

Part Number: SFP-1000Base-SX
SFP-1000Base-SX-IND

Quick Spec:

Form Factor: SFP
TX Wavelength: 850nm
Reach: 500m
Cable Type: multimode fiber
Rate Category: 1000Base
Interface Type: SX
DDM: No
Connector Type: Dual-SC



Features

- Up to 1.25Gb/s data links
- Hot-pluggable SFP Footprint
- Compliant with specifications for IEEE802.3Z 1000Base-SX
- Supported distance in accordance with 1000Base-SX standard: up to 220m via 62.5/125µm multimode fiber, up to 550m via 50/125µm multimode fiber
- Eye Safety Designed to meet Laser Class1 Compliant with IEC60825-1
- Single +3.3V Power Supply
- RoHS compliance
- Operating temperature range:
 - Standard 0 to +70 °C
 - Industrial -40 to +85 °C

Applications

- Gigabit Ethernet
- 1x Fiber Channel
- Other optical links

Specification

Electrical Characteristics (Condition: Ta=TOP)

Parameter	Symbol	Min.	Typ	Max.	Unit
Transmitter Differential Input Volt	+/-TX_DAT	650		2000	mV p-p
Supply Current	I _{cc}		200	250	mA
Tx_Disable Input Voltage – Low	V _{IL}	0		0.8	V
Tx_Disable Input Voltage – High	V _{IH}	2.0		V _{cc}	V
Tx_Fault Output Voltage – Low	V _{OL}	0		0.8	V
Tx_Fault Output Voltage – High	V _{OH}	2.0		V _{cc}	V
Receiver Differential Output Volt	+/-RX_DAT	0.4		2000	mV p-p
Rx_LOS Output Voltage- Low	V _{OL}	0		0.8	V
Rx_LOS Output Voltage- High	V _{OH}	2.0		V _{cc}	V

Optical Characteristics

TX					
Parameter	Symbol	Min	Typ	Max	Unit
Data Rate	B	-	1.25	-	Gb/s
Centre wavelength	λ_c	830	850	860	nm
Output Spectral Width	$\Delta\lambda$	-	-	0.85	nm
Average Output Power	P_o	-9	-	-3	dBm
Extinction Ratio	EXT	10	-	-	dB
Data Input Voltage-High	V_{IHS}	$V_{cc}-1.16$	-	$V_{cc}-0.89$	V
Data Input Voltage -Low	V_{ILS}	$V_{cc}-1.82$	-	$V_{cc}-1.48$	V
Supply Current	I_{cc}	-	90	130	mA
Output Optical Eye	Compliant with IEEE802.3Z				

RX					
Parameter	Symbol	Min	Typ	Max	Unit
Receive Sensitivity	P_{min}	-	-	-17	dBm
Maximum Input Power	P_{MAX}	-3	0	-	dBm
Signal Detect Threshold-Assertion:	SD_{HIGH}	-	-	-18	dBm
Signal Detect Threshold-Deassertion:	SD_{LOW}	-30	-	-	dBm
Hysteresis	-	-	2.0	-	dBm
Output High Voltage	V_{OH}	$V_{cc}-1.03$	-	$V_{cc}-0.89$	V
Output Low Voltage	V_{OL}	$V_{cc}-1.82$	-	$V_{cc}-1.63$	V
Operating Wavelength	λ_c	770	-	860	nm
Supply Current	I_{cc}	-	80	110	mA

Absolute Maximum Ratings ($T_C=25^{\circ}\text{C}$)

Parameter	Symbol	Min	Max	Unit
Storage Temperature	T_{ST}	-40	+85	$^{\circ}\text{C}$
Operating Temperature (Standard)	T_{IP}	0	+7-	$^{\circ}\text{C}$
Operating Temperature (Industrial)	T_{IP}	-40	+85	$^{\circ}\text{C}$
Input Voltage	T_{CC}	0	5	V

Recommend Operation Environment

Parameter	Symbol	Min	Typ	Max	Unit
Supply Voltage	V_{CC}	+3.0	3.3	+3.6	V
Operating Temperature	T_{OP}	0	-	+50	$^{\circ}\text{C}$