



Data-Sheet

SFP 1G Base Optical Transceiver

JTOPTICS® 1Gb/s transceiver module supports up to 20km link lengths over LC duplex SMF fiber. Featuring low power consumption, the hot swappable 1G SFP transceiver is ideal for Internet Service Provider (ISP) Gigabit Ethernet communication links, Enterprise LAN & SAN Networks, Data Center LAN & SAN Networks and other optical links. Featuring low power consumption, high speed, this 10G SFP+ transceiver is ideal for data center, enterprise wiring closet, service provider transport application, Radio & Baseband Unit, etc.

- Dual data-rate of 1.25Gbps/1.063Gbps operation
- 1310nm FP laser and PIN photo detector for 20km
- Compliant with SFP MSA and SFF-8472 with duplex LC receptacle
- Complied with RoHS
- 20km with 9/125 μ m SMF
- Hot-Pluggable SFP Footprint
- Duplex LC Connector Interface
- Single 3.3V Power Supply
- Class 1 FDA and IEC60825-1
- Laser Safety Compliant



1GE SFP Transceiver 1000BASE-LX/LH
SFP 1310nm 20km, LC, SMF
JT-1G-SFP-DD-LR



1GE SFP Transceiver 1000BASE-SX
SFP 850nm 550m , DOM, LC MMF
JT-1G-SFP-DD-SR

JTOPTICS® 1GBASE-SX SFP transceivers are small form factor pluggable module for bi-directional serial optical data communications such as Gigabit Ethernet 1000BASE-SX and Fiber Channel FC-PH-2 for 100-M5-SN-1 and 100-M6-SN-1. It is with the SFP 20-pin connector to allow hot plug capability. This module is designed for multi-mode fiber and operates at a nominal wavelength of 850nm.

- Operating Data Rate up to 1.25Gbps
- 850nm VCSEL Laser Transmitter
- 550m with 50/125 μ m MMF
- 300m on 62.5/125 μ m MMF
- Hot-Pluggable SFP Footprint
- Duplex LC Connector Interface
- Single 3.3V Power Supply
- Compliant with MSA SFP Specification

JTOPTICS® 1GBASE-BD-LR 20Km SFP optical transceiver, 1G SFP BD LR(JT-1G-SFP-BD-LR) Bidirectional SFP transceiver is intended mainly for connecting high-speed hubs, Ethernet switches, and routers together in different wiring closets or buildings using long cabling runs and developed to support longer-length on fiber backbones. BIDI Transceiver used only one fiber to transmit and receive optical signal. It is mainly used in different applications such as router, media converter, switched backplane applications.

- Dual data-rate of 1.25Gbps operation;
- 1310nm FP laser and PIN photo detector for 20km
- Compliant with SFP MSA and SFF-8472
- Duplex LC receptacle;
- Digital Diagnostic Monitoring
- Internal Compatible with SONET OC-24-LR-1
- Complied with RoHS



1GE SFP BIDI Transceiver 1000BASE-BX BiDi SFP 1550nm-TX/1310nm-RX
20km LC, SMF
JT-1G-SFP-BD-LR



1GE SFP BIDI Transceiver 1000BASE-BX BiDi SFP 1550nm-TX/1310nm-RX
40km, LC, SMF
JT-1G-SFPP-BD-ER

