

Marketing Datasheet

ML4070-SFP

Transceiver Margin
Test Fixture

For SFP+/SFP28
Transceiver Testing
Module Characterization

**1-Lane 8.5-15 & 21-30 Gbps
SFP28 Transceiver Test Set**

VSR Trace Length Margining

Power Supply Margining

PS Noise Margining

Bit Rate Margining

Bathtub Curve Measurement

Eye Contour Measurement

Receiver Sensitivity

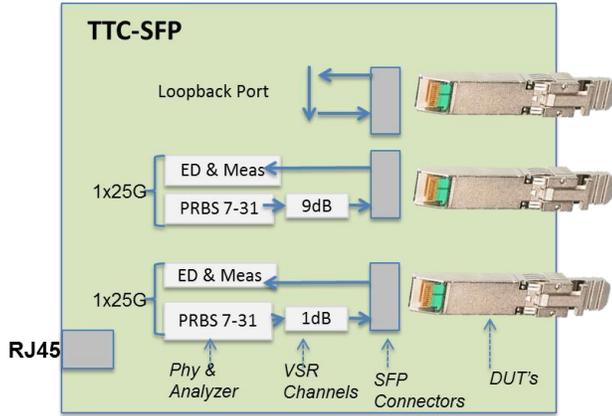


ML4070-SFP Marketing Datasheet

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ML4070-SFP

SFP28 Transceiver Test Set



Summary

The ML4070-SFP is a state-of-the-art transceiver test set specifically designed for quick production testing of Go/No Go applications. It features Pulse Pattern Generators and Error Detectors as well as SFP host control circuitry with power supply noise injection capability. The ML4070 contains 3 SFP ports for 0 dB and 9 dB trace loss and for loopback.

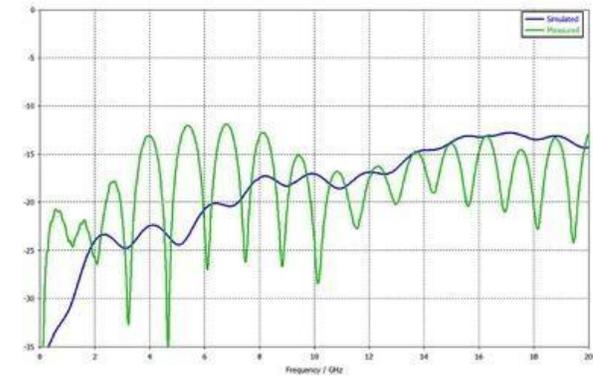
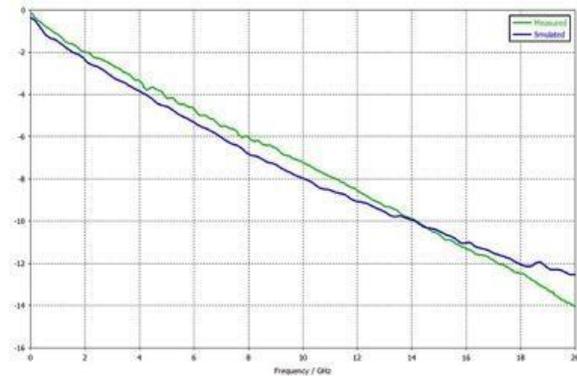
A full set of APIs and a production GUI enable quick one-button measurements and automatic report generation.

Key Features

- Operation 0 to 70°C
- DUT Voltage Margining 3.1 to 3.6V
- DUT Power Supply Noise Margin
- DUT Current Draw Measurement
- DUT State Machine Interface and MSA configuration
- BER graphs as a function of (PS voltage, PS noise, Bit Rate ± 100 ppm)
- MSA Compatible QSFP MCB ▪ Eye Contour measurements

