QSFP-100GB-AOC10MLP-J-OPC

Juniper Networks® Compatible TAA 100GBase-AOC QSFP28 to QSFP28 Low Power Active Optical Cable (850nm, MMF, 10m, Infiniband EDR, LSZH)

Features

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

Applications:

- 100GBase Ethernet

Product Description

This is a Juniper Networks® compatible 100GBase-AOC QSFP28 to QSFP28 Infiniband EDR LSZH active optical cable that operates over active fiber with a maximum reach of 10.0m (32.8ft). 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.

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

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

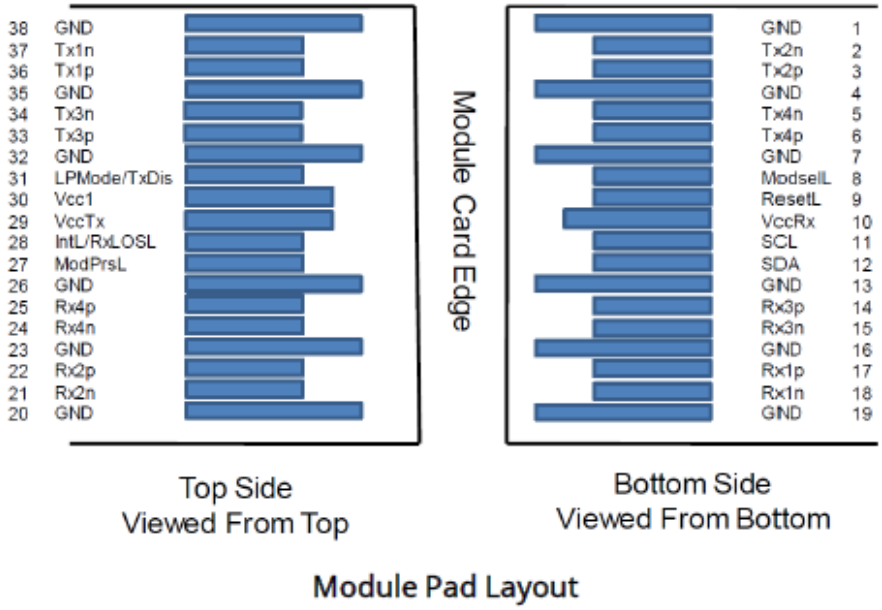
Pin	Symbol	Name/Description	Notes
1	GND	Module Ground.	1
2	Tx2-	Transmitter Inverted Data Input.	
3	Tx2+	Transmitter Non-Inverted Data Input.	
4	GND	Module Ground.	1
5	Tx4-	Transmitter Inverted Data Input.	
6	Tx4+	Transmitter Non-Inverted Data Input.	
7	GND	Module Ground.	1
8	ModSelL	Module Select.	
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:

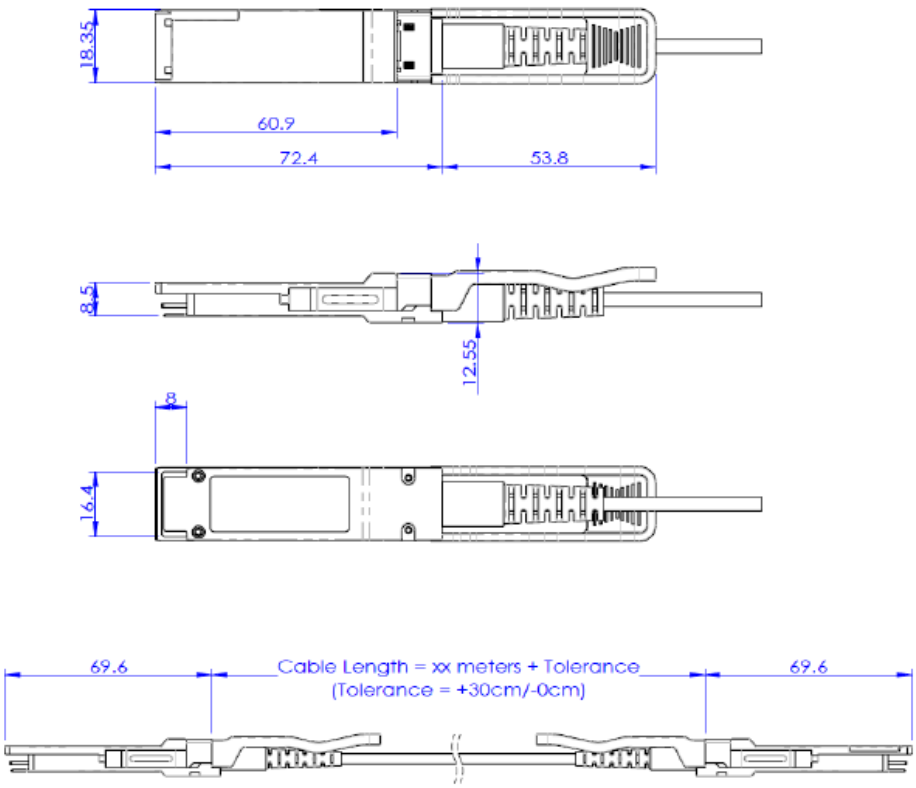
1. GND is the symbol for signal and supply (power) common for the QSFP module. All are common within the QSFP module, and all module voltage are referenced to this potential unless otherwise noted. Connect these directly to the host board signal-common ground plane.
2. VccRx, Vcc1, and VccTx are the 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



OptioConnect
Innovation for the Future of High-Speed Networking

Who We Are
OptioConnect is reshaping the landscape of communication and high-speed networking through intelligent technology. With a core focus on cutting edge technology, we deliver smarter fiber optic solutions for enterprise networks, data centers, and next-gen telecom infrastructures.

What We Do
At OptioConnect, we fuse advanced engineering with intelligent automation to drive the future of networking. Our AI-integrated solutions are designed to optimize performance and streamline operations with:

- Superior Performance
- Network and traffic optimization
- Intelligent energy management
- Seamless OEM compatibility
- Scalable cost-efficiency

Smarter Networks by Design
Innovation isn't just a goal—it's our process. We embed AI and machine learning across our R&D and product lines, enabling adaptive performance, automated tuning, and faster deployment cycles. The result? Networks that don't just work—they learn, evolve, and outperform.

Our Team
Our engineers, data scientists, and network architects bring decades of experience and a future-focused mindset. We provide hands-on support with intelligent insights that turn complex challenges into simple solutions.

Our Mission
To deliver AI-enhanced connectivity that reduces cost, increases speed, and maximizes efficiency—empowering our partners to operate at the forefront of a rapidly evolving digital world.

Let's Connect
Discover how OptioConnect's intelligent infrastructure solutions can power your network's next leap forward.
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