FCC PART 15C
TEST REPORT
No. 2013WLN0707

for

TCT Mobile Limited

HSUPA/HSDPA/UMTS tri-band/GSM quad-band mobile phone

Model name: Megane 1SIM AWS TMO

Marketing Name: ONE TOUCH 5020T

With

FCC ID: RAD393

Hardware Version: PIO4

Software Version: SWL27

Issued Date: 2013-08-19

DAkkS Deutsche Akkreditierungsstelle D-PL-12123-01-01

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.

Test Laboratory:

TMC Beijing, Telecommunication Metrology Center of Ministry of Industry and Information Technology

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CONTENTS

1. TEST LABORATORY

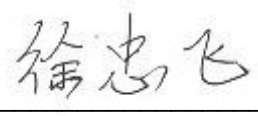
1.1. Testing Location

Company Name:	TMC Beijing, Telecommunication Metrology Center of MIIT
Address:	No. 52, Huayuan Bei Road, Haidian District, Beijing, P. R. China
Postal Code:	100191
Telephone:	008610623046332046
Fax:	008610623046332063

1.2. Project Data

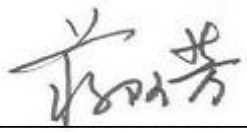
Testing Start Date:	2013-07-02
Testing End Date:	2013-08-19

1.3. Signature



Xu Zhongfei

(Prepared this test report)



Jiang Afang

(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 tri-band/GSM quad-band mobile phone
Model neme	Megane 1SIM AWS TMO
Marketing name	ONE TOUCH 5020T
FCC ID	RAD393
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	26.27dBm(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	013778000256624	PIO4	SWL27
EUT2	013584000152502	PIO4	SWL27

*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	CAB60BA000C1	/
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 tri-band/GSM quad-band 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 (a)	/	P
Peak Power Spectral Density	15.247 (d)	/	P
Occupied 6dB Bandwidth	15.247 (d)	/	P
Band Edges Compliance	15.247 (b)	/	P
Transmitter Spurious Emission - Conducted	15.247	/	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.

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℃
Voltage	3.8V (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

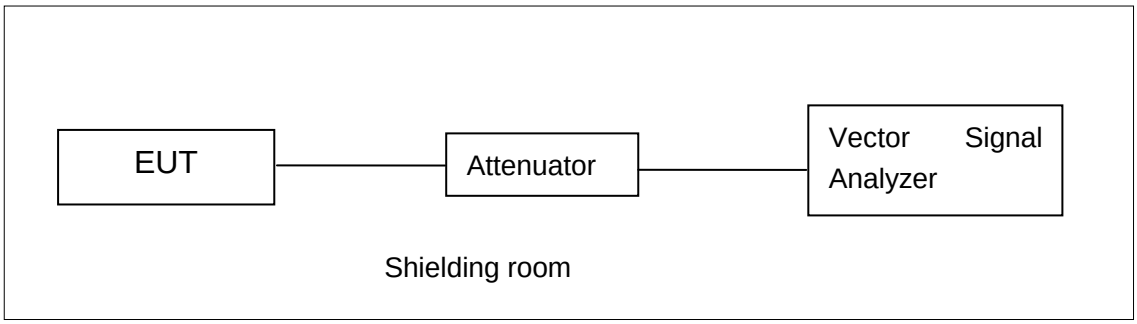


Fig.A.1.1.1: Test Setup Diagram for Conducted Measurements

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;

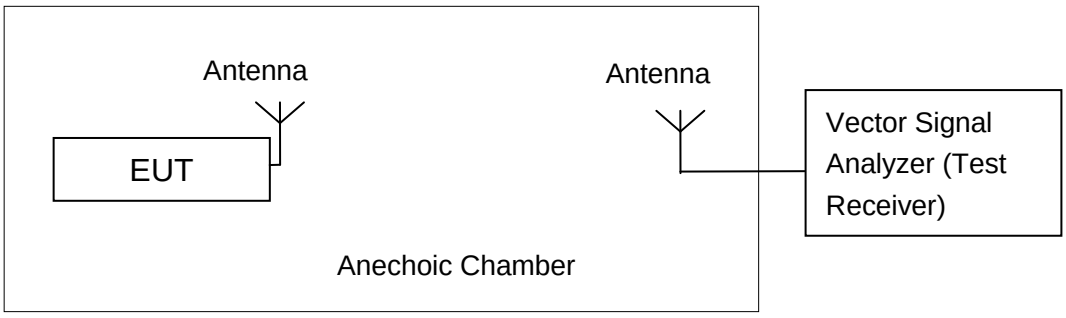


Fig.A.1.2.1: Test Setup Diagram for Radiated Measurements

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.

EUT ID: EUT2

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	21.14	/	/
	2	22.24	/	/
	5.5	23.63	/	/
	11	24.83	23.88	24.63
802.11g	6	24.16	/	/
	9	24.31	/	/
	12	24.35	/	/
	18	23.90	/	/
	24	24.84	/	/
	36	24.80	/	/
	48	24.84	/	/
	54	25.16	23.89	24.86

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	22.14	/	/
	MCS1	22.40	/	/
	MCS2	23.85	/	/
	MCS3	25.07	/	/
	MCS4	26.27	24.80	25.55
	MCS5	24.04	/	/
	MCS6	24.10	/	/
	MCS7	22.51	/	/

The data rate MCS4 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	20.14	/	/
	MCS1	20.39	/	/
	MCS2	21.94	/	/
	MCS3	23.22	/	/
	MCS4	24.16	24.69	25.16
	MCS5	22.10	/	/
	MCS6	21.95	/	/
	MCS7	20.25	/	/

The data rate MCS4 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	17.48	17.72	17.87
802.11g	15.37	15.55	15.64

802.11n-HT20 mode

Mode	Test Result (dBm)		
	2412MHz (Ch1)	2437MHz (Ch6)	2462 MHz (Ch11)
802.11n (20MHz)	13.05	13.30	13.36

802.11n-HT40 mode

Mode	Test Result (dBm)		
	2422MHz (Ch3)	2437MHz (Ch6)	2452 MHz (Ch9)
802.11n (40MHz)	12.64	12.74	12.76

Conclusion: Pass

Measurement Uncertainty:

Measurement Uncertainty	0.75dB

A.3. Peak Power Spectral Density

Measurement Limit:

Standard	Limit
FCC CRF Part 15.247(d)	< 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)	MCS4(OFDM)	MCS4(OFDM)

Measurement Results:

802.11b/g mode

Mode	Channel	Power Spectral Density (dBm/3 kHz)		Conclusion
802.11b	1	Fig.A.3.1	-7.60	**P**
	6	Fig.A.3.2	-6.41	**P**
	11	Fig.A.3.3	-7.23	**P**
802.11g	1	Fig.A.3.4	-12.35	**P**
	6	Fig.A.3.5	-10.21	**P**
	11	Fig.A.3.6	-11.30	**P**

802.11n-HT20 mode

Mode	Channel	Power Spectral Density (dBm/3 kHz)		Conclusion
802.11n (HT20)	1	Fig.A.3.7	-11.18	**P**
	6	Fig.A.3.8	-8.31	**P**
	11	Fig.A.3.9	-10.88	**P**

802.11n-HT40 mode

Mode	Channel	Power Spectral Density (dBm/3 kHz)		Conclusion
802.11n (HT40)	3	Fig.A.3.10	-16.42	**P**
	6	Fig.A.3.11	-12.64	**P**
	9	Fig.A.3.12	-16.22	**P**

Conclusion: Pass

Measurement Uncertainty:

Measurement Uncertainty	0.75dB

Test graphs as below:

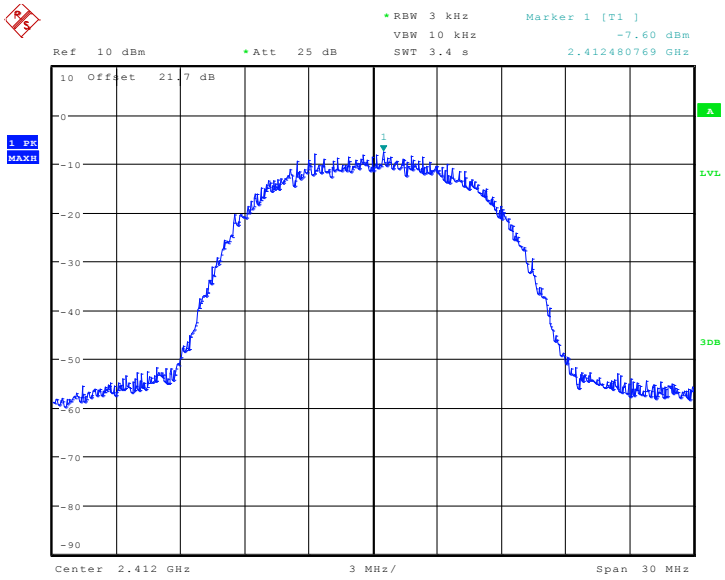


Fig.A.3.1 Power Spectral Density (802.11b, Ch 1)

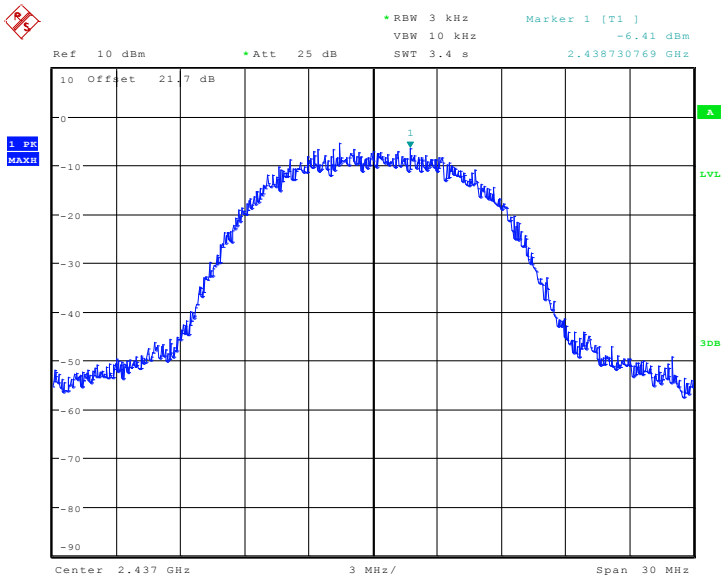


Fig.A.3.2 Power Spectral Density (802.11b, Ch 6)

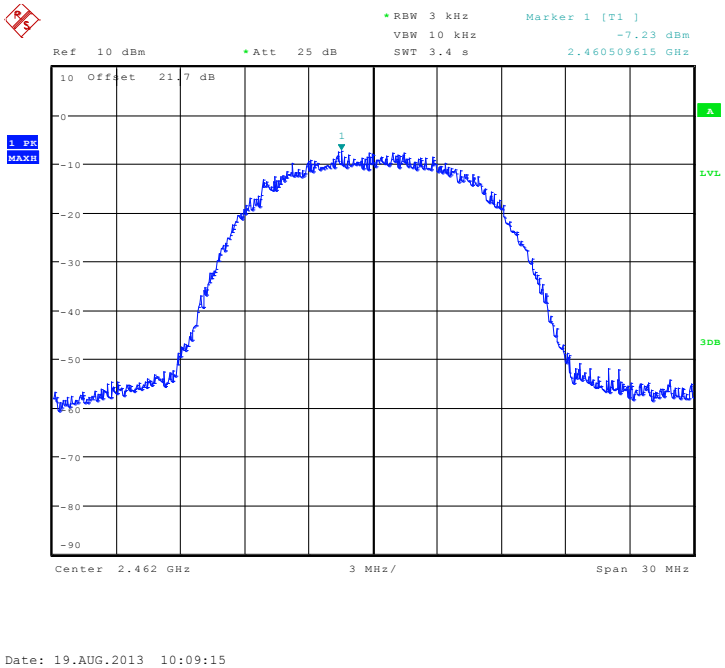


Fig.A.3.3 Power Spectral Density (802.11b, Ch 11)

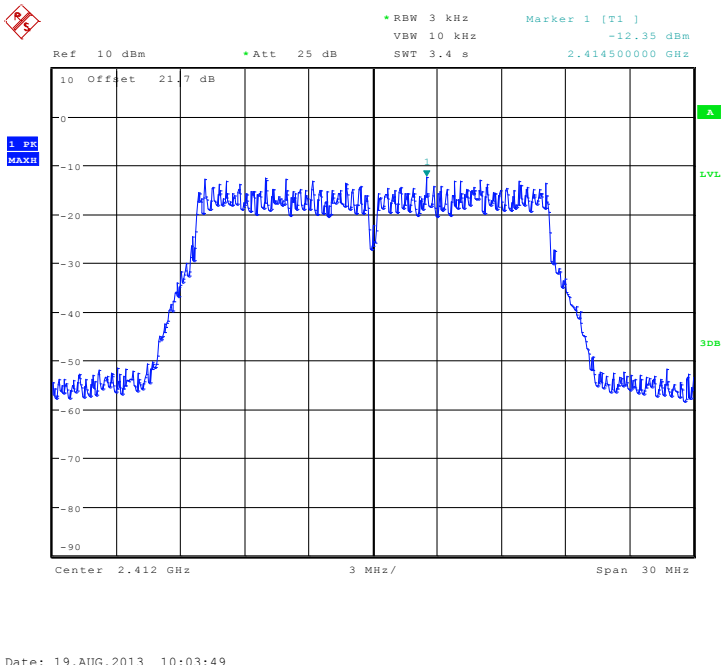


Fig.A.3.4 Power Spectral Density (802.11g, Ch 1)

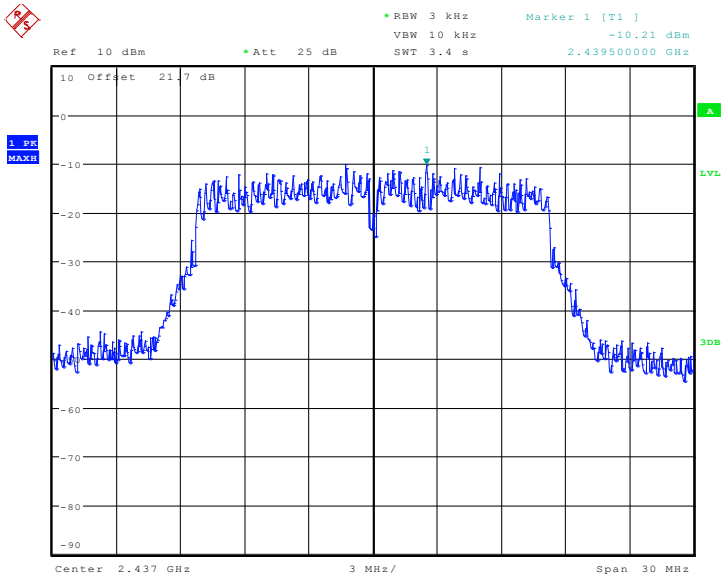


Fig.A.3.5 Power Spectral Density (802.11g, Ch 6)

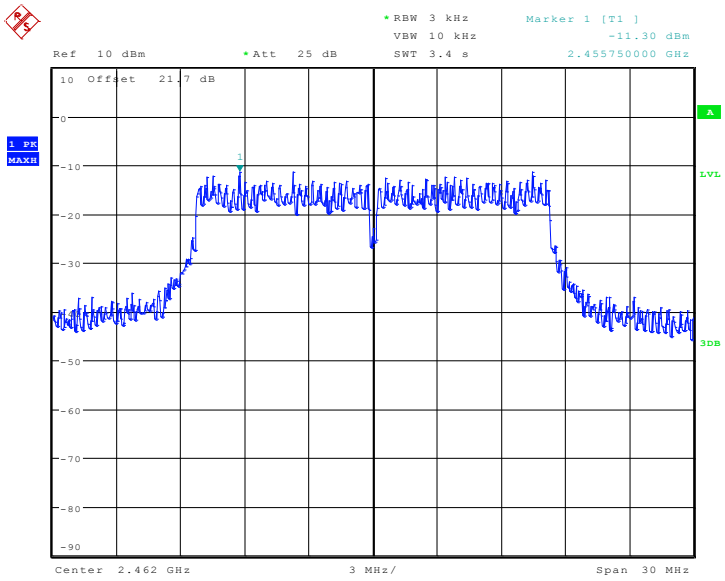


Fig.A.3.6 Power Spectral Density (802.11g, Ch 11)

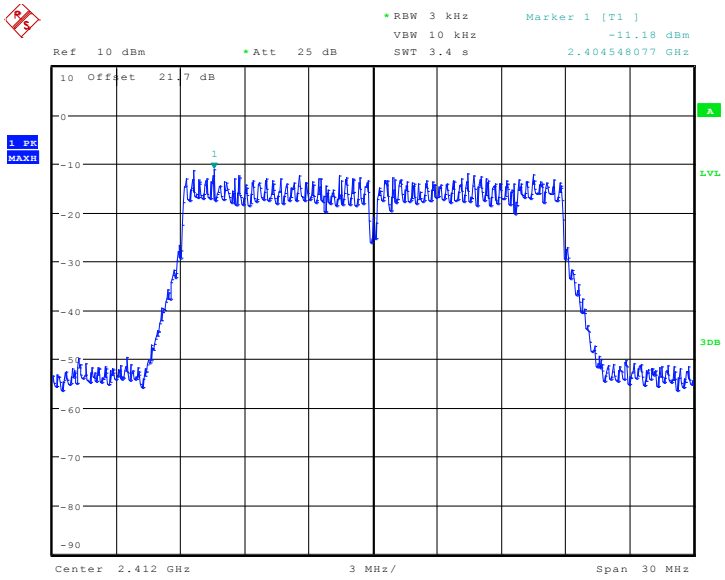


Fig.A.3.7 Power Spectral Density (802.11n-HT20, Ch 1)

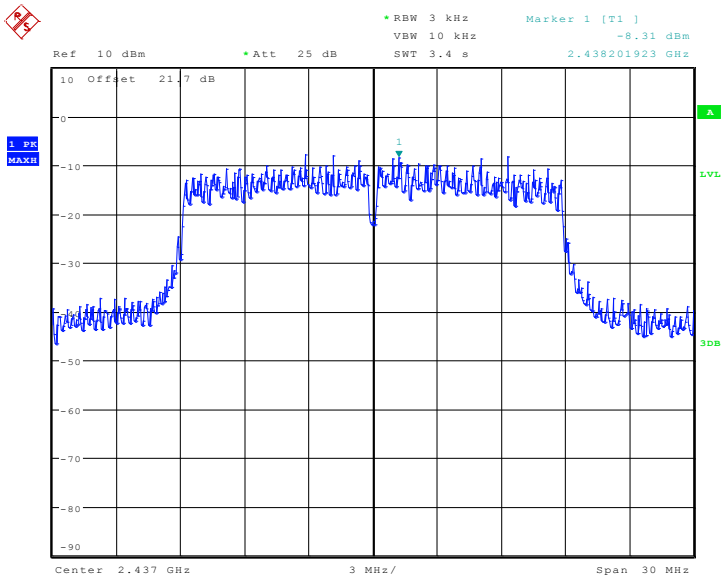


Fig.A.3.8 Power Spectral Density (802.11n-HT20, Ch 6)

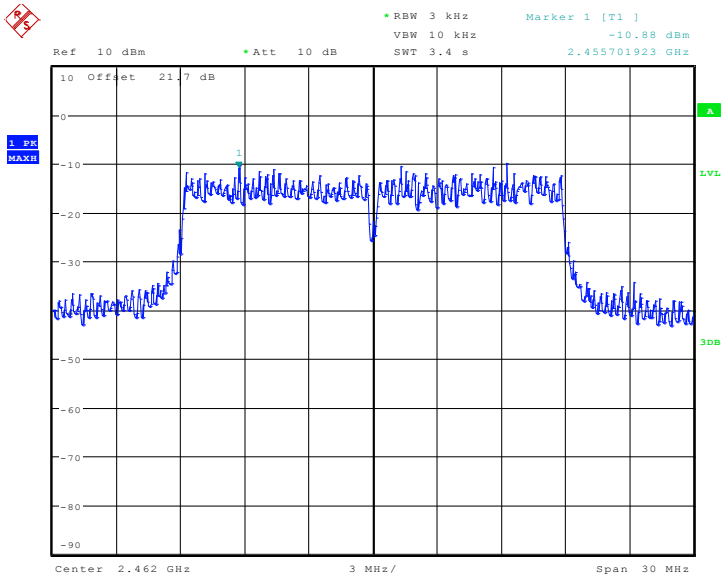


Fig.A.3.9 Power Spectral Density (802.11n-HT20, Ch 11)

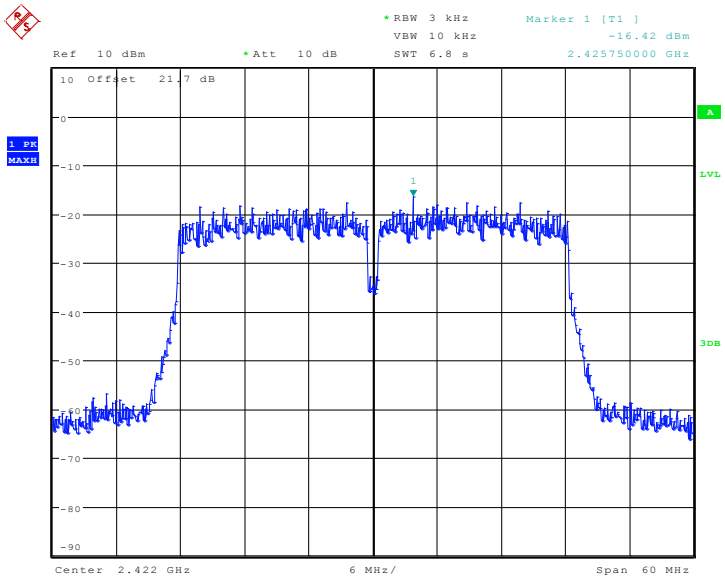


Fig.A.3.10 Power Spectral Density (802.11n-HT40, Ch 3)

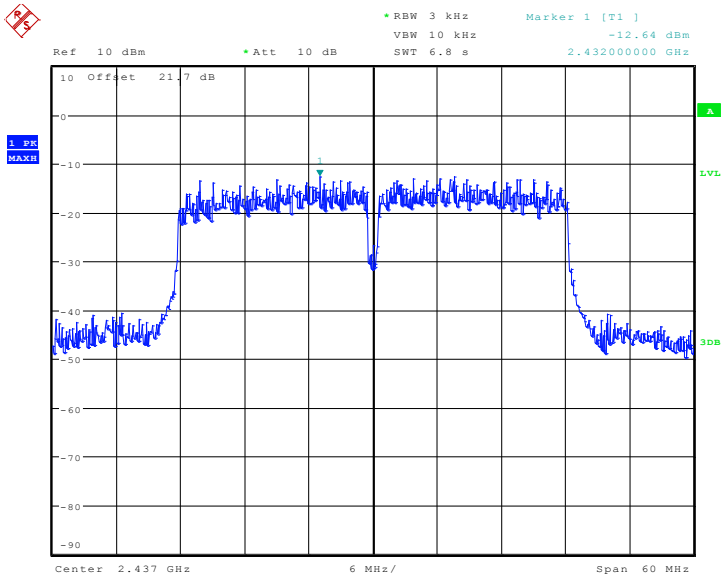


Fig.A.3.11 Power Spectral Density (802.11n-HT40, Ch 6)

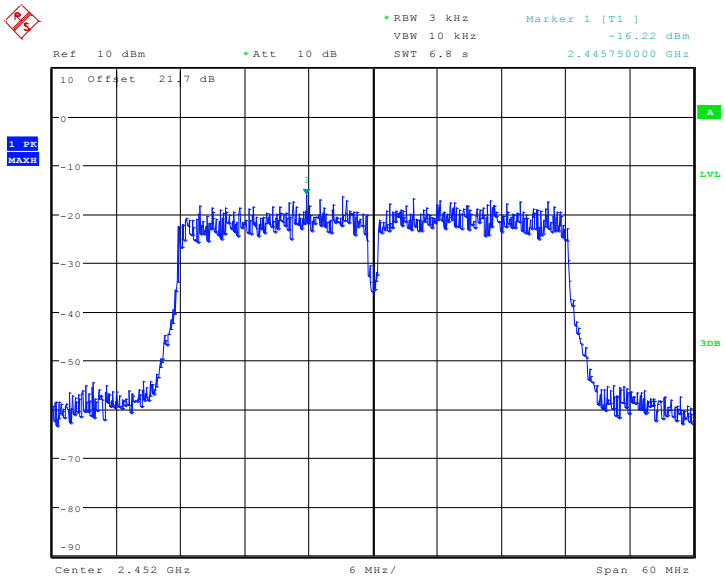


Fig.A.3.12 Power Spectral Density (802.11n-HT40, Ch 9)

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.

EUT ID: EUT2

Modulation type and data rate tested:

802.11b	802.11g	802.11n-HT20	802.11n-HT40
11Mbps(CCK)	54Mbps(OFDM)	MCS4(OFDM)	MCS4(OFDM)

Measurement Result:

802.11b/g mode

Mode	Channel	Occupied 6dB Bandwidth (kHz)		conclusion
802.11b	1	Fig.A.4.1	9054.49	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	16666.67	P

802.11n-HT20 mode

Mode	Channel	Occupied 6dB Bandwidth (kHz)		conclusion
802.11n (HT20)	1	Fig.A.4.7	16586.54	P
	6	Fig.A.4.8	16586.54	P
	11	Fig.A.4.9	16586.54	P

802.11n-HT40 mode

Mode	Channel	Occupied 6dB Bandwidth (kHz)		conclusion
802.11n (HT40)	3	Fig.A.4.10	36410.26	P
	6	Fig.A.4.11	36025.64	P
	9	Fig.A.4.12	36282.05	P

Conclusion: Pass

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz

Test graphs as below:

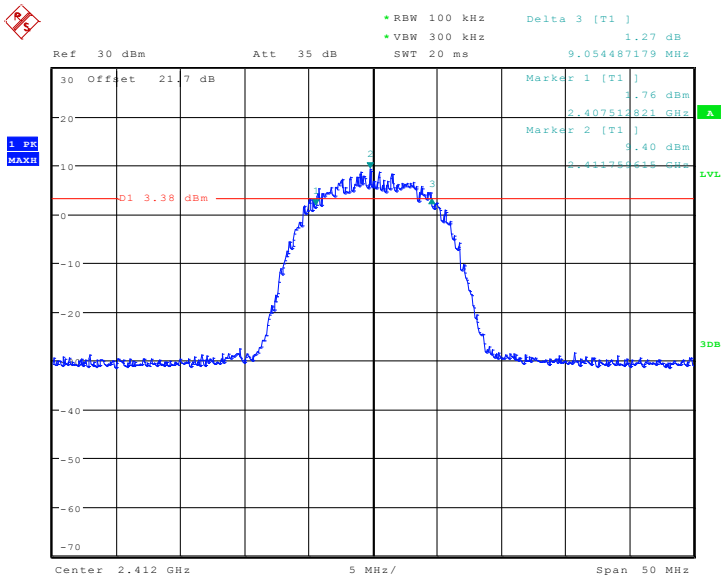


Fig.A.4.1 Occupied 6dB Bandwidth (802.11b, Ch 1)

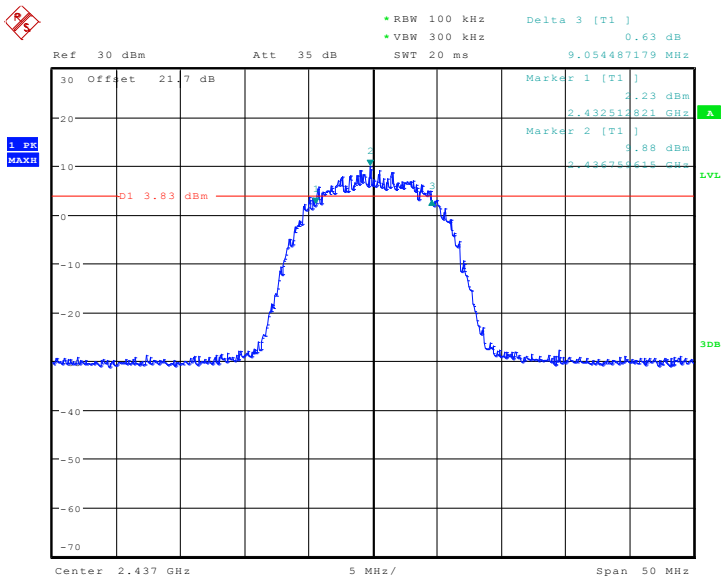


Fig.A.4.2 Occupied 6dB Bandwidth (802.11b, Ch 6)

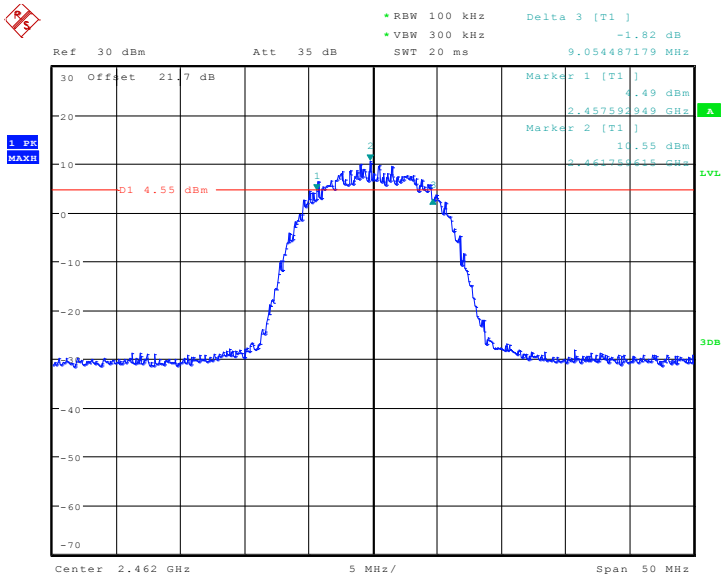


Fig.A.4.3 Occupied 6dB Bandwidth (802.11b, Ch 11)

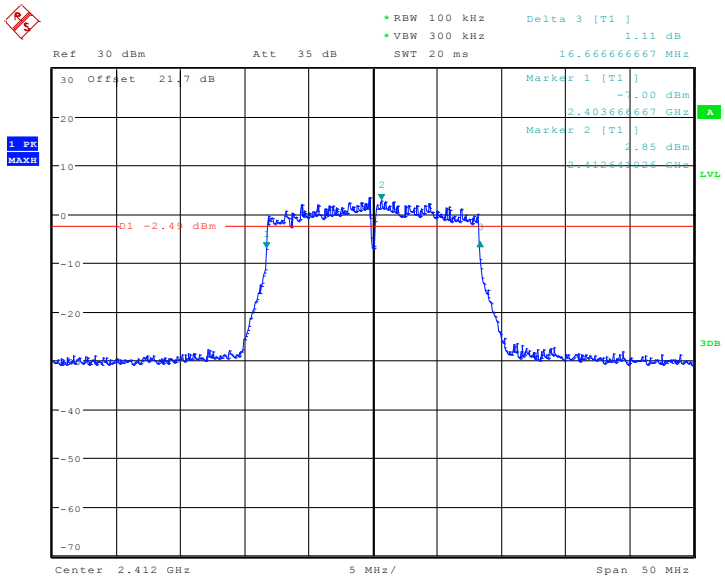


Fig.A.4.4 Occupied 6dB Bandwidth (802.11g, Ch 1)

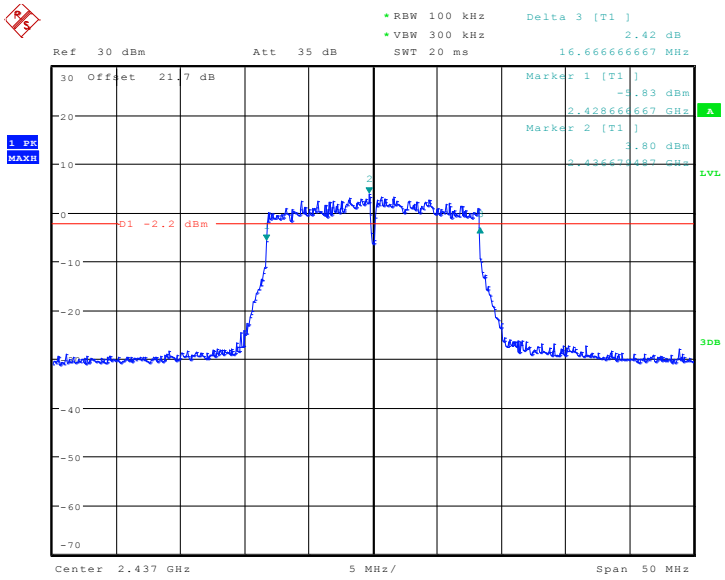


Fig.A.4.5 Occupied 6dB Bandwidth (802.11g, Ch 6)

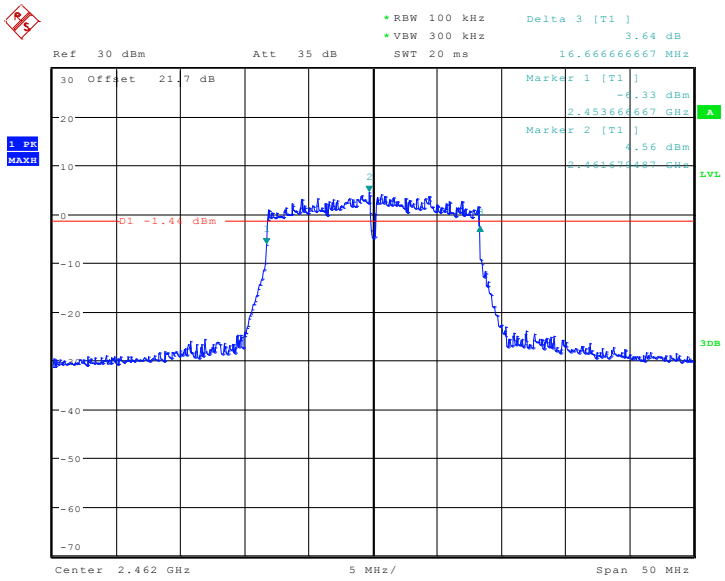


Fig.A.4.6 Occupied 6dB Bandwidth (802.11g, Ch 11)

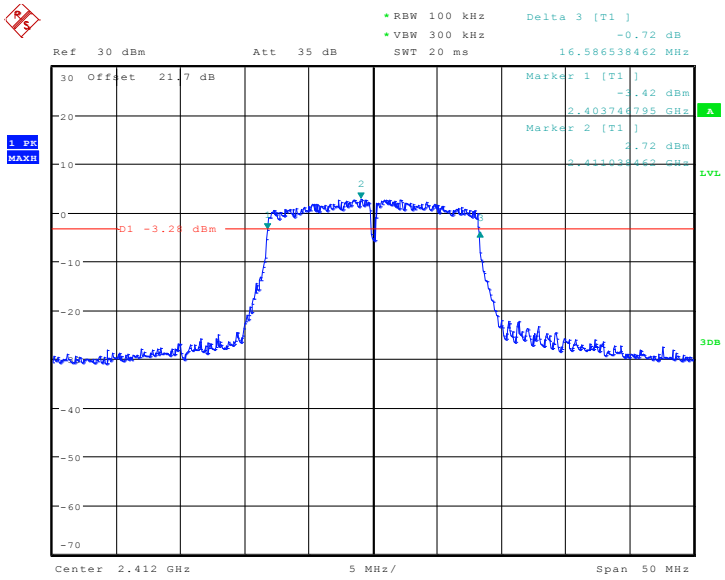


Fig.A.4.7 Occupied 6dB Bandwidth (802.11n-20MHz, Ch 1)

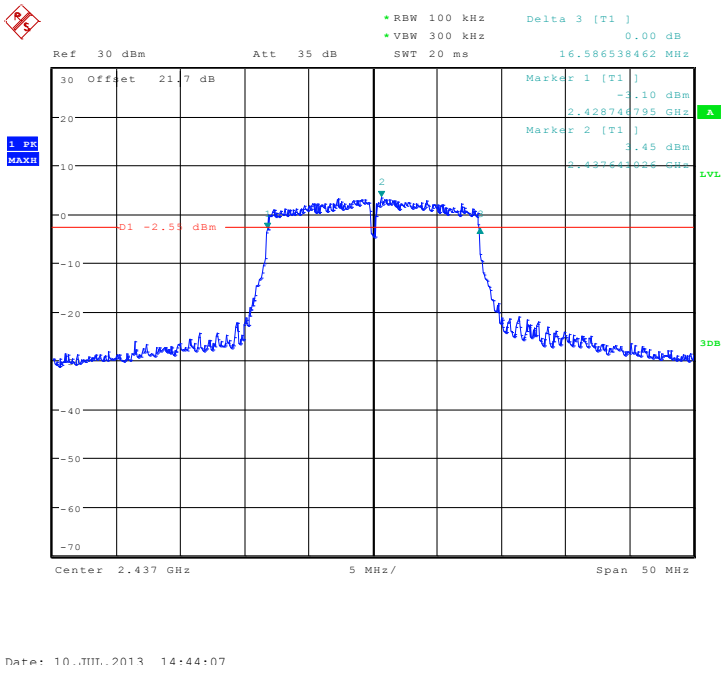


Fig.A.4.8 Occupied 6dB Bandwidth (802.11n-HT20, Ch 6)

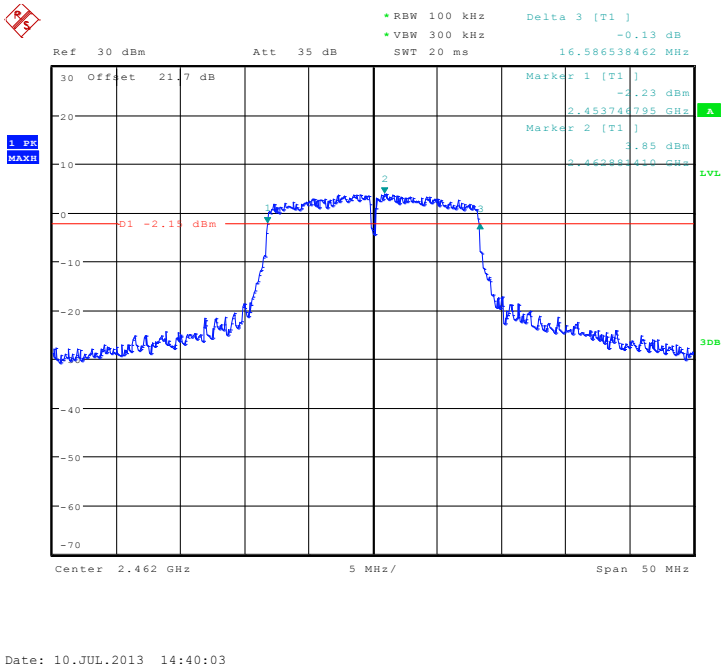


Fig.A.4.9 Occupied 6dB Bandwidth (802.11n-HT20, Ch 11)

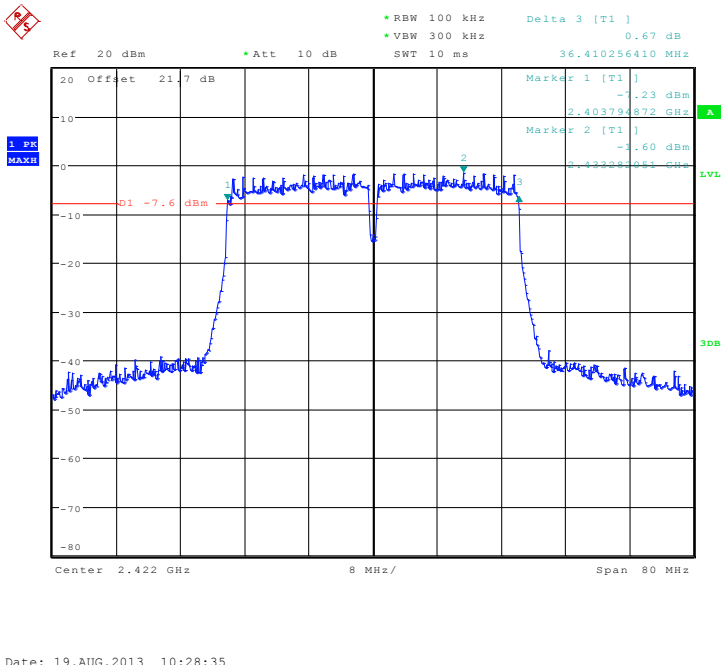


Fig.A.4.10 Occupied 6dB Bandwidth (802.11n-40MHz, Ch 3)

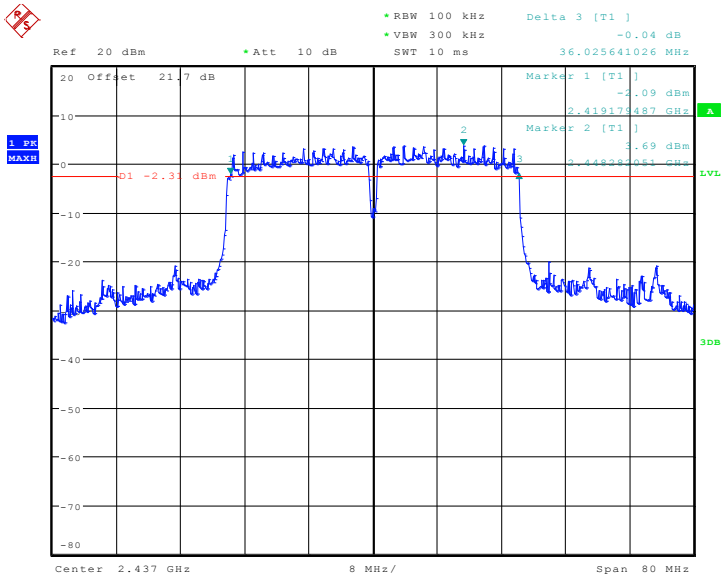


Fig.A.4.11 Occupied 6dB Bandwidth (802.11n-HT40, Ch 6)

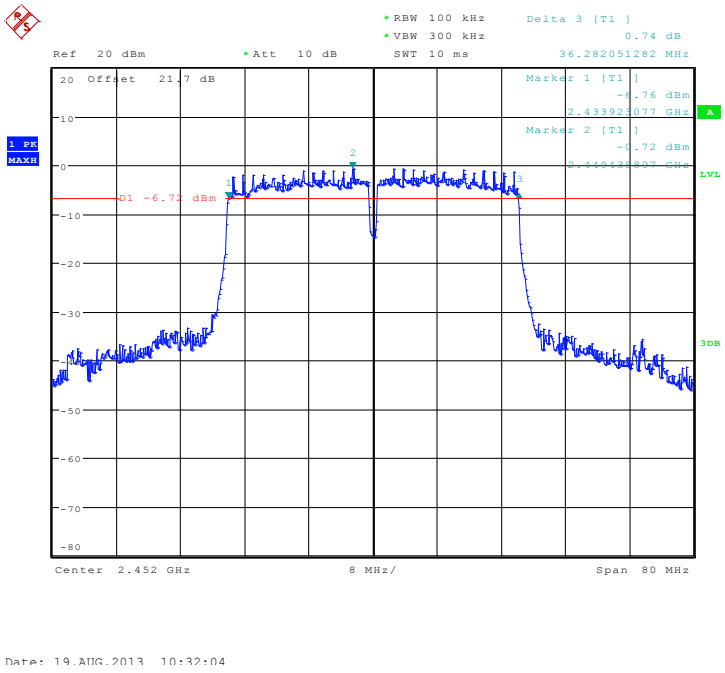


Fig.A.4.12 Occupied 6dB Bandwidth (802.11n-HT40, Ch 9)

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.

