

NXS1-C18DM-S80D

SFP 1G ZX CWDM 80 km

Features

- SFP Form Factor
- 1,25 Gb/s bitrate
- Up to 80 km over Singlemode
- LC connector
- 1270-1610, DFB laser, PIN photodiode
- Up to 1 W power consumption
- +0/+70°C temperature range
- Built in digital diagnostic monitoring



Applications

- Gigabit Ethernet over CWDM
- Access, Metro and Enterprise
- 1x Fibre Channel

Optical specifications



Optical budget EOL : 24 dB

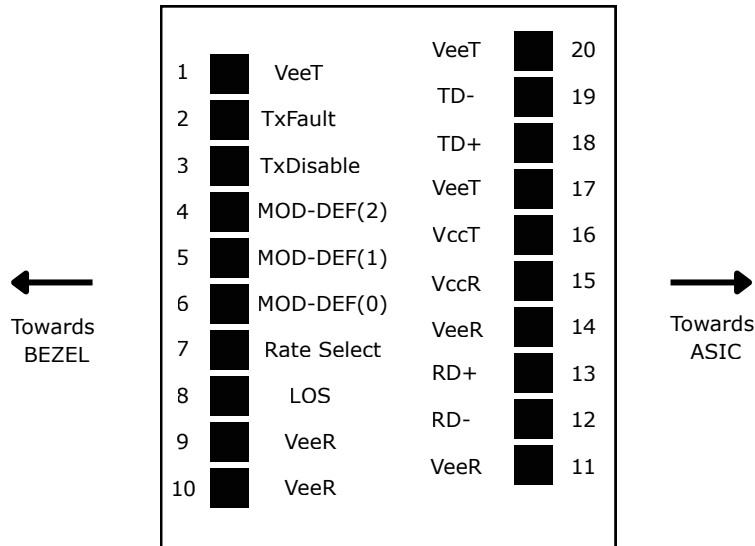
Transmitter Receiver optical Specifications

| Parameter | Min | Max | Unit |
|----------------|-----|-----|------|
| Tx Power | -2 | 5 | dBm |
| Rx Sensitivity | -26 | | dBm |

Electrical Environmental Specifications

| Parameter | Value | Unit |
|----------------------|---------|------|
| Power supply voltage | 3.3 | V |
| Power supply current | 300 | mA |
| MTBF | 3000000 | hrs |
| Relative humidity | 5~85 | % |

Transceiver electrical pad layout



Module electrical PIN definition

SFP - SFF-8472

| Pin | Symbol | Description | Note |
|-----|-------------|--|------|
| 1 | VeeT | Transmitter Ground (Common with Receiver Ground) | 1 |
| 2 | TxFault | Transmitter Fault. | |
| 3 | TxDisable | Transmitter Disable. Laser output disabled on high or open. | 2 |
| 4 | MOD-DEF(2) | Module Definition 2. Data line for Serial ID. | 3 |
| 5 | MOD-DEF (1) | Module Definition 1. Clock line for Serial ID. | 3 |
| 6 | MOD-DEF (0) | Module Definition 0. Grounded within the module. | 3 |
| 7 | Rate Select | No connection required | 4 |
| 8 | LOS | Loss of Signal indication. Logic 0 indicates normal operation. | 5 |
| 9 | VeeR | Receiver Ground (Common with Transmitter Ground) | 1 |
| 10 | VeeR | Receiver Ground (Common with Transmitter Ground) | 1 |
| 11 | VeeR | Receiver Ground (Common with Transmitter Ground) | 1 |
| 12 | RD- | Receiver Inverted DATA out. AC Coupled | |
| 13 | RD+ | Receiver Non-inverted DATA out. AC Coupled | |
| 14 | VeeR | Receiver Ground (Common with Transmitter Ground) | 1 |
| 15 | VccR | Receiver Power Supply | |
| 16 | VccT | Transmitter Power Supply | |
| 17 | VeeT | Transmitter Ground (Common with Receiver Ground) | 1 |
| 18 | TD+ | Transmitter Non-Inverted DATA in. AC Coupled. | |
| 19 | TD- | Transmitter Inverted DATA in. AC Coupled. | |
| 20 | VeeT | Transmitter Ground (Common with Receiver Ground) | 1 |

Note

1. Circuit ground is internally isolated from chassis ground.
2. Laser output disabled on TDIS >2.0V or open, enabled on TDIS <0.8V.
3. Should be pulled up with 4.7k - 10k Ω on host board to a voltage between 2.0V and 3.6V. MOD_DEF (0) pulls line low to indicate module is plugged in.
4. This is an optional input used to control the receiver bandwidth for compatibility with multiple data rates (most likely Fiber Channel 1x and 2x Rates). If implemented, the input will be internally pulled down with > 30k Ω resistor. The input states are:
 - Low (0 – 0.8V): Reduced Bandwidth
 - (>0.8, < 2.0V): Undefined
 - High (2.0 – 3.465V): Full Bandwidth
 - Open: Reduced Bandwidth
5. LOS is open collector output should be pulled up with 4.7k - 10k Ω on host board to a voltage between 2.0V and 3.6V. Logic 0 indicates normal operation; logic 1 indicates loss of signal.