

10Gb/s 40Km DWDM SFP+ Transceivers

RTXM228-2XX

The RTXM228-2XX transceivers are designed to transmit and receive serial optical data over 40km single mode optical fiber.

They are compliant with SFF-8431, SFF-8432, 10GFC, ITU-T G.691 and 10GBASE-ER/EW. The transmitter converts serial CML electrical data into serial optical data compliant with the IEEE 802.3ae standard. The receiver converts serial optical data into serial CML electrical data. Digital diagnostics functions are available via a 2-wire serial interface, as specified in SFF-8472.

Specifications

(Tc=-5 °C to 70 °C and Vcc= 3.14 to 3.46V)

Parameter	Symbol	Unit	Min	Typ	Max	Note
Transmitter						
Nominal Wavelength		nm	1528.77		1563.05	
Center wavelength Spacing		GHz	-	100	-	
Wavelength Tolerance		pm	-50		50	
Side Mode Suppression Ratio	SMSR	dB	30			
Spectral Width(-20dB)	Δ	nm			0.3	
Optical Output Power	Pav	dBm	-1		2	
Extinction Ratio	ER	dB	8.2			
Transmitter and Dispersion Penalty	TDP	dB			3	1
Average Launch Power of OFF Transmitter	POFF	dBm			-30	
Receiver						
Center Wavelength		nm	1260		1620	
Receiver Sensitivity	RSEN	dBm			-15.8	2
Receiver Sensitivity(OMA)	RSEN	dBm			-14.1	2
Overload		dBm	0.5			
Optical Return Loss		dB	27		-	
LOS Assert	LOSA	dBm	-30			
LOS De-Assert LOS	LOSD	dBm			-17	
LOS Hysteresis		dB	0.5		6	

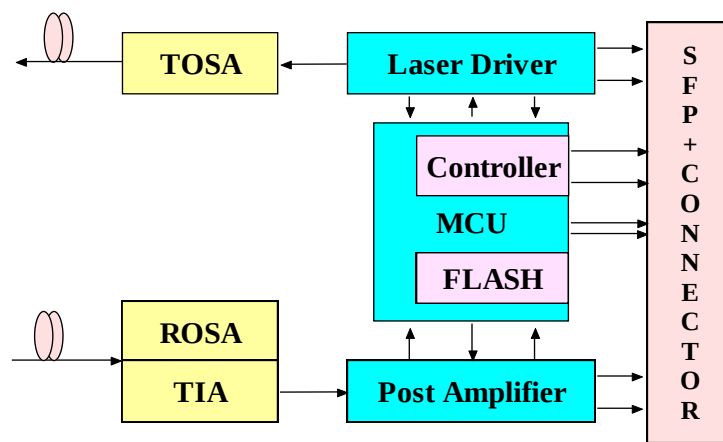
Applications

- 10G SONET&SDH
- 10GBASE-ER/EW
- 10G Fiber Channel

Dispersion Penalty at BER=1×10⁻¹² , 10.3125Gbps ,PRBS ,
40km Fiber.

Ordering Information

Block diagram



Recommended Operating Conditions

Electric Ports Definition

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Diagram of the 17-pin connector for the 1280x800 LCD module. The pins are numbered 3 to 11 on the right and 16 to 17 on the left. Signals include VEEr, RS1, RD-, RX_LOS, RD+, RS0, MOD-ABS, VccR, SCL, VccT, SDA, and VEET. TX_DISABLE is also indicated. Arrows point 'TOWARD HOST' (left) and 'TOWARD BEZEL' (right).

Figure 2.Pin function definitions

Pin Number	Symbol	Name	Description
1,17,20	VeeT	Transmitter Signal Ground	These pins should be connected to signal ground on the host

