## **Lock-In Preamplifier**

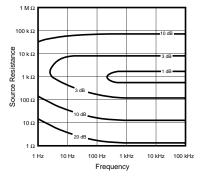
SR552 — BJT input preamplifier



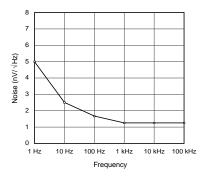
The SR552 Voltage Preamplifier is designed to work with SRS lock-in amplifiers, providing gain where it is needed most—right at the experiment. The preamplifier minimizes noise and pickup in the connecting lines and can reduce measurement time in noise-limited experiments. The SR552 has a bipolar front-end design (100 k $\Omega$  impedance, 1.4 nV/ $\sqrt{H}$ z 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 ( $\pm 20$  VDC,  $\pm 5$  VDC).

- · 1.4 nV/√Hz input noise
- $\cdot$  BJT input, 100 k $\Omega$  input impedance
- Gain of 10, 20, 50 or 100
- · Single-ended and differential inputs
- · AC coupled input
- Powered by SRS lock-in amplifiers

· SR552 ... \$595 (U.S. list)



SR552 noise contour



SR552 noise plot

## SR552 Specifications

Input impedance  $100 \text{ k}\Omega + 25 \text{ pF}$ 

Inputs Single-ended or differential Maximum input 70 mVrms for overload

50 VDC, 20 VAC damage threshold 1.4 nV/ $\sqrt{\text{Hz}}$  at 1 kHz

Noise (typ.) 1.4 nV/Hz at 1 kHz 1.6 nV/Hz at 100 Hz 2.5 nV/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) 10 nV to 200 mV

Full-scale input
Gain accuracy
Gain stability

10 nV to 200 mV
2 % (2 Hz to 100 kHz)
200 ppm/°C

Outputs A (signal, 600  $\Omega$ , single-ended)

B (shielded ground)

Maximum output 10 Vpp

Power Supplied by SR510, SR530, SR810,

SR830, or SR850 via control cable

Mechanical  $3.0" \times 1.3" \times 5.1"$  (WHD)

Weight 1 lbs

Warranty One year parts and labor on defects

in materials and workmanship

## **Ordering Information**

SR552 Lock-in preamplifier

\$595

