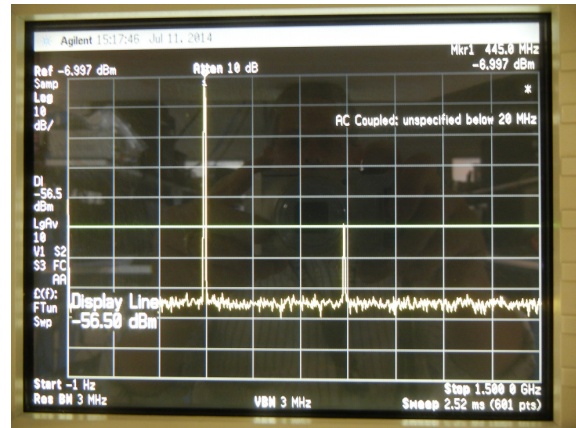
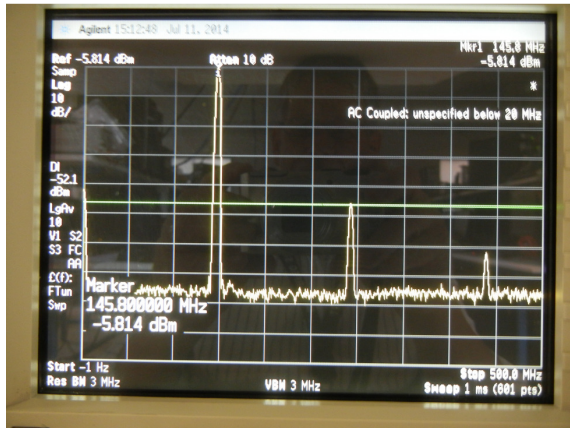
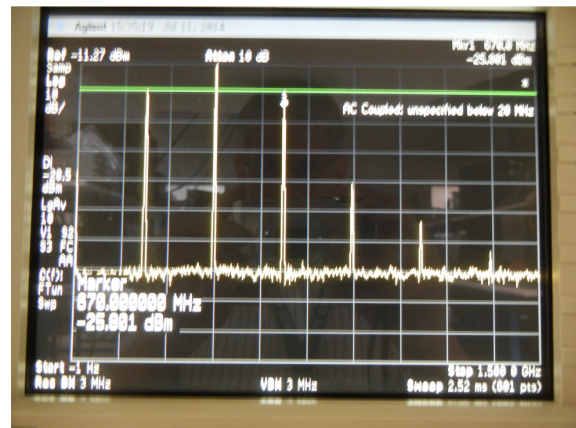
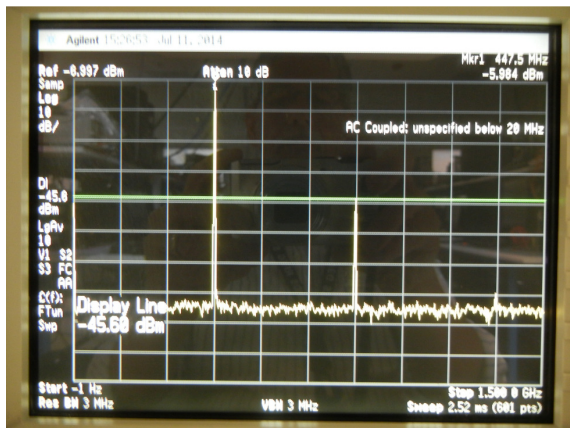


Baofeng Spectral Plots

Spectrum performance was measured on two Baofeng handheld transceivers using an inline 40dB attenuator. The following two figures show the performance of Gary's unit on high power setting at ~146 and ~444 MHz.



Next, we measured Jim's unit on high power setting at ~444 MHz and ~224 MHz.



Performance summary:

	GJ's @ 146 MHz	GJ's @ 444 MHz	JK's @ 444 MHz	JK's @ 224 MHz
Fundamental power	-5.8 dBm (2.5W)	-7.0 dBm (2.0 W)	-6.0 dBm (2.5W)	-20.5 dBm (~100mW)
Second harmonic	-46.3 dBc	-49.5 dBc	-39.6 dBc	+9.2 dBc (~800mW)
Third harmonic	< -60 dBc	< -75 dBc	< -70 dBc	-4.5 dBc (~35mW)

Conclusions:

Gary's radio is not running the advertised 5W, and has acceptable harmonic performance at 2M & 440. Jim's radio has more output power, but also is not at 5W and has much higher harmonic outputs (to be expected). Operation on 220 results in more power at the second harmonic than the fundamental, and a sizeable 3rd harmonic in the 670 MHz range. Earlier plots showed synthesizer instability with multiple local sidebands around 220 MHz. DO NOT OPERATE THESE RADIOS ON 220 MHz or anywhere outside of the VHF and UHF ranges they were designed for.