

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

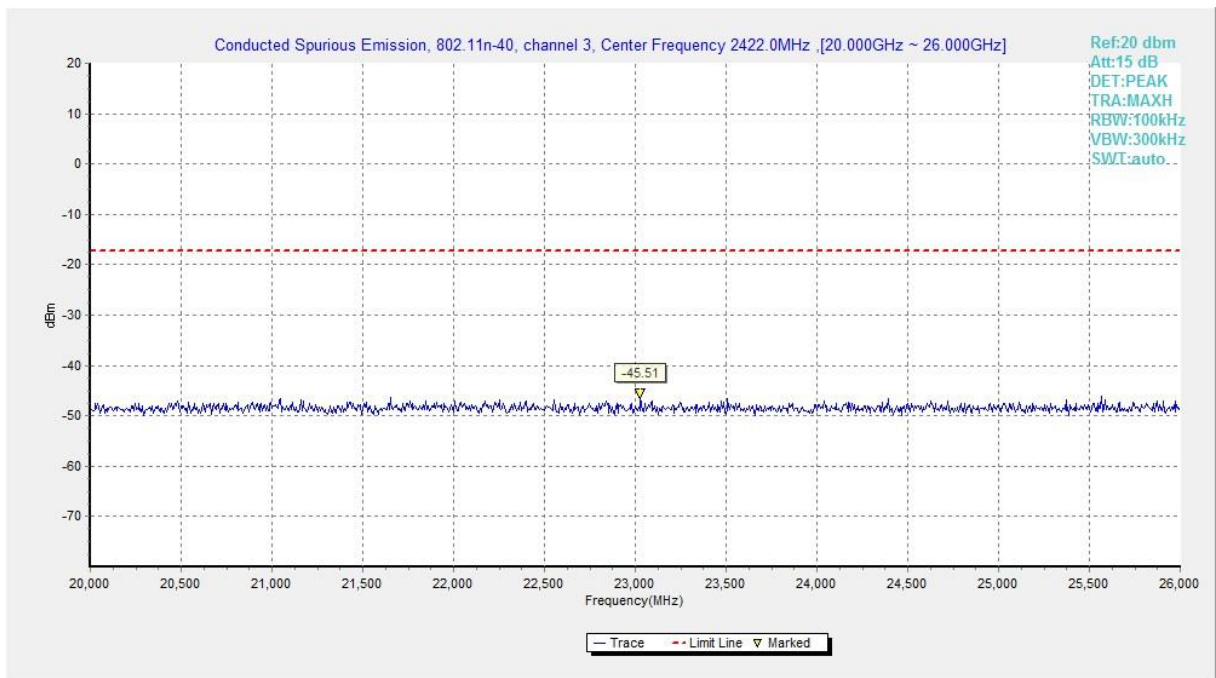


Fig.B.6.1.80 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 20 GHz-26 GHz)

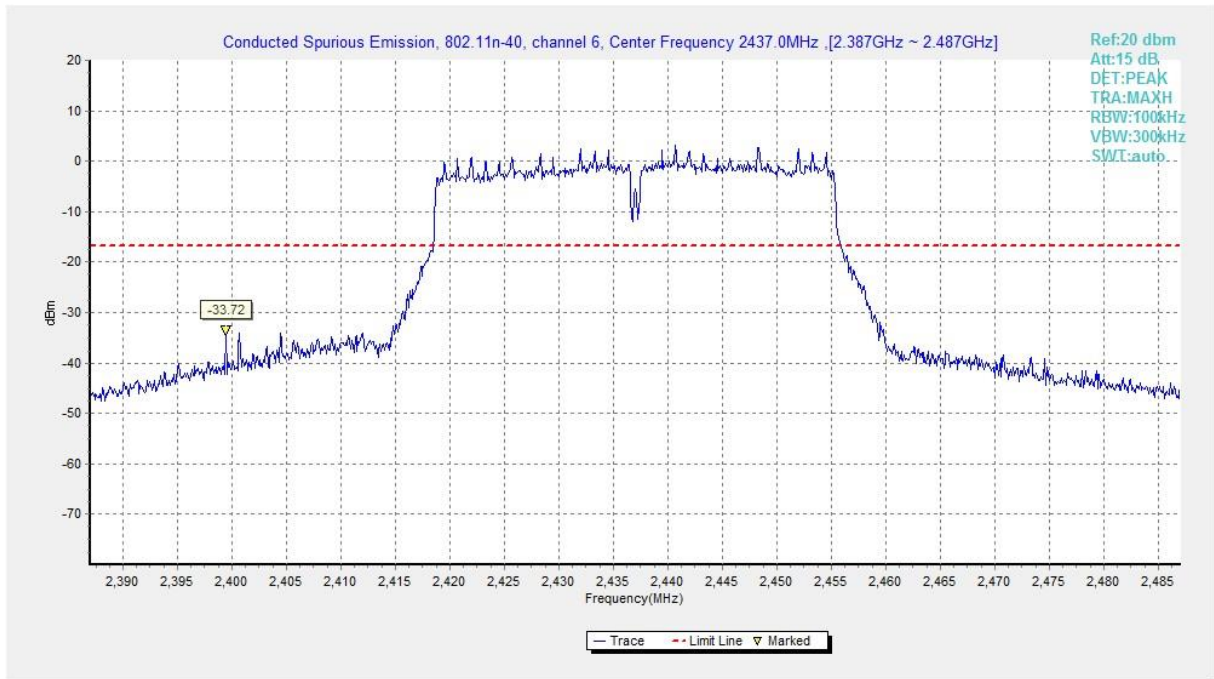


Fig.B.6.1.81 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, Center Frequency)

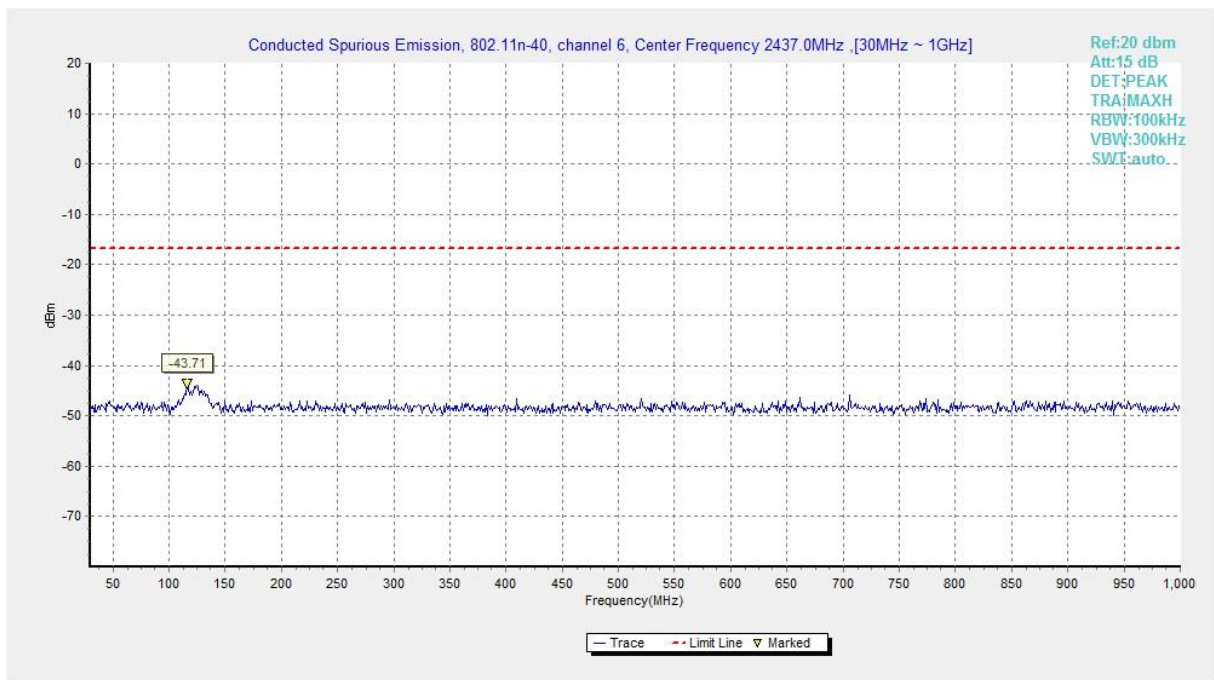


Fig.B.6.1.82 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 30 MHz-1 GHz)

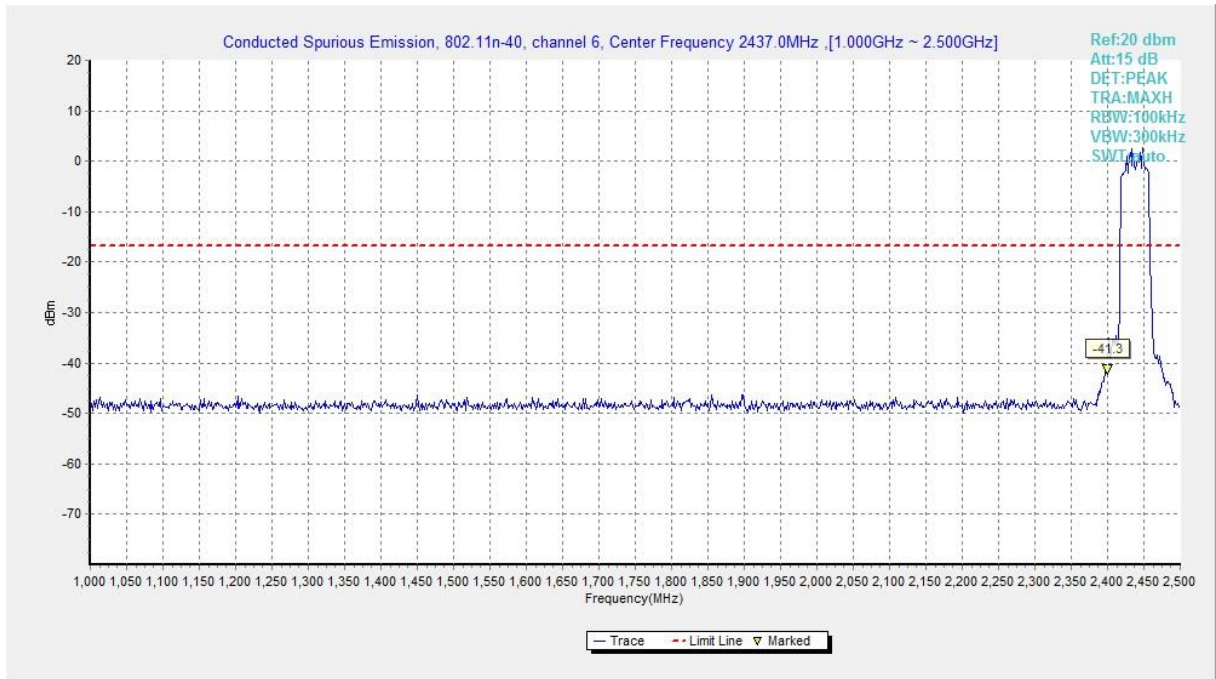


Fig.B.6.1.83 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 1 GHz-2.5 GHz)

