



PRODUCT SPECIFICATION

10GbE SFP+ BIDI
Transceiver, 20km Reach
1270nm TX / 1330 nm RX

SFP-10G-BX20-23

FEATURES

- Bi-directional (1270/1330) transceiver
- Support up to 11.3Gbps data links
- Up to 20km (12dB) transmission on 9/125µm SMF
- Simplex LC Connector Interface
- Hot-Pluggable Capability
- Compliant with SFP+ MSA SFF-8431 and
- Digital Diagnostic Monitor interface SFF-8472
- Eye safety designed to meet Laser Class I, compliant with IEC60825-1
- Single +3.3V power supply and TTL logic interface
- Commercial operating case temperature: 0°C to +70°C
- Industrial operating case temperature: -40°C to +85°C
- RoHS6 Compliant

APPLICATIONS

- 10GBASE-LR at 10.3125Gbps and 10GBASE-LW at 9.953Gbps
- OBSAI rates up to 6.144Gbps and CPRI rates up to 9.830Gbps
- Other optical transmission systems

ORDERING INFORMATION

Part Number	Product Description
SFP-10G-BX20-23	10GbE SFP+ BIDI, Tx1270nm / Rx1330nm, 20KM, DDM, LC, 0°C ~ +70°C
SFP-10G-BX20-23-I	10GbE SFP+ BIDI, Tx1270nm / Rx1330nm, 20KM, DDM, LC, -40°C ~ +85°C



ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Min.	Max.	Unit
Storage Temperature	T_{ST}	-40	+85	°C
Power Supply Voltage	V_{CC}	0	+3.6	V
Operating Relative Humidity		5	95	%

Exceeding any of these values may be harmful for the device

RECOMMENDED OPERATING CONDITIONS

Parameter	Symbol	Min.	Type	Max.	Unit
Operating Case Temperature	T_{OP}	0		+70	°C
		-40		+85	
Power Supply Voltage	V_{CC}	+3.15	+3.3	+3.47	V
Power Supply Current	I_{CC}		300	420	mA
Data Rate	B	0.6	10.3125	11.3	Gpbs

TRANSMITTER OPTICAL SPECIFICATIONS

Parameter	Symbol	Min.	Typ.	Max.	Unit
Center Wavelength	λ_c	1260	1270	1280	nm
Average Output Power	P_o	-2		3	dBm
Spectral Width (-20dB)	$\Delta\lambda$			1	nm
Extinction Ratio	ER	3.5			dB

Note: Average Output Power as coupled into a 9/125 μ m single-mode fiber

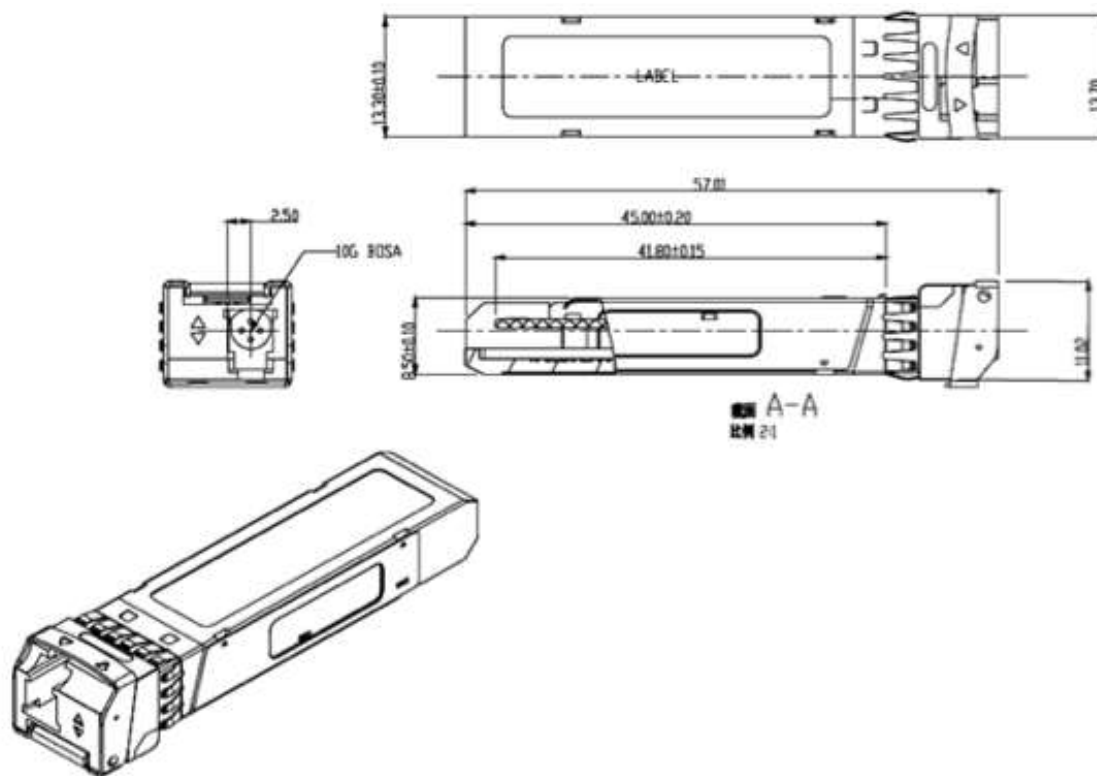
RECEIVER OPTICAL SPECIFICATIONS

Parameter	Symbol	Min.	Typ.	Max.	Unit
Center Wavelength	λ_c	1320		1340	nm
Stressed Receiver Sensitivity	P_{MIN}			-14	dBm
Receiver Sensitivity	P_{MAX}	0.5			dBm

Note: Sensitivity is measured at 10.3125Gbps with worst ER, PRBS 2⁻³¹-1 data pattern, BER \leq 10⁻¹²

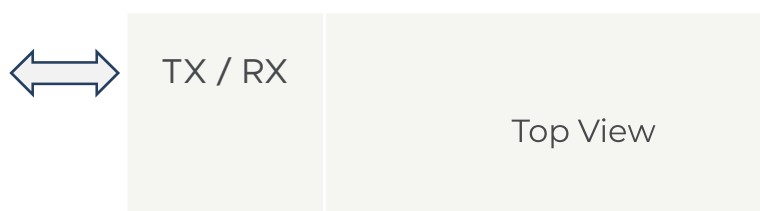


MECHANICAL DIMENSIONS



Note that this drawing is for reference purpose only

LASER EMISSION



REVISION HISTORY:

Revision	Date	Author	Description
V1.0	30-01-19	JGN	Initial Document

Note Nexgen reserves the right to change this document without notice.

