

## A.5. Band Edges Compliance

**Method of Measurement: See ANSI C63.10-2013-clause 6.10.4**

Connect the spectrum analyzer to the EUT using an appropriate RF cable connected to the EUT output. Configure the spectrum analyzer settings as described below.

- a) Set Span = 100MHz
- b) Sweep Time: coupled
- c) Set the RBW= 100 kHz
- c) Set the VBW= 300 kHz
- d) Detector: Peak
- e) Trace: Max hold

**Measurement Limit:**

Standard	Limit (dBc)
FCC 47 CFR Part 15.247 (d)	> 20

**EUT ID: EUT2**

**Measurement Result:**

### 802.11b/g mode

Mode	Channel	Test Results	Conclusion
802.11b	1	Fig.A.5.1	P
	11	Fig.A.5.2	P
802.11g	1	Fig.A.5.3	P
	11	Fig.A.5.4	P

### 802.11n-HT20 mode

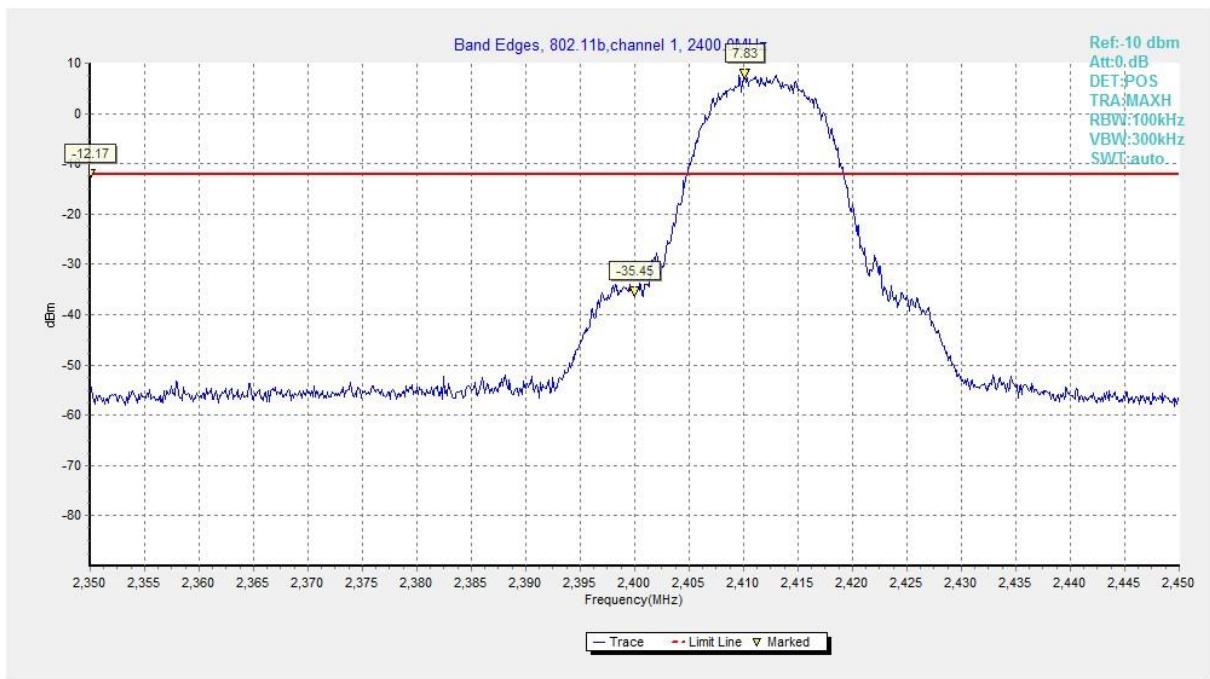
Mode	Channel	Test Results	Conclusion
802.11n (HT20)	1	Fig.A.5.5	P
	11	Fig.A.5.6	P

### 802.11n-HT40 mode

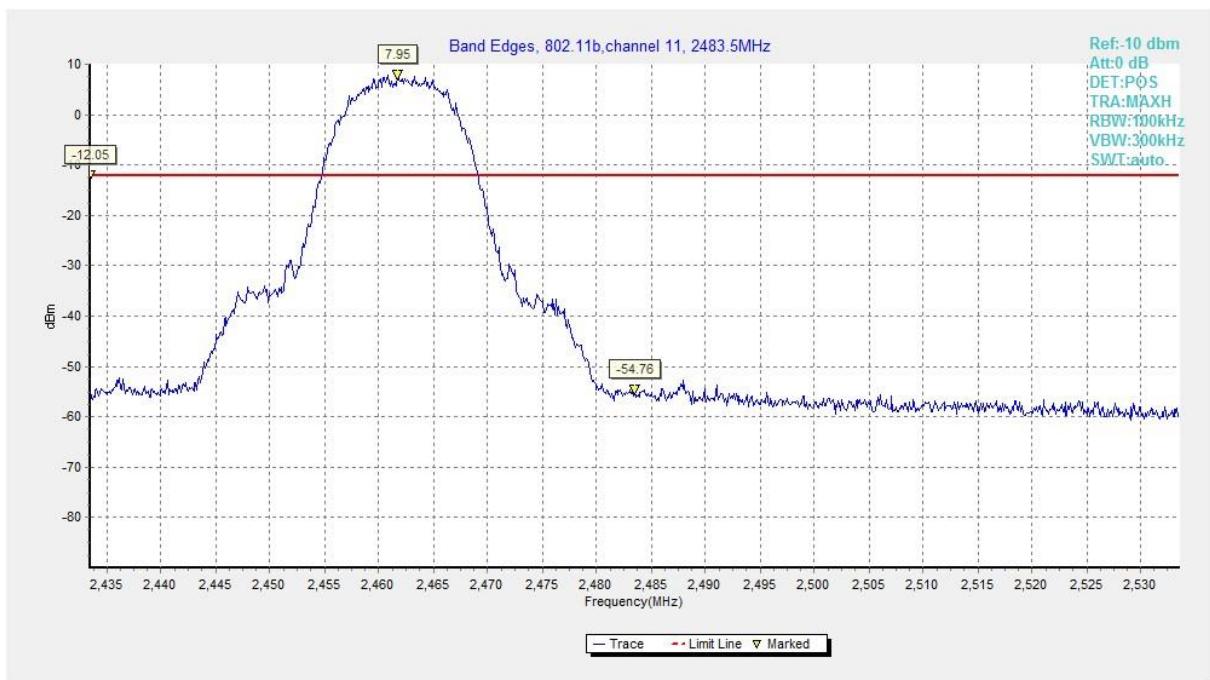
Mode	Channel	Test Results	Conclusion
802.11n (HT40)	3	Fig.A.5.7	P
	9	Fig.A.5.8	P

**Conclusion: Pass**

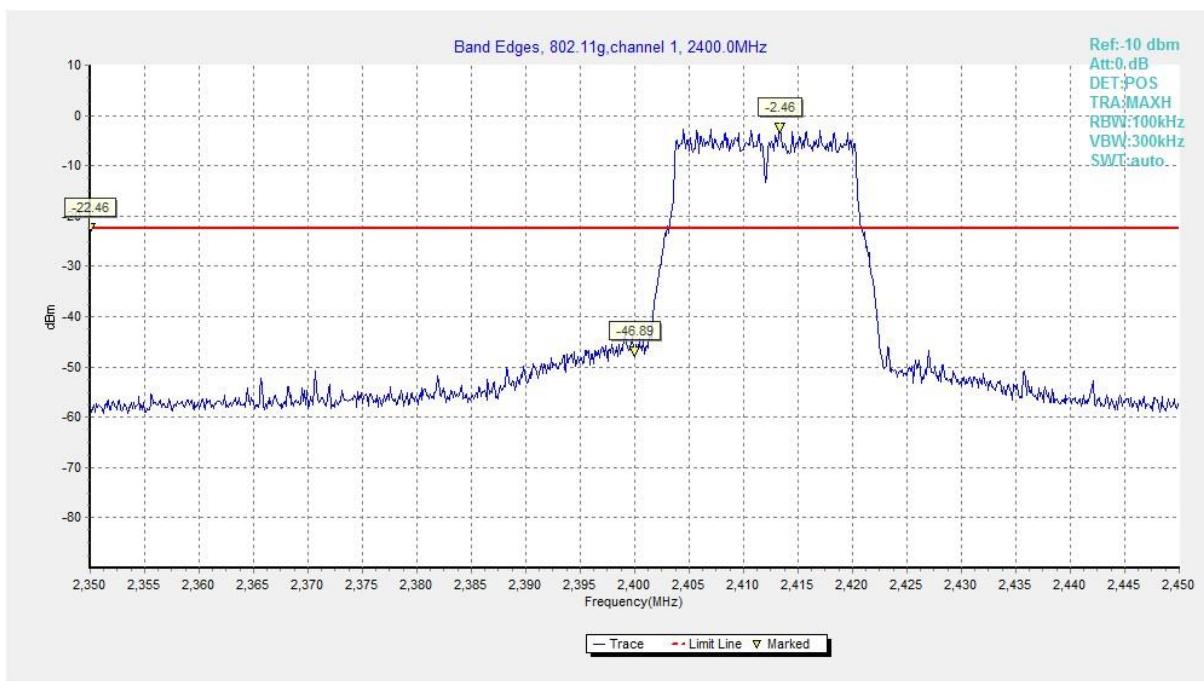
**Test graphs as below:**



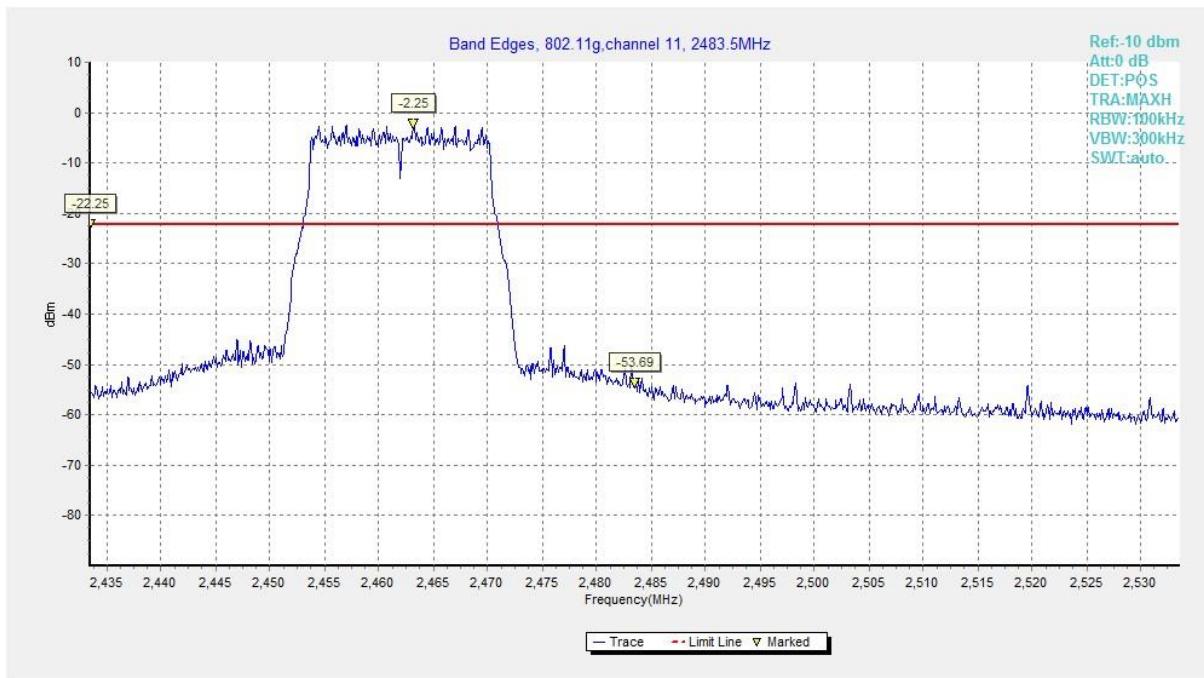
**Fig.A.5.1 Band Edges (802.11b, Ch 1)**



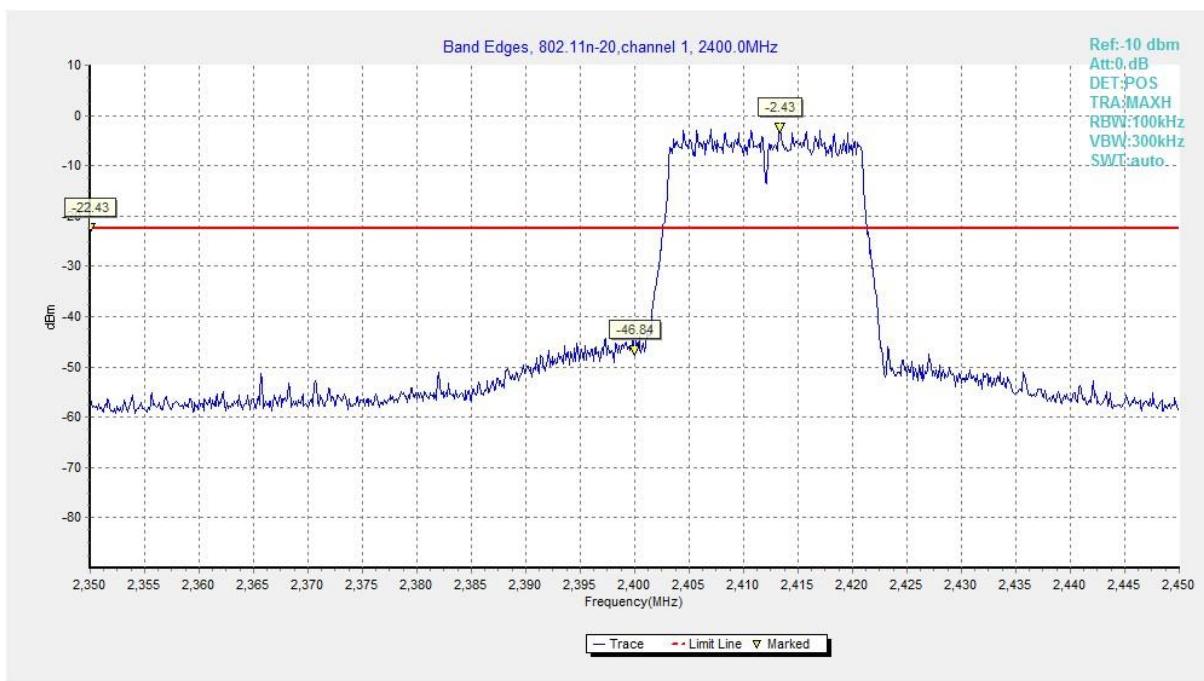
**Fig.A.5.2 Band Edges (802.11b, Ch 11)**



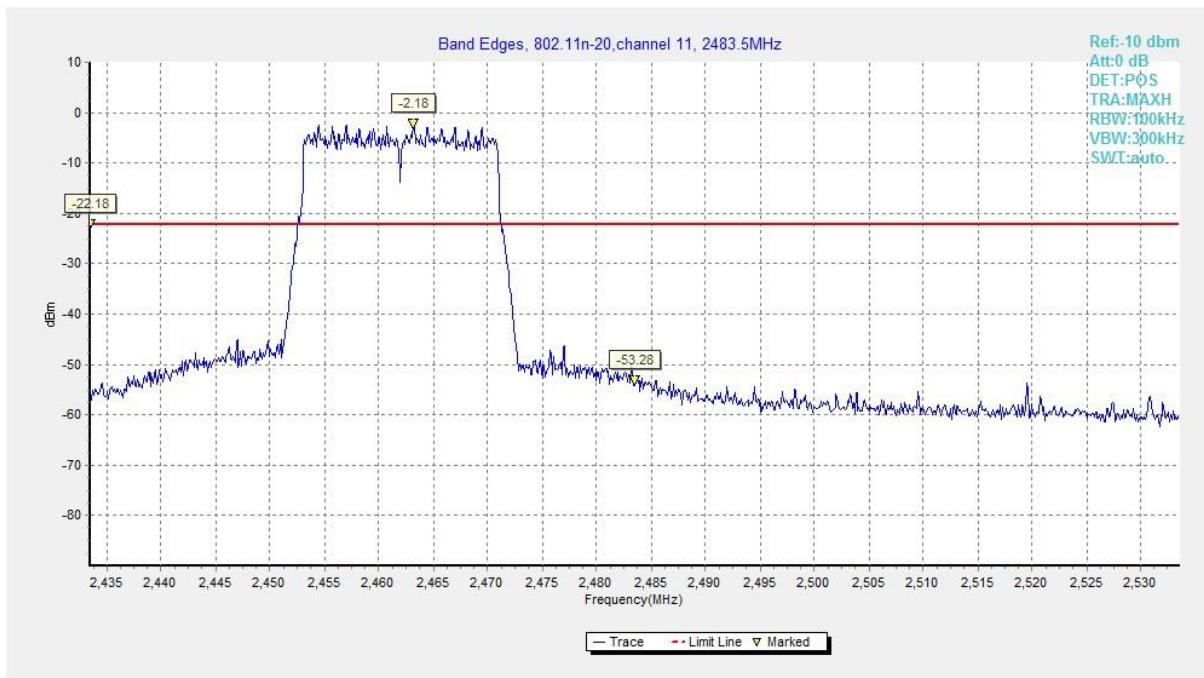
**Fig.A.5.3 Band Edges (802.11g, Ch 1)**



