iSwitch 602

4K 6X2 HDMI 2.0 HDBT Matrix Switcher

All Rights Reserved

Version: V1.0

www.infobitav.com   info@infobitav.com
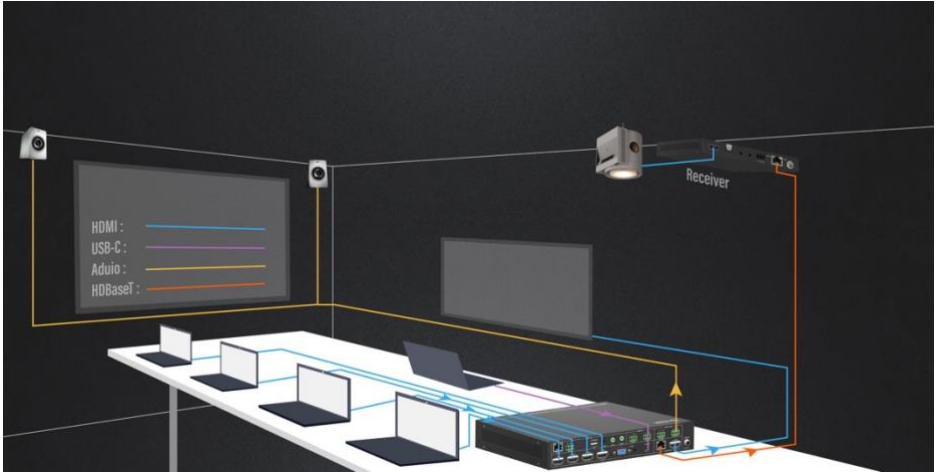
1. Product Introduction

Thanks for choosing the 6x2 multi-format presentation matrix switcher! The matrix switcher simplifies meeting room and presentation space system integration by providing four HDMI inputs, one VGA input, one USB-C input, one HDBT output and one HDMI output. It also provides two audio inputs for audio embedding and two audio outputs for audio de-embedding.

The matrix switcher supports resolution up to 4K@60Hz@4:4:4, HDR. The HDBT technology allows HDMI signals to be transmitted up to 70m over a CATx cable while ensuring very high, original image quality. It is designed for using with the receiver iSwitch 602R.

The matrix switcher supports auto switching based on 5V or TMDS activity signals sensing. It also allows users to control system functionality via Web GUI, RS232, IR and CEC.

1.1 Features

- 6x2 18G HDMI presentation switcher with matrix outputs.
- HDMI V2.0 and HDCP 2.2 compliant. Video resolution up to 4K@60Hz 4:4:4, HDR.
- Supports auto switching.
- HDMI signals transmission up to 40m at 4K and 70m at 1080p on HDBT output.
- The HDBT output supports 24V PoC for receiver.
- USB-C input supports resolution up to 4K@60Hz 4:2:0.
- Provides two audio inputs for audio embedding and two audio outputs for audio de-embedding.
- Supports audio output volume control.
- Supports EDID management.
- Supports downscaling on HDBT output and upscaling on HDMI output.
- Controllable via RS232 local and pass-through, IR local and pass-through, TCP/IP, CEC and front panel.

