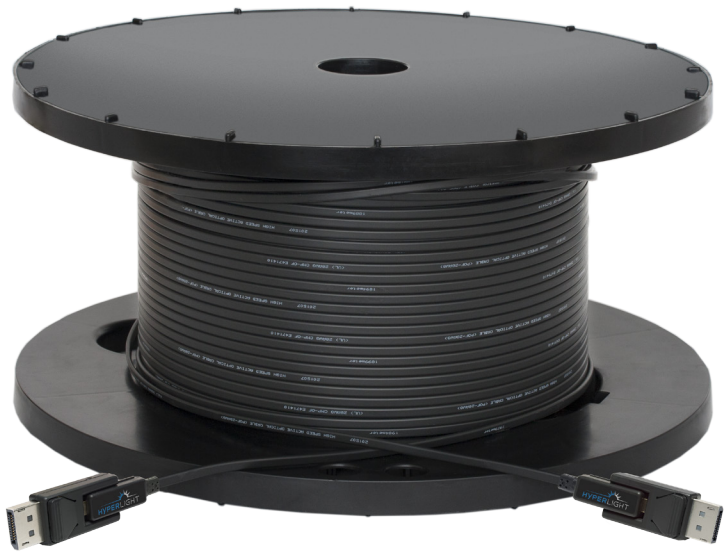
DisplayPort 1.4

Active Optical Cables

HYPERLIGHT



FEATURES

- Lightweight, compact, flexible, Plenum-rated Active Optical Cables (AOC)
- Supports DisplayPort 1.4 HBR3, HDCP 1.4 / 2.2
- Supports data rates up to 8.1 Gbps / lane or 32.4 Gbps total
- Extends resolutions up to 8K / 30 Hz up to 164 ft. (50 meters)
- Extends resolutions up to 4K / 60Hz up to 328 ft. (100 meters)
- Detachable DisplayPort docking connectors can be secured with locking pin
- Powered by the DisplayPort source; no power adapter needed
- Supports bidirectional communications over AUX channel for EDID, HDCP, Link Training, etc
- Low RFI / EMI profile for sensitive applications

Shattering Limitations – **DVIGear's HyperLight™** Series is a new generation of advanced Active Optical Cables (AOC) that employ cutting edge technology to deliver unprecedented resolution, performance and value. HyperLight cables support DisplayPort 1.4 and provide a wide range of features in a compact, lightweight form-factor. They are fully HDCP 1.4 / 2.2 compliant and support signals with data rates up to 32.4 Gbps. (HBR3). These features enable HyperLight cables to support very high resolution applications at 4K / 60Hz (4:4:4) with cable lengths up to 100 meters and 8K / 30Hz (4:4:4) up to 50 meters.

Easy to Install, Even in Plenum Spaces – HyperLight cables are plenum rated (UL CMP-OF), compact, lightweight and highly flexible. Constructed using a hybrid design of 4x POF (Polyfluorinated Optical Fiber) and 6x copper wires, they are rugged, yet flexible, with a minimum bend radius of just two millimeters. To minimize cable diameter, two removable DisplayPort docking connectors may be detached, revealing a connector cross-section that measures just 10 x 12.4 millimeters. The docking connectors include a locking pin for added security. These features make the cables easy to install even in narrow conduits as well as in plenum spaces.

Professional Environments – These cables are designed for use in mission critical applications where image quality and dependability are paramount. The video signals are transmitted over four optical fibers, which make them immune to interference from environmental noise. The optical transmission path provides a very low RFI / EMI profile, which allows the cables to be installed in sensitive applications with strict security requirements. The cables draw power from the connected DisplayPort source, eliminating the need for an external power supply. HyperLight AOC cables are ideally suited for applications that require ultra-high resolution DisplayPort signals to be extended over long cable runs with flawless image quality.

