

T10/07-468r0

6G SAS Common Mode Voltage Data

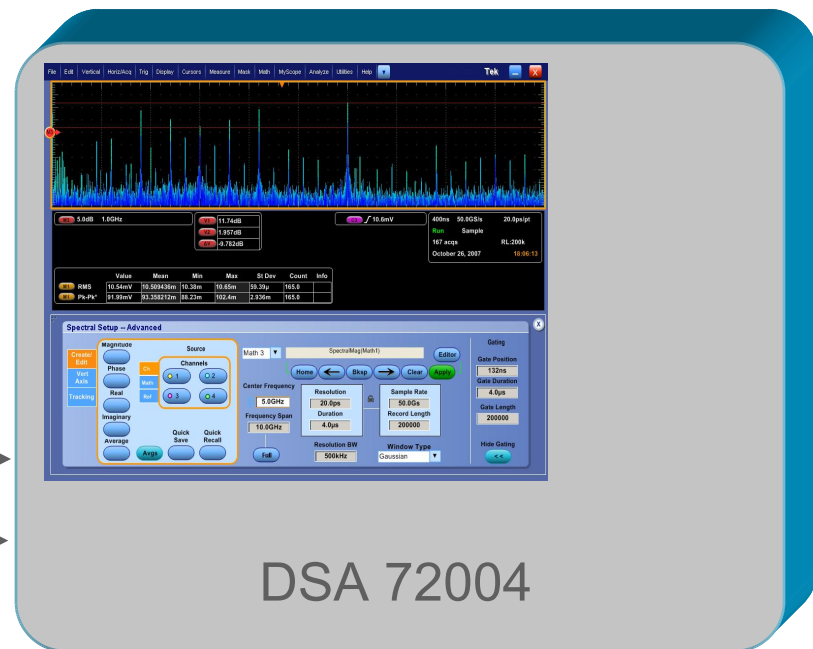
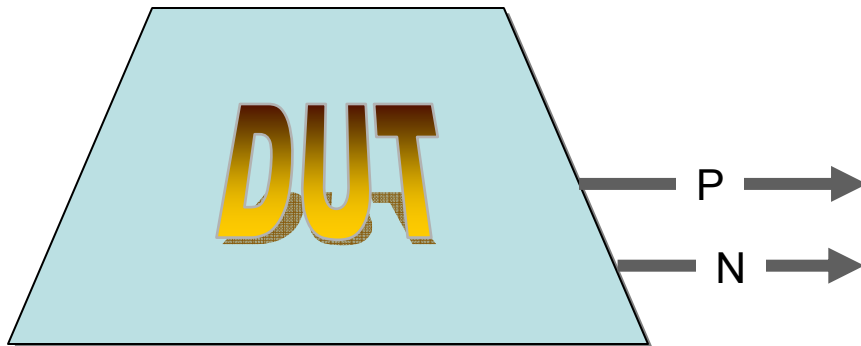
Mike Jenkins

