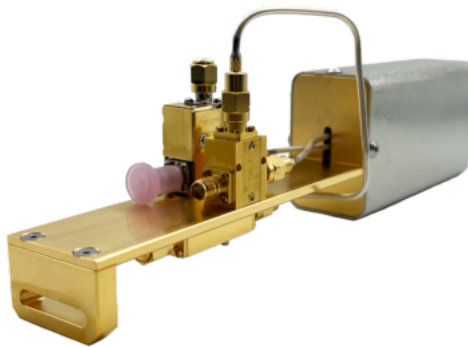


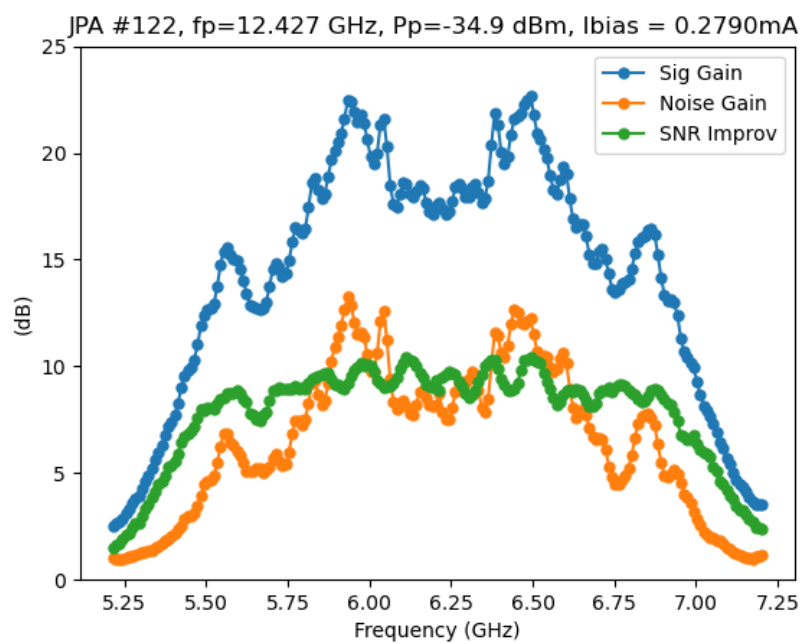


Cryogenic Testing Service

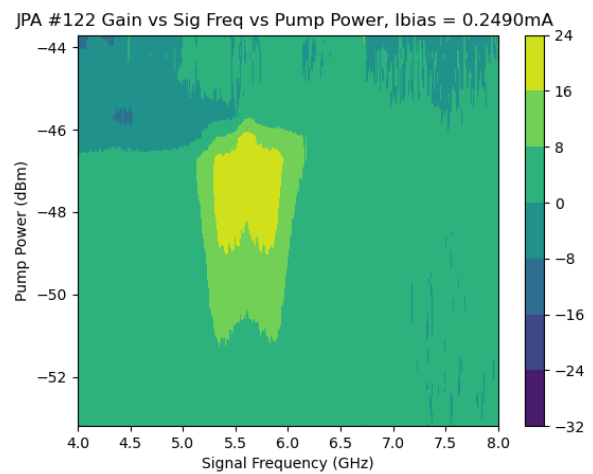
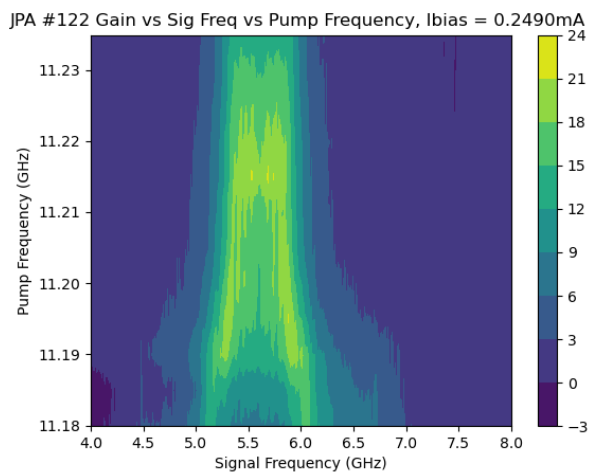
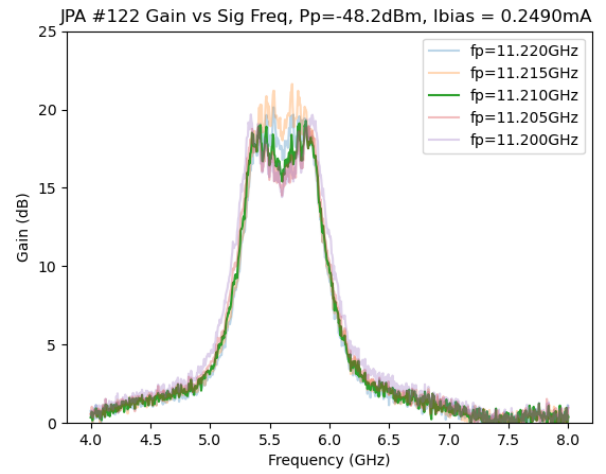