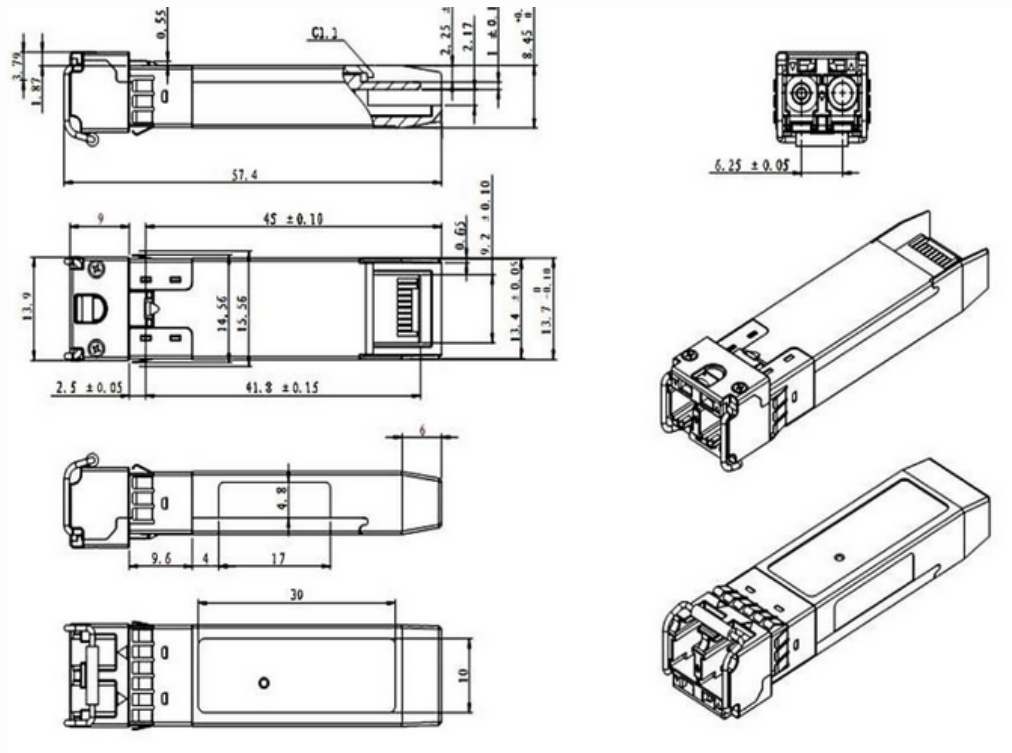
JTOPTICS® SFPP 10GBASE-LR SFP+ transceiver supports up to 10km link lengths over LC duplex SMF fiber. Digital diagnostics monitoring is available via a 2-wire serial interface, as specified in SFF-8472. Each SFP+ transceiver module is individually tested to be used on a series of Cisco switches, routers, servers, network interface card (NICs) etc. Featuring low power consumption, high speed, this 10G SFP+ transceiver is ideal for data center, enterprise wiring closet, service provider transport application, Radio & Baseband Unit, etc.

- Operating Data Rate up to 1.25Gbps
- 1550nm DFB Laser Transmitter
- 40km with 9/125 μ m SMF
- Single 3.3V Power Supply
- Hot-Pluggable SFP Footprint
- Duplex LC Connector Interface
- Compliant with MSA SFP Specification
- Compliant with SFF-8472

