S25G-ZR

SFP28 25GBASE-ZR | 1310 nm | 80 km SMF

1. Product overview

Hot-pluggable SFP28 optical transceiver for 25GBASE-ZR long-haul Ethernet links. The module supports 25.78 Gb/s over single-mode fiber with up to 80 km reach when FEC is enabled on the host. It combines a 1310 nm laser transmitter, APD receiver and duplex LC connector.

2. Key features

- SFP28 form factor; SFP+ backward compatibility
- 25GAUI high-speed electrical interface
- Up to 80 km over SMF with host FEC
- Integrated DDM through I2C
- Single +3.3 V supply
- Industrial temperature range: 40 to +70°C

3. Applications

25GBASE-ZR long-haul Ethernet; data center interconnects; metro networks.

4. Technical data

Parameter	Specification
Form factor	SFP28; hot-pluggable
Backward compatibility	SFP+
Data rate	25.78 Gb/s
Electrical interface	25GAUI
Maximum reach	80 km; FEC on host required
Fiber / connector	Single-mode fiber / duplex LC
Transmitter / receiver	1310 nm laser / APD
Power consumption	= 1.5 W
Optical budget (product title)	26 dB

5. Recommended operating conditions

Parameter	Specification
Temperature range	40 to +70°C
Power supply	+3.3 V

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6. Optical characteristics

Parameter	Specification
TX center wavelength range	1295-1325 nm
Average launch power	+6 to +8 dBm
Spectral width at -20 dB	= 1 nm
Extinction ratio	= 4 dB
TX-off power	= -30 dBm
SMSR	= 30 dB
Dispersion penalty	= 2.7 dB
Optical return loss tolerance	20 dB
RX center wavelength range	1295-1325 nm
Receiver type	APD
Receiver sensitivity (OMA)	= -20 dBm
Stressed sensitivity	= -16 dBm
Receiver overload	= -3 dBm
Receiver reflectance	= -12 dB
LOS Assert	-26 dBm
LOS De-assert	-22 dBm
LOS hysteresis	0.5-4 dB

7. Digital diagnostics and management

Integrated Digital Diagnostic Monitoring (DDM) via I2C. Individual monitor parameters, accuracy and alarm thresholds are not specified in the source.

8. Safety and regulatory

IEEE 802.3cc Draft 3.0; SFF-8402; SFF-8432; RoHS. Laser safety class and additional certifications are not stated on the product page.

9. Ordering information

Parameter	Specification
S25G-ZR	SFP28 25 GbE-ZR DDM, 80 km, 1310 nm, 26 dB, SM
Coding options	Arista, Cisco, Dell, Extreme, Fortinet, Generic, HP, Huawei, Intel, Juniper, Nokia Networks