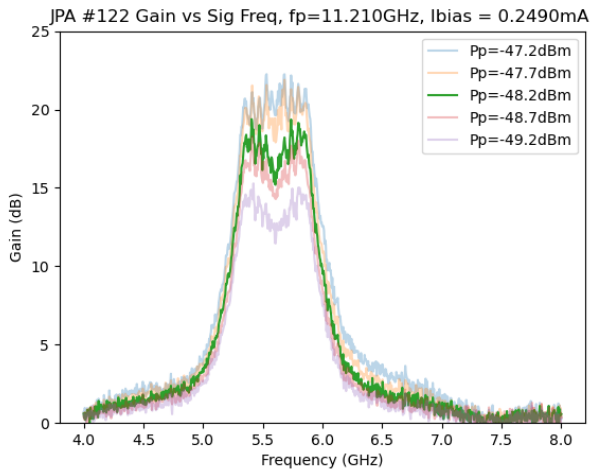
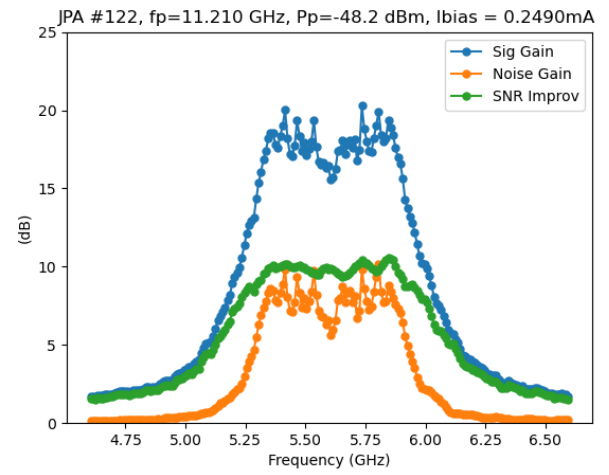
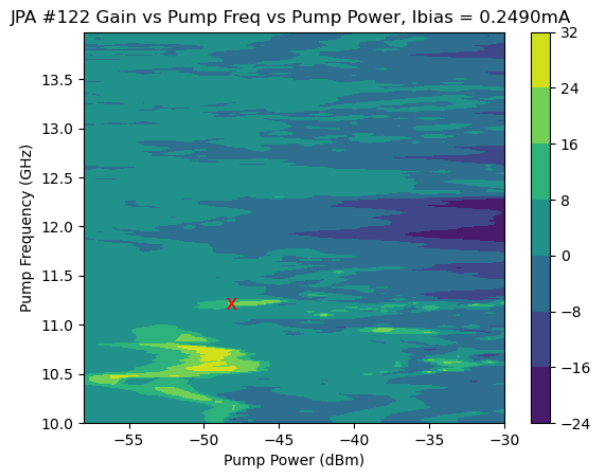
Certification Report for JPA-MCA01 with Raytheon JPA S/N # 000122:
May 29, 2024



