



**FCC PART 15C
TEST REPORT
No. I21Z70530-IOT11**

for

Samsung Electronics Co., Ltd.

Multi-band GSM/WCDMA/LTE phone with Bluetooth, WLAN

SM-A035G/DSN

FCC ID: ZCASMA035G

with

Hardware Version: REV1.0

Software Version: A035G.001

Issued Date: 2021-11-23

Note:

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REPORT HISTORY

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1. TEST LABORATORY

1.1. Introduction & Accreditation

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

1.2. Testing Location

Location 1:CTTL(Huayuan North Road)

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

1.3. Testing Environment

Normal Temperature: 15-35°C

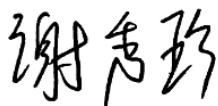
Relative Humidity: 20-75%

1.4. Project date

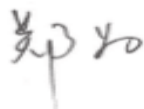
Testing Start Date: 2021-09-01

Testing End Date: 2021-11-18

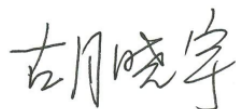
1.5. Signature



Xie Xiuzhen
(Prepared this test report)



Zheng Wei
(Reviewed this test report)



Hu Xiaoyu
(Approved this test report)



2. CLIENT INFORMATION

2.1. Applicant Information

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Email: j1.chun@samsung.com
Tel: +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: Sunghoon Cho
Email: ggobi.cho@samsung.com
Tel: +82-10-2722-4159
Fax: /

3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY

EQUIPMENT(AE)

3.1. About EUT

Description	Multi-band GSM/WCDMA/LTE phone with Bluetooth, WLAN
Model name	SM-A035G/DSN
FCC ID	ZCASMA035G
WLAN Frequency Band	ISM Band: 5725MHz~5850MHz
Type of modulation	OFDM
Voltage	3.85V

3.2. Internal Identification of EUT used during the test

EUT ID*	IMEI	HW Version	SW Version
UT20a	2170530UT20a	REV1.0	A035G.001
UT13a	2170530UT13a	REV1.0	A035G.001

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

3.3. Internal Identification of AE used during the test

AE1	Adapter1	/	/
AE2	Adapter2	/	/
AE3	Adapter3	/	/
AE4	Adapter4	/	/
AE5	Adapter5	/	/
AE6	Adapter6	/	/
AE7	Adapter7	/	/
AE8	Adapter8	/	/
AE9	USB Cable	/	/
AE10	Headset1	/	/
AE11	Headset2	/	/
AE12	Battery1	/	/
AE13	Battery2	/	/

AE1

Model	EP-TA50JWS
Manufacturer	RFTECH Co., Ltd.
Length of cable	/

AE2

Model	EP-TA50JWS
Manufacturer	HAMEN
Length of cable	/



AE3

Model	EP-TA50EWE
Manufacturer	DY
Length of cable	/

AE4

Model	EP-TA50EWE
Manufacturer	HAMEN
Length of cable	/

AE5

Model	EP-TA50EWE
Manufacturer	Salcomp
Length of cable	/

AE6

Model	EP-TA50UWE
Manufacturer	DY
Length of cable	/

AE7

Model	EP-TA50UWE
Manufacturer	HAMEN
Length of cable	/

AE8

Model	EP- TA50UWE
Manufacturer	Salcomp
Length of cable	/

AE9

Model	ECB-DU68WE
Manufacturer	Samsung Electronics Co., Ltd.
Length	/

AE10

Model	EHS61ASFWE
Manufacturer	CRESYN HANOI Co., Ltd
Length	/

AE11

Model	EHS61ASFWE
Manufacturer	DONGGUAN YOUNGBO ELECTRONICS CO.,LTD
Length	/

AE12

TYPE	Secondary Li-ion Battery
SN	HQ-50SD
Manufacturer	SCUD (Fujian) Electronics CO.,LTD

AE13

TYPE	Secondary Li-ion Battery
SN	HQ-50N

Manufacturer SCUD (Fujian) Electronics CO.,LTD

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

3.4. General Description

The Equipment under Test (EUT) is a model of Multi-band GSM/WCDMA/LTE phone with Bluetooth, WLAN with integrated antenna and inbuilt battery.

It consists of normal options: Battery and Charger.

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

Samples undergoing test were selected by the Client.

4. REFERENCE DOCUMENTS

4.1. Documents supplied by applicant

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

4.2. Reference Documents for testing

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

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	2018
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

5. LABORATORY ENVIRONMENT

Conducted RF performance testing is performed in shielding room.

EMC performance testing is performed in Semi-anechoic chamber.

