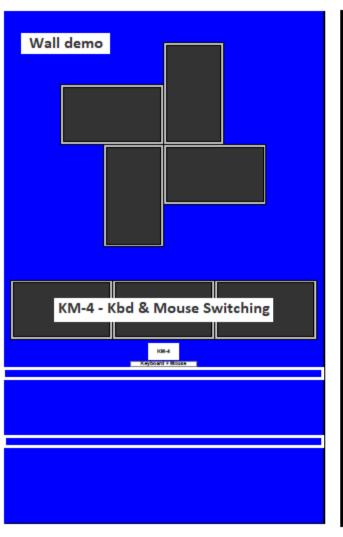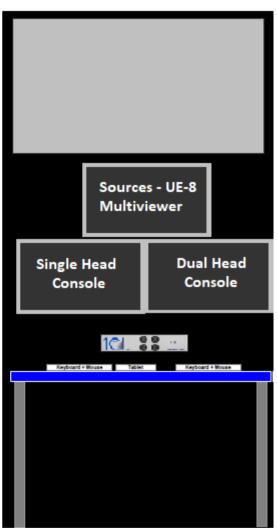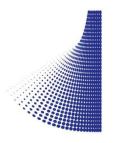# ISE 2020

ISE 2020 – KVM over IP demo
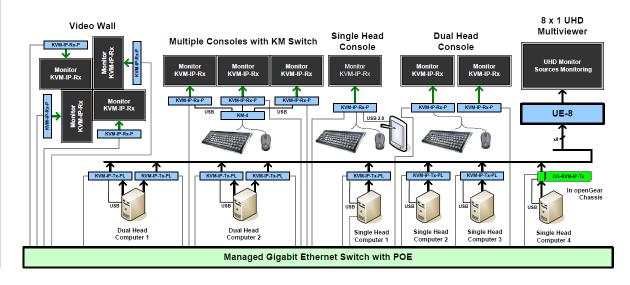
ISE 2020 – KVM over IP demo

Second Generation KVM over IP Extenders/Matrices

Extend (Unicast) or Switch (Multicast) Video, Audio, Keyboard & Mouse (HID), USB 2.0, IR, RS232 over IP

- Models with HDMI, VGA, DVI or HDMI only video interface, analog & digital audio, IP over RJ45 or Fiber can be mixed
- Minimal latency (17 ms max) and pristine picture quality - up to 4 heads capability - POE available for 4K models
- Video Wall capability with synchronized receiver modules - all the monitors' content is in sync (built-in scalers in the receivers)
- Control several consoles from a single Keyboard and Mouse set using the KM-4
- Windows applications for configuration, servers to consoles assignment, video wall configuration & control – Tx/Rx Web page

Models:

KVM-IP-Tx/ KVM-IP-Rx:
Single head, DVI-I I/O up to 1920x1200/60

KVM-IP-Tx2/ KVM-IP-Rx2:
Dual head version of the above

KVM-IP-Tx-F/ KVM-IP-Rx-F:
Same as Tx/Rx with SFP slots – IP over Fiber

KVM-IP-Tx-PL/KVM-IP-Rx-P:
Single head, HDMI I/O up to 4K/30

OG-KVM-IP-Tx:
openGear Tx-PL card version, with SFP slot

ISE 2020 – KVM over IP demo

- The setup includes Tx: [KVM-IP-Tx-PL](#) boxes, [OG-KVM-IP-Tx](#) card and Rx: [KVM-IP-Rx-P](#) – KVMoIP [Presentation](#)

- An 8x1 HDMI 2.0 UHD [UE-8](#) multiviewer is used to monitor all the source computers

- Single Head (+ USB 2.0 tablet) and Dual Head Consoles

- *New!* Keyboard and Mouse **KM-4** USB Switch. Several Consoles share a single Keyboard & Mouse. The user simply moves the mouse across the displays to take control of the corresponding Console

- *New!* "Any shape" Monitor Wall (We showcase a four-monitor cross Wall) - Opens a new range of applications

