MFS1S00-H001V-OPC

Mellanox® Compatible TAA 200GBase-AOC QSFP56 DSP Active Optical Cable (850nm, MMF, 1m)

Features

- 4 independent parallel optical channels
- Each channel data rate up to 26.56GBaud
- Hot Pluggable
- OM3 Multi-mode
- CML Compatible electrical I/O
- Operating Temperature Range: 0 to 70 Celsius
- Color: Aqua
- RoHS Compliant and lead-free

Applications:

- 200GBase Ethernet

Product Description

This is a Mellanox® compatible 200GBase-AOC QSFP56 to QSFP56 DSP active optical cable that operates over active fiber with a maximum reach of 1m. 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.

General Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit
Storage Temperature	Tstg	-40		85	°C
Operating Case Temperature	Tc	0	25	70	°C
Supply Voltage	Vcc	0		3.6	V
Relative Operating Humidity	RH	5		85	%
Relative Storage Humidity	RH	0		95	%

Notes:

1. Exceeding the Absolute Maximum Ratings may cause irreversible damage to the device. The device is not intended to be operated under the condition of simultaneous Absolute Maximum Ratings, a condition which may cause irreversible damage to the device. RH is a non-condensing condition.

Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Power Supply Voltage	Vcc	3.14	3.3	3.46	V	
Single Module Supply Current	IIN		1150	1350	mA	
Signaling Speed Per Channel	S		26.56		GBaud	
Transmitter						
Tx_Data Differential Input Voltage	VIN	300		900	mV	
Tx_Data Differential Input Impedance	ZIN		100		Ω	
Receiver						
Rx_Data Differential Output Voltage	VOUT			900	mV	
Rx_Data Differential Output Impedance	ZOUT	90	100	110	Ω	
Link BER	BER			$5E^{-5}$		1

Notes:

1. @26.56GBaud PRBS31Q.

Cable Specifications

Parameter	Value
Minimum Bend Radius (mm)	30
Cable Diameter (mm)	3.0 ± 0.15
Cable Tolerance	+0.2/-0

Pin Descriptions

Pin	Symbol	Name/Description	Notes
1	GND	Module Ground.	
2	Tx2-	Transmitter Inverted Data Input.	
3	Tx2+	Transmitter Non-Inverted Data Input.	
4	GND	Module Ground.	
5	Tx4-	Transmitter Inverted Data Input.	
6	Tx4+	Transmitter Non-Inverted Data Input.	
7	GND	Module Ground.	
8	ModselL	Module Select.	
9	ResetL	Module Reset.	
10	VccRx	Receiver +3.3V DC Power Supply.	
11	SCL	I2C Serial Clock.	
12	SDA	I2C Serial Data.	
13	GND	Module Ground.	
14	Rx3+	Receiver Non-Inverted Differential Output.	
15	Rx3-	Receiver Inverted Differential Output.	
16	GND	Module Ground.	
17	Rx1+	Receiver Non-Inverted Differential Output	
18	Rx1-	Receiver Inverted Differential Output	
19	GND	Module Ground.	
20	GND	Module Ground.	
21	Rx2-	Receiver Inverted Differential Output.	
22	Rx2+	Receiver Non-Inverted Differential Output.	
23	GND	Module Ground.	
24	Rx4-	Receiver Inverted Differential Output.	
25	Rx4+	Receiver Non-Inverted Differential Output.	
26	GND	Module Ground.	
27	ModPrsL	Module Present.	
28	IntL	Interrupt.	
29	VccTx	Transmitter +3.3V DC Power Supply.	
30	Vcc1	+3.3V DC Power Supply.	
31	LPMode	Low-Power Mode.	
32	GND	Module Ground.	
33	Tx3+	Transmitter Non-Inverted Data Input.	
34	Tx3-	Transmitter Inverted Data Input.	
35	GND	Module Ground.	

