

AFCT-89LMDZ

QSFP28, 100GBASE-LR4/OTU4, 10km SMF, Low Voltage (3.3V), Pluggable, Duplex LC Connectors 100G Ethernet Fiber Optics Transceiver



Product Brief

Jul 2018

Description

Foxconn Optical Interconnect Technologies' AFCT-89LMDZ QSFP28 LR4 is a 4x25.78125GE and 4x27.95249G OTN channel pluggable, fiber optic transceiver for 100Gbps Ethernet and OTN OTU4 Applications. The transceiver supports high speed serial links over single mode fiber at a signaling rate of 103.125Gb/s(a serial line rate of 25.78125Gb/s per channel) and 111.80996Gb/s(a serial line rate of 27.95249Gb/s per channel)for link distances up to 10km single mode fiber. The product is compliant with the QSFP28 industry agreement for mechanical and low speed electrical specifications. High speed electrical and optical specifications are compliant with IEEE 802.3 Clause 88 for 100GBase-LR4 media, Clause 83E for CAUI-4 electrical interface and Clause 45 for I2C and OTU4 4I1-9D1F requirements specified in ITU-T Recommendations G.959.1/G.709 and Supplement 39 (G.sup39)

The transceiver electrical interface uses a 38 contact edge type connector, as specified in the QSFP28 industry agreement. The optical interface uses a standard single mode LC fiber optic connector. This transceiver incorporates Foxconn Optical Interconnect Technologies proven integrated circuit and laser technologies to provide reliable, high performance and consistent service.

Digital diagnostic monitoring information (DMI) is present in the AFCT-89LMDZ per the QSFP28 industry agreement, providing real time monitoring information of transmitter, receiver and module operating conditions over the I2C interface.

Part Number Ordering Options

100 Gigabit Ethernet	AFCT-89LMDZ
Evaluation Kit*	AFBR-89EVK

*Includes GUI, User Guide, I2C controller and Power Supply Cable

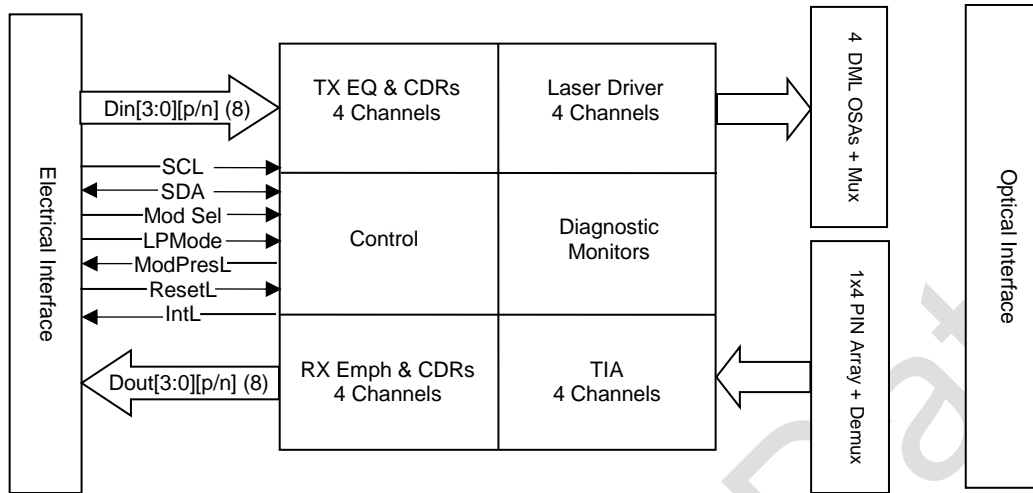
Features

- Compliant to 100GbE IEEE 802.3 specifications (100GBASE-LR4, CAUI-4) and ITU-T G.959.1 up to 10km with SMF
- QSFP28 Power Dissipation Class 5 (< 4.0 W)
- QSFP28 SFF-8636 Rev2.9 Specification
- DML Laser Technology
- Class 1 eye safe per IEC60825-1 and CDRH
- Wide case temperature range (0°C to 70°C)
- LC Duplex optical connector (UPC, not angled)
- Diagnostic features per QSFP28 using I2C. Real time monitoring of:
 - Transmitter average optical power
 - Received average optical power
 - Laser bias current
 - Temperature
 - Supply Voltage
- QSFP28 Hardware Specification
- Proven High Reliability
- Compliant to RoHS directives

Applications

- 100 Gigabit Ethernet/OTN OTU4 Interconnects
- Datacom/Telecom Switch and Router Connections
- Data aggregation and backplane applications
- Data Aggregation and Density Applications

Transceiver Block Diagram



Transceiver Block Diagram

Key Product Parameters

Parameter	Value	Units	Notes
Data rate per lane	25.78125/27.95249	Gbps	Per IEEE 802.3bm 100GBASE-LR4 Standard and ITU-T G.959.1
Link Length	10	Km	Single Mode Fiber
Case Operating Temperature	0-70	°C	
Power Supply Voltage	3.3	V	
Management Interface	Two-Wire Serial		Per SFF-8636 QSFP28 Specification
Transceiver Eye Safety	Class 1		Per EN 60825-1:2014
Transceiver Power Consumption, Max	4.0	W	Power Level Class 5
Electrical Connector	38 contact connector		Per SFF-8636 QSFP28 Specification

For product information and a complete list of distributors, please go to our website:

<https://www.foit-foxconn.com/>

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