

1. Measure Wenzel, phase noise 10dBm, 0dBm, -10dBm (baseline Wenzel only phase noise)
2. The E5052 Measurement instrument measures Single Ended 10MHz CMOS (LTC6957-4) well. To measure (LTC6957-2) LVDS or (LTC6957-1) LVPECL with the E5052 they had to be converted to single ended measurements. These signals were converted to single ended measurements by connecting the LTC6957-1 or -2 outputs to the LTC6957-4 input. For these measurements the LTC6957-4 FILTA/B=L. To calculate a better measurement of the LTC6957-1/-2, the phase noise from the LTC6957-4 attached to the outputs needed to be removed. To this the following baseline phase noise was recorded here

Measure LTC6957-4_LL phase noise

Wenzel → 0dB attn → clipping diode → LTC6957-4 FILTA=FILTB=L → E5052 (baseline Wenzel + LTC6957-4 phase noise)

3. Measured LTC6957-1 phase noise (LVPECL)
 - a. 10dBm input amplitude, all FILTA, FILTB combinations
 - b. 0dBm input amplitude, all FILTA, FILTB combinations
 - c. -10dBm input amplitude, all FILTA, FILTB combinations

Measure Raw Phase Noise: Wenzel → xdB attn → LTC6957-1 differential (130 pull down, ac coupled, 100 ohm diff, ac coupled) → LTC6957-4 LL phase noise → E5052

Calculate Additive Phase Noise: (Measured LTC6957-1 @ xdBm) – (LTC6957-4_LL) **This calculation removes the baseline Wenzel + LTC6957-4 phase noise from the LTC6957-1 measurement**

4. Measured LTC6957-2 phase noise (LVDS)
 - a. 10dBm input amplitude, all FILTA, FILTB combinations
 - b. 0dBm input amplitude, all FILTA, FILTB combinations
 - c. -10dBm input amplitude, all FILTA, FILTB combinations

Measure Raw Phase Noise: Wenzel → xdB attn → LTC6957-2 differential (100 ohm diff, ac coupled) → LTC6957-4 LL phase noise → E5052

