

USB Active Optical Cable

USB 3.2 Gen 2x1 10Gbps Type A Male to Type B Male AOC

SKU: UDC-AMBM10G-XXXM

PRODUCT OVERVIEW

The **USB 3.2 Gen 2x1 Type A Male to Type B Male Active Optical Cable (AOC)** is a groundbreaking Gen2 active optical cable that sets a new standard in high-speed data transmission. It delivers super-speed data transmission using optical fiber, supporting lengths of up to 15m with stable signal quality and zero EMI. This cable supports 10Gbps data rates, fully complies with the USB 3.1 standard, and is backward compatible with USB 2.0 and 1.1. It offers a mature and competitive solution for high-speed data transmission applications.



**(Downward Compatible
with USB 2.0/1.1)**

KEY FEATURES

- Supports USB 3.2 Gen 2x1 with 10Gbps super speed.
- Supports lengths up to 15m.
- Supports USB 3.0 devices and backward compatible with USB 2.0, and USB 1.1.
- Provides up to 5V/900mA power to connected devices.
- Compatible with Windows, Mac OS, and Linux.
- Plug-and-play, requires no external power adapter.
- Offers fiber-optic noise immunity for high-performance, interference-free connections
- Features a 4.5mm cable OD with 4 fiber and 4 copper wires.
- Upstream (PC side) and downstream (device side) both support USB 3.0, USB 2.0, and USB 1.1.
- Suitable for printers, scanners, KVM switchers, and other Type B devices.

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SPECIFICATIONS

Product Specifications

Parameter	Descriptions
Interface	USB 3.0 Standard Type A Male to Type B Male Connector
Max. Data Rate	10Gbps
Cable Length	Up to 15m (49.2ft) over Multimode Optical Fiber
Optical Transceiver	850nm VCSEL (Multimode)
Cable Diameter	4.5mm
Jacket Outer Material	PVC
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-20°C to 70°C (-4°F to 158°F).
Humidity	5% to 90% (non-condensing)

Absolute Maximum Ratings

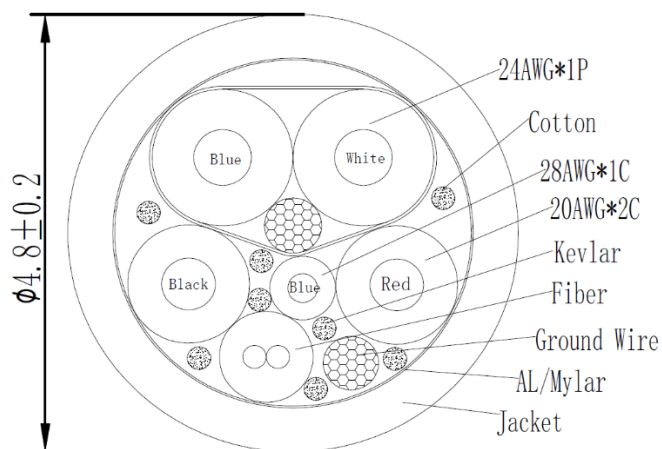
Parameter	Min	Max	Unit
Supply Voltage	-0.5	5.5	V
Operating Temperature	0	70	°C
Storage Temperature	-40	85	°C
Relative Humidity	10	85	%RH

