FCC PART 15
TEST REPORT
No. 23T04Z70647-027

for

Samsung Electronics Co., Ltd.

Notebook PC

Model Name: NP750XGL,NP750XGP,NP751XGL,

NP751XGP,NP754XGL,NP754XGP,NP750XGK,NP750XGQ,NP754XGK,

NP751XGK,NP751XGQ,NP754XGQ With

FCC ID: ZCANP750XGL

Hardware Version: REV1.0

Software Version: Windows 11

Issued Date: 2024-01-16

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 CTTL.

Test Laboratory:

CTTL, Telecommunication Technology Labs, CAICT

No.52, HuayuanNorth Road, Haidian District, Beijing, P. R. China 100191.

Tel:+86(0)10-62304633-2512,Fax:+86(0)10-62304633-2504

Email:cttl_terminals@caict.ac.cn, website: www.chinattl.com

REPORT HISTORY

Report Number	Revision	Description	Issue Date
23T04Z70647-027	Rev.0	1st edition	2024-01-16

CONTENTS

1. TEST LATORATORY

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2017 accredited test laboratory under American Association for Laboratory Accreditation (A2LA) with lab code 7049.01, and is also an FCC accredited test laboratory (CN1349), and ISED accredited test laboratory (CAB identifier:CN0066). The detail accreditation scope can be found on A2LA website.

1.2. Testing Location

Location: CTTL (Huayuan North Road)

Address: No. 52 Huayuan North Road, Haidian District, Beijing 100191, P.R. China

1.3. TestingEnvironment

Normal Temperature: 15-35℃

Relative Humidity: 20-75%

1.4. Project date

Testing Start Date: 2023-12-23

Testing End Date: 2024-01-08

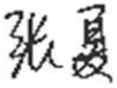
1.5. Signature

Wang Xue

(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.
Address:	19 Chapin Rd.,Building D Pine Brook, NJ 07058
Contact:	Jenni Chun
Email:	j1.chun@samsung.com
Telephone:	+1-201-937-4203
Fax:	/

2.2. Manufacturer Information

Company Name:	Samsung Electronics Co., Ltd.
Address:	Samsung R5, Maetan dong 129, Samsung ro Youngtong gu, Suwon city 443 742, Korea
Contact:	Minji Son
Email:	minji28.son@samsung.com
Telephone:	+82-10-3130-2080
Fax:	/

3. PRODUCT INFORMATION

3.1. About EUT

Description	Notebook PC
Model name	NP750XGL,NP750XGP,NP751XGL,NP751XGP,NP754XGL,NP754XGP,NP750XGK,NP750XGQ,NP754XGK,NP751XGK,NP751XGQ,NP754XGQ
FCC ID	ZCANP750XGL

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 used during the test

EUT ID*	IMEI	HW Version	SW Version
EUT1	2370647UT11a	REV1.0	Windows 11
EUT2	2370647UT21a	REV1.0	Windows 11

*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	SN	Remarks
AE1	Travel Adapter	/	/
AE2	Travel Adapter	/	/
AE3	battery	/	/

AE1

Model	/
Manufacturer	SOLUM CO.,LTD.
Length of cable	/

AE2

Model	/
Manufacturer	DONGYANG
Length of cable	/

AE3

Model	/
Manufacturer	/

*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 Computer with Bluetooth, Bluetooth Low Energy and 802.11 a/b/g/n/ac/ax capabilities in the 2.4 GHz and 5 GHz bands.
Manual and specifications of the EUT were provided to fulfil the test.
Samples undergoing test were selected by the Client.
For more EUT information please refers to the manufacturer's specifications or user's manual.

3.5. Test Configuration

For 802.11a mode the EUT can transmit at both CHAIN A and CHAIN B RF outputs individually, but not simultaneously.
For 802.11n20 & 802.11ac20 &802.11ax20 (20 MHz channel bandwidth), 802.11n40 & 802.11ac40 &802.11ax40 (40MHz channel bandwidth) and 802.11ac80 & 802.11ax80 (80MHz channel bandwidth) modes the EUT can transmit at both CHAIN A and CHAIN B RF outputs individually, and also simultaneously(MIMO).
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 and E: 15.205 Restricted bands of operation; 15.209 Radiated emission limits, general requirements; 15.407 General technical requirements	2021
ANSI C63.10	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2013
UNII: KDB 789033 D02	General U-NII Test Procedures New Rules v02r01	2017-12

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 Part15	Verdict
Radiated Spurious Emission	15.407, 15.205, 15.209	**P**
AC Power line Conducted Emission	15.407, 15.207	**P**

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

Note: the other RF conducted test items are included in test report number: BL-SZ23A0865-604, which issued by Shenzhen BALUN Technology Co., Ltd. on Jan.15, 2024

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	15-35℃
Voltage	V nom	15.4V
Humidity	H nom	20-75%

6. TEST EQUIPMENTS UTILIZED

Radiated emission test system

No.	Equipment	Model	Manufacturer	Serial Number	Calibration Period	Calibration Due date
1	Test Receiver	ESW44	R&S	103023	13 Months	2024-07-08
2	EMI Antenna	VULB 9163	SCHWARZBECK	01222	13 Months	2024-02-28
3	EMI Antenna	3115	ETS-Lindgren	6914	13 Months	2024-06-07
4	EMI Antenna	3116	ETS-Lindgren	2661	13 Months	2024-02-28

AC Power Line Conducted Emission

No.	Equipment	Model	Manufacturer	Serial Number	Calibration Period	Calibration Due date
1	LISN	ENV216	R&S	101200	1 year	2024-06-05
2	Test Receiver	ESCI	R&S	100344	1 year	2024-02-21

7. Measurement Uncertainty

Radiated Spurious Emission

Measurement Uncertainty: (k=2)

Frequency Range	Uncertainty(dB)
9kHz-30MHz	4.92
30MHz ≤ f ≤ 1GHz	4.72
1GHz ≤ f ≤18GHz	4.84
18GHz ≤ f ≤40GHz	5.12

AC Power-line Conducted Emission

Measurement Uncertainty: 3.08dB, k=2

ANNEX A: EUT parameters

Disclaimer: The antenna gain and setting power 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

A ccording to FCC 47 CFR § 15.203, §15.407:
“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, §15.407.

ANNEX C: Detailed Test Results

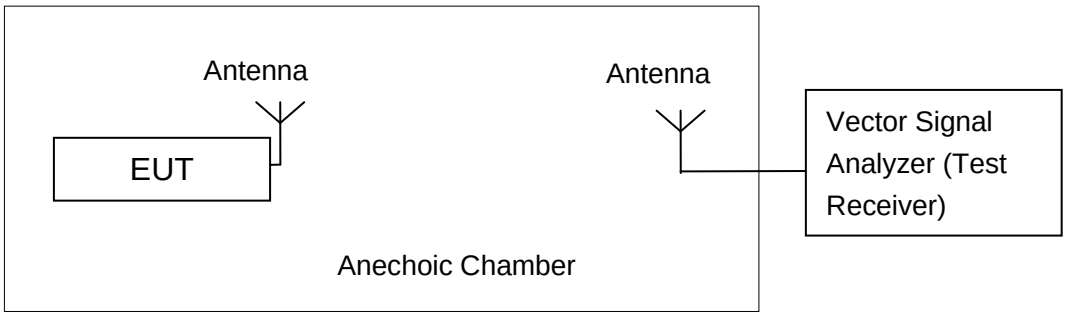
C.1. Radiated Spurious Emission

Specification Reference

FCC 47 CFR Part 15, Clause 15.407 (b) , Clause 15.205, Clause 15.209

Method of Measurement

Testing was performed in according with ANSI C63.10-2013 and KDB 789033.
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.



Measurement Limit

Standard	Limit (dBm/MHz)	
FCC 47 CFR Part 15.407	at the band edge	27
	at 5 MHz above or below the band edge	15.6
	at 25 MHz above or below the band edge	10
	at 75 MHz or more above or below the band edge	-27
	Note：Increasing linearly from point to point.	

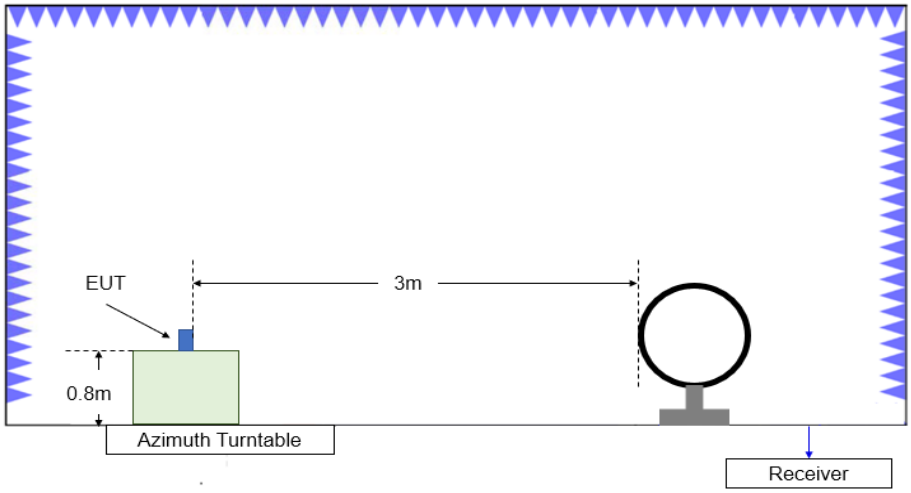
In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).
Limit in restricted band:

Frequency (MHz)	Field strength(μV/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

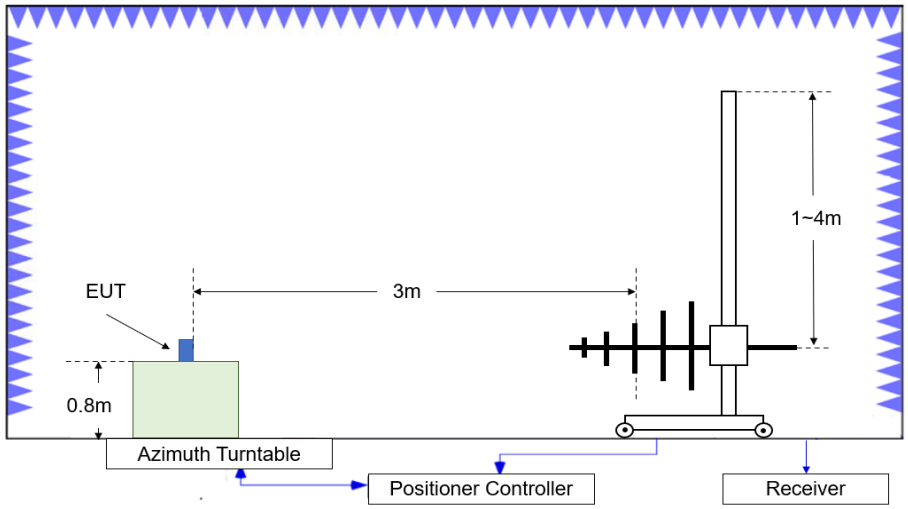
Frequency of emission (MHz)	Field strength(dBμV/m)	Measurement distance(m)
30-88	40.0	3
88-216	43.5	3
216-960	46.0	3
Above 960	54.0	3

Note: When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor.

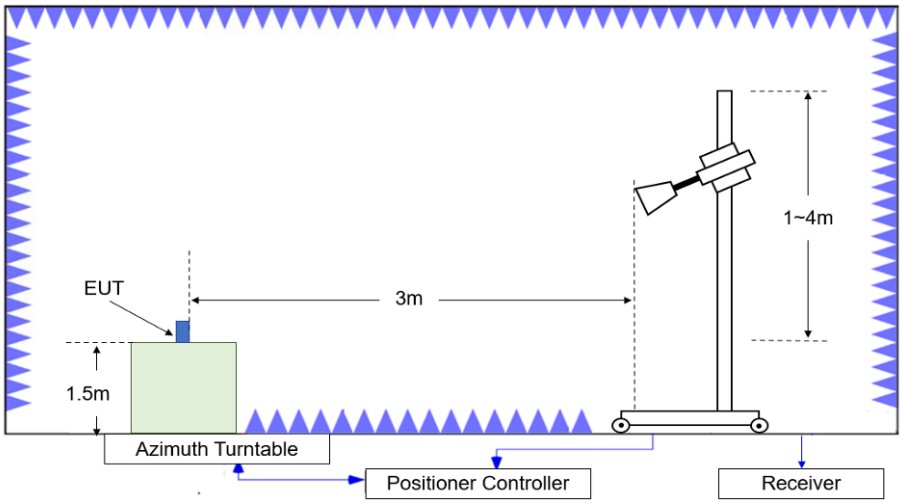
Test setup



Test Site Diagram (9kHz-30MHz)



Test Site Diagram (30MHz-1GHz)



Test Site Diagram (1GHz-40GHz)

Test Procedures

Radiated unwanted emissions from the EUT were measured according to ANSI C63.10and KDB 789033 D02 v02r01.

Frequency of emission (MHz)	RBW/VBW
30-1000	100kHz/300kHz
1000-4000	1MHz/3MHz
4000-18000	1MHz/3MHz
18000-26500	1MHz/3MHz
26500-40000	1MHz/3MHz

Calculation

1. The measurement results reported below is calculated by:

Measurement Results (dBμV/m) = $P_{measurement}$ (dBμV) + Cable Loss(dB) + Antenna Factor (dB/m)

Where: $P_{measurement}$ is the field strength recorded from the instrument

2. Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:

E=EIRP- 20log (*D*) +104.77

Where:

E is the field strength in dBμV/m

D is the measurement distance in meters

EIRP is the equivalent isotropically radiated power in dBm

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. Measurement frequencies were performed from 9 kHz to the 10th harmonic of highest fundamental frequency or 40GHz, whichever is lower.

4. The measurements were performed separately in Chain A, Chain B, and MIMO (Chain A+B), and only the worst cases are shown in this report.

Test Result

Radiated Spurious Emission- above 1GHz

EUT ID : EUT 1

The measurements were performed separately in Chain A, Chain B, and MIMO (Chain A+B), and only the worst cases are shown in this section.

