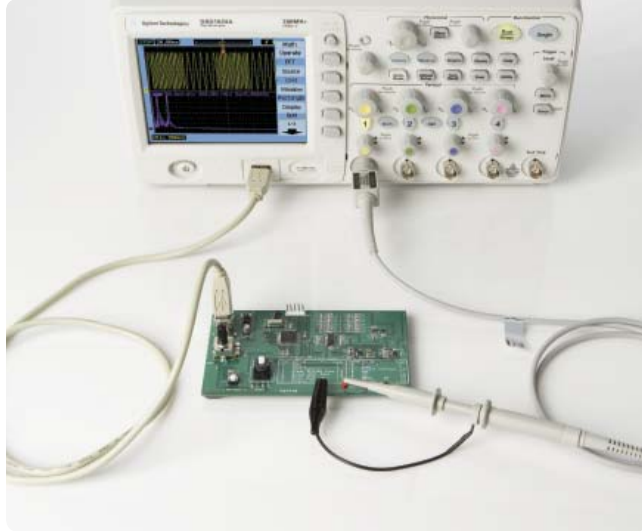


# N2862A Passive Oscilloscope Probe

Data Sheet



## Characteristics

Operating temperature	0° C to 50° C, 80% RH
Storage temperature	0° C to 50° C, 80% RH
Cable length	1.2 m
Bandwidth	DC to 150 MHz
Risetime	2.33 ns
Attenuation ratio	10:1
Input resistance	10 M $\Omega$ (when terminated into 1 M $\Omega$ )
Input capacitance	$\approx$ 12 pF
Maximum input	300-V RMS
Compensation	5-30 pF
Safety	Conformance to IEC-1010



Agilent Technologies

# Compensation Adjustments

The probes can be adjusted for low-frequency compensation and high-frequency compensation. For the best measurements you should compensate your probe to match its characteristics to the oscilloscope. A poorly compensated probe can introduce measurement errors. Low-frequency compensation should be performed before performing high-frequency compensation.

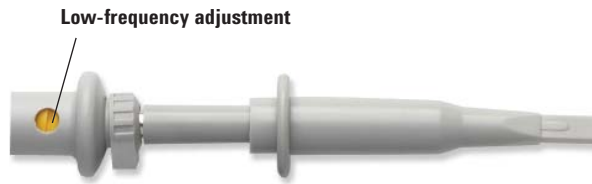


Figure 1. Low-frequency compensation adjustment.

## Low-frequency compensation

1. Connect the probe from the appropriate oscilloscope channel to 1-kHz square wave source.
2. Press Autoscale. Adjust the oscilloscope to display two to three cycles of the waveform over two to six vertical divisions.
3. Set the low-frequency compensation adjustment on the probe for the flattest pulse possible (see Figure 2).

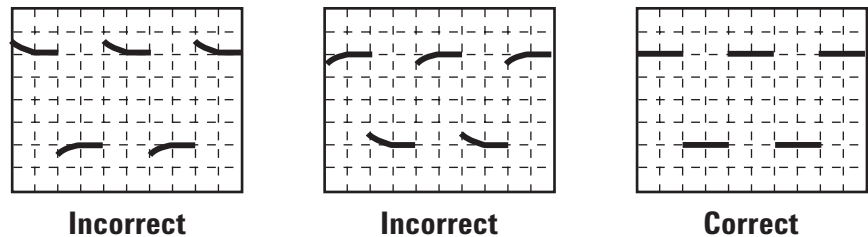


Figure 2.

## High-frequency compensation

1. Using the BNC adapter, connect the probe to a square wave generator operating between 10-kHz and 1-MHz, and terminated into 50-Ω.
2. Press Autoscale. Adjust the oscilloscope to display one cycle of the waveform over two to six vertical divisions.
3. Set the high-frequency compensation adjustment on the probe for the flattest, most square, and most horizontal pulse possible (see Figure 4).

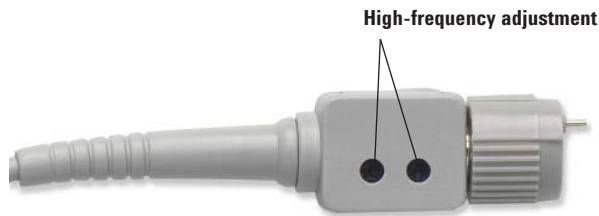


Figure 3. High-frequency compensation adjustment.

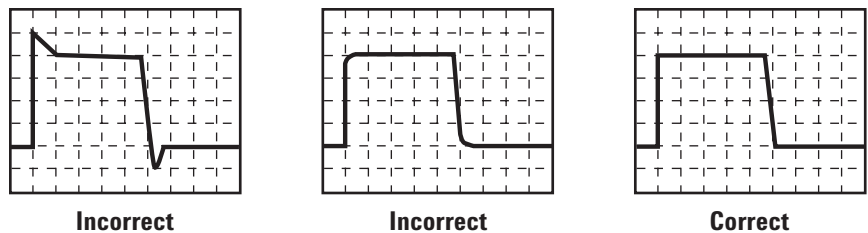


Figure 4.

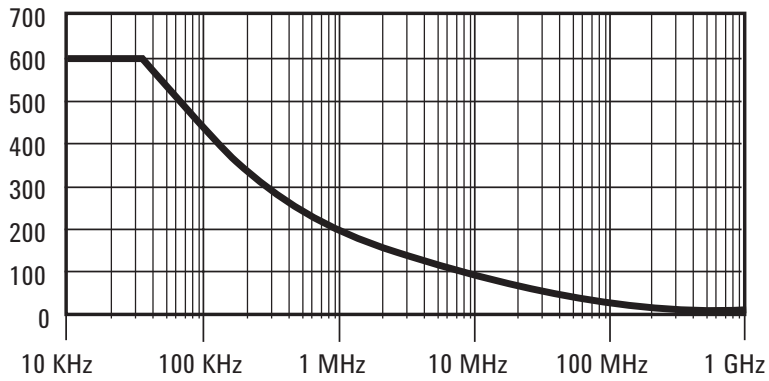


Figure 5. Voltage derating curve



### Accessory Kit

Item	Description	Quantity
1	Retractable hook	1
2	Adjustment tool	1
3	Insulating cap	1
4	IC insulating cap	1
5	Identification tags (green,yellow, purple and pink)	2 ea
6	Probe tip	1
7	Ground spring	1
8	BNC adapter	1
9	Ground lead (black 12 cm)	1

 **Agilent Email Updates**

[www.agilent.com/find/emailupdates](http://www.agilent.com/find/emailupdates)  
Get the latest information on the products and applications you select.

 **Agilent Direct**

[www.agilent.com/find/agilentdirect](http://www.agilent.com/find/agilentdirect)  
Quickly choose and use your test equipment solutions with confidence.

**Agilent**  
Open 

[www.agilent.com/find/open](http://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.

**LXI**

[www.lxistandard.org](http://www.lxistandard.org)  
LXI is the LAN-based successor to GPIB, providing faster, more efficient connectivity. Agilent is a founding member of the LXI consortium.

**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. For information regarding self maintenance of this product, please contact your Agilent office.

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](http://www.agilent.com/find/removealldoubt)

[www.agilent.com](http://www.agilent.com)  
[www.agilent.com/find/probes](http://www.agilent.com/find/probes)

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](http://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](http://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, April 30, 2009  
5989-2228EN



**Agilent Technologies**