- Pre-emphasis tolerance Testing
- GUI and API control

S21 & S11 Characteristics of the 9dB Port

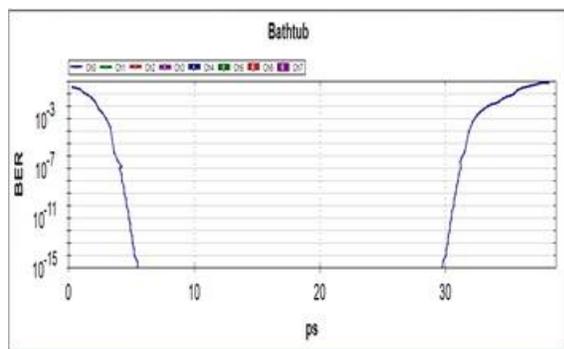
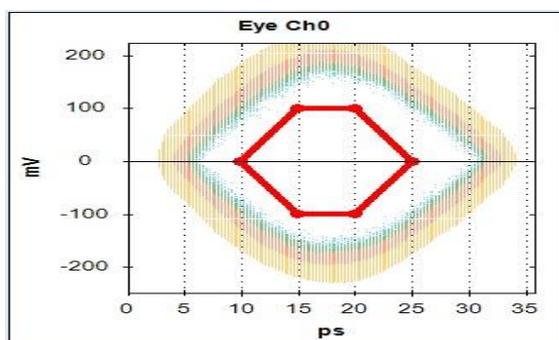
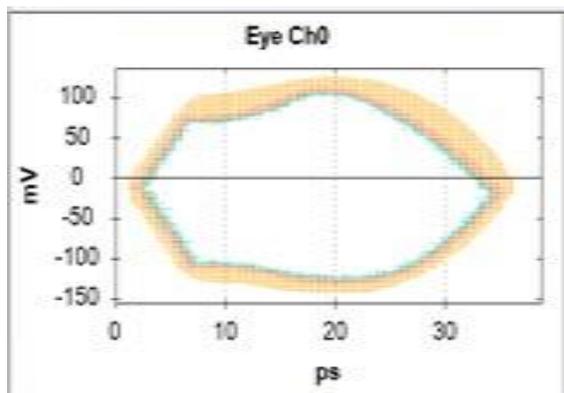
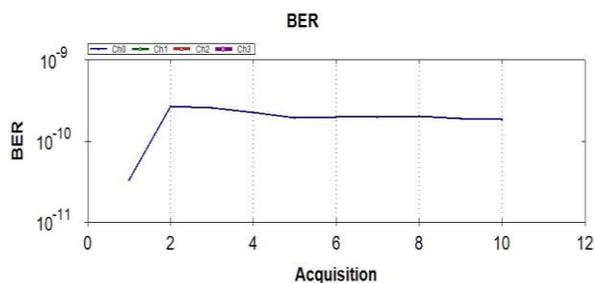


ML4070 BERT GUI

- BER test
- Support BER curve
- Provide multiple and single layouts of bathtub and eye contour

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Parameters	Specifications
Bit Rate	8.5-15 & 21-30Gbps
Pattern	PRBS 7, 9, 15, 23, 31, and User Defined Pattern 16 bits@10G & 40 bits@25G
TX Amplitude Differential	200-800mV
TX Amplitude Adjustment	200 mV/step
Pre-Emphasis	6dB
Pre-Emphasis Resolution	20 steps
Equalizing Filter Spacing	-
Total Jitter pk-pk @10G	10 ps (typical)
Total Jitter pk-pk @25G	12 ps (typical)
Rise/Fall Time (20-80%) @25G	17 ps
Sinusoidal Phase Modulation	-
Sinusoidal Jitter Frequency	-
Random Jitter in Phase Modulation	-
Output Return Loss up to 10GHz	< -15 dB
Output Return Loss (16-25GHz)	< -8dB
TX Skew Control Range	-
Lane to Lane Skew Resolution	-
Error Detector Input Amplitude	110-1050 mVpp @11G, 1200 mVpp @25G
Error Detector Maximum Input	1200mV Diff
Error Detector Input Sensitivity	30 mVpp @ 10.3125G / 50 mVpp @ 28G
Phase Scan Resolution	7 bits
Vertical Scan Resolution	8 bits
Input CTLE Dynamic Range	10dB
Reference Clock Output	Rate/32 for 8.5-15G and Rate/80 for 21-30G
Reference Clock Output Amplitude	550-850 mVpp
Reference Clock Input	Rate/32 for 8.5-15G and Rate/80 for 21-30G
Reference Clock Input Amplitude	300-1900 mVpp
Clock Data Recovery	Rate/N (user selectable from 8 and 16)
Power Requirement	12 V dc, 40 W max

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