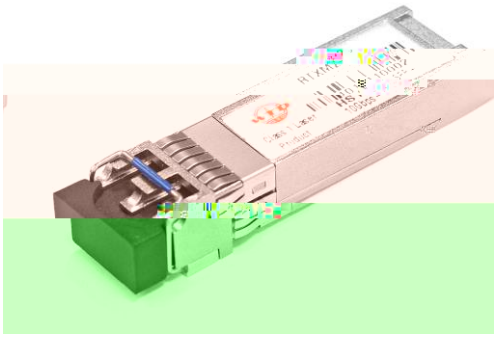
10 GB/s 10Km CWDM SFP+ Transceivers



The RTXM228-5XX 10Gigabit DFB laser with CWDM transceiver is designed to transmit and receive serial optical data links up from 8.5 Gb/s to 10.52 Gb/s data rate over 10km singlemode fiber. The Transceiver is compliant with SFF-8432, 10GFC, FC-PI-4, IEEE802.3ae and applicable portions of SFF-8431. Digital diagnostics functions are available via a 2-wire serial interface, as specified in SFF-8472.

Specifications

(tested under recommended operating conditions, unless otherwise noted)

Parameter	Symbol	Unit	Min	Typ	Max	Note
Transmitter						
Nominal Wavelength		nm	1271,1291,1311,1331, The confirmation of the else wavelength is according to the future study.			CWDM
Wavelength Drift	Δ	nm	-6.5		+6.5	
Side Mode Suppression Ratio	SMSR	dB	30			
	Pav	dBm	-2.4		+5	1
Extinction Ratio	ER	dB	3.5			
Average launch power of OFF transmitter	P_{OFF}	dBm			-35	

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Ordering Information

	Package	Data rate(Gb/s)	Laser	Optical Power (dBm)	Detector	Sensitivity (OMA) dBm	Top	Reach (km)	Other	
RTXM228-5XX	SFP+	8.5 ~10.52	CWDM DFB	-2.4 ~+5	PIN	< -12.6	0~70°C	10km	DDM	10GBASE-LR/LW 8G/10GFC

	Wavelength(nm)		
	min	type	max
RTXM228-501	1263.5	1271	1278.5
RTXM228-502	1283.5	1291	1298.5
RTXM228-503	1303.5	1311	1318.5
RTXM228-504	1323.5	1331	1338.5

Absolute Maximum Ratings

Storage Temperature Range	Ts	°C	-40	85
Relative Humidity	RH	%	0	95
Supply Voltage				

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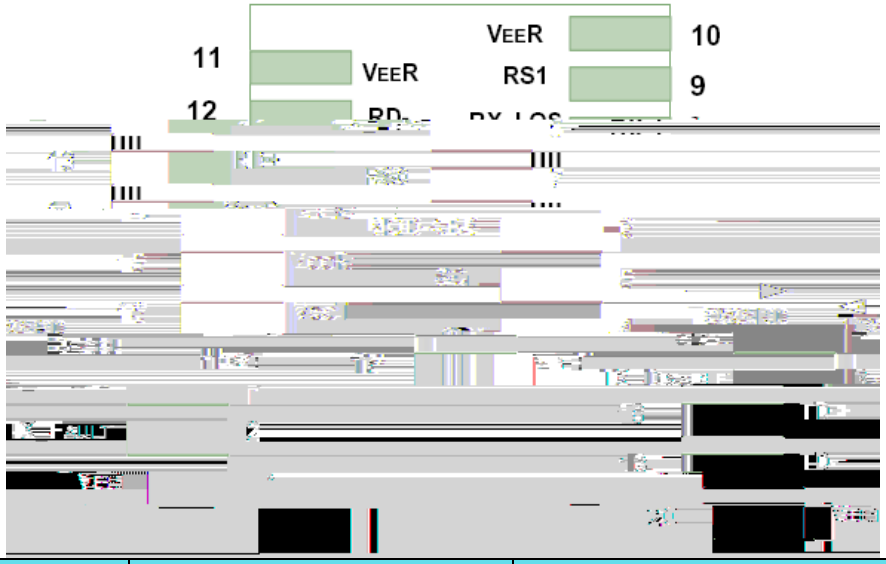
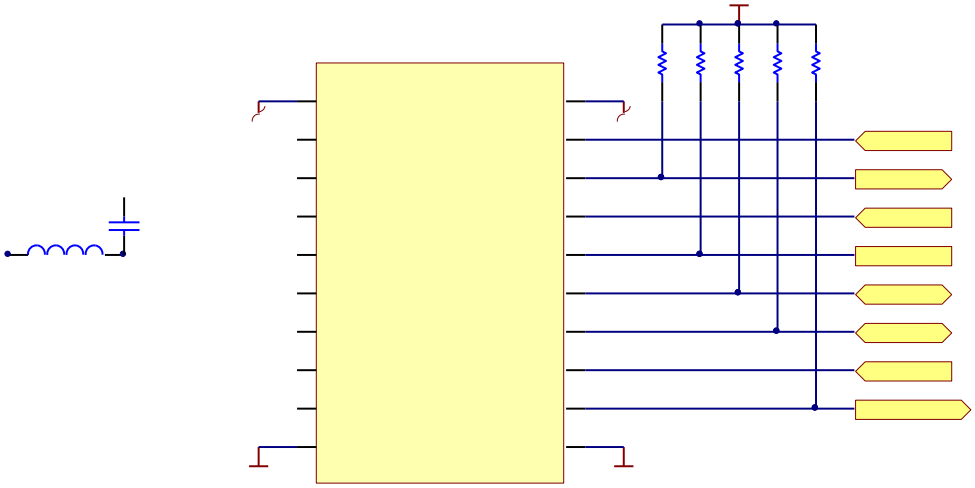
Pin function definitions



