100M/155M 180km~200km SFP
CLSFP1515ZX180

Product Features:

- 100/155Mbps data links
- 180km~200km with 9/125μm SMF
- 1550nm DFB laser
- Duplex LC Connector
- Hot-pluggable SFP footprint
- Single 3.3V power supply
- Operating temperature: -40°C to 85°C
- RoHS
- Digital Diagnostic Monitor (DDM)

Applications:

- Fast Ethernet ZX
- SONET OC3 Long Reach

Functional Characteristics

The following tables list the performance specifications for the various functional blocks of the module.

Table 1 - Optical Characteristics

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Transmitter						
Centre Wavelength	λc	1530	1550	1570	nm	
Spectral Width (-20dB)	σ			1	nm	
Side Mode Suppression Ratio	SMSR	35			dB	
Average Output Power	Pout	5			dBm	
Extinction Ratio	ER	10			dB	
Optical Rise/Fall Time	tr/tf			1	ns	
Eye Diagram	ITU-T G.957 Compliant, Margin > 30%					
TX_Disable Assert Time	T_off			10	us	
Receiver						
Centre Wavelength	λc	1260		1600	nm	
Receiver Sensitivity	PIN			-42	dBm	
Receiver Damage	Pmax	-7			dBm	
LOS De-Assert	LOSD			-43	dBm	
LOS Assert	LOSA	-45			dBm	
LOS Hysteresis		0.5		4.5	dB	

Table 2 - Electrical Characteristics

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Recommended Operating Conditions						
Operating Case Temperature	TC	-40		85	℃	
Power Supply Voltage	VCC	3.15	3.3	3.45	V	
Power Supply Current	ICC			350	mA	
Data Rate OC3/STM-1			155		Mbps	
Data Rate FE			100		Mbps	
Max Link Length on 9/125μm SMF	Lmax		180	200	km	SMF type could affect the final reach distance
Transmitter						
Input Differential Impedance	Zin	90	100	110	Ω	
Data Input Swing Differential	Vin	500		2400	mV	
Tx-Dis Disable	Vd	2.0		Vcc	V	
Tx-Dis Enable	Ven	0		0.8	V	
TX-Fault (Fault)		2.0		Vcc+0.3	V	
TX-Fault (Normal)		0		0.8	V	
Receiver						
Data Output Swing Differential	Vout	370		2000	mV	
Output Impedance	Zout	90	100	110	Ω	
Rx-Los Fault	Vlf	2.0		Vcc+0.3	V	
Rx-Los Normal	Vln	0		0.8	V	

Ordering Information

Table 3 - Ordering Information

Part No.	Data Rate	DDM	Wave	Fiber Type	Dist.	Temp.	Optical Interface
CLSFP1515ZX180	100/155Mbps	yes	1550nm	SMF	180km~200km	0~70℃	LC

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