

DATA SHEET

SFP+ 10GBASE-SR/SW, 850NM MMF TRANSCEIVER EXTENDED TEMPERATURE

DESCRIPTION

This transceiver is hot pluggable duplex-LC optical transceiver designed for using in 10Gbps serial applications such as SONET OC192/SDH STM64, 10Gigabit Ethernet and 10Gbps Fiber Channel applications. It operates with single +3.3V power supplies. The transceiver conforms to the 10Gbps SFP+ multi-source agreement (MSA).

This transceiver consists of optical subassemblies (OSA) for both transmitter and the receiver, and an electrical subassembly, which is packaged together in a metal enclosure. The TOSA is a high-performance 850nm VCSEL, and the ROSA is high speed PIN detector with a built-in preamplifier.



KEY FEATURES

Built-in digital diagnostic functions

850nm VCSEL and PIN receiver

LVTTTL (open collector) digital diagnostic monitoring signals

Compliant with specifications for IEEE-802.3ae 10Gigabit Ethernet at 10.3Gbps and 10G Fiber Channel at 10.52Gbps

Conforms to 10Gbps SFP+ Multi-Source Agreement

Class 1 Laser Safety Conformance

Compatible with industry standard SFP electrical connector & cage

Industry standard duplex LC optical connector

Operates with 50/125 μ m multi-mode optical fibers

Case temperature range : -40°C to 85°C

APPLICATIONS

SDH STM-64/SONET OC192 at 9.953Gbps

10G Ethernet at 10.3125Gbps

10G Fiber channel at 10.5187Gbps

OC192 over FEC at 10.709Gbps

COMPLIANCES

Compliant with SFF-8472 SFP+ MSA.

Compliant to SFP+ SFF-8431 and SFF-8432.

RoHS Compliant6

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ENVIRONMENTAL SPECIFICATIONS

| Parameter | Min. | Typ. | Max. | Unit |
|-----------------------|------|-------|------|------|
| Operation Temperature | -40 | | +85 | °C |
| Storage Temperature | -40 | ----- | +85 | °C |
| Operation Humidity* | 5 | ----- | 85 | % |
| Storage Humidity | 5 | ----- | 85 | % |

(*) not condensing

OPERATING SPECIFICATIONS

| Parameter | Min. | Typ. | Max. | Unit |
|-----------------------|------|------|---------|------|
| Supply Voltage | 3.1 | +3.3 | +3.5 | V |
| Power Dissipation | | 2.4 | | W |
| Transmission Distance | | | 300/500 | m |

OPTICAL SPECIFICATIONS

TRANSMITTER

| Parameter | Min. | Typ. | Max. | Unit |
|------------------------------|------|------|------|------|
| Input Wavelength | 830 | | 870 | nm |
| Average Launch Power | -6 | | -1 | dBm |
| Extinction Ratio (ER) | 3.5 | | | dB |
| Optical Modulation Amplitude | -5 | | | dBm |
| Optical Channel Penalty | | | 1 | dB |
| Spectrum | | | 1 | nm |

RECEIVER

| Parameter | Min. | Typ. | Max. | Unit |
|-----------------------------------|------|------|------|------|
| Input Wavelength | 830 | | 870 | nm |
| Receiver Sensitivity | | -15 | -14 | dBm |
| Input Saturation Power (Overload) | 0. | | | dB |
| LOSA | -25 | | | dBm |
| Hysteresis | 1 | | 4 | dB |



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ORDERING INFORMATION

| Jabil Part Number | Package | Rate | Reach | Other info |
|-------------------|---------|------|----------|---------------------------------|
| JPSP10S3LCE000L85 | SFP+ | 10G | 200/500m | DDM/RoHS - Extended Temperature |

For additional information, visit jabil.com/photonics