6Gb/s 15km SFP+ 1310nm Transceivers

The RTXM228-618 6Gigabit 1310nm DFB Transceiver is designed to transmit and receive serial optical data links up from 2.1 Gb/s to 6.25 Gb/s data rate over singlemode fiber. The Transceiver is compliant with 2/4GFC,CPRI and applicable portions of SFF-8431. Digital diagnostics functions are available via a 2-wire serial interface, as specified in SFF-8472.

Features

- Link lengths at 6Gbps 15Km with DFB 1310nm
- LC duplex connector
- Low power consumption <1.2W
- -40 to 85 operating wide temperature range
- Single +3.3V±5% power supply
- Digital Monitoring SFF-8472 compliant

Applications

- Wireless and cellular base station system interconnect:
  OBSAI rates 6.144Gb/s, 3.072 Gb/s
  CPRI rates 4.9152 Gb/s, 2.4576 Gb/s
- 2/4GFC Data Storage Channel

Standards

- SFF-8431 Rev 3
- SFF-8432 Rev5
- SFF-8472 Rev 10

Specifications

(tested under recommended operating conditions, unless otherwise noted)

Parameter	Symbol	Unit	Min	Typ	Max	Note
Transmitter						
Nominal Wavelength	λ	nm	1260	1310	1360	
Side Mode Suppression Ratio	SMSR	dB	30			
Spectral Width	Δλ	nm			1	
Optical Output Power	Pav	dBm	-5.2		+0.5	
Average launch power of OFF transmitter	P_{OFF}	dBm			-35	
Extinction Ratio	ER	dB	3.5			
Relative Intensity Noise	R_{IN}	dB/Hz			-128	
Optical Return Loss Tolerance	ORLT	dB			12	
Receiver						
Center Wavelength	λ_C	nm	1260		1610	
Receiver Sensitivity	R_{SENSE}	dBm			-14.4	1
Receiver overload		dBm	+0.5			1
Receiver Reflectance	R_{REFL}	dB			-12	
Assert LOS	LOS_A	dBm	-30			
De-Assert LOS	LOS_D	dBm			-15	
LOS Hysteresis		dB	0.5			

Note 1:

Ordering Information

Part No.	Specifications		Application
	Optical Power (Gb/s)	(dBm)	
	2.125 ~6.25	-5.2 ~+0.5	

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