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## ADD-QDESCI-AOC7M

Dell<sup>®</sup> AOC-QSFP-4SFP-10G-7M to Cisco<sup>®</sup> SFP-10G-AOC7M Compatible TAA Compliant 40GBase-AOC QSFP+ to 4xSFP+ Direct Attach Cable (850nm, MMF, 7m)

## Features

- 850nm VCSEL transmitter, PIN photo-detector receiver
- Electrical interface compliant to QSFP+ connector (SFF-8436) and SFP+ connectors (SFF-8431)
- All-metal housing for superior EMI performance
- Operating temperature: 0 to 70 Celsius
- RoHS compliant and Lead free
- Hot Pluggable



## Applications

- Fiber Channel
- 40Gigabit Ethernet
- InfiniBand QDR, SDR, DDR

## **Product Description**

This Dell<sup>®</sup> AOC-QSFP-4SFP-10G-7M to Cisco<sup>®</sup> SFP-10G-AOC7M dual oem compatible 40GBase-AOC QSFP+ to 4xSFP+ active optical cable has a maximum reach of 7.0m (23.0ft). It is 100% Dell<sup>®</sup> to Cisco<sup>®</sup> compatible and has been programmed, uniquely serialized, data-traffic and application tested to ensure that it is compliant and functional. This cable will initialize and perform identically to Dell<sup>®</sup> and Cisco<sup>®</sup>'s individual cables and is built to meet or exceed OEM specifications. This product complies with MSA (Multi-Source Agreement) standards and is TAA (Trade Acts Agreement) compliant. We stand behind the quality of our products and proudly offer a limited lifetime warranty.

AddOn's transceivers are RoHS compliant and lead-free.

TAA refers to the Trade Agreements Act (19 U.S.C. & 2501-2581), which is intended to foster fair and open international trade. TAA requires that the U.S. Government may acquire only "U.S. – made or designated country end products."



Rev. 101823

# **QSFP Interface Specifications**

Parameter	Description			
Module Form Factor	QSFP+ (Supports SFF-8436/SFF-8472)			
Channel Data Rate	Rate 40Gbps			
BER	<10 <sup>-12</sup>			
Operating Case Temperature	0 °C to 70°C			
Storage Temperature	-20 °C to 85 °C			
Supply Voltage	3.3V			
Supply Current	180mA Per End Typical			
Management Interface Serial	I <sup>2</sup> C (Supports SFF-8472)			

## **Optical Characteristics**

Parameter	Symbol	Min.	Тур.	Max.	Unit	Notes		
Transmitter								
Center Wavelength	λC	840	850	860	nm			
RMS Spectral Width	Δλ			0.65	nm			
Average Launch Power Per Lane	POUT	-7.5		-2.5	dBm			
Difference in Launch Power Between Any Two Lanes (OMA)					dB			
Extinction Ratio	ER	3			dB			
Peak Power Per Lane				4	dBm			
Transmitter and Dispersion Penalty (TDP) Per Lane	TDP			3.5	dB			
Average Launch Power of Off Transmitter Per Lane				-30	dB			
Eye Mask Coordinates: (X1, X2, X3, Y1, Y2, Y3)	(0.23, 0.34, 0.43, 0.27, 0.33, 0.4)				Hit Ratio = 5x10 <sup>-5</sup>			
Receiver								
Center Wavelength	λC	840	850	860	nm			
Stressed Receiver Sensitivity in OMA Per Lane				-5.4		1		
Maximum Average Power at Receiver Input Per Lane				2.4				
Receiver Reflectance				-12				
Peak Power Per Lane				4				
LOS Assert		-30						
LOS De-Assert – OMA				7.5				
LOS Hysteresis		0.5						

# Notes:

1. Measured with conformance test signal at TP3 for BER=10E<sup>-12</sup>.

### **SFP+ Interface Specifications**

Parameter	Description			
Module Form Factor	SFP+ (Supports SFF8431/SFF8432/SFF8472)			
Channel Data Rate	Rate 1 to 10.3125Gbps			
BER	<10 <sup>-12</sup>			
Operating Case Temperature	0 to 70ºC			
Storage Temperature	-20 to 85ºC			
Supply Voltage	3.3V			
Supply Current	455mA Maximum			
Management Interface Serial	I <sup>2</sup> C (Supports SFF-8472)			

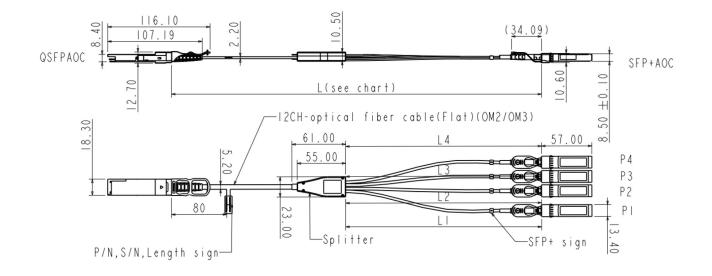
## **Optical Characteristics**

Parameter	Symbol	Min.	Тур.	Max.	Unit	Notes	
Transmitter							
Center Wavelength	λC	840	850	860	nm		
RMS Spectral Width	Δλ			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	-12B Reflection	
Optical Return Loss Tolerance				12	dB		
Receiver							
Center Wavelength	λC	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		

Notes:

- 1. Trade-offs are available between spectral width, center wavelength, and minimum OMA.
- 2. The optical power is launched into MMF.
- 3. Measured with a PRBS  $2^{31}$ -1 test pattern @10.3125Gbps.
- 4. Measured with a PRBS  $2^{31}$ -1 test pattern @10.3125Gbps and BER $\leq 10^{-12}$ .

## **Mechanical Specifications**



## About AddOn Networks

In 1999, AddOn Networks entered the market with a single product. Our founders fulfilled a severe shortage for compatible, cost-effective optical transceivers that compete at the same performance levels as leading OEM manufacturers. Adhering to the idea of redefining service and product quality not previously had in the fiber optic networking industry, AddOn invested resources in solution design, production, fulfillment, and global support.

Combining one of the most extensive and stringent testing processes in the industry, an exceptional free tech support center, and a consistent roll-out of innovative technologies, AddOn has continually set industry standards of quality and reliability throughout its history.

Reliability is the cornerstone of any optical fiber network and is in engrained in AddOn's DNA. It has played a key role in nurturing the long-term relationships developed over the years with customers. AddOn remains committed to exceeding industry standards with certifications from ranging from NEBS Level 3 to ISO 9001:2005 with every new development while maintaining the signature reliability of its products.



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