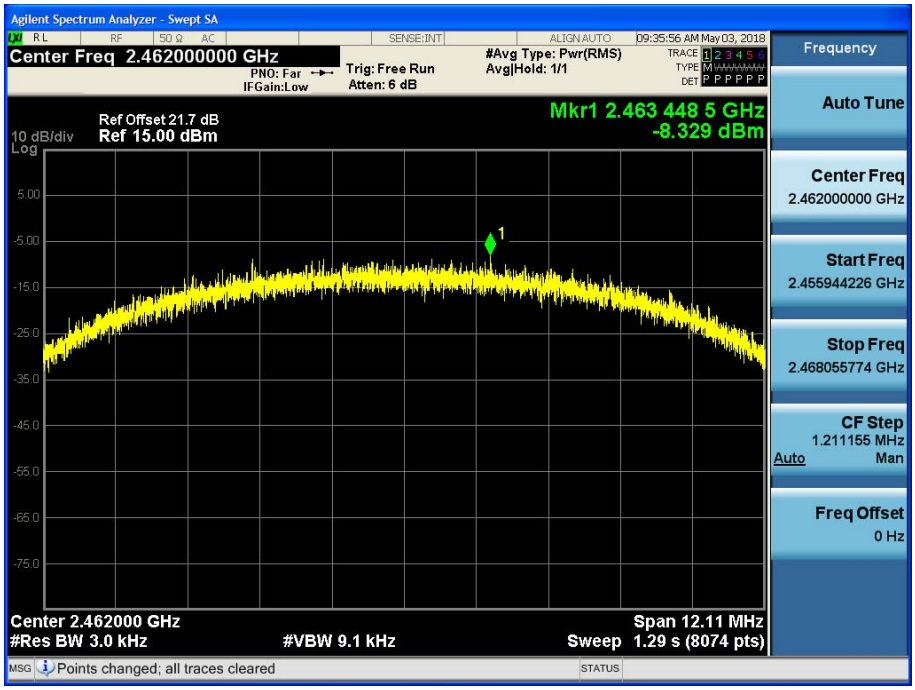
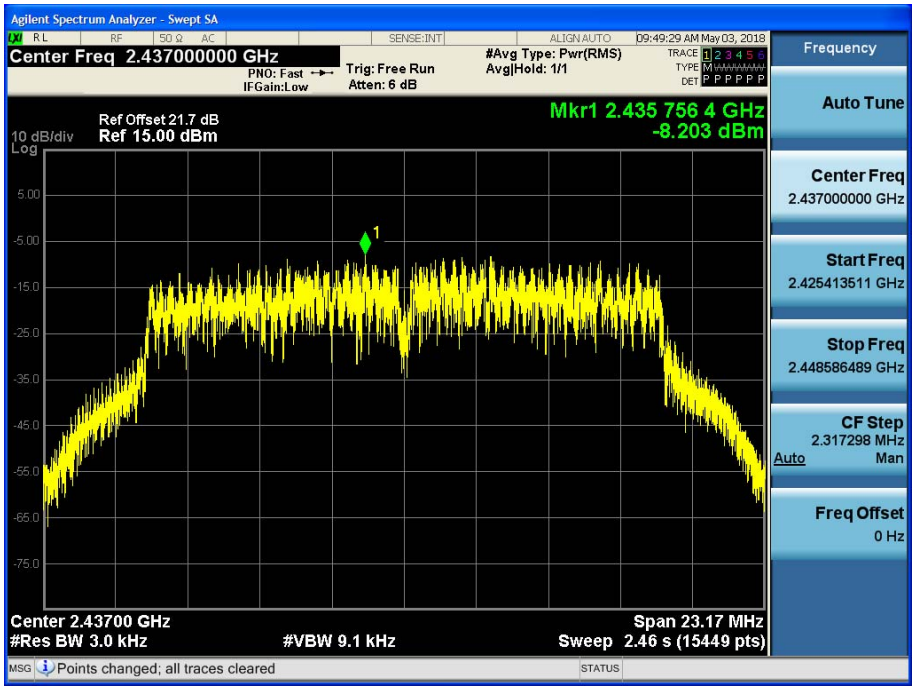
▣ RESULT PLOTS_Ant.2

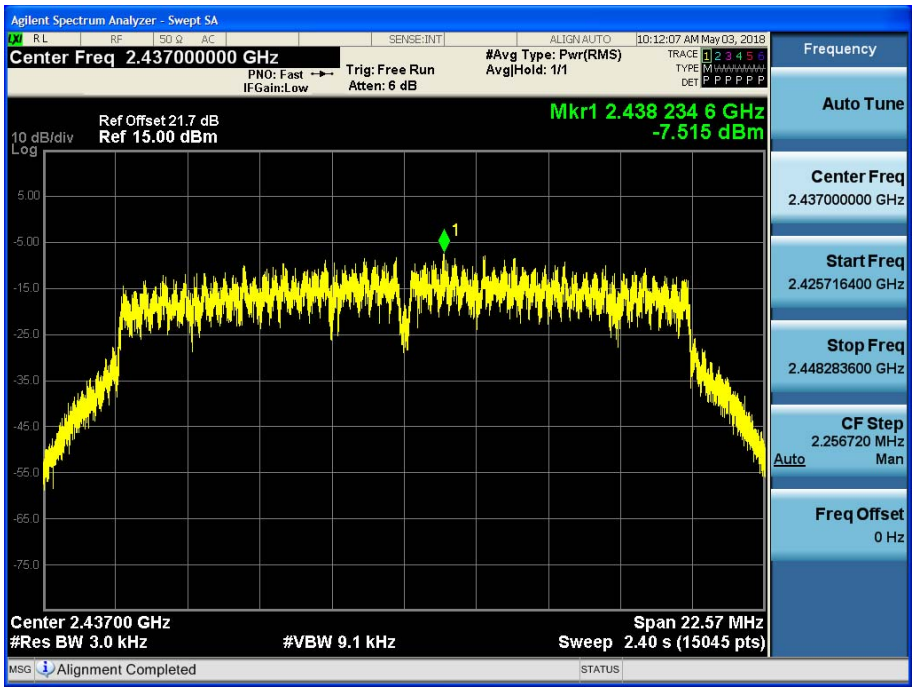
Power Spectral Density (802.11b-CH 11)



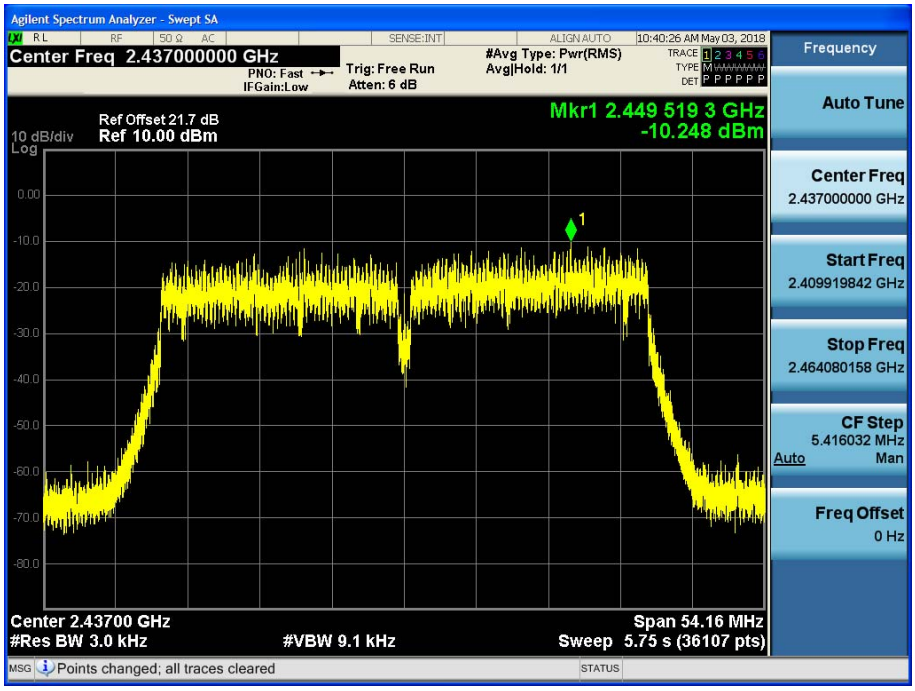
Power Spectral Density (802.11g-CH 6)



