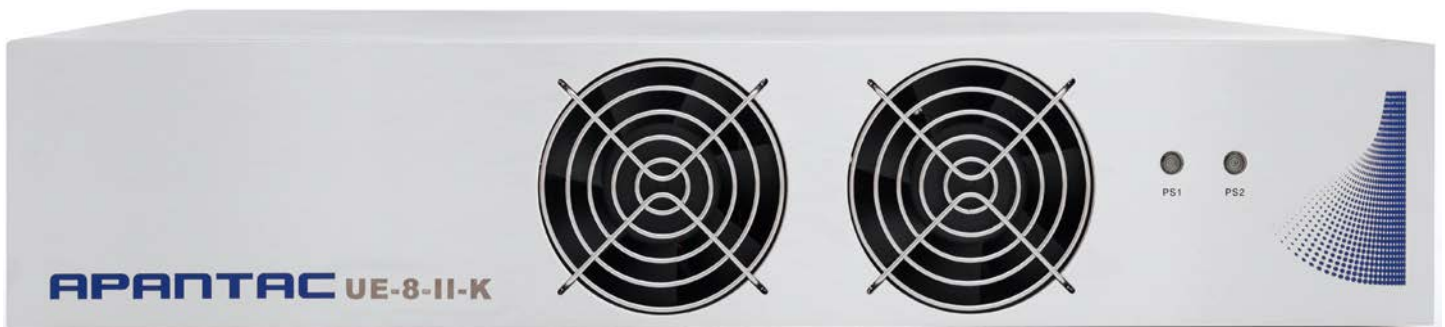
Key Features

- 8 x HDMI 2.0 (4K@60Hz, 4:4:4) at full bandwidth
- Built-in KVM functionality by simply hovering over the selected window
- Low latency - single frame processing delay
- Low energy - only uses 110W of power
- Windows can be sized and moved freely
- Accepts UHD (HDMI 2.0) inputs
- Supports up to HDCP 2.3
- Supports up to 8 channels of LPCM audio (7.1, 5.1, 2.x)
- Output resolution up to 3840x2160@60Hz
- 1 x HDMI 2.0 (UHD) output
- 1 x 12G-SDI and 1 x 3G-SDI
- Ethernet for configuration and external control
- Dynamic UMD/Label and Tallies (TSL)
- Standalone labels and 2 customizable logos
- 2 digital and 2 analog clocks can by synced with LTC or NTP
- 32 GPIs for tallies, count up/down triggers or preset recalls
- Borders can be turned on or off
- 2 sets of safe area markers
- Visual alarm tags for format, video/audio presence
- Audio monitoring outputs - stereo, AES, SDI or HDMI
- 2 RU with redundant power supply
- 3 year limited warranty

Accessories

Standard

- Rackmount
- 4 x RJ50 to DB9 cables for GPI
- 4 x breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)

CRESCENT
UE-8-II-K

Rear View

2 x USB for Keyboard and Mouse

8 x USB to Computers

GPI/O

AC 90 ~ 250V

8 x HDMI 2.0 inputs

UHD OUT

AES OUT

LTC IN

12G Out

3G Out

IP

RS-232

AC 90 ~ 250V
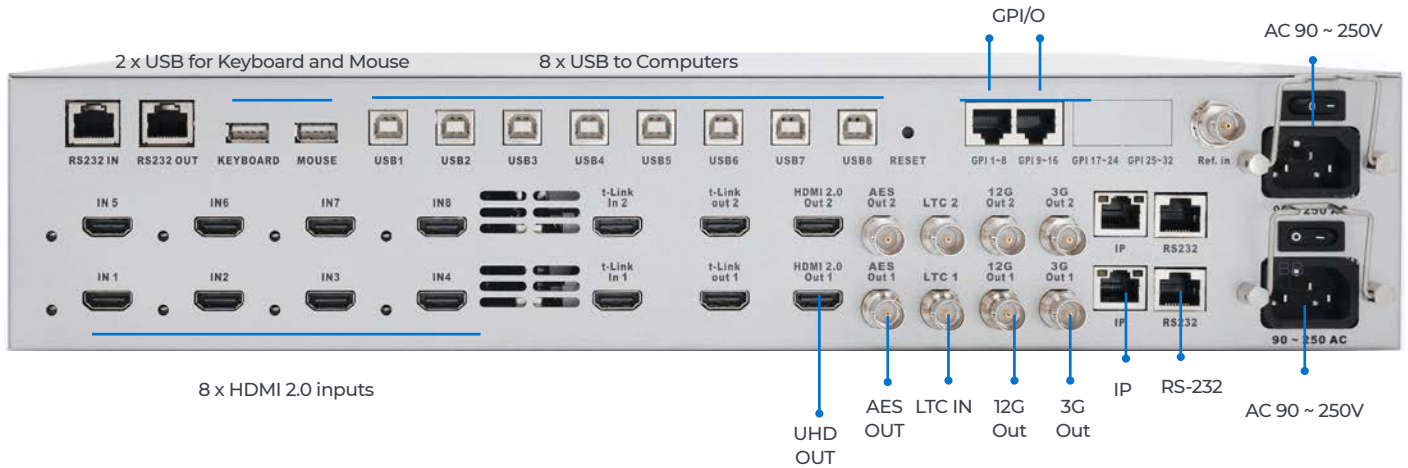
Related Products

UE-4-II-K
4 input 4K/UHD HDMI Multiviewer with KVM with advanced OSD

UE-8-II
8 input 4K/UHD HDMI Multiviewer with advanced OSD

UE-4-II
4 input 4K/UHD HDMI Multiviewer with advanced OSD

MiniDE-4-UHD-II
4 input 4K/UHD HDMI Multiviewer with no OSD

Specifications

Model	UE-8-II-K
Description	8 HDMI 2.0 UHD multiviewer with KVM functionality and advanced on-screen display (OSD)
Inputs	8 x HDMI 2.0 inputs + 8 USB to connecto to 8 computers, supports 8 LPCM channels of audio
Output	1 x HDMI 2.0, 1 x 12G SDI , 1 x 3G down converted SDI, 2 USB for keyboard and mouse
Max Resolution	Up to 3840x2160 @ 60Hz 4:4:4
Power	Redundant AC 90 to 250V
Power Consumption	110W
Environment	Operating temperature: 0 ~ 45 C
	Operating humidity: 20 ~ 90% RH
	Storage temperature: -20 ~ 60 C
Dimension	2RU. 446 x 452 x 174 mm (L x W x H)
Weight	8.3 kg

MT HOOD
MiniDE-4-UHD-K

HDMI 2.0 UHD Multiviewer with KVM (Keyboard and Mouse Switching)

MiniDE-4-UHD-K

Key Features

- Can display up to 4 computers with keyboard and mouse function on a single screen
- Low power consumption - only uses 15W
- Supports 4x HDMI 2.0 inputs (UHD, FHD and SD)
- Multiviewer is a fixed quad split
- Double click on mouse scroll wheel to go full screen
- Supports up to 4096x2160@60Hz at 4:4:4
- Supports deep color, HDCP 1.4 and 2.2
- Supports Dolby Digital 5.1 and uncompressed 7.1
- Analog stereo audio monitoring output
- 1RU
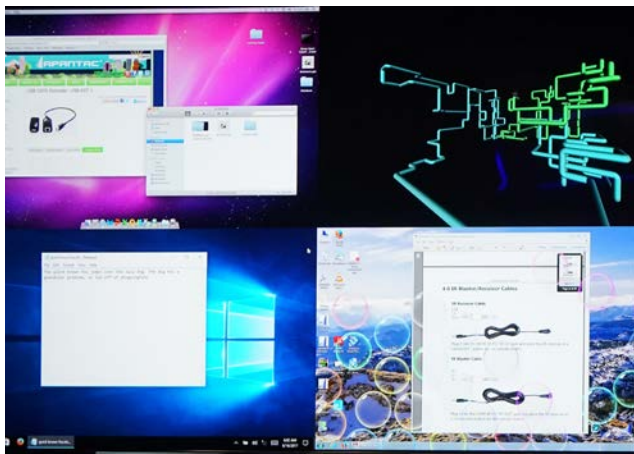
Layout Example: actual screen output captures and not artist renderings

MT HOOD
MiniDE-4-UHD-K

Rear view
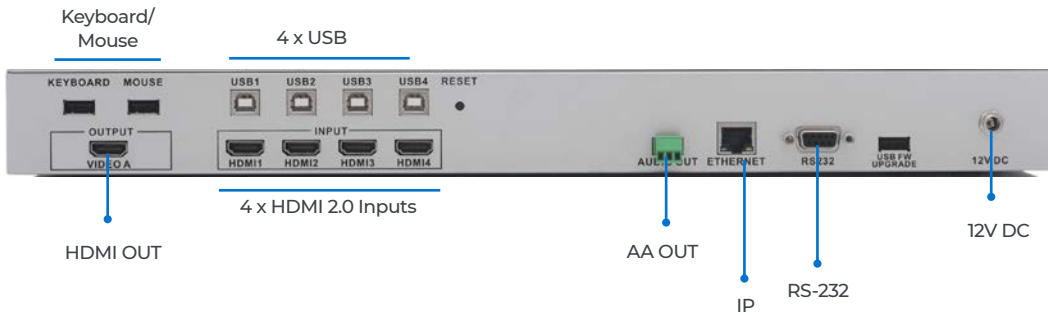
Keyboard/Mouse

4 x USB

HDMI OUT

4 x HDMI 2.0 Inputs

AA OUT

IP

RS-232

12V DC

Related Products

UE-4-K
4 input UHD mutliviewer with advanced OSD and KVM functionality

UE-8-K
8 input UHD mutliviewer with advanced OSD and KVM functionality

MiniDE-4-UHD
4 input UHD mutliviewer with both HDMI and DisplayPort

MiniDE-4-UHD-II
4 input HDMI UHD mutliviewer

Specifications

Model	MiniDE-4-UHD-K
Description	UHD Multiviewer with KVM functions
Inputs	4x HDMI 2.0, maximum resolution 4096x2160 @60Hz
Output	HDMI 2.0 UHD 4:4:4 with quad-split multiviewer
Keyboard Mouse	2x USB Type A for keyboard and mouse
Max Resolution	4096x2160 @ 60Hz 4:4:4
Power	DC 12V, 3.34A, 40W
Power Consumption	15W
Environment	Operating temperature: 0 ~ 45 C
	Operating humidity: 20 ~ 90% RH
	Storage temperature: -20 ~ 60 C
Dimension	1RU - 440.4 x 230 x 45 mm (L x W x H)
Weight	2.72 kg

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MiniDE-4-K

Universal Input Multiviewer with KVM (Keyboard and Mouse Switching)

MiniDE-4-K

Key Features

- Can display up to 4 computers with keyboard and mouse function on a single screen
- Low power consumption - only uses 15W
- Supports 4 x HDMI, DVI, VGA and composite inputs
- Multiviewer is a fixed quad split
- Double click on the scroll wheel to go full screen
- Supports 1080P output
- 1 RU
- Optional redundant power supply
- 3 Year warranty

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MiniDE-4-K

Rear view
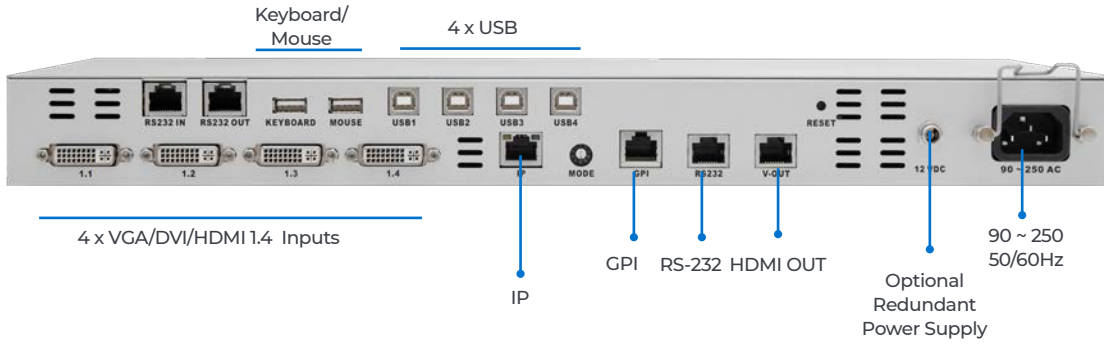
Keyboard/Mouse

4 x USB

4 x VGA/DVI/HDMI 1.4 Inputs

IP

GPI   RS-232   HDMI OUT

Optional Redundant Power Supply

90 ~ 250 50/60Hz

Related Products

UE-4-K
4 input UHD mutliviewer with advanced OSD and KVM functionality

UE-8-K
8 input UHD mutliviewer with advanced OSD and KVM functionality

MiniDE-4-UHD-K
4 input UHD mutliviewer with both KVM functionality

MiniDE-4-UHD-II
4 input HDMI UHD mutliviewer

Specifications

Model	MiniDE-4-K
Description	Multiviewer with KVM functions
Inputs	4x HDMI/DVI/VGA
Output	HDMI 1.4 output
Keyboard Mouse	2x USB Type A for keyboard and mouse
Max Resolution	1080P @ 60Hz 4:4:4
Power	AC 90 ~ 250 V, optional 12V DC redundant power supply
Power Consumption	15W
Environment	Operating temperature: 0 ~ 45 C
	Operating humidity: 20 ~ 90% RH
	Storage temperature: -20 ~ 60 C
Dimension	1RU - 440.4 x 230 x 45 mm (L x W x H)
Weight	2.72 kg

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Compact Standalone Multiviewers

4 x 1

MicroQ-12G

HD-12G in / HDMI+SDI out	HD in / HD out
140 x 44 x 132 mm	Magnetic base

MicroQ-S

SDI+CV in / HDMI+SDI out	HD in / HD out
140 x 44 x 132 mm	Magnetic base

MicroDE-4

HDMI in / HDMI+SDI out	HD in / HD out
140 x 44 x 270 mm	Magnetic base

MiniDE-4

VGA/DVI/HDMI in / HDMI out	HD in / HD out
1/2 Width RU - 37 cm deep	Optional redundant power

MiniQ-II

SDI+CV in / HDMI+SDI out	HD in / HD out
1/3 Width RU - 42 cm deep	Cascadable

MiniDE-II

HDMI in / HDMI+SDI out	HD in / HD out
1/3 Width RU - 42 cm deep	Cascadable

MiniDL-1+3

Hybrid in / HDMI+SDI out	HD in / HD out
1/3 Width RU - 42 cm deep	Cascadable

MiniDL-2+2

Hybrid in / HDMI+SDI out	HD in / HD out
1/3 Width RU - 42 cm deep	Cascadable

MiniDL-3+1

Hybrid in / HDMI+SDI out	HD in / HD out
1/3 Width RU - 42 cm deep	Cascadable

8 x 1

Mi-8 12G

HD ~ 12G SDI in, HDMI+SDI out	UHD in / HD out
1 RU - 24 cm deep	Optional redundant PS

Mi-8 12G-UHD

HD ~ 12G SDI in, HDMI+12G+3G out	UHD in / UHD out
1 RU - 24 cm deep	Optional redundant PS

(4 x 1) + (4 x 1)

Mi-8 12G+

HD ~ 12G SDI in, HDMI+SDI out	UHD in / HD out
1 RU - 24 cm deep	Optional redundant PS

8 x 2 (Any in to any out)

Mi-8 12G#

HD ~ 12G SDI in, HDMI+SDI out	UHD in / HD out
1 RU - 24 cm deep	Optional redundant PS

9 x 1

Mi-9

SD ~ 3G SDI in / SDI out	HD in / HD out
1/3 Width RU - 44 cm	Very cost effective

Mi-9+

SD ~ 3G SDI in / HDMI + SDI out	HD in / HD out
1/3 Width RU - 44 cm	Very cost effective

9 x 2 (Any in to any out)

Mi-9#

SD~3G SDI in/ HDMI + SDI out	HD in / HD out
1/3 Width RU - 44 cm	Very cost effective

16 x 1

Mi-16

SD ~ 3G SDI in / HDMI + SDI out	HD in / HD out
1 RU - 24 cm deep	Optional redundant PS

Mi-16-UHD

SD ~ 3G SDI in, HDMI+12G+3G out	HD in / UHD out
1 RU - 24 cm deep	Optional redundant PS

Mi-16 12G-UHD

HD ~ 12G SDI in, HDMI+12G+3G out	UHD in / UHD out
2 RU - 44 cm deep	Standard redundant PS

(8 x 1) + (8 x 1)

Mi-16+

SD ~ 3G SDI in / HDMI + SDI out	HD in / HD out
1 RU - 24 cm deep	Optional redundant PS

16 x 2 (Any in to any out)

Mi-16#

SD ~ 3G SDI in / HDMI+SDI out	HD in / HD out
1 RU - 24 cm deep	Optional redundant PS

32 x 4 (Any in to any out)

Mx-32	
SD ~ 3G SDI in / HDMI+SDI out	HD in / HD out
2 RU - 44 cm deep	Standard redundant PS

32 x2 (Any in to any out)

Mx-32x2-UHD	
SDI in / HDMI+12G+3G out	HD in / UHD out
2 RU - 44 cm deep	Standard redundant PS

All multiviewers with the /// symbol have an openGear card equivalent.

Models with HDMI inputs accept sources with or without HDCP protection.

Ability to de-embed audio from SDI or HDMI inputs, have audio monitoring capabilities, GPIs, TSL support for names and tallies, On Screen Display capabilities (Borders, UMDs, OMDs, standalone labels, meters, alarm tags, markers, digital and analog clocks, logos,...) and can be controlled via GPI and the AXP protocol.

Crescent
MicroQ-S

Simple Compact Video Quad Split

MicroQ-S

Key Features

- 4 auto-detect 3G/HD/SD-SDI, PAL/NTSC inputs
- Low power consumption - 12W
- Fixed Quad Split, each window can go full screen
- Single frame processing delay
- Decode up to 8 embedded audio per SDI input
- Display up to 8 audio meters per window
- Ethernet for configuration, dynamic labels & Tallies (TSL)
- Simultaneous HDMI and SDI outputs
- 2 GPI tallies per window
- 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off
- One 32 characters label per window
- Text and background colors have adjustable transparency
- Safe area markers
- Visual Alarm tags for audio and video presence

- Dynamic (TSL) UMD/Label
- Stereo analog audio monitoring output
- HDMI and SDI outputs have embedded stereo audio pair
- 3 year limited warranty

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CRESCENT
MicroQ-S

Rear View

4 x 3G/HD/SD-SDI/Composite input

AA OUT

DC 5V   IP   GPI/O   HDMI OUT   SDI OUT

Optional Accessories

1 RU Rack mount

Front View

Input Status LEDs   Preset Recall Buttons   Power Status LED

Specifications

Total Windows	4	**Output**	1 x HDMI/DVI, 1 x SDI
Inputs	3G/HD/SD-SDI/Composite	**HDMI**	800x480 to 1920x1200 (1080p) 50/59.94/60Hz
Serial Digital	480i/576i, 720P/1080i, 1080P 50/59.94/60Hz. 3G Level A only		
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**SDI**	Matching the HDMI output resolution up to 3G
Return Loss	> 15db up to 1.485 Gbps, > 10db up to 3G	**On Screen Display**	Borders, Labels, Tallies, Audio meters, Alarm tags, Safe area markers
Embedded Audio	SMPTE-272M-A	**GPI**	8 for tally or AXP (ASCII command)
Composite	NTSC (SMPTE-170M), PAL (ITU624-2)	**IP**	100 Base-T, TSL, AXP_Lite protocol
Signal Level	1V nominal Power 12W	**DC Offset**	0V, + - 0.1V
Impedance	75 ohm	**Return Loss**	40db up to 5MHz

MT HOOD
MicroQ-12G

Simple Compact Video Quad Split

MicroQ-12G

Key Features

- 4 auto-detect 12G/3G/HD-SDI inputs
- Fixed Quad Split, each window can go full screen
- Front panel buttons for full screen or preset recall
- Single frame processing delay
- Decode up to 8 embedded audio per SDI input
- Display up to 8 audio meters per window
- Ethernet for configuration, dynamic labels & Tallies (TSL)
- SDI output
- 2 GPI tallies per window
- 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off
- One 32 character label per window
- Safe area markers
- Visual Alarm tags for audio and video presence
- Dynamic (TSL) UMD/Label
- Stereo analog audio monitoring output

- SDI output has embedded stereo audio Pair
- 3 year limited warranty

Actual Image Capture

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MT HOOD
MicroQ-12G

Rear View

SDI OUT   AA OUT

4 x 12G/3G/HD-SDI input

GPI/O
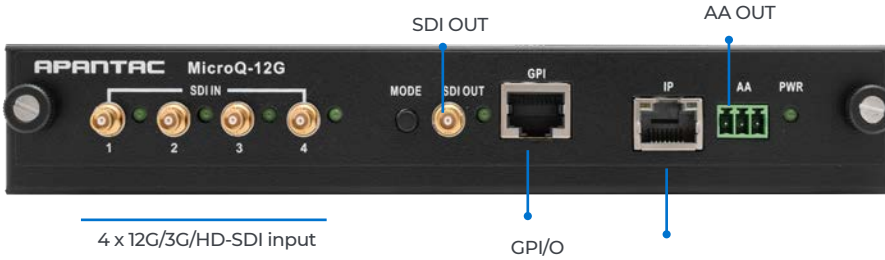
SUPPORTED INPUT
12G-SDI
3840x2160 50/59.94/60 Hz
3G-SDI Level A
1080P 50/59.94/60 Hz
1.5G SDI
1080i 50/59.94/60 Hz
1080i 29.97/30 Hz
1080i 25 Hz
1080i 23.98/24 Hz
720P 50/59.94/60 Hz

Front View

Standard Accessories
RJ50 to DB9 for GPI Breakout terminal block

HDMI 2.0 Output

4 x push buttons for full screen/preset recall

12V DC 3A

Specifications

Total Windows	4	**Output**	1 x HDMI, 1 x SDI
Inputs	SDI	**SDI**	12G and 3G SDI
Equalization	80 m at 11.88 Gpbs, 120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**On Screen Display**	Borders, Labels, Tallies, Audio meters, Alarm tags, Safe area markers
Return Loss	> 15dB up to 1.485 Gbps, > 10dB up to 3G	**GPI**	8 for tally or AXP (ASCII command)
Embedded Audio	SMPTE-272M-A	**IP**	100 Base-T, TSL, AXP_Lite protocol

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Crescent
MicroDE-4

Simple Compact HDMI Quad Split
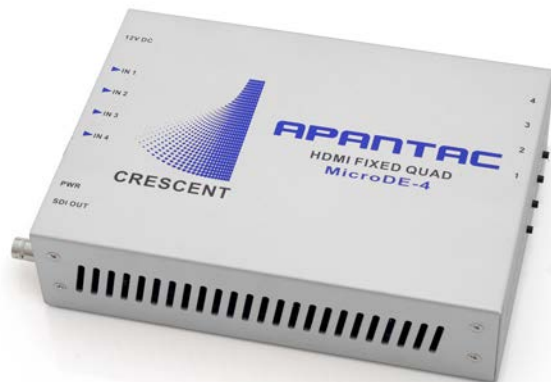
MicroDE-4

Key Features

- 4 HDMI 1.4 inputs, fixed quad split
- Low power consumption - 15W
- Decodes up to 4 channels embedded audio per HDMI input and display them as meters
- Supports 480P, 720P, 1080i and 1080P inputs
- Ethernet for configuration, dynamic labels & Tallies (TSL)
- Simultaneous HDMI and SDI outputs
- 2 GPI tallies per window
- 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off
- One 32 characters label per window
- Text and background colors have adjustable transparency
- Safe area markers
- Visual Alarm tags for audio and video presence
- HDMI and SDI outputs have embedded stereo audio pair for monitoring

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MicroDE-4

Rear view

4 x HDMI 1.4 input

DC 5V   IP   GPI   HDMI OUT   SDI OUT
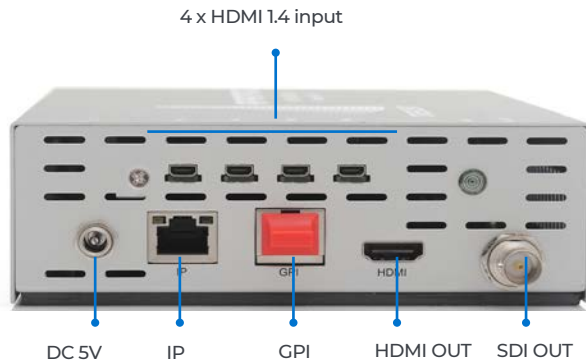
Standard Accessories

DC 5V power supply
RJ50 to DB9 for GPI
Breakout terminal block

Options

1 RU rack mount

Specifications

Total Windows	4	Output	1 x HDMI, 1 x SDI with audio
Inputs	HDMI	HDMI	1080p@50/59.94/60Hz
Connector Type	Micro HDMI (Type D)	Connector Type	HDMI Type A
Maximum Resolution	Up to 1920x1080P@60Hz	SDI	Matching the HDMI output resolution up to 3G
Embedded Audio	Decode up to 4 channels per input	Connector Type	BNC
Connector Type	HDMI	On Screen Display	Borders, lablels, tallies, audio meters, alarm tags, safe areas
GPI	8 for tally or AXP (ASCII commands)	IP	1000 base-T, TSL, AXP_Lite protocol
Connector Type	RJ-50 with terminal block	Power	15 W

Crescent
MiniQ-II

Standalone or Cascadable 4 SDI Input Multiviewer

MiniQ-II

Key Features

- 4 auto-detect 3G/HD/SD-SDI, PAL/NTSC inputs
- Low power consumption - 15W
- Cascadable to allow more inputs
- Single frame processing delay
- Decode up to 16 embedded audio per SDI input
- Ethernet for configuration, dynamic labels & Tallies (TSL)
- Simultaneous HDMI and SDI outputs
- 2 GPI tallies per window
- 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off
- One 32 character label per window
- Text and background colors have adjustable transparency
- Safe area markers
- Visual Alarm tags for audio and video presence
- Dynamic (TSL) UMD/Label

- Stereo analog audio monitoring output
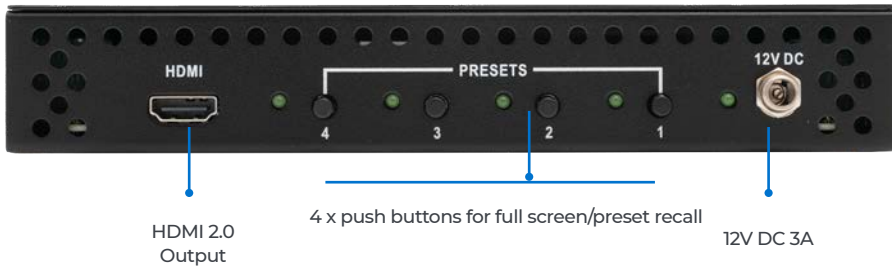- HDMI and SDI outputs have embedded stereo audio pair
- 3 year limited warranty
- Power supply included
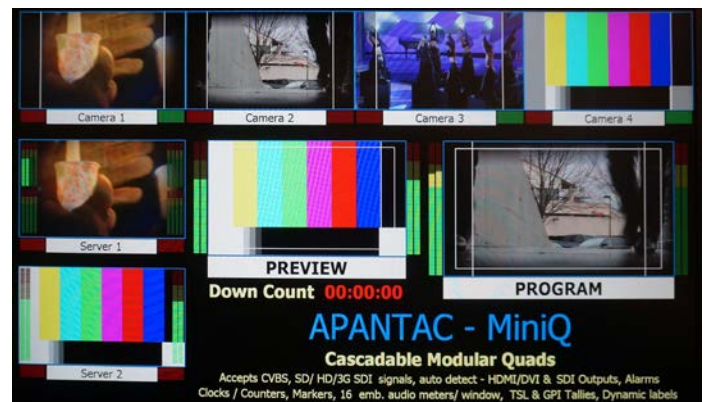
CRESCENT
MiniQ-II

Rear view
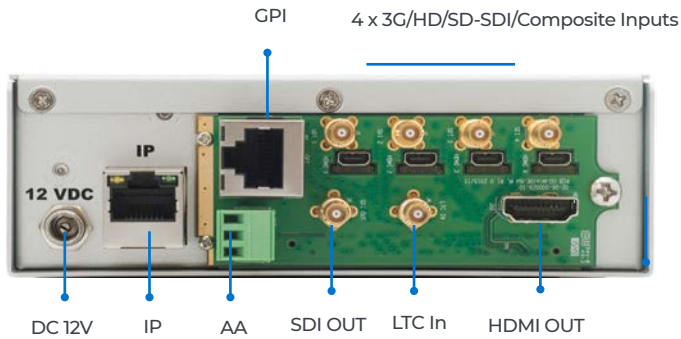
GPI   4 x 3G/HD/SD-SDI/Composite Inputs

DC 12V   IP   AA   SDI OUT   LTC In   HDMI OUT

Standard Accessories

DC 12V power supply
RJ50 to DB9 for GPI
Breakout terminal block
RJ45 to DB9 for serial
5 x HDBNC-BNC cables

Options

1 RU rack mount

Specifications

Total Windows	4	**Output**	1 x HDMI/DVI, 1 x SDI
Inputs	3G/HD/SD-SDI/Composite	**HDMI**	800x480 to 1920x1200 (1080p) 50/59.94/60Hz
Serial Digital	480i/576i, 720P/1080i, 1080P 50/59.94/60Hz. 3G Level A only	**SDI**	Matching the HDMI output resolution up to 3G
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**On Screen Display**	Borders, Labels, Tallies, Audio meters, Alarm tags, Safe area markers
Return Loss	> 15db up to 1.485 Gbps, > 10db up to 3G	**GPI**	8 for tally or AXP (ASCII command)
Embedded Audio	SMPTE-272M-A	**IP**	100 Base-T, TSL, AXP_Lite protocol
Composite	NTSC (SMPTE-170M), PAL (ITU624-2)	**DC Offset**	0V, + - 0.1V
Signal Level	1V nominal	**Return Loss**	40dB up to 5MHz
Impedance	75 ohm	**Power Consumption**	15 W

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MiniDE-II

Standalone or Cascadable 4 HDMI Input Multiviewer

MiniDE-II

Key Features

- 4 HDMI inputs
- Low power consumption - 17W
- Decodes up to 4 channels embedded audio per HDMI input
- Ethernet for configuration, dynamic UMD/labels & Tallies (TSL)
- Simultaneous HDMI/DVI and SDI outputs
- 2 GPI tallies per window
- 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off
- One 32 character label per window
- Text and background colors have adjustable transparency
- Safe area markers
- Visual Alarm tags for audio and video presence
- Stereo analog audio monitoring output
- HDMI and SDI outputs have embedded stereo audio pair for monitoring

- Can cascade up to 10 units
- Can cascade with MiniQ-II
- 3 year limited warranty
- Power supply included
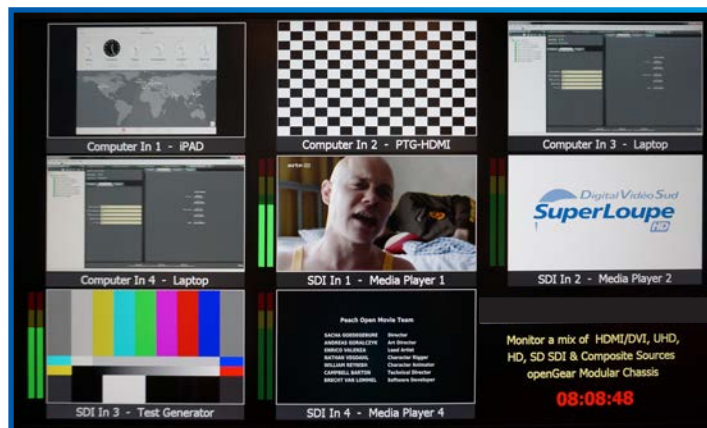
MiniDE-II cascaded with MiniQ

MiniDE-II-01-2019

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MiniDE-II

Rear view

GPI

4 x HDMI 1.4 input

DC 12V   IP   AA   SDI OUT   LTC In   HDMI OUT

Standard Accessories

DC 12V power supply
RJ50 to DB9 for GPI
Breakout terminal block
RJ45 to DB9 for serial

Options

1 RU rack mount

Specifications

Total Windows	4	**Output**	1 x HDMI/DVI, 1 x SDI with audio
Inputs	HDMI / DVI (cable not include)	**HDMI**	800x480 to 1920x1200 (1080p) 50/59.94/60Hz
Connector Type	Micro HDMI (Type D)	**Connector Type**	HDMI Type A
Maximum Resolution	Up to 1920x1080P@60Hz	**SDI**	Matching the HDMI output resolution up to 3G
Embedded Audio	Decode up to 4 channels per input	**Connector Type**	HD-BNC
LTC	1	**Analog Audio**	1
Connector Type	HD-BNC	**On Screen Display**	Borders, lablels, tallies, audio meters, alarm tags, safe areas
GPI	8 for tally or AXP (ASCII commands)	**IP**	1000 base-T, TSL, AXP_Lite protocol
Connector Type	RJ-50 with terminal block	**Power**	17 W

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MiniDL-X+X

Standalone or Cascadable 4 Input Hybrid Multiviewer

MiniDL-X+X

Key Features

- Single frame processing delay
- Low power consumption - 17W
- Available in 3 models - MiniDL-1+3 (1 SDI+3 HDMI), MiniDL-2+2 (2 SDI+2 HDMI), MiniDL-3+1 (3 SDI+1 HDMI)
- Decodes up to 4 channels embedded audio per HDMI input
- Ethernet for configuration, dynamic labels & Tallies (TSL), simultaneous HDMI and SDI outputs
- 2 GPI tallies per window, 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off, one 32 character label per window
- Text and background colors have adjustable transparency
- Safe area markers, Visual Alarm tags for audio and video presence
- Dynamic (TSL) UMD/Label, Stereo analog audio monitoring output
- HDMI and SDI outputs have embedded stereo audio pair for monitoring
- Power Supply included

MiniDL-3+1

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MiniDL-X+X-01-2019
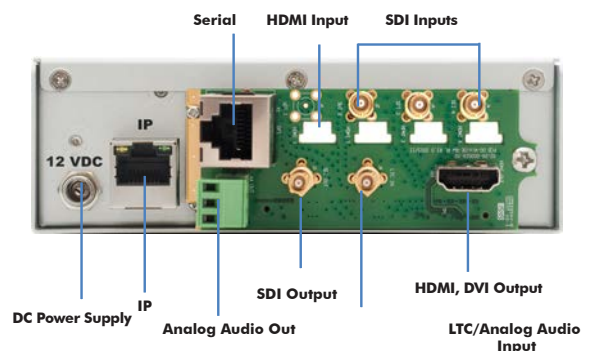
CRESCENT
MiniDL-X+X

MiniDL-1+3

Serial
HDMI Inputs
SDI Input
IP
12 VDC
DC Power Supply
IP
Analog Audio Out
SDI Output
HDMI, DVI Output
LTC/Analog Audio Input

MiniDL-2+2

Serial
SDI Inputs
SDI Inputs
HDMI Input
HDMI Input
IP
12 VDC
DC Power Supply
IP
Analog Audio Out
SDI Output
HDMI, DVI Output
LTC/Analog Audio Input

Power LED
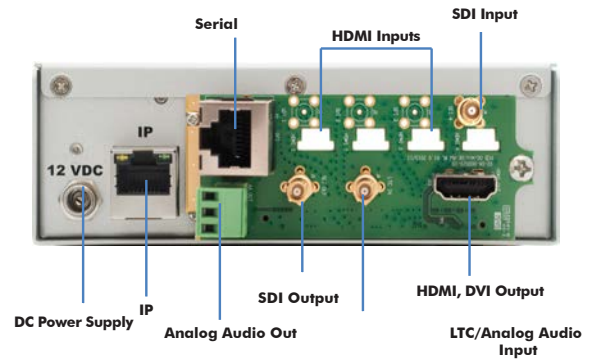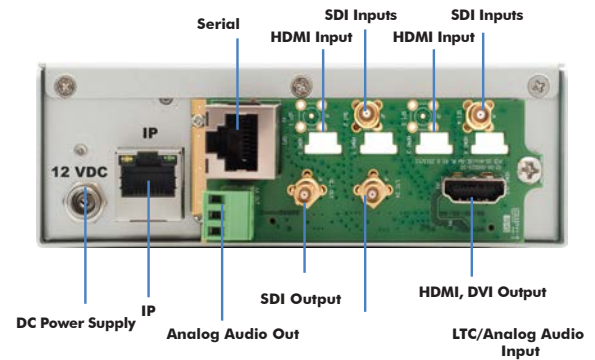
Total Windows	4	Output	1 x HDMI, 1 x SDI with audio
Inputs	HDMI / SDI (up to 3G Level A only)	HDMI	800x480 to 1920x1200 (1080p) 50/59.94/60Hz
Connector Type	HDMI Type D + HDBNC	Connector Type	HDMI Type A
Maximum Resolution	up to 1920x1080P@60Hz	SDI	Matching the HDMI output resolution up to 3G
Embedded Audio	Decode up to 4 channels per input	Connector Type	HD-BNC
LTC	1	Analog Audio	1
Connector Type	HD-BNC	On Screen Display	Borders, lablels, tallies, audio meters, alarm tags, safe areas
GPI	8 for tally or AXP (ASCII commands)	IP	1000 base-T, TSL, AXP_Lite protocol
Connector Type	RJ-50 with terminal block	Power	17 W

CRESCENT
Mi-8 12G

Cost Effective 8x1 12G/3G/HD-SDI input Multiviewer

Key Features

- Low latency - single frame processing delay
- Low energy - only uses 15W of power
- Accepts 8 auto-detect 12G/3G/HD-SDI inputs
- Supports 8 2SI or 4 square division
- Windows can be sized and moved freely
- Decodes up to 16 embedded audio per input
- Total of 64 audio meters
- 2 simultaneous and identical HDMI and SDI outputs
- Output resolution up to 1080P@60Hz
- Ethernet for configuration and external control
- Dynamic UMD/Label and Tallies (TSL)
- Standalone labels and 2 customizable logos
- 2 digital and 2 analog clocks can by synced with LTC or NTP
- 32 GPIs for tallies, count up/down triggers or preset recalls
- Borders can be turned on or off
- 2 sets of safe area markers
- Visual alarm tags for format, video/audio presence
- Audio monitoring outputs - stereo, AES, SDI or HDMI
- 1 RU with optional redundant power supply
- Optional redundant power supply
- 3 year limited warranty

Accessories

Standard

- Rack-mounts
- 4x RJ50 to DB9 cables for GPI
- 4x breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)
- Analog audio breakout cable

Optional Hardware

- Redundant power supply

Optional Software License

- Third Party Router Interface license
- OP47 license
- Closed Caption license
- ATC/VITC decode license

Mi-8 12G-01-2019

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Mi-8 12G

Rear View

GPI/O LTC IN AES OUT DC 12V

8 x 12G SDI inputs

HDMI OUT   IP   RS-232   SDI OUT   AC 90 ~ 250V

Specifications

Video Inputs	Up to 8 12G/3G/HD-SDI.	Outputs	2 HDMI 1.4 + 2 SDI
Connectors	BNC IEC, 61169-8 Annex A	Output Resolutions	1920x1080P@50/60Hz
Total Windows	4, 8	On Screen Displays	Borders, labels (4 per window), fonts, tally LED, analog and digital clocks, logos, UMD, OMD, IMD
Serial Digital	SMPTE ST-2082	General Purpose IO	Borders, labels (4 per window), fonts, tally LED, analog and digital clocks, logos, UMD, OMD, IMD
Equalization	70 m at 11.88 Gbps, 120m at 2.97 Gbps, 140m at 1.485 Gbps	Serial Port	RS-232. Connector: RJ45, Baud Rate up to 115,200. Format: TSL, AXP
		Electrical	100 W, 90 ~ 250 V 50/60 Hz
EMI/RFI	Complies with FCC Part 15 Class A, CE, EU, EMC, C-tick	Size / weight	1RU. 446 x 452 x 44 mm (L x W x H)
Alarms	No audio, no video, video formats	Environment	Operating temperature: 0 ~ 45 C Operating humidity: 20 ~ 90% RH Storage temperature: -20 ~ 60 C

APANTAC

CRESCENT
Mi-8 12G+ (Plus)

Cost Effective 4x2 12G/3G/HD-SDI input Multiviewer

Key Features

- Low latency - single frame processing delay
- Low energy - only uses 15W of power
- Accepts 8 auto-detect 12G/3G/HD-SDI inputs
- Supports 8 2SI or 4 square division
- Windows can be sized and moved freely
- Decodes up to 16 embedded audio per input
- Total of 64 audio meters
- 2 separate independent HDMI and SDI outputs with 4 inputs each
- Output resolution up to 1080P@60Hz
- Ethernet for configuration and external control
- Dynamic UMD/Label and Tallies (TSL)
- Standalone labels and 2 customizable logos
- 2 digital and 2 analog clocks can by synced with LTC or NTP
- 32 GPIs for tallies, count up/down triggers or preset recalls
- Borders can be turned on or off
- 2 sets of safe area markers
- Visual alarm tags for format, video/audio presence
- Audio monitoring outputs - stereo, AES, SDI or HDMI
- 1 RU with optional redundant power supply
- Optional redundant power supply
- 3 year limited warranty

Accessories

Standard

- Rack-mounts
- 4x RJ50 to DB9 cables for GPI
- 4x breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)
- Analog audio breakout cable
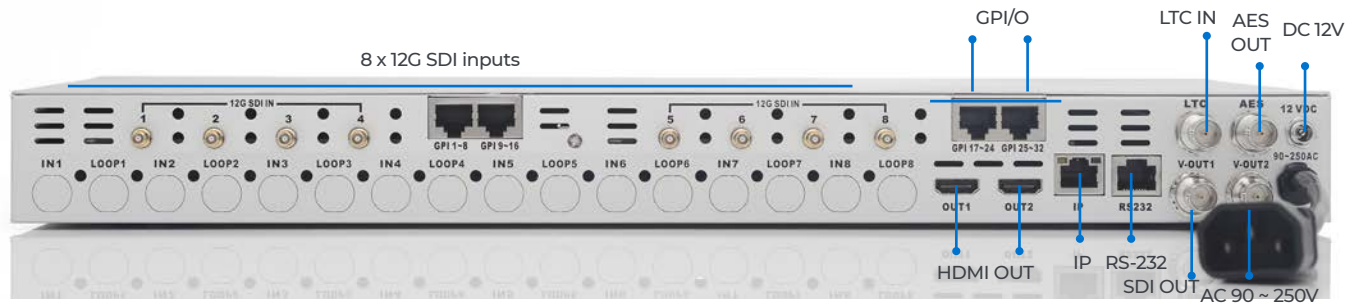
Optional Hardware

- Redundant power supply

Optional Software License

- Third Party Router Interface license
- OP47 license
- Closed Caption license
- ATC/VITC decode license

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Mi-8 12G+ (Plus)

Rear View

| GPI/O | LTC IN | AES OUT | DC 12V |

8 x 12G SDI inputs

HDMI OUT　　IP　RS-232　SDI OUT　AC 90 ~ 250V

Specifications

Video Inputs	Up to 8 12G/3G/HD-SDI.	**Outputs**	2 HDMI 1.4 + 2 SDI
Connectors	BNC IEC, 61169-8 Annex A	**Output Resolutions**	1920x1080P@50/60Hz
Total Windows	4, 8	**On Screen Displays**	Borders, labels (4 per window), fonts, tally LED, analog and digital clocks, logos, UMD, OMD, IMD
Serial Digital	SMPTE ST-2082	**General Purpose IO**	Borders, labels (4 per window), fonts, tally LED, analog and digital clocks, logos, UMD, OMD, IMD
Equalization	70 m at 11.88 Gbps, 120m at 2.97 Gbps, 140m at 1.485 Gbps	**Serial Port**	RS-232. Connector: RJ45, Baud Rate up to 115,200. Format: TSL, AXP
		Electrical	100 W, 90 ~ 250 V 50/60 Hz
EMI/RFI	Complies with FCC Part 15 Class A, CE, EU, EMC, C-tick	**Size / weight**	1RU. 446 x 452 x 44 mm (L x W x H)
Alarms	No audio, no video, video formats	**Environment**	Operating temperature: 0 ~ 45 C Operating humidity: 20 ~ 90% RH Storage temperature: -20 ~ 60 C

CRESCENT
Mi-8 12G# (Sharp)

Cost Effective Up 8x2 12G/3G/HD-SDI input Multiviewer

Key Features

- Low latency - single frame processing delay
- Low energy - only uses 15W of power
- Accepts 8 auto-detect 12G/3G/HD-SDI inputs
- Supports 8 2SI or 4 square division
- Windows can be sized and moved freely
- Decodes up to 16 embedded audio per input
- Total of 64 audio meters
- 2 independent HDMI and SDI outputs with 8 windows each
- Output resolution up to 1080P@60Hz
- Ethernet for configuration and external control
- Dynamic UMD/Label and Tallies (TSL)
- Standalone labels and 2 customizable logos
- 2 digital and 2 analog clocks can by synced with LTC or NTP
- 32 GPIs for tallies, count up/down triggers or preset recalls
- Borders can be turned on or off
- 2 sets of safe area markers
- Visual alarm tags for format, video/audio presence
- Audio monitoring outputs - stereo, AES, SDI or HDMI
- 1 RU with optional redundant power supply
- Optional redundant power supply
- 3 year limited warranty

Accessories

Standard

- Rack-mounts
- 4x RJ50 to DB9 cables for GPI
- 4x breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)
- Analog audio breakout cable

Optional

- Redundant power supply

Optional Software License

- Third Party Router Interface license
- OP47 license
- Closed Caption license
- ATC/VITC decode license

Mi-8 12G# (Sharp)-01-2019

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Mi-8 12G# (Sharp)

Rear View

8 x 12G SDI inputs · GPI/O · LTC IN · AES OUT · DC 12V · HDMI OUT · IP · RS-232 · SDI OUT · AC 90 ~ 250V

Specifications

Video Inputs	Up to 8 12G/3G/HD-SDI. Supports 3G Level A&B	**Outputs**	2 independent 2 HDMI 1.4 + 2 SDI
Connectors	BNC IEC, 61169-8 Annex A	**Output Resolutions**	1920x1080P@50/60Hz
Total Windows	4, 8	**On Screen Displays**	Borders, labels (4 per window), fonts, tally LED, analog and digital clocks, logos, UMD, OMD, IMD
Serial Digital	SMPTE ST-2082	**General Purpose IO**	Borders, labels (4 per window), fonts, tally LED, analog and digital clocks, logos, UMD, OMD, IMD
Equalization	70 m at 11.88 Gbps, 120m at 2.97 Gbps, 140m at 1.485 Gbps	**Serial Port**	RS-232. Connector: RJ45, Baud Rate up to 115,200. Format: TSL, AXP
		Electrical	100 W, 90 ~ 250 V 50/60 Hz
EMI/RFI	Complies with FCC Part 15 Class A, CE, EU, EMC, C-tick	**Size / weight**	1RU. 446 x 452 x 44 mm (L x W x H)
Alarms	No audio, no video, video formats	**Environment**	Operating temperature: 0 ~ 45 C Operating humidity: 20 ~ 90% RH Storage temperature: -20 ~ 60 C

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Mi-8 12G UHD

Cost Effective 8x1 12G/3G/HD-SDI input Multiviewer with HDMI 2.0 (UHD) output

Key Features

- Low latency - single frame processing delay
- Low energy - only uses 55W of power
- Accepts 8 auto-detect 12G/3G/HD-SDI inputs
- Supports 8 2SI or 4 square division
- Windows can be sized and moved freely
- Decodes up to 16 embedded audio per input
- Total of 64 audio meters
- 1 x HDMI 2.0 (UHD) output
- 1 x 12G-SDI and 1 x 3G-SDI output
- Output resolution up to 3840x2160@60Hz
- Ethernet for configuration and external control
- Dynamic UMD/Label and Tallies (TSL)
- Standalone labels and 2 customizable logos
- 2 digital and 2 analog clocks can by synced with LTC or NTP
- 32 GPIs for tallies, count up/down triggers or preset recalls
- Borders can be turned on or off
- 2 sets of safe area markers
- Visual alarm tags for format, video/audio presence
- Audio monitoring outputs - stereo, AES, SDI or HDMI
- 1 RU with optional redundant power supply
- Optional redundant power supply
- 3 year limited warranty

Accessories

Standard

- Rack-mounts
- 4x RJ50 to DB9 cables for GPI
- 4x breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)
- Analog audio breakout cable

Optional Hardware

- Redundant power supply

Optional Software License

- Third Party Router Interface
- OP47 license
- Closed Caption license
- ATC/VITC decode license

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Mi-8 12G UHD

Rear View

Specifications

Video Inputs	Up to 8 12G/3G/HD-SDI.	Outputs	1 x HDMI 2.0, 1 x 12G SDI, 1 x 3G SDI
Connectors	BNC IEC, 61169-8 Annex A	Output Resolutions	3840x 2160 and 1920x1080P@50/60Hz
Total Windows	4, 8	On Screen Displays	Borders, labels (4 per window), fonts, tally LED, analog and digital clocks, logos, UMD, OMD, IMD
Serial Digital	SMPTE ST-2082	General Purpose IO	Borders, labels (4 per window), fonts, tally LED, analog and digital clocks, logos, UMD, OMD, IMD
Equalization	70 m at 11.88 Gbps, 120m at 2.97 Gbps, 140m at 1.485 Gbps	Serial Port	RS-232. Connector: RJ45, Baud Rate up to 115,200. Format: TSL, AXP
		Electrical	100 W, 90 ~ 250 V 50/60 Hz
EMI/RFI	Complies with FCC Part 15 Class A, CE, EU, EMC, C-tick	Size / weight	1RU. 446 x 452 x 44 mm (L x W x H)
Alarms	No audio, no video, video formats	Environment	Operating temperature: 0 ~ 45 C Operating humidity: 20 ~ 90% RH Storage temperature: -20 ~ 60 C

CRESCENT
Mi-9

9 x 1 SDI Input Multiviewer with SDI Output

Key Features

- Compact - 1/3 of 1 rack width
- Low latency - single frame processing delay
- 9x auto-detect 3G (Level A/B)/HD/SD-SDI inputs
- Low power consumption - 15W
- Windows can be sized and moved freely
- Decode up to 16 embedded audio per SDI input
- Ethernet for configuration, dynamic labels and Tallies (TSL)
- Standalone labels, customizable logo
- 9 GPIs for tallies, count up/down trigger or preset recall
- Built-in analog/digital clocks can sync with LTC/NTP
- Borders can be turned on or off
- Two sets of safe area makers
- Visual alarm tags for video/audio alarm
- SDI outputs with embedded stereo audio pair
- 3 year limited warranty

Mi-9-01-2019

CRESCENT

Mi-9

Rear View

9 video inputs

12V DC   IP   SDI OUT
GPI

Accessories

Standard

- RJ50 to DB9 cables for GPI
- Breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)
- 11 HDBNC-BNC-F
- Power supply

Optional

- Rackmount tray

Optional Licenses

- ATC/VITC decoding and display
- Closed Captioning (608/708/OP47)
- Third Party Router Interface

Specifications

Inputs	9x 3G (level A/B)/HD/SD-SDI	**Video Output**	1x SDI
Connector Type	HD-BNC	**Audio Output**	Embedded stereo audio pair
Total Windows	9	**Output Resolution**	SDI: 1080P/1080i 50/59.94 Hz
Aspect Ratios	16:9 for all or 4:3 for Standard definition		
Serial Digital	SMPTE 424M, 292M, 259M, supports 525i59.94, 626i50, 720p50, 720p 59.94, 720p60, 1080i50, 1080i59.94, 1080i60, 1080PsF25, 1080PsF29.97, 1080PsF30, 1080p50, 1080p59.94, 1080p60 Level A/B	**Latency**	1 frame
		On Screen Display	Borders, Static and Dynamic Labels/UMDs, Tally LEDs, Alarm Tags, Clocks and Logos
		SDI Color Encoding	10 bit 4:2:2
		GPI	9 for tally or AXP (ASCII command)
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**Serial Port**	N/A
Return Loss	> 15db up to 1.485 Gbps > 10db up to 3G	**IP**	100 Base-T for control and configuration and TSL, AXP protocol
		Supported IP Protocols	TSL 3.1 for dynamic tallies and labels, Optional: Utah and PESA router protocols
Embedded Audio	SMPTE-272M-A		
Alarms	No audio, audio high/low, no video, video format display	**Electrical**	15 W, 90 - 250 V 50/60 Hz
		EMI/RFI	Complies with FCC Part 15, Class A, CE, EU EMC, C-tick

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CRESCENT
Mi-9+ (Plus)

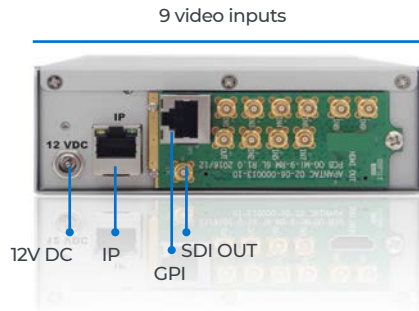## 9 x 1 SDI Input Multiviewer with SDI and HDMI Output

Key Features

- Compact - 1/3 of 1 rack width
- Low latency - single frame processing delay
- 9x auto-detect 3G (Level A/B)/HD/SD-SDI inputs
- Low power consumption - 15W
- Windows can be sized and moved freely
- Decode up to 16 embedded audio per SDI input
- Ethernet for configuration, dynamic labels and Tallies (TSL)
- Standalone labels, customizable logo
- 9 GPIs for tallies, count up/down trigger or preset recall
- Built-in analog/digital clocks can sync with LTC/NTP
- Borders can be turned on or off
- Two sets of safe area makers
- Visual alarm tags for video/audio alarm
- Identical HDMI and SDI outputs with embedded stereo audio pair
- 3 year limited warranty

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Mi-9+ (Plus)-01-2019

CRESCENT
Mi-9+ (Plus)

Rear View

9 video inputs

12V DC   IP   SDI OUT   HDMI OUT
GPI

Accessories

Standard

- RJ50 to DB9 cables for GPI
- Breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)
- 11 HDBNC-BNC-F
- Power supply

Optional

- Rackmount tray

Optional Licenses

- ATC/VITC decoding and display
- Closed Captioning (608/708/OP47)
- Third Party Router Interface

Specifications

Inputs	9x 3G (level A/B)/HD/SD-SDI	**Video Output**	Identical 1 x HDMI and 1x SDI
Connector Type	HD-BNC	**Audio Output**	Embedded stereo audio pair
Total Windows	9	**Output Resolution**	HDMI: 1920x1080P 50/59.94 Hz SDI: 1080P/1080i 50/59.94 Hz
Aspect Ratios	16:9 for all or 4:3 for Standard definition		
Serial Digital	SMPTE 424M, 292M, 259M, supports 525i59.94, 626i50, 720p50, 720p 59.94, 720p60, 1080i50, 1080i59.94, 1080i60, 1080PsF25, 1080PsF29.97, 1080PsF30, 1080p50, 1080p59.94, 1080p60 Level A/B	**Latency**	1 frame
		On Screen Display	Borders, Static and Dynamic Labels/UMDs, Tally LEDs, Alarm Tags, Clocks and Logos
		SDI Color Encoding	10 bit 4:2:2
		GPI	9 for tally or AXP (ASCII command)
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**Serial Port**	N/A
		IP	100 Base-T for control and configuration and TSL, AXP protocol
Return Loss	> 15db up to 1.485 Gbps > 10db up to 3G	**Supported IP Protocols**	TSL 3.1 for dynamic tallies and labels, Optional: Utah and PESA router protocols
Embedded Audio	SMPTE-272M-A		
Alarms	No audio, audio high/low, no video, video format display	**Electrical**	15 W, 90 - 250 V 50/60 Hz
		EMI/RFI	Complies with FCC Part 15, Class A, CE, EU EMC, C-tick

APANTAC

CRESCENT
Mi-9# (Sharp)

9 x 2 SDI Input Multiviewer with SDI and HDMI Output

Key Features

- Compact - 1/3 of 1 rack width
- Low latency - single frame processing delay
- 9x auto-detect 3G (Level A/B)/HD/SD-SDI inputs
- Low power consumption - 15W
- Windows can be sized and moved freely
- Decode up to 16 embedded audio per SDI input
- Ethernet for configuration, dynamic labels and Tallies (TSL)
- Standalone labels, customizable logo
- 9 GPIs for tallies, count up/down trigger or preset recall
- Built-in analog/digital clocks can sync with LTC/NTP
- Borders can be turned on or off
- Two sets of safe area makers
- Visual alarm tags for video/audio alarm
- Independent HDMI and SDI outputs with embedded stereo audio pair
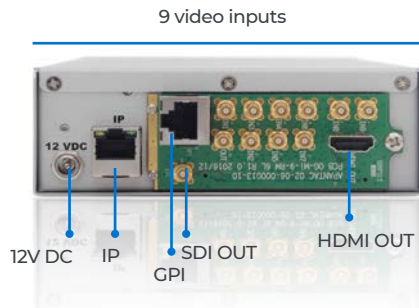- 3 year limited warranty

CRESCENT
Mi-9# (Sharp)

Rear View

9 video inputs with 16 passive loop outs

12V DC   IP   GPI   SDI OUT   HDMI OUT

Accessories

Standard

- RJ50 to DB9 cables for GPI
- Breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)
- 11 HDBNC-BNC-F
- Power supply

Optional

- Rackmount tray

Optional Licenses

- ATC/VITC decoding and display
- Closed Captioning (608/708/OP47)
- Third Party Router Interface

Specifications

Inputs	9x 3G (level A/B)/HD/SD-SDI	**Video Output**	Independent 1 x HDMI and 1x SDI
Connector Type	HD-BNC	**Audio Output**	Embedded stereo audio pair
Total Windows	Up to 18	**Output Resolution**	HDMI: 1920x1080P 50/59.94 Hz SDI: 1080P/1080i 50/59.94 Hz
Aspect Ratios	16:9 for all or 4:3 for Standard definition		
Serial Digital	SMPTE 424M, 292M, 259M, supports 525i59.94, 626i50, 720p50, 720p 59.94, 720p60, 1080i50, 1080i59.94, 1080i60, 1080PsF25, 1080PsF29.97, 1080PsF30, 1080p50, 1080p59.94, 1080p60 Level A/B	**Latency**	1 frame
		On Screen Display	Borders, Static and Dynamic Labels/UMDs, Tally LEDs, Alarm Tags, Clocks and Logos
		SDI Color Encoding	10 bit 4:2:2
		GPI	9 for tally or AXP (ASCII command)
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**Serial Port**	N/A
		IP	100 Base-T for control and configuration and TSL, AXP protocol
Return Loss	> 15db up to 1.485 Gbps > 10db up to 3G	**Supported IP Protocols**	TSL 3.1 for dynamic tallies and labels, Optional: Utah and PESA router protocols
Embedded Audio	SMPTE-272M-A		
Alarms	No audio, audio high/low, no video, video format display	**Electrical**	15 W, 90 - 250 V 50/60 Hz
		EMI/RFI	Complies with FCC Part 15, Class A, CE, EU EMC, C-tick

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Mi-16

Cost Effective 16x1 3G/HD/SD-SDI input Multiviewer

Key Features

- Low latency - single frame processing delay
- Low energy - only uses 20 W of power
- Accepts 16 auto-detect 3G/HD/SD-SDI inputs
- 16 passive input loop outs
- Windows can be sized and moved freely
- Decodes up to 16 embedded audio per SDI input
- Total of 64 audio meters
- 2 simultaneous and identical HDMI and SDI outputs
- Output resolution up to 1080P@60Hz
- Ethernet for configuration and external control
- Dynamic UMD/Label and Tallies (TSL)
- Standalone labels and 2 customizable logos
- 2 digital and 2 analog clocks can by synced with LTC or NTP
- 32 GPIs for tallies, count up/down triggers or preset recalls
- Borders can be turned on or off
- 2 sets of safe area markers
- Visual alarm tags for format, video/audio presence
- Audio monitoring outputs - stereo, AES, SDI or HDMI
- 1 RU with optional redundant power supply
- Optional redundant power supply
- 3 year limited warranty

Accessories

Standard

- Rack-mounts
- 4x RJ50 to DB9 cables for GPI
- 4x breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)
- Analog audio breakout cable

Optional

- Redundant power supply

Optional Licenses

- ATC/VITC decoding and display
- Closed Captioning (608/708/OP47)
- Third Party Router Interface

Mi-16-01-2019

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Mi-16

Rear View

16 video inputs with 16 passive loop outs

GPI · LTC IN · AA OUT · AES OUT · DC 12V · IP · RS-232 · HDMI OUT · SDI OUT · AC 90 ~ 250V

Specifications

Inputs	Up to 3G (level A/B)/HD/SD-SDI	Video Output	2 Identical HDMI and SDI
Connector Type	BNC IEC, 61169-8 Annex A	Audio Output	AA, AES and Embedded stereo audio pair
Total Windows	16	Output Resolution	HDMI: 1920x1080P 50/59.94 Hz SDI: 1080P/1080i 50/59.94 Hz
Aspect Ratios	16:9 for all or 4:3 for Standard definition		
		Latency	1 frame
Serial Digital	525i59.94, 626i50, 720p50, 720p 59.94, 720p60, 1080i50, 1080i59.94, 1080i60, 1080p50, 1080p59.94, 1080p60 Level A/B	On Screen Display	Borders, Static and Dynamic Labels/UMDs, Tally LEDs, Alarm Tags, Clocks and Logos
		SDI Color Encoding	10 bit 4:2:2
		GPI	32 for tally or AXP (ASCII command)
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	Serial Port	RS-232. Connector: RJ45, Baud Rate up to 115,200. Supports TSL and AXP protocols
		IP	100 Base-T for control and configuration and TSL, AXP protocol
Return Loss	> 15db up to 1.485 Gbps > 10db up to 3G		
Embedded Audio	SMPTE-272M-A	Supported IP Protocols	TSL 3.1 for dynamic tallies and labels, Optional: Utah and PESA router protocols
Alarms	No audio, audio high/low, no video, video format display	Electrical	20 W, 90 - 250 V 50/60 Hz
Environment	Operating temperature: 0 ~ 45 C Operating humidity: 20 ~ 90% RH Storage temperature: -20 ~ 60 C	EMI/RFI	Complies with FCC Part 15, Class A, CE, EU EMC, C-tick
		Size / Weight	1RU. 446 x 452 x 44 mm (L x W x H)

CRESCENT
Mi-16 + (Plus)

Cost Effective 8x2 3G/HD/SD-SDI input Multiviewer

Key Features

- Low latency - single frame processing delay
- Low energy - only uses 15W of power
- Accepts 16 auto-detect 3G/HD/SD-SDI inputs
- 16 passive input loop outs
- Windows can be sized and moved freely
- Decodes up to 16 embedded audio per SDI input
- Total of 128 audio meters
- 2 separate independent HDMI and SDI outputs with 8 inputs each
- Output resolution up to 1080P@60Hz
- Ethernet for configuration and external control
- Dynamic UMD/Label and Tallies (TSL)
- Standalone labels and 2 customizable logos
- 2 digital and 2 analog clocks can by synced with LTC or NTP
- 32 GPIs for tallies, count up/down triggers or preset recalls
- Borders can be turned on or off
- 2 sets of safe area markers
- Visual alarm tags for format, video/audio presence
- Audio monitoring outputs - stereo, AES, SDI or HDMI
- 1 RU with optional redundant power supply
- Optional redundant power supply
- 3 year limited warranty

Accessories

Standard

- Rack-mounts
- 4x RJ50 to DB9 cables for GPI
- 4x breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)
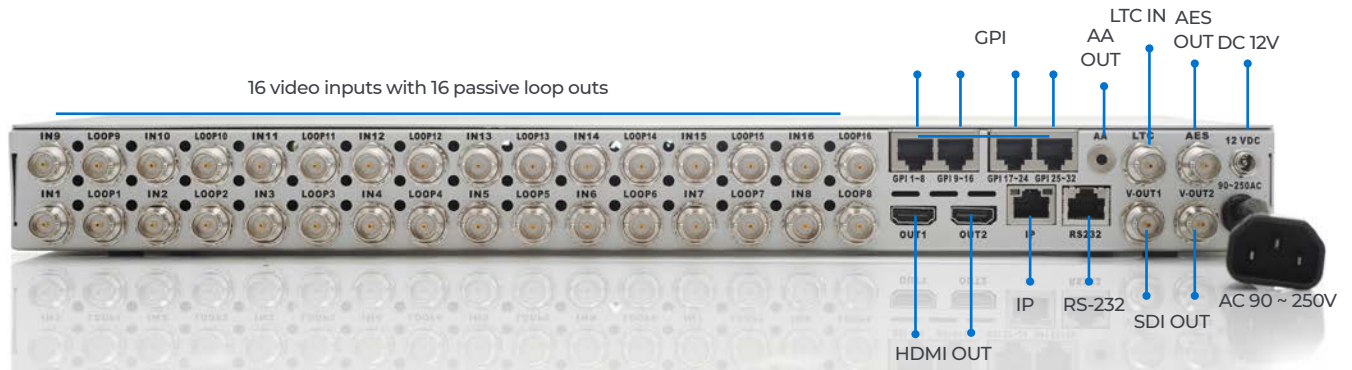- Analog audio breakout cable

Optional

- Redundant power supply

Optional Licenses

- ATC/VITC decoding and display
- Closed Captioning (608/708/OP47)
- Third Party Router Interface

CRESCENT
Mi-16 + (Plus)

