

3.6. 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 setting are made of the in-band reference level, bandedge and out-of-band emissions.

Test Configuration



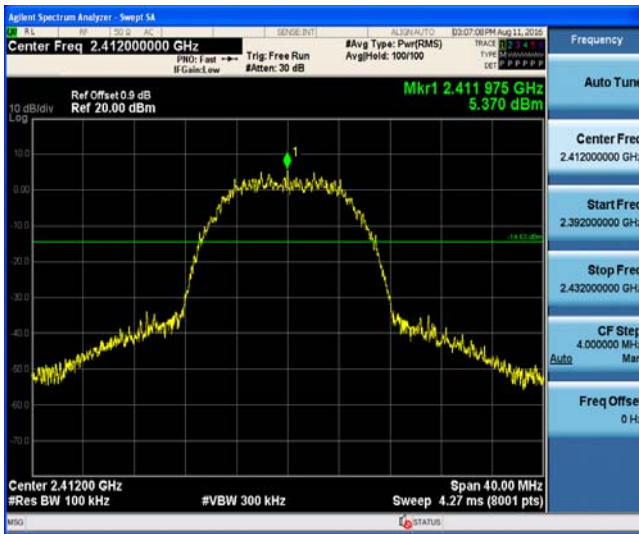
Test Results

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 bandage measurement data.

Test plot as follows:

Ant1

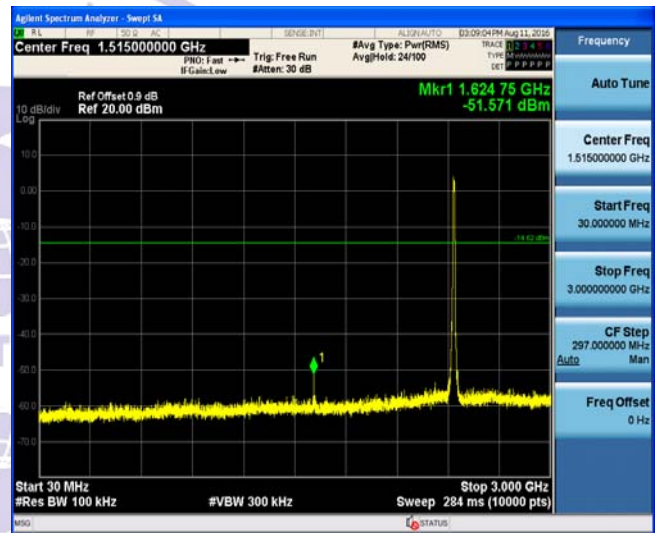
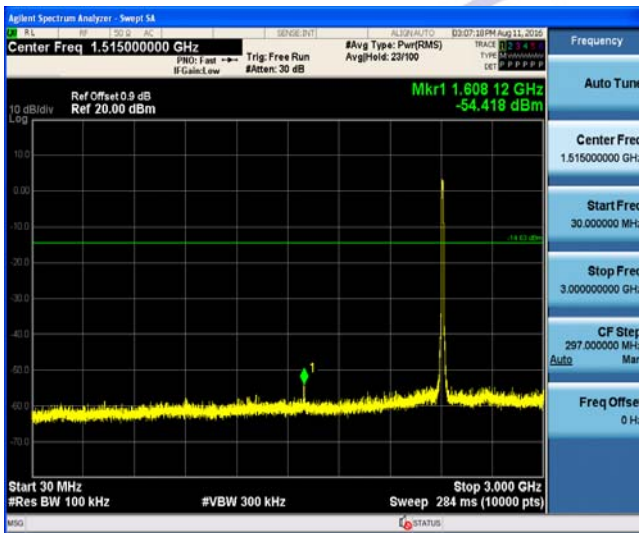
802.11b CH01



802.11b CH06

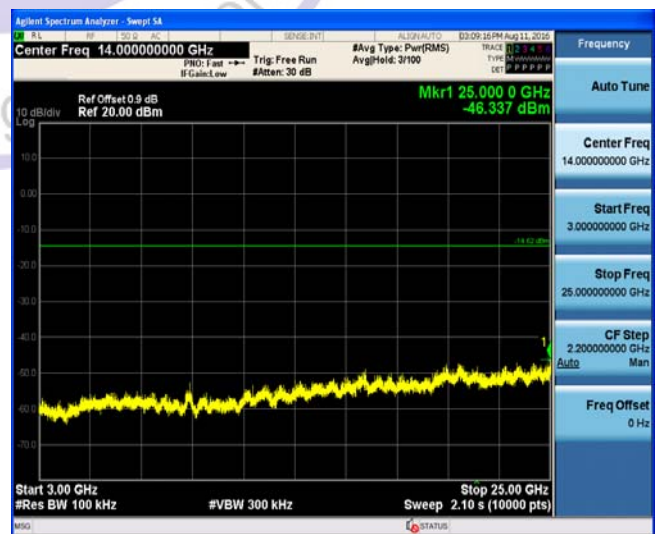
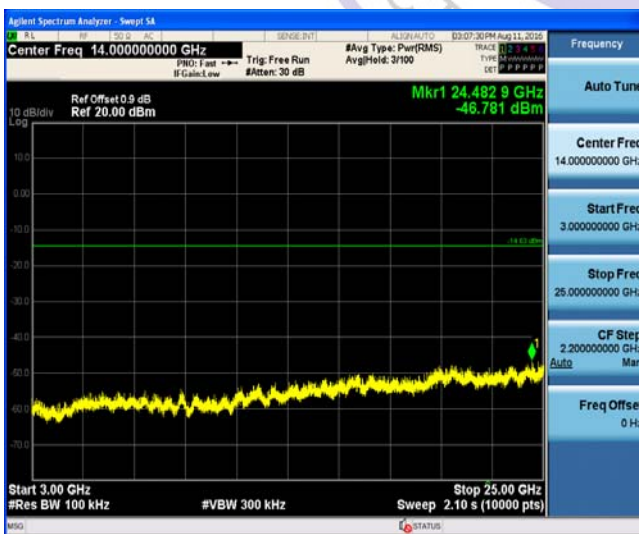


Reference



30MHz-3GHz

30MHz-3GHz



3GHz-25GHz

3GHz-25GHz

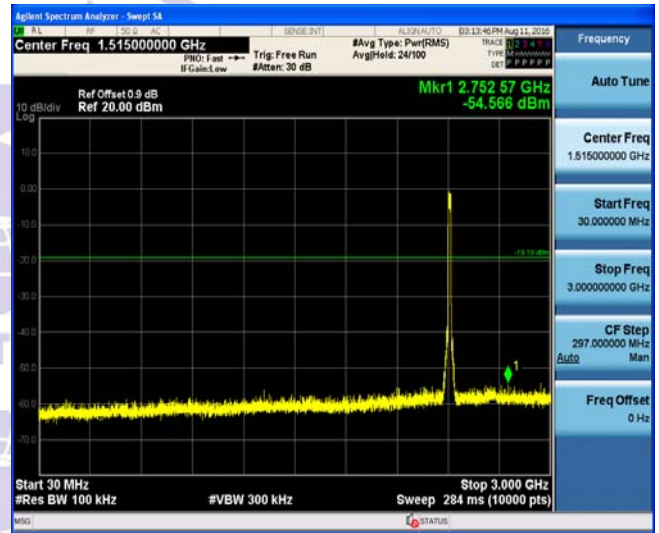
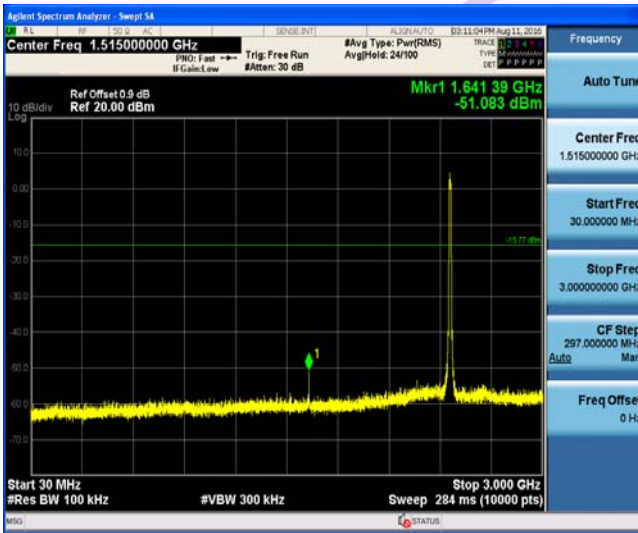
802.11b CH11