Power Spectral Density (802.11n_HT20 -CH 6)

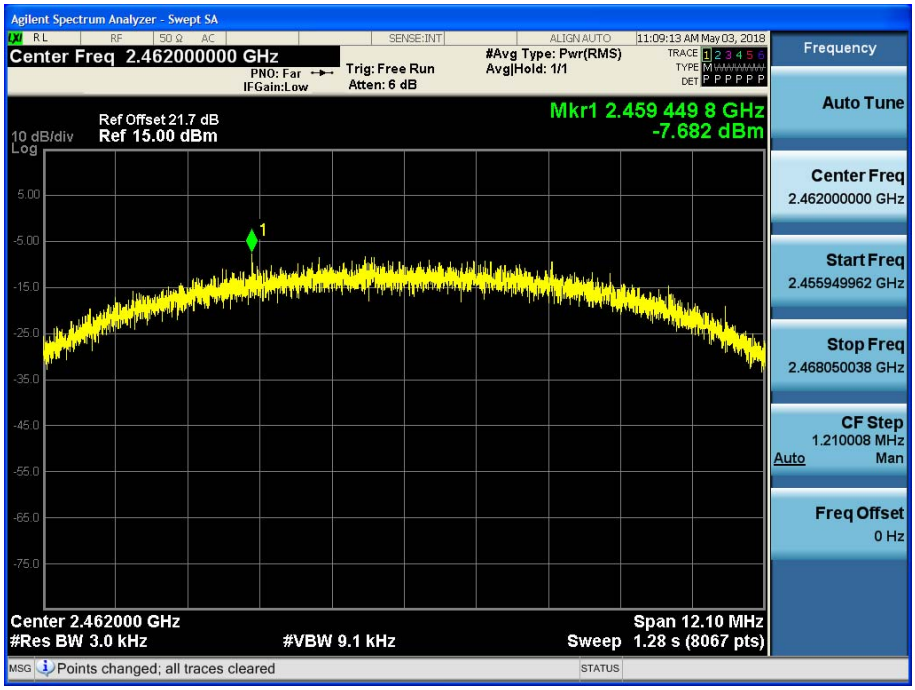


Power Spectral Density (802.11n_HT40 -CH 6)

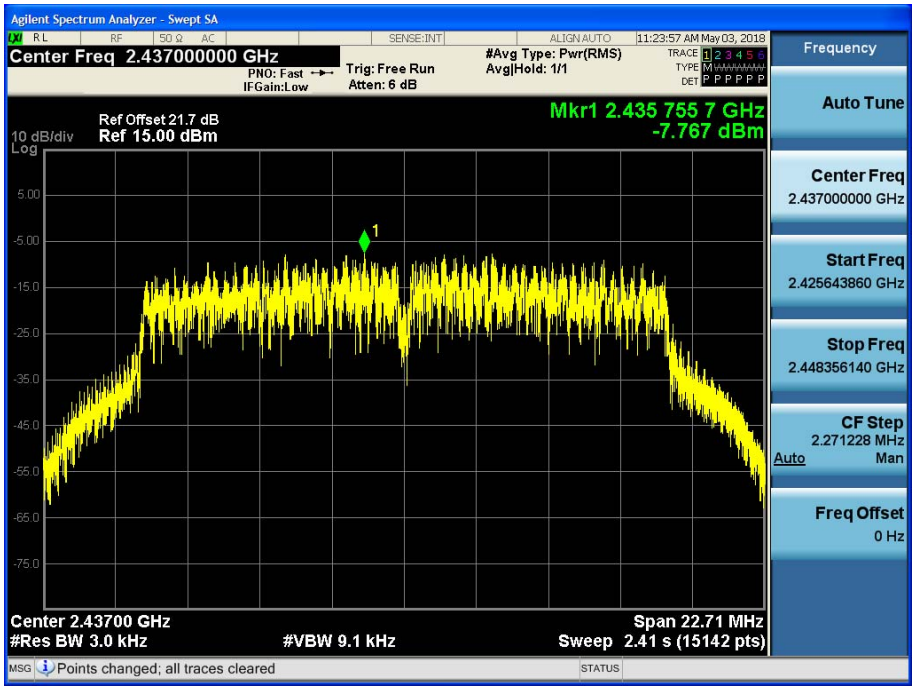


▣ RESULT PLOTS_Ant.3

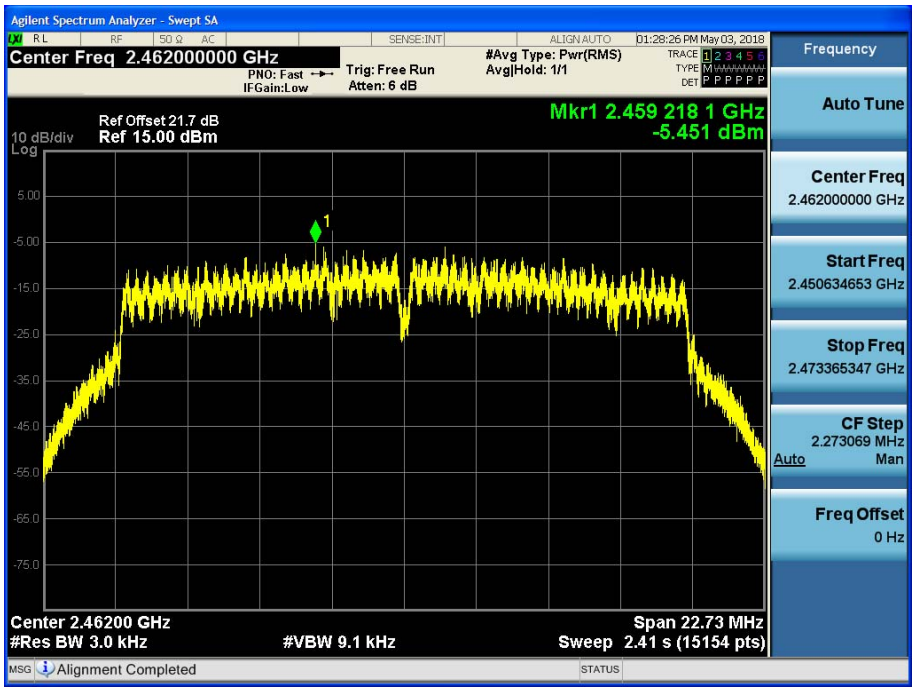
Power Spectral Density (802.11b-CH 11)



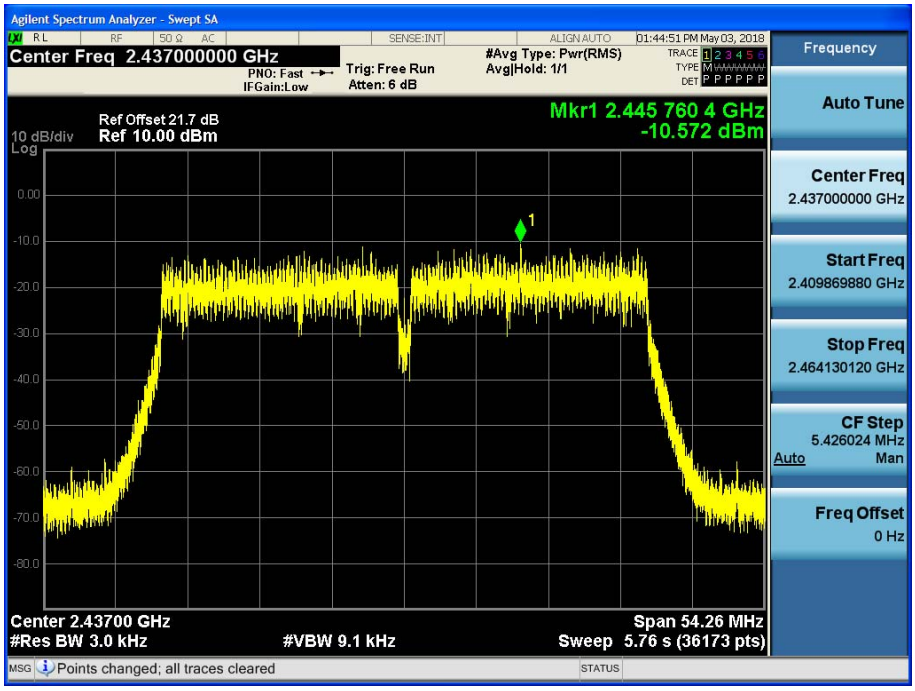
Power Spectral Density (802.11g-CH 6)



