Part Number: SFP-1000Base-BXD-20
SFP-1000Base-BXD-20-IND

Quick Spec:

Form Factor:	SFP-BIDI
TX Wavelength:	1490nm
Reach:	20km
Cable Type:	SMF
Rate Category:	1000Base
Interface Type:	BX
DDM:	Yes
Connector Type:	Single-LC

Features

- Up to 1.25Gb/s Data Links
- Hot-Pluggable Capability
- Single +3.3V Power Supply
- Isolation > 30dB, Cross Talk < -45dB
- Compliant with Specifications for IEEE802.3Z
- Compliant with Bellcore TA-NWT-000983
- Eye Safety Designed to Meet Laser Class1,
- Compliant with IEC60825-1
- RoHS compliance
- Operating Case Temperature
  - Standard 0 to +70 ˚C
  - Industrial -40 to +85 ˚C

Applications

- Gigabit Ethernet
- Fiber Channel
- WDM Application

Specification

Electrical and Optical Characteristics: (Condition: T_a=T_{OP})

Parameter	Symbol	Min.	Typical	Max.	Unit
Transmitter Differential Input Volt	+/-TX_DAT	200		2400	mV p-p
Supply Current	I_{CC}		130	180	mA
TX Disable Input Voltage – Low	V_{IL}	0		0.8	V
TX Disable Input Voltage – High	V_{IH}	2.0		Vcc	V
TX Fault Output Voltage – Low	V_{OL}	0		0.8	V
TX Fault Output Voltage – High	V_{OH}	2.0		Vcc	V
Receiver Differential Output Volt	+/-RX_DAT	600		1400	mV p-p
Rx LOS Output Voltage- Low	V_{OL}	0		0.8	V
Rx LOS Output Voltage- High	V_{OH}	2.0		Vcc	V

Transmitter Section

Parameter	Symbol	Min.	Typical	Max.	Unit
Data Rate	B	-	1250	-	Mb/s
Centre Wavelength-D	λc	1485	1490	1496	nm
Output Spectral Width	Δλ(-20dB)	-	-	1	nm
Average Output Power	P_o	:-8	-	:-3	dBm
Extinction Ratio	EXT	9	-	-	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	150	mA
Output Optical Eye	Compliant with IEEE802.3Z				

Receiver Section

Parameter	Symbol	Min.	Typical	Max.	Unit
Receive Sensitivity	P_{min}	-	-	-22	dBm
Maximum Input Power	P_{MAX}	-3	-	-	dBm
Signal Detect Threshold-Assertion:	SD_{HIGH}	-	-	-22	dBm
Signal Detect Threshold-Deassertion:	SD_{LOW}	-32	-	-	dBm
Hysteresis	-	-	3.0	-	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-D	λc	1260	1310	1360	nm
Supply Current	I_{CC}	-	80	110	mA

Absolute Maximum Ratings:

Parameter	Symbol	Min.	Max.	Unit
Storage Temperature	T_{ST}	-40	+85	℃
Operating Temperature (Standard)	T_{IP}	0	+70	℃
Operating Temperature (Industrial)	T_{IP}	-40	+85	℃
Input Voltage	T_{CC}	0	+5	V

Recommended Operating Environment:

Parameter	Symbol	Min.	Typical	Max.	Unit
Supply Voltage	V_{CC}	+3.1	+3.3	+3.5	V
Operating Temperature	T_{OP}	0	-	+70	℃