

# USB Active Optical Cable

**USB 3.0 Type A Male to Type A Female AOC, Supports Gen 2 10Gbps, Backward Compatible with USB 2.0 and 1.1**

SKU: UDC-AMAF10G-XXXM

## PRODUCT OVERVIEW

DSGio's **USB 3.0 Type A Male to Type A Female Active Optical Cable (AOC)** is a pioneering solution in the market, offering downward compatibility with USB 2.0 and USB 1.1. Utilizing advanced optical fiber technology, this cable enables super-speed data transmission of up to 10Gbps while supporting lengths of up to 15 meters. Its design ensures stable signal quality with no electromagnetic interference (EMI), making it ideal for environments that lack on-site power supply. This optical fiber cable is suitable for a wide range of applications, including machine vision, KVM data transmission, remote device sharings, etc, providing reliable connectivity for various devices.



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

## KEY FEATURES

- Engineered to meet the USB 3.1 Gen2 standard supporting data transfer rates of up to 10Gbps over distances of up to 15m (49.2ft)
- Compatible with all USB 3.0 devices, and backward compatible with USB 2.0 and USB 1.1
- Works with all major operating systems: Windows, macOS, and Linux
- Plug-and-play, requires no external power adapter
- For use with self-powered peripherals only
- Provides up to 5V/900mA power supply to connected devices
- Offers fiber-optic noise immunity for high-performance, interference-free connections
- Black PVC Jacket, Cable Outer Diameter 4.8mm
- Upstream (PC side) and downstream (device side) both support USB 3.0, USB 2.0, and USB 1.1

# USB Active Optical Cable

## SPECIFICATIONS

### Product Specifications

| Parameter             | Descriptions  |
|-----------------------|---|
| Interface             | USB 3.0 Standard Type A Male to Type A Female Connector |
| Max. Data Rate        | 10Gbps  |
| Cable Length          | Up to 15m (49.2ft) over Multimode Optical Fiber         |
| Optical Transceiver   | 850nm VCSEL (Multimode)                                 |
| Cable Diameter        | 4.8mm   |
| Jacket Outer Material | Black 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

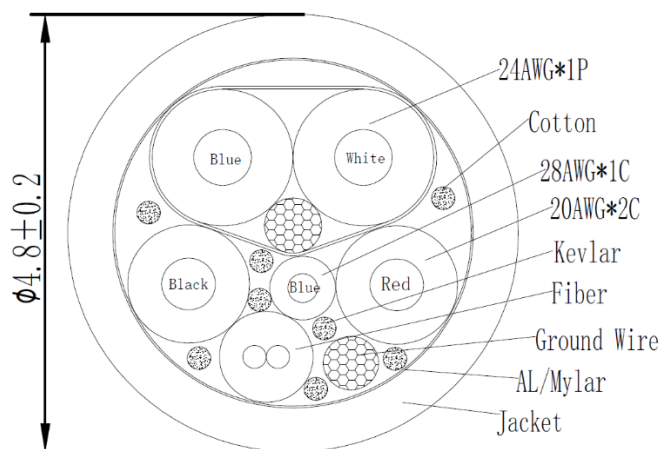
| Parameter             | Min  | Max | Unit |
|-----------------------|------|-----|------|
| Supply Voltage        | -0.5 | 5.5 | V    |
| Operating Temperature | 0    | 70  | °C   |
| Storage Temperature   | -40  | 85  | °C   |
| Relative Humidity     | 10   | 85  | %RH  |

### Recommended Operating Conditions

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

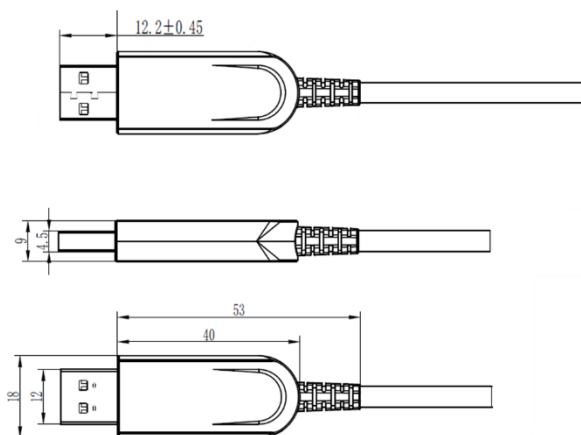
# USB Active Optical Cable

## CABLE CONSTRUCTION

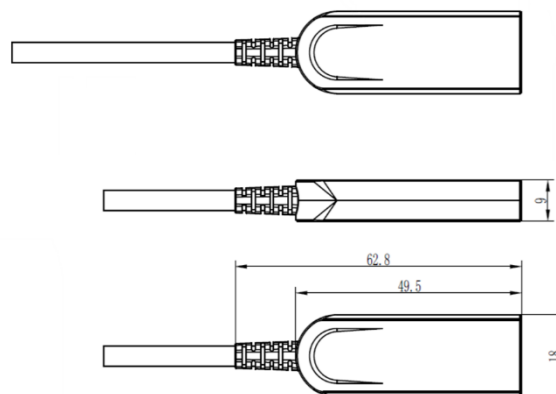


## CONNECTION DIAGRAM

**Connect to Host (e.g., PC)**



**Connect to Remote Device (Peripheral)**



# USB Active Optical Cable

## HANDLING AND INSTALLATION

Proper installation and handling of USB Active Optical Cables (AOCs) 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 the Type-A end to the USB host device (such as a computer or hub) and the other end to the peripheral device (such as a printer, scanner, KVM switch, or external storage). Ensure a snug fit to prevent signal loss.
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 Active Optical Cable, providing consistent high-speed data transmission and device connectivity.

## PACKAGE CONTENTS

- 1 × USB 3.0 Type A Male to Type A Female 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 |
|----------------------------|---|--------|
| <b>UDC-AMAF10G-005M</b>    | USB 3.0 Type A Male to Type A Female AOC, Supports Gen 2 10Gbps, Backward Compatible with USB 2.0 and 1.1, PVC, 5m  | 5m     |
| <b>UDC- AMAF10G - 008M</b> | USB 3.0 Type A Male to Type A Female AOC, Supports Gen 2 10Gbps, Backward Compatible with USB 2.0 and 1.1, PVC, 8m  | 8m     |
| <b>UDC- AMAF10G - 010M</b> | USB 3.0 Type A Male to Type A Female AOC, Supports Gen 2 10Gbps, Backward Compatible with USB 2.0 and 1.1, PVC, 10m | 10m    |
| <b>UDC- AMAF10G - 012M</b> | USB 3.0 Type A Male to Type A Female AOC, Supports Gen 2 10Gbps, Backward Compatible with USB 2.0 and 1.1, PVC, 12m | 12m    |
| <b>UDC- AMAF10G - 015M</b> | USB 3.0 Type A Male to Type A Female AOC, Supports Gen 2 10Gbps, Backward Compatible with USB 2.0 and 1.1, PVC, 15m | 15m    |

## CONTACT INFORMATION

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

- **Website:** [www.dsgio.com](http://www.dsgio.com)
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