Recommended Operating Conditions

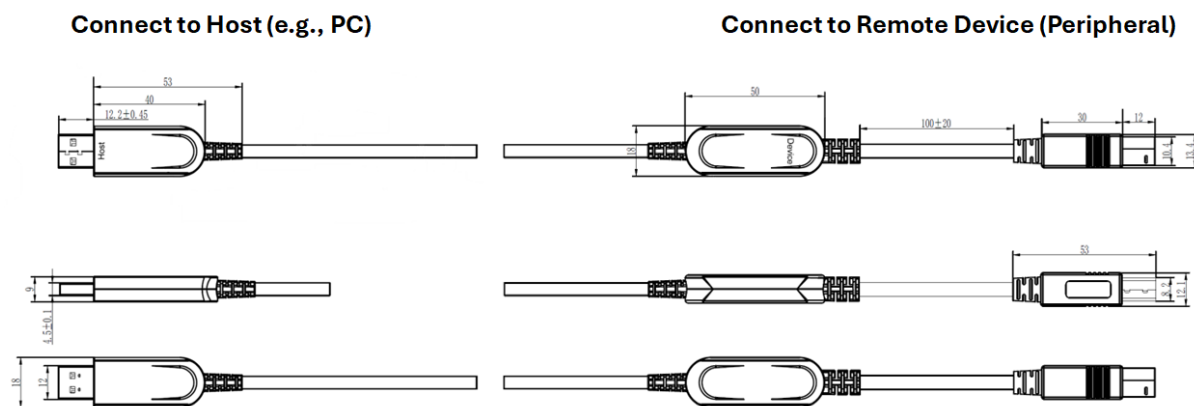
Parameter	Min	Typical	Max	Unit
Supply Voltage	4.75	5	5.25	V
Operating Temperature	0		50	°C

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CABLE CONSTRUCTION



CONNECTION DIAGRAM



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HANDLING AND INSTALLATION

Proper installation and handling of USB-C Active Optical Cables (AOC) are crucial to ensure optimal performance and longevity. Follow these guidelines to maintain signal integrity and ensure reliable data transmission:

Installation Instructions:

1. **Handle with Care:** When installing the cable, avoid any sharp bends or kinks that could damage the delicate optical fiber strands inside.
2. **Secure Connections:** Connect one end of the cable to the USB Host device, ensuring a snug fit to prevent any signal loss. Connect the other end to the peripheral device, such as a monitor or external storage, ensuring a secure connection.
3. **Avoid Excessive Strain:** Provide adequate support for the cable to avoid unnecessary tension on the connectors.
4. **Gentle Handling:** Avoid pulling or twisting the cable excessively. Always disconnect devices by gripping the connectors rather than pulling on the cable itself.

Additional Notes:

- **Directional Use:** This cable can only be used in one direction. The connectors are marked with “Host” and “Device”. Each connector must be plugged into the correct port to avoid signal loss.
- **No Intermediate Adapters and Cables:** We do not recommend using any intermediate adapters or cables between the connections. This can attenuate signal transmission performance and may result in insufficient power being supplied to the USB connection, preventing the internal fiber optic module from functioning correctly.

Following these guidelines will help ensure the longevity and reliability of your USB-C Active Optical Cable, providing consistent high-speed data transmission and device connectivity.

PACKAGE CONTENTS

- 1 × USB 3.2 Gen2x1 10Gbps, Type A Male to Type B Male AOC

USB Active Optical Cable

WARRANTY

- Standard 2-Year Limited Warranty, unless otherwise specified by Sales.
- Optional Advance Replacement Warranty is available upon request

ORDERING INFORMATION

Part Number	Descriptions	Length
UDC-AMBM10G-005M	USB 3.2 Gen2x1 10Gbps Type A Male to Type B Male, Backward Compatible, PVC, 5m	5m
UDC- AMBM10G - 008M	USB 3.2 Gen2x1 10Gbps Type A Male to Type B Male, Backward Compatible, PVC, 8m	8m
UDC- AMBM10G - 010M	USB 3.2 Gen2x1 10Gbps Type A Male to Type B Male, Backward Compatible, PVC, 10m	10m
UDC- AMBM10G - 012M	USB 3.2 Gen2x1 10Gbps Type A Male to Type B Male, Backward Compatible, PVC, 12m	12m
UDC- AMBM10G - 015M	USB 3.2 Gen2x1 10Gbps Type A Male to Type B Male, Backward Compatible, PVC, 15m	15m

CONTACT INFORMATION

For more information, please visit our website or contact our customer service team:

- **Website:** www.dsgio.com
- **Email:** sales.apac@dsgio.com

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