

Features

- 1550 nm ITU-T C-band 100 GHz spacing Tunable DWDM SFP+ Transceiver
- Auto-Tunable
- Data rate 1.2- 11.3 Gbit/s
- Support 80 km link distances
- Negative chirp transmitter with ILMZ (Integrated Laser Mach Zehnder) TOSA
- APD receiver with limiting amplifier
- Low power consumption: max 2.3W
- Power supply lines: 3.3 V
- Operating case temperature range: -40 to 85 deg C
- Compact size (56.5mm L x 13.9mm W x 11.85mm H)
- RoHS 6 compliant



1. Absolute Maximum Ratings

Any stress beyond the maximum ratings can result in permanent damage. The device specifications are guaranteed only under the recommended operating conditions.

Parameter	Symbol	Min.	Max.	Unit	Notes
Supply Voltage	VCCT	0	+3.6	V	+3.3V
Supply Voltage	VCCR	0	+3.6	V	+3.3V
Optical Receiver Input	PIMAX	-	+5	dBm	Average
Operating Case Temperature	Tc	-40	+85	°C	
Storage Temperature	TSTR	-40	+85	°C	
ESD SFI pins	ESD1	-	1	kV	HBM
ESD except for SFI pins	ESD2	-	2	kV	HBM

2. Recommended Operating Conditions

Parameter	Symbol	Min.	Typ	Max	Unit	Notes
Supply Voltage	VCCT	3.135	3.300	3.465	V	+3.3V
Supply Voltage	VCCR	3.135	3.300	3.465	V	+3.3V
Operating Case Temperature	TC	-40	25	+85	°C	

3. Optical Characteristics

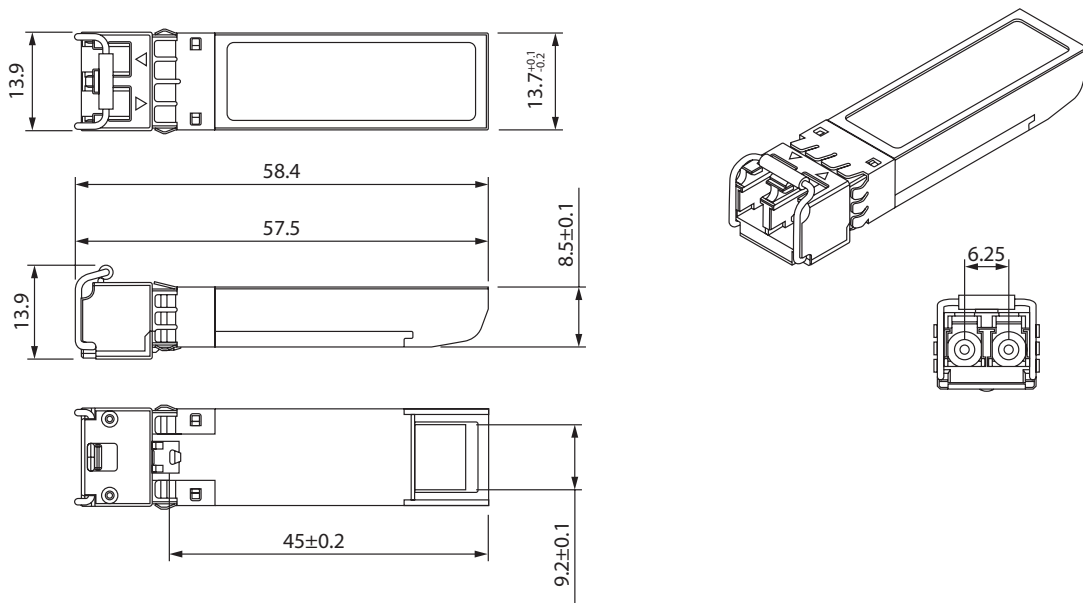
Parameter	Symbol	Min.	Typ.	Max.	Unit	Remarks
Transmitter						
Data rate		1.2	-	11.3	Gbit/s	NRZ
Frequency range		191.40	-	196.10	THz	100GHz grid, 48 channels
Frequency accuracy		-12.5	-	12.5	GHz	EOL
Optical transmit power	Po	-1.0	-	3.0	dBm	EOL
Shuttered output power		-	-	-35	dBm	
Optical power stability	ΔP_o	-1.0	-	1.0	dB	All channels, SOL
Side mode suppression	SMSR	35	-	-	dB	± 2.5 nm, modulated
Spectral width	$\Delta \lambda$		0.3	0.5	nm	-20dB, modulated
Extinction ratio	ER	8.2	-	-	dB	Filtered, 10.3Gb/s
Eye diagram compliance		GR-253, ITU-T G.691				
Mask margin		10	-	-	%	
Tuning speed		-	-	10	sec	warmed-up, from any CH to any other CH
Receiver						
Data rate		1.2	-	11.3	Gbit/s	NRZ
Input operating wavelength		1525	-	1575	nm	
Minimum Receiver Sensitivity (Back to back)	Prmin	-	-	-24	dBm	10.3Gb/s, 1E-12, OSNR>35dB
Minimum Receiver Sensitivity (+1100ps/nm)		-	-	-23	dBm	
Minimum Receiver Sensitivity (-300 to +1400ps/nm)		-	-	-21	dBm	
Maximum input power (overload)	Pro	-7	-	-	dBm	

Receiver Reflectance	RL	-	-	-27	dB	
LOS assert		-27.5	-	-	dBm	
LOS de-assert		-	-	-24	dBm	
LOS Hysteresis		0.1	-	-	dB	
LOS assert time		-	-	100	us	
LOS de-assert time		-	-	100	us	

4. Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit
Supply Voltage	VCCT	3.135	3.300	3.465	V
	VCCR	3.135	3.300	3.465	V
Supply Current	Icc3			0.73	A
Power Consumption	PDS	-	-	2.3	W

5. Mechanical Diagram



Note: External physical characteristics are subject to variation. This may include, but is not limited to, external case designs, pull tab colors and/or shapes, removal latch styles or colors, and label sizes and placement. These variations do not affect the function or characteristics of the transceivers.

6. Ordering Information

OEM	Part Number	OEM	Part Number
MSA	AN-SFPP-48ATUNE-80-I	OnePort	OP-SFPP-48ATUNE-80-I
MSA Champion ONE	10GT48ASFP+C80-H		

7. Contact Information

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