

4.6 Out-of-band Emissions

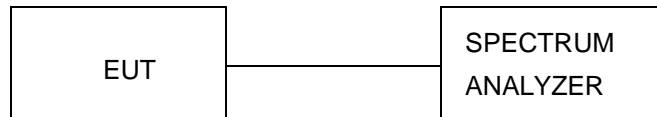
Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

Test Procedure

Connect the transmitter output to spectrum analyzer using a low loss RF cable, and set the spectrum analyzer to RBW=100 kHz, VBW= 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, band edge and out-of-band emissions.

Test Configuration



Test Results

Remark: The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions and band edge measurement data. And record the worst data in the report.

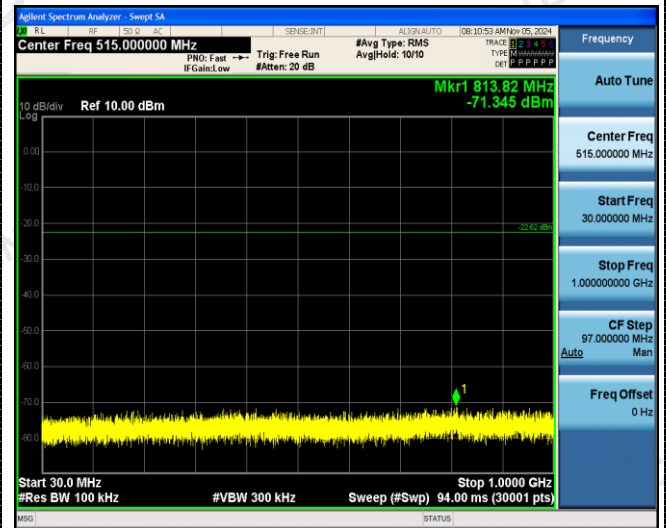
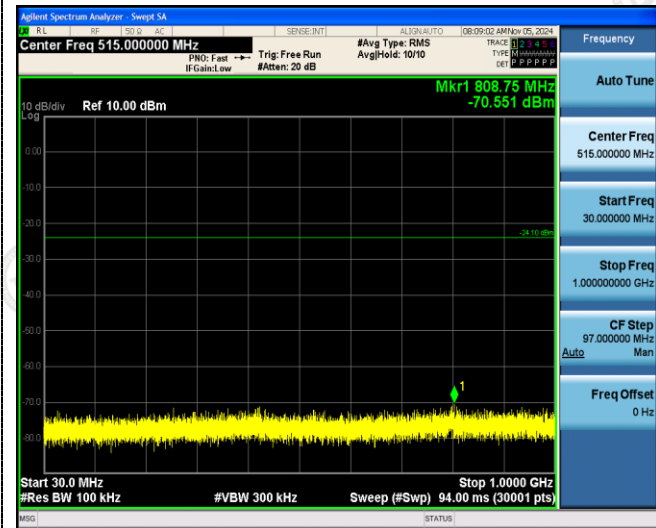
Test plot as follows:

802.11b



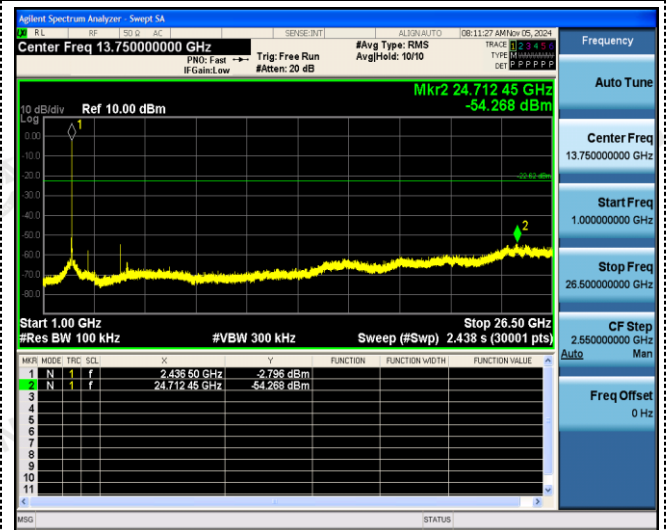
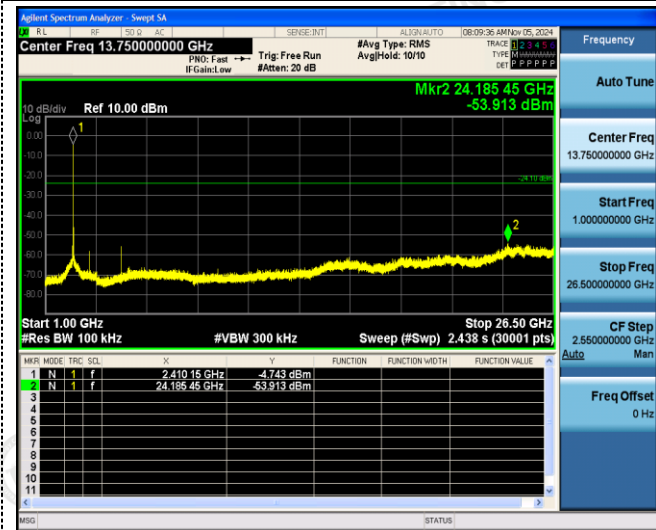
Reference
CH01

