100Gb/s QSFP28 EDR CWDM4 1310nm 2km SMF Optical Transceiver

Features

- Compliant with QSFP28 Standard: SFF-8665 Revision 1.9, SFF-8636 Revision 2.6
- Compliant with CWDM4 MSA Revision 1.1
- High speed I/O electrical interface (CAUI-4)
- Single 3.3V supply voltage
- Maximum power consumption 3.5W
- 0°-70°C case operating temperature
- CWDM EML laser and PIN receiver array
- QSFP28 MSA package with duplex LC connector
- Two Wire Serial Interface with Digital Diagnostic Monitoring
- RoHS compliant
- Class 1 Laser

Applications

- 100G Ethernet
- Qualified for InfiniBand EDR end-to-end systems

Description

QSFP-100G-CWDM4H transceiver is a single mode, 4-channel (CWDM4), QSFP28 optical transceiver designed for use in 100 Gigabit Ethernet (GbE) links on up to 2km of single mode fiber. It is also qualified for use in InfiniBand EDR end-to-end systems.

The module converts 4 input channels of 25Gb/s electrical data to 4 channels of CWDM optical signals and then multiplexes them into a single fiber, using a nominal wavelength of 1310nm, for 100Gb/s optical transmission. Reversely on the receiver side, the module de-multiplexes a 100Gb/s optical input into 4 channels of CWDM optical signals and then converts them to 4 output channels of electrical data.

It is compliant with the QSFP28 MSA, IEEE 802.3bm CAUI-4. Digital diagnostic functions are available via the I2C interface, as specified by the QSFP28 MSA.

Rigorous production testing ensures the best out-of-the-box installation experience, performance and durability.

Absolute Maximum Ratings

Table1-Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Units
Storage Temperature	TS	-40	85	°C
Operating Case Temperature	TOP	0	70	°C
Supply Voltage	Vcc	-0.5	3.6	V
Relative Humidity (non-condensing)	RH	5	95	%
Control Input Voltage	VI	-0.3	Vcc+0.5	V
Control Output Voltage	IO	-20	20	mA

Recommended Operating Conditions and Power Supply Requirements

Table2-Recommended Operating Conditions and Power Supply Requirements

Parameter	Symbol	Min.	Typical	Max.	Units
Voltage	Vcc	3.135	3.3	3.465	V
Data Rate, each lane		-100ppm	25.78	+100ppm	Gb/s
Control Input Voltage High	VIH	Vcc*0.7		Vcc +0.3	V
Control Input Voltage Low	VIL	-0.3		Vcc*0.3	V
Power Supply Noise Tolerance (10Hz-10MHz)				66	mVpp
Rx Differential Data Output Load			100		Ω
Link Distance with G.652 rated fiber	Lmax	2	--	2000	m

Mechanical Schematics

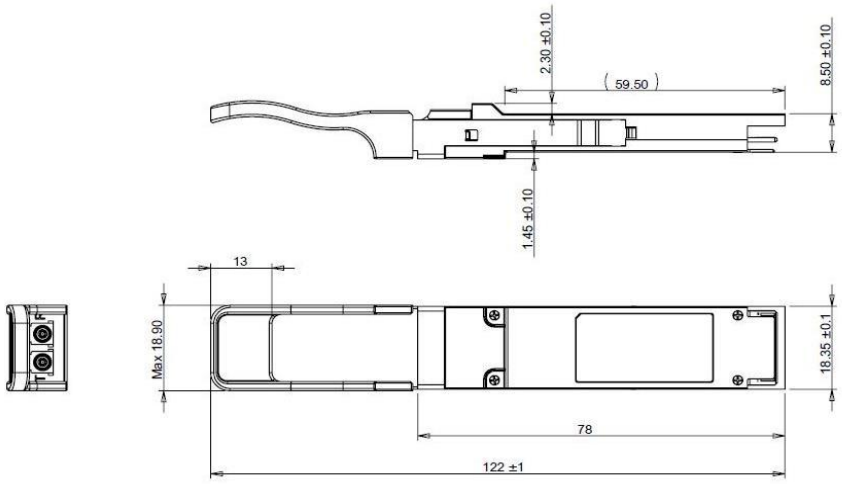

Figure 1 Mechanical Schematics

Warnings

Handling Precautions: This device is susceptible to damage as a result of electrostatic discharge (ESD).

A static free environment is highly recommended. Follow guidelines according to proper ESD procedures.

Laser Safety

Radiation emitted by laser devices can be dangerous to human eyes. Avoid eye exposure to direct or indirect radiation.

Further Information:

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Disclaimer

1. We are committed to continuous product improvement and feature upgrades, and the contents contained in this manual are subject to change without notice.

2. Nothing herein should be construed as constituting an additional warranty.

3. NADDOD assumes no responsibility for the use or reliability of equipment or software not provided by NADDOD.