DP Alt & PD Optical Fiber USB Cable

AUC-XXX

Compatible with USB 3.2 Gen2
(USB 3.1)standard

Maximum data transfer rate 10Gbps
Support DP Alt Mode (Ver.1.4)
Supports up to 4K60Hz (16.2Gbps transmission)
Support USB Power Delivery Max 60W (20V/3A)
Compatibility with USB 2.0 / USB 1.1 standards
Transmission up to 10m
Excellent electromagnetic compatibility

DP USB PD IO Up to Object Of Dom
Excellent electromagnetic compatibility

Introduction

AUC is an active USB-C cable with Power Delivery support that can transmit USB 3.2 Gen2(10Gbps)high-speed data signals and DisplayPort(Alt Mode)4K video signals through glass optical fiber cables. By adopting a high-performance multi-mode VCSEL laser and low-data loss OM3 standard optical fiber, it can transmit data and video transmission up to 10 meters.

It is compatible with the USB 3.2 Gen2 (USB 3.1) standard, allowing for USB data transfer up to 10Gbps. It also includes a built-in IC for compatibility with legacy devices using USB 2.0 and 1.1 standards. This makes it usable for connecting any USB device from the latest PCs to existing webcams and printers.

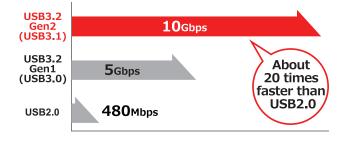
Additionally, it supports DisplayPort signal transmission over two lanes through DP Alt Mode (DisplayPort Alternate Mode over USB-C), allowing for stable transmission of signals up to 4K60Hz (16.2Gbps).

Moreover, it supports USB Power Delivery, allowing for power supply up to 60W (20V/3A) to the latest PCs such as MacBook and Chromebook.

Compatible with USB 3.2 Gen2(USB 3.1) standard

AUC is compatible with the USB 3.2 Gen2(USB 3.1)standard and allows for USB data transfer speeds up to 10Gbps.

Data transfer rate (theoretical value)



Support USB Power Delivery Max 60W (20V/3A)

With USB Power Delivery support, it's possible to supply power to the latest PCs such as MacBook and Chromebook with a maximum high current of 60W(20V/3A).



Support DP Alt Mode(Ver.1.4)

AUC supports the DP Alt Mode(DisplayPort Alternate Mode over USB-C)function, which is widely used with USB-C connectors. It uses the USB-C wire to transmit DisplayPort signals (video and audio). The DisplayPort signal is transmitted with 2 lanes, and it can stably transmit signals up to 4K60Hz(16.2Gbps).



※ Please Note:

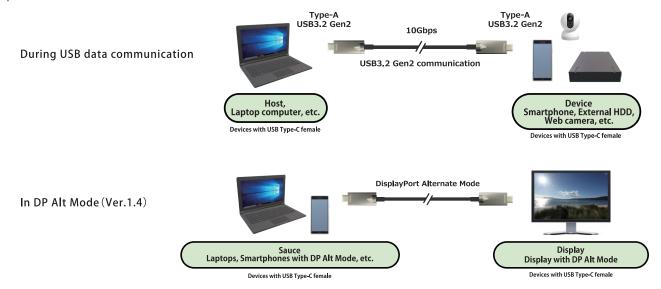
Not all USB Type-C devices support DP Alt Mode. Please check the user manual of your device or contact the manufacturer for details. Also, the connector of this product has [Source][Display]. If you use it with DP Alt Mode, it will not work properly if you connect it in the wrong direction.

Compatibility with USB 2.0 / USB 1.1 standards

The device is equipped with a compatibility driver IC for USB 2.0 and 1.1 standards, ensuring compatibility with legacy devices. It can be used to connect to any USB device, from webcams, printers, to the latest PCs.

Transmission up to 10m

AUC adopts a hybrid structure of optical fiber and copper wire. Optical fiber communication is used for high-speed data transfer of USB 3.2 standard and 4K video transmission by DP Alt Mode, while copper wire connection is allocated for legacy data transfer of USB 2.0/1.1 standard and power delivery function of USB Power Delivery. With this hybrid design, AUC realizes the various functions of USB-C, and achieve long-distance communication up to 10m.



