TESTING
NVLAP LAB CODE 600118-0

FCC PART 15
TEST REPORT
No. I22Z70452-EMC11

for

Samsung Electronics Co., Ltd.

Notebook PC

Model Name: NP750XFH, NP754XFH, NP750XFS, NP754XFS

With

FCC ID: ZCANP750XFH

Hardware Version: REV1.0

Software Version: Windows 11

Issued Date: 2022-12-07

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.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S.Government.

Test Laboratory:

CTTL-Telecommunication Technology Labs, CAICT

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I22Z70452-EMC11	Rev.0	1st edition	2022-12-07

CONTENTS

1. TEST LATORATORY

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

Location1: CTTL(BDA)

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

Location2: CTTL (Huayuan North Road)

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

1.3. TestingEnvironment

Normal Temperature: 15-35℃

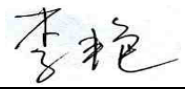
Relative Humidity: 20-75%

1.4. Project date

Testing Start Date: 2022-11-01

Testing End Date: 2022-12-07

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.
Address:	Samsung R5, Maetan dong 129, Samsung ro Youngtong gu, Suwon city 443 742, Korea
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Fax:	/

3. PRODUCT INFORMATION

3.1. About EUT

Description	Notebook PC
Model name	NP750XFH, NP754XFH, NP750XFS, NP754XFS
FCC ID	ZCANP750XFH

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	2270452UT23a	REV1.0	Windows 11
EUT2	2270452UT13a	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	Data Cable	/	/
AE3	battery	/	Inbuilt

AE1

Model	EP-TA865
Manufacturer	SOLU-M
Length of cable	/

AE2

Model	/
Manufacturer	/
Length of cable	/

AE3

Model	/
Manufacturer	/

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

3.4. General Description

Te 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.

Antenna information

Item	Spec.	Vendor	Vendor P/N	Sample under test
Antenna	Main antenna (Chain A)	INNOWAVE	/	EUT1
	Auxiliary antenna (Chain B)			
Antenna	Main antenna (Chain A)	SPEED	/	EUT2
	Auxiliary antenna (Chain B)			

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

Samples undergoing test were selected by the Client.

The differences in the model names are only for different marketing purposes.

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	2020
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	2020
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.

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	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Test Receiver	ESU26	100376	R&S	1 year	2023-09-22
2	Test Receiver	ESW44	103015	R&S	1 year	2023-02-23
3	Test Receiver	ESU26	100235	R&S	1 year	2023-03-08
4	Loop Antenna	HFH2-Z2	829324/007	R&S	1 year	2022-12-22
5	EMI Antenna	VULB9163	01223	Schwarzbeck	1 year	2023-07-25
6	EMI Antenna	3117	00119024	ETS-Lindgren	1 year	2023-06-07
7	EMI Antenna	3115	00167252	ETS-Lindgren	1 year	2022-12-26
8	EMI Antenna	LB-180400 -25-C-KF	J211060826	A-INFO	1 year	2023-02-27

AC Power Line Conducted Emission

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	LISN	ENV216	101459	R&S	1 year	2023-03-26
2	Test Receiver	ESCI	100766	R&S	1 year	2023-03-02

Test Software

Test Item	Test Software and Version	Software Vendor
Radiated Continuous Emission	EMC32 V8.53.0	R&S
	EMC32 V10.60.20	R&S
Conducted Emission	EMC32 V8.53.0	R&S

7. Measurement Uncertainty

Radiated Spurious Emission

(k=2)

Frequency Range	Uncertainty(dB)
9kHz-30MHz	4.92
30MHz ≤ f ≤ 1GHz	5.15
1GHz ≤ f ≤18GHz	5.54
18GHz ≤ f ≤40GHz	5.26

AC Power-line Conducted Emission

Measurement Uncertainty: 310dB, 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

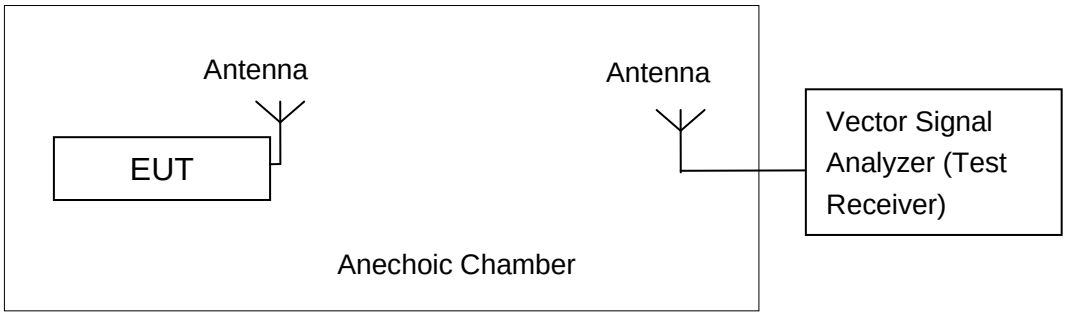
C.1. Radiated Spurious Emission

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

Test settings

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

Sample Calculation

1. 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

2. The measurement results are obtained as described below:
Result=P_{Mea}+$A_{Rpl=}$ P_{Mea}+Cable Loss+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.
For EUT1 with INNOWAVE antenna 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.
For EUT2 with SPEED antenna 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.

C.1.1 Radiated Spurious Emission- above 1GHz

INNOWAVE

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)
5451.100	39.70	-25.38	34.38	30.69	54.00	14.30	V
5455.550	39.74	-25.35	34.38	30.71	54.00	14.26	V
11490.400	33.22	-32.54	38.20	27.56	54.00	20.78	H
17780.250	36.64	-26.48	41.54	21.57	54.00	17.36	H
17875.750	36.85	-26.29	41.52	21.61	54.00	17.15	H
17837.650	36.64	-26.38	41.53	21.48	54.00	17.36	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)
5450.350	39.76	-25.38	34.38	30.76	54.00	14.24	V
5455.750	39.74	-25.35	34.38	30.71	54.00	14.26	V
11570.400	33.26	-32.29	38.27	27.28	54.00	20.74	H
17769.650	36.43	-26.49	41.55	21.38	54.00	17.57	V
17864.250	36.58	-26.31	41.53	21.37	54.00	17.42	H
17974.550	36.77	-26.06	41.51	21.32	54.00	17.23	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)
5451.300	39.70	-25.38	34.38	30.70	54.00	14.30	V
5457.650	39.80	-25.34	34.38	30.76	54.00	14.20	V
11650.250	33.45	-32.11	38.35	27.20	54.00	20.55	H
17770.450	36.66	-26.49	41.55	21.60	54.00	17.34	V
17874.500	36.79	-26.29	41.52	21.55	54.00	17.21	V
17962.750	36.60	-26.08	41.51	21.18	54.00	17.40	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)
5455.600	39.93	-25.35	34.38	30.90	54.00	14.07	V
5457.450	40.06	-25.34	34.38	31.02	54.00	13.94	V
11490.400	33.22	-32.54	38.20	27.56	54.00	20.78	V
17765.750	36.63	-26.50	41.55	21.58	54.00	17.37	V
17862.650	36.83	-26.32	41.53	21.62	54.00	17.17	H
17892.750	36.59	-26.25	41.52	21.32	54.00	17.41	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)
5449.050	39.79	-25.39	34.38	30.80	54.00	14.21	V
5453.900	39.99	-25.36	34.38	30.97	54.00	14.01	V
11570.400	33.26	-32.29	38.27	27.28	54.00	20.74	V
17769.650	36.23	-26.49	41.55	21.18	54.00	17.77	V
17865.650	36.62	-26.31	41.53	21.41	54.00	17.38	H
17984.250	36.55	-26.04	41.50	21.08	54.00	17.45	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)
5451.150	39.89	-25.38	34.38	30.89	54.00	14.11	V
5453.400	39.87	-25.36	34.38	30.85	54.00	14.13	V
11650.250	33.45	-32.11	38.35	27.20	54.00	20.55	V
17770.450	36.76	-26.49	41.55	21.70	54.00	17.24	V
17884.450	36.65	-26.27	41.52	21.39	54.00	17.35	V
17958.250	36.40	-26.10	41.51	20.98	54.00	17.60	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)
5451.450	40.00	-25.37	34.38	31.00	54.00	14.00	V
5455.800	39.90	-25.35	34.38	30.87	54.00	14.10	V
11510.000	33.15	-32.50	38.21	27.44	54.00	20.85	H
15955.750	36.43	-27.67	40.65	23.45	54.00	17.57	V
17765.200	36.72	-26.50	41.55	21.67	54.00	17.28	V
17896.850	37.65	-26.24	41.52	22.37	54.00	16.35	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)
5458.250	39.81	-25.34	34.38	30.76	54.00	14.19	V
5459.550	39.93	-25.33	34.38	30.88	54.00	14.07	V
11590.400	33.25	-32.23	38.29	27.19	54.00	20.75	H
16026.500	36.74	-27.86	40.74	23.86	54.00	17.26	V
17784.750	36.01	-26.47	41.54	20.94	54.00	17.99	H
17885.250	37.18	-26.26	41.52	21.92	54.00	16.82	V

802.11ac-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)
5447.100	39.86	-25.40	34.38	30.88	54.00	14.14	V
5450.350	40.01	-25.38	34.38	31.00	54.00	13.99	V
11490.400	33.22	-32.54	38.20	27.56	54.00	20.78	V
17765.750	36.54	-26.50	41.55	21.49	54.00	17.46	H
17865.350	36.75	-26.31	41.53	21.53	54.00	17.25	V
17889.650	36.64	-26.25	41.52	21.37	54.00	17.36	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)
5453.050	39.85	-25.37	34.38	30.83	54.00	14.15	V
5456.500	39.95	-25.35	34.38	30.92	54.00	14.05	V
11570.400	33.26	-32.29	38.27	27.28	54.00	20.74	H
17769.650	36.03	-26.49	41.55	20.98	54.00	17.97	H
17890.350	36.45	-26.25	41.52	21.18	54.00	17.55	V
17975.650	36.39	-26.06	41.50	20.94	54.00	17.61	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)
5452.150	39.96	-25.37	34.38	30.95	54.00	14.04	V
5458.400	39.88	-25.34	34.38	30.84	54.00	14.12	V
11650.250	33.45	-32.11	38.35	27.20	54.00	20.55	V
17770.150	36.56	-26.49	41.55	21.50	54.00	17.44	V
17893.250	36.85	-26.25	41.52	21.57	54.00	17.15	V
17974.750	36.60	-26.06	41.50	21.15	54.00	17.40	H

802.11ac-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)
5452.400	40.15	-25.37	34.38	31.14	54.00	13.85	V
5455.150	39.96	-25.36	34.38	30.93	54.00	14.04	V
11510.400	33.25	-32.50	38.21	27.54	54.00	20.75	V
15955.200	36.57	-27.67	40.65	23.60	54.00	17.43	H
17782.350	36.79	-26.48	41.54	21.72	54.00	17.21	V
17854.650	37.30	-26.34	41.53	22.11	54.00	16.70	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)
5456.000	39.95	-25.35	34.38	30.92	54.00	14.05	V
5458.350	39.94	-25.34	34.38	30.89	54.00	14.06	V
11590.000	33.25	-32.23	38.29	27.19	54.00	20.75	H
16026.350	36.54	-27.86	40.74	23.66	54.00	17.46	V
17776.000	36.71	-26.48	41.54	21.65	54.00	17.29	V
17889.650	37.03	-26.25	41.52	21.76	54.00	16.97	H

802.11ac-HT80

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)
5452.150	40.09	-25.37	34.56	30.90	54.00	13.91	V
5457.450	40.15	-25.34	34.57	30.92	54.00	13.85	V
11550.350	34.62	-32.36	38.54	28.44	54.00	19.38	H
17375.450	36.56	-26.82	41.32	22.06	54.00	17.44	H
17975.500	36.69	-26.06	41.30	21.45	54.00	17.31	H
17464.750	36.88	-26.75	41.23	22.40	54.00	17.12	H

802.11ax-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)
5450.400	40.0	-25.4	34.4	30.99	54.0	14.0	V
5453.100	39.9	-25.4	34.4	30.88	54.0	14.1	V
11490.400	33.2	-32.5	38.2	27.56	54.0	20.8	V
17765.750	36.7	-26.5	41.5	21.69	54.0	17.3	V
17886.450	36.7	-26.3	41.5	21.39	54.0	17.4	V
17892.450	36.7	-26.2	41.5	21.47	54.0	17.3	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)
5450.050	39.9	-25.4	34.4	30.93	54.0	14.1	V
5456.350	39.8	-25.3	34.4	30.81	54.0	14.2	V
11570.400	33.3	-32.3	38.3	27.28	54.0	20.7	V
17769.650	36.2	-26.5	41.5	21.10	54.0	17.9	H
17886.650	36.4	-26.3	41.5	21.09	54.0	17.6	V
17994.250	36.3	-26.1	41.5	20.88	54.0	17.7	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)
5457.850	39.4	-25.3	34.4	30.36	54.0	14.6	V
5458.750	39.8	-25.3	34.4	30.76	54.0	14.2	V
11650.250	33.2	-32.1	38.4	27.00	54.0	20.8	H
17770.150	36.5	-26.5	41.5	21.40	54.0	17.5	H
17898.150	36.6	-26.2	41.5	21.36	54.0	17.4	V
17958.250	36.8	-26.1	41.5	21.38	54.0	17.2	V

802.11ax-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)
5455.150	40.0	-25.4	34.4	30.95	54.0	14.0	V
5458.000	39.9	-25.3	34.4	30.81	54.0	14.1	V
11510.400	33.2	-32.5	38.2	27.54	54.0	20.8	H
15955.200	36.6	-27.7	40.6	23.65	54.0	17.4	V
17798.750	36.9	-26.5	41.5	21.83	54.0	17.1	V
17862.450	37.5	-26.3	41.5	22.33	54.0	16.5	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)
5432.900	39.8	-25.5	34.4	30.94	54.0	14.2	V
5450.100	39.9	-25.4	34.4	30.94	54.0	14.1	V
11590.000	33.4	-32.2	38.3	27.29	54.0	20.6	H
16026.000	36.5	-27.9	40.7	23.66	54.0	17.5	H
17794.000	36.6	-26.5	41.5	21.51	54.0	17.4	V
17764.250	37.2	-26.5	41.5	22.18	54.0	16.8	V

802.11ax-HT80

Ch155

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)
5452.150	40.1	-25.4	34.6	30.90	54.0	13.9	V
5457.450	40.1	-25.3	34.6	30.92	54.0	13.9	V
11550.350	34.6	-32.4	38.5	28.44	54.0	19.4	H
17375.450	36.6	-26.8	41.3	22.06	54.0	17.4	H
17975.500	36.7	-26.1	41.3	21.45	54.0	17.3	H
17464.750	36.9	-26.8	41.2	22.40	54.0	17.1	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)
5650.098	54.73	-24.77	34.68	44.83	68.27	13.54	H
5650.426	54.68	-24.77	34.68	44.77	68.51	13.84	H
11490.500	44.68	-32.54	38.20	39.02	68.30	23.62	H
16735.450	51.26	-27.39	41.83	36.82	68.30	17.04	V
17079.780	51.28	-26.99	42.10	36.16	68.30	17.02	H
17243.750	50.42	-26.91	41.91	35.42	68.30	17.88	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)
5765.000	56.06	-24.75	34.89	45.93	68.30	12.24	H
5803.800	57.42	-24.82	34.96	47.29	68.30	10.88	V
11569.950	45.34	-32.30	38.27	39.37	68.30	22.96	V
16873.250	50.72	-27.22	42.02	35.91	68.30	17.58	V
17145.650	50.45	-26.94	42.02	35.37	68.30	17.85	V
17362.750	49.17	-26.83	41.76	34.24	68.30	19.13	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)
5924.816	54.35	-25.21	35.17	44.39	68.30	13.95	H
5924.960	55.13	-25.21	35.17	45.17	68.23	13.10	V
11779.750	46.49	-31.98	38.48	39.99	68.30	21.81	V
16648.850	50.29	-27.53	41.71	36.11	68.30	18.01	H
16950.250	50.34	-27.13	42.13	35.34	68.30	17.96	H
17492.450	48.95	-26.74	41.61	34.08	68.30	19.35	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)
5650.426	54.87	-24.77	34.68	44.96	68.51	13.65	H
5650.517	53.89	-24.77	34.68	43.98	68.58	14.70	H
11490.500	44.58	-32.54	38.20	38.92	68.30	23.72	H
16735.450	51.16	-27.39	41.83	36.72	68.30	17.14	V
17082.540	51.18	-26.98	42.10	36.06	68.30	17.12	H
17250.650	50.52	-26.90	41.90	35.53	68.30	17.77	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)
5764.200	56.19	-24.75	34.89	46.06	68.30	12.11	H
5804.400	57.74	-24.83	34.96	47.61	68.30	10.56	V
11569.950	45.34	-32.30	38.27	39.37	68.30	22.96	H
16873.550	50.52	-27.21	42.02	35.71	68.30	17.78	V
17150.450	50.25	-26.94	42.02	35.17	68.30	18.05	H
17365.250	49.34	-26.83	41.76	34.41	68.30	18.96	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)
5923.948	54.50	-25.21	35.17	44.54	68.98	14.48	H
5924.322	54.54	-25.21	35.17	44.58	68.70	14.17	H
11779.750	46.39	-31.98	38.48	39.89	68.30	21.91	H
16648.850	50.49	-27.53	41.71	36.31	68.30	17.81	H
16978.450	50.54	-27.10	42.17	35.47	68.30	17.76	V
17488.750	49.25	-26.74	41.61	34.38	68.30	19.05	H

