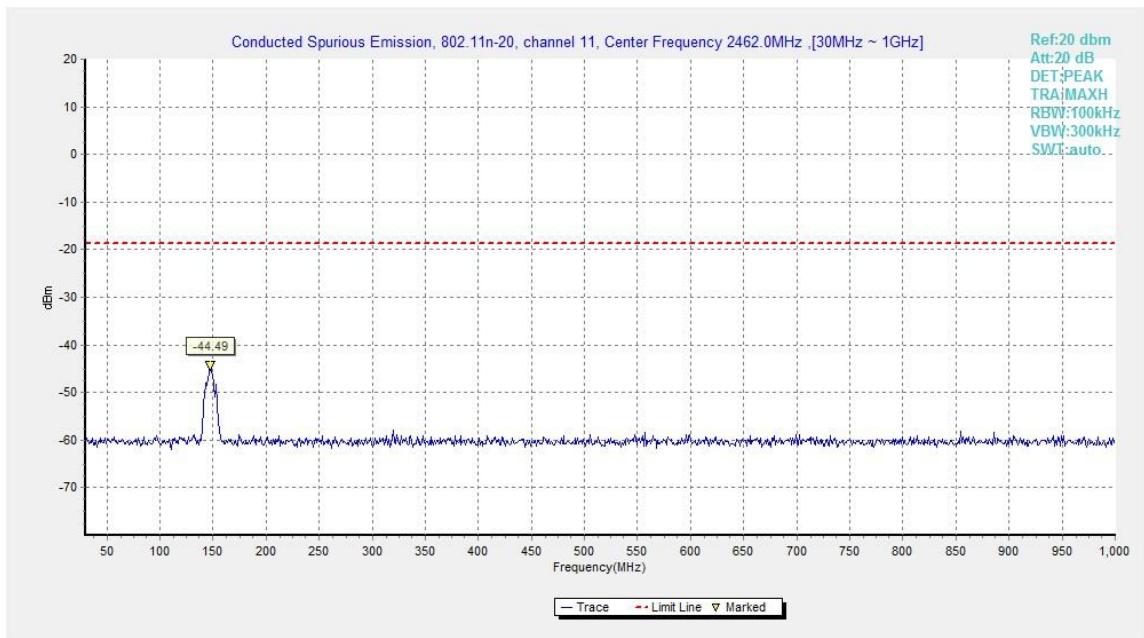
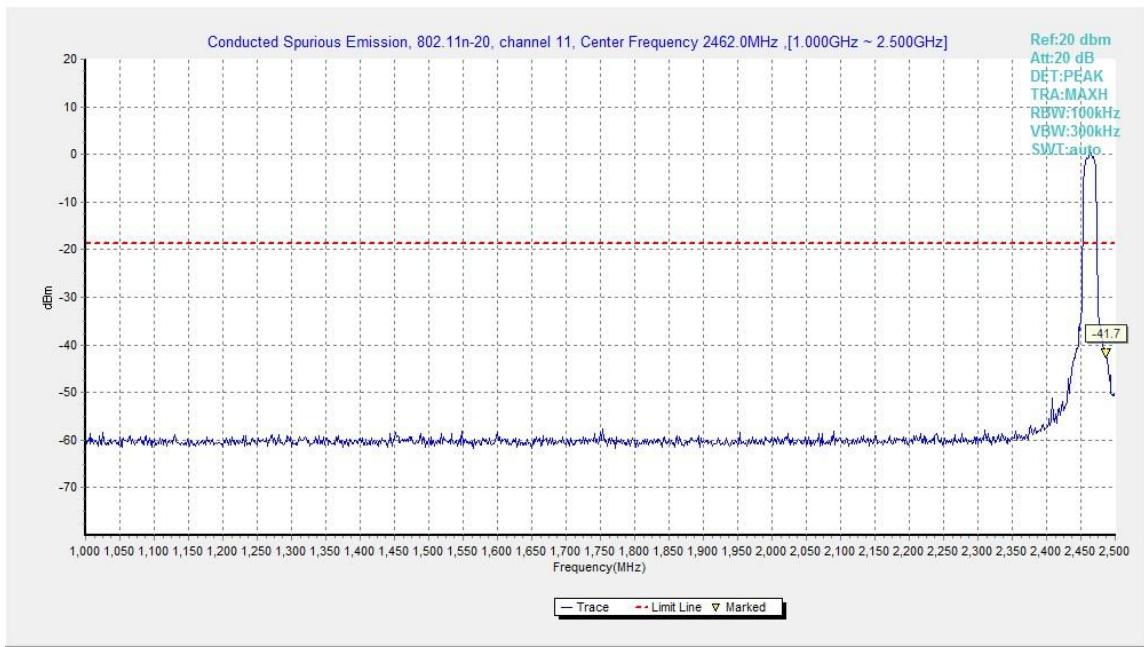


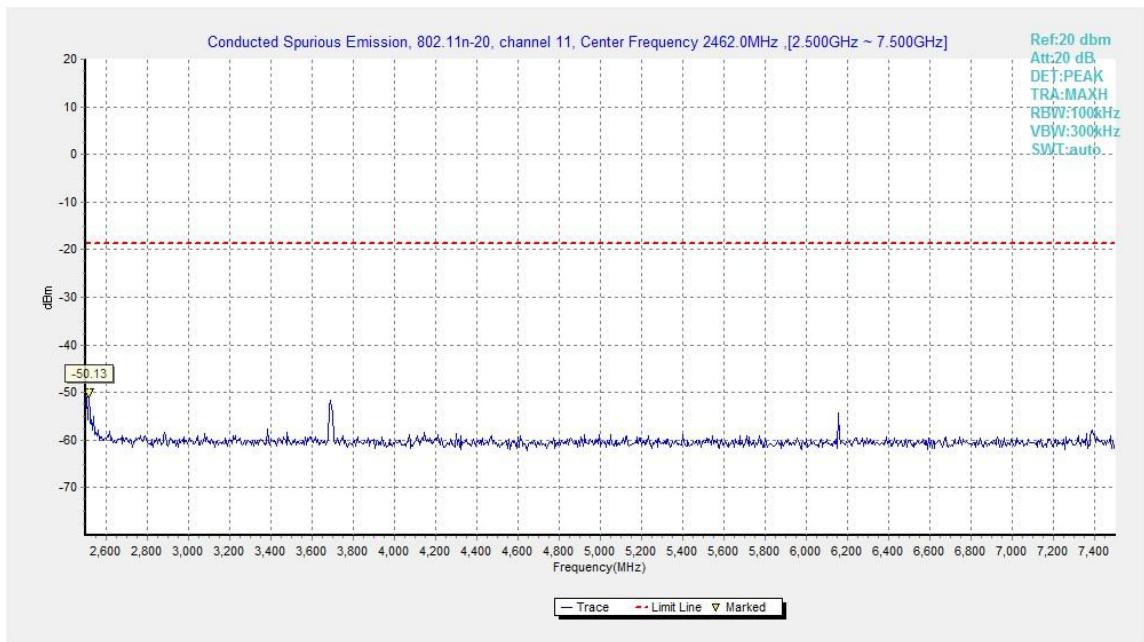
**Fig.A.6.1.65 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, Center Frequency)**



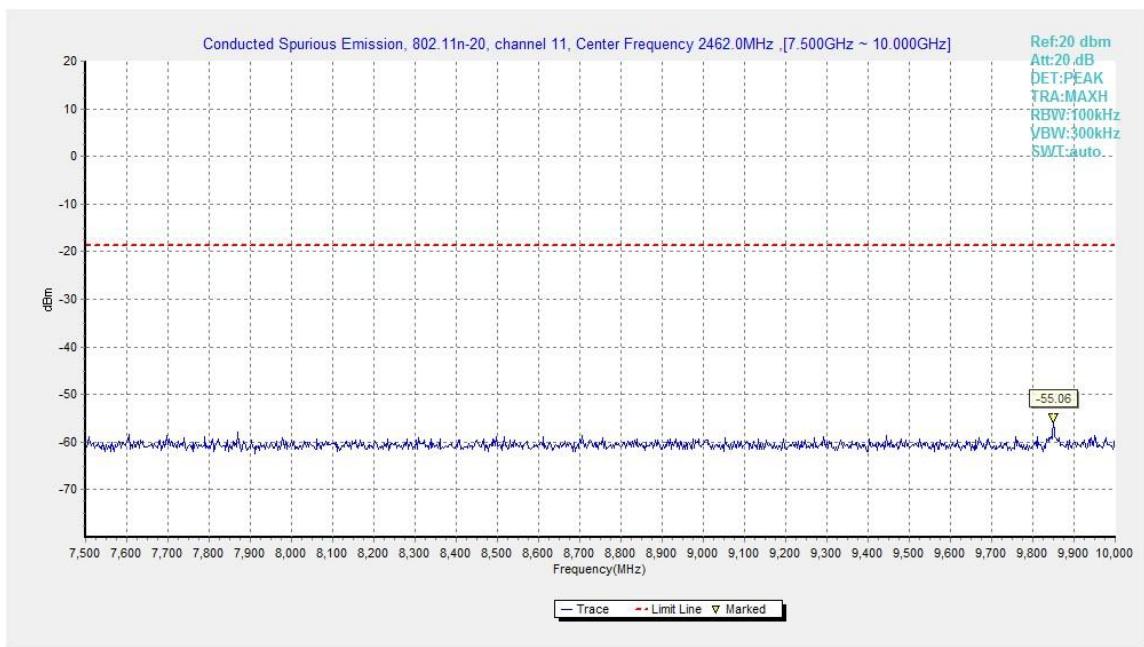
**Fig.A.6.1.66 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 30 MHz-1 GHz)**



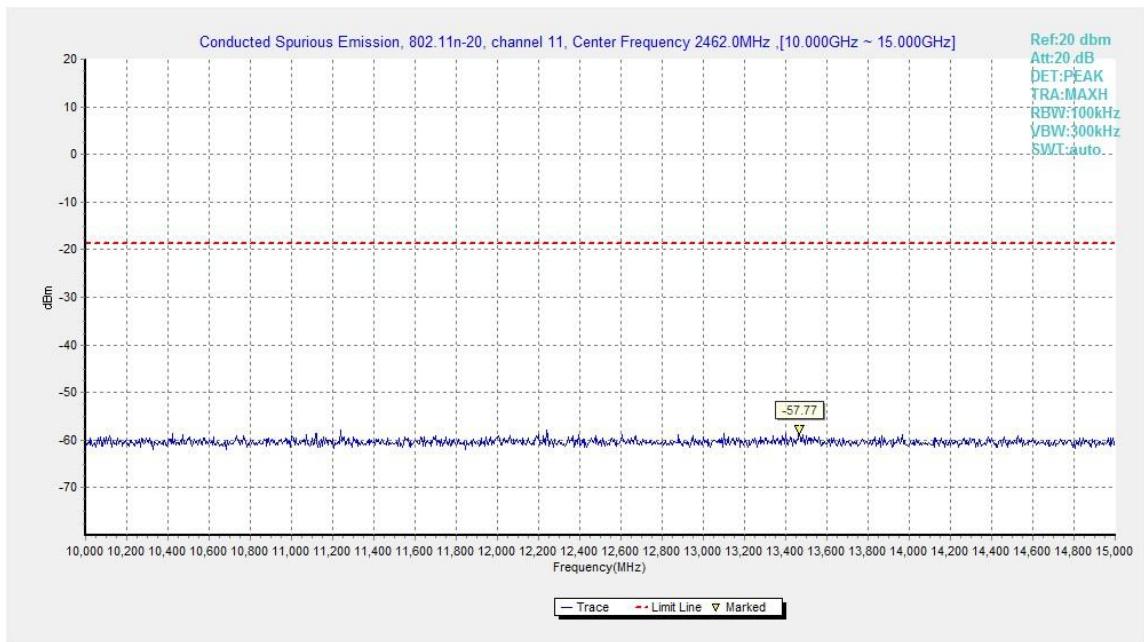
**Fig.A.6.1.67 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 1 GHz-2.5 GHz)**



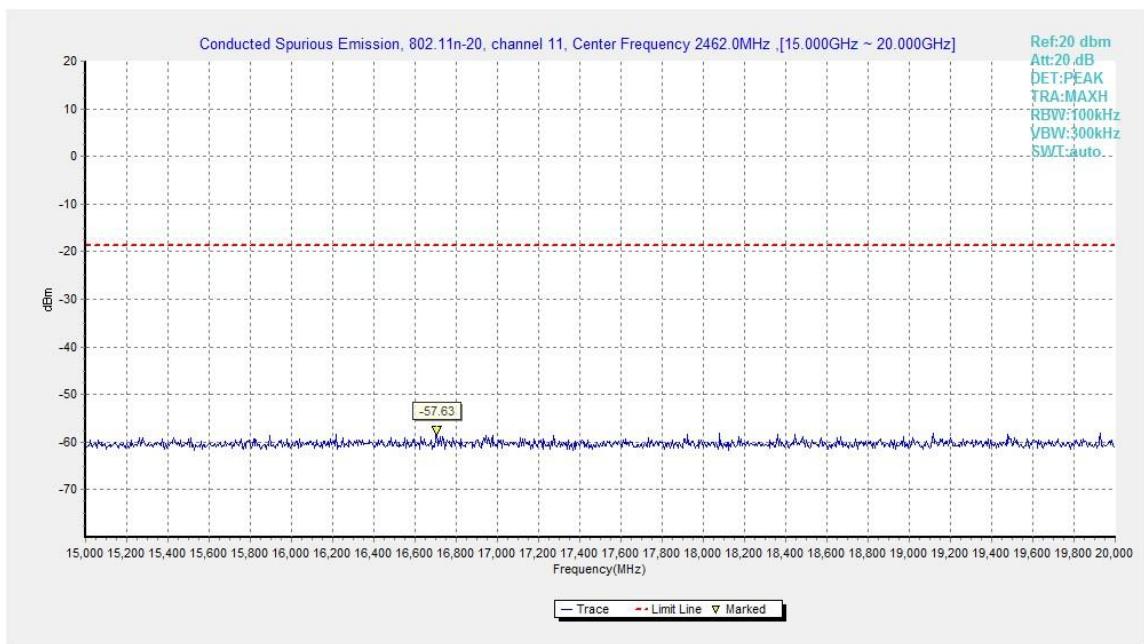
**Fig.A.6.1.68 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 2.5 GHz-7.5 GHz)**