EUT ID: EUT2

Modulation type and data rate tested:

802.11b	802.11g	802.11n-HT20	802.11n-HT40
11Mbps(CCK)	54Mbps(OFDM)	MCS4(OFDM)	MCS4(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

Test graphs as below:

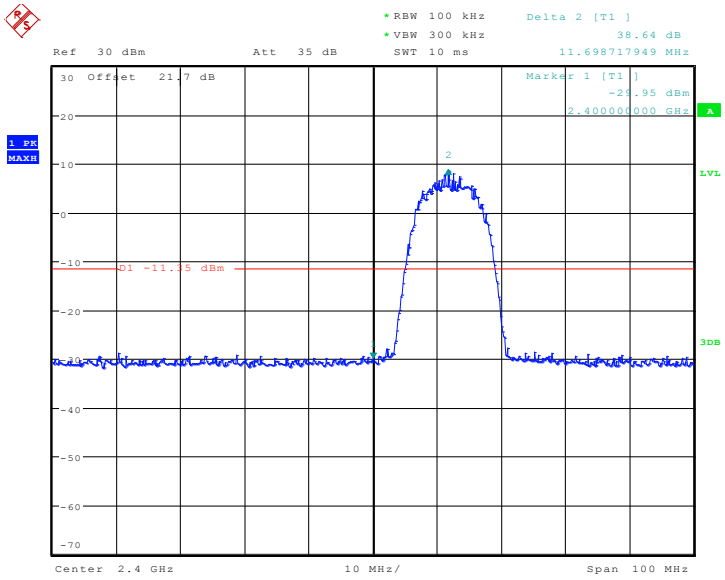


Fig.A.5.1 Band Edges (802.11b, Ch 1)

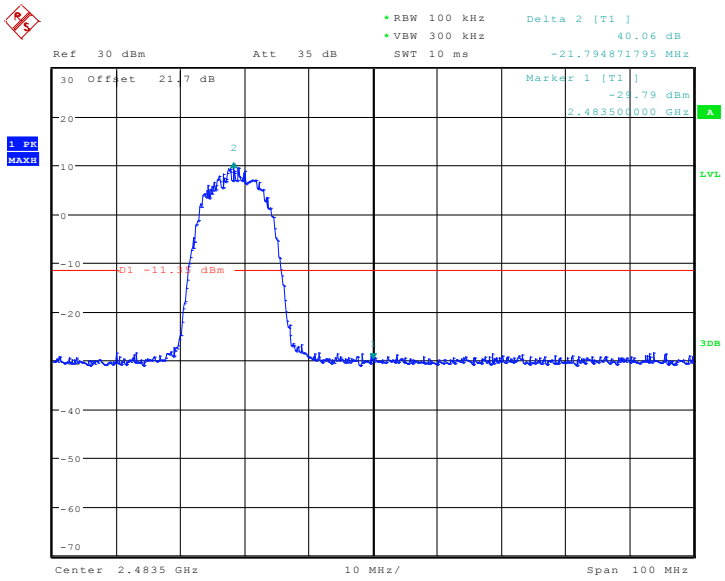
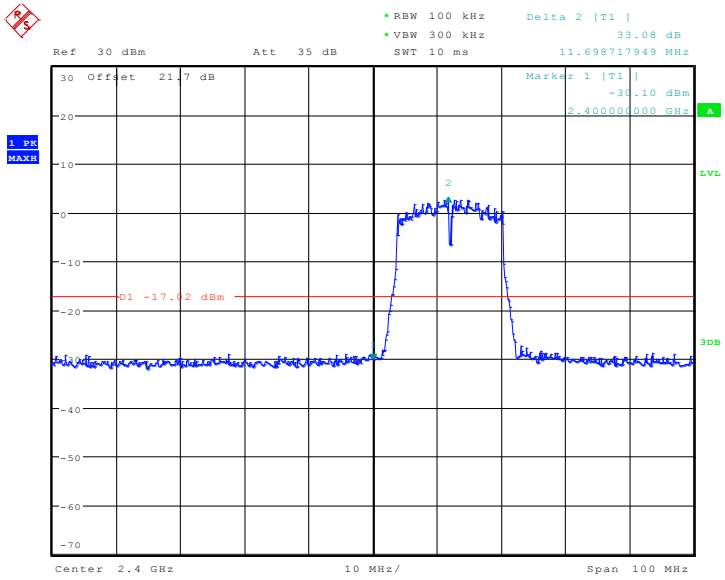
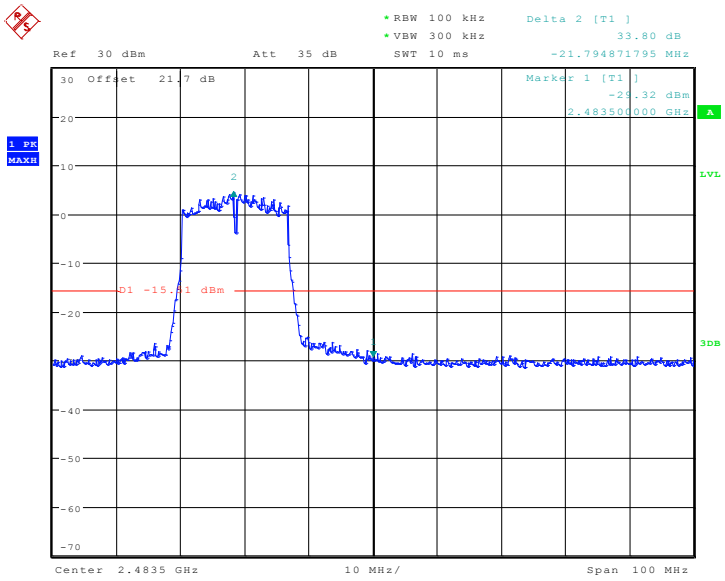


Fig.A.5.2 Band Edges (802.11b, Ch 11)



Date: 15.JUL.2013 17:47:12

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



Date: 15.JUL.2013 17:48:57

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

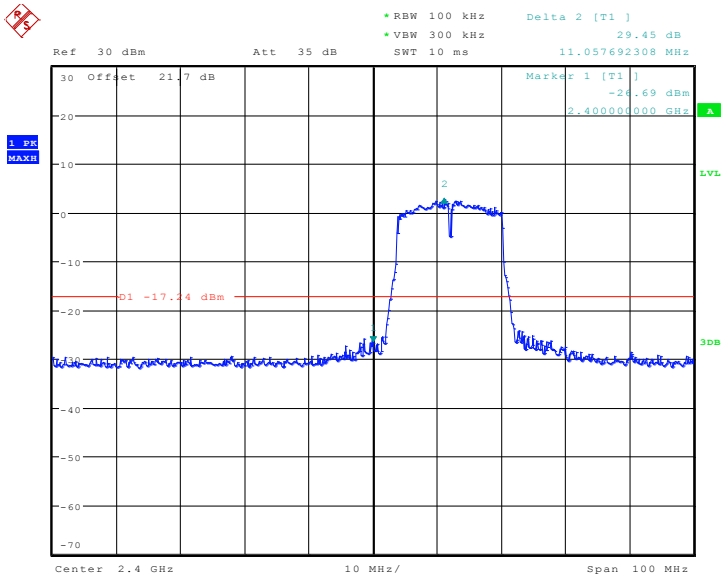


Fig.A.5.5 Band Edges (802.11n-HT20, Ch 1)

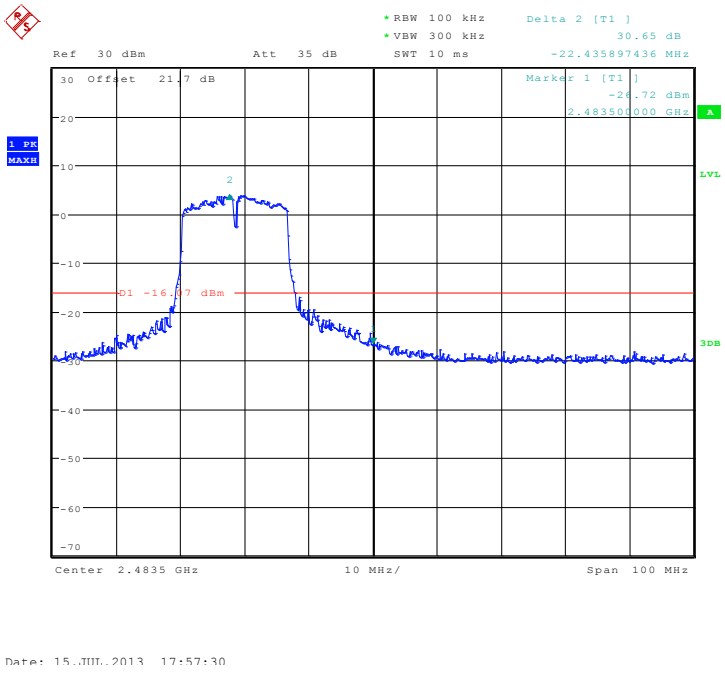


Fig.A.5.6 Band Edges (802.11n-HT20, Ch 11)

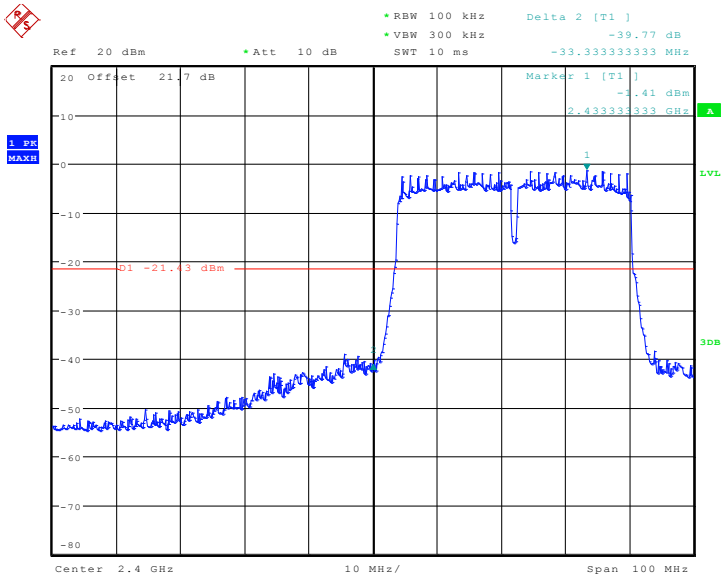


Fig.A.5.7 Band Edges (802.11n-HT40, Ch 3)

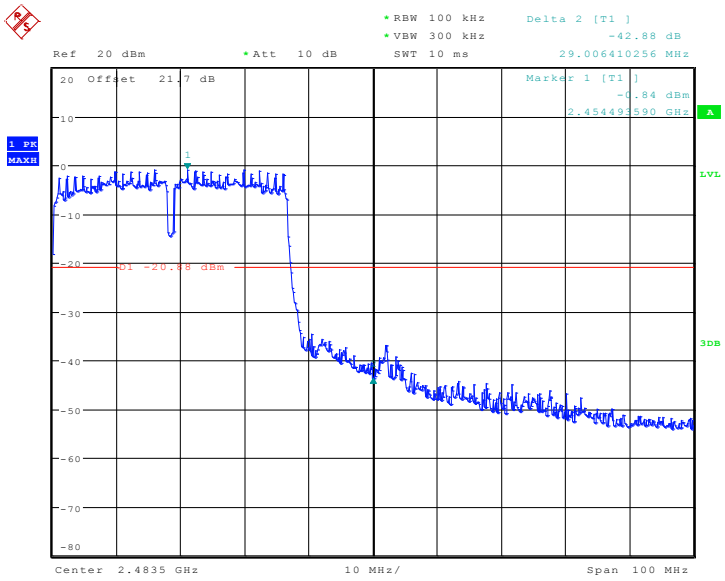


Fig.A.5.8 Band Edges (802.11n-HT40, Ch 9)

A.6. Transmitter Spurious Emission

A.6.1 Transmitter Spurious Emission - Conducted

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.

EUT ID: EUT2

Modulation type and data rate tested:

802.11b	802.11g	802.11n-HT20	802.11n-HT40
11Mbps(CCK)	54Mbps(OFDM)	MCS4(OFDM)	MCS4(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:

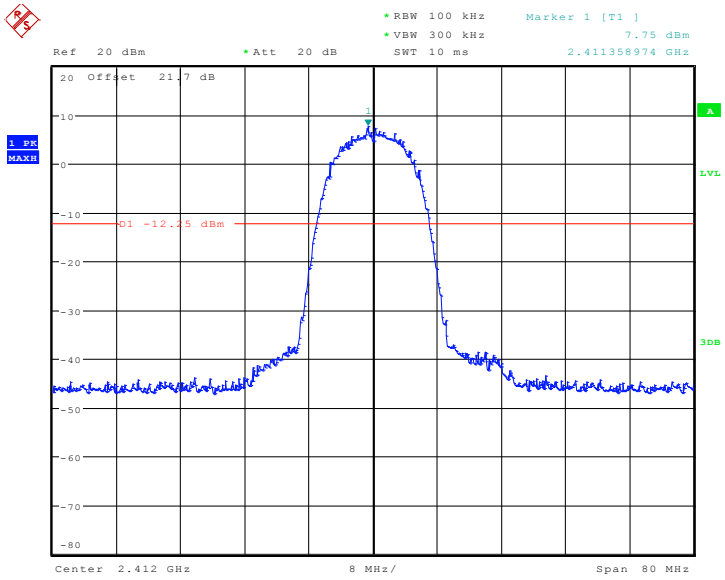


Fig.A.6.1.1 Conducted Spurious Emission (802.11b, Ch1, Center Frequency)

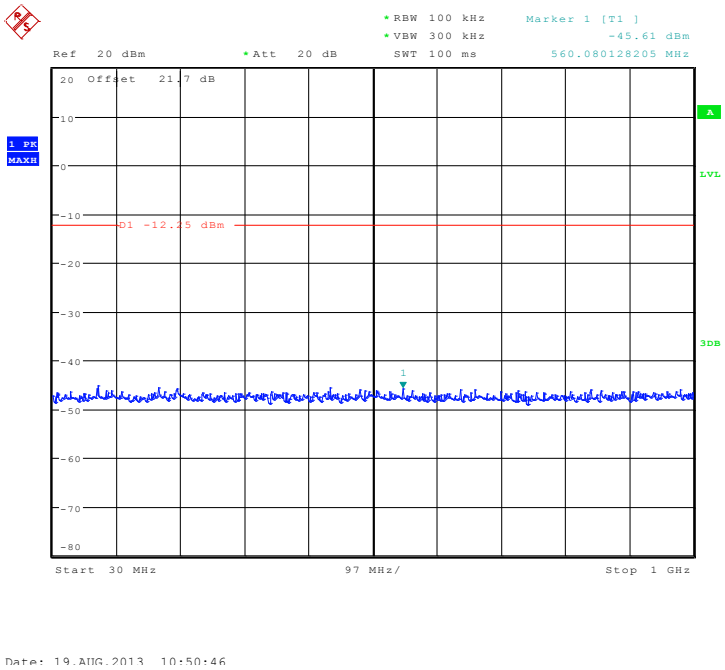


Fig.A.6.1.2 Conducted Spurious Emission (802.11b, Ch1, 30 MHz-1 GHz)

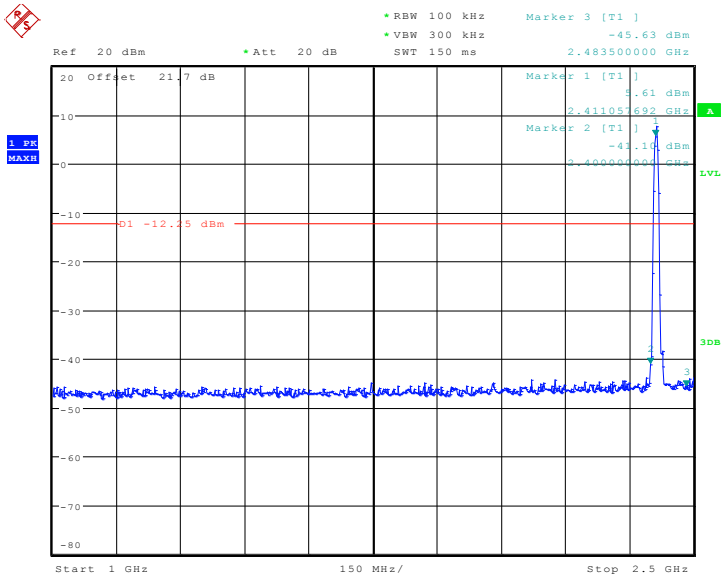


Fig.A.6.1.3 Conducted Spurious Emission (802.11b, Ch1, 1 GHz-2.5 GHz)

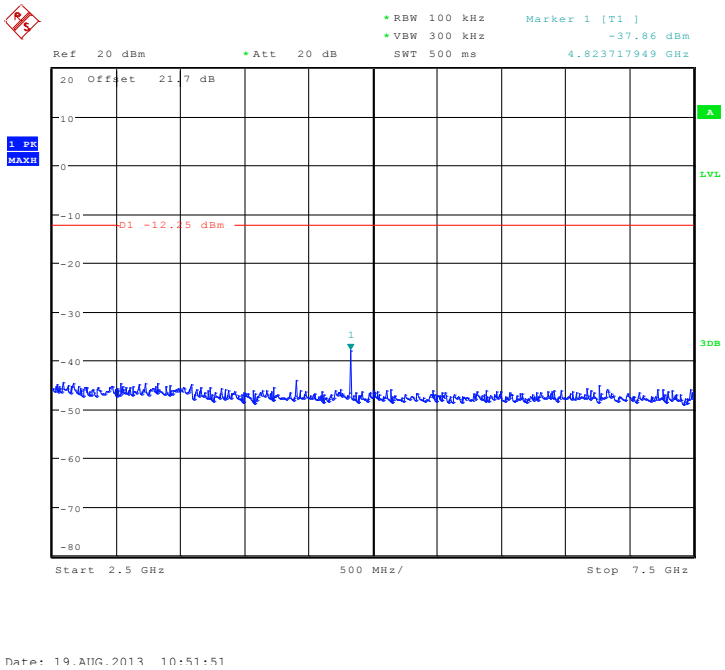


Fig.A.6.1.4 Conducted Spurious Emission (802.11b, Ch1, 2.5 GHz-7.5 GHz)

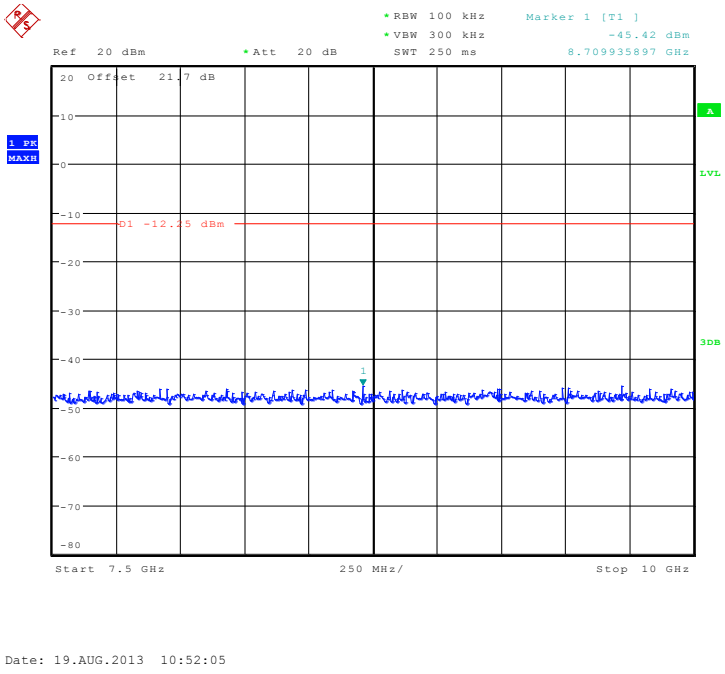


Fig.A.6.1.5 Conducted Spurious Emission (802.11b, Ch1, 7.5 GHz-10 GHz)

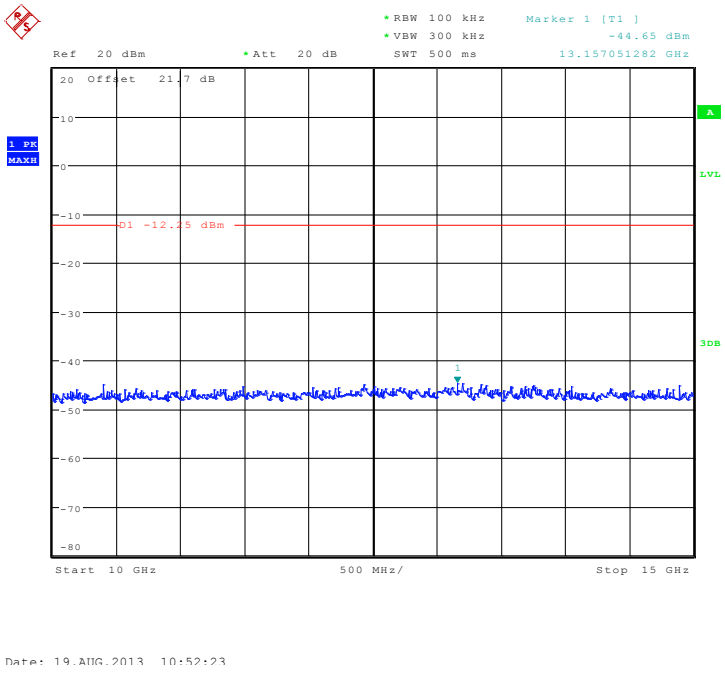


Fig.A.6.1.6 Conducted Spurious Emission (802.11b, Ch1, 10 GHz-15 GHz)

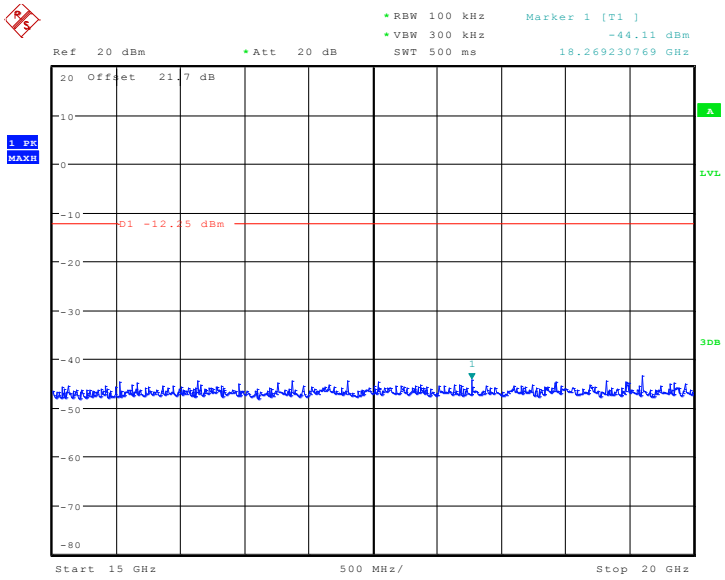


Fig.A.6.1.7 Conducted Spurious Emission (802.11b, Ch1, 15 GHz-20 GHz)

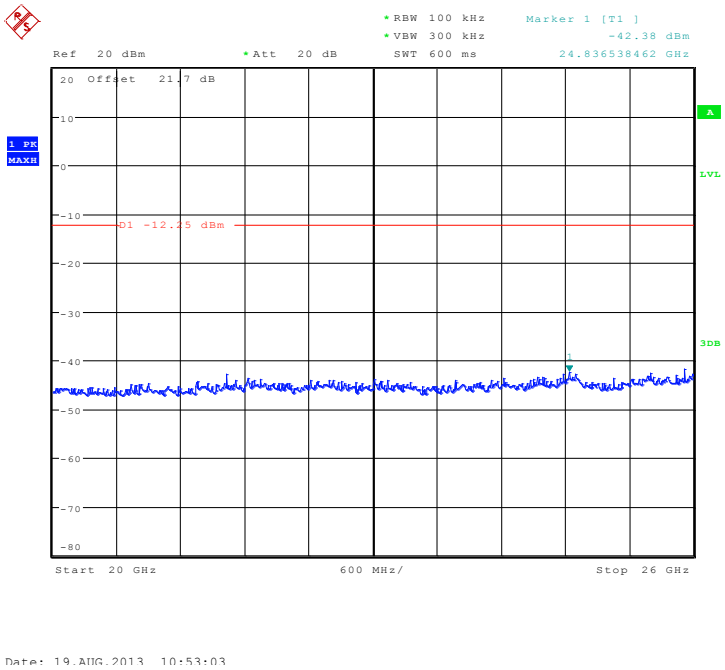


Fig.A.6.1.8 Conducted Spurious Emission (802.11b, Ch1, 20 GHz-26 GHz)

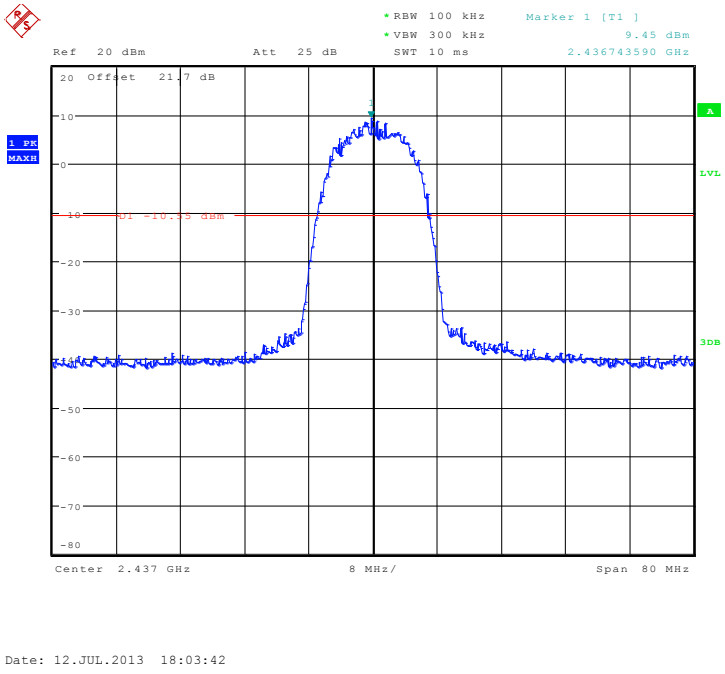


Fig.A.6.1.9 Conducted Spurious Emission (802.11b, Ch6, Center Frequency)

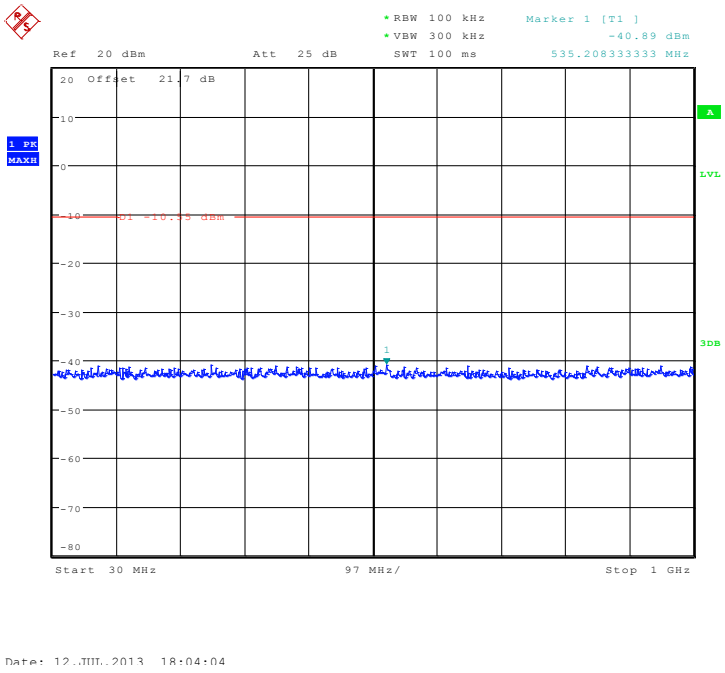


Fig.A.6.1.10 Conducted Spurious Emission (802.11b, Ch6, 30 MHz-1 GHz)

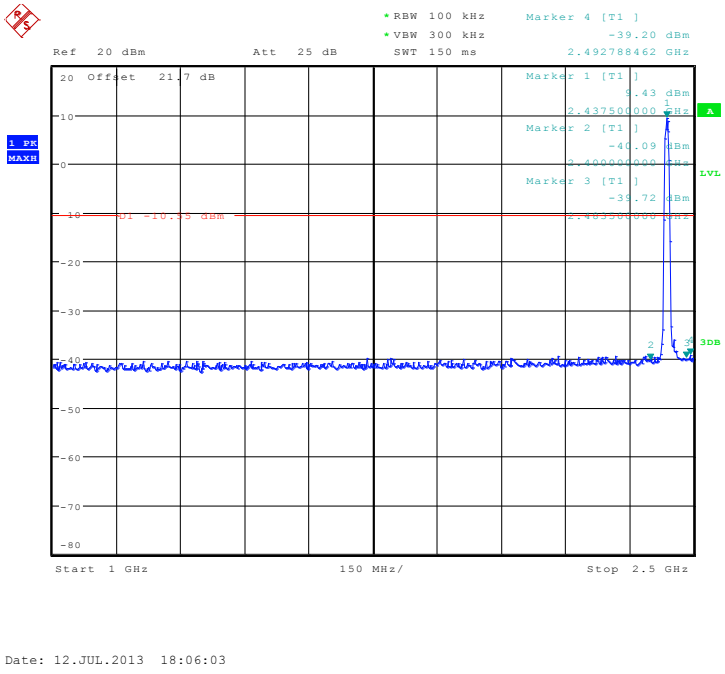


Fig.A.6.1.11 Conducted Spurious Emission (802.11b, Ch6, 1 GHz-2.5 GHz)

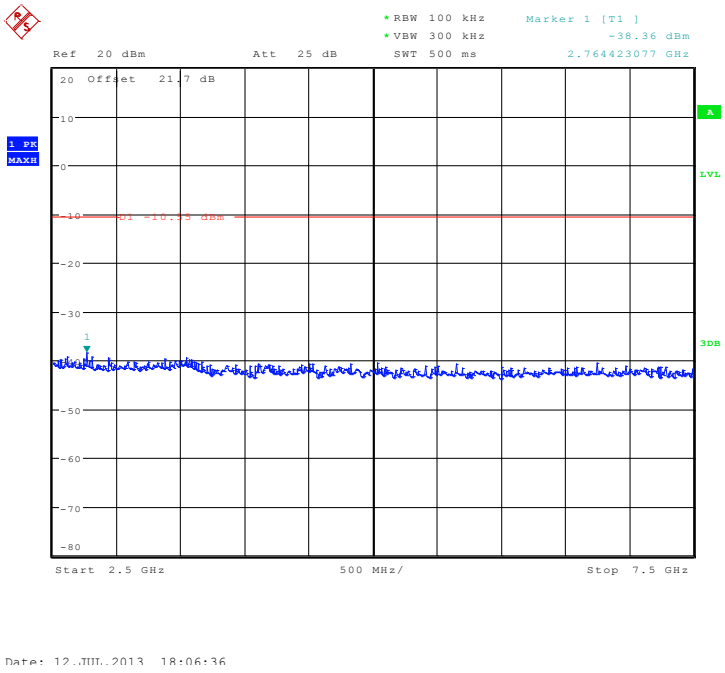


Fig.A.6.1.12 Conducted Spurious Emission (802.11b, Ch6, 2.5 GHz-7.5 GHz)

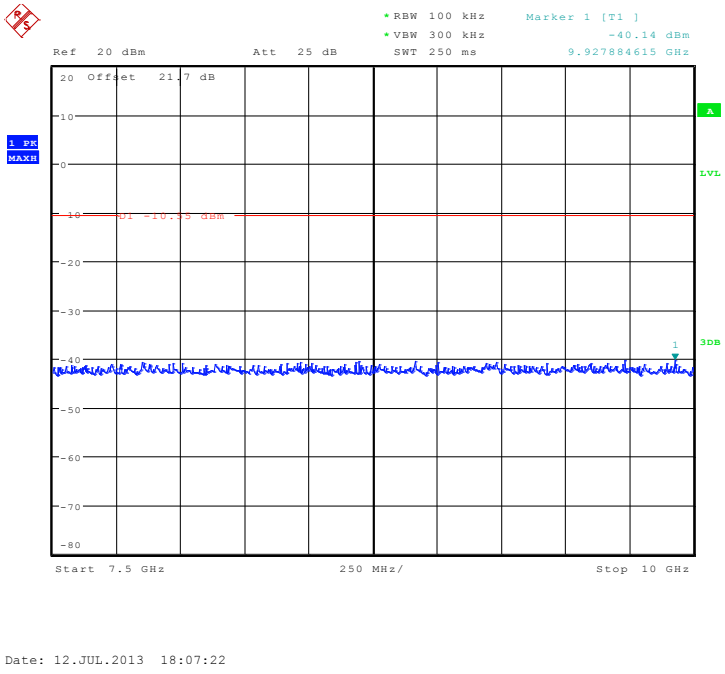


Fig.A.6.1.13 Conducted Spurious Emission (802.11b, Ch6, 7.5 GHz-10 GHz)

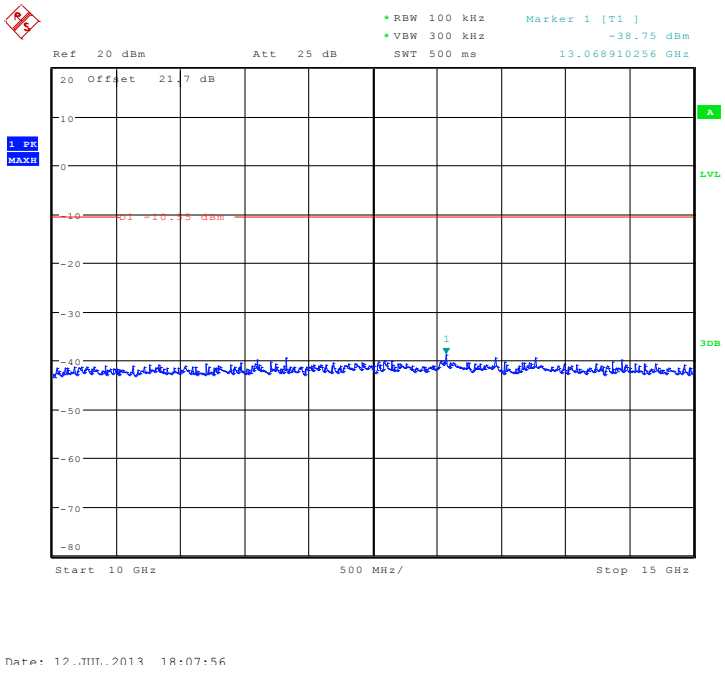


Fig.A.6.1.14 Conducted Spurious Emission (802.11b, Ch6, 10 GHz-15 GHz)

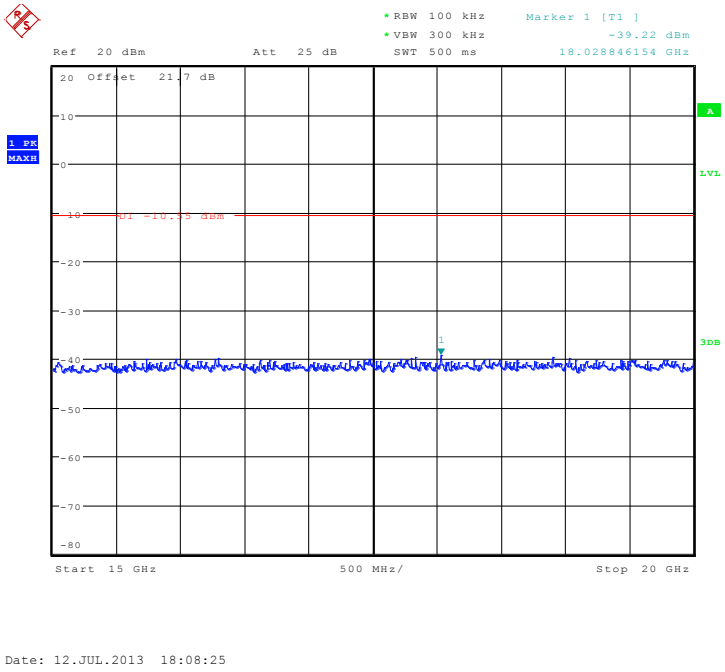


Fig.A.6.1.15 Conducted Spurious Emission (802.11b, Ch6, 15 GHz-20 GHz)