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)
5650.115	54.56	-24.77	34.68	44.65	68.29	13.73	H
5650.172	54.45	-24.77	34.68	44.55	68.33	13.88	H
11510.000	43.65	-32.50	38.21	37.94	68.30	24.65	V
17265.750	47.72	-26.90	41.88	32.74	68.30	20.58	V
17562.650	50.46	-26.70	41.59	35.57	68.30	17.84	V
17595.350	50.45	-26.69	41.58	35.56	68.30	17.85	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)
5924.626	54.19	-25.21	35.17	44.23	68.48	14.29	H
5924.776	54.06	-25.21	35.17	44.10	68.37	14.31	H
11589.750	43.72	-32.23	38.29	37.66	68.30	24.58	V
17385.100	47.25	-26.81	41.74	32.32	68.30	21.05	V
17554.650	50.24	-26.71	41.59	35.36	68.30	18.05	H
17692.350	50.61	-26.59	41.56	35.64	68.30	17.69	H

802.11ac-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)
5650.161	53.93	-24.77	34.68	44.03	68.32	14.39	V
5650.259	53.63	-24.77	34.68	43.72	68.39	14.77	H
11490.500	44.58	-32.54	38.20	38.92	68.30	23.72	H
16735.450	51.06	-27.39	41.83	36.62	68.30	17.24	V
17085.650	51.38	-26.98	42.10	36.26	68.30	16.92	H
17255.450	50.73	-26.90	41.89	35.73	68.30	17.57	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)
5764.000	56.88	-24.75	34.88	46.75	68.30	11.42	V
5805.000	56.71	-24.83	34.96	46.59	68.30	11.59	V
11569.950	45.23	-32.30	38.27	39.26	68.30	23.07	V
16873.550	50.36	-27.21	42.02	35.55	68.30	17.94	H
17138.850	50.45	-26.94	42.03	35.36	68.30	17.85	V
17374.500	49.64	-26.82	41.75	34.71	68.30	18.66	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)
5924.856	53.98	-25.21	35.17	44.02	68.31	14.33	H
5924.977	55.07	-25.21	35.17	45.11	68.30	13.23	H
11779.750	46.49	-31.98	38.48	39.99	68.30	21.81	H
16648.850	50.59	-27.53	41.71	36.41	68.30	17.71	V
16991.750	50.64	-27.08	42.19	35.53	68.30	17.66	V
17548.750	50.35	-26.71	41.59	35.47	68.30	17.95	H

802.11ac-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)
5650.242	54.33	-24.77	34.68	44.42	68.38	14.05	H
5650.356	53.75	-24.77	34.68	43.84	68.46	14.72	H
11510.000	43.65	-32.50	38.21	37.94	68.30	24.65	V
17265.750	47.92	-26.90	41.88	32.94	68.30	20.38	H
17554.450	50.54	-26.71	41.59	35.66	68.30	17.76	H
17585.750	50.64	-26.69	41.58	35.75	68.30	17.66	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)
5924.583	54.09	-25.21	35.17	44.13	68.51	14.42	V
5924.597	54.38	-25.21	35.17	44.42	68.50	14.12	V
11589.350	43.52	-32.23	38.29	37.46	68.30	24.78	V
17385.150	47.45	-26.81	41.74	32.52	68.30	20.85	H
17572.250	50.34	-26.70	41.59	35.46	68.30	17.95	H
17688.650	50.41	-26.60	41.56	35.45	68.30	17.89	H

802.11ac-HT80

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)
5650.236	57.30	-24.77	34.79	47.28	68.30	11.00	V
5924.862	54.09	-25.21	35.11	44.18	68.30	14.21	V
11550.350	44.38	-32.36	38.54	38.20	68.30	23.92	H
17325.150	50.79	-26.86	41.37	36.28	68.30	17.51	H
16979.500	51.15	-27.10	41.69	36.56	68.30	17.15	V
17251.550	50.88	-26.90	41.45	36.34	68.30	17.42	H

802.11ax-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)
5650.069	54.8	-24.8	34.7	44.89	68.3	13.5	V
5650.253	54.2	-24.8	34.7	44.34	68.4	14.1	H
11490.500	44.4	-32.5	38.2	38.72	68.3	23.9	H
16735.750	51.2	-27.4	41.8	36.72	68.3	17.1	V
17090.450	51.1	-27.0	42.1	35.96	68.3	17.2	H
17258.750	50.8	-26.9	41.9	35.84	68.3	17.5	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)
5766.200	57.6	-24.8	34.9	47.45	68.3	10.7	H
5804.200	56.9	-24.8	35.0	46.73	68.3	11.4	V
11569.950	45.4	-32.3	38.3	39.46	68.3	22.9	V
16873.000	50.1	-27.2	42.0	35.25	68.3	18.2	V
17248.550	50.2	-26.9	41.9	35.16	68.3	18.1	V
17390.750	49.8	-26.8	41.7	34.92	68.3	18.5	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)
5924.678	53.6	-25.2	35.2	43.61	68.4	14.9	H
5924.753	54.1	-25.2	35.2	44.18	68.4	14.2	H
11779.850	46.3	-32.0	38.5	39.79	68.3	22.0	H
16648.850	50.6	-27.5	41.7	36.41	68.3	17.7	H
16967.250	50.6	-27.1	42.2	35.60	68.3	17.7	V
17593.250	50.4	-26.7	41.6	35.46	68.3	17.9	H

802.11ax-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)
5650.086	54.2	-24.8	34.7	44.33	68.3	14.0	H
5650.219	54.6	-24.8	34.7	44.65	68.4	13.8	H
11510.000	43.8	-32.5	38.2	38.06	68.3	24.5	H
17265.250	47.8	-26.9	41.9	32.84	68.3	20.5	H
17525.150	50.5	-26.7	41.6	35.59	68.3	17.8	V
17578.450	50.5	-26.7	41.6	35.64	68.3	17.8	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)
5924.385	54.1	-25.2	35.2	44.09	68.7	14.6	V
5924.471	54.5	-25.2	35.2	44.49	68.6	14.1	H
11589.350	43.7	-32.2	38.3	37.66	68.3	24.6	H
17385.150	47.6	-26.8	41.7	32.70	68.3	20.7	V
17575.650	50.4	-26.7	41.6	35.56	68.3	17.9	H
17718.750	50.5	-26.6	41.6	35.53	68.3	17.8	V

802.11ax-HT80

Ch155

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)
5650.236	57.3	-24.8	34.8	47.28	68.3	11.0	V
5924.862	54.1	-25.2	35.1	44.18	68.3	14.2	V
11550.350	44.4	-32.4	38.5	38.20	68.3	23.9	H
17325.150	50.8	-26.9	41.4	36.28	68.3	17.5	H
16979.500	51.2	-27.1	41.7	36.56	68.3	17.2	V
17251.550	50.9	-26.9	41.4	36.34	68.3	17.4	H

Note: the spurious emission above 18G is noise only and did not show on the report.

Conclusion: pass

SPEED

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)
5458.900	39.95	-25.34	34.42	30.87	54.00	14.05	V
5459.600	39.86	-25.33	34.42	30.77	54.00	14.14	V
11490.450	33.12	-32.54	38.00	27.66	54.00	20.88	V
17770.440	36.76	-26.49	40.33	22.92	54.00	17.24	V
17862.450	36.84	-26.32	40.24	22.92	54.00	17.16	H
17888.800	36.74	-26.26	40.21	22.78	54.00	17.26	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)
5458.780	39.73	-25.34	34.42	30.64	54.00	14.27	V
5459.050	39.78	-25.33	34.42	30.70	54.00	14.22	V
11570.250	33.42	-32.30	38.07	27.65	54.00	20.58	H
17769.550	36.75	-26.49	40.33	22.91	54.00	17.25	H
17859.250	36.78	-26.32	40.24	22.87	54.00	17.22	V
17958.750	36.66	-26.09	40.20	22.55	54.00	17.34	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)
5459.600	39.81	-25.33	34.42	30.72	54.00	14.19	V
5459.950	39.72	-25.33	34.42	30.63	54.00	14.28	V
11650.250	33.44	-32.11	38.20	27.34	54.00	20.56	H
17770.250	36.69	-26.49	40.33	22.85	54.00	17.31	V
17865.500	36.90	-26.31	40.23	22.97	54.00	17.10	V
17960.750	36.65	-26.09	40.20	22.53	54.00	17.35	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)
5459.750	39.99	-25.33	34.42	30.90	54.00	14.01	V
5459.850	40.00	-25.33	34.42	30.91	54.00	14.00	V
11490.400	32.78	-32.54	38.00	27.33	54.00	21.22	V
17758.570	36.89	-26.51	40.34	23.06	54.00	17.11	V
17864.500	36.88	-26.31	40.24	22.96	54.00	17.12	V
17966.900	36.79	-26.08	40.20	22.66	54.00	17.21	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)
5459.500	39.86	-25.33	34.42	30.77	54.00	14.14	V
5459.800	39.87	-25.33	34.42	30.78	54.00	14.13	V
11570.250	33.32	-32.30	38.07	27.54	54.00	20.68	H
17865.420	36.90	-26.31	40.23	22.97	54.00	17.10	H
17749.150	36.84	-26.52	40.35	23.01	54.00	17.16	H
17958.530	36.92	-26.09	40.20	22.81	54.00	17.08	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)
5458.750	39.90	-25.34	34.42	30.82	54.00	14.10	V
5459.550	40.06	-25.33	34.42	30.97	54.00	13.94	V
11650.250	33.42	-32.11	38.20	27.33	54.00	20.58	H
17875.250	36.76	-26.29	40.22	22.83	54.00	17.24	V
17685.350	36.91	-26.60	40.43	23.08	54.00	17.09	V
17956.630	36.88	-26.10	40.20	22.78	54.00	17.12	V

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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)
5458.550	40.02	-25.34	34.42	30.94	54.00	13.98	V
5459.550	39.96	-25.33	34.42	30.87	54.00	14.04	V
11510.450	33.22	-32.50	38.01	27.71	54.00	20.78	V
15956.200	36.68	-27.67	40.30	24.05	54.00	17.32	V
17776.450	36.74	-26.48	40.32	22.90	54.00	17.26	V
17860.800	37.30	-26.32	40.24	23.38	54.00	16.70	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)
5450.650	39.85	-25.38	34.40	30.83	54.00	14.15	V
5457.350	39.98	-25.34	34.41	30.91	54.00	14.02	V
11592.450	33.34	-32.22	38.09	27.47	54.00	20.66	V
16030.520	36.83	-27.87	40.39	24.31	54.00	17.17	H
17774.850	36.87	-26.49	40.33	23.03	54.00	17.13	V
17855.250	37.24	-26.33	40.24	23.33	54.00	16.76	V

802.11ac-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)
5454.050	40.08	-25.36	34.41	31.04	54.00	13.92	V
5458.400	40.07	-25.34	34.42	30.99	54.00	13.93	V
11490.250	32.59	-32.54	38.00	27.13	54.00	21.41	V
17768.420	36.78	-26.49	40.33	22.94	54.00	17.22	H
17860.250	36.78	-26.32	40.24	22.86	54.00	17.22	H
17968.520	36.81	-26.07	40.20	22.69	54.00	17.19	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)
5450.250	39.96	-25.38	34.40	30.94	54.00	14.04	V
5455.950	39.92	-25.35	34.41	30.86	54.00	14.08	V
11570.250	33.42	-32.30	38.07	27.64	54.00	20.58	H
17866.250	36.67	-26.31	40.23	22.75	54.00	17.33	H
17749.350	36.84	-26.52	40.35	23.01	54.00	17.16	V
17959.425	36.55	-26.09	40.20	22.44	54.00	17.45	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)
5454.700	39.93	-25.36	34.41	30.88	54.00	14.07	V
5458.000	39.85	-25.34	34.42	30.77	54.00	14.15	V
11650.450	33.62	-32.10	38.20	27.53	54.00	20.38	H
15945.650	36.69	-27.71	40.30	24.10	54.00	17.31	H
17768.150	36.97	-26.49	40.33	23.13	54.00	17.03	V
17850.450	37.23	-26.35	40.25	23.33	54.00	16.77	H

802.11ac-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)
5454.150	39.92	-25.36	34.41	30.88	54.00	14.08	V
5459.200	40.03	-25.33	34.42	30.95	54.00	13.97	V
11510.450	33.13	-32.50	38.01	27.62	54.00	20.87	V
16028.250	36.74	-27.86	40.38	24.22	54.00	17.26	H
17768.630	36.94	-26.49	40.33	23.11	54.00	17.06	H
17862.000	37.24	-26.32	40.24	23.33	54.00	16.76	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)
5456.150	39.87	-25.35	34.41	30.81	54.00	14.13	V
5457.500	40.02	-25.34	34.42	30.95	54.00	13.98	V
11590.150	33.24	-32.23	38.09	27.38	54.00	20.76	V
16028.250	36.85	-27.86	40.38	24.33	54.00	17.15	H
17771.250	36.75	-26.49	40.33	22.91	54.00	17.25	H
17860.350	37.24	-26.32	40.24	23.33	54.00	16.76	V

802.11ac-HT80

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)
5454.100	39.83	-25.36	34.41	30.78	54.00	14.17	V
5459.650	40.09	-25.33	34.42	31.00	54.00	13.91	V
11550.750	34.66	-32.36	38.05	28.97	54.00	19.34	V
17376.000	36.83	-26.82	40.80	22.85	54.00	17.17	H
17986.620	36.68	-26.03	40.20	22.51	54.00	17.32	H
17451.250	36.86	-26.76	40.80	22.82	54.00	17.14	H

802.11ax-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)
5448.700	40.0	-25.4	34.4	30.95	54.0	14.0	V
5453.400	40.0	-25.4	34.4	30.95	54.0	14.0	V
11490.420	32.7	-32.5	38.0	27.25	54.0	21.3	V
17768.450	36.6	-26.5	40.3	22.78	54.0	17.4	H
17862.350	36.8	-26.3	40.2	22.83	54.0	17.3	H
17969.780	36.7	-26.1	40.2	22.54	54.0	17.3	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)
5452.300	39.9	-25.4	34.4	30.90	54.0	14.1	V
5459.250	40.0	-25.3	34.4	30.95	54.0	14.0	V
11570.450	33.5	-32.3	38.1	27.67	54.0	20.6	H
17859.750	36.8	-26.3	40.2	22.92	54.0	17.2	H
17750.550	36.9	-26.5	40.3	23.09	54.0	17.1	H
17962.750	36.6	-26.1	40.2	22.46	54.0	17.4	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)
5455.350	39.9	-25.4	34.4	30.86	54.0	14.1	V
5457.550	40.0	-25.3	34.4	30.88	54.0	14.1	V
11650.450	33.6	-32.1	38.2	27.52	54.0	20.4	H
15945.680	36.7	-27.7	40.3	24.15	54.0	17.3	V
17768.530	36.8	-26.5	40.3	23.00	54.0	17.2	H
17860.840	37.3	-26.3	40.2	23.33	54.0	16.8	V

802.11ax-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)
5452.100	40.0	-25.4	34.4	30.95	54.0	14.0	V
5455.100	39.9	-25.4	34.4	30.86	54.0	14.1	V
11510.250	33.2	-32.5	38.0	27.73	54.0	20.8	V
16025.125	36.8	-27.9	40.4	24.33	54.0	17.2	H
17773.650	36.8	-26.5	40.3	23.01	54.0	17.2	H
17868.250	37.4	-26.3	40.2	23.42	54.0	16.7	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)
5450.650	39.8	-25.4	34.4	30.82	54.0	14.2	V
5456.150	40.0	-25.3	34.4	30.93	54.0	14.0	V
11590.250	33.2	-32.2	38.1	27.33	54.0	20.8	V
15945.850	36.7	-27.7	40.3	24.14	54.0	17.3	H
17772.550	36.9	-26.5	40.3	23.04	54.0	17.1	V
17870.250	36.8	-26.3	40.2	22.92	54.0	17.2	H