Reference
CH06



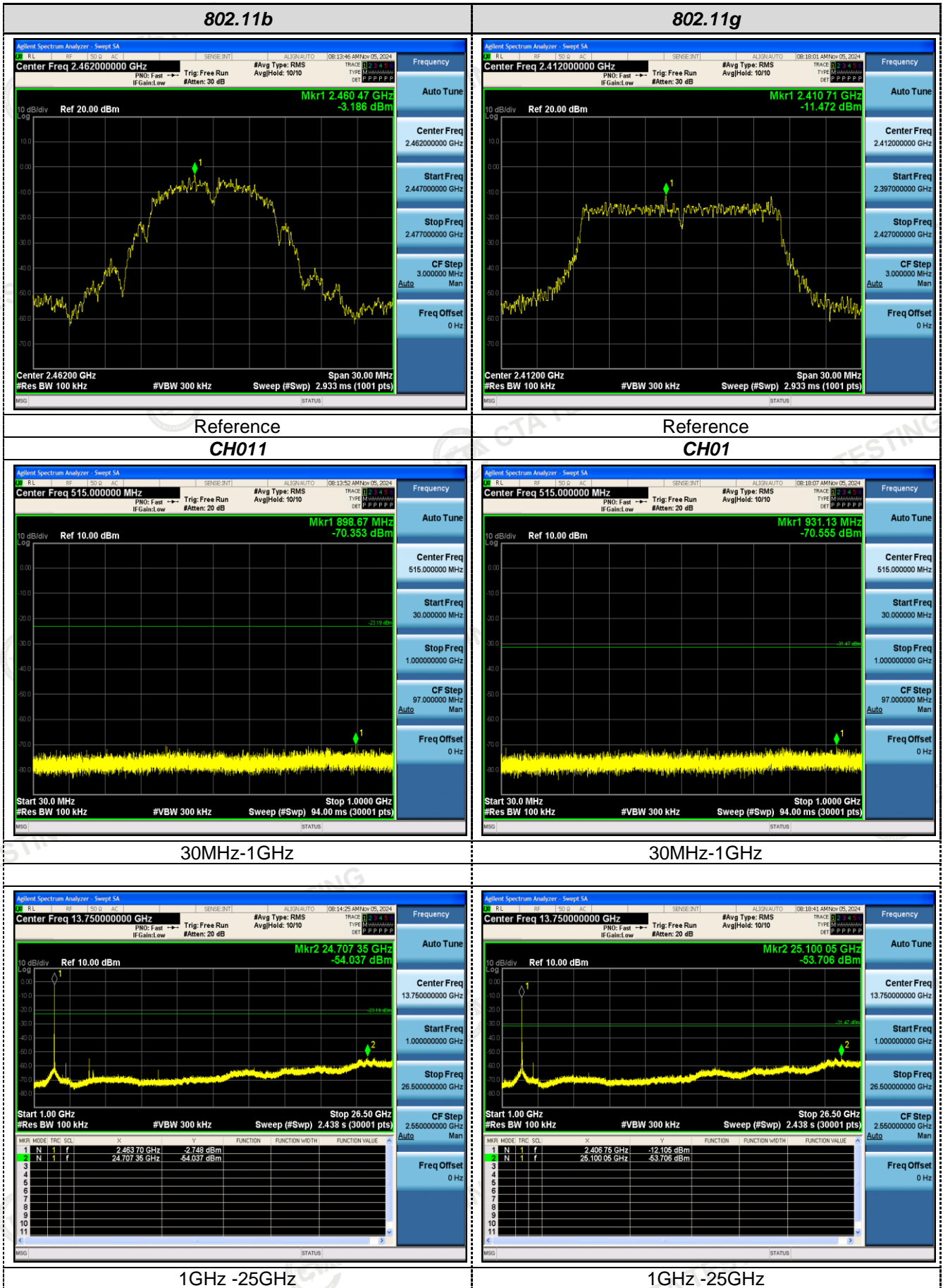
30MHz-1GHz

30MHz-1GHz



1GHz -25GHz

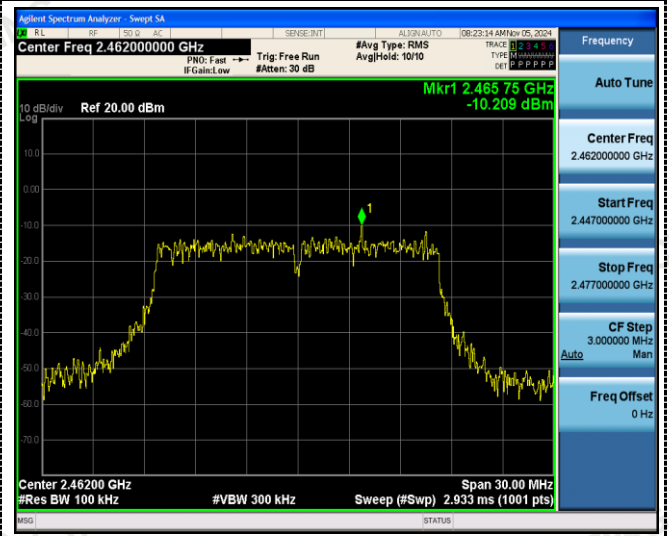
1GHz -25GHz



