



E2690B Oscilloscope Tools

Data Sheet



- Hidden Anomaly Locator automatically identifies a broad range of waveform fidelity problems and suggests possible causes.
- Make measurements instantly with Automeasure
- Make measurements across analog and digital domains (with Agilent mixed signal oscilloscopes)
- Quickly automate repetitive measurement sequences with TestScript
- Record measurements, then replay and analyze them

- Locate repetitive phenomena with repetition interval analysis tools
- Decompose jitter into random and deterministic jitter, including all components of jitter (Rj, Dj, Pj, DDj, DCD, and ISI)

Powerful tools for faster debug and better insight into your designs

ASA's Oscilloscope Tools, licensed by Agilent Technologies from Amherst Systems Associates (ASA), are the most powerful suite of analysis, debug, collaboration, and automation tools for Agilent real-time oscilloscopes. ASA's

Oscilloscope Tools work in tandem with Agilent's mixed signal oscilloscopes (MSOs) to provide measurements never before possible.

Oscilloscope Tools are supported on Agilent Infiniium (DSO/MSO8000, DSO/MSO9000 and DSO/DSA90000), InfiniiVision (MSO and DSO5000, 6000, and 7000), in addition to the Agilent DSO3000.



Agilent Technologies

Easy to use

When you launch Oscilloscope Tools, you immediately see a screen with measurement results (Figure 1). AutoMeasure automatically detects which scope channels have signals. It scales the signals and sets the analysis software up to make the most frequent set of measurements. You can access other measurement views by simply clicking the buttons. New users have access to powerful analysis and debug features without needing any in-depth knowledge about oscilloscopes.

Powerful exploratory/debug features

Oscilloscope Tools offers the most comprehensive set of tools available for in-depth analysis of signal behavior.

Hidden Anomaly Locator (HAL) is like having a signal analysis specialist constantly watching your waveforms, looking for the first hint of a problem. HAL can

find a problem you didn't even know that you should look for, and provide you a list of possible causes and corrective measures. If HAL finds something you are aware of, or want to ignore for the moment, you can selectively ignore some aspects of signal behavior while letting HAL continue to watch other factors.

HAL consists of multiple agents, each of which looks for a particular signal pathology. While HAL comes with a variety of agents, there may be some special behavior that you want HAL to be on the lookout for. If so, you can create your own agent, and it will run along with the rest of HAL's agents.

Repetition interval analysis is useful for visualizing repetitive behaviors that are not readily visible in spectral analysis. Jitter modulation domain measurements create insight through spectral analysis of jitter.

With the powerful and flexible “Run Until” feature, Oscilloscope Tools will watch your system until a specified condition occurs, then allow you to analyze what caused the condition in detail.

TestScript lets you record repetitive sequences of measurements, button pushes, and limit comparisons. With TestScript, you can quickly automate repetitive measurement sequences, collect a series of measurements into a compliance test, or develop a series of tests into an entire compliance test suite. This allows you to develop your own proprietary application-specific measurements with minimum effort.

The record/playback console (Figure 2) allows you to collect full record-length acquisitions over hours or days, then replay and analyze them. Now you can visualize and analyze rare events that occur when you are out of the lab.

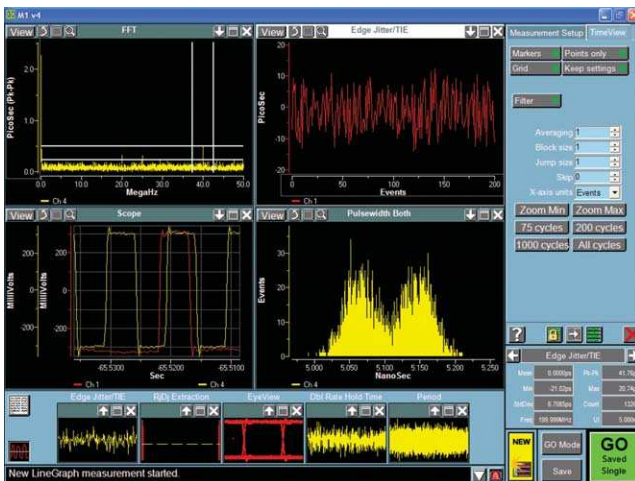


Figure 1. One mouse click launches measurements.