Excellent electromagnetic compatibility

The connector part, which is made of metal casing, has excellent electromagnetic compatibility, making it less susceptible to external noise interference and minimizing noise generation from the main unit. In addition, the copper and fiber wires inside the cable are covered with braided copper wire shields, improving the cable's noise resistance. Therefore, it is also ideal for environments that require low noise, such as medical equipment.



Product Specification

Length (m)7/10ConnectorHost DeviceType C (Male)Connector Max Dim.15mmCable TypeActive: GOF 4 / Copper Wire 8USB SpecUSB 3.2 Gen2 (USB 3.1) / USB 3.2 Gen1 (USB 3.0) / USB 2.0 / USB 1.1Data Max Speed10GbpsAlternate ModeDisplayPort Alternate ModeDP Max SpeedDP 2 lane (Ver.1.4) 16.2GbpsUSB Power DeliveryMax 60W (20V/3A)External PowerNot RequiredMax Power Consumption1.1WCable ColorBlackCable ShieldPVCCable Diameter6.5mm±0.2mmBending Radius65mmCable Crush ResistanceLong Term: 200N(20.4kgf) / Instant: 600N(61.2kgf)Cable Tensile StrengthLong Term: 150N(15.3kgf) / Instant: 300N(30.6kgf)Cable DirectionDP Alt Mode has cable directionOperating Temperature / Storage Temperature0°C~50°C / -20°C~70°COperating Humidity / Storage Humidity5~90% (no condensation)AccessoryN/AWarranty12 months (only the internal IC chip in the connector part)CertificateFCC / CE / RoHS	Model		AUC-xxxM (xxx is the cable length)
Connector Max Dim. 15mm Cable Type Active: GOF 4 / Copper Wire 8 USB Spec USB 3.2 Gen2 (USB 3.1) / USB 3.2 Gen1 (USB 3.0) / USB 2.0 / USB 1.1 Data Max Speed 10Gbps Alternate Mode DisplayPort Alternate Mode DP Max Speed DP 2 lane (Ver.1.4) 16.2Gbps USB Power Delivery Max 60W (20V/3A) External Power Not Required Max Power Consumption 1.1W Cable Color Black Cable Shield PVC Cable Diameter 6.5mm±0.2mm Bending Radius 65mm Cable Crush Resistance Long Term: 200N (20.4kgf) / Instant: 600N (61.2kgf) Cable Tensile Strength Cable Direction DP Alt Mode has cable direction Operating Temperature / Storage Temperature Operating Humidity / Storage Humidity Accessory N/A Warranty 12 months (only the internal IC chip in the connector part)	Length (m)		7 / 10
Device Type C (Male)	Connector	Host	Type C (Male)
Cable Type Active: GOF 4 / Copper Wire 8 USB Spec USB 3.2 Gen2 (USB 3.1) / USB 3.2 Gen1 (USB 3.0) / USB 2.0 / USB 1.1 Data Max Speed Alternate Mode DisplayPort Alternate Mode DP 2 lane (Ver.1.4) 16.2Gbps USB Power Delivery Max 60W (20V/3A) External Power Not Required Max Power Consumption 1.1W Cable Color Black Cable Shield PVC Cable Diameter 6.5mm±0.2mm Bending Radius 65mm Cable Crush Resistance Long Term: 200N (20.4kgf) / Instant: 600N (61.2kgf) Cable Tensile Strength Cable Direction Operating Temperature / Storage Temperature Operating Humidity / Storage Humidity Accessory N/A Warranty Not Required DP 2 lane (Ver.1.4) 16.2Gbps Long Term = 0.20m/(30.6kgf) Long Term: 150N (20.4kgf) / Instant: 600N (61.2kgf) Cable Direction Operating Temperature / Storage Temperature Operating Humidity / Storage Humidity Accessory N/A Warranty 12 months (only the internal IC chip in the connector part)		Device	Type C (Male)
