## MMA10G-TRS4K-2UH-HDMI

### Standalone 4K/60 Dual HDMI Gateway w/ USB Host Port



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
- Ultra low latency transport over 10GE links
- USB 2.0 host port for HID and other USB devices
- Customizable EDID tables
- Full integration with MACNUM-AV management system
- · Remote monitoring capabilities using SNMP protocol
- Web-based configuration

#### Standalone 4K Gateway

The MMA10G-TRS4K-2UH-HDMI standalone 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-TRS4K-2UH-HDMI is a standalone device which is compact and quiet and can be installed in various in-room locations, including behind monitors, under/inside desks and lecterns, and floor boxes. In addition to two HDMI inputs or outputs, the MMA10G-TRS4K-2UH-HDMI offers a USB host port, which can be sent at full bandwidth over the 10GE interface.

# Fully integrated with Evertz' MAGNUM-AV Controller

 $\,$  MMA10G-TRS4K-2UH-HDMI 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.

#### Live AV Transport

Using 10Gbps Ethernet the MMA10G-TRS4K-2UH-HDMI encapsulates video, audio, USB 2.0, and Ethernet control data at the same time. The MMA10G-TRS4K-2UH-HDMI supports up to two HDMI 2.0a 4K (up to 4096x2160p @ 60 Hz, 4:4:4 color sampling) inputs or outputs (software defined) and transports them with ultra low latency over its 10GE links.

#### Advanced HDMI 2.0a Interfaces

The MMA10G-TRS4K-2UH-HDMI supports two HDMI 2.0a inputs and two HDMI 2.0a outputs. Customizable EDID tables and scaling on the output paths insure the smoothest handoff between sources and sinks

#### Remote Monitoring

The MMA10G-TRS4K-2UH-HDMI 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.







