



**FCC PART 15C
ISED RSS-247
TEST REPORT
No.I21Z70032-EMC10**

for

Samsung Electronics Co., Ltd.

Notebook PC

NP750XDA

with

FCC ID: ZCANP750XDA

ISED Number: 25314-NP750XDA

Hardware Version: REV1.0

Software Version: Windows10-Pro

Issued Date: 2021-03-29

Note:

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
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CONTENTS

1. TEST LABORATORY	4
1.1. INTRODUCTION & ACCREDITATION	4
1.2. TESTING LOCATION	4
1.3. TESTING ENVIRONMENT.....	4
1.4. PROJECT DATE	4
1.5. SIGNATURE	4
2. CLIENT INFORMATION.....	5
2.1. APPLICANT INFORMATION	5
2.2. MANUFACTURER INFORMATION	5
3. PRODUCT INFORMATION	6
3.1. ABOUT EUT	6
3.2. INTERNAL IDENTIFICATION OF EUT	6
3.3. INTERNAL IDENTIFICATION OF AE.....	6
3.4. GENERAL DESCRIPTION.....	7
3.5. TEST CONFIGURATION	7
3.6. INTERPRETATION OF THE TEST ENVIRONMENT.....	7
4. REFERENCE DOCUMENTS.....	8
4.1. DOCUMENTS SUPPLIED BY APPLICANT	8
4.2. REFERENCE DOCUMENTS FOR TESTING.....	8
5. SUMMARY OF TEST RESULTS	9
5.1. SUMMARY OF TEST RESULTS.....	9
5.2. STATEMENTS.....	9
5.3. TEST CONDITIONS	9
6. TEST FACILITIES UTILIZED	10
7. MEASUREMENT UNCERTAINTY	11
ANNEX A: EUT PARAMETERS.....	12
ANNEX B: ANTENNA REQUIREMENTS	12
ANNEX C: DETAILED TEST RESULTS.....	13
C.1. RADIATED SPURIOUS EMISSION.....	13
C.1.1 RADIATED SPURIOUS EMISSION- ABOVE 1GHZ	15
C.1.2 RADIATED SPURIOUS EMISSION- BELOW 1GHZ	39
C.1.3 BAND EDGES COMPLIANCE– RADIATED	40
C.2. AC POWER-LINE CONDUCTED EMISSION	54

1. Test Laboratory

1.1.Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2017 accredited test laboratory under NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM (NVLAP) with lab code 600118-0, and is also an FCC accredited test laboratory (CN5017), and ISED accredited test laboratory (ISED#: 24849). The detail accreditation scope can be found on NVLAP website.

1.2. Testing Location

Location 1:CTTL(Huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing,
P. R. China100191

Location 2:CTTL(BDA)

Address: No.18A, Kangding Street, Beijing Economic-Technology
Development Area, Beijing, P. R. China 100176

1.3. Testing Environment

Normal Temperature: 15-35℃

Relative Humidity: 20-75%

1.4. Project date

Testing Start Date: 2021-02-05

Testing End Date: 2021-03-25

1.5. Signature



Li Yan

(Prepared this test report)



Zhang Ying

(Reviewed this test report)



Zhang Xia

Deputy Director of the laboratory

(Approved this test report)

2. Client Information

2.1.Applicant Information

Company Name: Samsung Electronics Co., Ltd.
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Telephone: +1-201-937-4203
Fax: /

2.2.Manufacturer Information

Company Name: Samsung Electronics Co., Ltd.
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Email: ggobi.cho@samsung.com
Telephone: +82-10-2722-4159
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3. PRODUCT INFORMATION

3.1. About EUT

Description	Notebook PC
Model name	NP750XDA
FCC ID	ZCANP750XDA
ISED Number	25314-NP750XDA

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of T CTTL-Telecommunication Technology Labs, CAICT

3.2. Internal Identification of EUT

EUT ID*	SN or IMEI	HW Version	SW Version
UT12a	2170032UT12a	REV1.0	Windows10-Pro
UT33a	2170032UT33a	REV1.0	Windows10-Pro

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

3.3. Internal Identification of AE

AE ID*	Description	SN	Remarks
AE1	AC Adapter	/	/
AE2	Travel Adapter	/	/
AE3	battery	/	/

AE1

Model	PD-65ABH
Manufacturer	Chicony Power Technology Co., Ltd.
Length of cable	/

AE2

Model	EP-TA865
Manufacturer	Dong Yang E & P Inc.
Length of cable	/

AE3

Model	AA-PBSN4AF
Manufacturer	SDI

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

3.4. General Description

The Equipment Under Test (EUT) was a Notebook PC with Bluetooth, Bluetooth Low Energy and 802.11 a/b/g/n/ac/ax capabilities in the 2.4 GHz and 5 GHz bands.

Antenna information

Item	Spec.	Vendor	Vendor Model
Antenna	/	Inpaq	/
Antenna	/	Speed	/

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

Samples undergoing test were selected by the Client.

3.5. Test Configuration

For 802.11b/g modes the EUT can transmit at both CHAIN A and CHAIN B RF outputs individually, but not simultaneously.

For 802.11n20 & 802.11ax20 (20 MHz channel bandwidth), 802.11n40 & 802.11ax40 (40MHz channel bandwidth) modes the EUT can transmit at both CHAIN A and CHAIN B RF outputs individually, and also simultaneously.

The software DRTU provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

3.6. Interpretation of the Test Environment

For the test methods, the test environment uncertainty figures correspond to an expansion factor $k=2$.

Measurement Uncertainty

Parameter	Uncertainty
temperature	0.48°C
humidity	2 %
DC voltages	0.003V

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.	2019
ANSI C63.10	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	2013
ISED RSS - Gen	Spectrum Management and Telecommunications - Radio Standards Specification	Issue5 2019
ISED RSS-247	General Requirements for Compliance of Radio Apparatus Digital Transmission Systems (DTSS), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices	Issue 2 2017
KDB 558074 D01	Federal Communications Commission Office of Engineering and Technology Laboratory Division GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES	2019

Note: The test methods have no deviation with standards.

5. SUMMARY OF TEST RESULTS

5.1. Summary of Test Results

SUMMARY OF MEASUREMENT RESULTS	Sub-clause of Part15C	Sub-clause of ISED	Verdict
Radiated Spurious Emission	15.247, 15.205, 15.209	RSS-247 5.5 RSS-Gen 8.9	P
AC Power line Conducted Emission	15.107, 15.207	RSS-Gen 8.8	P

Please refer to **ANNEX C** 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 CTTL
BR	Re-use test data from basic model report.
NA	Not Applicable, The test was not applicable
F	Fail, The EUT does not comply with the essential requirements in the standard

5.2. Statements

The test cases as listed in section 5.1 of this report for the EUT specified in section 3 was performed by CTTL and according to the standards or reference documents listed in section 4.2. The EUT met all requirements of the standards or reference documents, and only the WLAN function was tested in this report.

5.3. Test Conditions

T nom	Normal Temperature
T min	Low Temperature
T max	High Temperature
V nom	Normal Voltage

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

Temperature	T nom	26℃
Voltage	V nom	4.0V
Humidity	H nom	20-75%

6. Test Facilities Utilized

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Test Receiver	ESU26	100376	R&S	1 year	2021-09-04
2	BiLog Antenna	VULB9163	9163-482	Schwarzbeck	1 year	2021-11-04
3	Dual-Ridge Waveguide Horn Antenna	3117	00139065	ETS-Lindgren	1 year	2021-10-11
4	Dual-Ridge Waveguide Horn Antenna	3116	2663	ETS-Lindgren	1 year	2021-08-05
5	Vector Signal Analyzer	FSV40	101047	R&S	1 year	2021-05-18
6	Loop Antenna	HFH2-Z2	829324/007	R&S	1 year	2021-12-10
7	Test Receiver	ESU26	100235	R&S	1 year	2021-02-23

AC Powerline Conducted Emission

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	LISN	ENV216	101459	R&S	1 year	2021-04-09
2	Test Receiver	ESCI	100766	R&S	1 year	2022-03-09

7. Measurement Uncertainty

Radiated Spurious Emission

(k=2)

Frequency Range	Uncertainty(dB)
9kHz-30MHz	/
$30\text{MHz} \leq f \leq 1\text{GHz}$	5.40
$1\text{GHz} \leq f \leq 18\text{GHz}$	4.32
$18\text{GHz} \leq f \leq 40\text{GHz}$	5.26

AC Power-line Conducted Emission

Measurement Uncertainty : 3.10dB,k=2

ANNEX A: EUT parameters

Disclaimer: the antenna gain provided by the client may affect the validity of the measurement results in this report, and the client shall bear the impact and consequences arising therefrom.

ANNEX B: Antenna Requirements

According to FCC 47 CFR § 15.203:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.”

- (1) The antennas of the EUT are permanently attached.
- (2) The EUT complies with the requirement of §15.203

ANNEX C: Detailed Test Results

C.1. Radiated Spurious Emission

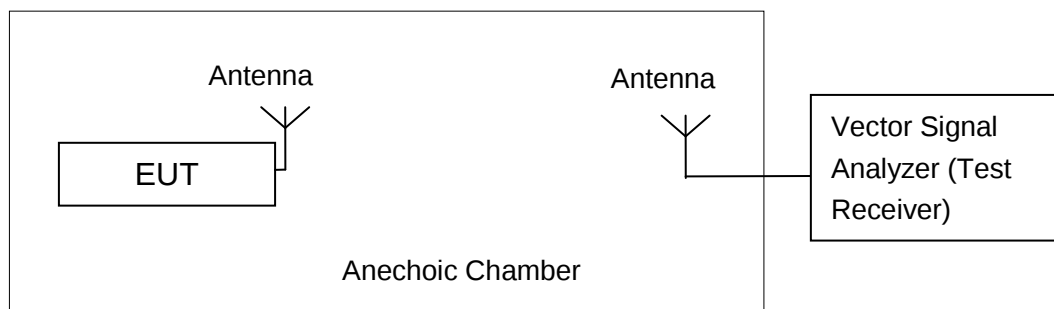
Specification Reference

FCC 47 CFR Part 15.247, 15.205, 15.209 & RSS-247 5.5, RSS-GEN, 8.9

Method of Measurement

Testing was performed in according with ANSI C63.10-2013 and KDB 558074.

The radiated emission test is performed in semi-anechoic chamber. The distance from the EUT to the reference point of measurement antenna is 3m. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated 360° and the measurement antenna is moved from 1m to 4m to get the maximization result.



Note: Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.

Measurement Limit

Standard	Limit
FCC 47 CFR Part 15.247, 15.205, 15.209 & RSS-247 section 5.5	20dB below peak output power

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

Limit in restricted band:

Frequency (MHz)	Field strength(μ V/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

Frequency of emission (MHz)	Field strength(dBμV/m)	Measurement distance(m)
30-88	40.0	3
88-216	43.5	3
216-960	46.0	3
Above 960	54.0	3

Test settings

Frequency of emission (MHz)	RBW/VBW
30-1000	100KHz/300KHz
1000-4000	1MHz/3MHz
4000-18000	1MHz/3MHz
18000-26500	1MHz/3MHz

Sample Calculation

The measurement results are obtained as described below:

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

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.

Test Notes

1. The EUT is operating at its maximum duty cycle and its maximum power control level.
2. Investigation has been done on all channel, modes and modulations/data rates. Only the radiated emissions of the configurations that produced the worst case emissions are reported in this section.
3. The Measurements were performed separately in Chain A, Chain B, and MIMO (Chain A+B); only the worst cases are shown in this report.

C.1.1 Radiated Spurious Emission- above 1GHz

Speed

Measurement results

802.11b- Average

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2385.840	46.42	2.9	32.0	11.56	54.0	7.6	H	20
2389.560	46.46	2.9	32.0	11.59	54.0	7.5	H	18
4823.500	36.61	-33.2	34.1	35.72	54.0	17.4	H	90
7236.400	28.91	-30.9	35.8	23.99	54.0	25.1	H	114
9648.400	29.49	-30.5	36.7	23.24	54.0	24.5	H	36
12060.400	32.26	-28.7	38.7	22.23	54.0	21.7	H	2

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2420.040	46.62	2.9	32.0	11.70	54.0	7.4	H	24
2454.300	46.96	2.9	32.1	11.99	54.0	7.0	H	46
4873.900	39.25	-33.3	34.2	38.40	54.0	14.7	H	6
7311.100	28.58	-30.8	35.8	23.57	54.0	25.4	H	5
9748.300	29.45	-30.3	36.9	22.93	54.0	24.5	H	25
12184.600	32.64	-28.1	38.8	21.93	54.0	21.4	H	184

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2487.300	47.56	2.9	32.1	12.54	54.0	6.4	H	4
2488.140	47.60	2.9	32.1	12.58	54.0	6.4	H	2
4923.400	41.16	-33.5	34.2	40.51	54.0	12.8	H	25
7385.800	28.09	-31.5	35.9	23.69	54.0	25.9	H	350
9848.200	29.68	-30.2	37.0	22.86	54.0	24.3	H	92
12309.700	32.53	-27.8	38.9	21.39	54.0	21.5	H	85

802.11b-Peak

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2370.998	59.85	2.9	32.0	25.01	74.0	14.2	H	22
2380.756	59.81	2.9	32.0	24.96	74.0	14.2	H	22
4823.500	42.86	-33.2	34.1	41.97	74.0	31.1	H	88
7236.000	40.68	-30.9	35.8	35.76	74.0	33.3	V	110
9648.000	41.42	-30.5	36.7	35.16	74.0	32.6	V	44
12060.500	44.52	-28.7	38.7	34.48	74.0	29.5	H	0

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2364.800	43.59	-34.7	32.0	46.30	74.0	30.4	H	22
2514.000	43.90	-34.3	32.1	46.06	74.0	30.1	H	44
4874.000	43.75	-33.3	34.2	42.90	74.0	30.2	V	0
7311.000	40.27	-30.8	35.8	35.26	74.0	33.7	H	0
9747.000	40.77	-30.3	36.9	34.25	74.0	33.2	V	22
12185.000	44.13	-28.1	38.8	33.42	74.0	29.9	H	176

