



IMP-400UHD

The IDK IMP-400UHD is a 4K@60 and HDCP2.2 supported 4 x 1 HDMI switcher.

The IMP-400UHD has analog audio de-embedded function. This switcher also includes RS-232C and LAN ports as communication ports to enable you to set menus remotely. Contact inputs / tally outputs enable the IMP-400UHD to be controlled from the PC I/O board and a control box.

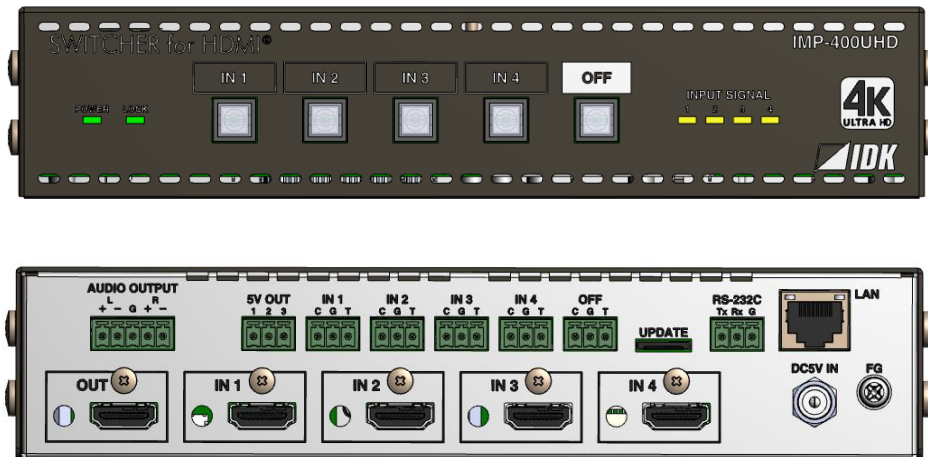
■Specification

Item			Description
Input	Video	HDMI / DVI	Number / Signal 4 inputs / HDMI Deep Color (*1) / DVI 1.0 (HDCP 1.4 / 2.2) - HDR (*2) - 3D (*3) - x.v.Color - TMDS single link - TMDS clocks: 25 MHz to 300 MHz - TMDS data rate: 0.75 Gbps to 18 Gbps
			Connector 4 19-pin HDMI Type A, female
		Others EDID emulation	
	Audio	Digital	Number / Signal 4 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
			Connector 4 19-pin HDMI Type A, female
			Format Dot clock 25 MHz to 600 MHz VGA to 4K 480i / 480p / 576i / 576p / 720p / 1080i / 1080p / 4K (up to 4K@60 (4:4:4))
Output	Video	HDMI / DVI	Number / Signal 1 output / HDMI Deep Color (*1) / DVI 1.0 (HDCP 1.4 / 2.2) - HDR (*2) - 3D (*3) - x.v.Color - TMDS single link - TMDS clocks: 25 MHz to 300 MHz - TMDS data rate: 0.75 Gbps to 18 Gbps
			Connector 1 19-pin HDMI Type A, female
		Format Dot clock 25 MHz to 600 MHz VGA to 4K 480i / 480p / 576i / 576p / 720p / 1080i / 1080p / 4K (up to 4K@60 (4:4:4))	
	Audio	Digital	Number / Signal 1 output / 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
			Connector 1 19-pin HDMI Type A, female
		Analog	Number / Signal 1 output / Stereo LR balanced/unbalanced signal - Balanced signal - Unbalanced signal Output impedance: 100 Ω Output impedance: 50 Ω Reference level: -4 dBu Reference level: -10 dBu Max. output level: +16 dBu Max. output level: +10 dBu
Connector 1 5-pin terminal blocks			
Maximum cable distance			Digital Input 1080p@60: 98.4 ft. (30 m) 4K@60: 39.4 ft. (12 m) (*5) Digital output 1080p@60: 98.4 ft. (30 m) 4K@60: 39.4 ft. (12 m) (*5)
Plug & Play			DDC2B (can be selected from Built-in EDID, Copied EDID, and EDID of connected monitor) Note: For Built-in EDID, the maximum resolution can be selected
Functions			Automatic input detection and switching DDC buffer Audio D/A conversion Last memory Anti-Snow (*6) Connection Reset (*7) Operation lock
External control	Serial control port	Number / Signal 1 port / RS-232C	
		Connector 1 3-pin terminal block	
	LAN control port	Number / Signal 1 port / 10Base-T (Auto Negotiation), 100Base-TX (Auto Negotiation), Auto MDI/MDI-X	
		Connector 1 RJ-45	
	Contact input port / Tally output port	Number / Signal 5 ports	
		Connector 5 3-pin terminal blocks Contact input: Non-voltage contact (make contact) input or voltage contact output (0 V to +5 V ± 5%) Tally output: Open collector output (Rated DC 48 V 1 A)	
Power output	1 3-pin terminal block Pin1: DC 5 V (300 Ω current limitation) Pin 2: DC 5 V (75 Ω current limitation) Pin 3: DC 5 V (Rated 500 mA)		
General	Power supply	Input: 100 - 240 VAC ± 10%, 50 Hz / 60 Hz ± 3 Hz Output: 5VDC 3A 15 Watts (AC adapter is provided)	
	Power consumption	About 7 Watts	
	Dimensions	8.27" (W) x 1.73" (H) x 5.51" (D) (210 mm x 44 mm x 140 mm) EIA half rack 1U size (projections are not included)	
	Weight	2.4 lbs. (1.1 kg)	
	Temperature	Operating: 32°F to 104°F (0°C to +40°C) Storage: -4°F to +176°F (-20°C to +80°C)	
	Humidity	Operating/Storage: 20% to 90% (Non Condensing)	