Rear View

16 video inputs with 16 passive loop outs

GPI | LTC IN | AA OUT | AES OUT | DC 12V | IP | RS-232 | SDI OUT | HDMI OUT | AC 90 ~ 250V

Specifications

Inputs	Up to 3G (level A/B)/HD/SD-SDI	**Video Output**	2 independent HDMI and 2 SDI with 8 windows each
Connector Type	BNC IEC, 61169-8 Annex A	**Audio Output**	AA, AES and Embedded stereo audio pair
Total Windows	4, 8, 12 or 16	**Output Resolution**	HDMI: 1920x1080P 50/59.94 Hz SDI: 1080P/1080i 50/59.94 Hz
Aspect Ratios	16:9 for all or 4:3 for Standard definition		
		Latency	1 frame
Serial Digital	525i59.94, 626i50, 720p50, 720p 59.94, 720p60, 1080i50, 1080i59.94, 1080i60, 1080p50, 1080p59.94, 1080p60 Level A/B	**On Screen Display**	Borders, Static and Dynamic Labels/UMDs, Tally LEDs, Alarm Tags, Clocks and Logos
		SDI Color Encoding	10 bit 4:2:2
		GPI	16 for tally or AXP (ASCII command)
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**Serial Port**	RS-232. Connector: RJ45, Baud Rate up to 115,200. Supports TSL and AXP protocols
Return Loss	> 15db up to 1.485 Gbps > 10db up to 3G	**IP**	100 Base-T for control and configuration and TSL, AXP protocol
Embedded Audio	SMPTE-272M-A	**Supported IP Protocols**	TSL 3.1 for dynamic tallies and labels, Optional: Utah and PESA router protocols
Alarms	No audio, audio high/low, no video, video format display	**Electrical**	20 W, 90 - 250 V 50/60 Hz
Environment	Operating temperature: 0 ~ 45 C Operating humidity: 20 ~ 90% RH Storage temperature: -20 ~ 60 C	**EMI/RFI**	Complies with FCC Part 15, Class A, CE, EU EMC, C-tick
		Size / Weight	1RU. 446 x 452 x 44 mm (L x W x H)

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CRESCENT
Mi-16 # (Sharp)

Cost Effective 16x2 3G/HD/SD-SDI input Multiviewer

Key Features

- Low latency - single frame processing delay
- Low energy - only uses 15W of power
- Accepts 16 auto-detect 3G/HD/SD-SDI inputs
- 16 passive input loop outs
- Every input can be duplicated up to 16 times
- Every input is available to both outputs
- Windows can be sized and moved freely
- Decodes up to 16 embedded audio per SDI input
- Total of 64 audio meters
- 2 independent HDMI and SDI outputs with 16 windows each
- Output resolution up to 1080P@60Hz
- Ethernet for configuration and external control
- Dynamic UMD/Label and Tallies (TSL)
- Standalone labels and 2 customizable logos
- 2 digital and 2 analog clocks can by synced with LTC or NTP
- 32 GPIs for tallies, count up/down triggers or preset recalls
- Borders can be turned on or off
- 2 sets of safe area markers
- Visual alarm tags for format, video/audio presence
- Audio monitoring outputs - stereo, AES, SDI or HDMI
- 1 RU with optional redundant power supply
- Optional redundant power supply
- 3 year limited warranty

Accessories

Standard

- Rack-mounts
- 4x RJ50 to DB9 cables for GPI
- 4x breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)
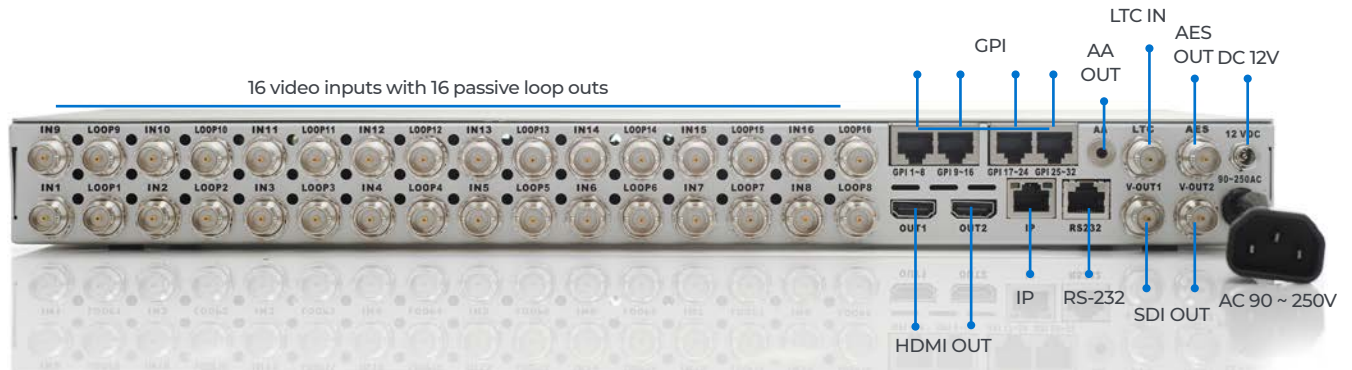- Analog audio breakout cable

Optional

- Redundant power supply

Optional Licenses

- ATC/VITC decoding and display
- Closed Captioning (608/708/OP47)
- Third Party Router Interface

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Mi-16 # (Sharp)-01-2019

CRESCENT
Mi-16 # (Sharp)

Rear View

16 video inputs with 16 passive loop outs

GPI
LTC IN
AA OUT
AES OUT
DC 12V
IP
RS-232
SDI OUT
AC 90 ~ 250V
HDMI OUT

Specifications

Inputs	Up to 3G (level A/B)/HD/SD-SDI	**Video Output**	2 independent HDMI and 2 SDI with up to 16 windows each
Connector Type	BNC IEC, 61169-8 Annex A	**Audio Output**	AA, AES and Embedded stereo audio pair
Total Windows	4, 8, 12 or 16	**Output Resolution**	HDMI: 1920x1080P 50/59.94 Hz SDI: 1080P/1080i 50/59.94 Hz
Aspect Ratios	16:9 for all or 4:3 for Standard definition		
		Latency	1 frame
Serial Digital	525i59.94, 626i50, 720p50, 720p 59.94, 720p60, 1080i50, 1080i59.94, 1080i60, 1080p50, 1080p59.94, 1080p60 Level A/B	**On Screen Display**	Borders, Static and Dynamic Labels/UMDs, Tally LEDs, Alarm Tags, Clocks and Logos
		SDI Color Encoding	10 bit 4:2:2
		GPI	16 for tally or AXP (ASCII command)
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**Serial Port**	RS-232. Connector: RJ45, Baud Rate up to 115,200. Supports TSL and AXP protocols
		IP	100 Base-T for control and configuration and TSL, AXP protocol
Return Loss	> 15db up to 1.485 Gbps > 10db up to 3G	**Supported IP Protocols**	TSL 3.1 for dynamic tallies and labels, Optional: Utah and PESA router protocols
Embedded Audio	SMPTE-272M-A		
Alarms	No audio, audio high/low, no video, video format display	**Electrical**	20 W, 90 - 250 V 50/60 Hz
Environment	Operating temperature: 0 ~ 45 C Operating humidity: 20 ~ 90% RH Storage temperature: -20 ~ 60 C	**EMI/RFI**	Complies with FCC Part 15, Class A, CE, EU EMC, C-tick
		Size / Weight	1RU. 446 x 452 x 44 mm (L x W x H)

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APANTAC

CRESCENT
Mi-16-UHD

Cost Effective 16x1 3G/HD/SD-SDI input Multiviewer with HDMI 2.0 (UHD) output

Key Features

- Low latency - single frame processing delay
- Low energy - only uses 55W of power
- Accepts 16 auto-detect 3G/HD/SD-SDI inputs
- Windows can be sized and moved freely
- Decodes up to 16 embedded audio per SDI input
- Total of 64 audio meters
- 1 x HDMI 2.0 (UHD) output, 1 x HDMI 1.4 (1080P) output
- 1 x 12G-SDI and 1 x 3G-SDI
- Output resolution up to 3840x2160@60Hz
- Ethernet for configuration and external control
- Dynamic UMD/Label and Tallies (TSL)
- Standalone labels and 2 customizable logos
- 2 digital and 2 analog clocks can by synced with LTC or NTP
- 32 GPIs for tallies, count up/down triggers or preset recalls
- Borders can be turned on or off
- 2 sets of safe area markers
- Visual alarm tags for format, video/audio presence
- Audio monitoring outputs - stereo, AES, SDI or HDMI
- 1 RU with optional redundant power supply
- Optional redundant power supply
- 3 year limited warranty

Accessories

Standard

- Rack-mounts
- 4x RJ50 to DB9 cables for GPI
- 4x breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)
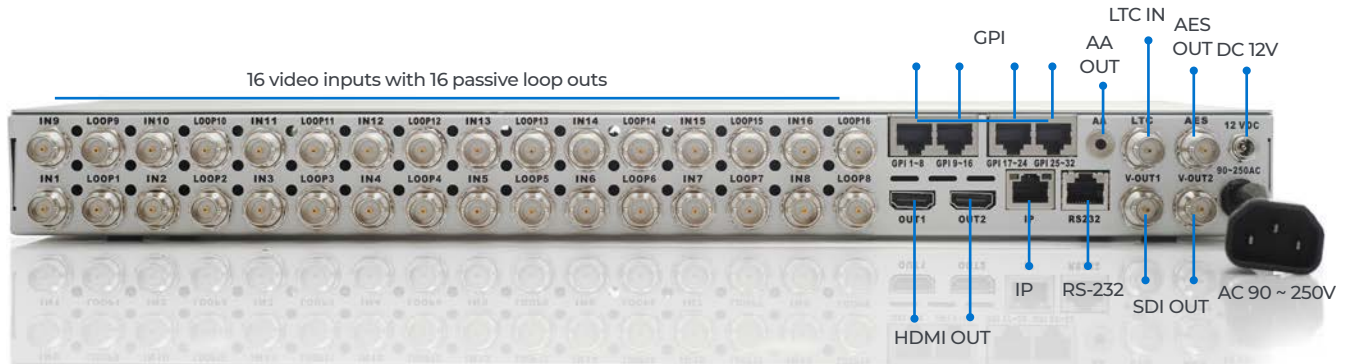- Analog audio breakout cable

Optional

- Redundant power supply

Optional Licenses

- ATC/VITC decoding and display
- Closed Captioning (608/708/OP47)
- Third Party Router Interface

CRESCENT
Mi-16-UHD

Rear View

16 video inputs

GPI/O

AA OUT

DC 12V

UHD OUT

AES OUT

LTC IN

3G Out

12G Out

IP

RS-232

BB

AC 90 ~ 250V

Specifications

Inputs	Up to 3G (level A/B)/HD/SD-SDI	Video Output	1 x HDMI 2.0, 1 x 12G, 1 x 3G
Connector Type	BNC IEC, 61169-8 Annex A	Audio Output	AA and Embedded stereo audio pair
Total Windows	4, 8, 12 or 16	Output Resolution	HDMI: 3840x2160P 50/59.94 Hz SDI: 1080P/2160P 50/59.94 Hz
Aspect Ratios	16:9 for all inputs		
Serial Digital	525i59.94, 626i50, 720p50, 720p 59.94, 720p60, 1080i50, 1080i59.94, 1080i60, 1080p50, 1080p59.94, 1080p60 Level A/B	Latency	1 frame
		On Screen Display	Borders, Static and Dynamic Labels/UMDs, Tally LEDs, Alarm Tags, Clocks and Logos
		SDI Color Encoding	10 bit 4:2:2
		GPI	16 for tally or AXP (ASCII command)
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	Serial Port	RS-232. Connector: RJ45, Baud Rate up to 115,200. Supports TSL and AXP protocols
		IP	100 Base-T for control and configuration and TSL, AXP protocol
Return Loss	> 15db up to 1.485 Gbps > 10db up to 3G	Supported IP Protocols	TSL 3.1 for dynamic tallies and labels, Optional: Utah and PESA router protocols
Embedded Audio	SMPTE-272M-A		
Alarms	No audio, audio high/low, no video, video format display	Electrical	55 W, 90 - 250 V 50/60 Hz
Environment	Operating temperature: 0 ~ 45 C Operating humidity: 20 ~ 90% RH Storage temperature: -20 ~ 60 C	Size / Weight	1RU. 446 x 452 x 44 mm (L x W x H)

APANTAC

CRESCENT
Mi-16 12G UHD

Cost Effective 16x1 12G/3G/HD-SDI input Multiviewer with HDMI 2.0 (UHD) output

Key Features

- Low latency - single frame processing delay
- Low energy - only uses 75 W of power
- Accepts 16 auto-detect 12G/3G/HD-SDI inputs
- Supports 16 2SI 12G-SDI inputs
- Windows can be sized and moved freely
- Decodes up to 16 embedded audio per input
- Total of 128 audio meters
- 1 x HDMI 2.0 (UHD) output
- 1 x 12G-SDI and 1 x 3G-SDI output
- Output resolution up to 3840x2160@60Hz
- Ethernet for configuration and external control
- Dynamic UMD/Label and Tallies (TSL)
- Standalone labels and 2 customizable logos
- 2 digital and 2 analog clocks can by synced with LTC or NTP
- 32 GPIs for tallies, count up/down triggers or preset recalls
- Borders can be turned on or off
- 2 sets of safe area markers
- Visual alarm tags for format, video/audio presence
- Audio monitoring outputs - stereo, AES, SDI or HDMI
- 2 RU with standard redundant power supply
- 3 year limited warranty

Accessories

Standard

- Rack-mounts
- 4x RJ50 to DB9 cables for GPI
- 4x breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)
- Analog audio breakout cable

Optional Licenses

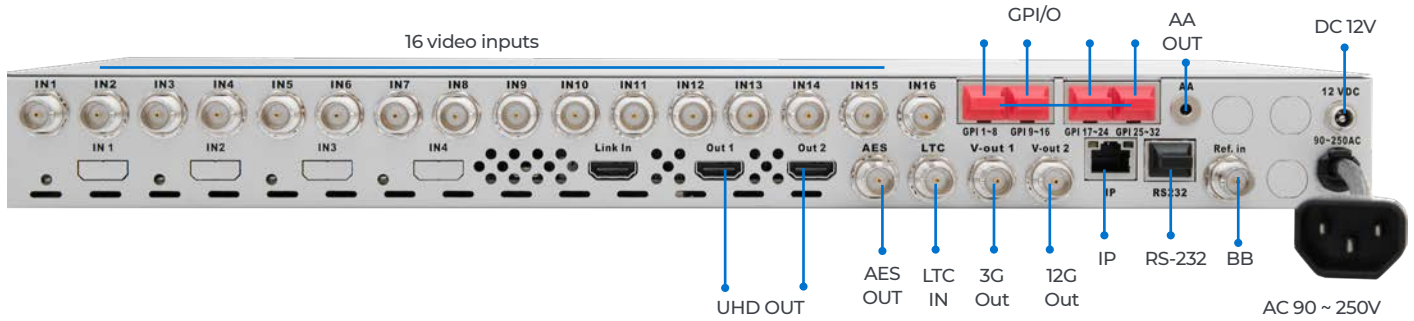- ATC/VITC decoding and display
- Closed Captioning (608/708/OP47)
- Third Party Router Interface

Mi-16 12G UHD-01-2019

CRESCENT
Mi-16 12G UHD

Rear View

16 x 12G SDI inputs

AA Out · AC 90 ~ 250V

GPI/O

UHD OUT · Disabled · AES OUT · LTC IN · 12G Out · 3G Out · IP · RS-232 · AC 90 ~ 250V

Specifications

Video Inputs	Up to 16 12G/3G/HD-SDI.	Outputs	1x HDMI 2.0, 1 x 12G, SDI 1 x 3G SDI
Connectors	BNC IEC, 61169-8 Annex A	Output Resolutions	3840x 2160 and 1920x1080P@50/60Hz
Total Windows	16	On Screen Displays	Borders, labels (4 per window), fonts, tally LED, analog and digital clocks, logos, UMD, OMD, IMD
Serial Digital	SMPTE ST-2082	General Purpose IO	Borders, labels (4 per window), fonts, tally LED, analog and digital clocks, logos, UMD, OMD, IMD
Equalization	70 m at 11.88 Gbps, 120m at 2.97 Gbps, 140m at 1.485 Gbps	Serial Port	RS-232. Connector: RJ45, Baud Rate up to 115,200. Format: TSL, AXP
		Electrical	100 W, 90 ~ 250 V 50/60 Hz
EMI/RFI	Complies with FCC Part 15 Class A, CE, EU, EMC, C-tick	Size / weight	2 RU. 446 x 452 x 87 mm (L x W x H)
Alarms	No audio, no video, video formats	Environment	Operating temperature: 0 ~ 45 C Operating humidity: 20 ~ 90% RH Storage temperature: -20 ~ 60 C

APANTAC

CRESCENT
Mx-32

Cost Effective 32x4 input 3G/HD/SD-SDI input Multiviewer

Key Features

- Low latency - single frame processing delay
- Low power consumption - only uses 75W
- Accepts 32 auto-detect 3G/HD/SD-SDI inputs
- Maximum of 16 windows per output
- Every input can be duplicated up to 32 times
- Every input is available to all outputs
- Windows can be sized and moved freely
- Decodes up to 16 embedded audio per SDI input
- Total of 256 audio meters
- 4 independent HDMI and SDI outputs
- Output resolution up to 1080P@60Hz
- Ethernet for configuration and external control
- Dynamic UMD/Label and Tallies (TSL)
- Standalone labels and 2 customizable logos
- 2 digital and 2 analog clocks can by synced with LTC or NTP
- 64 GPIs for tallies, count up/down triggers or preset recalls
- Borders can be turned on or off
- 2 sets of safe area markers
- Visual alarm tags for format, video/audio presence
- Audio monitoring outputs - stereo, AES, SDI or HDMI
- 2 RU with redundant power supply
- 3 year limited warranty

Accessories

Standard

- Rack-mounts
- 8 x RJ50 to DB9 cables for GPI
- 8 x breakout terminal blocks
- 2 x RJ45-DB9 cable for serial (RS-232)

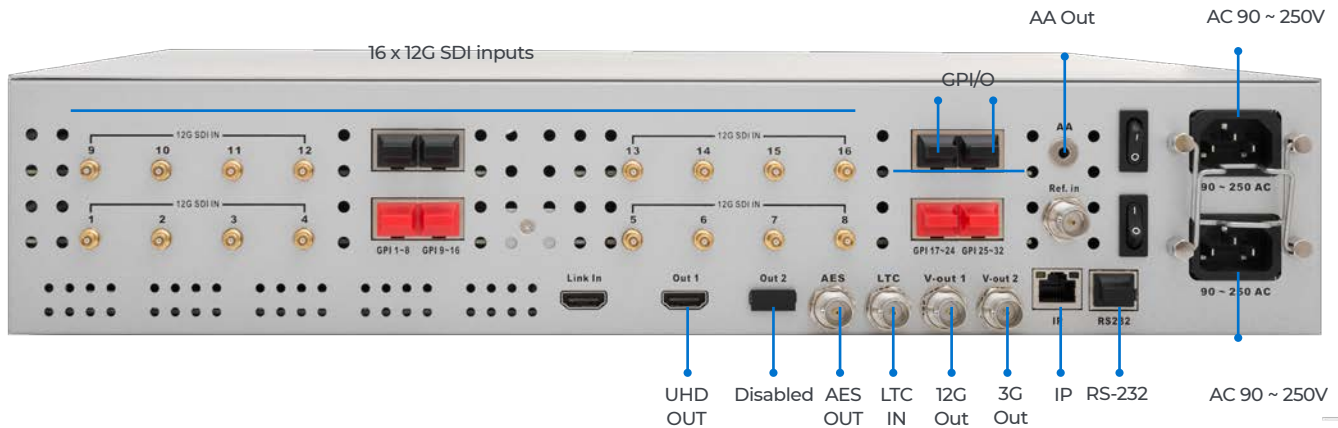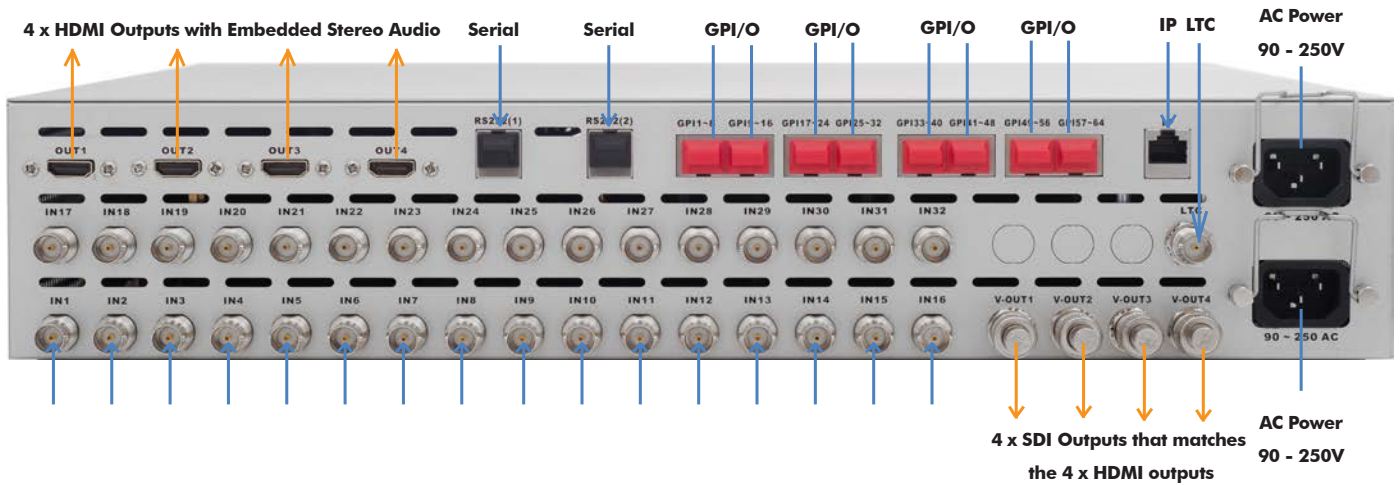**Optional Licenses**

- ATC/VITC decoding and display
- Closed Captioning (608/708/OP47)
- Third Party Router Interface

CRESCENT

Mx-32

Rear View

4 x HDMI Outputs with Embedded Stereo Audio — Serial — Serial — GPI/O — GPI/O — GPI/O — GPI/O — IP LTC — AC Power 90 - 250V

4 x SDI Outputs that matches the 4 x HDMI outputs

AC Power 90 - 250V

Specifications

Inputs	Up to 32 3G (level A/B)/HD/SD-SDI	**Video Output**	4 independent HDMI 1.4 + 4 SDI
Connector Type	BNC IEC, 61169-8 Annex A	**Audio Output**	Embedded stereo audio pair
Total Windows	16 per each output	**Output Resolution**	HDMI: 1920x1080P 50/59.94 Hz SDI: 1080P/1080i 50/59.94 Hz
Aspect Ratios	16:9 for all or 4:3 for Standard definition		
		Latency	1 frame
Serial Digital	SMPTE 424M, 292M, 259M, supports 525i59.94, 626i50, 720p50, 720p 59.94, 720p60, 1080i50, 1080i59.94, 1080i60, 1080PsF25, 1080PsF29.97, 1080PsF30, 1080p50, 1080p59.94, 1080p60 Level A/B	**On Screen Display**	Borders, Static and Dynamic Labels/UMDs, Tally LEDs, Alarm Tags, Clocks and Logos
		SDI Color Encoding	10 bit 4:2:2
		GPI	32 for tally or AXP (ASCII command)
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**Serial Port**	RS-232. Connector: RJ45, Baud Rate up to 115,200. Supports TSL and AXP protocols
		IP	100 Base-T for control and configuration and TSL, AXP protocol
Return Loss	> 15dB up to 1.485 Gbps > 10dB up to 3G	**Supported IP Protocols**	TSL 3.1 for dynamic tallies and labels, Optional: Utah and PESA router protocols
Embedded Audio	SMPTE-272M-A		
Alarms	No audio, audio high/low, no video, video format display	**Electrical**	75 W, 90 - 250 V 50/60 Hz
Environment	Operating temperature: 0 ~ 45 C Operating humidity: 20 ~ 90% RH Storage temperature: -20 ~ 60 C	**EMI/RFI**	Complies with FCC Part 15, Class A, CE, EU EMC, C-tick
		Size / Weight	2RU. 446 x 452 x 88 mm (L x W x H)

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CRESCENT
Mx-32x2-UHD

Cost Effective (32x2) input 3G/HD/SD-SDI input Multiviewer with 2 UHD Outputs

Key Features

- Low latency - single frame processing delay
- Low power consumption - only uses 75W
- Accepts 32 auto-detect 3G/HD/SD-SDI inputs
- Maximum of 16 windows per output
- Every input can be duplicated up to 32 times
- Every input is available to both outputs
- Windows can be sized and moved freely
- Decodes up to 16 embedded audio per SDI input
- Total of 256 audio meters
- 2 independent HDMI 2.0 and SDI (12G and 3G)outputs
- Output resolution up to UHD@60Hz
- Ethernet for configuration and external control
- Dynamic UMD/Label and Tallies (TSL)
- Standalone labels and 2 customizable logos
- 2 digital and 2 analog clocks can by synced with LTC or NTP
- 64 GPIs for tallies, count up/down triggers or preset recalls
- Borders can be turned on or off
- 2 sets of safe area markers
- Visual alarm tags for format, video/audio presence
- Audio monitoring outputs - stereo, AES, SDI or HDMI
- 2 RU with redundant power supply
- 3 year limited warranty

Accessories

Standard

- Rack-mounts
- 8 x RJ50 to DB9 cables for GPI
- 8 x breakout terminal blocks
- 2 x RJ45 to DB9 cable for serial (RS-232)

Optional Licenses

- ATC/VITC decoding and display
- Closed Captioning (608/708/OP47)
- Third Party Router Interface

Mx-32x2-UHD-01-2019

CRESCENT
Mx-32x2-UHD

Rear View

dl

HDMI 2.0 OUT RS-232 RS-232 GPI/O

32 3G/HD-SD-SDI Video Inputs

AES OUT LTC IN SDI OUT SDI OUT AC 90 ~ 250V
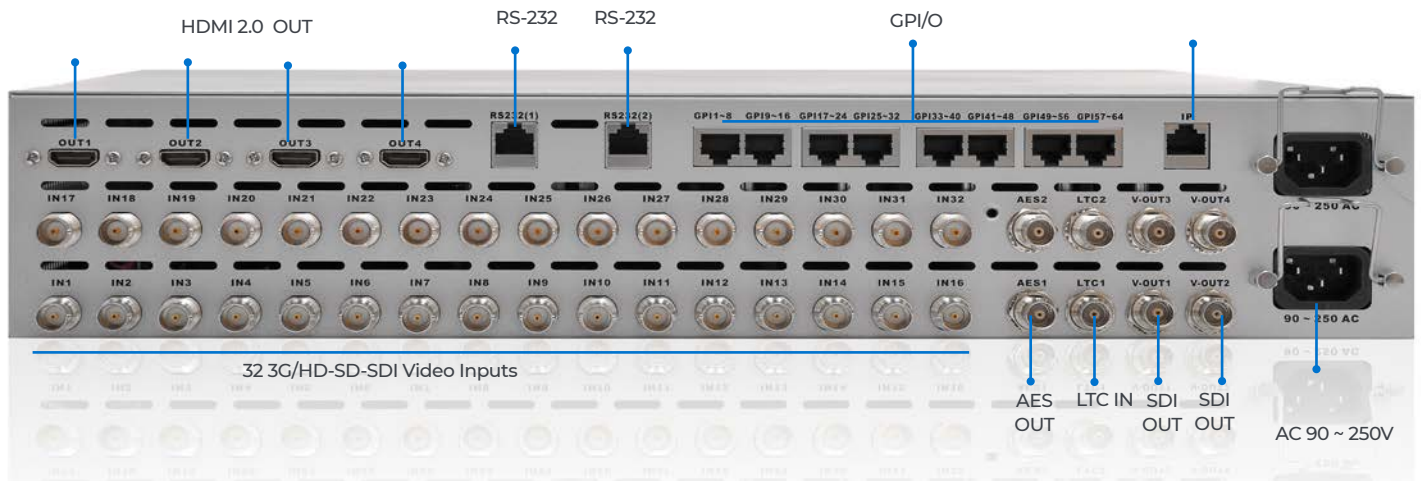
Specifications

Video Inputs	Up to 32 3G/HD-SD-SDI. Supports 3G Level A&B	Outputs	2 independent HDMI 2.0
Connectors	BNC IEC, 61169-8 Annex A	Output Resolutions	UHD@50/60Hz
Total Windows	16 per each output	On Screen Displays	Borders, labels (4 per window), fonts, tally LED, analog and digital clocks, logos, UMD, OMD, IMD
Serial Digital	SMPTE 424M, SMPTE 292M, SMPTE 259M	General Purpose IO	Borders, labels (4 per window), fonts, tally LED, analog and digital clocks, logos, UMD, OMD, IMD
Equalization	120m at 2.97 Gbps, 140m at 1.485 Gbps, 400m at 270 Mbps, with Belden 1694A	Serial Port	RS-232. Connector: RJ45, Baud Rate up to 115,200. Format: TSL, AXP
Return Loss	> 15dB up to 1.5 Gbps > 10dB up to 3G	Electrical	100 W, 90 ~ 250 V 50/60 Hz
EMI/RFI	Complies with FCC Part 15 Class A, CE, EU, EMC, C-tick	Size	2RU. 446 x 452 x 44 mm (L x W x H)
Alarms	No audio, no video, video formats	Environment	Operating temperature: 0 ~ 45 C Operating humidity: 20 ~ 90% RH Storage temperature: -20 ~ 60 C

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DI SERIES

	Di-16	Di-16+	Di-16#	Di-16-UHD
Configuration	16 x 1	(8 x 1) + (8 x 1)	16 x 2	16 x 1
HD / UHD	HD In / HD Out			HD In / UHD Out
Form Factor	1 RU - 24 cm deep			
Redundant Power Supply	Optional - External			
Any input to any output	Not applicable	No	Yes	Not applicable
Video Input Formats	HDMI 1.4			
Input Resolutions	CEA timing resolutions: 480i, 576i, 720P, 1080i and 1080P			
Input Connectors	Type D HDMI - 16 Type D to Type A HDMI cables provided as standard			
Audio Inputs	Embedded - first pair			
Output Head 1	2 x HDMI & SDI [1]	HDMI & SDI [1]		HDMI, 12G & 3G SDI [1]
Output Head 2	No	HDMI & SDI [1]		No
Output Resolution	1080P @ 50/60Hz			2160P, 1080P@50/60Hz
Processing Time	1 frame			
Power consumption	70W			
Windows Sizes	Fixed sizes: 1/4, 1/9, 1/16, 1/25, 1/36 - 16:9 Aspect Ratio			Fixed & Free Sizes [2]
Window Positions	Any position			
Control	GPI - AXP (Apantac eXchange Protocol) over IP & Serial			
Borders	Yes - Thickness from 0 to 20 pixels/lines. Color is adjustable			
UMD (Under Monitor Display)	One per Window. Up to 32 characters. Static or dynamic names. TSL protocol V3.1 / V5.0 over IP support as standard			
OMD (Over Monitor Display)	One per Window. Up to 32 characters. Static names			
Standalone Labels	20 per output. Free position. Up to 32 characters. Static or dynamic (TSL)			
Audio Meters	16 maximum per window			
GPI	32			16
Tally	Yes - via GPI / TSL			
Tally display	5 tally attributes: LEDs x 2, Border color, UMD text color, UMD background color [4]			
Analog Clocks	Two per Head [5]	Two for the two Heads [5]		Two per Head [5]
Digital Clock	Two per Head [5]	Two for the two Heads [5]		Two per Head [5]
On Screen logo	Four per Head	Four for the two Heads		Four per Head
Safe area markers	2 independent sets of markers per window			
Audio monitoring output	AES, Embedded			AA, AES, Embedded
Visual Alarms	Video & Audio - No audio, audio high/low, no video, video format			
ATC/VITC display	Optional license			
CC - EIA-608 / EIA-708	Optional license			
Presets	30			

Notes

(1)   Identical Content

(2)   Fixed sizes: 1/4, 1/9, 1/16, 1/25, 1/36 - 16:9 Aspect Ratio. Two of the windows can be freely sized up to 3840x2840

(3)   Borders. Different thickness from 0 to 20 pixels/lines. Color is adjustable.

(4)   One or more attribute(s) freely assignable to each tally.

(5)   Can be synced to LTC or NTP. Each clock can be adjusted to its own time zone and daylight settings. Can also be configured as an up/down counter.

CRESCENT
Di-16

Cost Effective 16x1 HDMI 1.4 input Multiviewer

Key Features

- Low latency - single frame processing delay
- Low power consumption - only uses 40W
- Accepts 16 HDMI 1.4 inputs
- Accepts 4 LPCM channels audio inputs
- Windows can be sized and moved freely
- Decodes up to 4 embedded audio per HDMI input
- Total of 64 audio meters
- 2 simultaneous and identical HDMI and SDI outputs
- Output resolution up to 1080P@60Hz
- Ethernet for configuration and external control
- Dynamic UMD/Label and Tallies (TSL)
- Standalone labels and 2 customizable logos
- 2 digital and 2 analog clocks can by synced with LTC or NTP
- 32 GPIs for tallies, count up/down triggers or preset recalls
- Borders can be turned on or off
- 2 sets of safe area markers
- Visual alarm tags for format, video/audio presence
- Audio monitoring outputs - stereo, AES, SDI or HDMI
- 1 RU with optional redundant power supply
- Optional redundant power supply
- 3 year limited warranty

Accessories

Standard

- Rack-mounts
- 16 x Type D to A HDMI cables
- 4x RJ50 to DB9 cables for GPI
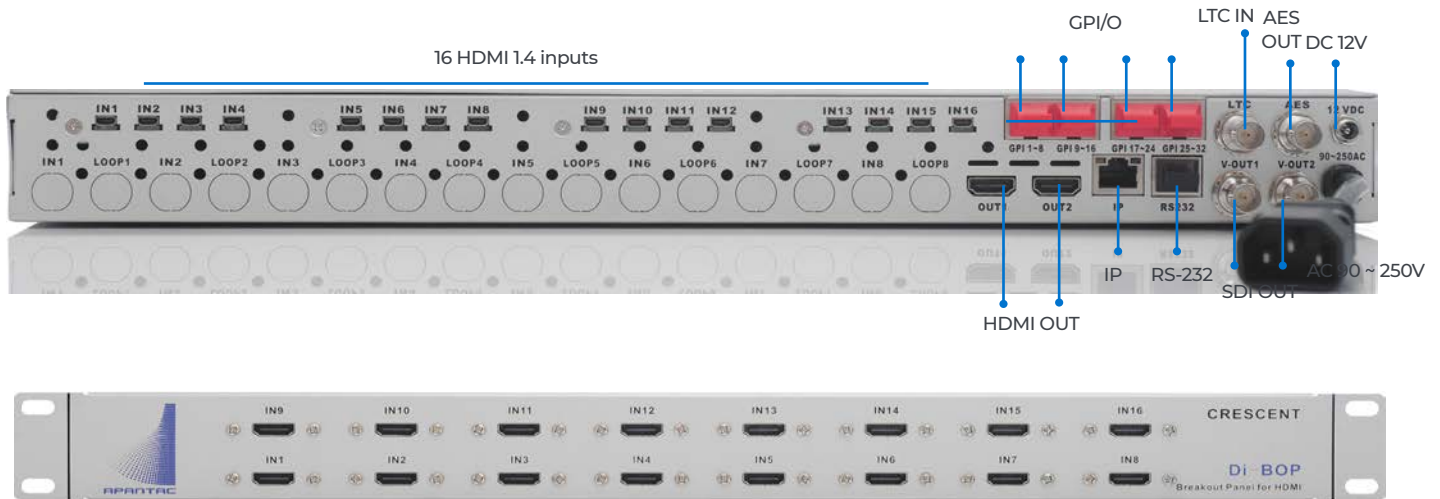- 4x breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)

Optional

- RPS-12VDC60W-
  - Redundant power supply
- Di-BOP
  - HDMI A to HDMI D Connector plate

CRESCENT
Di-16

Rear View

16 HDMI 1.4 inputs

GPI/O LTC IN AES OUT DC 12V

HDMI OUT

IP RS-232 AC 90 ~ 250V

SDI OUT

Di-BOP - HDMI A to HDMI D CONNECTOR BREAKOUT PLATE

Specifications

Model	Di-16
Description	16 input HDMI 1.4 multiviewer with advanced on-screen display (OSD)
Inputs	16 x HDMI (1080i/P, 720P, 576i, 480i, 50/59.95/60Hz), 4 LPCM channels of audio
Output	2 identical HDMI 1.4 with 2 x 3G SDI outputs
On Screen Displays	Borders, labels (4 per window), fonts, tally LED, analog and digital clocks, logos, UMD, OMD, IMD
Max Resolution	1080P@60Hz
Power	AC 90 to 240V with optional DC redundant power supply
Power Consumption	70W
Environment	Operating temperature: 0 ~ 45 C
	Operating humidity: 20 ~ 90% RH
	Storage temperature: -20 ~ 60 C
EMI/RFI	Complies with FCC Part 15 Class A, CE, EU, EMC, C-tick
Dimension	1RU. 446 x 452 x 87 mm (L x W x H)
Weight	8.6 kg

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CRESCENT
Di-16+ (Plus)

Cost Effective 8x2 HDMI 1.4 input Multiviewer

Key Features

- Low latency - single frame processing delay
- Low power consumption - only uses 40W
- Accepts 16 HDMI 1.4 inputs
- Accepts 4 LPCM channels audio inputs
- Windows can be sized and moved freely
- Decodes up to 4 embedded audio per HDMI input
- Total of 64 audio meters
- 2 separate independent HDMI and SDI outputs with 8 inputs each
- Output resolution up to 1080P@60Hz
- Ethernet for configuration and external control
- Dynamic UMD/Label and Tallies (TSL)
- Standalone labels and 2 customizable logos
- 2 digital and 2 analog clocks can by synced with LTC or NTP
- 32 GPIs for tallies, count up/down triggers or preset recalls
- Borders can be turned on or off
- 2 sets of safe area markers
- Visual alarm tags for format, video/audio presence
- Audio monitoring outputs - stereo, AES, SDI or HDMI
- 1 RU with optional redundant power supply
- Optional redundant power supply
- 3 year limited warranty

Accessories

Standard

- Rack-mounts
- 16 x Type D to A HDMI cables
- 4x RJ50 to DB9 cables for GPI
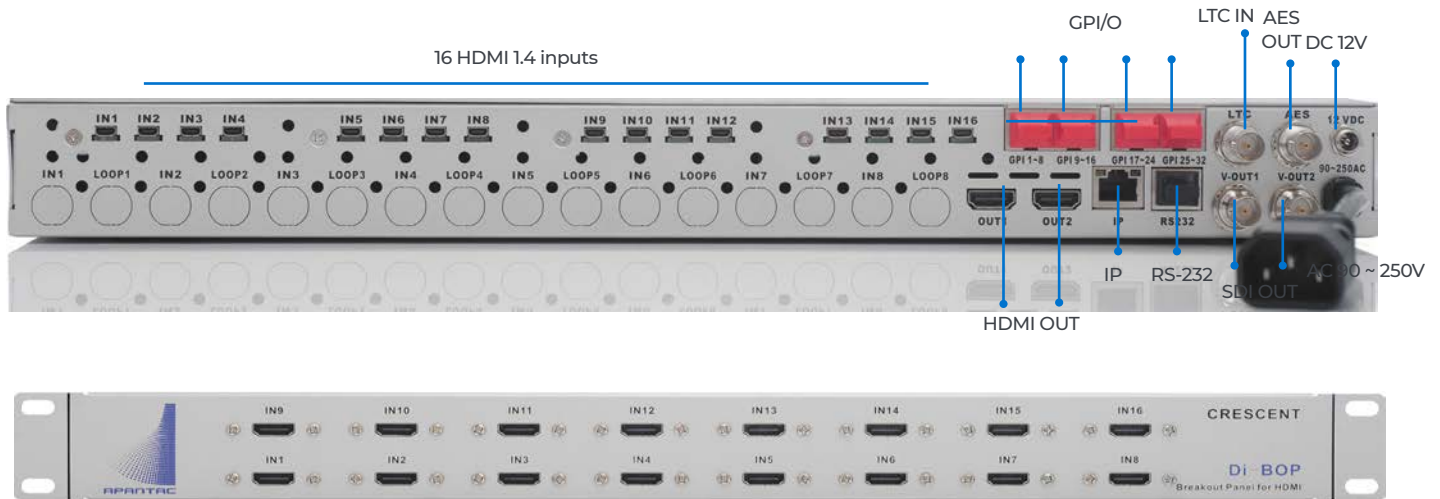- 4x breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)

Optional

- RPS-12VDC60W-
  - Redundant power supply
- Di-BOP
  - HDMI A to HDMI D Connector plate

Di-16+ (Plus)-01-2019

CRESCENT
Di-16+ (Plus)

Rear View

Di-BOP - HDMI A to HDMI D CONNECTOR BREAKOUT PLATE

Specifications

Model	Di-16
Description	16 input HDMI 1.4 multiviewer with advanced on-screen display (OSD)
Inputs	16 x HDMI (1080i/P, 720P, 576i, 480i, 50/59.95/60Hz), 4 LPCM channels audio
Output	2 separate HDMI 1.4 with 2 x 3G SDI outputs with 8 inputs each
On Screen Displays	Borders, labels (4 per window), fonts, tally LED, analog and digital clocks, logos, UMD, OMD, IMD
Max Resolution	1080P@60Hz
Power	AC 90 to 240V with optional DC redundant power supply
Power Consumption	70W
Environment	Operating temperature: 0 ~ 45 C
	Operating humidity: 20 ~ 90% RH
	Storage temperature: -20 ~ 60 C
EMI/RFI	Complies with FCC Part 15 Class A, CE, EU, EMC, C-tick
Dimension	1RU. 446 x 452 x 87 mm (L x W x H)
Weight	8.6 kg

CRESCENT
Di-16# (Sharp)

Cost Effective 16x2 HDMI 1.4 input Multiviewer with 2 independent outputs

Key Features

- Low latency - single frame processing delay
- Low power consumption - only uses 40W
- Accepts 16 HDMI 1.4 inputs
- Accepts 4 LPCM channels audio inputs
- Windows can be sized and moved freely
- Decodes up to 4 embedded audio per HDMI input
- Total of 64 audio meters
- 2 independent and identical HDMI and SDI outputs with 16 windows each
- Output resolution up to 1080P@60Hz
- Ethernet for configuration and external control
- Dynamic UMD/Label and Tallies (TSL)
- Standalone labels and 2 customizable logos
- 2 digital and 2 analog clocks can by synced with LTC or NTP
- 32 GPIs for tallies, count up/down triggers or preset recalls
- Borders can be turned on or off
- 2 sets of safe area markers
- Visual alarm tags for format, video/audio presence
- Audio monitoring outputs - stereo, AES, SDI or HDMI
- 1 RU with optional redundant power supply
- Optional redundant power supply
- 3 year limited warranty

Accessories

Standard

- Rack-mounts
- 16 x Type D to A HDMI cables
- 4x RJ50 to DB9 cables for GPI
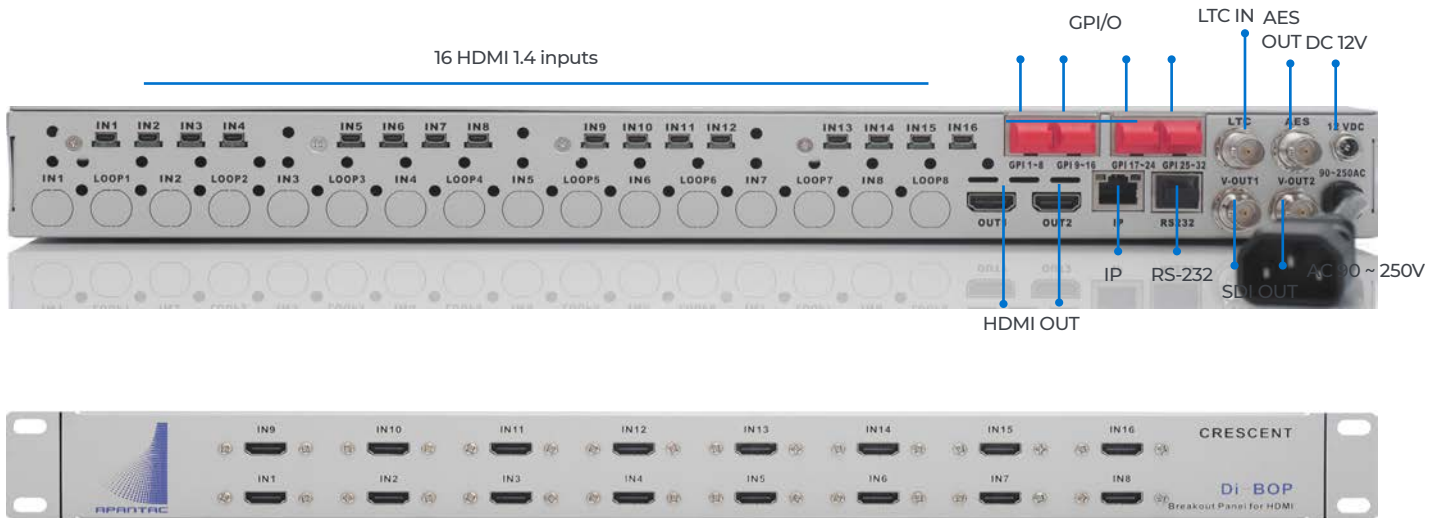- 4x breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)

Optional

- RPS-12VDC60W-
  - Redundant power supply
- Di-BOP
  - HDMI A to HDMI D Connector plate

Di-16# (Sharp)-01-2019

CRESCENT
Di-16# (Sharp)

Rear View

16 HDMI 1.4 inputs

GPI/O   LTC IN   AES

OUT DC 12V

IP   RS-232   AC 90 ~ 250V

HDMI OUT

SDI OUT

Di-BOP - HDMI A to HDMI D CONNECTOR BREAKOUT PLATE

Specifications

Model	Di-16#
Description	16 input HDMI 1.4 multiviewer with advanced on-screen display (OSD)
Inputs	16 x HDMI (1080i/P, 720P, 576i, 480i, 50/59.95/60Hz), 4 LPCM channels of audio
Output	2 independent HDMI 1.4 with 2 x 3G SDI outputs
On Screen Displays	Borders, labels (4 per window), fonts, tally LED, analog and digital clocks, logos, UMD, OMD, IMD
Max Resolution	1080P@60Hz
Power	AC 90 to 240V with optional DC redundant power supply
Power Consumption	70W
Environment	Operating temperature: 0 ~ 45 C
	Operating humidity: 20 ~ 90% RH
	Storage temperature: -20 ~ 60 C
EMI/RFI	Complies with FCC Part 15 Class A, CE, EU, EMC, C-tick
Dimension	1RU. 446 x 452 x 87 mm (L x W x H)
Weight	8.6 kg

CRESCENT
Di-16 UHD

Cost Effective 16x1 HDMI 1.4 input Multiviewer with HDMI 2.0 UHD output

Key Features

- Low latency - single frame processing delay
- Low power consumption - only uses 70W
- Accepts 16 HDMI 1.4 inputs up to 1080P
- Accepts LPCM 4 channel audio inputs
- Windows can be sized and moved freely
- Decodes up to 4 embedded audio per HDMI input
- Total of 64 audio meters
- 1 x HDMI 2.0 (UHD) output
- 1 x 12G-SDI and 1 x 3G-SDI output
- Ethernet for configuration and external control
- Dynamic UMD/Label and Tallies (TSL)
- Standalone labels and 4 customizable logos
- 2 digital and 2 analog clocks can by synced with LTC or NTP
- 16 GPIs for tallies, count up/down triggers or preset recalls
- Borders can be turned on or off
- 2 sets of safe area markers per window
- Visual alarm tags for format, video/audio presence
- Audio monitoring outputs - stereo, AES, SDI and HDMI
- 1 RU with optional redundant power supply
- Optional redundant power supply
- 3 year limited warranty

Accessories

Standard

- Rack-mounts
- 16 x Type D to A HDMI cables
- 4x RJ50 to DB9 cables for GPI
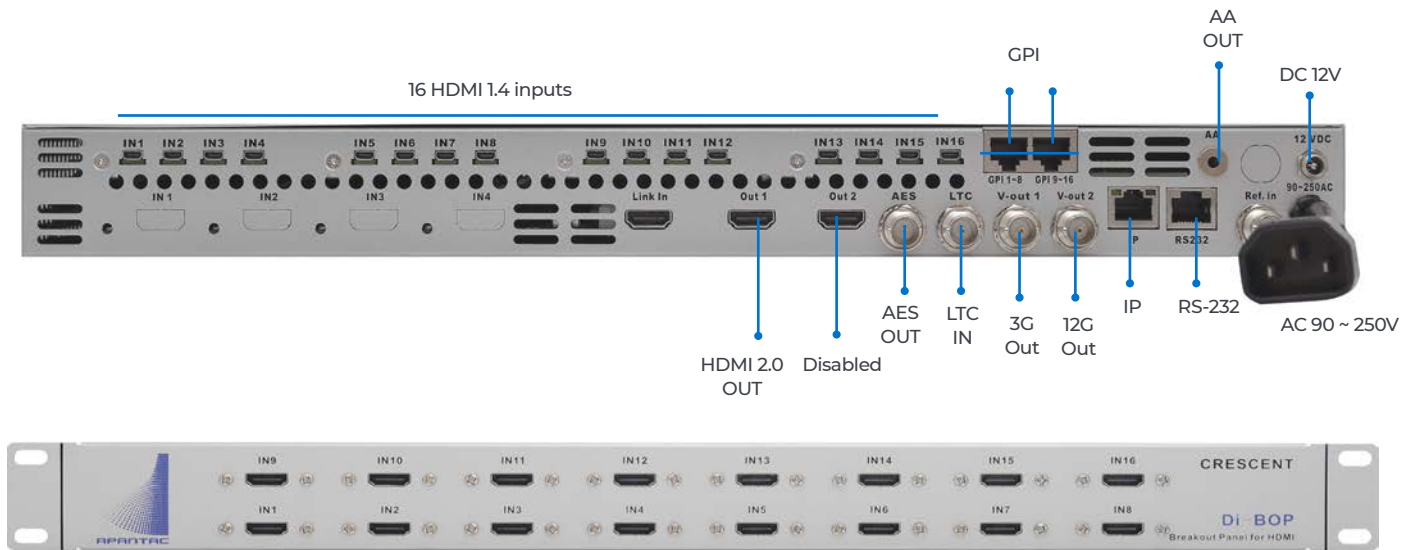- 4x breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)

Optional

- RPS-12VDC60W-
  - Redundant power supply
- Di-BOP
  - HDMI A to HDMI D Connector plate

Di-16 UHD-01-2019

CRESCENT
Di-16 UHD

Rear View

16 HDMI 1.4 inputs

GPI

AA OUT

DC 12V

HDMI 2.0 OUT   Disabled   AES OUT   LTC IN   3G Out   12G Out   IP   RS-232   AC 90 ~ 250V

Di-BOP - HDMI A to HDMI D CONNECTOR BREAKOUT PLATE

Specifications

Model	Di-16 UHD
Description	16 input HDMI 1.4 multiviewer with advanced on-screen display (OSD)
Inputs	16 x HDMI (1080i/P, 720P, 576i, 480i, 50/59.95/60Hz), LPCM 4 channel audio
Output	1 x HDMI 2.0 output, 1 x 12G SDI output, 1 x 3G SDI output.
On Screen Displays	Borders, 2 x labels per window, standalone labels, tally LED, audio meters, safe area markers, alarm and temperature tags, analog and digital clocks, logos
Max Resolution	3840x2160P@60Hz
Power	AC 90 to 240V with optional DC redundant power supply
Power Consumption	70W
Environment	Operating temperature: 0 ~ 45 C
	Operating humidity: 20 ~ 90% RH
	Storage temperature: -20 ~ 60 C
EMI/RFI	Complies with FCC Part 15 Class A, CE, EU, EMC, C-tick
Dimension	1RU. 446 x 252 x 44 mm (L x W x H)
Weight	4.6 kg

OPENGEAR
Multiviewers

4 x 1

OG-MicroQ	
SDI+CV in / HDMI+SDI out	HD in / HD out
OGX/3	2 Slots

OG-MiniQ	
SDI+CV in / HDMI+SDI out	HD in / HD out
OGX/3	Cascadable

OG-MiniDE-II	
HDMI in / HDMI+SDI out	HD in / HD out
OGX/3	Cascadable

OG-MiniDL-1+3	
Hybrid in / HDMI+SDI out	HD in / HD out
OGX/3	Cascadable

OG-MiniDL-2+2	
Hybrid in / HDMI+SDI out	HD in / HD out
OGX/3	Cascadable

OG-MiniDL-3+1	
Hybrid in / HDMI+SDI out	HD in / HD out
OGX/3	Cascadable

9 x 1

OG-Mi-9	
SD ~ 3G SDI in / SDI out	HD in / HD out
OGX/3	Very cost effective

OG-Mi-9+	
SD ~ 3G SDI in / HDMI + SDI out	HD in / HD out
OGX/3	Very cost effective

9 x 2 (Any in to any out)

OG-Mi-9#	
SD~3G SDI in/ HDMI + SDI out	HD in / HD out
OGX/3	Very cost effective

16 x 2 (Any in to any out)

OG-Mi-16#	
SD ~ 3G SDI in / HDMI+SDI out	HD in / HD out
OGX/3	4 slots

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openGear
OG-Micro-Q

Simple Compact SDI Video Quad Split
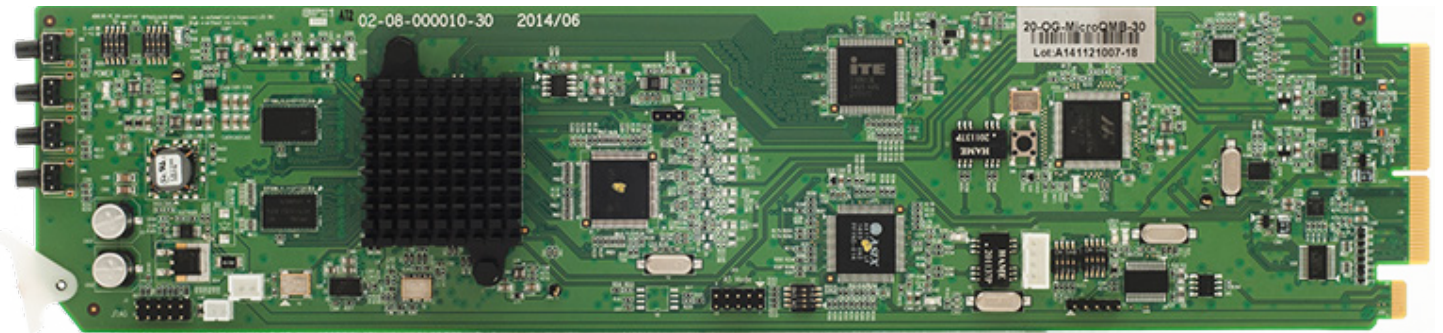

OG-MicroQ-MB

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- 4 auto-detect 3G/HD/SD-SDI, PAL/NTSC inputs
- Low power consumption - 12W
- Fixed Quad Split, each window can go full screen
- Single frame processing delay
- Decode up to 8 embedded audio per SDI input
- Display up to 8 audio meters per window
- Ethernet for configuration, dynamic labels & Tallies (TSL)
- Simultaneous HDMI/DVI and SDI outputs
- 2 GPI tallies per window
- 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off
- One 32 characters label per window
- Text and background colors have adjustable transparency

- Safe area markers
- Visual Alarm tags for audio and video presence
- Dynamic (TSL) UMD/Label
- Stereo analog audio monitoring output
- HDMI and SDI outputs have embedded stereo audio pair
- 5 year limited warranty

OPENGEAR

OG-Micro-Q

OG-MicroQ-RMx
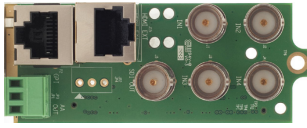
Rear Module (2 slots)

4 x BNC Input
1 x BNC Output
1 x RJ45 (Extended HDMI Output)
1 x RJ50 for GPI/Tally
1 x 3-pin Connector for AA Out

Standard Accessories

RJ50 to DB9 (for GPI)
DB9 to Terminal Block (for GPI)
1 x 15 ft CAT6 cable
1 x RJ45 to HDMI (HDMI-SR)
1 x RJ45 to DVI (DVI-SR)

Optional Accessories for RMx

HDMI-1-R
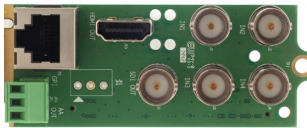Active HDMI Receiver that supports 1080p resolution up to 115 ft /35m

How to Order

OG-MicroQ-SET-1
OG-MicroQ-MB +
OG-MicroQ-RM

OG-Micro-Q-SET-2
OG-MicroQ-MB +
OG-MicroQ-RMx

OG-MicroQ-RM

Rear Module (2 slots)

4 x BNC Input
1 x BNC Output
1 x HDMI Output
1 x RJ50 for GPI/Tally
1 x 3-pin Connector for AA Out

Standard Accessories

RJ50 to DB9 (for GPI)
DB9 to Terminal Block (for GPI)

Specifications

|			
Total Windows	4	**Output**	1 x HDMI/DVI, 1 x SDI
Inputs	3G/HD/SD-SDI/Composite	**HDMI (OG-MicroQ-RM)**	800x480 to 1920x1200 (1080p) 50/59.94/60Hz
Serial Digital	SMPTE 424M 292M, 259M	**RJ45 (OG-MicroQ-RMx)**	Up to 35 feet with passive receiver Up to 115 feet with active receiver (option: HDMI-1-R)
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**SDI**	Matching the HDMI output resolution up to 3G
Return Loss	> 15db up to 1.485 Gbps, > 10db up to 3G	**On Screen Display**	Borders, Labels, Tallies, Audio meters, Alarm tags, Safe area markers
Embedded Audio	SMPTE-272M-A	**GPI**	8 for tally or AXP (ASCII command)
Composite	NTSC (SMPTE-170M), PAL (ITU624-2)	**IP**	100 Base-T, TSL, AXP_Lite protocol
Signal Level	1V nominal Power 12W	**DC Offset**	0V, + - 0.1V
Impedance	75 ohm	**Return Loss**	40db up to 5MHz

openGear
OG-MiniQ

Modular Cascadable 4 SDI Input Multiviewer (up to 40 inputs)
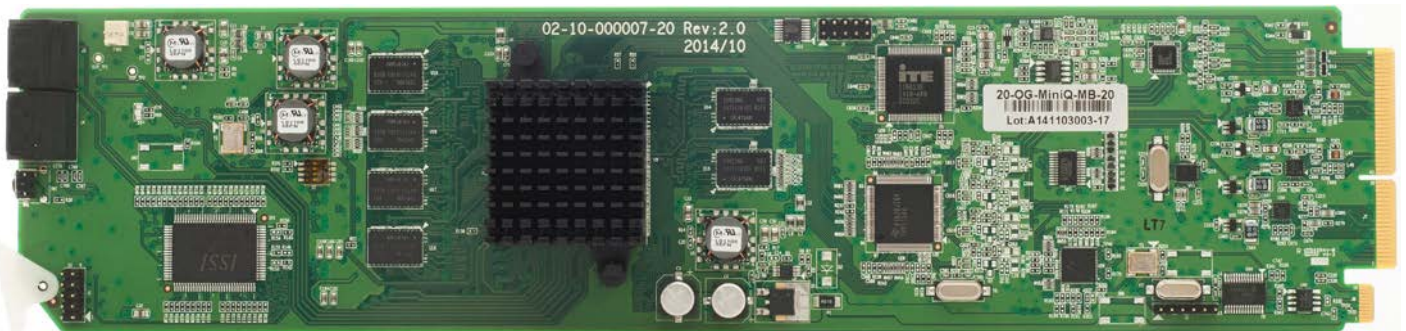
OG-MiniQ-MB

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- 4 auto-detect 3G/HD/SD-SDI, PAL/NTSC inputs
- Low power consumption - 15W
- Up to 10 modules can be cascaded together
- Up to 40 inputs (windows) on a single frame
- Single frame processing delay
- Decode up to 16 embedded audio per SDI input
- Ethernet for configuration, dynamic labels & Tallies (TSL)
- Simultaneous HDMI/DVI and SDI outputs
- 2 GPI tallies per window
- 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off
- One 32 characters label per window
- Text and background colors have adjustable transparency

- Safe area markers
- Visual Alarm tags for audio and video presence
- Dynamic (TSL) UMD/Label
- Stereo analog audio monitoring output
- HDMI and SDI outputs have embedded stereo audio pair
- 5 year limited warranty

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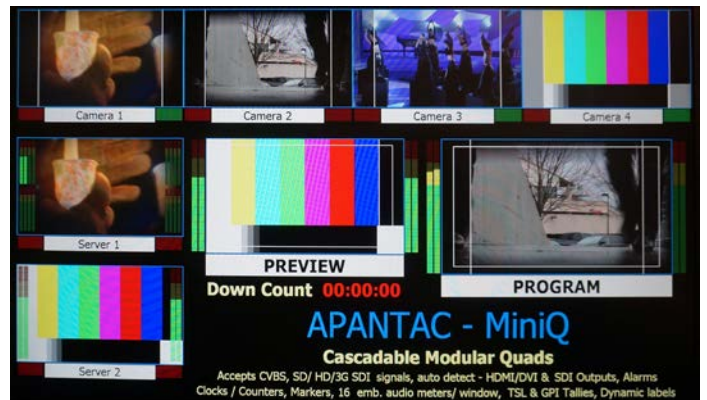
OPENGEAR
OG-MiniQ

OG-MiniQ-RMx
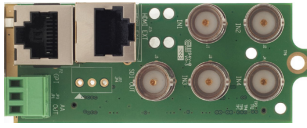
Rear Module (2 slots)

4 x BNC Input
1 x BNC Output
1 x RJ45 (Extended HDMI Output)
1 x RJ50 for GPI/Tally
1 x 3-pin Connector for AA Out

Standard Accessories

RJ50 to DB9 (for GPI)
DB9 to Terminal Block (for GPI)
1 x 15 ft CAT6 cable
1 x RJ45 to HDMI (HDMI-SR)
1 x RJ45 to DVI (DVI-SR)

Optional Accessories for RMx

HDMI-1-R
Active HDMI Receiver that supports 1080p resolution up to 115 ft /35m

How to Order

OG-MiniQ-SET-1
OG-MiniQ-MB +
OG-MiniQ-RM

OG-Mini-Q-SET-2
OG-MiniQ-MB +
OG-MiniQ-RMx

OG-MiniQ-RM

Rear Module (2 slots)

4 x BNC Input
1 x BNC Output
1 x HDMI Output
1 x RJ50 for GPI/Tally
1 x 3-pin Connector for AA Out

Standard Accessories

RJ50 to DB9 (for GPI)
DB9 to Terminal Block (for GPI)

Specifications

Total Windows	4	**Output**	1 x HDMI/DVI, 1 x SDI
Inputs	3G/HD/SD-SDI/Composite	**HDMI (OG-MiniQ-RM)**	800x480 to 1920x1200 (1080p) 50/59.94/60Hz
Serial Digital	SMPTE 424M 292M, 259M	**RJ45 (OG-MiniQ-RMx)**	Up to 35 feet with passive receiver Up to 115 feet with active receiver (option: HDMI-1-R)
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**SDI**	Matching the HDMI output resolution up to 3G
Return Loss	> 15db up to 1.485 Gbps, > 10db up to 3G	**On Screen Display**	Borders, Labels, Tallies, Audio meters, Alarm tags, Safe area markers
Embedded Audio	SMPTE-272M-A	**GPI**	8 for tally or AXP (ASCII command)
Composite	NTSC (SMPTE-170M), PAL (ITU624-2)	**IP**	100 Base-T, TSL, AXP_Lite protocol
Signal Level	1V nominal	**DC Offset**	0V, + - 0.1V
Impedance	75 ohm	**Return Loss**	40db up to 5MHz

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OG-MiniDE-II

Modular Cascadable 4 HDMI Input Multiviewer (up to 40 inputs)

OG-MiniDE-II-MB

Key Features
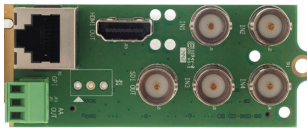
- OGX/3.0 card-based form factor
- Dashboard control enabled
- 4 HDMI inputs
- Low power consumption - 17W
- Up to 10 module can be cascaded together
- Can also be cascade together with OG-MiniQ and OG-MiniDL-II modules to create a mix and match format multiviewer
- Decodes up to 4 channels embedded audio per HDMI input
- Ethernet for configuration, dynamic labels & Tallies (TSL)
- Simultaneous HDMI/DVI and SDI outputs
- 2 GPI tallies per window
- 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off
- One 32 characters label per window

- Text and background colors have adjustable transparency
- Safe area markers
- Visual Alarm tags for audio and video presence
- Dynamic (TSL) UMD/Label
- Stereo analog audio monitoring output
- HDMI and SDI outputs have embedded stereo audio pair for monitoring
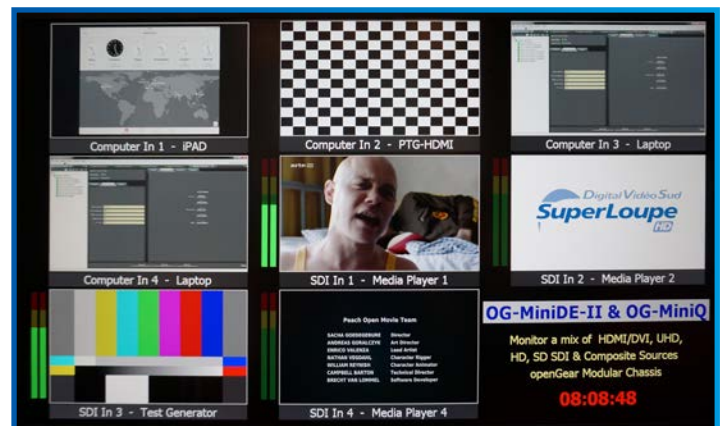
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OG-MiniDE-II

OG-MiniDE-II-RM
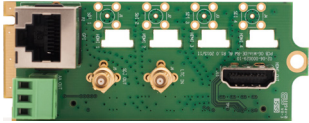
Rear Module (2 slots)

4 x HDMI Inputs
1 x HDMI Output
1 x BNC Output for SDI
1 x BNC Input for LTC
1 x RJ50 for GPI/Tally
1 x 3-pin Connector for AA Out

Standard Accessories

RJ50 to DB9 (for GPI)
DB9 to Terminal Block (for GPI)
4 Type D HDMI male to Type A
female HDMI cabls