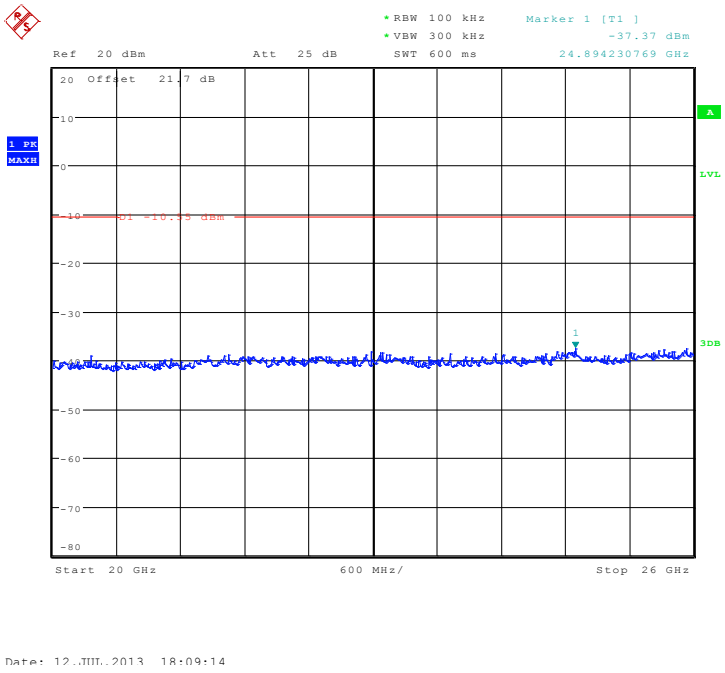


Fig.A.6.1.16 Conducted Spurious Emission (802.11b, Ch6, 20 GHz-26 GHz)

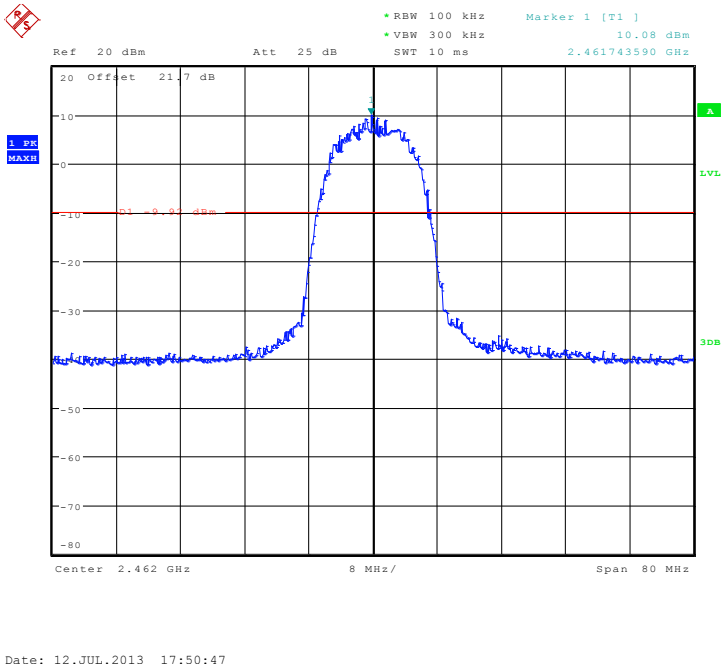


Fig.A.6.1.17 Conducted Spurious Emission (802.11b, Ch11, Center Frequency)

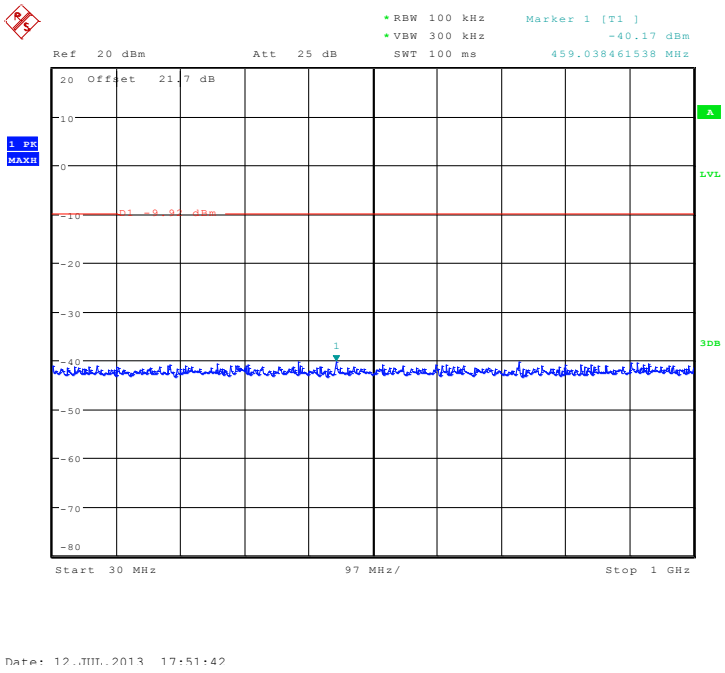


Fig.A.6.1.18 Conducted Spurious Emission (802.11b, Ch11, 30 MHz-1 GHz)

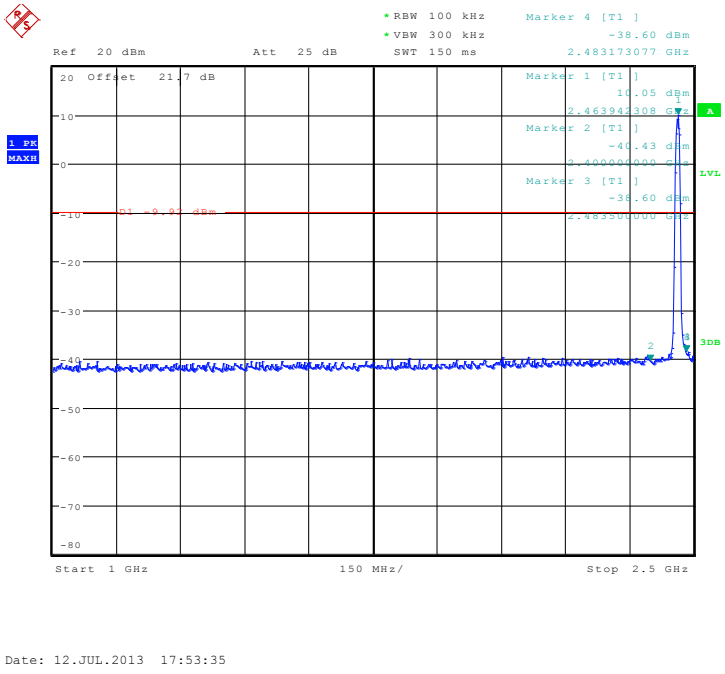


Fig.A.6.1.19 Conducted Spurious Emission (802.11b, Ch11, 1 GHz-2.5 GHz)

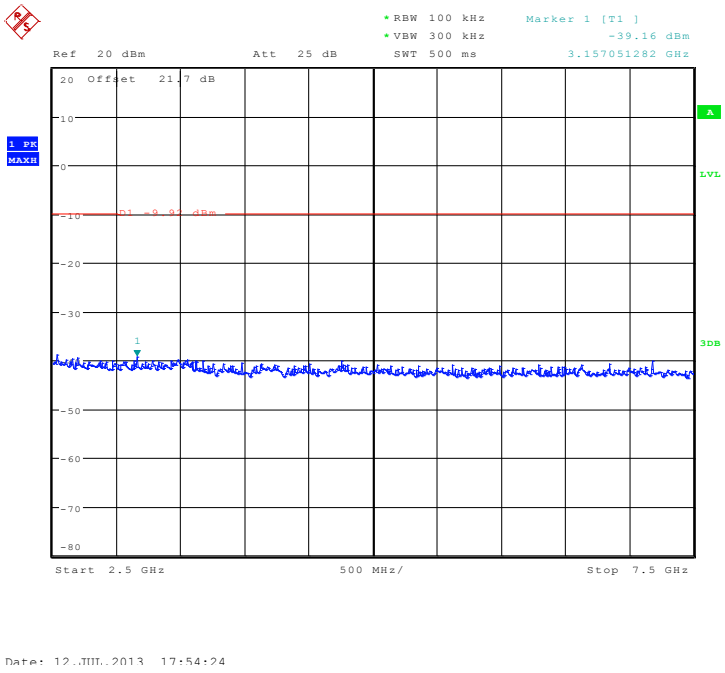


Fig.A.6.1.20 Conducted Spurious Emission (802.11b, Ch11, 2.5 GHz-7.5 GHz)

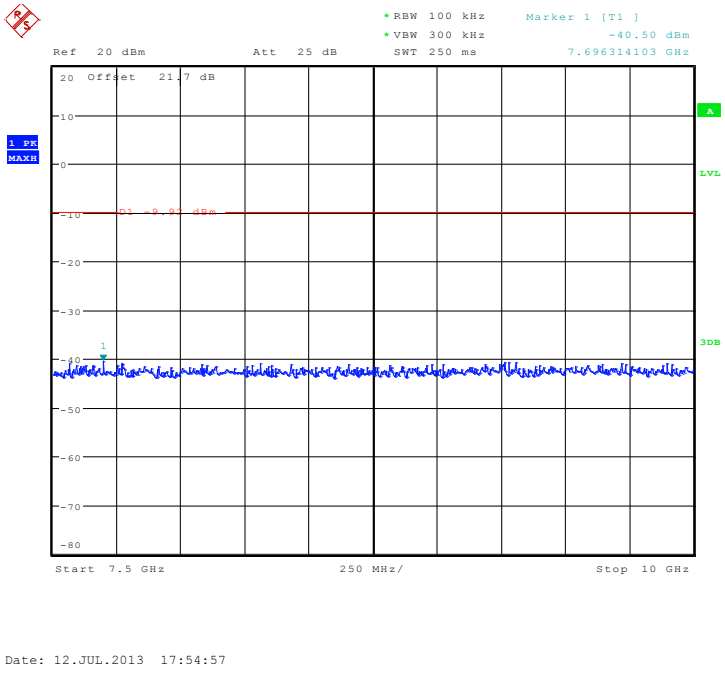


Fig.A.6.1.21 Conducted Spurious Emission (802.11b, Ch11, 7.5 GHz-10 GHz)

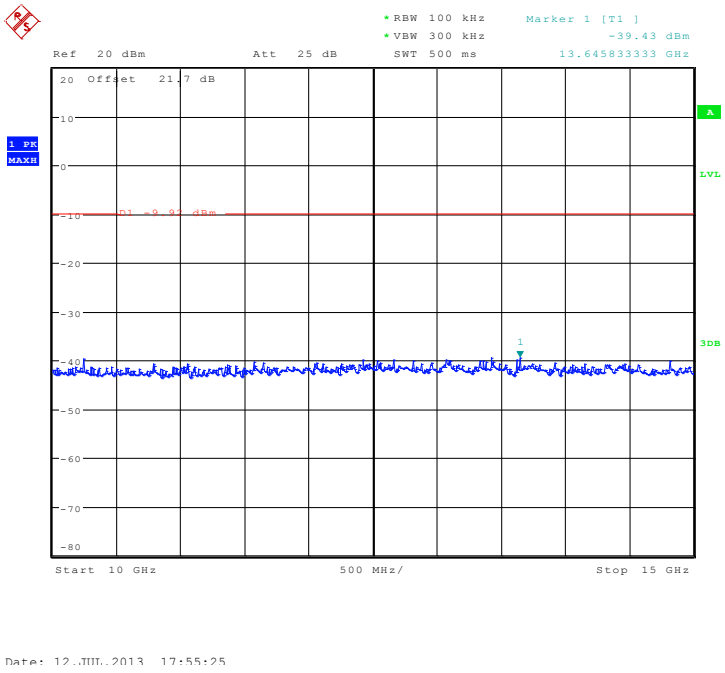


Fig.A.6.1.22 Conducted Spurious Emission (802.11b, Ch11, 10 GHz-15 GHz)

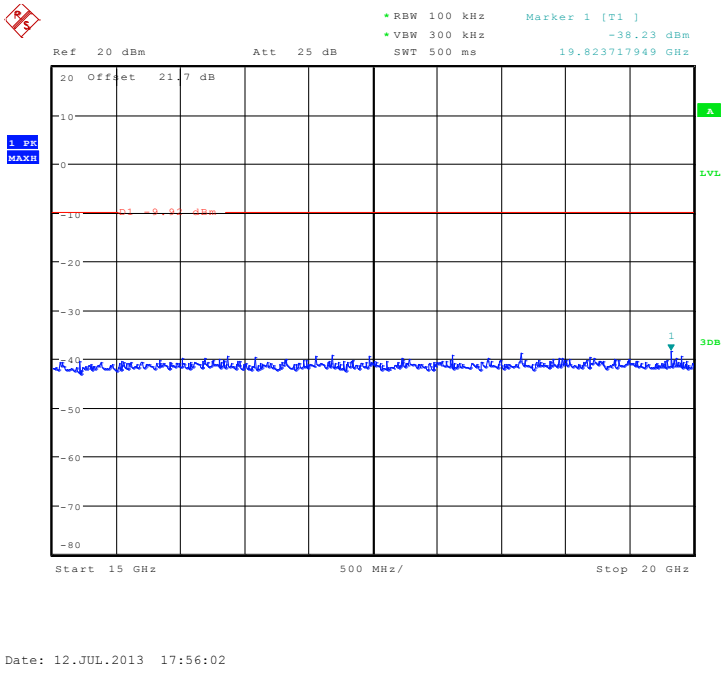


Fig.A.6.1.23 Conducted Spurious Emission (802.11b, Ch11, 15 GHz-20 GHz)

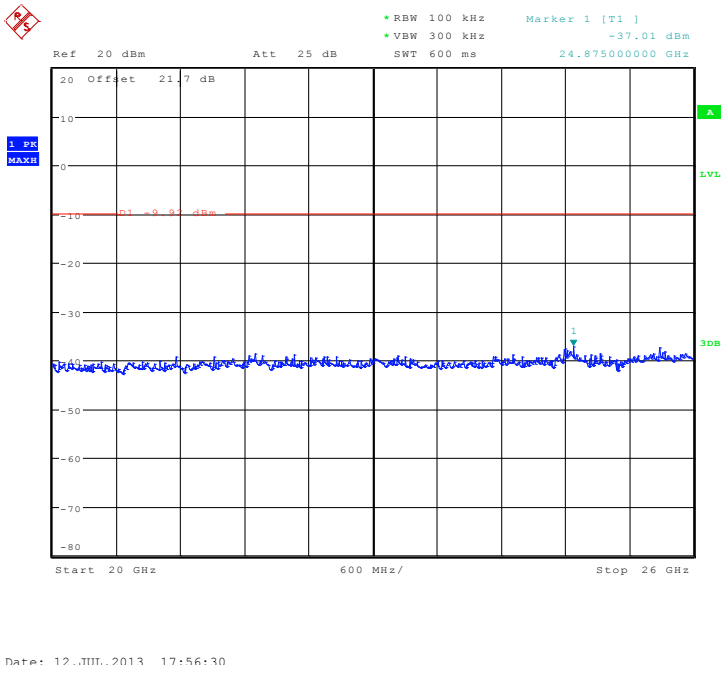


Fig.A.6.1.24 Conducted Spurious Emission (802.11b, Ch11, 20 GHz-26 GHz)

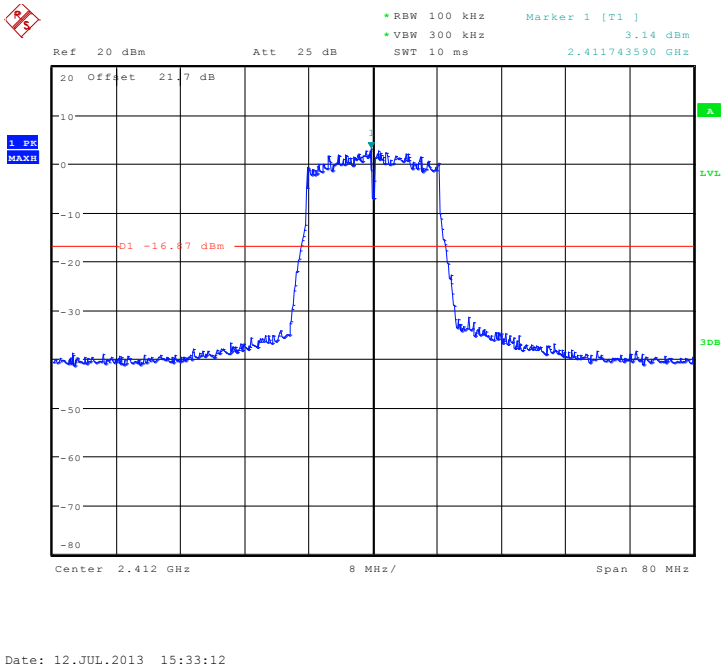


Fig.A.6.1.25 Conducted Spurious Emission (802.11g, Ch1, Center Frequency)

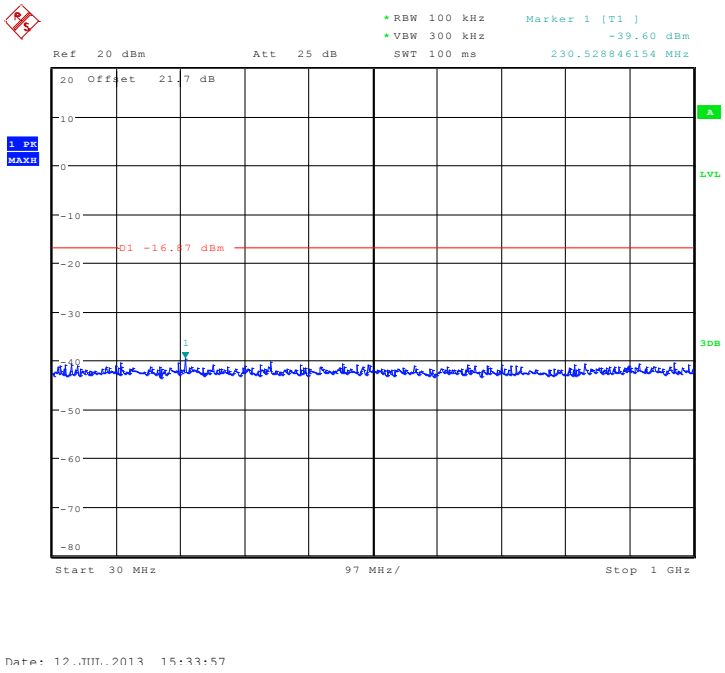


Fig.A.6.1.26 Conducted Spurious Emission (802.11g, Ch1, 30 MHz-1 GHz)

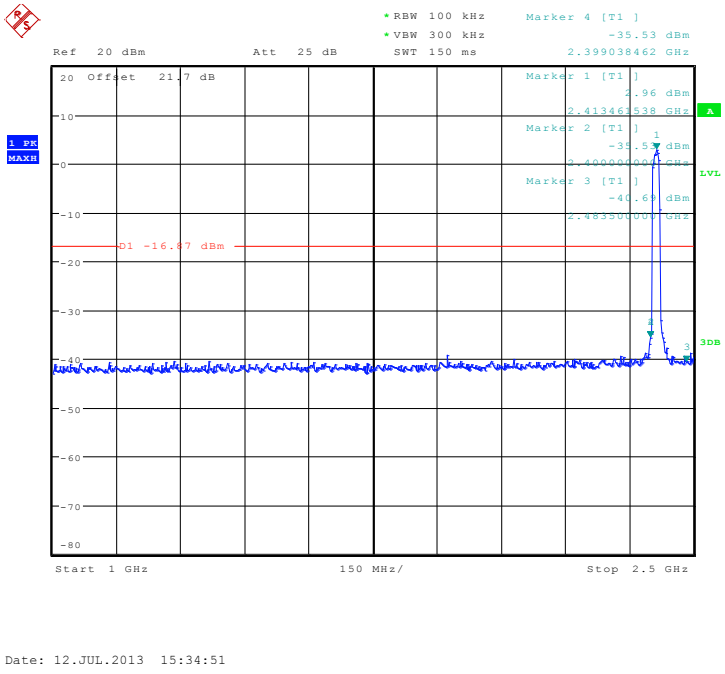


Fig.A.6.1.27 Conducted Spurious Emission (802.11g, Ch1, 1 GHz-2.5 GHz)

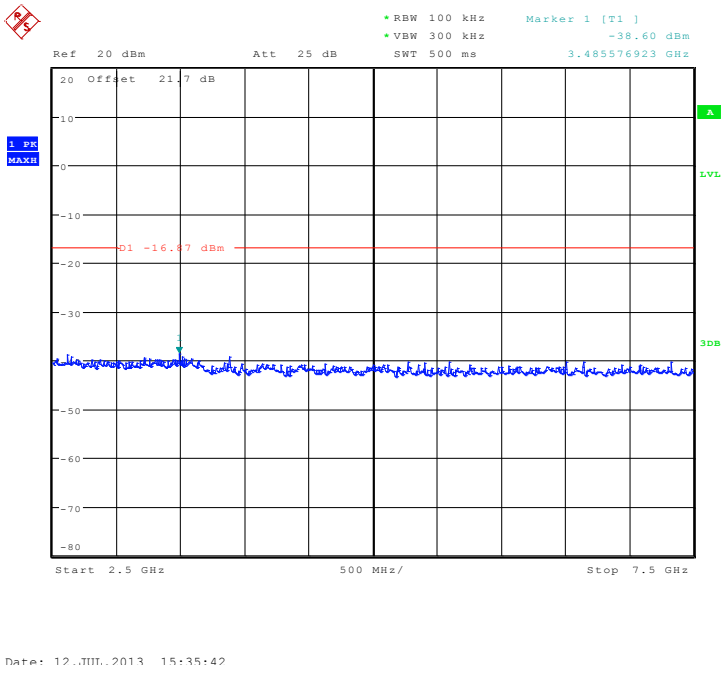


Fig.A.6.1.28 Conducted Spurious Emission (802.11g, Ch1, 2.5 GHz-7.5 GHz)

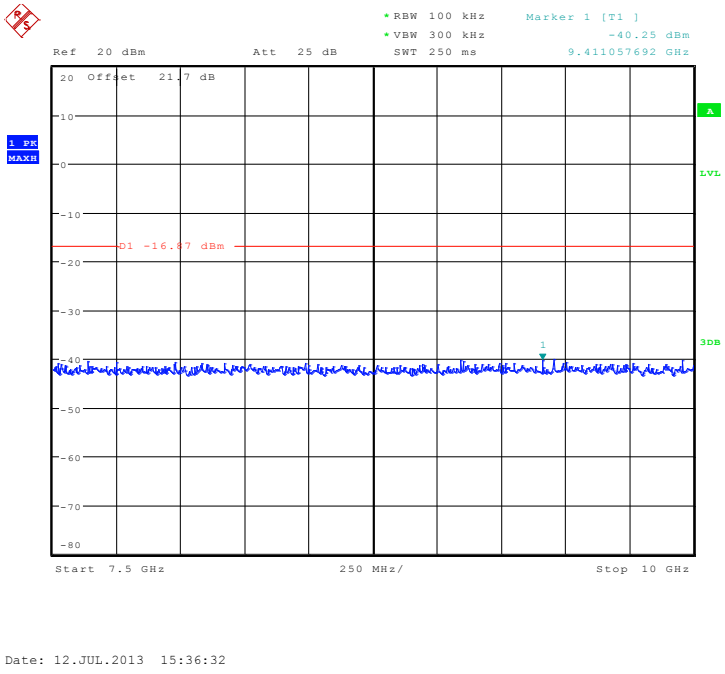


Fig.A.6.1.29 Conducted Spurious Emission (802.11g, Ch1, 7.5 GHz-10 GHz)

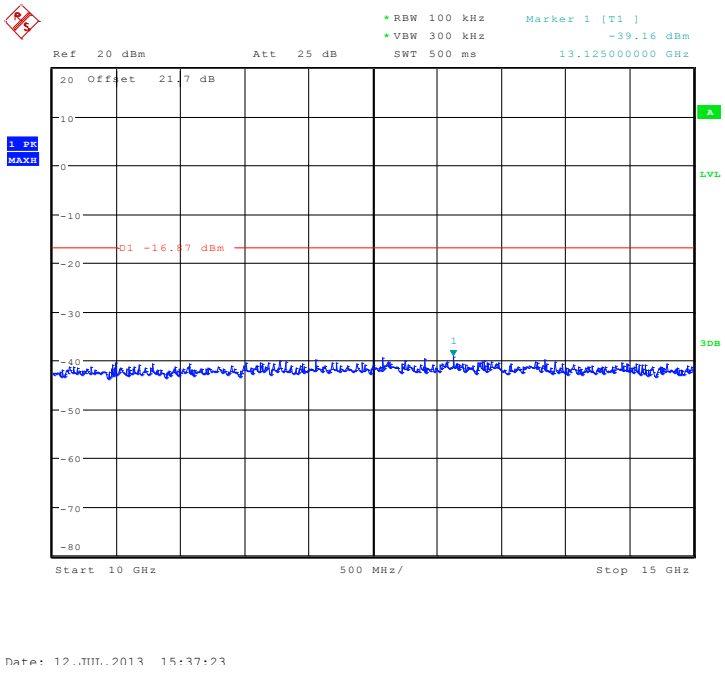


Fig.A.6.1.30 Conducted Spurious Emission (802.11g, Ch1, 10 GHz-15 GHz)

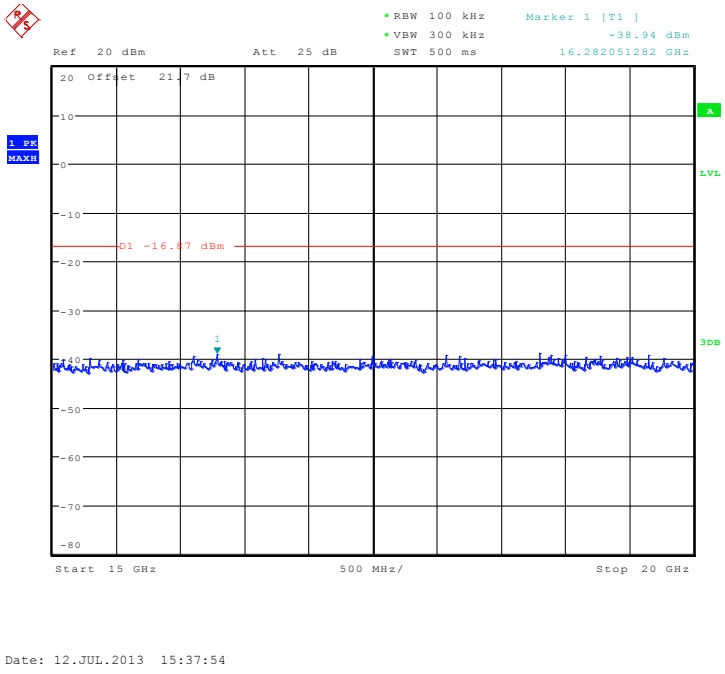


Fig.A.6.1.31 Conducted Spurious Emission (802.11g, Ch1, 15 GHz-20 GHz)

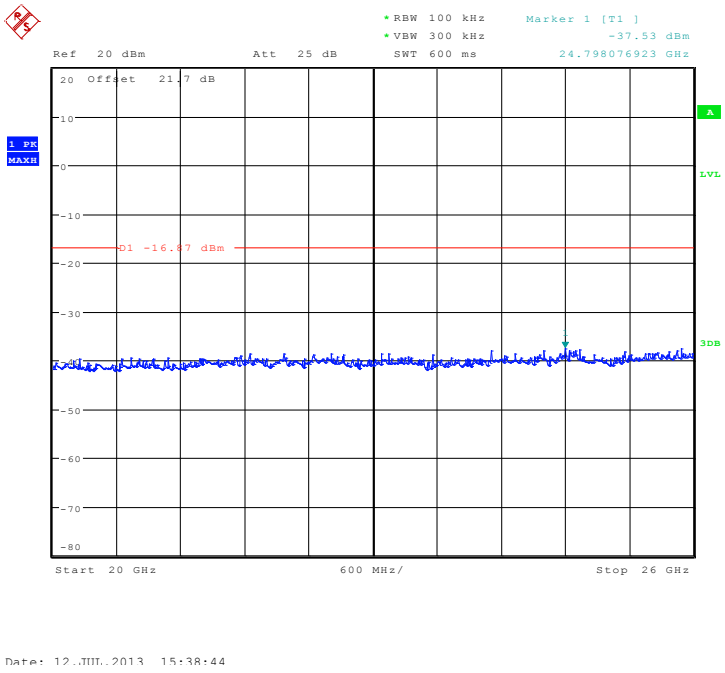


Fig.A.6.1.32 Conducted Spurious Emission (802.11g, Ch1, 20 GHz-26 GHz)

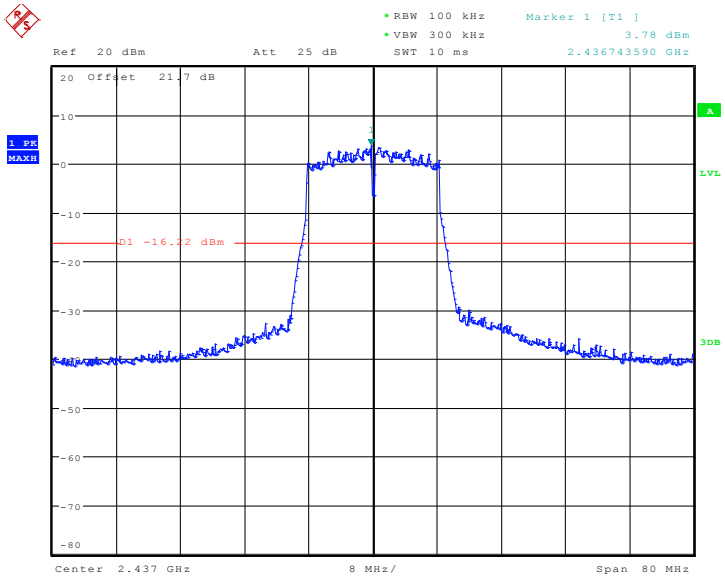


Fig.A.6.1.33 Conducted Spurious Emission (802.11g, Ch6, Center Frequency)

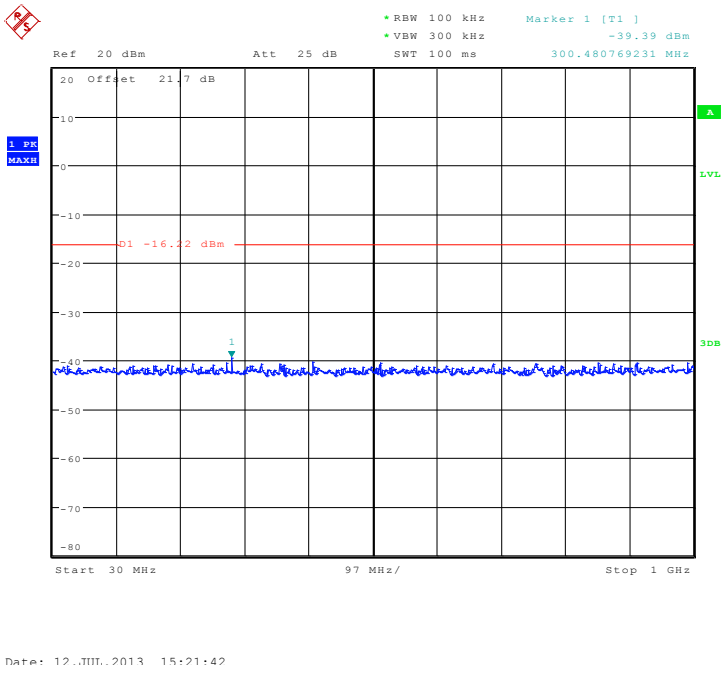


Fig.A.6.1.34 Conducted Spurious Emission (802.11g, Ch6, 30 MHz-1 GHz)

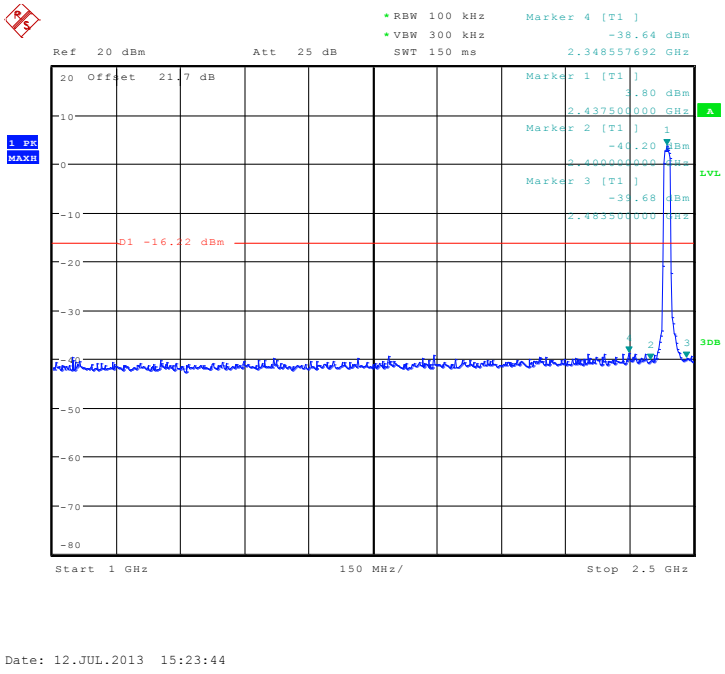


Fig.A.6.1.35 Conducted Spurious Emission (802.11g, Ch6, 1 GHz-2.5 GHz)

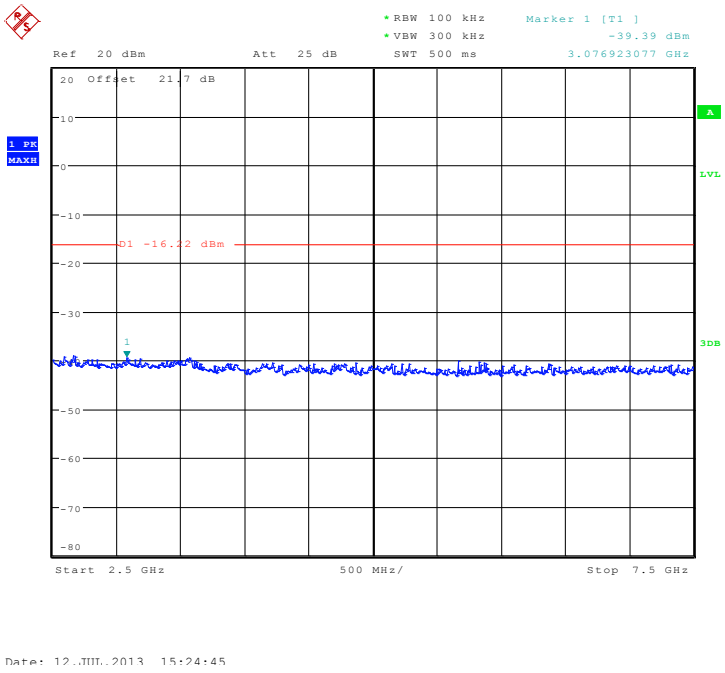


Fig.A.6.1.36 Conducted Spurious Emission (802.11g, Ch6, 2.5 GHz-7.5 GHz)

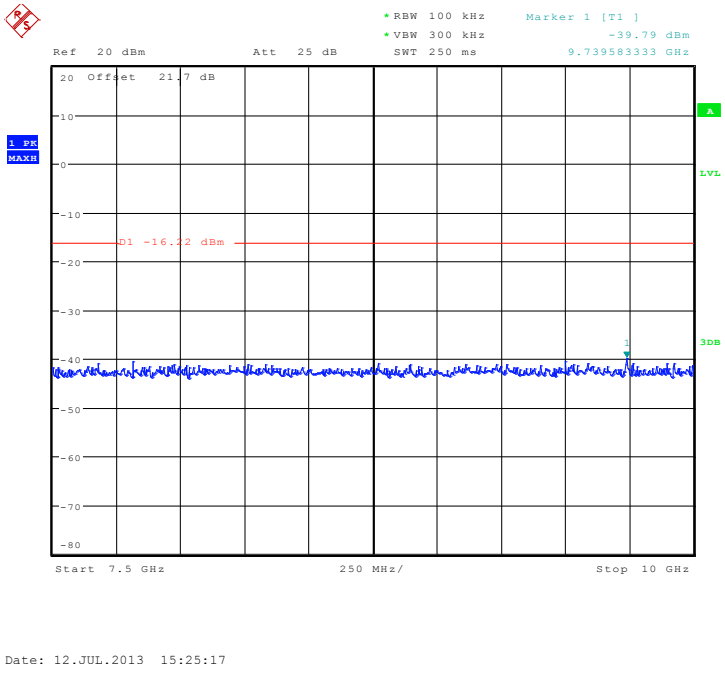


Fig.A.6.1.37 Conducted Spurious Emission (802.11g, Ch6, 7.5 GHz-10 GHz)

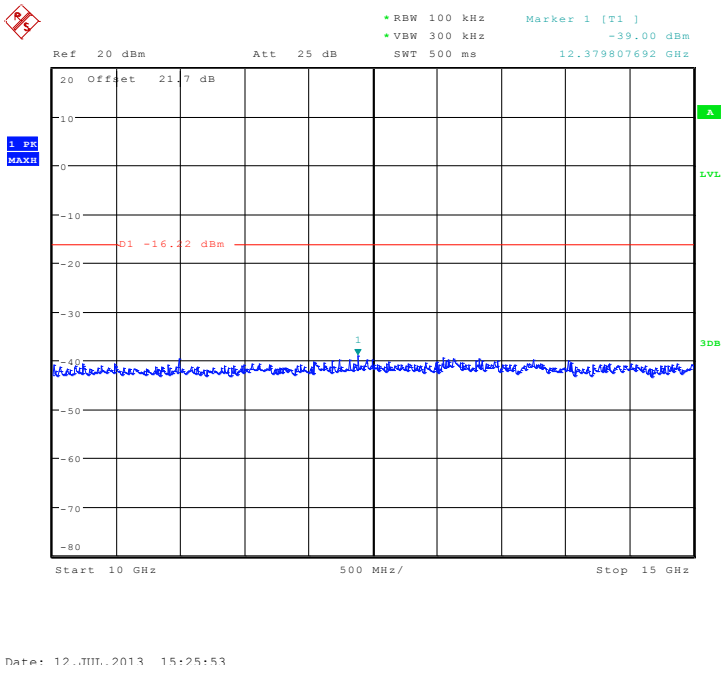


Fig.A.6.1.38 Conducted Spurious Emission (802.11g, Ch6, 10 GHz-15 GHz)

