# MMA10G-TRM4K-2-N Modular IPMX-Ready 4K/60 Dual HDMI Gateway



CONNECT, COLLABORATE, SHARE RESOURCES, MANAGE

Evertz' MMA-10G is a network-based AV distribution solution constructed using Evertz' award winning SDVN (Software Defined Video Network) architecture. MMA-10G utilizes a highly reliable 10GE infrastructure for routing video and audio and offers unprecedented scalability and reliability.



#### **Key Features**

- Two HDMI 2.0a inputs and outputs (software defined)
- Resolution up to 4096x2160p @ 60 Hz, 4:4:4 color sampling
- IPMX-ready with support for JPEG-XS, AES67, PTP, and more
- Ultra low latency transport over 10GE links
- USB 2.0 support available on MMA10G-TRM4K-2U-N
- Customizable EDID tables
- Full integration with MAGNUM-AV management system
- Remote monitoring capabilities using SNMP protocol

### Modular 10GE Gateway

The MMA10G-TRM4K-2-N modular 10GE gateway accepts up to two HDMI inputs or provides up to two HDMI outputs (software defined), in addition to audio and USB. The MMA10G-TRM4K-2-N is a modular device and is installed in an Evertz rack mount modular frame. This approach offers flexibility and density as well as a secure and reliable solution for mounting next to servers. In addition to two HDMI inputs or outputs, the -2U version of the product offers USB 2.0, which can be sent at full bandwidth over the 10GE interface.

### Live AV Transport

Using 10Gbps Ethernet the MMA10G-TRM4K-2-N encapsulates video, audio, USB 2.0 (with the -2U version), and Ethernet control data at the same time. The MMA10G-TRM4K-2-N supports up to two HDMI 2.0a 4K (up to 4096x2160p @ 60 Hz, 4:4:4 color sampling)

#### MMA10G-TRM4K-2-N

inputs or outputs (software defined) and transports them with ultra low latency over its 10GE links. Customizable EDID tables and scaling on the output paths insure the smoothest handoff between sources and sinks.

# IPMX – Bringing ProAV and Broadcast Closer Together

The MMA10G-TRM4K-2-N is a gateway that conforms to the emerging AV-over-IP open standard IPMX and, as such, complies with the suite of standards detailed in SMPTE ST 2110 and supports features such as JPEG-XS, AES67, and PTP. EvertzAV's line of IPMX-ready gateways provide synchronized, real-time broadcast-quality AV over IP while ensuring the ProAV interoperability requirements of today **and** tomorrow are met.

# Fully integrated with Evertz' MAGNUM-AV Controller

The MMA10G-TRM4K-2-N is a managed element of the MMA-10G network which is controlled by MAGNUM-AV. MAGNUM-AV simplifies management and control over the system and allows for simple user control using EvertzAV's virtual control panels and touch friendly graphical user interfaces (VUE) or via third-party control systems

### Remote Monitoring

The MMA10G-TRM4K-2-N can be remotely monitored via the SNMP protocol using Evertz' award winning VistaLINK Pro NMS software suite. VistaLINK allows a single user from a single workstation complete visibility into the operation of the MMA-10G ecosystem. Users can prevent issues from becoming outages quickly and easily using Evertz' VistaLINK Pro.





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Specifications	MMA10G-TRM4K-2-N	MMA10G-TRM4K-2U-N
Video Inputs	2 HDMI 2.0a (software defined)	2 HDMI 2.0a (software defined)
Video Outputs	2 HDMI 2.0a (software defined)	2 HDMI 2.0a (software defined)
Supported Resolutions	Up to 4096x2160p @ 60 Hz (4:4:4 color sampling)	Up to 4096x2160p @ 60 Hz (4:4:4 color sampling)
Audio Inputs	1 stereo unbalanced analog (terminal header)	1 stereo unbalanced analog (terminal header)
Audio Input Impedance	High impedance	High impedance
Audio Input Level	Line level (+4dBu)	Line level (+4dBu)
Audio Outputs	1 stereo unbalanced analog (terminal header)	1 stereo unbalanced analog (terminal header)
Audio Output Impedance	600 Ω	600 Ω
Audio Output Level	Line level (+4dBu)	Line level (+4dBu)
USB	1 HID host port (USB type B)	1 HID host port (USB type B) Above port also supports USB 2.0
10GE Outputs	2 SFP+ (see available accessories)	2 SFP+ (see available accessories)
10G Redundancy	Yes	Yes
Output Scaling	Yes	Yes
HDMI Audio	LPCM (up to 8 channels) Passthrough support for Dolby Digital®/AC-3, Dolby Digital EX, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS®, DTS-ES, DTS-HD High Res, DTS-HD Master Audio, DTS:X	LPCM (up to 8 channels) Passthrough support for Dolby Digital®/AC-3, Dolby Digital EX, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS®, DTS-ES, DTS-HD High Res, DTS-HD Master Audio, DTS:X
IPMX Support	SMPTE ST 21 10, JPEG-XS, AES67, PTP	SMPTE ST 21 10, JPEG-XS, AES67, PTP
SNMP Support	Yes	Yes
In-Band Control	Yes	Yes
Control System	MAGNUM-AV	MAGNUM-AV
Web-Based Configuration	Yes	Yes
Security Compliance	Compliant with applicable DoD Network Devices Security Technical Implementation Guide (STIG) findings	Compliant with applicable DoD Network Devices Security Technical Implementation Guide (STIC) findings
Modular Design	Yes, installed in 7800/7801FR modular frame	Yes, installed in 7800/7801FR modular frame
Slots	2	2
DC Input Voltage	12VDC provided by frame	12VDC provided by frame
Power Consumption	40W	40W
Operating Temperature	32° to 104° F (0° to 40° C)	32° to 104° F (0° to 40° C)
Relative Humidity	10% to 90% RH (non-condensing)	10% to 90% RH (non-condensing)

#### Ordering Information

MMA10G-TRM4K-2-N	Modular IPMX-ready 4K/60 dual HDMI gateway: dual HDMI input or output, audio, and HID USB
MMA10G-TRM4K-2U-N	Modular IPMX-ready 4K/60 dual HDMI gateway: dual HDMI input or output, audio, and HID USB/USB 2.0

#### Available Accessories

7801FR	Modular frame, 1RU, 4 slots
7801FC	Modular frame controller for 1RU
7800FR-QT	Modular quiet frame, 3RU, 15 slots, dual PS
7800FC	Modular frame controller for 3 RU
MMA10G-SFP-TR85	SFP+, 10GE, 850nm, MMF, 50/125, LC/LC
MMA10G-SFP2-TR13	SFP+, 10GE, 1310nm, SMF, 9/125, LC/LC, 10Km
MMA10G-SFP-SFP-MM3	3 m SFP+ to SFP+ fiber patch cable, 10GE, AOC, 850nm

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