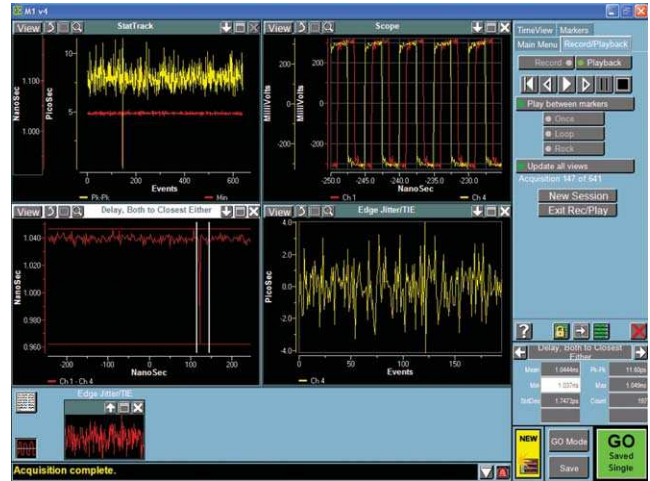


Figure 2. The record/playback console lets you capture and analyze events that occur when you are not present.

Combining analog and digital insight

Oscilloscope Tools teams up with Agilent's mixed signal oscilloscopes to provide unprecedented debug and analysis power.

- View the logic state of a 16-bit-wide (max) bus with timing resolution of 1-ns or better on each channel
- View up to 4 analog channels and up to 16 timing analyzer signals simultaneously
- Visualize time relationships with the X-axis synchronized mode
- Quickly verify proper bus functional and parametric behaviors

Parallel and serial triggering on up to 20 channels and 4 states deep enables you to pinpoint errors and make qualified timing measurements.



Figure 3. Logic View allows you to visualize and analyze up to 16 digital signals and 4 analog signals simultaneously for maximum insight.

Flexible formatting

With Oscilloscope Tools you have the flexibility and convenience of selecting Adobe pdf or Microsoft Excel for reports.

A broad choice of decomposition algorithms

E2690B Oscilloscope Tools uses ASA's exclusive SEEj algorithm, along with a choice of 11 other MJSQ-sanctioned methods of decomposing jitter into its random and deterministic components. For in-depth technical information on SEEj and how it was validated, refer to ASA application note 05-2, 2005, available at www.thejittersolution.com/SEEjCorrelation.htm.

Subscription services

Software Subscription Services ensure that you will always have the most up-to-date version of Oscilloscope Tools. The subscription service provides immediate product feature enhancements and patches directly to your e-mail for a one-year period. Additional subscription terms are available directly from Amherst Systems Associates at M1_Subscriptions@Amherst-Systems.com.



Figure 4. An example of the powerful triggering capabilities of Oscilloscope Tools when used with Agilent's mixed signal oscilloscopes.

A tool for every budget

Oscilloscope Tools comes in a variety of price points to match your oscilloscope and your budget. The following table shows which version to order for your oscilloscope.

Oscilloscope Tools version	Agilent oscilloscopes supported
Expert,	DS081304B DS081204B DS081004B DS091304A DS091204A
Specialist,	DS080804B DS080604B DS080404B DS090804A DS090604A DS090404A DS080304B
Professional,	DS080204B DS090254A DS08104A
Advisor,	MS08104A DS07104A MS07104A DS08064A
Guide,	MS08064A DS07054A MS07054A DS07034A MS07034A All DSO 5000 All DSO 3000

For discontinued Agilent models, please refer to www.amherst-systems.com

System requirements when used with InfiniiVision Series oscilloscopes

To use Oscilloscope Tools with Agilent 6000 series oscilloscopes, you will need a PC running Windows 2000 or Windows XP, in addition to a USB cable to connect the PC to the oscilloscope.

