

PF-HDM-M-***M Technical Specifications

Plenum High-Speed HDMI® Active Optical Cable

Rev. 160223

The PF-HDM-M-***M extends HDCP compliant HDMI® signals via an extremely flexible, plenum rated, polymer optical hybrid cable assembly. Utilizing active circuitry in the permanent HDMI connectors, HDMI signals with video resolutions up to 4K@30Hz (10.2Gbps) can be transmitted on fixed length cables ranging from 10 meters up to 30 meters. The HDMI to optical conversion circuits only draw 0.07 watts of power, which is provided by pin 18 of the HDMI ports on the connected devices.

Since this is a hybrid fiber optic cable, the PF-HDM-M is immune to electromagnetic (EM) and radio frequency (RF) interference, which could degrade signal performance, and the signals on the cable will not interfere with other sensitive electronic equipment. The fiber optic cable diameter does not increase with cable length which is not the case with traditional copper HDMI cable solutions. The copper components allow the Hot Plug Detect feature to be used in conjunction with auto functioning switches.

This cable does require power from the HDMI receptacle. If plugged into passive junctions like a pass through HDMI wall plate or panel connector, the associated patch cable on the opposite side must be 2 meters or less in length and of sufficient AWG size. Liberty recommends at least 28 AWG for wall to plate patching. The patching cable must not be active, it must be a passive cable. Longer lengths may cause insufficient power to be available to the PF-HDM-M HDMI connectors.

Key Features:

- Immunity to EMI and RFI Interference
- Plenum Rated
- Deep Color, 3D, 4K@30Hz Video
 - 4K@60Hz 4:2:0 Chroma Sampling
- Multichannel Audio
- No external power required
- Ultra small diameter
- Passes Hot Plug Detect



Technical Specifications	
I/O Connections	
HDMI	Male HDMI Type A connector
Supported Audio and Video	
Maximum Video Compatibility	4K@30Hz 4:4:4 Chroma or 4L@60Hz 4:2:0 Chroma
Video Compliance	HDMI, HDCP, and CEC (Consumer Electronics Control)
Embedded Audio	Up to PCM 8 channel, Dolby Digital TrueHD, and DTS-HD Master Audio
Input DDC Signal	5.0 volts p-p (TTL)
Input Video Signal	0.5 to 1.0 volts p-p
Maximum Bandwidth	10.2 Gbps
Cable Construction	
HDMI Hood Material	Molded ABS
HDMI Hood Dimensions	9.50 mm x 18.7 mm x 26.8 mm (0.373 in. x 0.734 in. x 1.06 in.)
Fiber Jacket Material	Plenum Rated PVC
Cable Construction	Hybrid POF (Plastic Optical Fiber) and Copper
Overall Cable Diameter	5 mm
Minimum Bend Radius	5 mm
Maximum Tensile Load	20 kg (44 lbs.)
Environmental Requirements	
Operating Temperature	0° to +50° C (+32° to +122° F)
Operating Humidity	20% to 85%, Non-condensing
Storage Temperature	-30° to +50° C (-22° to +122° F)
Storage Humidity	20% to 85%, Non-condensing
Power and Regulatory	
Power Supply	Via HDMI pin 18
Power Consumption	0.07 watts
Regulatory	NEC® rated CMP-OF, CEC rated CMP, RoHS Compliant
Other	
Warranty	2 years

Part Numbers	Part Description	Cable Length
PF-HDM-M-010M	ACTIVE OPTICAL HDMI CABLE 10M	10 meters / 33 feet
PF-HDM-M-015M	ACTIVE OPTICAL HDMI CABLE 15M	15 meters / 50 feet
PF-HDM-M-023M	ACTIVE OPTICAL HDMI CABLE 23M	23 meters / 75 feet
PF-HDM-M-030M	ACTIVE OPTICAL HDMI CABLE 30M	30 meters / 98 feet

- *Note longer lengths are in development as of this specification date. They will have different construction and will have their own specification published at that time.*

Liberty Wire & Cable specifications are subject to change without notice. Contact an account representative for current product specifications. Liberty Wire & Cable continuously strives to ensure product specifications are accurate and complete. All physical specifications are nominal.

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