

RADWIN

Single mode SFP 1Gbps 1310nm 20km

Data Sheet



RW-9923-0022

Product Description

- » 1Gbps SFP transceiver for single-mode fiber
- » Compatible with all RADWIN products equipped with 1Gbps SFP interface such as: JET DUO, MultiSector, SmartNode, IDU-S, IDU-H
- » 1310nm FP laser, PIN photodetector
- » Maximum link length 20km

Product Highlights

- » Duplex LC fiber connector
- » Optical interface compliant with IEEE 802.3z 1000Base-LX/LH
- » Electrical interface compliant with SFF-8472
- » Industrial operational conditions -40°C to 85°C
- » Hot Pluggable
- » Low power consumption
- » All metal housing for superior EMI performance
- » Satisfies Class 1 laser Safety requirements

Product Specifications:

Operating parameters

| Parameter | Min. | Typical | Max. |
|---|-------|---------|-------|
| Power supply voltage (Vcc) | 3.13V | 3.3V | 3.47V |
| Absolute maximum power supply voltage (Max VCC) | - | - | 4.5V |
| Case temperature (Tc) | -40°C | - | 85°C |
| Storage temperature (Ts) | -40°C | - | 85°C |
| Operating humidity | 5% | - | 85% |
| Power supply current (Icc) | - | - | 300mA |

Optical and Electrical Characteristics:

The characteristics in the table below are defined over the recommended operating environment unless otherwise specified

Transmitter

| Parameter | Min | Typical | Max | Notes |
|---|--------|---------|--------|-------|
| Centre Wavelength (λ_c) | 1260nm | 1310nm | 1360nm | |
| Spectral width (RMS) (σ) | - | - | 4nm | |
| Average Optical Power (Pout) | -9dBm | - | -3dBm | 1 |
| Extinction Ratio (ER) | 9dB | - | - | |
| Optical Rise and Fall Time 20% ~ 80 % (tr/tf) | - | - | 0.26ns | |

Receiver

| Parameter | Min | Typical | Max | Notes |
|-----------------------------------|--------|---------|--------|-------|
| Centre Wavelength (λ_c) | 1260nm | - | 1580nm | |
| Receiver sensitivity | - | - | -19dBm | 2 |
| Receiver overload | -3dBm | - | - | |
| LOS De-Assert (LOS _D) | - | - | -24dBm | |
| LOS Assert (LOSA) | -35dBm | - | - | |
| LOS Hysteresis | 1dB | - | 4dB | |

NOTE:

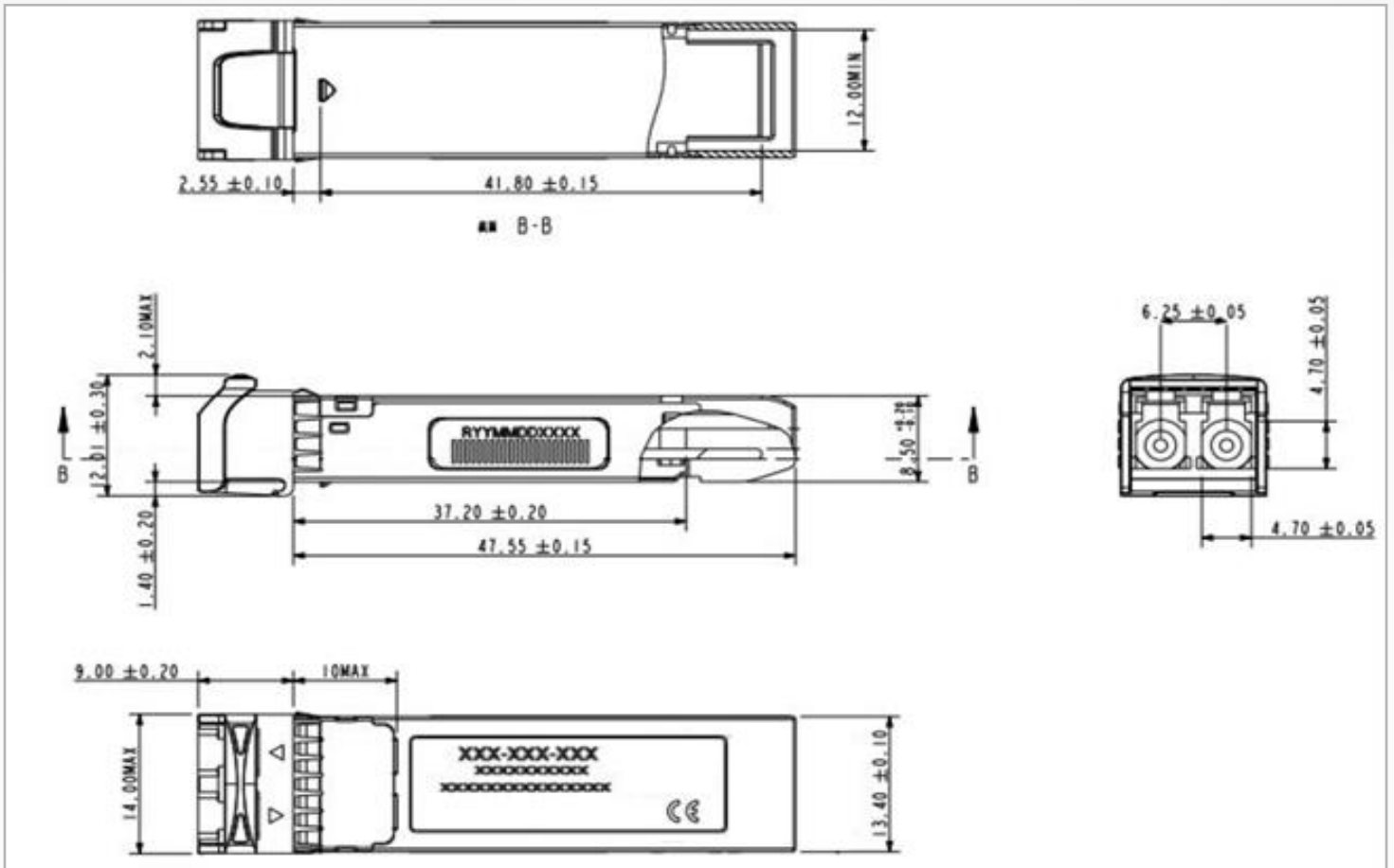
1. The optical power is launched into SMF
2. Measured with a PRBS 27-1 test pattern @1250Mbps, BER $\leq 1 \times 10^{-12}$.

Regulatory compliance:

This SFP transceiver is designed to be Class I Laser safety compliant and also complies with:

| | |
|--------------------------|---|
| Environmental protection | RoHS Directive 2002/95/EC |
| EMC | EN 55022:2006 +A1:2007, EN 55024:1998 +A1:2001 +A2:2003 |
| Laser Safety | CDRH 21 CFR 1040 and Laser Notice No. 50 |
| Product Safety | EN 60825-1:2007, EN 60825-2:2004, EN 60950-1:2006 |

Mechanical specifications:



Datasheet information can be changed by manufacturer without prior notice