How to Order
OG-MiniDE-II-SET-1
OG-MiniDE-II-MB +
OG-MiniDE-II--RM

Related Products

OGX-FR-CN-P
openGear X frame with
advanced network card

OG-KM-4-SET-1
openGear based 4 input KM
Switch

OG-KM-8-SET-1
openGear based 8 input KM
Switch

OG-MiniQ-SET-1
openGear based cascadable
SDI multiviewer

OG-MicroQ-SET-1
openGear based quad split
SDI multiviewer

Specifications

Total Windows	4	**Output**	1 x HDMI/DVI, 1 x SDI with audio
Inputs	HDMI / DVI (cable not include)	**HDMI**	800x480 to 1920x1200 (1080p) 50/59.94/60Hz
Connector Type	HDMI Type D	**Connector Type**	HDMI Type A
Maximum Resolution	up to 1920x1080P@60Hz	**SDI**	Matching the HDMI output resolution up to 3G
Embedded Audio	Decode up to 4 channels per input	**Connector Type**	HD-BNC
LTC	1	**Analog Audio**	1
Connector Type	HD-BNC	**On Screen Display**	Borders, lablels, tallies, audio meters, alarm tags, safe areas
GPI	8 for tally or AXP (ASCII commands)	**IP**	1000 base-T, TSL, AXP_Lite protocol
Connector Type	RJ-50 with terminal block	**Power**	17 W

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openGear
OG-MiniDL-X+X

Modular Cascadable mixed and match Input Multiviewer (up to 40 inputs)

OG-MiniDL-X-X-MB

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- Mixed format inputs, can any combinations of SDI and HDMI
- Low power consumption - 17W
- Up to 10 module can be cascaded together
- Can also be cascade together with OG-MiniQ and OG-MiniDE-II modules to create a mix and match format multiviewer
- Decodes up to 4 channels embedded audio per HDMI input
- Ethernet for configuration, dynamic labels & Tallies (TSL)
- Simultaneous HDMI/DVI and SDI outputs
- 2 GPI tallies per window
- 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off

- One 32 characters label per window
- Text and background colors have adjustable transparency
- Safe area markers
- Visual Alarm tags for audio and video presence
- Dynamic (TSL) UMD/Label
- Stereo analog audio monitoring output
- HDMI and SDI outputs have embedded stereo audio pair for monitoring
- 5 year limited warranty

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OG-MiniDL-X+X

OG-MiniDL-2+2-RM

Rear Module (2 slots)
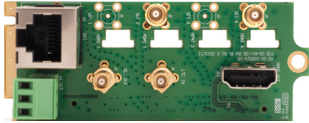
2 x HDMI Inputs
2 x SDI inputs
1 x HDMI Output
1 x BNC Output for SDI
1 x BNC Input for LTC
1 x RJ50 for GPI/Tally

Standard Accessories

RJ50 to DB9 (for GPI)
DB9 to Terminal Block (for GPI)
2 Type D HDI male to Type A female
HDMI cabls

OG-MiniDL-1+3-RM

Rear Module (2 slots)

1 x HDMI inputs
3 x BNC Inputs
1 x BNC Output
1 x BNC Input for LTC
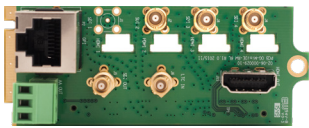1 x RJ50 for GPI/Tally

Standard Accessories

RJ50 to DB9 (for GPI)
DB9 to Terminal Block (for GPI)
1 Type D HDI male to Type A female
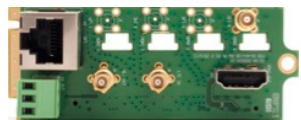HDMI cabls

OG-MiniDL-3+1-RM

Rear Module (2 slots)

3 x HDMI inputs
1 x BNC Inputs
1 x BNC Output
1 x BNC Input for LTC
1 x RJ50 for GPI/Tally

Standard Accessories

RJ50 to DB9 (for GPI)
DB9 to Terminal Block (for GPI)
3 Type D HDI male to Type A female
HDMI cabls

How to Order
OG-MiniDL-1+3-SET-1
OG-MiniDE-II-MB +
OG-MiniDL-1+3-RM

OG-MiniDL-2+2-SET-1
OG-MiniDE-II-MB +
OG-MiniDL-2+2-RM

OG-MiniDL-3+1-SET-1
OG-MiniDE-II-MB +
OG-MiniDL-3+1-RM

Related Products

OGX-FR-CN-P
openGear X frame with
advanced network card

OG-MiniQ-SET-1
openGear based cascadable
SDI multiviewer

OG-MicroQ-SET-1
openGear based quad split
SDI multiviewer

Specifications

Total Windows	4	**Output**	1 x HDMI/DVI, 1 x SDI with audio
Inputs	HDMI and SDI	**HDMI**	800x480 to 1920x1200 (1080p) 50/59.94/60Hz
Connector Type	HDMI Type D and HD-BNC	**Connector Type**	HDMI Type A
Maximum Resolution	up to 1920x1080P@60Hz	**SDI**	Matching the HDMI output resolution up to 3G
Embedded Audio	Decode up to 4 channels per input	**Connector Type**	HD-BNC
LTC	1	**Analog Audio**	1
Connector Type	HD-BNC	**On Screen Display**	Borders, lablels, tallies, audio meters, alarm tags, safe areas
GPI	8 for tally or AXP (ASCII commands)	**IP**	1000 base-T, TSL, AXP_Lite protocol
Connector Type	RJ-50 with terminal block	**Power**	17 W

openGear
OG-Mi-9

9 x 1 SDI Input Multiviewer Card with SDI Output

OG-Mi-9-MB

Key Features

- OGX/3.0 card-based form factor
- Low latency - single frame processing delay
- 9x auto-detect 3G (Level A/B)/HD/SD-SDI inputs
- Low power consumption - 15W
- Windows can be sized and moved freely
- Decode up to 16 embedded audio per SDI input
- Ethernet for configuration, dynamic labels and Tallies (TSL)
- Standalone labels, customizable logo
- 9 GPIs for tallies, count up/down trigger or preset recall
- Built-in analog/digital clocks can sync with LTC/NTP
- Borders can be turned on or off
- Two sets of safe area makers
- Visual alarm tags for video/audio alarm
- SDI outputs with embedded stereo audio pair
- 5 year limited warranty

OG-Mi-9-01-2019

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OG-Mi-9

OG-Mi-9-RM

Rear Module (2 slots)

9x HD-BNC input for SDI inputs
1x HD-BNC output for SDI outputs
1x RJ50 for GPI/Tally
1x HD-BNC for LTC input

Standard Accessories

RJ50 to DB9 (for GPI)
DB9 to Terminal Block (for GPI)

Optional Accessories

11x HDBNC-BNC-F
High density BNC to regulate BNC (female) adapter cable 1 ft/30cm

Related Products

OGX-FR-CN-P
openGear X frame with advanced network card

OG-Mi-9+-SET-1
openGear based 9 input SDI multiviewer with HDMI, SDI outputs

OG-Mi-9#-SET-1
openGear based 9 input SDI multiviewer with dual outputs

OG-Mi-16-SET-1
openGear based 16 input SDI multiviewer

OG-MiniQ-SET-1
openGear based cascadable SDI multiviewer

How to Order

OG-Mi-9-SET-1:
OG-Mi-9-MB + OG-Mi-9-RM
OG-Mi-9-SET-2:
OG-Mi-9-MB + OG-Mi-9-RM + 11 HD-BNC to BNC cable

Specifications

Inputs	9x 3G (level A/B)/HD/SD-SDI	Video Output	1x SDI
Connector Type	HD-BNC	Audio Output	Embedded HDMI and SDI
Total Windows	9	Output Resolution	1920x1080P 50/60Hz
Serial Digital	3G/HD/SD-SDI in 50/59.94/60Hz	On Screen Display	Borders, Labels, Tallies, Audio meters, Alarm tags, Safe area markers
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	GPI	9 for tally or AXP (ASCII command)
Return Loss	> 15db up to 1.485 Gbps > 10db up to 3G	Serial Port	N/A
Embedded Audio	SMPTE-272M-A	IP	100 Base-T, TSL, AXP_Lite protocol
Alarms	No audio, audio high/low, no video, video format display	Electrial	15 W

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OG-Mi-9+

9 x 1 SDI Multiviewer Card with HDMI and SDI Output
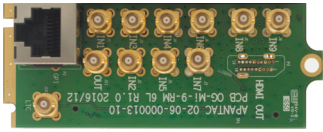

OG-Mi-9+-MB

Key Features

- OGX/3.0 card-based form factor
- Low latency - single fram processing delay
- 9 auto-detect 3G(Level A/B)/HD/SD-SDI inputs
- Low power consumption - 15W
- Windows can be sized and moved freely
- Decode up to 16 embedded audio per SDI input
- Ethernet for configuration, dynamic labels & Tallies (TSL)
- Standalone labels, customizable logo
- 9 GPIs for tallies, count up/down trigger or preset recall
- Built-in analog/digital clocks can sync with LTC/NTP
- Border can be turned on or off
- Two sets of safe area makers
- Visual alarm tags for video/audio alarm
- HDMI and SDI outputs have embedded stereo audio pair
- 5 year limited warranty

OPENGEAR

OG-Mi-9+

OG-Mi-9+-RM	**Rear Module (2 slots)**	**Standard Accessories**	**Optional Accessories**

Rear Module (2 slots)

9x HD-BNC Input for SDI Inputs
1x HD-BNC Output for SDI Outputs
1x HDMI Output
1x RJ50 for GPI/Tally
1x HD-BNC for LTC input

Standard Accessories

RJ50 to DB9 (for GPI)
DB9 to Terminal Block (for GPI)

Optional Accessories

11x HD-BNC-BNC-F
High density BNC to regulate BNC (female) adapter cable 1 ft/30cm

Related Products

OGX-FR-CN-P
openGear X frame with advanced network card

OG-Mi-9-SET-1
openGear based 9 input SDI multiviewer with HDMI, SDI outputs

OG-Mi-9#-SET-1
openGear based 9 input SDI multiviewer with dual outputs

OG-Mi-16-SET-1
openGear based 16 input SDI multiviewer

OG-MiniQ-SET-1
openGear based cascadable SDI multiviewer

How to Order

OG-Mi-9+-SET-1:
OG-Mi-9+-MB + OG-Mi-9+-RM
OG-Mi-9+-SET-2:
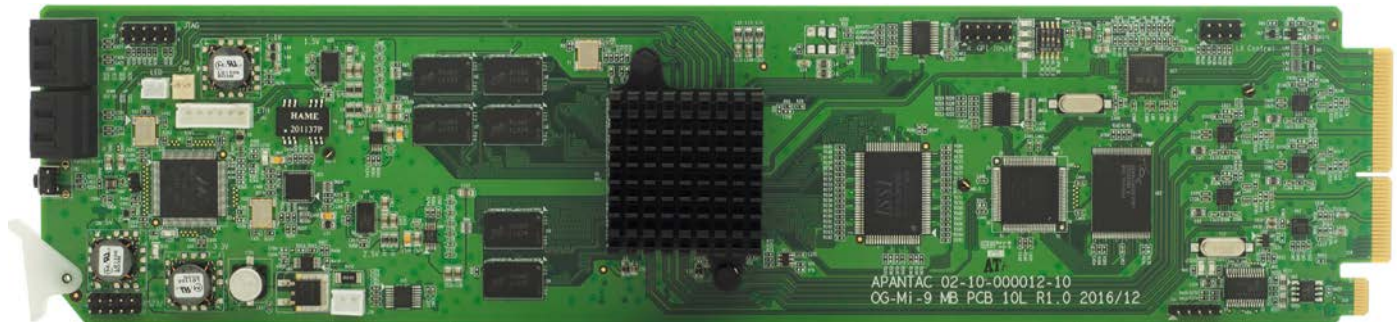OG-Mi-9+-MB + OG-Mi-9+-RM + 11 HD-BNC to BNC cable

Specifications

Inputs	9x 3G (level A/B)/HD/SD-SDI	**Video Outputs**	1 x HDMI/DVI 1 x SDI
Connector Type	HDBNC	**Audio Output**	Embedded HDMI and SDI
Total Windows	9	**Output Resolution**	1920x1080P 50/60Hz
Serial Digital	3G/HD/SD-SDI in 50/59.94/60Hz	**On Screen Display**	Borders, Labels, Tallies, Audio meters, Alarm tags, Safe area markers
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**GPI**	9 for tally or AXP (ASCII command)
Return Loss	> 15db up to 1.485 Gbps > 10db up to 3G	**Serial Port**	N/A
Embedded Audio	SMPTE-272M-A	**IP**	100 Base-T, TSL, AXP_Lite protocol
Alarms	No audio, audio high/low, no video, video format display	**Electrial**	15 W

openGear
OG-Mi-9#

9 x 2 SDI Multiviewer Card with HDMI and SDI Output (dual Outputs)
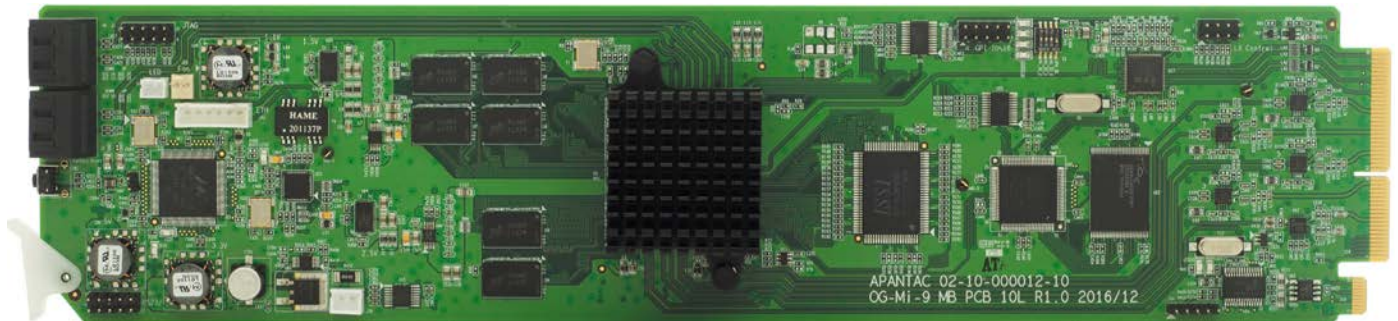
OG-Mi-9#-MB

Key Features

- OGX/3.0 card-based form factor
- Low latency - single fram processing delay
- 9 auto-detect 3G(Level A/B)/HD/SD-SDI inputs
- Low power consumption - 15W
- Windows can be sized and moved freely
- Decode up to 16 embedded audio per SDI input
- Ethernet for configuration, dynamic labels & Tallies (TSL)
- Standalone labels, customizable logo
- 9 GPIs for tallies, count up/down trigger or preset recall
- Built-in analog/digital clocks can synn with LTC/NTP
- Border can be turned on or off
- Two sets of safe area makers
- Visual alarm tags for video/audio alarm
- HDMI and SDI outputs have embedded stereo audio pair
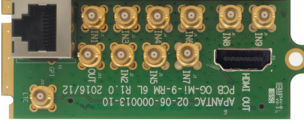- 5 year limited warranty

OPENGEAR

OG-Mi-9#

OG-Mi-9#-RM

Rear Module (2 slots)

9x HDBNC Input for SDI Inputs
1x HDBNC Output for SDI Outputs
1x HDMI Output
1x RJ50 for GPI/Tally
1x HDBNC for LTC input

Standard Accessories

RJ50 to DB9 (for GPI)
DB9 to Terminal Block (for GPI)

Optional Accessories

11x HD-BNC-BNC-F
High density BNC to regulate BNC (female) adapter cable 1 ft/30cm

Related Products

OGX-FR-CN-P
openGear X frame with advanced network card

OG-Mi-9-SET-1
openGear based 9 input SDI multiviewer with SDI, HDMI outputs

OG-Mi-9+-SET-1
openGear based 9 input SDI multiviewer with SDI, HDMI outputs

How to Order
OG-Mi-9#-SET-1:
OG-Mi-9#-MB + OG-Mi-9#-RM
OG-Mi-9#-SET-2:
OG-Mi-9#-MB + OG-Mi-9#-RM + 11 HD-BNC to BNC cable

Specifications

Inputs	9x 3G (level A/B)/HD/SD-SDI	**Video Output**	Independent 1 x HDMI and 1x SDI
Connector Type	HD-BNC	**Audio Output**	Embedded stereo audio pair
Total Windows	Up to 18	**Output Resolution**	HDMI: 1920x1080P 50/59.94 Hz SDI: 1080P/1080i 50/59.94 Hz
Aspect Ratios	16:9 for all or 4:3 for Standard definition		
Serial Digital	SMPTE 424M, 292M, 259M, supports 525i59.94, 626i50, 720p50, 720p 59.94, 720p60, 1080i50, 1080i59.94, 1080i60, 1080PsF25, 1080PsF29.97, 1080PsF30, 1080p50, 1080p59.94, 1080p60 Level A/B	**Latency**	1 frame
		On Screen Display	Borders, Static and Dynamic Labels/UMDs, Tally LEDs, Alarm Tags, Clocks and Logos
		SDI Color Encoding	10 bit 4:2:2
		GPI	9 for tally or AXP (ASCII command)
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**Serial Port**	N/A
Return Loss	> 15db up to 1.485 Gbps > 10db up to 3G	**IP**	100 Base-T for control and configuration and TSL, AXP protocol
		Supported IP Protocols	TSL 3.1 for dynamic tallies and labels, Optional: Utah and PESA router protocols
Embedded Audio	SMPTE-272M-A		
Alarms	No audio, audio high/low, no video, video format display	**Electrical**	15 W, 90 - 250 V 50/60 Hz
		EMI/RFI	Complies with FCC Part 15, Class A, CE, EU EMC, C-tick

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openGear
OG-Mi-16#

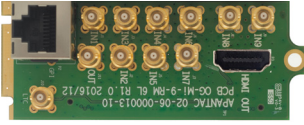16 x 2 SDI Multiviewer Card with HDMI and SDI Output (dual outputs)
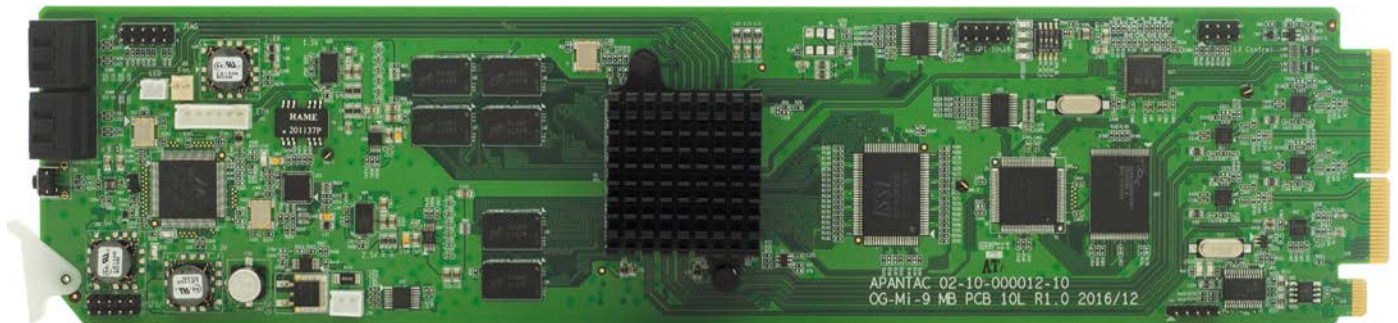
OG-Mi-16#-MB

Key Features

- OGX/3.0 card-based form factor
- Low latency - single frame processing delay
- 16 x auto-detect 3G (Level A/B)/HD/SD-SDI inputs
- 2 independent outputs: 1 x HDMI and 1 x SDI
- Low power consumption - 20W
- Windows can be sized and moved freely
- Decode up to 16 embedded audio per SDI input
- Ethernet for configuration, dynamic labels and Tallies (TSL)
- Standalone labels, customizable logo
- 16 GPIs for tallies, count up/down trigger or preset recall
- Built-in analog/digital clocks can sync with LTC/NTP
- Borders can be turned on or off
- Two sets of safe area makers
- Visual alarm tags for video/audio alarm
- HDMI and SDI outputs with embedded stereo audio pair
- 5 year limited warranty
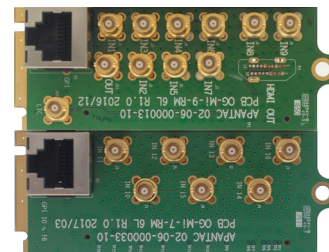
OG-Mi-16#-MB (4 slots)

16 x HD-BNC input for SDI inputs
1 x HD-BNC output for SDI outputs
2 x RJ50 for GPI/Tally
1 x HDMI output
1 x HD-BNC for LTC input

Standard Accessories

RJ50 to DB9 (for GPI)
DB9 to Terminal Block (for GPI)

Optional Accessories

18 x HD-BNC to BNC cable

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OG-Mi-16#-01-2019

OPENGEAR

OG-Mi-16#

OG-Mi-16#-MB

How to Order

OG-Mi-16#-SET-1:
OG-Mi-16#-MB + OG-Mi-16#-RM
OG-Mi-16#-SET-2:
OG-Mi-16#-MB + OG-Mi-16#-RM + 11 HD-BNC to BNC cable

Specifications

Inputs	16x 3G (level A/B)/HD/SD-SDI	**Video Outputs**	1x SDI and 1 x HDMI
Connector Type	HD-BNC	**Audio Output**	Embedded HDMI and SDI
Total Windows	16	**Output Resolution**	1920x1080P 50/60Hz
Serial Digital	3G/HD/SD-SDI in 50/59.94/60Hz	**On Screen Display**	Borders, Labels, Tallies, Audio meters, Alarm tags, Safe area markers
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**GPI**	16 inputs with RJ50 - DB9 connector
Return Loss	> 15db up to 1.485 Gbps > 10db up to 3G	**Serial Port**	N/A
Embedded Audio	SMPTE-272M-A	**IP**	100 Base-T, TSL, AXP_Lite protocol
Alarms	No audio, audio high/low, no video, video format display	**Electrial**	20 W

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TAHOMA OPENGEAR
Multiviewers

LE Series

OG-LE-8HD	
SD ~ 3G SDI, CV in / SDI+HDMI out	8 x 1
2 RU	Optional redundant PS

OG-LE-12HD	
SD ~ 3G SDI, CV in / SDI+HDMI out	12 x 1
2 RU	Optional redundant PS

OG-LE-16HD	
SD ~ 3G SDI, CV in / HDMI out	16 x 1
2 RU	Optional redundant PS

OG-LE-20HD	
SD ~ 3G SDI, CV in / HDMI out	20 x 1
2 RU	Optional redundant PS

OG-LE-24HD	
SD ~ 3G SDI, CV in / HDMI out	24 x 1
2 RU	Optional redundant PS

OG-LE-28HD	
SD ~ 3G SDI, CV in / HDMI out	28 x 1
2 RU	Optional redundant PS

OG-LE-32HD	
SD ~ 3G SDI, CV in / HDMI out	302x 1
2 RU	Optional redundant PS

DE Series (Computer inputs)

OG-DE-8	
HDMI, in/ SDI+HDMI out	8 x 1
2 RU	Optional redundant PS

OG-DE-12	
HDMI in / SDI+HDMI out	12 x 1
2 RU,	Optional redundant PS

OG-DE-16	
HDMI in / SDI+HDMI out	16 x 1
2 RU,	Optional redundant PS

OG-DE-20	
HDMI in / SDI+HDMI out	20 x 1
2 RU,	Optional redundant PS

OG-DE-24	
HDMI, in / SDI+HDMI out	24 x 1
2 RU,	Optional redundant PS

OG-DE-28	
HDMI in / SDI+HDMI out	28 x 1
2 RU,	Optional redundant PS

OG-DE-32	
HDMI in / SDI+HDMI out	32 x 1
2 RU,	Optional redundant PS

DL Series (Hybrid DE, LE Inputs)

OG-DL-4+4	
(4 DE, 4 LE)in / SDI+HDMI out	8 x 1

OG-DL-4+8	
(4 DE, 8 LE)in / SDI+HDMI out	12x 1

OG-DL-8+4	
(8 DE, 4 LE)in / SDI+HDMI out	12 x 1

OG-DL-8+8	
(8 DE, 9 LE)in / SDI+HDMI out	16 x 1

OG-DL-4+12	
(4 DE,12 LE)in/SDI+HDMI out	16 x 1

OG-DL-12+4	
(12 DE,4 LE)in/SDI+HDMI out	16 x 1

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TAHOMA openGear
OG-LE-8-40HD

Modular Multiviewer Up to 40 3G/HD/SD-SDI/Composite input

Key Features

- Single frame processing delay
- 4-40 auto-detect 3G/HD/SD-SDI, PAL/NTSC inputs
- Windows can be sized and moved freely
- Decodes up to 16 embedded audio per SDI input
- Output resolution up to 1080P@60Hz
- Multiple labels per video windows - UMD, OMD, IMD and standalone labels
- Labels can be turned on or off
- Dynamic UMD/label & Tally (TSL)
- Customizable logos
- Digital and analog clocks can be sync'ed with LTC and NTP
- Automatic input aspect ration detection
- Decodes closed captioning on Line 21, 608/708
- Built-in video, audio alarm detections - no audio, audio high/low, no video, video black, video frozen and input resolution
- 2 RU with optional redundant power supply
- GPI triggers for Tally and count up/down triggers or preset recalls
- 5 year limited warranty

Accessories

Standard

- Rack-mounts
- SDI output
- 1x RJ50 to DB9 cables for GPI
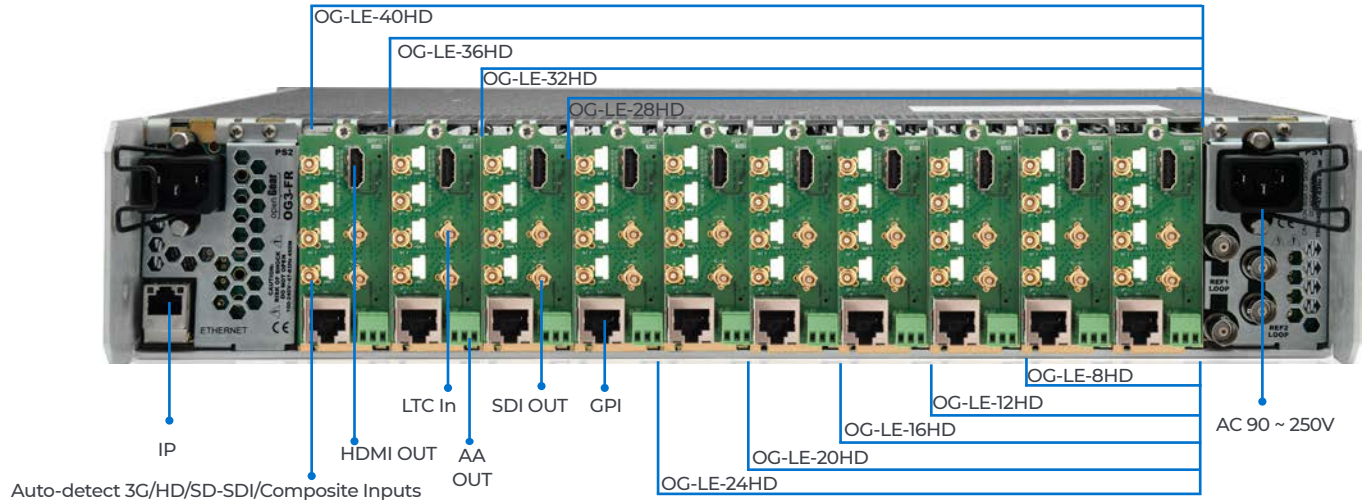- 1x breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)

Optional

- Redundant power supply

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OG-LE-8-40HD-01-2019

TAHOMA OPENGEAR
OG-LE-8-40HD

Rear View

OG-LE-40HD
OG-LE-36HD
OG-LE-32HD
OG-LE-28HD

LTC In   SDI OUT   GPI

OG-LE-8HD
OG-LE-12HD
OG-LE-16HD
OG-LE-20HD
OG-LE-24HD

AC 90 ~ 250V

IP

HDMI OUT   AA OUT

Auto-detect 3G/HD/SD-SDI/Composite Inputs

How to Order

- 8 inputs   - OG-LE-8HD
- 12 inputs - OG-LE-12HD
- 16 inputs - OG-LE-16HD
- 20 inputs - OG-LE-20HD
- 24 inputs - OG-LE-24HD
- 28 inputs - OG-LE-28HD
- 32 inputs - OG-LE-32HD
- 36 inputs - OG-LE-36HD
- 40 inputs - OG-LE-40HD

Specifications

Video Inputs	Up to 40 3G/HD-SD-SDI, composite. DOES NOT support 3G Level B	**Alarms**	No audio, audio high/low, no video, video black, video frozen
Connectors	BNC IEC, 61169-8 Annex A	**Outputs**	HDMI and SDI
Total Windows	4, 8, 12, 16, 20, 24, 28, 32, 36 and 40	**Max Resolutions**	Up to 1920x1080P output
Serial Digital	SMPTE 424M, SMPTE 292M, SMPTE 259M	**On Screen Displays**	Borders, labels (4 per window), fonts, tally LED, analog and digital clocks, logos, UMD, OMD, IMD
Equalization	120m at 2.97 Gbps, 140m at 1.485 Gbps, 400m at 270 Mbps, with Belden 1694A		
Return Loss	> 15db up to 1.5 Gbps > 10db up to 3G	**GPI**	Uses DB9 connectors
Composite	NTSC (SMPTE-170M), PAL (ITU624-2)	**Serial Port**	RS-232. Connector: RJ45, Baud Rate up to 115,200. Format: TSL, AXP
Signal Level	1V nominal	**Electrical**	Up to 550 W, 90 ~ 250 V 50/60 Hz
DC Offset	0V, + - 0.1V	**EMI/RFI**	FCC Part 15 Class A, CE, EU, EMC, C-tick
Impedance	75 ohm	**Size**	2RU
Return Loss	40 db up to 5MHz		

TAHOMA openGear
OG-DE-8-40

Modular Multiviewer Up to 40 input HDMI 1.4 input

Key Features

- Single frame processing delay
- 4-40 auto-detect HDMI 1.4 inputs
- Windows can be sized and moved freely
- Decodes up to 4 embedded audio per SDI input
- Output resolution up to 1080P@60Hz
- Multiple labels per video windows - UMD, OMD, IMD and standalone labels
- Labels can be turned on or off
- Dynamic UMD/label & Tally (TSL)
- Customizable logos
- Digital and analog clocks can be sync'ed with LTC and NTP
- Automatic input aspect ration detection
- Built-in video, audio alarm detections - no audio, audio high/low, no video, video black, video frozen and input resolution
- 2 RU with optional redundant power supply
- GPI triggers for Tally and count up/down triggers or preset recalls
- 5 year limited warranty

Accessories

Standard

- Rack-mounts
- SDI output
- 2x RJ50 to DB9 cables for GPI
- 2x breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)

Optional

- Redundant power supply

OG-DE-8-40-01-2019

TAHOMA OPENGEAR
OG-DE-8-40

Rear View

OG-DE-40
OG-DE-36
OG-DE-32
OG-DE-28

LTC In   SDI OUT   GPI

IP   HDMI OUT   AA OUT

HDMI 1.4 inputs

OG-DE-8
OG-DE-12
OG-DE-16
OG-DE-20
OG-DE-24

AC 90 ~ 250V

How to Order

- 8 inputs   - OG-DE-8
- 12 inputs - OG-DE-12

- 16 inputs - OG-DE-16
- 20 inputs - OG-DE-20

- 24 inputs - OG-DE-24
- 28 inputs - OG-DE-28

- 32 inputs - OG-DE-32
- 36 inputs - OG-DE-36
- 40 inputs - OG-DE-40

Specifications

Video Inputs	Up to 40 HDMI 1.4 inputs	Outputs	HDMI and SDI
Connectors	Mini HDMI connectors	Max Resolutions	Up to 1920x1080P output
Total Windows	4, 8, 12, 16, 20, 24, 28, 32, 36 and 40	Serial Port	RS-232. Connector: RJ45, Baud Rate up to 115,200. Format: TSL, AXP
On Screen Displays	Borders, labels (4 per window), fonts, tally LED, analog and digital clocks, logos, UMD, OMD, IMD	Electrical	Up to 550 W, 90 ~ 250 V 50/60 Hz
GPI	Uses DB9 connectors	EMI/RFI	FCC Part 15 Class A, CE, EU, EMC, C-tick
Alarms	No audio, audio high/low, no video, video black, video frozen	Size	2 RU

TAHOMA openGear
OG-DL-X+X Hybrid Multiviewer

Modular Multiviewer with mixture of 3G/HD/SD-SDI and HDMI inputs
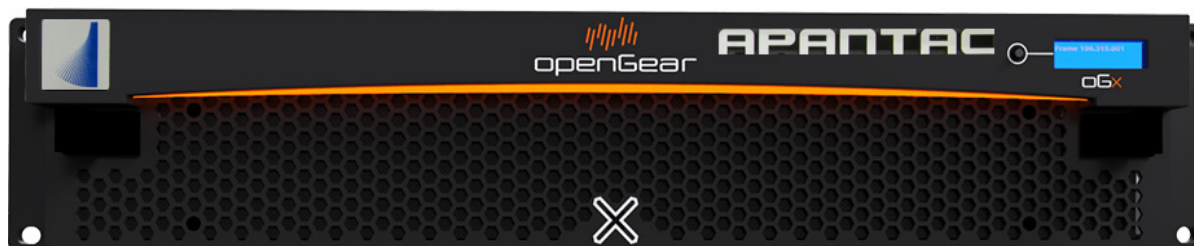
Key Features

- Mixture of 4 - 16 of 3G/HD/SD-SDI, Composite and HDMI inputs in groups of four
- Single frame of processing delay
- Accepts up to 8 auto detect 3G(Level A)/HD/SD-SDI, PAL/NTSC inputs
- Accepts up to 8 HDMi inputs
- Decode and display up to 16 channels of SDI embedded audio
- Decode and display up to 4 channel of HDMI embedded audio
- HDMI output resolution up to 1920x1080P@60Hz
- Multiple labels per video windows - UMD, IMD, OMD and standalone labels
- Decodes closed captioning on Line 21, 608/708 on SDI
- Video presence/format, video black, video frozen alarms
- Audio presence, audio high/low alarms
- 2 RU
- Optional redundant power supply
- 5 year limited warranty

Accessories

Standard

- Rack-mounts
- SDI output
- 1x RJ50 to DB9 cables for GPI
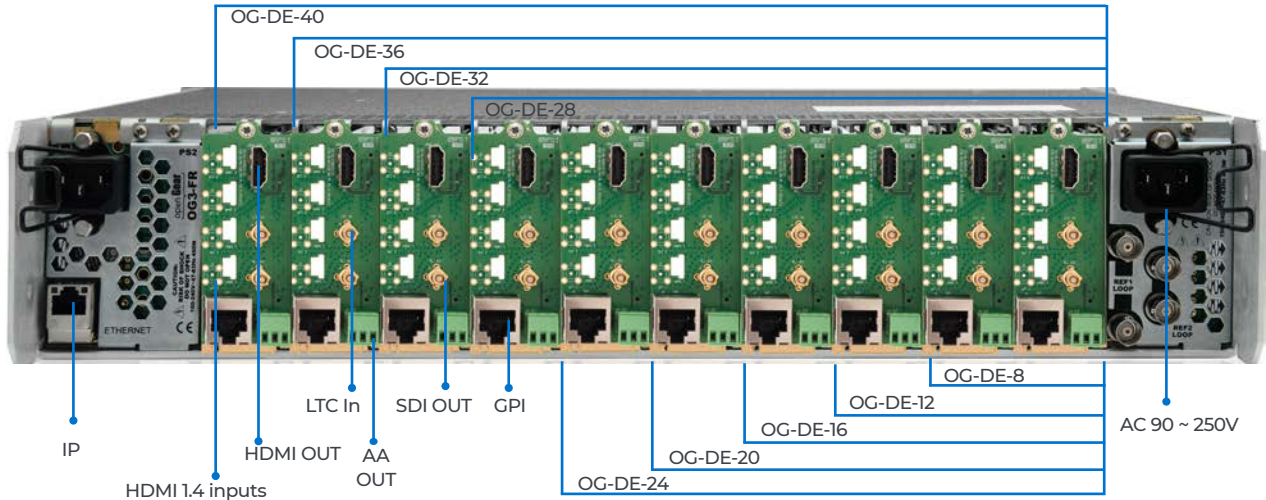- 1x breakout terminal blocks
- RJ45 to DB9 cable for serial (RS-232)

Optional

- Redundant power supply

TAHOMA OPENGEAR
OG-DL-X+X Hybrid Multiviewer

Rear Views

OG-DL-4+8 - 4 HDMI + 8 broadcast inputs

IP

SDI In LTC In SDI OUT GPI AC 90 ~ 250V

AA OUT HDMI inputs HDMI OUT
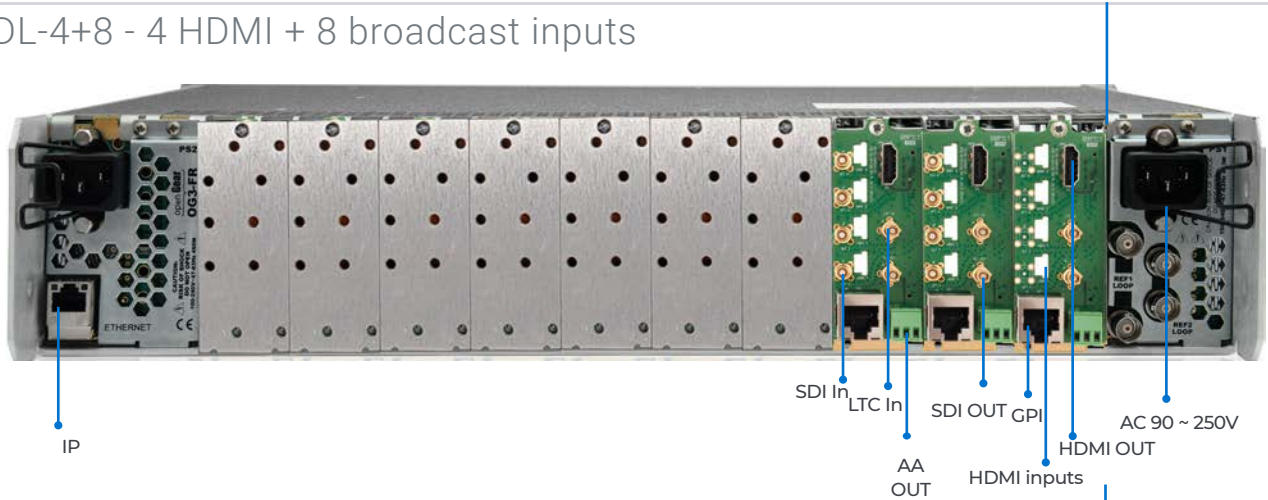
OG-DL-8+4 - 8 HDMI + 4 broadcast inputs

IP

SDI In LTC In SDI OUT GPI AC 90 ~ 250V

AA OUT HDMI inputs HDMI OUT

OG-DL-4+12 - 4 HDMI + 12 broadcast inputs

IP

SDI In LTC In SDI OUT GPI AC 90 ~ 250V

HDMI OUT AA OUT HDMI inputs
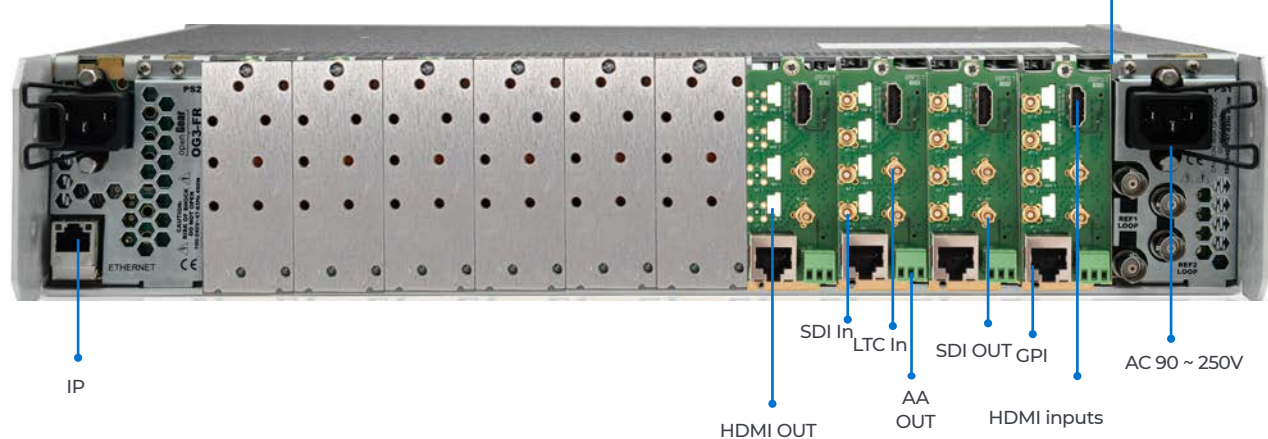
TAHOMA OPENGEAR

OG-DL-X+X Hybrid Multiviewer

OG-DL-12+4 - 12 HDMI + 4 broadcast inputs

IP

SDI In LTC In SDI OUT GPI AC 90 ~ 250V

AA OUT HDMI inputs HDMI OUT
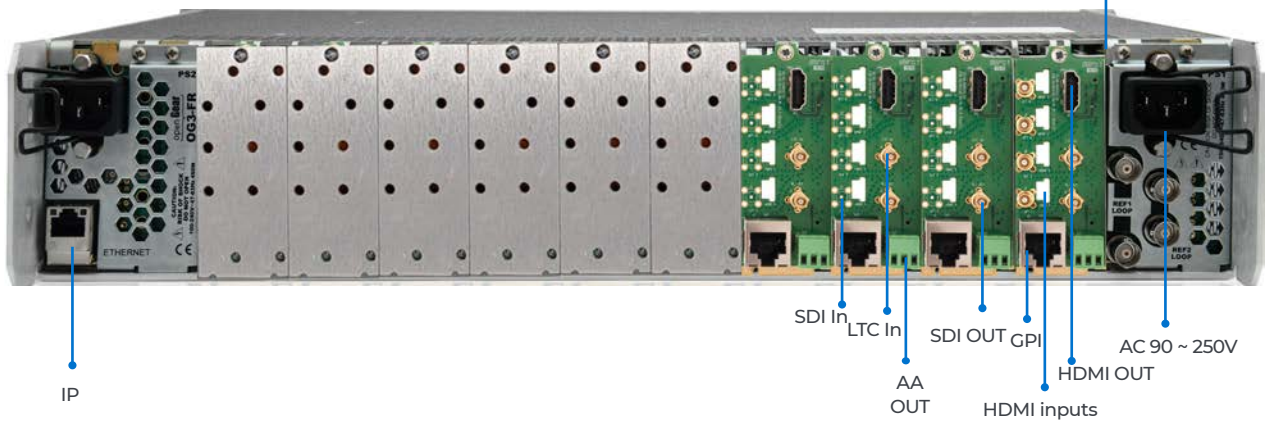
OG-DL-8+8 - 8 HDMI + 8 broadcast inputs

IP

SDI In LTC In SDI OUT GPI AC 90 ~ 250V

AA OUT HDMI inputs HDMI OUT
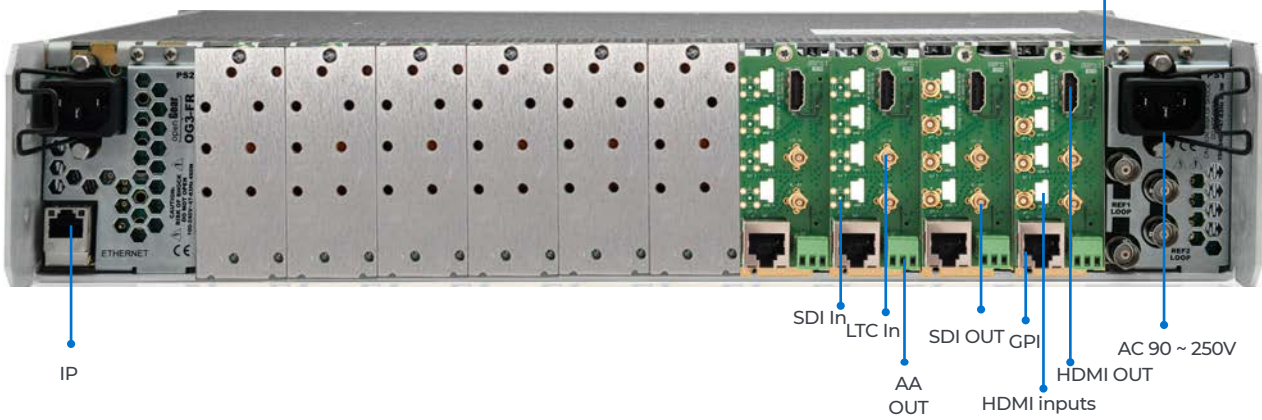
Specifications

Model	OG-DE-4/8/12/16/20/24/28/32/36/40
Description	HDMI input multiviewers
Inputs	4 to 40 HDMI inpputs with
Output	HDMI and SDI
Max Resolution	1920x1080 @60Hz
Power	AC 90 to 250V 50/60Hz with optional redundant power supply
Power Consumption	550 W Max
Dimension	2RU. 446 x 600 (WxD)

APANTAC

HDBASET
HDMI Extenders

	HDBT-SET-6	HDBT-SET-7
Part Number	HDBT-1-Es/Rs	HDBT-Es-POE/Rs-POE
Maximum Resolution		
Distance	70m	
POE	No	Yes
Ethernet Hub	No	No
Power	DC 12V 1A	48 DC on Tx

	HDBT-SET-8	HDBT-SET-9	HDBT-SET-10	HDBT-SET-11
Part Number	HDBT-1-E-II/R-II	HDBT-1-E-II-POE/R-II-POE	HDBT-1-Es-UHD/Rs-UHD	HDBT-1-E-UHD/R-UHD
Maximum Resolution	1080P		1080P/UHD	
Distance	100m/150m		70m/35m	100m/70m
POE	No	Yes, bi-directional	No	No
Ethernet Hub	No	No	No	No
Power	DC 12V 1A	48 DC on Tx	DC 12V 1A	DC 12V 1A

	HDBT-SET-12	HDBT-SET-13	HDBT-SET-14	HDBT-SET-15
Part Number	HDBT-1-E-UHD/ SDM-HDBT-R-UHD	HDBT-1-Es-UHD-POE/ Rs-UHD-POE	HDBT-1-E-UHD-POE/ R-UHD-POE	HDBT-1-Ex-UHD-POE/ Rx-UHD-POE
Maximum Resolution	1080P/UHD			
Distance	70m/100m		35m/70m	70m/100m
POE	No	Yes, bi-directional		
Ethernet Hub	No	No	No	Yes, 1
Power	DC 12V 1A	48 DC on either Tx or Rx		

	OG-HDBT-EAPx	OG-HDBT-Rx
Part Number	OG-HDBT-EAPx	OG-HDBT-Rx
Maximum Resolution	1080P	
Distance	100m	
POE	No	
Ethernet Hub	No	
Power	Supply by openGear frame	

MT Hood
HDBT-SET-6

70 meter 1080P HDBaseT HDMI Extender & Receiver

HDBT-1-Es-II

HDBT-1-Rs-II

Key Features

- Supports HDMI 1.4/HDCP 1.4
- Extends HDMI signal (1080P@12 bit) up to 230 feet (70 meters)
- Extends HDMI (UHD@4:2:0) signals up to 115 feet (35 meters)
- Supports 720P, 1080i, 1080P in 120Hz
- Supports 3D pass-through
- Supports CEC pass-through
- Supports bi-directional RS-232
- Supports all frequency IR control
- Supports LPCM, Dolby True HD and Dolby Digital audio
- 3 year limited warranty

Related Products

HDBT-SET-8
100m 1080P HDBT Extenders

HDBT-SET-9
100m 1080P HDBT Extenders with POE

HDBT-SET-11
70m UHD HDBT Extenders

Specifications

Model	HDBT-1-Es-II	HDBT-Rs-II
Connectors	1 x HDMI Type A, 1 x RJ-45	
RS-232	1 x DB9 Female	
IR in/out	1 x 3.5 mm stereo jack each	
Max resolution, distance	70m for 1080P@12bit	
Power	DC 12V 1A with locking	
Dimension	122 x 74 x 29 mm	

MT Hood
HDBT-SET-7

70 meter 1080P HDBaseT HDMI Extender & Receiver with POE

HDBT-1-Es-II-POE

HDBT-1-Rs-II-POE

Key Features

- Supports HDMI 1.4/HDCP 1.4
- Extends HDMI signal (1080P@12 bit) up to 230 feet (70 meters)
- EExtends HDMI (UHD@4:2:0) signals up to 115 feet (35 meters)
- Supports 720P, 1080i, 1080P in 120Hz
- Supports POE
- Supports 3D pass-through
- Supports CEC pass-through
- Supports bi-directional RS-232
- Supports LPCM, Dolby True HD and Dolby Digital audio
- 3 year limited warranty

Related Products

HDBT-SET-8
100m 1080P HDBT Extenders

HDBT-SET-9
100m 1080P HDBT Extenders with POE

HDBT-SET-11
70m UHD HDBT Extenders

Specifications

Model	HDBT-1-Es-II-POE	HDBT-Rs-II-POE
Connectors	1 x HDMI Type A, 1 x RJ-45	
RS-232	1 x DB9 Female	
IR in/out	1 x 3.5 mm stereo jack each	
Max resolution, distance	70m for 1080P@12bit, 35m for UHD (4:2:0)	
Power	DC 48V 0.5A with locking	POE
Dimension	122 x 74 x 29 mm	

MT Hood
HDBT-SET-8

100 meter 1080P HDBaseT HDMI Extender & Receiver

HDBT-1-E-II

HDBT-1-R-II

Key Features

- Supports HDMI 1.4/HDCP 1.4
- Extends HDMI signal (1080P@12 bit) up to 330 feet (100 meters)
- Extends HDMI signal (1080P@8 bit) up to 492 feet (150 meters)
- Extends HDMI (UHD@4:2:0) signals up to 230 feet (70 meters)
- Supports 720P, 1080i, 1080P in 120Hz
- Supports 3D and CEC pass-through
- Supports bi-directional RS-232
- Supports all frequency IR control
- Supports LPCM, Dolby True HD and Dolby Digital audio
- 3 year limited warranty

Related Products

HDBT-SET-6
70m 1080P HDBT Extenders

HDBT-SET-9
100m 1080P HDBT Extenders with POE

HDBT-SET-11

70m UHD HDBT Extenders

Specifications

Model	HDBT-1-E-II	HDBT-1-R-II
Connectors	1 x HDMI Type A, 1 x RJ-45	
RS-232	1 x DB9 Female	
IR in/out	1 x 3.5 mm stereo jack each	
Max resolution, distance	150m for 1080P@8bit, 100m for 1080P@12bit, 70m for UHD@60Hz@4:2:0	
Power	DC 12V 1A with locking	
Weight	308g	318g
Dimension	122 x 74 x 29 mm	

HDBT-SET-8-01-2019

MT Hood
HDBT-SET-9

100 meter 1080P HDBaseT HDMI Extender & Receiver with POE

HDBT-1-E-II-POE

HDBT-1-R-II-POE

Key Features

- Supports HDMI 1.4/HDCP 1.4
- Extends HDMI signal (1080P@12 bit) up to 330 feet (100 meters)
- Extends HDMI signal (1080P@8 bit) up to 492 feet (150 meters)
- Extends HDMI (UHD@4:2:0) signals up to 230 feet (70 meters)
- Supports 720P, 1080i, 1080P in 120Hz
- Supports POE from HDBT-1-E-II-POE (Tx) side
- Supports 3D and CEC pass-through
- Supports bi-directional RS-232
- Supports all frequency IR control
- Supports LPCM, Dolby True HD and Dolby Digital audio
- 3 year limited warranty

Related Products

HDBT-SET-8
100m 1080P HDBT Extenders

HDBT-SET-10
40m UHD HDBT Extenders

HDBT-SET-11

70m UHD HDBT Extenders

Specifications

Model	HDBT-1-E-II-POE	HDBT-1-R-II-POE
Connectors	1 x HDMI Type A, 1 x RJ-45	
RS-232	1 x DB9 Female	
IR in/out	1 x 3.5 mm stereo jack each	
Max resolution, distance	150m for 1080P@8bit, 100m for 1080P@12bit, 70m for UHD@60Hz@4:2:0	
Power	DC 48V 0.5A with locking	POE
Weight	308g	318g
Dimension	122 x 74 x 29 mm	

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MT Hood
HDBT-SET-10

Short Distance (35/40m) UHD HDBaseT HDMI Extender & Receiver

HDBT-1-Es-UHD

HDBT-1-Rs-UHD

Key Features

- Supports HDMI 2.0/HDCP 2.2
- Extends HDMI signal (1080P@12 bit) up to 230 feet (70 meters)
- Extends HDMI (UHD@4:4:4) signals up to 115 feet (35 meters) with CAT6 cable
- Extends HDMI (UHD@4:4:4) signals up to 130 feet (40 meters) with CAT7 cable
- Supports 720P, 1080i, 1080P in 120Hz
- Supports 3D pass-through
- Supports CEC pass-through
- Supports bi-directional RS-232
- Supports all frequency IR control
- Supports LPCM, Dolby True HD and Dolby Digital audio

Related Products

HDBT-SET-8
100m 1080P HDBT Extenders

HDBT-SET-9
100m 1080P HDBT Extenders with POE

HDBT-SET-11

100m UHD HDBT Extenders

Specifications

Model	HDBT-1-Es-UHD	HDBT-1-Rs-UHD
Connectors	1 x HDMI Type A, 1 x RJ-45	
RS-232	1 x DB9 Female	
IR in/out	1 x 3.5 mm stereo jack each	
Max resolution, distance	70m for 1080P@8bit, 35m for UHD(4:4:4)@60Hz, 40m for UHD(4:4:4)@60Hz with CAT7 Cable	
Power	DC 12V 1A with locking	
Weight	308g	318g
Dimension	122 x 74 x 29 mm	

MT Hood
HDBT-SET-11

70 meter UHD HDBaseT HDMI Extender & Receiver
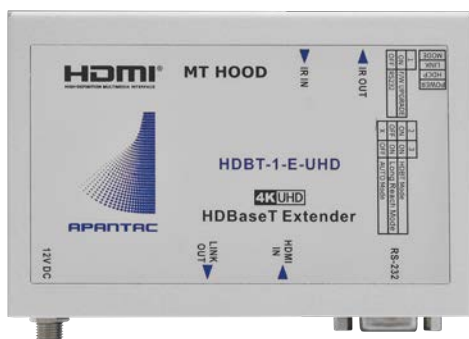
HDBT-1-E-UHD

HDBT-1-R-UHD

Key Features

- Supports HDMI 2.0/HDCP 2.2
- Extends HDMI signal (1080P@12 bit) up to 330 feet (100 meters)
- Extends HDMI (UHD@4:4:4) signals up to 230 feet (70 meters)
- Supports 720P, 1080i, 1080P in 120Hz
- Supports 3D pass-through
- Supports CEC pass-through
- Supports bi-directional RS-232
- Supports all frequency IR control
- Supports LPCM, Dolby True HD and Dolby Digital audio
- 3 year limited warranty

Related Products

HDBT-SET-8
100m 1080P HDBT Extenders

HDBT-SET-9
100m 1080P HDBT Extenders with POE

HDBT-SET-10
35m UHD HDBT Extenders

Specifications

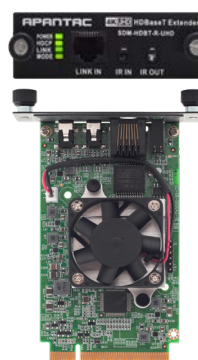| Model	HDBT-1-E-UHD	HDBT-1-R-UHD
Connectors	1 x HDMI Type A, 1 x RJ-45	
RS-232	1 x DB9 Female	
IR in/out	1 x 3.5 mm stereo jack each	
Max resolution, distance	100m for 1080P@8bit, 70m for UHD(4:4:4)@60Hz	
Power	DC 12V 1A with locking	
Weight	308g	318g
Dimension	122 x 74 x 29 mm	

MT Hood
HDBT-SET-12

70 meter UHD HDBaseT HDMI Extender with SDM Receiver Module

HDBT-1-E-UHD

SDM-HDBT-R-UHD

Key Features

- Supports HDMI 2.0/HDCP 2.2
- Extends HDMI signal (1080P@12 bit) up to 330 feet (100 meters)
- Extends HDMI (UHD@4:4:4) signals up to 230 feet (70 meters)
- Supports 720P, 1080i, 1080P in 120Hz
- Supports 3D pass-through
- Supports CEC pass-through
- Supports bi-directional RS-232
- Supports all frequency IR control
- Supports LPCM, Dolby True HD and Dolby Digital audio
- 3 year limited warranty

Related Products

HDBT-SET-11
70m UHD HDBT Extenders

Specifications

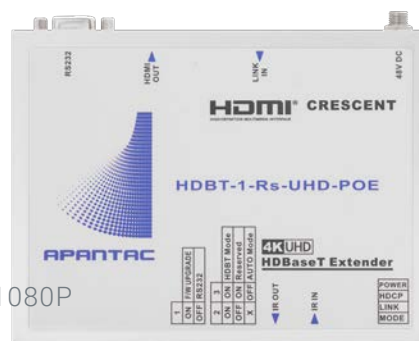| Model	HDBT-1-E-UHD	SDM-HDBT-R-UHD
Connectors	1 x HDMI Type A, 1 x RJ-45	1 x RJ-45
RS-232	1 x DB9 Female	N/A
IR in/out	1 x 3.5 mm stereo jack each	
Max resolution, distance	100m for 1080P@8bit, 70m for UHD(4:4:4)@60Hz	
Power	DC 12V 1A with locking	N/A
Weight	308g	100g

HDBT-SET-12-01-2019

MT Hood
HDBT-SET-13

Short Distance (35/40m) UHD HDBaseT HDMI Tx & Rx w/Bi-direction POE

Supports 720P, 1080i, 1080P
in 120Hz

HDBT-1-Es-UHD-POE   **HDBT-1-Rs-UHD-POE**

Key Features

- Supports HDMI 2.0/HDCP 2.2
- Extends HDMI signal (1080P@12 bit) up to 230 feet (70 meters)
- Extends HDMI (UHD@4:4:4) signals up to 115 feet (35 meters) with CAT6 cable
- Extends HDMI (UHD@4:4:4) signals up to 130 feet (40 meters) with CAT7 cable
-
- Supports 3D and CEC pass-through
- Supports bi-directional RS-232
- Supports all frequency IR control
- Supports LPCM, Dolby True HD and Dolby Digital audio
- Bi-directional POE - can be powered from either end
- 3 year limited warranty

Related Products

HDBT-SET-8
100m 1080P HDBT Extenders

HDBT-SET-9
100m 1080P HDBT Extenders
with POE

HDBT-SET-11
70m UHD HDBT Extenders

Specifications

| Model	HDBT-1-Es-UHD-POE	HDBT-1-Rs-UHD-POE
Connectors	1 x HDMI Type A, 1 x RJ-45	
RS-232	1 x DB9 Female	
IR in/out	1 x 3.5 mm stereo jack each	
Max resolution, distance	70m for 1080P@8bit, 35m for UHD(4:4:4)@60Hz, 40m for UHD(4:4:4)@60Hz with CAT7	
Power	DC 48V 0.5A with locking, can be inserted on either end to provide POE	
Weight	308g	318g
Dimension	122 x 74 x 29 mm	

MT Hood
HDBT-SET-14

70 meter UHD HDBaseT HDMI Extender & Receiver w/ Bidirectional POE

HDBT-1-E-UHD-POE
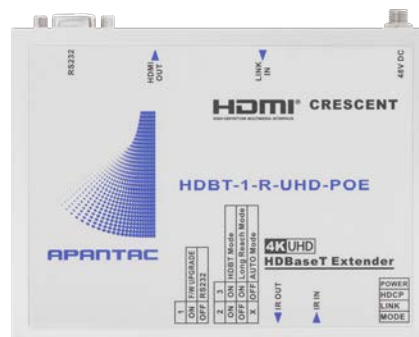
HDBT-1-R-UHD-POE

Key Features

- Supports HDMI 2.0/HDCP 2.2
- Extends HDMI signal (1080P@12 bit) up to 330 feet (100 meters)
- Extends HDMI (UHD@4:4:4) signals up to 230 feet (70 meters)
- Supports 720P, 1080i, 1080P in 120Hz
- Supports 3D and CEC pass-through
- Supports bi-directional RS-232
- Supports all frequency IR control
- Supports LPCM, Dolby True HD and Dolby Digital audio
- Bi-directional POE - can be powered from either end
- 3 year limited warranty

Related Products

HDBT-SET-12
Short Distance HDBT Extenders with Bi-directional POE

HDBT-SET-9
100m 1080P HDBT Extenders with POE

HDBT-SET-11
70m UHD HDBT Extenders

Specifications

Model	HDBT-1-E-UHD-POE	HDBT-1-R-UHD-POE
Connectors	1 x HDMI Type A, 1 x RJ-45	
RS-232	1 x DB9 Female	
IR in/out	1 x 3.5 mm stereo jack each	
Max resolution, distance	100m for 1080P@8bit, 70m for UHD(4:4:4)@60Hz	
Power	DC 48V 0.5A with locking, can be inserted on either end to provide POE	
Weight	500g	500g
Dimension	122 x 74 x 29 mm	
Environmental	Operating Temperature: 0 ~ 50C, Storage Temperature: -20 ~ 60C, Humidity: 0 ~ 80C, non-condensing	
Safety Compliance	CE, FCC, RoHS, RoHS2	

MT Hood
HDBT-SET-15

70 meter UHD HDBaseT HDMI Tx & Rx w/ Bidirectional POE and Ethernet hub
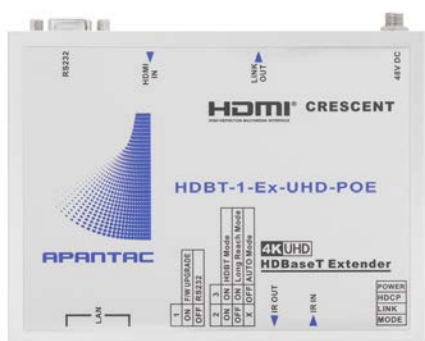
HDBT-1-Ex-UHD-POE
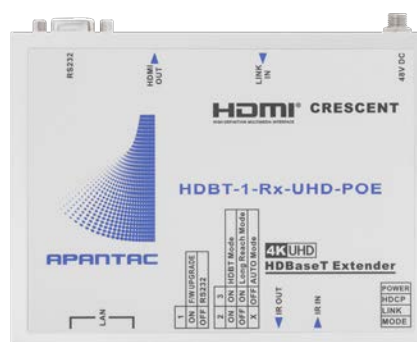
HDBT-1-Rx-UHD-POE

Key Features

- Supports HDMI 2.0/HDCP 2.2
- Extends HDMI signal (1080P@12 bit) up to 330 feet (100 meters)
- Extends HDMI (UHD@4:4:4) signals up to 230 feet (70 meters)
- Supports 720P, 1080i, 1080P in 120Hz
- Supports 2 Ethernet ports (hub)
- Supports 3D and CEC pass-through

- Supports all frequency IR control
- Supports LPCM, Dolby True HD and Dolby Digital audio
- Bi-directional POE - can be powered from either end
- Dolby Digital audio
- Bi-directional POE - can be powered from either end
- 3 year limited warranty

Related Products

HDBT-SET-12
Short Distance HDBT Extenders with Bi-directional POE

HDBT-SET-9
100m 1080P HDBT Extenders with POE

HDBT-SET-11
70m UHD HDBT Extenders

Specifications

Model	HDBT-1-Ex-UHD-POE	HDBT-1-Rx-UHD-POE
Connectors	1 x HDMI Type A, 1 x RJ-45	
RS-232	1 x DB9 Female	
IR in/out	1 x 3.5 mm stereo jack each	
Max resolution, distance	100m for 1080P@8bit, 70m for UHD(4:4:4)@60Hz	
Power	DC 48V 0.5A with locking, can be inserted on either end to provide POE	
Weight	500g	500g
Dimension	122 x 74 x 29 mm	
Environmental	Operating Temperature: 0 ~ 50C, Storage Temperature: -20 ~ 60C, Humidity: 0 ~ 80C, non-condensing	
Safety Compliance	CE, FCC, RoHS, RoHS2	

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MT Hood
HDBT-SET-16 (Wall Plate Bundle)

100 meter HDMI Transmitter Wall Plate bundle based on HDBaseT Technology

WP-HDBT-1-E

HDBT-1-R-WP

Key Features

- Supports HDMI 1.4/HDCP 1.4
- Extends HDMI signal (1080P@12 bit) up to 330 feet (100 meters)
- Extends HDMI (UHD@4:2:0) signals up to 230 feet (75 meters)
- Supports 3D pass-through
- Supports CEC pass-through
- Supports bi-directional RS-232
- Supports all frequency IR control

- Supports LPCM, Dolby True HD and Dolby Digital audio
- Supports POE
- 3 year limited warranty

Related Products

HDBT-SET-17
Short Distance HDBT Wall Plate Extenders with POE

Specifications

Model	WP-HDBT-1-E	HDBT-1-R-WP
Inputs	HDMI Type A	1 x RJ45 for HDBaseT
IR in/out	2 x 3 pin pheonix connectors	2 x 3.5 mm stereo jack
Max resolution, distance	150m for 1080P@8bit (Long Reach Mode), 100m for 1080P@12bit, 70m for UHD@60Hz@4:2:0	
Power	POE Receiver	DC 48V
Weight	100g	500g
Dimension		122 x 74 x 29 mm
Environmental	Operating Temperature: 0 ~ 50C, Storage Temperature: -20 ~ 60C, Humidity: 0 ~ 80C, non-condensing	
Safety Compliance	CE, FCC, RoHS, RoHS2	

MT Hood
HDBT-SET-17 (Wall Plate Bundle)

70 meter HDMI Transmitter Wall Plate bundle based on HDBaseT Technology

WP-HDBT-1-Es

HDBT-1-Rs-WP

Key Features

- Supports HDMI 1.4/HDCP 1.4
- Extends HDMI signal (1080P@12 bit) up to 230 feet (70 meters)
- Extends HDMI (UHD@4:2:0) signals up to 115 feet (35 meters)
- Supports 3D pass-through
- Supports CEC pass-through
- Supports bi-directional RS-232
- Supports all frequency IR control
- Supports LPCM, Dolby True HD and Dolby Digital audio
- Supports POE
- 3 year limited warranty