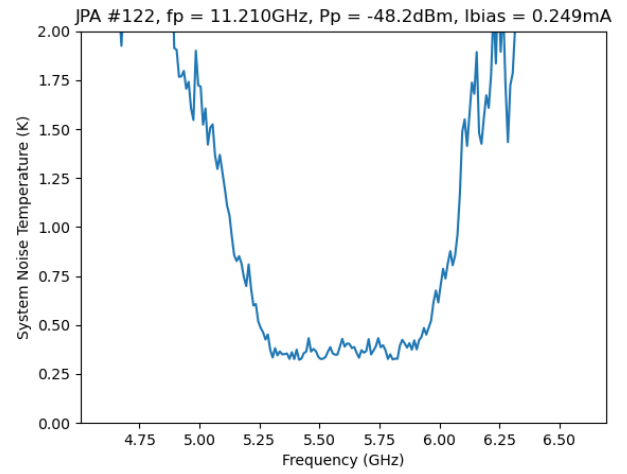
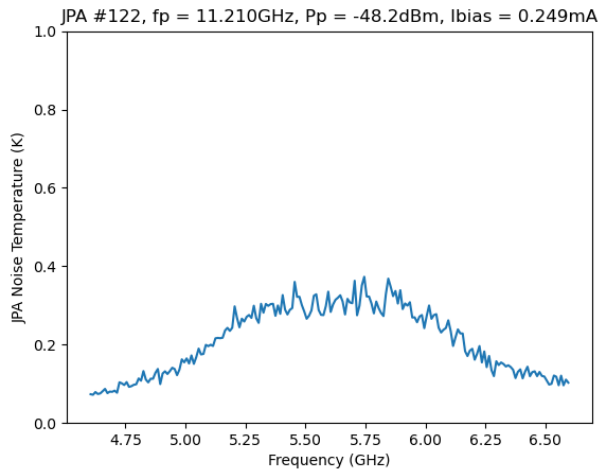
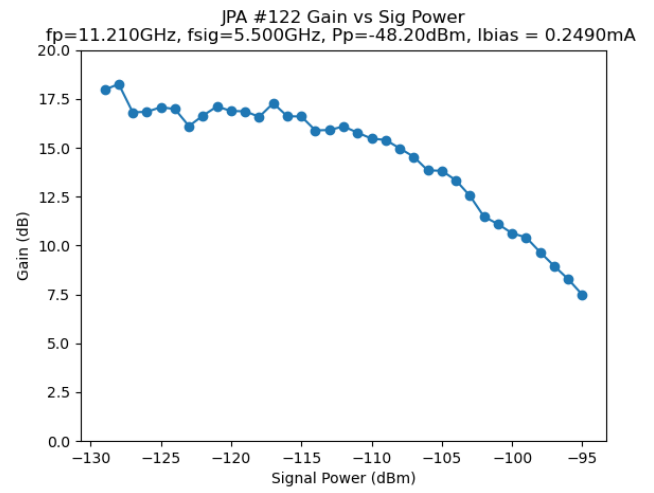
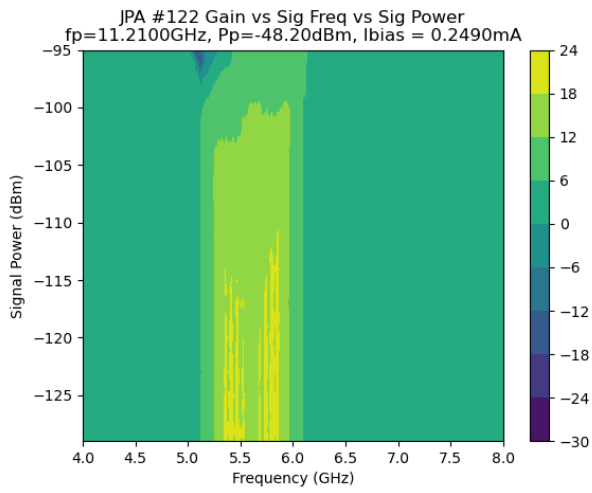
Sample JPA Tuneup



JPA Tuneup 1:

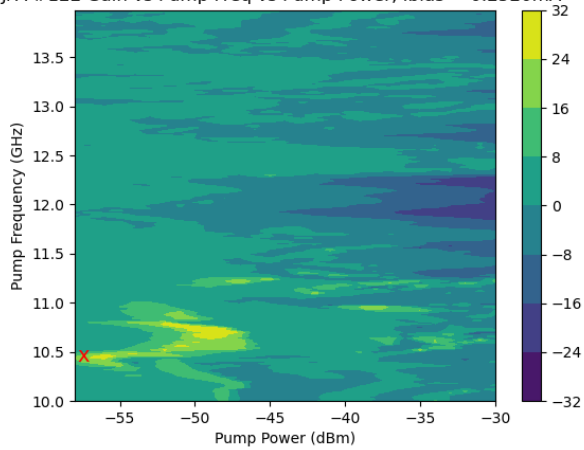


Sample JPA Tuneup 1 (cont.):

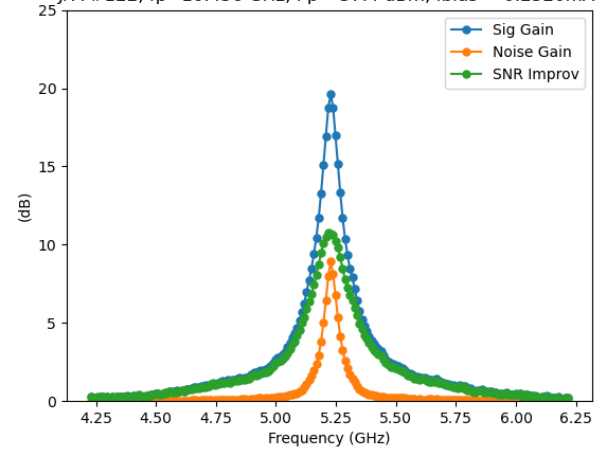


Sample JPA Tuneup 2:

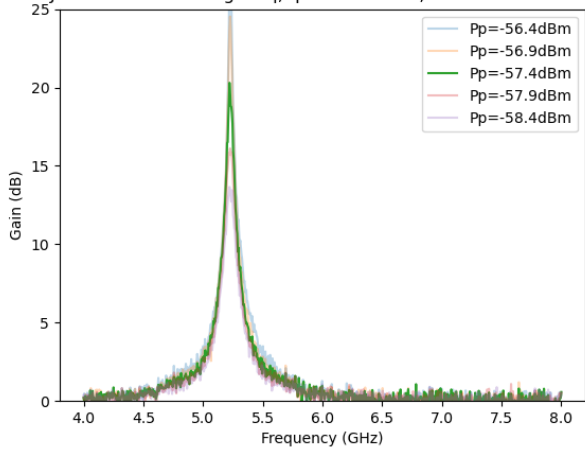
JPA #122 Gain vs Pump Freq vs Pump Power, I_{bias} = 0.2520mA



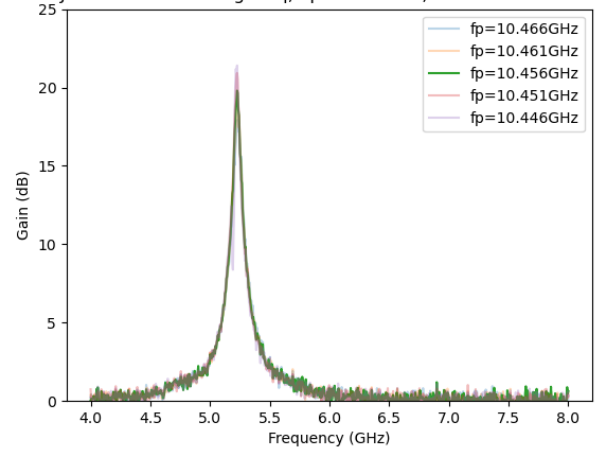
JPA #122, $f_p=10.456$ GHz, $P_p=-57.4$ dBm, I_{bias} = 0.2520mA



