

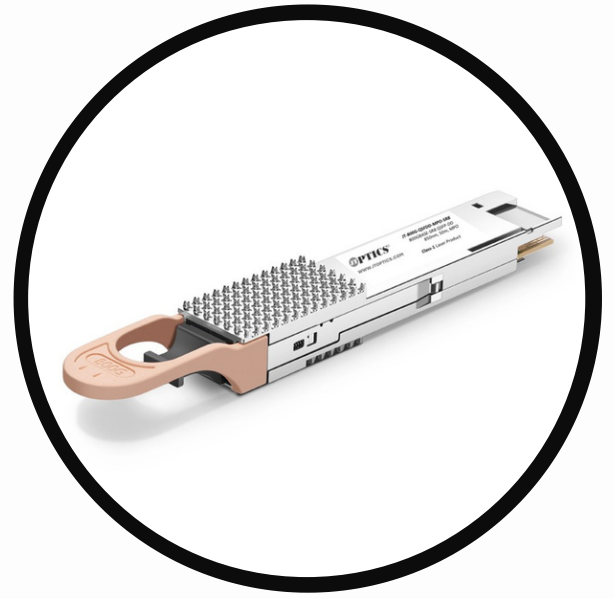
# Data-Sheet

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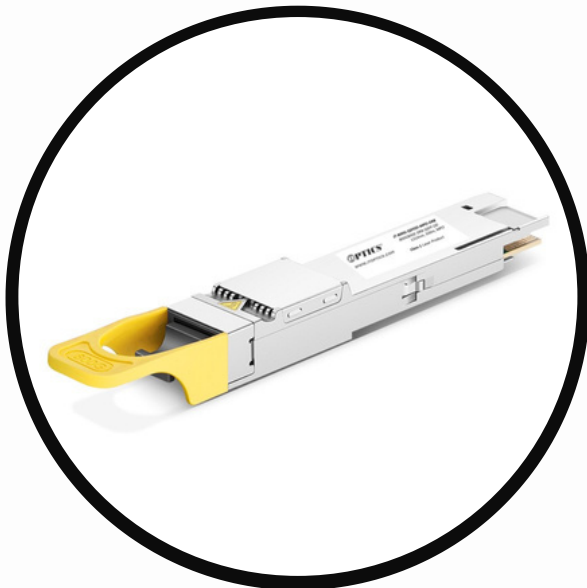
## QSFP-DD 800G Base Optical Transceiver

JTOPTICS® 800GBASE-SR8 100m QSFP-DD optical transceiver, 800G QSFP-DD SR8 (JT-800G-QSFPDD-SR8) is designed to operate over multimode fiber systems using a nominal wavelength of 850nm (MMF). It is compliant with the QSFP28 MSA and IEEE 802.3cd 200GBASE-SR4. It integrates eight data lanes in each direction with 8x53.125G. The electrical interface uses a 76 contact edge type connector. The optical interface uses a 16 fiber MTP (MPO) connector.

- 8 channels full-duplex transceiver modules
- Transmission data rate up to 106.25G per 8x53Gbps PAM4
- 8x106.25Gbps PAM4 transmitter and PAM4 receiver
- 8 channels 850nm VCSEL array
- 8 channels PIN photo detector array
- Power consumption <13W
- Hot Pluggable QSFP DD form factor
- Max. link length 70m over OM4 and 100m over OM5 MMF
- MPO-16 APC connector receptacle
- Built-in digital diagnostic functions
- Operating case temperature 0°C to +70°C
- 3.3V power supply voltage
- RoHS compliant(lead free)



800G QSFPDD Transceiver 800GBASE-SR8, 850nm, MPO-16, MMF  
**JT-800G-QSFPDD-SR8**



800G QSFPDD Transceiver 800GBASE-DR8 1310nm, 500m, MPO-16, SMF  
**JT-800G-QSFPDD-DR8**