Other related products available directly from ASA**M1 Reader**

M1 Reader has all of the capabilities of the Oscilloscope Tools except for the ability to collect data directly from an oscilloscope. M1 Reader is an off-line analysis tool designed to analyze data saved by Oscilloscope Tools. This tool enables other team members to apply inexpensively the full set of advanced capabilities to analyze the same data remotely or at a different time. M1 Reader makes your scopes more accessible to a larger number of users, because they can perform analysis back at their desks, on the next lab bench or on the other side of the world, making the scope available for others to take new acquisitions. M1 Reader facilitates teamwork by allowing geographically dispersed teams to collaborate more effectively. M1 Reader is available directly from ASA at www.thejittersolution.com.

M1 Waveform Viewer

lets you inexpensively capture, view, analyze, save, and report waveforms taken from any scope, then use those waveforms anywhere just as you would if you were at your scope.

M1 Client-Server

With M1 Client-Server, multiple copies of M1 can communicate directly with one another. One copy could be on an individual engineer's PC, another on a shared server, and multiple copies on all your team's oscilloscopes.

M1 Labview

M1 LabView is designed to operate in the National Instruments LabView environment. This tool allows you, for example, to perform complete jitter analysis on simulated waveforms, before committing your design to hardware. It also enables you to compare measurement results from prototype hardware to simulation results. M1 LabView is available directly from ASA at www.thejittersolution.com.

About Amherst Systems Associates

Amherst Systems Associates (ASA) has been an innovator and a leader in the field of clock and jitter timing analysis for the past 23 years.

Ordering information

U.S. and Canada versions

E2690B Oscilloscope Tools

(one and only one option listed below must be ordered)

Option 001	Scope Expert
Option 002	Scope Specialist
Option 003	Scope Professional
Option 004	Scope Advisor
Option 005	Scope Guide

E2693B 1-Year Subscription Service for Oscilloscope Tools

(one and only one option listed below must be ordered)

Option 001	Subscription service for Scope Expert
Option 002	Subscription service for Scope Specialist
Option 003	Subscription service for Scope Professional
Option 004	Subscription service for Scope Advisor
Option 005	Subscription service for Scope Guide

International versions

N5385B Oscilloscope Tools

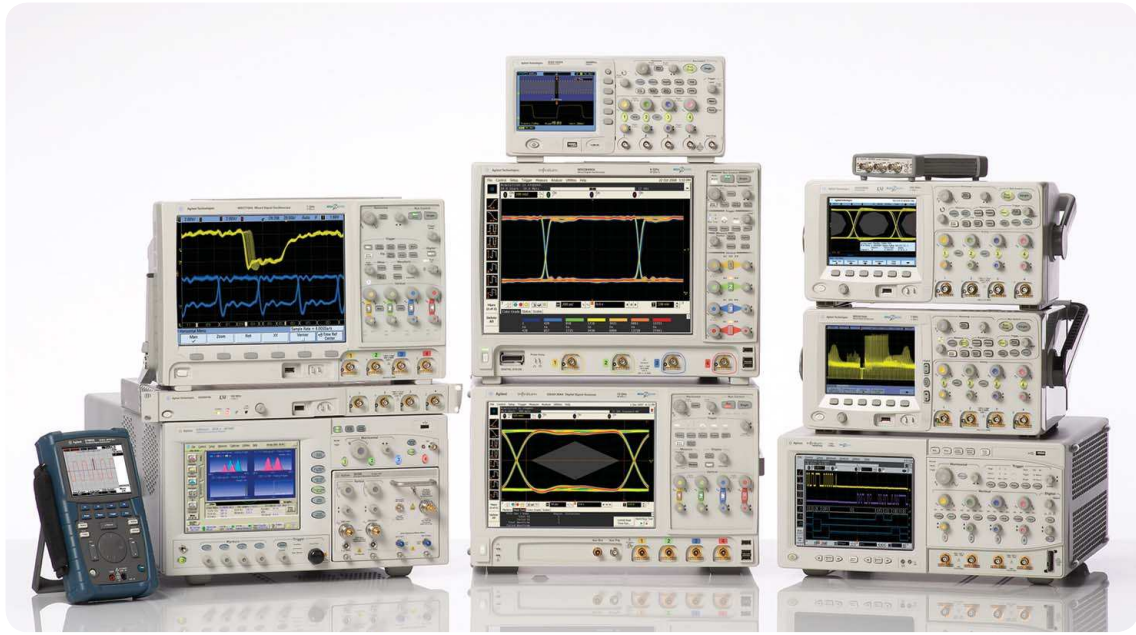
(one and only one option listed below must be ordered)

