SFP-2-5GBASE-T-J-AO

Juniper Networks® Compatible TAA 2.5GBase-TX SFP Transceiver (Copper, 100m, RJ-45)

Features

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

Applications

- 2.5GBase Ethernet
- Access and Enterprise

Product Description

This Juniper Networks® compatible SFP transceiver provides 2.5GBase-TX throughput up to 100m over a copper connection via a RJ-45 connector. This TX module supports 2.5GBase 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. It is built to meet or exceed the specifications of Juniper Networks®, 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.

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."

General Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Maximum Supply Voltage	Vmax	-0.5		4	V	
Storage Temperature	Tstg	-40		85	°C	1
Operating Case Temperature	Tc	0		70	°C	1
Operating Humidity	RH	5		95	%	
Data Rate	DR		10		Gbps	3
Bit Error Rate	BER			10^{-12}		
Supply Current	Icc		700	750	mA	4
Input Voltage	Vcc	3.14	3.3	3.46	V	
Power Consumption			2.3	2.6	W	

Notes:

1. Ambient temperature.
2. Case temperature.
3. IEEE 802.3ae.
4. Test at 10Gbps rate using a 30m CAT 6A cable.

Compatible with Multiple Rates
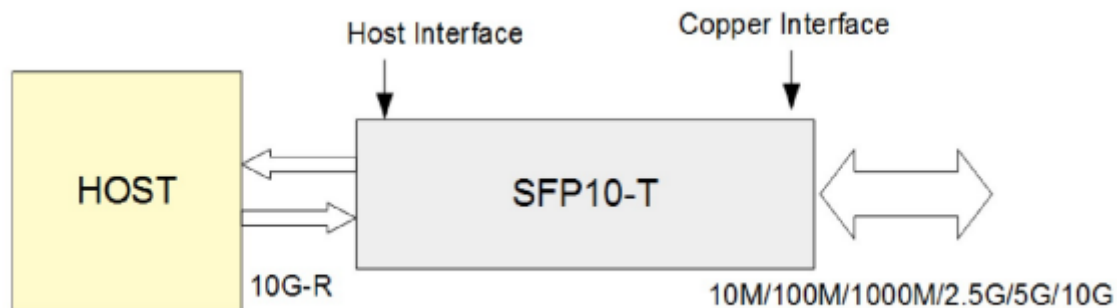
1. Host Interface: Compatible with 10G rate, only to be used on a 10G switch port.
2. Copper Interface: Compatible with 10/100/1000M/2.5G/5G/10G, auto-negotiates with remote module rate.
3. Supports 10GBase-T up to 30m using a CAT 6A/7 cable.
4. Supports 5GBase-T up to 70m using a CAT 5E cable.
5. Supports 2.5GBase-T up to 100m using a CAT 5E cable.
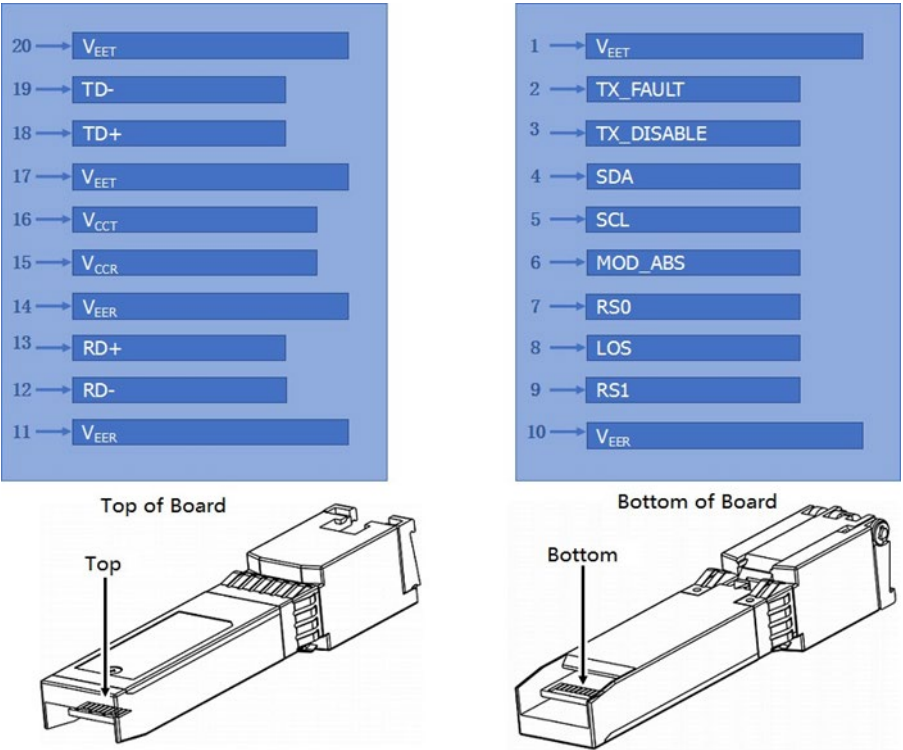6. Supports 10/100/1000Base-T up to 100m using a CAT 5E cable.