802.11ax-HT80

Ch155

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)
5450.500	39.9	-25.4	34.4	30.92	54.0	14.1	V
5455.450	40.1	-25.4	34.4	31.04	54.0	13.9	V
11550.450	34.5	-32.4	38.1	28.76	54.0	19.6	V
17776.150	36.5	-26.5	40.3	22.61	54.0	17.5	V
17959.250	36.6	-26.1	40.2	22.47	54.0	17.4	H
17462.150	36.7	-26.8	40.8	22.64	54.0	17.3	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)
5650.052	54.86	-24.77	34.50	45.13	68.24	13.38	H
5650.161	54.71	-24.77	34.50	44.98	68.32	13.61	V
11490.250	43.75	-32.54	38.00	38.29	68.30	24.55	V
16673.150	51.22	-27.49	41.17	37.54	68.30	17.08	V
16890.500	51.12	-27.20	41.39	36.93	68.30	17.18	V
17235.150	48.91	-26.91	40.93	34.89	68.30	19.39	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)
5752.400	53.15	-24.77	34.70	43.22	68.30	15.15	V
5819.400	52.36	-24.91	34.64	42.63	68.30	15.94	V
11569.850	45.25	-32.30	38.07	39.48	68.30	23.05	H
16873.150	50.84	-27.22	41.37	36.68	68.30	17.46	V
17138.750	50.45	-26.94	40.94	36.45	68.30	17.85	V
17354.750	49.25	-26.84	40.80	35.29	68.30	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)
5924.862	53.87	-25.21	34.95	44.13	68.30	14.43	H
5924.937	53.84	-25.21	34.95	44.10	68.25	14.40	V
11779.250	46.85	-31.98	38.54	40.29	68.30	21.45	H
16649.150	50.42	-27.53	41.15	36.81	68.30	17.88	H
16930.550	50.25	-27.15	41.31	36.09	68.30	18.05	H
17475.150	48.85	-26.75	40.80	34.80	68.30	19.45	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)
5650.104	54.28	-24.77	34.50	44.56	68.28	13.99	H
5650.834	55.33	-24.77	34.50	45.60	68.82	13.49	H
11490.250	44.78	-32.54	38.00	39.32	74.00	29.22	V
17243.250	49.32	-26.91	40.91	35.31	68.30	18.98	V
17582.600	50.75	-26.69	40.63	36.81	68.30	17.55	H
17234.950	48.78	-26.91	40.93	34.76	68.30	19.52	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)
5762.000	54.68	-24.76	34.68	44.76	68.30	13.62	H
5811.400	54.00	-24.87	34.62	44.24	68.30	14.30	V
11569.890	44.30	-32.30	38.07	38.53	74.00	29.70	H
16580.420	50.25	-27.60	41.08	36.77	68.30	18.05	V
16925.250	50.79	-27.16	41.32	36.62	68.30	17.51	V
17354.750	47.54	-26.84	40.80	33.58	68.30	20.76	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)
5924.828	53.97	-25.21	34.95	44.23	68.33	14.35	H
5924.902	53.67	-25.21	34.95	43.93	68.27	14.61	V
11650.000	45.32	-32.11	38.20	39.23	74.00	28.68	V
17162.950	50.25	-26.93	40.96	36.22	68.30	18.05	H
17474.500	47.81	-26.75	40.80	33.76	68.30	20.49	V
17695.580	50.24	-26.59	40.41	36.42	68.30	18.06	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)
5650.558	54.76	-24.77	34.50	45.04	68.61	13.85	V
5650.667	54.15	-24.77	34.50	44.42	68.69	14.54	H
11510.500	45.10	-32.50	38.01	39.59	74.00	28.90	V
17265.250	48.14	-26.90	40.87	34.17	68.30	20.16	V
16563.400	51.13	-27.60	41.06	37.68	68.30	17.16	V
17259.950	50.88	-26.90	40.88	36.90	68.30	17.42	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)
5924.500	53.79	-25.21	34.95	44.06	68.57	14.78	H
5924.534	54.29	-25.21	34.95	44.55	68.54	14.26	V
11589.750	44.55	-32.23	38.09	38.69	68.30	23.75	V
17385.250	48.47	-26.81	40.80	34.48	68.30	19.83	V
17526.250	50.32	-26.72	40.75	36.29	68.30	17.98	H
17688.350	50.38	-26.60	40.42	36.56	68.30	17.91	H

802.11ac-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)
5650.310	54.55	-24.77	34.50	44.82	68.43	13.88	V
5650.466	54.21	-24.77	34.50	44.48	68.54	14.34	H
11490.450	44.68	-32.54	38.00	39.22	74.00	29.32	H
17245.150	49.25	-26.90	40.91	35.25	68.30	19.05	H
17580.450	50.64	-26.69	40.64	36.70	68.30	17.66	V
17235.050	48.88	-26.91	40.93	34.86	68.30	19.42	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)
5767.400	56.45	-24.75	34.67	46.53	68.30	11.85	H
5802.600	57.42	-24.82	34.61	47.64	68.30	10.88	V
11569.890	44.25	-32.30	38.07	38.48	74.00	29.75	V
16580.500	50.41	-27.60	41.08	36.93	68.30	17.89	H
16934.520	50.69	-27.15	41.30	36.54	68.30	17.61	V
17354.850	47.84	-26.84	40.80	33.88	68.30	20.46	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)
5924.635	53.22	-25.21	34.95	43.49	68.47	15.25	V
5924.730	54.34	-25.21	34.95	44.61	68.40	14.06	V
11650.350	45.42	-32.11	38.20	39.32	74.00	28.58	H
17165.750	50.25	-26.93	40.97	36.22	68.30	18.05	H
17475.250	47.74	-26.75	40.80	33.69	68.30	20.56	H
17696.000	50.33	-26.59	40.41	36.51	68.30	17.97	H

802.11ac-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)
5650.328	54.58	-24.77	34.50	44.85	68.44	13.86	H
5650.437	53.97	-24.77	34.50	44.24	68.52	14.55	V
11510.520	45.05	-32.50	38.01	39.54	68.30	23.25	H
17264.750	48.22	-26.90	40.87	34.25	68.30	20.08	H
16564.500	51.01	-27.60	41.06	37.55	68.30	17.29	V
17259.750	50.79	-26.90	40.88	36.81	68.30	17.51	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)
5924.063	54.37	-25.21	34.94	44.64	68.89	14.52	H
5924.149	54.74	-25.21	34.95	45.01	68.83	14.09	H
11589.550	44.53	-32.23	38.09	38.67	68.30	23.77	H
17384.750	48.52	-26.81	40.80	34.53	68.30	19.78	H
17528.750	50.42	-26.72	40.74	36.40	68.30	17.88	V
17689.150	50.28	-26.60	40.42	36.46	68.30	18.02	H

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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)
5650.155	55.24	-24.77	34.50	45.51	68.31	13.08	H
5650.282	54.00	-24.77	34.50	44.28	68.41	14.41	V
11550.450	44.45	-32.36	38.05	38.76	68.30	23.85	V
17325.250	50.88	-26.86	40.80	36.93	68.30	17.42	H
5924.695	53.88	-25.21	34.95	44.14	68.43	14.54	H
5924.799	53.96	-25.21	34.95	44.22	68.35	14.39	H

802.11ax-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)
5650.173	54.2	-24.8	34.5	44.52	68.3	14.1	V
5650.213	54.0	-24.8	34.5	44.25	68.4	14.4	H
11490.520	44.7	-32.5	38.0	39.26	74.0	29.3	H
17250.500	49.4	-26.9	40.9	35.41	68.3	18.9	V
17582.540	50.6	-26.7	40.6	36.61	68.3	17.8	H
17235.250	49.0	-26.9	40.9	34.96	68.3	19.3	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)
5765.800	55.5	-24.8	34.7	45.54	68.3	12.8	V
5803.600	56.6	-24.8	34.6	46.85	68.3	11.7	H
11569.750	44.3	-32.3	38.1	38.48	74.0	29.8	V
16576.550	50.4	-27.6	41.1	36.94	68.3	17.9	H
16935.500	50.6	-27.1	41.3	36.42	68.3	17.7	H
17354.500	48.0	-26.8	40.8	34.00	68.3	20.3	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)
5924.937	53.8	-25.2	34.9	44.09	68.2	14.4	H
5924.954	54.4	-25.2	35.0	44.68	68.2	13.8	V
11650.150	45.6	-32.1	38.2	39.54	74.0	28.4	V
17168.250	50.4	-26.9	41.0	36.39	68.3	17.9	V
17476.050	47.9	-26.7	40.8	33.87	68.3	20.4	V
17685.250	50.2	-26.6	40.4	36.39	68.3	18.1	V

802.11ax-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)
5650.075	54.1	-24.8	34.5	44.33	68.3	14.2	V
5650.144	54.0	-24.8	34.5	44.25	68.3	14.3	H
11510.250	45.3	-32.5	38.0	39.81	68.3	23.0	H
17265.050	48.4	-26.9	40.9	34.44	68.3	19.9	H
16568.250	51.2	-27.6	41.1	37.75	68.3	17.1	H
17259.250	50.4	-26.9	40.9	36.37	68.3	18.0	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)
5924.419	53.9	-25.2	34.9	44.12	68.6	14.8	H
5924.529	54.2	-25.2	34.9	44.43	68.5	14.4	V
11589.350	44.6	-32.2	38.1	38.75	68.3	23.7	H
17384.500	48.6	-26.8	40.8	34.65	68.3	19.7	V
17532.450	50.5	-26.7	40.7	36.49	68.3	17.8	H
17688.750	50.3	-26.6	40.4	36.51	68.3	18.0	V

802.11ax-HT80

Ch155

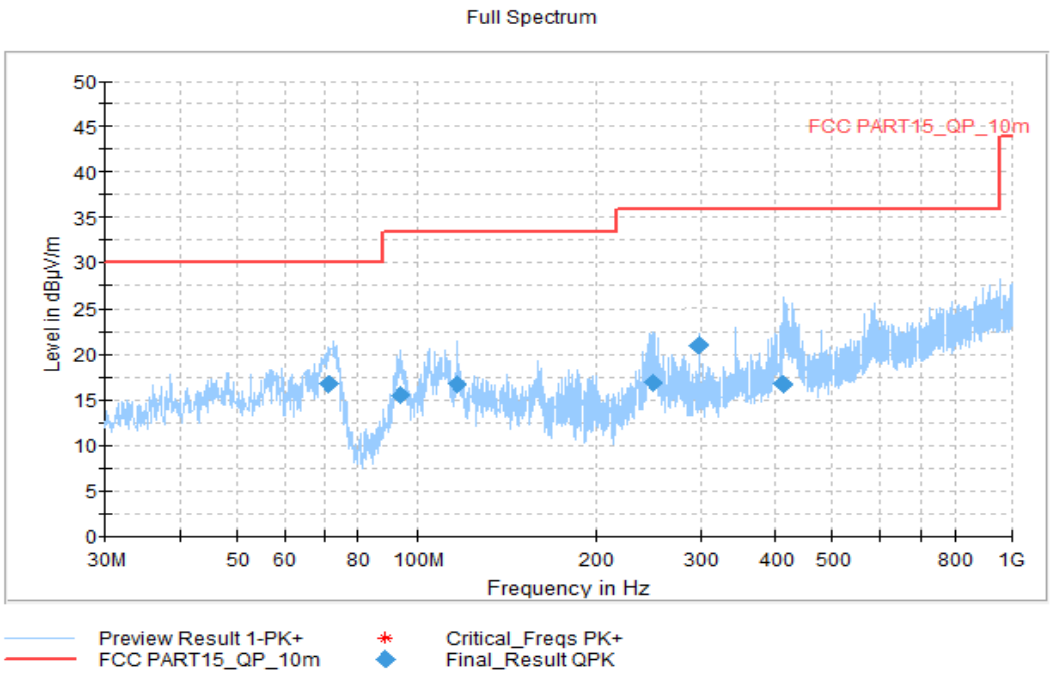
Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
5650.288	54.7	-24.8	34.5	44.94	68.4	13.7	V
5650.460	54.2	-24.8	34.5	44.45	68.5	14.4	V
11550.250	44.5	-32.4	38.1	38.76	68.3	23.9	V
17325.750	50.5	-26.9	40.8	36.51	68.3	17.9	H
5923.458	54.7	-25.2	34.9	44.97	69.3	14.6	H
5924.310	55.1	-25.2	34.9	45.35	68.7	13.6	V

Note: the spurious emission above 18G is noise only and did not show on the report.

Conclusion: pass

C.1.2 Radiated Spurious Emission- Below 1GHz

WOSRT CASE BELOW 1GHz



Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)
71.41900	16.77	30.00	13.23	120.000	183.0	V	280.0
93.82600	15.54	33.52	17.98	120.000	100.0	V	112.0
116.71800	16.69	33.52	16.83	120.000	125.0	V	163.0
249.1230	16.89	36.02	19.13	120.000	108.0	V	-5.0
296.9440	23.40	36.02	12.62	120.000	100.0	V	-17.0
413.9260	16.75	36.02	19.27	120.000	100.0	V	189.0

Note: 10 meters' limit is got by converting from 3 meters test distance.
Limit (10m) = limit (3m) + 20(log (3/10))

BELOW 30MHz

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

C.1.3 Band Edges Compliance– Radiated

Measurement Result:

INNOWAVE:

Mode	Channel	Test Results	Conclusion
802.11a	5745 MHz(CH149)	Fig.1	P
	5825 MHz(CH165)	Fig.2	P
802.11n HT20	5745 MHz(CH149)	Fig.3	P
	5825 MHz(CH165)	Fig.4	P
802.11n HT40	5755 MHz(CH151)	Fig.5	P
	5795 MHz(CH159)	Fig.6	P
802.11ac HT20	5745 MHz(CH149)	Fig.7	P
	5825 MHz(CH165)	Fig.8	P
802.11ac HT40	5755 MHz(CH151)	Fig.9	P
	5795 MHz(CH159)	Fig.10	P
802.11ac HT80	5775 MHz(CH155)	Fig.11 Fig.12	P
802.11ax HT20	5745 MHz(CH149)	Fig.13	P
	5825 MHz(CH165)	Fig.14	P
802.11ax HT40	5755 MHz(CH151)	Fig.15	P
	5795 MHz(CH159)	Fig.16	P
802.11ax HT80	5775 MHz(CH155)	Fig.17 Fig.18	P

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

SPEED::

Mode	Channel	Test Results	Conclusion
802.11a	5745 MHz(CH149)	Fig.19	P
	5825 MHz(CH165)	Fig.20	P
802.11n HT20	5745 MHz(CH149)	Fig.21	P
	5825 MHz(CH165)	Fig.22	P
802.11n HT40	5755 MHz(CH151)	Fig.23	P
	5795 MHz(CH159)	Fig.24	P
802.11ac HT20	5745 MHz(CH149)	Fig.25	P
	5825 MHz(CH165)	Fig.26	P
802.11ac HT40	5755 MHz(CH151)	Fig.27	P
	5795 MHz(CH159)	Fig.28	P
802.11ac HT80	5775 MHz(CH155)	Fig.29 Fig.30	P
802.11ax HT20	5745 MHz(CH149)	Fig.31	P
	5825 MHz(CH165)	Fig.32	P
802.11ax HT40	5755 MHz(CH151)	Fig.33	P
	5795 MHz(CH159)	Fig.34	P
802.11ax HT80	5775 MHz(CH155)	Fig.35 Fig.36	P

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

Test graphs as below:

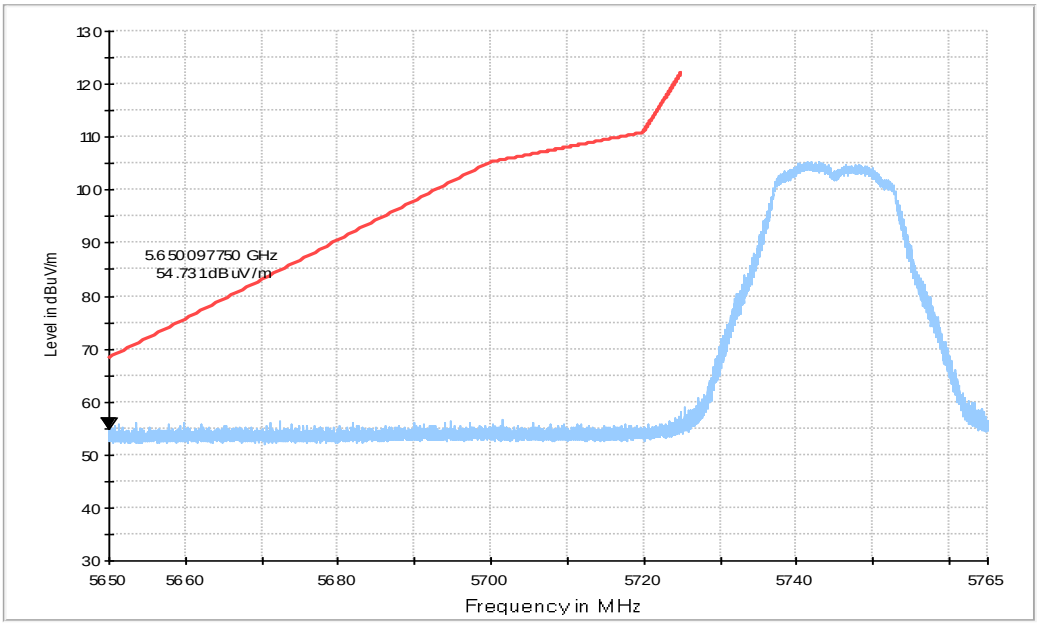


Fig. 1 Band Edges (802.11a,CH149, 5745MHz)

