3.7. Spurious RF Conducted Emission

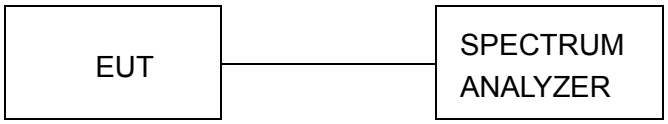
Limit

1. Below -20dB of the highest emission level in operating band.
2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

Test Procedure

The Spurious RF conducted emissions compliance of RF radiated emission should be measured by following the guidance in ANSI C63.4:2003 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW=100 kHz and VBM= 300 KHz to measure the peak field strength, and measured frequency range from 30MHz to 26.5GHz.

Test Configuration

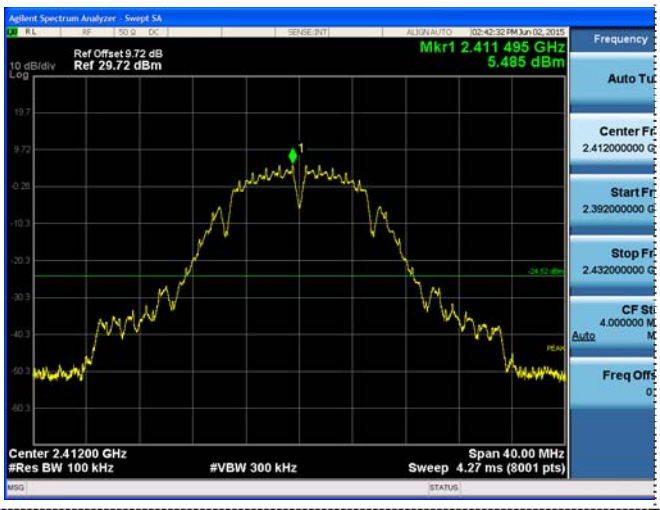


Test Results

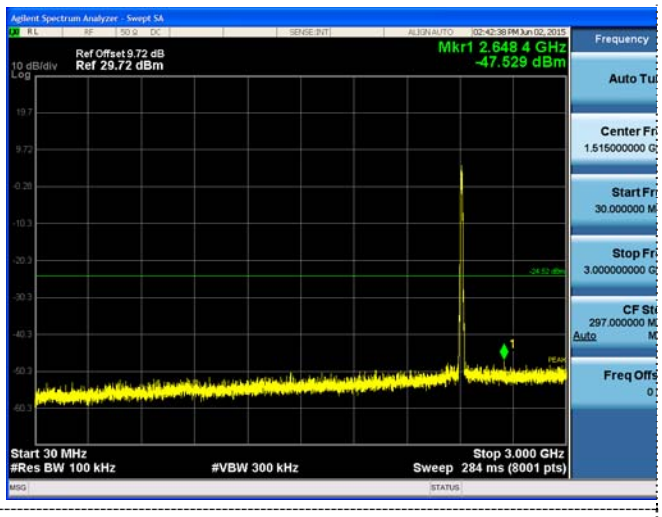
Remark: The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions and bandage measurement data.

Test plot as follows:

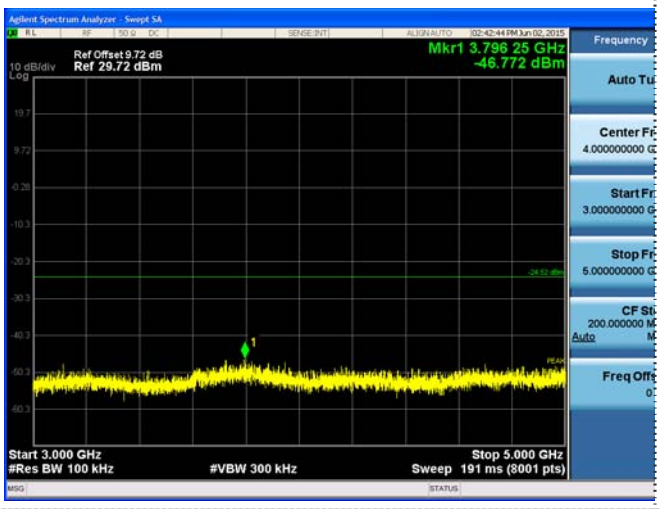
Test Mode:	802.11b	Test channel :	01



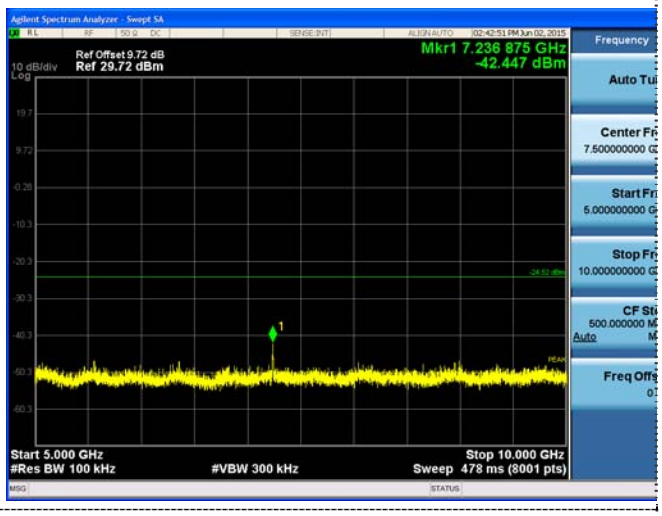
Reference level



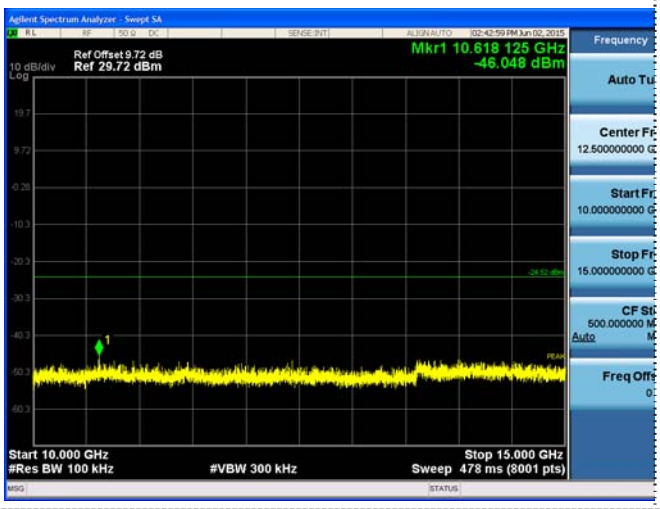
30MHz-1GHz



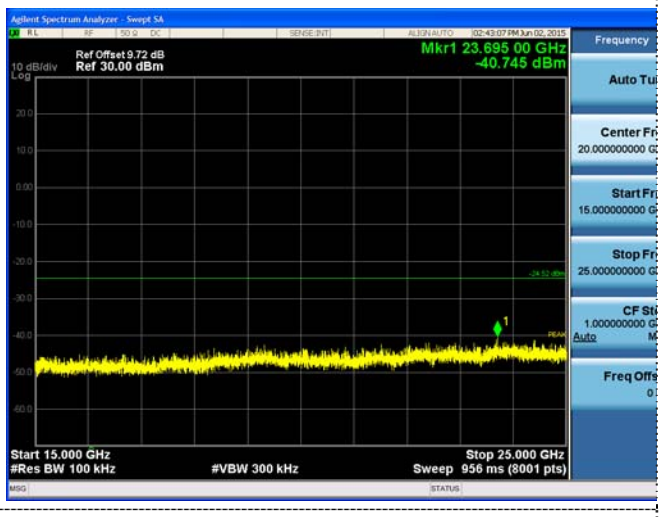
1GHz-5GHz



5GHz-10GHz

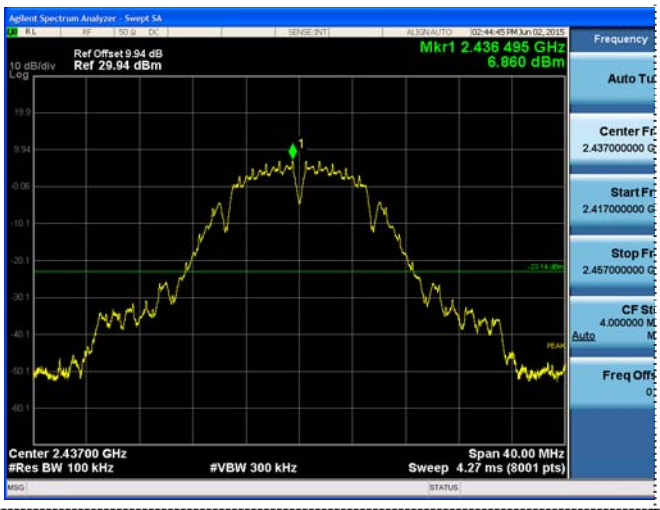


10GHz-15GHz

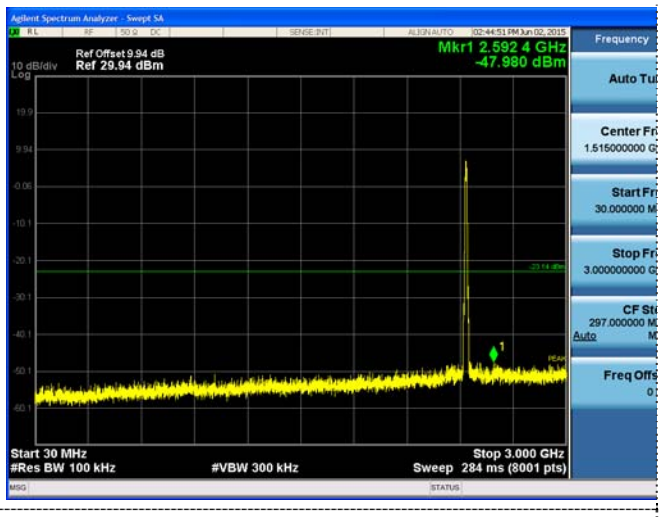


15GHz-25GHz

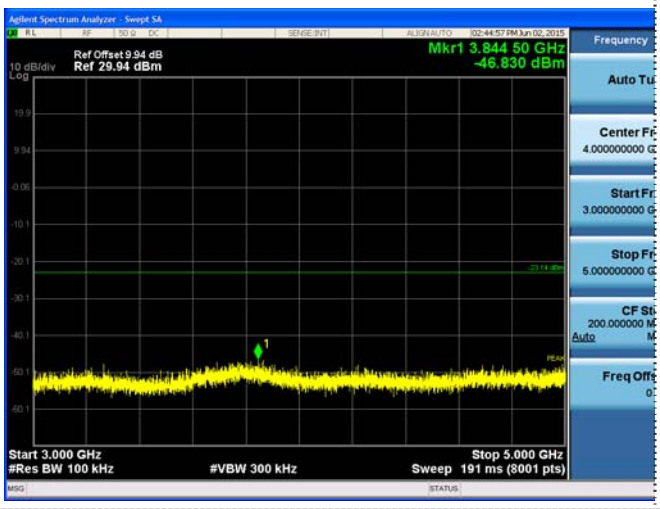
Test Mode:	802.11b	Test channel :	06



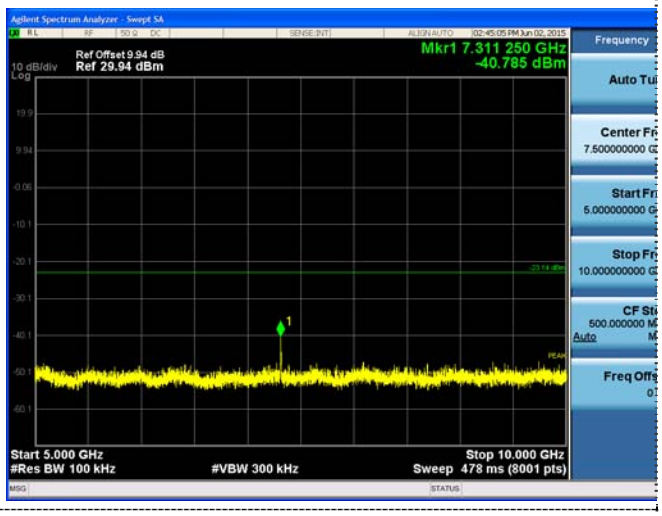
Reference level



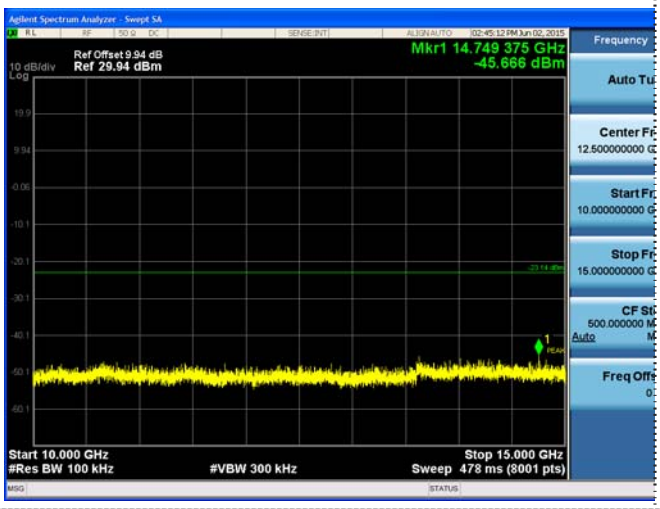
30MHz-1GHz



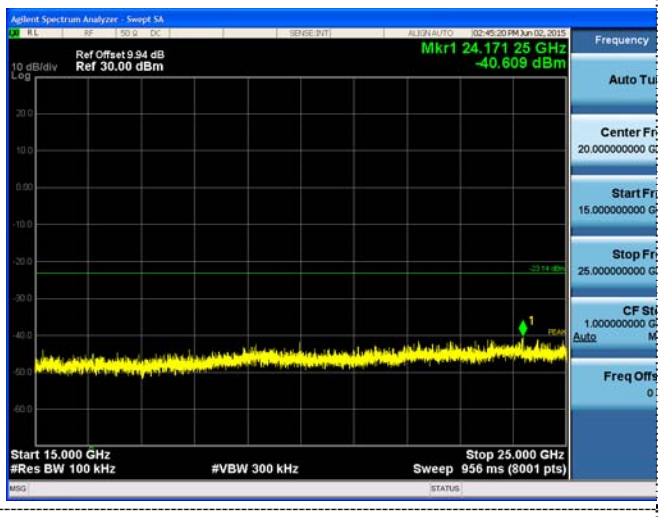
1GHz-5GHz



5GHz-10GHz

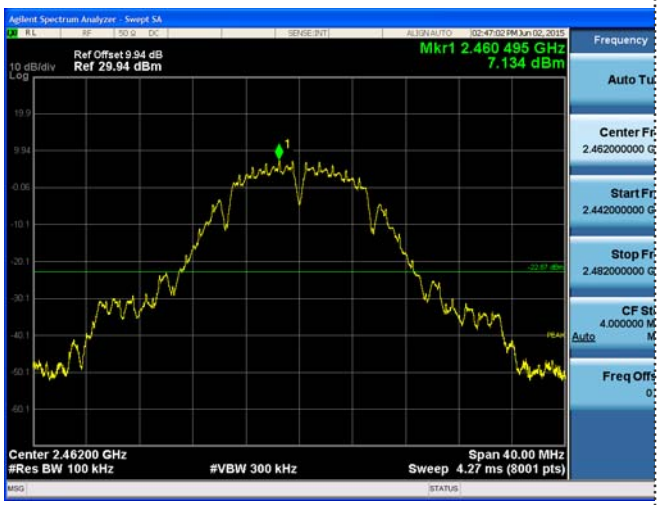


10GHz-15GHz

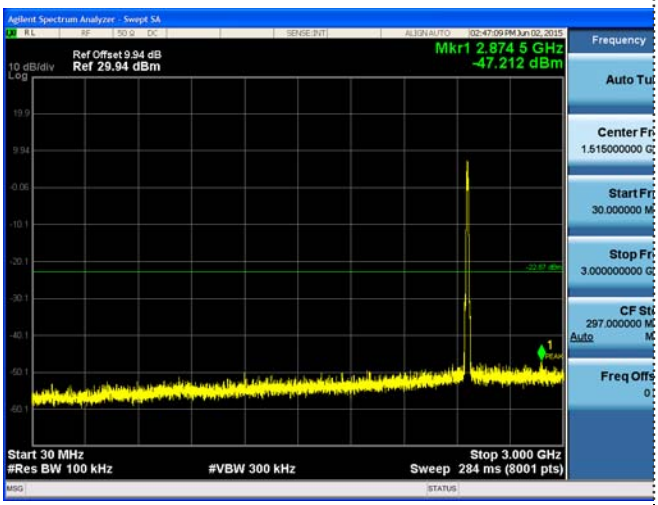


15GHz-25GHz

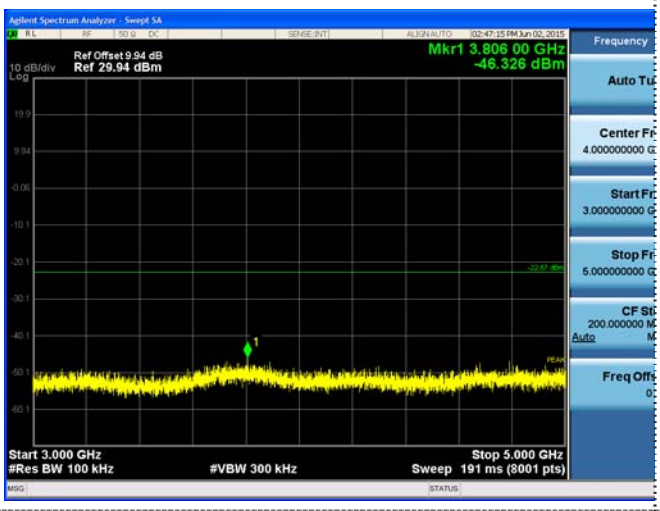
Test Mode:	802.11b	Test channel :	11



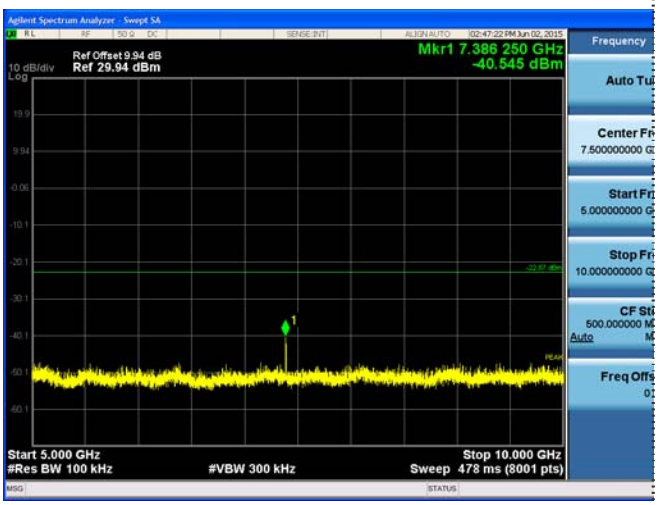
Reference level