Pin Descriptions

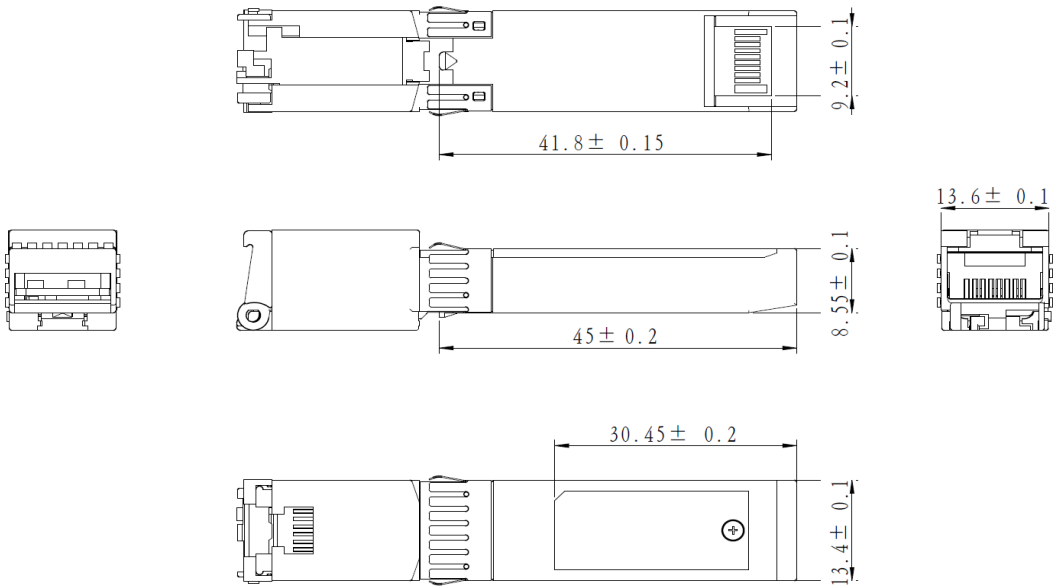| Pin	Symbol	Name/Description	Notes
1	VeeT	Transmitter Ground (Common with Receiver Ground).	1
2	Tx_Fault	Transmitter Fault. Not Supported.	
3	Tx_Disable	Transmitter Disable. PHY disabled on "high" or "open."	2
4	SDA	2-Wire Serial Interface Data.	3
5	SCL	2-Wire Serial Interface Clock.	3
6	MOD_ABS	Module Absent. Grounded within the module.	3
7	RS0	No Connection Required.	
8	LOS	Loss of Signal Indication. "Logic 0" indicates normal operation.	4
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.	5
13	RD+	Receiver Non-Inverted Data Out. AC Coupled.	5
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. The circuit ground is connected to the chassis ground
2. Disabled: T_{DIS}>2Vor open, enabled: T_{DIS}<0.8V.
3. Should be pulled up with 4.7kΩ to 10kΩ on the host board to a voltage between 2V and 3.6V.
4. The LOS pin can indicate the connection status of the copper interface. When the copper interface is connected to the far end through the network cable, the LOS is low. Otherwise, when the network cable is disconnected, the LOS is high.
5. RD± has a squelch function. When the copper interface is connected to the far end through a network cable, RX± is working normally. If the network cable is disconnected, RX± has no signal output.

Electrical Pad Layout

Pin	Signal		Pin	Signal
20	V_{EET}		1	V_{EET}
19	TD-		2	TX_FAULT
18	TD+		3	TX_DISABLE
17	V_{EET}		4	SDA
16	V_{CCT}		5	SCL
15	V_{CCR}		6	MOD_ABS
14	V_{EER}		7	RS0
13	RD+		8	LOS
12	RD-		9	RS1
11	V_{EER}		10	V_{EER}

Top of Board

Top

Bottom of Board

Bottom

Mechanical Specifications

41.8 ± 0.15

9.2 ± 0.1

13.6 ± 0.1

8.55 ± 0.1

45 ± 0.2

30.45 ± 0.2

13.4 ± 0.1

All dimensions are ±0.2mm unless otherwise specified.

Unit: mm

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 in engrained 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 from ranging from NEBS Level 3 to ISO 9001:2005 with every new development while maintaining the signature reliability of its products.

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