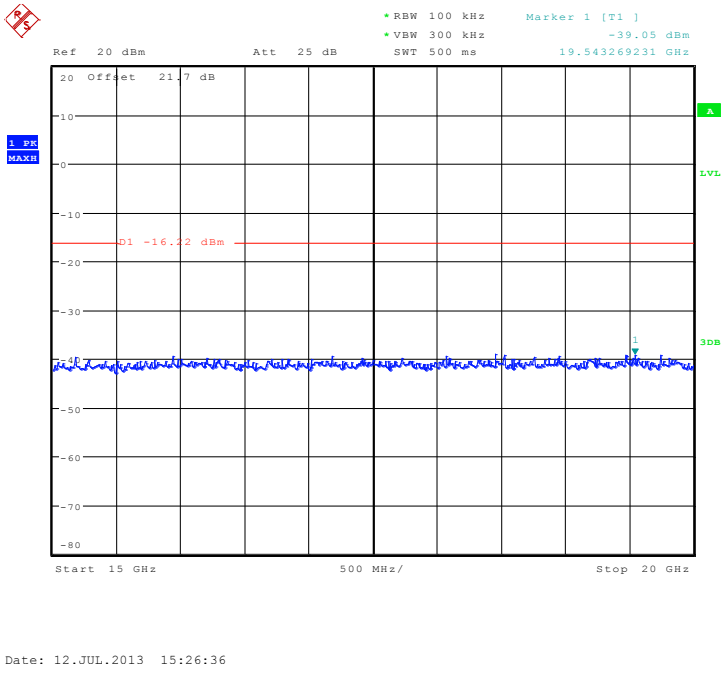


Fig.A.6.1.39 Conducted Spurious Emission (802.11g, Ch6, 15 GHz-20 GHz)

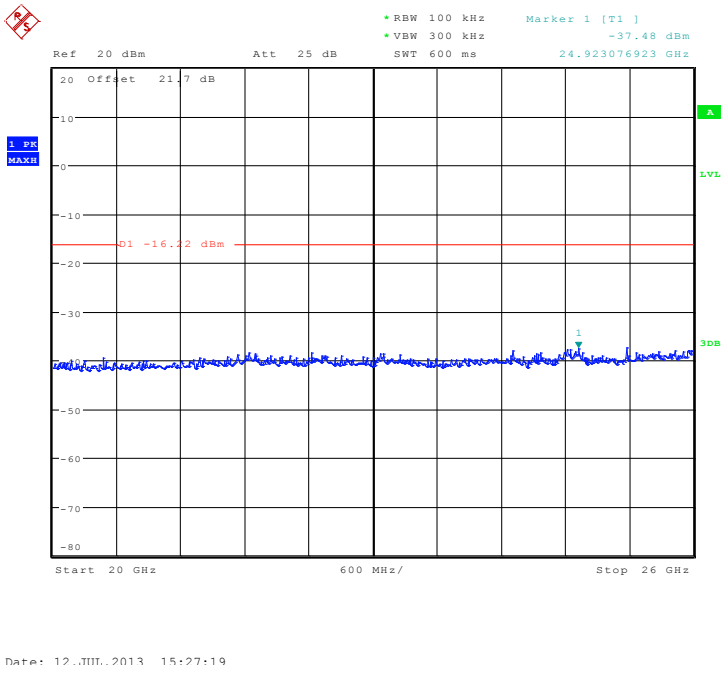


Fig.A.6.1.40 Conducted Spurious Emission (802.11g, Ch6, 20 GHz-26 GHz)

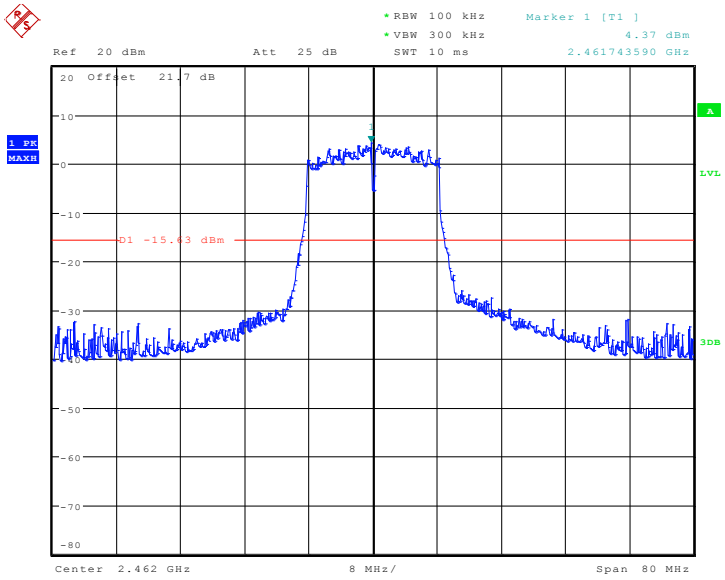


Fig.A.6.1.41 Conducted Spurious Emission (802.11g, Ch11, Center Frequency)

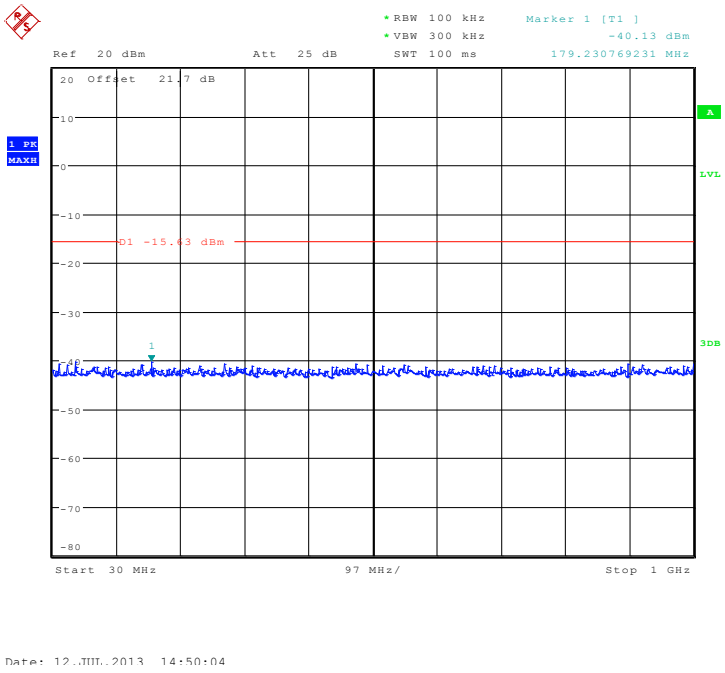


Fig.A.6.1.42 Conducted Spurious Emission (802.11g, Ch11, 30 MHz-1 GHz)

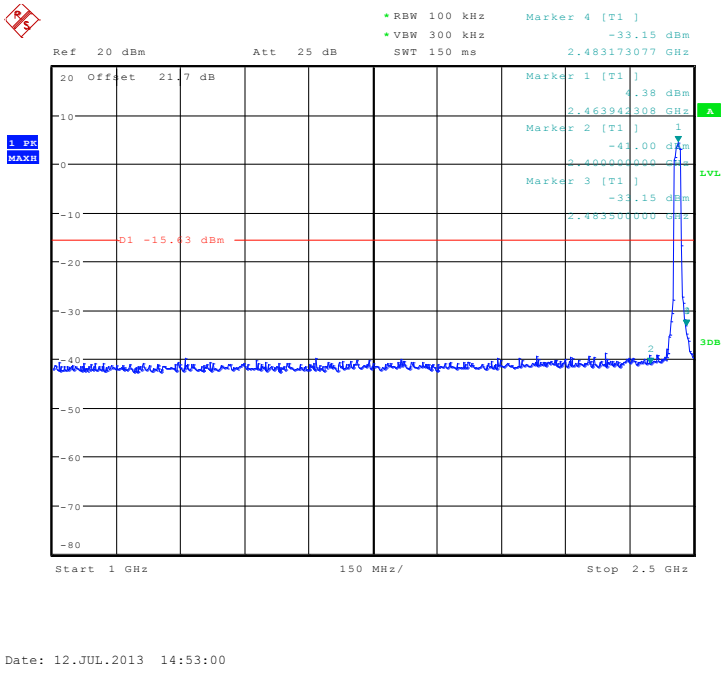


Fig.A.6.1.43 Conducted Spurious Emission (802.11g, Ch11, 1 GHz-2.5 GHz)

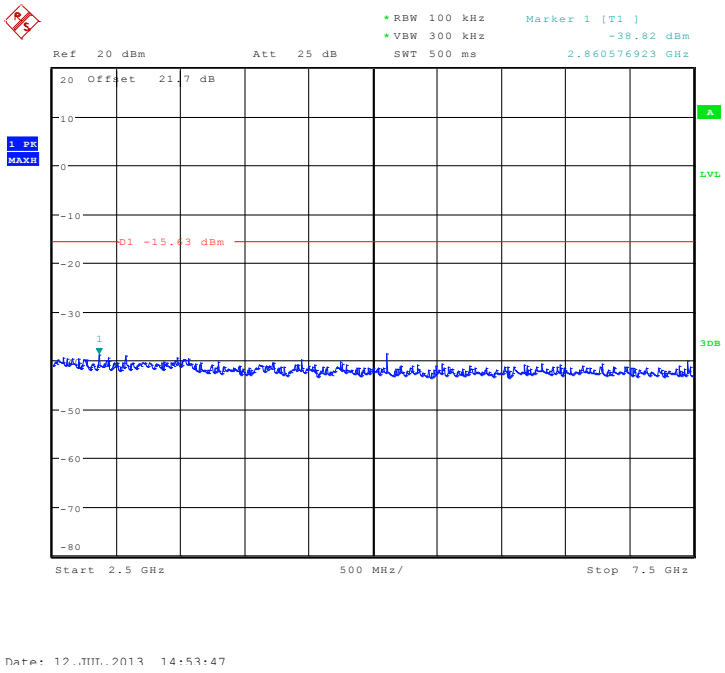


Fig.A.6.1.44 Conducted Spurious Emission (802.11g, Ch11, 2.5 GHz-7.5 GHz)

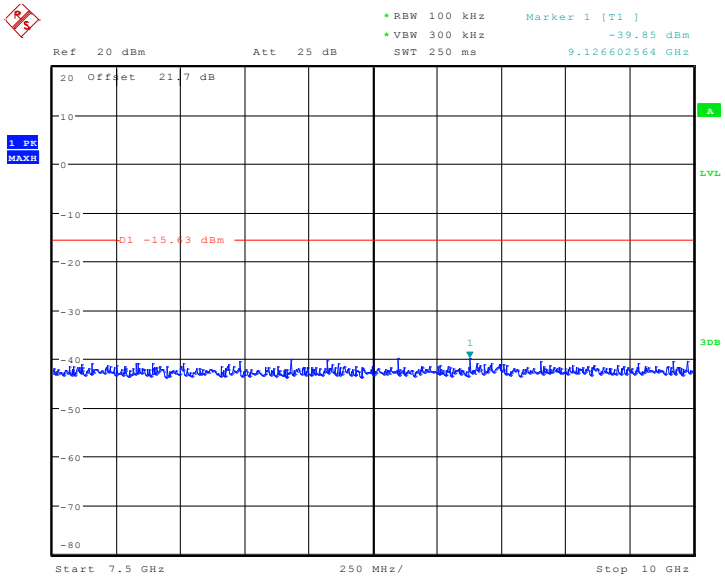


Fig.A.6.1.45 Conducted Spurious Emission (802.11g, Ch11, 7.5 GHz-10 GHz)

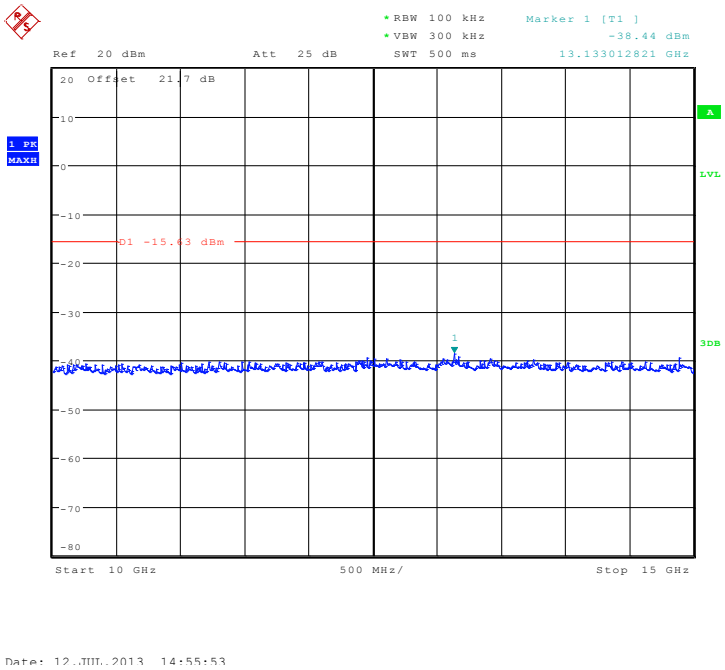


Fig.A.6.1.46 Conducted Spurious Emission (802.11g, Ch11, 10 GHz-15 GHz)

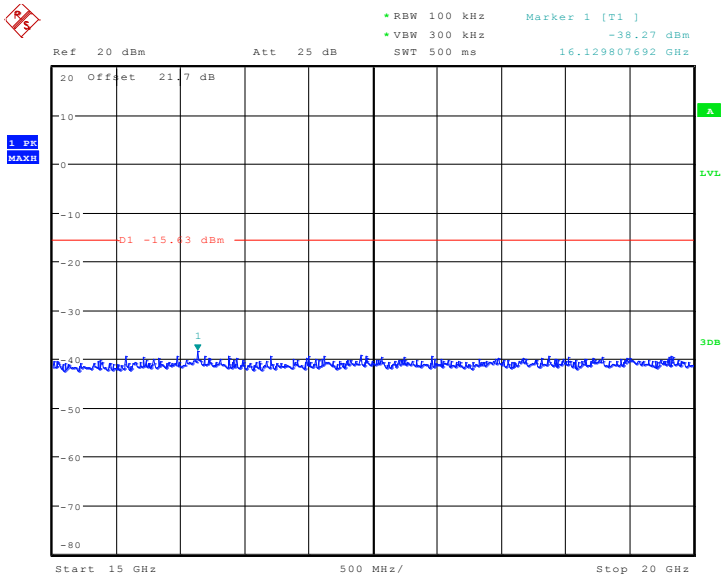


Fig.A.6.1.47 Conducted Spurious Emission (802.11g, Ch11, 15 GHz-20 GHz)

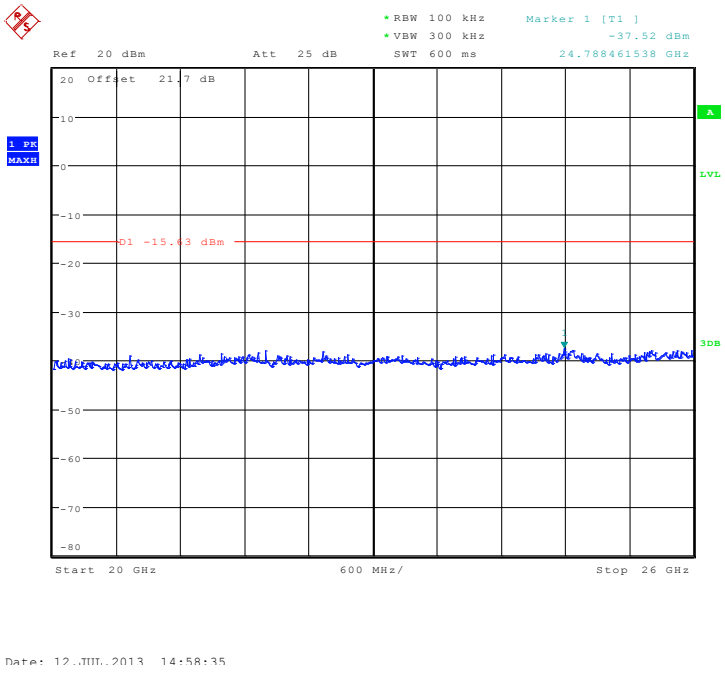


Fig.A.6.1.48 Conducted Spurious Emission (802.11g, Ch11, 20 GHz-26 GHz)

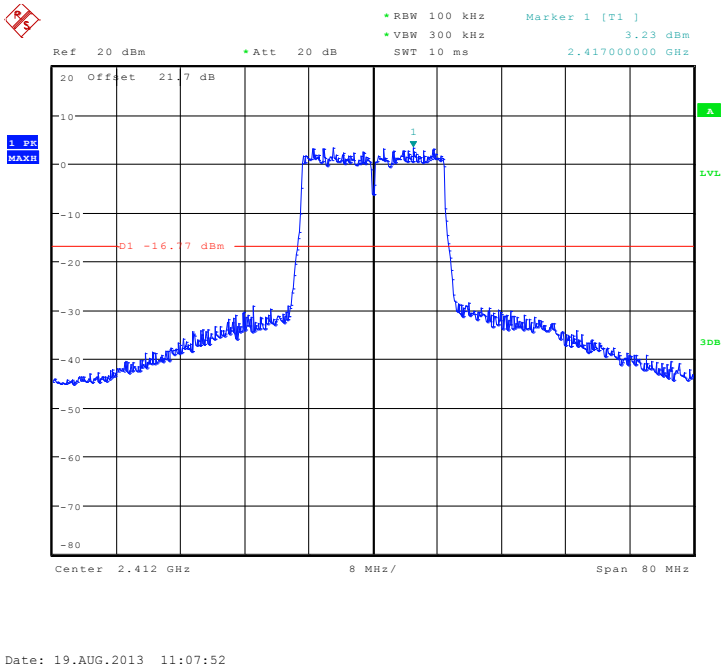


Fig.A.6.1.49 Conducted Spurious Emission (802.11n-HT20, Ch1, Center Frequency)

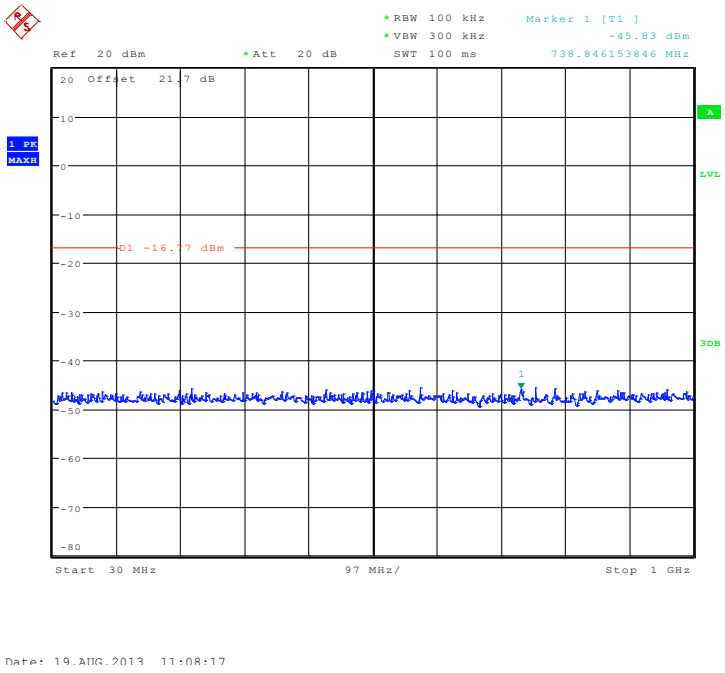


Fig.A.6.1.50 Conducted Spurious Emission (802.11n-HT20, Ch1, 30 MHz-1 GHz)

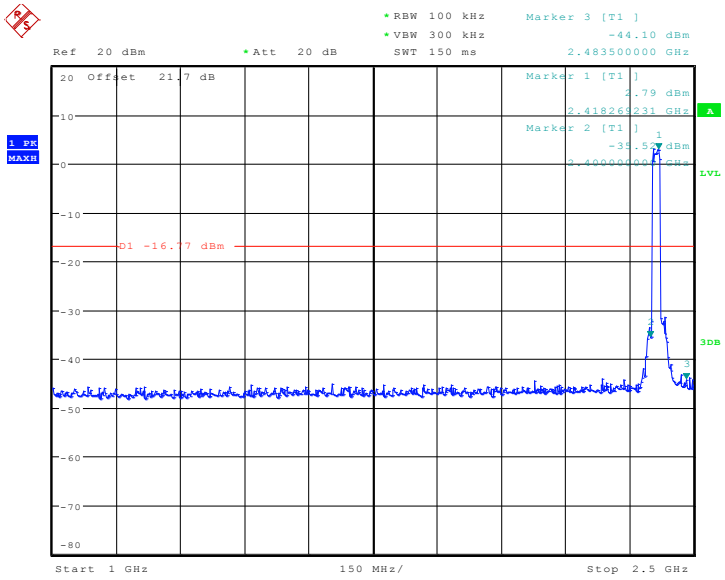


Fig.A.6.1.51 Conducted Spurious Emission (802.11n-HT20, Ch1, 1 GHz-2.5 GHz)

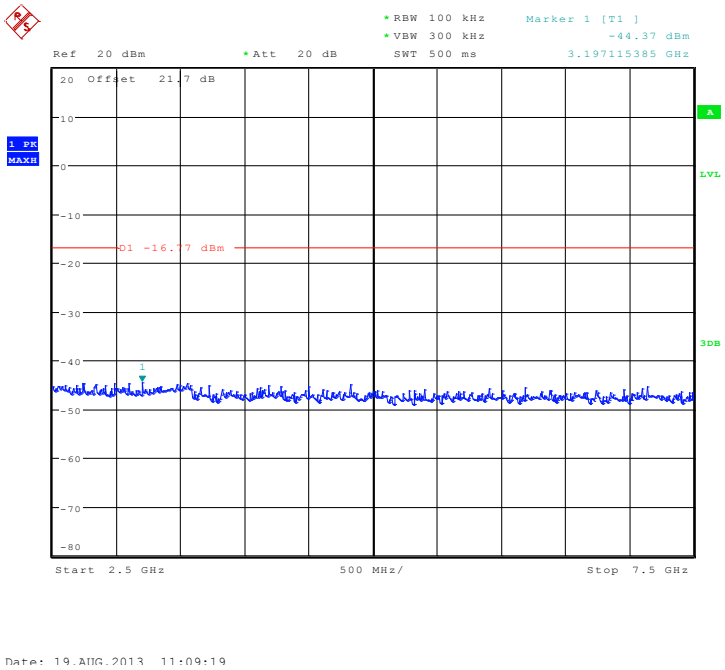


Fig.A.6.1.52 Conducted Spurious Emission (802.11n-HT20, Ch1, 2.5 GHz-7.5 GHz)

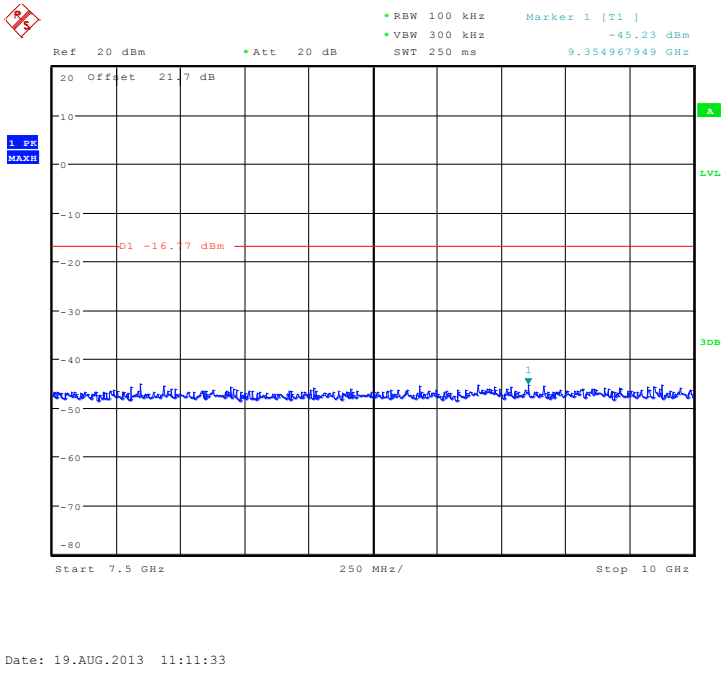


Fig.A.6.1.53 Conducted Spurious Emission (802.11n-HT20, Ch1, 7.5 GHz-10 GHz)

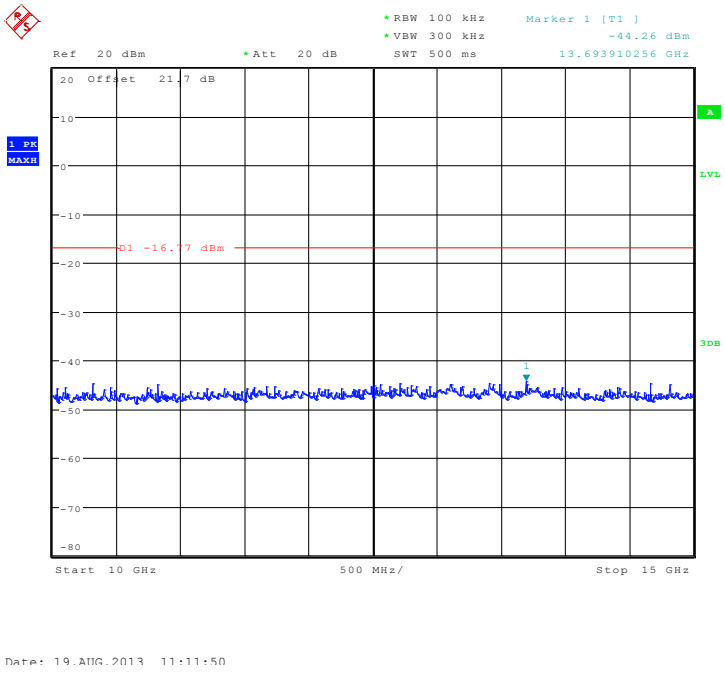


Fig.A.6.1.54 Conducted Spurious Emission (802.11n-HT20, Ch1, 10 GHz-15 GHz)

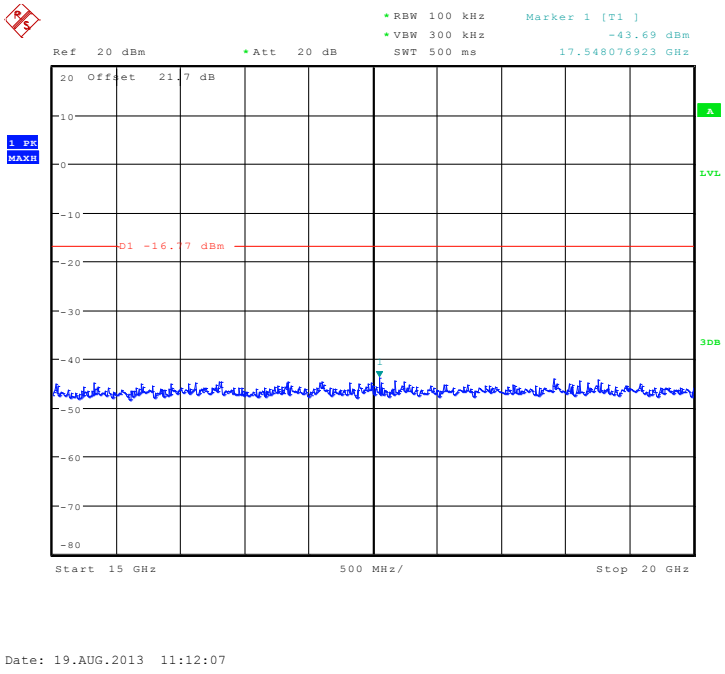


Fig.A.6.1.55 Conducted Spurious Emission (802.11n-HT20, Ch1, 15 GHz-20 GHz)

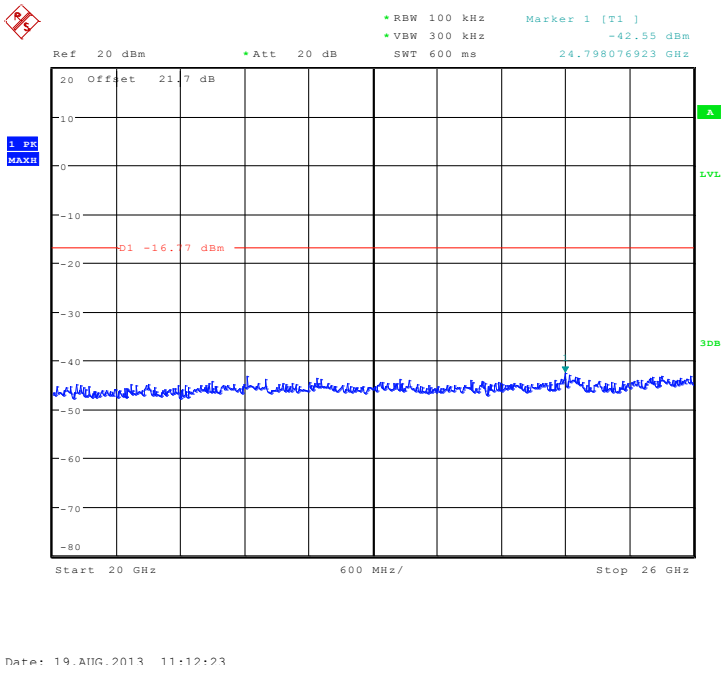


Fig.A.6.1.56 Conducted Spurious Emission (802.11n-HT20, Ch1, 20 GHz-26 GHz)

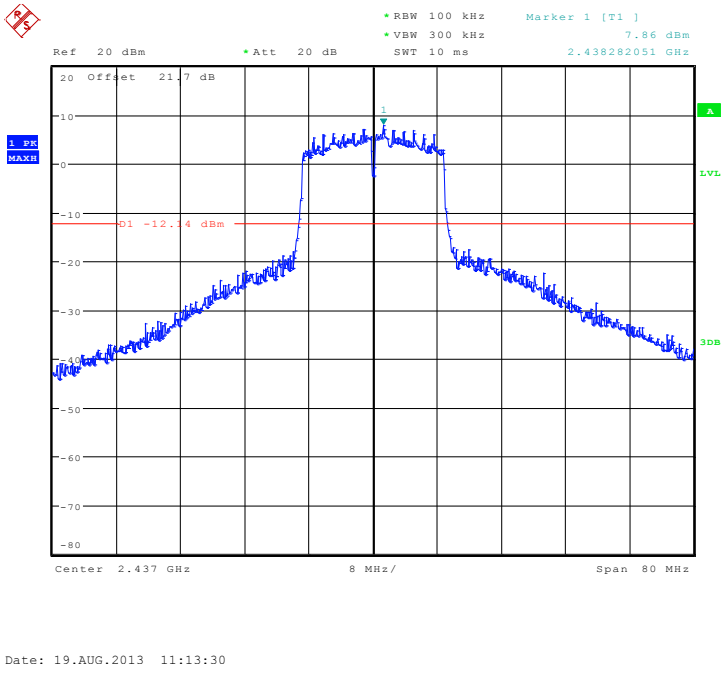


Fig.A.6.1.57 Conducted Spurious Emission (802.11n-HT20, Ch6, Center Frequency)

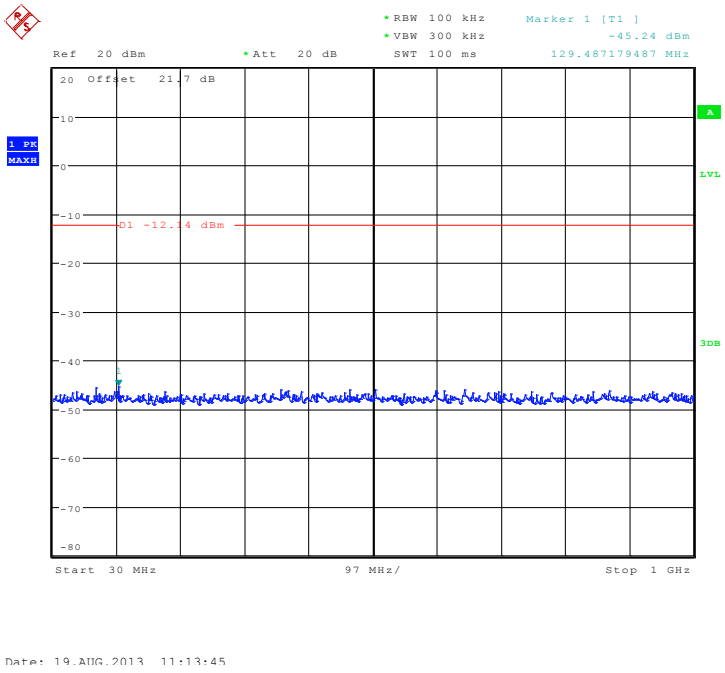


Fig.A.6.1.58 Conducted Spurious Emission (802.11n-HT20, Ch6, 30 MHz-1 GHz)

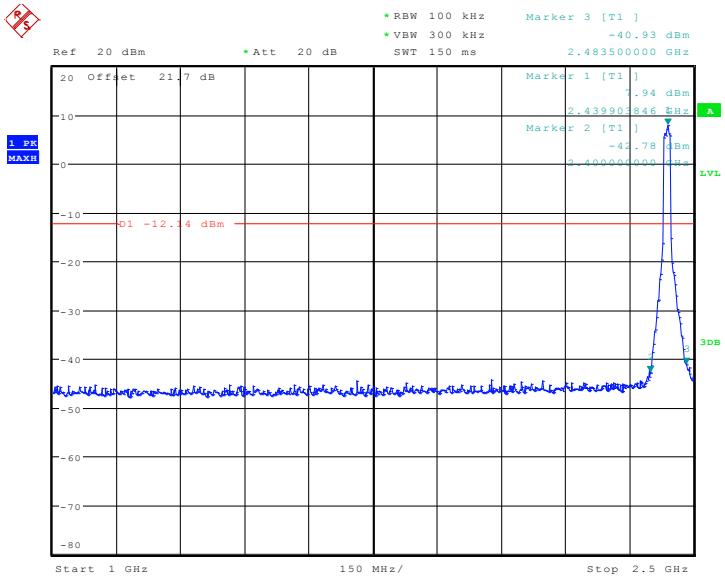


Fig.A.6.1.59 Conducted Spurious Emission (802.11n-HT20, Ch6, 1 GHz-2.5 GHz)

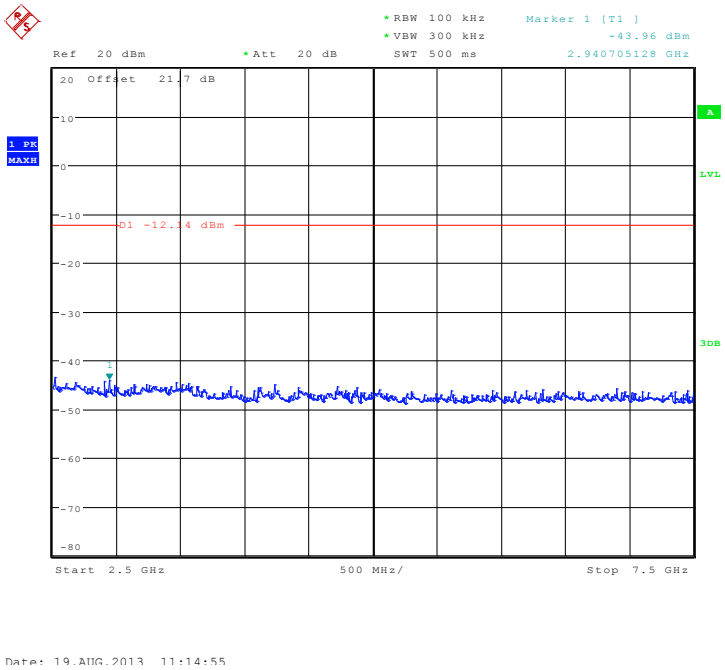


Fig.A.6.1.60 Conducted Spurious Emission (802.11n-HT20, Ch6, 2.5 GHz-7.5 GHz)

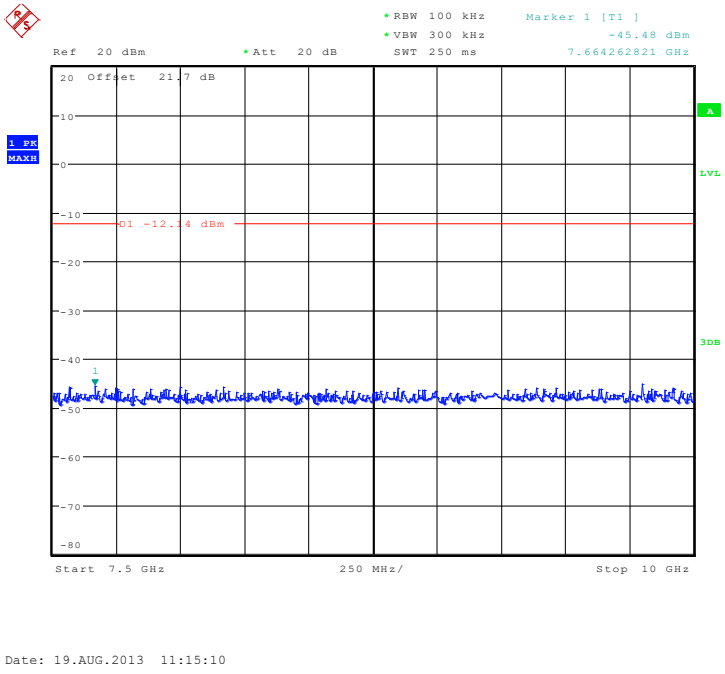


Fig.A.6.1.61 Conducted Spurious Emission (802.11n-HT20, Ch6, 7.5 GHz-10 GHz)

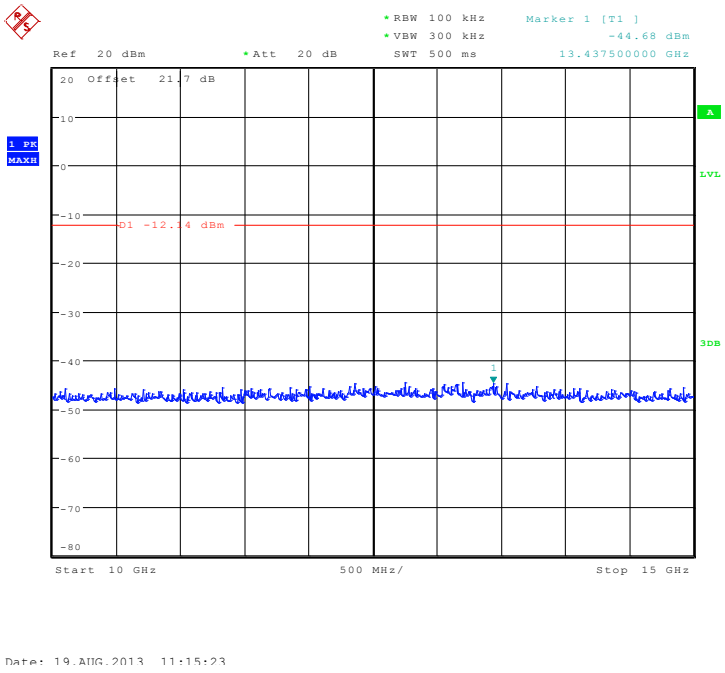


Fig.A.6.1.62 Conducted Spurious Emission (802.11n-HT20, Ch6, 10 GHz-15 GHz)

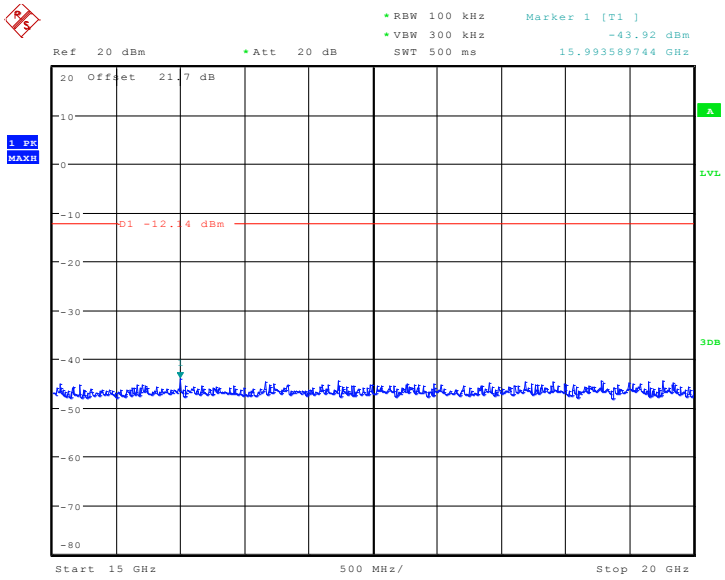


Fig.A.6.1.63 Conducted Spurious Emission (802.11n-HT20, Ch6, 15 GHz-20 GHz)

