

# Nanopore Resistive Pulse Sensing at High Bandwidth

**RPSAmp**



**Bandwidth: > 100 MHz**

**Gain: 100 nA/V**

**Noise: < 1.0 X 10E-30 A/√Hz @ 100 MHz**



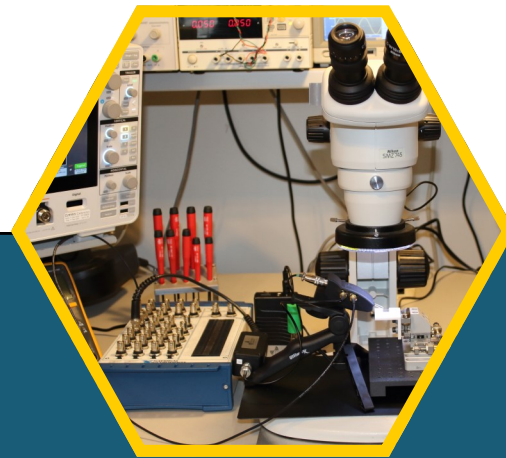
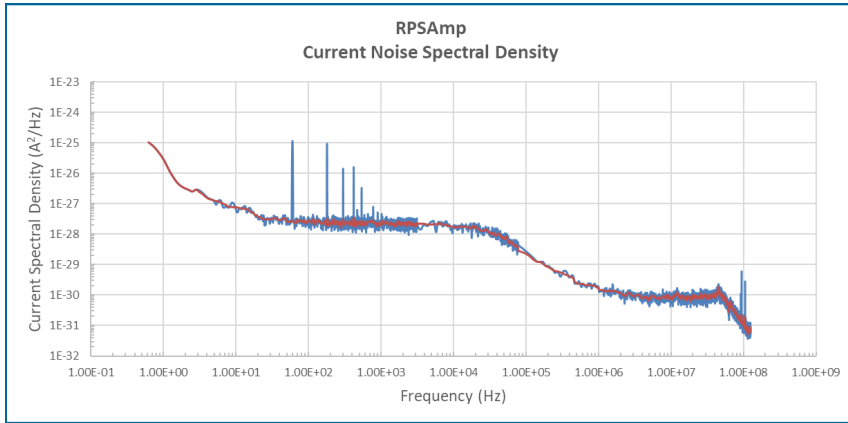
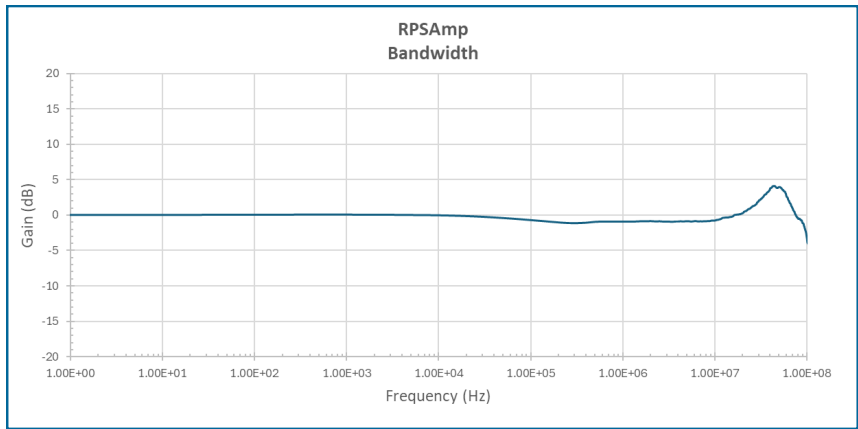
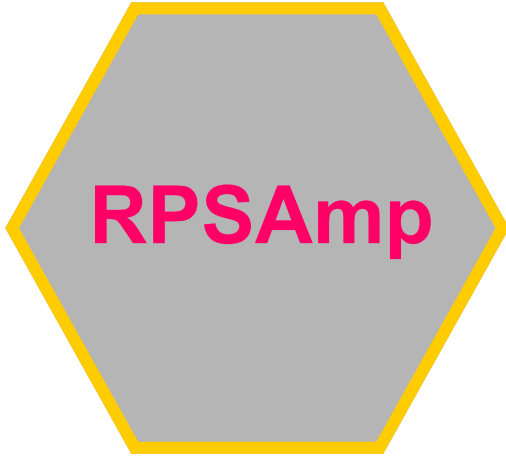
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## SPECIFICATIONS

### Frequency Response:

DC to > 100 MHz

### Spot Noise (Referred to input, 10 MΩ cell):

- 3.1E-27 Arms @ 10 kHz
- 1.2E-27 Arms @ 100 kHz
- 4.2E-29 Arms @ 1 MHz
- 9.8E-30 Arms @ 10 MHz
- 1.2E-28 Arms @ 100 MHz

### Transimpedance Gain:

100 nA/V (Custom Gains Available)

### Output Voltage Swing:

> +/- 2.25 V (+/- 225 nA)

### Output Short Circuit Current:

60 - 90 mA

## OTHER INFORMATION

### Low Pass Anti-aliasing filters (Eliminates Coherent RF Noise and flattens frequency response):

1. 150 kHz (300 KSPS)
2. 1 MHz (2 MSPS)
3. 5 MHz (10 MSPS)
4. 50 MHz (100 MSPS)
5. 100 MHz (200 MSPS)

Frequencies to accommodate other sample rates available by special order.

### Kit Contents:

1. RPSAmp.
2. One Anti-alias filter.
3. Rechargeable Li+ rechargeable battery pack.
4. Bipolar power supply converter.
5. Input/Output cables (SMA to BNC, BNC to BNC).
6. Input connector with alligator clips. Input converters. available by special order.
7. Converter for mounting RPSAmp to standard photo mount.
8. Mini tripod stand.

### Notes:

- Specifications subject to change without notice.
- Not for human use—see disclaimers.