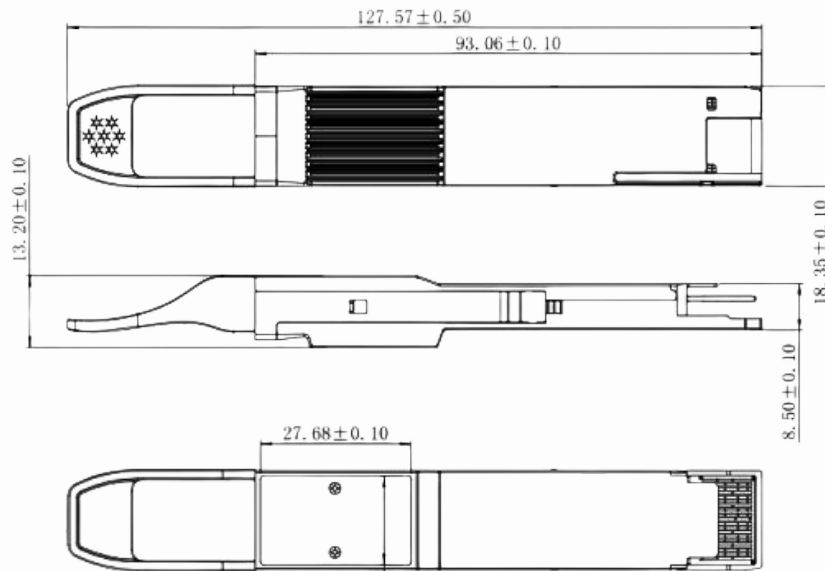
JTOPTICS® QSFPDD 800GBASE-DR4 is offers a transmission distance of up to 10 Km over a single-mode fiber link. Quad Small Form-Factor Pluggable Double Density (QSFP-DD) transceiver with optical MPO-12/MTP-12 connector is designed for long-range single-mode 800 Gigabit Ethernet (800GbE) high-speed applications of up to 800 gigabits per second. The 800 Gigabit Ethernet signal is carried over four parallel lanes by one wavelength per lane. It can be used as 8x100G breakout to QSFP28-DR-100G. It supports link lengths of up to 10Km parallel SMF with MTP/MPO-12 connector. It is compliant to QSFP-DD MSA, IEEE 802.3 protocol and 400GAUI-8 standards.

- QSFP-DD MSA and CMIS compliant
- Compliant to 802.3 800GBASE-DR8
- 8x106.25Gbps(53.125GBd PAM4) electrical interface
- 8x106.25Gbps(53.125GBd PAM4) Optics architecture
- Power consumption <16.5W
- Maximum link length of 500m G.652 SMF with KP-FEC
- MPO-16 receptacles ,Built-in digital diagnostic functions
- Operating case temperature 0°C to +70°C
- 3.3V power supply voltage ☑ RoHS compliant(lead free)