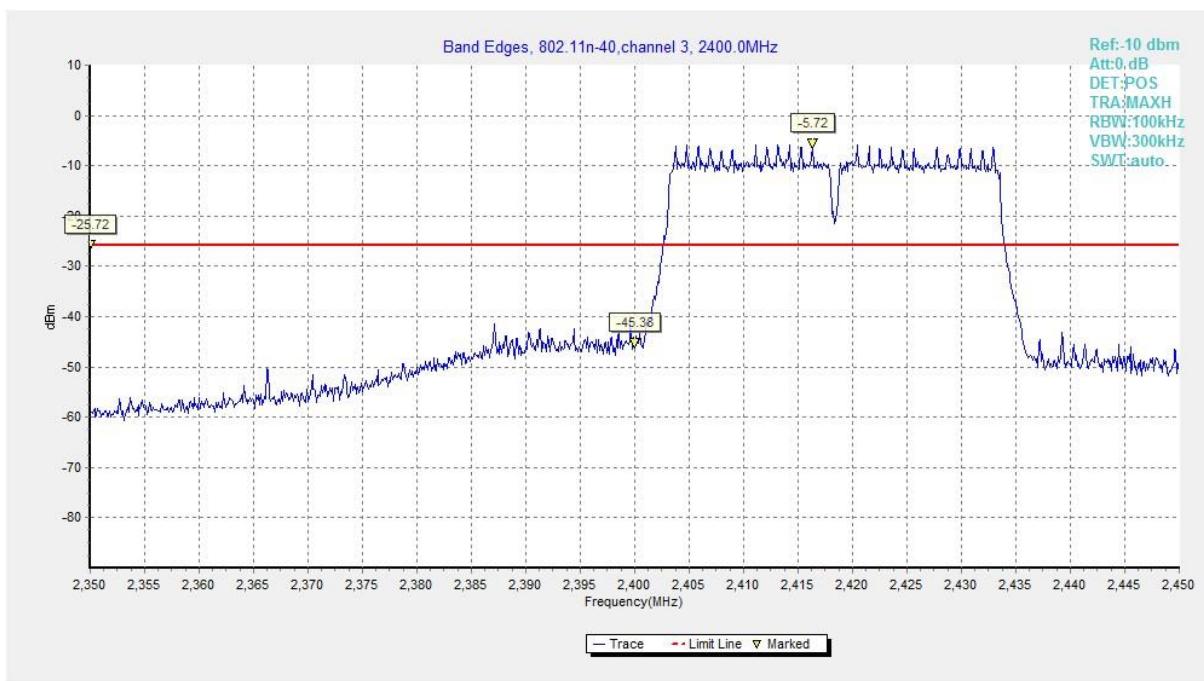
**Fig.A.5.4 Band Edges (802.11g, Ch 11)**



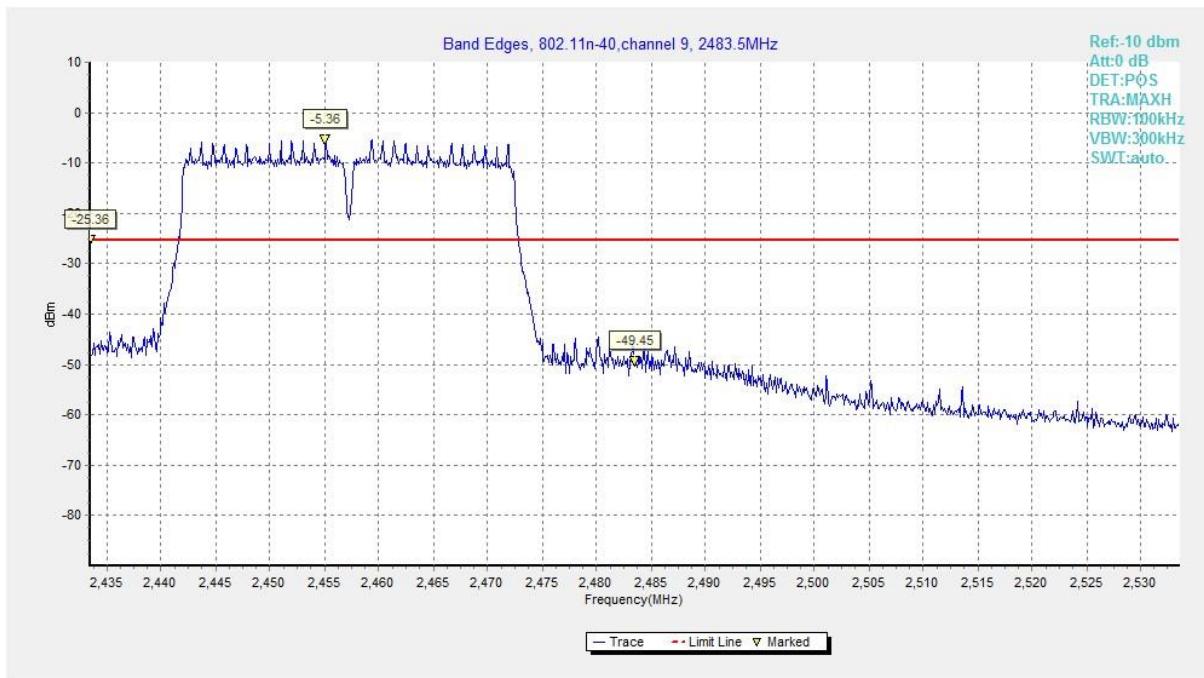
**Fig.A.5.5 Band Edges (802.11n-HT20, Ch 1)**



**Fig.A.5.6 Band Edges (802.11n-HT20, Ch 11)**



**Fig.A.5.7 Band Edges (802.11n-HT40, Ch 3)**



**Fig.A.5.8 Band Edges (802.11n-HT40, Ch 9)**

## A.6. Transmitter Spurious Emission

### A.6.1 Transmitter Spurious Emission – Conducted

**Method of Measurement: See ANSI C63.10-2013-clause 11.11.2**

Measurement Procedure – Reference Level

- a) Set instrument center frequency to DTS channel center frequency
- b) Set the span to  $\geq 1.5$  times the DTS bandwidth
- c) Set the RBW= 100 kHz
- d) Set the VBW= 300 kHz
- e) Detector = Peak
- f) Sweep time = auto couple
- g) Trace mode = max hold
- h) Allow trace to fully stabilize
- i) Use the peak marker function to determine the maximum PSD level

Note that the channel found to contain the maximum PSD level can be used to establish the reference level.

**Measurement Limit:**

Standard	Limit
FCC 47 CFR Part 15.247 (d)	20dB below peak output power in 100 kHz bandwidth

**EUT ID: EUT2**

**Measurement Results:**

**802.11b mode**

MODE	Channel	Frequency Range	Test Results	Conclusion
802.11b	1	2.412 GHz	Fig.A.6.1.1	P
		30 MHz ~ 1 GHz	Fig.A.6.1.2	P
		1 GHz ~ 2.5 GHz	Fig.A.6.1.3	P
		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.4	P
		7.5 GHz ~ 10 GHz	Fig.A.6.1.5	P
		10 GHz ~ 15 GHz	Fig.A.6.1.6	P
		15 GHz ~ 20 GHz	Fig.A.6.1.7	P
		20 GHz ~ 26 GHz	Fig.A.6.1.8	P
	6	2.437 GHz	Fig.A.6.1.9	P
		30 MHz ~ 1 GHz	Fig.A.6.1.10	P
		1 GHz ~ 2.5 GHz	Fig.A.6.1.11	P
		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.12	P
		7.5 GHz ~ 10 GHz	Fig.A.6.1.13	P
		10 GHz ~ 15 GHz	Fig.A.6.1.14	P
		15 GHz ~ 20 GHz	Fig.A.6.1.15	P
		20 GHz ~ 26 GHz	Fig.A.6.1.16	P
	11	2.462 GHz	Fig.A.6.1.17	P
		30 MHz ~ 1 GHz	Fig.A.6.1.18	P
		1 GHz ~ 2.5 GHz	Fig.A.6.1.19	P
		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.20	P
		7.5 GHz ~ 10 GHz	Fig.A.6.1.21	P
		10 GHz ~ 15 GHz	Fig.A.6.1.22	P
		15 GHz ~ 20 GHz	Fig.A.6.1.23	P
		20 GHz ~ 26 GHz	Fig.A.6.1.24	P

**802.11g mode**

MODE	Channel	Frequency Range	Test Results	Conclusion
802.11g	1	2.412 GHz	Fig.A.6.1.25	P
		30 MHz ~ 1 GHz	Fig.A.6.1.26	P
		1 GHz ~ 2.5 GHz	Fig.A.6.1.27	P
		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.28	P
		7.5 GHz ~ 10 GHz	Fig.A.6.1.29	P
		10 GHz ~ 15 GHz	Fig.A.6.1.30	P
		15 GHz ~ 20 GHz	Fig.A.6.1.31	P
		20 GHz ~ 26 GHz	Fig.A.6.1.32	P
	6	2.437 GHz	Fig.A.6.1.33	P
		30 MHz ~ 1 GHz	Fig.A.6.1.34	P
		1 GHz ~ 2.5 GHz	Fig.A.6.1.35	P
		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.36	P
		7.5 GHz ~ 10 GHz	Fig.A.6.1.37	P
		10 GHz ~ 15 GHz	Fig.A.6.1.38	P
		15 GHz ~ 20 GHz	Fig.A.6.1.39	P
		20 GHz ~ 26 GHz	Fig.A.6.1.40	P
	11	2.462 GHz	Fig.A.6.1.41	P
		30 MHz ~ 1 GHz	Fig.A.6.1.42	P
		1 GHz ~ 2.5 GHz	Fig.A.6.1.43	P
		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.44	P
		7.5 GHz ~ 10 GHz	Fig.A.6.1.45	P
		10 GHz ~ 15 GHz	Fig.A.6.1.46	P
		15 GHz ~ 20 GHz	Fig.A.6.1.47	P
		20 GHz ~ 26 GHz	Fig.A.6.1.48	P

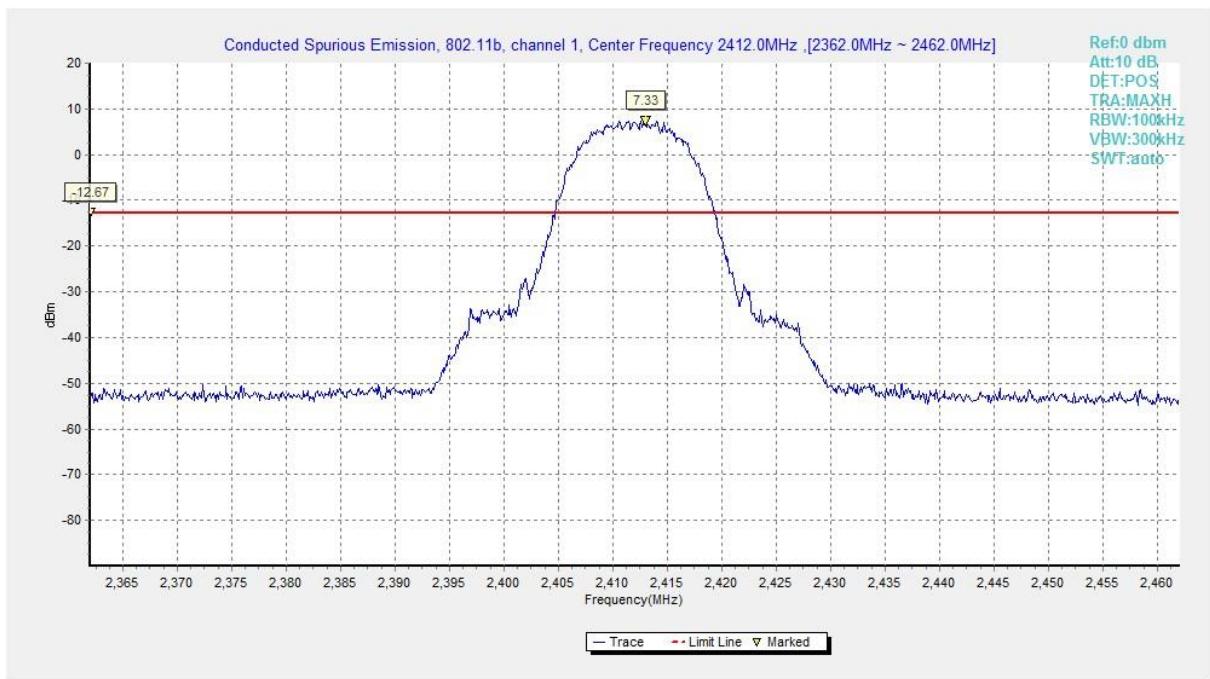
**802.11n-HT20 mode**

MODE	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	1	2.412 GHz	Fig.A.6.1.49	P
		30 MHz ~ 1 GHz	Fig.A.6.1.50	P
		1 GHz ~ 2.5 GHz	Fig.A.6.1.51	P
		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.52	P
		7.5 GHz ~ 10 GHz	Fig.A.6.1.53	P
		10 GHz ~ 15 GHz	Fig.A.6.1.54	P
		15 GHz ~ 20 GHz	Fig.A.6.1.55	P
		20 GHz ~ 26 GHz	Fig.A.6.1.56	P
	6	2.437 GHz	Fig.A.6.1.57	P
		30 MHz ~ 1 GHz	Fig.A.6.1.58	P
		1 GHz ~ 2.5 GHz	Fig.A.6.1.59	P
		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.60	P
		7.5 GHz ~ 10 GHz	Fig.A.6.1.61	P
		10 GHz ~ 15 GHz	Fig.A.6.1.62	P
		15 GHz ~ 20 GHz	Fig.A.6.1.63	P
		20 GHz ~ 26 GHz	Fig.A.6.1.64	P
	11	2.462 GHz	Fig.A.6.1.65	P
		30 MHz ~ 1 GHz	Fig.A.6.1.66	P
		1 GHz ~ 2.5 GHz	Fig.A.6.1.67	P
		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.68	P
		7.5 GHz ~ 10 GHz	Fig.A.6.1.69	P
		10 GHz ~ 15 GHz	Fig.A.6.1.70	P
		15 GHz ~ 20 GHz	Fig.A.6.1.71	P
		20 GHz ~ 26 GHz	Fig.A.6.1.72	P

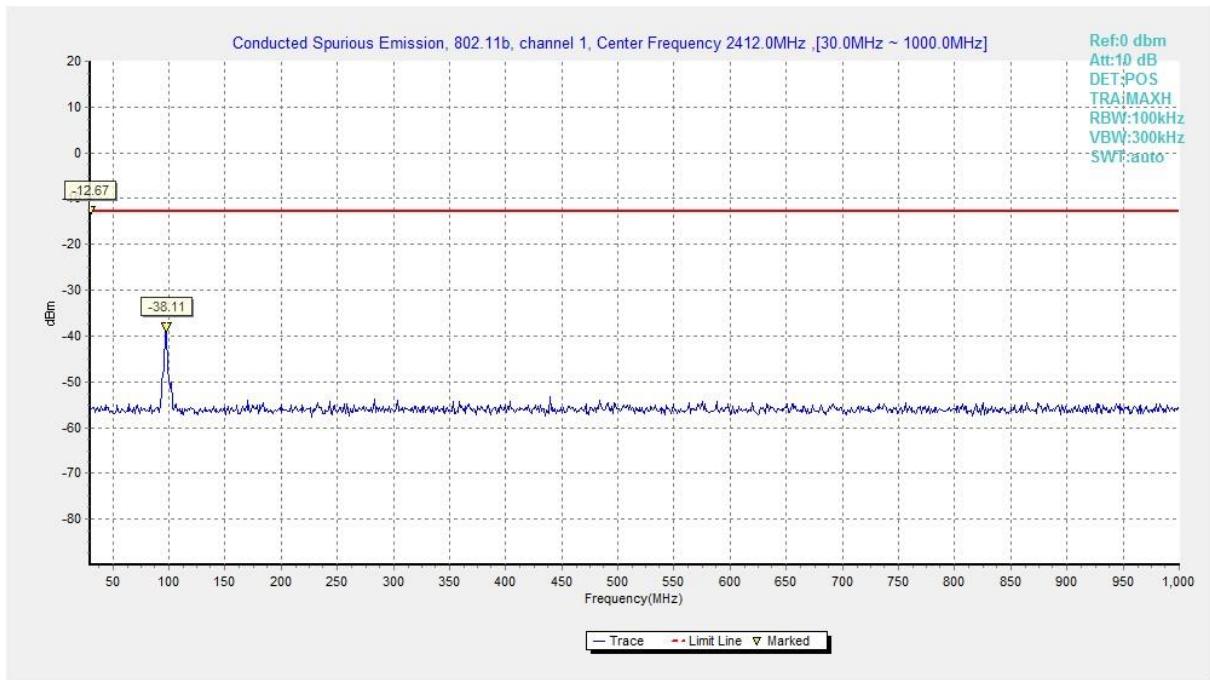
**802.11n-HT40 mode**

MODE	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT40)	3	2.422 GHz	Fig.A.6.1.73	P
		30 MHz ~ 1 GHz	Fig.A.6.1.74	P
		1 GHz ~ 2.5 GHz	Fig.A.6.1.75	P
		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.76	P
		7.5 GHz ~ 10 GHz	Fig.A.6.1.77	P
		10 GHz ~ 15 GHz	Fig.A.6.1.78	P
		15 GHz ~ 20 GHz	Fig.A.6.1.79	P
		20 GHz ~ 26 GHz	Fig.A.6.1.80	P
	6	2.437 GHz	Fig.A.6.1.81	P
		30 MHz ~ 1 GHz	Fig.A.6.1.82	P
		1 GHz ~ 2.5 GHz	Fig.A.6.1.83	P
		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.84	P
		7.5 GHz ~ 10 GHz	Fig.A.6.1.85	P
		10 GHz ~ 15 GHz	Fig.A.6.1.86	P
		15 GHz ~ 20 GHz	Fig.A.6.1.87	P
		20 GHz ~ 26 GHz	Fig.A.6.1.88	P
	9	2.452 GHz	Fig.A.6.1.89	P
		30 MHz ~ 1 GHz	Fig.A.6.1.90	P
		1 GHz ~ 2.5 GHz	Fig.A.6.1.91	P
		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.92	P
		7.5 GHz ~ 10 GHz	Fig.A.6.1.93	P
		10 GHz ~ 15 GHz	Fig.A.6.1.94	P
		15 GHz ~ 20 GHz	Fig.A.6.1.95	P
		20 GHz ~ 26 GHz	Fig.A.6.1.96	P

