6G SAS
Common Mode Voltage Data

Mike Jenkins
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Measurement Setup

- Measure SpectralMag((P+N)/2
- 1 MHz resolution bandwidth
- SAS CJTPAT
- SMA-to-SMA connection

![DSA 72004](image)
Typical Vcm Spectrum
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.