

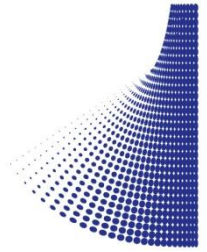


IBC 2021 Virtual Booth Tour

December 2021 - MR

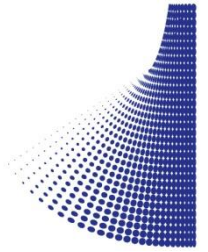
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IBC 2021 – Virtual Booth Tour

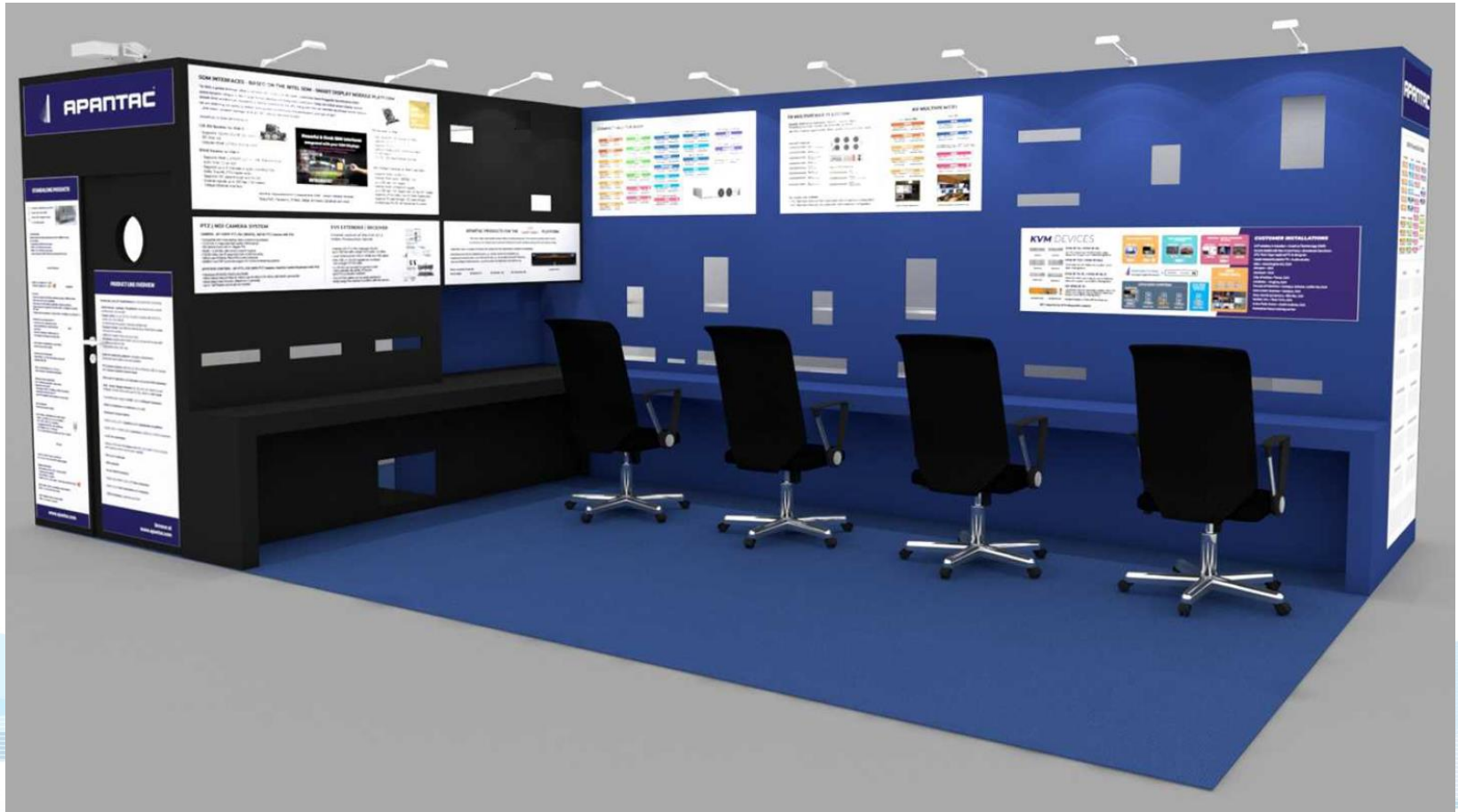


- As you all know by now, IBC 2021 has been cancelled on very short notice because of COVID
- The next opportunity to meet in person will be ISE 2022 in Barcelona, 1-4 February 2022. We will have a stand there (3A500) pretty much like the IBC stand, just a bit smaller. ...provided the ISE is not cancelled too.
- The goal of these few slides is to provide a “virtual tour” of the IBC stand and a snapshot of the new products we are introducing.