Power Spectral Density (802.11n_HT20 –CH 11)



Power Spectral Density (802.11n_HT40 -CH 6)



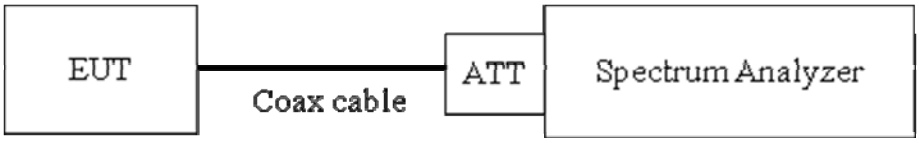
9.5 OUT OF BAND EMISSIONS AT THE BAND EDGE/ CONDUCTED SPURIOUS EMISSIONS

Test Requirements and limit, §15.247(d)

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. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

Limit : 20 dBc

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

The transmitter output is connected to the spectrum analyzer. (Procedure 11.3 in KDB 558074 v04)

RBW = 100 kHz

VBW ≥ 3 x RBW

Set the center frequency and span to encompass frequency range to be measured.

Detector = Peak

Trace Mode = max hold

Sweep time = auto couple

Allow trace to fully stabilize.

Use peak marker function to determine the maximum amplitude level.

Measurements are made over the 30 MHz to 10th harmonic range with the transmitter set to the lowest, middle, and highest channels.

Note :

1. The band edge results in plot is already including the actual values of loss for the attenuator and cable combination.
2. Spectrum offset = Attenuator loss + Cable loss
3. We apply to the offset in the 2.4 GHz range that was rounded off to the closest 10dB or 20 dB.
4. We apply the offset of 2.4 GHz band is 21.7 dB

(Actual value of loss for the attenuator and cable combination)

5. In case of conducted spurious emissions test(not band edge), please check factors blow table.
6. In order to simplify the report, attached plots were only the worst case. (where, worst case is SISO mode and highest power channel)

▣ FACTORS FOR FREQUENCY

Directional	
Freq(MHz)	Factor(dB)
30	21.56
100	21.57
200	21.58
300	21.58
400	21.58
500	21.58
600	21.59
700	21.59
800	21.59
900	21.59
1000	21.59
2000	21.61
2400*	21.70
2500*	21.72
3000	21.84
4000	21.93
5000	22.10
6000	22.22
7000	22.42
8000	22.61
9000	22.63
10000	22.74
11000	22.80
12000	22.21
13000	22.38
14000	22.51
15000	22.61
16000	22.66
17000	22.71
18000	22.72
19000	22.76

20000	22.72
21000	22.70
22000	23.74
23000	23.59
24000	23.66
25000	23.27

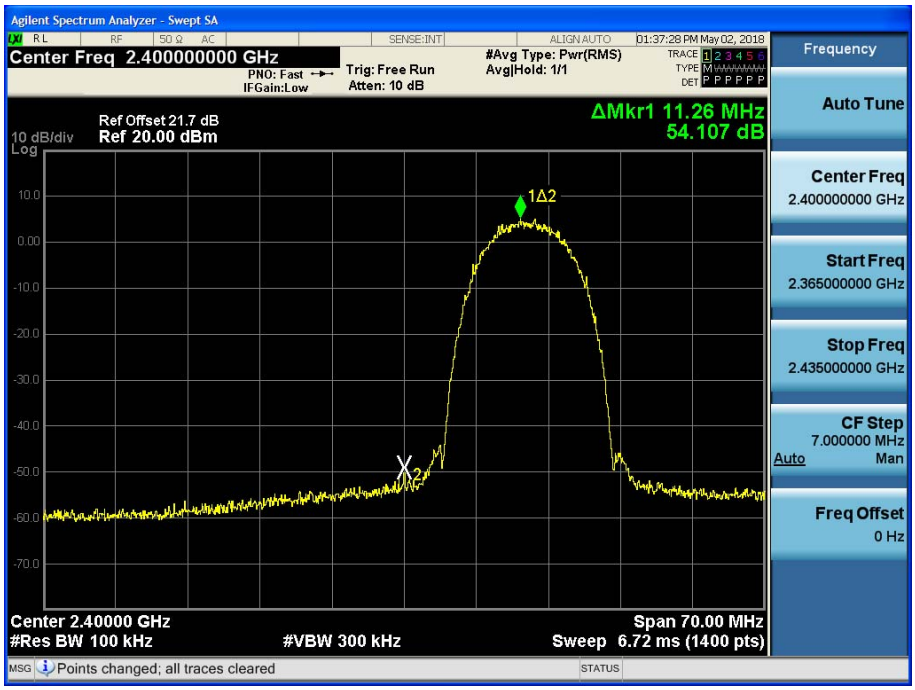
Note : 1. '*' is fundamental frequency range.

2. Factor

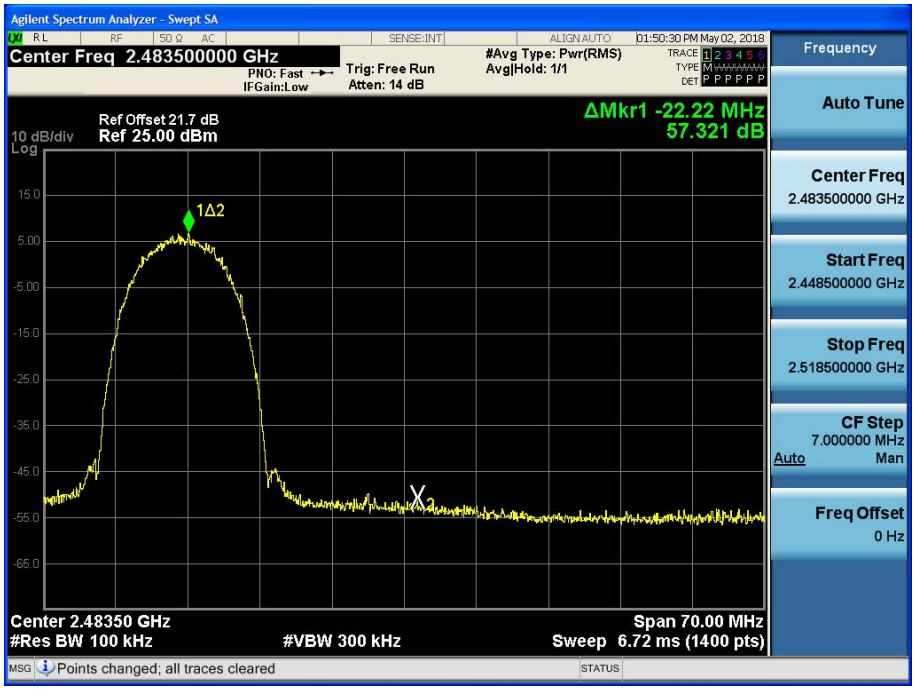
ANT = ATT loss + Cable loss(1 ea)