Average Results：

802.11a

Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17982.400	40.83	-29.59	45.95	24.47	54.00	13.17	V
17969.200	40.55	-29.59	45.95	24.19	54.00	13.45	V
14497.600	35.42	-29.56	41.90	23.08	54.00	18.58	H
14495.400	35.27	-29.56	41.90	22.93	54.00	18.73	H
11908.750	34.20	-32.53	39.10	27.63	54.00	19.80	V
11906.000	34.10	-32.53	39.10	27.53	54.00	19.90	V

Channel 157

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17972.500	40.67	-29.59	45.95	24.31	54.00	13.33	V
17964.800	40.45	-29.59	45.95	24.09	54.00	13.55	V
14498.150	35.63	-29.56	41.90	23.29	54.00	18.37	V
14497.600	35.34	-29.56	41.90	23.00	54.00	18.66	V
11887.850	33.97	-32.53	39.10	27.40	54.00	20.03	V
11888.950	33.90	-32.53	39.10	27.33	54.00	20.10	V

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17959.300	40.46	-29.59	45.95	24.10	54.00	13.54	V
17993.950	40.46	-29.59	45.95	24.10	54.00	13.54	H
14492.650	35.58	-29.56	41.90	23.24	54.00	18.42	V
14498.150	35.17	-29.56	41.90	22.83	54.00	18.83	H
11813.600	33.86	-32.09	39.20	26.75	54.00	20.14	V
11916.450	33.85	-32.53	39.10	27.28	54.00	20.15	V

802.11n-HT20

Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17971.950	40.48	-29.59	45.95	24.12	54.00	13.52	H
17967.550	40.37	-29.59	45.95	24.01	54.00	13.63	H
14486.600	35.30	-29.56	41.90	22.96	54.00	18.70	H
14498.700	35.29	-29.56	41.90	22.95	54.00	18.71	H
11893.900	33.86	-32.53	39.10	27.29	54.00	20.14	H
11914.800	33.85	-32.53	39.10	27.28	54.00	20.15	V

Channel 157

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17959.300	40.39	-29.59	45.95	24.03	54.00	13.61	H
17983.500	40.32	-29.59	45.95	23.96	54.00	13.68	H
14491.000	35.27	-29.56	41.90	22.93	54.00	18.73	H
14497.600	35.24	-29.56	41.90	22.90	54.00	18.76	V
11890.600	34.12	-32.53	39.10	27.55	54.00	19.88	H
11912.050	33.76	-32.53	39.10	27.19	54.00	20.24	H

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17963.700	40.39	-29.59	45.95	24.03	54.00	13.61	V
17996.700	40.31	-29.59	45.95	23.95	54.00	13.69	H
14486.600	35.57	-29.56	41.90	23.23	54.00	18.43	H
13300.800	35.08	-31.40	40.60	25.88	54.00	18.92	V
11909.850	33.96	-32.53	39.10	27.39	54.00	20.04	V
11888.950	33.88	-32.53	39.10	27.31	54.00	20.12	V

802.11n-HT40

Channel 151

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17980.200	40.39	-29.59	45.95	24.03	54.00	13.61	H
17958.750	40.34	-29.59	45.95	23.98	54.00	13.66	H
14493.200	35.25	-29.56	41.90	22.91	54.00	18.75	V
14490.450	35.18	-29.56	41.90	22.84	54.00	18.82	H
11890.600	33.99	-32.53	39.10	27.42	54.00	20.01	H
11907.650	33.83	-32.53	39.10	27.26	54.00	20.17	V

Channel 159

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17995.050	40.34	-29.59	45.95	23.98	54.00	13.66	H
17970.850	40.26	-29.59	45.95	23.90	54.00	13.74	H
14497.050	35.52	-29.56	41.90	23.18	54.00	18.48	V
14488.800	35.20	-29.56	41.90	22.86	54.00	18.80	V
11921.400	34.33	-32.53	39.10	27.76	54.00	19.67	H
11903.800	33.99	-32.53	39.10	27.42	54.00	20.01	H

802.11ac-VHT20

Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17997.250	40.32	-29.59	45.95	23.96	54.00	13.68	V
17992.300	40.20	-29.59	45.95	23.84	54.00	13.80	V
14477.250	35.46	-29.56	41.90	23.12	54.00	18.54	V
13301.900	35.09	-31.40	40.60	25.89	54.00	18.91	H
11904.900	33.97	-32.53	39.10	27.40	54.00	20.03	V
11887.850	33.74	-32.53	39.10	27.17	54.00	20.26	H

Channel 157

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17961.500	41.90	-29.59	45.95	25.54	54.00	12.10	H
17991.750	41.83	-29.59	45.95	25.47	54.00	12.17	H
14478.350	36.85	-29.56	41.90	24.51	54.00	17.15	V
14497.050	36.70	-29.56	41.90	24.36	54.00	17.30	V
11905.450	35.25	-32.53	39.10	28.68	54.00	18.75	V
11909.850	34.95	-32.53	39.10	28.38	54.00	19.05	H

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17963.700	39.93	-29.59	45.95	23.57	54.00	14.07	V
17986.800	39.89	-29.59	45.95	23.53	54.00	14.11	H
14479.450	34.63	-29.56	41.90	22.29	54.00	19.37	H
14484.950	34.46	-29.56	41.90	22.12	54.00	19.54	H
11882.900	33.06	-32.53	39.10	26.49	54.00	20.94	H
11898.850	33.04	-32.53	39.10	26.47	54.00	20.96	H

802.11ac-VHT40

Channel 151

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17992.300	40.61	-29.59	45.95	24.25	54.00	13.39	V
17965.900	40.49	-29.59	45.95	24.13	54.00	13.51	V
14499.800	35.61	-29.56	41.90	23.27	54.00	18.39	H
14488.250	35.53	-29.56	41.90	23.19	54.00	18.47	V
11908.200	34.18	-32.53	39.10	27.61	54.00	19.82	V
11901.600	34.04	-32.53	39.10	27.47	54.00	19.96	V

Channel 159

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17976.900	40.53	-29.59	45.95	24.17	54.00	13.47	V
17968.650	40.45	-29.59	45.95	24.09	54.00	13.55	H
14497.050	35.79	-29.56	41.90	23.45	54.00	18.21	V
14499.250	35.60	-29.56	41.90	23.26	54.00	18.40	H
11859.250	34.15	-32.73	39.15	27.73	54.00	19.85	V
11895.550	34.06	-32.53	39.10	27.49	54.00	19.94	H

802.11ac-VHT80

Channel 155

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17976.900	40.47	-29.59	45.95	24.11	54.00	13.53	H
17976.350	40.39	-29.59	45.95	24.03	54.00	13.61	V
14487.700	35.89	-29.56	41.90	23.55	54.00	18.11	V
14491.550	35.83	-29.56	41.90	23.49	54.00	18.17	V
11897.200	34.04	-32.53	39.10	27.47	54.00	19.96	H
11888.950	33.90	-32.53	39.10	27.33	54.00	20.10	V

802.11ax-HE20

Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17974.700	40.15	-29.59	45.95	23.79	54.00	13.85	V
17997.800	40.12	-29.59	45.95	23.76	54.00	13.88	V
14491.550	34.74	-29.56	41.90	22.40	54.00	19.26	V
14479.450	34.59	-29.56	41.90	22.25	54.00	19.41	H
11871.350	33.28	-32.73	39.15	26.86	54.00	20.72	H
11912.050	33.04	-32.53	39.10	26.47	54.00	20.96	V

Channel 157

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17969.750	40.23	-29.59	45.95	23.87	54.00	13.77	V
17965.900	40.03	-29.59	45.95	23.67	54.00	13.97	V
14495.950	35.07	-29.56	41.90	22.73	54.00	18.93	H
14487.700	34.64	-29.56	41.90	22.30	54.00	19.36	H
11890.050	33.53	-32.53	39.10	26.96	54.00	20.47	H
11900.500	33.43	-32.53	39.10	26.86	54.00	20.57	V

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17977.450	40.34	-29.59	45.95	23.98	54.00	13.66	V
17971.950	40.09	-29.59	45.95	23.73	54.00	13.91	V
14498.700	34.97	-29.56	41.90	22.63	54.00	19.03	V
14498.150	34.74	-29.56	41.90	22.40	54.00	19.26	H
11891.700	33.49	-32.53	39.10	26.92	54.00	20.51	V
11869.700	33.26	-32.73	39.15	26.84	54.00	20.74	V

802.11ax-HE40

Channel 151

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17995.050	40.44	-29.59	45.95	24.08	54.00	13.56	V
17998.350	40.38	-29.59	45.95	24.02	54.00	13.62	V
14499.800	35.72	-29.56	41.90	23.38	54.00	18.28	H
14494.300	35.51	-29.56	41.90	23.17	54.00	18.49	V
11876.300	33.95	-32.73	39.15	27.53	54.00	20.05	H
11904.900	33.94	-32.53	39.10	27.37	54.00	20.06	H

Channel 159

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17980.750	40.56	-29.59	45.95	24.20	54.00	13.44	V
17962.050	40.55	-29.59	45.95	24.19	54.00	13.45	V
14499.800	35.50	-29.56	41.90	23.16	54.00	18.50	H
14489.350	35.49	-29.56	41.90	23.15	54.00	18.51	V
11903.250	34.07	-32.53	39.10	27.50	54.00	19.93	H
11779.500	34.01	-32.71	39.20	27.52	54.00	19.99	V

802.11ax-HE80

Channel 155

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17969.750	40.26	-29.59	45.95	23.90	54.00	13.74	H
17985.150	40.24	-29.59	45.95	23.88	54.00	13.76	H
14499.250	35.15	-29.56	41.90	22.81	54.00	18.85	V
14497.050	35.13	-29.56	41.90	22.79	54.00	18.87	H
11903.800	33.91	-32.53	39.10	27.34	54.00	20.09	H
11889.500	33.75	-32.53	39.10	27.18	54.00	20.25	V

Peak Results：

802.11a

Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17972.500	50.99	-29.59	45.95	34.63	74.00	23.01	V
17929.050	50.61	-29.59	45.95	34.25	74.00	23.39	V
14692.300	48.58	-30.04	41.50	37.12	68.20	19.62	H
14670.850	47.93	-30.04	41.50	36.47	68.20	20.27	V
11922.500	44.66	-32.53	39.10	38.09	74.00	29.34	H
11902.150	44.33	-32.53	39.10	37.76	74.00	29.67	H

Channel 157

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17973.600	51.25	-29.59	45.95	34.89	74.00	22.75	V
17994.500	50.65	-29.59	45.95	34.29	74.00	23.35	V
14696.150	47.77	-30.04	41.50	36.31	68.20	20.43	H
14611.450	47.31	-30.67	41.70	36.28	68.20	20.89	V
11885.650	44.69	-32.53	39.10	38.12	74.00	29.31	H
11704.150	44.50	-32.70	39.20	38.00	74.00	29.50	V

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17945.000	51.17	-29.59	45.95	34.81	74.00	22.83	V
17990.100	50.65	-29.59	45.95	34.29	74.00	23.35	V
14662.600	47.86	-30.04	41.50	36.40	68.20	20.34	V
14571.300	47.54	-29.14	41.90	34.78	68.20	20.66	V
11912.600	44.41	-32.53	39.10	37.84	74.00	29.59	V
11889.500	44.19	-32.53	39.10	37.62	74.00	29.81	H

802.11n-HT20

Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17962.050	51.15	-29.59	45.95	34.79	74.00	22.85	H
17973.600	51.03	-29.59	45.95	34.67	74.00	22.97	V
14564.150	47.31	-29.14	41.90	34.55	68.20	20.89	V
14576.250	47.21	-29.14	41.90	34.45	68.20	20.99	H
11870.800	44.17	-32.73	39.15	37.75	74.00	29.83	H
11868.600	44.09	-32.73	39.15	37.67	74.00	29.91	V

Channel 157

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17960.400	50.75	-29.59	45.95	34.39	74.00	23.25	V
17976.350	50.68	-29.59	45.95	34.32	74.00	23.32	H
14581.200	47.70	-29.14	41.90	34.94	68.20	20.50	V
14668.650	47.43	-30.04	41.50	35.97	68.20	20.77	H
11942.300	45.15	-32.42	39.05	38.52	74.00	28.85	V
11905.450	44.96	-32.53	39.10	38.39	74.00	29.04	H

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17991.200	51.64	-29.59	45.95	35.28	74.00	22.36	V
17949.950	50.90	-29.59	45.95	34.54	74.00	23.10	H
14664.800	47.66	-30.04	41.50	36.20	68.20	20.54	V
14673.050	47.48	-30.04	41.50	36.02	68.20	20.72	H
11902.150	44.58	-32.53	39.10	38.01	74.00	29.42	V
11840.550	44.10	-32.73	39.15	37.68	74.00	29.90	V

802.11n-HT40

Channel 151

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17889.450	50.74	-29.59	45.95	34.38	74.00	23.26	H
17975.250	50.72	-29.59	45.95	34.36	74.00	23.28	V
14612.550	47.86	-30.67	41.70	36.83	68.20	20.34	V
14602.650	47.71	-29.14	41.90	34.95	68.20	20.49	V
11795.450	44.27	-32.09	39.20	37.16	74.00	29.73	V
11806.450	44.24	-32.09	39.20	37.13	74.00	29.76	H

Channel 159

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17962.600	50.98	-29.59	45.95	34.62	74.00	23.02	H
17991.750	50.76	-29.59	45.95	34.40	74.00	23.24	H
14606.500	47.64	-30.67	41.70	36.61	68.20	20.56	V
14725.850	47.47	-30.13	41.35	36.25	68.20	20.73	V
11914.800	44.84	-32.53	39.10	38.27	74.00	29.16	H
11790.500	44.43	-32.09	39.20	37.32	74.00	29.57	V

802.11ac-VHT20

Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17989.000	50.88	-29.59	45.95	34.52	74.00	23.12	V
17994.500	50.82	-29.59	45.95	34.46	74.00	23.18	V
14592.750	48.61	-29.14	41.90	35.85	68.20	19.59	H
14612.000	47.32	-30.67	41.70	36.29	68.20	20.88	H
11805.900	44.09	-32.09	39.20	36.98	74.00	29.91	V
11915.900	44.06	-32.53	39.10	37.49	74.00	29.94	V

Channel 157

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17997.250	53.08	-29.59	45.95	36.72	74.00	20.92	V
17984.600	52.54	-29.59	45.95	36.18	74.00	21.46	V
14652.700	48.71	-30.67	41.70	37.68	68.20	19.49	V
14709.900	48.57	-30.13	41.35	37.35	68.20	19.63	V
11929.650	45.28	-32.53	39.10	38.71	74.00	28.72	V
11870.250	45.25	-32.73	39.15	38.83	74.00	28.75	V

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17967.550	50.91	-29.59	45.95	34.55	74.00	23.09	V
17995.600	50.39	-29.59	45.95	34.03	74.00	23.61	V
14663.700	47.26	-30.04	41.50	35.80	68.20	20.94	V
14679.650	46.82	-30.04	41.50	35.36	68.20	21.38	H
11814.700	43.96	-32.09	39.20	36.85	74.00	30.04	H
11891.150	43.91	-32.53	39.10	37.34	74.00	30.09	H

802.11ac-VHT40

Channel 151

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17992.850	51.15	-29.59	45.95	34.79	74.00	22.85	H
17986.800	50.66	-29.59	45.95	34.30	74.00	23.34	H
14642.800	47.47	-30.67	41.70	36.44	68.20	20.73	V
14606.500	47.46	-30.67	41.70	36.43	68.20	20.74	V
11903.250	44.72	-32.53	39.10	38.15	74.00	29.28	V
11910.400	44.44	-32.53	39.10	37.87	74.00	29.56	V

Channel 159

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17973.600	51.41	-29.59	45.95	35.05	74.00	22.59	V
17974.700	51.33	-29.59	45.95	34.97	74.00	22.67	H
14688.450	47.42	-30.04	41.50	35.96	68.20	20.78	V
14600.450	47.32	-29.14	41.90	34.56	68.20	20.88	H
11901.600	44.53	-32.53	39.10	37.96	74.00	29.47	V
11788.850	44.21	-32.09	39.20	37.10	74.00	29.79	V

802.11ac-VHT80

Channel 155

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17960.400	51.87	-29.59	45.95	35.51	74.00	22.13	V
17994.500	50.92	-29.59	45.95	34.56	74.00	23.08	H
14664.800	47.57	-30.04	41.50	36.11	68.20	20.63	H
14556.450	47.47	-29.14	41.90	34.71	68.20	20.73	H
11788.300	44.74	-32.09	39.20	37.63	74.00	29.26	H
11804.250	44.18	-32.09	39.20	37.07	74.00	29.82	V

802.11ax-HE20

Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17958.200	50.78	-29.59	45.95	34.42	74.00	23.22	V
17986.800	50.53	-29.59	45.95	34.17	74.00	23.47	V
14709.350	46.98	-30.13	41.35	35.76	68.20	21.22	V
14576.800	46.66	-29.14	41.90	33.90	68.20	21.54	H
11888.950	44.82	-32.53	39.10	38.25	74.00	29.18	H
11914.250	43.74	-32.53	39.10	37.17	74.00	30.26	H

Channel 157

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17951.050	51.44	-29.59	45.95	35.08	74.00	22.56	V
17982.950	50.62	-29.59	45.95	34.26	74.00	23.38	H
14603.200	47.24	-29.14	41.90	34.48	68.20	20.96	V
14592.200	46.94	-29.14	41.90	34.18	68.20	21.26	V
11992.350	44.03	-32.66	39.00	37.69	74.00	29.97	H
11888.400	43.35	-32.53	39.10	36.78	74.00	30.65	V

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17979.100	51.05	-29.59	45.95	34.69	74.00	22.95	V
17885.600	50.54	-29.59	45.95	34.18	74.00	23.46	V
14702.750	46.76	-30.04	41.50	35.30	68.20	21.44	H
14682.400	46.55	-30.04	41.50	35.09	68.20	21.65	V
11906.000	44.03	-32.53	39.10	37.46	74.00	29.97	H
11906.550	43.48	-32.53	39.10	36.91	74.00	30.52	H

802.11ax-HE40

Channel 151

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17991.750	50.78	-29.59	45.95	34.42	74.00	23.22	H
17961.500	50.41	-29.59	45.95	34.05	74.00	23.59	H
14687.350	47.81	-30.04	41.50	36.35	68.20	20.39	V
14597.150	47.49	-29.14	41.90	34.73	68.20	20.71	V
11802.600	44.48	-32.09	39.20	37.37	74.00	29.52	V
11920.300	44.37	-32.53	39.10	37.80	74.00	29.63	H

Channel 159

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17884.500	51.67	-29.59	45.95	35.31	74.00	22.33	H
17979.650	51.57	-29.59	45.95	35.21	74.00	22.43	V
14564.150	47.63	-29.14	41.90	34.87	68.20	20.57	V
14580.650	47.53	-29.14	41.90	34.77	68.20	20.67	H
11871.350	44.41	-32.73	39.15	37.99	74.00	29.59	H
11873.550	44.38	-32.73	39.15	37.96	74.00	29.62	H

802.11ax-HE80

Channel 155

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17912.550	50.74	-29.59	45.95	34.38	74.00	23.26	V
17977.450	50.61	-29.59	45.95	34.25	74.00	23.39	V
14574.600	48.24	-29.14	41.90	35.48	68.20	19.96	V
14576.250	47.50	-29.14	41.90	34.74	68.20	20.70	V
11852.650	45.49	-32.73	39.15	39.07	74.00	28.51	H
11890.050	44.32	-32.53	39.10	37.75	74.00	29.68	H

Note: the spurious emission above 18G is noise only. No emissions were found within 20dB of the limit below 30MHz.

