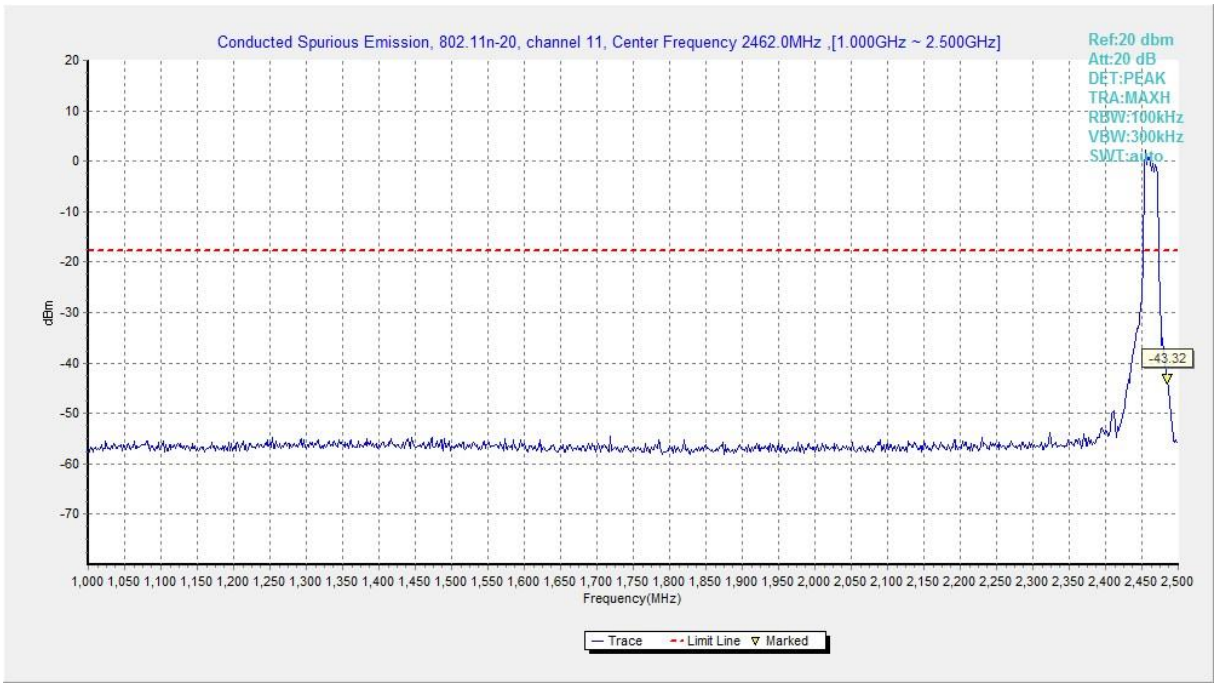


Fig.B.6.1.67 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 1 GHz-2.5 GHz)

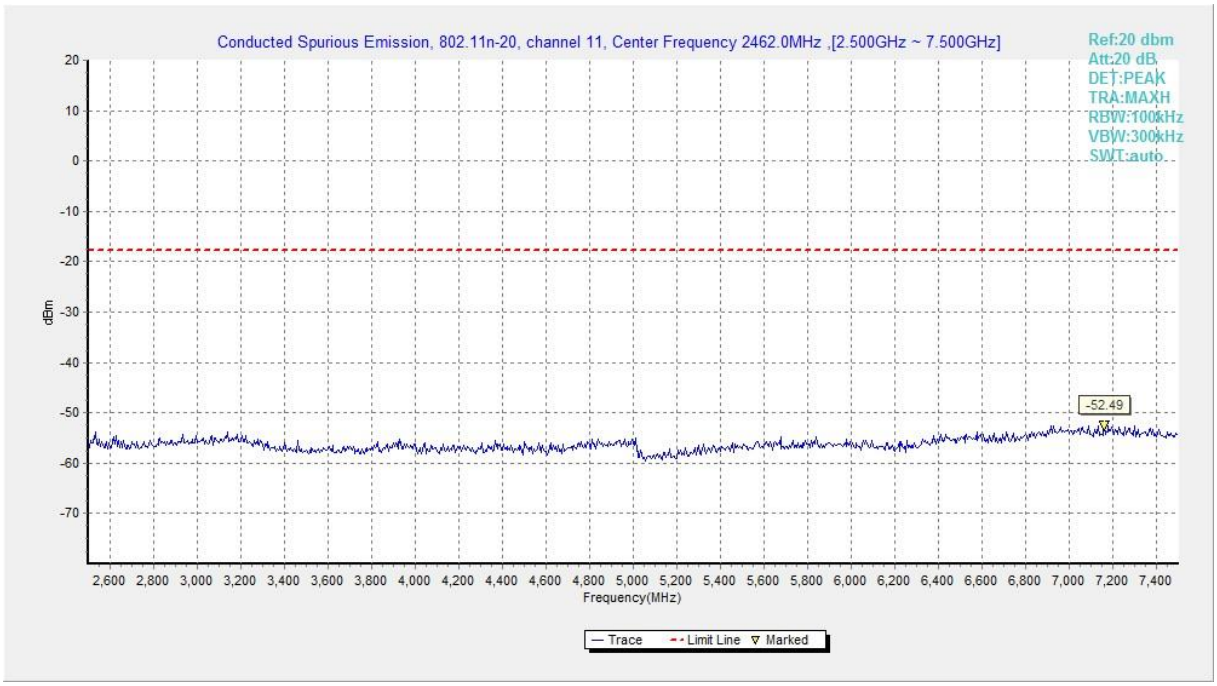


Fig.B.6.1.68 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 2.5 GHz-7.5 GHz)

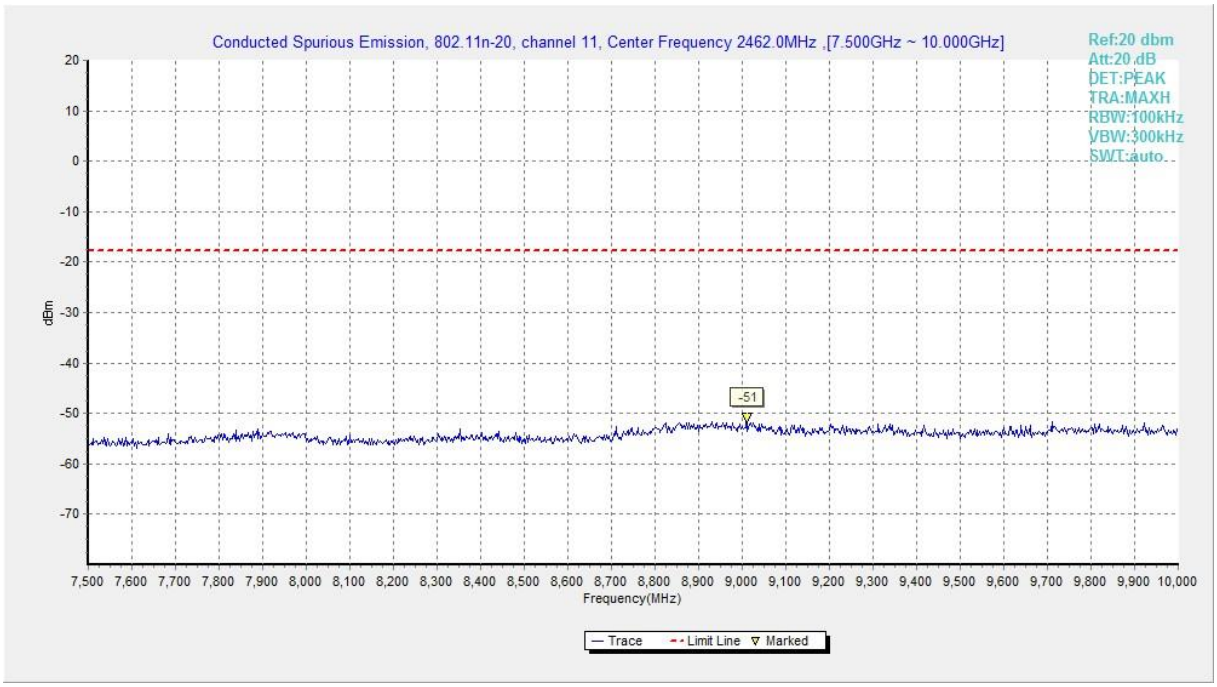


Fig.B.6.1.69 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 7.5 GHz-10 GHz)

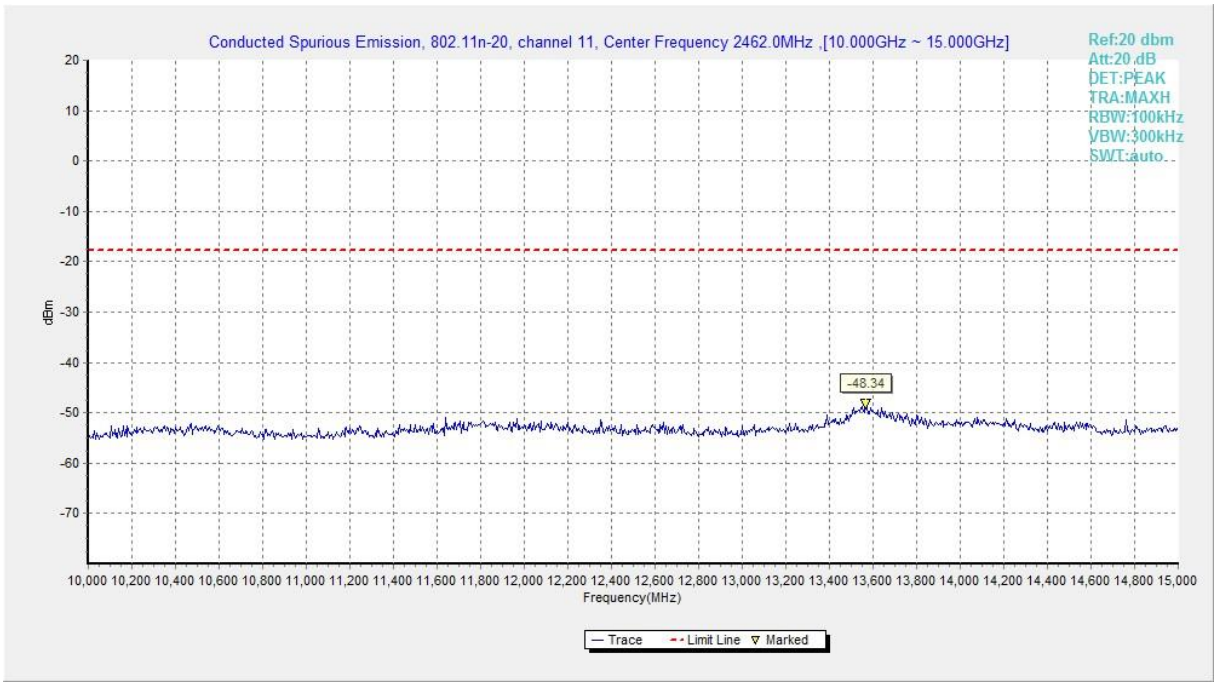


Fig.B.6.1.70 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 10 GHz-15 GHz)

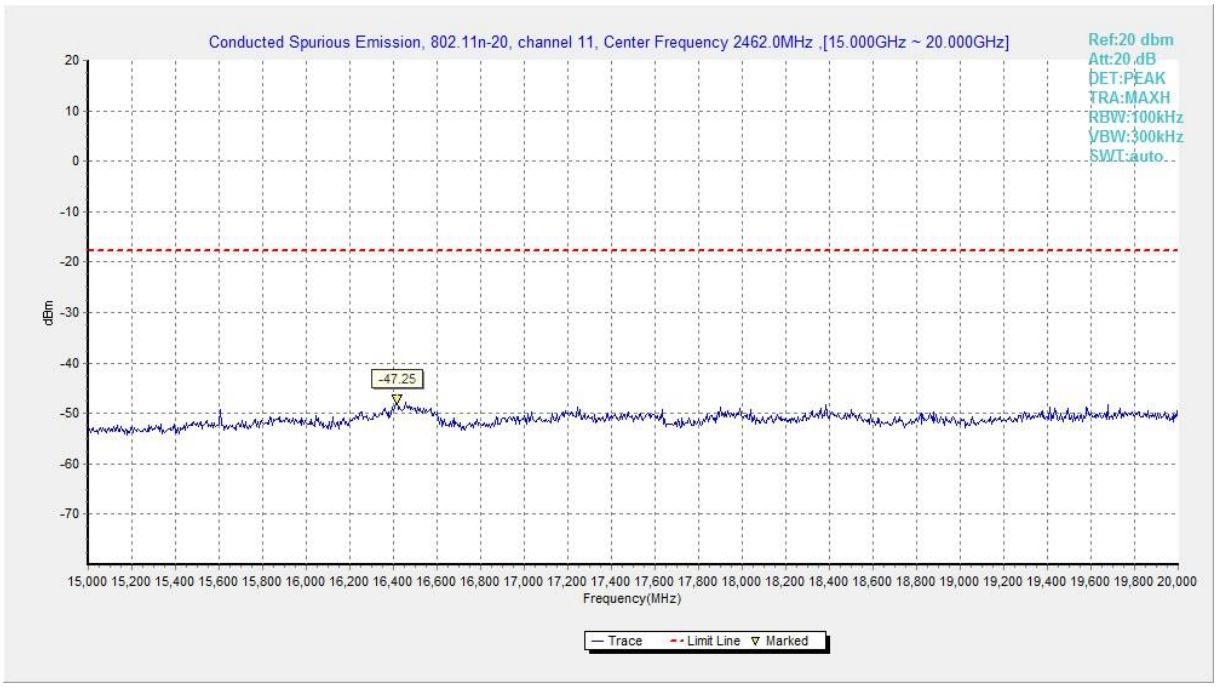


Fig.B.6.1.71 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 15 GHz-20 GHz)

