

MSD-7204UHD

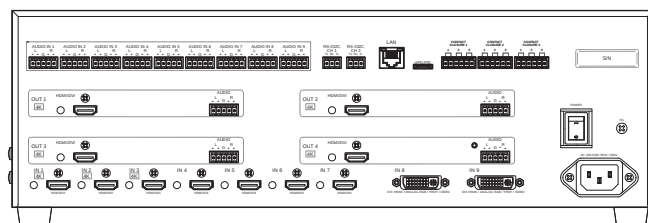


4K@60 and HDCP 2.2 supported Presentation Switcher (Built-in scan converter)

The IDK MSD-7204UHD is a high-performance presentation switcher with a scan converter and up to 9 inputs and 4 outputs. For video input, 9 digital and 2 analog inputs are included and the following signals are supported: HDMI, DVI, composite video, Y/C, analog RGB, and analog YPbPr signals. Input video signals are converted to HDMI signals and output at a resolution up to 4K@60. For audio input, 9 digital and 9 analog inputs are included. Selected audio signals are output to digital audio and analog audio. Audio level of each input can be set individually.

The MSD-7204UHD also has RS-232C (2 ports) and LAN to enable you to set menus remotely.

FRONT & REAR PANEL (MSD-7204)



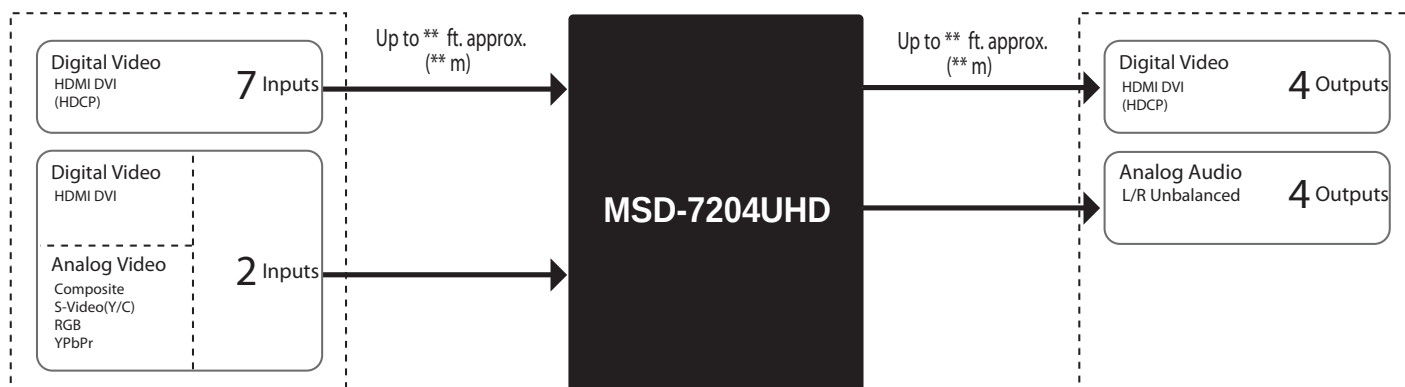
FEATURES

- Video:**
 - Up to 4K@60 (4:4:4)
 - HDCP 1.4/2.2
 - I/P conversion
 - Scan converter
 - Aspect ratio control
 - Seamless switching
 - A/D conversion output
 - Anti-snow
- Audio:**
 - A/D, D/A conversion
 - Volume adjustment
 - Lip sync
- Control input:**
 - RS-232C, LAN
- Control output:**
 - Control command output (e.g. Controlling projectors)
 - PJLink
 - Power control of sink device by CEC
 - Contact closure
- Others:**
 - EDID emulation
 - Video and audio can be switched separately
 - Cross point memory
 - Preset memory
 - Last memory
 - Connection Reset
 - Key lock

PRODUCT SELECTION

Model Number	Input	Output
MSD-7201UHD-TB	7x HDMI, 2x Universal	1x HDMI
MSD-7202UHD-TB	7x HDMI, 2x Universal	2x HDMI
MSD-7203UHD-TB	7x HDMI, 2x Universal	3x HDMI
MSD-7204UHD-TB	7x HDMI, 2x Universal	4x HDMI

