

USB Active Optical Cable

- **Description**

The USB AOC is a compact hybrid cable comprising multi-mode glass fibers for USB3.2 Gen2(support 10Gbps) and copper wires for the High Speed USB2.0 signals(480Mbps). It is fully terminated with electro-optical and opto-electrical USB Type C plug ends and is fully compliant with the USB3.2 Gen2 specifications.

- **Features**

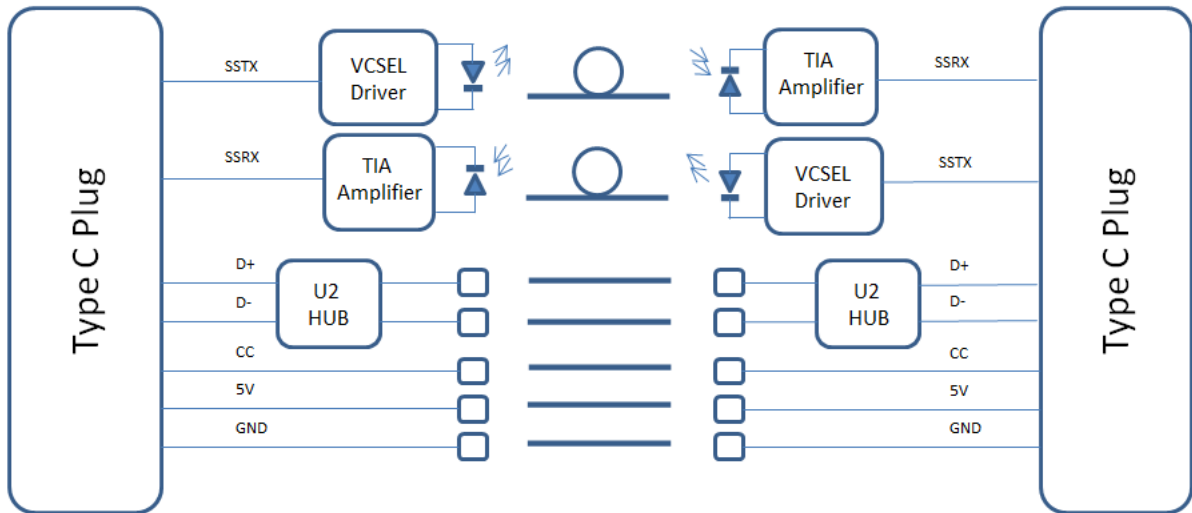
USB2.0 Support Data link length up to 15m
USB3.2 Gen2 10Gbps Data Communication
With eMARK IC
Type C Plug Connector

- **Applications**

USB Mass Storage
Mobile Device
Remote Camera
Game console

USB Active Optical Cable

- **Function Diagram**



- **Optical and Electrical Characteristics**

Parameter	Min	Typ	Max	Unit
Optical wavelength		850		nm
Bit Rate (each channel)		10		Gbps
Intra-pair skew SSTX/SSRX			10	ps
Intra-pair skew D+/D-			100	ps
Differential input/output impedance	75		105	Ω
Supply voltage	4.8	5	5.2	V
Supply current			100	mA

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- Hybrid Cable Specifications**

Parameter	Specification	Notes
Minimum Cable Bending Radius	10mm	
Cable Diameter	5mm	
Cable Jacket	PVC	
Cable Length Tolerance	+0.3/-0m	
Optical fiber	50/125um OM2	4 channels

- Environmental Test**

Item	Condition
High Temperature Storage	Non-powered, 70°C, 96 hours
Damp Heat	Non-powered, 85°C, 85%RH, 96 hours
High Temperature Operation	Powered, 60°C, 96 hours

- Environment Related Substances**

Substances	Limit
Cd	< 100 ppm
Hg	< 1000 ppm
Cr ⁶⁺	< 1000 ppm
PBDE	< 1000 ppm
PBB	< 1000 ppm
Pb	< 1000 ppm

* Compliant with EU RoHS (2011/65/EU)