802.11g CH01

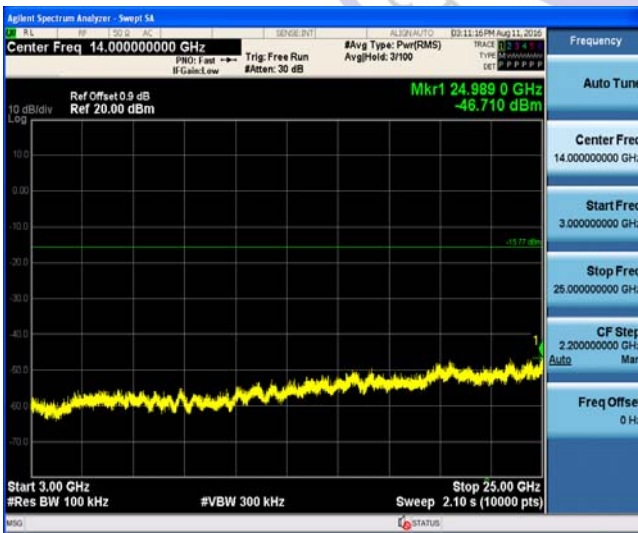


Reference



30MHz-3GHz

30MHz-3GHz



3GHz-25GHz

3GHz-25GHz

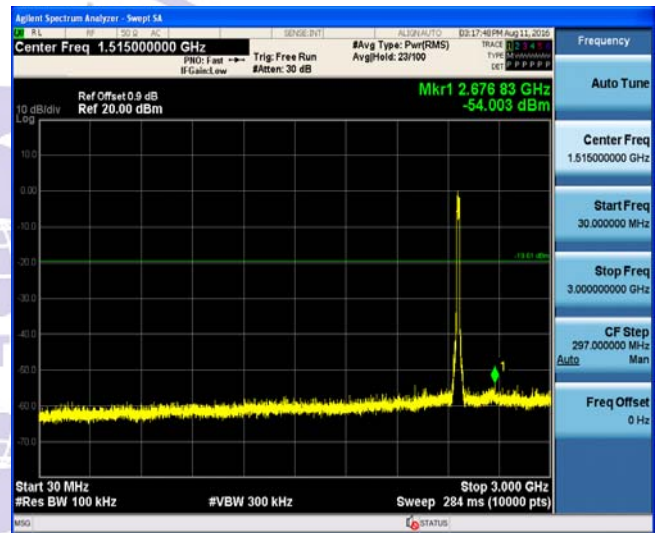
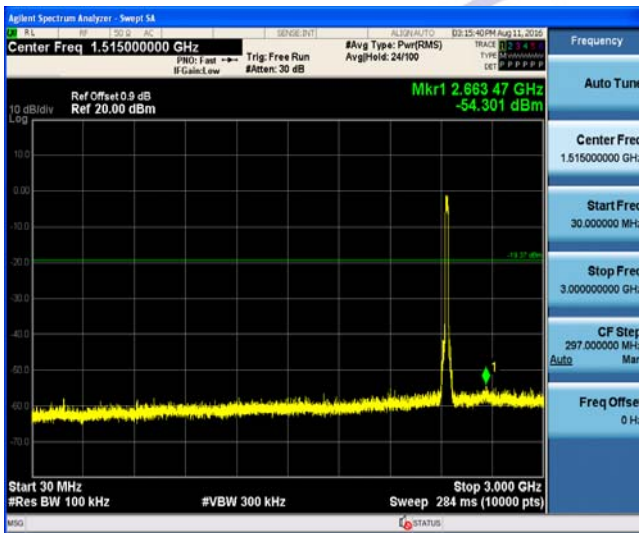
802.11g CH06



802.11g CH11

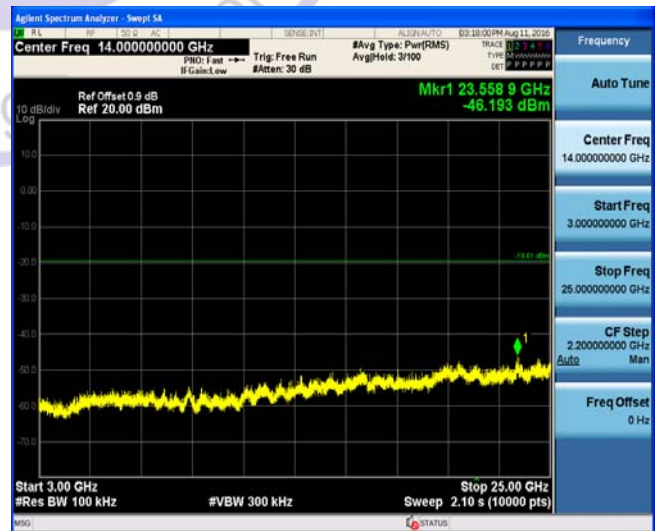


Reference



30MHz-3GHz

30MHz-3GHz



3GHz-25GHz

3GHz-25GHz

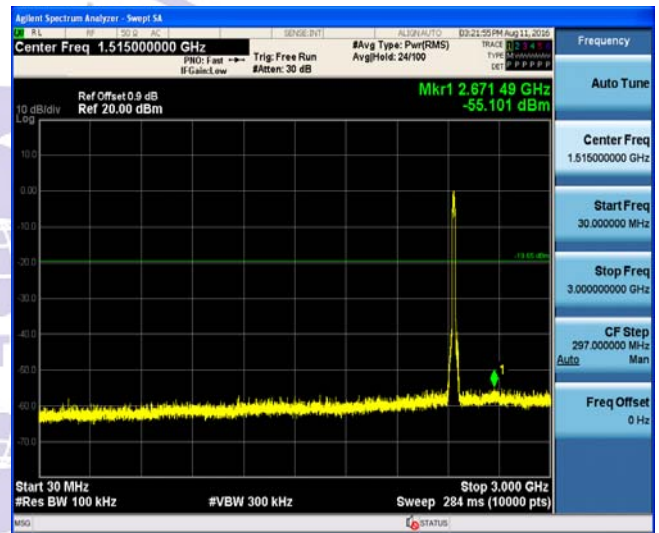
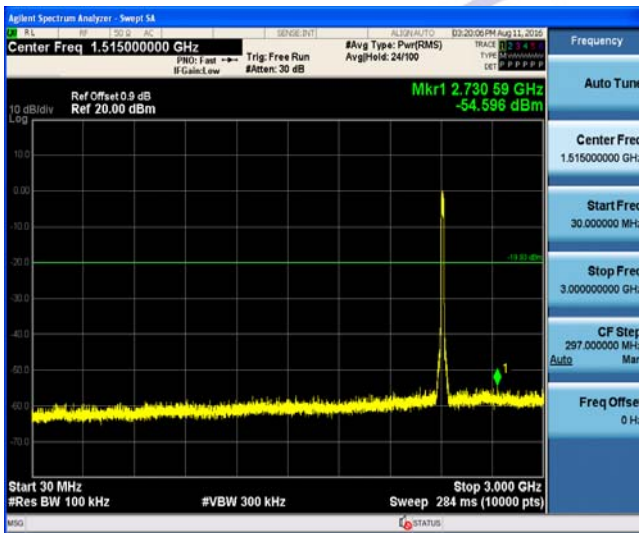
802.11n(HT20) CH01



802.11n(HT20) CH06

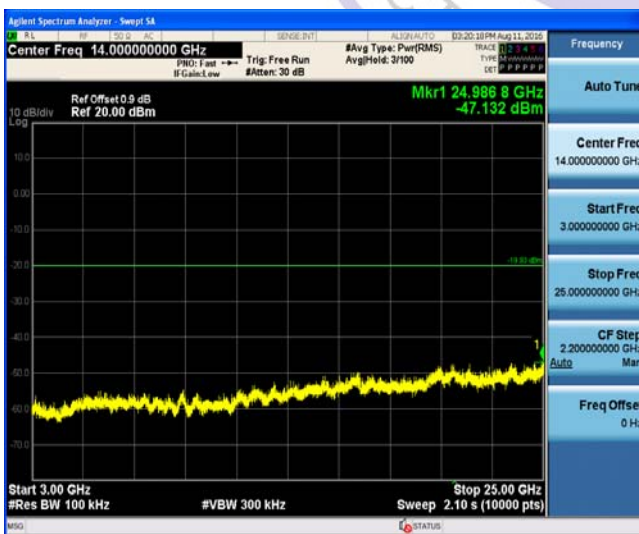


Reference



30MHz-3GHz

30MHz-3GHz



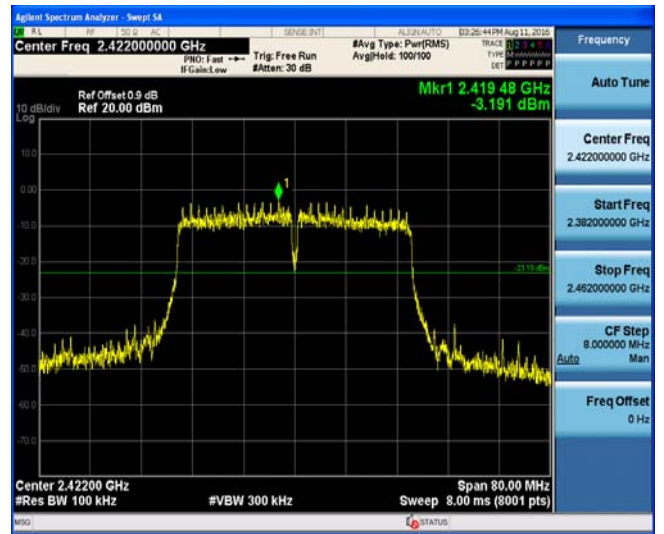
3GHz-25GHz

3GHz-25GHz

802.11n(HT20) CH11

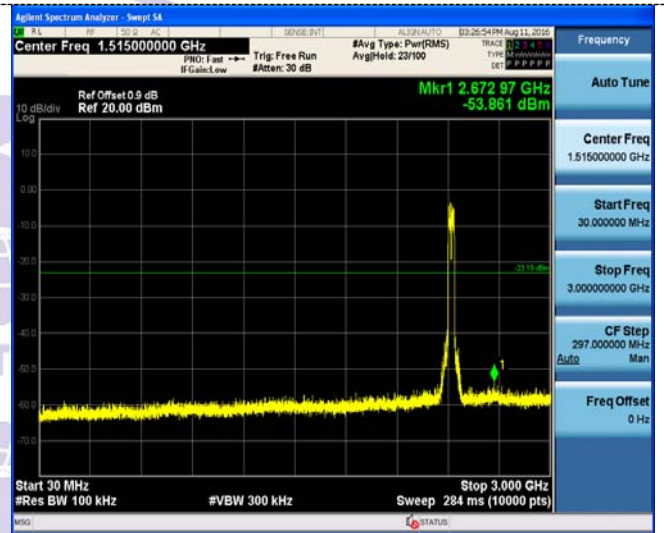
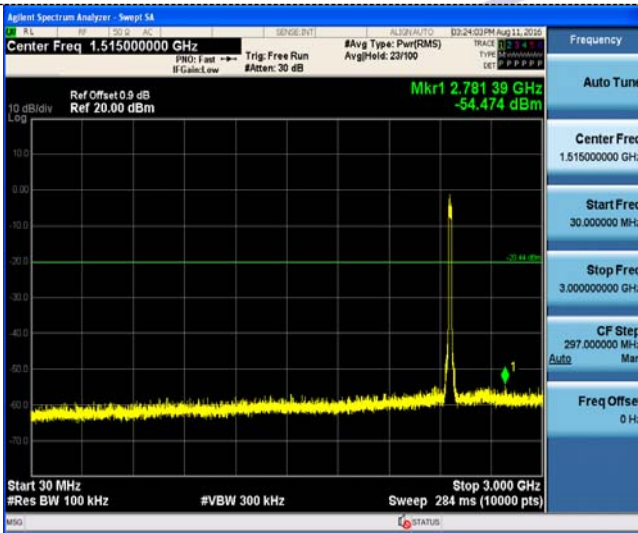


