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# **HDMI Optical Transceiver**

## **Model:EOHM- 00031**

### **USER MANUAL**



#### **Introduction**

EOHM- 00031 are enclosed HDMI optical modules designed to support transmission of an uncompressed lossless HDMI 1.4a signal over multimode optical fiber at 850nm, up to distances of 300m, at a resolution of 4Kx2K. EOHM- 00031- T converts an

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**HDMI signal to a single 10Gb/s serial data stream for transmission over two optical fibers.**

**EOHM- 00031- R converts the serial data back to an HDMI signal. The transceivers are RoHS compliant and lead-free per requirements in Europe and China.**

**This product is ideal for large-screen display, conferencing systems and home entertainment and so on. The device has the ability of anti-interference, to ensure the stability of the signal.**

### **Features:**

- | HDMI 1.4a Support**
- | HDCP Support**
- | DDC CEC HPD Signal Support**
- | Supports up to 300m Transmission Distance at up to 10.3Gbps with OM3**
- | Multimode Fiber**
- | Supports All Modes up to 4Kx2Kx30 Resolution**
- | Standard HDMI Connector**
- | Integrated USB Connector for Power**
- | Double Power Supply (HDMI 5V&USB)**
- | Hot- Pluggable**
- | EMI/RFI Resistant**
- | 850nm VCSEL and PIN Photodetector**
- | 2- Wire Interface**
- | Typical Power Dissipation 1420 mW**
- | (Source), 1220 mW (Sink)**
- | Operating Case Temperature: 0~70°C**

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**Package Contents:**

n	HDMI fiber Transmitter	1pcs
n	HDMI fiber Receiver	1pcs
n	Power Cable	2pcs
n	User Manual	1pcs



## Specifications

### ABSOLUTE MAXIMUM RATINGS (ESTIMATED)

Parameter	Symbol	Unit	Min	Typ	Max	Notes
Storage Temperature	T <sub>s</sub>	°C	- 40	-	100	
Case Operating Temperature	T <sub>c</sub>	°C	0	-	100M: 70 200M: * 300M: 60	
Relative Humidity	RH	%	5	-	95	
Supply Voltage	V <sub>ccT</sub> , V <sub>ccR</sub>	V	- 0.3	-	3.8	

### KEY PARAMETERS

Parameter	Min	Typ	Max	Unit	Notes
Data Rate Per Lane		10		Gbps	
Power Consumption		1420		mW	TX Side
		1220		mW	RX Side
Temperature Range	0		100M: 70 200M: * 300M: 60	°C	
Power Supply Voltage		5		V	+/- 5%
Resolution	Up to 4K/2K				
Refresh Rate	Up to 120 Hz				
Depth	Up to 48- bit				
Support 3D	Yes				
Support HDCP	Yes				
Wavelength	850			nm	
Bit Error Rate Performance	1.00E- 12				
Laser Output Power	Class 1				EN 60825- 1 2007 EN 60825- 2 A2 2010
Management Interface	Two- Wire Serial				
Mechanical Specification					
Electrical Interface	19			Pins	HDMI A Type Port
	4			Pins	USB Standard A
Pulling Force	111			N	

### Installation

1. Connect the HDMI optical Transmitter to the HDMI signal source.
2. Connect the HDMI optical Receiver to the displayer(Such as HD TV, splicing screen, etc.).
3. Use the LC multimode fiber(OM3) connect between the transmitter and the Receiver.
4. User micro usb cable Power on the Transmitter and Receiver of the HDMI optical transceiver.

## Application Diagram