EUT ID : EUT 2

The measurements were performed separately in Chain A, Chain B, and MIMO (Chain A+B), and only the worst cases are shown in this section.

Average Results：

802.11a

Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17975.800	39.70	-29.59	45.95	23.34	54.00	14.30	V
17959.850	39.60	-29.59	45.95	23.24	54.00	14.40	V
14483.850	34.22	-29.56	41.90	21.88	54.00	19.78	H
14480.000	34.14	-29.56	41.90	21.80	54.00	19.86	H
11885.100	33.21	-32.53	39.10	26.64	54.00	20.79	H
11895.550	32.91	-32.53	39.10	26.34	54.00	21.09	H

Channel 157

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17962.600	39.50	-29.59	45.95	23.14	54.00	14.50	V
17974.700	39.46	-29.59	45.95	23.10	54.00	14.54	V
14488.250	33.97	-29.56	41.90	21.63	54.00	20.03	V
14485.500	33.95	-29.56	41.90	21.61	54.00	20.05	V
11871.900	32.92	-32.73	39.15	26.50	54.00	21.08	H
11906.550	32.58	-32.53	39.10	26.01	54.00	21.42	H

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17980.200	39.48	-29.59	45.95	23.12	54.00	14.52	H
17978.550	39.47	-29.59	45.95	23.11	54.00	14.53	V
14499.800	34.60	-29.56	41.90	22.26	54.00	19.40	V
14496.500	34.17	-29.56	41.90	21.83	54.00	19.83	V
11889.500	32.55	-32.53	39.10	25.98	54.00	21.45	H
11899.400	32.55	-32.53	39.10	25.98	54.00	21.45	H

802.11n-HT20

Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17972.500	39.62	-29.59	45.95	23.26	54.00	14.38	V
17997.250	39.53	-29.59	45.95	23.17	54.00	14.47	V
14492.100	34.45	-29.56	41.90	22.11	54.00	19.55	V
14491.550	34.11	-29.56	41.90	21.77	54.00	19.89	V
11904.900	33.05	-32.53	39.10	26.48	54.00	20.95	V
11834.500	32.59	-32.73	39.15	26.17	54.00	21.41	H

Channel 157

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17972.500	39.55	-29.59	45.95	23.19	54.00	14.45	H
17965.900	39.53	-29.59	45.95	23.17	54.00	14.47	V
14499.800	34.30	-29.56	41.90	21.96	54.00	19.70	V
14485.500	34.03	-29.56	41.90	21.69	54.00	19.97	V
11895.000	33.17	-32.53	39.10	26.60	54.00	20.83	V
11829.550	32.66	-32.09	39.20	25.55	54.00	21.34	V

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17963.150	39.62	-29.59	45.95	23.26	54.00	14.38	V
17967.550	39.57	-29.59	45.95	23.21	54.00	14.43	H
14495.400	34.23	-29.56	41.90	21.89	54.00	19.77	V
14494.850	34.22	-29.56	41.90	21.88	54.00	19.78	H
11816.350	32.61	-32.09	39.20	25.50	54.00	21.39	H
11898.850	32.58	-32.53	39.10	26.01	54.00	21.42	V

802.11n-HT40

Channel 151

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17974.700	39.24	-29.59	45.95	22.88	54.00	14.76	H
17989.000	39.24	-29.59	45.95	22.88	54.00	14.76	H
14471.200	33.76	-29.56	41.90	21.42	54.00	20.24	H
14476.150	33.73	-29.56	41.90	21.39	54.00	20.27	V
11875.200	32.28	-32.73	39.15	25.86	54.00	21.72	V
11882.350	32.25	-32.53	39.10	25.68	54.00	21.75	V

Channel 159

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17991.750	39.07	-29.59	45.95	22.71	54.00	14.93	V
17982.950	39.06	-29.59	45.95	22.70	54.00	14.94	V
14493.200	33.80	-29.56	41.90	21.46	54.00	20.20	H
14486.050	33.64	-29.56	41.90	21.30	54.00	20.36	H
11877.950	32.55	-32.73	39.15	26.13	54.00	21.45	V
11864.750	32.42	-32.73	39.15	26.00	54.00	21.58	V

802.11ac-VHT20

Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17953.800	39.81	-29.59	45.95	23.45	54.00	14.19	V
17976.900	39.65	-29.59	45.95	23.29	54.00	14.35	H
14495.950	34.87	-29.56	41.90	22.53	54.00	19.13	V
14494.300	34.38	-29.56	41.90	22.04	54.00	19.62	V
11874.650	32.75	-32.73	39.15	26.33	54.00	21.25	H
11908.750	32.51	-32.53	39.10	25.94	54.00	21.49	H

Channel 157

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17991.750	39.89	-29.59	45.95	23.53	54.00	14.11	V
17964.250	39.63	-29.59	45.95	23.27	54.00	14.37	H
14494.850	34.74	-29.56	41.90	22.40	54.00	19.26	V
14491.000	34.14	-29.56	41.90	21.80	54.00	19.86	H
11915.350	32.75	-32.53	39.10	26.18	54.00	21.25	V
11871.350	32.61	-32.73	39.15	26.19	54.00	21.39	V

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17973.600	39.53	-29.59	45.95	23.17	54.00	14.47	H
17987.900	39.52	-29.59	45.95	23.16	54.00	14.48	V
14490.450	34.41	-29.56	41.90	22.07	54.00	19.59	V
14498.150	34.17	-29.56	41.90	21.83	54.00	19.83	H
11907.100	32.81	-32.53	39.10	26.24	54.00	21.19	V
11908.200	32.67	-32.53	39.10	26.10	54.00	21.33	V

802.11ac-VHT40

Channel 151

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17988.450	39.36	-29.59	45.95	23.00	54.00	14.64	H
17979.100	38.89	-29.59	45.95	22.53	54.00	15.11	H
14473.950	33.29	-29.56	41.90	20.95	54.00	20.71	V
14472.850	33.26	-29.56	41.90	20.92	54.00	20.74	H
11869.150	32.25	-32.73	39.15	25.83	54.00	21.75	H
11882.900	32.06	-32.53	39.10	25.49	54.00	21.94	V

Channel 159

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17981.850	39.53	-29.59	45.95	23.17	54.00	14.47	V
17990.650	39.01	-29.59	45.95	22.65	54.00	14.99	H
14487.150	33.87	-29.56	41.90	21.53	54.00	20.13	H
14484.400	33.69	-29.56	41.90	21.35	54.00	20.31	H
11875.750	32.67	-32.73	39.15	26.25	54.00	21.33	V
11911.500	32.41	-32.53	39.10	25.84	54.00	21.59	V

802.11ac-VHT80

Channel 155

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17997.250	39.32	-29.59	45.95	22.96	54.00	14.68	V
17989.000	39.29	-29.59	45.95	22.93	54.00	14.71	V
14473.400	33.99	-29.56	41.90	21.65	54.00	20.01	V
14496.500	33.88	-29.56	41.90	21.54	54.00	20.12	V
11901.050	32.99	-32.53	39.10	26.42	54.00	21.01	V
11891.150	32.49	-32.53	39.10	25.92	54.00	21.51	V

802.11ax-HE20

Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17996.700	38.51	-29.59	45.95	22.15	54.00	15.49	V
17977.450	38.37	-29.59	45.95	22.01	54.00	15.63	V
14481.100	32.93	-29.56	41.90	20.59	54.00	21.07	V
14470.100	32.63	-29.56	41.90	20.29	54.00	21.37	H
11869.150	31.95	-32.73	39.15	25.53	54.00	22.05	V
11856.500	31.69	-32.73	39.15	25.27	54.00	22.31	V

Channel 157

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17990.100	38.67	-29.59	45.95	22.31	54.00	15.33	V
17976.900	38.38	-29.59	45.95	22.02	54.00	15.62	V
14488.250	33.43	-29.56	41.90	21.09	54.00	20.57	H
14487.700	32.98	-29.56	41.90	20.64	54.00	21.02	H
11877.400	31.57	-32.73	39.15	25.15	54.00	22.43	H
11867.500	31.48	-32.73	39.15	25.06	54.00	22.52	V

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17995.050	38.63	-29.59	45.95	22.27	54.00	15.37	V
17980.750	38.31	-29.59	45.95	21.95	54.00	15.69	V
14498.700	33.43	-29.56	41.90	21.09	54.00	20.57	V
14486.600	33.02	-29.56	41.90	20.68	54.00	20.98	V
11866.400	32.00	-32.73	39.15	25.58	54.00	22.00	H
11868.600	31.94	-32.73	39.15	25.52	54.00	22.06	H

802.11ax-HE40

Channel 151

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17984.600	39.12	-29.59	45.95	22.76	54.00	14.88	V
17982.400	39.07	-29.59	45.95	22.71	54.00	14.93	V
14473.400	33.64	-29.56	41.90	21.30	54.00	20.36	V
14489.350	33.58	-29.56	41.90	21.24	54.00	20.42	H
11890.600	32.61	-32.53	39.10	26.04	54.00	21.39	H
11869.700	32.38	-32.73	39.15	25.96	54.00	21.62	V

Channel 159

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17985.700	39.20	-29.59	45.95	22.84	54.00	14.80	V
17988.450	39.19	-29.59	45.95	22.83	54.00	14.81	H
14498.150	33.76	-29.56	41.90	21.42	54.00	20.24	V
14479.450	33.67	-29.56	41.90	21.33	54.00	20.33	H
11868.050	32.98	-32.73	39.15	26.56	54.00	21.02	V
11873.550	32.81	-32.73	39.15	26.39	54.00	21.19	V

802.11ax-HE80

Channel 155

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17995.600	40.25	-29.59	45.95	23.89	54.00	13.75	V
17969.750	39.20	-29.59	45.95	22.84	54.00	14.80	H
14472.850	33.88	-29.56	41.90	21.54	54.00	20.12	H
14498.700	33.79	-29.56	41.90	21.45	54.00	20.21	V
11870.800	32.84	-32.73	39.15	26.42	54.00	21.16	V
11868.600	32.61	-32.73	39.15	26.19	54.00	21.39	H

Peak Results：

802.11a

Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17981.300	49.61	-29.59	45.95	33.25	74.00	24.39	H
17960.400	49.51	-29.59	45.95	33.15	74.00	24.49	H
14604.300	46.58	-30.67	41.70	35.55	68.20	21.62	V
14596.050	46.55	-29.14	41.90	33.79	68.20	21.65	V
11838.350	43.39	-32.73	39.15	36.97	74.00	30.61	V
11852.650	43.29	-32.73	39.15	36.87	74.00	30.71	V

Channel 157

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17964.800	50.09	-29.59	45.95	33.73	74.00	23.91	H
17964.250	50.06	-29.59	45.95	33.70	74.00	23.94	V
14593.850	47.28	-29.14	41.90	34.52	68.20	20.92	V
14673.050	46.43	-30.04	41.50	34.97	68.20	21.77	H
11912.050	43.29	-32.53	39.10	36.72	74.00	30.71	H
11840.000	42.93	-32.73	39.15	36.51	74.00	31.07	H

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17973.600	49.77	-29.59	45.95	33.41	74.00	24.23	H
17991.200	49.55	-29.59	45.95	33.19	74.00	24.45	H
14688.450	46.47	-30.04	41.50	35.01	68.20	21.73	V
14709.350	45.95	-30.13	41.35	34.73	68.20	22.25	V
11816.900	43.28	-32.09	39.20	36.17	74.00	30.72	H
11869.700	43.02	-32.73	39.15	36.60	74.00	30.98	V

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Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17953.250	49.74	-29.59	45.95	33.38	74.00	24.26	H
17972.500	49.55	-29.59	45.95	33.19	74.00	24.45	V
14574.050	46.19	-29.14	41.90	33.43	68.20	22.01	V
14692.300	46.09	-30.04	41.50	34.63	68.20	22.11	V
11911.500	43.25	-32.53	39.10	36.68	74.00	30.75	H
11852.100	43.06	-32.73	39.15	36.64	74.00	30.94	H

Channel 157

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17976.350	49.72	-29.59	45.95	33.36	74.00	24.28	V
17976.900	49.71	-29.59	45.95	33.35	74.00	24.29	H
14611.450	46.29	-30.67	41.70	35.26	68.20	21.91	V
14200.600	46.15	-30.42	41.70	34.87	68.20	22.05	V
11859.250	42.74	-32.73	39.15	36.32	74.00	31.26	V
11898.300	42.65	-32.53	39.10	36.08	74.00	31.35	V

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17960.950	50.08	-29.59	45.95	33.72	74.00	23.92	V
17949.400	49.77	-29.59	45.95	33.41	74.00	24.23	H
14662.600	46.42	-30.04	41.50	34.96	68.20	21.78	V
14584.500	46.22	-29.14	41.90	33.46	68.20	21.98	V
11907.650	43.55	-32.53	39.10	36.98	74.00	30.45	V
11876.850	42.72	-32.73	39.15	36.30	74.00	31.28	H

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Channel 151

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17987.350	50.80	-29.59	45.95	34.44	74.00	23.20	V
17989.550	49.73	-29.59	45.95	33.37	74.00	24.27	V
14669.750	46.28	-30.04	41.50	34.82	68.20	21.92	V
14585.600	45.99	-29.14	41.90	33.23	68.20	22.21	H
11863.100	42.63	-32.73	39.15	36.21	74.00	31.37	V
11881.250	42.62	-32.53	39.10	36.05	74.00	31.38	H

Channel 159

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17989.550	49.15	-29.59	45.95	32.79	74.00	24.85	H
17941.700	49.12	-29.59	45.95	32.76	74.00	24.88	H
14584.500	45.95	-29.14	41.90	33.19	68.20	22.25	V
14578.450	45.87	-29.14	41.90	33.11	68.20	22.33	H
11919.200	43.31	-32.53	39.10	36.74	74.00	30.69	V
11915.900	42.78	-32.53	39.10	36.21	74.00	31.22	V

802.11ac-VHT20

Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17973.600	49.55	-29.59	45.95	33.19	74.00	24.45	V
17980.200	49.45	-29.59	45.95	33.09	74.00	24.55	V
14592.750	46.47	-29.14	41.90	33.71	68.20	21.73	H
14651.050	46.37	-30.67	41.70	35.34	68.20	21.83	V
11872.450	42.98	-32.73	39.15	36.56	74.00	31.02	H
11838.350	42.83	-32.73	39.15	36.41	74.00	31.17	H

Channel 157

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17993.400	49.42	-29.59	45.95	33.06	74.00	24.58	V
17959.300	49.40	-29.59	45.95	33.04	74.00	24.60	V
14691.750	46.46	-30.04	41.50	35.00	68.20	21.74	V
14607.050	46.40	-30.67	41.70	35.37	68.20	21.80	V
11815.250	43.37	-32.09	39.20	36.26	74.00	30.63	V
11804.800	43.27	-32.09	39.20	36.16	74.00	30.73	V

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17952.150	49.81	-29.59	45.95	33.45	74.00	24.19	H
17971.400	49.75	-29.59	45.95	33.39	74.00	24.25	V
14595.500	46.69	-29.14	41.90	33.93	68.20	21.51	V
14703.850	46.50	-30.13	41.35	35.28	68.20	21.70	V
11902.150	44.19	-32.53	39.10	37.62	74.00	29.81	H
10467.750	43.62	-33.87	38.20	39.29	68.20	24.58	V

