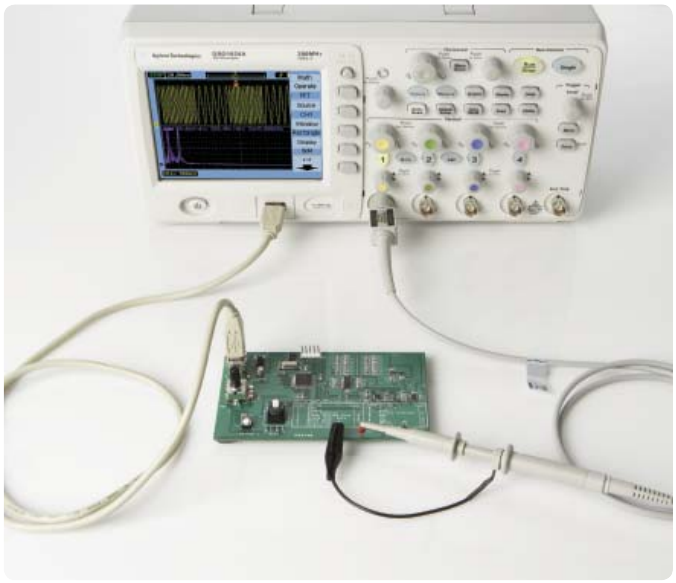
N2863A Passive Oscilloscope Probe

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 300 MHz
Risetime	1.16 ns
Attenuation ratio	10:1
Input resistance	10 MΩ (when terminated into 1 MΩ)
Input capacitance	≈12 pF
Maximum input	300-V RMS
Compensation	5-30 pF
Safety	Conformance to IEC-1010

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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.

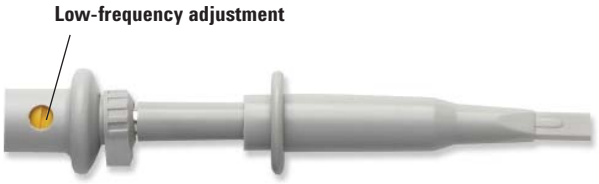


Figure 1. Low-frequency compensation adjustment.

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).

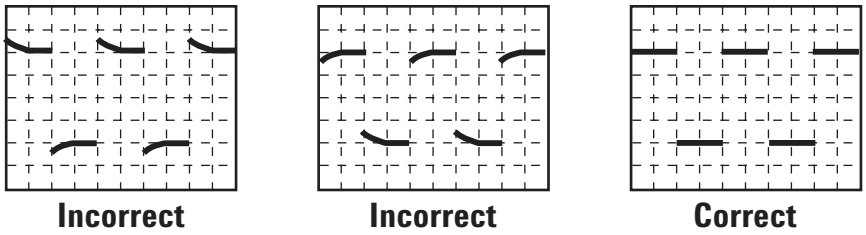


Figure 2.

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).

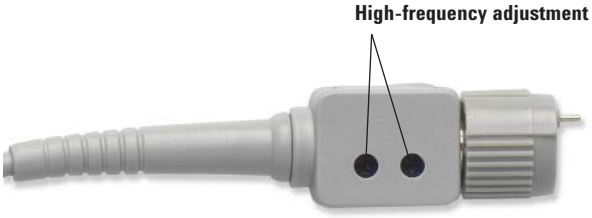


Figure 3. High-frequency compensation adjustment.

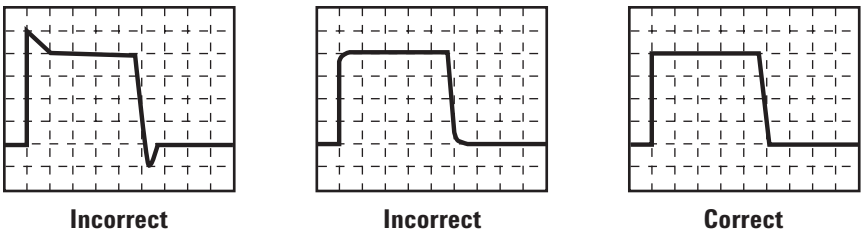


Figure 4.

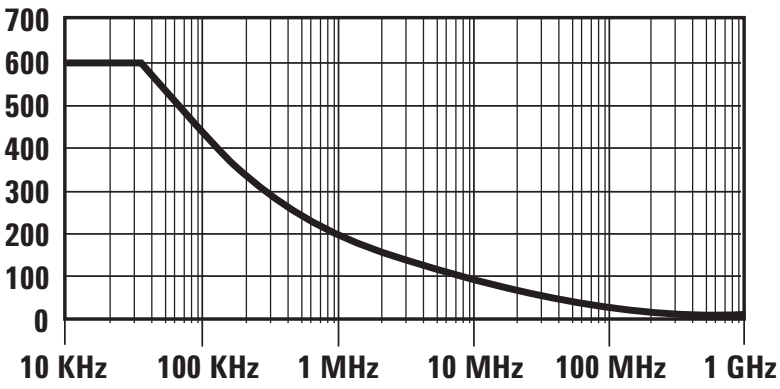
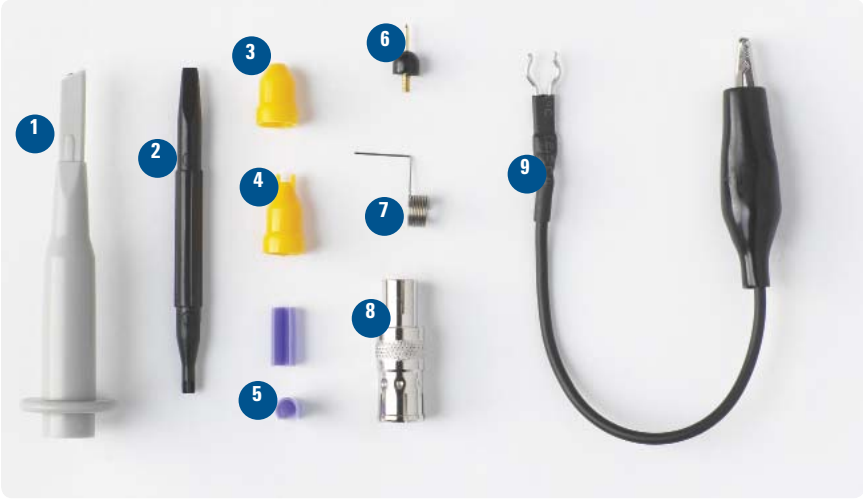


Figure 5. Voltage derating curve



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

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