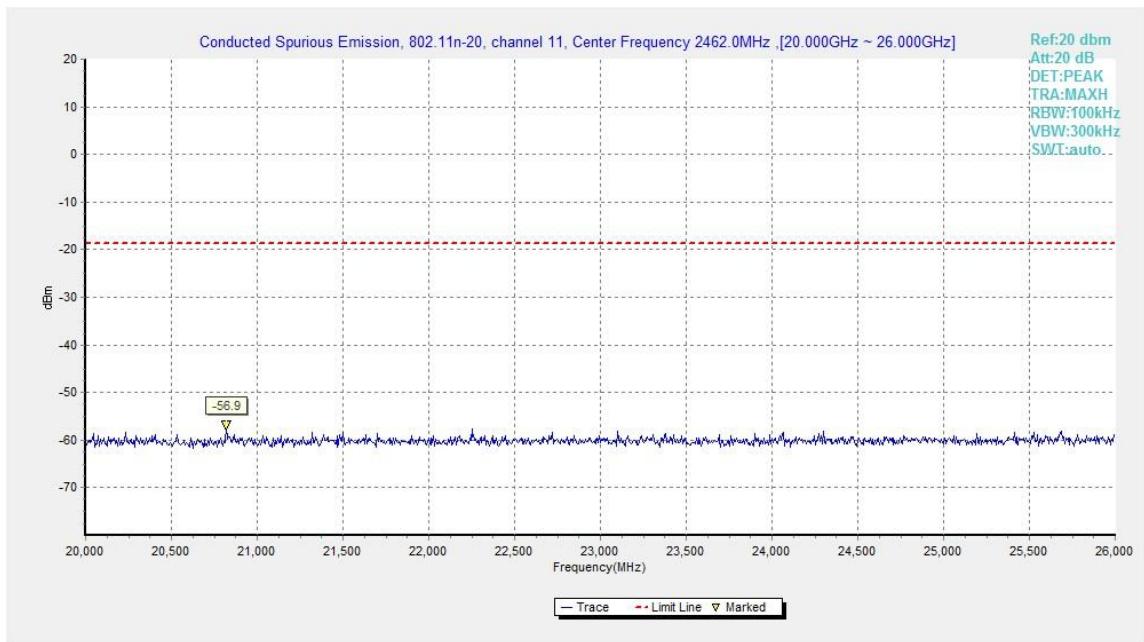
**Fig.A.6.1.69 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 7.5 GHz-10 GHz)**



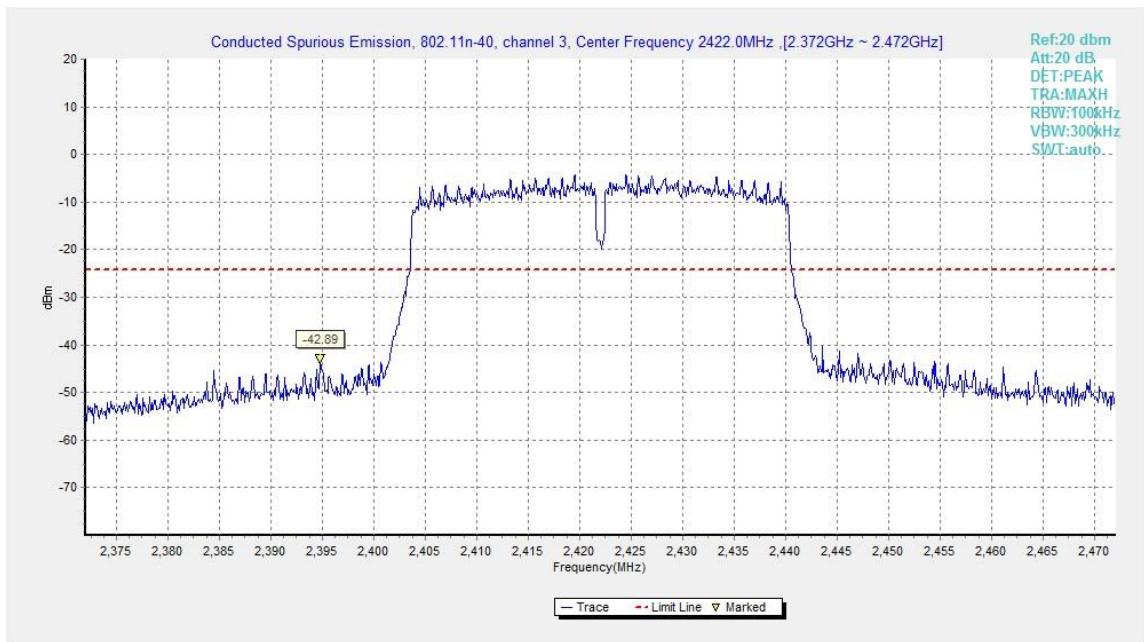
**Fig.A.6.1.70 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 10 GHz-15 GHz)**



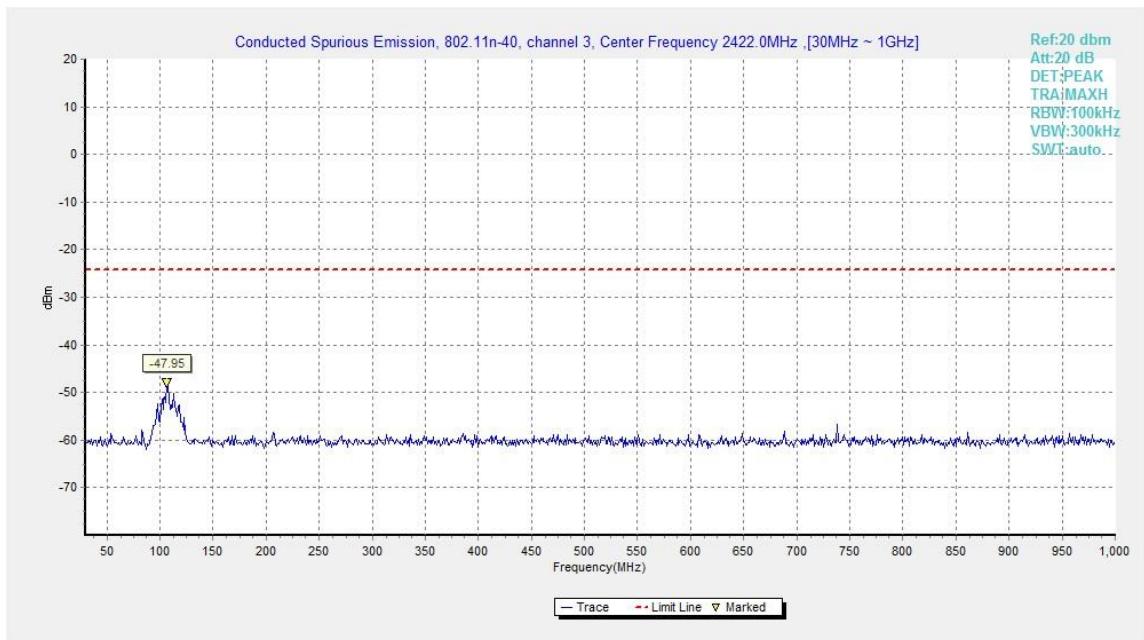
**Fig.A.6.1.71 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 15 GHz-20 GHz)**



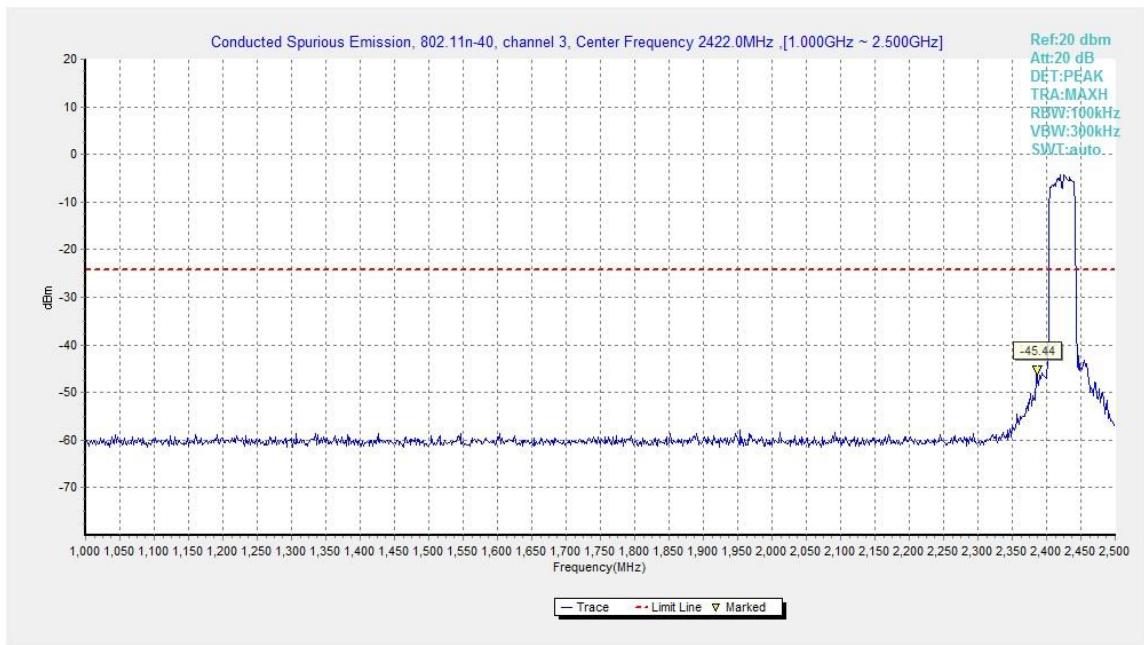
**Fig.A.6.1.72 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 20 GHz-26 GHz)**



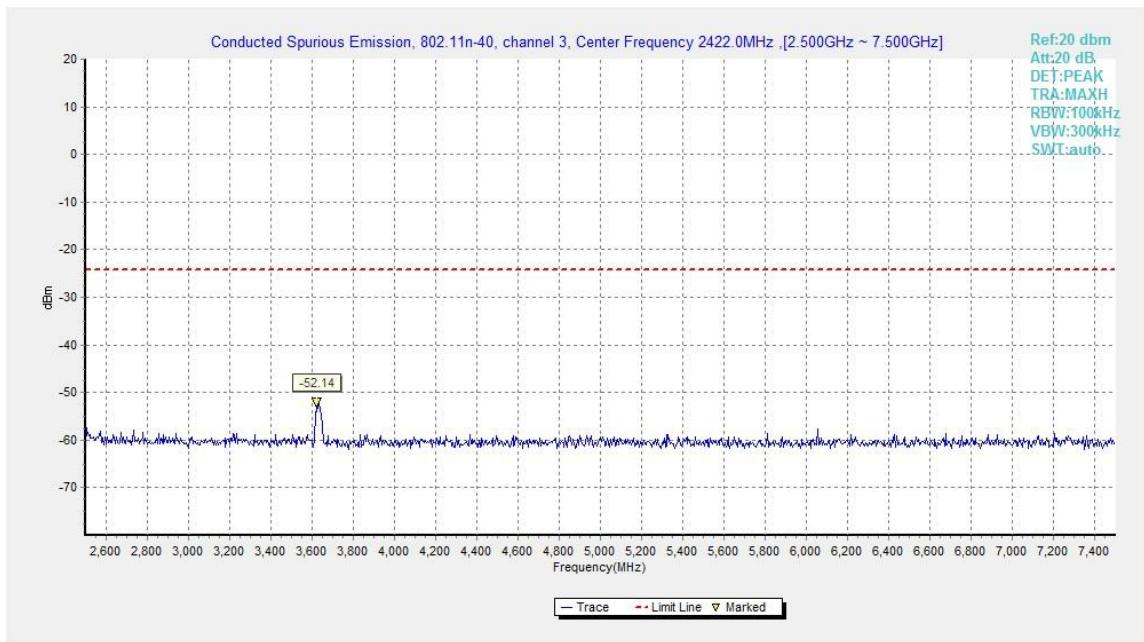
**Fig.A.6.1.73 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, Center Frequency)**



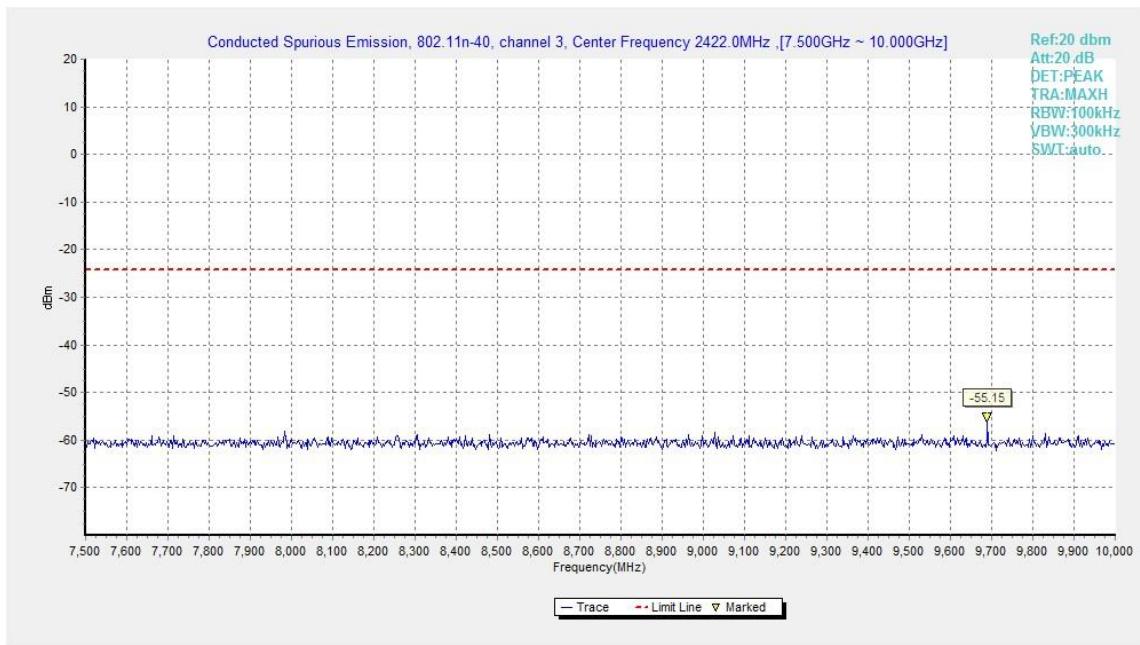
**Fig.A.6.1.74 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 30 MHz-1 GHz)**