802.11ac-VHT40

Channel 151

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17989.000	49.01	-29.59	45.95	32.65	74.00	24.99	V
17996.150	48.59	-29.59	45.95	32.23	74.00	25.41	V
14665.350	45.15	-30.04	41.50	33.69	68.20	23.05	V
14694.500	45.05	-30.04	41.50	33.59	68.20	23.15	H
11861.450	43.05	-32.73	39.15	36.63	74.00	30.95	V
11885.650	42.32	-32.53	39.10	35.75	74.00	31.68	V

Channel 159

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17980.200	50.00	-29.59	45.95	33.64	74.00	24.00	H
17985.700	49.55	-29.59	45.95	33.19	74.00	24.45	H
14610.350	45.94	-30.67	41.70	34.91	68.20	22.26	H
14720.350	45.59	-30.13	41.35	34.37	68.20	22.61	V
11775.650	43.56	-32.71	39.20	37.07	74.00	30.44	H
11864.200	43.45	-32.73	39.15	37.03	74.00	30.55	H

802.11ac-VHT80

Channel 155

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17975.800	49.66	-29.59	45.95	33.30	74.00	24.34	V
17976.900	49.58	-29.59	45.95	33.22	74.00	24.42	V
14660.400	46.32	-30.04	41.50	34.86	68.20	21.88	H
14683.500	45.92	-30.04	41.50	34.46	68.20	22.28	V
11878.500	43.50	-32.73	39.15	37.08	74.00	30.50	V
11928.000	43.37	-32.53	39.10	36.80	74.00	30.63	H

802.11ax-HE20

Channel 149

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17965.900	48.52	-29.59	45.95	32.16	74.00	25.48	V
17937.850	48.51	-29.59	45.95	32.15	74.00	25.49	V
14622.450	44.90	-30.67	41.70	33.87	68.20	23.30	V
14689.550	44.89	-30.04	41.50	33.43	68.20	23.31	V
11871.350	42.50	-32.73	39.15	36.08	74.00	31.50	V
11886.750	42.26	-32.53	39.10	35.69	74.00	31.74	H

Channel 157

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17985.700	49.01	-29.59	45.95	32.65	74.00	24.99	V
17976.900	48.71	-29.59	45.95	32.35	74.00	25.29	V
14591.100	45.13	-29.14	41.90	32.37	68.20	23.07	V
14575.700	44.96	-29.14	41.90	32.20	68.20	23.24	H
11890.050	41.90	-32.53	39.10	35.33	74.00	32.10	H
11319.150	41.81	-32.41	38.70	35.52	74.00	32.19	V

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17911.450	48.75	-29.59	45.95	32.39	74.00	25.25	V
17973.600	48.69	-29.59	45.95	32.33	74.00	25.31	V
14632.350	45.49	-30.67	41.70	34.46	68.20	22.71	H
14555.350	44.95	-29.14	41.90	32.19	68.20	23.25	H
11881.800	41.78	-32.53	39.10	35.21	74.00	32.22	H
11890.600	41.78	-32.53	39.10	35.21	74.00	32.22	H

802.11ax-HE40

Channel 151

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17975.800	49.64	-29.59	45.95	33.28	74.00	24.36	H
17980.750	49.13	-29.59	45.95	32.77	74.00	24.87	H
14686.800	45.82	-30.04	41.50	34.36	68.20	22.38	V
14608.150	45.77	-30.67	41.70	34.74	68.20	22.43	V
11887.300	42.89	-32.53	39.10	36.32	74.00	31.11	H
11870.800	42.77	-32.73	39.15	36.35	74.00	31.23	V

Channel 159

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17989.000	50.29	-29.59	45.95	33.93	74.00	23.71	H
17962.600	49.57	-29.59	45.95	33.21	74.00	24.43	H
14667.550	46.15	-30.04	41.50	34.69	68.20	22.05	V
14698.900	46.07	-30.04	41.50	34.61	68.20	22.13	H
11786.100	43.08	-32.09	39.20	35.97	74.00	30.92	V
11889.500	42.64	-32.53	39.10	36.07	74.00	31.36	V

802.11ax-HE80

Channel 155

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17976.900	49.56	-29.59	45.95	33.20	74.00	24.44	H
17974.150	49.54	-29.59	45.95	33.18	74.00	24.46	V
14656.550	47.31	-30.04	41.50	35.85	68.20	20.89	H
14593.300	46.76	-29.14	41.90	34.00	68.20	21.44	H
11783.350	42.83	-32.09	39.20	35.72	74.00	31.17	V
11880.700	42.71	-32.73	39.15	36.29	74.00	31.29	V

Note: the spurious emission above 18G is noise only. No emissions were found within 20dB of the limit below 30MHz.

Conclusion: pass

Band Edges Compliance– Radiated

Measurement Result:

EUT ID : EUT 1

Mode	Channel	Test Results	Conclusion
802.11a	5745 MHz	Fig.1	P
	5825 MHz	Fig.2	P
802.11n HT20	5745 MHz	Fig.3	P
	5825 MHz	Fig.4	P
802.11n HT40	5755 MHz	Fig.5	P
	5795 MHz	Fig.6	P
802.11ac VHT20	5745 MHz	Fig.7	P
	5825 MHz	Fig.8	P
802.11ac VHT40	5755 MHz	Fig.9	P
	5795 MHz	Fig.10	P
802.11ac VHT80	5775 MHz	Fig.11 Fig.12	P
802.11ax HT20 full RU	5745 MHz	Fig.13	P
	5825 MHz	Fig.14	P
802.11ax HT40 full RU	5755 MHz	Fig.15	P
	5795 MHz	Fig.16	P
802.11ax HT80 full RU	5775 MHz	Fig.17 Fig.18	P

EUT ID : EUT 2

Mode	Channel	Test Results	Conclusion
802.11a	5745 MHz	Fig.19	P
	5825 MHz	Fig.20	P
802.11n HT20	5745 MHz	Fig.21	P
	5825 MHz	Fig.22	P
802.11n HT40	5755 MHz	Fig.23	P
	5795 MHz	Fig.24	P
802.11ac VHT20	5745 MHz	Fig.25	P
	5825 MHz	Fig.26	P
802.11ac VHT40	5755 MHz	Fig.27	P
	5795 MHz	Fig.28	P
802.11ac VHT80	5775 MHz	Fig.29 Fig.30	P
802.11ax HT20 full RU	5745 MHz	Fig.31	P
	5825 MHz	Fig.32	P

802.11ax HT40 full RU	5755 MHz	Fig.33	P
	5795 MHz	Fig.34	P
802.11ax HT80 full RU	5775 MHz	Fig.35 Fig.36	P

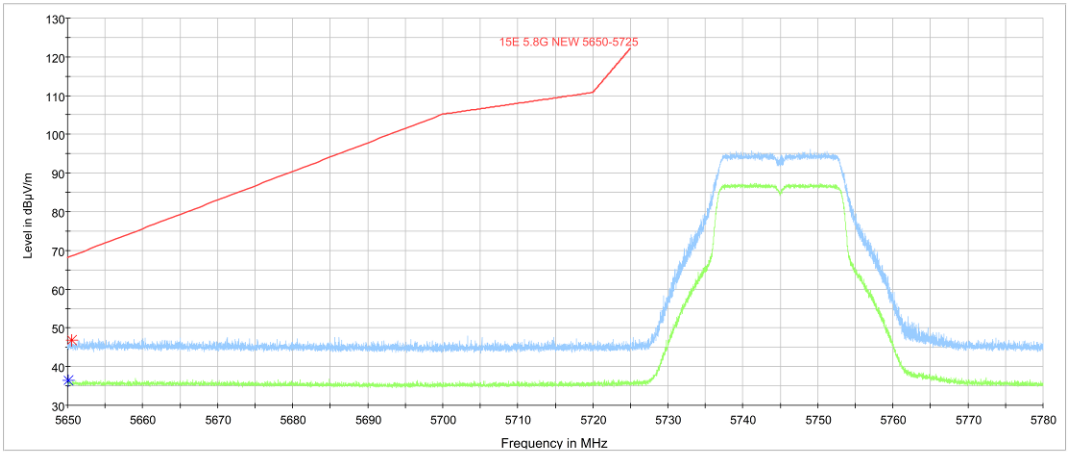


Fig. 1 Band Edges (802.11a , CHAIN A, Ch149,5745MHz)

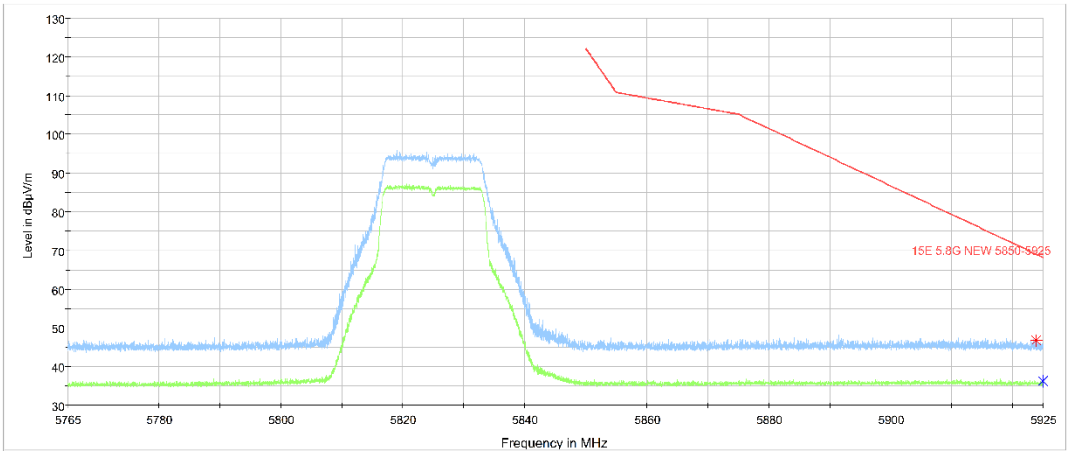


Fig. 2 Band Edges (802.11a, CHAIN A,Ch165, 5825MHz)

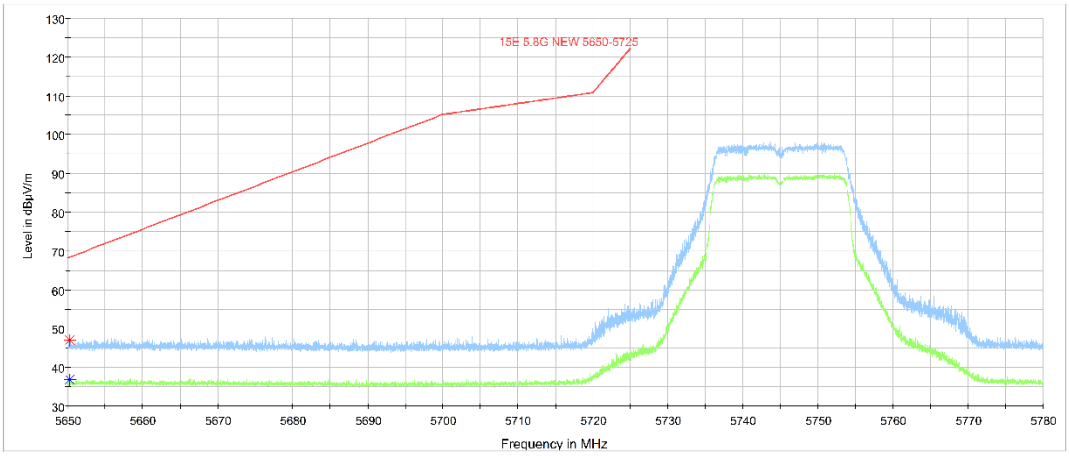


Fig. 3 Band Edges (802.11n-HT20 ,MIMO, Ch149, 5745MHz)

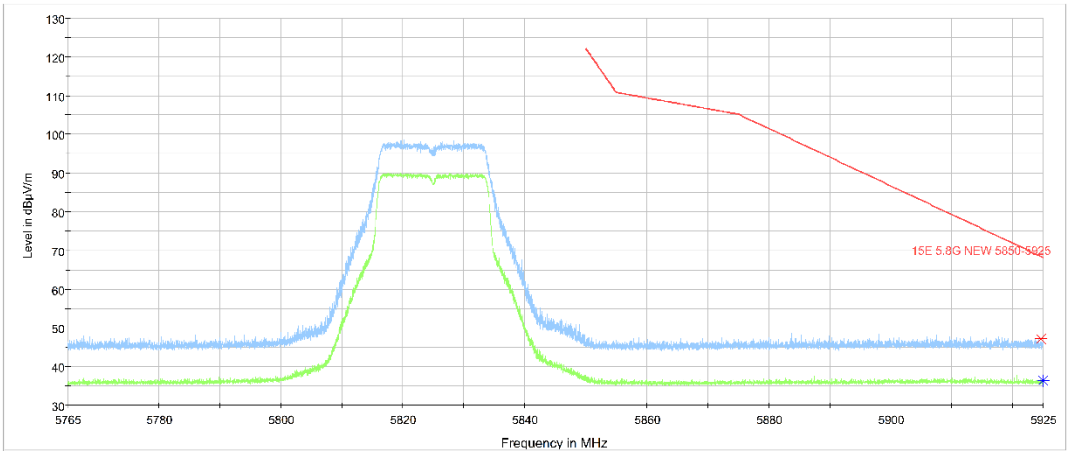


Fig. 4 Band Edges (802.11n-HT20 ,MIMO, Ch165, 5825MHz)

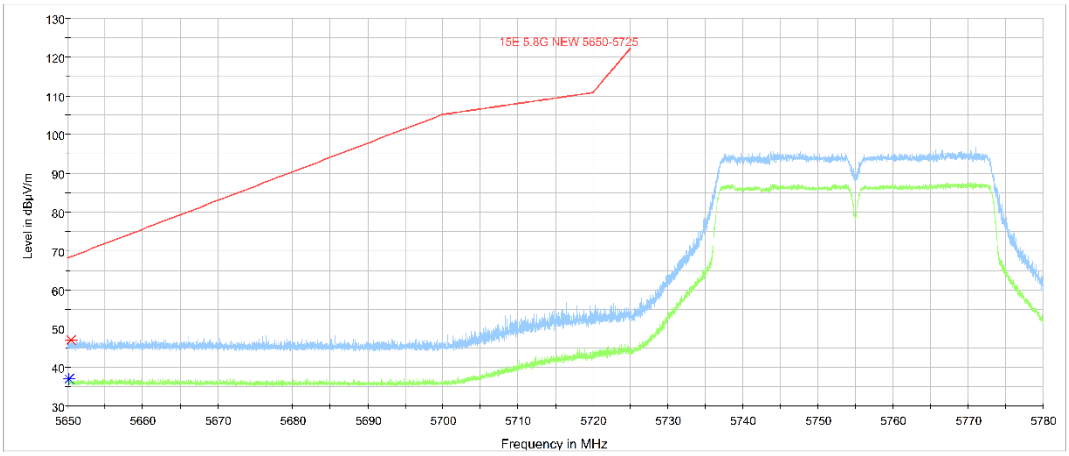


Fig. 5 Band Edges (802.11n-HT40 ,MIMO, Ch151, 5755MHz)

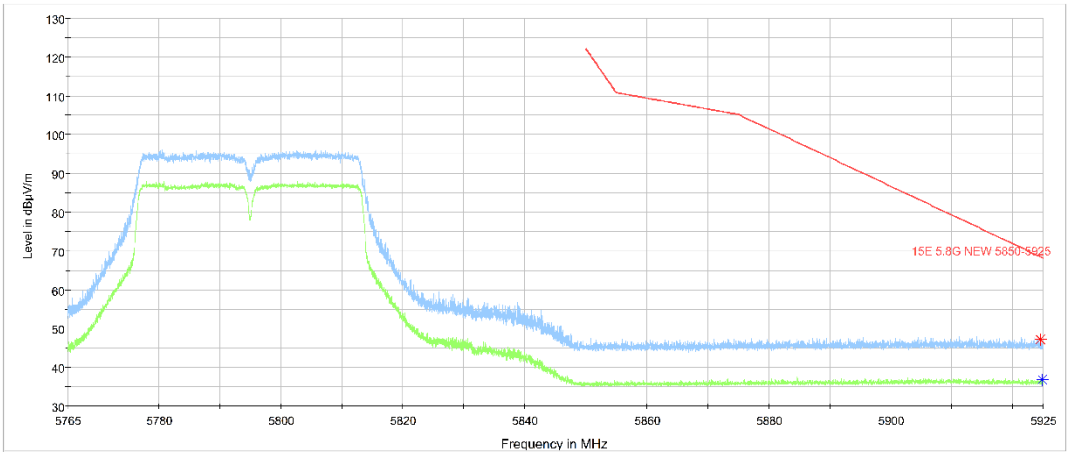


Fig. 6 Band Edges (802.11n-HT40 ,MIMO, Ch159, 5795MHz)

