

COMOSS HDMI Fiber Extension Cable

Data Sheet

The optical sub-assemblies inside the transmitter and the receiver are produced by hybrid integration technology. Semiconductor process and passive aligned optical coupling make the product cost effective. The resulting compact dimensions can meet the specifications of HDMI type A plug.

Overview

The COMOSS HDMI Cable is a kind of Active Optical Cable (AOC) used to extend the transmission distance between HDMI Source and Sink devices. The transmission distance can be up to 100m (330ft) through a hybrid cable consisting of optical fibers and copper wires. The high-speed TMDS signals are transmitted through the optical multimode fibers, while the low frequency DDC and control signals are transmitted through the copper wires.

At the ends of the hybrid cable are a transmitter with a type A plug connected to the source devices and a receiver with a type A plug connected to the sink devices. Inside the transmitter, the electrical TMDS signals are converted into optical signals by the VCSEL array; while in the receiver, the optical signals are converted back into electrical TMDS signals by the photodiode array.



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Key Features

1. Extend HDMI reach to 100m (330ft).
2. Complies with HDMI category 2 (340MHz clock frequency) specifications.
3. Low power consumption.
4. Uses +5V power from the HDMI Source devices.
5. Longer, thinner cable without EMI/RFI emissions.
6. Plug and play, no software to be installed.

Application

- Digital Home Theater
- TFT-LCD projector and plasma flat panel displays for conference room, auditorium, kiosk, medical imaging, traffic control and factory automation systems.
- LED signboards and panel information displays for airports, stadiums and outdoor advertising.

Absolute Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Supply Voltage	V _{CC}	-0.3	6	V
Differential Input Voltage	V _D		1.2	V
Storage Temperature	T _{st}	-30	70	°C
Relative Humidity	RH	0	85	%

Recommended Operating Conditions

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Supply Voltage	V _{CC}	+4.5	+5.0	+5.5	V
Data Output Load	R _L		50		W
Ambient Temperature	T _A	0		+50	°C

Electrical Power Supply Characteristics

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Supply Voltage	V _{CC}	+4.5	+5.0	+5.5	V
Supply Current	Tx	I _{TCC}	60	80	mA
	Rx	I _{RCC}	120	150	mA
Power Dissipation	Tx	P _{TX}	0.3	0.44	W
	Rx	P _{RX}	0.65	0.825	W

Hybrid Cable Specifications

Parameter	Value
Optical Fiber	62.5 Fiber
Outside Diameter	OD 5.5 mm
Minimum Bending Radius	5mm

Order Information

HDMIC - A A X m X X
(1) (2) (3) (4) (5)

(1)(2) Contact Type :

- A : HDMI A type.

(5) Cable Type :

- F : Fiber optics.

(3) Cable Length (Meters) :

- XXXX m (Max: 100 m).

(4) Connect Type :

- G : Gold Flash.