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

Pin Assignment
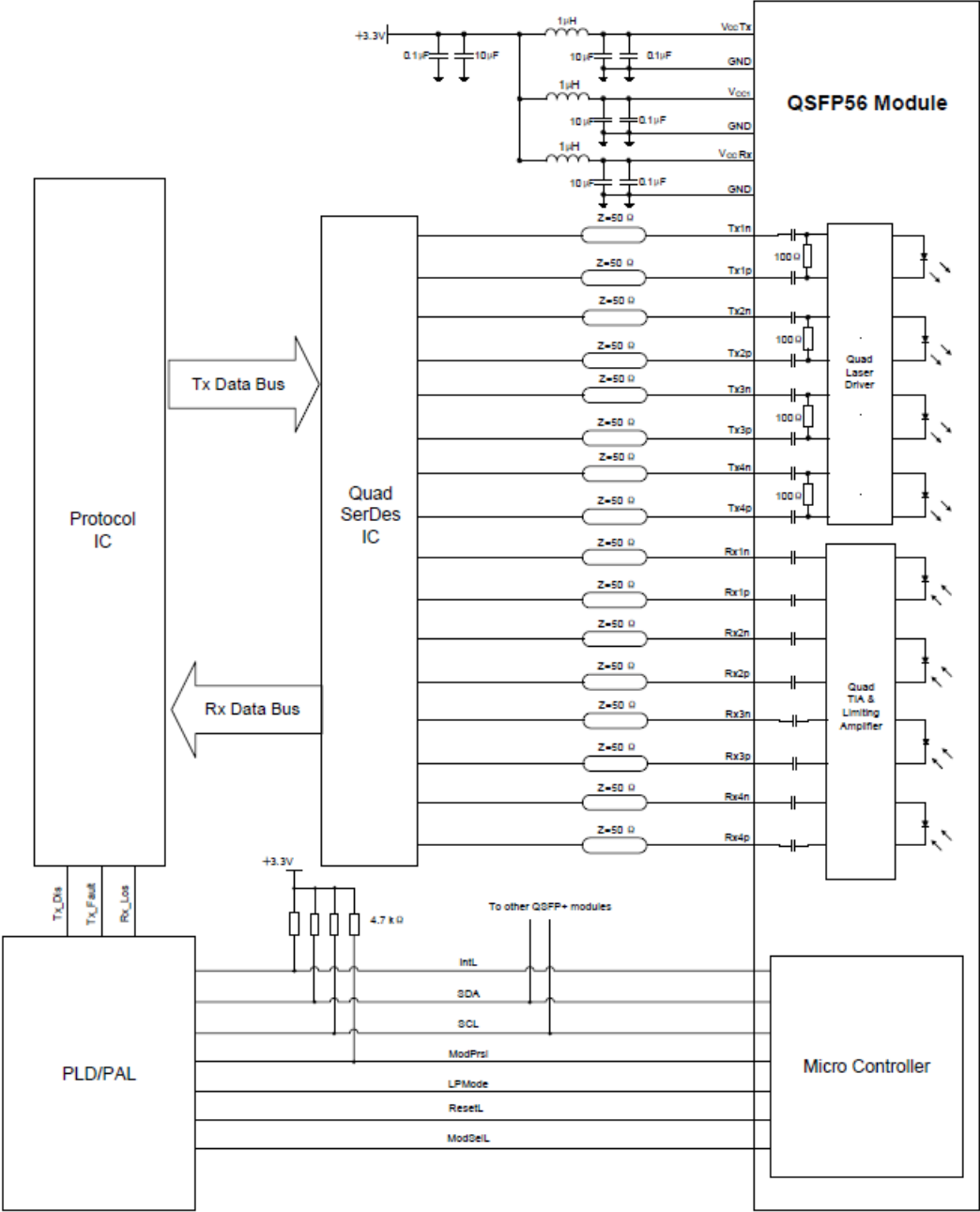

Top Side
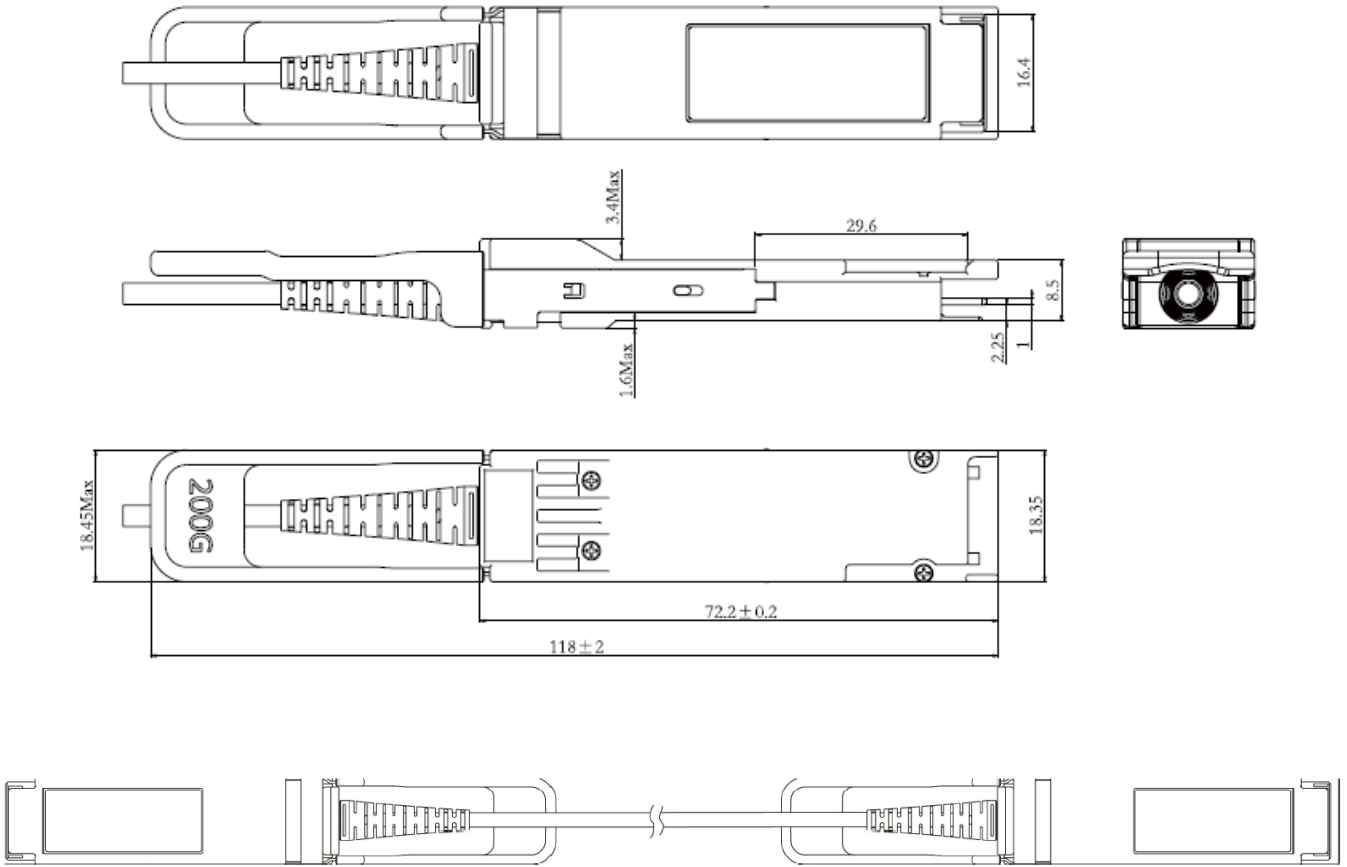Viewed From Top

