
1 channel 4K HDMI Transceiver

Overview

The 4K HDMI optical transceiver, namely the uncompressed HDMI optical fiber extender, is composed of HDMI transmitter and receiver. Through optical cable, the $4K \times 2K @ 30Hz$ HDMI signal can be extended as far as 10-80km by using 10g high-speed photoelectric conversion transmission rate, which is the real uncompressed and delay free transparent transmission. It has been widely used in various large-scale multimedia HD display, information release and news center, traffic guidance and information display system, outdoor large screen display system, large stage display and entertainment center, live television, multimedia conference, military command and exercise and other fields.

Product Photo



Features

- Full digital, uncompressed, high-definition optical fiber transmission;
- 10G Optical fiber transmission rate, truly transparent transmission without compression and delay.
- Support HDMI 1.4, HDCP v1.4 HD and 3D video signal transmission, maximum resolution: 4096 × 2160 @ 30Hz
- It can back transmit EDID and support HDCP content protection.
- Automatic identification and configuration of various display modes;
- With independent analog audio or one RS232 / 422 / 485 serial port data;
- HDMI interface has built-in ESD protection circuit, which can effectively prevent electrostatic damage;
- On site installation: simple and convenient, plug and play, no need to set;
- 300m multimode optical fiber, 10-80km long-distance transmission of single-mode optical fiber.
- Aluminum alloy oxygen electrode oxidation shell is suitable for extremely high temperature, extremely low temperature and other harsh industrial environment;
- Full surface mounting technology with high reliability;
- It does not need software setting, supports plug and play function and hot plug;

Parameters

◆ Fiber

Number of optical fibers: single fiber, double fiber

Optical fiber interface: LC

Wavelength: 850nm / 1310nm multimode; 1310nm / 1550nm single mode

Transmission distance: 10-80km

Typical transmit power:

Single mode 1310 / 1550nm: ≥ -9 dbm

Multimode 850nm: - 18dbm

Multimode 1310nm: - 25dbm

Acceptance sensitivity range: - 33dbm ~ - 40dbm

◆ **HDMI interface**

Project	Parameter description
Compatible version	HDMI v1.4, HDCP v1.4
Maximum pixel clock frequency	340 MHz
Support HD format	HDTV including 1080p, 2K,4K (UHD)
HDMI Input and output	HDMI Female head

◆ **Electrical and mechanical characteristics**

System power: AC180V~260V

Power consumption: ≤10W

◆ **Environmental indicators**

working temperature: -10°C - +55°C

Storage temperature: -40°C - +90°C

Working humidity: 0%—95% (No condensation)

MTBF: > 100,000 hours

Product model	FCM-H1-4k
Product function description	1 channel 4K HDMI transceiver
Service port description	Transmitter: 1 channel of 4K hmdi interface in; receiver: 1 channel of 4K HDMI interface out; 1 LC optical fiber interface
power	AC220V/DC-48V (optional)
size	173*128*30mm desktop type
weight	0.9Kg/piece

Application

