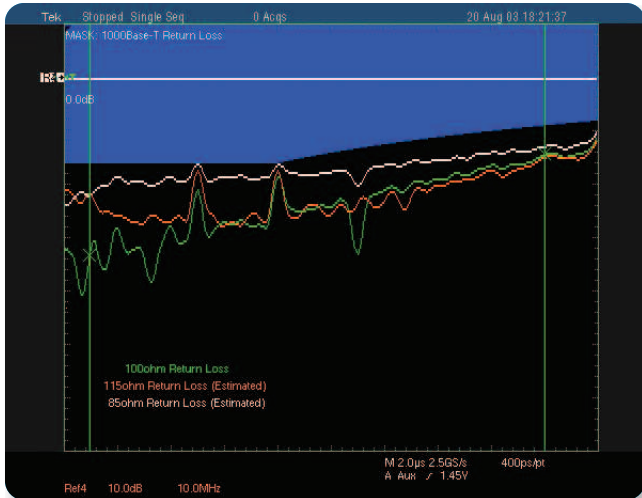


The Benchmark for Fast, Accurate Ethernet Compliance Measurements



Hardware and optimized software work together to speed Ethernet compliance tests

Ethernet performance has increased steadily to keep pace with industry needs. Designers have learned that narrowing tolerances and increasingly complex tests seem to come with each new advancement:

- Complex test procedures are sometimes described ambiguously in specifications
- Many test methods are slow, and sometimes too dependent on subjective interpretation
- Very tight tolerances demand both accuracy and repeatability
- A growing list of mandated tests has driven much longer test times
- Reporting requirements are exhaustive and time-consuming

Tektronix Ethernet compliance measurement tools provide an efficient physical layer solution for 10BaseT, 100BaseT, and 1000BaseT Ethernet implementations. High-performance hardware and integrated software tools ensure the accuracy and throughput you need to get the job done.

Tektronix Test Solutions for Ethernet Compliance

Tektronix oscilloscopes, probes, signal sources, and software run Ethernet template tests and measure complex parameters such as return loss automatically. Suggested configurations include:

For 10BaseT

- TDS5000B Series DPO or DPO7054/7104; up to 1 GHz bandwidth, 4 channels
- P6248 or P6330 differential probe
- AWG520 signal source, or higher
- TDSET3 Ethernet compliance software package

For 100BaseT (at least 500 MHz bandwidth recommended)

- TDS7000B Series DPO or DPO7104/7254; up to 7 GHz bandwidth, 4 channels
- P6248, P6330, P7330, or P7350 differential probe
- AWG520 signal source, or higher
- TDSET3 Ethernet compliance software package

For 1000BaseT (at least 1 GHz bandwidth recommended)

- TDS6000B, TDS7000B or DPO7104/7254 oscilloscopes; up to 8 GHz bandwidth, 4 channels
- P6248 differential probe, or others listed above, or P7380 for maximum bandwidth
- AWG520 signal source, or higher
- TDSET3 Ethernet compliance software package

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► Application Fact Sheet

A Toolset Optimized for Ethernet Compliance

Tektronix oscilloscopes provide the bandwidth and accuracy. Innovative Ethernet compliance application software puts that performance to work.

- Broad range of oscilloscope models provides cost-effective choices for each level of Ethernet performance
- TDSET3 transforms the host oscilloscope into a powerful application-specific Ethernet compliance platform
- Optimized by experts, application measurements dramatically reduce test time while improving repeatability

Stimulus and Probing Hardware

A complete solution includes probes, stimulus, and fixtures. Tektronix has the tools.

- Tektronix is an industry leader in high-speed differential probing solutions such as the P6248. Low loading and fast rise times keep your signals and eye diagrams clean
- Tektronix arbitrary waveform generator provides “disturbing” signals for Droop, Template, Peak Voltage tests and stimulus for return loss analysis
- Matching fixturing available from Crescent Heart Software (www.c-h-s.com) and Tektronix

The Industry-Accepted Ethernet Solution

Tektronix Ethernet compliance solutions have been validated by industry leaders.

- Report generator quickly collates volumes of results into clear, readable reports
- All measurement routines are documented for easy reference
- Tests include Template Amplitude symmetry, Rise/Fall symmetry, Rise/Fall time, Output voltage, Overshoot, Return loss, and more
- Can be remotely controlled via GPIB

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Our most up-to-date product information is available at: www.tektronix.com



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