

Stratos

SPLC-20-F-2-D Optical Transceiver

Connectivity for
Business Critical Continuity™

4x / 2x / 1x Fiber Channel Applications
1310nm SFP w/ DDMI
4.25 / 2.125 / 1.0625 GBaud



Product Overview

The Emerson Network Power Connectivity Solutions SPLC-20-F-2-D pluggable transceiver module is a high performance integrated duplex data link for bi-directional communication over single mode optical fiber. It is compliant with the Small Form Factor Pluggable (SFP) Multi-Source Agreement (MSA) transceiver specification. The SPLC-20-F-2-D is specifically designed for high speed data links up to 4.25GBaud. The Stratos Lightwave SFP transceiver is hot pluggable which allows a suitably designed enclosure to be changed from one type of external interface to another simply by plugging in a SFP having the alternative external interface. This optoelectronic transceiver module is a Class 1 Laser product compliant with FDA Radiation Performance Standards, 21 CFR Subchapter J. This component is also Class 1 Laser compliant according to International Safety Standard IEC-825-1/EN 60825.

Ordering Information

SPLC - 20 - F - 2 - D

Key Features & Benefits

- 4.25GBaud Fiber Channel Compliant
- 2.125GBaud Fiber Channel Compliant
- 1.0625GBaud Fiber Channel Compliant
- Digital Diagnostics Monitoring Interface (DDMI)
- Compliant with SFP MSA Specification
- 100Ω Differential AC Coupled Inputs/Outputs
- Metal Housing
- Serial ID Functionality
- Hot pluggable
- Single +3.3V Power Supply
- RoHS Compliant

Module Specifications – Electrical

Parameter	Sym	MIN	Typ	MAX	Unit	Notes
Supply Current				300	mA	
Transmitter						
Input Swing (Differential)	V _{in}	200		2400	mV _{pp}	
Input Impedance (Differential)	R _{in}	85	100	115	Ω	R _{in} > 100K Ω @ DC
TX_DISABLE Input Voltage – High	V _{IH}	2		3.465	V	
TX_DISABLE Input Voltage – Low	V _{IL}	0		0.8	V	
TX_FAULT Output Voltage – High	V _{toH}	2		V _{cc} +0.3	V	I _o = 400μA; Host V _{cc}
TX_FAULT Output Voltage – Low	V _{toL}	0		0.8	V	I _o = -4.0mA

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Parameter	Sym	MIN	Typ	MAX	Unit	Notes
Receiver						
Output Swing (Differential)		700		1200	mVpp	AC Coupled Outputs
Output Impedance (Differential)	Rout	85	100	115	Ω	
RX_LOS Output Voltage – High	VroH	2		Vcc+0.3	V	Io = 400μA; Host Vcc
RX_LOS Output Voltage – Low	VroL	0		0.8	V	Io = -4.0mA
Rate Select (1.0625GBaud)	RS _{LOW}	0		0.8	V	In accordance to SFF Committee
Rate Select (2 / 4 GBaud)	RS _{HIGH}	2		3.465	V	SFF-8079

Module Specifications – Optical:

Parameter	Sym	MIN	Typ	MAX	Unit	Notes
Transmitter						
Optical Center Wavelength	λ	1260		1360	nm	
Spectral Width	$\Delta\lambda$			1	nm	RMS
Optical Transmit Power	Po	-8		-1	dBm	
Optical Modulation Amplitude	OMA	247 196 156			μ W	pk-pk @ 4.125GBaud pk-pk @ 2.125GBaud pk-pk @ 1.0625GBaud
Side Mode Suppression Ratio	SMSR	30			dB	
Optical Rise/Fall Time (20-80%)	Tr/Tf			80/90	pS	
Relative Intensity Noise	RIN			-118	dB/Hz	
Output Eye	Complies with ANSI FC-PI specification and Class 1 Laser eye safety					
Receiver						
Average Receive Power	Px			-1	dBm	
Optical Input Wavelength	λ	1200		1600	nm	
Optical Input Power	Pin	-17.5 -19 -20		0 0 0	dBm	BER<1.0E-12 @ 4.25GBaud BER<1.0E-12 @ 2.125GBaud BER<1.0E-12 @ 1.0625GBaud
Optical Return Loss	ORL	12			dB	
RX_LOS – Asserted	Pa	-30			dBm	Measured on transition – Low to High
RX_LOS – Deasserted	Pd			-15 -18 -20	dBm	High to Low @ 4.25GBaud High to Low @ 2.125GBaud High to Low @ 1.25/1.0625GBaud
RX_LOS – Hysteresis	Pa-Pd		1.5		dB	

For more information on this product consult the SPLC-20-F-2-D product data sheet.

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