

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

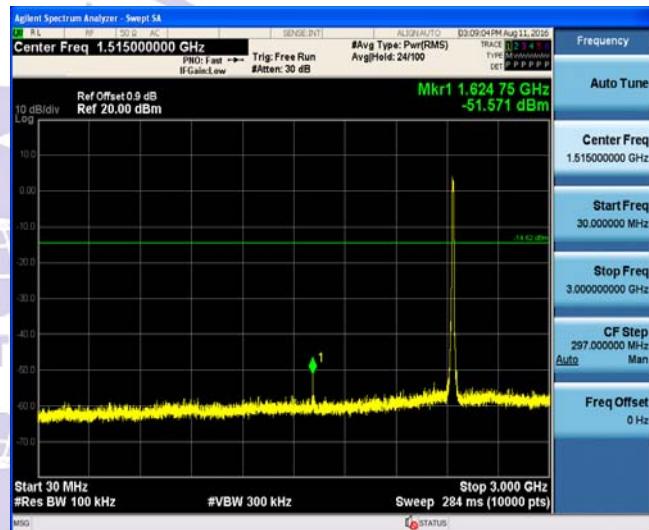
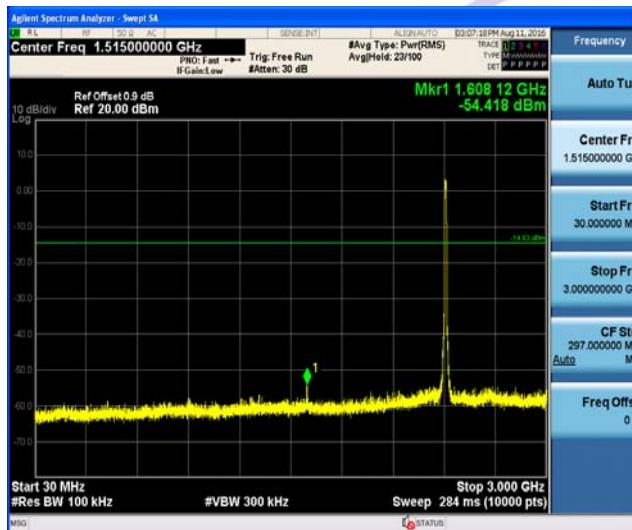
802.11b CH01



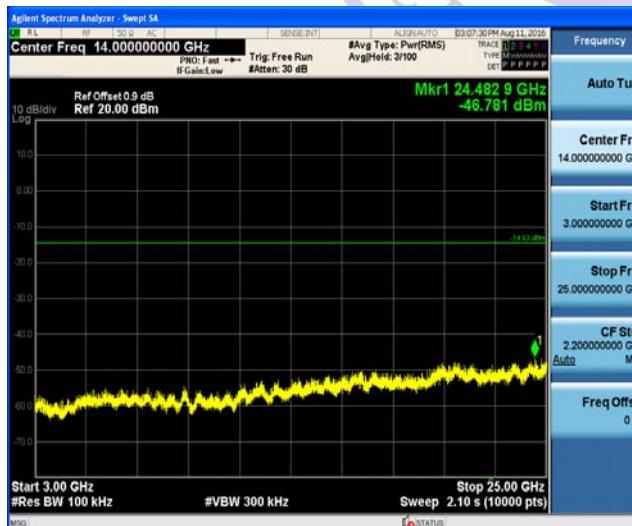
802.11b CH06



Reference



30MHz-3GHz

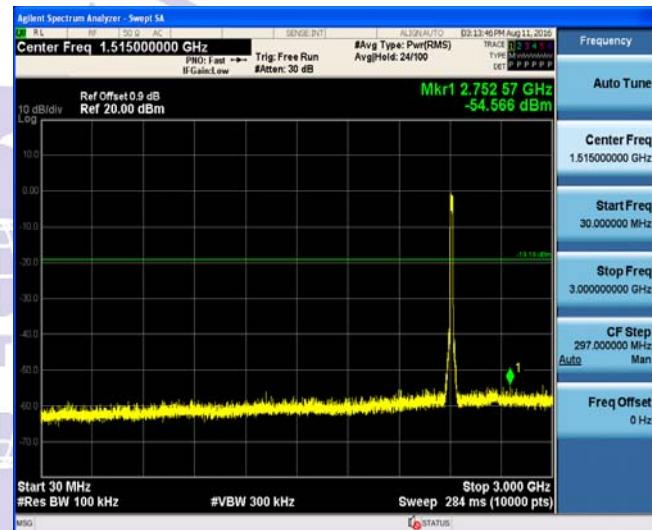
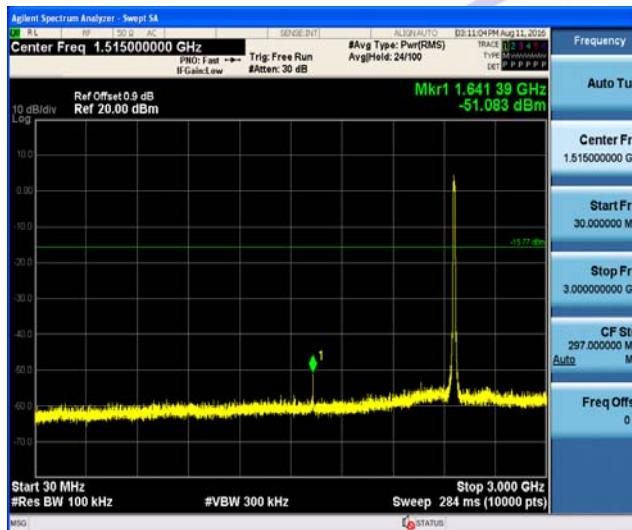
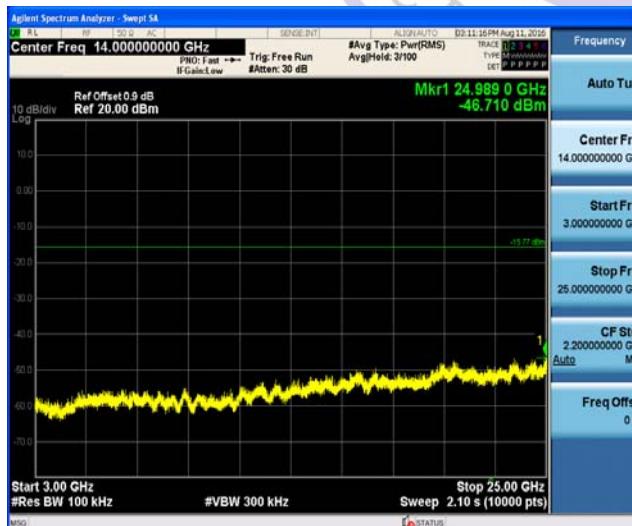


