



**FCC PART 15C
TEST REPORT
No. 2013WLN0722**

for

TCT Mobile Limited

HSUPA/HSDPA/UMTS triband/GSM quadband mobile phone

Model name: California 2SIM US

Marketing Name: ONE TOUCH 6012E

With

FCC ID: RAD391

Hardware Version: Proto2

Software Version: 3A0B

Issued Date: 2013-8-22



Note:The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of TMC Beijing.

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1. TEST LABORATORY

1.1. Testing Location

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1.2. Project Data

Testing Start Date: 2013-07-22
Testing End Date: 2013-07-30

1.3. Signature



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(Reviewed this test report)



Xiao Li
Deputy Director of the laboratory
(Approved this test report)

2. CLIENT INFORMATION

2.1. Applicant Information

Company Name: TCT Mobile Limited
Address /Post: 12F/B, TCL Tower, Gaoxin Nanyi Road, Nanshan District, Shenzhen,
Guangdong, P.R. China. 518057
Contact Lv Meixian
Email meixian.lv@tcl.com
Telephone: 0086-755-33956929
Fax: 0086-755-36645072

2.2. Manufacturer Information

Company Name: TCT Mobile Limited
Address /Post: 12F/B, TCL Tower, Gaoxin Nanyi Road, Nanshan District, Shenzhen,
Guangdong, P.R. China. 518057
Contact Lv Meixian
Email meixian.lv@tcl.com
Telephone: 0086-755-33956929
Fax: 0086-755-36645072

3. EQUIPMENT UNDER TEST(EUT) AND ANCILLARY

EQUIPMENT(AE)

3.1. About EUT

Description	HSUPA/HSDPA/UMTS triband/GSM quadband mobile phone
Model name	California 2SIM US
Marketing name	ONE TOUCH 6012E
FCC ID	RAD391
IC ID	/
With WLAN Function	Yes
Frequency Range	ISM 2400MHz~2483.5MHz
Type of Modulation	DSSS/CCK/OFDM
Number of Channels	11
Antenna	Integral Antenna
MAX Conducted Power	25.15dBm(OFDM)
GPRS Class	Class 12
GPRS operation mode	Class B
Power Supply	3.8V DC by Battery

3.2. Internal Identification of EUT Used During the Test

EUT ID*	IMEI	HW Version	SW Version
EUT1	/	Proto2	3A0B
EUT2	/	Proto2	3A0B

*EUT ID: is used to identify the test sample in the lab internally.

3.3. Internal Identification of AE Used During the Test

AE ID*	Description	Type	SN
AE1	Battery	CAC1700001C1	/
AE2	Charger	CBA3007AG0C1	/

*AE ID: is used to identify the test sample in the lab internally.

3.4. General Description

Equipment Under Test (EUT) is a model of HSUPA/HSDPA/UMTS triband/GSM quadband mobile phone with integrated antenna. It consists of normal options: Battery and Charger.

Manual and specifications of the EUT were provided to fulfil the test.

Samples undergoing test were selected by the Client.

4. Reference Documents

4.1. Documents supplied by applicant

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

4.2. REFERENCE DOCUMENTS FOR TESTING

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC Part15	FCC CFR 47, Part 15, Subpart C: 15.205 Restricted bands of operation; 15.209 Radiated emission limits, general requirements; 15.247 Operation within the bands 902-928MHz, 2400-2483.5 MHz, and 5725-5850 MHz.	Oct, 2012
ANSI C63.4	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2003
KDB558074	Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247	2012

5. LABORATORY ENVIRONMENT

Conducted RF performance testing is performed in shielding room.

EMC performance testing is performed in Half-anechoic chamber.

6. SUMMARY OF TEST RESULTS

6.1. Summary of Test Results

SUMMARY OF MEASUREMENT RESULTS	Sub-clause of Part15C	Sub-clause of IC	Verdict
Maximum Peak Output Power	15.247 (b)	/	P
Peak Power Spectral Density	15.247 (e)	/	P
Occupied 6dB Bandwidth	15.247 (a)	/	P
Band Edges Compliance	15.247 (d)	/	P
Transmitter Spurious Emission - Conducted	15.247 (d)	/	P
Transmitter Spurious Emission - Radiated	15.247, 15.205, 15.209	/	P
AC Powerline Conducted Emission	15.107, 15.207	/	P

Please refer to **ANNEX A** for detail.

Terms used in Verdict column

P	Pass, The EUT complies with the essential requirements in the standard.
NP	Not Perform, The test was not performed by TMC
NA	Not Applicable, The test was not applicable
F	Fail, The EUT does not comply with the essential requirements in the standard

6.2. Statements

TMC has evaluated the test cases requested by the client/manufacturer as listed in section 6.1 of this report for the EUT specified in section 3 according to the standards or reference documents listed in section 4.1.

This report only deals with the WLAN function among the features described in section 3.

This model is a variant product which market name is ONE TOUCH 6012A; all the test result has been derived from test report of ONE TOUCH 6012A.

6.3. Test Conditions

For this report, all the test cases are tested under normal temperature and normal voltage, and also under norm humidity, the specific condition is shown as follows:

Temperature	26°C
Voltage	3.8 (By battery)
Humidity	44%

7. TEST EQUIPMENTS UTILIZED

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date
1	Vector Signal Analyzer	FSQ40	200089	Rohde & Schwarz	2014-07-08
2	Test Receiver	ESS	847151/015	Rohde & Schwarz	2013-10-30
3	LISN	ESH2-Z5	829991/012	Rohde & Schwarz	2014-08-12
4	Shielding Room	S81	/	ETS-Lindgren	/

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date
1	Test Receiver	ESI40	831564/002	Rohde & Schwarz	2014-08-11
2	BiLog Antenna	3142B	9908-1403	EMCO	2014-03-15
3	Dual-Ridge Waveguide Horn Antenna	3115	9906-5827	EMCO	2014-12-25
4	Dual-Ridge Waveguide Horn Antenna	3116	2661	EMCO	2014-06-30
5	Semi-anechoic chamber	/	CT000332-1074	Frankonia German	/

ANNEX A: MEASUREMENT RESULTS

A.1. Measurement Method

A.1.1. Conducted Measurements

Connect the EUT to the test system as Fig.A.1.1.1 shows.

Set the EUT to the required work mode.

Set the EUT to the required channel.

Set the Vector Signal Analyzer and start measurement.

Record the values. Vector Signal Analyzer

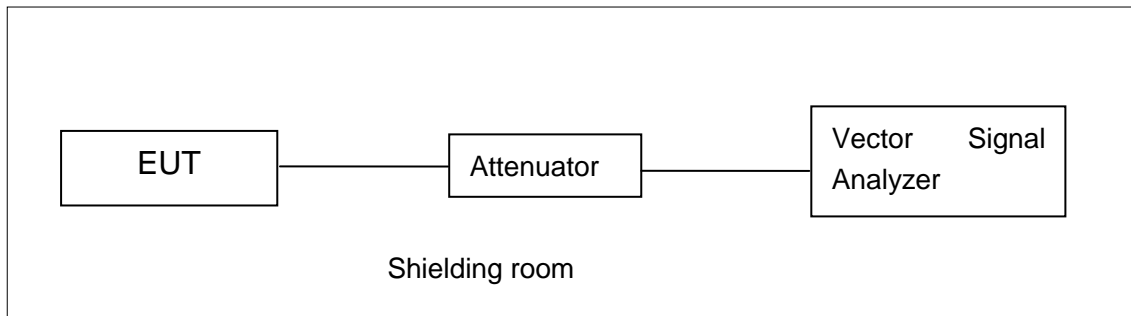


Fig.A.1.1.1: Test Setup Diagram for Conducted Measurements

A.1.2. Radiated Emission Measurements

In the case of radiated emission, the used settings are as follows,

Sweep frequency from 30 MHz to 1GHz, RBW = 100 kHz, VBW = 300 kHz;

Sweep frequency from 1 GHz to 26GHz, RBW = 1MHz, VBW = 10Hz;

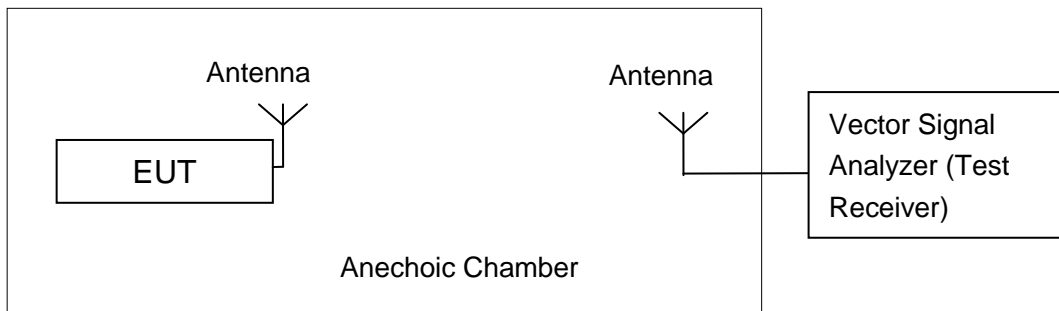


Fig.A.1.2.1: Test Setup Diagram for Radiated Measurements

A.2. Maximum Output Power

Measurement Limit and Method:

Standard	Limit (dBm)
FCC CRF Part 15.247(b)	< 30

The measurement is made according to KDB558074.

A.2.1. Maximum Peak Output Power-conducted

Measurement Results:

802.11b/g mode

Mode	Data Rate (Mbps)	Test Result (dBm)		
		2412MHz (Ch1)	2437MHz (Ch6)	2462 MHz (Ch11)
802.11b	1	20.63	/	/
	2	20.62	/	/
	5.5	22.32	/	/
	11	23.41	23.32	22.98
802.11g	6	24.25	/	/
	9	24.51	/	/
	12	24.63	/	/
	18	24.38	/	/
	24	24.95	/	/
	36	24.96	/	/
	48	25.01	/	/
	54	25.15	24.89	24.21

The data rate 11Mbps and 54Mbps are selected as worse condition, and the following cases are performed with this condition.

802.11n-HT20 mode

Mode	Data Rate (Index)	Test Result (dBm)		
		2412MHz (Ch1)	2437MHz (Ch6)	2462 MHz (Ch11)
802.11n (20MHz)	MCS0	21.52	21.42	21.46
	MCS1	21.23	/	/
	MCS2	21.18	/	/
	MCS3	21.09	/	/
	MCS4	21.14	/	/
	MCS5	21.29	/	/
	MCS6	21.26	/	/
	MCS7	21.20	/	/

The data rate MCS0 is selected as worse condition, and the following cases are performed with this condition.

802.11n-HT40 mode

Mode	Data Rate (Index)	Test Result (dBm)		
		2422MHz (Ch3)	2437MHz (Ch6)	2452 MHz (Ch9)
802.11n (40MHz)	MCS0	20.66	/	/
	MCS1	20.59	/	/
	MCS2	20.61	/	/
	MCS3	20.87	/	/
	MCS4	20.89	/	/
	MCS5	21.29	21.49	21.45
	MCS6	21.01	/	/
	MCS7	20.69	/	/

The data rate MCS5 is selected as worse condition, and the following cases are performed with this condition.

Conclusion: Pass

A.2.2. Maximum Average Output Power-conducted

802.11b/g mode

Mode	Test Result (dBm)		
	2412MHz (Ch1)	2437MHz (Ch6)	2462 MHz (Ch11)
802.11b	17.02	17.17	17.07
802.11g	15.18	14.91	15.10

802.11n-HT20 mode

Mode	Test Result (dBm)		
	2412MHz (Ch1)	2437MHz (Ch6)	2462 MHz (Ch11)
802.11n (20MHz)	13.35	13.31	13.34

802.11n-HT40 mode

Mode	Test Result (dBm)		
	2422MHz (Ch3)	2437MHz (Ch6)	2452 MHz (Ch9)
802.11n (40MHz)	13.30	13.00	13.34

Conclusion: Pass

Measurement Uncertainty:

Measurement Uncertainty	0.75dB
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A.3. Peak Power Spectral Density

Measurement Limit:

Standard	Limit
FCC CRF Part 15.247(e)	< 8 dBm/3 kHz

The measurement is made according to KDB558074.

Modulation type and data rate tested:

802.11b	802.11g	802.11n-HT20	802.11n-HT40
11Mbps(CCK)	54Mbps(OFDM)	MCS0(OFDM)	MCS5(OFDM)

Measurement Results:

802.11b/g mode

Mode	Channel	Power Spectral Density (dBm/3 kHz)		Conclusion
802.11b	1	Fig.A.3.1	-5.19	P
	6	Fig.A.3.2	-5.33	P
	11	Fig.A.3.3	-6.43	P
802.11g	1	Fig.A.3.4	-9.42	P
	6	Fig.A.3.5	-10.23	P
	11	Fig.A.3.6	-10.65	P

802.11n-HT20 mode

Mode	Channel	Power Spectral Density (dBm/3 kHz)		Conclusion
802.11n (HT20)	1	Fig.A.3.7	-14.02	P
	6	Fig.A.3.8	-14.29	P
	11	Fig.A.3.9	-13.97	P

802.11n-HT40 mode

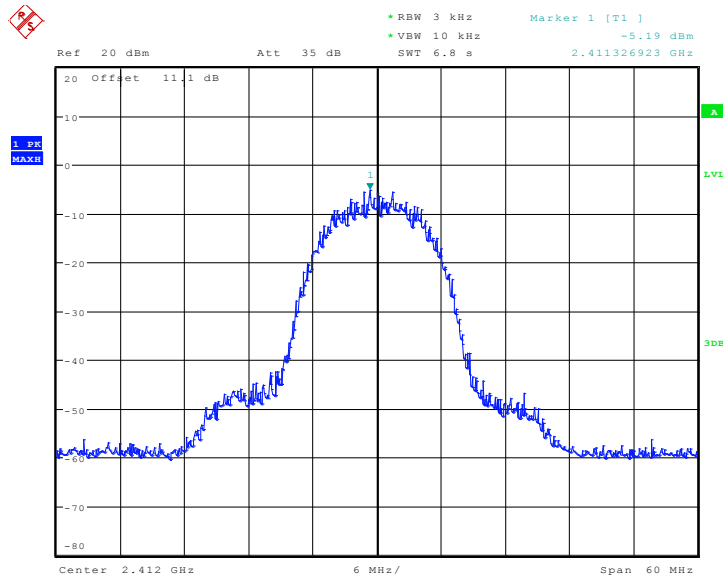
Mode	Channel	Power Spectral Density (dBm/3 kHz)		Conclusion
802.11n (HT40)	3	Fig.A.3.10	-16.01	P
	6	Fig.A.3.11	-15.34	P
	9	Fig.A.3.12	-15.53	P

Conclusion: Pass

Measurement Uncertainty:

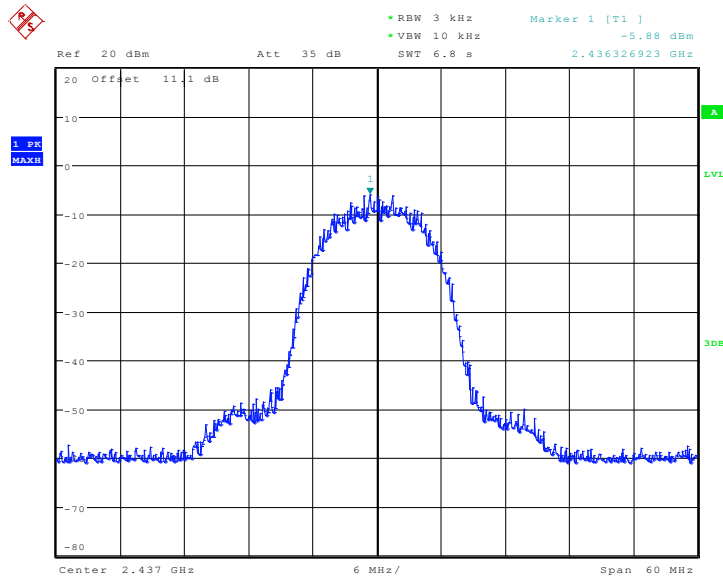
Measurement Uncertainty	0.75dB
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Test graphs as below:



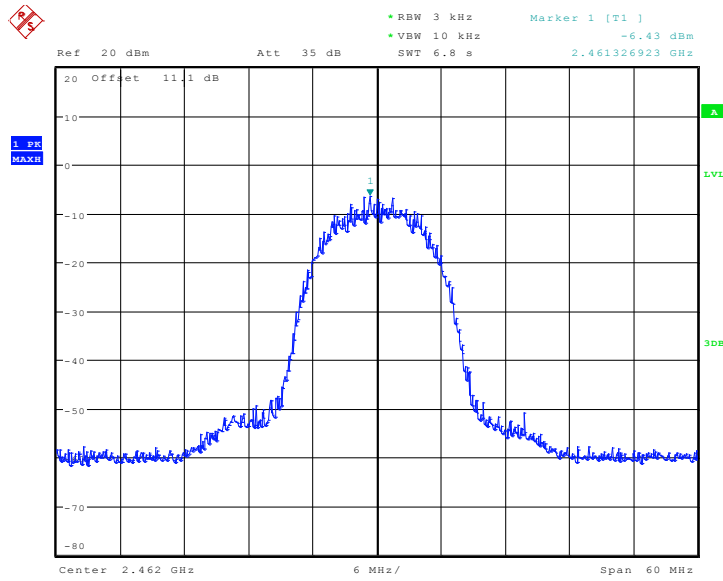
Date: 26.JUL.2013 08:38:37

Fig.A.3.1 Power Spectral Density (802.11b, Ch 1)



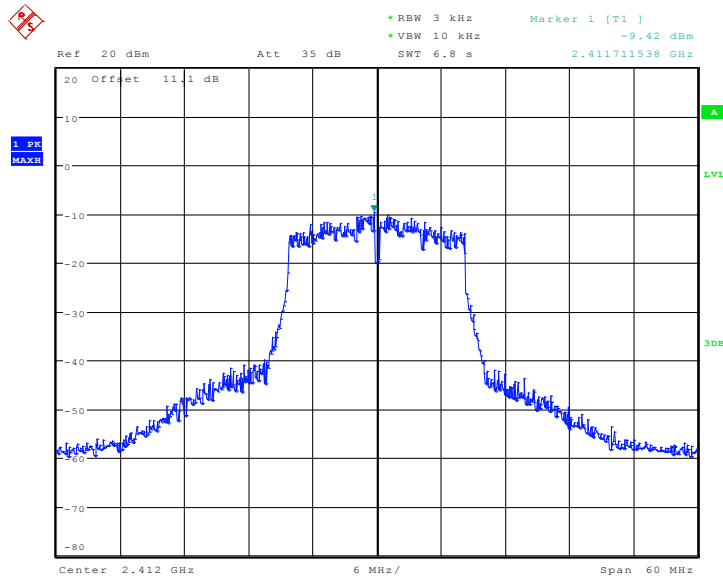
Date: 26.JUL.2013 08:41:03

Fig.A.3.2 Power Spectral Density (802.11b, Ch 6)



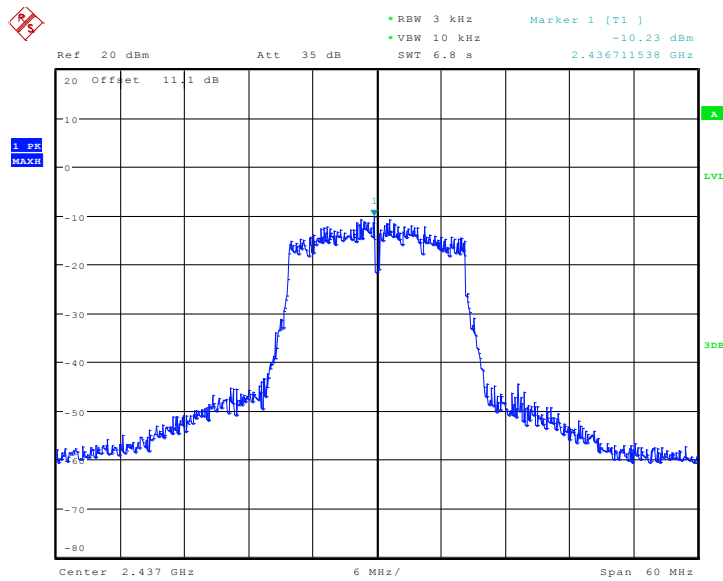
Date: 26.JUL.2013 08:43:21

Fig.A.3.3 Power Spectral Density (802.11b, Ch 11)



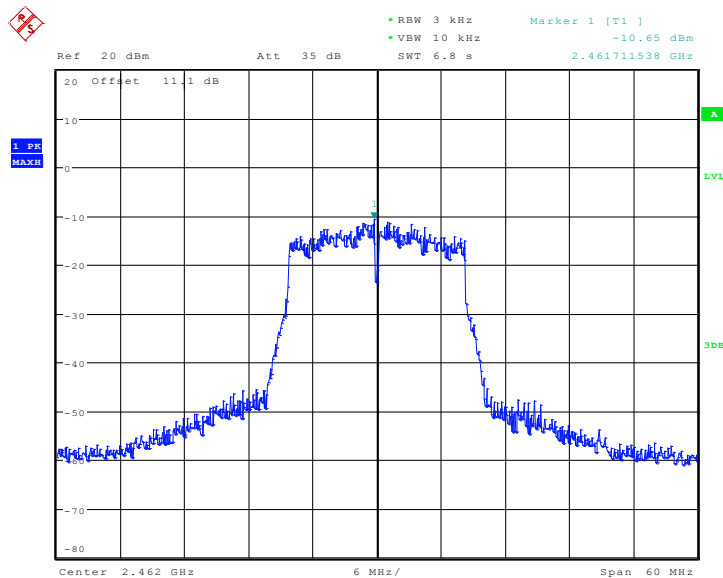
Date: 26.JUL.2013 08:47:41

Fig.A.3.4 Power Spectral Density (802.11g, Ch 1)



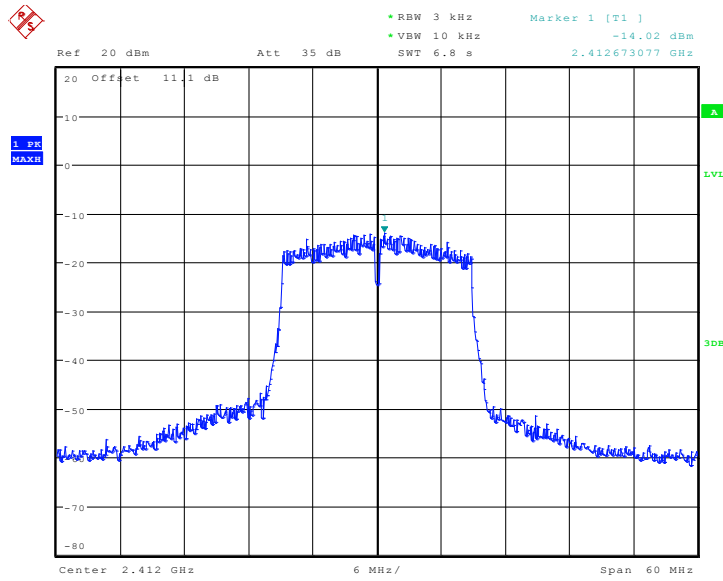
Date: 26.JUL.2013 08:50:40

Fig.A.3.5 Power Spectral Density (802.11g, Ch 6)



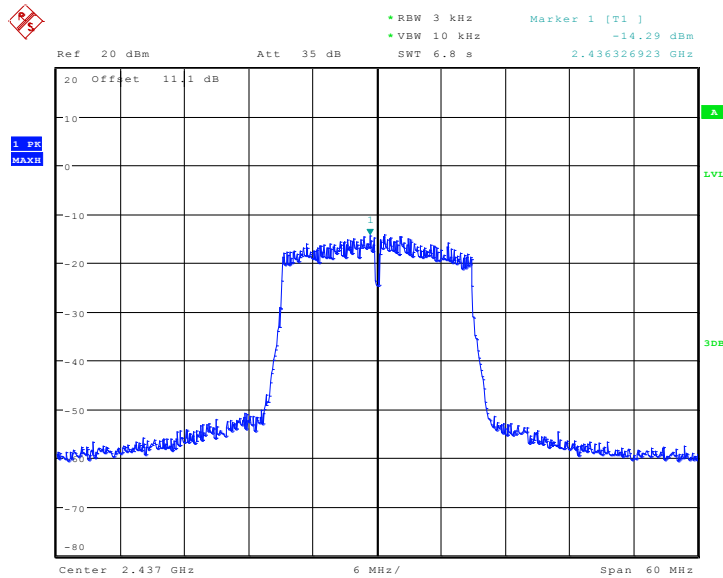
Date: 26.JUL.2013 08:52:07

Fig.A.3.6 Power Spectral Density (802.11g, Ch 11)



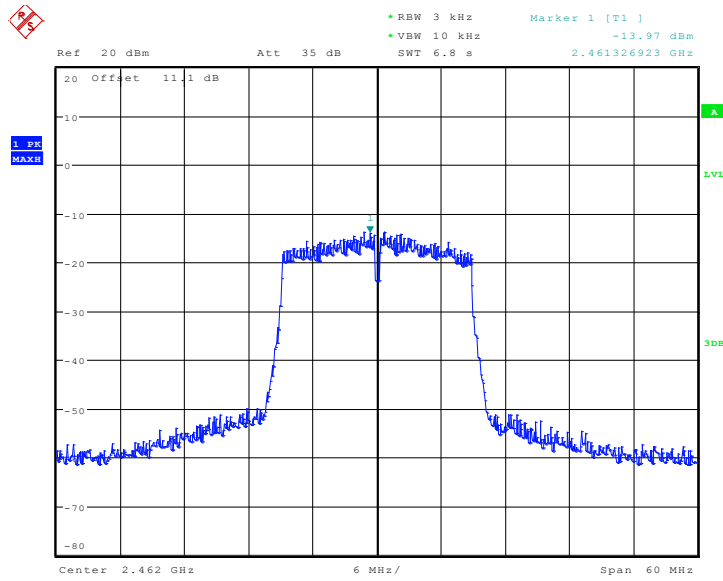
Date: 29.JUL.2013 10:27:22

Fig.A.3.7 Power Spectral Density (802.11n-HT20, Ch 1)



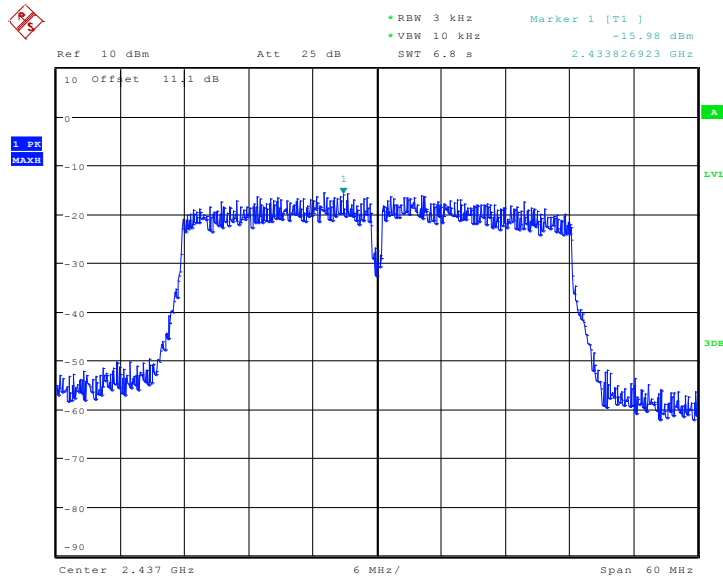
Date: 29.JUL.2013 10:30:46

Fig.A.3.8 Power Spectral Density (802.11n-HT20, Ch 6)



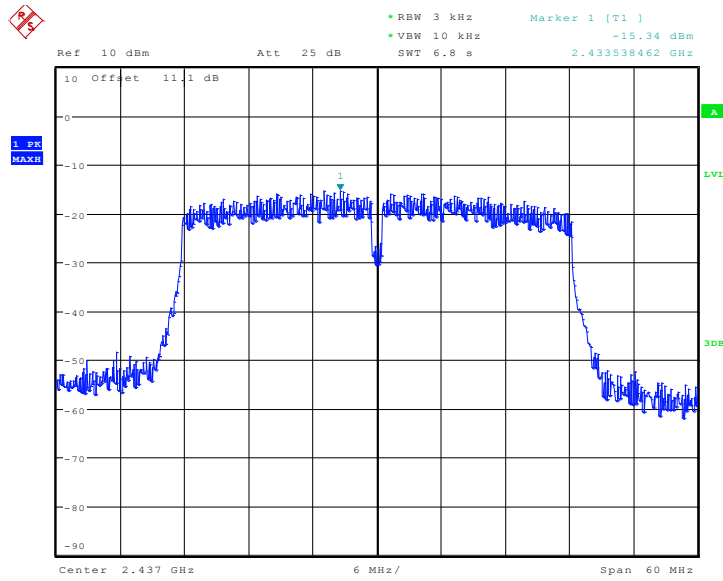
Date: 29.JUL.2013 10:31:53

Fig.A.3.9 Power Spectral Density (802.11n-HT20, Ch 11)



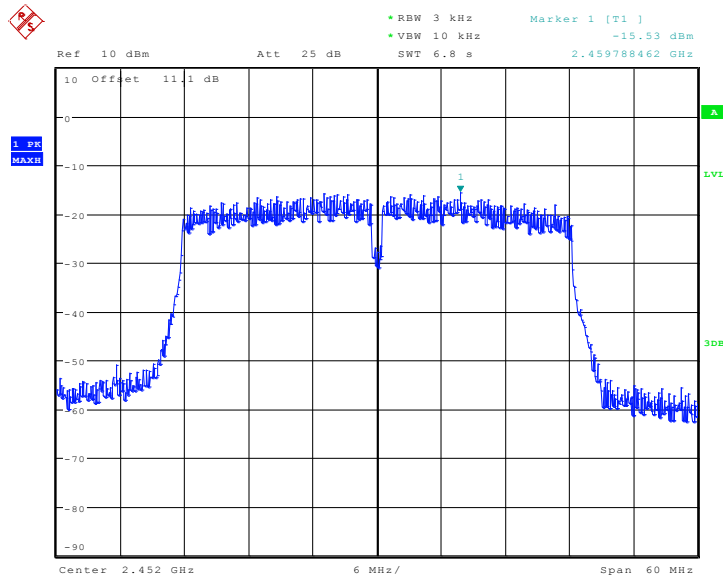
Date: 26.JUL.2013 09:34:07

Fig.A.3.10 Power Spectral Density (802.11n-HT40, Ch 3)



Date: 26.JUL.2013 09:40:59

Fig.A.3.11 Power Spectral Density (802.11n-HT40, Ch 6)



Date: 26.JUL.2013 09:42:29

Fig.A.3.12 Power Spectral Density (802.11n-HT40, Ch 9)

A.4. Occupied 6dB Bandwidth

Measurement Limit:

Standard	Limit (kHz)
FCC 47 CFR Part 15.247 (a)	≥ 500

The measurement is made according to KDB558074.

Modulation type and data rate tested:

802.11b	802.11g	802.11n-HT20	802.11n-HT40
11Mbps(CCK)	54Mbps(OFDM)	MCS0(OFDM)	MCS5(OFDM)

Measurement Result:

802.11b/g mode

Mode	Channel	Occupied 6dB Bandwidth (kHz)		conclusion
802.11b	1	Fig.A.4.1	8974.36	P
	6	Fig.A.4.2	9054.49	P
	11	Fig.A.4.3	9054.49	P
802.11g	1	Fig.A.4.4	16666.67	P
	6	Fig.A.4.5	16666.67	P
	11	Fig.A.4.6	16586.54	P

802.11n-HT20 mode

Mode	Channel	Occupied 6dB Bandwidth (kHz)		conclusion
802.11n (HT20)	1	Fig.A.4.7	17788.46	P
	6	Fig.A.4.8	17788.46	P
	11	Fig.A.4.9	17788.46	P

802.11n-HT40 mode

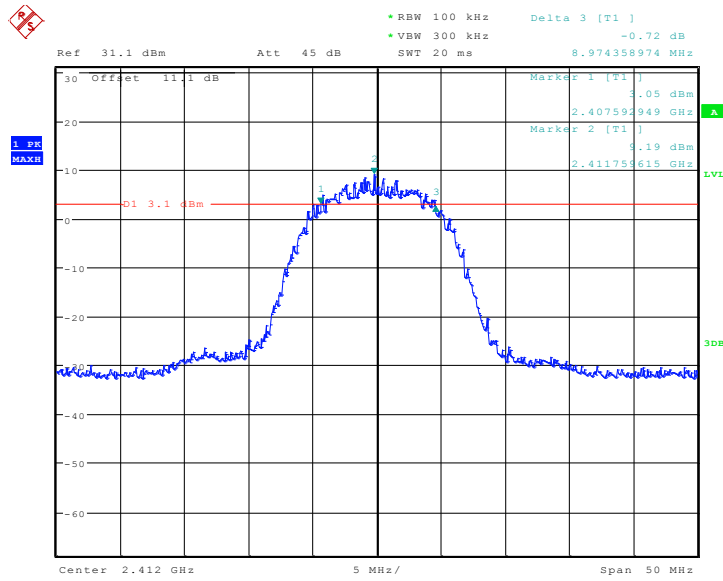
Mode	Channel	Occupied 6dB Bandwidth (kHz)		conclusion
802.11n (HT40)	3	Fig.A.4.10	36666.67	P
	6	Fig.A.4.11	36666.67	P
	9	Fig.A.4.12	36666.67	P

Conclusion: Pass

Measurement Uncertainty:

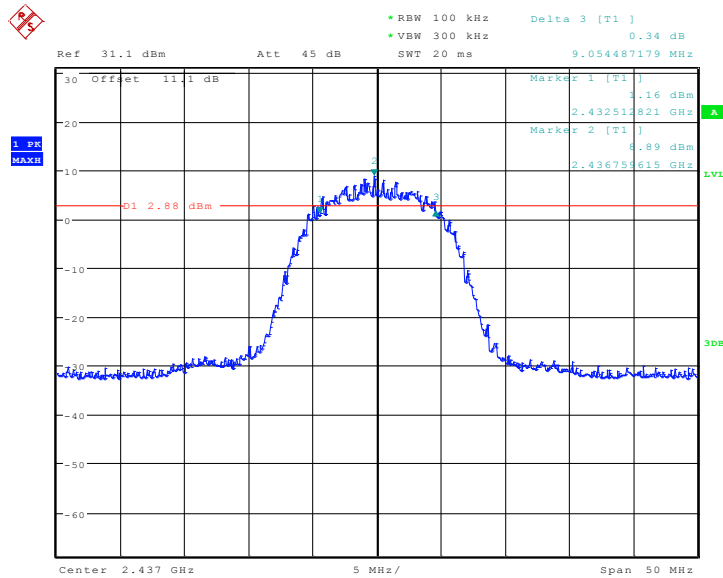
Measurement Uncertainty	60.80Hz
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Test graphs as below:



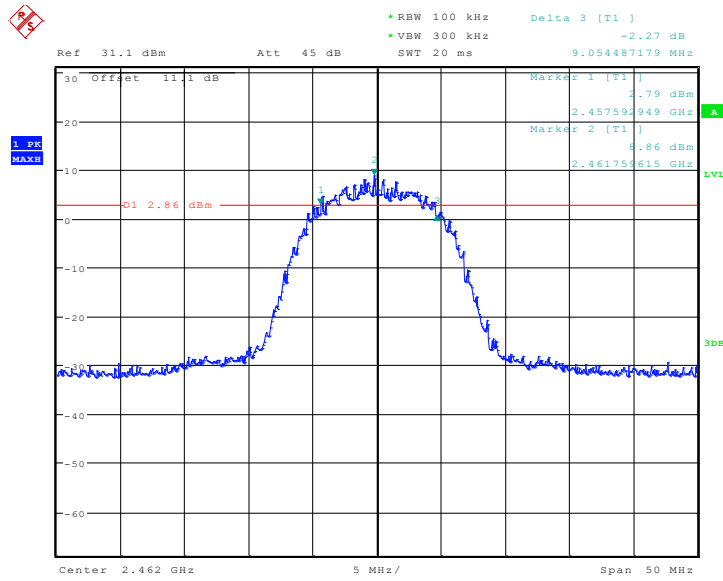
Date: 26.JUL.2013 10:08:54

Fig.A.4.1 Occupied 6dB Bandwidth (802.11b, Ch 1)



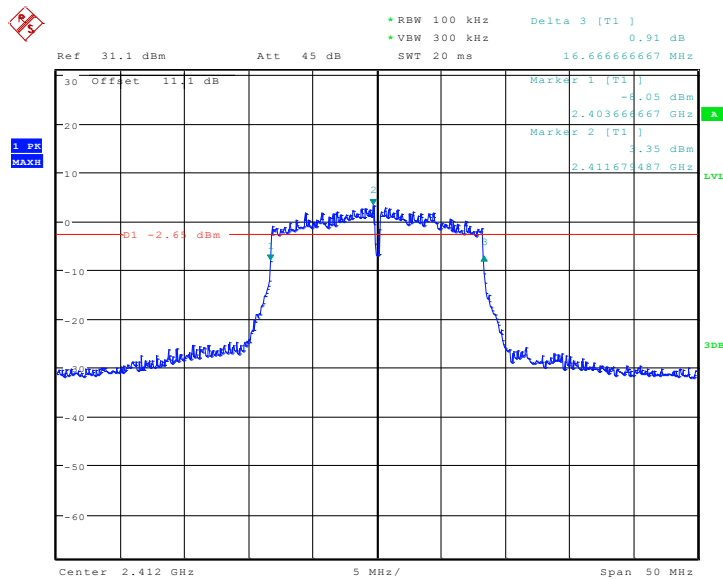
Date: 26.JUL.2013 10:11:12

Fig.A.4.2 Occupied 6dB Bandwidth (802.11b, Ch 6)



