

RIVO MULTITRADE OPTICAL SYSTEMS

US-certified 40G hybrid optical cable



Overview

The series of product adopts LC or MTP/MPO connector and operates over Single Mode or Multimode optical fiber.

Key Takeaways

US-certified 40Gbps hybrid optical cables deliver high-speed data, video, and power over long distances, supporting USB4 and Thunderbolt 4 devices.

US-certified 40G hybrid optical cables, often referred to as Active Optical Cables (AOCs), combine optical fiber for high-speed data transmission with copper conductors for power delivery, enabling long-distance connectivity without signal degradation. These cables are designed to support 40Gbps data transfer, 8K video output, and up to 240W power delivery, making them ideal for connecting high-performance devices such as Thunderbolt 4 docks, displays, eGPUs, and RAID storage systems .

Key Features

- **Data Transfer:** Up to 40Gbps, fully compatible with USB4, Thunderbolt 4, and backward compatible with USB 3.2, USB 3.1, USB 2.0, and Thunderbolt 3 .
- **Video Support:** Capable of 8K@60Hz or dual 4K@60Hz video output, supporting high-resolution displays like Apple Pro Display XDR and LG Ultrafine .
- **Power Delivery:** Supports up to 240W (depending on cable length and model), allowing laptops and peripherals to be powered over the same cable .

- **Hybrid Design:** Combines optical fiber for data and copper for power, ensuring long-distance connectivity (up to 15 feet or more) while maintaining signal integrity and reducing EMI/RFI interference .

- **Durability:** Many cables feature Kevlar or braided nylon exteriors for enhanced strength, flexibility, and resistance to pulling or bending .

Certification and Compliance

- **USB-IF Certified:** Ensures compliance with USB4 specifications, guaranteeing reliable performance and interoperability with certified devices .

- **Lab Tested:** Many cables are tested for safe power delivery and stable high-speed data transfer over extended distances .

Use Cases

- **Extending the distance** between computers and high-performance peripherals without signal loss.

- **Connecting Thunderbolt 4 or USB4 docks, displays, eGPUs, and storage arrays** in professional workspaces.

- **Supporting high-resolution video editing, 3D rendering, and large data backups.**

- **Reducing workspace clutter** by combining data and power in a single cable.

Examples of US-Certified 40G Hybrid Optical Cables

- **OWC USB4 40Gb/s Active Optical Cable:** Supports 8K displays, up to 240W PD, and distances up to 15 feet .

- **AOCFiberlink FUCC-4002 USB4 Active Optical Cable:** Hybrid AOC+ technology, 40Gbps, 8K/60Hz video, 240W PD, compatible with Thunderbolt 4 .

- **Accell USB4 40Gbps Type-C Cable:** USB-IF certified, 40Gbps, 8K video, 100W PD, backward compatible with USB 3.2/2.0 and Thunderbolt 3 . These cables provide a reliable, high-performance solution for professional and consumer applications requiring both high-speed data and power delivery over extended distances.

Article Content

Amazon : 40g Mpo Cable

OPFI® MPO Fiber Cable, Male to Female, 12 Fibers, Multimode-OM4, Magenta, for 40G QSFP+/100G QSFP28 transceiver, MTP

40G Optical Transceivers and Cables Portfolio | FS

The series of product adopts LC or MTP/MPO connector and operates over Single Mode or Multimode optical fiber. They can be

40G/56G QSFP+ AOC

The 40G QSFP+ Active Optical Cable (AOC) is a high performance, low power consumption integrated cable for short-range multi

40G QSFP+ AOC Cables | Active Optical Cables

40G QFSP+ Active Optical Cables (AOC) are high performance, cost-effective I/O solutions for LAN, HPB and SAN. 40G rated AOC

40G Optical Transceivers and Cables Portfolio | FS

The 40G transceiver module portfolio offers customers a wide variety of high-density and low-power 40Gigabit Ethernet connectivity

Hybrid Fiber Cable Systems

Hybrid Fiber Cable Systems Armored, watertight, common-sized assemblies Multiple configurations of power & fiber Why Eupen

QSFP+ (40G) Active Optical Cable (AOC) -Generic Code / 5m

QSFP+ active optic cables are a high performance, low power consumption, long reach interconnect solution supporting 40G

AOCFiberlink-USB4 Type-C Active Optical Cable 40Gbps 8K 240W

40Gb/s Fiber Optic C USB4 Active Optical Cable AOCFiberlink FUCC-4002 type-C to C USB4 Active Optical Cable is the fastest,

Cisco QSFP-8LC-AOC5M Compatible 40G QSFP+ LC Breakout Cable

This Cisco QSFP-8LC-AOC5M compatible breakout active optical cable is a 40G QSFP+ to LC hybrid optical cable from the third

4K HDMI 2.0b Fiber Optic Cable, 4K@60Hz, HDR ARC, Ultra Slim

About this item Stable 4K Signal Over Long Distance: This fiber optic HDMI cable supports uncompressed 4K@60Hz/120Hz

Pre Terminated Fiber Optic Cables | Custom Jackets & Connectors

Introduction Our pre-terminated Fiber Optic Cables offer a plug and play custom fiber solution for seamless installation in electrical

FS | AI Infrastructure, Data Center, Enterprise Networking and

As a worldwide provider of high-performance network products and solutions, FS offers switches, optical transceivers, cabling

ISO 9001 certified Standard & Custom Fiber Optic Cables

Remee produces a wide range of fiber optic cables and custom fiber optic cable solutions, including breakout cables, single-mode

Use this USB-IF Certified USB-C cable for fast and reliable

3ft (1m) USB4 Cable 40Gbps, 240W (5A) Power Delivery, 8K 120Hz/4K 240Hz DP2.1 DP40 DSC1.2a, USB-IF Certified USB-C

QSFP+ 40-Gbps Active Optical Cable (AOC) Cisco QSFP+-40G

QSFP+ 40Gbps Active Optical Cable (AOC) - Cisco QSFP-H40G-AOCxM Compatible Connect 40Gbps Cisco Switches, Routers and

Fiber Optic Cables | Corning

With 2 billion kilometers of fiber optic cables installed around the globe, Corning continues to lead the industry in product quality and

Cisco QSFP-H40G-AOC2M Compatible 40G QSFP+ Active Optical Cable

FS for Cisco compatible Cisco QSFP-H40G-AOC2M 40G QSFP+ to QSFP+ AOC cable operates over multimode fiber with a

40Gb Active Optical Cables | Fiber Optic Cables | C2G

40Gb Active Optical Cables C2G's 40G InfiniBand active optical cabled are designed to support long length interconnects between

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

