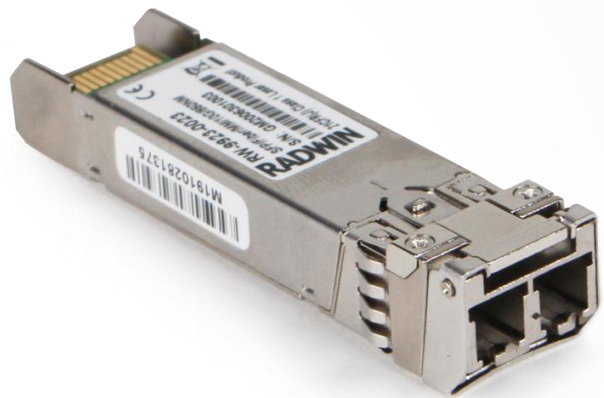


RADWIN

Multimode SFP+ 10Gbps 850nm 300m

Data Sheet



RW-9923-0023

Product Description

- » 10Gbps SFP+ transceiver for multi-mode fiber
- » Compatible with RADWIN IDU-S
- » 850nm VCSEL transmitter, PIN photodetector
- » Maximum link length 300m on MM OM3 fiber

Product Highlights

- » Duplex LC fiber connector
- » Optical interface compliant with IEEE 802.3ae 10Gbase-SR
- » Electrical interface compliant with SFF-8431
- » Supports SFF-8472 diagnostics monitoring
- » Industrial operational conditions -40°C to 85°C
- » Hot Pluggable
- » Low power consumption
- » All metal housing for superior EMI performance

Product Specifications:

Operating parameters

Parameter	Min.	Typical	Max.
Power supply voltage (Vcc)	3.135V	3.300V	3.465V
Absolute maximum power supply voltage (Max VCC)	-	-	3.6V
Case temperature (Tc)	-40°C	-	85°C
Storage temperature (Tc)	-40°C	-	85°C
Relative humidity (RH)	5%	-	95%
RX Input Average Power (Pmax)	-	-	0dBm

Optical 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_t)	840nm	850nm	860nm	
RMS spectral width (Pm)	-	-	-	1 below
Average Optical Power (Pavg)	-6.5dBm	-	-1dBm	2 below
Extinction Ratio (ER)	3.5dB	-	-	3 below
Transmitter Dispersion Penalty (TDP)	-	-	3.9dB	
Relative Intensity Noise (Rin)	-	-	-128db/Hz	12dB reflection
Optical Return Loss Tolerance	-	-	12dB	

Receiver

Parameter	Min	Typical	Max	Notes
Center Wavelength (λ_r)	840nm	850nm	860nm	
Receiver Sensitivity (Psens)	-	-	-11.1dBm	4 below
Stressed Sensitivity in OMA	-	-	-7.5dBm	4 below
Los function (Los)	-30dBm	-	-12dBm	
Overload (Pin)	-	-	-1.0dBm	4 below
Receiver Reflectance	-	-	-12dBm	

NOTE:

1. Trade-offs are available between spectral width, center wavelength, and minimum OMA, as shown in table 1.
2. The optical power is launched into MMF
3. Measured with a PRBS 231-1 test pattern @10.3125Gbps
4. Measured with a PRBS 231-1 test pattern @10.3125Gbps, $BER \leq 10^{-12}$

Minimum 10GBASE-SR OMA as a Function of Wavelength and Spectral Width

Center Wavelength (nm)	RMS Spectral width (nm)								
	Up to 0.05	0.05 to 0.1	0.1 to 0.15	0.15 to 0.2	0.2 to 0.25	0.25 to 0.3	0.3 to 0.35	0.35 to 0.4	0.4 to 0.45
840 to 842	-4.2	-4.2	-4.1	-4.1	-3.9	-3.8	-3.5	-3.2	-2.8
842 to 844	-4.2	-4.2	-4.2	-4.1	-3.9	-3.8	-3.6	-3.3	-2.9
844 to 846	-4.2	-4.2	-4.2	-4.1	-4.0	-3.8	-3.6	-3.3	-2.9
846 to 848	-4.3	-4.2	-4.2	-4.1	-4.0	-3.8	-3.6	-3.3	-2.9
848 to 850	-4.3	-4.2	-4.2	-4.1	-4.0	-3.8	-3.6	-3.3	-3.0
850 to 852	-4.3	-4.2	-4.2	-4.1	-4.0	-3.8	-3.6	-3.4	-3.0
852 to 854	-4.3	-4.2	-4.2	-4.1	-4.0	-3.9	-3.7	-3.4	-3.1
854 to 856	-4.3	-4.3	-4.2	-4.1	-4.0	-3.9	-3.7	-3.4	-3.1
856 to 858	-4.3	-4.3	-4.2	-4.1	-4.0	-3.9	-3.7	-3.5	-3.1
858 to 860	-4.3	-4.3	-4.2	-4.2	-4.1	-3.9	-3.7	-3.5	-3.2

