

DT-UF500
USB3.2 AM AF Fiber
Optic Extension Cable

Please read the product manual carefully before using the product.

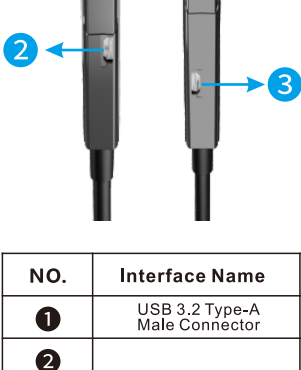
I. Product Overview

USB 3.2 Active Optical Cables (AOCs), with their superior technical characteristics and broad application potential, are becoming a crucial technological solution in the field of high-speed data transfer. They offer more flexible and efficient data connectivity for various industries. In fields such as industrial cameras, machine vision, and 3D scanning, USB 3.2 AOCs provide long-distance, interference-resistant transmission of HD video streaming and precision control signals for robotic arm vision cameras and sensors. In scenarios with extremely high demands for signal quality, such as medical imaging and real-time monitoring, the cables' immunity to electromagnetic interference and lossless transmission capability ensure the precise operation of diagnostic equipment. In office environments, they allow easy connection to peripherals like external hard drives and printers, reducing the need for frequent bending and plugging. In entertainment setups, they can extend connections for game controllers and VR devices, freeing up movement space.

II. Function Parameters

- 1. Supports a data transfer rate of 10 Gbps (USB 3.2 Gen2) and is backward compatible with USB 3.0/2.0/1.1 protocols.
- 2. Utilizes 850nm VCSEL array technology.
- 3. Incorporates micro-diffractive optical technology with a built-in photoelectric design.
- 4. Features lossless signal transmission (no compression, no attenuation), supporting distances of 1 to 50 meters without degradation.
- 5. High-speed signals are transmitted via two multimode optical fibers, providing excellent anti-interference performance.
- 6. The USB port supports hot-plugging.
- 7. Employs a multi-layer shielded composite fiber optic cable for stable transmission and high interference resistance.
- 8. Includes built-in ESD protection circuitry for comprehensive system safety.

III. Interface Description

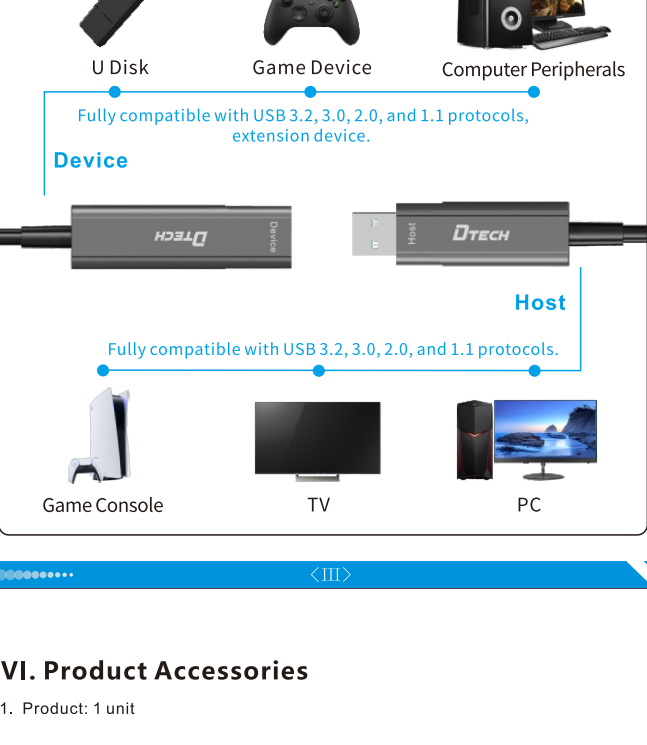


NO.	Interface Name	Interface Function
①	USB 3.2 Type-A Male Connector	Connects to the host side and supports USB 3.2/3.0/2.0/1.1 protocols.
②	Micro Power Interface	External auxiliary power can be connected when power consumption is high to ensure stable signal transmission.
③		
④	USB 3.2 Type-A Female Connector	Connects to the device side and supports USB 3.2/3.0/2.0/1.1 protocols.

VI. Application Scenarios

In data centers, servers often need to connect to various external storage devices, monitoring equipment, and more. USB 3.2 active optical extension cables can be used to connect these devices. Due to the inherent immunity to electromagnetic interference of the optical fiber material, they enable stable data transmission even in complex electromagnetic environments. Furthermore, in cases where server racks are distributed across a wider area, these extension cables can flexibly bridge the distance between cabinets, facilitating convenient inter-device connectivity.

V. Product Connection Diagram



VI. Product Accessories

- 1. Product: 1 unit

VIII. Precautions

- 1. Communication Failure
 - A. Check whether the USB male connector is securely connected to the device to avoid a loose connection.
 - B. Check whether the USB female connector is securely connected to the device to avoid a loose connection.
- 2. Communication Rate Not Achieved
 - A. Check if the USB male connector is plugged into the corresponding port. For example, to achieve USB 3.2 speeds, it must be connected to a corresponding USB 3.2 port.
 - B. If the device connected to the USB female port has high power consumption, it is necessary to use the Micro power interface for auxiliary power supply to avoid insufficient power to the connected device.

Product Warranty Card

Customer Information

Model:	
Date of purchase:	
User telephone:	
User address:	
Distributor:	
Agency address:	
User telephone:	Dealer stamp valid

Intenance Records

Repair times	Date	Fault	Treatment measures	Repair work NO.

Electronic products are guaranteed for one year, and other products are guaranteed for two years. Damage caused by human factors or product burnout caused by improper operation is not included in the scope of warranty.