

S25G-L20-CXX

SFP28 25 GbE-LR DDM 20km CWDM 1471-1611nm 11,5dB SM

1. Product overview

Hot-pluggable SFP28 transceiver for 25G CWDM Ethernet, with EML transmitter, APD receiver and 20 km SMF reach with host FEC. Supports eight CWDM channels.

2. Key features

- 20 km SMF transmission
- Duplex LC optical interface
- Digital Diagnostic Monitoring (DDM)
- Hot-pluggable form factor; single +3.3 V supply

3. Applications

25G CWDM Ethernet; metro/access networks

4. Technical data

Parameter	Specification
Data rate	Up to 25.78 Gb/s
Fiber	Single-mode fiber
Connector	Duplex LC
Power consumption	= 1.5 W
Absolute supply	-0.5 to +4 V
Storage temperature	-40 to +85°C
Absolute operating case	0 to +70°C
Input/output impedance	100 Ω differential
TX input swing	250-1200 mV
RX output swing	250-800 mV
TX disable / enable	>2 V / <0.8 V
LOS	High = loss of signal

5. Recommended operating conditions

Parameter	Specification
Case temperature	0 to +70°C
Nominal supply	+3.3 V
Maximum reach	20 km with host FEC
Recommended supply	3.15-3.45 V
Current	= 450 mA
Nominal bit rate	25 Gb/s

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6. Optical characteristics

Parameter	Specification
TX CWDM range	1470-1610 nm
Channel count / spacing	8 / 20 nm, ITU grid
TX wavelength tolerance	Center ± 7.5 nm
Title wavelength range	1471-1611 nm
Spectral width (-20 dB)	= 0.25 nm
TX output power	0 to +5 dBm
Extinction ratio	= 4 dB
TX-off power	= -30 dBm
RIN	= -130 dB/Hz
RX wavelength	1270-1630 nm
Receiver sensitivity	= -12 dBm at BER 5E-5
Stressed sensitivity	= -9 dBm
Receiver overload	= +3 dBm
LOS Assert / De-assert	= -26 / = -22 dBm
LOS hysteresis	0.5-4 dB
Budget (overview)	12 dB (up to 16 dB spec)
Budget (operating conditions)	16 dB
Budget (title)	11.5 dB
Source received-power warning	Keep received power below -5 dBm

7. Digital diagnostics and management

Parameter	Specification
Temperature thresholds	-5 to +75°C
Voltage thresholds	3.0-3.6 V
TX bias thresholds	10-100 mA
TX power thresholds	-7 to +8 dBm
RX power thresholds	-16 to +2 dBm

8. Safety and regulatory

RoHS; Class 1 laser; EN 60825; EN 60950.

9. Ordering information

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