



YDSAOC-10G-USB32-AM-CM 10Gbps Active Fiber Optical USB 3.2 Extension Cable

Overview

YDSAOC 10Gbps Active Fiber Optical USB 3.2 Extension Cable

(also known as a USB 3.2 AOC, Fiber Optic USB Cable, or USB Active Optical Cable) is designed to meet the growing demand for high-bandwidth connectivity. By combining fiber optic technology with USB connectivity, it overcomes the distance and interference limitations of traditional copper cables while delivering reliable, high-performance connections across long distances.



Key Features

- ◆ **Ultra-High Speed:** Complies with the USB 3.2 Gen 2 standard, delivering data transfer speeds up to 10Gbps.
- ◆ **Long-Distance Transmission:** Supports lossless signal delivery over distances up to 50 meters (150 ft).
- ◆ **Backward Compatibility:** Compatible with USB 3.2, USB 3.0, USB 2.0 — the first Gen 2 active optical cable to support downward compatibility with USB 2.0.
- ◆ **Power Supply:** Provides up to 5V / 900mA to the remote device.
- ◆ **Easy Installation:** True plug-and-play on both sides with a unidirectional design; hot-swappable, works seamlessly with both Windows and Mac operating systems.
- ◆ **EMI/RFI Resistance:** High resistance to electromagnetic interference with a virtually zero EMI/RFI profile, ensuring radiation-free, flawless performance.
- ◆ **No External Power Required:** Hybrid fiber/copper design eliminates the need for on-site power.
- ◆ **Durable Build:** TPE/PVC jacket provides long-lasting protection.
- ◆ **Customizable:** Custom length, logo, and packaging options available (up to 50m max length).

Supported Transfer Types

Supports all USB 3.2 device types, including **control, interrupt, bulk, and isochronous transfers**, ensuring smooth and reliable operation across a wide range of applications.



Typical Applications

- ◆ Machine Vision Camera Link
- ◆ Medical Imaging Equipment
- ◆ LED Signboards & Monitors
- ◆ Conference Room & Video Conference Equipment
- ◆ Digital Signage
- ◆ Home Theater, Blu-ray, 3D Video, Projectors & Set-top Boxes
- ◆ Radio and TV Broadcast Stations
- ◆ Airplane On-board Video Systems
- ◆ Security Monitoring Systems
- ◆ DVR & Game Console Monitoring Connections
- ◆ Gaming PCs, Hard Drives, Mobile Terminals
- ◆ Scanners, Touch Screens, Webcams & Access Control Systems
- ◆ SSD Storage and 4K Webcams

Best For

Environments requiring extended data transmission distances without on-site power, offering high reliability in electromagnetically complex settings. Ideal for extending webcams in surveillance systems, powering digital signage displays, and integrating devices across larger home or commercial networks.

YDSAOC

Airplane On-board Video Systems



High-Resolution
Entertainment



Seamless
Connectivity



Interactive
Experience



Reliable &
Secure

Powering the future of in-flight entertainment with high-speed connectivity and reliable video transmission.



Key Specifications

YDSAOC Model Number	YDSAOC-10G-USB32-AM-CM
Order Part Numbers	YDSAOC-10G-USB32-AM-CM-1003 YDSAOC-10G-USB32-AM-CM-50015 YDSAOC-10G-USB32-AM-CM-100030 YDSAOC-10G-USB32-AM-CM-200060 YDSAOC-10G-USB32-AM-CM-300090
Length	1m(3ft), 5m(15ft), 10m(30t), 20m(60ft). 30m(90ft)
Maximum Support Length	up to 50m(150ft)
Maximum Data Speed	up to 10Gbps
Connector A	USB 3.2 Type-A Male
Connector B	USB 3.2 Type-C Male
USB Protocols	USB 3.2 Gen 2, USB 3.1 Gen 2, USB 3.0, USB 2.0
Support Functions	Data Transfer, Power Transfer 5V/900mA
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





ACTIVE OPTICAL CABLES

your best fiber optics partner

High-Power Devices: Supports External Auxiliary Power

micro USB port: used for auxiliary power supply of devices with power consumption greater than 2W



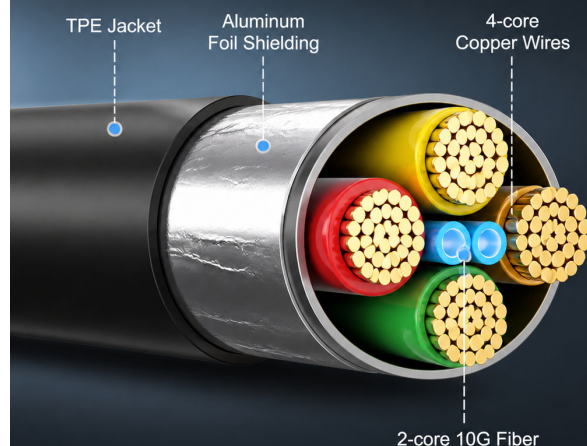
Zinc Alloy Shell: Effectively Protects the Module

Adopts gun-gray zinc alloy shell with exquisite craftsmanship. It boasts high hardness and long-lasting durability, offering stronger protection for internal modules.



