

**4K HDMI Optical Transceiver
using Small Form Pluggable (SFP)
Optical Device****FEATURES**

- Supports 4K (UHD) HDMI Video up to 3840*2160@30Hz
- Supports 3D Video Signal
- Compliant with HDMI 1.4a
- Transmitter module can capture the EDID information from any display and store it in cash memory for future use
- Supports up to 300m Transmission Distance with OM3 multimode fiber
- Supports up to 2Km (standard), 60Km max. Transmission Distance with single-mode fiber
- CWDM wavelengths selection available by using appropriate SFP module
- Supports 10G SFP+ modules
- Standard HDMI Connector
- Built-in ESD protection system;
- Simple to install, plug and play
- Hot-Pluggable
- EMI/RFI Resistant
- Operating Case Temperature: 0~74°C

DESCRIPTION

The Meridian **MT/MR-1DM-SFP** is a 4K HDMI optical transmitter and receiver is designed to send 1 channel of 1.4a compliant HDMI Video with embedded audio over **One Optical Fiber**, using Small Form Pluggable (SFP) optical modules. The SFP modules give you the option for either single-mode, multimode or CWDM wavelength selections by simply plugging-in the appropriate SFP module.

The HDMI optical transceiver supports transmission of an uncompressed lossless HDMI 1.4a signal over OM3 multimode optical fiber at 850nm, for distances up to 300 meters or single-mode optical fiber 1310nm - up to 2Km (standard) with maximum distance up to 60Km.

Transmitter converts an HDMI signal to a single 10Gb/s serial data stream for transmission over one optical fiber.

Receiver converts the serial data back to an HDMI signal. This product is ideal for large-screen displays, conferencing systems and home entertainment.

This fiber link meets all of the standards of interference immunity, to ensure the stability of the signal.

CONFIGURATIONS

The MT/MR-1DM-SFP are available in small stand-alone modules for easy mounting on walls, shelves and other convenient flat surfaces.

MARKETS

- √ Digital Signage
- √ Video distribution systems
- √ Educational
- √ Video walls
- √ Home theater
- √ Entertainment centers

SPECIFICATIONS:

Video

HDMI compliance	1.4a
Max resolution	3840*2160@30Hz
Max Data Rate	10.2 Gb/s
Max Pixel Clock	340 MHz
Refresh Rate	120 Hz
Depth	Up to 48-bit
Bit-Error Rate	10 ⁻¹²
Impedance	100 Ohm
3D Support	Yes

Connectors (Ports)

Transmitter

Power	DC Power plug 5.5mm (5VDC)
Video (HDMI IN)	19 Pins HDMI A Type Port
Optical (SFP)	SFP module - LC connector
RESET (EDID BUTTON)	An EDID memory at Tx module will store the display EDID info

Receiver

Power	DC Power plug 5.5mm (5VDC)
Video (HDMI OUT)	19 Pins HDMI A Type Port
Optical (SFP)	SFP module - LC connector
RESET	System Reset button

Indicators

Transmitter

D1	Power Indicator
D2	When EDID BUTTON pressed, The LED will flash for 3 seconds
D3	Optical Signal - ON: LOS / OFF: OK
D4	BLINK, Source plug in

Receiver

D1	Power Indicator
D2	RECEIVER: Reserve
D3	Optical Signal - ON: LOS / OFF: OK
D4	BLINK, Source plug in

Optical

Optical Fiber	SFP dependant
Wavelength	SFP dependant
Data Rate	10 Gb/s
Operating distance	MM - 300m, SM - 2Km (standard), 60Km (max)

Power

TX	4 Watts @ 5VDC
RX	4 Watts @ 5VDC

Physical

Dimensions	1.1" x 3.5" x 4"
	28 x 89 x 104mm
Weight (unit)	150 gms (0.33 lb.)

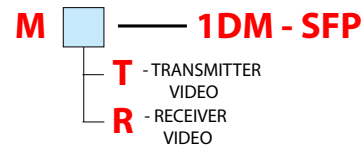
Environmental

Operating Temperature	0°C to +74°C
Storage Temperature	-20°C to +85°C
Relative Humidity	5 to 90% Non-condensing

Quality

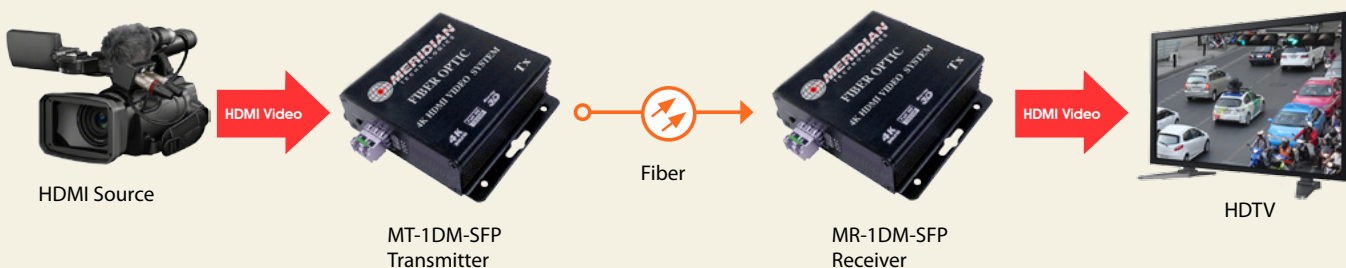
MTBF	>170,000 hours @ Ground Fix 35°C per MIL217F
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Part Numbers:



Ordering Info

Part Number	Description
MT-1DM-SFP	4K HDMI Fiber Transmitter and 5VDC Power Supply, SFP Port (SFP not included)
MR-1DM-SFP	4K HDMI Fiber Receiver and 5VDC Power Supply, SFP Port (SFP not included)



SFP OPTIONS:

The SFP series products are available for both single-mode and multimode fiber applications and either one or two fiber versions.

Recommended optical speed for this product is 10 Gb/s.

For more specifications on a SFP optical devices go to **SFP data sheet** or visit:

WWW.MERIDIAN-TECH.COM -> PRODUCTS -> ACCESSORIES -> SFP OPTICAL DEVICES