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2487.665	61.51	2.9	32.1	26.49	74.0	12.5	H	0
2488.190	60.67	2.9	32.1	25.65	74.0	13.3	H	0
4924.000	45.57	-33.5	34.2	44.92	74.0	28.4	H	22
7386.500	39.46	-31.5	35.9	35.07	74.0	34.5	H	352
9849.000	41.85	-30.2	37.0	35.03	74.0	32.2	V	88
12310.000	44.28	-27.8	38.9	33.14	74.0	29.7	V	88

802.11g - Average

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2389.992	46.46	2.9	32.0	11.59	54.0	7.5	H	354
2389.998	46.47	2.9	32.0	11.61	54.0	7.5	H	28
4824.400	27.73	-33.2	34.1	26.83	54.0	26.3	H	348
7236.400	29.13	-30.9	35.8	24.21	54.0	24.9	H	345
9648.400	29.70	-30.5	36.7	23.45	54.0	24.3	H	184
12060.400	32.43	-28.7	38.7	22.39	54.0	21.6	H	182

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2418.180	46.54	2.9	32.0	11.63	54.0	7.5	H	175
2455.440	46.73	2.9	32.1	11.76	54.0	7.3	H	5
4873.900	27.84	-33.3	34.2	26.99	54.0	26.2	H	26
7311.100	28.87	-30.8	35.8	23.86	54.0	25.1	H	355
9748.300	29.76	-30.3	36.9	23.24	54.0	24.2	H	6
12184.600	32.88	-28.1	38.8	22.18	54.0	21.1	H	12

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2483.520	47.13	2.9	32.1	12.12	54.0	6.9	H	28
2483.580	47.12	2.9	32.1	12.10	54.0	6.9	H	248
4924.300	27.28	-33.5	34.2	26.64	54.0	26.7	H	38
7385.800	28.32	-31.5	35.9	23.92	54.0	25.7	H	98
9848.200	29.94	-30.2	37.0	23.13	54.0	24.1	H	183
12309.700	32.60	-27.8	38.9	21.47	54.0	21.4	H	356

802.11g - Peak

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2375.912	59.87	2.9	32.0	25.03	74.0	14.1	H	0
2389.170	60.04	2.9	32.0	25.18	74.0	14.0	H	22
4823.500	36.85	-33.2	34.1	35.96	74.0	37.1	V	352
7235.500	42.10	-30.9	35.8	37.19	74.0	31.9	V	352
9649.000	42.27	-30.5	36.7	36.02	74.0	31.7	H	176
12060.000	45.16	-28.7	38.7	35.12	74.0	28.8	V	176

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2367.000	43.72	-34.6	32.0	46.34	74.0	30.3	H	176
2513.000	43.83	-34.3	32.1	45.99	74.0	30.2	H	0
4873.500	38.91	-33.3	34.2	38.06	74.0	35.1	H	22
7311.000	40.27	-30.8	35.8	35.26	74.0	33.7	V	352
9747.500	42.06	-30.3	36.9	35.54	74.0	31.9	H	0
12184.000	45.72	-28.1	38.8	35.02	74.0	28.3	V	0

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2485.570	61.49	2.9	32.1	26.47	74.0	12.5	H	22
2486.825	61.28	2.9	32.1	26.25	74.0	12.7	H	242
4922.500	39.54	-33.5	34.2	38.89	74.0	34.5	V	44
7385.500	40.67	-31.4	35.9	36.27	74.0	33.3	H	88
9848.000	41.43	-30.2	37.0	34.62	74.0	32.6	V	176
12309.500	45.03	-27.8	38.9	33.90	74.0	29.0	H	0

802.11n-HT20-Average

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2383.920	46.35	2.9	32.0	11.49	54.0	7.7	H	6
2389.380	46.49	2.9	32.0	11.62	54.0	7.5	H	26
4824.400	29.13	-33.2	34.1	28.24	54.0	24.9	H	92
7236.400	29.55	-30.9	35.8	24.63	54.0	24.4	H	24
9648.400	30.09	-30.5	36.7	23.84	54.0	23.9	H	136
12060.400	32.82	-28.7	38.7	22.79	54.0	21.2	H	356

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2419.500	46.55	2.9	32.0	11.64	54.0	7.4	H	20
2454.660	46.89	2.9	32.1	11.91	54.0	7.1	H	40
4875.700	30.55	-33.3	34.2	29.70	54.0	23.4	H	56
7311.100	29.23	-30.8	35.8	24.22	54.0	24.8	H	4
9748.300	30.20	-30.3	36.9	23.68	54.0	23.8	H	18
12184.600	33.20	-28.1	38.8	22.50	54.0	20.8	H	48

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2483.700	46.48	2.9	32.1	11.46	54.0	7.5	H	18
2487.540	46.48	2.9	32.1	11.46	54.0	7.5	H	4
4923.400	30.56	-33.5	34.2	29.91	54.0	23.4	H	20
7385.800	28.62	-31.5	35.9	24.22	54.0	25.4	H	28
9848.200	30.16	-30.2	37.0	23.34	54.0	23.8	H	4
12309.700	32.92	-27.8	38.9	21.79	54.0	21.1	H	40

802.11n-HT20-Peak

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2341.514	60.66	2.8	32.0	25.87	74.0	13.3	H	0
2356.522	60.49	2.8	32.0	25.68	74.0	13.5	H	22
4823.500	41.06	-33.2	34.1	40.16	74.0	32.9	H	88
7235.500	42.10	-30.9	35.8	37.19	74.0	31.9	V	22
9647.000	42.21	-30.5	36.7	35.97	74.0	31.8	V	132
12059.000	45.17	-28.7	38.7	35.14	74.0	28.8	H	352

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2365.200	43.00	-34.7	32.0	45.70	74.0	31.0	H	22
2506.800	44.55	-34.2	32.1	46.66	74.0	29.5	H	44
4876.500	43.10	-33.3	34.2	42.25	74.0	30.9	H	66
7311.500	40.80	-30.8	35.8	35.80	74.0	33.2	H	0
9748.000	41.91	-30.3	36.9	35.39	74.0	32.1	V	22
12184.500	44.58	-28.1	38.8	33.88	74.0	29.4	V	44

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2489.810	60.56	2.9	32.1	25.54	74.0	13.4	H	22
2490.575	60.48	2.9	32.1	25.45	74.0	13.5	H	0
4925.000	42.61	-33.5	34.2	41.98	74.0	31.4	V	44
7387.000	40.61	-31.5	35.9	36.22	74.0	33.4	H	22
9847.500	41.66	-30.2	37.0	34.85	74.0	32.3	V	0
12309.500	45.81	-27.8	38.9	34.68	74.0	28.2	V	44

802.11n-HT40-Average

Ch3

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2389.920	50.79	2.9	32.0	15.93	54.0	3.2	H	92
2389.980	50.74	2.9	32.0	15.87	54.0	3.3	H	26
4844.200	28.95	-33.2	34.1	28.04	54.0	25.1	H	222
7266.100	29.80	-30.6	35.8	24.59	54.0	24.2	H	248
9688.000	30.07	-30.4	36.8	23.66	54.0	23.9	H	46
12109.900	33.15	-28.5	38.8	22.85	54.0	20.9	H	68

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2410.150	46.91	2.9	32.0	12.01	54.0	7.1	H	8
2465.520	47.26	2.9	32.1	12.27	54.0	6.7	H	28
4882.900	29.94	-33.3	34.2	29.11	54.0	24.1	H	246
7311.100	29.33	-30.8	35.8	24.32	54.0	24.7	H	249
9748.300	30.24	-30.3	36.9	23.72	54.0	23.8	H	186
12184.600	33.23	-28.1	38.8	22.53	54.0	20.8	H	128

Ch9

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2483.520	48.07	2.9	32.1	13.06	54.0	5.9	H	92
2483.580	48.04	2.9	32.1	13.02	54.0	6.0	H	136
4901.800	29.88	-33.4	34.2	29.13	54.0	24.1	H	8
7356.100	29.32	-31.2	35.8	24.65	54.0	24.7	H	70
9807.700	29.81	-30.3	36.9	23.20	54.0	24.2	H	48
12260.200	32.78	-27.9	38.9	21.80	54.0	21.2	H	246

802.11n-HT40-Peak

Ch3

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2385.180	65.41	2.9	32.0	30.56	74.0	8.6	H	88
2388.344	65.41	2.9	32.0	30.55	74.0	8.6	H	22
4844.000	40.47	-33.2	34.1	39.56	74.0	33.5	V	220
7266.000	42.33	-30.6	35.8	37.12	74.0	31.7	V	242
9687.500	43.14	-30.4	36.8	36.74	74.0	30.9	V	44
12110.500	46.38	-28.5	38.8	36.07	74.0	27.6	V	66

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2366.000	44.10	-34.6	32.0	46.77	74.0	29.9	H	248
2515.400	43.87	-34.3	32.1	46.05	74.0	30.1	H	268
4879.000	43.13	-33.3	34.2	42.29	74.0	30.9	V	352
7311.000	40.63	-30.8	35.8	35.62	74.0	33.4	V	352
9748.000	42.48	-30.3	36.9	35.96	74.0	31.5	V	176
12185.000	44.46	-28.1	38.8	33.76	74.0	29.5	H	132

Ch9

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2483.510	62.85	2.9	32.1	27.84	74.0	11.1	H	88
2486.750	62.58	2.9	32.1	27.55	74.0	11.4	H	132
4890.500	43.41	-33.4	34.2	42.61	74.0	30.6	H	0
7355.500	41.94	-31.2	35.8	37.26	74.0	32.1	H	66
9808.000	41.96	-30.3	36.9	35.35	74.0	32.0	V	44
12261.000	44.68	-27.9	38.9	33.70	74.0	29.3	H	242

802.11ax-HT20-Average

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2389.800	46.53	2.9	32.0	11.67	54.0	7.5	H	20
2389.860	46.54	2.9	32.0	11.67	54.0	7.5	H	45
4823.500	29.44	-33.2	34.1	28.55	54.0	24.6	H	240
7236.400	29.65	-30.9	35.8	24.73	54.0	24.4	H	180
9648.400	30.22	-30.5	36.7	23.96	54.0	23.8	H	85
12060.400	32.92	-28.7	38.7	22.88	54.0	21.1	H	25

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2418.020	46.54	2.9	32.0	11.63	54.0	7.5	H	24
2455.080	46.77	2.9	32.1	11.80	54.0	7.2	H	336
4876.600	30.28	-33.3	34.2	29.44	54.0	23.7	H	248
7311.100	29.30	-30.8	35.8	24.29	54.0	24.7	H	268
9748.300	30.17	-30.3	36.9	23.65	54.0	23.8	H	290
12184.600	33.19	-28.1	38.8	22.48	54.0	20.8	H	300

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2483.520	46.56	2.9	32.1	11.54	54.0	7.4	H	28
2483.580	46.54	2.9	32.1	11.52	54.0	7.5	H	46
4924.300	30.18	-33.5	34.2	29.54	54.0	23.8	H	8
7385.800	28.78	-31.5	35.9	24.38	54.0	25.2	H	6
9848.200	30.28	-30.2	37.0	23.47	54.0	23.7	H	24
12309.700	33.00	-27.8	38.9	21.87	54.0	21.0	H	185

802.11ax-HT20-Peak

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2347.828	60.06	2.8	32.0	25.27	74.0	13.9	H	22
2371.166	60.10	2.9	32.0	25.27	74.0	13.9	H	44
4823.500	40.31	-33.2	34.1	39.42	74.0	33.7	V	242
7236.500	41.97	-30.9	35.8	37.05	74.0	32.0	V	176
9647.500	43.20	-30.5	36.7	36.95	74.0	30.8	V	88
12060.000	46.29	-28.7	38.7	36.26	74.0	27.7	H	22

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2367.800	43.86	-34.6	32.0	46.46	74.0	30.1	H	110
2510.800	43.24	-34.3	32.1	45.39	74.0	30.8	V	132
4871.500	42.86	-33.3	34.2	42.00	74.0	31.1	H	242
7310.500	41.12	-30.8	35.8	36.11	74.0	32.9	V	264
9748.500	41.99	-30.3	36.9	35.46	74.0	32.0	V	286
12185.000	45.26	-28.1	38.8	34.55	74.0	28.7	V	308

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2489.780	61.05	2.9	32.1	26.02	74.0	13.0	H	22
2497.165	60.67	2.9	32.1	25.63	74.0	13.3	H	44
4919.000	42.49	-33.5	34.2	41.83	74.0	31.5	V	0
7386.000	40.58	-31.5	35.9	36.18	74.0	33.4	H	0
9849.000	42.14	-30.2	37.0	35.32	74.0	31.9	V	22
12309.000	44.79	-27.8	38.9	33.66	74.0	29.2	H	176

802.11ax-HT40-Average

Ch3

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2388.900	50.03	2.9	32.0	15.17	54.0	4.0	H	226
2388.960	50.07	2.9	32.0	15.21	54.0	3.9	H	92
4844.200	28.48	-33.2	34.1	27.57	54.0	25.5	H	70
7266.100	29.79	-30.6	35.8	24.58	54.0	24.2	H	8
9688.000	30.07	-30.4	36.8	23.67	54.0	23.9	H	48
12109.900	33.06	-28.5	38.8	22.76	54.0	20.9	H	246

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2409.360	46.70	2.9	32.0	11.80	54.0	7.3	H	16
2466.540	47.10	2.9	32.1	12.11	54.0	6.9	H	48
4885.600	29.92	-33.3	34.2	29.09	54.0	24.1	H	80
7311.100	29.47	-30.8	35.8	24.46	54.0	24.5	H	8
9748.300	30.35	-30.3	36.9	23.83	54.0	23.7	H	102
12184.600	33.36	-28.1	38.8	22.66	54.0	20.6	H	118

Ch9

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2484.120	47.54	2.9	32.1	12.52	54.0	6.5	H	184
2484.180	47.54	2.9	32.1	12.52	54.0	6.5	H	6
4900.000	29.95	-33.4	34.2	29.19	54.0	24.0	H	26
7356.100	29.37	-31.2	35.8	24.70	54.0	24.6	H	246
9807.700	29.97	-30.3	36.9	23.36	54.0	24.0	H	8
12260.200	32.97	-27.9	38.9	21.99	54.0	21.0	H	2

802.11ax-HT40-Peak

Ch3

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2387.952	65.63	2.9	32.0	30.76	74.0	8.4	H	220
2388.890	66.08	2.9	32.0	31.22	74.0	7.9	H	88
4843.500	40.89	-33.2	34.1	39.98	74.0	33.1	H	66
7265.500	42.09	-30.6	35.8	36.88	74.0	31.9	V	0
9687.500	43.29	-30.4	36.8	36.89	74.0	30.7	V	44
12110.500	45.07	-28.5	38.8	34.77	74.0	28.9	V	242

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2376.600	44.35	-34.2	32.0	46.59	74.0	29.7	H	22
2510.600	44.14	-34.3	32.1	46.28	74.0	29.9	H	44
4874.000	42.46	-33.3	34.2	41.61	74.0	31.5	V	88
7311.000	39.88	-30.8	35.8	34.87	74.0	34.1	V	0
9748.000	41.99	-30.3	36.9	35.47	74.0	32.0	H	110
12185.000	44.89	-28.1	38.8	34.18	74.0	29.1	H	132

Ch9

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2485.400	61.89	2.9	32.1	26.87	74.0	12.1	H	176
2495.290	61.13	2.9	32.1	26.09	74.0	12.9	H	0
4907.500	43.01	-33.4	34.2	42.28	74.0	31.0	V	22
7355.500	41.53	-31.2	35.8	36.85	74.0	32.5	V	352
9808.500	42.55	-30.3	36.9	35.93	74.0	31.5	V	0
12260.000	44.66	-27.9	38.9	33.68	74.0	29.3	H	0

Conclusion: Pass

Note: the spurious emission above 18G is noise only.