▣ RESULT PLOTS_Ant.0

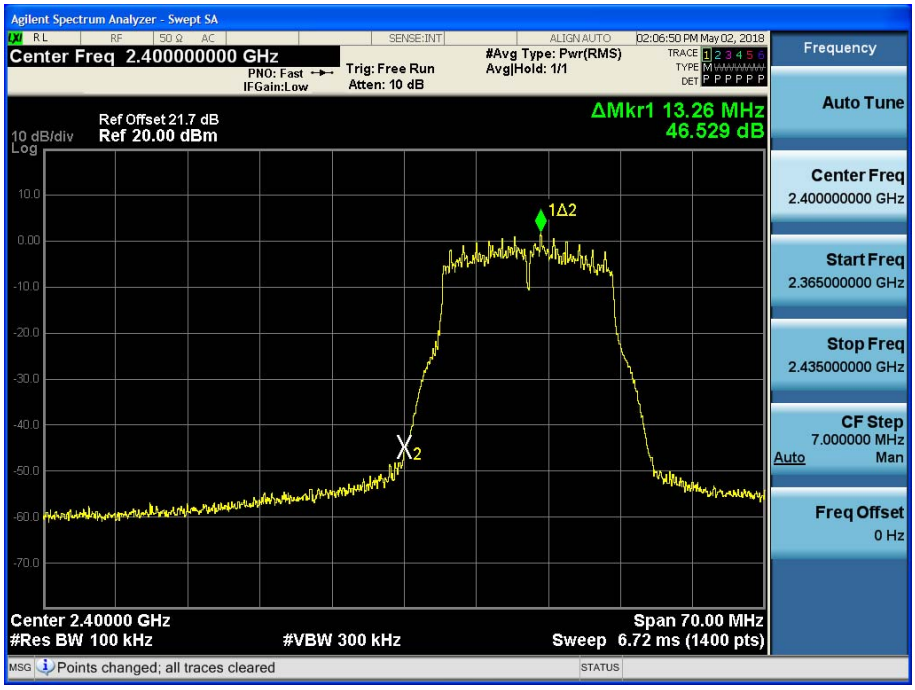
Band Edge (802.11b-CH1)



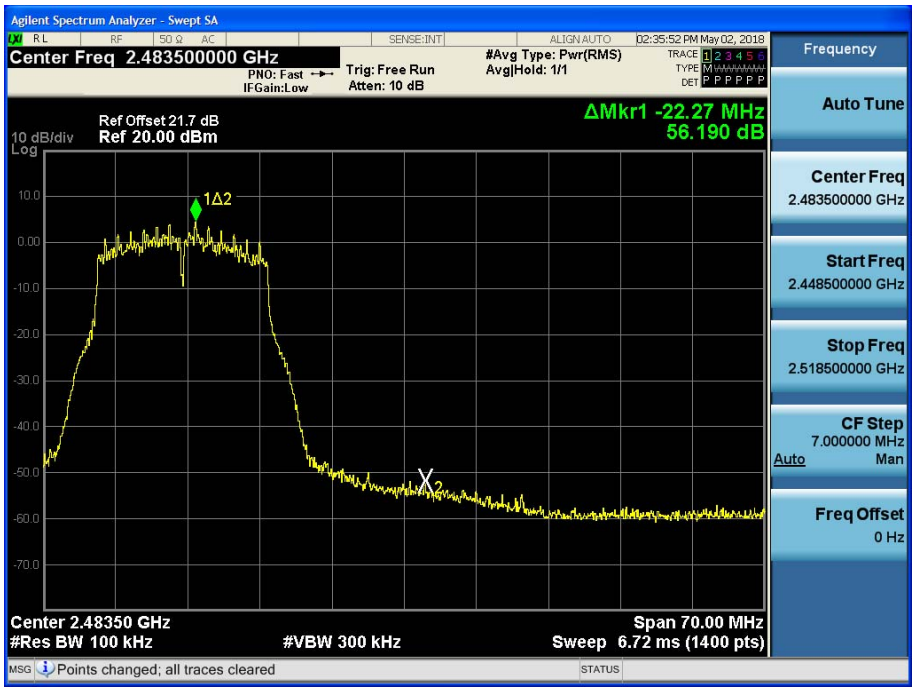
Band Edge (802.11b-CH11)



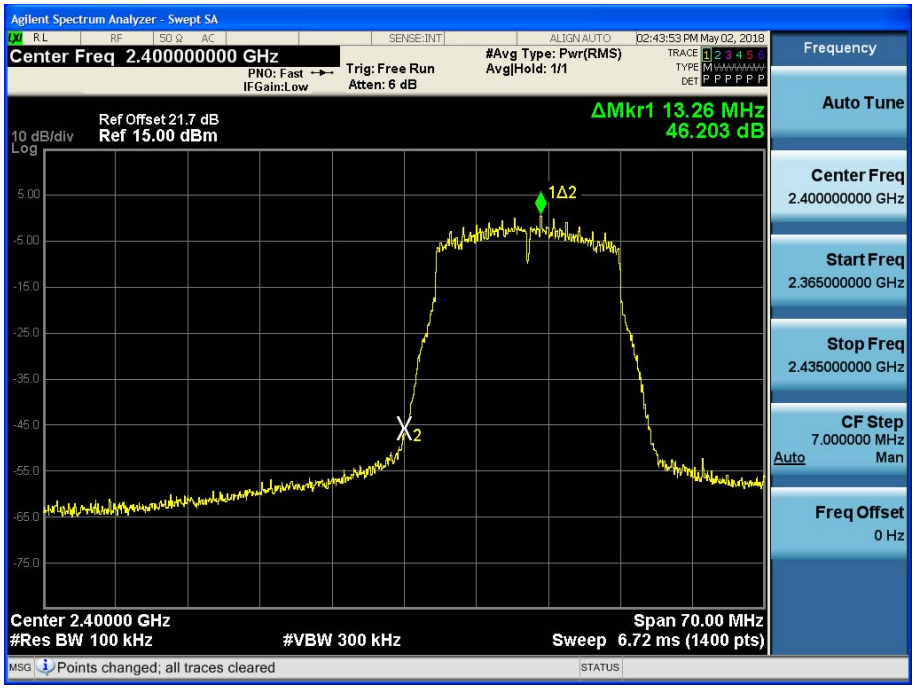
Band Edge (802.11g-CH1)



Band Edge (802.11g-CH11)

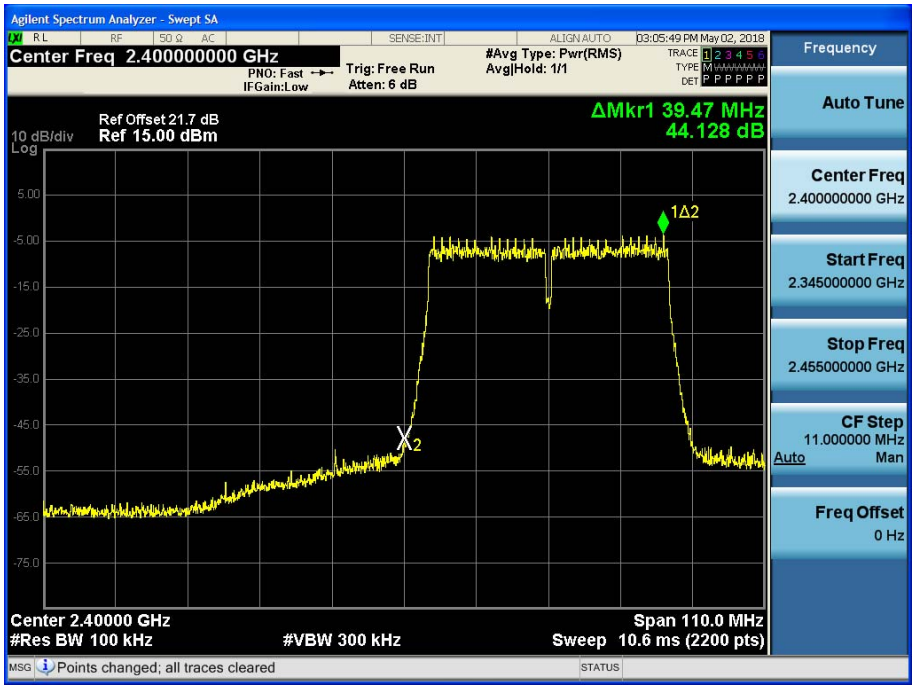


Band Edge (802.11n_HT20-CH1)