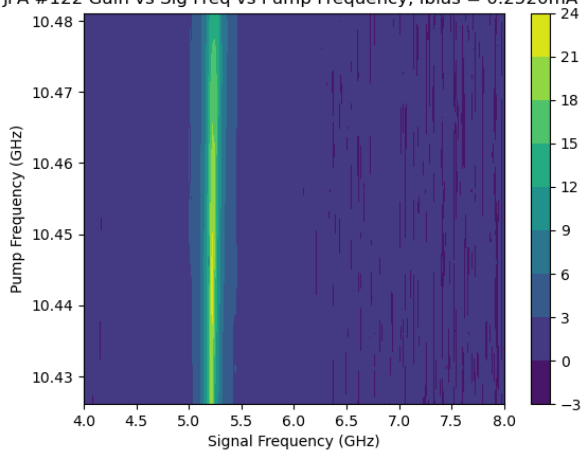
JPA #122 Gain vs Sig Freq, $f_p=10.456$ GHz, I_{bias} = 0.2520mA



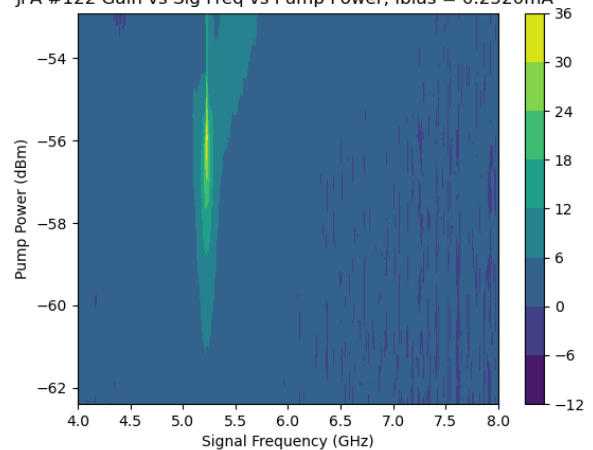
JPA #122 Gain vs Sig Freq, $P_p=-57.4$ dBm, I_{bias} = 0.2520mA