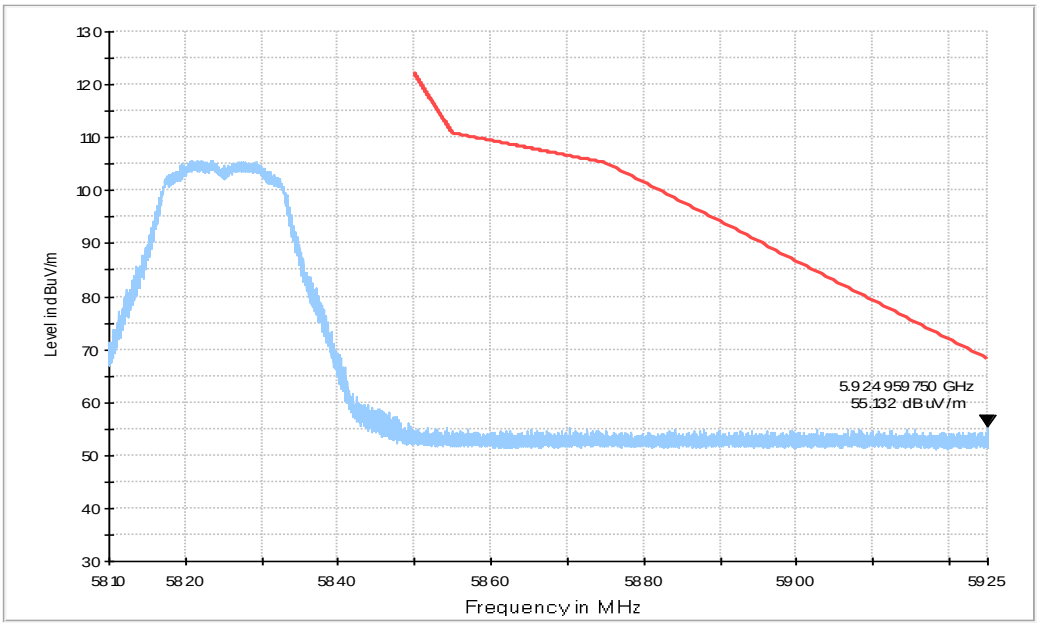


Fig. 2 Band Edges (802.11a, CH165, 5825MHz)

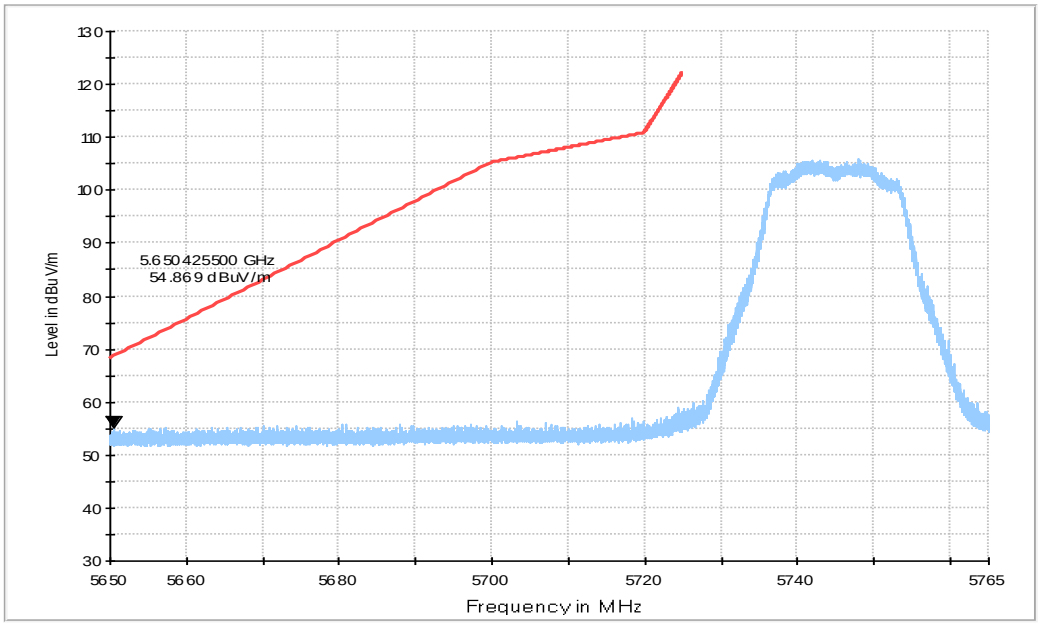


Fig. 3 Band Edges (802.11n-HT20, CH149, 5745MHz)

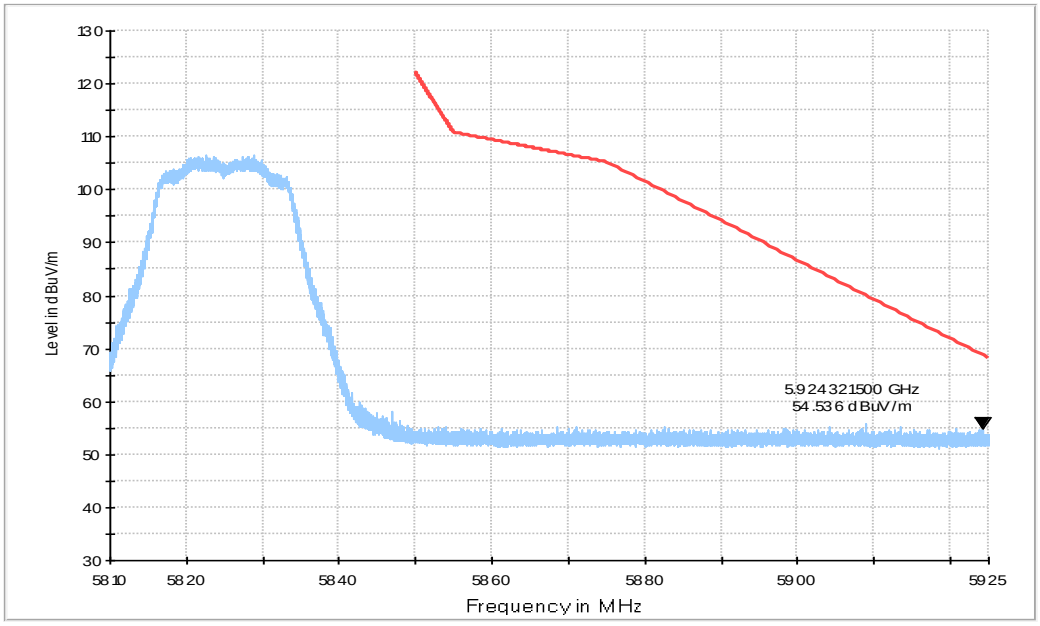


Fig. 4 Band Edges (802.11n-HT20, CH165, 5825MHz)

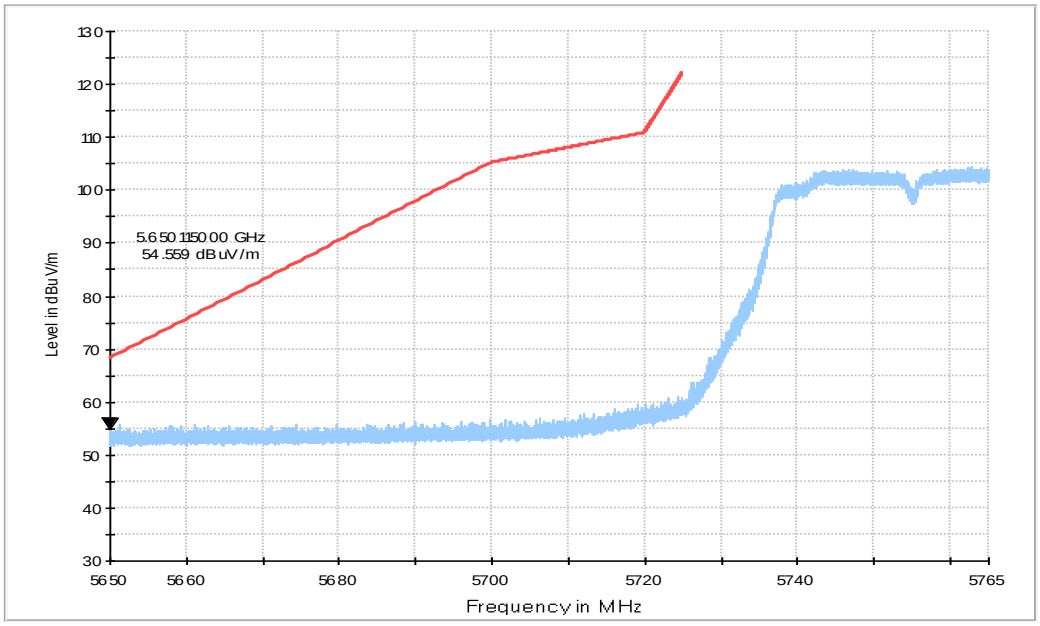


Fig. 5 Band Edges (802.11n-HT40, CH151, 5755MHz)

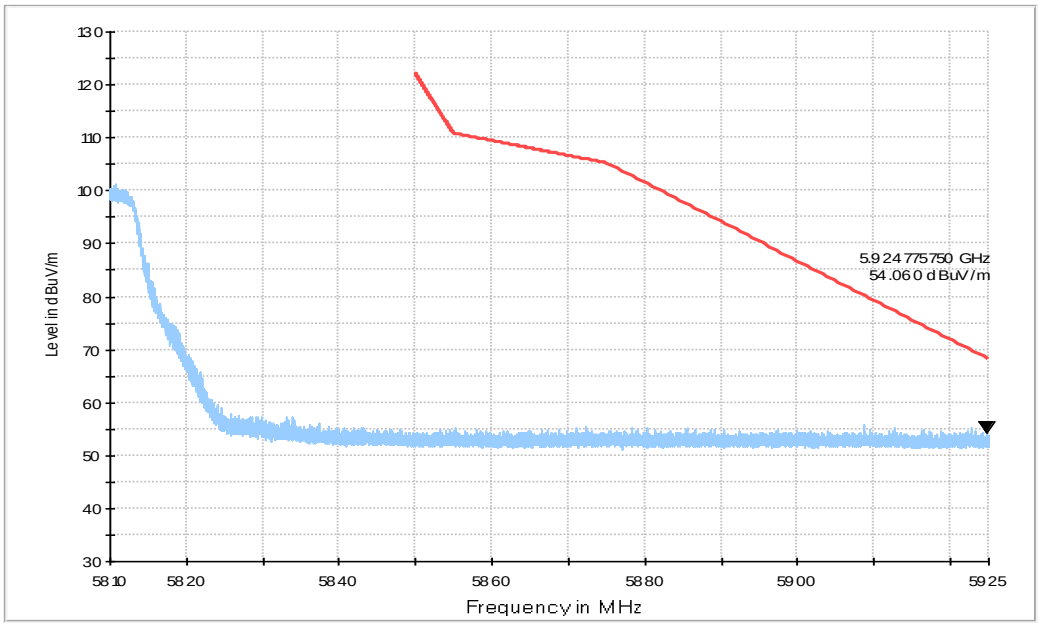


Fig. 6 Band Edges (802.11n-HT40, CH159, 5795MHz)

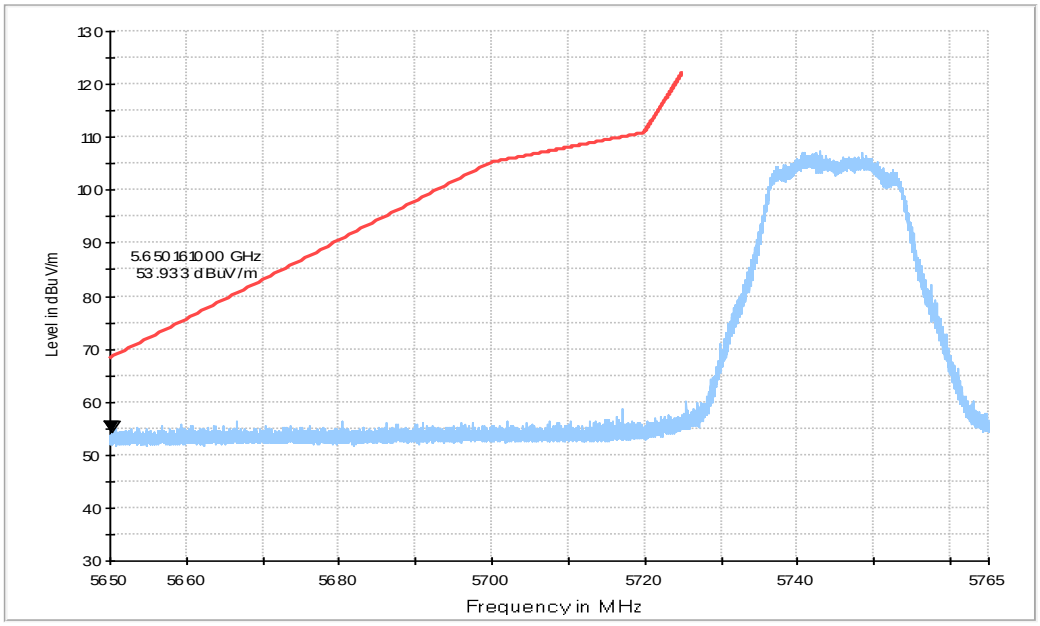


Fig. 7 Band Edges (802.11ac-HT20, CH149, 5745MHz)

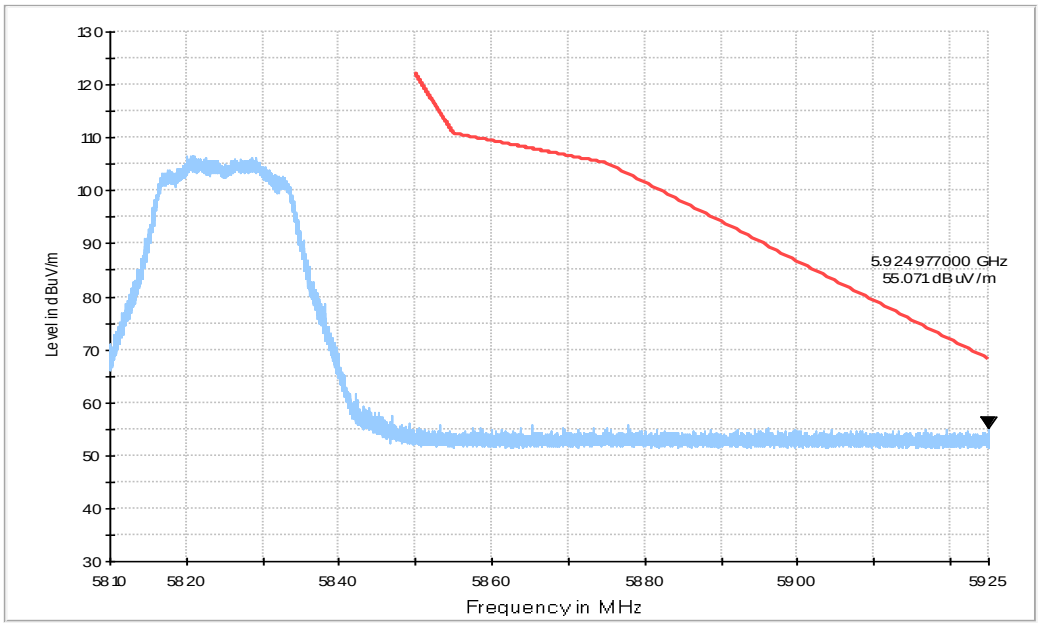


Fig. 8 Band Edges (802.11ac-HT20, CH165, 5825MHz)

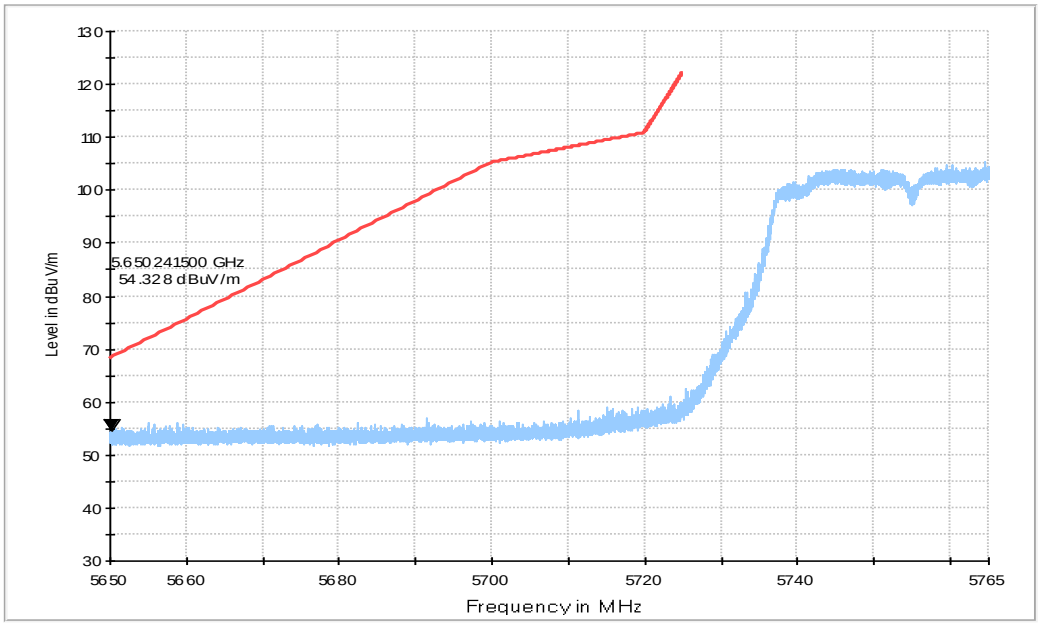


Fig. 9 Band Edges (802.11ac-HT40,CH151, 5755MHz)