Option 001	Scope Expert
Option 002	Scope Specialist
Option 003	Scope Professional
Option 004	Scope Advisor
Option 005	Scope Guide

N5388B 1-Year Subscription Service for Oscilloscope Tools

(one and only one option listed below must be ordered)

Option 001	Subscription service for Scope Expert
Option 002	Subscription service for Scope Specialist
Option 003	Subscription service for Scope Professional
Option 004	Subscription service for Scope Advisor
Option 005	Subscription service for Scope Guide



Agilent Technologies Oscilloscopes

Multiple form factors from 20 MHz to >90 GHz | Industry leading specs | Powerful applications



Agilent Email Updates

www.agilent.com/find/emailupdates

Get the latest information on the products and applications you select.



Agilent Direct

www.agilent.com/find/quick

Quickly choose and use your test equipment solutions with confidence.



www.agilent.com/find/open

Agilent Open simplifies the process of connecting and programming test systems to help engineers design, validate and manufacture electronic products. Agilent offers open connectivity for a broad range of system-ready instruments, open industry software, PC-standard I/O and global support, which are combined to more easily integrate test system development.

Microsoft® and Windows® are U.S. registered trademarks of Microsoft Corporation.

Pentium® is a U.S. registered trademark of Intel Corporation.

Remove all doubt

Our repair and calibration services will get your equipment back to you, performing like new, when promised. You will get full value out of your Agilent equipment throughout its lifetime. Your equipment will be serviced by Agilent-trained technicians using the latest factory calibration procedures, automated repair diagnostics and genuine parts. You will always have the utmost confidence in your measurements.

Agilent offers a wide range of additional expert test and measurement services for your equipment, including initial start-up assistance onsite education and training, as well as design, system integration, and project management.

For more information on repair and calibration services, go to

www.agilent.com/find/removealldoubt

www.agilent.com

For more information on Agilent Technologies' products, applications or services, please contact your local Agilent office.

The complete list is available at:

www.agilent.com/find/contactus

Americas

Canada	(877) 894-4414
Latin America	305 269 7500
United States	(800) 829-4444

Asia Pacific

Australia	1 800 629 485
China	800 810 0189
Hong Kong	800 938 693
India	1 800 112 929
Japan	0120 (421) 345
Korea	080 769 0800
Malaysia	1 800 888 848
Singapore	1 800 375 8100
Taiwan	0800 047 866
Thailand	1 800 226 008

Europe & Middle East

Austria	01 36027 71571
Belgium	32 (0) 2 404 93 40
Denmark	45 70 13 15 15
Finland	358 (0) 10 855 2100
France	0825 010 700
Germany	07031 464 6333
Ireland	1890 924 204
Israel	972-3-9288-504/544
Italy	39 02 92 60 8484
Netherlands	31 (0) 20 547 2111
Spain	34 (91) 631 3300
Sweden	0200-88 22 55
Switzerland	0800 80 53 53
United Kingdom	44 (0) 118 9276201

Other European Countries:

www.agilent.com/find/contactus

Revised: October 1, 2008

Product specifications and descriptions in this document subject to change without notice.

© Agilent Technologies, Inc. 2009
Printed in USA, June 1, 2009
5989-3525EN



Agilent Technologies