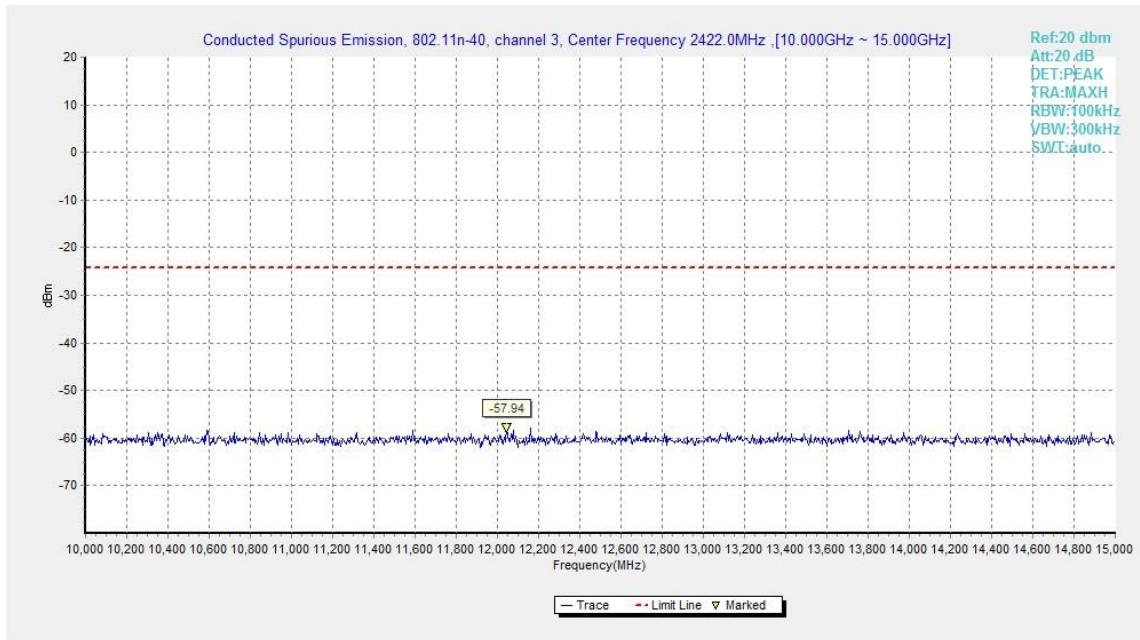
**Fig.A.6.1.75 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 1 GHz-2.5 GHz)**



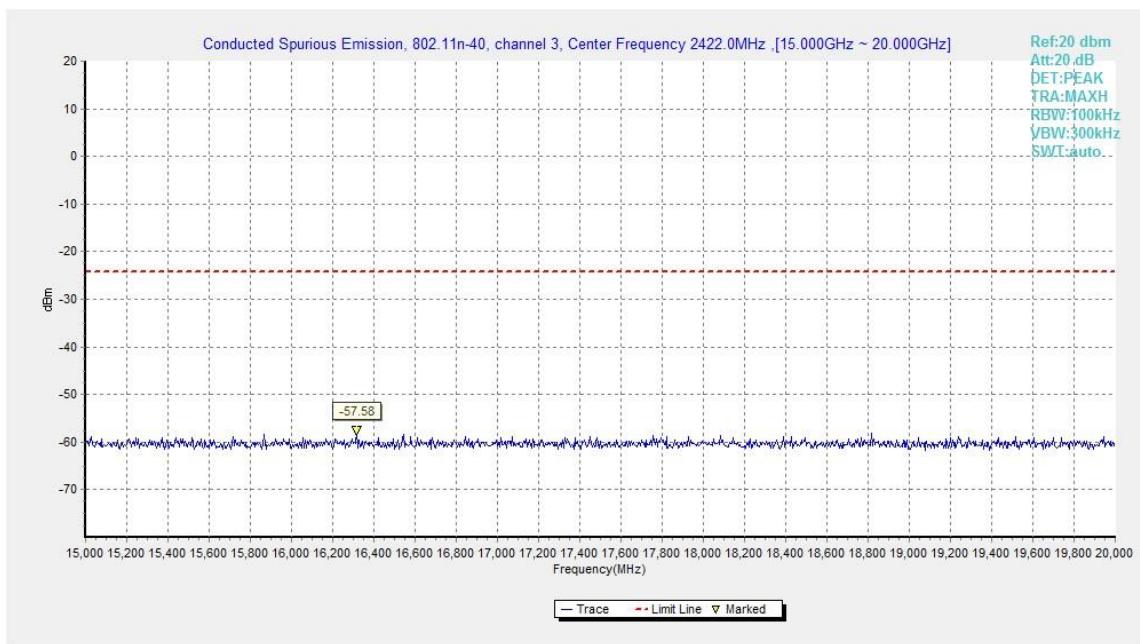
**Fig.A.6.1.76 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 2.5 GHz-7.5 GHz)**



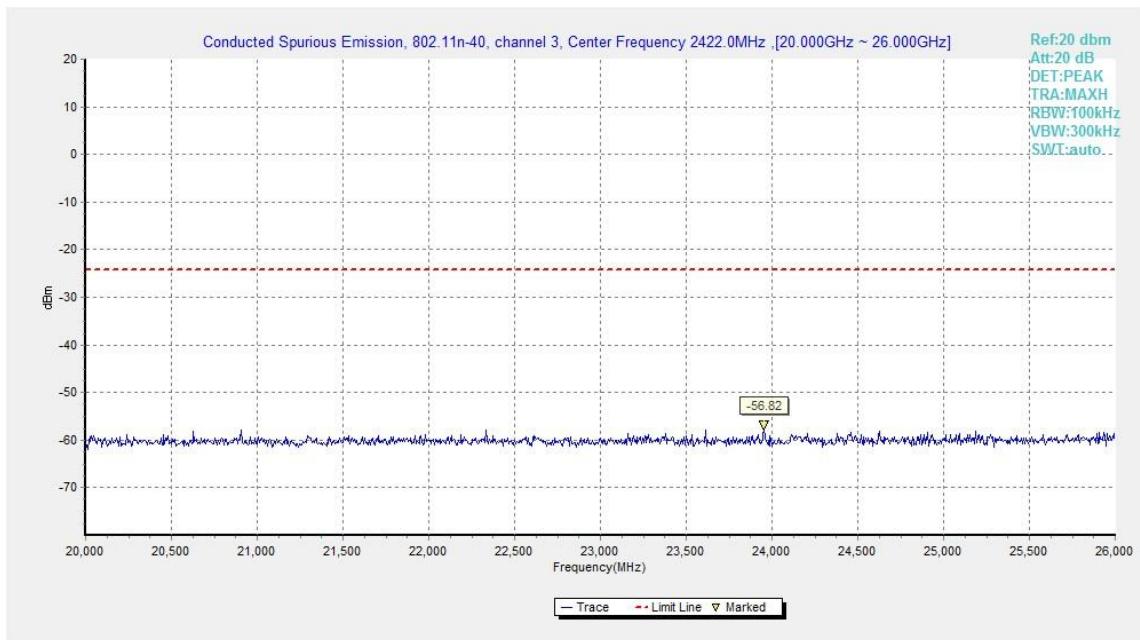
**Fig.A.6.1.77 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 7.5 GHz-10 GHz)**



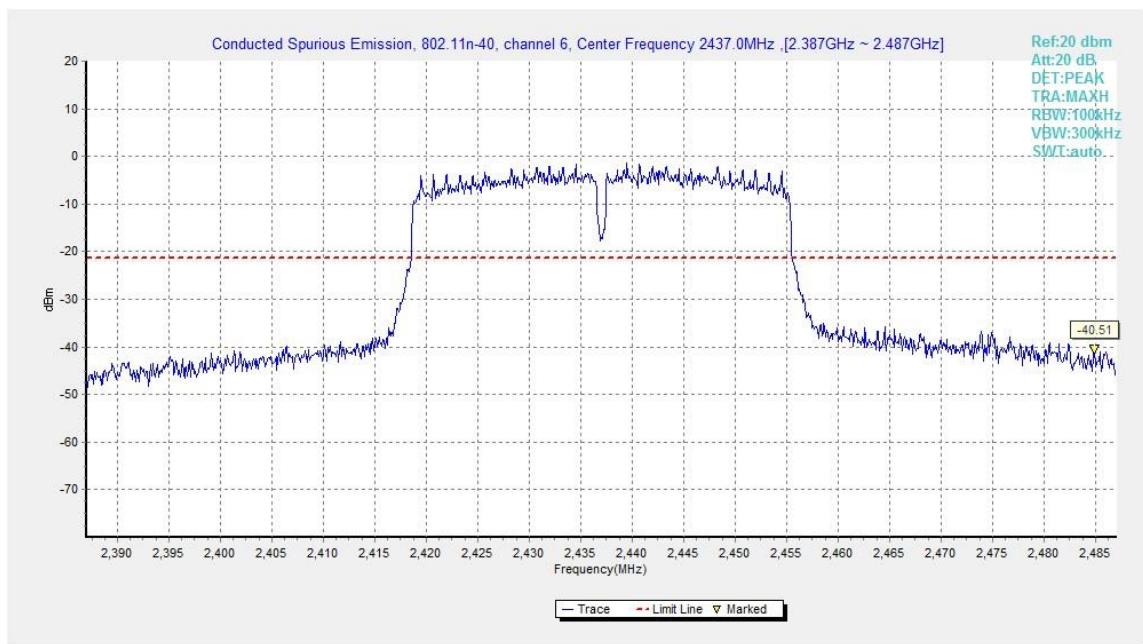
**Fig.A.6.1.78 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 10 GHz-15 GHz)**



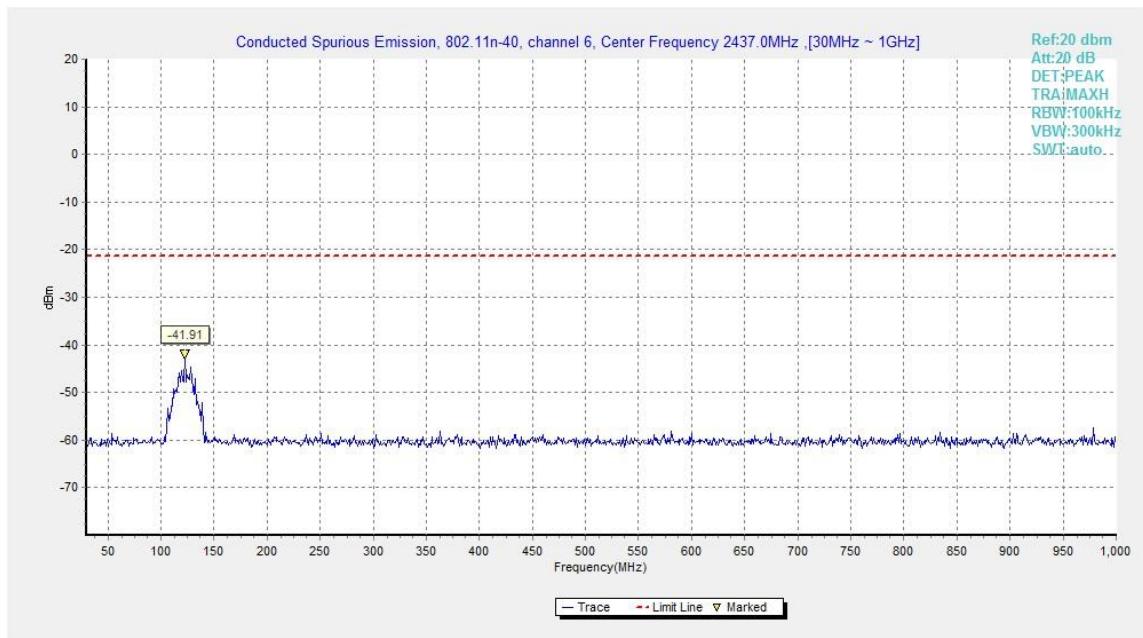
**Fig.A.6.1.79 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 15 GHz-20 GHz)**