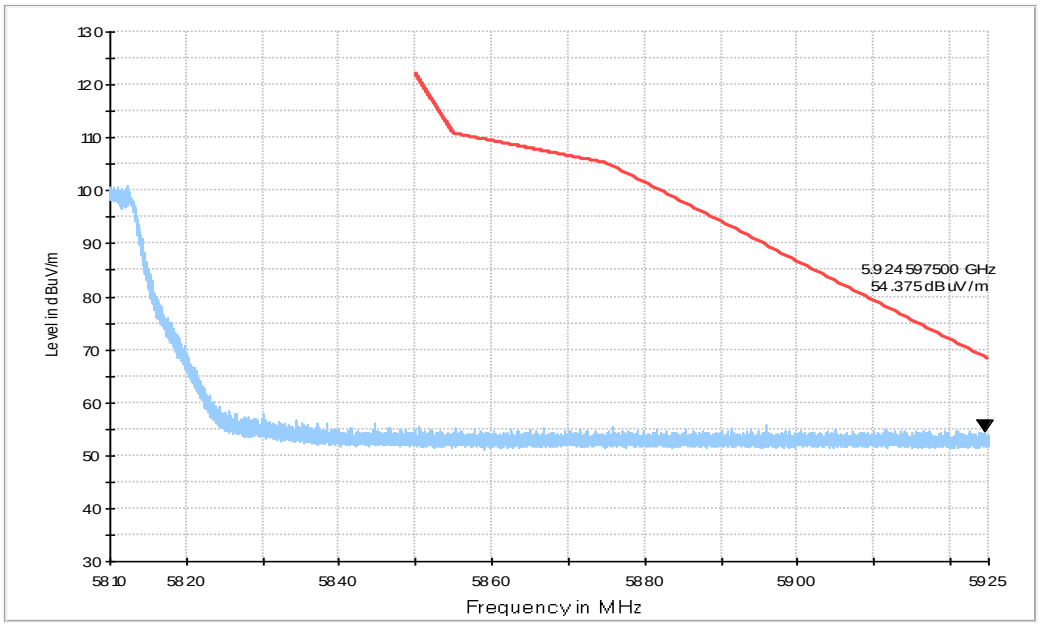


Fig. 10 Band Edges (802.11ac-HT40,CH159, 5795MHz)

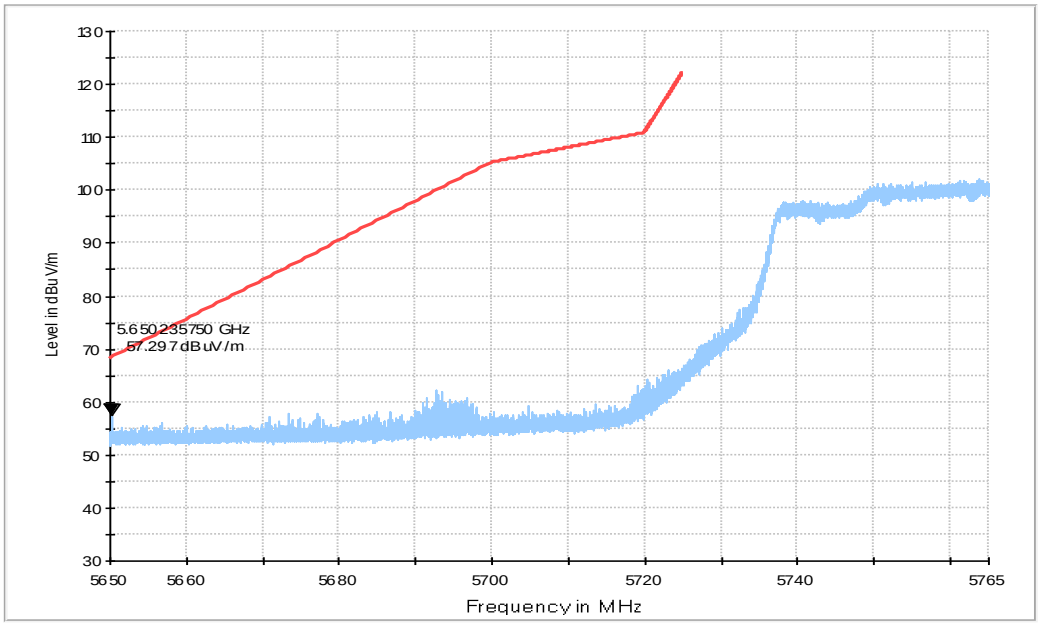


Fig. 11 Band Edges (802.11ac-HT80, CH155, 5775MHz)

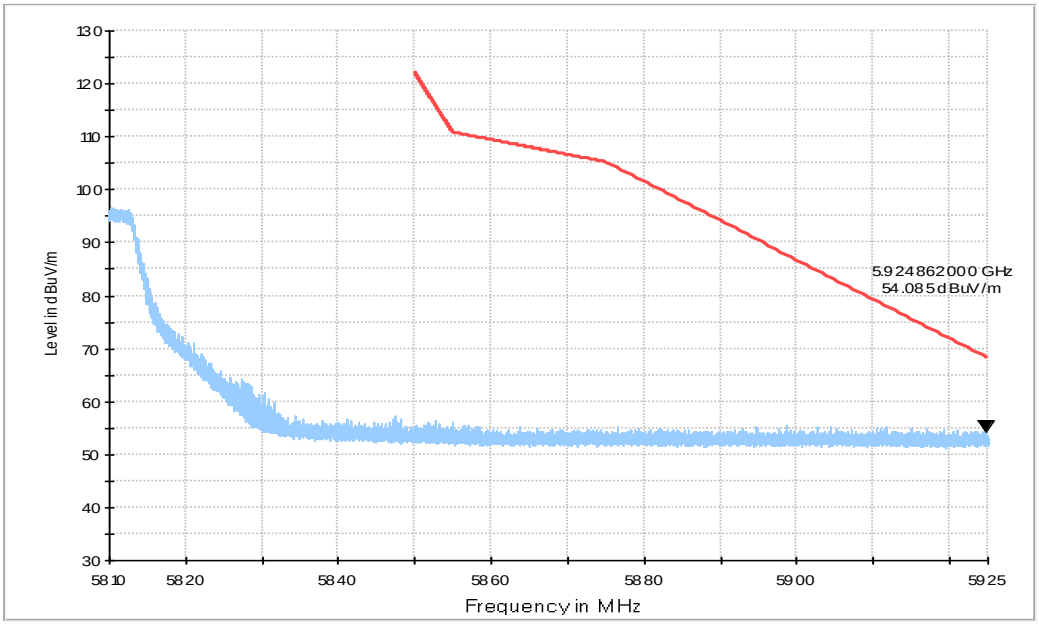


Fig. 12 Band Edges (802.11ac-HT80, CH155, 5775MHz)

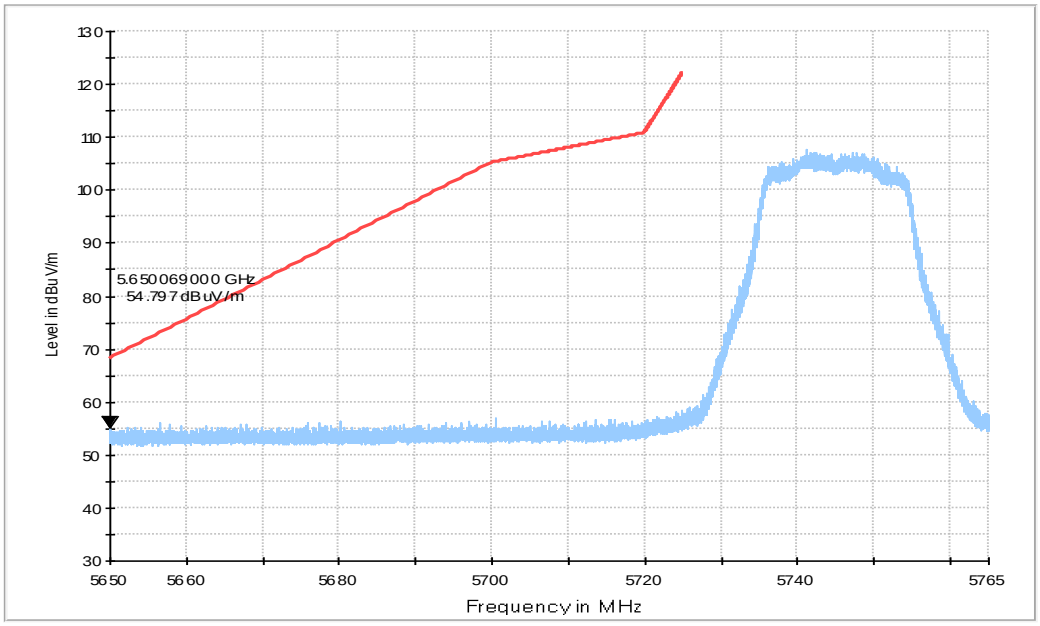


Fig. 13 Band Edges (802.11ax-HT20, CH149, 5745MHz)

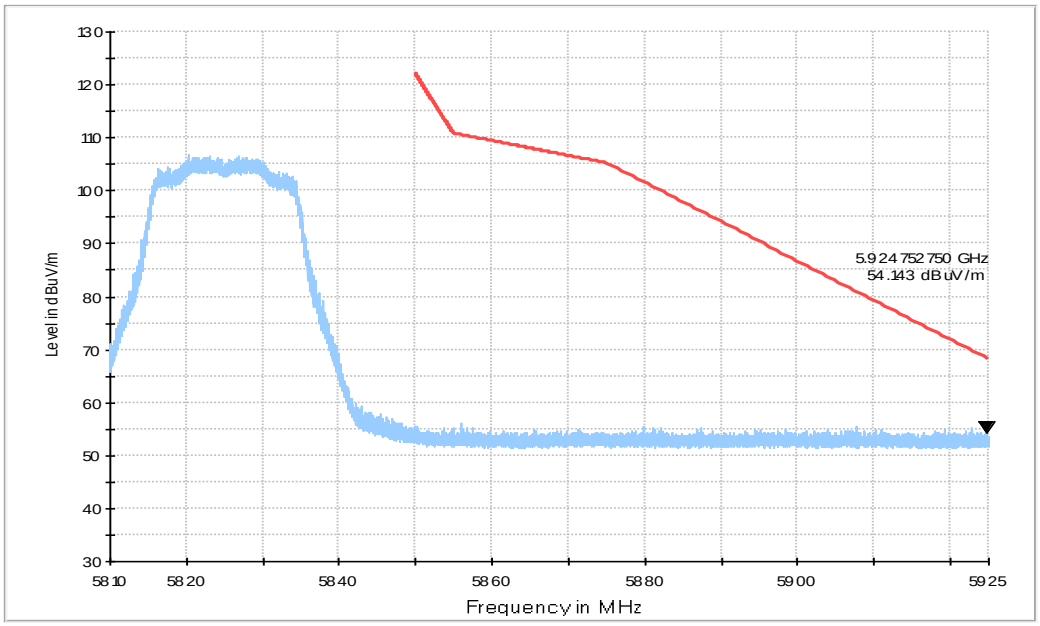


Fig. 14 Band Edges (802.11ax-HT20, CH165, 5825MHz)

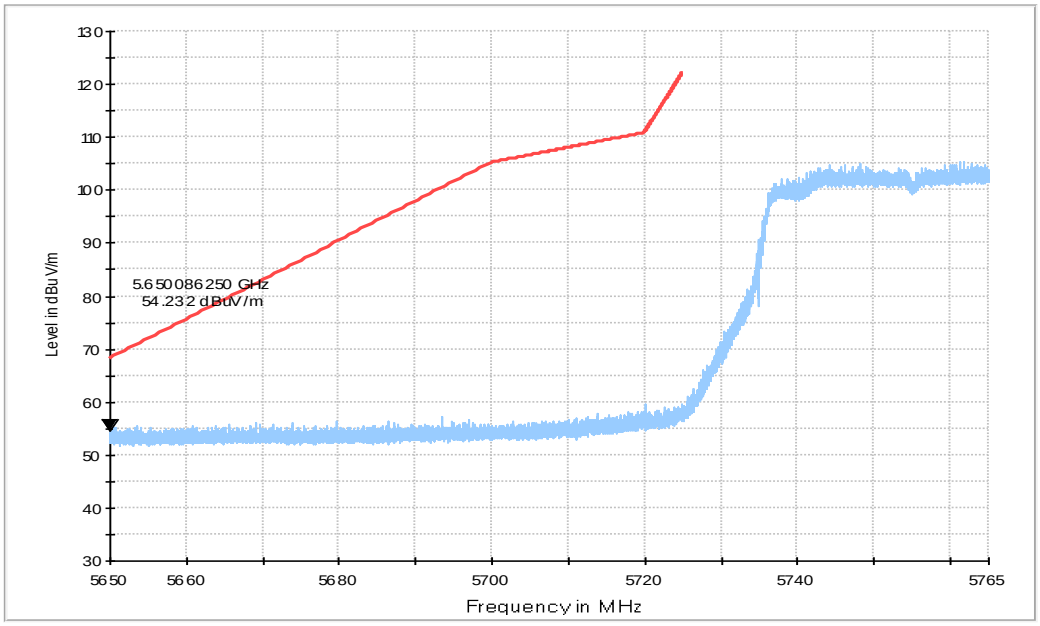


Fig. 15 Band Edges (802.11ax-HT40,CH151, 5755MHz)

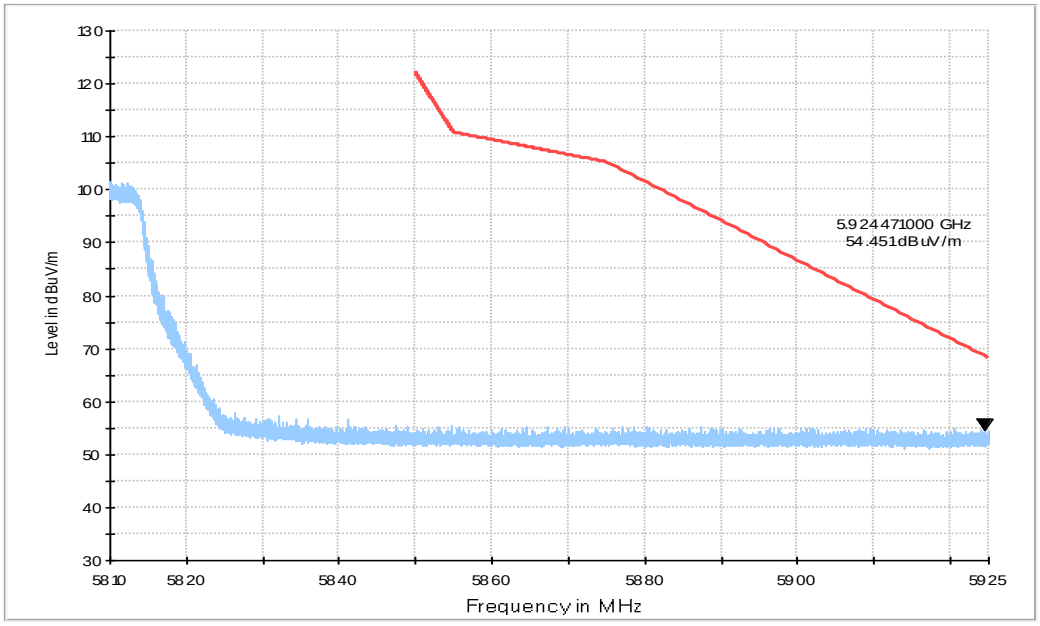


Fig. 16 Band Edges (802.11ax-HT40,CH159, 5795MHz)

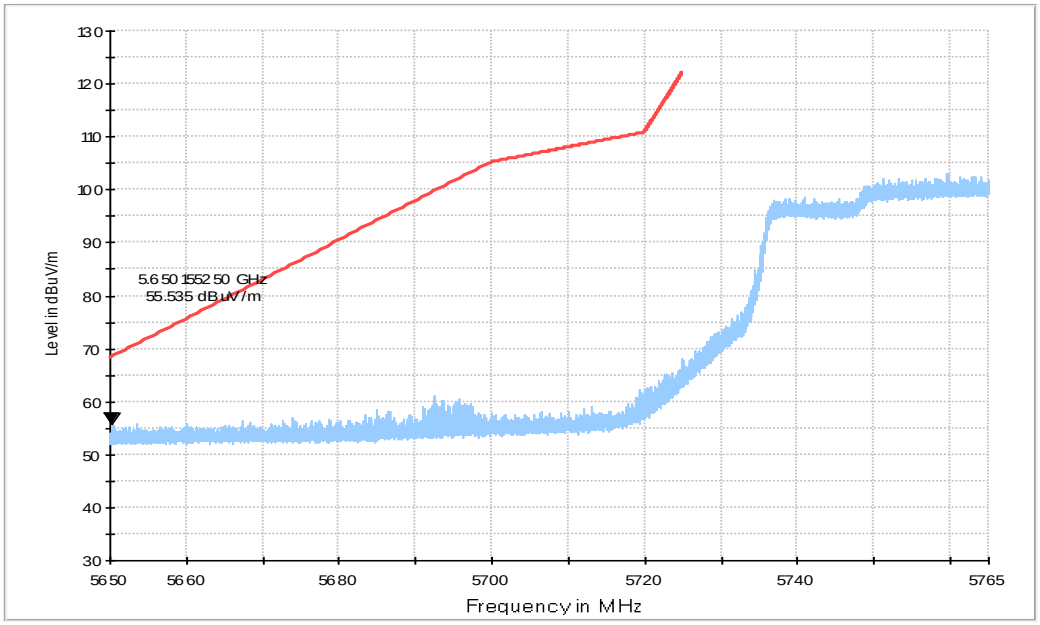


Fig. 17 Band Edges (802.11ax-HT80, CH155, 5775MHz)

