infobit AOC (Active Optical Cable) Spec and Manual
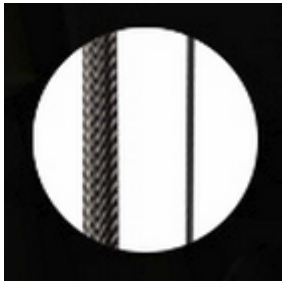
A. Technology:

Infobit Active Optical Cable (AOC) is an easy-to-use, secure connection for home video distribution, conference room presentation systems, classroom projection systems, digital signage, CCTV, Control room and command center distribution or video wall application. Infobit Active Optical Cable (AOC) supports high definition connection between your Blu-ray, DVD, game console, computer, media player, professional video and HDTV or projector.

Fiber optics provides the speed and bandwidth needed for the best video and/ or audio quality for high definition at lengths up to 100 meters / 328 feet (HDMI 2.0 AOC premium version supports up to 300m/984ft); supporting the long distances required in commercial video solutions. No extenders, baluns or amplifiers are needed and Infobit fiber optic cables are EMI free allowing them to be installed with multiple cable pulls, providing the flexibility for remote component locations. Supporting up to 4K30Hz 4:4:4 and 4K60Hz 4:4:4 (even 4K120Hz and 8K60Hz via DisplayPort AOC) performance up to 300 meters or 984 feet, Infobit cables are plenum rated and do not require time consuming fiber terminations.

Infobit compact Active Optical Cable (AOC) is thin, durable and pre-terminated with HDMI, DVI or DisplayPort connectors, which eliminate the need for time-consuming fiber terminations and the need for costly fiber optic tools.

- Plug and play.
- Rx side to power. External power supply (5V USB to DC2.0) is optional.
  (Note: If the device or display at the Rx side can provide embedded 5V power, then the external power supply is unnecessary.)
- Hot swappable, no software/ driver needed.
- Thin construction
- The sleek cable can be easily concealed or installed the concealed locations, conduit, plenum spaces and cabling raceways.
- Up to 300m/ 984ft long distance transmission
- 100% EMI-Free
- Without signal loss.
- No more than 250mW consumption

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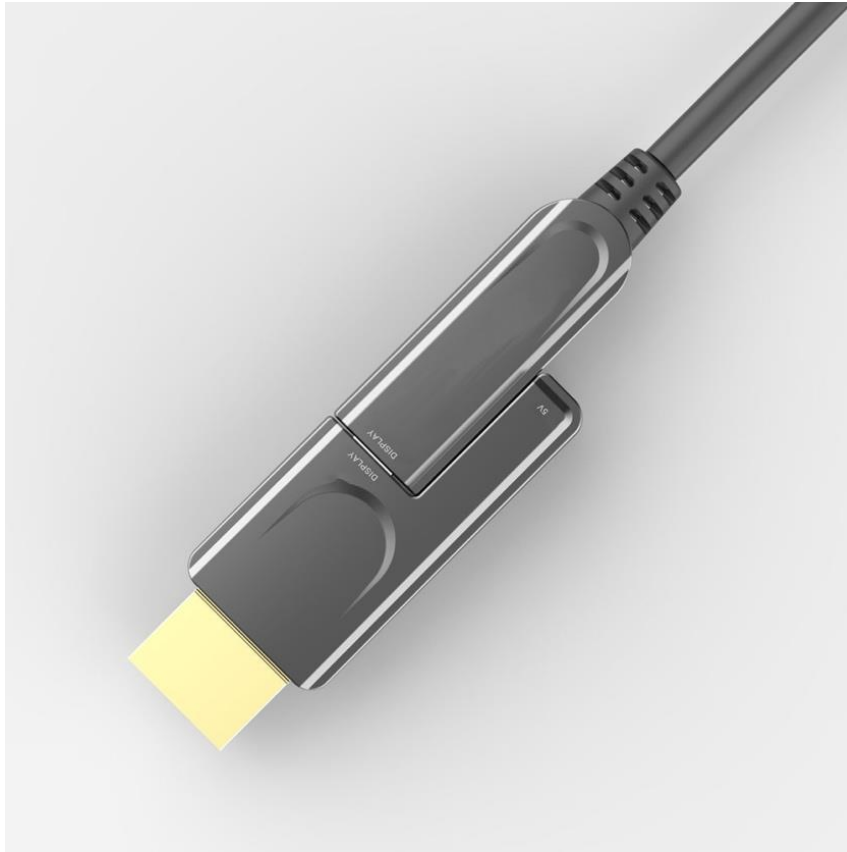
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- No additional extenders, baluns or amplifiers are needed.
- Thin, durable and pre-terminated HDMI/ DP/ DVI connectors, which eliminate the need for time-consuming fiber terminations and the need for costly fiber optic tools.
- AOC V.S cooper:

Typical HDMI/DVI/DP cooper cable(Left) v.s Infobit AOC (Right)
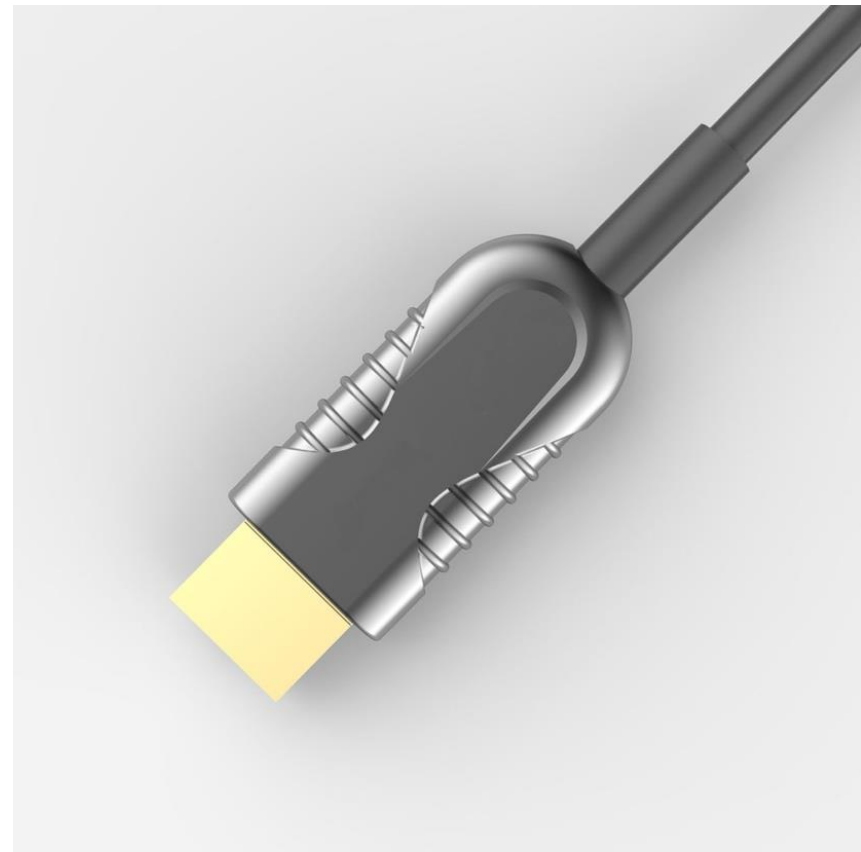
- **Infobit AOC:** 70% weight less than Cooper cables.
- **Infobit AOC:** Long distance and multi-point distribution of 4K UHD video.
- **Cooper:** with Sender/ receiver system, video quality and HDMI handshake be compromised.
- **Infobit AOC:** without external TX/RX boxes, high quality.

