

Features:

- Up to 25.78Gbps Data Links
- Up to 40km transmission on SMF
- 1270nm/1310nm DFB Laser and APD receiver
- Metal enclosure, for lower EMI
- 2-wire interface with integrated Digital Diagnostic monitoring
- Hot-pluggable SFP28 footprint
- Specifications compliant with SFF 8472
- Compliant with SFF-8402 with LC connector
- Single 3.3V power supply
- Power dissipation < 1.5 W
- Case operating temperature:
Commercial: 0°C to +70°C
Industrial: -40°C to +85°C



Applications:

- 25GBASE-ER
- 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	25GSFPC31B40L-H
		-40		85	°C	25GSFPC31B40L-H
Power Supply Voltage	VCC	3.14	3.3	3.47	V	

Power Supply Current	ICC	-		420	mA	Commercial
		-		450	mA	Industrial
Data Rate	BR		25.78		Gbps	TX Rate/RX Rate
Transmission Distance	TD			40	km	
Coupled fiber	Single mode fiber					9/125um SMF

3. Optical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Transmitter						
Average Launched Power	Po	0		6	dBm	
Average Launched Power (Laser Off)	Poff	-	-	-30	dBm	
Center Wavelength Range		1300		1320	nm	1310Tx/1270Rx
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		1260	-	1280	nm	1310Rx/1270Tx
Input Saturation Power (Overload)		-6			dBm	
Receiver Sensitivity (Average power)	Psen	-	-	-17.5	dBm	2
Los Of Signal Assert	PA	-35	-	-	dBm	
Los Of Signal De-assert	PD	-	-	-19	dBm	
LOS -Hysteresis	PHys	0.5	2	6	dB	

Note:

1. Measured with a PRBS 231-1 test pattern, @25.78Gb/s.
2. Measured with Light source 1270nm/1310nm ER=3.5dB; BER =<5X10⁻⁵ @PRBS=231-1 NRZ.

4. Electrical Interface Characteristics

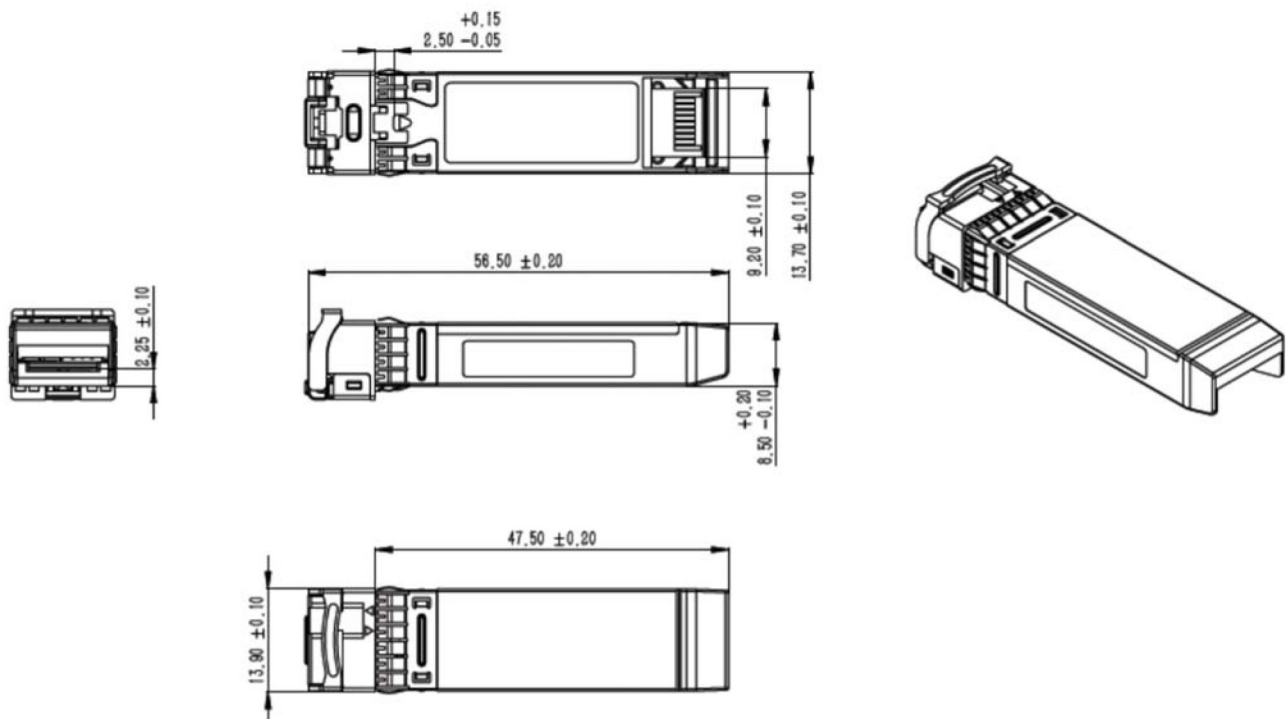
Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Transmitter						
Input differential impedance	Rin		100		Ω	1
Single ended data input swing	Vin,pp	180		700	mV	
Transmitter Fault Output-High	V _{FaultH}	2	-	Vcc+0.3	V	

Transmitter Fault Output-Low	V_{FaultL}	0	-	0.8	V	
Transmitter Disable Voltage- High	V_{DisH}	2	-	$V_{\text{cc}}+0.3$	V	
Transmitter Disable Voltage- low	V_{DisL}	0	-	0.8	V	
Receiver						
Differential data output swing	$V_{\text{out,pp}}$	300		850	mV	2
LOS Output Voltage-High	V_{LOSH}	2	-	$V_{\text{cc}}+0.3$	V	
LOS Output Voltage-Low	V_{LOSL}	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	Hardened	Part Number
Universally Compatible	No	25GSFPC31B40L
Universally Compatible	Yes	25GSFPC31B40L-H

7. Contact Information

Tel: 800.582.0500

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