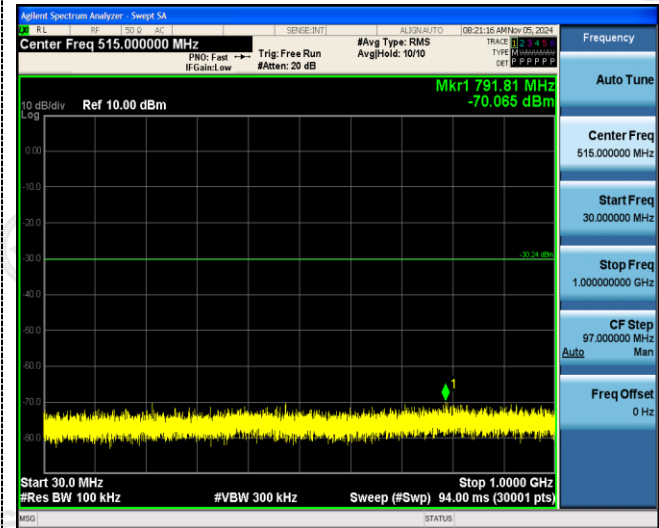
802.11g



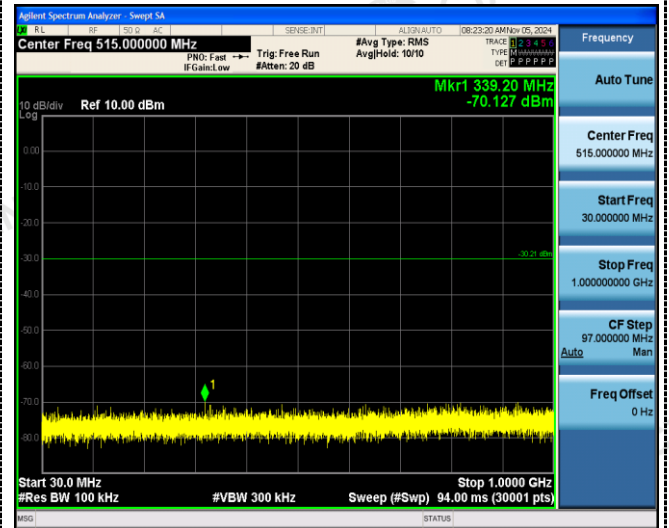
Reference CH06



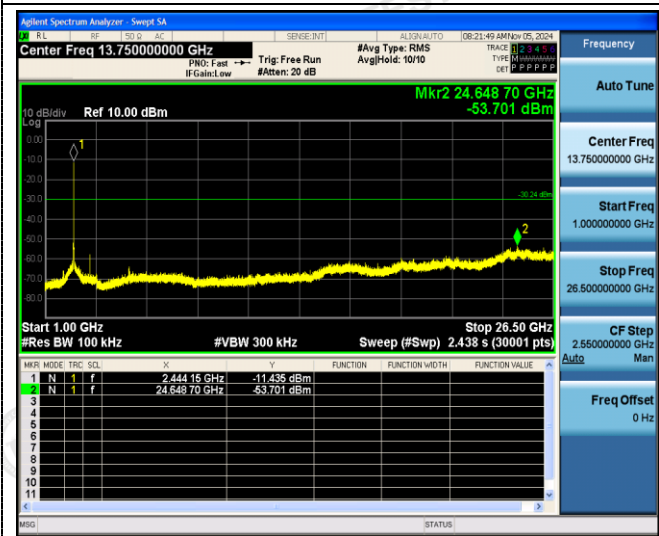
Reference CH11