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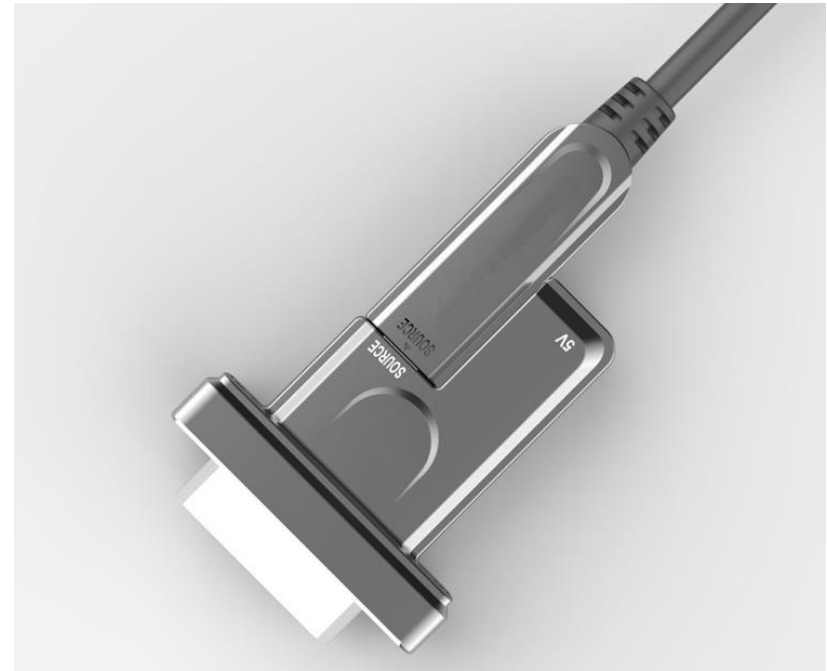B. Models

HDMI 2.0 Type D to D, with Type A detachable connector AOC, classic version

Up to 4K/60Hz 4:4:4, max. 100m/328ft

External power supply optional

Order Code: AOC-HDMI-DxxC

HDMI 2.0 Type A to A, fixed AOC

Up to 4K/60Hz 4:4:4, max. 100m/328ft

Without External power supply

Order Code: AOC-HDMI-Fxx

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HDMI 2.0 Type D to D, with Type A detachable connector AOC, premium version	DVI detachable AOC (HDMI Type D to DVI), detachable AOC
Up to 4K/60Hz 4:4:4, max. 300m/984ft	Up to 1080P/60Hz
No external power supply	External power supply optional
Order Code: AOC-HDMI-DxxP	Order Code: AOC-DVI-Dxx

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DisplayPort 1.4 Mini DP to Mini DP, with DP connector, detachable AOC	DisplayPort 1.4 DP fixed AOC
4K/120Hz 4:4:4 and 8K/60Hz 4:4:4	4K/120Hz 4:4:4 and 8K/60Hz 4:4:4
No external power supply	Without External power supply
Order Code: AOC-DP-Dxx	Order Code: AOC-DP-Fxx

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C. Features and spec:

No.	Feature/Spec	AOC-HDMI-DxxC	AOC-HDMI-DxxP	AOC-HDMI-Fxx	AOC-DP-Dxx	AOC-DP-Fxx	AOC-DVI-Dxx
1	Connector	HDMI Type D to D	HDMI Type D to D	HDMI Type A	Mini DP to DP	DP	HDMI Type D to DVI
2	Plug and Play	✔	✔	✔	✔	✔	✔
3	Detachable	✔	✔	✗	✔	✗	✔
4	Embedded power supply at Rx side *	✔	✔	✔	✔	✔	✔
5	External power supply	5V USB to DC 2.0	✗	✗	5V Micro USB	✗	5V USB to DC 2.0
6	Hot swappable	✔	✔	✔	✔	✔	✔
7	No software/ driver required	✔	✔	✔	✔	✔	✔
8	Thin construction **	✔	✔	✔	✔	✔	✔
9	Max. Resolution	4K/30Hz/ 60Hz 4:4:4	4K/30Hz/ 60Hz 4:4:4	4K/30Hz/ 60Hz 4:4:4	4K/120Hz, 8K/60Hz	4K/120Hz, 8K/60Hz	1080P/60Hz
10	HDCP compliant	✔	✔	✔	✔	✔	✔
11	EDID	✔	✔	✔	✔	✔	✔
12	CEC	✔	✔	✔	✔	✔	✗
13	100% EMI free	✔	✔	✔	✔	✔	✔
14	Without signal loss	✔	✔	✔	✔	✔	✔
15	Max Distance	100m/ 328ft	300m/ 984ft	100m/ 328ft	100m/ 328ft	100m/ 328ft	100m/ 328ft
16	Power consumption	≤ 250mW	≤ 250mW	≤ 250mW	≤ 250mW	≤ 250mW	≤ 250mW
17	Bandwidth	18Gpbs	18Gpbs	18Gpbs	32.4Gpbs	32.4Gpbs	10.2Gpbs
18	Stereo Audio	✔	✔	✔	✔	✔	✗
19	PCM 8–channel, Dolby Digital True HD and DTS–HD Master Audio.	✔	✔	✔	✔	✔	✗
20	Min. Bending Ratio	Dynamic 20D, Static 10D	Dynamic 20D, Static 10D	Dynamic 20D, Static 10D	Dynamic 20D, Static 10D	Dynamic 20D, Static 10D	Dynamic 20D, Static 10D
21	Max. Compressed Stress	500N, 51Kg or 112lbs	500N, 51Kg or 112lbs	500N, 51Kg or 112lbs	500N, 51Kg or 112lbs	500N, 51Kg or 112lbs	500N, 51Kg or 112lbs
22	Max. Tensile Force	200N, 20Kg or 44lbs	200N, 20Kg or 44lbs	200N, 20Kg or 44lbs	200N, 20Kg or 44lbs	200N, 20Kg or 44lbs	200N, 20Kg or 44lbs

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23	3D video	✔	✔	✔	✔	✔	**X**
24	Fiber cable body dimension (Diameter)	4.2mm or 0.170"	4.2mm or 0.170"	4.2mm or 0.170"	4.2mm or 0.170"	4.2mm or 0.170"	4.2mm or 0.170"
25	Humidity	0-90% RH	0-90% RH	0-90% RH	0-90% RH	0-90% RH	0-90% RH

* If the device or display at the Rx side can provide embedded 5V power, then the external power supply is unnecessary. Please make sure your Display device male port can provide 5V electricity to power the AOC. Otherwise, please insert the Infobit USB to DC2.0 or Micro USB power cord as external power supply.

** The sleek cable can be easily concealed or installed the concealed locations, conduit, plenum spaces and cabling raceways.

D. Available length

No.	Model:	Available length
1	AOC-HDMI-DxxC	10m, 15m, 20m, 25m, 30m, 40m, 50m, 60m, 70m, 80m, 90m and 100m
2	AOC-HDMI-DxxP	10m, 15m, 20m, 25m, 30m, 40m, 50m, 60m, 70m, 80m, 90m, 100m, 120m, 150m, 200m, 250m and 300m
2	AOC-HDMI-Fxx	10m, 15m, 20m, 25m, 30m, 40m, 50m, 60m, 70m and 100m
3	AOC-DP-Dxx	10m, 15m, 20m, 30m, 40m, 50m, 60m, 70m, 80m, 90m and 100m
4	AOC-DP-Fxx	10m, 15m, 20m, 30m, 40m, 50m, 60m, 70m, 80m, 90m and 100m
5	AOC-DVI-Dxx	10m, 15m, 20m, 25m, 30m, 40m, 50m, 60m, 70m, 80m, 90m and 100m

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E. FAQ

1. Why there is no signal after connecting my source and display/projector?

   Firstly, please check the cable direction. Make sure connect the Tx connector to your source and Rx to display/projector.

2. Do I need to connect the external power supply?

   Usually, you don't need to connect the external power supply if your display/ projector can provide 5V electricity. Otherwise, please connect the external power.