

Features

- Compliant to 100GbE electrical specification 802.3bm (Annex 83E CAUI-4) with No Host FEC
- 100G Link Distances up to 70m OM3, 100m OM4, 150m OM5.
- QSFP28 MSA Specification Compliant, including new functions per SFF-8636
- Class 1 Eye Safety
- Pull Tab: Ease of Transceiver Insertion and Extraction
- +10°C to +70°C case temperature operating range
- Dual Wavelength VCSEL Bi-Directional Optical Interface, PAM4 2x50Gbps 850nm/900nm
- Proven High Reliability 850 nm and 900nm technology: VCSEL transmitter and PIN detector
- Hot Pluggable QSFP28 Transceiver for Ease of Installation and Servicing
- Two Wire Serial (TWS) interface with Digital Monitoring and Maskable Interrupts for Expanded Functionality

Applications

- 100 Gigabit Ethernet interconnects
- Datacom/Telecom switch & router connections
- Data aggregation and backplane applications
- Proprietary protocol and density applications

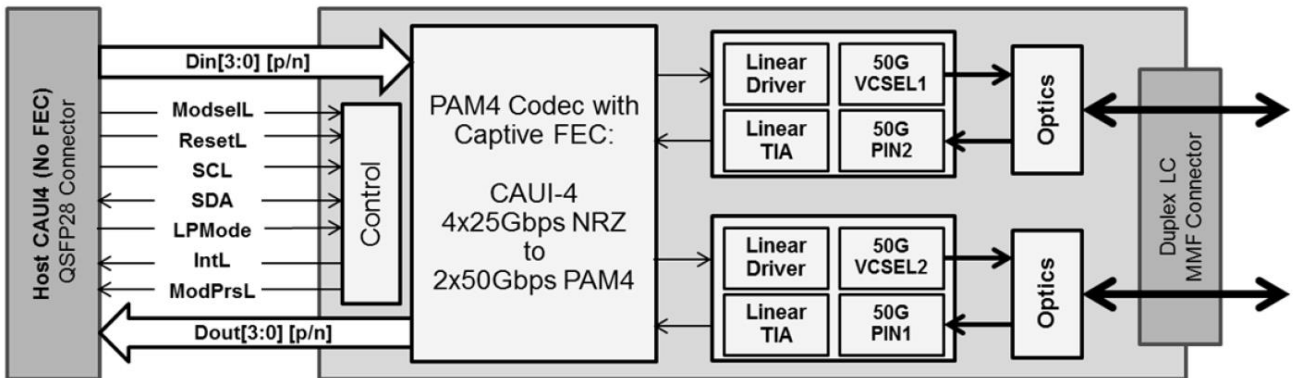
The OPCW-WX1-85-C is a Four-Channel, Pluggable, Multi-mode, Fiber-Optic QSFP28 transceiver for 100 Gigabit Ethernet Applications. This transceiver is a high performance module for short-range data communication and interconnect applications. It integrates four host electrical data lanes in each direction at 25Gbps into two optical lanes at 50Gbps giving an aggregated bandwidth of 100Gbps. It allows optical communication up to 100m over a 2-fiber duplex LC optical multi-mode OM4 cable. The pull tab facilitates the insertion and extraction of these transceivers in high density environment. Each electrical lane operates at 25.78125 Gbps and conforms to the 100GE CAUI4 interface with host FEC turned off.

These modules are designed to operate over multimode fiber systems using nominal wavelengths of 850nm and 900nm. The electrical interface uses a 38 contact QSFP28 edge type connector. The optical interface uses a conventional 2-fiber duplex LC MMF connector.

