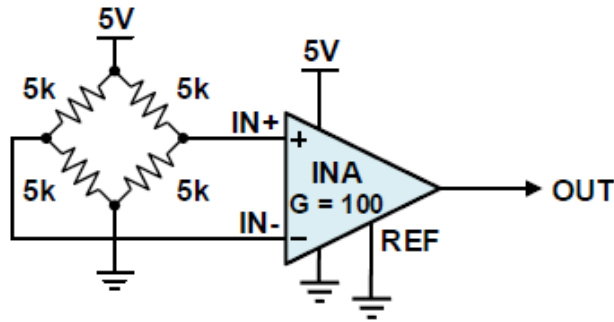The montage we are working on:



Measurements taken at 1Hz on the figure 22 and the figure 23 to match our situation
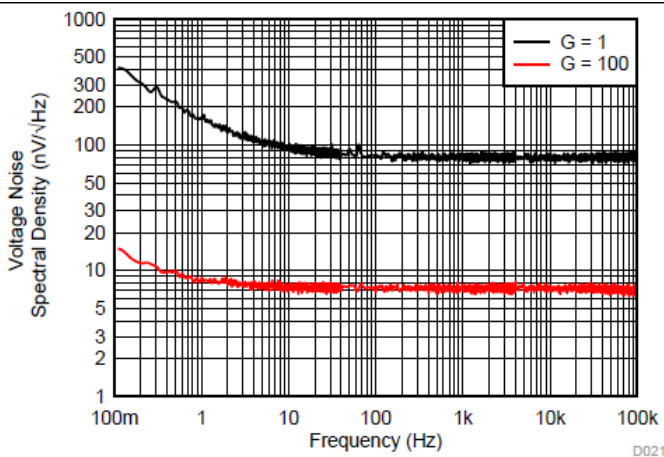


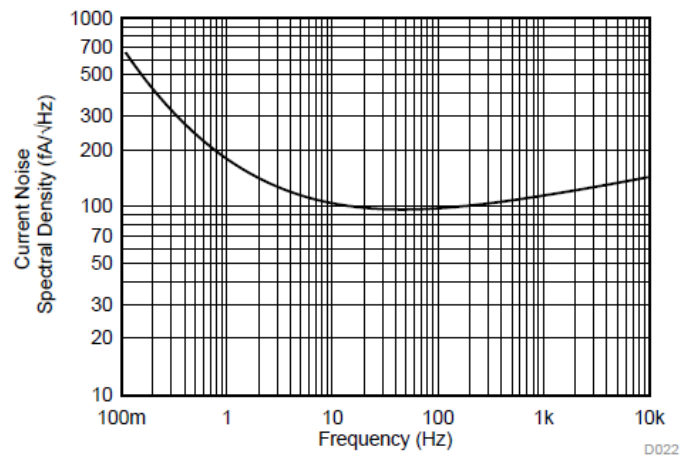Figure 22. Voltage Noise Spectral Density vs Frequency (RTI)

Figure 23. Current Noise Spectral Density vs Frequency (RTI)

For our calculations we used the following formulas:

$$E_{no(INA)} = G_{INA} \cdot \sqrt{e_{n(INA)}^2 + 2\, i_{n(INA)}^2 (R_S/2)^2}$$

$$E_{no(Rs)} = G_{INA} \cdot \sqrt{8kTR_S/2}$$

with Rs the source resistance

The results:

```
         INA Noise
G: 100
e_n: 8e-09
i_n: 1.8e-13
Rs: 5000.0
         Value: 8.025272581040472e-07 (V/sqrt(Hz))
         Value: -1.2191080415433393e+02 (dB)


         Rs Noise
G: 100
k: 1.38e-23
T: 298
Rs: 5000.0
         Value: 9.069068309368939e-07 (V/sqrt(Hz))
         Value: -1.2084874653858527e+02 (dB)
```