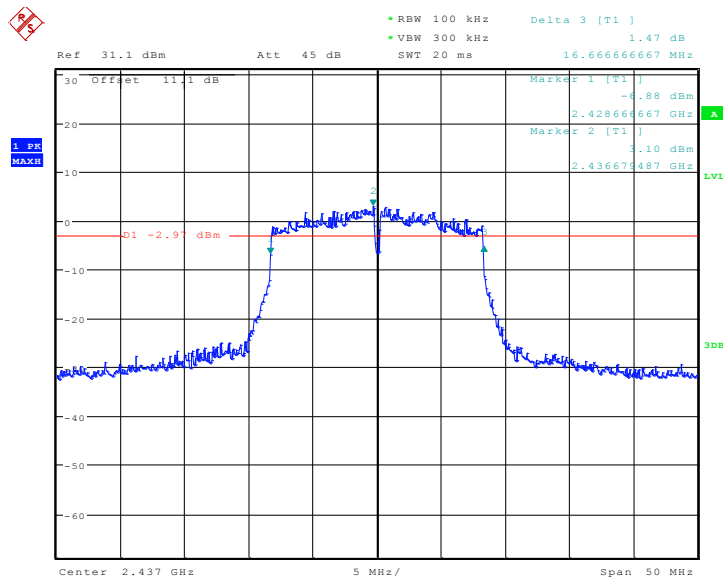
Date: 26.JUL.2013 10:15:27

Fig.A.4.3 Occupied 6dB Bandwidth (802.11b, Ch 11)



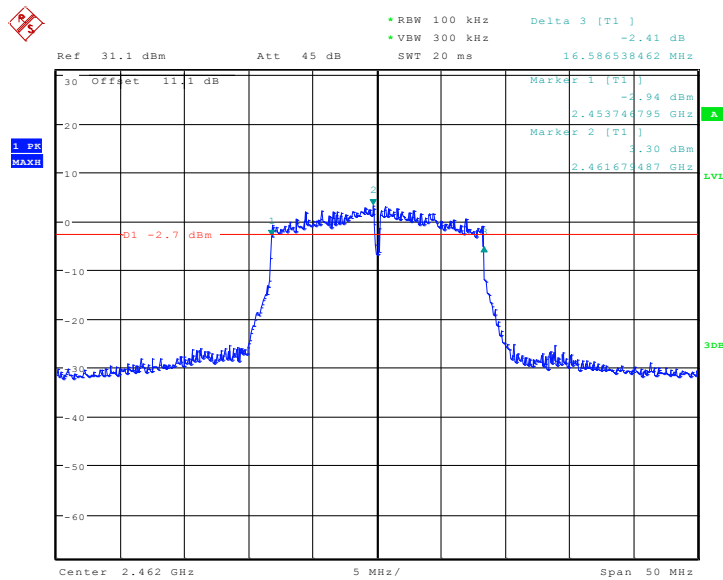
Date: 26.JUL.2013 10:21:54

Fig.A.4.4 Occupied 6dB Bandwidth (802.11g, Ch 1)



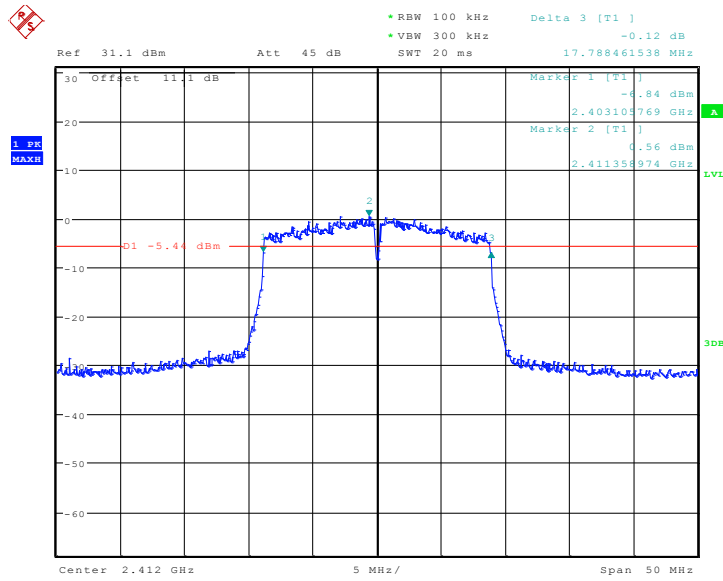
Date: 26.JUL.2013 10:24:38

Fig.A.4.5 Occupied 6dB Bandwidth (802.11g, Ch 6)



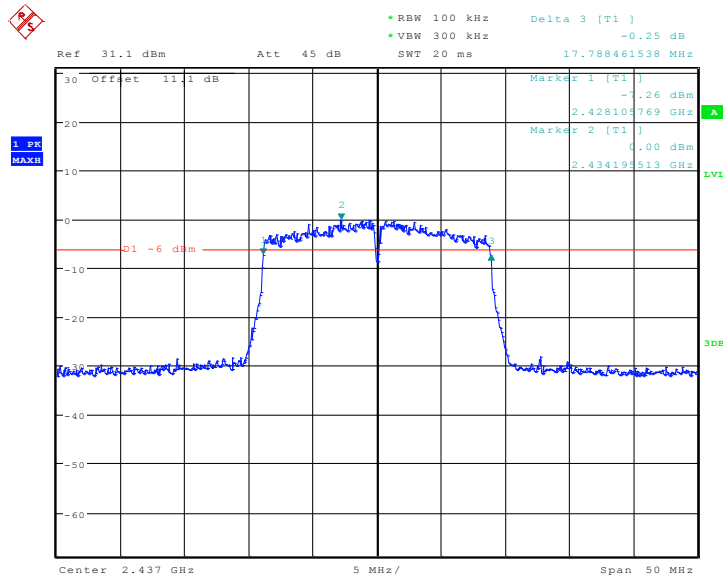
Date: 26.JUL.2013 10:27:36

Fig.A.4.6 Occupied 6dB Bandwidth (802.11g, Ch 11)



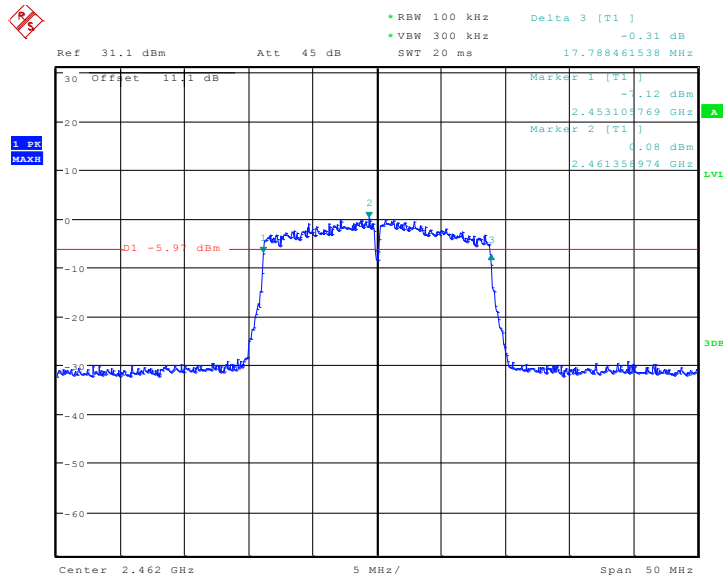
Date: 26.JUL.2013 10:45:43

Fig.A.4.7 Occupied 6dB Bandwidth (802.11n-20MHz, Ch 1)



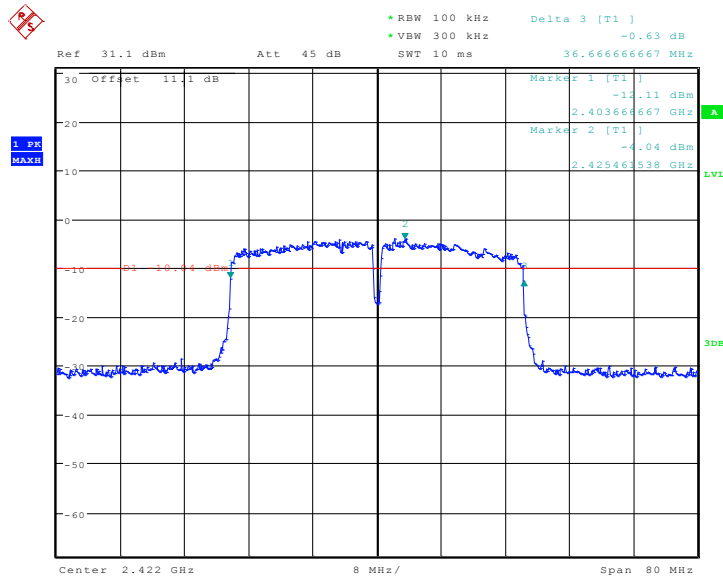
Date: 26.JUL.2013 10:42:51

Fig.A.4.8 Occupied 6dB Bandwidth (802.11n-HT20, Ch 6)



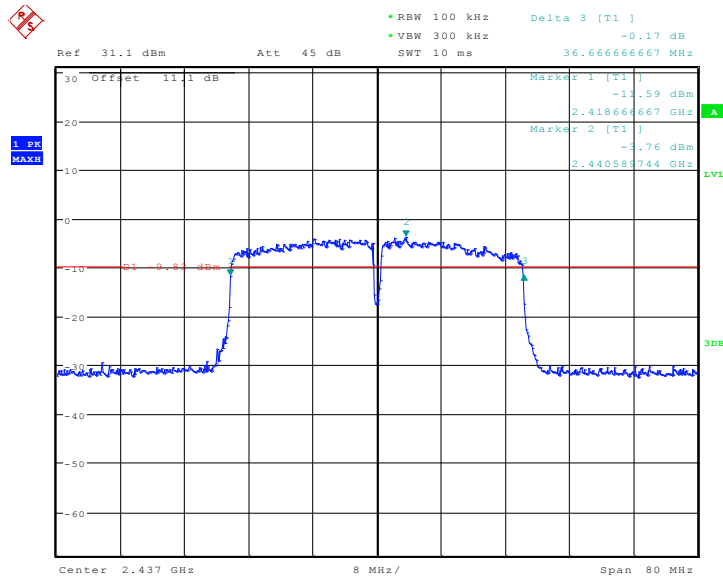
Date: 26.JUL.2013 10:50:23

Fig.A.4.9 Occupied 6dB Bandwidth (802.11n-HT20, Ch 11)



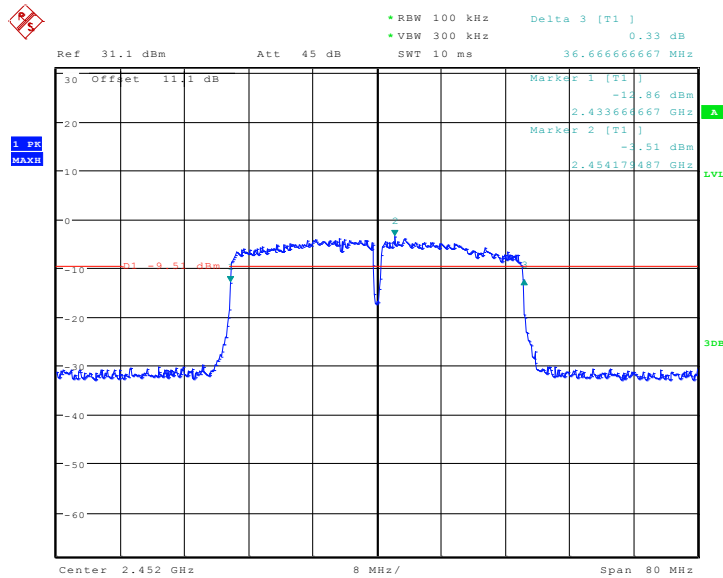
Date: 26.JUL.2013 10:55:03

Fig.A.4.10 Occupied 6dB Bandwidth (802.11n-40MHz, Ch 3)



Date: 26.JUL.2013 10:58:21

Fig.A.4.11 Occupied 6dB Bandwidth (802.11n-HT40, Ch 6)



Date: 26.JUL.2013 11:00:29

Fig.A.4.12 Occupied 6dB Bandwidth (802.11n-HT40, Ch 9)

A.5. Band Edges Compliance

Measurement Limit:

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

The measurement is made according to KDB558074.

Modulation type and data rate tested:

802.11b	802.11g	802.11n-HT20	802.11n-HT40
11Mbps(CCK)	54Mbps(OFDM)	MCS0(OFDM)	MCS5(OFDM)

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

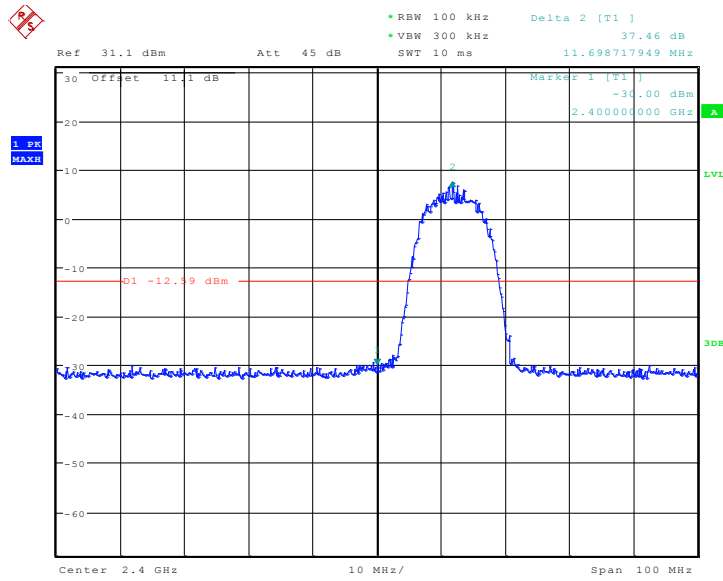
Mode	Channel	Test Results	Conclusion
802.11n (HT40)	3	Fig.A.5.7	P
	9	Fig.A.5.8	P

Conclusion: Pass

Measurement Uncertainty:

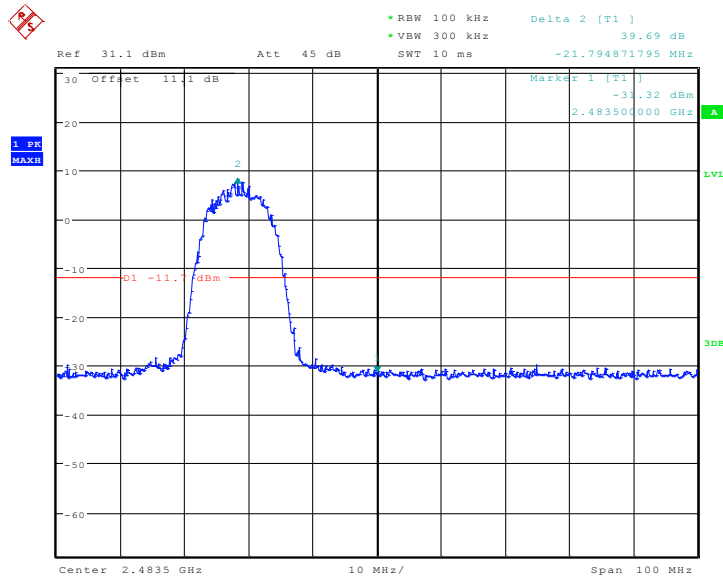
Measurement Uncertainty	0.75dB
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Test graphs as below:



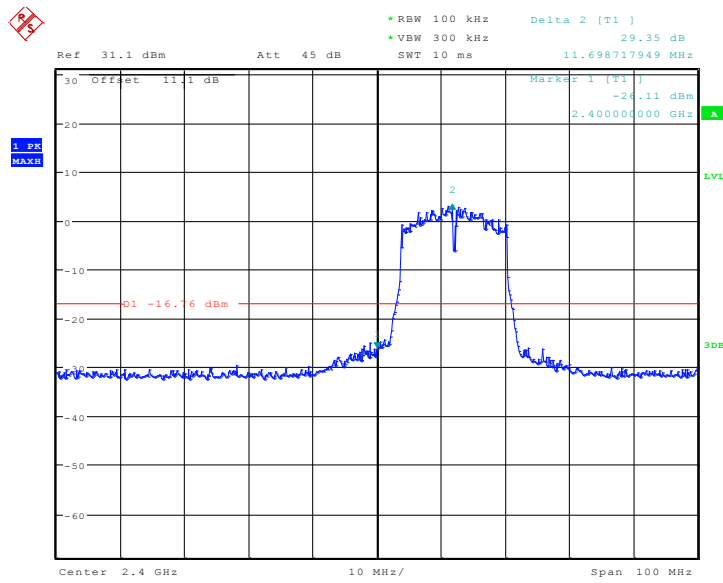
Date: 26.JUL.2013 11:10:36

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



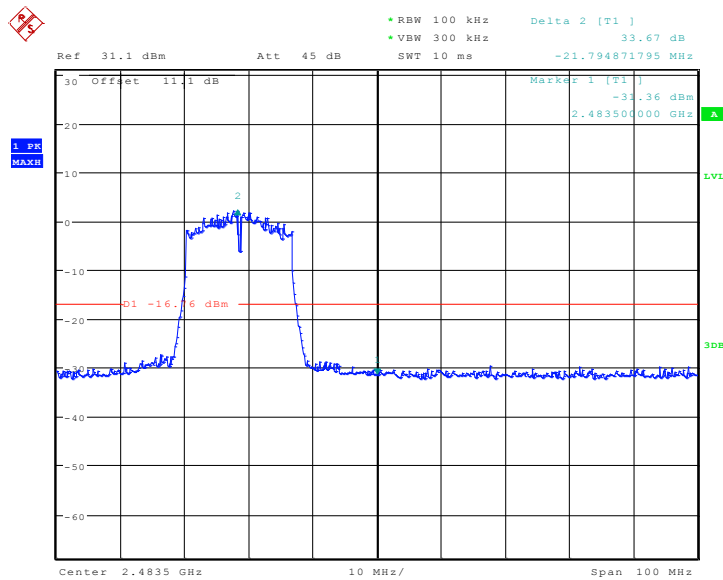
Date: 26.JUL.2013 11:13:22

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



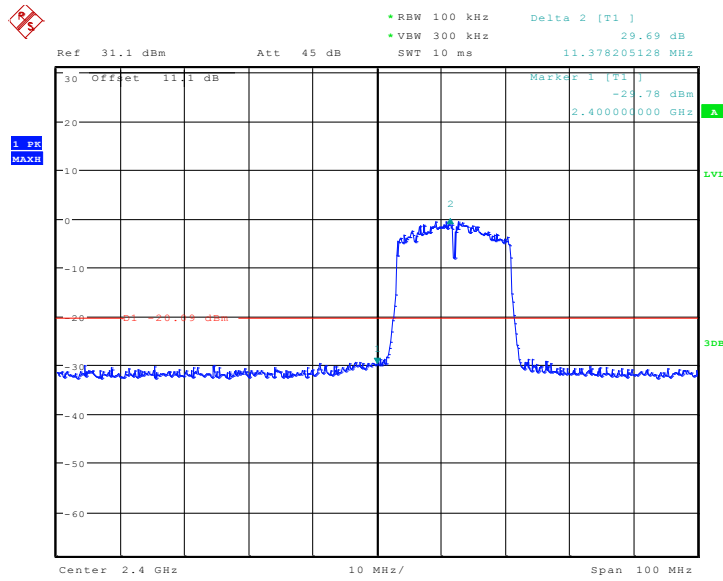
Date: 26.JUL.2013 12:05:21

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



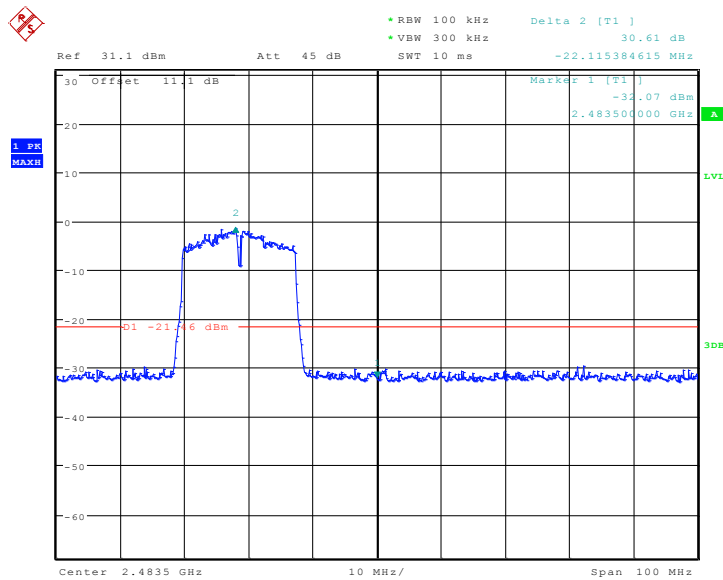
Date: 26.JUL.2013 12:09:42

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



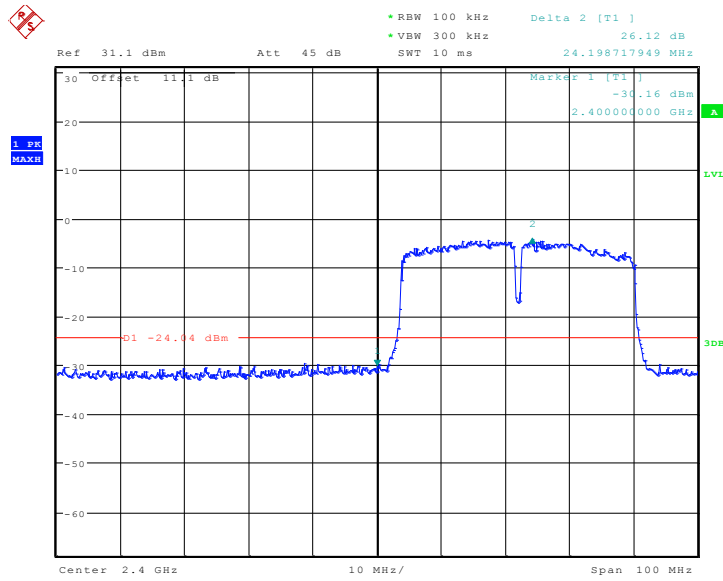
Date: 26..JUL.2013 12:12:50

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



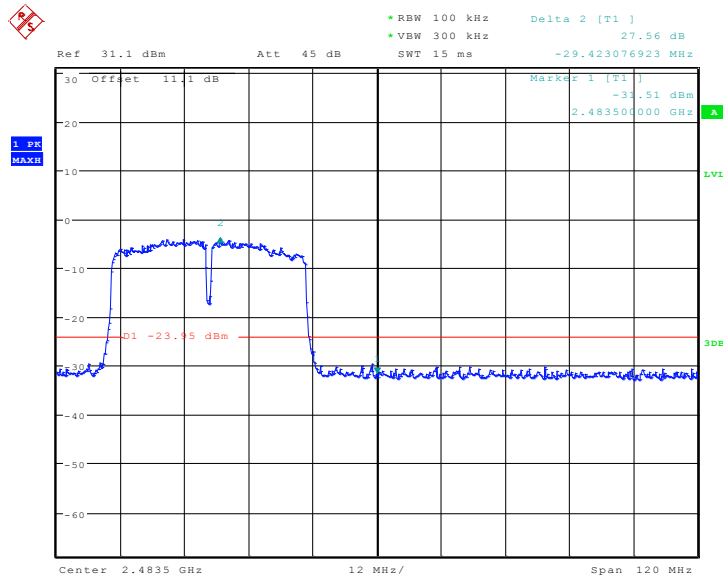
Date: 26..JUL.2013 12:14:27

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



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



Date: 26.JUL.2013 12:20:16

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

A.6. Transmitter Spurious Emission

A.6.1 Transmitter Spurious Emission - Conducted

Measurement Limit:

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

The measurement is made according to KDB558074.

Modulation type and data rate tested:

802.11b	802.11g	802.11n-HT20	802.11n-HT40
11Mbps(CCK)	54Mbps(OFDM)	MCS0(OFDM)	MCS5(OFDM)

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

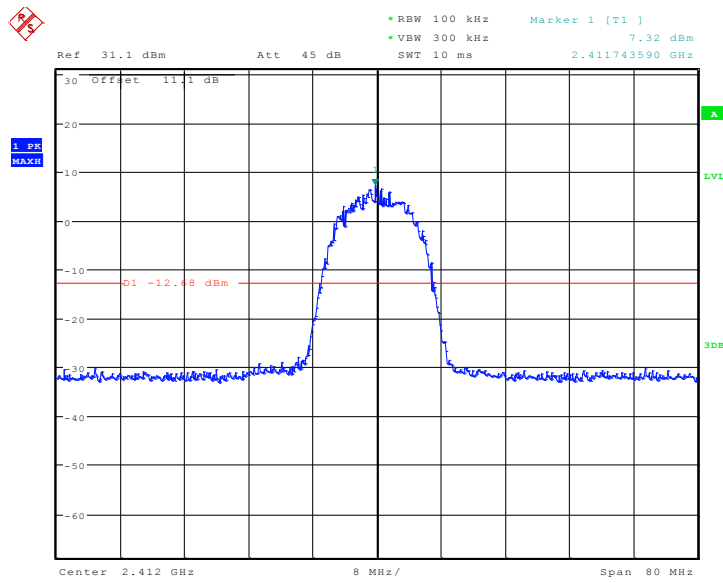
MODE	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT40)	3	2.422 GHz	Fig.A.6.1.73	P
		30 MHz ~ 1 GHz	Fig.A.6.1.74	P
		1 GHz ~ 2.5 GHz	Fig.A.6.1.75	P
		2.5 GHz ~ 7.5 GHz	Fig.A.6.1.76	P
		7.5 GHz ~ 10 GHz	Fig.A.6.1.77	P
		10 GHz ~ 15 GHz	Fig.A.6.1.78	P
		15 GHz ~ 20 GHz	Fig.A.6.1.79	P
		20 GHz ~ 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

Measurement Uncertainty:

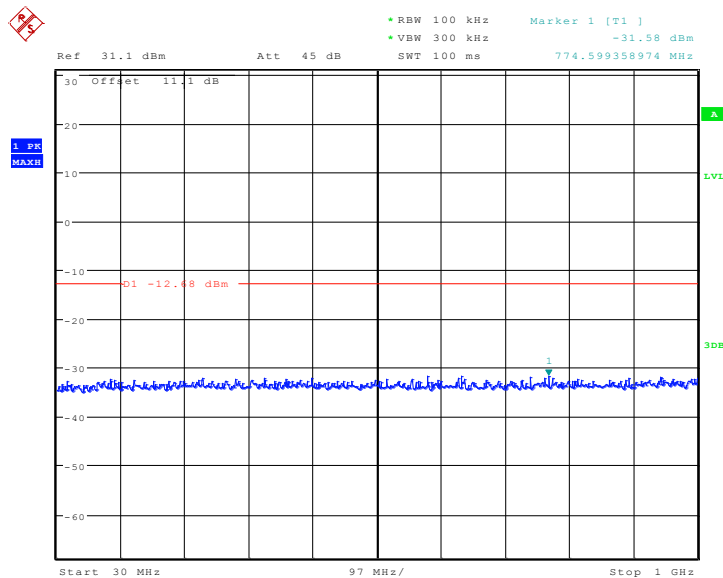
Frequency Range	Uncertainty(dB)
30MHz ≤ f ≤ 2GHz	0.63
2GHz ≤ f ≤3.6GHz	0.82
3.6GHz ≤ f ≤8GHz	1.55
8GHz ≤ f ≤20GHz	1.86
20GHz ≤ f ≤22GHz	1.90
22GHz ≤ f ≤26GHz	2.20

Test graphs as below:



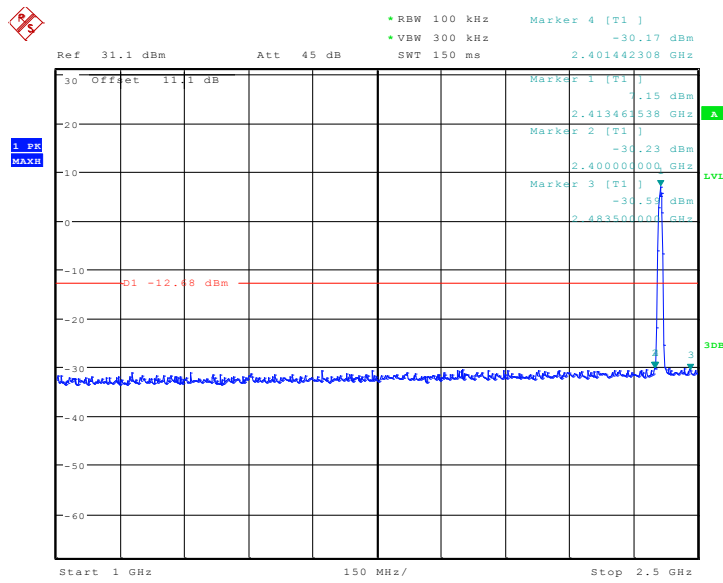
Date: 26.JUL.2013 12:26:40

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



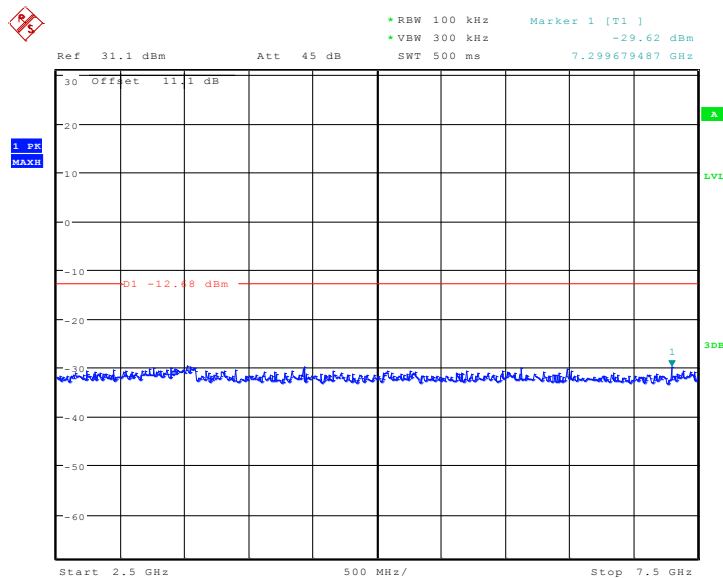
Date: 26.JUL.2013 12:27:28

Fig.A.6.1.2 Conducted Spurious Emission (802.11b, Ch1, 30 MHz-1 GHz)



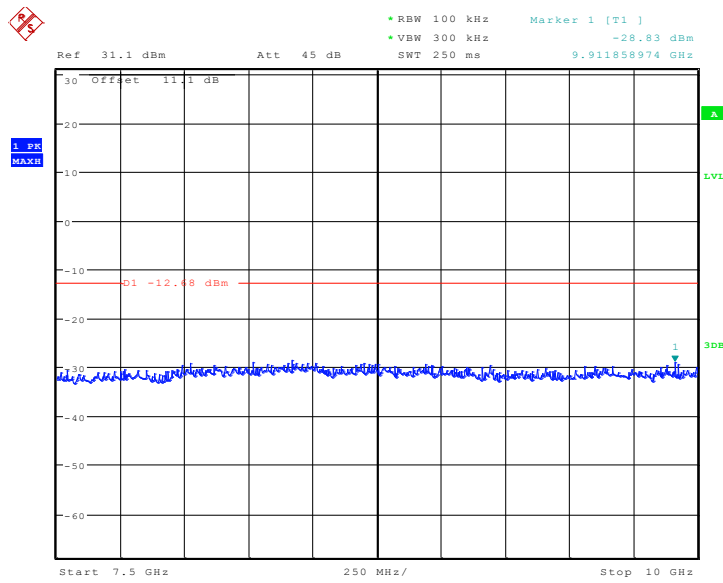
Date: 26.JUL.2013 12:30:43

Fig.A.6.1.3 Conducted Spurious Emission (802.11b, Ch1, 1 GHz-2.5 GHz)



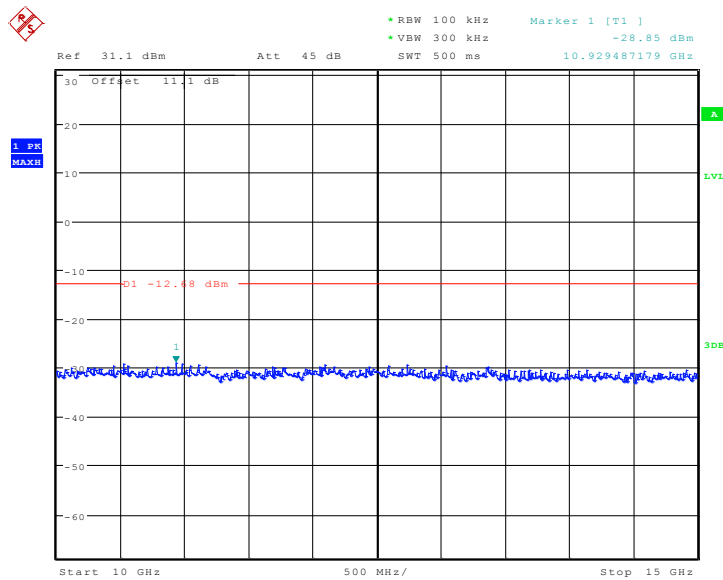
Date: 26.JUL.2013 12:31:17

Fig.A.6.1.4 Conducted Spurious Emission (802.11b, Ch1, 2.5 GHz-7.5 GHz)



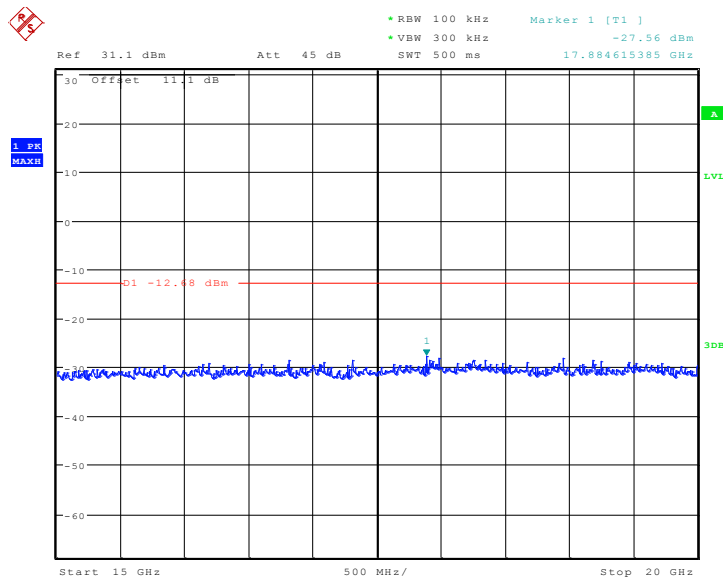
Date: 26.JUL.2013 12:31:46

Fig.A.6.1.5 Conducted Spurious Emission (802.11b, Ch1, 7.5 GHz-10 GHz)



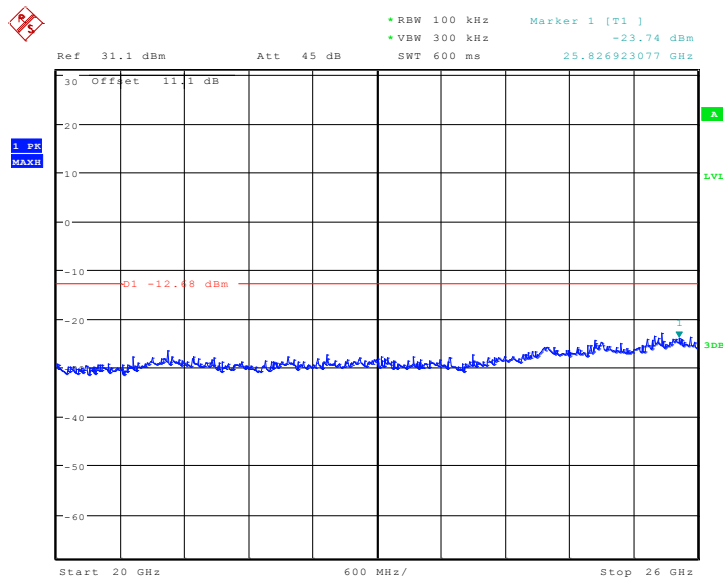
Date: 26.JUL.2013 12:32:36

Fig.A.6.1.6 Conducted Spurious Emission (802.11b, Ch1, 10 GHz-15 GHz)



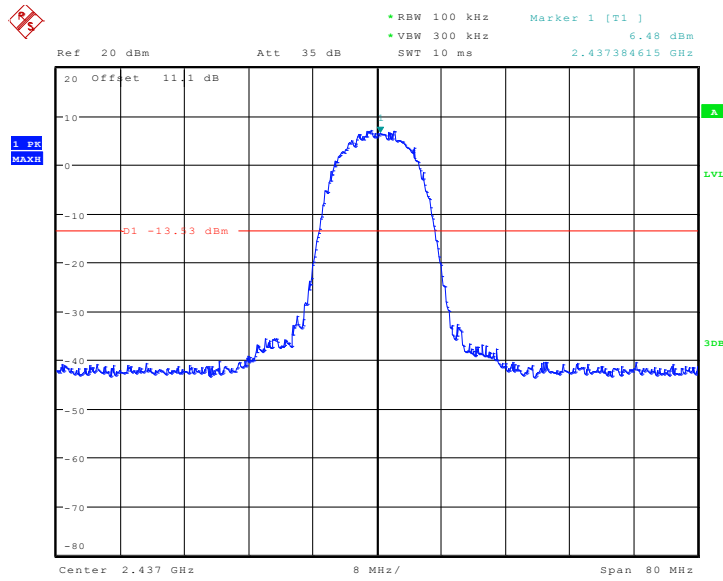
Date: 26..JUL.2013 12:33:03

Fig.A.6.1.7 Conducted Spurious Emission (802.11b, Ch1, 15 GHz-20 GHz)



