

Scope Connect Software

N2861A Communications Module

N2865A USB Host Module

Data Sheet

Scope Connect software

- Easily manage and transfer data using the 3000 Series' built-in USB device or the optional GPIB and RS-232 ports
- Control your oscilloscopes from your PC with a GUI that simulates the front panel
- Choose between Waveform view, Measurement view, or Data view
- Organize acquisition data from the scope in tabular format and export to Microsoft® Excel
- Access all 18 individual channel measurements from your PC

N2861A communications module

- Provides RS-232 and GPIB connectivity
- Outputs results of pass/fail (limit) testing
- Provides remote control using the 3000 Series' SCPI command set^{1, 2}.

N2865A USB host module

- Available standard with DSO3000 Series Oscilloscope
- Save setup, waveform and display data to USB memory stick
- Supports many popular USB printers



¹ SCPI programmability is not available using the 3000 Series built-in USB port.

² This command set is not "drop in" compatible with other Agilent oscilloscopes. Some command translation and conversion will be required.



Agilent Technologies

An affordable way to transfer data and control your scope from a PC

Scope Connect software and the N2861A communications module provide a free way to transfer data from your 3000 Series economy oscilloscope and control it remotely with an external PC. Ideal for use in a lab environment, this software gives you the ability to simultaneously control multiple 3000 Series oscilloscopes from a single PC.

The software's easy-to-use graphical user interface (GUI) lets you fully control the scope from your PC with simple mouse clicks. This software provides the easiest way to export data, measurements, pass/fail information, and screen shots for analysis or printing.

The N2861A communications module fits easily onto the back panel of your 3000 Series oscilloscope.

3000 Series oscilloscope users who wish to use the 3000 Series' native SCPI programming command set must use the N2861A's RS-232 or GPIB ports.

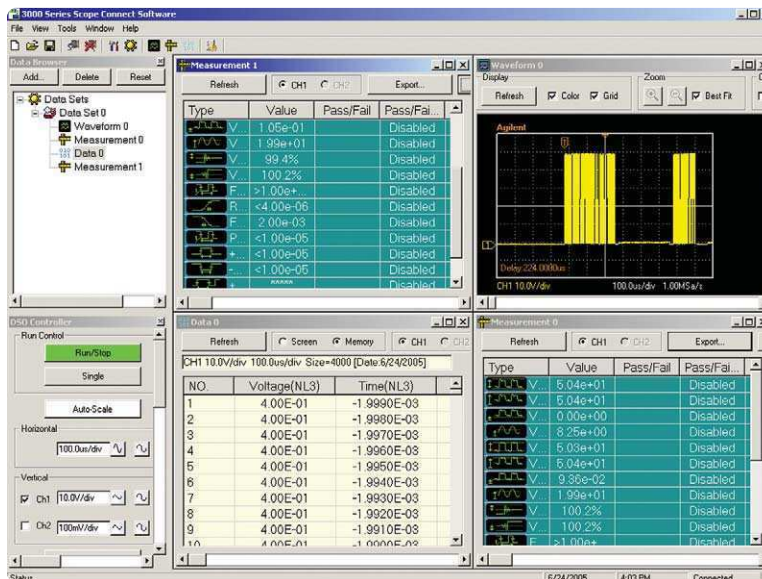


Figure 1. 3000 Series Scope Connect software in quad-panel display showing Waveform, Measurement and Data views simultaneously.

DSO3000 Series Connectivity

	Scope Connect with USB device port	N2861A	N2865A
Standard with DSO3000	X		X
USB host			X
USB device	X		
GPIB		X	
RS-232		X	
SCPI programming		X	
PC Control	X	X	
Export to spreadsheet	X	X	
Save to memory stick			X
Print directly from scope			X
External module		X	X

See just how easy it is to use Scope Connect software

Data Browser window

The Data Browser window lets you select any number of waveform, measurement, or data views. You can save the views collectively in a data sheet file to be stored offline, or move them to another PC running Scope Connect software for further analysis or printing.

DSO Controller window

The DSO Controller Window gives you access to the basic acquisition system of the scope. You can access horizontal and vertical settings as well as run control (auto-scale, run, single) from this window.

Virtual Panel

The Virtual Panel, which you can launch from the DSO Controller window, is formatted to look exactly like the front panel of a 3000 Series scope. The Virtual Panel provides a familiar and intuitive way to drive the scope from a remote PC. You can access the full functionality of your 3000 Series oscilloscope from this view. You can customize the display refresh rates – from 500 ms to 10 s – to meet your needs. You can easily save screenshots to your PC, or send them directly to a printer for either color or black-and-white printouts.

