AFBR-86EDxxZ
CXP2 Active Optical Cable
12 Channel 850nm 25.78125Gb/s
Pluggable, Multi-Mode Fiber

Product Brief

Description

The Avago Technologies AFBR-86EDxxZ is a Twelve-Channel, Pluggable, Parallel, Fiber-Optic CXP2 Active Optical Cable (AOC) for high density interconnect applications. This CXP2 AOC is a high performance cable usable for short-range, multi-lane data communication and interconnect applications.

Each lane can operate at 25.78125Gbps at distances up to 100 m using OM4 fiber with industry standard RS(528,514) FEC. These AOCs use multimode fiber and lasers at a nominal wavelength of 850nm. The electrical interface uses an 84-contact edge type connector. This AOC incorporates Avago Technologies proven integrated circuit and VCSEL technology to provide reliable long life, high performance, and consistent service.

The AFBR-86EDxxZ has CDR capability to assist with channel signal integrity.
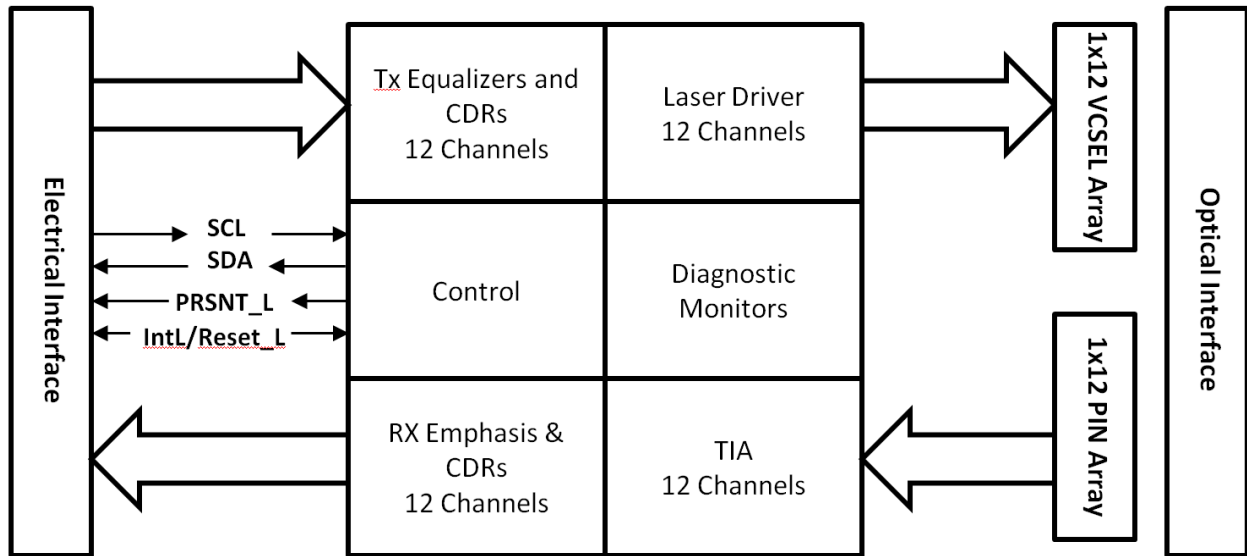
Applications

- 309.375 Gbps aggregate interconnects
- Datacom/Telecom switch & router connections
- Data Aggregation, Backplane and Proprietary Protocol and Density Applications

Part Number Ordering Options

12x 25.78125Gbps CXP2 Active Optical Cable	AFBR-86EDxxZ Where xx = Reach in meters: 01m, 03m, 05m, 07m, 10m, 15m, 20m, 30m, 60m, 90m, 00(100)m, other lengths less than 100m may be discussed.

Features

- High Channel Capacity: bi-directional operation utilizing the CXP 12-lane definition
- Optical links up to 25.78125Gbps per channel at better than 1E-8 BER
- Links up to 100 m using OM4 fiber using FEC
- 0 to 70ºC case temperature operating range
- Proven High Reliability 850 nm technology: Avago VCSEL array transmitter and Avago PIN array receiver
- 12 Independent Transmitters and Receivers
- Two Wire Serial (i2c) interface with status and controls per CXP MSA
- Individual channel functions: CDR control, Tx disable, Tx CTLE, Rx De-emphasis, Rx amplitude and lane polarity inversion
- Digital Diagnostics: temperature and supply voltages

CXP2 Transceiver Block Diagram

Key Product Parameters

Parameter	Value	Units	Notes
Data rate per lane	25.78125	Gbps	+/- 100 PPM
Electrical Interface	CEI-28G-VSR		
Electrical Connector	CXP2		
Link Length	100	m	OM4
Transmitter Wavelength	850	nm	
Transceiver Eye Safety	Class 1		IEC 60825-1 Amendment 2 CFR 21 Section 1040
Power Supply Voltage	3.3	V	
Number of Operational Lanes	12	channel	
Transceiver Case Temperature	0 - 70	°C	
Management Interface	Two-Wire Serial		