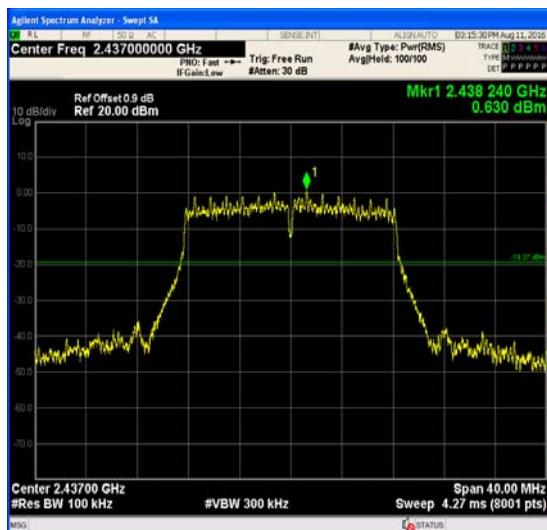
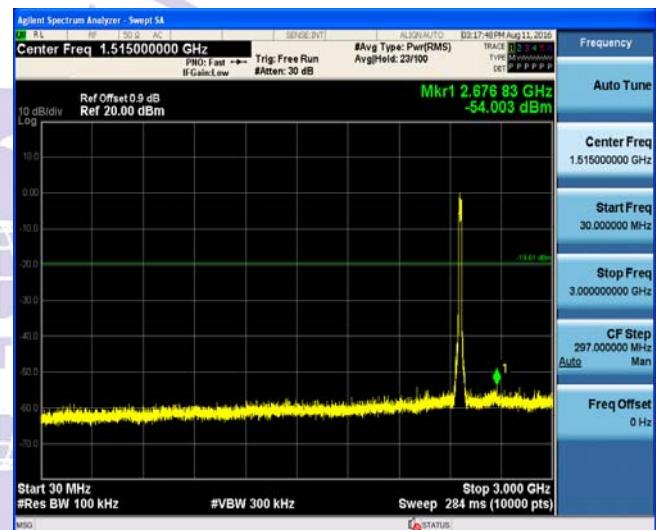
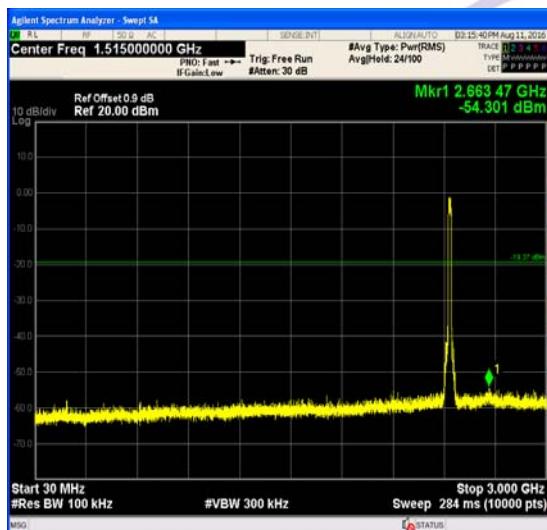
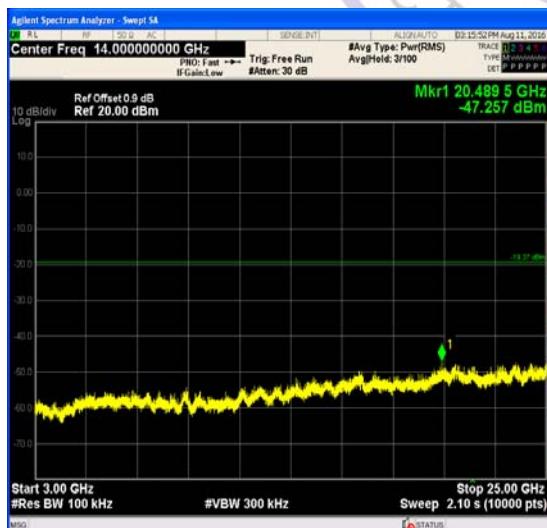
30MHz-3GHz

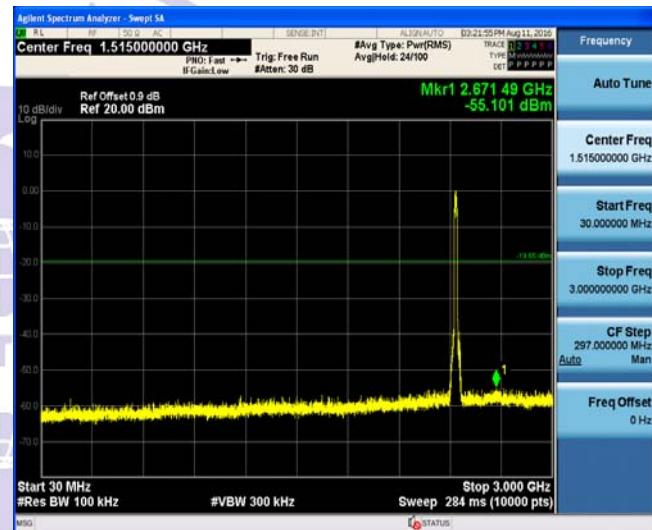
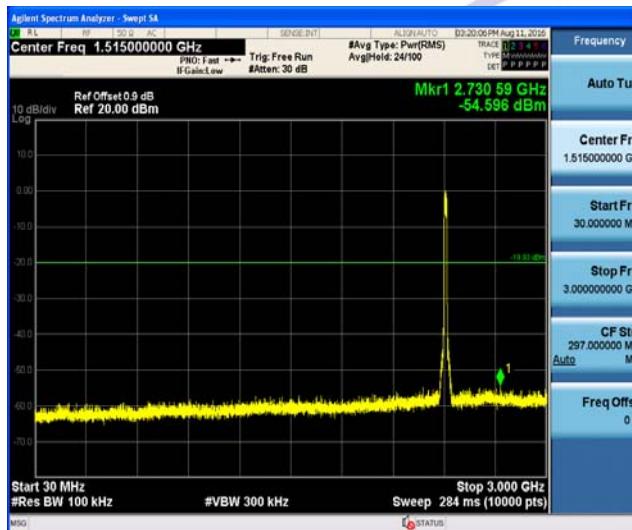
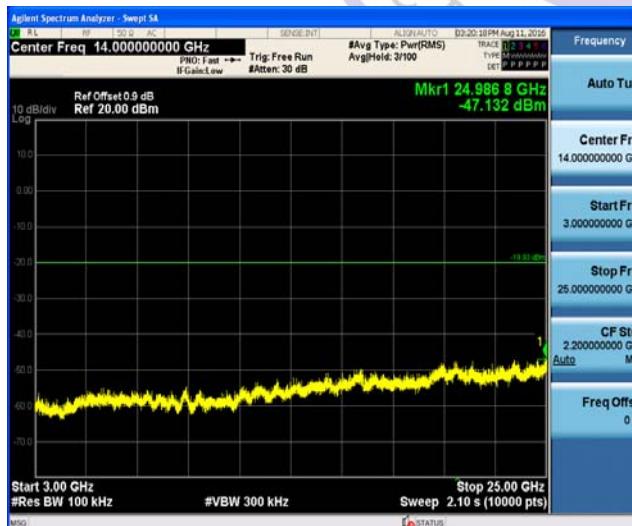


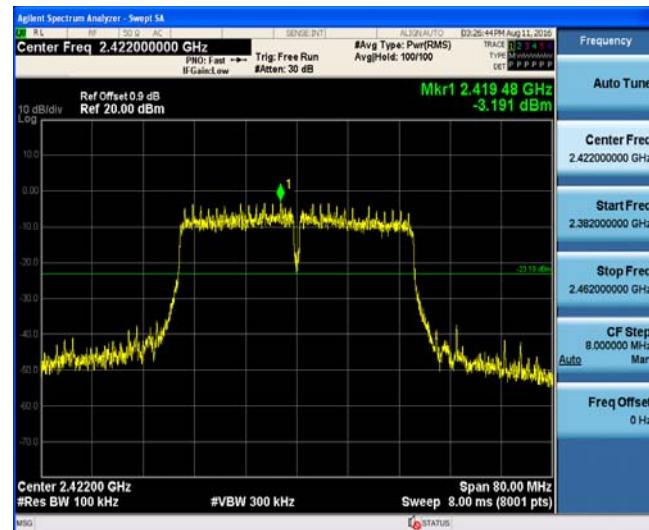
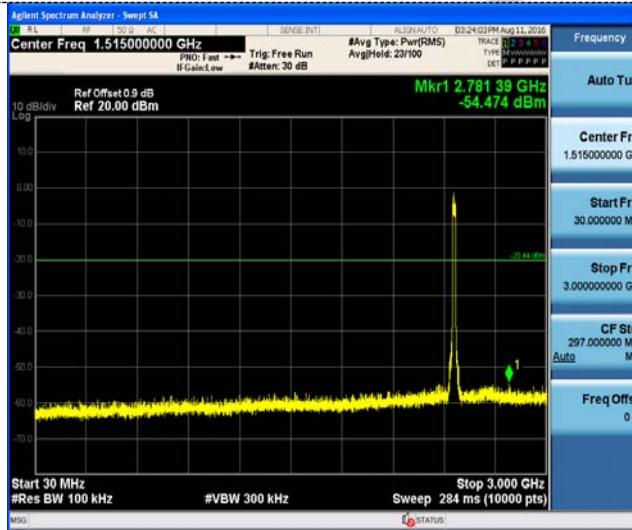
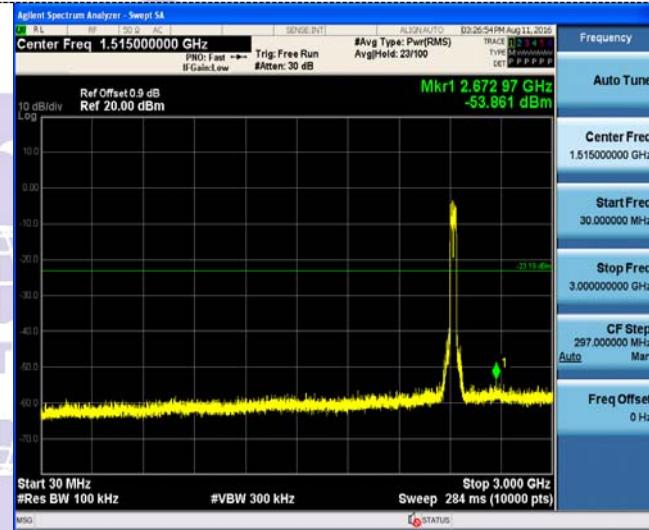
3GHz-25GHz