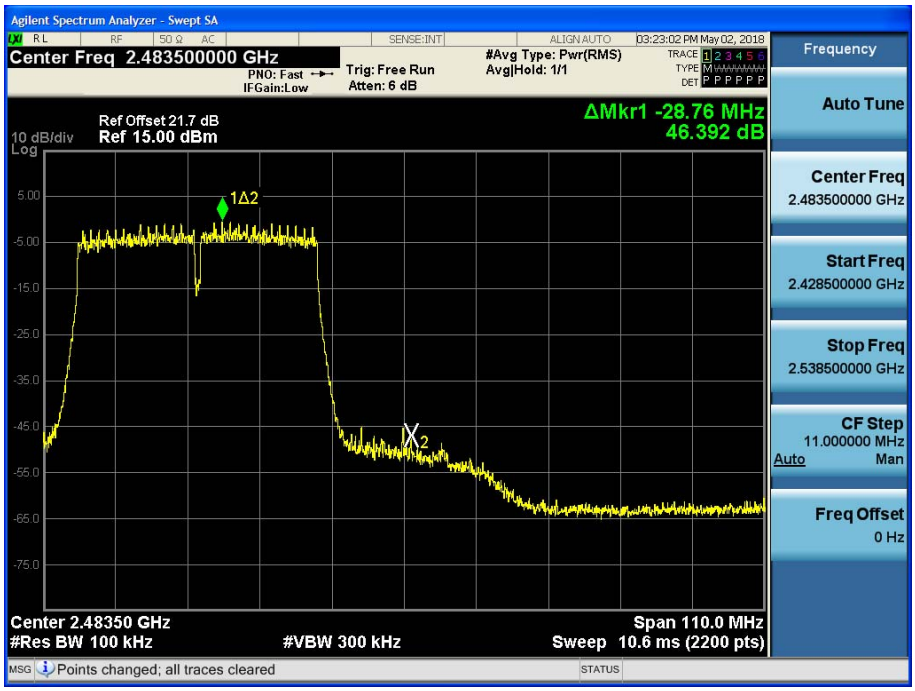


Band Edge (802.11n_HT20-CH11)

Band Edge (802.11n_HT40-CH3)

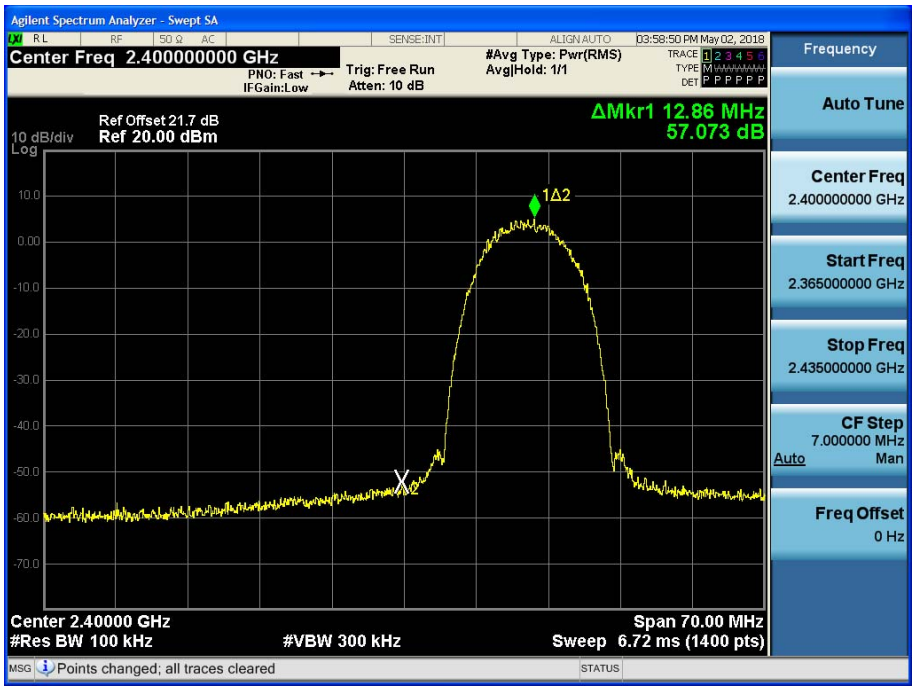


Band Edge (802.11n_HT40-CH9)

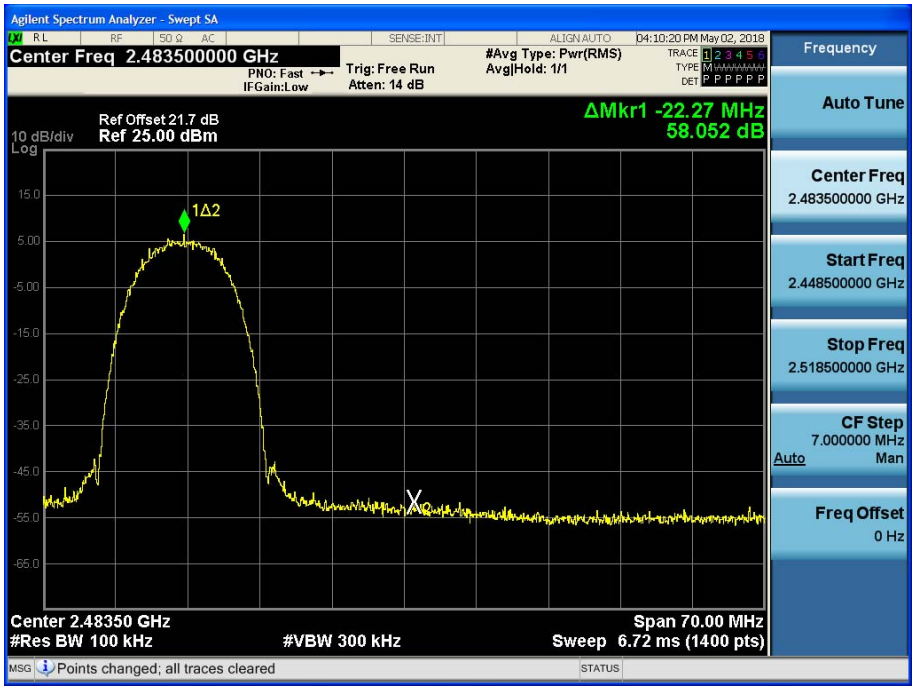


▣ RESULT PLOTS_Ant.1

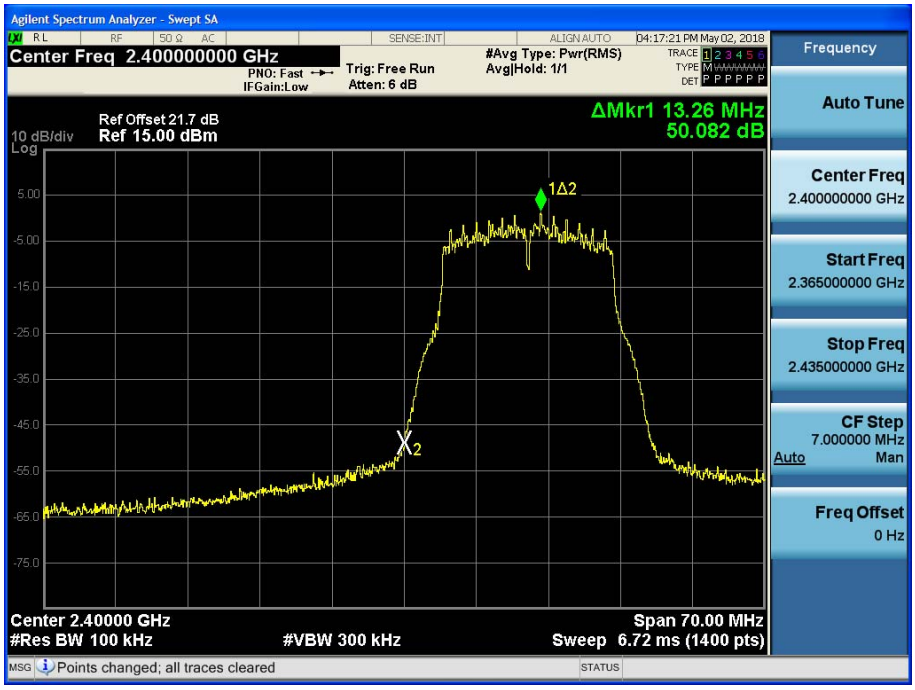
Band Edge (802.11b-CH1)