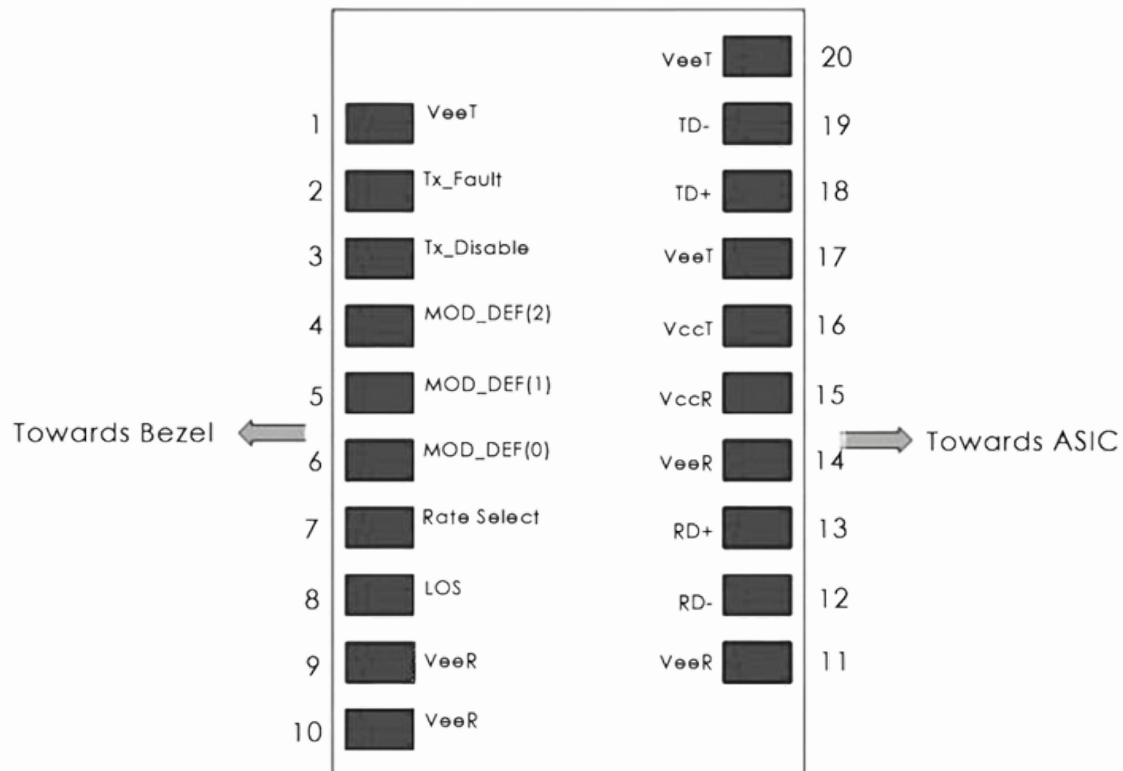
Technical Specifications

Part No	JT-1G-SFP-DD-SR	JT-1G-SFP-DD-LR	JT-1G-SFP-DD-ER	JT-1G-SFP-BD-LR	JT-1G-SFP-BD-ER
Description	1GE SFP Transceiver 550m	1GE SFP Transceiver 20km	1GE SFP Transceiver 40km	1GE SFP BIDI Transceiver 20km	1GE SFP BIDI Transceiver 40km
Form Factor	SFP	SFP	SFP	SFP	SFP
Max Data Rate	1.25Gbps	1000Mbps	1000Mbps	1000Mbps	1000Mbps
Connector	Duplex LC	Duplex LC	Duplex LC	Simplex LC	Simplex LC
Wavelength	850nm	1310nm	1310nm	1550nm-TX/ 1310nm-RX	1550nm-TX/ 1310nm-RX
Transceiver Type	VCSEL	FP	DFB	1310FP/1550DFB	1310DFB/1550DFB
Receiver Type	PIN	PIN	PIN	PIN	PIN
Tx Power (Average)	-9 ~ -3	-9 ~ -3	-5 ~ 0	-9 ~ -3	-5 ~ 0
Receiver Sensitivity (Average)	≤-18	≤-23	≤-24	≤-20	≤-23
Operating Temperature	0 to 70°C (32 to 158°F)	0 to 70°C (32 to 158°F)	0 to 70°C (32 to 158°F)	0 to 70°C (32 to 158°F)	0 to 70°C (32 to 158°F)
Receiver Overload	-3dBm	-3dBm	-3dBm	-3dBm	-3dBm
Extinction Ratio	>9dB	>9dB	>9dB	>9dB	>9dB
Protocols	IEEE 802.3z, SFF-8472, SFP MSA (INF-8074i) Compliant	SFF-8472 MSA Compliant, IEEE 802.3ah-2004, IEEE 802.3z	SFF-8472 MSA Compliant, IEEE 802.3ah-2004	Fast Ethernet, Gigabit Fibre Channel, MSA Compliant	Fast Ethernet, Gigabit Fibre Channel, MSA Compliant
DDM/DOM	Supported	Supported	Supported	Supported	Supported
Max Cable Distance	550 m	20km	40km	20km	40km
Applications	Gigabit Ethernet Media Converter Switch to Switch Interface Switch backplane Applications Router/server Interface	Gigabit Ethernet Media Converter Switch to Switch Interface Switch backplane Applications Router/server Interface	Gigabit Ethernet Media Converter Switch to Switch Interface Switch backplane Applications Router/server Interface	Gigabit Ethernet Media Converter Switch to Switch Interface Switch backplane Applications Router/server Interface	Gigabit Ethernet Media Converter Switch to Switch Interface Switch backplane Applications Router/server Interface
warranty	3 Years	3 Years	3 Years	3 Years	3 Years

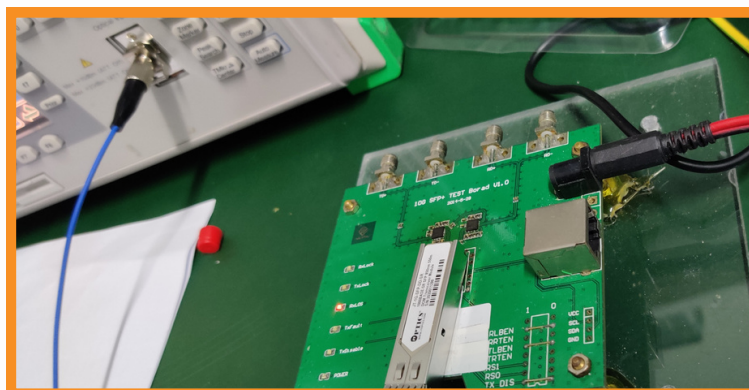
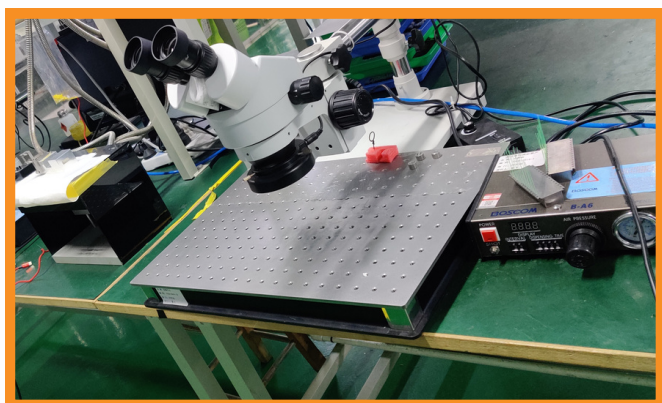
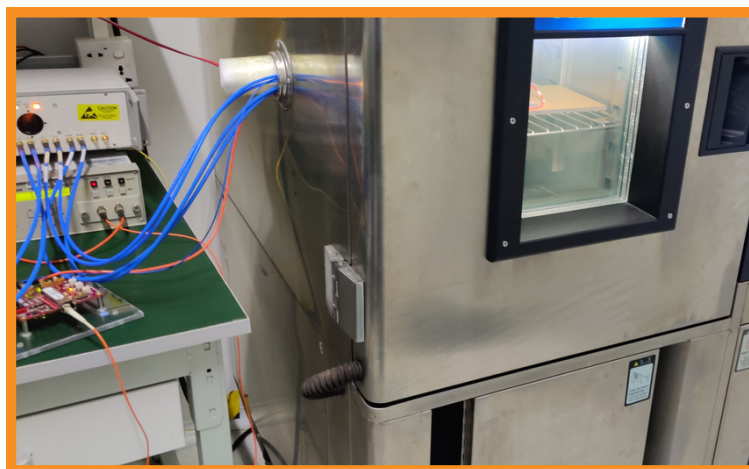
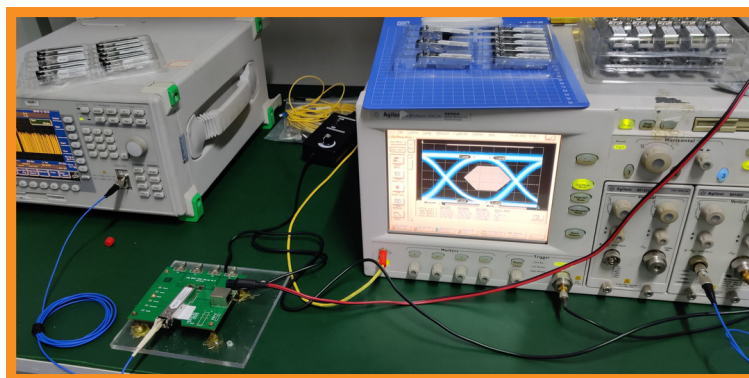
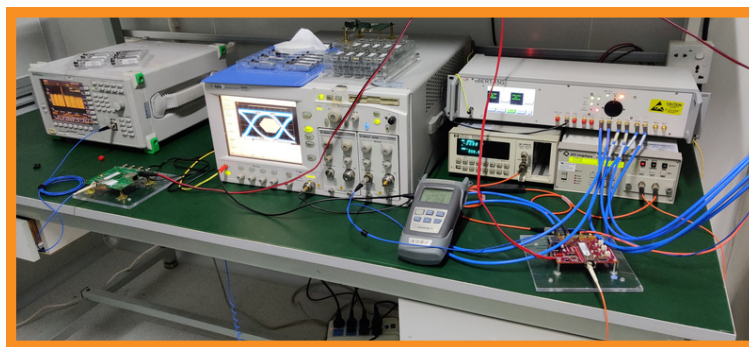
Mechanical Dimension



Electrical Pin Configuration



Testing



About JT

In the dynamic realm of technology and innovation, the emergence of **Jayani Technologies Limited** has been nothing short of a saga marked by ingenuity, resilience, and a steadfast commitment to excellence. Originating as Jayani Technologies LLP in 2011 in the vibrant city of Mumbai, India, the company has evolved into a trailblazer in its domain. This narrative unfolds against the backdrop of the company's expansion into Hong Kong, a strategic move signaling its intent to conquer new horizons.

Established in 2011, Jayani Technologies (**JTOPTICS®**) was conceived as a response to the evolving technological landscape, recognizing the need for cutting-edge solutions that marry innovation with reliability. The Mumbai headquarters became the crucible for the company's early endeavor, a melting pot of talent and vision that propelled Jayani Technologies into the forefront of its industry and emerged as a leading manufacturer and supplier of cutting-edge solutions in the fields of optical Fiber, data center, networking, and electric vehicle components.

From its inception, the company distinguished itself by its unwavering commitment to client satisfaction, a commitment that became the cornerstone of its success. Jayani Technologies quickly became synonymous with technological prowess and an unwavering dedication to delivering solutions that transcended conventional boundaries.

JTOPTICS® has developed and produced many active and passive interconnection and connectivity products suitable for different networks, aiming to become a one-stop device integration solution provider in the open optical network field, products include MPO Cables, AOC cable, passive DAC cable, optical transceivers, optical modules & subsystems, active & passive optical components, and high-density cabling products.

Vision

Our vision is to be recognized by clients as trustful a trusted business partner whose mission is to help our clients by offering state-of-the-art products and services.

Mission

Our mission is to catalyze the success of its clients by providing unparalleled technological solutions. The company envisions itself as a catalyst for positive change, aiming to reshape industries through innovation, integrity, and a relentless pursuit of excellence.

Our Clients



ciena

ADVA™
Optical Networking

colt


CISCO

Coriant

MAVENIR




इसरो **isro**

JUNIPER
NETWORKS

 **TEJAS®**
NETWORKS


भारत इलेक्ट्रॉनिक्स
BHARAT ELECTRONICS

HITACHI


एनटीपीसी
NTPC


TATA

 **LARSEN & TOUBRO**



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