SFP-10G-NBASE-T-N1-C

Alcatel-Lucent Nokia® Compatible TAA 10/100/1000/2500/5000/10000NBase-T SFP+ Transceiver (Copper, 100/30m, RJ-45)

Features:

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

Applications:

- 2.5GBase Ethernet
- Access and Enterprise

Product Description

This Alcatel-Lucent Nokia® compatible SFP transceiver provides 10/100/1000/2500/5000/10000Base-TX throughput up to 100m over a copper connection via a RJ-45 connector. This TX module supports 10/100/1000/2500/5000/10000Base-TX 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 Alcatel-Lucent Nokia®, 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.

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.")

TAA COMPLIANT

Rev. 012026

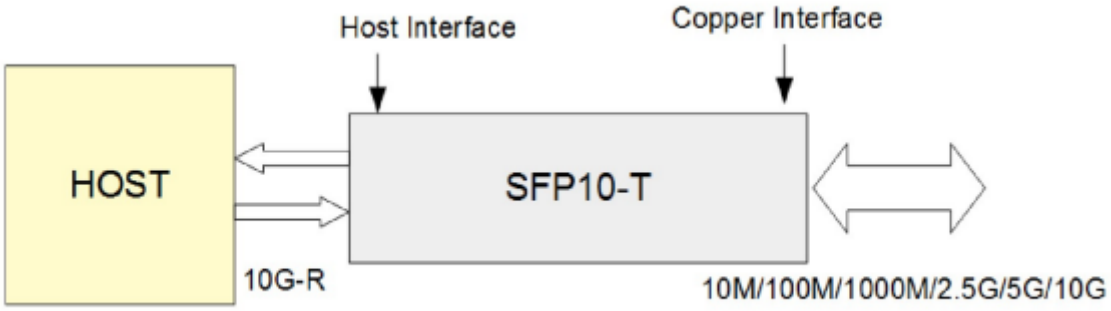
General Specifications

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.

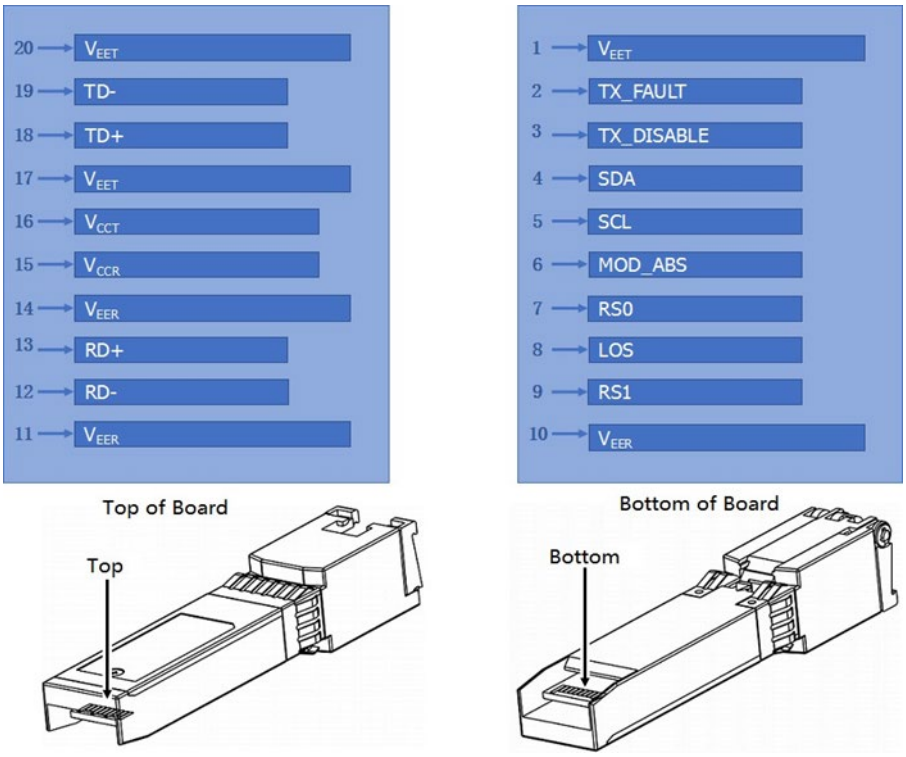
Pin Descriptions

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

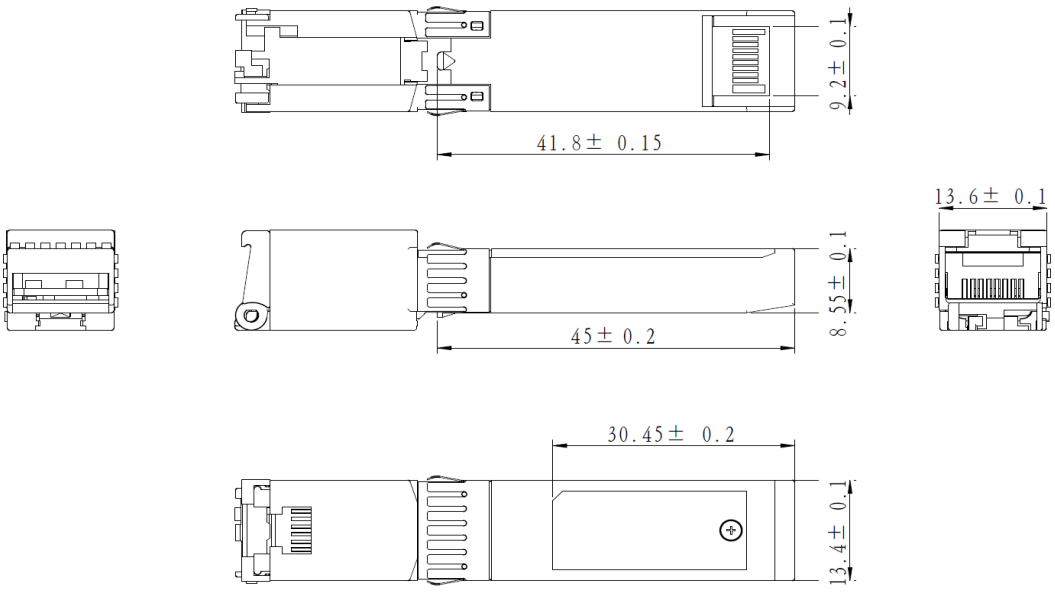
Notes:

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



Mechanical Specifications



All dimensions are ±0.2mm unless otherwise specified.

Unit: mm

About ProLabs

Our extensive experience comes as standard. For over 20 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 more than 100 optical switching and transport platforms.

A 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 1.6T 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.

The Trusted Partner

Customer service is our number one value. ProLabs has invested in people, labs and manufacturing capacity to ensure compatible products, and immediate answers to your questions. 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.

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