Cable and DisplayPort docking connector

Cable mated in DisplayPort docking connector

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SPECIFICATIONS

Performance	
Standards Compliance	DisplayPort 1.4 / HBR3, HDCP 1.4 / 2.2, UL CMP-OF
Max. Pixel Clock / Max. Video Bit Rate	810 MHz / Supports up to 8.1 Gbps per lane, 32.4 Gbps Total (HBR3)
Maximum Color Depth	Up to 30 bits/pixel
Maximum Supported Resolutions	4K: 3840×2160 @ at 120 Hz with 24 bits/pixel RGB color 5K: 5120×2880 @ at 60 Hz with 30 bits/pixel RGB color 8K: 7680×4320 @ at 30 Hz with 24 bits/pixel RGB color
Digital Audio Support	1-8 channels, 16 or 24-bit Linear PCM, 32-192 kHz sampling rate; maximum bitrate 36 Mbps
Connections	
DisplayPort Input / DisplayPort Output	20-pin DisplayPort Female Connectors with locking latch
Power	No external power supply is required.
AUX Channel Support	
AUX Channel Communications	Supports bidirectional communications for EDID, HDCP, Link Training, etc.
AUX Channel Data Rate	1 Mbps
HDCP Support	HDCP 1.4 and HDCP 2.2
Optical	
Optical Technology	4x Discrete Optical Channels, 10 GHz, 850 nm
Optical Transmitter / Receiver	Tx Module: 4x 850 nm Multi-mode VCSELs Rx Module: 4x GaAs PIN Photo Diodes
Cable	
Fiber Cable Type	Hybrid cable with 4x POF (Polyfluorinated Optical Fiber) and 6x copper members
Cable Jacket	Plenum Rated, Black
Standard Lengths (meters)[(1)]	3, 5, 7.5, 10, 12.5, 15, 20, 25, 30, 40, 50, 60, 75, 80, 90, 100
Standard Lengths (feet)[(1)]	9.8, 16.4, 24.6, 32.8, 41.0, 49.2, 65.6, 82.0, 98.4, 131.2, 164.0, 196.9, 246.1, 262.5, 295.3, 328.1
Maximum Cable Length	328 ft. / 100 meters[(1)]
Mechanical - Cable	
Product Weight	Varies with length
Maximum Tensile Load	> 200N
Minimum Bend Radius	2 mm (fiber and jacket)
Crush Resistance	> 500N
Cable Connector (L x W x H)	Male Micro HDMI Type D, 1.8" x 0.5" x 0.4" (44.8 mm x 12.4 mm x 10.0 mm)
Cable Outside Diameter (W x H)	0.2" x 0.1" (5.1 mm x 2.5 mm)
Mechanical – Tx and Rx Docking Plugs	
Docking Connectors	Male DisplayPort to Female Micro HDMI Type D
Construction	High-impact plastic enclosures with DisplayPort latch and locking pin
Dimensions (L x W x H)	1.8" x 0.8" x 0.5" (46.9 mm x 20.0 mm x 12.1 mm)
Environmental	
Operating / Storage Temperature	-4° to +158° F (-20° to +70° C); -4° to +185° F (-20° to +85° C)
Operating / Storage Humidity	5% to 85% (non-condensing)
Power Requirements	
Power Source	Powered from DisplayPort source device
Power Consumption	< 0.6 watt typical
Regulatory Approvals	
Fiber Optic Cable	FCC, UL, CE, RoHS
Warranty	
Limited Warranty	3 Years Parts and Labor
Model Number	
DVI-26xxx-AOC	DisplayPort v1.4 HyperLight Active Optical Cable (xxx = length in meters)
Accessories	
Included: 1x Quick Start Guide Optional: DisplayPort Female to Mini-DisplayPort Male Adapter Cable (Model No. DVI-8610a)	

Note 1: *Cable lengths greater than 50 meters (164.0 feet) can only support DisplayPort 1.2 specifications.*

Note 2: *All specifications are subject to change without notice.*