802.11n(HT40) CH03



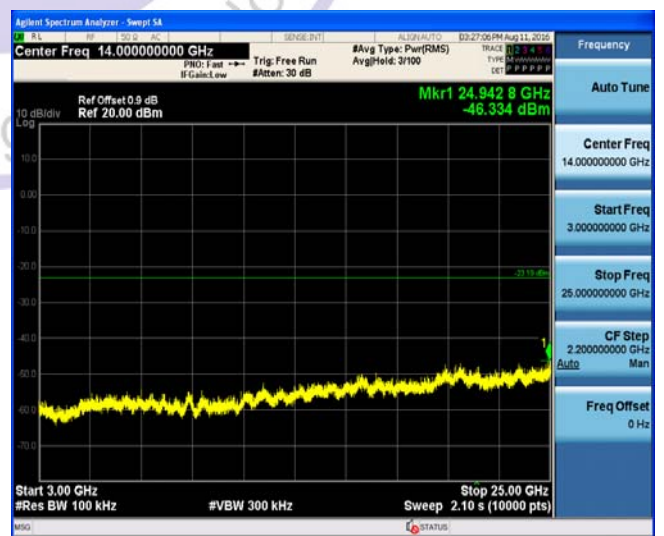
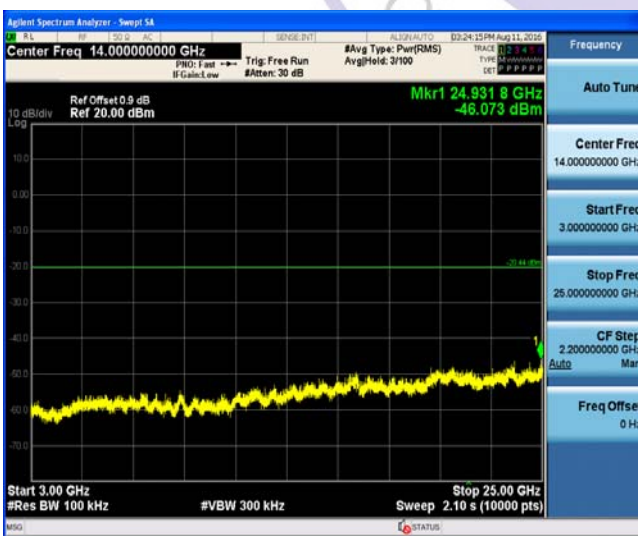
Reference

