



### Features

- High Speed HDMI Active Optical Cable
- Supports full-HD(1080p), 2K4K/UHD and deep color X.V. Color™
- Supports 3D video
- Dolby True HD, DTS-HD Master Audio
- HDMI-CEC, EDID and HDCP compatible (HEAC is not supported)
- Resistant to EMI and RFI
- Small and flexible cable
- Easy installation (Plug and Play)
- No external power needed (current supplied from the source device within HDMI specification)
- Plenum cable
- Customizable cable length up to 100 meters

### Applications

- Blu-ray player, PC, laptop, set-top box, projector and HDTV
- Conference room video system, digital home theater and medical display system
- Data center, digital signage for outdoor advertising and factory automation system

### Uncompressed HDMI Video over Optical Fiber

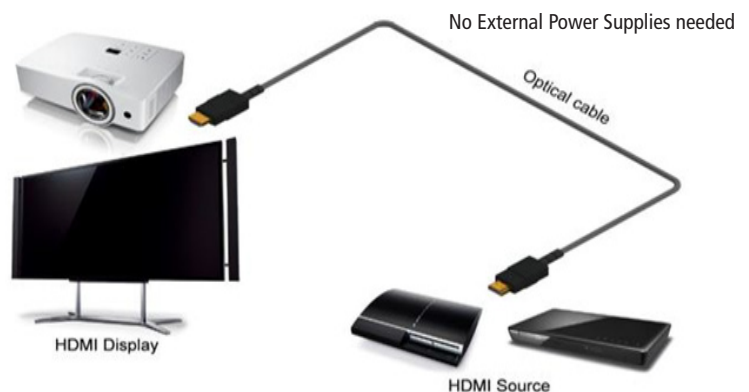
EMCORE's HDMI Active Fiber Cable (AFC-HDMI2) provides true Plug and Play, uncompressed connectivity for distributing high-definition HDMI beyond the normal reach of copper cables. This 4K UHD compatible fiber cable is available in standard lengths up to 100 meters and supports applications for HDMI extension from set-top boxes, DVD players, Blu-ray players and video game consoles to large displays, including projectors and 4K UHD capable TV's. With AFC-HDMI2, users can take advantage of the latest advances in HDMI technology including 3D, 2K4K/UHD resolution and deep colors from an HDMI or DVI port (with passive adapter).

AFC-HDMI2 is thinner, lighter and more flexible than copper or even standard optical cables while providing transparent EDID and HDCP support without signal attenuation. Additionally, the cable materials are plenum rated for pulling within plenum or tight wall spaces.

The optical fiber cable delivers several advantages over copper cabling by reducing the risk of EMI and RFI degradation for stable performance when used in typically high interference environments such as in data centers, operating rooms or manufacturing facilities where high resolution and 24/7 operation for displays is required.

AFC-HDMI2 does not require any external power supplies, but is powered exclusively by the HDMI source. It also consumes very low power, therefore any HDMI source can provide sufficient power to send HDMI video and audio over the fiber cable without the use of external power supplies.

### System Diagram





**DATASHEET** **FIBER OPTICS**

**Ordering Information**

HDMI Cable
AFC-HDMI2-XX

Cable Distance "XX"	Distance (m)
10	10m
15	15m
20	20m
25	25m
30	30m
40	40m
50	50m
60	60m
70	70m
80	80m
90	90m
A0	100m

**Pin-Out Diagram**

PIN	Symbol	Functional description
1	CH2+	TMDS data signal channel 2 positive
2	GND	TMDS data signal channel 2 shield
3	CH2-	TMDS data signal channel 2 negative
4	CH1+	TMDS data signal channel 1 positive
5	GND	TMDS data signal channel 1 shield
6	CH1-	TMDS data signal channel 1 negative
7	CH0+	TMDS data signal channel 0 positive
8	GND	TMDS data signal channel 0 shield
9	CH0-	TMDS data signal channel 0 negative
10	CLK+	TMDS clock signal channel positive
11	GND	TMDS clock signal channel shield
12	CLK-	TMDS clock signal channel negative
13	CEC	That are connected through HDMI, by using only one of their remote controls.
14	RESERVED	N.C
15	SCL	DDC clock
16	SDA	DDC data
17	GND	DDC/CEC shield
18	5V	DC +5V
19	HPD	Monitor detector signal

**General**

Specifications	Values
Cable Dimension	5.10 X 2.9 mm
Weight	1.2 oz.
Operating Temperature	0°C to 50°C
Storage Temperature	-20°C to 70°C
Humidity	5 to 85% (non-condensing)
Power Supply Voltage	6 V Max
Power Consumption	.8 W (Source)
Power Connector	HDMI
Electrostatic Discharge Immunity	B Class
Power Supply	Main HDMI Source and Sink can provide enough current from the HDMI 5V pin, if not, USB cable is needed

**Video**

Specifications	Values
HDMI Compliance	1.4b
HDCP Compliance	v1.2
EDID	Plug & Play
Color Depth	up to 48-bit
Data Rate	18 Gbps
Resolutions Supported	All VESA resolutions supported, HD up to 1080p, 4K/UHD up to 3840x2160/30Hz and 2560x1600/60Hz

**Audio**

Specifications	Values
Embedded Digital Audio	Supported on the HDMI stream

**Compliance**