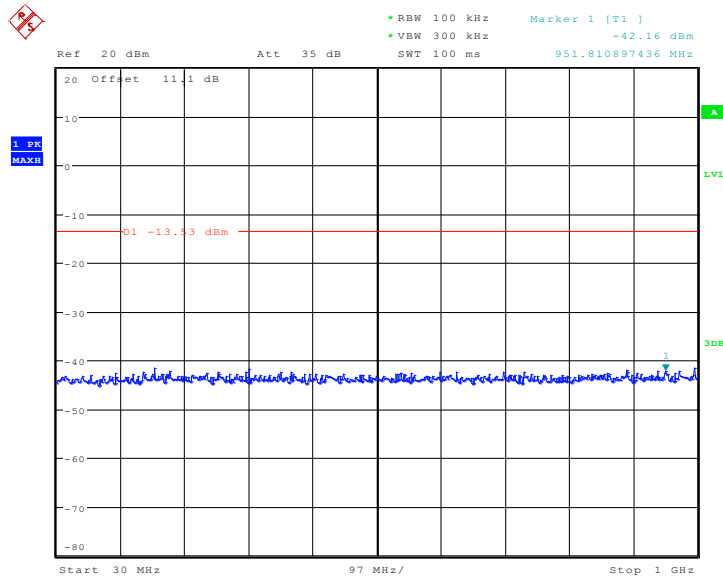
Date: 26..JUL.2013 12:33:41

Fig.A.6.1.8 Conducted Spurious Emission (802.11b, Ch1, 20 GHz-26 GHz)



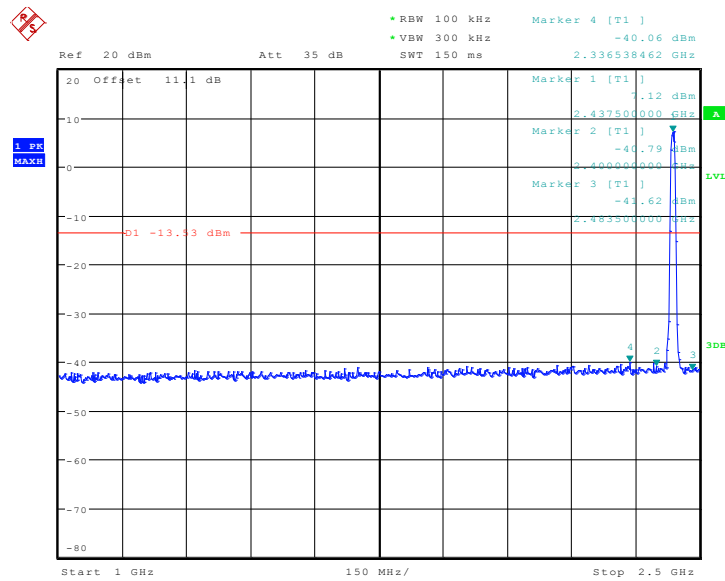
Date: 26.JUL.2013 18:54:18

Fig.A.6.1.9 Conducted Spurious Emission (802.11b, Ch6, Center Frequency)



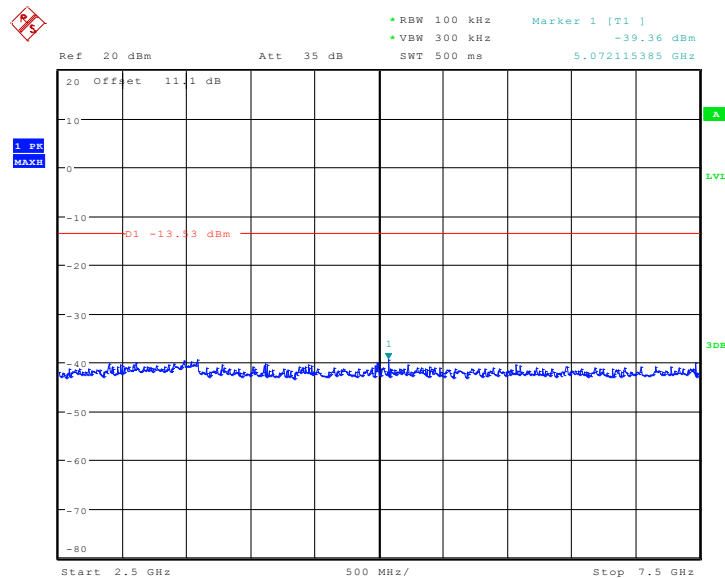
Date: 26.JUL.2013 18:54:43

Fig.A.6.1.10 Conducted Spurious Emission (802.11b, Ch6, 30 MHz-1 GHz)



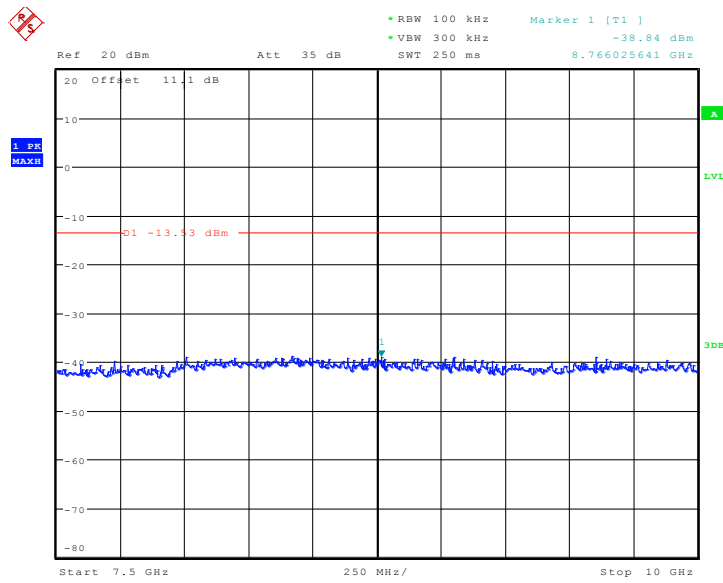
Date: 26.JUL.2013 18:56:06

Fig.A.6.1.11 Conducted Spurious Emission (802.11b, Ch6, 1 GHz-2.5 GHz)



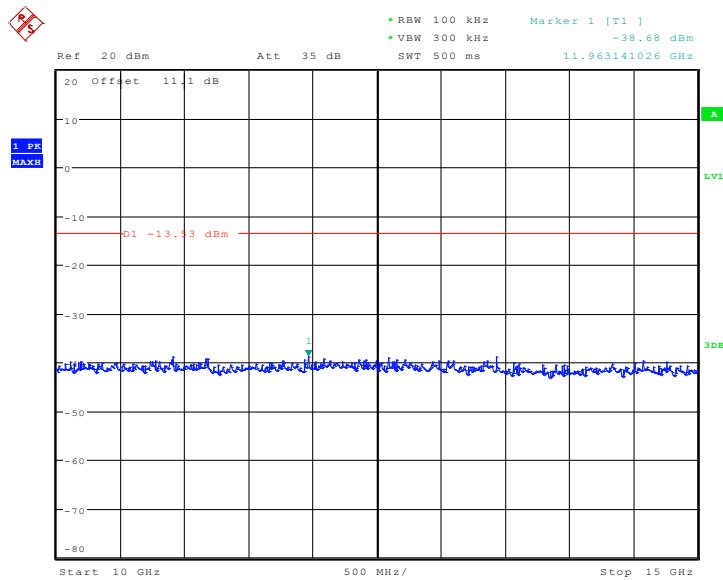
Date: 26.JUL.2013 18:56:44

Fig.A.6.1.12 Conducted Spurious Emission (802.11b, Ch6, 2.5 GHz-7.5 GHz)



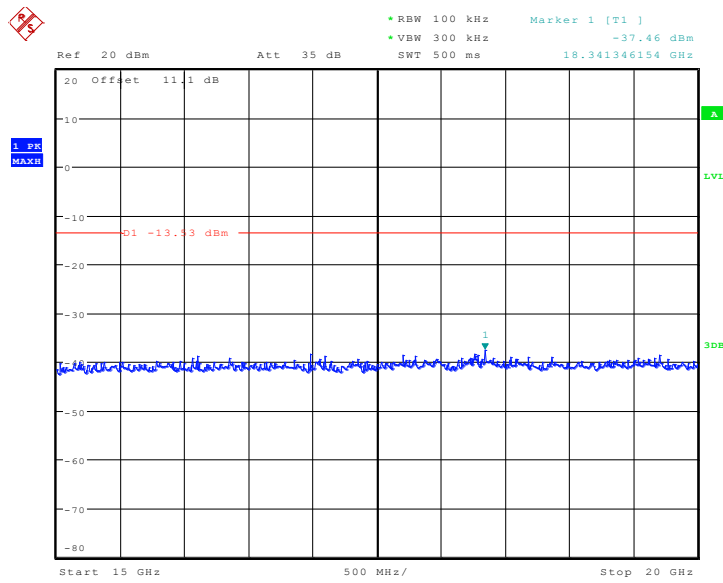
Date: 26.JUL.2013 18:57:15

Fig.A.6.1.13 Conducted Spurious Emission (802.11b, Ch6, 7.5 GHz-10 GHz)



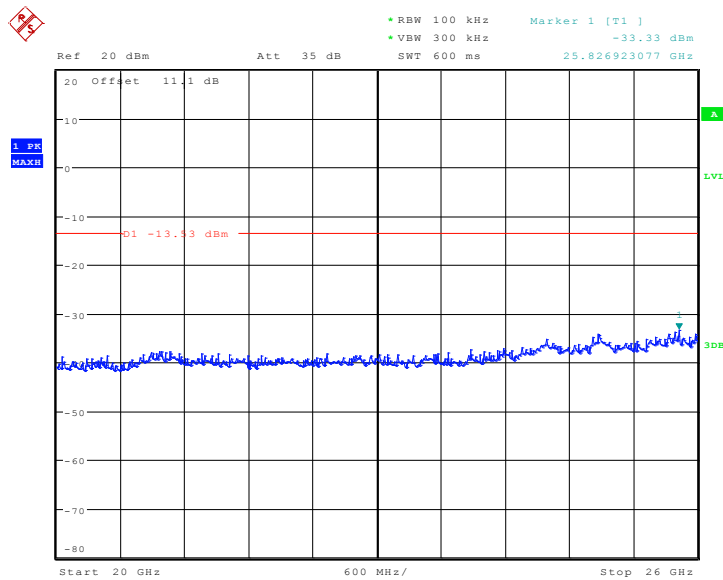
Date: 26.JUL.2013 18:57:48

Fig.A.6.1.14 Conducted Spurious Emission (802.11b, Ch6, 10 GHz-15 GHz)



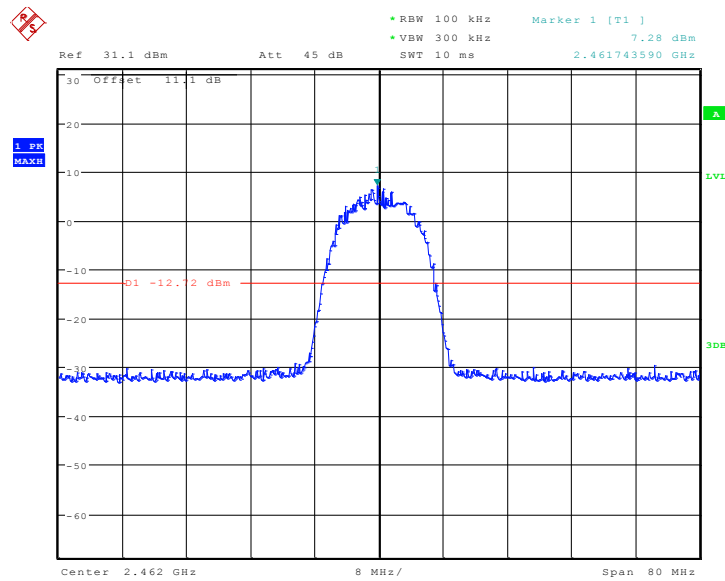
Date: 26.JUL.2013 18:58:15

Fig.A.6.1.15 Conducted Spurious Emission (802.11b, Ch6, 15 GHz-20 GHz)



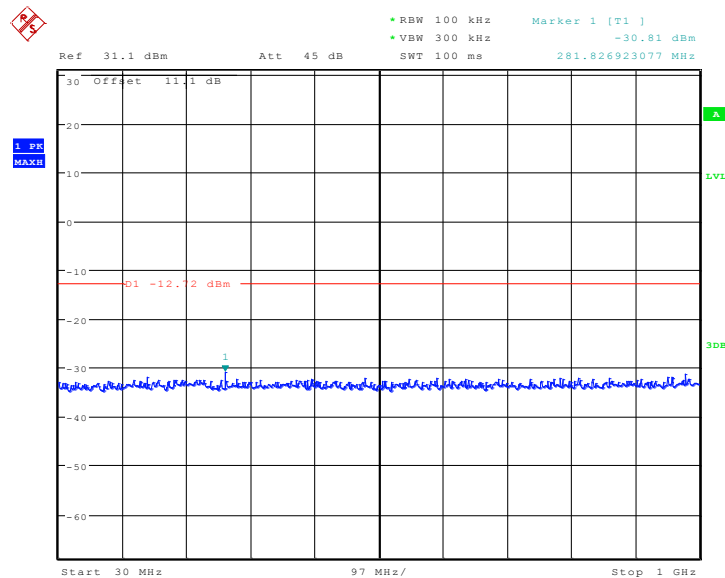
Date: 26.JUL.2013 18:58:41

Fig.A.6.1.16 Conducted Spurious Emission (802.11b, Ch6, 20 GHz-26 GHz)



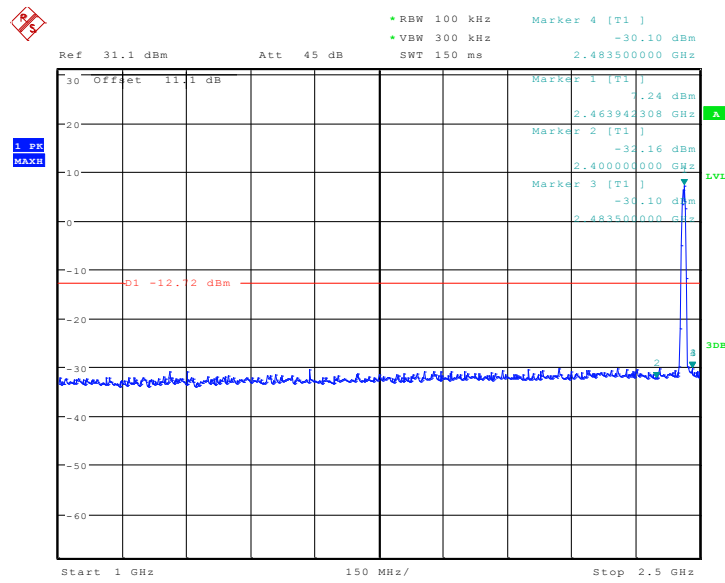
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Fig.A.6.1.17 Conducted Spurious Emission (802.11b, Ch11, Center Frequency)



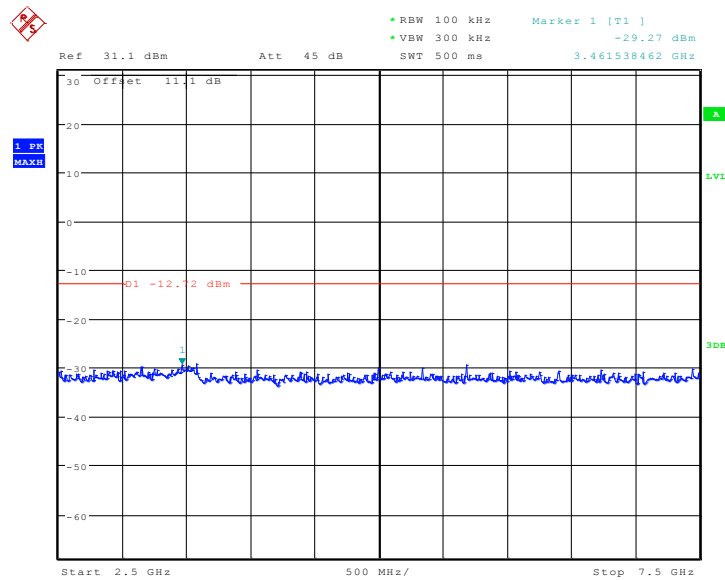
Date: 26.JUL.2013 19:03:06

Fig.A.6.1.18 Conducted Spurious Emission (802.11b, Ch11, 30 MHz-1 GHz)



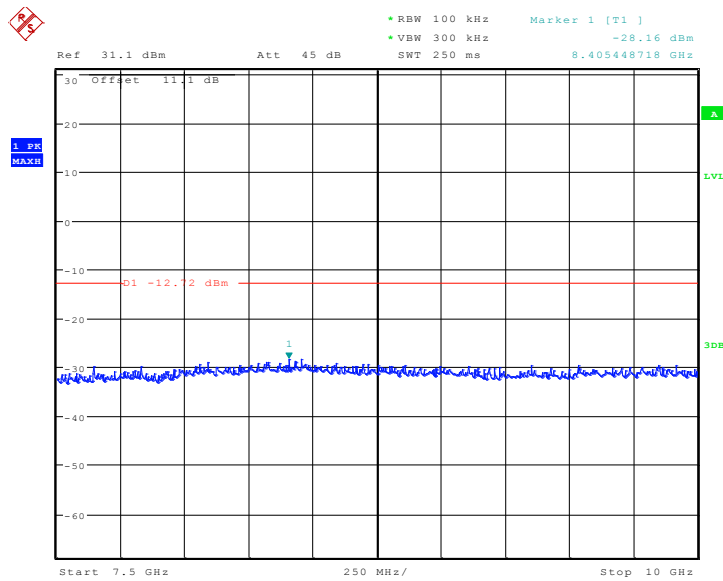
Date: 26.JUL.2013 19:06:48

Fig.A.6.1.19 Conducted Spurious Emission (802.11b, Ch11, 1 GHz-2.5 GHz)



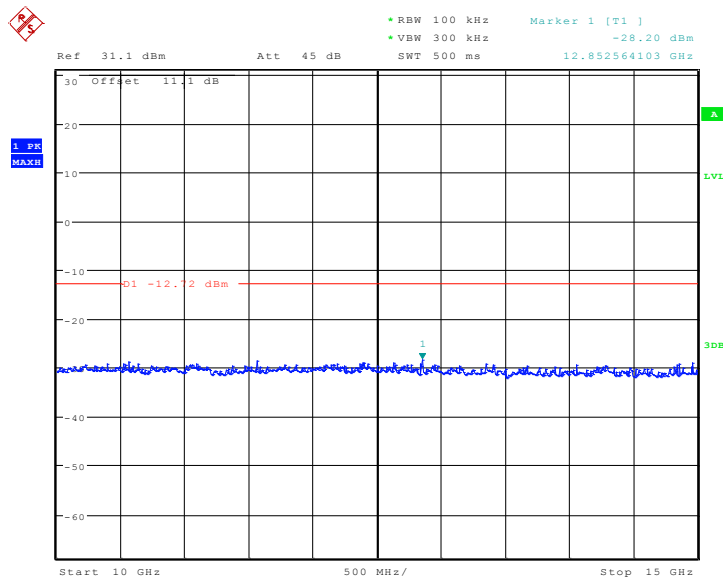
Date: 26.JUL.2013 19:07:34

Fig.A.6.1.20 Conducted Spurious Emission (802.11b, Ch11, 2.5 GHz-7.5 GHz)



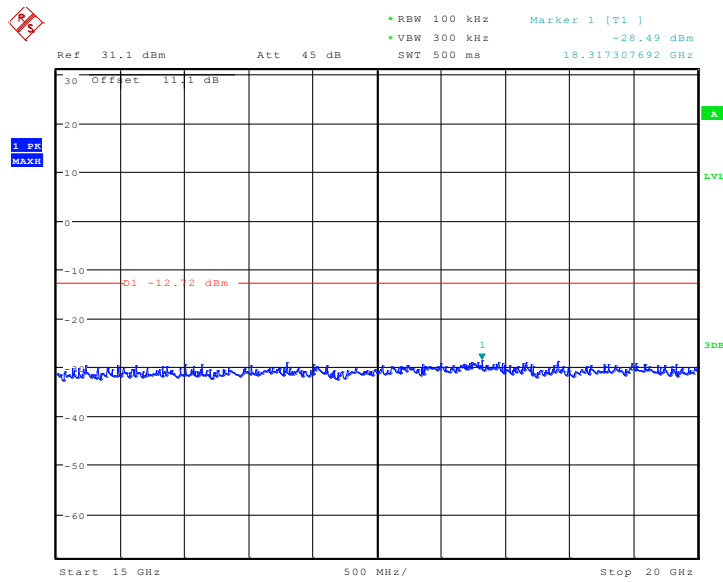
Date: 26.JUL.2013 19:08:03

Fig.A.6.1.21 Conducted Spurious Emission (802.11b, Ch11, 7.5 GHz-10 GHz)



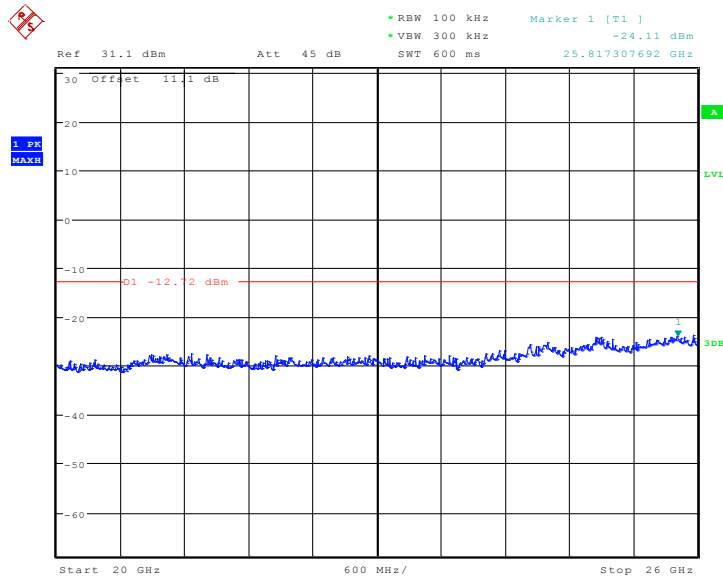
Date: 26.JUL.2013 19:09:48

Fig.A.6.1.22 Conducted Spurious Emission (802.11b, Ch11, 10 GHz-15 GHz)



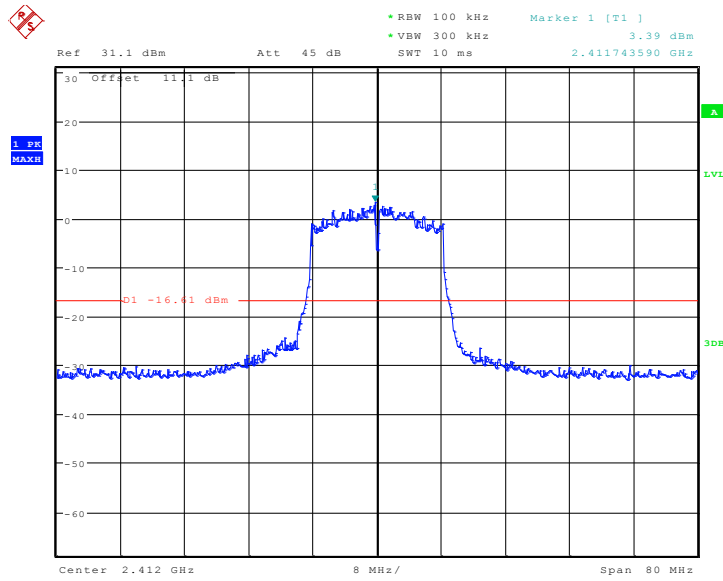
Date: 26.JUL.2013 19:10:15

Fig.A.6.1.23 Conducted Spurious Emission (802.11b, Ch11, 15 GHz-20 GHz)



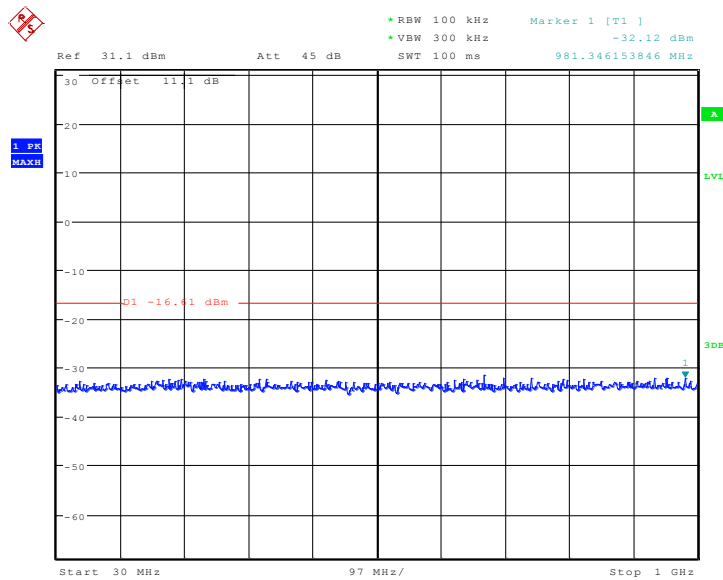
Date: 26.JUL.2013 19:10:51

Fig.A.6.1.24 Conducted Spurious Emission (802.11b, Ch11, 20 GHz-26 GHz)



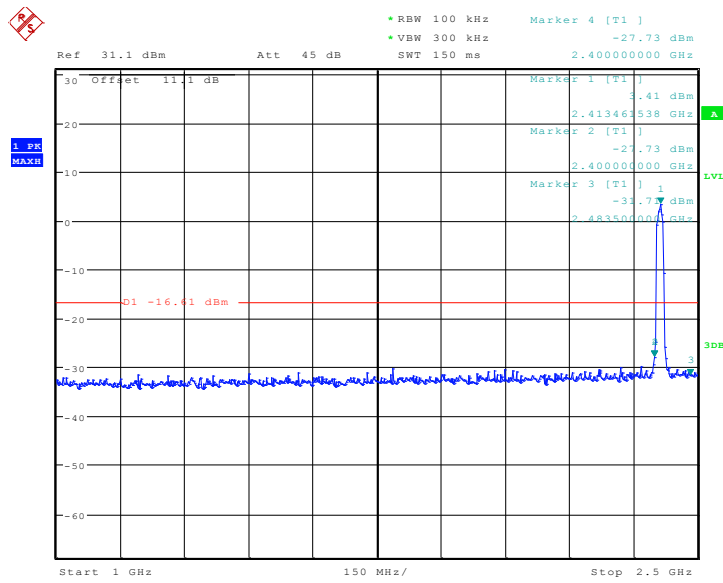
Date: 26.JUL.2013 19:13:47

Fig.A.6.1.25 Conducted Spurious Emission (802.11g, Ch1, Center Frequency)



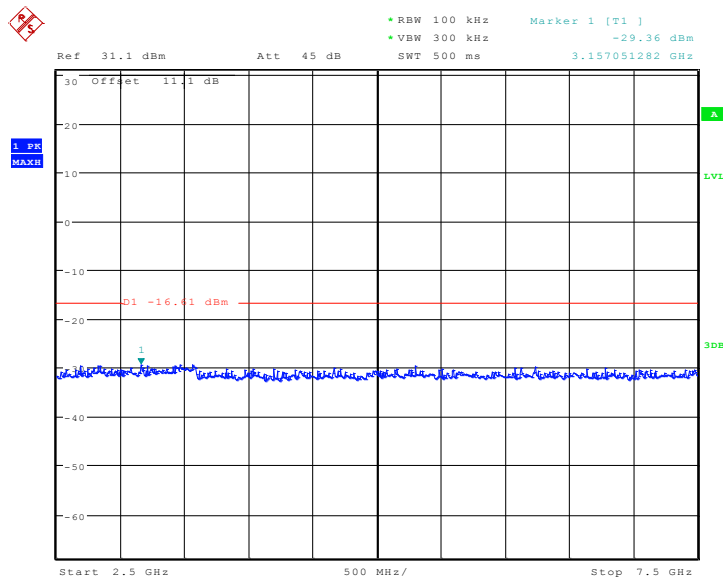
Date: 26.JUL.2013 19:14:30

Fig.A.6.1.26 Conducted Spurious Emission (802.11g, Ch1, 30 MHz-1 GHz)



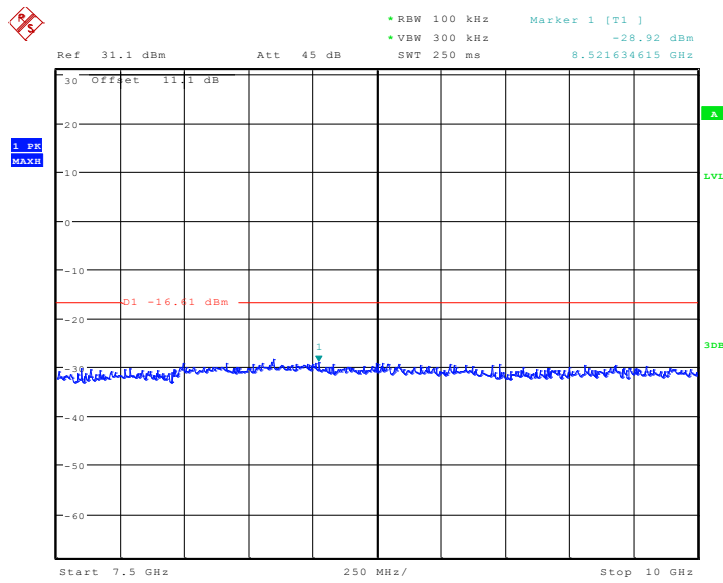
Date: 26.JUL.2013 19:15:28

Fig.A.6.1.27 Conducted Spurious Emission (802.11g, Ch1, 1 GHz-2.5 GHz)



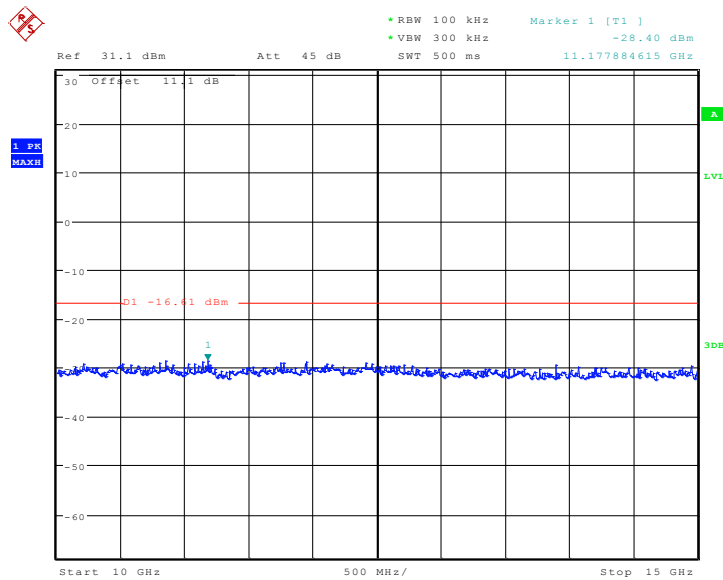
Date: 26.JUL.2013 19:17:00

Fig.A.6.1.28 Conducted Spurious Emission (802.11g, Ch1, 2.5 GHz-7.5 GHz)



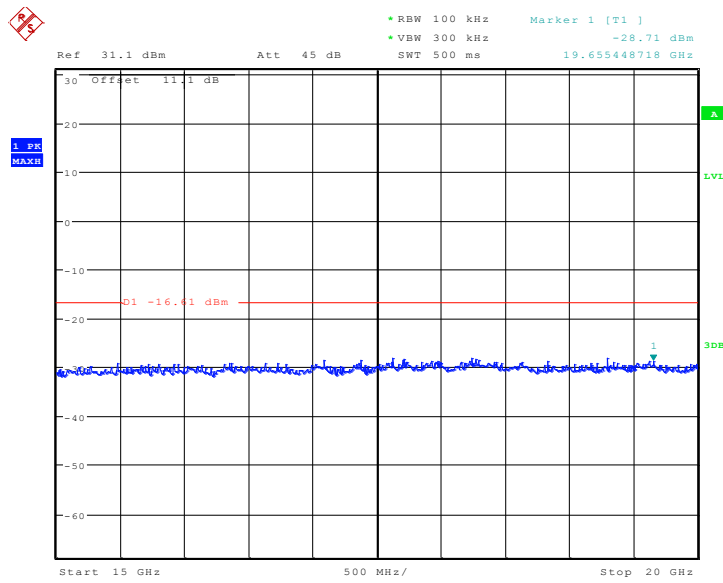
Date: 26.JUL.2013 19:18:32

Fig.A.6.1.29 Conducted Spurious Emission (802.11g, Ch1, 7.5 GHz-10 GHz)



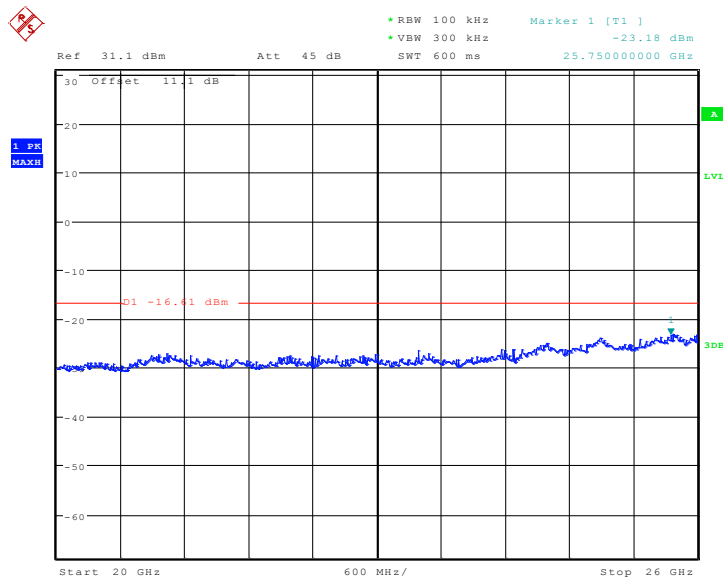
Date: 26.JUL.2013 19:19:24

Fig.A.6.1.30 Conducted Spurious Emission (802.11g, Ch1, 10 GHz-15 GHz)



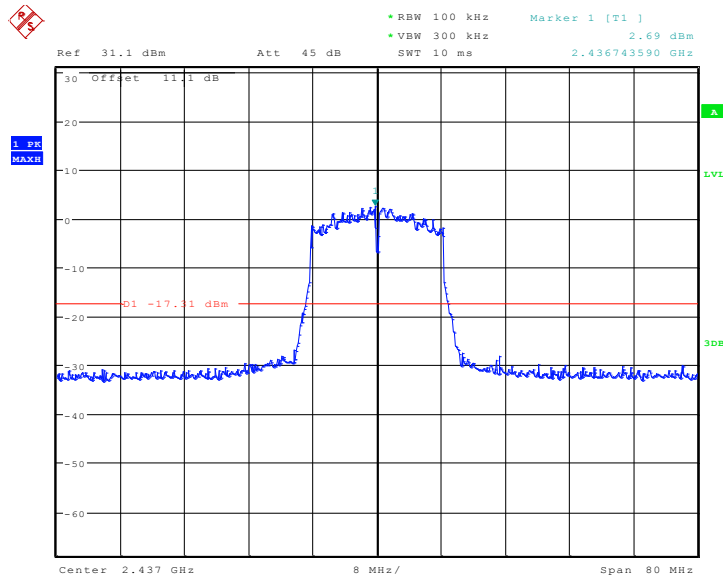
Date: 26.JUL.2013 19:20:29

Fig.A.6.1.31 Conducted Spurious Emission (802.11g, Ch1, 15 GHz-20 GHz)



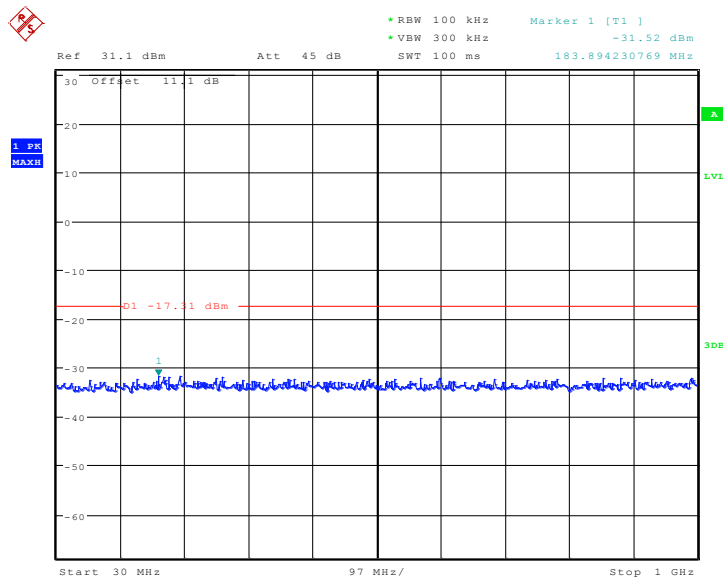
Date: 26.JUL.2013 19:22:26

Fig.A.6.1.32 Conducted Spurious Emission (802.11g, Ch1, 20 GHz-26 GHz)



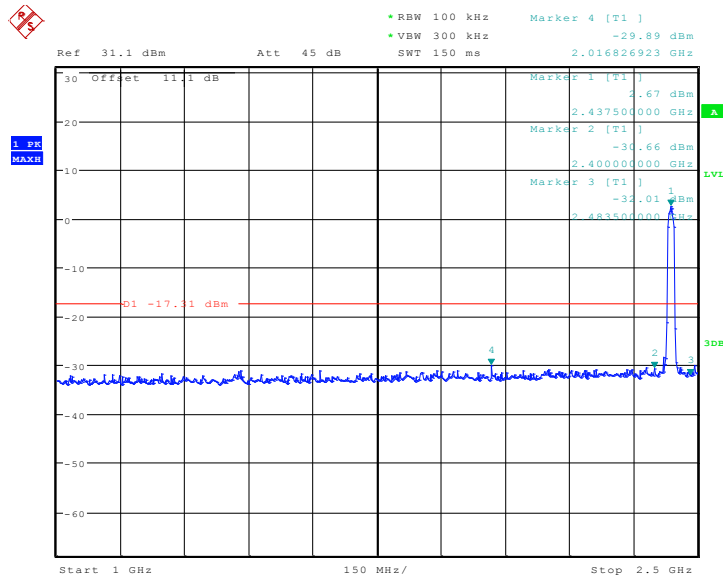
Date: 26.JUL.2013 19:24:10

Fig.A.6.1.33 Conducted Spurious Emission (802.11g, Ch6, Center Frequency)