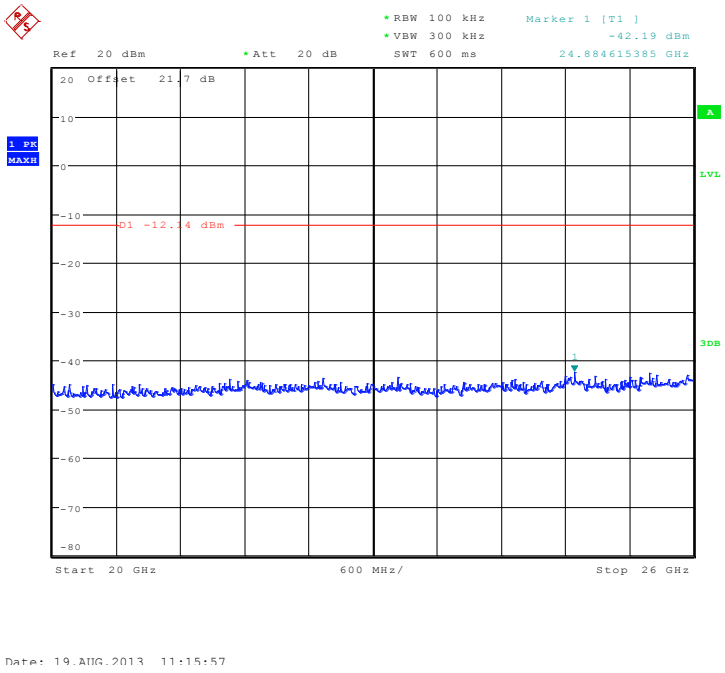


Fig.A.6.1.64 Conducted Spurious Emission (802.11n-HT20, Ch6, 20 GHz-26 GHz)

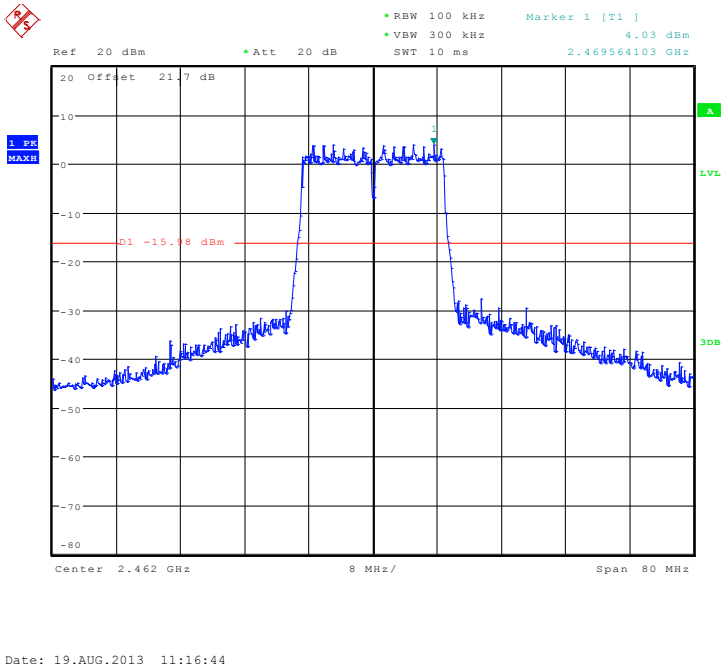


Fig.A.6.1.65 Conducted Spurious Emission (802.11n-HT20, Ch11, Center Frequency)

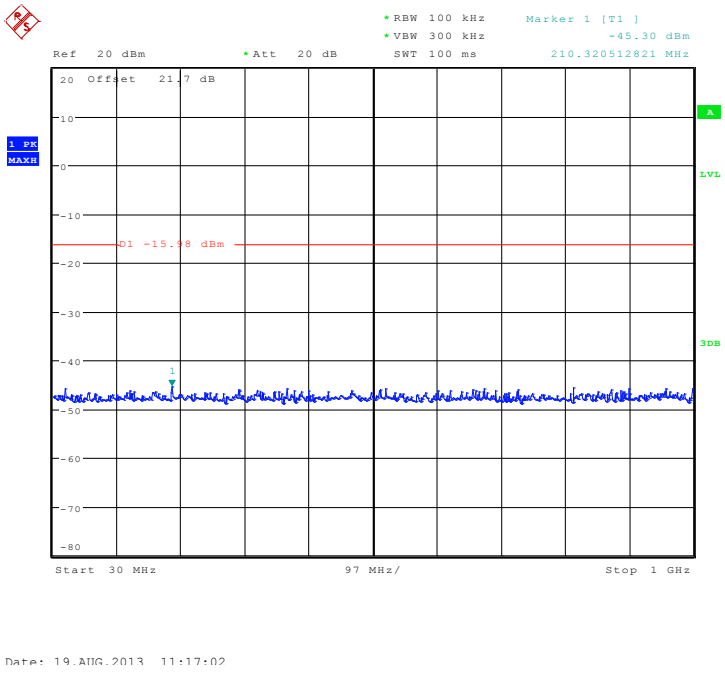


Fig.A.6.1.66 Conducted Spurious Emission (802.11n-HT20, Ch11, 30 MHz-1 GHz)

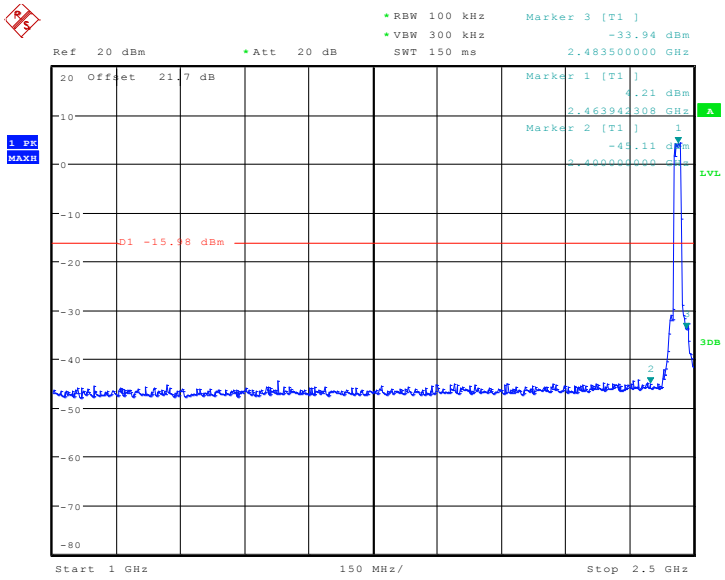


Fig.A.6.1.67 Conducted Spurious Emission (802.11n-HT20, Ch11, 1 GHz-2.5 GHz)

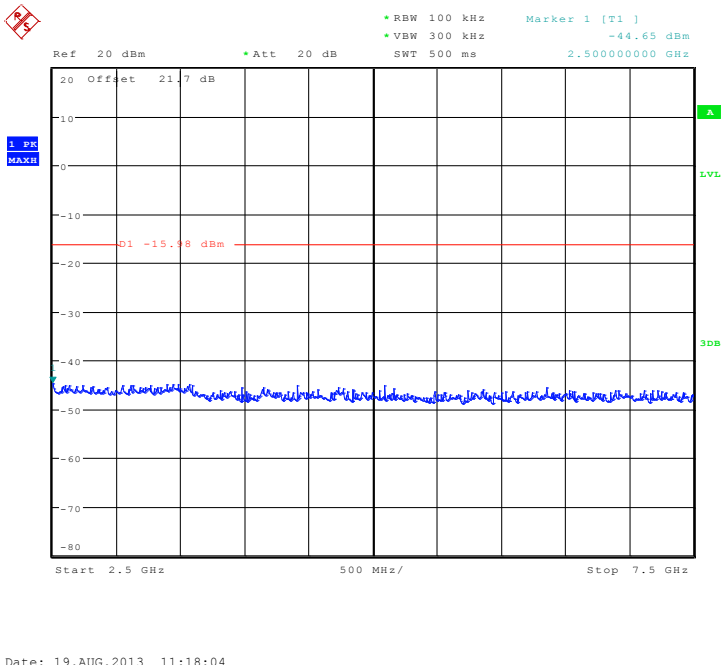


Fig.A.6.1.68 Conducted Spurious Emission (802.11n-HT20, Ch11, 2.5 GHz-7.5 GHz)

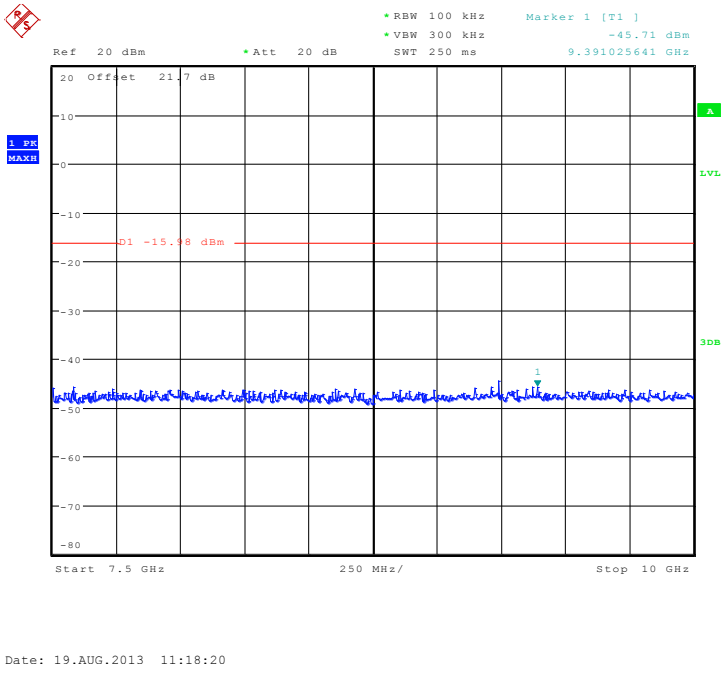


Fig.A.6.1.69 Conducted Spurious Emission (802.11n-HT20, Ch11, 7.5 GHz-10 GHz)

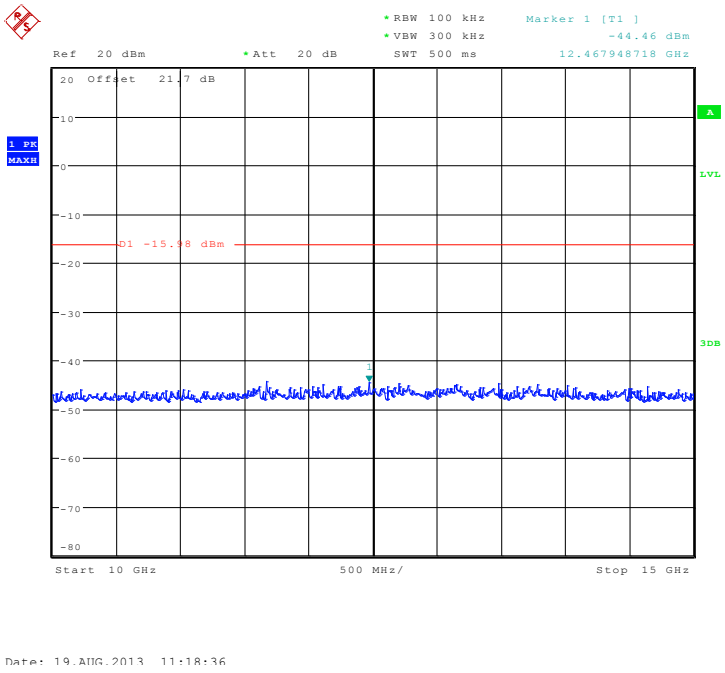


Fig.A.6.1.70 Conducted Spurious Emission (802.11n-HT20, Ch11, 10 GHz-15 GHz)

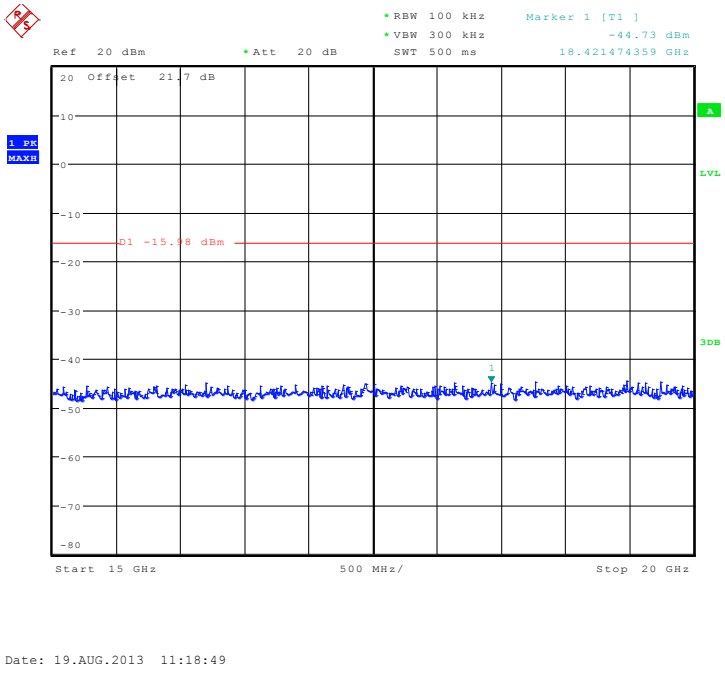


Fig.A.6.1.71 Conducted Spurious Emission (802.11n-HT20, Ch11, 15 GHz-20 GHz)

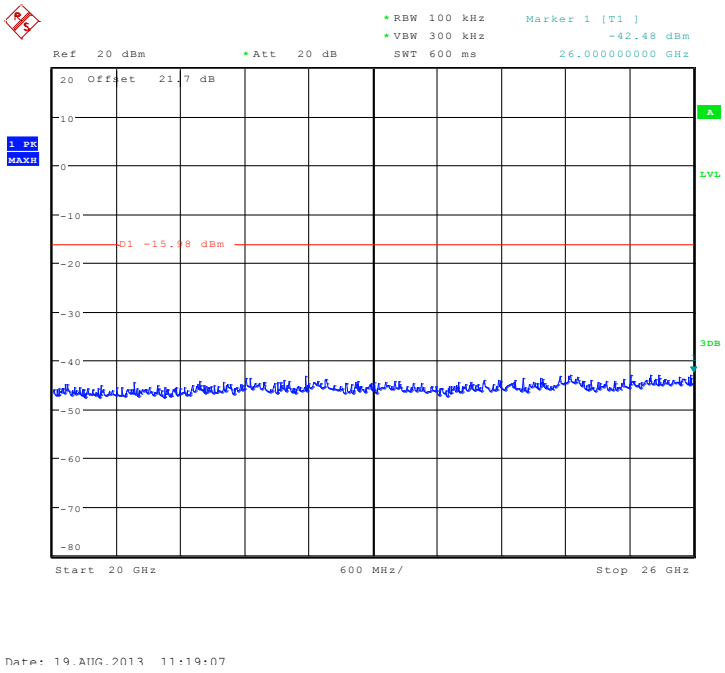


Fig.A.6.1.72 Conducted Spurious Emission (802.11n-HT20, Ch11, 20 GHz-26 GHz)

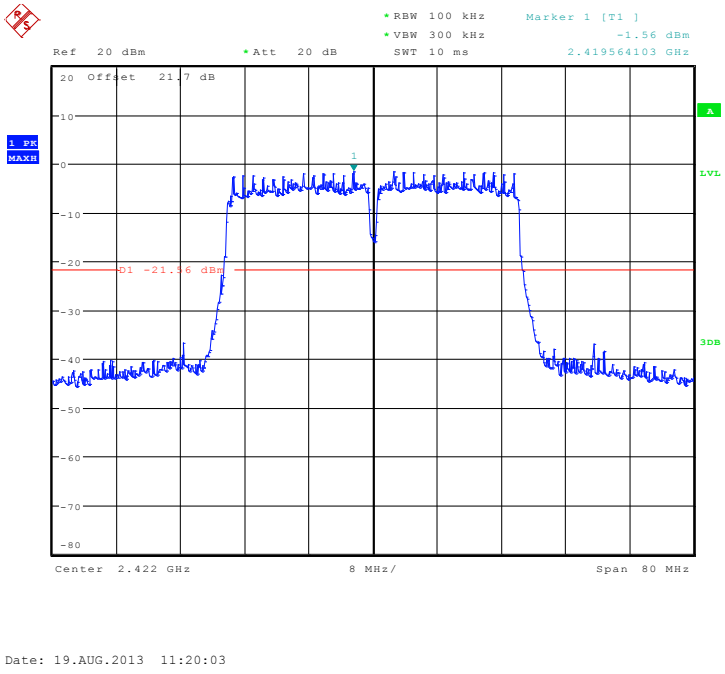


Fig.A.6.1.73 Conducted Spurious Emission (802.11n-HT40, Ch3, Center Frequency)

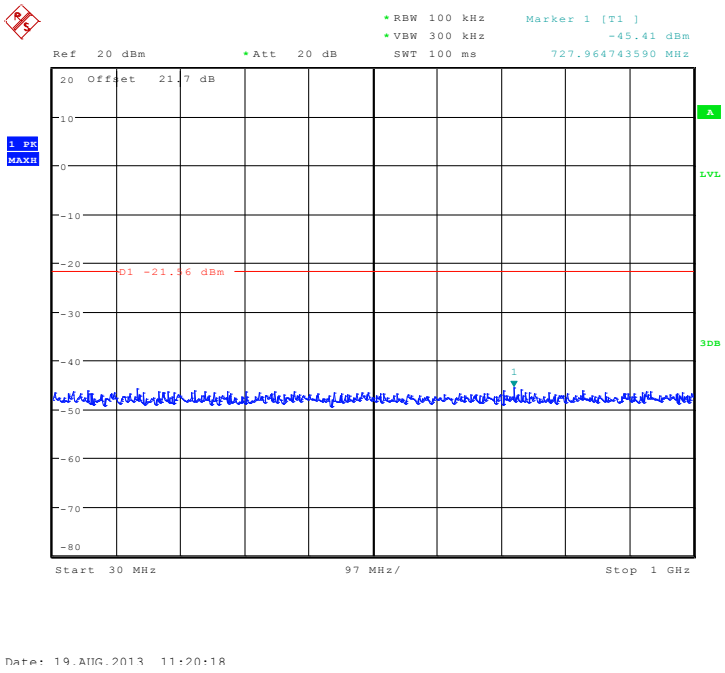


Fig.A.6.1.74 Conducted Spurious Emission (802.11n-HT40, Ch3, 30 MHz-1 GHz)

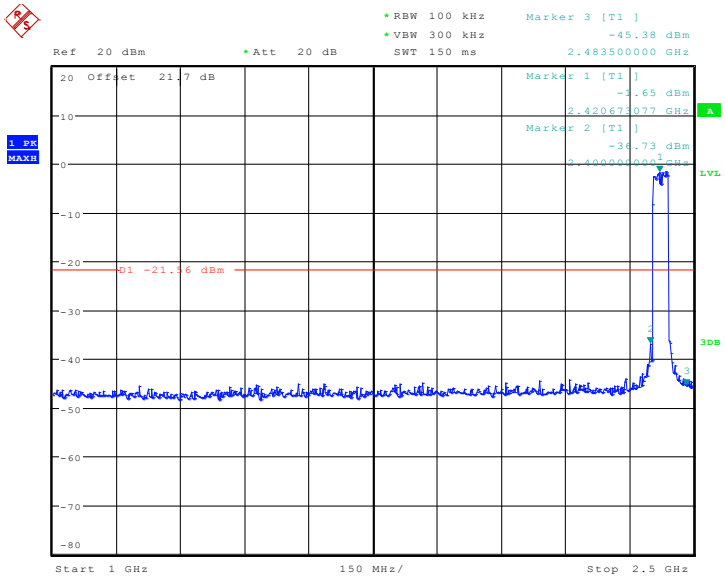


Fig.A.6.1.75 Conducted Spurious Emission (802.11n-HT40, Ch3, 1 GHz-2.5 GHz)

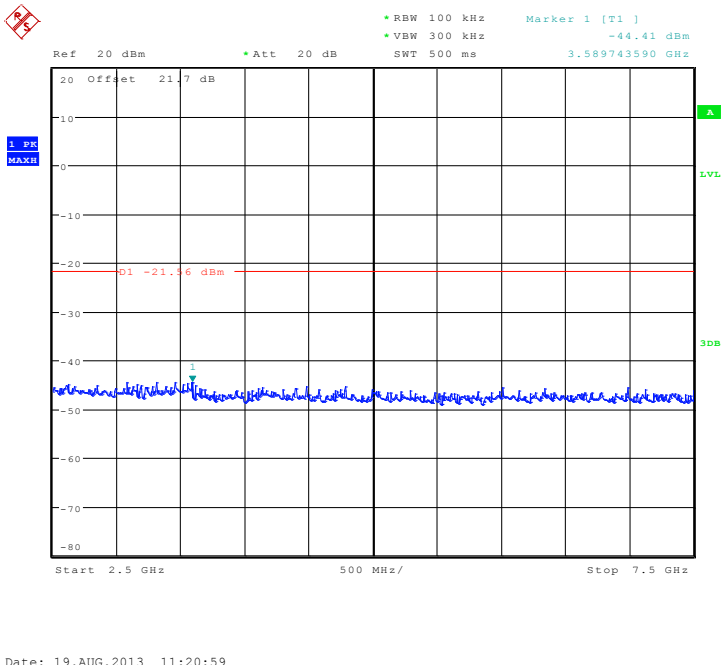


Fig.A.6.1.76 Conducted Spurious Emission (802.11n-HT40, Ch3, 2.5 GHz-7.5 GHz)

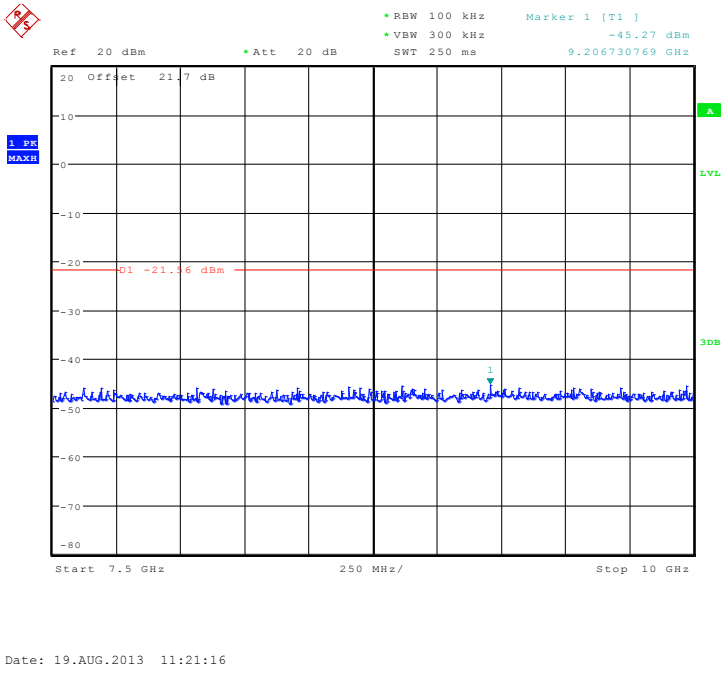


Fig.A.6.1.77 Conducted Spurious Emission (802.11n-HT40, Ch3, 7.5 GHz-10 GHz)

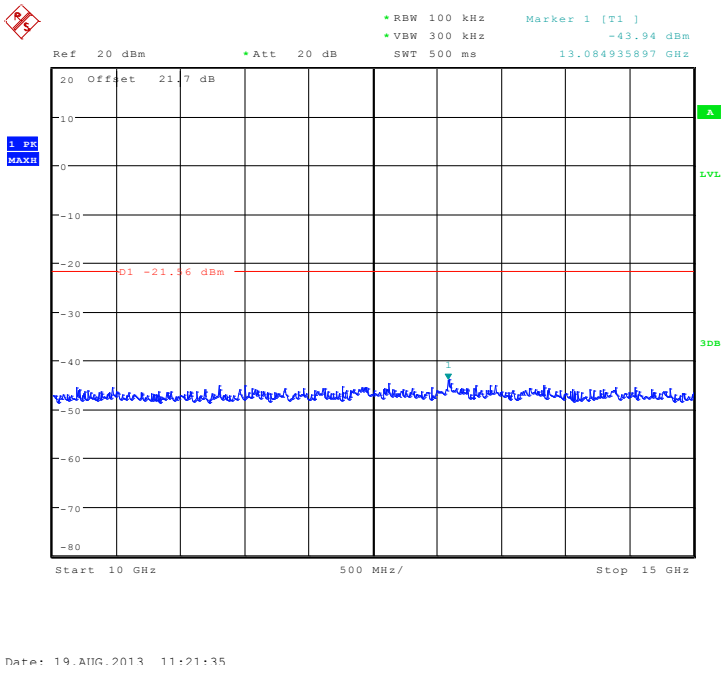


Fig.A.6.1.78 Conducted Spurious Emission (802.11n-HT40, Ch3, 10 GHz-15 GHz)

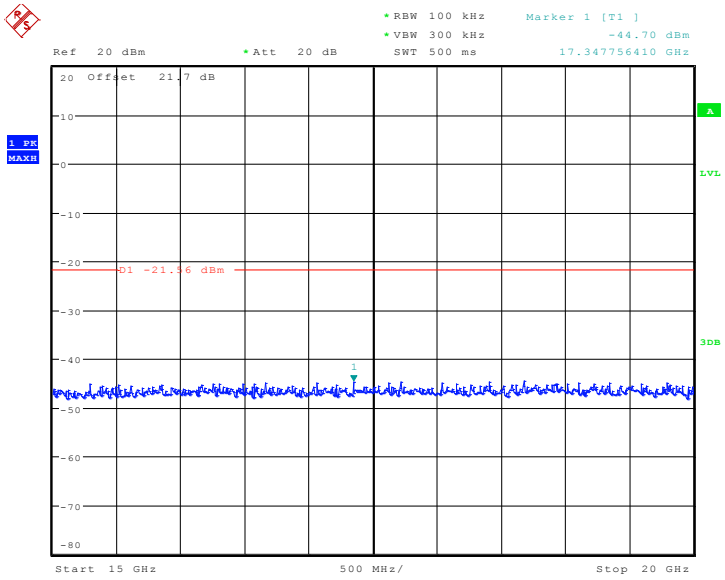


Fig.A.6.1.79 Conducted Spurious Emission (802.11n-HT40, Ch3, 15 GHz-20 GHz)

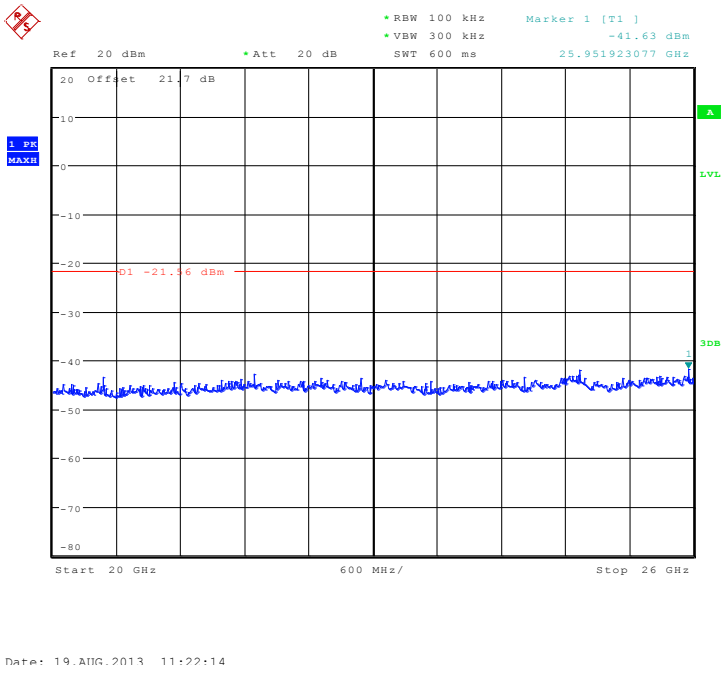


Fig.A.6.1.80 Conducted Spurious Emission (802.11n-HT40, Ch3, 20 GHz-26 GHz)

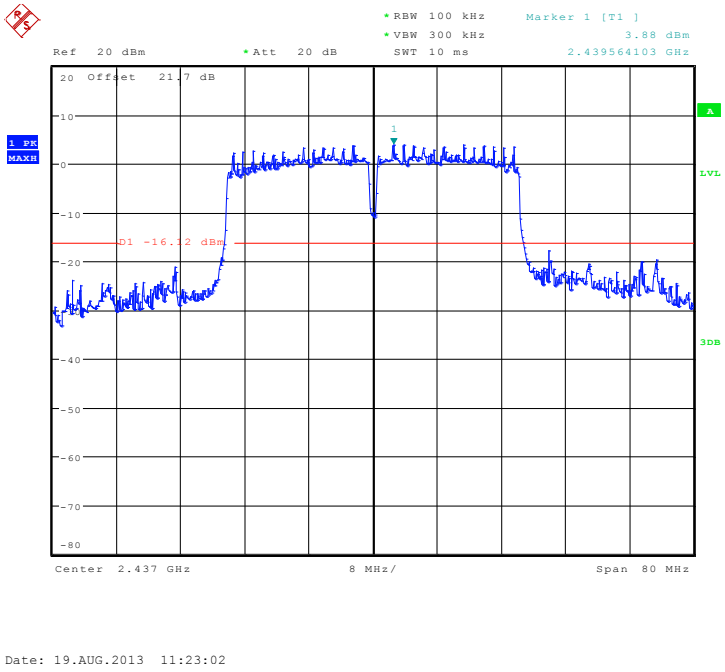


Fig.A.6.1.81 Conducted Spurious Emission (802.11n-HT40, Ch6, Center Frequency)

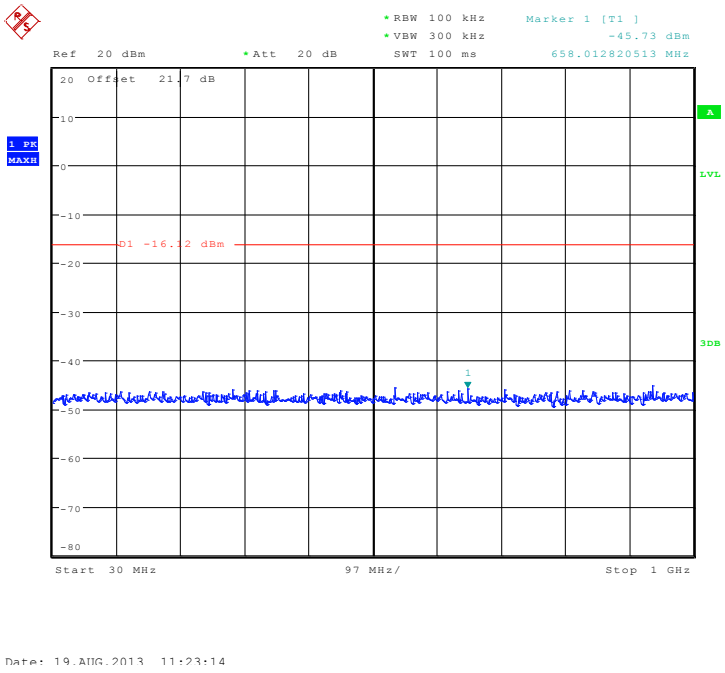


Fig.A.6.1.82 Conducted Spurious Emission (802.11n-HT40, Ch6, 30 MHz-1 GHz)

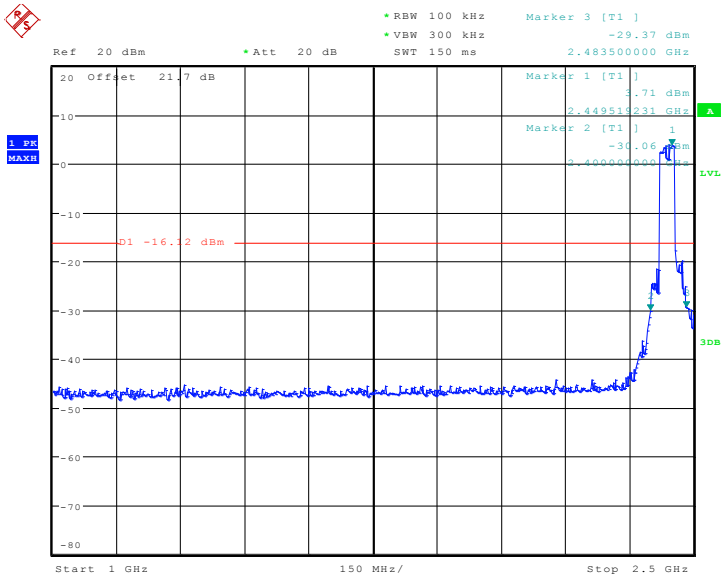


Fig.A.6.1.83 Conducted Spurious Emission (802.11n-HT40, Ch6, 1 GHz-2.5 GHz)

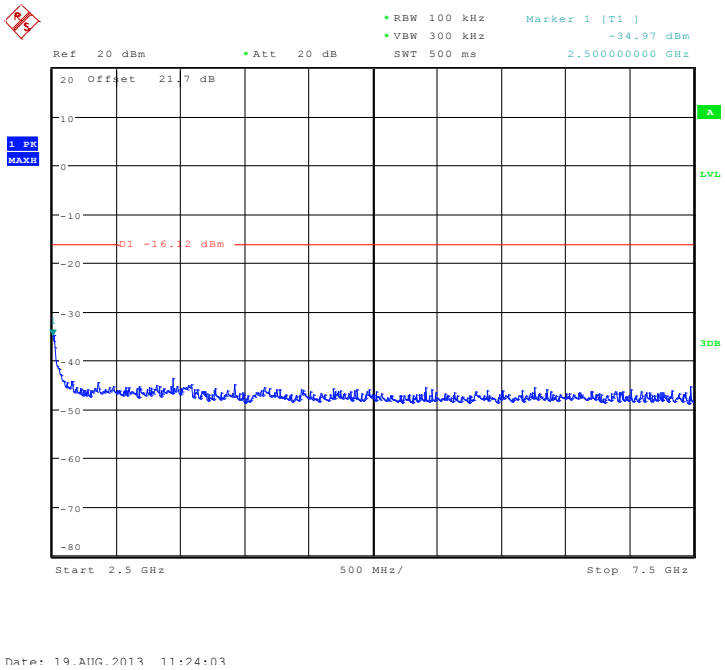


Fig.A.6.1.84 Conducted Spurious Emission (802.11n-HT40, Ch6, 2.5 GHz-7.5 GHz)

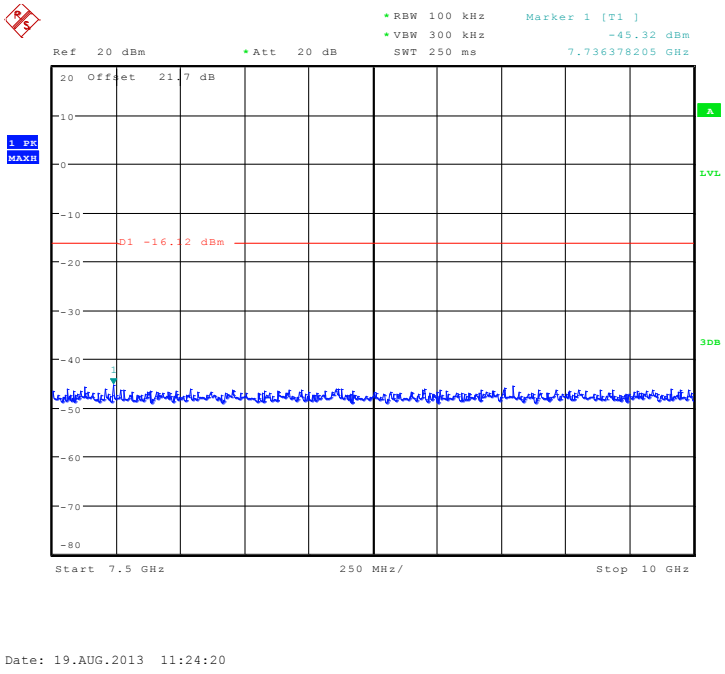


Fig.A.6.1.85 Conducted Spurious Emission (802.11n-HT40, Ch6, 7.5 GHz-10 GHz)

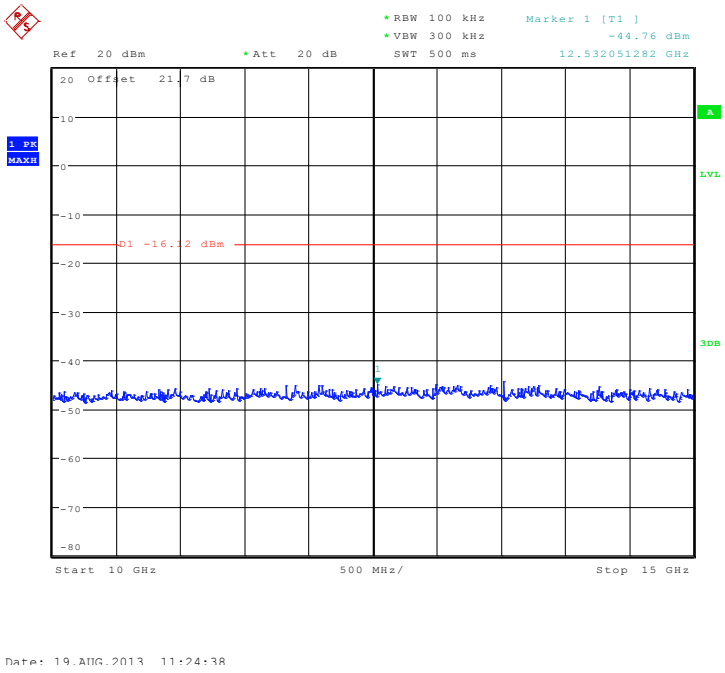


Fig.A.6.1.86 Conducted Spurious Emission (802.11n-HT40, Ch6, 10 GHz-15 GHz)

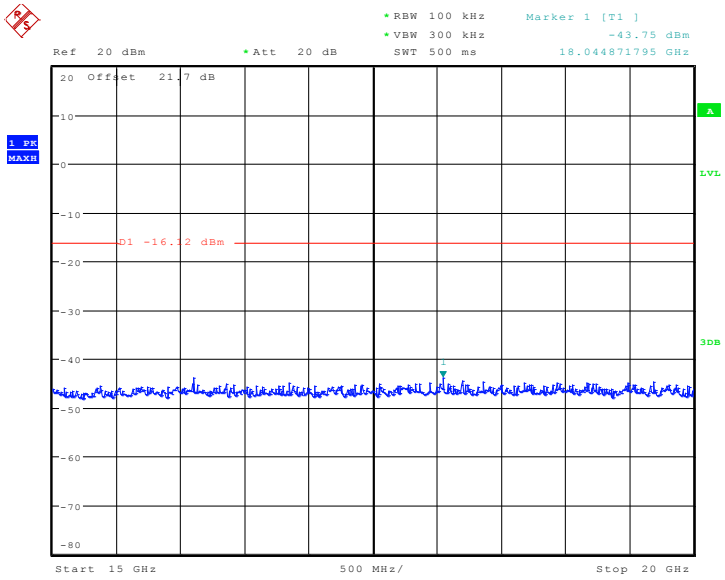


Fig.A.6.1.87 Conducted Spurious Emission (802.11n-HT40, Ch6, 15 GHz-20 GHz)