Reference



30MHz-3GHz

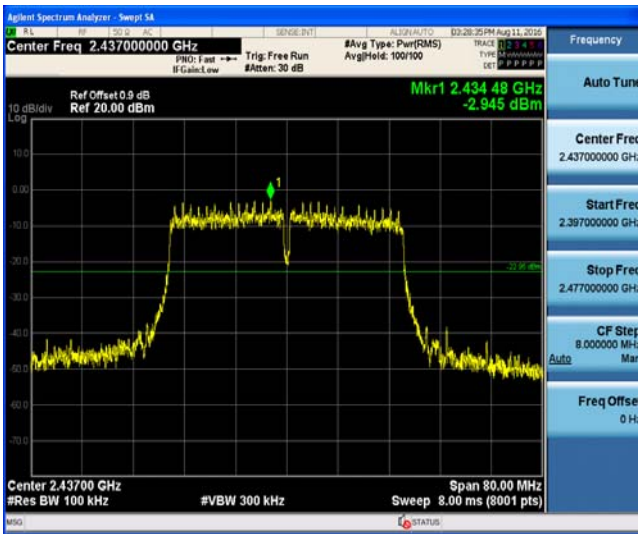
30MHz-3GHz



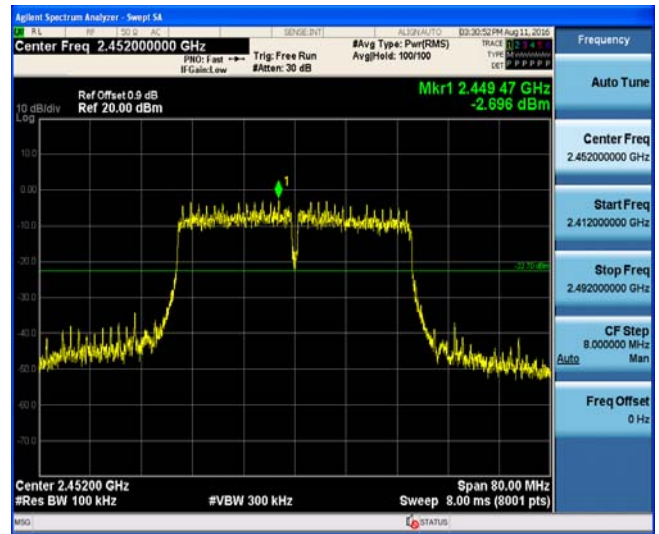
3GHz-25GHz

3GHz-25GHz

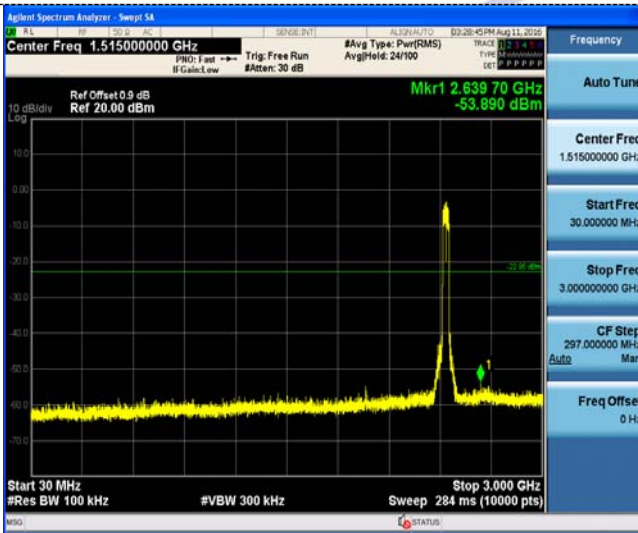
802.11n(HT40) CH06



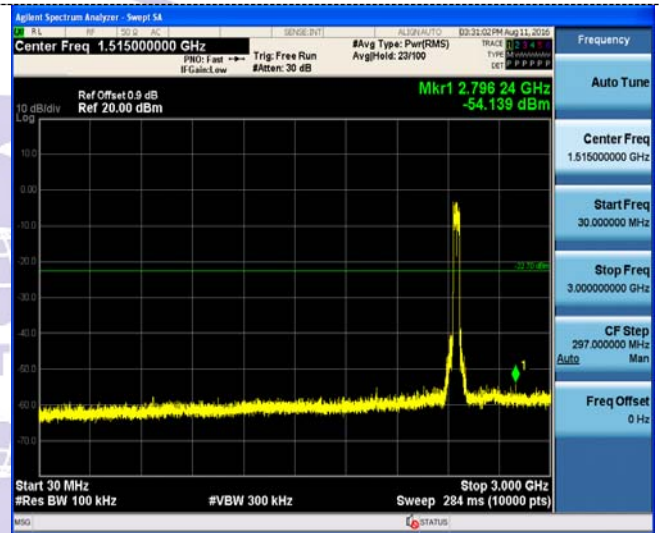
802.11n(HT40) CH09



Reference



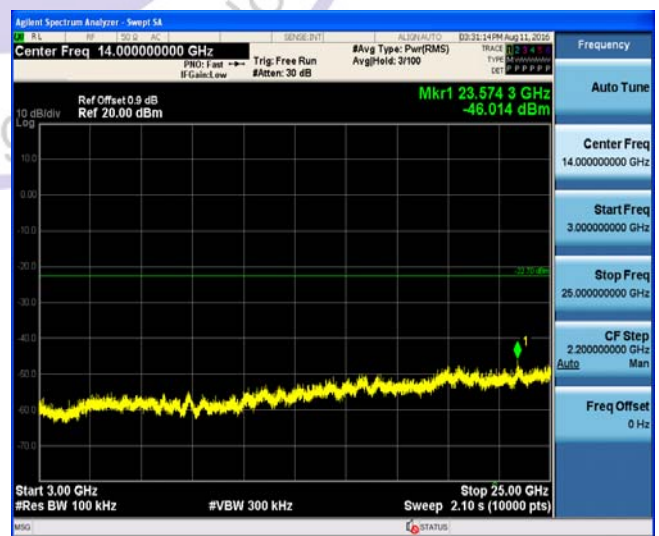
Reference



30MHz-3GHz



30MHz-3GHz

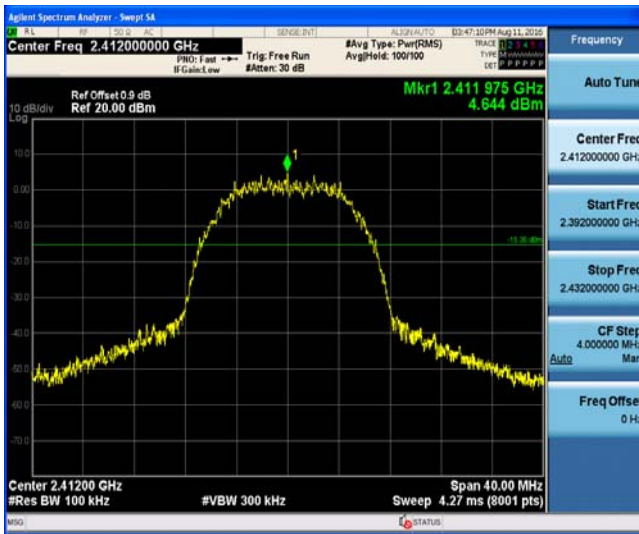


3GHz-25GHz

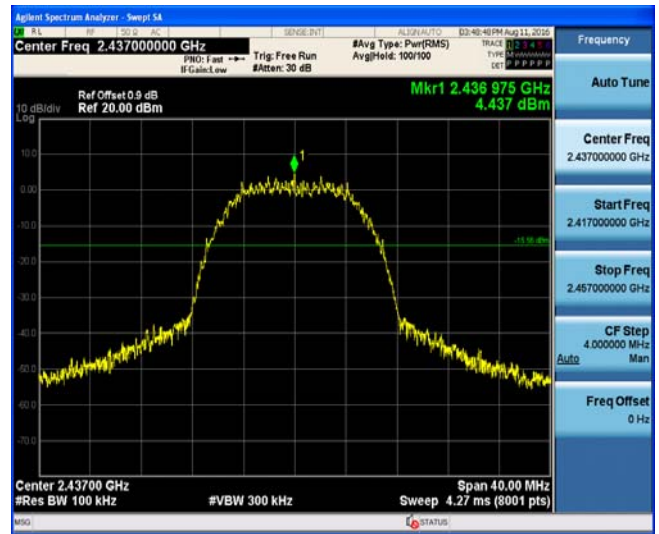
3GHz-25GHz

Ant2

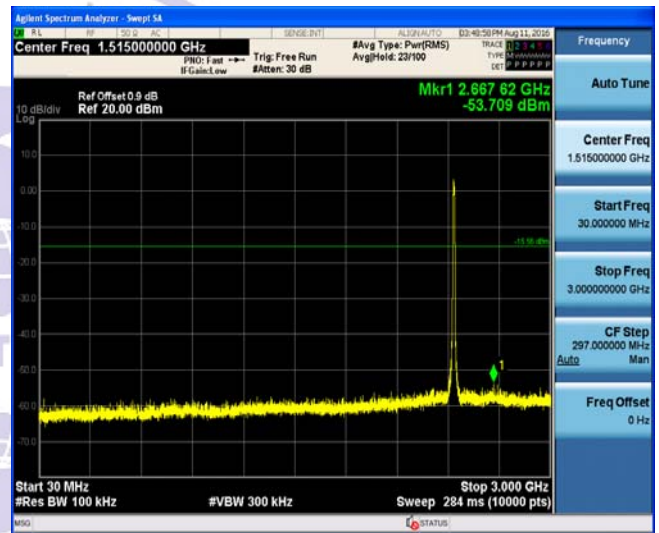
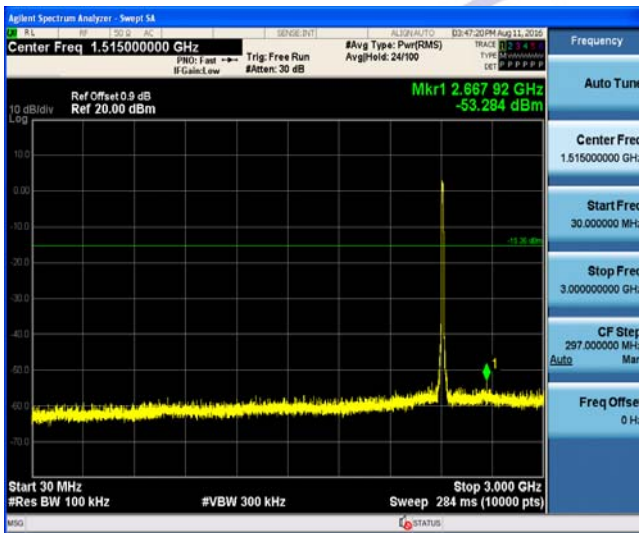
802.11b CH01



802.11b CH06

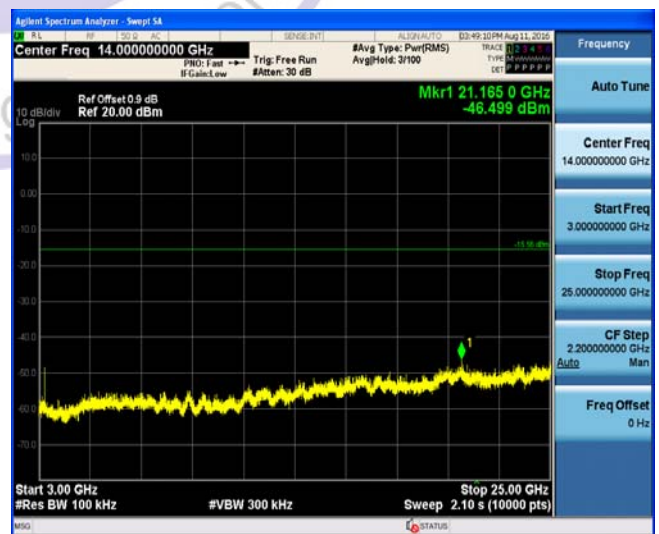
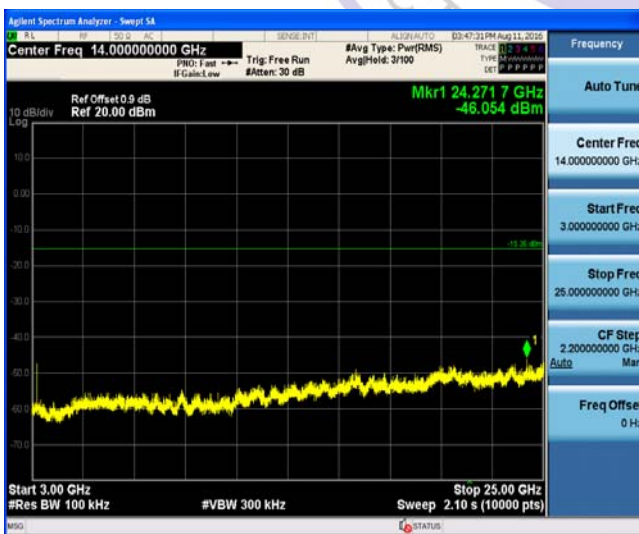


Reference



30MHz-3GHz

30MHz-3GHz



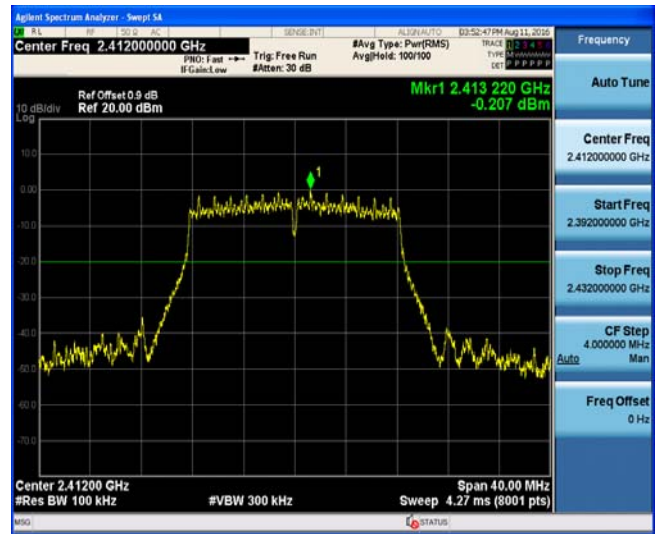
3GHz-25GHz

3GHz-25GHz

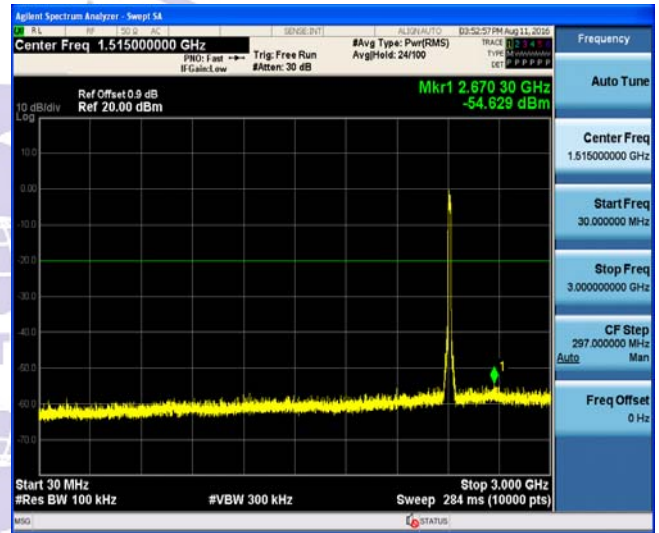
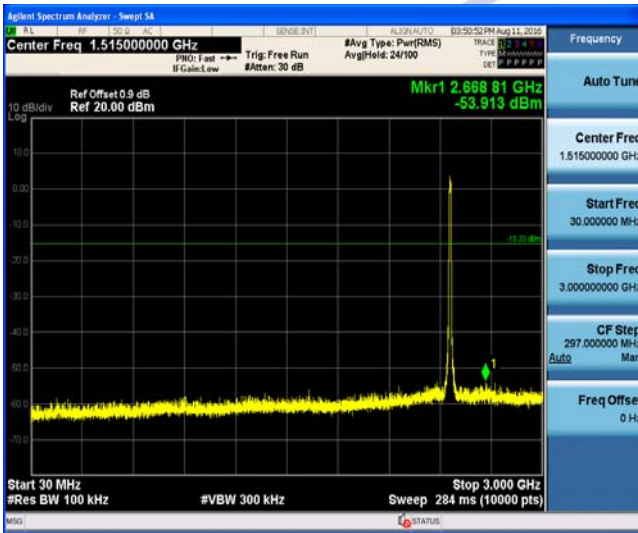
802.11b CH11