Inpaq
Measurement results
802.11b-Average
Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2388.540	46.47	2.9	32.0	11.61	54.0	7.5	V	222
2389.980	46.49	2.9	32.0	11.62	54.0	7.5	V	354
4823.500	36.56	-33.2	34.1	35.67	54.0	17.4	V	157
7236.400	28.26	-30.9	35.8	23.34	54.0	25.7	H	42
9648.400	28.97	-30.5	36.7	22.72	54.0	25.0	H	19
12060.400	31.98	-28.7	38.7	21.94	54.0	22.0	V	265

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2421.240	47.13	2.9	32.0	12.21	54.0	6.9	V	238
2452.140	51.01	2.9	32.1	16.01	54.0	3.0	V	306
4873.000	36.78	-33.3	34.2	35.93	54.0	17.2	V	201
7311.000	28.03	-30.8	35.8	23.02	54.0	26.0	H	201
9748.000	28.99	-30.3	36.9	22.47	54.0	25.0	H	194
12185.000	32.23	-28.1	38.8	21.52	54.0	21.8	V	86

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2487.240	46.96	2.9	32.1	11.94	54.0	7.0	V	241
2487.840	47.03	2.9	32.1	12.00	54.0	7.0	V	223
4923.400	34.84	-33.5	34.2	34.20	54.0	19.2	H	128
7385.800	27.45	-31.5	35.9	23.04	54.0	26.6	H	327
9848.200	29.13	-30.2	37.0	22.32	54.0	24.9	H	348
12309.700	32.05	-27.8	38.9	20.92	54.0	21.9	H	130

802.11b-Peak

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2386.314	60.02	2.9	32.0	25.16	74.0	14.0	V	220
2389.842	59.67	2.9	32.0	24.80	74.0	14.3	H	352
4823.500	42.42	-33.2	34.1	41.53	74.0	31.6	H	154
7236.000	38.71	-30.9	35.8	33.79	74.0	35.3	H	44
9648.000	41.70	-30.5	36.7	35.45	74.0	32.3	V	22
12060.000	44.20	-28.7	38.7	34.17	74.0	29.8	V	264

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2201.200	44.90	-35.5	31.8	48.60	74.0	29.1	V	242
2515.800	44.61	-34.3	32.1	46.79	74.0	29.4	V	308
4874.000	42.34	-33.3	34.2	41.49	74.0	31.7	H	198
7311.000	39.65	-30.8	35.8	34.64	74.0	34.4	V	198
9748.000	39.44	-30.3	36.9	32.92	74.0	34.6	V	198
12185.000	43.68	-28.1	38.8	32.98	74.0	30.3	V	88

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2483.500	60.27	2.9	32.1	25.25	74.0	13.7	V	242
2483.710	59.71	2.9	32.1	24.69	74.0	14.3	V	220
4924.000	42.25	-33.5	34.2	41.61	74.0	31.7	V	132
7386.000	39.92	-31.5	35.9	35.52	74.0	34.1	V	330
9848.000	41.00	-30.2	37.0	34.18	74.0	33.0	H	352
12310.000	45.22	-27.8	38.9	34.08	74.0	28.8	H	132

802.11g - Average

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2388.120	46.45	2.9	32.0	11.59	54.0	7.5	V	21
2389.740	46.52	2.9	32.0	11.66	54.0	7.5	V	84
4823.500	26.85	-33.2	34.1	25.96	54.0	27.1	H	114
7236.400	28.32	-30.9	35.8	23.40	54.0	25.7	V	265
9648.000	29.00	-30.5	36.7	22.75	54.0	25.0	V	69
12060.400	31.93	-28.7	38.7	21.90	54.0	22.1	V	223

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2409.240	46.60	2.9	32.0	11.70	54.0	7.4	V	304
2462.880	46.99	2.9	32.1	12.01	54.0	7.0	V	327
4874.800	27.66	-33.3	34.2	26.82	54.0	26.3	H	112
7311.100	28.19	-30.8	35.8	23.18	54.0	25.8	V	200
9748.300	29.18	-30.3	36.9	22.65	54.0	24.8	V	268
12184.600	32.32	-28.1	38.8	21.62	54.0	21.7	H	1

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2483.580	47.07	2.9	32.1	12.05	54.0	6.9	V	195
2484.300	47.06	2.9	32.1	12.04	54.0	6.9	V	200
4918.900	26.60	-33.5	34.2	25.93	54.0	27.4	V	152
7385.800	27.71	-31.5	35.9	23.31	54.0	26.3	V	2
9848.000	29.39	-30.2	37.0	22.58	54.0	24.6	V	64
12309.700	32.17	-27.8	38.9	21.04	54.0	21.8	V	197

802.11g - Peak

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2385.880	60.13	2.9	32.0	25.27	74.0	13.9	V	22
2387.392	59.95	2.9	32.0	25.09	74.0	14.0	V	88
4874.000	36.79	-33.3	34.2	35.94	74.0	37.2	V	110
7311.000	38.47	-30.8	35.8	33.46	74.0	35.5	V	264
9748.000	40.34	-30.3	36.9	33.82	74.0	33.7	V	66
12185.000	42.56	-28.1	38.8	31.85	74.0	31.4	V	220

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2349.000	43.23	-35.2	32.0	46.46	74.0	30.8	V	308
2511.800	44.47	-34.3	32.1	46.62	74.0	29.5	H	330
4870.000	40.91	-33.3	34.1	40.05	74.0	33.1	H	110
7311.000	40.47	-30.8	35.8	35.46	74.0	33.5	V	198
9748.000	40.48	-30.3	36.9	33.96	74.0	33.5	H	264
12185.000	43.87	-28.1	38.8	33.16	74.0	30.1	V	0

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2483.930	60.81	2.9	32.1	25.80	74.0	13.2	H	198
2484.360	60.99	2.9	32.1	25.97	74.0	13.0	V	198
4924.000	38.11	-33.5	34.2	37.46	74.0	35.9	V	154
7386.000	39.03	-31.5	35.9	34.63	74.0	35.0	H	0
9848.000	39.08	-30.2	37.0	32.26	74.0	34.9	H	66
12310.000	43.29	-27.8	38.9	32.16	74.0	30.7	H	198

802.11n-HT20-Average

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2388.780	47.46	2.9	32.0	12.60	54.0	6.5	V	178
2389.800	47.84	2.9	32.0	12.98	54.0	6.2	V	202
4824.400	26.35	-33.2	34.1	25.46	54.0	27.6	H	18
7236.400	27.91	-30.9	35.8	22.99	54.0	26.1	H	238
9648.400	28.50	-30.5	36.7	22.25	54.0	25.5	H	356
12060.400	31.51	-28.7	38.7	21.48	54.0	22.5	H	111

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2418.540	47.54	2.9	32.0	12.62	54.0	6.5	V	65
2455.440	48.27	2.9	32.1	13.30	54.0	5.7	V	133
4873.900	28.34	-33.3	34.2	27.49	54.0	25.7	H	244
7311.100	28.93	-30.8	35.8	23.92	54.0	25.1	H	288
9748.300	29.64	-30.3	36.9	23.12	54.0	24.4	V	353
12184.600	32.62	-28.1	38.8	21.91	54.0	21.4	H	354

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2483.520	47.03	2.9	32.1	12.02	54.0	7.0	V	224
2484.300	46.97	2.9	32.1	11.95	54.0	7.0	V	219
4924.300	26.13	-33.5	34.2	25.49	54.0	27.9	H	84
7385.800	27.70	-31.5	35.9	23.30	54.0	26.3	V	196
9848.200	29.32	-30.2	37.0	22.51	54.0	24.7	V	133
12309.700	32.25	-27.8	38.9	21.12	54.0	21.8	V	112

802.11n-HT20-Peak

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2384.928	59.76	2.9	32.0	24.90	74.0	14.2	H	176
2388.400	59.31	2.9	32.0	24.45	74.0	14.7	H	198
4824.000	37.02	-33.2	34.1	36.12	74.0	37.0	V	22
7236.000	38.78	-30.9	35.8	33.87	74.0	35.2	H	242
9648.000	40.07	-30.5	36.7	33.82	74.0	33.9	H	352
12060.000	42.70	-28.7	38.7	32.66	74.0	31.3	H	110

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2349.500	43.23	-35.2	32.0	46.45	74.0	30.8	V	66
2515.800	44.61	-34.3	32.1	46.79	74.0	29.4	V	132
4874.000	37.89	-33.3	34.2	37.03	74.0	36.1	H	242
7236.000	39.81	-30.9	35.8	34.90	74.0	34.2	H	286
9648.000	39.63	-30.5	36.7	33.38	74.0	34.4	H	352
12060.000	41.91	-28.7	38.7	31.87	74.0	32.1	V	352

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2384.368	59.88	2.9	32.0	25.02	74.0	14.1	H	220
2384.928	59.76	2.9	32.0	24.90	74.0	14.2	V	220
4924.000	36.94	-33.5	34.2	36.30	74.0	37.1	V	88
7386.000	38.93	-31.5	35.9	34.53	74.0	35.1	V	198
9848.000	40.48	-30.2	37.0	33.67	74.0	33.5	H	132
12310.000	42.98	-27.8	38.9	31.84	74.0	31.0	V	110

802.11n-HT40-Average

Ch3

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2390.040	48.44	2.9	32.0	13.57	54.0	5.6	V	177
2388.884	48.41	2.9	32.0	13.54	54.0	5.6	V	19
4844.200	26.01	-33.2	34.1	25.10	54.0	28.0	H	326
7266.100	28.70	-30.6	35.8	23.49	54.0	25.3	H	334
9688.000	29.13	-30.4	36.8	22.73	54.0	24.9	H	262
12109.900	32.14	-28.5	38.8	21.84	54.0	21.9	H	268

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2399.820	47.63	2.9	32.0	12.75	54.0	6.4	V	128
2472.660	48.32	2.9	32.1	13.32	54.0	5.7	V	67
4874.000	25.94	-33.3	34.2	25.09	54.0	28.1	H	87
7311.000	28.30	-30.8	35.8	23.29	54.0	25.7	V	4
9748.000	29.27	-30.3	36.9	22.75	54.0	24.7	H	133
12185.000	32.41	-28.1	38.8	21.70	54.0	21.6	V	326

Ch9

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2483.560	47.26	2.9	32.1	12.24	54.0	6.7	V	155
2483.500	47.68	2.9	32.1	12.66	54.0	6.3	V	177
4904.000	25.43	-33.4	34.2	24.69	54.0	28.6	H	221
7356.000	27.54	-31.2	35.8	22.87	54.0	26.5	V	128
9808.000	29.75	-30.3	36.9	23.14	54.0	24.3	V	151
12260.000	32.33	-27.9	38.9	21.35	54.0	21.7	H	1

802.11n-HT40-Peak

Ch3

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2389.996	62.75	2.9	32.0	27.89	74.0	11.2	H	176
2389.156	62.75	2.9	32.0	27.88	74.0	11.3	H	22
4844.000	37.22	-33.2	34.1	36.31	74.0	36.8	H	330
7266.000	39.71	-30.6	35.8	34.50	74.0	34.3	H	330
9688.000	39.85	-30.4	36.8	33.45	74.0	34.1	H	264
12110.000	43.03	-28.5	38.8	32.73	74.0	31.0	V	264

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2361.050	43.82	-34.8	32.0	46.69	74.0	30.2	V	132
2538.600	44.60	-34.6	32.2	47.02	74.0	29.4	H	66
4874.000	37.20	-33.3	34.2	36.35	74.0	36.8	V	88
7311.000	40.64	-30.8	35.8	35.63	74.0	33.4	V	0
9748.000	40.40	-30.3	36.9	33.88	74.0	33.6	V	132
12185.000	43.07	-28.1	38.8	32.37	74.0	30.9	H	330

Ch9

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2483.545	61.44	2.9	32.1	26.42	74.0	12.6	H	154
2484.380	61.03	2.9	32.1	26.01	74.0	13.0	V	176
4904.000	37.31	-33.4	34.2	36.57	74.0	36.7	V	220
7356.000	38.58	-31.2	35.8	33.91	74.0	35.4	V	132
9808.000	40.53	-30.3	36.9	33.92	74.0	33.5	V	154
12260.000	43.13	-27.9	38.9	32.15	74.0	30.9	H	0

802.11ax-HT20-Average

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2389.440	48.03	2.9	32.0	13.16	54.0	6.0	V	349
2389.980	48.23	2.9	32.0	13.37	54.0	5.8	V	261
4824.400	26.37	-33.2	34.1	25.48	54.0	27.6	H	134
7236.400	28.53	-30.9	35.8	23.62	54.0	25.5	V	175
9648.400	29.12	-30.5	36.7	22.87	54.0	24.9	V	87
12060.400	32.08	-28.7	38.7	22.04	54.0	21.9	V	262