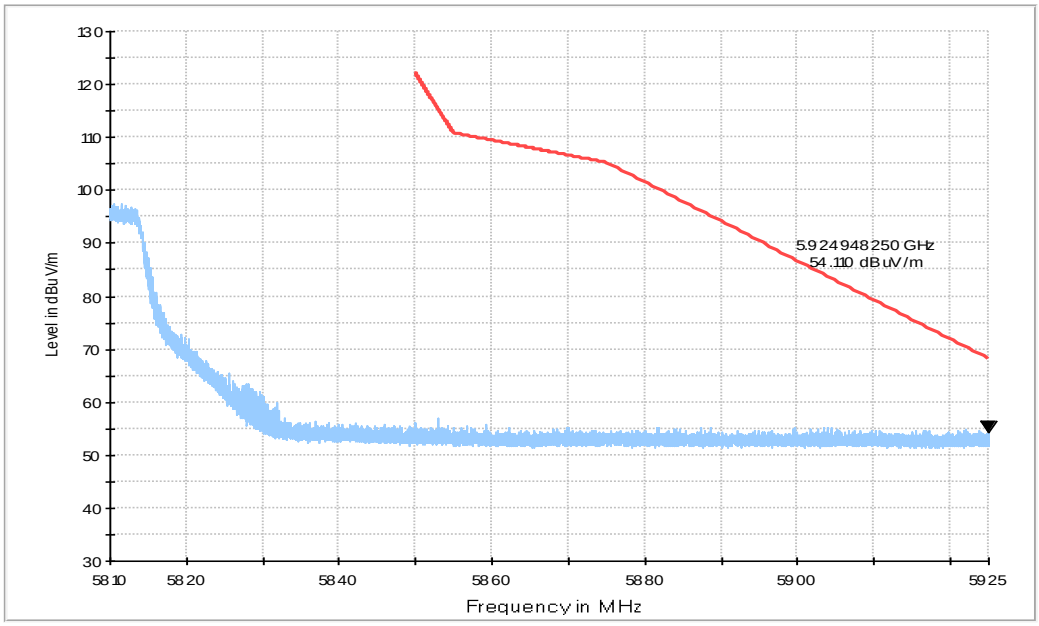


Fig. 18 Band Edges (802.11ax-HT80, CH155, 5775MHz)

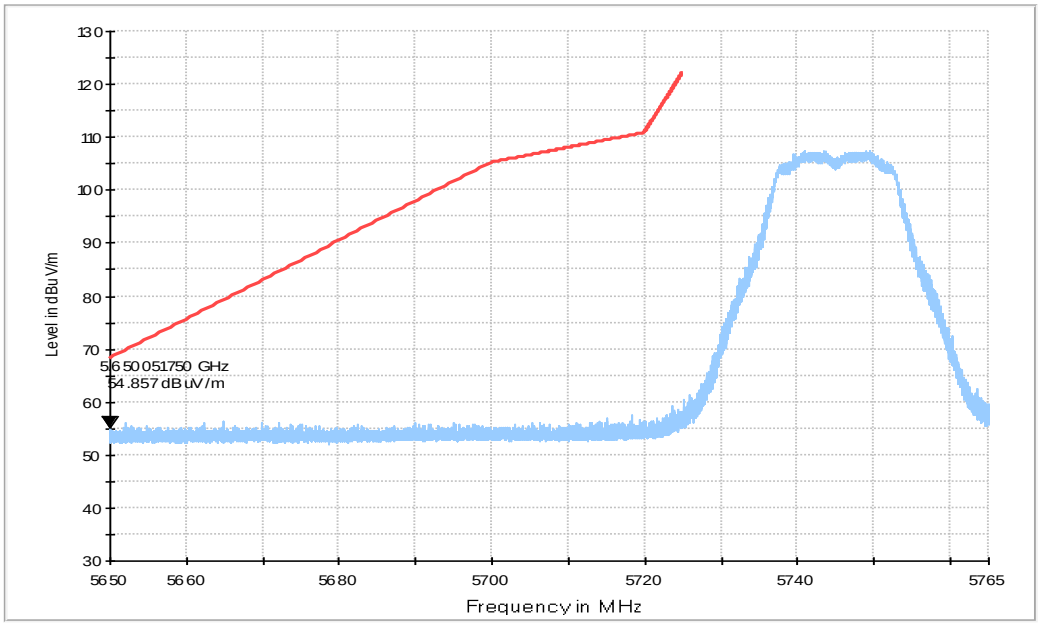


Fig. 19 Band Edges (802.11a,CH149, 5745MHz)

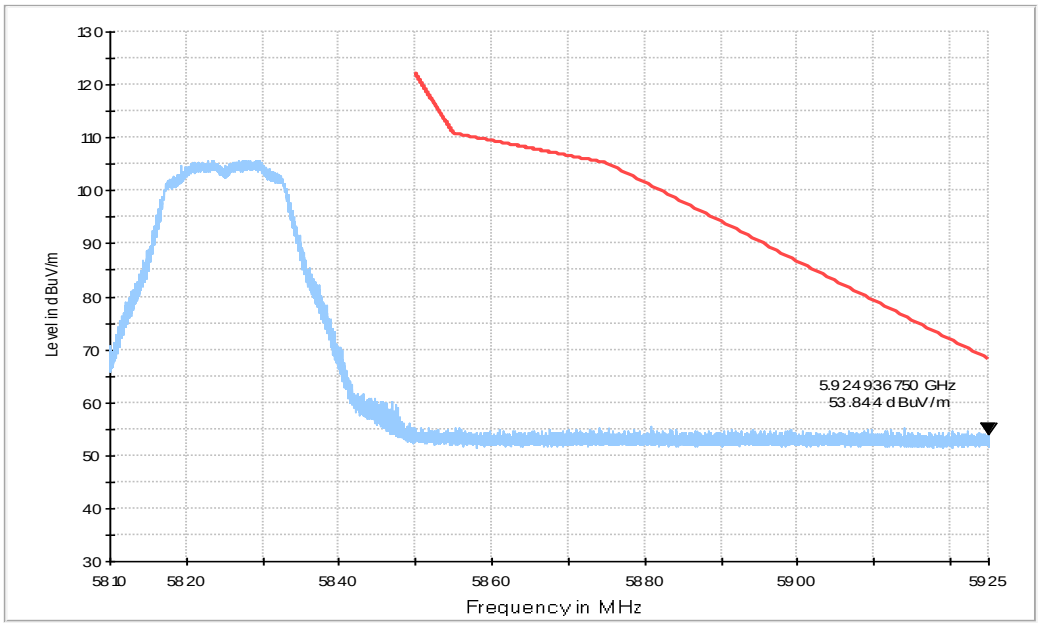


Fig. 20 Band Edges (802.11a, CH165, 5825MHz)

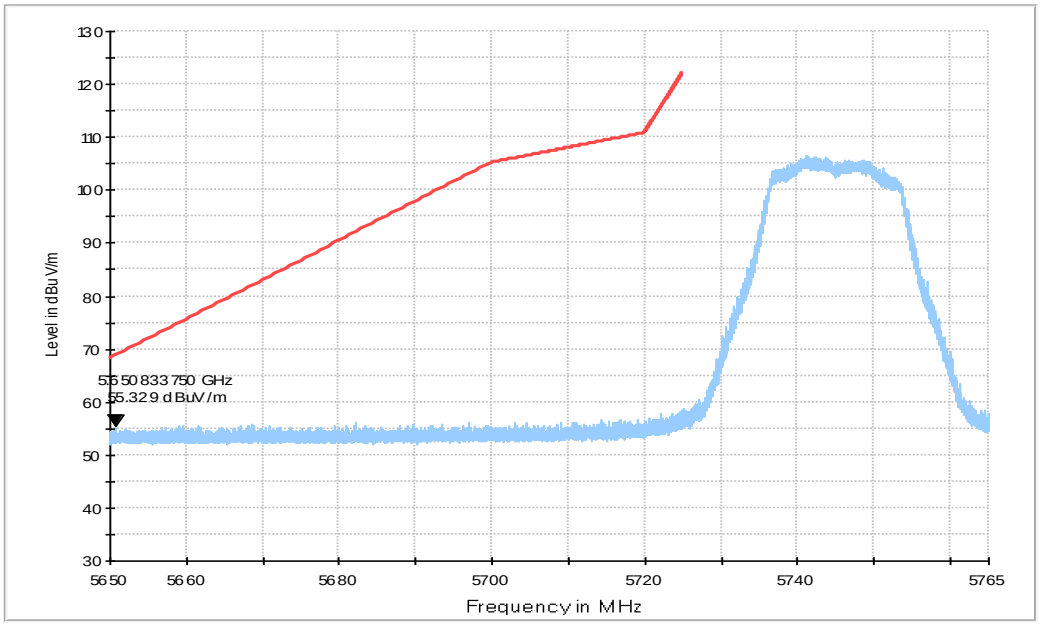


Fig. 21 Band Edges (802.11n-HT20, CH149, 5745MHz)

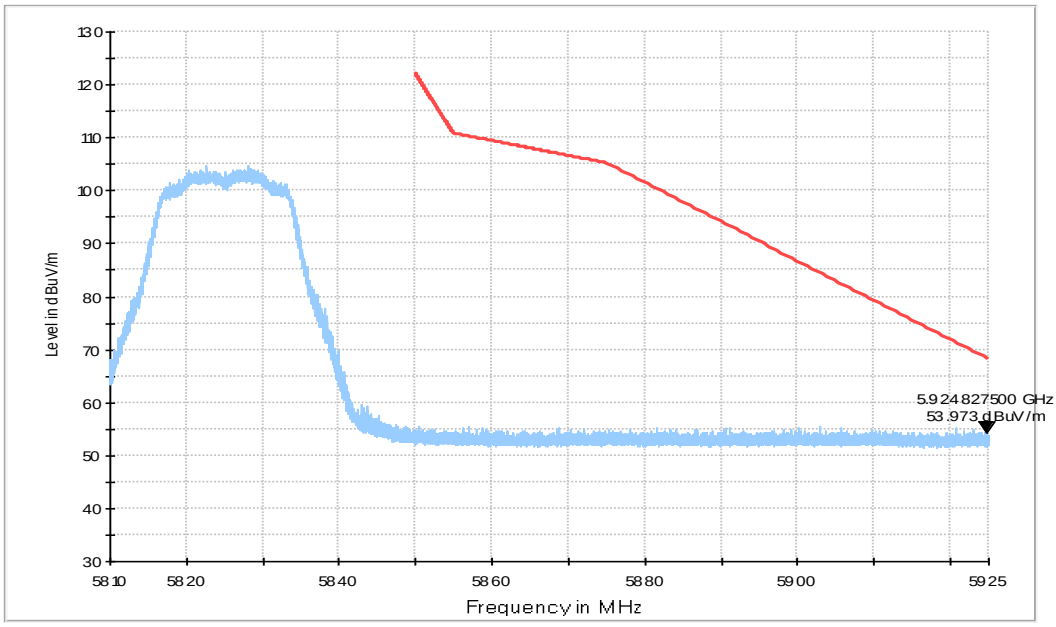


Fig. 22 Band Edges (802.11n-HT20, CH165, 5825MHz)

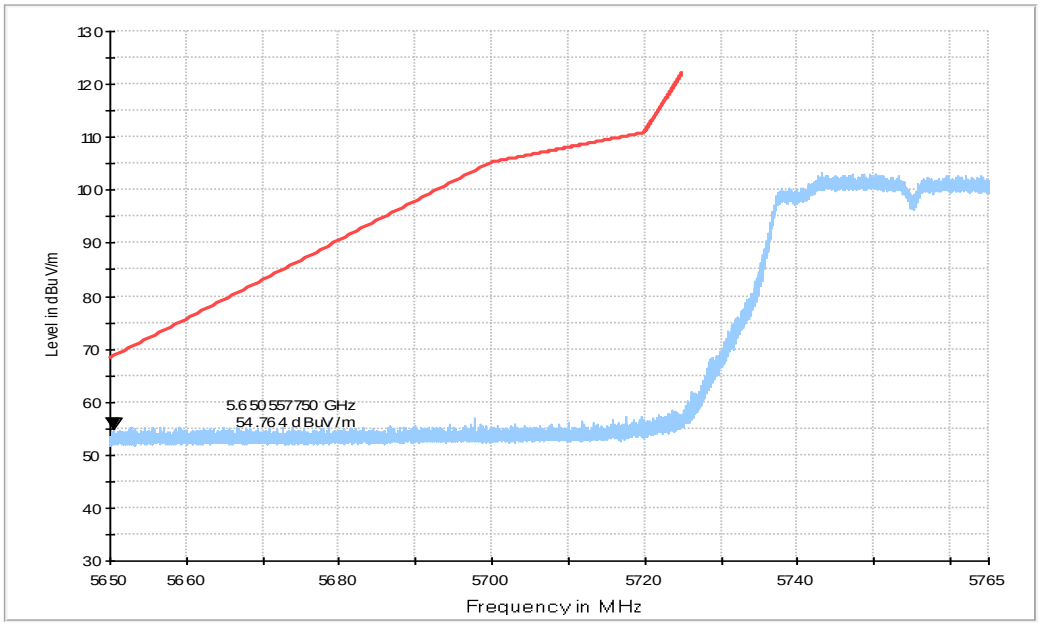


Fig. 23 Band Edges (802.11n-HT40, CH151, 5755MHz)

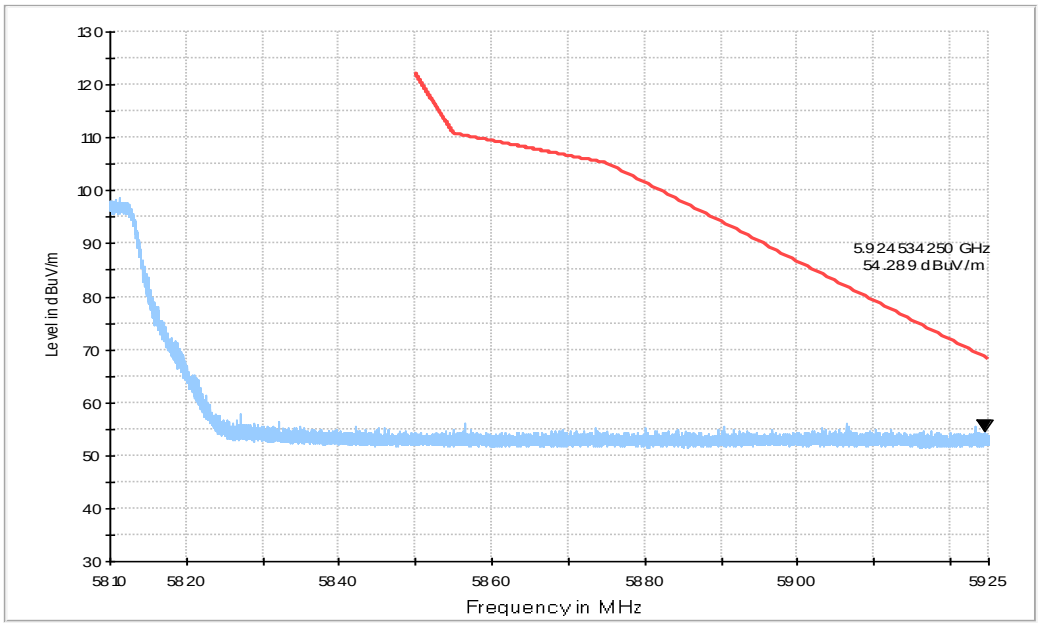


Fig. 24 Band Edges (802.11n-HT40, CH159, 5795MHz)

