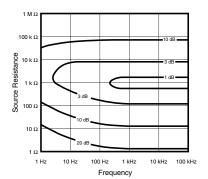
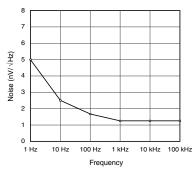
Lock-In Preamplifier



The SR552 Voltage Preamplifier is designed to work with SRS lock-in amplifiers, providing gain where it is needed most-right at the experiment. The preamplifier minimizes noise and pickup in the connecting lines and can reduce measurement time in noise-limited experiments. The SR552 has a bipolar front-end design (100 k Ω impedance, 1.4 nV/ $\sqrt{\text{Hz}}$ noise). Power and control signals are brought from the lock-in by a 9-pin cable (included). The SR552 may also be operated independently by applying appropriate power supply voltages (±20 VDC, +5 VDC).



SR552 noise contour



SR552 noise plot

• 1.4 nV/ \sqrt{Hz} input noise

- BJT input, 100 k Ω input impedance
- Gain of 10, 20, 50 or 100
- Single-ended and differential inputs
- AC coupled input
- Powered by SRS lock-in amplifiers

• SR552 ... \$750 (U.S. list)

SR552 Specifications

Input impedance Inputs Maximum input	$100 \text{ k}\Omega + 25 \text{ pF}$ Single-ended or differential 70 mVrms for overload 50 VDC, $20 VAC$ damage threshold
Noise (typ.)	1.4 nV/ $\sqrt{\text{Hz}}$ at 1 kHz 1.6 nV/ $\sqrt{\text{Hz}}$ at 100 Hz 2.5 nV/ $\sqrt{\text{Hz}}$ at 10 Hz
Coupling	AC (0.016 Hz)
CMRR (1 V input)	100 dB at 100 Hz
Gain	10, 20, 50, 100 (Automatically set by SR510 or SR530 lock-in)
Full-scale input	10 nV to 200 mV
Gain accuracy	2% (2Hz to 100kHz)
Gain stability	200 ppm/°C
Outputs	A (signal, 600Ω , single-ended) B (shielded ground)
Maximum output	10 Vpp
Power	Supplied by SR510, SR530, SR810, SR830, SR850 or SR124 via control cable
Mechanical	3.0"×1.3"×5.1" (WHD)
Weight	1 lbs.
Warranty	One year parts and labor on defects in materials and workmanship

Orderina Information

SR552	Lock-in preamplifier	\$750



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