IBC 2021 – The stand



(Without equipment and monitors installed)

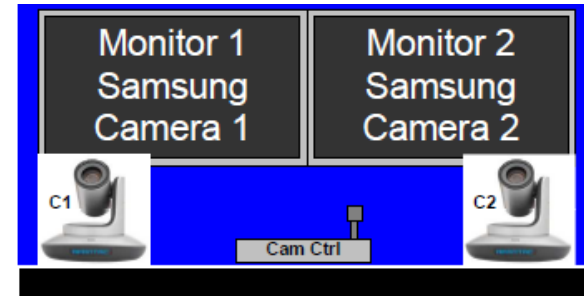


Cameras and Joystick Panel demo

PTZ | NDI CAMERA SYSTEM

CAMERA: AP-1080P-PTZ-20x (NDI|HX), full HD PTZ Camera with POE

- Compatible with most leading video conferencing software
- 1/2.8 inch, 5 mega pixel high quality CMOS sensor
- 20x Optical Zoom with 61 degree FOV
- HDMI 1.4, 3G-SDI, USB 3.0 & 2.0 and IP outputs
- Full HD video over IP supports H.264, H.265 encoding
- VISCA over IP/Serial, Pelco-P/D control protocols
- NDI|HX 5 and SRT protocols support for Control & Streaming (option)



JOYSTICK CONTROL: AP-PTZ-JCK (NDI) PTZ Camera Joystick Control Keyboard with POE

- Interfaces: IP, RS232, RS422 and RS485
- VISCA Serial, Pelco-P, Pelco-D, VISCA over IP, VISCA TCP, VISCA UDP, ONVIF, optional NDI
- Serial daisy chain function. (Maximum 7 cameras)
- Up to 128 Presets can be set and recalled

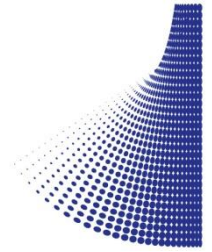


Cameras and Joystick Panel demo



- The [AP-1080P-PTZ-20x](#) Camera was introduced during the fall 2021
- The [AP-PTZ-JCK](#) Camera Joystick Control Keyboard introduction is at the IBC show
- NDI|HX 5 (and SRT) protocol support is available for both as an optional license
- Cameras & Joystick panels are shipping

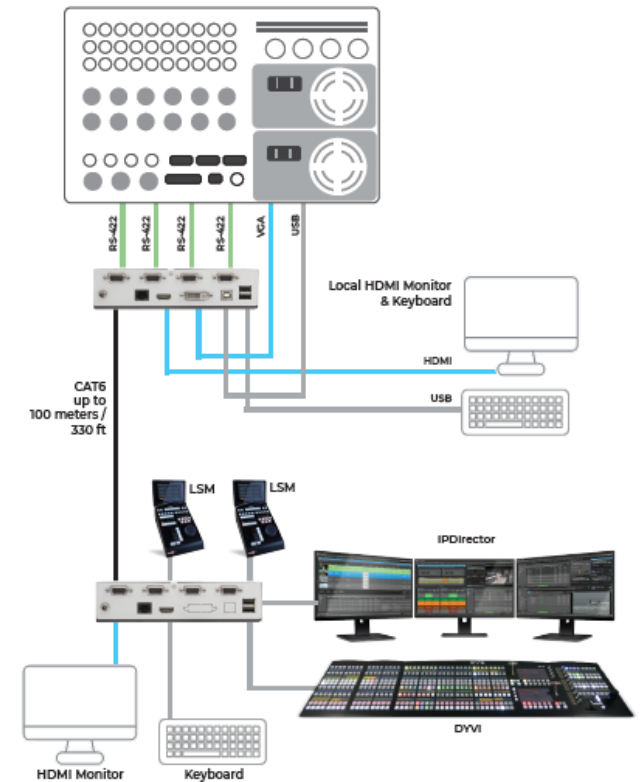
EVS Extender demo



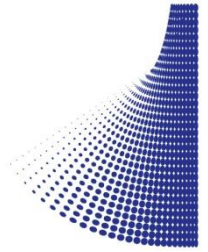
EVS EXTENDER / RECEIVER

Extend control of the EVS XT-3 Video Production Server

- Extends EVS XT-3 VGA, Keyboard, RS-422 up to 330 feet with a single CAT6 cable - 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