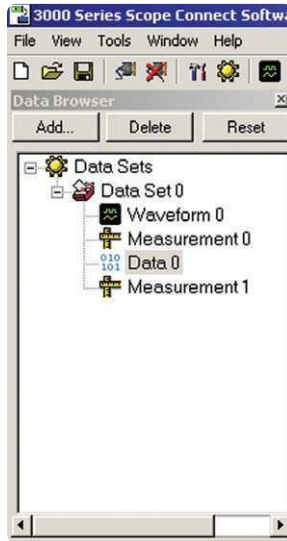


Figure 2. Data Browser window

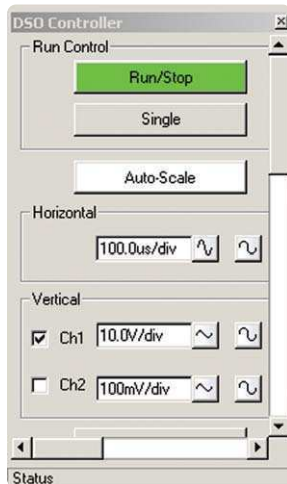


Figure 3. DSO Controller window

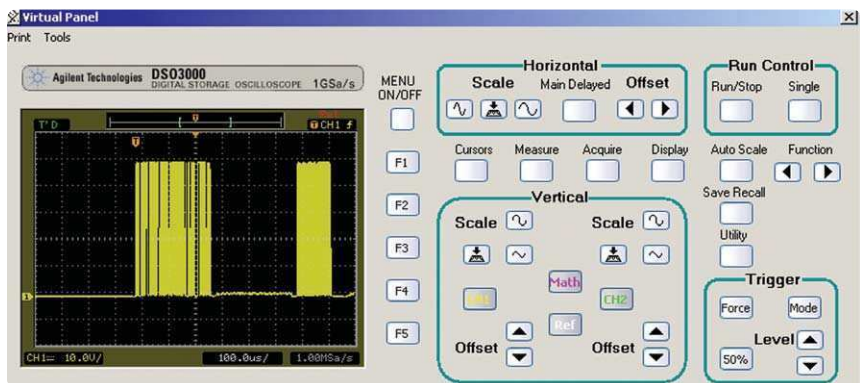
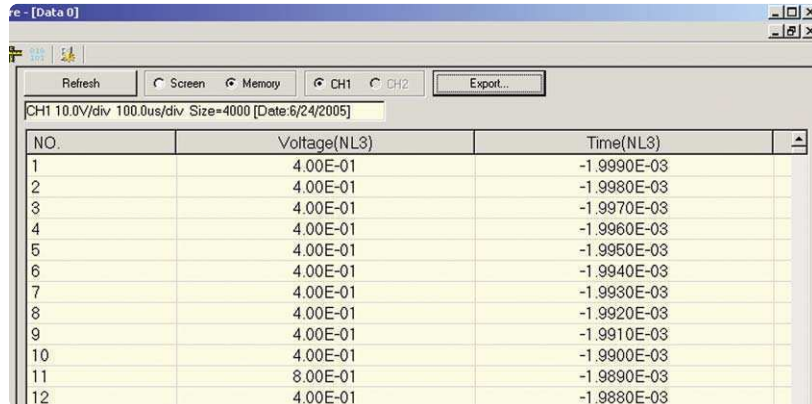


Figure 4. Virtual Panel

See just how easy it is to use Scope Connect software (continued)

The Data view

The Data view pulls acquisition data from the scope and organizes it in tabular format. You can download data from either channel 1 or channel 2 for export into popular programs like Microsoft Excel. Data is saved in .xls format. You can choose whether you want to download just the data shown onscreen or data from the entire memory.

