

#### **DATA SHEET**

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

### 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

LVTTL (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 µm multi-mode optical fibers

Case temperature range: 0°C to 70°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. | Тур. | Max. | Unit |
|-----------------------|------|------|------|------|
| Operation Temperature | 0    |      | +70  | °C   |
| Storage Temperature   | -40  |      | +85  | °C   |
| Operation Humidity*   | 5    |      | 85   | %    |
| Storage Humidity      | 5    |      | 85   | %    |

<sup>(\*)</sup> not condensing

## **OPERATING SPECIFICATIONS**

| Parameter             | Min. | Тур. | 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. | Тур. | Мах. | 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. | Тур. | Мах. | 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                        |
|-------------------|---------|------|----------|-----------------------------------|
| JPSP10S3LCC000L85 | SFP+    | 10G  | 200/500m | DDM/RoHS - Commercial Temperature |

For additional information, visit jabil.com/photonics