50ft (15.2m) HDMI 2.1 Hybrid Active Optical Cable (AOC), CMP, Plenum Rated, 8K Ultra High Speed HDMI 2.1/2.0 Fiber Optic Cable, 48Gbps, 8K 60Hz/4K 120Hz, HDR10+/FRL/TMDS/eARC

Product ID: 8K-A-50F-HDMI-CABLE



Route this Ultra High Speed HDMI 2.1 Hybrid Active Optical Cable (AOC) through office plenum spaces for long distance transmission of 8K 60Hz video and high quality audio.

The HDMI 2.1 AOC incorporates a hybrid construction consisting of fiber optic cores and copper conductors. This enables the offloading of low-bandwidth signals (EDID/HDCP/eARC) to maintain high-bandwidth transmission of 8K 60Hz video over fiber. The fiber optic inner cores and shielded copper conductors greatly reduce EMI for optimal signal quality across longer distances.

The 8K HDMI Fiber Optic Cable supports full HDMI 2.1 specifications:

• High Bit Rate 3 (HBR3) supports up to 48Gbps bandwidth for higher refresh rates

• High Dynamic Range (HDR10+) with 12-bit processing for higher contrast ratio and vibrant, cinematic picture quality

• Enhanced Audio Return Channel (eARC) for uncompressed 7.1 and 32-channel audio

• Display Stream Compression 1.2a (DSC) for maximum resolution output

• Forward Error Correction to manage data transmission errors

• High-Bandwidth Digital Content Protection (HDCP 2.3) for a secure connection between source and display

This Plenum-Rated HDMI 2.1 Cable features a CMP-rated cable jacket with low-smoke and flame characteristics. It is ideal for use in plenum spaces in buildings (e.g., ceilings and in-wall installations). The optical fiber core is reinforced with Aramid strands for tensile strength, and is rated to withstand over 6,000 bending cycles at 120 degrees. This protects the cable from damage when routing through tight spaces requiring multiple bends.

The 4.6mm (0.18in) cable outer diameter is flexible and slimmer than typical passive HDMI cables, making it suitable for installation in space-constrained environments.

Please Note: This cable is unidirectional and must be installed in a specific direction. Please refer to the SOURCE and DISPLAY labels on the HDMI connectors to ensure that each end corresponds with the correct hardware.

Certifications, Reports and Compatibility



Applications

• Deliver 8K 60Hz video over longer distances with minimal signal degradation

• Ideal for use in plenum spaces in buildings

Features

• DESIGNED FOR LONG RANGE: Hybrid Active Optical HDMI 2.1 Cable delivers 8K 60Hz beyond the length of standard copper cables; The fiber optic inner cores greatly reduce EMI for optimal signal quality and minimal degradation; Note: Cable is unidirectional

• PLENUM RATED: Ultra High Speed HDMI Hybrid AOC is Plenum-rated (CMP) for safe installation in plenum spaces; Suitable for ceiling, conduit, and in-wall cable runs; For use in commercial environments where compliance with fire codes must be considered

• VERSATILE PERFORMANCE: Full-featured HDMI 2.1 enables Dynamic HDR10+ w/12-bit processing for vibrant picture quality; 7.1 and 32-ch audio w/eARC; Ideal for UHD video walls, conference rooms, and dedicated video/media devices; Compatible w/HDMI 2.0/1.4/1.2

• QUALITY CONSTRUCTION: Shielded gold-plated connectors rated beyond 10,000 insertion cycles; Optical fiber core reinforced w/Aramid strands for tensile strength; Tested beyond 6,000 bending cycles at 120; Labeled connector ends for Source and Display

• SPECS: Black; 50-foot (15.2-meter) Unidirectional; CMP (Plenum-Rated); Ultra High Speed HDMI 2.1 supports HBR3/FRL/HDR10+/DSC 1.2a/HDCP 2.3; 48Gbps; 8K 60Hz/4K 120Hz/4K 60Hz/1440p 240Hz; 4.6mm (0.18in) O.D.; Ideal for long cable runs

Hardware

Warranty	2 Years
Active or Passive Adapter	Active
Connector Plating	Gold
Cable Jacket Material	PVC
Cable Shield Material	Aluminum-polyester foil

	Fire Rating	CMP Rated (Plenum)
	Cable Type	Hybrid Active Optical Cable (AOC)
	Industry Standards	HDMI 2.1
	Chipset ID	ATLX-HT21
		ATLX-HR21 ,

Performance

	Video Revision	HDMI 2.1
	Maximum Data Transfer Rate	48Gbps
	Maximum Digital Resolutions	8K 60Hz
		4K 120Hz
		4K 60Hz ,
	Audio Specifications	HDMI - 7.1 Channel Audio
		HDMI - 32 Channel Audio
	MTBF	Rated beyond 10,000 Insertion Cycles

Connector(s)

	Connector A	1 - HDMI
	Connector B	1 - HDMI

Special Notes / Requirements

	Note	NOTE: The HDMI Cable is unidirectional with labeled connectors for Source and Display. Please ensure that the connector ends correspond with the correct hardware
		NOTE: This is a unidirectional HDMI cable. The connectors are labelled "Source" and "Display" and must be connected as such.

Power

	Power Source	Bus Powered

Environmental

	Operating Temperature	0C to 45C (32F to 113F)
	Storage Temperature	-10C to 70C (14F to 158F)

	Humidity	10%~90% RH
Physical Characteristics		
	Color	Black
	Connector Style	Straight
	Wire Gauge	28/30 AWG
	Material	Zinc Alloy
	Cable Length	50.1 ft [15.3 m]
	Cable OD	0.2 in [4.6 mm]
	Product Length	50.1 ft [15.3 m]
	Product Width	0.8 in [2.0 cm]
	Product Height	0.4 in [9.0 mm]
	Weight of Product	0.0 oz [0.0 g]
Packaging Information		
	Package Length	8.7 in [22.0 cm]
	Package Width	9.3 in [23.5 cm]
	Package Height	1.5 in [3.8 cm]
	Shipping (Package) Weight	1.1 lb [0.5 kg]
What's in the Box		
	Included in Package	1 - Active Optical HDMI Cable

Product appearance and specifications are subject to change without notice.