

# USB 3.1 AM to AF AOC Cable

NT-EC-016 Series



## Description

The USB 3.1 Active Optical Cable (AOC) is a USB 3.0 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 using optical fiber "between the connectors". The USB fiber cable can be up to 50 m with USB 3.0 version and also downward compatible with USB 2.0 and USB 1.1 at USB Female Side.

## Key Features

- Extends USB 3.0 & USB 2.0 super speed devices up to 50 m
- Supports all USB 3.0 device types at Host: control, interrupt, bulk and isochronous at up to 10 Gbps
- Operates with USB 3.0 super speed host controllers
- Supports Windows & Mac operating systems
- Number of devices can be increased using additional hubs
- A substantial increase in USB 2.0 device bandwidth with special technology
- Ideal for a wide variety of USB devices, from printer, 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 USB 2.0 Connections
- Security: web camera, access control
- USB 3.0 & USB 2.0 Device Sharing: print, scan, storage

## Specifications

Product Name	NT-EC-016 Series
Description	USB 3.1 Active Optical Cable downward compatible with USB 2.0
Connector	USB 3.0 Standard-A Male to A female plug
Max. data rate	10.0 Gbps
Range	Up To 164 ft (50 m) over multi-mode optical fiber
Optical Transceiver	850 nm VCSEL (multi-mode)
Cable diameter	4.8 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 Rating

Parameter	Symbol	Min	Max	Unit
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

## Part Code Ordering in Formation

Part Number	Description
NT-EC-016-0005	USB 3. 1 & 2.0 AOC, 10 Gbps, Length 5 m
NT-EC-016-0010	USB 3. 1 & 2.0 AOC, 10 Gbps, Length 10 m
NT-EC-016-0015	USB 3. 1 & 2.0 AOC, 10 Gbps, Length 15 m
NT-EC-016-0020	USB 3. 1 & 2.0 AOC, 10 Gbps, Length 20 m
NT-EC-016-0025	USB 3. 1 & 2.0 AOC, 10 Gbps, Length 25 m
NT-EC-016-0030	USB 3. 1 & 2.0 AOC, 10 Gbps, Length 30 m
NT-EC-016-0040	USB 3. 1 & 2.0 AOC, 10 Gbps, Length 40 m
NT-EC-016-0050	USB 3. 1 & 2.0 AOC, 10 Gbps, Length 50 m