QSFP-100GB-AOC90MLP-C-AO

Cisco® Compatible TAA 100GBase-AOC QSFP28 to QSFP28 Low Power Active Optical Cable (850nm, MMF, 90m, LSZH)

Features

- Up to 25.78Gbps per channel
- Single 3.3V power supply
- 4-channel full-duplex
- LSZH cable jacket
- Low power consumption: 1.65W per cable end
- Operating Temperature 0 to 70 Celsius
- Hot pluggable
- RoHS compliant and lead-free

Applications

- 100GBase Ethernet

Product Description

This is a Cisco® compatible 100GBase-AOC QSFP28 to QSFP28 LSZH active optical cable that operates over active fiber with a maximum reach of 90.0m (295.3ft). At a wavelength of 850nm, it has been programmed, uniquely serialized, and data-traffic and application tested to ensure it is 100% compliant and functional. This active optical cable is TAA (Trade Agreements Act) compliant, and is built to comply with MSA (Multi-Source Agreement) standards. 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.")

TAA COMPLIANT

Absolute Maximum Ratings

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Storage Temperature	Tstg	-40		85	˚C	1
Operating Case Temperature	Tc	0		70	°C	
Power Supply Voltage	Vcc	3.13	3.30	3.47	V	
Supply Voltage	VIN	0		4.0	V	
Power Supply Current	Icc		500		mA	2
Relative Humidity	RH	0		85	%	
Power Consumption	PD		1.65	1.73	W	2

Notes:

1. Ambient.
2. Per end.

Cable Specifications

Parameter	Value	Unit	Notes
Cable Diameter	LSZH: Ø3.0 ± 0.15	mm	
Minimum Bend Radius	30	mm	1
Length Tolerance	+300/-0	mm	
Cable Jacket	LSZH, Aqua		

Notes:

1. Without tension.

Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Data Rate Per Channel	BR		25.78		Gbps	
Transmitter						
Input Differential Impedance	RIN		100		Ω	
Differential Data Input Swing	VIN,pp	200		900	mV	
Receiver						
Output Differential Impedance	ROUT		100		Ω	
Differential Data Output Swing	VOUT,pp			800	mV	
Bit Error Ratio @25.78Gbps				10^{-8}		1

Notes:

1. Pre-FEC Bit Error Ratio with a PRBS 2^{31}-1 test pattern.

Pin Descriptions

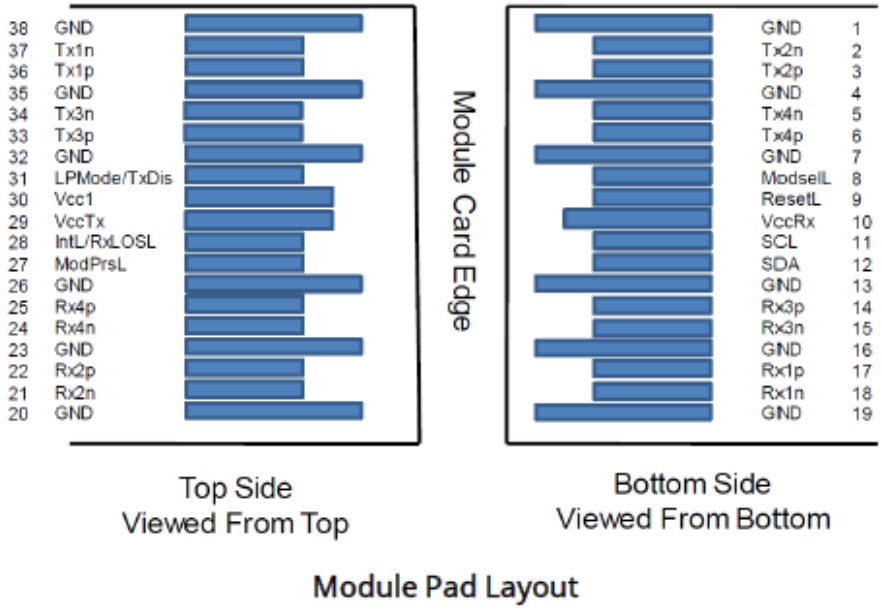
Pin	Symbol	Name/Description	Notes
1	GND	Module Ground.	1
2	Tx2-	Transmitter Inverted Data Input.	
3	Tx2+	Transmitter Non-Inverted Data Input.	
4	GND	Module Ground.	1
5	Tx4-	Transmitter Inverted Data Input.	
6	Tx4+	Transmitter Non-Inverted Data Input.	
7	GND	Module Ground.	1
8	ModSelL	Module Select.	
9	ResetL	Module Reset.	
10	VccRx	+3.3V Receiver Power Supply.	2
11	SCL	2-Wire Serial Interface Clock.	
12	SDA	2-Wire Serial Interface Data.	
13	GND	Module Ground.	1
14	Rx3+	Receiver Non-Inverted Data Output.	
15	Rx3-	Receiver Inverted Data Output.	
16	GND	Module Ground.	1
17	Rx1+	Receiver Non-Inverted Data Output.	
18	Rx1-	Receiver Inverted Data Output.	
19	GND	Module Ground.	1
20	GND	Module Ground.	1
21	Rx2-	Receiver Inverted Data Output.	
22	Rx2+	Receiver Non-Inverted Data Output.	
23	GND	Module Ground.	1
24	Rx4-	Receiver Inverted Data Output.	
25	Rx4+	Receiver Non-Inverted Data Output.	
26	GND	Module Ground.	1
27	ModPrsL	Module Present.	
28	IntL	Interrupt.	
29	VccTx	+3.3V Transmitter Power Supply.	2
30	Vcc1	+3.3V Power Supply.	2
31	LPMode	Low-Power Mode.	3
32	GND	Module Ground.	1
33	Tx3+	Transmitter Non-Inverted Data Input.	
34	Tx3-	Transmitter Inverted Data Input.	
35	GND	Module Ground.	1

