- Procedure similar to sec. 3.6 of Melissinos & Napolitano but measure noise power using VI instead of $e_n^2$ using oscilloscope.

Johnson noise measurement block diagram:

Also measure $|H(f)|$ for system using signal generator, voltage divider and oscilloscope. (or use oscilloscope VI). See Figs. 3.25 and 3.26. The voltage divider should give a factor of $\approx 1000:1$ (use 10 kΩ and 10 kΩ, for example).

- Use short leads, build near supply rails, e.g. $\pm 1.5\text{ V}$ to ground nearby with $0.1\text{ mF}$.

- Some care may be necessary in connecting the car to the BNC connector to avoid interference and ground loops.

- Spectrum analyzer: Get one-sided spectral density by summing positive and negative frequencies.

With 1024 samples, 100 kHz sample rate, channels 0 - 512 correspond to 0 - 50 kHz ($f_c$). Sum channels of interest, take mean of $N$ iterations (N=20) to find power within BW.