



400G MSA Compliant CFP8/CFP8-ACO Test Development Kit

Summary

The **MultiLane CFP8 Development Kit** provides the necessary development tools and reference modules required for developing CFP8 based products. This kit is essential for development, testing and characterization of CFP8 based products. It can also be used for testing 400G CDRs, 400G Gearbox devices, 400G CFP8 ports on routers and line-cards, electro-optical modules and 16x25G active optical cables.

Complete CFP8 Development Kit

- **ML4057** 16x25G Passive Host Module-MCB
- **ML4058** 16x25G Breakout Module-HCB
- **ML4058-N** 16x25G Breakout Module-HCB
- **ML4059** 16x25G Passive Loopback Module
- **ML4059-EO** 16x25G Eye Opener Active Loopback Module

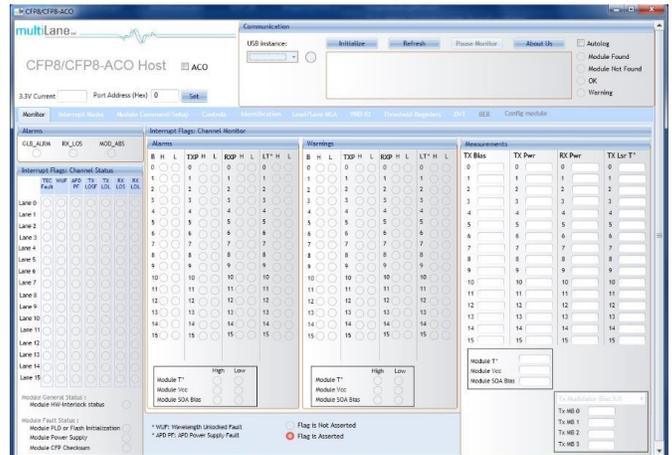
Features & Benefits

- Host board uses 2x8 40GHz Huber & Suhner MXP Connectors
- Supports CDAUI-16 and CDAUI-8
- Full MSA Compliant functionality
- Loopback Modules offer programmable power dissipation with spotted hot areas
- Temperature Monitor
- Modules are Configurable from MDIO
- Hosts are controlled via USB-2 interface
- Diagnostic interface to verify operation of MDIO Slave

- Windows based user friendly GUI

ML4057 CFP8 MCB

ML4057 is designed to provide an easy and effective solution for programming and characterization of CFP8 modules. The ML4057 comes complete with a user friendly GUI supporting all features defined by CFP8 MSA and simplifying configuration process. Current sense circuit is also included on the Host, for checking modules power class.



- Supports 16x25G, 8x50G PAM and CFP8-ACO
- MSA compliant master
- 2x8 40GHz Huber & Suhner _2x8A_81_MXP-S50-0-3-111_N Connectors
- Module Current Sense
- Low Insertion Loss using RO4350 PCB materials
- Matched length differential pairs 2115 mils
- High performance signal integrity traces from Connectors to interface

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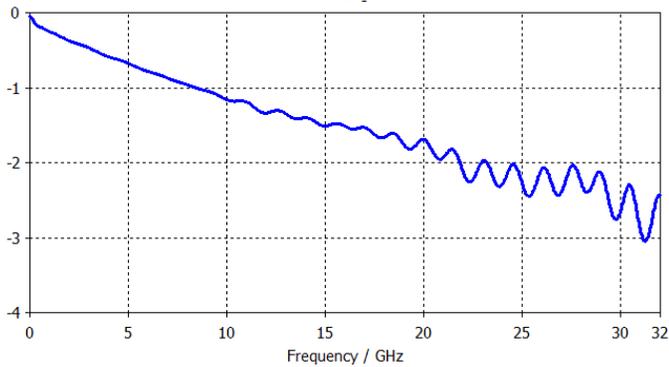
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- On-board LEDs showing MSA output Alarms states
- On-board buttons/jumpers for MSA input control signals
- User friendly GUI for MDIO control and loading custom MSA Memory Maps
- USB controlled

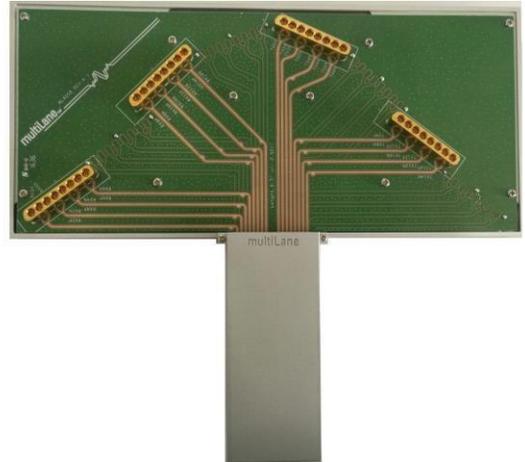
Application: Module Testing

MCB Insertion Loss graph:



ML4058 CFP8 HCB

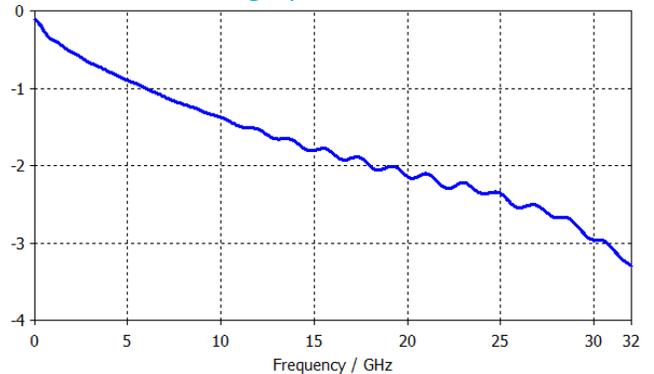
ML4058 breakout module can be used to test and characterize line cards with 16x25G CFP8 host interfaces.