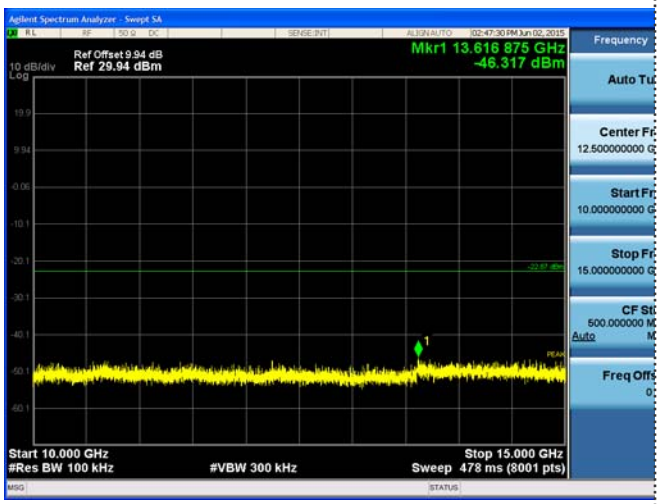
30MHz-1GHz



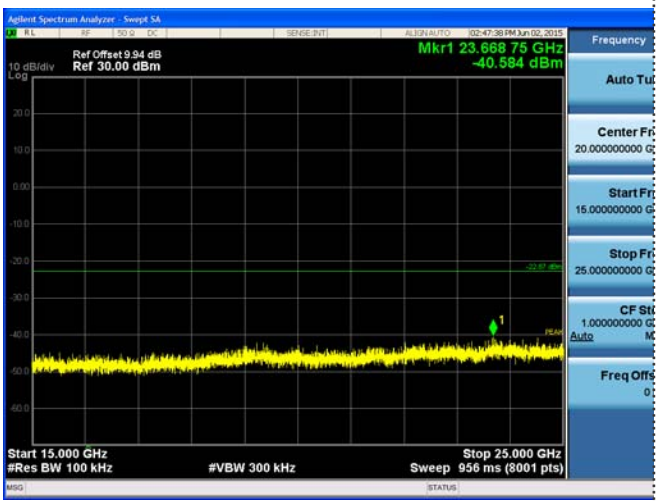
1GHz-5GHz



5GHz-10GHz

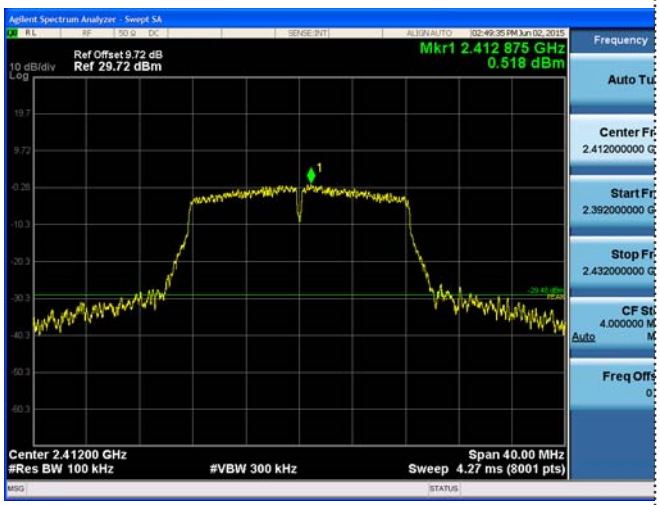


10GHz-15GHz

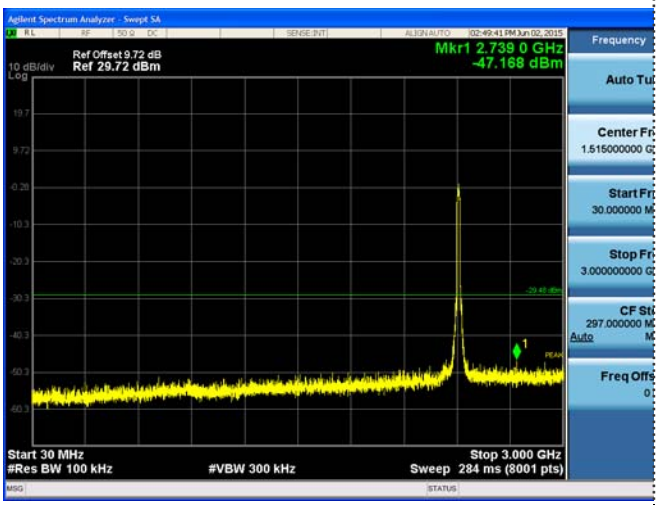


15GHz-25GHz

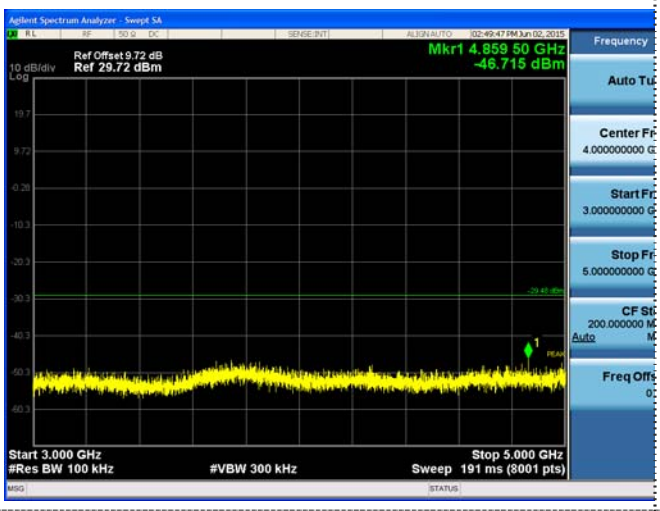
Test Mode:	802.11g	Test channel :	01



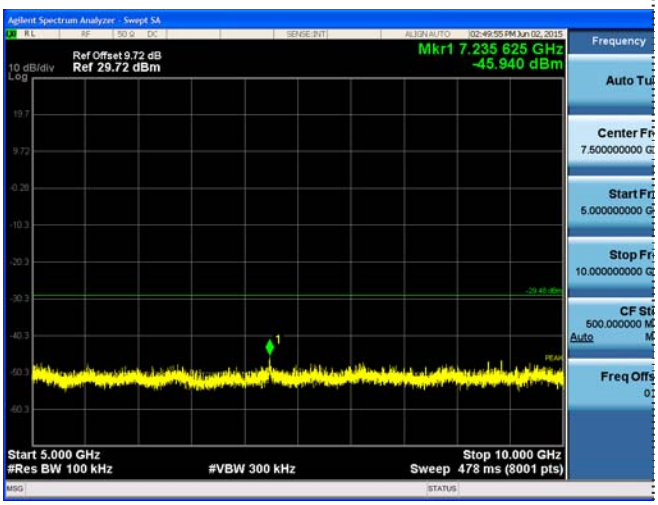
Reference level



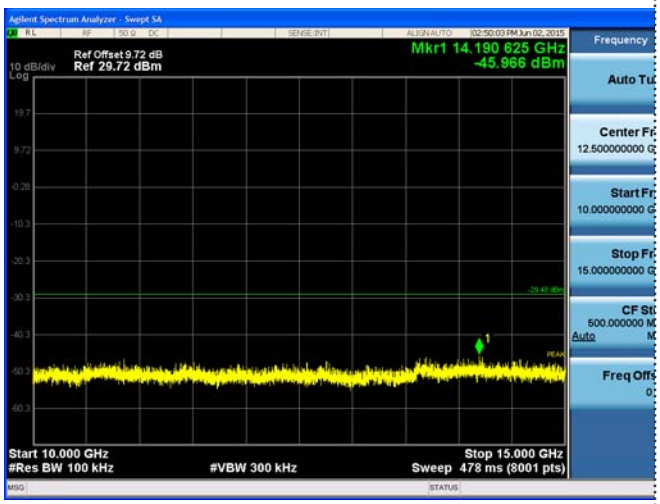
30MHz-1GHz



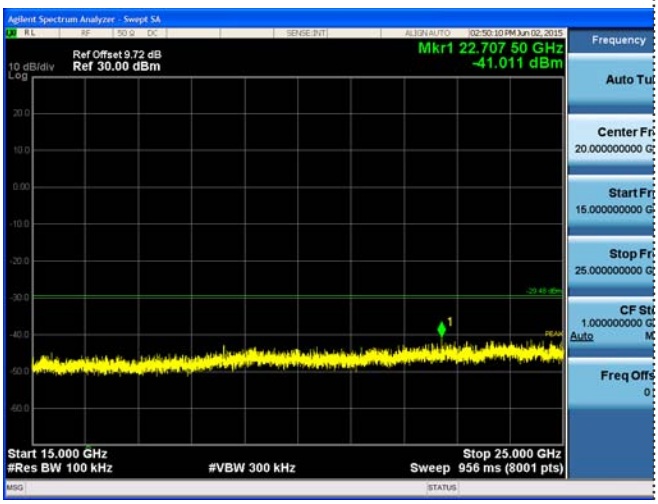
1GHz-5GHz



5GHz-10GHz

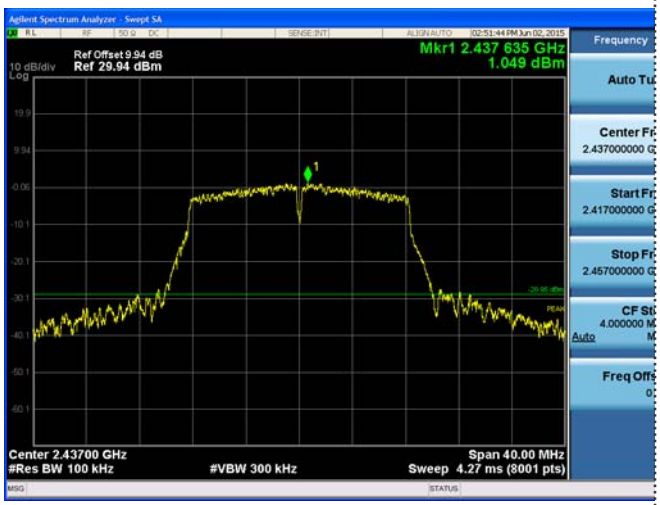


10GHz-15GHz

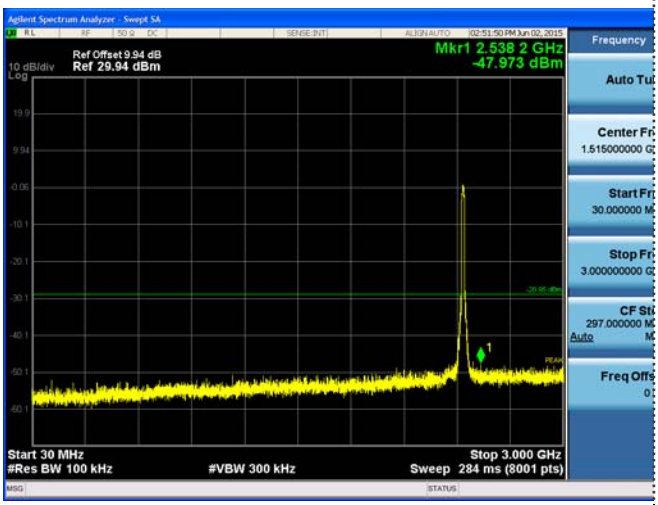


15GHz-25GHz

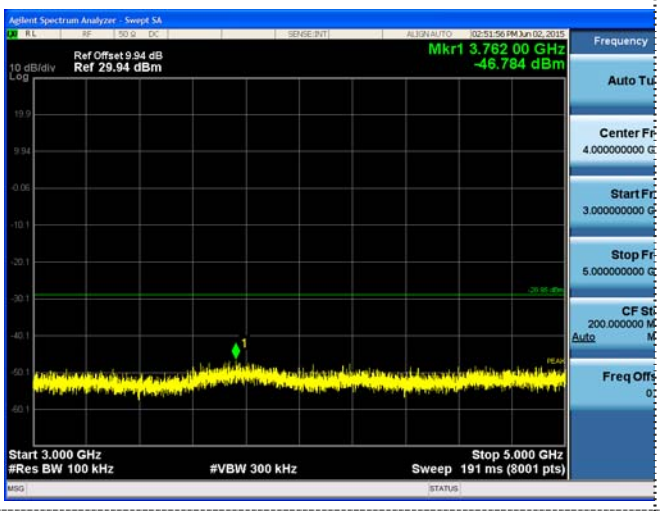
Test Mode:	802.11g	Test channel :	06



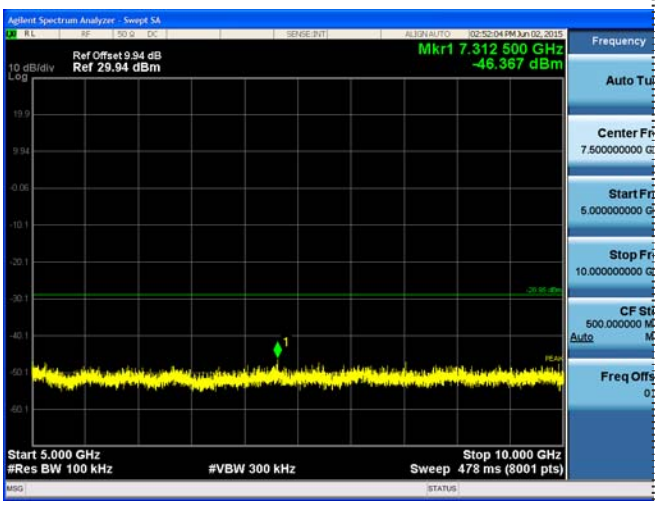
Reference level



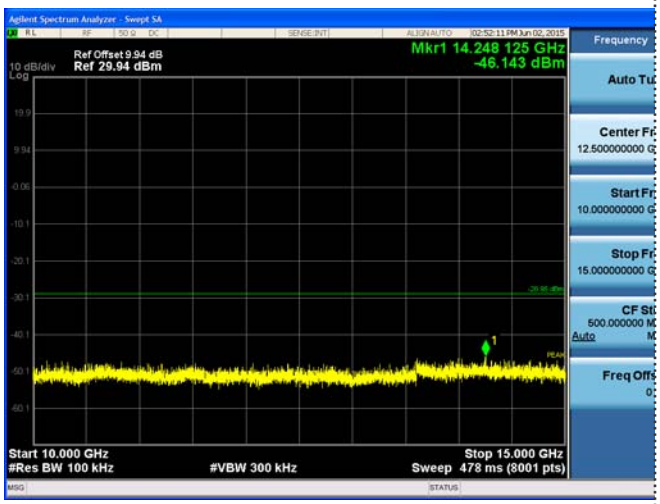
30MHz-1GHz



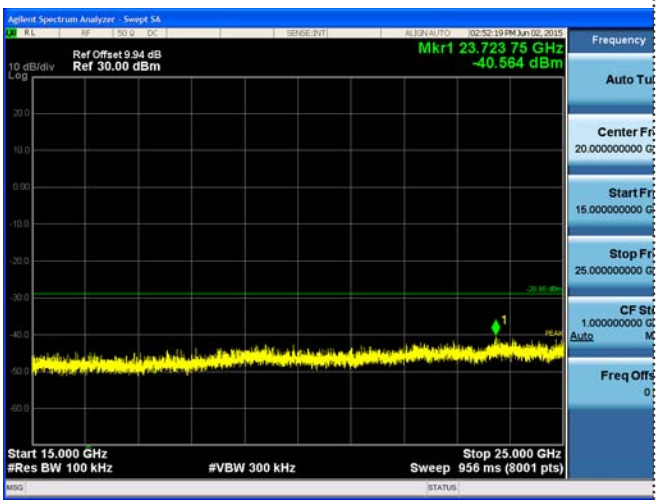
1GHz-5GHz



5GHz-10GHz

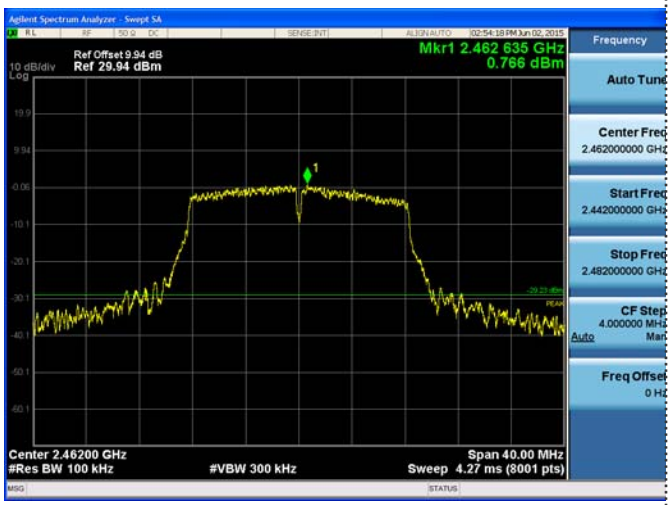


