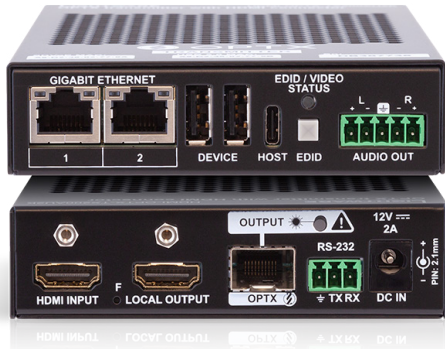


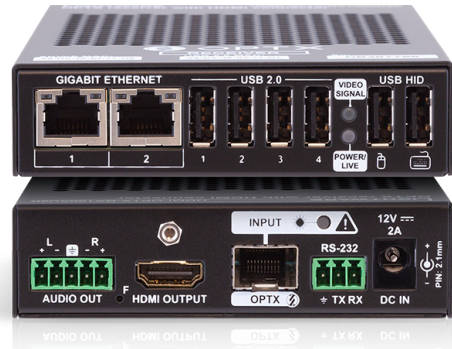


SDVoE compatible HDMI 2.0 over fiber optical link transmitter and receiver

The HDMI-OPTX-TX200AU2K and HDMI-OPTX-RX100AU2K transmitter and receiver devices are fiber extenders based on SDVoE technology and allow users to extend HDMI 2.0 compliant video, audio and control signals from a single source to a single destination through a fiber optical link. Moreover, these USB2.0 capable extenders also allow transparent and composite USB2.0 transmission in the opposite direction.



HDMI-OPTX-TX200AU2K



HDMI-OPTX-RX100AU2K

Details

The **HDMI-OPTX-TX200AU2K** and **HDMI-OPTX-RX100AU2K** transmitter and receiver devices are fiber extenders based on **SDVoE technology** and allow users to extend **HDMI 2.0 compliant** video, audio and control signals from a single source to a single destination through a fiber optical link. Moreover, these **USB2.0 capable** extenders also allow transparent and composite USB2.0 transmission in the opposite direction.

Beyond the benefits of sending **high-resolution video** and **USB2.0** data to a **distance of up to 10km via fiber**, the extenders are also able to handle various connectivity standards, including a 1G user Ethernet channel over the 10G link, as well as command injection into **RS-232**.

The Gigabit Ethernet ports are also valuable additions, allowing users to connect Ethernet capable devices to the network directly through the OPTX extenders. This is particularly useful for controlling external devices like projectors and displays.

The **HDCP 2.3** and basic **EDID management** functionality are also among the features offered by these devices, such as their connectivity and easy integration into a wide range of AV operations and with 3rd party devices, such as the Christie Terra projector.

Composite **USB2.0 transmission** adds the ability to connect remote **USB-HID devices** to a host computer through an extender pair. Transparent USB2.0, on the other hand, provides support for various types of USB2.0 devices like webcams, microphones, touch displays just to name a few.



Features

- Transmission distance of up to 10km (when SM SFP+ module is used)
- Allows for the transmission of HDMI 2.0, embedded audio, Ethernet, RS-232 and USB2.0 between an extender pair through single mode or multimode fiber
- SFP+ cage for single mode or multimode SFP+ modules
- Transparent USB transmission mode (for various USB2.0 devices including cameras, microphones, and touch screens) and composite USB transmission mode (for USB-HID devices)
- Supports HDMI 4K signal formats (4K UHD @60Hz RGB 4:4:4, up to 18 Gbps)
- HDR and Low Latency Dolby Vision support
- HDCP 2.3 compliant
- Compatible with third-party SDVoE devices and controllers
- Command injection on RS-232 ports
- Ethernet extension (1 Gbps)

HDMI-OPTX-TX200AU2K Specifications

General	Compliance	UL, CE
	Electrical safety	IEC/EN/UL/CSA 62368-1:2014, Class II
	EMC (emission)	IEC/EN 55032:2015
	EMC (immunity)	IEC/EN 55035:2017
	RoHS	EN 63000:2018
	Warranty	3 years
	Operating temperature	0° to +50°C (+32° to +122°F)
	Storage temperature	-30° to +80 °C (-22° to +176 °F)
	Operating humidity	10% to 90%, non-condensing
	Cooling	passive
Power	Power supply option	Power adaptor
	Supported power source	
	Power consumption (max)	TBD
	Power consumption (min)	
	Heat dissipation	TBD BTU/h (max)
	AC power connector	
	AC fuse	
	Power over Ethernet (PoE)	
	Power adaptor	
	Supported power source	100-240 V AC; 50/60 Hz
	Supplied power	12V DC, 2A
	AC power plug	Interchangable (EU, UK, JP/US, AUS/NZ)
	DC power plug	Locking DC connector (2.1/5.5 mm pin)