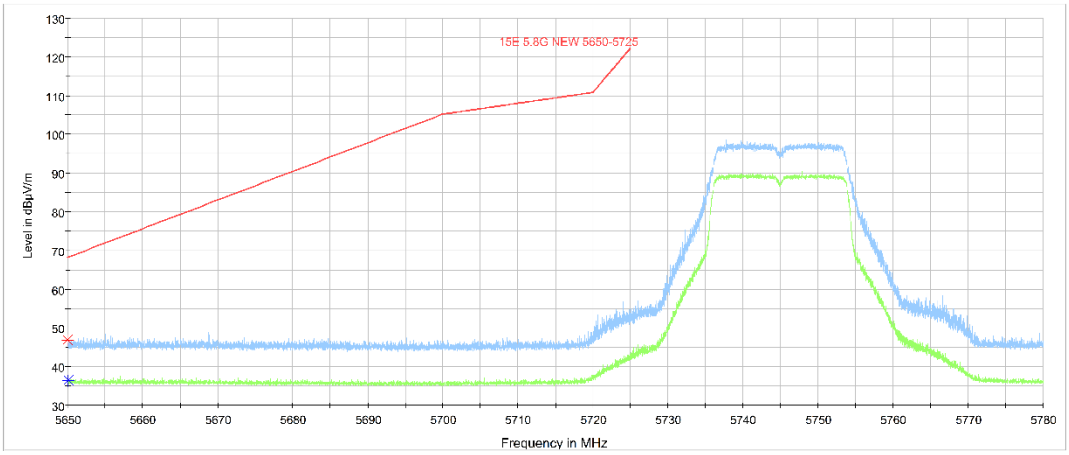


Fig. 7 Band Edges (802.11ac-HT20 ,MIMO, Ch149, 5745MHz)

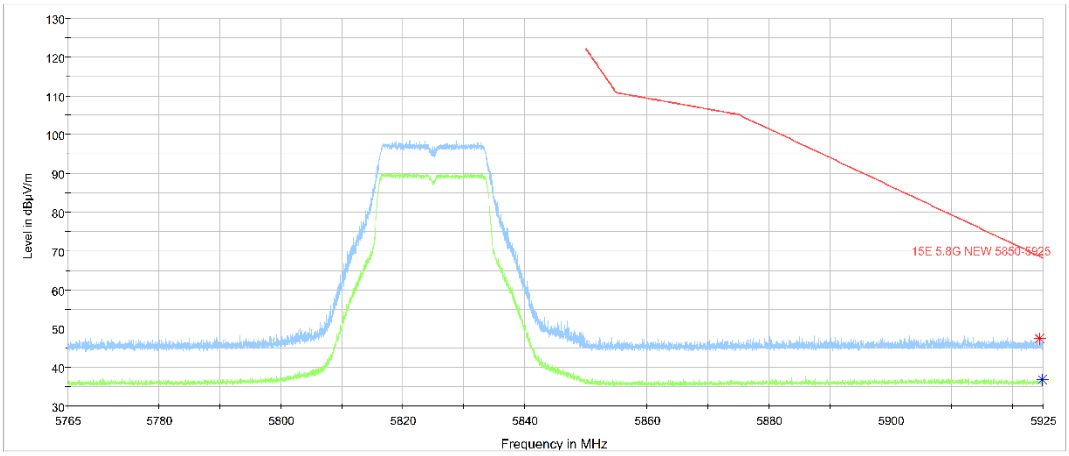


Fig. 8 Band Edges (802.11ac-HT20 ,MIMO, Ch165, 5825MHz)

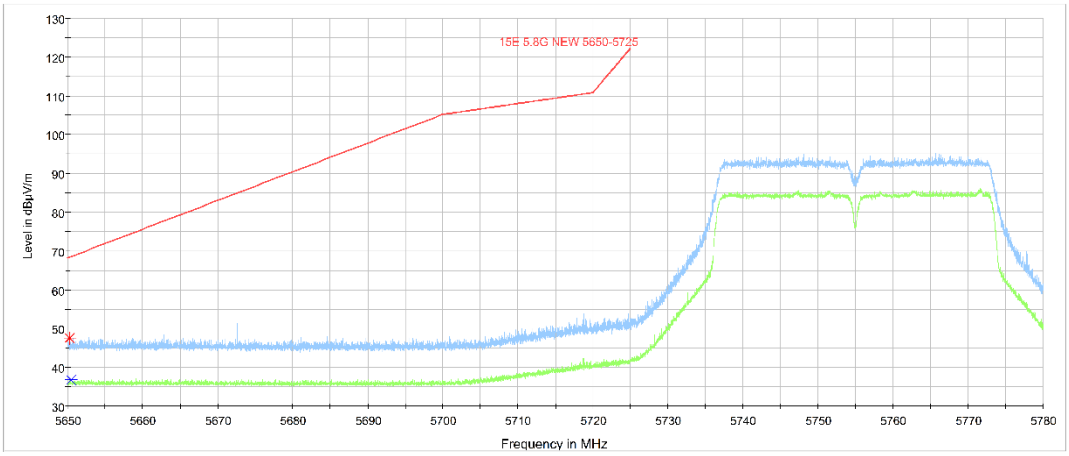


Fig. 9 Band Edges (802.11ac-HT40 ,MIMO, Ch151, 5755MHz)

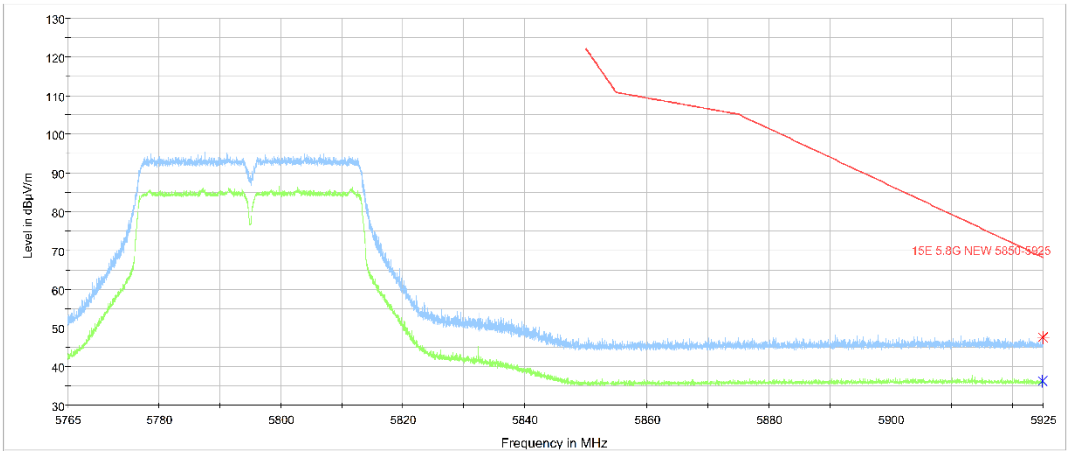


Fig. 10 Band Edges (802.11ac-HT40 ,MIMO, Ch159, 5795MHz)

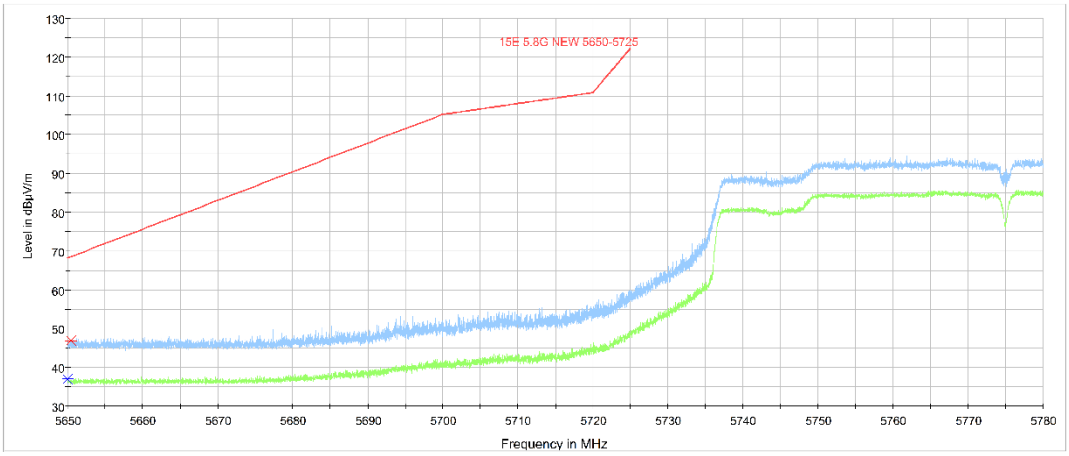


Fig. 11 Band Edges (802.11ac-HT80 ,MIMO, Ch155-L, 5775MHz)

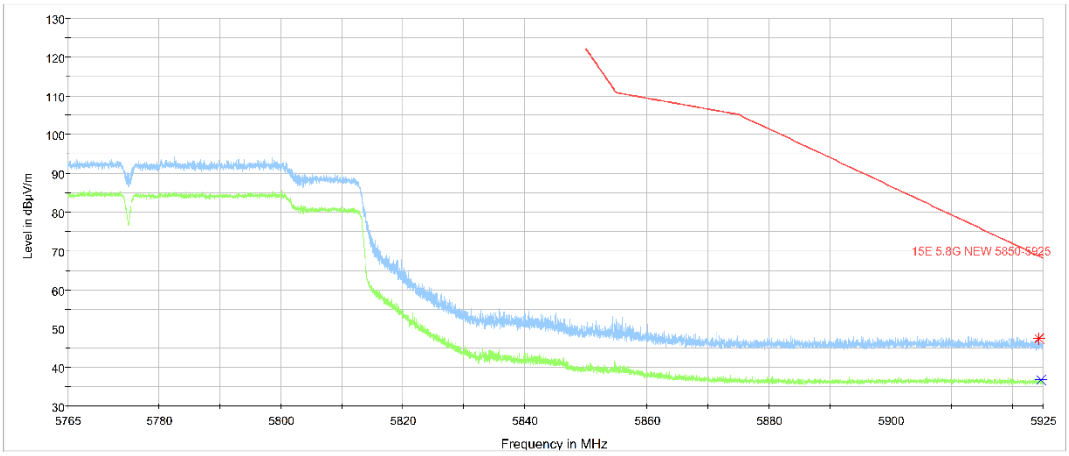


Fig. 12 Band Edges (802.11ac-HT80 ,MIMO, Ch155-R, 5775MHz)

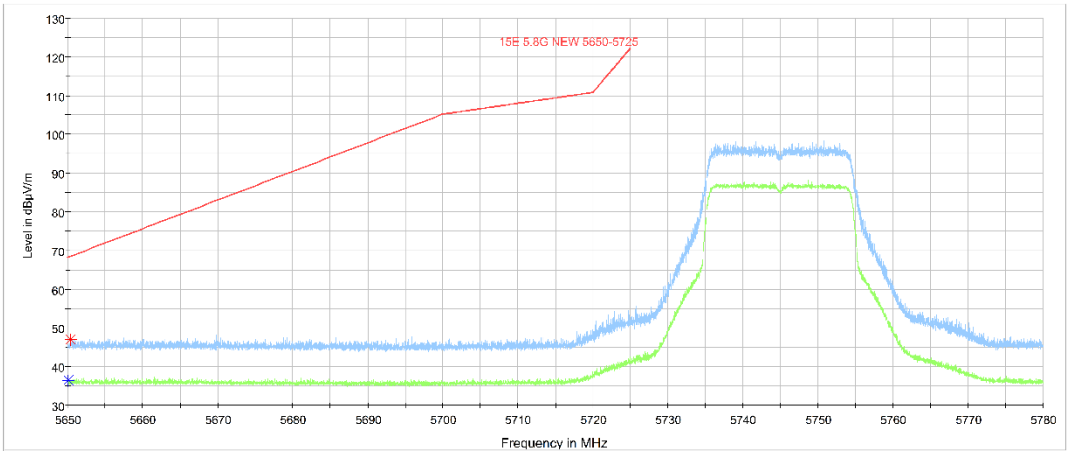


Fig. 13 Band Edges (802.11ax-HT20 ,MIMO, Ch149 full RU, 5745MHz)

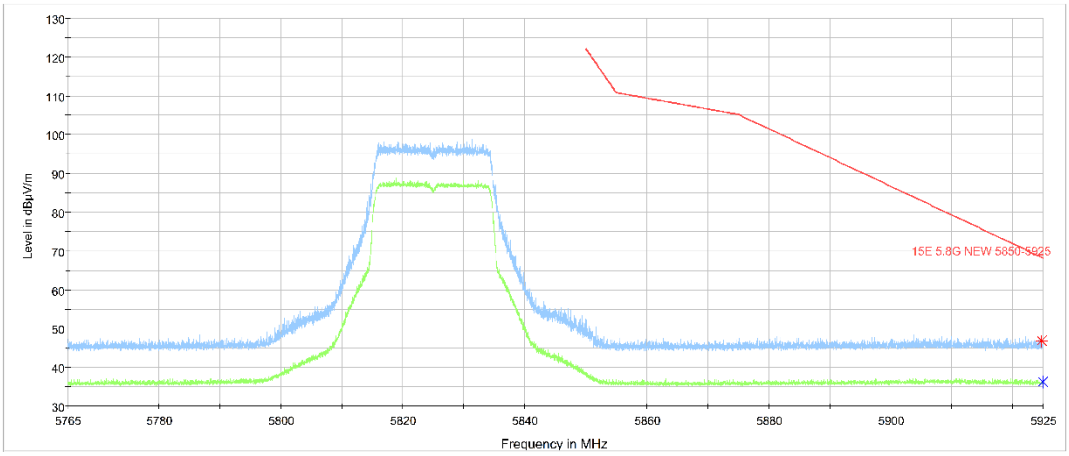


Fig. 14 Band Edges (802.11ax-HT20 ,MIMO, Ch165 full RU, 5825MHz)

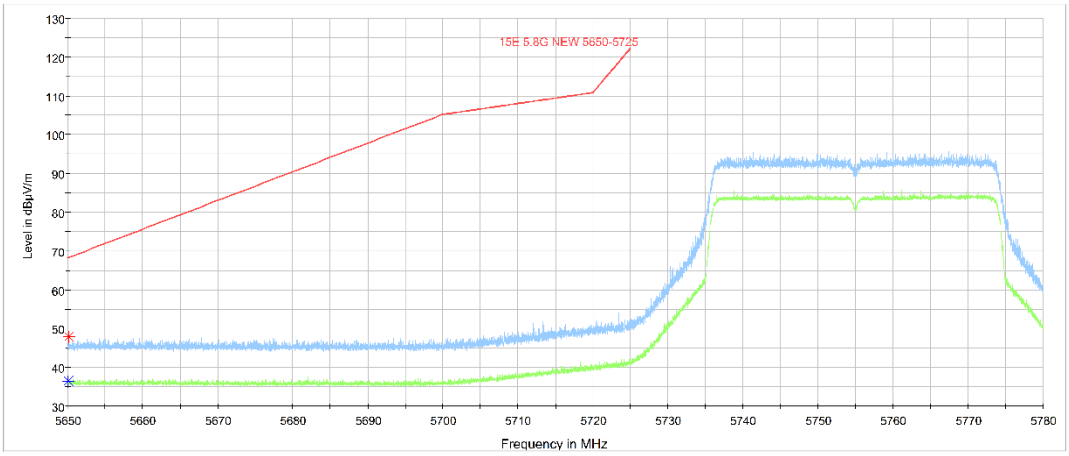


Fig. 15 Band Edges (802.11ax-HT40 ,MIMO, Ch151 full RU, 5755MHz)

