E157 Lecture 19 Day Plan

Any questions before quiz

Quiz + Team Quiz + Talk through solution

What is distortion?

- Funny shaped output in response to big input
- Op-amp example
- Audio example
- Characterized by harmonics
- Differentiate from instability in spectrum

THD of common applications – 10% telephony, 5% video, 0.1% Digital RF PA, 0.001% Audiophiles

How to measure P-1dB –

- put in low input power, note gain, increase input power, watch for drop in gain,
- Pin vs. Pout plot, gain is intercept

If I have an HD2 value, how many dBc is the second harmonic – 20log(HD2)