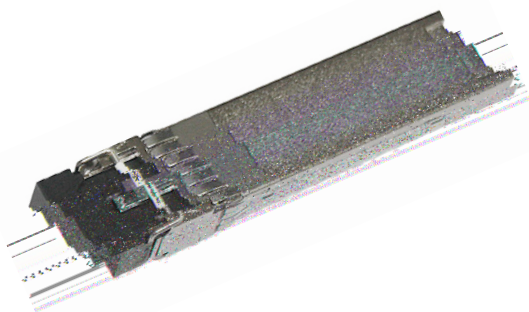




The 1550nm cooled EML laser based 10Gigabit SFP+ Transceiver is designed to transmit and receive serial optical data over single mode optical fiber with 80Km.

They are compliant with SFF-8431,SFF-8432, 10GFC Rev 4.0, and 10GBASE-ZR. 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.

Features

- Compliant to SFP+ MSA
- Fully RoHS Compliant
- All metal housing for superior EMI performance
- Operating data rate up to 11.3Gbps
- Cooled EML DFB Laser
- High sensitivity APD photodiode and TIA
- LC duplex connector
- Hot pluggable 20pin connector
- Low power consumption <1.8 W
- -5°C to 70°C operating wide temperature range
- Single +3.3V±5% power supply
- Digital Monitoring SFF-8472 Rev 10.2 compliant
- Real time monitoring of:
Transmitted optical power
Received optical power
Laser bias current

Specifications

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

Transmitter						
Nominal Wavelength	λ	nm	1530		1565	
Side Mode Suppression Ratio	SMSR	dB	30			
Spectral Width(-20dB)	$\Delta\lambda$	nm			0.3	
Optical Output Power	Pav	dBm	0		4	
Extinction Ratio	ER	dB	8.2			
Average Launch Power of OFF Transmitter	POFF	dBm			-30	
Relative Intensity Noise	RIN	dB/Hz			-128	
Receiver						
Center Wavelength	λ_C	nm	1260		1620	
Receiver Sensitivity@10.3125Gb/s	RSENSE	dBm			-24	1
Receiver Sensitivity at 1600ps/nm @ 10.3125Gb/s	RSENSE	dBm			-22	1.2
Overload		dBm	-7			
Optical Return Loss		dB	27		-	
LOS Assert	LOSA	dBm	-36			
LOS De-Assert LOS	LOSD	dBm			-27	
LOS Hysteresis		dB	0.5		6	

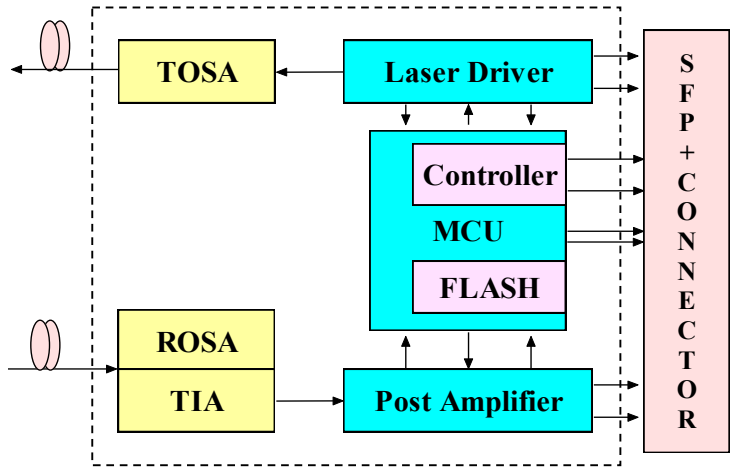
Applications

- 10GBASE-ZR
- 10G Fiber Channel

Note Measured at 1528-1600nm, ER>8.2dBm, PRBS 2³¹-1 and BER better than or equal to 10E-12;
2: loopback using 80km fiber (SMF-28).