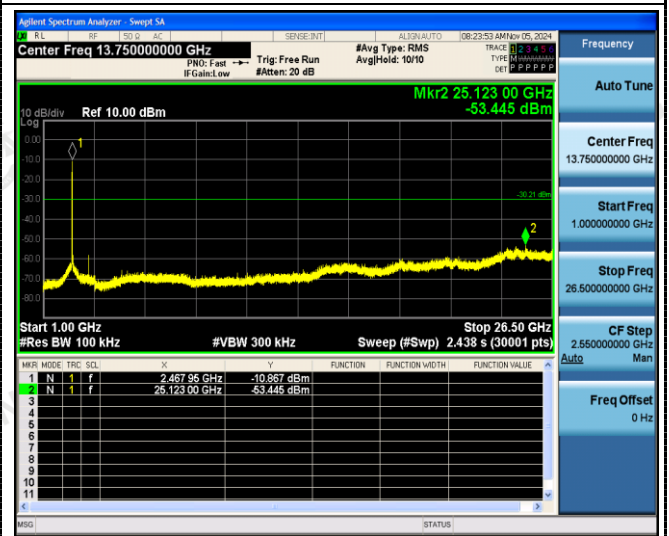
30MHz-1GHz



30MHz-1GHz



1GHz-25GHz

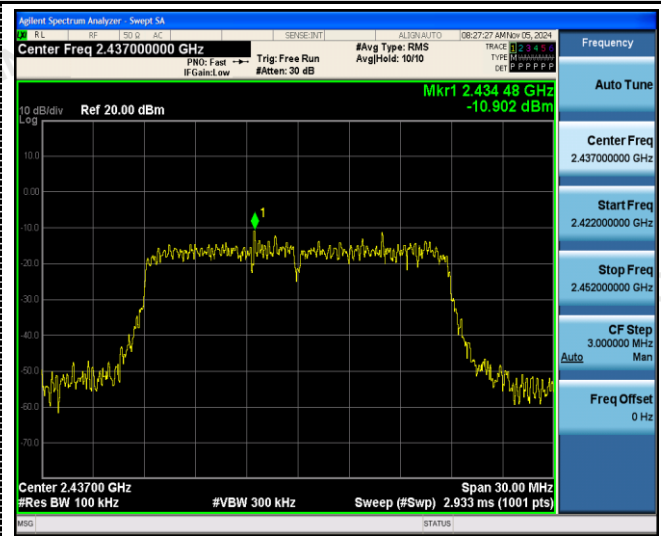


1GHz-25GHz

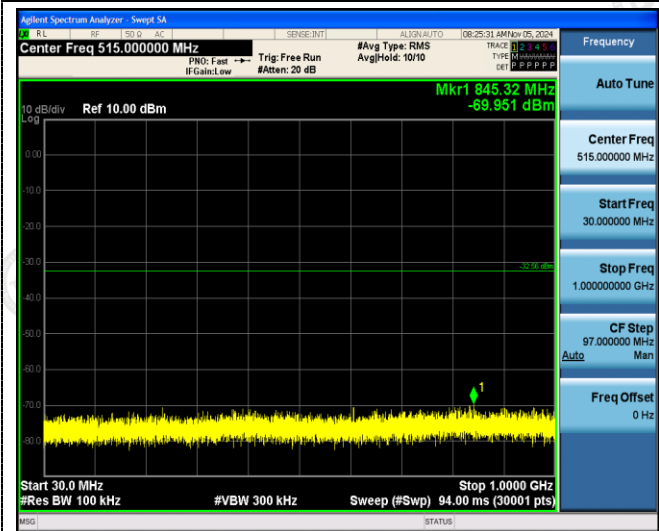