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

15	VccR	Receiver Power Supply	This pin should be connected to a filtered +3.3V power supply on the host board. See Figure 3.Recommended power supply filter
16	VccT	Transmitter Power Supply	This pin should be connected to a filtered +3.3V power supply on the host board. See Figure 3.Recommended power supply filter
18	TD+	Transmitter Positive DATA In (CML)	ter DATA inputs are internally AC coupled and terminated
19	TD-	Transmitter Negative DATA In (CML)	inputs are internally AC coupled and terminated stor.

Typical Application Circuit



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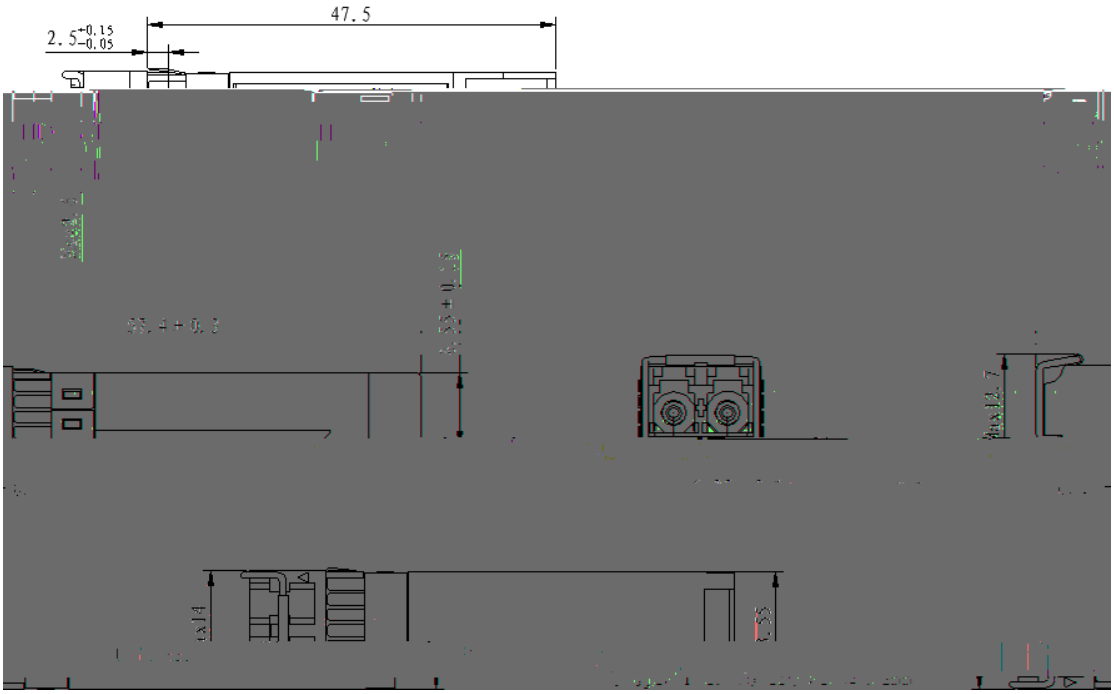
Package Outline



Regulatory Compliance

Electrostatic Discharge (ESD) to the Electrical Pins	MIL-STD-883C Method 3015.7	Class 1 (> 1500 Volts)
Electrostatic Discharge (ESD) Immunity	Variation of IEC 61000-4-2	LV 4(Air discharge :15KV;Contact discharge:8 KV)