100Mbps BiDi LC 120KM SFP Transceiver

CLSFP15BD1415120D

Product Features:

- Up to 100Mbps data links
- 120KM with 9/125μm SMF
- 1490nm/1550nm DFB laser
- Simplex LC Connector
- Hot-pluggable SFP footprint
- Single 3.3V power supply
- Operating temperature: -40°C to 85°C
- RoHS

Applications:

- 100MBase-120km

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	1480	1490	1500	nm	
Spectral Width (-20dB)	σ			1	nm	
Average Output Power	Pout	0		5	dBm	
Extinction Ratio	ER	9			dB	
Optical Rise/Fall Time	tr/tf			2	ns	
Receiver						
Centre Wavelength	λc	1540	1550	1560	nm	
Receiver Sensitivity	PIN			-30	dBm	
Receiver Overload	PMAX	1			dBm	
LOS De-Assert	LOSD			-32	dBm	
LOS Assert	LOSA	-37			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			300	mA	
Data Rate			100		Mbps	
Max Link Length on 9/125μm SMF	Lmax			120	km	
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	
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	TX/RX	Fiber Type	Dist.	Temp.	Optical Interface
CLSFP15BD1415120D	100Mbps	yes	1490nm/1550nm	SMF	120KM	-40~85℃	Simplex LC

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