802.11n20



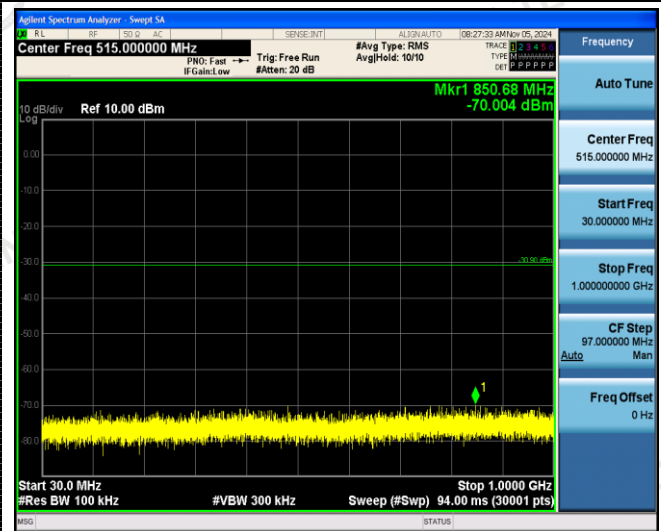
Reference
CH01



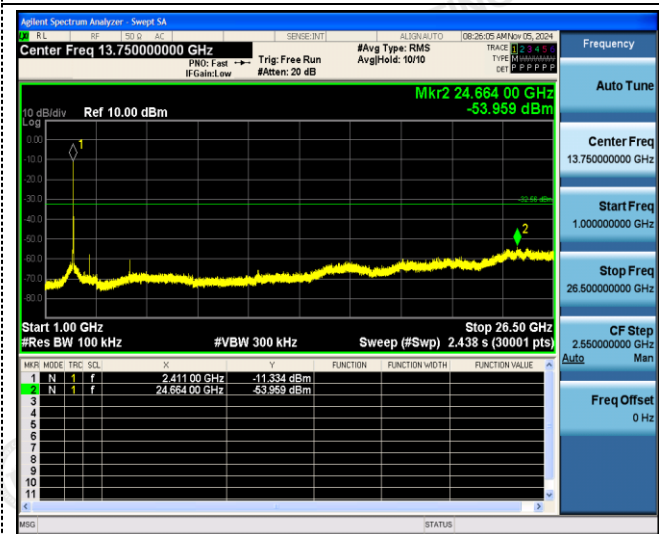
Reference
CH06



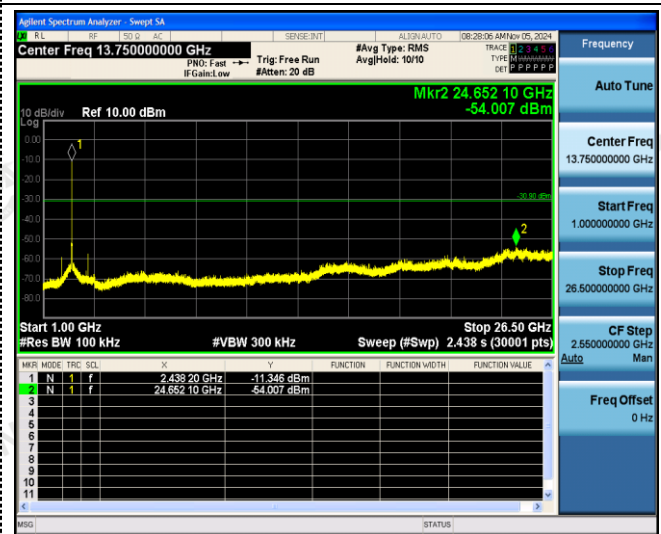
