

SPECIFICATIONS



TA-CP194 Series

USB 3.0 (Compatible with USB 2.0) AOC

Descriptions

USB3.0 AM to AM Active Optical Cable (AOC) is a USB 3.0 (new named USB 3.2 Gen2x1) electrical to optical conversion module. This product can translate signals between USB 3.0 electrical and optical signals. AOC is a cabling technology that accepts the same electrical inputs as a traditional copper cable, but uses optical fiber "between the connectors" . AOC offers a quick solution to supply longer cables for USB 3.0 applications. The USB fiber cable length can be up to 50m with USB 3.0 version and also Downward Compatible with USB2.0. Chip technology can realize mutual conversion between USB3.0 and USB2.0 protocols on remote side devices, enabling USB2.0 equipment to share the super speed bandwidth (10Gbps) of USB3.0.

Key Features

- ◆ Extends USB 3.2 Gen 2X1, 10Gbps and lengths up to 50m
- ◆ Support all USB 3.0 devices, Downward Compatible with USB2.0, not compatible with USB1.1
- ◆ Support all major operating systems: Windows, Mac OS, Linux
- ◆ Offers fiber-optic noise immunity
- ◆ Plug and Play, requires no external power supply
- ◆ For use with self-powered peripherals only
- ◆ Cable OD: 4.5mm, 4 fiber + 4 copper wire
- ◆ Ideal for a wide variety of USB devices, from printers, scanners, hard drives, and audio devices, to touch screens, web cams, and game controllers

Applications

- ◆ Industrial Control
- ◆ Digital Signage
- ◆ Home Network Integration
- ◆ Medical Device Connectivity
- ◆ KVM Extension
- ◆ Remote Desktop USB 3.0 and USB2.0 Connections
- ◆ Security: web camera, access control
- ◆ USB 3.0 & USB2.0 Device Sharing: print, scan, storage

Specifications

Product Name	TA-CP194Series
Description	USB 3.0 Hybrid Active Optical Cable A Male to A Male Downward Compatible with USB2.0 version
Connector	USB 3.0 Standard-A Male to A Male plug
Max. data rate	10Gbps
Range	50mmax over multimode optical fiber
Optical Transceiver	850 nm VCSEL (multimode)
Cable diameter	4.5 mm
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-20°C to 70°C (-4°F to 158°F).
Humidity	5% to 90% (non-condensing)

Absolute Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Units
Supply Voltage	VCC	-0.5	5.5	V
Operating Temperature	Top	0	50	°C
Storage Temperature	Ts	-20	70	°C
Storage Relative Humidity	Hs	10	85	%RH

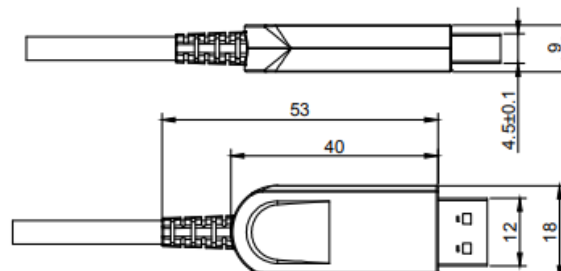
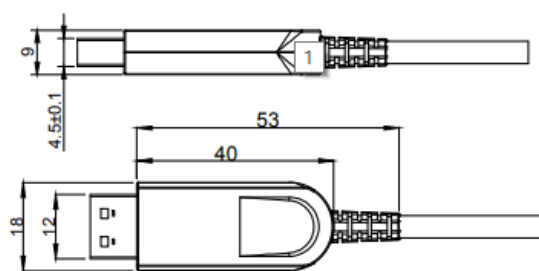
Recommended Operating Conditions

Parameter	Symbol	Minimum	Typical	Maximum	Units
Supply Voltage	VCC	4.75	5	5.25	V
Operating Temperature	Top	0		50	°C

USB 3.0 Standard-A Plug Pin Assignment

PIN	Signal Name	Description
1	VBUS	Power
2	D-	USB 2.0 differential pair
3	D+	
4	GND	Ground for power return
5	SSTX-	SuperSpeed transmitter differential pair
6	SSTX+	
7	GND	Ground for signal return
8	SSRX-	SuperSpeed receiver differential pair
9	SSRX+	
Shell	Shield	Shield

Drawings



Ordering Information

Part Number	Description
TA-CP194A	USB 3.0 AOC AM-AM, Downward Compatible with USB2.0, 10Gbps, Length10m
TA-CP194B	USB 3.0 AOC AM-AM, Downward Compatible with USB2.0, 10Gbps, Length 15m
TA-CP194C	USB 3.0 AOC AM-AM, Downward Compatible with USB2.0, 10Gbps, Length 20m
TA-CP194D	USB 3.0 AOC AM-AM, Downward Compatible with USB2.0, 10Gbps, Length30m
TA-CP194E	USB 3.0 AOC AM-AM, Downward Compatible with USB2.0, 10Gbps, Length50m