



GRF5604
450-470 MHz
Linear Tune

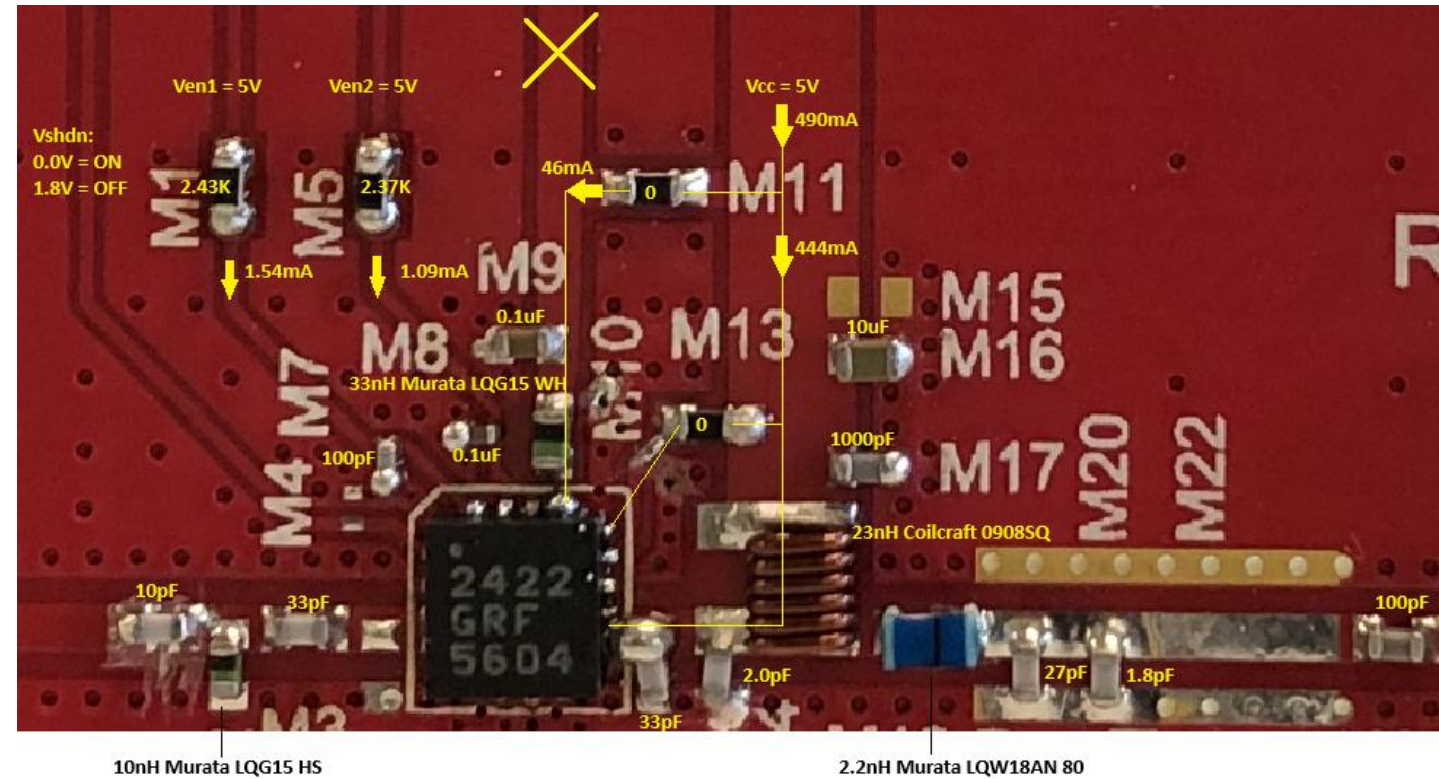
9/16/26

Schematic:

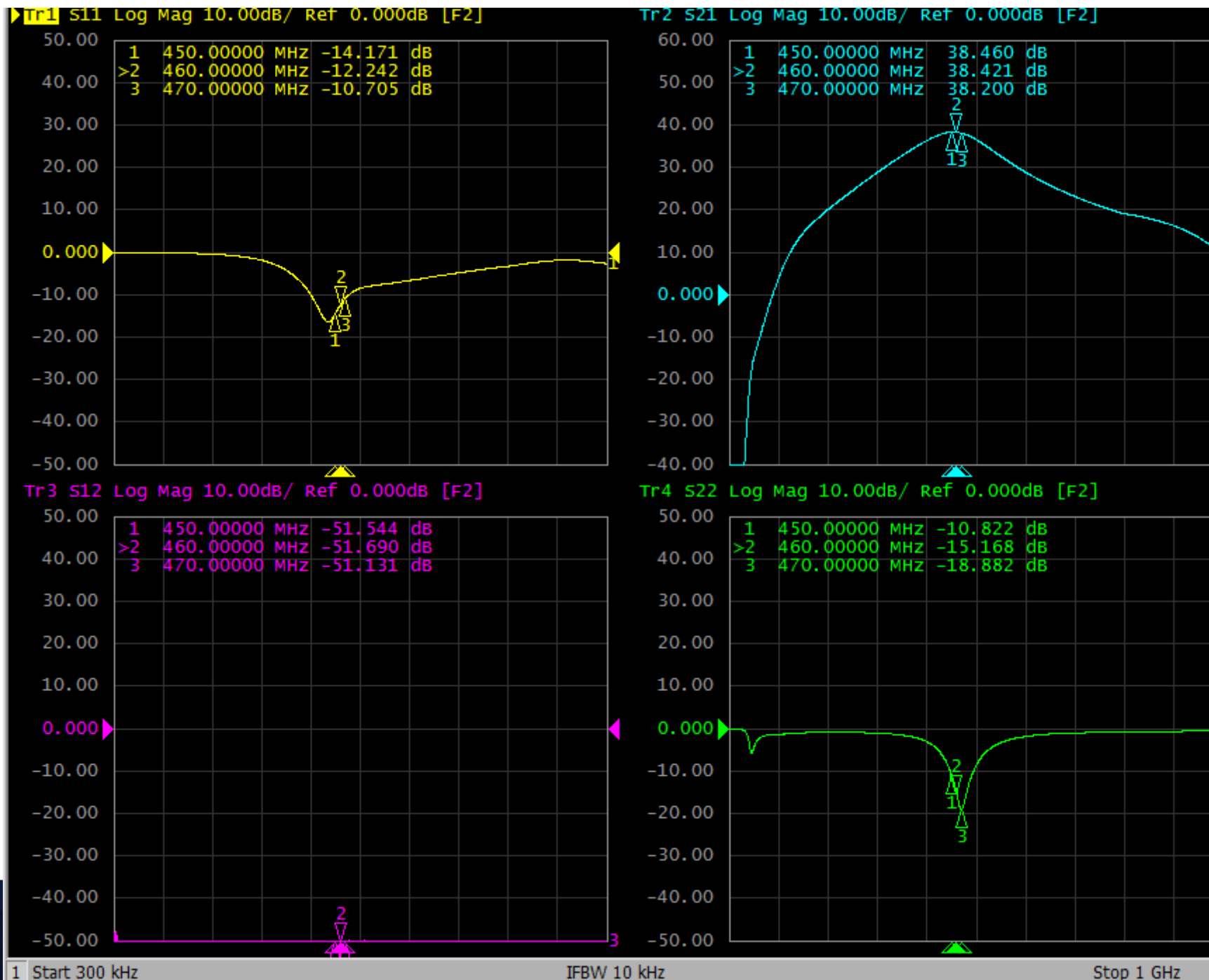
GRF5604 standard EVB is configured solely for output power and efficiency. Here we will adjust standard tune for high linearity application.