2. Specification

Video Input	
Video Input	(4) HDMI, (1) VGA, (1) USB-C
Video Input Connector	(4) Type-A female HDMI, (1) 15-pin female VGA, (1) USB-C
Video input Video Resolution	HDMI: Up to 4K@60Hz 4:4:4, HDR
	VGA: Up to 1920x1200@60Hz
	USB-C: Up to 4K@60Hz 4:2:0
Video Output	
Video Output	(1) HDBT, (1) HDMI
Video Output Connector	(1) RJ45, (1) Type-A Female HDMI
Video output Video Resolution	HDMI: Up to 4K@60Hz 4:4:4, HDR
	HDBT: Up to 4K@60Hz 4:2:0
Audio Input	
Audio Input	(1) AUDIO (VGA), (2) LINE 1&2
Audio Input Connector	(1) 3.5mm jack, (2) 3-pin terminal blocks
Frequency Response	20Hz to 20KHz, ±3dB
Max Input Level	1.0Vrms ± 0.1
L-R Level Deviation	< 0.3dB, 1kHz sine at 0dBFS level (or max level before clipping)
Input Impedance	> 10KΩ
Audio Output	
Audio Output	(2) AUDIO 1&2
Audio Output Connector	(2) 3-pin terminal blocks
Frequency Response	20Hz to 20kHz, ±3dB
Max Output Level	2.0 ± 0.1Vrms
THD+N	< 0.1%, 20Hz to 20kHz bandwidth, 1 kHz sine at 0dBFS level (or max level)
SNR	> 80dB, 20Hz to 20kHz bandwidth
Crosstalk Isolation	< -70 dB, 10kHz sine at 0dBFS level
L-R Level Deviation	< 0.3 dB, 1kHz sine at 0dBFS level (or max level before clipping)
Output Load Capability	1kΩ and higher (supports 10x paralleled 10KΩ loads)
Noise Level	- 75dB
Control Part	
Control Port	(1) TCP/IP, (1) RS232, (1) FIRMWARE, (1) SYSTEM IR, (1) IR IN, (1) IR OUT
Control Connector	(1) RJ45, (2) 3-pin terminal blocks, (1) Type-A USB, (3) 3.5mm jacks
General	

| HDMI Version	Up to 2.0
HDCP Version	Up to 2.2
Bandwidth	18Gbps
HDBT Transmission Distance	1080p@60Hz ≤ 230 feet (70 meters), 4K@60Hz ≤ 131 feet (40 meters)
Operation Temperature	-5 to +55℃ (+23° to +131°F)
Storage Temperature	-25 to +70℃ (-13° to +158°F)
Relative Humidity	10% to 90%, Non-condensing
External Power Supply	Input: AC 100~240V, 50/60Hz; Output: 24V DC 2.71A
Power Consumption	45W (Max)
Dimension (W*H*D)	250mm x 44mm x 220mm
Net Weight	1.7KG

3. Panel Description

3.1 Front Panel
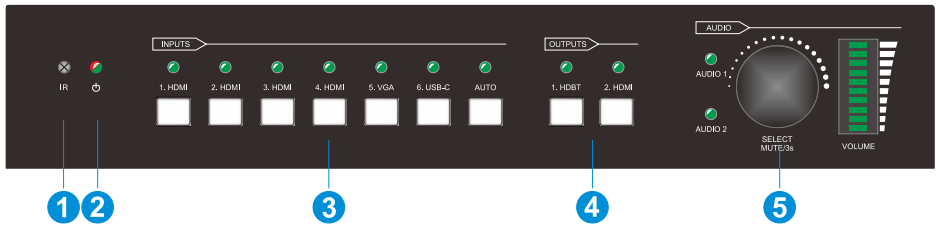
① **IR:** Built-in IR sensor for receiving IR signals from IR remote to control the matrix.

② **POWER:** The LED illuminates green when the device is powered on, red when the device is in standby mode.

③ **INPUTS:** Total seven buttons with green LED.

- HDMI 1 input selector.
- HDMI 2 input selector.
- HDMI 3 input selector.
- HDMI 4 input selector.
- VGA input selector.
- USB-C input selector.
- Auto switching mode selector.

④ **OUTPUTS:** Two buttons with blue LED.
- HDBT output selector.
- HDMI output selector.

⑤ **VOLUME:**
- Press the volume knob in to toggle among **AUDIO 1** and **AUDIO 2** output audio control, and the corresponding LED will illuminate blue.
- Rotate the knob to increase or decrease the volume of the selected audio.
- Press and hold the knob at least three seconds to mute/unmute the selected audio.

