



Shattering Limitations — DVI Gear's HyperLight® Series is a new generation of advanced Active Optical Cables (AOC) that employs cutting edge technology to deliver unprecedented resolution, performance and value. HyperLight cables support DisplayPort 1.4 and provide superior features in a compact, lightweight form-factor. They are fully HDCP 1.4 / 2.2 compliant and support signals with aggregate 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) and 8K / 30Hz (4:4:4) with cable lengths up to 100 meters.

Easily Adaptable — HyperLight cables support both DisplayPort and Mini DisplayPort connections. The cables are terminated with low profile Mini DisplayPort (mDP) connectors that measure less than 8x11 mm. This narrow cross-section makes it very easy to pull these cables through conduit or other tight spaces. The cables also include two detachable docking connectors that allow them to plug into full-size DisplayPort receptacles. The docking connectors include a locking pin for added security. This functionality enables seamless connections to content servers and use in other high-density applications without any intermediary dongles or adapters.

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 GOF (Glass Optical Fiber) and 6x copper wires, they are rugged, yet flexible, with a minimum bend radius of 35 millimeters. This flexibility makes them an ideal solution for cable routing in tight spaces.

Professional Environments — These cables are designed for use in mission-critical applications where image quality and dependability are paramount. HyperLight cables are engineered from the ground up for superior performance and unfailing reliability with MTBF >150,000 hours. 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.

FEATURES

- Lightweight, compact, flexible, plenum-rated Active Optical Cables (AOC)
- Low RFI / EMI profile for sensitive applications
- 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 328 ft. (100 meters)
- Supports direct connection of Mini DisplayPort products
- Detachable Full-Size DisplayPort docking connectors have a small X-Y profile for installation in tight spaces
- Docking connectors can be secured with a locking pin
- Ultra-low Power Design uses power from the DisplayPort source; no power adapter needed
- Supports bidirectional communications over AUX channel for EDID, HDCP, Link Training, etc.



Docked and Undocked Connectors

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SPECIFICATIONS

Performance	
Standards Compliance	DisplayPort 1.4 / HBR3, HDCP 1.4 / 2.2, UL CMP-OF (File E491769)
Maximum Video Bit Rate	8.1 Gbps. on 4x Lanes / 32.4 Gbps. (aggregate)
Maximum Color Depth	Up to 48-bits per 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	Up to 32 channels of inline 24-bit, 1536 kHz uncompressed PCM audio
Connections	
DisplayPort Input / DisplayPort Output	Detachable 20-pin DisplayPort Male 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 GOF (Glass Optical Fibers) 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
Mechanical – Cable	
Product Weight	Varies with length, please inquire for details
Maximum Tensile Load	> 250N
Minimum Bend Radius	35 mm with no load, 70 mm under load
Crush Resistance	> 500N
Cable Connector (L x W x H)	Male Mini-DisplayPort: 1.90" x 0.43" x 0.31" (48.2 mm x 10.8 mm x 7.9 mm)
Cable Outside Diameter	0.13" (∅ 3.4 mm)
Mechanical – Tx and Rx Docking Plugs	
Docking Connectors	Female Mini-DisplayPort to full-size Male DisplayPort
Construction	High-impact plastic enclosures with DisplayPort latch and locking pin
Dimensions (L x W x H)	2.1" x 0.79" x 0.57" (53.6 mm x 20.0 mm x 14.4 mm)
Environmental	
Operating / Storage Temperature	32° to +122° F (0° to +50° C) / -4° to +158° F (-20° to +70° C)
Operating / Storage Humidity	5% to 85% (non-condensing)
Power Requirements	
Power Source	Powered from DisplayPort source device
Power Consumption	< 0.43 watt typical (130 mA @ 3.3 VDC)
Regulatory Approvals	
Fiber Optic Cable	FCC, UL CMP-OF (File E491769), CE, RoHS
Warranty	
Limited Warranty	3 Years
Model Number	
DVI-28xxx-AOC	DisplayPort / mDP 1.4, HyperLight G-AOC Cable (xxx = length in meters)
Accessories Included	
1x HyperLight Mini-DP-AOC Passive Docking Connector, Rx (DVI-28000-RX) 1x HyperLight Mini-DP-AOC Passive Docking Connector, Tx (DVI-28000-TX) 2x HyperLight Docking Connector Locking Pin (DVI-2500-AOC-PIN) 1x Quick Start Guide (DVI-28xxx-AOC-QSG-01)	

Note 1: All specifications are subject to change without notice.