- MSA compliant HCB
- Supports 16x25G, 8x50G PAM and CFP8-ACO
- Matched length pairs 6700 mils
- Low Insertion Loss using RO3003 PCB materials
- 1x8 40GHz Huber & Suhner 1x8A_81_MXPS50-0-1/111_NE Connectors Or Multi-SMPM-type A Connectors

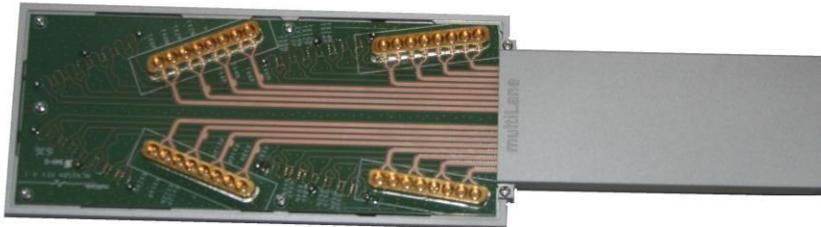
Application: Line Card and Port characterization

HCB Insertion Loss graph:



ML4058-N CFP8 HCB

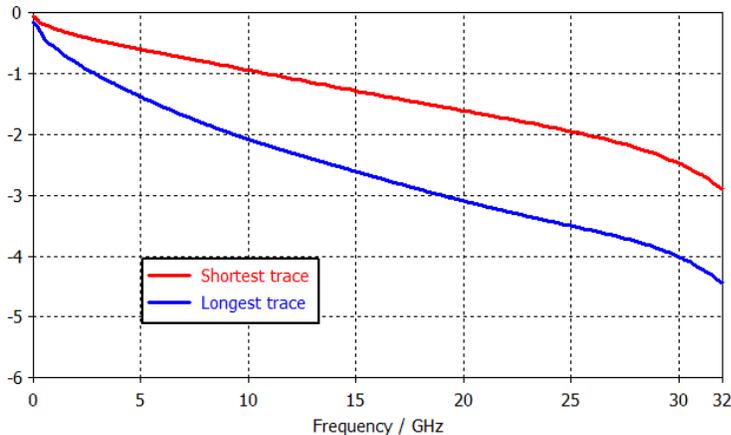
ML4058-N breakout module can be used to test and characterize line cards with 16x25G CFP8 host interfaces.



- MSA compliant HCB
- Supports 16x25G, 8x50G PAM and CFP8-ACO
- Shortest trace length 3700 mils
- Longest trace length 8400 mils
- Low Insertion Loss using RO3003 PCB materials
- 1x8 40GHz Huber & Suhner 1x8A_81_MXP-S50-0-1/111_NE Connectors Or Multi-SMPM-type A connectors

Application: Line Card and Port characterization

HCB Insertion Loss graph:



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ML4059 Passive CFP8 16x25G Loopback Module

ML4059 is used for Testing CFP8 ports working at 16x25Gbps, packaged in MSA compliant housing offering excellent heat dissipation. The module can be programmed to different power levels through MDIO interface, thus emulating all CFP8 power classes.



- Supports 16x25G, 8x50G PAM and CFP8-ACO
- Superior SI performance
- Supports 28G Analog Coherent
- Matched trace length on all 16 lanes 2237 mils
- MSA Compliant functionality
- Low Insertion Loss using RO4350 and MEG6PCB

ML4059-EO CFP8 Eye Opener Active Loopback

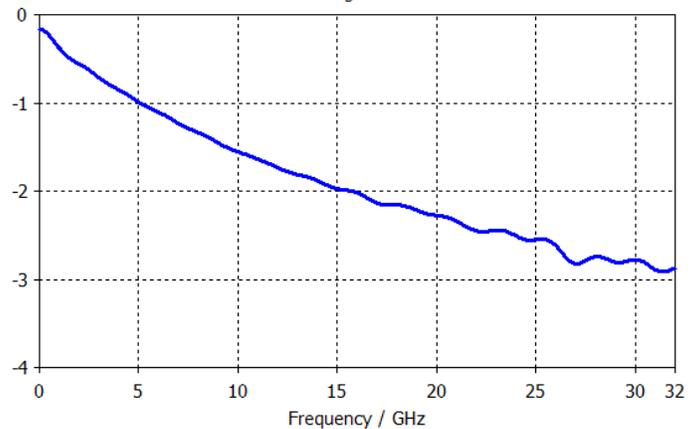
The ML4059-EO is an eye opener active loopback, packaged in a standard MSA housing compatible with all CFP8 ports. Transmit data from the host is passing through the eye opener and is electrically routed, (internal to the loopback module), to the receive data

materials

- MDIO slave interface compliant with IEEE 802.3 Clause 45
- Programmable MSA memory pages
- Programmable power dissipation up to 21W
- Temperature Monitor, Alarms and Warnings
- Cut-Off Temperature preventing module overheating
- 3 status LED Indicator
- Insertions counter
- Hot Pluggable module

Application: CFP8 Port Compliance Testing

Loopback Insertion Loss graph:



outputs and back to the host. It provides an economical way to exercise CFP8 ports during

R&D validation, production testing, and field testing.

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