

## AFCT-89WADDZ

4x25.78125G CWDM4, Low Voltage (3.3V)  
QSFP28 Pluggable, Extended Temperature  
(-20-85°C), Duplex LC Connector, 100 Gigabit  
Ethernet Fiber Optics Transceiver



## Product Brief

Jul 2018



### Description

Foxconn Optical Interconnect Technologies' AFCT-89WADDZ is a Four-Channel duplex, Pluggable, single mode Fiber-Optic QSFP28 Transceiver for 100 Gigabit Ethernet Applications. This transceiver is a high performance module for short-range, single mode fiber interconnect applications. It integrates four electrical data lanes in each direction into transmission over a duplex LC single mode fiber optic cable. Each electrical lane operates at 25.78125 GBd and conforms to the 100GE CAUI-4 electrical interface.

Per channel transmitter and receiver retimers, configured for 4x25.78125G operation, can be bypassed to enable reduced power or alternative data rate transmission.

Link distances up to 2km using SMF optical fiber are supported. These modules are designed to operate over single mode fiber systems using four coarse WDM wavelengths nominally at 1271nm, 1291nm, 1311nm and 1331nm. The electrical interface uses a 38 contact QSFP28 edge type connector. The optical interface uses a conventional LC duplex optical connector. This module incorporates Foxconn Optical Interconnect Technologies proven integrated circuit and DFB technology to provide reliable long life, high performance, and consistent service.

### Features

- Compliant to 100GbE IEEE 802.3bm electrical specifications Clause 83E (CAUI-4)
- Compliant to Industry Multi-Source Agreement "100G CWDM4 MSA Technical Specifications" for 2km Optical Specifications
- SFF-8636 Rev2.9 Specification
- Power Level 5: Max Power 4.0 W
- Class 1 Eye Safety
- Operates at 25.78125 GBd per lane
- SMF Links up to 2km
- -20 to +85°C case temperature operating range
- Proven High Reliability technology
- Hot pluggable QSFP transceiver for ease of installation and servicing

### Applications

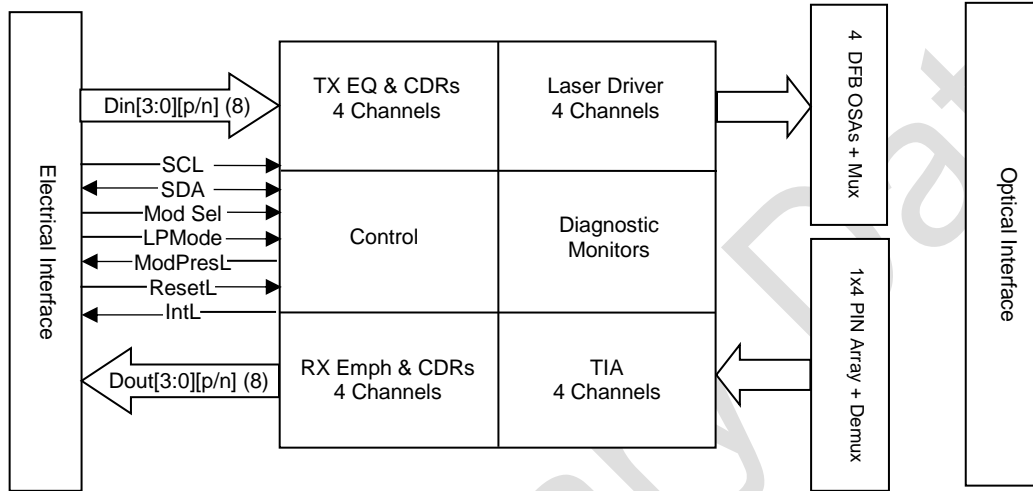
- 100 Gigabit Ethernet interconnects
- Datacom/Telecom switch & router connections
- Data aggregation and backplane applications
- Proprietary protocol and density applications

## Part Number Ordering Options

100 Gigabit Ethernet with full real-time digital diagnostic monitoring	AFCT-89WADDZ
Evaluation Board	AFBR-89EVB*
Evaluation Kit	AFBR-89EVK**

\*Includes GUI and User Guide

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



**Transceiver Block Diagram**

## Key Product Parameters

Parameter	Value	Units	Notes
Data rate per lane	25.78125	Gbps	Per IEEE 802.3bm 100GBASE-SR4 Standard
Link Length	2	Km	Single Mode Fiber
Case Operating Temperature	-20-85	°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 web site:  
<http://www.foit-foxconn.com/>

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