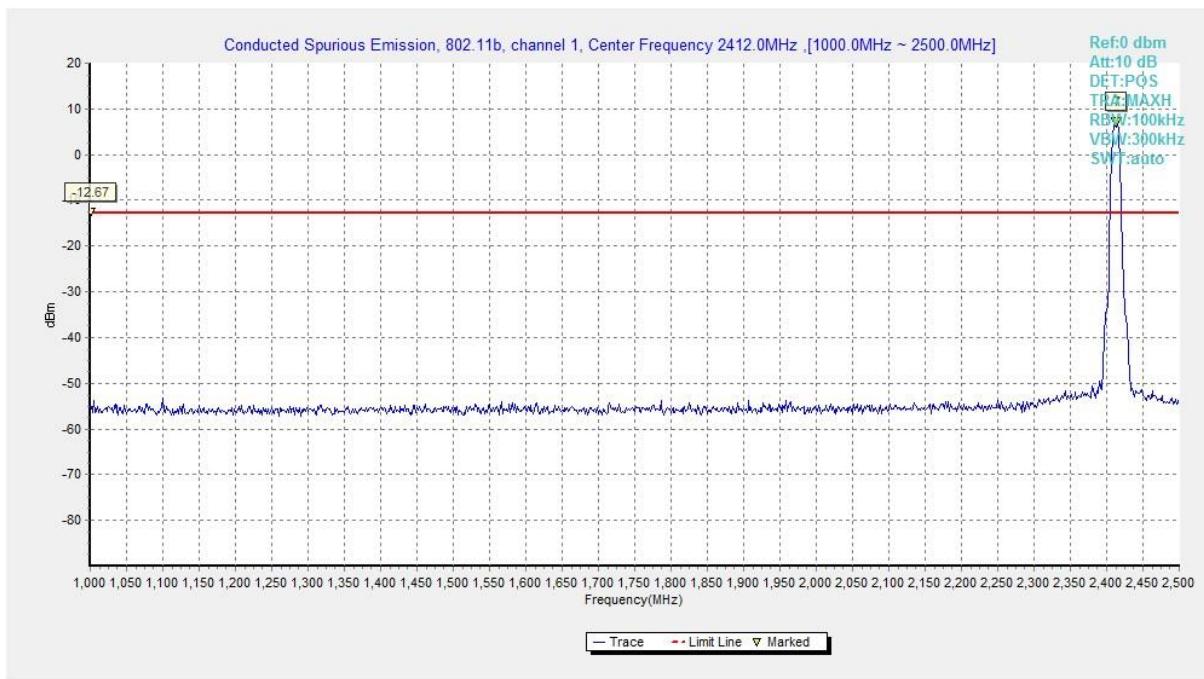
**Conclusion: Pass**
**Test graphs as below:**



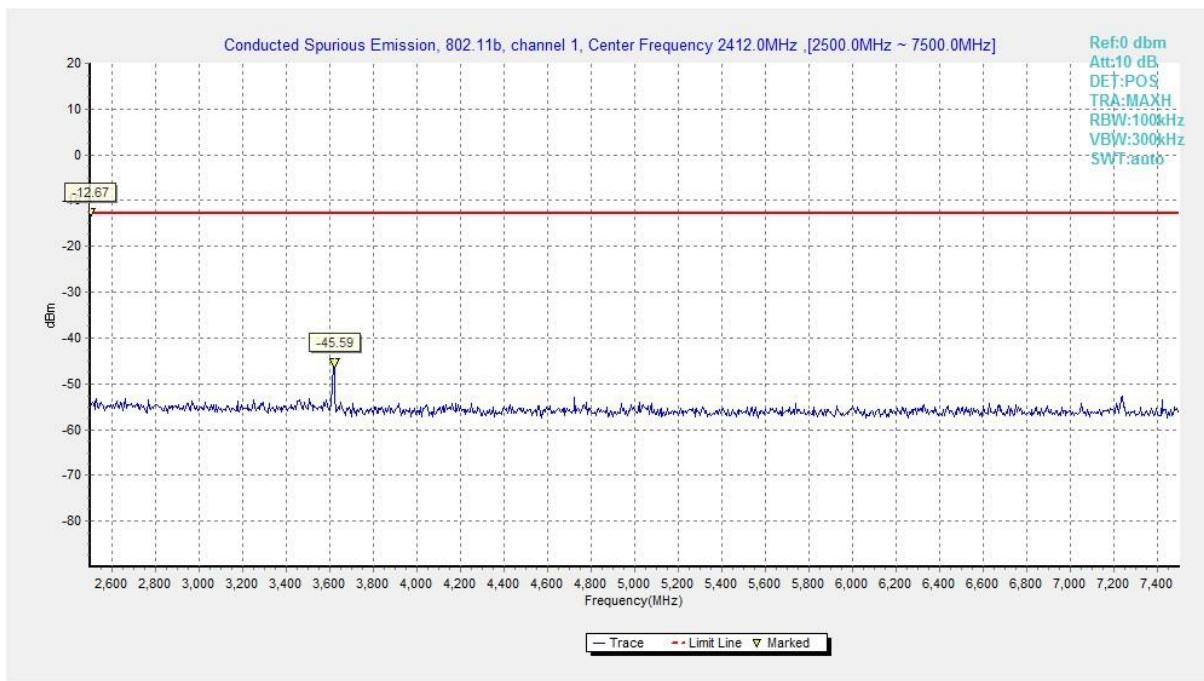
**Fig.A.6.1.1 Transmitter Spurious Emission - Conducted (802.11b, Ch1, Center Frequency)**



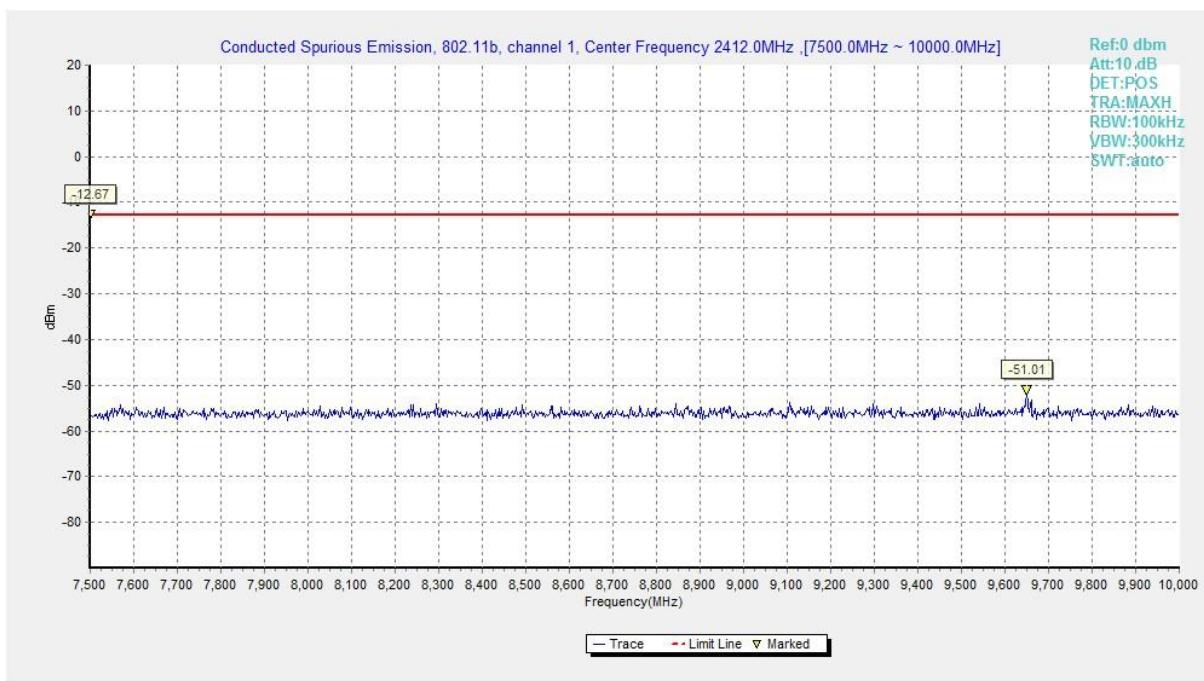
**Fig.A.6.1.1 Transmitter Spurious Emission - Conducted (802.11b, Ch1, 30 MHz-1 GHz)**



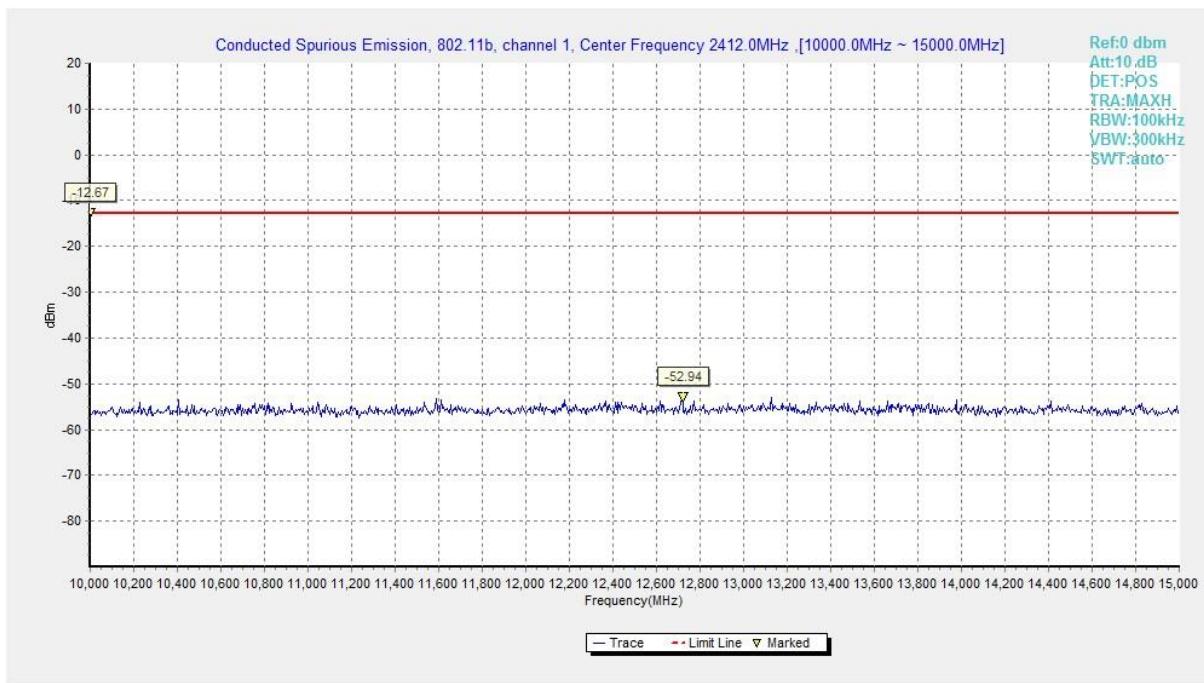
**Fig.A.6.1.2 Transmitter Spurious Emission - Conducted (802.11b, Ch1, 1 GHz-2.5 GHz)**



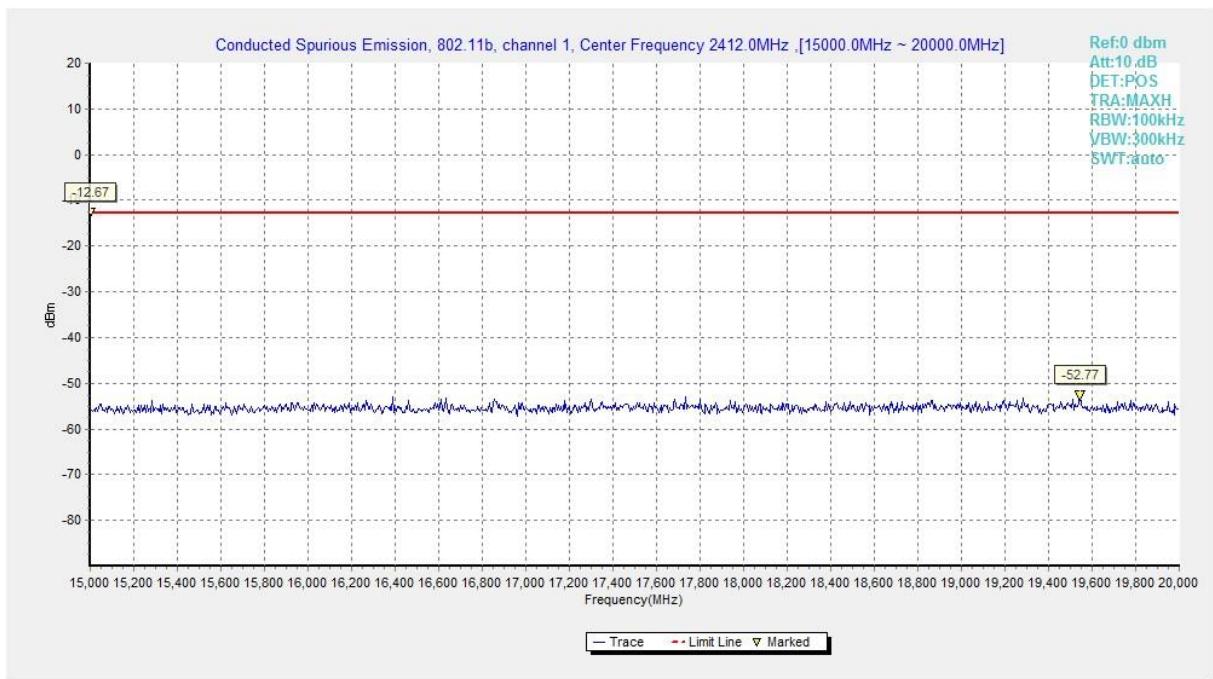
**Fig.A.6.1.3 Transmitter Spurious Emission - Conducted (802.11b, Ch1, 2.5 GHz-7.5 GHz)**