10GHz-15GHz

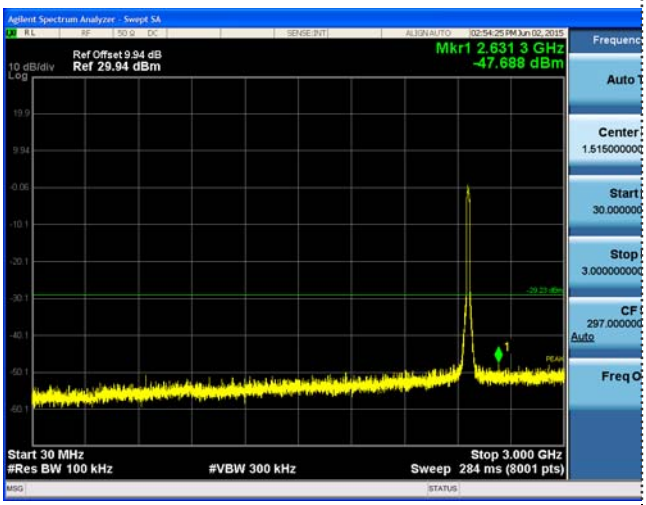


15GHz-25GHz

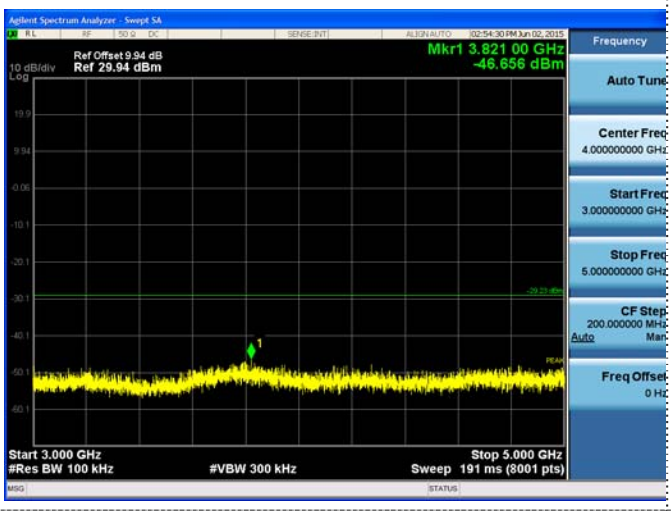
Test Mode:	802.11g	Test channel :	11



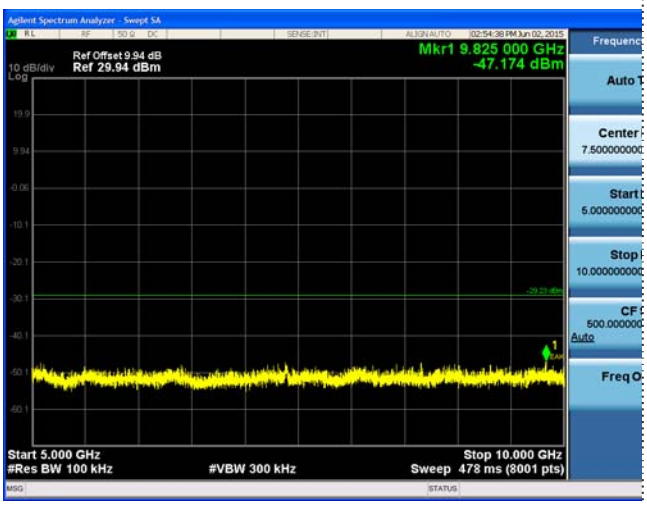
Reference level



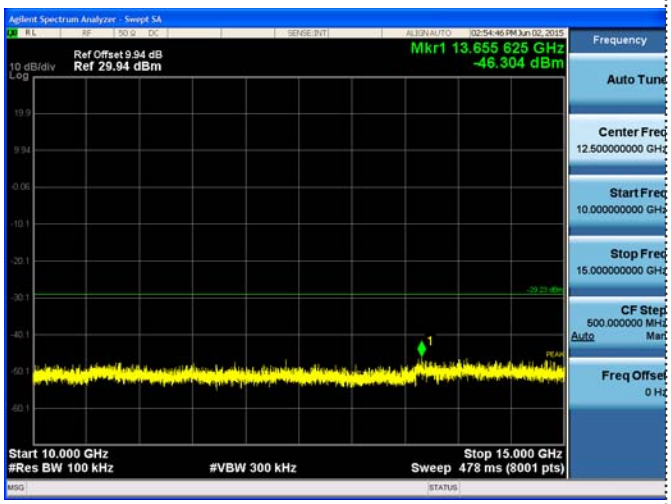
30MHz-1GHz



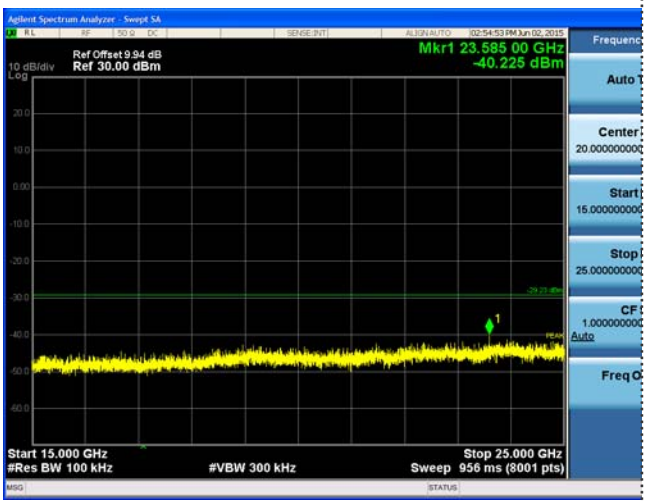
1GHz-5GHz



5GHz-10GHz

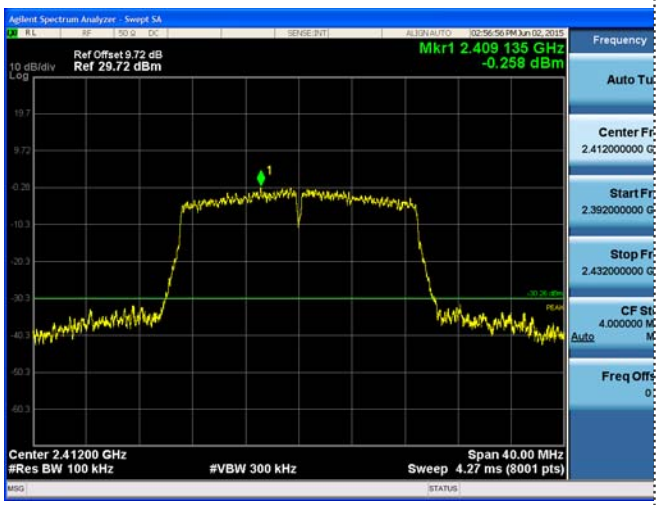


10GHz-15GHz

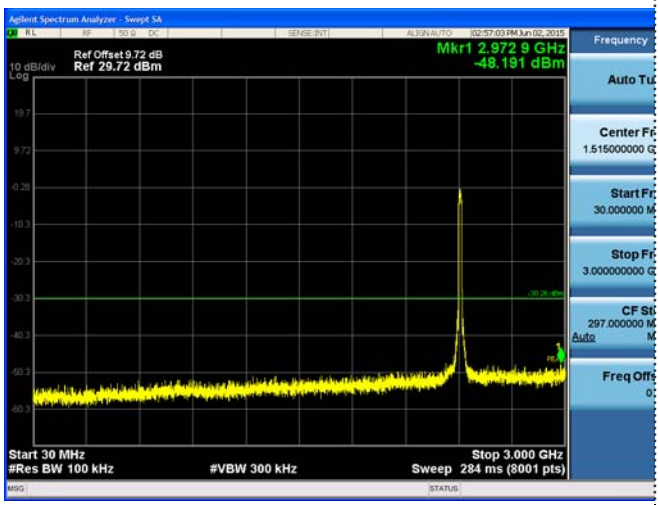


15GHz-25GHz

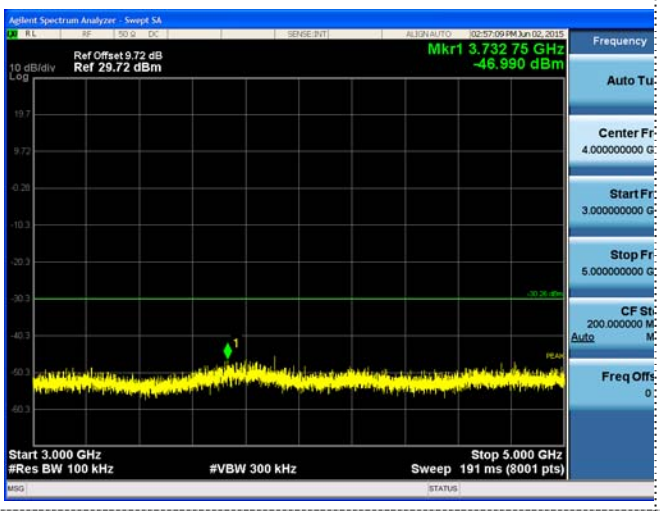
Test Mode:	802.11n(HT20)	Test channel :	01



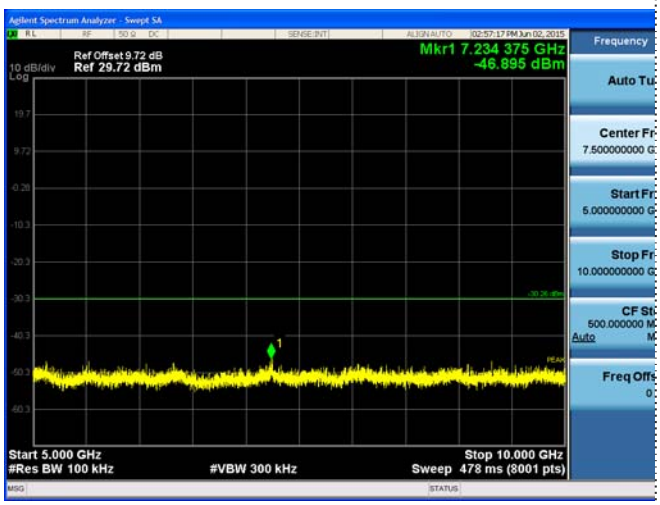
Reference level



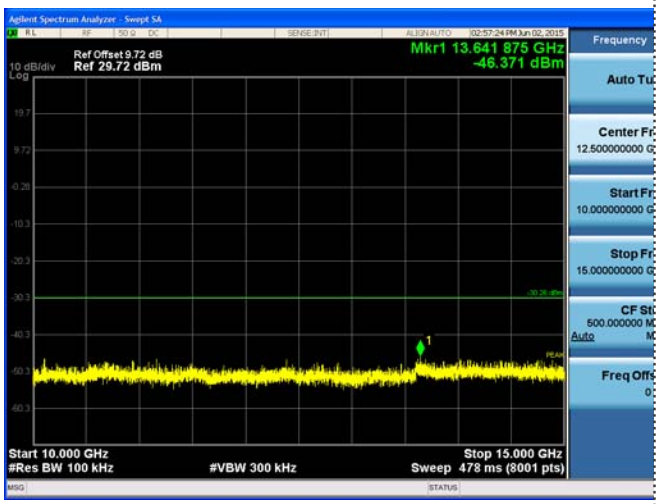
30MHz-1GHz



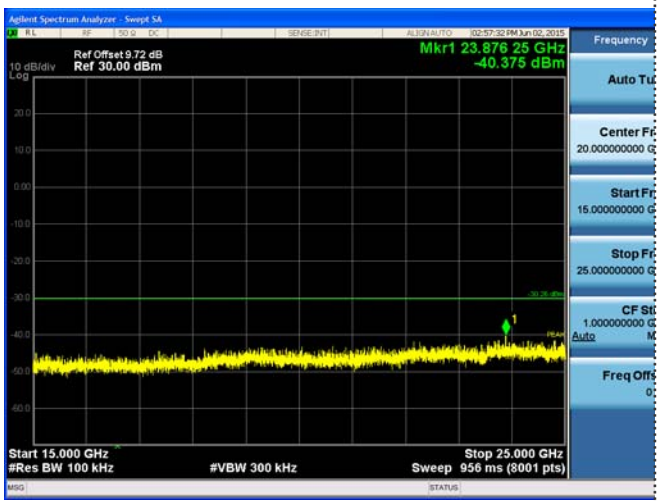
1GHz-5GHz



5GHz-10GHz

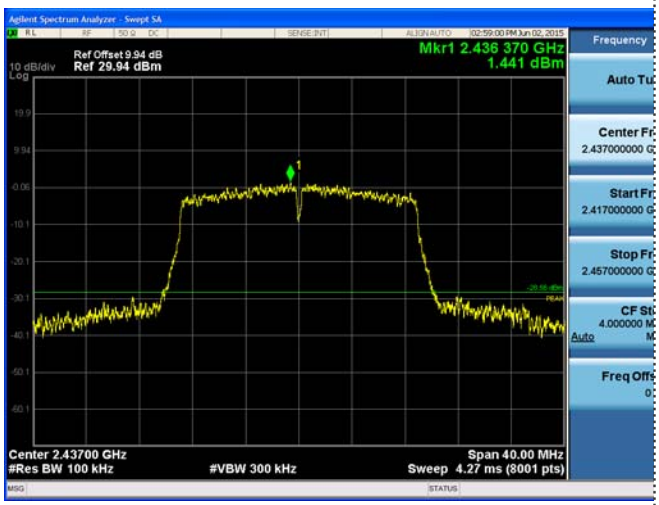


10GHz-15GHz

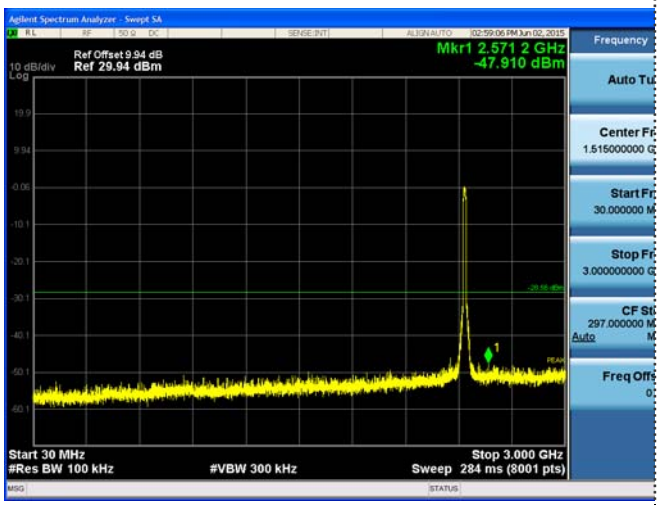


15GHz-25GHz

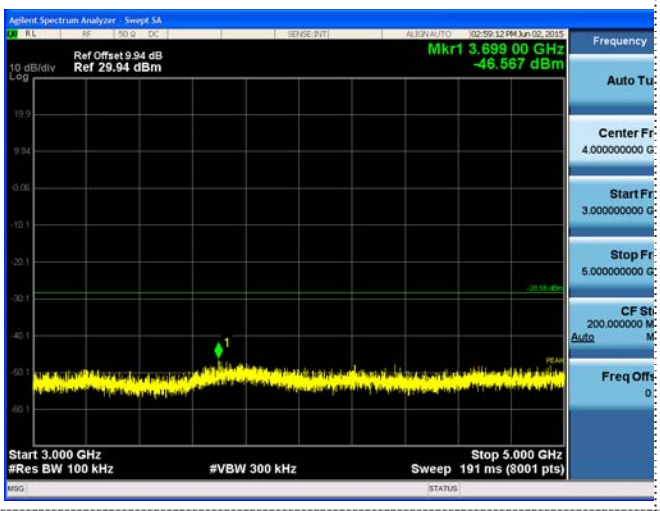
Test Mode:	802.11n(HT20)	Test channel :	06