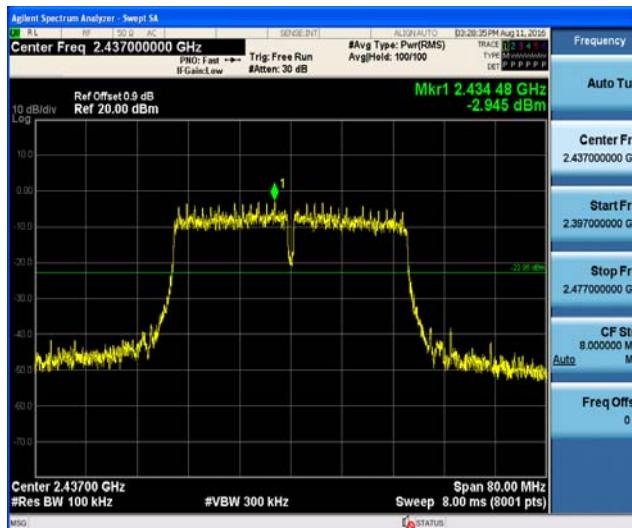
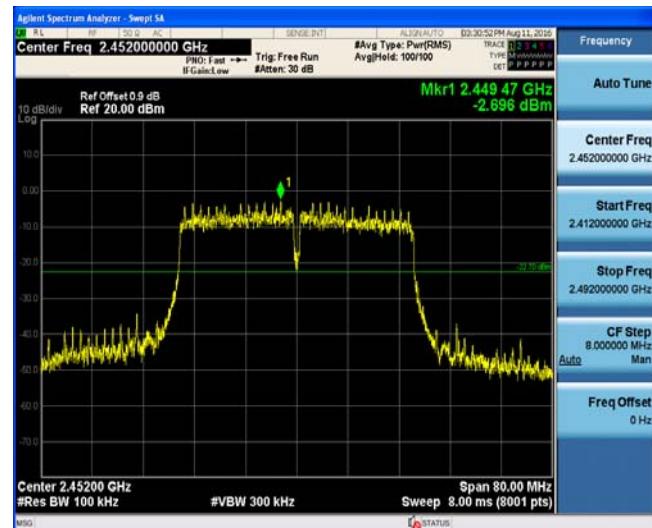
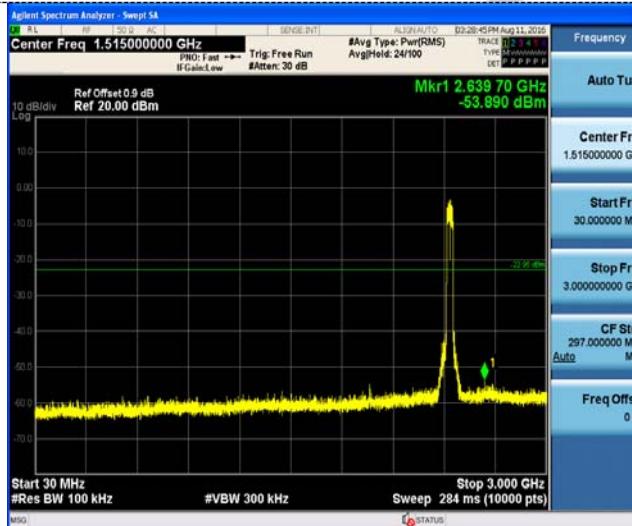
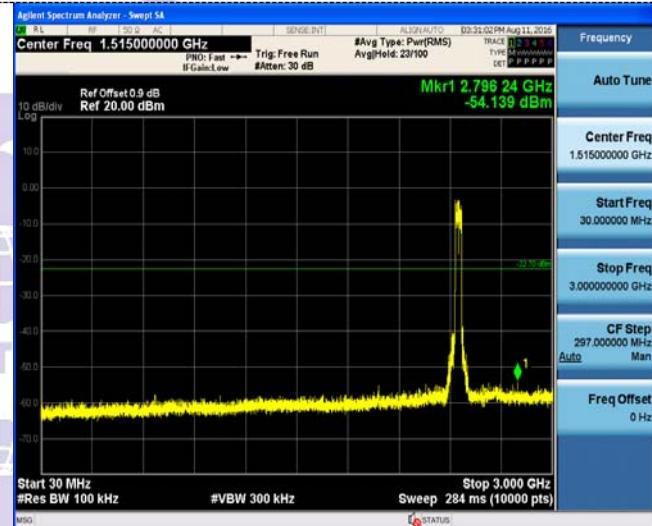
3GHz-25GHz

802.11b CH11**802.11g CH01****Reference****30MHz-3GHz****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**

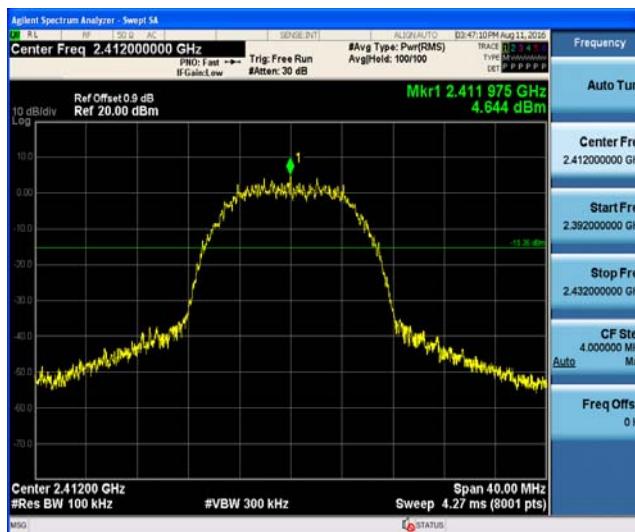
802.11n(HT20) CH11**802.11n(HT40) CH03****Reference****Reference****30MHz-3GHz****30MHz-3GHz****3GHz-25GHz****3GHz-25GHz**

802.11n(HT40) CH06**802.11n(HT40) CH09****Reference****Reference****30MHz-3GHz****30MHz-3GHz****3GHz-25GHz****3GHz-25GHz**