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2414.280	46.87	2.9	32.0	11.96	54.0	7.1	V	134
2461.920	46.77	2.9	32.1	11.79	54.0	7.2	V	40
4873.900	25.85	-33.3	34.2	25.00	54.0	28.1	H	262
7311.100	28.48	-30.8	35.8	23.47	54.0	25.5	H	152
9748.300	29.38	-30.3	36.9	22.86	54.0	24.6	V	128
12184.600	32.44	-28.1	38.8	21.74	54.0	21.6	V	290

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2483.580	46.94	2.9	32.1	11.93	54.0	7.1	V	108
2484.000	46.87	2.9	32.1	11.85	54.0	7.1	V	202
4924.300	25.90	-33.5	34.2	25.26	54.0	28.1	H	243
7385.800	27.87	-31.5	35.9	23.47	54.0	26.1	H	175
9848.200	29.52	-30.2	37.0	22.71	54.0	24.5	V	240
12309.700	32.34	-27.8	38.9	21.21	54.0	21.7	H	106

802.11ax-HT20-Peak

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2387.364	64.45	2.9	32.0	29.59	74.0	9.6	V	352
2388.904	67.54	2.9	32.0	32.68	74.0	6.5	H	264
4824.000	36.72	-33.2	34.1	35.82	74.0	37.3	V	132
7236.000	39.30	-30.9	35.8	34.38	74.0	34.7	H	176
9648.000	40.34	-30.5	36.7	34.09	74.0	33.7	V	88
12060.000	42.53	-28.7	38.7	32.50	74.0	31.5	V	264

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2362.250	43.77	-34.8	32.0	46.59	74.0	30.2	V	132
2538.860	44.20	-34.6	32.2	46.62	74.0	29.8	V	44
4874.000	36.65	-33.3	34.2	35.80	74.0	37.4	V	264
7311.000	39.61	-30.8	35.8	34.60	74.0	34.4	V	154
9748.000	39.69	-30.3	36.9	33.17	74.0	34.3	V	132
12185.000	43.12	-28.1	38.8	32.41	74.0	30.9	V	286

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2483.900	62.44	2.9	32.1	27.42	74.0	11.6	H	110
2484.395	62.02	2.9	32.1	27.00	74.0	12.0	V	198
4924.000	37.76	-33.5	34.2	37.12	74.0	36.2	H	242
7386.000	39.67	-31.5	35.9	35.26	74.0	34.3	V	176
9848.000	40.75	-30.2	37.0	33.93	74.0	33.3	V	242
12310.000	43.19	-27.8	38.9	32.06	74.0	30.8	V	110

802.11ax-HT40-Average

Ch3

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2390.000	48.35	2.9	32.0	13.48	54.0	5.7	V	156
2389.800	48.16	2.9	32.0	13.30	54.0	5.8	V	261
4844.200	25.73	-33.2	34.1	24.82	54.0	28.3	V	180
7266.100	28.78	-30.6	35.8	23.57	54.0	25.2	V	158
9688.000	29.14	-30.4	36.8	22.74	54.0	24.9	H	356
12109.900	32.26	-28.5	38.8	21.96	54.0	21.7	H	175

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2394.540	46.90	2.9	32.0	12.03	54.0	7.1	V	1
2375.900	47.35	2.9	32.0	12.50	54.0	6.7	V	245
4873.900	25.85	-33.3	34.2	24.99	54.0	28.2	H	243
7311.100	28.50	-30.8	35.8	23.49	54.0	25.5	H	130
9748.300	29.42	-30.3	36.9	22.90	54.0	24.6	H	307
12184.600	32.46	-28.1	38.8	21.75	54.0	21.5	H	312

Ch9

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2483.500	47.13	2.9	32.1	12.11	54.0	6.9	V	85
2483.680	47.09	2.9	32.1	12.07	54.0	6.9	V	288
4903.600	26.22	-33.4	34.2	25.48	54.0	27.8	V	328
7356.100	28.46	-31.2	35.8	23.79	54.0	25.5	V	112
9807.700	29.07	-30.3	36.9	22.46	54.0	24.9	V	261
12260.200	32.09	-27.9	38.9	21.11	54.0	21.9	V	260

802.11ax-HT40-Peak

Ch3

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2386.650	61.55	2.9	32.0	26.69	74.0	12.5	H	154
2389.184	62.04	2.9	32.0	27.18	74.0	12.0	V	264
4844.000	37.17	-33.2	34.1	36.27	74.0	36.8	H	176
7266.000	39.71	-30.6	35.8	34.50	74.0	34.3	H	154
9688.000	41.73	-30.4	36.8	35.33	74.0	32.3	V	352
12110.000	43.31	-28.5	38.8	33.01	74.0	30.7	V	176

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2327.500	42.89	-35.4	31.9	46.30	74.0	31.1	H	0
2535.600	44.60	-34.6	32.2	46.99	74.0	29.4	H	242
4874.000	36.53	-33.3	34.2	35.68	74.0	37.5	H	242
7311.000	40.22	-30.8	35.8	35.21	74.0	33.8	V	132
9748.000	40.08	-30.3	36.9	33.56	74.0	33.9	H	308
12185.000	43.19	-28.1	38.8	32.48	74.0	30.8	V	308

Ch9

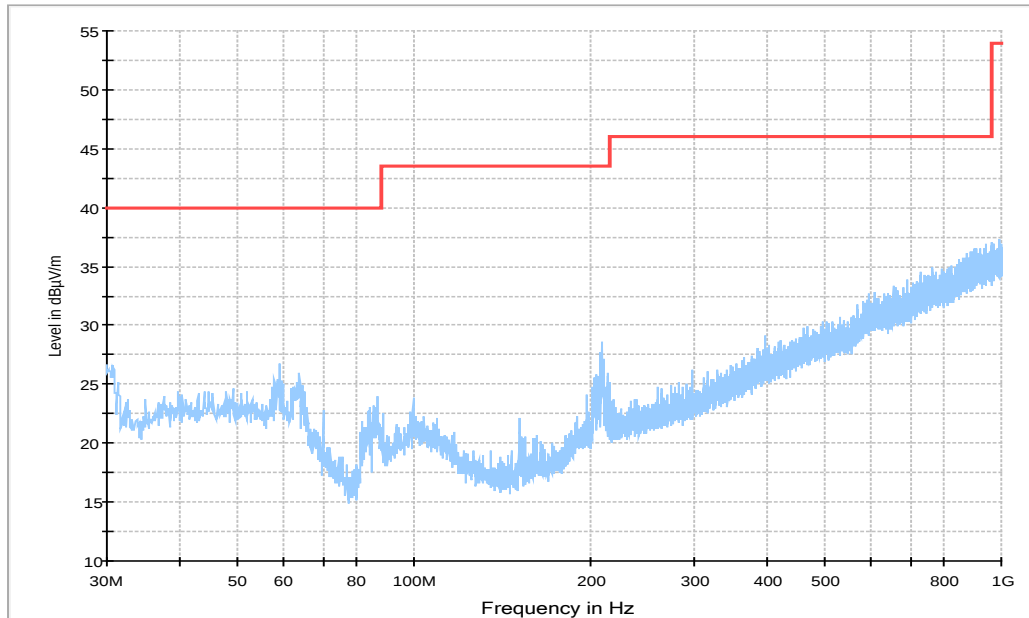
Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Turntable angle (deg)
2484.405	60.87	2.9	32.1	25.86	74.0	13.1	H	88
2483.550	61.24	2.9	32.1	26.22	74.0	12.8	V	286
4904.000	38.65	-33.4	34.2	37.91	74.0	35.4	V	330
7356.000	38.78	-31.2	35.8	34.11	74.0	35.2	V	110
9808.000	39.69	-30.3	36.9	33.08	74.0	34.3	V	264
12260.000	44.06	-27.9	38.9	33.08	74.0	29.9	V	264

Conclusion: Pass

Note: the spurious emission above 18G is noise only.

C.1.2 Radiated Spurious Emission- Below 1GHz

WOSRT CASE BELOW 1GHz



BELOW 30MHz

There are no emissions found below 30MHz with in 20dB of the limit.

C.1.3 Band Edges Compliance– Radiated

Speed

802.11b mode

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

802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	Power(ch1)	2.31GHz ~2.43GHz	Fig.B.6.2.3	P
	Power(ch11)	2.45GHz ~2.5GHz	Fig.B.6.2.4	P

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n(HT20)	Power(ch1)	2.31GHz ~2.43GHz	Fig.B.6.2.5	P
	Power(ch11)	2.45GHz ~2.5GHz	Fig.B.6.2.6	P

802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n(HT40)	Power(ch3)	2.31GHz ~2.43GHz	Fig.B.6.2.7	P
	Power(ch9)	2.45GHz ~2.5GHz	Fig.B.6.2.8	P

802.11ax-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n(HT20)	Power(ch1)	2.31GHz ~2.43GHz	Fig.B.6.2.9	P
	Power(ch11)	2.45GHz ~2.5GHz	Fig.B.6.2.10	P

802.11ax-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n(HT40)	Power(ch3)	2.31GHz ~2.43GHz	Fig.B.6.2.11	P
	Power(ch9)	2.45GHz ~2.5GHz	Fig.B.6.2.12	P

Inpaq

802.11b mode

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

802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	Power(ch1)	2.31GHz ~2.43GHz	Fig.B.6.2.3	P
	Power(ch11)	2.45GHz ~2.5GHz	Fig.B.6.2.4	P

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n(HT20)	Power(ch1)	2.31GHz ~2.43GHz	Fig.B.6.2.5	P
	Power(ch11)	2.45GHz ~2.5GHz	Fig.B.6.2.6	P

802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n(HT40)	Power(ch3)	2.31GHz ~2.43GHz	Fig.B.6.2.7	P
	Power(ch9)	2.45GHz ~2.5GHz	Fig.B.6.2.8	P

802.11ax-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n(HT20)	Power(ch1)	2.31GHz ~2.43GHz	Fig.B.6.2.9	P
	Power(ch11)	2.45GHz ~2.5GHz	Fig.B.6.2.10	P

802.11ax-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n(HT40)	Power(ch3)	2.31GHz ~2.43GHz	Fig.B.6.2.11	P
	Power(ch9)	2.45GHz ~2.5GHz	Fig.B.6.2.12	P

Conclusion: Pass

Test graphs as below:

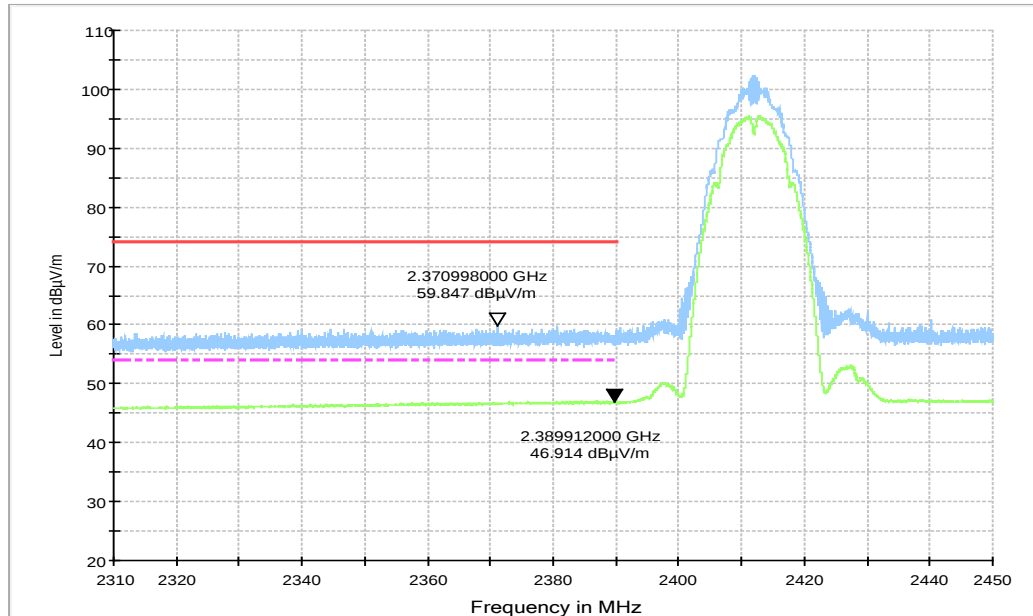


Fig.B.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.31 GHz – 2.45GHz

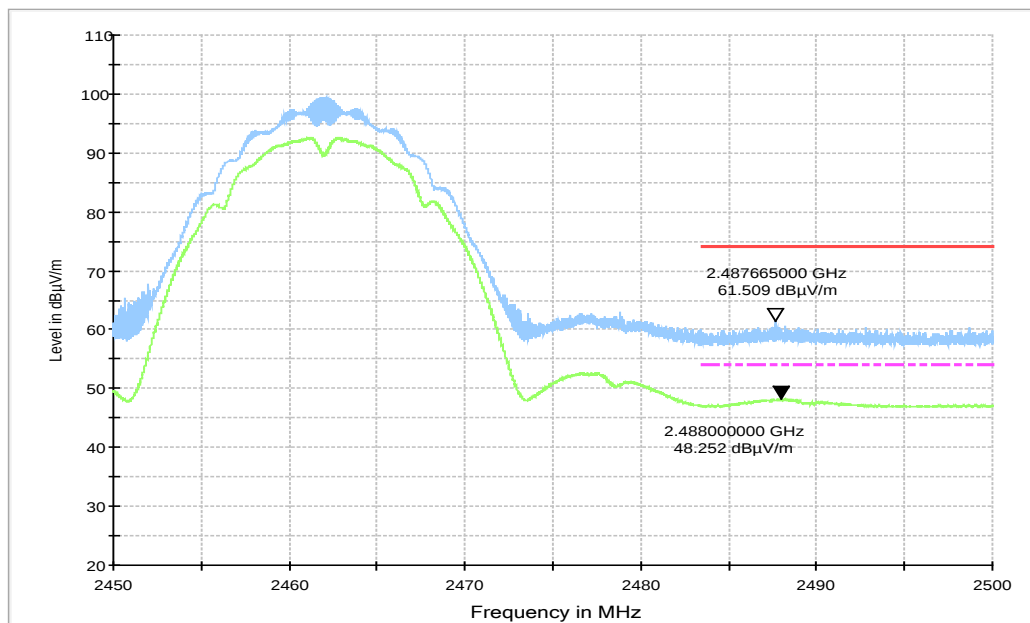


Fig.B.6.2.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

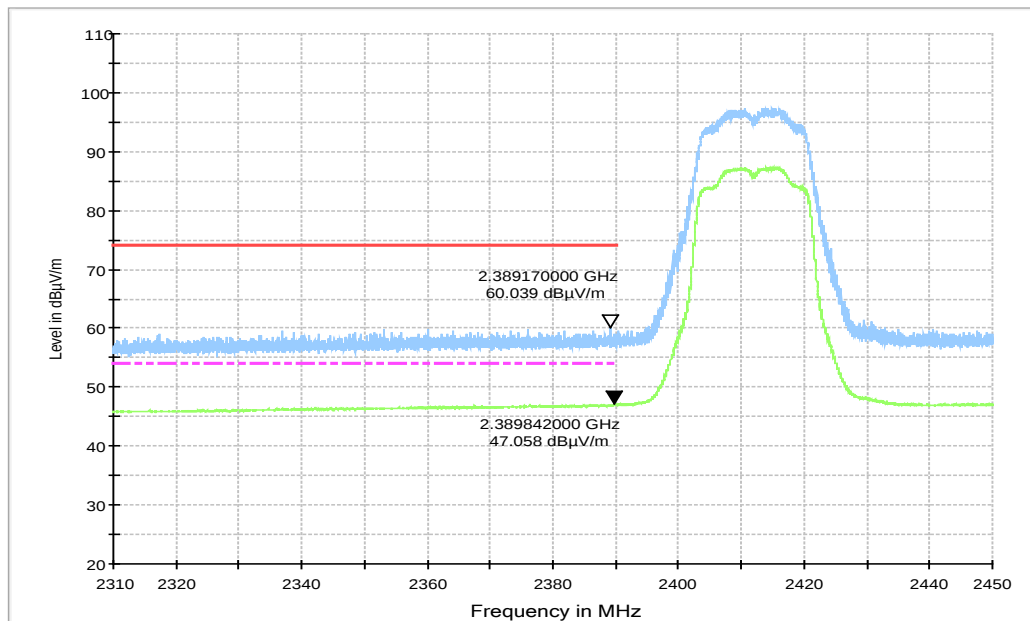


Fig.B.6.2.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.31 GHz - 2.43GHz

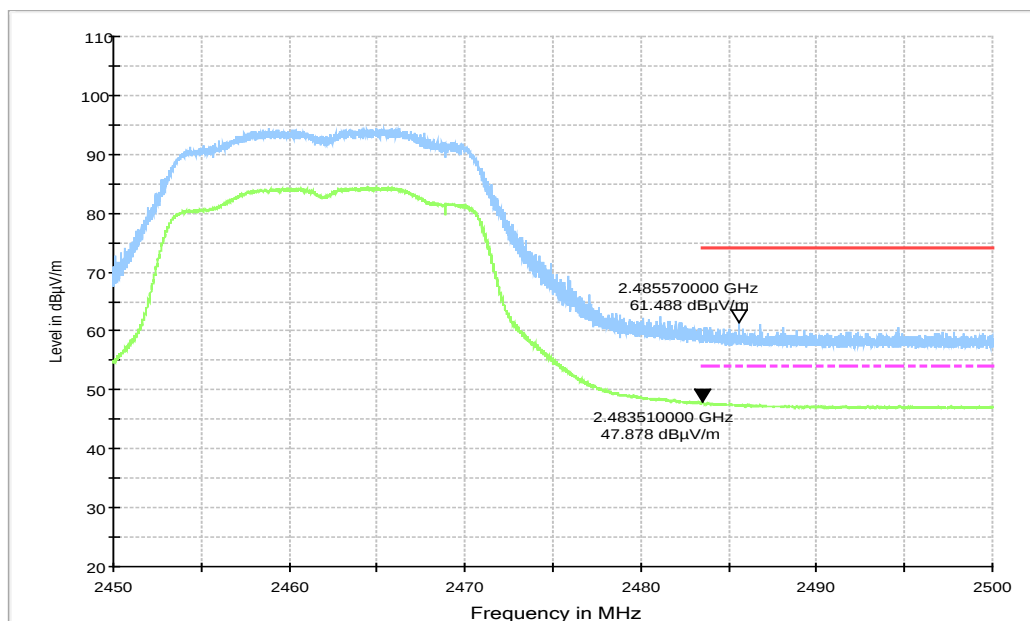


Fig.B.6.2.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

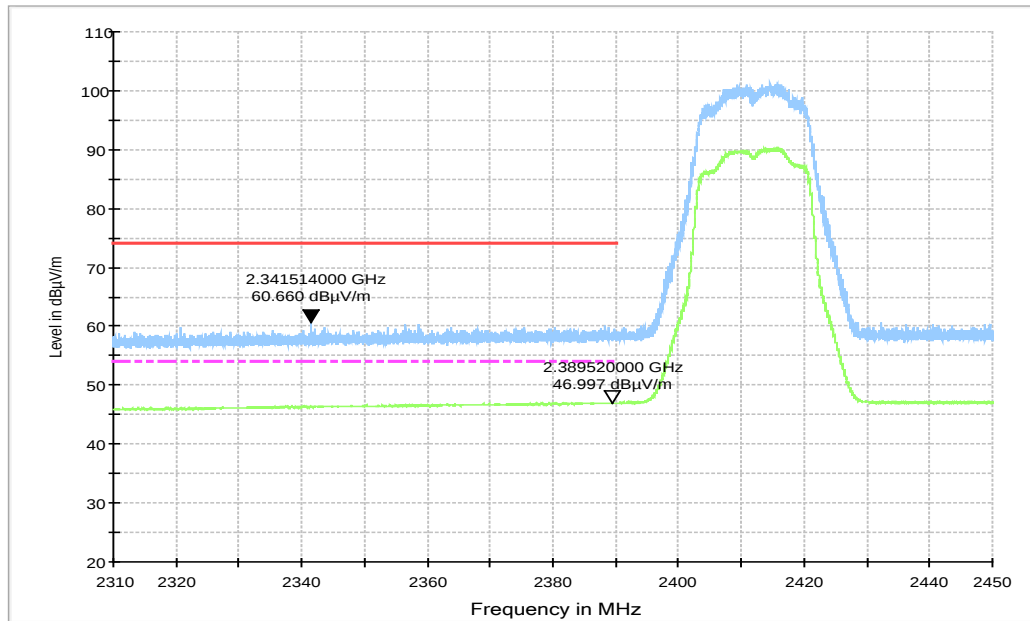


Fig.B.6.2.5 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.31GHz - 2.45GHz

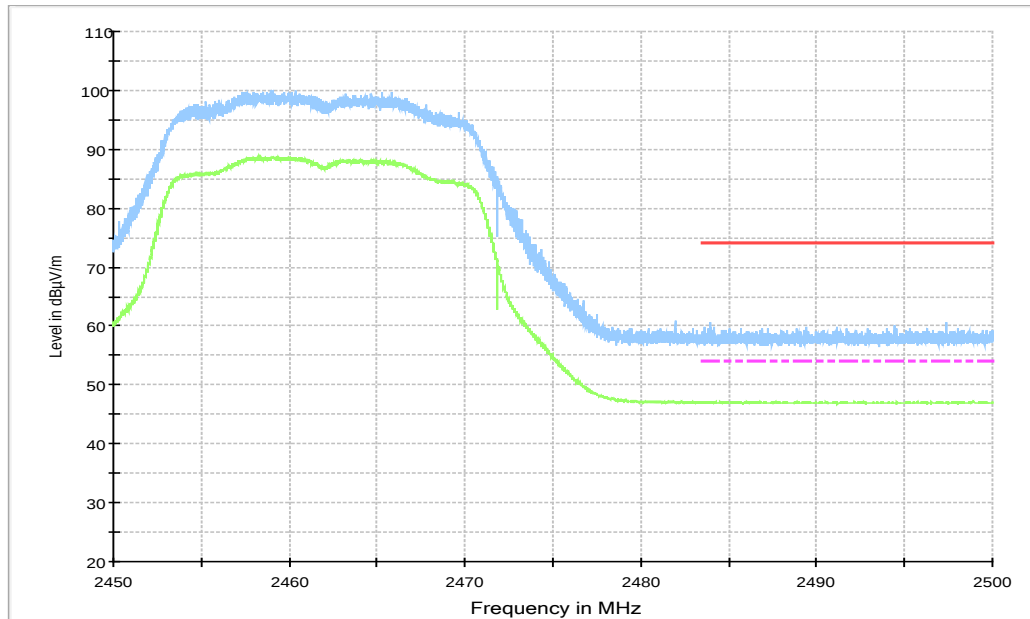


Fig.B.6.2.6 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

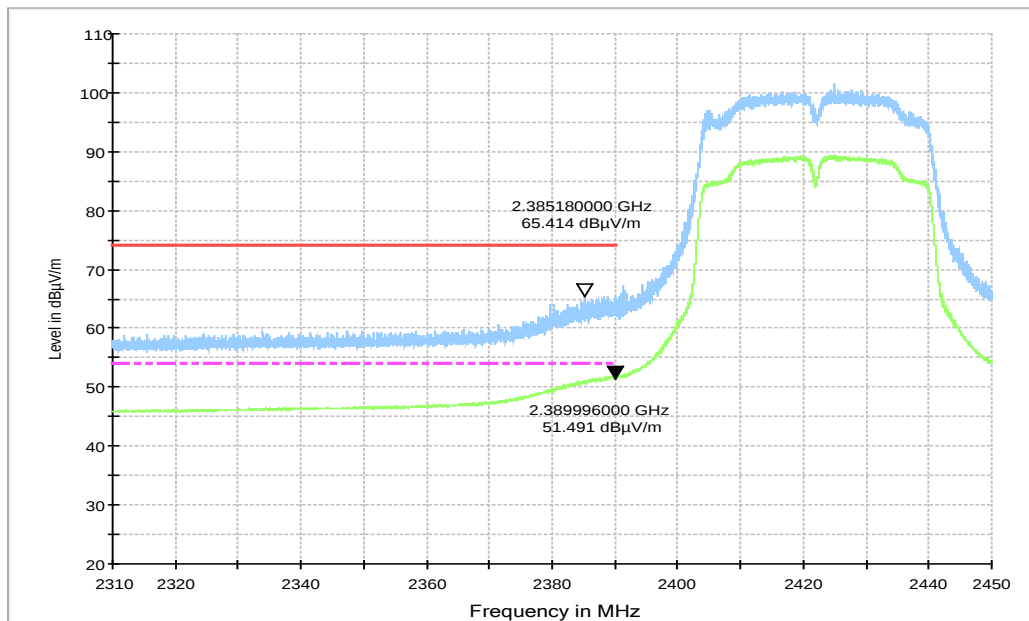


Fig.B.6.2.7 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.31GHz - 2.45GHz

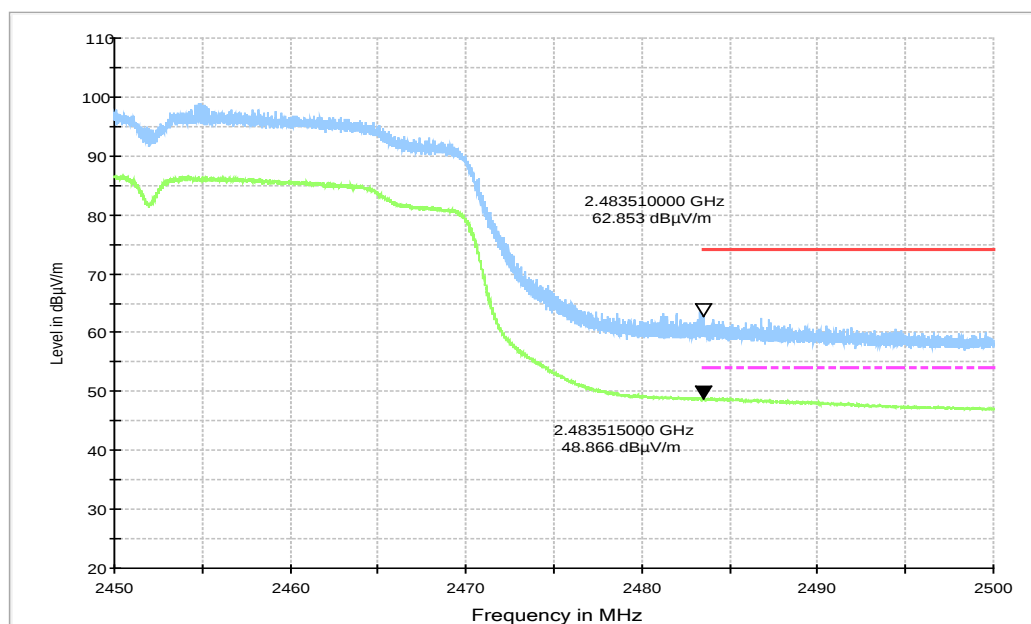


Fig.B.6.2.8 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

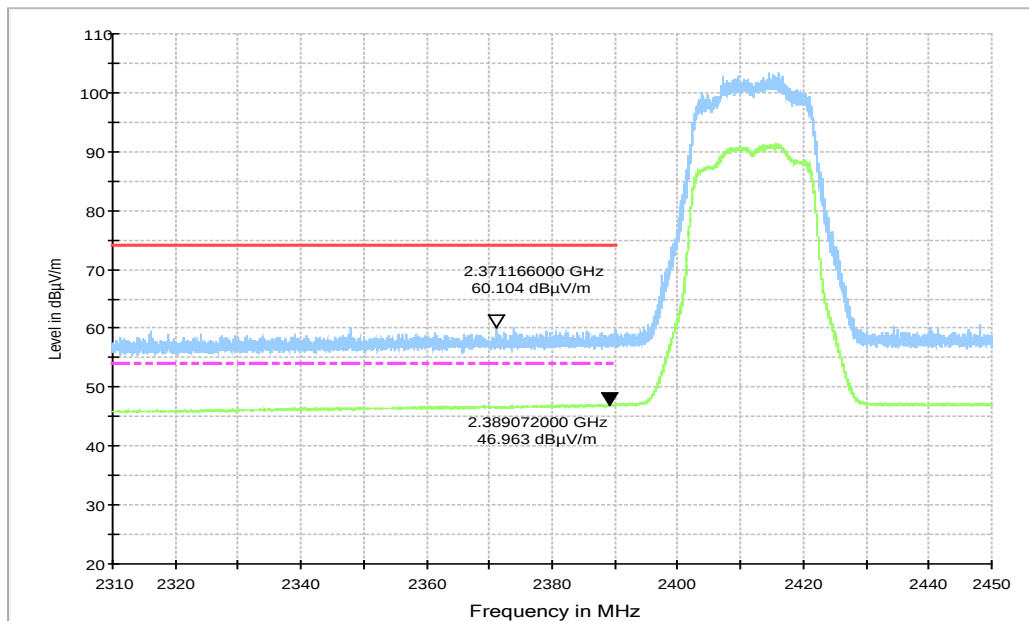


Fig.B.6.2.9 Transmitter Spurious Emission - Radiated (Power): 802.11ax-HT20, ch1, 2.31GHz - 2.45GHz

