50m (164ft) HDMI 2.1 Hybrid Active Optical Cable (AOC), CMP Plenum, 8K 60Hz, 48Gbps, Ultra High Speed HDMI 2.1/2.0 Cable

Product ID: 8K-A-50M-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. Etched HDMI 2.1 specs on each Quick ID connector remove guesswork, with clear Source and Display markings for correct unidirectional installation.

This active HDMI cable features a hybrid construction that offloads low-bandwidth signals such as EDID and HDCP over copper conductors, while preserving full 8K 60Hz video bandwidth across the fiber optic cores. Shielded copper conductors with fiber inner cores greatly reduce EMI, ensuring optimal signal quality over extended 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

• Uncompressed Resolutions up to 8K 30Hz / 4K 144Hz / 2K 240Hz

• DSC 1.2a Compressed Resolutions up to 10K 60Hz / 8K 144Hz / 4K 240Hz

• 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

• Forward Error Correction to manage data transmission errors

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

Install this plenum-rated Ultra High Speed HDMI Cable for compliant runs through ceilings and walls, where a CMP-rated jacket with low-smoke and flame characteristics is required. Route through plenum spaces within commercial buildings, including in-wall and overhead pathways with tight bend requirements. The optical fiber core is reinforced with Aramid strands to add tensile strength during pulls, and is rated for over 6,000 bending cycles at 120 degrees. This helps reduce the risk of damage when navigating tight spaces that require multiple bends during installation. 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.

The terms HDMI, HDMI High-Definition Multimedia Interface, HDMI trade dress and the HDMI Logos are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

Certifications, Reports and Compatibility



Applications

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

• Ideal for use in plenum spaces in buildings

• Hybrid fiber/copper construction preserves full 8K 60Hz video bandwidth while carrying EDID and HDCP over shielded copper conductors to reduce EMI and maintain signal quality over long distances.

Features

• Designed for Long Range: Enable HDMI runs beyond the limits of passive cables with an active optical HDMI 2.1 cable designed for 8K 60Hz HDR video; Deliver immersive sound quality with 32-channel audio, 7.1 surround, and DTS HD Master Audio pass-through

• Install Confidently in Plenum Spaces: Route this cable through ceilings and air-handling spaces requiring CMP-rated, flame-resistant jackets; Aramid fiber-reinforced inner construction is designed to withstand repeated bends

• Identify Specs Instantly: Etched HDMI 2.1 specs on each Quick ID connector remove guesswork and provide peace of mind by confirming the required bandwidth on long cable runs; Clear Source and Display markings ensure correct unidirectional installation

• Ensure Reliable Video in Extended Runs: 48Gbps Ultra High-Definition HDMI 2.1 supports Uncompressed Resolutions up to 8K 30Hz / 4K 144Hz / 2K 240Hz; Supports DSC 1.2a Compressed Resolutions up to 10K 60Hz / 8K 144Hz / 4K 240Hz; Supports HDR10+ and HDCP 2.3

• The IT Pro's Choice: Our digital display cables are rigorously lab-tested for signal integrity, durability, and compatibility across HDMI, DisplayPort, USB-C, and legacy interfaces; Backed by free lifetime 24/5 multi-lingual technical assistance

General

UPC	065030926690

	Warranty	2 Years
Special Notes / Requirements		
	Special Notes	This HDMI Cable is unidirectional with identified connectors for Source and Display. Please ensure that the HDMI connector labelled with "Display" is connected to the Display, TV, or Projector. 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
Physical & Environmental		
	Color	Black
	Connector Style	Straight
	Wire Gauge	28/30 AWG
	Cable Length	164.0 ft [50 m]
	Cable OD	0.2 in [4.6 mm]
	Product Length	164.1 ft [50.0 m]
	Product Width	0.7 in [18.5 mm]
	Product Height	0.4 in [9.0 mm]
	Weight of Product	2.8 lb [1.3 kg]
	Operating Temperature	0C to 45C (32F to 113F)
	Storage Temperature	-10C to 70C (14F to 158F)
	Humidity	10%~90% RH
Performance		
	HDR Support	HDR10 Dynamic HDR
	Maximum Data Transfer Rate	48Gbps

	Insertion Rating	Rated beyond 10,000 Insertion Cycles
	MTBF	
	Audio Specifications	HDMI - 7.1 Channel Audio
		HDMI - 32 Channel Audio
	Maximum Digital Resolutions	Uncompressed: Up to 8K 30Hz / 4K 144Hz / 2K 240Hz
		With DSC 1.2a: Up to 10K 60Hz / 8K 144Hz / 4K 240Hz
	Video Revision	HDMI 2.1

Hardware

	Active or Passive Adapter	Active
	Connector Plating	Gold
	Cable Jacket Material	PVC (Polyvinyl Chloride)
	Cable Shield Material	Aluminum-polyester foil
	Fire Rating	CMP (Plenum)
	Cable Type	Hybrid Active Optical Cable (AOC)
	Industry Standards	HDMI 2.1
	Chipset ID	ATLX-HT21
		ATLX-HR21 ,

Packaging & In-the-Box

	Included in Package	1 - Active Optical HDMI Cable
	Package Width	8.9 in [22.5 cm]
	Package Depth	9.3 in [23.5 cm]
	Package Height	2.9 in [74 mm]
	Shipping (Package) Weight	3.1 lb [1.4 kg]

Connector(s)

	Connector 1 (Quantity)	1

Connector 1	HDMI
Connector 2 (Quantity)	1
Connector 2	HDMI

Product appearance and specifications are subject to change without notice.