The SR550 Voltage Preamplifier is designed to work with SRS lock-in amplifiers. Preamplifiers provide gain close to the experimental detector, before the signal-to-noise ratio is permanently degraded by cable capacitance and pickup. The SR550 minimizes noise and pickup in the connecting lines and reduces measurement time in noise-limited experiments. Power and control signals are brought from the lock-in by a 9-pin cable. The SR550 may also be operated independently by applying appropriate biasing (+20 VDC, +5 VDC).

**SR550 Specifications**

- **Input impedance**: 100 MΩ + 25 pF
- **Inputs**: Single-ended or differential
- **Maximum input**: 250 mVrms for overload
- **Noise (typ.)**: 3.6 nV/√Hz at 1 kHz
  4.0 nV/√Hz at 100 Hz
  13 nV/√Hz at 10 Hz
- **Coupling**: AC (0.016 Hz)
- **CMRR (1 V input)**: 90 dB at 100 Hz
- **Gain settings**: 1, 2, 5, 10 (automatically set by SR510 or SR530 lock-in)
- **Full-scale sensitivity**: 10 nV to 200 mV
- **Gain accuracy**: 2% (2 Hz to 100 kHz)
- **Gain stability**: 100 ppm/°C
- **Outputs**: A (signal, 600Ω, single-ended)
  B (shielded ground)
- **Maximum output**: 7 Vpp
- **Power**: Supplied by SR510, SR530, SR810, SR830, SR850 or SR124 via connector cable
- **Mechanical**: 3.0” x 1.3” x 5.1” (WHD)
- **Weight**: 1 lbs.
- **Warranty**: One year parts and labor on defects in materials and workmanship

**Ordering Information**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR550</td>
<td>Lock-in preamplifier</td>
<td>$750</td>
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</tbody>
</table>

**SR550 noise plot**