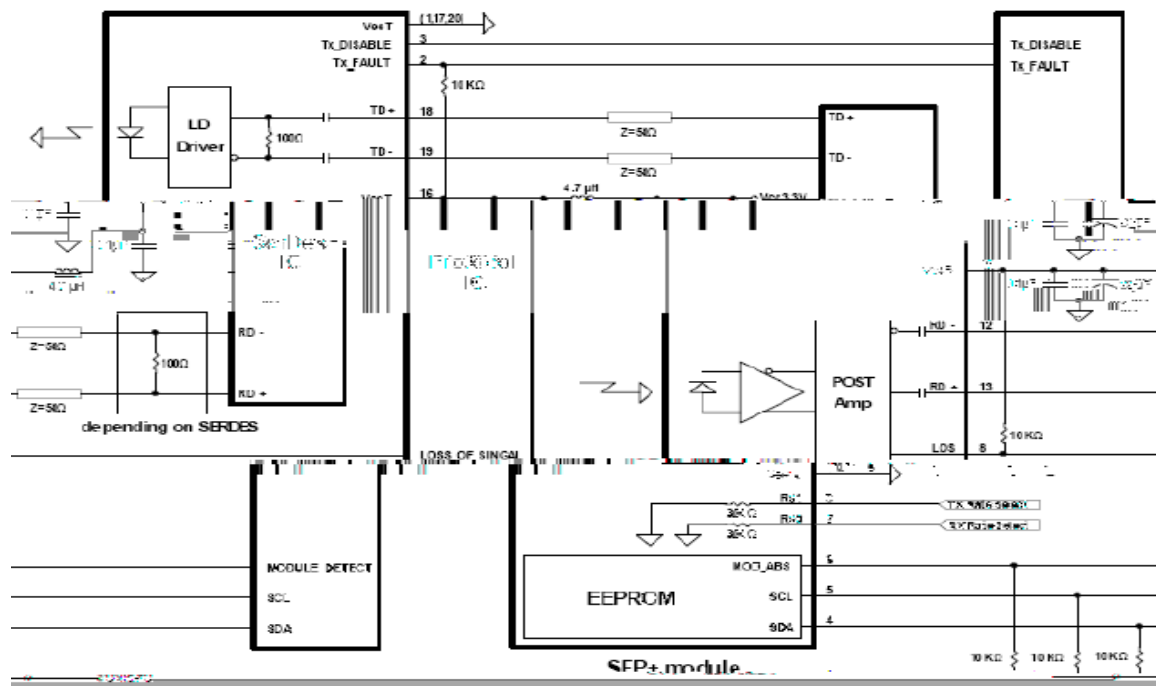
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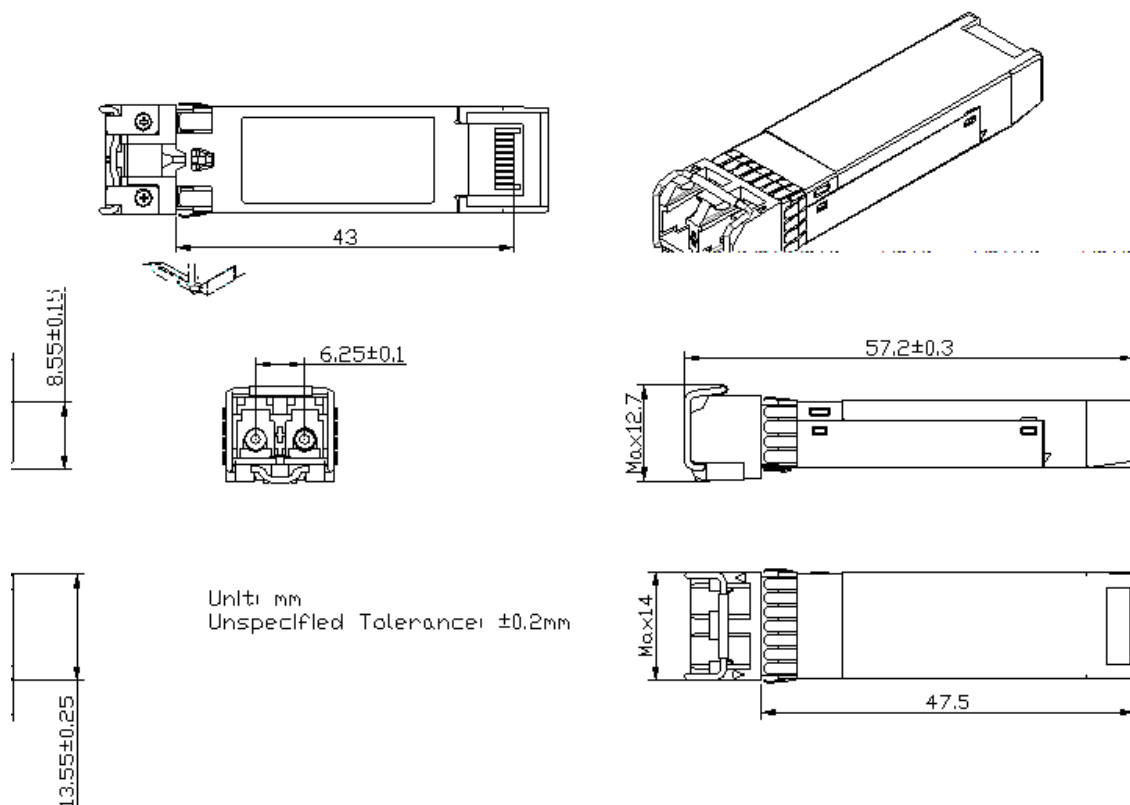
board.		
2	TX Fault	Transmitter Fault Out (OC)
3	TX Disable	Transmitter Disable In (LVTTL)

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Typical Application Circuit



Package Outline



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