

N1298B Ultra-Low Noise Filter, 42 V/105 mA, 50 Ω

Ultra-Low Noise Filter Minimize B2961B/62B Power Source Noise Density

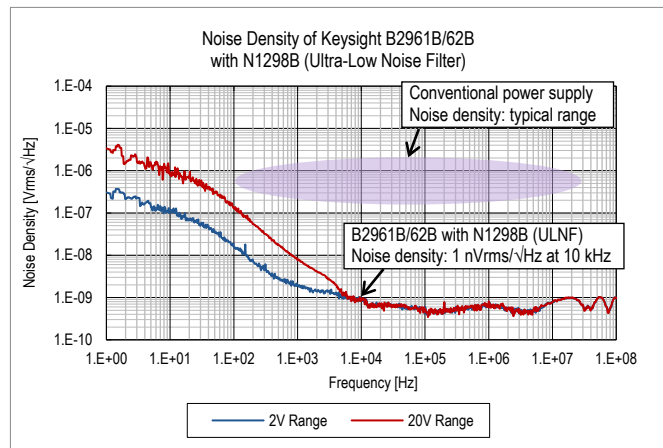
The Keysight N1298B Ultra Low Noise Filter (ULNF) reduces the voltage noise of the Keysight B2961B/B2962B to 10 μVrms in the frequency range of 10 Hz – 20 MHz, while still allowing it to source up to 42 V and 105 mA. When attached to the output channels of B2961B/62B, the ULNF reduces the noise density to 1 nVrms/ $\sqrt{\text{Hz}}$ at 10 kHz.



| Supplemental characteristics | | | Values |
|----------------------------------|----------------|--------------|--|
| Max. output | Voltage | DC | 42 V |
| | Current | DC | 105 mA |
| Noise | Voltage source | 0.1 to 10 Hz | 5 μVpp |
| | | 10 to 20 MHz | 10 μVrms (1 nVrms/ $\sqrt{\text{Hz}}$ @10 kHz) |
| | Current source | 0.1 to 10 Hz | 60 pApp |
| | | 10 to 1 MHz | 300 nArms |
| Maximum capacitive load (4-wire) | | | 50 μF |
| Output/residual resistance | 2-wire | | 50 Ω nominal |
| | 4-wire | | 0.3 Ω nominal |
| Small signal bandwidth | 2-wire | | 23 Hz nominal |
| | 4-wire | | 8 Hz nominal |

Uncover More of the True Characteristics of Noise Sensitive Devices

Used together, the high-current ultra-low noise filter (HC-ULNF) and the Keysight B2961B/62B provide outstanding low noise performance that can evaluate noise-sensitive devices and circuits such as A/D Converters as well as many other types of analog and RF ICs. In addition, this solution meets the noise density requirements for phase noise evaluation of oscillator circuits such as VCOs and crystal oscillators.



B2961B/62B 6.5 Digit Low Noise Power Source

The Keysight B2961B/62B 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.



N1298A High Current Ultra-Low Noise Filter

A High Current Ultra-Low Noise Filter (HC-ULNF) is also available for the B2961B/62B. The HC-ULNF lowers the B2961B/62B's noise floor and when used together the noise density of this solution is 1 nVrms/√Hz at 10 kHz for voltages and currents of up to 21 V and 500 mA.



N1298C Low Noise Filter

A Low Noise Filter (LNF) is also available for the B2961B/62B. It provides noise levels comparable to those of linear power supplies and also supports the B2961B/62B's wide bipolar voltage and current ranges (up to 210 V/3 A).



More information: www.keysight.com/find/precisionSOURCE

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