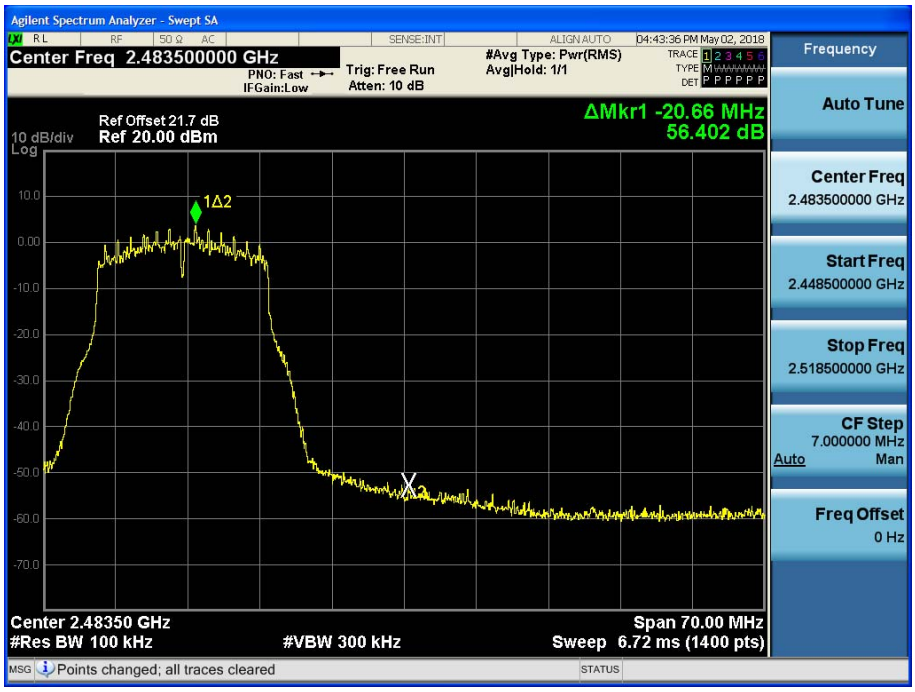
Band Edge (802.11b-CH11)



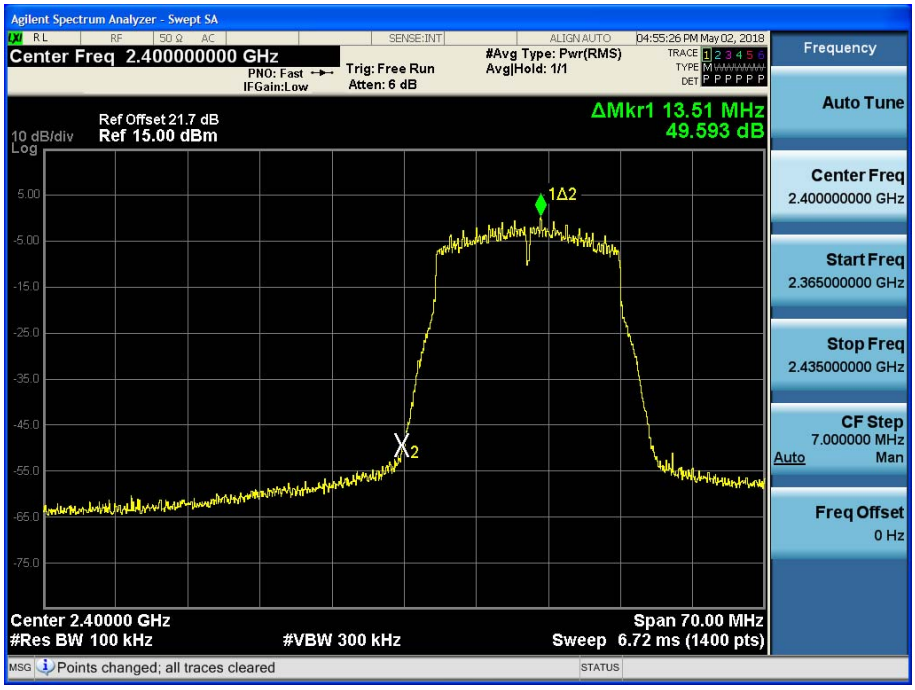
Band Edge (802.11g-CH1)



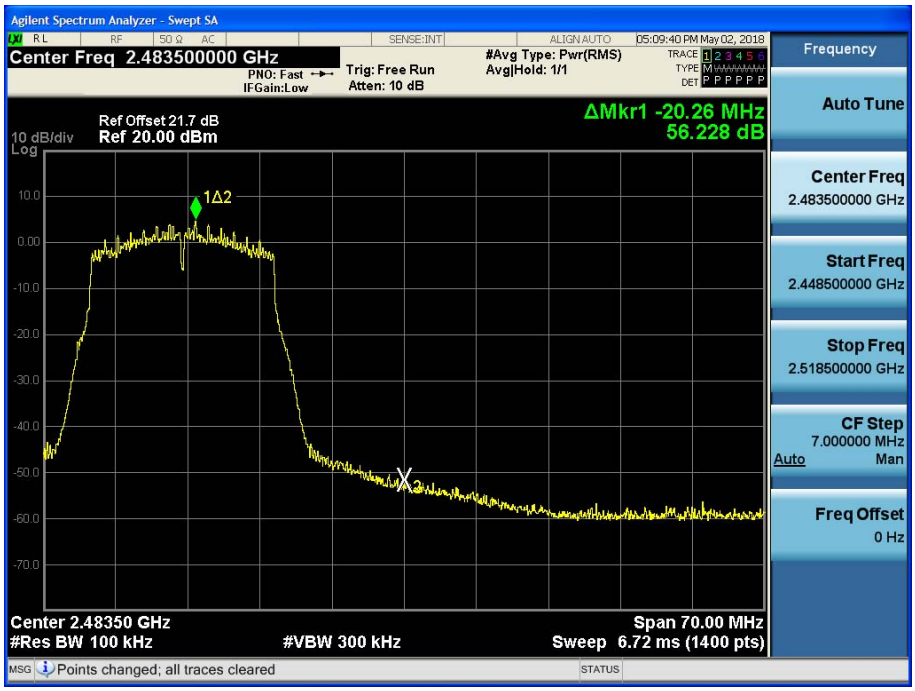
Band Edge (802.11g-CH11)



