

Features:

- Up to 25.78Gbps Data Links
- Up to 20km transmission on SMF
- 1330nm/1270nm DFB Laser and PIN receiver
- Metal enclosure, for lower EMI
- 2-wire interface with integrated Digital Diagnostic monitoring
- Hot-pluggable SFP28 footprint
- Build-in dual CDR with TX and RX
- Specifications compliant with SFF 8472
- Single 3.3V power supply
- Power dissipation < 1.2W
- Case operating temperature
 Commercial: 0°C to +70°C
 Industrial: -40°C to +85°C



Applications:

- 25GBASE-LR
- eCPRI and CPRI

Standard:

- Compliant with SFF-8472 & 8431
- RoHS Compliant.

1. Absolute Maximum Ratings

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Storage Temperature	Ts	-40	-	85	°C	
Relative Humidity	RH	5	-	95	%	
Power Supply Voltage	VCC	-0.3	-	4	V	
Signal Input Voltage	VSI	Vcc-0.3	-	Vcc+0.3	V	
Rx Damage Threshold	PRdmg	3			dBm	

2. Recommended Operating Conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Case Operating Temperature	Tcase	0	-	70	°C	25GSFPC27B20L
		-40		85	°C	25GSFPC27B20L-H
Power Supply Voltage	VCC	3.14	3.3	3.47	V	
Power Supply Current	ICC	-		330	mA	Commercial
	ICC	-		360	mA	Industrial
Data Rate	BR		25.78		Gbps	TX Rate/RX Rate
Transmission Distance	TD			20	km	
Coupled fiber	Single mode fiber					9/125um SMF

3. Optical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Transmitter						
Average Launched Power	PO	-3		3	dBm	
Average Launched Power (Laser Off)	Poff	-	-	-30	dBm	
Center Wavelength Range	λ_C	1320		1340	nm	1270Tx/1330Rx
Spectrum Bandwidth (-20dB)	$\Delta\lambda$	-	-	1	nm	
Side-Mode Suppression Ratio	SMSR	30	-	-	dB	
Extinction Ratio	ER	3.5		-	dB	1
Output Eye Mask	{0.31, 0.4, 0.45, 0.34, 0.38, 0.4}					
Receiver						
Center Wavelength Range	λ_C	1260	-	1280	nm	1270Tx/1330Rx
Input Saturation Power (Overload)	PSAT	2.5	-		dBm	2
Receiver Sensitivity	Psen	-	-	-13.3	dBm	2
Los Of Signal Assert	PA	-30	-	-	dBm	
Los Of Signal De-assert	PD	-	-	-15	dBm	
LOS -Hysteresis	PHys	0.5		6	dB	

Notes:

1. Measured with a PRBS 231-1 test pattern, @25.78Gb/s.
2. Measured with BER = 5×10^{-5} @PRBS=2³¹-1 NRZ.

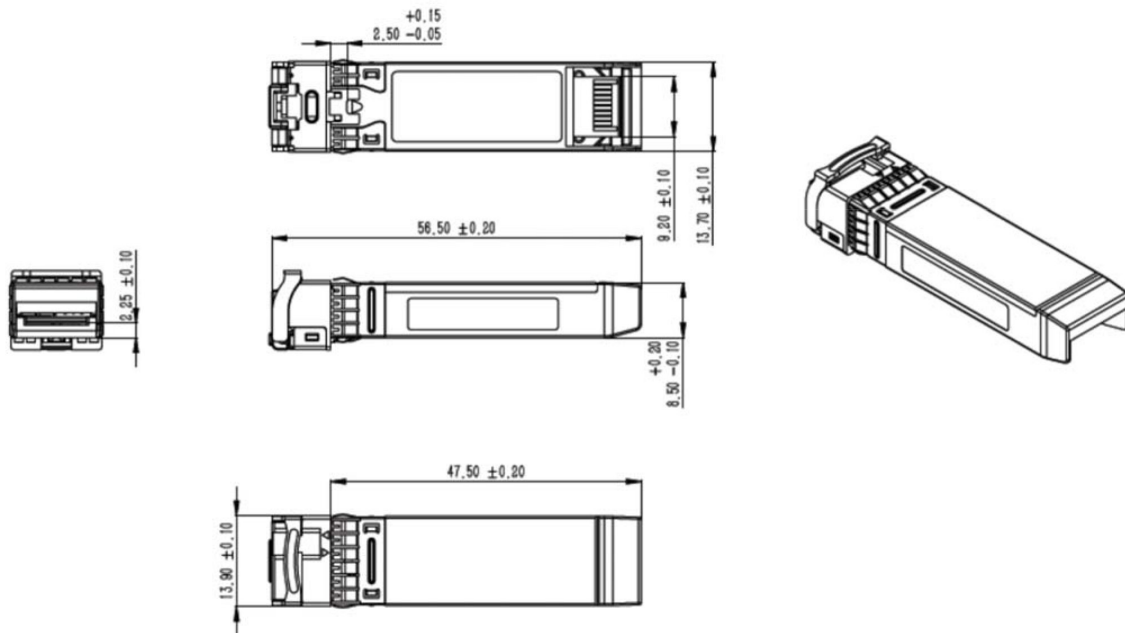
4. Electrical Interface Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Transmitter						
Input differential impedance	Rin		100		Ω	1
Single ended data input swing	Vin,pp	180		700	mV	
Transmitter Fault Output-High	VFaultH	2	-	Vcc+0.3	V	
Transmitter Fault Output-Low	VFaultL	0	-	0.8	V	
Transmitter Disable Voltage- High	VDisH	2	-	Vcc+0.3	V	
Transmitter Disable Voltage- low	VDisL	0	-	0.8	V	
Receiver						
Differential data output swing	Vout,pp	300		850	mV	2
LOS Output Voltage-High	VLOSH	2	-	Vcc+0.3	V	
LOS Output Voltage-Low	VLOSL	0	-	0.8	V	

Notes:

1. Connected directly to TX data input pins. AC coupled thereafter.
2. Into 100 ohms differential termination.

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
Arista	SFP-25G-BXU-AN-A	OnePort Programmable	OP-SFP25G-BX23-20
Cisco	SFP-25G-BXU-I-A	Juniper	JNP-SFP-25G-BXU-A
MSA Generic	AN-SFP25G-BX23-20	MSA Champion ONE	25GSFPC33B20L-H

7. Contact Information

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