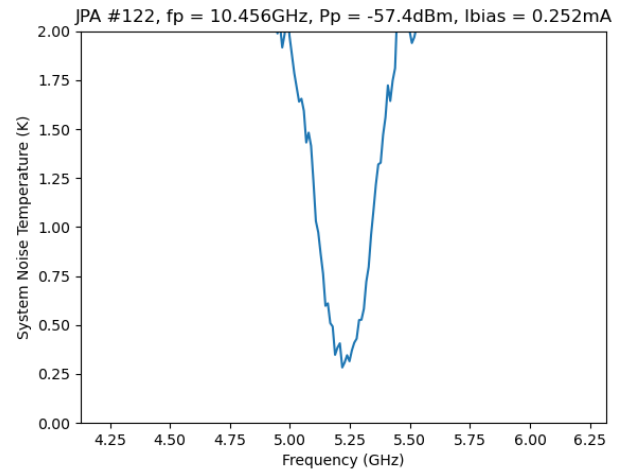
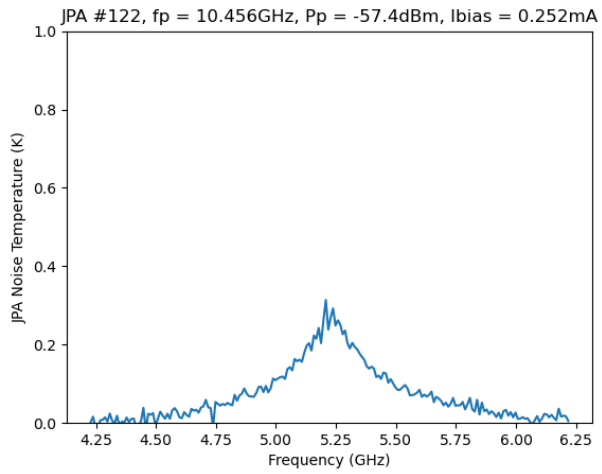
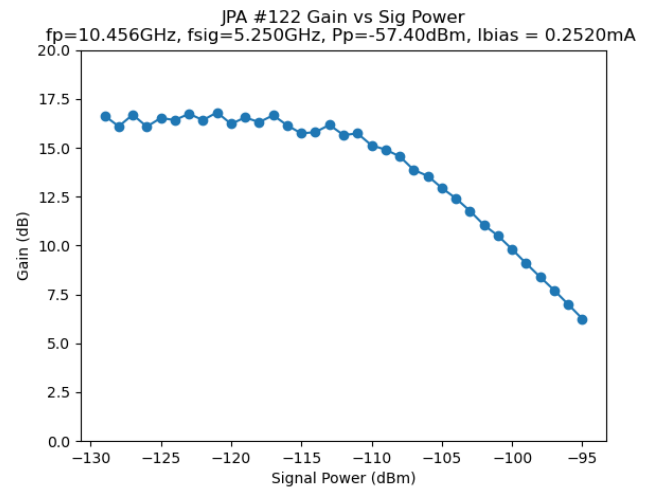
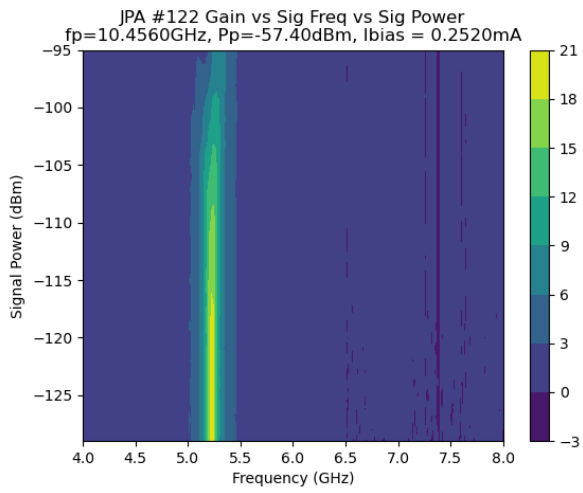
JPA #122 Gain vs Sig Freq vs Pump Frequency, I_{bias} = 0.2520mA