ISE 2020 – Monitor Wall

- Each monitor is driven by a Rx with built-in 4K scaler that displays (Crop & Zoom) one part of the full source raster
- All the monitor pictures are perfectly in sync
- Modular & cost-effective applications
  - Studio backdrop & Studio floor monitor sets
  - "Any shape" walls with multiple monitors of different sizes and orientation (Landscape or Portrait)
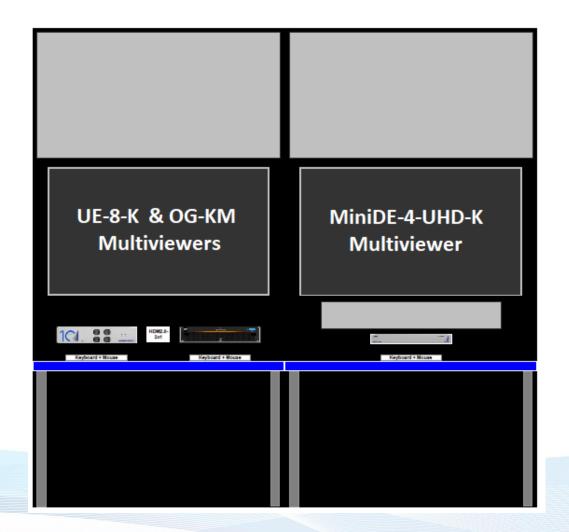
Source Signal - Up to 4K

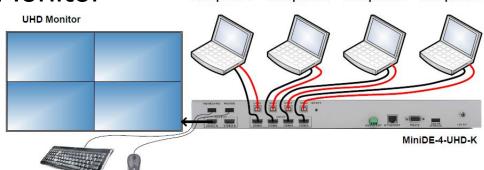Studio backdrop - 3 Monitors Portrait mode = 3 Rx

"Any Shape" Wall - 5 Monitors = 5 Rx

www.apantac.com

Multiviewers With Built-in KVM

UE-8-K & OG-KM
Multiviewers

MiniDE-4-UHD-K
Multiviewer

Keyboard + Mouse
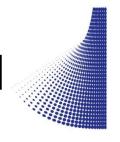
Keyboard + Mouse

Keyboard + Mouse

KVM Multiviewers - Concept

- Multiviewers with built-in KVM capability provide a way to control several computer sources from a single Keyboard, Mouse and Monitor

- The monitor displays layouts where each PIP is the output of one computer

- When the mouse pointer is moved to a window, the user gains immediate Keyboard & Mouse control of the corresponding computer

- Check this video or this one

www.apantac.com

Multiviewers With Built-in KVM

HDMI Multiviewers (up to 4K) - Built-in KVM

Supports HDMI 2.0 up to 4K/UHD @ 50/60Hz, @18Gbps, 4:4:4 color sampling

MODEL	SIZE	MAX. RESOLUTION	LAYOUT	FORM FACTOR	OSD
MiniDE-4-UHD-K	4 x 1	4K/UHD @ 60Hz (4:4:4)	Fixed 2x2 and Full-Screen	1 RU Chassis	No
MiniDE-4-K	4 x 1	1080p @ 60Hz	Free Design – Multiple Presets	1 RU Chassis	No
UE-4-K	4 x 1	4K/UHD @ 60Hz (4:4:4)	Free Design – Multiple Presets	2 RU Chassis	Yes
UE-8-K	8 x 1	4K/UHD @ 60Hz (4:4:4)	Free Design – Multiple Presets	2 RU Chassis	Yes
OG-MiniDE-II (with OG-KM)	4 x 1 or 8 x 1	1920 x 1200 @ 60Hz	Free Design – Multiple Presets	Cascadable cards for the openGear Chassis	Yes

- UE & MiniDE Series models also available without KVM capability
- OG-MiniDE-II (HDMI) can also cascade with OG-MiniQ (Video) & OG-MiniDL-X+X (Hybrid cards)

All multiviewers accept HDMI signals with or without HDCP protection

UE-8-K

www.apantac.com
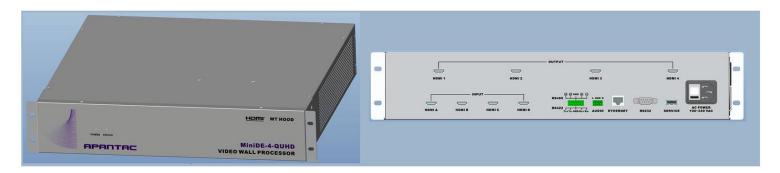
KVM Multiviewers New Features

- UE-4/8-K – Presentation
  - Quick Presets Recall. Up to 9 different Presets can be recalled in less than 2 seconds using keyboard shortcuts
  - New OSD features are now fully supported. Audio Meters and Monitoring, Alarms, Borders, Labels, GPIs, Clocks, Tallies, etc.
  - The UE-8-K can also be configured as two independent 4x1 multiviewers
  - Support for some nonstandard resolutions: E.g. 3840x1080 – equivalent to two 1080p monitors side by side (Dual Head)