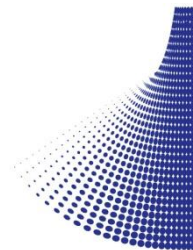


EVS Extender demo



- This is the 3rd generation of EVS server extenders
- Simplifies the integration of EVS servers & control for Studios and OB Vans.
- Developed and tested with the help of NEP in the USA
- Available as the [EVS-SET-3](#) bundle
- Currently shipping

SDM cards demo



SDM INTERFACES - BASED ON THE INTEL SDM - SMART DISPLAY MODULE PLATFORM

"In 2010, a global strategic alliance between NEC, Intel, and Microsoft created the Open Pluggable Specification (OPS) which became integral to NEC's large format displays and integration projectors. Today, the Intel® Smart Display Module (Intel® SDM) architecture represents a natural evolution to the OPS. Integrated into our new line-up of large format displays, we are widening our ability to deliver even greater performance, standardization, and ease of use."

....Erik Elbert, product manager at Sharp NEC Display Solutions Europe.



APANTAC'S SDM INTERFACES

12G SDI Receiver for SDM-S

- Supports 12G/6G/3G/HD-SDI input
- SDI loop out
- Outputs HDMI 2.0 RGB 4:4:4 @ 60Hz



SDVoE Receiver for SDM-S

- Supports HDMI 2.0/ HDCP 2.2/1.4 - UHD RGB/4:4:4 8 bit, 4:2:0 10 bit, 12 bit HDR
- Supports up to 8 channels of audio, including PCM, Dolby True-HD, DTS-master audio
- Supports CEC pass-through and RS-232
- Extends signals up to 330 feet (100 meters)
- 10Gbps Ethernet Interface



Monitor Manufacturer's Supporting SDM - Smart Display Module

Sharp/NEC, Panasonic, IIYAMA, Vestel, AG Neovo, DynaScan and more...

NDI Receiver for SDM

- High bandwidth NDI receiver for SDM-L
- Supports NDI v5
- Supports RS-232
- Supports Analog audio monitoring output
- 3G SDI output
- 10/100/1000 Base Ethernet Interface

UHD HDBaseT Receiver for SDM-S and 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 330 feet (100 meters) with CAT6a/CAT7 cables
- Supports LPCM, Dolby True HD, Dolby Digital audio,
- Supports 3D pass-through, CEC pass-through, bi-directional RS-232, all frequencies IR control

SDM INTERFACES - BASED ON THE INTEL SDM - SMART DISPLAY MODULE PLATFORM

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intel partner

Gold IoT Solutions

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Monitor Manufacturer's Supporting SDM - Smart Display Module

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Monitor 5

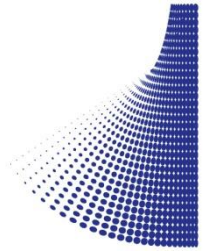
NEC 55"

SDM demo

Check these videos...

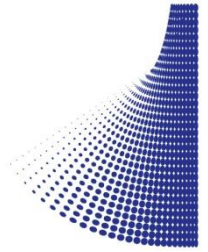


SDM cards demo



- In a nutshell: Different SDM cards are accepting various input formats: 12G SDI, SDVoE, NDI or even HDMI 2.0 over HDBaseT and convert them into an HDMI 2.0 signal usable by a monitor equipped with an Intel SDM slot
- This presents several advantages over an “external converter box”:
 - Compact and integrated inside the monitor
 - Power and control is provided by the monitor
 - No external HDMI cable nor power distribution

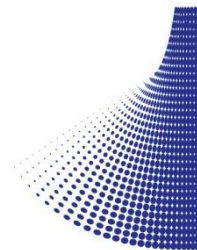
SDM cards demo



- Apantac is currently the sole manufacturer providing SDM cards for the Broadcast and the AV markets
- Availability:
 - [SDM-SDI-HDTV-UHD](#): Available
 - [SDM-SDVoE-R](#): Available
 - [SDM-NDI-R](#): Contact Apantac
 - [SDM-HDBT-R-UHD](#): Available