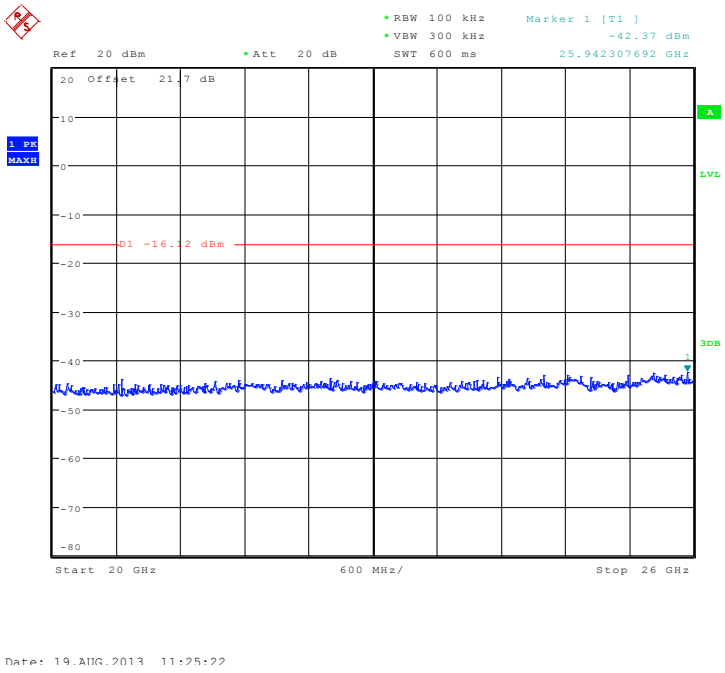


Fig.A.6.1.88 Conducted Spurious Emission (802.11n-HT40, Ch6, 20 GHz-26 GHz)

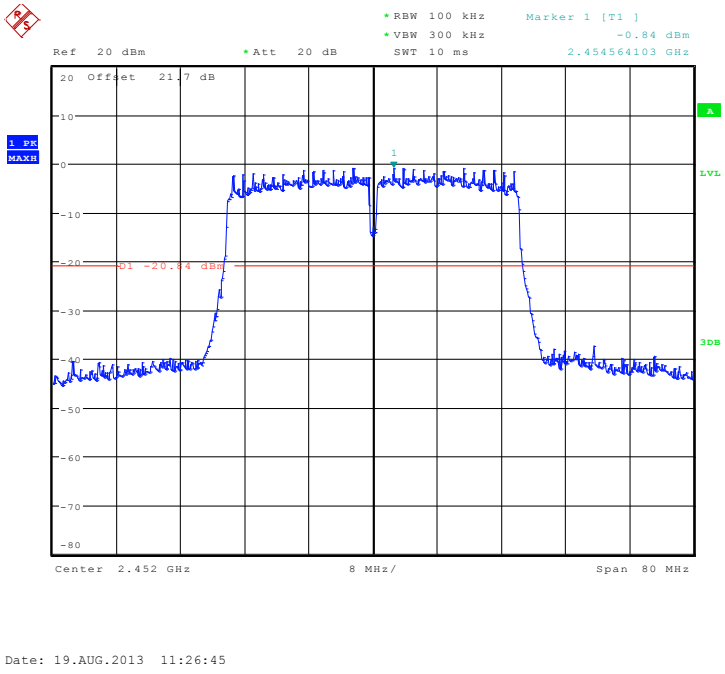


Fig.A.6.1.89 Conducted Spurious Emission (802.11n-HT40, Ch9, Center Frequency)

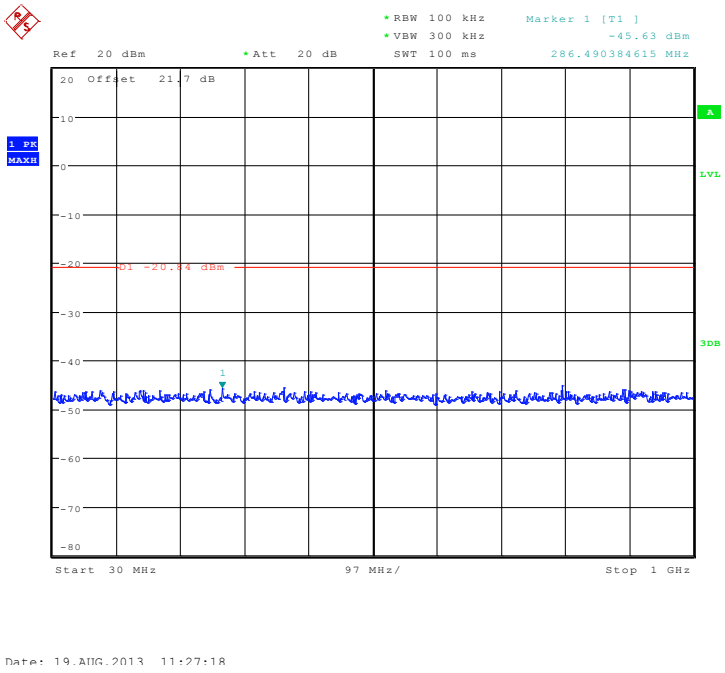


Fig.A.6.1.90 Conducted Spurious Emission (802.11n-HT40, Ch9, 30 MHz-1 GHz)

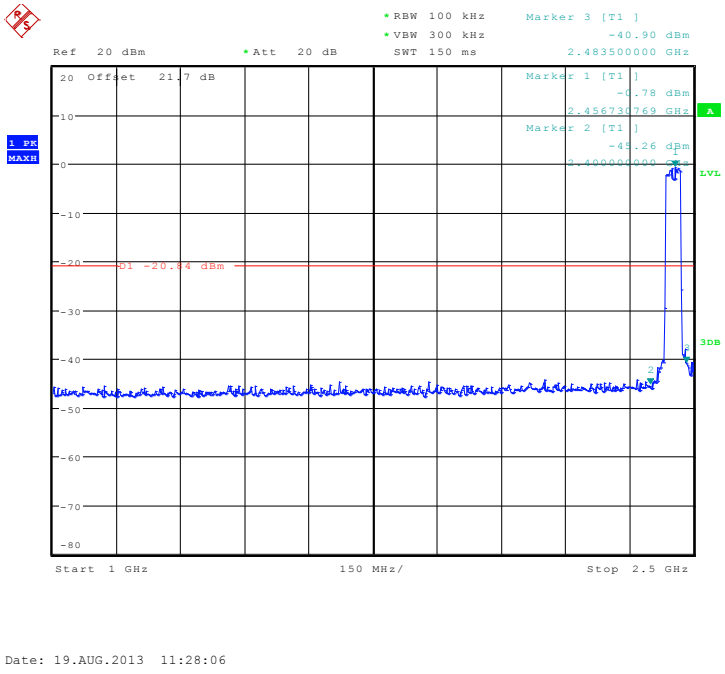


Fig.A.6.1.91 Conducted Spurious Emission (802.11n-HT40, Ch9, 1 GHz-2.5 GHz)

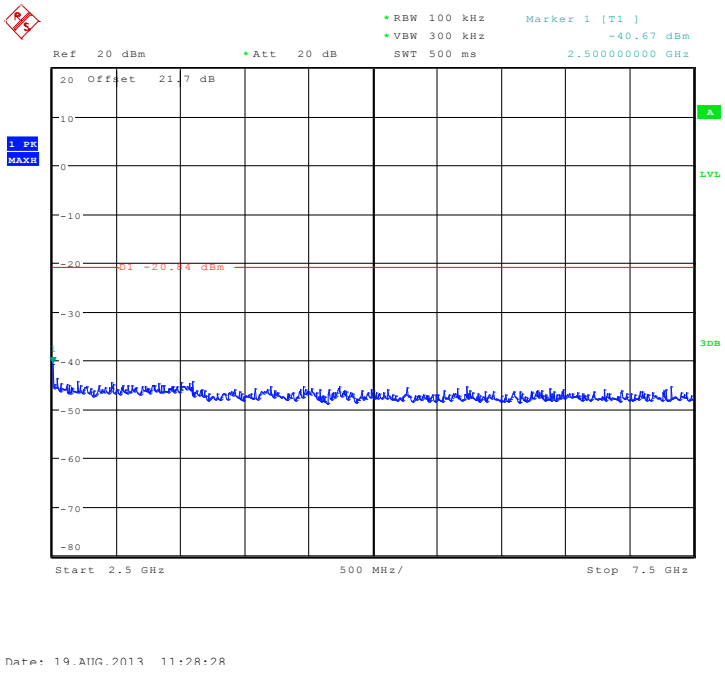


Fig.A.6.1.92 Conducted Spurious Emission (802.11n-HT40, Ch9, 2.5 GHz-7.5 GHz)

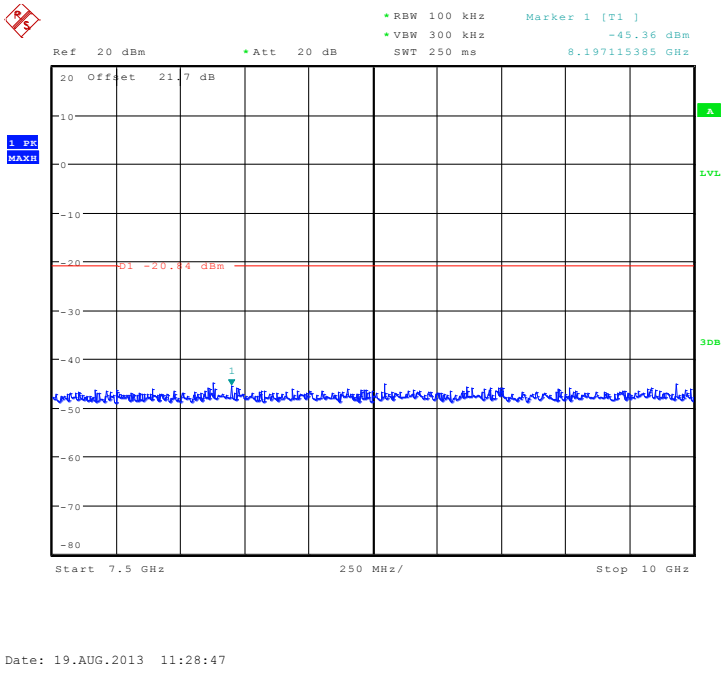


Fig.A.6.1.93 Conducted Spurious Emission (802.11n-HT40, Ch9, 7.5 GHz-10 GHz)

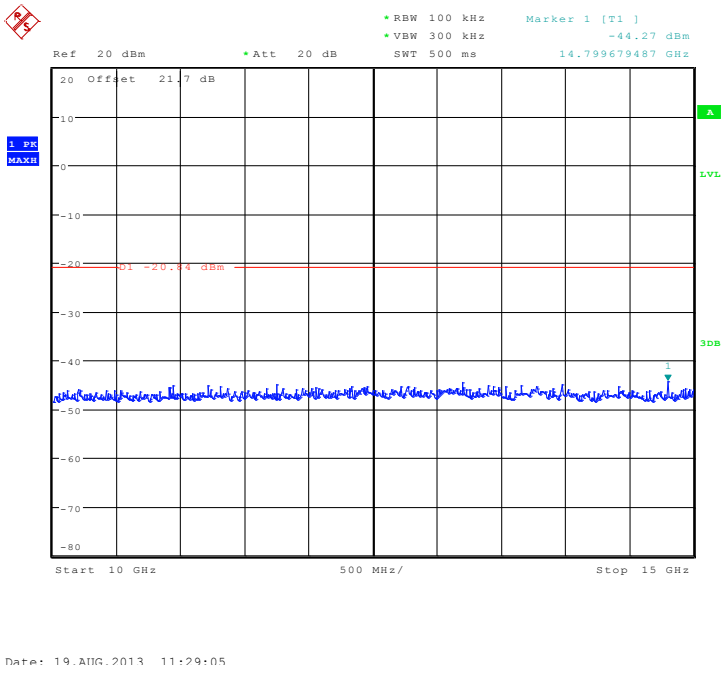


Fig.A.6.1.94 Conducted Spurious Emission (802.11n-HT40, Ch9, 10 GHz-15 GHz)

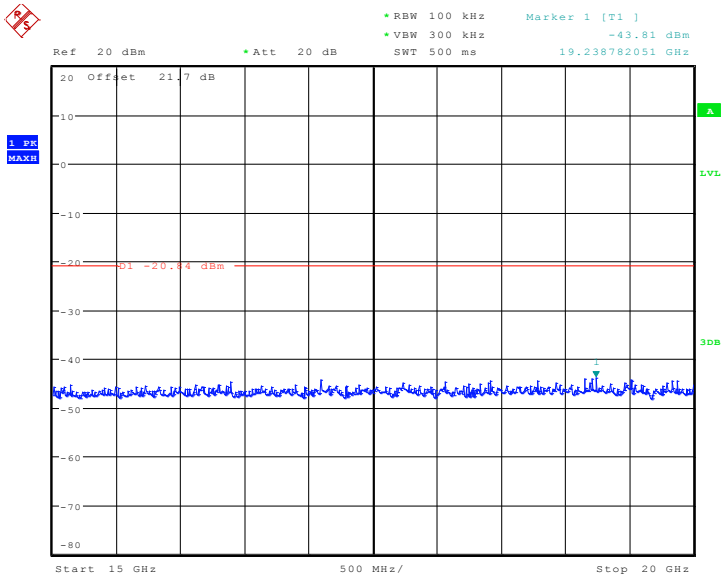


Fig.A.6.1.95 Conducted Spurious Emission (802.11n-HT40, Ch9, 15 GHz-20 GHz)

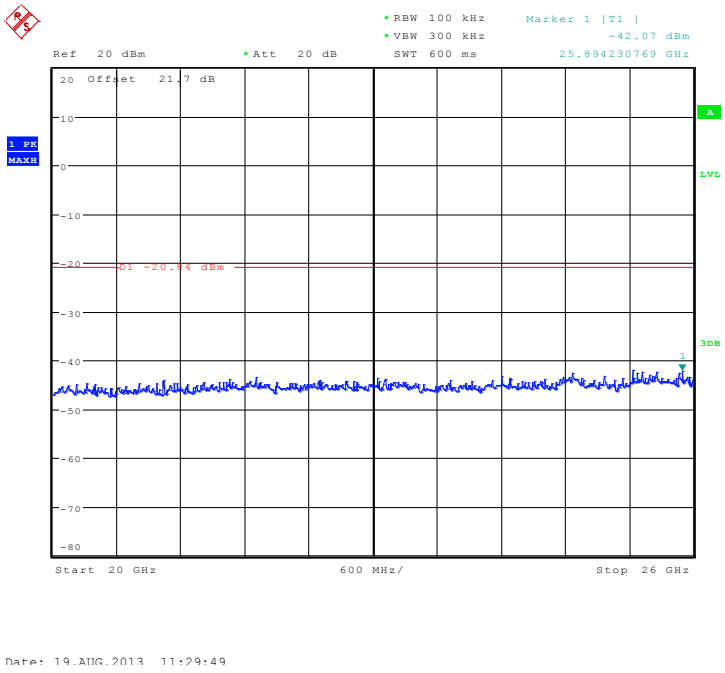


Fig.A.6.1.96 Conducted Spurious Emission (802.11n-HT40, Ch9, 20 GHz-26 GHz)

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

EUT ID:EUT1

Modulation type and data rate tested:

802.11b	802.11g	802.11n-HT20	802.11n-HT40
11Mbps(CCK)	54Mbps(OFDM)	MCS4(OFDM)	MCS4(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	**P**
	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	**P**
	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 ≤ 1GHz	3.9
f>1GHz	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:

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

802.11b

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
17438.250	58.1	-23.7	42.7	39.083	HORIZONTAL
17430.000	57.7	-23.7	42.7	38.683	VERTICAL
17727.000	57.6	-22.8	42.1	38.361	HORIZONTAL
17640.000	57.5	-22.8	42.7	37.671	HORIZONTAL
17082.750	57.4	-23.9	42.8	38.500	VERTICAL
17913.000	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
17533.500	58.1	-22.8	42.9	37.955	HORIZONTAL
17988.750	58.0	-22.5	42.3	38.267	HORIZONTAL
16977.750	57.8	-23.9	43.2	38.520	VERTICAL
17589.750	57.7	-22.8	42.7	37.775	HORIZONTAL
17461.500	57.6	-22.8	42.6	37.785	VERTICAL
17489.250	57.5	-22.8	43.0	37.245	VERTICAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
17940.000	58.3	-22.9	42.4	38.793	HORIZONTAL
17547.750	58.1	-22.8	42.9	37.955	VERTICAL
17953.500	57.9	-22.9	42.7	38.083	HORIZONTAL
17720.250	57.4	-22.8	42.8	37.411	HORIZONTAL
17432.250	57.3	-23.7	42.7	38.283	VERTICAL
17827.500	57.3	-22.9	42.3	37.873	HORIZONTAL

802.11g

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
17460.000	58.4	-22.8	42.6	38.585	HORIZONTAL
17911.500	58.0	-22.9	42.7	38.233	VERTICAL
16998.750	57.8	-23.9	43.2	38.520	HORIZONTAL
17277.000	57.4	-23.7	43.0	38.073	VERTICAL
17765.250	57.4	-22.8	42.2	38.071	HORIZONTAL
17545.500	57.3	-22.8	42.9	37.155	VERTICAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
17412.750	58.1	-23.7	42.7	39.113	HORIZONTAL
17490.750	58.1	-22.8	43.0	37.845	VERTICAL
17753.250	57.8	-22.8	42.2	38.471	VERTICAL
17408.250	57.7	-23.7	42.7	38.713	VERTICAL
17447.250	57.4	-23.7	42.7	38.383	HORIZONTAL
17409.000	57.2	-23.7	42.7	38.213	VERTICAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
17474.250	58.0	-22.8	42.6	38.185	HORIZONTAL
17726.250	57.9	-22.8	42.1	38.661	VERTICAL
17924.250	57.6	-22.9	42.7	37.833	HORIZONTAL
17983.500	57.3	-22.9	42.3	37.923	HORIZONTAL
17725.500	57.3	-22.8	42.1	38.061	VERTICAL
17433.750	57.2	-23.7	42.7	38.183	VERTICAL

802.11n-HT20

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
17483.250	57.7	-22.8	43.0	37.445	HORIZONTAL
17470.500	57.7	-22.8	42.6	37.885	VERTICAL
17985.750	57.6	-22.9	42.3	38.223	VERTICAL
17484.750	57.5	-22.8	43.0	37.245	HORIZONTAL
17436.750	57.4	-23.7	42.7	38.383	HORIZONTAL
17958.000	57.4	-22.9	42.7	37.583	VERTICAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
17653.500	57.8	-22.8	42.7	37.971	HORIZONTAL
17517.000	57.3	-22.8	42.8	37.315	VERTICAL
17485.500	57.1	-22.8	43.0	36.845	VERTICAL
17075.250	57.1	-23.9	42.8	38.200	HORIZONTAL
17494.500	57.1	-22.8	43.0	36.845	HORIZONTAL
17998.500	57.0	-22.5	42.3	37.267	VERTICAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
17535.750	57.9	-22.8	42.9	37.755	VERTICAL
17412.000	57.8	-23.7	42.7	38.813	VERTICAL
17631.000	57.3	-22.8	42.7	37.415	HORIZONTAL
17901.000	57.2	-22.9	42.7	37.433	VERTICAL
17441.250	57.2	-23.7	42.7	38.183	VERTICAL
17655.000	57.2	-22.8	42.7	37.371	VERTICAL

802.11n-HT40

Ch3

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
17525.250	57.9	-22.8	42.9	37.755	VERTICAL
17994.000	57.7	-22.5	42.3	37.967	VERTICAL
17478.750	57.6	-22.8	43.0	37.345	HORIZONTAL
17470.500	57.4	-22.8	42.6	37.585	HORIZONTAL
17460.000	57.4	-22.8	42.6	37.585	HORIZONTAL
17984.250	57.3	-22.9	42.3	37.923	VERTICAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
17556.000	57.9	-22.8	42.3	38.425	HORIZONTAL
17484.750	57.8	-22.8	43.0	37.545	HORIZONTAL
17355.000	57.8	-23.7	43.0	38.553	HORIZONTAL
17362.500	57.8	-23.7	43.0	38.553	HORIZONTAL
17469.750	57.7	-22.8	42.6	37.885	VERTICAL
17462.250	57.5	-22.8	42.6	37.685	HORIZONTAL

Ch9

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
17835.750	57.7	-22.9	42.3	38.273	VERTICAL
17446.500	57.6	-23.7	42.7	38.583	VERTICAL
17499.750	57.5	-22.8	43.0	37.245	VERTICAL
17885.250	57.5	-22.9	42.5	37.893	HORIZONTAL
17802.000	57.4	-22.8	42.9	37.301	HORIZONTAL
17628.000	57.3	-22.8	42.7	37.415	HORIZONTAL

Test graphs as below:

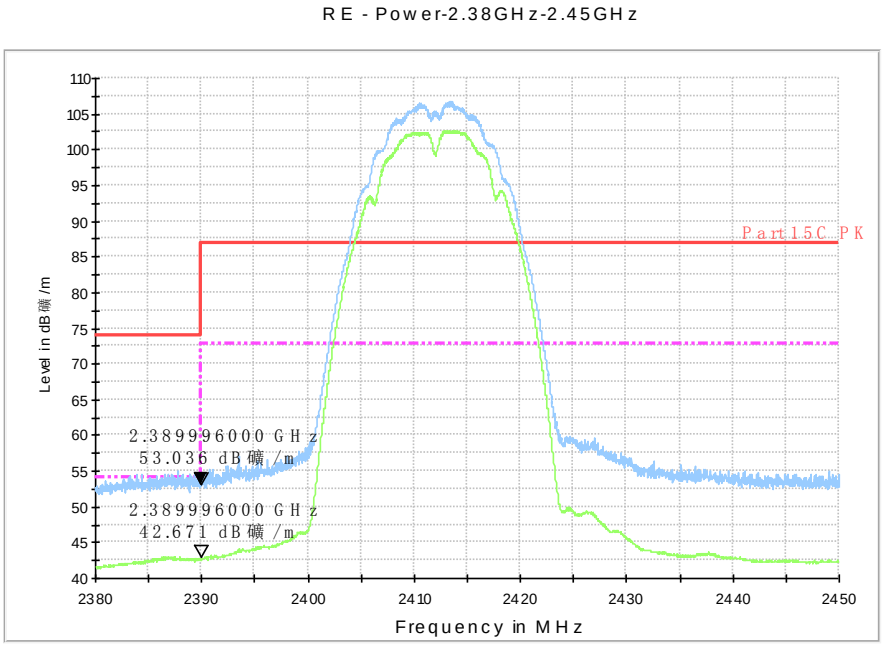


Fig.A.6.2.1 Radiated Spurious Emission (Power): 802.11b, ch1, 2.38 GHz - 245GHz

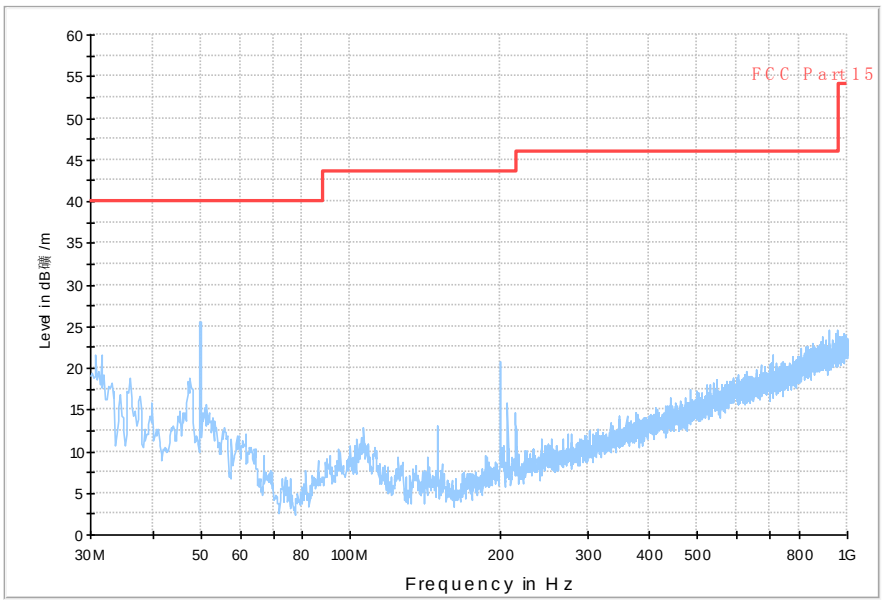


Fig.A.6.2.2 Radiated Spurious Emission (802.11b, Ch1, 30 MHz-1 GHz)

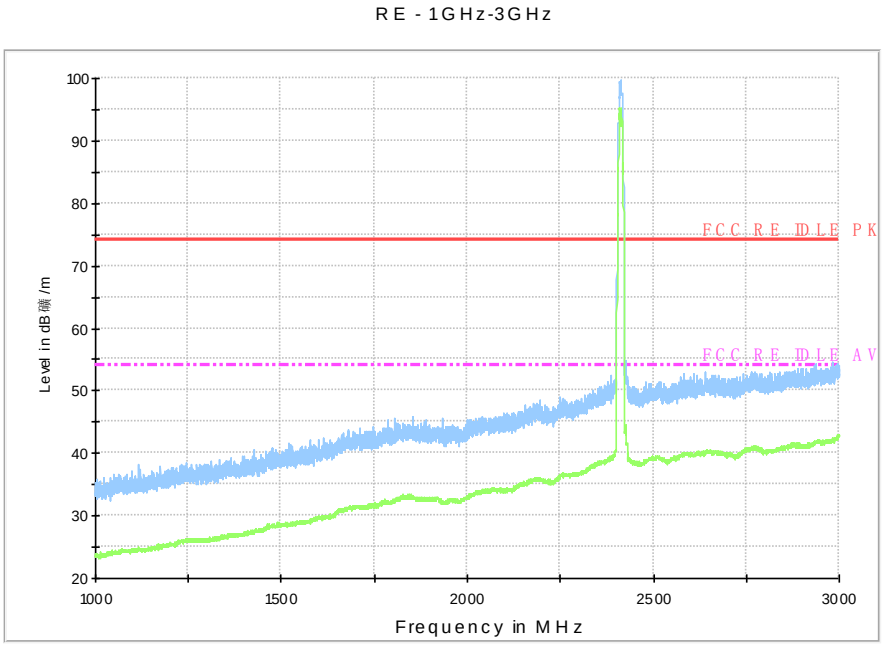


Fig.A.6.2.3 Radiated Spurious Emission (802.11b, Ch1, 1 GHz-3 GHz)

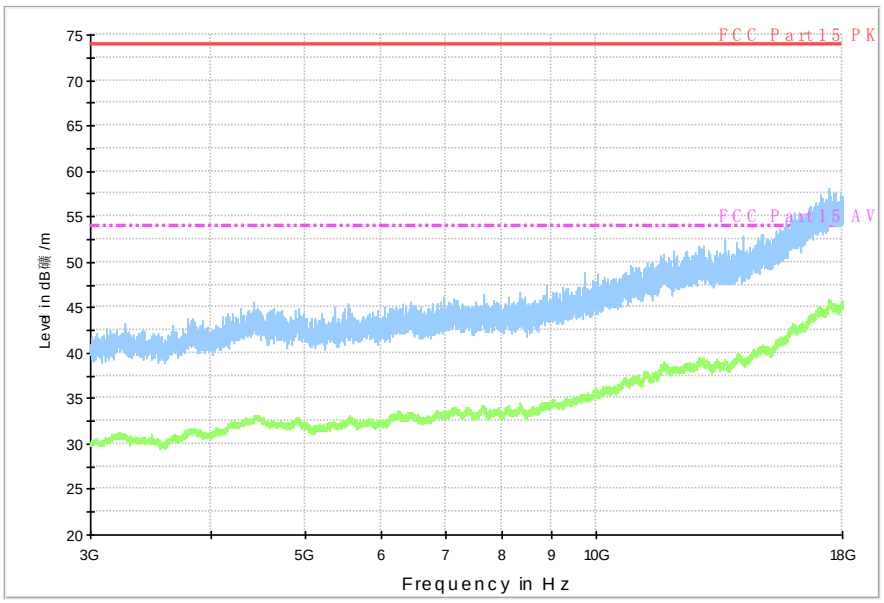


Fig.A.6.2.4 Radiated Spurious Emission (802.11b, Ch1, 3 GHz-18 GHz)

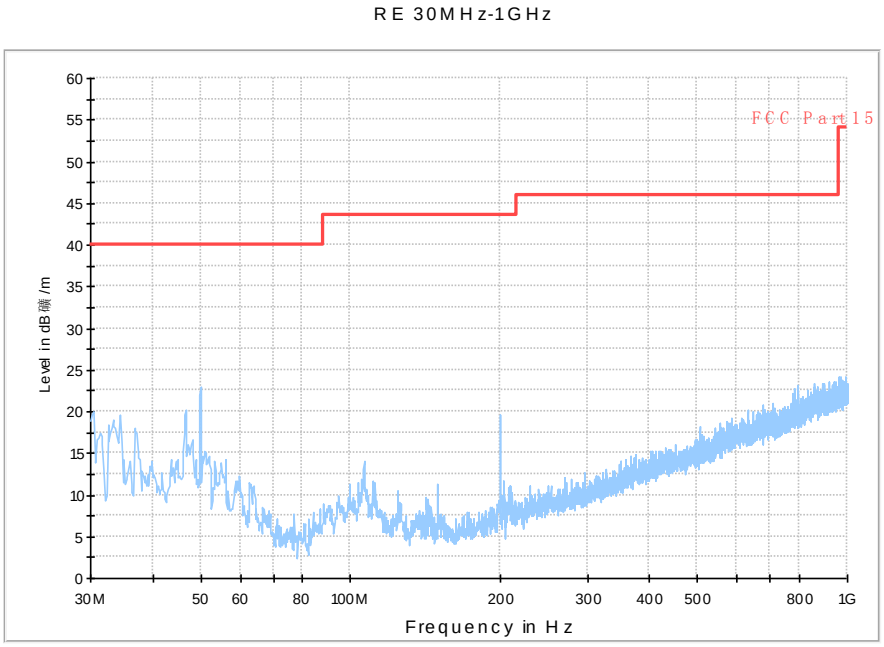


Fig.A.6.2.5 Radiated Spurious Emission (802.11b, Ch6, 30 MHz-1 GHz)

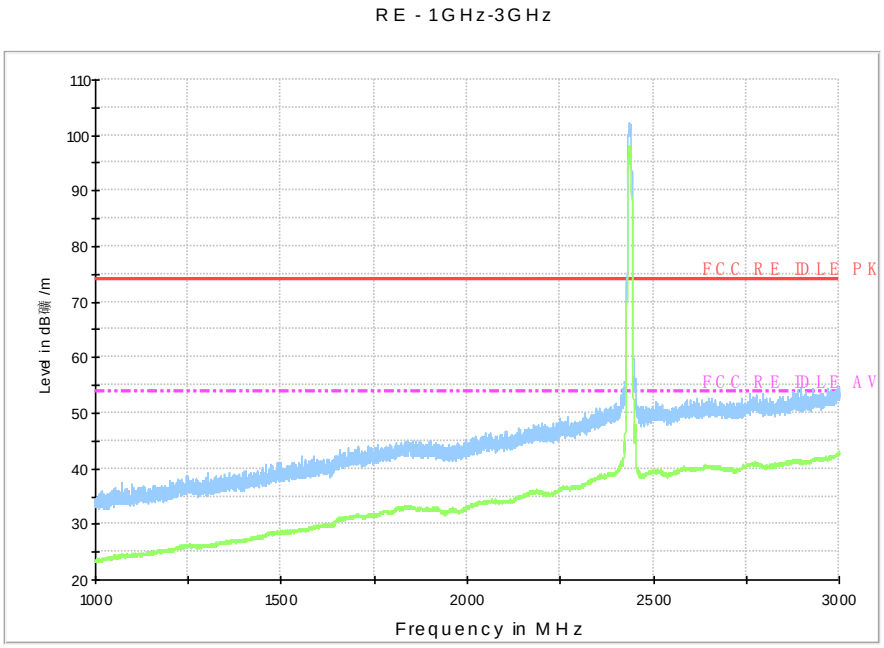


Fig.A.6.2.6 Radiated Spurious Emission (802.11b, Ch6, 1 GHz-3 GHz)

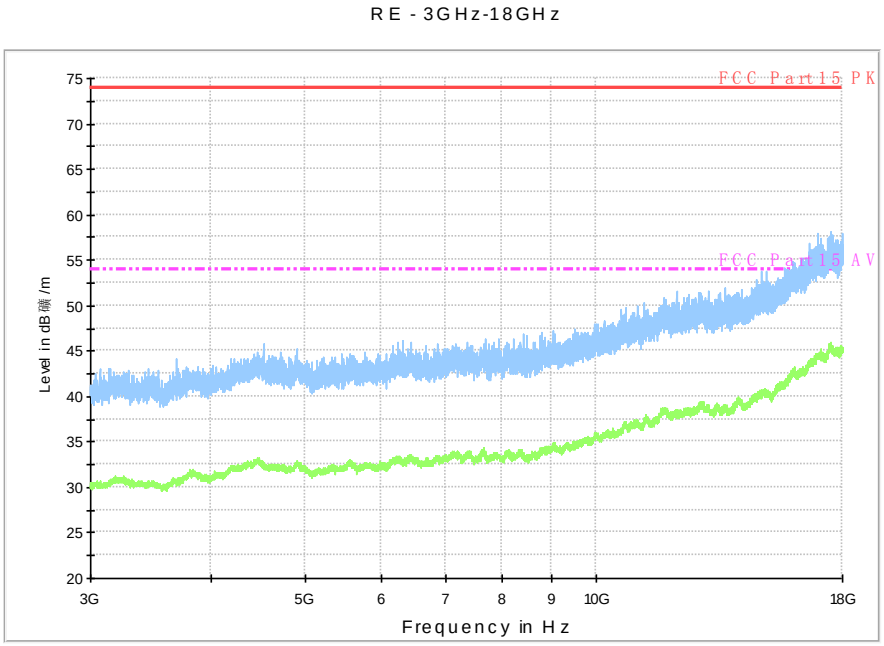


Fig.A.6.2.7 Radiated Spurious Emission (802.11b, Ch6, 3 GHz-18 GHz)

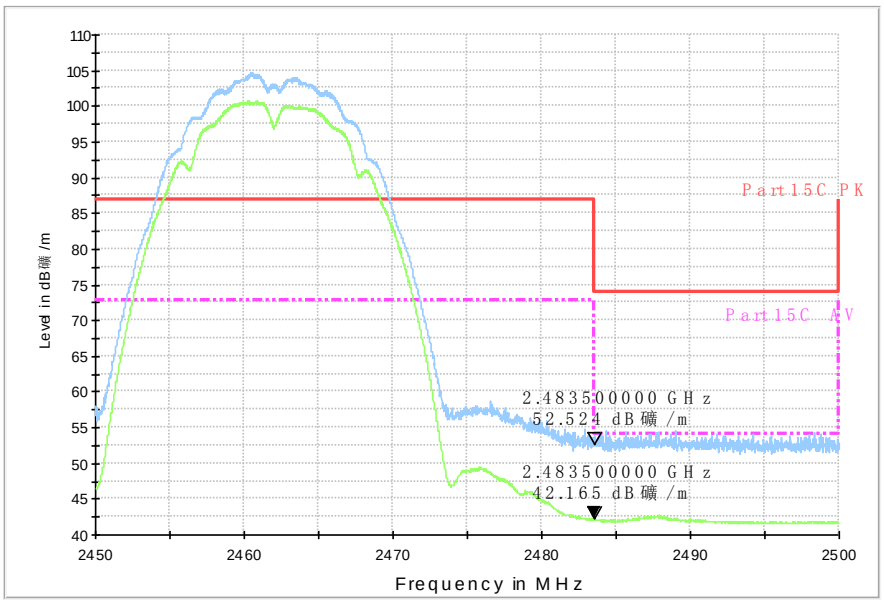


Fig.A.6.2.8 Radiated Spurious Emission (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

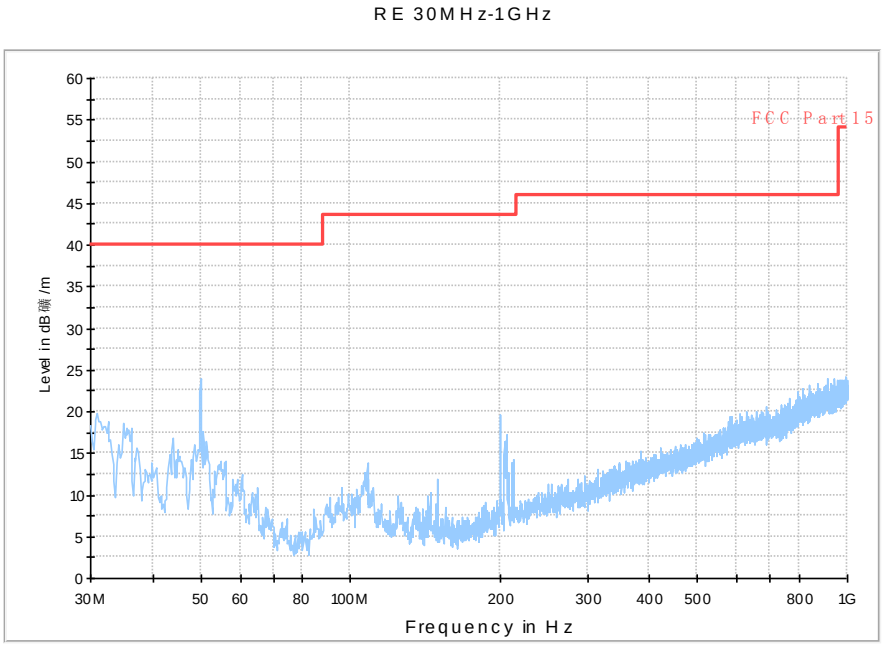


Fig.A.6.2.9 Radiated Spurious Emission (802.11b, Ch11, 30 MHz-1 GHz)

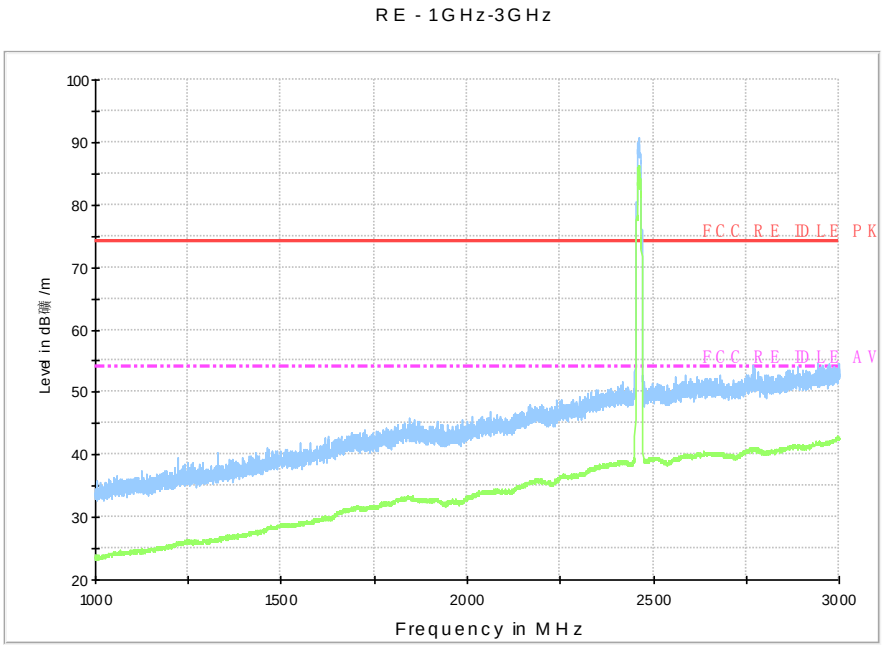


Fig.A.6.2.10 Radiated Spurious Emission (802.11b, Ch11, 1 GHz-3 GHz)