Related Products

HDBT-SET-16
Long Distance HDBT Wall Plate Extenders with POE

Specifications

Model	WP-HDBT-1-Es	HDBT-1-Rs-WP
Inputs	HDMI Type A	1 x RJ45 for HDBaseT
IR in/out	2 x 3 pin pheonix connectors	2 x 3.5 mm stereo jack
Max resolution, distance	70m for 1080P@12bit, 35m for UHD@60Hz@4:2:0	
Power	DC 48V (PD) / DC 48V (PSE)	
Weight	100g	500g
Dimension		122 x 74 x 29 mm
Environmental	Operating Temperature: 0 ~ 50C, Storage Temperature: -20 ~ 60C, Humidity: 0 ~ 80C, non-condensing	
Safety Compliance	CE, FCC, RoHS, RoHS2	

MT Hood
HDBT-SET-18 (USB 2.0 Bundle)

100 meter HDMI 2.0 HDBT3 Transmitter and SDM Receiver Bundle

KVM-1-UHD-Tx-POE

SDM-HDBT-R-II-UHD

Key Features

- Supports HDMI 2.0 and HDCP 2.2
- Extends HDMI 2.0 and USB 2.0 up to 330 feet (100 meters)
- Supports 3D pass-through
- Supports CEC pass-through
- Supports bi-directional RS-232
- Supports LPCM, Dolby True HD and Dolby Digital audio
- 3 year limited warranty

Related Products

HDBT-SET-16
Long Distance HDBT Wall Plate
Extenders with POE

Specifications

Model	KVM-1-UHD-Tx-POE	SDM-HDBT-R-II-UHD
Video Inputs	HDMI Type A	1 x RJ45 for HDBaseT
USB Interface	2 x USB	2 x USB
Max resolution, distance	100 meters, 3840x2160@60Hz, RGB 4:4:4	
Power	DC 48V	From SDM
Weight	500g	90g
Dimension	122 x 74 x 29 mm	80 x 112 mm
Environmental	Operating Temperature: 0 ~ 50C, Storage Temperature: -20 ~ 60C, Humidity: 0 ~ 80C, non-condensing	
Safety Compliance	CE, FCC, RoHS, RoHS2	

HDBT-SET-18 (USB 2.0 Bundle)-01-2019

openGear
OG-HDBT-EAPx
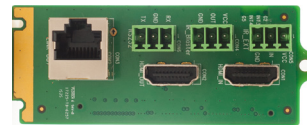
HDMI 1.4 extender based on HDBaseT
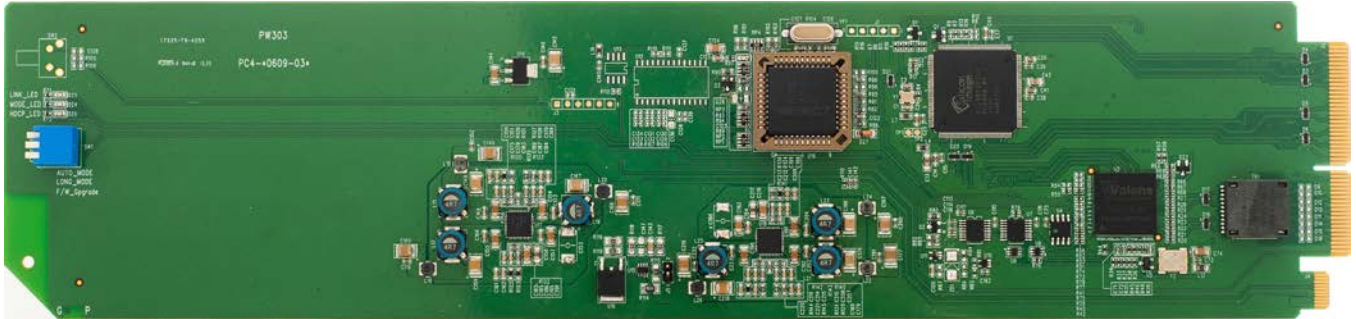
OG-HDBT-EAPx-MB

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- HDMI extender with HDBaseT technology
- Uses a single CAT 5E/6 cable
- Supports HDMI, DVI formats, 1080P, HD, 3D
- 1 x HDMI input
- 1 x HDMI loop out
- Cable reach up to 330 ft/100m
- Compatible with OG-HDBT-Rx, HDBT-1-R, HDBT-1-Rs, HDBT-1-R-II, HDBT-1-Rs-II
- Full audio support, infrared and RS232 pass through
- Low power consumption - 10W
- 5 year limited warranty

OG-HDBT-EAPx-RM **Rear Module (2 slots)**

1 x HDMI input
2 x HDMI loop out
1 x RJ-45 output
1 x IR Blaster output
1 x IR Extender input

How to Order

OG-HDBT-EAPx-SET-1: 1 x OG-HDBT-EAPx-MB + 1 x OG-HDBT-EAPx-RM

Specifications

Input	1 x HDMI	Output	RJ-45 (HDBaseT)
Control	Dashboard, IR, RS-232	Loop out	1 x HDMI

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OG-HDBT-EAPx

openGear
OG-HDBT-Rx

HDMI 1.4 receiver based on HDBaseT

OG-HDBT-Rx-MB

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- HDMI receiver with HDBaseT technology
- Uses a single CAT 5E/6 cable
- Supports HDMI, DVI formats, 1080P, HD, 3D
- 1 x HDMI output
- Cable reach up to 330 ft/100m
- Compatible with OG-HDBT-EAPx, HDBT-1-E, HDBT-1-Es, HDBT-1-E-II, HDBT-1-Es-II
- Full audio support, infrared and RS232 pass through
- Low power consumption - 10W
- 5 year limited warranty
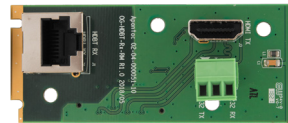
OG-HDBT-Rx-RM   **Rear Module (2 slots)**

1 x RJ45 input
1 x HDMI output
1 x RS-232

How to Order

OG-HDBT-Rx-SET-1: 1 x OG-HDBT-Rx-MB + 1 x OG-HDBT-Rx-RM

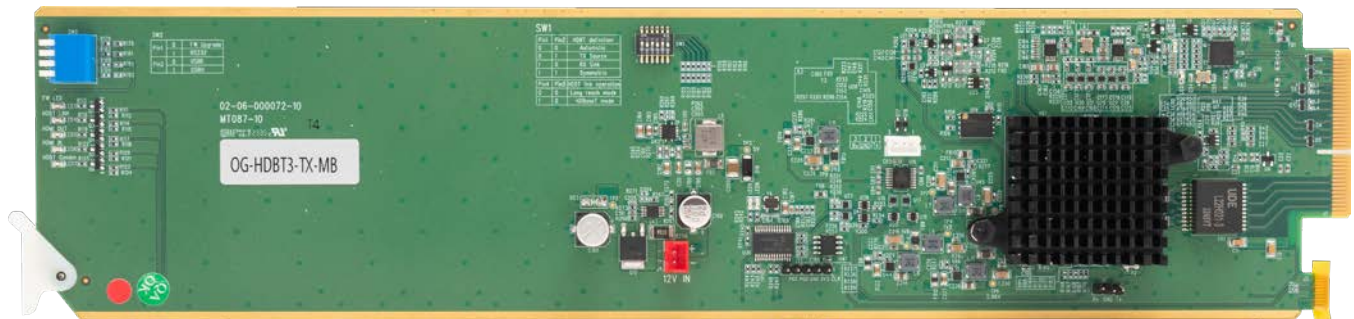## Specifications

Input	1 x RJ45	Output	1 x HDMI
Control	Dashboard, RS-232		

APANTAC
OG-HDBT-Rx

openGear
OG-HDBT3-Tx

HDMI 2.0 transmitter based on HDBaseT3 Technology

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OG-HDBT3-Tx-MB

Key Features

- Based on the latest HDBaseT3 Technology
- Industry-standard openGear OGX/3.0 card-based form factor
- Reliable point to point 4K@60Hz KVM extenders with USB 2.0 interface
- Supports up to 4096 x 2160@60Hz, RGB 444, 8 bit
- High density point to point 4K@60Hz KVM HDMI extenders - can fit up to 20 extenders/receivers in 2 RU frame
- High pluggable - easy to maintain while the system is in use - no need to turn off the power to remove the cards
- Optional hot swappable redundant frame power supply
- Dashboard GUI for status and control
- Can extend HDMI and USB up to 150 meters at 1920x1080P@8bit, 100 meters at 1920x1080P@12bit, 100 meters at 3840x2160 (UHD@60Hz 4:4:4@ 8bit) with HDBT3 certified CAT6/CAT7 cables up to 594 MHz
- Supports 4K@60Hz Dolby Vision
- Passes RS-232
- 1 x HDMI input
- 1 x HDMI loop out
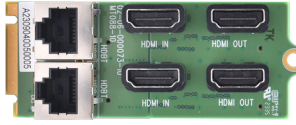

OPENGEAR

OG-HDBT3-Tx

OG-HDBT3-Tx-RM

Ideal for Point to Point 4K60Hz KVM Extension with USB 2.0
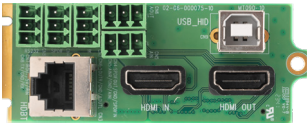
Rear Module

1 x RS-232 In/Out
1 x SPDIF In/Out
1 x AA Input
1 x AA Output
1 x USB 2.0 Input
1 x HDBT output
1 x HDMI Input
1 x HDMI Loopout

OG-HDBT3-Tx-RM2

Ideal for High Density Point to Point HDMI 2.0 4K60Hz Extension

Dual Input RM

1 x HDBT Output
1 x HDMI Input
1 x HDMI Loopout
1 x HDBT Output
1 x HDMI Input
1 x HDMI Loopout

How to Order

OG-HDBT3-Tx-SET-1
1 x OG-HDBT3-Tx-MB +
1 x OG-HDBT3-Tx-RM +

OG-HDBT3-Tx-SET-2
2 x OG-HDBT3-Tx-MB +
1 x OG-HDBT3-Tx-RM2

Related Products

OG-HDBT3-Rx-SET-1
openGear HDBT3 receiver ideal for point to point 4K KVM extension

OG-HDBT3-Rx-SET-2
openGear HDBT3 receiver ideal for point to point HDMI 2.0 extension. Can fit up to 20 receivers in a single 2RU frame

KVM-1-UHD-Rx
Standalone 4K 60 KVM receiver with USB 2.0 interface

SDM-HDBT-R-II-UHD
HDBT3 + USB 2.0 SDM

Specifications

Products	OG-HDBT3-Tx-SET-1	OG-HDBT3-Tx-SET-2
Input	HDMI 2.0	HDMI 2.0
Loopout	HDMI 2.0	HDMI 2.0
USB Interface	USB 2.0 (Type B)	N/A
Audio I/O	Analog Audio and SPDF	N/A
RS-232	Yes	No
Infrared	Yes	No
HDBT Output	1 x RJ45	2 x RJ45
Dashboard	Yes	Yes

APANTAC

openGear
OG-HDBT3-Rx

HDMI 2.0 Receiver based on HDBaseT3 Technology
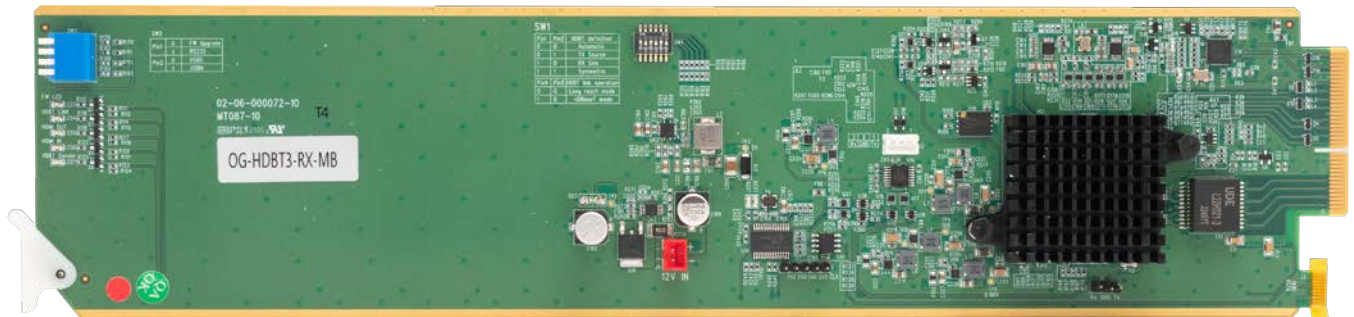
OG-HDBT3-Rx-MB

Key Features

- openGear OGX/3.0 card-based form factor
- High density design
- Dashboard control enabled
- HDMI receiver with HDBaseT3 technology
- Can be used as point to point KVM extenders when bundled with OG-HDBT3-Tx-SET-1 or KVM-1-UHD-Tx
- Can receive HDMI and USB up to 150 meters at 1920x1080P@8bit, 100 meters at 1920x1080P@12bit, 100 meters at 3840x2160 (UHD@60Hz 4:4:4@ 8bit) with HDBT3 certified CAT6/CAT7 cables up to 594 MHz
- Supports up to 4096 x 2160@60Hz, RGB 444, 8 bit
- Supports 4K@60Hz Dolby Vision
- Supports RS-232
- 1 x HDMI output
- Full audio support, infrared and RS232 pass through
- Low power consumption - 10W
- 5 year limited warranty

OPENGEAR

OG-HDBT3-Rx

OG-HDBT3-Rx-RM

Ideal for Point to Point 4K60Hz KVM Extension with USB 2.0
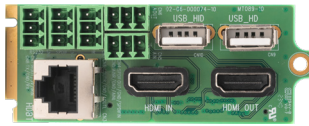
Rear Module

1 x RS-232 In/Out
1 x SPDIF In/Out
1 x AA Input
1 x AA Output
2 x USB 2.0 Out
1 x HDBT Input
1 x HDMI Output
1 x SFP Output
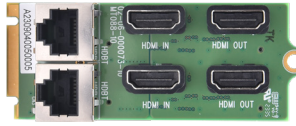
OG-HDBT3-Rx-RM2

Ideal for High Density Point to Point HDMI 2.0 4K60Hz Extension

Dual Output RM

1 x HDBT Input
1 x HDMI Output
1 x HDBT Input
1 x HDMI Output

How to Order

OG-HDBT3-Rx-SET-1
1 x OG-HDBT3-Rx-MB +
1 x OG-HDBT3-Rx-RM

OG-HDBT3-Rx-SET-2
2 x OG-HDBT3-Rx-MB +
1 x OG-HDBT3-Rx-RM2

Related Products

OG-HDBT3-Tx-SET-1
openGear HDBT3
trasmitter ideal for point
to point 4K KVM extension

OG-HDBT3-Tx-SET-2
openGear HDBT3
transmitter ideal for
point to point HDMI 2.0
extension. Can fit up to
20 transmitter in a single
2RU frame

KVM-1-UHD-Tx
Standalone 4K 60 KVM
transmitter with USB 2.0
interface

Specifications

Products	OG-HDBT3-Rx-SET-1	OG-HDBT3-Rx-SET-2
HDBT Input	1 x RJ45	2 x RJ45
HDMI Output	HDMI 2.0	HDMI 2.0
Audio I/O	Analog Audio and SPDF	N/A
RS-232	Yes	No
Infrared	Yes	No
USB Interface	USB 2.0 (Type A)	N/A
Dashboard	Yes	Yes

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HDMI 1.4
HDMI Splitters and Extenders

	HDMI-1x2-II	HDM-1x2-P	HDMI-SET-8	HDMI-xx-SC
Inputs	1 x HDMI 1.4	1 x HDMI 1.4	1 x HDMI 1.4	1 x HDMI 1.4
Outputs	1 x HDMI 1.4	2 x HDMI 1.4	1 x HDMI 1.4	1 x HDMI 1.4
Distance	10 meters	10 meters	50 meters	300 meters
Power	5V 1A	Passive	5V 1A	5V 1A

MT Hood
HDMI-1x2-II

Compact 1x2 HDMI Splitter

HDMI OUTPUT 1
EDID LEARNING PORT   HDMI OUTPUT 2

HDMI INPUT   DC 5V1A

INPUT STATUS

SIGNAL PRESENT   CONNECTION PRESENT

HDMI-1x2-II

Key Features

· Supports HDMI 1.4/HDCP 1.4
· EDID learning from output 1
· Supports up to 1080P 60Hz
· Supports up to UHD@30Hz
· Supports deep color up to 12bit
· Magnetic mount

Related Products

HDM2.0-1x2-II
1 x 2 HDMI 2.0 splitter

HDM2.0-1x4-II
1 x 4 HDMI 2.0 splitter

HDM2.0-1x8-II
1 x 8 HDMI 2.0 splitter

Specifications

Model	HDMI-1x2-II
Description	1 x 2 HDMI Splitter
Input	1 x HDMI type A
Outputs	2 x HDMI Type A
Max resolution	Up to 1920x1200/1080P @60Hz
Power	DC 5V 1 A
Dimension	62 x 113 x 29 mm

MT Hood
HDM-1x2-P

Passive 1x2 HDMI Splitter

HDM2-1x2-P

Key Features

- Passive HDMI splitter - Uses power from the source input, does not require external power
- Supports up to 4K/UHD 24/25/30/50/60Hz*
- Supports HDMI 2.0/HDCP 2.2/HDCP 1.4
- Supports EDID mode selection

* If the source does not provide enough power for 4K/UHD, then set to splitter to FHD mode only by setting DIP Switches to OFF/OFF.

Front View

1. FW upgrade port
2. Reset button
3. Dip Switch

PIN 1	PIN 2	EDID MODE
OFF	OFF	Full HD
OFF	ON	COPY PORT 1
ON	OFF	Reserved
ON	ON	Ultra HD

4. Output LEDs - not functional
5. HDMI LED - not functional
6. Powered by HDMI input port LED
7. Power LED - not functional

Rear View

1. Power Jack - Not funtional
2. HDMI Input
3. HDMI Output

Specifications

Model	HDM-1x2-P		
Input	1 x HDMI up to HDMI 2.0	**Max Resolution**	4Kx2K@60Hz (4:4:4/8bit)(4:2:0/12bit)
Outputs	2 x HDMI up to HDMI 2.0	**Cable distance**	10m max (33 ft)
HDCP	1.4/2.2	**Power**	Passive
DIP Switch	EDID mode selection	**Weight**	530g
Dynamic Range	HDR	**Dimensions**	124x83x25 mm

HDM-1x2-P-01-2019

MT Hood
HDMI-SET-8

50 meter (150 ft) 1080P HDMI Extender & Receiver

HDMI-1-E-II   **HDMI-1-R-II**

Key Features

- Supports HDMI 1.2, 1.3, 1.4
- Supports 480P, 720P, 1080i, 1080P
- Supports DVI resolutions up to 1920x1200
- Extends HDMI (1080P) signal up to 50 meters (150 feet)
- Uses a single CAT6 cable

Related Products

HDBT-SET-8
100m 1080P HDBT Extenders

HDBT-SET-10
70m UHD HDBT Extenders

HDBT-SET-11

100m UHD HDBT Extenders

Specifications

Model	HDMI-1-E-II	HDMI-1-R-II
Input	1 x HDMI Type A	1 x RJ45
Output	1 x RJ45	1 x HDMI TypeA
Mount	N/A	
Adjustment	N/A	Equalizer
Resolution	1920x1200/1080P up to 50 meters (150 ft)	
Dimension	67 x 37 x 24 mm	
Power	DC 5V 1A	

APANTAC
HDMI-SET-8-01-2019

Mazama
HDMI-xx-SC

HDMI Extenders over Fiber (1080P)

HDMI-xx-SC

Key Features

- Extends HDMI 1.4 (1920x1200/1080P) signals up to 300 meters (1,000 feet)
- Uses SC-type multi-mode fiber
- EDID is transmitted on a single fiber
- HDCP supported by the DDC channel
- Supports 12 bit deep color
- External power adapter included for the receiver
- Optional external power adapter for the transmitter

Related Products

HDM2.0-1x2-II
1 x 2 HDMI 2.0 splitter

HDM2.0-1x4-II
1 x 4 HDMI 2.0 splitter

HDM2.0-1x8-II
1 x 8 HDMI 2.0 splitter

Specifications

Model	HDMI-xx-SC-Tx	HDMI-xx-SC-Rx
Description	Transmitter	Receiver
Input	1 x HDMI type A (male)	1 x HDMI Type A (female)
Output	1 x SC connector (female)	1 x SC connector (female)
Fiber Optic	1 ch / Multi-mode (50/125um)	
Video Bandwidth	2.25 Gpbs (single link)	
Distance	1080P@300 m (1,000 ft)	
Power Consumption	1.3 W	1.1 W
Power Supplies	Optional	DC 5V 2A
Dimension	300 x 33 x 12 mm (W x D x H)	
Temperature	0 to 50C (Operating), -20 to 70C (Storage)	

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HDMI-xx-SC-01-2019

HDMI 2.0
HDMI Splitters, Switches, Matrix ..More

	HDM2.0-1x2-II	HDM2.0-1x4-II	HDM2.0-1x8-II
Maximum Resolution	3840x2160@60Hz (RGB 444)		
MaximumDistance	10m		
Power	DC 12V 1A		

	HDM2.0-2x1A	HDM2.0-4x1A	HDM2.0-8x1
Maximum Resolution	3840x2160@60Hz (RGB 444)		
Maximum Distance	10m		
De-embed Audio	Yes		No
Power	DC 12V 1A		

	OG-HDM2.0-1x4	OG-HDM2.0-1x8
Maximum Resolution	3840x2160@60Hz (RGB 444)	
Maximum Distance	10m	
Power	openGear	

	HDM2.0-4x2	HDM2.0-4x4II	HDM2.0-8x8-II
Maximum Resolution	3840x2160@60Hz (RGB 444)		
Maximum Distance	10m		
De-embed Audio	No	Yes	
Power	DC 12V 1A	AC 90 - 250	

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HDM2.0-DE-UHD	
Maximum Resolution	3840x2160@60Hz (RGB 444)
Maximum Distance	10m
Embed/De-embed Audio	Yes
Power	DC 12V 1A

HDM2.0-UHD-UDC	
Maximum Resolution	3840x2160@60Hz (RGB 444)
Maximum Distance	10m
Up/down Conversion	Yes
Power	DC 12V 1A

HDM2.0 Cable Booster	
Maximum Resolution	3840x2160@60Hz (RGB 444)
Maximum Distance	20m
Power	Optional 5V

	HDM-DP-UHD	HDM-DP-UHD-II	HDM-DP1.2
Maximum Resolution	3840x2160@60Hz (RGB 444)		1080P@60H/UHD@30Hz
Maximum Distance	10m		
Number of Outputs	2	2	1
Power	DC 12V 1A		N/A

	HDM2.0-FIB-II	HD2.0-FIB-II-HID
Maximum Resolution	3840x2160@60Hz (RGB 444)	
Maximum Distance	300 meters on multi-mode fiber	
HID Support on USB	No	Yes
Power	DC 12V 1A	

	HDM2.0-FIB-II-SM	HD2.0-FIB-II-HID-SM
Maximum Resolution	3840x2160@60Hz (RGB 444)	
Maximum Distance	10 km on single-mode fiber	
HID Support on USB	No	Yes
Power	DC 12V 1A	

MT Hood
HDM2.0-1x2-II

1x2 HDMI 2.0 Splitter/Distribution Amplifier

HDM2.0-1x2-II

Key Features

- Supports 4K/UHD 24/25/30/50/60Hz
- Supports HDMI 2.0/HDCP 2.2/HDCP 1.4
- Patent Pending Intelligent EDID management Technology (iDOT™) that supports built-in down scaler, chroma re-sampler and color space conversion
- Supports LPCM, Dolby True HD and Dolby Digital
- Cascadable for input expansion up to 8 levels

Front View

1 x HDMI input
1 x HDMI output

Rear View

1x reset key
1x DIP switch for mode settings
LEDs for scaling, output, input and power status
12V DC Jack

Related Products

HDM2.0-1x8-II
1x8 HDMI 2.0 distribution amplifier

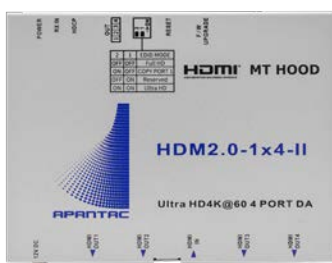**HDM2.0-1x4-II**
1x4 HDMI 2.0 distribution amplifier

Specifications

Model	HDM2.0-1x2-II		
Input	1 x HDMI	Max Resolution	4Kx2K(UHD)@60(4:4:4, 8 bit)/(4:2:0, 12bit)
Outputs	2 x HDMI	Cable distance	10m max (33 ft)
HDCP	HDCP 1.4/2.2	Power	DC 12V 1.25A
DIP Switch	EDID mode selection	Weight	530g
Dynamic Range	HDR/SDR, 4:4:4, 4:2:2	Dimensions	124x83x25 mm
Color Space	BT 601, 709 and 2020	Audio Support	LPCM, Dolby True HD, Dolby Digital/Plus.EX, DTS, DTS-HD master
LED	Front Panel indicator		

MT Hood
HDM2.0-1x4-II

1x4 HDMI 2.0 Splitter/Distribution Amplifier

HDM2.0-1x4-II

Key Features

- Supports 4K/UHD 24/25/30/50/60Hz
- Supports HDMI 2.0/HDCP 2.2/HDCP 1.4
- Patent Pending Intelligent EDID management Technology (iDOT™) that supports built-in down scaler, chroma re-sampler and color space conversion
- Supports LPCM, Dolby True HD and Dolby Digital
- Cascadable for input expansion up to 8 levels

Front View

1 x HDMI input
1 x HDMI output

Rear View

1x reset key
1x DIP switch for mode settings
LEDs for scaling, output, input and power status
12V DC Jack

Related Products

HDM2.0-1x2-II
1x2 HDMI 2.0 distribution amplifier

HDM2.0-1x8-II
1x8 HDMI 2.0 distribution amplifier

Specifications

Model	HDM2.0-1x4-II		
Input	1 x HDMI	**Resolution**	4Kx2K(UHD)@60(4:4:4, 8 bit)/(4:2:0, 12bit)
Outputs	4 x HDMI	**Cable distance**	10m max (33 ft)
HDCP	HDCP 1.4/2.2	**Power**	DC 12V 1.25A
DIP Switch	EDID mode selection	**Weight**	530g
Dynamic Range	HDR/SDR, 4:4:4, 4:2:2	**Dimensions**	152x114x25 mm
Color Space	BT 601, 709 and 2020	**Audio Support**	LPCM, Dolby True HD, Dolby Digital/Plus.EX, DTS, DTS-HD master
LED	Front panel indicator		

HDM2.0-1x4-II-01-2019

MT Hood
HDM2.0-1x8-II

1x8 HDMI 2.0 Splitter/Distribution Amplifier

HDM2.0-1x8-II

Key Features

- Supports 4K/UHD 24/25/30/50/60Hz
- Supports HDMI 2.0/HDCP 2.2/HDCP 1.4
- Patent Pending Intelligent EDID management Technology (iDOT™) that supports built-in down scaler, chroma re-sampler and color space conversion
- Supports LPCM, Dolby True HD and Dolby Digital
- Cascadable for input expansion up to 8 levels

Front View

Power status
Input status
HDCP status
Output status
DIP switch
Reset

Rear View

12V DC jack
1x HDMI input
8 x HDMI outputs

Related Products

HDM2.0-1x2-II
1x8 HDMI 2.0 distribution amplifier

HDM2.0-1x4-II
1x4 HDMI 2.0 distribution amplifier

Specifications

Model	HDM2.0-1x8-II		
Input	1 x HDMI	Resolution	4Kx2K(UHD)@60(4:4:4, 8 bit)/(4:2:0, 12bit)
Output	8 x HDMI	Cable distance	10m max (33 ft)
HDCP	HDCP 1.4/2.2	Power	DC 12V 1.25A
DIP Switch	EDID mode selection	Weight	1252g
Dynamic Range	HDR/SDR, 4:4:4, 4:2:2	Dimension	237 x 114 x 25 mm
Color Space	BT 601, 709 and 2020	Audio Support	LPCM, Dolby True HD, Dolby Digital/Plus.EX, DTS, DTS-HD master
LED	Front panel indicator		

openGear
OG-HDM2.0-1x2-Dual

Dual 1x2 HDMI 2.0 Splitter/Distribution Amplifier

OG-HDM2.0-1x2-Dual

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- Supports 4K/UHD 24/25/30/50/60Hz
- Supports HDMI 2.0/HDCP 2.2/HDCP 1.4
- Patent Pending Intelligent EDID management Technology (iDOT™) that supports built-in down scaler, chroma re-sampler and color space conversion
- Supports LPCM, Dolby True HD and Dolby Digital
- Cascadable for input expansion up to 8 levels
- 5 year limited warranty
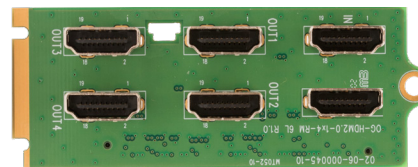
OG-HDM2.0-1x2-Dual-RM   Rear Module (2 slots)

2 x HDMI input
4 x HDMI outputs

How to Order
OG-HDM2.0-1x2-Dual-SET-1: 1 x OG-HDM2.0-1x2-Dual-MB + 1 x OG-HDM2.0-1x2-Dual-RM

Specifications

Model	OG-HDM2.0-1x2-Dual		
Input	2 x HDMI	Resolution	4Kx2K(UHD)@60(4:4:4, 8 bit)/(4:2:0, 12bit)
Outputs	4 x HDMI	Cable distance	10m max (33 ft)
HDCP	HDCP 1.4/2.2	Dynamic Range	HDR/SDR, 4:4:4, 4:2:2
Color Space	BT 601, 709 and 2020	Audio Support	LPCM, Dolby True HD, Dolby Digital/Plus.EX, DTS, DTS-HD master
Control	Dashboard		

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OG-HDM2.0-1x2-Dual

openGear
OG-HDM2.0-1x4

1x4 HDMI 2.0 Splitter/Distribution Amplifier
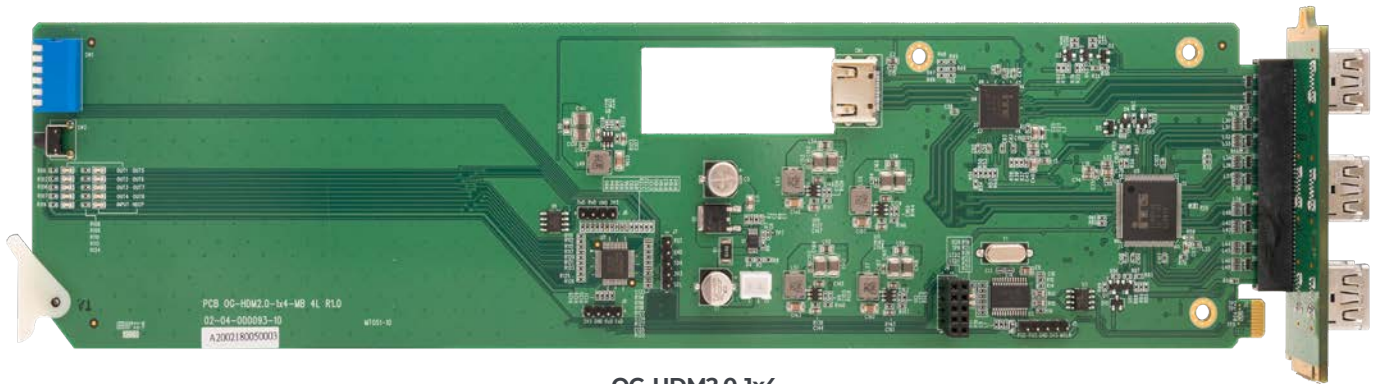
OG-HDM2.0-1x4

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- Supports 4K/UHD 24/25/30/50/60Hz
- Supports HDMI 2.0/HDCP 2.2/HDCP 1.4
- Patent Pending Intelligent EDID management Technology (iDOT™) that supports built-in down scaler, chroma re-sampler and color space conversion
- Supports LPCM, Dolby True HD and Dolby Digital
- Cascadable for input expansion up to 8 levels
- 5 year limited warranty

OG-HDM2.0-1x4-RM **Rear Module (2 slots)**

1 x HDMI input
4 x HDMI outputs

How to Order

OG-HDM2.0-1x4-SET-1: 1 x OG-HDM2.0-1x4-MB + 1 x OG-HDM2.0-1x4-RM


Specifications

Model	OG-HDM2.0-1x4		
Input	1 x HDMI	**Resolution**	4Kx2K(UHD)@60(4:4:4, 8 bit)/(4:2:0, 12bit)
Outputs	4 x HDMI	**Cable distance**	10m max (33 ft)
HDCP	HDCP 1.4/2.2	**Dynamic Range**	HDR/SDR, 4:4:4, 4:2:2
Color Space	BT 601, 709 and 2020	**Audio Support**	LPCM, Dolby True HD, Dolby Digital/Plus.EX, DTS, DTS-HD master
Control	Dashboard		

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openGear
OG-HDM2.0-1x8

1x8 HDMI 2.0 Splitter/Distribution Amplifier
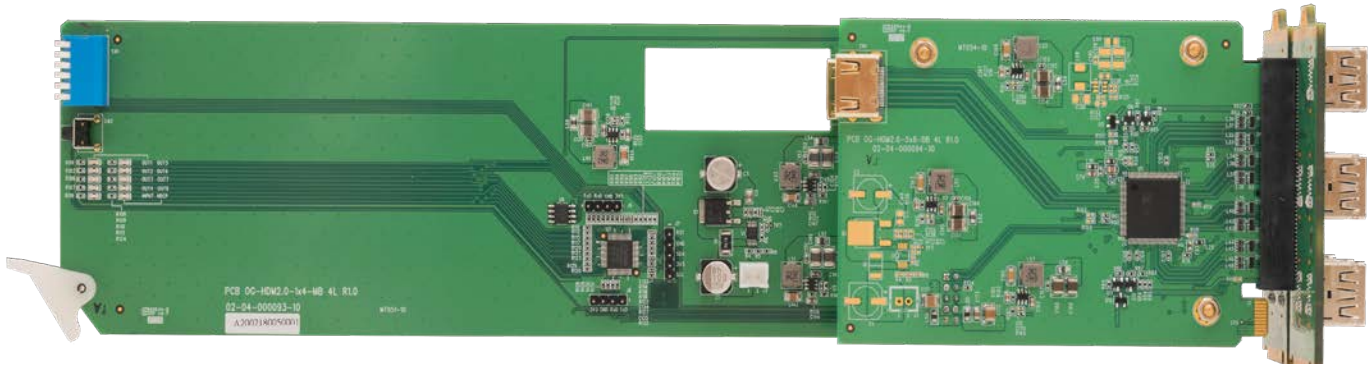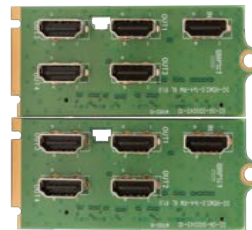

OG-HDM2.0-1x8

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- Supports 4K/UHD 24/25/30/50/60Hz
- Supports HDMI 2.0/HDCP 2.2/HDCP 1.4
- Patent Pending Intelligent EDID management Technology (iDOT™) that supports built-in down scaler, chroma re-sampler and color space conversion
- Supports LPCM, Dolby True HD and Dolby Digital
- Cascadable for input expansion up to 8 levels
- 5 year limited warranty

OG-HDM2.0-1x8-RM Rear Module (4 slots)

1 x HDMI input
8 x HDMI outputs

How to Order

**OG-HDM2.0-1x8-SET-1:** 1 x OG-HDM2.0-1x8-MB + 1 x OG-HDM2.0-1x8-RM

Specifications

Model	OG-HDM2.0-1x8		
Input	1 x HDMI	Resolution	4Kx2K(UHD)@60(4:4:4, 8 bit)/(4:2:0, 12bit)
Outputs	8 x HDMI	Cable distance	10m max (33 ft)
HDCP	HDCP 1.4/2.2	Dynamic Range	HDR/SDR, 4:4:4, 4:2:2
Color Space	BT 601, 709 and 2020	Audio Support	LPCM, Dolby True HD, Dolby Digital/Plus.EX, DTS, DTS-HD master
Control	Dashboard		

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OG-HDM2.0-1x8

MT Hood
HDM2.0-2x1A

HDMI 2.0 (UHD) 2x1 switch with audio de-embedder
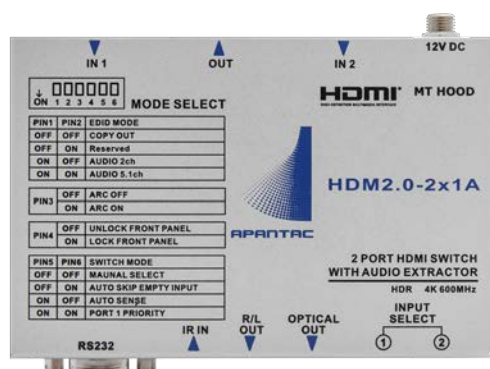
HDM2.0-2x1A

Key Features

- Supports 4K/UHD24/25/30/50/60Hz
- Supports HDMI 2.0/1.4, HDCP 2.2/1.4
- Supports 4:4:4, 4:2:2, SDR and HDR
- Supports BT601, BT709, and BT2020
- Supports LPCM, Dolby True HD and Dolby Digital
- Supports analog and digital audio de-embedding
- RS-232 controllable
- IR controllable

Front View

12V DC input
2 x HDMI inputs
1 x HDMI output

Rear View

DB9 for control
1 x 3.5 mm input for IR control
1 x 3.5 mm output for analog audio
1 x optical output for digital audio
Selection buttons 1 and 2

Related Products

HDM2.0-2x1
HDMI 2.0 2x1 switch

HDM2.0-4x1A
HDMI 2.0 4x1 switch with audio de-embedder

Specifications

Model	HDM2.0-2x1A
Video Inputs	2 x HDMI
Video Outputs	1 x HDMI
Audio Inputs	1 x 3.5 mm jack for analog audio, 1 x optical input for digital audio
Power	12V DC
Weight	530g

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MT Hood
HDM2.0-4x1A

HDMI 2.0 (UHD) 4x1 switch with audio de-embedder

HDM2.0-4x1A

Key Features

- Supports 4K/UHD24/25/30/50/60Hz
- Supports HDMI 2.0/1.4, HDCP 2.2/1.4
- Supports 4:4:4, 4:2:2, SDR and HDR
- Supports BT601, BT709, and BT2020
- Supports LPCM, Dolby True HD and Dolby Digital
- Supports analog and digital audio de-embedding
- RS-232 controllable
- IR controllable

Front View

12V DC input
4 x HDMI inputs
1 x HDMI output

Rear View

DB9 for control
1 x 3.5 mm input for IR control
1 x 3.5 mm output for analog audio
1 x optical output for digital audio
Selection buttons 1 and 2

Related Products

HDM2.0-1x2
HDMI 2.0 2x1 switch

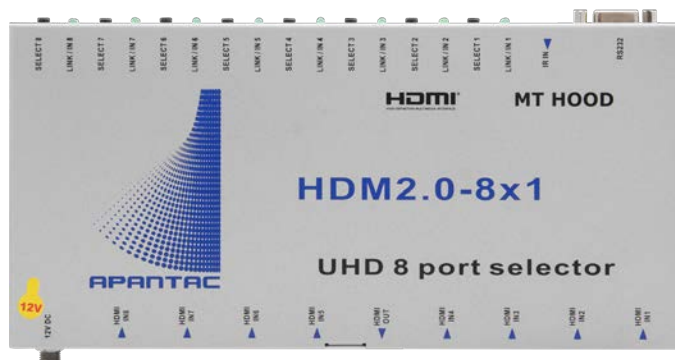**HDM2.0-1x2A**
HDMI 2.0 2x1 switch with audio de-embedder

Specifications

Model	HDM2.0-4x1A
Video Inputs	4 x HDMI
Video Outputs	1 x HDMI
Audio Inputs	1 x 3.5 mm jack for analog audio, 1 x optical input for digital audio
Power	12V DC
Weight	530g

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MT Hood
HDM2.0-8x1

8x1 HDMI 2.0 Selector / Switch

HDM2.0-8x1

Key Features

- Supports 4K/UHD 24/25/30/50/60Hz
- Supports pixel clock up to 600MHz
- Supports HDR
- Supports HDMI 2.0/HDCP 2.2/HDCP 1.4
- Supports LPCM, Dolby True HD and Dolby Digital
- Supports 3D pass-through
- Supports RS-232 control
- Supports IR remote control for switching

Front View

12V DC jack
8 x HDMI input
1 x HDMI output

Rear View

RS-232
1x IR input
LINK Status LED for input 1 to 8
Selection buttons 1 to 8

Related Products

HDM2.0-4x1A
4x1 HDMI 2.0 switch with audio extraction

HDM2.0-2x1A
2x1 HDMI 2.0 switch with audio extraction

Specifications

Model	HDM2.0-8x1		
Input	8 x HDMI	Selection buttons	8
Output	1 x HDMI	Max Resolution	4K/UHD@60Hz (4:4:4, 8bit, 4:2:0, 12bit)
HDCP	HDCP 1.4/2.2	Audio Support	LPCM, Dolby True HD, Dolby Digital/Plus.EX, DTS, DTS-HD master
RS-232 control	1 x DB9		
IR input	1 x 3.5 mm stereo phone jack	Cable reach	10m (33ft) max
Link status LED	8	Power Supply	12V 1A DC
Select status LED	8	Weight	1252g
Dimension	237 x 144 x 25 mm		

MT Hood
HDM2.0-4x2-UHD

HDMI 2.0 (UHD) 4x2 matrix
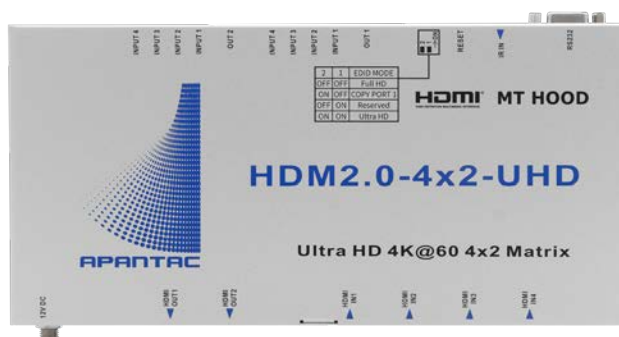
HDM2.0-4x2 (10 Year limited Gold Edition)

Key Features

· Supports resolution up to UHD@60Hz (4:4:4)
· Supports pixel clock up to 600MHz
· Supports HDCP 1.4/2.2 and HDR
· Supports up to 4 presets
· Supports IR pass-through on all I/O and frequency
· Supports IR pass -through on duplex transmission between I/O
· Supports RS-232 control
· Supports remote control
· Supports firmware upgrade

Front View

1x 12V DC power inlet
2 x HDMI outpus
4 x HDMI inputs

Rear View

Input status LED
Selection keys
Mode key
Reset key
IR in
RS-232

Related Products

HDM2.0-4x4-UHD-II
4x4 HDMI 2.0 UHD matrix

HDM2.0-8x8-UHD-II
8x8 HDMI 2.0 UHD matrix

Specifications

Model	HDM2.0-4x2-UHD	HDMI cable reach	10m
Input	2 x HDMI 2.0	Power supply	12V 1A DC
Output	4 x HDMI 2.0	Weight	1252g
Maximum Resolution	UHD@60Hz (4:4:4, 8 bit)/(4:2:0, 12 bit)	Dimensions	152 x 114 x 25 mm (LxWxH)
HDCP Compliant	HDCP 1.4/2.2		
Audio Support via HDMI	LPCM, Dolby True HD, Dolby Digital/Plus/Ex, DTS, DTS-HD		

MT Hood
HDM2.0-4x4-UHD-A

HDMI 2.0 (UHD) 4x4 matrix with audio breakout

Key Features

- Supports resolution up to UHD@60Hz (4:4:4)
- Supports pixel clock up to 600MHz
- Supports HDCP 1.4/2.2 and HDR
- Supports up to 4 presets
- Supports IR pass-through on all I/O and frequency
- Supports IR pass -through on duplex transmission between I/O
- Supports RS-232 control
- Supports remote control
- Supports firmware upgrade

Related Products

HDM2.0-4x2-UHD-II
HDMI 2.0 UHD 4x2 Matrix

HDM2.0-8x8-UHD-II
8x8 HDMI 2.0 UHD matrix

Front View (10 year Limited Gold version)

1 x Status LCD Module
1 x MENU, EDID, SAVE, ALL, EXIT, ENTER, LOAD, OFF buttons
1 x Status LED
4 x Output buttons (destinations)
4 x Input buttons (source)

Rear View (10 year Limited Gold version)

4 x HDMI outputs, 4 x HDMI inputs
Stereo audio breakout, Optical audio breakout
1 x RS-232
4 x IR Tx / 4 x Rx, 1 x IR extender
IP control for web, telnet and TCP
Power - 90 to 250V

Specifications

Model	HDM2.0-4x4-UHD-A	Display	LCD module
Input	4 x HDMI 2.0	Max Resolution	UHD@60Hz (4:4:4 8bit, 4:2:0, 12 bit)
Output	4 x HDMI 2.0	HDCP Compliance	HDCP 1.4/2.2
RS-232	1 x DB9	Audio Support	LPCM, Dolby TrueHD, Dolby Digital/Plus/EX, DTS, DTS-HD Master audio
IP Control	1 x RJ45, Telnet, TCP, web	Baud Rte	115200 bps; 8 data bits, 1 stop bit, no parity
IR Control	1 x 3.5 mm stereo jack	Power Supply	0 ~ 250 VAC
IR Matrix output	4 x 3.5 mm stereo jack	Weight	2.5Kg
IR Matrix Input	4 x 3.5 mm stereo jack	Dimension	440 x 198 x 43 mm

HDM2.0-4x4-UHD-A-01-2019

MT Hood
HDM2.0-8x8-UHD-A

HDMI 2.0 (UHD) 8x8 matrix with audio breakout

Key Features

- Supports resolution up to UHD@60Hz (4:4:4)
- Supports pixel clock up to 600MHz
- Supports HDCP 1.4/2.2 and HDR
- Audio breakout
- Supports up to 4 presets
- Supports IR pass-through on all I/O and frequency
- Supports IR pass -through on duplex transmission between I/O
- Supports RS-232 control
- Supports remote control
- Supports firmware upgrade

Related Products

HDM2.0-4x2-UHD-II
HDMI 2.0 UHD 4x2 Matrix

HDM2.0-4x4-UHD-II-A
4x4 HDMI 2.0 UHD matrix

Front View

1 x Status LCD Module
1 x MENU, EDID, SAVE, ALL, EXIT, ENTER, LOAD, OFF buttons
1 x Status LED
8 x Output buttons (destinations)
8 x Input buttons (source)

Rear View

8 x HDMI outputs, 8 x HDMI inputs
Stereo audio breakout, Optical audio breakout
1 x RS-232
4 x IR Tx / 4 x Rx, 1 x IR extender
IP control for web, telnet and TCP
Power - 90 to 250V

Specifications

Model	HDM2.0-8x8-UHD-A	Display	LCD module
Input	8 x HDMI 2.0	Max Resolution	UHD@60Hz (4:4:4 8bit, 4:2:0, 12 bit)
Output	8 x HDMI 2.0	HDCP Compliance	HDCP 1.4/2.2
RS-232	1 x DB9	Audio Support	LPCM, Dolby TrueHD, Dolby Digital/Plus/EX, DTS, DTS-HD Master audio
IP Control	1 x RJ45, Telnet, TCP, web	Baud Rte	115200 bps; 8 data bits, 1 stop bit, no parity
IR Control	1 x 3.5 mm stereo jack	Power Supply	0 ~ 250 VAC
IR Matrix output	8 x 3.5 mm stereo jack	Weight	3.2Kg
IR Matrix Input	8 x 3.5 mm stereo jack	Dimension	440 x 198 x 43 mm

MT Hood
HDM2.0-DE-UHD

HDMI 2.0 (UHD) audio embedder / de-embedder

HDM2.0-DE-UHD

Key Features

- Supports HDMI 2.0 video input and output
- Can embed/deembed analog and digital (optical) audio
- Dip switch for embed/de-embed mode
- Dip switch for EDID and audio configuration

Front View

12V DC input
Power LED
1 x HDMI input
1 x optical input for digital audio
1 x 3.5 mm input for analog audio

Rear View

1 x 3.5 mm output for analog audio
1 x optical output for digital audio
1 x HDMI output
1x DB9 for FW upgrade
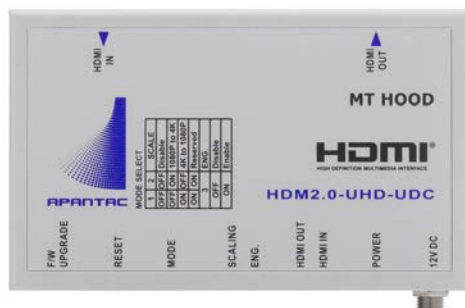
Related Products

HDMI-DE
HDMI audio de-embedder

Specifications

Model	HDM2.0-DE-UHD
Video Inputs	1 x HDMI
Video Outputs	1 x HDMI
Audio Inputs	1 x 3.5 mm jack for analog audio, 1 x optical input for digital audio
Power	12V DC
Weight	530g

APANTAC
HDM2.0-DE-UHD-01-2019

MT Hood
HDM2.0-UHD-UDC

HDMI 2.0 Up/Down Converter

HDM2.0-UHD-UDC

Key Features

- Supports up and down conversion from UHD to 1080P and vise versa
- Supports HDCP 2.2 and 1.4
- Supports resolution up to 4K/UHD@60Hz at 4:4:4
- DIP switch for easy configuration
- Status LEDs for stat of the converter

Front View

1 x HDMI input
1 x HDMI output

Rear View

1x reset key
1x DIP switch for mode settings
LEDs for scaling, output, input and power status
12V DC Jack

Related Products

HDM2.0-1x2-II
1x2 HDMI 2.0 distribution amplifier

HDM2.0-1x4-II
1x4 HDMI 2.0 distribution amplifier

Specifications

Model	HDM2.0-UHD-UDC
Input	1 x HDMI
Output	1 x HDMI
Reset	1 x reset button
DIP Switch	4 pins
LEDs	Scaling, input, output, power
Power	DC 12V 1A
Dimension	156 x 83 x 25 mm
Weight	530 g

MT Hood
HDM2.0-Cable-Booster

HDMI 2.0 cable booster

HDM2.0-Cable-Booster

Key Features

- Turn any regular HDMI (1080P or less) cable to an HDMI 2.0 (18G) cable
- Supports up to 20 meters in full HDMI 2.0 mode
- Supports up to 30 meters in 1080P mode
- Ideal for lecture room installations when two or more cables are needed to be connected. For example: between projector to the wall plate, then to the lectern and laptop
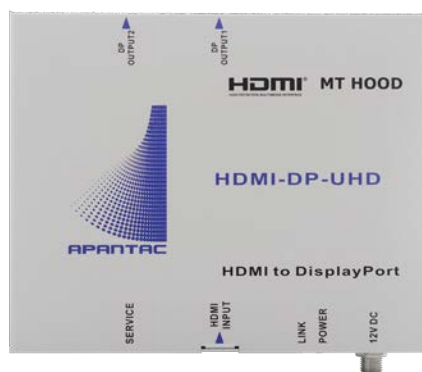- Optional USB power

Specifications

Model	HDM2.0-Cable-Booster
Description	Cable booster
Input	1 x HDMI Type A (female)
Output	1 x HDMI Type A (male)
Distance	20 meters for HDMI 2.0 (HUD), 30 meters for 1080P
Option	5V optional power (not included)

MT Hood
HDM-DP-UHD

HDMI 2.0 to DP 1.2 Convertor

HDM-DP-UHD

Key Features

- Convert HDMI 2.0 (RGB 4:4:4@60Hz) input to two DisplayPort 1.2 (SST) outputs
- Supports HDMI input bandwidth up to 18 Gbps
- Supports DisplayPort RBR/HBR/HBR2 link rate
- Supports stereo audio, 32k - 192k sample rate
- LED status indicators
- 12V DC

Front View

1 x HDMI input
Status LEDs
12V DC Jack

Rear View

2 x DP 1.2 outputs

Related Products

HDM2.0-4x1A
4x1 HDMI 2.0 switch with audio extraction

HDM2.0-2x1
2x1 HDMI 2.0 switch

Specifications

Model	HDM-DP-UHD
Input	1 x HDMI (3840x2160/4096x2160 @60Hz RGB/YUV 4:4:4, YUV 4:2:2 and YUV 4:2:0@60Hz.
Output	2 x DisplayPorts (3840x2160/4096x2160 @60Hz RGB/YUV 4:4:4)
Audio	Stereo, 32k - 192kHz sample rate
Power	DC 12V / 2A
Temperature	Operating: 0 - 45C, Storage: -20 - 60C
Operating humidity	20 - 90%
Weight	610g
Dimension	140 x 114 x 29 mm

MT Hood
HDM-DP-UHD-II

HDMI 2.0 to DP 1.2 Converter

HDM-DP-UHD-II

Key Features

- Convert HDMI 2.0 (RGB 4:4:4@60Hz) input DisplayPort 1.2 (SST) outputs
- Supports HDMI input bandwidth up to 18 Gbps
- Supports DisplayPort RBR/HBR/HBR2 link rate
- Supports stereo audio, 32k - 192k sample rate
- LED status indicators
- 12V DC

Front View

1 x HDMI input
Status LEDs
12V DC Jack

Rear View

1 x DP 1.2 outputs

Related Products

HDM-DP-UHD
HDMI 2.0 to 2 x DP 1.2 converter
DP-1x2-II
DP 1 x 2 Distribution amplifier / splitter

Specifications

Model	HDM-DP-UHD-II
Input	1 x HDMI (3840x2160/4096x2160 @60Hz RGB/YUV 4:4:4, YUV 4:2:2, does not support YUV 4:2:0@60Hz.
Output	1 x Displayport (3840x2160/4096x2160 @60Hz), follows the input color space
Audio	Stereo, 32k - 192kHz sample rate
Power	DC 12V / 1A
Temperature	Operating: 0 - 45C, Storage: -20 - 60C
Operating humidity	20 - 90%
Weight	356g
Dimension	70 x 60 x 25 mm

HDM-DP-UHD-II-01-2019

MT Hood
HDM-DP1.2

HDMI to DP 1.2 Cable

HDM-DP1.2

Key Features

- No external power required
- Converts HDMI signal to DisplayPort
- Supports HDMI 1.4 and HDCP 1.1 up to UHD@30Hz
- Supports 48 bit color depth
- Supports HDMI bandwidth up to 2.97 Gbps per channel
- Supports DP++
- EDID pass through
- Supports 7.1 digital audio up to 192 KHz

Related Products

HDM-DP-UHD
HDMI 2.0 to 2 x DP 1.2 converter

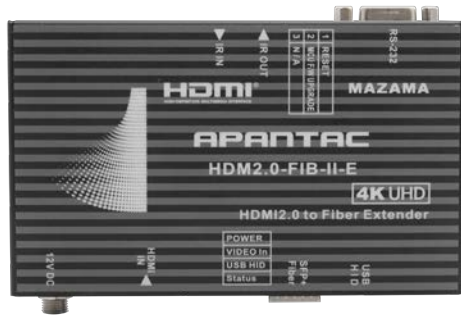**HDM-DP-UHD-II**
HDMI 2.0 to 1 x DP 1.2

Specifications

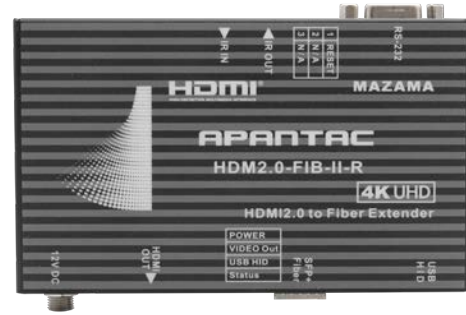| Model	HDM-DP1.2
Description	HDMI to DP conversion cable
Input	1 x HDMI input (female) up to HDMI 1.4 (UHD@30Hz)
Output	1 x DisplayPort (male)
Resolutions	1920x1080P@120Hz/24bit, 1920x1200P@60Hz/24bit, 3840x2160@30Hz/24bit

MAZAMA
HDM2.0-FIB-II / SM / HID

HDMI 2.0 Fiber Extenders

HDM2.0-FIB-II-E

HDM2.0-FIB-II-R

Key Features

- HDMI 2.0 to fiber extenders
- Supports up to 300 meters with LC to LC OM3 multi-mode fiber optic cable
- Supports up to 10 km with LC to LC single-mode fiber optic cable (on -SM model)
- Supports keyboard & mouse HID on (-HID model)
- Supports 4096x2160@60Hz 8 bit(4:4:4), 3840x2160@60Hz 8 bit(4:4:4), UHD@60Hz (4:2:0) 10/12 bit HDR and 1080P (12 bit)
- Supports all resolution up to 594MHz
- HDCP 1.4 and 2.2 compliant
- Supports CEC transfer
- Supports RS-232 transfer
- Supports keyboard and mouse via USB (on - HID model)
- Supports 38KHz frequency IR control
- Supports multi-channel PCM, Dolby True-HD and DTS HD master audio

MAZAMA
HDM2.0-FIB-II / SM / HID

HDM2.0-FIB-II-E

Front View

RS-232
DIP Switch
IR OUT (for IR blaster)
IR IN (for IR receiver)

Rear View

1 x 12V DC
HDMI IN
POWER/VIdeo in/USB-HID/Status
SFP+ Fiber Cage
USB Type B for PC (-HID model)

HDM2.0-FIB-II-R

Front View

RS-232
DIP Switch
IR OUT (for IR blaster)
IR IN (for IR receiver)

Rear View

1 x 12V DC
HDMI OUT
POWER/Video out/USB-HID/Status
SFP+ Fiber module
USB Type A for keyboard and mouse
(-HID model)

How to order

HDM2.0-FIB-II
HDMI 2.0 fiber extenders
with multi-mode fiber

HDM2.0-FIB-II-SM
HDMI 2.0 fiber extenders
with single-mode fiber

HDM2.0-FIB-II-HID
HDMI 2.0 fiber extenders
with keyboard and mouse
with multi-mode fiber

HDM2.0-FIB-II-HID-SM
HDMI 2.0 fiber extenders
with keyboard and mouse
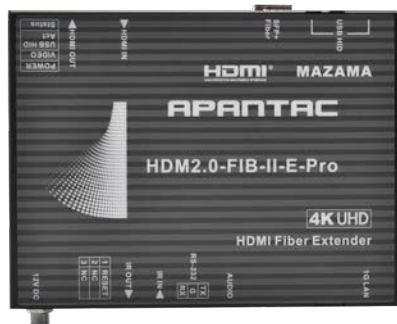with single-mode fiber

Specifications

Models		HDM2.0-FIB-II-E/SM/HID	HDM2.0-FIB-II-R/SM/HID
Video	Input	HDMI	LC fiber
	Output	LC fiber	HDMI
Audio		Supports multi-channel PCM, Dolby True-HD and DTS HD master Audio	
RS-232		Max 115,200 bps, default 9,600 bps	
IR In/Out		1 x 3.5 mm stereo jack each. IR blaster and IR receiver cables are optional	
USB Inputs		USB Type-B from PC	USB Type-A for keyboard/mouse (-HID model only)
Video Resolution		Up to 4096x2160 @ 60Hz	
Interconnect Cable		LC fiber, multi-mode/multi-mode	
Maximum Cable Length		300 meters on multi-mode fiber, 10 km on single-mode fiber	
Temperatures		Operating temperature: 0 ~ 50 C, storage temperature: -20 ~ 60C	
Environmental Humidity		0 ~ 80% RH (non-condensing)	
Power / Weight / Dimension		DC 12V, 1A. Consumption 10W, 440g. 126 x 83 x 28 mm	

APANTAC

MAZAMA
HDM2.0-FIB-II-Pro / SM / RJ

HDMI 2.0 Fiber Extenders

HDM2.0-FIB-II-E-Pro

HDM2.0-FIB-II-R-Pro

Key Features

- HDMI 2.0 to fiber extenders
- Supports up to 300 meters with LC to LC OM3 multi-mode fiber optic cable
- Supports up to 10 km with LC to LC single-mode fiber optic cable (on -SM model)
- Supports up to 80 meter with CAT6 cables
- Can become a NxM HDMI matrix that supports clean switching when combined with a 10 Gigabit Ethernet switch
- Supports 4096x2160@60Hz 8 bit(4:4:4), 3840x2160@60Hz 8 bit(4:4:4), UHD@60Hz (4:2:0) 10/13 bit HDR and 1080P (12 bit)
- Supports all resolution up to 594MHz
- HDCP 1.4 and 2.2 compliant
- Supports CEC transfer
- Supports RS-232 transfer
- Supports keyboard and mouse via USB
- Supports 38KHz frequency IR control
- Supports multi-channel PCM, Dolby True-HD and DTS HD master audio

MAZAMA
HDM2.0-FIB-II-Pro / SM / RJ

HDM2.0-FIB-II-E-Pro

Front View

Rear View

Front View

1 x USB Type B
2 x USB Type A
SFP+ Fiber Cage
1 x HDMI in
1 x HDMI out
Power/Video USB Status LED

Rear View

1 x 12V DC
Dip Switch
IR OUT (for IR blaster)
IR IN (for IR receiver)
RS-232
Audio
1G LAN

How to order

HDM2.0-FIB-II-Pro
HDMI 2.0 fiber extenders with keyboard & mouse HID on multi-mode fiber. Up to 300 meters

HDM2.0-FIB-II-Pro-SM
HDMI 2.0 fiber extenders with keyboard & mouse HID on single-mode fiber. Up to 10 km

HDM2.0-FIB-II-Pro-RJ
HDMI 2.0 copper extender with keyboard & mouse HID on CAT 6 cable. Up to 80 meters

HDM2.0-FIB-II-R-Pro

Front View

Rear View

Front View

2 x USB Type A
SFP+ Fiber Cage
1 x HDMI out
Power/Video USB Status LED

Rear View

1 x 12V DC
Dip Switch
IR IN (for IR receiver)
RS-232
Audio
1G LAN

Specifications

Models		HDM2.0-FIB-II-E-Pro/SM/RJ	HDM2.0-FIB-II-R-Pro/SM/RJ
Video	Input	1 x HDMI	LC fiber / RJ45
	Output	1 x HDMI, LC fiber / RJ45	1 x HDMI
Audio		Supports multi-channel PCM, Dolby True-HD and DTS HD master Audio	
RS-232		115,200 bps	
IR In/Out		1 x 3/5 mm stereo jack each. IR blaster and IR receiver cables are optional	
USB Inputs		1 x USB Type B from PC	2 x USB Type A for keyboard and mouse
Video Resolution		Up to 4096x2160 @ 60Hz	
Interconnect Cable		LC fiber, single-mode/multi-mode/CAT6	
Maximum Cable Length		300 meters on multi-mode fiber, 10 km on single-mode fiber, 80 meters on CAT6	
Temperatures		Operating temperature: 0 ~ 50 C, storage temperature: -20 ~ 60C	
Environmental Humidity		0 ~ 80% RH (non-condensing)	
Power / Weight / Dimension		DC 12V, 1A. Consumption 10W, 600g. 152 x 115 x 23 mm	

APANTAC

openGear
OG-HDM2.0-FIB-II-Tx

HDMI 2.0 (UHD@60Hz) Fiber/Copper Extenders/Matrix over 10 Gigabit Ethernet
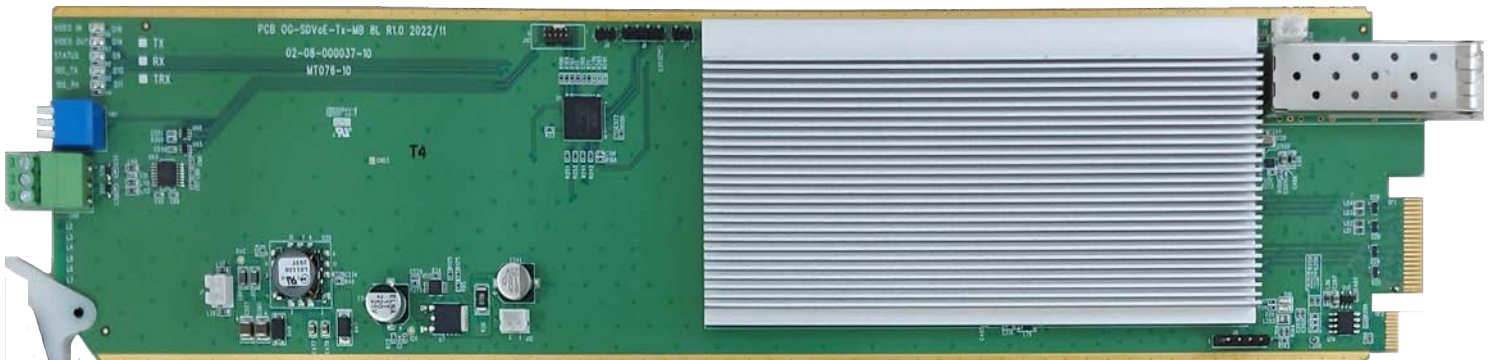
OG-HDM2.0-FIB-II-Tx-MB

Key Features

· openGear OGX card-based form factor

· High density design - can fit up 20 boards in an OGX frame with high density rear module

· Dashboard control enabled

· Compatible with Apantac Receivers HDM2.0-FIB-II-R, HDM2.0-FIB-II-R-Pro, SDM-FIB-R, SDM-FIB-R-Pro

· Supports up to 20km with single mode fiber, 300m on multi-mode fiber or 80m on CAT6

· Supports HDMI 2.0, HDCP 2.2/1.4

· Supports all HDMI 2.0 formats including multi-channel PCM, Dolby True-HD and DTS-HD master audio

· Supports Dolby Vision up to 4K60 in genlock mode. Does not support Dolby Vision in Scaling Mode

· Supports UHD RGB 4:4:4 8 bit, 4:2:0 10 bit and 12 bit HDR

· Supports all resolutions up to 594 MHz

· Supports CEC pass-through

· Supports RS-232 transfer

· Programmable to scale up or down any resolution between VGA and 4K

· Low power consumption

· 5 year limited warranty
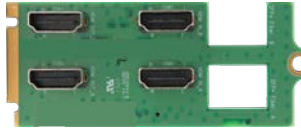
OPENGEAR
OG-HDM2.0-FIB-II-Tx

