



HDMI HD Digital Optical Transceiver

OP-VM-HDMI



Shenzhen Optostar Optoelectronics Co., Ltd

2014. 02(Version 1)

Description

HDMI Optical transmitter & receiver adopts advanced non-compressed digital high-definition video and high-speed digital optical fiber transmission technology, can easily transmit host computer ,high-definition video signal sources, HDMI high-definition signals from various resolutions of the output of high-definition DVD/DVR devices to the remote distance.

Thus the HD video signal can break short cable transmission restrictions, greatly extend the application scope and connection distance and makes hd video wide-area spread, release; Through a DVI to HDMI adapter cable, may realize the DVI video.

Product Features

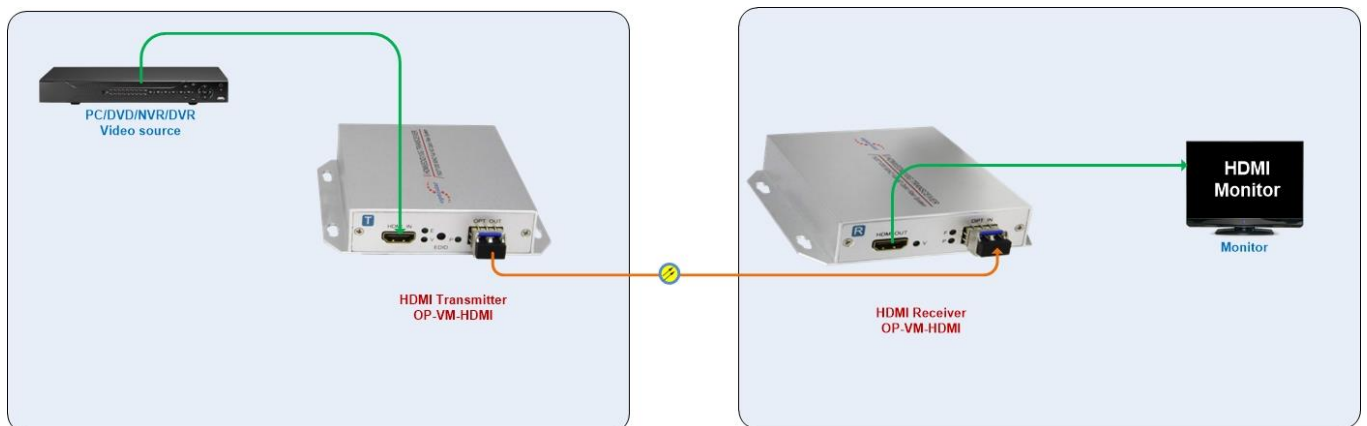
- All digit, no compression, high-definition optical fiber transmission
- Supports 1 channel HDMI hd video transmission
- Compatible support HDMI 1.3 b standard
- Automatic recognition & configuration of the various display mode
- Supports UXGA 1600 x1200 /WUXGA1920x1200 @ 60 Hz,
- HDTV 1080 p 2048 x1080 @ 60 Hz resolution, max 5.4 Gbps bandwidth
- Max support: 12 bit color depth
- Max 225 MHz clock pixels
- Built-in automatic equilibrium and refix time function, clear and steady frames
- Supports E-DDC display mode memory and remote reading function, keep the display mode correct loading
- Transparent support HDCP/CEC function
- Gigabit fiber optic transmission technology, large capacity, easy to upgrade
- Optical fiber WDM/CWDM/DWDM technology
- No need software Settings, to support plug and play function, support hot swaps
- Apply to extremely high and low temperature, and other severe industrial environment
- whole surface mount technology
- Industrial design, high reliability
- Supports custom and OEM