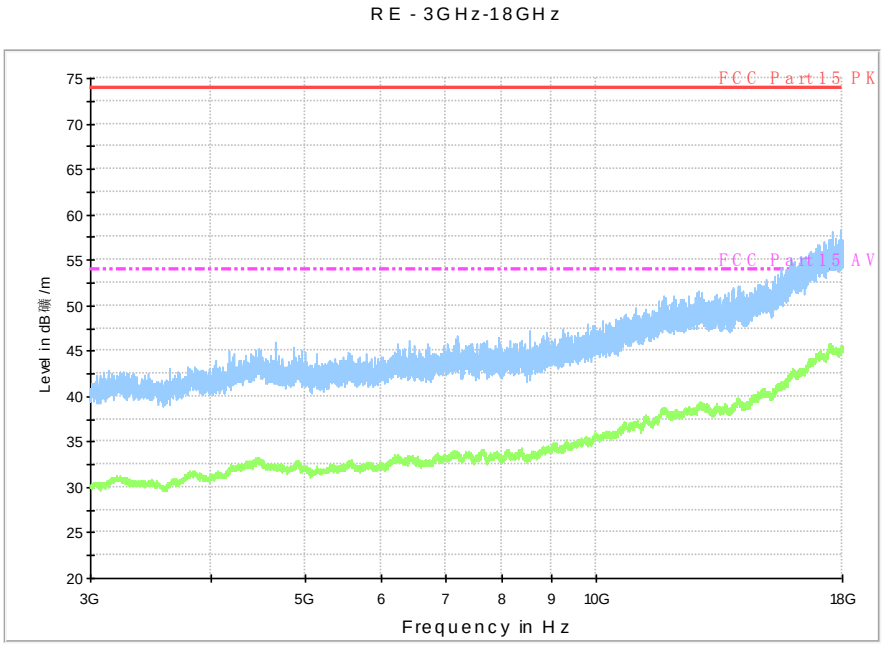


Fig.A.6.2.11 Radiated Spurious Emission (802.11b, Ch11, 3 GHz-18 GHz)

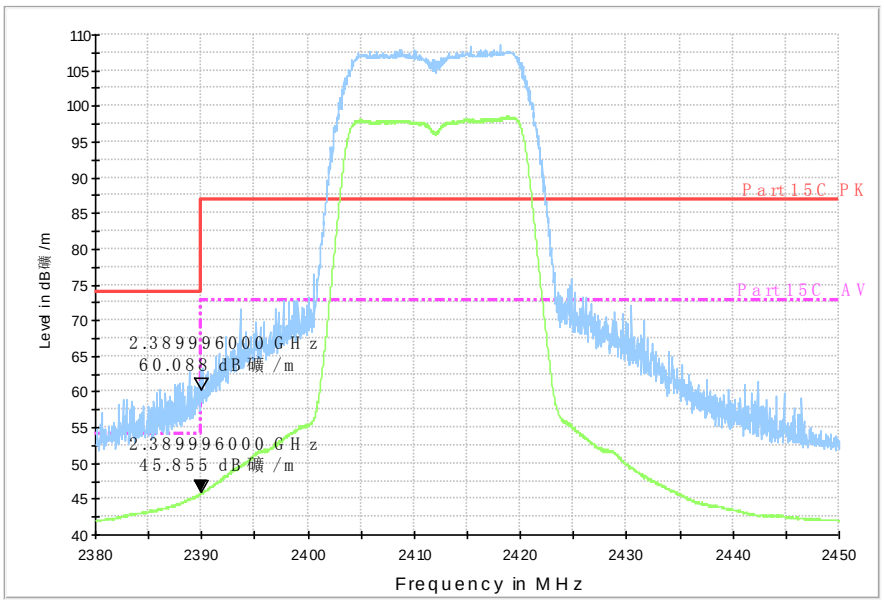


Fig.A.6.2.12 Radiated Spurious Emission (Power): 802.11g, ch1, 2.38 GHz - 2.45GHz

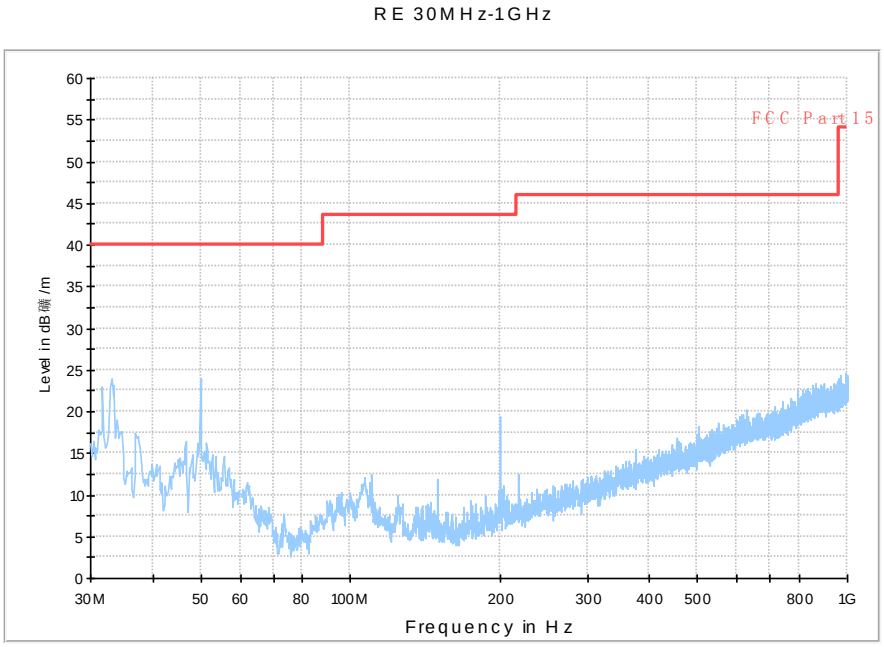


Fig.A.6.2.13 Radiated Spurious Emission (802.11g, Ch1, 30 MHz-1 GHz)

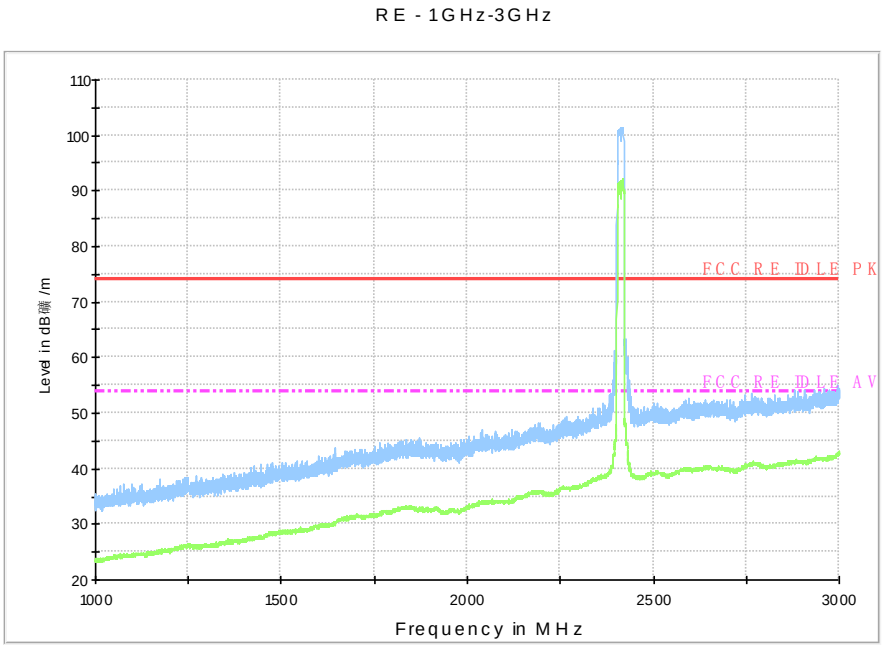


Fig.A.6.2.14 Radiated Spurious Emission (802.11g, Ch1, 1 GHz-3 GHz)

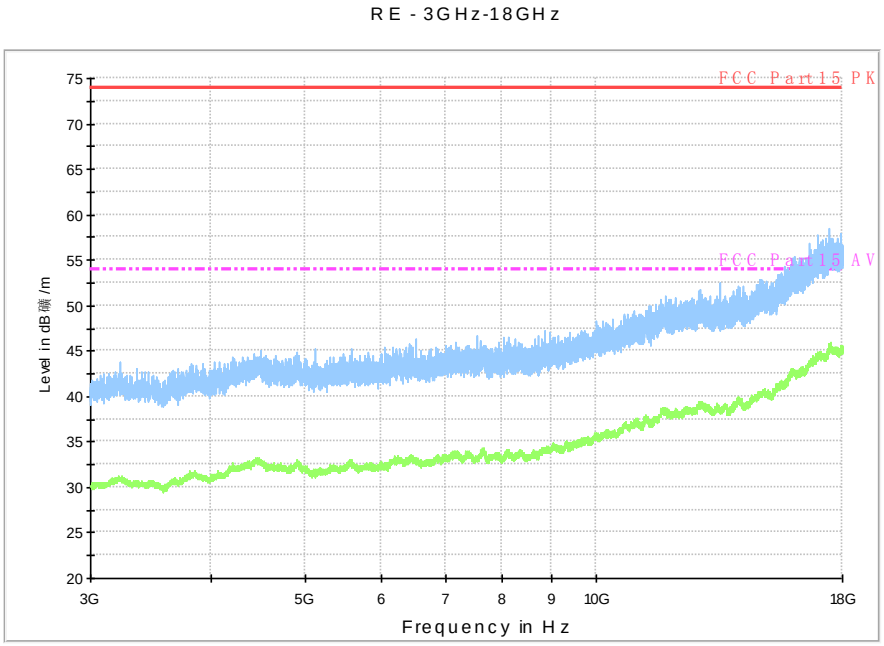


Fig.A.6.2.15 Radiated Spurious Emission (802.11g, Ch1, 3 GHz-18 GHz)

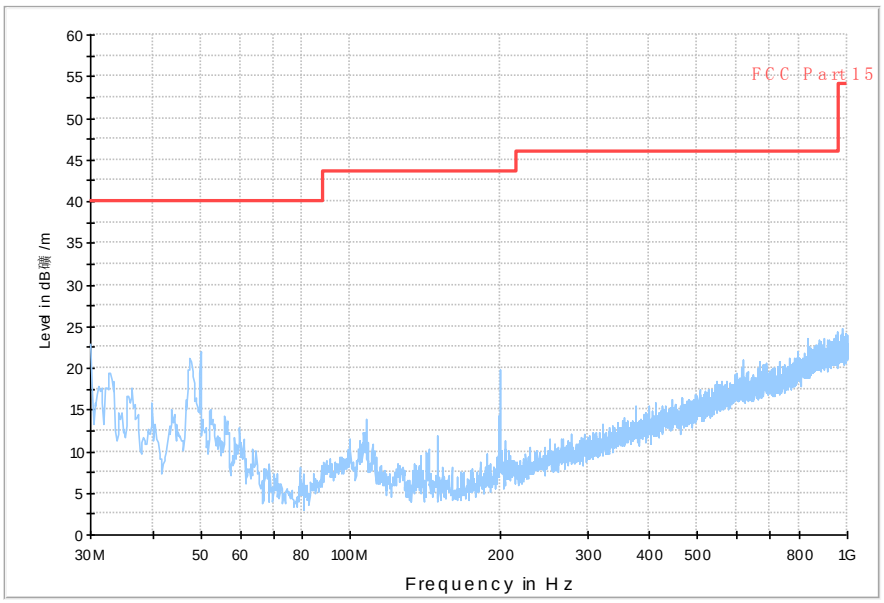


Fig.A.6.2.16 Radiated Spurious Emission (802.11g, Ch6, 30 MHz-1 GHz)

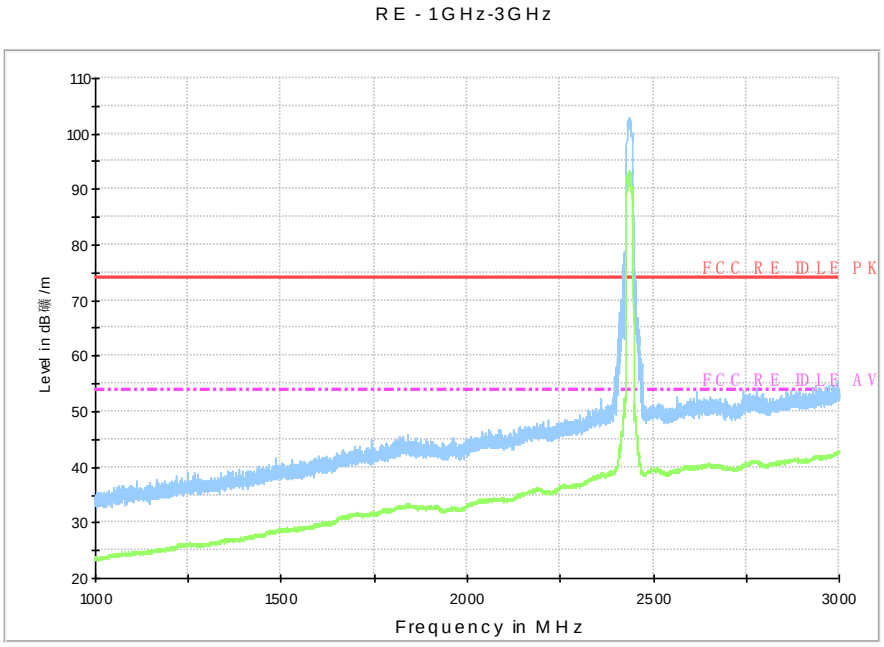


Fig.A.6.2.17 Radiated Spurious Emission (802.11g, Ch6, 1 GHz-3 GHz)

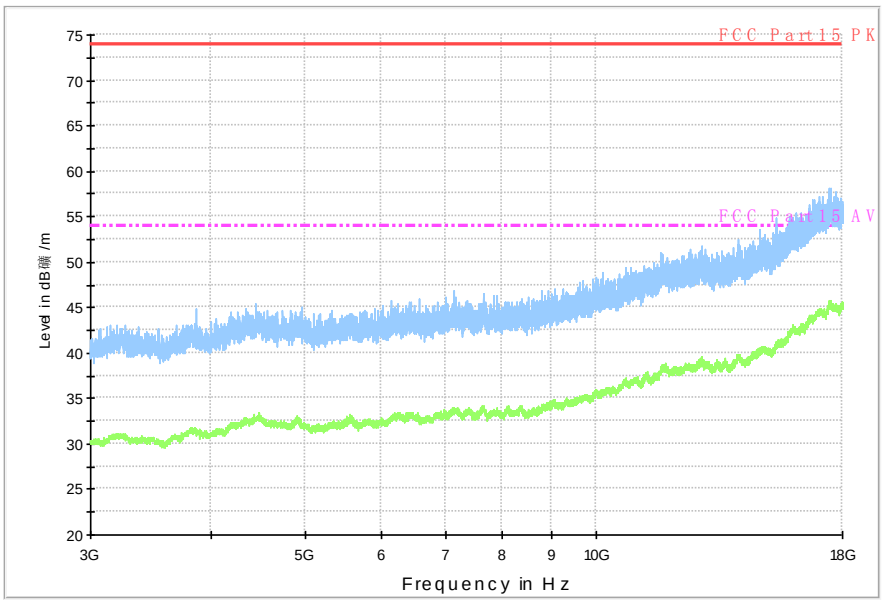


Fig.A.6.2.18 Radiated Spurious Emission (802.11g, Ch6, 3 GHz-18 GHz)

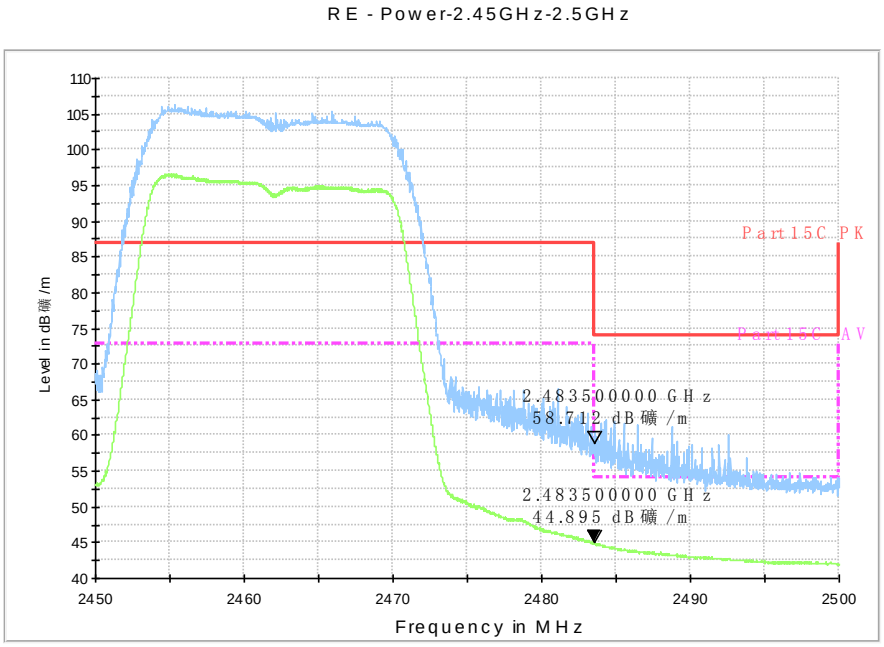


Fig.A.6.2.19 Radiated Spurious Emission (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

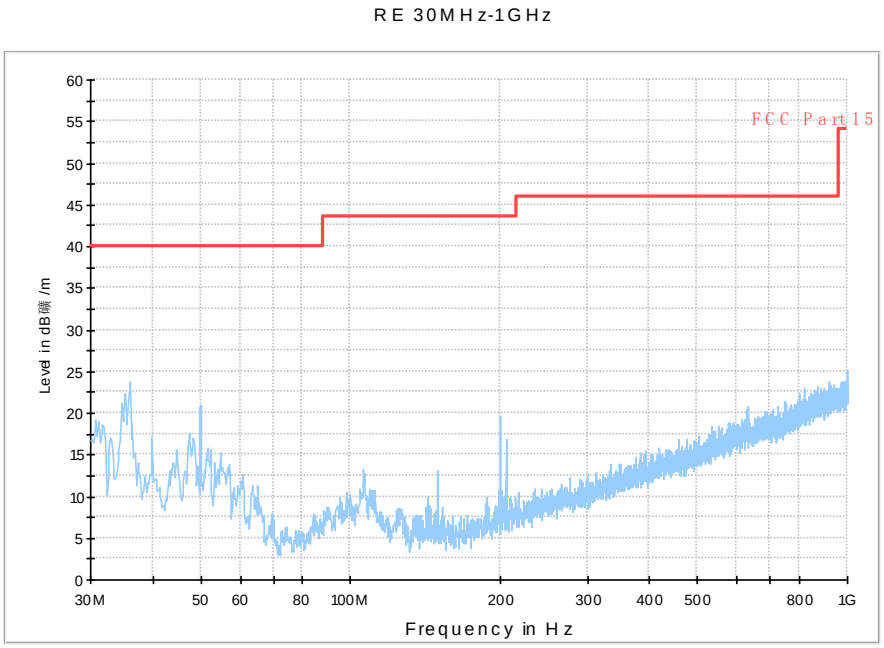


Fig.A.6.2.20 Radiated Spurious Emission (802.11g, Ch11, 30 MHz-1 GHz)

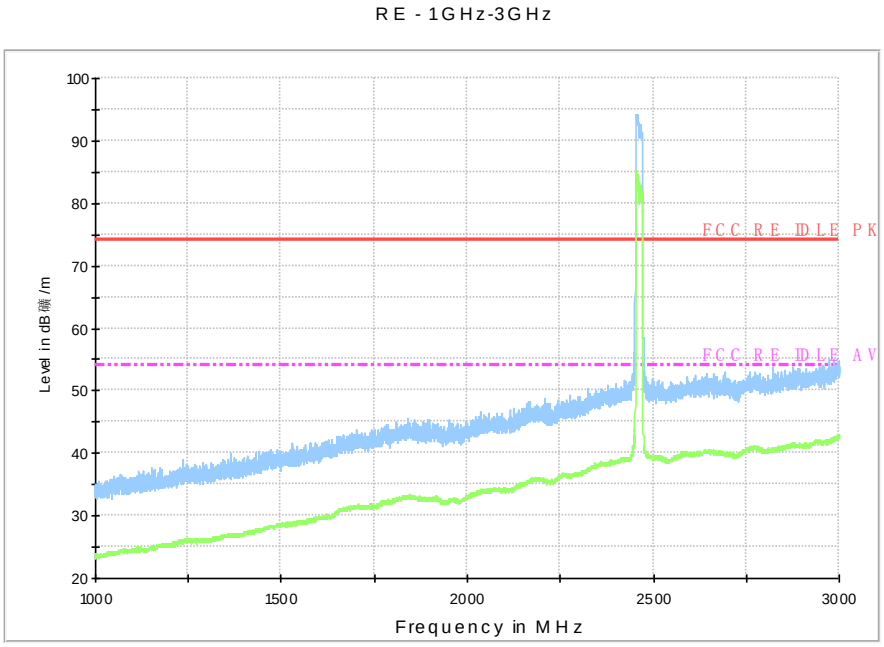


Fig.A.6.2.21 Radiated Spurious Emission (802.11g, Ch11, 1 GHz-3 GHz)

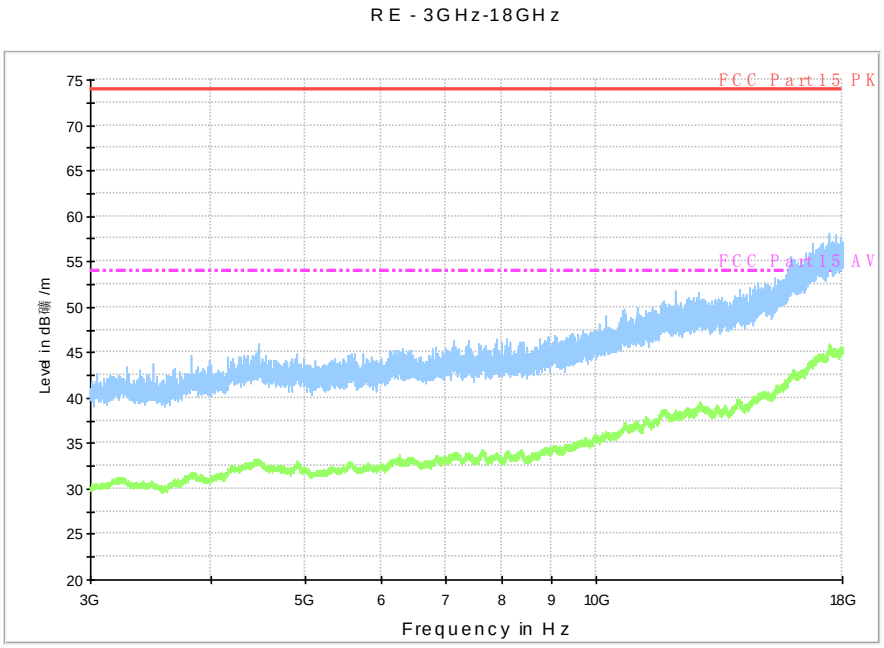


Fig.A.6.2.22 Radiated Spurious Emission (802.11g, Ch11, 3 GHz-18 GHz)

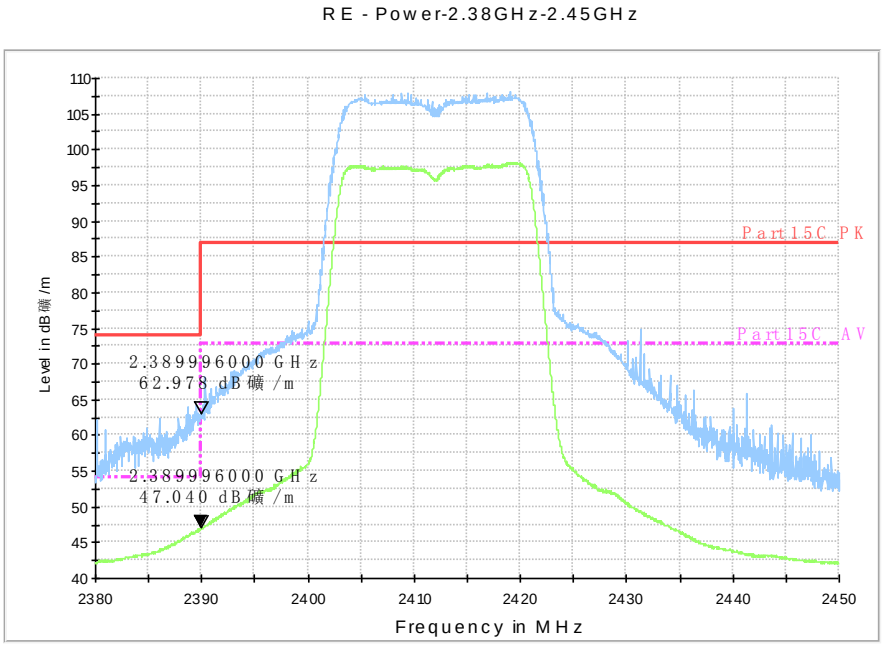


Fig.A.6.2.23 Radiated Spurious Emission (Power): 802.11n-HT20, ch1, 2.38 GHz - 2.45GHz

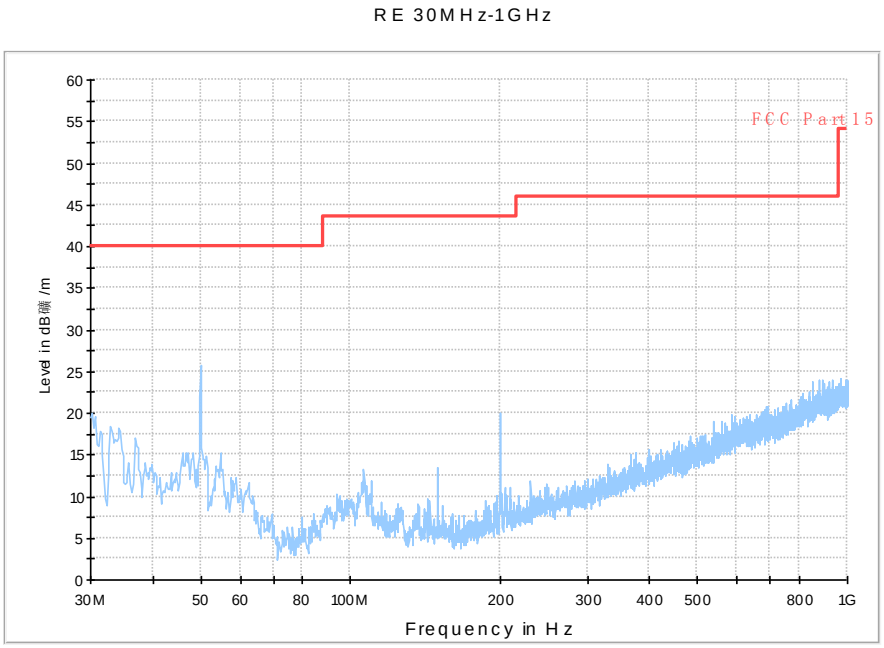


Fig.A.6.2.24 Radiated Spurious Emission (802.11n-HT20, Ch1, 30 MHz-1 GHz)

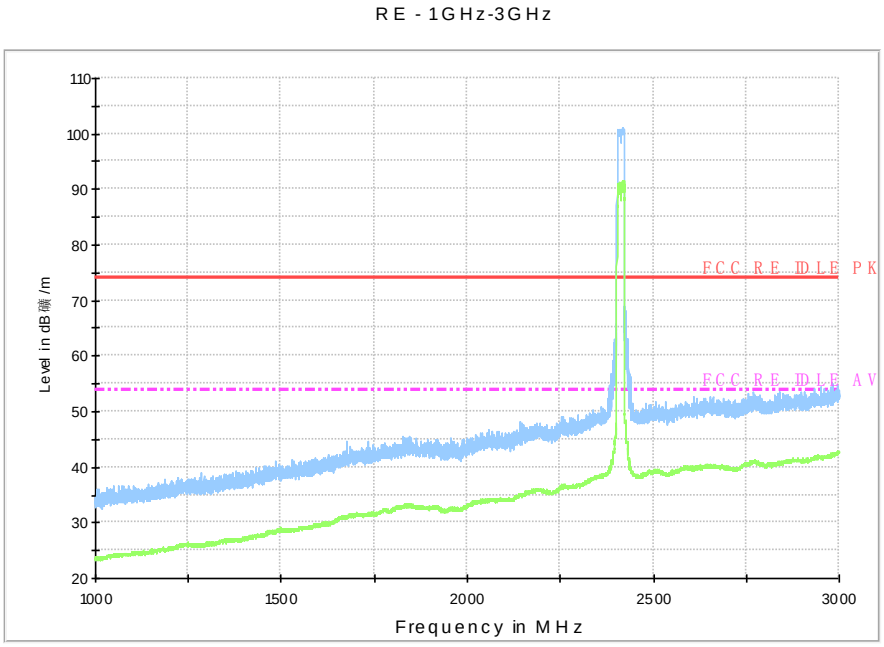


Fig.A.6.2.25 Radiated Spurious Emission (802.11n-HT20, Ch1, 1 GHz-3 GHz)

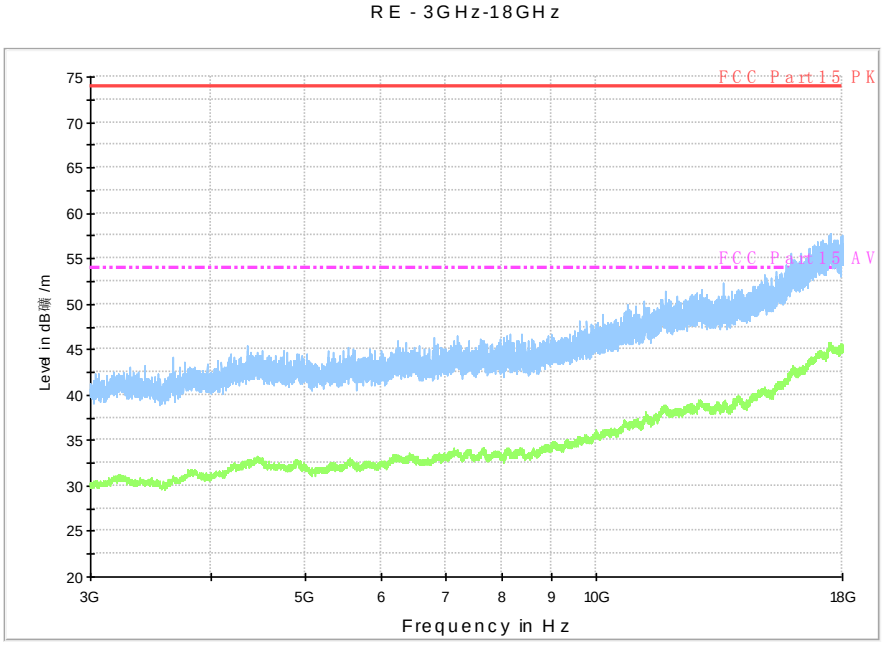


Fig.A.6.2.26 Radiated Spurious Emission (802.11n-HT20, Ch1, 3 GHz-18 GHz)

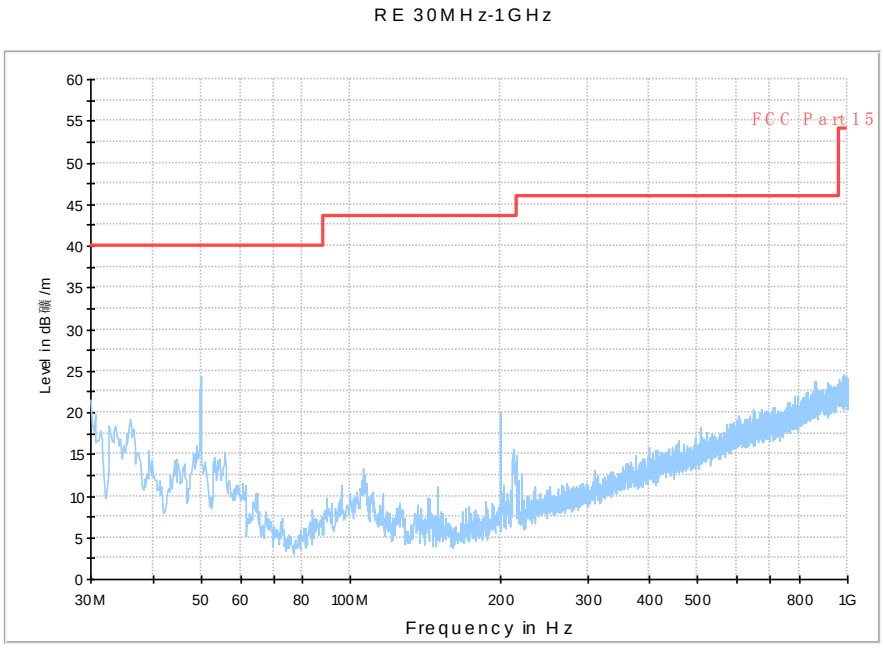


Fig.A.6.2.27 Radiated Spurious Emission (802.11n-HT20, Ch6, 30 MHz-1 GHz)

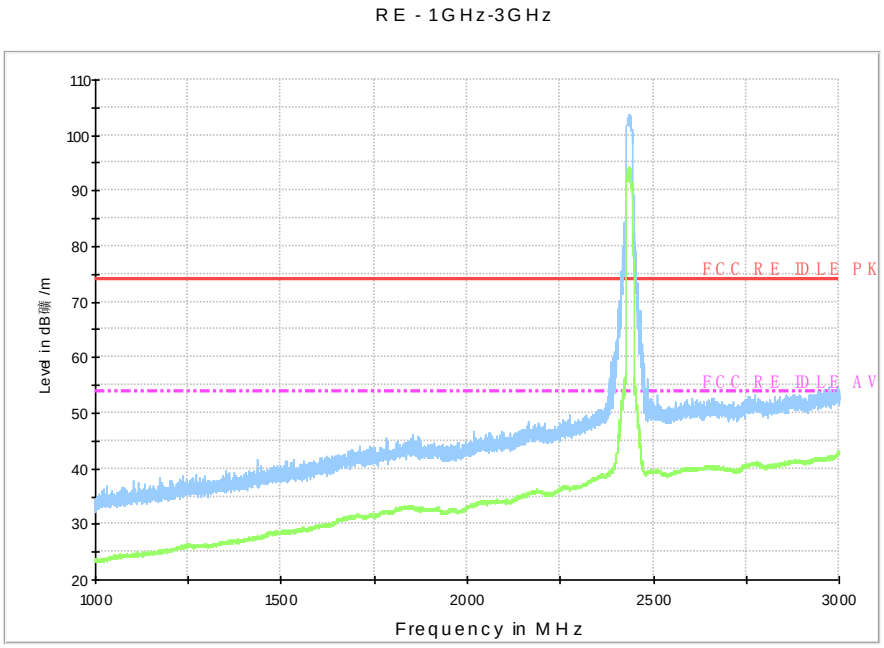


Fig.A.6.2.28 Radiated Spurious Emission (802.11n-HT20, Ch6, 1 GHz-3 GHz)

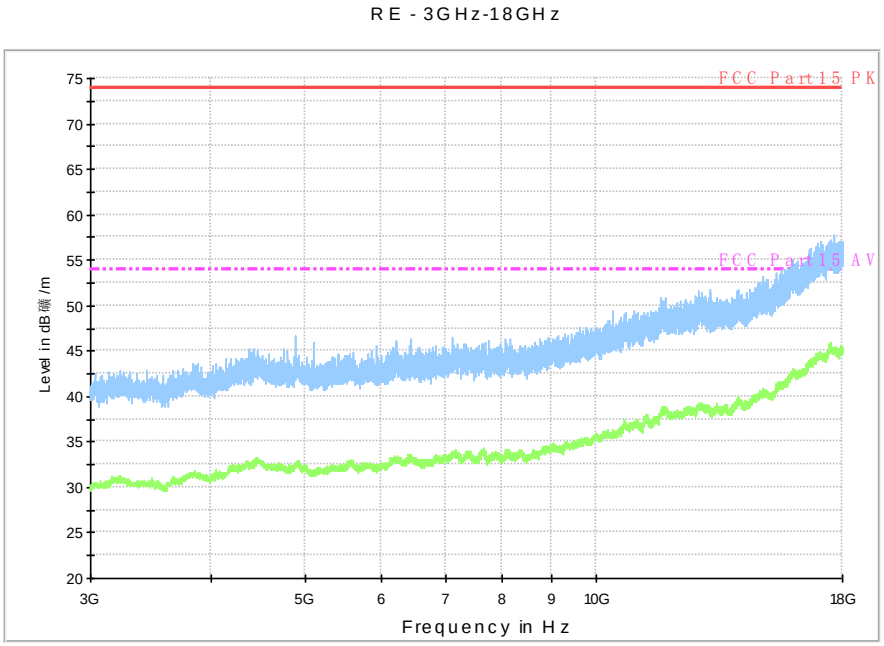


Fig.A.6.2.29 Radiated Spurious Emission (802.11n-HT20, Ch6, 3 GHz-18 GHz)

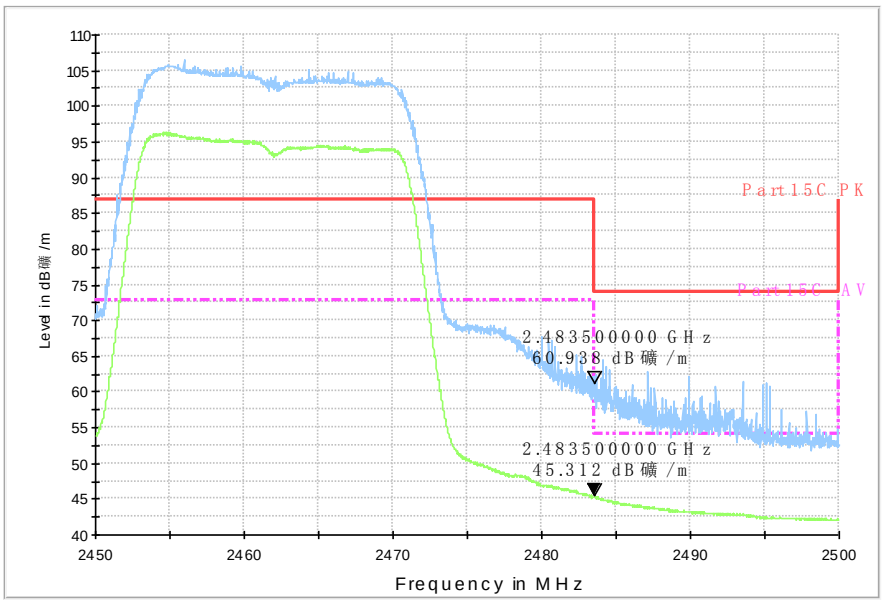


Fig.A.6.2.30 Radiated Spurious Emission (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