30MHz-1GHz



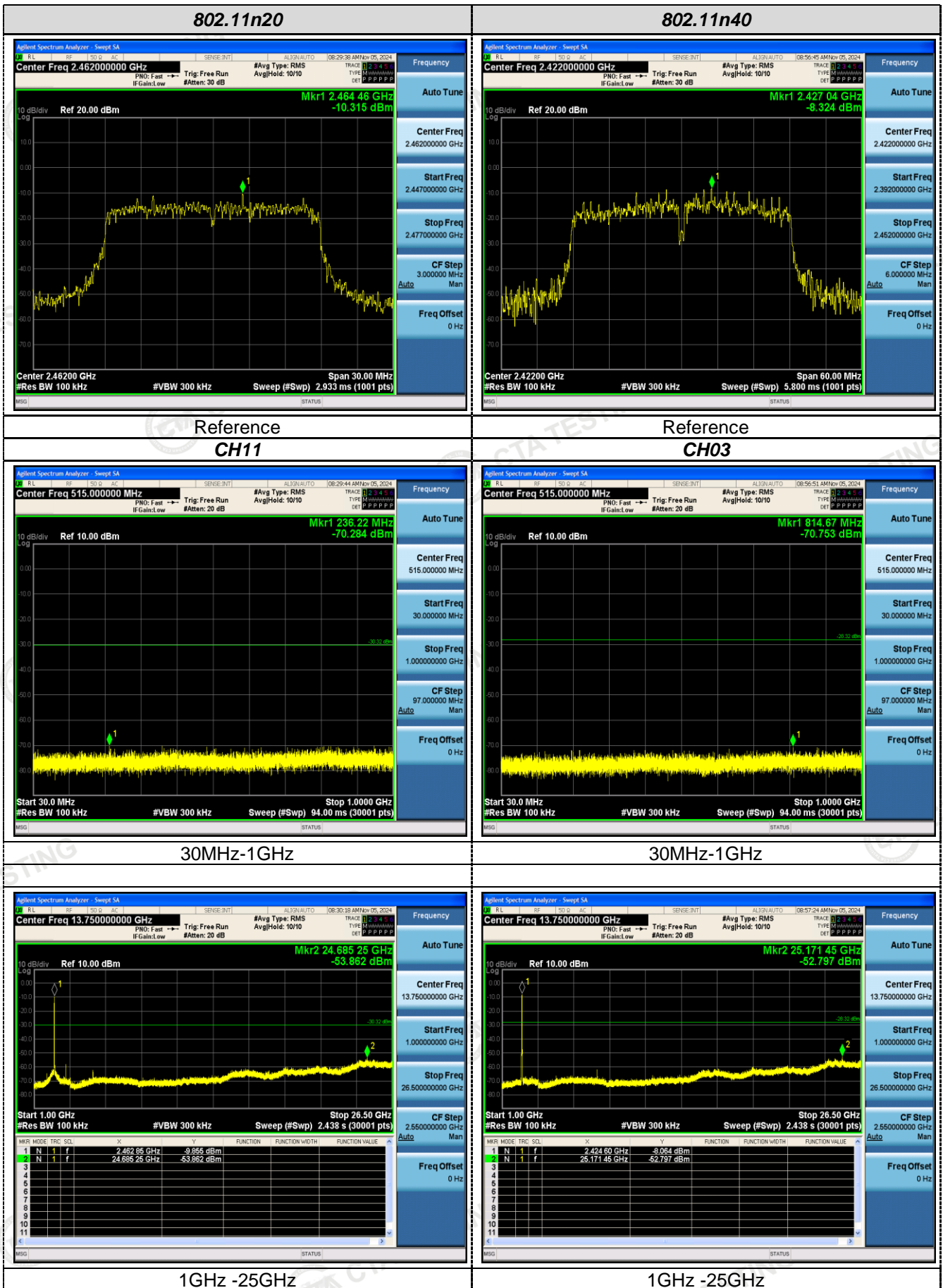
30MHz-1GHz



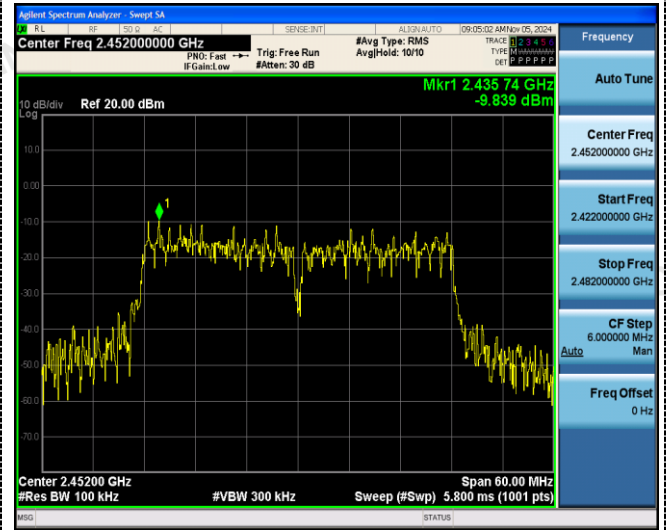
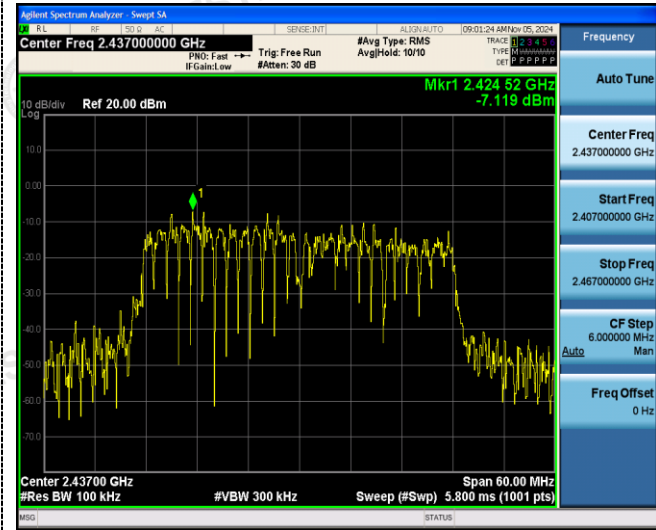
1GHz -25GHz