USB Spec USB 3.2 Gen2 (USB 3.1) / USB 3.2 Gen1 (USB 3.0) / USB 2.0 / USB 1.1 Data Max Speed 10Gbps Alternate Mode DP Max Speed DP 2 lane (Ver.1.4) 16.2Gbps USB Power Delivery Max 60W (20V/3A) External Power Not Required Max Power Consumption 1.1W Cable Color Black Cable Shield PVC Cable Diameter 6.5mm±0.2mm Bending Radius 65mm Long Term: 200N (20.4kgf) / lnstant: 600N (61.2kgf) Long Term: 150N (15.3kgf) / lnstant: 300N (30.6kgf) Cable Direction Operating Temperature / Storage Temperature Operating Humidity / Storage Humidity Accessory N/A Warranty USB 3.2 Gen2 (USB 3.1) / USB 3.2 Gen1 (USB 3.0) / USB 2.0 / USB 1.1 LOGDBS 3.1) / USB 3.2 Gen1 (USB 3.0) / USB 2.0 / USB 1.1 LOGDBS 3.1) / USB 3.2 Gen1 (USB 3.0) / USB 2.0 / USB 1.1 LOGDBS 3.1) / USB 3.2 Gen1 (USB 3.0) / USB 2.0 / USB 1.1 LOGDBS 3.1) / USB 3.2 Gen1 (USB 3.0) / USB 2.0 / USB 1.1 LOGDBS 3.1) / USB 3.1 / USB 3.1 / USB 3.1 LOGDBS 3.1) / USB 3.1 / USB 3.2 Gen1 EXEMPTION OF BROWN AND ADDRESS AND AD	Connector Max Dim.		15mm
USB Spec (USB 3.0) / USB 2.0 / USB 1.1 Data Max Speed Dotal DisplayPort Alternate Mode DP Max Speed DP 2 lane (Ver.1.4) 16.2Gbps USB Power Delivery Max 60W (20V/3A) External Power Not Required Max Power Consumption 1.1W Cable Color Black Cable Shield PVC Cable Diameter 6.5mm±0.2mm Bending Radius 65mm Cable Crush Resistance Long Term: 200N (20.4kgf) / Instant: 600N (61.2kgf) Long Term: 150N (15.3kgf) / Instant: 300N (30.6kgf) Cable Direction Operating Temperature / Storage Temperature Operating Humidity / Storage Humidity Accessory N/A Warranty USB 2.0 / USB 2.0 / USB 1.1 Documentation in the connector part)	Cable Type		Active: GOF 4 / Copper Wire 8
Data Max Speed Alternate Mode DP Max Speed DP 2 lane (Ver.1.4) 16.2Gbps USB Power Delivery Max 60W (20V/3A) External Power Max Power Consumption Cable Color Cable Shield PVC Cable Diameter Bending Radius Cable Crush Resistance Cable Tensile Strength Cable Direction Operating Temperature / Storage Temperature Operating Humidity / Storage Humidity Accessory N/A DisplayPort Alternate Mode DisplayPort Alternate Mode DisplayPort Alternate Mode Doer 2 lane (Ver.1.4) 16.2Gbps Accessory Max 60W (20V/3A) External Power Not Required Accessory Max 60W (20V/3A) External Power Not Required Accessory Max 60W (20V/3A) External Power Not Required Not Required Not Required Long Term : 200N (20.4kgf) / Instant : 600N (61.2kgf) Long Term : 150N (15.3kgf) / Instant : 300N (30.6kgf) DP Alt Mode has cable direction Operating Humidity / Storage Humidity Storage Humidity Accessory N/A Warranty 12 months (only the internal IC chip in the connector part)	USB Spec		USB 3.2 Gen2 (USB 3.1) / USB 3.2 Gen1
Alternate Mode DP Max Speed DP 2 lane (Ver.1.4) 16.2Gbps USB Power Delivery Max 60W (20V/3A) External Power Not Required Max Power Consumption 1.1W Cable Color Black Cable Shield PVC Cable Diameter 6.5mm±0.2mm Bending Radius 65mm Cable Crush Resistance Long Term: 200N (20.4kgf) / Instant: 600N (61.2kgf) Cable Tensile Strength Cable Direction DP Alt Mode has cable direction Operating Temperature / Storage Temperature Operating Humidity / Storage Humidity Accessory N/A Warranty 12 months (only the internal IC chip in the connector part)			(USB 3.0) / USB 2.0 / USB 1.1
DP Max Speed DP 2 lane (Ver.1.4) 16.2Gbps USB Power Delivery Max 60W (20V/3A) External Power Not Required Max Power Consumption 1.1W Cable Color Cable Shield PVC Cable Diameter Bending Radius 65mm Cable Crush Resistance Long Term: 200N (20.4kgf) / Instant: 600N (61.2kgf) Cable Tensile Strength Cable Direction Operating Temperature / Storage Temperature Operating Humidity / Storage Humidity Accessory N/A Warranty DP 2 lane (Ver.1.4) 16.2Gbps Max 60W (20V/3A) Long Temm: 1.1W Long Term: 2.00N (20.4kgf) / Instant: 300N (30.4kgf) / Instant: 300N (30.6kgf) Coble Direction DP Alt Mode has cable direction Operating Temperature / Storage Temperature Operating Humidity / Storage Humidity Accessory N/A Warranty N/A	Data Max Speed		10Gbps
