Matrox® **ConvertIP**™ **DSH**

Dual-channel SFP HDMI-to-IP transmitter/receiver

Matrox ConvertIP DSH is a compact, standalone ST 2110 and IPMX transmitter/receiver device. Featuring HDMI I/O, one RJ45, and two SFP28 ports on a single device, ConvertIP DSH is designed for compressed or uncompressed workflows up to 25G and is optimal for an ultra-low latency experience. The device can deliver power over Ethernet through its RJ45 connection, or it can be powered through an optional power supply unit. Both can be used simultaneously to deliver power redundancy.



Technical specifications

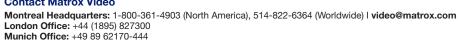
Produc	ot .	
	Part Number	CIP-DSH2
	Form Factor	Standalone appliance Rack-mountable: 1U, 1/2 rack (horizontal)
Connec	ctivity	
	Video Input	1x HDMI
	Video Outputs	1x HDMI (zero latency pass-through in Tx mode)
	Audio Input/Output	Up to 8 channels of audio embedded in HDMI signal Unbalanced analog stereo input via 1/8" (3.5mm) jack Line Level
	Network Connector	2x SFP28 cages for ST 2110 media and In-band control on LAN 1 and LAN 2 10 GbE IEEE 802.3ae (10GBASE-SR/LR) 25 GbE IEEE 802.3by (25GBASE-SR/CR/CR-S) 25 GbE IEEE 802.3cc (25GBASE-LR) LAN2 for redundancy mode only Dedicated RJ-45 management network interface for control (10/100 Mbps)
	RS-232	Yes ¹
	Control and Management	Web browser-based UI, standalone utility
Perforn	mance	
	Maximum Video Resolutions	4096 x 2160 60p *All standard desktop GPU resolutions supported
	Bit Depth and Color Space	YCbCr 4:2:0 10-bit² and 8-bit³ YCbCr 4:2:2 10-bit RGB 4:4:4 8-bit SDR/HDR⁴
Video a	and Audio Processing	
	Video Scaling	High Quality multi-tap 10-bit Up/Down Scaler
	Video Deinterlacing	Yes
	Color Space Conversion	Yes
	HDCP Support⁵	Yes
Encodi	ing formats	
	Video ⁷	Uncompressed: • HD 3 Gbps and 4K 12 Gbps Default compressed bitrates: 200 Mbps for HD content, 820 Mbps for 4K content • Colibri codec included. 4:2:2 10-bit YUV and 4:4:4 8-bit RGB, 100 to 2000 Mbps • JPEG-XS codec up
	Audio	Uncompressed PCM (~1 Mbps/ch)
	Latency	Less than a 1/4 frame (<4 ms)
Networ	rk	
	IP Addressing	IPv4 IPv6 ⁹ DHCP (default) and static IP
	Supported Protocols	SMPTE ST 2110 (-10, -20, -21, -22, -30, -31, and -40) SMPTE ST 2059-2 SMPTE ST 2022-7
	Redundancy	Yes (ST 2022-7)
	Command and Control	HTTPS over TCP
	Discovery, Registration and Control	NMOS discovery and control according to standards IS-04 v1.3 and IS-05 v1.1
	PoE+	Yes (IEEE 802.3at Type 2)



Physical				
Pro	oduct Dimensions	7.13 (D) x 7.53 (W) x 1.42 (H) inches 181 (D) x 191 (W) x 36 (H) mm		
Un	nit Weight	1.66 lbs / 755 g		
Co	poling	Fanless		
Po	ower	Device: Input: 12 volts, max 18 Watts PoE+ Optional PSU (sold separately) Line Voltage: 100-240 V a.c., 0.5A Frequency: 50-60 Hz Input: IEC320-C14 Output: DIN4 locking power connector		
Hardware and Software				
Ha	ardware Included	ConvertIP DSH appliance		
Op	otional Hardware	ConductIP NMOS-based routing solution (Part #: CDCTIP-MRA)		
Ac	ccessories (sold separately)	ConvertIP power supply unit (Part #: EPS40WKIT-NA, EPS40WKIT-EU, EPS40WKIT-UK, EPS40WKIT-AU, EPS40W-10PK)® Rackmount kit [®] (Part #: RMK-19TR-A) Angled Dracket kit (Part #: RMK-6BRKT-A) Secure cable solution for HDMI (Part #: SK-SLND-4) NRG redundant power supply unit (Part #: NRG-5-1DB or NRG-5-2DB)		
So	oftware	Matrox ConvertIP Command Center (Web UI) Matrox ConvertIP Manager (Microsoft® Windows® 10)		
Op	otional software	JPEG-XS codec license		
Environmental				
Ор	perating Conditions	Temperature: 0 to 45 degrees Celsius Altitude: 650 hPa (3,580 m) to 1,013 hPa (0 m) Humidity: 20% to 80% non-condensing		
Sto	orage Conditions	Temperature: -40 to 70 degrees Celsius Altitude: 192 hPa (12,000 m) to 1,020 hPa (-50 m) Humidity: 5% to 95% non-condensing		
General				
EM	MC/EMI Device Class	Class A		
EN	/IC/EMI Compliance	CE (EU) FCC (USA) ICES-003 (Canada) KC (Korea) RCM (Aus/NZ)		
En	vironmental Compliance	China RoHS EU RoHS REACH		
Wa	arranty	Three-year limited warranty with free online or telephone support		

^{1. 2. 3. 4. 5. 6.} Available in a future software update.







^{7.} Bitrates will vary according to resolution.
8. Part # EPS40W-10PK does not include IEC-C14 power cord. These cables must be sourced locally.
9. Can fit up to two ConvertIP units in a 1RU space.

^{10.} For more information, contact your Matrox Video representative.