Rear

# MMA10G-TRS4K-2UH-HDMI Standalone 4K/60 Dual HDMI Gateway w/ USB Host Port



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#### Specifications

1 HDMI 2.0a Auxiliary to HDMI Input 2   Video Outputs   2 HDMI 2.0a (software defined)	Video Inputs	2 HDMI 2.0a (software defined)
Supported Resolutions         Up to 4096x2160p @ 60 Hz (44-4 color sampling)           Audio Inputs         1 stereo balanced analog (terminal header)           Audio Input Level         High impedance           Audio Outputs         2 s/PDIF           Audio Output Impedance         600 Ω           Audio Output Impedance         600 Ω           Audio Output Impedance         600 Ω           Audio Output Level         Line level (+4dBu)           USB         1 host port for HID and other USB devices (micro type B)           Control Port (Out-of-Band)         10/100/1000 BASE - R245 Ethernet Port (IEEE 802.3)           Transport Port         2 SFP+ cages (see available accessories)           10G Redundancy         Yes           Output Scaling         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           SNMP Support         Yes           OSD Support         No           Control System         MAGNUM-AV           Web-Based Configuration         Yes           Security Compliance         Compliant with applicable DoD Network Devices Security Technical Implementation Guide (STIG) findings           DC Input Voltage	video iriputs	1 HDMI 2.0a Auxiliary to HDMI Input 2
Audio Inputs   1 stereo balanced analog (terminal header)   Audio Input Impedance   High impedance   Audio Input Level   Line level (+4/dBu)   2 s/PDIF   Audio Output Impedance   Audio Output Impedance   Audio Output Impedance   Audio Output Level   Line level (+4/dBu)   USB   2 HID device ports (type A)   1 host port for HID and other USB devices (micro type B)   Control Port (Out-of-Band)   10/100/1000 BASE-T RJ45 Ethernet Port (IEEE 802.3)   Transport Port   2 SFP+ cages (see available accessories)   10G Redundancy   Yes   Output Scaling   Yes   LPCM (up to 8 channels)   HDMI Audio   Pasthrough support for Dolby Digital YAC-3, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS', DTS-ES, DTS-HD High Res, DTS-HD Master Audio, DTS:X   SNMP Support   Yes   In-Band Control   Yes   Control System   MACNUM-AV   Web-Based Configuration   Yes   Security Compliance   Compliant with applicable DoD Network Devices Security Technical Implementation Guide (STIG) findings   DC Input Voltage   12 VDC via supplied power adapter   Power Supply   100-240V /47-63Hz AC input; 12 VDC /5A output   Power Consumption   30W   Operating Temperature   32° to 104" F (0" to 40" C)   Relative Humidity   10% to 90% RH (non-condensing)	Video Outputs	2 HDMI 2.0a (software defined)
Audio Input Impedance       High impedance         Audio Input Level       Line level (+4dBu)         Audio Outputs       1 stereo balanced analog (terminal header)         2 x/pDIF       2 y/pDIF         Audio Output Impedance       600 Ω         Audio Output Level       Line level (+4dBu)         USB       2 HID device ports (type A)         1 host port for HID and other USB devices (micro type B)         Control Port (Out-of-Band)       10/100/1000 BASE-T R345 Ethernet Port (IEEE 802.3)         Transport Port       2 SFP+ cages (see available accessories)         10C Redundancy       Yes         Output Scaling       Yes         LDCM (up to 8 channels)       LDCM (up to 8 channels)         LDCM (up to 8 channels)       LDCM (up to 8 channels)         HDMI Audio       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         SNMP Support       Yes         In-Band Control       Yes         OSD Support       No         Control System       MACNUM-AV         Web-Based Configuration       Yes         Security Compliance       Compliant with applicable DoD Network Devices Security Technical Implementation Cuide (STIC) findings         DC Input Voltage	Supported Resolutions	Up to 4096x2160p @ 60 Hz (4:4:4 color sampling)
Audio Input Level       Line level (+4dBu)         Audio Outputs       2 S/PDIF         Audio Output Impedance       600 Ω         Audio Output Level       Line level (+4dBu)         USB       2 HID device ports (type A)         1 host port for HID and other USB devices (micro type B)         Control Port (Out-of-Band)       10/100/1000 BASE-T R3/45 Ethernet Port (IEEE 802.3)         Transport Port       2 SFP* cages (see available accessories)         10G Redundancy       Yes         Upon (up to 8 channels)       LPCM (up to 8 channels)         HDMI Audio       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         SNMP Support       Yes         In-Band Control       Yes         OSD Support       No         Control System       MACNUM-AV         Web-Based Configuration       Yes         Security Compliance       Compliant with applicable DoD Network Devices Security Technical Implementation Guide (STIG) findings         DC Input Voltage       12VDC via supplied power adapter         Power Supply       100-240V /47-63Hz AC Input: 12VDC /5A output         Power Consumption       30W         Operating Temperature       32* to 104* F (0* to 40* C)	Audio Inputs	1 stereo balanced analog (terminal header)
