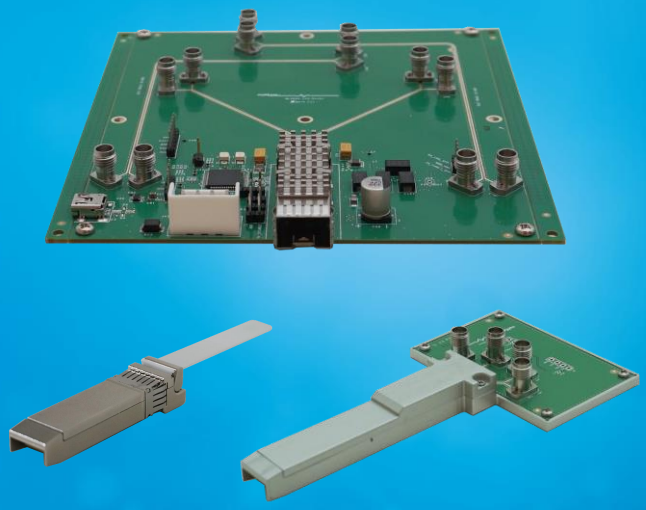
DEVELOPMENT KIT

multiLane

Innovation for the next generation



SFP112

Module Compliance Boards | Host Compliance Boards | Loopbacks 112G

ML4024-MCB-112
ML4023-HCB-112
ML4026-LB-112

Summary

As 400G claims more and more of the data center market share, the industry is already planning for still greater speeds in 800G. Increased speeds bring with them new form factors, of which SFP112 has emerged as a leading standard to drive the development of 800G interconnectivity. To guarantee that our customers can navigate this new frontier with ease, MultiLane provides an SFP112 development kit that includes a module compliance board, a host compliance board and a variety of loopback modules.

The SFP112 development kit is an essential tool to ensure the validity of your SFP112 products. The Module Compliance Board (MCB) is used to test transceivers, AOCs, and DACs, while the Host Compliance Board (HCB) enables the testing of system host ports. The Loopback modules (LB) provide an economical way to test thermal capacity and signal integrity of system host ports at every stage of the process: R&D validation, production testing, and field testing.

SFP112 MCB

ML4024-MCB-112

Key Features

- Supports 112G interface
- Compliant with IEEE P802.3ck-D3.0
- Compliant with OIF CE-56G-VSR-NRZ
- I2C master driven from both on board microcontroller or external pin headers
- Current sensor
- High performance signal integrity traces from 2.4- or 1.85-mm connectors to SFP112 host connector.
- On-board LEDs display MSA output alarm states
- Built with high performance PCB material
- User friendly GUI for I2C R/W commands and loading custom MSA memory maps
- On-board buttons/jumpers for MSA input control signal
- Four corner testing capability
- USB interface

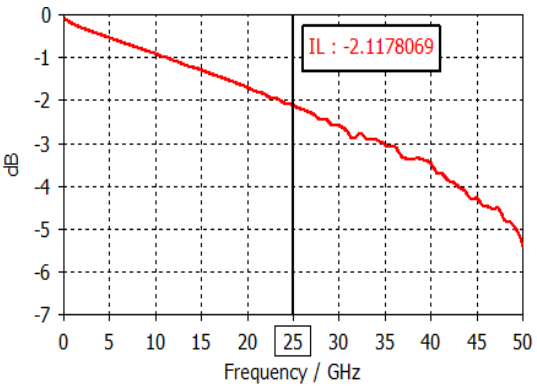


Figure 1: ML4024-MCB-112 Insertion Loss

Figure 2: ML4024-MCB-112

SFP112 HCB

ML4023-HCB-112

Key Features

- High performance signal integrity trace
- Compliant with IEEE P802.3ck-D3.0
- Compliant with OIF CE-56G-VSR-NRZ
- SFP MSA Form Factor
- Optimal Insertion Loss for all traces
- Supports 112G
- Built with high performance PCB Material
- High speed signals accessible through 2.4- or 1.85-mm connectors