1GHz -25GHz

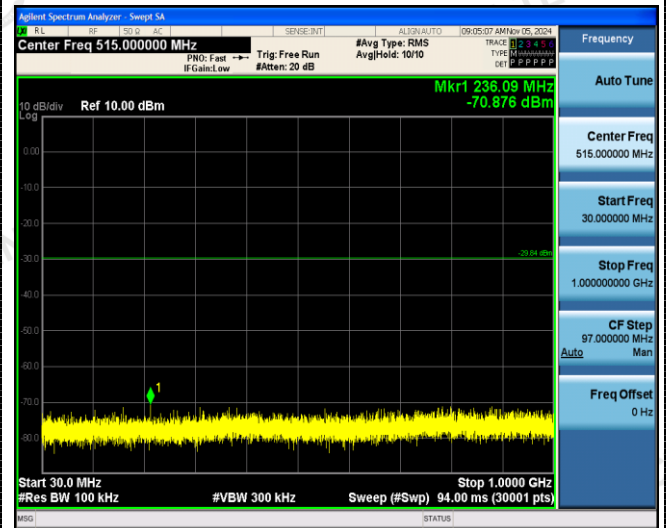
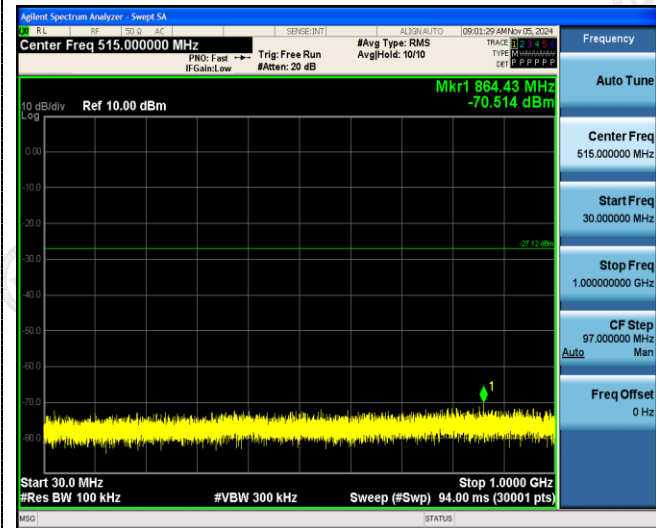


802.11n40



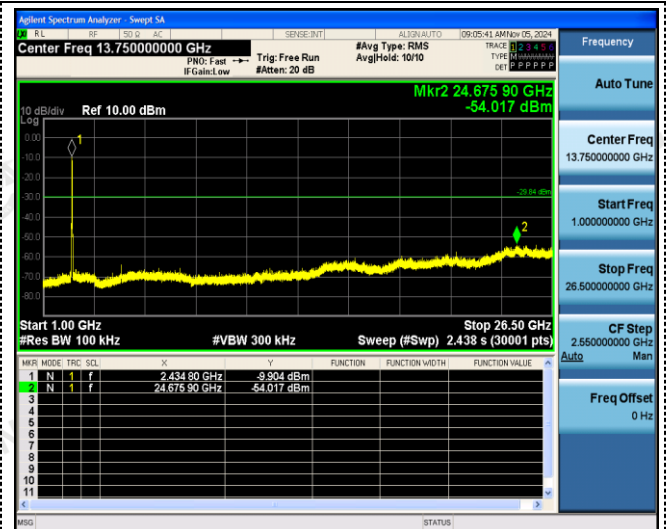
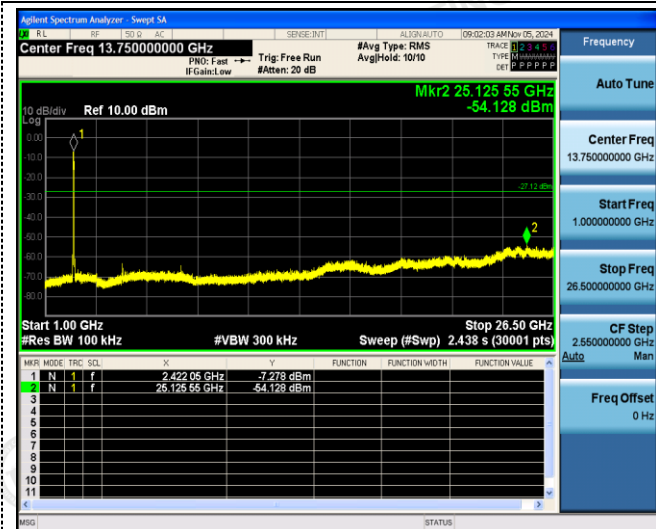
Reference
CH06

Reference
CH09



30MHz-1GHz

30MHz-1GHz



1GHz -25GHz

1GHz -25GHz