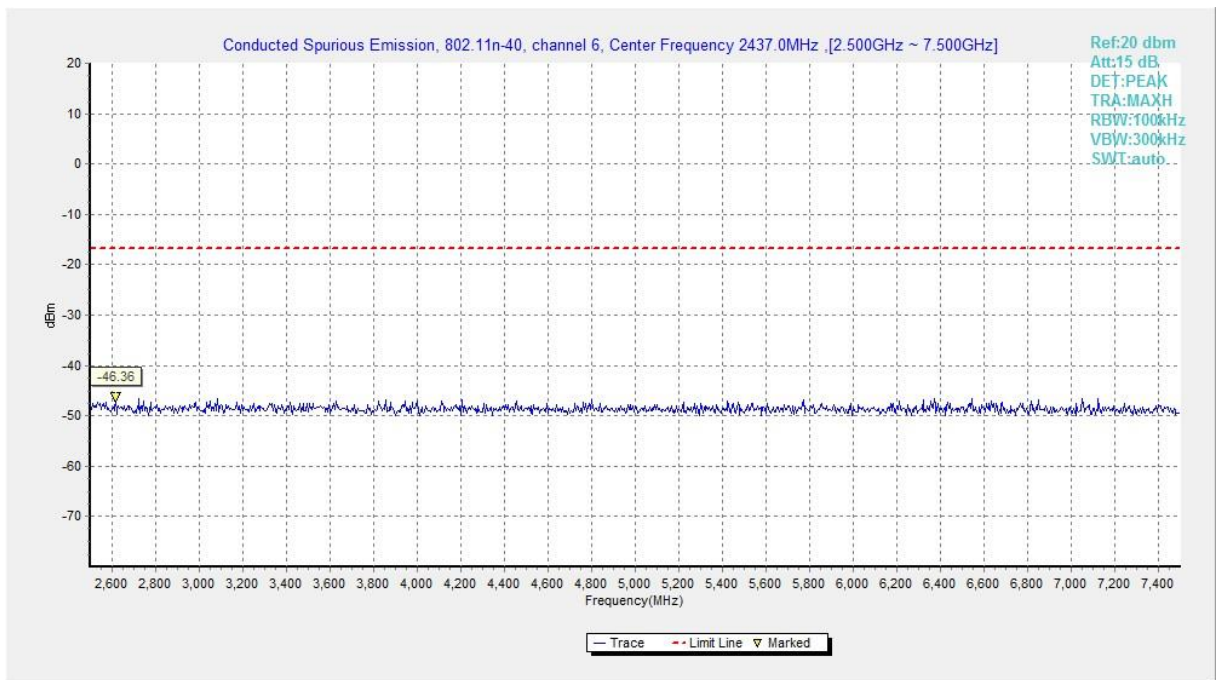


Fig.B.6.1.84 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 2.5 GHz-7.5 GHz)

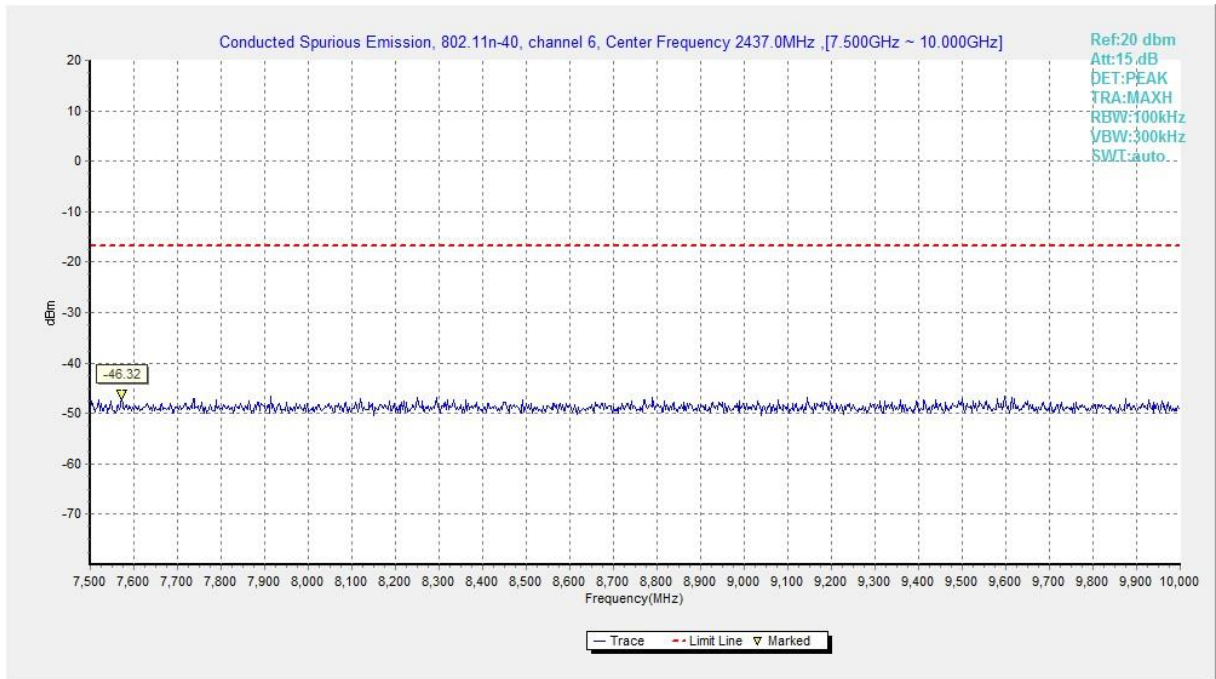


Fig.B.6.1.85 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 7.5 GHz-10 GHz)

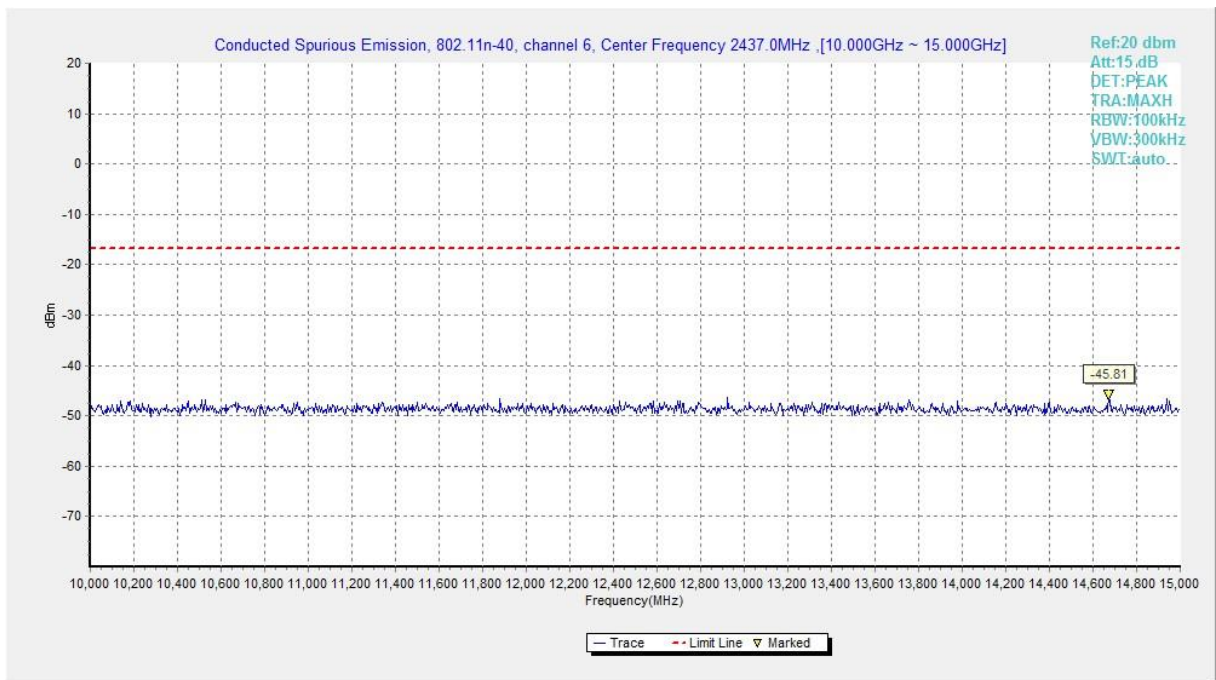


Fig.B.6.1.86 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 10 GHz-15 GHz)