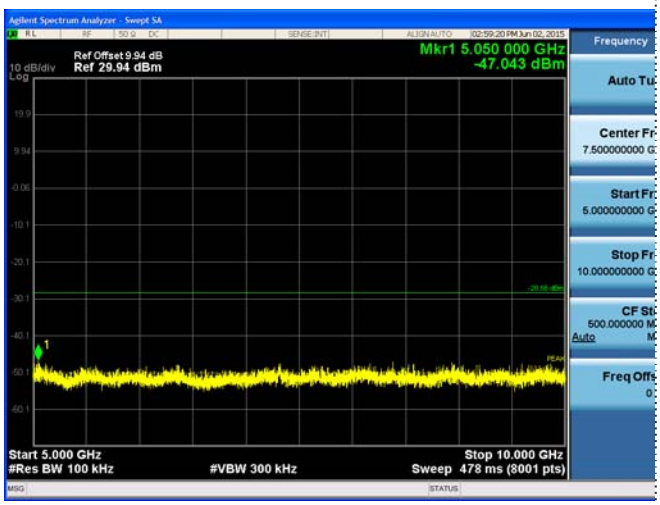
Reference level



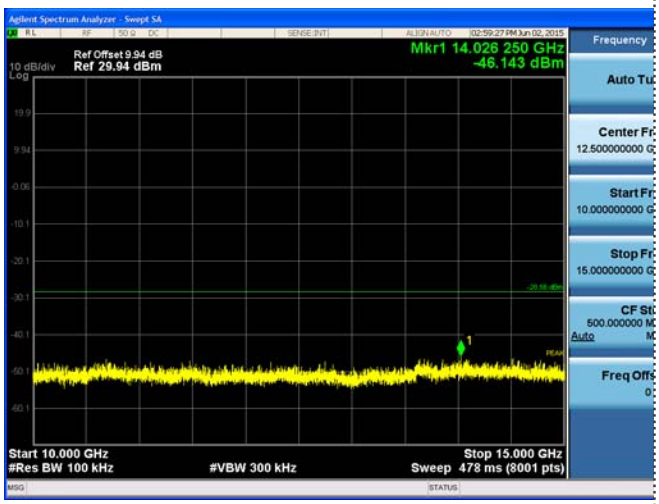
30MHz-1GHz



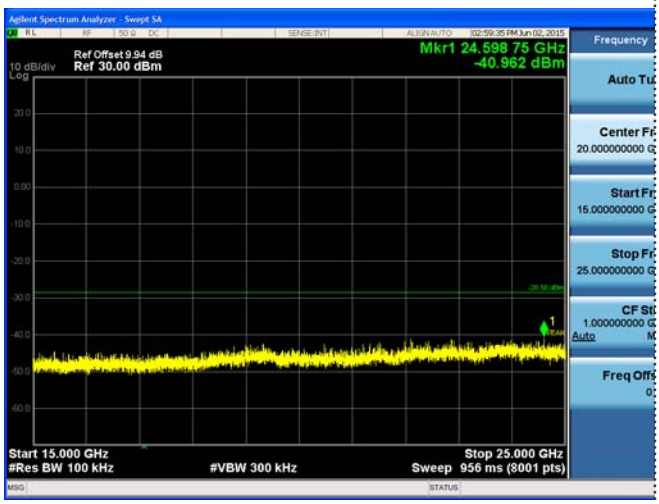
1GHz-5GHz



5GHz-10GHz

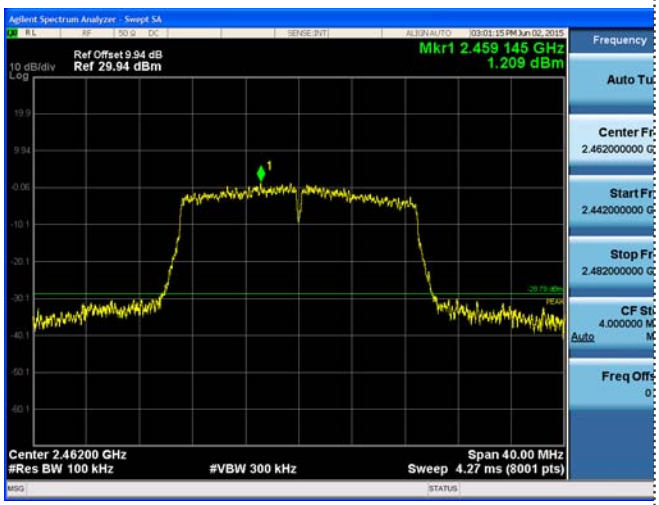


10GHz-15GHz

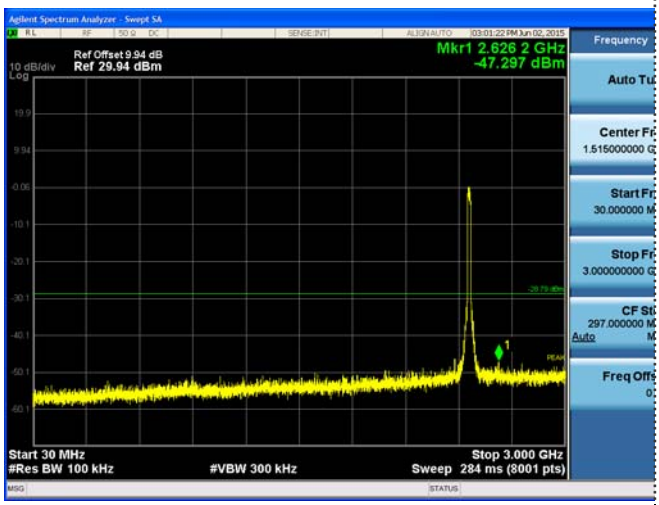


15GHz-25GHz

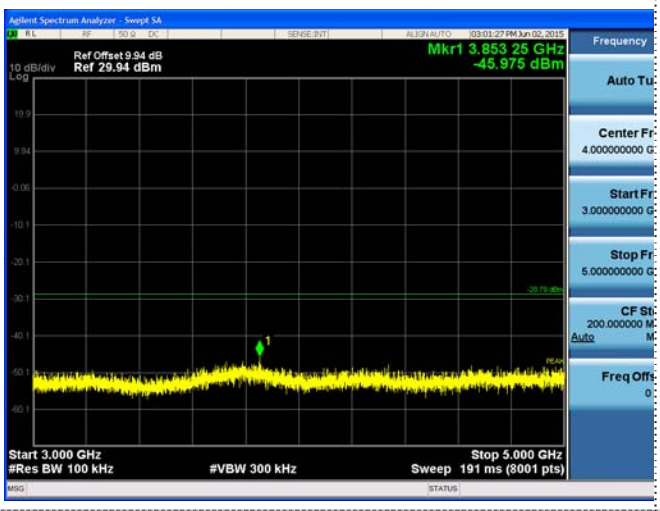
Test Mode:	802.11n(HT20)	Test channel :	11



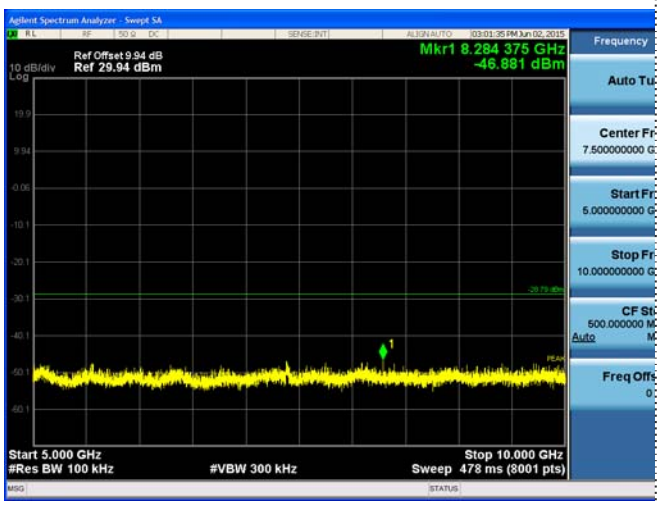
Reference level



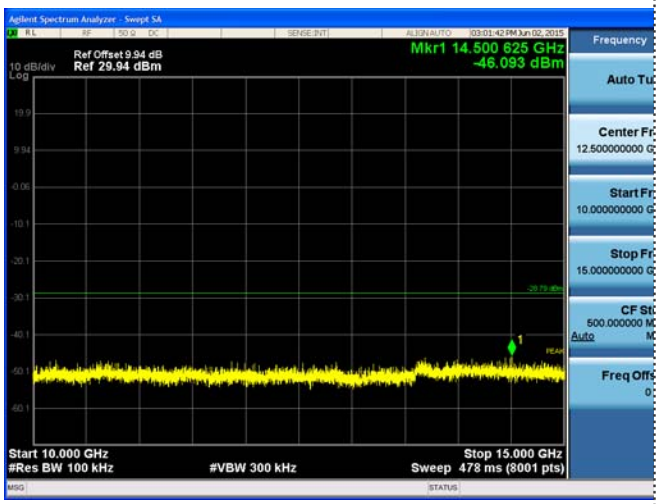
30MHz-1GHz



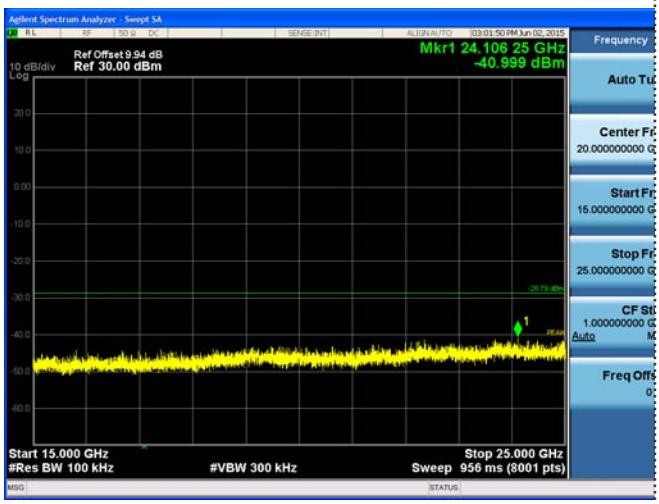
1GHz-5GHz



5GHz-10GHz

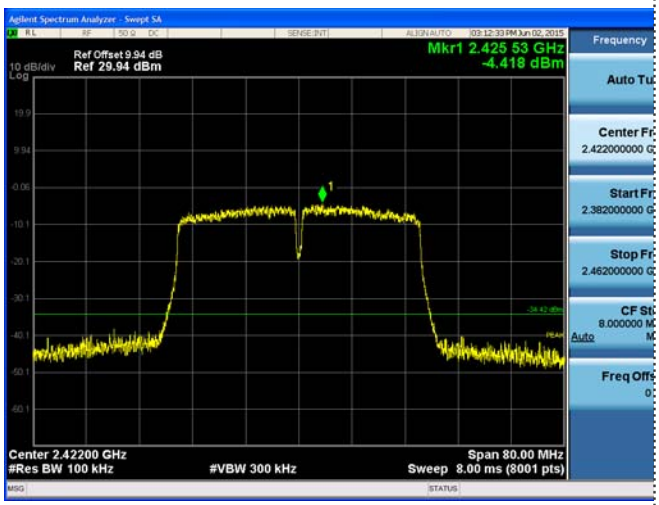


10GHz-15GHz

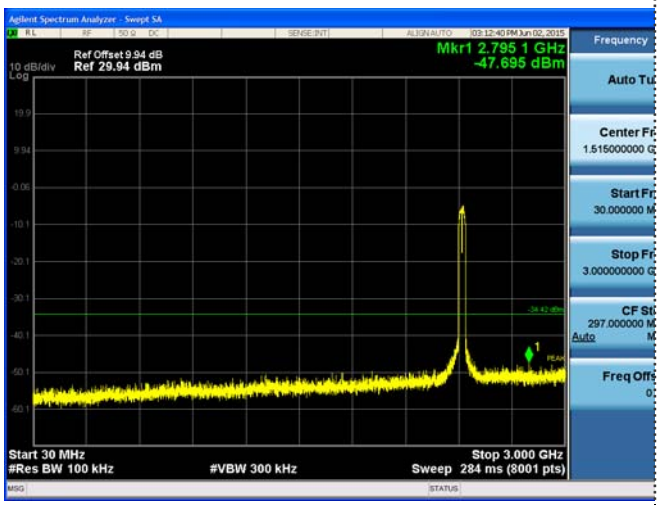


15GHz-25GHz

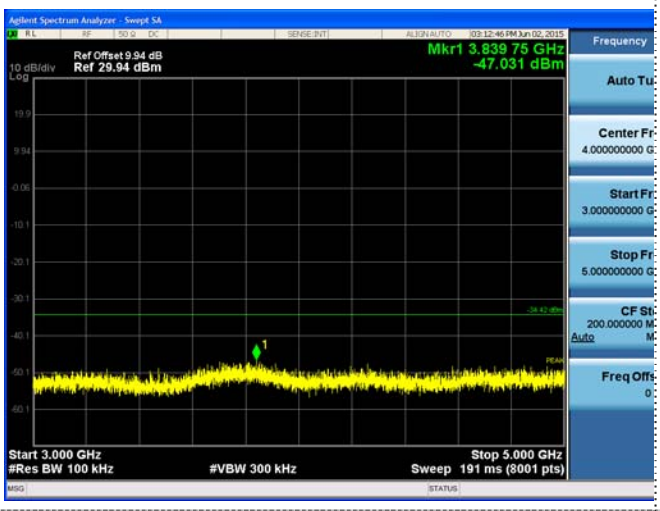
Test Mode:	802.11n(HT40)	Test channel :	03



