

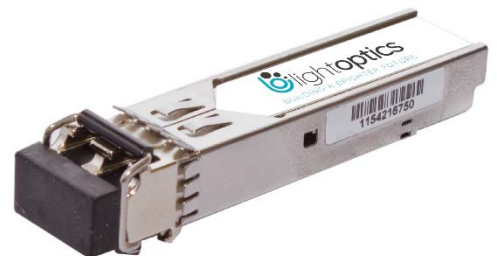
## LO-SF-1G-Cxx-120D

1.25Gbps SFP CWDM (1470-1610nm)

Optical Transceiver 120Km DDM

### Product Features

- SFP package with LC connector
- CWDM DFB laser with Isolator and APD photo detector
- Up to 120Km transmission on SMF
- +3.3V single power supply
- LVPECL compatible data input/output interface
- Low EMI and excellent ESD protection
- Digital Diagnostic SFF-8472 compliant
- Compatible with RoHS
- laser safety standard IEC-60825 compliant



### Applications

- Ethernet
- Telecom
- Fiber Channel

### Ordering information

Part Number	Product Description
LO-SF-1G-Cxx-120D	SFP CWDM 1.25Gbps (1470-1610nm) LC DDM SMF 120km
LO-SF-1G-C47-120D	SFP CWDM 1.25Gbps 1470nm LC DDM SMF 120km
LO-SF-1G-C49-120D	SFP CWDM 1.25Gbps 1490nm LC DDM SMF 120km
LO-SF-1G-C51-120D	SFP CWDM 1.25Gbps 1510nm LC DDM SMF 120km
LO-SF-1G-C53-120D	SFP CWDM 1.25Gbps 1530nm LC DDM SMF 120km
LO-SF-1G-C55-120D	SFP CWDM 1.25Gbps 1550nm LC DDM SMF 120km
LO-SF-1G-C57-120D	SFP CWDM 1.25Gbps 1570nm LC DDM SMF 120km
LO-SF-1G-C59-120D	SFP CWDM 1.25Gbps 1590nm LC DDM SMF 120km
LO-SF-1G-C61-120D	SFP CWDM 1.25Gbps 1610nm LC DDM SMF 120km

### Absolute Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Units
Storage Temperature	T <sub>st</sub>	-40	85	°C
Supply Voltage	V <sub>cc</sub>	0	3.6	V
Operating Relative Humidity	RH	5	95	%

### Recommended Operating Conditions

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating Case Temperature	T <sub>c</sub>	0	-	70	°C
Supply Voltage	V <sub>cc</sub>	3.15	3.3	3.45	V
Data Rate PER Channel	-	-	1.25	-	Gb/s

### Transceiver Electrical Characteristics

Transmitter							
Parameter	Symbol	Minimum	Typical	Maximum	Unit	Notes	
Input Differential Impedance	Z <sub>IN</sub>	90	100	110	Ω	-	
Differential Data Input Swing	V <sub>IN</sub>	500	-	2400	mV	-	
TX_FAULT	Transmitter Fault	V <sub>OH</sub>	2.0	-	V <sub>cc</sub>	V	-
	Normal Operation	V <sub>OL</sub>	0	-	0.8	V	-
TX_DISABLE	Transmitter Disable	V <sub>IH</sub>	2.0	-	V <sub>cc</sub>	V	-
	Transmitter Enable	V <sub>IL</sub>	0	-	0.8	V	-
Receiver							
Parameter	Symbol	Minimum	Typical	Maximum	Unit	Notes	
Output Differential Impedance	Z <sub>0</sub>	-	100	-	Ω	-	
Differential Data Output Swing	V <sub>OUT</sub>	370	-	2000	mV	-	
RX_LOS	Loss of signal (LOS)	V <sub>OH</sub>	2.0	-	V <sub>cc</sub>	V	-
	Normal Operation	V <sub>OL</sub>	0	-	0.8	V	-

### Transmitter Optical Characteristics

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Notes
Center Wavelength Range	$\lambda_0$	$1 \times 0 - 6.5$	$1 \times 0$	$1 \times 0 + 6.5$	nm	1
Spectral Width (RMS)	$\Delta\lambda$	-	-	1	nm	-
Extinction Ratio	ER	9	-	-	dB	-
Average Output Power	$P_0$	0	-	5	dBm	-
Rise/Fall Time(20%-80%)	$T_r/T_f$	-	-	0.26	ns	-
Total jitter	$T_j$	-	-	0.43	UI	-
Optical Eye Diagram	IEEE 802.3z and ANSI Fibre Channel Compatible					

1. WaveLength Range: 1270nm - 1450nm (Original band)

### Receiver Optical Characteristics

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Notes
Center Wavelength	$\lambda_0$	1270	-	1610	nm	-
Receiver Sensitivity	$R_{sen}$	-	-	-32	dBm	-
Receiver Overload	$R_{ov}$	-8	-	-	dBm	-
Optical Return Loss	ORL	12	-	-	dB	-
LOS De-Assert	$LOS_D$	-	-	-32	dBm	-
LOS Assert	$LOS_A$	-40	-	-	dBm	-
LOS Hysteresis	-	0.5	-	4	-	-

### Mechanical specifications