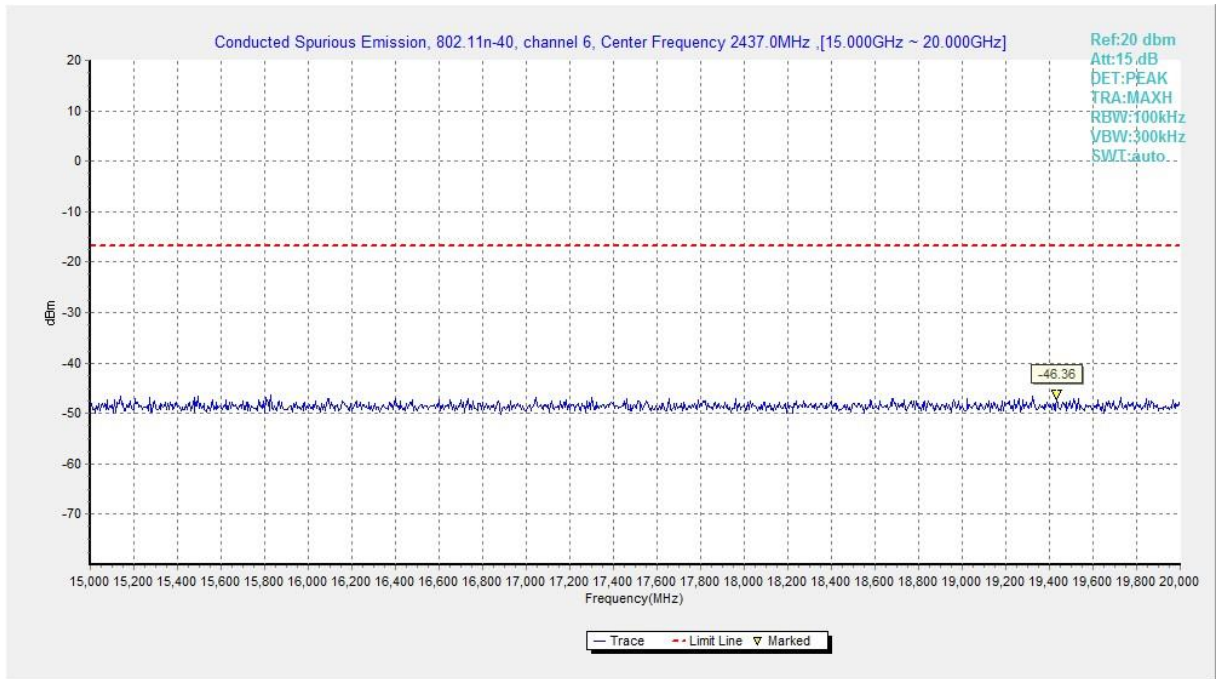


Fig.B.6.1.87 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 15 GHz-20 GHz)

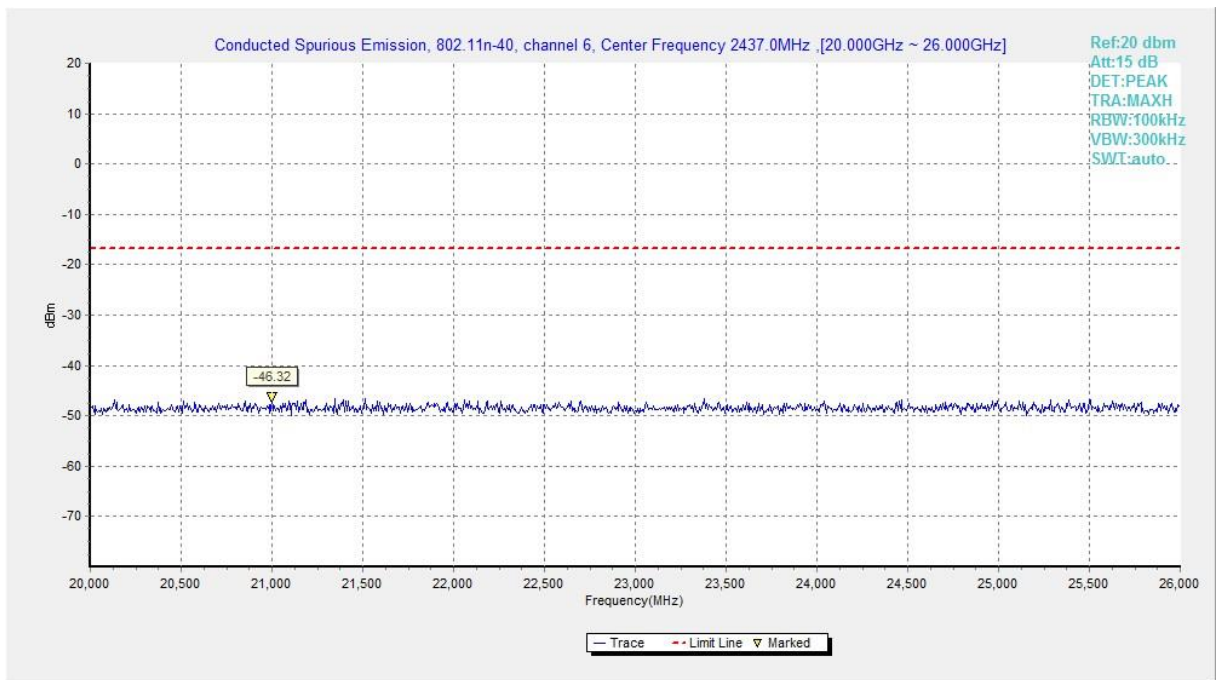


Fig.B.6.1.88 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 20 GHz-26 GHz)

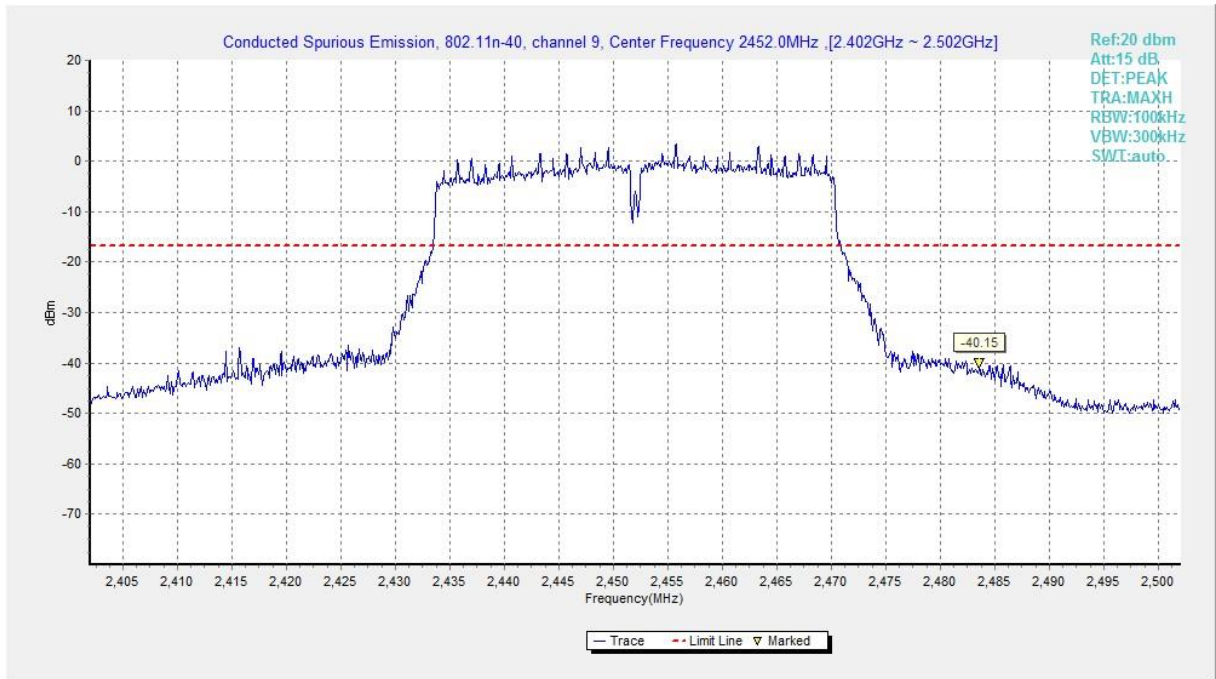


Fig.B.6.1.89 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, Center Frequency)

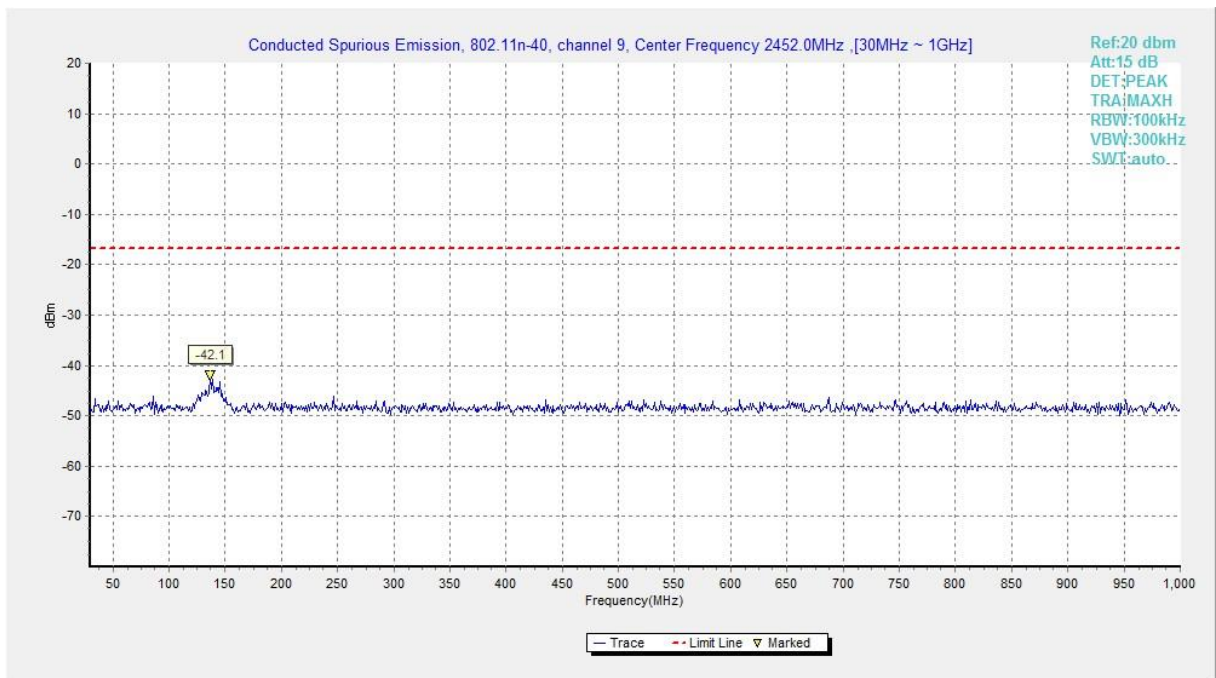


Fig.B.6.1.90 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 30 MHz-1 GHz)