Audio Output Impedance Audio Output Impedance Audio Output Level Line level (+4dBu) 2 HID device ports (type A) 1 host port for HID and other USB devices (micro type B) 1 (1/100/1000 BASE-T R14S Ethernet Port (IEEE 802.3)  Transport Port 2 SFP+ cages (see available accessories)  10G Redundancy Yes Output Scaling Yes LPCM (up to 8 channels) Passthrough support for Dolby Digital*/AC-3, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS*, DTS-ES, DTS-HD High Res, DTS-HD Master Audio, DTS:X  SNMP Support In-Band Control OSD Support No Control System MACNUM-AV Web-Based Configuration Security Compliance DC Input Voltage 12VDC via supplied power adapter Power Supply 100-240V /47-63Hz AC input: 12VDC /5A output Power Consumption 30W Operating Temperature 32* to 104* F (0* to 40* C) Relative Humidity 10% to 90% RH (non-condensing)	Audio Input Impedance	High impedance
Audio Output Impedance  Audio Output Level  Line level (+4dBu)  2 BID device ports (type A) 1 host port for HID and other USB devices (micro type B)  Control Port (Out-of-Band)  Transport Port  2 SFP+ cages (see available accessories)  10C Redundancy  Ves  Output Scaling  HDMI Audio  BID Redundancy  Ves  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  SNMP Support  Ves  In-Band Control  OSD Support  No  Control System  MACNUM-AV  Web-Based Configuration  Ves  Compliant with applicable DoD Network Devices Security Technical Implementation Guide (STIG) findings  DC Input Voltage  DC Input Voltage  12VDC via supplied power adapter  Power Supply  Power Consumption  Operating Temperature  32* to 104* F (0* to 40* C)  Relative Humidity  10% to 90% RH (non-condensing)	Audio Input Level	Line level (+4dBu)
Audio Output Level  Line level (+4dBu)  2 HID device ports (type A) 1 host port for HID and other USB devices (micro type B)  Control Port (Out-of-Band)  10/100/1000 BASE-T R345 Ethernet Port (IEEE 802.3)  Transport Port  2 SFP+ cages (see available accessories)  10C Redundancy Yes  Output Scaling  Yes  LDCM (up to 8 channels) Passthrough support for Dolby Digital "AC-3, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS", DTS-ES, DTS-HD High Res, DTS-HD Master Audio, DTS:X  SNMP Support  Yes  OSD Support  No  Control System  MACNUM-AV  Web-Based Configuration Yes  Security Compliance  Compliant with applicable DoD Network Devices Security Technical Implementation Guide (STIG) findings  DC Input Voltage  Power Supply  100-240V / 47-63Hz AC input: 12VDC / 5A output  Power Consumption  30W  Operating Temperature 32* to 10%* F (0* to 40* C)  Relative Humidity  10% to 90% RH (non-condensing)	Audio Outputs	
USB 2 HID device ports (type A) 1 host port for HID and other USB devices (micro type B)  Control Port (Out-of-Band) 10/100/1000 BASE -T R3/45 Ethernet Port (IEEE 802.3)  Transport Port 2 SFP+ cages (see available accessories)  10C Redundancy Yes  Output Scaling Yes  LPCM (up to 8 channels) Passthrough support for Dolby Digital*/AC-3, Dolby Digital EX, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS*, DTS-ED, DTS-HD High Res, DTS-HD Master Audio, DTS.X  SNMP Support Yes  In-Band Control Yes  OSD Support No  Control System MAGNUM-AV  Web-Based Configuration Yes  Security Compliance Compliant with applicable DoD Network Devices Security Technical Implementation Guide (STIG) findings  DC Input Voltage 12VDC via supplied power adapter  Power Supply 100-240V /47-63Hz AC input; 12VDC /5A output  Power Consumption 30W  Operating Temperature 32* to 104* F (0* to 40* C)  Relative Humidity 10% to 90% RH (non-condensing)	Audio Output Impedance	600 Ω
Control Port (Out-of-Band)  10/100/1000 BASE-T RJ45 Ethernet Port (IEEE 802.3)  Transport Port  2 SFP+ cages (see available accessories)  Output Scaling  Yes  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  SNMP Support  In-Band Control  OSD Support  OSD Support  No  Control System  MACNUM-AV  Web-Based Configuration  Security Compliance  DC Input Voltage  Power Supply  100-240V/47-63Hz AC input: 12VDC / 5A output  Power Consumption  Operating Temperature  82* to 104* F (0" to 40" C)  Relative Humidity  10% to 90% RH (non-condensing)	Audio Output Level	Line level (+4dBu)
Transport Port 2 SFP+ cages (see available accessories)  10C Redundancy Yes  Output Scaling Yes  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  SNMP Support Yes  In-Band Control Yes  OSD support No  Control System MACNUM-AV  Web-Based Configuration Yes  Security Compliance Compliant with applicable DoD Network Devices Security Technical Implementation Guide (STIG) findings  DC Input Voltage 12VDC via supplied power adapter  Power Supply 100-240V / 47-63Hz AC input: 12VDC / 5A output  Power Consumption 30W  Operating Temperature 32° to 104° F (0° to 40° C)  Relative Humidity 10% to 90% RH (non-condensing)	USB	1 - 121 - 1
Output Scaling  Yes  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  SNMP Support  Yes  In-Band Control  Yes  OSD Support  No  Control System  MAGNUM-AV  Web-Based Configuration  Yes  Security Compliance  Compliant with applicable DoD Network Devices Security Technical Implementation Guide (STIG) findings  DC Input Voltage  Power Supply  100-240V / 47-63Hz AC input; 12VDC / 5A output  Power Consumption  30W  Operating Temperature  32* to 104* F (0* to 40* C)  Relative Humidity  10% to 90% RH (non-condensing)	Control Port (Out-of-Band)	10/100/1000 BASE -T RJ45 Ethernet Port (IEEE 802.3)
