


10G SFP+ Active Optical Cable

Features

- Electrical interface compliant to SFF-8431
- Hot Pluggable
- 850nm VCSEL transmitter
- PIN photo-detector receiver
- Up to 300m on OM3 MMF
- Operating case temperature: 0 to 70°C
- All-metal housing for superior EMI performance
- RoHS compliant (lead free) 



Applications

- 10 Gigabit Ethernet
- 4G and 8G Fibre Channel Applications
- 1x InfiniBand QDR. DDR, SDR
- High-performance computing clusters
- Servers, switches, storage and host card adapters

Product Description

Luxglo' SFP+ Active Optical Cables are direct-attach fiber assemblies with SFP+ connectors. They are suitable for very short distances and offer a cost-effective way to connect within racks and across adjacent racks. Luxglo' SFP+ Active Optical Cables's length is up to 300 meters on OM3 MMF.

SFP+ Active Optical Cable Specifications

Parameter	Description
Module Form Factor	SFP+ (Supports SFF8431/SFF8432/SFF8472)
Protocols Supported	InfiniBand, Ethernet, Fiber Channel
Channel Data Rate	Rate 1 to 10.3125Gbps
BER	$<10^{-12}$
Operating Case Temperature	0 to + 70°C
Storage Temperature	-20 to + 85°C
Supply Voltage	3.3V
Supply current	230mA per end typical
Management Interface Serial	I ² C (Supports SFF8472)

Optical Characteristics

The following optical characteristics are defined over the Recommended Operating Environment unless otherwise specified:

Parameter	Symbol	Min	Typ	Max	Unit	Notes
Transmitter						
Center Wavelength	λ_t	840	850	860	nm	
RMS spectral width	P_m	-	-	Please see note	nm	1
Average Optical Power	P_{avg}	-6.5	-	-1	dBm	2
Extinction Ratio	ER	3.5	-	-	dB	3
Transmitter Dispersion	TDP	-	-	3.9	dB	
Relative Intensity Noise	R_{in}	-	-	-128	dB/Hz	12dB
Optical Return Loss		-	-	12	dB	
Receiver						
Center Wavelength	λ_r	840	850	860	nm	
Receiver Sensitivity	P_{sens}	-	-	-11.1	dBm	4
Stressed Sensitivity in OMA		-	-	-7.5	dBm	4
Los function	Los	-30	-	-12	dBm	
Overload	P_{in}	-	-	-1.0	dBm	4
Receiver Reflectance		-	-	-12	dB	

Notes:

1. Trade-offs apply between spectral width, center wavelength and minimum OMA (Optical Modulation Amplitude)
2. The optical power is launched into MMF
3. Measured with a PRBS 2³¹-1 test pattern @10.3125Gbps
4. Measured with a PRBS 2³¹-1 test pattern @10.3125Gbps, BER $\leq 10^{-12}$.

Mechanical Specifications

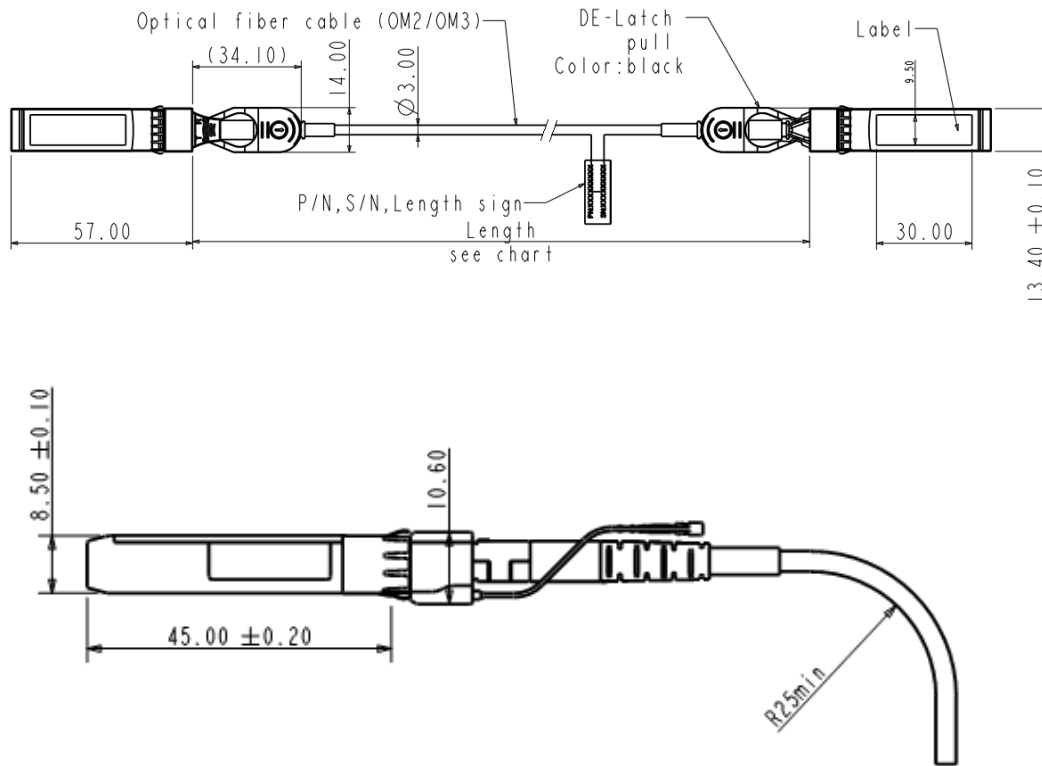


Figure1. Mechanical Specifications

Important Notice

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Ordering information

Part Number	Product Description
SFP+AOC-001C	1 meter SFP+ Active Optical Cable
SFP+AOC-002C	2 meter SFP+ Active Optical Cable
SFP+AOC-003C	3 meter SFP+ Active Optical Cable
SFP+AOC-005C	5 meter SFP+ Active Optical Cable
SFP+AOC-007C	7 meter SFP+ Active Optical Cable
SFP+AOC-010C	10 meter SFP+ Active Optical Cable
SFP+AOC-0XXC	10G SFP+ Active Optical Cable up to 300m on OM3 MMF
xxx :001~100,1~300	Length in meters (OM3 fiber is available)