



YDSAOC-5G-USB3-AM-BM-SW 5Gbps Active Fiber Optical USB 3.0 Extension Cable

Overview

YDSAOC-5G-USB3-AM-BM-SW is a high-performance **5Gbps Active Fiber Optical (AOC) USB 3.0 Extension Cable**, connecting **USB Type-A Male to USB Type-B Male (with screws)**. Combining fiber optic and copper hybrid technology, it overcomes the distance and bandwidth limitations of traditional copper cables, delivering fast, reliable, and lossless data transmission over extended distances.



Highlight Features

- ◆ **Plug-and-Play Installation** – Unidirectional, both ends ready to use with no on-site power required
- ◆ **Long-Distance Transmission** – Reliable, lossless signals up to 30m
- ◆ **High EMI/RFI Resistance** – Virtually zero electromagnetic interference for safe, stable performance in complex environments
- ◆ **Hybrid Fiber/Copper Design** – Thin, flexible, lightweight cable; no external power supply needed
- ◆ **Wide Compatibility** – Seamlessly works across multiple USB standards
- ◆ **Fully Customizable** – Custom lengths (up to 30m), logos, and packaging available

Applications

- ◆ Machine vision camera links
- ◆ Medical imaging equipment
- ◆ Video conferencing and conference rooms
- ◆ Digital signage and LED signboards
- ◆ Home theater, Blu-ray, 3D video, projectors, set-top boxes, DVRs, and game consoles
- ◆ Broadcast (radio/TV) stations and airplane on-board video systems
- ◆ Security monitoring and remote monitoring systems



ACTIVE OPTICAL CABLES

your best fiber optics partner

Best For

Environments requiring extended data transmission distances **without on-site power supply**, and applications demanding **high reliability in electromagnetically complex environments** — such as industrial, medical, broadcast, and enterprise settings.

Key Specifications

YDSAOC Model Number	YDSAOC-5G-USB3-AM-BM-SW
Order Part Numbers	YDSAOC-5G-USB3-AM-BM-SW-1003 YDSAOC-5G-USB3-AM-BM-SW-2006 YDSAOC-5G-USB3-AM-BM-SW-50015 YDSAOC-5G-USB3-AM-BM-SW-100030 YDSAOC-5G-USB3-AM-BM-SW-200060
Length	1m(3ft), 2m(6ft), 5m(15ft), 10m(30t), 20m(60ft)
Maximum Support Length	up to 30m(90ft)
Maximum Data Speed	up to 5Gbps
Connector A	USB 3.0 Type-A Male
Connector B	USB 3.0 Type-B Male with Screws
USB Protocols	USB 3.0, USB 2.0
Support Functions	Data Transfer, Power Transfer
Cable Diameter	4.8mm
Cable Jacket Type	PVC
Cable Color	Black
AOC Constructions	Hybrid, 2x Optical Fiber, 4x Copper Wire
Minimum Bending Radius	50mm
Operating Temperature	0°C to 70°C
Storage Temperature	-40°C to 85°C
Installation Direction	Bidirectional, No Check on Directions
Power Connect	No External Power is Required

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ACTIVE OPTICAL CABLES

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Plug & Play, Bus-Powered

Fiber-optic transmission with integrated copper wires for device power delivery.

Up to 900mA at 5V.

Compatible with a Wide Range of Devices

Ideal for connecting to hosts, cabinets, and industrial cameras with this interface.



Blackfl



Hikvision



JAL



IDS



BASLER



Daheng

Applications

Ideal for security cameras, home theater expansion, data storage, DVD/set-top boxes, and automotive data transmission.



Security Camera



Digital Home Theater



Expanded Data Storage



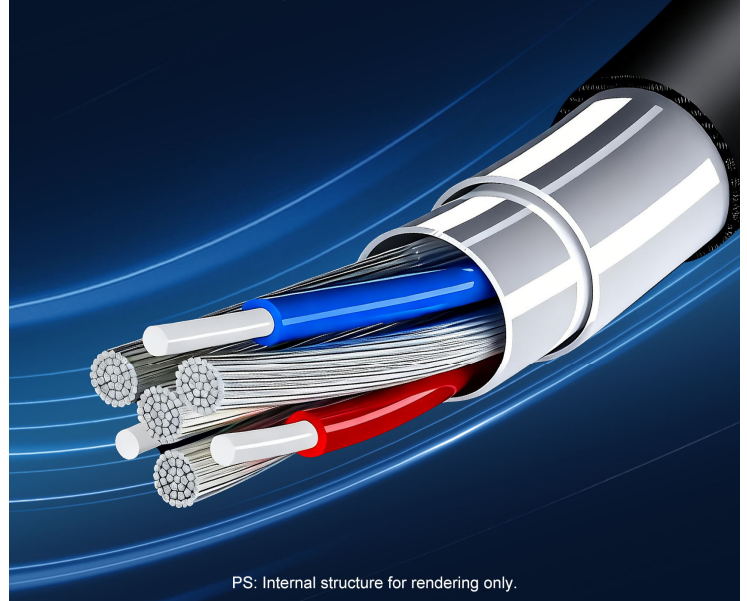
DVD / Set-Top Box



Automotive Data Transmission

Fiber Optic, Interference-Free

Superior EMI Resistance



PS: Internal structure for rendering only.