802.11g CH01

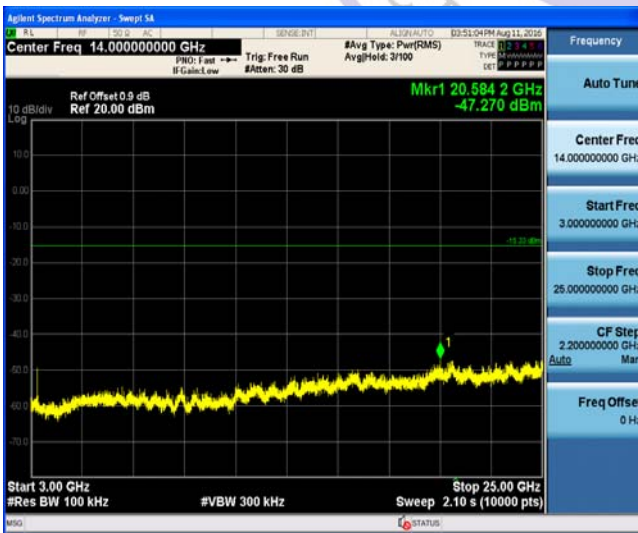


Reference



30MHz-3GHz

30MHz-3GHz



3GHz-25GHz

3GHz-25GHz

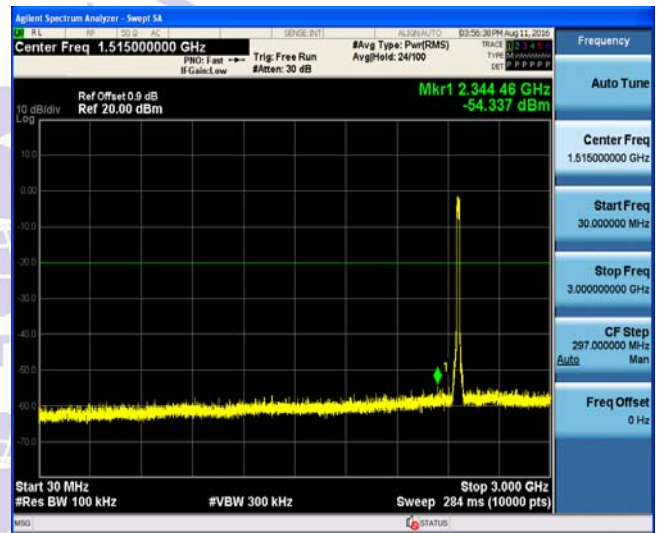
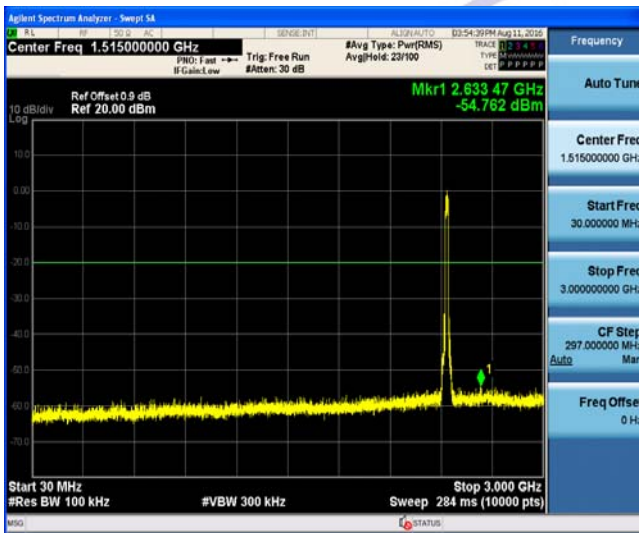
802.11g CH06



802.11g CH11

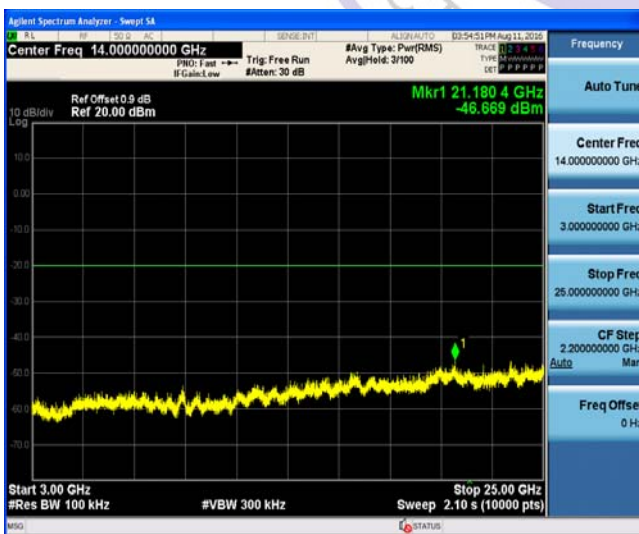


Reference



30MHz-3GHz

30MHz-3GHz



3GHz-25GHz

3GHz-25GHz

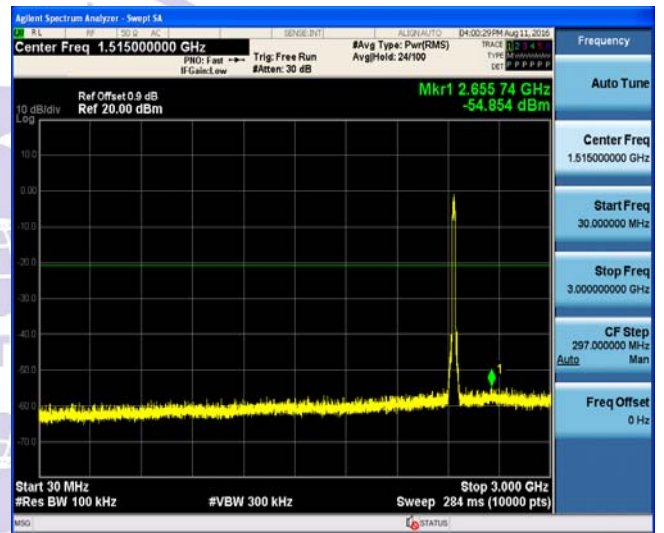
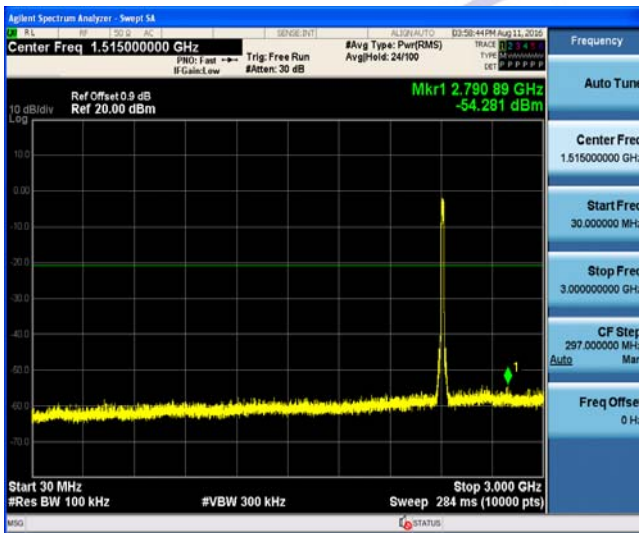
802.11n(HT20) CH01