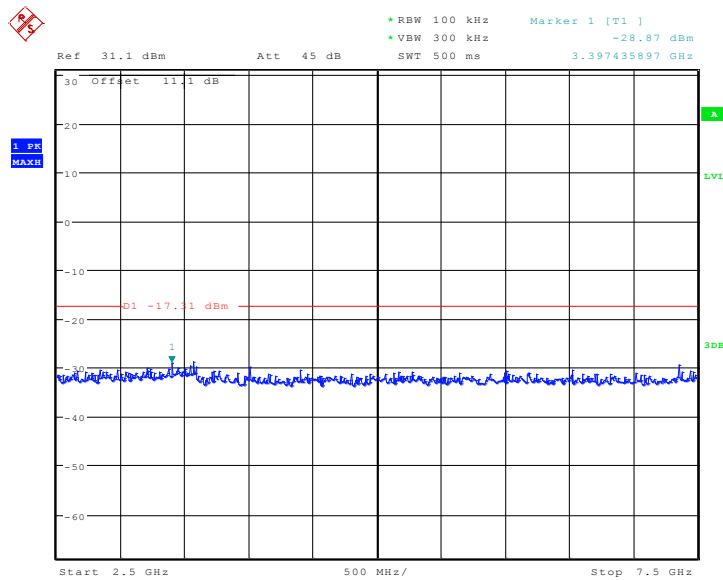
Date: 26.JUL.2013 19:24:37

Fig.A.6.1.34 Conducted Spurious Emission (802.11g, Ch6, 30 MHz-1 GHz)



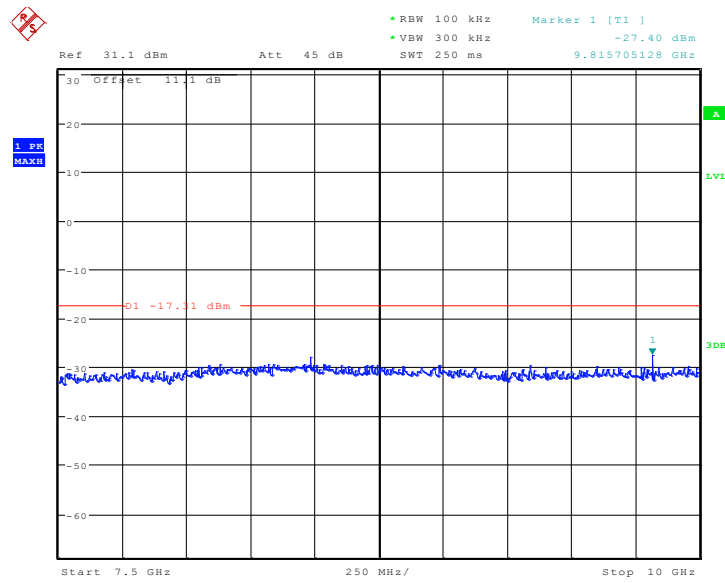
Date: 26.JUL.2013 19:25:44

Fig.A.6.1.35 Conducted Spurious Emission (802.11g, Ch6, 1 GHz-2.5 GHz)



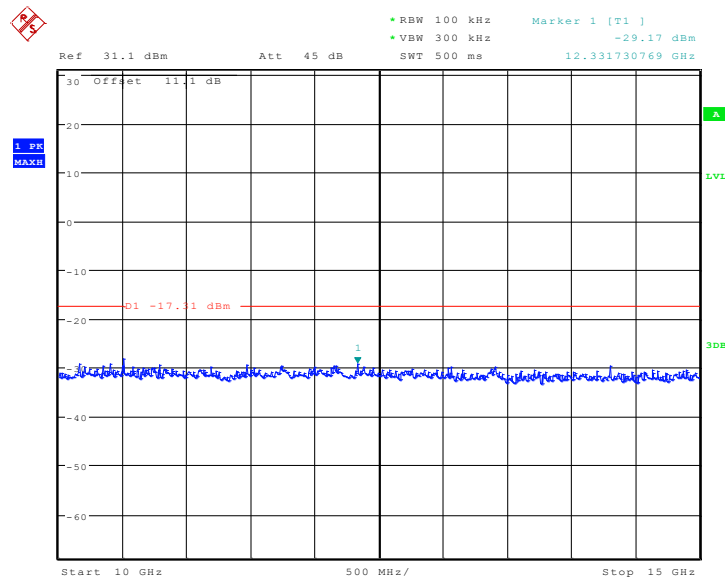
Date: 26.JUL.2013 19:26:24

Fig.A.6.1.36 Conducted Spurious Emission (802.11g, Ch6, 2.5 GHz-7.5 GHz)



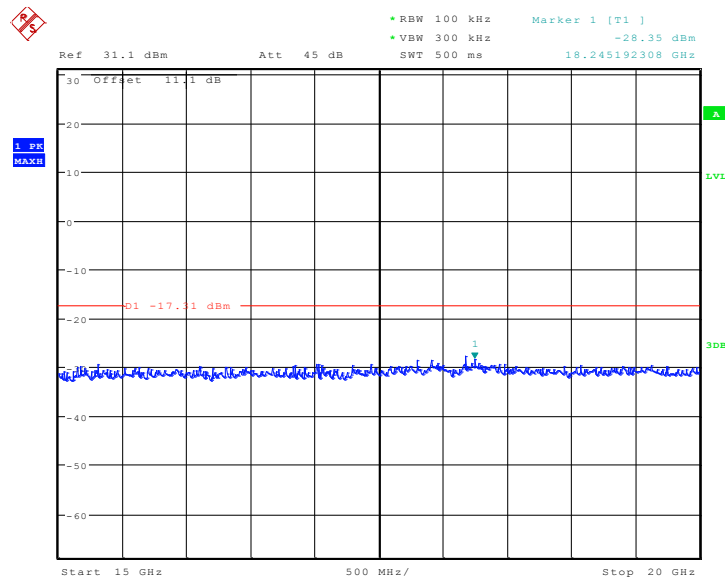
Date: 26.JUL.2013 19:26:50

Fig.A.6.137 Conducted Spurious Emission (802.11g, Ch6, 7.5 GHz-10 GHz)



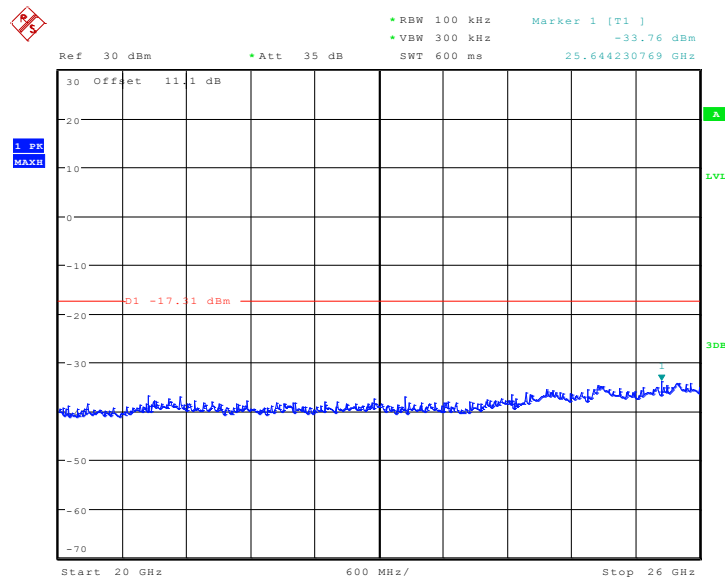
Date: 26.JUL.2013 19:27:11

Fig.A.6.138 Conducted Spurious Emission (802.11g, Ch6, 10 GHz-15 GHz)



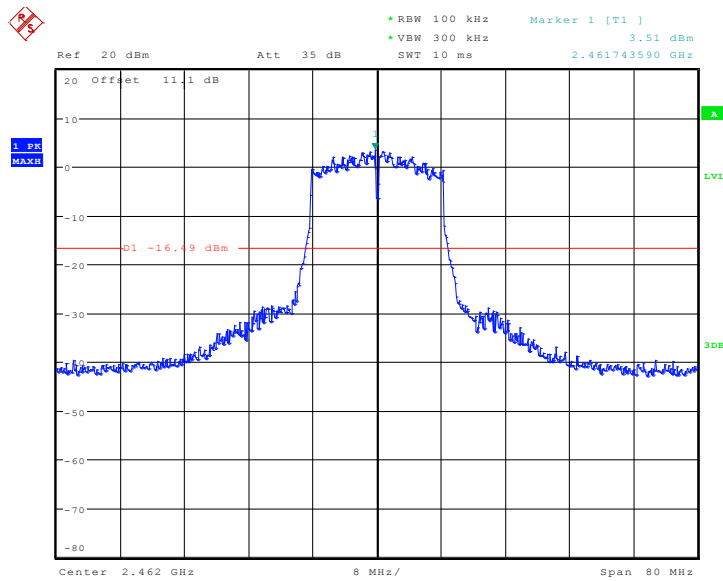
Date: 26.JUL.2013 19:27:34

Fig.A.6.1.39 Conducted Spurious Emission (802.11g, Ch6, 15 GHz-20 GHz)



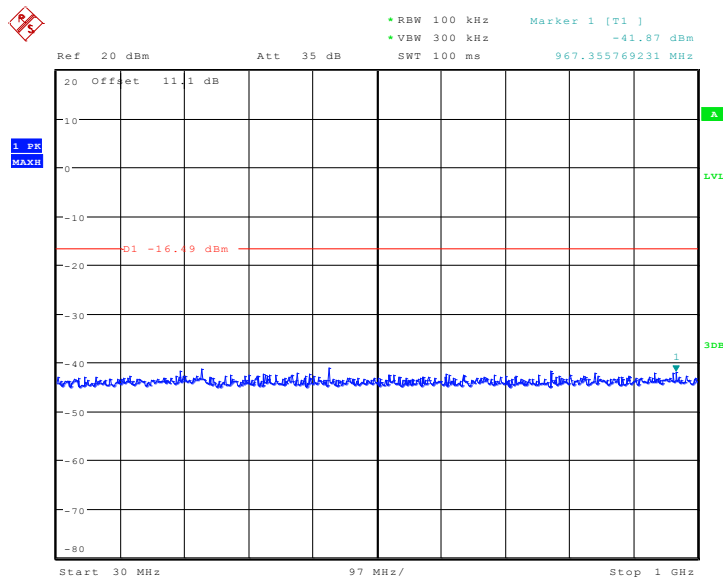
Date: 26.JUL.2013 19:29:31

Fig.A.6.1.40 Conducted Spurious Emission (802.11g, Ch6, 20 GHz-26 GHz)



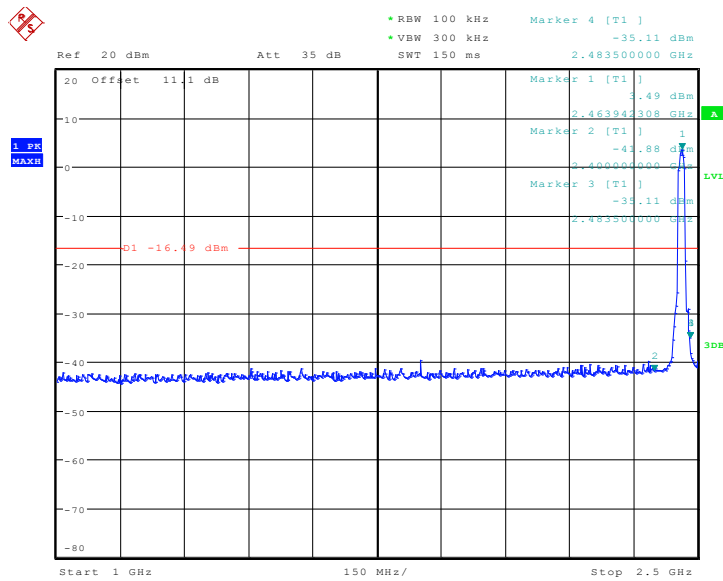
Date: 26.JUL.2013 19:31:42

Fig.A.6.1.41 Conducted Spurious Emission (802.11g, Ch11, Center Frequency)



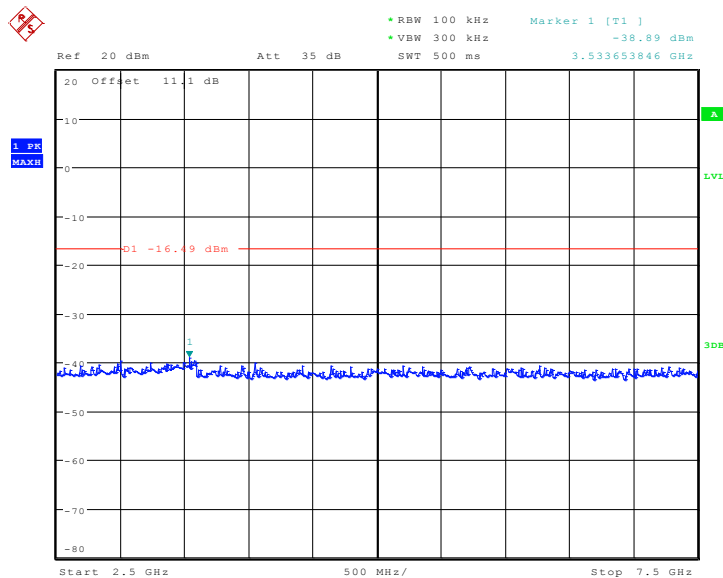
Date: 26.JUL.2013 19:32:02

Fig.A.6.1.42 Conducted Spurious Emission (802.11g, Ch11, 30 MHz-1 GHz)



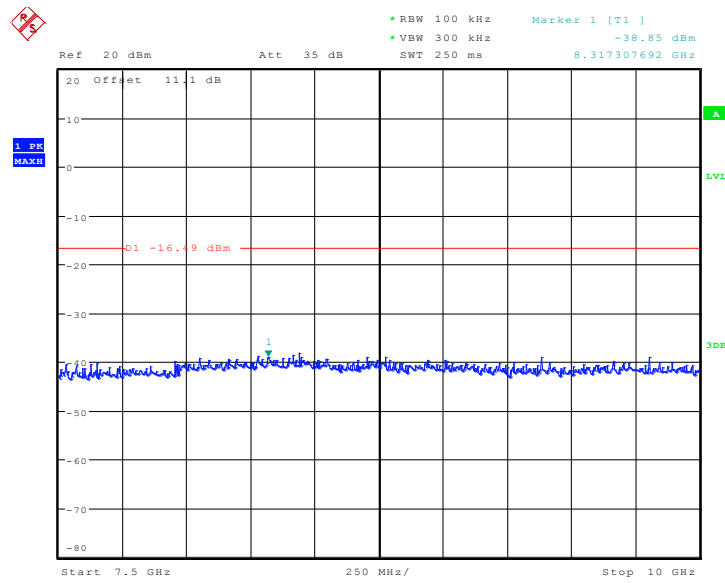
Date: 26.JUL.2013 19:32:52

Fig.A.6.1.43 Conducted Spurious Emission (802.11g, Ch11, 1 GHz-2.5 GHz)



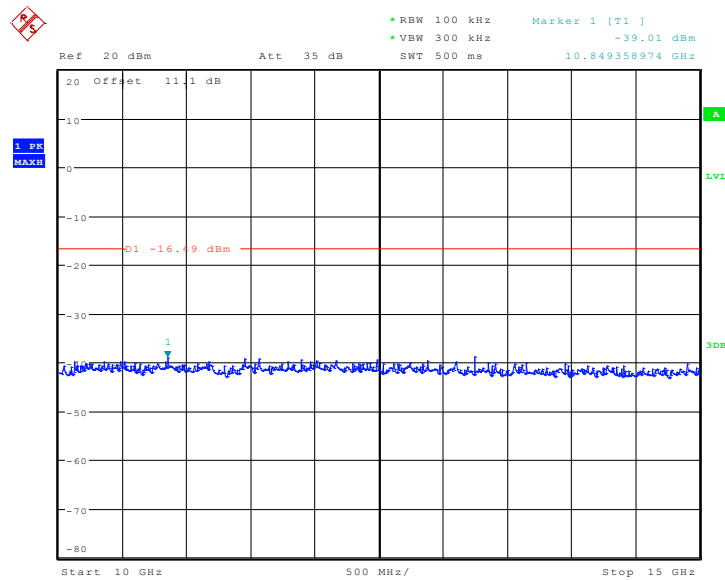
Date: 26.JUL.2013 19:33:17

Fig.A.6.1.44 Conducted Spurious Emission (802.11g, Ch11, 2.5 GHz-7.5 GHz)



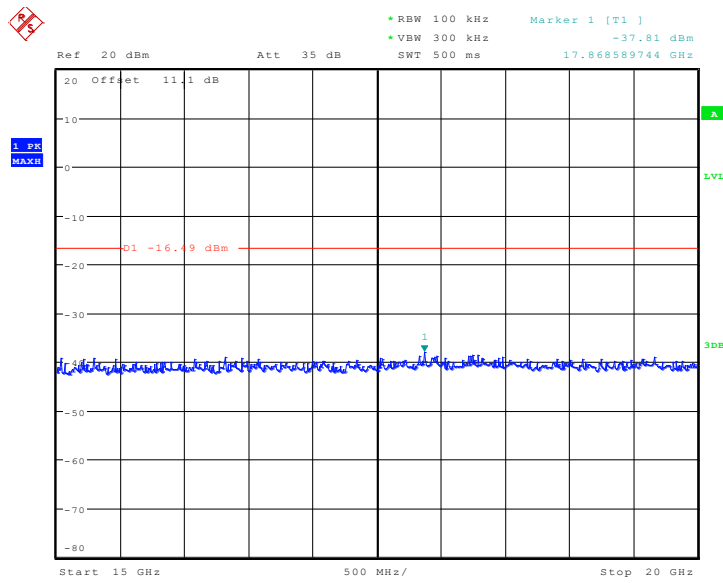
Date: 26.JUL.2013 19:33:38

Fig.A.6.1.45 Conducted Spurious Emission (802.11g, Ch11, 7.5 GHz-10 GHz)



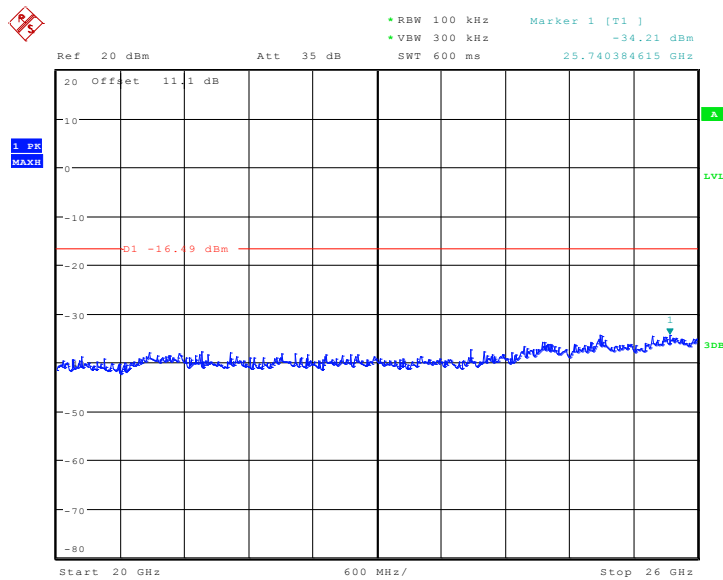
Date: 26.JUL.2013 19:33:59

Fig.A.6.1.46 Conducted Spurious Emission (802.11g, Ch11, 10 GHz-15 GHz)



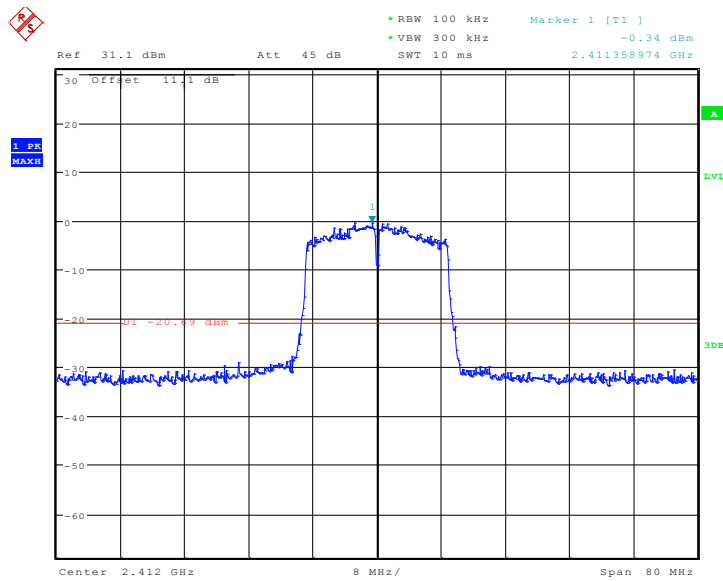
Date: 26.JUL.2013 19:34:26

Fig.A.6.1.47 Conducted Spurious Emission (802.11g, Ch11, 15 GHz-20 GHz)



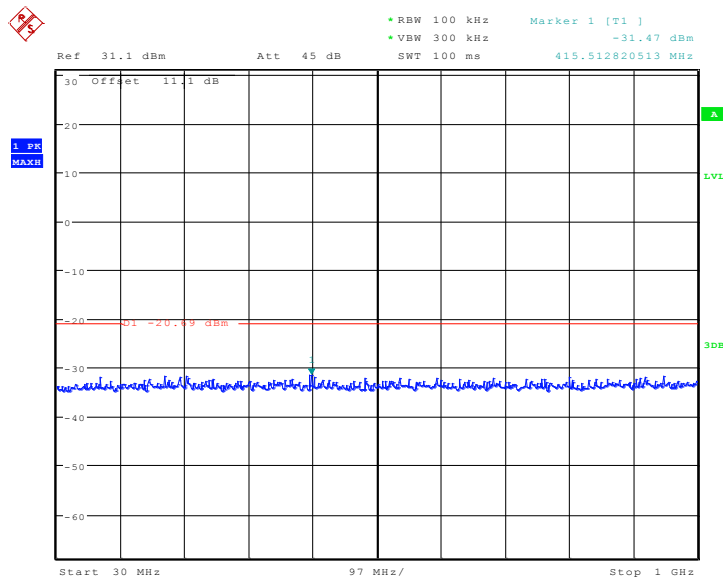
Date: 26.JUL.2013 19:34:47

Fig.A.6.1.48 Conducted Spurious Emission (802.11g, Ch11, 20 GHz-26 GHz)



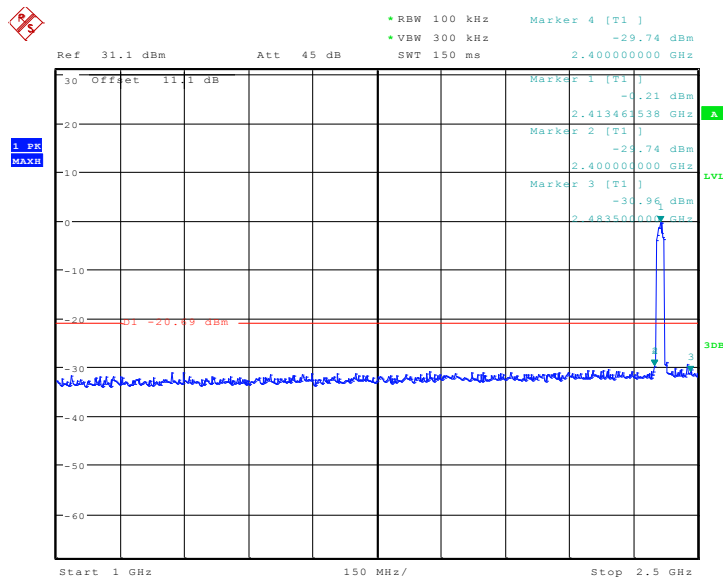
Date: 26.JUL.2013 19:39:06

Fig.A.6.1.49 Conducted Spurious Emission (802.11n-HT20, Ch1, Center Frequency)



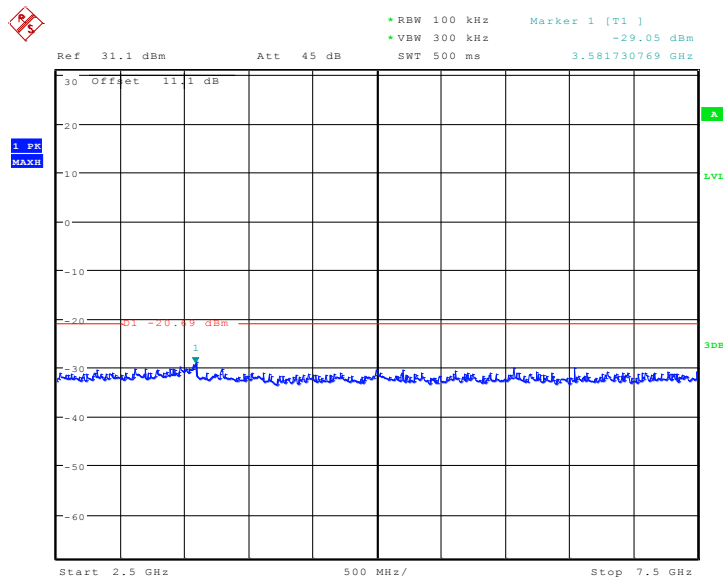
Date: 26.JUL.2013 19:39:45

Fig.A.6.1.50 Conducted Spurious Emission (802.11n-HT20, Ch1, 30 MHz-1 GHz)



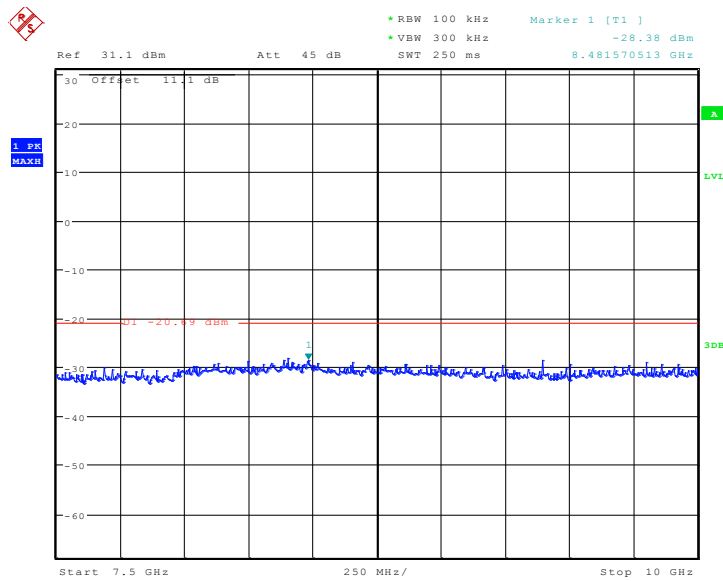
Date: 26.JUL.2013 19:41:14

Fig.A.6.1.51 Conducted Spurious Emission (802.11n-HT20, Ch1, 1 GHz-2.5 GHz)



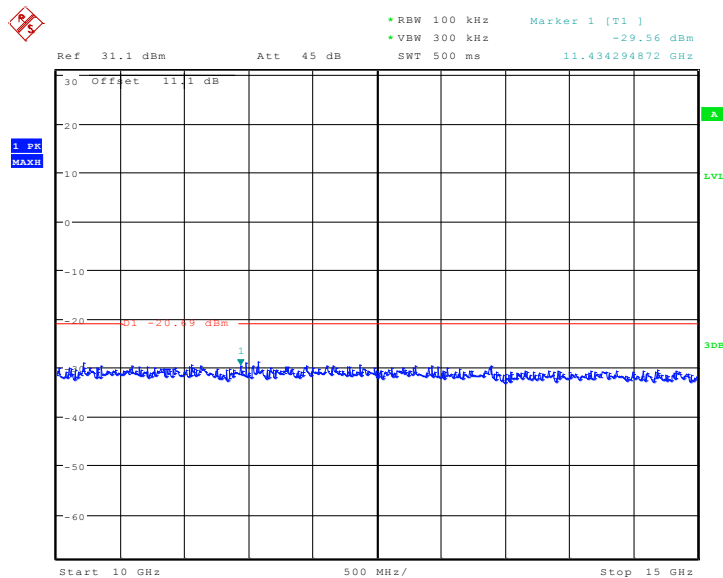
Date: 26.JUL.2013 19:42:02

Fig.A.6.1.52 Conducted Spurious Emission (802.11n-HT20, Ch1, 2.5 GHz-7.5 GHz)



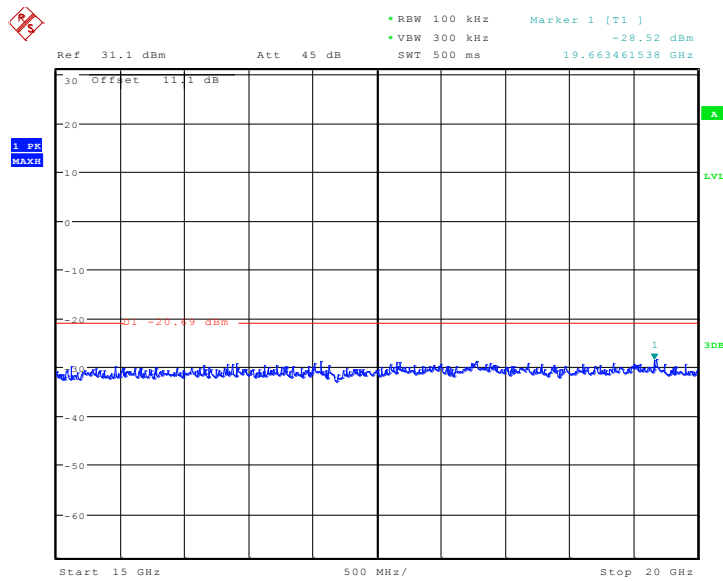
Date: 26.JUL.2013 19:42:31

Fig.A.6.1.53 Conducted Spurious Emission (802.11n-HT20, Ch1, 7.5 GHz-10 GHz)



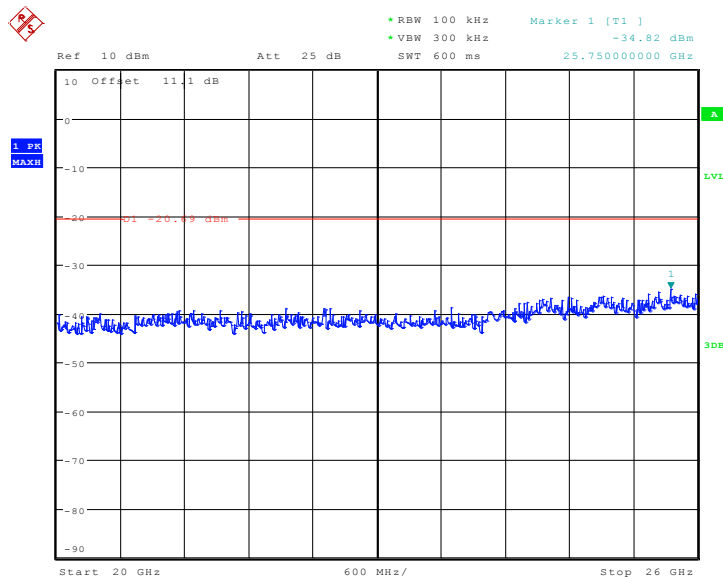
Date: 26.JUL.2013 19:43:09

Fig.A.6.1.54 Conducted Spurious Emission (802.11n-HT20, Ch1, 10 GHz-15 GHz)



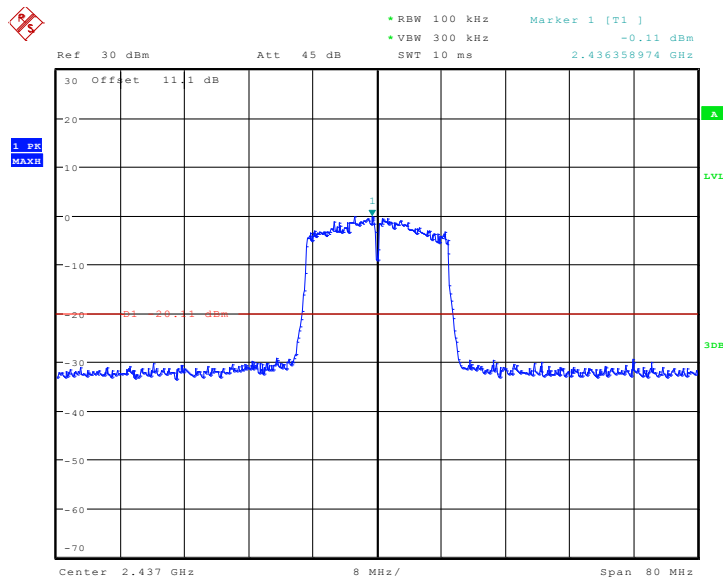
Date: 26.JUL.2013 19:43:42

Fig.A.6.1.55 Conducted Spurious Emission (802.11n-HT20, Ch1, 15 GHz-20 GHz)



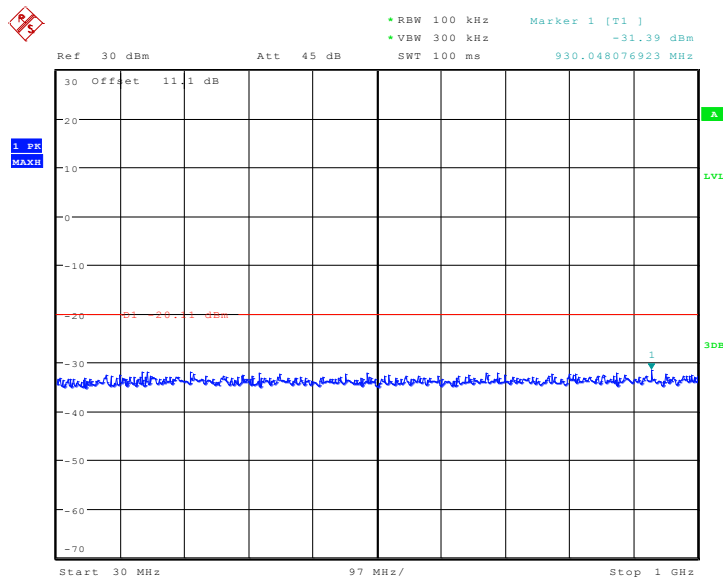
Date: 26.JUL.2013 19:44:36

Fig.A.6.1.56 Conducted Spurious Emission (802.11n-HT20, Ch1, 20 GHz-26 GHz)



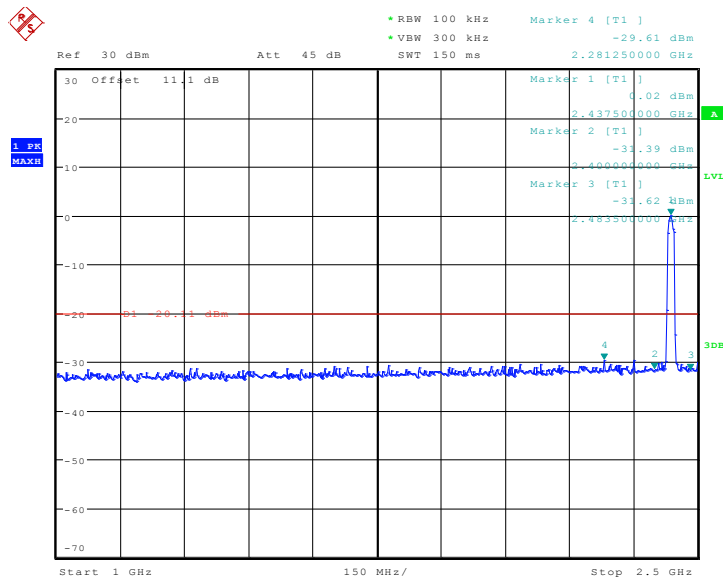
Date: 26.JUL.2013 19:46:16

Fig.A.6.1.57 Conducted Spurious Emission (802.11n-HT20, Ch6, Center Frequency)



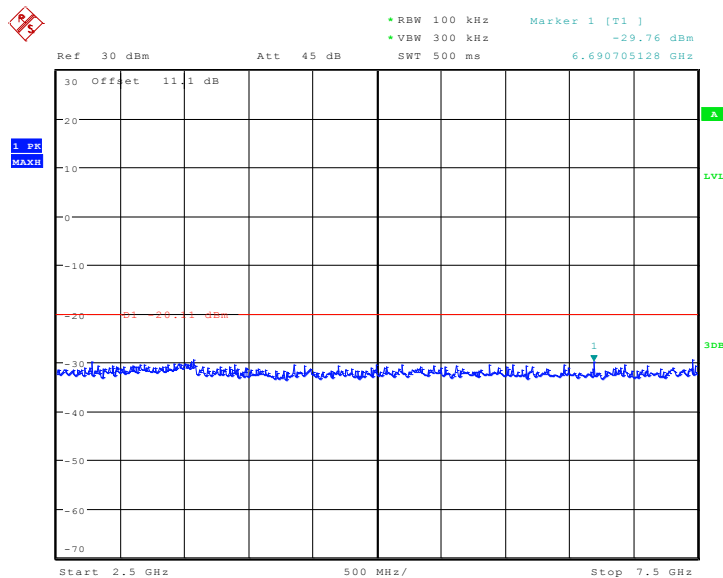
Date: 26.JUL.2013 19:46:45

Fig.A.6.1.58 Conducted Spurious Emission (802.11n-HT20, Ch6, 30 MHz-1 GHz)