Linearity hooks put in place:

- 10uF at M16 (same as standard EVB but called out here as a necessity)
- 100pF/0.1uF at M7/M8.
- 33nH at M10
- M1/M5 bias R = 2.43K/2.37K



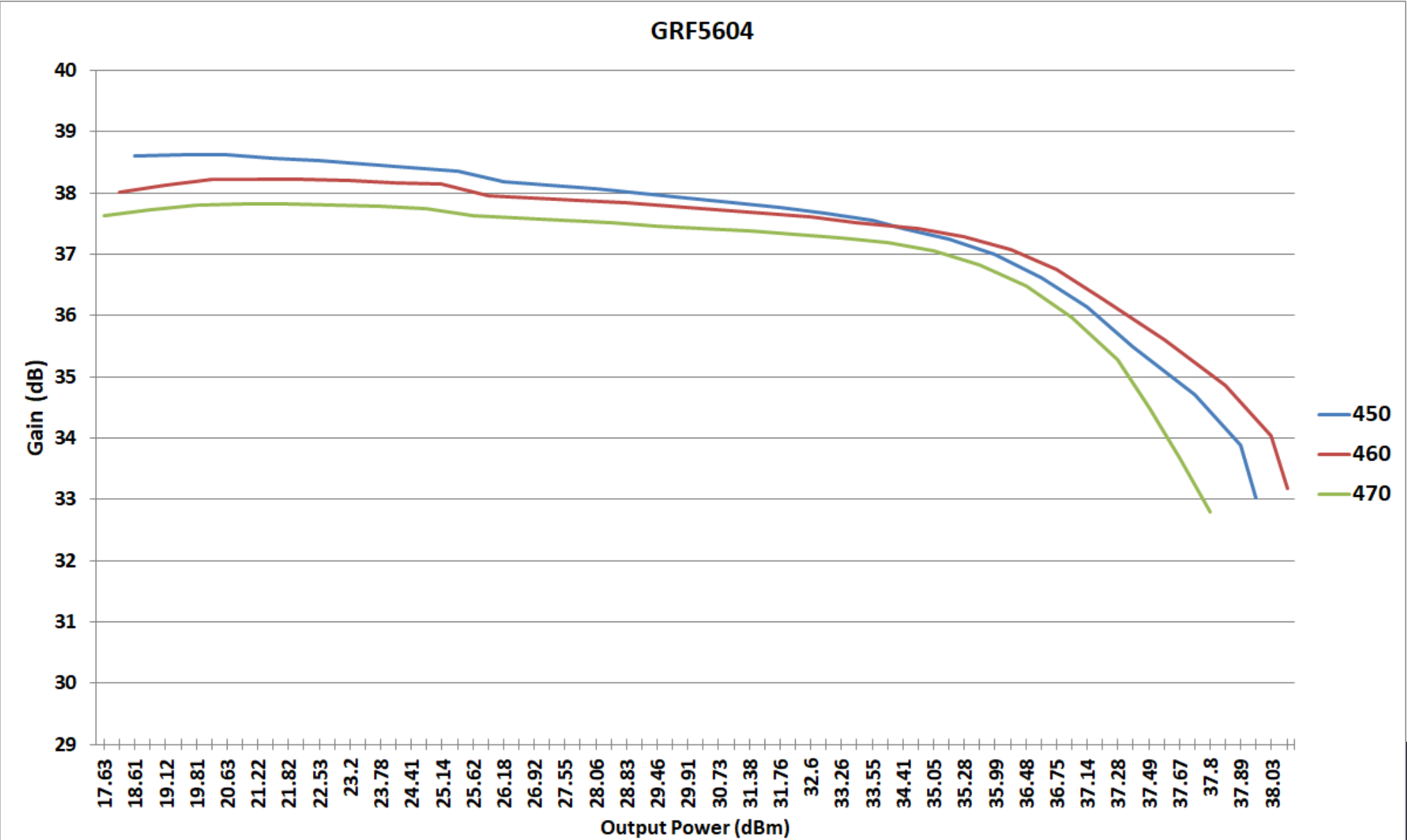
Response:



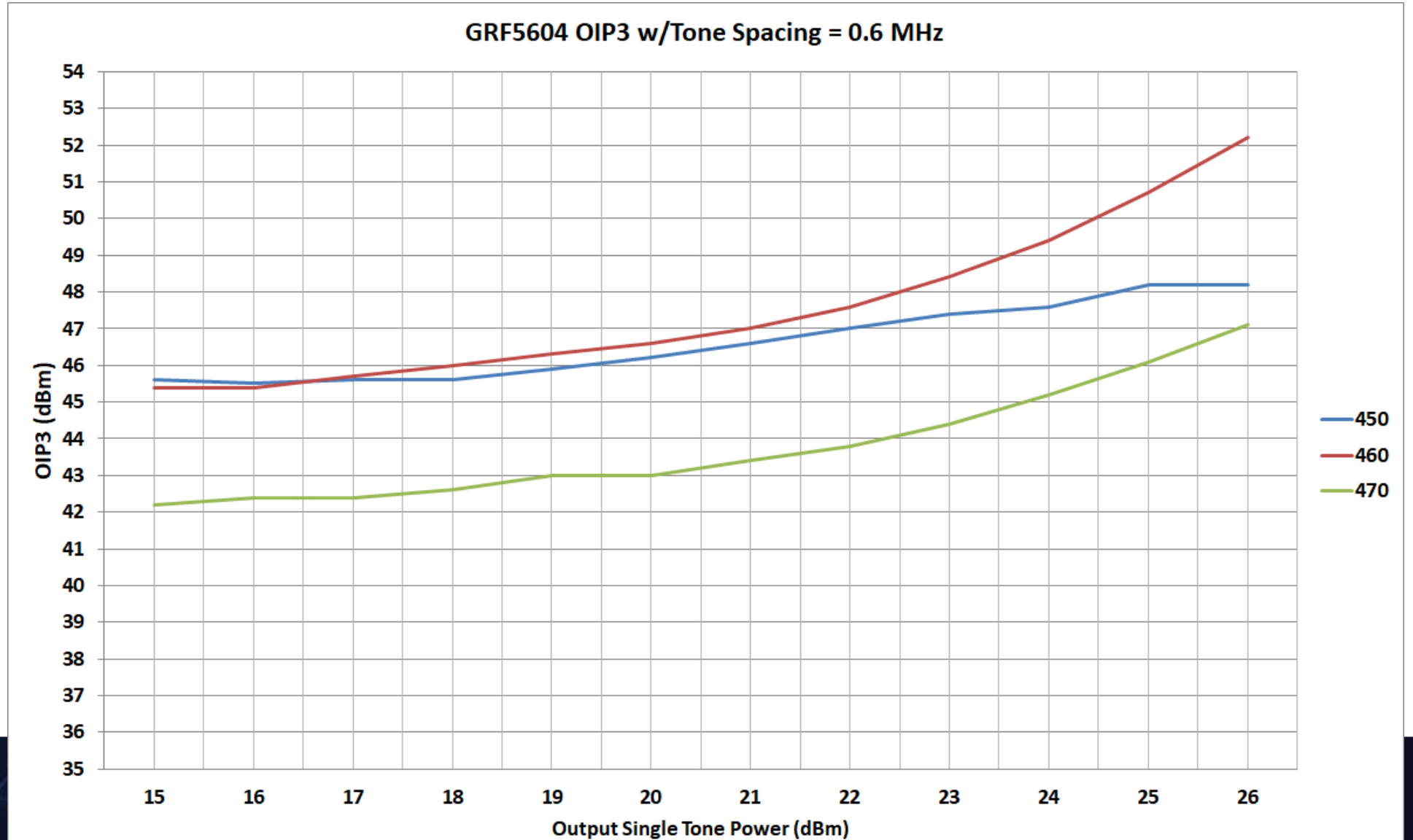
Standard Data:

Freq MHz	Vcc V	Iccq mA	Ven1 V	Ien1 mA	Ven2 V	Ien2 mA	Vshdn V	Ishdn mA	IP3 Tone Power dBm	IP3 Tone Spacing MHz	Gain dB	OIP3 dBm	OP1dB dBm	EVB NF dB
450	5	490.3	5	1.54	5	1.09	0	0	25	0.6	38.5	48.6	34.6	3.6
460	5	490.3	5	1.54	5	1.09	0	0	25	0.6	38.3	52	35.6	3.6
470	5	490.3	5	1.54	5	1.09	0	0	25	0.6	37.6	46	36	3.6