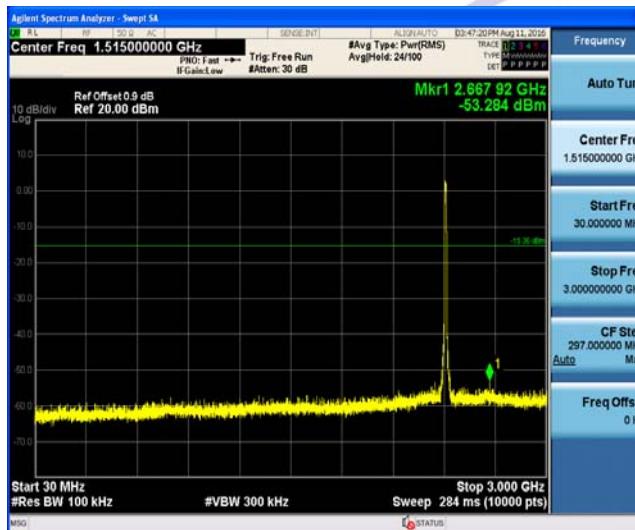
Ant2

802.11b CH01

802.11b CH06



Reference

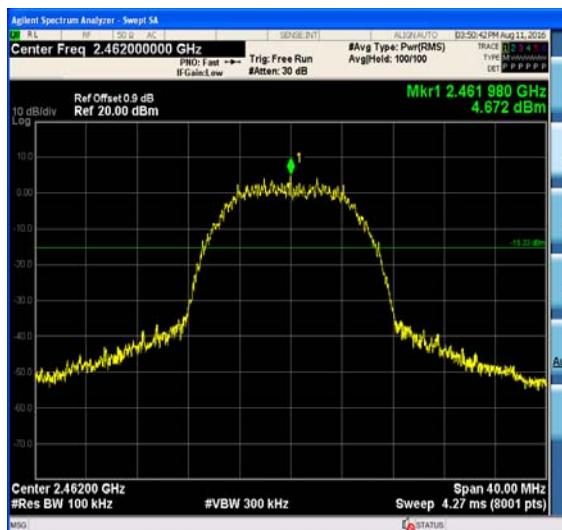
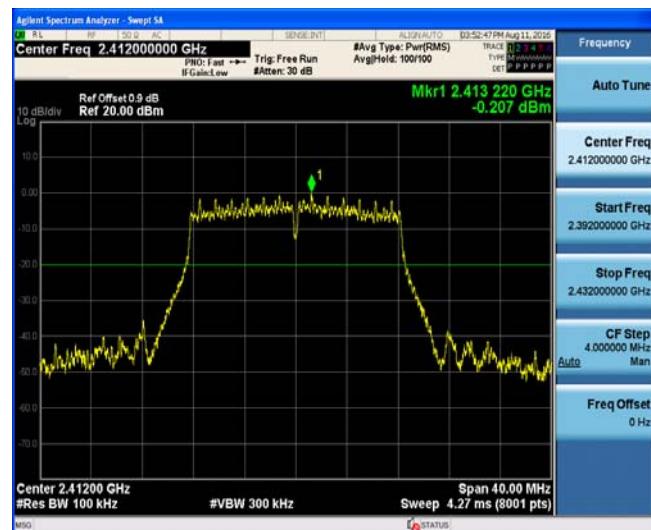
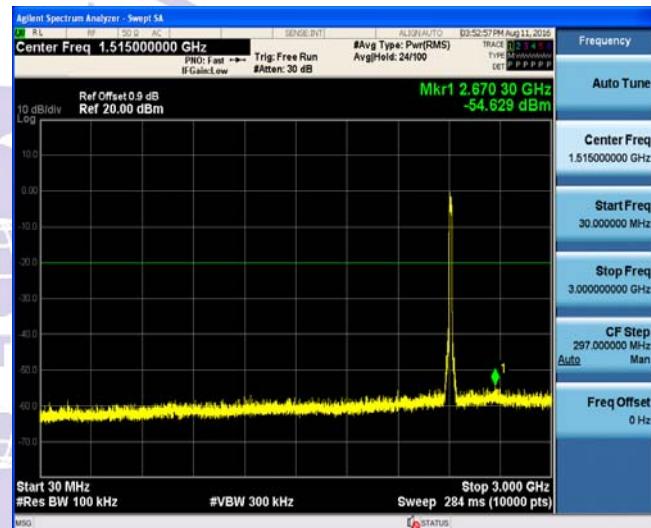
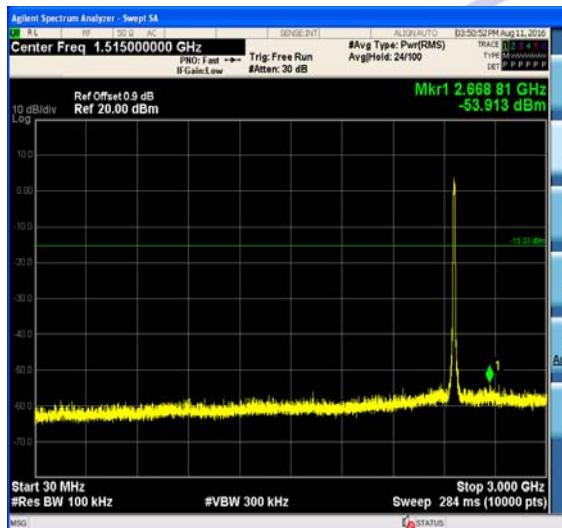
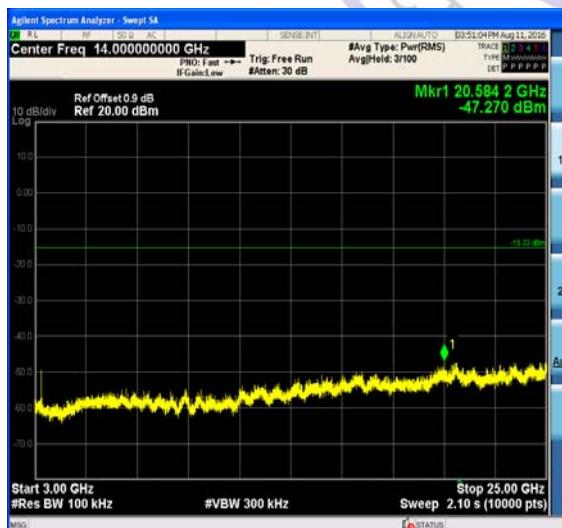