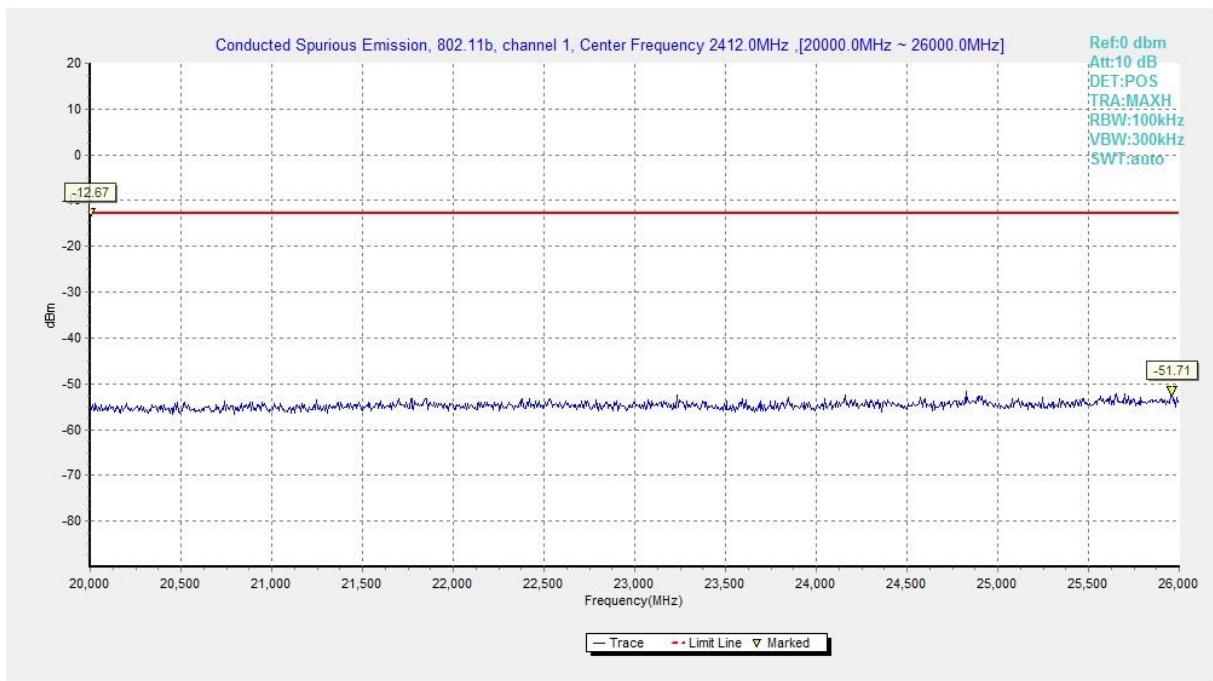
**Fig.A.6.1.4 Transmitter Spurious Emission - Conducted (802.11b, Ch1, 7.5 GHz-10 GHz)**



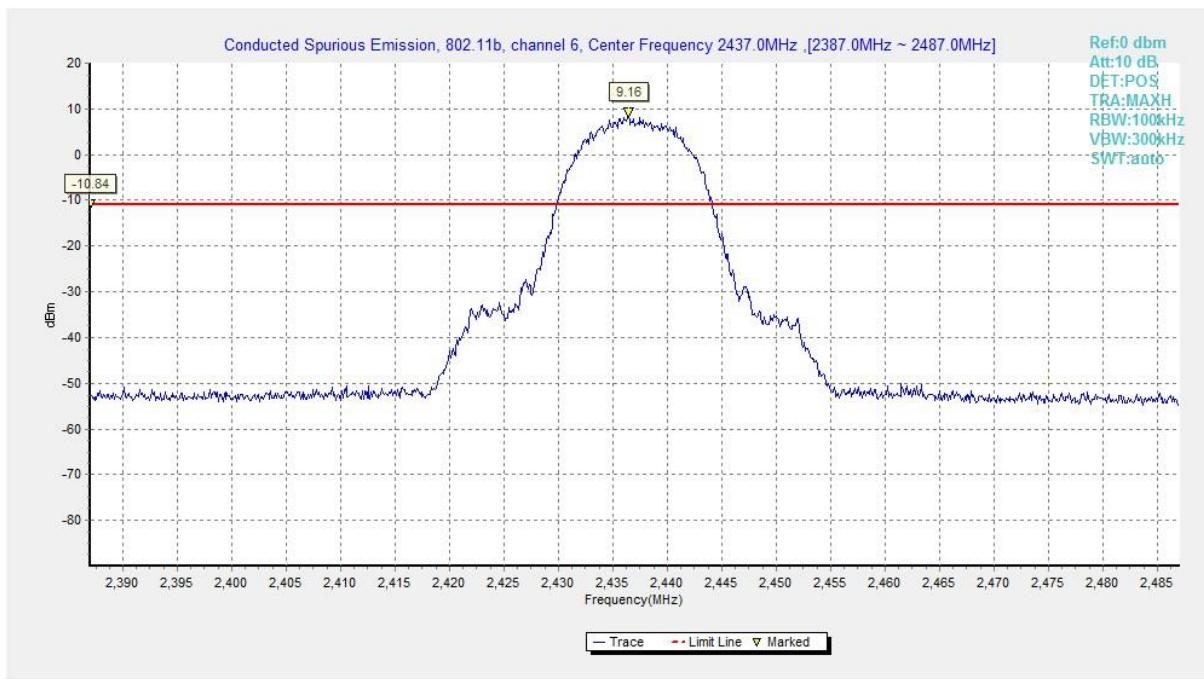
**Fig.A.6.1.5 Transmitter Spurious Emission - Conducted (802.11b, Ch1, 10 GHz-15 GHz)**



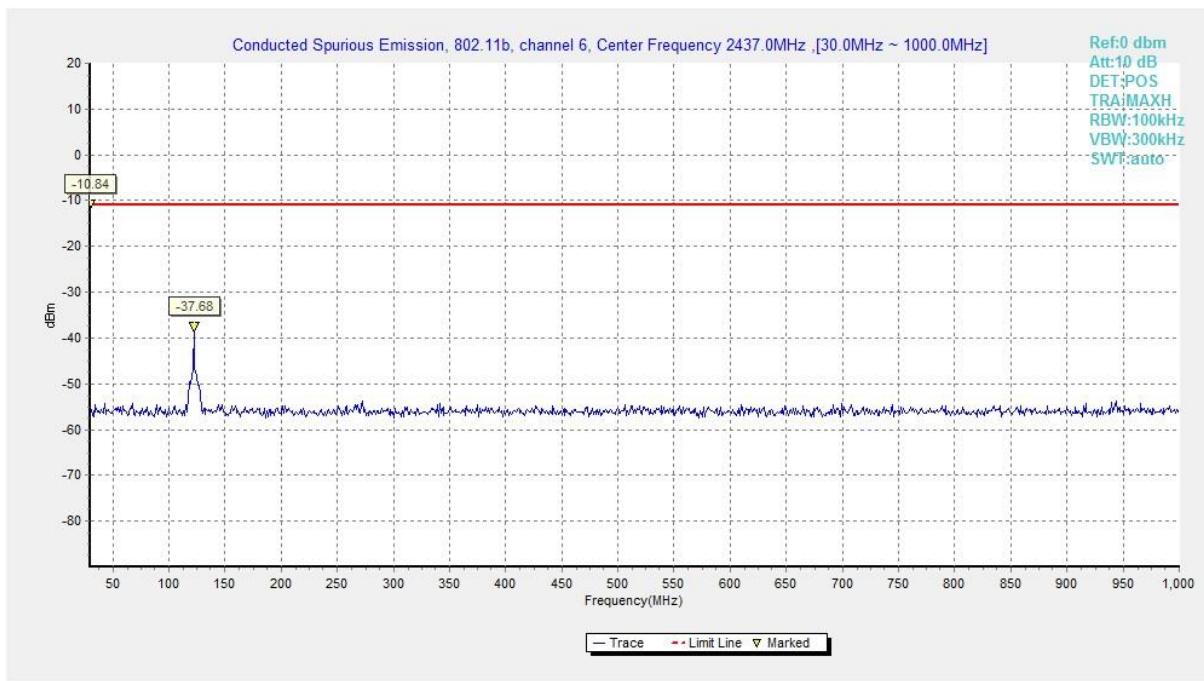
**Fig.A.6.1.6 Transmitter Spurious Emission - Conducted (802.11b, Ch1, 15 GHz-20 GHz)**



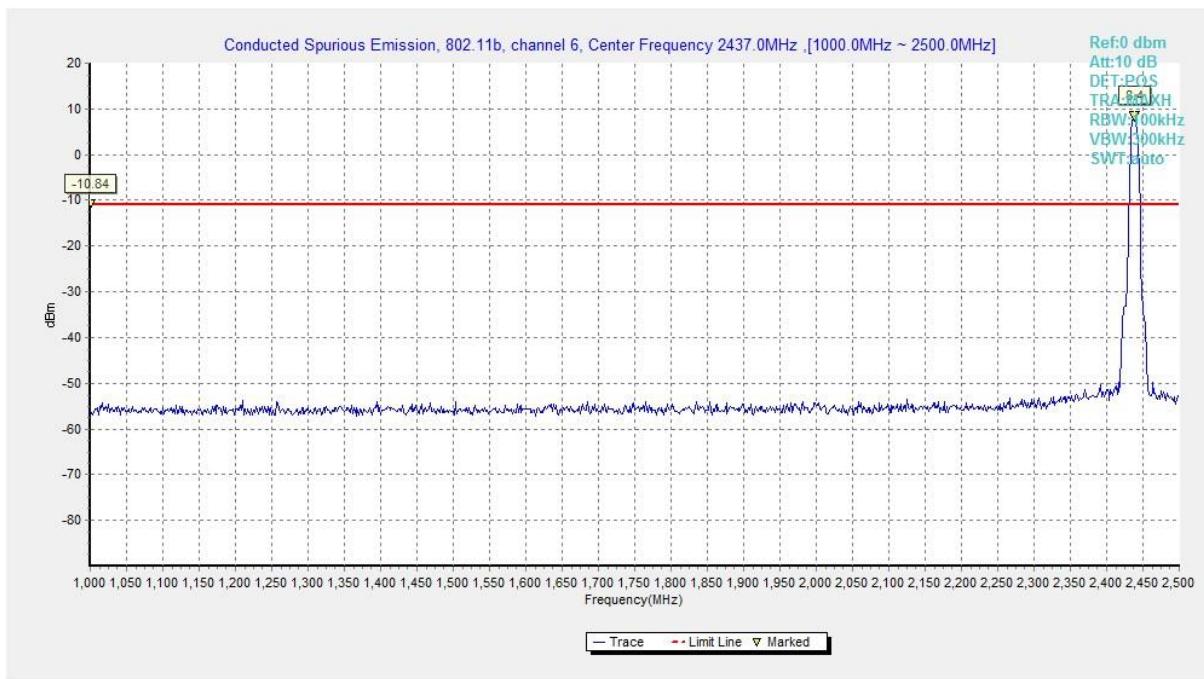
**Fig.A.6.1.7 Transmitter Spurious Emission - Conducted (802.11b, Ch1, 20 GHz-26 GHz)**



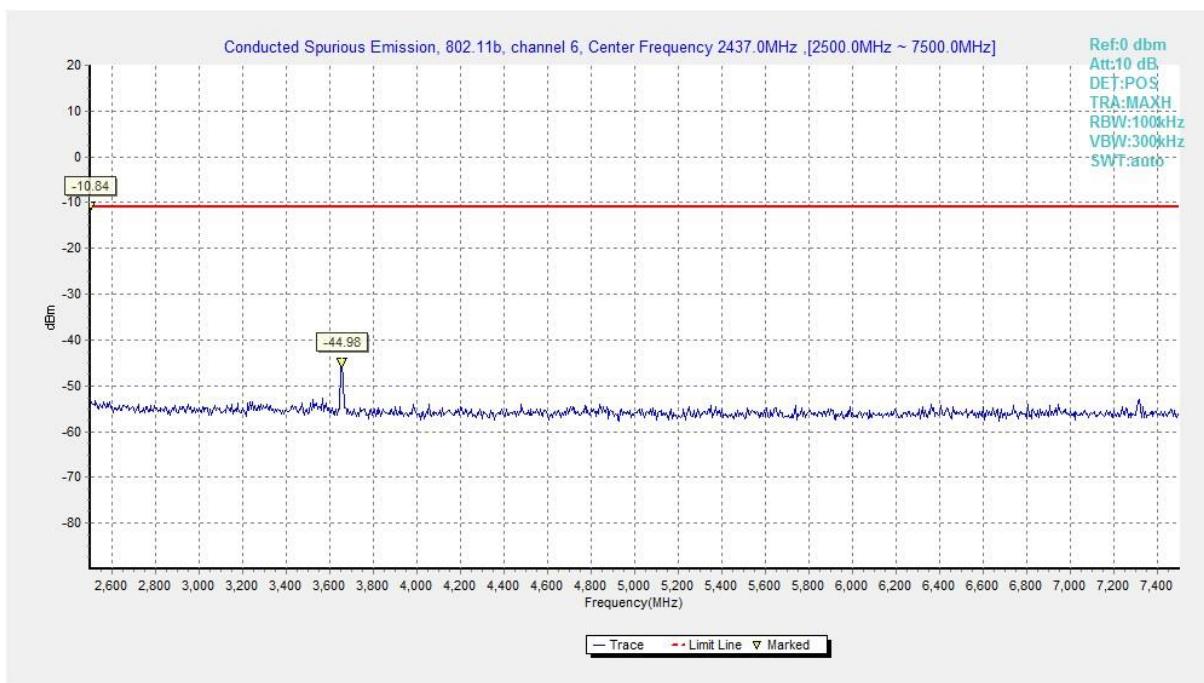
**Fig.A.6.1.8 Transmitter Spurious Emission - Conducted (802.11b, Ch6, Center Frequency)**



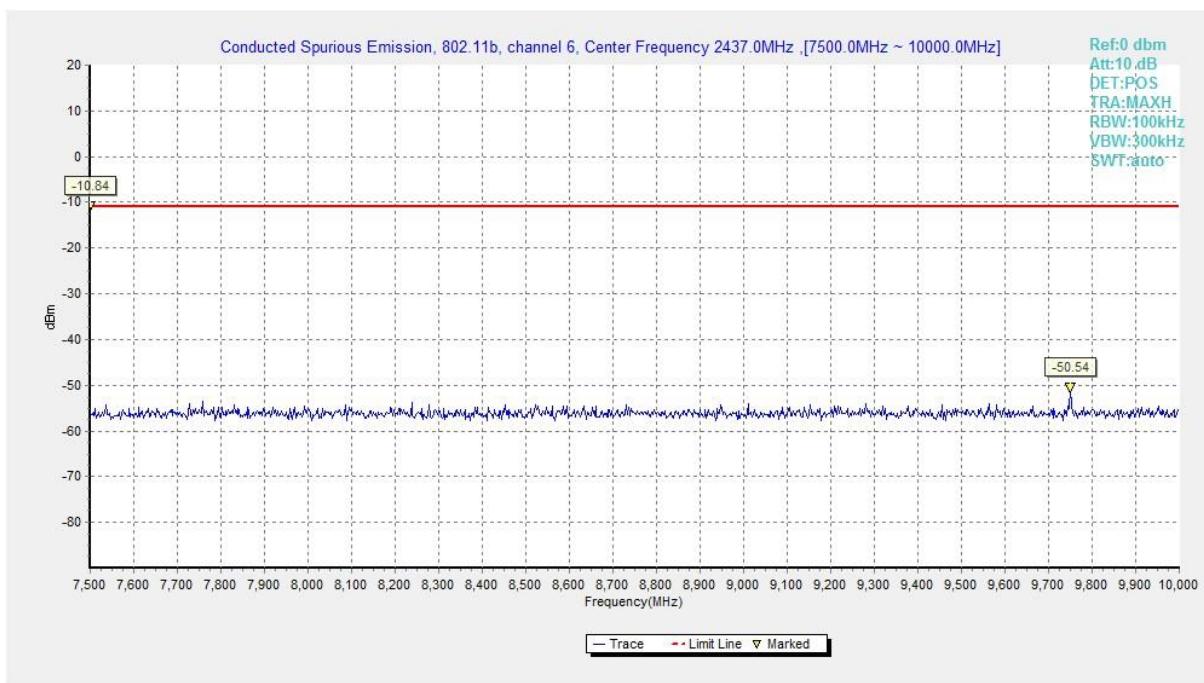
**Fig.A.6.1.9 Transmitter Spurious Emission - Conducted (802.11b, Ch6, 30 MHz-1 GHz)**