802.11n(HT20) CH06

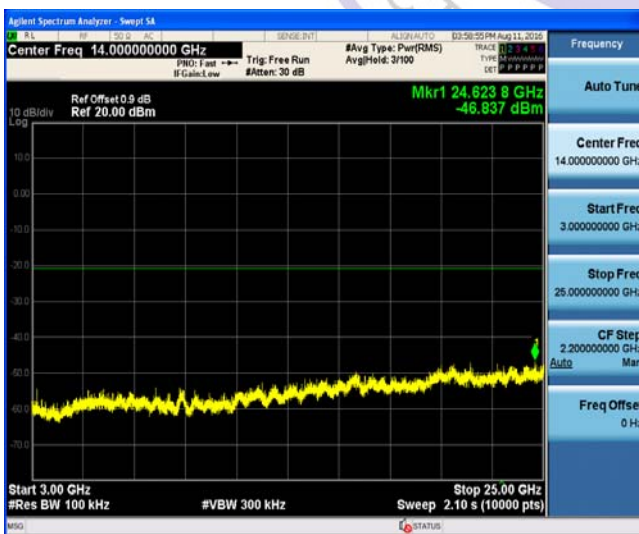


Reference



30MHz-3GHz

30MHz-3GHz



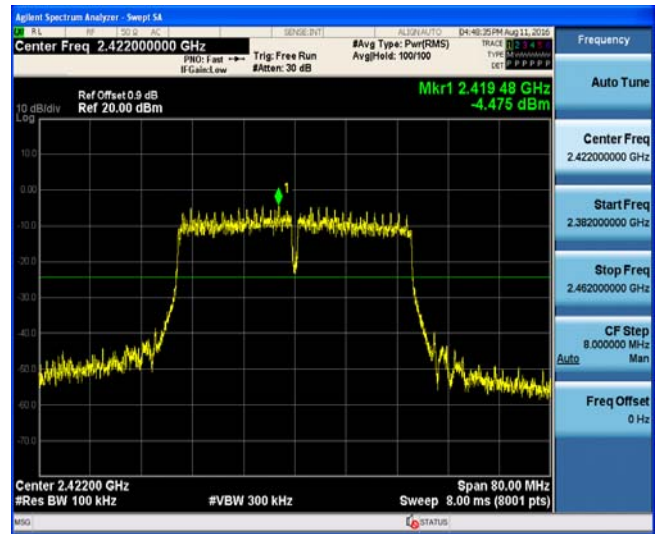
3GHz-25GHz

3GHz-25GHz

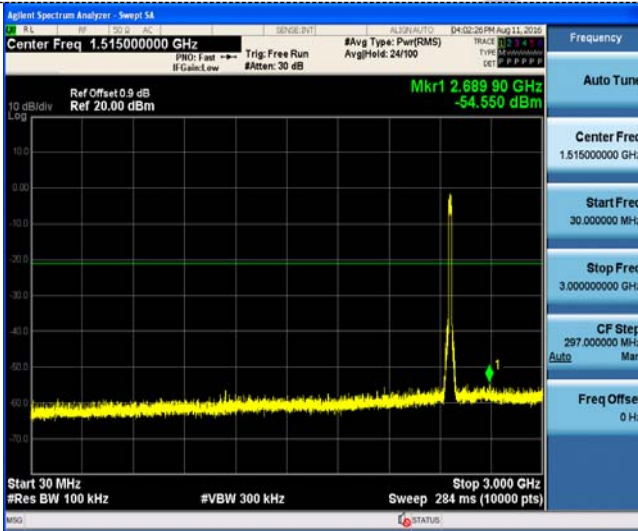
802.11n(HT20) CH11



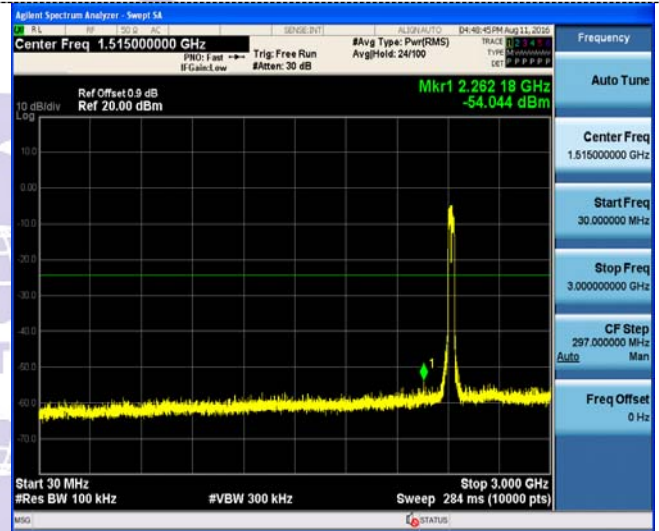
802.11n(HT40) CH03



Reference



Reference



30MHz-3GHz



30MHz-3GHz



3GHz-25GHz

3GHz-25GHz

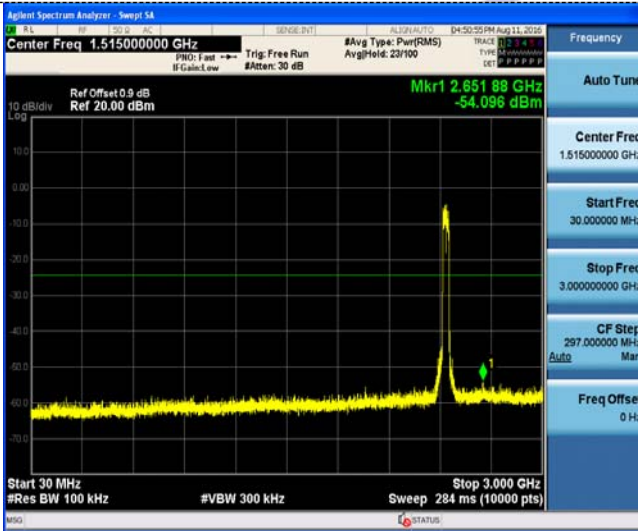
802.11n(HT40) CH06



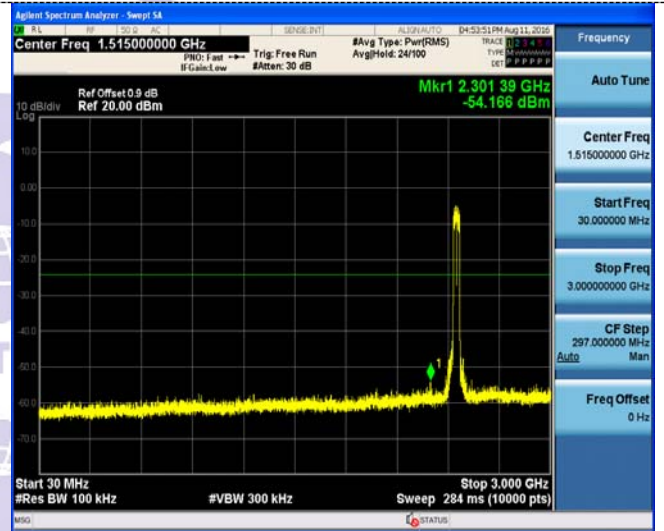
802.11n(HT40) CH09



Reference



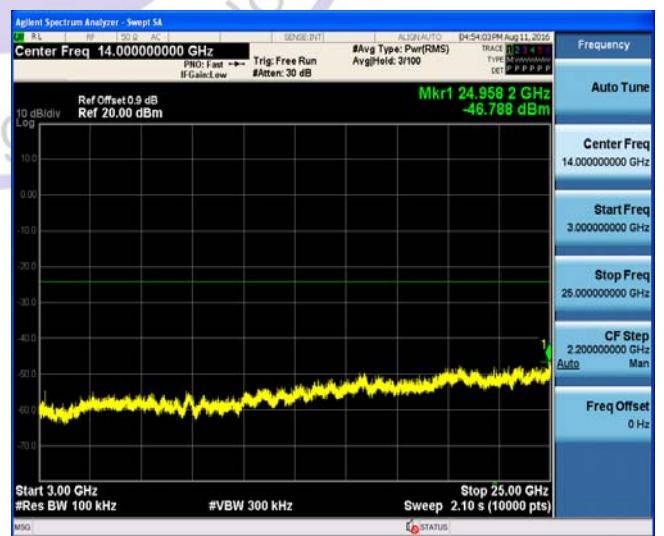
Reference



30MHz-3GHz



30MHz-3GHz

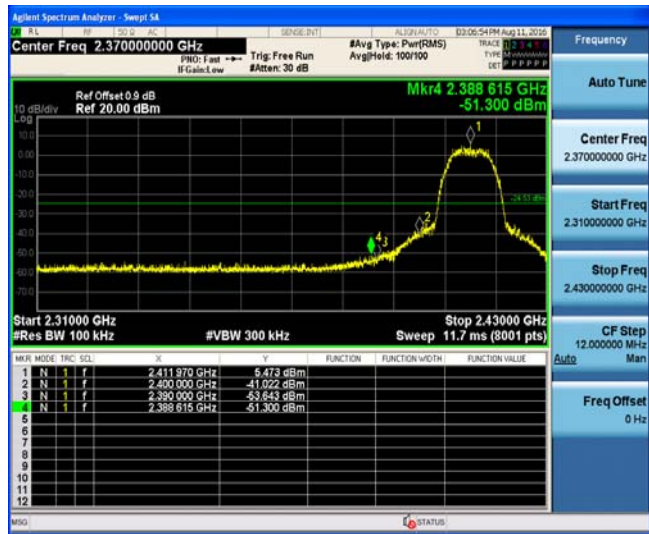


3GHz-25GHz

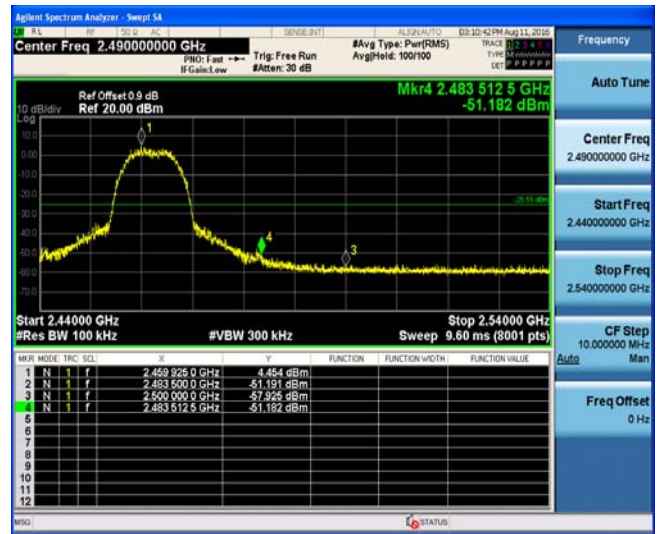
3GHz-25GHz

Band-edge Measurements for RF Conducted Emissions at antenna 1:

802.11b



Left bandedge

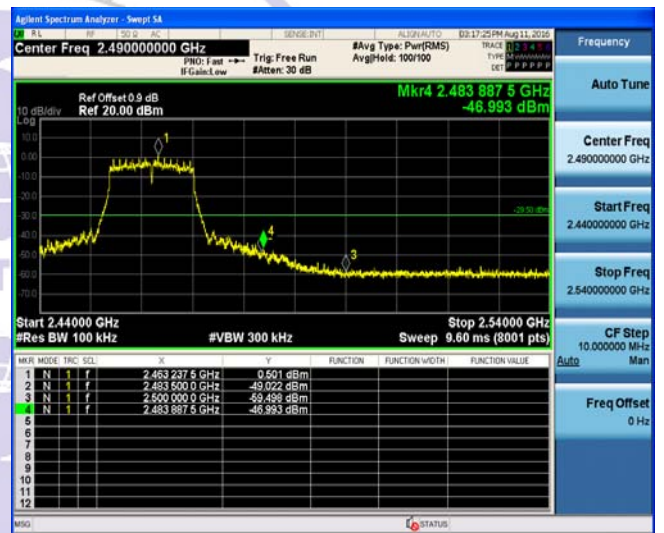


Right bandedge

802.11g

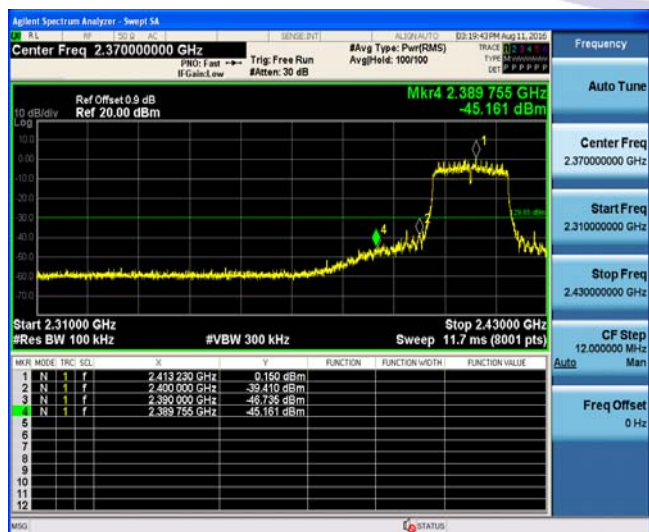


Left bandedge

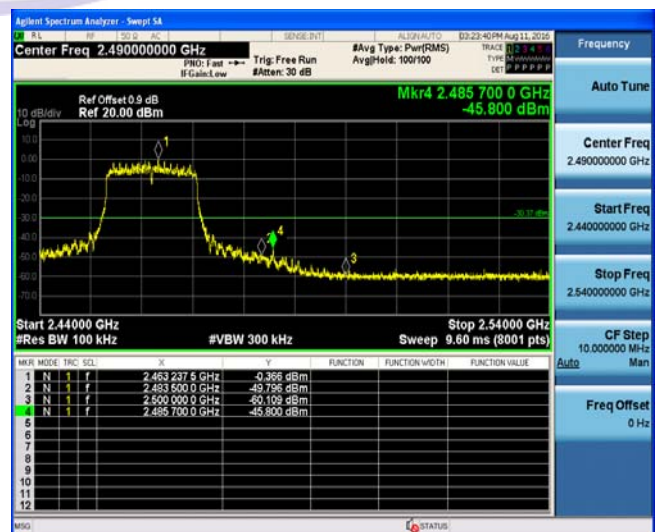


Right bandedge

802.11n(HT20)