HDMI-OPTX-TX200AU2K Specifications

Enclosure	Rack mountable	No
	Enclosure material	1 mm steel
	Dimensions in mm	100.4 W x 151.8 D x 26 H
	Dimensions in inch	3.95 W x 5.98 D x 1.02 H
	Weight	TBD kg
	* with rack mounting ears	
Video inputs	HDMI input	
	Connector type	19-pole HDMI Type A receptacle
	A/V standard	DVI 1.0, HDMI 1.4, HDMI 2.0
	HDCP compliance	HDCP 2.3
	Color space	RGB, YCbCr
	Video delay	0 frame
	Supported resolutions at 8 bits/color *	up to 4096x2048@60Hz (4:4:4)
		up to 3840x2160@60Hz (4:4:4)
		4096x2048@60Hz (4:2:2) up to 10 bits/color
	Reclocking	Pixel Accurate Reclocking
	3D support	yes
	Audio formats	All HDMI 2.0 formats including multi-channel PCM, Dolby True-HD and DTS-HD master audio
Input cable equalization		
* The horizontal resolution for signals above the bandwidth limit of HDMI 1.4 cannot exceed 4096 pixels.		
EDID management	EDID emulation	yes, default EDID and 1 locally stored EDID
	EDID memory	1 stored EDID
	Supported standard	EDID v1.3
SFP+ Port Slots	Number of ports	1
	Supported data rate	10Gbps
Video Outputs	HDMI output	
	Connector type	19-pole HDMI Type A receptacle
	A/V standard	DVI 1.0, HDMI 1.4, HDMI 2.0
	HDCP compliance	HDCP 2.3
	Color space	RGB, YCbCr
	Supported resolutions at 8 bits/color *	up to 4096x2048@60Hz (4:4:4)
		up to 3840x2160@60Hz (4:4:4)
		4096x2048@60Hz (4:2:2) up to 10 bits/color
Audio formats	All HDMI 2.0 formats including multi-channel PCM, Dolby True-HD and DTS-HD master audio	
* All standard VESA and CEA resolutions up to 600MHz (HDMI2.0) and other custom resolutions up to 600Mhz are supported.		



HDMI-OPTX-TX200AU2K Specifications

OPTX output	Connector type	SFP+ cage
	Power over Ethernet (PoE)	
	Compliance	SDVoE
	HDCP compliance	HDCP2.3
	Transferred signals	Video, Audio, RS-232, Infrared, Ethernet
	Color space	RGB, YCbCr
	Video delay	0 frame
	Supported resolutions at 8 bits/color *	up to 4096x2048@60Hz (4:4:4)
		up to 3840x2160@60Hz (4:4:4)
		4096x2048@60Hz (4:2:2) up to 10 bits/color
Audio formats	All HDMI 2.0 formats including multi-channel PCM, Dolby True-HD and DTS-HD master audio	
* The horizontal resolution for signals above the bandwidth limit of HDMI 1.4 cannot exceed 4096 pixels.		
Analog audio output	Connector type	5-pole Phoenix connector
	Audio formats	2-ch PCM
	Sampling frequency	48 kHz
	Volume	-78 dB - 0 dB
	Balance	0 - 100 (50 = center)
	Nominal Differential Output Level @ 0 dB Gain	+4 dBu
	Nominal Differential Output Level @ 3 dB Gain	+7 dBu
USB port	Connector type	2x USB-A female (device)
	USB compliance	USB2.0
	Device class	all
	Powering	Max 1.45A@5V (total)
	USB port	
	Connector type	1x USB-C female (host)
	USB compliance	USB2.0
	Device class	n.a.
	Powering	n.a.