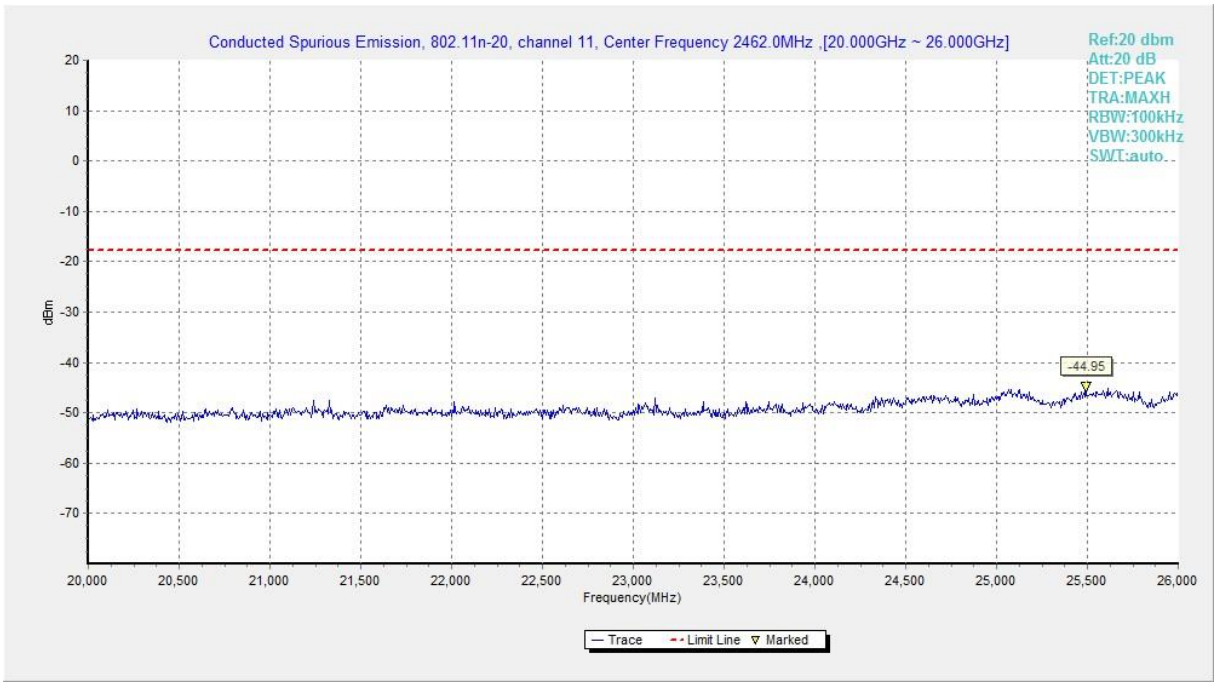


Fig.B.6.1.72 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 20 GHz-26 GHz)

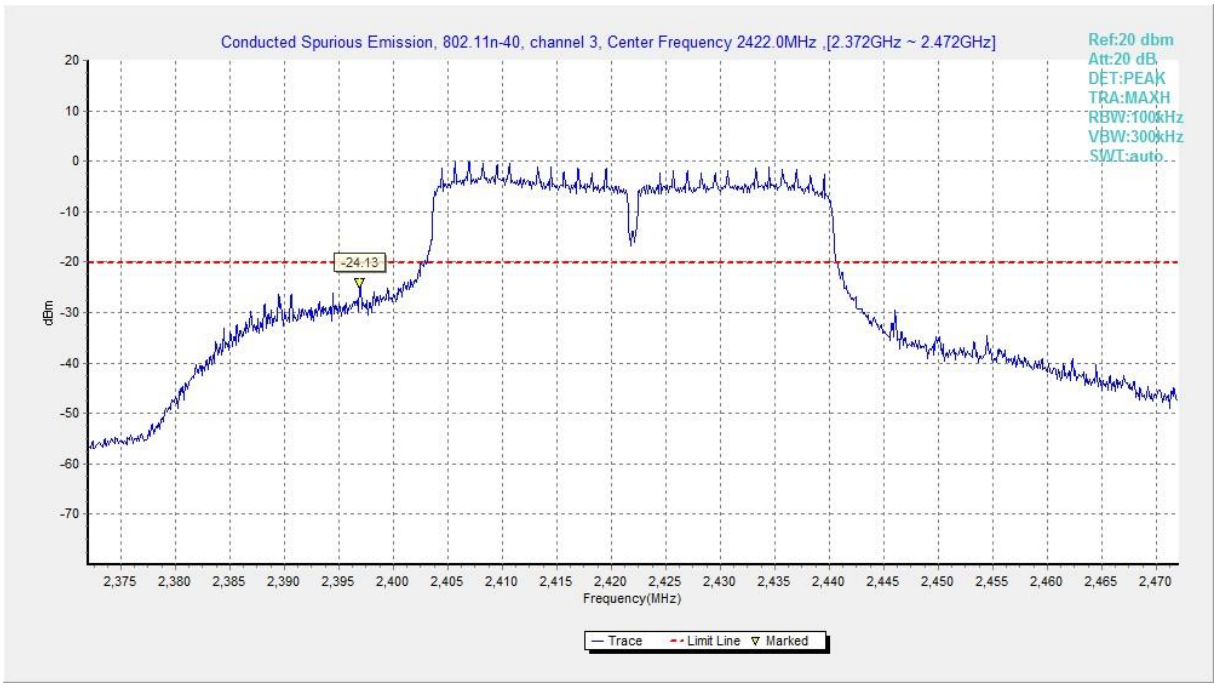


Fig.B.6.1.73 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, Center Frequency)

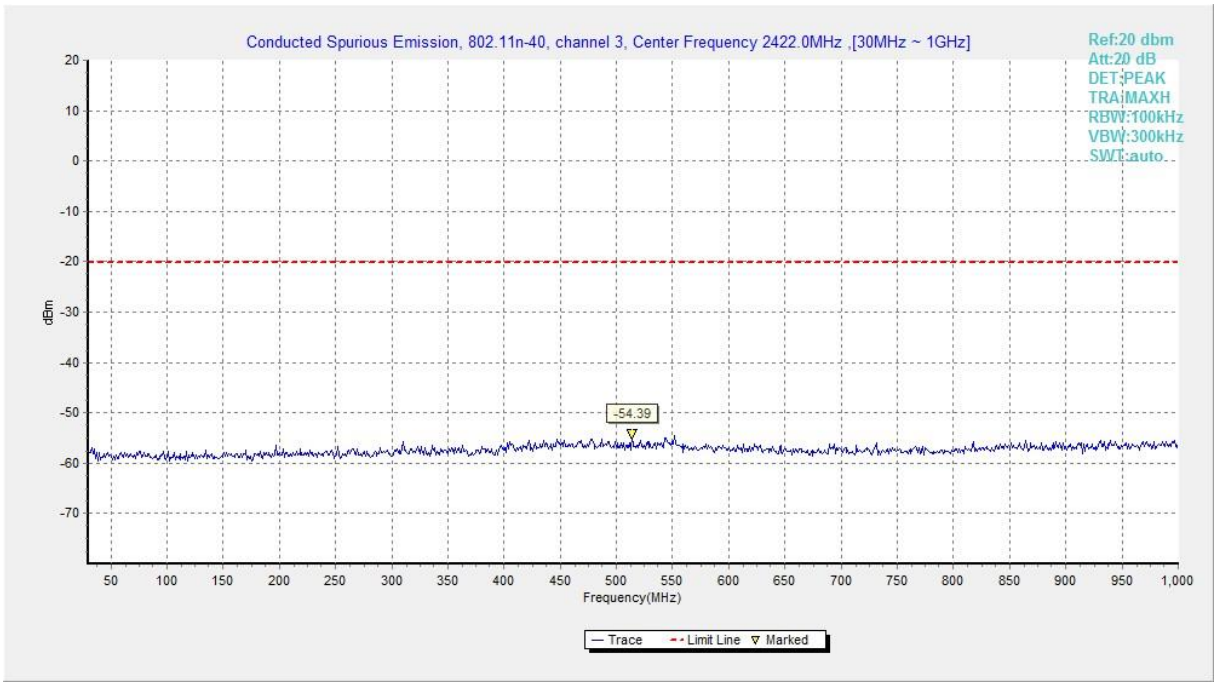


Fig.B.6.1.74 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 30 MHz-1 GHz)

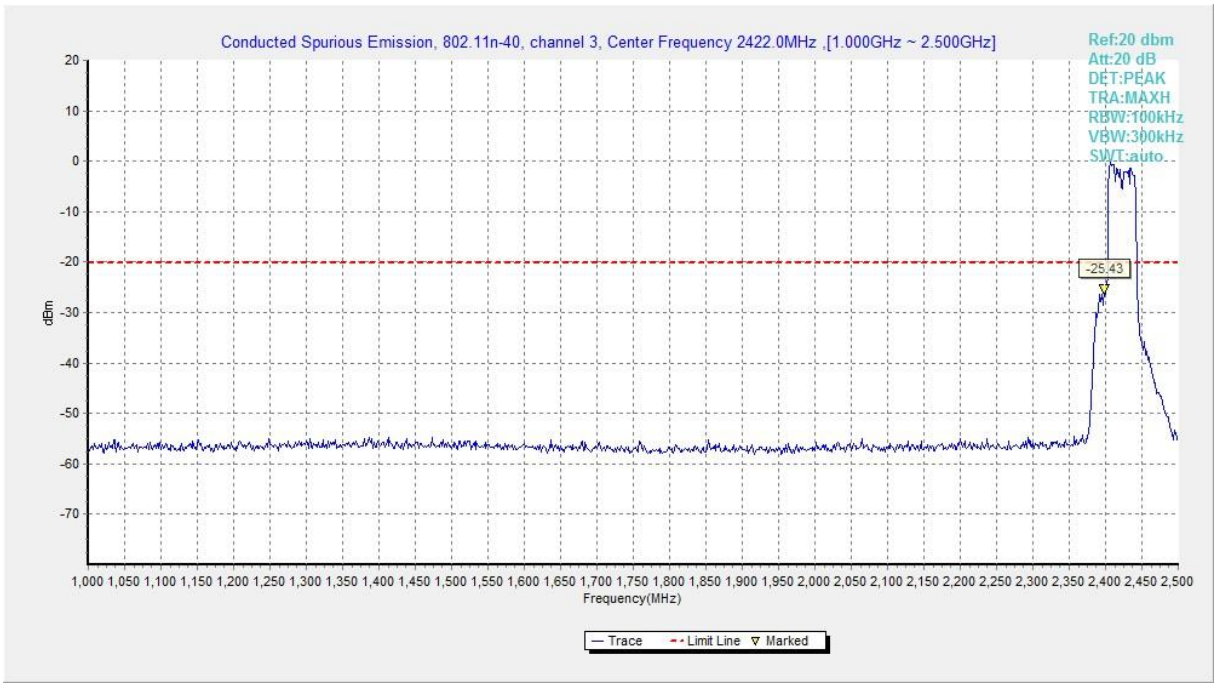


Fig.B.6.1.75 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 1 GHz-2.5 GHz)

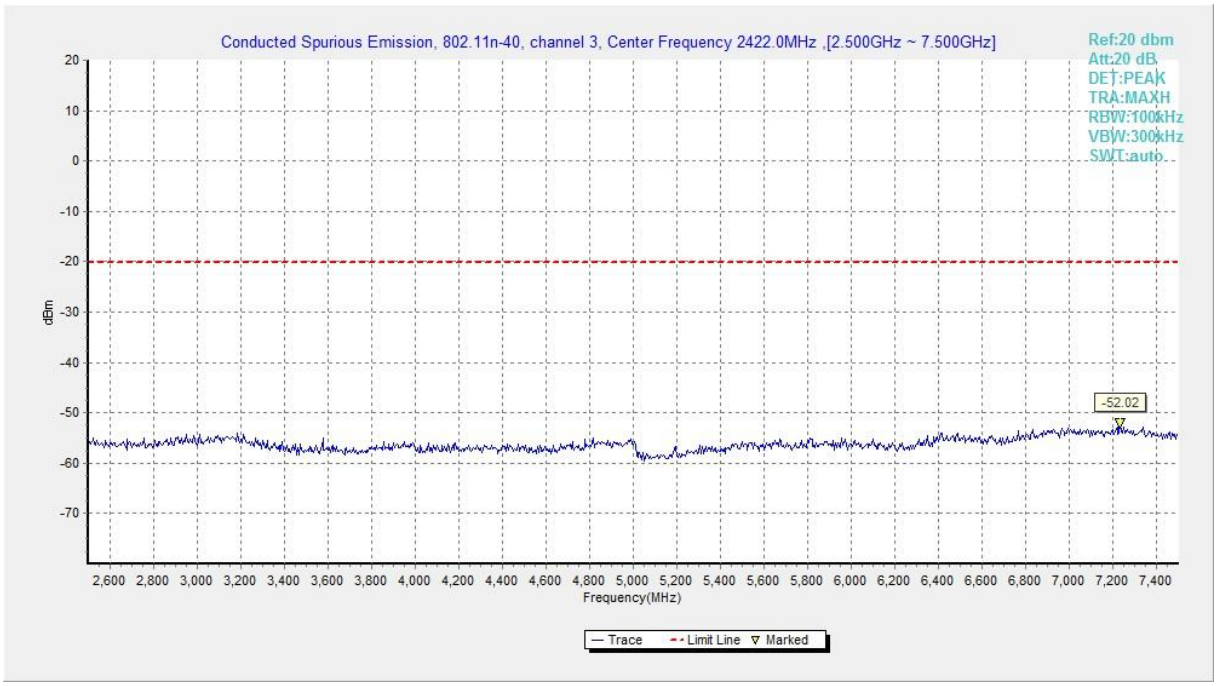


Fig.B.6.1.76 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 2.5 GHz-7.5 GHz)

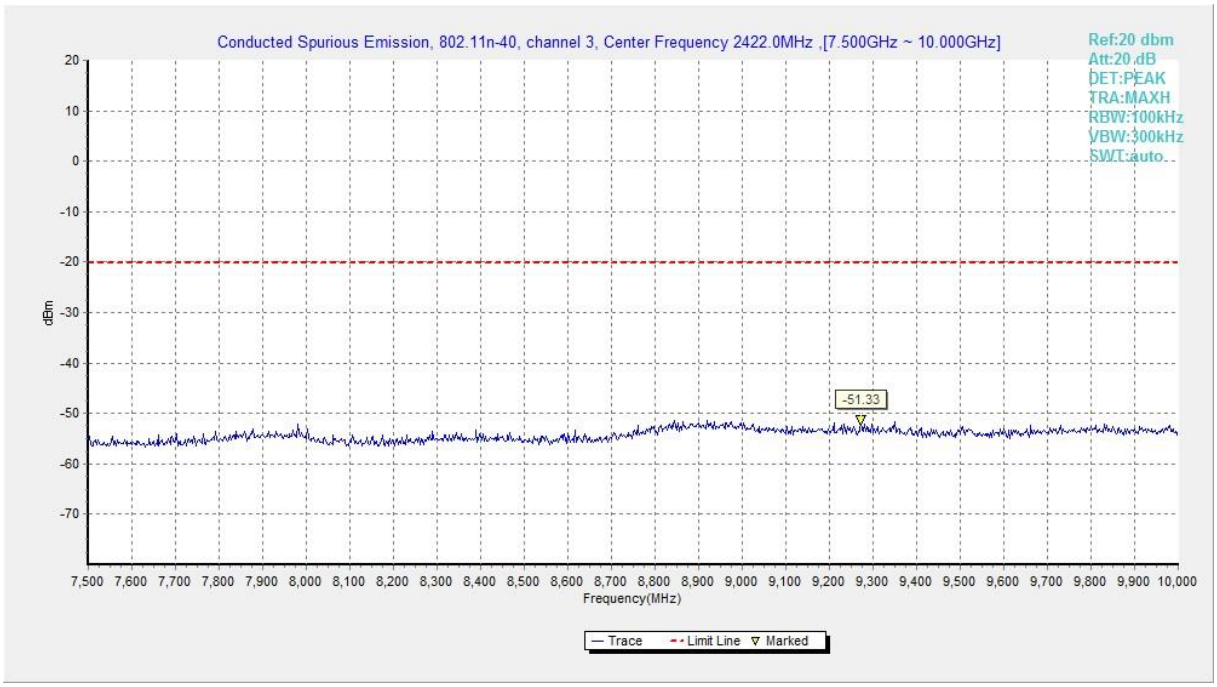


Fig.B.6.1.77 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 7.5 GHz-10 GHz)

