SFP10G-BX54-100-I

10GBASE-ZR, BiDi, SFP+, SMF TRANSCEIVER

TX 1550nm / RX 1490nm, 100km REACH, DUPLEX LC CONNECTOR

Features

- Supports up to 10.7Gbps bit rates
- Hot-pluggable SFP+ footprint
- 1550nm Cooled EML laser and APD photodiode
- Up to 100km for SMF transmission
- Compliant with SFP+ MSA and SFF-8472 with duplex LC receptacle
- Compatible with RoHS
- Single +3.3V power supply
- Real-time Digital Diagnostic Monitoring
- Operating case temperature:
  Standard: 0 to +70°C
  Industrial : -40 to +85°C

Applications

- 10Gbps optical systems
- 10GBASE-ZR at 10.3125Gbps
- 10GBASE-ZW at 9.953Gbps
- LTE systems
- Other optical links

Absolute Maximum Ratings				
Parameter	**Symbol**	**Minimum**	**Maximum**	**Unit**
Supply Voltage	Vcc	-0.5	4.5	V
Storage Temperature	Ts	-40	85	°C
Operating Humidity	-	5	85	%

Recommended Operating Environment					
Parameter	**Symbol**	**Minimum**	**Typical**	**Maximum**	**Unit**
Operating Case Temperature	Tc	0		70	°C
Power Supply Voltage	Vcc	3.135	3.30	3.465	V
Power Supply Current	Icc			450	mA
Data Rate		1.0	10.3	10.7	Gbps

Optical and Electrical Characteristics							
Parameter		**Symbol**	**Minimum**	**Typical**	**Maximum**	**Unit**	**Notes**
Transmitter							
Center Wavelength		λc	1540	1550	1560	nm	
Spectral Width (-20dB)		Δλ			1	nm	
Side-Mode Suppression Ratio		SMSR	30	-		dB	
Average Output Power		Pout	0		4	dBm	1
Extinction Ratio		ER	6			dB	
Data Input Swing Differential		VIN	180		850	mV	2
Input Differential Impedance		ZIN	90	100	110	Ω	
TX Disable	Disable		2.0		Vcc	V	
	Enable		0		0.8	V	
TX Fault	Fault		2.0		Vcc	V	
	Normal		0		0.8	V	
Receiver							
Centre Wavelength		λc	1480	1490	1500	nm	
Receiver Sensitivity					-22	dBm	3
Receiver Overload			-6			dBm	3
LOS De-Assert		LOSD			-23	dBm	
LOS Assert		LOSA	-35			dBm	
LOS Hysteresis			0.5			dB	
Data Output Swing Differential		Vout	300		900	mV	4
LOS		High	2.0		Vcc	V	
		Low			0.8	V	