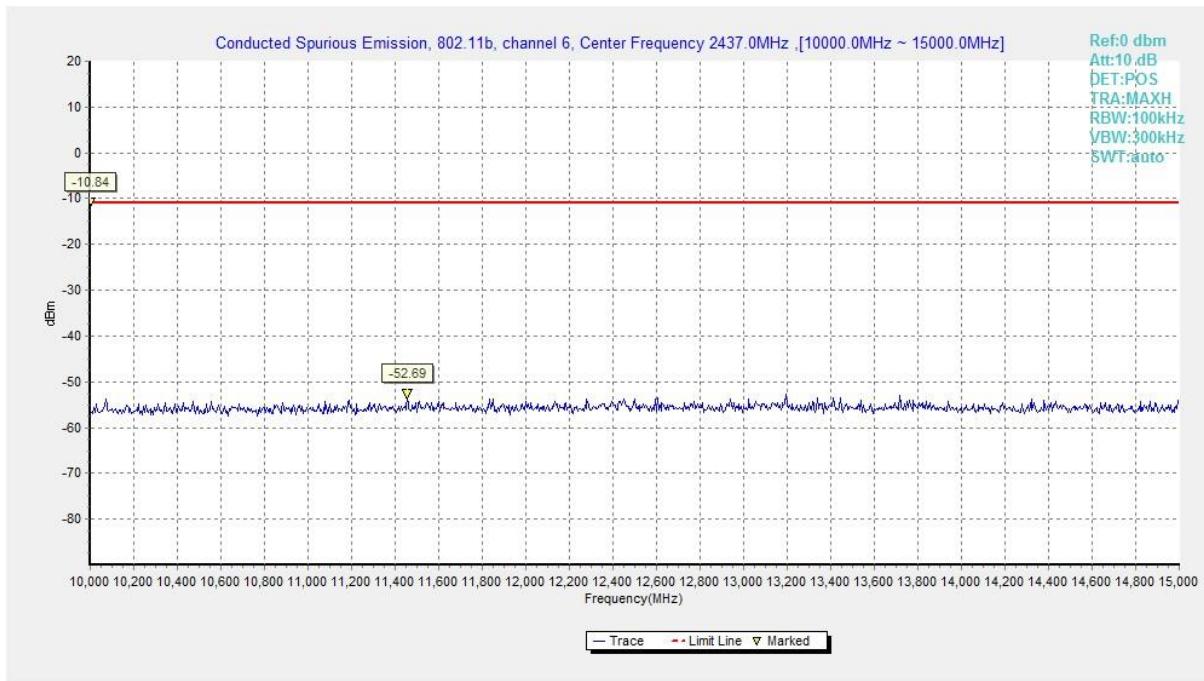
**Fig.A.6.1.10 Transmitter Spurious Emission - Conducted (802.11b, Ch6, 1 GHz-2.5 GHz)**



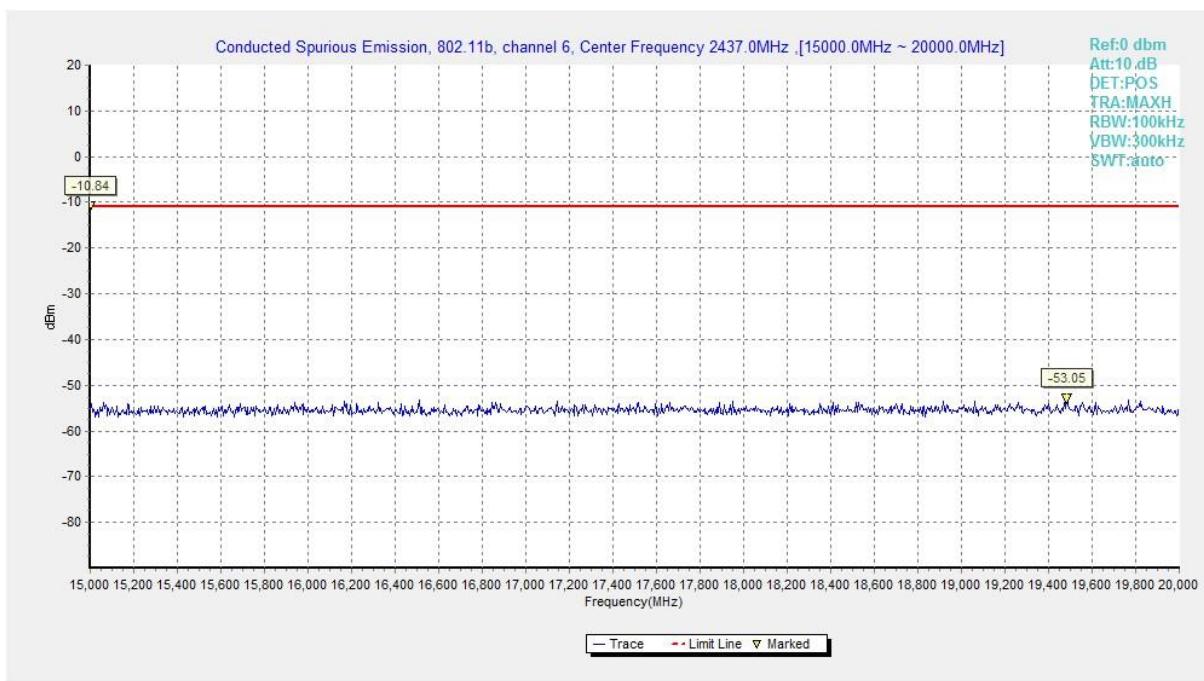
**Fig.A.6.1.11 Transmitter Spurious Emission - Conducted (802.11b, Ch6, 2.5 GHz-7.5 GHz)**



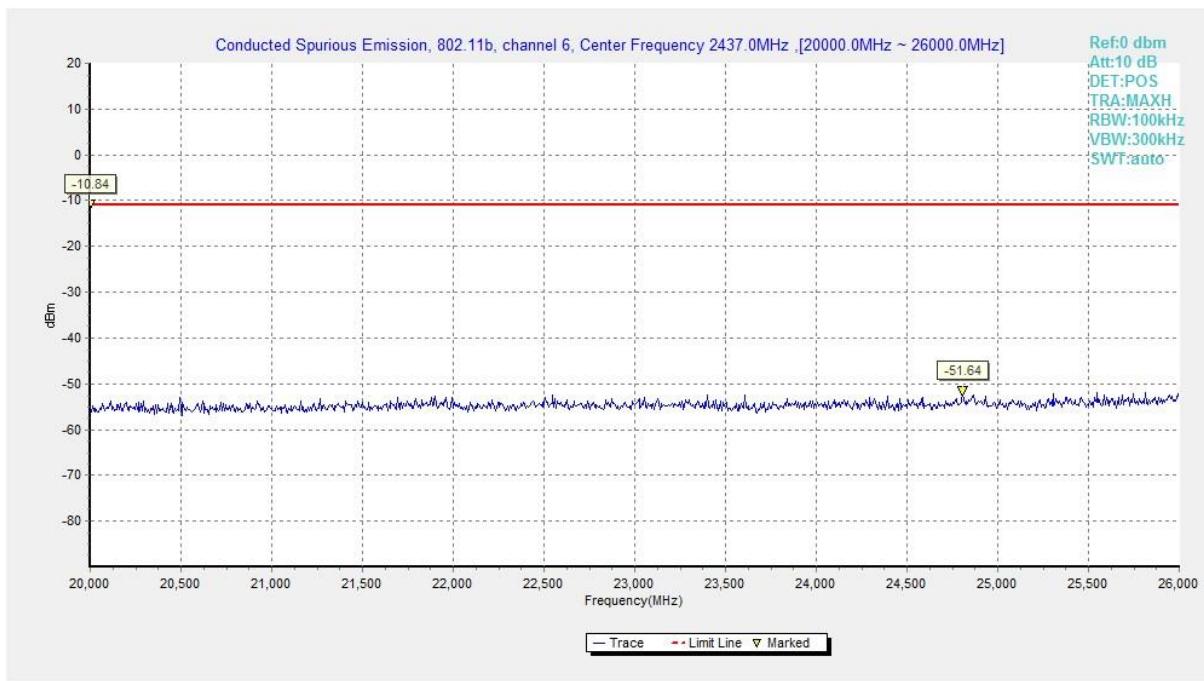
**Fig.A.6.1.12 Transmitter Spurious Emission - Conducted (802.11b, Ch6, 7.5 GHz-10 GHz)**



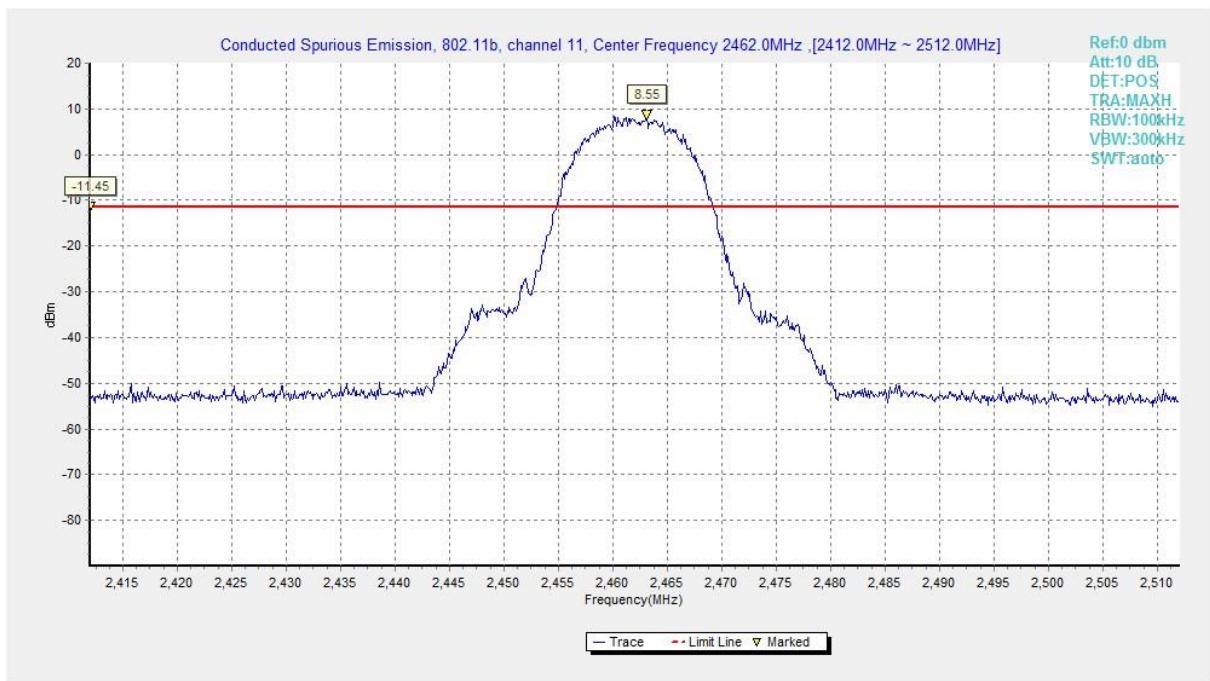
**Fig.A.6.1.13 Transmitter Spurious Emission - Conducted (802.11b, Ch6, 10 GHz-15 GHz)**



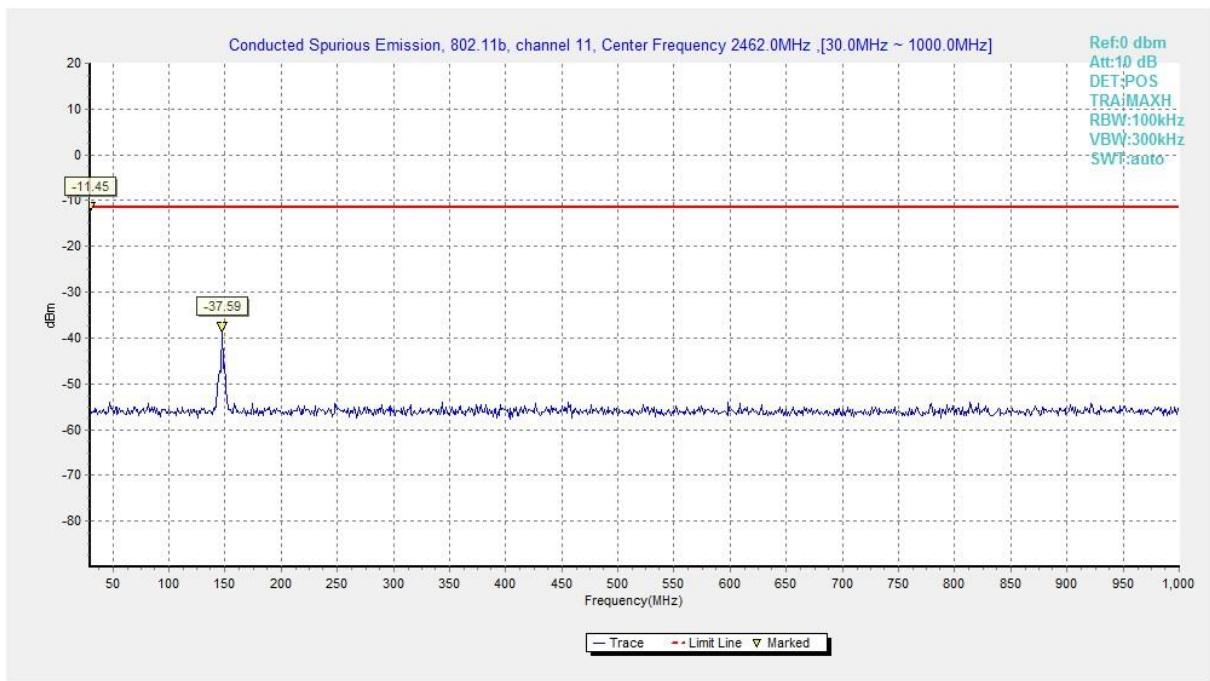
**Fig.A.6.1.14 Transmitter Spurious Emission - Conducted (802.11b, Ch6, 15 GHz-20 GHz)**



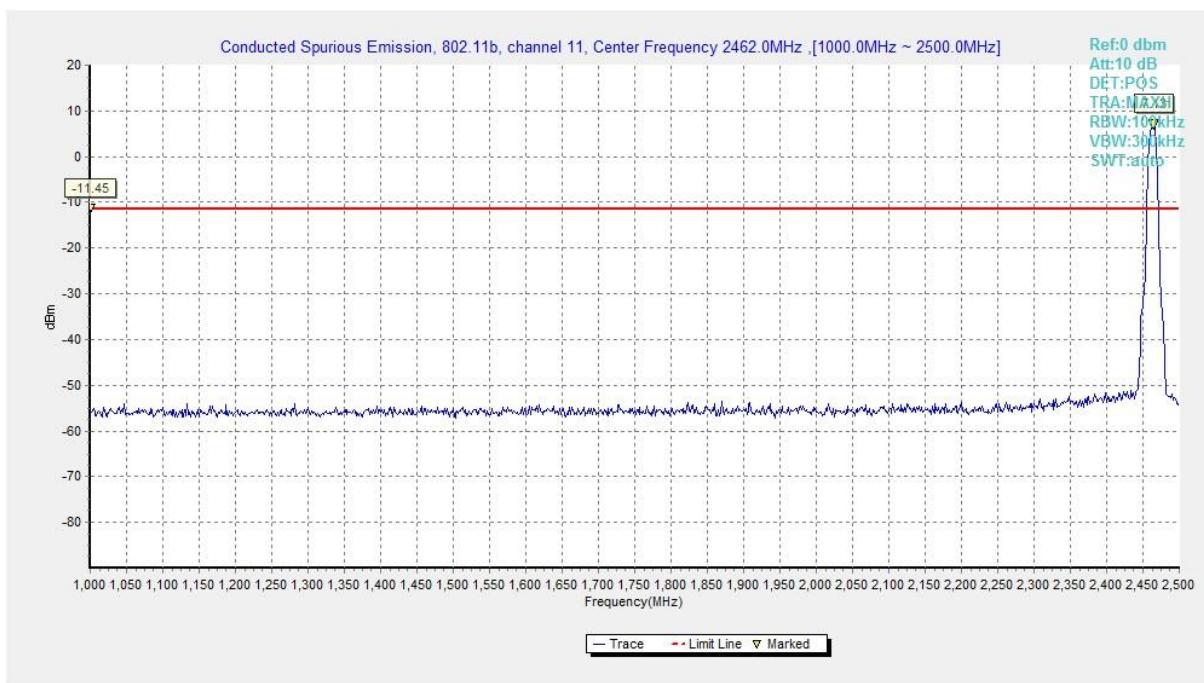
**Fig.A.6.1.15 Transmitter Spurious Emission - Conducted (802.11b, Ch6, 20 GHz-26 GHz)**



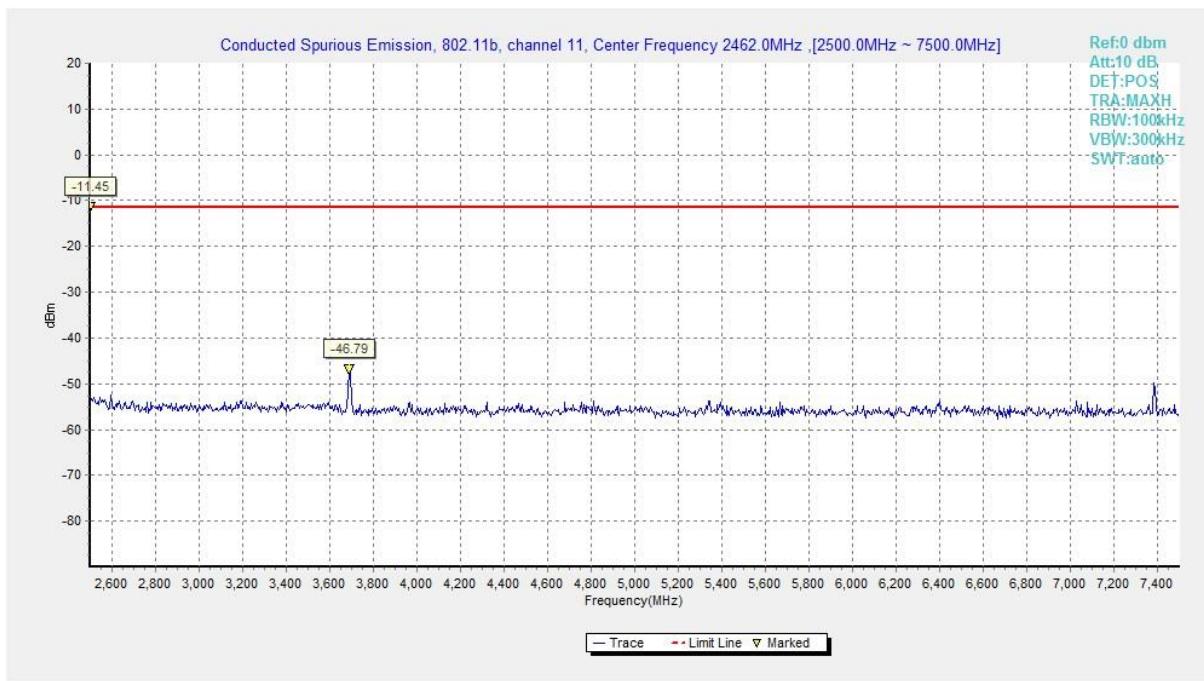
**Fig.A.6.1.16 Transmitter Spurious Emission - Conducted (802.11b, Ch11, Center Frequency)**



