



Features

- Supports resolutions to 4K/UHD 3840x2160/30Hz
- HDMI units extend HDMI 1.4b and supports HEAC (HDMI / Ethernet / Audio Return Channel / Control)
- Supports remote KVM with USB-HID (for keyboard / mouse)
- Supports uni-directional Stereo Analog Audio
- Supports the extension of HDMI, Audio, USB and 10/100 Ethernet up to 100 meters on a single fiber cable
- Compatible with Genesis XD matrix switches for point-to-multipoint applications

Applications

- Digital Signage / Remote Kiosks
- Command & Control
- Live Events
- Video Conferencing
- Houses of Worship
- Auditoriums
- KVM Extension

4K UHD Multimedia Transport

EMCORE's Optiva OTP-1HDMI2A-USB-ETH provides multimedia extension of 4K video along with audio, Ethernet and USB for keyboard and mouse. Optiva OTP-1HDMI2A-USB-ETH transmitters and receivers can be used for simple point-to-point connectivity over a single fiber cable or for point-to-multipoint systems by connecting them to our Genesis XD matrix switches utilizing the compatible fiber modules. The Genesis XD is an all in one converting, switching, and routing platform for small, medium and large distribution systems.

The Optiva OTP-1HDMI2A-USB-ETH is a single slot fiber extender that supports HDMI 1.4b (Audio Return Channel [ARC] is supported). It also supports stereo analog audio, 10/100 Ethernet and USB for keyboard and mouse control. A single fiber cable extends these signals up to 100 meters away.

Our innovative Optiva video, audio and data media transport system was designed to maintain lossless fiber extension between input and output signals. The Optiva OTP-1HDMI2A-USB-ETH includes built-in emulation for HID at both transmitter and receiver sides. USB-HID emulation allows seamless and continued operation without the need for rebooting the system when human interface devices are continually connected and unconnected.

The Optiva line of products also includes insert cards for up to 16 channels of multiplexing /demultiplexing, 16x16 matrix switching, optical add/drop, as well as remote system monitoring.

System Design

Optiva insert cards support both 19" **optiva** PLATFORM rackmount and compact tabletop or wall-mountable enclosures. The 3RU 19" rackmount enclosures (Models: OT-CC-16 & OT-CC-16F) can support up to 16 insert cards as well as dual-redundant, hot-swappable power supplies utilizing two 100 watt or two 200 watt power supplies. Also available in the rackmount form factor is our 1RU enclosure (Model: OT-CC-6-1U) which can accommodate six insert cards and utilizes two 60 watt power supplies. For desktop or wall mounting applications there are one-slot (Model: OT-DTCR-1) and two-slot (Model: OT-DTCR-2) enclosures. Both use an external wall mount power supply.

OTP-1HDMI2A-USB-ETH

4K UHD Multimedia Transport over Fiber



DATASHEET

FIBER OPTICS

Models

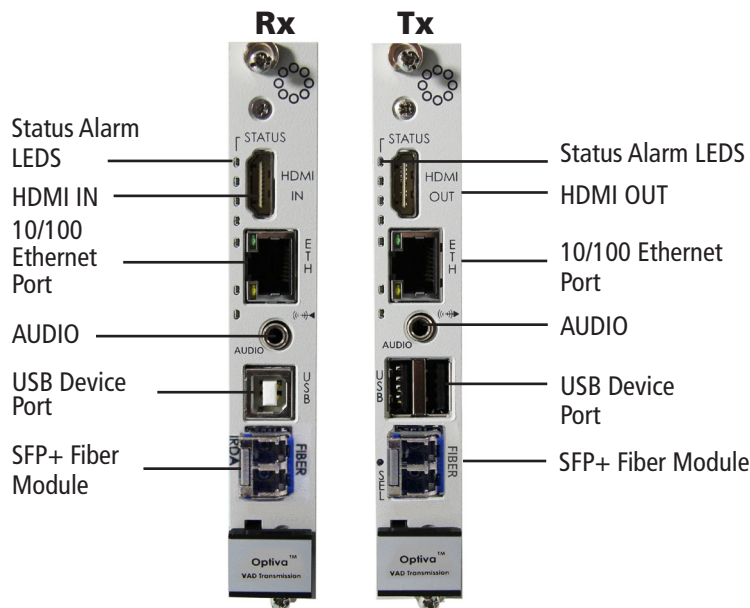
Transmitter	Receiver
OTP-1HDMIT2AT-USB-ETH-XX/XX-LC	OTP-1HDMIR2AR-USB-ETH-XX/XX-LC

Duplex Optical Specifications: 10.3 Gbps / 2K4K / UHD

Optical Code "XX/XX"	Fiber Type / Number	Wavelength (nm)	Min. Output Power (dBm)	Rx Sensitivity (dBm)	Optical Budget (db)	Distance (km)	Connector
F0/F0	MM/2	850	-7.3	-11.1	4	0.3	LC (Dual)
F2/F2	SM/2	1310	-8.2	-12.5	4	10	LC (Dual)
L4x6/L4x6*	SM/1	1270 & 1330 (CWDM)	-7.2	-13.6	6.4	10	LC (Dual)

- 10.3 Gbps "F" optics supports 2K4K/UHD up to 2560x1600/60Hz and 3840x2160/30Hz
- *Use "XX/XX" as is for ordering transmitter models but reverse for ordering receiver model
- When ordering CWDM, replace "x" in the Optical Code L4x6 with A (1270 nm) or D (1330 nm)

Connection Diagram



Video

Specifications	Values
Inputs/Outputs	HDMI 1.4b
HDCP Compliance	V1.2
EDID	Plug & Play
Color Depth	24-bit
Resolutions Supported	HD up to 1080p, 4K/UHD up to 3840x2160/30Hz

Audio

Specifications	Values
Audio Inputs	Uni-directional (tx to rx) 2ch Stereo Analog Audio
Audio Outputs	2ch Stereo Analog Audio

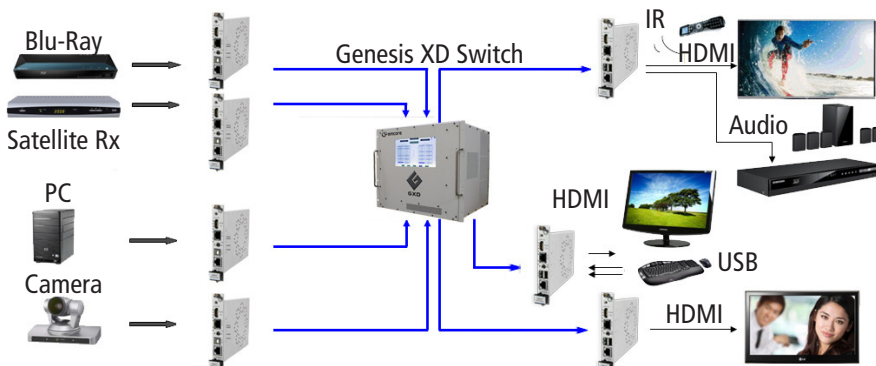
Data & Control

Specifications	Values
USB	USB-HID, USB 2.0 optional
USB Connector	TX: 1x USB type B RX: 2x USB type A
Ethernet	10/100

General

Specifications	Values
Dimensions (Insert Card)	6.3"D x 0.8"W x 4.0"H
Weight	11 oz.
Operating Temperature	0° to +50°C
Storage Temperature	-30°C to +85°C
Humidity	0 to 95% (non-condensing)
Power Consumption	<6 Watts
Warranty	3 Years

Point-to-Multipoint Applications with Genesis XD



Compliance (Pending)