Part No.	Specifications	Application
		℃

Block diagram

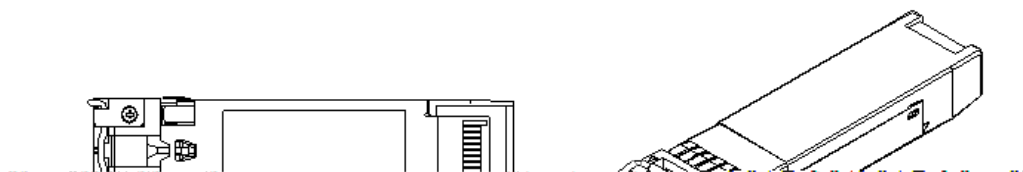
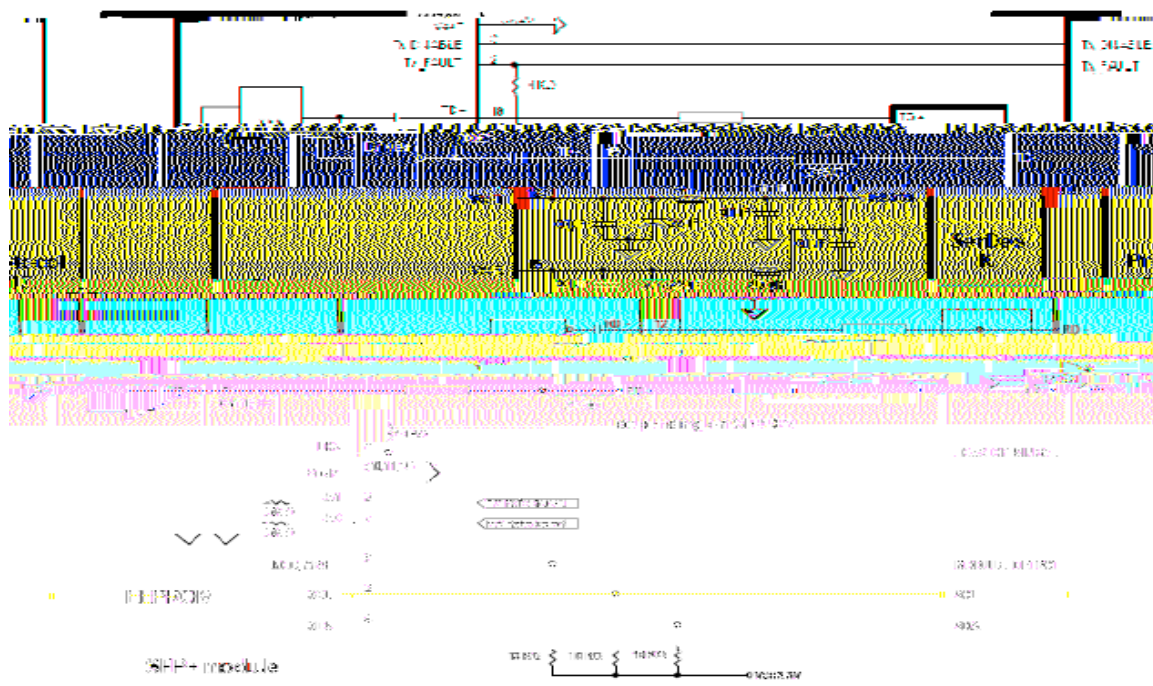


Parameter	Symbol	Unit	Min	Max
		C	-40	85
	H	%	0	95

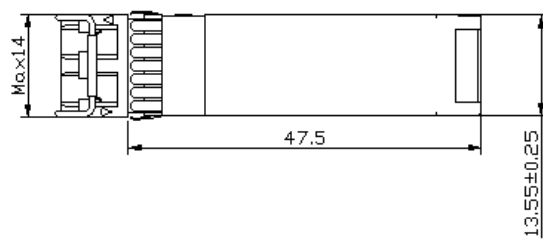
Parameter	Symbol	Unit	Min	Typ	Max
O	C	C	-5		70
P			3.14	3.3	3.46
B	R	BR	G /		11.3
B	E	BER			10 ⁻¹²
M	L	L	L	K	80

Parameter	Symbol	Unit	Min	Typ	Max	Note
Transmitter						

		10 Ω			
3	()	10 Ω			
4		472			
5					
6	-	10 Ω			
7	0	()	30 Ω -		
1	()				
		1 10 ⁻¹²	0		
()		1 10 ⁻¹²	1		
		10 Ω			
10,11,14		24 440 4() 1 ()			



Unit: mm
Unspecified Tolerance: $\pm 0.2\text{mm}$



F	M	P
()	- - 3 3015.7	1 (1500)
()	61000-4-2	15