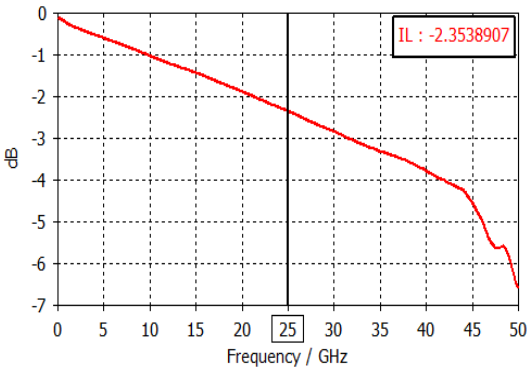


Figure 3: ML4023-HCB-112 Insertion Loss

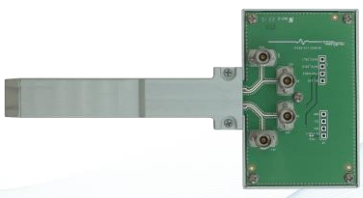
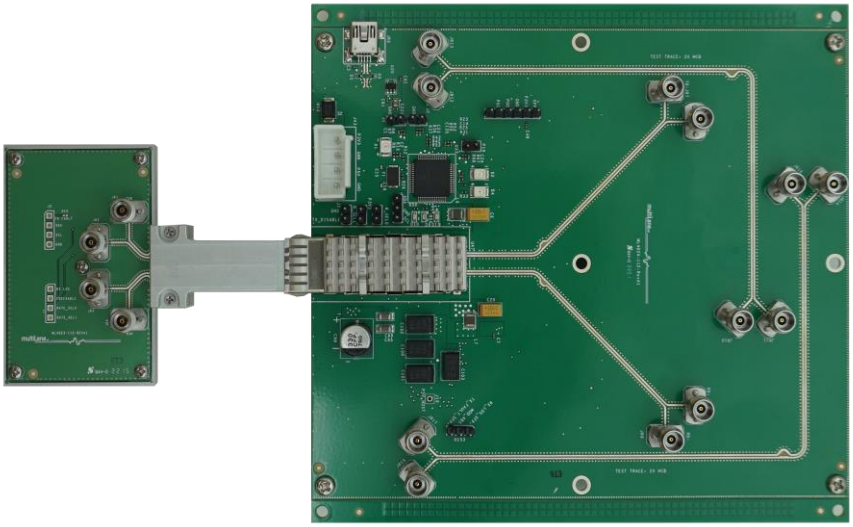


Figure 4: ML4023-HCB-112-MXPM70

Mated Test Fixture



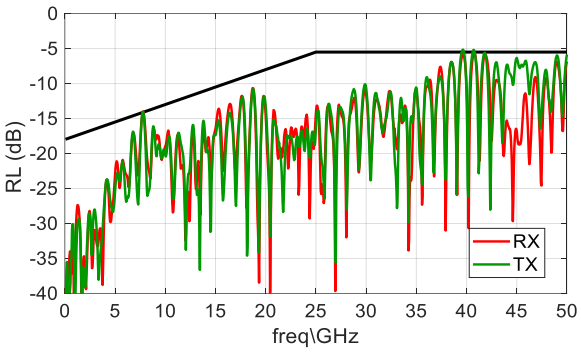


Figure 5: Return Loss – IEEE P802.3ck

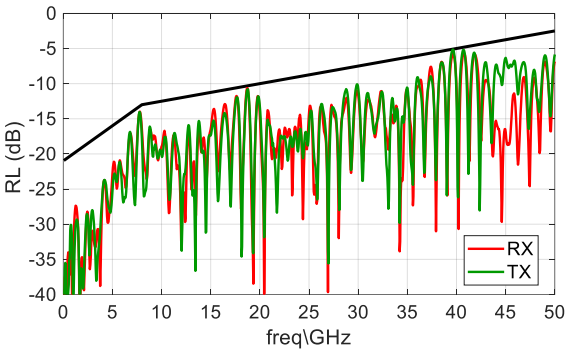


Figure 7: Return Loss – CE-56G-VSR NRZ

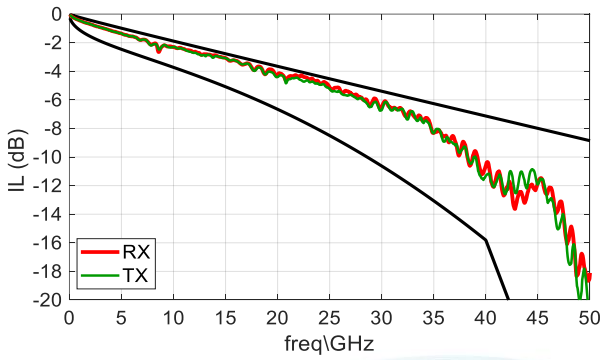


Figure 6: Insertion Loss – IEEE P802.3ck-D3.0

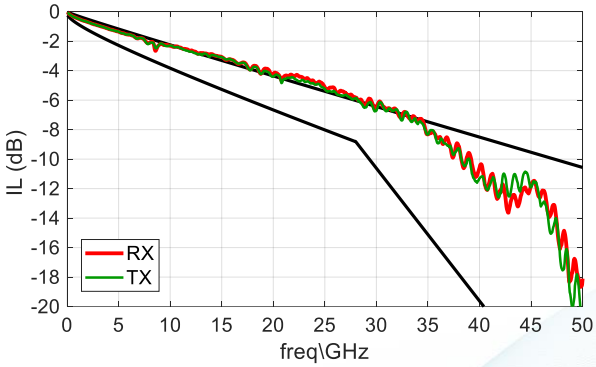


Figure 8: Insertion Loss – CE-56G-VSR NRZ

SFP112 Loopback

ML4026-LB-112

Key Features

- Power Consumption of 2 W, spread over 6 spots
- Operation up to 56G NRZ or 112G PAM4 per lane
- Dual LED indicator
- Custom Memory Maps
- 100% at rate AC testing
- Temperature range from -0° to 80° C
- MSA Compliant EEPROM
- Voltage sense
- Temperature sense
- Insertion Counter
- Automatic shut down and self-protection
- Micro controller based

Figure 9: ML4026-LB-112

Ordering Information

Option	Description
ML4024-MCB-112-24	SFP112 MCB 2.4 mm connector
ML4024-MCB-112-18	SFP112 MCB 1.85 mm connector
ML4023-HCB-112-24	SFP112 HCB 2.4 mm connector
ML4023-HCB-112-18	SFP112 HCB 1.85 mm connector
ML4026-LB-112	SFP112 Loopback

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