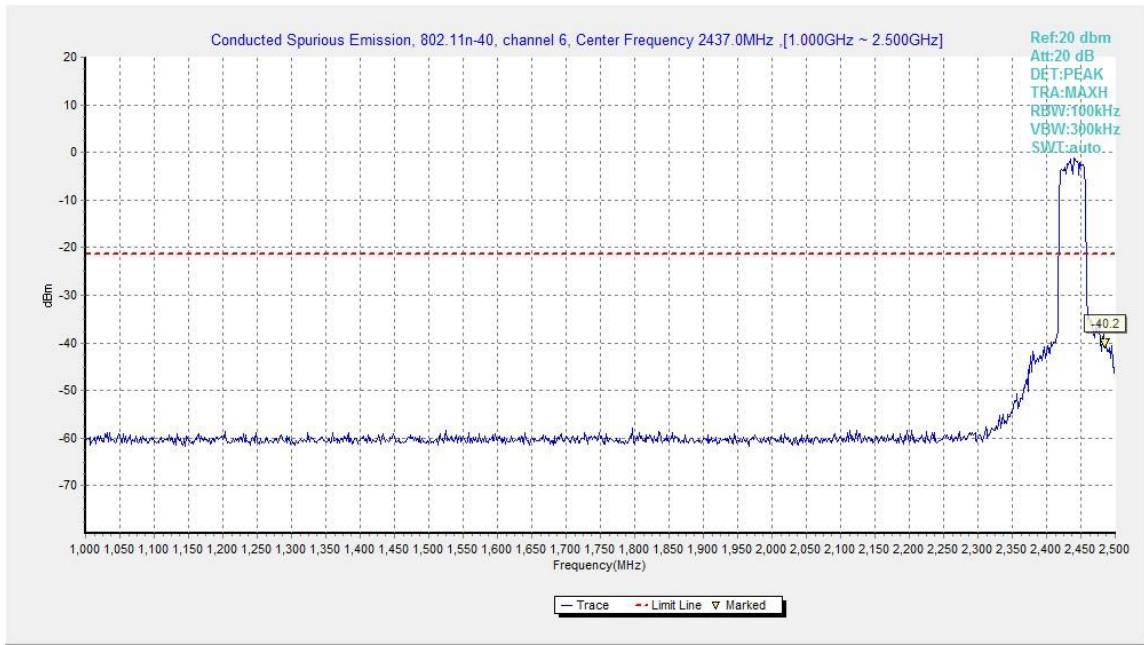
**Fig.A.6.1.80 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 20 GHz-26 GHz)**



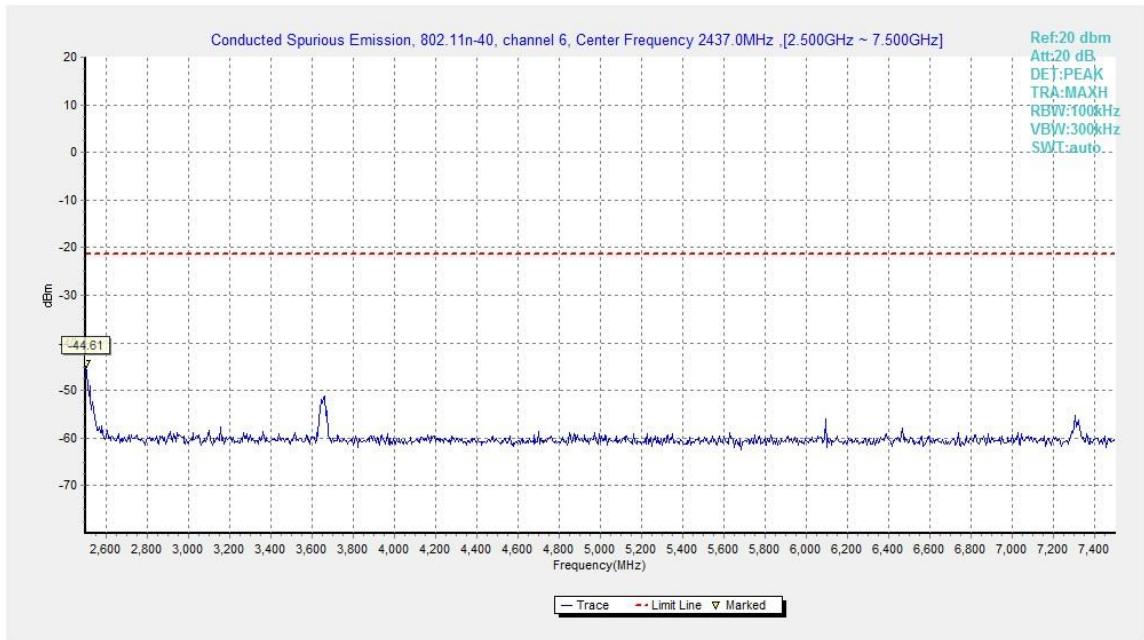
**Fig.A.6.1.81 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, Center Frequency)**



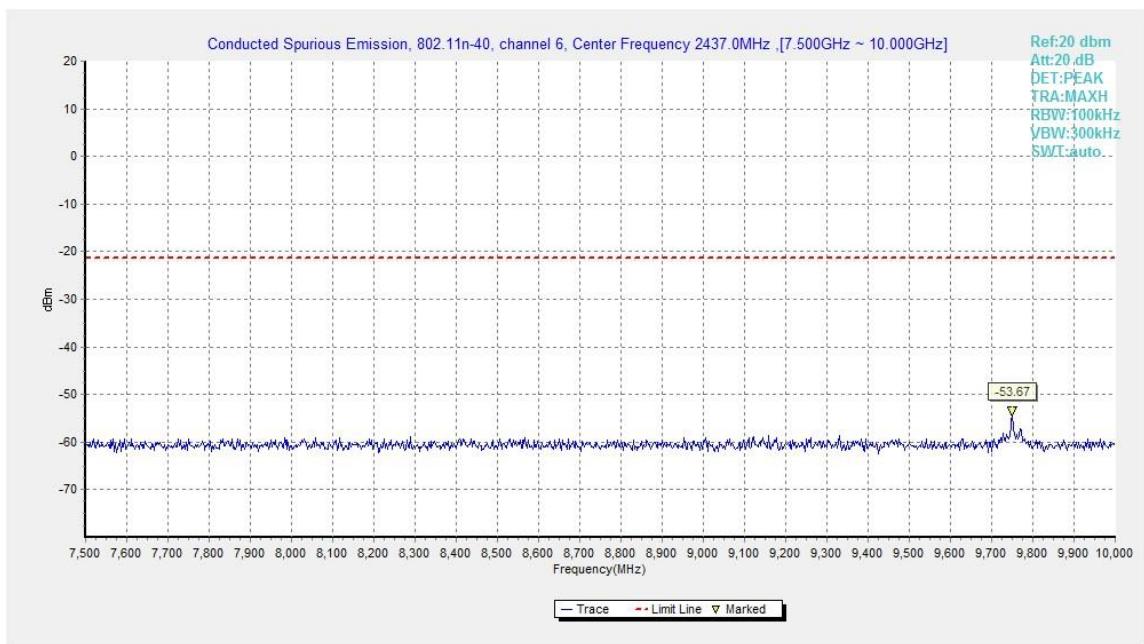
**Fig.A.6.1.82 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 30 MHz-1 GHz)**



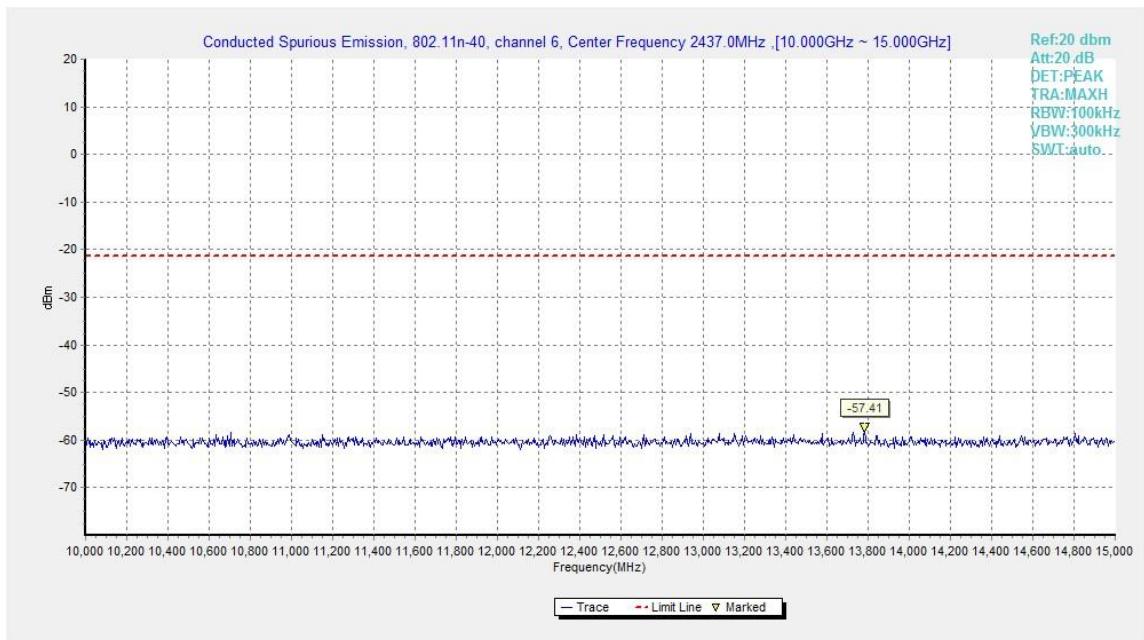
**Fig.A.6.1.83 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 1 GHz-2.5 GHz)**



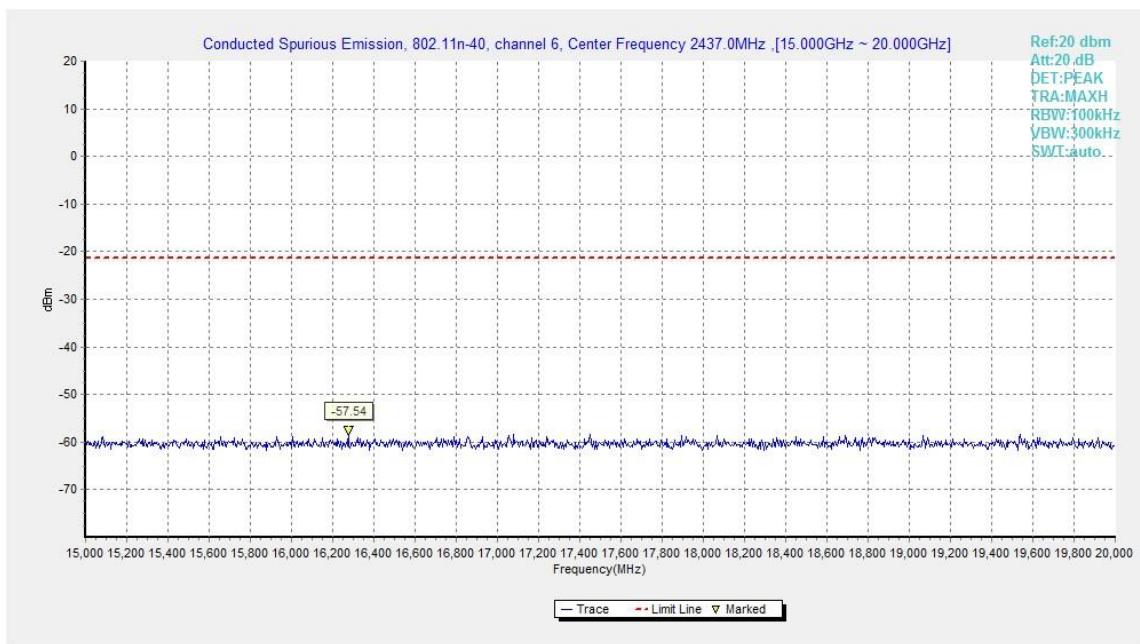
**Fig.A.6.1.84 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 2.5 GHz-7.5 GHz)**



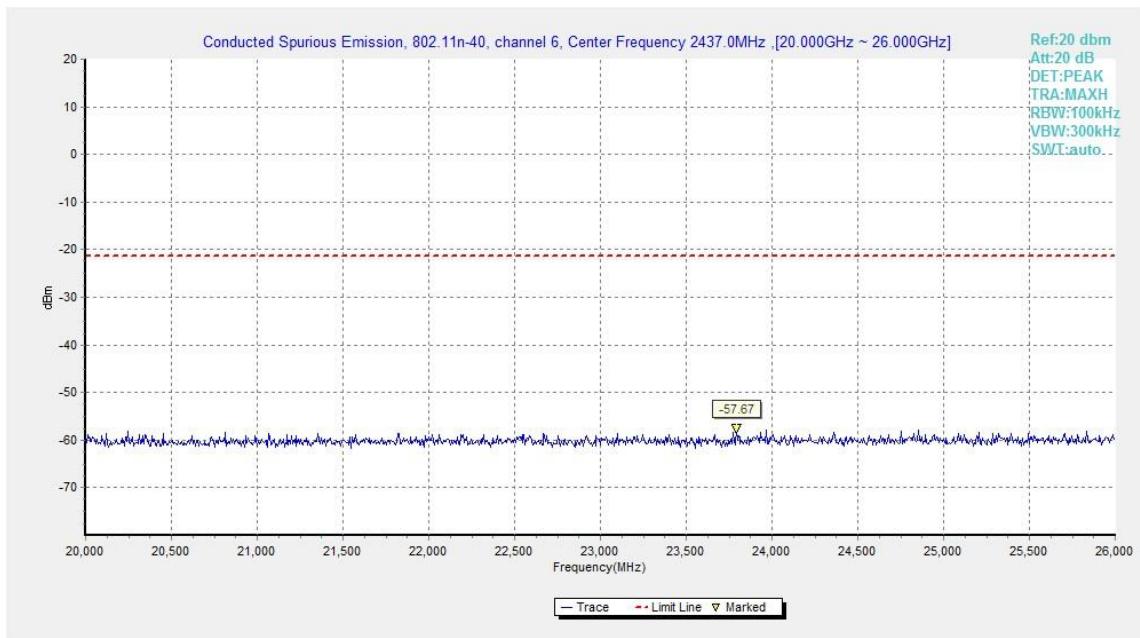
**Fig.A.6.1.85 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 7.5 GHz-10 GHz)**



