

## 25 Gbps 1310 nm 80 km SFP28 ZR Transceiver

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### SFP+ Series

Ascent's SFP28-25LP-31-80 optical transceiver supports high-speed serial links over Single Mode (SM) optical fiber at signal rates up to 25.78 Gb/s. The product is compliant with Small Form Pluggable industry agreements SFP and SFP28 for mechanical and low-speed electrical specifications. It is intended for use in interconnect applications between data centers with switches, routers, storage equipment etc. The optical performance supports distances up to 80km.

The transmitter side of the module incorporates one 1310 nm EML and CDR integrated with the EML driver to transport a 25G Ethernet signal and the receiver side is integrated with SOA and PIN- TIA followed by Rx CDR. As stipulated by the 25G Ethernet standards, Forward Error Correction (FEC) is required to be implemented by the host equipment to ensure reliable system operation. The optical parameters below will provide a bit error ratio (BER) of  $5 \times 10^{-5}$  for 25G Ethernet. FEC will provide the required quality for secure service. The electrical interface is according to 25GAUI specifications per IEEE 802.3cc.

Digital diagnostic monitoring information (DDMI) is present in this module per the requirements of SFF-8472, providing real- time monitoring information of transceiver laser, receiver, and environment conditions over an SFF-8419 2-wire serial interface.

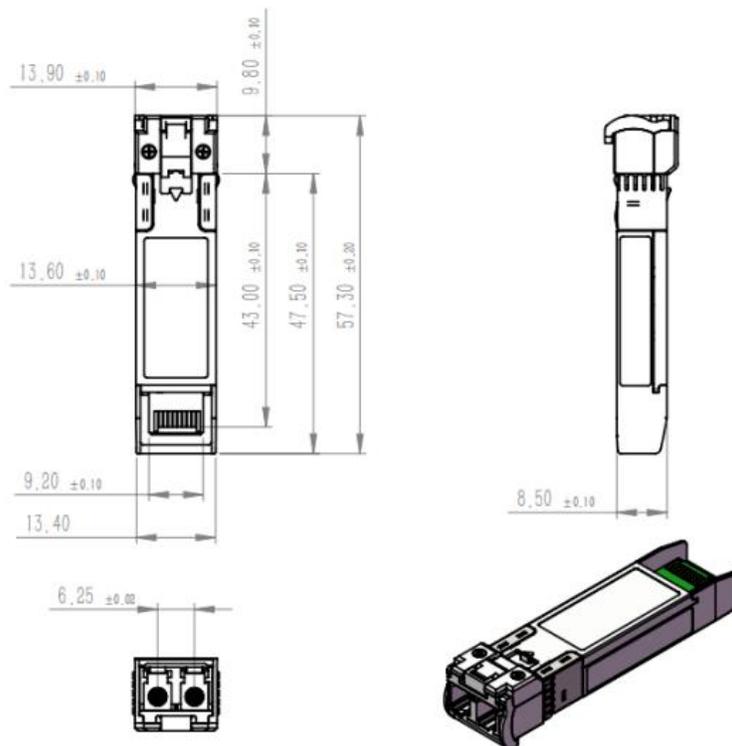
### Key Features

- Supports 25GBASE-ZR
- Supports 25.78G
- Up to 80km transmission on SMF
- EML laser and Integrated SOA & PIN TIA
- High speed I/O electrical interface (25GAUI)
- SFP28 MSA package with duplex LC connector
- Low power supply consumption(<2.5W)
- Wide operating temperature: 0°C~70°C

## Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Operating Case Temperature	T <sub>C</sub>	0	-	70	°C	
Power Supply Voltage	V <sub>CC</sub>	3.13	3.3	3.46	V	
Power Supply Current	I <sub>CC</sub>	-	-	750	mA	
Maximum Power Consumption	P <sub>D</sub>	-	-	2.5	W	
Bit Rate	BR		25.78	-	Gb/s	
Center Wavelength	λ	1295	-	1310	nm	
Average Launch Power	P <sub>av</sub>	2	-	7	dBm	1
Average Output Power (Laser Turn off)	P <sub>OUT-OFF</sub>	-	-	30	dBm	
Differential Data Input Amplitude	V <sub>IN,P-P</sub>	-	-	900	mVpp	
Differential Data Output Amplitude	V <sub>OUT,P-P</sub>	-	-	900	mVpp	

## Outline Diagram



## Ordering Information

Product Name	Product Description
SFP28-25LP-31-80	SFP28 plug-in, 25 Gbps, 80 km, TX=1310/RX, on two single mode fibres, LC/PC
S28-25LP-31-80A	SFP28 plug-in, 25 Gbps, 80 km, TX=1310/RX, on two single mode fibres, LC/PC, Industrial Temperature -40°C to +85°C



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