36	Tx1+	Transmitter Non-Inverted Data Input.	
37	Tx1-	Transmitter Inverted Data Input.	
38	GND	Module Ground.	1

Notes:

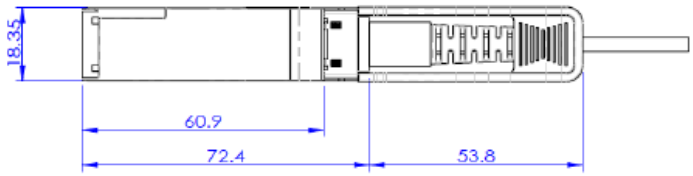
1. GND is the symbol for signal and supply (power) common for the QSFP module. All are common within the QSFP module, and all module voltage are referenced to this potential unless otherwise noted. Connect these directly to the host board signal-common ground plane.
2. VccRx, Vcc1, and VccTx are the receiver and transmitter power supplies and shall be applied concurrently. VccRx, Vcc1, and VccTx may be internally connected within the QSFP transceiver module in any combination. The connector pins are each rated for a maximum current of 500mA.
3. Not in use.

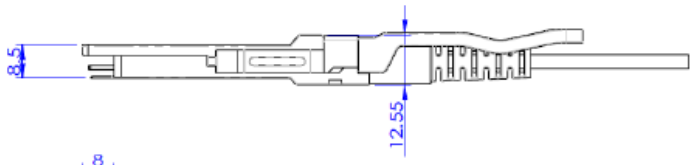
Electrical Pin-Out Details

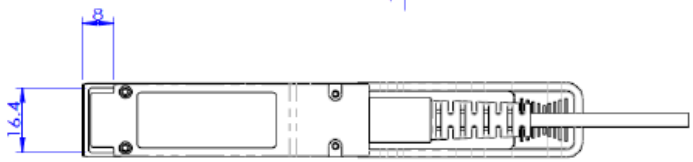


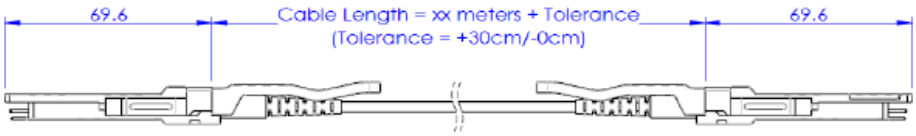
Module Pad Layout

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 ingrained 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 ranging from NEBS Level 3 to ISO 9001:2015 with every new development while maintaining the signature reliability of its products.

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