

SPECIFICATIONS



MC-USB3.0ABXXOP USB 3.0 AM-BM AOC

Descriptions

Microconnects MC-USB3.0ABXXOP series USB 3.1 AM to BM AOC is the first Gen2 active optical cable in the market . Super speed data transmission depending on optical fiber , not only its support length become much longer up to 15m max, but also signal quality is much more stable , no EMI completely, can support 10Gbps super speed , meets USB3.1 standard, especially can downward compatible with USB 2.0/1.1 .It is a mature & competitive solution in the high speed data transmission market.

Key Features

- ◆ Meet USB 3.1 Gen2 Standard , bandwidth can reach to 10Gbps super speed;
- ◆ Support length up to 15m.(Custom length is available);
- ◆ Support 5V 900mA max;
- ◆ Support downward compatible with USB2.0/1.1;
- ◆ Supports all major operating systems including Windows, Mac OS, and Linux
- ◆ Power adapter at host is not required
- ◆ No RF interference , working stable in complex environments;
- ◆ Ideal for a wide variety of USB devices, from printer, scanners, meeting cameras and other USB B type devices

Applications

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

Specifications

Product Name	SUAB-3120 Series
Description	USB 3.0 Hybrid Active Optical Cable A Male to B Male downward compatible version
Connector	USB 3.0 Standard-AMale to B male plug
Max. data rate	10Gbps
Range	49.2 ft(15 m) 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	70	°C
Storage Temperature	Ts	-40	85	°C
Storage Relative Humidity	Hs	10	85	%RH

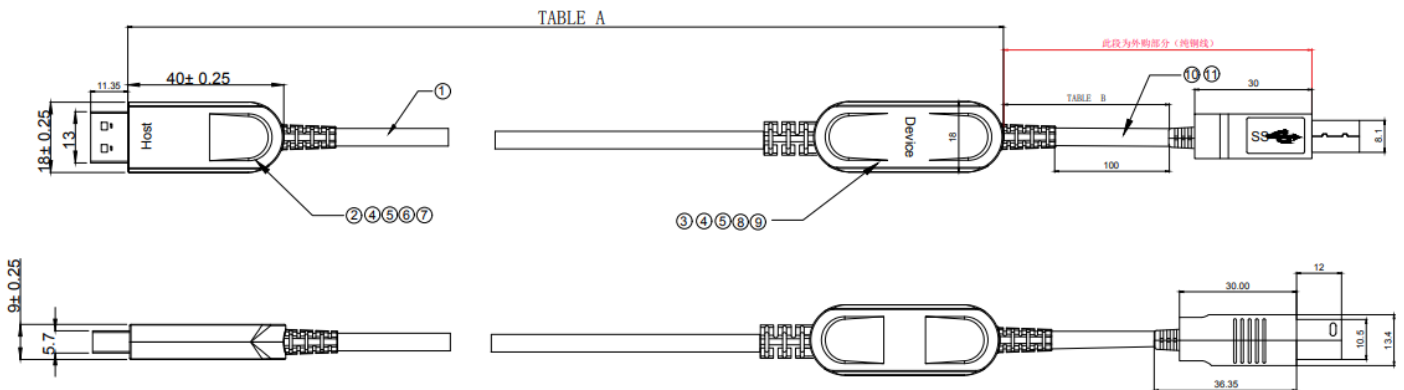
Recommended Operating Conditions

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

Characteristics

Parameter	Description	Minimum	Typical	Maximum	Units
VCC	Supply Voltage	4.75	5	5.25	V
I _{BUS}	Current at USB Bus Power	49.5	55	60.5	mA
R _{DIFF}	Differential impedance		90		Ω
USB3.0 AOC TX Characteristic					
P _{TX}	Optical TX output power	0			dBm
R _j	Random jitter			3	ps
D _j	Deterministic jitter			60	ps
T _j	Total jitter at a 10-12 BER			100	ps
USB3.0 AOC RX Characteristic					
S _{RX}	RX sensitivity	-7.5			dBm
C _{AC-COUPLING}	AC coupling capacitor on RXOUT	75	100	200	nF

Drawings



Ordering Information

Part Number	Description
MC-USB3.0AB10OP	USB 3.0 AOC AM-BM, Downward compatible with USB 2.0/1.1 10Gbps, Length 10m
MC-USB3.0AB15OP	USB 3.0 AOC AM-BM, Downward compatible with USB 2.0/1.1 10Gbps, Length 15m