CONNECTION DIAGRAM



I/O Slot boards can be increased by 4 inputs or 4 outputs

SPECIFICATIONS

Input	Video	Digital	Number / Signal	3 inputs / HDMI Deep Color / DVI 1.0 (HDCP 1.4 / 2.2) TMD5 single link, TMD5 clock: 25 MHz to 300 MHz Dot clock: 25 MHz to 600 MHz
			Connector	3 female HDMI Type A
			Number / Signal	4 inputs / HDMI Deep Color / DVI 1.0 (HDCP 1.4) TMD5 single link TMD5 clock: 25 MHz to 300 MHz Dot clock: 25 MHz to 300 MHz
			Connector	4 female HDMI Type A
			Number / Signal	2 inputs / HDMI Deep Color / DVI 1.0 (HDCP 1.4) TMD5 single link, TMD5 clock: 25 MHz to 225 MHz Dot clock: 25 MHz to 165 MHz * Video can be selected digital or analog audio.
			Connector	2 female 29-pin DVI-I
		Others	EDID emulation	
		Universal Analog	Number / Signal	2 inputs / Composite video, Y/C, Analog RGB/Analog YPbPr (auto-recognition) Composite video (VBS Signal): 1.0 V[p-p] / 75 Ω Y/C: 1.0 V[p-p](Y) / 0.286 V[p-p](C) / 75 Ω Analog RGB: 0.7 V[p-p](1.0 V[p-p] Sync on Green) 75 Ω HS/VS TTL level, CS TTL level, Sync on Green Analog YPbPr: 1.0 V[p-p](Y) / 0.7 V[p-p](Pb/Pr) / 75 Ω * Video can be selected digital or analog audio.
			Connector	2 female 29-pin DVI-I
			Others	EDID emulation
		Formats	HDMI / DVI	Dot clock 25 MHz to 165 MHz 480i / 480p / 576i / 576p / 720p / 1080i / 1080p / 4K VGA to QWXGA * WUXGA / QWXGA: Reduced Blanking
			Analog	Dot clock 25 MHz to 165 MHz NTSC/PAL 480i / 480p / 576i / 576p / 720p / 1080i / 1080p VGA to QWXGA * WUXGA / QWXGA: Reduced Blanking
	Audio	Digital	Number / Signal	9 inputs / Multi-channel linear PCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz Sample size: 16 bit to 24 bit Reference level:-20 dBFS Max. input level: 0 dBFS * Audio can be selected digital or analog audio.
			Connector	9 female HDMI Type A
		Analog	Number / Signal	9 inputs / Stereo LR balanced/unbalanced signal Input impedance: 24 kΩ Reference level: -10 dBu Max input level: +10 dBu * Audio can be selected digital or analog audio.
			Connector	9 terminal blocks 5-pin
Output	Video	Digital	Number / Signal	1 to 4 outputs / HDMI Deep Color / DVI 1.0 (HDCP 1.4 / 2.2) TMD5 single link
			Connector	1 to 4 female HDMI Type A
		Formats	Number / Signal	480i / 480p / 576i / 576p / 720p / 1080i / 1080p / 4K VGA / SVGA / XGA / WXGA (1280x768) / WXGA (1280x800) / Quad-VGA / SXGA / WXGA (1360x768) / WXGA (1366x768) / SXGA+ / WXGA+ / UXGA / WSXGA+ / VESA1080 / WUXGA / QWXGA / 4K * VESA1080 / WUXGA / QWXGA: Reduced Blanking
			Connector	1 to 4 female HDMI Type A
	Audio	Digital	Number / Signal	1 to 4 outputs / Multi-channel linear PCM up to 8 channels Sampling frequency: 32 kHz to 192 kHz Sample size: 16 bit to 24 bit Reference level: -20 dBFS Max. output level: 0 dBFS
			Connector	1 to 4 female HDMI Type A
		Analog	Number/ Signal	1 to 4 outputs / Stereo LR balanced/unbalanced signal Output impedance: 75 Ω Reference level: -10 dBu Max. output level: +10 dBu
			Connector	1 to 4 terminal blocks 5-pin
		Lip Sync	Number / Signal	Up to 16 frames
			Connector	Up to 16 frames
Maximum cable extension distance			Digital Input	** ft. to ** ft. approx. (** m to ** m)
			Digital output	** ft. to ** ft. approx. (** m to ** m)
Functions	Analog video processing unit			3D Y/C separation
	Scan Converter			Aspect ratio control, Seamless switching , Picture adjustment (brightness, contrast, display position, display size), I/P conversion
	External control			RS-232C, LAN, contact closure, CEC (controls power of display), PLink (class1)
	Others			Volume adjustment (volume of input and output ports can be set separately), Lip Sync, Audio breakaway enables independent audio and video switching, Cross-point memory (storage for 7 settings) , Preset memory (8 settings and startup settings), Last memory, Anti-snow, Connection Reset, External control commands (32 commands), Front panel security lockout
External control	Serial control port		Number / Signal	2 ports / RS-232C
			Connector	2 terminal blocks 3-pin
	LAN control port		Number/ Signal	1 port / 10Base-T (Auto Negotiation), 100Base-TX (Auto Negotiation), Auto MDI/MDI-X
			Connector	1 RJ-45
	Command outputs to external device		Number/ Signal	9 ports / Non-voltage contact input up to 24 VDC 500 mA
			Connector	9 terminal blocks 6-pin
	Power		Number / Signal	100 - 240 VAC ± 10%, 50 Hz / 60 Hz ± 3 Hz
	Power consumption		Number / Signal	About ** W
Others	Dimensions		Number / Signal	MSD-7201UHD/7202UHD 16.93(W) × 3.46(H) × 13.78(D)"/430(W) × 88 (H) × 350(D) mm (EIA 2U, not including projections) MSD-7203UHD/7204UHD 16.93(W) × 5.20(H) × 13.78(D)"/430(W) × 132(H) × 350(D) mm (EIA 3U, not including projections)
	Weight		Number / Signal	** lbs. approx. (** kg)
	Temperature		Number / Signal	Operating temperature: 32°F to 104°F (0°C to +40°C) Storage temperature: -4°F to +176°F (-20°C to +80°C)
	Humidity		Number / Signal	Operating/Storage humidity: 20% to 90%(Non Condensing)
			Number / Signal	
			Number / Signal	