

Noise Floor in the Spectrum Analyzer

Robert Morelos-Zaragoza

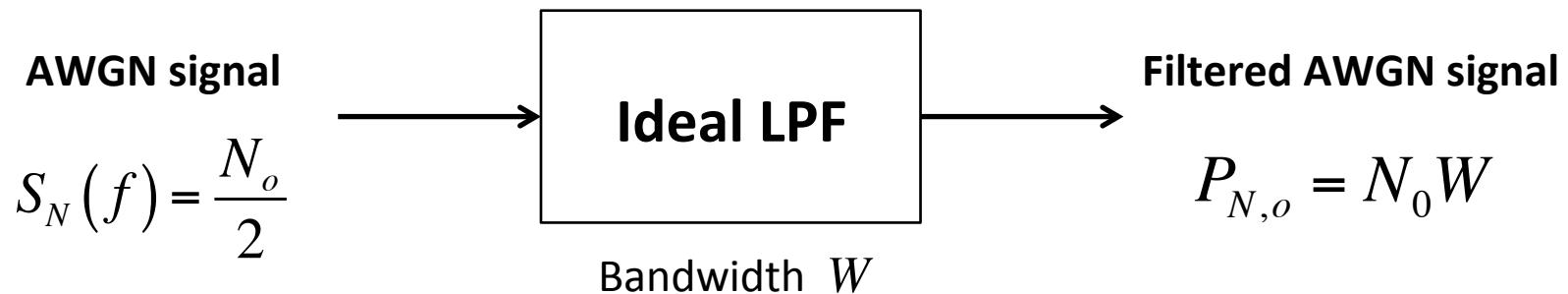
EE160: Principles of Communication Systems

San Jose State University



Noise Power

As discussed in class:

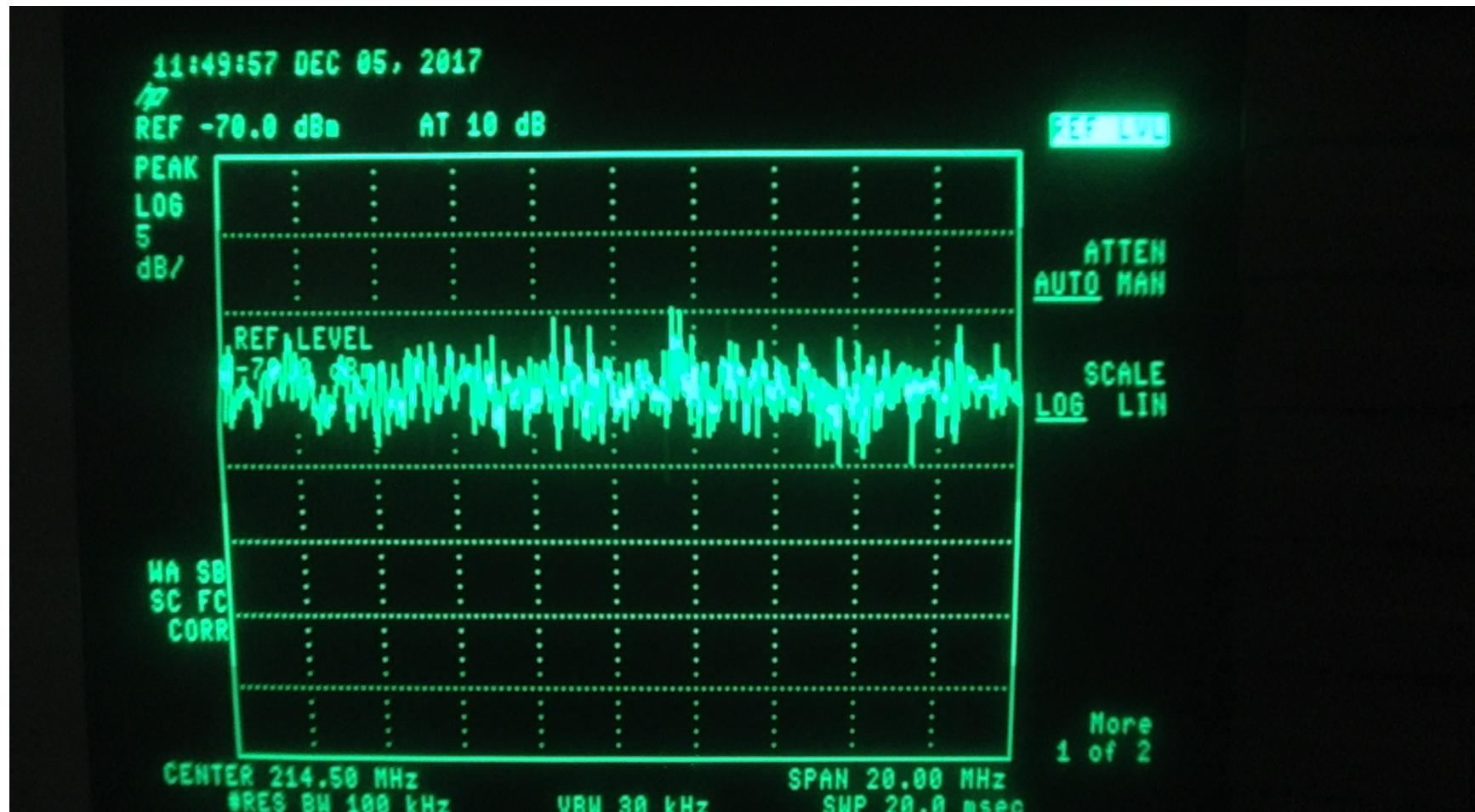


Noise power at the output of the LPF is **proportional to the bandwidth**

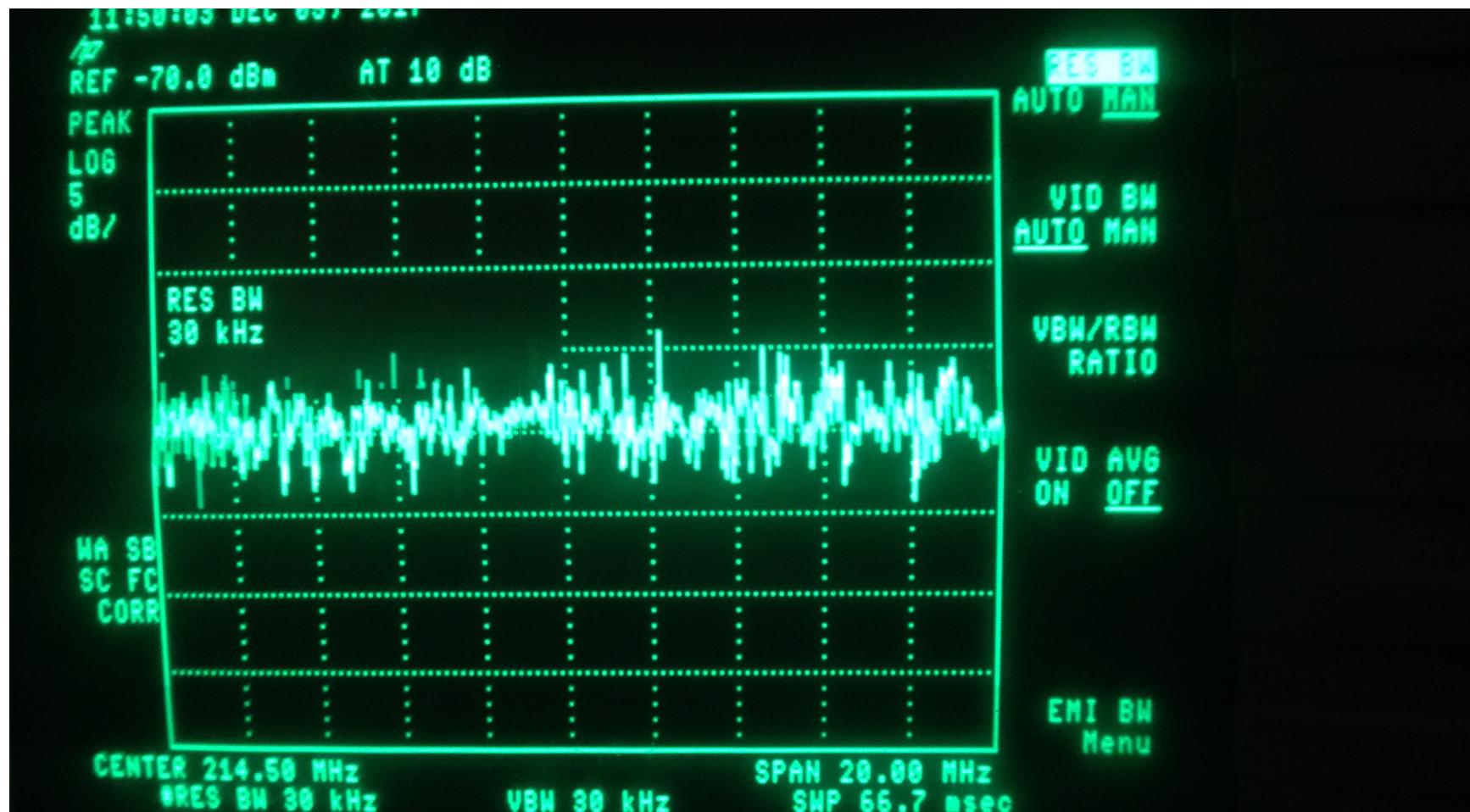
The following slides show the noise floor in the SA is shown for different values of resolution bandwidth BW

