

Fig.A.6.1.75 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 1 GHz-2.5 GHz)

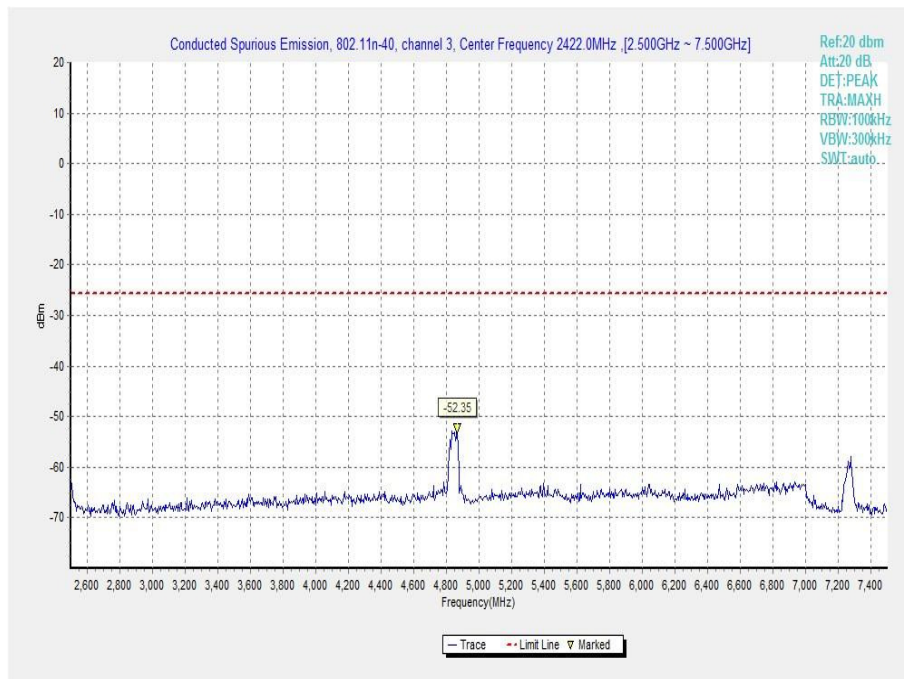


Fig.A.6.1.1 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 2.5 GHz-7.5 GHz)

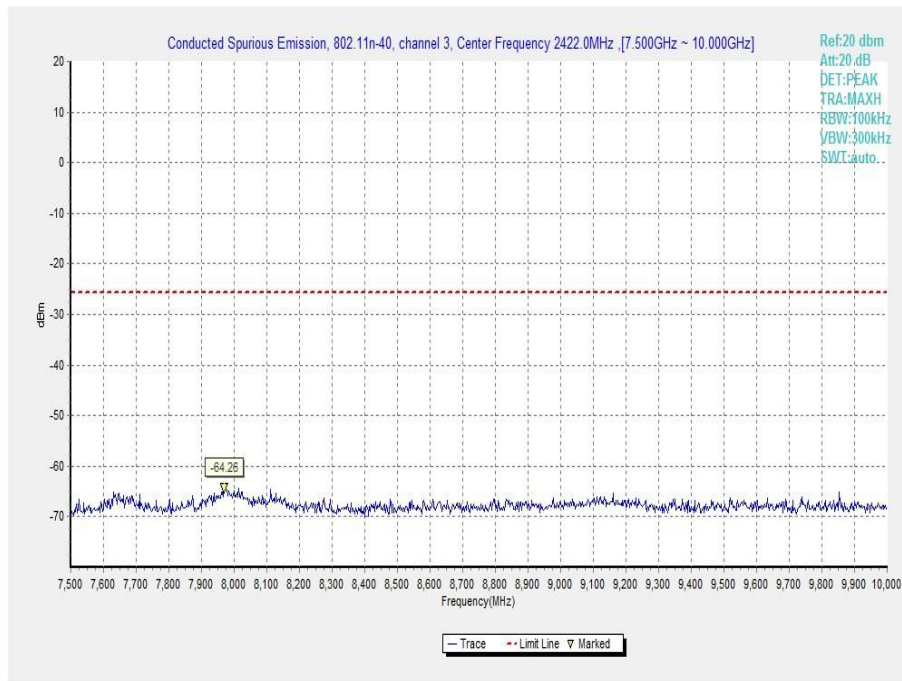


Fig.A.6.1.76 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 7.5 GHz-10 GHz)

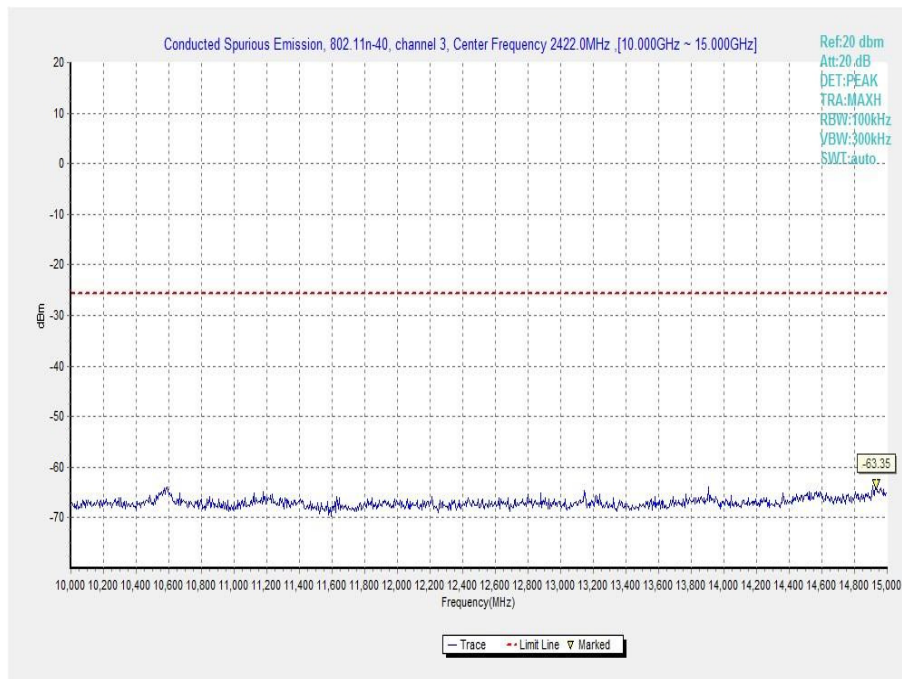


Fig.A.6.1.77 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 10 GHz-15 GHz)

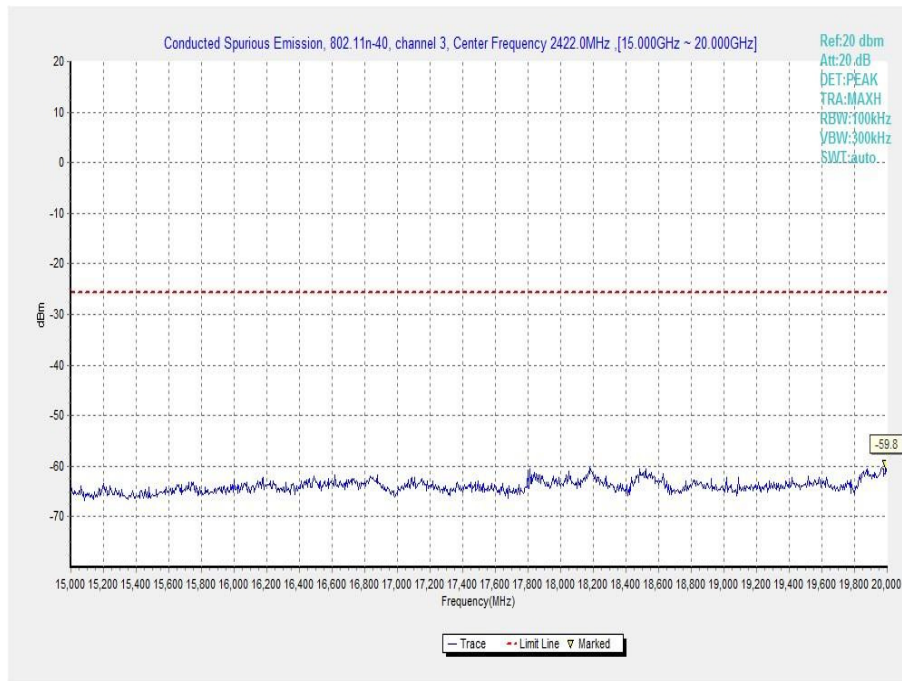


Fig.A.6.1.78 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 15 GHz-20 GHz)

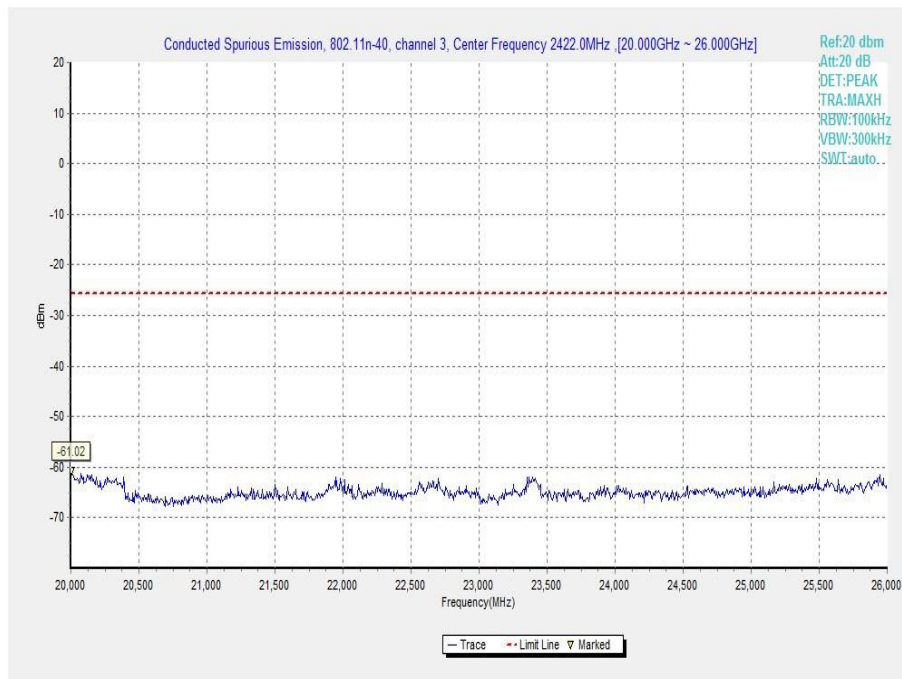


Fig.A.6.1.79 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 20 GHz-26 GHz)

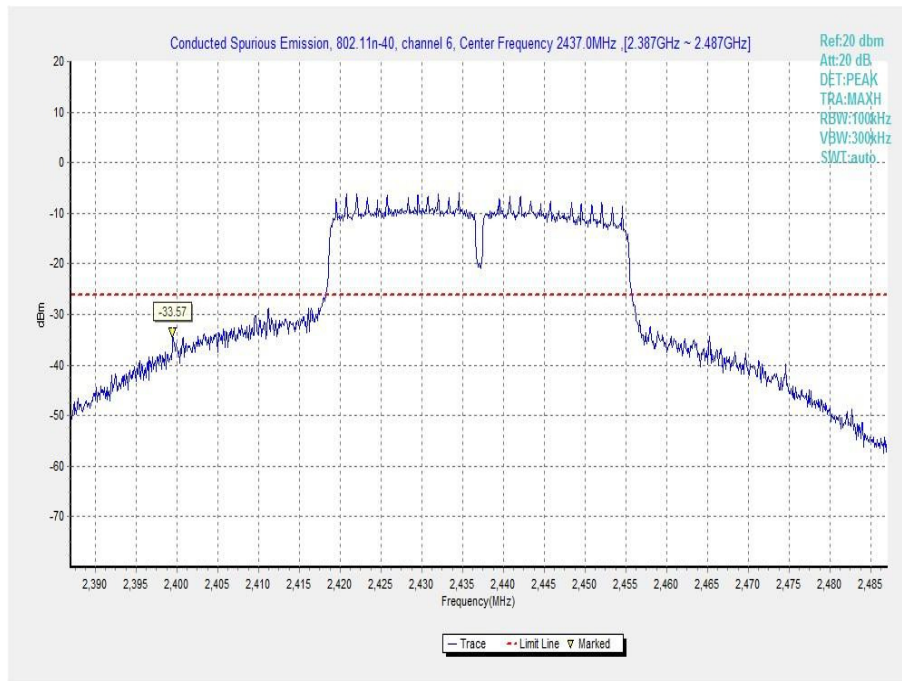


Fig.A.6.1.80 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, Center Frequency)

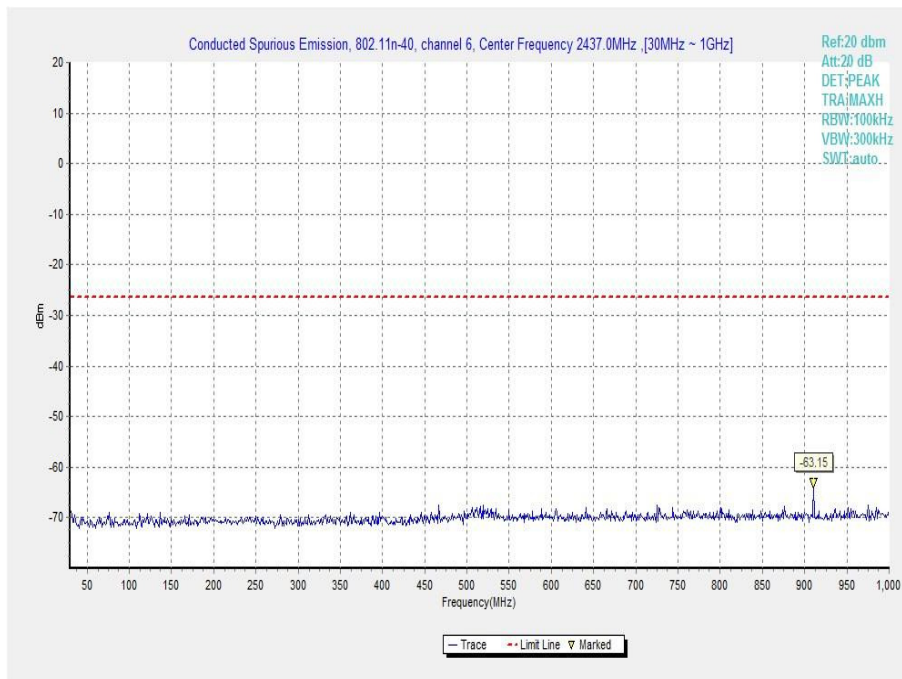


Fig.A.6.1.81 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 30 MHz-1 GHz)

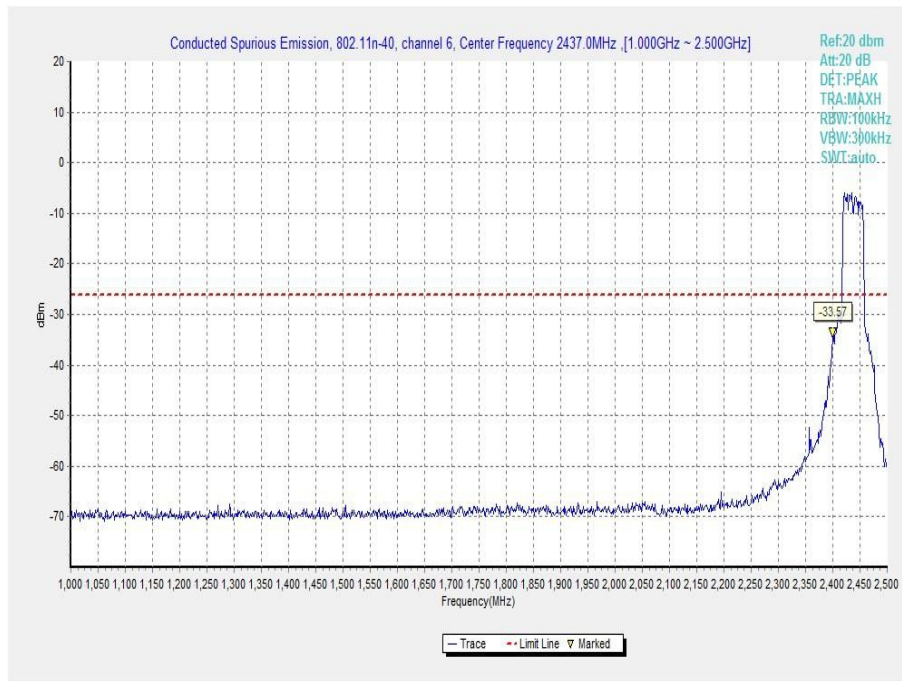


Fig.A.6.1.82 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 1 GHz-2.5 GHz)

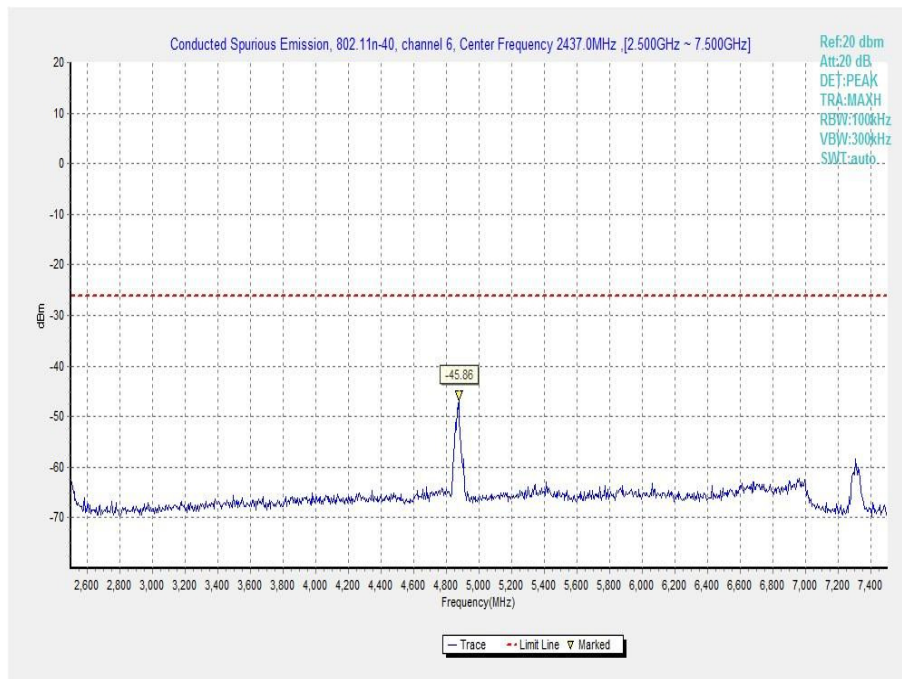


Fig.A.6.1.83 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 2.5 GHz-7.5 GHz)