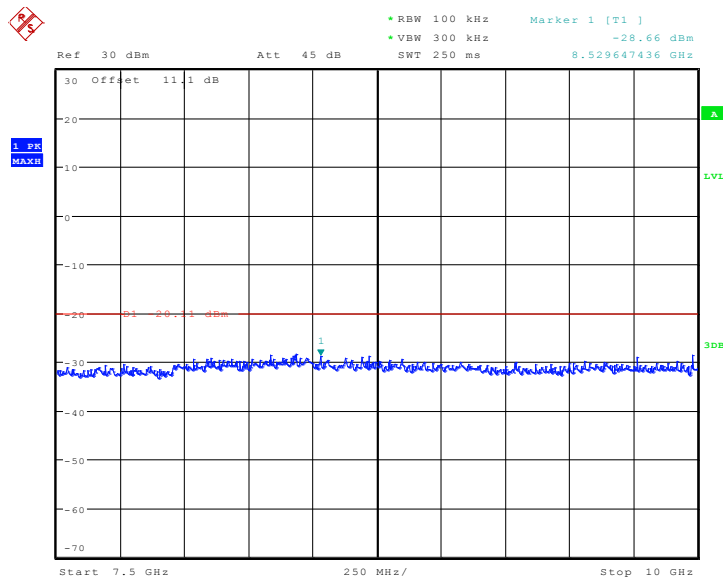
Date: 26.JUL.2013 19:48:52

Fig.A.6.1.59 Conducted Spurious Emission (802.11n-HT20, Ch6, 1 GHz-2.5 GHz)



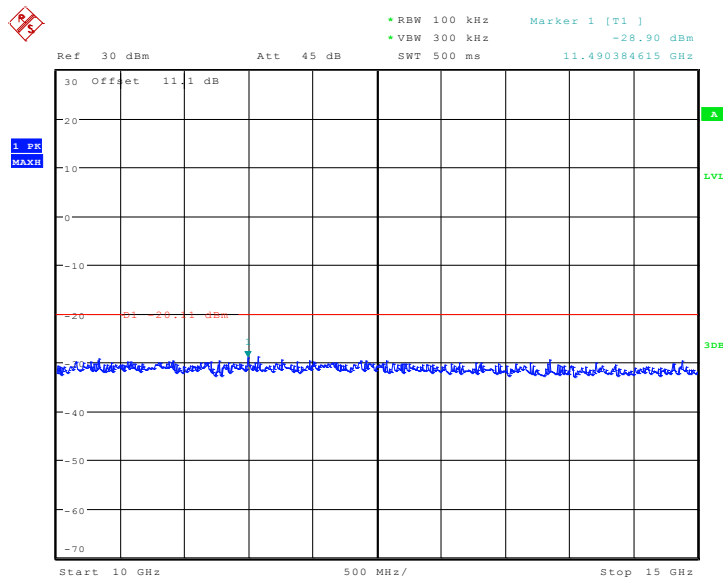
Date: 26.JUL.2013 19:49:25

Fig.A.6.1.60 Conducted Spurious Emission (802.11n-HT20, Ch6, 2.5 GHz-7.5 GHz)



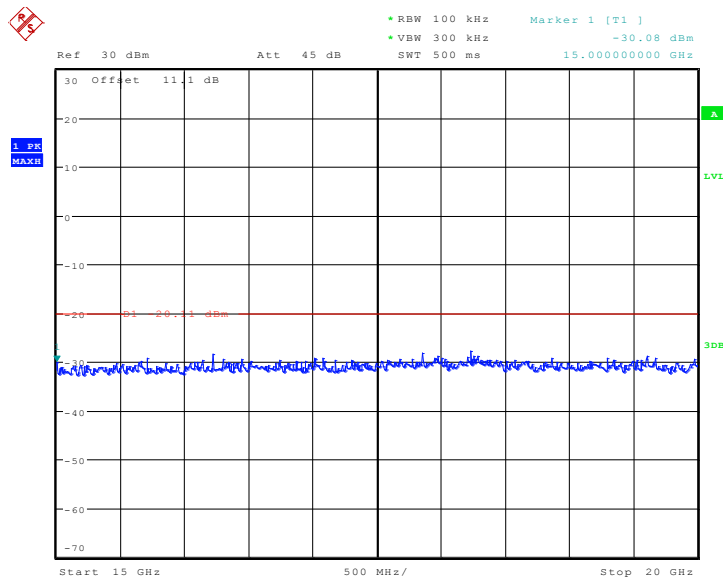
Date: 26.JUL.2013 19:49:57

Fig.A.6.1.61 Conducted Spurious Emission (802.11n-HT20, Ch6, 7.5 GHz-10 GHz)



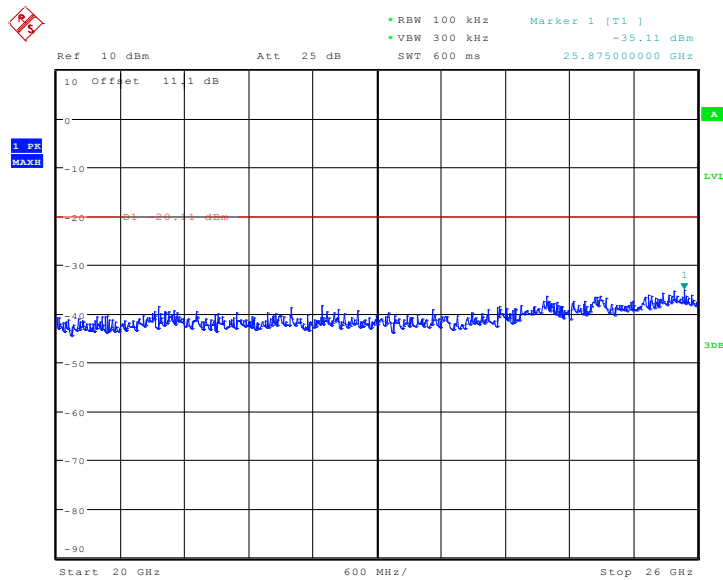
Date: 26.JUL.2013 19:50:27

Fig.A.6.1.62 Conducted Spurious Emission (802.11n-HT20, Ch6, 10 GHz-15 GHz)



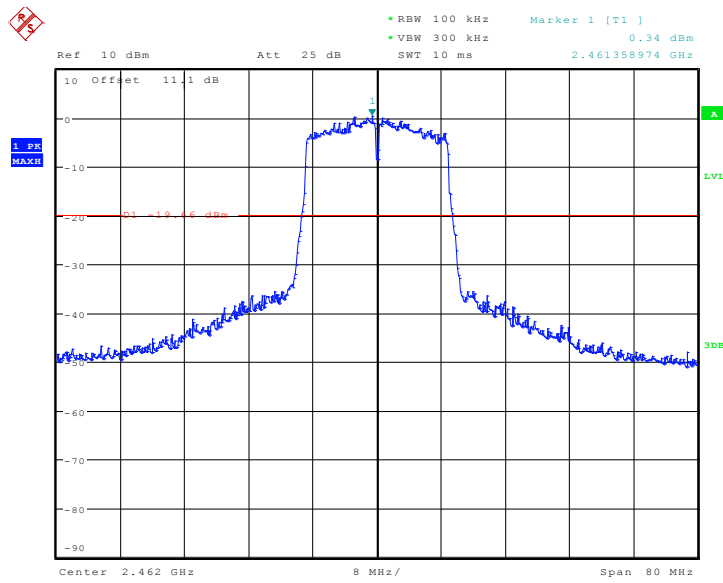
Date: 26.JUL.2013 19:50:50

Fig.A.6.1.63 Conducted Spurious Emission (802.11n-HT20, Ch6, 15 GHz-20 GHz)



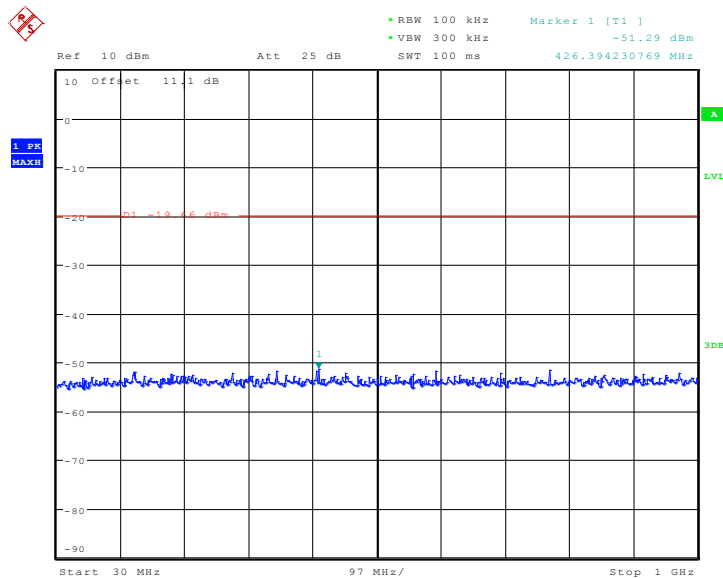
Date: 26.JUL.2013 19:51:28

Fig.A.6.1.64 Conducted Spurious Emission (802.11n-HT20, Ch6, 20 GHz-26 GHz)