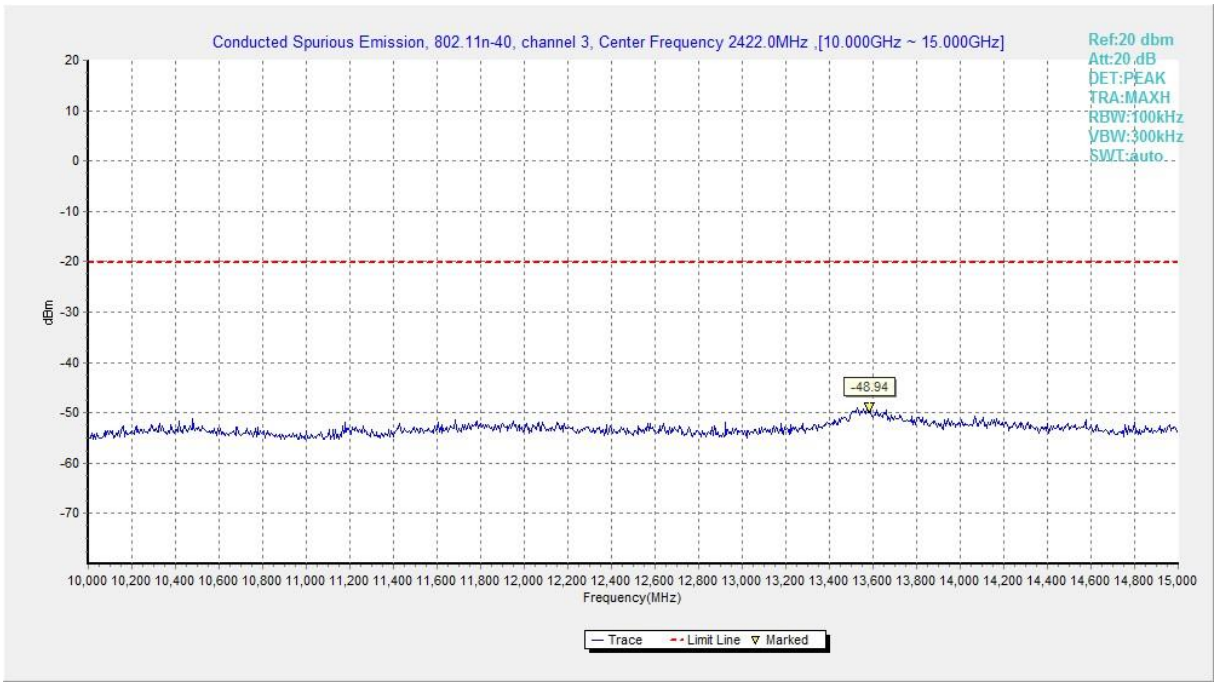


Fig.B.6.1.78 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 10 GHz-15 GHz)

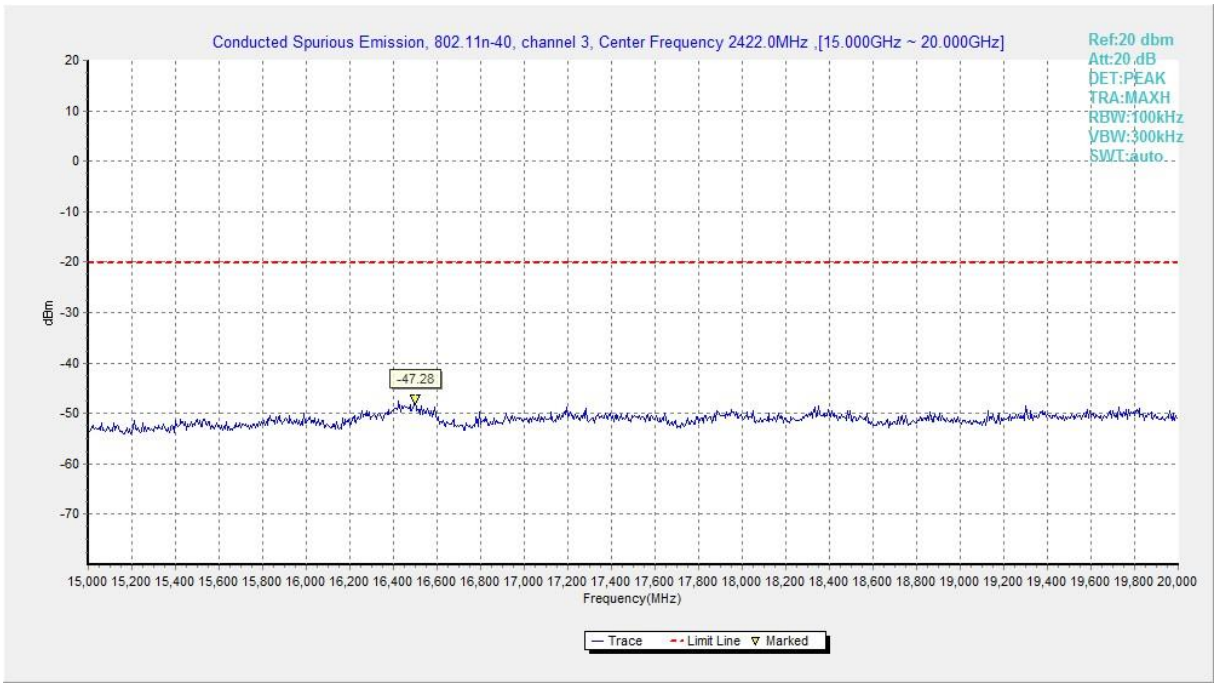


Fig.B.6.1.79 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 15 GHz-20 GHz)

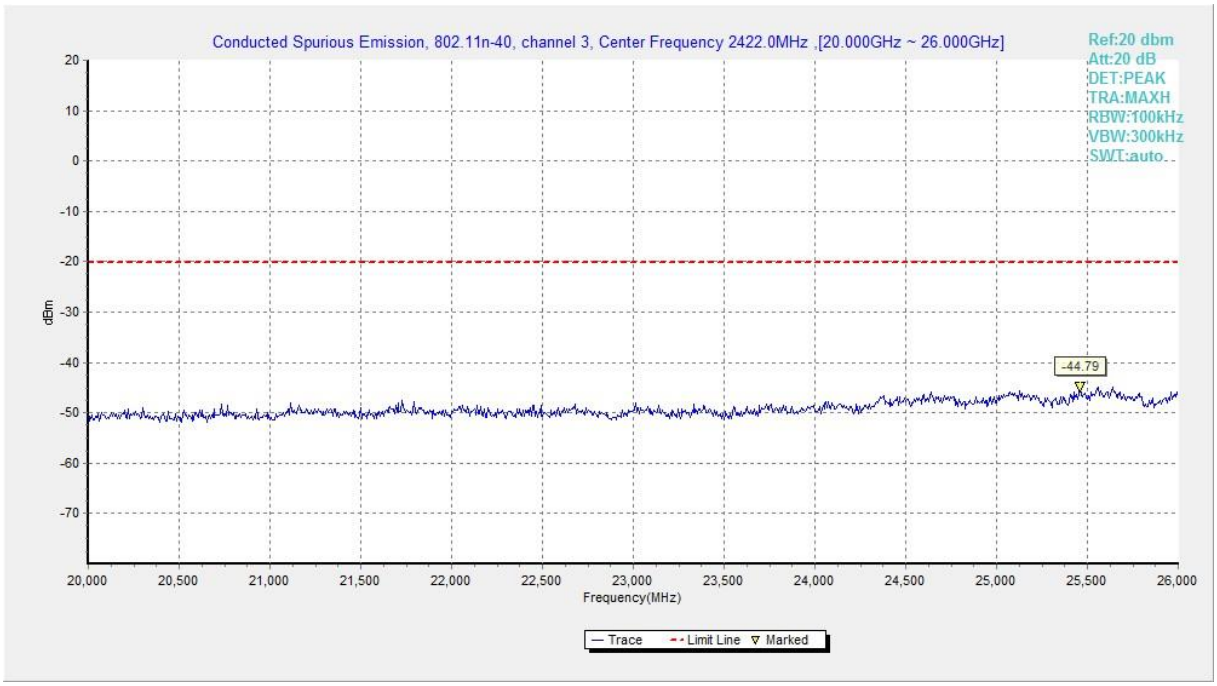


Fig.B.6.1.80 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 20 GHz-26 GHz)

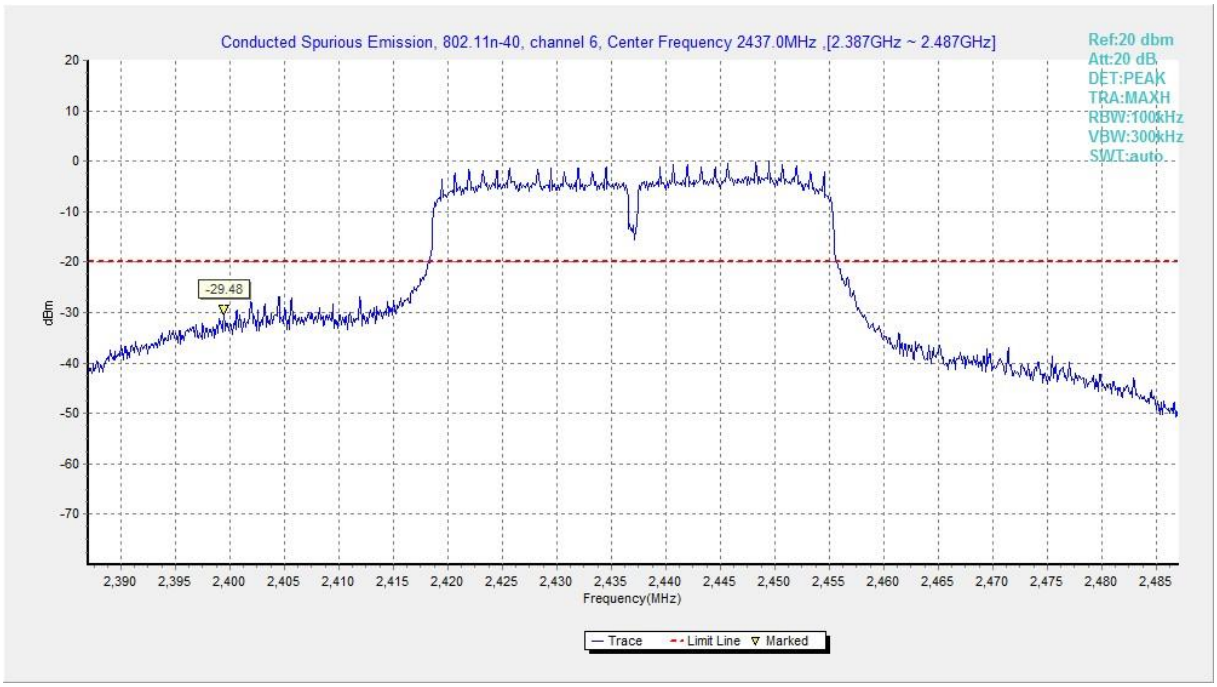


Fig.B.6.1.81 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, Center Frequency)

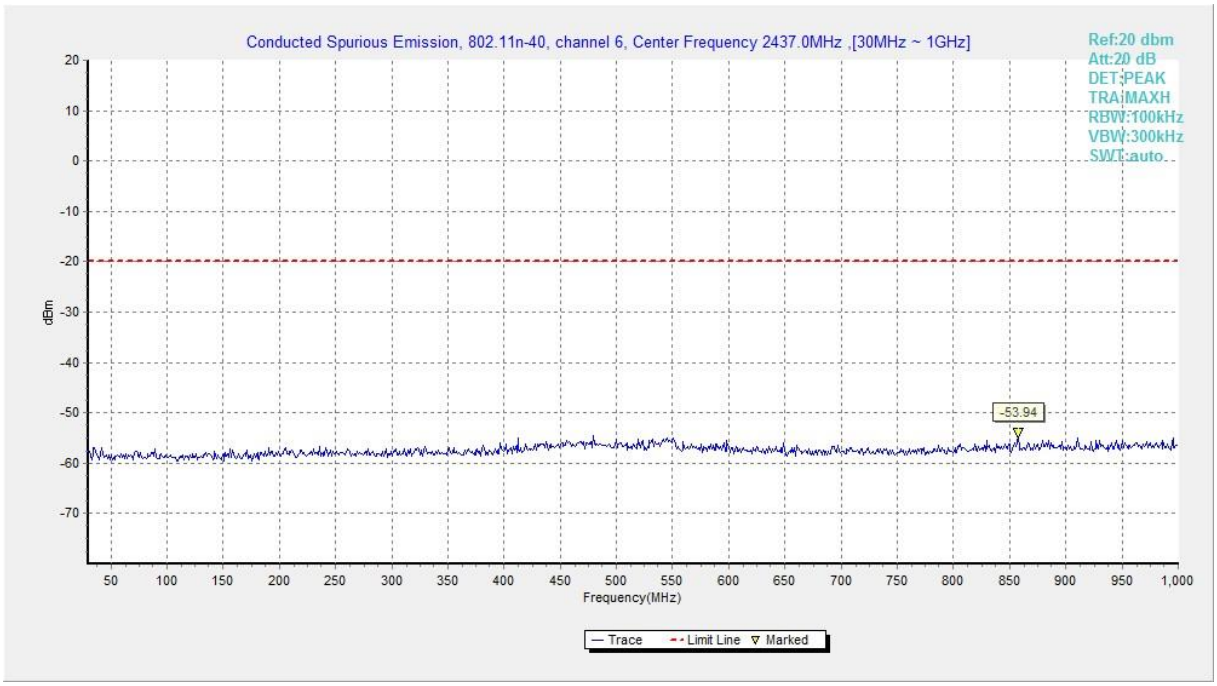


Fig.B.6.1.82 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 30 MHz-1 GHz)