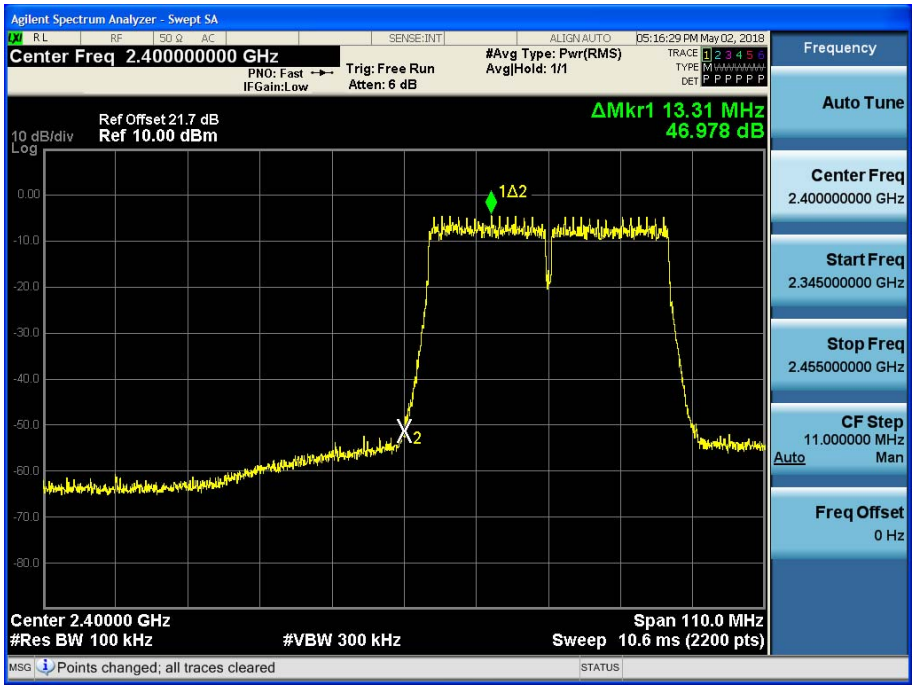
Band Edge (802.11n_HT20-CH1)



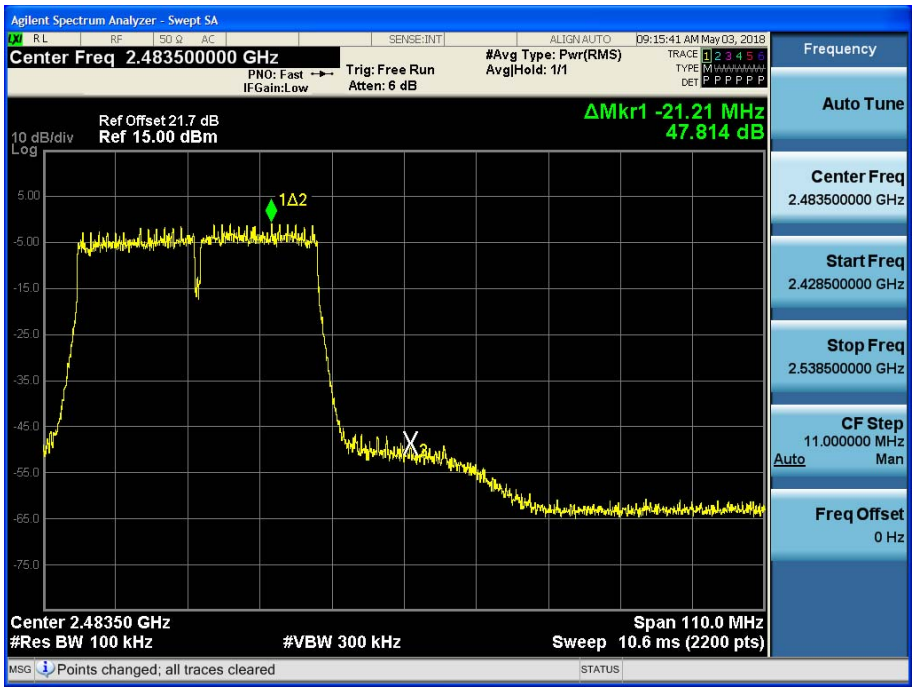
Band Edge (802.11n_HT20-CH11)



Band Edge (802.11n_HT40-CH3)

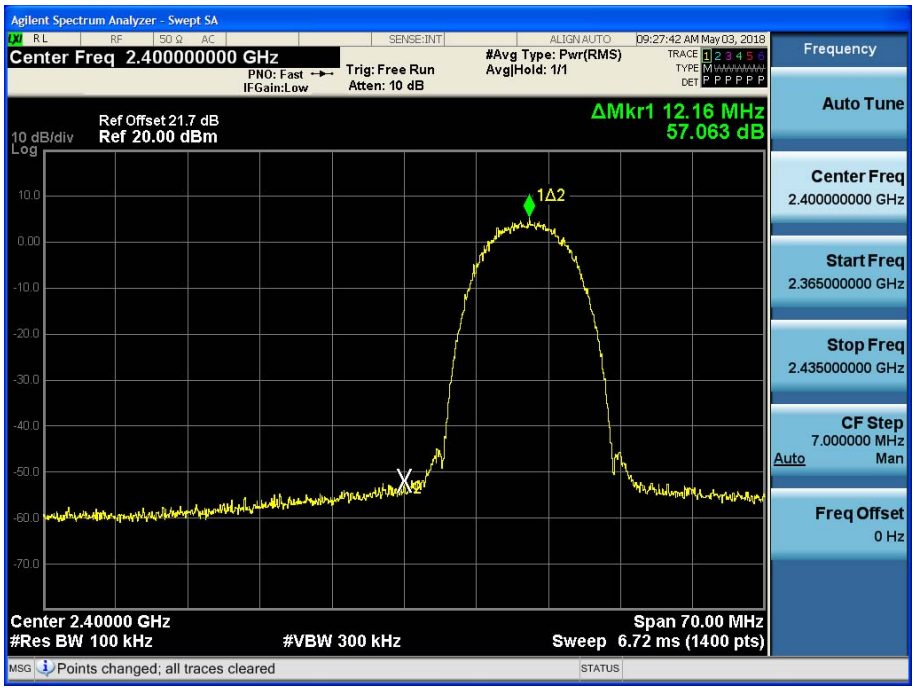


Band Edge (802.11n_HT40-CH9)

