



ReThink

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RAV-MS-4x2HDMI/USB-C
Technical Specification

RAV-MS-4x2HDMI/USB-C

4x2 matrix conferencing auto-switcher



Description of Key Features

- 4x2 conference presentation switch, integrating video, audio, USB, control and ethernet.
Dual USB-C and dual HDMI + USB 3.2 inputs, and all ports support cable lock connections.
- Full-featured USB-C input, supports 4K video, USB 3.0 data, USB NIC, and 60W charging function.
- Support automatic switching, USB and video independent switching, priority switching, button switching, API switching and Web UI control.
- Provide 4 USB 3.2 device ports for connecting conference equipment, such as cameras and Speakerphone.
- Provide one balanced audio de-embedding port for connecting audio equipment.
- Provide 100m HDBT 3.0 output for video and USB extension applications in medium and large conference rooms.
Provide RS232, GPIO, RELAY, and OCS Sensor ports to connect various control and controlled devices.
- One USB charge-only port is connected to the conference table to provide a charging function for mobile phones.
- Each input port provides an independent USB to Ethernet bridge, providing a 1G ethernet connection to the connected computer.
- Provide two independent RJ-45 ports for ethernet switching or VLAN setting.
- Provides an independent Dante RJ45 port, supporting PCM Dante audio output.
- Support ethernet control, support HTTP and HTTPS, support 802.1x authentication.

Panel Overview.

Front Panel:

Port	Characteristic
POWER (LED)	Colour: Green - Off: The device is power off. - Lighting: The device is power on.
Input Select (LED)	Quantity: 8. Colour: Multi-colour (green, red, yellow). Four LEDs are used to indicate the input port selected by HDMI OUT 1 & USB DEVICE, and the other four LEDs are used to indicate the input port selected by HDMI OUT2. Please refer to the "LED and BUTTON" section below for details.
Audio Select (LED)	Quantity: 2 Colour: Green Used to indicate that audio de-embedding is coming from HDMI OUT 1 or HDMI OUT 2.
Button	Quantity: 3. Colour: white, square buttons. - One for HDMI OUT 1. - One for HDMI OUT 2. - One for audio de-embedding.
CHARGING	USB Charging only port.
USB HOST 1	USB 3.2 & 3.0 Type-B female connector. Colour: Blue.
HDMI IN 1	HDMI 2.0 Type-A female connector, with locking.
USB HOST 2	USB 3.2 & 3.0 Type-B female connector. Colour: Blue.
HDMI IN 2	HDMI 2.0 Type-A female connector, with locking.
USB-C IN 3	USB Type-C female connector, with locking.
USB-C IN 4	USB Type-C female connector, with locking.
FW (CONFIG)	USB 2.0 Micro-USB connector.
Reset (CONFIG)	Round hole.

Rear Panel:

Port	Characteristic
POWER IN	DC 20V/10A power in. Mini-DIN 4-pin connector.
USB DEVICE	Four USB 3.2 & 3.0 Type-A connectors. Colour: Blue.
HDMI OUT 1 (OUT 1)	HDMI 2.0 Type-A female connector, with locking.
HDMI OUT 2 (OUT 2)	HDMI 2.0 Type-A female connector, with locking.
HDBT OUT (OUT 2)	HDBT 3.0 Blue RJ-45 connector.
AUDIO OUT	5-pin 3.5mm phoenix female connector. Colour: Green.
RS232	2x 3-pin 3.5mm phoenix female connector, vertically. Colour: Black.
GPIO	6-pin 3.5mm phoenix female connector. Colour: Green.
RELAY	2x 3-pin 3.5mm phoenix female connector, vertically. Colour: Black.
SENSOR	3-pin 3.5mm phoenix female connector. Colour: Green
ETHERNET 1 & 2	RJ-45 connector. Green (LED): - Lighting: The connection speed is 1000Mb/s. - OFF: The connection speed is 100Mb/s or 10Mb/s. Yellow (LED): - Blink: Data transmission.
DANTE (RJ-45)	One DANTE in/out port.

Port Specification:

Port	Spec
Maximum cable length	USB-C IN: - 2m USB type-C to type-C cable. HDMI IN/OUT: - 5m HDMI 2.0 cable.
HDMI IN/HDMI OUT /HDBT OUT	Supports HDMI 2.0 standard, up to 4K@60Hz 4:4:4 8bit or 4K@60Hz 4:2:2 12bit. Supports HDCP 2.2/1.4.
USB HOST IN1 & 2	Supports USB 3.2 Gen 2x1 standard, up to 10Gbit/s.
USB-C IN 3 & IN 4	USB-C supports USB 3.2 Gen 2x1 standard and supports: Video: up to 4K@60Hz. USB data: Up to 10Gbit/s. Charging: 60W. Note: see "USB-C SETTING" section for details.
USB DEVICE	Maximum supports USB 3.2 Gen 2x1 standard, up to 10Gbit/s. 5V/2.2A output per two port. Note: see "USB DEVICE" section for details.
USB CHARGING	No data, 5V/2A output.
Audio Support	USB-C IN/HDMI IN/ HDMI OUT: Up to 7.1ch, including PCM 2.0/5.1/7.1ch, Dolby Digital, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos, DTS 5.1, DTS-HD Master Audio and DTS:X. Audio de-embedding: Stereo only.
Ethernet	1000M/100M adaptive network.
Control	Button, RS232 (API), Telnet (API), Web UI, GPIO, RELAY and SENSOR.

Port Specification (Continued):

Resolution	VESA: 800 x 600⁶, 1024 x 768⁶, 1280 x 768⁶, 1280 x 800⁶, 1280 x 960⁶, 1280 x 1024⁶, 1360 x 768⁶, 1366 x 768⁶, 1440 x 900⁶, 1600 x 900⁶, 1600 x 1200⁶, 1680 x 1050⁶, 1920 x 1200⁶, 2048 x 1152⁶, 2560 x 1440⁶, 3440 x 1440⁶ CTA: 1280x720P(*_{5,6}), 1920x1080P(*_{1,2,3,4,5,6}), 3840x2160P(*_{1,2,3,4,5,6}), 4096x2160P(*_{1,2,3,4,5,6}). *1 = at 24 (23.98) Hz, 2 = at 25 Hz, 3 = at 30 (29.97) Hz, 4 = at 48 Hz, 5 = at 50 Hz, 6 = 60 (59.94) Hz
HDR Format	All HDR formats, including HDR 10, HLG, HDR 10+ and Dolby Vision
Max Data Rate	USB-C IN: 10Gbit/s (per lane). HDMI: 18Gbps. USB 3.2: 10Gbit/s.
Power	DC 20V/10A. 200W power adapter.