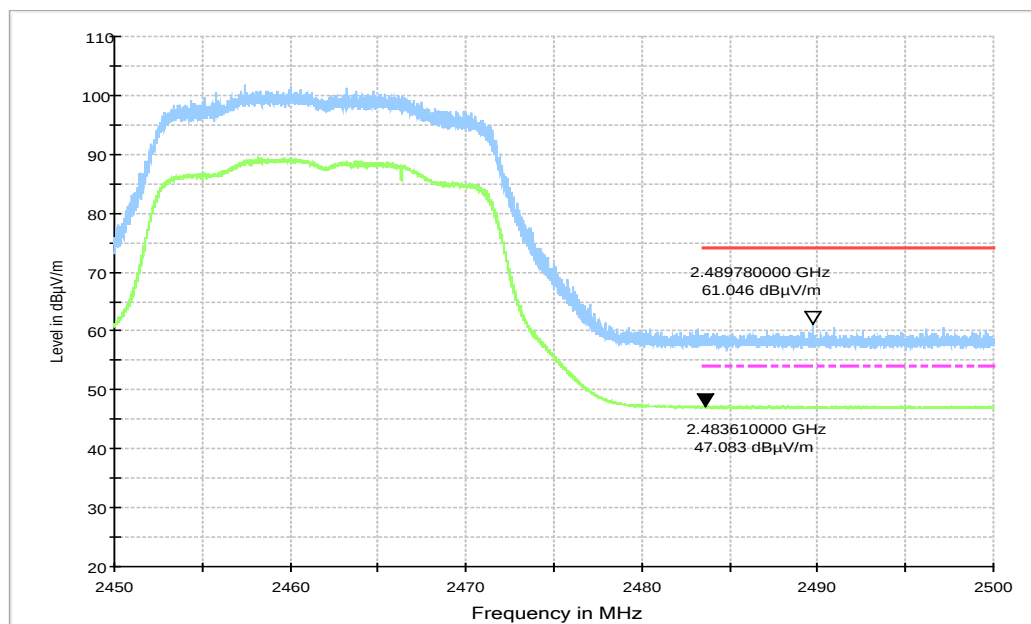


Fig.B.6.2.10 Transmitter Spurious Emission - Radiated (Power): 802.11ax-HT20, ch11, 2.45 GHz - 2.50GHz

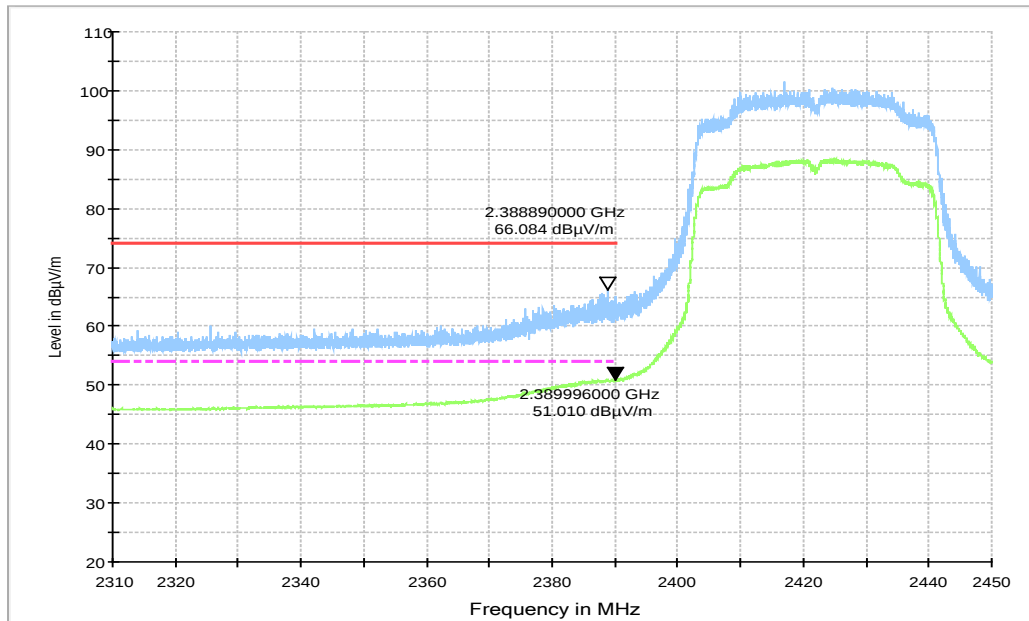


Fig.B.6.2.11 Transmitter Spurious Emission - Radiated (Power): 802.11ax-HT40, ch3, 2.31GHz - 2.45GHz

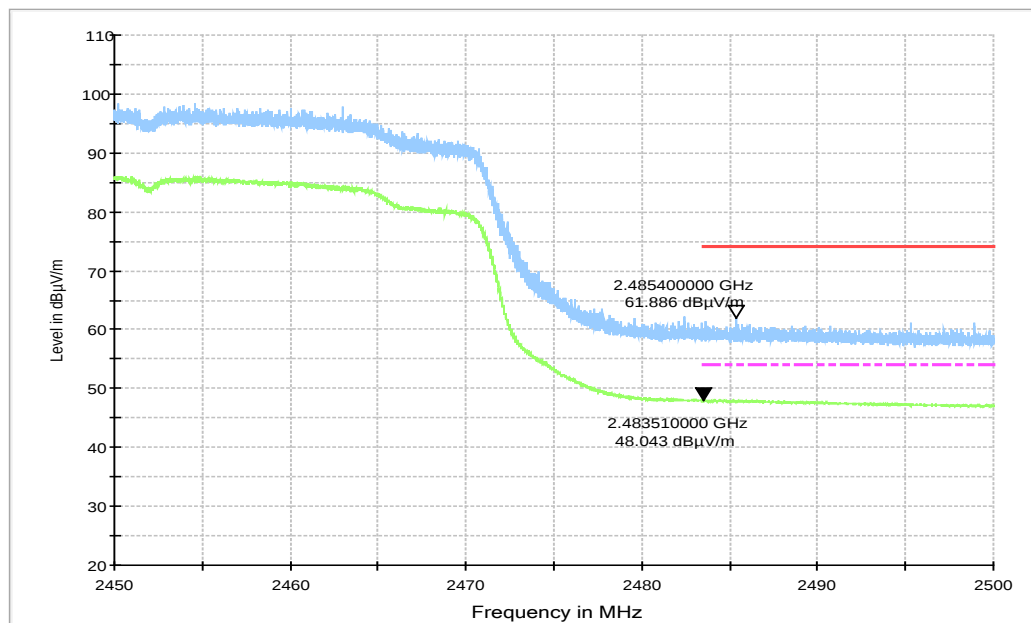


Fig.B.6.2.12 Transmitter Spurious Emission - Radiated (Power): 802.11ax-HT40, ch9, 2.45 GHz - 2.50GHz

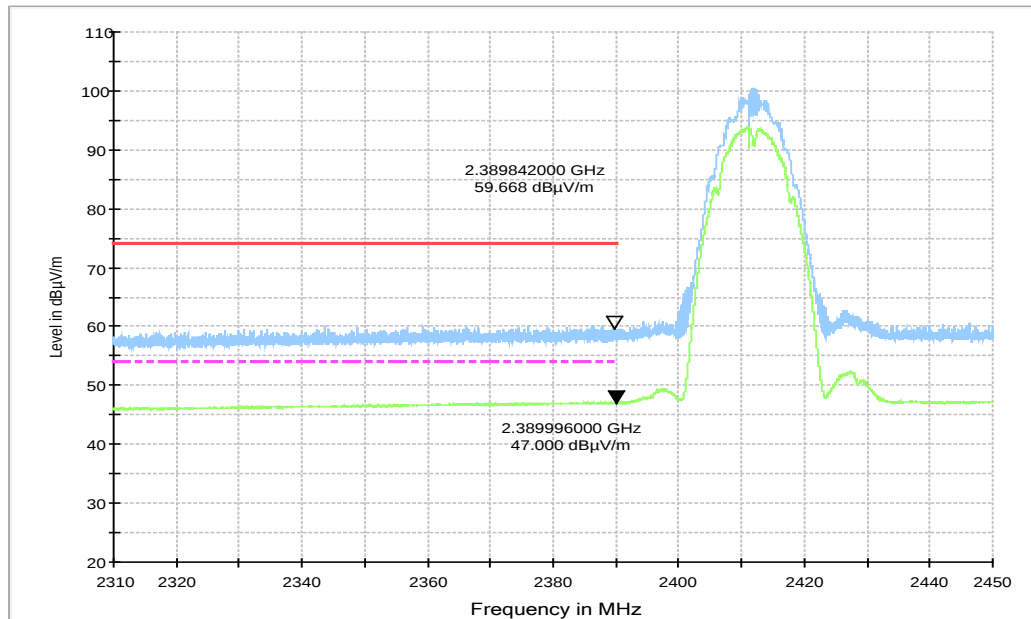


Fig.B.6.2.13 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.31 GHz - 2.45GHz

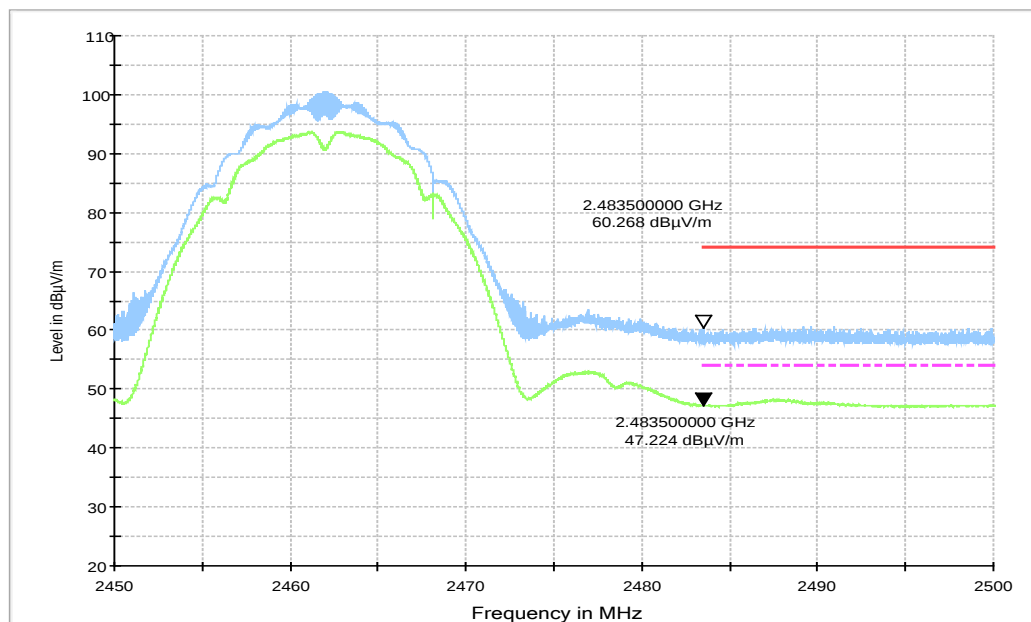


Fig.B.6.2.14 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

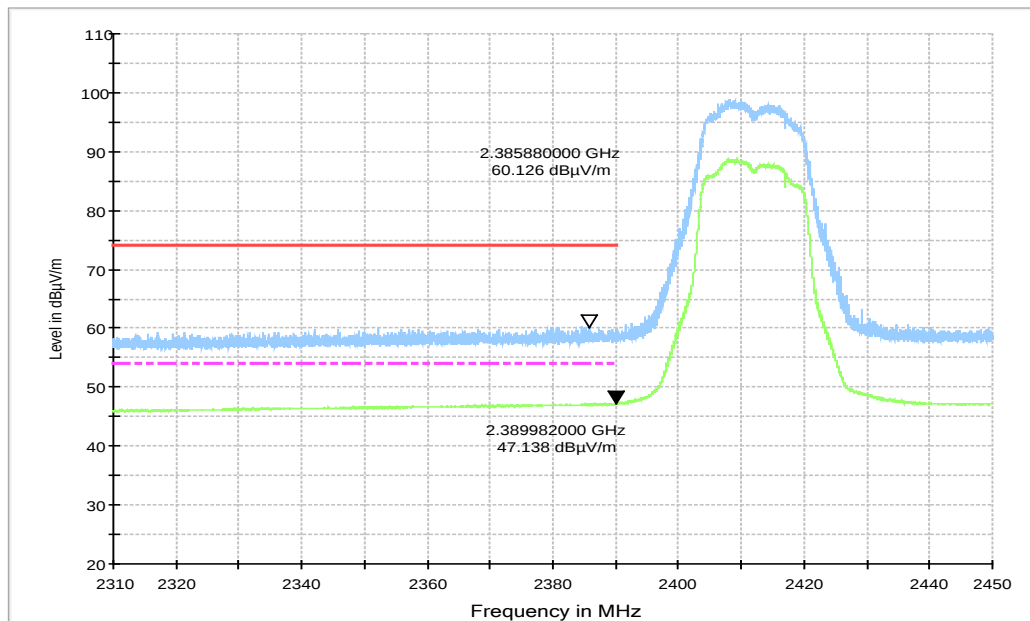


Fig.B.6.2.15 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.31 GHz - 2.43GHz

