

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 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
- 48 Gbps, max 120 fps/HZ
- SSF™ Fiber Optic Technology
- Increased durability and flexibility
- 10 & 12 bit, HDCP 2.2
- High Dynamic Range, Variable Refresh Rate
- ARC + eARC up to 20 meters, ARC only 30 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

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

CLEERLINE TECHNOLOGY GROUP, LLC

8404 El Way Drive #2B, Missoula, MT 59808
Web: www.cleerlinefiber.com

USA & CAN: 866-469-2487 Fax 406-532-0060
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Int'l +1 406-541-9830 Int'l Fax 1 406-532-0060
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CONSTRUCTION

DATA, RESOLUTION, AND IMAGE

4K, 5K, 8K, and 10K

48 Gbps, 120 fps/Hz

HDCP 2.2

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

ARC + eARC: up to 20 m / ARC Only: 30 m, 40 m

7.1 Audio / Dolby Audio / DTS Audio

JACKET & CONNECTORS

Jacket Type Plenum Rated

Jacket Color Black

Rating CMP/FT6

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

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
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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
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FIBER BACKSCATTER CHARACTERISTICS

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

COMPLIANCE

UL Listed IType 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.