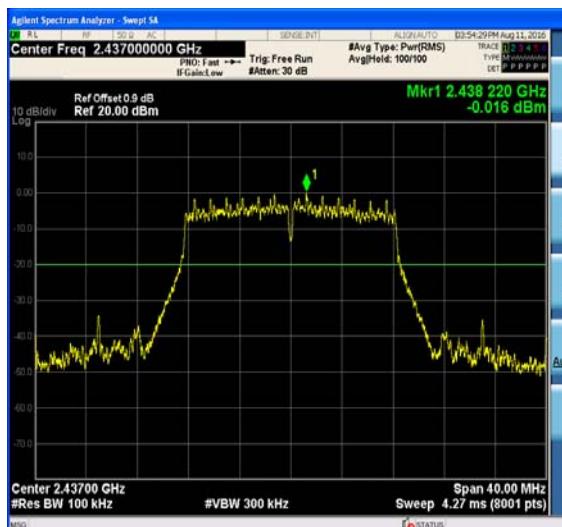
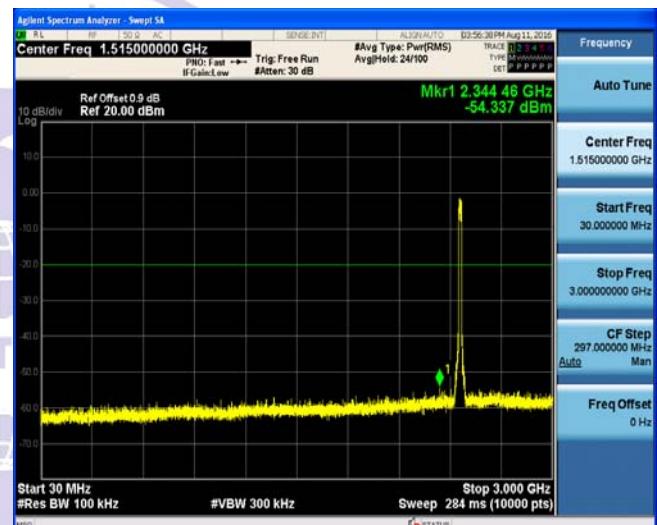
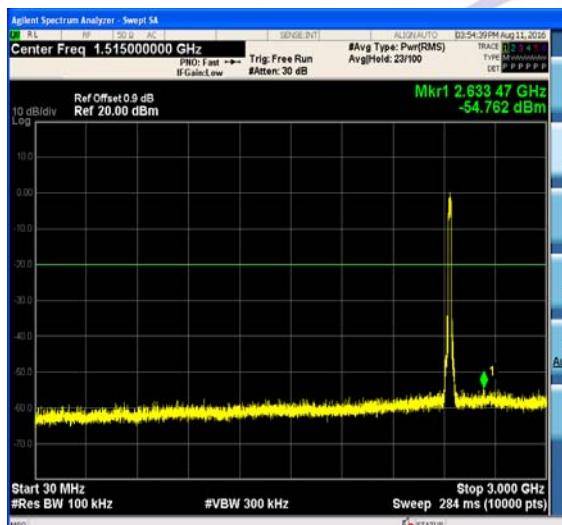
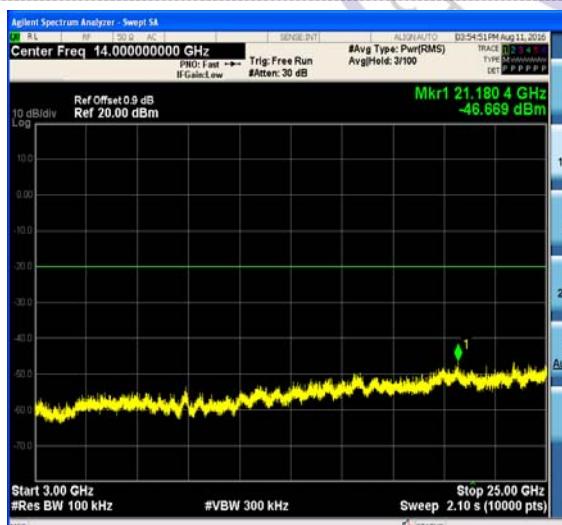
30MHz-3GHz

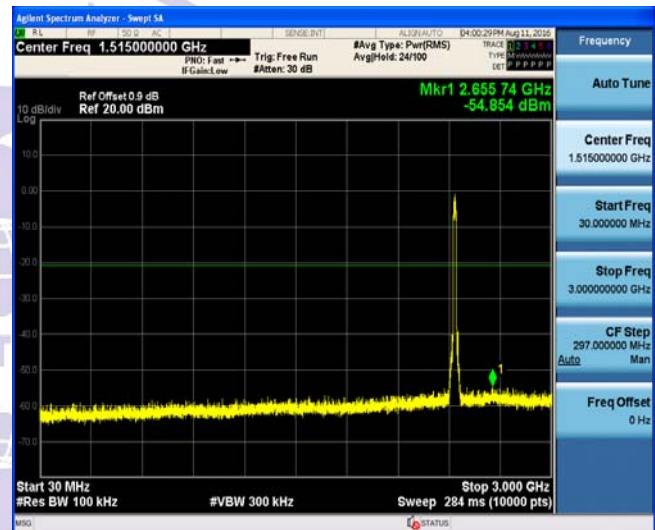
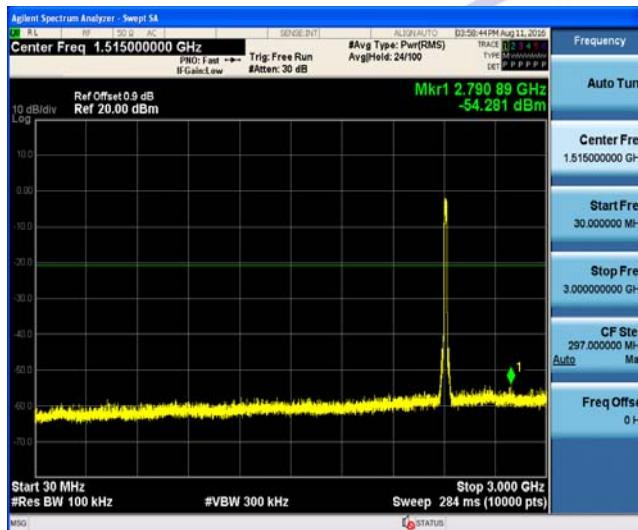


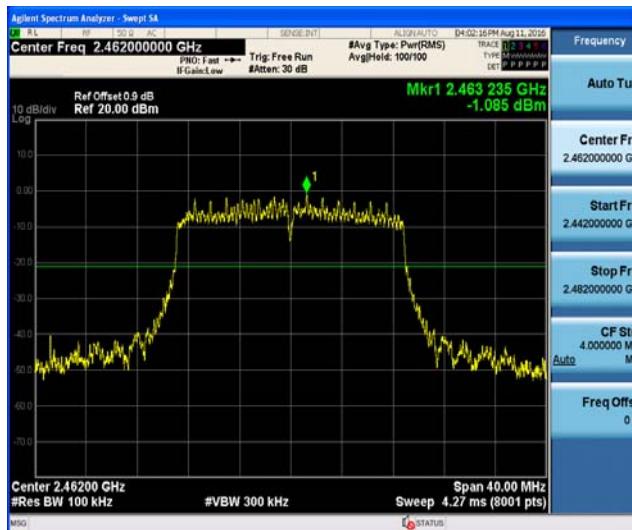
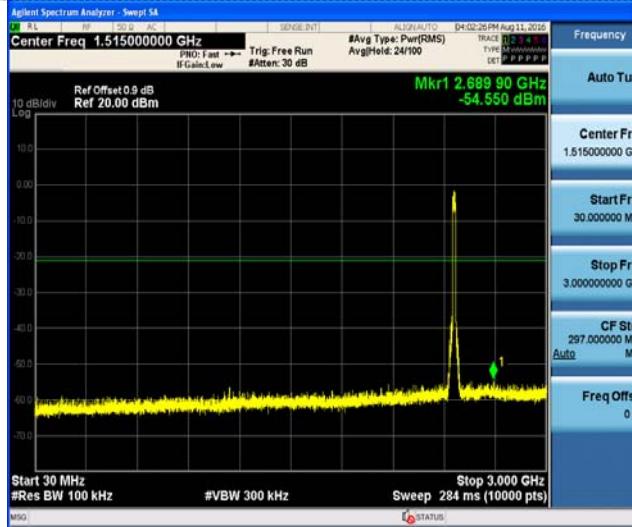
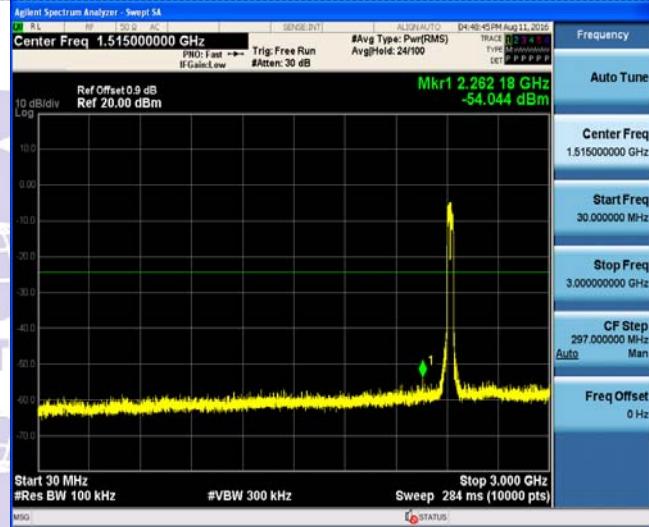
3GHz-25GHz

