

25.78 Gb/s Short-Wavelength SFP+ Transceiver



The RTX330-551 short-wavelength transceiver is designed for use in 25.78Gb/s data rate over multimode fiber. The Transceiver is compliant with SFF-8431, and the mechanical SFP+ plug is compatible with SFF-8432. Digital diagnostics functions are available via a 2-wire serial interface, as specified in SFF-8472.

Features

- Supports 25.78Gb/s bit rate
- Hot-pluggable SFP+ footprint
- 850nm VCSEL laser and PIN photo-detector
- Internal CDR on Transmitter and Receiver channel
- RoHS-6 compliant (lead-free)
- Link lengths at 25.78G 100m over OM4 MMF
- LC duplex connector
- Low power consumption < 0.8W
- 0°C to 70°C operating temperature range
- Single +3.3V±5% power supply
- Programmable TX input equalizer
- Programmable RX pre-emphasis
- Digital Monitoring SFF-8472 compliant

Specifications

(tested under recommended operating conditions, unless otherwise noted)

Parameter	Symbol	Unit	Min	Typ	Max	Note
Transmitter						
Nominal Wavelength	λ	nm	840		860	
Spectral Width	$\Delta\lambda$	nm			0.6	
Optical Modulation Amplitude	POMA	dBm	-6.4		3	
Optical Output Power	P _{av}	dBm	-8.4		2.4	
Extinction Ratio	ER	dB	2			
Transmitter and Dispersion Penalty	TDP	dB			5	
Average launch power of OFF transmitter	P _{OFF}	dBm			-30	
Receiver						
Center Wavelength	λ	nm	840		860	
Average Receiver Power	P _{AVG}	dBm	-10.3		2.4	1
Stressed Receiver Sensitivity (OMA)	R _{SENSE}	dBm			-5.2	2
Receiver Reflectance	R _{REFL}	dB			-12	
Assert LOS	LOS _A	dBm	-30			
De-Assert LOS	LOS _D	dBm			-13	
LOS Hysteresis		dB	0.5			

Applications

- 25G BASE-SR Ethernet

Standards

- SFF-8472
- SFF-8024
- SFF-8431
- SFF-8432

Note 1: Sensitivity for 25.78G PRBS 2³¹-1 and BER better than or equal to 5*10E-5.

Note 2: The stressed sensitivity value in the table are for system level BER measurements which include the effects of CDR circuit.