Technical Parameter

Technical parameter name				Descriptions			
Video Interface Characteristics	Channel Quantity(transmitter)			1 channel			
	Input Level(transmitter)			800-1200mVp-p (typical)			
	Input Differential Impedance (transmitter)			100Ω			
	Input Impedance(transmitter)			75 Ω(unbalanced)			
	Physical Interface(transmitter)			Type A-hole socket			
	Output Channel Quantity (receiver)			1 channel (2 channels need be customized ,15 days or so)			
	Output Level (receiver)			800-1200mVp-p(typical)			
	Video Color Depth(receiver)			8/10/12 bit			
	Video Pixel Clock (receiver)			225MHz			
	Video Bandwidth (receiver)			5.4Gbps			
	Physical Interface(receiver)			Type A-hole socket			
	Transmitter/Receiver Signal Formats			HDMI: UXGA 1600x1200@60Hz WUXGA 1920x1200@60Hz HDTV: 1080P 2048x1080 @60Hz			
	E-DDC Standards			E-DDC2/EDID			
	E-DDC Level			5V TTL level			
	E-DDC Processing			loop output or transmitter remote access and memory			
HDCP/CEC			transparent support				
Optical Fiber Interface Characteristics	Port Quantity			1 piece			
	Interface Type			LC(SC can be customized)			
	Fiber Type			Single mode/multimode			
	Transmission Distance			20/40/60/100KM(single mode)/200M(multimode)			
	Tx/Rx wavelength			850nm(multimode)/(1310nm/1550nm)(single mode)			
	Type	TX wavelength (nm)	TX power	Rx sensitivity	Transmission Distance Km	Light saturation	Fiber Type(Single fiber or four fiber) LC/PC

			dBm	dBm		dB	
	multimode	850	-16.5~-15	-22	0~2	1	850nm(multimode)
	Single mode	1310	-6~-3	-22	0~20	0.5	Single mode(9/125um)
		1550DFB	-1~+1	-22	0~40	0.25	Single mode(9/125um)
		1550DFB	-5~0	-28	0~60	0.25	Single mode(9/125um)
Power Characteristics	Supply Voltage				AC85-260V/50Hz		
	Power Consumption				2.5w(Input:DC5V 1000mA)		
System Characteristics	Mean Time Between Failure (MTBF)			More than 100000hours			
Body Characteristics	Size(L x W x H)			Standalone:122mmX90mmX31mm 1U rack-mounted: 482.6mmX235mmX44mm			
	Materials			Aluminum Alloy			
	Net Weight			200g			
Operating Environment Characteristics	Operating Temperature			-40 °C ~ +85 °C			
	Storage temperature			-45 °C ~ +95 °C			
	Relative humidity			0~95% (Non-condensing)			

Application



Order Information

Model	Description	Max Transmission Distance (KM)
OP-VM-HDMI-M-2	Multimode, 1CH HDMI	2km (Multimode)
OP-VM-HDMI-S-20	Single mode, 1CH HDMI	20km (Single Mode)
OP-VM-HDMI-S-40	Single mode, 1CH HDMI	40km (Single Mode)
OP-VM-HDMI-S-60	Single mode, 1CH HDMI	60km (Single Mode)

Note: The interface can be ST or FC, according to the different requirements from customers. The fiber optic transmission distance can be ordered. (40km, 60km, 100km...)

(F:10/100M Ethernet;G:10/100/1000 Ethernet; T:Telephone ; V:Forward Video;E: Bi-directiona Video; A:Forward audio; B:Bi-directiona audio; R: reverse data; D:Bi-directiona Data; W:Switch/alarm)

S-40:40KM; S-60: 60KM; S-100: 100KM -S: Single-mode; -M: Multi-mode

Package include

No	Package List
1	HDMI HD Digital Optical Transceiver
2	User Guide
3	Warranty Card
4	Qualified Certification
5	Power Adapter
6	Facility

Important Notice

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by OPTOSTAR before they become applicable to any particular order or contract. In accordance with the OPTOSTAR policy of continuous improvement specifications may change without notice.

The publication of information in this data sheet does not imply freedom from patent or other protective rights of OPTOSTAR or others. Further details are available from any OPTOSTAR sales representative.

Contact OPTOSTAR

Shenzhen Optostar Optoelectronics Co., Ltd



Address:A-14,Haide Building,the Intersection of Nanxin Road and Haide Second Road Nanshan District Shenzhen,China .

Tel: +86-755-26400198 +86-755-26400288 Fax: +86-755-26411001

Email: info@optostar.com.cn

Skype:ouyangroya

Web: www.optostar.com.cn