10G Fiber: Zero Radiation Anti-Interference

Hybrid fiber-copper design for stable, interference-free signals.



Note: Internal structure is a render, refer to actual product.

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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

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

Fiber Optic, Interference-Free

Superior EMI Resistance



PS: Internal structure for rendering only.



ACTIVE OPTICAL CABLES

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Widely Compatible with USB-C Devices



Machine Vision



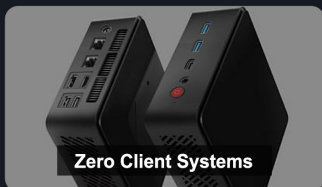
Industrial Printing



Security & Surveillance



Digital Signage & Video Walls



Zero Client Systems



Remote Storage Systems

Touch Control Pass-Through

Touch-enabled interactive display,
not just a secondary screen.



Faster Scanning, Modeling & Tracking for Depth Cameras

Supports depth cameras, stereo cameras, and is widely compatible with Intel, Microsoft, ZED and other major depth cameras.

10Gbps High-Speed Transfer

Tested Type-C transfer speed up to 957MB/s.
Transfer a 1GB file in just ~1.1 seconds.



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Fiber Optic Extension Cable - Product Features

USB 3.2 Fast Transmission: 50m transmission with no delay, no radiation, and anti-interference



1. USB 3.2 Fast Transmission
10Gbps high-speed bandwidth for fast and stable data transfer



2. No Delay Over Long Distances
50m length; optical signals resist interference for delay-free transmission



3. No Radiation & Anti-Interference
Fiber optic transmission generates no radiation and resists electromagnetic interference



4. Damage-Free Bending
Bending radius over 20mm results in nearly zero signal loss



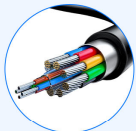
5. Slim & Flexible Cable
4.8mm cable diameter; 10N tensile strength capacity, 20N compression strength capacity



Zinc Alloy Shell



Sturdy Connector



Tinned Copper Core



Flexible Cable Body

Tear-Resistant & Durable



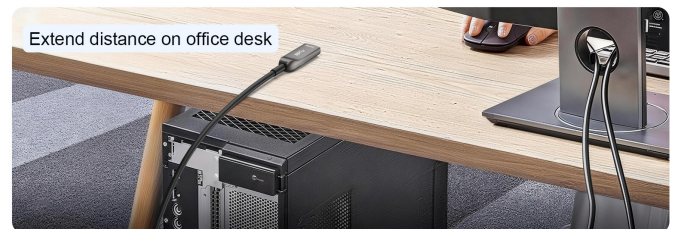
Connect to printer



Connect to camera



Extend distance for digital devices



Extend distance on office desk



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Product Specifications

Product Name: Fiber Optic USB3.2 Extension Cable

Shell: Zinc Alloy Shell

Bandwidth: 10Gbps

Material: PVC Sheath

Interface: USB3.2 Gen2 (Backward Compatible)

Warranty: 1 Year

Length: 50m

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



YDSAOC

10Gbps Active Fiber Optical USB 3.2 Extension Cable

Model: **YDSAOC-10G-USB32-AM-CM**



Ultra-High Speed
10Gbps
(USB 3.2 Gen 2)



Long-Distance
Up to 50 meters /
150 ft



Backward Compatible
USB 3.2, 3.0,
2.0, 1.1



Power Supply
5V / 900mA



EMI/RFI Resistance
Zero EMI/RFI
Profile



No External Power
Hybrid Fiber/Copper
Design



Durable
TPE/PVC
Jacket



Plug-and-Play
True Plug-and-Play
Installation

TYPICAL APPLICATIONS



Machine Vision
Cameras



Medical
Imaging



Digital
Signage



Gaming
PCs



4K
Webcams



Surveillance
Systems



Conference
Equipment



Video
Broadcasting



Best For

environments requiring extended data transmission without on-site power
in electromagnetically complex settings

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SMART SECURITY MONITORING SYSTEMS

Intelligent Monitoring. Real-time Protection. Complete Security Solutions.

-  **24/7 Real-time Monitoring**
Continuous surveillance and instant threat detection
-  **Smart Integration**
Seamless connection between cameras, devices and systems
-  **Instant Alerts**
Real-time notifications for rapid response
-  **Secure & Reliable**
Enterprise-grade security and data protection



SS3 USB 3.2
Reliable High-Speed Connection



128+
Cameras Connected



99.9%
System Uptime



2.5TB+
Data Managed Daily



24/7
Monitoring & Support



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

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.



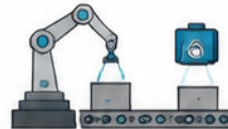
9 USB4 Applications

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