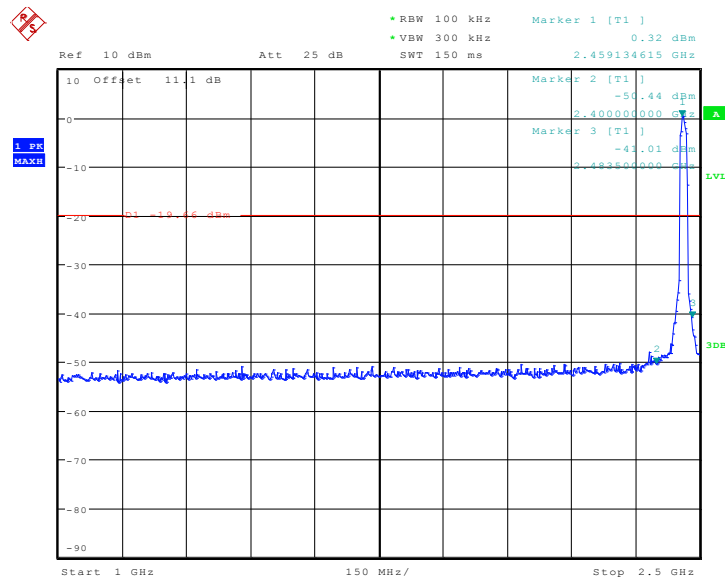
Date: 26.JUL.2013 19:52:40

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



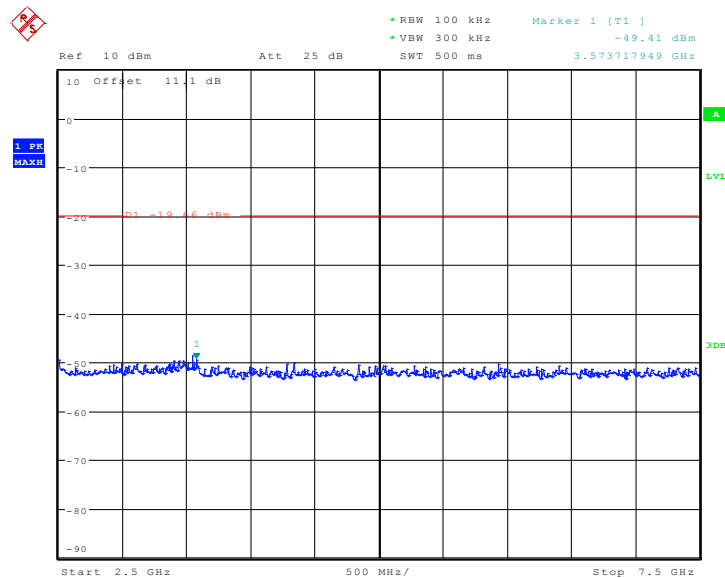
Date: 26.JUL.2013 19:52:57

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



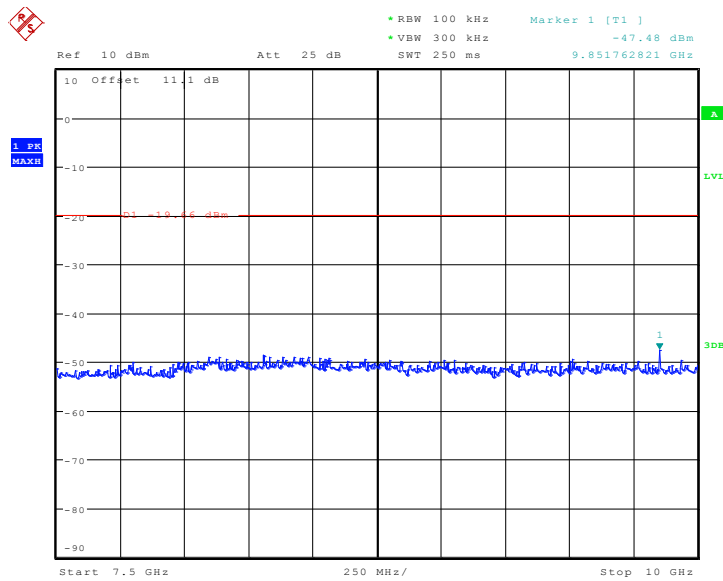
Date: 26.JUL.2013 19:54:02

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



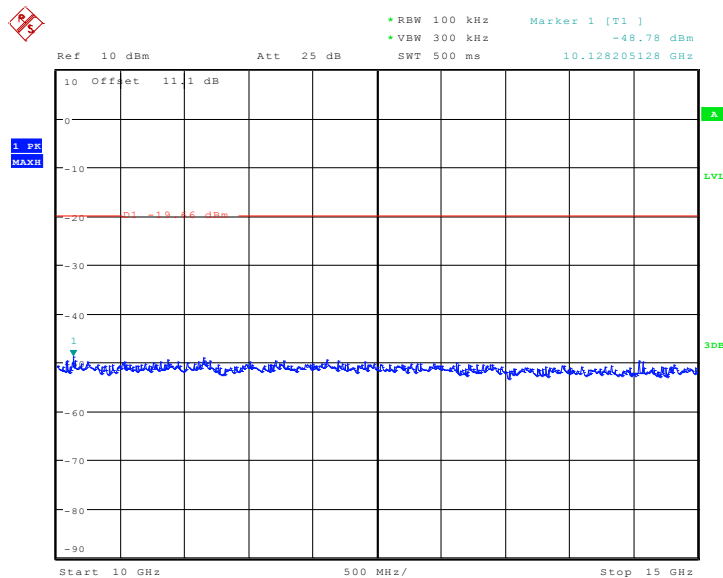
Date: 26.JUL.2013 19:54:26

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



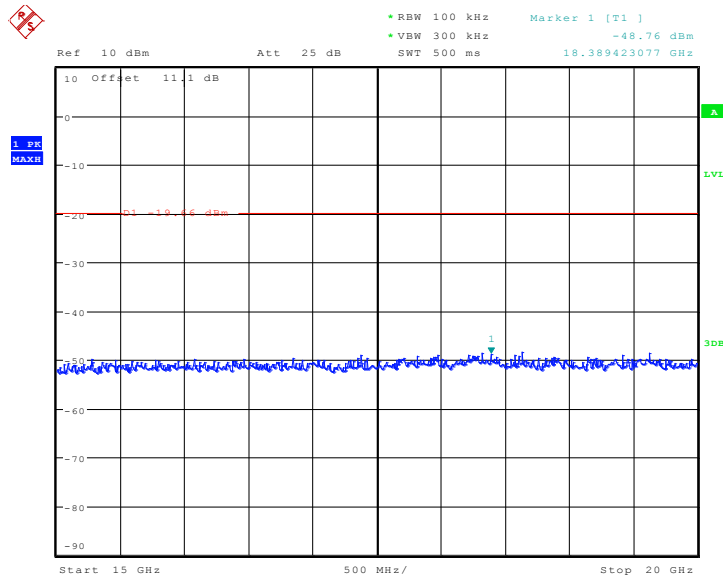
Date: 26.JUL.2013 19:54:46

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



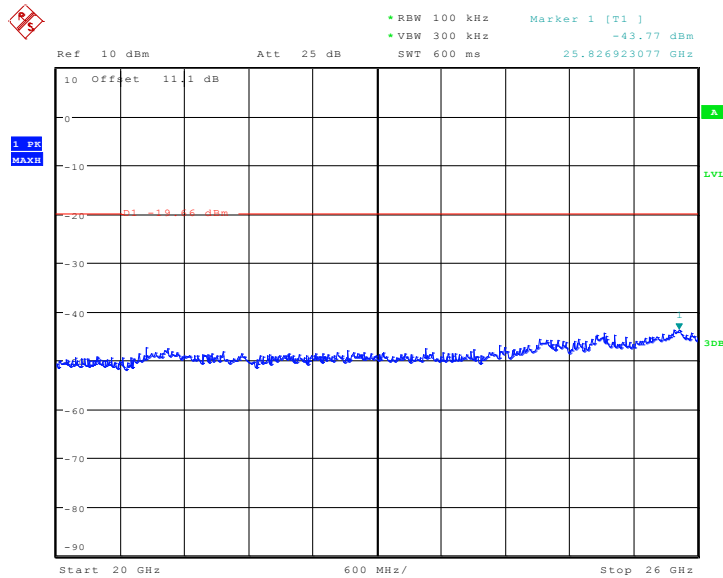
Date: 26.JUL.2013 19:55:09

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



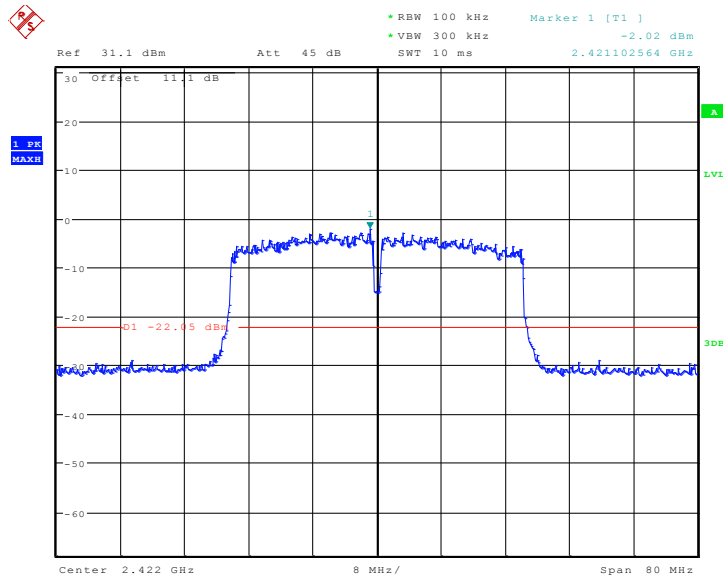
Date: 26.JUL.2013 19:55:25

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



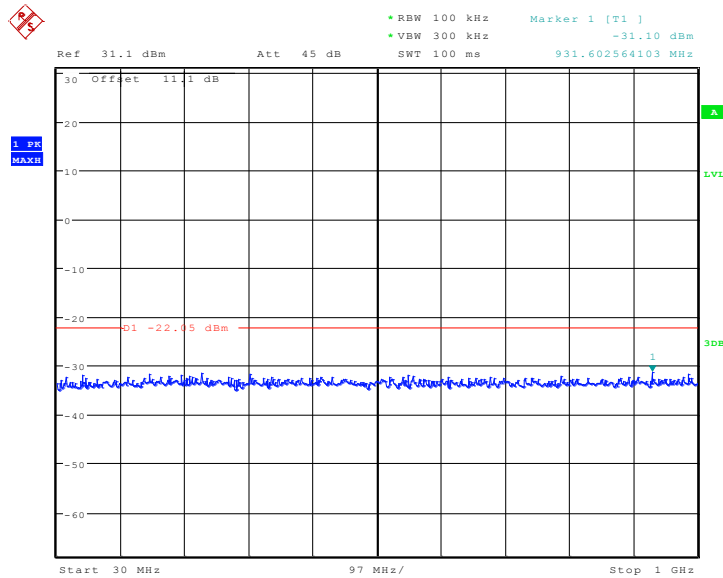
Date: 26.JUL.2013 19:55:54

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



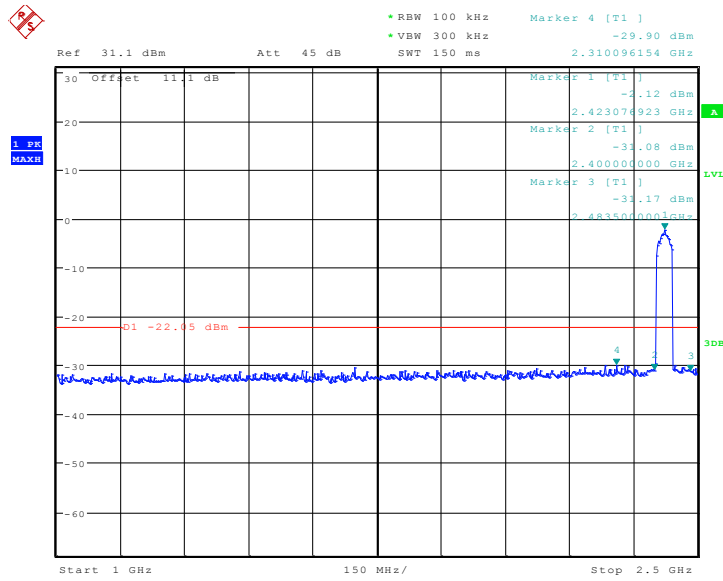
Date: 29.JUL.2013 09:00:03

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



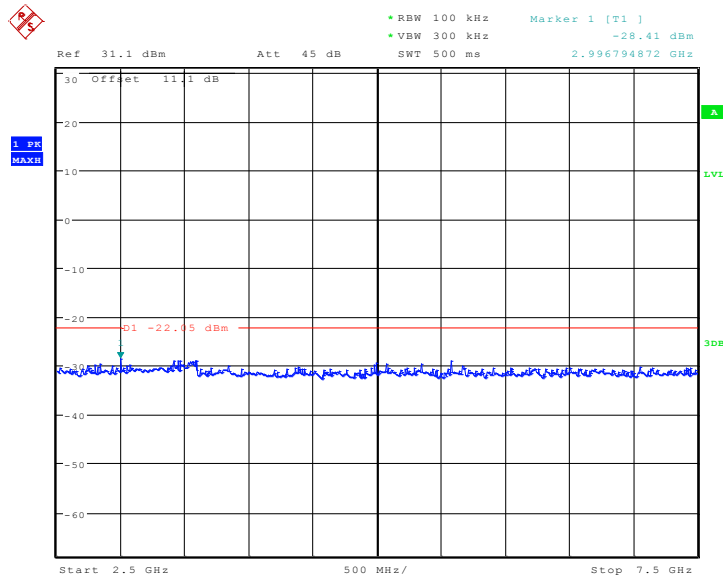
Date: 29.JUL.2013 09:01:13

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



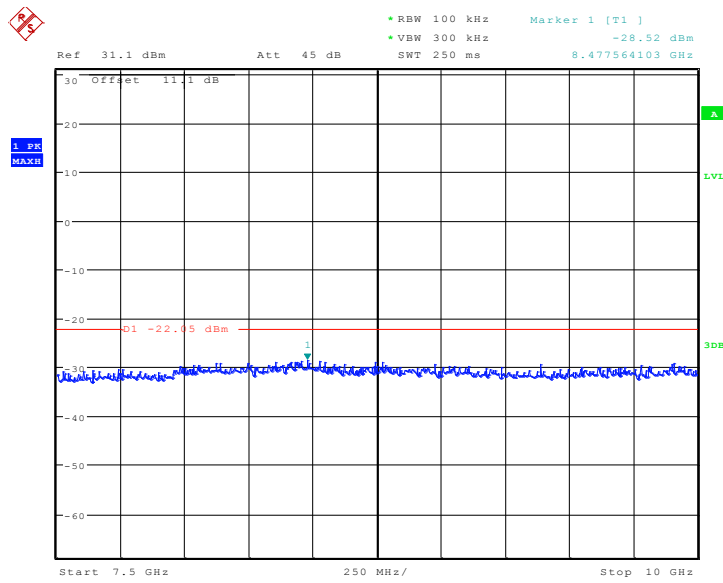
Date: 29.JUL.2013 09:04:04

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



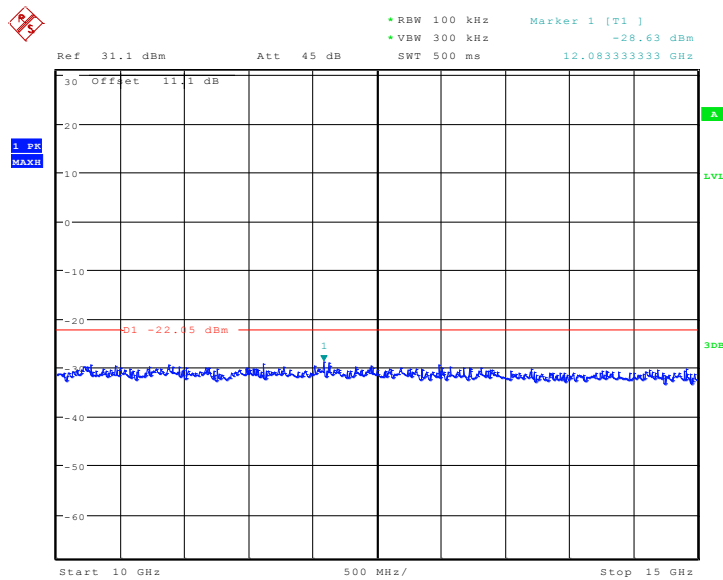
Date: 29.JUL.2013 09:06:03

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



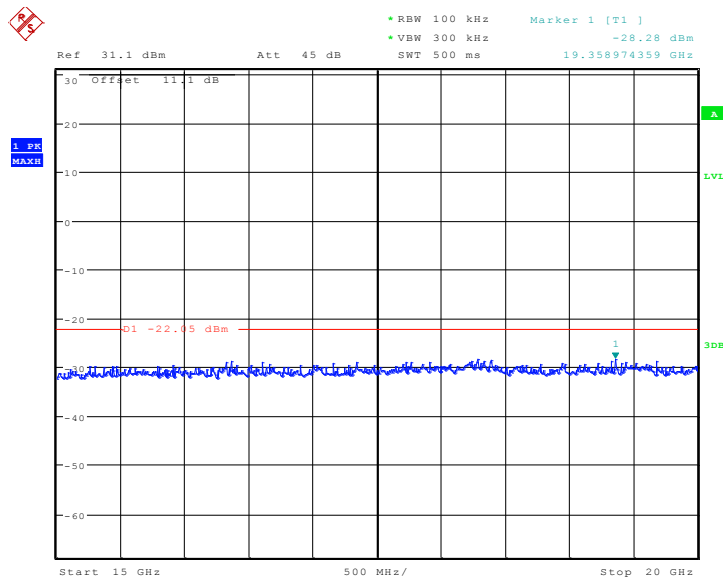
Date: 29.JUL.2013 09:08:32

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



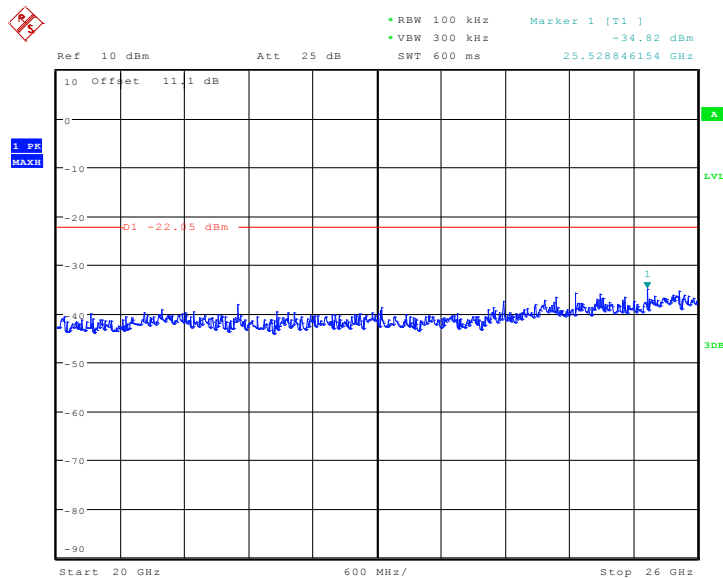
Date: 29.JUL.2013 09:09:01

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



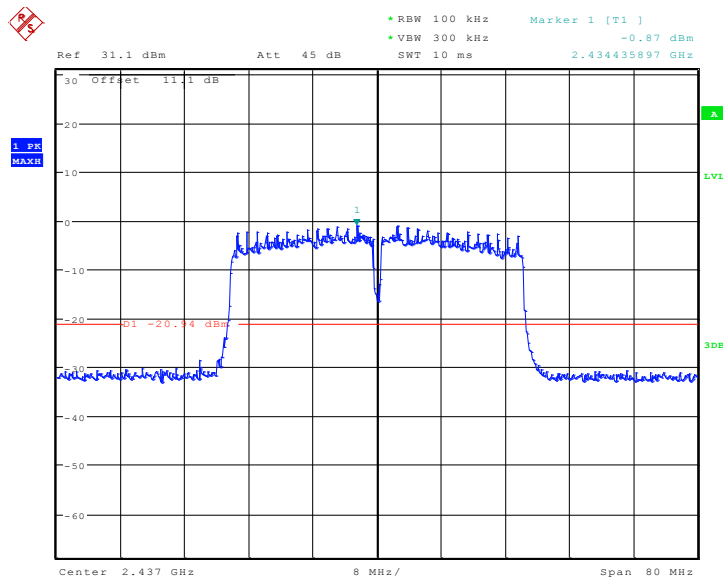
Date: 29.JUL.2013 09:09:36

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



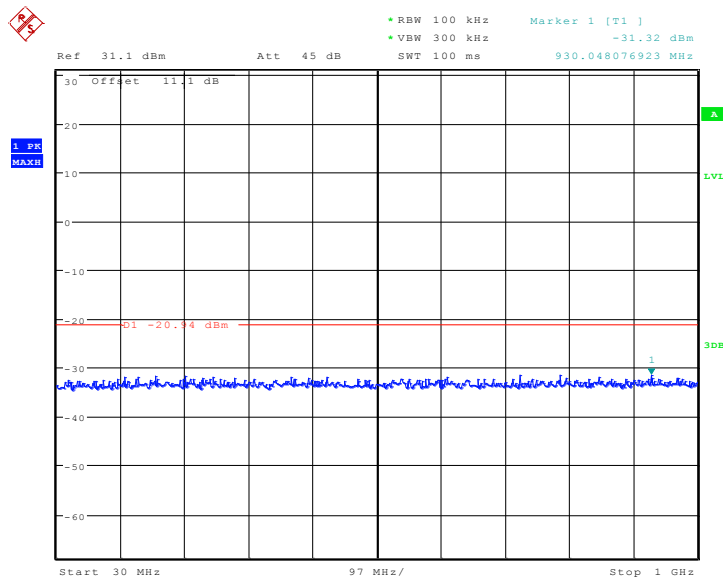
Date: 29.JUL.2013 09:10:28

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



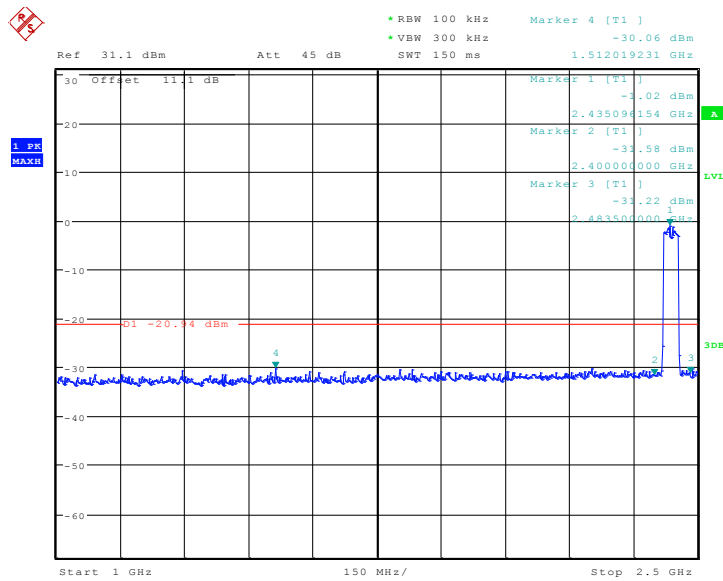
Date: 29.JUL.2013 09:32:14

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



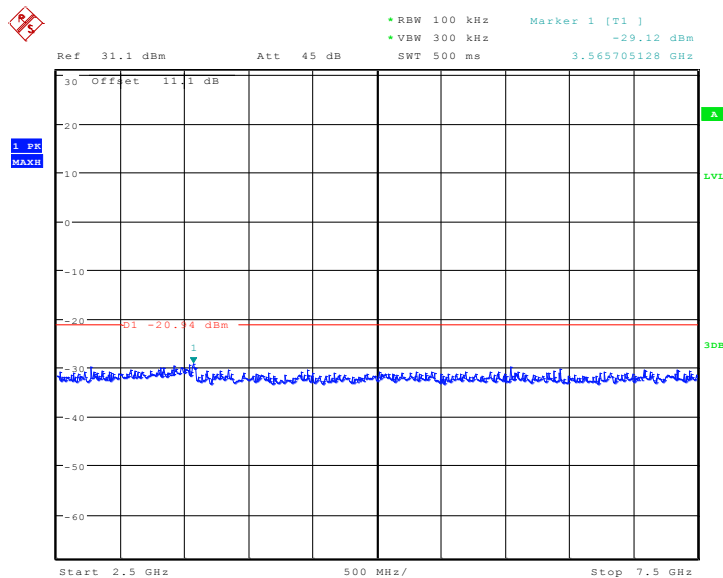
Date: 29.JUL.2013 09:33:04

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



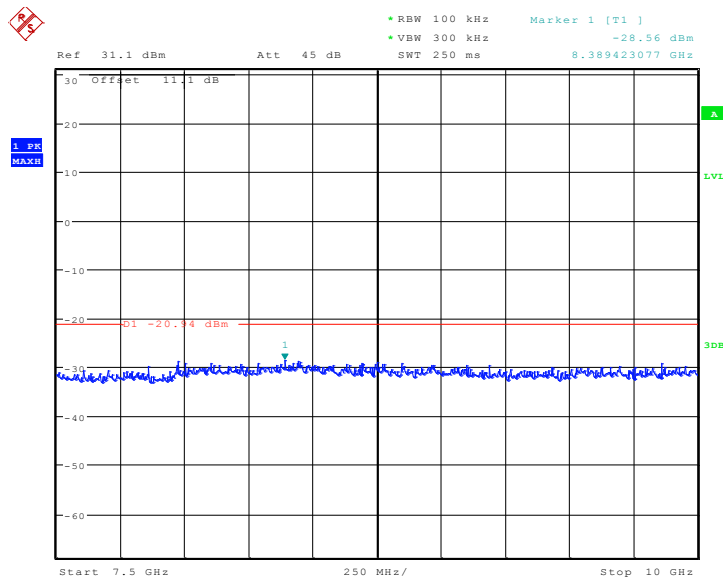
Date: 29.JUL.2013 09:35:06

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



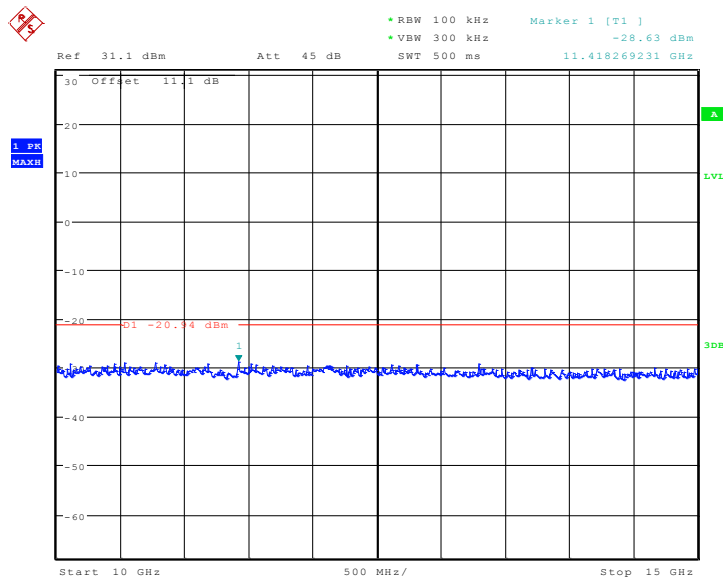
Date: 29.JUL.2013 09:35:37

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



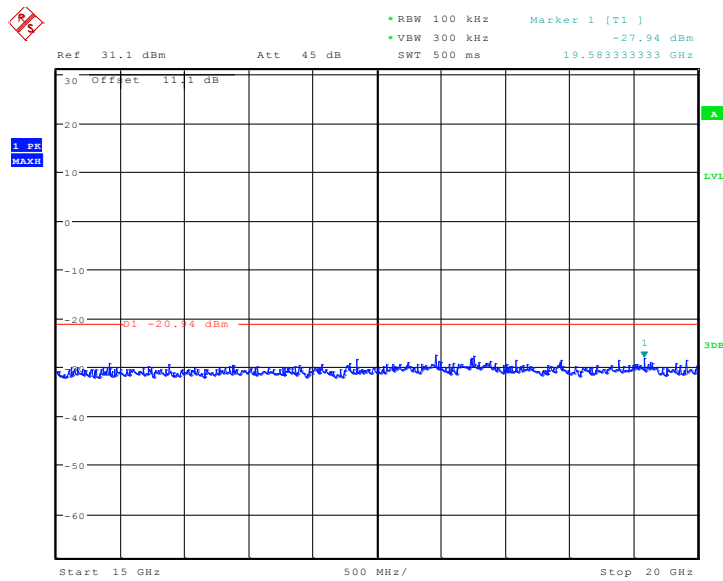
Date: 29.JUL.2013 09:36:16

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



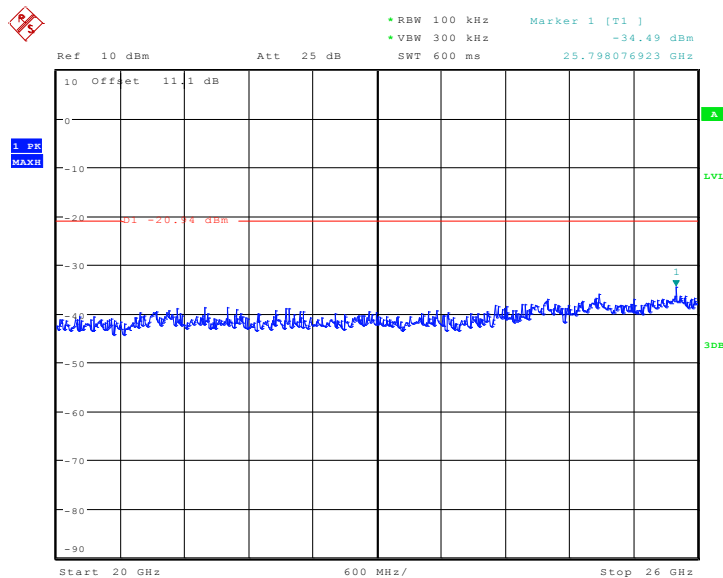
Date: 29.JUL.2013 09:37:09

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



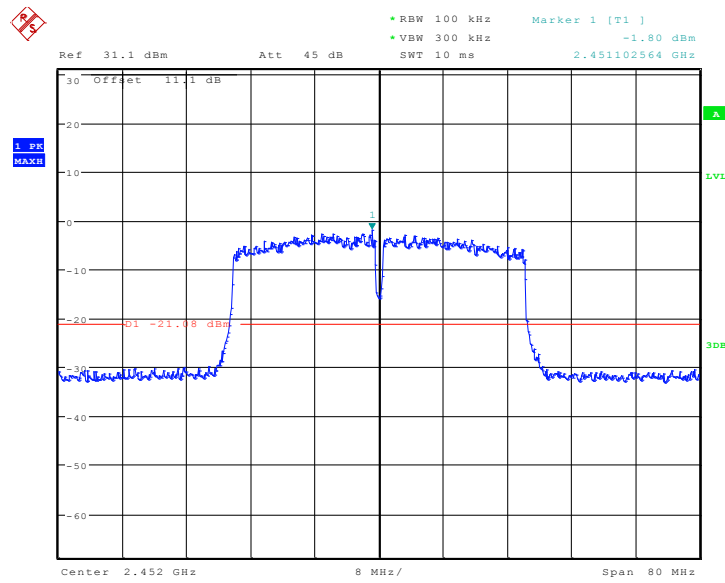
Date: 29.JUL.2013 09:37:54

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



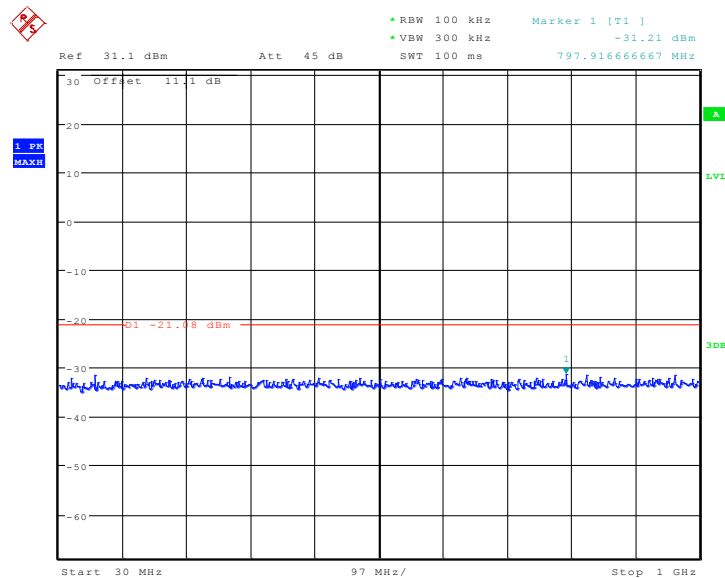
Date: 29.JUL.2013 09:38:43

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



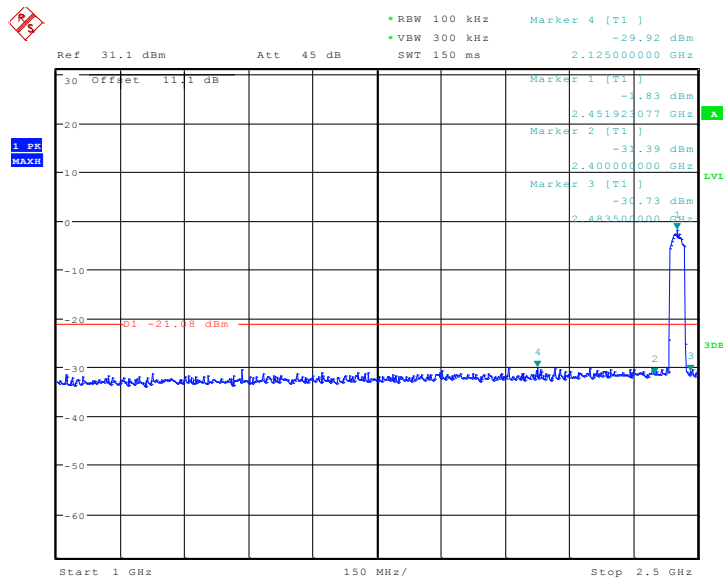
Date: 29.JUL.2013 09:41:38

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



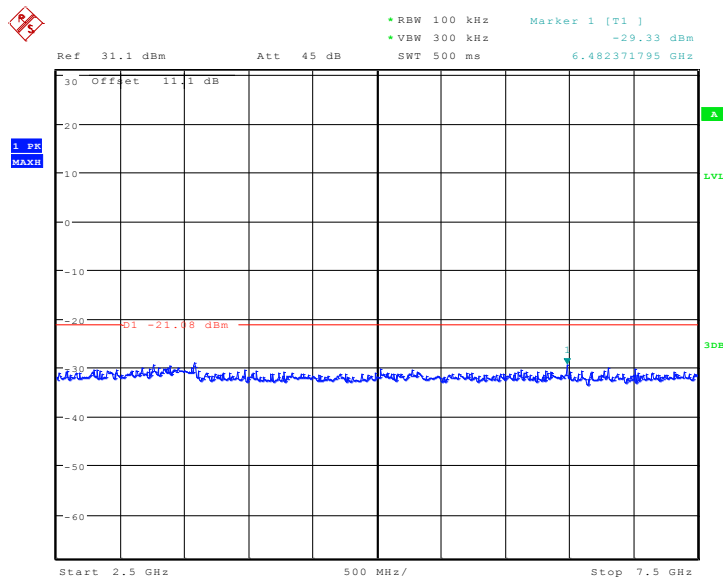
Date: 29.JUL.2013 09:42:55

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



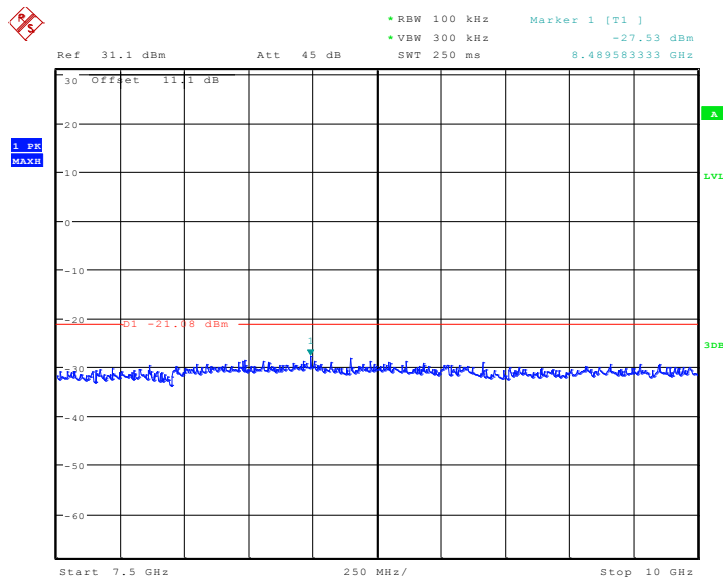
Date: 29.JUL.2013 09:45:15

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



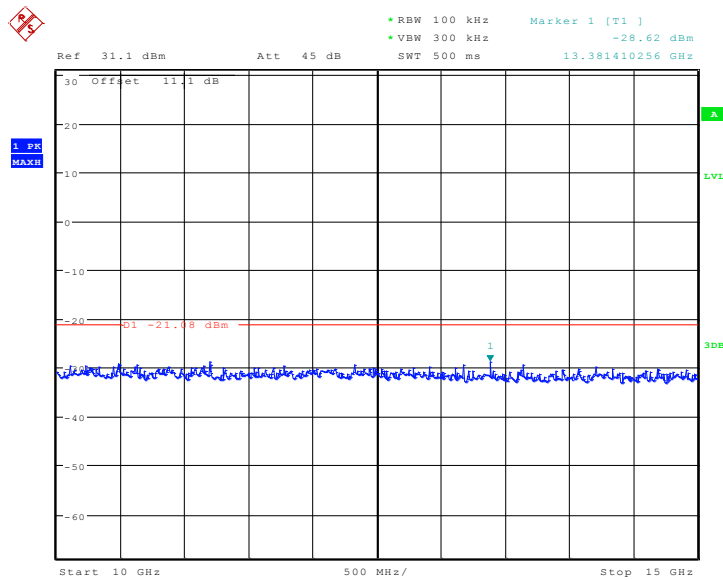
Date: 29.JUL.2013 09:46:04

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



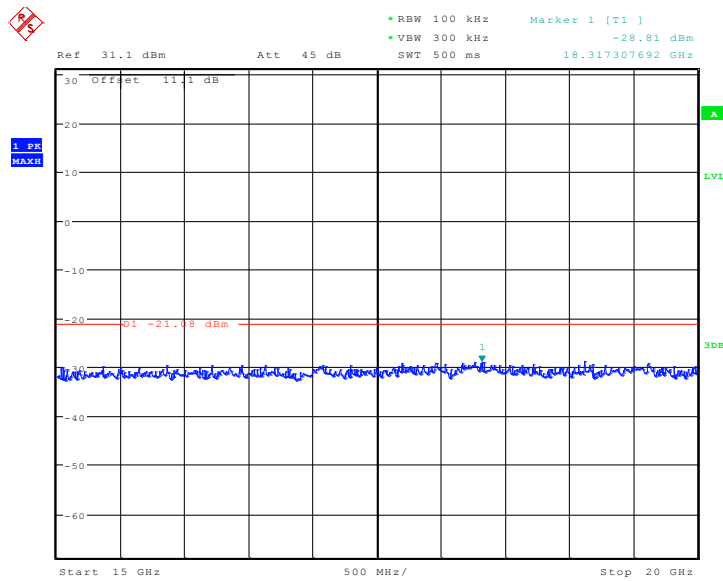
Date: 29.JUL.2013 09:46:46

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



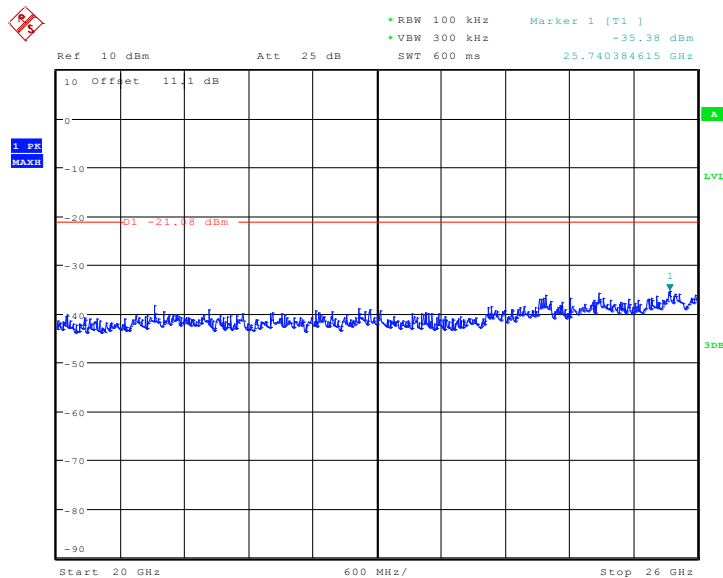
Date: 29.JUL.2013 09:47:10

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



Date: 29.JUL.2013 09:47:35

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



Date: 29.JUL.2013 09:48:13

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

A.6.2 Transmitter Spurious Emission - Radiated

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)).

The measurement is made according to KDB558074.

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

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

Modulation type and data rate tested:

802.11b	802.11g	802.11n-HT20	802.11n-HT40
11Mbps(CCK)	54Mbps(OFDM)	MCS0(OFDM)	MCS5(OFDM)

Measurement Results:

802.11b/g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	Power	2.38GHz ~2.45GHz	Fig.A.6.2.1	P
	1	30 MHz ~1 GHz	Fig.A.6.2.2	P
		1 GHz ~ 3 GHz	Fig.A.6.2.3	P
		3 GHz ~ 18 GHz	Fig.A.6.2.4	P
	6	30 MHz ~1 GHz	Fig.A.6.2.5	P
		1 GHz ~ 3 GHz	Fig.A.6.2.6	P
		3 GHz ~ 18 GHz	Fig.A.6.2.7	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.8	P
	11	30 MHz ~1 GHz	Fig.A.6.2.9	P
		1 GHz ~ 3 GHz	Fig.A.6.2.10	P
		3 GHz ~ 18 GHz	Fig.A.6.2.11	P
	802.11g	Power	2.38GHz ~2.43GHz	Fig.A.6.2.12
1		30 MHz ~1 GHz	Fig.A.6.2.13	P
		1 GHz ~ 3 GHz	Fig.A.6.2.14	P
		3 GHz ~ 18 GHz	Fig.A.6.2.15	P
6		30 MHz ~1 GHz	Fig.A.6.2.16	P
		1 GHz ~ 3 GHz	Fig.A.6.2.17	P
		3 GHz ~ 18 GHz	Fig.A.6.2.18	P
Power		2.45GHz ~2.5GHz	Fig.A.6.2.19	P
11		30 MHz ~1 GHz	Fig.A.6.2.20	P
		1 GHz ~ 3 GHz	Fig.A.6.2.21	P
		3 GHz ~ 18 GHz	Fig.A.6.2.22	P

802.11n mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	Power	2.38GHz ~2.45GHz	Fig.A.6.2.23	P
	1	30 MHz ~1 GHz	Fig.A.6.2.24	P
		1 GHz ~ 3 GHz	Fig.A.6.2.25	P
		3 GHz ~ 18 GHz	Fig.A.6.2.26	P
	6	30 MHz ~1 GHz	Fig.A.6.2.27	P
		1 GHz ~ 3 GHz	Fig.A.6.2.28	P
		3 GHz ~ 18 GHz	Fig.A.6.2.29	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.30	P
	11	30 MHz ~1 GHz	Fig.A.6.2.31	P
		1 GHz ~ 3 GHz	Fig.A.6.2.32	P
		3 GHz ~ 18 GHz	Fig.A.6.2.33	P
	802.11n (HT40)	Power	2.38GHz ~2.45GHz	Fig.A.6.2.34
3		30 MHz ~1 GHz	Fig.A.6.2.35	P
		1 GHz ~ 3 GHz	Fig.A.6.2.36	P
		3 GHz ~ 18 GHz	Fig.A.6.2.37	P

	6	30 MHz ~ 1 GHz	Fig.A.6.2.38	P
		1 GHz ~ 3 GHz	Fig.A.6.2.39	P
		3 GHz ~ 18 GHz	Fig.A.6.2.40	P
	Power	2.45GHz ~ 2.5GHz	Fig.A.6.2.41	P
	9	30 MHz ~ 1 GHz	Fig.A.6.2.42	P
		1 GHz ~ 3 GHz	Fig.A.6.2.43	P
3 GHz ~ 18 GHz		Fig.A.6.2.44	P	
/	All channels	18 GHz ~ 26.5 GHz	Fig.A.6.2.45	P

Conclusion: Pass

Measurement Uncertainty:

Frequency Range	Uncertainty(dB)
$f \leq 1\text{GHz}$	3.9
$f > 1\text{GHz}$	4.3

Note:

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

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

The measurement results are obtained as described below:

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

802.11b

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17598.000	58.0	-22.8	42.7	38.075	HORIZONTAL
17674.500	57.8	-22.8	42.7	37.971	HORIZONTAL
17557.500	57.7	-22.8	42.3	38.225	HORIZONTAL
17467.500	57.4	-22.8	42.6	37.585	HORIZONTAL
17931.000	57.4	-22.9	42.4	37.893	HORIZONTAL
17984.250	57.3	-22.9	42.3	37.923	HORIZONTAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17473.500	57.4	-22.8	42.6	37.585	VERTICAL
17660.250	57.3	-22.8	42.7	37.471	HORIZONTAL
16936.500	57.3	-24.0	43.3	38.009	VERTICAL
17411.250	57.3	-23.7	42.7	38.313	HORIZONTAL
17448.750	57.2	-23.7	42.7	38.183	HORIZONTAL
17691.750	57.1	-22.8	42.3	37.601	VERTICAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17948.250	58.4	-22.9	42.4	38.893	VERTICAL
17445.750	57.7	-23.7	42.7	38.683	VERTICAL
17532.750	57.5	-22.8	42.9	37.355	HORIZONTAL
17929.500	57.5	-22.9	42.4	37.993	VERTICAL
17630.250	57.4	-22.8	42.7	37.515	HORIZONTAL
17827.500	57.4	-22.9	42.3	37.973	VERTICAL

802.11g

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17544.750	58.0	-22.8	42.9	37.855	VERTICAL
17892.750	57.8	-22.9	42.5	38.193	HORIZONTAL
17321.250	57.6	-23.7	43.1	38.273	VERTICAL
17456.250	57.6	-23.7	42.6	38.723	VERTICAL
17555.250	57.3	-22.8	42.3	37.825	HORIZONTAL
17904.000	57.3	-22.9	42.7	37.533	VERTICAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17567.250	58.5	-22.8	42.3	39.025	HORIZONTAL
17390.250	58.4	-23.7	42.8	39.323	VERTICAL
17506.500	57.7	-22.8	42.8	37.715	HORIZONTAL
17619.000	57.7	-22.8	42.8	37.725	VERTICAL
17441.250	57.7	-23.7	42.7	38.683	HORIZONTAL
17505.000	57.4	-22.8	42.8	37.415	HORIZONTAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17567.250	58.5	-22.8	42.3	39.025	HORIZONTAL
17390.250	58.4	-23.7	42.8	39.323	VERTICAL
17506.500	57.7	-22.8	42.8	37.715	HORIZONTAL
17619.000	57.7	-22.8	42.8	37.725	VERTICAL
17441.250	57.7	-23.7	42.7	38.683	HORIZONTAL
17505.000	57.4	-22.8	42.8	37.415	HORIZONTAL

802.11n-HT20

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17490.750	58.2	-22.8	43.0	37.945	VERTICAL
17721.750	58.2	-22.8	42.8	38.211	VERTICAL
17592.000	57.9	-22.8	42.7	37.975	HORIZONTAL
17353.500	57.5	-23.7	43.0	38.253	VERTICAL
17455.500	57.5	-23.7	42.6	38.623	HORIZONTAL
18000.000	57.5	-22.4	42.7	37.179	HORIZONTAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17925.750	57.6	-22.9	42.4	38.093	HORIZONTAL
17216.250	57.3	-23.7	43.0	37.943	VERTICAL
17550.750	57.3	-22.8	42.3	37.825	VERTICAL
17488.500	57.3	-22.8	43.0	37.045	HORIZONTAL
17418.750	57.3	-23.7	42.7	38.313	HORIZONTAL
17421.000	57.2	-23.7	42.7	38.213	HORIZONTAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17494.500	57.9	-22.8	43.0	37.645	VERTICAL
17448.750	57.8	-23.7	42.7	38.783	VERTICAL
17633.250	57.8	-22.8	42.7	37.971	HORIZONTAL
17472.000	57.5	-22.8	42.6	37.685	VERTICAL
17106.750	57.4	-23.9	42.6	38.680	HORIZONTAL
17702.250	57.3	-22.8	42.8	37.311	HORIZONTAL

802.11n-HT40

Ch3

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17754.000	57.5	-22.8	42.2	38.171	HORIZONTAL
17720.250	57.4	-22.8	42.8	37.411	VERTICAL
17597.250	57.4	-22.8	42.7	37.475	VERTICAL
17187.000	57.3	-23.7	43.1	37.863	VERTICAL
17444.250	57.3	-23.7	42.7	38.283	VERTICAL
17454.000	57.2	-23.7	42.6	38.323	VERTICAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
16860.000	58.3	-24.0	43.4	38.979	VERTICAL
17977.500	58.2	-22.9	42.3	38.823	HORIZONTAL
17391.000	58.0	-23.7	42.8	38.923	HORIZONTAL
17105.250	57.9	-23.9	42.6	39.180	VERTICAL
17404.500	57.8	-23.7	42.7	38.813	HORIZONTAL
17989.500	57.6	-22.5	42.3	37.867	VERTICAL

Ch9

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17951.250	57.7	-22.9	42.7	37.883	HORIZONTAL
17518.500	57.6	-22.8	42.8	37.615	HORIZONTAL
17994.750	57.5	-22.5	42.3	37.767	VERTICAL
17797.500	57.4	-22.8	42.0	38.291	HORIZONTAL
17531.250	57.4	-22.8	42.9	37.255	VERTICAL
17876.250	57.4	-22.9	42.5	37.793	HORIZONTAL

Test graphs as below:

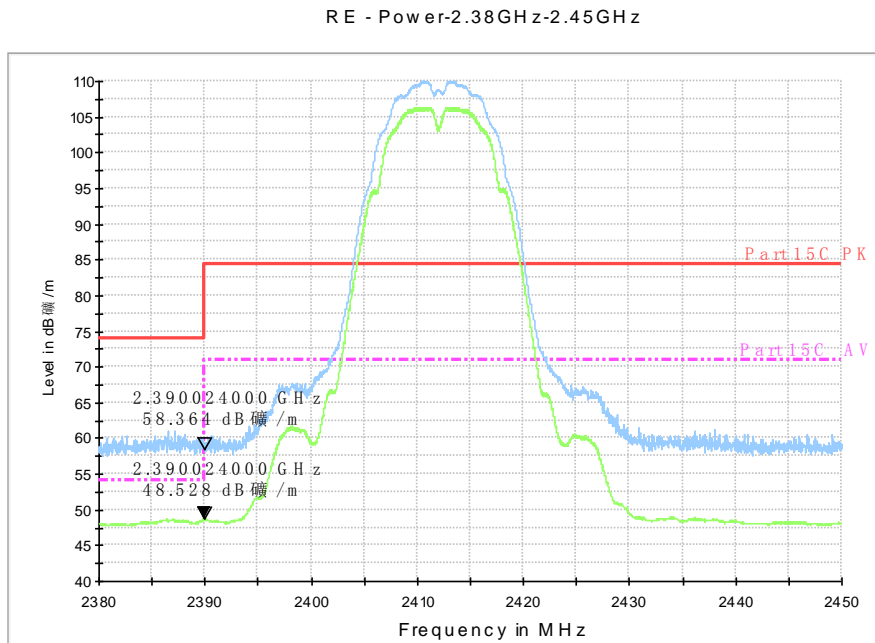


Fig.A.6.2.1 Radiated Spurious Emission (Power): 802.11b, ch1, 2.38 GHz – 2.45GHz

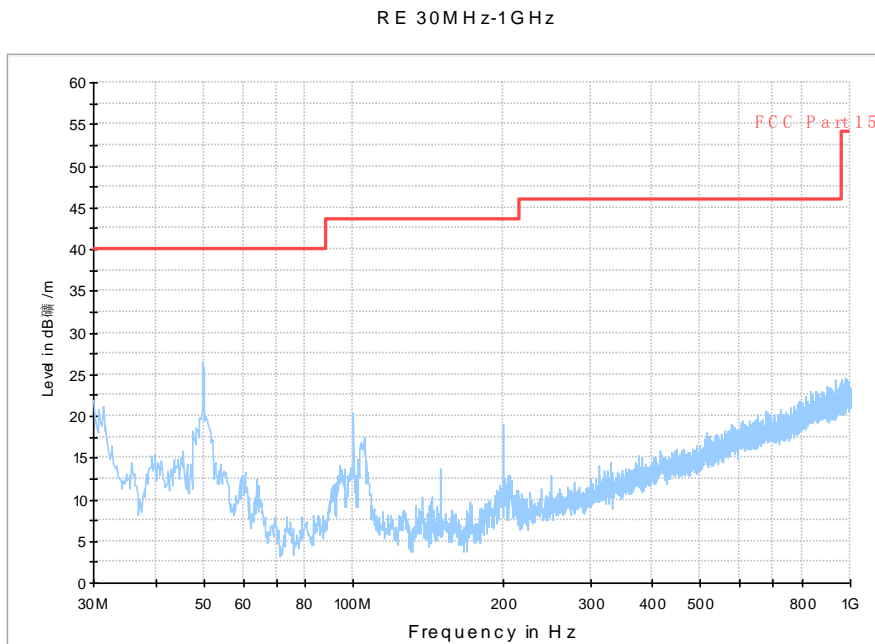


Fig.A.6.2.2 Radiated Spurious Emission (802.11b, Ch1, 30 MHz-1 GHz)

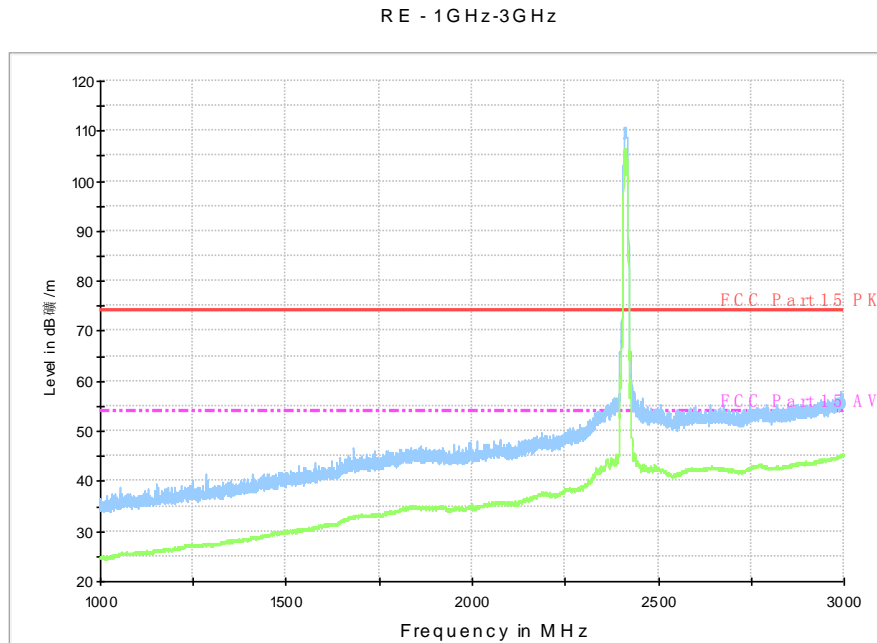


Fig.A.6.2.3 Radiated Spurious Emission (802.11b, Ch1, 1 GHz-3 GHz)

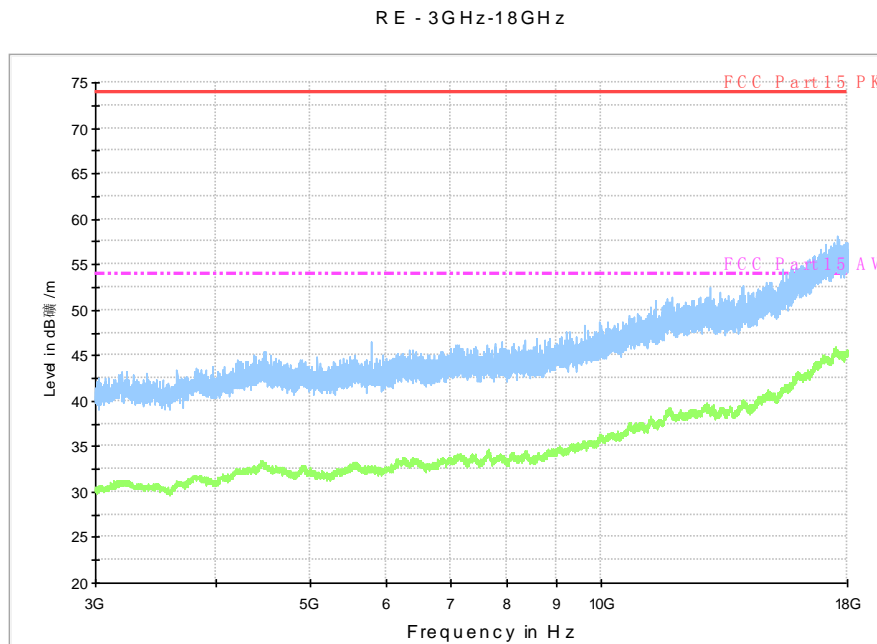


Fig.A.6.2.4 Radiated Spurious Emission (802.11b, Ch1, 3 GHz-18 GHz)

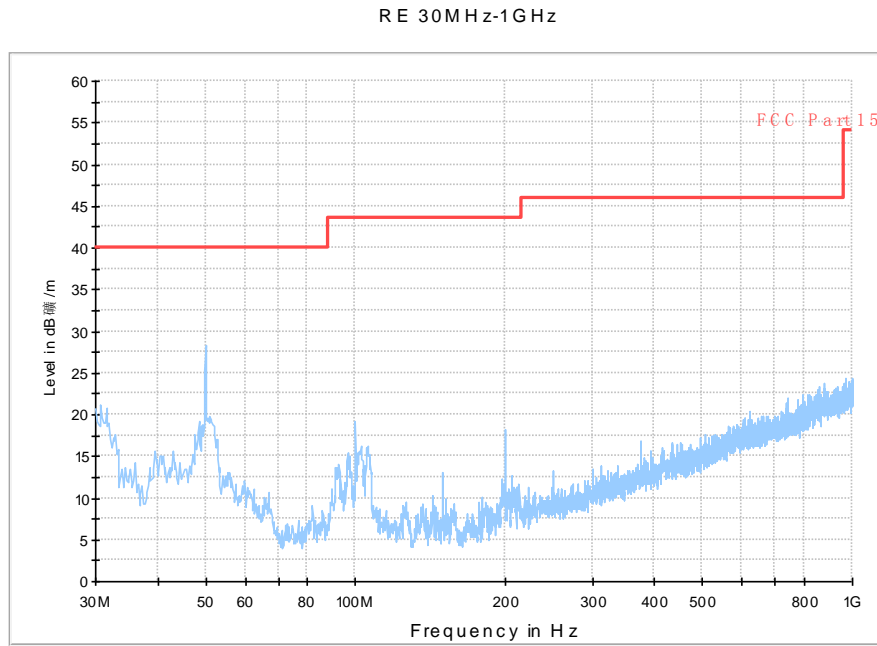


Fig.A.6.2.5 Radiated Spurious Emission (802.11b, Ch6, 30 MHz-1 GHz)

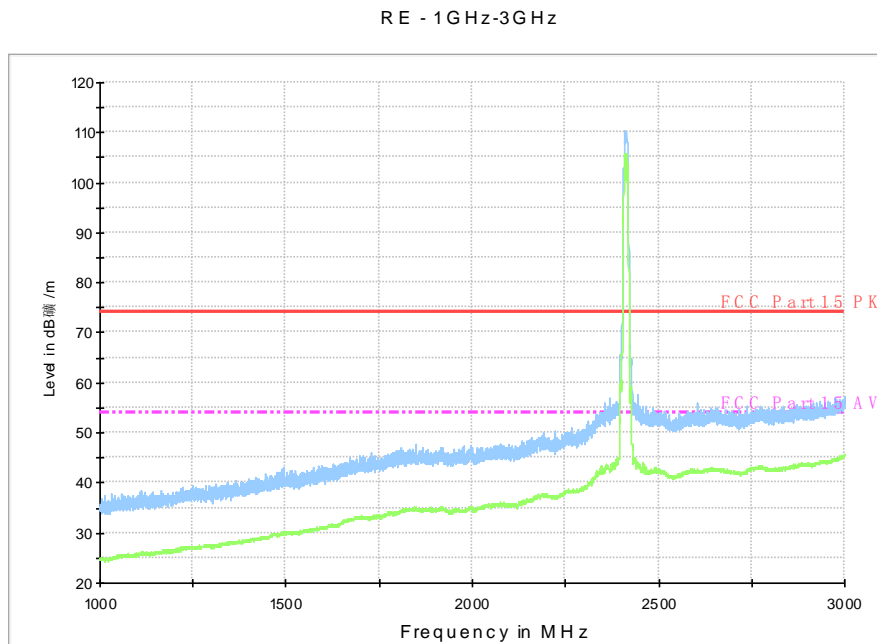


Fig.A.6.2.6 Radiated Spurious Emission (802.11b, Ch6, 1 GHz-3 GHz)

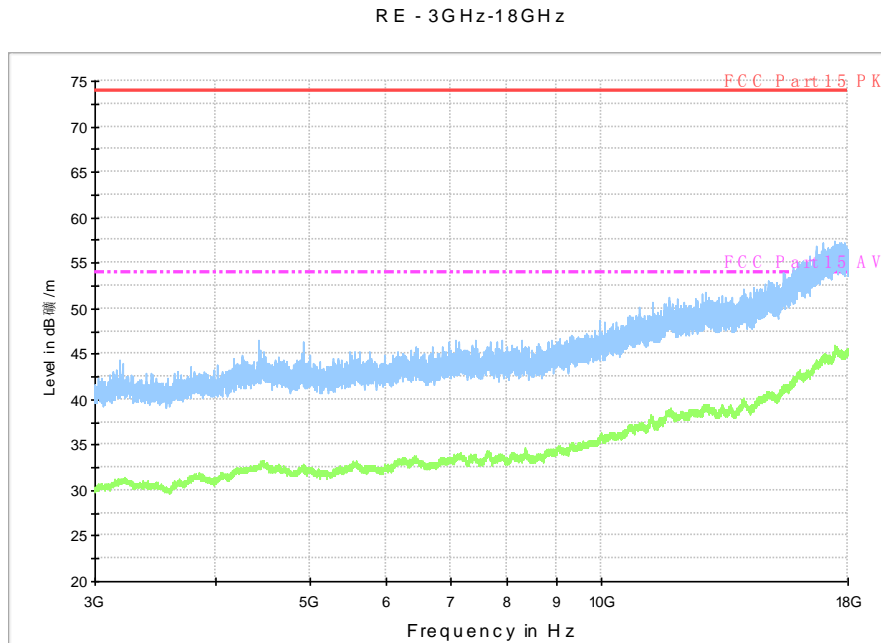


Fig.A.6.2.7 Radiated Spurious Emission (802.11b, Ch6, 3 GHz-18 GHz)

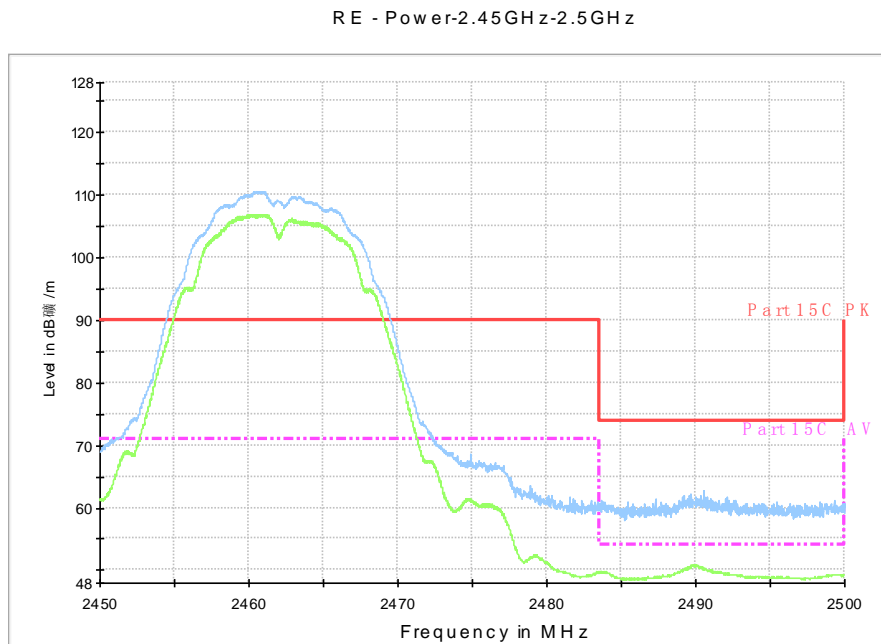


Fig.A.6.2.8 Radiated Spurious Emission (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

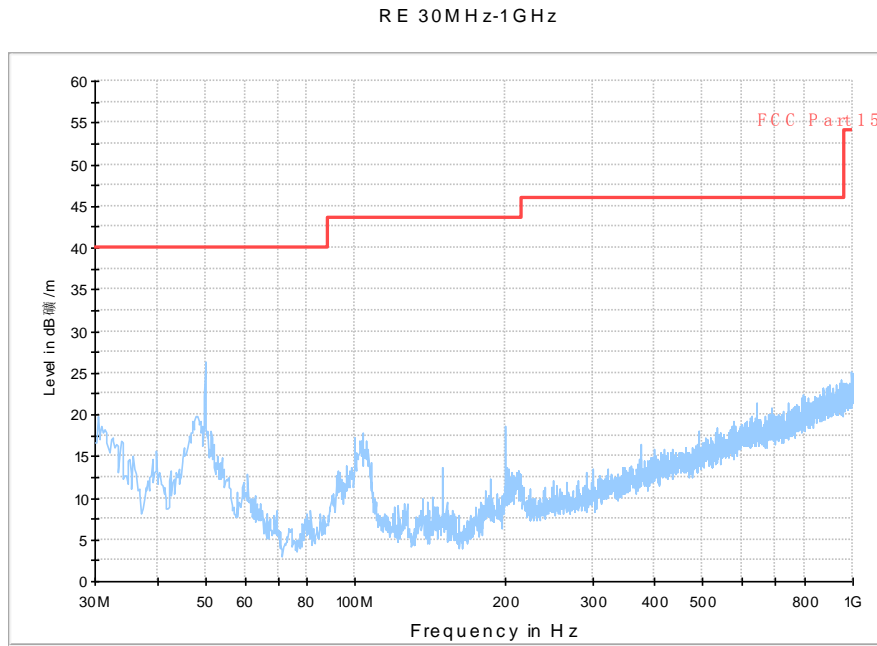


Fig.A.6.2.9 Radiated Spurious Emission (802.11b, Ch11, 30 MHz-1 GHz)