3.2 Rear Panel
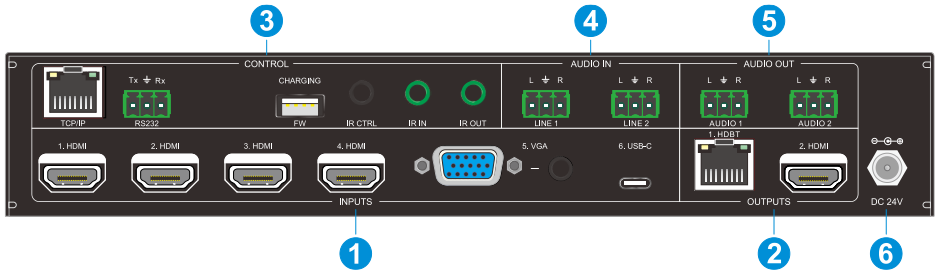
① **INPUTS:** Total six video inputs and three audio inputs.

- **HDMI 1~4:** Connects to HDMI source devices.
- **VGA:** Connects to the VGA source. One stereo auxiliary audio input (3.5mm jack) can be embedded in the VGA video.
- **USB-C:** Connects to the USB-C source devices.

② **OUTPUTS:**

- **HDBT:** Connects to the HDBT input of a compatible receiver to extend AV signal, IR and RS232 control signal.
- **HDMI:** Connects to the video display device.

③ **CONTROL:**

- **TCP/IP:** Connects to a control device (e.g. PC) to control the switcher by GUI.
- **RS232:** Connects to the control device (e.g. PC) to control the switcher by sending RS232 commands.
- **FIRMWARE:** Type-A USB port for firmware upgrade.
- **SYSTEM IR:** Connects to IR receiver to control the switcher by the IR remote.
- **IR IN:** Connects to IR receiver for IR pass-through control.
- **IR OUT:** Connects to IR emitter for IR pass-through control.

④ **AUDIO IN:**

- **LINE 1:** Connects to audio source device for audio embedding.
- **LINE 2:** Connects to audio source device for audio embedding.

⑤ **AUDIO OUT:**

- **AUDIO 1:** Connects to audio playback device for audio de-embedding. The audio output can be de-embedded from the HDBT or HDMI output selected via RS232 command. It's de-embedded from HDBT output by default.

- **AUDIO 2:** Connects to audio playback device for audio de-embedding. The audio output can be de-embedded from the HDBT or HDMI output selected via RS232 command. It's de-embedded from HDMI output by default.

⑥ **DC 24V:** DC connector for the power adapter connection.

4. System Connection
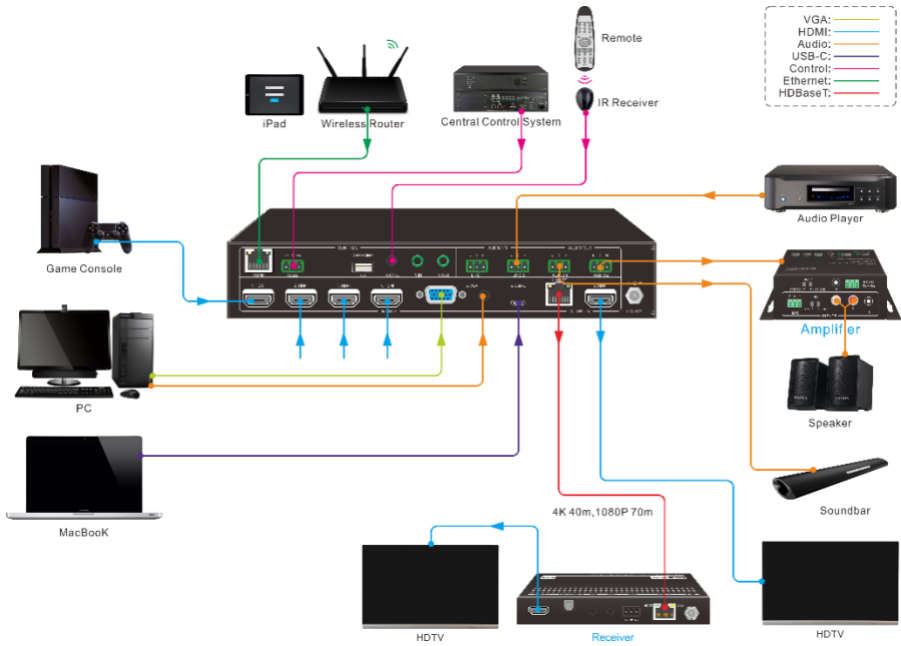
CONTACT US

www.infobitav.com

info@infobitav.com