

## HDMI Switcher

# IMP-S21U/S41U

The IMP-S series is an HDCP 2.2-compliant 4K@60 HDMI switcher with two (2) inputs/four (4) inputs and one (1) output. Digital audio of selected input channel can be de-embedded to analog audio.

The switcher also includes RS-232C and LAN as communication ports that offer remote setting from WEB browser or control commands. Additionally, contact inputs/tally outputs enable the IMP-S series to be controlled from the PC I/O board and a control box.

### ■ Specification

		IMP-S21U	IMP-S41U
Video/Audio input	HDMI	2 inputs HDMI/DVI 1.0 TMDS single link, HDCP 1.4/2.2 TMDS clock: Up to 300 MHz, TMDS data rate: Up to 18 Gbps Deep color/x.v.Color/3D/HDR/HEC <sup>1</sup> 640x480@60 to 2560x1600@60 Reduced Blanking 480i, 576i to 3840x2160@24/25/30/50/59.94/60 (4:4:4), 3840x2160@50/59.94/60 (4:2:0), 4096x2160@24/25/30/50/59.94/60 (4:4:4), 4096x2160@50/59.94/60 (4:2:0) Color depth: 24/30/36 bits *For all supported video signals, see the table below. LPCM: Up to 8 channels Sampling frequency: 32/44.1/48/88.2/96/176.4/192 kHz Reference level: -20 dBFS, Max. input level: 0 dBFS CEC Connector: HDMI Type A (19-pin) Maximum distances: 98 ft. (30 m) (1080p@60), 39 ft. (12 m) (4K@60) <sup>2</sup>	4 inputs
	Video/Audio output	HDMI	1 output HDMI/DVI 1.0 TMDS single link, HDCP 1.4/2.2 TMDS clock: Up to 300 MHz, TMDS data rate: Up to 18 Gbps Deep color/x.v.Color/3D/HDR/HEC <sup>1</sup> 640x480@60 to 2560x1600@60 Reduced Blanking 480i, 576i to 3840x2160@24/25/30/50/59.94/60 (4:4:4), 3840x2160@50/59.94/60 (4:2:0), 4096x2160@24/25/30/50/59.94/60 (4:4:4), 4096x2160@50/59.94/60 (4:2:0) Color depth: 24/30/36 bits *For all supported video signals, see the table below. LPCM: Up to 8 channels Sampling frequency: 32/44.1/48/88.2/96/176.4/192 kHz Reference level: -20 dBFS, Max. output level: 0 dBFS CEC Connector: HDMI Type A (19-pin) Maximum distances: 98 ft. (30 m) (1080p@60), 39 ft. (12 m) (4K@60) <sup>2</sup>
	Analog audio	1 output Stereo LR Output impedance: 100 Ω balanced/50 Ω unbalanced Reference level: -4 dBu balanced/-10 dBu unbalanced Max. output level: +16 dBu balanced/+10 dBu unbalanced Connector: Captive screw (5-pin)	
Control I/F	RS-232C	1 port/Connector: Captive screw (3-pin)	
	LAN	1 port/10Base-T/100Base-TX (Auto Negotiation), Auto MDI/MDI-X, Connector: RJ-45	
	Contact input/ Tally output	3 ports Contact input: Non-voltage contact (make contact) input or voltage contact output (DC 0 V to 5 V ±5%) Tally output: Open collector output (Rated DC 48 V 1 A) Connector: Captive screw (3-pin) LED power for Tally (Rated DC 5 V 0.5 A) connector: Captive screw (3-pin)	5 ports
Functions	Audio	De-embedding	
	Control	WEB browser, CEC through (Connector: HDMI)	
	Others	Automatic input switching, Input channel sequence switching, Last memory, Anti-Snow, Connection Reset <sup>3</sup> , Button security lockout	
General	Power	DC 5 V 0.9 A AC adapter: AC 100 V - 240 V ±10%, 50 Hz/60 Hz ±3 Hz, DC 5 V 3 A 15.0 W	DC 5 V 1.1 A
	Power consumption	6 W	7 W
	Dimensions	8.3 (W) × 1.7 (H) × 5.5 (D)" (210 (W) × 42 (H) × 140 (D) mm) (Excluding connectors and the like)	
	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	20% to 90% (Non Condensing)	

<sup>1</sup> ARC/HEC are not supported.

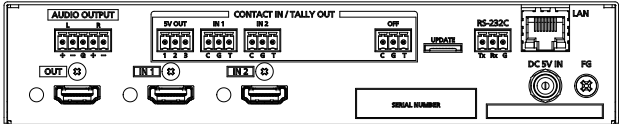
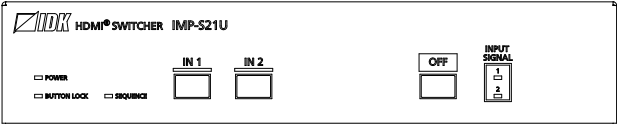
<sup>2</sup> The maximum specified distances may not be achievable with some device combinations, cabling method, or other manufacturer's cable. For the same reasons, video signal disturbances or interruptions may occur, even if signals are within the specified distance (cable length) parameters. The maximum cable length varies depending on the connected devices. The specifications have been qualified under following conditions:

- HDMI (1080p@60) : When IDK's 24 AWG cable was used and signals of 1080p@60 24 bits was transmitted.
- HDMI (4K@60) : When IDK's 18 Gbps supported cable was used and signals of 3840x2160@60 24 bits was transmitted.