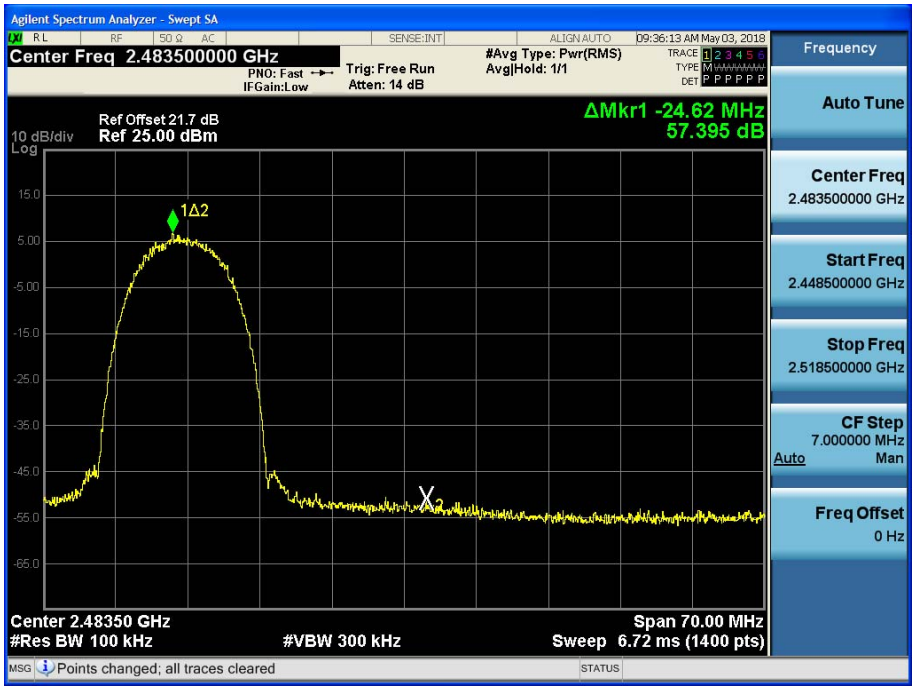


▣ RESULT PLOTS_Ant.2

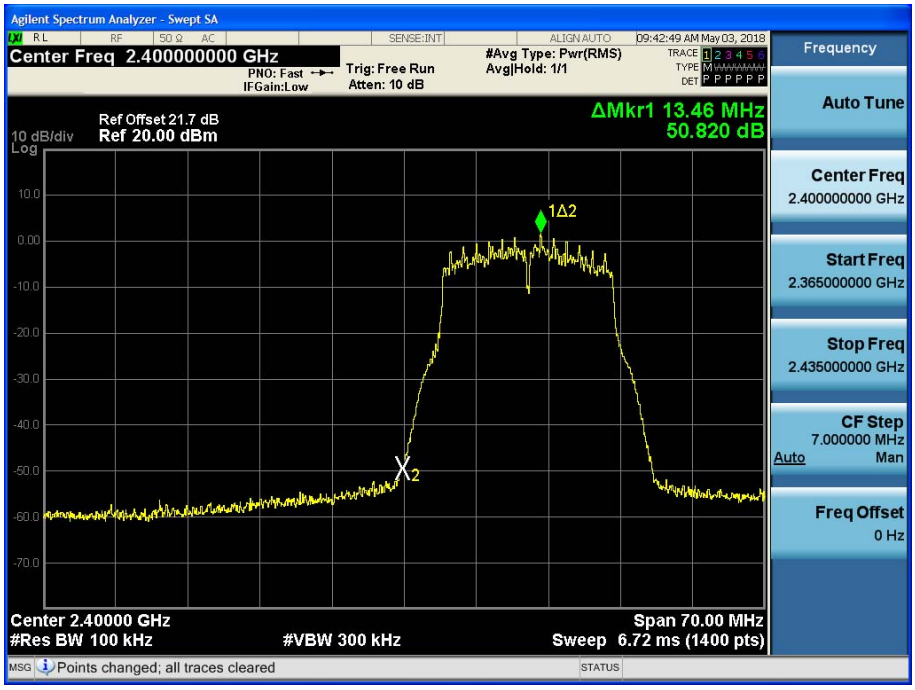
Band Edge (802.11b-CH1)



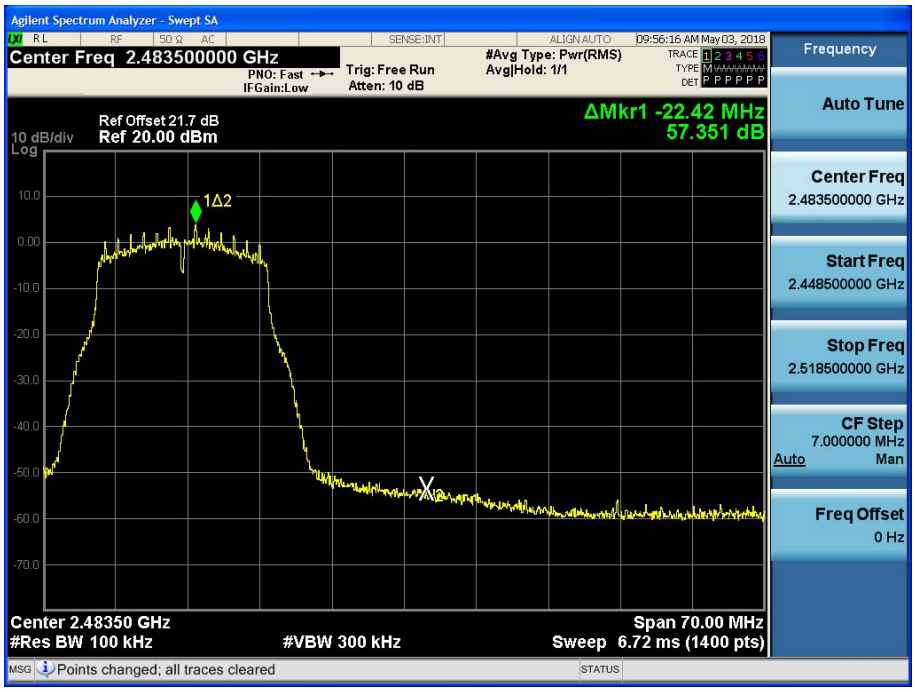
Band Edge (802.11b-CH11)



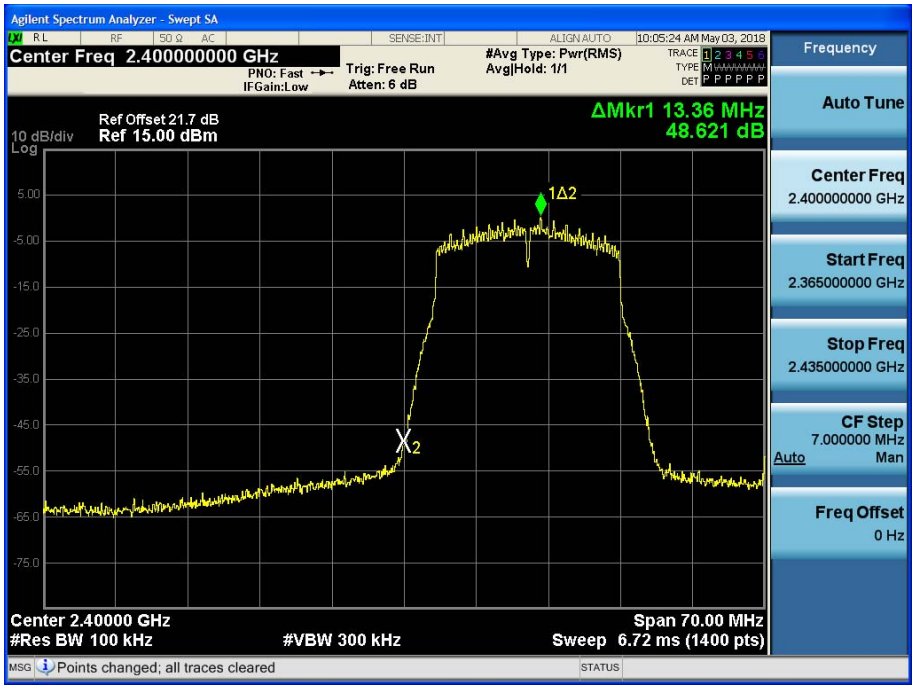
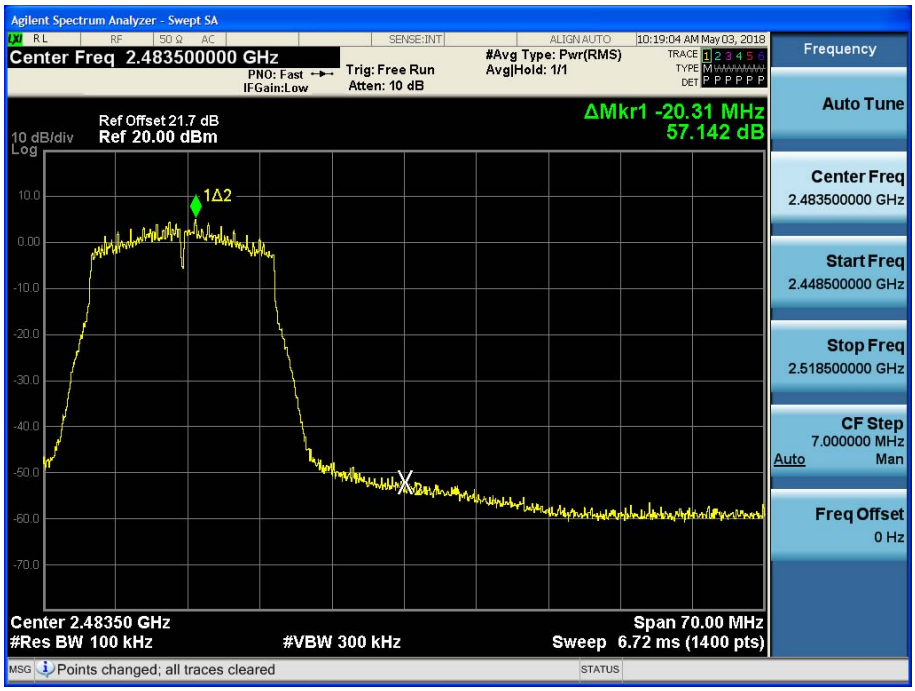
Band Edge (802.11g-CH1)



Band Edge (802.11g-CH11)



Band Edge (802.11n_HT20-CH1)



Band Edge (802.11n_HT20-CH11)