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Product Specifications

Product Name: Fiber Optic USB 3.0 Extension Cable

Shell: Zinc Alloy Shell

Bandwidth: 5Gbps

Material: PVC Sheath

Interface: USB 3.0

Warranty: 1 Year

Length: 15m/20m

PS: The dimensions marked for the product on this page are measured manually, so slight variations may occur.



YDSAOC-5G-USB3-AM-BM-SW

5Gbps Active Fiber Optical (AOC) USB 3.0 Extension Cable –
USB Type-A Male to USB Type-B Male (with screws)



**5Gbps
Speed**



**Up to 30m
Distance**



**No On-Site
Power**



PRODUCT SUMMARY

Combining fiber optic and copper hybrid technology, it overcomes the distance and bandwidth limitations of traditional copper cables, delivering fast, reliable, and lossless data transmission over extended distances.

FEATURES

- ✓ **Plug-and-Play Installation** – Unidirectional, both ends ready, no on-site power
- ✓ **Long-Distance Transmission** – Reliable, lossless signals up to 30m
- ✓ **High EMI/RFI Resistance** – Virtually zero electromagnetic interference
- ✓ **Hybrid Fiber/Copper Design** – Thin, flexible, lightweight cable
- ✓ **Wide Compatibility** – Works across multiple USB standards
- ✓ **Fully Customizable** – Custom lengths, logos, and packaging

APPLICATIONS

- Machine vision camera links
- Medical imaging equipment
- Video conferencing and conference rooms
- Digital signage and LED signboards
- Home theater, Blu-ray, 3D video, projectors, set-top boxes, DVRs, game consoles
- Broadcast (radio/TV) stations and airplane on-board video systems
- Security monitoring and remote monitoring systems



BEST FOR

Environments requiring extended data transmission distances without on-site power supply, and applications demanding high reliability in electromagnetically complex environments – **Industrial, Medical, Broadcast, and Enterprise** settings.



INDUSTRIAL



MEDICAL



BROADCAST



ENTERPRISE

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YDSAOC



VIBRANT DISPLAY
High brightness and stunning visuals



VERSATILE SOLUTIONS
Ideal for retail, corporate, hospitality and more



SEAMLESS CONNECTIVITY
Reliable performance for digital signage systems



BUILT TO PERFORM
Stable, durable and engineered to last

Row 1 - Legacy/USB 2.0 Connectors



USB Type A



USB Type B



USB Mini A



USB Mini B



USB Micro A



USB Micro B

Row 2 - Modern Connectors



USB Type C



USB Micro B 3.0



USB 3.0 Type A



USB 3.0 Type B



USB 3.0 Micro B

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Applications of Active Optical Cable (AOC)

High-speed, long-distance connectivity across diverse industries.



1 Traffic Monitoring

Uninterrupted connectivity for real-time traffic data, safety and efficiency.



2 Security & Surveillance

HD/4K/8K video support, effective monitoring without downtime.



3 Control Rooms

Ultra-high bandwidth for instantaneous data and video switching.



4 Healthcare

EMI/RFI immunity ensures reliable transmission in medical environments.



5 Education

Connectivity in large lecture halls, overcoming copper cable limits.



6 Digital Signage

High-quality displays with consistent transmission of information.



7 Conference Rooms

Plug-and-play design makes connectivity easy for presenters.



8 Government Campuses

Thinner and more flexible than copper, reducing cable clutter.



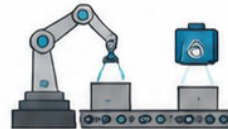
9 USB4 Applications

Extends reach while maintaining power and signal integrity.



10 Audio Visual Entertainment

Superior signal quality for home theaters and gaming.



11 Industrial & Machine Vision

Durable, high-performance for automated inspection.



12 Broadcast Systems

High bandwidth and low latency for seamless content delivery.



13 Simulation Systems

Real-time transmission for realistic training.



14 Data Centers & HPC

Pivotal for high-performance computing and extensive configurations.



15 Consumer Electronics & IT

High-res displays, VR devices, and high-bandwidth apps.



16 Aerospace, Defense & Automotive

High-speed, robust connectivity for critical sectors.

Core Benefits



Reliability



Long Distance



EMI Immunity



High Bandwidth



Flexible Installation



Power Delivery



Plug-and-Play