(Make a table of BW vs $P_{N,o}$ on the board)

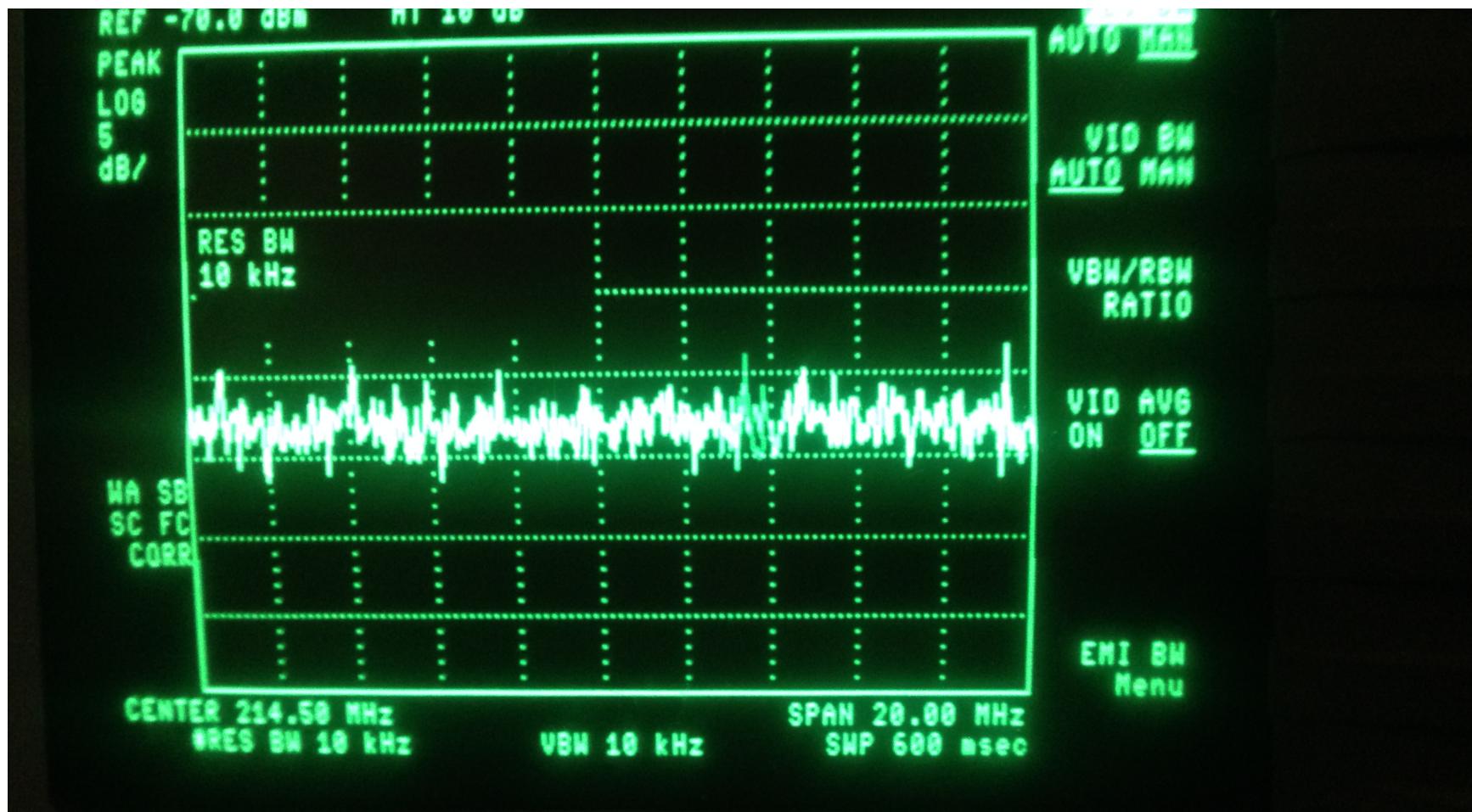
Resolution bandwidth, BW=100 kHz



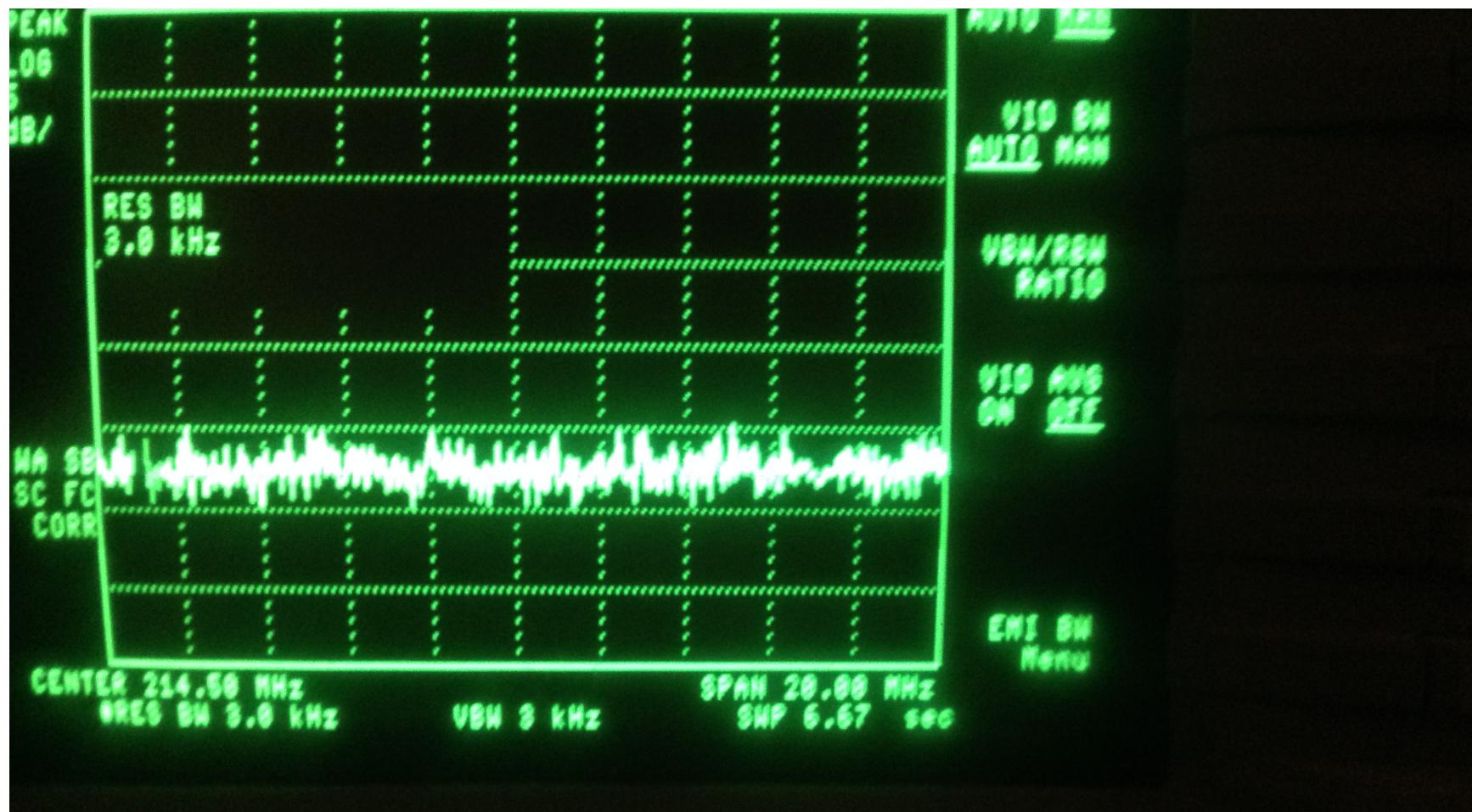
Resolution bandwidth, BW=30 kHz



Resolution bandwidth, BW=10 kHz



Resolution bandwidth, BW= 3 kHz



Resolution bandwidth, BW= 1 kHz