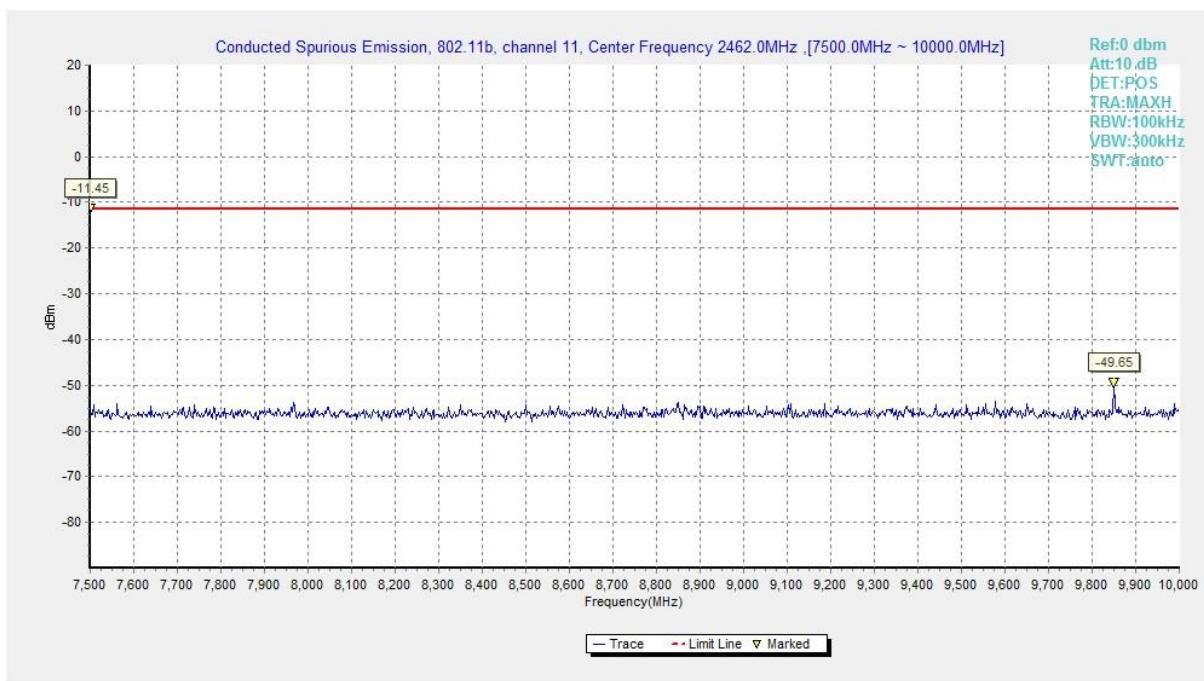
**Fig.A.6.1.17 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 30 MHz-1 GHz)**



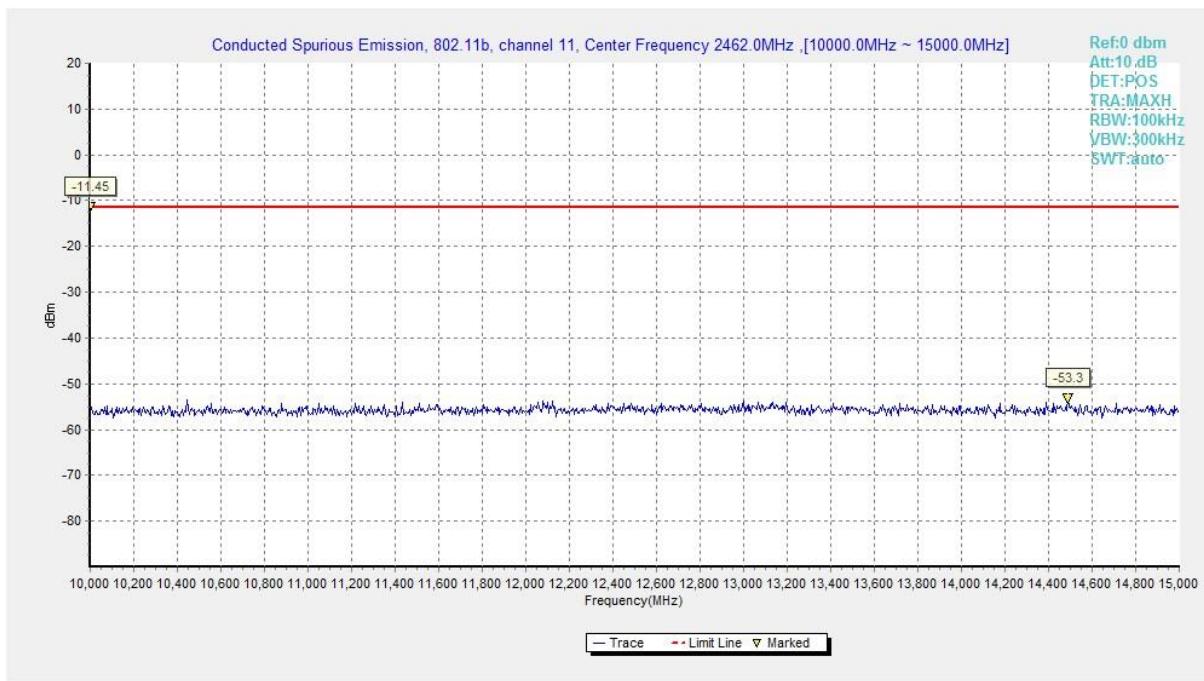
**Fig.A.6.1.18 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 1 GHz-2.5 GHz)**



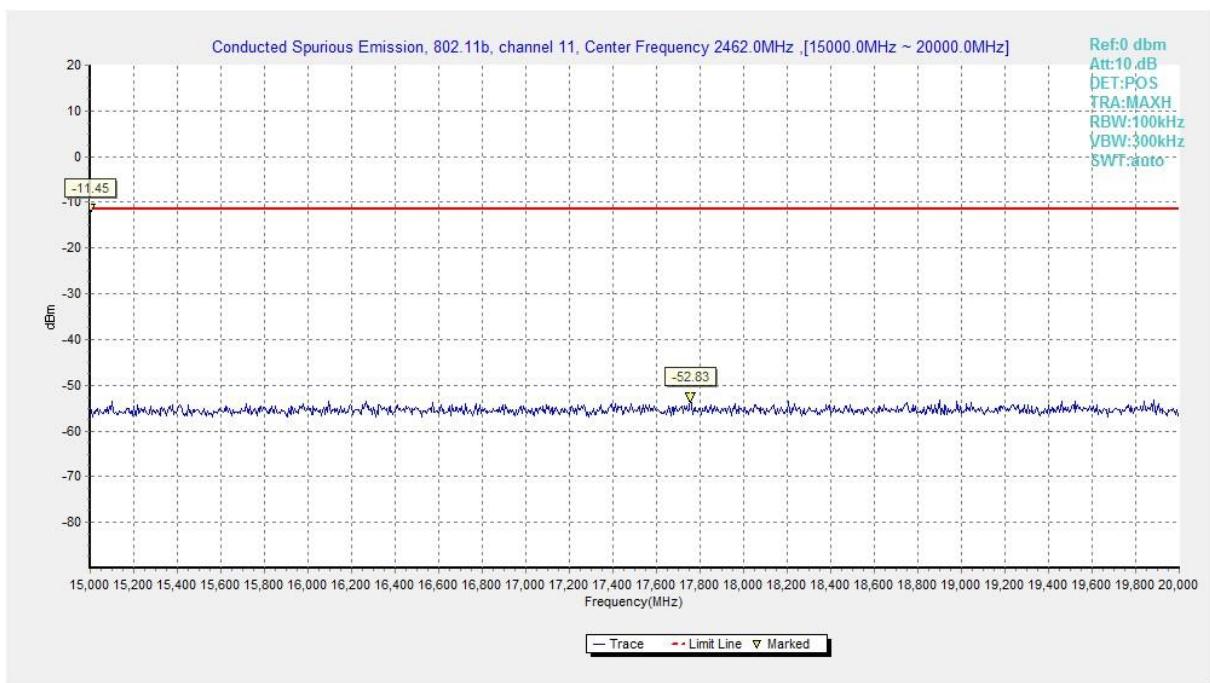
**Fig.A.6.1.19 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 2.5 GHz-7.5 GHz)**



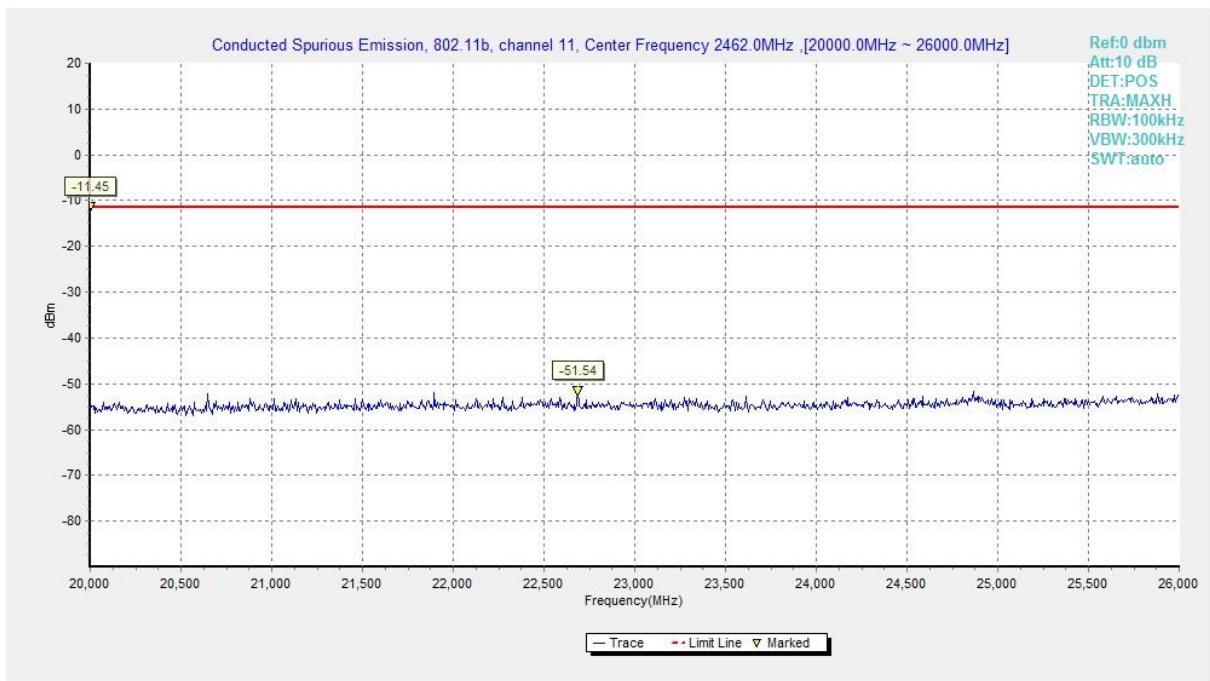
**Fig.A.6.1.20 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 7.5 GHz-10 GHz)**



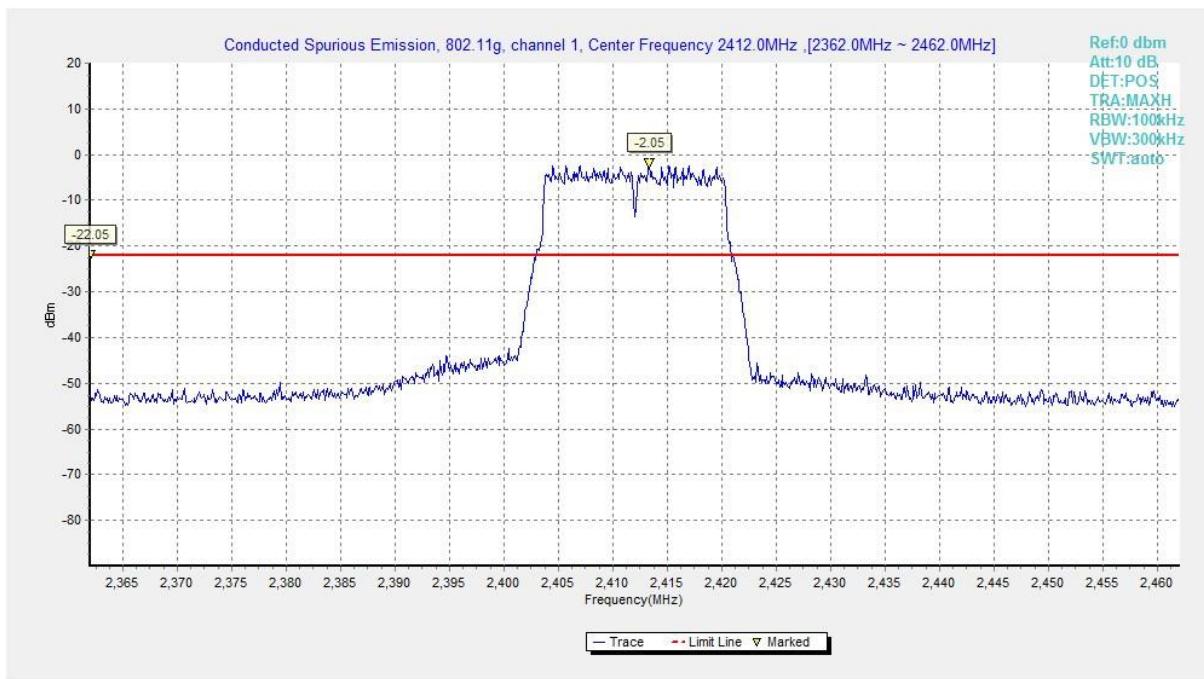
**Fig.A.6.1.21 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 10 GHz-15 GHz)**



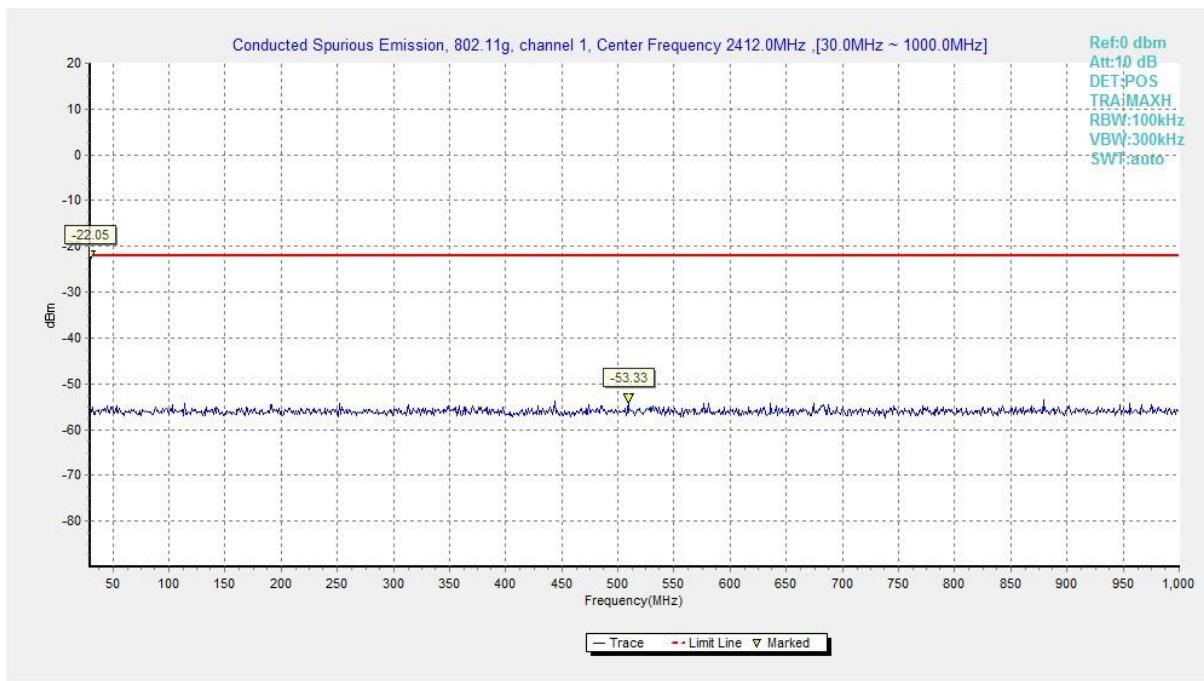
**Fig.A.6.1.22 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 15 GHz-20 GHz)**