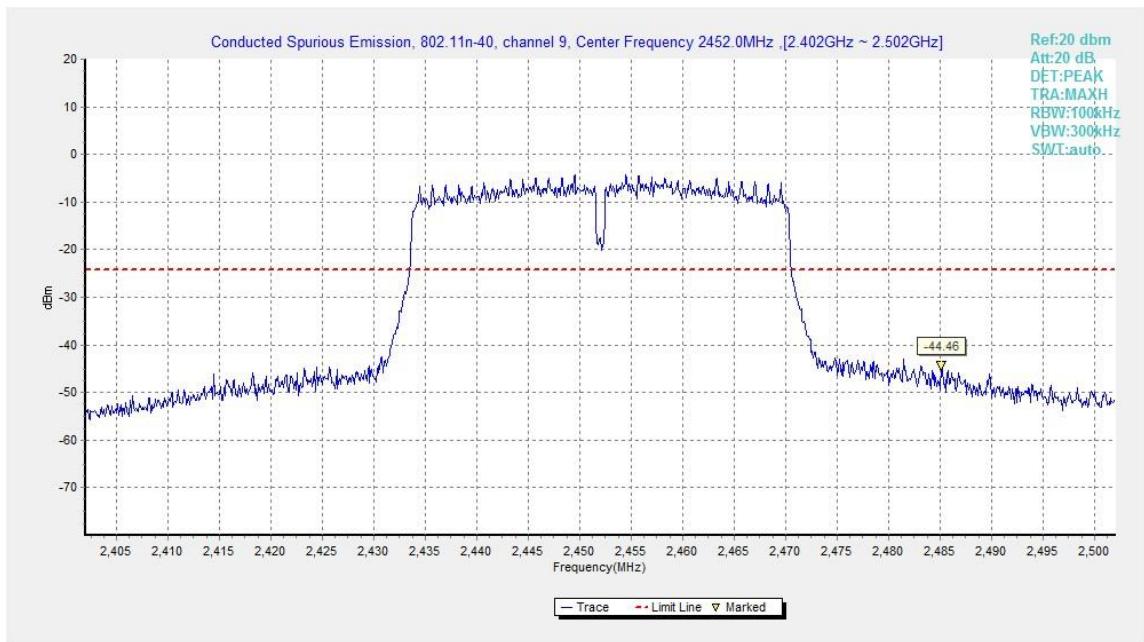
**Fig.A.6.1.86 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 10 GHz-15 GHz)**



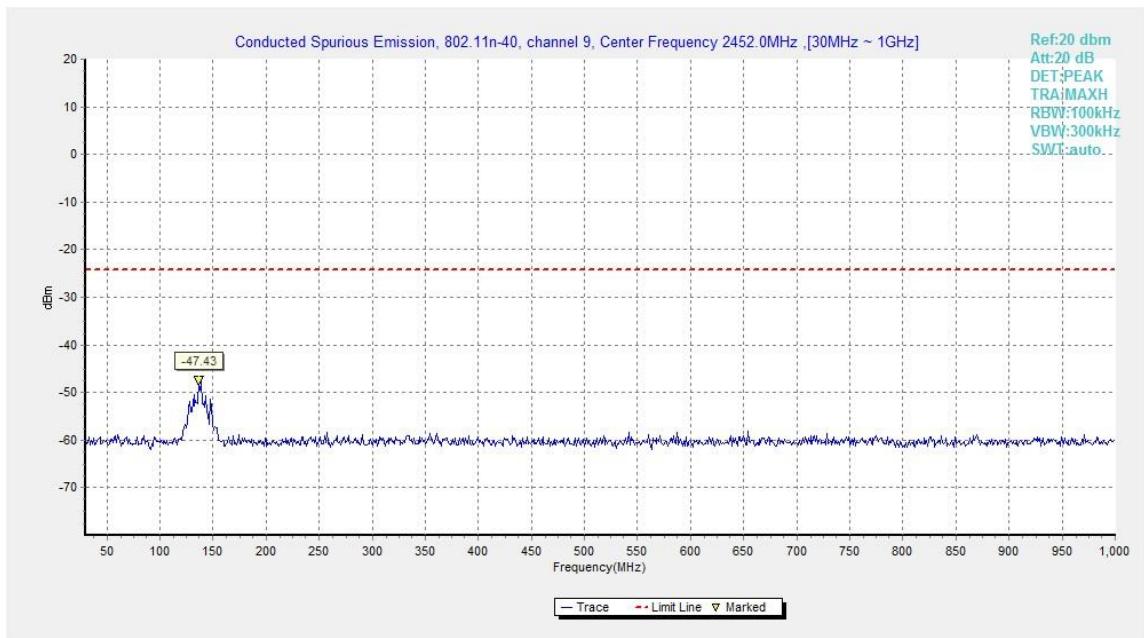
**Fig.A.6.1.87 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 15 GHz-20 GHz)**



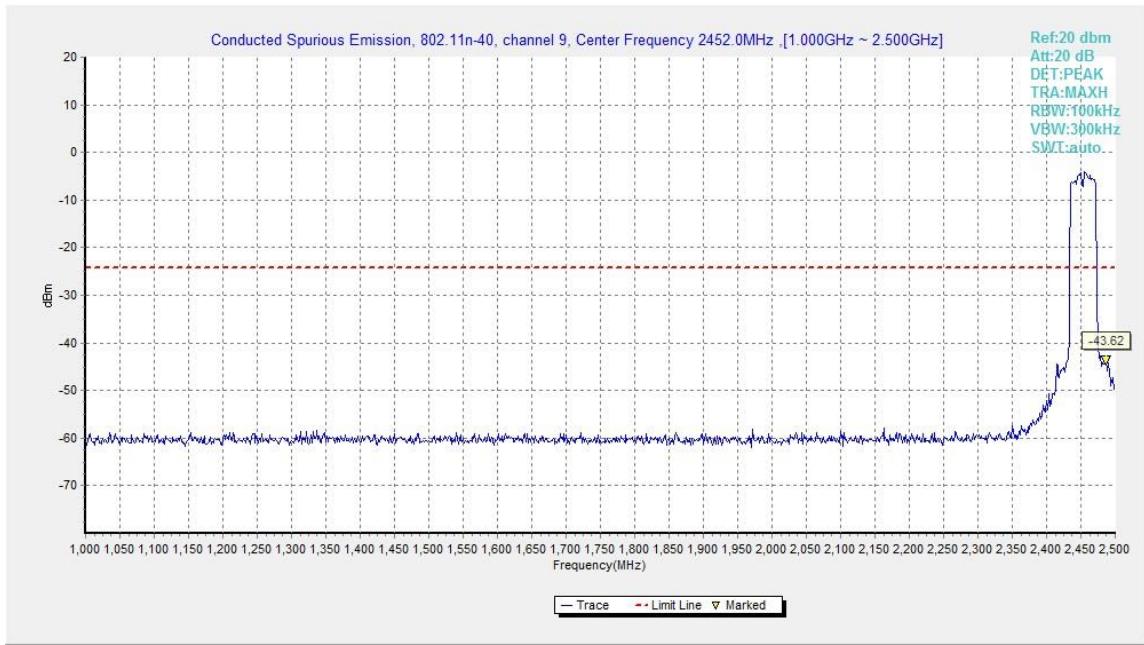
**Fig.A.6.1.88 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 20 GHz-26 GHz)**



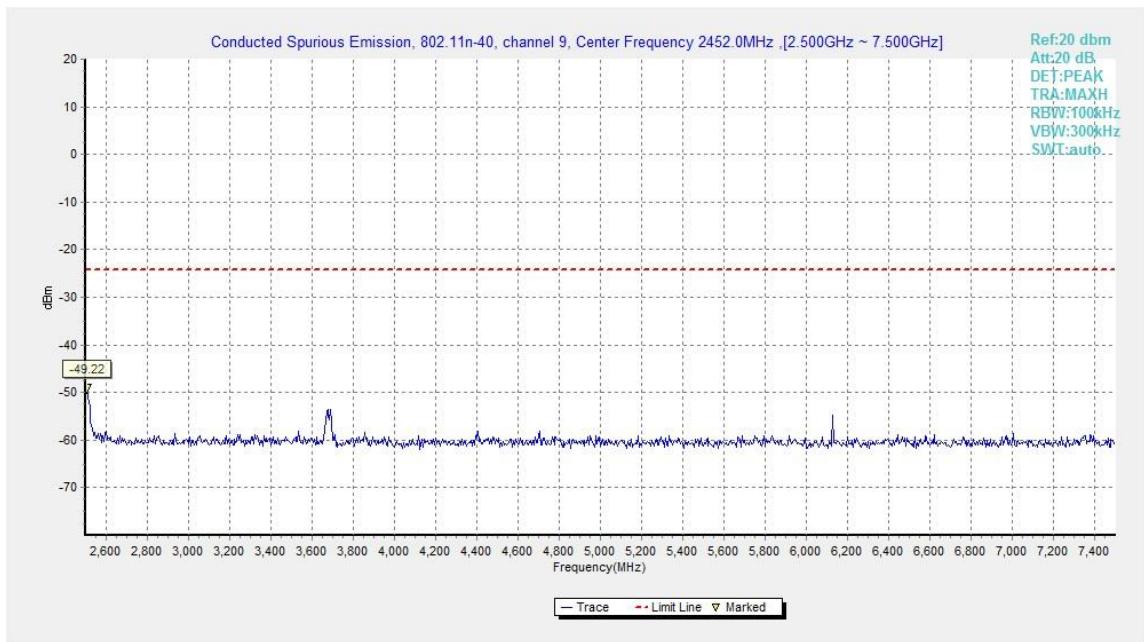
**Fig.A.6.1.89 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, Center Frequency)**



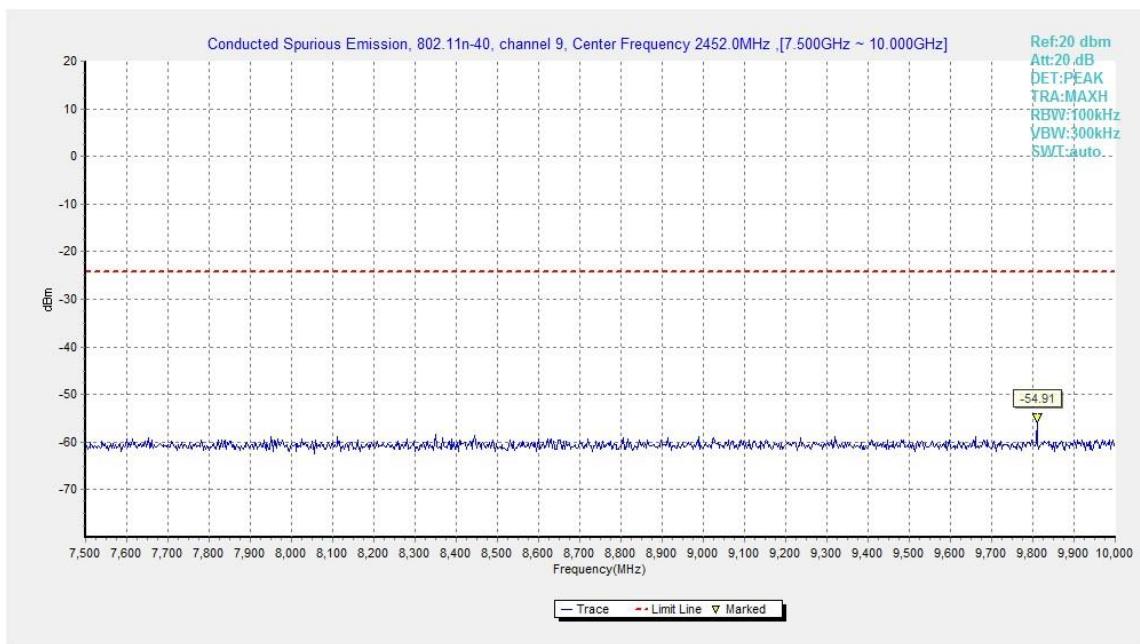
**Fig.A.6.1.90 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 30 MHz-1 GHz)**



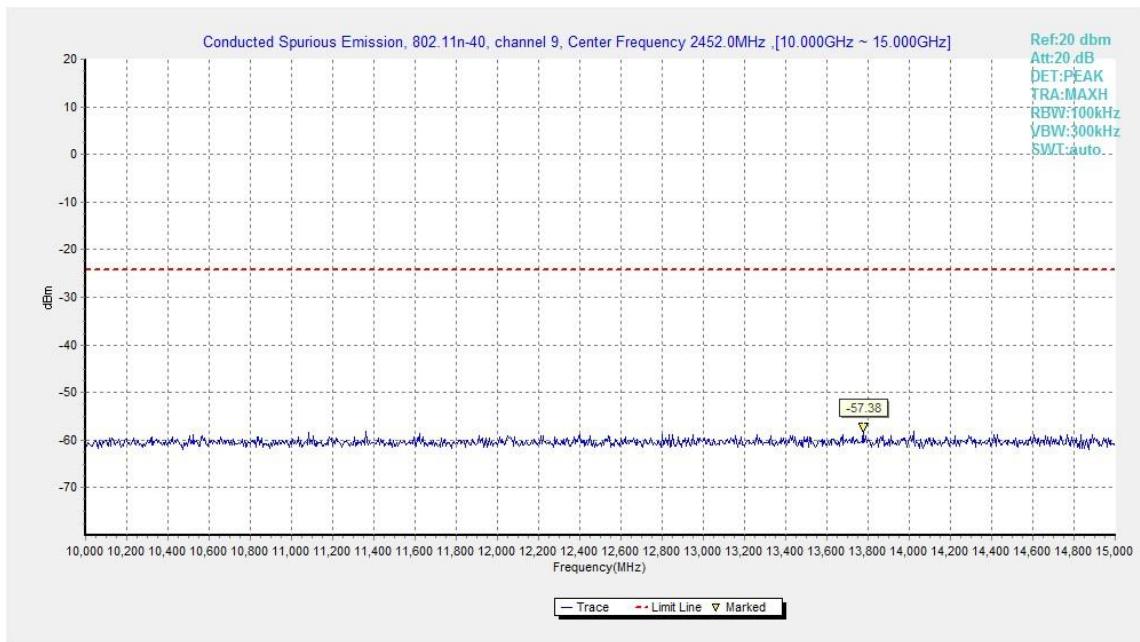
**Fig.A.6.1.91 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 1 GHz-2.5 GHz)**