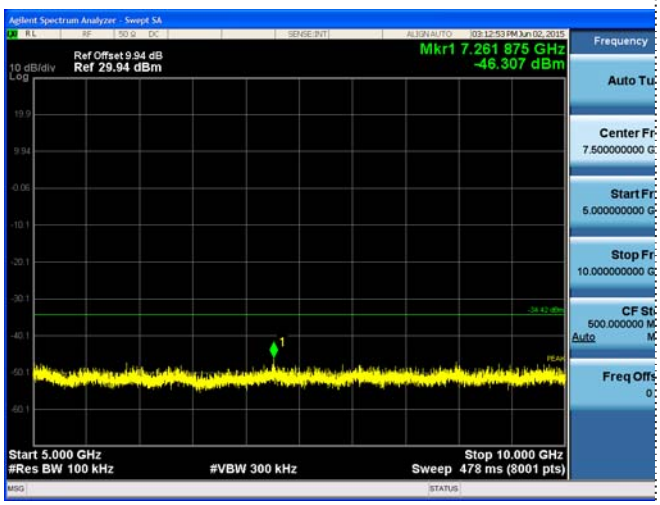
Reference level



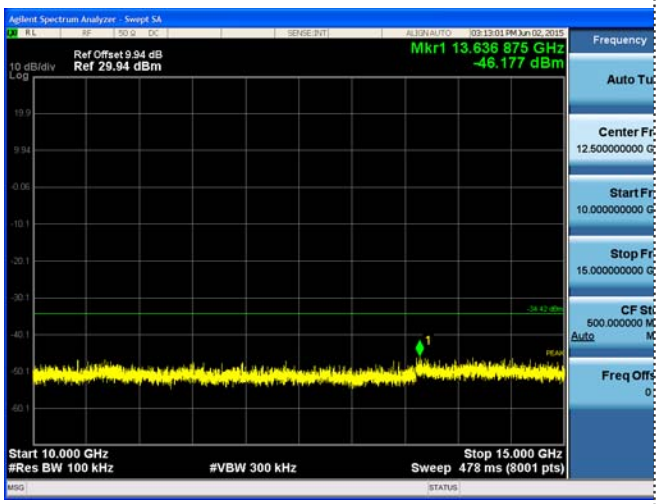
30MHz-1GHz



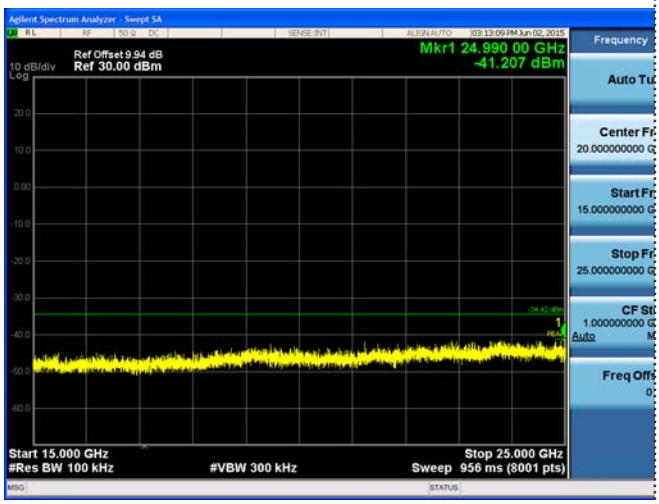
1GHz-5GHz



5GHz-10GHz

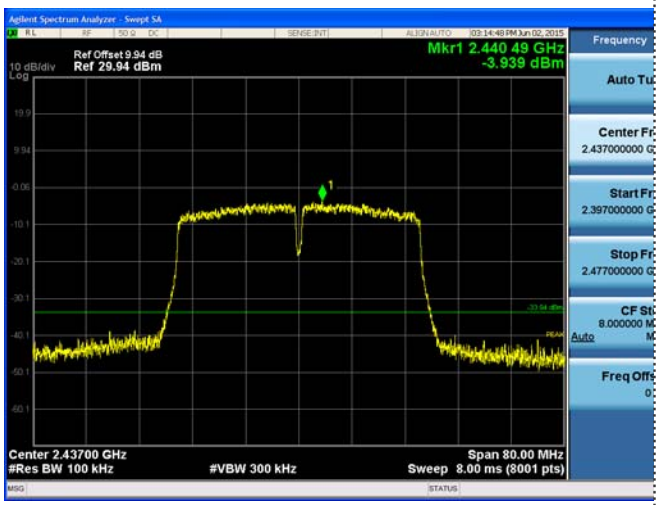


10GHz-15GHz

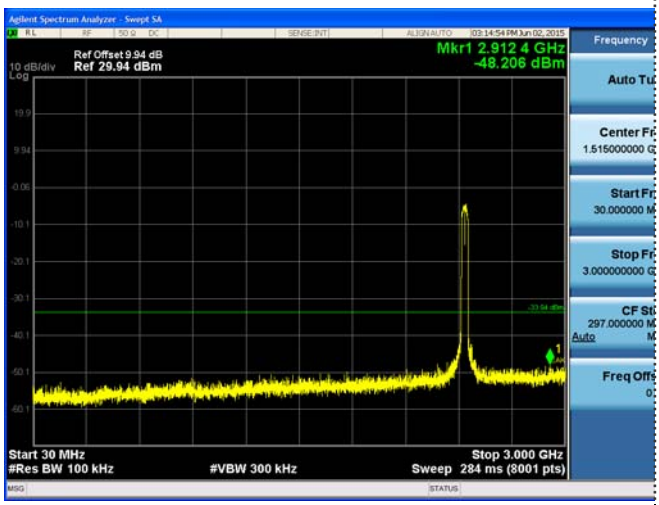


15GHz-25GHz

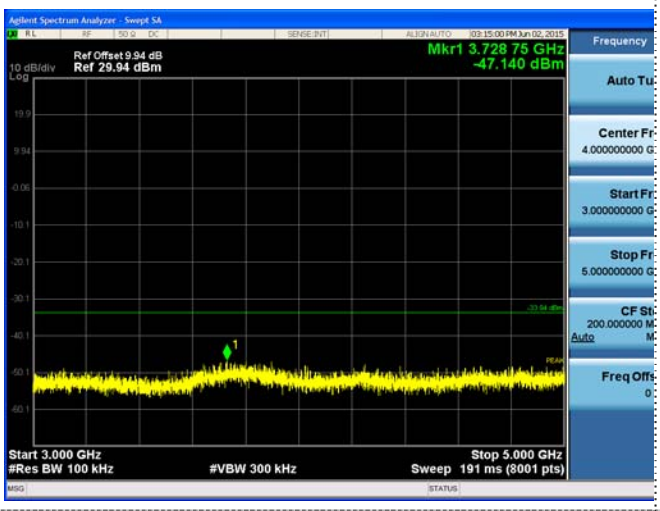
Test Mode:	802.11n(HT40)	Test channel :	06



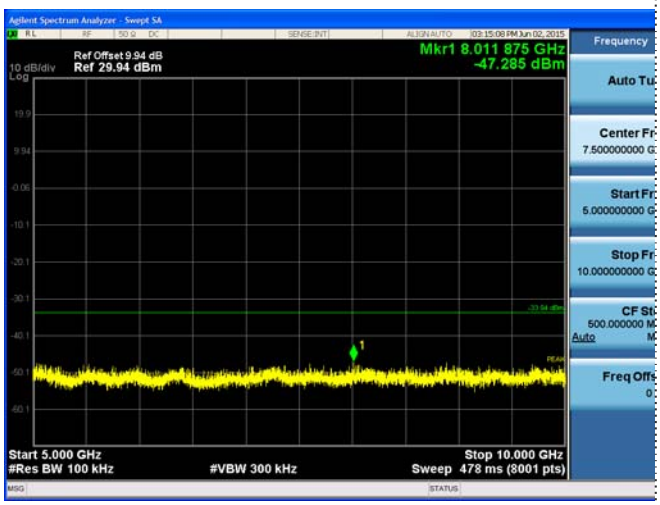
Reference level



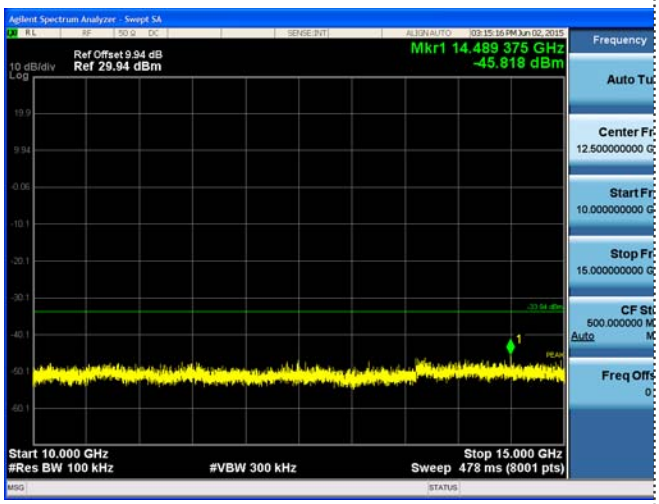
30MHz-1GHz



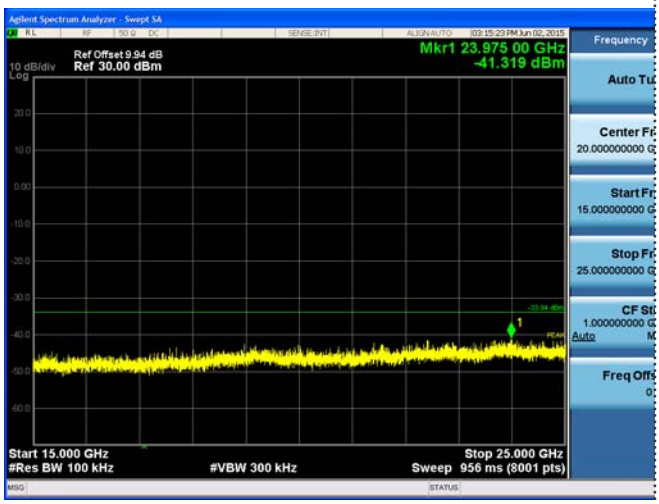
1GHz-5GHz



5GHz-10GHz

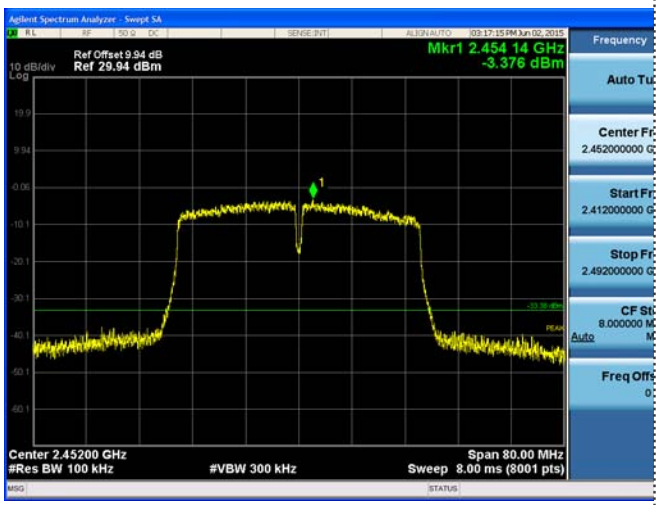


10GHz-15GHz

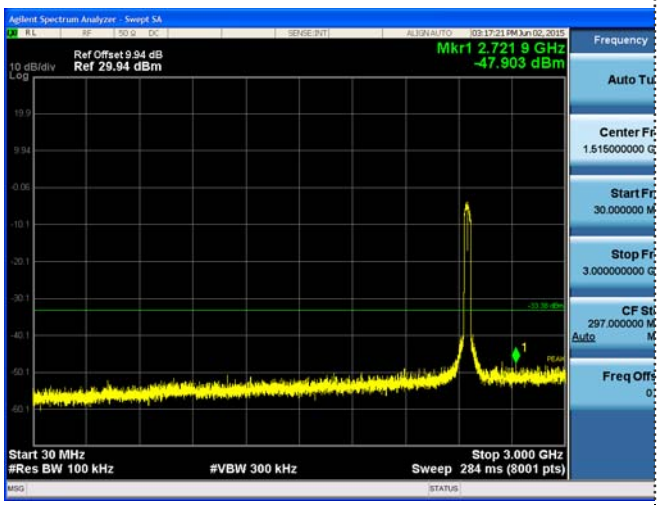


15GHz-25GHz

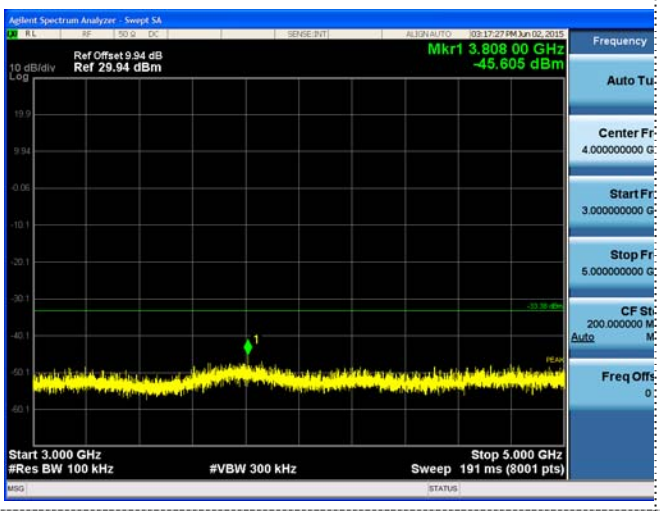
Test Mode:	802.11n(HT40)	Test channel :	09