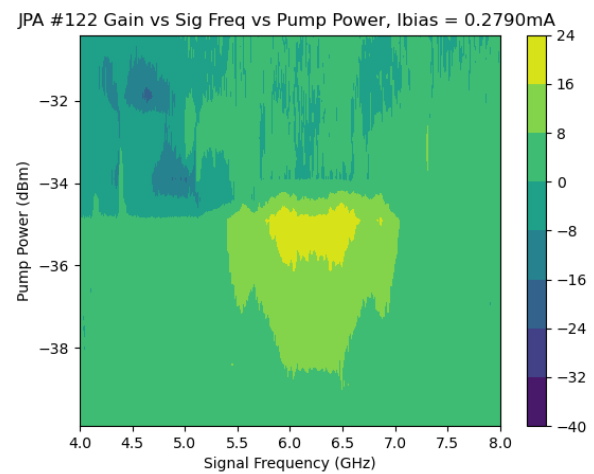
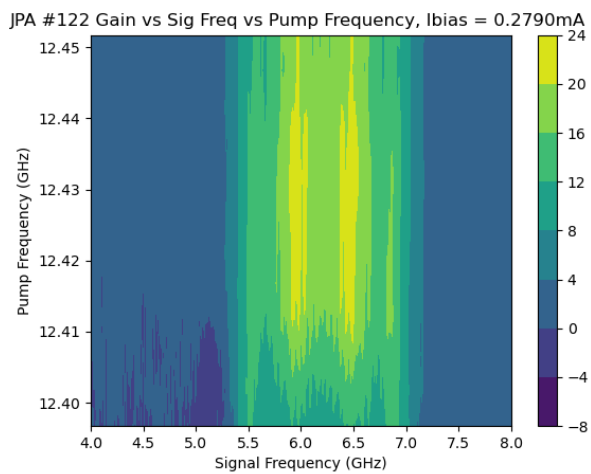
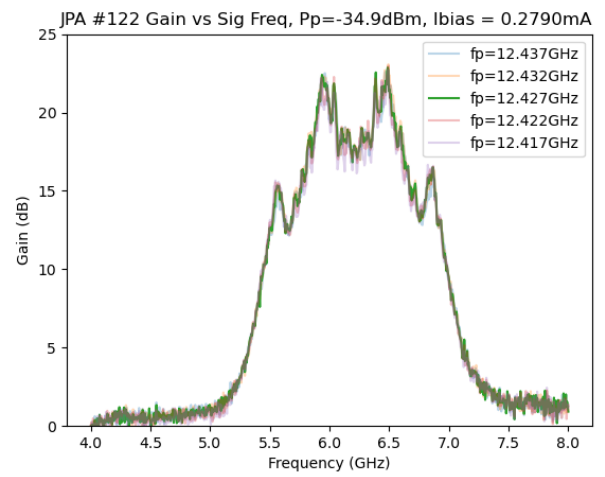
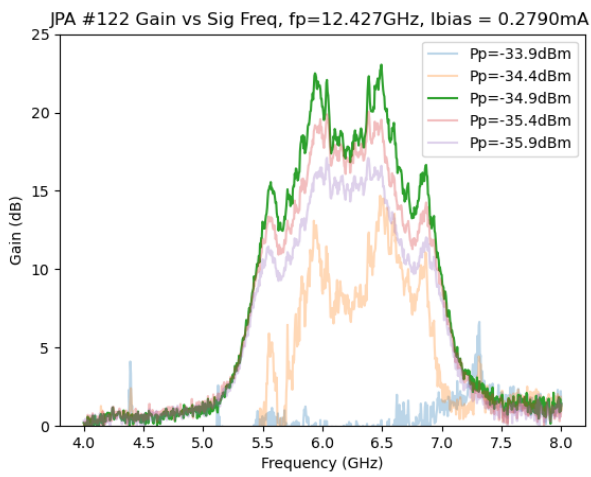
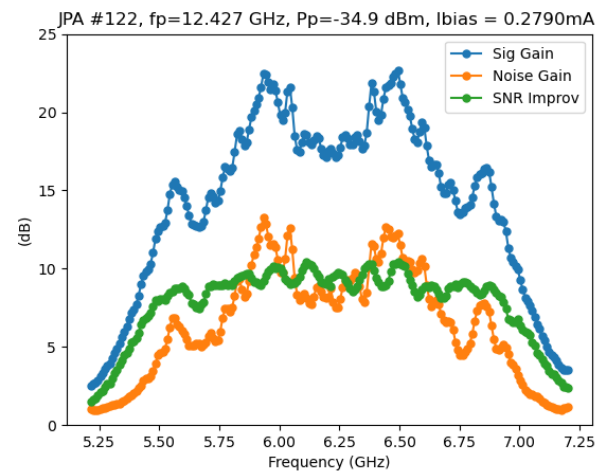
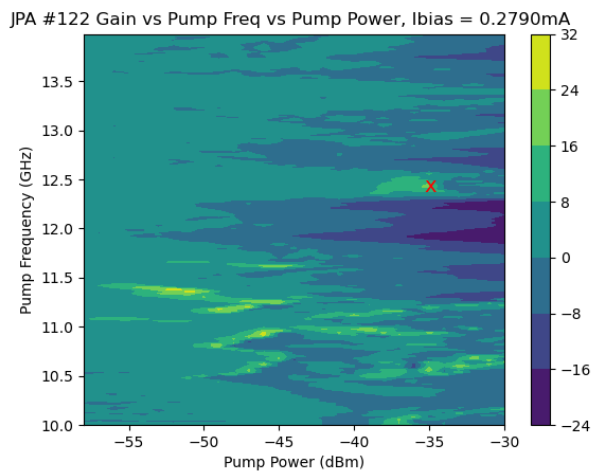
JPA #122 Gain vs Sig Freq vs Pump Power, I_{bias} = 0.2520mA



Sample JPA Tuneup 2 (cont.):



Sample JPA Tuneup 3:



Sample JPA Tuneup 3 (cont.):