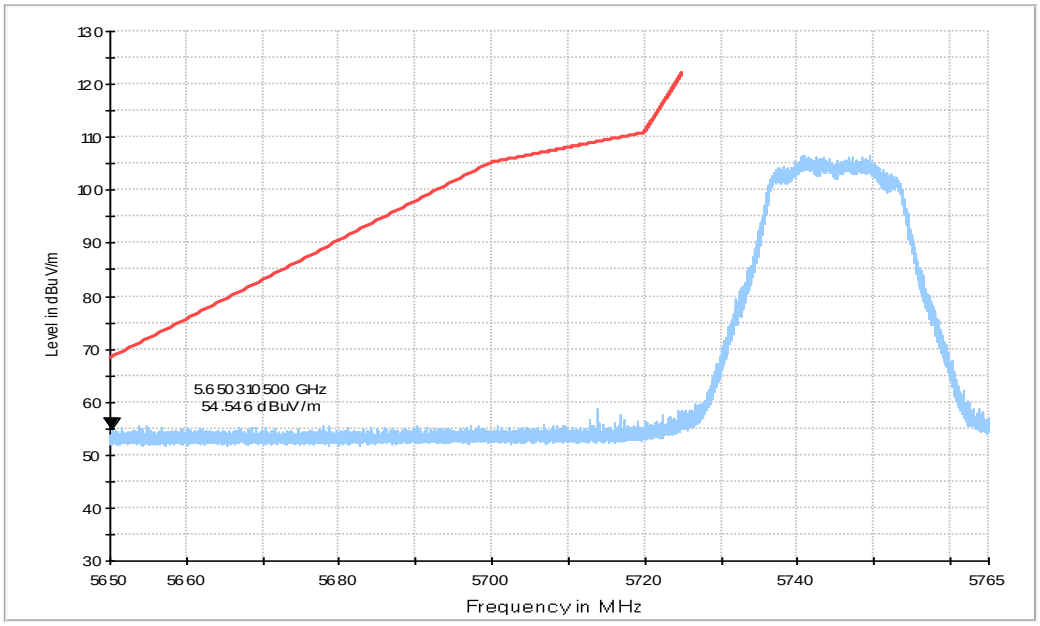


Fig. 25 Band Edges (802.11ac-HT20, CH149, 5745MHz)

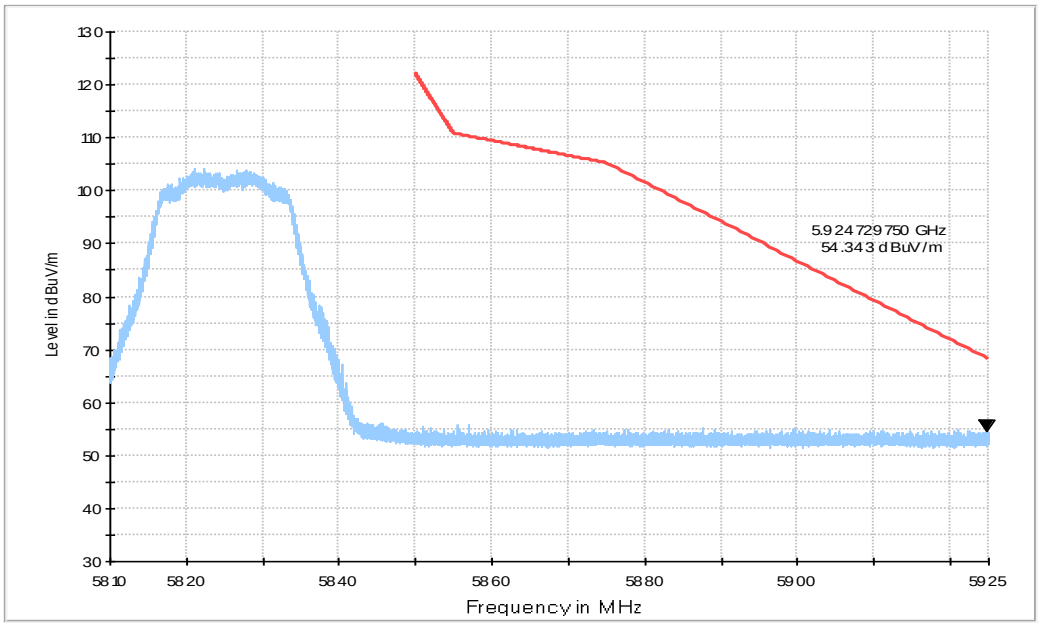


Fig. 26 Band Edges (802.11ac-HT20, CH165, 5825MHz)

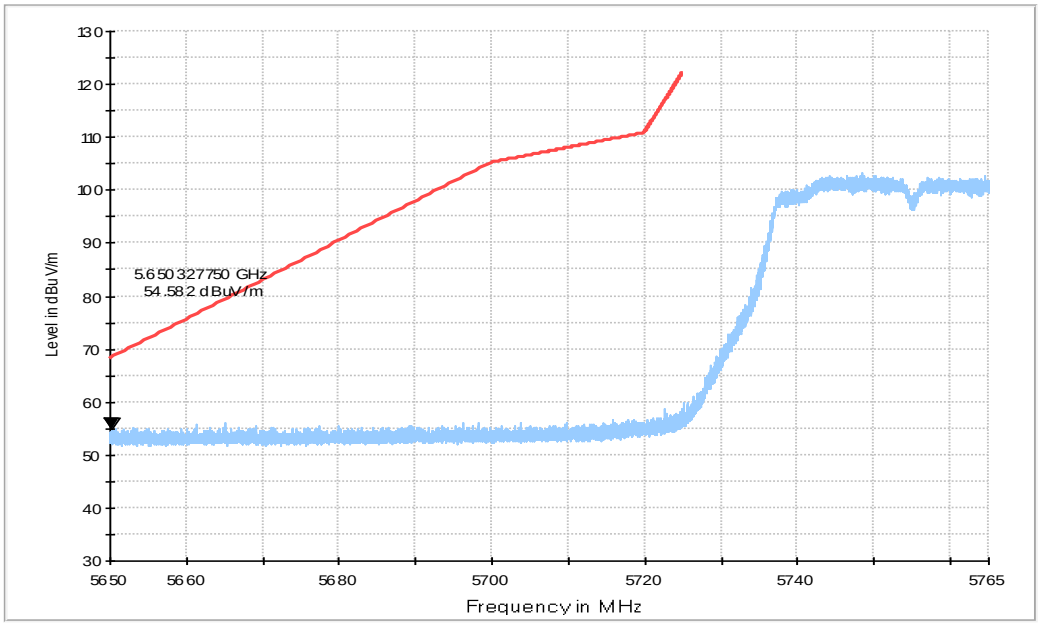


Fig. 27 Band Edges (802.11ac-HT40,CH151, 5755MHz)

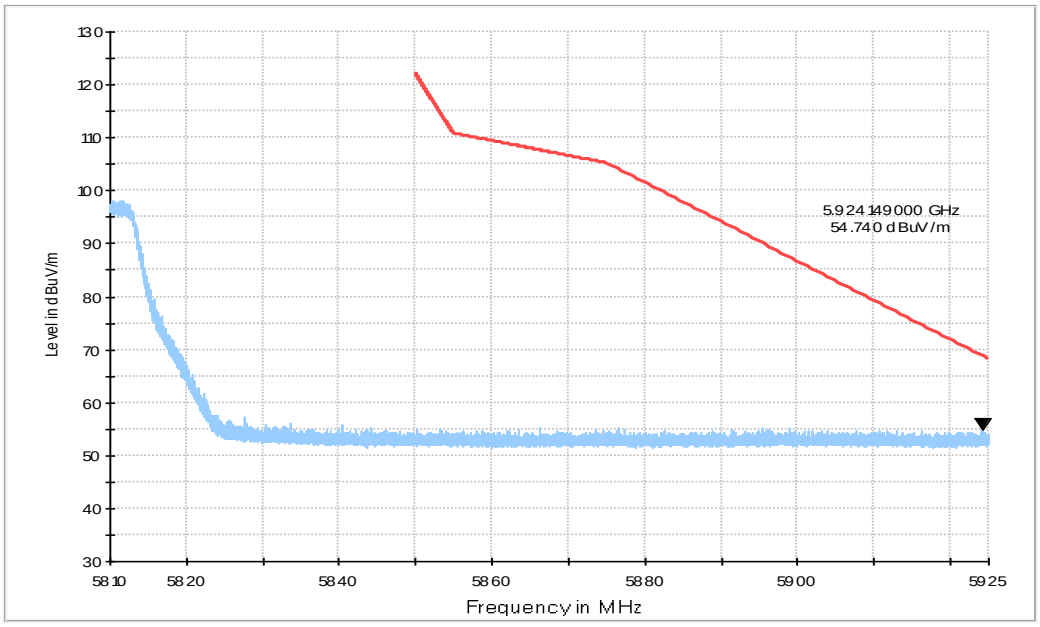


Fig. 28 Band Edges (802.11ac-HT40,CH159, 5795MHz)

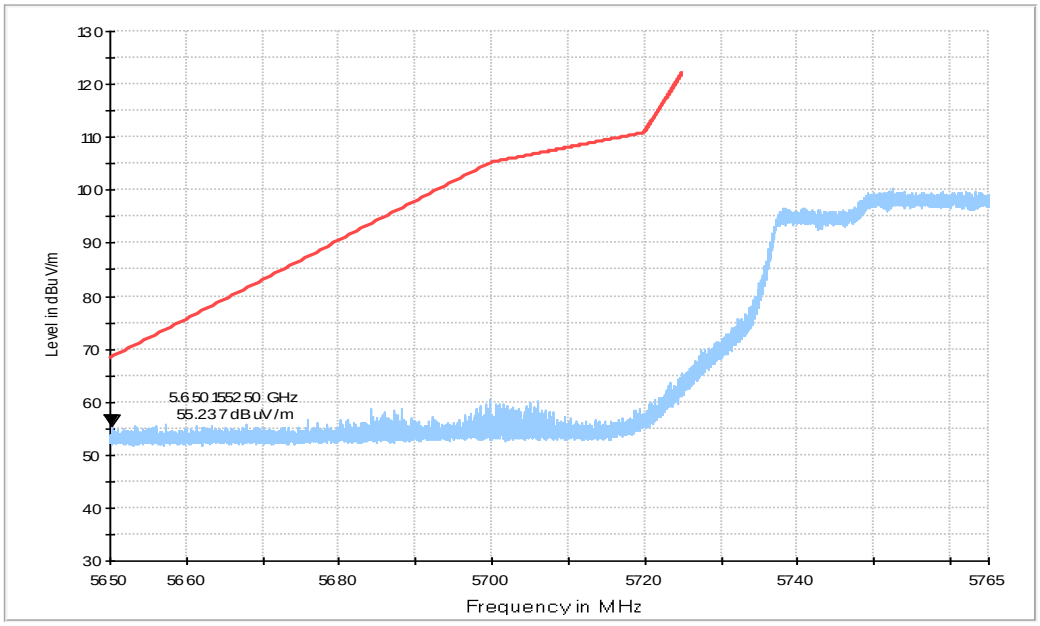


Fig. 29 Band Edges (802.11ac-HT80, CH155, 5775MHz)

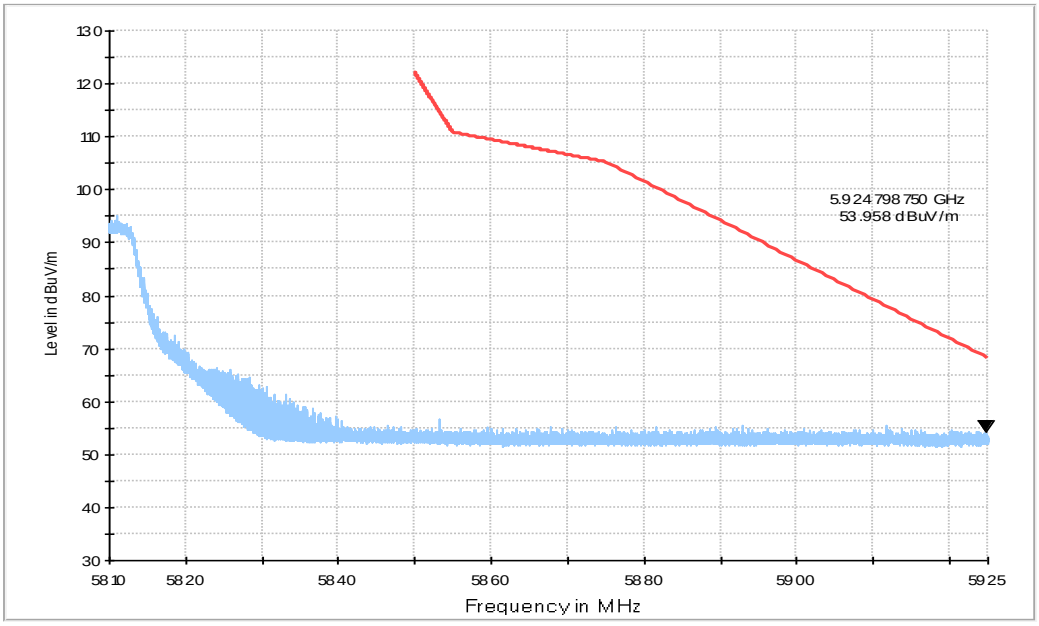


Fig. 30 Band Edges (802.11ac-HT80, CH155, 5775MHz)

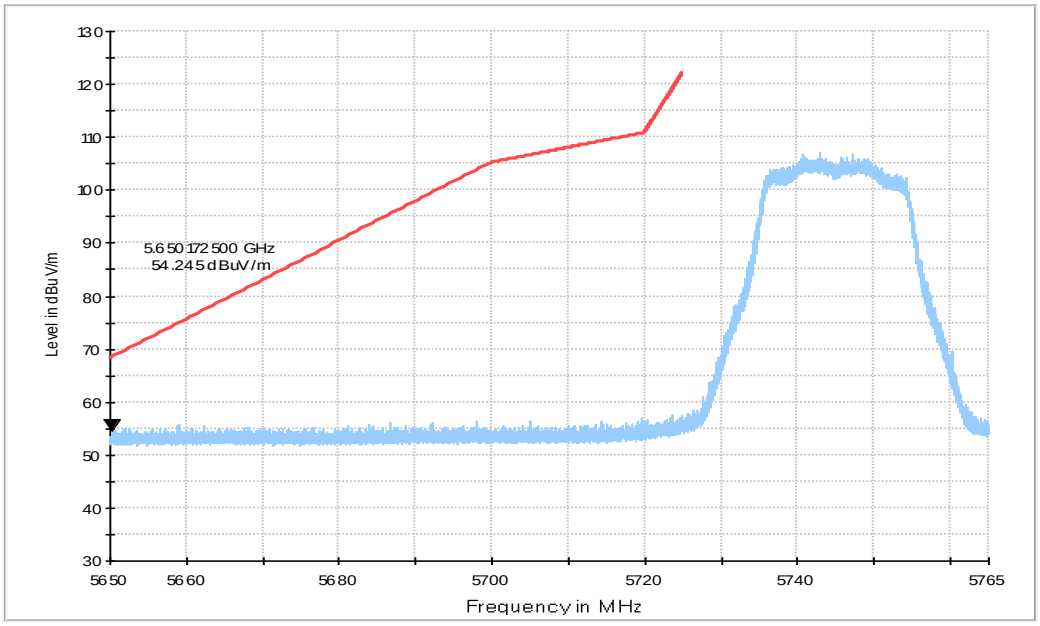


Fig. 31 Band Edges (802.11ax-HT20, CH149, 5745MHz)

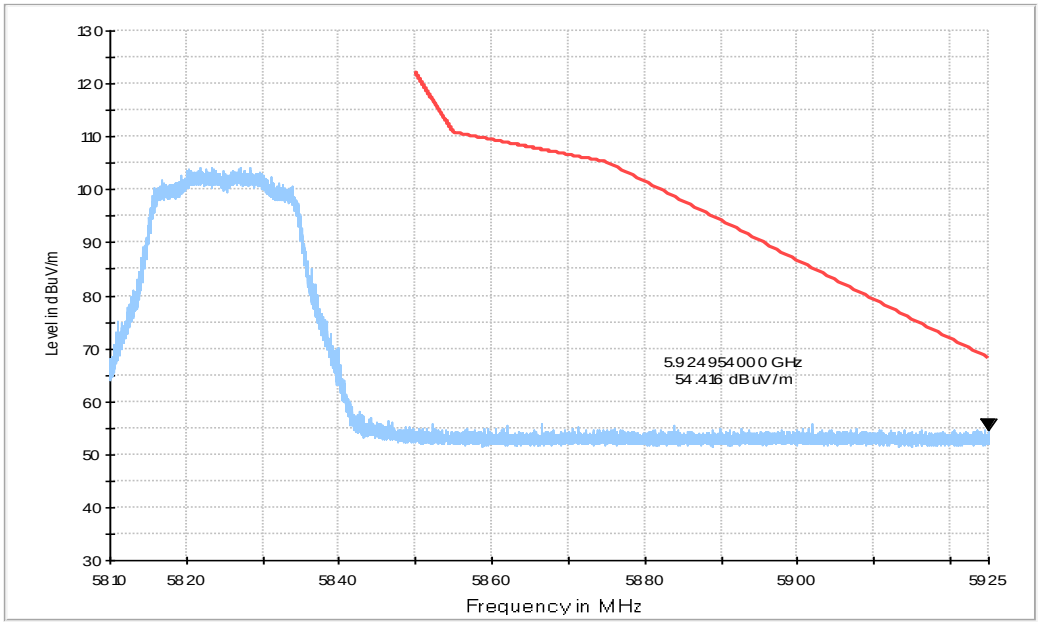


Fig. 32 Band Edges (802.11ax-HT20, CH165, 5825MHz)