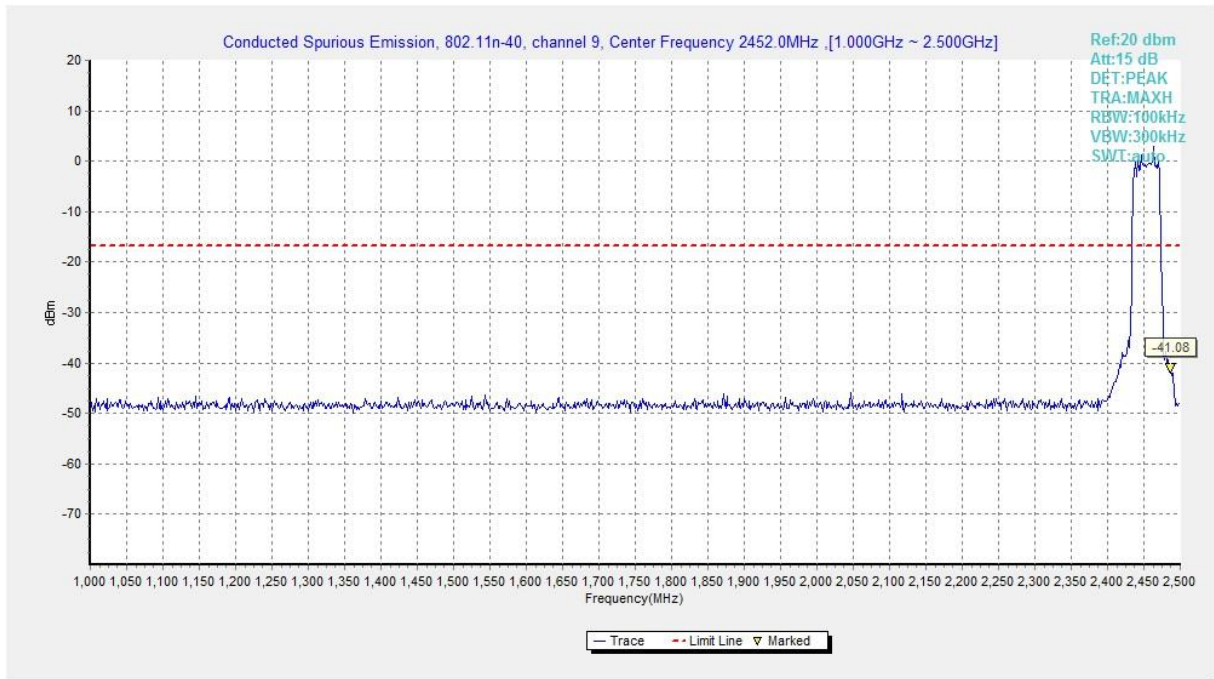


Fig.B.6.1.91 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 1 GHz-2.5 GHz)

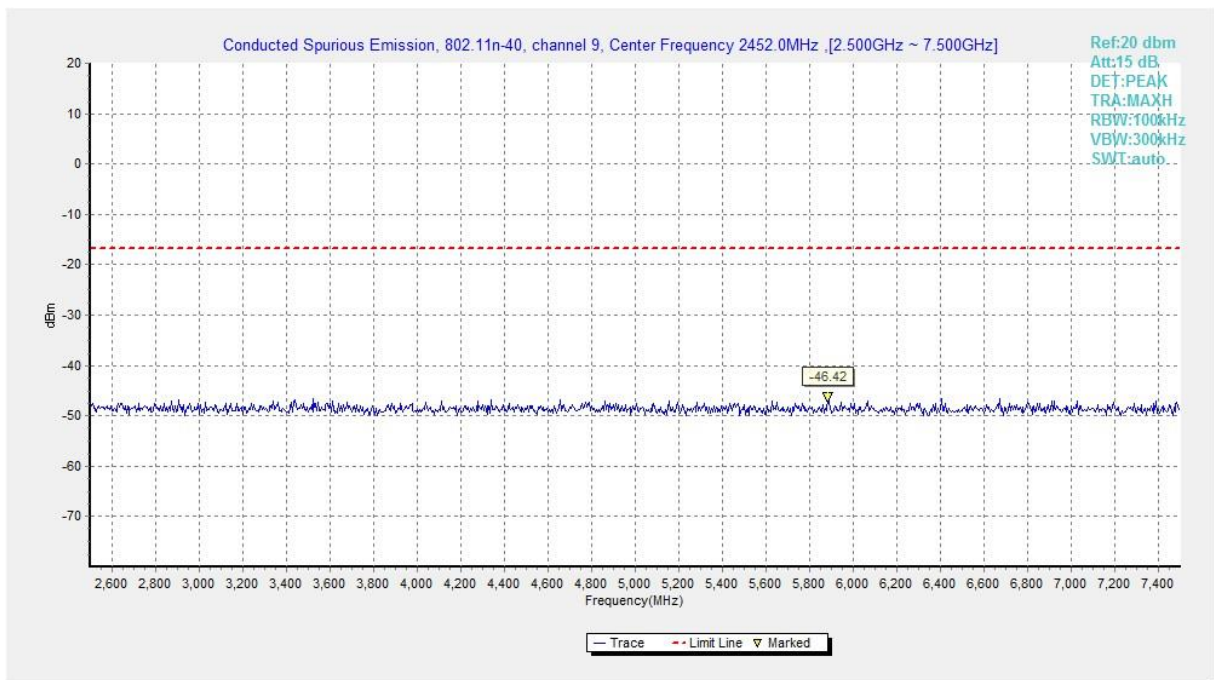


Fig.B.6.1.92 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 2.5 GHz-7.5 GHz)

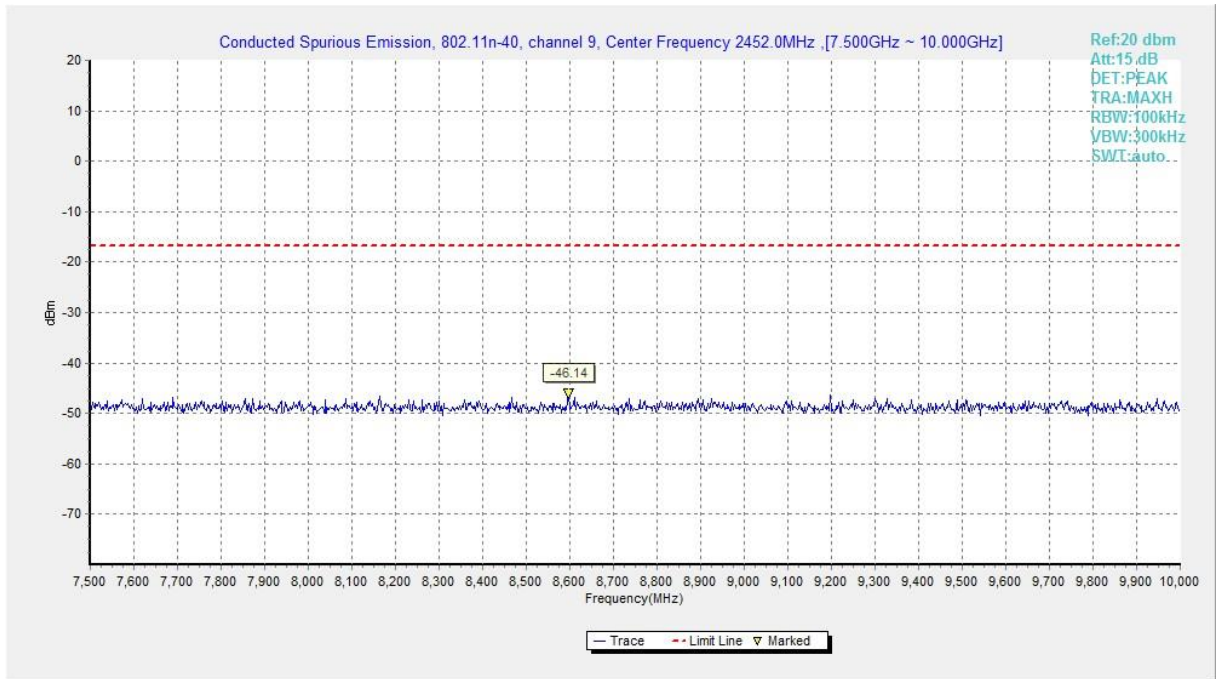


Fig.B.6.1.93 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 7.5 GHz-10 GHz)

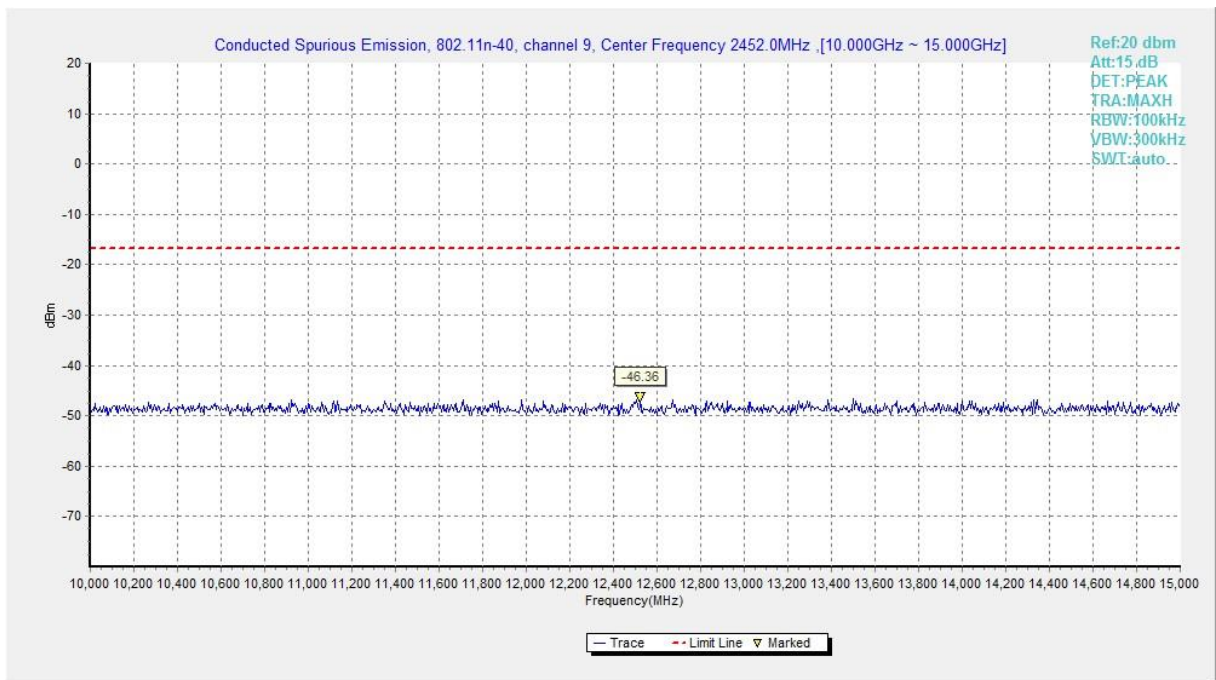


Fig.B.6.1.94 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 10 GHz-15 GHz)