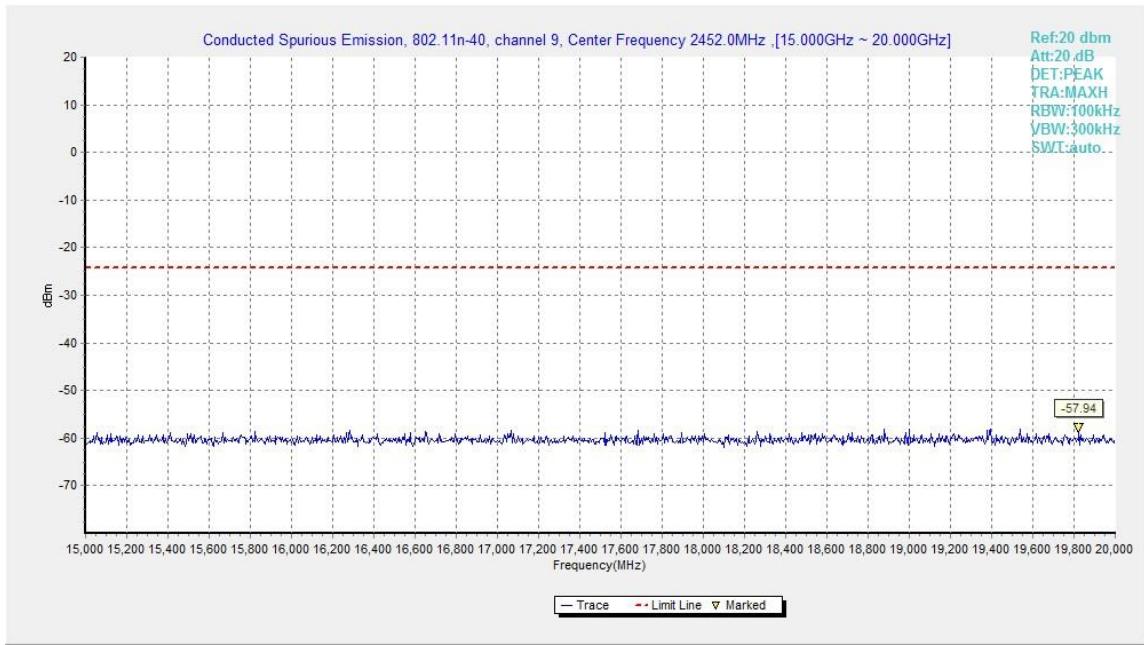
**Fig.A.6.1.92 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 2.5 GHz-7.5 GHz)**



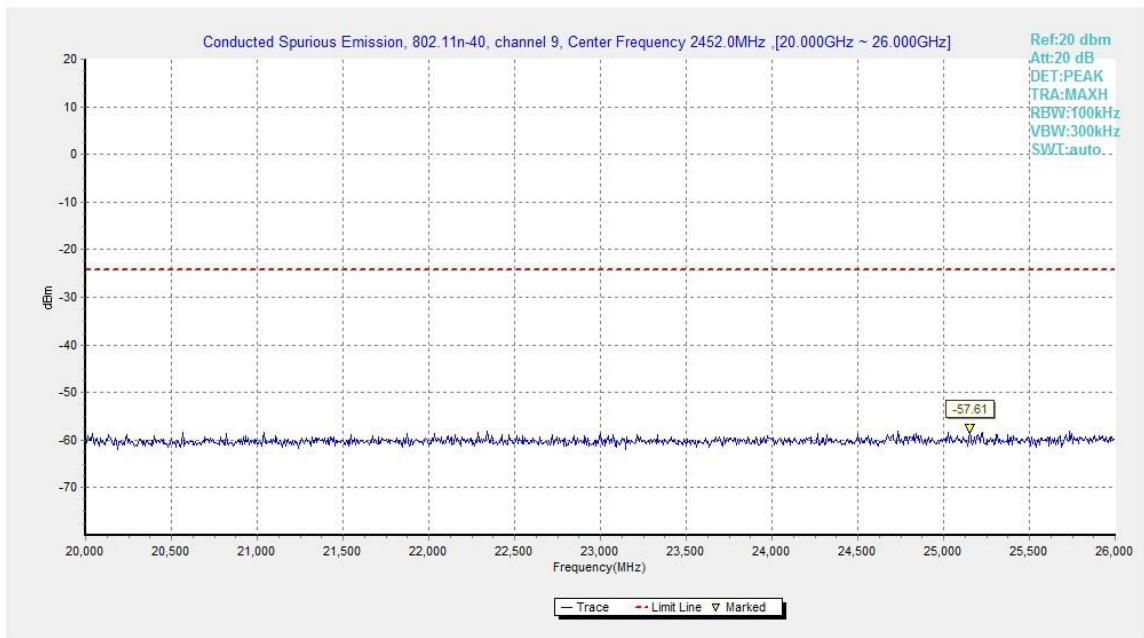
**Fig.A.6.1.93 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 7.5 GHz-10 GHz)**



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



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



**Fig.A.6.1.96 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	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( $\mu$ V/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:****EUT ID: EUT3****802.11b mode**

<b>Mode</b>	<b>Channel</b>	<b>Frequency Range</b>	<b>Test Results</b>	<b>Conclusion</b>
802.11b	Power	2.38GHz ~2.45GHz	Fig.A.6.2.1	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.2	P

**802.11g mode**

<b>Mode</b>	<b>Channel</b>	<b>Frequency Range</b>	<b>Test Results</b>	<b>Conclusion</b>
802.11g	Power	2.38GHz ~2.43GHz	Fig.A.6.2.3	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.4	P

**802.11n-HT20 mode**

<b>Mode</b>	<b>Channel</b>	<b>Frequency Range</b>	<b>Test Results</b>	<b>Conclusion</b>
802.11n (HT20)	Power	2.38GHz ~2.45GHz	Fig.A.6.2.5	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.6	P

**802.11n-HT40 mode**

<b>Mode</b>	<b>Channel</b>	<b>Frequency Range</b>	<b>Test Results</b>	<b>Conclusion</b>
802.11n (HT40)	Power	2.38GHz ~2.45GHz	Fig.A.6.2.7	P
	Power	2.45GHz ~2.5GHz	Fig.A.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:

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

**AVERAGE****802.11b**

Ch1

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2385.800	47.1	2.9	32.0	12.22	54.0	6.9	H
2386.100	47.2	2.9	32.0	12.33	54.0	6.8	H
4824.000	35.64	-32.8	34.5	33.89	54.0	18.4	H
7236.000	41.08	-31.7	36.1	36.72	54.0	12.9	H
9648.000	43.26	-30.4	37.0	36.58	54.0	10.7	H
12060.000	43.68	-29.6	39.3	34.01	54.0	10.3	H

Ch6

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2415.900	46.8	2.9	31.8	12.14	54.0	7.2	H
2458.300	47.5	2.9	32.6	12.02	54.0	6.5	H
4874.000	35.88	-32.7	34.5	34.09	54.0	18.1	H
7311.000	44.29	-31.9	36.1	40.13	54.0	9.7	H
9748.000	44.83	-30.7	37.2	38.30	54.0	9.2	H
12185.000	43.74	-29.4	39.2	33.95	54.0	10.3	H

Ch11

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2485.600	47.7	2.9	32.7	12.06	54.0	6.3	H
2487.800	47.5	2.9	32.6	11.92	54.0	6.5	H
4923.000	36.11	-33.1	34.5	34.68	54.0	17.9	H
7384.500	41.53	-31.8	36.0	37.33	54.0	12.5	H
9848.000	43.15	-30.1	37.3	35.90	54.0	10.8	H
12310.000	43.53	-29.7	39.2	34.06	54.0	10.5	H

## 802.11g

Ch1

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2388.900	47.0	2.9	32.0	12.15	54.0	7.0	H
2389.800	47.2	2.9	32.0	12.35	54.0	6.8	H
4824.000	35.46	-32.8	34.5	33.71	54.0	18.5	H
7236.000	38.45	-31.7	36.1	34.09	54.0	15.6	H
9648.000	40.58	-30.4	37.0	33.90	54.0	13.4	H
12060.000	43.56	-29.6	39.3	33.89	54.0	10.4	H

Ch6

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2409.500	46.8	2.9	31.8	12.10	54.0	7.2	H
2465.200	47.8	2.9	32.7	12.13	54.0	6.2	H
4874.000	35.54	-32.7	34.5	33.75	54.0	18.5	H
7311.000	38.55	-31.9	36.1	34.38	54.0	15.5	H
9748.000	40.63	-30.7	37.2	34.10	54.0	13.4	H
12185.000	43.66	-29.4	39.2	33.86	54.0	10.3	H

Ch11

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2483.500	50.6	2.9	32.8	14.91	54.0	3.4	H
2484.800	49.5	2.9	32.7	13.84	54.0	4.5	H
4924.000	36.24	-33.1	34.5	34.82	54.0	17.8	H
7386.000	38.67	-31.8	36.0	34.46	54.0	15.3	H
9848.000	40.84	-30.1	37.3	33.59	54.0	13.2	H
12310.000	43.63	-29.7	39.2	34.15	54.0	10.4	H

## 802.11n-HT20

Ch1

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2389.100	48.2	2.9	32.0	13.35	54.0	5.8	H
2390.000	48.5	2.9	32.0	13.66	54.0	5.5	H
4824.000	35.37	-32.8	34.5	33.62	54.0	18.6	H
7236.000	37.82	-31.7	36.1	33.46	54.0	16.2	H
9648.000	40.26	-30.4	37.0	33.57	54.0	13.7	H
12060.000	43.35	-29.6	39.3	33.68	54.0	10.6	H

Ch6

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2408.400	47.1	2.9	31.8	12.39	54.0	6.9	H
2464.100	48.5	2.9	32.7	12.86	54.0	5.5	H
4874.000	35.46	-32.7	34.5	33.67	54.0	18.5	H
7311.000	37.63	-31.9	36.1	33.46	54.0	16.4	H
9748.000	40.14	-30.7	37.2	33.61	54.0	13.9	H
12185.000	43.53	-29.4	39.2	33.74	54.0	10.5	H

Ch11

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2483.500	50.7	2.9	32.8	15.01	54.0	3.3	H
2484.700	49.9	2.9	32.7	14.24	54.0	4.1	H
4924.000	35.28	-33.1	34.5	33.87	54.0	18.7	H
7386.000	37.82	-31.8	36.0	33.61	54.0	16.2	H
9848.000	40.98	-30.1	37.3	33.72	54.0	13.0	H
12310.000	43.53	-29.7	39.2	34.06	54.0	10.5	H

### 802.11n-HT40

Ch3

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2388.600	50.5	2.9	32.0	15.65	54.0	3.5	H
2387.420	50.1	2.9	32.0	15.28	54.0	3.9	H
4844.000	35.38	-32.7	34.5	33.57	54.0	18.6	H
7266.000	37.76	-31.9	36.1	33.52	54.0	16.2	H
9688.000	40.03	-30.7	37.1	33.64	54.0	14.0	H
12110.000	43.46	-29.5	39.3	33.69	54.0	10.5	H

## Ch6

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2384.560	50.4	2.9	32.0	15.52	54.0	3.6	H
2486.950	50.5	2.9	32.7	14.90	54.0	3.5	H
4874.000	35.79	-32.7	34.5	33.99	54.0	18.2	H
7311.000	37.85	-31.9	36.1	33.68	54.0	16.2	H
9748.000	40.13	-30.7	37.2	33.60	54.0	13.9	H
12185.000	43.55	-29.4	39.2	33.76	54.0	10.5	H

## Ch9

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2484.100	50.8	2.9	32.7	15.16	54.0	3.2	H
2485.300	50.6	2.9	32.7	14.96	54.0	3.4	H
4904.000	35.55	-32.9	34.5	33.94	54.0	18.5	H
7356.000	37.85	-31.9	36.1	33.69	54.0	16.2	H
9808.000	40.41	-30.4	37.3	33.49	54.0	13.6	H
12260.000	43.76	-29.6	39.2	34.14	54.0	10.2	H

**PEAK**
**802.11b**

## Ch1

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2386.972	59.4	2.9	32.0	24.53	74.0	14.6	H
2389.282	59.4	2.9	32.0	24.55	74.0	14.6	H
4824.000	43.6	-32.8	34.5	41.88	74.0	30.4	V
7236.000	46.9	-31.7	36.1	42.55	74.0	27.1	V
9648.000	51.8	-30.4	37.0	45.15	74.0	22.2	H
12060.000	49.2	-29.6	39.3	39.54	74.0	24.8	H

Ch6

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2374.100	48.9	-26.7	32.1	43.49	74.0	25.1	H
2515.630	49.6	-26.6	32.6	43.68	74.0	24.4	V
4874.000	43.3	-32.7	34.5	41.51	74.0	30.7	H
7311.000	49.3	-31.9	36.1	45.15	74.0	24.7	H
9748.000	48.8	-30.7	37.2	42.29	74.0	25.2	H
12185.000	49.5	-29.4	39.2	39.66	74.0	24.5	H

Ch11

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2483.830	60.9	2.9	32.8	25.22	74.0	13.1	H
2487.420	60.4	2.9	32.7	24.81	74.0	13.6	H
4924.000	43.8	-33.1	34.5	42.34	74.0	30.2	V
7386.000	47.8	-31.8	36.0	43.56	74.0	26.2	V
9848.000	50.5	-30.1	37.3	43.21	74.0	23.5	V
12310.000	49.8	-29.7	39.2	40.31	74.0	24.2	V