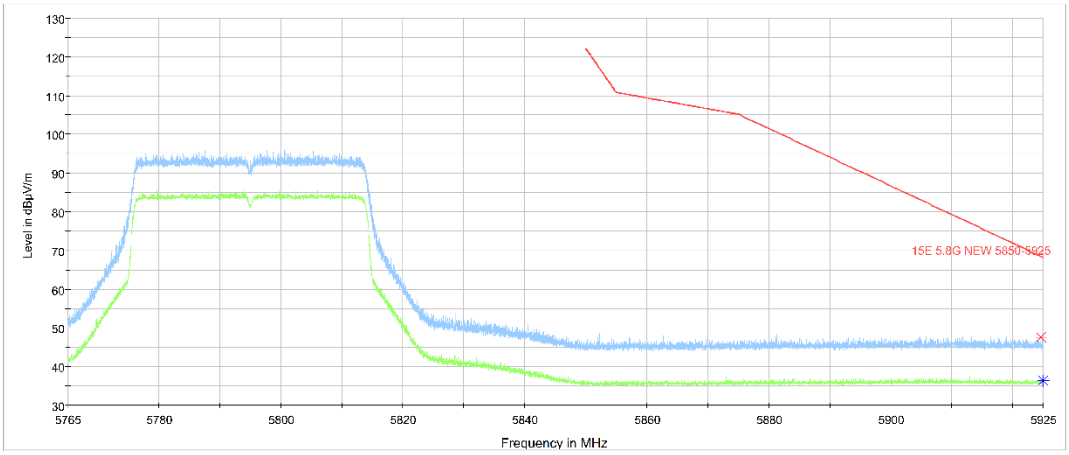


Fig. 16 Band Edges (802.11ax-HT40 ,MIMO, Ch159 full RU, 5795MHz)

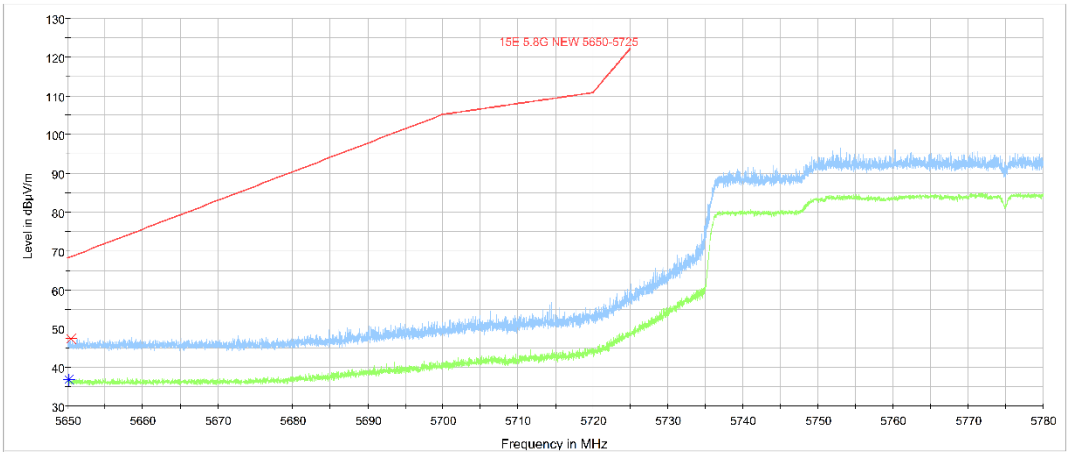


Fig. 17 Band Edges (802.11ax-HT80 ,MIMO, Ch155-L full RU, 5775MHz)

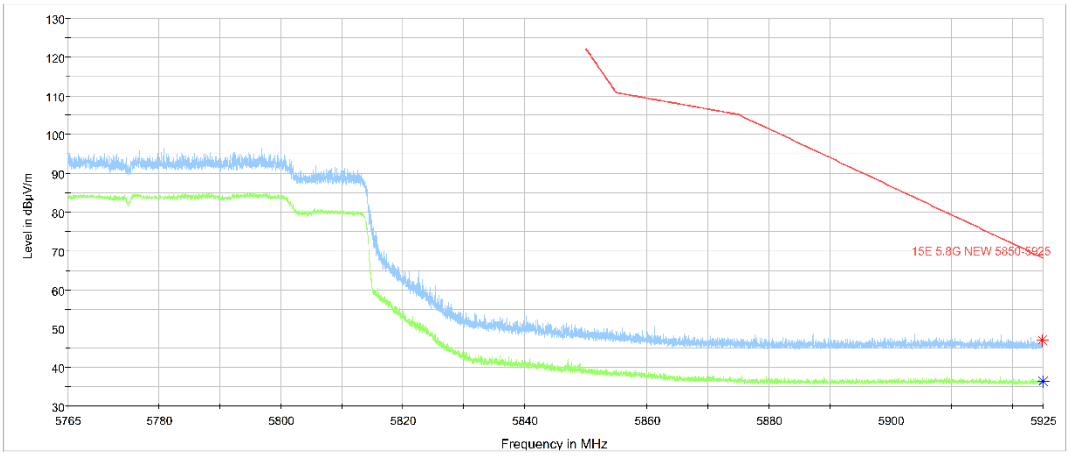


Fig. 18 Band Edges (802.11ax-HT80 ,MIMO, Ch155-R full RU, 5775MHz)

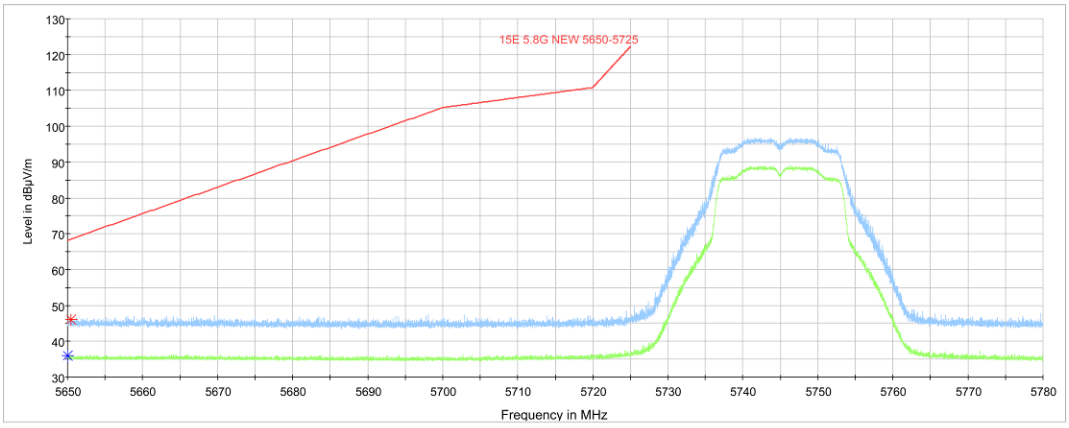


Fig. 19 Band Edges (802.11a, CHAIN A, Ch149,5745MHz)

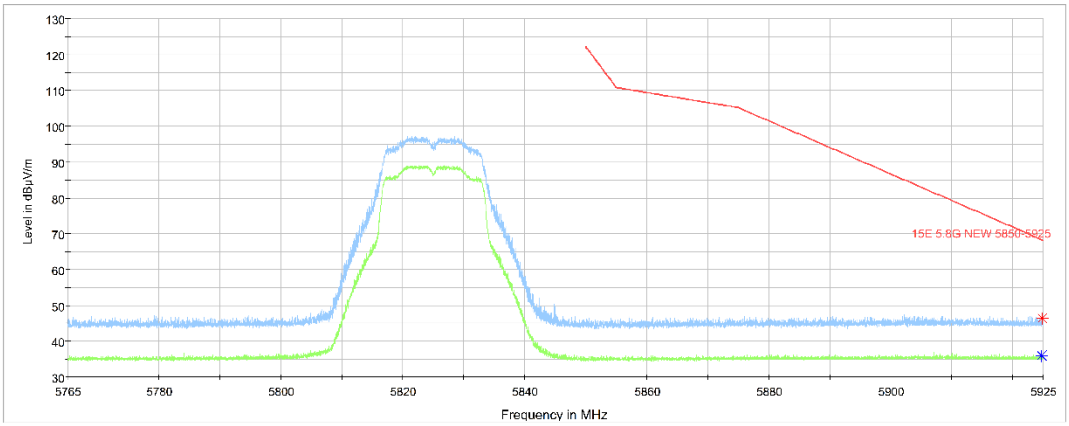


Fig. 20 Band Edges (802.11a, CHAIN A, Ch165, 5825MHz)

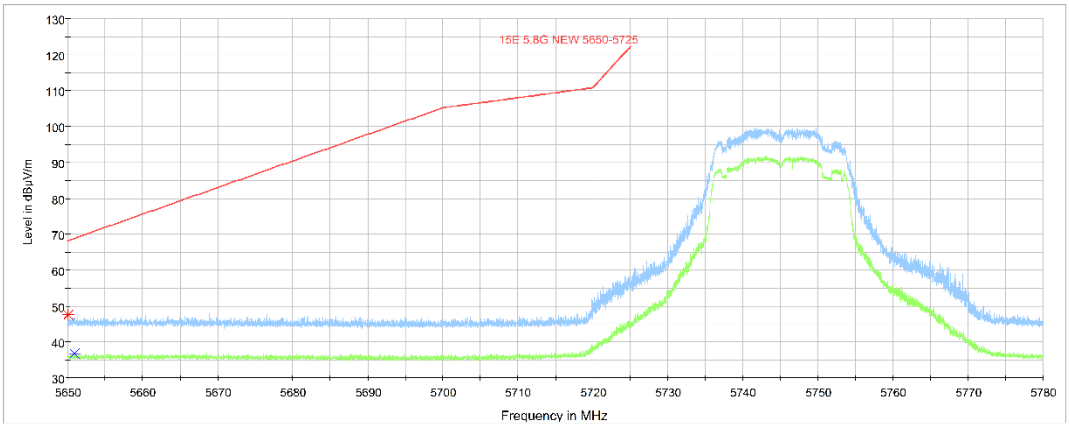


Fig. 21 Band Edges (802.11n-HT20, MIMO, Ch149, 5745MHz)

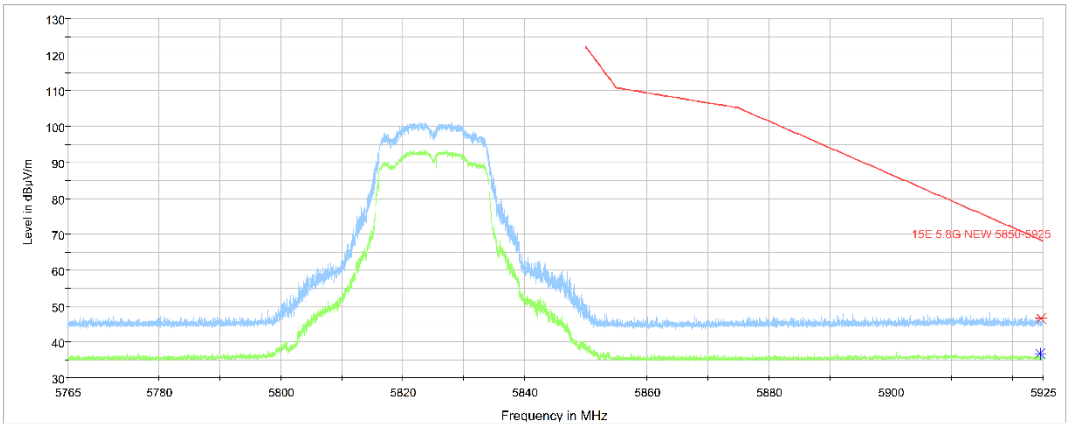


Fig. 22 Band Edges (802.11n-HT20, MIMO, Ch165, 5825MHz)

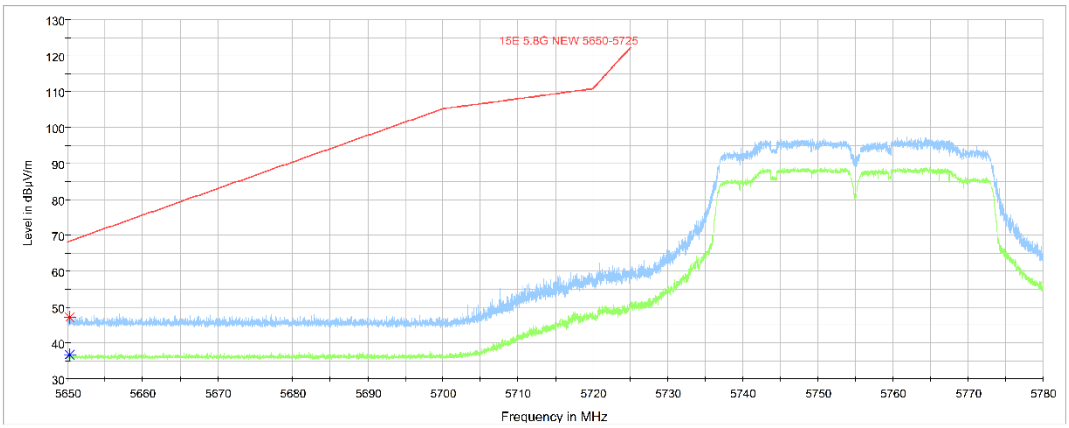


Fig. 23 Band Edges (802.11n-HT40, MIMO, Ch151, 5755MHz)

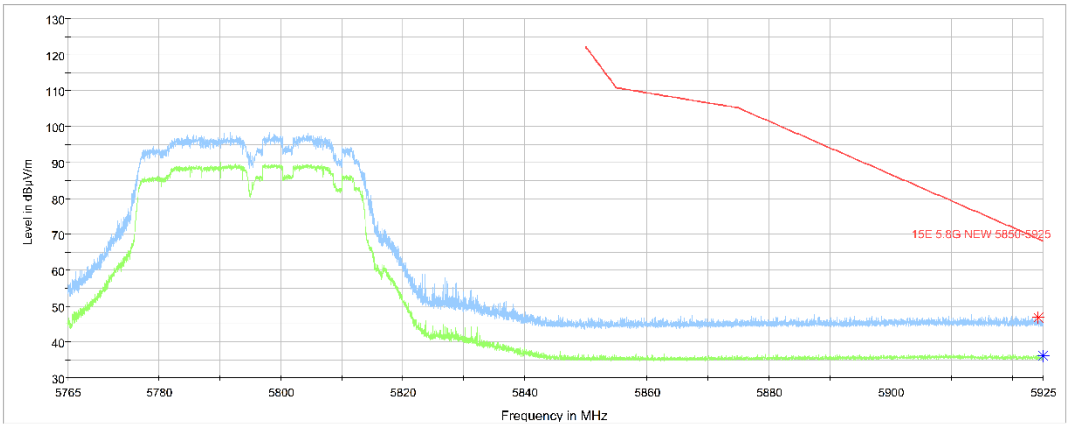


Fig. 24 Band Edges (802.11n-HT40, MIMO, Ch159, 5795MHz)

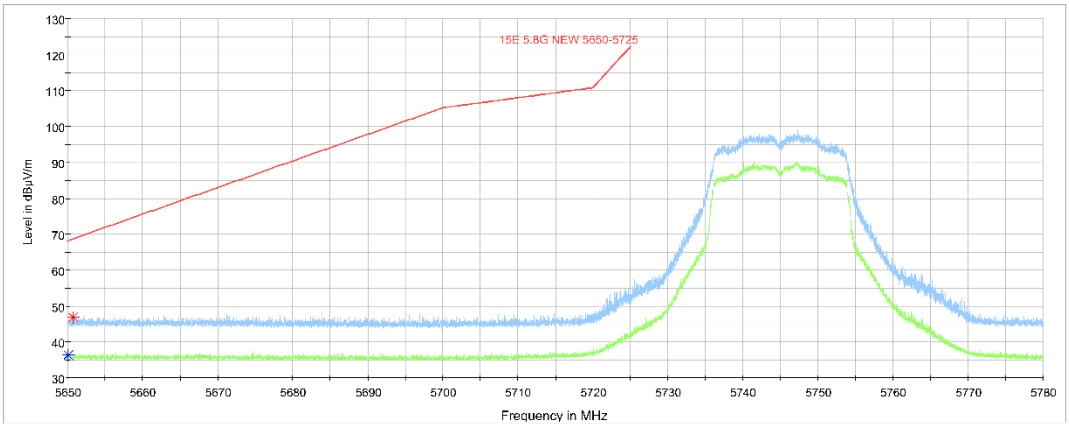


Fig. 25 Band Edges (802.11ac-HT20, MIMO, Ch149, 5745MHz)