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- *1 ARC and HEC are not supported. CEC: Pass through between selected input and output.
- *2 HDR is supported if external EDID is selected while an HDR-supported sink device is connected for EDID setting or if copied EDID of an HDR-supported sink device is selected for EDID setting.
- *3 3D is supported if external EDID is selected while a 3D-supported sink device is connected for EDID setting or if copied EDID of 3D-supported sink device is selected for EDID setting.
- *4 4K format: the following color depths are supported.
 - 24 Hz / 25 Hz / 30 Hz: 24 bit, 30 bit, 36 bit (RGB, YCbCr 4:4:4, YCbCr 4:2:2)
 - 50 Hz / 59.94 Hz / 60 Hz: 24 bit, 30 bit, 36 bit (YCbCr 4:2:2, YCbCr 4:2:0)
 - 24 bit (RGB, YCbCr 4:4:4)
- *5 The distance mentioned above is the maximum extension range acquired under the following environments:
 - 1080p@60: IDK's AWG24 cable was used and signals of 1080p@60 24 bit / pixel (8 bit / component) was input or output.
 - 4K@60:18 Gbps hi-speed transmission cable was used and signals of 4K@60 24 bit / pixel (8 bit / component) was input or output.
 The maximum distance depends on connected devices. If IDK's cable is not used, video may be interrupted or may not be output even within the mentioned range.
- *6 The anti-snow feature automatically fixes snow noise that is a specific symptom of HDCP-compliant signal and mainly occurs at start-up. This feature does not work when snow noise has already occurred during startup or when it occurs due to a bad condition of the transmission line.
- *7 For digital systems, some problems, such as an HDCP authentication error, can often be recovered by physically disconnecting and reconnecting the digital cables. However, the Connection Reset feature will fix these problems automatically without the need to physically plug and unplug the cables. It creates the same condition as if the cable were physically disconnected and reconnected. This feature only works for the IMP-400UHD's output. If other devices are connected between the IMP-400UHD's output and sink device, this feature may be invalid.