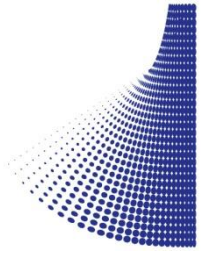
Some of these SDM cards are only available in small quantity for now

openGear cards demo



- We keep on adding more cards to the openGear chassis solutions. Recent additions include:
 - [OG-US-5000](#): Scaler with HDMI 2.0 and 12G SDI inputs and outputs
 - [OG-12G-DeMux-3G](#): 12G SDI to 4x 3G SDI output (Quad link) in 2SI or Square Division or down converted 3G SDI output
 - [OG-3G-MUX-12G](#): 4x 3G SDI input (Quad link), 2SI or Square Division to 12G SDI
 - [OG-KVM-IP-Tx](#): The standalone KVM-IP-Tx-PL openGear version with IP over Copper or Fiber

openGear cards demo



APANTAC PRODUCTS FOR THE PLATFORM

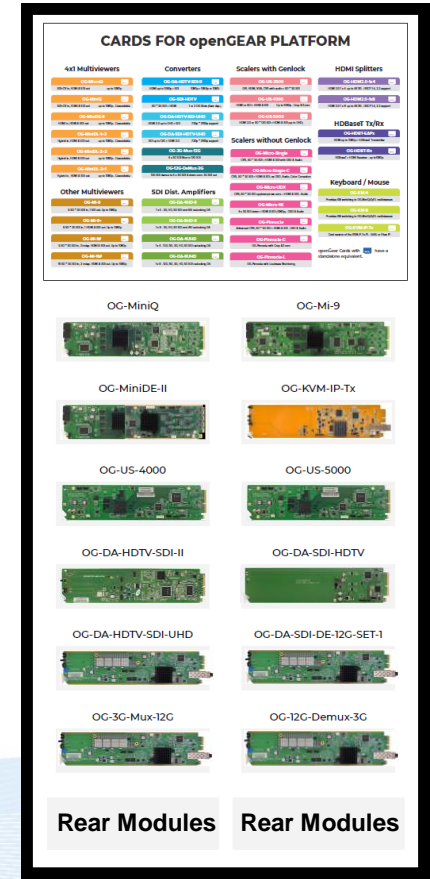
The Ross Video openGear® concept allows modular equipment from various manufacturers to share a common 2 RU chassis and a common Dashboard control interface, saving both rack space & money

Apantac has a range of about 40 cards for the openGear solution including:

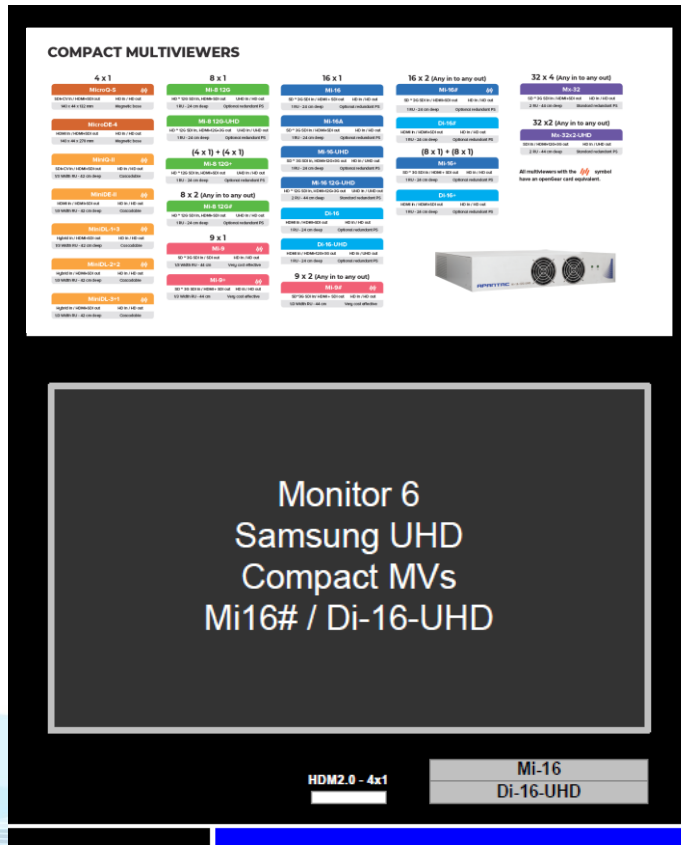
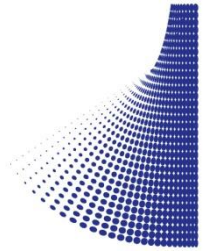
- Multiviewers with SDI and HDMI/DVI inputs. e.g - OG-Mi-9, OG-Mi-16#, OG-MiniDE-II, etc.
- Scalers and converters with a mix of SDI and AV I/Os. e.g - OG-US-4000, OG-DA-HDTV-SDI-II, etc.
- DAs and HDBaseT HDMI extenders - e.g. OG-DA-4HD-II, OG-HDBT-EAPx & OG-HDBT-Rx, etc.