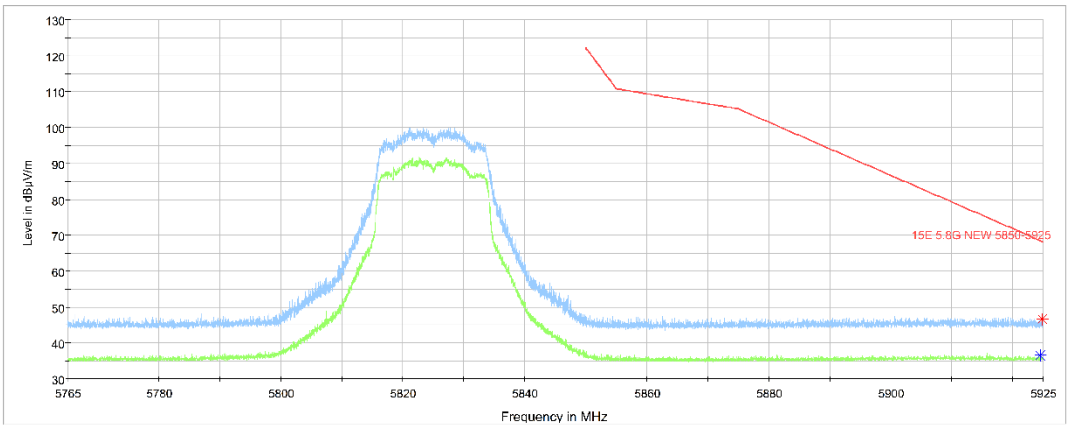


Fig. 26 Band Edges (802.11ac-HT20, MIMO, Ch165, 5825MHz)

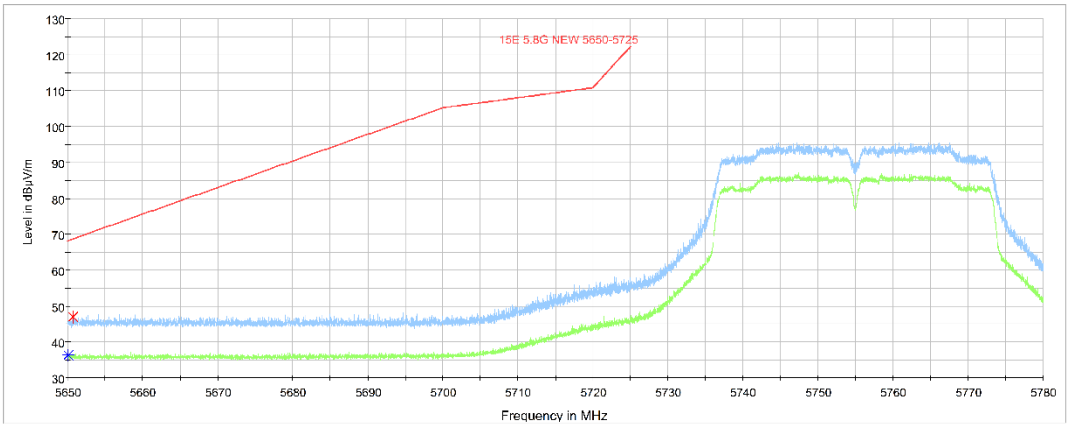


Fig. 27 Band Edges (802.11ac-HT40, MIMO, Ch151, 5755MHz)

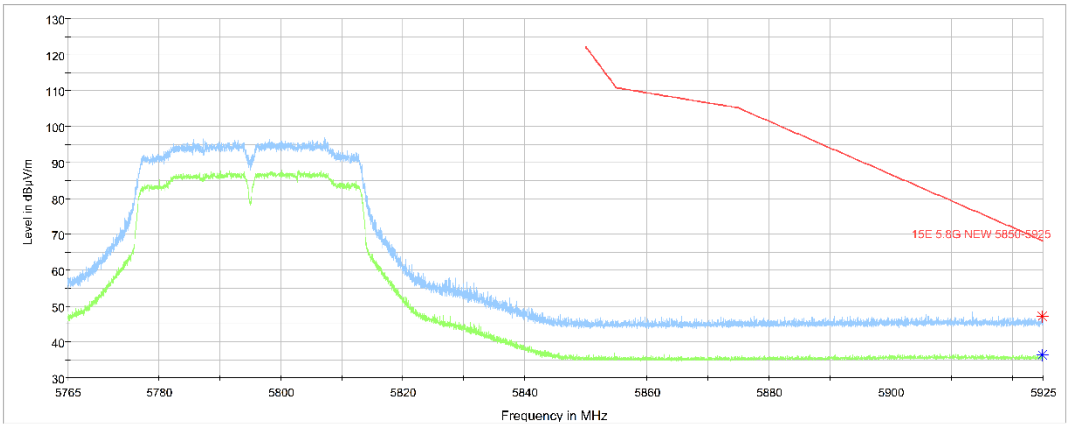


Fig. 28 Band Edges (802.11ac-HT40, MIMO, Ch159, 5795MHz)

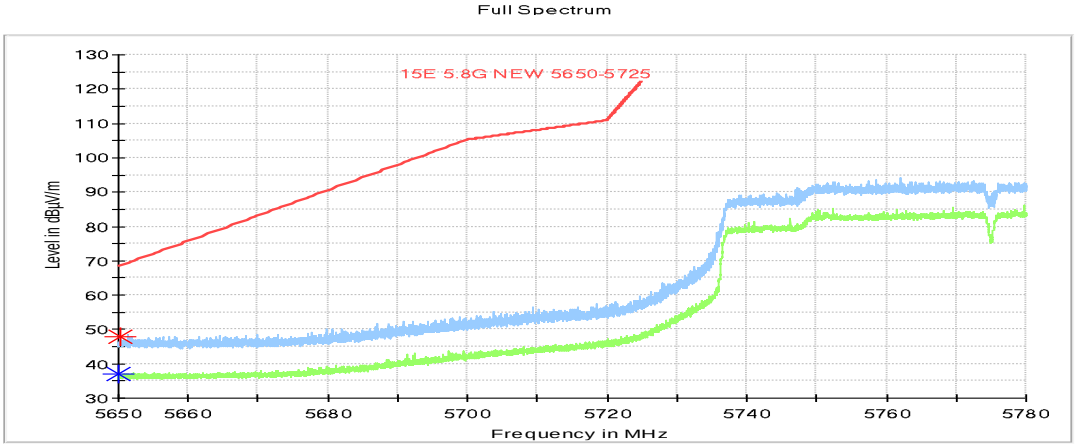


Fig. 29 Band Edges (802.11ac-HT80, MIMO, Ch155-L, 5775MHz)

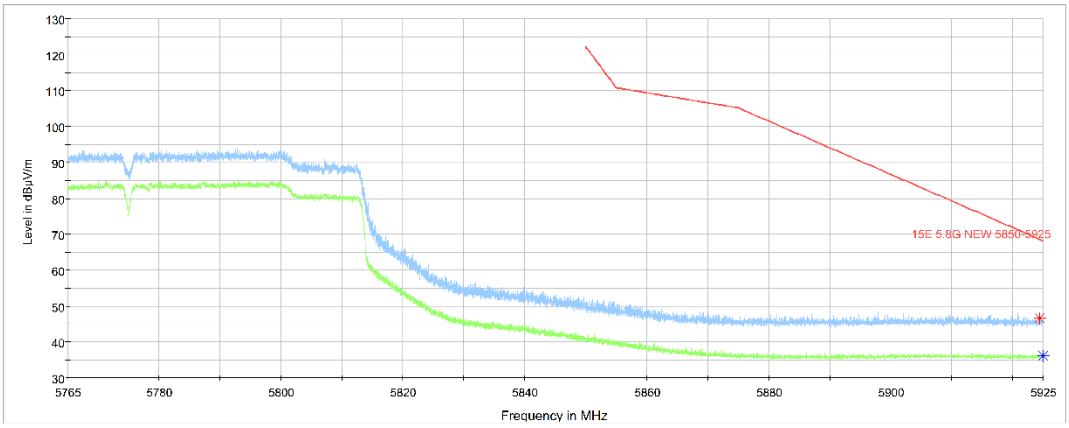


Fig. 30 Band Edges (802.11ac-HT80, MIMO,Ch155-R, 5775MHz)

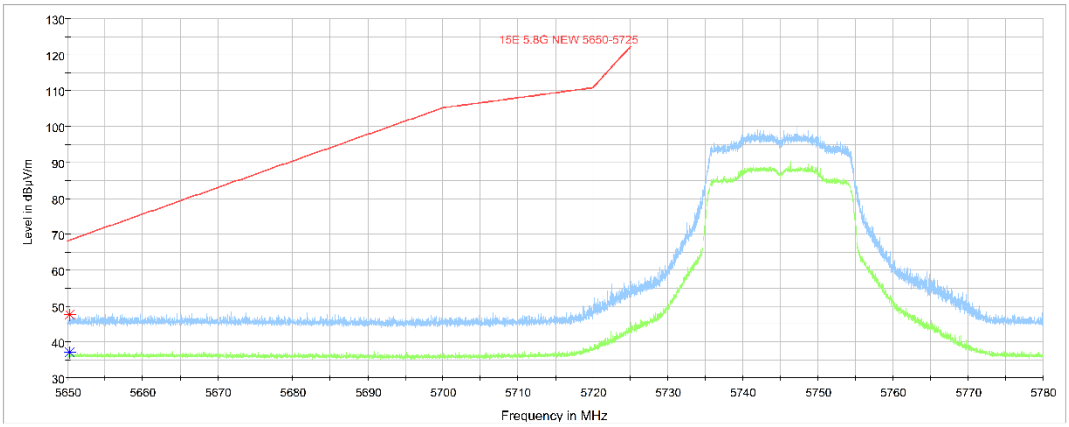


Fig. 31 Band Edges (802.11ax-HT20, MIMO,Ch149 full RU, 5745MHz)

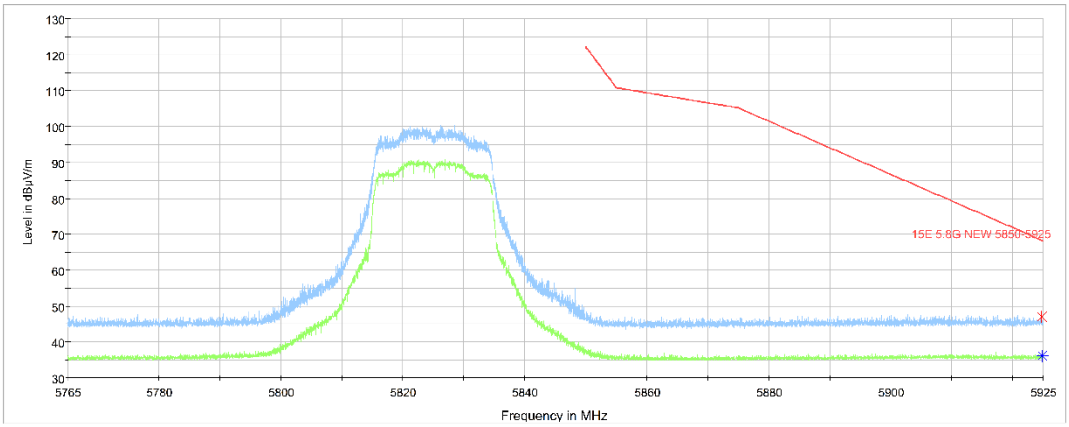


Fig. 32 Band Edges (802.11ax-HT20, MIMO,Ch165 full RU, 5825MHz)

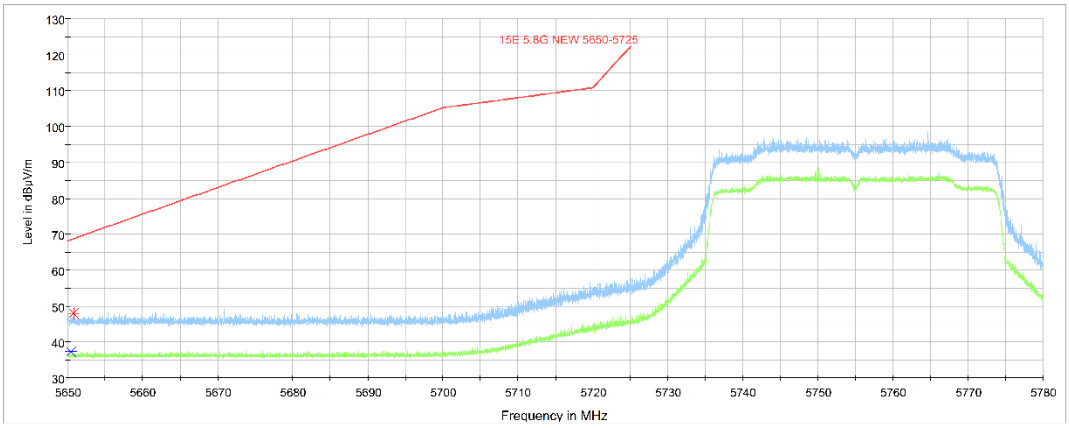


Fig. 33 Band Edges (802.11ax-HT40, MIMO,Ch151 full RU, 5755MHz)

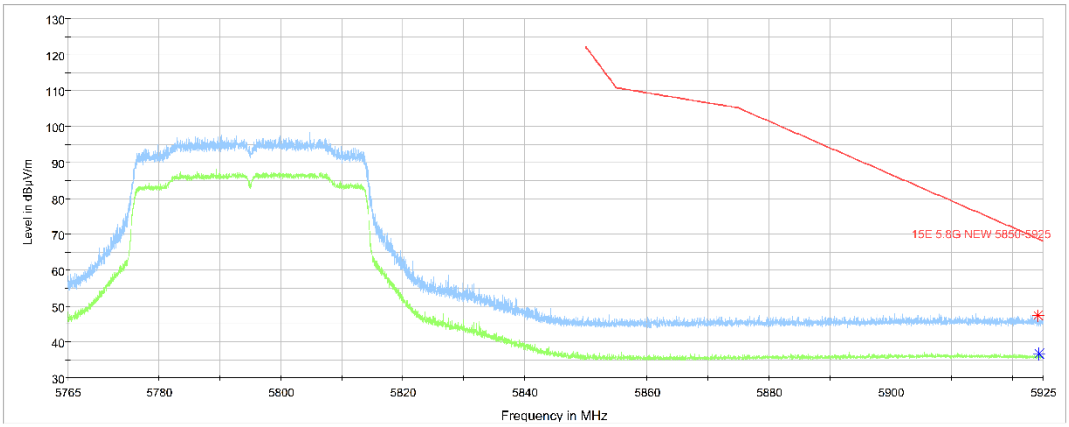


Fig. 34 Band Edges (802.11ax-HT40, MIMO,Ch159 full RU, 5795MHz)

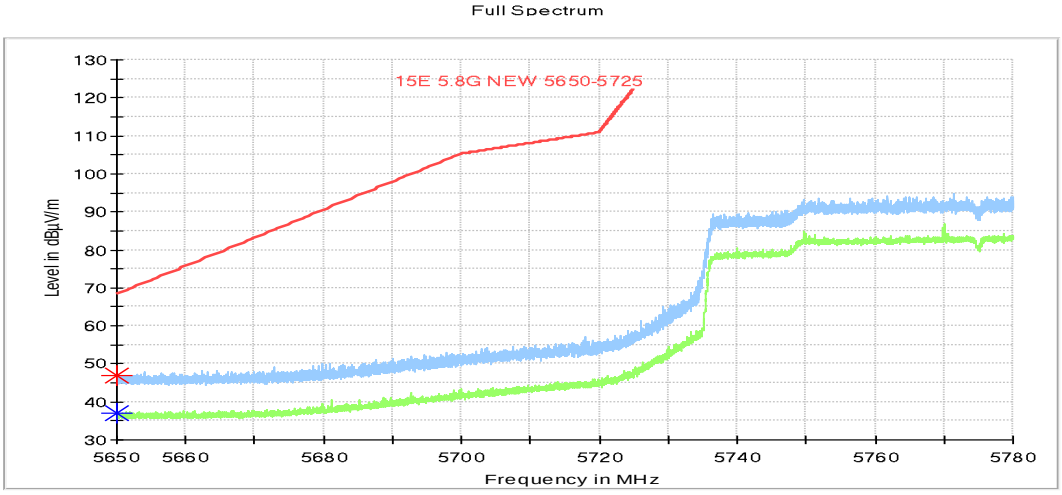


Fig. 35 Band Edges (802.11ax-HT80, MIMO,Ch155-L full RU, 5775MHz)

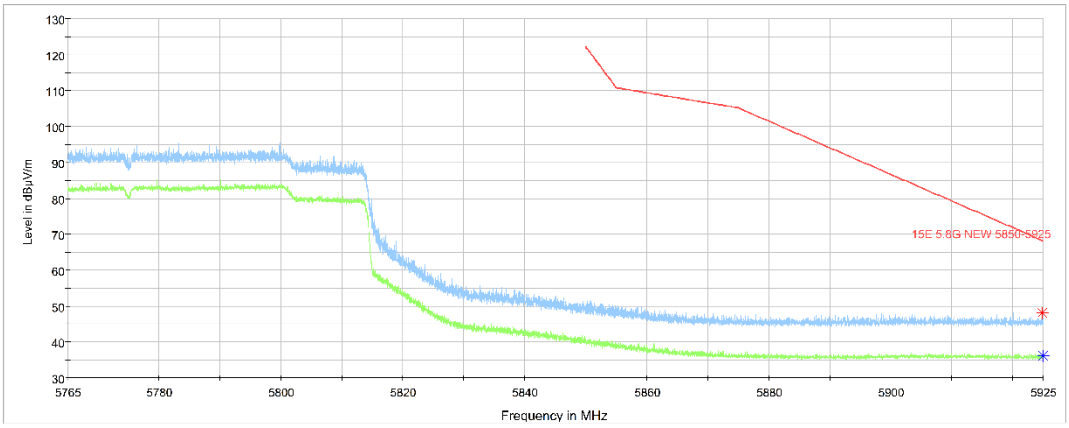


Fig. 36 Band Edges (802.11ax-HT80, MIMO,Ch155-R full RU, 5775MHz)

The measurements were performed separately in Chain A, Chain B, and MIMO (Chain A+B), and only the worst cases are shown in this section.

