

# Wiitek 10G SFP+ Active Optical Cables WSS-MDO100-XXXC

# **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

# **Description**

Wiitek 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. Wiitek SFP+ Active Optical Cables's length is up to 300 meters on OM3 MMF.

#### SFP+ AOC Specifications

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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 <sup>-12</sup>			
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 <sup>2</sup> C (Supports SFF8472)			

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# **Optical characteristics**

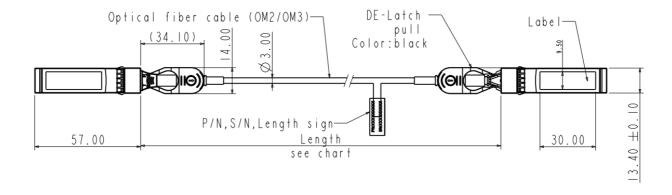
The following optical characteristics are defined over the Recommended Operating Environment unless otherwise specified

otherwise specified.								
Parameter	Symbol	Min.	Typical	Max	Unit	Notes		
Transmitter								
Center Wavelength	λt	840	850	860	nm			
RMS spectral width	Pm	-	=	Note 1	nm			
Average Optical Power	Pavg	-6.5	-	-1	dBm	2		
Extinction Ratio	ER	3.5	-	-	dB	3		
Transmitter Dispersion Penalty	TDP	-	-	3.9	dB			
Relative Intensity Noise	Rin	-	-	-128	dB/Hz	12dB reflection		
Optical Return Loss Tolerance		-	-	12	dB			
Receiver								
Center Wavelength	λr	840	850	860	nm			
Receiver Sensitivity	Psens	-	-	-11.1	dBm	4		
Stressed Sensitivity in OMA		-	-	-7.5	dBm	4		
Los function	Los	-30	-	-12	dBm			
Overload	Pin			-1.0	dBm	4		
Receiver Reflectance		-	-	-12	dB			

### Note:

- 1. Trade-offs are available between spectral width, center wavelength and minimum OMA, as shown in table 6.

- The optical power is launched into MMF
   Measured with a PRBS 2<sup>31</sup>-1 test pattern @10.3125Gbps
   Measured with a PRBS 2<sup>31</sup>-1 test pattern @10.3125Gbps,BER≤10<sup>-12.</sup>





45.00 ±0.20

Figure 1. Mechanical Specifications

## **Important Notice**

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by WIITEK before they become applicable to any particular order or contract. In accordance with the WIITEK policy of continuous improvement specifications may change without notice.

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**Ordering information** 

Part Number	Product Description			
WSS-MDO100-001C	1 meter SFP+ Active Optical Cable			
WSS-MDO100-002C	2 meter SFP+ Active Optical Cable			
WSS-MDO100-003C	3 meter SFP+ Active Optical Cable			
WSS-MDO100-005C	5 meter SFP+ Active Optical Cable			
WSS-MDO100-007C	7 meter SFP+ Active Optical Cable			
WSS-MDO100-010C	10 meter SFP+ Active Optical Cable			
WSS-MDO100-0XXC	10G SFP+ Active Optical Cable up to 300m on OM3 MMF			
xxx :001~100,1~300 Length in meters (OM3 fiber is available)				

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