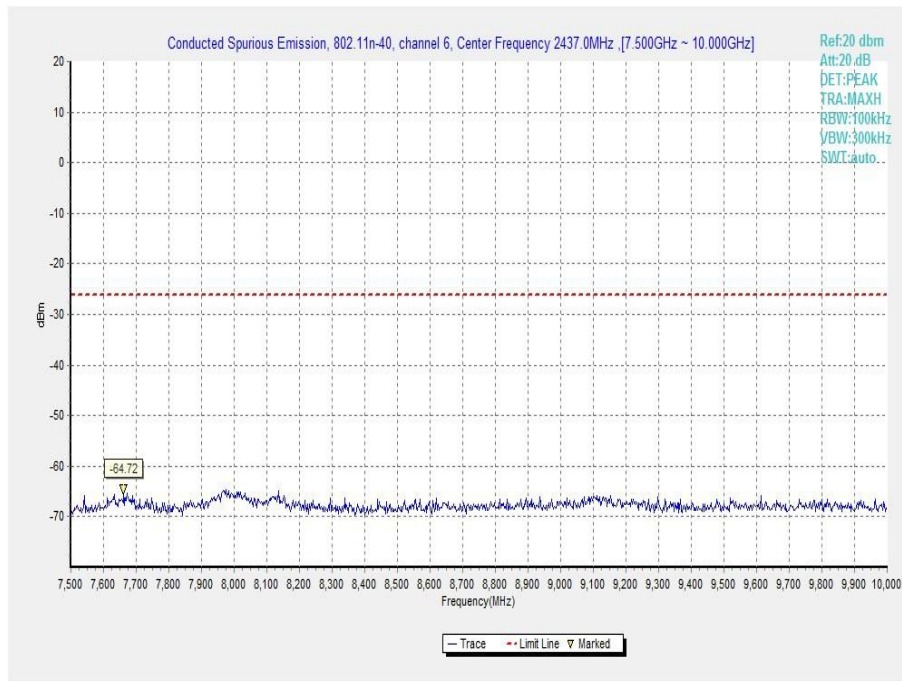


Fig.A.6.1.84 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 7.5 GHz-10 GHz)

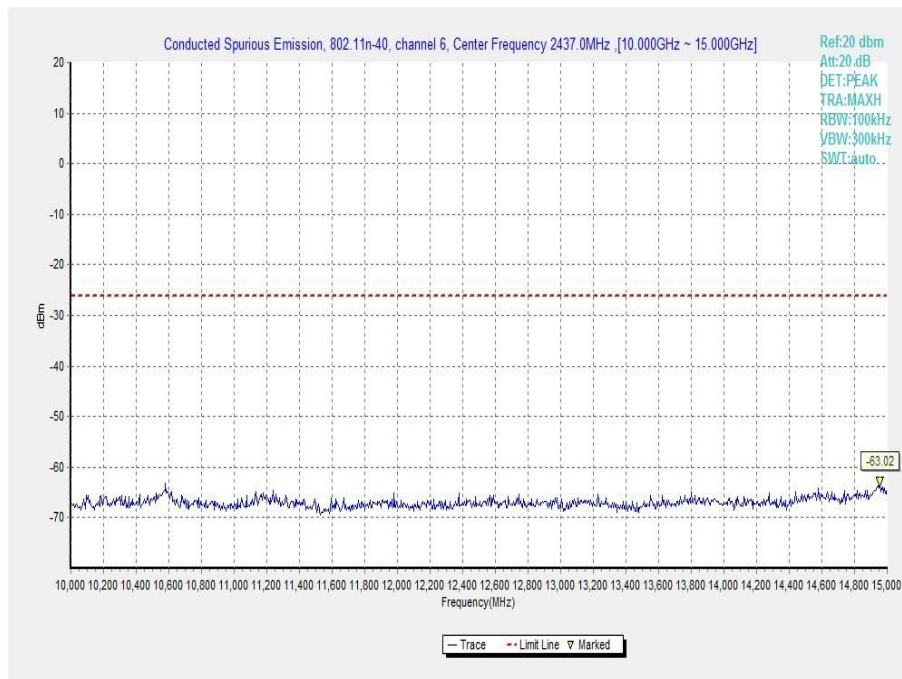


Fig.A.6.1.85 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 10 GHz-15 GHz)

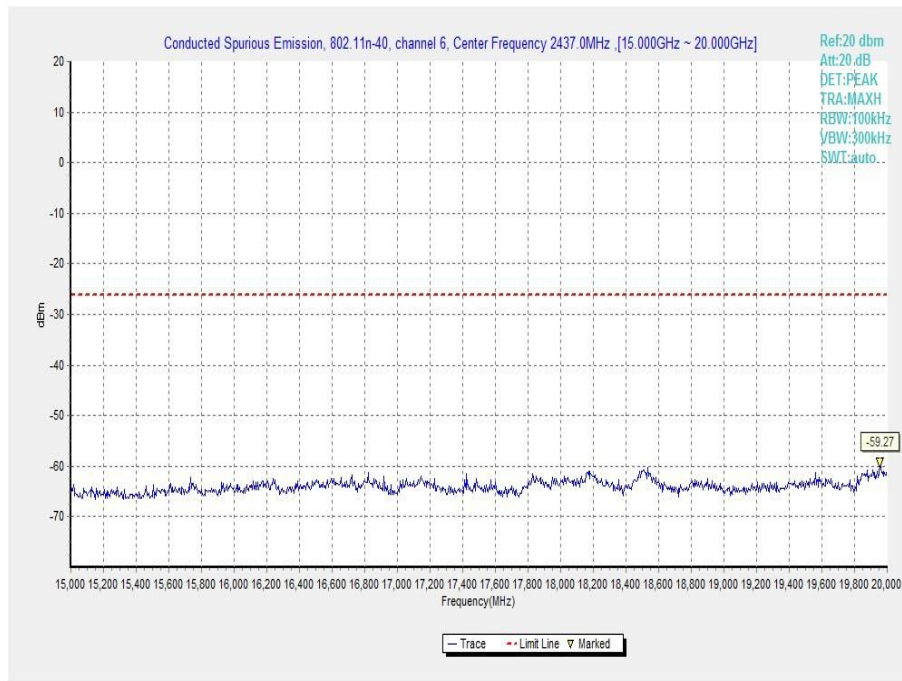


Fig.A.6.1.86 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 15 GHz-20 GHz)

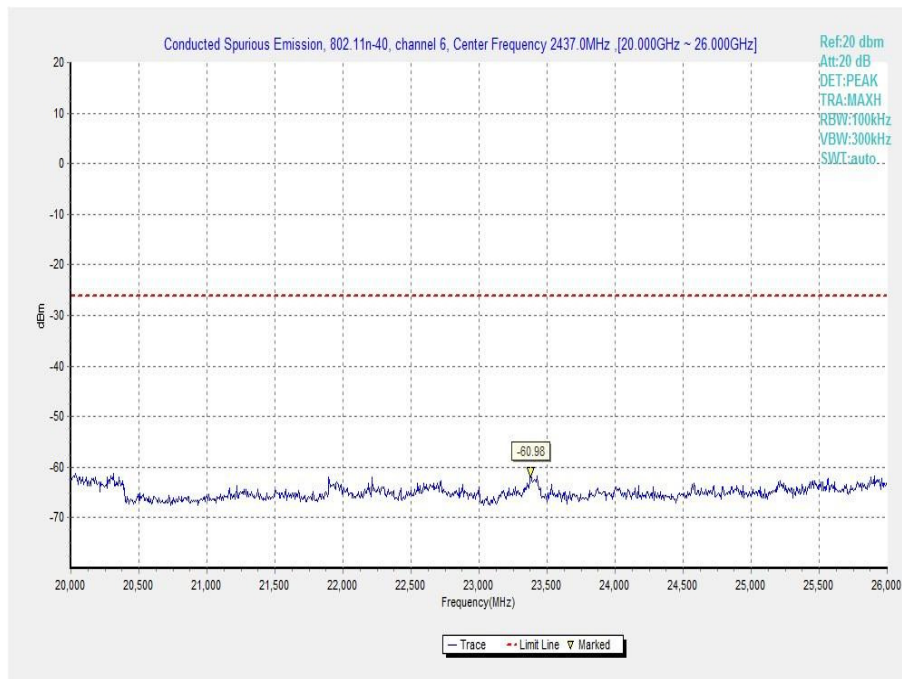


Fig.A.6.1.87 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 20 GHz-26 GHz)

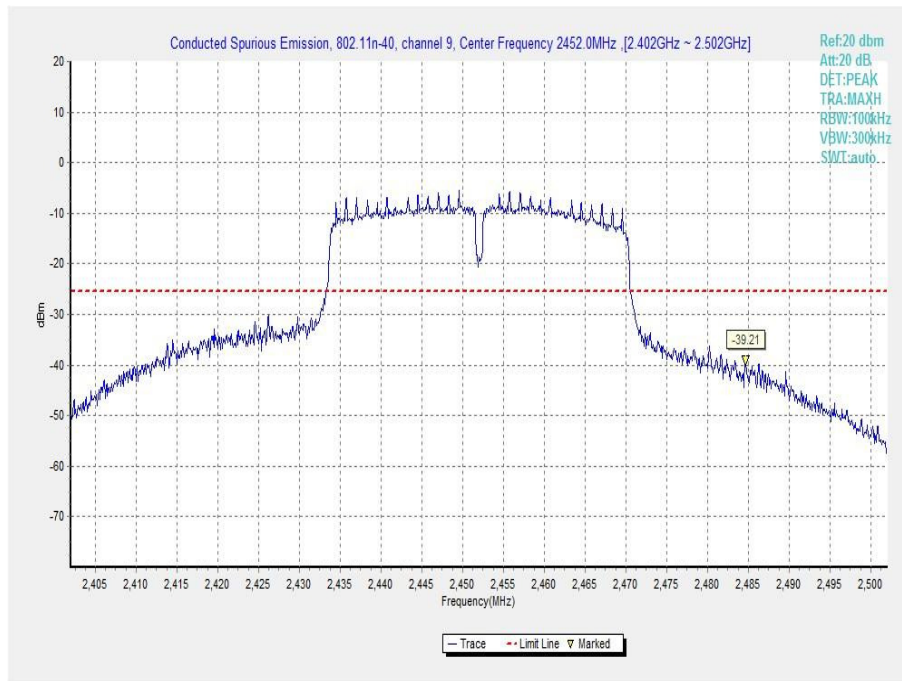


Fig.A.6.1.88 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, Center Frequency)

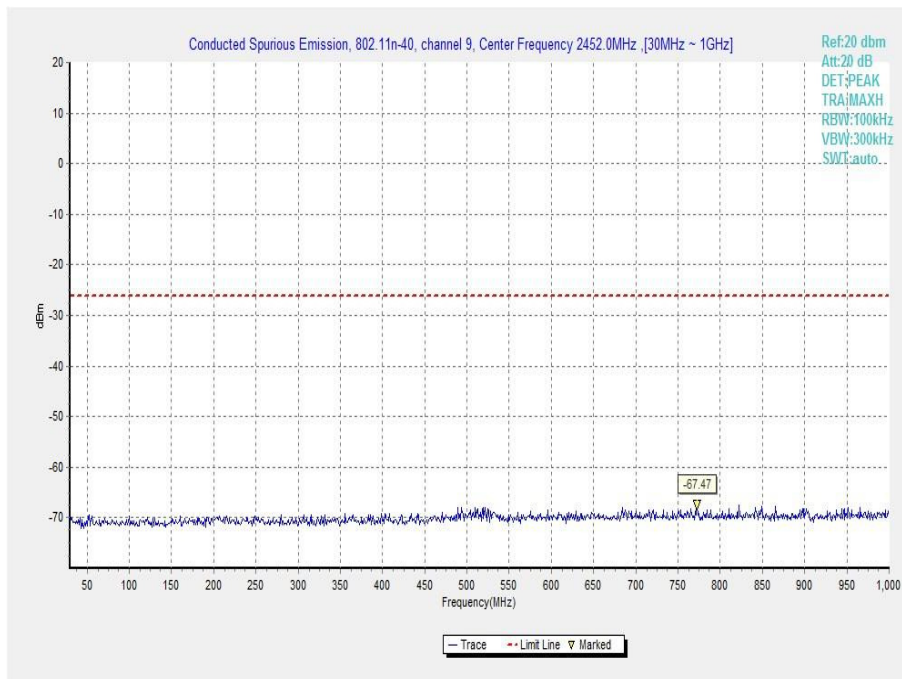


Fig.A.6.1.89 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 30 MHz-1 GHz)

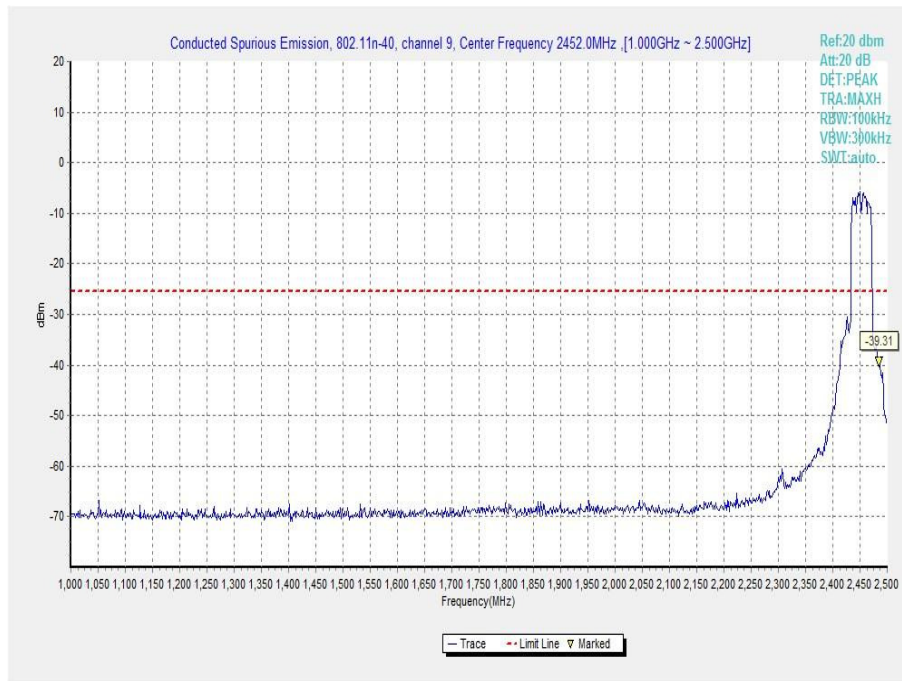


Fig.A.6.1.90 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 1 GHz-2.5 GHz)

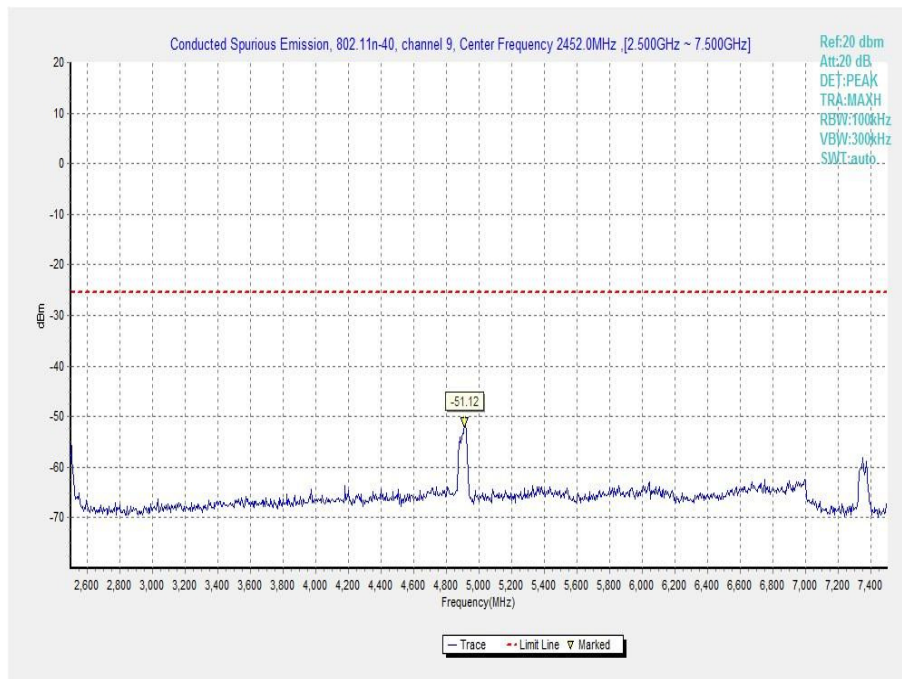


Fig.A.6.1.91 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 2.5 GHz-7.5 GHz)

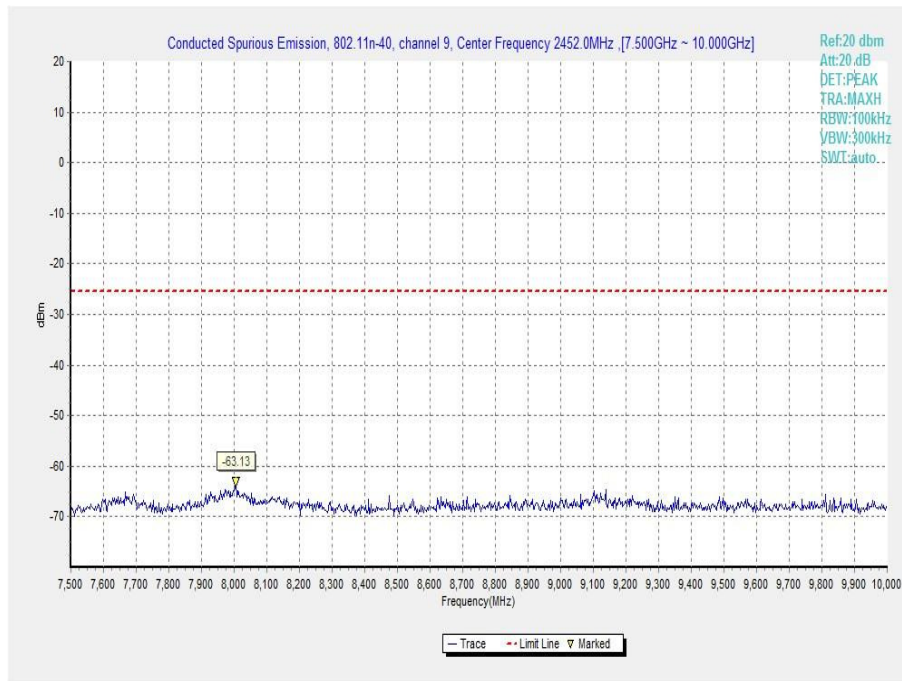


Fig.A.6.1.92 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 7.5 GHz-10 GHz)

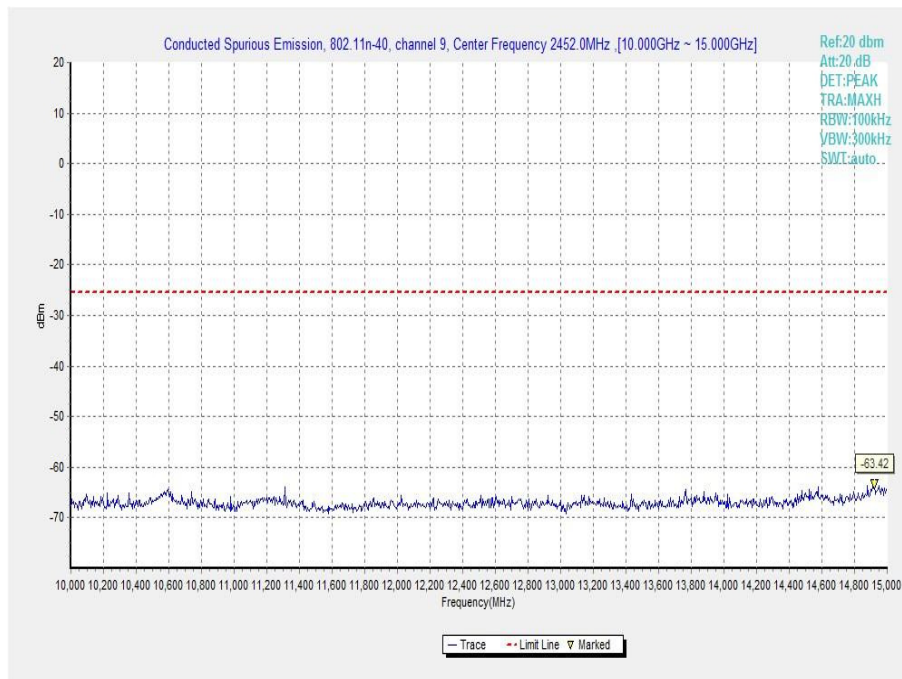


Fig.A.6.1.93 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 10 GHz-15 GHz)

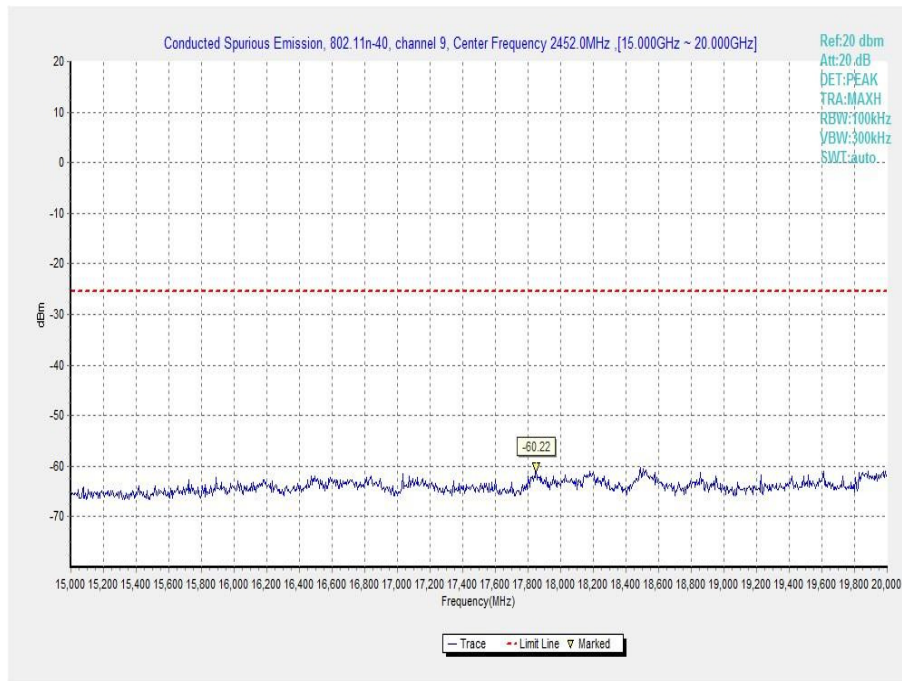


Fig.A.6.1.94 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 15 GHz-20 GHz)

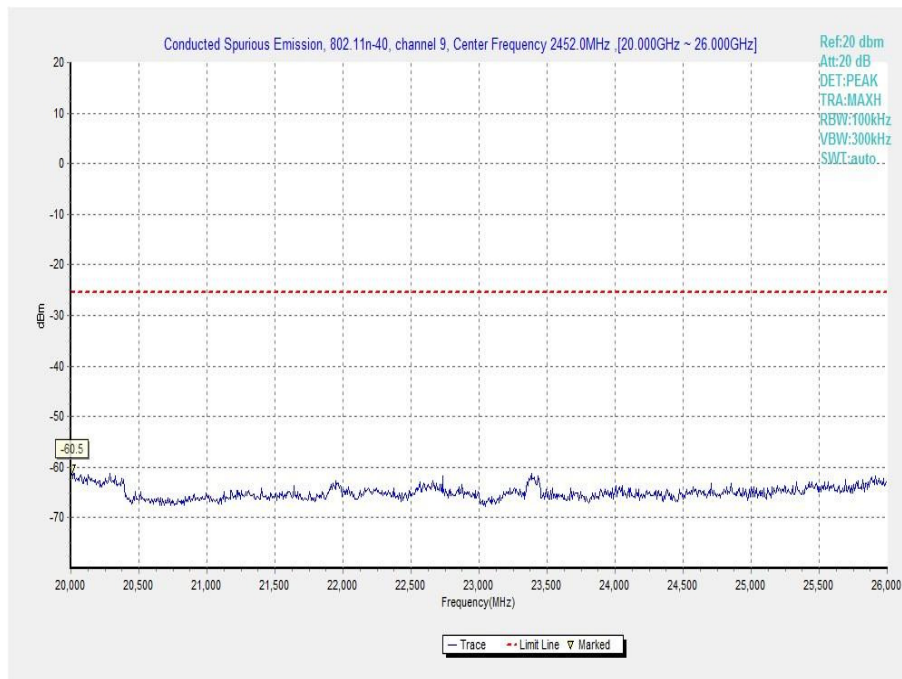


Fig.A.6.1.95 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 20 GHz-26 GHz)

A.6.2 Transmitter Spurious Emission - Radiated

Method of Measurement: See ANSI C63.10-2013-clause 6.4 &6.5 & 6.6

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247, 15.205, 15.209 & RSS-247 section 5.5	20dB below peak output power

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 in restricted band:

Frequency of emission (MHz)	Field strength(uV/m)	Field strength(dBuV/m)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Frequency (MHz)	Field strength(µV/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

Test Condition

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100KHz/300KHz	5
1000-4000	1MHz/1MHz	15
4000-18000	1MHz/1MHz	40
18000-26500	1MHz/1MHz	20

EUT ID: EUT1

Measurement Results:

802.11b mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	1	1 GHz ~18 GHz	Fig.A.6.2.1	P
	6	9 kHz ~30 MHz	Fig.A.6.2.2	P
		30 MHz ~1 GHz	Fig.A.6.2.3	P
		1 GHz ~18 GHz	Fig.A.6.2.4	P
	11	1 GHz ~18 GHz	Fig.A.6.2.5	P
	Power(CH1)	2.38 GHz ~ 2.45 GHz	Fig.A.6.2.6	P
	Power(CH11)	2.45 GHz ~ 2.5 GHz	Fig.A.6.2.7	P

802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	1	1 GHz ~18 GHz	Fig.A.6.2.8	P
	6	9 kHz ~30 MHz	Fig.A.6.2.9	P
		30 MHz ~1 GHz	Fig.A.6.2.10	P
		1 GHz ~18 GHz	Fig.A.6.2.11	P
	11	1 GHz ~18 GHz	Fig.A.6.2.12	P
	Power(CH1)	2.38 GHz ~ 2.45 GHz	Fig.A.6.2.13	P
	Power(CH11)	2.45 GHz ~ 2.5 GHz	Fig.A.6.2.14	P

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (20MHz)	1	1 GHz ~ 18 GHz	Fig.A.6.2.15	P
	6	9 kHz ~30 MHz	Fig.A.6.2.16	P
		30 MHz ~1 GHz	Fig.A.6.2.17	P
		1 GHz ~ 18 GHz	Fig.A.6.2.18	P
	11	1 GHz ~ 18 GHz	Fig.A.6.2.19	P
	Power(CH1)	2.38 GHz ~ 2.45 GHz	Fig.A.6.2.20	P
	Power(CH11)	2.45 GHz ~ 2.5 GHz	Fig.A.6.2.21	P

802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (40MHz)	3	1 GHz ~ 18 GHz	Fig.A.6.2.22	P
	6	9 kHz ~30 MHz	Fig.A.6.2.23	P
		30 MHz ~1 GHz	Fig.A.6.2.24	P
		1 GHz ~ 18 GHz	Fig.A.6.2.25	P
	9	1 GHz ~ 18 GHz	Fig.A.6.2.26	P
	Power(CH3)	2.38 GHz ~ 2.45 GHz	Fig.A.6.2.27	P
	Power(CH9)	2.45 GHz ~ 2.5 GHz	Fig.A.6.2.28	P
/	All channels	18 GHz~ 26.5 GHz	Fig.A.6.2.29	P

Conclusion: Pass

Note:

A "reference path loss" is established and the A_{Rpl} is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

P_{Mea} is the field strength recorded from the instrument.

The measurement results are obtained as described below:

$$\text{Result} = P_{Mea} + A_{Rpl} = P_{Mea} + \text{Cable Loss} + \text{Antenna Factor}$$

802.11b

Ch1

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14193.500000	57.4	V	13.4	16.6	74.0
15170.000000	59.0	H	14.3	15.0	74.0
15796.500000	60.5	H	14.6	13.5	74.0
16294.500000	60.6	H	15.2	13.4	74.0
16806.000000	61.3	H	15.8	12.7	74.0
17427.500000	61.4	V	16.2	12.6	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14163.500000	46.0	H	13.3	8.0	54.0
15175.000000	46.8	H	14.3	7.2	54.0
15791.000000	48.5	H	14.6	5.5	54.0
16221.000000	49.0	H	14.9	5.0	54.0
16842.000000	49.8	H	16.0	4.2	54.0
17376.500000	49.3	V	16.0	4.7	54.0

Ch6

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14206.000000	59.2	H	13.4	14.8	74.0
14918.000000	58.9	H	13.8	15.1	74.0
15726.500000	60.1	H	14.4	13.9	74.0
16345.000000	61.0	H	15.5	13.0	74.0
16786.500000	61.4	V	15.7	12.6	74.0
17556.000000	61.6	H	15.8	12.4	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
4874.250000	52.6	H	7.6	1.4	54.0

15168.500000	46.9	H	14.3	7.1	54.0
15680.500000	48.6	H	14.4	5.4	54.0
16263.500000	49.0	H	15.0	5.0	54.0
16838.500000	49.9	H	15.9	4.1	54.0
17399.500000	49.5	H	16.2	4.5	54.0

Ch11

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14187.000000	58.6	H	13.3	15.4	74.0
15174.500000	59.9	H	14.3	14.1	74.0
15689.000000	60.6	V	14.4	13.4	74.0
16364.500000	60.8	V	15.6	13.2	74.0
16766.500000	61.9	V	15.6	12.1	74.0
17329.500000	61.4	H	15.8	12.6	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
4924.125000	46.9	H	7.7	7.1	54.0
15185.000000	47.6	V	14.3	6.4	54.0
15681.000000	48.6	V	14.4	5.4	54.0
16214.000000	49.1	V	14.9	4.9	54.0
16830.500000	49.7	H	15.9	4.3	54.0
17359.500000	49.4	H	16.0	4.6	54.0

802.11g

Ch1

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14194.500000	58.2	H	13.4	15.8	74.0
15112.500000	58.8	V	14.2	15.2	74.0
15715.500000	60.6	H	14.4	13.4	74.0
16212.000000	60.5	H	14.9	13.5	74.0
16784.500000	62.5	V	15.7	11.5	74.0
17274.000000	61.0	H	15.5	13.0	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)

14158.000000	46.0	H	13.3	8.0	54.0
15170.000000	47.3	H	14.3	6.7	54.0
15701.000000	48.7	H	14.4	5.3	54.0
16219.500000	49.0	H	14.9	5.0	54.0
16784.000000	49.7	V	15.7	4.3	54.0
17406.000000	49.4	H	16.2	4.6	54.0

Ch6

Frequency (MHz)	MaxPeak-ClearWrite (dB μ V/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dB μ V/m)
14518.500000	57.6	H	13.7	16.4	74.0
15129.500000	59.0	H	14.2	15.0	74.0
15679.000000	59.9	V	14.4	14.1	74.0
16137.000000	60.3	H	15.0	13.7	74.0
17145.500000	61.2	V	15.9	12.8	74.0
17455.500000	60.5	V	16.1	13.5	74.0

Frequency (MHz)	Average-ClearWrite (dB μ V/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dB μ V/m)
14543.000000	46.2	V	13.7	7.8	54.0
15178.500000	47.4	H	14.3	6.6	54.0
15697.000000	48.3	H	14.4	5.7	54.0
16201.000000	48.8	H	15.0	5.2	54.0
16851.000000	49.2	H	16.0	4.8	54.0
17418.500000	49.2	H	16.2	4.8	54.0

Ch11

Frequency (MHz)	MaxPeak-ClearWrite (dB μ V/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dB μ V/m)
14505.000000	57.8	V	13.6	16.2	74.0
15151.000000	58.9	V	14.3	15.1	74.0
15789.000000	60.5	V	14.6	13.5	74.0
16384.000000	60.5	V	15.7	13.5	74.0
16774.500000	61.8	H	15.6	12.2	74.0
17408.000000	61.0	H	16.2	13.0	74.0

Frequency (MHz)	Average-ClearWrite (dB μ V/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dB μ V/m)



14533.000000	46.3	V	13.7	7.7	54.0
15180.000000	47.5	H	14.3	6.5	54.0
15682.000000	48.2	V	14.4	5.8	54.0
16216.500000	48.6	H	14.9	5.4	54.0
16836.000000	49.1	H	15.9	4.9	54.0
17398.500000	49.0	H	16.1	5.0	54.0

802.11n-HT20

Ch1

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14016.500000	57.6	H	12.8	16.4	74.0
15121.500000	58.7	H	14.2	15.3	74.0
15723.500000	61.2	H	14.4	12.8	74.0
16228.000000	60.3	V	14.9	13.7	74.0
16839.500000	61.4	V	15.9	12.6	74.0
17302.500000	61.1	H	15.7	12.9	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14180.500000	46.0	V	13.3	8.0	54.0
15168.000000	47.2	H	14.3	6.8	54.0
15683.000000	48.6	H	14.4	5.4	54.0
16213.000000	49.0	H	14.9	5.0	54.0
16835.500000	49.8	V	15.9	4.2	54.0
17416.500000	49.4	H	16.2	4.6	54.0

Ch6

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14120.500000	58.5	V	13.2	15.5	74.0
15165.000000	59.6	V	14.3	14.4	74.0
15775.000000	61.0	H	14.5	13.0	74.0
16307.500000	61.3	V	15.3	12.7	74.0
16876.500000	61.6	H	16.1	12.4	74.0
17416.000000	61.3	H	16.2	12.7	74.0

Frequency	Average-CI	Polarizati	Corr.	Margin	Limit
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(MHz)	earWrite (dBμV/m)	on	(dB)	(dB)	(dBμV/m)
14145.500000	46.3	H	13.3	7.7	54.0
15157.500000	47.5	V	14.3	6.5	54.0
15686.000000	48.8	H	14.4	5.2	54.0
16191.500000	49.5	V	15.0	4.5	54.0
16768.500000	49.8	H	15.6	4.2	54.0
17407.000000	49.5	H	16.2	4.5	54.0

Ch11

Frequency (MHz)	MaxPeak- ClearWrite (dBμV/m)	Polarizati on	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14183.000000	59.2	V	13.3	14.8	74.0
14801.000000	59.1	V	13.9	14.9	74.0
15644.500000	60.5	V	14.4	13.5	74.0
16144.000000	60.6	H	15.0	13.4	74.0
16854.000000	62.4	H	16.0	11.6	74.0
17326.500000	61.5	V	15.8	12.5	74.0

Frequency (MHz)	Average-Cl earWrite (dBμV/m)	Polarizati on	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14538.500000	46.4	V	13.7	7.6	54.0
15157.500000	47.5	V	14.3	6.5	54.0
15677.500000	48.6	H	14.4	5.4	54.0
16231.500000	49.2	H	14.9	4.8	54.0
16810.000000	49.5	V	15.8	4.5	54.0
17423.500000	49.4	H	16.2	4.6	54.0

802.11n-HT40

Ch3

Frequency (MHz)	MaxPeak- ClearWrite (dBμV/m)	Polarizati on	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14199.000000	58.7	V	13.4	15.3	74.0
15101.000000	59.7	V	14.1	14.3	74.0
15732.500000	60.4	H	14.4	13.6	74.0
16200.000000	61.3	V	15.0	12.7	74.0
16701.000000	62.3	H	15.5	11.7	74.0
17351.000000	61.3	V	15.9	12.7	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14534.500000	46.8	V	13.7	7.2	54.0
15182.500000	47.9	H	14.3	6.1	54.0
15675.500000	48.9	H	14.4	5.1	54.0
16213.000000	49.2	H	14.9	4.8	54.0
16812.000000	49.7	V	15.8	4.3	54.0
17430.500000	49.6	V	16.2	4.4	54.0

Ch6

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14533.500000	58.9	H	13.7	15.1	74.0
15157.000000	58.7	V	14.3	15.3	74.0
15721.000000	59.7	V	14.4	14.3	74.0
16268.500000	60.8	V	15.0	13.2	74.0
16759.000000	61.3	H	15.5	12.7	74.0
17414.000000	61.5	H	16.2	12.5	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14148.500000	46.0	H	13.3	8.0	54.0
15173.000000	47.1	H	14.3	6.9	54.0
15685.000000	48.5	H	14.4	5.5	54.0
16208.000000	49.0	H	14.9	5.0	54.0
16846.000000	49.7	H	16.0	4.3	54.0
17392.500000	49.4	V	16.1	4.6	54.0

Ch9

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14146.500000	58.4	V	13.3	15.6	74.0
14722.500000	59.1	V	14.0	14.9	74.0
15643.500000	60.3	H	14.4	13.7	74.0
16196.000000	61.4	H	15.0	12.6	74.0
16810.000000	61.5	H	15.8	12.5	74.0
17487.000000	61.2	V	16.0	12.8	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14142.000000	46.2	H	13.3	7.8	54.0
15152.500000	47.4	H	14.3	6.6	54.0
15692.500000	48.5	V	14.4	5.5	54.0
16215.000000	48.9	V	14.9	5.1	54.0
16761.500000	49.6	H	15.5	4.4	54.0
17423.500000	49.3	V	16.2	4.7	54.0

Test graphs as below:

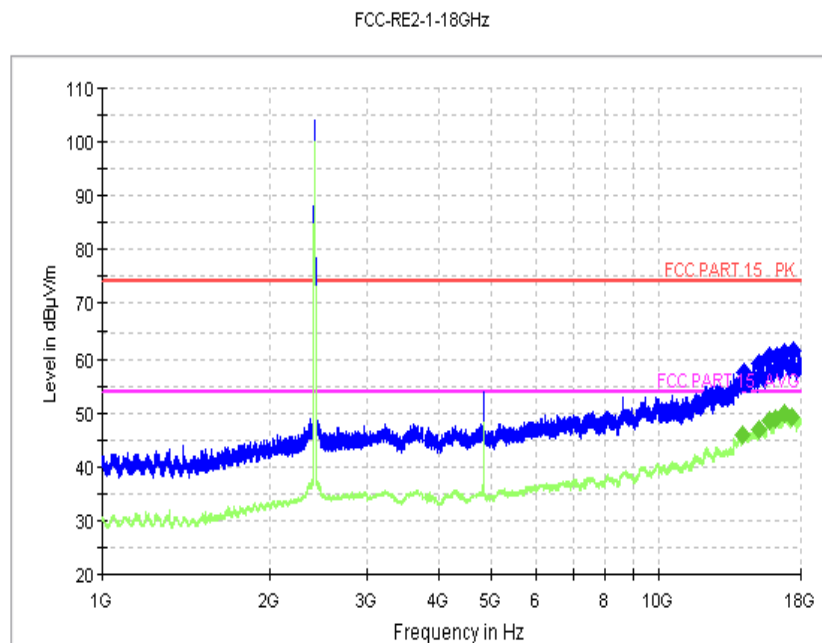


Fig.A.6.2.1 Radiated Spurious Emission (802.11b, Ch1, 1 GHz-18GHz)

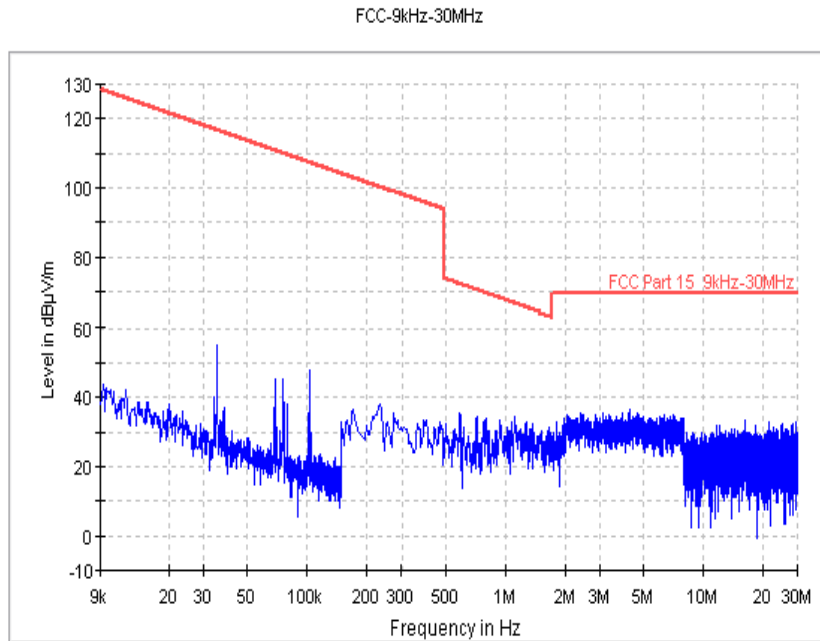


Fig.A.6.2.2 Radiated Spurious Emission (802.11b, Ch6, 9kHz-30MHz,AE1)

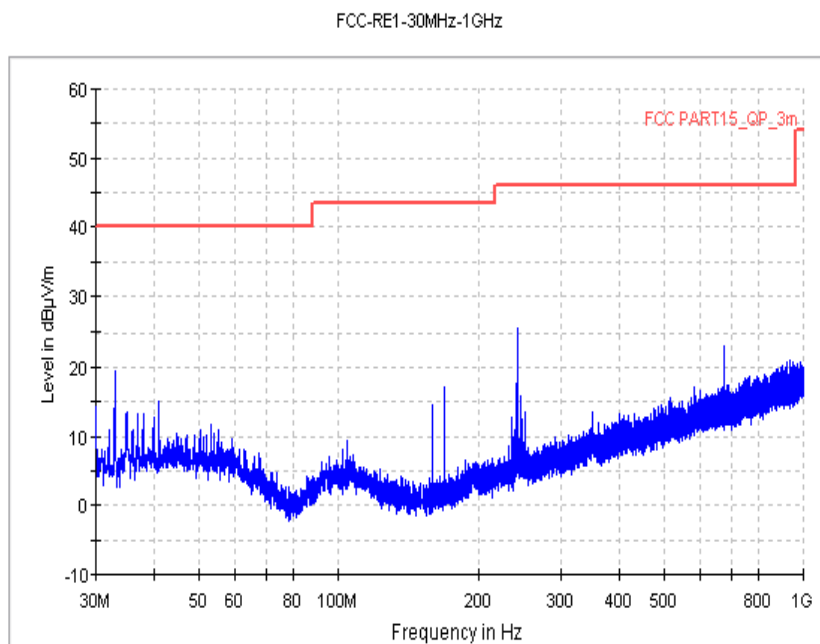


Fig.A.6.2.3 Radiated Spurious Emission (802.11b, Ch6, 30MHz-1 GHz,AE1)

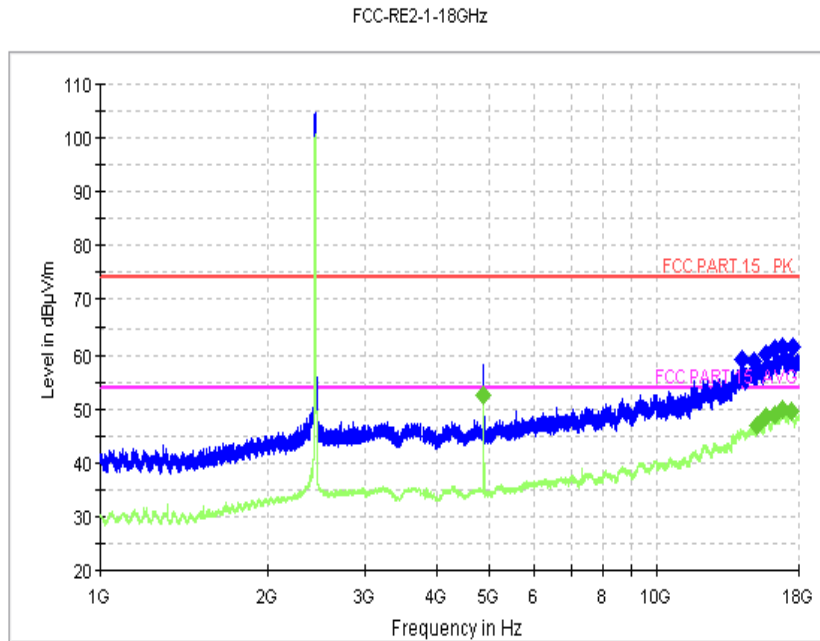


Fig.A.6.2.4 Radiated Spurious Emission (802.11b, Ch6, 1 GHz-18GHz)

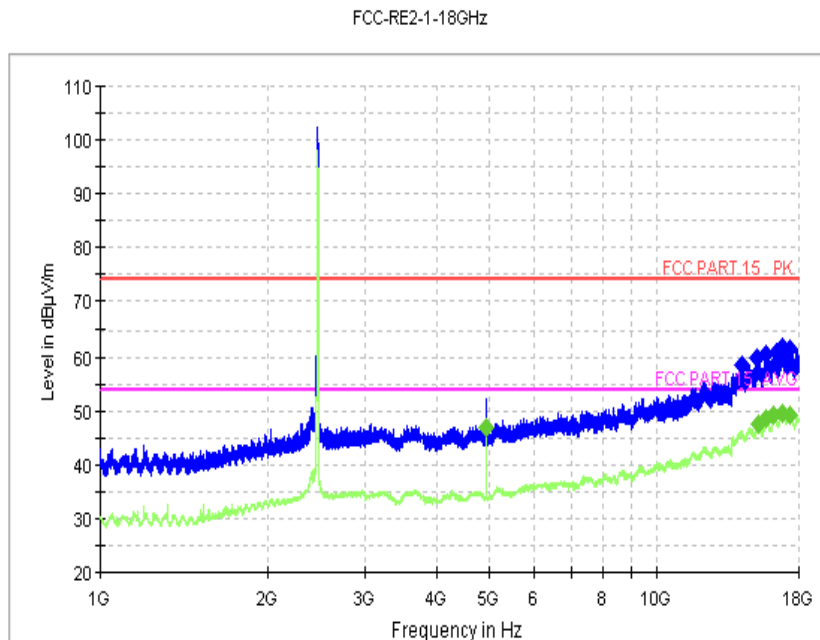


Fig.A.6.2.5 Radiated Spurious Emission (802.11b, Ch11, 1 GHz-18GHz)

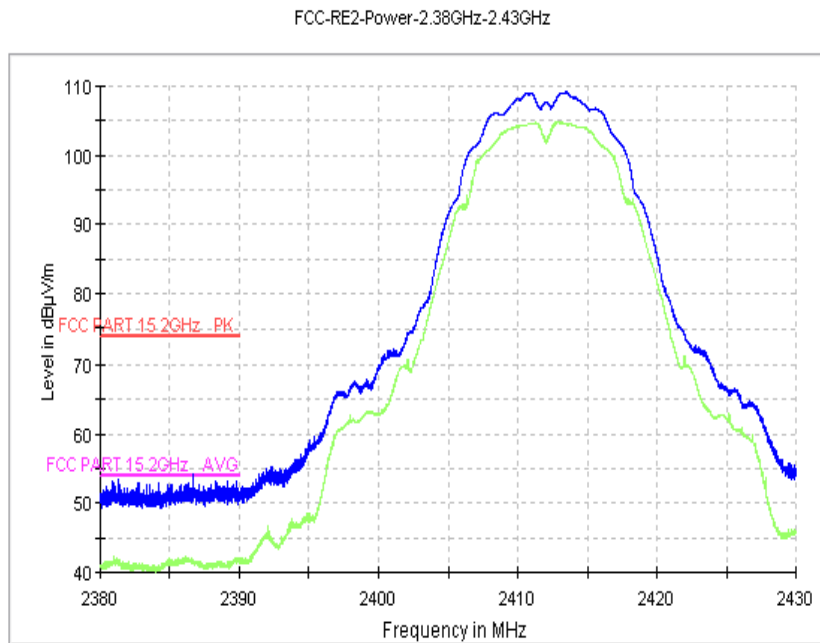


Fig.A.6.2.6 Radiated Emission Power (802.11b, Ch1, 2380GHz~2450GHz)

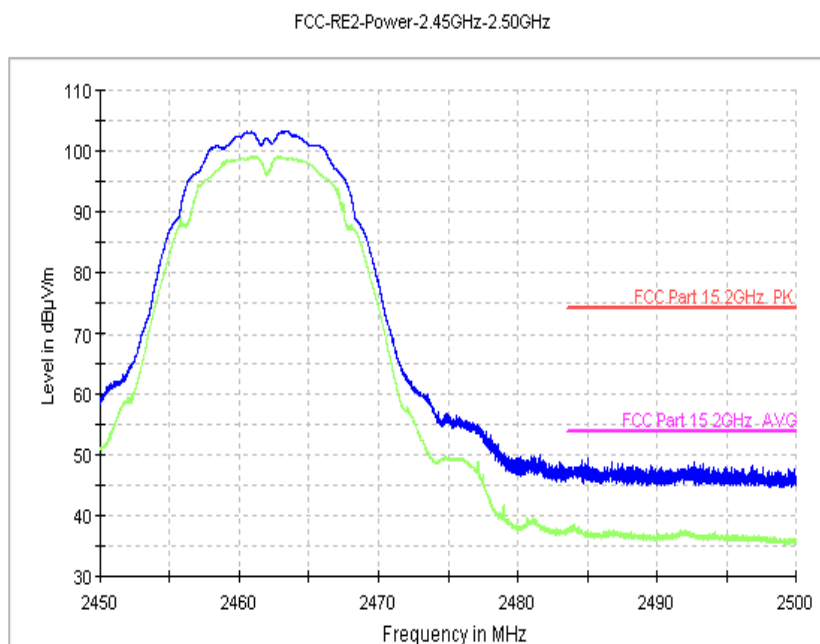


Fig.A.6.2.7 Radiated Emission Power (802.11b, Ch11, 2450GHz~2500GHz)

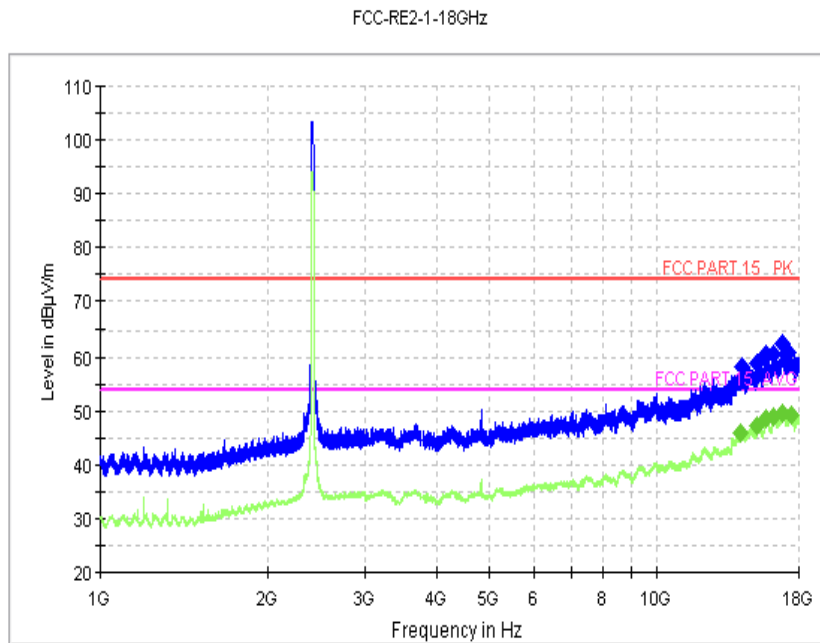


Fig.A.6.2.8 Radiated Spurious Emission (802.11g, Ch1, 1 GHz-18 GHz)

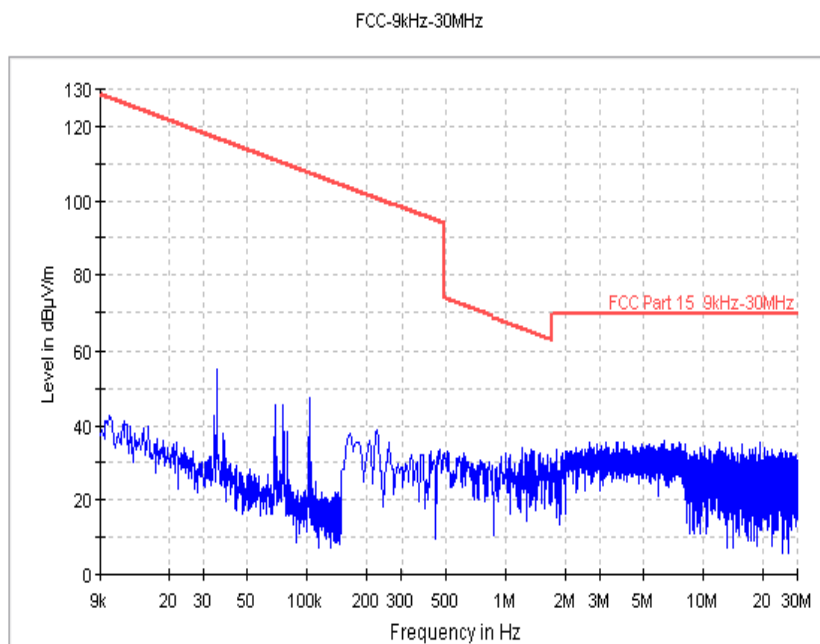


Fig.A.6.2.9 Radiated Spurious Emission (802.11g, Ch6, 9kHz-30MHz)

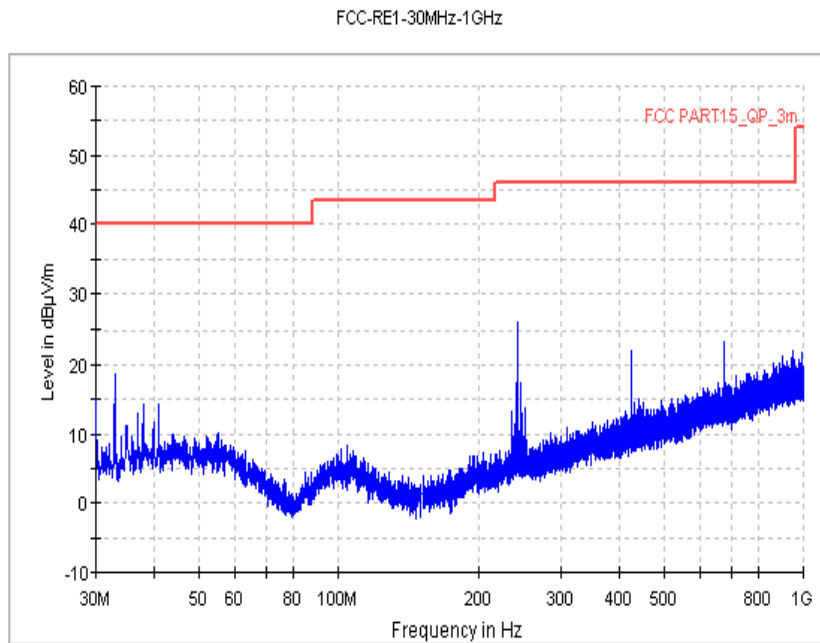


Fig.A.6.2.10 Radiated Spurious Emission (802.11g, Ch6, 30MHz-1 GHz)

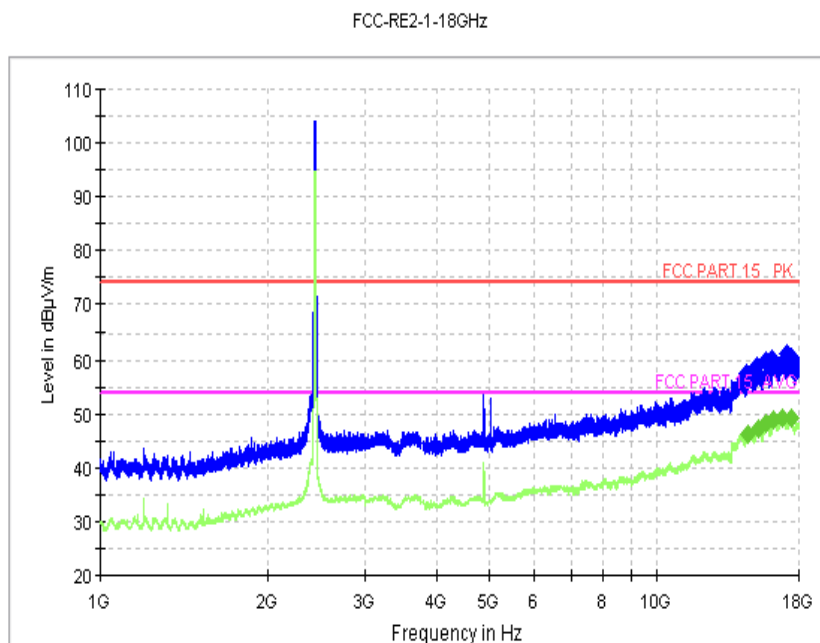


Fig.A.6.2.11 Radiated Spurious Emission (802.11g, Ch6, 1 GHz-18 GHz)

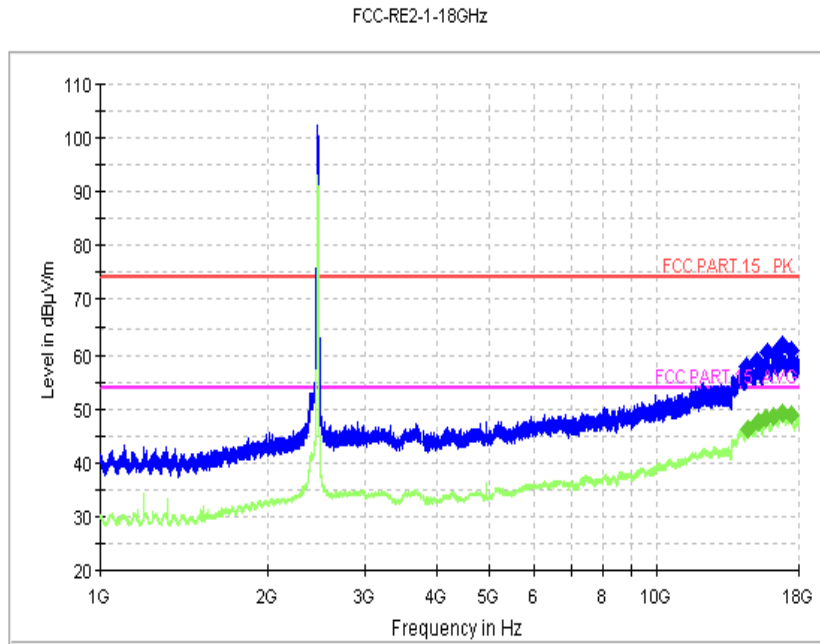


Fig.A.6.2.12 Radiated Spurious Emission (802.11g, Ch11, 1 GHz-18 GHz)

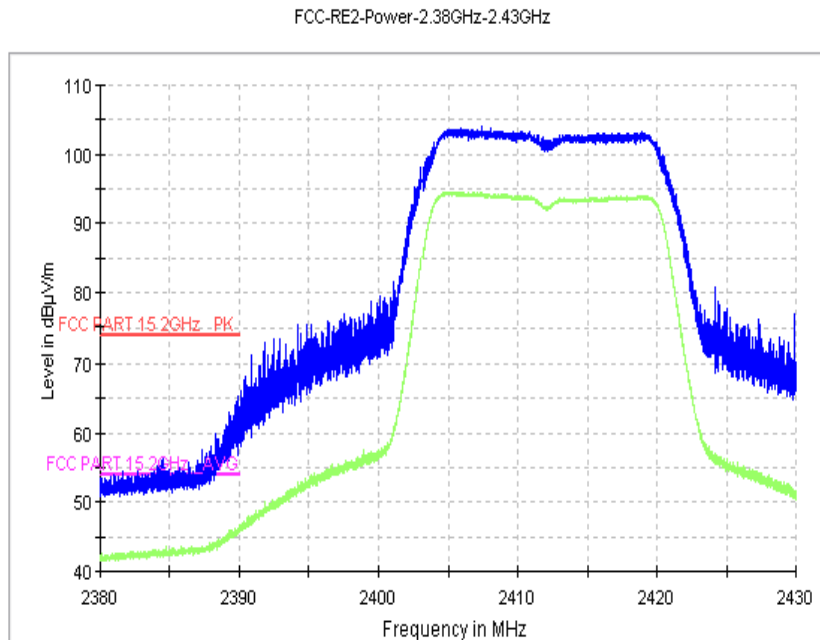


Fig.A.6.2.13 Radiated Emission Power (802.11g, Ch1, 2380GHz~2450GHz)

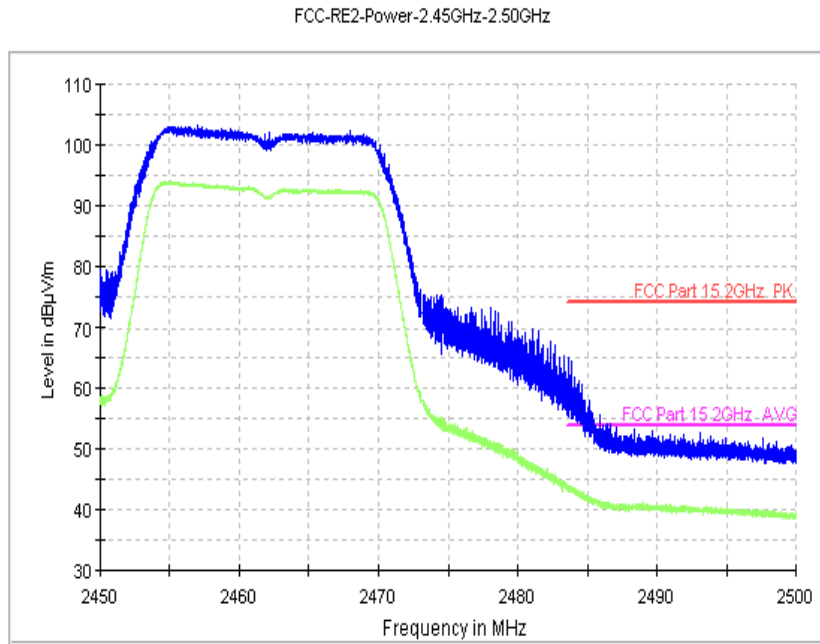


Fig.A.6.2.14 Radiated Emission Power (802.11g, Ch11, 2450GHz~2500GHz)

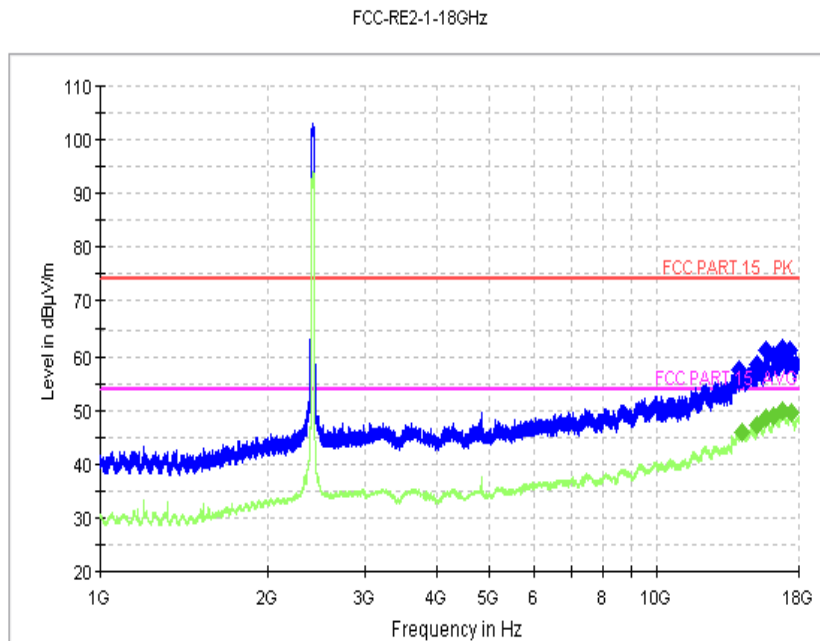


Fig.A.6.2.15 Radiated Spurious Emission (802.11n-20M, Ch1, 1 GHz-18 GHz)

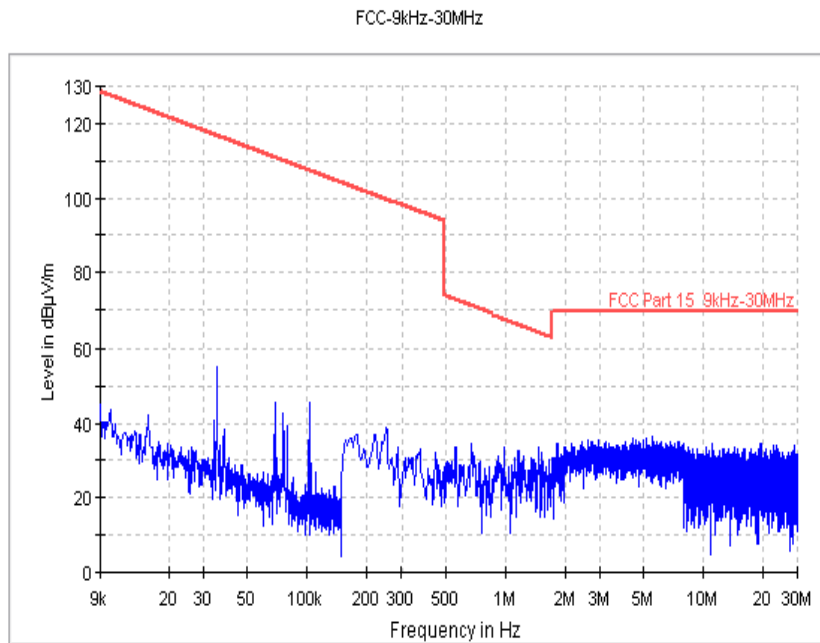


Fig.A.6.2.16 Radiated Spurious Emission (802.11n-20M, Ch6, 9kHz-30MHz)

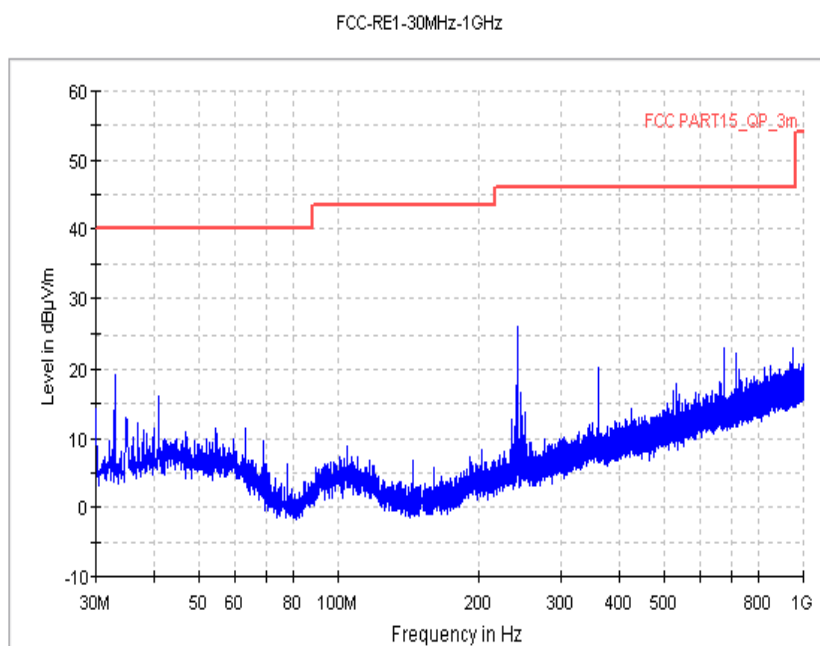


Fig.A.6.2.17 Radiated Spurious Emission (802.11n-20M, Ch6, 30MHz-1 GHz)

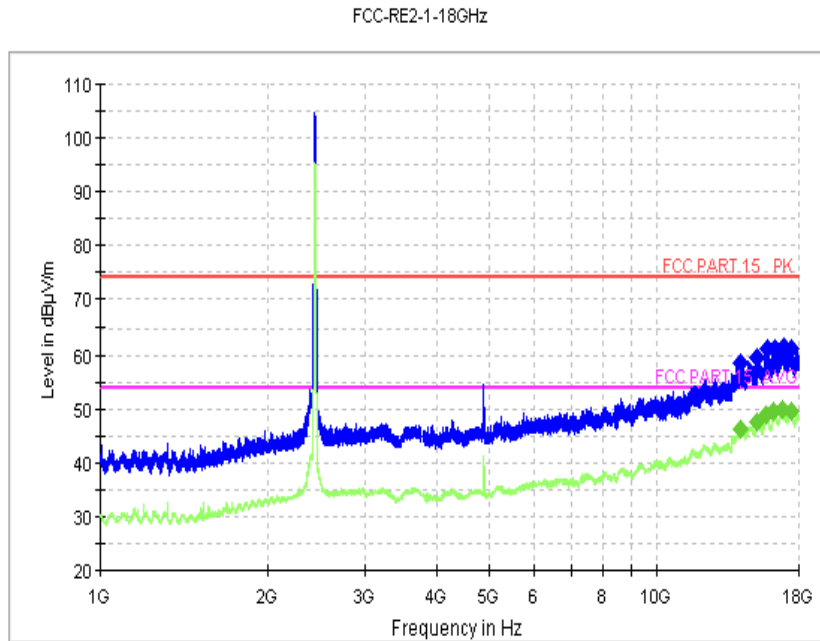


Fig.A.6.2.18 Radiated Spurious Emission (802.11n-20M, Ch6, 1 GHz-18 GHz)

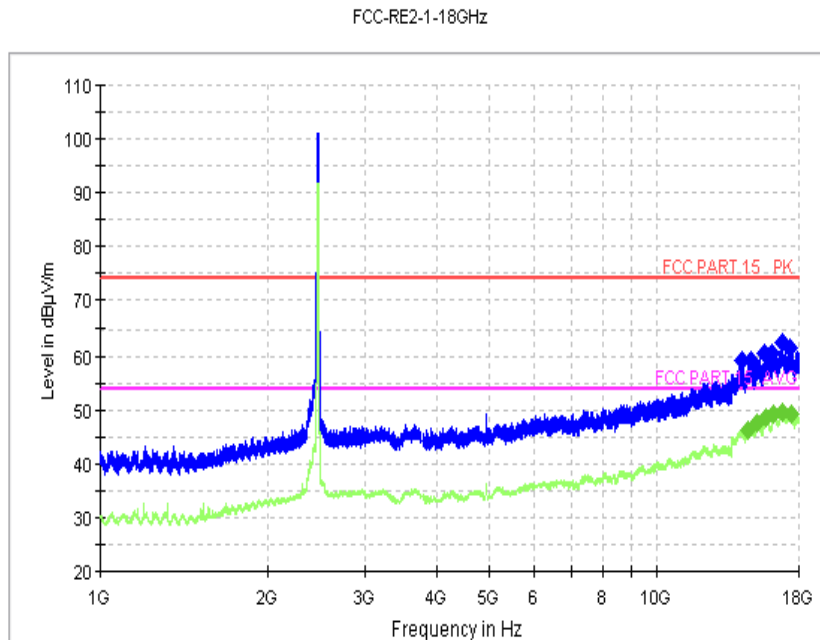


Fig.A.6.2.19 Radiated Spurious Emission (802.11n-20M, Ch11, 1 GHz-18 GHz)

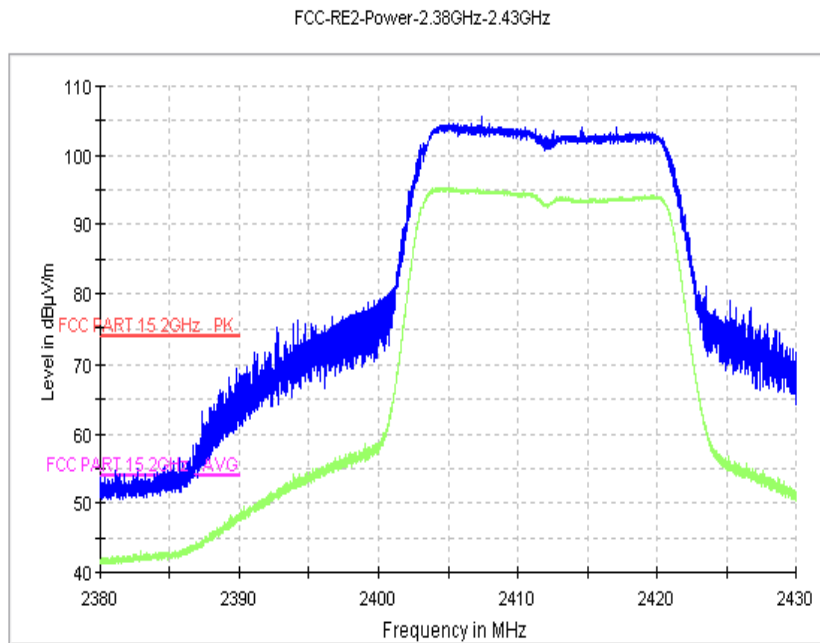


Fig.A.6.2.20 Radiated Emission Power (802.11n-20M, Ch1, 2380GHz~2450GHz)

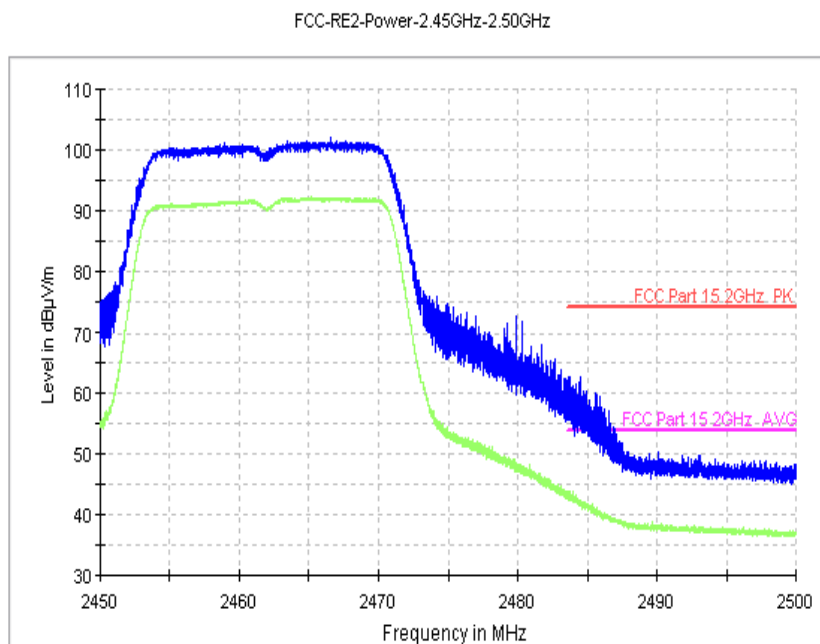


Fig.A.6.2.21 Radiated Emission Power (802.11n-20M, Ch11, 2450GHz~2500GHz)

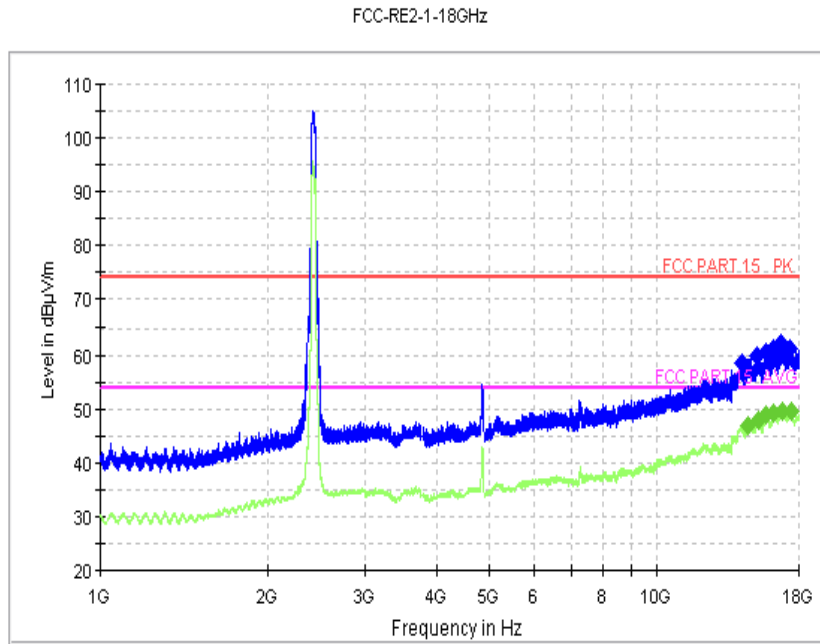


Fig.A.6.2.22 Radiated Spurious Emission (802.11n-40M, Ch3, 1 GHz-18 GHz)

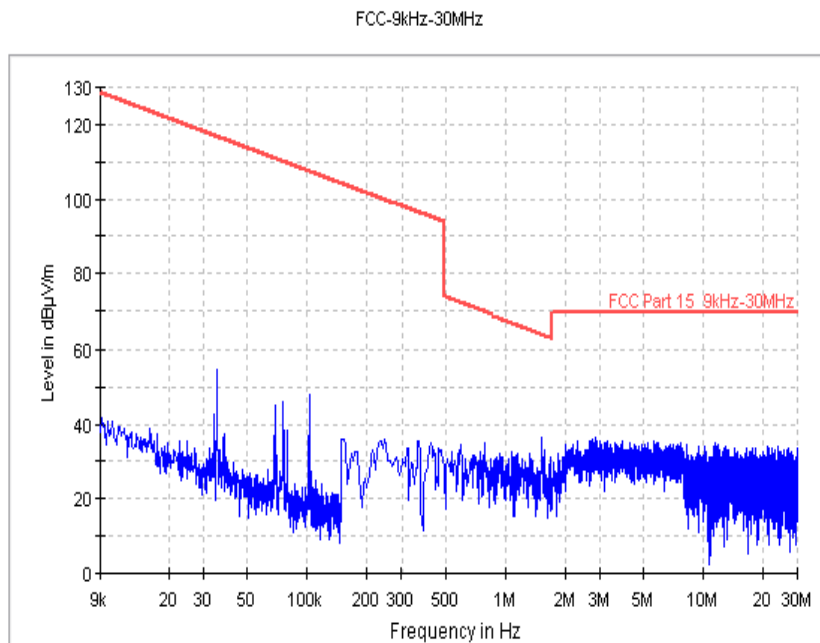


Fig.A.6.2.23 Radiated Spurious Emission (802.11n-40M, Ch3, 9kHz-30MHz)

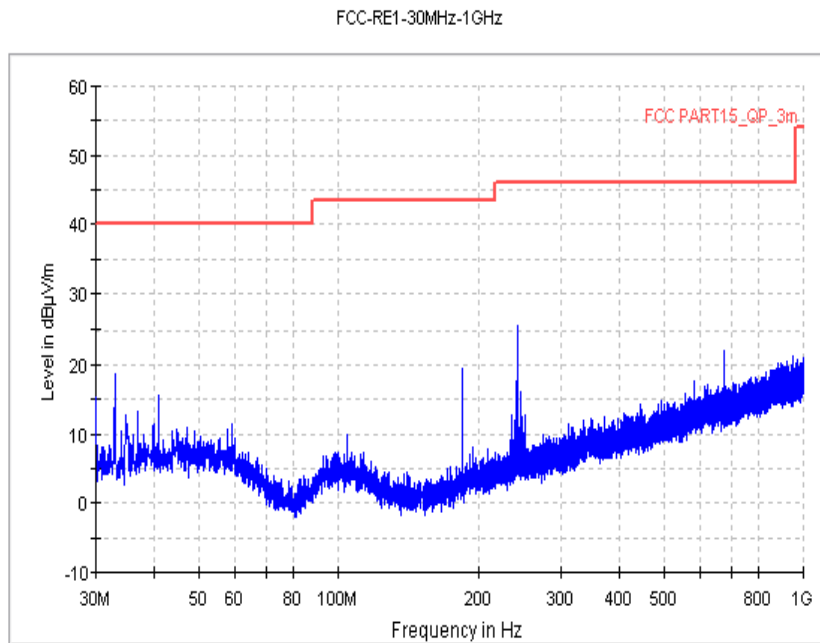


Fig.A.6.2.24 Radiated Spurious Emission (802.11n-40M, Ch6, 30MHz-1 GHz)

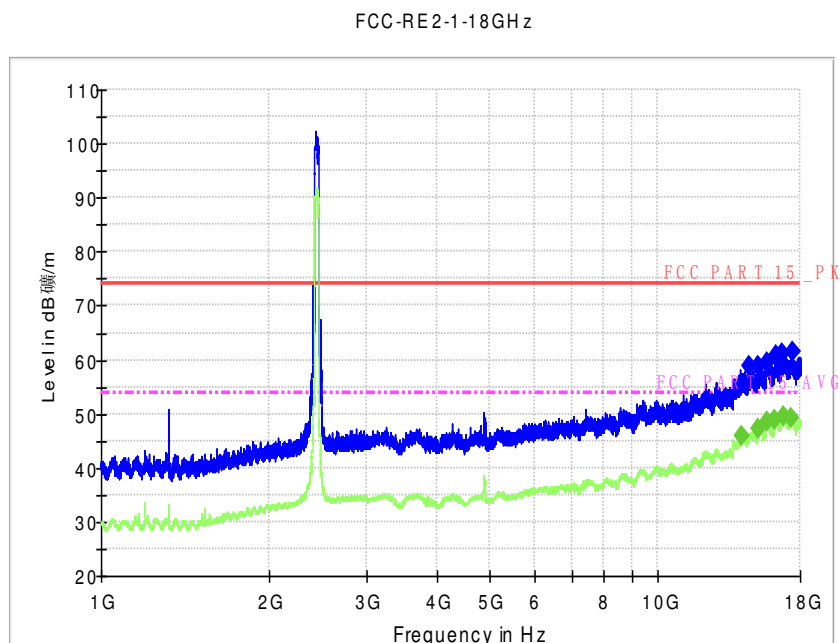


Fig.A.6.2.25 Radiated Spurious Emission (802.11n-40M, Ch6, 1 GHz-18 GHz)

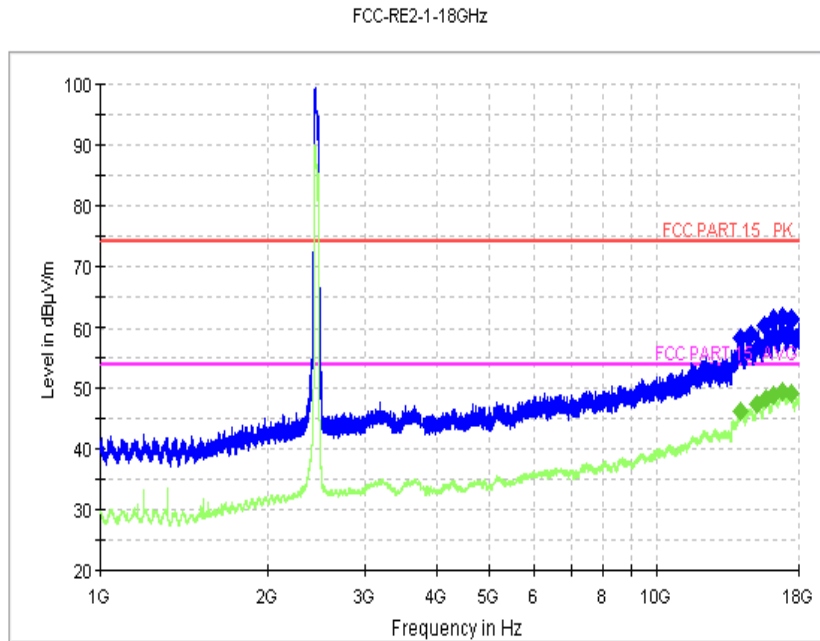


Fig.A.6.2.26 Radiated Spurious Emission (802.11n-40M, Ch9, 1 GHz-18 GHz)

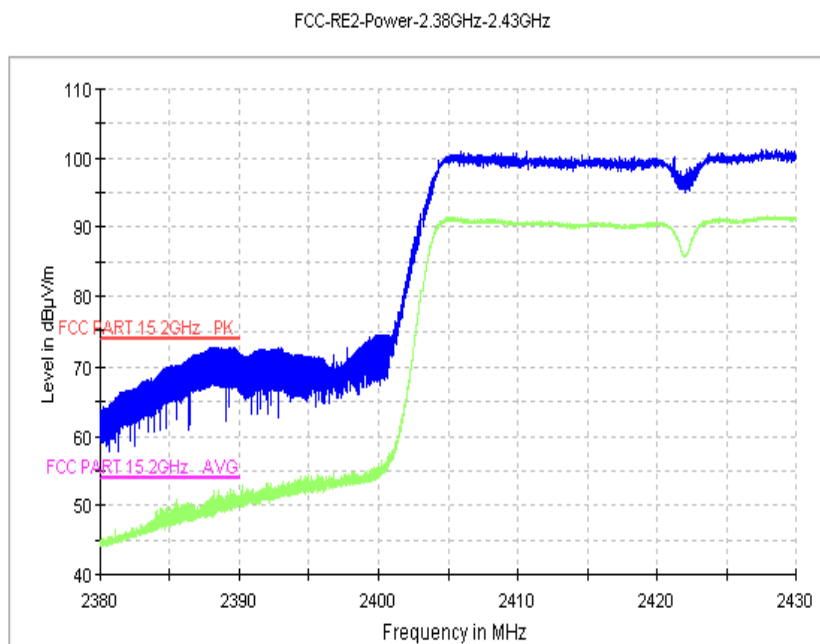


Fig.A.6.2.27 Radiated Emission Power (802.11n-40M, Ch3, 2380GHz~2450GHz)

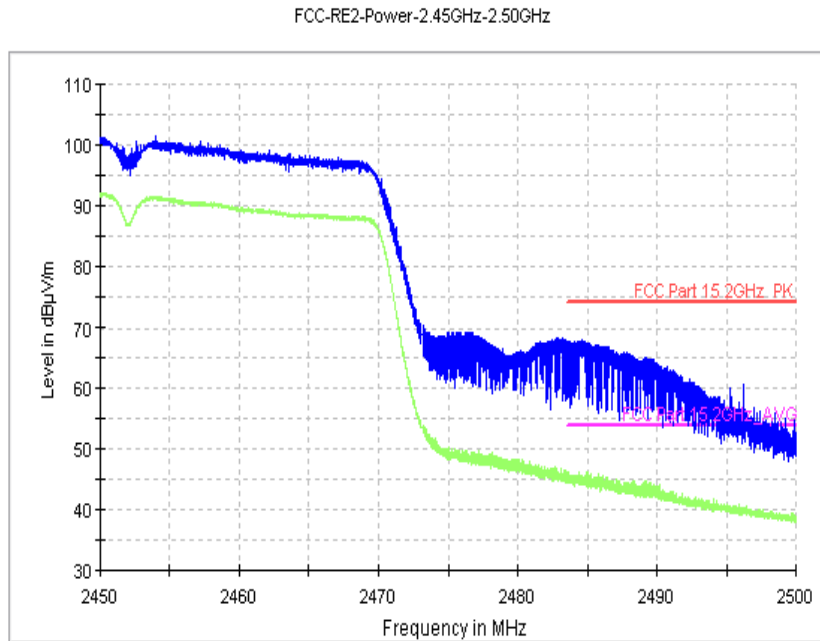


Fig.A.6.2.28 Radiated Emission Power (802.11n-40M, Ch9, 2450GHz~2500GHz)

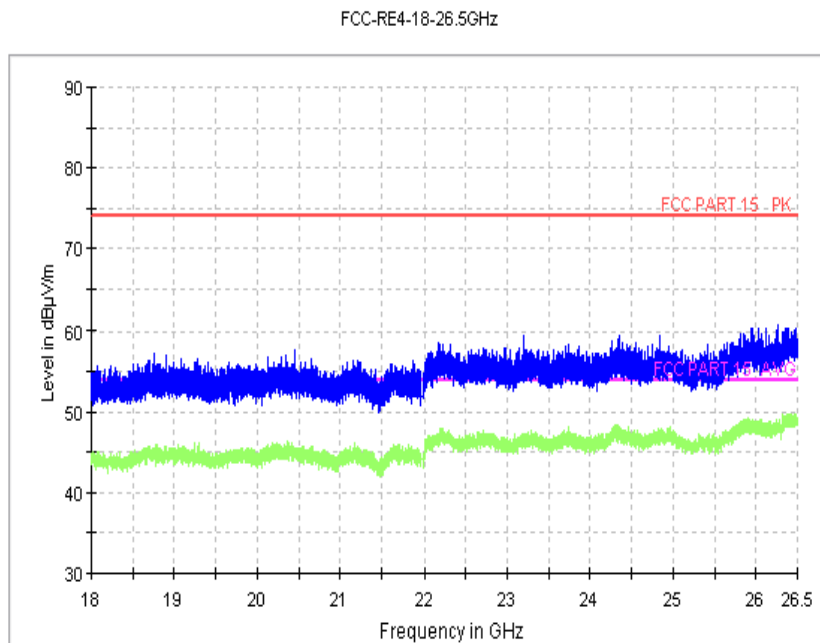


Fig.A.6.2.29 Radiated emission: 18 GHz – 26.5 GHz

A.7. AC Power-line Conducted Emission

Method of Measurement: See ANSI C63.10-2013-clause 6.2

- 1 The one EUT cable configuration and arrangement and mode of operation that produced the emission with the highest amplitude relative to the limit is selected for the final measurement, while applying the appropriate modulating signal to the EUT.
- 2 If the EUT is relocated from an exploratory test site to a final test site, the highest emissions shall be remaximized at the final test location before final ac power-line conducted emission measurements are performed.
- 3 The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment in the system) is then performed for the full frequency range for which the EUT is being tested for compliance without further variation of the EUT arrangement, cable positions, or EUT mode of operation.
- 4 If the EUT is comprised of equipment units that have their own separate ac power connections, e.g., floor-standing equipment with independent power cords for each shelf that are able to connect directly to the ac power network, each current-carrying conductor of one unit is measured while the other units are connected to a second (or more) LISN(s). All units shall be separately measured. If a power strip is provided by the manufacturer, to supply all of the units making up the EUT, only the conductors in the power cord of the power strip shall be measured.
- 5 If the EUT uses a detachable antenna, these measurements shall be made with a suitable dummy load connected to the antenna output terminals; otherwise, the tests shall be made with the antenna connected and, if adjustable, fully extended. When measuring the ac conducted emissions from a device that operates between 150 kHz and 30 MHz a non-detachable antenna may be replaced with a dummy load for the measurements within the fundamental emission band of the transmitter, but only for those measurements.³⁶ Record the six highest EUT emissions relative to the limit of each of the current-carrying conductors of the power cords of the equipment that comprises the EUT over the frequency range specified by the procuring or regulatory agency. Diagram or photograph the test setup that was used. See Clause 8 for full reporting requirements.

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Result (dB μ V)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	66 to 56	Fig.A.7.1	Fig.A.7.2	P
0.5 to 5	56			
5 to 30	60			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dB μ V)	Result (dB μ V)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	56 to 46	Fig.A.7.1	Fig.A.7.2	P
0.5 to 5	46			
5 to 30	50			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

Conclusion: Pass

Test graphs as below:

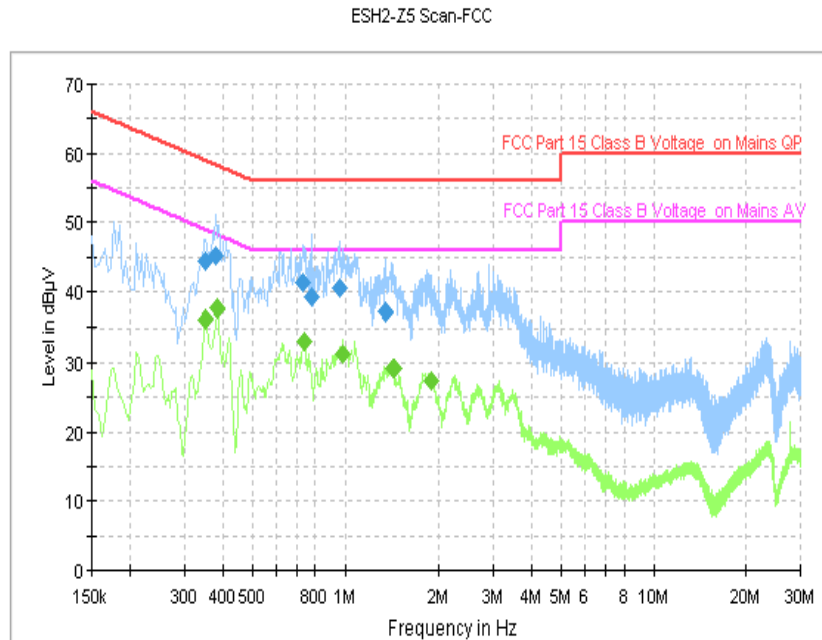


Fig.A.7.1 AC Powerline Conducted Emission-802.11b

Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.350000	44.4	GND	N	10.1	14.6	59.0
0.378000	45.2	GND	N	10.0	13.1	58.3
0.726000	41.3	GND	N	10.0	14.7	56.0
0.782000	39.3	GND	L1	10.1	16.7	56.0
0.958000	40.5	GND	N	10.1	15.5	56.0
1.350000	37.1	GND	N	10.1	18.9	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.350000	36.1	GND	N	10.1	12.9	49.0
0.386000	37.7	GND	N	10.0	10.4	48.1
0.734000	33.1	GND	N	10.0	12.9	46.0
0.982000	31.3	GND	L1	10.1	14.7	46.0
1.430000	29.3	GND	N	10.1	16.7	46.0
1.886000	27.3	GND	N	10.1	18.7	46.0

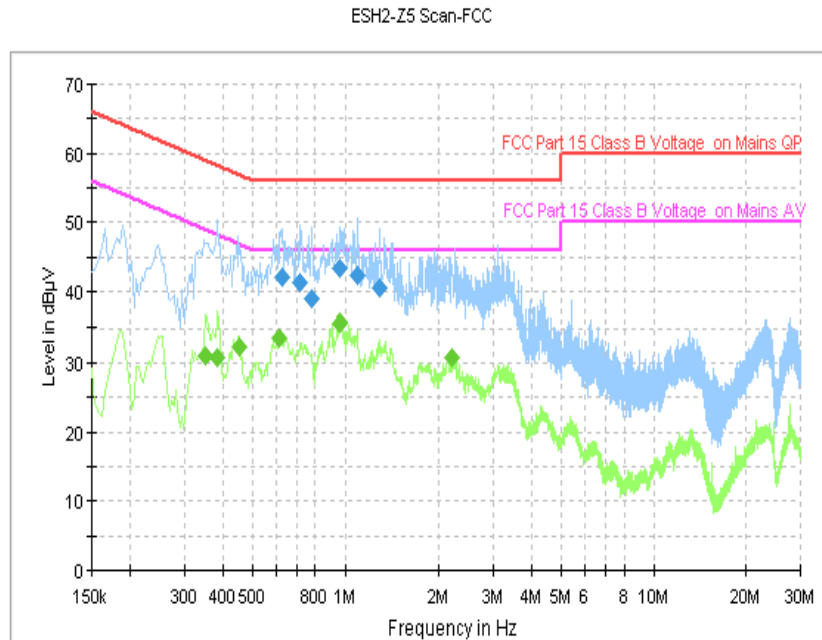


Fig.A.7.2 AC Powerline Conducted Emission-Idle

Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.626000	42.0	GND	N	10.0	14.0	56.0
0.714000	41.3	GND	N	10.0	14.7	56.0
0.782000	39.0	GND	N	10.1	17.0	56.0
0.962000	43.5	GND	N	10.1	12.5	56.0
1.098000	42.5	GND	N	10.1	13.5	56.0
1.298000	40.5	GND	N	10.1	15.5	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.350000	31.1	GND	L1	10.0	17.9	49.0
0.386000	30.8	GND	L1	10.0	17.4	48.1
0.454000	32.3	GND	N	10.1	14.5	46.8
0.614000	33.7	GND	N	10.0	12.3	46.0
0.966000	35.6	GND	N	10.1	10.4	46.0
2.198000	30.8	GND	N	10.2	15.2	46.0

A.8. 99% Occupied Channel Bandwidth

Reference : RSS-Gen 6.6

EUT ID: EUT2

Measurement Result:

802.11b/g mode

Mode	Channel	Occupied Bandwidth (MHz)		conclusion
802.11b	1	Fig.A.8.1	13.04	/
	6	Fig.A.8.2	13.12	/
	11	Fig.A.8.3	12.92	/
802.11g	1	Fig.A.8.4	16.72	/
	6	Fig.A.8.5	17.04	/
	11	Fig.A.8.6	16.80	/

802.11n-HT20 mode

Mode	Channel	Occupied Bandwidth (MHz)		conclusion
802.11n (HT20)	1	Fig.A.8.7	17.72	/
	6	Fig.A.8.8	18.12	/
	11	Fig.A.8.9	17.72	/
802.11n (HT40)	3	Fig.A.8.10	36.40	/
	6	Fig.A.8.11	36.72	/
	9	Fig.A.8.12	36.40	/

Conclusion: N/A

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz
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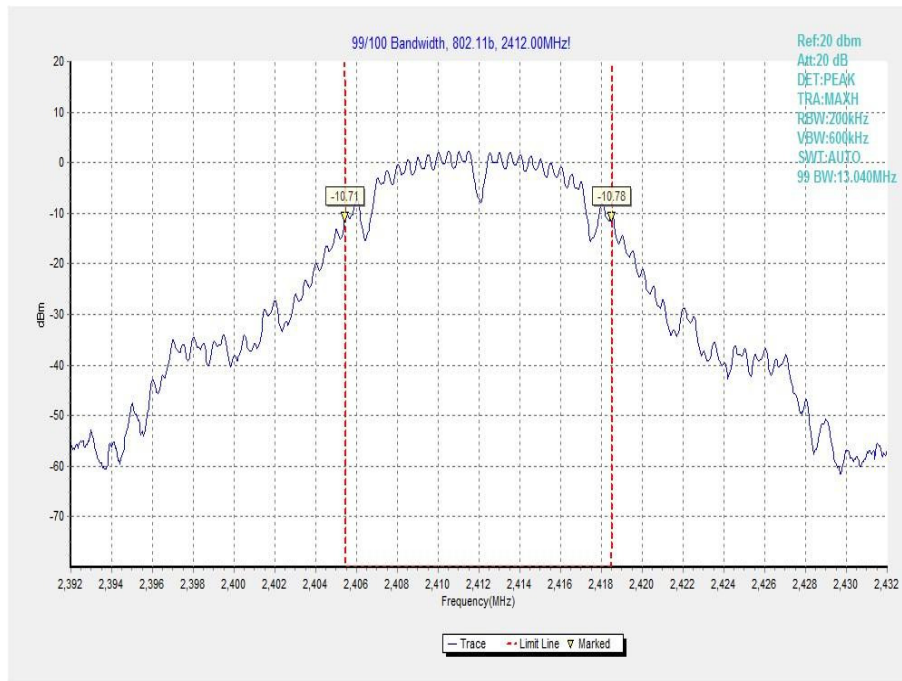


Fig.A.8.1 99% Occupied Bandwidth: (802.11b, Ch 1)

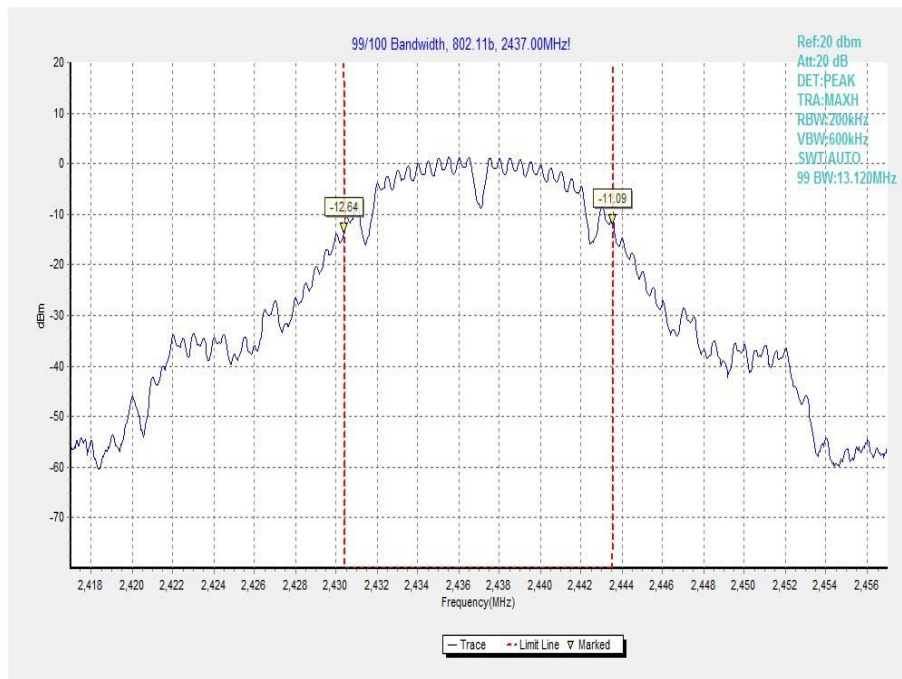


Fig.A.8.2 99% Occupied Bandwidth: (802.11b, Ch 6)

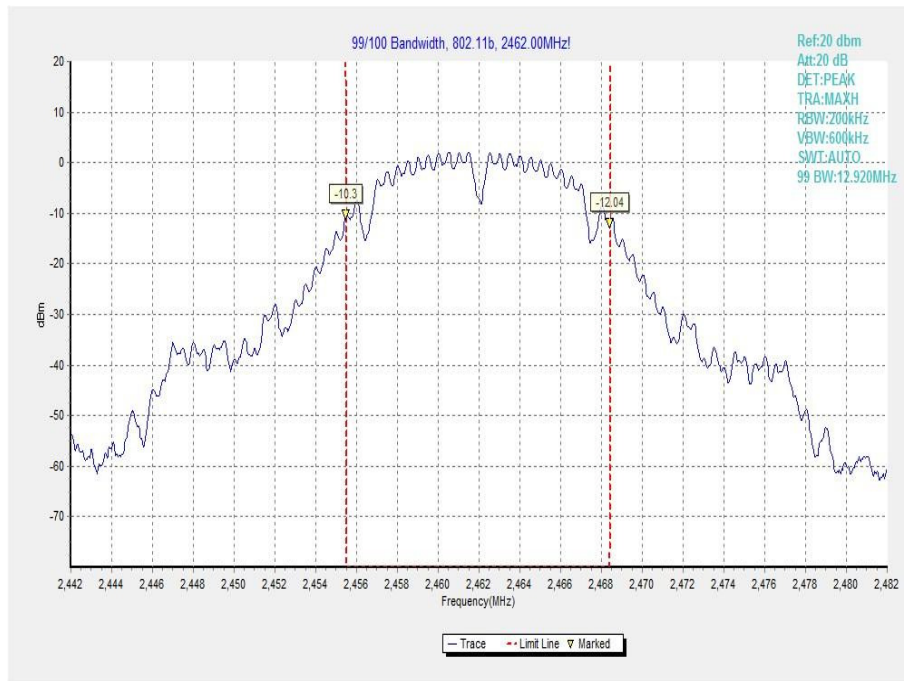


Fig.A.8.3 99% Occupied Bandwidth: (802.11b, Ch 11)

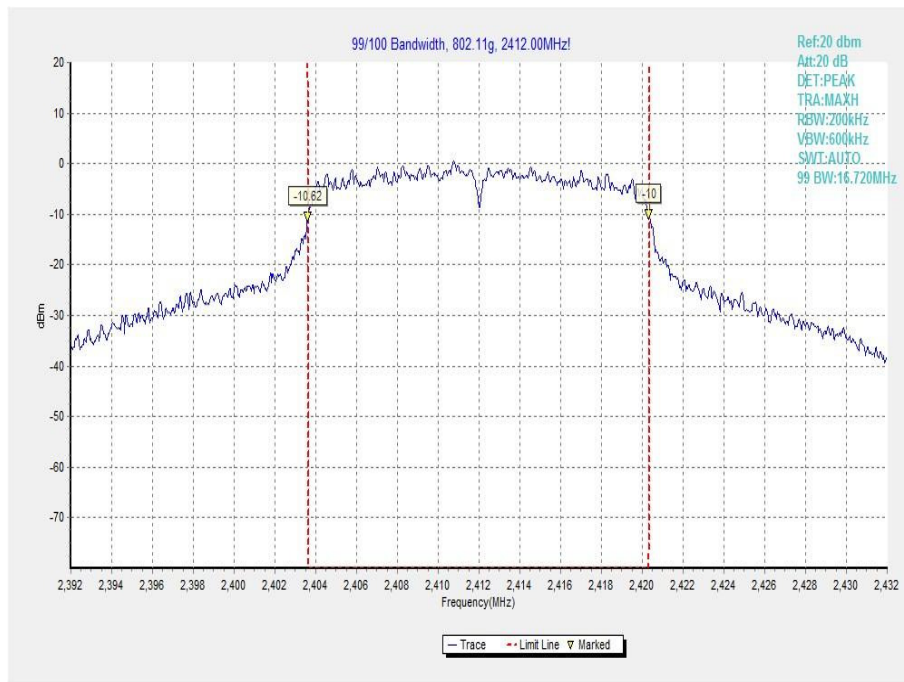


Fig.A.8.4 99% Occupied Bandwidth: (802.11g, Ch 1)

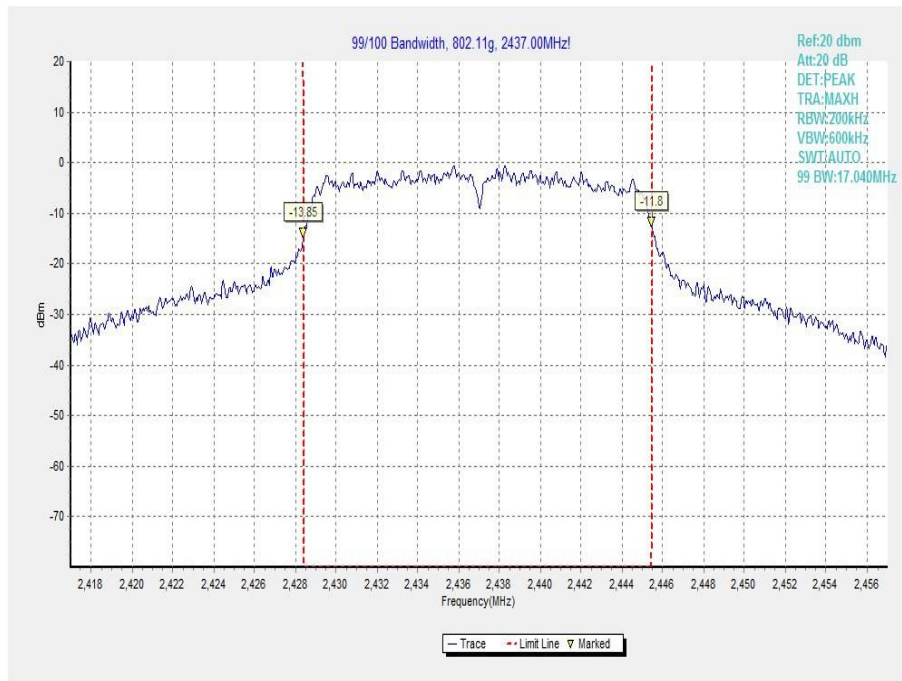


Fig.A.8.5 99% Occupied Bandwidth: (802.11g, Ch 6)

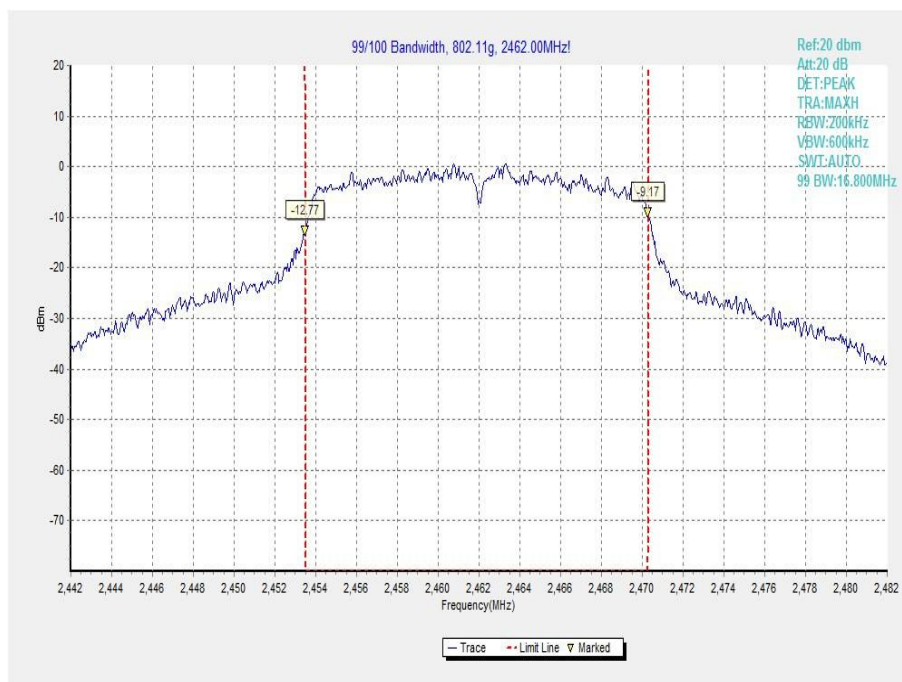


Fig.A.8.6 99% Occupied Bandwidth: (802.11g, Ch 11)

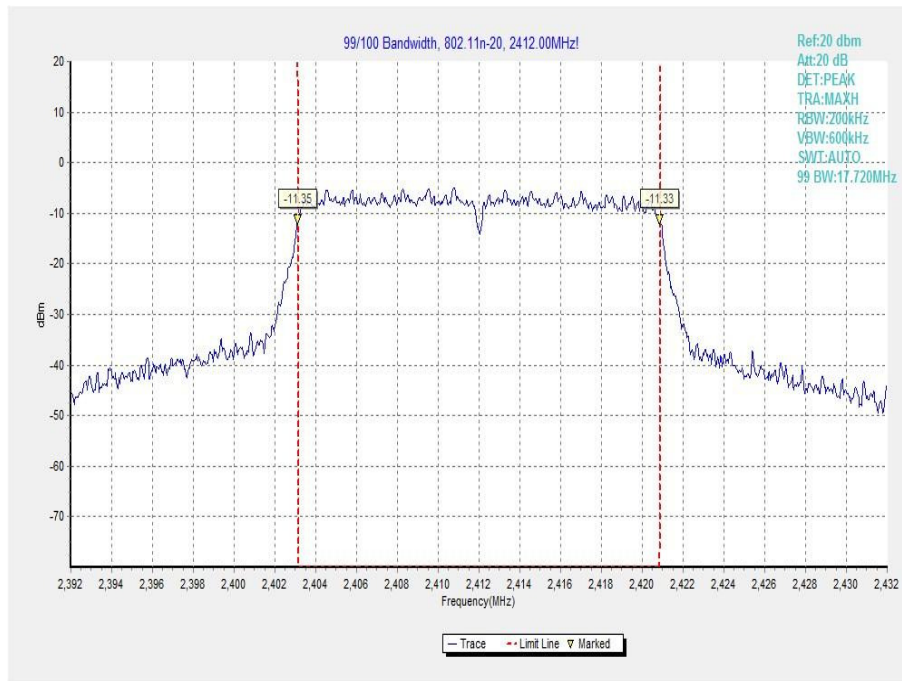


Fig.A.8.7 99% Occupied Bandwidth: (802.11n-HT20, Ch 1)

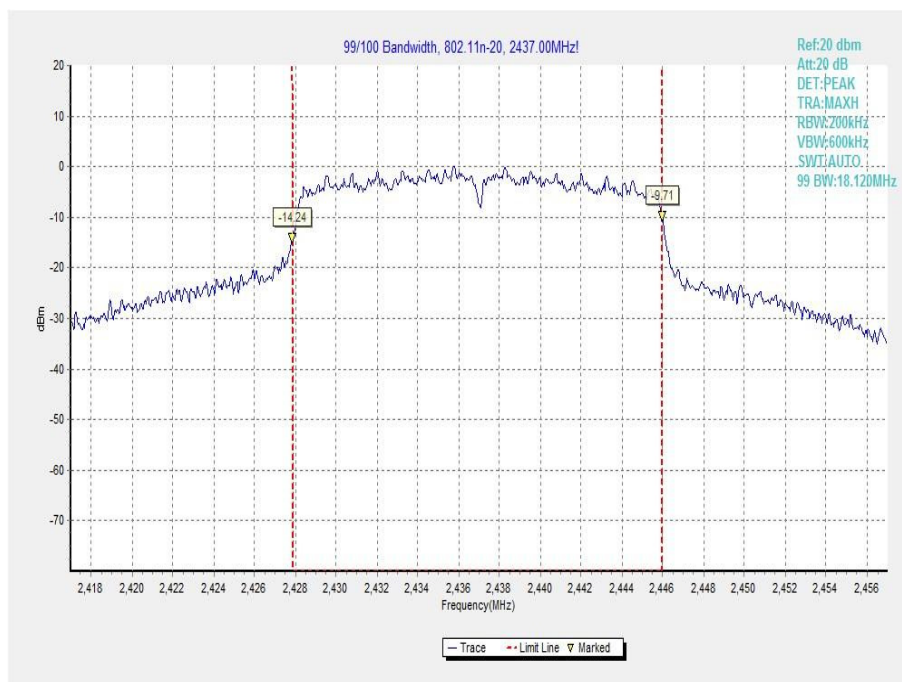


Fig.A.8.8 99% Occupied Bandwidth: (802.11n-HT20, Ch 6)

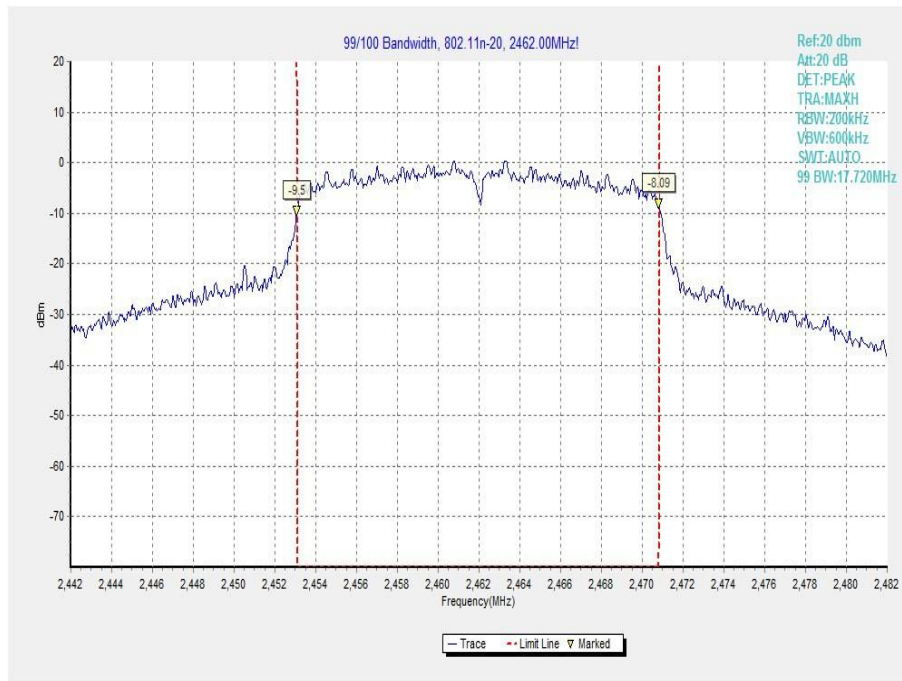


Fig.A.8.9 99% Occupied Bandwidth: (802.11n-HT20, Ch 11)

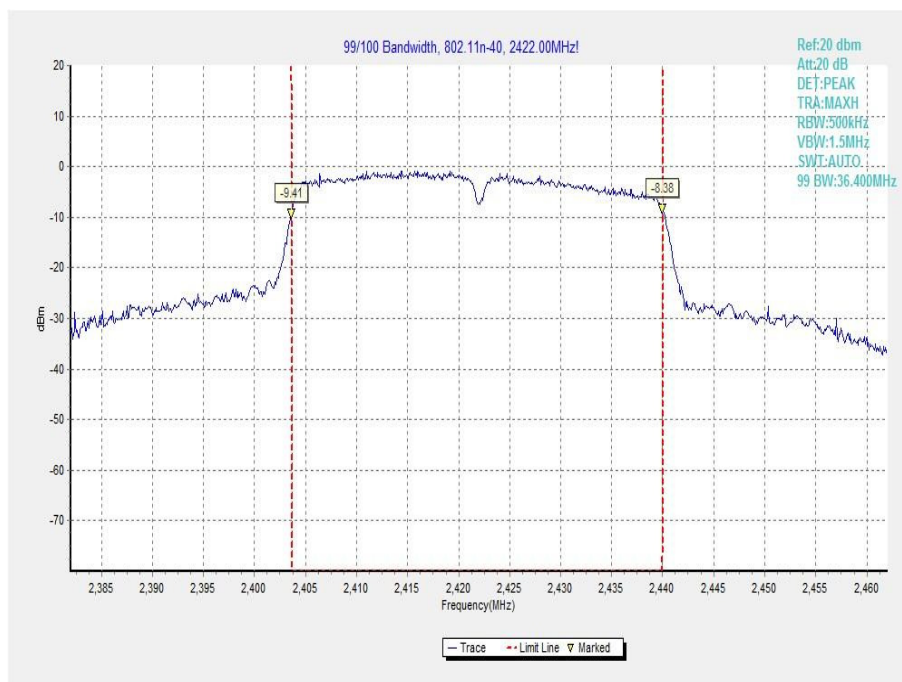


Fig.A.8.10 99% Occupied Bandwidth: (802.11n-HT40, Ch 3)

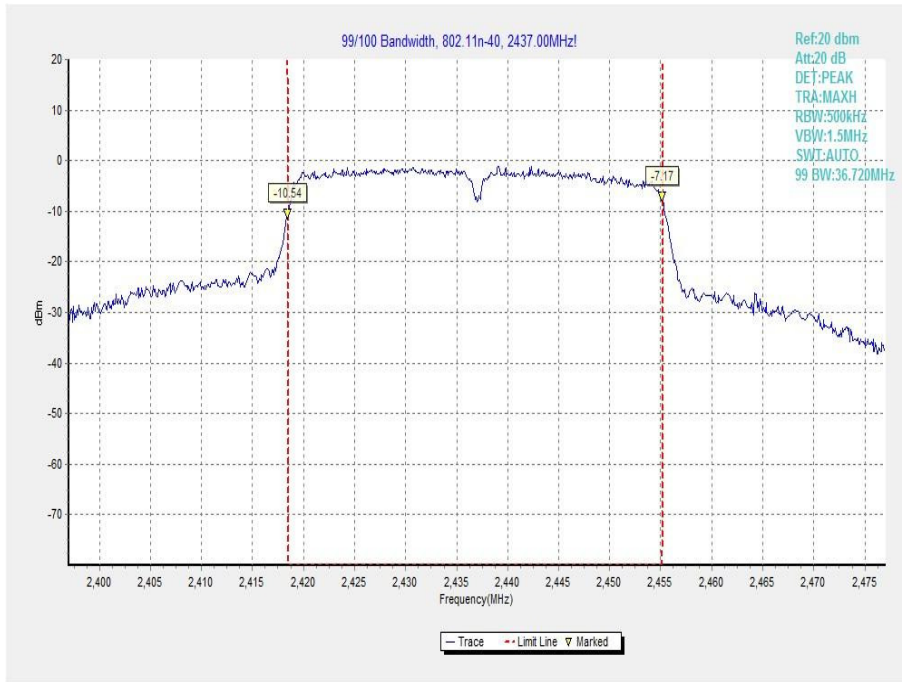


Fig.A.8.11 99% Occupied Bandwidth: (802.11n-HT40, Ch 6)

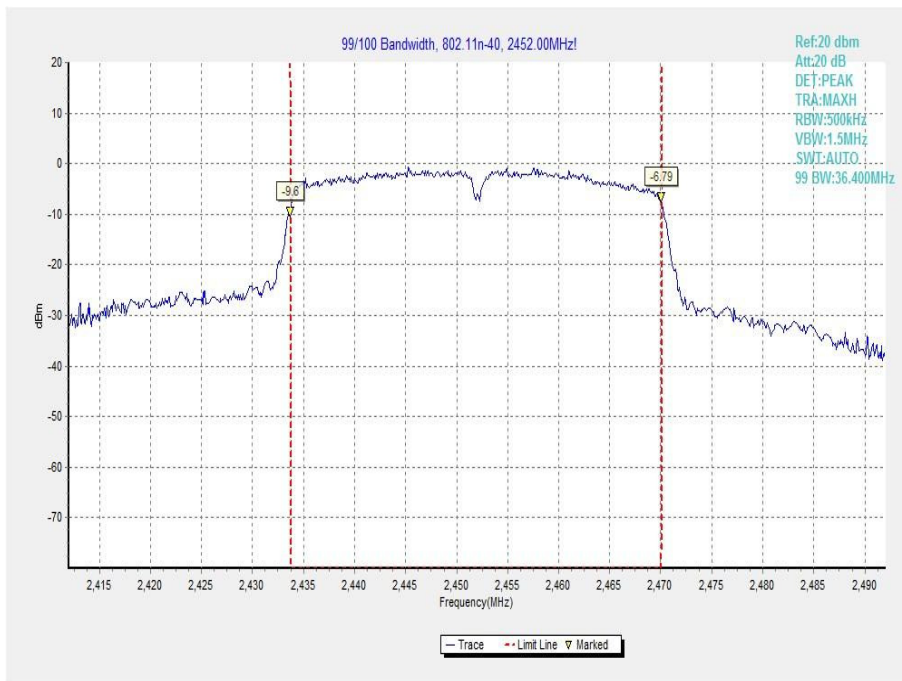


Fig.A.8.12 99% Occupied Bandwidth: (802.11n-HT40, Ch 9)

ANNEX B: Accreditation Certificate



China National Accreditation Service for Conformity Assessment

LABORATORY ACCREDITATION CERTIFICATE

(Registration No. CNAS L0570)

**Telecommunication Technology Labs,
Academy of Telecommunication Research, MIIT**
No.52, Huayuan North Road, Haidian District, Beijing, China

is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence of testing and calibration.

The scope of accreditation is detailed in the attached appendices bearing the same registration number as above. The appendices form an integral part of this certificate.

Date of Issue: 2014-06-20
Date of Expiry: 2017-06-19
Date of Initial Accreditation: 1998-07-03
Date of Update: 2014-06-20



Signed on behalf of China National Accreditation Service
for Conformity Assessment

China National Accreditation Service for Conformity Assessment (CNAS) is authorized by Certification and Accreditation Administration of the People's Republic of China (CACA) to operate the national accreditation schemes for conformity assessment. CNAS is the signatory to International Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (ILAC-MRA) and Asia Pacific Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (APLAC-MRA).

No.CNAS AL 2

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END OF REPORT