- OG-KM + OG-MiniDE-II & OG-MiniQ4 or OG-MiniDL-X+X
  - Cascade up to two multiviewer cards with any computer or video mix (up to 8 sources) under the OG-KM card control

www.apantac.com
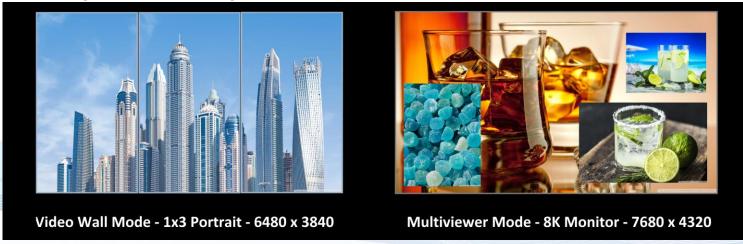
8K Wall Processor / Multiviewer!

- *New!* For the first time, we are introducing an 8K Wall Processor / Multiviewer, the **MiniDE-4-QUHD**

- It accepts 4 x HDMI 2.0 inputs up to 4K60 (4:4:4)

- It has an "**8K display surface**": 4 outputs up to 4K60 (4:4:4) each, that can be displayed either in:

  - Multiviewer mode. E.g. to drive the four 4K inputs of an 8K panel monitor such as the Sharp Aquos LV-70X500E or a 2x2, 4K monitor stack. The position, size and aspect ratio of each input are user adjustable in this mode

  - Video Wall mode. Up to four 4K monitor can be driven in various arrangements: horizontal 1x4, 1x3, 1x2 or vertical 4x1, 3x1, 2x1, in landscape of portrait mode. Only one source among the four is displayed at a time across the four monitors

www.apantac.com

8K Wall Processor / Multiviewer!

The hardware

Some layout examples

Video Wall Mode - 1x3 Portrait - 6480 x 3840
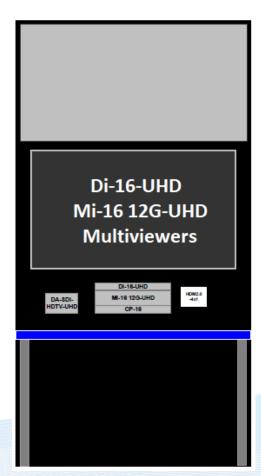
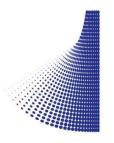Multiviewer Mode - 8K Monitor - 7680 x 4320

Compact UHD Multiviewers

- ***New!*** Two models have been added to the growing range of UHD Multiviewers

- The **Di-16-UHD**. This 16x1 Multiviewer with UHD outputs accepts HDMI inputs (CEA resolutions up to 1080p), even HDCP protected. *It is ideal for Set Top Boxes monitoring application*

- The **Mi-16 12G-UHD.** This 16x1 Multiviewer supports SDI inputs up to 12G SDI, auto detect and has UHD HDMI, 12G SDI and 3G SDI down converted outputs

Di-16-UHD
Mi-16 12G-UHD
Multiviewers

DA-SDI-HDTV-UHD   DI-16-UHD   HDMI2.0 4x1
Mi-16 12G-UHD
CP-16

www.apantac.com

Compact UHD Multiviewers

Compact, Cost-Effective Multiviewers - UHD Outputs

WHY UHD OUTPUTS... PIPs have 2x the H&V Resolution on an UHD Output... all other things being equal

All models share a common architecture with all the features you may expect from a Broadcast multiviewer!

➤ HDMI 2.0 UHD, 12G SDI and 3G SDI down converted outputs
➤ Auto detect the input resolution. Black Burst Genlock reference input
➤ Models also available with inputs and outputs up to 1080p

Mi-16-UHD

AVAILABLE MODELS

Di-16-UHD: 16 x 1 Multiviewer *(new)*
Accepts 16 x HDMI signals (CEA resolutions up to 1080p), HDCP protected or not.
Ideal for STB or Computer monitoring

Mi-16 12G-UHD: 16 x 1 UHD Multiviewer *(new)*
Accepts UHD & HD signals. 16 x 12G SDI, 3G SDI (Level A & B), HD SDI, auto detect

Mi-16-UHD: 16 x 1 Multiviewer
Accepts 16 x 3G SDI (Level A & B), HD SDI, SD SDI signals, auto detect