Operating range for each optical fibre type

This 850 nm VCSEL 10Gigabit SFP+ transceiver is designed to transmit and receive optical data over 50/125µm or 62.5/125µm multimode optical fiber

Multimode optical fiber data

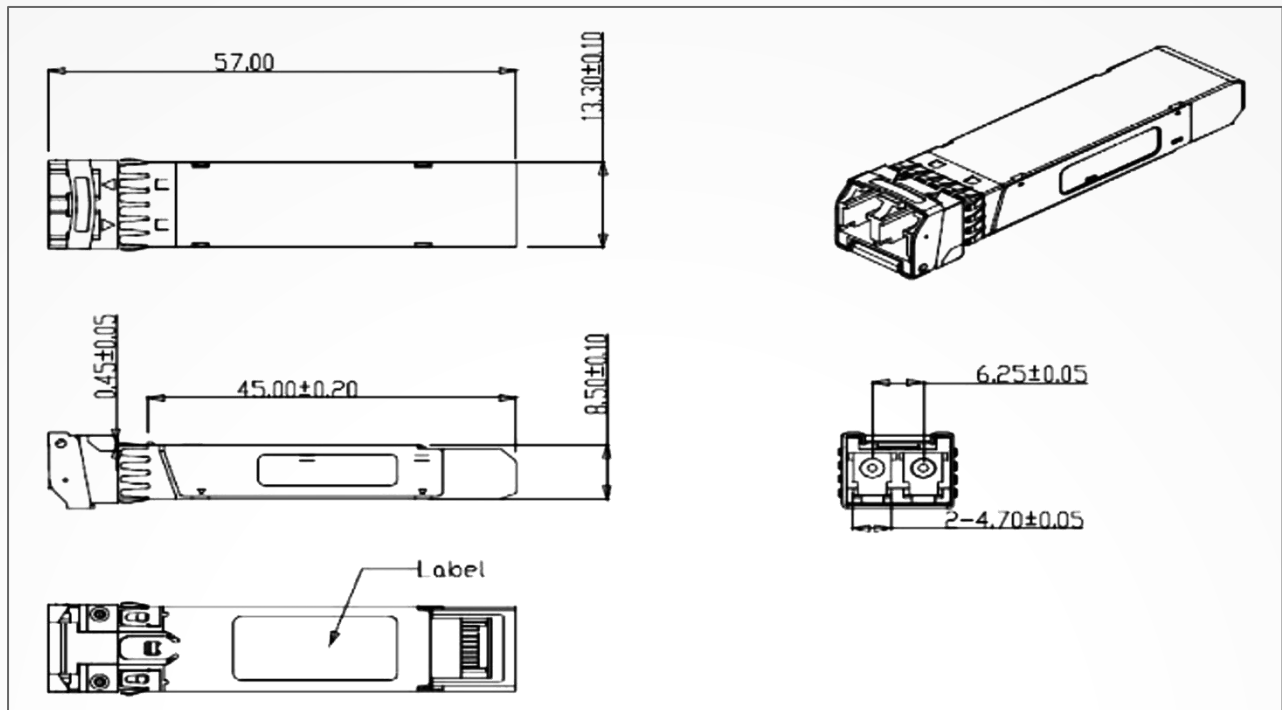
Fiber type	Minimum model bandwidth @850nm (MHz*km)	Operating range (meters)
62.5µm MMF	160	2 to 26
	200	2 to 33
50µm MMF	400	2 to 66
	500	2 to 82
	2000	2 to 300

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+A2:2003

Mechanical specifications:



Datasheet information can be changed by manufacturer without prior notice