

Keysight Low Noise Filter Improves B2961A/62A Power Source Noise Performance

Accessory for the Keysight B2961A/62A 6.5 digit low noise power sources

The Keysight Technologies, Inc. N1294A-022 Low Noise Filter (LNF) provides noise levels comparable to those of linear power supplies and also supports the B2961A/62A's wide bipolar voltage and current ranges (up to 210 V/3 A). In addition, the LNF enables the B2961A/62A to drive capacitive loads of up to 1 mF.



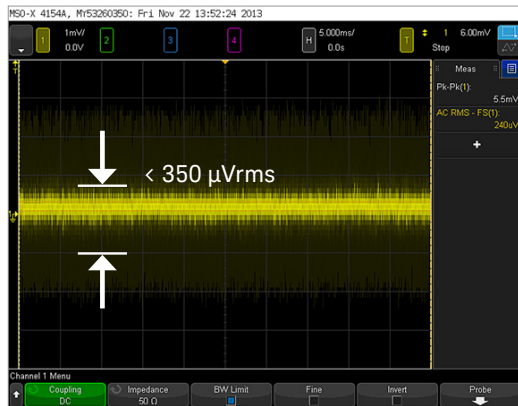
Supplemental Characteristics		Values	
Max. output	Voltage	DC	210 V
	Current	DC	3 A
Noise	Voltage source	0.1 to 10 Hz	5 μ Vpp
		10 to 20 MHz	30 μ Vrms
	Current source	0.1 to 10 Hz	60 pApp
		10 to 1 MHz	450 nArms
Maximum capacitive load			1 mF
Output/residual resistance		2-wire	0.3 Ω nominal
Small signal bandwidth		1A/3A ranges	2 kHz nominal
		100 mA range	800 Hz nominal

Note: Please see the datasheet (5991-0663EN) of the B2961A/62A for more detail.

Noise Levels Comparable to Those of Linear Power Supplies

Used together, the Low Noise Filter (LNF) and the Keysight B2961A/62A provide clean voltage sourcing equivalent to that of much costlier precision linear voltage and current sources. Best of all, this solution supports all of the output ranges (210 V @105 mA, 21 V@1.5 A and 6 V@3 A) while providing exceptional low noise performance.

The LNF also supports 4-wire connections to allow accurate sourcing and measurement far from the output terminals of the filter.



B2961A/62A 6.5 Digit Low Noise Power Source

The Keysight B2961A/62A is an advanced power supply/source. It can source either voltage or current with 6.5 digits of resolution while also monitoring both voltage and current. This makes it essential for a variety of measurement applications.



N1294A-020 High Current Ultra-Low Noise Filter

A High Current Ultra-Low Noise Filter (HC-ULNF) is also available for the B2961A/62A. The HC-ULNF lowers the B2961A/62A's noise floor and when used together the noise density of this solution is $1 \text{ nVrms}/\sqrt{\text{Hz}}$ at 10 kHz for voltages and currents of up to 21 V and 500 mA. Please refer to 5992-1432EN for more detail.



N1294A-021 Ultra Low Noise Filter

An Ultra-Low Noise Filter (ULNF) is also available for the B2961A/62A. The ULNF lowers the B2961A/62A's noise floor and when used together the noise density of this solution is $1 \text{ nVrms}/\sqrt{\text{Hz}}$ at 10 kHz for voltages and currents of up to 42 V and 100 mA. Please refer to 5991-3884EN for more detail.



To Learn More.... please visit our website below:
www.keysight.com/find/precisionSOURCE