■ Front & Rear Panel

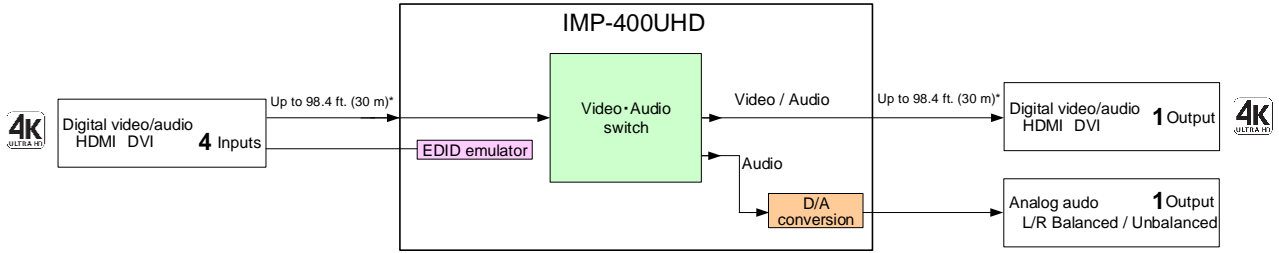


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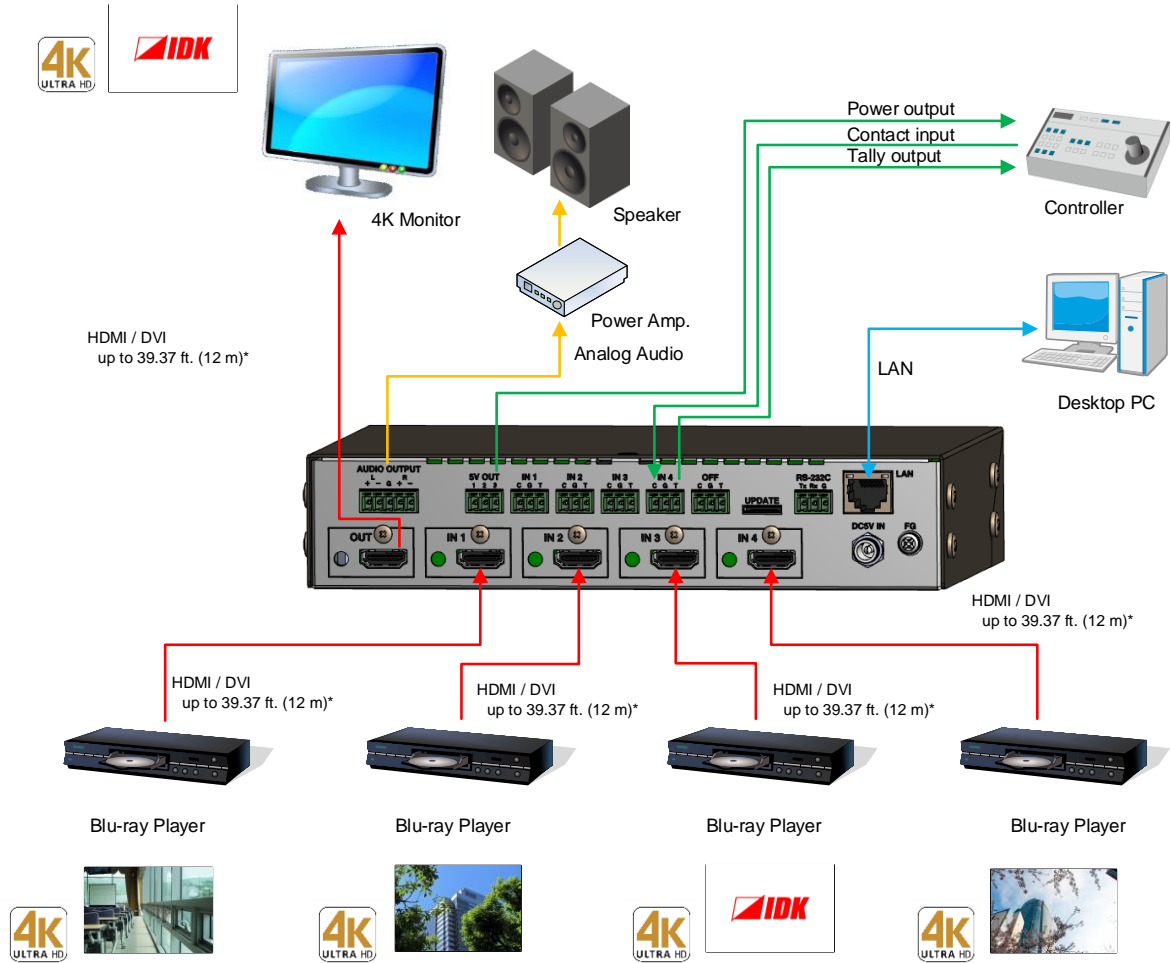
4K@60 and HDCP 2.2 supported 4 x 1 HDMI Switcher IMP-400UHD Diagram and Features

■ Diagram



*Maximum cable distance
 1080p@60: up to 98.4 ft. (30 m)
 4K@60: up to 39.4 ft. (12 m) when 18 Gbps high-speed transmission cable is used.

■ Application Example



*Maximum cable distance
 1080p@60: up to 98.4 ft. (30 m)
 4K@60: up to 39.4 ft. (12 m) when 18 Gbps high-speed transmission cable is used.

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■ Features**Video**

- Up to 4K@60 (4:4:4)
- HDCP 1.4 / 2.2
- HDR / 3D / x.v.Color
- Maximum cable distance
 - 1080p@60: up to 98.4 ft. (30 m)
 - 4K@60: up to 39.4 ft. (12 m) (18 Gbps high-speed transmission cable is used)
- Anti-Snow

Audio

- Analog audio de-embedded

Control input

- RS-232C
- LAN
- Contact input

Others

- EDID emulation
- DDC buffer
- Automatic input detection and switching
- Last memory
- Connection Reset
- Operation lock
- Locking mechanism for AC adapter