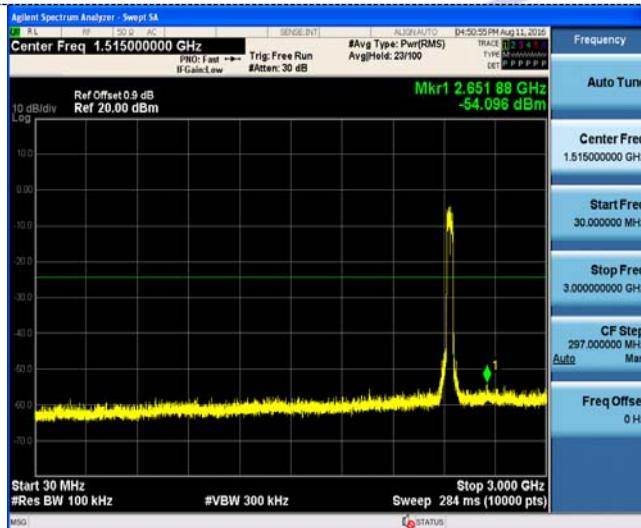
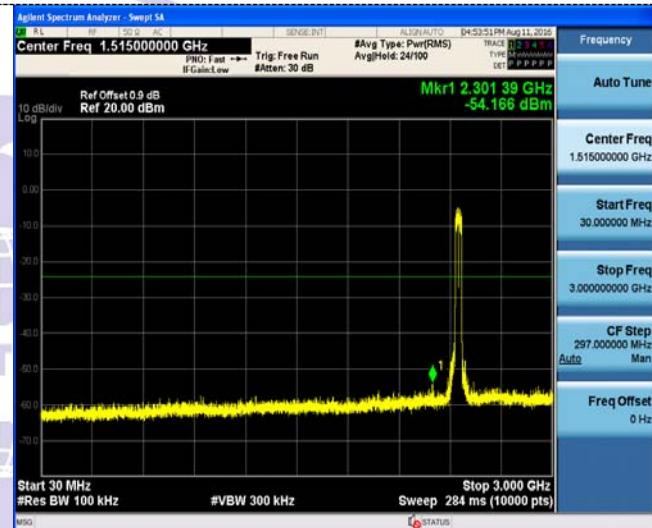
3GHz-25GHz

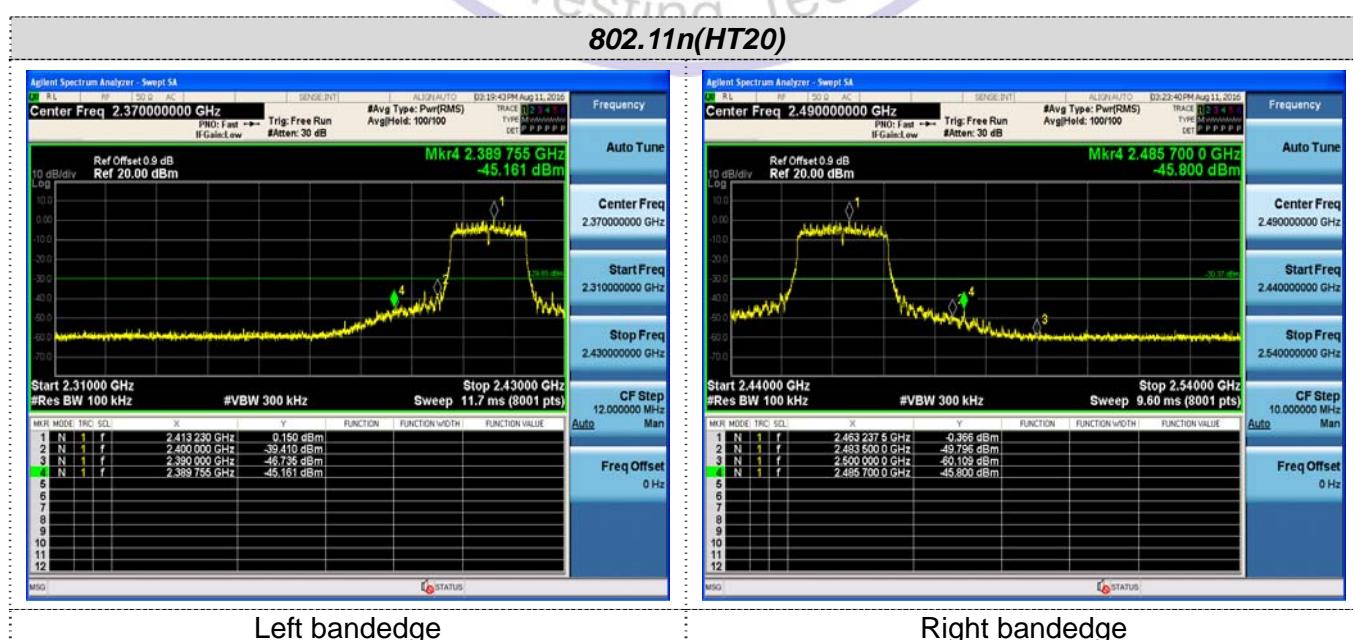
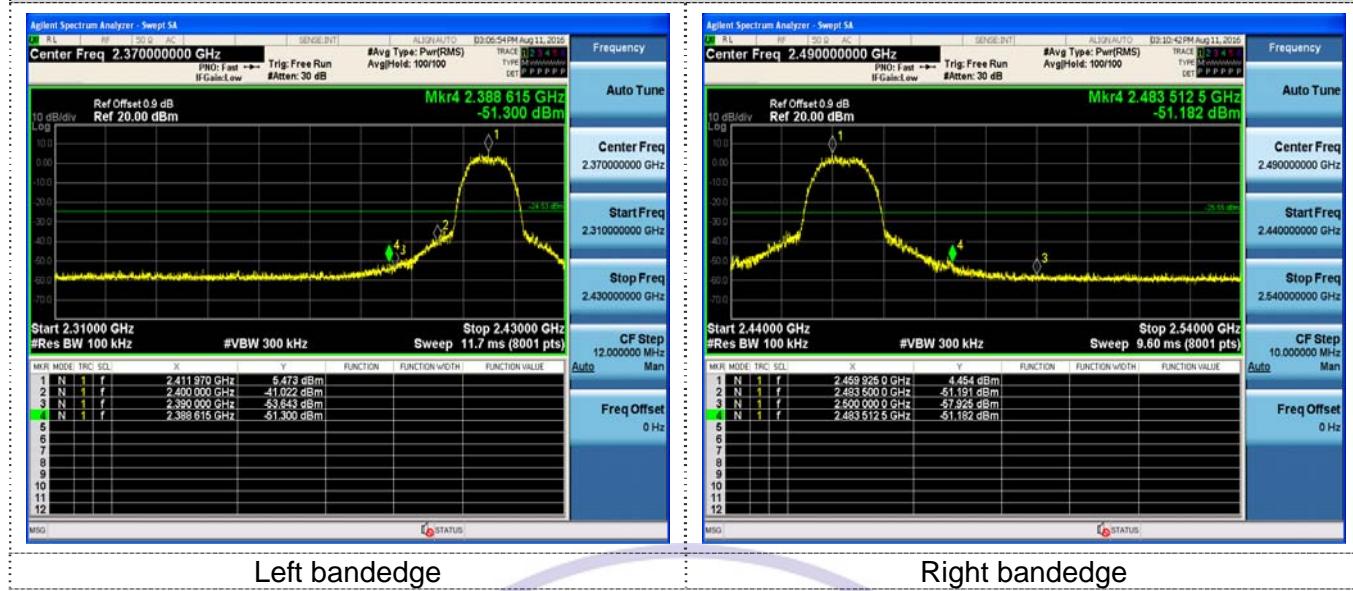
802.11b CH11**802.11g CH01****Reference****30MHz-3GHz****3GHz-25GHz****3GHz-25GHz**

802.11g CH06**802.11g CH11****Reference****30MHz-3GHz****3GHz-25GHz****3GHz-25GHz**