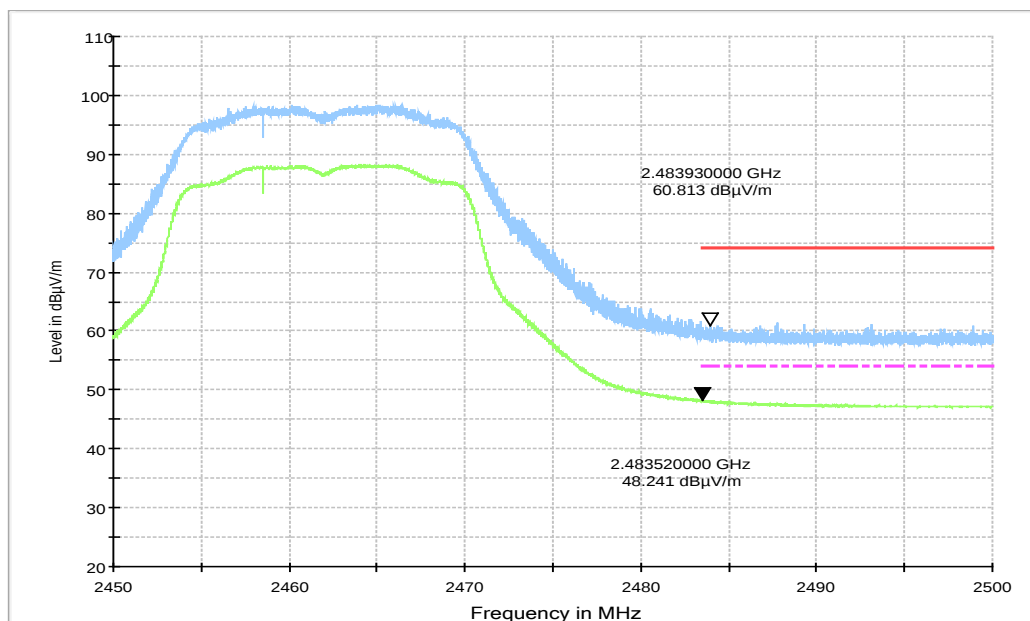


Fig.B.6.2.16 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

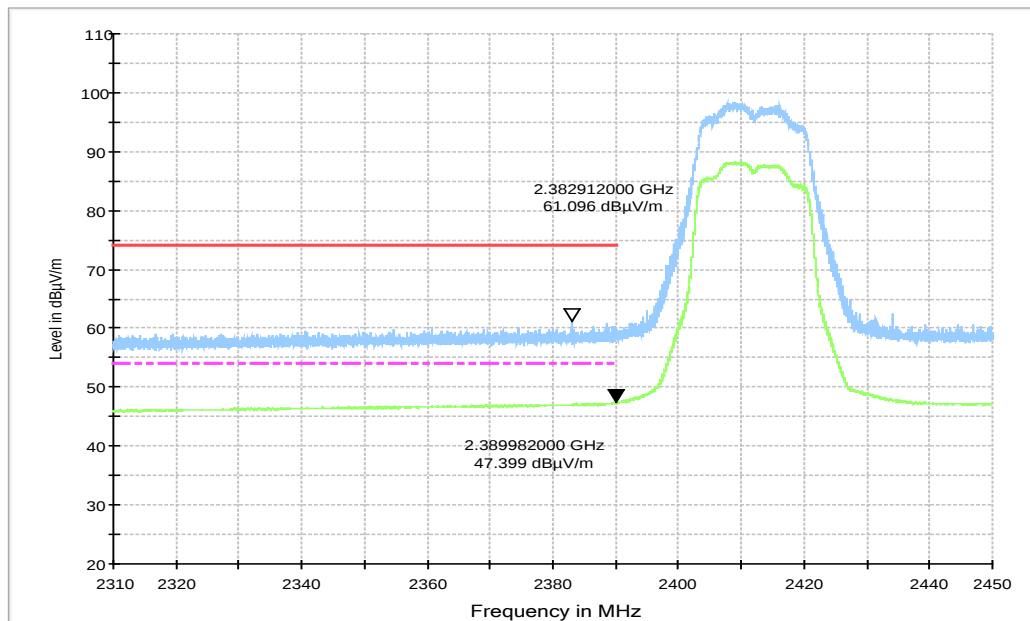


Fig.B.6.2.17 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.31GHz - 2.45GHz

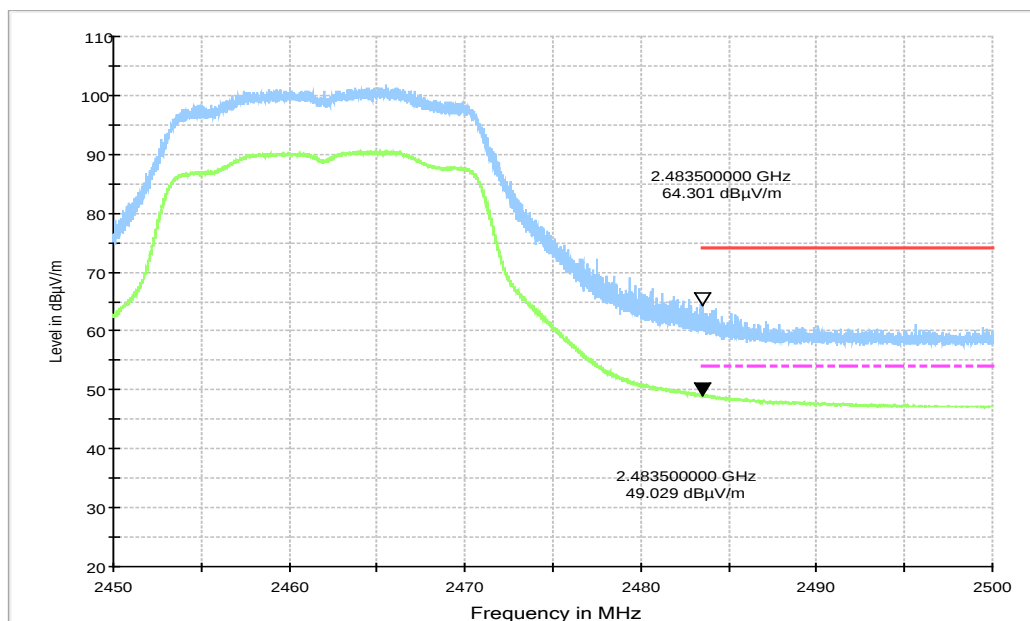


Fig.B.6.2.18 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

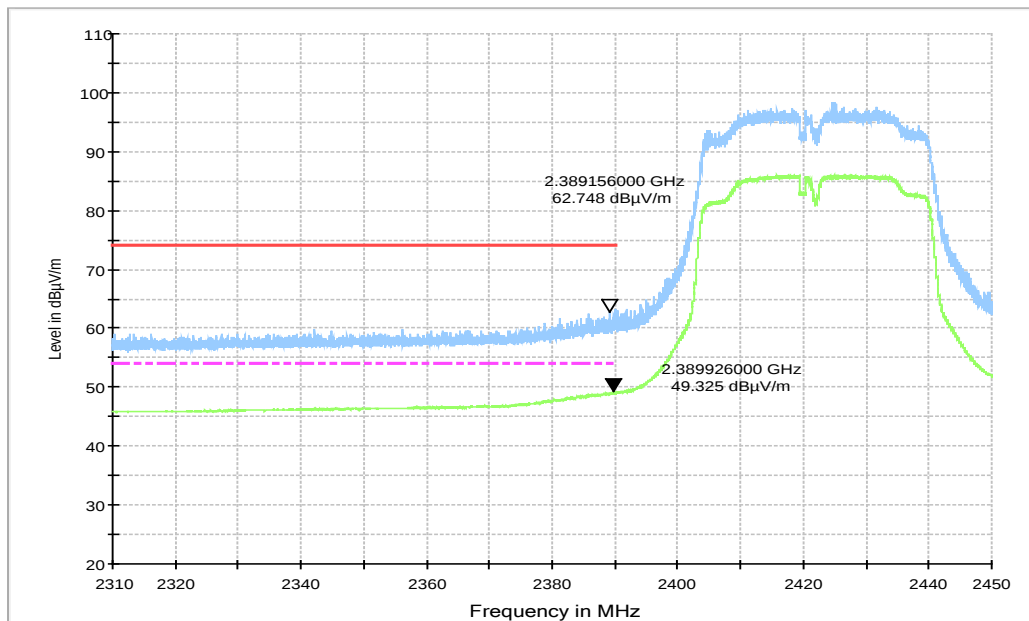


Fig.B.6.2.19 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.31GHz - 2.45GHz

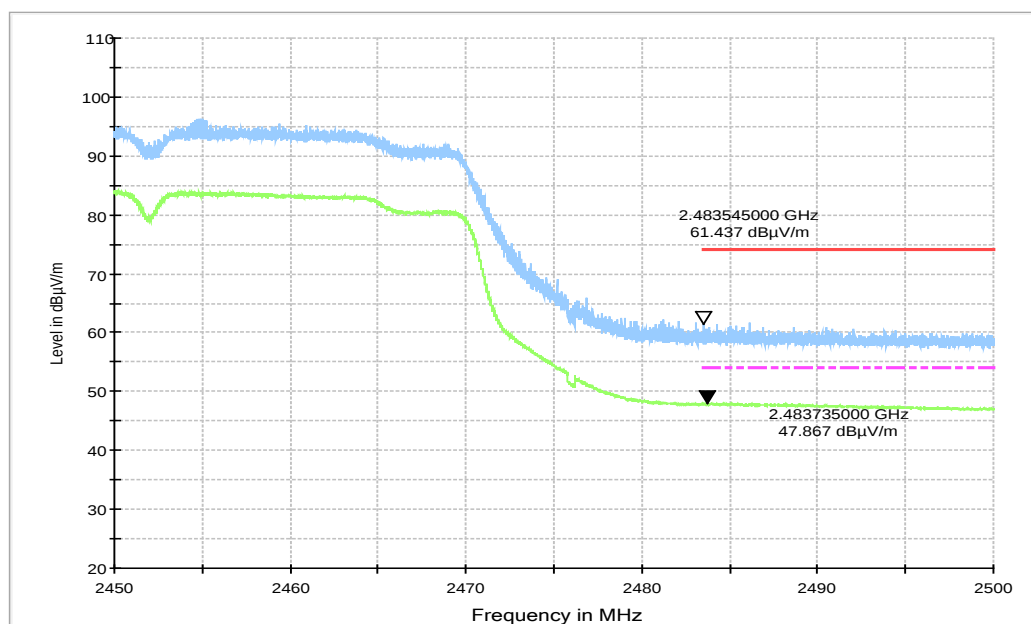


Fig.B.6.2.20 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

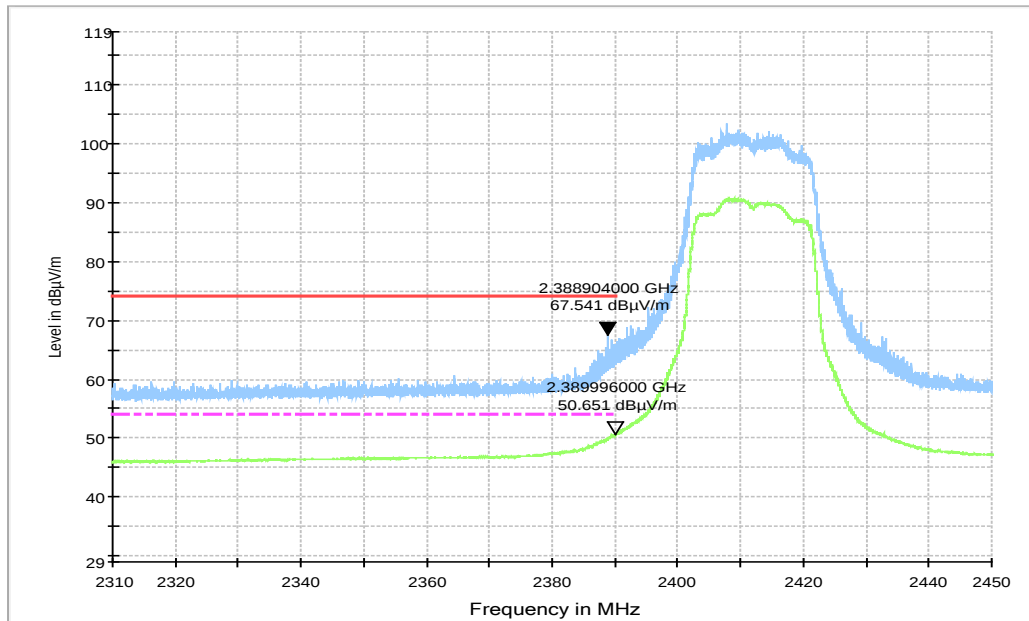


Fig.B.6.2.21 Transmitter Spurious Emission - Radiated (Power): 802.11ax-HT20, ch1, 2.31GHz - 2.45GHz

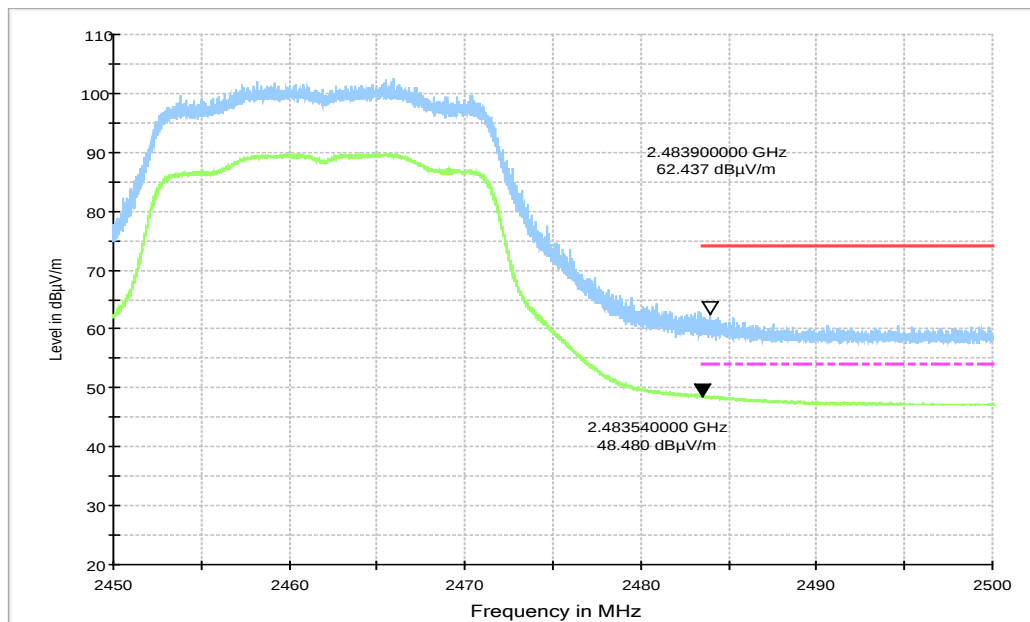


Fig.B.6.2.22 Transmitter Spurious Emission - Radiated (Power): 802.11ax-HT20, ch11, 2.45 GHz - 2.50GHz