## 802.11g

Ch1

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2388.050	61.1	2.9	32.0	26.24	74.0	12.9	H
2389.800	63.7	2.9	32.0	28.85	74.0	10.3	H
4824.000	42.7	-32.8	34.5	40.91	74.0	31.3	H
7236.000	46.2	-31.7	36.1	41.80	74.0	27.8	H
9648.000	46.7	-30.4	37.0	40.06	74.0	27.3	H
12060.000	49.3	-29.6	39.3	39.63	74.0	24.7	V

Ch6

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2374.650	48.1	-26.7	32.1	42.67	74.0	25.9	H
2574.620	51.1	-26.8	33.0	44.91	74.0	22.9	H
4874.000	42.9	-32.7	34.5	41.07	74.0	31.1	V
7311.000	48.5	-31.9	36.1	44.29	74.0	25.5	V
9748.000	47.0	-30.7	37.2	40.52	74.0	27.0	V
12185.000	48.6	-29.4	39.2	38.82	74.0	25.4	V

Ch11

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2483.630	68.2	2.9	32.8	32.51	74.0	5.8	H
2484.010	68.5	2.9	32.7	32.82	74.0	5.5	H
4924.000	42.4	-33.1	34.5	40.94	74.0	31.6	V
7386.000	48.0	-31.8	36.0	43.78	74.0	26.0	H
9848.000	46.8	-30.1	37.3	39.55	74.0	27.2	H
12310.000	48.9	-29.7	39.2	39.42	74.0	25.1	H

## 802.11n-HT20

Ch1

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2389.702	65.7	2.9	32.0	30.85	74.0	8.3	H
2389.786	66.0	2.9	32.0	31.15	74.0	8.0	H
4824.000	41.6	-32.8	34.5	39.87	74.0	32.4	V
7236.000	42.2	-31.7	36.1	37.84	74.0	31.8	H
9648.000	43.0	-30.4	37.0	36.34	74.0	31.0	V
12060.000	48.3	-29.6	39.3	38.67	74.0	25.7	V

Ch6

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2370.860	49.2	-26.9	32.0	44.10	74.0	24.8	H
2539.640	50.1	-26.8	32.9	43.93	74.0	23.9	H
4874.000	41.7	-32.7	34.5	39.86	74.0	32.3	H
7311.000	42.3	-31.9	36.1	38.16	74.0	31.7	V
9748.000	43.5	-30.7	37.2	37.00	74.0	30.5	V
12185.000	48.4	-29.4	39.2	38.63	74.0	25.6	V

Ch11

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2483.590	70.7	2.9	32.8	35.01	74.0	3.3	V
2483.890	70.1	2.9	32.8	34.42	74.0	3.9	H
4924.000	41.2	-33.1	34.5	39.81	74.0	32.8	V
7386.000	41.4	-31.8	36.0	37.22	74.0	32.6	H
9848.000	43.2	-30.1	37.3	35.97	74.0	30.8	V
12310.000	48.5	-29.7	39.2	39.07	74.0	25.5	V

### 802.11n-HT40

Ch3

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2386.390	68.4	2.9	32.0	33.50	74.0	5.6	V
2388.274	69.3	2.9	32.0	34.48	74.0	4.7	H
4844.000	39.4	-32.7	34.5	37.56	74.0	34.6	V
7266.000	40.7	-31.9	36.1	36.48	74.0	33.3	H
9688.000	43.8	-30.7	37.1	37.42	74.0	30.2	H
12110.000	47.1	-29.5	39.3	37.32	74.0	26.9	V

Ch6

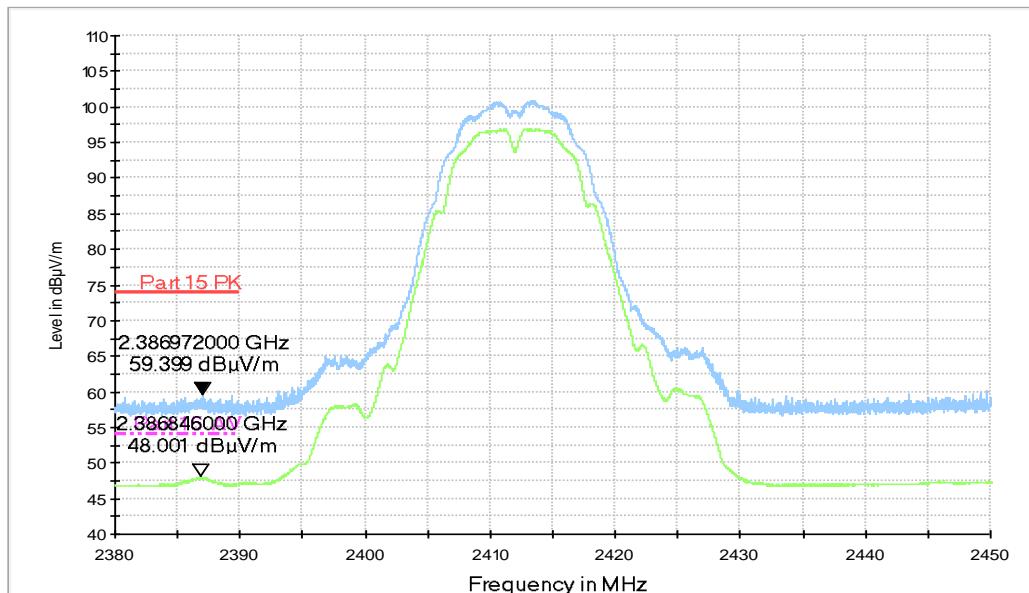
Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2343.860	48.4	-27.7	31.5	44.54	74.0	25.6	V
2566.480	50.6	-26.8	33.0	44.36	74.0	23.4	H
4874.000	42.4	-32.7	34.5	40.65	74.0	31.6	H
7311.000	43.4	-31.9	36.1	39.24	74.0	30.6	V
9748.000	45.7	-30.7	37.2	39.13	74.0	28.3	V
12185.000	47.3	-29.4	39.2	37.56	74.0	26.7	H

Ch9

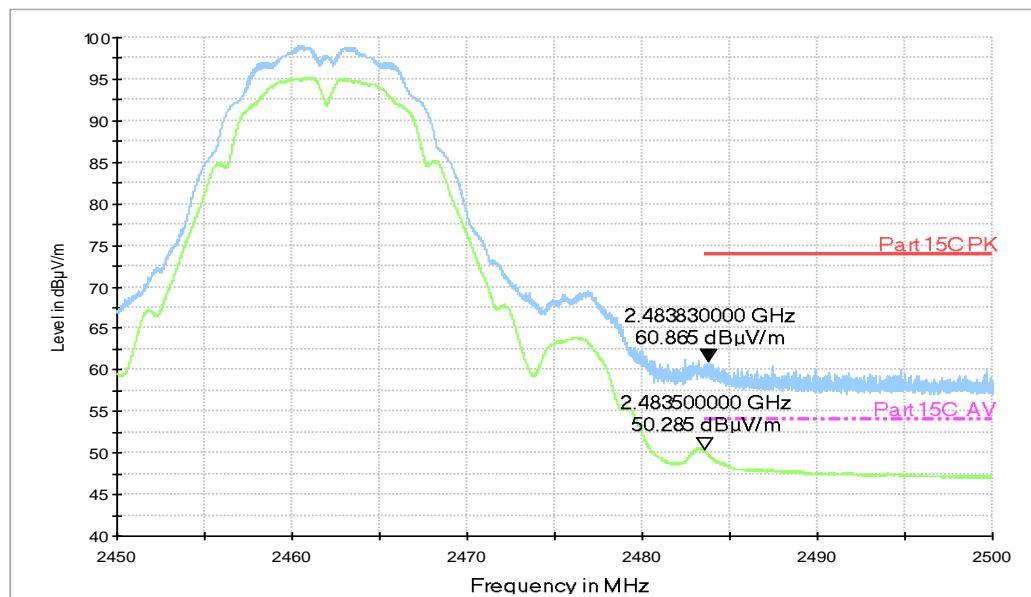
Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
2484.569	69.7	2.9	32.7	34.01	74.0	4.3	H
2484.950	68.9	2.9	32.7	33.29	74.0	5.1	H
4904.000	42.9	-32.9	34.5	41.26	74.0	31.1	V
7356.000	43.4	-31.9	36.1	39.26	74.0	30.6	V
9808.000	45.6	-30.4	37.3	38.71	74.0	28.4	V
12260.000	47.6	-29.6	39.2	38.01	74.0	26.4	H

