



ReThink

There's a better way.

RAV-MV-4x2HU-Tx/Rx
Technical Specification

RAV-MV-4x2HU-TxRx

4x2 Multi Viewer Presentation Switcher with HDBaseT

Magni family of Matrix Switchers



Key Features

- Video resolution up to 4K@60Hz 4:4:4, as specified in HDMI 2.0b.
- HDCP 2.3, DP 1.4 and HDBase 3.0 compliant.
- USB 3.2 Gen 1 up to 5Gbps.
- 4x2 seamless switching (single screen) and fast switching (multi viewer) function.
- Manual switching or auto switching mode.
- Multiple multi viewer display modes: Auto/Single/PIP/PBP/Triple/Quad/Custom.
- Input: 2x USB-C, 2x HDMI, 1x Analog audio, 1x Dante 2ch.
- Output: 1x HDMI, 1x HDMI + HDBaseT mirrored, 1x Analog audio, 1x Dante 2ch.
- USB-C supports DisplayPort Alternate mode for A/V, USB 3.2, 1G LAN and 60W charging.
- Local USB 3.2 switching and extending USB 2.0 over HDBaseT 3.0.
- Local USB KVM hotkeys and mouse switching.
- Uncompressed 4K60 4:4:4 over HDBaseT 3.0 up to 132ft/40m via single CAT6A cable.
- Uncompressed 1080P&4K30 over HDBaseT 3.0 up to 230ft/70m via single CAT6A cable.
- Audio embedded and de-embedded.
- Audio DSP for gain, equalizer, volume and delay.
- Dante 2x2 audio input and output.
- CEC/RS-232 control external devices ON/OFF.
- Advanced EDID management.
- Support standard PoE power supply from TX to RX (TX_PSE, RX_PD).
- Flexible control via front panel buttons, IR remote, RS-232, TCP/IP or Web GUI.

Specifications

Technical	
HDMI Compliance	HDMI 2.0b
HDCP Compliance	HDCP 2.3
DP Version	DP 1.4
Video Bandwidth	18Gbps
USB Bandwidth	USB 3.2 Gen 1 up to 5Gbps
Network Bandwidth (LAN and USB-C Connection)	1Gbps
Video Resolution	Up to 4K@60Hz 4:4:4
IR Level	12Vp-p

IR Frequency	Wideband 20K-60KHz
Colour Depth	8/10/12-bit
Colour Space	RGB, YCbCr_4:4:4, YCbCr_4:2:2, YCbCr_4:2:0
Audio Formats	USB-C/HDMI/HDBT: Digital audio, 32-192kHz/24bit, LPCM 2CH LINE IN: Analog audio, Balanced/unbalanced 2CH, Max input level 2Vrms LINE OUT: Analog audio, Balanced 2CH (Max output level 2Vrms)/unbalanced 2CH (Max output level 1Vrms) DANTE: Digital audio 2x2 in/out, LPCM 2CH 44.1K-96KHz 16/24Bit
Transmission Distance	HDBT: 230ft/70m (1080P&4K30), 131ft/40m (4K60) HDMI: 9.8ft/3m USB-C: 9.8ft/3m
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge), ±4kV (Contact discharge)

TX Analog Audio

Input Impedance	10K Ohms
Output Impedance	330 Ohms
Line Input Level (Maximum)	8.2dBu (2Vrms) @ balanced or unbalanced audio
Line Output Level (Maximum)	8.2dBu (2Vrms) @ balanced audio 2.2dBu (1Vrms) @ unbalanced audio
Frequency Response	(+0.5 dB, -1 dB) 20 Hz to 20 kHz
Audio Output Sync Delay	< 1ms
Audio S/N Ratio	93dB @ 2Vrms, 1kHz A-weighted
Audio THD+N	<0.1% @ 0dBV, 1kHz

RX Analog Audio

Output Impedance	330 Ohms
Line Output Level (Maximum)	8.2dBu (2Vrms) @ balanced audio 2.2dBu (1Vrms) @ unbalanced audio
Frequency Response	(+0.5 dB, -1 dB) 20 Hz to 20 kHz
Audio Output Sync Delay	0 to 50ms
Audio S/N Ratio	93dB @ 2Vrms, 1kHz A-weighted
Audio THD+N	<0.1% @ 0dBV, 1kHz

Dante Audio

Audio Formats	LPCM 2CH
Sample Rate	44.1/48/88.2/96KHz at 24 bits
Audio Delay	2/3/4/5/10ms
Network Bandwidth	100Mbps
Connection	
Transmitter	Input: 2x HDMI IN [HDMI Type A, 19-pin female] 2x USB-C IN [Type C, 24-pin female] 1x LINE IN [5pin-3.5mm phoenix connector] 1x DANTE IN [RJ45] Output: 2x HDMI OUT [HDMI Type A, 19-pin female] 1x HDBT OUT [RJ45, 48V POE/PSE] 1x LINE OUT [5pin-3.5mm phoenix connector] Control: 1x RS-232 [3pin-3.5mm phoenix connector] 1x RS-232 CTL [3pin-3.5mm phoenix connector] 1x LAN [RJ45] 2x USB 3.2 HOST [USB Type B, 9-pin female] 3x USB 3.2 DEVICES [USB Type A, 9-pin female] 2x USB 1.1 KVM [Type A, 4-pin female] 1x USB-C DEVICE [Type C, 24-pin female] 1x IR IN [3.5mm audio jack, 12V level] 1x IR OUT [3.5mm audio jack, 12V level]
Receiver	Input: 1x HDMI IN [Type A, 19-pin female] 1x HDBaseT IN [RJ45, 48V POE/PD] Output: 1x HDMI OUT [Type A, 19-pin female] 1x LINE OUT [5pin-3.5mm phoenix connector] Control: 1x RS-232 [3pin-3.5mm phoenix connector] 1x USB HOST [Type B, 4-pin female] 2x USB DEVICES [Type A, 4-pin female] 1x SERVICE [Micro USB, 5-pin female] 1x IR IN [3.5mm audio jack, 12V level] 1x IR OUT [3.5mm audio jack, 12V level]
Mechanical	
Housing	Front panel: Aluminium; Rear case: Metal Enclosure
Colour	Black
Dimensions	Transmitter: 220mm [W] × 220mm [D] × 44.5mm [H] Receiver: 140mm [W] × 105mm [D] × 21.5mm [H]
Weight	Transmitter: 1.78Kg; Receiver: 424g
Power Supply	Input: AC100 - 240V 50/60Hz Output: DC 24V/8A (US/EU standard, CE/FCC/UL certified)

Power Consumption	170W (Max)
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-40°C ~ 60°C / -40°F ~ 140°F
Operating Humidity	20%~80% (relative humidity, non-condensing)
Storage Humidity	10%~90% (relative humidity, non-condensing)