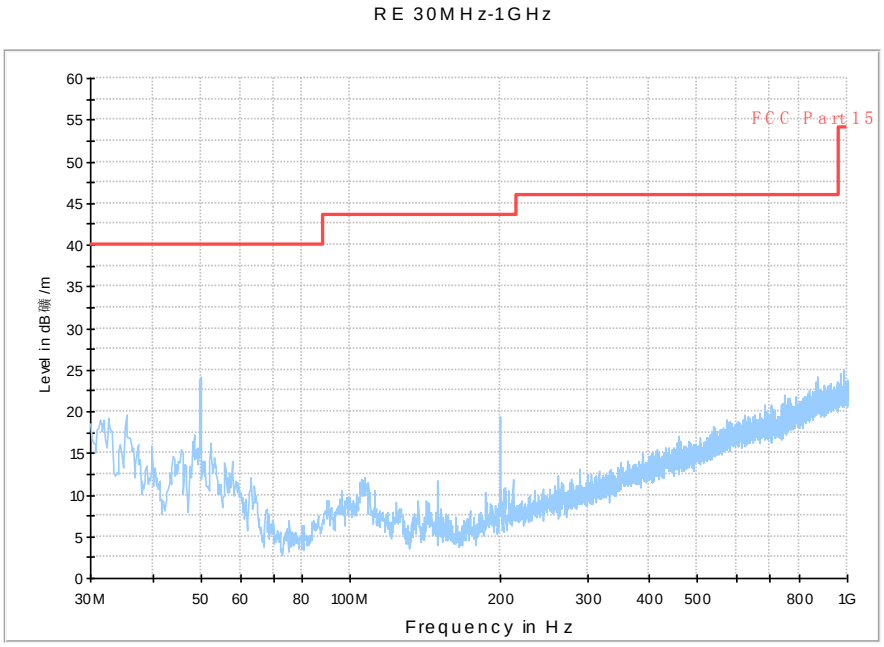


Fig.A.6.2.31 Radiated Spurious Emission (802.11n-HT20, Ch11, 30 MHz-1 GHz)

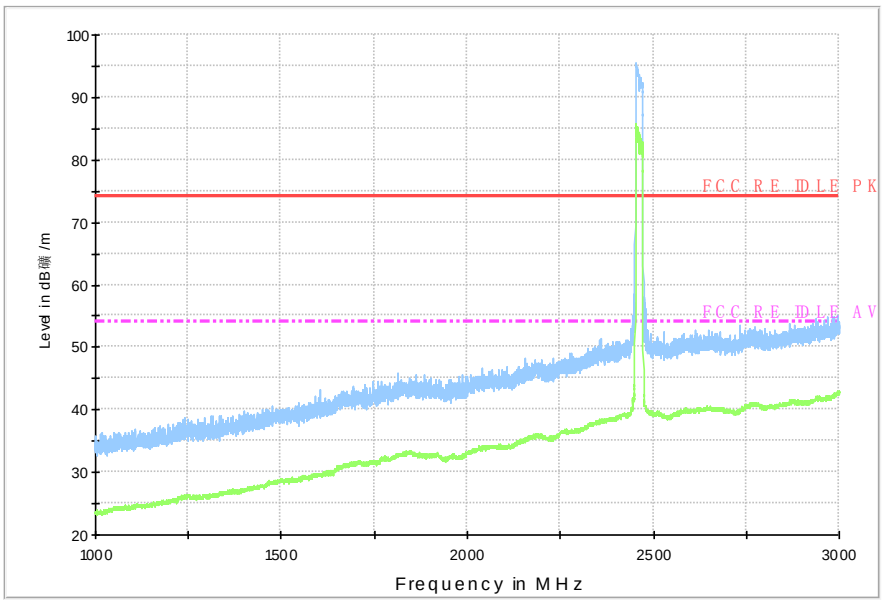


Fig.A.6.2.32 Radiated Spurious Emission (802.11n-HT20, Ch11, 1 GHz-3 GHz)

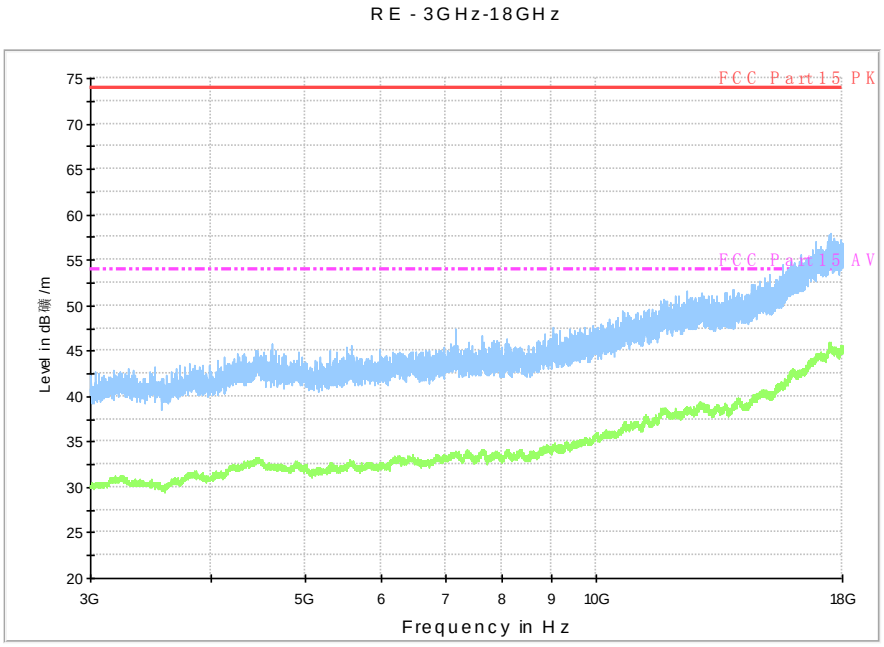


Fig.A.6.2.33 Radiated Spurious Emission (802.11n-HT20, Ch11, 3 GHz-18 GHz)

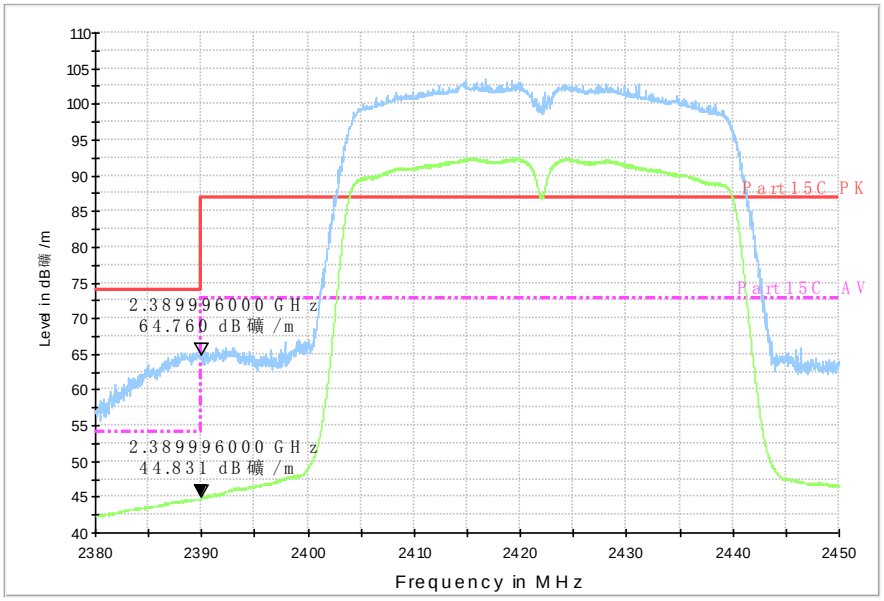


Fig.A.6.2.34 Radiated Spurious Emission (Power): 802.11n-HT40, ch3, 2.38 GHz - 2.45GHz

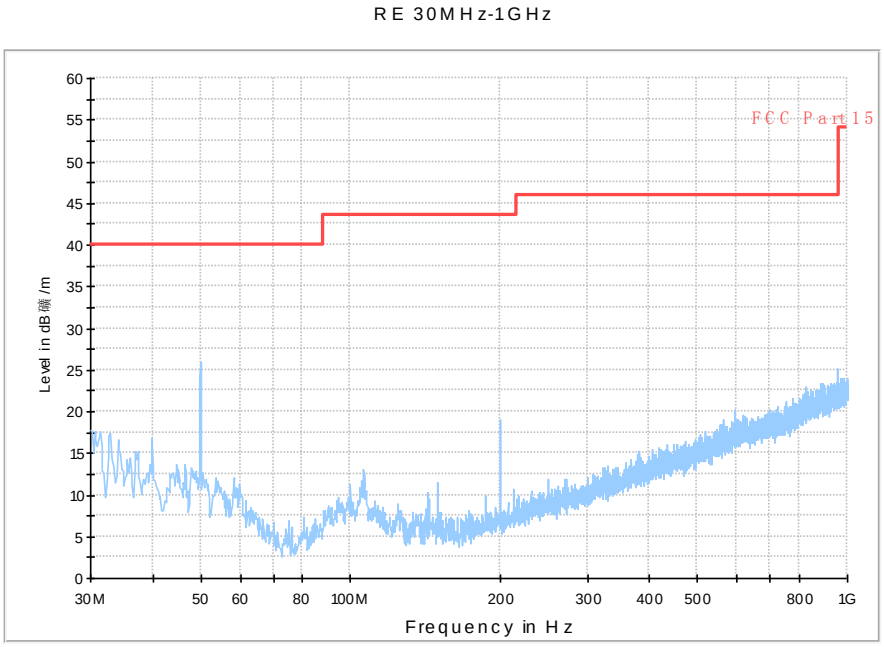


Fig.A.6.2.35 Radiated Spurious Emission (802.11n-HT40, ch3, 30 MHz-1 GHz)

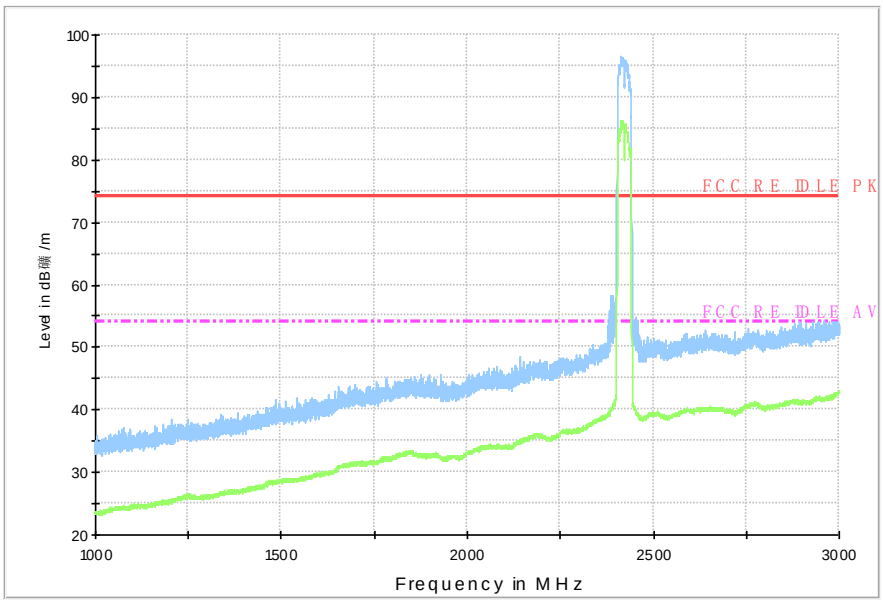


Fig.A.6.2.36 Radiated Spurious Emission (802.11n-HT40, ch3, 1 GHz-3 GHz)

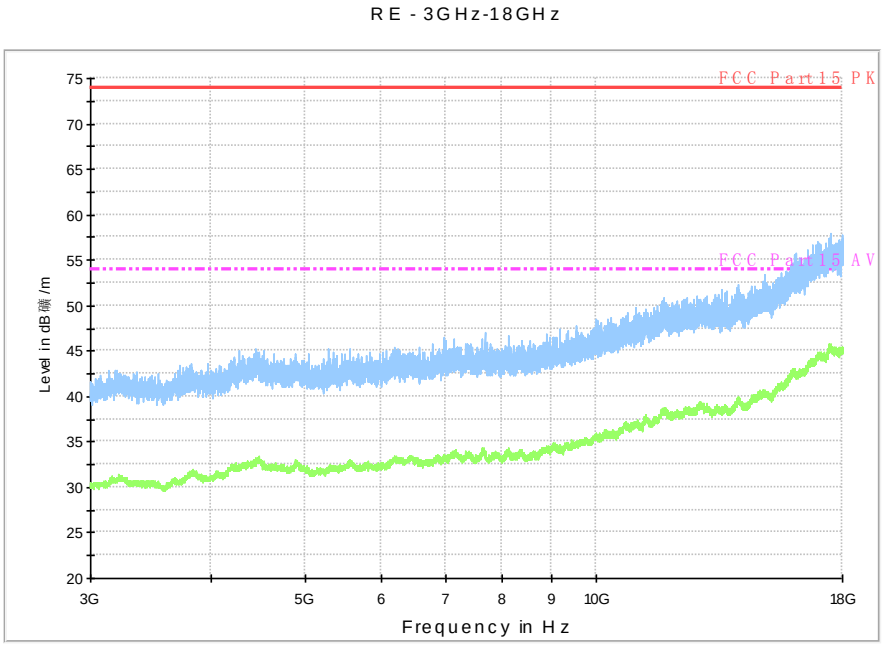


Fig.A.6.2.37 Radiated Spurious Emission (802.11n-HT40, ch3, 3 GHz-18 GHz)

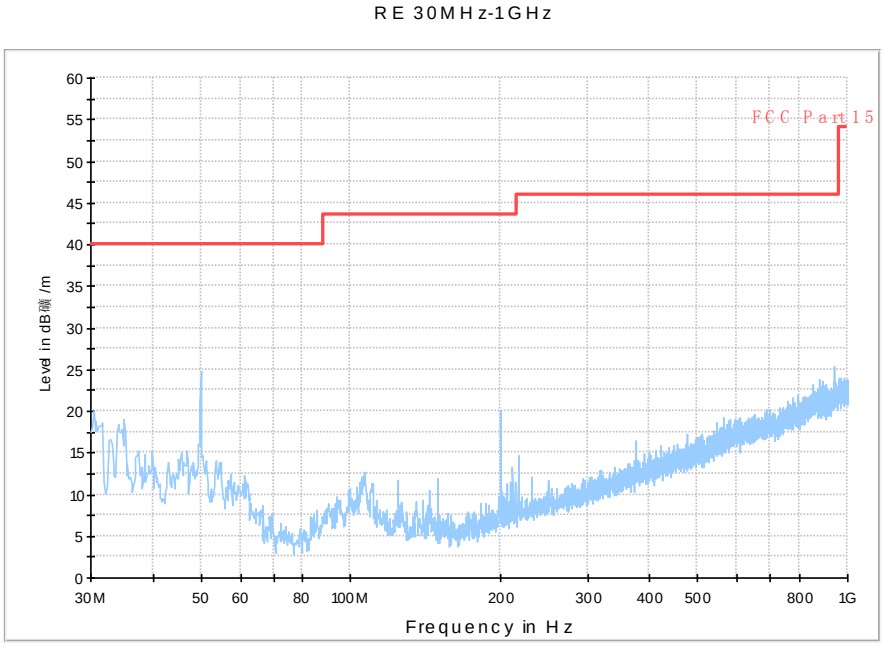


Fig.A.6.2.38 Radiated Spurious Emission (802.11n-HT40, Ch6, 30 MHz-1 GHz)

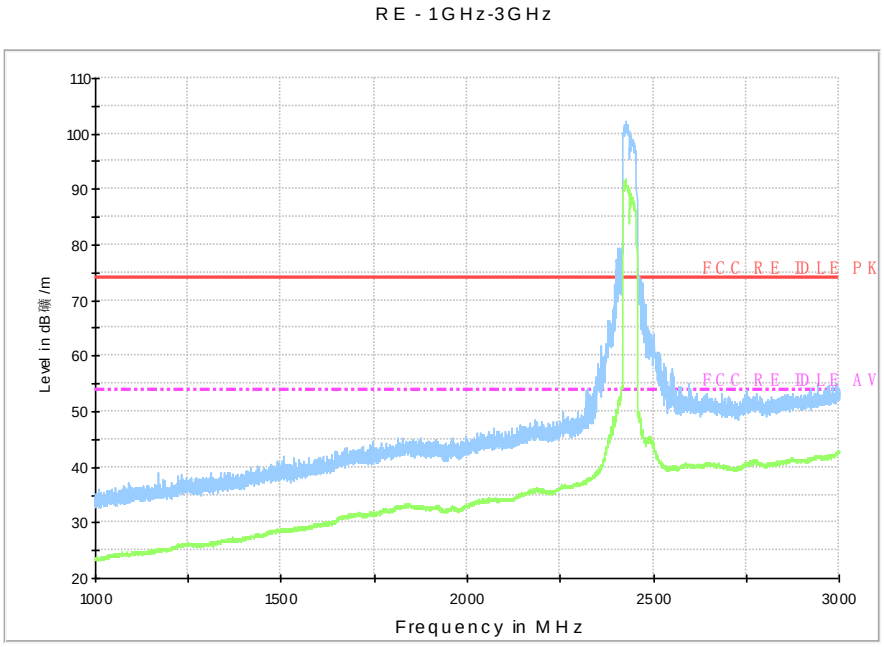


Fig.A.6.2.39 Radiated Spurious Emission (802.11n-HT40, Ch6, 1 GHz-3 GHz)

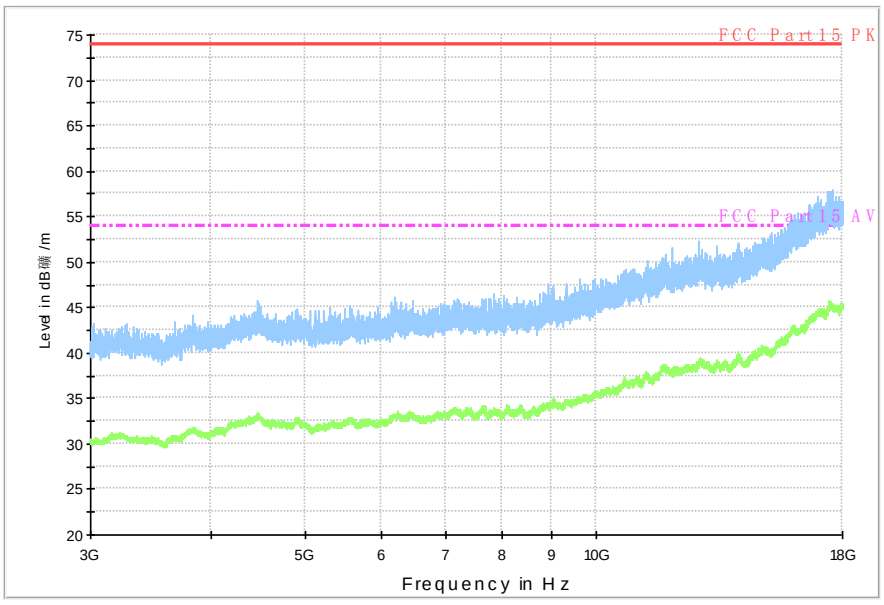


Fig.A.6.2.40 Radiated Spurious Emission (802.11n-HT40, Ch6, 3 GHz-18 GHz)

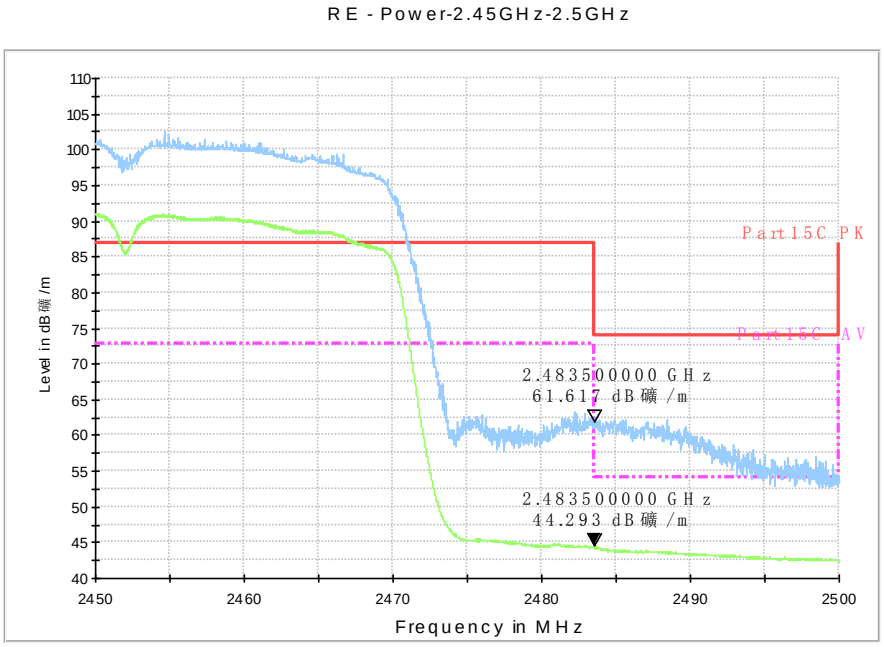


Fig.A.6.2.41 Radiated Spurious Emission (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

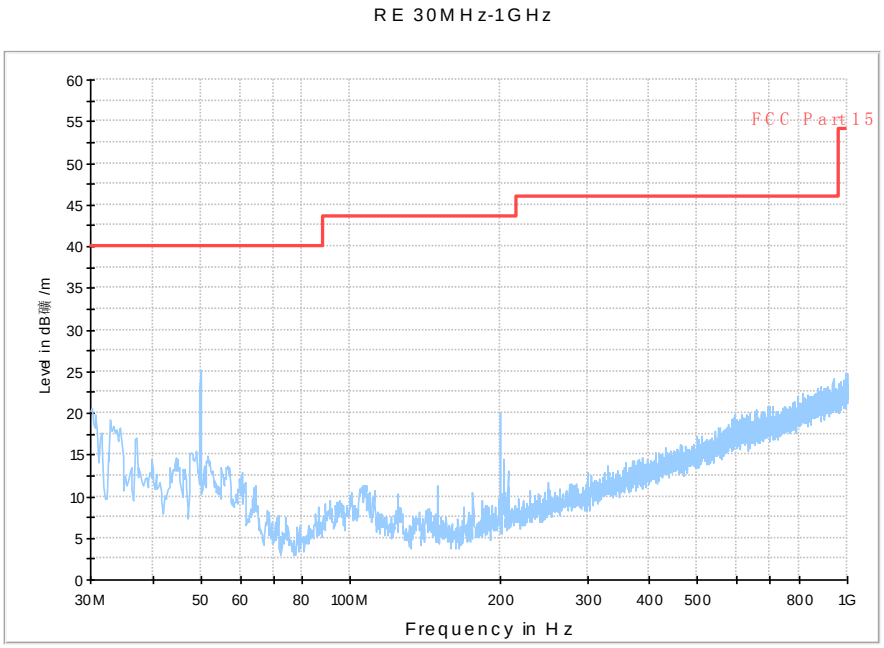


Fig.A.6.2.42 Radiated Spurious Emission (802.11n-HT40, ch9, 30 MHz-1 GHz)

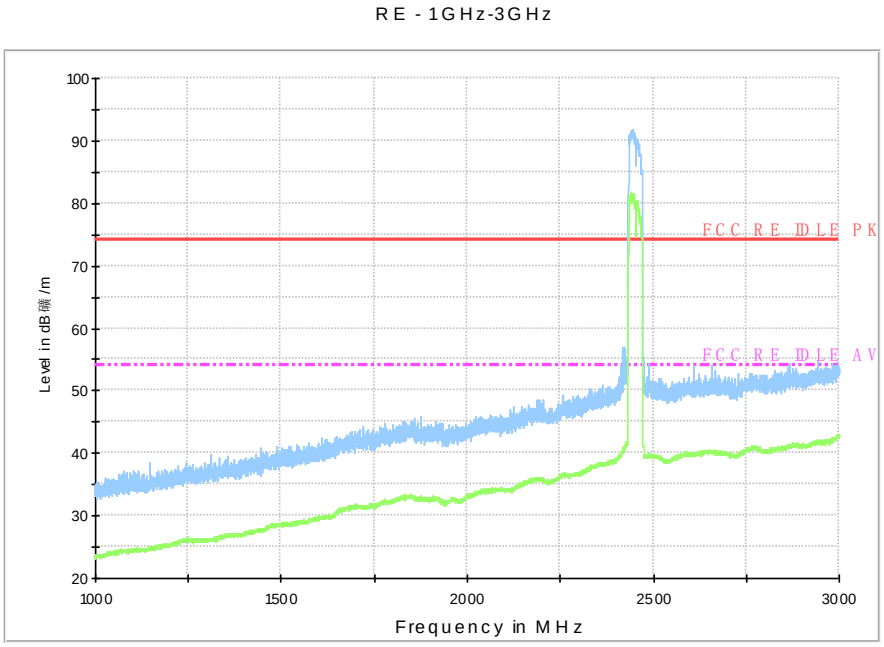


Fig.A.6.2.43 Radiated Spurious Emission (802.11n-HT40, ch9, 1 GHz-3 GHz)

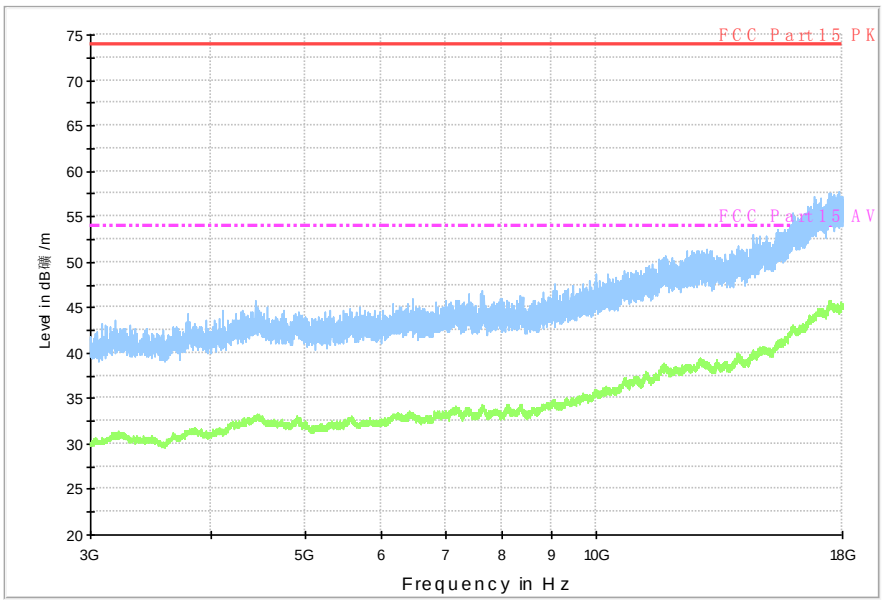


Fig.A.6.2.44 Radiated Spurious Emission (802.11n-HT40, ch9, 3 GHz-18 GHz)

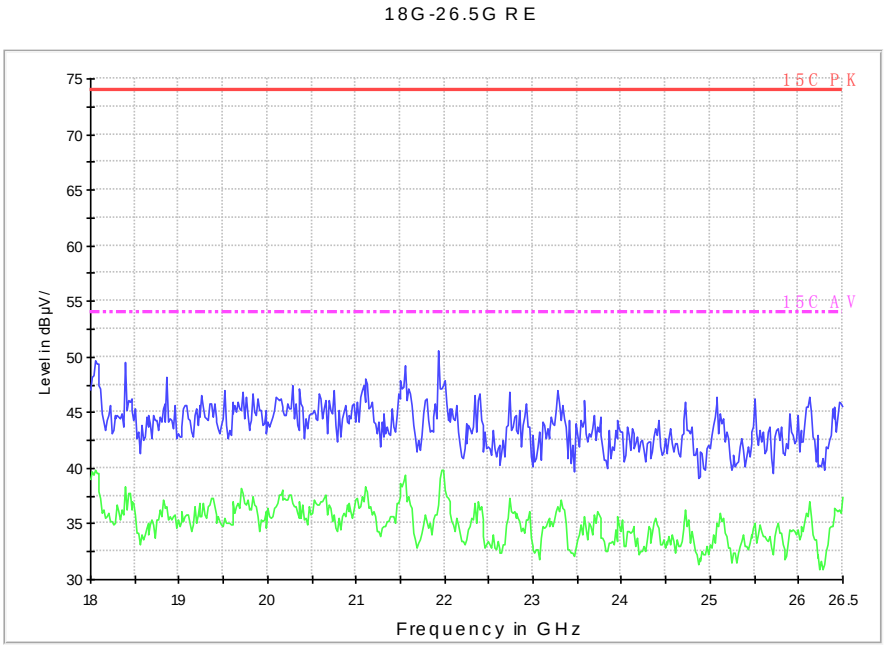


Fig.A.6.2.45 Radiated Spurious Emission (All channels): 18GHz – 26.5GHz

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 (dBμV)	Result (dBμV)				Conclusion
		With charger				
		802.11b	802.11g	802.11n HT20	802.11n HT40	
0.15 to 0.5	66 to 56	Fig.A.7.1	Fig.A.7.2	Fig.A.7.3	Fig.A.7.4	P
0.5 to 5	56					
5 to 30	60					
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.						

WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dBμV)	Result (dBμV)				Conclusion
		With charger				
		802.11b	802.11g	802.11n HT20	802.11n HT40	
0.15 to 0.5	56 to 46	Fig.A.7.1	Fig.A.7.2	Fig.A.7.3	Fig.A.7.4	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 =3.2dB, k=2.

Test graphs as below:

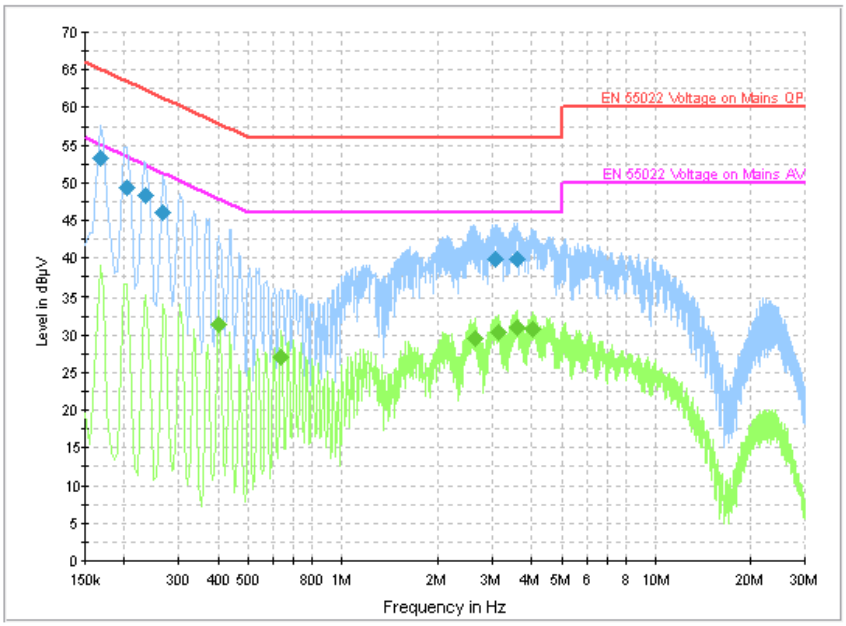


Fig.A.7.1 AC Powerline Conducted Emission-802.11b

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.168000	53.3	GND	L1	10.0	11.7	65.1
0.204000	49.4	GND	L1	10.0	14.1	63.4
0.235500	48.2	GND	L1	10.0	14.0	62.3
0.267000	46.0	GND	L1	10.0	15.2	61.2
3.052500	40.0	GND	L1	10.0	16.0	56.0
3.579000	39.8	GND	N	10.0	16.2	56.0

Final Result 2

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.402000	31.5	GND	N	10.0	16.4	47.8
0.636000	27.0	GND	N	10.0	19.0	46.0
2.629500	29.5	GND	N	10.0	16.5	46.0
3.120000	30.4	GND	L1	10.0	15.6	46.0
3.601500	30.9	GND	N	10.0	15.1	46.0
4.011000	30.8	GND	L1	10.0	15.2	46.0

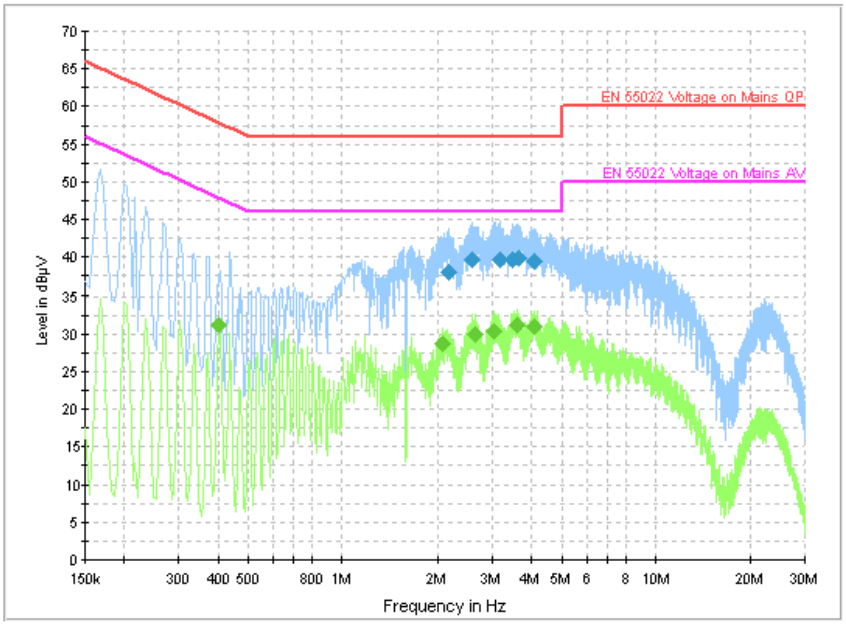


Fig.A.7.2 AC Powerline Conducted Emission-802.11g

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
2.170500	37.9	GND	L1	10.0	18.1	56.0
2.566500	39.6	GND	N	10.0	16.4	56.0
3.156000	39.6	GND	N	10.0	16.4	56.0
3.475500	39.7	GND	L1	10.0	16.3	56.0
3.633000	39.9	GND	N	10.0	16.1	56.0
4.078500	39.5	GND	N	10.0	16.5	56.0

Final Result 2

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.402000	31.1	GND	N	10.0	16.7	47.8
2.085000	28.8	GND	L1	10.0	17.2	46.0
2.629500	29.9	GND	N	10.0	16.1	46.0
3.016500	30.3	GND	N	10.0	15.7	46.0
3.597000	31.2	GND	N	10.0	14.8	46.0
4.101000	31.0	GND	N	10.0	15.0	46.0

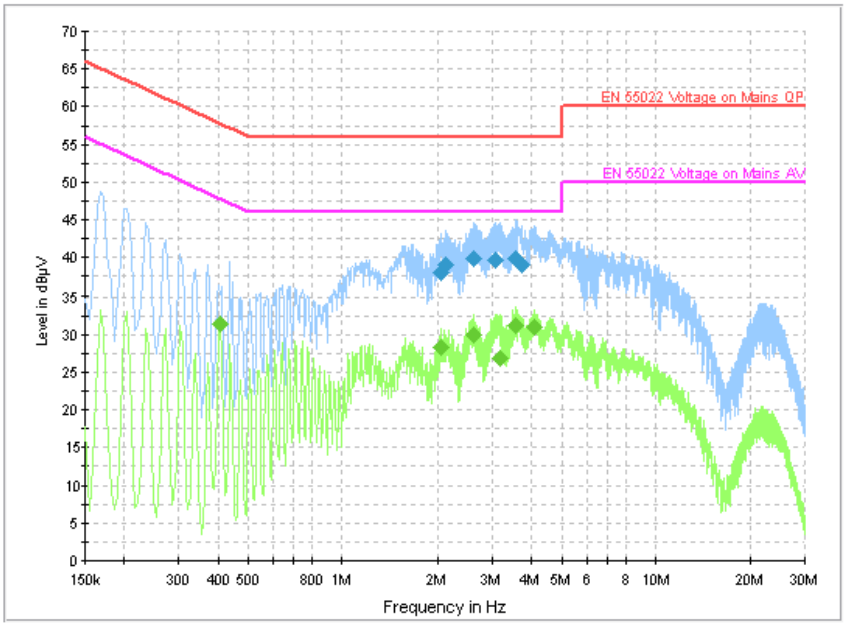


Fig.A.7.3 AC Powerline Conducted Emission-802.11n-HT20

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
2.049000	38.0	GND	L1	10.0	18.0	56.0
2.130000	39.1	GND	L1	10.0	16.9	56.0
2.607000	39.8	GND	N	10.0	16.2	56.0
3.057000	39.7	GND	N	10.0	16.3	56.0
3.552000	39.8	GND	L1	10.0	16.2	56.0
3.732000	39.0	GND	N	10.0	17.0	56.0

Final Result 2

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.406500	31.4	GND	N	10.0	16.3	47.7
2.049000	28.3	GND	L1	10.0	17.7	46.0
2.598000	29.9	GND	N	10.0	16.1	46.0
3.151500	26.9	GND	L1	10.0	19.1	46.0
3.547500	31.1	GND	N	10.0	14.9	46.0
4.074000	31.0	GND	L1	10.0	15.0	46.0

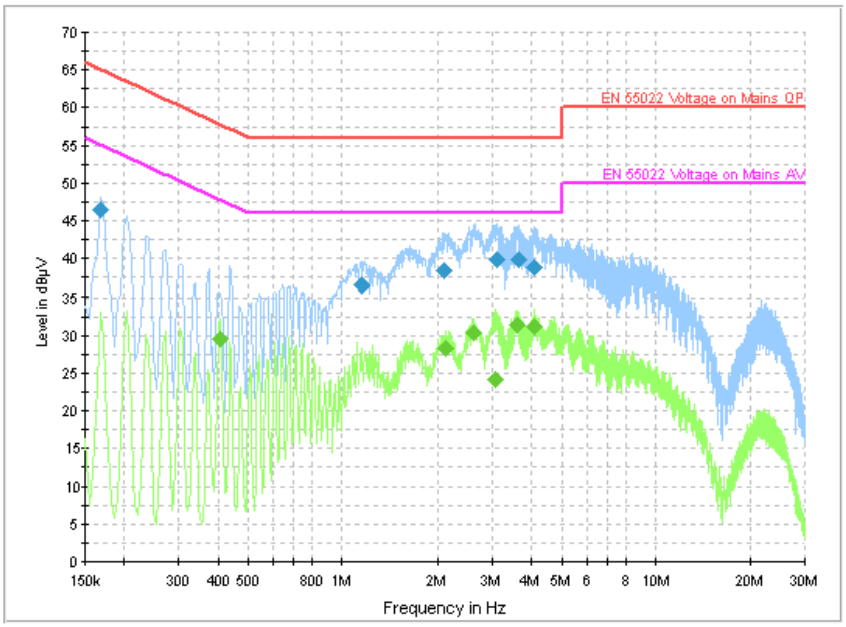


Fig.A.7.4 AC Powerline Conducted Emission-802.11n-HT40

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.168000	46.4	GND	L1	10.0	18.6	65.1
1.149000	36.6	GND	L1	10.0	19.4	56.0
2.094000	38.4	GND	N	10.0	17.6	56.0
3.106500	39.8	GND	N	10.0	16.2	56.0
3.633000	39.9	GND	L1	10.0	16.1	56.0
4.060500	38.8	GND	L1	10.0	17.2	56.0

Final Result 2

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.406500	29.5	GND	L1	10.0	18.2	47.7
2.121000	28.3	GND	L1	10.0	17.7	46.0
2.611500	30.3	GND	L1	10.0	15.7	46.0
3.048000	24.2	GND	L1	10.0	21.8	46.0
3.601500	31.3	GND	L1	10.0	14.7	46.0
4.101000	31.1	GND	L1	10.0	14.9	46.0

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