USB Power Delivery External Power Not Required Max Power Consumption 1.1W Cable Color Black Cable Shield PVC Cable Diameter 6.5mm±0.2mm Bending Radius 65mm Cable Crush Resistance Long Term: 200N(20.4kgf) / Instant: 600N(61.2kgf) Cable Tensile Strength Cable Tensile Strength Cable Direction Operating Temperature / Storage Temperature Operating Humidity / Storage Humidity Accessory N/A Warranty Not Required Not Required 050V (20.4kgf) / Instant: 200N(20.4kgf) / Instant: 200N(20.4kgf) / Instant: 300N(30.6kgf) Cable Direction OP Alt Mode has cable direction	Alternate Mode		DisplayPort Alternate Mode
External Power Max Power Consumption 1.1W Cable Color Black Cable Shield PVC Cable Diameter 6.5mm±0.2mm Bending Radius 65mm Cable Crush Resistance Long Term: 200N(20.4kgf) / Instant: 600N(61.2kgf) Long Term: 150N(15.3kgf) / Instant: 300N(30.6kgf) Cable Direction Operating Temperature / Storage Temperature Operating Humidity / Storage Humidity Accessory N/A Warranty Not Required Not Required 1.1W Acressory Not Resident Acressory Not Residen	DP Max Speed		DP 2 lane (Ver.1.4) 16.2Gbps
Max Power Consumption 1.1W Cable Color Black Cable Shield PVC Cable Diameter 6.5mm±0.2mm Bending Radius 65mm Cable Crush Resistance Long Term: 200N(20.4kgf) / Instant: 600N(61.2kgf) Cable Tensile Strength Long Term: 150N(15.3kgf) / Instant: 300N(30.6kgf) Cable Direction DP Alt Mode has cable direction Operating Temperature / Storage Temperature 0°C ~ 50°C / -20°C ~ 70°C Operating Humidity / Storage Humidity 5 ~ 90% (no condensation) Accessory N/A Warranty 12 months (only the internal IC chip in the connector part)	USB Power Delivery		Max 60W (20V/3A)
Cable Color Cable Shield PVC Cable Diameter 6.5mm±0.2mm Bending Radius 65mm Cable Crush Resistance Long Term: 200N(20.4kgf) / Instant: 600N(61.2kgf) Cable Tensile Strength Cable Direction Operating Temperature / Storage Temperature Operating Humidity / Storage Humidity Accessory N/A Warranty Black PVC Black PVC C.5mm±0.2mm Long Term: 200N(20.4kgf) / Instant: 300N(61.2kgf) Long Term: 150N(15.3kgf) / Instant: 300N(30.6kgf) Coble Direction OP Alt Mode has cable direction OP Alt Mode has cable direction OP C ~ 50°C / -20°C ~ 70°C Storage Humidity / Storage Humidity Accessory N/A Warranty 12 months (only the internal IC chip in the connector part)	External Power		Not Required
Cable Shield Cable Diameter 6.5mm±0.2mm Bending Radius 65mm Cable Crush Resistance Long Term: 200N(20.4kgf) / Instant: 600N(61.2kgf) Cable Tensile Strength Cable Direction Operating Temperature / Storage Temperature Operating Humidity / Storage Humidity Accessory N/A Warranty PVC 6.5mm±0.2mm Long Term: 200N(20.4kgf) / Instant: 300N(30.6kgf) DP Alt Mode has cable direction 0°C~50°C /-20°C~70°C 5~90% (no condensation)	Max Power Consumption		1.1W
Cable Diameter Bending Radius 65mm Cable Crush Resistance Long Term: 200N(20.4kgf) / Instant: 600N(61.2kgf) Cable Tensile Strength Cable Direction Operating Temperature / Storage Temperature Operating Humidity / Storage Humidity Accessory N/A Warranty 6.5mm±0.2mm Long Term: 200N(20.4kgf) / Instant: 300N(30.6kgf) Do Alt Mode has cable direction O°C~50°C /-20°C~70°C 5 ~ 90% (no condensation)	Cable Color		Black
