



SFP-10GBASE-TL-80M-MX-OPC

Mellanox® Compatible TAA Compliant 10GBase-TX SFP+ Transceiver (Copper, 80m, RJ-45)

Features

- SFF-8432 Compliance
- RJ-45 Connector
- Operating Temperature: 0 to 70 Celsius
- Copper Media Type
- Hot Pluggable
- Excellent ESD Protection
- Metal with Lower EMI
- RoHS Compliant and Lead-Free



Applications:

- 10GBase Ethernet
- Access and Enterprise

Product Description

This Mellanox® compatible SFP+ transceiver provides 10GBase-TX throughput up to 80m over a copper connection via a RJ-45 connector. This TX module supports 10GBase and can be configured to fit your needs. It is guaranteed to be 100% compatible with the equivalent Mellanox® transceiver. This easy to install, hot swappable transceiver has been programmed, uniquely serialized and data-traffic and application tested to ensure that it will initialize and perform identically. It is built to meet or exceed the specifications of Mellanox®, as well as to comply with MSA (Multi-Source Agreement) standards to ensure seamless network integration. This transceiver is Trade Agreements Act (TAA) compliant. 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
Data Rate	BR		10		GB/s	1
Bit Error Rate	BER			10^{-12}		
Storage Temperature	Tstg	-40		85	°C	2
Operating Case Temperature	Tc	0		70	°C	
Maximum Voltage	Vcc	-0.5		4	V	

Notes:

1. IEEE 802.3ae.
2. Ambient temperature.

Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Input Voltage	V _{CC}	3.14	3.3	3.46	V	
Supply Current	I _{CC}		590		mA	1
Surge Current	I _{surge}			30	mA	

Notes:

1. Test at 10Gbps rate using 80m CAT 6A cable.

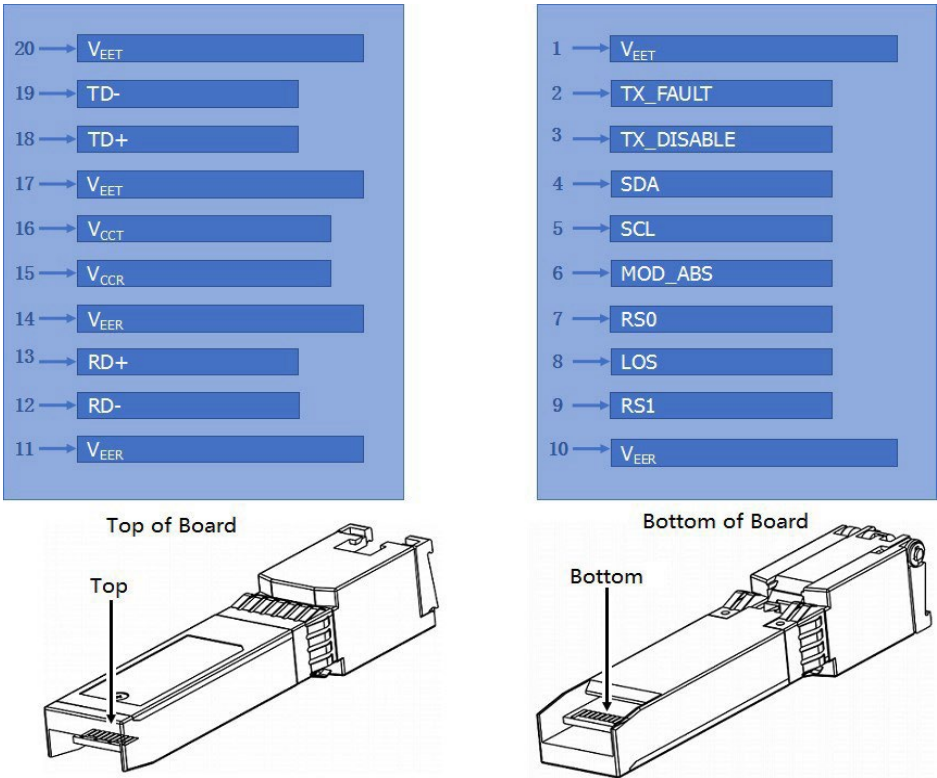
Pin Descriptions

Pin	Symbol	Description	Ref.
1	VeeT	Transmitter Ground (Common with Receiver Ground).	1
2	TX_Fault	Transmitter Fault. Not supported.	
3	TX_Disable	Transmitter Disable, PHY disabled on high or open.	2
4	SDA	2-Wire Serial Interface Data.	3
5	SCL	2-Wire Serial Interface Clock.	3
6	MOD_ABS	Module Absent. Grounded within the module.	3
7	RS0	No Connection Required.	
8	LOS	Loss of Signal Indication, Logic 0 indicated normal operation.	
9	RS1	No Connection Required.	
10	VeeR	Receiver Ground (Common with Transmitter Ground).	1
11	VeeR	Receiver Ground (Common with Transmitter Ground).	1
12	RD-	Receiver Inverted DATA out. AC coupled.	
13	RD+	Receiver Non-Inverted Data Out. AC coupled.	
14	VeeR	Receiver Ground (Common with Receiver Ground).	1
15	VccR	Receiver Power Supply.	
16	VccT	Transmitter Power Supply.	
17	Veet	Transmitter ground (Common with Receiver Ground).	1
18	TD+	Transmitter Non-Inverted Data In. AC coupled.	
19	TD-	Transmitter Inverted Data In. AC Coupled.	
20	Veet	Transmitter Ground (Common with Receiver Ground).	1

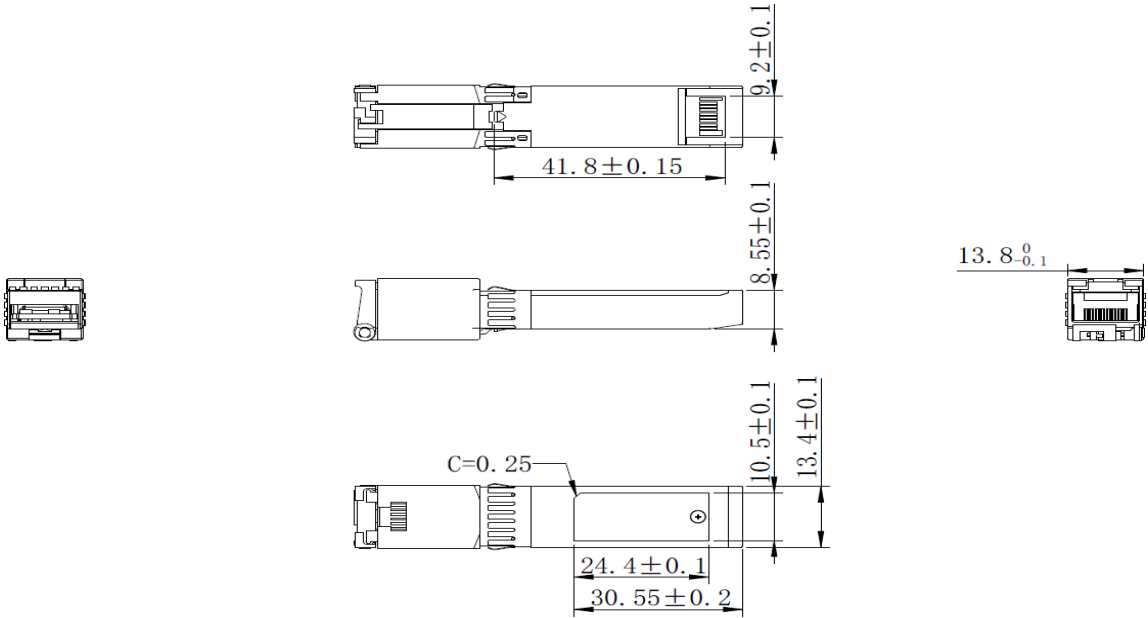
Notes:

1. Circuit ground is connected to chassis ground.
2. Disabled $T_{DIS} > 2V$ or open, Enabled $T_{DIS} < 0.8V$
3. Should be pulled up with 4.7K Ω -10K Ω on host board to a voltage between 2V and 3.6V

Electrical 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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