

Fast barometer testing

I took a snippet of data from both the Setra and Nanobarometers today in the lab, sitting on the bench.

I see white noise dominating the spectra down to about 0.1 Hz on the Setra. I estimate the noise level at 0.02 mb RMS. I don't see a spec for noise in the datasheet, but the "resolution" is listed as 0.01 mb – not a lot different. (I don't know how resolution is defined for an analog sensor!) Of course, it is possible that our A/D and/or cabling is injecting noise, but it should be better than this.

I saw no evidence of white noise on the Nano, with a general monotonic $5/3$ decrease. There was a hint of a step down in frequency response by about a factor of 2 (in power) at about 2Hz.

From both of these tests, I would say that these barometers are working properly.