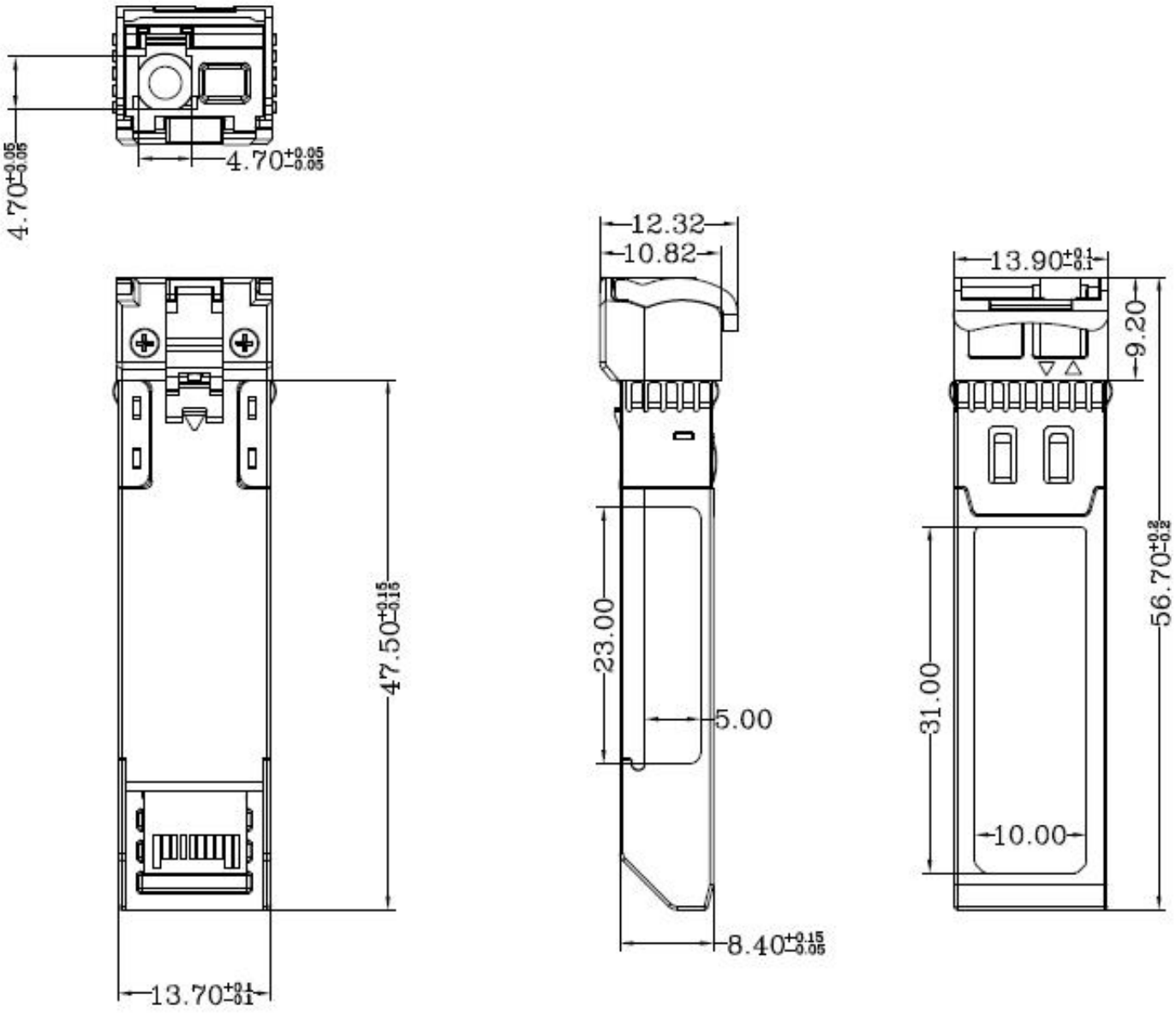
Notes:

1. The optical power is launched into SMF.
2. PECL input, internally AC-coupled and terminated.
3. Measured with a PRBS 2^{31}-1 test pattern @10312Mbps, BER ≤1×10^{-12}.
4. Internally AC-coupled.

Timing and Electrical					
Parameter	**Symbol**	**Minimum**	**Typical**	**Maximum**	**Unit**
Tx Disable Negate Time	t_on			1	ms
Tx Disable Assert Time	t_off			10	μs
Time To Initialize, including Reset of Tx Fault	t_init			300	ms
Tx Fault Assert Time	t_fault			100	μs
Tx Disable To Reset	t_reset	10			μs
LOS Assert Time	t_loss_on			100	μs
LOS De-assert Time	t_loss_off			100	μs

Timing and Electrical					
Parameter	**Symbol**	**Minimum**	**Typical**	**Maximum**	**Unit**
Serial ID Clock Rate	F_SERIAL_CLOCK		100	400	KHz
MOD_DEF (0:2)-High	VH	2		Vcc	V
MOD_DEF (0:2)-Low	VL			0.8	V

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.

Ordering Information			
OEM	**Part Number**	**OEM**	**Part Number**
MSA	AN-SFP10G-BXD-100-I		

To learn more visit

approvednetworks.com