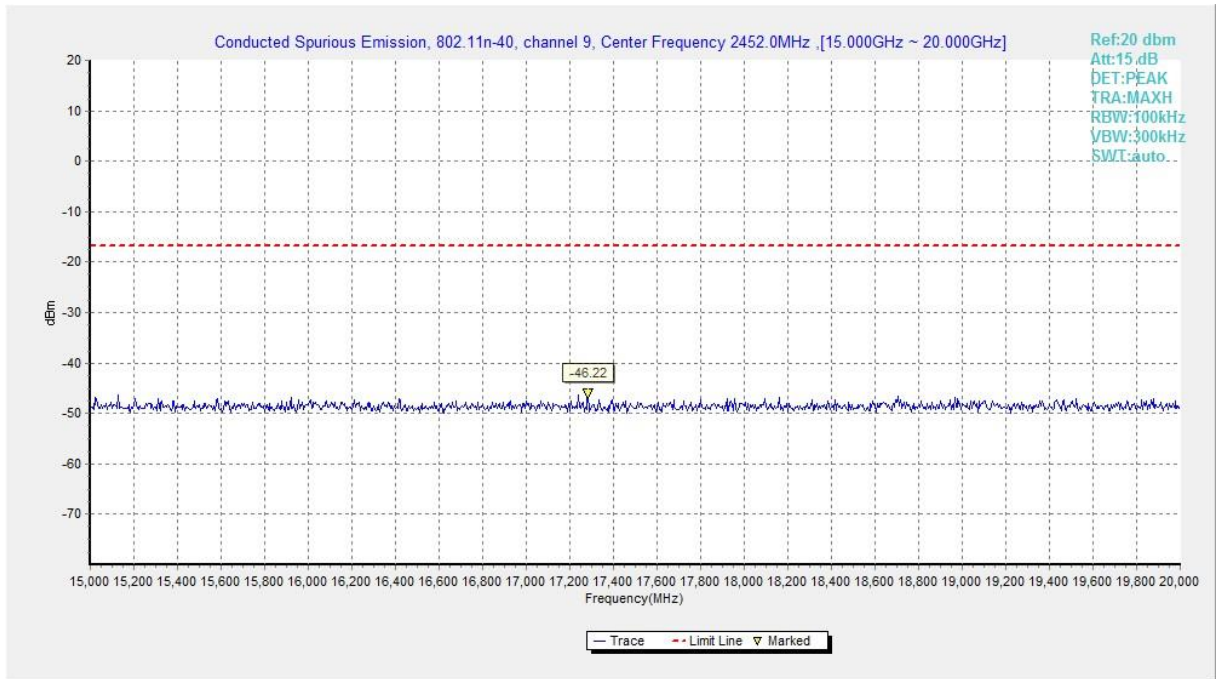


Fig.B.6.1.95 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 15 GHz-20 GHz)

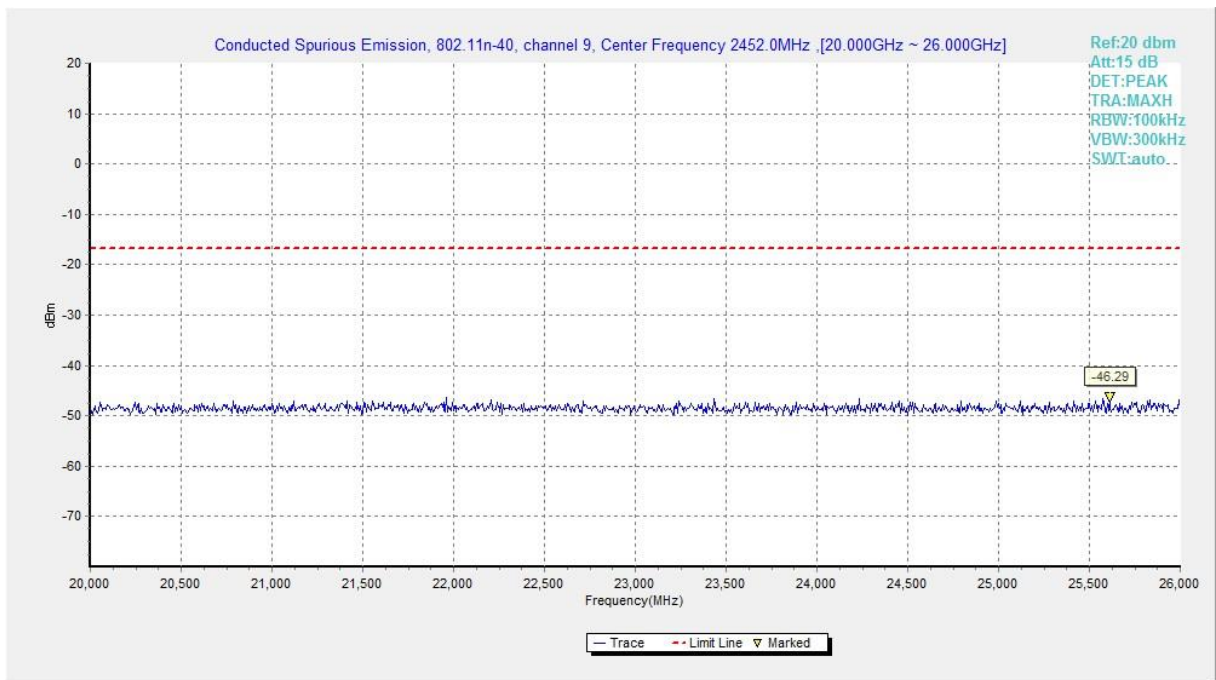


Fig.B.6.1.96 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 20 GHz-26 GHz)

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/3MHz	15
4000-18000	1MHz/3MHz	40
18000-26500	1MHz/3MHz	20

EUT ID: EUT1

Measurement Results for EUT1:
802.11b mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	Power(ch1)	2.31GHz ~2.43GHz	Fig.B.6.2.1	P
	Power(ch11)	2.45GHz ~2.5GHz	Fig.B.6.2.2	P

802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	Power(ch1)	2.31GHz ~2.43GHz	Fig.B.6.2.3	P
	Power(ch11)	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(ch1)	2.31GHz ~2.43GHz	Fig.B.6.2.5	P
	Power(ch11)	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(ch3)	2.31GHz ~2.43GHz	Fig.B.6.2.7	P
	Power(ch9)	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:

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

802.11b-Average

Ch1

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2389.800	46.35	2.9	32.0	11.48	54.0	7.7
2390.000	46.38	2.9	32.0	11.51	54.0	7.6
4824.000	43.63	-33.2	34.1	42.73	54.0	10.4
7238.000	30.62	-30.9	35.8	25.68	54.0	23.4
9648.000	31.38	-30.5	36.7	25.13	54.0	22.6
12060.000	32.73	-28.7	38.7	22.70	54.0	21.3

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2389.900	46.41	2.9	32.0	11.55	54.0	7.6
2483.500	46.55	2.9	32.1	11.53	54.0	7.5
4874.000	46.45	-33.3	34.2	45.59	54.0	7.6
7311.000	30.15	-30.8	35.8	25.14	54.0	23.9
9748.000	32.78	-30.3	36.9	26.26	54.0	21.2
12185.000	33.10	-28.1	38.8	22.39	54.0	20.9

Ch11

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2483.600	46.51	2.9	32.1	11.49	54.0	7.5
2483.900	46.50	2.9	32.1	11.48	54.0	7.5
4924.000	39.05	-33.5	34.2	38.40	54.0	15.0
7387.000	30.15	-31.5	35.9	25.76	54.0	23.8
9848.000	31.87	-30.2	37.0	25.06	54.0	22.1
12310.000	32.86	-27.8	38.9	21.73	54.0	21.1

802.11b-Peak

Ch1

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2346.596	60.10	2.8	32.0	25.31	74.0	13.9
2385.544	60.00	2.9	32.0	25.15	74.0	14.0
4823.500	47.82	-33.2	34.1	46.92	74.0	26.2
7236.000	42.21	-30.9	35.8	37.29	74.0	31.8
9648.000	42.16	-30.5	36.7	35.91	74.0	31.8
12060.000	44.56	-28.7	38.7	34.52	74.0	29.4

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2369.800	44.06	-34.5	32.0	46.58	74.0	29.9
2506.600	44.24	-34.2	32.1	46.35	74.0	29.8
4874.000	50.05	-33.3	34.2	49.20	74.0	23.9
7311.000	41.87	-30.8	35.8	36.86	74.0	32.1
9748.000	43.67	-30.3	36.9	37.15	74.0	30.3
12185.000	43.94	-28.1	38.8	33.24	74.0	30.1

Ch11

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2488.760	60.38	2.9	32.1	25.36	74.0	13.6
2493.695	61.07	2.9	32.1	26.03	74.0	12.9
4924.000	44.98	-33.5	34.2	44.33	74.0	29.0
7386.000	40.37	-31.5	35.9	35.97	74.0	33.6
9848.000	41.64	-30.2	37.0	34.83	74.0	32.4
12310.000	43.91	-27.8	38.9	32.78	74.0	30.1

802.11g - Average

Ch1

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2389.800	46.90	2.9	32.0	12.03	54.0	7.1
2390.000	46.90	2.9	32.0	12.04	54.0	7.1
4824.000	32.58	-33.2	34.1	31.68	54.0	21.4
7236.000	30.39	-30.9	35.8	25.47	54.0	23.6
9648.000	31.34	-30.5	36.7	25.09	54.0	22.7
12060.000	32.87	-28.7	38.7	22.84	54.0	21.1

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2387.800	46.56	2.9	32.0	11.69	54.0	7.4
2484.700	46.79	2.9	32.1	11.77	54.0	7.2
4876.000	34.35	-33.3	34.2	33.50	54.0	19.7
7311.000	30.15	-30.8	35.8	25.14	54.0	23.9
9748.000	33.05	-30.3	36.9	26.53	54.0	21.0
12185.000	33.19	-28.1	38.8	22.48	54.0	20.8

Ch11

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2483.500	48.31	2.9	32.1	13.29	54.0	5.7
2483.900	48.19	2.9	32.1	13.18	54.0	5.8
4921.000	30.70	-33.5	34.2	30.05	54.0	23.3
7386.000	29.76	-31.5	35.9	25.36	54.0	24.2
9848.000	31.33	-30.2	37.0	24.52	54.0	22.7
12310.000	32.91	-27.8	38.9	21.78	54.0	21.1