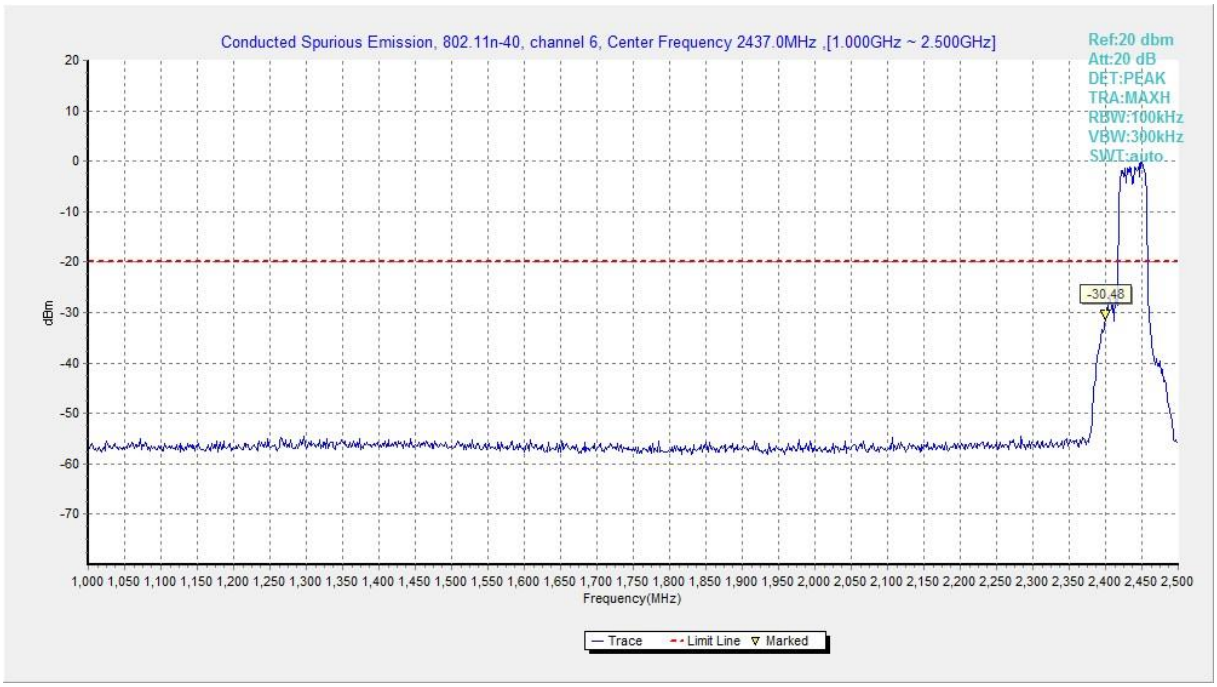


Fig.B.6.1.83 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 1 GHz-2.5 GHz)

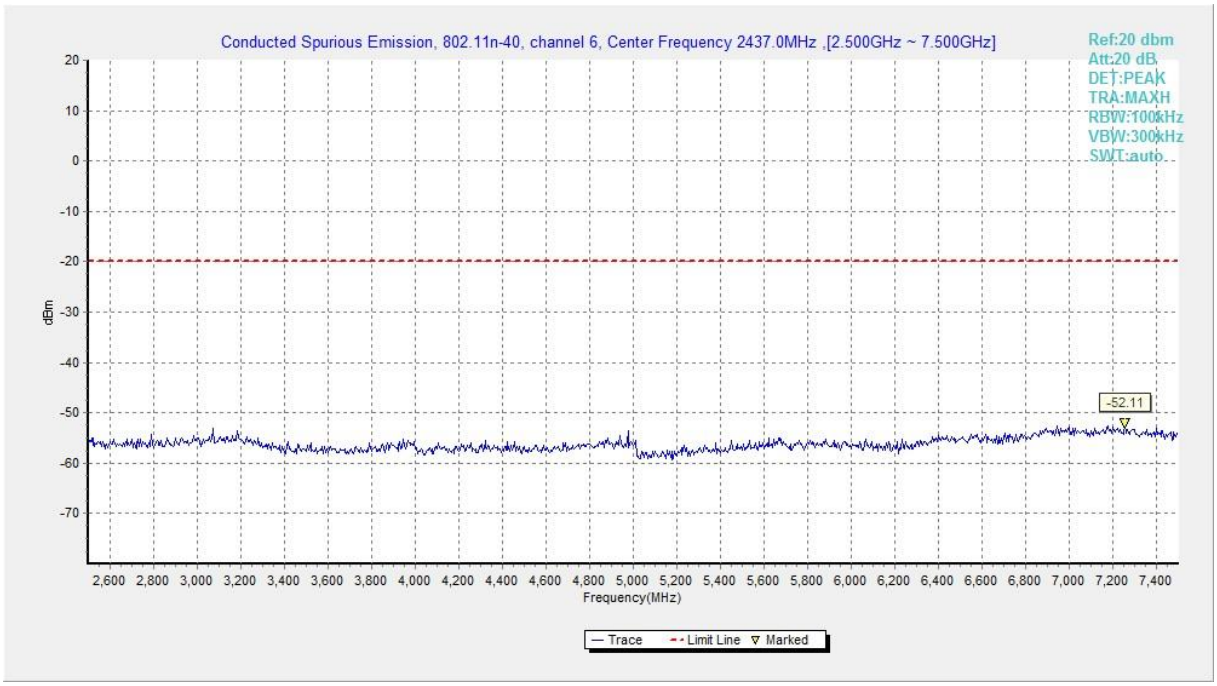


Fig.B.6.1.84 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 2.5 GHz-7.5 GHz)

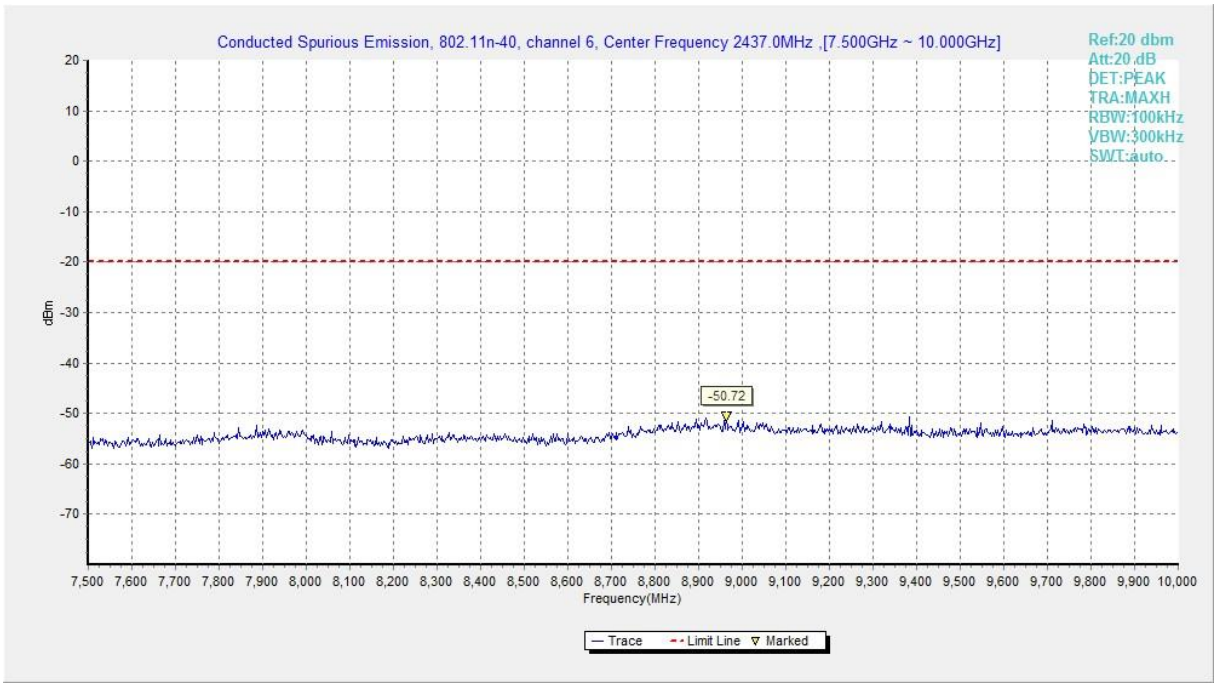


Fig.B.6.1.85 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 7.5 GHz-10 GHz)

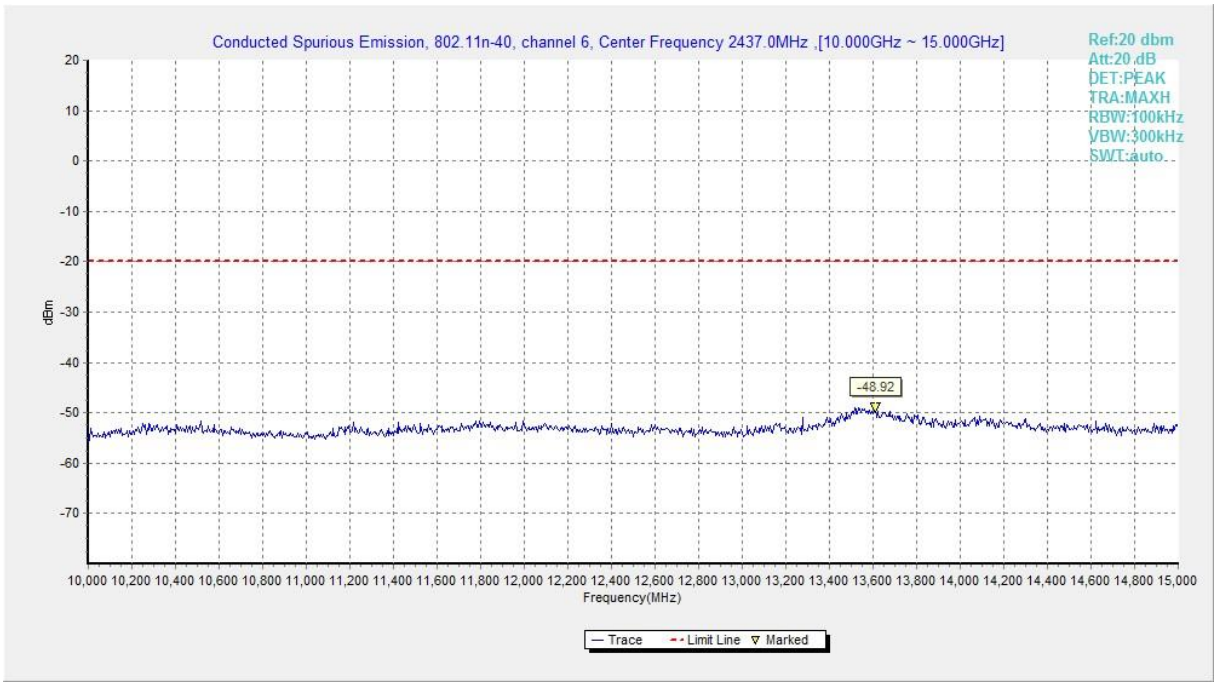


Fig.B.6.1.86 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 10 GHz-15 GHz)

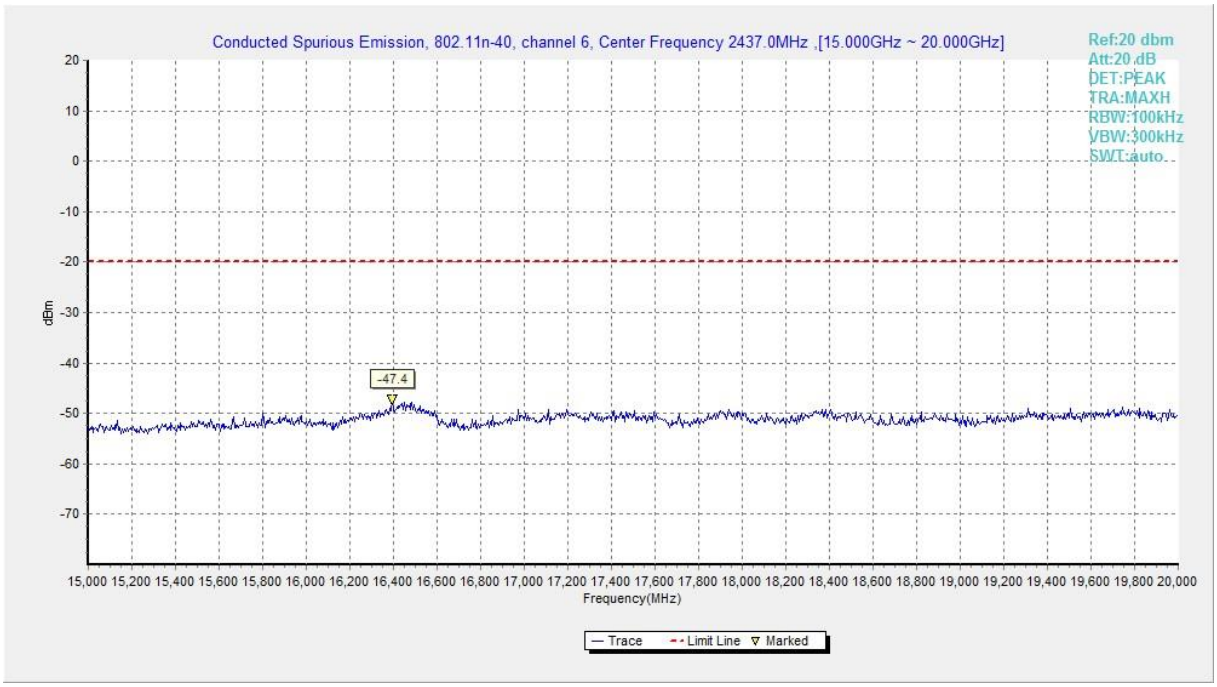


Fig.B.6.1.87 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 15 GHz-20 GHz)