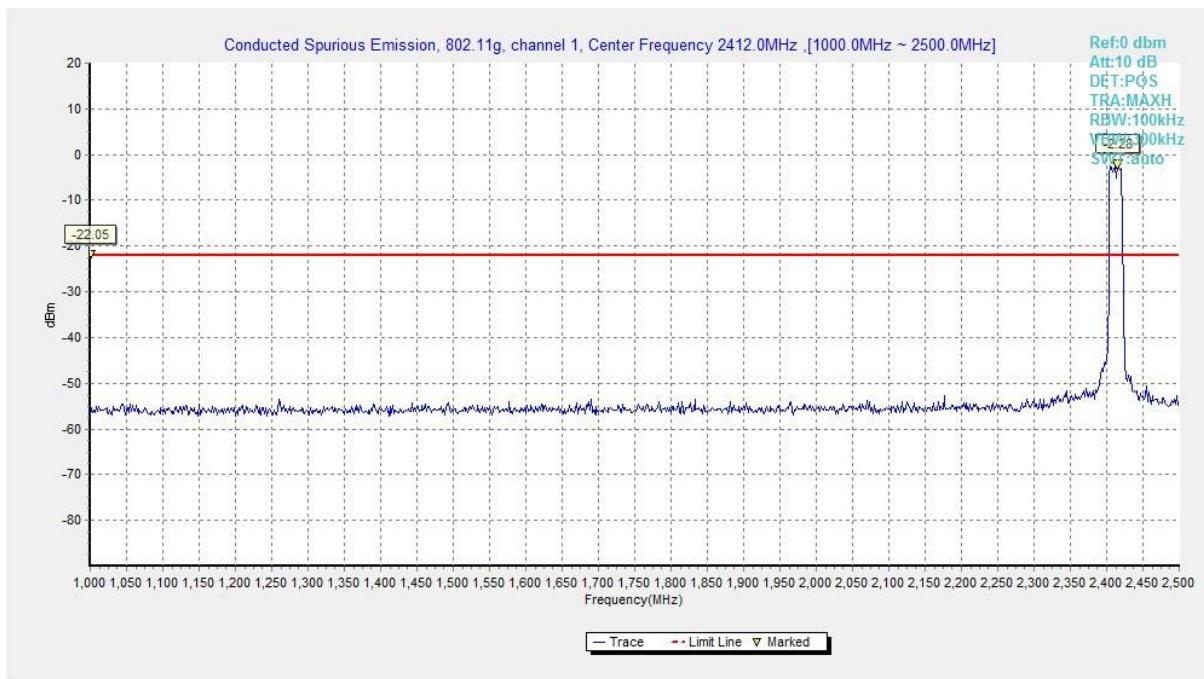
**Fig.A.6.1.23 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 20 GHz-26 GHz)**



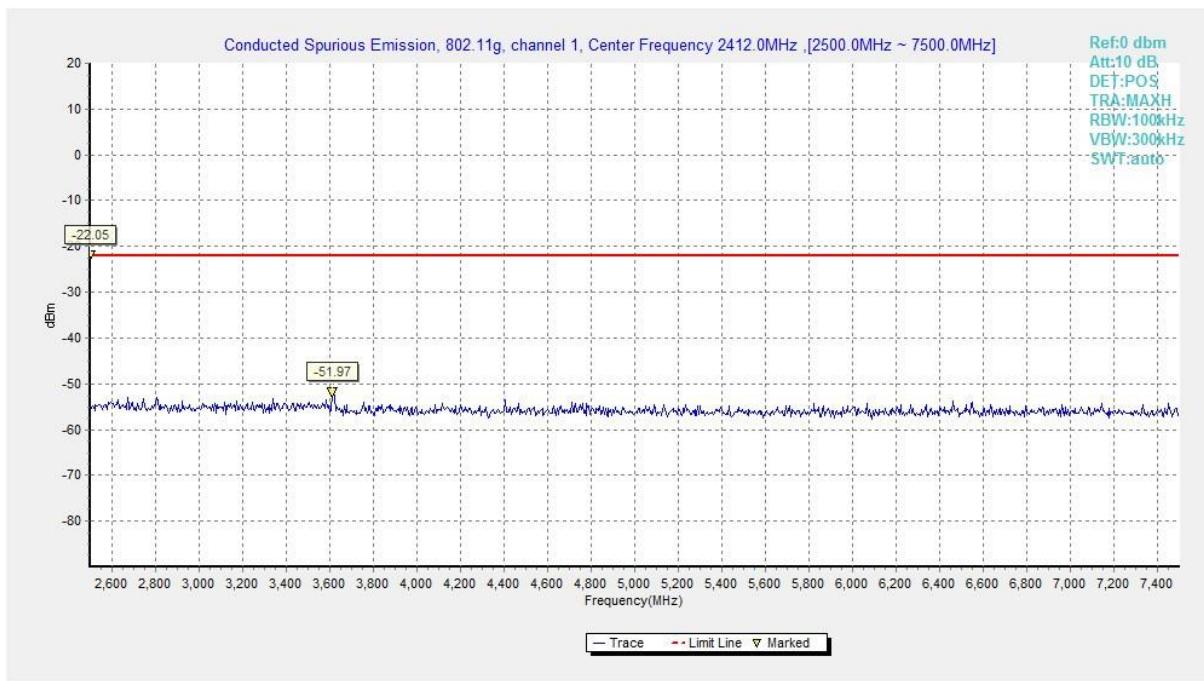
**Fig.A.6.1.24 Transmitter Spurious Emission - Conducted (802.11g, Ch1, Center Frequency)**



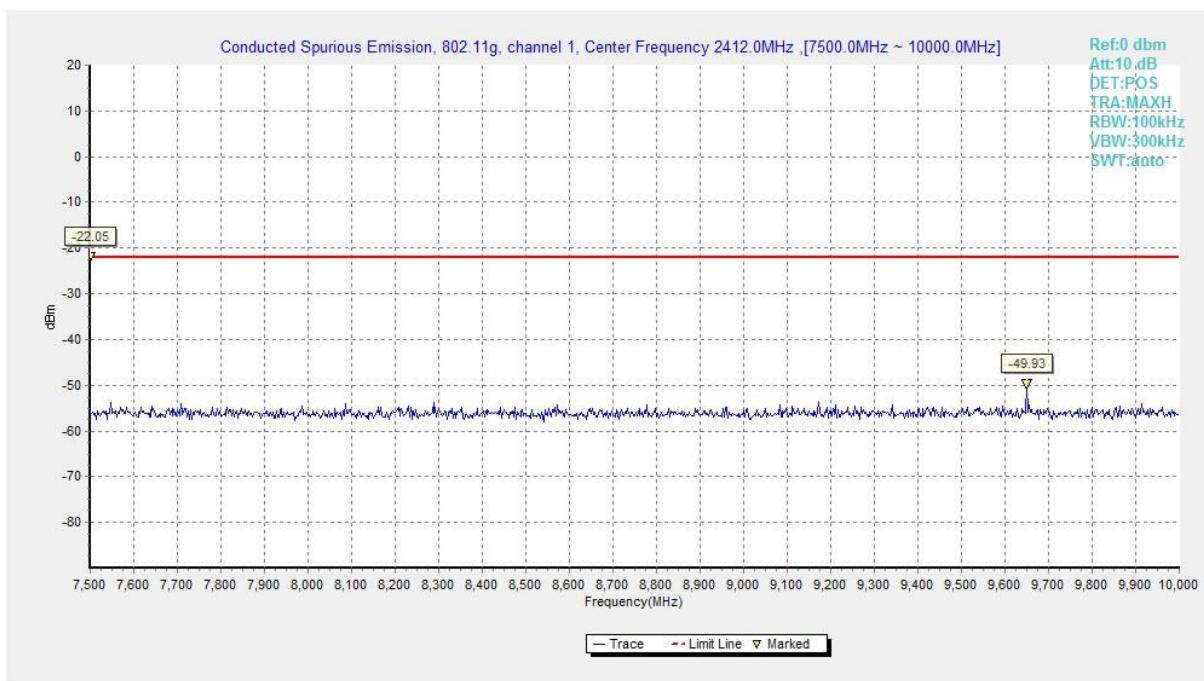
**Fig.A.6.1.25 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 30 MHz-1 GHz)**



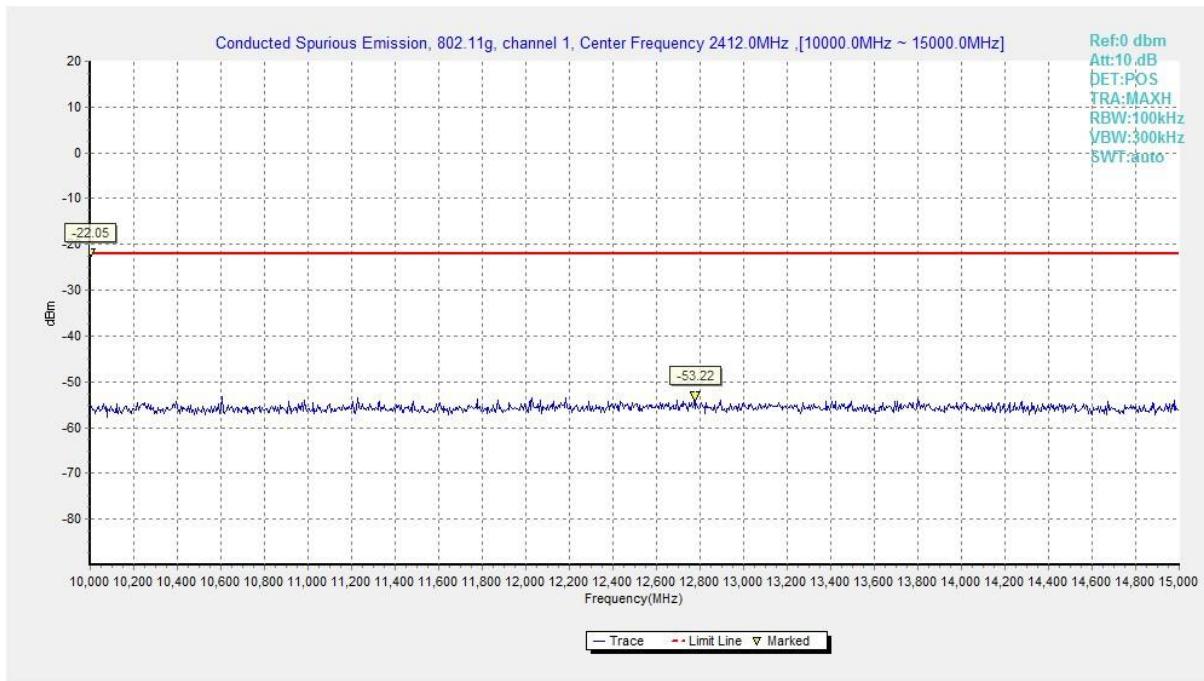
**Fig.A.6.1.26 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 1 GHz-2.5 GHz)**



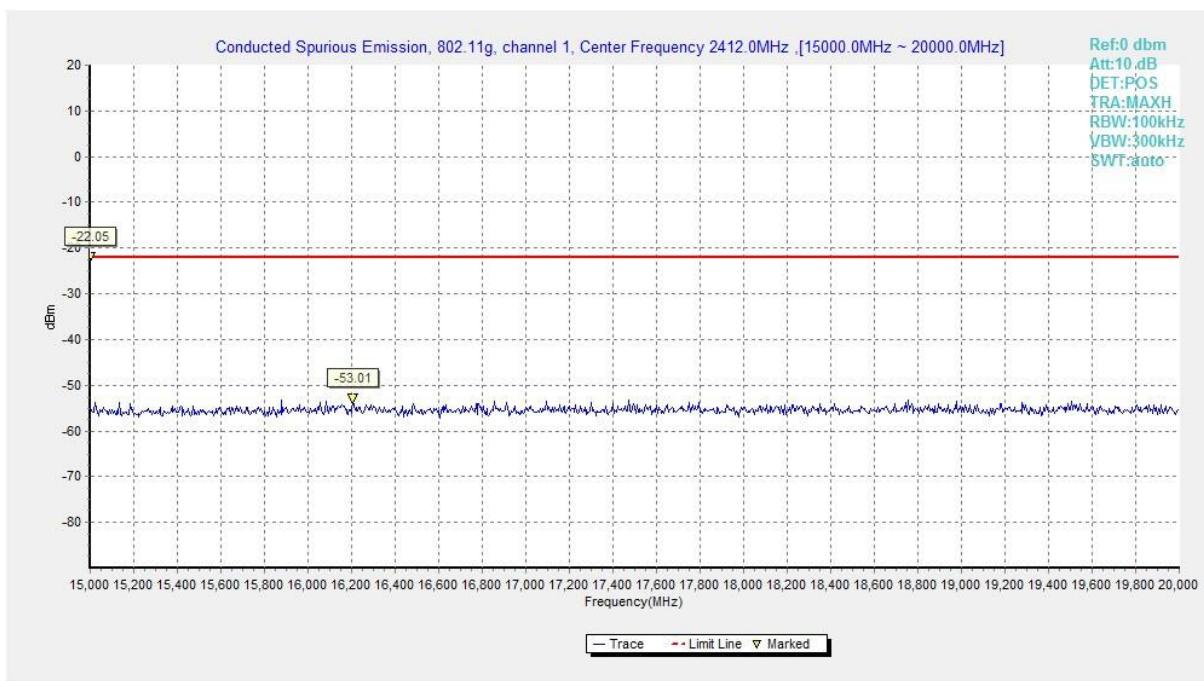
**Fig.A.6.1.27 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 2.5 GHz-7.5 GHz)**



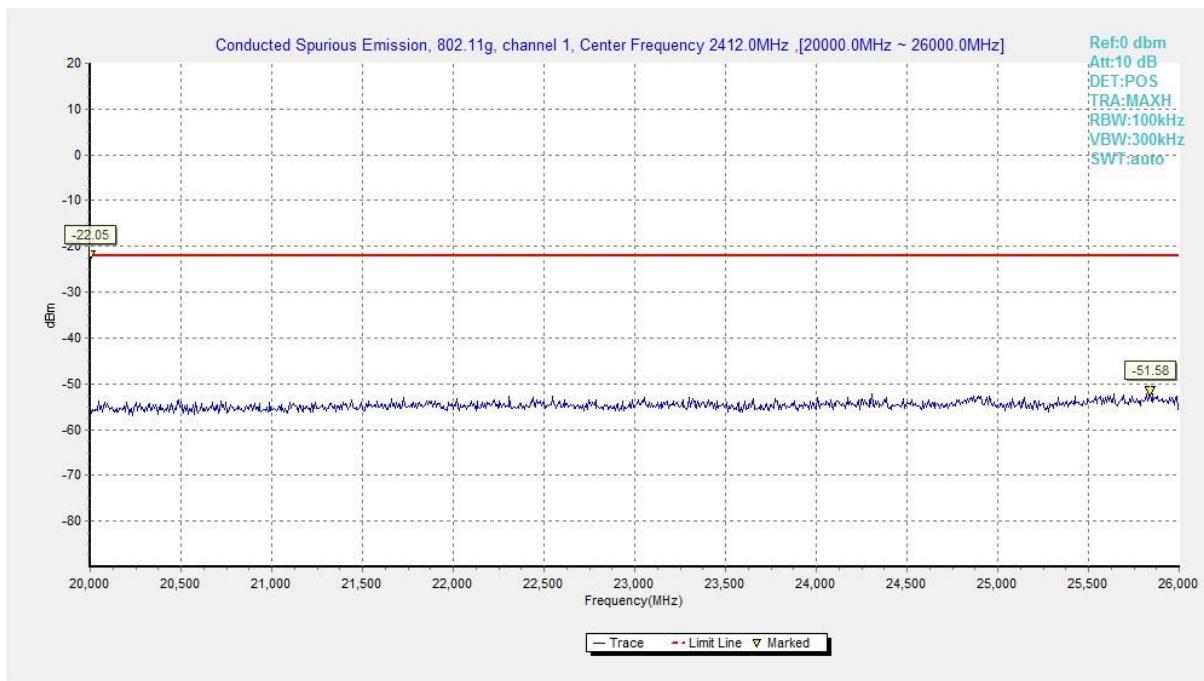
**Fig.A.6.1.28 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 7.5 GHz-10 GHz)**



