

NXS28-1310-S4D

SFP28 25GBASE-ER 1310 40km Singlemode

Features

- SFP28 Form Factor
- 25 Gb/s bitrate
- Up to 40 km over Singlemode
- LC connector
- 1310 nm, DFB laser, APD photodiode
- Up to 1.5 W power consumption
- +0/+70°C temperature range
- Built in digital diagnostic monitoring



Applications

- 25GBase-ER Ethernet
- Access, Metro and Enterprise

Optical specifications



Optical budget EOL : 18 dB

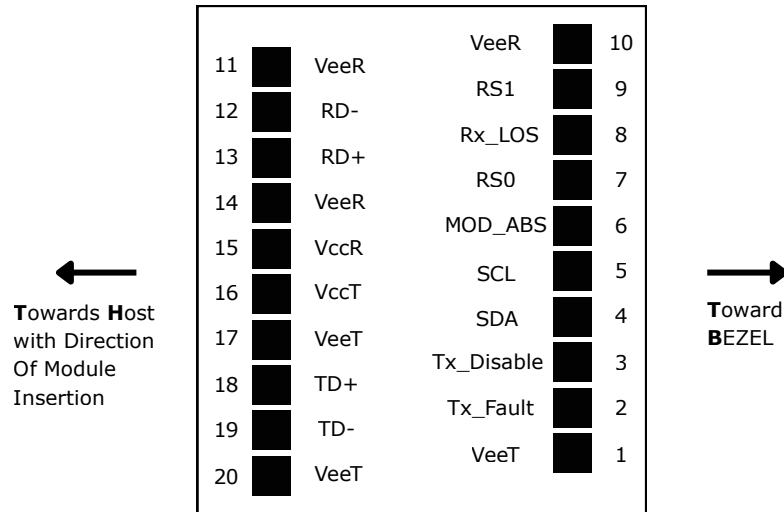
Transmitter & Receiver optical Specifications

| Parameter | Min | Max | Unit |
|----------------|-----|-----|------|
| Tx Power | 0 | 6 | dBm |
| Rx Sensitivity | -18 | -6 | dBm |

Electrical & Environmental Specifications

| Parameter | Value | Unit |
|----------------------|------------|------|
| Power supply voltage | 3.3 | V |
| Power supply current | 450 | mA |
| MTBF | 3288824.57 | hrs |
| Relative humidity | 5~85 | % |

Transceiver electrical pad layout



Module electrical PIN definition

SFP28 - SFF 8472

| Pin | Symbol | Description | Note |
|-----|------------|--|------|
| 1 | VeeT | Transmitter Ground (Common with Receiver Ground) | 1 |
| 2 | Tx_Fault | Transmitter Fault. | 2 |
| 3 | Tx_Disable | Transmitter Disable. Laser output disabled on high or open. | 3 |
| 4 | SDA | 2-wire Serial Interface Data Line | 3 |
| 5 | SCL | 2-wire Serial Interface Clock Line | 3 |
| 6 | MOD_ABS | Module Absent. Grounded within the module | 4 |
| 7 | RS0 | Rate Select 0 | 5 |
| 8 | Rx_LOS | Loss of Signal indication. Logic 0 indicates normal operation. | 6 |
| 9 | RS1 | No connection required | 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. Tx_Fault is an open collector/drain output, which should be pulled up with a 4.7k Ω – 10k Ω resistor on the host board if intended for use. Pull up voltage should be between 2.0V to Vcc + 0.3V. A high output indicates a transmitter fault caused by either the TX bias current or the TX output power exceeding the preset alarm threshold. A low output indicates normal operation. In the low state, the output is pulled to <0.8V.
3. Laser output disabled on Tx_Disable >2.0V or open, enabled on Tx_Disable <0.8V.
4. Should be pulled up with 4.7k Ω - 10k Ω host board to a voltage between 2.0V and 3.6V. MOD_ABS pulls line low to indicate module is plugged in.
5. Internally pulled down per SFF-8431 Rev 4.1.
6. LOS is open collector output. It should be pulled up with 4.7k Ω – 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.