

## Electronic VNA Jitter and Effect on Tuner Repeatability Data

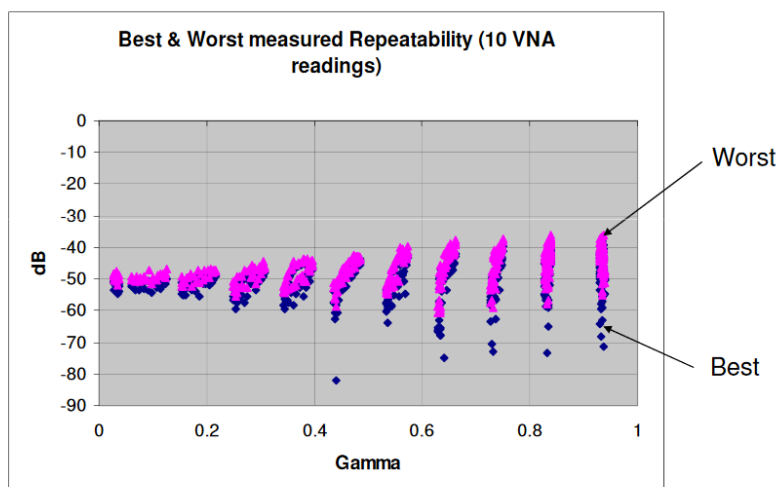
The Analysis...

- We have observed that VNA readings vary, even if there is averaging ON.
- This can affect the measured "Tuner Repeatability", especially if the value measured is below -40dB (1%) and at high  $\Gamma$  values.

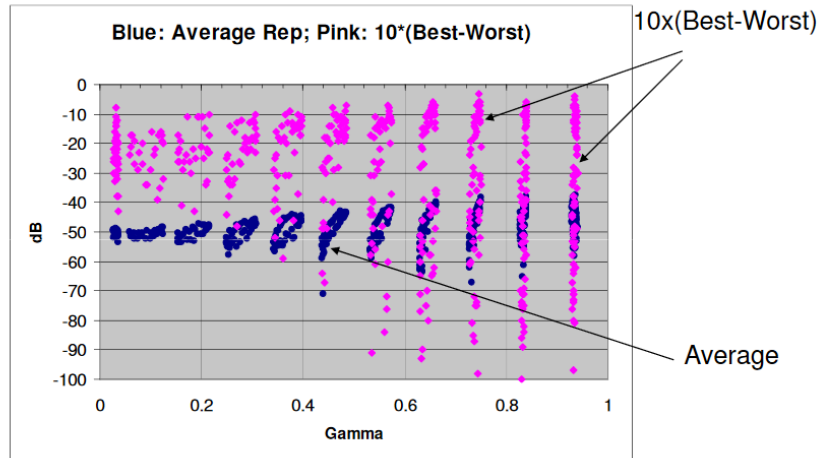
Measuring is more than Instrument Reading...2 and at high  $\Gamma$  values.

- We therefore run Repeatability Tests using various VNA types and reading 10 times, before moving the tuner.
- The results are presented as "Best", "Worst", "Average" and "Best-minus-Worst" cases.

### HP-8753D



# HP-8753D



# Agilent PNA