OG-HDM2.0-FIB-II-Tx-RM

Rear Module
1 x HDMI input
1 x HDMI Loopout
1 x SFP Output

OG-HDM2.0-FIB-II-Tx-RM2

Rear Module
Side A:
1 x HDMI input
1 x HDMI Loopout
1 x SFP Output

Side B:
1 x HDMI input
1 x HDMI Loopout
1 x SFP Output

Related Products

SDM-SDVoE-R
SDM RJ45 Receiver

SDM-FIB-R
SDM Fiber Receiver

SDM-FIB-R-Pro
SDM Fiber Receiver with Scaler

HDM2.0-FIB-II-R
HDMI 2.0 Fiber or RJ45 Receiver

HDM2.0-FIB-II-R-Pro
HDMI 2.0 Fiber/RJ45 Receiver with Scaler

SUPPORTED VIDEO FORMATS

RESOLUTIONS	Frame Rate	Color FORMAT	COLOR DEPTH (bits)
480i (720x480)	59.94	YUV 4:2:2	8/10/12
		YUV/RGB 4:4:4	8/10/12/16**
480P (720x480)	59.94	YUV 4:2:2	8/10/12
		YUV/RGB 4:4:4	8/10/12/16**
576i (720x576)	50	YUV 4:2:2	8/10/12
		YUV/RGB 4:4:4	8/10/12/16**
576P (720x576)	50	YUV 4:2:2	8/10/12
		YUV/RGB 4:4:4	8/10/12/16**
720P (1280x720)	50/59.94/60	YUV 4:2:2	8/10/12
		YUV/RGB 4:4:4	8/10/12/16**
1080i	50/59.94/60	YUV 4:2:2	8/10/12
		YUV 4:4:4	8/10/12/16**
1080P	23.976/24/25/29.97/30/50/59.94/60	YUV 4:2:2	8/10/12
		YUV/RGB 4:4:4	8/10/12/16**
3840x2160	23.98/24/25/29.97/30	YUV 4:2:2	8/10/12
		YUV/RGB 4:4:4	8/10/12/16**
	50/59.94/60	YUV 4:2:0/4:2:2	8/10/12
		YUV/RGB 4:4:4	8
4096x2160	23.98/24/25/29.97/30	YUV 4:2:2	8/10/12
		YUV/RGB 4:4:4	8/10/12/16**
	50/59.94/60	YUV 4:2:0/4:2:2	8/10/12
		YUV/RGB 4:4:4	8

- **16**: Color Depth input at 16-bit is converted output at 8 bit**
- **At 4K30Hz Dolby Vision and Low Latency Dolby Vision are supported**
- **At 4K60Hz only supports Low Latency Dolby Vision**

HDMI 2.1
HDMI Splitters and Switches

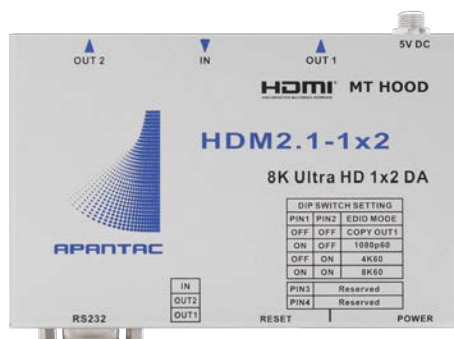|	HDMI2.1-1x2	HDM2.1-1x4	HDM2.1-2x1	HDM2.1-4x1
Inputs	1 x HDMI 12.1	1 x HDMI 2.1	2 x HDMI 2.1	4 x HDMI 2.1
Outputs	2 x HDMI 2.1	4 x HDMI 2.1	1 x HDMI 2.1	1 x HDMI 2.1
Distance	5 meters	5 meters	5 meters	5 x meters

apantac.com

MT Hood
HDM2.1-1x2

1x2 HDMI 2.1 (8K UHD) Splitter/Distribution Amplifier

HDM2.1-1x2

Key Features

- Supports HDMI 2.1/2.0/1.4
- Supports HDCP 2.3/HDCP 1.4
- Supports resolutions up to 4K@120Hz, 8K@60Hz
- Supports 8 channels of audio
- Supports PCM/Dolby TrueHD/DTS-HD/DSD
- Supports bandwidth up to 40 Gbps
- Supports DSC pass through
- Supports Dynamic HDR, 3D, VRR
- Built-in EDID
- Firmware upgrades via RS232

Front View

RS-232
LED Indicators
DIP switch for mode settings

Rear View

5V/3A
1 x HDMI input
2 x HDMI output

Related Products

HDM2.1-1x4
1x4 HDMI 2.1 distribution amplifier

Specifications

Model	HDM2.1-1x2		
Input	1 x HDMI	Max Resolution	4K@120Hz, 8K@60Hz
Outputs	2 x HDMI	Cable distance	10m max (33 ft)
HDCP	HDCP 1.4/2.3	Power	DC 5V 3A
DIP Switch	EDID mode selection	Weight	530g
Dynamic Range	Dynamic HDR/HDR+	Dimensions	124x83x25 mm
Color Space	BT 601, 709 and 2020	Audio Support	LPCM, Dolby True HD, DTS-HD, DSD
LED	Front Panel indicator		

HDM2.1-1x2-01-2019

MT Hood
HDM2.1-1x4

1x4 HDMI 2.1 (8K UHD) Splitter/Distribution Amplifier
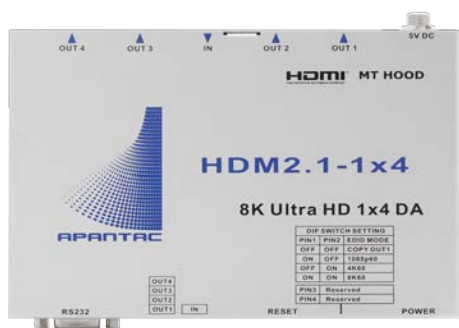
HDM2.1-1x4

Key Features

- Supports HDMI 2.1/2.0/1.4
- Supports HDCP 2.3/HDCP 1.4
- Supports resolutions up to 4K@120Hz, 8K@60Hz
- Supports 8 channels of audio
- Supports PCM/Dolby TrueHD/DTS-HD/DSD
- Supports bandwidth up to 40 Gbps
- Supports DSC pass through
- Supports Dynamic HDR, 3D, VRR
- Built-in EDID
- Firmware upgrades via RS232

Front View

RS-232
LED Indicators
DIP switch for mode settings

Rear View

5V/3A
1 x HDMI input
4 x HDMI output

Related Products

HDM2.1-1x2-II
1x2 HDMI 2.1 distribution amplifier

Specifications

Model	HDM2.1-1x4		
Input	1 x HDMI	Max Resolution	4K@120Hz, 8K@60Hz
Outputs	4 x HDMI	Cable distance	10m max (33 ft)
HDCP	HDCP 1.4/2.3	Power	DC 5V 3A
DIP Switch	EDID mode selection	Weight	530g
Dynamic Range	Dynamic HDR/HDR+	Dimensions	124x83x25 mm
Color Space	BT 601, 709 and 2020	Audio Support	LPCM, Dolby True HD, DTS-HD, DSD
LED	Front Panel indicator		

MT Hood
HDM2.1-2x1

HDMI 2.1 (8K UHD) 2x1 switch
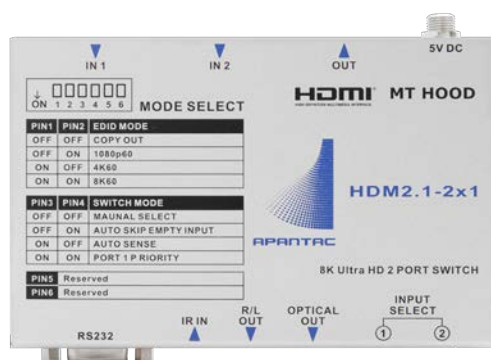
HDM2.1-2x1

Key Features

- Supports HDMI 2.1/2.0/1.4
- Supports HDCP 2.3/HDCP 1.4
- Supports resolutions up to 4K@120Hz, 8K@60Hz
- Supports 8 channels of audio
- Supports PCM/Dolby TrueHD/DTS-HD/DSD
- Supports bandwidth up to 40 Gbps
- Supports DSC pass through
- Supports Dynamic HDR, 3D, VRR
- Built-in EDID
- Firmware upgrades via RS232

Front View

DB9 for control
1 x 3.5 mm input for IR control
1 x 3.5 mm output for analog audio
1 x optical output for digital audio
Selection buttons 1 and 2

Rear View

5V 3A DC input
2 x HDMI inputs
1 x HDMI output

Related Products

HDM2.0-2x1
HDMI 2.0 2x1 switch

HDM2.0-4x1A
HDMI 2.0 4x1 switch with audio de-embedder

Specifications

Model	HDM2.0-2x1A
Video Inputs	2 x HDMI
Video Outputs	1 x HDMI
Audio Inputs	1 x 3.5 mm jack for analog audio, 1 x optical input for digital audio
Power	12V DC
Weight	530g

apantac.com

HDM2.1-2x1-01-2019

MT Hood
HDM2.1-4x1

HDMI 2.1 (8K UHD) 4x1 switch
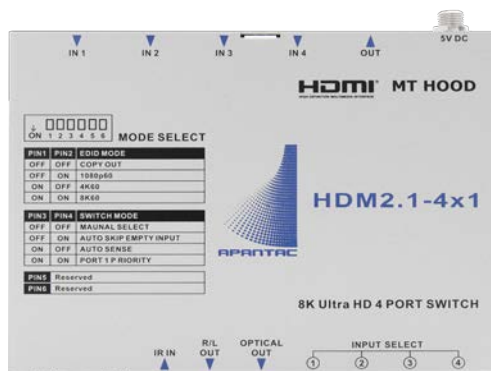
HDM2.1-4x1

Key Features

- Supports HDMI 2.1/2.0/1.4
- Supports HDCP 2.3/HDCP 1.4
- Supports resolutions up to 4K@120Hz, 8K@60Hz
- Supports 8 channels of audio
- Supports PCM/Dolby TrueHD/DTS-HD/DSD
- Supports bandwidth up to 40 Gbps
- Supports DSC pass through
- Supports Dynamic HDR, 3D, VRR
- Built-in EDID
- Firmware upgrades via RS232

Front View

DB9 for control
1 x 3.5 mm input for IR control
1 x 3.5 mm output for analog audio
1 x optical output for digital audio
Selection buttons 1,2,3,4

Rear View

5V/3A DC input
4 x HDMI inputs
1 x HDMI output

Related Products

HDM2.0-1x2
HDMI 2.0 DA

HDM2.0-2x1
HDMI 2.1 2x1 switch with audio de-embedder

Specifications

Model	HDM2.1-4x1
Video Inputs	4 x HDMI
Video Outputs	1 x HDMI
Audio Inputs	1 x 3.5 mm jack for analog audio, 1 x optical input for digital audio
Power	5V 3A DC
Weight	530g

DISPLAYPORT 1.2
Displayport Splitters, Extenders

	DP-1x2-II	DP-1x4-II	Micro-4K-DP
Maximum Bandwidth/Resolution	21.6 GHz		3840x2160P@60Hz
Number of Inputs	1 DP	1 DP	4 x 3G SDI
Number of DP Outputs	2	4	1
Power	DC 12V 1A		DC 12V 5A

	DP-FIB-II	DP-FIB-II-HID
Maximum Resolution	4096x2160/3840x2160P	
Input	1 DP	1 DP and USB (for HID)
Distance	Up to 300 meters on multi-mode fiber	
Power	DC 12V 1A	

	DP-FIB-II-SM	DP-FIB-II-HID-SM
Maximum Resolution	4096x2160/3840x2160P	
Input	1 DP	1 DP and USB (for HID)
Distance	Up to 10Km on single fiber	
Power	DC 12V 1A	

MT Hood
DP-1x2-II

DisplayPort 1x2 DA/Splitter
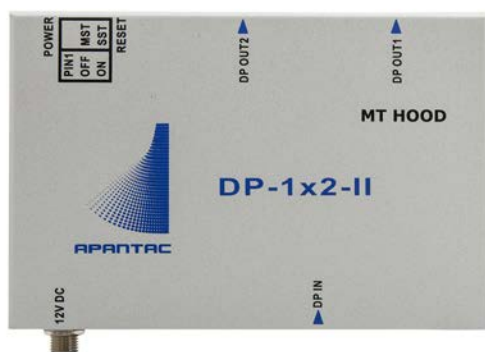
DP-1x2-II

Key Features

- Supports DisplayPort 1.2a
- Supports Displayport HDCP 1.3
- Supports HBR2/HBR/RBR
- Maximum bandwidth of 21.6GHz
- Support SST and MST Mode
- Compliant with DisplayPort 1, 2 or 4 lanes

Front View

1x 12V DC power inlet
1x DisplayPort input

Rear View

2x DisplayPort outputs
1x reset key
1x DIP switch for SST and MST setting
1x power status LED

Related Products

DP-1x4-II
1x4 DisplayPort
distribution amplifier

HDM2.0-1x2-II
1x2 HDMI 2.0
distribution amplifier

Specifications

Model	DP-1x2-II	Reset Key	1 x TACT SW
Input	1x DP	Power Status	1x Green LED
Output	2x DP	Power	12V DC 1A
Maximum Date Rate	21.6 Gpbs	Weight	310 g
Link Rate	HBR2, HBR, RBR	Dimensions	125 x 85 x 25 mm
Dip Switch	2 pin: SST/MST selection	Environment	Operating temperature: 0 ~ 40 C, Storage temperature : -20 ~ 60 C Humidity: 0 - 80% RH (non-condensing)

MT Hood
DP-1x4-II

DisplayPort 1x4 DA/Splitter
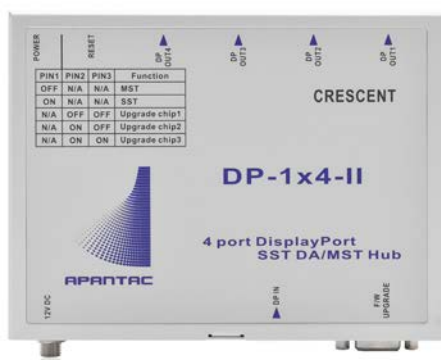
DP-1x4-II

Key Features

- Supports DisplayPort 1.2a
- Supports Displayport HDCP 1.3
- Supports HBR2/HBR/RBR
- Maximum bandwidth of 21.6GHz
- Support SST and MST Mode
- Compliant with DisplayPort 1, 2 or 4 lanes

Front View

1x 12V DC power inlet
1x DisplayPort input

Rear View

4 x DisplayPort outputs
1x reset key
1x DIP switch for SST and MST setting
1x power status LED

Related Products

DP-1x2-II
1x2 DisplayPort distribution amplifier

HDM2.0-1x2-II
1x2 HDMI 2.0 distribution amplifier

Specifications

Model	DP-1x4-II	Reset Key	1 x TACT SW
Input	1x DP	Power Status	1x Green LED
Output	4x DP	Power	12V DC 1A
Maximum Date Rate	21.6 Gpbs	Weight	310 g
Link Rate	HBR2, HBR, RBR	Dimensions	152 x 114 x 25 mm
Dip Switch	2 pin: SST/MST selection	Environment	Operating temperature: 0 ~ 40 C, Storage temperature : -20 ~ 60 C Humidity: 0 - 80% RH (non-condensing)

APANTAC
DP-1x4-II-01-2019

Crescent
Micro-4K-DP

Quad 3G to Displayport Converter

Micro-4K-DP

Key Features

- Supports 4 x 3G -SDI inputs
- Supports DisplayPort 1.2 output
- Supports Embedded audio
- Supports both QHD and 2SI

Front View

1 x Power status
1x DisplayPort output
1x 12V DC power inlet

Rear View

4 x SDI inputs

Related Products

DP-1x4-II
1x4 DisplayPort
distribution amplifier

DP-1x2-II
1x2 DisplayPort
distribution amplifier

Specifications

Model	Micro-4K-DP		
Video Input	4 x 3G-SDI	**Output**	Displayport 1.2
Serial Digital	SMPTE 424M, 292M, 259M		
Equalization	120m at 2,97 Gbps, 140m at 1.48 Gbps	**EMI/RFI**	Complies with FCC Part 15, Class A, CE, EU, EMC, C-tick
Return Loss	> 15db up to 1.485 Gbps	**Power**	12V DC 5A
Electrical	12W, 90 - 250V 50/60Hz	**Size**	180 mm x 118 mm x 34.5 mm (WxDxH)

MAZAMA
DP-FIB-II / SM / HID

DisplayPort 1.2 fiber extenders
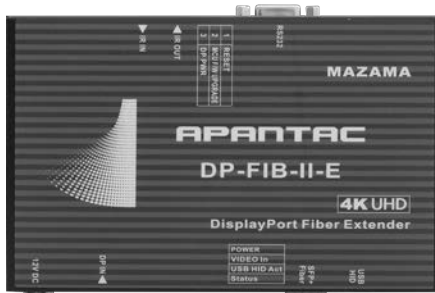
DP-FIB-II-E
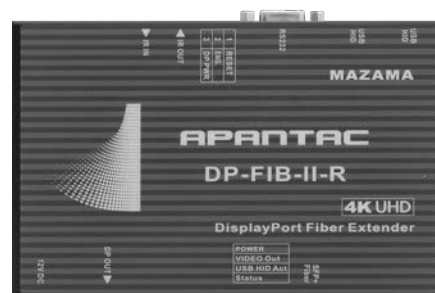
DP-FIB-II-R

Key Features

- DP 1.2 to fiber extenders
- Supports up to 300 meters with LC to LC OM3 multi-mode fiber optic cable
- Supports up to 10 km with LC to LC single-mode fiber optic cable (on -SM model)
- Supports keyboard & mouse HID on (-HID model)
- Supports 4096x2160@60Hz 8 bit(4:4:4), 3840x2160@60Hz 8 bit(4:4:4), UHD@60Hz (4:2:0) 10/12 bit HDR and 1080P (12 bit)
- Supports all resolution up to 594MHz
- HDCP 1.4 and 2.2 compliant
- Supports CEC transfer
- Supports RS-232 transfer
- Supports keyboard and mouse via USB (on - HID model)

Related Products

HDM2.0-FIB-II
HDMI 2.0 Fiber Extenders

DP-FIB-II / SM / HID-01-2019

MAZAMA
DP-FIB-II / SM / HID

DP-FIB-II-E

Front View

RS-232
DIP Switch
IR OUT (for IR blaster)
IR IN (for IR receiver)

Rear View

1 x 12V DC
DP IN
POWER/VIdeo USB-HID Status
SFP+ Cage
USB Type B for PC (-HID model)

How to order

DP-FIB-II
DP 1.2 fiber extenders with multi-mode fiber

DP-FIB-II-SM
DP 1.2 fiber extenders with single-mode fiber

DP-FIB-II-HID
DP 1.2 fiber extenders with keyboard and mouse with multi-mode fiber

DP-FIB-II-HID-SM
DP 1.2 fiber extenders with keyboard and mouse with single-mode fiber

DP-FIB-II-R

Front View

RS-232
DIP Switch
IR OUT (for IR blaster)
IR IN (for IR receiver)

Rear View

1 x 12V DC
DP OUT
POWER/Video USB-HID Status
SFP+ Fiber module
USB Type A for keyboard and mouse
(-HID model)

Specifications

Models		DP-FIB-II-E	DP-FIB-II-R
Video	Input	Display Port	LC fiber
	Output	LC fiber	Display Port
Audio		Supports multi-channel PCM, Dolby True-HD and DTS HD master Audio	
RS-232		Max 115,200 bps, default 9,600 bps	
IR In/Out		1 x 3/5 mm stereo jack each. IR blaster and IR receiver cables are optional	
Maximum Video Resolution		Up to 4096x2160 @ 60Hz	
Interconnect Cable		LC fiber, single mode/ multi-mode	
Maximum Cable Length		300 meters on multi-mode fiber, 10 km on single-mode fiber	
Temperatures		Operating temperature: 0 ~ 50 C, storage temperature: -20 ~ 85C	
Environmental Humidity		0 ~ 80% (non-condensing)	
Power / Weight / Dimension		DC 12V, 1.5A. Consumption 10W, 600g. 122 x 74 x 29 mm	

APANTAC

KVM Products

	KVM-2x1	KVM-SET-4	KVM-SET-10
Input	HDMI	VGA	HDMI
Maximum Resolution	1920x1080	1920x1200	
Number of Heads	1	1	1
POE	No	No	No
Distance	5m	300m	35m
Power	Passive	DC 5V 3A	

	KVM-SET-12-II	KVM-SET-13	KVM-SET-14	OG-KVM-IP-Tx
Input	VGA/DVI/HDMI	VGA/DVI/HDMI	HDMI	HDMI
Maximum Resolution	1920x1200		3840x2160@30Hz	
Number of Heads	1	2	1	1
POE	No	No	Yes	No
Over IP	Yes, over 1 GigE network, up to 100 meters			
Power	DC 12V 1A	DC 12V 5A	N/A	openGear frame

	KM-4	KM-8-UHD	OG-KM
Inputs	4 x USB	8 x USB	4 or 8 x USB
Outputs	1 x HDMI (converted from VGA), 1 x USB, 1 x RJ45		
Form Factor	Standalone Box	1 RU	openGear

	EVS-SET-1-III
Inputs	4 x RS-422, 1 x USB, 1 x USB
Outputs	2 USB for Keyboard and Mouse
Distance	300m over CAT6 cable

	EVS-FIB-SET-1
Inputs	4 x RS-422, 1 x USB, 1 x USB
Outputs	2 USB for Keyboard and Mouse
Distance	10km over single mode fiber cable

	PS2-USB
Inputs	2 x PS2
Outputs	2 USB for Keyboard and Mouse

MT Hood
KVM-2x1-SW

Passive 2x1 KVM switch

KVM-2x1-SW

Key Features

- 2x1 KVM Switch
- Supports up to 1080P
- Very compact
- Does not require external power supply

Front View

2 x Micro HDMI inputs from computers
2 x Micro USB inputs from computers

Rear View

1 x HDMI output
2 x USB outputs for Keyboard and
Mouse

Related Products

KVM-SET-12-II
KVM over IP Extenders for VGA/
DVI, USB and RS-232

KVM-SET-14
KVM over IP Extenders for
HDMI, USB and RS-232 and POE

Specifications

Model	KVM-2x1
Inputs	2 x USB, 2 HDMI 1.4
Outputs	2 x USB, 1 HDMI 1.4
Adjustments	N/A
Resolution	1920z1080p
Power	N/A

KVM-2x1-SW-01-2019

MT Hood
KVM-1-Eu + KVM-1-Ru (SET-4)

VGA + USB KVM Extender & Receiver

KVM-1-Eu

KVM-1-Ru

Key Features

- Extends VGA+Audio, USB (keyboard and mouse) over a single CAT5
- Maximum VGA resolution of 2048x1536 up to 300 meters (1000 feet)
- Supports USB 1.1
- Plug and play - no software needed
- Remote/local monitoring and control
- Support MS-DOS, Windows, Linux and Unix
- **DOES NOT work as a Touch Screen Extender**

Related Products

KVM-SET-12-II
KVM over IP Extenders for VGA/DVI, USB and RS-232

KVM-SET-14
KVM over IP Extenders for HDMI, USB and RS-232 and POE

Specifications

Model	KVM-1-Eu	KVM-1-Ru
Inputs	2 x USB, VGA+USB+Audio Combo cable, 1x Audio	1 x RJ45
Outputs	1 x RJ45, 1 x VGA (Localoutput), 1 x Audio	1 x VGA, 2 x USB (keyboard and mouse), 1 x Audio
Adjustments	N/A	Gain, Focus
Resolution	2048x1536 up to 300 meters (1000 ft)	
Dimension	62 x 113 x 29 mm (W x D x H)	
Power	DC 5V 1000mA	

KVM-1-Eu + KVM-1-Ru (SET-4)-01-2019

MT Hood
KVM-1-EH + KVM-1-RH (SET-10)

HDMI + USB KVM Extender & Receiver

KVM-1-EH

KVM-1-RH

Key Features

- Extends HDMI, USB (keyboard and mouse) over a single CATx
- Maximum HDMI resolution of 1920x1200 up to 50 meters (165 feet)
- Supports USB 1.1
- Plug and play - no software needed
- Remote/local monitoring and control
- Support MS-DOS, Windows, Linux and Unix
- **DOES NOT work as a Touch Screen Extender**

Related Products

KVM-SET-12-II
KVM over IP Extenders for VGA/DVI, USB and RS-232

KVM-SET-14
KVM over IP Extenders for HDMI, USB and RS-232 and POE

Specifications

Model	KVM-1-EH	KVM-1-RH
Inputs	2 x USB, HDMI, Audio input	1 x RJ45
Outputs	1 x RJ45, 1 x HDMI Local output, 1 x Audio output	1 x HDMI, 2 x USB (mouse, keyboard) 1 x Audio
Adjustments	N/A	Gain, Focus
Resolution	1920x1200 up to 50 meters (165 ft)	
Dimension	62 x 113 x 29 mm (W x D x H)	
Power	DC 5V 1000mA	

MT Hood KVM Extenders
KVM-IP-Tx/Rx (KVM-SET-12-II)

KVM Extenders/Matrix over IP. Based on standard Gigabit Ethernet

KVM-IP-Tx

KVM-IP-Rx

Key Features

- Based on Gigabit Ethernet Technology (IGMP and Jumbo frame)
- Supports up to 170 meters point to point extension with CAT6 cable
- Supports up to 100 meters when used with a GigE switch
- Supports HDMI, DVI or VGA inputs and output signals
- Supports point-to-point (unicast), point-to-multi-point (multicast) for audio/video distribution
- Performs similar to an expandable KVM switch when bundled with a GigE switch
- Receiver has 4x USB ports that support both HID and transparent USB (for USB storage and tablets)
- Supports bi-directional stereo audio; embedded HDMI and external stereo input
- Supports RS-232 communication between Tx and Rx
- Built-in webpage for configuration
- Connection manager software - KVM matrix control panel
- Supports resolutions up to 1920x1080P (HDMI/VGA) / 1920x1200 (DVI)
- Advanced EDID management functionality. Built-in EDID, EDID pass through, copy EDID and sharing EDID
- Built-in scaler on the receivers
- LED status indicators
- Plug and play

MT HOOD KVM EXTENDERS
KVM-IP-Tx/Rx (KVM-SET-12-II)

KVM-IP-Tx

Front View

1x system status LED
1x link status LED
1x 3 Pin - RS-232
2x buttons - function & mode
1x switch - D to A

Rear View

1x RJ45 Link Out
1x DVI-I (HDMI/DVI/VGA) input
1x phone jack - audio line in
1x phone jack - audio line out
1x USB Type B - PC In
1x 12V DC

KVM-IP-Rx

Front View

1x system status LED
1x link status LED
1x 3 Pin - RS-232
2x buttons - function & mode
2x USB Type A inputs - 2 HID
2x USB Type A inputs - 2 USB 2.0

Rear View

1x RJ45 Link In
1x DVI-I (HDMI/DVI/VGA) output
1x phone jack - microphone In
1x phone jack - audio line out
1x 12V DC

Related Products

KVM-IP-2-Tx
Dual Head KVM transmitter over IP

KVM-IP-2-Rx
Dual Head KVM receiver over IP

KVM-IP-Tx-PL
KVM transmitter over IP with POE and looping input

KVM-IP-Rx-P
KVM receiver over IP with POE

Specifications

Models		KVM-IP-Tx	KVM-IP-Rx
Video	Input	DVI-I (HDMI/DVI/VGA)	N/A
	Output	N/A	DVI-I (HDMI/DVI/VGA)
Audio	Input	3.5 mm Stereo Phone Jack	
	Output	N/A	3.5 mm Stereo Phone Jack
Microphone	Input	N/A	3.5 mm Stereo Phone Jack
USB	Tx Side	USB Type B (Female)	
	Rx Side	N/A	4x USB Type A (Female)
System Link	Input	N/A	RJ45
	Output	RJ45	N/A
RS-232 Baud Rate		3-pin Phoenix connector up to 115,200 bps, full duplex	
Video Resolution		HDMI/VGA: 1920x1080@60Hz, DVI: 1920x1200@60Hz	
Interconnect Cable		Standard CAT6/CAT6a/CAT7 network cable	
Maximum Cable Length		170m point-to-point, 100m when connected to a switch	
Temperatures		Operating temperature: 0 ~ 50 C, storage temperature: -20 ~ 85C	
Environmental Humidity		0 ~ 80% (non-condensing)	
Power / Weight / Dimension		DC 12V, 1.5A. Consumption 400 mA, 600g. 153.4 x 88.2 x 31.5 mm	

MT Hood KVM Extenders
KVM-IP-Tx2/Rx2 (KVM-SET-13)

Dual Head KVM Extenders/Matrix over IP. Based on standard Gigabit Ethernet

KVM-IP-Tx2

KVM-IP-Rx2

Key Features

- Dual Head KVM extenders
- Based on Gigabit Ethernet technology (IGMP and Jumbo frame)
- Supports up to 170 meters point-to-point extension with CAT6 cable
- Supports up to 100 meters when used with a GigE switch
- Supports HDMI, DVI or VGA inputs and output signals
- Supports point-to-point (unicast), point-to-multi-point (multicast) for audio/video distribution
- Receiver has 4x USB ports that supports both HID and transparent USB (for USB storage and tablets)
- Supports bi-directional stereo audio; embedded HDMI and external stereo input
- Supports RS-232 communication between Tx and Rx
- Built-in webpage for configuration
- Connection manager software - KVM matrix control panel
- Supports resolutions up to 1920x1080P (HDMI/VGA) / 1920x1200 (DVI)
- Advanced EDID management functionality. Built-in EDID, EDID pass through, copy EDID and sharing EDID
- Built-in scaler on the receivers
- LED status indicators
- Plug and play

MT HOOD KVM EXTENDERS
KVM-IP-Tx2/Rx2 (KVM-SET-13)

KVM-IP-Tx2

Front View

2x system status LED
2x link status LED
2x 3 Pin - RS-232
4x buttons - function & mode
2x switch - D to A

Rear View

2x RJ45 link out
2x DVI-I (HDMI/DVI/VGA) input
2x phone jack - audio line in
2x phone jack - audio line out
2x USB Type B - 2 x PC In
1x 12V DC

KVM-IP-Rx2

Front View

2x system status LED
2x link status LED
2x 3 Pin - RS-232
4x buttons - function & mode
4x USB Type A inputs - 2 HID
4x USB Type A inputs - 2 USB 2.0

Rear View

2x RJ45 link in
2x DVI-I (HDMI/DVI/VGA) output
2x phone jack - microphone in
2x phone jack - audio line out
1x 12V DC

Related Products

KVM-IP-Tx
KVM transmitter over IP

KVM-IP-Rx
KVM receiver over IP

KVM-IP-Tx-LP
KVM transmitter over IP with HDMI looping input and POE
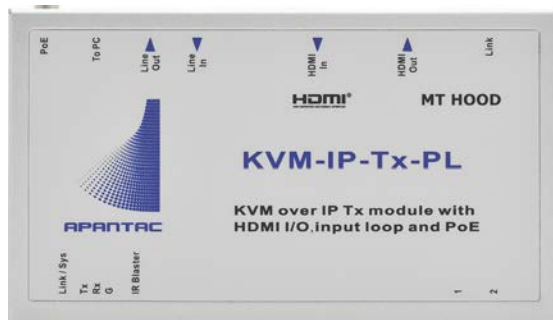
KVM-IP-Rx-P
KVM receiver over IP with POE

Specifications

| Models		KVM-IP-Tx2	KVM-IP-Rx2
Video	Input	2x DVI-I (HDMI/DVI/VGA)	N/A
	Output	N/A	2x DVI-I (HDMI/DVI/VGA)
Audio	Input	3.5 mm Stereo Phone Jack	
	Output	2x 3.5 mm Stereo Phone Jack	N/A
Microphone	Input	N/A	2x 3.5 mm Stereo Phone Jack
USB	Tx Side	2x USB Type B (Female)	
	Rx Side	N/A	8x USB Type A (Female)
System Link	Input	N/A	2x RJ45
	Output	2x RJ45	N/A
RS-232 Baud Rate		3-pin Phoenix connector / up to 115,200 bps / full duplex	
Video Resolution		HDMI/VGA: 1920x1080@60Hz, DVI: 1920x1200@60Hz	
Interconnect Cable		Standard CAT6/CAT6a/CAT7 network cable	
Maximum Cable Length		170m point-to-point, 100m when connected to a switch	
Temperatures		Operating temperature: 0 ~ 50 C, storage temperature: -20 ~ 85C	
Environmental Humidity		0 ~ 80% (non-condensing)	
Power / Weight / Dimensions		DC 12V, 3.5A. Consumption 800 mA, 1000g. 153.4 x 88.2 x 63 mm	

MT Hood KVM Extenders
KVM-IP-Tx-PL/Rx-P (KVM-SET-14)

KVM Extenders/Matrix over IP. Based on standard Gigabit Ethernet

KVM-IP-Tx-PL
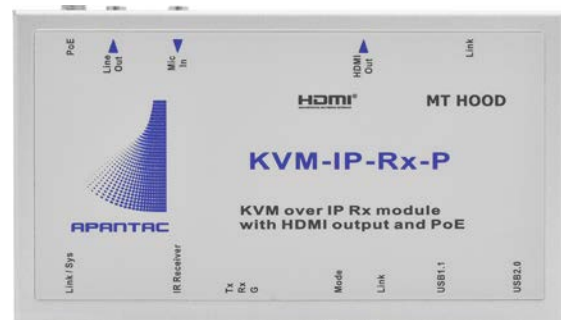
KVM-IP-Rx-P

Key Features

- Based on Gigabit Ethernet Technology (IGMP and Jumbo frame)
- Transmitter has built-in HDMI looping input with POE
- Receiver with POE
- Supports up to 170 meters point to point extension with CAT6 cable
- Supports up to 100 meters when used with a GigE switch
- Supports HDMI inputs and output signals
- Supports point to point (Unicast), point to multi-point (Multicast) for Audio/Video distribution
- Receiver has 4 USB ports that supports both HID and transparent USB (for USB storage, and tablets)
- Supports bi-directional stereo audio. Both embedded HDMI as well as external stereo input
- Connection manager software - KVM matrix control panel
- Built-in web-page for configuration
- Connection manager software for Tx/Rx management
- Supports resolutions up to 4K/UHD @ 30Hz
- Advanced EDID management functionality. Built-in EDID, EDID pass through, copy EDID and sharing EDID
- Built-in Scaler on the receivers
- LED Status indicators
- Plug and Play

MT HOOD KVM EXTENDERS

KVM-IP-Tx-PL/Rx-P (KVM-SET-14)

KVM-IP-Tx-PL

Front View

1 x System Status LED
1 x Link Status LED
1 x 3 Pin - RS-232
1 x IR Transmitter
2 x buttons - Function & Mode

Rear View

1 x RJ45 Link Out with POE
1 x HDMI Input
1 x HDMI Loop out
1 x phone jack - Audio Line In
1 x phone jack - Audio Line Out
1 x USB Type B - PC In
1 x 12V DC (Optional)

KVM-IP-Rx-P

Front View

1 x System Status LED
1 x Link Status LED
1 x IR Receiver
1 x 3 Pin - RS-232
2 x buttons - Function & Mode
2 x USB Type A inputs - 2 HID
2 x USB Type A inputs - 2 USB 2.0

Rear View

1 x RJ45 Link In with POE
1 x HDMI Output
1 x phone jack - Microphone In
1 x phone jack - Audio Line Out
1 x 12V DC (Optional)

Related Products

KVM-IP-2-Tx
Dual Head KVM transmitter over IP

KVM-IP-2-Rx
Dual Head KVM receiver over IP

KVM-IP-Tx-F
KVM transmitter over IP with fiber

KVM-IP-Rx-F
KVM receiver over IP with fiber

Specifications

| Products		KVM-IP-Tx-PL	KVM-IP-Rx-P
Video	Input	HDMI	RJ45
	Output	HDMI	HDMI
Audio	Input	3.5 mm Stereo Phone Jack	
	Output	N/A	3.5 mm Stereo Phone Jack
Microphone	Input	N/A	3.5 mm Stereo Phone Jack
USB	Tx Side	USB Type B (Female)	N/A
	Rx Side	N/A	4 x USB Type A (Female)
System Link	Input	N/A	RJ45
	Output	RJ45	N/A
RS-232 Baud Rate		3-pin Phoenix Connector / up to 115,200 bps / Full Duplex	
Video Resolution		Maximum 4K/UHD@30Hz	
Interconnect Cable		Standard CAT6/CAT6a/CAT7 network cable	
Maximum Cable Length		170m point to point, 100m when connected to a switch	
Temperatures		Operating Temperature: 0 ~ 50 C, Storage Temperature: -20 ~ 85C	
Environmental Humidity		0 ~ 80% (non-condensing)	
Power / Weight / Dimension		DC 12V, 1.5A. Consumption 400 mA, 600g. 153.4 x 88.2 x 31.5 mm	

MT Hood
KVM-SET-16

100 meter UHD HDMI Point to Point KVM Extenders with USB 2.0 support
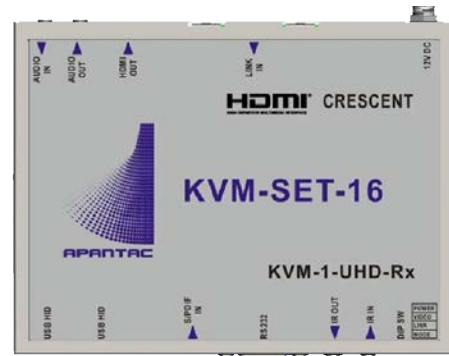
KVM-1-UHD-Tx

KVM-1-UHD-Rx

Key Features

- Supports HDMI 2.0 (4K@60 4:4:4 8 bit)
- Supports up to 4096 x 2160@60Hz, RGB 444, 8 bit
- Based on HDBT3 technology
- Supports 1080P@120Hz
- Supports HDCP 1.4/2.2/2.3
- HDMI loop through
- Maximum bandwidth 600 MHz
- Extends UHD HDMI signal up to 328 feet (100 meters)
- Supports USB 2.0
- Supports 3D and CEC pass-through
- Supports bi-directional RS-232
- Supports all frequency IR control Supports LPCM, Dolby True HD and Dolby Digital audio
- Dolby Digital audio
- 3 year limited warranty

MT Hood
KVM-SET-16

KVM-1-UHD-Tx

Front View

USB 2.0 Type A for KM or device
USB 2.0 Type A for KM or device
USB Type B for PC
SPDIF Output
RS-232
IR Out
IR In
Dip SW
Status LEDs

Rear View

12V DC
RJ45 Link out
HDMI Input
HDMI Output
Audio Output
Audio Input

Related Products

KVM-SET-17
100 meter UHD point to point
KVM extenders with POE

KVM-1-UHD-Rx

Front View

USB Type A 2.0/HID
USB Type 2.0 /HID
SPDIF Input
RS-232
IR Out
IR In
Dip SW
Status LEDs

Rear View

12V DC
RJ45 Link In
HDMI Output
Audio Out
Audio In

Specifications

Model	KVM-1-UHD-Tx	KVM-1-UHD-Rx
Video Connectors	1 x HDMI Input, 1 x HDMI Output, 1 x 1 x RJ-45	1 x HDMI Output, 1 x 1 x RJ-45
Audio Connectors	1 x 3.5 mm jack input, 1 x 3.5 mm jack output, 1 x SPDIF output	1 x 3.5 mm jack input, 1 x 3.5 mm jack output, 1 x SPDIF input
RS-232	1 x DB9 Female	
USB	2 x USB Type A, 1 USB Type B	2 x USB Type A
IR in/out	1 x 3.5 mm stereo jack each	
Max resolution, distance	100 meters for 4K@60Hz	
Power	DC 12V 1.5A	
Weight	500g	500g
Dimension	122 x 74 x 29 mm	

MT Hood
KVM-SET-17

100 meter UHD HDMI Point to Point KVM Extenders with USB 2.0 support

KVM-1-UHD-Tx-POE

KVM-1-UHD-Rx-POE

Key Features

- Supports HDMI 2.0 (4K@60 4:4:4)
- Supports up to 4096 x 2160@60Hz, RGB 444, 8 bit
- Based on HDBT3 technology
- Supports 1080P@120Hz
- Supports HDCP 1.4/2.2/2.3
- HDMI loop through
- Extends UHD HDMI signal up to 328 feet (100 meters)
- Supports POE
- Supports USB 2.0
- Supports 3D and CEC pass-through
- Supports bi-directional RS-232
- Supports all frequency IR control
- Supports LPCM, Dolby True HD and Dolby Digital audio
- 3 year limited warranty

KVM-SET-17-01-2019

MT Hood
KVM-SET-17

KVM-1-UHD-Tx-POE

Front View

USB 2.0 Type A for KM or device
USB 2.0 Type A for KM or device
USB Type B for PC
SPDIF Output
RS-232
IR Out
IR In
Dip SW
Status LEDs

Rear View

48V DC
RJ45 Link out
HDMI Input
HDMI Output
Audio Output
Audio Input

Related Products

KVM-SET-16
100 meter UHD point to point
KVM extenders

KVM-1-UHD-Rx-POE

Front View

USB Type A 2.0/HID
USB Type 2.0 /HID
SPDIF Input
RS-232
IR Out
IR In
Dip SW
Status LEDs

Rear View

RJ45 Link In
HDMI Output
Audio Out
Audio In

Specifications

| Model	KVM-1-UHD-Tx	KVM-1-UHD-Rx
Video Connectors	1 x HDMI Input, 1 x HDMI Output, 1 x 1 x RJ-45	1 x HDMI Output, 1 x 1 x RJ-45
Audio Connectors	1 x 3.5 mm jack input, 1 x 3.5 mm jack output, 1 x SPDIF output	1 x 3.5 mm jack input, 1 x 3.5 mm jack output, 1 x SPDIF input
RS-232	1 x DB9 Female	
USB	2 x USB Type A, 1 USB Type B	2 x USB Type A
IR in/out	1 x 3.5 mm stereo jack each	
Max resolution, distance	100 meters for 4K@60Hz	
Power	DC 48V	POE
Weight	500g	500g
Dimension	122 x 74 x 29 mm	

MT Hood KVM Extenders
KVM-IP-Tx/Rx-UHD-L(KVM-SET-18)

KVM (UHD@60Hz) Extenders/Matrix over IP. Based on standard Gigabit Ethernet
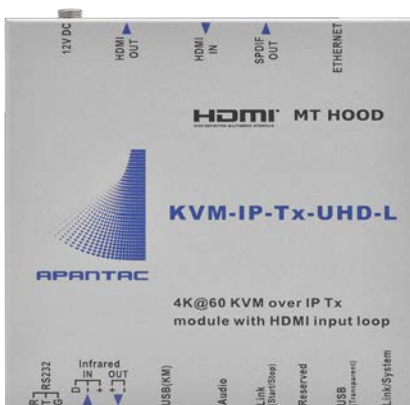
KVM-IP-Tx-UHD
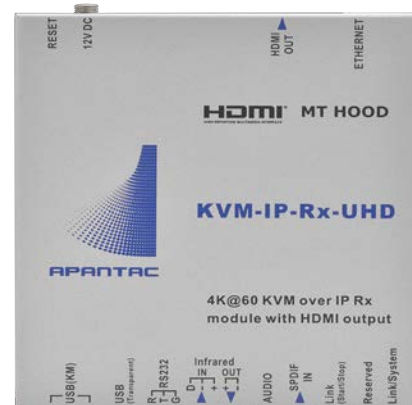
KVM-IP-Rx-UHD

Key Features

- Based on Gigabit Ethernet Technology (IGMP and Jumbo frame)
- Supports HDR 10/10+, HDCP 2.2/2.3
- Supports USB 2.0 over IP
- Supports AES 265 encryption
- Low latency of 17 ms for 60Hz, 20 ms for 50Hz
- Transmitter has built-in HDMI looping input
- Supports up to 170 meters point to point extension with CAT6 cable
- Supports up to 100 meters when used with a GigE switch
- Supports HDMI inputs and output signals
- Supports point to point (Unicast), point to multi-point (Multicast) for Audio/Video distribution
- Receiver has 3 USB ports that supports both HID and transparent USB (for USB storage, and tablets)
- Supports analog stereo audio in point to point mode. Both embedded HDMI as well as external stereo input
- Supports RS-232 communication between Tx and Rx
- Built-in web-page for configuration
- Connection manager software - KVM matrix control panel
- Supports resolutions up to UHD @ 60Hz
- Advanced EDID management functionality. Built-in EDID list or EDID from the display
- Built-in Scaler on the receivers
- POE Optional - Hardware option can be included at the time of order

MT HOOD KVM EXTENDERS
KVM-IP-Tx/Rx-UHD-L(KVM-SET-18)

KVM-IP-Tx-UHD

Front View

RS-232
Infrared In/Out
1 x USB Type B (Keyboard/Mouse)
1 x Analog Audio input
Link Start/Stop button
Button Reserved
1 x USB Type B (Transparent)
Status LEDs

Rear View

Ethernet
SPDIF output
HDMI Input
HDMI Loop out
1 x 12V DC

Related Products

KVM-IP-Tx-UHD-FL
4K@60 KVM over IP transmitter with Fiber and copper interface

KVM-IP-Rx-UHD-F
4K@60Hz KVM over IP receiver with Fiber and copper interface

KVM-IP-Rx-UHD

Front View

2 x USB Type A (Keyboard/Mouse)
1 x USB Type (Transparent)
RS-232
Infrared In/out
1 x Audio out
1 x SPDIF In
Link Start/Stop button
Status LEDs

Rear View

1 x RJ45 Ethernet In
1 x HDMI Output
1 x 12V DC
Reset

Specifications

| Products		KVM-IP-Tx-UHD-L	KVM-IP-Rx-UHD
Video	Input	HDMI 2.0	RJ45 (GigE)
	Output	HDMI 2.0	HDMI 2.0
Analog Audio	Input	3.5 mm Stereo Phone Jack	N/A
	Output	N/A	3.5 mm Stereo Phone Jack
Digital Audio	Input/Output	1 x SPDIF Output	1 x SPDIF Input
USB	Tx Side	USB Type B (Female)	N/A
	Rx Side	N/A	3 x USB Type A (Female)
System Link	Input	N/A	RJ45 (GigE)
	Output	RJ45 (GigE)	N/A
RS-232 Baud Rate		3-pin Phoenix Connector / up to 115,200 bps / Full Duplex	
Video Resolution		Maximum 3840x2160@60Hz	
Interconnect Cable		Standard CAT6/CAT6a/CAT7 network cable	
Maximum Cable Length		170m point to point, 100m when connected to a switch	
Temperatures		Operating Temperature: 0 ~ 50 C, Storage Temperature: -20 ~ 85C	
Environmental Humidity		0 ~ 80% (non-condensing)	
Power / Weight / Dimension		DC 12V, 1.5A. Consumption 400 mA, 835g. 120 x 130 x 34 mm (POE Optional)	

MT Hood KVM Extenders
KVM-IP-Tx-UHD-LF/Rx-UHD-F(SET-19)

KVM (UHD@60Hz) Fiber/Copper Extenders/Matrix over standard Gigabit Ethernet
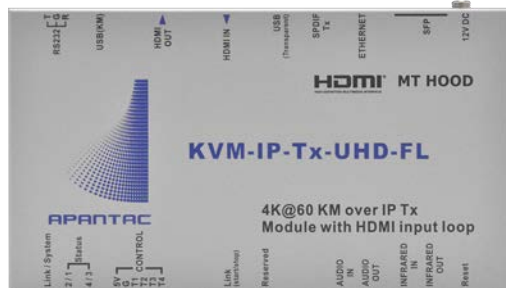
KVM-IP-Tx-UHD-FL
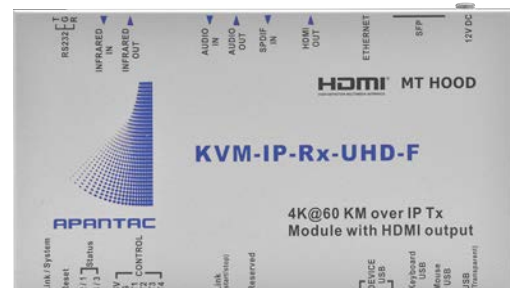
KVM-IP-Rx-UHD-F

Key Features

- Based on Gigabit Ethernet Technology (IGMP and Jumbo frame)
- Supports HDR 10/10+, HDCP 2.2/2.3
- Supports USB 2.0 over IP
- Supports AES 265 encryption
- Low latency of 17 ms for 60Hz, 20 ms for 50Hz
- Transmitter has built-in HDMI looping input
- Supports up to 170 meters point to point extension with CAT6 cable in Copper Mode
- Supports up to 100 meters when used with a GigE switch in Copper Mode
- Supports up to 10 Km in Fiber Mode
- Supports HDMI inputs and output signals
- Supports point to point (Unicast), point to multi-point (Multicast) for Audio/Video distribution
- Receiver has 5 USB-A ports that supports HID, tablets, storage, etc. and one independent USB2.0 link
- Supports analog stereo audio in point to point mode. Both embedded HDMI as well as external stereo input
- Supports RS-232 communication between Tx and Rx
- Built-in web-page for configuration
- Connection manager software - KVM matrix control panel
- Supports resolutions up to UHD @ 60Hz
- Advanced EDID management functionality. Built-in EDID list or EDID from the display
- Built-in Scaler on the receivers
- Fiber SFPs are included
- POE Optional - Hardware option can be included at the time of the order

MT HOOD KVM EXTENDERS

KVM-IP-Tx-UHD-LF/Rx-UHD-F(SET-19)

KVM-IP-Tx-UHD-FL

Front View

Link/System Status
Status LEDs
GPIO (Reserved)
Link Start/Stop
Button Reserved
Audio In/Out
IR In/Out

Rear View

12V DC
SFP Cage with 1GigE fiber SFP
Ethernet
SPDIF Tx
USB Transparent
HDMI In/Out
USB Keyboard and Mouse
RS-232

KVM-IP-Rx-UHD-F

Front View

Link/System Status
Reset
Status LEDs
GPIO (TBA)
Link Start/Stop
Button Reserved
Device USB x 2
Keyboard and mouse USB
Transparent USB

Rear View

12V DC
SFP Cage with 1 GigE fiber SFP
Status LEDs
Ethernet
HDMI Loopout
SPDIF In
Audio Out/In
Infrared Out/In
RS-232

Related Products

KVM-IP-Tx-UHD-FL
4K@60 KVM over IP transmitter with Fiber and copper interface

KVM-IP-Rx-UHD-F
4K@60Hz KVM over IP receiver with Fiber and copper interface

Specifications

Products		KVM-IP-Tx-UHD-LF	KVM-IP-Rx-UHD-F
Video	Input	HDMI 2.0	RJ45 (GigE)
	Output	HDMI 2.0	HDMI 2.0
Analog Audio	Input	3.5 mm Stereo Phone Jack	N/A
	Output	N/A	3.5 mm Stereo Phone Jack
Digital Audio	Input/Output	1 x SPDIF Output	1 x SPDIF Input
USB	Tx Side	USB Type B (Female)	N/A
	Rx Side	N/A	5 x USB Type A (Female)
System Link	Input	N/A	RJ45 (GigE) / Fiber SFP
	Output	RJ45 (GigE) / Fiber SFP	N/A
RS-232 Baud Rate		3-pin Phoenix Connector / up to 115,200 bps / Full Duplex	
Video Resolution		Maximum 3840x2160@60Hz	
Interconnect Cable		Standard CAT6/CAT6a/CAT7 network cable or LC fiber	
Maximum Cable Length		RJ45: 170m point to point, 100m when connected to a switch. LC fiber: 20km via single mode fiber	
Temperatures		Operating Temperature: 0 ~ 50 C, Storage Temperature: -20 ~ 85C	
Environmental Humidity		0 ~ 80% (non-condensing)	
Power / Weight / Dimension		DC 12V, 1.5A. Consumption 400 mA, 1035g. 197 x 105 x 34 mm (POE Optional)	

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openGear
OG-KVM-IP-Tx

KVM Extenders with either copper or fiber output based on 1 Gig Ethernet
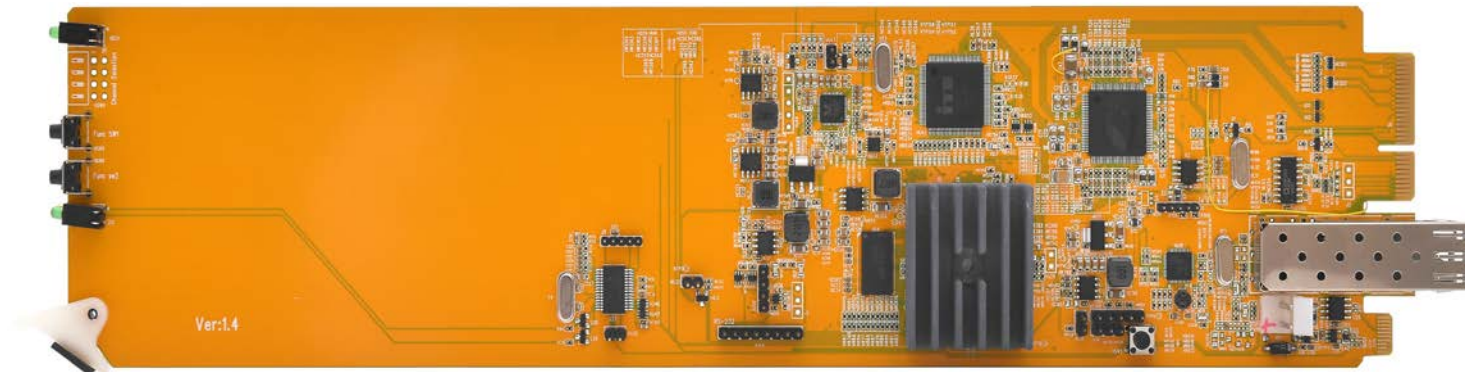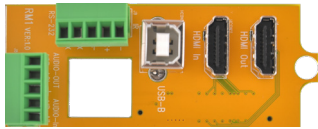

OG-KVM-IP-Tx-MB

Key Features

- openGear 3.0/X card-based form factor
- Dashboard control enabled
- 10 cards can fit into an openGear OG-X frame
- Based on Gigabit Ethernet Technology (IGMP and Jumbo frame), outputs both copper or fiber
- Requires KVM-IP-Rx, KVM-IP-Rx-P, KVM-IP-Rx-F to complete the system
- Multi-mode Fiber - support up to 550m (OM2/OM3)
- Single-mode Fiber - Supports up to 10 km
- Copper - Supports up to 170 meters point to point extension with CAT6 cable
- Copper - Supports up to 100 meters when used with a GigE switch
- Supports point-to-point (unicast), point-to-multi-point (multicast) for audio/video distribution
- Perform similarly to an expandable KVM switch when bundled with a GigE switch
- Supports bi-directional stereo audio; embedded HDMI and external stereo input
- Supports RS-232 communication between Tx and Rx
- Built-in web-page for configuration
- Connection manager software for Tx/Rx management
- Supports resolutions up to 3840x2160@30Hz
- Advanced EDID management functionality. Built-in EDID, EDID pass through, copy EDID and sharing EDID
- Built-in scaler on the receiver
- Low power consumption - less than 10W

OPENGEAR
OG-KVM-IP-Tx

OG-KVM-IP-Tx-RM

Rear Module (2 slots)

1 x HDMI input
1 x HDMI output
1 x USB to conntect to computer
1 x 4 pin for IR and RS232
1 x 4 pin for Audio in and out
1 x space for SFP (fiber or copper)

KVM over IP Receivers - Required to complete the system

KVM-IP-Rx-P

KVM-IP-Rx

How to Order

OG-KVM-IP-Tx-SET-1
OG-KVM-IP-Tx-MB +
OG-KVM-IP-Tx-RM

OG-KVM-IP-Tx-SET-2
1 x OG-KVM-IP-Tx-MB +
1 x OG-KVM-IP-Tx-RM +
1 x SFP-1G-RJ45

OG-KVM-IP-Tx-SET-3
1 x OG-KVM-IP-Tx-MB +
1 x OG-KVM-IP-Tx-RM +
1 x SFP-1G-Fiber

Related Products

KVM-IP-Rx-P
KVM over IP receiver with POE

KVM-IP-Rx
KVM over IP receiver that supports HDMI, DVI and VGA output

Specifications

Models		OG-KVM-IP-Tx	
Video	Input	HDMI	
	Output	HDMI Loop out + SFP (Fiber or copper)	
Audio	Input	2 of the 4 pin phoenix connector	
	Output	2 of the 4 pin phoenix connector	
USB	Tx Side	USB Type B (Female)	
System Link	Output	SFP (Fiber or copper)	
RS-232 Baud Rate		2 of the 4-pin Phoenix connector up to 115,200 bps, full duplex	
Video Resolution		Up to 3840x2160@30Hz	
Interconnect Cable		Standard CAT6/CAT6a/CAT7 network cable, single mode fiber or multi-mode fiber (OM2/OM3)	
Maximum Copper Cable Length		170m point-to-point, 100m when connected to a switch	
Maximum Fiber Cable Length		10 km on Single mode, 550m on multi-mode cables	

openGear
OG-KVM-IP-Tx-UHD

4K60 KVM Extenders with either copper or fiber output based on 1 Gig Ethernet
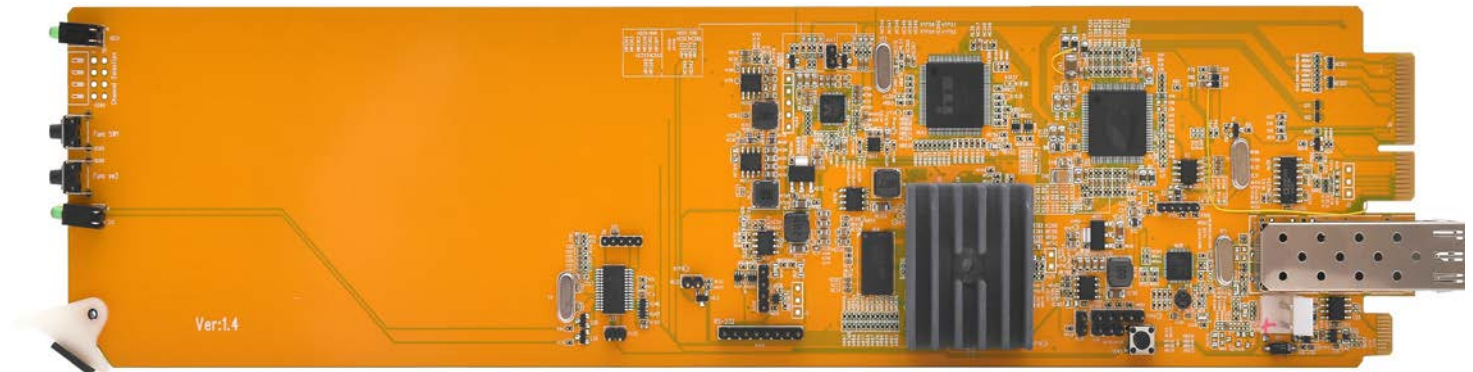

OG-KVM-IP-Tx-UHD-MB

Key Features

- openGear 3.0/X card-based form factor
- Dashboard control enabled
- 10 cards can fit into an openGear OG-X frame
- Based on Gigabit Ethernet Technology (IGMP and Jumbo frame), outputs both copper or fiber
- Requires KVM-IP-Rx-UHD, KVM-IP-Rx-UHD-F
- Multi-mode Fiber - support up to 550m (OM2/OM3)
- Single-mode Fiber - Supports up to 10 km
- Copper - Supports up to 170 meters point to point extension with CAT6 cable
- Copper - Supports up to 100 meters when used with a GigE switch
- Supports point-to-point (unicast), point-to-multi-point (multicast) for audio/video distribution
- Perform similarly to an expandable KVM switch when bundled with a GigE switch
- Supports bi-directional stereo audio; embedded HDMI and external stereo input
- Supports RS-232 communication between Tx and Rx
- Built-in web-page for configuration
- Connection manager software for Tx/Rx management
- Supports resolutions up to 3840x2160@30Hz
- Advanced EDID management functionality. Built-in EDID, EDID pass through, copy EDID and sharing EDID
- Built-in scaler on the receiver
- Low power consumption - less than 10W

OPENGEAR

OG-KVM-IP-Tx-UHD

OG-KVM-IP-Tx-RM-UHD

Rear Module (2 slots)
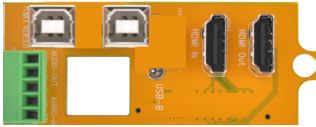
1 x HDMI 2.0 input
1 x HDMI 2.0 output
1 x USB 2.0 to conntect to computer
1 x Transparent USB 2.0
1 x 4 pin for Audio in and out
1 x space for SFP (fiber or copper)

KVM over IP Receivers - Required to complete the system

KVM-IP-Rx-UHD

KVM-IP-Rx-UHD-F

Specifications

| Models		OG-KVM-IP-Tx-UHD
Video	Input	HDMI 2.0
	Output	HDMI Loop out + SFP (Fiber or copper)
Audio	Input	2 of the 4 pin phoenix connector
	Output	2 of the 4 pin phoenix connector
USB	Tx Side	1 x Transparent USB Type B (Female), 1 x USB 2.0 Type B (Female)
System Link	Output	SFP (Fiber or copper)
Video Resolution		Up to 4096x2160@60Hz
Interconnect Cable		Standard CAT6/CAT6a/CAT7 network cable, single mode fiber or multi-mode fiber (OM2/OM3)
Maximum Copper Cable Length		120m point-to-point, 100m when connected to a switch
Maximum Fiber Cable Length		10 km on Single mode, 550m on multi-mode cables

openGear
KVM Product Overview

SINGLE HEAD CONSOLES

KVM-IP-Rx-P

KVM-IP-Rx
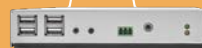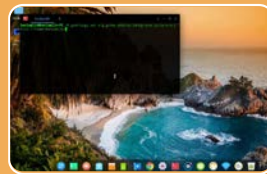
DUAL HEAD
(Up to 4

KVM-IP-Rx-P

Managed GigE POE Switch ▶

SINGLE HEAD COMPUTERS

Local Console

KVM-IP-Tx-PL

KVM-IP-Tx-PL

OG-KVM-IP-Tx

KVM

APANTAC
KVM Product Overview-01-2019

D CONSOLE
(...Heads)

KVM-IP-Rx-P

ONE SEAT - UP TO 4 CONSOLES
(With License)

KVM-IP-Rx-P   KVM-IP-Rx-P   KVM-IP-Rx-P

KVM
VIDEO WALL
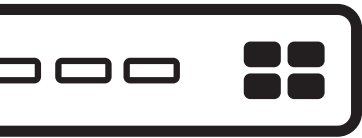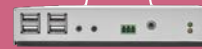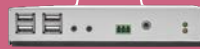
DUAL HEAD COMPUTER
(Up to 4 Heads)

KVM-IP-Tx-PL

-IP-Tx

APANTAC
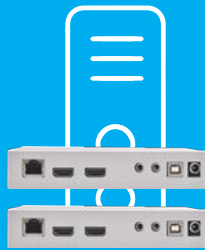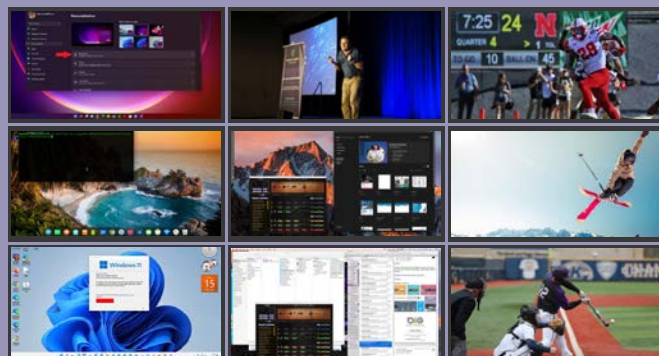
Crescent
KM-4

4 Input KM (Keyboard & Mouse) Switch

KM-4 Front
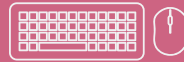
KM-4 Rear

Key Features

- Easily connect up to 4 individual displays into one virtual extended desktop with a single mouse and keyboard
- Switches seamlessly amongst 4 computers
- Switches by simply moving across the physical display borders
- Support 1 x 4 arrangements
- Transparent USB emulation for universal compatibility
- 1 RU, optional redundant power supply

Specifications

Model	KM-4
Numbers of USB ports to PC	4 Mini USB to connect to PC
Number of console	1
Numbers of USB ports for Peripheral	4 x USB Type A Female (Keyboard, mouse and expansion)
LED indicators	4
RS-232	2 x 3pin phoenix connectors
Environment	Operating Temp: 0 ~ 70C, Storage Temp: -40 ~ 100C, Humidity: 0~80% non-condensing,
Dimension	155 x 88 x 30 mm (L x W x H)
Weight	1 Kg

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KM-4-01-2019

MT-Hood
EVS-1-E-III+EVS-1-R-III (SET-1)

EVS XT3 CAT6 Extenders
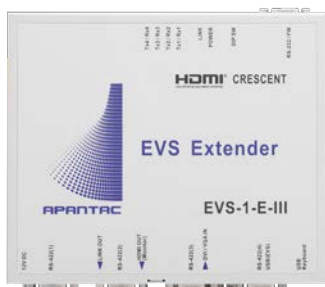
EVS-1-E-III
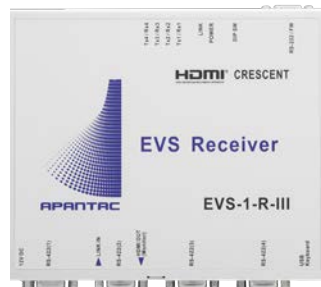
EVS-1-R-III

Key Features

- Extends EVS XT-3 VGA, Keyboard, RS-422 up to 330 feet with a single CAT6 cable with no delay
- Local HDMI (convert VGA to HDMI) and USB output
- VGA, USB, 4 x RS-422 signals are combined into a single CAT5/6 cable
- 4 x RS-422 can be used to connect to the LSM controller, the tablet, IPDirector and DYVI production switcher
- The CAT5/6 cables can be easily patched to freely assign the operator's position with the servers

Related Products

KVM-SET-12-II
KVM over IP Extenders

KVM-SET-14
KVM over IP Extenders with POE

OG-KVM-IP-Tx

openGear based KVM over IP Extender

Specifications

Model	EVS-1-E-III	EVS-1-R-III
Inputs	4 x RS-422, 1 x VGA (DVI-A), USB	RJ45
Outputs	1 x HDMI, USB, RJ45	4 x RS-422, 1 x HDMI, USB
Dimension	181 x 138 x 44 mm (W x D x H)	
Power	DC 12V 1000mA	

EVS-1-E-III+EVS-1-R-III (SET-1)-01-2019

MT-HOOD
EVS-1-E-III+EVS-1-R-III (SET-1)

Connection Example

RS-422
RS-422
RS-422
RS-422
VGA
USB

EVS-1-E-III

HDMI
USB

Local HDMI Monitor & Keyboard

CAT6 up to 100 meters/330 ft

LSM

LSM

IPDirector

EVS-1-R-III

Keyboard

HDMI Monitor

DYVI
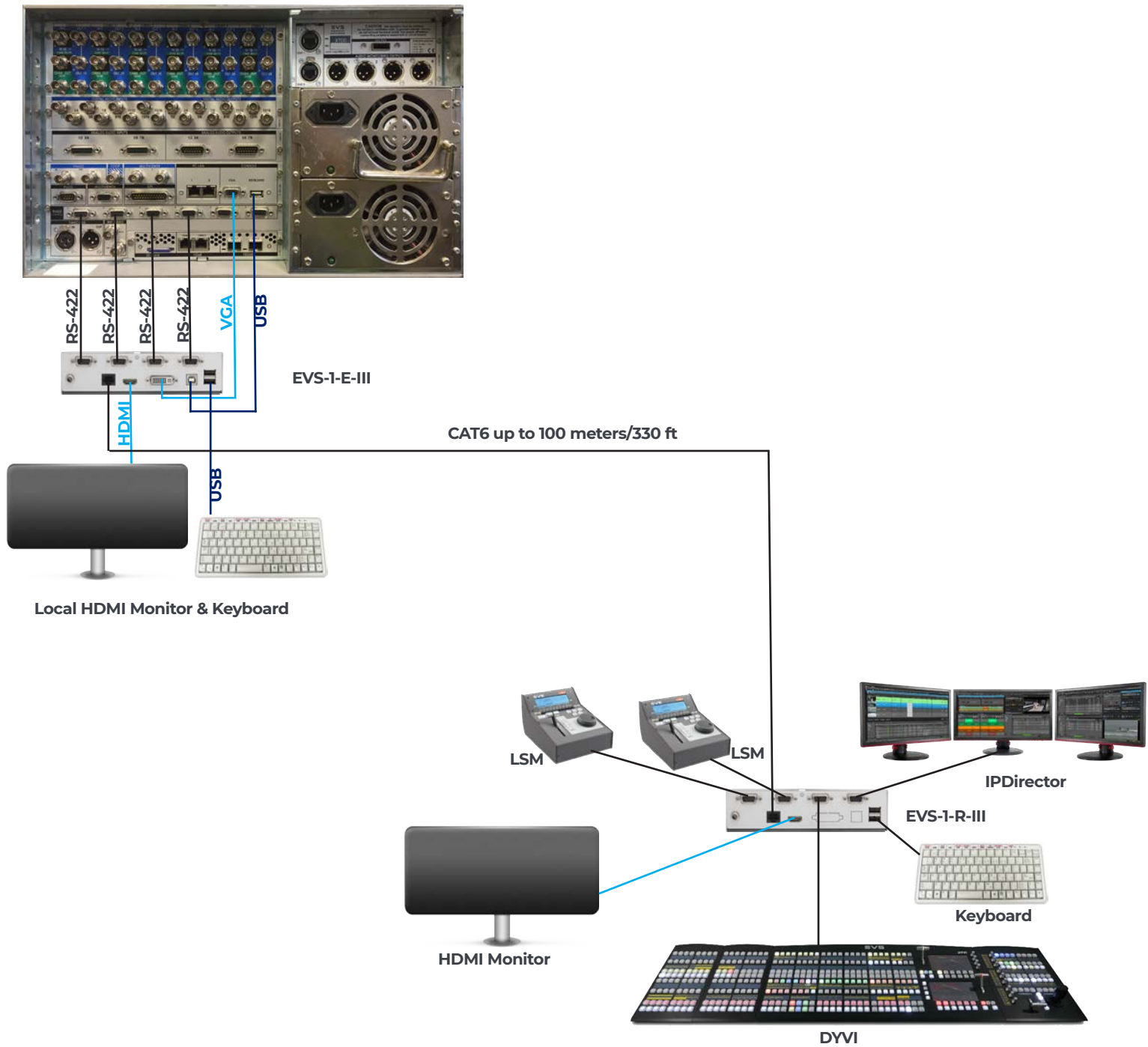
MT-Hood
EVS-FIB-Tx+EVS-FIB-Rx (SET-1)

EVS XT3 Fiber Extenders
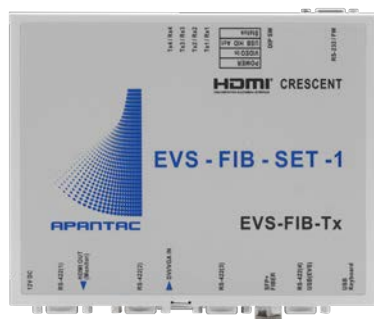
EVS-FIB-Tx

EVS-FIB-Rx

Key Features

- Extends EVS XT-3 VGA, Keyboard, RS-422 up to 10 Km on a single mode fiber
- Local HDMI (convert VGA to HDMI) and USB output
- VGA, USB, 4 x RS-422 signals are combined into a single mode fiber
- 4 x RS-422 can be used to connect to the LSM controller, the tablet, IPDirector and DYVI production switcher
- The single mode cables can be easily patched to freely assign the operator's position with the servers

Related Products

EVS-SET-1-III
EVS Extenders over CAT6

KVM-SET-14
KVM over IP Extenders with POE

OG-KVM-IP-Tx

openGear based KVM over IP Extender

Specifications

Model	EVS-FIB-Tx	EVS-FIB-Rx
Inputs	4 x RS-422, 1 x VGA (DVI-A), USB	Single Mode LC Fiber Connector
Outputs	1 x HDMI, USB, Single Mode LC Fiber Connector	4 x RS-422, 1 x HDMI, USB
Dimension	181 x 138 x 44 mm (W x D x H)	
Power	DC 12V 1000mA	

MT-HOOD
EVS-FIB-Tx+EVS-FIB-Rx (SET-1)

Connection Example

RS-422
RS-422
RS-422
RS-422
VGA
USB
EVS-FIB-Tx
HDMI
USB

Single Mode Fiber up to 10 Km

Local HDMI Monitor & Keyboard

LSM
LSM
IPDirector
EVS-FIB-Rx
Keyboard
HDMI Monitor
DYVI

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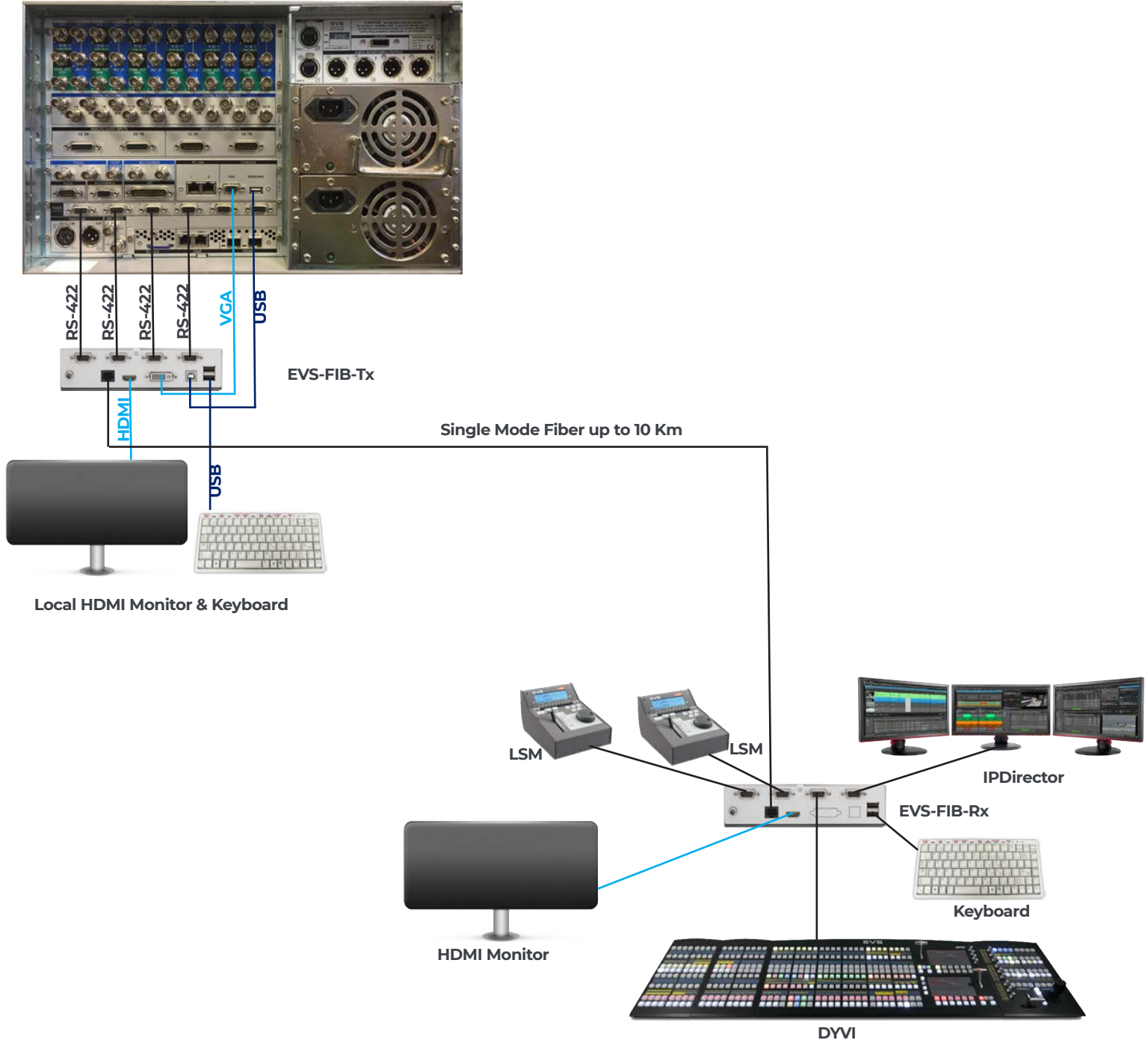
MT Hood
PS2-USB Converter

PS2 to USB Adapter for USB Keyboard and Mouse

PS2-USB

Key Features

- PS2 to USB interface conversion
- Provides PS2 type keyboard and mouse control in a USB environment
- Plug and play devices, no drivers required
- Works with older PS2 type computers/servers with no USB interfaces

Related Products

EVS-SET-1-III
EVS extenders with USB interfaces

KVM-SET-12-II
KVM over IP Extenders for VGA/DVI, USB and RS-232

KVM-SET-14
KVM over IP Extenders for HDMI, USB and RS-232 and POE

Specifications

Model	PS2-USB
Connectors (PC side)	1 x PS2 keyboard 6-pin Mini Din female, 1 x PS2 Mouse 6-pin Mini Din female
Keyboard/mouse connectors	1 x USB Type A keyboard, 1 x USB Type A mouse
Power	From PS2 interface
Operation Temperature	0 ~ 40C
Storage Temperature	-20 ~ 60C
Humidity	0~90% RH, non-condensing
Dimension (L x W x H)	67 x 55 x 22 mm

USB
Extenders

	USB-12M	USB-12MH	USB-EXT-1	USB-EXT-80
Inputs	USB Type A Female			
Outputs	USB Type A male		RJ45/USB Type A male	
Data Rate	480/12/1.5 Mbps			
Distance	12 meters		35 meters	80 meters
Hub	No	Yes	No	No
Cascade	No	Yes (up to 5 levels, 60m	No	No
Power	USB, optional 5V 0.5A		Tx - USB, Rx - 5V 0.5A	

MT HOOD
USB-12m, USB-12mH

USB 2.0/1.1 Extenders

USB-12m

USB-12mH

Key Features

- 12 meters (40 feet) extenders
- Compliant with USB 2.0/1.1
- Can cascade up to 5 levels
- Supports 480Mbps, 12 Mbps and 1.5 Mbps
- Locking connectors
- Built-in hub (USB-12mH)

Related Products

USB-EXT-1
USB 2.0 Extender over CAT6

KVM-SET-12-II
KVM (VGA/DVI) + USB over
IP Extenders

KVM-SET-14
KVM+USB over IP Extenders
with POE

Specifications

Model	USB-12m	USB-12mH
Inputs	USB Type A female	USB Type A Female
Outputs	USB Type A male	USB Type A male
Data Rate	480/12/1.5 Mbps	
Cascade	5 Levels (total of 60 meters, 195 feet)	
Hub	N/A	3 port
Power	Power from USB (optional power adapter)	

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MT HOOD
USB-EXT-1

USB 2.0/1.1 Extenders

USB-EXT-1-Rx   **USB-EXT-1-Tx**

Key Features

- 35 meters (115 feet) extenders over CATx
- Compliant with USB 2.0/1.1
- Supports 480Mbps, 12 Mbps and 1.5 Mbps

Related Products

USB-12m/12-mH
USB 2.0 Extenders

KVM-SET-12-II
KVM (VGA/DVI) + USB over IP Extenders

KVM-SET-14
KVM+USB over IP Extenders with POE

Specifications

Model	USB-EXT-1-Tx	USB-EXT-1-Rx
Inputs	USB Type A female	RJ45
Outputs	RJ45	USB Type A male
Data Rate	480/12/1.5 Mbps	
Distance	35 meters / 115 feet	
Power	Power from USB	5V 0.5A

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USB-EXT-1-01-2019

MT HOOD
USB-EXT-80

USB 2.0/1.1 Extenders

USB-EXT-80   **USB-EXT-80-Rx**

Key Features

- 80 meters (260 feet) maximum extension over CAT6 cables with external power adapter on the receiver
- Compliant with USB 2.0/1.1
- Supports 480Mbps, 12 Mbps and 1.5 Mbps

Related Products

USB-12m/12-mH
USB 2.0 Extenders

USB-EXT-1
35 meter USB Extender over CAT6

KVM-SET-14
KVM+USB over IP Extenders with POE

Specifications

Model	USB-EXT-80-Tx	USB-EXT-80-Rx
Inputs	USB Type A male	RJ45
Outputs	RJ45	USB Type A Female
Data Rate	480/12/1.5 Mbps	
Distance	80m (260 feet) with external power adapter on receiver / 50m (164 feet) without power adapter on receiver	
Power	Power from USB	5V 0.5A

USB-EXT-80-01-2019

VIDEOWALLS

HDMI videowalls

MT Hood
W-2x2-H

Compact 2x2 Video Wall Processor

W-2x2-H

Key Features

- 2x2 video wall processor
- Supports up to 1080P and 1920x1200 input
- Supports up to four 1080P/1920x1200 outputs
- Bezel compensation
- On-screen Graphical User Interface

Front View

1x 5V DC power inlet
1x USB for FW Upgrade
1 x HDMI for Input
1x VGA for input
1 x 3.5mm phone jack for audio

Rear View

2 x LED indicators
4 x HDMI outputs

Related Products

Crescent-4K
2x2 video wall processor with extender outputs

Specifications

Model	W-2x2-H	LED Indicators	Red = Power, Green = Video presence
Video Input	1 x HDMI, 1 x VGA	Power Status	1x Green LED
Video Output	4 x HDMI	Power	5V 4A with locking
Audio Input	3.5 mm phone jack	Weight	470 g
USB	1 x Mini USB (FW UG)	Dimensions	120 x 134 x 26 mm
IR	1 x Receiver, 1 x IR Extender	Environment	Operating temperature: 0 ~ 40 C, Storage temperature : -20 ~ 60 C Humidity: 0 - 90% RH (non-condensing)

MT Hood
W-2x2-U

Compact 2x2 Video Wall Processor with UHD input

W-2x2-U

Key Features

- 2x2 video wall processor with UHD input
- Supports up to HDMI 2.0 3840x2160 (RGB 4:4:4 60Hz) input
- Supports up to four 1080P/1920x1200 outputs
- Bezel compensation
- On-screen Graphical User Interface
- 4 units can be cascaded together to form a 4x4 wall

Front View

1 x Menu Push buttons
4 x up/down/left/right buttons
1 x Power LED
1 x Menu LED

Rear View

1 x USB for upgrade
1 x RJ45 for RS232 (serial)
1 x HDMI 2.0 input
4 x HDMI 1.4 outputs
1 x HDMI 2.0 cascading output

Related Products

W-2x2-H
2x2 video wall with VGA and HDMI input and 4 HDMI outputswith extender outputs

Specifications

Model	W-2x2-U	LED Indicators	Red = Power, Green = Video presence
Video Input	1 x HDMI 2.0 (RGB 4:4:4)	Power Status	1x Green LED
Video Output	4 x HDMI 1.4	Power	12V 3A with twist lock
Cascade Output	HDMI 2.0	Weight	577 g
RS-232	RJ 45	Dimension	214 x 105 x 30 mm
USB	USB Type B for FW UG		
IR (Optional)	1 x Receiver, 1 x IR Extender (3.5 mm phone jack)	Environment	Operating temperature: 0 ~ 40 C, Storage temperature : -20 ~ 60 C Humidity: 0 - 90% RH (non-condensing)

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OPS AND SDM
OPS / SDM Extenders & Converters

	OPS-HDBT-R	OPS-SDI-HDTV
Input	RJ45 (HDBaseT)	BNC
Maximum Resolution	1920x1200	1080P
Distance	100 meters	100 meters
Form Factor	OPS	OPS

	SDM-HDBT-R-UHD	SDM-SDI-HDTV-UHD	SDM-SDVoE	SDM-NDI-R
Input	RJ45	BNC	RJ45	RJ45
Maximum Resolution	3840x2160P	12G SDI	3840x2160P	
Bandwith	1 GigE	12 GBit/s	10 GigE	1 GigE
Format	HDBaseT	SDI	SDVoE	NDI High Bandwidth

	SDM-MicroQ-12G	SDM-NDI-QR	SDM-FIB-R	SDM-FIB-R-SM
Input	4 x BNC	RJ45	Multi-mode Fiber	Single-Mode Fiber
Maximum Resolution	3840x2160P	1080P input/ 2160P output	3840x2160P	3840x2160P
Bandwith	12G SDI	1 GigE	10 GigE	10 GigE
Format	SDI	NDI High Bandwidth	SDVoE	SDVoE

	SDM-Tool-box-S	SDM-Tool-Box-L
Input	SDM-S interface module	SDM-L interface module
Maximum Resolution	3840x2160P	
Outputs	1 x HDMI 2.0, 1 x DP 1.2	
Power	DC 12V 1.5A	

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MT Hood
OPS-HDBT-R

HDBaseT Receiver for OPS

OPS-HDBT-R

Key Features

- HDBaseT receiver for OPS
- Supports HDMI 1.4/HDCP 1.4
- Extends HDMI signal (1080P@12 bit) up to 330 feet (100 meters)
- Supports 3D pass-through
- Supports CEC pass-through
- Supports bi-directional RS-232
- Supports LPCM, Dolby True HD and Dolby Digital audio

Front View

1 x HDBaseT input
IR in/out

Related Products

DA-SDI-HDTV
SDI to HDMI converter

Specifications

Model	OPS-HDBT-R
Input	HDBaseT via RJ45
Output	OPS Connector
IR	In/Out

APANTAC
OPS-HDBT-R-01-2019

MT Hood
OPS-SDI-HDTV

SDI Receiver for OPS

OPS-SDI-HDTV

Key Features

- SDI receiver for OPS
- Supports 3G/HD/SD-SDI inputs
- 2 x SDI loop out

Front View

1 x SDI input
2 x SDI loopouts

Related Products

DA-SDI-HDTV
SDI to HDMI converter

Specifications

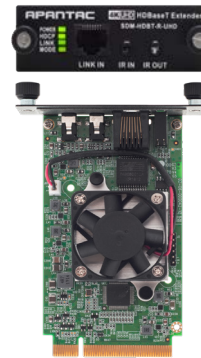| Model	OPS-SDI-HDTV
Input	3G/HD/SD-SDI
Output	OPS Connector
Loopouts	2 SDI loop outs

OPS-SDI-HDTV-01-2019

MT Hood
SDM-HDBT-R-UHD

UHD HDBaseT Receiver for SDM-S and SDM-L

SDM-HDBT-R-UHD

Key Features

- UHD HDBaseT receiver for SDM-S
- Comes with adapter for SDM-L
- Supports HDMI 2.0/HDCP 2.2
- Extends HDMI signal (1080P@12 bit) up to 330 feet (100 meters)
- Extends HDMI (UHD@4:4:4) signals up to 230 feet (70 meters)
- Supports 3D pass-through
- Supports CEC pass-through
- Supports bi-directional RS-232
- Supports all frequency IR control
- Supports LPCM, Dolby True HD and Dolby Digital audio

Related Products

HDBT-1-E-UHD
UHD HDBaseT Transmitter

Specifications

Model	SDM-HDBT-R-UHD
Input	UHD HDBaseT via RJ45
Output	SDM Connector
IR	In/Out
Environment	Operating Temperature: 0C - 50C, Storage: -20C to 60C, Humidity: 0% - 80% non-condensing
Power Consumption	9W Max
Weight / Dimension	90g, 80mm Width x 112 mm Depth

MT Hood
SDM-HDBT-R-II-UHD

UHD HDBaseT3 Receiver with USB 2.0 Interface

SDM-HDBT-R-II-UHD

Key Features

- UHD HDBaseT3 receiver for SDM-S
- Supports HDMI 2.0/HDCP 2.2
- Extends HDMI signal (1080P@12 bit) up to 330 feet (100 meters)
- Extends HDMI (UHD@4:4:4) signals up to 330 feet (100 meters) with HDBT3 certified CAT 7 cable
- Supports 3D pass-through
- Supports CEC pass-through
- Supports bi-directional RS-232
- Supports LPCM, Dolby True HD and Dolby Digital audio

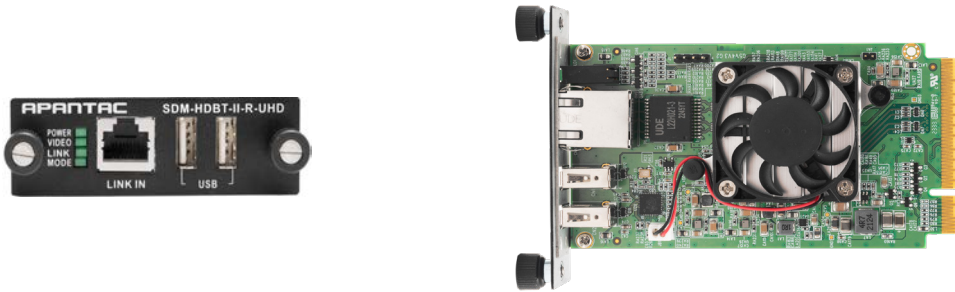### Related Products

KVM-1-UHD-Tx
UHD HDBaseT3 Transmitter with USB 2.0 interfaces

Specifications

Model	SDM-HDBT-R-II-UHD
Input	UHD HDBaseT3 via RJ45
Output	USB 2.0 interfaces, SDM Connector
Environment	Operating Temperature: 0C - 50C, Storage: -20C to 60C, Humidity: 0% - 80% non-condensing
Power Consumption	9W Max
Weight / Dimension	90g, 80mm Width x 112 mm Depth

SDM-HDBT-R-II-UHD-01-2019

MT HOOD
SDM-SDI-HDTV-UHD

12G SDI Receiver for SDM
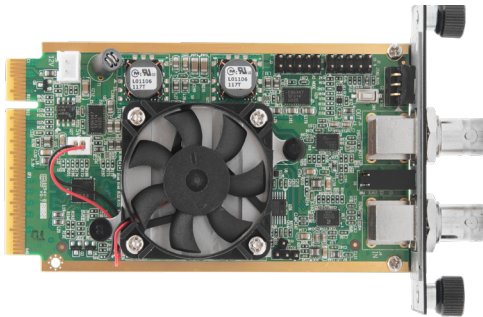
SDM-SDI-HDTV-UHD

Key Features

- UHD SDI receiver for SDM-S
- Supports 12G/6G/3G/HD-SDI input
- SDI loop out
- Output follows Input on Rec 709/2020
- Passes HDR metadata
- 9.5W maximum power consumption
- 3 year limited warranty

Related Products

DA-HDTV-SDI-UHD
HDMI 2.0 to 12G converter

DA-SDI-HDTV-UHD
12G to HDMI 2.0converter

SDM Tool Box-S
Tool box that will take the SDM-SDI-HDTV-UHD module and tun it into a standalone converter

Specifications

| Model	SDM-SDI-HDTV-UHD
Input	12G/6G/3G/HD-SDI
Output	SDM Connector
Loop out	SDI
Dimension	80 mm Width x 112 mm Depth
Power Consumption	9.5W max
Environment	Operating Temperature: 0C - 55C, Storage: -20C to 60C, Humidity: 20% - 90% non-condensing
Weight	230g

MT HOOD
SDM-SDI-HDTV-UHD

SUPPORTED SIGNAL TYPE/FORMATS		
12G-SDI	REC 709/2020 output follows input	
	3840x2160	YCbCr 4:2:2 60p/59.94p/50p 10 bit
		YCbCr 4:4:4 30P/29.97p, 25p, 24p/23.98p 10 bit
		RGB 4:4:4 30p/29.97p, 25p, 24p/23.98p 10 bit
	4096x2160	YCbCr 4:2:2 60p/59.94p/50p 10 bit
		YCbCr 4:4:4 30P/29.97p, 25p, 24p/23.98p 10 bit
		RGB 4:4:4 30p/29.97p, 25p, 24p/23.98p 10 bit
6G-SDI	REC 709/2020 output follows input	
	3840x2160	YCbCr 4:2:2 30p/29.97p/25p, 24p/23.98p
3G-SDI Level A	REC 709/2020 output follows input	
	1920x1080	YCbCr 4:2:2 60p/59.94p/50p 10 bit
		YCbCr 4:4:4 30P/29.97p, 25p, 24p/23.98p, 60i/59.94i/50i 10 bit
		RGB 4:4:4 30p/29.97p, 25p, 24p/23.98p, 60i/59.94i/50i 10 bit
	2048x1080	YCbCr 4:2:2 60p/59.94p/50p 10 bit
		YCbCr 4:4:4 30P/29.97p, 25p, 24p/23.98p 10 bit
		RGB 4:4:4 30p/29.97p, 25p, 24p/23.98p 10 bit
	1280x720	YCbCr 4:4:4 30p/29.97p 10 bit
		RGB 4:4:4 30p/29.97p 10 bit
3G-SDI Level B	REC 709/2020 output follows input	
	1920x1080	YCbCr 4:2:2 60p/59.94p/50p 10 bit
1.5G-SDI	REC 709/2020 output follows input	
	1920x1080	YCbCr 4:2:2 30P/29.97p, 25p, 24p/23.98p, 60i/59.94i/50i 10 bit
	1280x720	YCbCr 4:2:2 60p/59.94p/50p10 bit

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SDM-MicroQ-12G

Simple Compact Video Quad Split for SDM
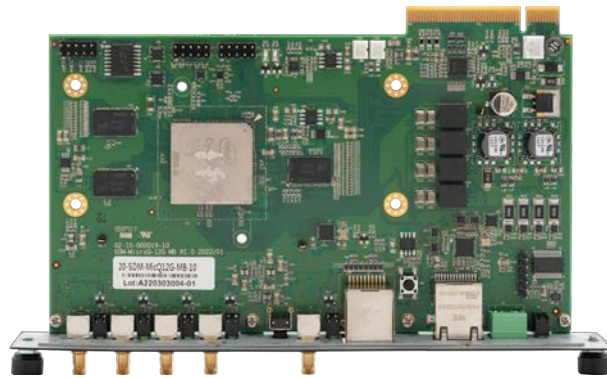
SDM-MicroQ-12G

Key Features

- 12G SDI Quad split for SDM-L
- 4 auto-detect 12G/3G/HD-SDI inputs
- Fixed Quad Split, each window can go full screen
- Single frame processing delay
- Decode up to 8 embedded audio per SDI input
- Display up to 8 audio meters per window
- Ethernet for configuration, dynamic labels & Tallies (TSL)
- SDI output
- 2 GPI tallies per window
- 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off
- One 32 character label per window
- Safe area markers
- Visual Alarm tags for audio and video presence
- Dynamic (TSL) UMD/Label

- Stereo analog audio monitoring output
- SDI output has embedded stereo audio Pair
- 3 year limited warranty

Actual Image Capture

APANTAC

MT HOOD
SDM-MicroQ-12G

Rear View

SDI OUT   AA OUT

4 x 12G/3G/HD-SDI input

GPI/O

Standard Accessories

RJ50 to DB9 for GPI
Breakout terminal block

Specifications

Total Windows	4	Output	1 x SDM, 1 x SDI
Inputs	12G/3G/HD-SDI	SDI	Matching the SDM output resolution up to 3G
Serial Digital	480i/576i, 720P/1080i, 1080P 50/59.94/60Hz. 12G/3G SDI	On Screen Display	Borders, Labels, Tallies, Audio meters, Alarm tags, Safe area markers
Equalization	80 m at 11.88 Gpbs, 120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	GPI	8 for tally or AXP (ASCII command)
Return Loss	> 15dB up to 1.485 Gbps, > 10dB up to 3G	IP	100 Base-T, TSL, AXP_Lite protocol
Embedded Audio	SMPTE-272M-A	Dimension	195 mm Width x 112 mm Depth

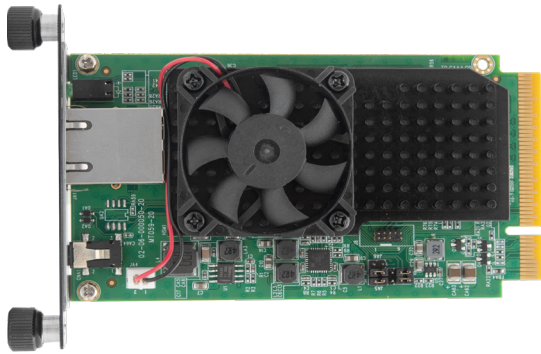APANTAC

MT HOOD
SDM-SDVoE-R

SDVoE (HDMI 2.0) Receiver for SDM

SDM-SDVoE-R

Key Features

- SDVoE receiver for SDM-S
- Supports HDMI 2.0/HDCP 2.2/1.4
- Supports UHD RGB/4:4:4 8 bit, 4:2:0 10 bit and 12 bit HDR
- Supports all resolutions up to 594 MHz
- Supports HDR pass through
- Extends signals up to 330 feet (100 meters)
- Supports CEC pass-through
- Supports up to 8 channels of audio, including PCM, Dolby True-HD and DTS-master audio
- Supports RS-232
- 10Gbps Ethernet Interface
- 1Gbps pass-through Ethernet Interface

Related Products

SDM-FIB-R
SDM SDVoE multi-mode mode fiber receiver

SDM-FIB-R-SM
SDM SDVoE single mode fiber receiver

SDM-HDBT-R-UHD
SDM UHD HDBaseT Receiver

SDM-SDI-HDTV-UHD
SDM 12G SDI Receiver

Specifications

Model	SDM-SDVoE-R
Input	10Gbps Ethernet Interface
Output	SDM Connector
Dimensions	80 mm Width x 112 mm Depth
Power Consumption	Up to 10 W
Environment	Operating temperature: -20C ~ 60C, Humidity: 10%~90% / non-condensing

MT HOOD
SDM-SDVoE-R

Supported Video Format

| Video Format			
Resolutions	**Frame Rates**	**Color Space**	**Color Depth**
480i (720x480)	59.94	YUV 4:2:2 YUV 4:4:4 RGB 4:4:4	8/10/12 bit 8/10/12/16** bit 8/10/12/16** bit
480P (720x480)			
576i (720x576)	50		
576P (720x576)			
720P (1280x720)	50/59.94/60		
1080i	50/59.94/60		
1080P	23.98/24/25/29.97/30/50/59.94/60		
4K (3840x2160)	**23.98/24/25/29.97/30**	YUV 4:2:2	8/10/12 bit
		YUV 4:4:4	8/10/12/16** bit
		RGB 4:4:4	
	50/59.94/60	YUV 4:2:0	8/10/12 bit
		YUV 4:2:2	
		YUV 4:4:4	8 bit
		RGB 4:4:4	
4K (4096x2160)	**23.98/24/25/29.97/30**	YUV 4:2:2	8/10/12 bit
		YUV 4:4:4	8/10/12/16** bit
		RGB 4:4:4	
	50/59.94/60	YUV 4:2:0	8/10/12 bit
		YUV 4:2:2	
		YUV 4:4:4	8 bit
		RGB 4:4:4	

Notes:

- 16** When the input Color Depth is 16 bit, it will convert the output to 8 bit
- 4K/30Hz: Supports Dolby Vision and Low Latency Dolby Vision
- 4K/50Hz: Supports only Low Latency Dolby Vision

MT HOOD
SDM-FIB-R

SDVoE (HDMI 2.0) Fiber Receiver for SDM
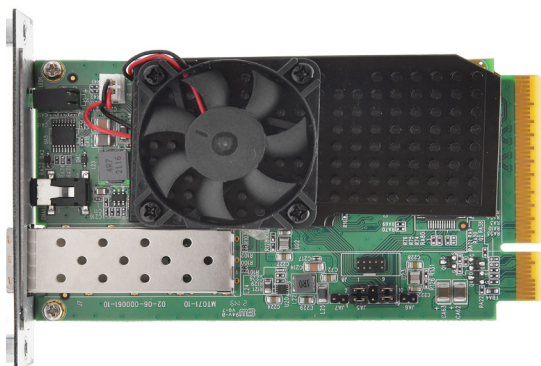
SDM-FIB-R

Key Features

- SDVoE over fiber receiver for SDM-S
- Uses LC fiber connectors, supports up to 300 m on multi-mode fiber
- Supports HDMI 2.0/HDCP 2.2/1.4
- Supports UHD RGB/4:4:4 8 bit, 4:2:0 10 bit and 12 bit HDR
- Supports all resolutions up to 594 MHz
- Supports CEC pass-through
- Supports up to 8 channels of audio, including PCM, Dolby True-HD and DTS-master audio
- Supports HDR pass through
- Supports RS-232
- 10Gbps Ethernet Interface
- 1Gbps pass-through Ethernet Interface

Related Products

HDM2.0-FIB-II-Tx
HDMI 2.0 Fiber transmitter

DP-FIB-II-Tx
DP 1.2 Fiber transmitter

SDM-FIB-R
SDM SDVoE multi-mode fiber receiver

SDM-SDVoE-R
SDM SDVoE Receiver

Specifications

Model	SDM-FIB-R
Input	10Gbps Ethernet Interface
Output	SDM Connector
Dimensions	80 mm Width x 112 mm Depth
Power Consumption	Up to 10 W
Environment	Operating temperature: -20C ~ 60C, Humidity: 10%~90% / non-condensing

MT HOOD
SDM-FIB-R

Supported Video Format

| Video Format			
Resolutions	Frame Rates	Color Space	Color Depth
480i (720x480)	59.94	YUV 4:2:2 YUV 4:4:4 RGB 4:4:4	8/10/12 bit 8/10/12/16** bit 8/10/12/16** bit
480P (720x480)			
576i (720x576)	50		
576P (720x576)			
720P (1280x720)	50/59.94/60		
1080i	50/59.94/60		
1080P	23.98/24/25/29.97/30/50/59.94/60		
4K (3840x2160)	**23.98/24/25/29.97/30**	YUV 4:2:2	8/10/12 bit
		YUV 4:4:4	8/10/12/16** bit
		RGB 4:4:4	
	50/59.94/60	YUV 4:2:0	8/10/12 bit
		YUV 4:2:2	
		YUV 4:4:4	8 bit
		RGB 4:4:4	
4K (4096x2160)	**23.98/24/25/29.97/30**	YUV 4:2:2	8/10/12 bit
		YUV 4:4:4	8/10/12/16** bit
		RGB 4:4:4	
	50/59.94/60	YUV 4:2:0	8/10/12 bit
		YUV 4:2:2	
		YUV 4:4:4	8 bit
		RGB 4:4:4	

Notes:

- 16** When the input Color Depth is 16 bit, it will convert the output to 8 bit
- 4K/30Hz: Supports Dolby Vision and Low Latency Dolby Vision
- 4K/50Hz: Supports only Low Latency Dolby Vision

MT HOOD
SDM-FIB-R-SM

SDVoE (HDMI 2.0) Single Mode Fiber Receiver for SDM
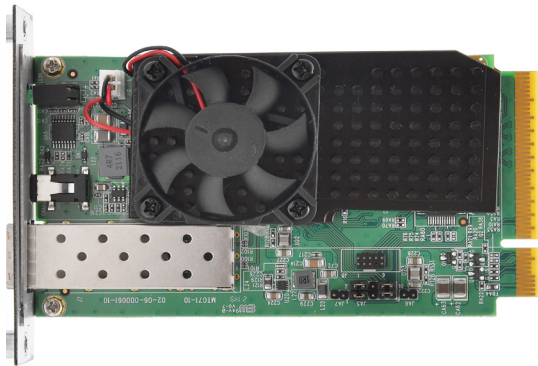
SDM-FIB-R

Key Features

- SDVoE over single mode fiber receiver for SDM-S
- Uses LC fiber connectors, supports up to 10 km on single mode fiber
- Supports HDMI 2.0/HDCP 2.2/1.4
- Supports UHD RGB/4:4:4 8 bit, 4:2:0 10 bit and 12 bit HDR
- Supports all resolutions up to 594 MHz
- Supports CEC pass-through
- Supports up to 8 channels of audio, including PCM, Dolby True-HD and DTS-master audio
- Supports HDR pass through
- Supports RS-232
- 10Gbps Ethernet Interface
- 1Gbps pass-through Ethernet Interface

Related Products

HDM2.0-FIB-II-Tx
HDMI 2.0 Fiber transmitter

DP-FIB-II-Tx
DP 1.2 Fiber transmitter

SDM-FIB-R
SDM SDVoE multi-mode fiber receiver

SDM-SDVoE-R
SDM SDVoE Receiver

Specifications

Model	SDM-FIB-R-SM
Input	10Gbps Ethernet Interface
Output	SDM Connector
Dimensions	80 mm Width x 112 mm Depth
Power Consumption	Up to 10 W
Environment	Operating temperature: -20C ~ 60C, Humidity: 10%~90% / non-condensing

apantac.com

MT HOOD
SDM-FIB-R-SM

Supported Video Format

| Video Format			
Resolutions	Frame Rates	Color Space	Color Depth
480i (720x480)	59.94	YUV 4:2:2 YUV 4:4:4 RGB 4:4:4	8/10/12 bit 8/10/12/16** bit 8/10/12/16** bit
480P (720x480)			
576i (720x576)	50		
576P (720x576)			
720P (1280x720)	50/59.94/60		
1080i	50/59.94/60		
1080P	23.98/24/25/29.97/30/50/59.94/60		
4K (3840x2160)	**23.98/24/25/29.97/30**	YUV 4:2:2	8/10/12 bit
		YUV 4:4:4	8/10/12/16** bit
		RGB 4:4:4	
	50/59.94/60	YUV 4:2:0	8/10/12 bit
		YUV 4:2:2	
		YUV 4:4:4	8 bit
		RGB 4:4:4	
4K (4096x2160)	**23.98/24/25/29.97/30**	YUV 4:2:2	8/10/12 bit
		YUV 4:4:4	8/10/12/16** bit
		RGB 4:4:4	
	50/59.94/60	YUV 4:2:0	8/10/12 bit
		YUV 4:2:2	
		YUV 4:4:4	8 bit
		RGB 4:4:4	

Notes:

- 16** When the input Color Depth is 16 bit, it will convert the output to 8 bit
- 4K/30Hz: Supports Dolby Vision and Low Latency Dolby Vision
- 4K/50Hz: Supports only Low Latency Dolby Vision

APANTAC

MT HOOD
SDM-FIB-R-Pro

SDVoE Fiber or Copper Receiver with Scaler for SDM
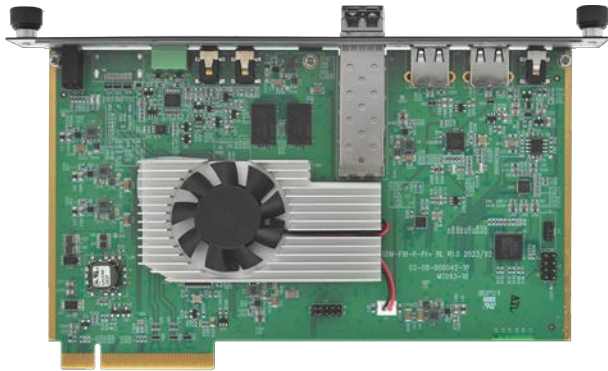
Key Features

- SDVoE fiber or copper receiver for SDM-L
- Built-in Scaler
- Supports HDMI 2.0/HDCP 2.2/1.4
- Supports UHD RGB/4:4:4 8 bit, 4:2:0 10 bit and 12 bit HDR
- Supports all resolutions up to 594 MHz
- Supports CEC pass-through
- Supports up to 8 channels of audio, including PCM, Dolby True-HD and DTS-master audio
- Supports HDR pass through
- Supports RS-232
- 10Gbps Ethernet Interface
- 1Gbps pass-through Ethernet Interface

Related Products

HDM2.0-FIB-II-Tx
HDMI 2.0 Fiber transmitter

DP-FIB-II-Tx
DP 1.2 Fiber transmitter

SDM-FIB-R
SDM SDVoE multi-mode fiber receiver

SDM-SDVoE-R
SDM SDVoE Receiver

Specifications

Model	SDM-FIB-R-Pro
Input	10Gbps Ethernet Interface over single mode fiber
Output	SDM Connector
Dimensions	195 mm Width x 112 mm Depth
Power Consumption	Up to 15 W
Environment	Operating temperature: -20C ~ 60C, Humidity: 10%~90% / non-condensing

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MT HOOD
SDM-FIB-R-Pro

Supported Video Format

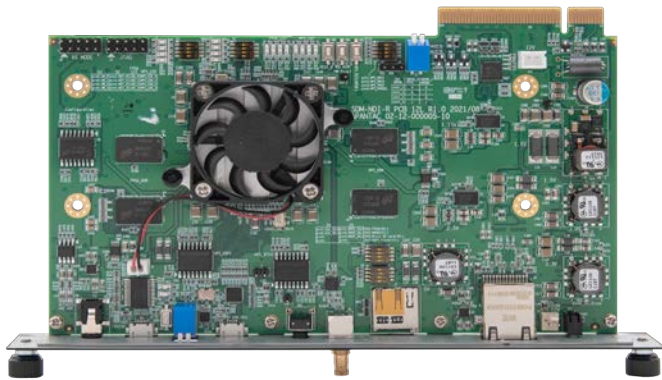| Video Format			
Resolutions	**Frame Rates**	**Color Space**	**Color Depth**
480i (720x480)	59.94	YUV 4:2:2 YUV 4:4:4 RGB 4:4:4	8/10/12 bit 8/10/12/16** bit 8/10/12/16** bit
480P (720x480)			
576i (720x576)	50		
576P (720x576)			
720P (1280x720)	50/59.94/60		
1080i	50/59.94/60		
1080P	23.98/24/25/29.97/30/50/59.94/60		
4K (3840x2160)	**23.98/24/25/29.97/30**	YUV 4:2:2	8/10/12 bit
		YUV 4:4:4	8/10/12/16** bit
		RGB 4:4:4	
	50/59.94/60	YUV 4:2:0	8/10/12 bit
		YUV 4:2:2	
		YUV 4:4:4	8 bit
		RGB 4:4:4	
4K (4096x2160)	**23.98/24/25/29.97/30**	YUV 4:2:2	8/10/12 bit
		YUV 4:4:4	8/10/12/16** bit
		RGB 4:4:4	
	50/59.94/60	YUV 4:2:0	8/10/12 bit
		YUV 4:2:2	
		YUV 4:4:4	8 bit
		RGB 4:4:4	

Notes:

- 16** When the input Color Depth is 16 bit, it will convert the output to 8 bit
- 4K/30Hz: Supports Dolby Vision and Low Latency Dolby Vision
- 4K/50Hz: Supports only Low Latency Dolby Vision

APANTAC

MT Hood
SDM-NDI-R

NDI Receiver for SDM

SDM-NDI-R

Key Features

- High bandwidth NDI receiver for SDM-L
- Supports UHD@60Hz, RGB 444
- Supports NDI v5
- Supports RS-232
- Supports Analog audio monitoring output
- 3G SDI output
- 10/100/1000 Base Ethernet Interface

Related Products

SDM-HDBT-R-UHD
SDM UHD HDBaseT
Receover

SDM-SDI-HDTV-UHD
SDM 12G SDI Receiver

SDM-SDVoE-R
SDM SDVoE Receiver

Specifications

Model	SDM-NDI-R
Input	Up to 1 Gbps Ethernet Interface
Output	SDM Connector
Dimensions	195 mm Width x 112 mm Depth
Power Consumption	Up to 10 W
Environment	Operating temperature: -20C ~ 60C, Humidity: 10%~90% / non-condensing

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MT Hood
SDM-OPS

SDM to OPS Adapter

SDM-NDI-R

Key Features

- High bandwidth NDI receiver for SDM-L
- Supports UHD@60Hz, RGB 444
- Supports NDI v5
- Supports RS-232
- Supports Analog audio monitoring output
- 3G SDI output
- 10/100/1000 Base Ethernet Interface

Related Products

SDM-HDBT-R-UHD
SDM UHD HDBaseT
Receover

SDM-SDI-HDTV-UHD
SDM 12G SDI Receiver

SDM-SDVoE-R
SDM SDVoE Receiver

Specifications

Model	SDM-NDI-R
Input	Up to 1 Gbps Ethernet Interface
Output	SDM Connector
Dimensions	195 mm Width x 112 mm Depth
Power Consumption	Up to 10 W
Environment	Operating temperature: -20C ~ 60C, Humidity: 10%~90% / non-condensing

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APANTAC
SDM-OPS-01-2019

MT HOOD
SDM-NDI-QR

Quad Split NDI multiviewer for SDM

Key Features

- Quad split NDI receiver for SDM-L
- Decode and display up to 4 x 1080P high bandwidth NDI streams
- Fixed Quad Split, each window can go full screen
- Display up to 8 audio meters per window
- 2 GPI tallies per window
- 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off
- One 32 character label per window
- Safe area markers
- Visual Alarm tags for audio and video presence
- Supports UHD@60Hz, RGB 444 output
- Supports NDI v5
- Supports Analog audio monitoring output
- 3G SDI output
- 10/100/1000 Base Ethernet Interface
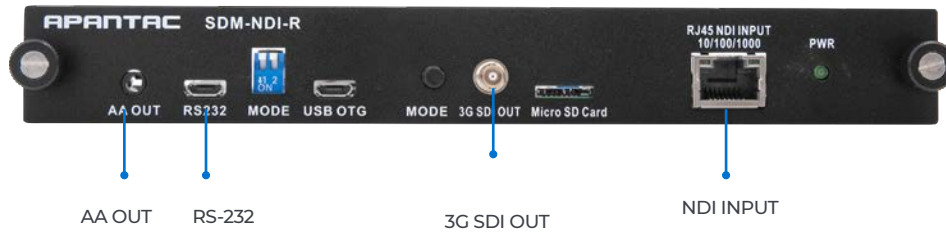- 3 year limited warranty

Actual Capture

MT HOOD
SDM-NDI-QR

Rear View

AA OUT   RS-232   3G SDI OUT   NDI INPUT

Specifications

Model	SDM-NDI-QR
Input	Up to 1 Gbps Ethernet Interface
Output	SDM Connector
Dimensions	195 mm Width x 112 mm Depth
Power Consumption	Up to 10 W
Environment	Operating temperature: -20C ~ 60C, Humidity: 10%~90% / non-condensing

MT Hood
SDM Tool Box

Tool Box to adapts SDM-S and SDM-L non-PC modules to standalone converter

SDM Tool Box with SDM-S Inserted

SDM Tool Box with SDM-L Inserted

SDM Tool Box Rear View

Key Features

- Adapter tool box to convert SDM cards to a standalone converter
- Supports non-PC SDM-S and SDM-L modules
- Supports HDMI and DP outputs up to UHD
- 12 DC 1A power

Related Products

SDM-HDBT-R-UHD
SDM UHD HDBaseT Receiver

SDM-SDI-HDTV-UHD
SDM 12G SDI Receiver

SDM-SDVoE-R
SDM SDVoE Receiver

SDM-NDI-R
SDM NDI Receiver

Specifications

Model	SDM Tool Box
Input	SDM-S, SDM-L module
Output	HDMI, DP
Control	USB, RS232, DP Switch
Output	HDMI, DP
Dimensions	200 mm x 176.5 mm x 33 mm
Power	12V DC

SDM Tool Box-01-2019

SDI PRODUCTS
Distribution Amplifiers

	DA-2HD	DA-4HD	OG-DA-4HD-II	DA-4UHD	OG-DA-4UHD
Configuration	1 x 2	1 x 4	1 x 4	1 x 4	1 x 4
Format	Up to 3G-SDI			HD/3G/12G-SDI	
Form Factor	Standalone		openGear	Standalone	openGear
Power	Passive	5V 3A	openGear	12V 1A	openGear

	DA-8HD	OG-DA-8HD-II	DA-8UHD	OG-DA-8UHD
Configuration	1 x 8	1 x 8	1 x 8	1 x 8
Format	Up to 3G-SDI		HD/3G/12G-SDI	
Form Factor	Standalone	openGear	Standalone	
Power	DC 5V 3A	openGear	DC 12V 1A	openGear

apantac.com

Crescent
DA-2HD / DA-2HDX16

1 x 2 3G/HD/SD-SDI/CVBS/ASI Passive Splitter

DA-2HD

Key Features

- Compact
- 1 x 2 passive splitter
- No power required
- Cable reach up to 100 meters/330 ft end to end
- Compatible for 3G/HD/SDSDI/CVBS/ASI
- Also available in rack mount up to 16 units - **DA2HD-X16**

Related Products

DA-8-UHD
1x8 12G Distribution Amp

DA-8HD
1x8 3G Distribution Amp

DA-4-HD
1x4 3G Distribution Amp

Front View

Rear View

Specifications

Model	DA-2HD
Inputs	1 x BNC
Outputs	2 x BNC
Power	Not Required

DA-2HD / DA-2HDX16-01-2019

Crescent
DA-4HD

1 x 4 3G/HD/SD-SDI Distribution Amplifier

DA-4HD

Key Features

- Compact
- 1 x 4 3G SDI distribution amplifier
- 4 reclocked outputs
- Supports ASI on inputs 1 and 3
- Cable Reach - 3G (140m)
- Auto detect 3G/HD/SD-SDI
- 5V DC

Front View

3G/HD/SD-SDI input

Rear View

5V DC input
4 x reclocked 12G/6G/3G/HD/
SD-SDI output

Related Products

DA-8UHD
1x8 12G Distribution Amp

DA-8HD
1x8 3G Distribution Amp

DA-4HD
1x4 3G Distribution Amp

DA-2HD
1x2 3G Passive Splitter

Specifications

Model	DA-4HD
Inputs	1 x BNC
Outputs	4 x BNC
Power	5V DC

APANTAC
DA-4HD-01-2019

openGear
OG-DA-4HD-II

Triple-rate 1 x 4 SDI Distribution Amplifier

OG-DA-4HD-II-MB

Key Features

- openGear 3.0 card-based form factor
- Dashboard control enabled
- 1 x 4 triple rate reclocking SDI distribution amplifier with a passive loop out
- Reclockers can be turned on or off
- SMPTE 424M/292M/344M/259M compliant
- Data rates: 125 Mbps to 2.97 Gbps
- Equalizes up to 120 meters at 2.97 Gbps, 140 meter at 1.485 Gbps or 400 meters at 270 meters
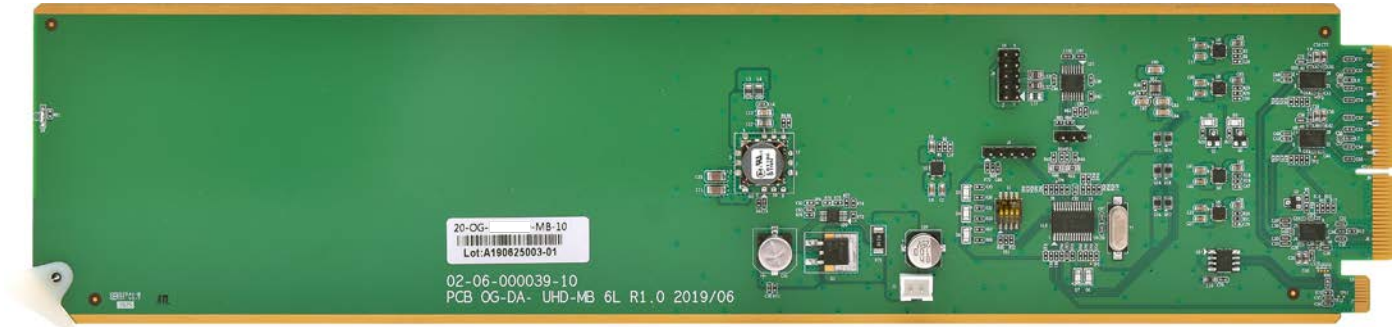- Supports DVB-ASI on outputs 1 and 3
- 5 year limited warranty

OG-DA-4HD-II-RM
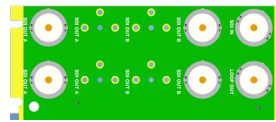
Rear Module (2 slots)

1 x SDI input
1 x passive loop out
4 x SDI outputs

OG-DA-4HD-II-RM2
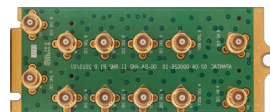
Rear Module (2 slots)

2 x SDI input
2 x passive loop outs
8 x SDI outputs

How to Order

OG-DA-4HD-II-SET-1: 1 x OG-DA-4HD-II-MB + 1 x OG-DA-4HD-II-RM
OG-DA-4HD-II-SET-2: 2 x OG-DA-4HD-II-MB + 1 x OG-DA-4HD-II-RM2

Specifications

OG-DA-4HD-II-SET-1 (1x4) - can fit 10 1x4 DAs in a 2 RU frame		OG-DA-4HD-II-SET-2 (2 x 1x4) - can fit 20 1x4 DAs in a 2 RU frame	
Inputs	1 x SDI	**Inputs**	2 x SDI
Loop out	1 x SDI	**Loop outs**	2 x SDI
Outputs	4 x SDI	**Outputs**	8 x SDI
Control	Dashboard		

Crescent
DA-4-UHD

1 x 4 3G/HD/SD-SDI Distribution Amplifier

DA-4-UHD

Key Features

- Compact
- 1 x 4 12G SDI distribution amplifier
- 4 reclocked outputs
- Supports ASI on outputs 1 and 3
- Cable Reach - 12G (70m), 6G (100m), 3G (140m)
- Auto detect 12G/6G/3G/HD/SD-SDI
- 12V DC

Front View

12G/6G/3G/HD/SD-SDI input

Rear View

12V DC input
4 x reclocked 12G/6G/3G/HD/
SD-SDI output

Related Products

DA-8-UHD
1x8 12G Distribution Amp

DA-8HD
1x8 3G Distribution Amp

DA-4-HD
1x4 3G Distribution Amp

Specifications

Model	DA-4-UHD
Inputs	1 x BNC
Outputs	4 x BNC
Power	12V DC

openGear
OG-DA-4UHD

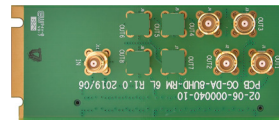## 1 x 4 12G/6G/3G/HD/SD-SDI Distribution Amplifier

OG-DA-4UHD-MB

Key Features

- openGear 3.0 card-based form factor
- Dashboard control enabled
- 1 x 4 12G/6G/3G/HD/SD-SDI reclocking SDI distribution amplifier
- 4 reclocked outputs
- Supports ASI on outputs 1 and 3
- Cable Reach - 12G (70m), 6G (100m), 3G (140m)
- Auto detect 12G/6G/3G/HD/SD-SDI
- 5 year limited warranty

OG-DA-4UHD-RM

Rear Module (2 slots)

1 x SDI input
4 x SDI output

How to Order

OG-DA-4UHD-SET-1: 1 x OG-DA-4UHD-MB + 1 x OG-DA-4UHD-RM

Specifications

Description: 12G/3G/HD/SD-SDI reclocking digital video distribution Amplifier				
Input	Automatic equalization	1 x SDI		
Output	Supports reclocking	4 x SDI		
Format	SMPTE 2082, 424M, 292M, 259M			
Connectors	HDBNC			
Timing Jitter	≤ 8.0UI		Alignment Jitter	≤ 0.3UI
Overshoot of rising and falling edges : ≤ 10% of Amplitude				
Rise and Fall Time : ≤ 45ps				

Crescent
DA-8HD

1 x 8 3G/HD/SD-SDI Distribution Amplifier

DA-8HD

Key Features

- Compact
- 1 x 8 3G SDI distribution amplifier
- 8 reclocked outputs
- Support ASI on 1, 3, 5, 7 outputs
- Cable Reach - 3G (140m)
- Auto detect 3G/HD/SD-SDI
- 5V DC

Front View

1 x 3G/HD/SD-SDI input
4 x reclocked 3G/HD/SD-SDI outputs

Rear View

5V DC input
4 x reclocked 3G/HD/SD-SDI outputs

Related Products

DA-4UHD
1x4 12G Distribution Amp

DA-8HD
1x8 3G Distribution Amp

DA-4-HD
1x4 3G Distribution Amp

DA-8UHD
1x8 12G Distribution Amp

Specifications

Model	DA-8HD
Inputs	1 x BNC
Outputs	8 x BNC
Power	5V DC

DA-8HD-01-2019

openGear
OG-DA-8HD-II

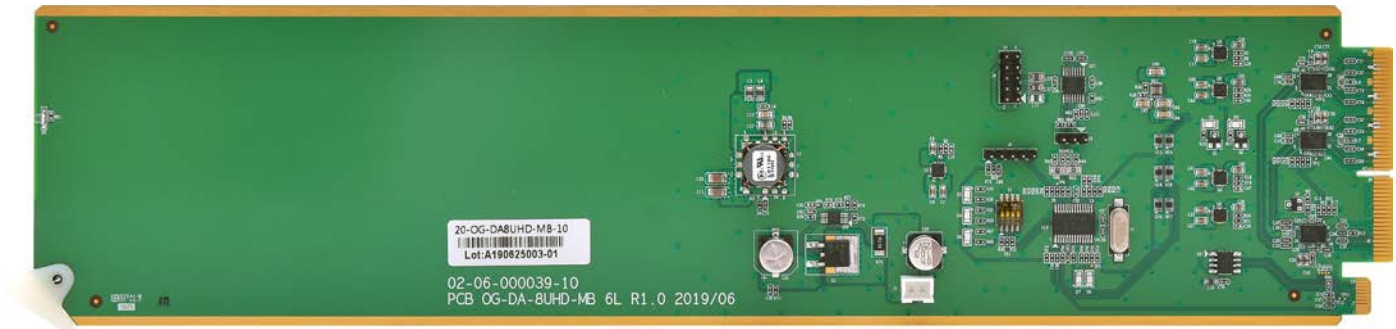Triple-rate 1 x 8 SDI Distribution Amplifier

OG-DA-8HD-II-MB

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- 8 x triple rate reclocking SDI distribution amplifier with a passive loop out
- Reclockers can be turned on or off
- SMPTE 424M/292M/344M/259M compliant
- Data rates: 125 Mbps to 2.97 Gbps
- Equalizes up to 120 meters at 2.97 Gbps, 140 meter at 1.485 Gbps or 400 meters at 270 meters
- Supports DVB-ASI at 270 Mbps on outputs 1, 3, 5, 7
- 5 year limited warranty

OG-DA-8HD-II-RM   **Rear Module (2 slots)**
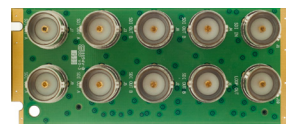
1 x SDI input
1 x passive loop out
8 x SDI outputs

How to Order

OG-DA-8HD-II-SET-1: 1 x OG-DA-8HD-II-MB + 1 x OG-DA-8HD-II-RM

Specifications

OG-DA-8HD-II	
Input	1 x SDI
Loop out	1 x SDI
Outputs	8 x SDI
Control	Dashboard

Crescent
DA-8-UHD

1 x 8 12G/HD/SD-SDI Distribution Amplifier

DA-8-UHD

Key Features

- Compact
- 1 x 4 12G SDI distribution amplifier
- 4 reclocked outputs
- Cable Reach - 12G (70m), 6G (100m), 3G (140m)
- Auto detect 12G/6G/3G/HD/SD-SDI
- 12V DC

Front View

1 x 12G/6G/3G/HD/SD-SDI input
4 x 12G/6G/3G/HD/SD-SDI output

Rear View

12V DC input
4 x reclocked 12G/6G/3G/HD/SD-SDI output

Related Products

DA-4-UHD
1x4 12G Distribution Amp

DA-8HD
1x8 3G Distribution Amp

DA-4-HD
1x4 3G Distribution Amp

Specifications

Model	DA-8-UHD
Inputs	1 x BNC
Outputs	8 x BNC
Power	12V DC

openGear
OG-DA-8UHD

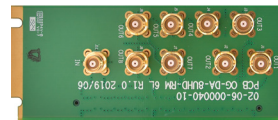## 1 x 8 12G/6G/3G/HD/SD-SDI Distribution Amplifier

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OG-DA-8UHD-MB

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- 1 x 8 12G/6G/3G/HD/SD-SDI reclocking SDI distribution amplifier
- 8 reclocked outputs
- Supports DVB-ASI on outputs 1, 3, 5, 7
- Cable Reach - 12G (70m), 6G (100m), 3G (140m)
- Auto detect 12G/6G/3G/HD/SD-SDI
- 5 year limited warranty

OG-DA-8UHD-RM

Rear Module (2 slots)

1 x SDI input
8 x SDI output

How to Order

OG-DA-8UHD-SET-1: 1 x OG-DA-8UHD-MB + 1 x OG-DA-8UHD-RM

Specifications

Description: 12G/3G/HD/SD-SDI reclocking digital video distribution Amplifier				
Input	Automatic equalization		1 x SDI	
Output	Supports reclocking		8 x SDI	
Format	SMPTE 2082, 424M, 292M, 259M			
Connectors	HDBNC			
Timing Jitter	≤ 8.0UI		Alignment Jitter	≤ 0.3UI
Overshoot of rising and falling edges : ≤ 10% of Amplitude				
Rise and Fall Time : ≤ 45ps				

APANTAC
OG-DA-8UHD

SDI PRODUCTS
Fiber Products

3G-SDI

SDI-FIB	
3G-SDI	ST Fiber, single mode

SDI-FIB-RMT	
1 RU Rackmount	Redundant power supply

3G-SDI

SDI-FIB-3G	
3G-SDI	LC fiber, single mode

SDI-FIB-3G-RMT	
1 RU Rackmount	Redundant power supply

12-SDI

SFP-FIB-12G	
12G-SDI	LC fiber, single mode

SFP-FIB-12G-RMT	
1 RU Rackmount	Redundant power supply

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Crescent
SDI-FIB

3G SDI Compact Fiber Extender

SDI-FIB-Tx + SDI-FIB-Rx

Key Features

- Supports SDI up to 3G SDI
- Optical fiber type - ST (multi-mode or single-mode)
- 30 km for HD on single-mode, 20 km for 3G on single mode, 1 km for multi-mode
- Locking power connectors (Mini-XL)
- Input power: 5V 1A

Accessories

5V DC 1A PS (included)

SDI-FIB-12G-RMT Rack mount (optional)

Related Products

SDI-FIB - 3G-SDI fiber extenders

Specifications

Model	SDI-FIB-Tx	SDI-FIB-Rx
Input	75 ohm BNC	ST fiber connector
Output	ST fiber connector	75 ohm BNC
Nominal Wavelength	1290 (min), 1310 (typical), 1330 (max) nm	1100 (min), 1310 (typical), 1650 (max) nm
Link Power Budget	11dB	
Operating Temperature	0 C to 50 C	
Storage Temperature	-30 C ~ 70 C	
Power Supply	5V 1A DC	
Dimension (WxDxH)	19.5 x 82.7 x 19.5 mm	

SDI-FIB-01-2019

Crescent
SDI-FIB-3G-RMT

Rack mount for 3G SDI Fiber Extender

Key Features

- Holds up to 8 SFP-FIB-12G transmitters or receivers
- Rack mountable
- 1 RU
- Fiber management
- Built-in AC redundant power supplies

Related Products

SFP-FIB-12G-Tx - 12G SDI fiber extenders

SFP-FIB-12G-Rx - 12G SDI fiber receivers

SFP-FIB-3G-Tx - 3G-SDI fiber extenders

SFP-FIB-3G-Rx - 3G-SDI fiber Receivers

Specifications

Model	SDI-FIB-RMT
Capacity	Holds 8 SDI-FIB-Tx or Rx
I/O	Up to 8 BNC and 8 fiber
Power Supply	Built-in redundant 90 to 250 volt AC
Dimension (WxDxH)	1RU. 446 x 472 x 44 mm (L x W x H)

Crescent
SFP-FIB-3G

12G SDI Fiber Extender

SFP-FIB-3G-Tx

SFP-FIB-3G-Rx

Key Features

- Supports SDI up to 3G SDI
- Auto equalize, auto reclock SD/HD/3G-SDI
- Transmit up to 20 kilometers (3G with single mode fiber)
- Transmit up to 1.6 km on OM3 (multi-mode) @ 3G
- Single LC connector, nominal wavelength 1310nm
- Supports SMPTE 424M, 292M
- Supports video pathological for 3G/HD/SD-SDI
- Supports hot swap and hot plug
- Operating temperature 0 ~ 70 degree C

Accessories

5V DC 3.2 PS (included)

SFP-FIB-3G-RMT Rack mount (optional)

Related Products

SDI-FIB - 3G-SDI fiber extenders

Specifications

Model	SFP-FIB-3G-Tx	SFP-FIB-3G-Rx
Input	75 ohm BNC	LC fiber optic connector
Output	LC fiber optic connector	SDI
Nominal Wavelength	1300 (min), 1310 (typical), 1320 (max) nm	
Optical Power	-5 dBm (min), 0.5 dBm (max)	
Extinction Ratio	3.5 dB(min)	
Power Supply	5V3A DC	
Power consumption	3W (max)	
Dimension (WxDxH)	80 x 40 x 30 mm	

