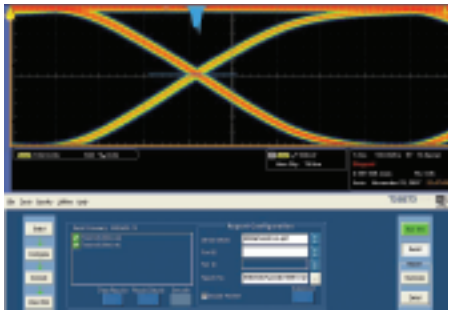
Tektronix Ethernet Testing Solution

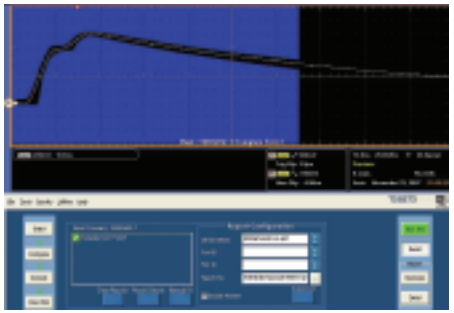
Complete Solution for 10BaseT, 100BaseT, 1000BaseT PHY Layer Testing



Debug & Design Verification

Finding and fixing of Ethernet jitter sources

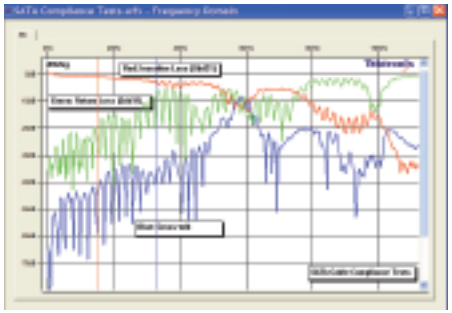
- Comprehensive analysis for determining the health of the Ethernet transmitter (PHY)
- Pinpoint timing issues with Ethernet clocking system owing to noise
- Correlate jitter results with signal change to find harmonic relationships; as phase noise; and as an eye diagram for signal integrity and compliance testing



Ethernet PHY Compliance Testing

Full support of 10, 100, 1000 BASE-T PHY

- Ethernet specific Jitter and Eye Diagram measurements and limits testing
- Perform all 12 required PHY tests automatically in a repeatable environment
- Perform Pass/Fail measurement and real-time Mask Testing ensuring timing/amplitude signal integrity
- Integrate the control/transmission of mandatory “disturbing signals” test for remote transmitter testing



Ethernet Cable Testing

Ensuring robust cable & connector performance for 1000 BASE-T

- Time Domain Reflectometry to determine sources of impedance/reflection on Ethernet Cables and Connectors
- Signal integrity issues that are identified with Cable Testing include bit errors, BER, degradation, jitter, ground bounce, EM Interference and Susceptibility
- S Parameters measurements to account for any reflections that result from higher frequency effects on connector or cable designs

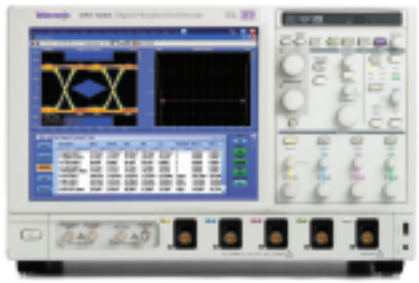
Tektronix’ comprehensive, integrated tool set for Ethernet technologies - analog verification, automated compliance software, and device characterization solutions - enables you to resolve design challenges quickly and efficiently. Tektronix provides full PHY layer support for Ethernet variants 10BASE-T, 100BASE-TX, and 1000BASE-T.

With Tektronix ET3 Compliance Testing software; you can perform a wide battery of required Ethernet tests automatically using a Tektronix Real-Time Oscilloscope. In addition, the versatile Arbitrary Waveform Generators enable the transmission of “disturbing” signals for stress testing your Ethernet Design in an efficient manner.

Tektronix®

Tektronix Ethernet Testing Solution

Complete Solution for 10BaseT, 100BaseT, 1000BaseT PHY Layer Testing



Jitter and Timing Analysis for Debug & Design Verification

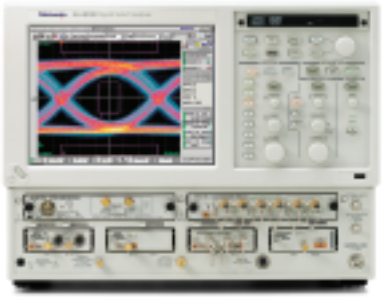
DPO7000 Series real time Oscilloscopes with DPOJET application software & probing

- Highly accurate oscilloscope with full sample rate and record length on all four channels.
- Digital Phosphor display technology for debug of intermittent glitches in real time.
- DPOJET analysis software decomposes jitter and isolates random jitter components from deterministic jitter (periodic, clock and data-dependent)
- Industries only analysis tool to include spectral averaging and peak detection to find low probability and low level jitter
- Excellent tool for diagnosing and debugging Ethernet TX_TCLK and data jitter issues

Ethernet PHY Compliance Testing of 10, 100, 1000 BASE-T PHY

DPO7000 real time Oscilloscopes with TDSET3 Ethernet Compliance software, fixtures & probing

- 500 MHz and 2.5 GHz Real Time Oscilloscopes and Ethernet Standards – specific measurement software for complete physical layer compliance testing
- P6248 Series Differential Probes for accurate probing of terminated lanes on compliance test fixture and reference clock test point on Compliance Load Board
- AWG5002 Arbitrary Waveform Generator for simple setup and automated generation of “disturbing signals” required for remote Ethernet transmitter tests.



Ethernet Cable Testing for robust 1000 BASE-T cable & connector performance

DSA Sampling Oscilloscopes with IConnect Advanced application software & probing

- Over 70GHz of sampling bandwidth and the lowest Jitter floor ensure great signal fidelity
- Highly accurate TDR Modules for pinpointing locations of signal imperfections in cable/connector designs
- IConnect software provides S Parameters for additional frequency-based analysis of reflective signal behaviors

www.tektronix.com/ethernet