Nexolight

Datasheet

NXS8-FC-LW

SFP+ 8GBASE-LW 1310nm 10km Singlemode

Features

- SFP+ Form Factor
- 8,5 Gb/s bitrate
- Up to 10 km over Singlemode
- LC connector
- 1310 nm, DFB laser, PIN photodiode
- Up to 1.2 W power consumption
- +0/+70°C temperature range
- Built in digital diagnostic monitoring

Applications

- Fibre Channel
- Access and Enterprise

Optical specifications

Optical budget EOL : 8.4 dB

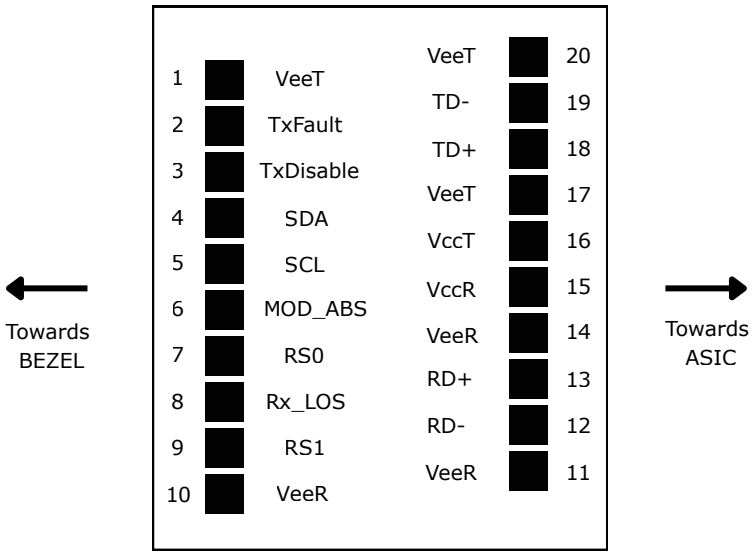
Transmitter & Receiver optical Specifications

Parameter	Min	Max	Unit
Tx Power	-6	-0.5	dBm
Rx Sensitivity	-14.4	0.5	dBm

Electrical & Environmental Specifications

Parameter	Value	Unit
Power supply voltage	3.3	V
Power supply current	350	mA
MTBF	1826243.33	hrs
Relative humidity	5~85	%

Transceiver electrical pad layout



Module electrical PIN definition

SFF 8472

Pin	Symbol	Description	Note
1	VeeT	Transmitter Ground (Common with Receiver Ground)	
2	Tx_Fault	Transmitter Fault.	1
3	Tx_Disable	Transmitter Disable. Laser output disabled on high or open.	2
4	SDA	2-wire Serial Interface Data Line	
5	SCL	2-wire Serial Interface Clock Line	
6	MOD_ABS	Module Absent. Grounded within the module	
7	RS0	Rate Select 0	
8	Rx_LOS	Loss of Signal indication. Logic 0 indicates normal operation.	3
9	RS1	No connection required	
10	VeeR	Receiver Ground (Common with Transmitter Ground)	
11	VeeR	Receiver Ground (Common with Transmitter Ground)	
12	RD-	Receiver Inverted DATA out. AC Coupled	4
13	RD+	Receiver Non-inverted DATA out. AC Coupled	4
14	VeeR	Receiver Ground (Common with Transmitter Ground)	
15	VccR	Receiver Power Supply	
16	VccT	Transmitter Power Supply	
17	VeeT	Transmitter Ground (Common with Receiver Ground)	
18	TD+	Transmitter Non-Inverted DATA in. AC Coupled.	5
19	TD-	Transmitter Inverted DATA in. AC Coupled.	5
20	VeeT	Transmitter Ground (Common with Receiver Ground)	

Note

1) TX Fault is an open collector output, which should be pulled up with a 4.7k~10kΩ resistor on the host boardto a voltage between 2.0V and Vcc+0.3V. Logic 0 indicates normal operation; Logic 1 indicates a laser fault of some kind. In the low state, the output will be pulled to less than 0.8V.

2) Laser output disabled on TDIS >2.0V or open, enabled on TDIS <0.8V.

3) LOS is open collector output. Should be pulled up with 4.7k~10kΩ on host board to a voltage between 2.0V and 3.6V. Logic 0 indicates normal operation; logic 1 indicates loss of signal.

4) RD-/+: These are the differential receiver outputs. They are internally AC-coupled 100 differential lines which should be terminated with 100Ω (differential) at the user SERDES.

5) TD-/+: These are the differential transmitter inputs. They are internally AC-coupled, differential lines with 100Ω differential termination inside the module.