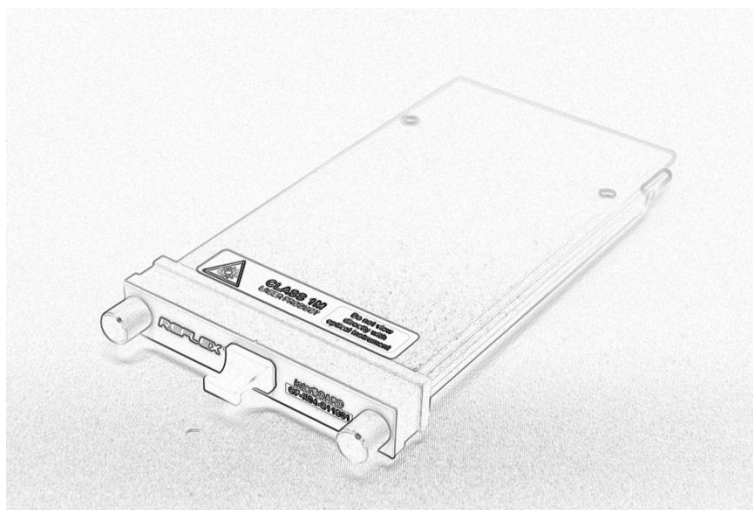


REFLEXPHOTONICS

The Light on Board™ Company

BRIEF

Single 40 Gbps Ethernet, 40GBASE-SR4, CFP Fiber Optic Transceiver



“CONFIDENTIAL AND PROPRIETARY – COPYRIGHT © 2011 REFLEX PHOTONICS INC – ALL RIGHTS RESERVED”

“This document is the property of Reflex Photonics Inc. (“Reflex”) and contents Reflex’s confidential and proprietary information. The holder of this document shall neither use, copy, reproduce, disclose or otherwise deal with the information contained herein except in accordance with the provisions of a non-disclosure agreement executed between Reflex and the holder or in accordance with Reflex’s written instructions.”

The Reflex Single port 40G Ethernet CFP transceiver makes it easy to interface to QSFP-enabled hardware in the datacenter.



CF-X04-C11801-01

Product Summary

The Reflex Single port 40G CFP transceiver provides significant system cost and power savings while maintaining form factor compatibility with longer reach optics. The Reflex CFP transceiver has one MPO port which connects to industry standard 12-fiber multi-mode fiber cable. The MPO port can be connected to equipment with 40GBASE-SR4 QSFP transceivers and has a reach of over 100 meters on OM-4 multi-mode fiber.

The CFP modules have been designed to meet the harshest external operating conditions including temperature, humidity and EMI interference using Reflex Photonics' next generation, LightABLE™ packaging technology.

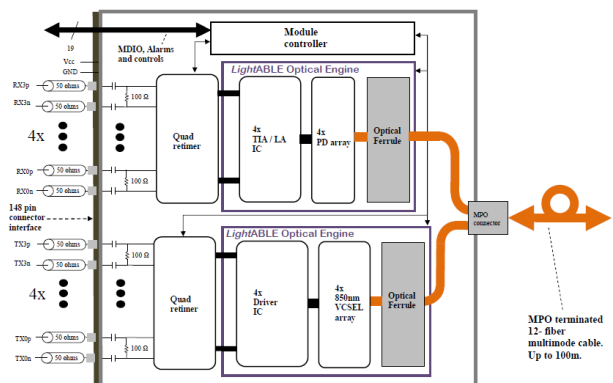
Applications:

- Data center aggregation and core router links
- Test equipment

Specification and Feature Highlights:

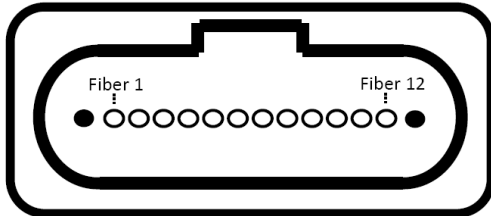
- Compliant to IEEE 802.3ba specification for 40GBASE-SR4 links
- CFP MSA compliant; can be plugged into same slot as 40GBASE-LR4, Dual 40GBASE-SR4, 100GBASE-SR10, or 100GBASE-LR4 CFP modules
- MDIO digital diagnostic and control; compliant to CFP MSA Management Interface Specification, Draft 1.4.
- 40G QSFP inter-operable
- Aggregate Bandwidth of >40 Gbps per port
- TX and RX CDR retiming
- Up to 11.2 Gbps per channel, supports OTU3
- Independent channel timing
- Individually addressable channel control; single channels can be enabled / disabled
- Next Generation, LightABLE™ VCSEL/PD array optical sub-assembly technology
- Single +3.3V power supply through 148 pin electrical connector
- Power class 1 (<5W typ, <6.2W max)
- CML compatible electrical I/O
- Capable of over 100m transmission on high bandwidth 50µm multi-mode ribbon cables

Functional Diagram:



Optical Interface lanes:

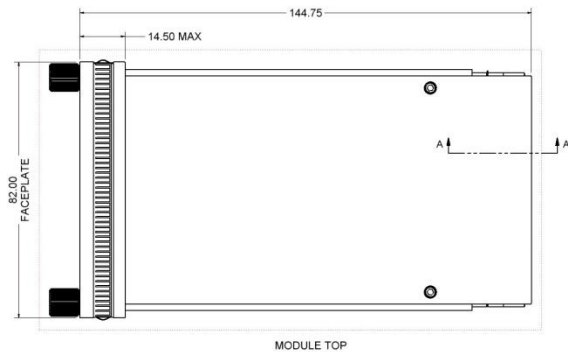
The figure and table below show the orientation of the multimode fiber facets of the optical connectors and the lane assignment respectively.



Front of the CFP module MPO receptacle

MPO Fiber #	Lane Assignment	MPO Fiber #	Lane Assignment
1	TX0	7	Unused
2	TX1	8	Unused
3	TX2	9	RX3
4	TX3	10	RX2
5	Unused	11	RX1
6	Unused	12	RX0

Mechanical Considerations:



Top view of module

The Reflex Single port 40GBASE-SR4 transceiver is compliant to the CFP MSA mechanical dimensions.

Ordering information:

Part Number	Description
CF-X04-C11801-01	40G Ethernet, CFP Fiber Optic Transceiver Module (40 Gbps, 10.3 Gbps per channel/RX and TX).
CF-X04-C11901-01	40G OTU-3, CFP Fiber Optic Transceiver Module (40 Gbps, 10.3 and 11.2 Gbps per channel/RX and TX).
CF-X08-C11801-01	Dual 40G Ethernet, CFP Fiber Optic Transceiver Module (40 Gbps, 10.3 Gbps per channel/RX and TX).
CF-X08-C11901-01	Dual 40G OTU-3, CFP Fiber Optic Transceiver Module (40 Gbps, 10.3 and 11.2 Gbps per channel/RX and TX).
CF-X12-C11801-02	100G Ethernet, CFP Fiber Optic Transceiver Module (100 Gbps, 10.3 Gbps per channel/RX and TX).
CF-X12-C11901-02	100G OTU-4, CFP Fiber Optic Transceiver Module (100 Gbps, 10.3 and 11.2 Gbps per channel/RX and TX).

For more information on this or other products:
 Contact sales at 1-408-501-8886
 or by email at sales@reflexphotonics.com

© Copyright 2011, Reflex Photonics Inc.

This document including pictures and drawings contains information about a new product during its early phase of development. The information contained herein is given to describe certain components and shall not be considered as a guarantee of characteristics. Reflex Photonics reserves the right to change the design or specifications of the product at any time without notice. The material is provided as is and without any warranties, including but not limited to warranties of non-infringement, description and fitness for a particular purpose.

Document revision history

Rev	Description	Released
1	First Draft	
2	New pictures, new numbering system (TO)	2011 OCT 25