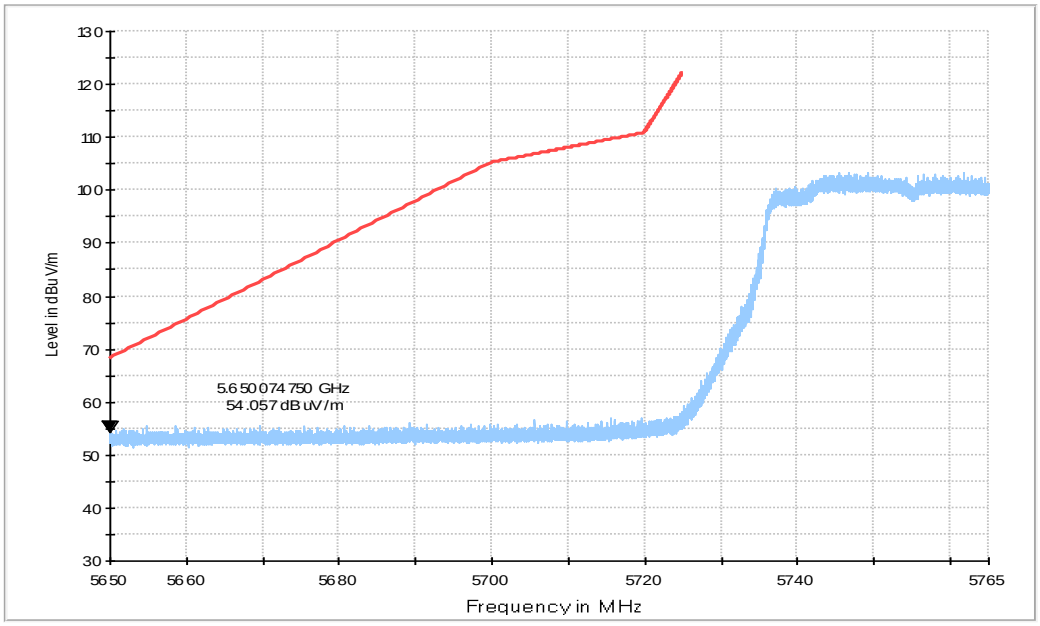


Fig. 33 Band Edges (802.11ax-HT40,CH151, 5755MHz)

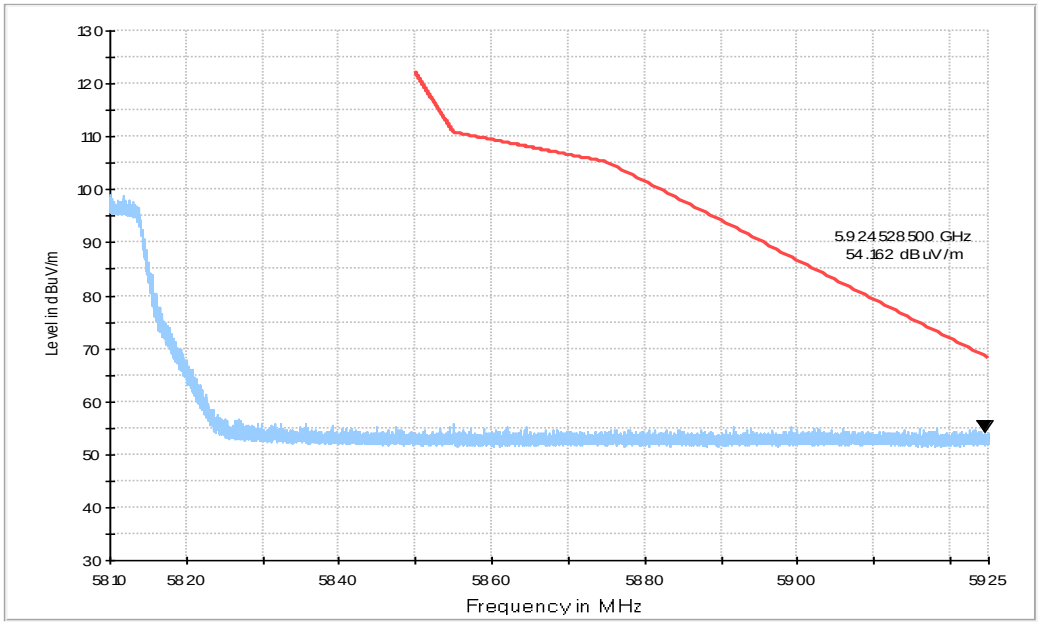


Fig. 34 Band Edges (802.11ax-HT40,CH159, 5795MHz)

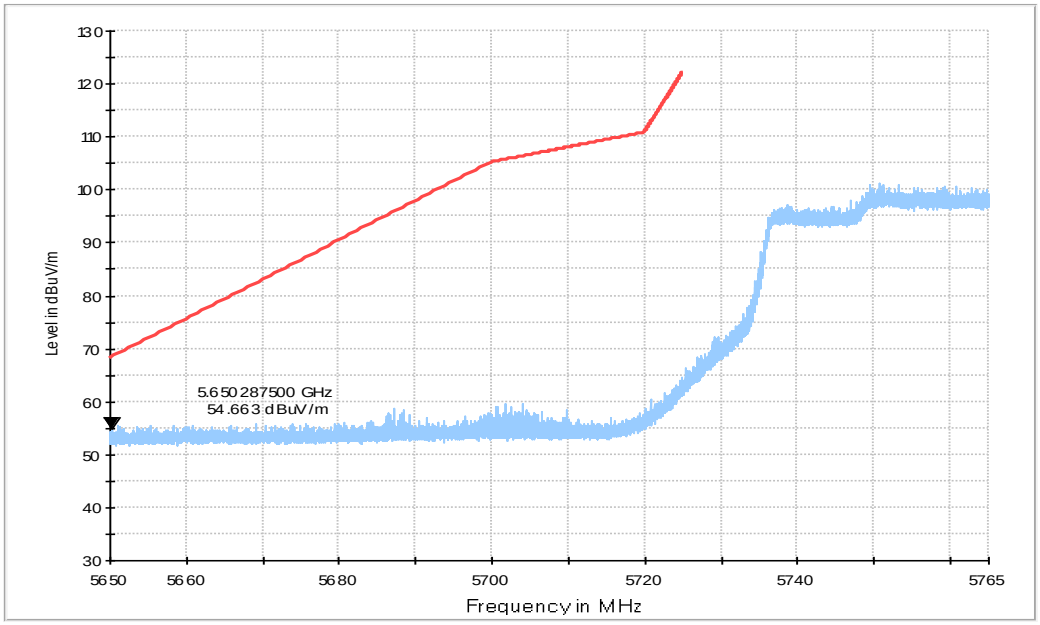


Fig. 35 Band Edges (802.11ax-HT80, CH155, 5775MHz)

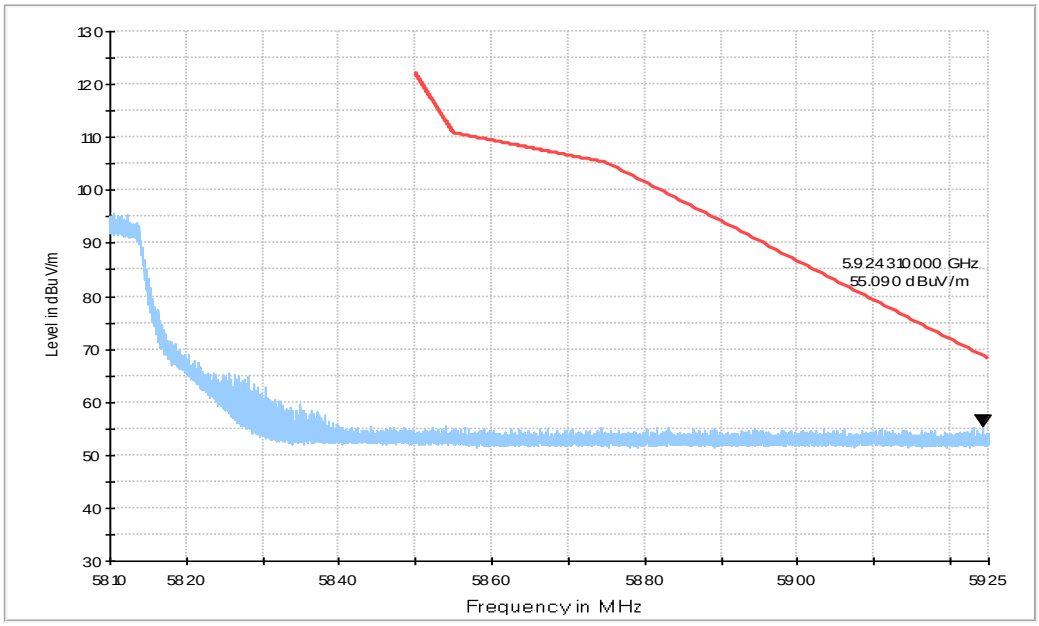


Fig. 36 Band Edges (802.11ax-HT80, CH155, 5775MHz)

C.2. AC Power-line Conducted Emission

Reference

FCC 47 CFR Part 15, Clause 15.407, Clause 15.207

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.

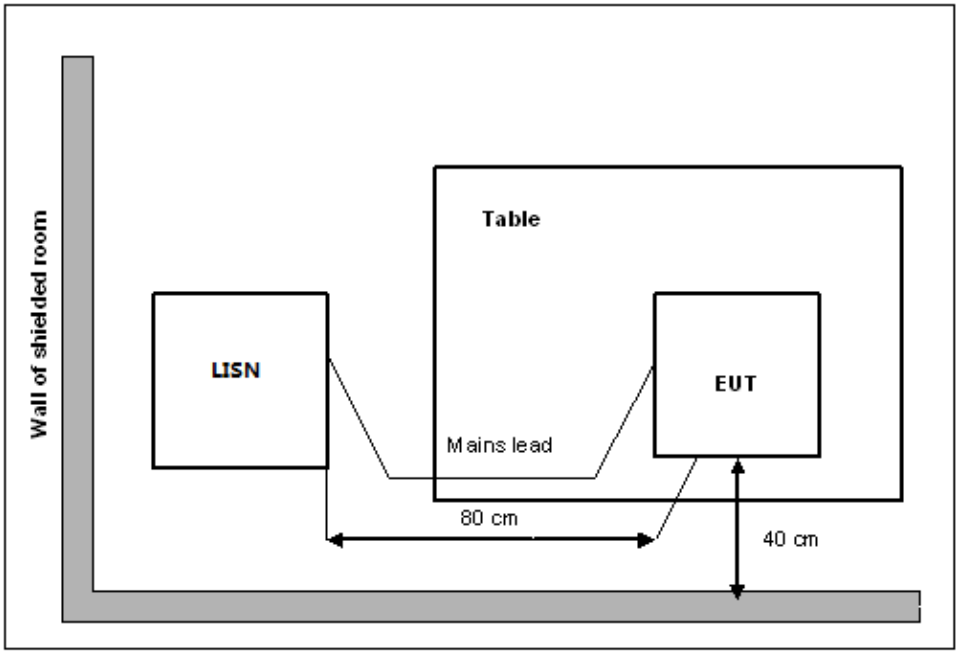
The measurement bandwidth is:

Frequency of Emission (MHz)	RBW/IF bandwidth	Sweep Time(s)
0.15-30	9kHz	1

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/DC travel adapter.

Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11a	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		
		802.11a	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:

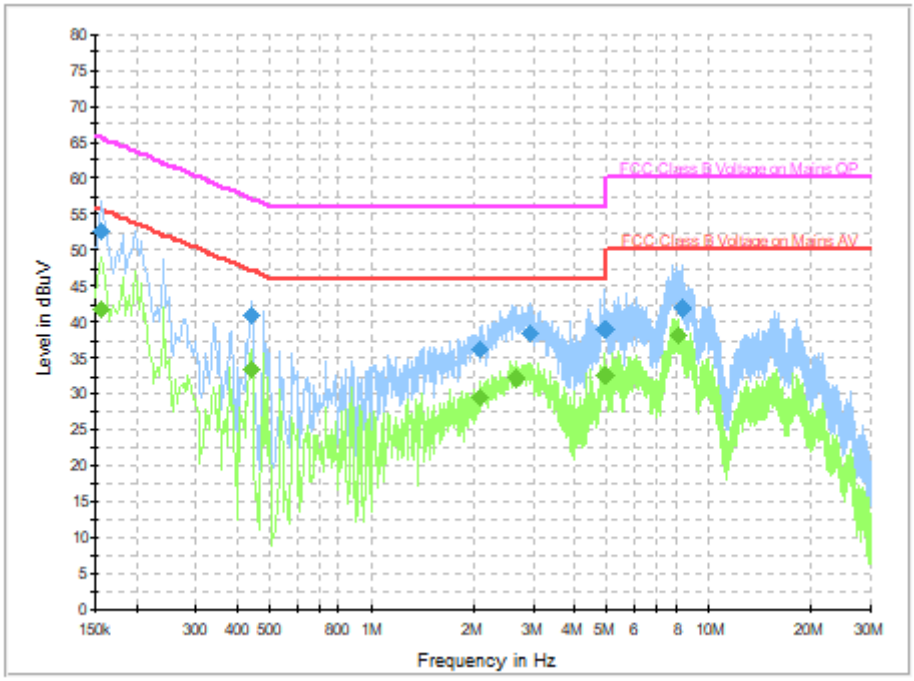


Fig.C.2.1 AC Power line Conducted Emission-802.11a

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)
0.158000	52.6	5000.0	9.000	N	19.7	13.0	65.6
0.438000	41.0	5000.0	9.000	N	19.7	16.1	57.1
2.090000	36.2	5000.0	9.000	L1	19.6	19.8	56.0
2.946000	38.3	5000.0	9.000	N	19.6	17.7	56.0
4.898000	39.1	5000.0	9.000	L1	19.6	16.9	56.0
8.302000	41.8	5000.0	9.000	L1	19.6	18.2	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	41.7	5000.0	9.000	N	19.7	13.9	55.6
0.438000	33.3	5000.0	9.000	N	19.7	13.8	47.1
2.090000	29.4	5000.0	9.000	L1	19.6	16.6	46.0
2.694000	32.2	5000.0	9.000	N	19.6	13.8	46.0
4.898000	32.5	5000.0	9.000	L1	19.6	13.5	46.0
8.074000	38.0	5000.0	9.000	L1	19.6	12.0	50.0

Idle:

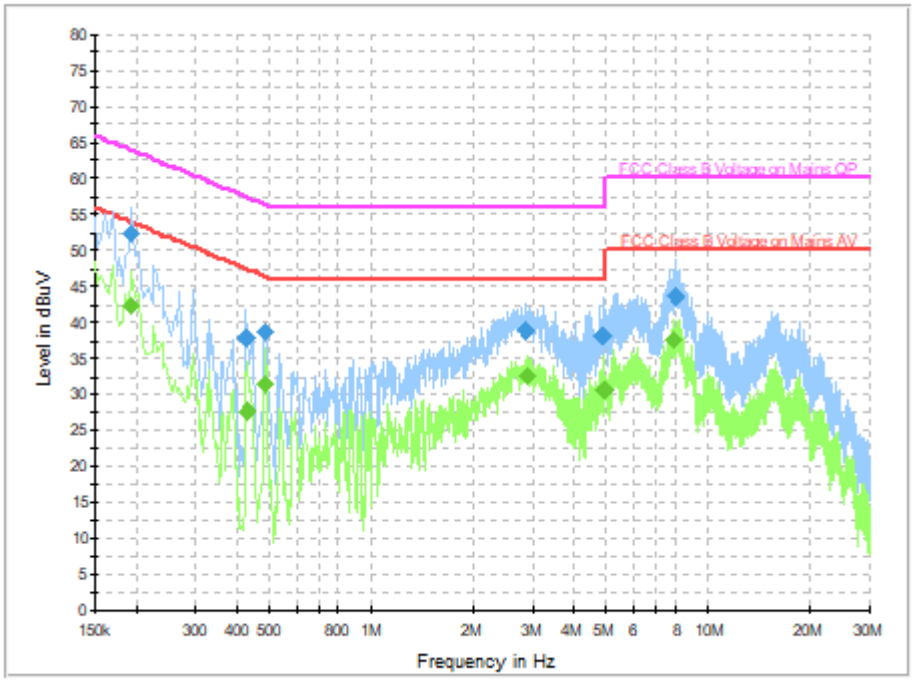


Fig.C.2.2 AC Power line Conducted Emission-Idle

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)
0.194000	52.5	5000.0	9.000	N	19.7	11.4	63.9
0.426000	38.0	5000.0	9.000	N	19.7	19.4	57.3
0.482000	38.7	5000.0	9.000	L1	19.7	17.6	56.3
2.890000	38.7	5000.0	9.000	N	19.6	17.3	56.0
4.850000	38.0	5000.0	9.000	L1	19.6	18.0	56.0
8.014000	43.5	5000.0	9.000	L1	19.7	16.5	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.194000	42.3	5000.0	9.000	N	19.7	11.5	53.9
0.430000	27.7	5000.0	9.000	L1	19.7	19.6	47.3
0.482000	31.5	5000.0	9.000	L1	19.7	14.8	46.3
2.914000	32.6	5000.0	9.000	L1	19.6	13.4	46.0
4.898000	30.5	5000.0	9.000	N	19.6	15.5	46.0
7.950000	37.7	5000.0	9.000	L1	19.7	12.3	50.0

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