25Gbps SFP28 40km Transceiver

CLSFP25GER

Product Features:

- Supports 25GBASE(25Gb/s);
- Lane bit rate 25.78 Gb/s;
- Up to 40km transmission on SMF;
- 1310nm laser and APD receiver;
- High speed I/O electrical interface (25GAUI);
- I2C interface with integrated Digital Diagnostic monitoring;
- SFP28 MSA package with duplex LC connector;
- Single +3.3V power supply; Maximum power consumption 1.2 W;
- Operating case temperature: Refer to Order info.
- Compliant to IEEE 802.3cc Draft3.0, SFF-8402 and SFF-8432;
- Operate case temperature -0°C~70°C

Functional Characteristics (Optical)

The following tables list the performance specifications for the various functional blocks of the integrated optical transceiver module.

Table 1 – Transmitter Optical Specifications

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Signaling rate, each lane (range)	-	24.3	25.78	26.5	Gb/s	
Center Wavelength	λ0	1295	1310	1325	nm	
Average Launch Power	Pout	0	-	7	dBm	1,2
Spectral Width (-20dB)	σ	-	-	1	dBm	3
Average Output Power (Laser Turn off)	Pout-OFF	-	-	-30	dBm	
Side Mode Suppression Ratio	SMSR	30	-	-	dB	
Extinction Ratio	ER	4.5	-	-	dB	4
Transmitter and dispersion penalty (TDP)	TDP	-	-	2.7	dB	
Optical Return Loss Tolerance	ORLT	-	-	20	dB	

Note 1: Class 1 Laser Safety per FDA/CDRH and EN (IEC) 60825 regulations.
Note 2: High Bandwidth Mode. Class 1 Laser Safety per FDA/CDRH and EN (IEC) 60825 regulations.
Note 3: 20dB spectral width.
Note 4: Equivalent extinction ratio specification for Fibre Channel. Allows smaller ER at higher average power.

Table 2 – Receiver Optical Specifications

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Center Wavelength	λ0	1295	1310	1325	nm	

Receiver sensitivity (OMA)		-	-	-18.0	dBm	1
Stress sensitivity (OMA)		-	-	-16.0	dBm	2
Receiver Overload	PIN-OL	-3	-	-	dBm	
Reflectance	Ref	-	-	-12	dB	
LOS Assert	LOSA	-35	-	-	dBm	
LOS De-assert	LOSD	-	-	-25	dBm	
LOS Hysteresis	LOSH	0.5	-	4	dB	

Note 1: At 5E-5 BER, KR4 FEC.
Note 2: Per IEEE802.3cc.

Ordering Information

Table 3 - Ordering Information

Part No.	Application	Data Rate	Laser Source	Fiber Type
CLSFP25GER	25GBase-ER Ethernet	25.78Gbps	1310nm	Single Mode Fiber

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