Left bandedge

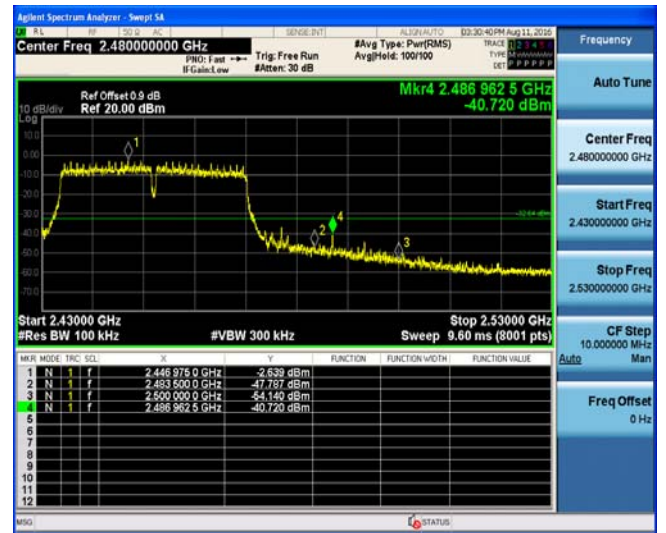


Right bandedge

802.11n(HT40)



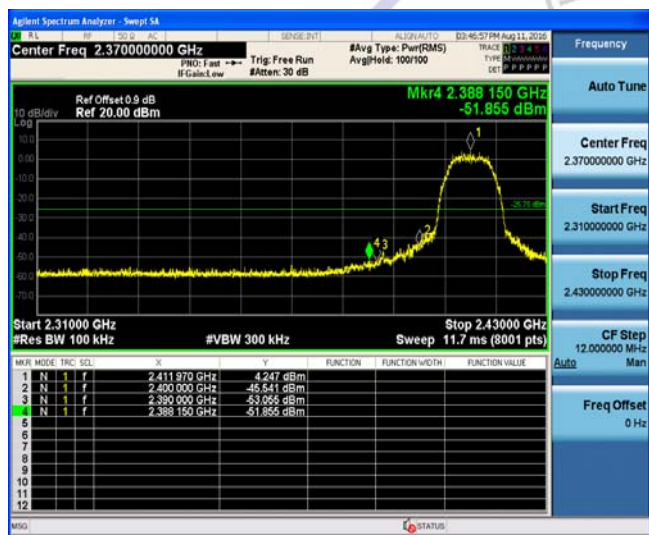
Left bandedge



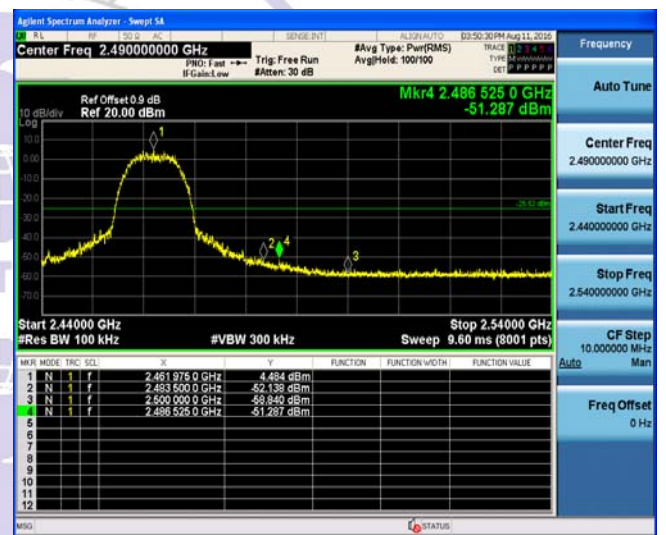
Right bandedge

Band-edge Measurements for RF Conducted Emissions at antenna 2:

802.11b

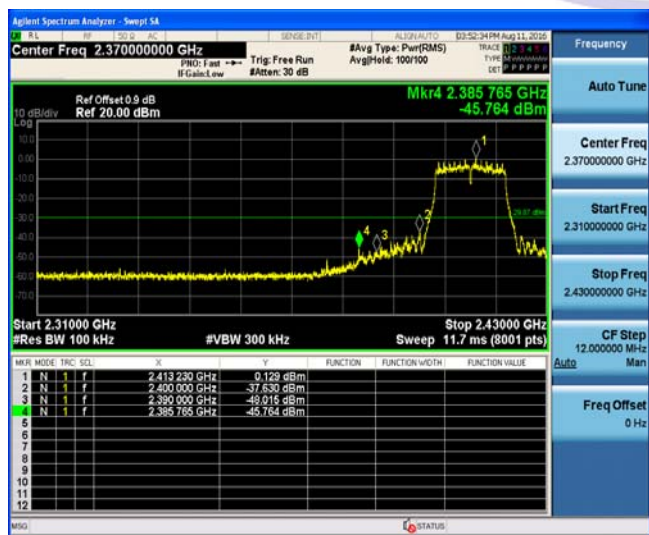


Left bandedge

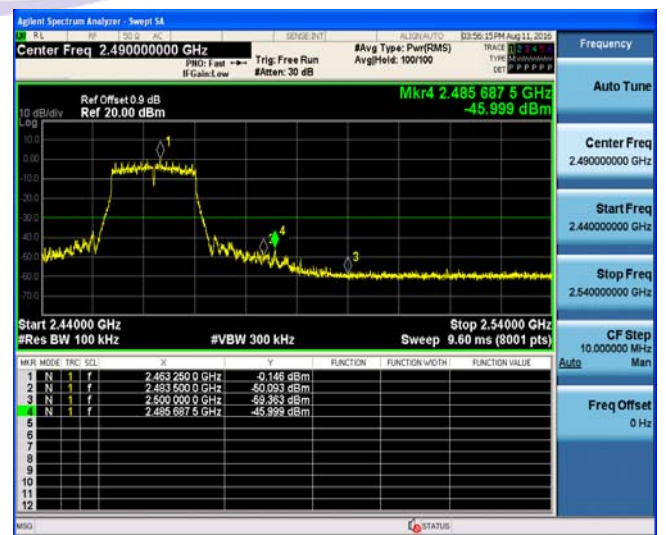


Right bandedge

802.11g

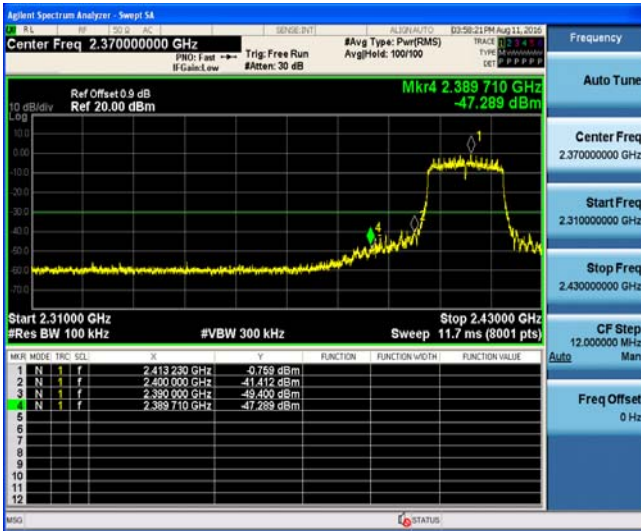


Left bandedge

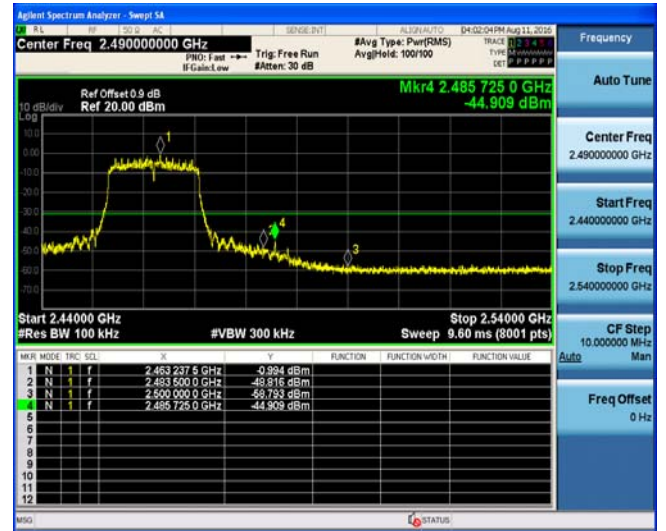


Right bandedge

802.11n(HT20)