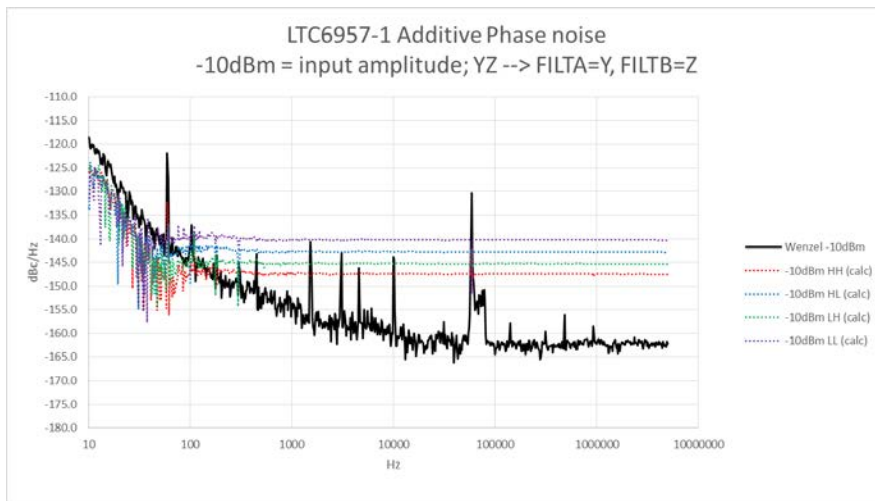
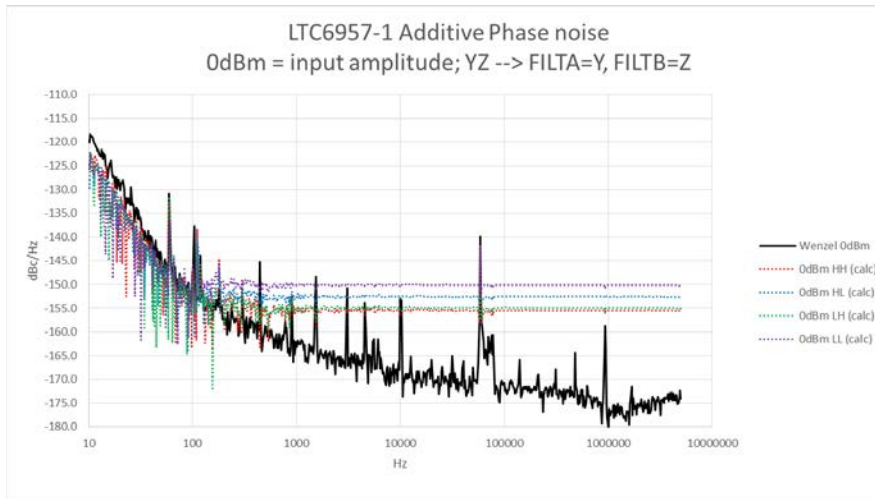
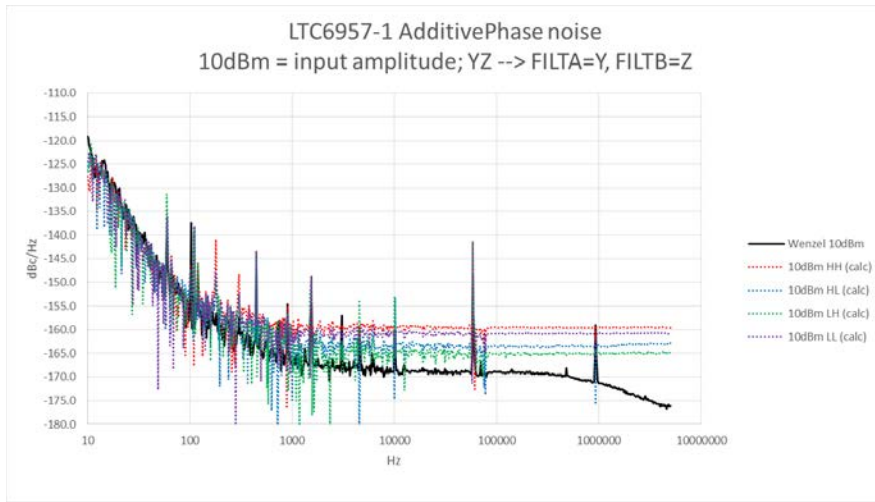
Calculate Additive Phase Noise: (Measured LTC6957-2 @ xdBm) – (LTC6957-4_LL) **This calculation removes the baseline Wenzel + LTC6957-4 phase noise from the LTC6957-2 measurement**

5. Measured LTC6957-4 phase noise
 - a. 10dBm input amplitude, all FILTA, FILTB combinations
 - b. 0dBm input amplitude, all FILTA, FILTB combinations
 - c. -10dBm input amplitude, all FILTA, FILTB combinations

