10.31Gbps/25.78Gbps auto-adapting SFP+ 10km Transceiver

CLSFP10G25GLR

Product Features:

- Supports 10G/25GBASE-LR (10Gb/s, 25Gb/s) auto-adapting
- Up to 10km transmission on SMF
- DFB 1310nm laser and PIN 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 1.2W
- Compliant to IEEE 802.3cc Draft 3.0, SFF-8472, SFF-8402 and SFF-8432
- Bit error rate 10^-12 and failure rate < 700 FITs
- Operating case temperature 0°C to 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
Center Wavelength	λ0	1295	1310	1325	nm	
Average Launch Power	PTX_LANE	-5	-	2	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	35	-	-	dB	
Extinction Ratio	ER	3.5	-	-	dB	
Transmitter and dispersion penalty (TDP)	TDP	-	-	2.7	dB	
Optical Return Loss Tolerance	ORLT	-	-	20	dB	

Note 1: Average launch power per lane.
Note 2: 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.
Note 5: Receiver sensitivity measured at 5E-5 BER with KR4 FEC.
Note 6: Per IEEE 802.3cc.

Table 2 – Receiver Optical Specifications

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Center Wavelength	λ0	1295	1310	1325	nm	
Receiver sensitivity (OMA) @25G	-	-	-	-11.3	dBm	5
Stressed sensitivity (OMA) @25G	-	-	-	-8.8	dBm	6
Receiver sensitivity (OMA) @10G	-	-	-	-14	dBm	5

Stressed sensitivity (OMA) @10G	-	-	-	-11.5	dBm	6
Receiver Overload	PIN-OL	4	-	-	dBm	
Receiver Reflectance	Ref	-	-	-12	dB	
LOS Assert per lane	LOSA	-30	-	-	dBm	
LOS De-assert	LOSD	-	-	-17	dBm	
LOS Hysteresis	LOSH	0.5	-	4	dB	

Ordering Information

Table 3 - Ordering Information

Part No.	Application	Data Rate	Laser Source	Fiber Type
CLSFP10G25GLR	10G/25GBASE-LR	25.78/10.31 Gb/s	1310nm DFB	SMF, 10km, LC

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