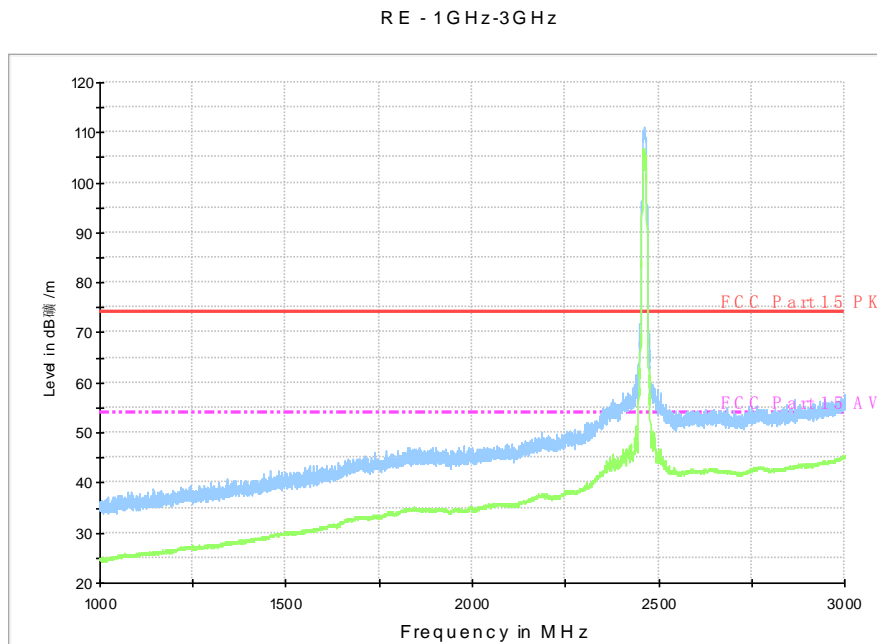


Fig.A.6.2.10 Radiated Spurious Emission (802.11b, Ch11, 1 GHz-3 GHz)

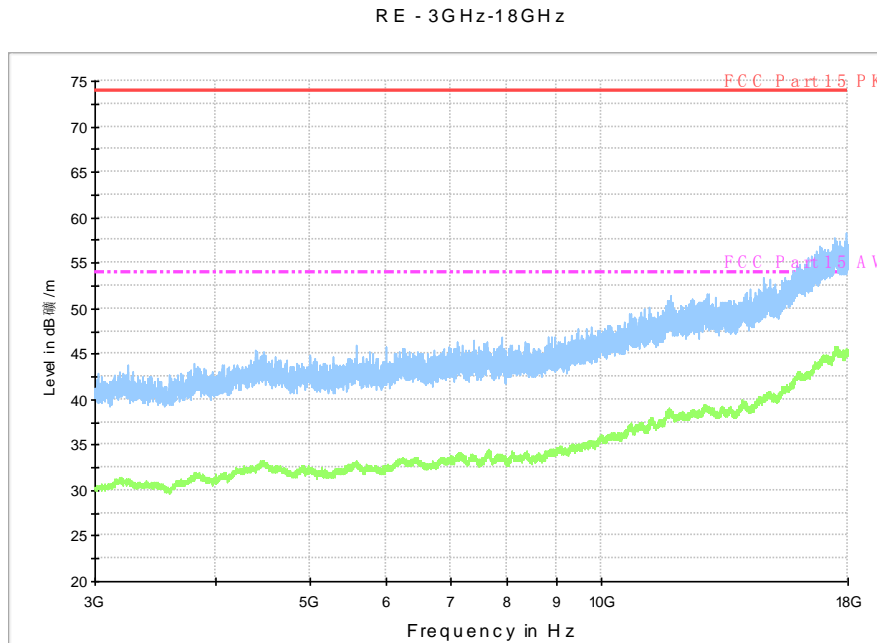


Fig.A.6.2.11 Radiated Spurious Emission (802.11b, Ch11, 3 GHz-18 GHz)

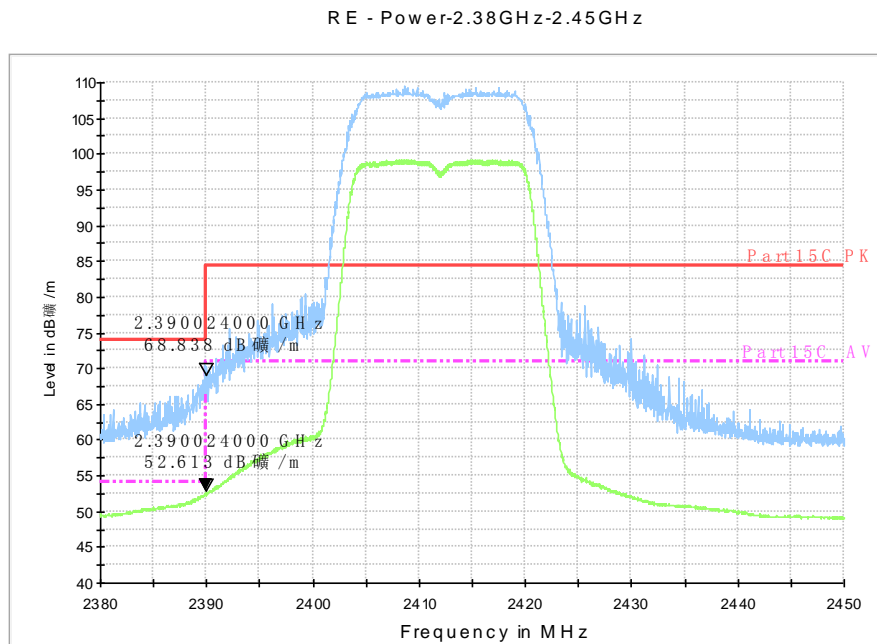


Fig.A.6.2.12 Radiated Spurious Emission (Power): 802.11g, ch1, 2.38 GHz - 2.45GHz

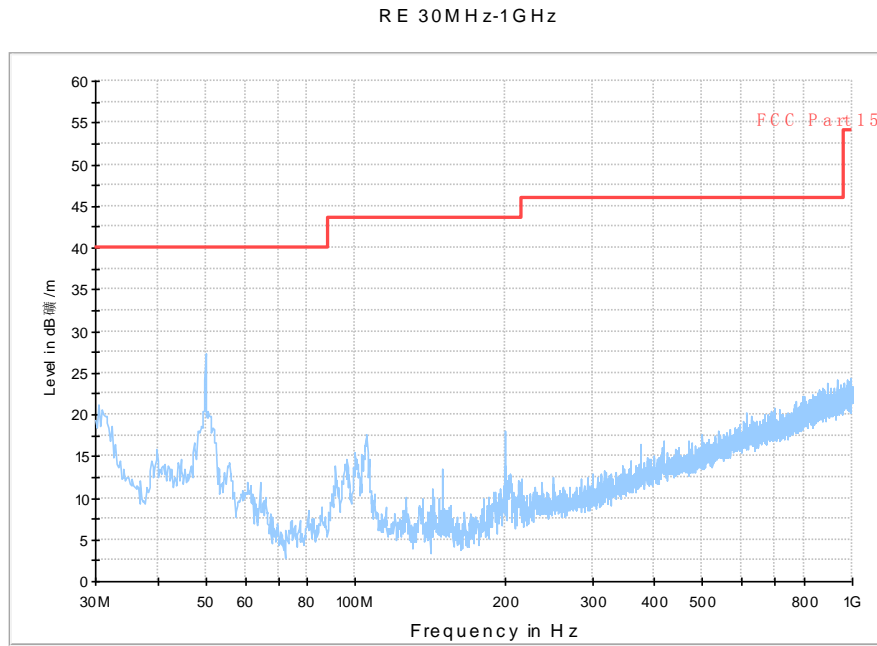


Fig.A.6.2.13 Radiated Spurious Emission (802.11g, Ch1, 30 MHz-1 GHz)

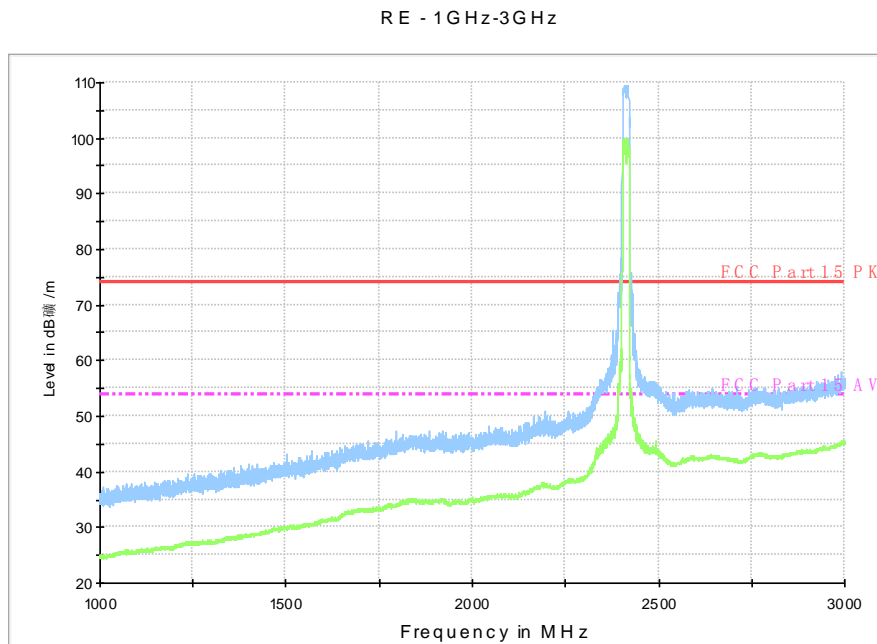


Fig.A.6.2.14 Radiated Spurious Emission (802.11g, Ch1, 1 GHz-3 GHz)

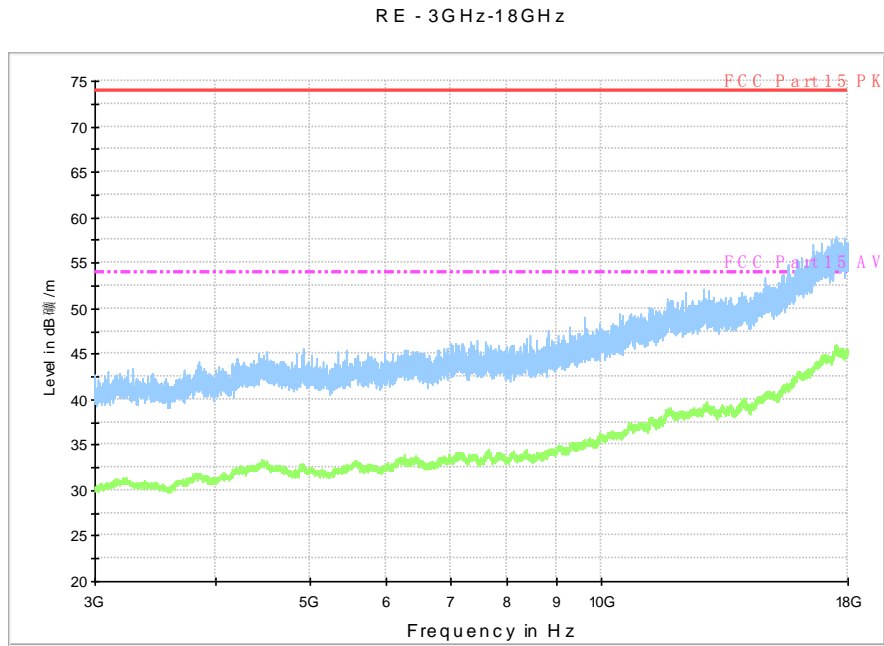


Fig.A.6.2.15 Radiated Spurious Emission (802.11g, Ch1, 3 GHz-18 GHz)

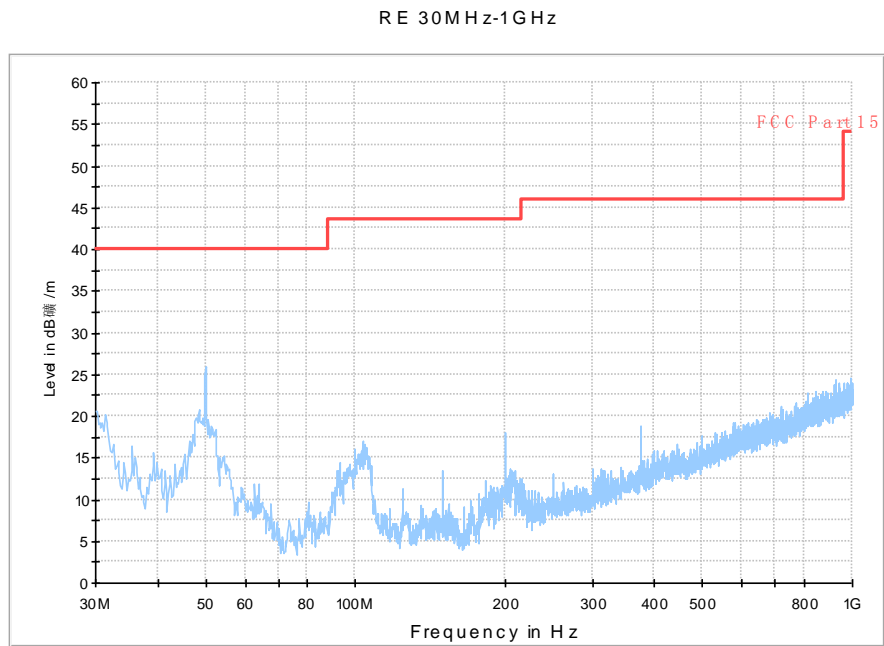


Fig.A.6.2.16 Radiated Spurious Emission (802.11g, Ch6, 30 MHz-1 GHz)

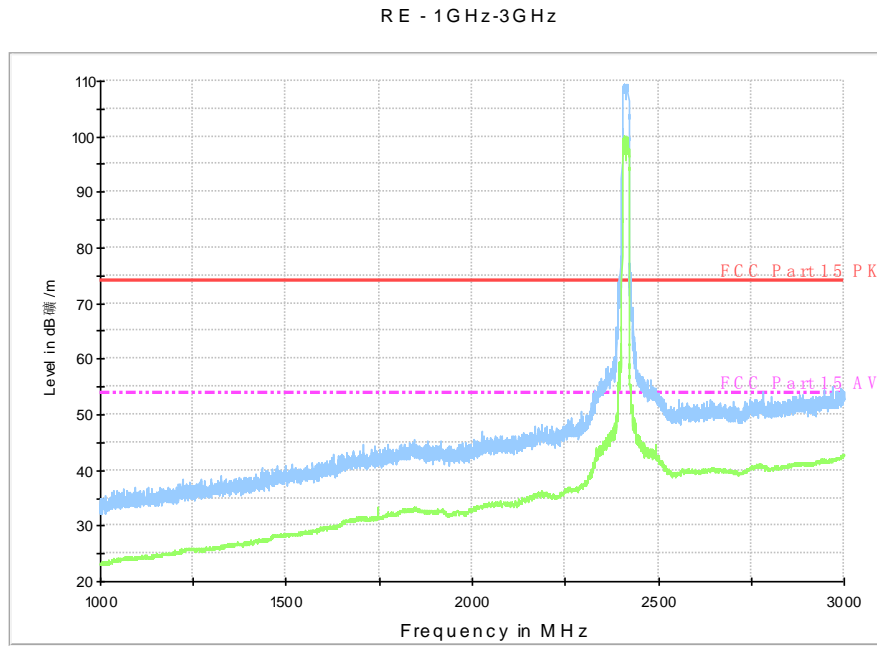


Fig.A.6.2.17 Radiated Spurious Emission (802.11g, Ch6, 1 GHz-3 GHz)

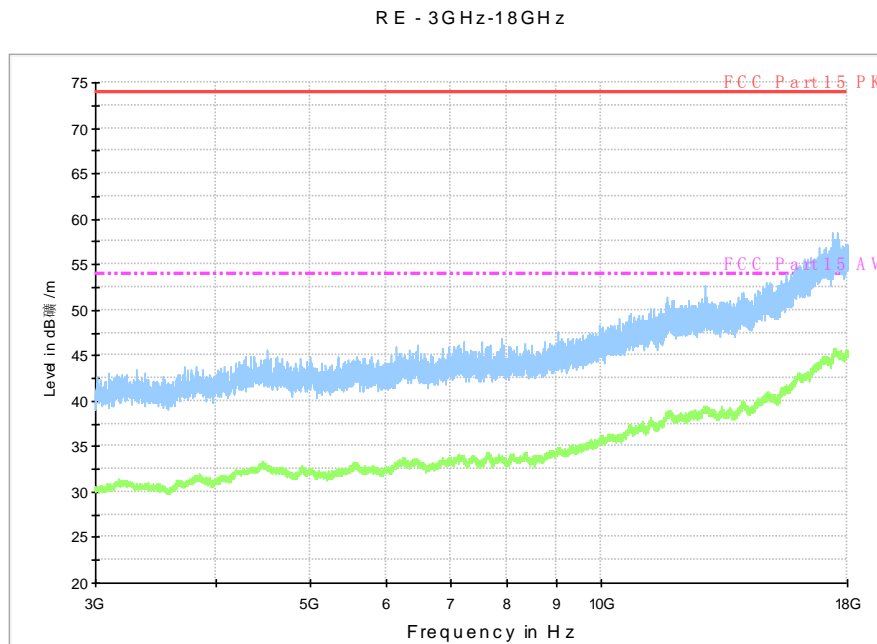


Fig.A.6.2.18 Radiated Spurious Emission (802.11g, Ch6, 3 GHz-18 GHz)

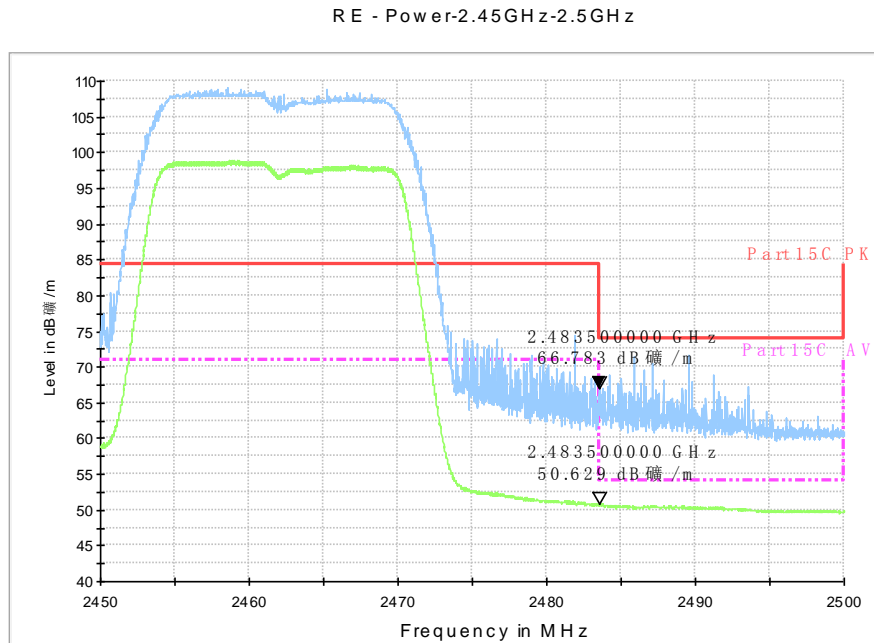


Fig.A.6.2.19 Radiated Spurious Emission (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

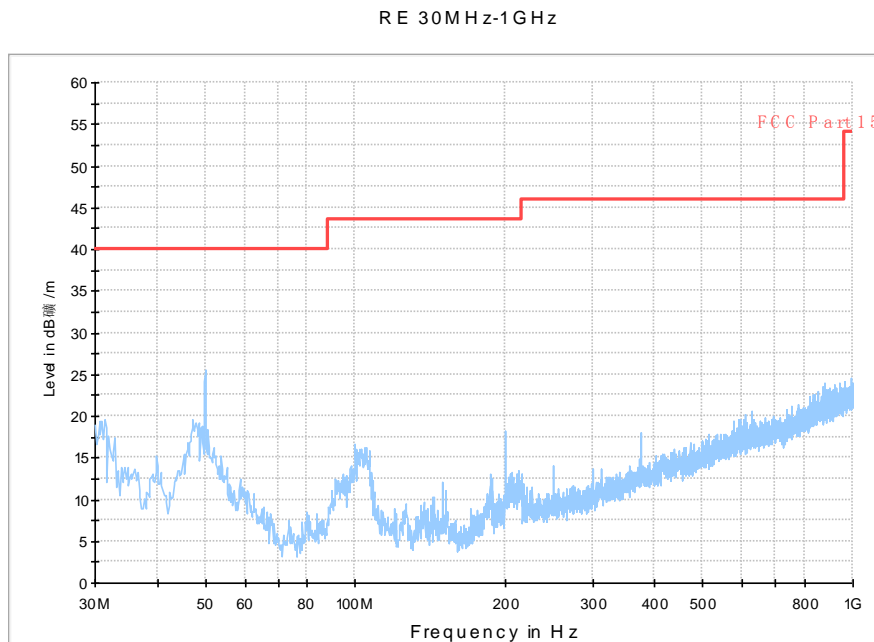


Fig.A.6.2.20 Radiated Spurious Emission (802.11g, Ch11, 30 MHz-1 GHz)

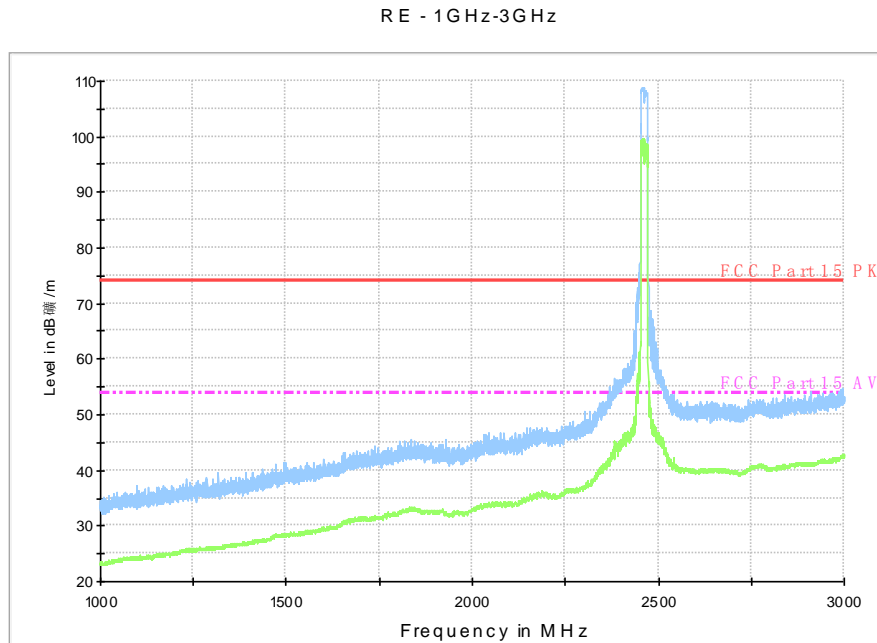


Fig.A.6.2.21 Radiated Spurious Emission (802.11g, Ch11, 1 GHz-3 GHz)

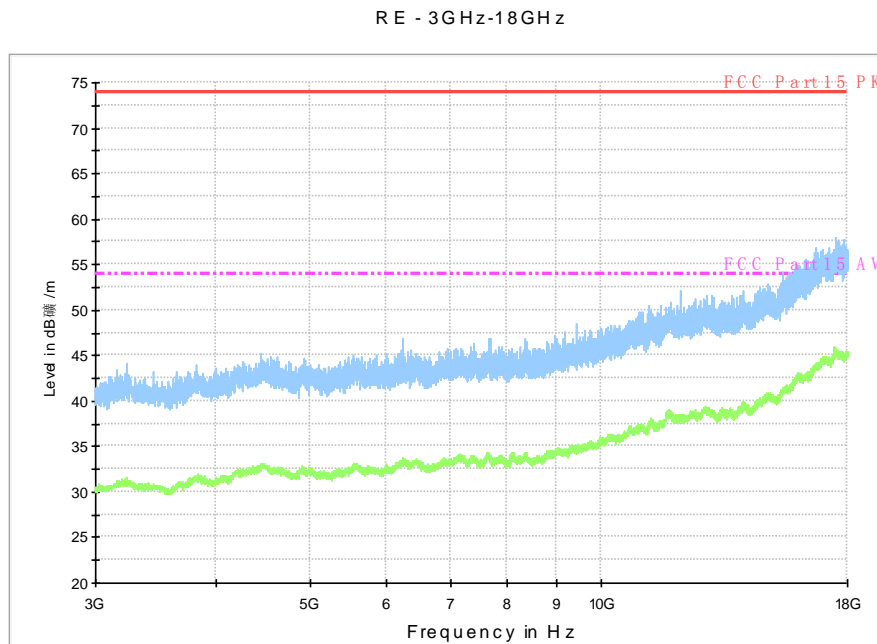


Fig.A.6.2.22 Radiated Spurious Emission (802.11g, Ch11, 3 GHz-18 GHz)

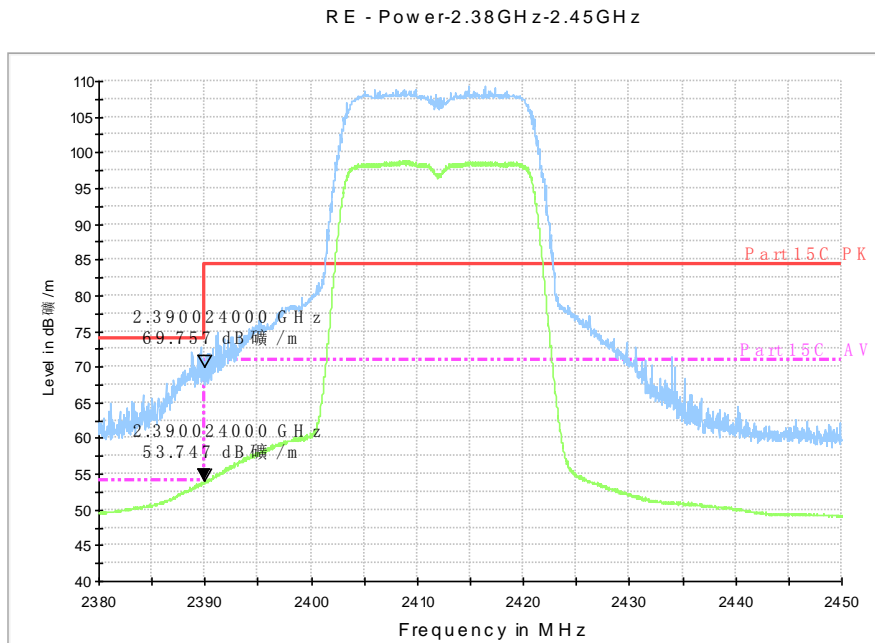


Fig.A.6.2.23 Radiated Spurious Emission (Power): 802.11n-HT20, ch1, 2.38 GHz - 2.45GHz

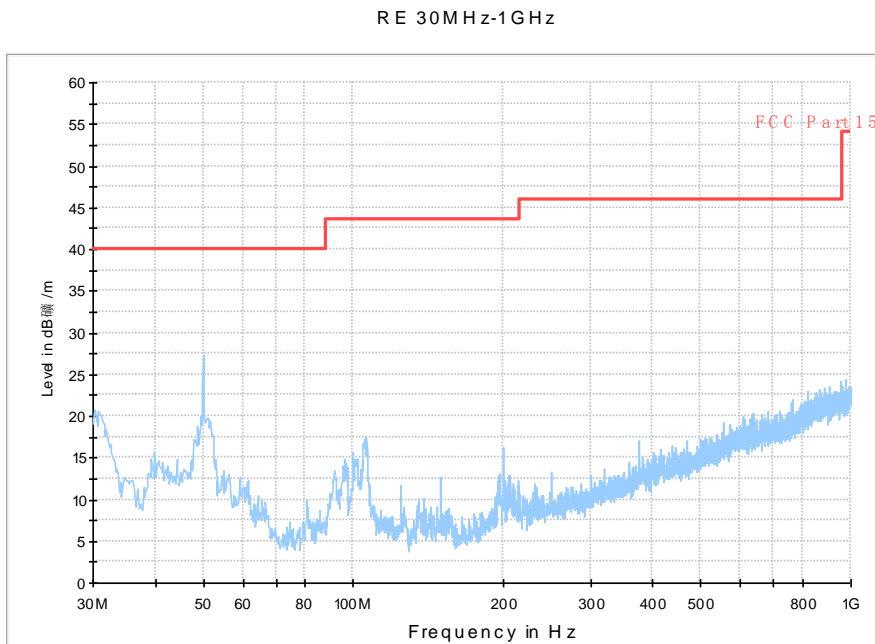


Fig.A.6.2.24 Radiated Spurious Emission (802.11n-HT20, Ch1, 30 MHz-1 GHz)

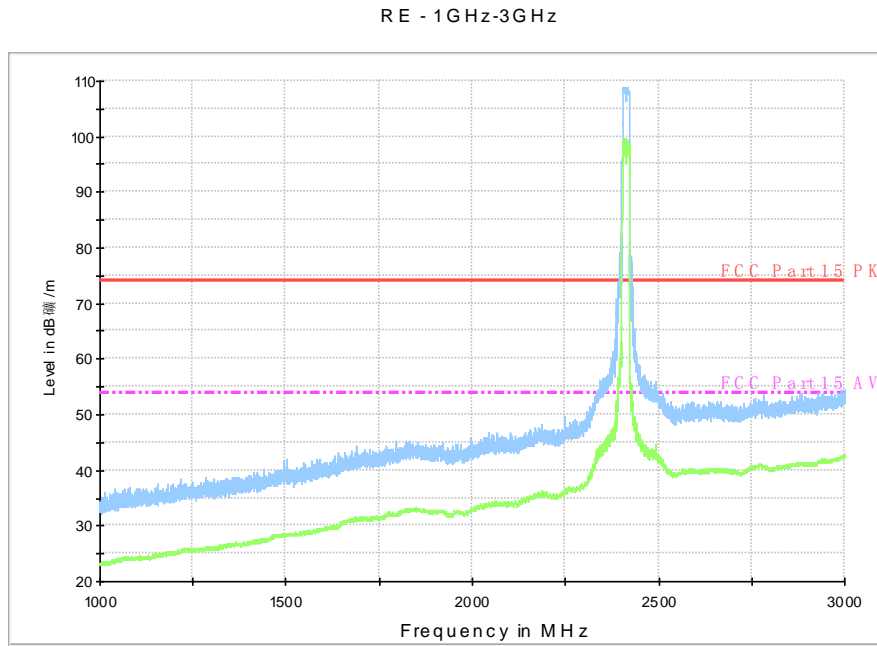


Fig.A.6.2.25 Radiated Spurious Emission (802.11n-HT20, Ch1, 1 GHz-3 GHz)

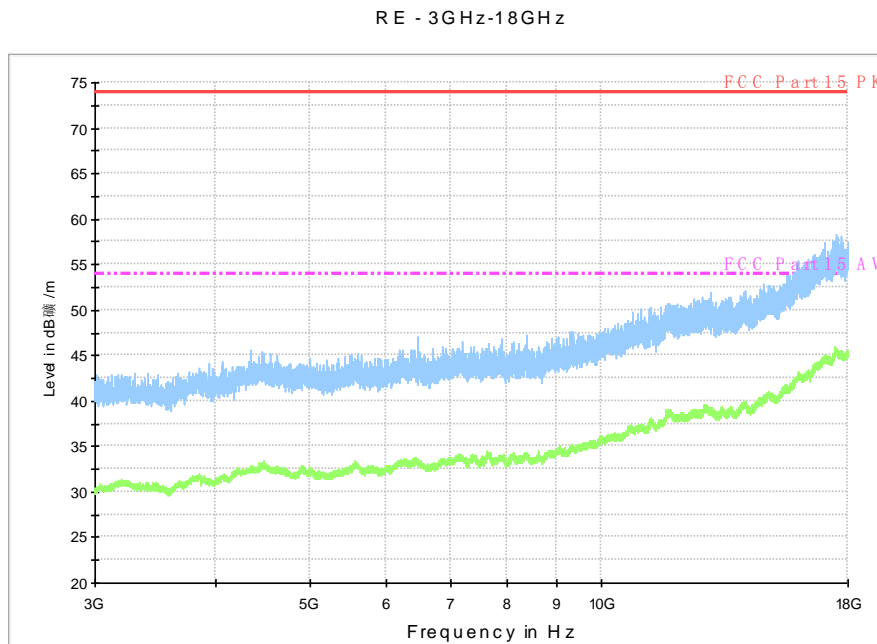


Fig.A.6.2.26 Radiated Spurious Emission (802.11n-HT20, Ch1, 3 GHz-18 GHz)

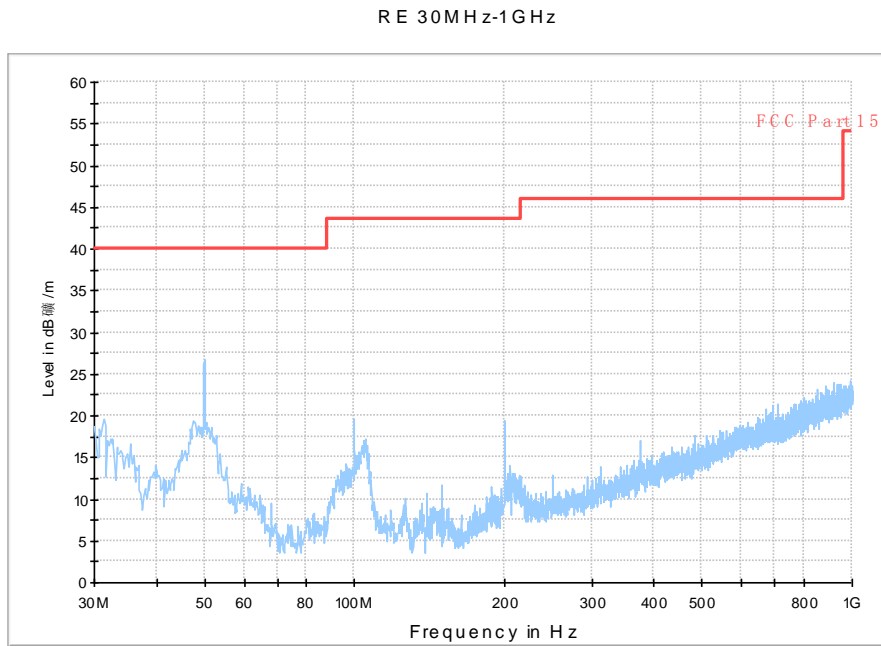


Fig.A.6.2.27 Radiated Spurious Emission (802.11n-HT20, Ch6, 30 MHz-1 GHz)

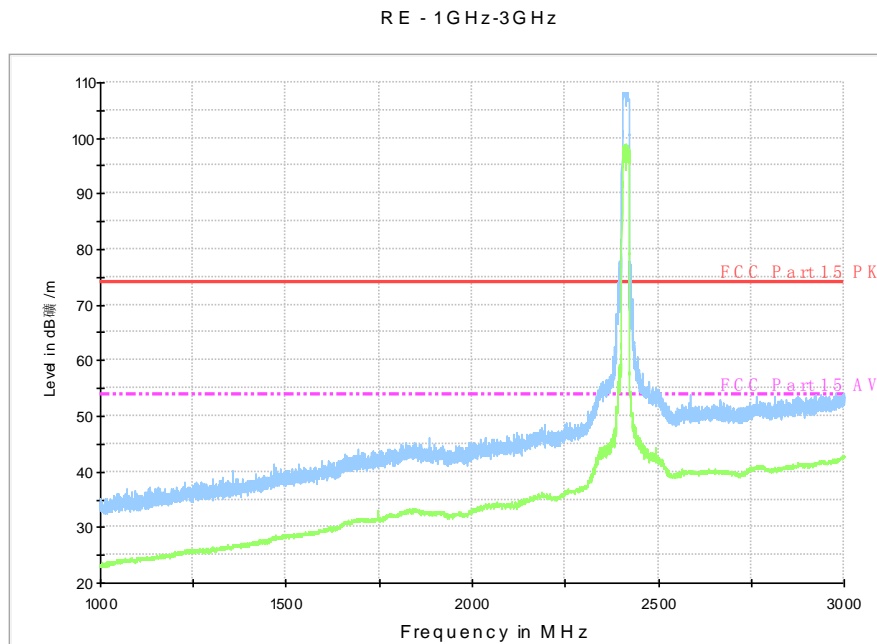


Fig.A.6.2.28 Radiated Spurious Emission (802.11n-HT20, Ch6, 1 GHz-3 GHz)