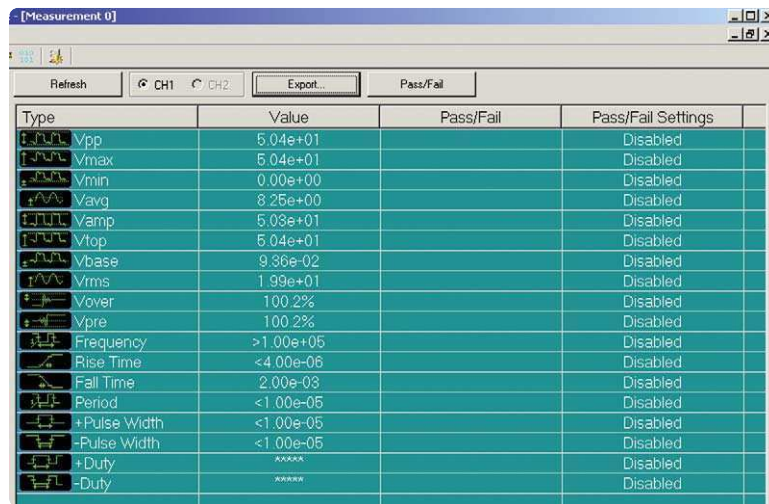


NO.	Voltage(NL3)	Time(NL3)
1	4.00E-01	-1.9990E-03
2	4.00E-01	-1.9980E-03
3	4.00E-01	-1.9970E-03
4	4.00E-01	-1.9960E-03
5	4.00E-01	-1.9950E-03
6	4.00E-01	-1.9940E-03
7	4.00E-01	-1.9930E-03
8	4.00E-01	-1.9920E-03
9	4.00E-01	-1.9910E-03
10	4.00E-01	-1.9900E-03
11	8.00E-01	-1.9890E-03
12	4.00E-01	-1.9880E-03

Figure 5. Data view

The Measure view

The Measure view gives you access to all 18 individual channel measurements. Each click of the Refresh button updates the window with the current measurements on the oscilloscope. You can export measurements in .xls format for further analysis or archiving.



Type	Value	Pass/Fail	Pass/Fail Settings
Vpp	5.04e+01		Disabled
Vmax	5.04e+01		Disabled
Vmin	0.00e+00		Disabled
Vavg	8.25e+00		Disabled
Vamp	5.03e+01		Disabled
Vtop	5.04e+01		Disabled
Vbase	9.36e-02		Disabled
Vrms	1.99e+01		Disabled
Vover	100.2%		Disabled
Ypre	100.2%		Disabled
Frequency	>1.00e+05		Disabled
Rise Time	<4.00e-06		Disabled
Fall Time	2.00e-03		Disabled
Period	<1.00e-05		Disabled
+Pulse Width	<1.00e-05		Disabled
-Pulse Width	<1.00e-05		Disabled
+Duty	*****		Disabled
-Duty	*****		Disabled

Figure 6. Measure view

The Waveform view

The Waveform view also updates quickly and easily with a click of the Refresh button. This window recreates the waveform for easy offline analysis. The window includes cursors on both axes so you can easily make measurements.

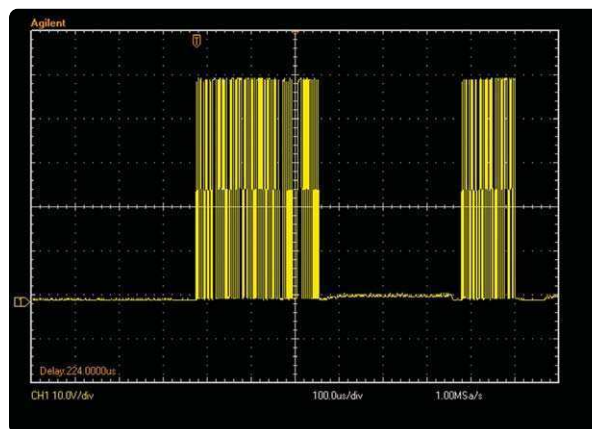


Figure 7. Waveform view

See just how easy it is to use Scope Connect software (continued)

Compatibility

The Scope Connect software and N2861A communications module are compatible with the following Agilent oscilloscopes. Customers who have purchased their oscilloscope prior to September 1, 2006 must install the latest oscilloscope software (available from agilent.com) to enable Scope Connect.

3000 Series oscilloscope	Software revision
DSO3062A	04.02.02 or higher
DSO3102A	04.02.02 or higher
DSO3152A	04.02.02 or higher
DSO3202A	04.02.02 or higher

N2865A Printers Tested

HP Deskjet 9868
HP Business Inkjet 1000
HP Photosmart 7458
HP LaserJet 1160
HP LaserJet 3015
HP LaserJet 3020
HP LaserJet 5550
HP LaserJet 1320
HP All In One 5510A
HP DeskJet 935A
HP Photosmart 7760
HP All In One 7410
HP DeskJet 970CXI
HP DeskJet 895CXI
HP DeskJet 925C
HP DeskJet 1200C

The Scope Connect software is compatible with PCs running the following operating systems:

Operating System

Windows 2000

Windows XP

Note: The DSO3000 series command set is not a "drop in" replacement for other Agilent oscilloscopes. Some command translation and conversion will be required.

Related Literature

Publication Title	Publication Type	Publication Number
<i>3000 Series Oscilloscopes</i>	Data Sheet	5989-2235EN

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