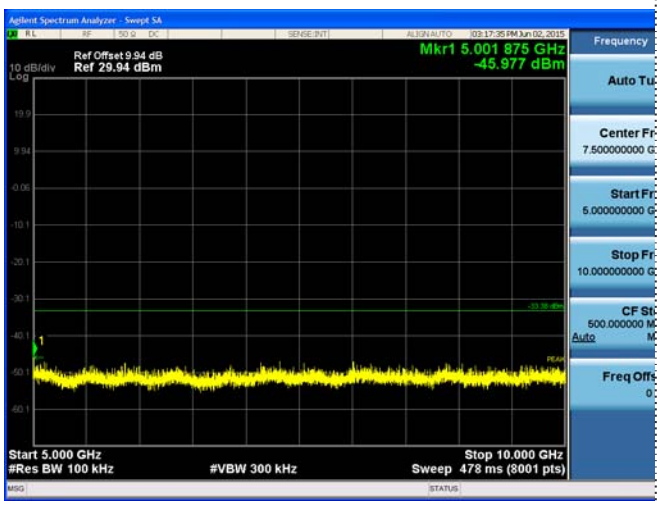
Reference level



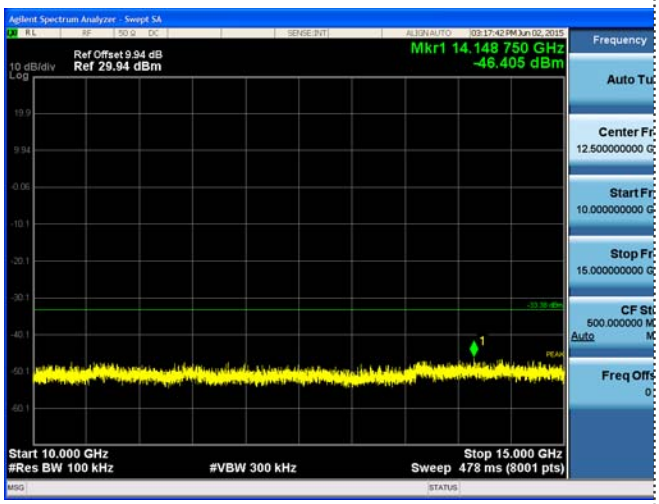
30MHz-1GHz



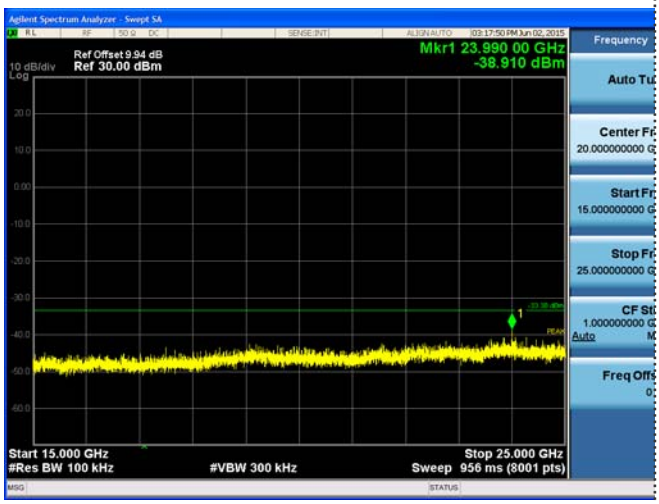
1GHz-5GHz



5GHz-10GHz

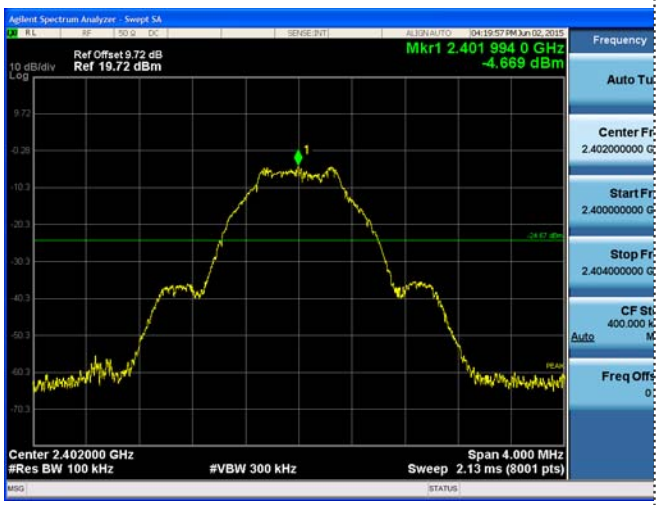


10GHz-15GHz

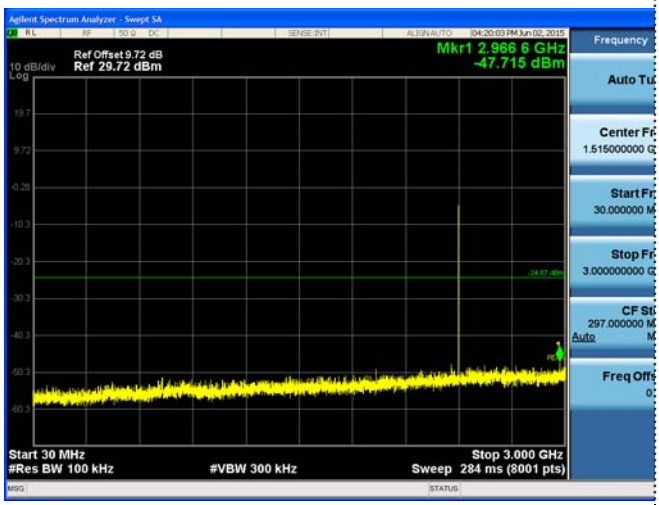


15GHz-25GHz

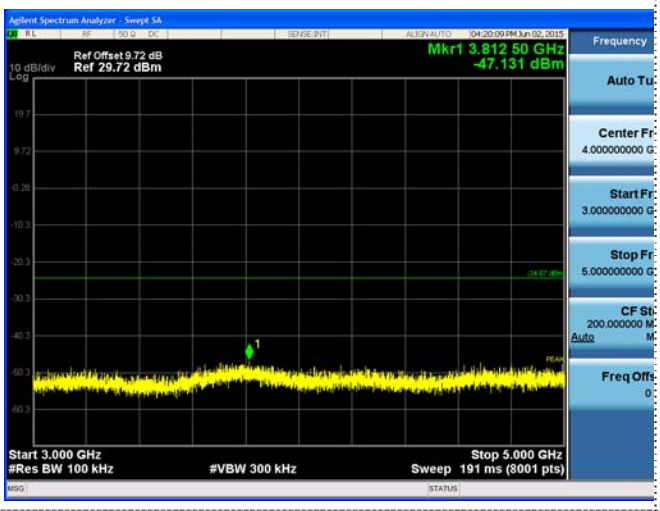
Test Mode:	BT4.0	Test channel :	00



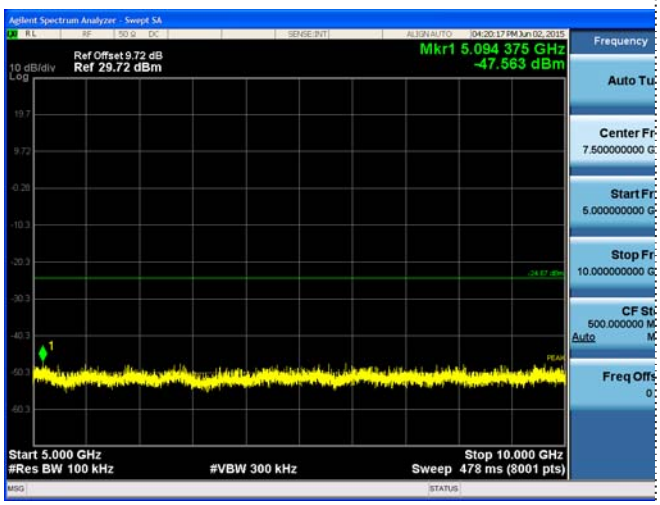
Reference level



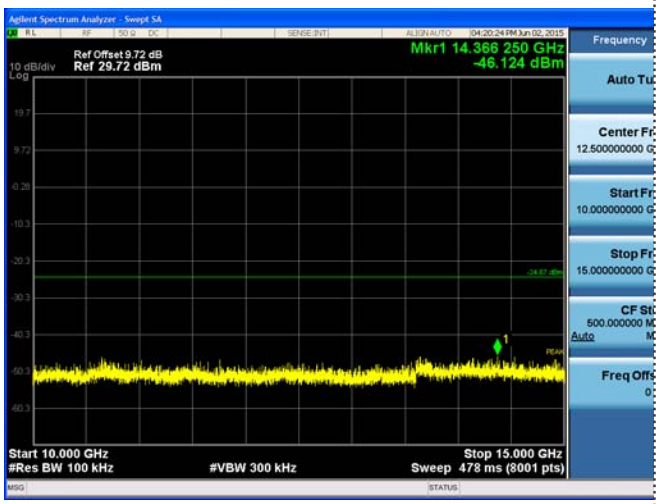
30MHz-1GHz



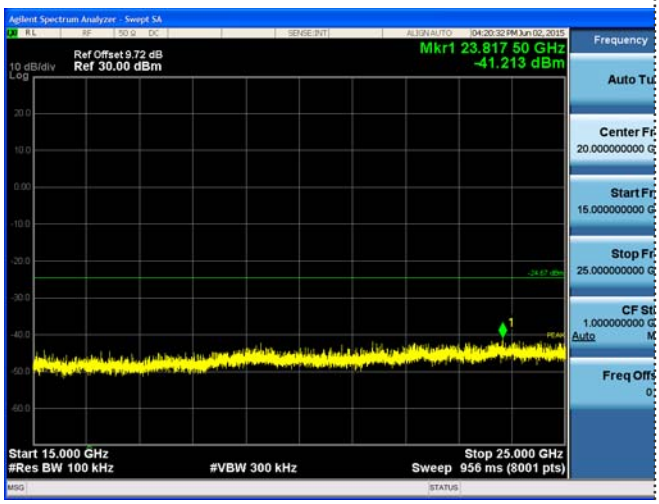
1GHz-5GHz



5GHz-10GHz

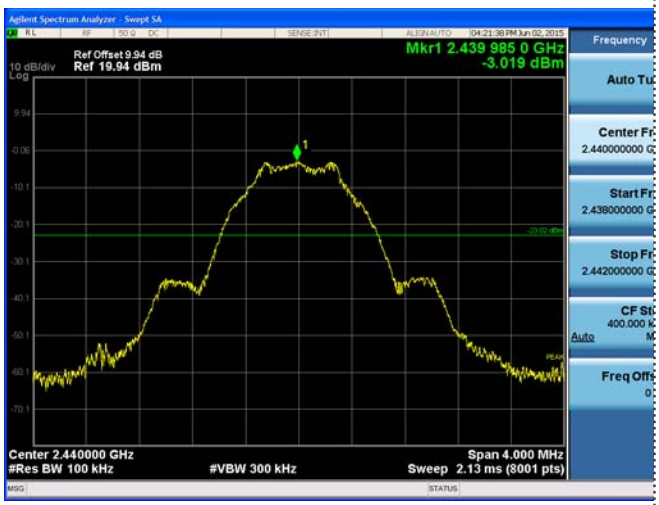


10GHz-15GHz

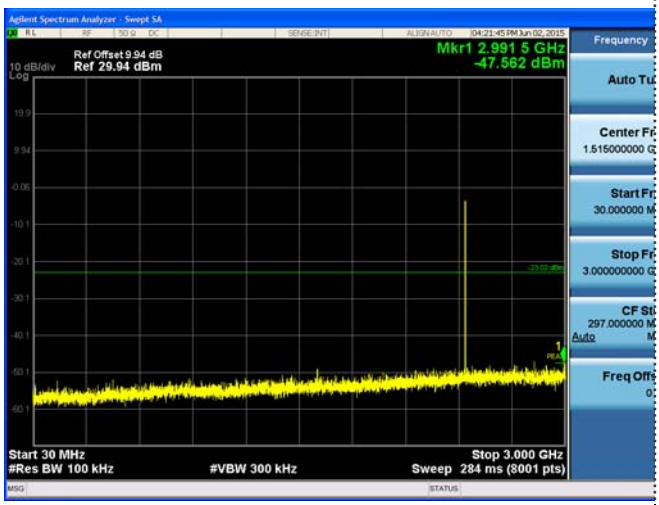


15GHz-25GHz

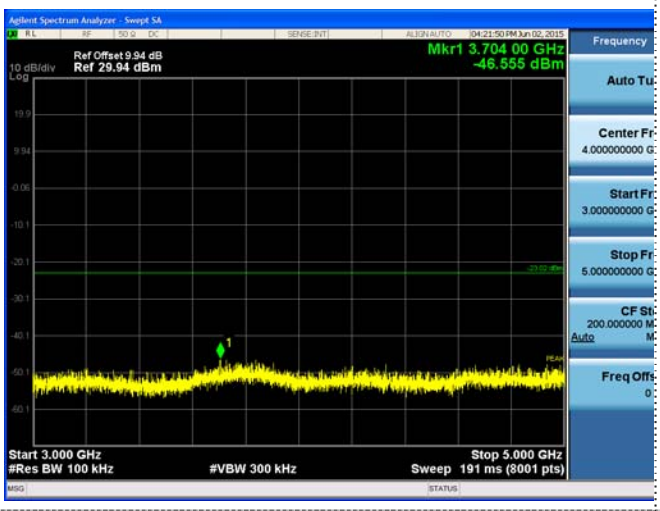
Test Mode:	BT4.0	Test channel :	19



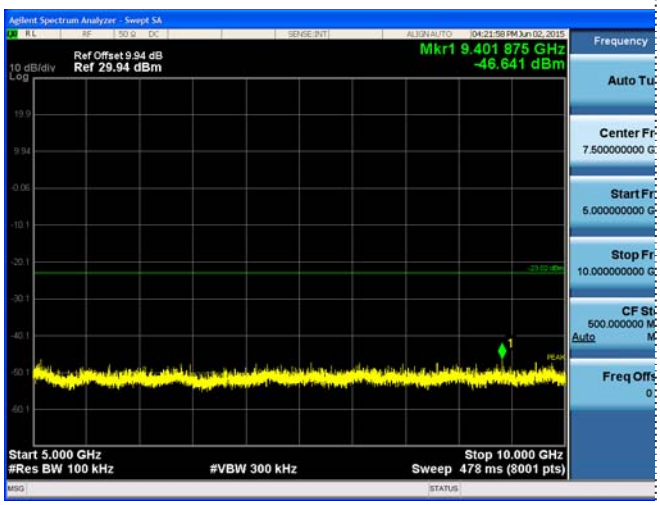
Reference level



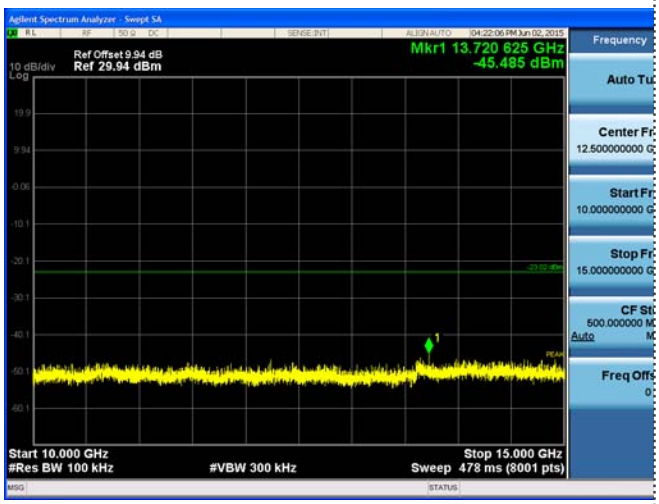
30MHz-1GHz



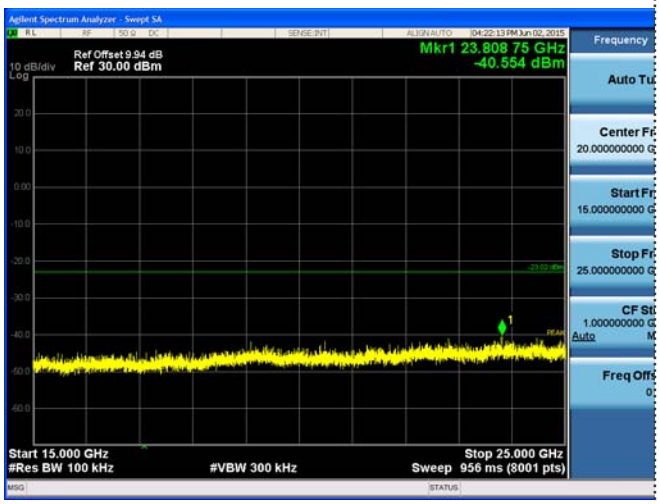
1GHz-5GHz



5GHz-10GHz

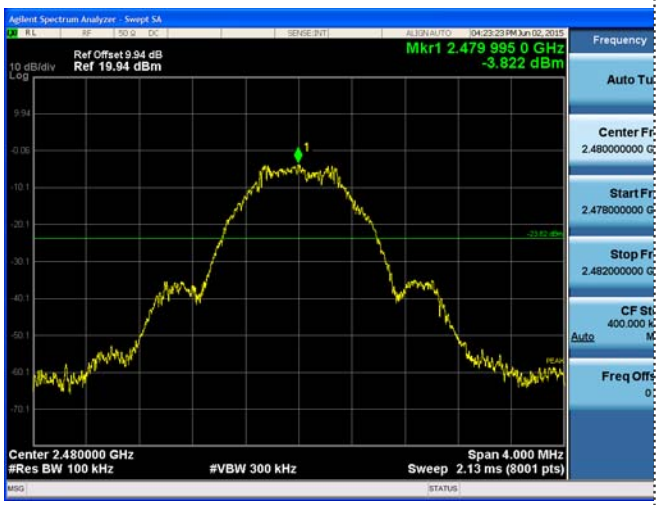