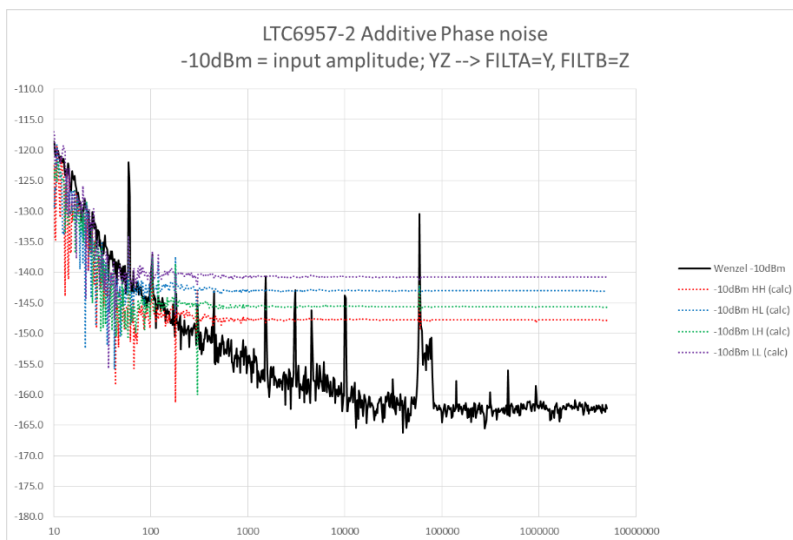
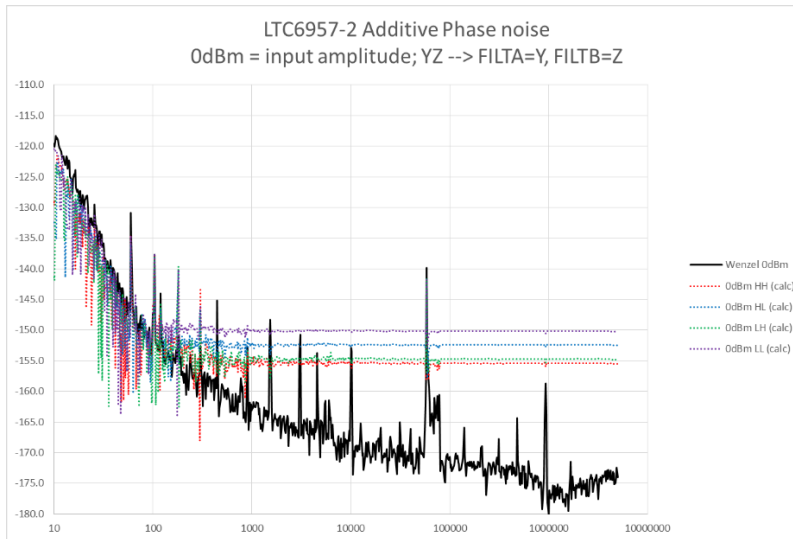
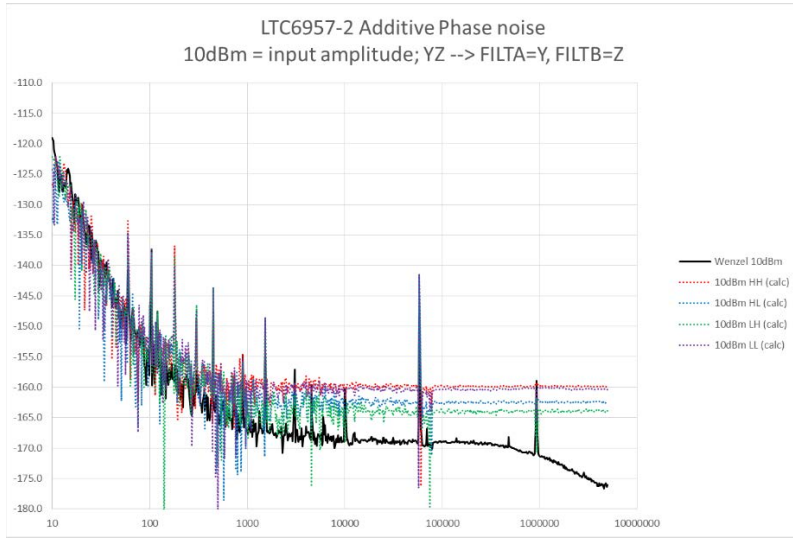
Measure Raw Phase Noise: Wenzel → xdB attn → LTC6957-4 phase noise → E5052

Calculate Additive Phase Noise: (Measured LTC6957-4 @ xdBm) – (Wenzel @ xdBm) **his calculation removes the baseline Wenzel only phase noise from the LTC6957-4 measurement**

LTC6957-1:



LTC6957-2:



LTC6957-4:

