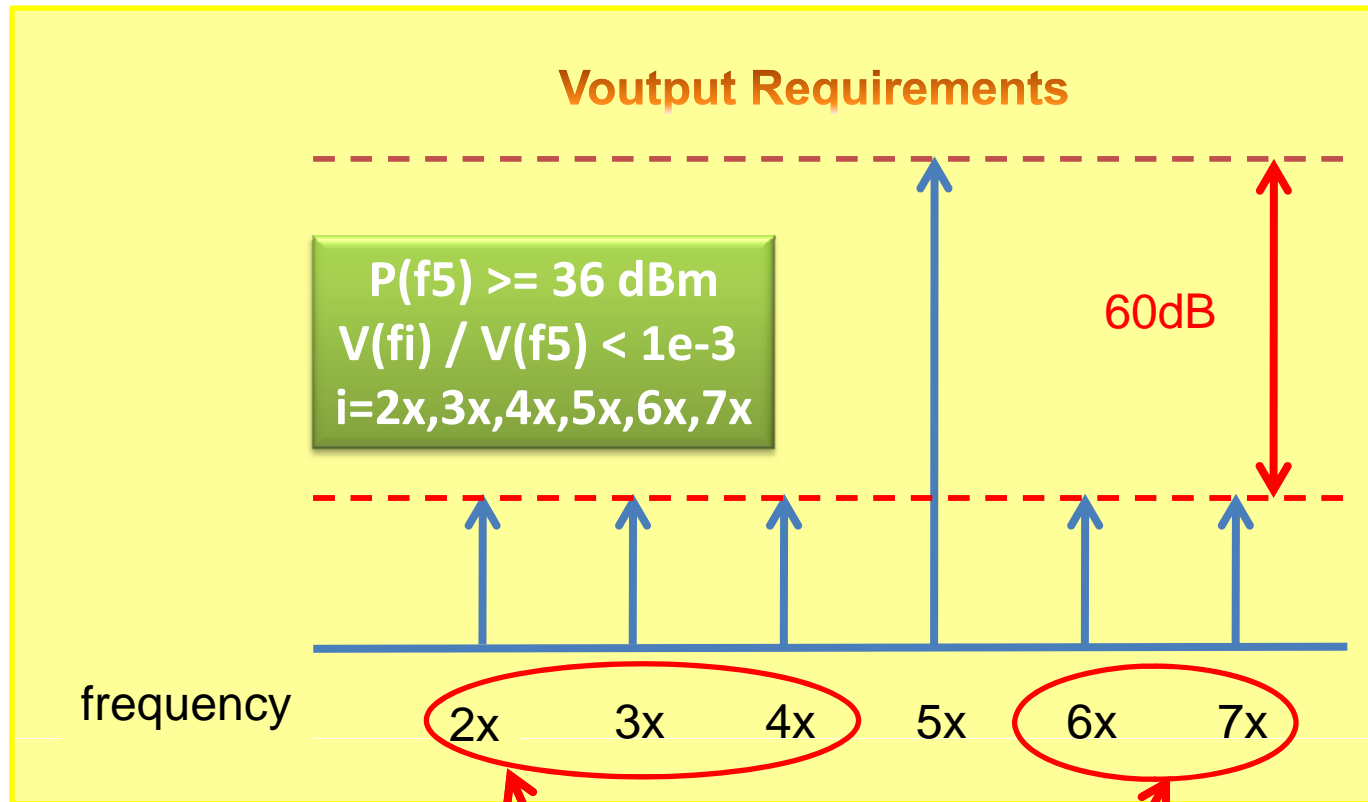


RF Modulation System for the 2009 40m Upgrade

Summary of Results

1. Stephanie and Koji obtained 300mrad @ 55MHz with 15V by means of the multiply resonant circuit she built in summer. (see Fig. 13 of the SURF report)
2. Therefore the multiplier has to output a power $P(55\text{MHz}) = 10 \cdot \log_{10}(15^2/50 \cdot 1000) = 36 \text{ dBm}$
3. From the Optickle studies on the locking signals, we need at least 60dB of difference in amplitude between the main 55MHz signal from the multiplier and other possible generated harmonics.

Requirements for the Multiplier's Output



other possible harmonics