- The openGear demo include:
 - One Ultrawide Monitor with Dashboard on the left and a selection of 3 cards outputs on the right
 - A wall on the narrow end of the stand with a sign and a card sampling facing the Ross stand



Compact multiviewers demo



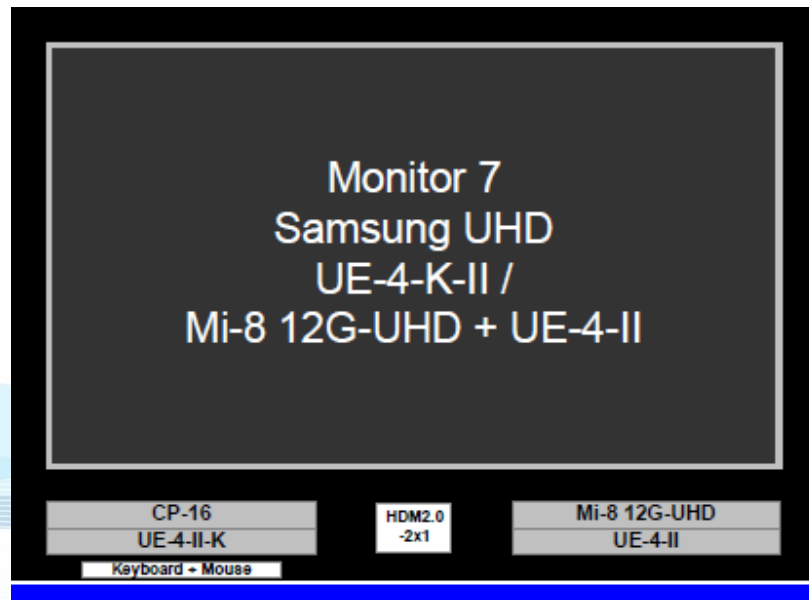
- One monitor on the stand was dedicated for showing two multiviewers from our compact series
- One 16x2 [Mi-16#](#) HD multiviewer with SDI inputs up to 3G
- One 16x1 [Di-16-UHD](#) multiviewer with UHD outputs & HDMI 1.4 inputs

UHD compact multiviewers demo



Two demos on one monitor:

- UE-4-II-K
- Mi-8 12G-SDI + UE-4-II cascade



AV MULTIVIEWERS

4 X 1 (Without OSD)

MiniDE-4	
DVI-I in / DVI/HDMI out	HD in / HD out
1/2 Width RU - 23 cm deep	Optional redundant PS

MiniDE-4-K	
DVI-I in / DVI/HDMI out	HD in / HD out
1 RU - 23 cm deep	Optional redundant PS

MiniDE-4-UHD	
HDMI, DP, VGA in / HDMI out	4K in / 4K out
1 RU - 23 cm deep	Variable size windows

MiniDE-4-UHD-II	
HDMI 2.0 in / HDMI 2.0 out	4K in / 4K out
1 RU - 23 cm deep	Variable size windows

MiniDE-4-UHD-K	
HDMI 2.0 in / HDMI 2.0 out	4K in / 4K out
1 RU - 23 cm deep	Fixed 2x2 PIP, full screen



UE-8-II Medical Application

(With OSD)

UE-4-II	
HDMI in / HDMI, 12G, 3G out	4K in / UHD out
1 RU, 24 cm, cascable *	Optional redundant PS

UE-4-K-II	
HDMI in / HDMI, 12G, 3G out	4K in / UHD out
1 RU, 24 cm, cascable *	Optional redundant PS

"K" models have built-in KVM functionality
All models accept HDMI with / without HDCP

UE-8-II	
HDMI in / HDMI, 12G, 3G out	4K in, UHD out
2 RU, 45 cm, cascable *	Standard redundant PS

UE-8-K-II	
HDMI in / HDMI, 12G, 3G out	4K in, UHD out
2 RU, 45 cm, cascable *	Standard redundant PS

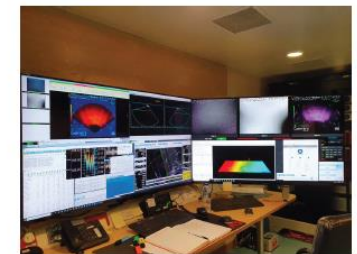


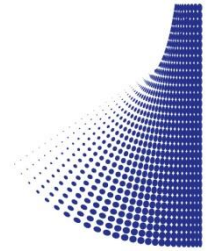
Photo courtesy of: Andrews Survey

UHD compact multiviewers demo




- The Mi-18 + UE-4-II cascade implements a hybrid 12x1 UHD multiviewer with 8x 12G SDI and 4x HDMI 2.0 inputs. This is the first time such a hybrid configuration is shown
- These UHD multiviewers (UE-x-II-x models with or without built-in [KVM capability](#)) are a perfect fit for medical or high-end control applications
- The UE-4/8-II-K are also perfect for computer control positions in the Broadcast field when space is tight – E.g., an OB Van engineer seat

KVM over IP demo




- The latest addition to the KVM over IP solution, planned to be demoed at IBC is the “free flow” Rx license allowing to control up to four consoles from a single seat (up to four displays, one keyboard and one mouse)


KVM DEVICES




KVM IP Tx / KVM IP Rx
DVI I/O, supporting VGA/DVI/HDMI video. Resolution support up to 1920x1200 @ 60Hz



KVM IP Tx2 / KVM IP Rx2
Dual Head, DVI I/O. Resolution support up to 1920 x 1200 @ 60Hz

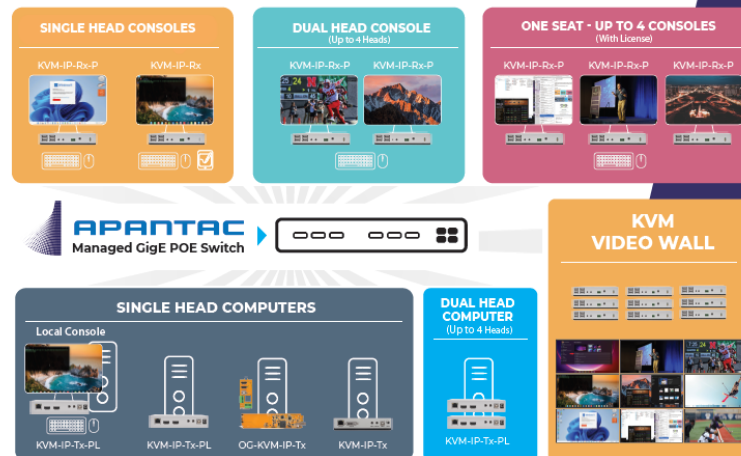


KVM IP Tx PL / KVM IP Rx P
HDMI I/O. HDMI input loop for the Tx. PoE and resolution support up to 3840 x 2160 @ 30Hz



OG KVM IP Tx
Transmitter card for openGear chassis. HDMI I/O. HDMI input loop for the Tx. PoE and resolution support up to 3840 x 2160 @ 30Hz.
Accepts Copper or Fiber SFP for Ethernet

DP++ supported by all Tx using passive adapters



SINGLE HEAD CONSOLES
KVM-IP-Rx-P, KVM-IP-Rx

DUAL HEAD CONSOLE
(Up to 4 Heads)
KVM-IP-Rx-P, 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

APANTAC
Managed GigE POE Switch

SINGLE HEAD COMPUTERS
Local Console, KVM-IP-Tx-PL, OG-KVM-IP-Tx, KVM-IP-Tx

DUAL HEAD COMPUTER
(Up to 4 Heads)
KVM-IP-Tx-PL

CUSTOMER INSTALLATIONS

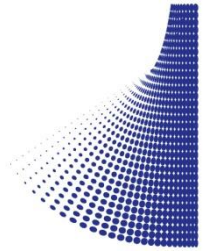
SVT studios in Sweden – Creative Technology (NEP)
Studio Berlin OB Van in Germany – Broadcast Solutions
RTC Télé Liège regional TV in Belgium
Czech Republic public TV - Audio studio
BBC – Washington DC, USA
Amazon - USA
Walmart - USA
City of Dallas – Texas, USA
CARMAX - Virginia, USA
Houses of Worship – Georgia, Indiana, California, USA
SOS Global Express – Georgia, USA
New World Symphony – Florida, USA
Insider, Inc. – New York, USA
Sioux Falls Arena – South Dakota, USA
Australian Navy training center

KVM over IP demo

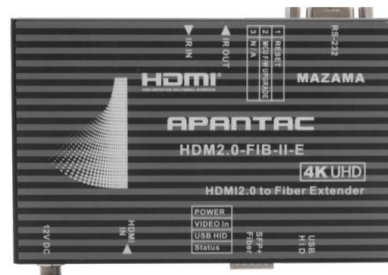
- Our KVM over IP matrix solution is more and more successful for Studios and OB Vans
- Read for instance the [Press Release](#) about the latest Ü10 UHD Studio Berlin OB Van
- Get details from our [KVM over IP web page](#)

The screenshot displays a KVM over IP demo interface. At the top, there are four monitor labels: 'Monitor 11 Samsung Wall', 'Monitor 12 Samsung Wall', 'Monitor 13 Samsung UHD Wall', and 'Monitor 10 Samsung Free Flow 2'. Below these, a central panel shows a 'KVM DEVICES' section with various product images and descriptions, including 'KVM IP Tx / KVM IP Rx', 'KVM IP Tx2 / KVM IP Rx2', 'KVM IP Tx PL / KVM IP Rx P', and 'KVM IP Tx'. To the right of this is a 'CUSTOMER INSTALLATIONS' section listing various clients and their locations. At the bottom, there are three more monitor labels: 'Monitor 8 Samsung Single Head', 'Monitor 9 Samsung Free Flow 1', and 'Monitor 10 Samsung Free Flow 2'. The interface also includes a 'Keyboard + Mouse' section at the bottom.

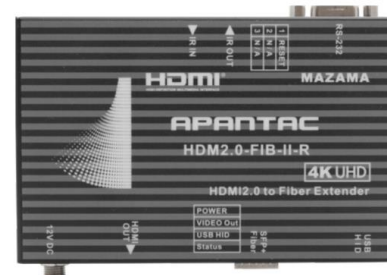
New small products



- [DA-SDI-DP](#): Standalone 12G SDI to Display Port 1.2 SST.
Very cost effective - Available
- HDMI 2.0 fiber extenders - Available
 - [HDM2.0-FIB-II](#): Up to 300 m over a multi-mode fiber, 10Km over a single mode fiber. Resolution up to 4K
 - [HDM2.0-FIB-II-HID](#): Same as above but extends also HID (USB Keyboard and Mouse)

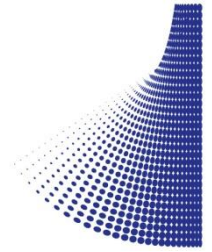


HDM2.0-FIB-II-E

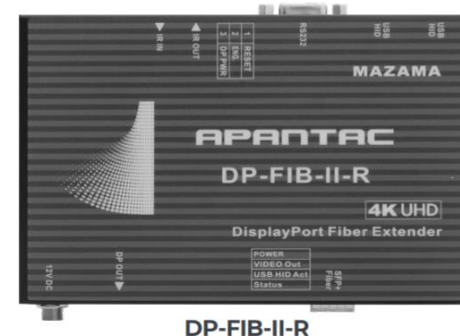
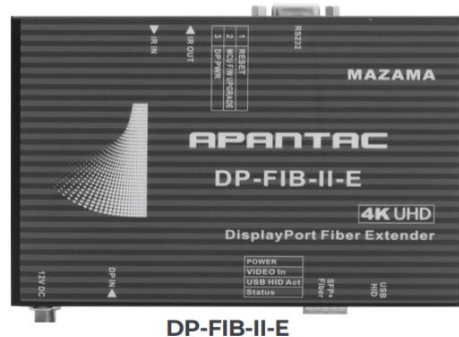


HDM2.0-FIB-II-R

New small products – Cont.



- DP 1.2 fiber extenders.
 - [DP-FIB-II](#): Up to 300 m over a multi-mode fiber, 10Km over a single mode fiber. Resolution up to 4K
 - [DP-FIB-II-HID](#): Same as above but extends also HID (USB Keyboard and Mouse)



- Availability: Contact Apantac