

SSF™ 8K UHD HDMI Active Optical Cables

8K UHD, 48 Gbps, HDR, Plenum Jacket, CMP FT6



Cleerline SSF™ 8K Ultra High Definition HDMI Active Optical Cables (AOC) provide the ultimate signal transfer at 48 Gbps. These cables bridge the gap between shorter-distance HDMI installations and longer-distance fiber installations. In longer-distance applications, they also reduce needed materials by eliminating the immediate need for HDMI over fiber extenders.

Offering incredible 8K UHD signal transfer, these cables provide everything needed for the highest quality transmissions, including up to 120 fps/Hz, HDR, ARC, and more.

All Cleerline SSF™ 8K UHD HDMI Active Optical Cables are constructed using 4 strands of SSF™ fiber optic glass alongside copper wire. The internal fibers feature SSF™ Glass, Glass, Polymer construction, creating a fiber that is much more durable and flexible than traditional fiber optic cable. Due to the fiber optic component of these cables, they are more resistant to EMI and have lower latency than passive copper HDMI cables.

Additionally, the internal SSF™ fibers allow future re-termination of SSF™ HDMI AOC with optical connectors. Simply remove the HDMI connector head, re-terminate, and apply any needed fiber balun. No replacement cable required!

SSF™ HDMI AOC are constructed with a plenum rated jacket, allowing in-wall installation. The connector ends of the cable are marked to identify source and display ends as the cable is directional. Cables are available in lengths from 5 to 40 meters (16.4 to 131.23 ft).



HDMI® **HDCP**
HIGH-DEFINITION MULTIMEDIA INTERFACE

FEATURES AND BENEFITS

- 4K, 5K, 8K, and 10K Resolution, meets HDMI 2.1b
- 48 Gbps, max 120 fps/Hz
- SSF™ Fiber Optic Technology
- Increased durability and flexibility
- 10 & 12 bit, HDCP 2.3
- High Dynamic Range, Variable Refresh Rate
- eARC up to 20 meters, ARC up to 40 meters
- Plenum/CL2/3 Rating for in-wall installation
- Connector heads marked Source or Display for easy identification. Cable is directional.
- SSF™ allows cable to be re-terminated if necessary
- No external power required for most applications - HDMI to USB cord included in case of embedded power < 5V
- Supports CEC

PART NUMBER	DESCRIPTION	LENGTH	JACKET
SSF-48UHD-AOC-05m	SSF™ 8K/UHD 48Gbps Active Optical HDMI	5 m / 16.4 ft	Plenum
SSF-48UHD-AOC-07.5m	SSF™ 8K/UHD 48Gbps Active Optical HDMI	7.5 m / 24.6 ft	Plenum
SSF-48UHD-AOC-10m	SSF™ 8K/UHD 48Gbps Active Optical HDMI	10 m / 32.8 ft	Plenum
SSF-48UHD-AOC-12.5m	SSF™ 8K/UHD 48Gbps Active Optical HDMI	12.5 m / 41.0 ft	Plenum
SSF-48UHD-AOC-15m	SSF™ 8K/UHD 48Gbps Active Optical HDMI	15 m / 49.2 ft	Plenum
SSF-48UHD-AOC-20m	SSF™ 8K/UHD 48Gbps Active Optical HDMI	20 m / 65.62 ft	Plenum
SSF-48UHD-AOC-30m	SSF™ 8K/UHD 48Gbps Active Optical HDMI	30 m / 98.43 ft	Plenum
SSF-48UHD-AOC-40m	SSF™ 8K/UHD 48Gbps Active Optical HDMI	40 m / 131.23 ft	Plenum

CONSTRUCTION

DATA, RESOLUTION, AND IMAGE

4K, 5K, 8K, and 10K
48 Gbps, 120 fps/Hz
HDCP 2.3
Variable Refresh Rate (VRR)
High Dynamic Range (HDR)
Wide Color Gamut (WCG)
Fixed Rate Link (FRL)
HD & UHD Resolutions
VESA Resolutions
3D Signals
10 & 12-bit

AUDIO

eARC up to 20 meters, ARC up to 40 meters
7.1 Audio / Dolby Audio / DTS Audio

CABLE & CONNECTORS

Jacket Type	Plenum Rated
Jacket Color	Black
Rating	CMP/FT6
Min. Conduit Diameter	> 20.2 mm (fits most 1.0" conduit)
Cable Diameter / Connector End Width	5.0 mm / 20.2 mm
Connector Type	Male HDMI A-to-A
Connector Plating	Gold Plated
Connector Head Markings	Source or Display according to connector. Cable is directional. Heads must be matched to source and display.

FIBER

Fibers	4
Type	SSF™ Multimode
Coating	250 µm "Soft Peel" S-Type Coating

COMPLIANCE

UL Listed | Type OFNP, CMP FT6 | RoHS Compliant Directive 2011/65/EU
 SSF™ conforms to the requirement of IEC 60793-2-10 A1a, ISO/IEC 11801 & ITU-T G.651.1 850 nm Laser-Optimized 50 µm core multimode fiber for 10 Gb/s and above applications.



FIBER PHYSICAL CHARACTERISTICS

Core Diameter	50.0 ± 2.5 µm	
Core Non-circularity	≤ 6%	
Core / Hybrid Cladding Concentricity Error	≤ 3.0 µm	
Hybrid Cladding Diameter	125 ± 0.7 µm	
Hybrid Cladding Non-Circularity Error	≤ 3.0%	
Soft Peel Jacket Identifier	250 ± 0.7 µm	
Coating Strip Force	100 g	
Fiber Curl	≥ 2 m	
Proof Test	100 kpsi	
Dynamic Fatigue 23°C, 41% R.H.	> 30 nD	
Bend Induced Attenuation, 1300 nm	100 turns around 75 mm diameter mandrel	≤ 1.0 dB

FIBER OPTICAL CHARACTERISTICS

Attenuation Coefficient	850 nm	≤ 3.0 dB/km
	1300 nm	≤ 1.0 dB/km
Numerical Aperture		0.200 ± 0.015
Overfilled Modal Bandwidth	850 nm	≥ 700 MHz · km
	1300 nm	≥ 500 MHz · km
High Performance EMB	850 nm	≥ 950 MHz · km

FIBER BACKSCATTER CHARACTERISTICS

Attenuation Directional Uniformity	≤ 0.05 dB/km	
Attenuation Uniformity	≤ 0.05 dB/km	
Group Index of Refraction	850 nm	1.481
	1300 nm	1.476

DIAGRAM

The HDMI head is 20.2mm wide.