802.11g - Peak

Ch1

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2379.594	60.45	2.9	32.0	25.60	74.0	13.6
2387.770	60.21	2.9	32.0	25.35	74.0	13.8
4826.500	45.86	-33.2	34.1	44.96	74.0	28.1
7236.000	40.96	-30.9	35.8	36.05	74.0	33.0
9648.000	41.86	-30.5	36.7	35.61	74.0	32.1
12060.000	43.88	-28.7	38.7	33.85	74.0	30.1

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2370.400	43.78	-34.5	32.0	46.27	74.0	30.2
2506.600	45.02	-34.2	32.1	47.12	74.0	29.0
4875.000	46.95	-33.3	34.2	46.10	74.0	27.0
7311.000	41.78	-30.8	35.8	36.77	74.0	32.2
9748.000	43.09	-30.3	36.9	36.57	74.0	30.9
12185.000	44.41	-28.1	38.8	33.70	74.0	29.6

Ch11

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2483.835	62.47	2.9	32.1	27.45	74.0	11.5
2486.445	61.46	2.9	32.1	26.44	74.0	12.5
4925.000	43.83	-33.5	34.2	43.19	74.0	30.2
7386.000	41.12	-31.5	35.9	36.72	74.0	32.9
9848.000	42.88	-30.2	37.0	36.07	74.0	31.1
12310.000	43.95	-27.8	38.9	32.82	74.0	30.0

802.11n-HT20-Average

Ch1

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2388.900	46.80	2.9	32.0	11.94	54.0	7.2
2389.200	46.80	2.9	32.0	11.94	54.0	7.2
4826.000	31.76	-33.2	34.1	30.86	54.0	22.2
7236.000	30.43	-30.9	35.8	25.51	54.0	23.6
9648.000	31.81	-30.5	36.7	25.56	54.0	22.2
12060.000	33.07	-28.7	38.7	23.04	54.0	20.9

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2389.300	46.54	2.9	32.0	11.68	54.0	7.5
2484.000	46.70	2.9	32.1	11.68	54.0	7.3
4873.000	33.58	-33.3	34.2	32.73	54.0	20.4
7311.000	30.28	-30.8	35.8	25.27	54.0	23.7
9748.000	33.02	-30.3	36.9	26.50	54.0	21.0
12185.000	33.36	-28.1	38.8	22.65	54.0	20.6

Ch11

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2483.500	48.09	2.9	32.1	13.08	54.0	5.9
2483.600	48.10	2.9	32.1	13.08	54.0	5.9
4924.000	29.88	-33.5	34.2	29.24	54.0	24.1
7386.000	29.69	-31.5	35.9	25.28	54.0	24.3
9848.000	31.52	-30.2	37.0	24.71	54.0	22.5
12310.000	33.09	-27.8	38.9	21.96	54.0	20.9

802.11n-HT20-Peak

Ch1

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2356.872	61.08	2.8	32.0	26.27	74.0	12.9
2387.504	60.96	2.9	32.0	26.10	74.0	13.0
4821.500	45.69	-33.2	34.1	44.80	74.0	28.3
7236.000	42.56	-30.9	35.8	37.64	74.0	31.4
9648.000	43.22	-30.5	36.7	36.97	74.0	30.8
12060.000	44.87	-28.7	38.7	34.84	74.0	29.1

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2367.000	44.49	-34.6	32.0	47.11	74.0	29.5
2510.800	44.19	-34.3	32.1	46.33	74.0	29.8
4872.000	47.36	-33.3	34.2	46.51	74.0	26.6
7311.000	40.72	-30.8	35.8	35.71	74.0	33.3
9748.000	43.08	-30.3	36.9	36.56	74.0	30.9
12185.000	44.28	-28.1	38.8	33.57	74.0	29.7

Ch11

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2484.310	61.10	2.9	32.1	26.08	74.0	12.9
2484.385	61.10	2.9	32.1	26.08	74.0	12.9
4924.000	40.68	-33.5	34.2	40.04	74.0	33.3
7386.000	40.74	-31.5	35.9	36.34	74.0	33.3
9848.000	42.00	-30.2	37.0	35.19	74.0	32.0
12310.000	44.85	-27.8	38.9	33.71	74.0	29.2

802.11n-HT40-Average
Ch3

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2389.700	48.82	2.9	32.0	13.96	54.0	5.2
2390.000	48.84	2.9	32.0	13.98	54.0	5.2
4844.000	31.10	-33.2	34.1	30.19	54.0	22.9
7266.000	30.75	-30.6	35.8	25.54	54.0	23.3
9688.000	31.58	-30.4	36.8	25.18	54.0	22.4
12110.000	33.14	-28.5	38.8	22.84	54.0	20.9

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2389.800	46.82	2.9	32.0	11.95	54.0	7.2
2483.700	47.06	2.9	32.1	12.04	54.0	6.9
4873.000	31.01	-33.3	34.2	30.16	54.0	23.0
7311.000	30.20	-30.8	35.8	25.19	54.0	23.8
9748.000	33.02	-30.3	36.9	26.50	54.0	21.0
12185.000	33.42	-28.1	38.8	22.71	54.0	20.6

Ch9

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2483.500	49.60	2.9	32.1	14.59	54.0	4.4
2483.600	49.62	2.9	32.1	14.61	54.0	4.4
4895.000	30.52	-33.4	34.2	29.74	54.0	23.5
7356.000	30.19	-31.2	35.8	25.52	54.0	23.8
9808.000	31.52	-30.3	36.9	24.91	54.0	22.5
12260.000	33.13	-27.9	38.9	22.15	54.0	20.9

802.11n-HT40-Peak
Ch3

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2389.422	61.80	2.9	32.0	26.93	74.0	12.2
2389.996	62.33	2.9	32.0	27.46	74.0	11.7
4842.000	43.29	-33.2	34.1	42.38	74.0	30.7
7266.000	41.62	-30.6	35.8	36.41	74.0	32.4
9688.000	42.01	-30.4	36.8	35.61	74.0	32.0
12110.000	45.26	-28.5	38.8	34.96	74.0	28.7

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2374.200	44.35	-34.3	32.0	46.69	74.0	29.7
2502.400	44.48	-34.2	32.1	46.55	74.0	29.5
4874.000	42.94	-33.3	34.2	42.09	74.0	31.1
7311.000	42.37	-30.8	35.8	37.36	74.0	31.6
9748.000	43.14	-30.3	36.9	36.62	74.0	30.9
12185.000	44.25	-28.1	38.8	33.54	74.0	29.8

Ch9

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)
2483.880	62.97	2.9	32.1	27.95	74.0	11.0
2484.490	63.50	2.9	32.1	28.48	74.0	10.5
4896.000	43.58	-33.4	34.2	42.81	74.0	30.4
7356.000	41.63	-31.2	35.8	36.96	74.0	32.4
9808.000	42.49	-30.3	36.9	35.88	74.0	31.5
12260.000	43.97	-27.9	38.9	32.99	74.0	30.0

Test graphs as below:

RE - Power-2.31GHz-2.45GHz

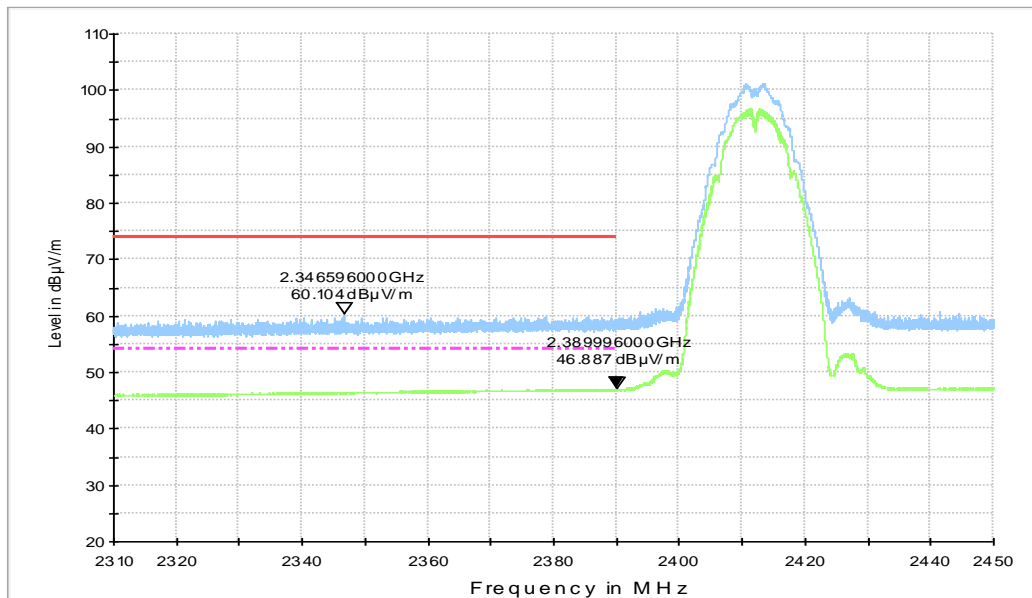


Fig.B.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.31 GHz – 2.45GHz

RE - Power-2.45GHz-2.5GHz

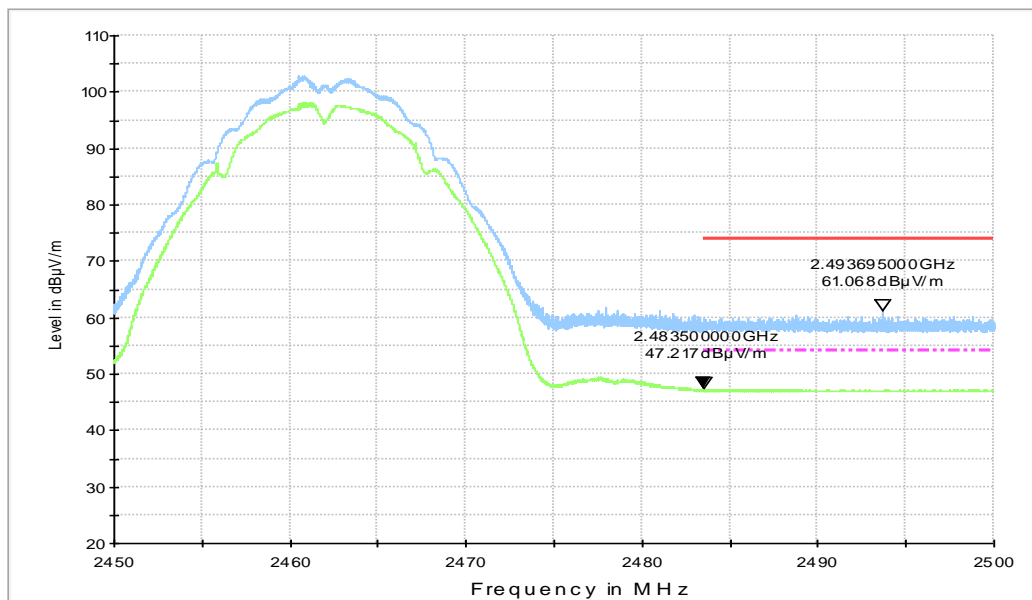


Fig.B.6.2.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

RE - Power-2.31GHz-2.45GHz

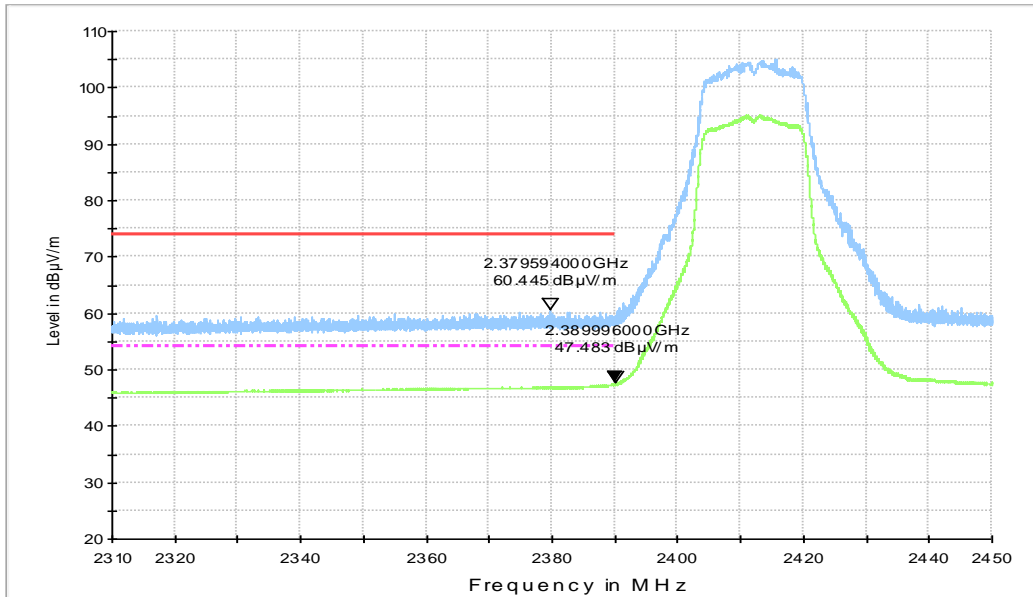


Fig.B.6.2.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.31 GHz - 2.43GHz

RE - Power-2.45GHz-2.5GHz

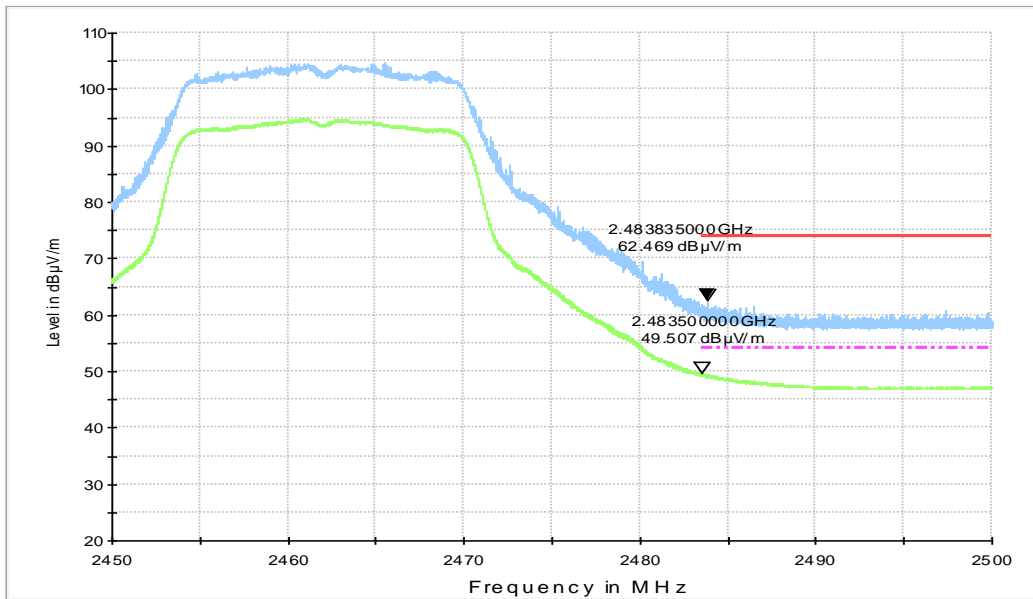


Fig.B.6.2.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

RE - Power-2.31GHz-2.45GHz

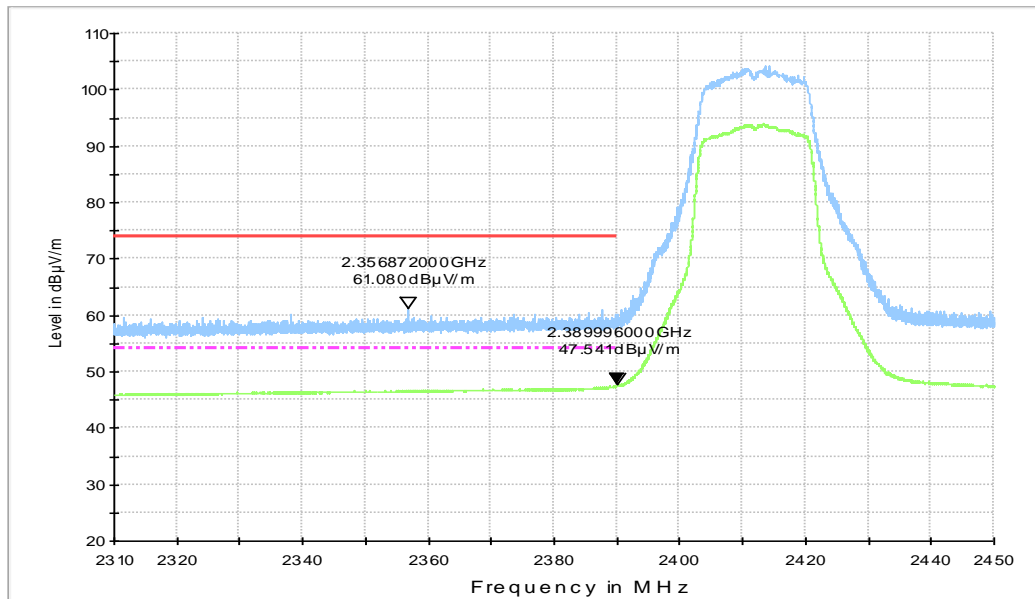


Fig.B.6.2.5 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.31GHz - 2.45GHz

RE - Power-2.45GHz-2.5GHz

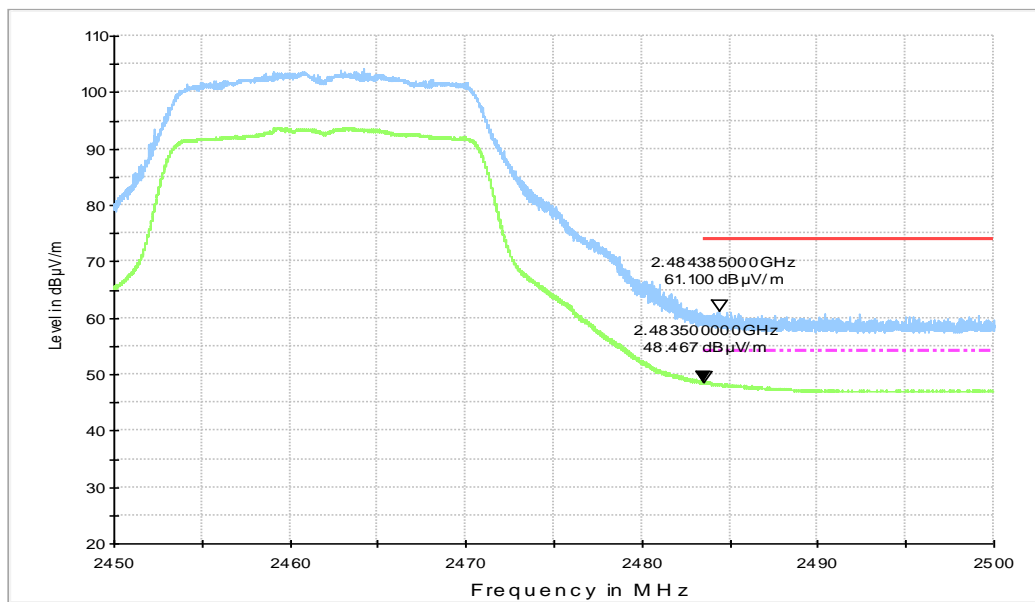


Fig.B.6.2.6 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

RE - Power-2.31GHz-2.45GHz

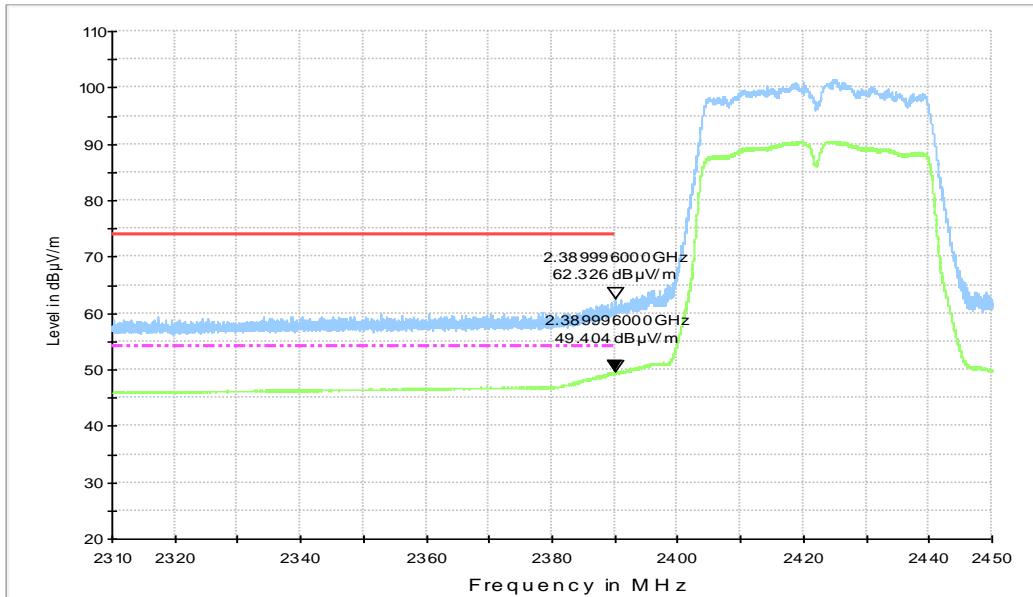


Fig.B.6.2.7 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.31GHz - 2.45GHz