26 Oct 2007

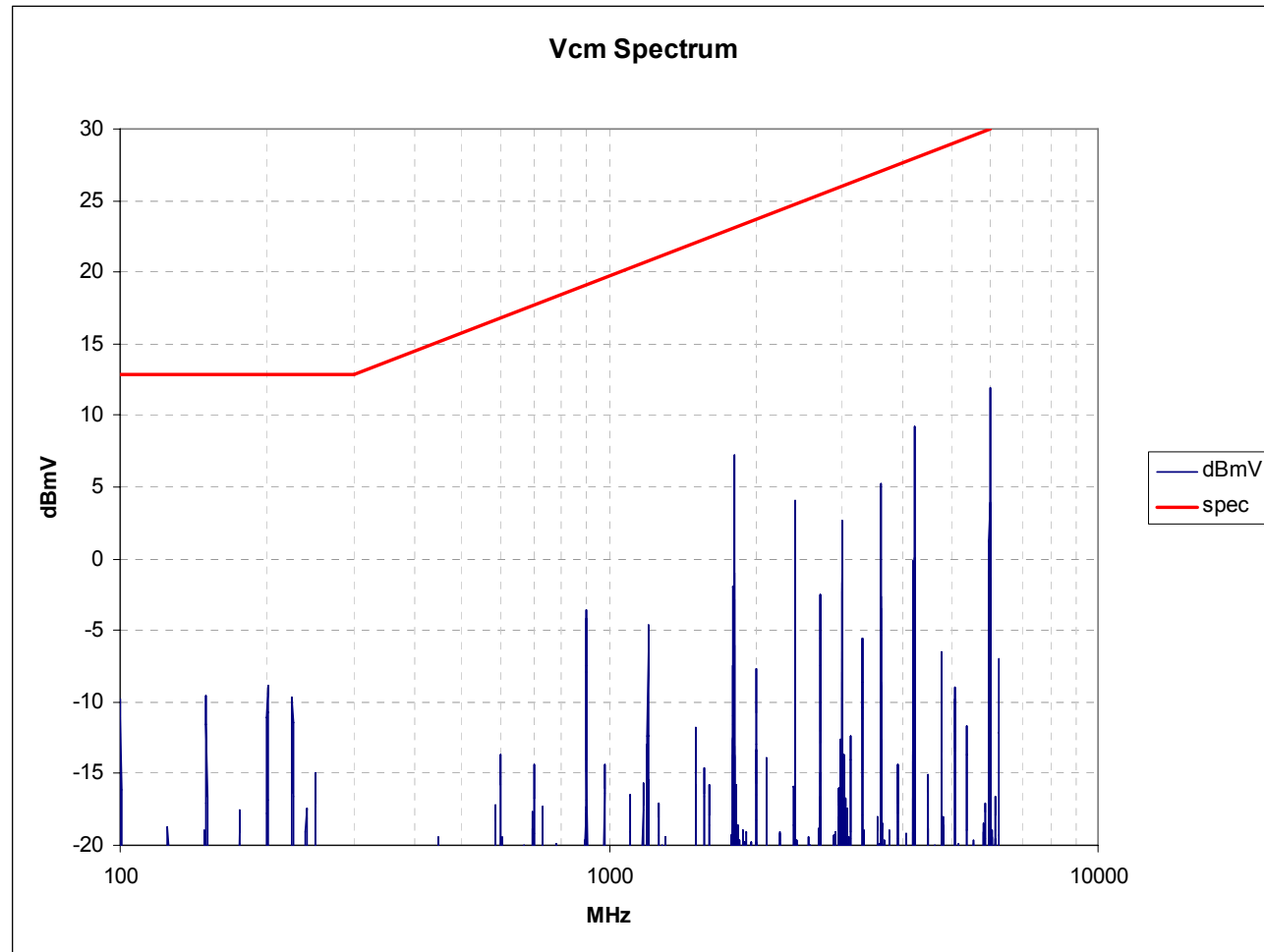


Measurement Setup

- Measure $\text{SpectralMag}((P+N)/2)$
- 1 MHz resolution bandwidth
- SAS CJTPAT
- SMA-to-SMA connection

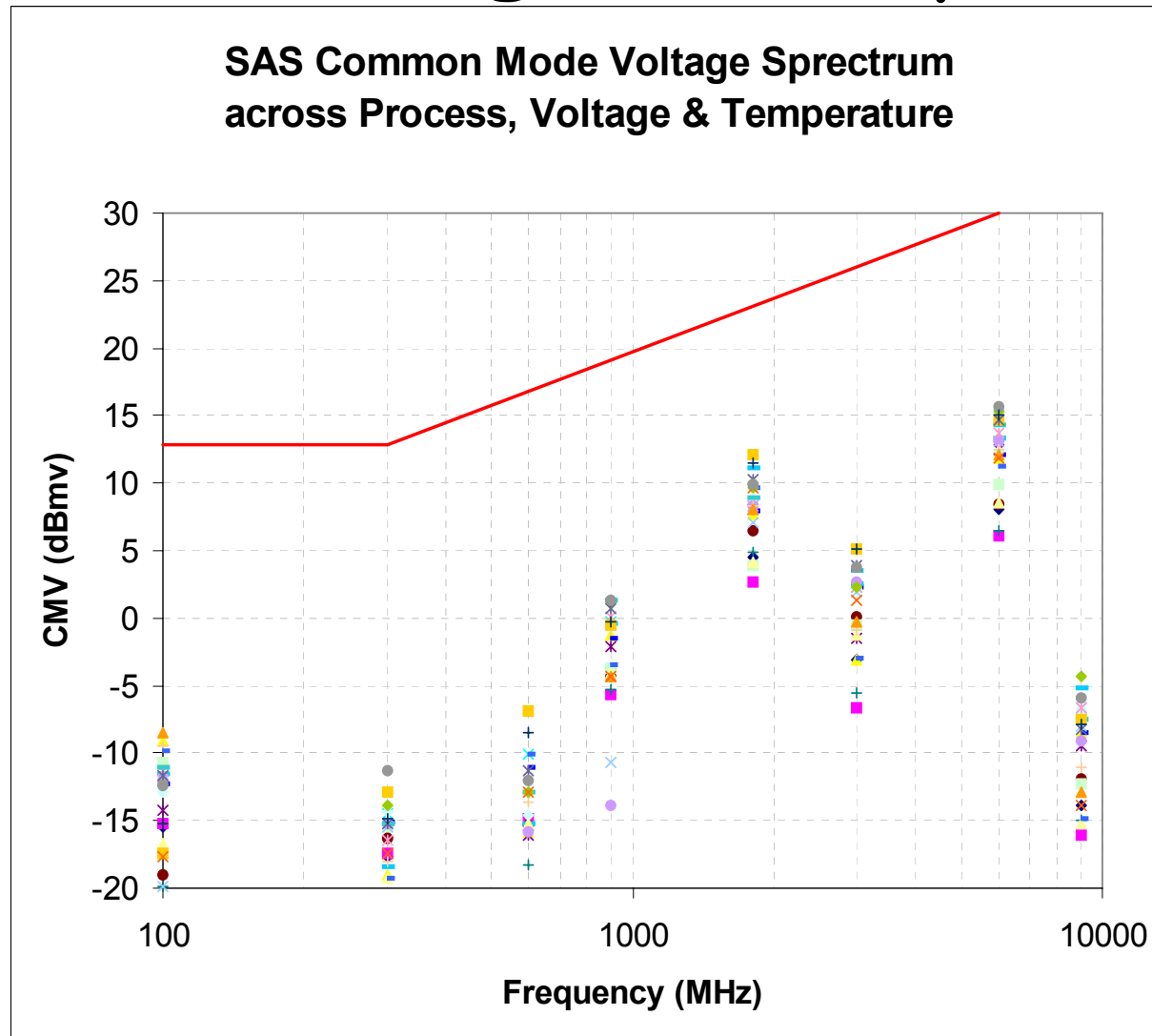


Typical Vcm Spectrum



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Vcm Spectral Peaks vs. Process, Voltage & Temperature



Comments & Conclusions

- Data shows ~10 dB of margin to spec limit line
 - ~6 dB margin to total RMS spec of 26 dBmV (20 mV)
- Increased high frequency spectral energy justifies shape of spec limit line
- Vcm & SCD are strongly influenced by imbalances in package & PCB layout
 - SerDes/SMA data is *only* a demonstration that meeting these specs 'thru the SAS connector' is *feasible*. The PCB design folks still have their work cut out for them.