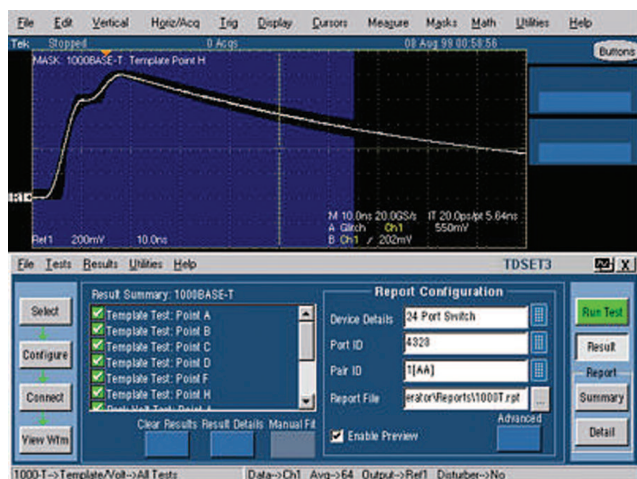


Ethernet Compliance Testing Support



Generating the “disturbing” signal requires tools to generate both pattern data and noise.

Ethernet standards call for a large number of individual tests, which adds up to a lot of setup and measurement time.

Performing return loss measurements can be expensive if using a vector network analyzer. Tektronix provides a patented, cost effective method using an arbitrary waveform generator and an oscilloscope.

Ethernet Compliance Support

- Acquiring Jitter: Tektronix’ DPO7000 Series oscilloscopes can capture up to 400 ms worth of data on a single-channel acquisition, ideal for 1000BASE-T jitter measurements.
- Disturbing Signals: The AWG5000B Series enables the AWG to insert signal characteristics that make up the “disturbing” signal used in stress tests.
- Automated Compliance: TDSET3 software provides automated setup, acquisition, and analysis for tests of all three Ethernet standards (1000BASE-T, 100BASE-T, 10BASE-T).

Recommended Equipment List for Ethernet

	Transmitter Tests	Return Loss Test	10G Ethernet (optical)
Instruments			
DPO7254 Real-time Oscilloscope or higher (DPO7054 is adequate for 10Base-T, 100Base-TX measurements)	X	X	
AWG5002B Arbitrary Waveform Generator*1		X*1	
DSA8200 Sampling Oscilloscope			X
80C08C			X
Test Fixture/Support Package			
Crescent Heart TF-GBE-BTP Basic Ethernet Test Package	X		
Crescent Heart TF-GBE-ATP Advanced Package with Jitter Channel	X		
Application Software			
TDSET3 Ethernet Test Software	X		
Probes and Accessories			
P6247 or P6248 Differential Probe	X		

Note: This table summarizes an efficient toolset for each type of measurement.

*1 AWG7052B Arbitrary Waveform Generator may be used in place of AWG5002GB. Other AWG7000Bs can be used provided they do not have the interleave option as this reduces the maximum output amplitude to 1V.

Ethernet Compliance Testing Support

Compliance Fact Sheet

Contact Tektronix:

ASEAN / Australasia (65) 6356 3900

Austria +41 52 675 3777

Balkans, Israel, S. Africa and other ISE Countries +41 52 675 3777

Belgium 07 81 60166

Brazil & South America (11) 40669400

Canada 1 (800) 661-5625

Central East Europe, Ukraine and the Baltics +41 52 675 3777

Central Europe & Greece +41 52 675 3777

Denmark +45 80 88 1401

Finland +41 52 675 3777

France +33 (0) 1 69 86 81 81

Germany +49 (221) 94 77 400

Hong Kong (852) 2585-6688

India (91) 80-22275577

Italy +39 (02) 25086 1

Japan 81 (3) 6714-3010

Luxembourg +44 (0) 1344 392400

Mexico, Central America & Caribbean 52 (55) 5424700

Middle East, Asia and North Africa +41 52 675 3777

The Netherlands 090 02 021797

Norway 800 16098

People's Republic of China 86 (10) 6235 1230

Poland +41 52 675 3777

Portugal 80 08 12370

Republic of Korea 82 (2) 6917-5000

Russia & CIS +7 (495) 7484900

South Africa +27 11 206 8360

Spain (+34) 901 988 054

Sweden 020 08 80371

Switzerland +41 52 675 3777

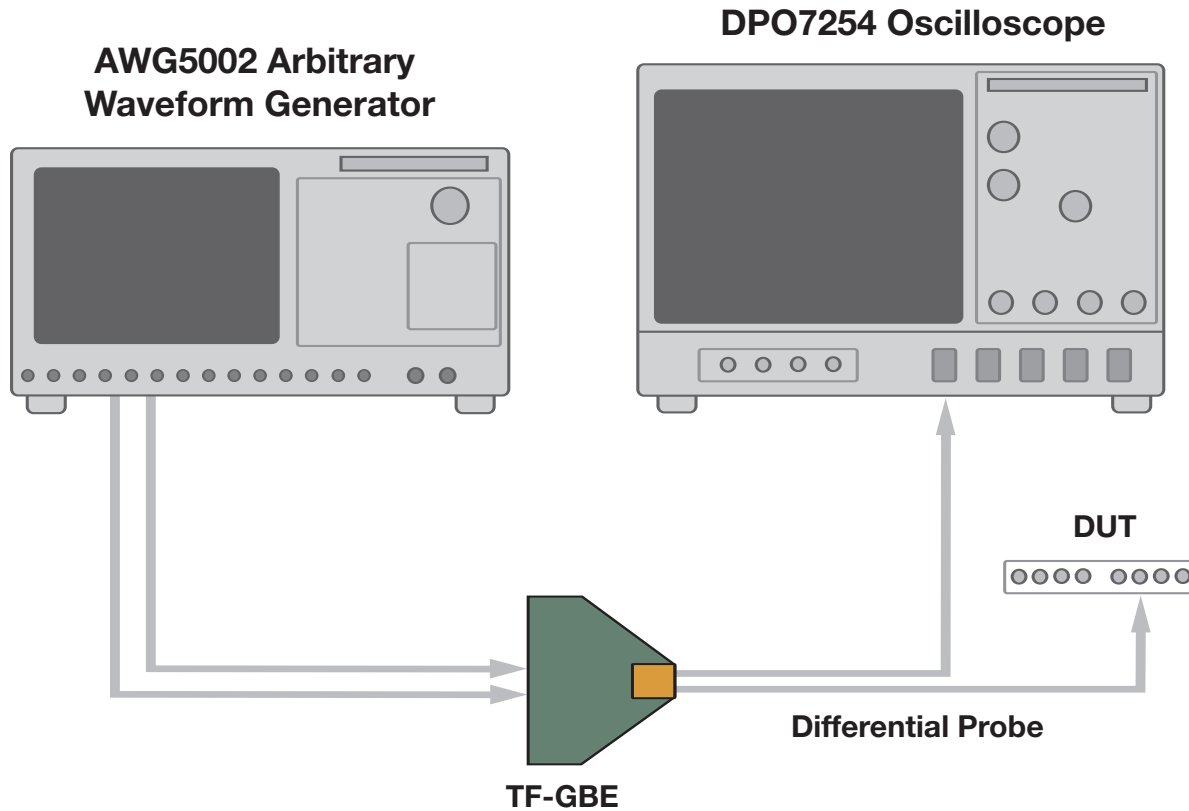
Taiwan 886 (2) 2722-9622

United Kingdom & Eire +44 (0) 1344 392400

USA 1 (800) 426-2200

For other areas contact Tektronix, Inc. at: 1 (503) 627-7111

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Ethernet Compliance Testing supported by Tektronix Complete Solution



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