

USB Type-C to C Cable Assembly for AR glasses

Lightweight, Ultra-Thin, USB Type-C, Cable Assembly Supporting DisplayPort™ Alt Mode

Amphenol's FCI Basics offers a USB Type-C to Type-C cable assembly designed for AR glasses applications. Featuring a lightweight, ultra-thin construction with an outer diameter of only 2.6 mm, the cable integrates dedicated shielded high-speed differential pairs for video and data transmission, thicker-gauge conductors for Power Delivery (PD), and Configuration Channel (CC) wiring. An integrated e-Marker chip enables digital identification of cable capabilities, supporting proper negotiation of power, data, and DisplayPort™ Alt Mode protocols.

- USB-C to C cable assembly
- DisplayPort™ Alt Mode support available
- 10 Gb/s data speed, supports 2K/4K resolution
- Optional e-marker
- Standard length: 1.2 m



TARGET MARKETS



FEATURES

- DisplayPort™ Alternative Mode (DP Alt Mode)
- Support for 4K@60Hz/1080p@120Hz video
- High-Wattage Power Delivery (PD) Charging
- Multi-Layer Shielding & Impedance Control
- Full-featured USB 3.2 Gen 2 data Transfer
- RoHS compliant and lead-free

BENEFITS

- Enables direct transmission of high-resolution video and audio from the source (phone/PC) to the AR glasses, creating the visual experience
- Delivers a sharp, smooth, and low-latency visual feed, which is crucial for an immersive and comfortable AR experience without lag or blur
- Allows simultaneous use and charging of the connected device or AR glasses dock, preventing battery drain during extended sessions
- Protects the high-speed signals from interference, ensuring a stable video stream and reliable data transfer without dropouts or artifacts
- Offers fast file transfer speeds (up to 10 Gb/s) when not in video mode, making it a versatile single-cable solution for multiple needs
- Meets environmental, health, and safety requirements

TECHNICAL INFORMATION

MATERIAL

- Insulation: TPE
- Cable: Lightweight, highly flexible
- Terminal Base Material: Copper Alloy
- Plating: Gold flash on contact area

MECHANICAL PERFORMANCE

- Durability: 10,000 cycles
- Insertion Force: 5–20 N
- Withdraw Force: 8–20 N
- Cable OD: 2.6 mm
- Cable Bending: 3,000 cycles

SPECIFICATIONS

- Product Specification

PACKAGING

- Bag

ELECTRICAL PERFORMANCE

- Voltage Rating: DC 30 V
- Current Rating: 0.5 A up to 2 A continuous
- Contact resistance: $<3 \Omega$
- USB 2.0 Impedance: $90 \pm -13.5 \Omega$
- SS Impedance: $85 \pm 9 \Omega$
- Voltage Drop: VBUS < 500 mV; GND < 250 mV
- Insertion loss: $>- 13$ dB@10 Gb/s 5 Ghz)

ENVIRONMENTAL

- Operating Temperature Range: -20 °C to $+80$ °C
- Storage Temperature Range: -20 °C to $+70$ °C

TARGET MARKETS/APPLICATIONS



Infotainment



Phone
Smart Devices
Gaming Box
Portable HDD
Laptop
Desktop

PART NUMBERS

Description	Part Numbers
USB C to C cable 1.2 m black OD2.6 mm 10 Gb/s	10177780-Z0120YYLF

Find part number details using the search box on www.amphenol-cs.com