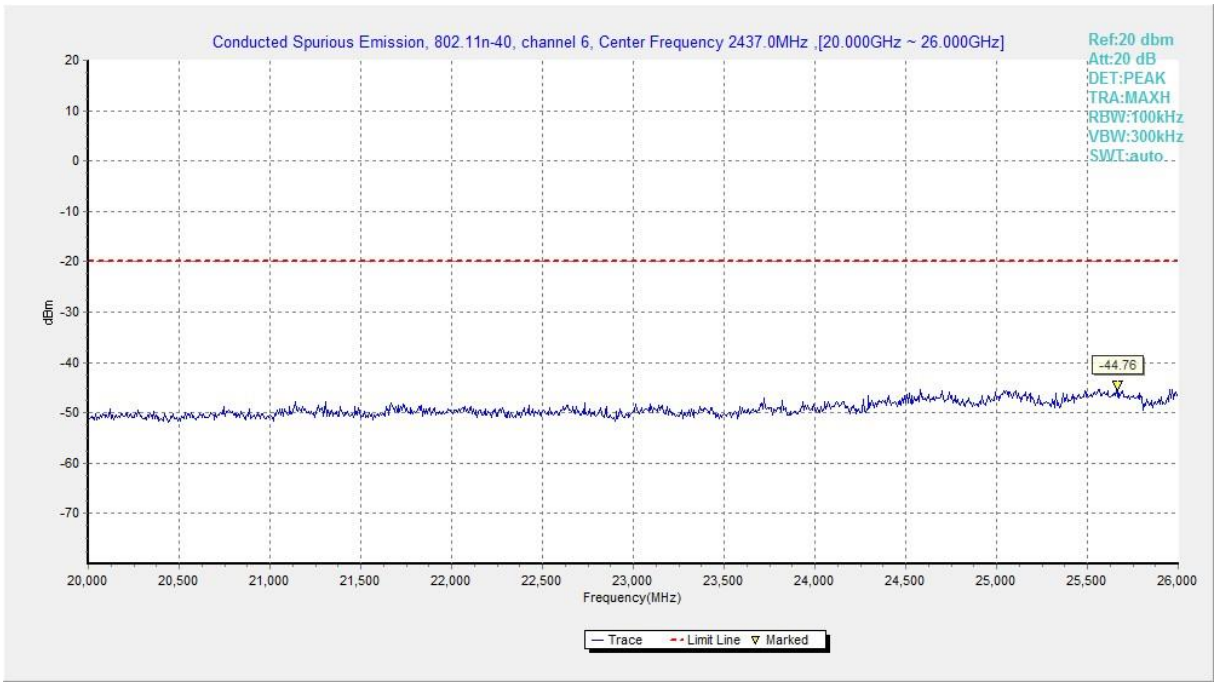


Fig.B.6.1.88 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 20 GHz-26 GHz)

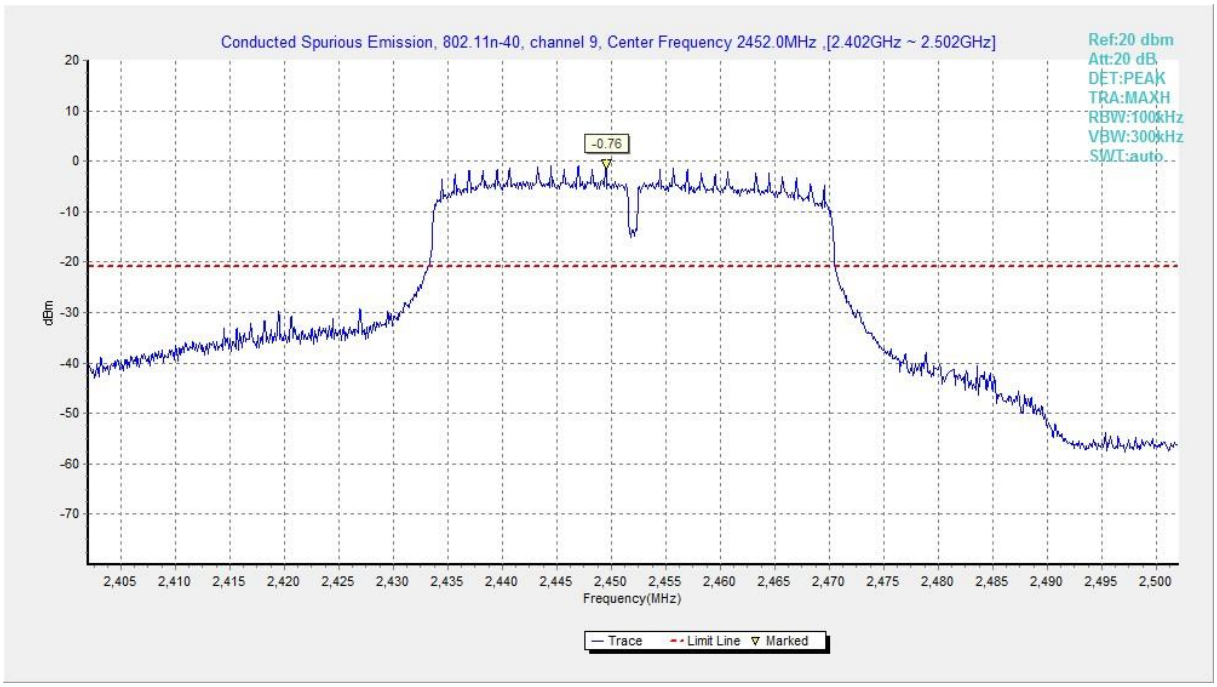


Fig.B.6.1.89 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, Center Frequency)

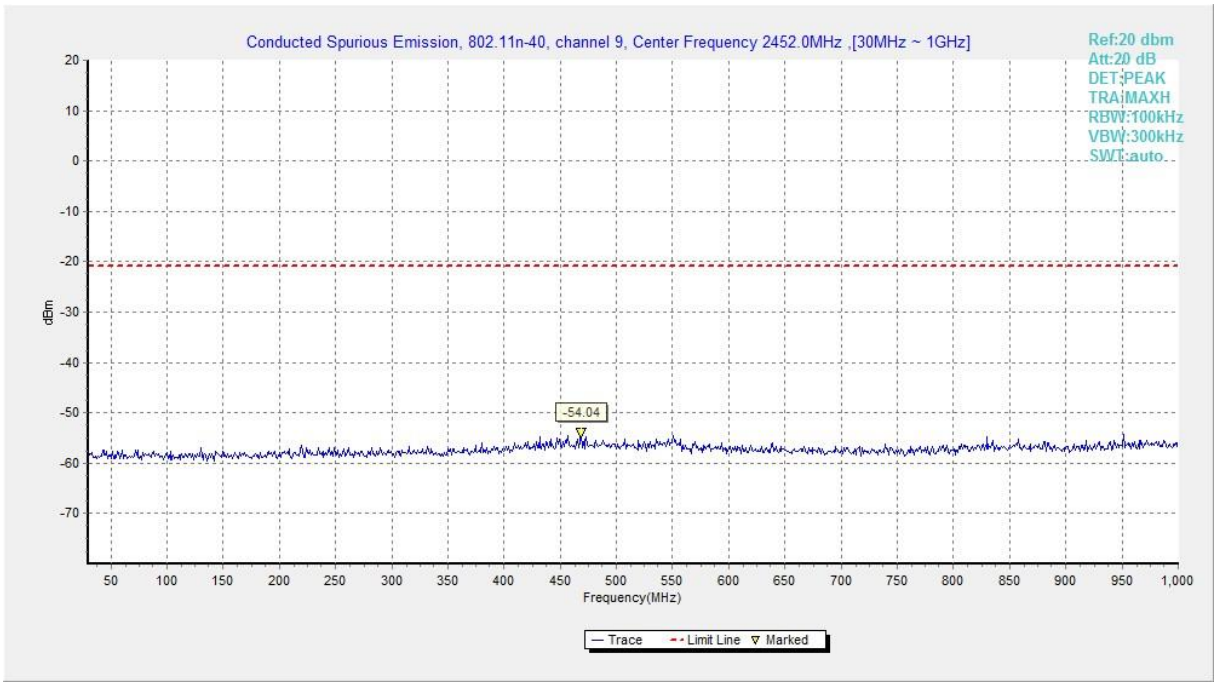


Fig.B.6.1.90 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 30 MHz-1 GHz)

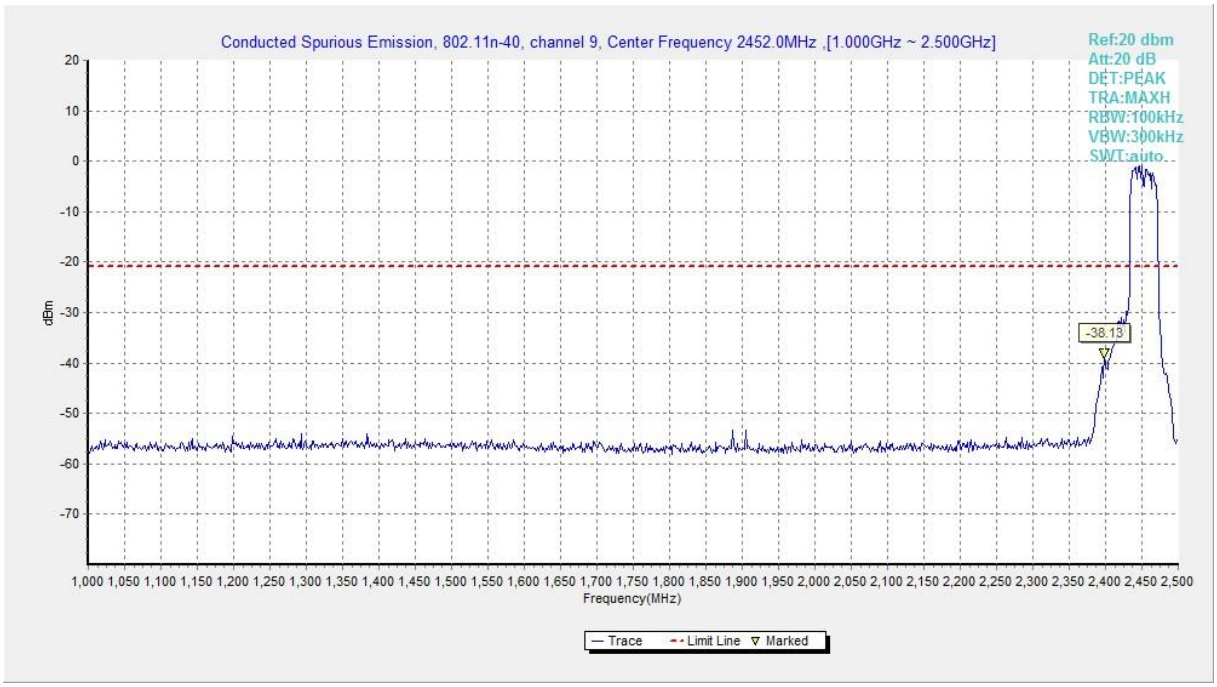


Fig.B.6.1.91 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 1 GHz-2.5 GHz)

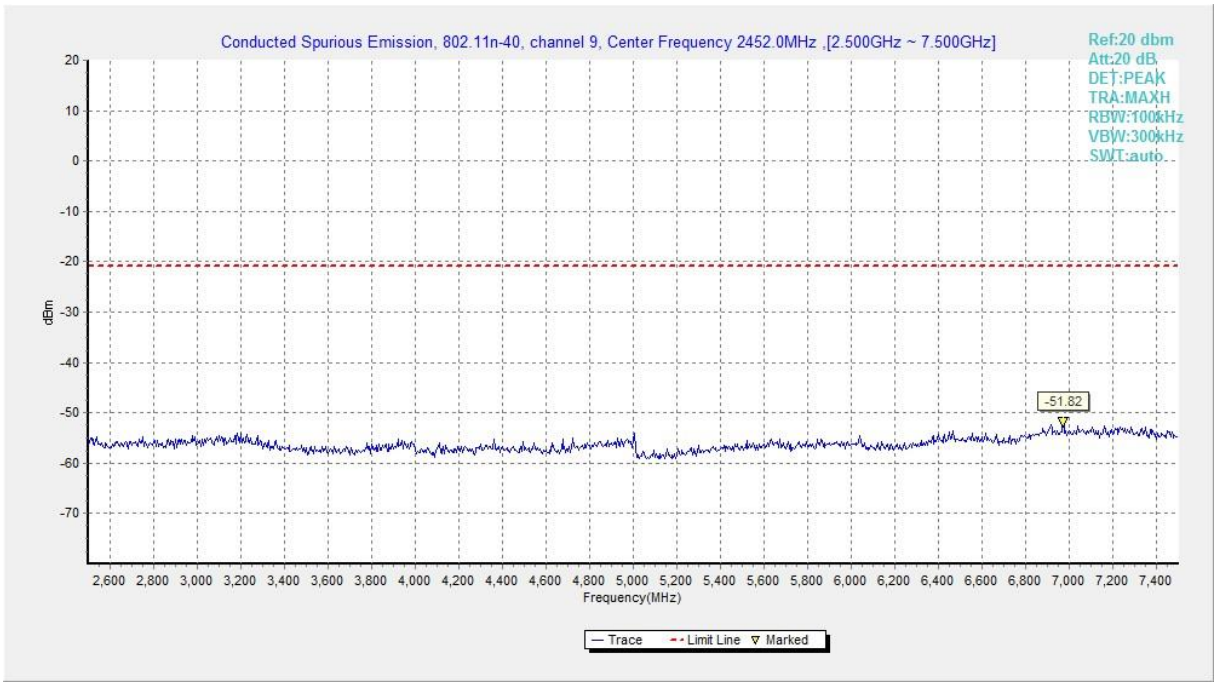


Fig.B.6.1.92 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 2.5 GHz-7.5 GHz)

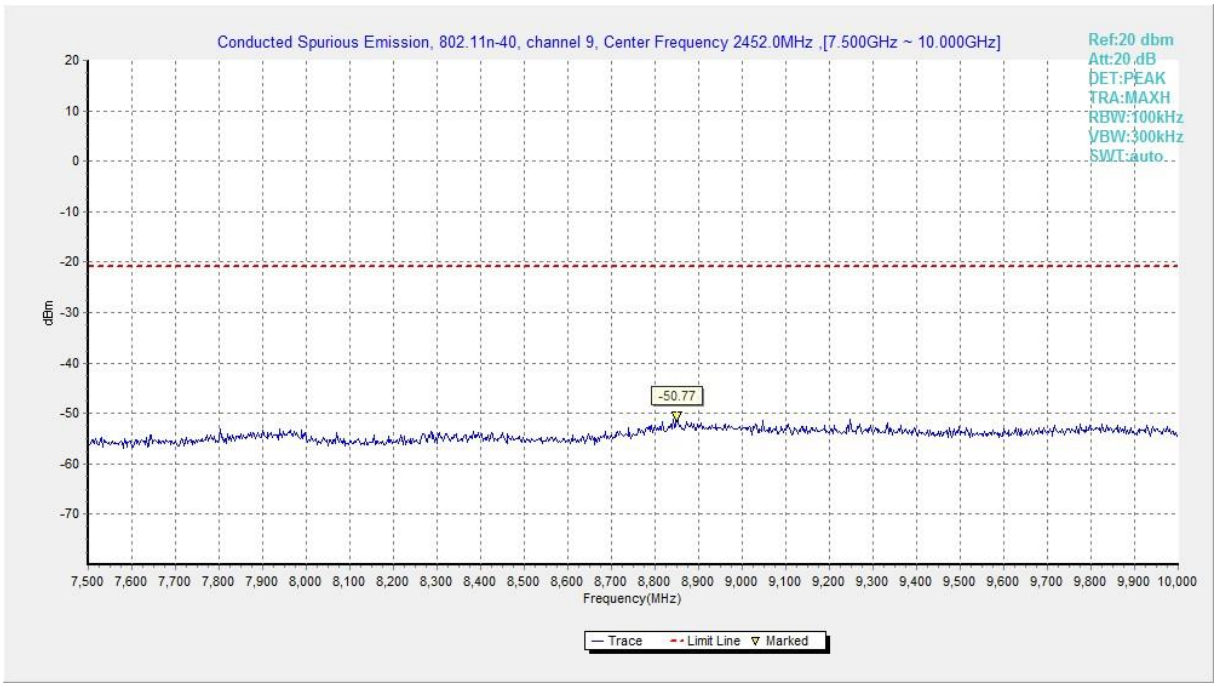


Fig.B.6.1.93 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 7.5 GHz-10 GHz)