RE - Power-2.45GHz-2.5GHz

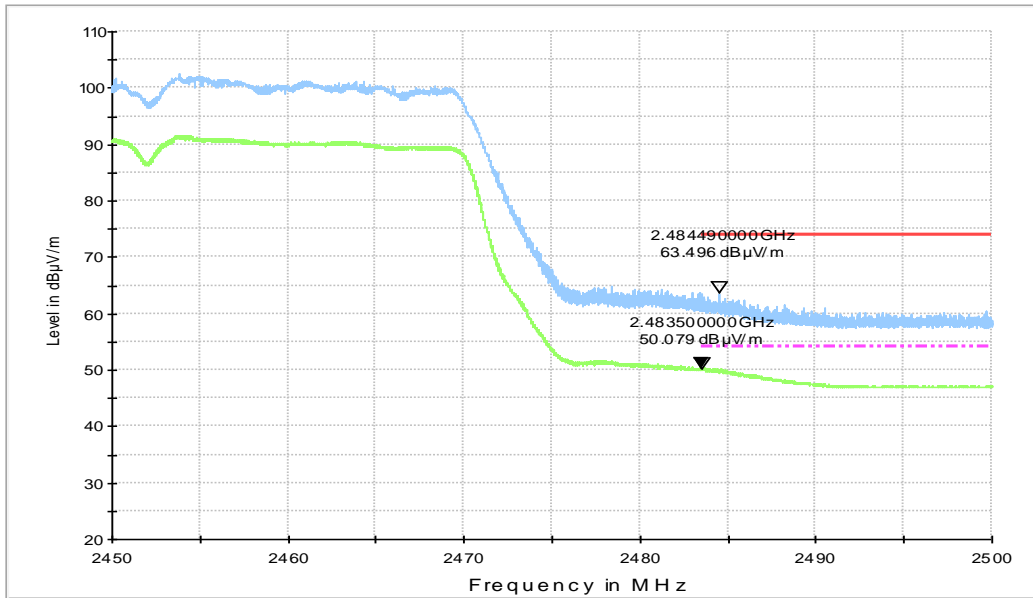


Fig.B.6.2.8 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

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:

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.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 (dB μ V)	Result (dB μ V)		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:

Traffic:

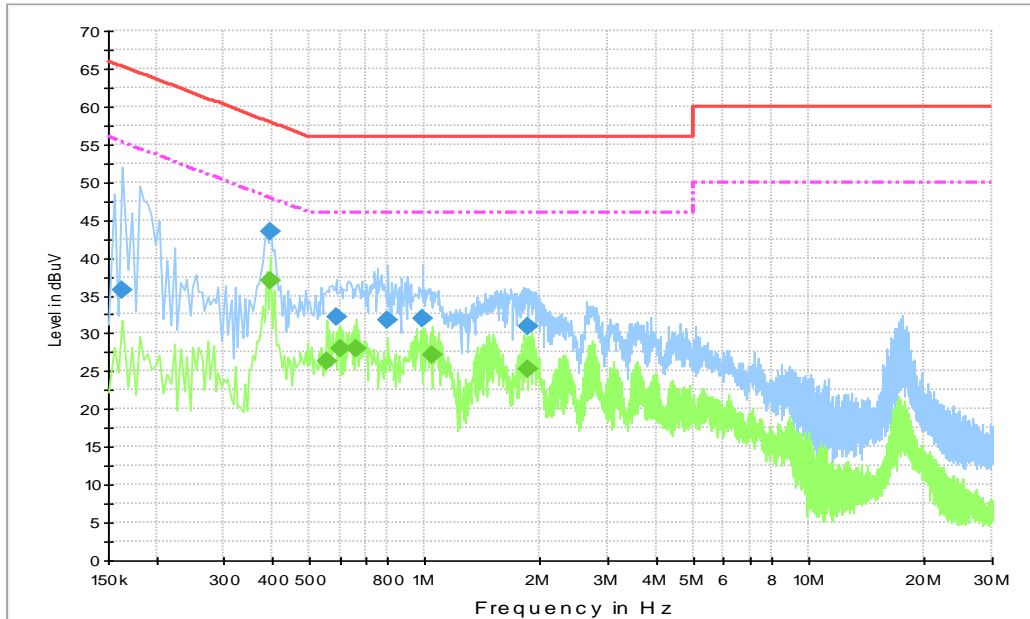


Fig.B.7.1 AC Powerline Conducted Emission-802.11b

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.163500	35.7	1000.	9.000	L1	20.0	29.6	65.3
0.397500	43.5	1000.	9.000	L1	20.0	14.4	57.9
0.586500	32.3	1000.	9.000	L1	20.0	23.7	56.0
0.802500	31.7	1000.	9.000	L1	19.9	24.3	56.0
0.987000	32.0	1000.	9.000	L1	19.8	24.0	56.0
1.860000	30.9	1000.	9.000	L1	19.8	25.1	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.397500	37.0	1000.0	9.000	L1	20.0	10.9	47.9
0.555000	26.4	1000.0	9.000	L1	20.0	19.6	46.0
0.604500	28.1	1000.0	9.000	L1	20.0	17.9	46.0
0.663000	28.0	1000.0	9.000	L1	19.9	18.0	46.0
1.045500	27.1	1000.0	9.000	L1	19.8	18.9	46.0
1.851000	25.3	1000.0	9.000	L1	19.8	20.7	46.0

Idle:

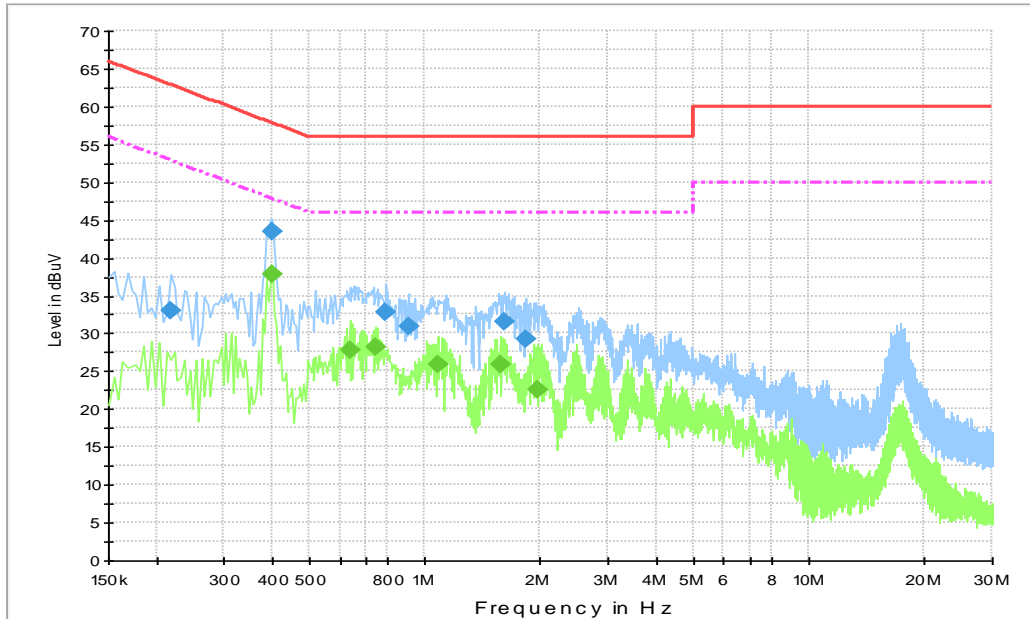


Fig.B.7.2 AC Powerline Conducted Emission-Idle

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.




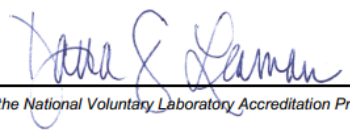
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.217500	33.0	1000.	0.217500	L1	19.9	30.0	62.9
0.402000	43.5	1000.	0.402000	L1	20.0	14.3	57.8
0.793500	32.8	1000.	0.793500	L1	19.9	23.2	56.0
0.906000	30.9	1000.	0.906000	L1	19.9	25.1	56.0
1.617000	31.6	1000.	1.617000	L1	19.8	24.4	56.0
1.833000	29.2	1000.	1.833000	N	19.8	26.8	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.402000	37.8	1000.0	9.000	L1	20.0	10.0	47.8
0.636000	27.9	1000.0	9.000	L1	19.9	18.1	46.0
0.744000	28.2	1000.0	9.000	L1	19.9	17.8	46.0
1.077000	26.0	1000.0	9.000	L1	19.8	20.0	46.0
1.567500	26.0	1000.0	9.000	L1	19.8	20.0	46.0
1.963500	22.5	1000.0	9.000	L1	19.8	23.5	46.0

ANNEX C: Accreditation Certificate

<p>United States Department of Commerce National Institute of Standards and Technology</p>  	
<hr/> <h3>Certificate of Accreditation to ISO/IEC 17025:2017</h3> <hr/>	
<p>NVLAP LAB CODE: 600118-0</p>	
<p>Telecommunication Technology Labs, CAICT Beijing China</p>	
<p><i>is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:</i></p>	
<p>Electromagnetic Compatibility & Telecommunications</p>	
<p><i>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).</i></p>	
<hr/> <p>2020-09-29 through 2021-09-30 <i>Effective Dates</i></p>	  <hr/> <p><i>For the National Voluntary Laboratory Accreditation Program</i></p>

END OF REPORT