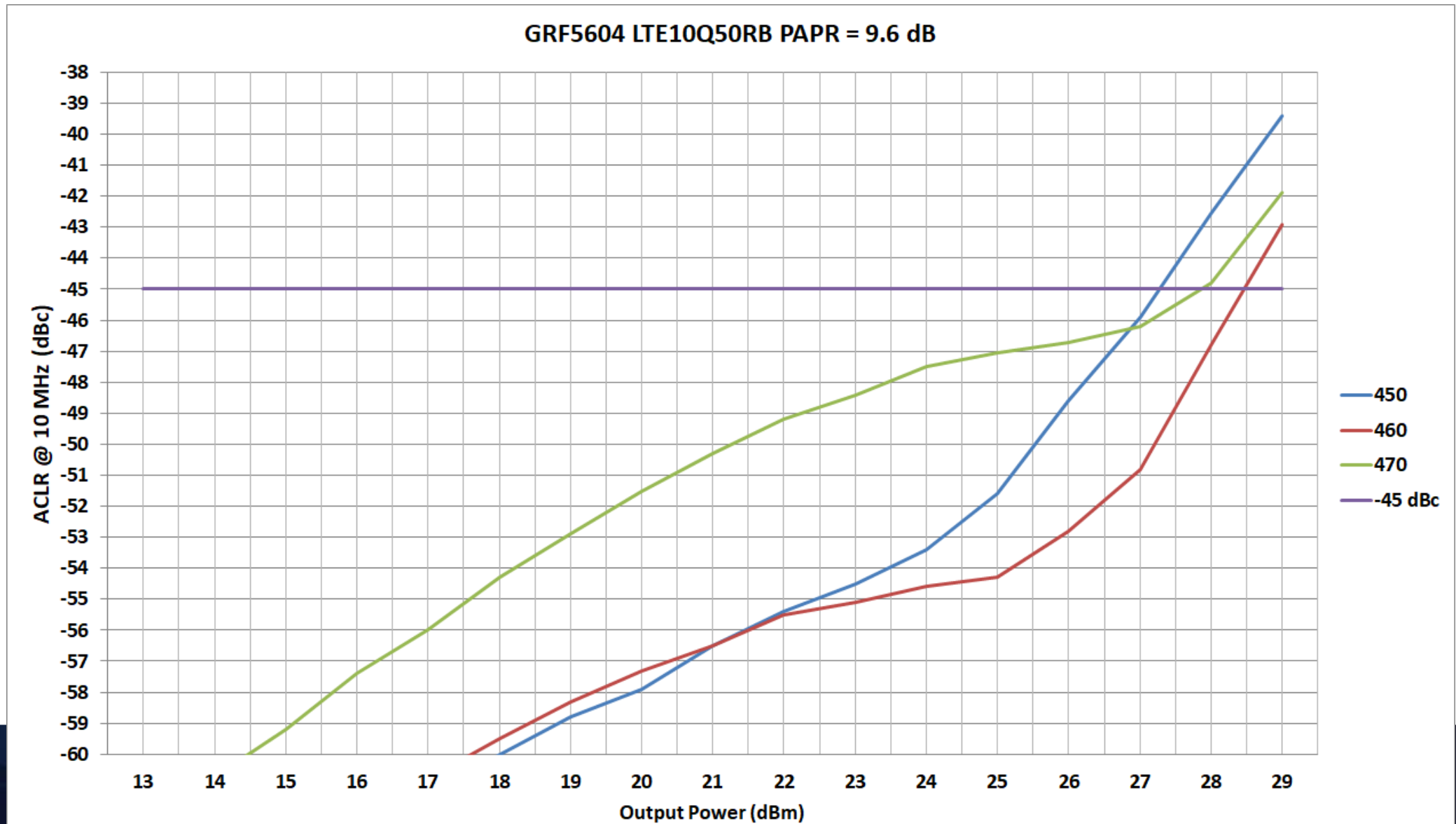
Gain vs. Output Power:



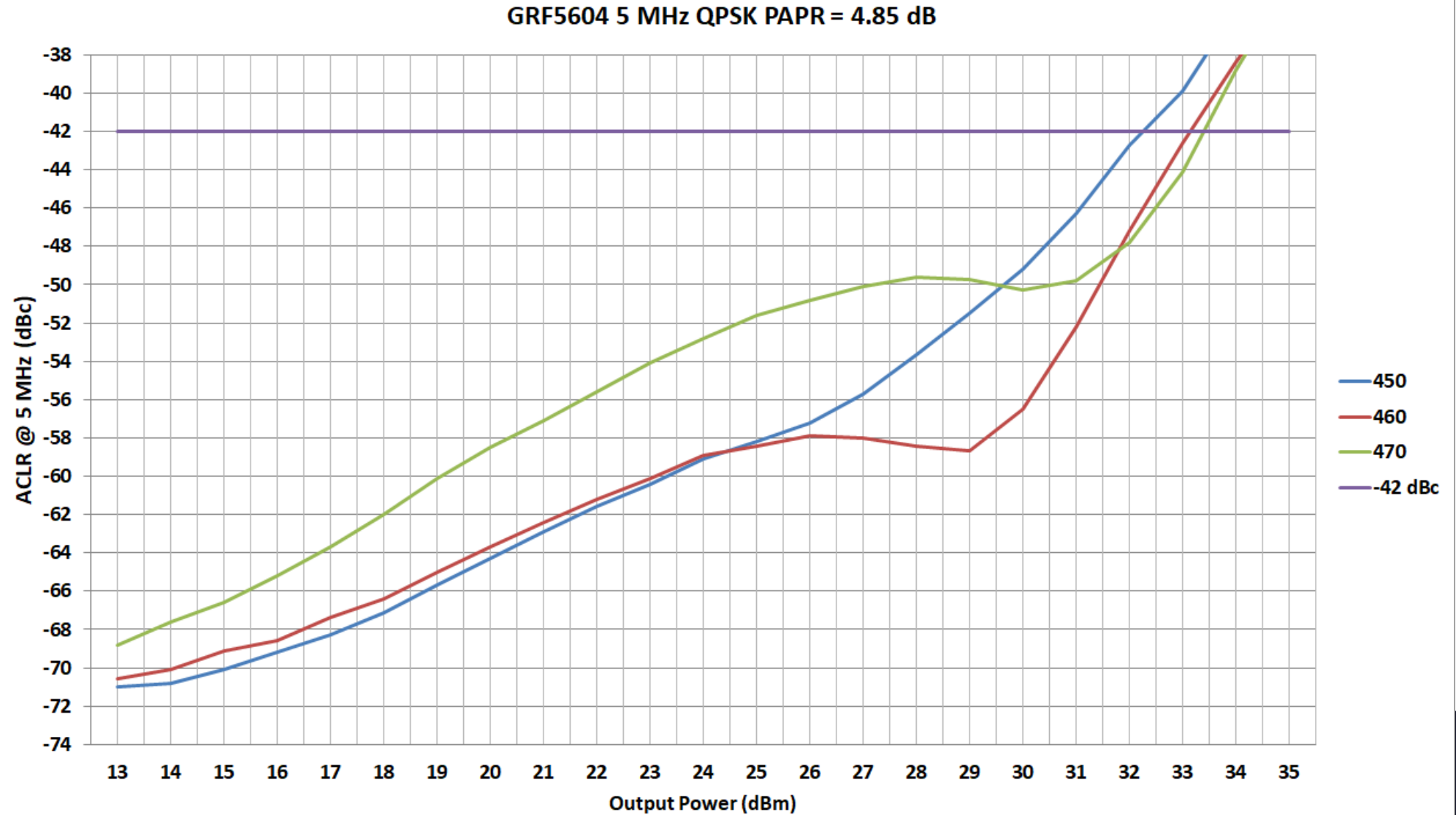
OIP3 vs. Output Power:



LTE10Q50RB PAPR = 9.6 dB ACLR:



5 MHz QPSK PAPR = 4.85 dB ACLR:





Contact Us

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