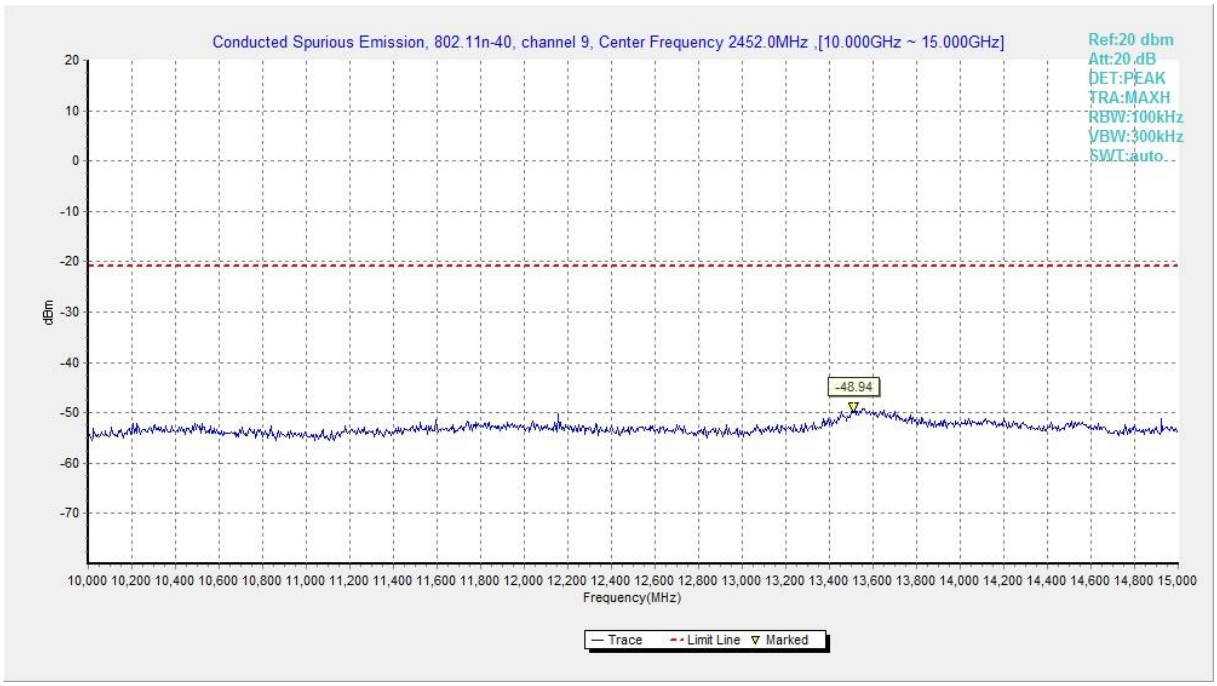


Fig.B.6.1.94 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 10 GHz-15 GHz)

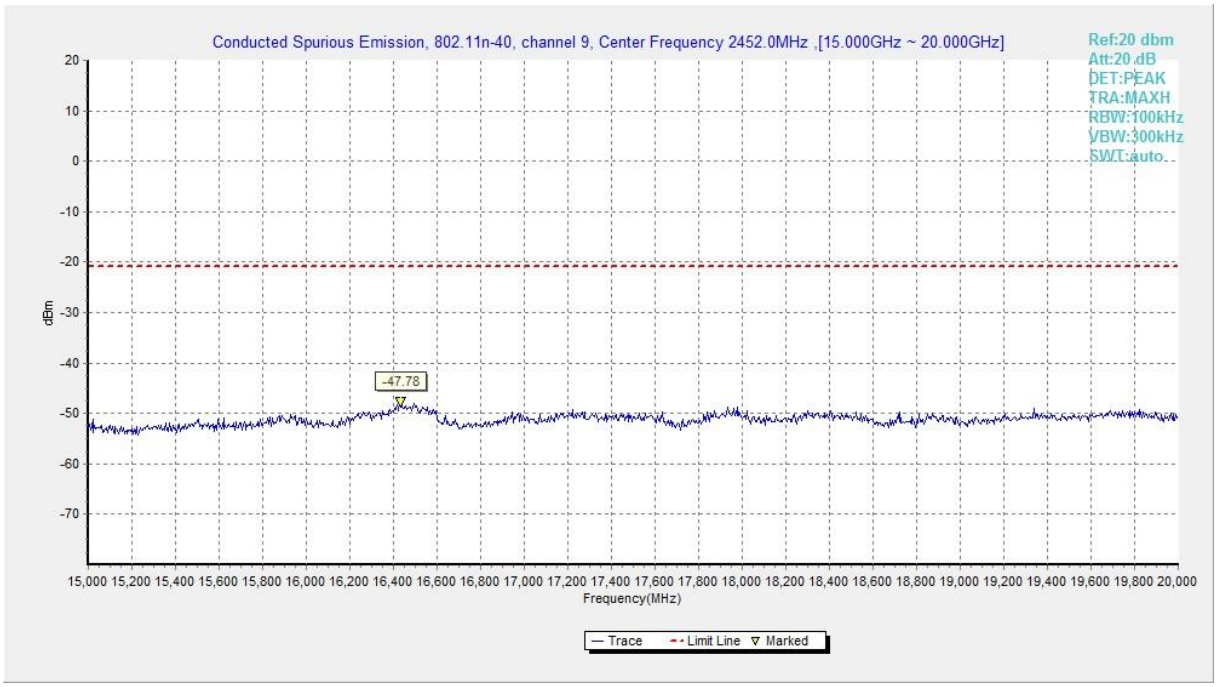


Fig.B.6.1.95 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 15 GHz-20 GHz)

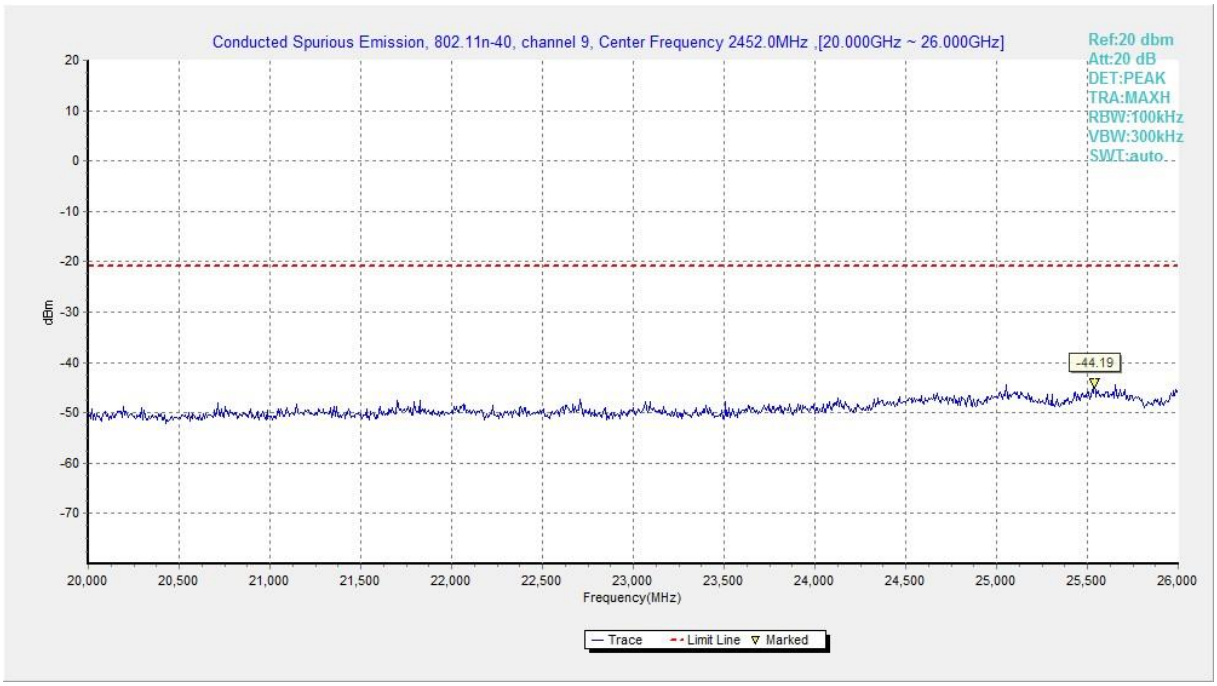


Fig.B.6.1.96 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 20 GHz-26 GHz)

B.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	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	Power	2.31GHz ~2.43GHz	Fig.B.6.2.1	**P**
	Power	2.45GHz ~2.5GHz	Fig.B.6.2.2	**P**

802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	Power	2.31GHz ~2.43GHz	Fig.B.6.2.3	**P**
	Power	2.45GHz ~2.5GHz	Fig.B.6.2.4	**P**

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	Power	2.31GHz ~2.43GHz	Fig.B.6.2.5	**P**
	Power	2.45GHz ~2.5GHz	Fig.B.6.2.6	**P**

802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT40)	Power	2.31GHz ~2.43GHz	Fig.B.6.2.7	**P**
	Power	2.45GHz ~2.5GHz	Fig.B.6.2.8	**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:

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

Average Measurement results

802.11b

Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
5760	46.5	-36.4	34.3	48.6	H	54	7.5
17989	46.3	-25.5	46.7	25.1	H	54	7.7
17996	46.3	-25.5	46.7	25.1	V	54	7.7
17933	46.2	-25.5	46.7	25	V	54	7.8
17964	46.2	-25.5	46.7	25	V	54	7.8
2389.8	49.1	-20	28.1	41.1	H	54	4.9

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
5760	48.7	-36.4	34.3	50.8	H	54	5.3
5759.5	46.9	-36.4	34.3	49	H	54	7.1
17970	46.5	-25.5	46.7	25.3	H	54	7.5
17970.5	46.5	-25.5	46.7	25.3	V	54	7.5
17928	46.4	-25.5	46.7	25.2	V	54	7.6
17933	46.2	-25.5	46.7	25	V	54	7.8

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17958.5	46.6	-25.5	46.7	25.4	H	54	7.4
17973.5	46.6	-25.5	46.7	25.4	V	54	7.4
17970	46.5	-25.5	46.7	25.3	H	54	7.5
17962	46.4	-25.5	46.7	25.2	H	54	7.6
17975	46.4	-25.5	46.7	25.2	V	54	7.6
2488.5	41.5	-20	28.3	33.2	V	54	12.5

802.11g

Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17954.5	46.4	-25.5	46.7	25.2	H	54	7.6
17951.5	46.3	-25.5	46.7	25.1	H	54	7.7
17992	46.3	-25.5	46.7	25.1	V	54	7.7
17951	46.2	-25.5	46.7	25	H	54	7.8
17967	46.2	-25.5	46.7	25	H	54	7.8
2389.9	52.1	-20	28.1	44.1	H	54	1.9

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17955.5	46.2	-25.5	46.7	25	H	54	7.8
17956.5	46.2	-25.5	46.7	25	H	54	7.8
17947.5	46.1	-25.5	46.7	24.9	V	54	7.9
17972.5	46.1	-25.5	46.7	24.9	V	54	7.9
17985	46.1	-25.5	46.7	24.9	H	54	7.9
17989.5	46.1	-25.5	46.7	24.9	H	54	7.9

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17982.5	46.6	-25.5	46.7	25.4	V	54	7.4
17976	46.5	-25.5	46.7	25.3	H	54	7.5
17957.5	46.4	-25.5	46.7	25.2	V	54	7.6
17978.5	46.4	-25.5	46.7	25.2	H	54	7.6
5760	46.3	-36.4	34.3	48.4	H	54	7.7
2485.2	42.1	-20	28.3	33.8	V	54	11.9

802.11n-HT20

Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17952.5	46.5	-25.5	46.7	25.3	V	54	7.5
17976.5	46.5	-25.5	46.7	25.3	H	54	7.5
17989	46.3	-25.5	46.7	25.1	H	54	7.7
17938.5	46.2	-25.5	46.7	25	V	54	7.8
17978	46.2	-25.5	46.7	25	V	54	7.8
2389.6	50.6	-20	28.1	42.6	H	54	3.4

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17963.5	46.5	-25.5	46.7	25.3	V	54	7.5
17947	46.4	-25.5	46.7	25.2	V	54	7.6
17999	46.3	-25.5	46.7	25.1	V	54	7.7
5760	46.2	-36.4	34.3	48.3	H	54	7.8
17950.5	46.2	-25.5	46.7	25	V	54	7.8
17951	46.2	-25.5	46.7	25	H	54	7.8

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17952.5	46.7	-25.5	46.7	25.5	V	54	7.3
17948.5	46.4	-25.5	46.7	25.2	V	54	7.6
17969	46.4	-25.5	46.7	25.2	H	54	7.6
5760	46.3	-36.4	34.3	48.4	H	54	7.7
17953	46.3	-25.5	46.7	25.1	H	54	7.7
2489.5	41.7	-20	28.3	33.4	V	54	12.3

802.11n-HT40

Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
5990	47	-36.1	34.4	48.7	H	54	7
17937	46.6	-25.5	46.7	25.4	V	54	7.4
17995.5	46.6	-25.5	46.7	25.4	V	54	7.4
17942	46.5	-25.5	46.7	25.3	V	54	7.5
17979	46.5	-25.5	46.7	25.3	V	54	7.5
2389.6	52.5	-20	28.1	44.5	H	54	1.5

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
5991	47.5	-36.1	34.4	49.2	H	54	6.5
5991.5	46	-36.1	34.4	47.7	H	54	8
5760	44.7	-36.4	34.3	46.8	H	54	9.3
5759.5	42.9	-36.4	34.3	45	H	54	11.1
17969	42.4	-25.5	46.7	21.2	V	54	11.6
17976.5	42.3	-25.5	46.7	21.1	V	54	11.7

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
5991	50.5	-36.1	34.4	52.2	H	54	3.5
5990.5	49.3	-36.1	34.4	51	H	54	4.7
5760	45.5	-36.4	34.3	47.6	V	54	8.5
5759.5	43.6	-36.4	34.3	45.7	V	54	10.4
17965	42.6	-25.5	46.7	21.4	H	54	11.4
2485.1	46.6	-20	28.3	38.3	V	54	7.4

Peak Measurement results

802.11b

Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17978.5	58.1	-25.5	46.7	36.9	H	74	15.9
17954	57.8	-25.5	46.7	36.6	V	74	16.2
17963	57.5	-25.5	46.7	36.3	H	74	16.5
17981.5	57.4	-25.5	46.7	36.2	H	74	16.6
17940.5	57.3	-25.5	46.7	36.1	V	74	16.7
2388.4	58.7	-20	28.1	50.7	H	74	15.3

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17985.5	58.4	-25.5	46.7	37.2	V	74	15.6
17942	57.7	-25.5	46.7	36.5	V	74	16.3
17596	57.2	-25.7	46	37	V	74	16.8
17890	57	-25.5	46.7	35.8	V	74	17
17923	56.9	-25.5	46.7	35.7	V	74	17.1
17929	56.9	-25.5	46.7	35.7	V	74	17.1

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17878	58.2	-25.5	46.7	37	V	74	15.8
17963	58	-25.5	46.7	36.8	H	74	16
17965.5	57.7	-25.5	46.7	36.5	H	74	16.3
17977	57.5	-25.5	46.7	36.3	V	74	16.5
17956	57.3	-25.5	46.7	36.1	H	74	16.7
2498.8	54	-20	28.4	45.6	V	74	20

802.11g

Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17857.5	57.8	-25.5	46.7	36.6	V	74	16.2
17865.5	57.7	-25.5	46.7	36.5	V	74	16.3
17962.5	57.6	-25.5	46.7	36.4	H	74	16.4
17952	57.5	-25.5	46.7	36.3	H	74	16.5
17971.5	57.5	-25.5	46.7	36.3	V	74	16.5
2389.5	65.4	-20	28.1	57.4	H	74	8.6

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17923.5	57.9	-25.5	46.7	36.7	H	74	16.1
17951	57.7	-25.5	46.7	36.5	H	74	16.3
17943.5	57.6	-25.5	46.7	36.4	H	74	16.4
17974	57.5	-25.5	46.7	36.3	H	74	16.5
17954	57.2	-25.5	46.7	36	V	74	16.8
17936.5	57	-25.5	46.7	35.8	H	74	17

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17943	57.1	-25.5	46.7	35.9	H	74	16.9
17959.5	57	-25.5	46.7	35.8	H	74	17
17991.5	57	-25.5	46.7	35.8	V	74	17
17938	56.8	-25.5	46.7	35.6	H	74	17.2
17973.5	56.8	-25.5	46.7	35.6	V	74	17.2
2485.4	56.4	-20	28.3	48.1	V	74	17.6

802.11n-HT20

Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17958	58	-25.5	46.7	36.8	V	74	16
17892.5	57.8	-25.5	46.7	36.6	V	74	16.2
17626.5	57.6	-25.7	46	37.4	V	74	16.4
17991	57.6	-25.5	46.7	36.4	H	74	16.4
17997.5	57.4	-25.5	46.7	36.2	H	74	16.6
2389	63.9	-20	28.1	55.9	H	74	10.1

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17950.5	57.8	-25.5	46.7	36.6	V	74	16.2
17965	57.8	-25.5	46.7	36.6	H	74	16.2
17964	57.6	-25.5	46.7	36.4	H	74	16.4
17879	57.2	-25.5	46.7	36	H	74	16.8
17948.5	57.1	-25.5	46.7	35.9	V	74	16.9
17951.5	57	-25.5	46.7	35.8	V	74	17

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17987.5	58.5	-25.5	46.7	37.3	V	74	15.5
17945	58.2	-25.5	46.7	37	V	74	15.8
17932	58.1	-25.5	46.7	36.9	V	74	15.9
17880	58	-25.5	46.7	36.8	V	74	16
17934	57.5	-25.5	46.7	36.3	V	74	16.5
2485.1	55.9	-20	28.3	47.6	V	74	18.1

802.11n-HT40

Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17969	57.3	-25.5	46.7	36.1	V	74	16.7
17718	57.2	-25.7	46	37	V	74	16.8
17815	57.2	-25.5	46.7	36	V	74	16.8
17826	57.1	-25.5	46.7	35.9	V	74	16.9
17933	57.1	-25.5	46.7	35.9	V	74	16.9
2379	56.7	-20	28.1	48.7	H	74	17.3

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17894.5	54.6	-25.5	46.7	33.4	H	74	19.4
17939	54.2	-25.5	46.7	33	V	74	19.8
17990.5	53.7	-25.5	46.7	32.5	H	74	20.3
17837.5	53.5	-25.5	46.7	32.3	V	74	20.5
17889.5	53.4	-25.5	46.7	32.2	H	74	20.6
17986	53.4	-25.5	46.7	32.2	V	74	20.6

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17983	53.7	-25.5	46.7	32.5	H	74	20.3
17479	53.6	-26.9	45.2	35.2	H	74	20.4
17979	53.6	-25.5	46.7	32.4	V	74	20.4
5990.5	53.4	-36.1	34.4	55.1	H	74	20.6
17977	53.3	-25.5	46.7	32.1	V	74	20.7
2485.6	64.4	-20	28.3	56.1	V	74	9.6

Test graphs as below:

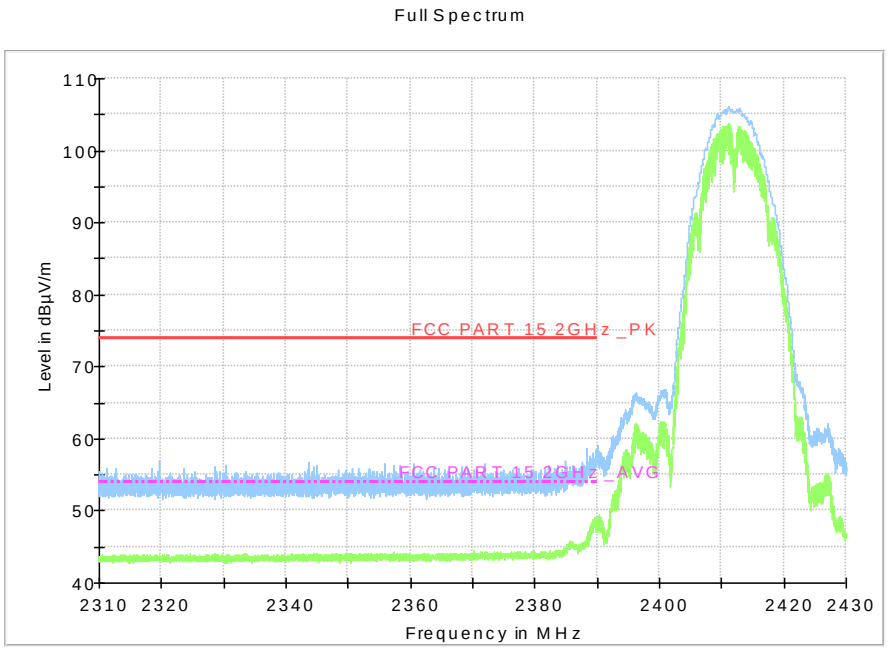


Fig.B.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.31 GHz – 2.43GHz

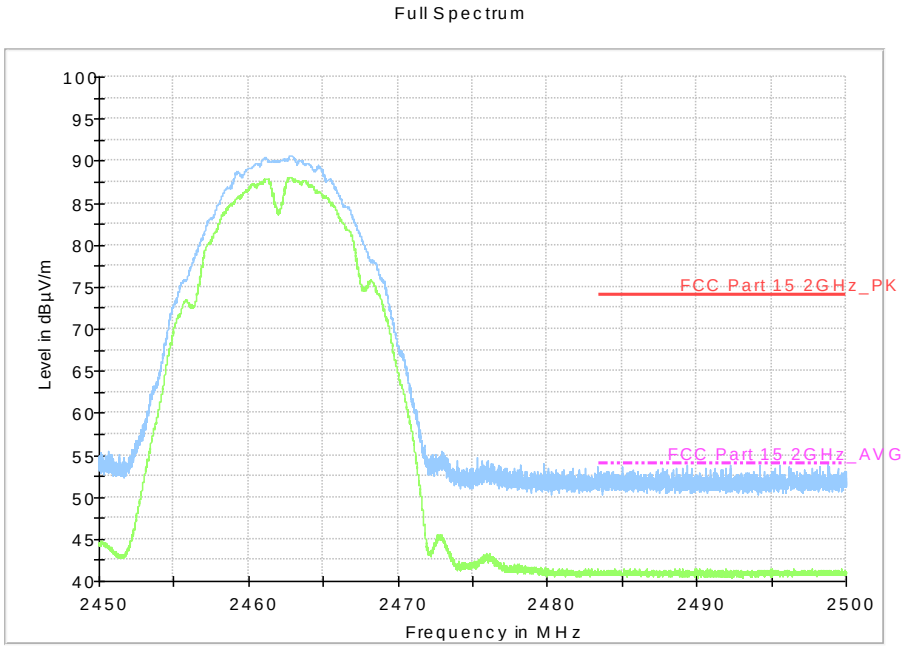


Fig.B.6.2.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

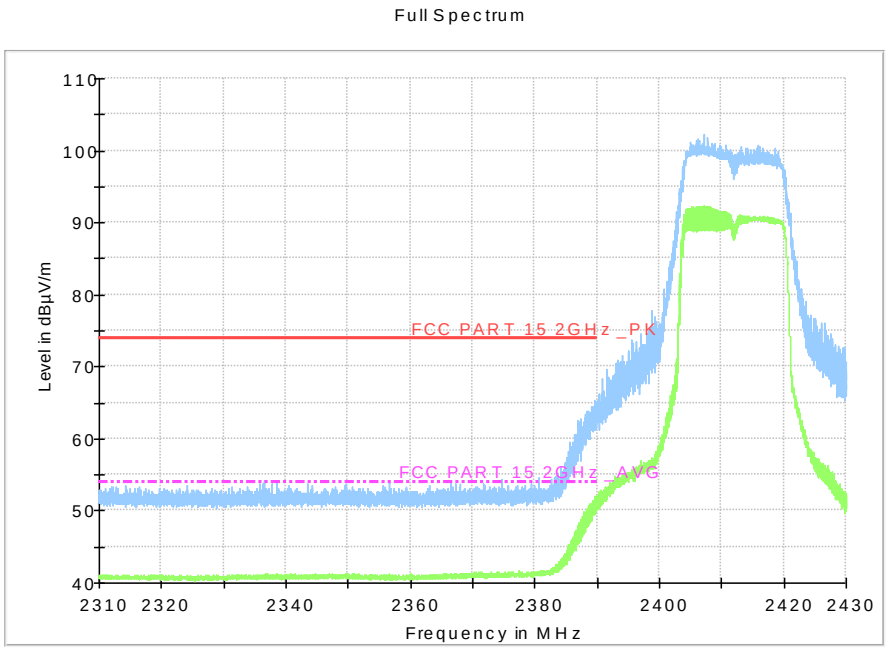


Fig.B.6.2.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.31GHz - 2.43GHz

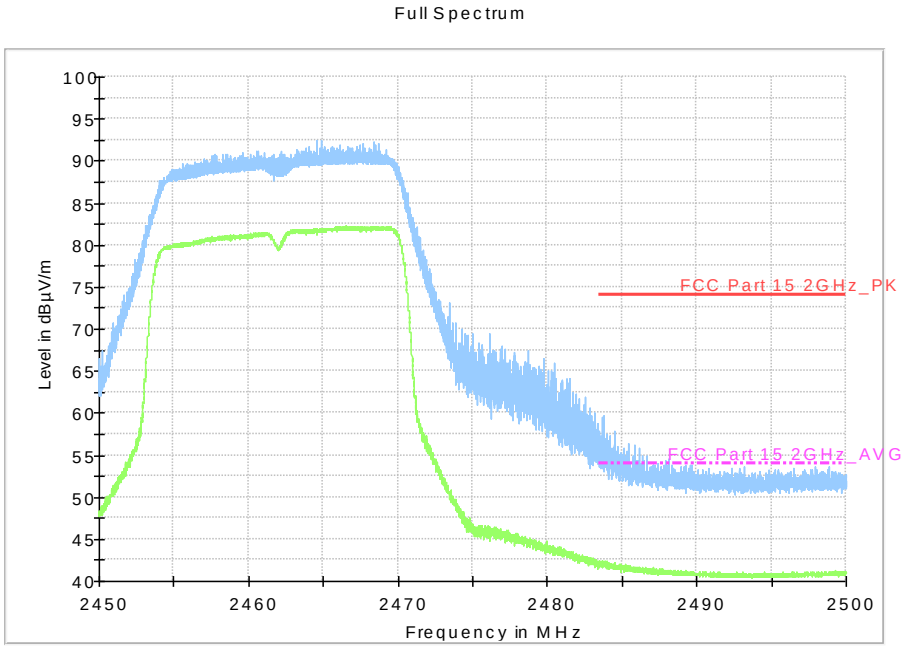


Fig.B.6.2.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

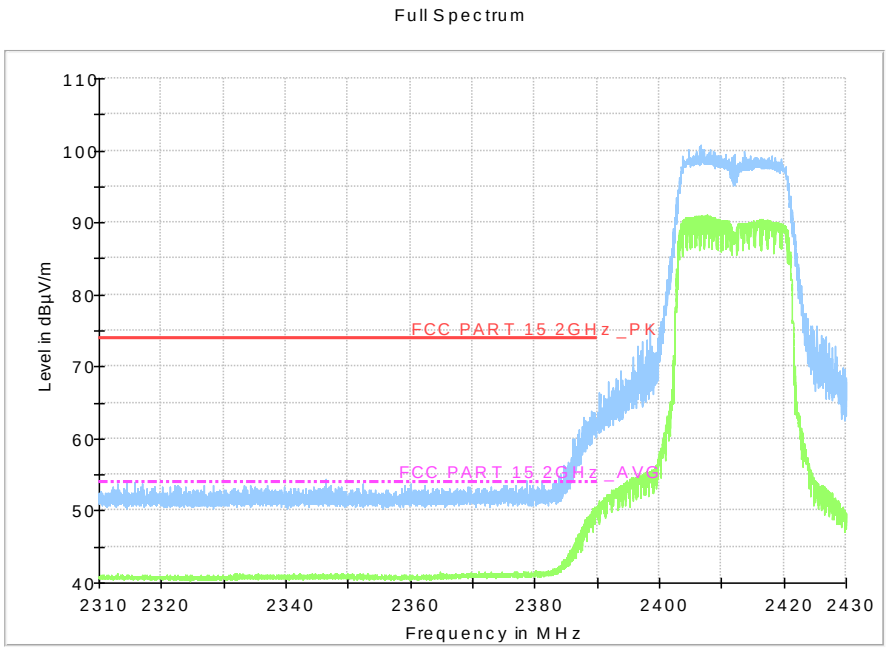


Fig.B.6.2.5 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.31 GHz - 2.43GHz