## Technical Specifications

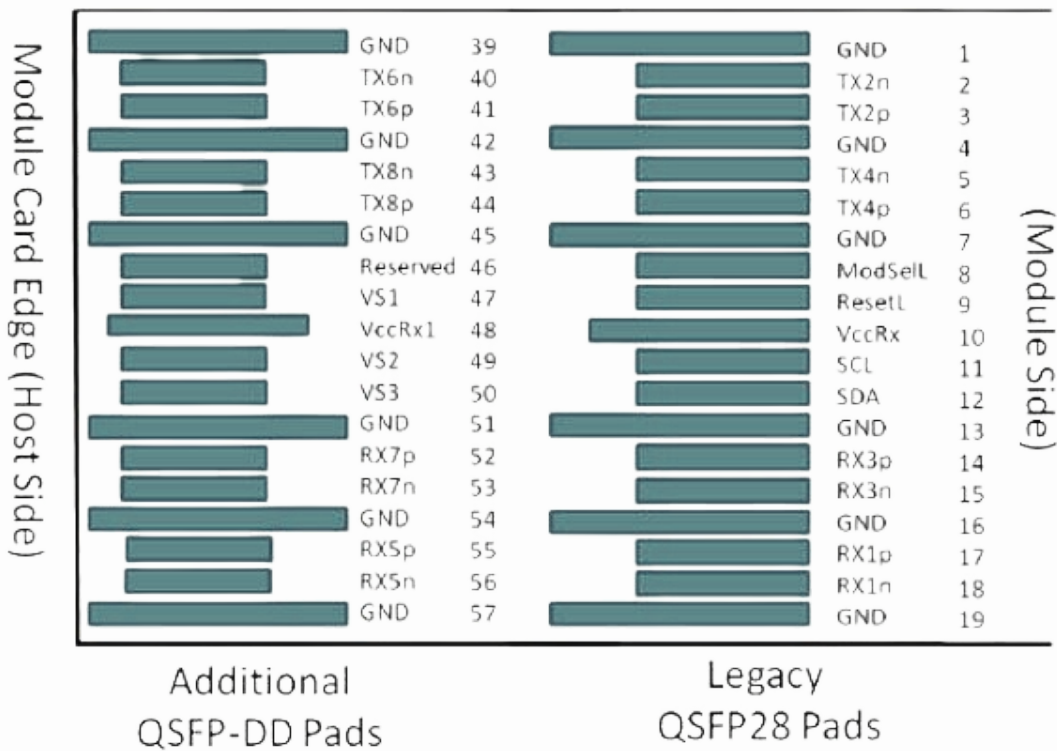
Part No	JT-800G-QSFPDD-MPO-SR8	JT-800G-QSFPDD-MPO-DR8
<b>Description</b>	800GBASE-SR8 QSFP-DD PAM4 850nm 50m	800GBASE-DR8 QSFP-DD PAM4 1310nm 500m
<b>Form Factor</b>	QSFP-DD	QSFP-DD
<b>Max Data Rate</b>	850Gbps (8x 106.25Gbps)	850Gbps (8x 106.25Gbps)
<b>Connector</b>	MTP/MPO-16	MTP/MPO-16
<b>Wavelength</b>	850nm	1310nm
<b>Transceiver Type</b>	VCSEL	EML
<b>Receiver Type</b>	PIN	PIN
<b>Tx Power (Average)</b>	-4.6 ~ +4	-2.9 ~ +4.0
<b>Receiver Sensitivity (Average)</b>	≤ -6.4	≤ -10.3
<b>Operating Temperature</b>	0~70	0~70
<b>Power Consumption</b>	≤13W	≤16.5W
<b>Modulation Format</b>	PAM4	PAM4
<b>Receiver Overload</b>	4dBm	4dBm
<b>Extinction Ratio</b>	>2.5dB	>3.5dB
<b>Protocols</b>	IEEE 802.3ck-2022, CMIS 5.0	IEEE 802.3cu, IEEE P802.3ck, QSFP-DD MSA HW Rev 6.01, CMIS5.0
<b>Media</b>	MMF	SMF
<b>Max Cable Distance</b>	50m@OM4 & 70m@OM5	500m
<b>Applications</b>	IEEE 802.3db 2 x 400GBASE-SR4 Ethernet (PAM4) The transceiver is designed for Ethernet, Telecom and InfiniBand use cases.	800GBASE-DR8 Data center network
<b>Warranty</b>	3 years	3 years

### Mechanical Dimension



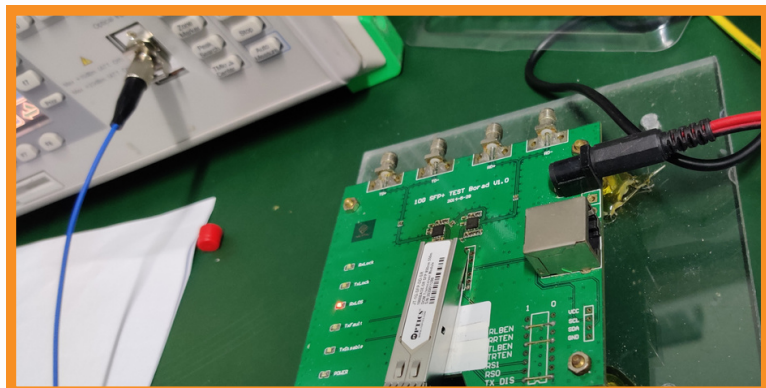
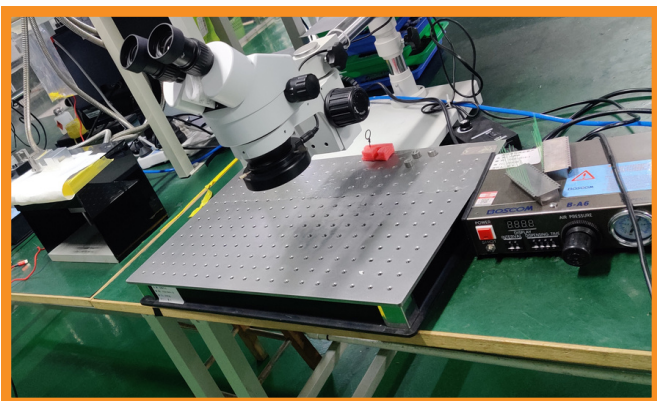
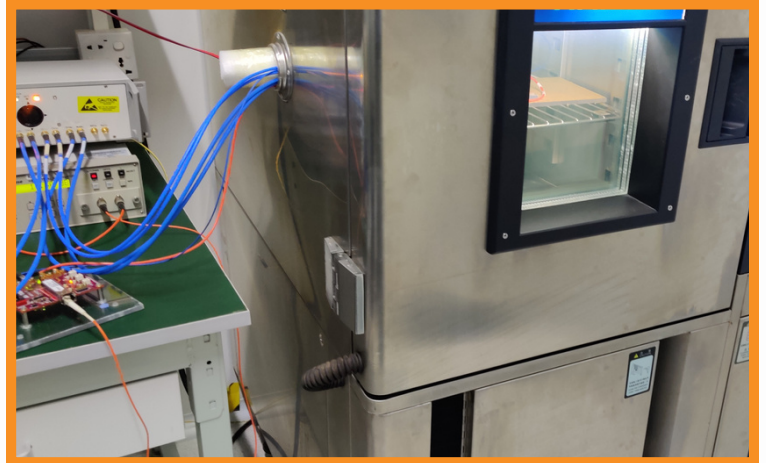
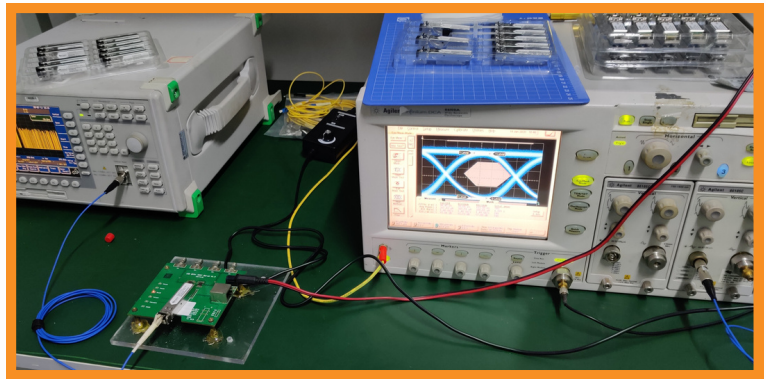
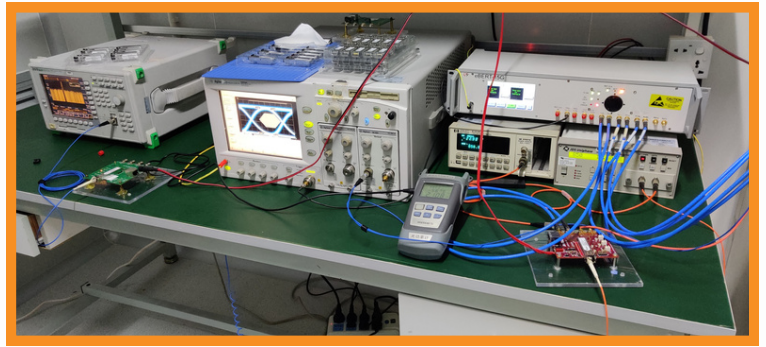
### Electrical Pin Configuration

Bottom side viewed from bottom





## 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**<sup>®</sup>) 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<sup>®</sup> 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**<sup>™</sup>  
Optical Networking

**colt**

**CISCO**

**Coriant**

**MAVENIR**



**इसरो isro**

**JUNIPER**  
NETWORKS

**TEJAS**<sup>®</sup>  
NETWORKS

**भारत इलेक्ट्रॉनिक्स**  
**BHARAT ELECTRONICS**

**HITACHI**

**एनटीपीसी**  
**NTPC**

**TATA**

**LARSEN & TOUBRO**





## Our Contact



+91-86-9309-9309



[info@jtoptics.com](mailto:info@jtoptics.com)



[www.jtoptics.com](http://www.jtoptics.com)



409-410 Lodha I-Think, B-Block, Palava,  
Dombivali (E), Thane, MH 421204

**Hongkong**

**India**

**Singapore**

**Malaysia**

**Qatar**

**JAYANI TECHNOLOGIES LLP**