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Crescent
SFP-FIB-3G-RMT

Rack mount for 3G SDI Fiber Extender

SFP-FIB-3G-RMT

Key Features

- Holds up to 8 SFP-FIB-3G transmitters or receivers
- Rack mountable
- 1 RU
- Fiber management
- Built-in AC redundant power supplies

Related Products

SFP-FIB-12G-Tx - 12G SDI fiber extenders

SFP-FIB-12G-Rx - 12G SDI fiber receivers

SDI-FIB - 3G-SDI fiber extenders

Specifications

Model	SFP-FIB-3G-RMT
Capacity	Holds 8 SFP-FIB-3G-Tx or 8 SFP-FIB-3G-Rx
I/O	Up to 8 BNC and 8 fiber
Power Supply	Built-in redundant 90 to 250 volt AC
Dimension (WxDxH)	1RU. 446 x 472 x 44 mm (L x W x H)

SFP-FIB-3G-RMT-01-2019

Crescent
SFP-FIB-12G-SET

12G SDI Fiber Extender

SFP-FIB-12G-Tx

SFP-FIB-12G-Rx

Key Features

- Supports SDI up to 12G SDI
- Auto equalize, auto reclock SD/HD/3G/12G-SDI
- Transmit up to 10 kilometers (6.2 miles) @12G with single mode fiber
- Transmit up to 800 meters on OM4 (multi-mode) @12G, 1.6 km on OM3 (multi-mode) @ 3G
- Single LC connector, nominal wavelength 1310nm
- Supports SMPTE ST-2082, ST2081, 424M, 292M
- Supports video pathological for 12G/6G/3G/HD/SD-SDI
- Supports hot swap and hot plug
- Operating temperature 0 ~ 70 degree C

Accessories

5V DC 3.2 PS (included)

SFP-FIB-12G-RMT Rack mount (optional)

Related Products

SDI-FIB - 3G-SDI fiber extenders

Specifications

Model	SFP-FIB-12G-Tx	SFP-FIB-12G-Rx
Input	75 ohm BNC	LC fiber optic connector
Output	LC fiber optic connector	SDI
Nominal Wavelength	1300 (min), 1310 (typical), 1320 (max) nm	
Optical Power	-5 dBm (min), 0.5 dBm (max)	
Extinction Ratio	3.5 dB(min)	
Power Supply	5V3A DC	
Power consumption	3W (max)	
Dimension (WxDxH)	80 x 40 x 30 mm	

Crescent
SFP-FIB-12G-RMT

Rack mount for 12G SDI Fiber Extender

SFP-FIB-12G-RMT

Key Features

- Holds up to 8 SFP-FIB-12G transmitters or receivers
- Rack mountable
- 1 RU
- Fiber management
- Built-in AC redundant power supplies

Related Products

SFP-FIB-12G-Tx - 12G SDI fiber extenders

SFP-FIB-12G-Rx - 12G SDI fiber receivers

SDI-FIB - 3G-SDI fiber extenders

Specifications

Model	SFP-FIB-12G-RMT
Capacity	Holds 8 SFP-FIB-12G-Tx or 8 SFP-FIB-12G-Rx
I/O	Up to 8 BNC and 8 fiber
Power Supply	Built-in redundant 90 to 250 volt AC
Dimension (WxDxH)	1RU. 446 x 472 x 44 mm (L x W x H)

SDI PRODUCTS
Converters, Embedder

	DA-HDTV-SDI-UHD	OG-HDTV-SDI-UHD	DA-SDI-HDTV-UHD	OG-DA-SDI-HDTV-UHD
Input/Output	HDMI/SDI		SDI/HDMI	
Format	HDMI 2.0/12G SDI		12G SDI/HDMI 2.0	
Form Factor	Standalone	openGear	Standalone	openGear

	DA-HDTV-SDI	OG-HDTV-SDI	DA-SDI-DP	DA-SDI-HDTV	DA-SDI-HDTV-II	OG-SDI-HDTV	DA-HDTV-USB
Input/Output	HDMI/SDI		SDI/DP	SDI/HDMI			SDI/USB
Format	HDMI 1.4/3G SDI		12G/DP1.2	3G SDI/HDMI 1.4			3G SDI/USB
Form Factor	Standalone	openGear	Standalone			openGear	Standalone

	Micro-UDX	OG-Micro-UDX	Micro-4K	OG-Micro-4K
Input/Output	SDI/SDI		4 x 3G SDI/SDI	
Format	3G SDI		12G (4 x 3G)	
Form Factor	Standalone	openGear	Standalone	openGear

	Pinnacle-II	OG-Pinncle	OG-Pinncle-C	OG-Pinncle-L
Input/Output	SDI/SDI+HDMI			
Format	3G SDI		12G (4 x 3G)	
Form Factor	Standalone	openGear		

	US-3000	US-3500	OG-US-3500
Input/Output	HDMI-DVI-VGA/SDI		
Format	HDMI / 3G SDI		
Form Factor	Standalone	openGear	

APANTAC

	US-4000	OG-US-4000	US-5000	OG-US-5000
Input/Output	HDMI/SDI		12G SDI / HDMI 2.0	
Format	HDMI 2.0/12G SDI		12G SDI/HDMI 2.0	
Form Factor	Standalone	openGear	Standalone	openGear

	DA-SDI-DE	DA-SDI-DE-12G	OG-DA-SDI-DE-12G
Input/Output	SDI	12G-SDI	
Format	SDI		
Form Factor	Standalone		openGear

	OG-12G-DeMux-3G	OG-3G-Mux-12G
Input/Output	12G-SDI	
Format	SDI	
Form Factor	openGear	

Crescent
DA-HDTV-SDI-UHD

HDMI 2.0 to SDI Converter with Looping input and optional fiber output

DA-HDTV-SDI-UHD

Key Features

- Supports HDMI 2.0 video input and loop out
- Supports up to 4096x2160 @ 4:4:4, YCbCr 4:4:4 YCbCr 4:2:2 and 4:2:0
- Outputs up to 12G SDI
- Passes HDR metadata
- Optional 12G SDI fiber output via SFP
- Status LEDs
- Stereo AES and AA audio monitoring outputs
- 12V DC with power loop to power other devices

Front View

RS-232
Analog audio monitoring output
AES audio monitoring output
Audio channel selection mode
Switch button between fiber and BNC
12V DC power with looping input

Rear View

SFP cage (optional fiber output)
12G SDI output
HDMI 2.0 input with looping output

Related Products

DA-HDTV-SDI-UHD
12G SDI to HDMI 2.0 converter

Specifications

Model	DA-HDTV-SDI-UHD		
HDMI Inputs	1 x HDMI up to UHD	**Analog audio Output**	Selectable stereo pair
HDMI Outputs	1 x HDMI up to UHD	**AES audio Output**	Selectable stereo pair
SDI Output	Up to 12G SDI	**Switch**	Between fiber and BNC
Optional Fiber Output	1 x SFP	**Power**	12V DC with looping
Dimension	160 mm x 114 mm x 29 mm		

APANTAC

Crescent
DA-SDI-HDTV-UHD

12G SDI to HDMI 2.0 Converter with Looping input and optional fiber output
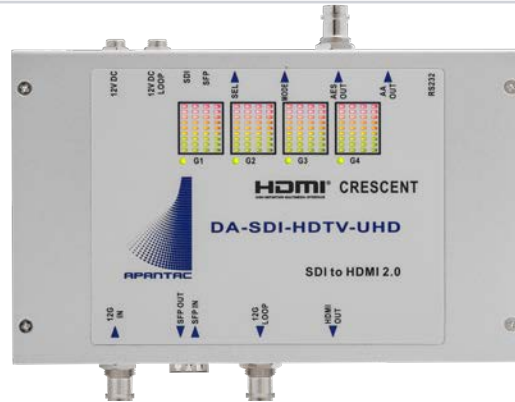
DA-SDI-HDTV-UHD

Key Features

- Supports up 12G SDI (4:2:2) @ 60Hz video input and loop out
- Output up to HDMI 2.0 UHD@60Hz (4:2:2)
- Passes HDR metadata
- Optional 12G SDI fiber input via SFP
- Status LEDs
- Stereo AES and AA audio monitoring outputs
- On Screen Display of ATC, Closed Caption (608/708 and OP47)
- LED audio meters for signal presence
- 12V DC with power loop to power other devices

RS-232
Analog audio monitoring output
AES audio monitoring output
Audio channel selection mode
Switch button between fiber and BNC
12V DC power with looping input

SFP cage (optional fiber output)
12G SDI input
HDMI 2.0 output

Related Products

DA-HDTV-SDI-UHD
HDMI 2.0 to 12G converter

SFP Fiber Options

- 12G SMPTE Fiber receiver SFP
- Single Mode LC connector
- Maximum distance 10 Km

CRESCENT
DA-SDI-HDTV-UHD

SUPPORTED SIGNAL TYPE/FORMATS	
12G-SDI	**8 bit/10bit output (SW 1, on = 10bit), 709/2020 output follows input**
3840x2160	YCbCr 4:2:2 60p/59.94p/50p
	YCbCr 4:4:4 30P/29.97p, 25p, 24p/23.98p
	RGB 4:4:4 30p/29.97p, 25p, 24p/23.98p
4096x2160	YCbCr 4:2:2 60p/59.94p/50p
	YCbCr 4:4:4 30P/29.97p, 25p, 24p/23.98p
	RGB 4:4:4 30p/29.97p, 25p, 24p/23.98p
6G-SDI	**8 bit/10bit output (SW 1, on = 10bit), 709/2020 output follows input**
3840x2160	**YCbCr 4:2:2 30p/29.97p/25p, 24p/23.98p**
3G-SDI Level A	**8 bit/10bit output (SW 1, on = 10bit), 709/2020 output follows input**
1920x1080	YCbCr 4:2:2 60p/59.94p/50p
	YCbCr 4:4:4 30P/29.97p, 25p, 24p/23.98p, 60i/59.94i/50i
	RGB 4:4:4 30p/29.97p, 25p, 24p/23.98p, 60i/59.94i/50i
2048x1080	YCbCr 4:2:2 60p/59.94p/50p
	YCbCr 4:4:4 30P/29.97p, 25p, 24p/23.98p
	RGB 4:4:4 30p/29.97p, 25p, 24p/23.98p
1280x720	YCbCr 4:4:4 30p/29.97p
	RGB 4:4:4 30p/29.97p
3G-SDI Level B	**8 bit/10bit output (SW 1, on = 10bit), 709/2020 output follows input**
1920x1080	YCbCr 4:2:2 60p/59.94p/50p
1.5G-SDI	**8 bit/10bit output (SW 1, on = 10bit), 709/2020 output follows input**
1920X1080	YCBCR 4:2:2 30p/29.97p/25p/24p/23.98p/60i/59.94i
1280x720	YCbCr 4:2:2 60p/59.94p/50p

Specifications

Model	DA-SDI-HDTV-UHD		
SDI Inputs	12G-SDI	**Analog audio Output**	Selectable stereo pair
SDI Outputs	12G-SDI	**AES audio Output**	Selectable stereo pair
HDMI Output	HDMI 2.0 up to UHD	**Switch**	Between fiber and BNC
Optional Fiber input	1 x SFP	**Power**	12V DC with looping
Dimension	160 mm x 114 mm x 29 mm		

openGear
OG-DA-HDTV-SDI-UHD

HDMI 2.0 to SDI Converter with Looping input and optional fiber output

OG-DA-HDTV-SDI-UHD-MB

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- HDR metadata pass through
- Supports HDMI 2.0 video input and loop out
- Supports up to 4096x2160 @ 4:4:4, YCbCr 4:4:4, 4:2:2 and 4:2:0 input
- Outputs up to 12G SDI @4:2:2
- Optional 12G SDI fiber output via SFP
- Status LEDs
- Stereo AES and AA audio monitoring outputs
- Low power consumption - less than 12W
- 5 year limited warranty

OPENGEAR
OG-DA-HDTV-SDI-UHD

OG-DA-HDTV-SDI-UHD-RM

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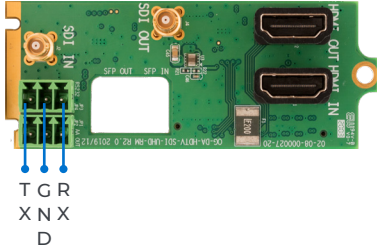
SFP Fiber Options

Rear Module (2 slots)

1x HDMI input
1x HDMI loop out
1x SDI output
1x optional SFP Fiber output

12G SMPTE Fiber transmitterS SFP
Single Mode LC connector
Maximum distance 10 Km

How to Order

OG-DA-HDTV-SDI-UHD-SET-1
OG-DA-HDTV-SDI-UHD-MB +
OG-DA-HDTV-SDI-UHD-RM

OG-DA-HDTV-SDI-UHD-SET-2
OG-DA-HDTV-SDI-UHD-MB +
OG-DA-HDTV-SDI-UHD-RM +
SFP-SDI-12G-Tx

Related Products

OGX-FR-CN-P
openGear X frame with
advanced network card

OG-DA-SDI-HDTV-UHD
openGear based 12G SDI to
HDMI 2.0 converter

OG-HDTV-SDI-II-SET-1
openGear based HDMI to SDI
converter without scaler

OG-SDI-HDTV-SET-1
openGear based SDI to HDMI
converter without scaler

Specifications

Model	DA-HDTV-SDI-UHD		
HDMI Inputs	1 x HDMI up to UHD	**Analog audio Output**	Selectable stereo pair
HDMI Outputs	1 x HDMI up to UHD	**AES audio Output**	Selectable stereo pair
SDI Output	Up to 12G SDI	**Switch**	Between fiber and BNC
Optional Fiber Output	1 x SFP	**Control**	Dashboard

APANTAC

openGear
OG-DA-SDI-HDTV-UHD

12G SDI to HDMI 2.0 Converter without Scaler with optional fiber input

OG-DA-SDI-HDTV-UHD

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- HDR metadata pass through
- Supports up to 12G SDI (4:2:2) video input and loop out
- Output up to HDMI 2.0 UHD@60Hz (4:2:2)
- Passes HDR metadata
- Rec 709/2020 output follows input
- Optional 12G SDI fiber input via SFP
- Stereo AA audio monitoring outputs
- On Screen Display of ATC, Closed Caption (608, 708), OP47

- Low power consumption - less than 12W
- 5 year limited warranty

Specifications

Model	OG-SDI-HDTV-UHD				
SDI Inputs	**SDI Output**	**HDMI Output**	**Analog Audio Output**	**Optional Fiber input**	**Control**
12G SDI	12G SDI	HDMI 2.0 up to UHD	Selectable Stereo Pair	FIber SFP	Dashboard

OPENGEAR
OG-DA-SDI-HDTV-UHD

OG-DA-SDI-HDTV-UHD-RM

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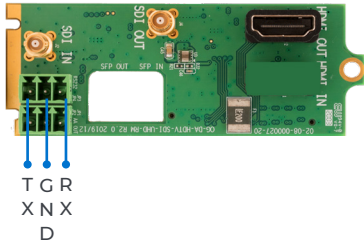
SFP Fiber Options

Rear Module (2 slots)

1x SDI input
1 x SDI loopout
1x HDMI output
Optional Fiber

1x RS-232
1 x Analog Audio output

12G SMPTE Fiber receiver SFP
Single Mode LC connector
Maximum distance 10 Km

Related Products

OGX-FR-CN-P
openGear X frame with
advanced network card

OG-DA-HDTV-SDI-UHD
openGear based HDMI 2.0 to
12G SDI converter

OG-DA-HDTV-SDI-II
openGear HDMI to SDI
converter

OG-SDI-HDTV-SET-1
openGear based SDI to HDMI
converter without scaler

SUPPORTED SIGNAL TYPE/FORMATS	
12G-SDI	**8 bit/10bit output (SW 1, on = 10bit), 709/2020 output follows input**
3840x2160	YCbCr 4:2:2 60p/59.94p/50p
	YCbCr 4:4:4 30P/29.97p, 25p, 24p/23.98p
	RGB 4:4:4 30p/29.97p, 25p, 24p/23.98p
4096x2160	YCbCr 4:2:2 60p/59.94p/50p
	YCbCr 4:4:4 30P/29.97p, 25p, 24p/23.98p
	RGB 4:4:4 30p/29.97p, 25p, 24p/23.98p
6G-SDI	**8 bit/10bit output (SW 1, on = 10bit), 709/2020 output follows input**
3840x2160	**YCbCr 4:2:2 30p/29.97p/25p, 24p/23.98p**
3G-SDI Level A	**8 bit/10bit output (SW 1, on = 10bit), 709/2020 output follows input**
1920x1080	YCbCr 4:2:2 60p/59.94p/50p
	YCbCr 4:4:4 30P/29.97p, 25p, 24p/23.98p, 60i/59.94i/50i
	RGB 4:4:4 30p/29.97p, 25p, 24p/23.98p, 60i/59.94i/50i
2048x1080	YCbCr 4:2:2 60p/59.94p/50p
	YCbCr 4:4:4 30P/29.97p, 25p, 24p/23.98p
	RGB 4:4:4 30p/29.97p, 25p, 24p/23.98p
1280x720	YCbCr 4:4:4 30p/29.97p
	RGB 4:4:4 30p/29.97p
3G-SDI Level B	**8 bit/10bit output (SW 1, on = 10bit), 709/2020 output follows input**
1920x1080	YCbCr 4:2:2 60p/59.94p/50p
1.5G-SDI	**8 bit/10bit output (SW 1, on = 10bit), 709/2020 output follows input**
1920X1080	YCBCR 4:2:2 30p/29.97p/25p/24p/23.98p/60i/59.94i
1280x720	YCbCr 4:2:2 60p/59.94p/50p

Crescent
DA-HDTV-SDI

HDMI to SDI converter with SDI Loop Out

DA-HDTV-SDI

Key Features

- Compact HDMI 1.4 to SDI converter
- HDMI loop out
- HDMI extender input (RJ45)
- Passes 4 channels of HDMI audio
- Built-in interlacer (1080P to 1080i)
- Built-in multi-format test patterns
- 2 SDI outputs
- Unbalanced analog stereo output
- 5V DC
- Also available in openGear card

Front View

HDMI Loop out
HDMI input
RJ45 (HDMI) input
Scan button to switch RJ45/HDMI

Rear View

5V DC input
Rotary switch for 1080i output or patterns
Analog audio breakout
2 x SDI outputs

Related Products

DA-HDTV-SDI-UHD
HDMI 2.0 to 12G converter

DA-SDI-HDTV-II
SDI to HDMI converter

DA-SDI-HDTV-UHD
12G to HDMI 2.0 converter

Specifications

Model	DA-HDTV-SDI
Description	HDMI to SDI converter with looping input and 2 x SDI outputs
Inputs	1 x HDMI, 1x RJ45, supports up to HDMI 1.4 up to 1080P
Outputs	2 x SDI (1080P, 1080i, 720P, 480i)
Audio	Passes 4 channels of HDMI audio and stereo audio via 3.5 mm phone jack
Power	5V 3A
Weight	1.2 lb (0.55 kg)
Dimension	62 x 113 x 40 mm (W x D x H)

DA-HDTV-SDI-01-2019

APANTAC

MT-Hood
DA-SDI-DP

SDI to Display Port 1.2 converter

DA-SDI-DP

Key Features

- Compact SDI to Display Port converter
- Support up to 12G SDI input (not SD-SDI)
- Display Port output
- Analog stereo output
- Audio pair output selection via rotary switch
- Can displays on screen ATC, closed captions (608/708/OP47)
- 12V DC

Front View

12V DC
Power LED
USB for FW Upgrade

Rear View

SDI In
SDI Loop out
LED Status
DP output
Rotary switch for audio pair selection, ATC and 608, 708OP47 closed captions and analog audio breakout

Related Products

DA-SDI-HDTV-II
SDI to HDMI conveter

DA-HDTV-SDI-UHD
12G to HDMI 2.0 converter

Specifications

Model	DA-SDI-DP
Description	SDI to DP converter
Inputs	1 x SDI up to 12G
Outputs	1 x SDI loop-out, 1 x DP 1.2
Audio	AA output with rotary selector for each pair
Power	12V 1A
Weight	1.0 lb (0.45 kg)
Dimension	112 x 74 x 26 mm (W x D x H)

MT-HOOD
DA-SDI-DP

SUPPORTED SIGNAL TYPE/FORMATS		
Supported Resolution	SDI Loop Output	DP Output
3840x2160p 23.98Hz	V	V
3840x2160p 24Hz	V	V
3840x2160p 25Hz	V	V
3840x2160p 29.97Hz	V	V
3840x2160p 30Hz	V	V
3840x2160p 50Hz	V	V
3840x2160p 59.94Hz	V	V
3840x2160p 60Hz	V	V
1920x1080P 23.98Hz	V	V
1920x1080P 24Hz	V	V
1920x1080P 25Hz	V	V
1920x1080P 29.97Hz	V	V
1920x1080P 30Hz	V	V
1920x1080P 25psf	V	V
1920x1080P 29.97psf	V	V
1920x1080P 30psf	V	V
1920x1080P 50Hz	V	V
1920x1080P 59.94Hz	V	V
1920x1080P 60Hz	V	V
1920x1080i 50Hz	V	V
1920x1080i 59.94Hz	V	V
1920x1080i 50Hz	V	V
1920x1080i 60Hz	V	V
1280x720p 25z Hz	V	V
1280x720p 29.97Hz	V	V
1280x720p 59.97Hz	V	V
1280x720p 60Hz	V	V

openGear
OG-DA-HDTV-SDI-II

HDMI to SDI Converter without Scaler
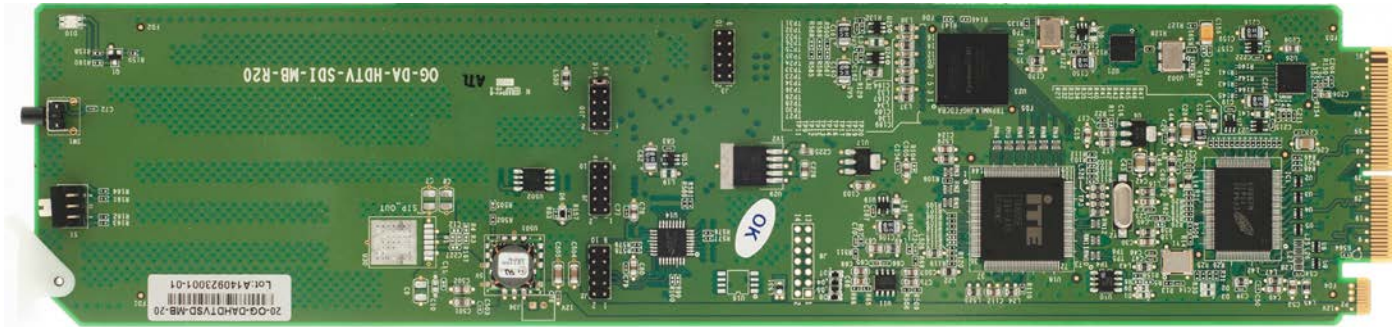
OG-DA-HDTV-SDI-II-MB

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- HDMI 1.4 to SDI converter
- Passes the first 4 Channels of HDMI audio
- Unbalanced analog audio output
- HDMI loop out on OG-DA-HDTV-SDI-RM
- Cable reach up to 120 meters for 3G, 140 meters for HD-SD-SDI
- Built-in multi-format color bar generator
- Built-in interlacer - change 1080P to 1080i output
- Low power consumption
- 5 year limited warranty

OPENGEAR
OG-DA-HDTV-SDI-II

OG-DA-HDTV-SDI-RM
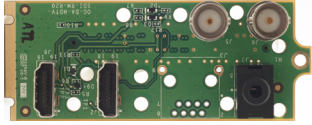
Rear Module (2 slots)

1x HDMI input
1x HDMI loop out
2x SDI output
1x unbalanced analog audio output

OG-DA-HDTV-SDI-RM2
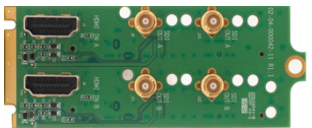
Rear Module (2 slots)

Side A
1x HDMI input
2x SDI output

Side B
1x HDMI input
2x SDI output

Related Products

OGX-FR-CN-P
openGear X frame with
advanced network card

OG-US-3000-SET-1
openGear based Universal
Scaler without genlock

OG-US-3500-SET-1
openGear based Universal
Scaler with genlock

OG-SDI-HDTV-SET-1
openGear based SDI to HDMI
converter without scaler

## Specifications

Input	HDMI	Output	2x reclocked SDI
Control	Dashboard	Analog Audio Out	35 mm phone jack (RM only, not RM2)
Loop out	HDMI (RM only, not RM2)		

APANTAC

Crescent
DA-SDI-HDTV

1 x 4 3G/HD/SD-SDI Distribution Amplifier

DA-SDI-HDTV

Key Features

- Compact SDI to HDMI 1.4 converter
- 2 x SDI loop out
- RJ45 (HDMI 1.4) output with HDMI cable
- AES audio outputs
- Analog stereo output
- Audio selector to select the audio pair out
- 5V DC

Front View

5V DC
SDI input
2 x SDI outputs
1 x AES output

Rear View

RJ45 (HDMI) output
Rotary switch for audio pair selection
Analog audio breakout

Related Products

DA-HDTV-SDI-UHD
HDMI 2.0 to 12G converter

DA-SDI-HDTV-II
SDI to HDMI converter

DA-SDI-HDTV-UHD
12G to HDMI 2.0 converter

Specifications

Model	DA-SDI-HDTV
Description	SDI to HDMI converter with 2 SDI loop out
Inputs	1 x SDI with 2 SDI loop outs
Outputs	1 x HDMI (RJ45), comes with adapter cable from RJ45 to HDMI
Audio	AES and AA output with rotary selector for each pair
Power	5V 3A
Weight	1.0 lb (0.45 kg)
Dimension	62 x 113 x 29 mm (W x D x H)

DA-SDI-HDTV-01-2019

Crescent
DA-SDI-HDTV-II

SDI to HDMI converter

DA-SDI-HDTV-II

Key Features

- Compact SDI to HDMI 1.4 converter
- Support up to 3G SDI input
- HDMI 1.4 output
- Analog stereo output
- Audio selector to select the audio pair out
- 5V DC (can be powered by USB power source)

Front View

5V DC
SDI input
HDMI output

Rear View

Rotary switch for audio pair selection
Analog audio breakout

Related Products

DA-HDTV-SDI
HDMI to SDI conveter

DA-HDTV-SDI-UHD
HDMI 2.0 to 12G converter

Specifications

Model	DA-SDI-HDTV-II
Description	SDI to HDMI converter
Inputs	1 x SDI
Outputs	1 x HDMI
Audio	AA output with rotary selector for each pair
Power	5V 1.5 A (can be powered from a USB power source)
Weight	1.0 lb (0.45 kg)
Dimension	62 x 113 x 29 mm (W x D x H)

openGear
OG-SDI-HDTV

SDI to HDMI Converter without Scaler

OG-SDI-HDTV-MB

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- Auto-detect 3G SDI (1080P - SMPTE-425M, Level A) HD-SDI (720P, 1080i) or SD-SDI (525, 625)
- HDMI output
- Low power consumption
- 5 year limited warranty

OPENGEAR
OG-SDI-HDTV

OG-SDI-HDTV-RM

Rear Module (2 slots)

1x SDI input
1x HDMI output
1 x analog audio output (3 pin: L/G/R)

OG-SDI-HDTV-RM2
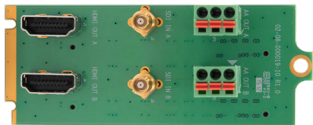
Rear Module (2 slots)

Side A
1x SDI input
1x HDMI output
1 x analog audio output (3 pin: L/G/R)

Side B
1x SDI input
1x HDMI output
1 x analog audio output (3 pin: L/G/R)

Related Products

OGX-FR-CN-P
openGear X frame with
advanced network card

OG-US-3000-SET-1
openGear based Universal
Scaler without genlock

OG-US-3500-SET-1
openGear based Universal
Scaler with genlock

OG-HDTV-SDI-II-SET-1
openGear based HDMI to SDI
converter without scaler

Specifications

Input	SDI	Output	HDMI
Control	Dashboard	Analog Audio Out	Phoenix connector

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APANTAC

openGear
OG-DA-AA

Analog Audio Distribution Amplifier
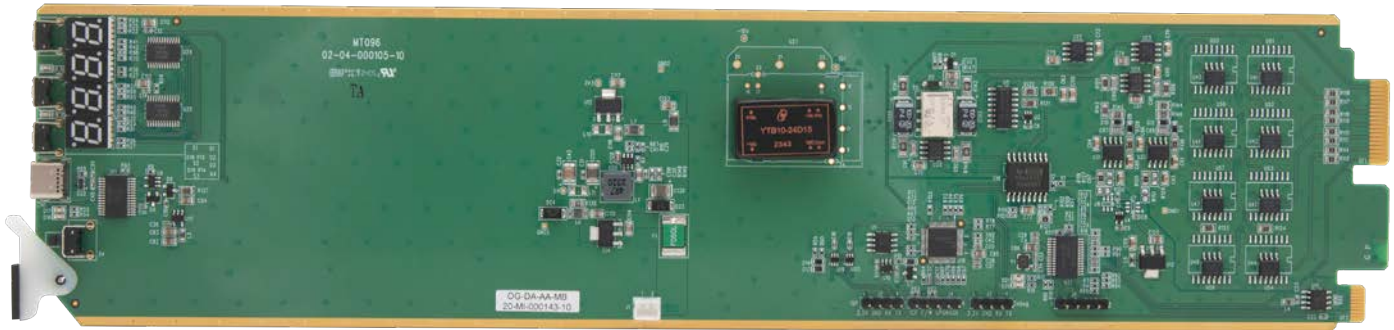
OG-DA-AA

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- Easy and intuitive seven segmented LED display to represent gain adjustments
- 1 x 8 or 2 x 4 analog audio distribution amplifier
- Can fit up to 20 OG-DA-AA in 2 RU with high density rear module
- Dashboard control of output modes and gain controls
- Supports card-edge control of EQ and gain control
- Support 4 stereo or 8 mono and 8 stereo sum (L+R) output mode
- Balanced I/O
- Low distortion
- Low power consumption
- 5 year limited warranty

apantac.com

OPENGEAR

OG-DA-AA

OG-DA-AA-RM

Rear Module (2 slots)

2 x Balanced input
8 x Balanced output

OG-DA-AA-RM2
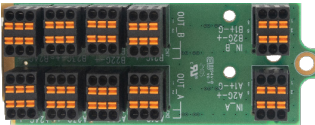
Rear Module (2 slots)

Side A
2 x Balanced input
8 x Balanced output

Side B
2 x Balanced input
8 x Balanced output

Specifications

Input	Balanced Analog Audio	Output	Balanced analog audio
Control	Dashboard		

openGear
OG-DA-AV

Analog Video Distribution Amplifier
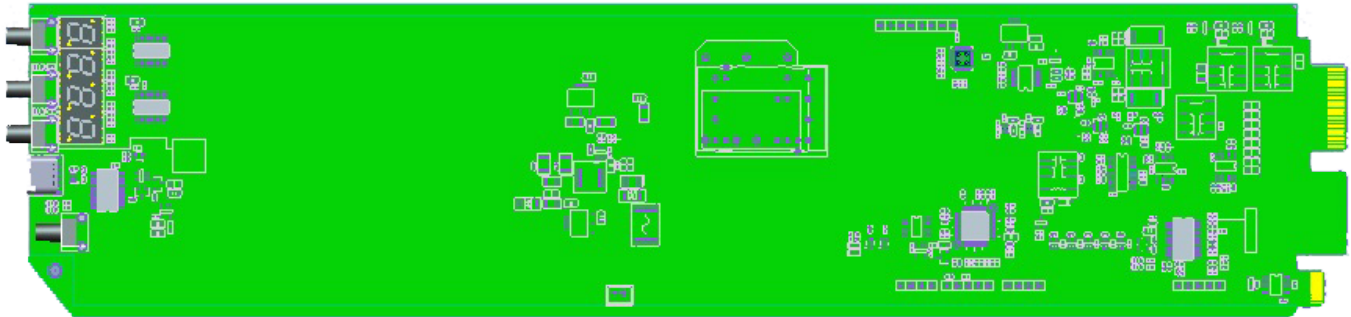
OG-DA-AV-MB

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- 1 x 8 analog video distribution amplifier with loopout
- Easy and intuitive seven segmented LED display to represent gain adjustments
- Can fit up to 20 OG-DA-AA in 2 RU with high density rear module
- Dashboard control of EQ and gain controls
- Supports card-edge control of EQ and gain control
- Supports input cable length of 1,000 ft (300m)
- Input provides differential or single-ended and hi-Z loopping or card terminated operations
- Signal path can be set as DC or AC coupled
- User-electable input clamping
- Low power consumption
- 5 year limited warranty

OPENGEAR
OG-DA-AV

OG-DA-AV-RM
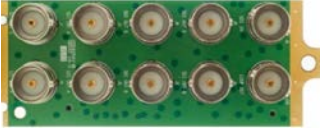
Rear Module (2 slots)

1x video input
1x passive loop out
8 x video output

OG-SDI-HDTV-RM2
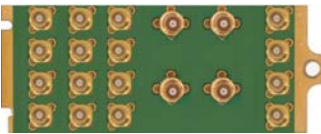
Rear Module (2 slots)

Side A
1x video input
1x passive loop out
8 x video output

Side B
1x video input
1x passive loop out
8 x video output

Specifications

Input	Analog video	Output	Analog video
Control	Dashboard		

openGear
OG-SYNC

Sync Generator
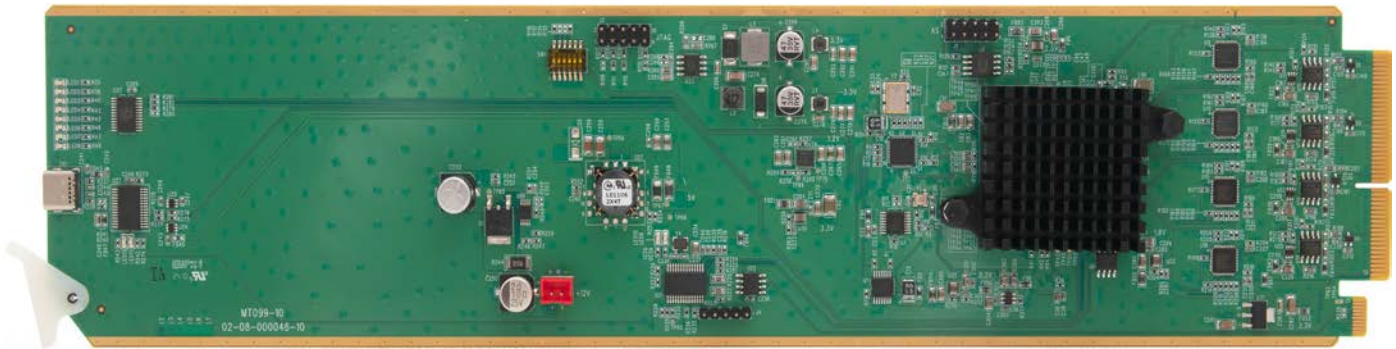
OG-SYNC-MB

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- Four independent configurable outputs for black burst or tri-level sync
- Supports NTSC/PAL black burst and HD tri-level sync
- Conforms to SMPTE 274M and 296M HD standards
- Conforms to SMPTE 170M(NTSC) or PAL standards
- Generates 48 KHz TTL-level Word clock output
- AES tone is available for AES outputs
- Does not require external reference to generate black burst or tri-level sync
- Low power consumption
- 5 year limited warranty

OG-SYNC-01-2019

OPENGEAR

OG-SYNC

OG-SYNC-RM   Rear Module (2 slots)

4 Indepent configurable outputs for tri-level/black burst
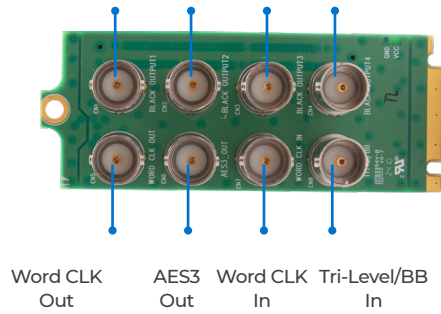
Word CLK Out — AES3 Out — Word CLK In — Tri-Level/BB In

Specifications

Input	Black Burst, Tri-level Sync, Word Clock	Output	Black Burst, Tri-level Sync, Word Clock
Control	Dashboard		

Crescent
DA-HDTV-USB

HDMI / SDI to USB Grabber

DA-HDTV-USB

Key Features

- HDMI 2.0 input
- 3G SDI input with loop-out
- Capture 1080P video via USB 3.0
- Analog microphone input
- Analog stereo output
- 5V DC

Front View

5V DC

3G SDI input

3G SDI loop out

Microphone input

Analog audio monitoring output

HDMI 2.0 input

USB 3.0 input

Related Products

DA-HDTV-SDI-UHD
HDMI 2.0 to 12G converter

DA-SDI-HDTV-II
SDI to HDMI converter

DA-SDI-HDTV-UHD
12G to HDMI 2.0 converter

Specifications

Model	DA-HDTV-USB
Description	HDMI and SDI to USB Capture Device
Inputs	3G SDI, HDMI 2.0
Outputs	1 x SDI loop out, USB 3.0
Audio	Microphone input and analog audio output
Power	5V 3A

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DA-HDTV-USB-01-2019

Crescent
Micro-Single

Production Quality Compact Video Converter with Scaler
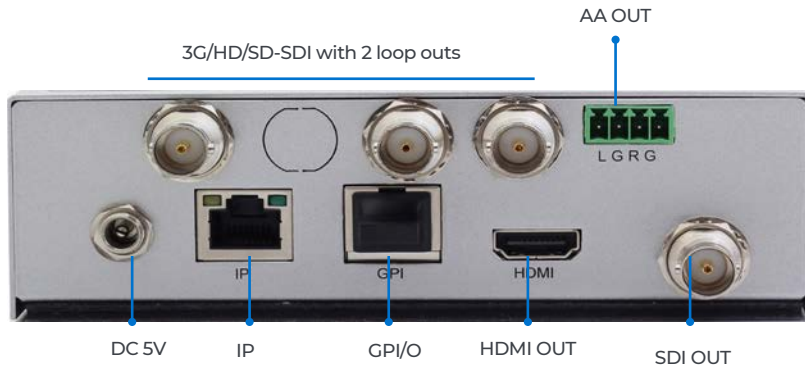

Micro-Single

Key Features

- Auto-detect 3G/HD/SD-SDI, PAL/NTSC inputs
- Low power consumption - 12W
- Single frame processing delay
- Decode up to 8 embedded audio per SDI input
- Display up to 8 audio meters per window
- Ethernet for configuration, dynamic labels & Tallies (TSL)
- Simultaneous HDMI/DVI and SDI outputs
- 2 GPI tallies per window
- 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off
- One 32 character label per window
- Text and background colors have adjustable transparency
- Safe area markers
- Visual Alarm tags for audio and video presence
- Dynamic (TSL) UMD/Label
- Stereo analog audio monitoring output

- HDMI and SDI outputs have embedded stereo audio pair
- Front panel buttons to recall presets
- 3 year limited warranty
- **Also available in a openGear card**
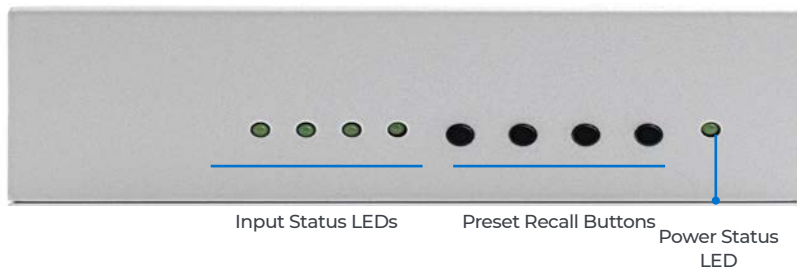
apantac.com

CRESCENT
Micro-Single

Rear View

3G/HD/SD-SDI with 2 loop outs

AA OUT

L G R G

DC 5V   IP   GPI/O   HDMI OUT   SDI OUT

Front View

Input Status LEDs   Preset Recall Buttons   Power Status LED

Specifications

Total Windows	1	**Output**	1 x HDMI/DVI, 1 x SDI
Inputs	3G/HD/SD-SDI	**HDMI**	800x480 to 1920x1200 (1080p) 50/59.94/60Hz
Serial Digital	SMPTE 424M 292M, 259M	**SDI**	Matching the HDMI output resolution up to 3G
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**On Screen Display**	Borders, Labels, Tallies, Audio meters, Alarm tags, Safe area markers
Return Loss	> 15db up to 1.485 Gbps, > 10db up to 3G	**GPI**	8 for tally or AXP (ASCII command)
Embedded Audio	SMPTE-272M-A	**IP**	100 Base-T, TSL, AXP_Lite protocol
Electrical	12 W, 90 -250V 50/60Hz	**EMI/RFI**	Complies with FCC Part 15, Class A, CE, EU, EMC, C-tick
Power	5V DC 3A	**Size**	171 mm x 120 mm x 44.45 mm (WxDxH)

openGear
OG-Micro-Single

SDI to HDMI converter/Scaler with advanced on screen display (OSD)

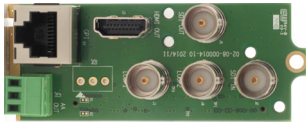**OG-Micro-Single-MB**

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- Auto-detect 3G/HD/SD-SDI, PAL/NTSC inputs
- Low power consumption - 12W
- Single frame processing delay
- Decode up to 8 embedded audio per SDI input
- Display up to 8 audio meters per window
- Ethernet for configuration, dynamic labels & Tallies (TSL)
- Simultaneous HDMI/DVI and SDI outputs
- 2 GPI tallies per window
- 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off
- One 32 character label per window
- Text and background colors have adjustable transparency
- Safe area markers

- Visual Alarm tags for audio and video presence
- Dynamic (TSL) UMD/Label
- Stereo analog audio monitoring output
- HDMI and SDI outputs have embedded stereo audio pair
- 5 year limited warranty

APANTAC

OPENGEAR

OG-Micro-Single

OG-Micro-Single-RM

Rear Module (2 slots)

1 x BNC Input
2 x BNC loop out
1 x BNC output
1 x HDMI Output
1 x RJ50 for GPI/Tally
1 x 3-pin Connector for AA Out

Standard Accessories

RJ50 to DB9 (for GPI)
DB9 to Terminal Block (for GPI)

How to Order

OG-Micro-Single-SET-1
OG-Micro-Single-MB +
OG-Micro-Single-RM

Specifications

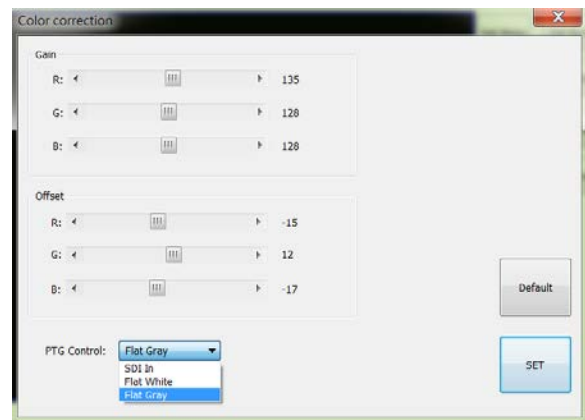| Total Windows	1	Output	2 x SDI loopout, 1 x HDMI/DVI, 1 x SDI
Inputs	3G/HD/SD-SDI/Composite	HDMI (OG-Micro-Single-RM)	800x480 to 1920x1200 (1080p) 50/59.94/60Hz
Serial Digital	SMPTE 424M 292M, 259M	SDI	Matching the HDMI output resolution up to 3G
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	On Screen Display	Borders, Labels, Tallies, Audio meters, Alarm tags, Safe area markers
Return Loss	> 15dB up to 1.485 Gbps, > 10dB up to 3G	GPI	8 for tally or AXP (ASCII command)
Embedded Audio	SMPTE-272M-A	IP	100 Base-T, TSL, AXP_Lite protocol
Composite	NTSC (SMPTE-170M), PAL (ITU624-2)		
Signal Level	1V nominal Power 12W		
Impedance	75 ohm		

APANTAC

Crescent
Micro-Single-C

Production Quality Compact Video Converter with Scaler and Color Correction

Micro-Single-C

Key Features

- Color Correction capable
- Auto-detect 3G/HD/SD-SDI, PAL/NTSC inputs
- Single frame processing delay
- Decode up to 8 embedded audio per SDI input
- Display up to 8 audio meters per window
- Ethernet for configuration, dynamic labels & Tallies (TSL)
- Simultaneous HDMI/DVI and SDI outputs
- 2 GPI tallies per window
- 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off
- One 32 character label per window
- Text and background colors have adjustable transparency
- Safe area markers
- Visual Alarm tags for audio and video presence
- Dynamic (TSL) UMD/Label
- Stereo analog audio monitoring output
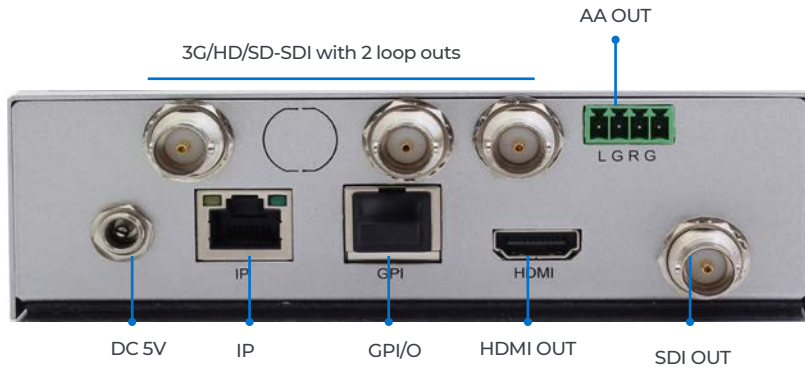- HDMI and SDI outputs have embedded stereo audio pair
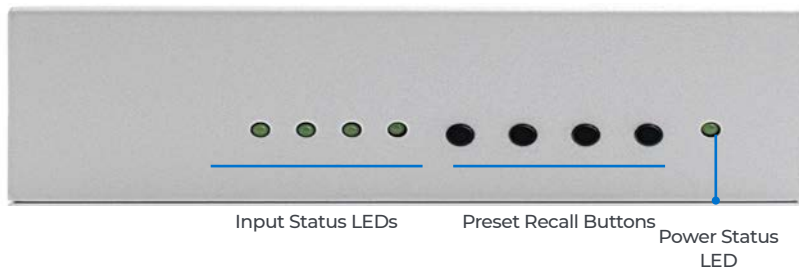
CRESCENT
Micro-Single-C

Rear View

3G/HD/SD-SDI with 2 loop outs

AA OUT

L G R G

DC 5V   IP   GPI/O   HDMI OUT   SDI OUT

Optional Accessories

1 RU Rack mount

Front View

Input Status LEDs   Preset Recall Buttons   Power Status LED

Specifications

Total Windows	1	**Output**	1 x HDMI/DVI, 1 x SDI
Inputs	3G/HD/SD-SDI	**HDMI**	800x480 to 1920x1200 (1080p) 50/59.94/60Hz
Serial Digital	SMPTE 424M 292M, 259M	**SDI**	Matching the HDMI output resolution up to 3G
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**On Screen Display**	Borders, Labels, Tallies, Audio meters, Alarm tags, Safe area markers
Return Loss	> 15db up to 1.485 Gbps, > 10db up to 3G	**GPI**	8 for tally or AXP (ASCII command)
Embedded Audio	SMPTE-272M-A	**IP**	100 Base-T, TSL, AXP_Lite protocol
Electrical	12 W, 90 -250V 50/60Hz	**EMI/RFI**	Complies with FCC Part 15, Class A, CE, EU, EMC, C-tick
Power	5V DC 3A	**Size**	171 mm x 120 mm x 44.45 mm (WxDxH)

APANTAC

openGear
OG-Micro-Single-C

SDI to HDMI converter with color correction advanced on screen display (OSD)

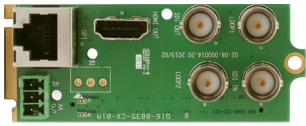**OG-Micro-Single-C-MB**

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- Color Correction capable
- Auto-detect 3G/HD/SD-SDI, PAL/NTSC inputs
- Low power consumption - 12W
- Single frame processing delay
- Decode up to 8 embedded audio per SDI input
- Display up to 8 audio meters per window
- Ethernet for configuration, dynamic labels & Tallies (TSL)
- Simultaneous HDMI/DVI and SDI outputs
- 2 GPI tallies per window
- 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off
- One 32 character label per window
- Text and background colors have adjustable transparency

- Safe area markers
- Visual Alarm tags for audio and video presence
- Dynamic (TSL) UMD/Label
- Stereo analog audio monitoring output
- HDMI and SDI outputs have embedded stereo audio pair
- 5 year limited warranty

APANTAC

OPENGEAR
OG-Micro-Single-C

OG-Micro-Single-RM **Rear Module (2 slots)**

1 x BNC Input
2 x BNC loop out
1 x BNC output
1 x HDMI Output
1 x RJ50 for GPI/Tally
1 x 3-pin Connector for AA Out1 x

Standard Accessories

RJ50 to DB9 (for GPI)
DB9 to Terminal Block (for GPI)

How to Order

OG-Micro-Single-SET-3
OG-Micro-Single-C-MB +
OG-Micro-Single-RM

Related Products

OGX-FR-CN-P
openGear X frame with
advanced network card

OG-Micro-Single-SET-1
openGear based SDI to HDMI
converter with scaler

Specifications

Total Windows	1	**Output**	2 x SDI loopout, 1 x HDMI/DVI, 1 x SDI
Inputs	3G/HD/SD-SDI/Composite	**HDMI (OG-Micro-Single-RM)**	800x480 to 1920x1200 (1080p) 50/59.94/60Hz
Serial Digital	SMPTE 424M 292M, 259M	**RJ45 (OG-Micro-Single-RMx)**	Up to 35 feet with passive receiver Up to 115 feet with active receiver (option: HDMI-1-R)
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**SDI**	Matching the HDMI output resolution up to 3G
Return Loss	> 15db up to 1.485 Gbps, > 10db up to 3G	**On Screen Display**	Borders, Labels, Tallies, Audio meters, Alarm tags, Safe area markers
Embedded Audio	SMPTE-272M-A	**GPI**	8 for tally or AXP (ASCII command)
Composite	NTSC (SMPTE-170M), PAL (ITU624-2)	**IP**	100 Base-T, TSL, AXP_Lite protocol
Signal Level	1V nominal Power 12W	**DC Offset**	0V, + - 0.1V
Impedance	75 ohm	**Return Loss**	40db up to 5MHz

APANTAC

Crescent
Micro-UDX

Compact Up/Down/Cross Converter
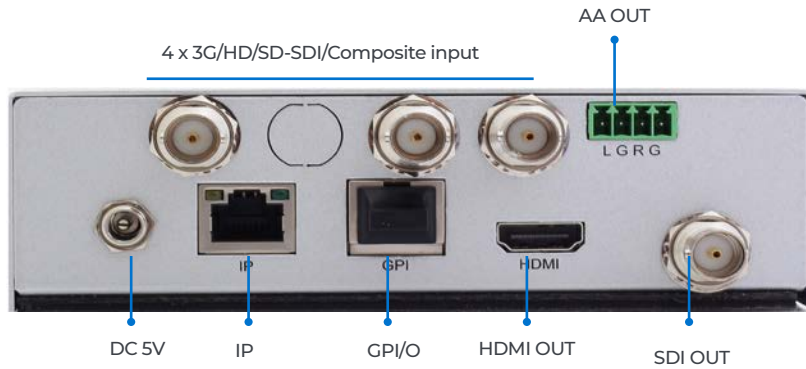
Micro-UDX

Key Features

- Compact up/down/cross converter
- Supports 3G/HD/SD-SDI/CVBS input in 50/60Hz
- HDMI and SDI output with embedded audio for monitoring
- Stereo analog audio monitoring output
- Front Panel buttons to recall presets
- Single frame processing delay
- Decode up to 16 embedded audio per SDI input
- Ethernet for configuration
- Simultaneous SDI and HDMI outputs
- Stereo analog audio monitoring output
- HDMI output has up to 8 channels of embedded audio
- SDI output has up to 16 channels of embedded audio
- 3 year limited warranty
- **Also available in a openGear card**
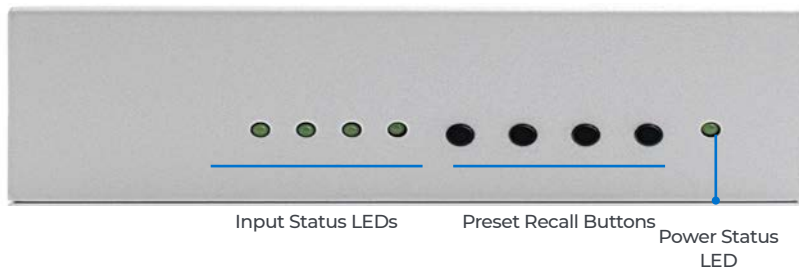
CRESCENT
Micro-UDX

Rear View

4 x 3G/HD/SD-SDI/Composite input

AA OUT

L G R G

DC 5V   IP   GPI/O   HDMI OUT   SDI OUT

IP   GPI   HDMI

Front View

Input Status LEDs   Preset Recall Buttons   Power Status LED

Specifications

Total Windows	1	**Output**	1 x HDMI/DVI, 1 x SDI
Inputs	3G/HD/SD-SDI/CVBS	**HDMI**	800x480 to 1920x1200 (1080p) 50/59.94/60Hz
Serial Digital	SMPTE 424M 292M, 259M	**SDI**	Matching the HDMI output resolution up to 3G
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**On Screen Display**	N/A
Return Loss	> 15db up to 1.485 Gbps, > 10db up to 3G	**GPI**	8 for tally or AXP (ASCII command)
Embedded Audio	SMPTE-272M-A	**IP**	100 Base-T, TSL, AXP_Lite protocol
Electrical	12 W, 90 -250V 50/60Hz	**EMI/RFI**	Complies with FCC Part 15, Class A, CE, EU, EMC, C-tick
Power	5V DC 3A	**Size**	171 mm x 120 mm x 44.45 mm (WxDxH)

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openGear
OG-Micro-UDX

SDI up/down/cross converter with HDMI output

OG-Micro-UDX-MB

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- Auto-detect 3G/HD/SD-SDI, PAL/NTSC inputs
- Low power consumption - 12W
- Single frame processing delay
- Maximum input SDI resolution up to 2048x1080p
- Decode up to 16 embedded audio per SDI input
- Ethernet for configuration
- Stereo analog audio monitoring output
- SDI output has up to 16 channels of embedded audio
- Passes Closed Captions and Timecode data
- 5 year limited warranty

APANTAC

OPENGEAR
OG-Micro-UDX

OG-Micro-UDX-RM

Rear Module
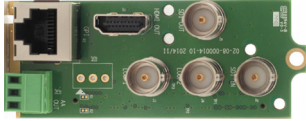
1 x BNC Input
2 x BNC loop out
1 x BNC output
1 x RJ50 for GPI/Tally
1 x 3-pin Connector for AA Out

Standard Accessories

RJ50 to DB9 (for GPI)
DB9 to Terminal Block (for GPI)

OG-Micro-UDX-SET-1
OG-Micro-UDX-MB +
OG-Micro-UDX-RM

Specifications

Total Windows	1	Output	2 x SDI loopout, 1 x SDI
Inputs	3G/HD/SD-SDI/Composite	HDMI (OG-Micro-UDX-RM)	800x480 to 1920x1200 (1080p) 50/59.94/60Hz, 23.98/24/25/30Hz
Serial Digital	SMPTE 424M 292M, 259M		
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	SDI	Output resolution up to 3G
Return Loss	> 15db up to 1.485 Gbps, > 10db up to 3G	IP	100 Base-T
Embedded Audio	SMPTE-272M-A	Power consumption	12W
Composite	NTSC (SMPTE-170M), PAL (ITU624-2)		
Signal Level	1V nominal Power 12W		
Impedance	75 ohm		

APANTAC

Crescent
Micro-4K

UHD/4K (Quad 3G) to 3G SDI down converter
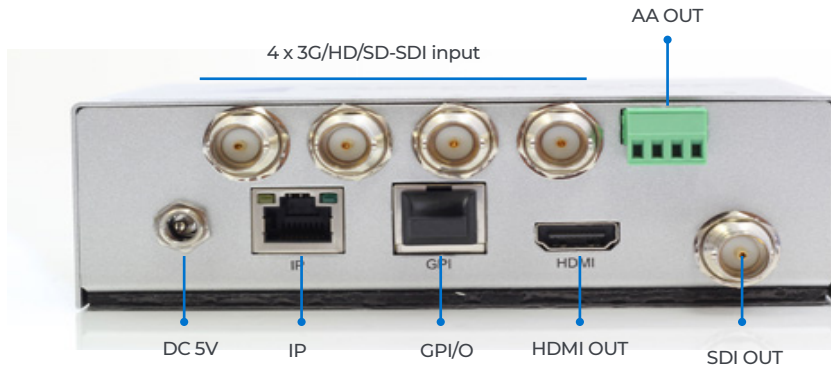

Micro-4k

Key Features

- 4 auto-detect 3G/HD/SD-SDI inputs
- HDMI and SDI output with embedded audio for monitoring
- Supports 8 channels of embedded audio
- Stereo analog audio output
- Safe area indicators
- Dynamic Tally via TSL (IP) or GPI
- Front panel buttons to recall presets
- 3 year limited warranty
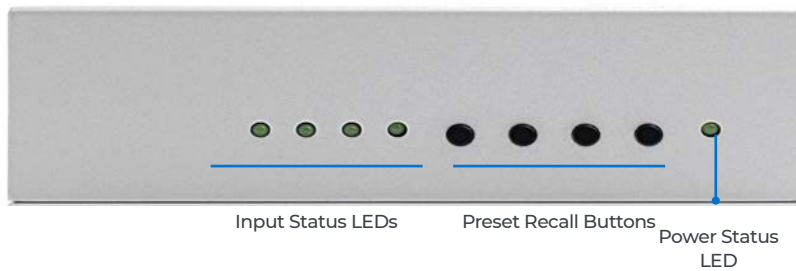- **Also available in a openGear card**

CRESCENT

Micro-4K

Rear View

4 x 3G/HD/SD-SDI input

AA OUT

DC 5V   IP   GPI/O   HDMI OUT   SDI OUT

Optional Accessories

1 RU Rack mount

Front View

Input Status LEDs   Preset Recall Buttons   Power Status LED

Specifications

Total Windows	1	**Output**	1 x HDMI/DVI, 1 x SDI
Inputs	4 x 3G-SDI	**HDMI**	800x480 to 1920x1200 (1080p) 50/59.94/60Hz
Serial Digital	SMPTE 424M 292M, 259M	**SDI**	Matching the HDMI output resolution up to 3G
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**On Screen Display**	Borders, Labels, Tallies, Audio meters, Alarm tags, Safe area markers
Return Loss	> 15db up to 1.485 Gbps, > 10db up to 3G	**GPI**	8 for tally or AXP (ASCII command)
Embedded Audio	SMPTE-272M-A	**IP**	100 Base-T, TSL, AXP_Lite protocol
Electrical	12 W, 90 -250V 50/60Hz	**EMI/RFI**	Complies with FCC Part 15, Class A, CE, EU, EMC, C-tick
Power	5V DC 3A	**Size**	171 mm x 120 mm x 44.45 mm (WxDxH)

APANTAC

openGear
OG-Micro-4K

4K/UHD (4 x 3G SDI) down converter

OG-Micro-4K-MB

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- 4 x 3G-SDI inputs, 1 x down converted output
- 1 x down converted SDI output
- 1 x down concerted HDMI output
- Low power consumption - 12W
- Stereo analog audio monitoring output
- 5 year limited warranty

OPENGEAR

OG-Micro-4K

OG-Micro-4K-RM

Rear Module (2 slots)

4 x BNC Input
1 x BNC Output
1 x HDMI Output
1 x RJ50 for GPI/Tally
1 x 3-pin Connector for AA Out

Standard Accessories

RJ50 to DB9 (for GPI)
DB9 to Terminal Block (for GPI)

How to Order

OG-Micro-4K-SET-1
OG-Micro-4K-MB +
OG-Micro-4K-RM

Specifications

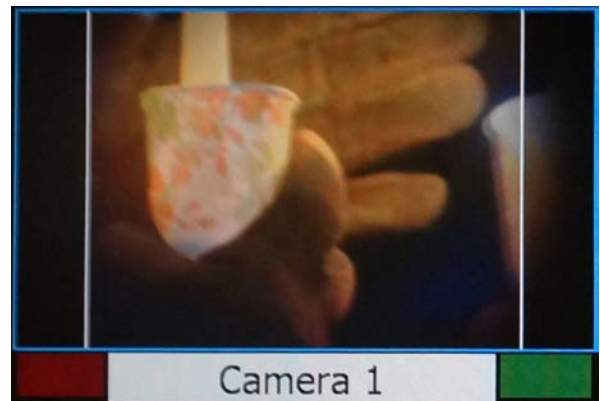|			
Total Windows	1	**Output**	1 x HDMI/DVI, 1 x SDI
Inputs	4 x 3G-SDI	**HDMI (OG-Micro-4K-RM)**	800x480 to 1920x1200 (1080p) 50/59.94/60Hz
Serial Digital	SMPTE 424M	**RJ45 (OG-Micro-4K-RMx)**	Up to 35 feet with passive receiver Up to 115 feet with active receiver (option: HDMI-1-R)
Equalization	120m at 2.97 Gbps, with Belden 1694A	**SDI**	Matching the HDMI output resolution up to 3G
Return Loss	> 15db up to 1.485 Gbps, > 10db up to 3G		
Embedded Audio	SMPTE-272M-A		

APANTAC

Crescent
Pinnacle-II

Production quality SDI to HDMI converter/scaler
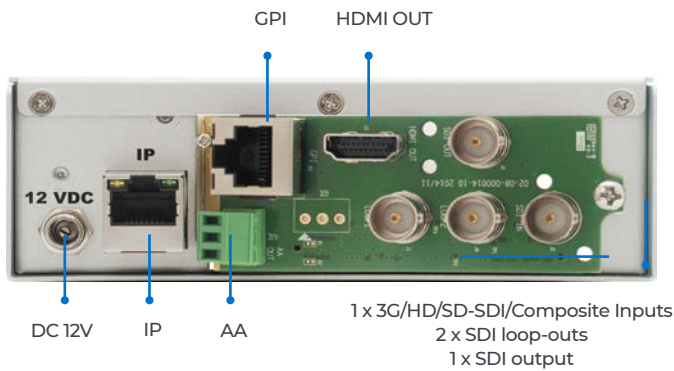

Pinnacle-II

Key Features

- 3G/HD/SD-SDI to HDMI converter
- Built-in scaler/de-interlacer
- SDI output that matches HDMI output
- Analog audio monitoring output
- Embedded audio on HDMI output
- Selectable on-screen display (OSD) elements
- 16 channels of embedded audio
- Safe area markers
- Dynamic UMD (TSL)
- CC 608/708
- 2 GPI tallies
- 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off
- Visual Alarm tags for audio and video presence
- 3 year limited warranty

CRESCENT
Pinnacle-II

Rear view

GPI HDMI OUT

IP

12 VDC

DC 12V IP AA

1 x 3G/HD/SD-SDI/Composite Inputs
2 x SDI loop-outs
1 x SDI output

Standard Accessories

DC 12V power supply
RJ50 to DB9 for GPI
Breakout terminal block
RJ45 to DB9 for serial

Options

1 RU rack mount

Specifications

|			
Total Windows	1	**Output**	1 x HDMI/DVI, 1 x SDI
Inputs	3G/HD/SD-SDI/Composite	**HDMI**	800x480 to 1920x1200 (1080p) 50/59.94/60Hz
Serial Digital	SMPTE 424M 292M, 259M		
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**SDI**	Matching the HDMI output resolution up to 3G
Return Loss	> 15dB up to 1.485 Gbps, > 10dB up to 3G	**On Screen Display**	Borders, Labels, Tallies, Audio meters, Alarm tags, Safe area markers
Embedded Audio	SMPTE-272M-A	**GPI**	8 for tally or AXP (ASCII command)
Composite	NTSC (SMPTE-170M), PAL (ITU624-2)	**IP**	100 Base-T, TSL, AXP_Lite protocol
Signal Level	1V nominal		
Impedance	75 ohm		

APANTAC

openGear
OG-Pinnacle

Broadcast Quality SDI to HDMI converter/scaler


Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- 3G/HD/SD-SDI to HDMI converter
- Built-in scaler/de-interlacer
- SDI output that matches HDMI output
- Analog audio monitoring output
- Embedded audio on HDMI output
- Selectable on-screen display (OSD) elements
- 16 channels of embedded audio
- Safe area markers
- Dynamic UMD (TSL)
- CC 608/708
- 2 GPI tallies per window
- 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off
- Visual Alarm tags for audio and video presence
- 5 year limited warranty
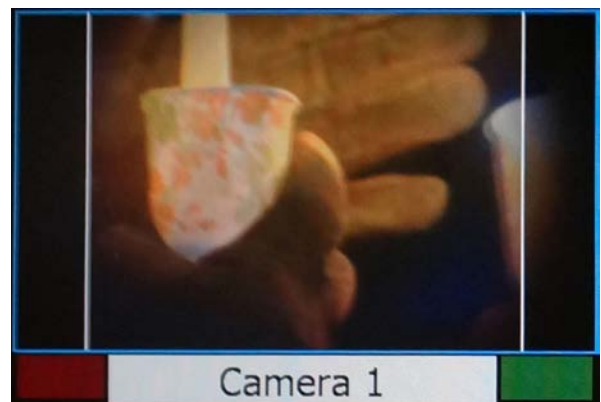
OG-Pinnacle

OPENGEAR

OG-Pinnacle

OG-Pinnacle-RM
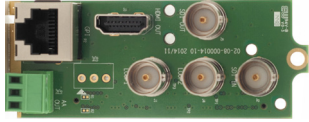
Rear Module (2 slots)

1 x BNC Input
2 x BNC loop out
1 x BNC output
1 x HDMI Output
1 x RJ50 for GPI/Tally
1 x 3-pin Connector for AA Out