Output Scaling  Yes  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  SNMP Support  Yes  OSD Support  No  Control System  MAGNUM-AV  Web-Based Configuration  Yes  Security Compliance  Compliant with applicable DoD Network Devices Security Technical Implementation Guide (STIG) findings  DC Input Voltage  Power Supply  100-240V / 47-63Hz AC input: 12VDC / 5A output  Power Consumption  30W  Operating Temperature  32° to 104° F (0° to 40° C)  Relative Humidity  10% to 90% RH (non-condensing)	Transport Port	2 SFP+ cages (see available accessories)
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  SNMP Support Yes  OSD Support No Control System MAGNUM-AV Web-Based Configuration Yes Security Compliance Compliant with applicable DoD Network Devices Security Technical Implementation Guide (STIG) findings  DC Input Voltage Power Supply 100-240V / 47-63Hz AC input: 12VDC / 5A output  Power Consumption 30W Operating Temperature Relative Humidity 10% to 90% RH (non-condensing)	10G Redundancy	Yes
HDMI Audio 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  SNMP Support Yes  In-Band Control Yes OSD Support No Control System MACNUM-AV Web-Based Configuration Yes Security Compliance Compliant with applicable DoD Network Devices Security Technical Implementation Guide (STIG) findings DC Input Voltage 12VDC via supplied power adapter  Power Supply 100-240V / 47-63Hz AC input; 12VDC / 5A output  Power Consumption Operating Temperature 32° to 104° F (0° to 40° C) Relative Humidity 10% to 90% RH (non-condensing)	Output Scaling	Yes
In-Band Control  OSD Support  No  Control System  MAGNUM-AV  Web-Based Configuration  Security Compliance  Compliant with applicable DoD Network Devices Security Technical Implementation Guide (STIG) findings  DC Input Voltage  12VDC via supplied power adapter  Power Supply  100-240V / 47-63 Hz AC input; 12VDC / 5A output  Power Consumption  30W  Operating Temperature  32° to 104° F (0° to 40° C)  Relative Humidity  10% to 90% RH (non-condensing)	HDMI Audio	Passthrough support for Dolby Digital®/AC-3, Dolby Digital EX, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS®, DTS-ES, DTS-HD
OSD Support  No  Control System  MAGNUM-AV  Web-Based Configuration  Security Compliance  Compliant with applicable DoD Network Devices Security Technical Implementation Guide (STIG) findings  DC Input Voltage  12VDC via supplied power adapter  Power Supply  100-240V / 47-63Hz AC input; 12VDC / 5A output  Power Consumption  30W  Operating Temperature  32° to 104° F (0° to 40° C)  Relative Humidity  10% to 90% RH (non-condensing)	SNMP Support	Yes
Control System  MAGNUM-AV  Web-Based Configuration  Yes  Security Compliance  Compliant with applicable DoD Network Devices Security Technical Implementation Guide (STIC) findings  DC Input Voltage  12VDC via supplied power adapter  Power Supply  100-240V / 47-63 Hz AC input: 12VDC / 5A output  Power Consumption  30W  Operating Temperature  32° to 104° F (0° to 40° C)  Relative Humidity  10% to 90% RH (non-condensing)	In-Band Control	Yes
Web-Based ConfigurationYesSecurity ComplianceCompliant with applicable DoD Network Devices Security Technical Implementation Guide (STIG) findingsDC Input Voltage12VDC via supplied power adapterPower Supply100-240V / 47-63Hz AC input: 12VDC / 5A outputPower Consumption30WOperating Temperature32° to 104° F (0° to 40° C)Relative Humidity10% to 90% RH (non-condensing)	OSD Support	No
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DC Input Voltage 12VDC via supplied power adapter  Power Supply 100-240V / 47-63 Hz AC input: 12VDC / 5A output  Power Consumption 30W  Operating Temperature 32° to 104° F (0° to 40° C)  Relative Humidity 10% to 90% RH (non-condensing)	Web-Based Configuration	Yes
Power Supply 100-240V / 47-63 Hz AC input; 12VDC / 5A output  Power Consumption 30W  Operating Temperature 32° to 104° F (0° to 40° C)  Relative Humidity 10% to 90% RH (non-condensing)	Security Compliance	Compliant with applicable DoD Network Devices Security Technical Implementation Guide (STIG) findings
Power Consumption 30W  Operating Temperature 32° to 104° F (0° to 40° C)  Relative Humidity 10% to 90% RH (non-condensing)	DC Input Voltage	12VDC via supplied power adapter
Operating Temperature 32° to 104° F (0° to 40° C)  Relative Humidity 10% to 90% RH (non-condensing)	Power Supply	100-240V / 47-63 Hz AC input; 12VDC / 5A output
Relative Humidity 10% to 90% RH (non-condensing)	Power Consumption	30W
	Operating Temperature	32° to 104° F (0° to 40° C)
Dimensions (H x W x D) 1.81in x 8.25in x 6.56in (45.97mm x 209.55mm x 166.62mm)	Relative Humidity	10% to 90% RH (non-condensing)
	Dimensions (H x W x D)	1.81in x 8.25in x 6.56in (45.97mm x 209.55mm x 166.62mm)
Weight         32 oz (907.19 g)	Weight	32 oz (907.19 g)

#### Ordering Information

MMA10G-TRS4K-2UH-HDMI Standalone 4K/60 dual HDMI gateway: dual HDMI input or output, audio, Ethernet, and HID USB/USB 2.0

#### Available Accessories

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	3m SFP+ to SFP+ fiber patch cable, 10GE, AOC, 850nm
3405PS-6HO	Six output primary and redundant auto-ranging power supply, 100V - 240V AC at 50/60Hz

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