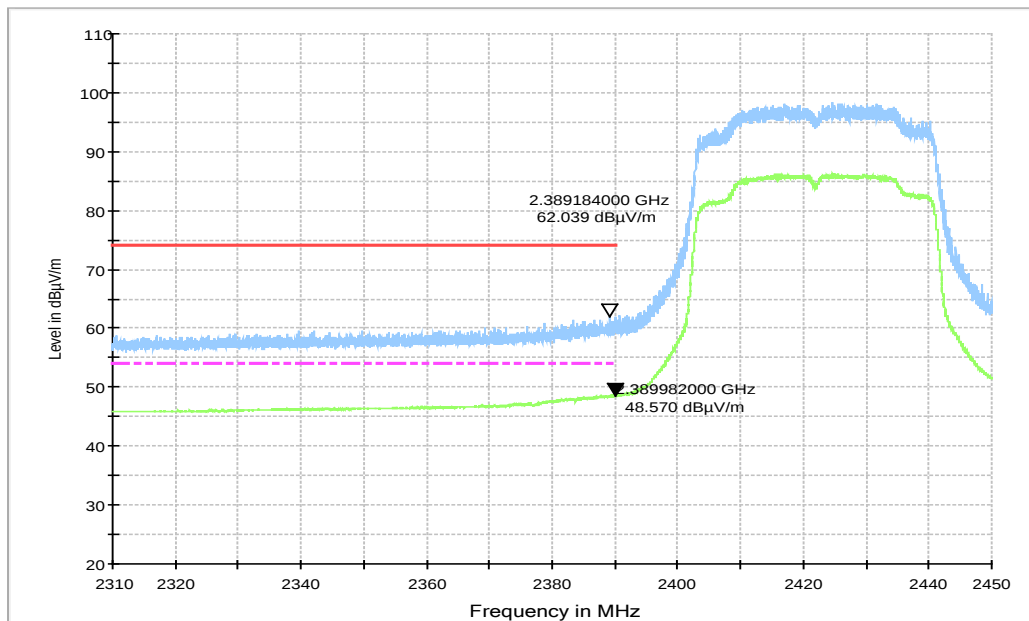


Fig.B.6.2.23 Transmitter Spurious Emission - Radiated (Power): 802.11ax-HT40, ch3, 2.31GHz - 2.45GHz

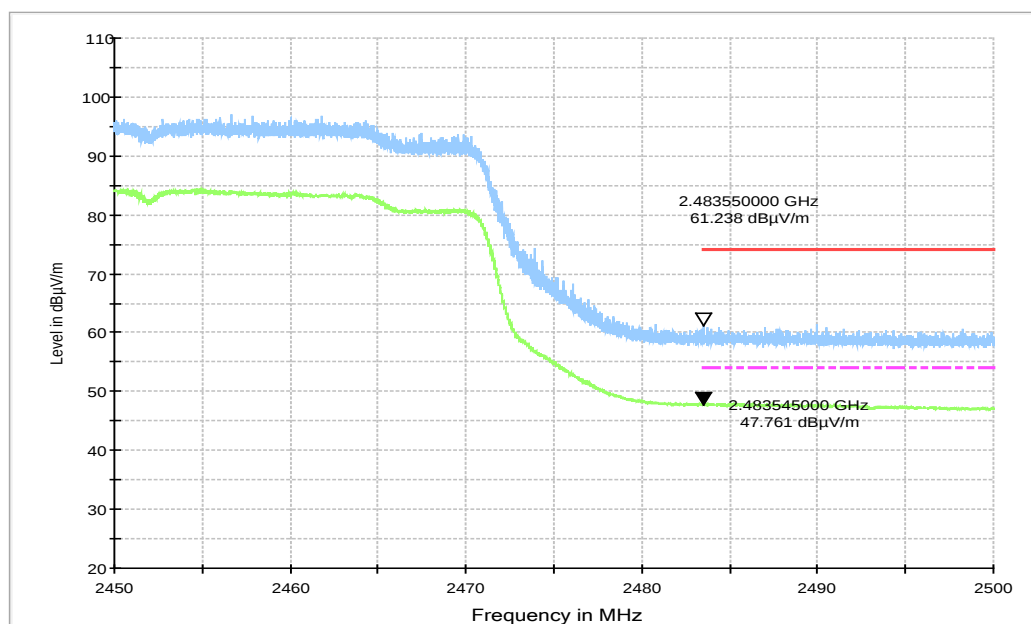


Fig.B.6.2.24 Transmitter Spurious Emission - Radiated (Power): 802.11ax-HT40, ch9, 2.45 GHz - 2.50GHz

C.2. AC Power-line Conducted Emission

Specification Reference

FCC 47 CFR Part 15.207, 15.107& RSS-GEN, 8.8

Method of Measurement

See Clause 6.2 of ANSI C63.10-2013 specifically.

See Clause 4 and Clause 5 of ANSI C63.10-2013 generally.

The conducted emissions from the AC port of the EUT are measured in a shielding room. The EUT is connected to a Line Impedance Stabilization Network (LISN). An overview sweep with peak detection was performed. The measurements were performed with a quasi-peak detector and if required, an average detector.

The conducted emission measurements were made with the following detector of the test receiver: Quasi-Peak / Average Detector.

The measurement bandwidth is:

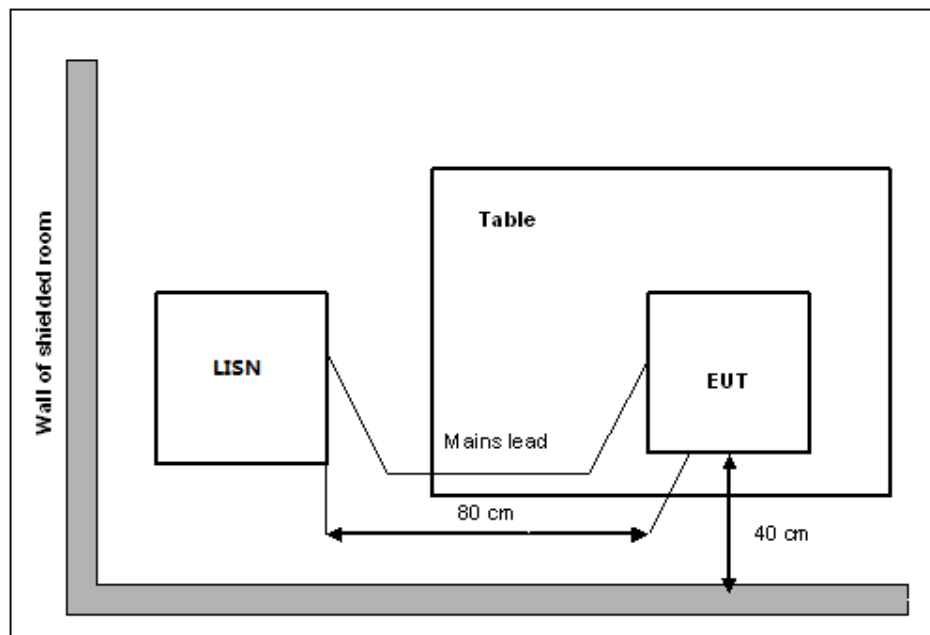
Measurement Bandwidth

Frequency of Emission (MHz)	RBW/VBW
0.15-30	9kHz

Test Condition

Voltage (V)	Frequency (Hz)
120	60

Measurement Setup



EUT Operating Mode and Test Conditions

The measurement of EUT is carried out under the transmit state.

The EUT is powered by an AC/travel adapter.

Measurement Result and limit:
WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	66 to 56	Fig.C.2.1	Fig.C.2.2	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 (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	56 to 46	Fig.C.2.1	Fig.C.2.2	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.				

Note: all modes have been tested and the worst results shown here.

Conclusion: Pass

Test graphs as below:

Traffic:

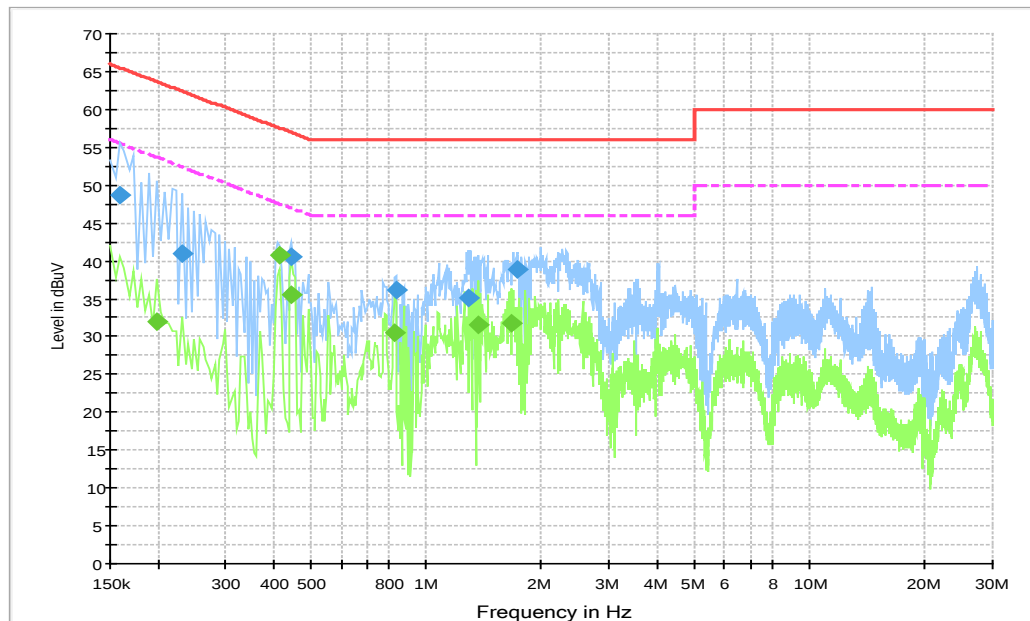


Fig.B.7.1 AC Powerline Conducted Emission-802.11b

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.159000	48.7	1000.	9.000	N	20.0	16.8	65.5
0.231000	40.9	1000.	9.000	N	19.9	21.5	62.4
0.447000	40.5	1000.	9.000	L1	19.9	16.4	56.9
0.834000	36.1	1000.	9.000	L1	19.8	19.9	56.0
1.293000	35.0	1000.	9.000	L1	19.7	21.0	56.0
1.738500	38.8	1000.	9.000	L1	19.7	17.2	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.199500	32.0	1000.0	9.000	N	19.9	21.6	53.6
0.415500	40.8	1000.0	9.000	N	19.9	6.8	47.5
0.447000	35.5	1000.0	9.000	L1	19.9	11.4	46.9
0.829500	30.6	1000.0	9.000	L1	19.8	15.4	46.0
1.369500	31.5	1000.0	9.000	L1	19.7	14.5	46.0
1.675500	31.7	1000.0	9.000	L1	19.7	14.3	46.0

Idle:

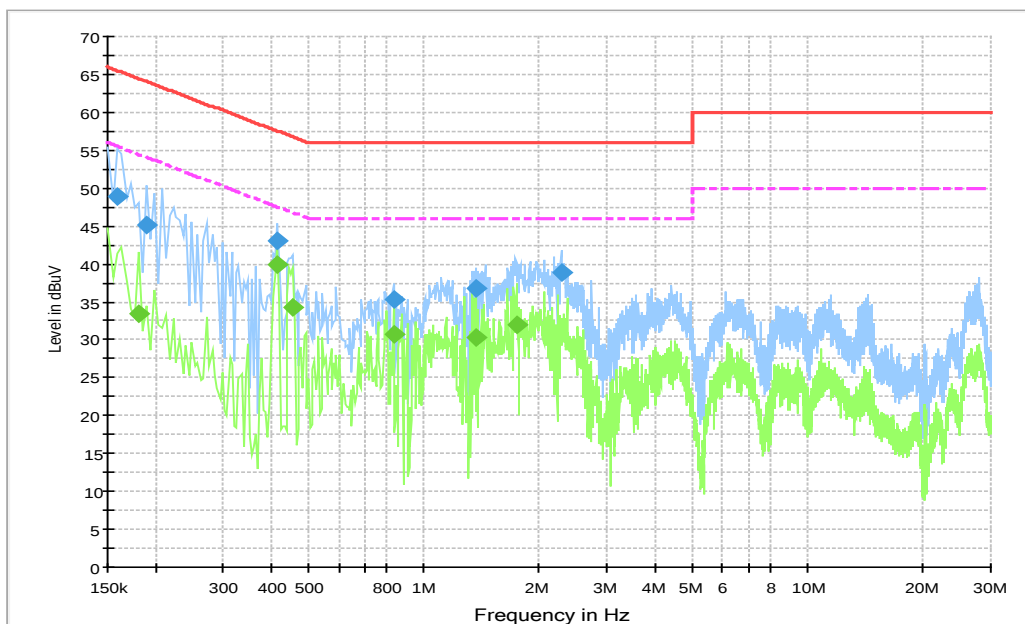


Fig.B.7.2 AC Powerline Conducted Emission-Idle

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.159000	48.8	1000.	9.000	N	20.0	16.7	65.5
0.190500	45.2	1000.	9.000	N	20.0	18.8	64.0
0.415500	43.0	1000.	9.000	N	19.9	14.5	57.5
0.834000	35.2	1000.	9.000	L1	19.8	20.8	56.0
1.360500	36.8	1000.	9.000	L1	19.7	19.2	56.0
2.278500	38.8	1000.	9.000	L1	19.6	17.2	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.181500	33.4	1000.0	9.000	N	20.0	21.0	54.4
0.415500	39.9	1000.0	9.000	N	19.9	7.6	47.5
0.456000	34.2	1000.0	9.000	L1	19.9	12.5	46.8
0.834000	30.8	1000.0	9.000	L1	19.8	15.2	46.0
1.369500	30.3	1000.0	9.000	L1	19.7	15.7	46.0
1.743000	31.9	1000.0	9.000	L1	19.7	14.1	46.0

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