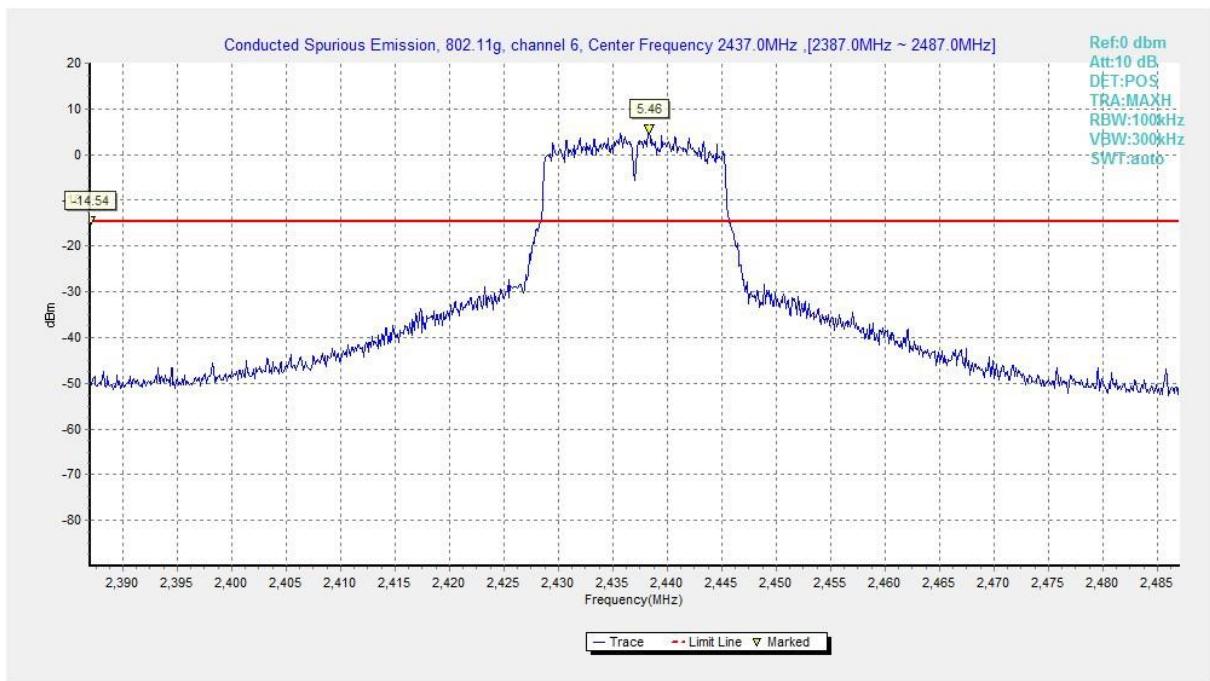
**Fig.A.6.1.29 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 10 GHz-15 GHz)**



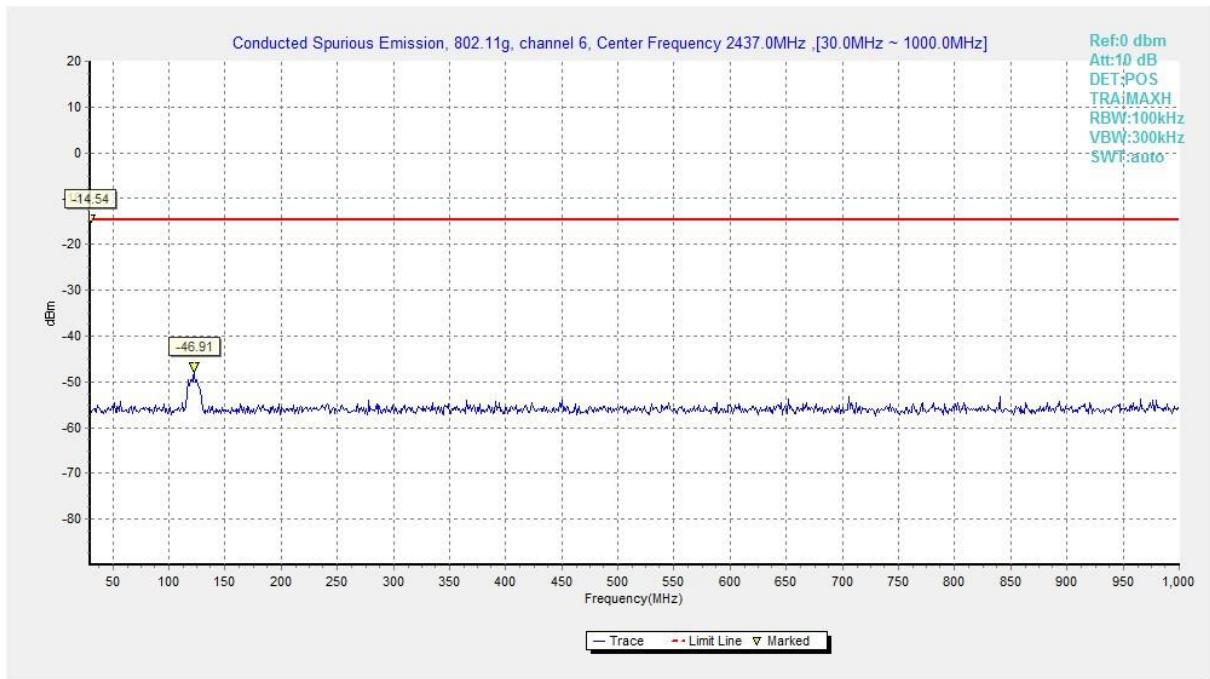
**Fig.A.6.1.30 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 15 GHz-20 GHz)**



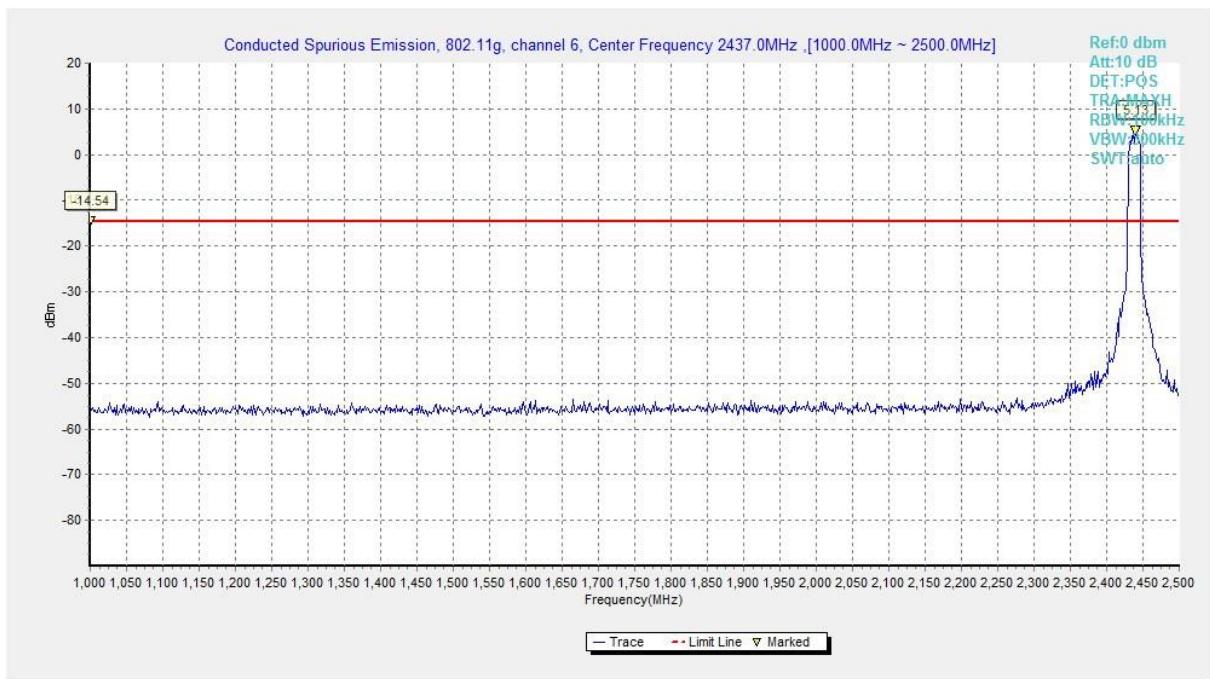
**Fig.A.6.1.31 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 20 GHz-26 GHz)**



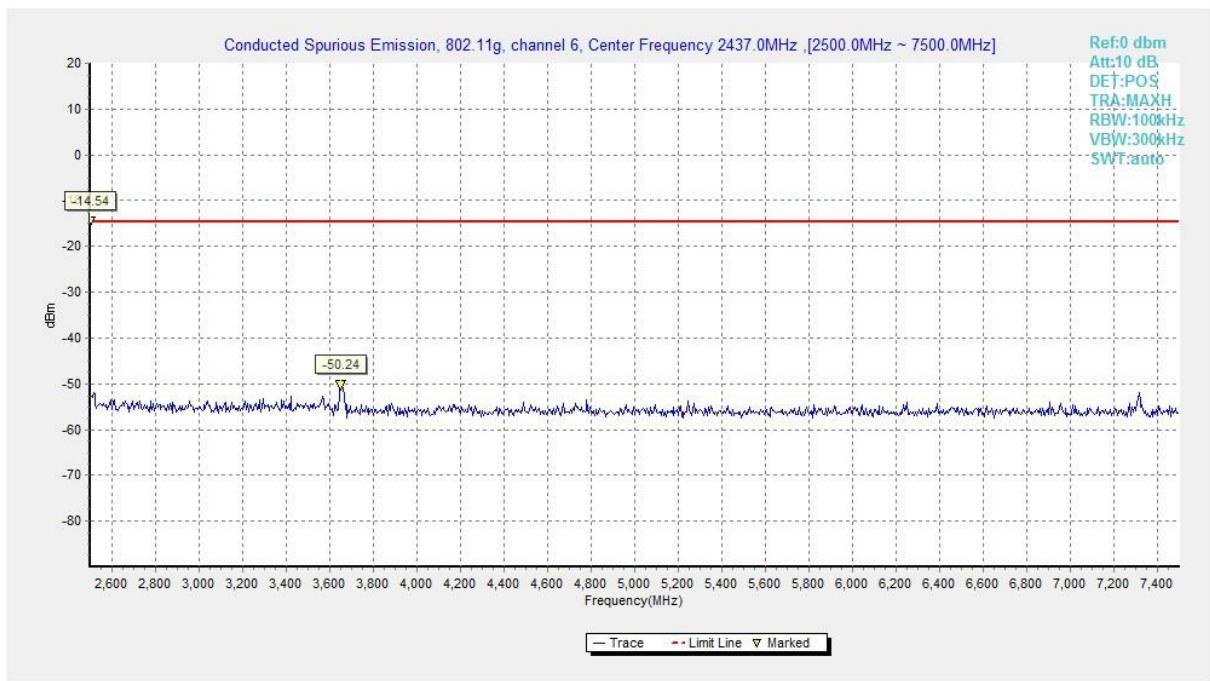
**Fig.A.6.1.32 Transmitter Spurious Emission - Conducted (802.11g, Ch6, Center Frequency)**



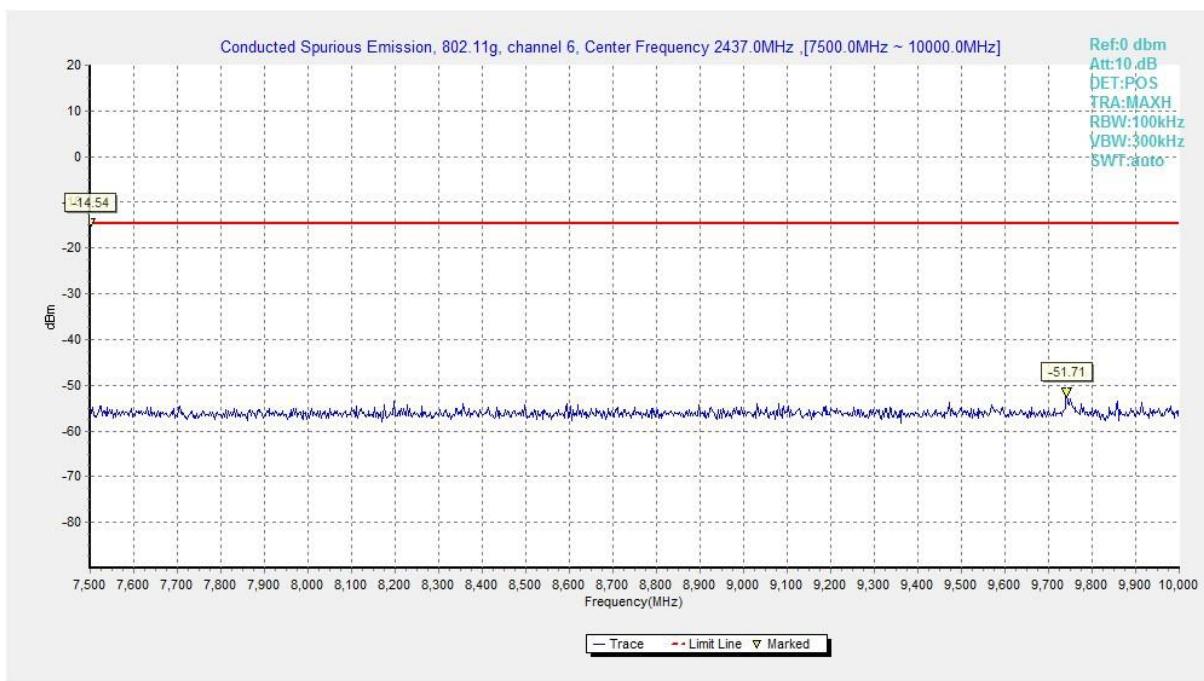
**Fig.A.6.1.33 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 30 MHz-1 GHz)**



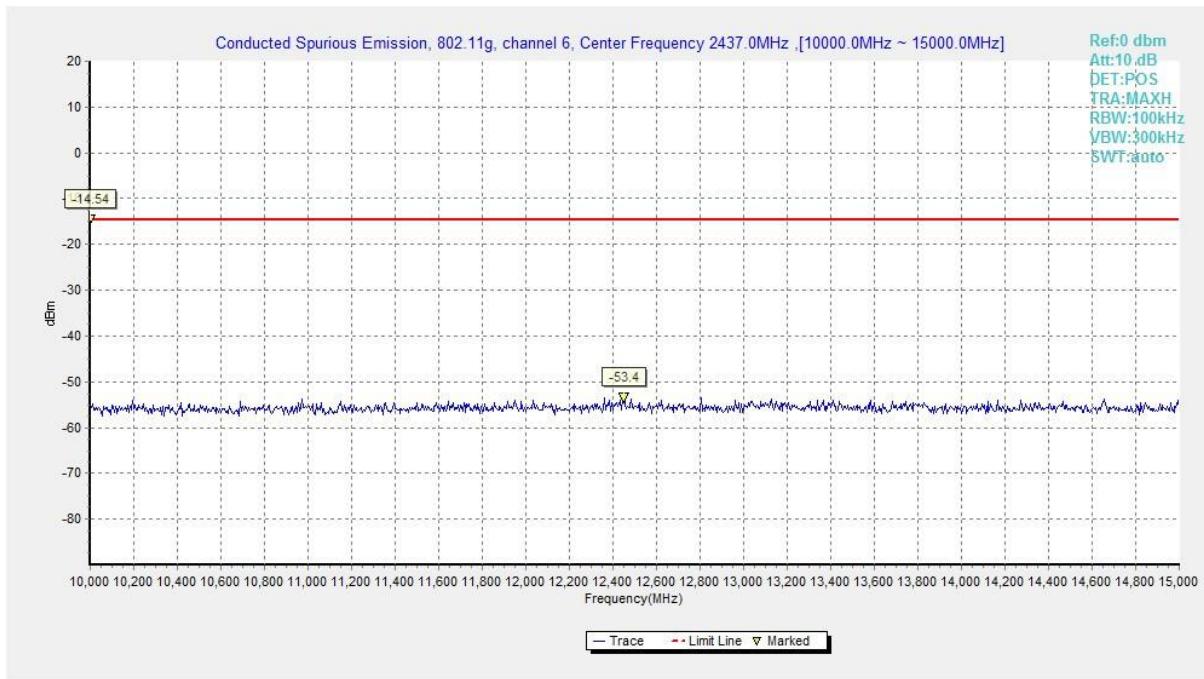
**Fig.A.6.1.34 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 1 GHz-2.5 GHz)**



**Fig.A.6.1.35 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 2.5 GHz-7.5 GHz)**



**Fig.A.6.1.36 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 7.5 GHz-10 GHz)**



**Fig.A.6.1.37 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 10 GHz-15 GHz)**