

Lock-In Pre-amplifier

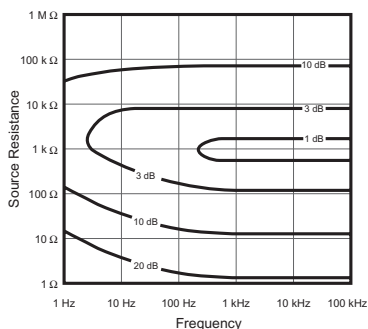
SR552 — BJT input preamplifier



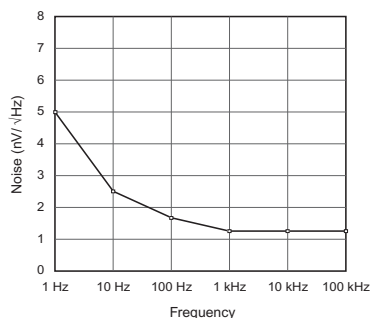
The SR552 Voltage Preamplifier is designed to work with SRS lock-in amplifiers, providing gain where it is needed most—right at the experiment. The preamplifier minimizes noise and pickup in the connecting lines and can reduce measurement time in noise-limited experiments. The SR552 has a bipolar front-end design (100 kΩ impedance, 1.4 nV/√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).

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

SR552 Specifications



SR552 noise contour



SR552 noise plot

| | |
|------------------|--|
| Input impedance | 100 kΩ + 25 pF |
| Inputs | Single-ended or differential |
| Maximum input | 70 mVrms for overload 50 VDC, 20 VAC damage threshold |
| 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) |
| Full-scale input | 10 nV to 200 mV |
| Gain accuracy | 2 % (2 Hz to 100 kHz) |
| Gain stability | 200 ppm/°C |
| Outputs | A (signal, 600 Ω, single-ended) B (shielded ground) |
| Maximum output | 10 Vpp |
| Power | Supplied by SR510, SR530, SR810, SR830, or SR850 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 |

Ordering Information

SR552 Lock-in preamplifier

Distribution in the UK & Ireland



Characterisation,
Measurement &
Analysis

Lambda Photometrics Limited
Lambda House Batford Mill
Harpenden Herts AL5 5BZ
United Kingdom
E: info@lambdaphoto.co.uk
W: www.lambdaphoto.co.uk
T: +44 (0)1582 764334
F: +44 (0)1582 712084