

### **SFP-10GBASE-TL-80M-C**

MSA and 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 MSA Compliant SFP+ transceiver provides 10GBase-TX throughput up to 80m over a copper connection via a RJ-45 connector. This TX module supports 10GBase auto-negotiation and can be configured to fit your needs. It is built to MSA standards and is uniquely serialized and data-traffic and application tested to ensure that they will integrate into your network seamlessly. This transceiver is Trade Agreements Act (TAA) compliant. We stand behind the quality of our products and proudly offer a limited lifetime warranty.

ProLabs' 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."



### 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 <sub>CC</sub>	3.14	3.3	3.46	V	
Supply Current	I <sub>CC</sub>		590		mA	1
Surge Current	I <sub>surge</sub>			30	mA	

### Notes:

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

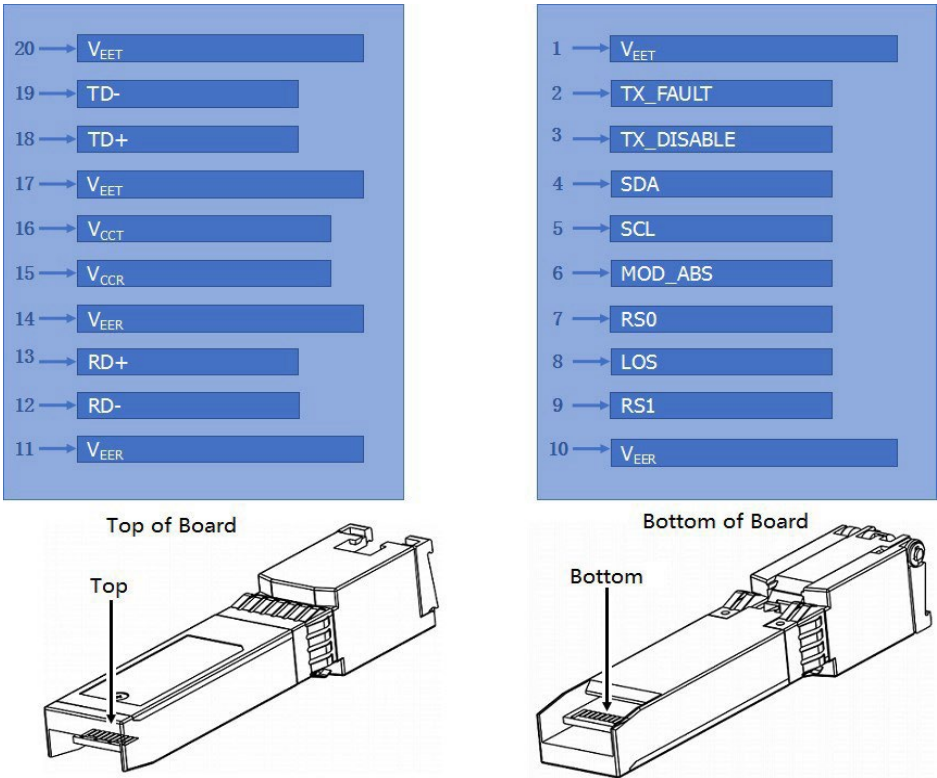
## Pin Descriptions

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

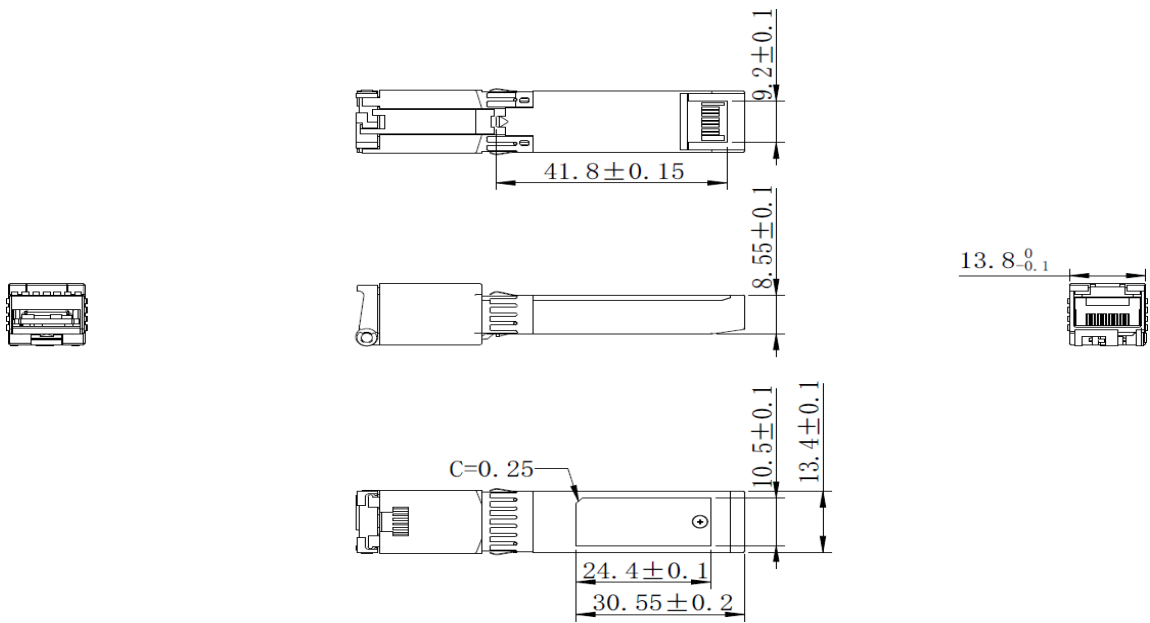
### Notes:

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 $\Omega$ -10K $\Omega$  on host board to a voltage between 2V and 3.6V

Electrical Pad Layout



Mechanical Specifications



## About ProLabs

Our experience comes as standard; for over 15 years ProLabs has delivered optical connectivity solutions that give our customers freedom and choice through our ability to provide seamless interoperability. At the heart of our company is the ability to provide state-of-the-art optical transport and connectivity solutions that are compatible with over 90 optical switching and transport platforms.

## Complete Portfolio of Network Solutions

ProLabs is focused on innovations in optical transport and connectivity. The combination of our knowledge of optics and networking equipment enables ProLabs to be your single source for optical transport and connectivity solutions from 100Mb to 400G while providing innovative solutions that increase network efficiency. We provide the optical connectivity expertise that is compatible with and enhances your switching and transport equipment.

## Trusted Partner

Customer service is our number one value. ProLabs has invested in people, labs and manufacturing capacity to ensure that you get immediate answers to your questions and compatible product when needed. With Engineering and Manufacturing offices in the U.K. and U.S. augmented by field offices throughout the U.S., U.K. and Asia, ProLabs is able to be our customers best advocate 24 hours a day.



## Contact Information

ProLabs US

Email: [sales@prolabs.com](mailto:sales@prolabs.com)

Telephone: 952-852-0252

ProLabs UK

Email: [salesupport@prolabs.com](mailto:salesupport@prolabs.com)

Telephone: +44 1285 719 600