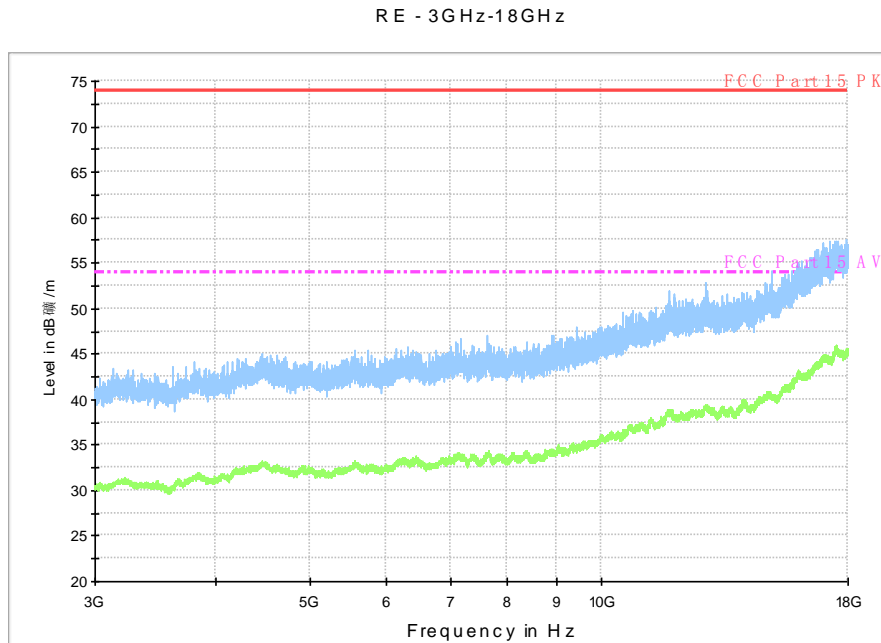


Fig.A.6.2.29 Radiated Spurious Emission (802.11n-HT20, Ch6, 3 GHz-18 GHz)

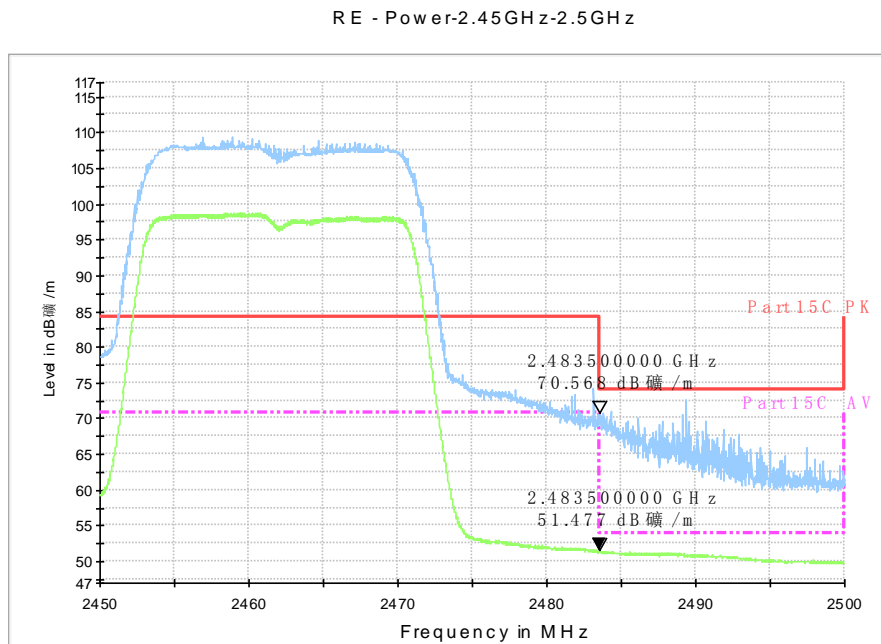


Fig.A.6.2.30 Radiated Spurious Emission (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

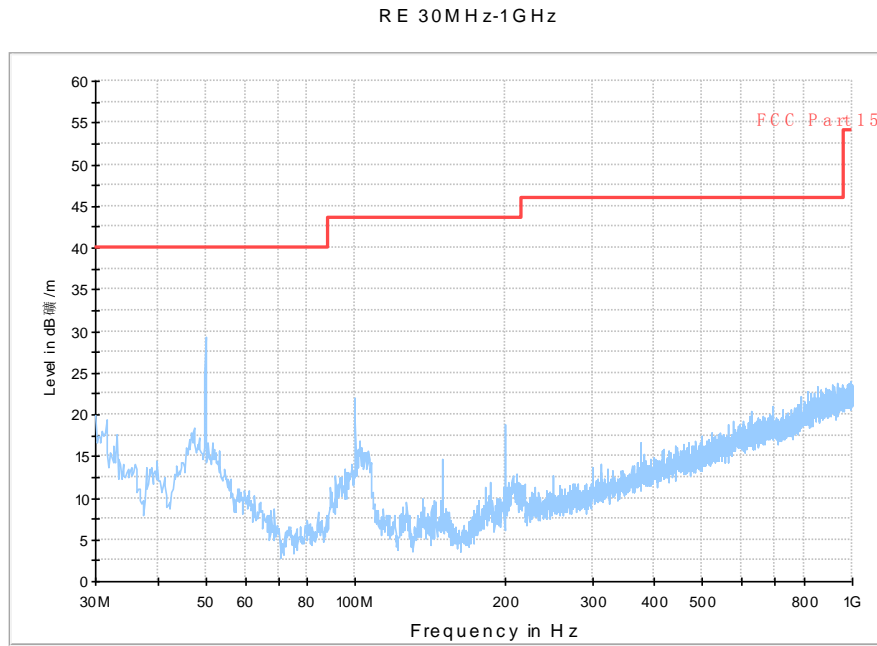


Fig.A.6.2.31 Radiated Spurious Emission (802.11n-HT20, Ch11, 30 MHz-1 GHz)

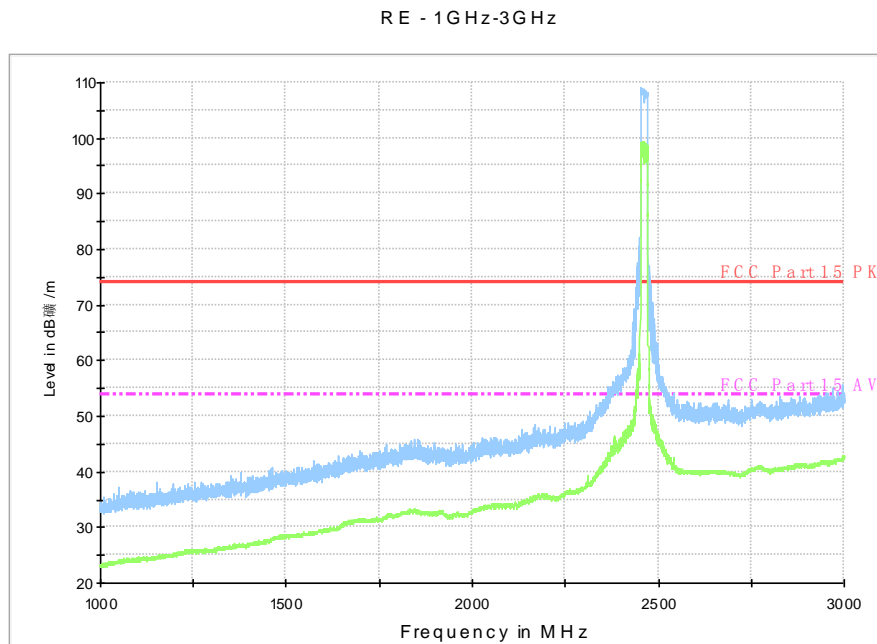


Fig.A.6.2.32 Radiated Spurious Emission (802.11n-HT20, Ch11, 1 GHz-3 GHz)

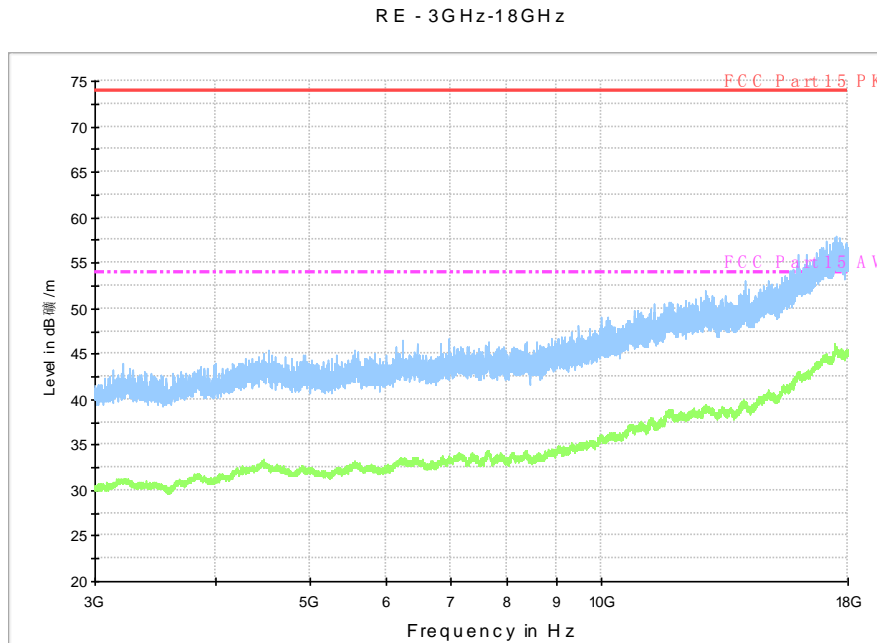


Fig.A.6.2.33 Radiated Spurious Emission (802.11n-HT20, Ch11, 3 GHz-18 GHz)

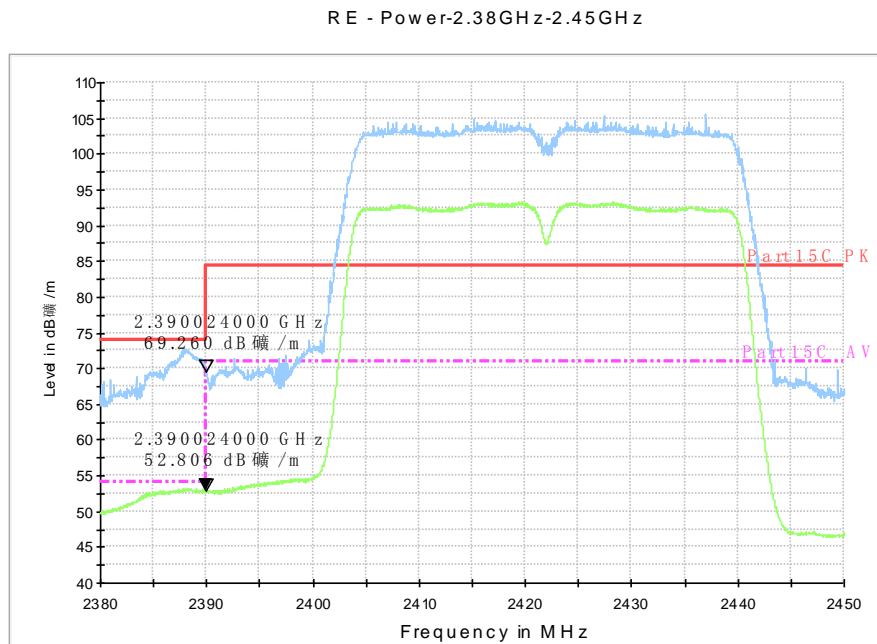


Fig.A.6.2.34 Radiated Spurious Emission (Power): 802.11n-HT40, ch3, 2.38 GHz - 2.45GHz

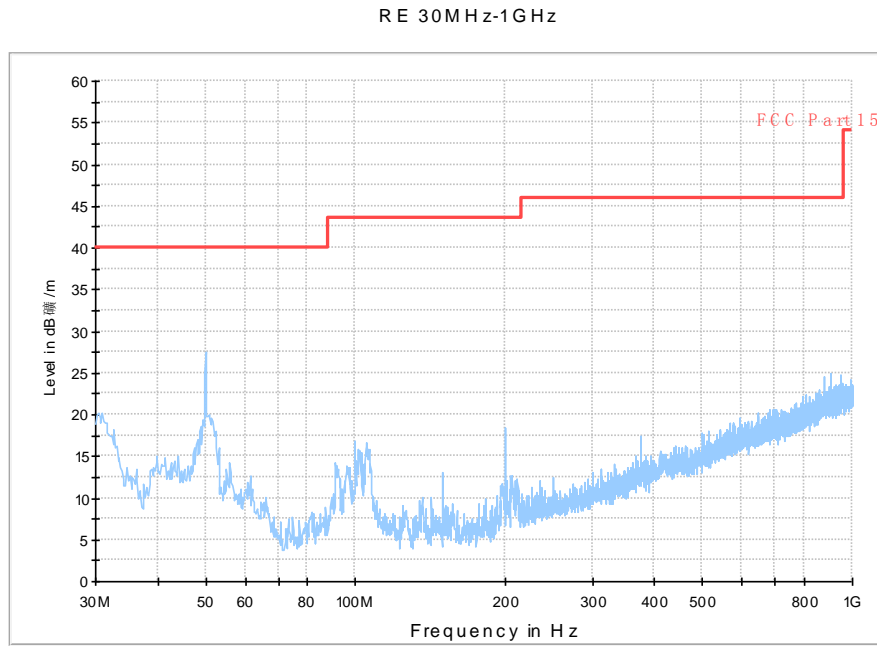


Fig.A.6.2.35 Radiated Spurious Emission (802.11n-HT40, ch3, 30 MHz-1 GHz)

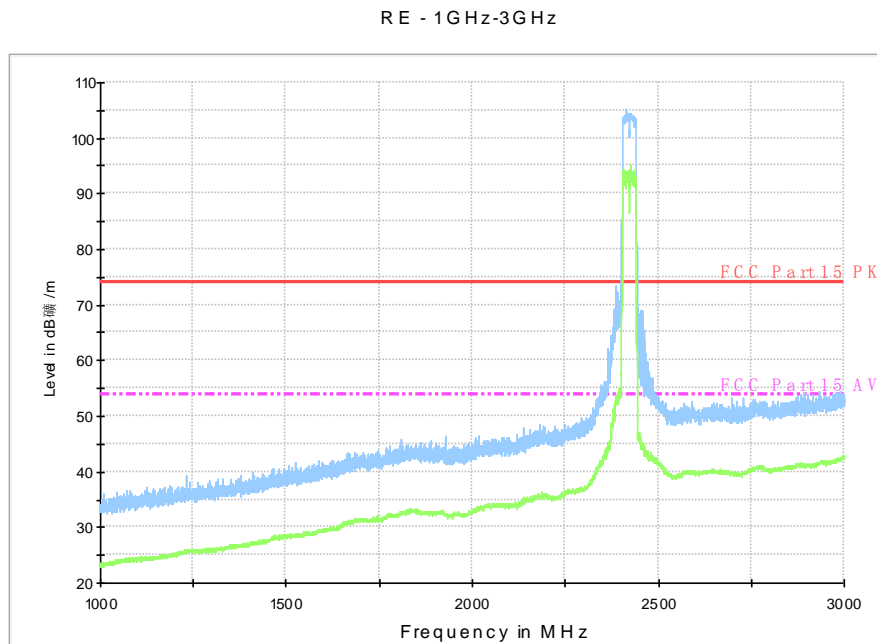


Fig.A.6.2.36 Radiated Spurious Emission (802.11n-HT40, ch3, 1 GHz-3 GHz)

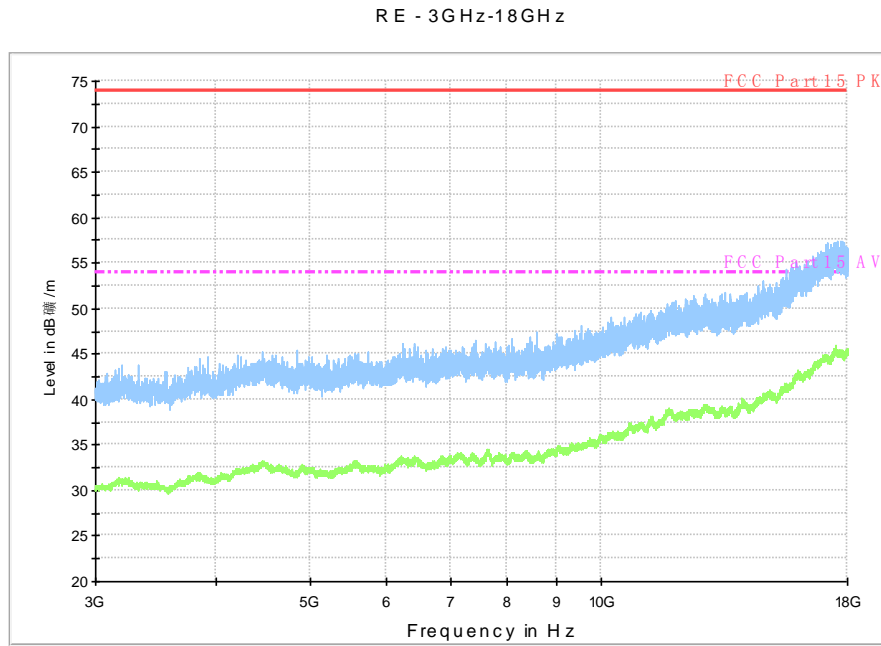


Fig.A.6.2.37 Radiated Spurious Emission (802.11n-HT40, ch3, 3 GHz-18 GHz)

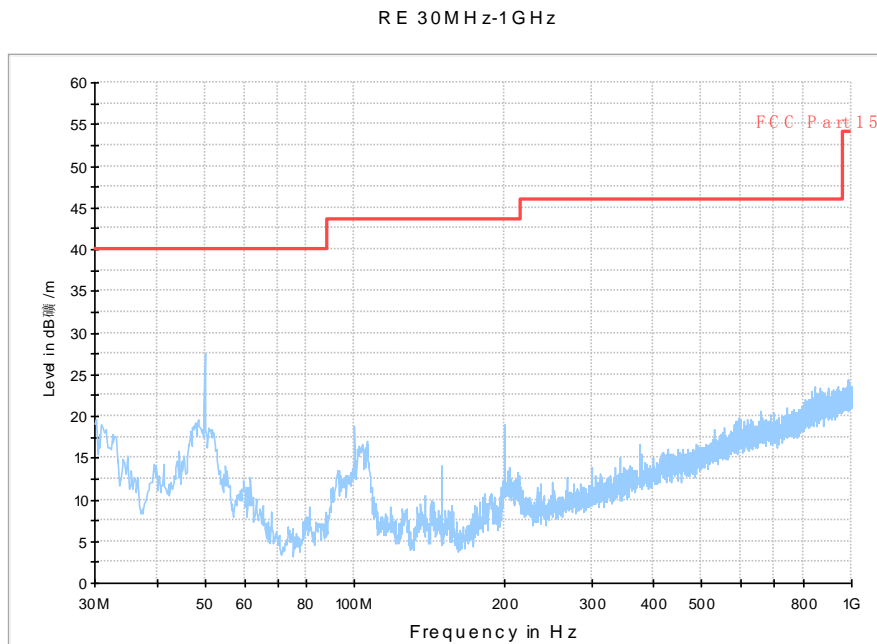


Fig.A.6.2.38 Radiated Spurious Emission (802.11n-HT40, Ch6, 30 MHz-1 GHz)

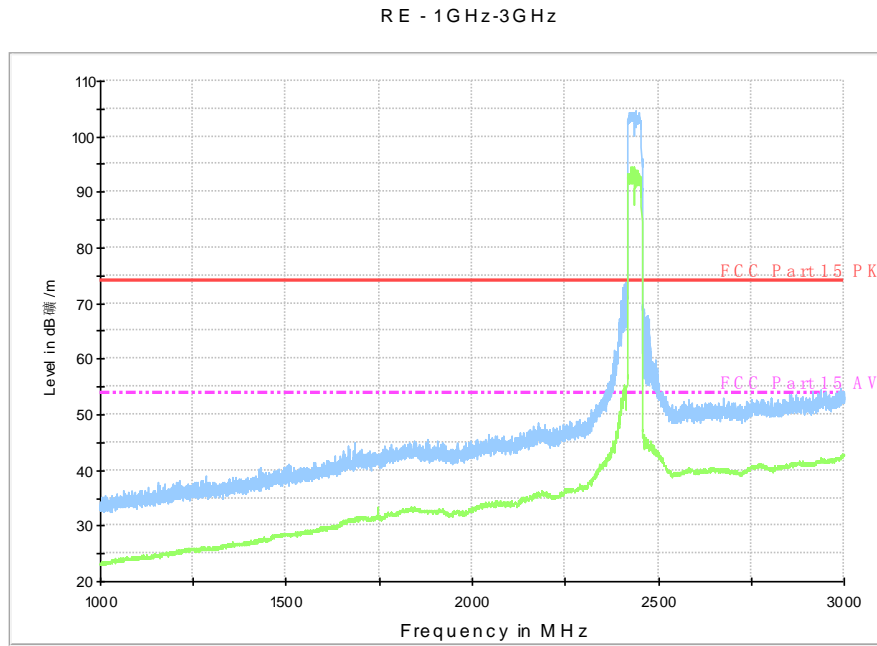


Fig.A.6.2.39 Radiated Spurious Emission (802.11n-HT40, Ch6, 1 GHz-3 GHz)

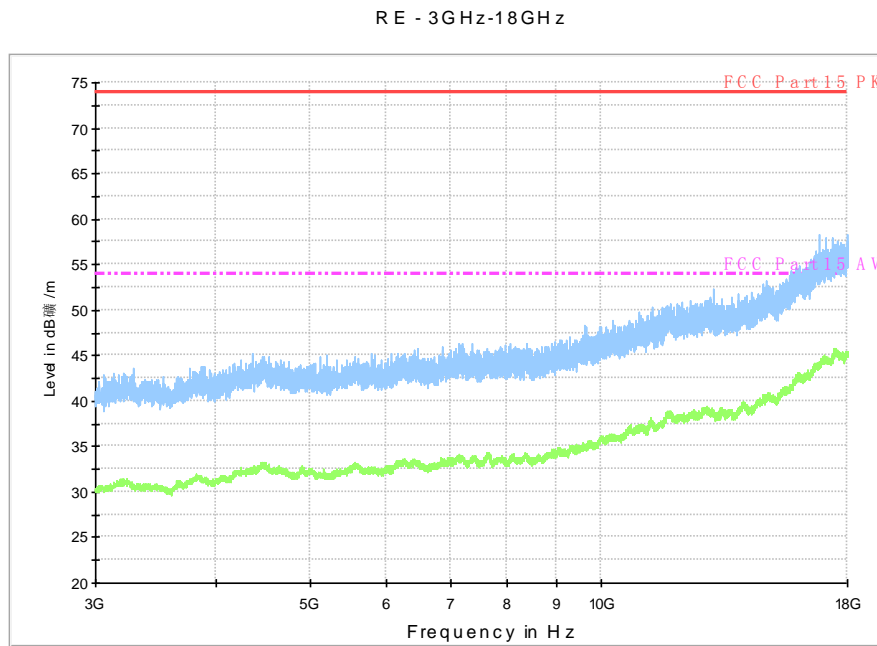


Fig.A.6.2.40 Radiated Spurious Emission (802.11n-HT40, Ch6, 3 GHz-18 GHz)

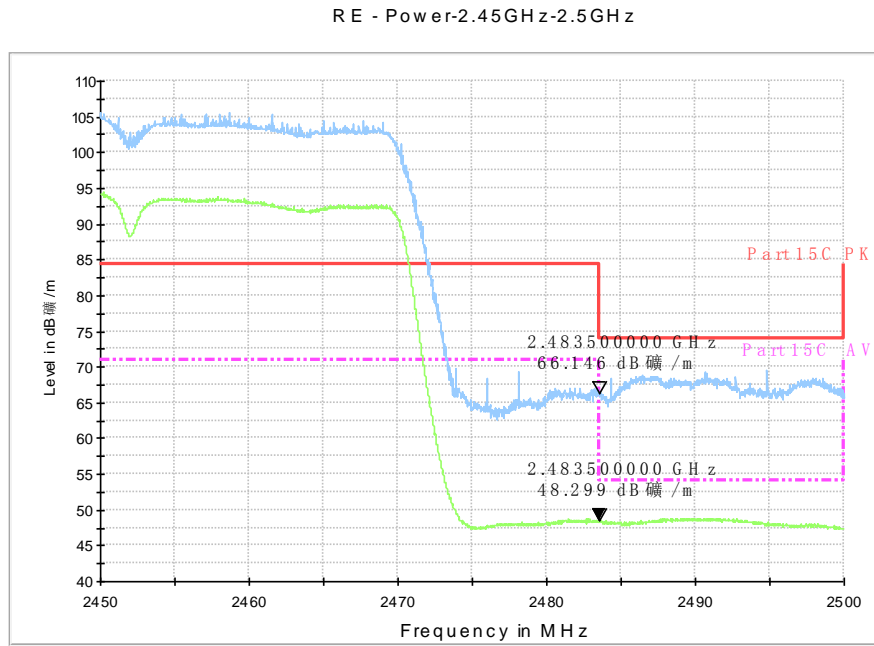


Fig.A.6.2.41 Radiated Spurious Emission (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

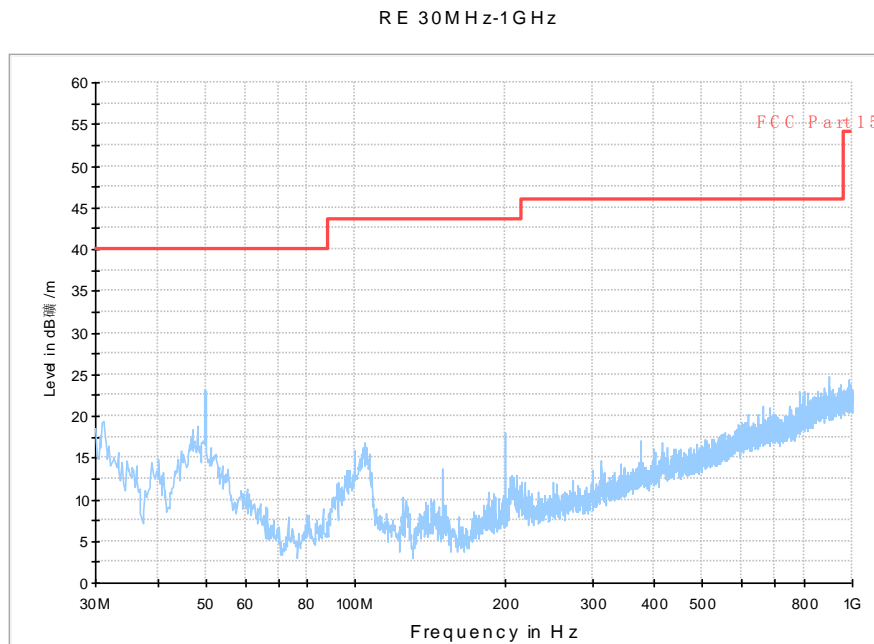


Fig.A.6.2.42 Radiated Spurious Emission (802.11n-HT40, ch9, 30 MHz-1 GHz)

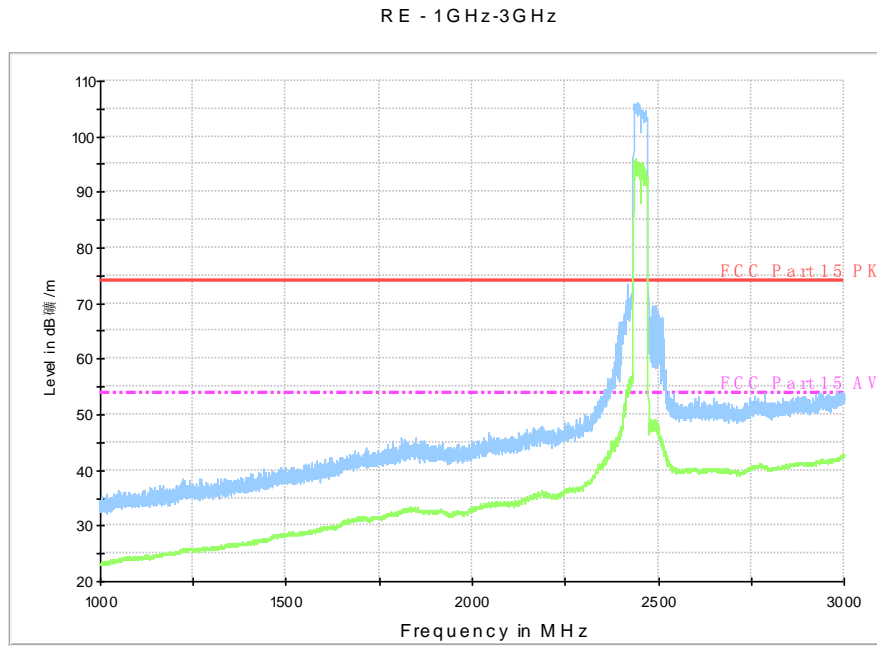


Fig.A.6.2.43 Radiated Spurious Emission (802.11n-HT40, ch9, 1 GHz-3 GHz)

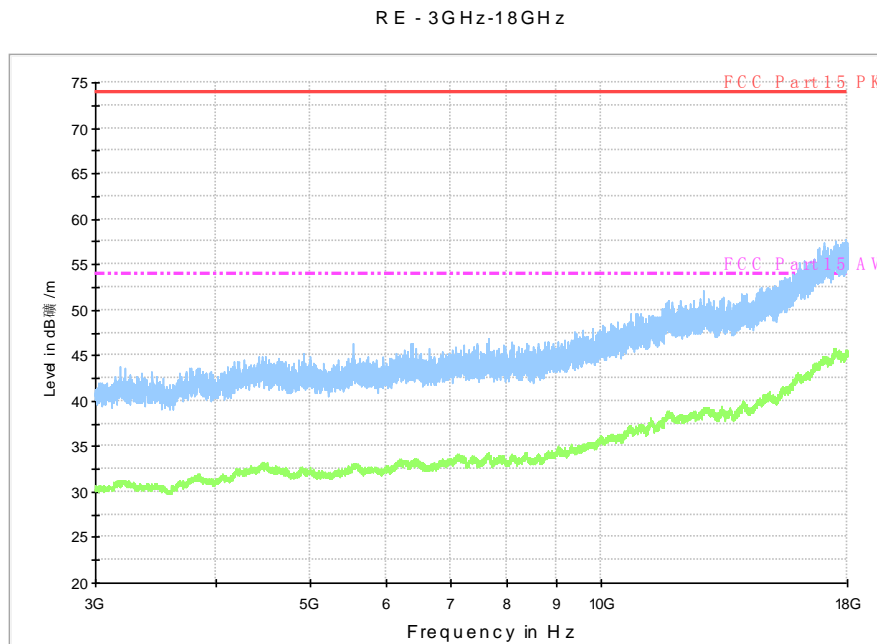


Fig.A.6.2.44 Radiated Spurious Emission (802.11n-HT40, ch9, 3 GHz-18 GHz)

18G-26.5G R E

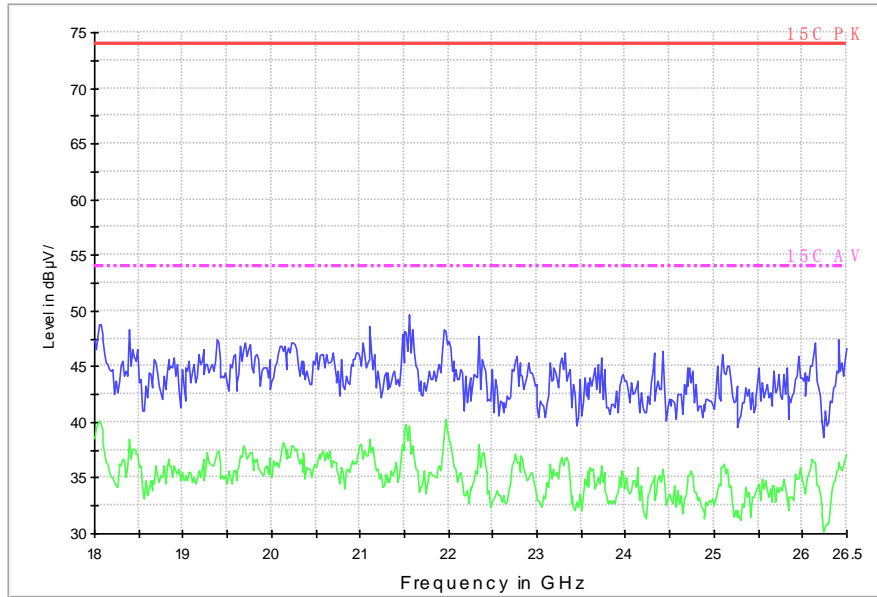


Fig.A.6.2.45 Radiated Spurious Emission (All channels): 18GHz – 26.5GHz

A.7. AC Powerline Conducted Emission

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

WLAN (Quasi-peak Limit)

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

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

WLAN (Average Limit)

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

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

The measurement is made according to KDB558074.

Conclusion: Pass

Measurement uncertainty:

Expanded measurement uncertainty for this test item is $U = 3.2\text{dB}$, $k=2$.

Test graphs as below:

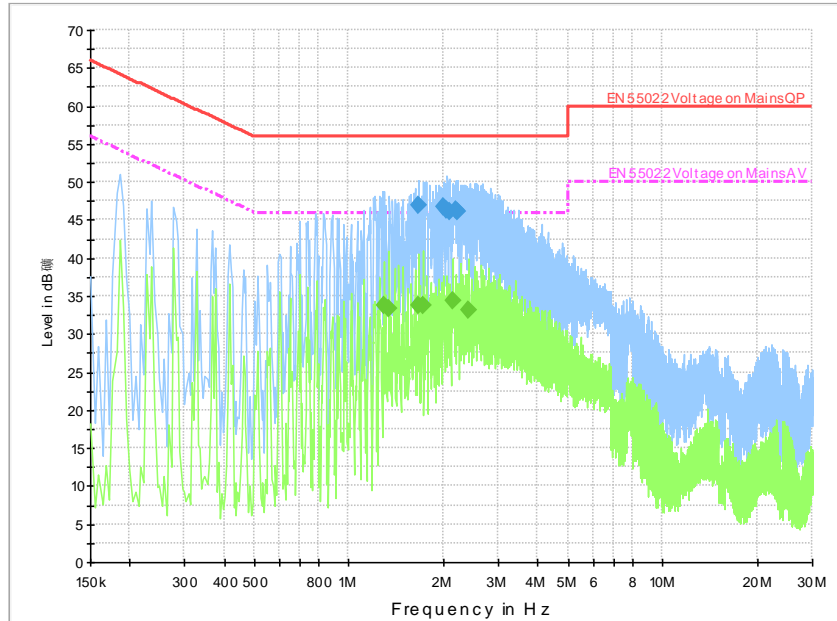


Fig.A.7.1 AC Powerline Conducted Emission-802.11b

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 μ V)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
1.671001	46.9	GND	N	9.9	9.1	56.0
1.999501	46.7	GND	N	9.9	9.3	56.0
2.058001	46.4	GND	N	9.9	9.6	56.0
2.089501	46.1	GND	N	9.9	9.9	56.0
2.184001	46.3	GND	N	9.9	9.7	56.0
2.215501	46.1	GND	N	9.9	9.9	56.0

Final Result 2

Frequency (MHz)	QuasiPeak (dB μ V)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
1.297501	33.7	GND	N	9.9	12.3	46.0
1.347001	33.3	GND	N	9.9	12.7	46.0
1.671001	33.8	GND	N	9.9	12.2	46.0
1.720501	33.8	GND	N	9.9	12.2	46.0
2.139001	34.4	GND	N	9.9	11.6	46.0
2.418001	33.1	GND	N	9.9	12.9	46.0

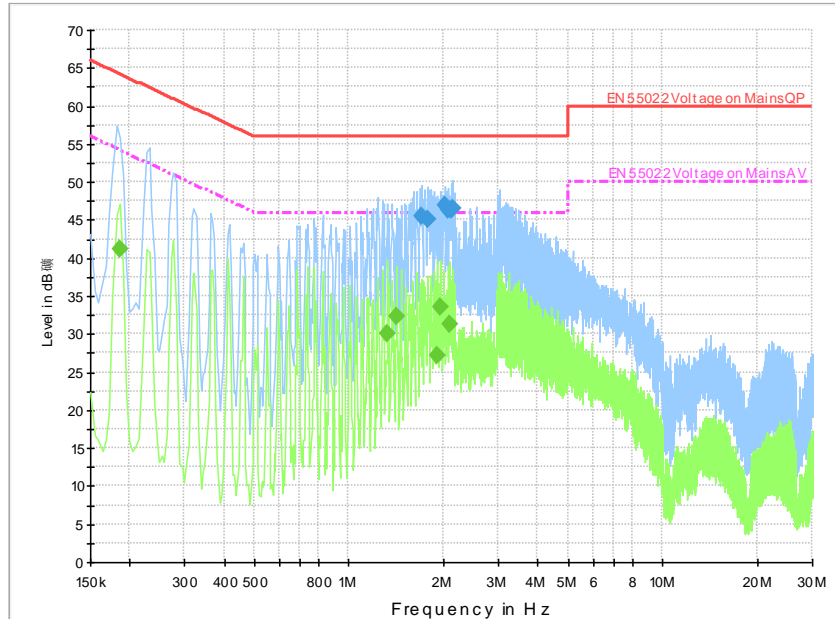


Fig.A.7.2 AC Powerline Conducted Emission-Idle

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 μ V)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
1.698001	45.5	GND	N	9.9	10.5	56.0
1.779001	45.1	GND	N	9.9	10.9	56.0
2.026501	46.9	GND	N	9.9	9.1	56.0
2.071501	46.2	GND	N	9.9	9.8	56.0
2.116501	46.4	GND	N	9.9	9.6	56.0
2.148001	46.5	GND	N	9.9	9.5	56.0

Final Result 2

Frequency (MHz)	QuasiPeak (dB μ V)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.186001	41.2	GND	N	9.9	13.0	54.2
1.324501	30.1	GND	N	9.9	15.9	46.0
1.419001	32.4	GND	N	9.9	13.6	46.0
1.914001	27.1	GND	N	9.9	18.9	46.0
1.963501	33.5	GND	N	9.9	12.5	46.0
2.103001	31.4	GND	N	9.9	14.6	46.0

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