Conclusion: PASS

C.2. AC Power-line Conducted Emission

Specification Reference

FCC 47 CFR Part 15.207, 15.107

Summary

All AC line conducted spurious emissions are measured with a receiver connected to a grounded LISN while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for conducted spurious emissions. Only the conducted emissions of the configuration that produced the worst case emissions are reported in this section

Method of Measurement

See Clause 6.2 of ANSI C63.10 specifically.

See Clause 4 and Clause 5 of ANSI C63.10 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.

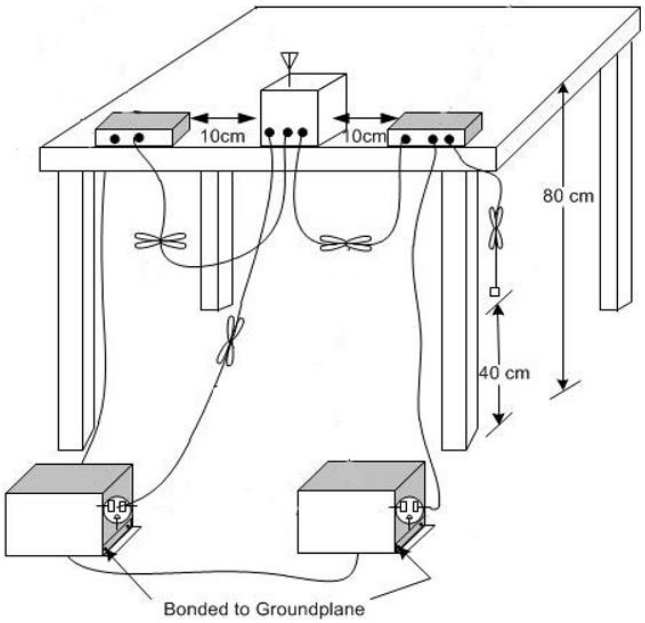
The measurement bandwidth is:

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

Test Condition

Voltage（V）	Frequency（Hz）
120	60

Measurement Setup



Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		EUT 1 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)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		EUT 1 With charger		
		802.11b	Idle	
0.15 to 0.5	67 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 (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		EUT 2 With charger		
		802.11b	Idle	
0.15 to 0.5	68 to 56	Fig.C.2.3	Fig.C.2.4	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)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		EUT 2 With charger		
		802.11b	Idle	
0.15 to 0.5	69 to 56	Fig.C.2.3	Fig.C.2.4	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.				

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

Conclusion: Pass

Test graphs as below:

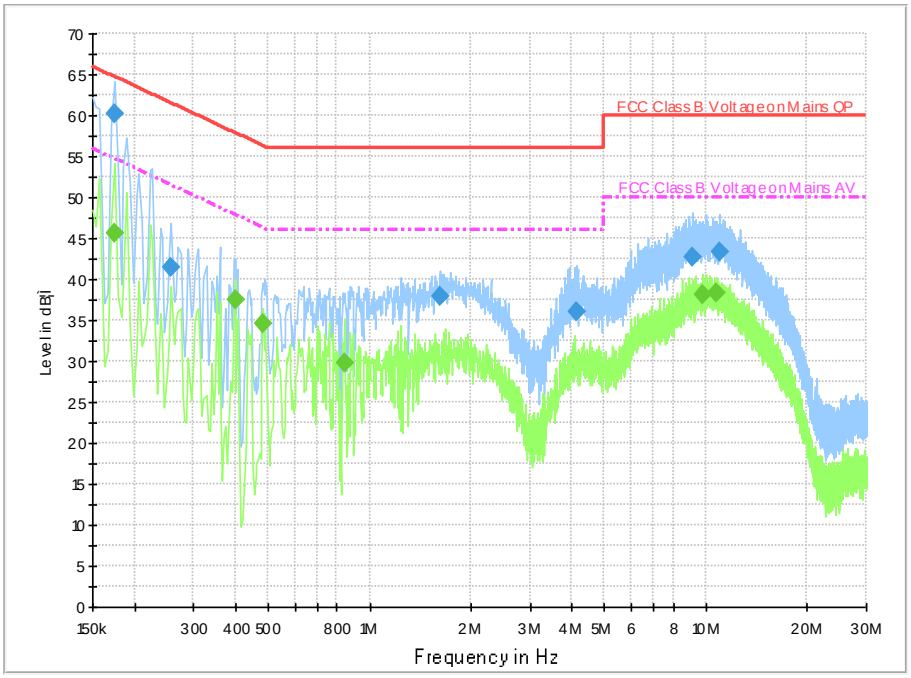


Fig.C.2.1 AC Powerline Conducted Emission-802.11a CH149 Traffic

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	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.174000	60.3	2000.0	9.000	On	L1	19.7	4.5	64.8	
0.258000	41.4	2000.0	9.000	On	N	19.7	20.1	61.5	
1.614000	38.0	2000.0	9.000	On	L1	19.6	18.0	56.0	
4.134000	36.0	2000.0	9.000	On	L1	19.6	20.0	56.0	
9.130000	42.8	2000.0	9.000	On	L1	19.7	17.2	60.0	
10.986000	43.4	2000.0	9.000	On	L1	19.7	16.6	60.0	

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.174000	45.6	2000.0	9.000	On	L1	19.7	9.1	54.8	
0.398000	37.6	2000.0	9.000	On	N	19.6	10.3	47.9	
0.482000	34.6	2000.0	9.000	On	N	19.7	11.7	46.3	
0.842000	29.7	2000.0	9.000	On	L1	19.7	16.3	46.0	
9.790000	38.2	2000.0	9.000	On	L1	19.7	11.8	50.0	
10.738000	38.3	2000.0	9.000	On	L1	19.7	11.7	50.0	

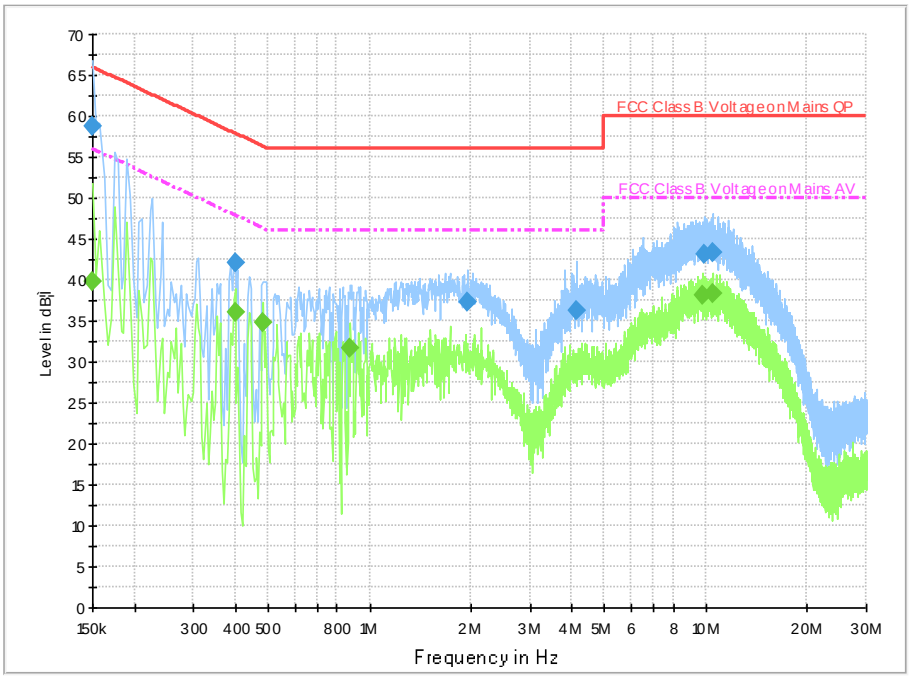


Fig.C.2.2 AC Powerline Conducted Emission-802.11a CH149 Idle

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	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.150000	**58.8**	**2000.0**	**9.000**	**On**	**L1**	**20.0**	**7.2**	**66.0**	
0.398000	**42.1**	**2000.0**	**9.000**	**On**	**N**	**19.6**	**15.8**	**57.9**	
1.966000	**37.3**	**2000.0**	**9.000**	**On**	**L1**	**19.6**	**18.7**	**56.0**	
4.142000	**36.3**	**2000.0**	**9.000**	**On**	**L1**	**19.6**	**19.7**	**56.0**	
9.862000	**43.0**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**17.0**	**60.0**	
10.434000	**43.3**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**16.7**	**60.0**	

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.150000	**39.8**	**2000.0**	**9.000**	**On**	**L1**	**20.0**	**16.2**	**56.0**	
0.398000	**36.1**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**11.8**	**47.9**	
0.482000	**34.7**	**2000.0**	**9.000**	**On**	**N**	**19.7**	**11.6**	**46.3**	
0.878000	**31.6**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**14.4**	**46.0**	
9.814000	**38.1**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**11.9**	**50.0**	
10.498000	**38.3**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**11.7**	**50.0**	

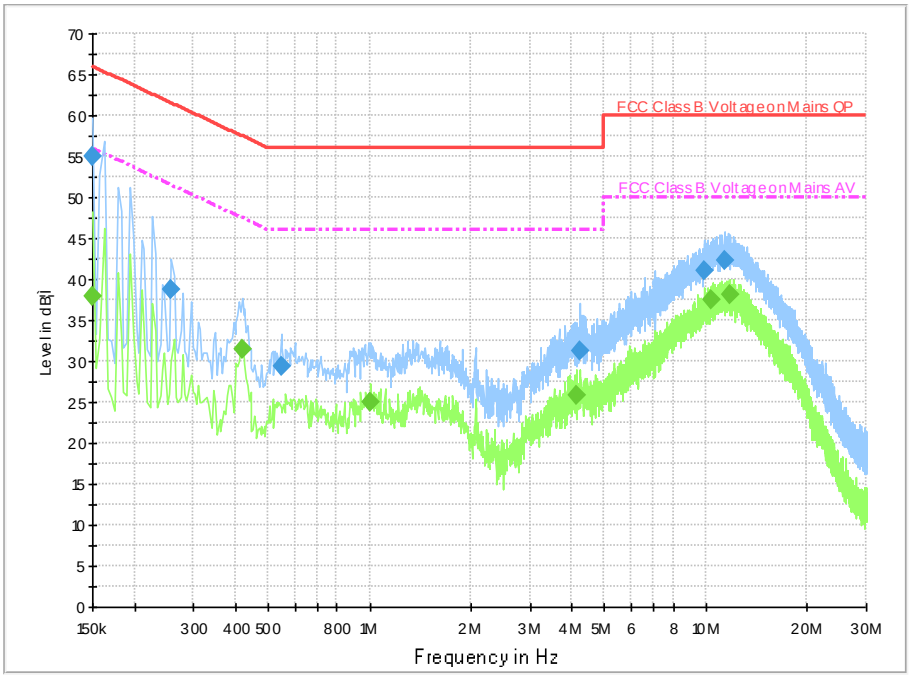


Fig.C.2.3 AC Powerline Conducted Emission-802.11a CH149 Traffic

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	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.150000	**55.0**	**2000.0**	**9.000**	**On**	**L1**	**20.0**	**11.0**	**66.0**	
0.258000	**38.7**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**22.8**	**61.5**	
0.546000	**29.4**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**26.6**	**56.0**	
4.230000	**31.2**	**2000.0**	**9.000**	**On**	**L1**	**19.6**	**24.8**	**56.0**	
9.946000	**41.1**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**18.9**	**60.0**	
11.322000	**42.3**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**17.7**	**60.0**	

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.150000	**37.9**	**2000.0**	**9.000**	**On**	**L1**	**20.0**	**18.1**	**56.0**	
0.418000	**31.5**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**16.0**	**47.5**	
1.010000	**25.1**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**20.9**	**46.0**	
4.114000	**25.8**	**2000.0**	**9.000**	**On**	**L1**	**19.6**	**20.2**	**46.0**	
10.394000	**37.5**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**12.5**	**50.0**	
11.842000	**38.0**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**12.0**	**50.0**	

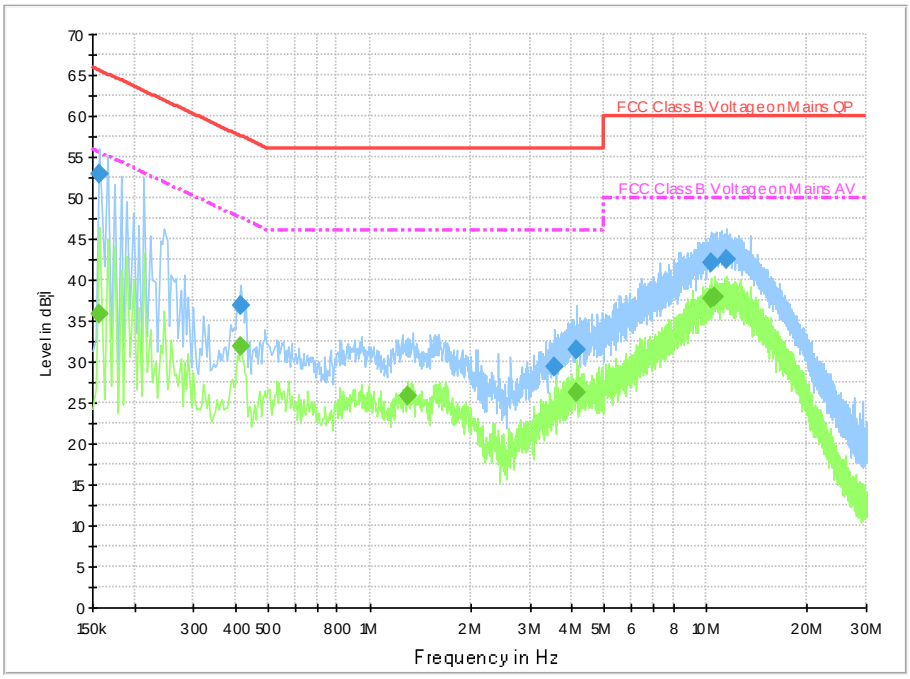


Fig.C.2.4 AC Powerline Conducted Emission-802.11a CH149 Idle

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	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.158000	**53.0**	**2000.0**	**9.000**	**On**	**N**	**19.7**	**12.6**	**65.6**	
0.414000	**36.8**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**20.8**	**57.6**	
3.530000	**29.5**	**2000.0**	**9.000**	**On**	**L1**	**19.6**	**26.5**	**56.0**	
4.122000	**31.4**	**2000.0**	**9.000**	**On**	**L1**	**19.6**	**24.6**	**56.0**	
10.394000	**42.0**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**18.0**	**60.0**	
11.486000	**42.6**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**17.4**	**60.0**	

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.158000	**35.9**	**2000.0**	**9.000**	**On**	**N**	**19.7**	**19.6**	**55.6**	
0.414000	**31.8**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**15.7**	**47.6**	
1.294000	**25.9**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**20.1**	**46.0**	
4.122000	**26.4**	**2000.0**	**9.000**	**On**	**L1**	**19.6**	**19.6**	**46.0**	
10.394000	**37.7**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**12.3**	**50.0**	
10.622000	**38.0**	**2000.0**	**9.000**	**On**	**L1**	**19.7**	**12.0**	**50.0**	

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