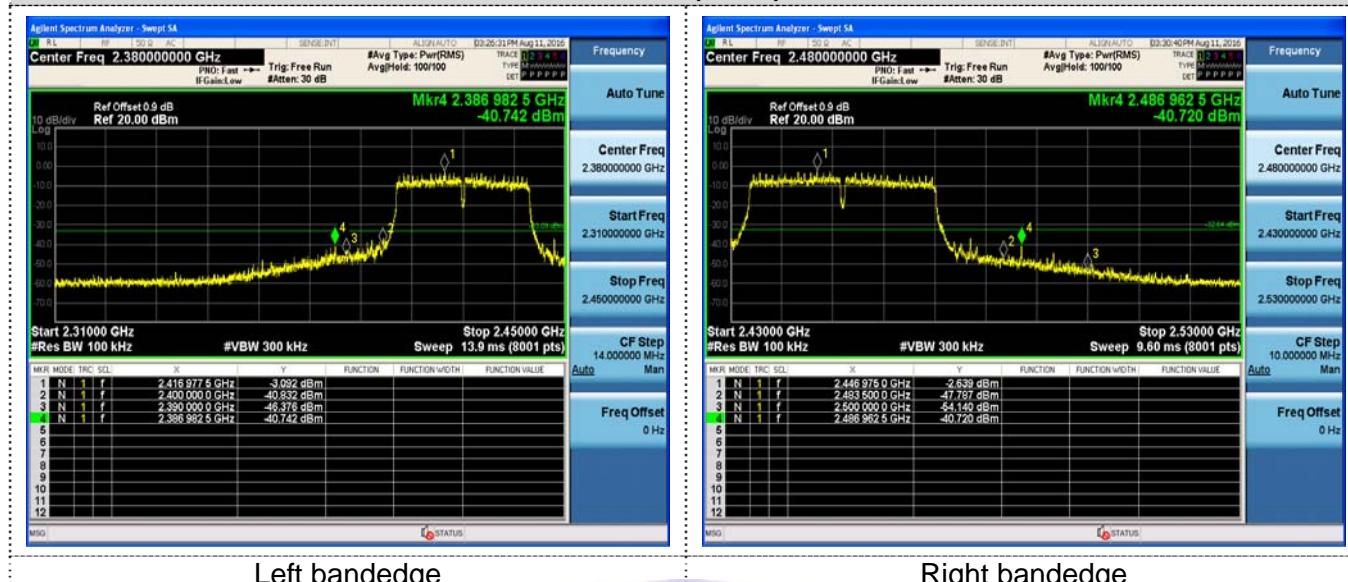
802.11n(HT20) CH01**802.11n(HT20) CH06****Reference****30MHz-3GHz****3GHz-25GHz****3GHz-25GHz**

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**

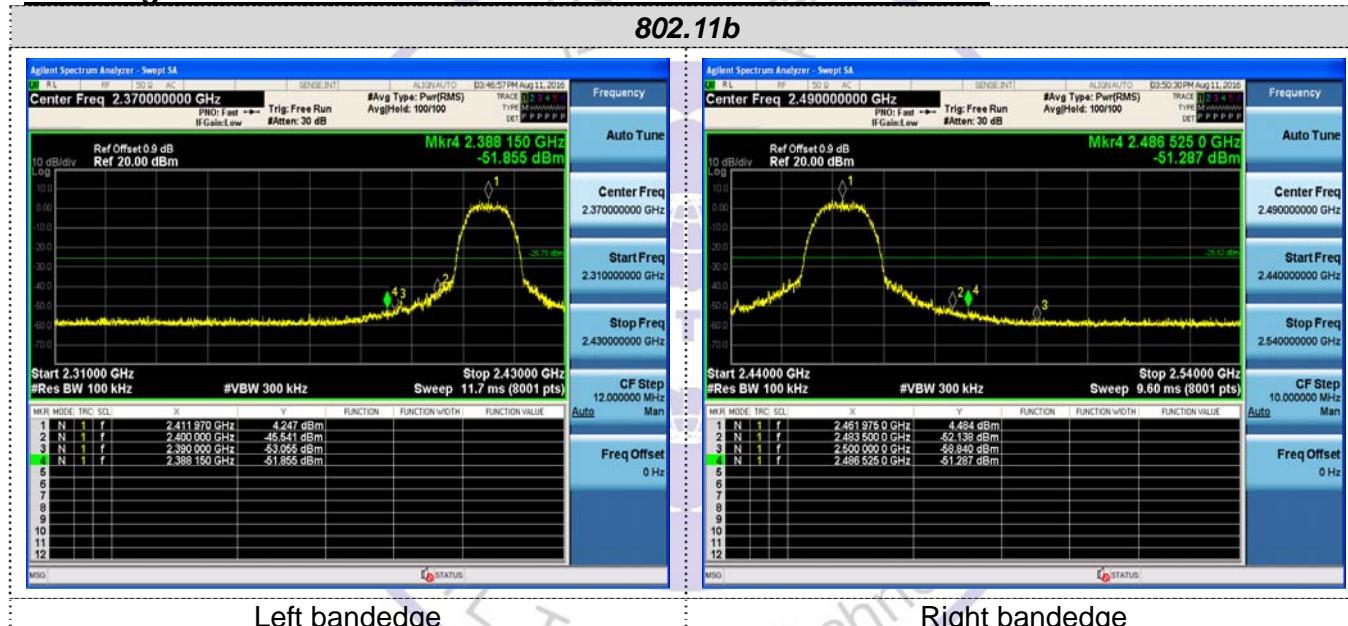
Band-edge Measurements for RF Conducted Emissions at antenna 1:**802.11b**

802.11n(HT40)