**Test graphs as below:**

RE - Power-2.38GHz-2.45GHz

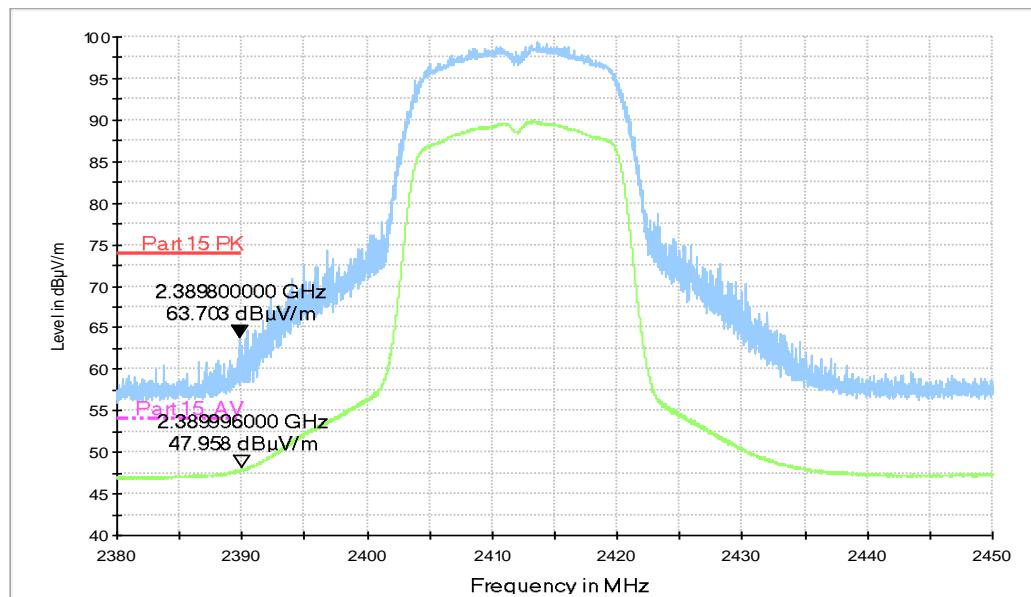

**Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.38 GHz – 2.45GHz**

RE - Power-2.45GHz-2.5GHz

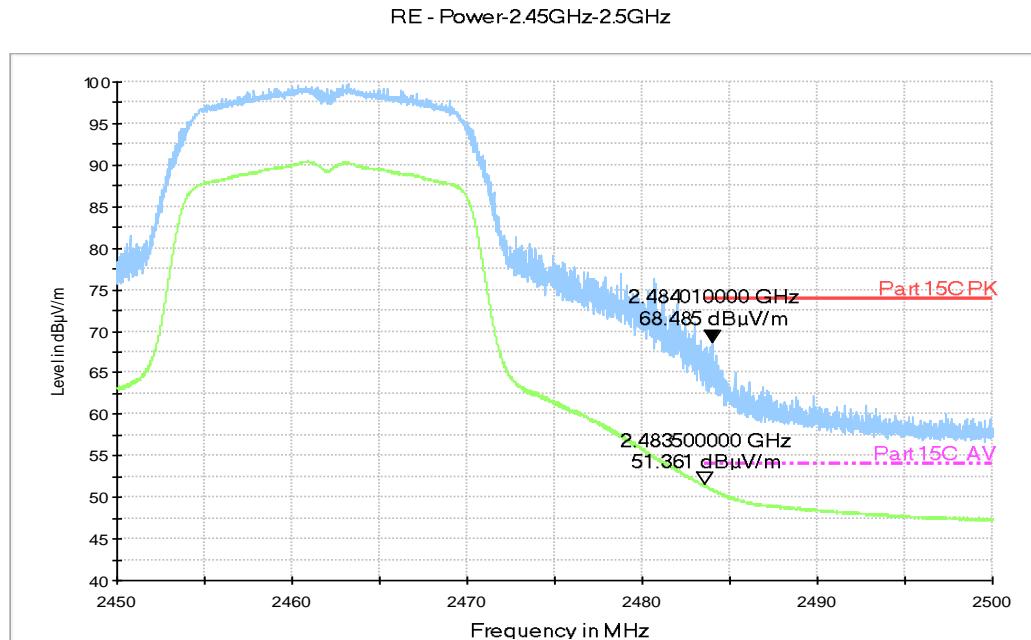


**Fig.A.6.2.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz**

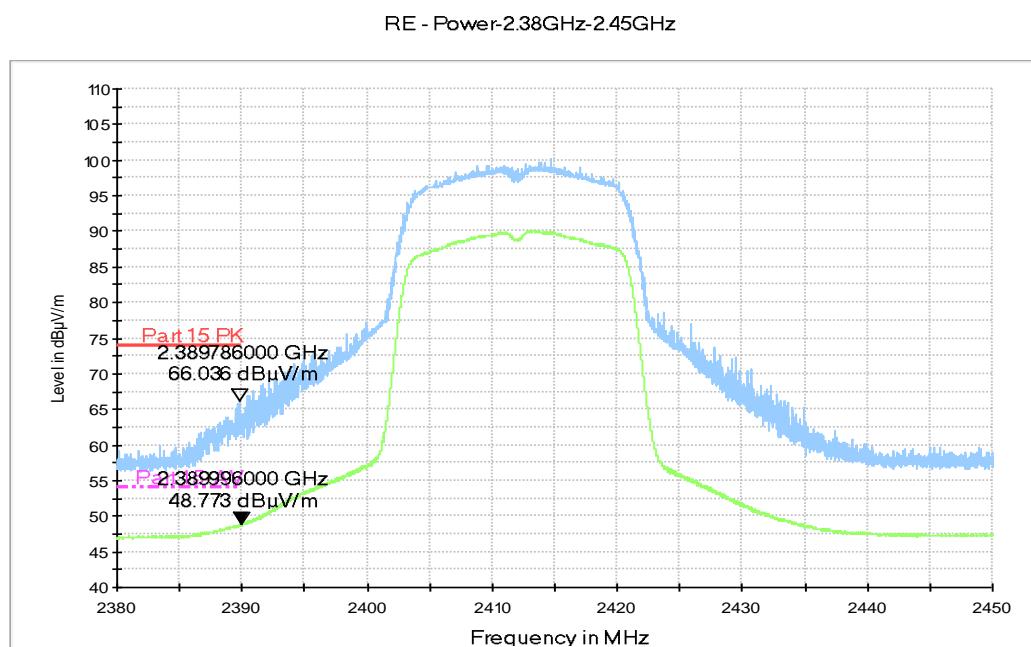
RE - Power-2.38GHz-2.45GHz



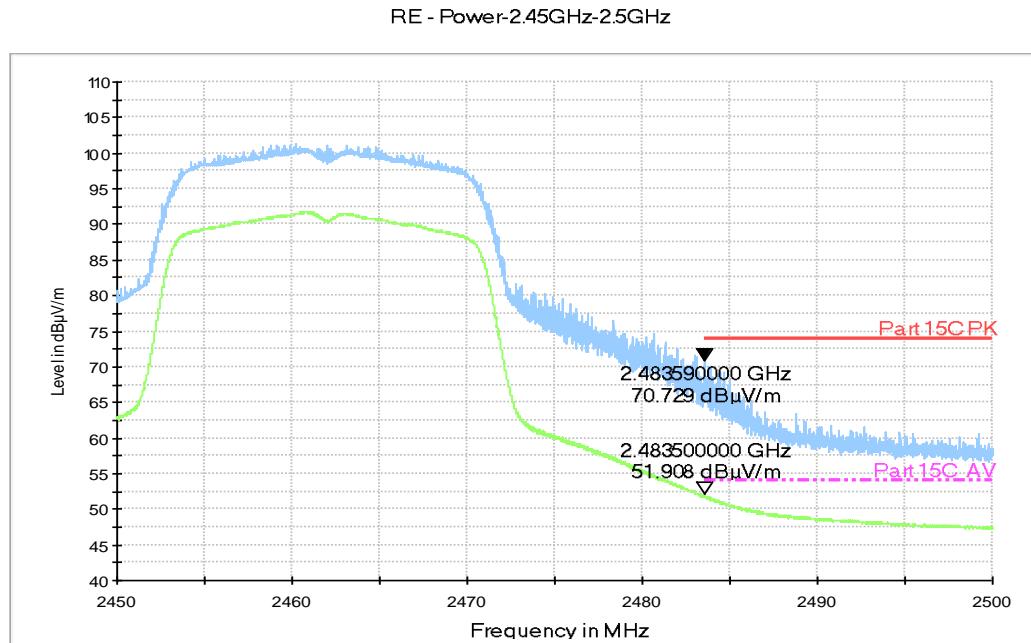
**Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.38 GHz - 2.45GHz**



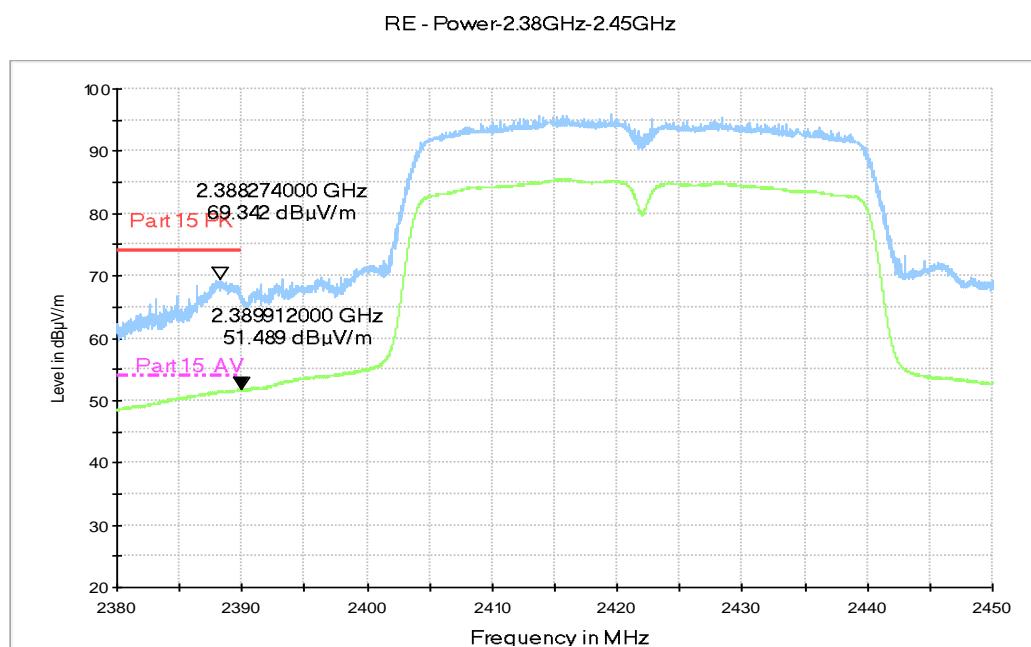
**Fig.A.6.2.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz**



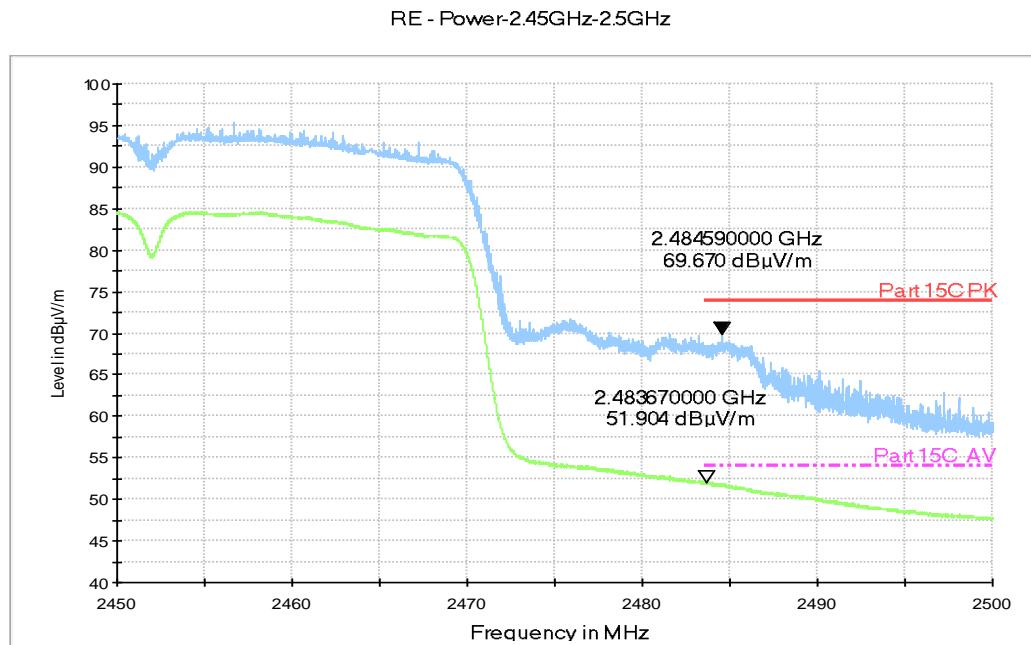
**Fig.A.6.2.5 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.38 GHz - 2.45GHz**



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



**Fig.A.6.2.7 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.38 GHz - 2.45GHz**



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

## 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.<sup>36</sup> 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 $\mu$ V)	Result (dB $\mu$ 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.

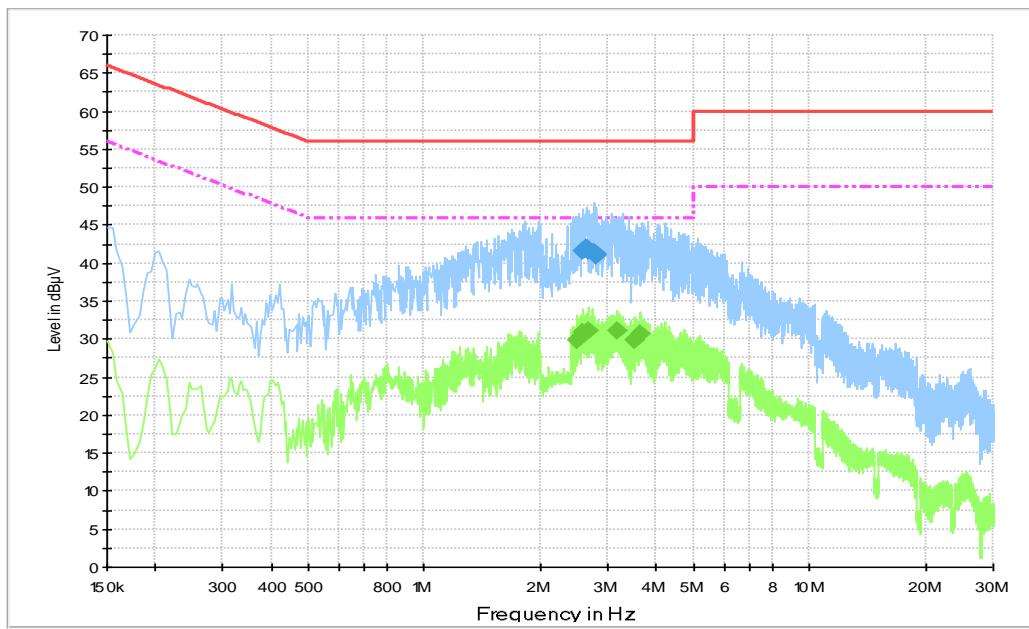
WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dB $\mu$ V)	Result (dB $\mu$ 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**

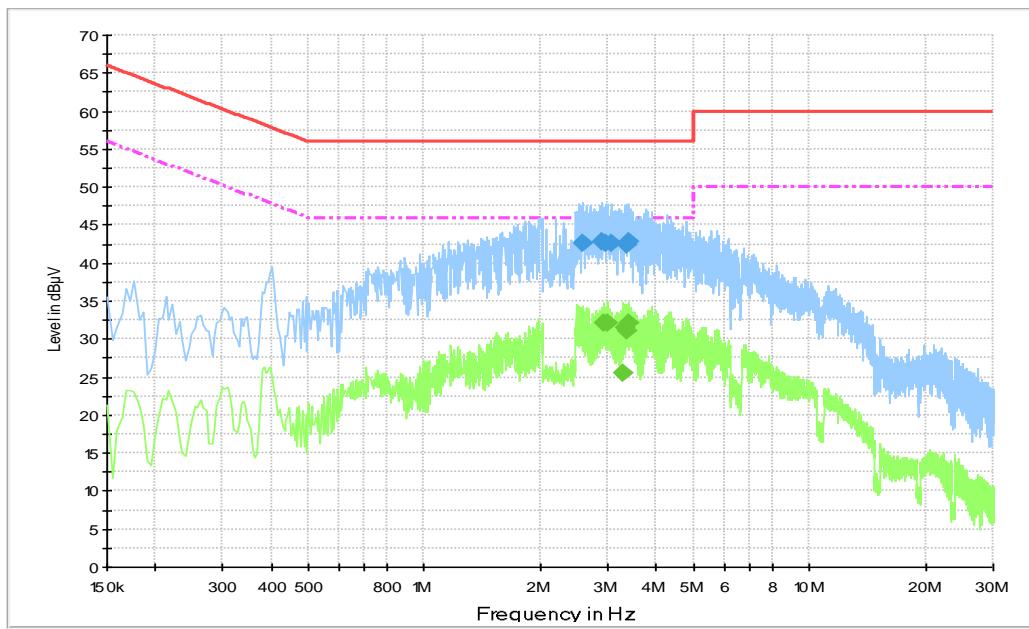
Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

## Final Result 1

Frequency (MHz)	QuasiPeak (dB $\mu$ V)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
2.589000	41.7	GND	L1	10.3	14.3	56.0
2.647500	42.0	GND	L1	10.3	14.0	56.0
2.674500	41.5	GND	L1	10.3	14.5	56.0
2.755500	41.5	GND	L1	10.3	14.5	56.0
2.782500	41.0	GND	L1	10.3	15.0	56.0
2.791500	41.2	GND	L1	10.3	14.8	56.0

## Final Result 2

Frequency (MHz)	Average (dB $\mu$ V)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
2.490000	29.8	GND	L1	10.3	16.2	46.0
2.589000	30.9	GND	L1	10.3	15.1	46.0
2.674500	31.1	GND	L1	10.3	14.9	46.0
3.174000	31.0	GND	L1	10.3	15.0	46.0
3.507000	29.8	GND	L1	10.3	16.2	46.0
3.637500	30.6	GND	L1	10.3	15.4	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 (dB $\mu$ V)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
2.566500	42.7	GND	L1	10.3	13.3	56.0
2.890500	42.8	GND	L1	10.3	13.2	56.0
2.949000	42.7	GND	L1	10.3	13.3	56.0
3.057000	42.6	GND	L1	10.3	13.4	56.0
3.340500	42.4	GND	L1	10.3	13.6	56.0
3.390000	42.7	GND	L1	10.3	13.3	56.0

## Final Result 2

Frequency (MHz)	Average (dB $\mu$ V)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
2.908500	32.0	GND	L1	10.3	14.0	46.0
2.976000	32.1	GND	L1	10.3	13.9	46.0
3.268500	25.5	GND	L1	10.3	20.5	46.0
3.309000	31.4	GND	L1	10.3	14.6	46.0
3.367500	31.0	GND	L1	10.3	15.0	46.0
3.385500	32.0	GND	L1	10.3	14.0	46.0

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