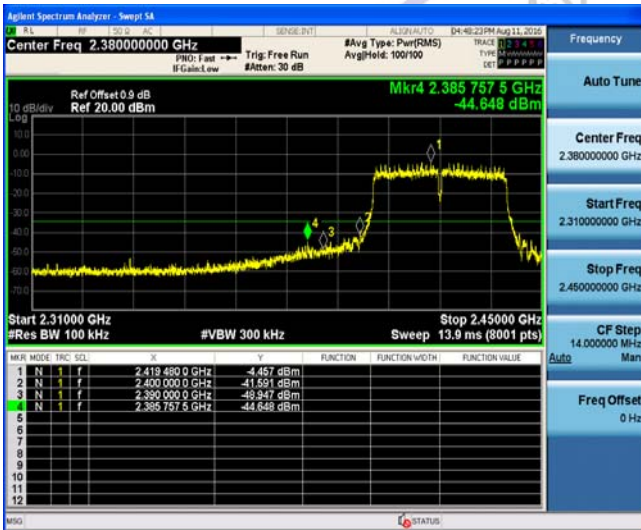


Left bandedge

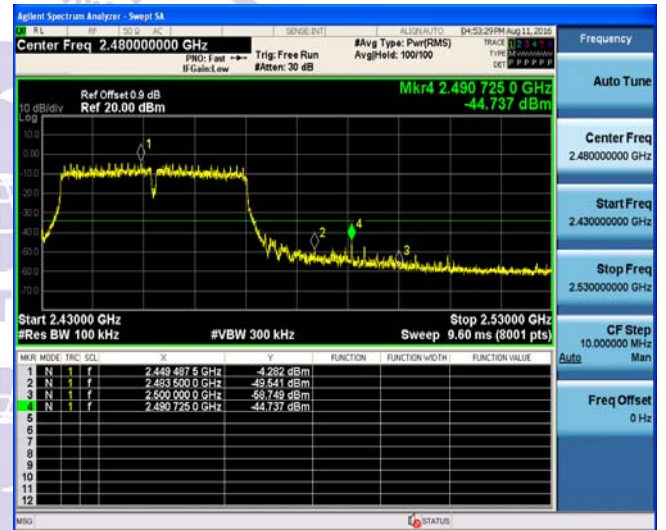


Right bandedge

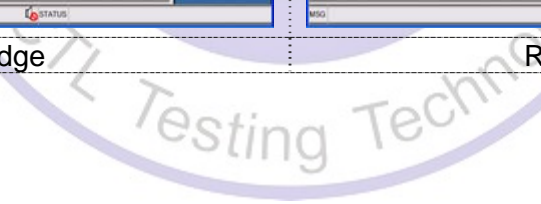
802.11n(HT40)



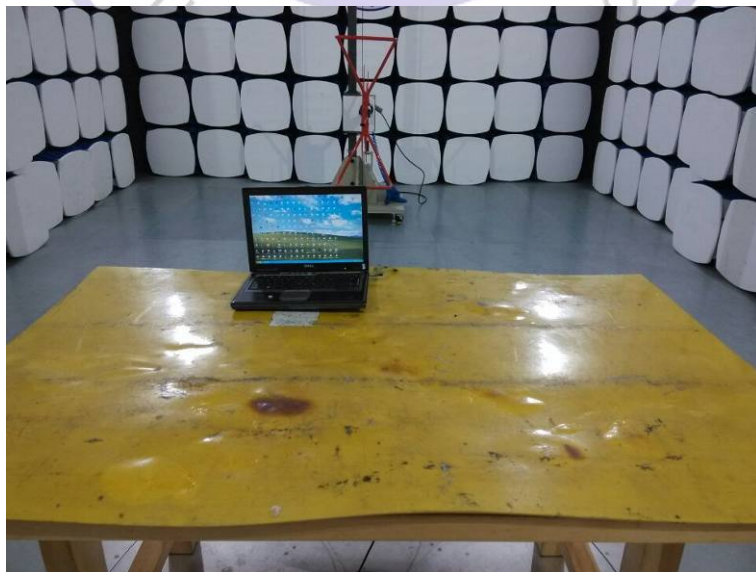
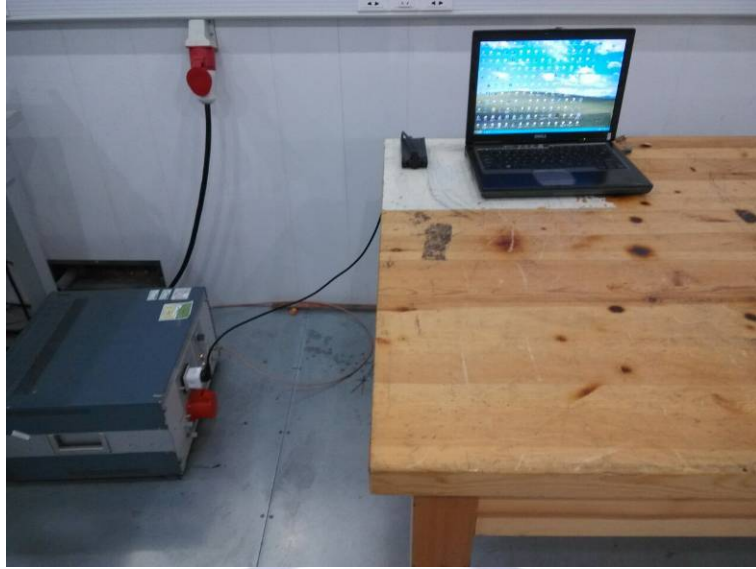
Left bandedge

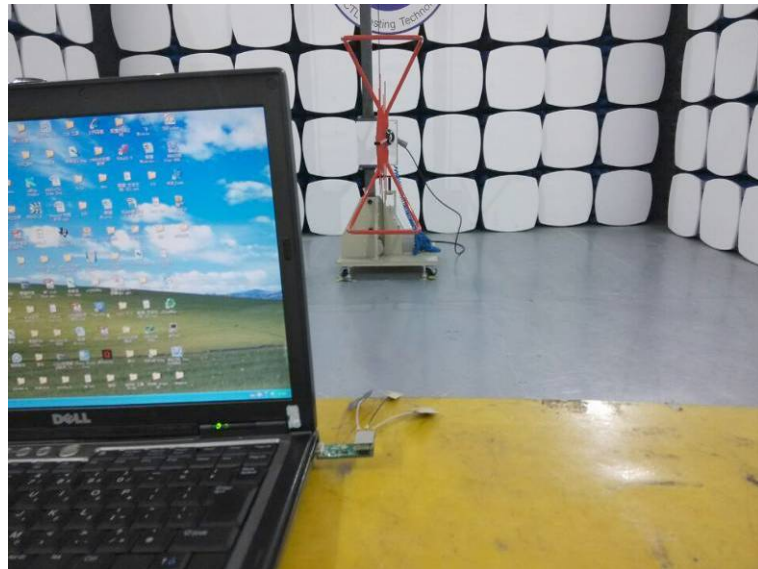


Right bandedge

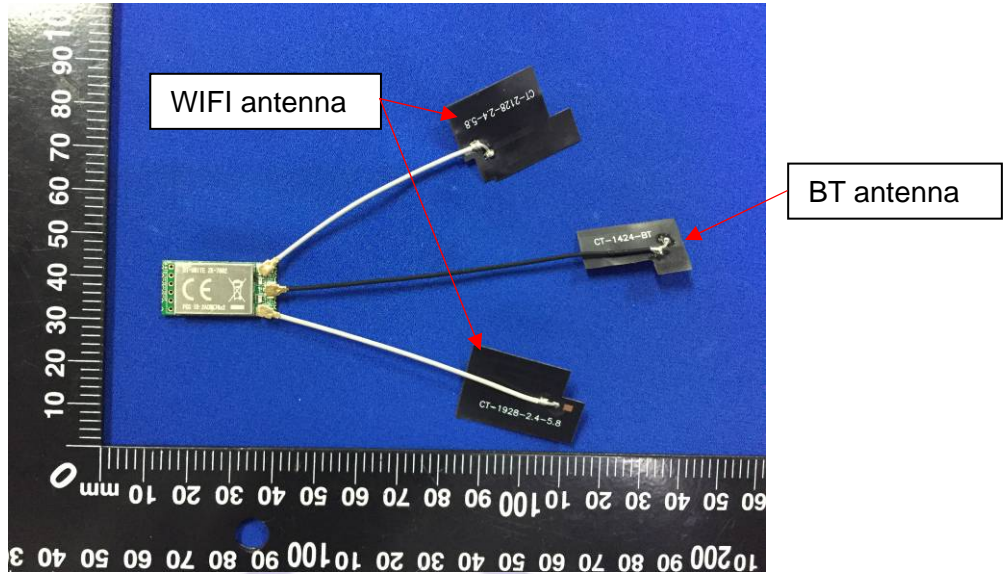


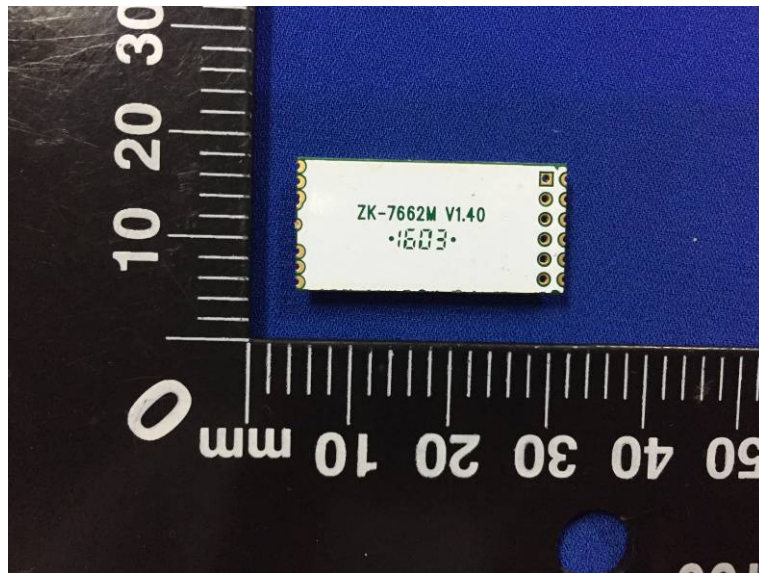
4. Test Setup Photos of the EUT





5. Photos of the EUT





***** End of Report *****

