

2.5Gbps 15km SFP Transceiver CLSFPOC48IR1/CLSFPOC48IR1I

Product Features:

- Up to 2.5Gbps data links
- 15km with 9/125μm SMF
- 1310nm DFB laser
- Duplex LC Connector
- Hot-pluggable SFP footprint
- Single 3.3V power supply
- Operating temperature: Refer to Ordering info.
- RoHS
- Digital Diagnostic Monitor (DDM)

Applications:

- SDH STM S-16.1, I-16
- SONET OC-48 IR-1, SR

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	λ_c	1270	1310	1370	nm	
Spectral Width (-20dB)	σ			1	nm	
Average Output Power	Pout	-5		0	dBm	
Extinction Ratio	ER	8			dB	
Optical Rise/Fall Time	tr/ta			1	ns	
Receiver						
Centre Wavelength	λ_c	1260	1310	1600	nm	
Receiver Sensitivity	PIN			-18	dBm	
Receiver Overload	P _{MAX}	2			dBm	
LOS De-Assert	LOSD			-32	dBm	
LOS Assert	LOSA	-36			dBm	
LOS Hysteresis		0.5			dB	

Table 2 – Electrical Characteristics

Parameter	Symbol	Min.	Typical	Max.	Unit	Notes
Recommended Operating Conditions						
Operating Case Temperature (CLSFPOC48IR1)	TC	0		70	°C	
Operating Case Temperature (CLSFPOC48IR1I)	TC	-40		85	°C	
Power Supply Voltage	VCC	3.15	3.3	3.45	V	
Power Supply Current	ICC			300	mA	
Data Rate			2.5		GBps	
Max Link Length on 9/125μm SMF	Lmax			15	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	Wave	Fiber Type	Dist.	Temp.	Optical Interface
CLSFPOC48IR1	2.5Gbps	yes	1310nm	SMF	15km	0~70°C	LC
CLSFPOC48IR1I	2.5Gbps	yes	1310nm	SMF	15km	-40~85°C	LC

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