Mx-32x2-UHD: 32 x 2 Multiviewer
Any input can be sent to any output.
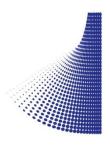Accepts 32 x 3G SDI (Level A & B), HD SDI, SD SDI signals, auto detect

Mi-8 12G-UHD. Full 8 x 1 UHD Multiviewer
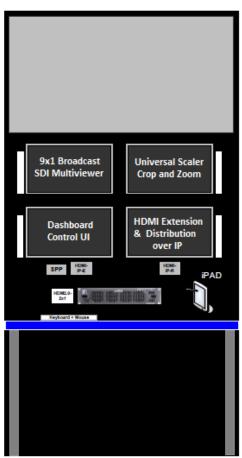Accepts UHD & HD signals. 8 x 12G SDI, 3G SDI (Level A & B), HD SDI signals, auto detect
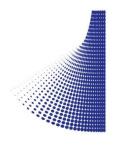

Mx-32x2-UHD

openGear Platform Cards

- Apantac developed over 30 different cards for the openGear platform

- Most of the card products available for this platform are also available as standalone boxes

- The card version of the products use less space, common redundant power supplies, unified configuration and control GUI over IP, Dashboard

- We will introduce several new cards at ISE, mainly UHD products – See the next slide

www.apantac.com

openGear Platform Cards

Apantac Products for the openGear 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

Our range of +- 30 cards for the openGear platform:

> 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.

Our new cards include: *new*

> OG-KM   – Adds KVM capability to the OG-MiniDE-II multiviewer cascadable cards – *see demo*
> OG-KVM-IP-Tx   – Transmitter card for the KVM over IP solution. 10 cards in 2 RU! – *see demo*
> OG-HDBT-Rx   – HDBaseT HDMI receiver card (works with HDBaseT transmitter box or card)
> OG-HDTV-SDI-UHD-SET-2   – HDMI-2.0 to 12G SDI and over Fiber, UHD converter – *see demo*
> OG-SDI-HDTV-UHD-SET-2   – 12G SDI or over Fiber to HDMI-2.0, UHD converter – *see demo*
> OG-DA-4UHD & OG-DA-8UHD   – 1x4 & 1x8 SDI distribution amplifiers up to 12G SDI

OG-KVM-IP-Tx Card   *OG-KVM-IP-Tx Rear Module*
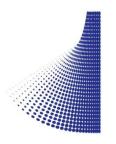
ISE 2020 – Other products

- The previous slides focused on the new products

- Apantac designs and sells a comprehensive range of AV products addressing various needs – See the next slide

- An exhaustive coverage of these products is available from APANTAC:
  - On the Apantac web site – www.apantac.com
  - In the Apantac Catalog
  - Videos available on YouTube

- I am also available to answer any question about Apantac products

T: +33 6 2483 0742
E: Michel.Rudelle@apantac.com
Skype: michel-rudelle

ISE 2020 – Other products

APANTAC'S Extensive AV Signal Processing Line

MT HOOD | CRESCENT | MAZAMA

A BRAND YOU CAN TRUST

visit www.apantac.com to browse our entire product range

- HDBaseT, UHD and HD HDMI Extenders
- HD HDMI Extenders over CATx, Fiber, IP, Splitters
- HDMI 2.0 (18GBps), 4K Splitters (1x2, 1x4, 1x8) Switches (2x1, 4x1, 8x1), Matrices (4x2, 4x4, 8x8), Up/Down Converter and Extender over Fiber
- DP 1.2 4K Splitters (1x2, 1x4), Converters (HDMI 2.0 to DP 1.2, 4 x 3G SDI to DP 1.2) and Fiber Extender
- HD KVM Extenders over CATx (VGA or HDMI & USB)
- KVM over IP Extenders / Matrices, Keyboard + Mouse Switches
- USB Extenders (over CATx or cascadable)
- Simple HD & UHD 2x2 Video Wall Processors

- HD HDBaseT & SDI OPS modules
- 4K HDBaseT & 12G SDI SDM modules
- Active/passive Distribution Amplifiers to 12G SDI - standalone devices & openGear cards
- SDI Fiber Extender up to 3G SDI or 12G SDI
- HDMI to SDI and SDI to HDMI Converters - standalone devices & openGear cards Versions up to 1080p or 2160p
- Scaler with AV/SDI inputs and HDMI/SDI outputs - also available as openGear cards with or without Genlock, OSD, including loudness monitoring
- Compact AV/SDI Multiviewers - standalone devices & openGear cards
- Audio De-embedders
- EDID Emulators, Learners, Writers