10GHz-15GHz

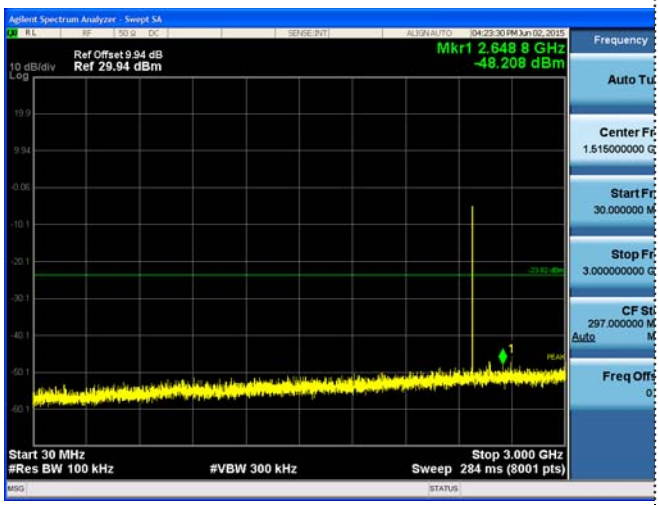


15GHz-25GHz

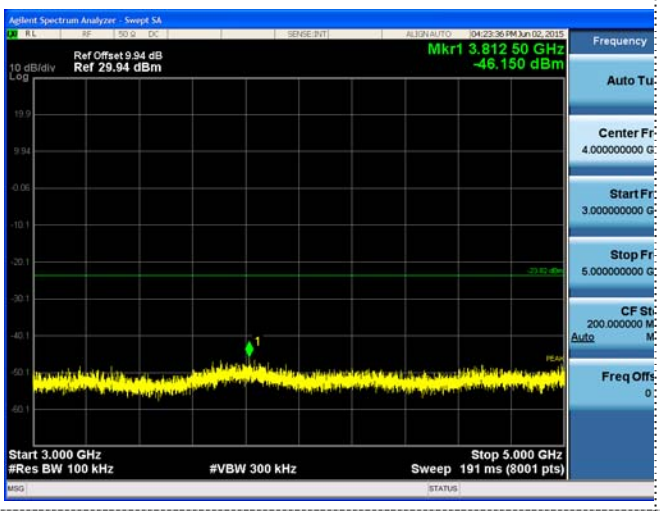
Test Mode:	BT4.0	Test channel :	39



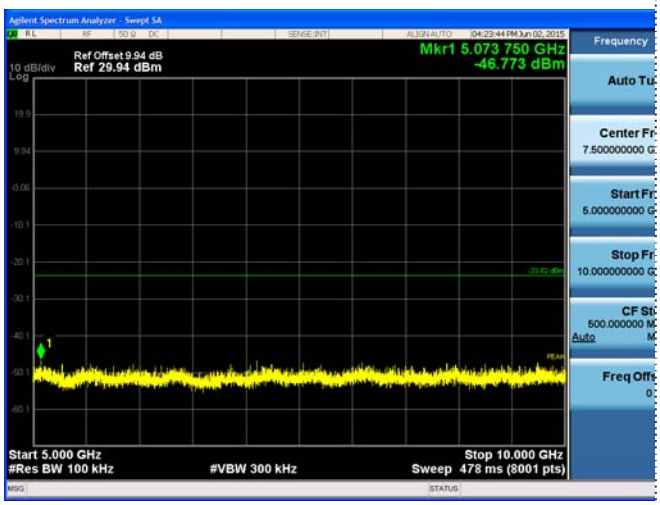
Reference level



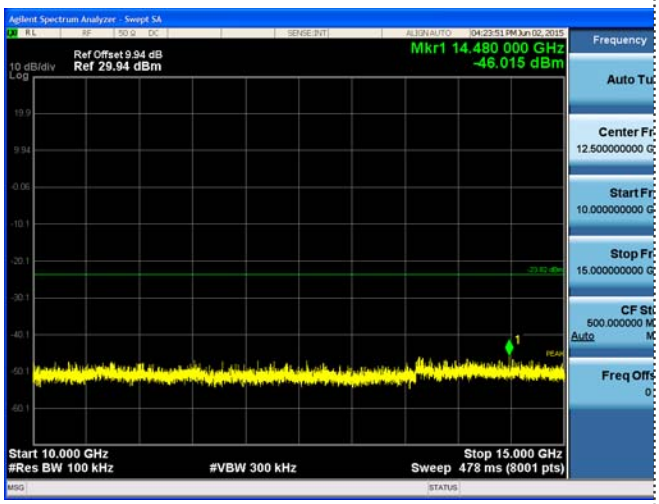
30MHz-1GHz



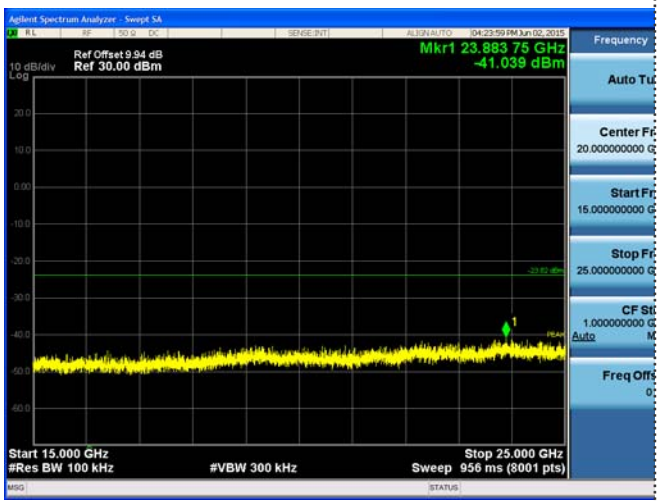
1GHz-5GHz



5GHz-10GHz



10GHz-15GHz



15GHz-25GHz

3.8. Antenna Requirement

Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited

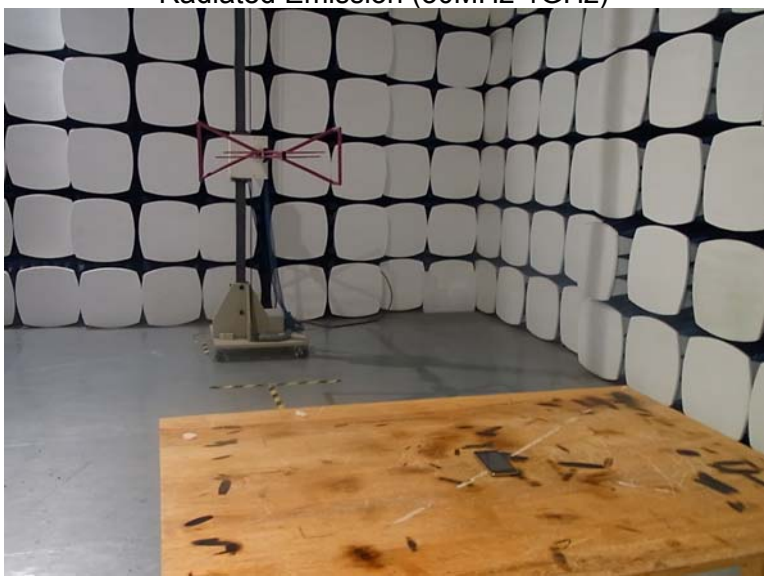
FCC CFR Title 47 Part 15 Subpart C Section 15.247(c) (1) (I):

(i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

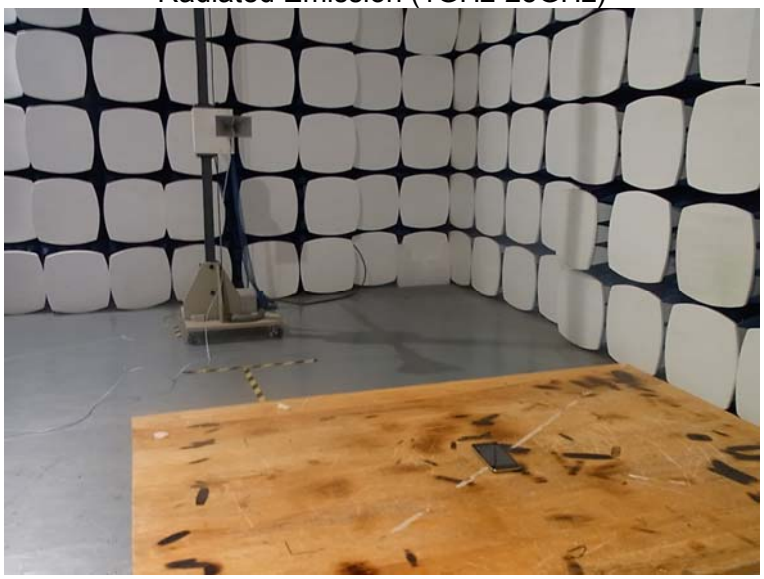
Test Result:
The maximum gain of Bluetooth antenna was 1.60dBi.

4. EUT TEST PHOTO

Radiated Emission (30MHz-1GHz)



Radiated Emission (1GHz-25GHz)



Conducted Emission

5. PHOTOGRAPHS OF EUT CONSTRUCTIONAL

Please reference to the test report No.: GTI20150219F-1

**********THE END**********