HDMI-OPTX-TX200AU2K Specifications

Control Ports	RS-232 serial port	
	Connector type	3-pole Phoenix connector
	Baud rates	Between 4800 and 115200 Baud
	Data bits	8 or 9
	Parity	None / Odd / Even
	Stop bits	1 / 1.5 / 2
	Ethernet port	
	Connector type	2x RJ45 female connector
	Ethernet data rate	10/100/1000Base-T, full duplex with autodetect
	Power over Ethernet (PoE)	No

HDMI-OPTX-RX100AU2K Specifications

General	Compliance	UL, CE
	Electrical safety	IEC/EN/UL/CSA 62368-1:2014, Class II
	EMC (emission)	IEC/EN 55032:2015
	EMC (immunity)	IEC/EN 55035:2017
	RoHS	EN 63000:2018
	Warranty	3 years
	Operating temperature	0° to +50°C (+32° to +122°F)
	Storage temperature	-30° to +80 °C (-22° to +176 °F)
	Operating humidity	10% to 90%, non-condensing
	Cooling	passive
Power	Power supply option	Power adaptor
	Supported power source	
	Power consumption (max)	TBD
	Power consumption (min)	
	Heat dissipation	TBD
	AC power connector	
	AC fuse	
	Power over Ethernet (PoE)	
	Power adaptor	
	Supported power source	100-240 V AC; 50/60 Hz
	Supplied power	12V DC, 2A
	AC power plug	Interchangable (EU, UK, JP/US, AUS/NZ)
DC power plug	Locking DC connector (2.1/5.5 mm pin)	



HDMI-OPTX-RX100AU2K Specifications

Enclosure	Rack mountable	No
	Enclosure material	1 mm steel
	Dimensions in mm	100.4 W x 151.8 D x 26 H
	Dimensions in inch	3.95 W x 5.98 D x 1.02 H
	Weight	TBD kg
	* with rack mounting ears	
OPTX input	Connector type	SFP+ cage
	Power over Ethernet (PoE)	
	Compliance	SDVoE
	HDCP compliance	HDCP2.3
	Transferred signals	Video, Audio, RS-232, Ethernet
	Color space	RGB, YCbCr
	Video delay	0 frame
	Supported resolutions at 8 bits/color *	up to 4096x2048@60Hz (4:4:4)
		up to 3840x2160@60Hz (4:4:4)
		4096x2048@60Hz (4:2:2) up to 10 bits/color
Audio formats	All HDMI 2.0 formats including multi-channel PCM, Dolby True-HD and DTS-HD master audio	
* The horizontal resolution for signals above the bandwidth limit of HDMI 1.4 cannot exceed 4096 pixels.		
SFP+ Port Slots	Number of ports	1
	Supported data rate	10Gbps
	Accepted interfaces	
Video Outputs	HDMI output	
	Connector type	19-pole HDMI Type A receptacle
	A/V standard	DVI 1.0, HDMI 1.4, HDMI 2.0
	HDCP compliance	HDCP 2.3
	Color space	RGB, YCbCr
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HDMI-OPTX-RX100AU2K Specifications

Analog audio output	Connector type	5-pole Phoenix connector
	Audio formats	2-ch PCM
	Sampling frequency	48 kHz
	Volume	-78 dB - 0 dB
	Balance	0 - 100 (50 = center)
	Nominal Differential Output Level @ 0 dB Gain	+4 dBu
	Nominal Differential Output Level @ 3 dB Gain	+7 dBu
USB port	Connector type	2x USB-A female (device, composite mode)
	USB compliance	USB2.0
	Device class	HID
	Powering	Max 0.325A@5V (total)
	USB port	
	Connector type	4x USB-A female (device, transparent mode)
	USB compliance	USB2.0
	Device class	Audio, Video, Mass Storage, HID, HUB, Smart Card, Vendor specific
Powering	Max 1.08A@5V (per port), Max 1.75A@5V (total)	
Control Ports	RS-232 serial port	
	Connector type	3-pole Phoenix connector
	Baud rates	Between 4800 and 115200 Baud
	Data bits	8 or 9
	Parity	None / Odd / Even
	Stop bits	1 / 1.5 / 2
	Ethernet port	
	Connector type	RJ45 female connector (2)
	Ethernet data rate	10/100/1000Base-T, full duplex with autodetect
	Power over Ethernet (PoE)	No