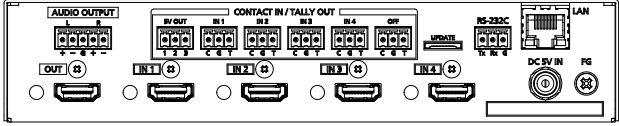
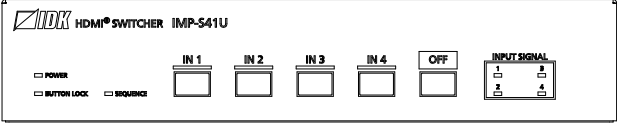
<sup>3</sup> For digital systems, some problems, such as an HDCP authentication error, can often be recovered by physically disconnecting and reconnecting the digital cables. However, the Connection Reset feature will correct these problems automatically without the need to physically plug and unplug the cables. It creates the same condition as if the cable were physically disconnected and reconnected. This feature only works for the IMP-S's output. Connecting other devices between the IMP-S's outputs and sink devices, may interfere with the operation of this feature.

■ Front & Rear Panels

IMP-S21U



IMP-S41U



●All specifications and drawings are subject to change without notice. ●HDBase™ and the HDBaseT Alliance Logo are trademarks of the HDBaseT Alliance. ●The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc. in the United States and other countries. ●SDVoE™ and SDVoE logo are trademarks of SDVoE Alliance. ●All other company and product names mentioned in this document are either registered trademarks or trademarks of their respective owners. In this document, the “®” or “™” marks may not be specified. ●©2022 IDK Corporation, all rights reserved.

## HDMI Switcher

## IMP-S21U/S41U supported video signals

Signal	Resolution	Frame Rate [Hz]	Pixel Clock [MHz]	Color Depth [bits]	INPUT	OUTPUT
					HDMI	HDMI
640x480@60	640x480	59.94	25.18	24/30/36	○	○
800x600@60	800x600	60.32	40.00	24/30/36	○	○
1024x768@60	1024x768	60.00	65.00	24/30/36	○	○
1280x768@60	1280x768	59.87	79.50	24/30/36	○	○
1280x800@60	1280x800	59.81	83.50	24/30/36	○	○
1280x960@60	1280x960	60.00	108.00	24/30/36	○	○
1280x1024@60	1280x1024	60.02	108.00	24/30/36	○	○
1360x768@60	1360x768	60.02	85.50	24/30/36	○	○
1366x768@60	1366x768	59.79	85.50	24/30/36	○	○
1400x1050@60	1400x1050	59.98	121.75	24/30/36	○	○
1440x900@60	1440x900	59.89	106.50	24/30/36	○	○
1600x900@60	1600x900	59.95	118.25	24/30/36	○	○
1600x1200@60	1600x1200	60.00	162.00	24/30/36	○	○
1680x1050@60	1680x1050	59.95	146.25	24/30/36	○	○
1920x1080@60 RB	1920x1080	59.93	138.50	24/30/36	○	○
1920x1200@60 RB	1920x1200	59.95	154.00	24/30/36	○	○
2048x1152@60 RB	2048x1152	60.00	162.00	24/30/36	○	○
2560x1440@60 RB	2560x1440	59.95	241.50	24/30/36	○	○
2560x1600@60 RB	2560x1600	59.97	268.50	24/30/36	○	○
480i	720x480	59.94	27.00	24/30/36	○	○
480p	720x480	59.94	27.00	24/30/36	○	○
576i	720x576	50.00	27.00	24/30/36	○	○
576p	720x576	50.00	27.00	24/30/36	○	○
720p@50	1280x720	50.00	74.25	24/30/36	○	○
720p@59.94	1280x720	59.94	74.18	24/30/36	○	○
720p@60	1280x720	60.00	74.25	24/30/36	○	○
1080i@50	1920x1080	25.00	74.25	24/30/36	○	○
1080i@59.94	1920x1080	29.97	74.18	24/30/36	○	○
1080i@60	1920x1080	30.00	74.25	24/30/36	○	○
1080p@50	1920x1080	50.00	148.50	24/30/36	○	○
1080p@59.94	1920x1080	59.94	148.35	24/30/36	○	○
1080p@60	1920x1080	60.00	148.50	24/30/36	○	○
3840x2160@23.98	3840x2160	23.98	296.70	24/30/36	○	○
3840x2160@24	3840x2160	24.00	297.00	24/30/36	○	○
3840x2160@25	3840x2160	25.00	297.00	24/30/36	○	○
3840x2160@29.97	3840x2160	29.97	296.70	24/30/36	○	○
3840x2160@30	3840x2160	30.00	297.00	24/30/36	○	○
3840x2160@50	3840x2160	50.00	594.00	24/30/36*	○	○
3840x2160@59.94	3840x2160	59.94	593.40	24/30/36*	○	○
3840x2160@60	3840x2160	60.00	594.00	24/30/36*	○	○
4096x2160@23.98	4096x2160	23.98	296.70	24/30/36	○	○
4096x2160@24	4096x2160	24.00	297.00	24/30/36	○	○
4096x2160@25	4096x2160	25.00	297.00	24/30/36	○	○
4096x2160@29.97	4096x2160	29.97	296.70	24/30/36	○	○
4096x2160@30	4096x2160	30.00	297.00	24/30/36	○	○
4096x2160@50	4096x2160	50.00	594.00	24/30/36*	○	○
4096x2160@59.94	4096x2160	59.94	593.41	24/30/36*	○	○
4096x2160@60	4096x2160	60.00	594.00	24/30/36*	○	○

RB: Reduced Blanking

\*For RGB/YCbCr 4:4:4, only 24 bit is supported.

For best results, please confirm that the source device(s) video output can be configured to match the listed formats above. For questions regarding other input video signals, please contact your IDK representative.