Bending Radius Cable Crush Resistance Long Term: 200N (20.4kgf) / Instant: 600N (61.2kgf) Cable Tensile Strength Long Term: 150N (15.3kgf) / Instant: 300N (30.6kgf) Cable Direction Operating Temperature / Storage Temperature Operating Humidity / Storage Humidity Accessory N/A Warranty Bonn Term: 200N (20.4kgf) / Instant: 300N (15.3kgf) / Instant: 300N (30.6kgf) Cable Direction O°C ~ 50°C / -20°C ~ 70°C Storage Humidity / Storage Humidity / Storage Humidity 12 months (only the internal IC chip in the connector part)	Cable Shield		PVC
Cable Crush Resistance Long Term: 200N(20.4kgf) / Instant: 600N(61.2kgf) Cable Tensile Strength Long Term: 150N(15.3kgf) / Instant: 300N(30.6kgf) Cable Direction Operating Temperature / Storage Temperature Operating Humidity / Storage Humidity Accessory N/A Warranty Long Term: 200N(20.4kgf) / Instant: 300N(15.3kgf) / Instant: 300N(30.6kgf) O°C ~ 50°C / -20°C ~ 70°C 5 ~ 90% (no condensation)	Cable Diameter		6.5mm±0.2mm
Cable Crush Resistance Instant: 600N (61.2kgf) Cable Tensile Strength Cable Direction Operating Temperature / Storage Temperature Operating Humidity / Storage Humidity Accessory N/A Warranty Long Term: 150N (15.3kgf) / Instant: 300N (30.6kgf) DP Alt Mode has cable direction O°C ~ 50°C / -20°C ~ 70°C 5 ~ 90% (no condensation)	Bending Radius		65mm
Instant: 600N (61.2kgf) Cable Tensile Strength Long Term: 150N (15.3kgf) / Instant: 300N (30.6kgf) Cable Direction Operating Temperature / Storage Temperature Operating Humidity / Storage Humidity Accessory N/A Warranty Under Storage Strength Warranty Warranty No Condensation No Condensation No Condensation No Condensation	Cable Crush Resistance		Long Term:200N (20.4kgf) /
Instant: 300N(30.6kgf)			Instant: 600N (61.2kgf)
Instant: 300N (30.6kgf) Cable Direction Operating Temperature / Storage Temperature Operating Humidity / Storage Humidity Accessory N/A Warranty Nonly the internal IC chip in the connector part)	Cable Tensile Strength		Long Term: 150N (15.3kgf) /
$ \begin{array}{ll} \text{Operating Temperature} / \\ \text{Storage Temperature} \\ \text{Operating Humidity} / \\ \text{Storage Humidity} \\ \text{Accessory} \\ \text{Warranty} \\ \end{array} \begin{array}{ll} 0^{\circ}\text{C} \sim 50^{\circ}\text{C} \ / \ -20^{\circ}\text{C} \sim 70^{\circ}\text{C} \\ \\ 5 \sim 90\% \text{ (no condensation)} \\ \text{N/A} \\ \text{Warranty} \\ \end{array} $			Instant: 300N (30.6kgf)
Storage Temperature Operating Humidity / Storage Humidity Accessory N/A Warranty $0^{\circ}C \sim 50^{\circ}C / -20^{\circ}C \sim 70^{\circ}C$ $5 \sim 90\%$ (no condensation)	Cable Direction		DP Alt Mode has cable direction
Storage Temperature Operating Humidity / Storage Humidity Accessory Warranty N/A 12 months (Only the internal IC chip in the connector part)	Operating Temperature /		0°C ~ 50°C / -20°C ~ 70°C
Storage Humidity Accessory N/A Warranty N/A 12 months (only the internal IC chip in the connector part)	Storage Temperature		
Storage Humidity Accessory N/A Warranty 12 months (Only the internal IC chip in the connector part)	Operating Humidity /		$5 \sim 90\%$ (no condensation)
Warranty 12 months (Only the internal IC chip in the connector part)	Storage Humidity		
	Accessory		N/A
Certificate FCC / CE / RoHS	Warranty		12 months (Only the internal IC chip in the connector part)
	Certificate		FCC / CE / RoHS

The latest information and the detailed product specifications are available at http://шшш.ad-techno.com/en/