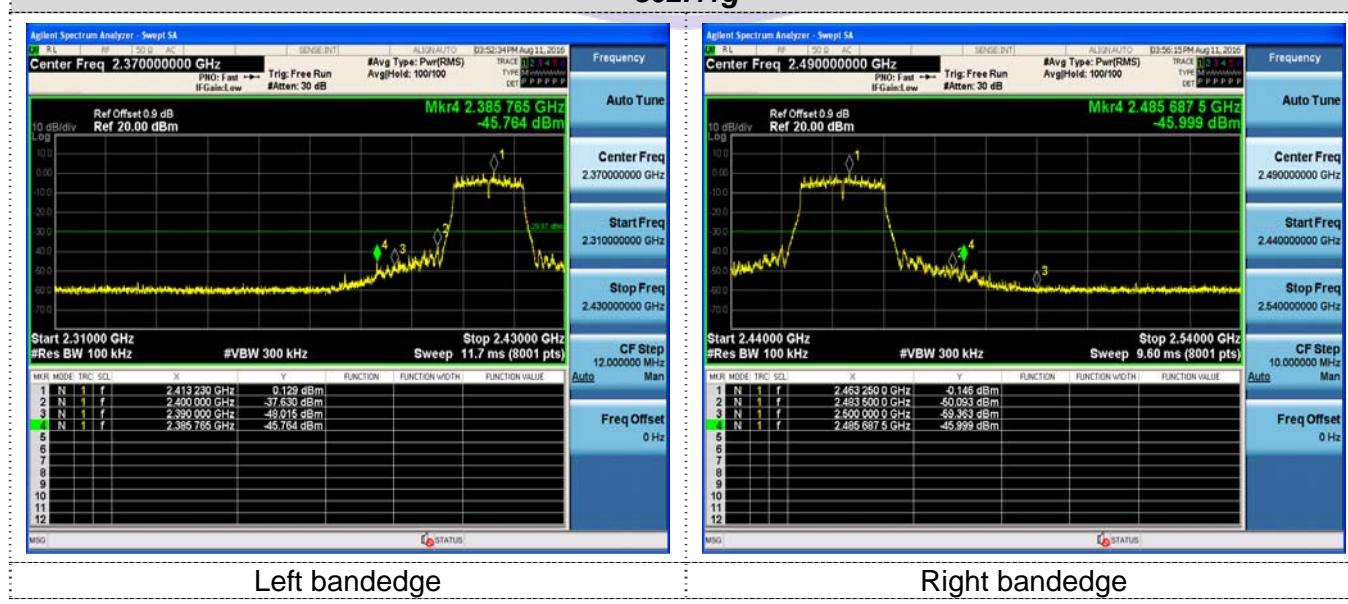


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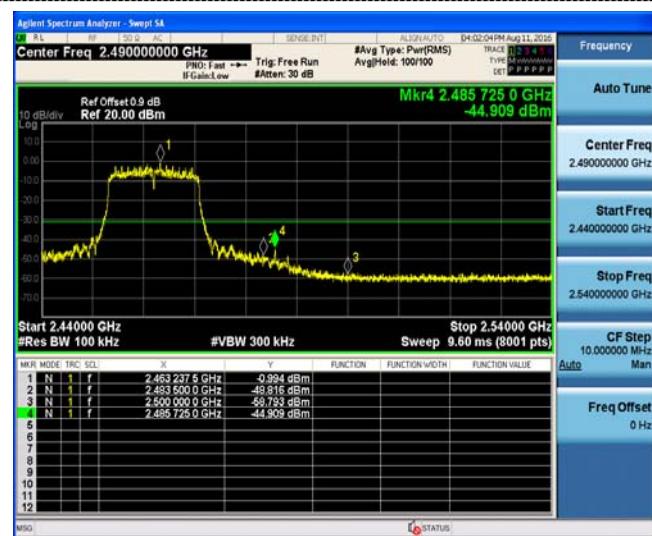
802.11b



802.11g



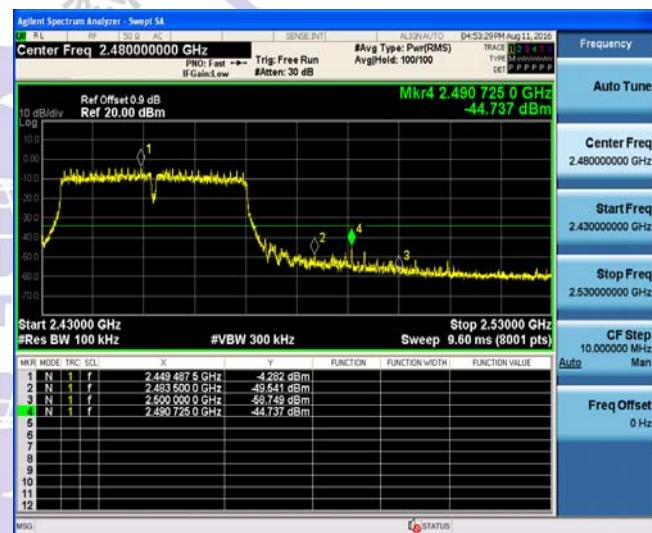
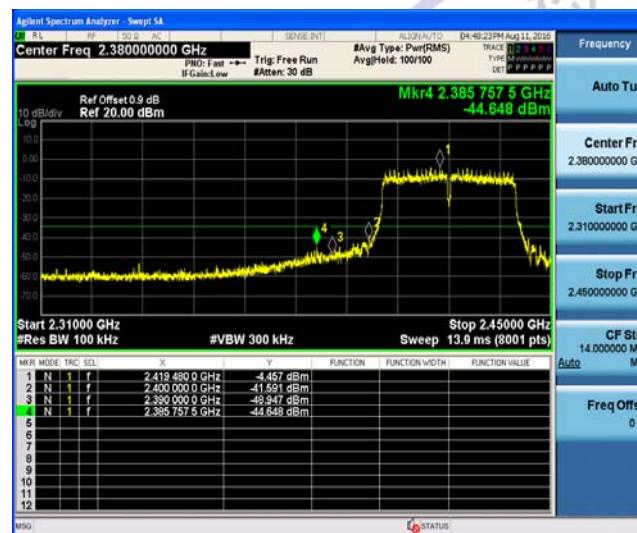
802.11n(HT20)



Left bandedge

Right bandedge

802.11n(HT40)



Left bandedge

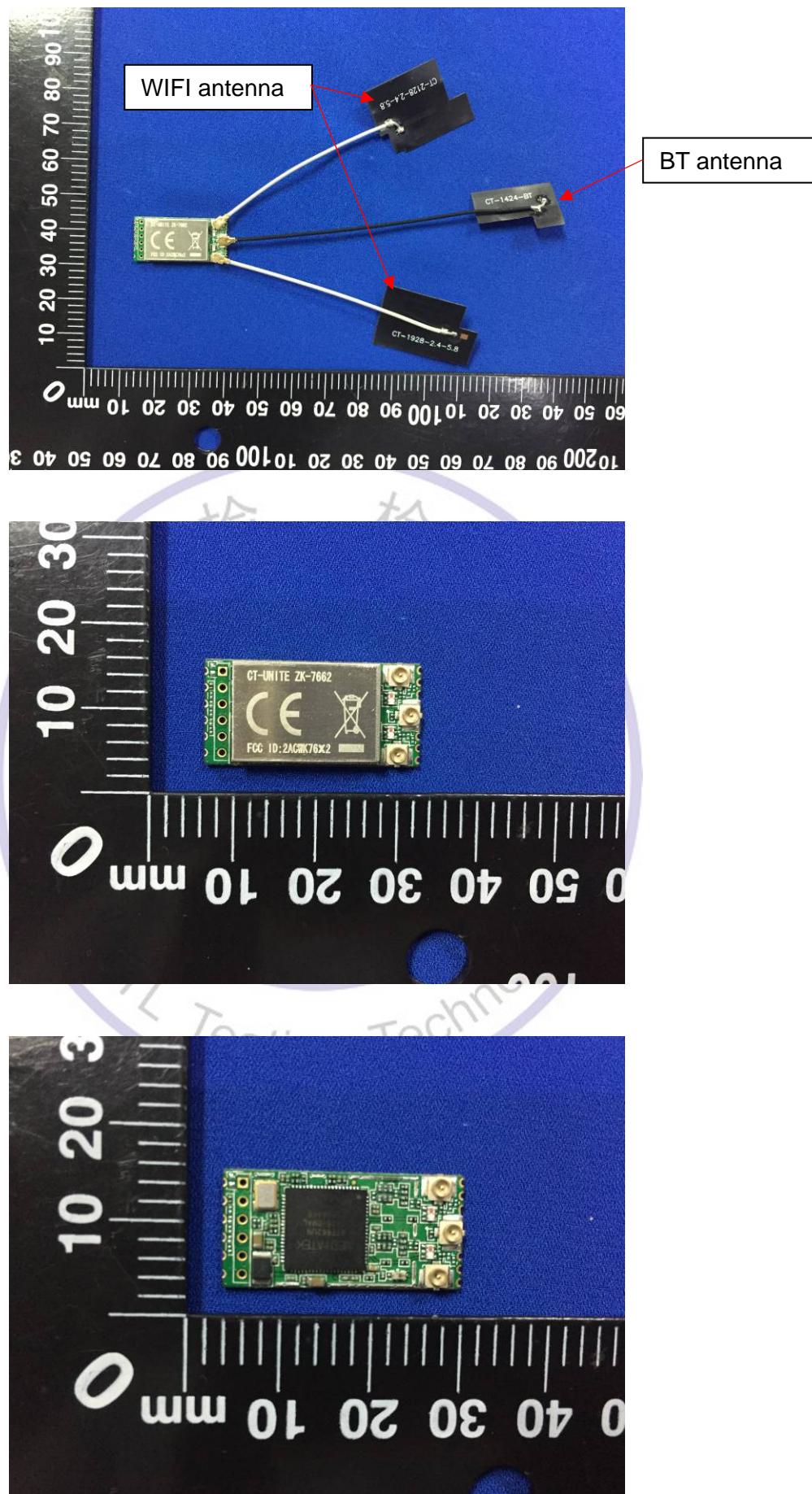
Right bandedge

4. Test Setup Photos of the EUT





5. Photos of the EUT





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