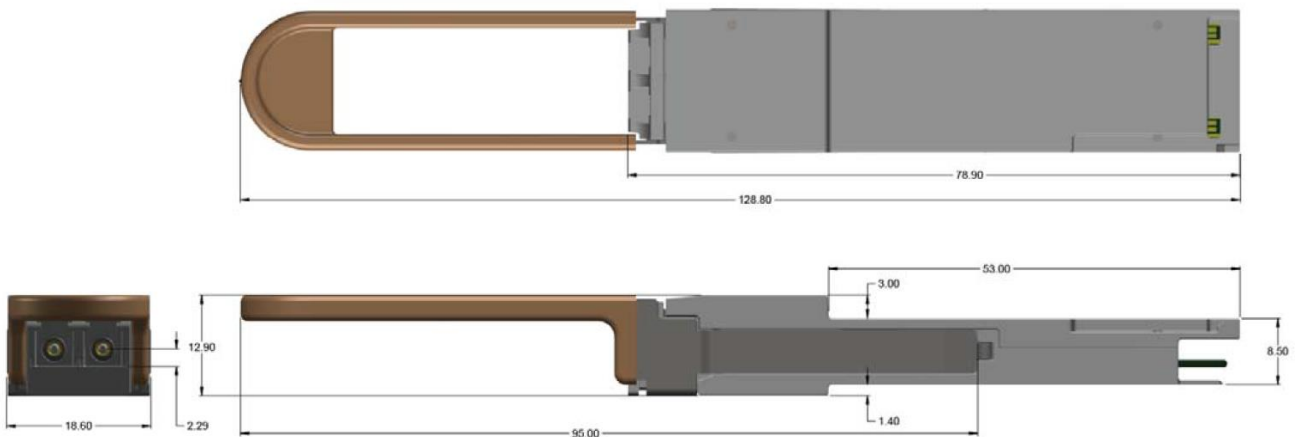
Key Product Parameters

Parameter	Value	Unit	Note
Signal Rate per lane	25.78125	Gbps	802.3bm(Annex 83E CAUI-4) compliant with no Host FEC
Power Supply Voltage	3.3	V	Typical
Power Consumptions	3.5	W	Maximum
Link Length	70	m	50um OM3 MM fiber
	100	m	50um OM4 MM fiber
	150	m	50um OM5 MM fiber
Operating Temperature Range	10-70	°C	
Management and Diagnostic Interface	Two-Wire Serial		Per SFF-8419 Specifications
Transceiver Eye Safety	Class 1		
Electrical Connector	38 contact connector		Per SFF-8636 Specifications

Block Diagram of Transceiver




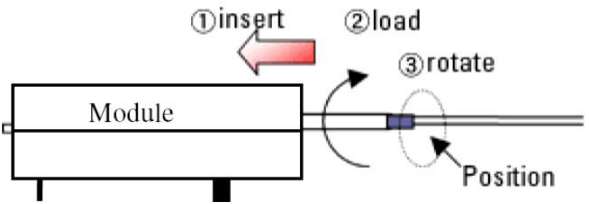
Dimensions



All dimensions in mm

Optical Receptacle Cleaning Recommendations :

All fiber stubs inside the receptacle portions were cleaned before shipment. In the event of contamination of the optical ports, the recommended cleaning process is the use of forced nitrogen. If contamination is thought to have remained, the optical ports can be cleaned using a NTT international Cletop® stick type and HFE7100 cleaning fluid. Before the mating of patch-cord, the fiber end should be cleaned up by using Cletop® cleaning cassette.

<p>Cleaning of patch-cord</p> 	<p>Cleaning of fiber stub</p>  <ol style="list-style-type: none"> 1. Insert Ensure that stick is held straight when inserting into sleeve. 2. Load Apply sufficient pressure (approx 600-700g) to ensure ferrule a little depressed in sleeve. 3. Rotate Rotate stick clockwise 4-5 times, while ensuring direct contact with ferrule end-face is maintained. <p><i>Notice: Number of possible wipes: Maintenance (repair) ~1 use / piece Equipment construction: 4 uses / piece (max.)</i></p>
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Note: The pictures were extracted from NTT-ME website. And the Cletop® is a trademark registered by NTT-ME

Ordering Information

OP C W - W X1 - 85 - C

Product Code:

5=GBIC;
6=SFP-LC;
7=XFP;
8=XENPAK;
9=X2;
A=SFP+ (SFP28);
C=QSFP+ (QSFP28);
F=CFP;
G=CFP2;
H=CFP4;
P=SFP-SC;
Q=SFP-MTRJ

Data Rate:

A=155Mb/s;
B=622Mb/s;
C=1.25Gb/s;
D=2.125Gb/s;
E=2.5Gb/s;
F=4.25Gb/s;
G=3.1Gb/s;
J=2.97G;
P=6.144G;
Q=7.37G;
H=8.5Gb/s;
K=10Gb/s;
T=1/10Gb/s
L=16Gb/s;
R=20Gb/s;
X=25Gb/s;
S=40Gb/s;
W=100Gb/s (4x25G or 10x10G);
M=100Base-X
N=100/1000Base-X SGMII;

Type:

S=Single-mode;
M=Multi-mode;
W=BWDM;
B=DUAL-BWDM;
C=CWDM;
D=DWDM;
T=Copper-T (RJ-45)
E=GEPON ONU;
F=GEPON OLT;
G=GPON ONU;
H=GPON OLT
X=MMF/SMF

Reach:

Normal:
X1=Under 150m;
X2=220m;
X3=300m;
X5=550m;
O2=2km,
O10=10km;
O70=70km;
O100=100km;
O120=120km
CWDM:
20=20dB;
24=24dB;
28=28dB

Wavelength:

Normal:
85=850nm;
13=1310nm;
15=1550nm;
00=Copper T (RJ-45)
CWDM:
27=1270nm;
47=1470nm;
61=1610nm
BWDM:
B3=Tx1310/Rx1550; B5=Tx1550/Rx1310;
B4=Tx1310/Rx1490; B9=Tx1490/Rx1310;
51=Tx1510/Rx1570; 57=Tx1570/Rx1510;
27=Tx1270/Rx1330; 33=Tx1330/Rx1270;
B2=Tx1270/Rx1577; B7=Tx1577/Rx1270
T2=2TX1310nm; T3=TX1310nm;
T5=TX1550nm
DWDM:
17=Channel 17
34= Channel 34
00=Channel 17-61 Tunable

Operating Temperature:

C=Commercial Purpose
(0-70°C);
I= Industrial Purpose
(Extended Range)

Model Number	Part Number	Voltage	Temperature
QSFP-100G-BWDM	OPCW-WX1-85-C	3.3V	0°C to 70 °C

Note: All information contained in this document is subject to change without notice.