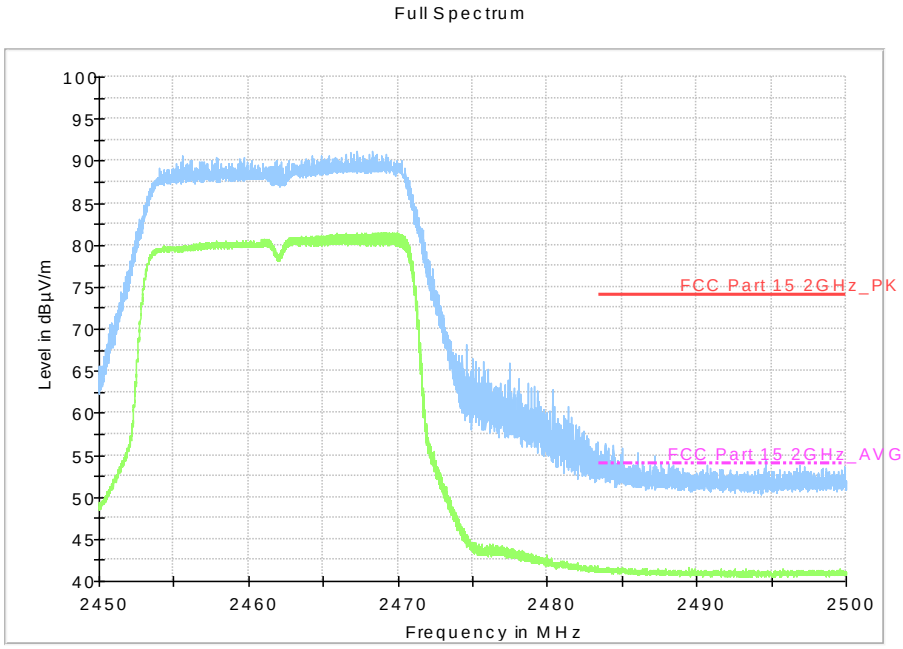


Fig.B.6.2.6 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

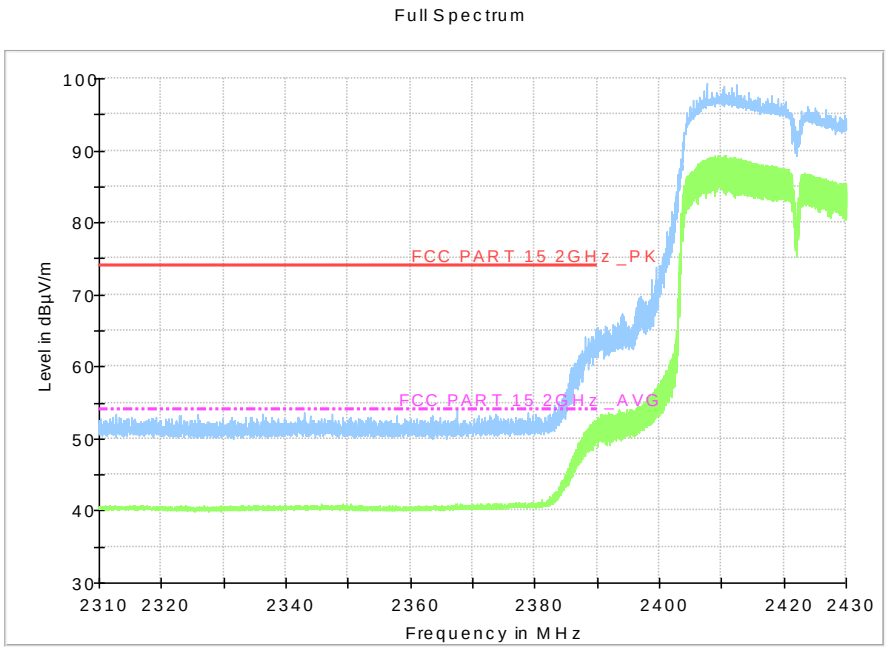


Fig.B.6.2.7 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.31 GHz - 2.43GHz

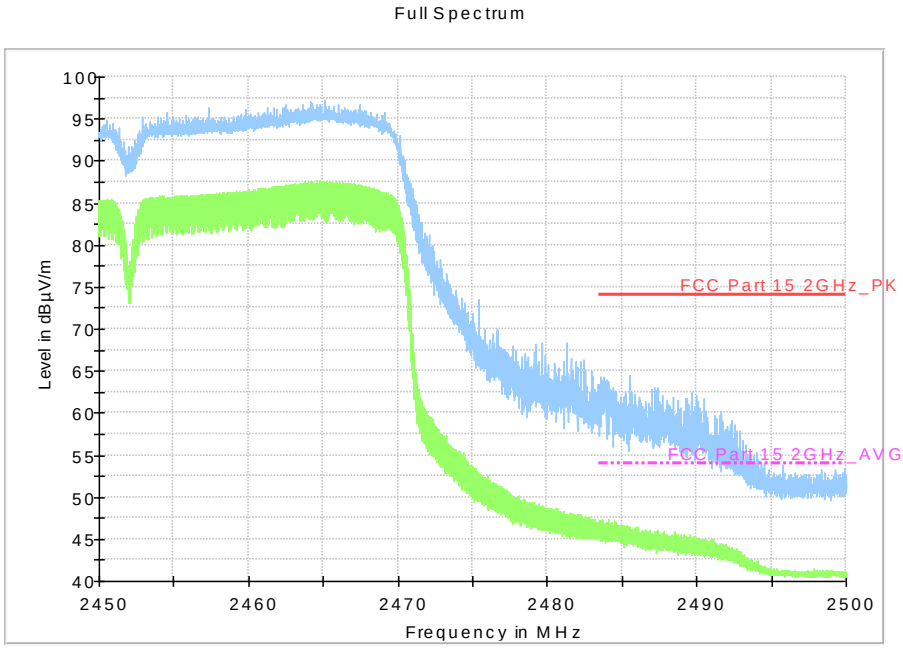


Fig.B.6.2.8 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

B.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:

EUT1

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	66 to 56	Fig.B.7.1	Fig.B.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 (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	56 to 46	Fig.B.7.1	Fig.B.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:

Note: The measurement results showed here are worst cases.

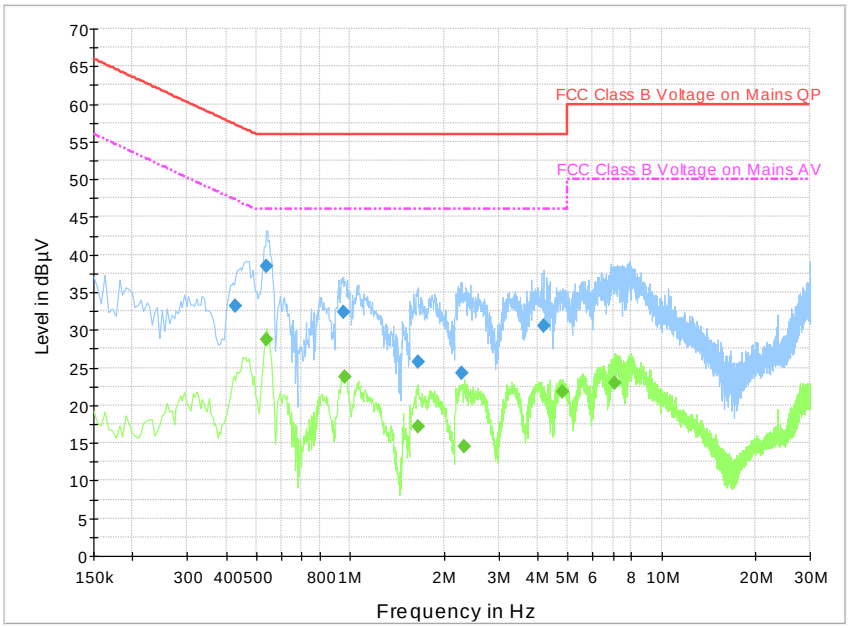


Fig.B.7.1 AC Powerline Conducted Emission-802.11b

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)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.429000	33.1	N	19.6	24.1	57.3
0.537000	38.5	L1	19.6	17.5	56.0
0.951000	32.4	N	19.6	23.6	56.0
1.648500	25.8	L1	19.6	30.2	56.0
2.283000	24.3	L1	19.6	31.7	56.0
4.173000	30.6	L1	19.7	25.4	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.537000	28.7	L1	19.6	17.3	46.0
0.964500	23.8	N	19.6	22.2	46.0
1.648500	17.2	L1	19.6	28.8	46.0
2.332500	14.5	L1	19.6	31.5	46.0
4.794000	21.8	L1	19.8	24.2	46.0
7.102500	23.0	L1	19.7	27.0	50.0

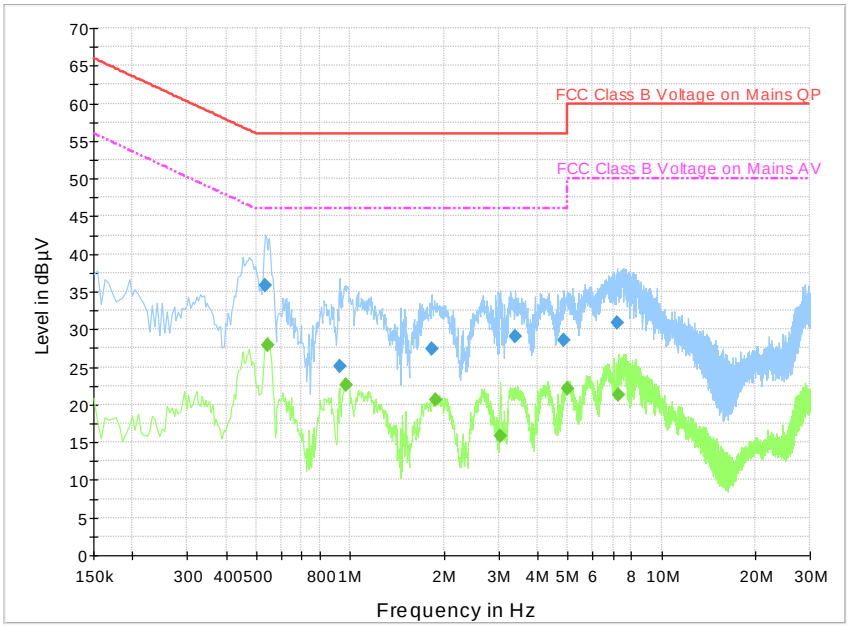


Fig.B.7.2 AC Powerline Conducted Emission-Idle

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

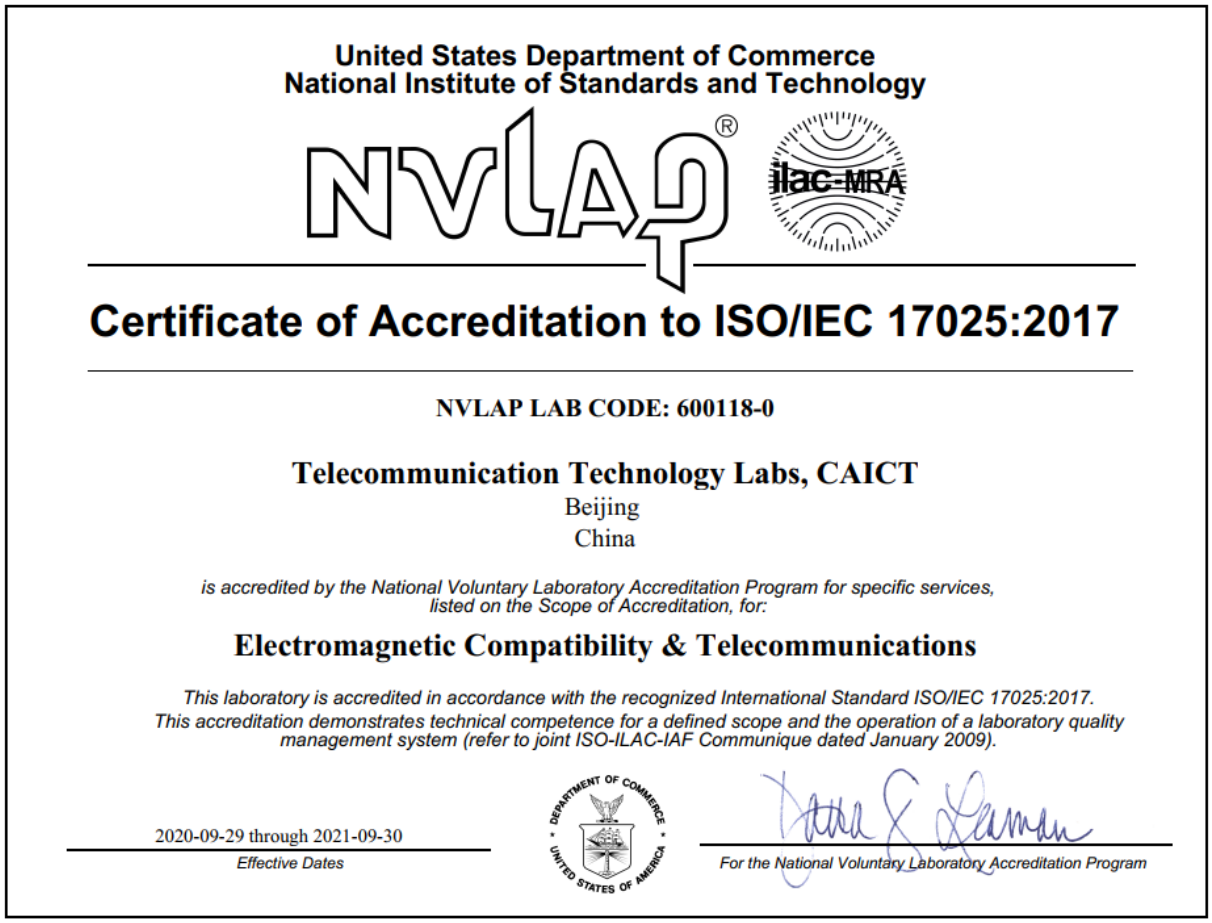
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.532500	35.8	L1	19.6	20.2	56.0
0.924000	25.1	N	19.6	30.9	56.0
1.824000	27.4	L1	19.5	28.6	56.0
3.390000	29.1	L1	19.7	26.9	56.0
4.866000	28.5	L1	19.8	27.5	56.0
7.224000	31.0	N	19.6	29.0	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.546000	27.8	N	19.5	18.2	46.0
0.969000	22.6	L1	19.6	23.4	46.0
1.887000	20.6	N	19.5	25.4	46.0
3.039000	15.9	N	19.6	30.1	46.0
4.974000	22.1	L1	19.8	23.9	46.0
7.291500	21.4	L1	19.7	28.6	50.0

ANNEX C: Accreditation Certificate



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Electromagnetic Compatibility & Telecommunications

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2020-09-29 through 2021-09-30
Effective Dates

DEPARTMENT OF COMMERCE * UNITED STATES OF AMERICA *

For the National Voluntary Laboratory Accreditation Program

*****END OF REPORT*****