Standard Accessories

RJ50 to DB9 (for GPI)
DB9 to Terminal Block (for GPI)

How to Order

OG-Pinnacle-SET-1
OG-Pinnacle-MB +
OG-Pinnacle-RM

Specifications

Total Windows	1	**Output**	1 x HDMI/DVI, 1 x SDI
Inputs	3G/HD/SD-SDI/Composite	**HDMI**	800x480 to 1920x1200 (1080p) 50/59.94/60Hz
Serial Digital	SMPTE 424M 292M, 259M		
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**SDI**	Matching the HDMI output resolution up to 3G
Return Loss	> 15db up to 1.485 Gbps, > 10db up to 3G	**On Screen Display**	Borders, Labels, Tallies, Audio meters, Alarm tags, Safe area markers
Embedded Audio	SMPTE-272M-A	**GPI**	8 for tally or AXP (ASCII command)
Composite	NTSC (SMPTE-170M), PAL (ITU624-2)	**IP**	100 Base-T, TSL, AXP_Lite protocol
Signal Level	1V nominal		
Impedance	75 ohm		

APANTAC

openGear
OG-Pinnacle-L

SDI to HDMI converter/scaler with loudness monitoring
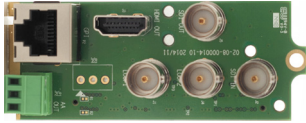

OG-Pinnacle-L-MB

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- 3G/HD/SD-SDI to HDMI converter/scaler with loudness monitoring
- Built-in scaler/de-interlacer
- SDI output that matches HDMI output
- Analog audio monitoring output
- Embedded audio on HDMI output
- Selectable on-screen display (OSD) elements
- 16 channels of embedded audio
- Safe area markers
- Dynamic UMD (TSL)
- CC 608/708
- 2 GPI tallies per window
- 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off
- Visual Alarm tags for audio and video presence
- 5 year limited warranty

OPENGEAR

OG-Pinnacle-L

OG-Pinnacle-L-RM

Rear Module (2 slots)

1 x BNC Input
2 x BNC loop out
1 x BNC output
1 x HDMI Output
1 x RJ50 for GPI/Tally
1 x 3-pin Connector for AA Out

Standard Accessories

RJ50 to DB9 (for GPI)
DB9 to Terminal Block (for GPI)

How to Order

OG-Pinnacle-L-SET-1
OG-Pinnacle-L-MB +
OG-Pinnacle-L-RM

Specifications

Total Windows	1	**Output**	1 x HDMI/DVI, 1 x SDI
Inputs	3G/HD/SD-SDI/Composite	**HDMI**	800x480 to 1920x1200 (1080p) 50/59.94/60Hz
Serial Digital	SMPTE 424M 292M, 259M		
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**SDI**	Matching the HDMI output resolution up to 3G
Return Loss	> 15db up to 1.485 Gbps, > 10db up to 3G	**On Screen Display**	Borders, Labels, Tallies, Audio meters, Alarm tags, Safe area markers
Embedded Audio	SMPTE-272M-A	**GPI**	8 for tally or AXP (ASCII command)
Composite	NTSC (SMPTE-170M), PAL (ITU624-2)	**IP**	100 Base-T, TSL, AXP_Lite protocol
Signal Level	1V nominal		
Impedance	75 ohm		

APANTAC
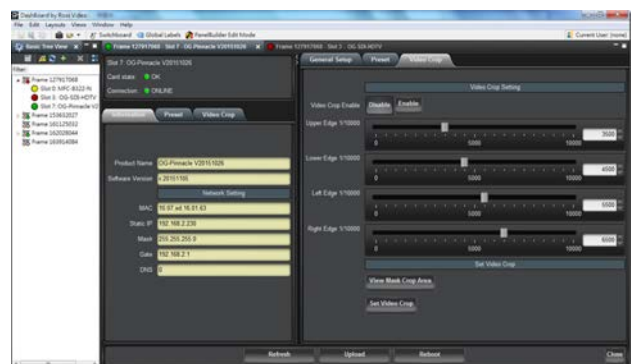
openGear
OG-Pinnacle-C

SDI to HDMI converter/scaler with region of interest

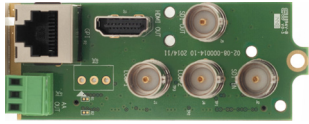**OG-Pinnacle-C-MB**

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- 3G/HD/SD-SDI to HDMI converter/scaler with loudness monitoring
- Built-in scaler/de-interlacer
- SDI output that matches HDMI output
- Analog audio monitoring output
- Embedded audio on HDMI output
- Selectable on-screen display (OSD) elements
- 16 channels of embedded audio
- Safe area markers
- Dynamic UMD (TSL)
- CC 608/708
- 2 GPI tallies per window
- 8 GPI contacts, can be configured for tally or ASCII protocol
- Borders can be turned on or off
- Visual Alarm tags for audio and video presence
- 5 year limited warranty

OPENGEAR
OG-Pinnacle-C

OG-Pinnacle-L-RM

Rear Module (2 slots)

1 x BNC Input
2 x BNC loop out
1 x BNC output
1 x HDMI Output
1 x RJ50 for GPI/Tally
1 x 3-pin Connector for AA Out

Standard Accessories

RJ50 to DB9 (for GPI)
DB9 to Terminal Block (for GPI)

How to Order

OG-Pinnacle-L-SET-1
OG-Pinnacle-L-MB +
OG-Pinnacle-L-RM

Specifications

Total Windows	1	**Output**	1 x HDMI/DVI, 1 x SDI
Inputs	3G/HD/SD-SDI/Composite	**HDMI**	800x480 to 1920x1200 (1080p) 50/59.94/60Hz
Serial Digital	SMPTE 424M 292M, 259M		
Equalization	120m at 2.97 Gbps, 140m at 1.48 Gbps, 400m at 270 Mbps with Belden 1694A	**SDI**	Matching the HDMI output resolution up to 3G
Return Loss	> 15dB up to 1.485 Gbps, > 10db up to 3G	**On Screen Display**	Borders, Labels, Tallies, Audio meters, Alarm tags, Safe area markers
Embedded Audio	SMPTE-272M-A	**GPI**	8 for tally or AXP (ASCII command)
Composite	NTSC (SMPTE-170M), PAL (ITU624-2)	**IP**	100 Base-T, TSL, AXP_Lite protocol
Signal Level	1V nominal		
Impedance	75 ohm		

Crescent
US-3000

Universal Input Scan converter/Scaler
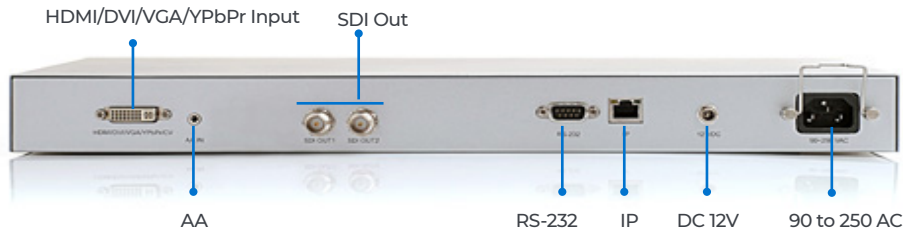

US-3000

Key Features

- Inputs HDMI, DVI, VGA YPbPr and Composite
- Stereo analog audio input
- Outputs SDI in 720P, 480P, 480i, 1080i, 1080P
- Output frequency in 29.97, 30, 50, 59.94, 60Hz
- IP and RS-232 control
- Dual SDI outputs
- Genlock
- Optional redundant power supply
- 3 year warranty

CRESCENT
US-3000

Rear view

HDMI/DVI/VGA/YPbPr Input   SDI Out

AA   RS-232   IP   DC 12V   90 to 250 AC

Standard Accessories

HDMI to DVI adapter
VGA to DVI adapter
YPbPr to DVI adapterl

Options

12V DC redundant power supply

Specifications
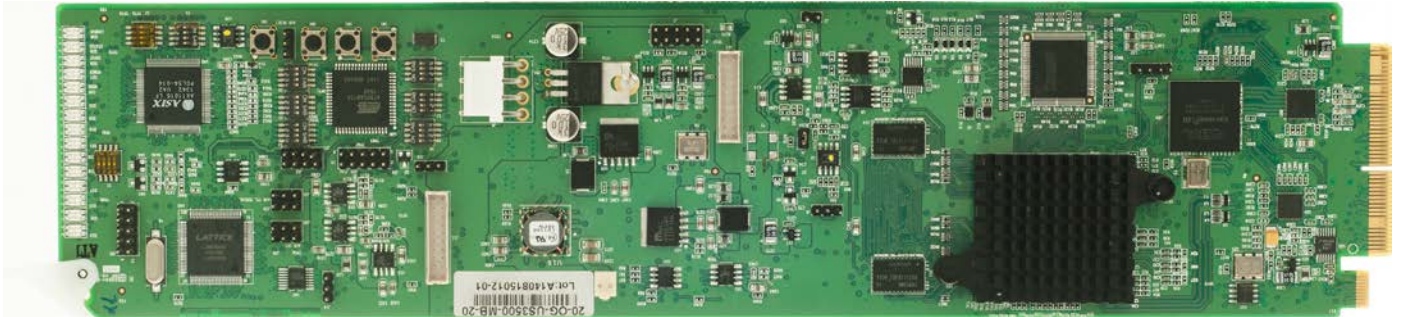
Model	US-3000
Inputs	HDMI, DVI, VGA, YPbPr, Composite
Outputs	Dual SDI outputs in 29.97, 30, 50, 59.94, 60Hz
Audio input	Stereo analog
Genlock	N/A
Power	AC 90 - 250 with optional redundant DC 12 V
Dimensions	1 Rack unit
Mount	19" Rackmount

openGear
OG-US-3500

## Universal Scan Converter/Scaler with Genlock

OG-US-3500-MB

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enables
- Supports HDMI/DVI/YPbPr/CVBS input
- Stereo analog audio input
- Dual SDI outputs
- Supports Genlock via openGear frame
- Low power consumption
- Output: 720P, 480/576P, 480i/576i, 1080i, 1080P
- Output frequency: 50, 59.94 and 60Hz
- 5 year limited warranty

OG-US-3500-01-2019

OPENGEAR
OG-US-3500

OG-US-3500RM
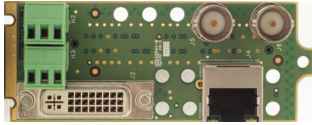
Rear Module (2 slots)

1x DVI-U input
2x SDI outputs
1x analog audio input (3 Pin)
1x RS-232 Input (3 Pin)

Standard Accessories

1x VGA-DVI-U adapter
1x HDMi-DVI-U adapter
1x YPbPr-DVI-U adapter

How to Order

OG-US-3500-SET-1
OG-US-3500-MB +
OG-US-3500-RM

Related Products

OGX-FR-CN-P
openGear X frame with
advanced network card

OG-US-4000-SET-1
openGear based Universal
Scaler with genlock

OG-DA-HDTV-SDI-II-SET-1
openGear based HDMI to SDI
converter without scaler

OG-SDI-HDTV-SET-1
openGear based SDI to HDMI
converter without scaler

Specifications

Input	HDMI, DVI, VGA, YPbPr, Composite	Output	2 x SDI
Control	Dashboard	Genlock	Analog black burst via BNC

Supported Input Resolution for DVI_RGB, DVI_444, DVI_422, HDMI 8bit_RGB, HDMI 8bit_444, HDMI 8bit_422			
800x600@60Hz	1024x768@60Hz	1280x768@60Hz	1280x800@60Hz
1280x960@60Hz	1280x1024@60Hz	1360x768@60Hz	1366x768@60Hz
1440x900@60Hz	1400x1050@60Hz	1600x1200@60Hz	1680x1050@60Hz
720x480i@59.94Hz (No DVI)	720x576i@50Hz (No DVI)	720x480P@59.94Hz	720x576P@50Hz
1280x720@50/60Hz	1920x1080i@ 50/60Hz	1920x1080P@50/60Hz	

| Supported Input Resolution for DVI, HDMI 8/10 bit RGB/YPbPr			
640x480@60 Hz	800x600@60Hz	1024x768@60Hz	1280x720@60Hz
1280x768@60Hz	1280x800@59.94Hz	1280x960@60Hz	1280x1024@60Hz
1360x768@60Hz	1440x900@60Hz	1400x1050@60Hz	1600x1200@60Hz
1680x1050@60Hz	1920x1200 (RGB)	1920x1080@60Hz	

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Crescent
US-4000

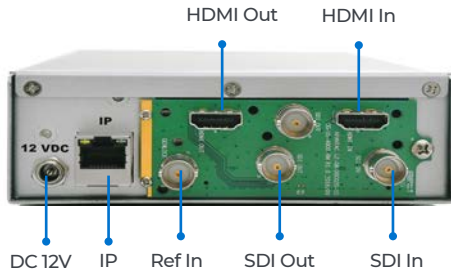Standalone Bi-directional Universal Scaler with Genlock

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US-4000
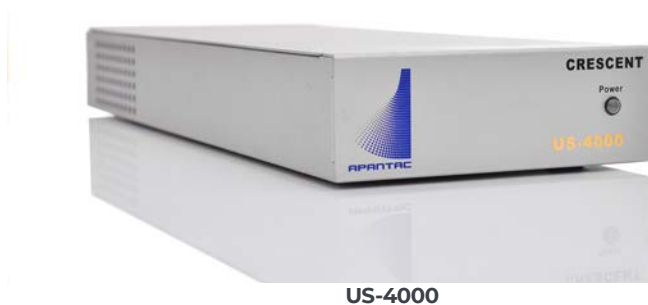
Key Features

- Standalone compact
- Dashboard connect control enabled
- Supports HDMI and SDI inputs
- Supports HDMI and SDI outputs
- Supports 8 channels of HDMI audio to SDI and vise versa
- Supports Genlock via openGear frame
- Scales any SDI input resolution to HDMI and SDI
- Scales any HDMI input resolutions to HDMI and SDI
- SDI output supports 720P, 480/576i, 480/576P, 1080i/P in 23.98, 24, 25, 29.97, 30, 50, 59.94 and 60Hz
- HDMI output support 720P, 480/576i, 480/576P, 1080i/P in 50 and 60Hz
- Low power consumption
- 3 year limited warranty

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US-4000

Rear view

HDMI Out   HDMI In

DC 12V   IP   Ref In   SDI Out   SDI In

Specifications

Input	HDMI and SDI	Output	HDMI and SDI
Control	Dashboard	Genlock	Analog black burst via BNC

Supported Input Resolution for DVI, HDMI 8/10 bit RGB/YPbPr			
640x480@60 Hz	800x600@60Hz	1024x768@60Hz	1280x720@60Hz
1280x768@60Hz	1280x800@60Hz	1280x960@60Hz	1280x1024@60Hz
1360x768@60Hz	1366x768@60Hz	1440x900@60Hz	1400x1050@60Hz
1680x1050@60Hz	720x480i@59.94Hz	720x576i@50Hz	720x480P@59.94Hz
720x576P@50Hz	1280x720@50/60Hz	1920x1080i@ 50/60Hz	1920x1080P@50/60Hz
1600x1200@60Hz, 1920x1200, 1152x864 NOT SUPPORTED			

openGear
OG-US-4000

Bi-directional Universal Scaler with Genlock
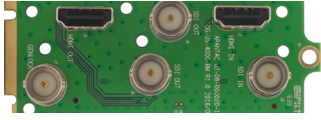

OG-US-4000-MB

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- Supports HDMI and SDI inputs
- Supports HDMI and SDI outputs
- Supports 8 channels of HDMI audio to SDI and vise versa
- Supports Genlock via openGear frame
- Scales any SDI input resolution to HDMI and SDI
- Scales any HDMI input resolutions to HDMI and SDI
- SDI output supports 720P, 480/576i, 1080i/P in 23.98, 24, 25, 29.97, 30, 50, 59.94 and 60Hz
- Built-in static and dynamic patters
- HDMI output support 720P, 480/576i, 480/576P, 1080i/P in 50 and 60Hz
- Low power consumption
- 5 year limited warranty

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OPENGEAR
OG-US-4000

OG-US-4000-RM

Rear Module (2 slots)

1 x HDMI input
1 x SDI input
1 x HDMI output
2 x SDI output
1 x Genlock

How to Order
OG-US-4000-SET-1
OG-US-4000-MB +
OG-US-4000-RM

Related Products
OGX-FR-CN-P
openGear X frame with
advanced network card

OG-US-3000-SET-1
openGear based Universal
Scaler without genlock

OG-US-3500-SET-1
openGear based Universal
Scaler with genlock

OG-DA-HDTV-SDI-II-SET-1
openGear based HDMI to SDI
converter without scaler

OG-SDI-HDTV-SET-1
openGear based SDI to HDMI
converter without scaler

Specifications

Input	HDMI and SDI	Output	HDMI and SDI
Control	Dashboard	Genlock	Analog black burst via BNC

| Supported Input Resolution for DVI, HDMI 8/10 bit RGB/YPbPr			
640x480@60 Hz	800x600@60Hz	1024x768@60Hz	1280x720@60Hz
1280x768@60Hz	1280x800@60Hz	1280x960@60Hz	1280x1024@60Hz
1360x768@60Hz	1366x768@60Hz	1440x900@60Hz	1400x1050@60Hz
1680x1050@60Hz	720x480i@59.94Hz	720x576i@50Hz	720x480P@59.94Hz
720x576P@50Hz	1280x720@50/60Hz	1920x1080i@ 50/60Hz	1920x1080P@50/60Hz
1600x1200@60Hz, 1920x1200, 1152x864 NOT SUPPORTED			

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Crescent
US-5000

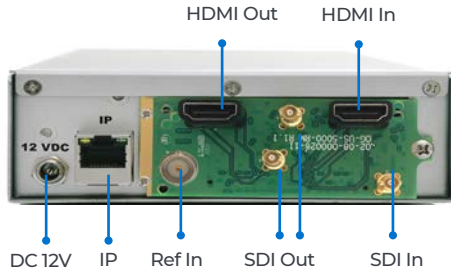### Standalone Bi-directional Universal Scaler with Genlock

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US-5000
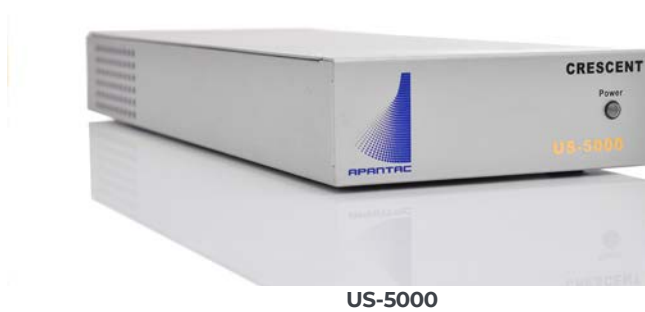
Key Features

- Standalone compact
- Dashboard connect control enabled
- HDR metadata pass through
- Select input among HDMI 2.0, SDI up to 4096x2160p60 or test signal
- HDMI 2.0 and 12G SDI outputs up to 4096x2160p60, with independently adjustable resolution / frame rate
- Supports 8 channels of HDMI audio to SDI and vice versa
- Supports 8 channels of audio when converting from SDI to SDI
- Can be genlocked to Black Burst
- SDI output supports 1080P 50/59.94Hz, 3840x2160 50/59.94Hz, 4096x2160P 50/59.94Hz
- HDMI output supports 1080P 50/59.94Hz, 3840x2160P 50/59.94Hz, 4096x2160P 50/59.94Hz
- Low power consumption < 25W
- Region of Interest (ROI)
- In ROI mode, the HDMI output matches the SDI output resolution
- 3 year limited warranty

CRESCENT
US-5000

Rear view

HDMI Out   HDMI In

DC 12V   IP   Ref In   SDI Out   SDI In

SUPPORTED INPUT SIGNAL TYPE/FORMATS	
HDMI	**12G-SDI**
4096 x 2160 59.94/60Hz	4096 x 2160 59.94/60Hz
4096 x 2160 50 Hz	4096 x 2160 50Hz
4096 x 2160 29.97/30Hz	3840x2160p 59.94/60Hz
4096 x 2160 23.98/24/25Hz	3840x2160p 50Hz
3840 x 2160 24Hz	3840x2160p 30Hz
3840 x 2160 23.98Hz	**6G-SDI**
2560x1080 60Hz	3840x2160p 30Hz
1080P 59.94/60Hz	3840x2160p 29.97Hz
1080P 50Hz	3840x2160p 25Hz
1080P 30Hz	3840x2160p 24Hz
1080P 29.97Hz	3840x2160 23.98Hz
1080P 25Hz	**3G-SDI Level A**
1080P 24Hz	1920x1080p 60Hz
1080P 23.98Hz	1920x1080p 59.94Hz
1920x1200 59.94Hz	1920x1080p 50Hz
1920x1200 50Hz	**1.5G SDI**
1920x1200 49.93Hz	1920x1080p 30Hz
720P 59.94/60Hz	1920x1080p 29.97Hz
720P 50Hz	1920x1080p 25Hz
640x480 59.94/60Hz	1920x1080p 24Hz
640x480 59.94Hz	1920x1080p 23.98Hz
480P 59.94/60Hz	

Specifications

Input	HDMI and SDI	Output	HDMI and SDI
Control	Dashboard	**Genlock**	Analog black burst via BNC

APANTAC

openGear
OG-US-5000

UHD (HDMI 2.0 and 12G SDI) Bi-directional Universal Scaler with Genlock


OG-US-5000

Key Features

- openGear OGX card-based form factor
- Dashboard control enabled
- HDR metadata pass through
- Select input among HDMI 2.0, SDI up to 4096x2160P60Hz or test signal
- Region of interest (ROI) cropping
- HDMI 2.0 and 12G SDI outputs up to 4096x2160p60, with independently adjustable resolution / frame rate
- Supports 8 channels of HDMI audio to SDI and vice versa
- Supports 8 channels of audio when converting from SDI to SDI
- Supports Genlock via openGear frame
- Supports SDI output (See list)
- Supports HDMI output (See list)
- Region of Interest (ROI) support.
- In ROI mode, the HDMI output matches the SDI output resolution
- Low power consumption
- 5 year limited warranty

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OPENGEAR
OG-US-5000

OG-US-5000-RM

HDMI Out SDI Out HDMI In

SDI Out SDI In

Rear Module (2 slots)
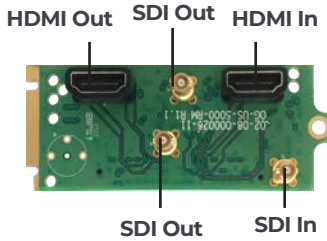
1 x HDMI input
1 x SDI input
1 x HDMI output
1 x SDI output

SUPPORTED INPUT TYPE/FORMATS		SUPPORTED OUTPUT TYPE/FORMATS	
HDMI	**12G-SDI**	**HDMI**	**12G-SDI**
4096x2160 59.94/60Hz	4096 x 2160 59.94/60Hz	4096x2160 59.94Hz	4096x2160 59.94 Hz
4096x2160 50 Hz	4096 x 2160 50Hz	4096x2160 50Hz	4096x2160 50 Hz
4096x2160 30Hz	3840x2160 59.94/60Hz	3840x2160 59.9Hz	3840x2160 60 Hz
4096x2160 24/25Hz	3840x2160 50Hz	3840x2160 59.94Hz	3840x2160 59.94 Hz
3840x2160 59.94/50/30Hz	3840x2160 30Hz	3840x2160 30Hz	3840x2160 50 Hz
3840x2160 25/24Hz	**6G-SDI**	3840x2160 25Hz	**6G-SDI**
2560x1080 60Hz	3840x2160 30Hz	3840x2160 24Hz	3840x2160 30Hz
1080P 59.94/60Hz	3840x2160 29.97Hz	1080P 59.94Hz	3840x2160 29.97 Hz
1080P 50Hz	3840x2160 25Hz	1080P 50 Hz	3840x2160 25Hz
1080P 30Hz	3840x2160 24Hz	1080P 30Hz	3840x2160 24Hz
1080P 29.97Hz	3840x2160 23.98Hz	1080P 25Hz	3840x2160 23.98Hz
1080P 25Hz	**3G-SDI Level A**	1080P 24Hz	**3G-SDI Level A**
1080P 24Hz	1920x1080 60Hz		1920x1080 60Hz
1080P 23.98Hz	1920x1080 59.94Hz		1920x1080 59.94Hz
1920x1200 59.94Hz	1920x1080 50Hz		1920x1080 50Hz
1920x1200 50Hz	**1.5G SDI**		**1.5G SDI**
1920x1200 49.93Hz	1920x1080 30Hz		1080i 59.94/50Hz
720P 59.94/60Hz	1920x1080 29.97Hz		1080i 30Hz
720P 50Hz	1920x1080 25Hz		1080P 29.97Hz
640x480 59.94/60Hz	1920x1080 24Hz		1080P 25Hz
640x480 59.94Hz	1920x1080 23.98Hz		1080P 24Hz
480P 59.94/60Hz			1080P 23.98Hz

Specifications

Input	HDMI or SDI	Output	HDMI and SDI
Control	Dashboard	**Genlock**	Analog black burst via OGX frame

Crescent
HDR-UDX
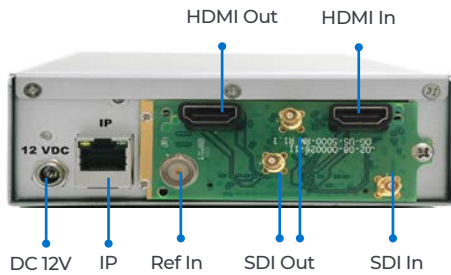
SDR <> HDR up/down and cross converter

HDR-UDX

Key Features

- Standalone compact
- Dashboard connect control enabled
- Convert from SDR to HDR, HDR to SDR - either PQ or HLG
- Cross convert from HDR to HDR from PQ to HLG and vice versa
- SDR to HDR in 203 nits with static conversion
- SDR to HDR in 400 nits with dynamic conversion
- HLG to PQ (and vice versa) follows ITU-R BT.2100 recommendation
- Convert HDMI to SDI and vice versa
- Built-in test pattern for trouble shooting
- Supports 8 channels of HDMI audio to SDI and vice versa
- Supports 8 channels of audio when converting from SDI to SDI
- Supports Genlock via openGear frame
- Supports SDI Input/output (See list)
- Supports HDMI Input/output (See list)
- Low power consumption
- 5 year limited warranty

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HDR-UDX

Rear view

HDMI Out   HDMI In

DC 12V   IP   Ref In   SDI Out   SDI In

SUPPORTED INPUT SIGNAL TYPE/FORMATS	
HDMI	**12G-SDI**
4096 x 2160 59.94/60Hz	4096 x 2160 59.94/60Hz
4096 x 2160 50 Hz	4096 x 2160 50Hz
4096 x 2160 29.97/30Hz	3840x2160p 59.94/60Hz
4096 x 2160 23.98/24/25Hz	3840x2160p 50Hz
3840 x 2160 24Hz	3840x2160p 30Hz
3840 x 2160 23.98Hz	**6G-SDI**
2560x1080 60Hz	3840x2160p 30Hz
1080P 59.94/60Hz	3840x2160p 29.97Hz
1080P 50Hz	3840x2160p 25Hz
1080P 30Hz	3840x2160p 24Hz
1080P 29.97Hz	3840x2160 23.98Hz
1080P 25Hz	**3G-SDI Level A**
1080P 24Hz	1920x1080p 60Hz
1080P 23.98Hz	1920x1080p 59.94Hz
1920x1200 59.94Hz	1920x1080p 50Hz
1920x1200 50Hz	**1.5G SDI**
1920x1200 49.93Hz	1920x1080p 30Hz
720P 59.94/60Hz	1920x1080p 29.97Hz
720P 50Hz	1920x1080p 25Hz
640x480 59.94/60Hz	1920x1080p 24Hz
640x480 59.94Hz	1920x1080p 23.98Hz
480P 59.94/60Hz	

Specifications

Input	HDMI and SDI	**Output**	HDMI and SDI
Control	Dashboard	**Genlock**	Analog black burst via BNC

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openGear
OG-HDR-UDX

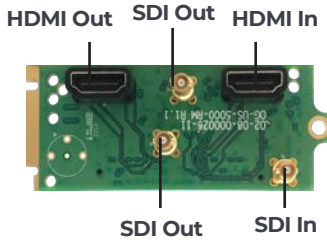SDR <> HDR up/down and cross converter

OG-HDR-UDX

Key Features

- openGear OGX card-based form factor
- Dashboard control enabled
- Convert from SDR to HDR, HDR to SDR - either PQ or HLG
- Cross convert from HDR to HDR from PQ to HLG and vice versa
- SDR to HDR in 203 nits with static conversion
- SDR to HDR in 400 nits with dynamic conversion
- HLG to PQ (and vice versa) follows ITU-R BT.2100 recommendation
- Convert HDMI to SDI and vice versa
- Built-in test pattern for trouble shooting
- Supports 8 channels of HDMI audio to SDI and vice versa
- Supports 8 channels of audio when converting from SDI to SDI
- Supports Genlock via openGear frame
- Supports SDI Input/output (See list)
- Supports HDMI Input/output (See list)
- Low power consumption
- 5 year limited warranty

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OPENGEAR
OG-HDR-UDX

OG-HDR-UDX-RM

HDMI Out SDI Out HDMI In

SDI Out SDI In

Rear Module (2 slots)

1 x HDMI input
1 x SDI input
1 x HDMI output
1 x SDI output
1 x Genlock

How to Order
OG-HDR-UDX-SET-1
OG-HDR-UDX-MB +
OG-HDR-UDX-RM

Related Products

OGX-FR-CN-P
openGear X frame with
advanced network card

OGX-FR-C-P
openGear X frame with
basic network card

SUPPORTED I/O STANDARDS/RESOLUTIONS/FRAME RATES	
HDMI	**12G-SDI**
4096x2160 50/60/59.94Hz	4096 x 2160 50/59.94/60Hz
4096x2160 29.97/30Hz	3840x2160 50/59.94/60 Hz
4096x2160 25Hz	**6G-SDI**
4096x2160 23.98/24Hz	4096 x 2160 23.98/24/25 Hz
3840x2160 50/60/59.94Hz	4096 x 2160 29.98/30 Hz
3840x2160 29.97/30Hz	3840x2160 23.98/24/25 Hz
3840x2160 25Hz	3840x2160 29.98/30 Hz
3840x2160 23.98/24Hz	**3G-SDI Level A**
2560x1080 60/59.94 Hz	1080P 60 Hz
1080P 50/60/59.94	1080P 59.94 Hz
1080P 29.97/30 Hz	1080P 50 Hz
1080P 25 Hz	**1.5G SDI**
1080P 23.98/24 Hz	1080i 60 Hz
1080i 50/60/59.94 Hz	1080i 59.94 Hz
720P 50/59.94 Hz	1080i 50 Hz
720P 29.97/30 Hz	1080i 29.98/30 Hz
720P 25 Hz	1080i 25 Hz
720P 23.98/24 Hz	1080i 23.98/24 Hz
480P 59.94/60	720P 60 Hz
576P 50	720P 59.94 Hz
576i 50	720P 50 Hz

Specifications

Input	HDMI or SDI	Output	HDMI and SDI
Control	Dashboard	**Genlock**	Analog black burst via OGX frame

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DA-SDI-DE

SDI Audio De-embedder

DA-SDI-DE

Key Features

- De-embeds 3G/HD/SD-SDI with 16 channels of audio
- Outputs 8 AES pairs or 16 mono analog audio
- On-board LED meters for displaying audio presence
- On-board LED indicator for displaying of group association

Front View

Rotary selector for analog audio pair
3.5 mm phone jack for analog stereo audio monitoring
DB25 for analog audio / AES audio breakout cable

Rear View

5V DC input
SDI input
2 SDI loop outs
1 AES output

Specifications

| Model	DA-SDI-DE
Description	SDI de-embedder with 2 loop outs
Inputs	1 x SDI, up to 3G
Outputs	2 x SDI up to 3G
Audio	De-embeds 16 channels of AA, 8 pairs of AES, balanced or unbalanced
Power	5V 3A
Weight	1.0 lb (0.45 kg)
Dimension	62 x 113 x 40 mm (W x D x H)

CRESCENT

DA-SDI-DE

DB-25-AA-BL - Balanced analog audio breakout, 16 mono audio

DB-25-AA-UNBL - Unbalanced analog audio breakout, 16 mono audio

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DB-25-AES-BL - Balanced AES audio breakout, 8 pairs of AES audio

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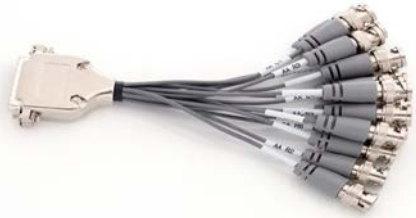
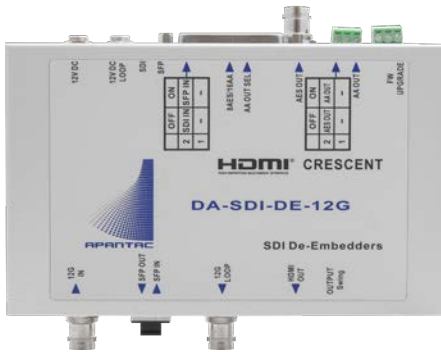**DB-25-AES-UNBL - Unbalanced AES audio breakout, 8 pairs of AES audio**

AES-75-110

Crescent
DA-SDI-DE 12G

12G SDI Audio De-embedder

DA-SDI-DE 12G

Key Features

- De-embeds 12G/3G/HD-SDI with 16 channels of audio
- Outputs 8 AES pairs or 16 mono analog audio

Front View

RS232 for FW upgrade

Analog audio monitoring output

AES audio monitoring output

Rotary selector for analog and AES monitoring audio pair

DB25 for analog audio / AES audio breakout cable

12V DC power cascading output and power input

Rear View

SDI input

Optional Fiber SFP input

SDI loop out and HDMI output

Specifications

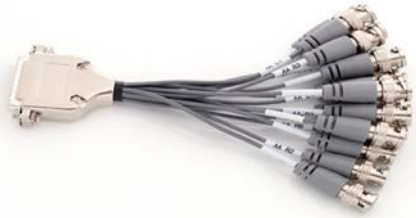| Model	DA-SDI-DE-12G
Description	12G SDI de-embedder with loop outs
Inputs	12G/3G/HD-SDI
Outputs	1 x loop out
Audio	De-embeds 16 channels of AA, 8 pairs of AES, balanced or unbalanced
Power	12V 1A
Weight	1.0 lb (0.45 kg)
Dimension	62 x 113 x 40 mm (W x D x H)

DA-SDI-DE 12G-01-2019

CRESCENT
DA-SDI-DE 12G

DB-25-AA-BL - Balanced analog audio breakout, 16 mono audio

DB-25-AA-UNBL - Unbalanced analog audio breakout, 16 mono audio

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DB-25-AES-BL - Balanced AES audio breakout, 8 pairs of AES audio

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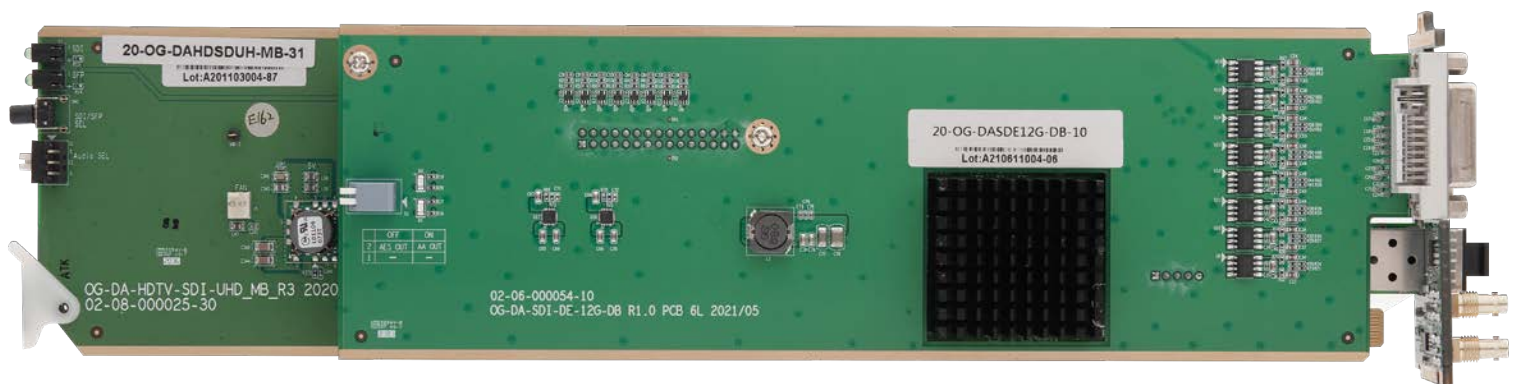**DB-25-AES-UNBL - Unbalanced AES audio breakout, 8 pairs of AES audio**

AES-75-110

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openGear
OG-DA-SDI-DE 12G

12G SDI Audio De-embedder

OG-DA-SDI-DE 12G

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- Supports up to 3840x2160p I/O
- Supports up to 12G SDI video input and loop out
- Converts SDI to HDMI for monitoring output
- De-embeds 12G/3G/HD-SDI with 16 channels of audio'
- Outputs 8 AES pairs or 16 mono analog audio
- Optional 12G SDI fiber input via SFP
- Low power consumption - less than 12W
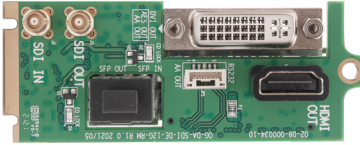- 5 year limited warranty

Specifications

Model	OG-DA-SDI-DE 12G
Description	12G/3G/HD-SDI de-embedder with loop outs
Inputs	1 x 12G/3G/HD-SDI input, optional fiber input
Outputs	1 x 12G/3G/HD-SDI loop out, 1 x HDMI output that matches the SDI resolution, Optional fiber SFP for SDI output
Audio	De-embeds 16 channels of AA, 8 pairs of AES, balanced or unbalanced
Control	Dashboard

OPENGEAR
OG-DA-SDI-DE 12G

OG-DA-SDI-DE 12G-RM

Rear Module (2 slots)

1x SDI input
1 x SDI loopout
1 x HDMI output
1x multi-pin audio output
Optional Fiber

DB-25-AA-BL - Balanced analog audio breakout, 16 mono audio

DB-25-AA-UNBL - Unbalanced analog audio breakout, 16 mono audio

DB-25-AES-BL - Balanced AES audio breakout, 8 pairs of AES audio

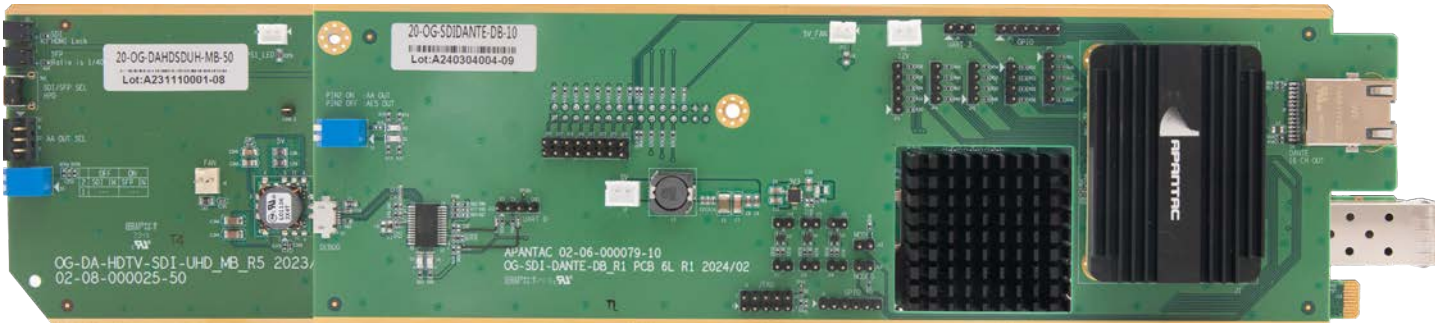### DB-25-AES-UNBL - Unbalanced AES audio breakout, 8 pairs of AES audio

AES-75-110

openGear

OG-DA-SDI-DE 12G Dante

12G SDI Audio Dante Deembedder

OG-DA-SDI-DE 12G Dante

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- Supports up to 3840x2160p I/O
- Supports up to 12G SDI video input and loop out
- Converts SDI to HDMI for monitoring output
- De-embeds 12G/3G/HD-SDI and output 16 channels of Dante network audio
- Optional 12G SDI fiber input via SFP
- Low power consumption
- 5 year limited warranty

Specifications

Model	OG-DA-SDI-DE 12G Dante
Description	12G/3G/HD-SDI de-embedder with loop outs
Inputs	1 x 12G/3G/HD-SDI input, optional fiber input
Outputs	1 x 12G/3G/HD-SDI loop out, 1 x HDMI output that matches the SDI resolution,
Audio	16 channel of Dante output via RJ45
Control	Dashboard

OPENGEAR
OG-DA-SDI-DE 12G Dante

OG-DA-SDI-DE 12G-RM
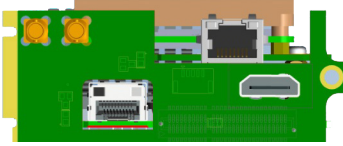
Rear Module (2 slots)

1x SDI input
1 x SDI loopout
1 x HDMI output
1x RJ45 network Dante audio output
Optional Fiber

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Crescent
Dante -AA

Dante to 4 channel analog (unbalanced) audio decoder

Dante-AA

Key Features

- Decodes Dante audio input to 4 channels of unbalanced analog audio outputs
- Freely choose any 4 channels of Dante audio on the network to be decoded
- Ideal for working with analog audio speakers

Front View

4 x BNC for unbalanced audio outputs (comes with BNC to RCA adapters)
1 x RJ45 for Dante input
1 x Sync Status LED
1 x Power Status LED
1 x 12V DC Power Inlet

Specifications

Model	Dante-AA
Description	Decodes 4 channel of analog audio from Dante
Inputs	1 x RJ45
Outputs	4 x unbalanced analog audio
Power	12V 1A
Dimension	140 x 114 x 35 mm
Weight	2.85 lb (1.3 kg)

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Dante -AA-01-2019

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openGear
OG-SDI-EM 12G

12G SDI Audio Embedder
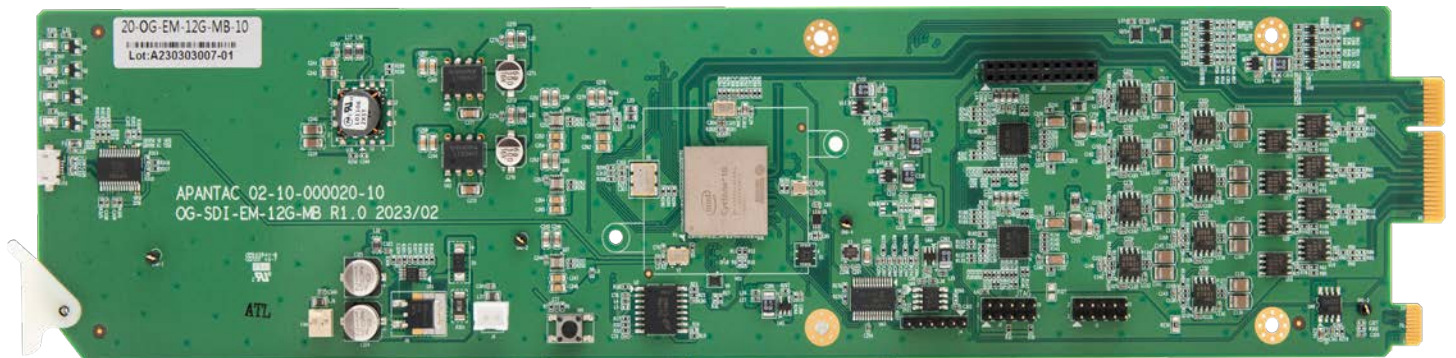
OG-SDI-EM 12G

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- Supports up to 12G SDI video input and output
- Embeds up to 8 channels of balanced analog audio inputs
- Embeds up to 16 chanels of balanced and unblanced AES inputs
- Built-in pattern generator (color bars)
- Low power consumption - less than 12W
- 5 year limited warranty

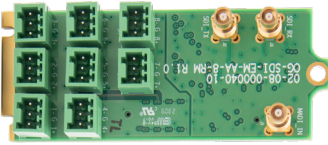## Specifications

Model	OG-SDI-EM 12G
Description	12G/6G/3G/HD-SDI audio embedder
Inputs	1 x 12G/6G/3G/HD-SDI input
Outputs	1 x 12G/6G/3G/HD-SDI output
Audio	Embeds up to 8 channels of balanced analog audio or 8 pairs of unbalanced AES audio
Control	Dashboard

APANTAC
OG-SDI-EM 12G-01-2019

OPENGEAR

OG-SDI-EM 12G

8 Balanced Analog Audio Input Rear Module

OG-SDI-EM-12G-AA8-RM

Rear Module (2 slots)

8 x Analog audio inputs (Balanced)
1 x SDI input
1 x SDI output with embedded audio
1 x reserved

8 pairs of Unbalanced AES Audio Input Rear Module

OG-SDI-EM-12G-AES8-RM
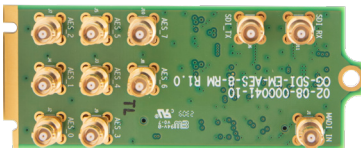
Rear Module (2 slots)

8 x pairs of AES audio inputs (unbalanced)
1 x SDI input
1 x SDI output with embedded audio
1 x reserved

How to order

OG-SDI-EM-12G-SET-1
Embeds 8 Channels of balanced audio onto an SDI stream. Up to 12G SDI

OG-SDI-EM-12G-SET-2
Embeds 8 pairs of unbalanced AES audio onto an SDI stream. Up to 12G SDI

Related Products

OG-DA-SDI-DE-12G-SET-2
De-embeds up to 16 channels of AES or Analog audio from an SDI stream. Up to 12G SDI

OGX-FR-CN-P
openGear X frame with advanced network card

OGX-FR-C-P
openGear X frame without advanced network card

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openGear
OG-12G-DeMux-3G

12G SDI input to 4 x 3G SDI outputs with a down converted 3G output

---

OG-12G-DeMux-3G-MB

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- Supports 1 x 12G SDI video input up to 4096x2160 or 1 x 3G SDI video input*
- Supports 4 x 3G output (quad link) in 2SI
- Analog audio output
- Passes HDR from input to output
- Optional 12G SDI fiber input via SFP
- Low power consumption - less than 15W
- 5 year limited warranty

*Note: When the input is a single link 3G SDI, the output becomes 1 x 5 3G SDI Distribution Amplifier

Specifications

Model	OG-12G-DeMux-3G
Description	12G SDI to quad 3G SDI demux with down converted 3G SDI output
Inputs	1 x 12G SDI (up to 4096x2160) input, optional fiber input
Outputs	Quad link 3G SDI output with a down converted 3G SDI output
Audio	Stereo Analog audio output
Control	Dashboard

OPENGEAR
OG-12G-DeMux-3G

OG-12G-Demux-3G-RM
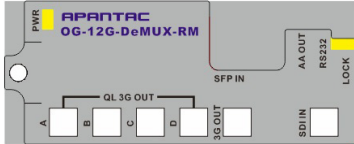
Rear Module (2 slots)

1x 12G SDI input
4 x 3G output (quad link)
1 x 3G output (down converted)
1x multi-pin audio output
Optional Fiber

SFP Fiber Options

12G SMPTE Fiber receiver SFP
Single Mode LC connector
Maximum distance 10 Km

How to Order

OG-12G-DeMux-3G-SET-1
OG-12G-DeMux-3G-MB +
OG-12G-DeMux-3G-RM

OG-12G-DeMux-3G-SET-2
OG-12G-DeMux-3G-MB +
OG-12G-DeMux-3G-RM
SFP-SDI-12G-Rx

Related Products

OG-3G-Mux-12G-SET-1
Quad link 3G to 12G Mux

OGX-FR-CN-P
openGear X frame with
advanced network card

openGear
OG-3G-Mux-12G

Quadlink 3G SDI input Mux to one single link 12G SDI outputs

OG-3G-Mux-12G-MB

Key Features

- OGX/3.0 card-based form factor
- Dashboard control enabled
- Supports 4 x 3G input (2SI) input
- Supports 1 x 12G SDI video Output
- Passes HDR from input to output
- Analog audio output
- Rec 709/2020 follows input to output
- Optional 12G SDI fiber output via SFP
- Low power consumption - less than 15W
- 5 year limited warranty

Specifications
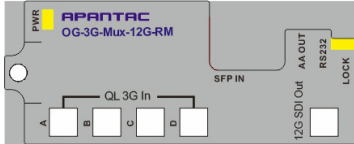
Model	OG-3G-Mux-12G
Description	Quad or Dual Link SDI (2SI) Mux to 1x 12G SDI (2SI) output
Inputs	SDI
Outputs	1 x 12G SDI, optional fiber output
Audio	Stereo Analog audio output
Control	Dashboard

OPENGEAR
OG-3G-Mux-12G

OG-3G-Mux-12G-RM

Rear Module (2 slots)

4 x 3G input (quad link)
1 x 12G output
1x multi-pin audio output
Optional Fiber SFP output

SFP Fiber Options

12G SMPTE Fiber receiver SFP
Single Mode LC connector
Maximum distance 10 Km

How to Order

OG-3G-Mux-12G-SET-1
OG-3G-Mux-12G-MB +
OG-3G-Mux-12G-RM

OG-3G-Mux-12G-SET-2
OG-3G-Mux-12G-MB +
OG-3G-Mux-12G-RM +
SFP-SDI-12G-Tx

Related Products

OG-12G-DeMux-3G-SET-1
OG-12G-DeMux-3G-MB +
OG-12G-DeMux-3G-RM

OGX-FR-CN-P
openGear X frame with
advanced network card

SUPPORTED SIGNAL TYPE/FORMATS		
709/2020 (PQ, HLG, S-Log3) output follows input.		
Quad Link 3G Level A (2SI)		**Output**
3840x2160	YCbCr 4:2:2 10 bit 60p/59.94p/50p	12G 2SI
	YCbCr 4:2:2 12 bit/12 bit 30P/29.97p, 25p, 24p/23.98p	
	YCbCr 4:4:4 10 bit/12 bit 30P/29.97p, 25p, 24p/23.98p	
	RGB 4:4:4 10 bit/12 bit 30p/29.97p, 25p, 24p/23.98p	
4096x2160	YCbCr 4:2:2 10 bit 47.95p, 48p, 50p, 59.94p, 60p	
	YCbCr 4:4:4 10 bit/12 bit 30P/29.97p, 25p, 24p/23.98p	
	RGB 4:4:4 10 bit/12 bit 30p/29.97p, 25p, 24p/23.98p	
	YCbCr 4:2:2 12 bit 30p/29.97p, 25p, 24p/23.98p	
Dual Link 3G Level B (2SI)		
3840x2160	YCbCr 4:2:2 10 bit 30p/29.97p/25p/24p/23.98p	???
4096x2160	YCbCr 4:2:2 10 bit 30p/29.97p/25p/24p/23.98p	
3G Level A		
4 x 1.5G SDI (6G 2SI)		
3840x2160	YCbCr 4:2:2 10 bit 30p/29.97p/25p/24p/23.98p	6G 2SI
4096x2160	YCbCr 4:2:2 10 bit 30p/29.97p/25p/24p/23.98p	
3840x2160	YCbCr 4:2:2 10 bit 30P/29.97p, 25p, 24p/23.98p	
4096x2160	YCbCr 4:2:2 10 bit 30P/29.97p, 25p, 24p/23.98p	

EDID TOOLS
EDID Learners, Emulators, Writers

	EDID-EW-H	EDID-DW-DP	EDID-RW
Function	EDID Emulator/ Writer		EDID Reader/Writer
Form Factor	Standalone		Box

Crescent
EDID-EW-H-II

HDMI 2.0 EDID Emulator and Learner (Bi-directional)

EDID-EW-H-II

Key Features

- Learn and store desired EDID from Displays
- Passive inline device - No external power needed
- Supports up to HDMI 2.0
- Compliant with HDCP 2.2
- Comes with 5 pre-installed EDID
- Bi-directional. Can be used as male or female
- Can store up to 3 custom EDID
- Supports up to 4K/UHD @ 60Hz (RGB, 444, 8 bit)

Rotary Switch Settings

Position	Functions	Position	Functions
0	Bypass	6	Save custom EDID 1
1	Built-in 480P EDID	7	Use custom EDID 1
2	Built-in 720P EDID	8	Save custom EDID 2
3	Built-in 1080P (FHD) EDID	9	Use custom EDID 2
4	Built-in 4K30	A	Save custom EDID 3
5	Built-in 4K60(UHD)	B	Use custom EDID 3

APANTAC
EDID-EW-H-II-01-2019

Crescent
EDID-EW-DP

DP 1.2 EDID Emulator and Learner

EDID-EW-DP

Key Features

- All in one Display Port EDID learner and writer
- Passive inline device
- **DOES NOT** require external power
- Supports up to DP 1.2
- Compliant with HDCP 2.2
- Comes with 16 pre-installed EDID
- Bi-directional. Can be used as male or female
- Can be used repeatedly to learn different EDID

Front View

DP male

Rear View

DP female

Specifications

Model	EDID-EW-DP
EDID Connector	Display Port
Selection Dial	16 positions.

MT Hood
EDID-RW

EDID Read and Write Tool
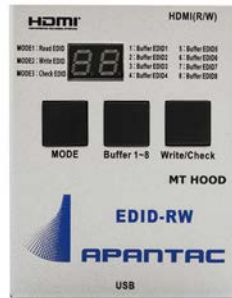
EDID-RW

Key Features

- Can read EDID from SINK and store it on a PC
- Can read an EDID file from the PC and store it on the tool
- Can Write an EDID to the SINK
- Simple three button operation
- Can store up to 8 EDIDs in the internal buffer memory

Related Products

EDID-EW-H
Bi-directional EDID emulator and learner

EDID-L-H
HDMI EDID learner and emulator

Specifications

Model	EDID-RW
EDID Connector	HDMI
Control Connector	Micro USB
Mode Button	Read, Write, Check
Buffer Button	1 to 8
Write Check Button	Write EDID and Check EDID

HDMI

Pattern Generators and Analyzer

	PTG-HDMI	SIX-G	SIX-A	SIX-G-8K	SIX-A-8K
Input/Output	HDMI 1.4	HDMI 2.0	HDMI 2.0	HDMI 2.1	HDMI 2.1
Functionality	Pattern Generator		Analyzer	Pattern Generator	Analyzer
Form Factor	Hand Held				

MT Hood
PTG-HDMI

HDMI Test Pattern Generator

Key Features

- Portable
- Operates up to 8 hours with a single charge
- 35 different patterns
- 48 possible output resolutions
- 1 KHz tone (48 KHz)

Standard Accessories

12V DC adapter
3 ft HDMI cable
Carrying case

Specifications

Model	PTG-HDMI
Output connector	HDMI Type A
LCD module	2 lines, 16 characters
Maximum resolution	1600x1200 / 1920x1200 / 1920x1080 @ 60Hz
Highest TMDS frequency	225 MHz
Max cable reach	5 meters / 15 ft
Power	DC 12V 1.25A
Housing	Plastic
Weight	0.4 l kg / less than 1 lb
Dimesnion	180 mm x 95 mm x 35 mm (W x D x H)

MT HOOD
SIX-A-8K

HDMI 2.0 Analyzer

Key Features

- Analyze any HDMI/DVI signals up to 40Gbps (7680x4320P60)
- Test HDMI/DVI Cables up to 40Gbps, full TMDS testing
- View up to 40Gbps Video Content and Format Info
- Analyze & Report HDMI Distribution System over Time (minutes, hours, days) down to the Pixel
- Audio Confidence Tests (2-Channel & Multichannel)
- Advanced EDID Analysis & Tools
- Read, Write EDID
- Analyze HDR Signals & Metadata
- Report & Analyze InfoFrames
- HDCP Tester – 2.3, 2.2, 1.4, None

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SIX-A-8K-01-2019

MT HOOD
SIX-G-8K

HDMI 2.1 (8K) Pattern Generator

Key Features

- HDMI 2.1 Support
- 8K@60 4:2:0 10-bit Maximum Resolution
- Fixed Rate Link (FRL)
- Color Space Selectable
- Full Range RGB (0-255)
- SMPTE RGB (16-235)
- YC444, 422, 420 (16-235)
- Auto Detect (read EDID – display preferred format)
- High Bit Depth – 8, 10, 12, and 16 bit per pixel support
- HDR (High Dynamic Range) Support
- Multiple HDR Memories
    - HDR 10, 10+
    - HLG
    - Dolby Vision testing
    - Custom HDR Memory
- BT. 2020 Wide Color Gamut (WCG) Support
- HDCP Content Type Selectable
    - Type 0 – Type 0 content can pass over any version of HDCP (1.X or 2.X) – like 1080P – all 1080P content is type 0.
    - Type 1 – Type 1 content requires mandatory
    - HDCP UHD movies at type 1.

- Scramble Mode Selectable
    - Select 1 for testing TMDS Character Rates >340 Mcsc (over 10.2Gbps)
    - Select 0 for testing TMDS Character Rates <340 Mcsc (under 10.2Gbps)
    - Note: Scrambling for EMI/RFI Reduction. Scrambling is done in all the three data channels
    - TMDS channels 0, 1, and 2. EMI/RFI reduction in the TMDS clock channel is achieved by reducing clock frequency to one-fourth and reducing the clock amplitude. By default, the scrambling is enabled in HDMI 2.0 at TMDS bit rates above 3.4Gbps to 6.0Gbps. The Source enables scrambling for TMDS rates below 3.4Gbps if both the Source and the Sink support scrambling at that TMDS character rate.
- Full 10-Bit RGB Triplet Generator (0-1024 RGB)
- HDCP Selectable – Off, HDCP 2.2 or HDCP 1.X
- Hot Plug Detect Indicator
- ISF Labs Certified
- DPL Labs Certified

APANTAC

SURGE PROTECTOR
HDMI, SDI and RJ45

	HDMI-SP	SDI-SP	RJ45-SP
Input/Output	HDMI	3G SDI	RJ45
Functionality	Surge Protector		

MT HOOD
HDMI-SP

HDMI Surge Protectors

HDMI-SP

Key Features

- Protects HDMI equipment from high voltage surge such as lightning
- Supports HDMI 1.4, 3D and ARC
- Supports HDCP
- Compliant with IEC61000-4.2, IEC61000-4-4, IEC61000-4-5
- Built in ESD, EFT (impulse noise), lightning protection
- Reaction speed < 1ns

Related Products

RJ45-SP
RJ-45 surge protector

SDI-SP
SDI surge protector

Specifications

Model	HDM-SP
Inputs/ Output	2 x HDMI
Maximum cable length	5 meters for 1080P, 3.5 meters for 4K30
ESD protection	15KV (ESD), 8KV (Contact)
EFT Protection	40A (5/50ns)
Lightning Protection	5A (8/20us)
Reaction speed	< 1ns
Temperature	Operation: 0 - 55C, Storage: -20 to 85C, Humidity: up to 95%
Dimensions/Weight	58.3 x 25.4 x 25.4 mm / 35g

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MT HOOD
SDI-SP

SDI Surge Protectors

SDI-SP

Key Features

- Protects SDI equipment from high voltage surge such as lightning
- Supports from 270 Mbps to 2.97 Gbps
- Compliant with IEC61000-4.2, IEC61000-4-4, IEC61000-4-5
- Built in ESD, EFT (impulse noise), lightning protection
- Reaction speed < 1ns

Related Products

RJ45-SP
RJ-45 surge protector

HDMI-SP
HDMI surge protector

Specifications

Model	SDI-SP
Inputs/ Output	2 x BNC male (75 ohms)
Transmission Rate	Up to 2.97 Gbps
Insertion Loss	1.1 dB @ 2.97Gbps
Maximum Clamping Voltage	25 V
Resisting Surge	8 KV (Max)
Discharging Current	10 KA (Max)
Reaction Speed	< 1ns
Dimensions/Weight	75.5 x 25.4 x 25.4 mm / 68g

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MT HOOD
RJ45-SP

SDI Surge Protectors

RJ45-SP

Key Features

- Protects SDI equipment from high voltage surge such as lightning
- Supports from 270 Mbps to 2.97 Gbps
- Compliant with IEC61000-4.2, IEC61000-4-4, IEC61000-4-5
- Built in ESD, EFT (impulse noise), lightning protection
- Reaction speed < 1ns

Related Products

SDI-SP
SDI surge protector

HDMI-SP
HDMI surge protector

Specifications

Model	RJ45-SP
Inputs/ Output	2 x RJ45
ESD protection	15KV (Air), 8 KV, (Contact)
Lightning protection	2KA (8/20us) / 6KV (8/20us)
Bandwidth	Up to 10Gbps
Insertion loss	< 0.2 db
Return Loss (100 ohm)	16db
Reaction Speed	< 1ns
Dimensions/Weight	67 x 87 x 27 mm / 126g

APANTAC

RJ45-SP-01-2019

PTZ CAMERA
HDMI, SDI, IP, NDI and USB

	AP-1080P-PTZ-20x	AP-PTZ-JCK-NDI
Input/oupt	3G SDI, IP, USB, HDMI, NDI	IP, NDI
Functionality	PTZ camera	PTZ camera control joy stick and keyboard

APANTAC

MT Hood
AP-1080P-PTZ-20x (NDI)

Professional Grade 20X 1080P PTZ Camera with NDI/3G-SDI/HDMI/USB3.0 and IP

Key Features

- Compatible with most leading video conferencing software
- 20x Optical Zoom + 2x Digital Zoom with 61 degree FOV
- Supports NDI, USB, IP, HDMI and SDI output
- Supports USB 3.0 output
- Full HD video over IP supports H.264, H.265 decoding
- Optional NDI output
- Supports POE
- Standard IP VISCA, Serial VISCA, Pelco-P/D control protocol
- IP VISCA over TCP/IP

Related Products

MS-WL
Meeting Share Wireless Node

MS-W
Meeting Share Wired Node

Specifications

Model	AP-1080P-PTZ-20x
Sensor	1/2.8 inch, 5 mega pixel high quality CMOS
HDMI	1920x1080P60/50/30/25; 1280x720P60/50/30/25; 1920x1080i60/50
SDI	1080P60/59.94/50/30/29.97/25, 720P60/5030/25, 1080i60/59.94/50
IP	Main Stream 1920x1080@30-1; 1280x720p30-1; Sub stream: 1280x720p-30-1; 1024x576@30-1; 640x360@30-1
USB 3.0	1920x1080P60/50/30/25; 1280x720P60/50/30/25; 1024x576P30
USB 2.0	1024x576P30, 960x540P30, 640x360P30, 512x288P30, 352x288P30

MT Hood
AP-1080P-PTZ-20x (NDI)

Specifications - Continue

Zoom	20x optical zoom & 2x digital zoom
FOV	61 degrees (diagonal)
Focal Length	F = 5.2 (near) 98 mm(far)
Presets	10 via remote controller; 128 via serial port; preset precision: 0.1 degree
Noise Reduction	2D & 3D
SNR	> 50db
Minimum Lux	0.01 lux
White Balance	Auto / Manual/Auto Tracking/OnePush/Indoor/Outdoor
Anti Flicker	50H/60Hz/OFF
D/N Mode	Supported
Gamma	Supported
Mirror Image	0.01 lux
Iris	Auto/Manual
Electric Shutter	Auto/Manual
BLC	Auto/Manual
Focus	Auto/Manual
Rotation Angle	Pan: 170 ~ +170 degrees; Tilt: -30 ~+90 degrees
Rotation Speed	Pan: 0 ~ 120 degrees/second; Tilt: 0 ~ 80 degrees/second
PanTilt Flip	Supported
Control Ports	RS232 / RS485 / RJ45 / USB 3.0
Video Port	HDMI / RJ45 / SDI / USB 3.0 / USB 2.0
Network Speed	1 Gigabit
Video encoding	H.264 / H.265, optional NDI
Bit Rate Control	Variable Bit Rate, Constant Bit Rate
Video Bit Rate	1024 Kbps ~ 10240 Kbps
Frames	50Hz: 1fps ~ 30fps, 60Hz: 1 fps ~ 30fps
IP Protocol	TCP/IP, HTTP, RTSP, RTMP, ONVIF, DHCP, VISCA over IP (TCP&UDP)
POE	Supported
Input Voltage	DC 12V, 1A
Weight	1.25 kg
Dimension	220 x 173 x 190 mm

MT Hood
AP-PTZ-JCK (NDI)

PTZ Camera Joystick Control Keyboard

Key Features

- Supports IP, RS232, RS422 and RS485 controls
- Supports VISCA Serial, Pelco-P, Pelco-D, VISCA over IP, VISCA TCP, VISCA UDP, ONVIF and optional NDI
- Can support up to 7 cameras via one keyboard
- Four dimensional joystick for smooth operation
- OLED screen to display menu and all setting information
- Supports daisy chain function
- Back-lit keyboard for automatic backlight in low light environment
- Supports POE
- Supports 10/100/1000 base network connection

Related Products

AP-1080P-PTZ-20x
1080P PTZ camera with 20x zoom.

Specifications

Model	AP-PTZ-JCK
Control Ports	IP (RJ45), RS232 (DB9), RS422 (phoenix connector, T+, T-, R+, R-), RS485 (phoenix connector, T+, T-)
Control Protocols	VISCA Serial, PELCO-P, PELCO-D, VISCA IP, VISCA over TCP, VISCA UDP, ONVIF and optional NDI
Control Display	3.12" OLED, blue light, 256x64 resolution
Power	12V, 1A
Environment	Operating temperature: -10C - 50C. Operating humidity: 20% - 80%, Storage humidity: 0-90%
Weight / Dimension	320.5 x 156.5 x 118 mm, 1.05 kg

About Us

Apantac is a leading designer and developer of high quality and cost effective multiviewers, video walls, matrices, extenders, KVM over IP and signal processing equipment. The Apantac product line has been specifically designed to provide users with flexible and innovative technology solutions for the broadcast and ProAV industries.

The Apantac product line includes; Multiviewers, video walls, extenders, switches, splitters, matrices, fiber optic extenders, HDBaseT solutions, SDVoE, KVM over IP, SDM as well as various video processors. These products are sold globally through direct selling channels, a growing network of dealers, system integrators, OEM's and various other partners.

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