Bottom Side
Viewed From Bottom
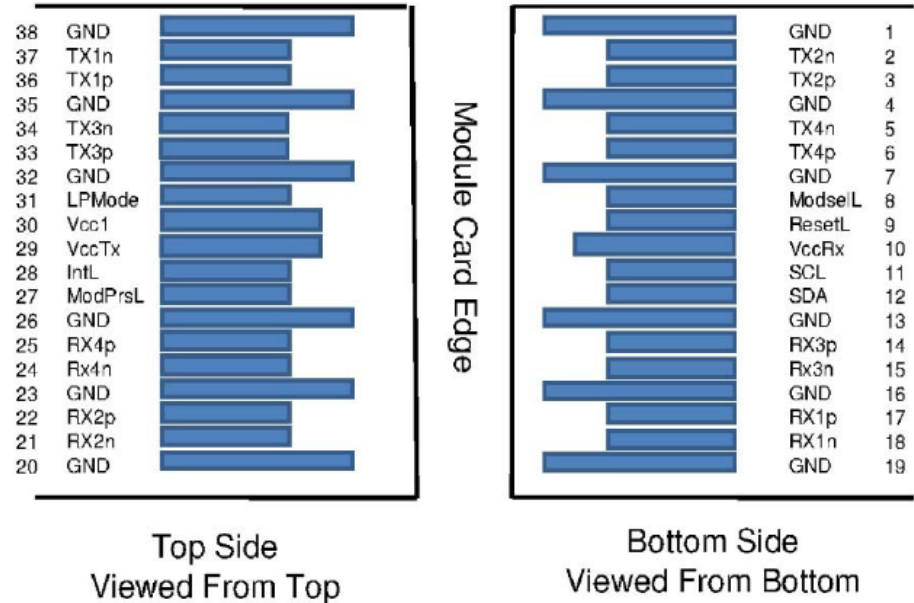
Block Diagram
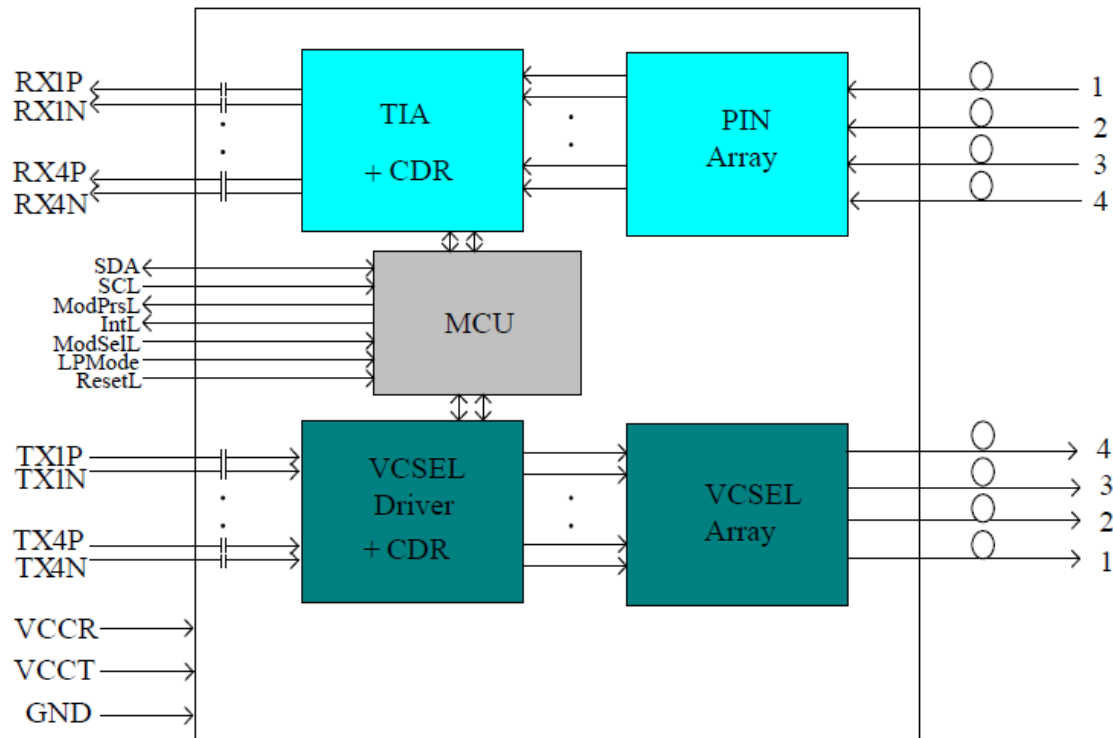
Electrical Interface

Mechanical Specifications

Notes:

1. Tolerance ±0.1mm.
2. Others according with SFF-8661 MSA or Customer Spec.

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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