6. SUMMARY OF TEST RESULTS

6.1. Summary of Test Results

SUMMARY OF MEASUREMENT RESULTS	Sub-clause of Part15C	Sub-clause of IC	Verdict
Maximum Peak Output Power	15.407 (a)	/	BR
Peak Power Spectral Density	15.407 (a)	/	BR
Occupied 6dB Bandwidth	15.407 (e)	/	BR
Band Edges Compliance -Radiated	15.407 (b)	/	P
Transmitter Spurious Emission - Radiated	15.407, 15.205, 15.209	/	P
AC Powerline Conducted Emission	15.107, 15.207	/	P

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

Terms used in Verdict column

P	Pass, The EUT complies with the essential requirements in the standard.
NM	Not measured, The test was not measured 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

6.2. Statements

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

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

6.3. Test Conditions

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

Temperature	26°C
Voltage	3.85V
Humidity	44%

7. TEST EQUIPMENTS UTILIZED

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Vector Signal Analyzer	FSQ40	200089	Rohde & Schwarz	1 year	2022-05-15
2	LISN	ENV216	101200	R&S	1 year	2022-05-30
3	Test Receiver	ESCI	100344	R&S	1 year	2022-02-23
4	Shielding Room	S81	/	ETS-Lindgren	/	/

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Test Receiver	ESU26	100235	Rohde & Schwarz	1 year	2022-02-23
2	BiLog Antenna	VULB9163	9163-01223	Schwarzbeck	1 year	2022-03-22
3	Antenna	3115	6914	ETS-Lindgren	1 year	2022-02-03
4	Dual-Ridge Waveguide Horn Antenna	3116	2661	ETS-Lindgren	1 year	2022-01-05
5	Analytical Spectrometer	FSV40	R&S	101047	1 year	2022-05-17

8. Measurement Uncertainty

8.1. Transmitter Output Power

Measurement Uncertainty: 0.387dB,k=1.96

8.2. Peak Power Spectral Density

Measurement Uncertainty: 0.705dB,k=1.96

8.3. Occupied 6dB Bandwidth

Measurement Uncertainty: 60.80Hz,k=1.96

8.4. Band Edges Compliance

Measurement Uncertainty : 0.62dB,k=1.96

8.5. Spurious Emissions

Conducted (k=1.96)

Frequency Range	Uncertainty(dB)
$30\text{MHz} \leq f \leq 2\text{GHz}$	1.22
$2\text{GHz} \leq f \leq 3.6\text{GHz}$	1.22
$3.6\text{GHz} \leq f \leq 8\text{GHz}$	1.22
$8\text{GHz} \leq f \leq 12.75\text{GHz}$	1.51
$12.75\text{GHz} \leq f \leq 26\text{GHz}$	1.51
$26\text{GHz} \leq f \leq 40\text{GHz}$	1.59

Radiated (k=2)

Frequency Range	Uncertainty(dB)
9kHz-30MHz	/
$30\text{MHz} \leq f \leq 1\text{GHz}$	5.16
$1\text{GHz} \leq f \leq 18\text{GHz}$	5.44
$18\text{GHz} \leq f \leq 40\text{GHz}$	5.28

8.6. AC Power-line Conducted Emission

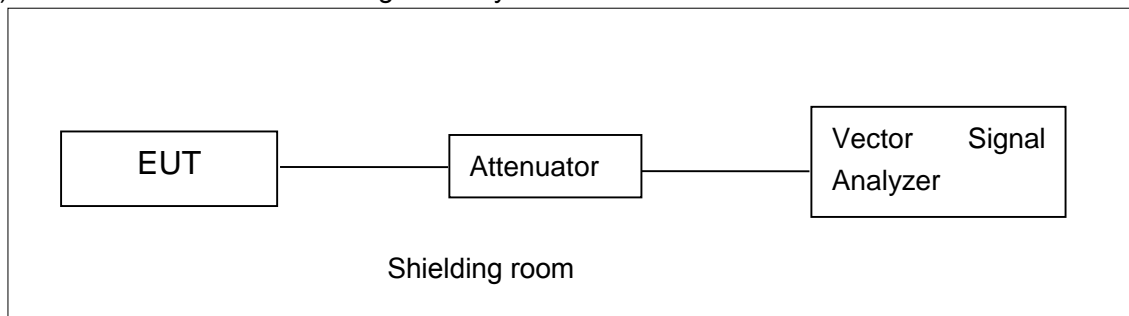
Measurement Uncertainty : 3.08dB,k=2

ANNEX A: MEASUREMENT RESULTS

A.1. Measurement Method

A.1.1. Conducted Measurements

- 1). Connect the EUT to the test system correctly.
- 2). Set the EUT to the required work mode.
- 3). Set the EUT to the required channel.
- 4). Set the spectrum analyzer to start measurement.
- 5). Record the values. Vector Signal Analyzer

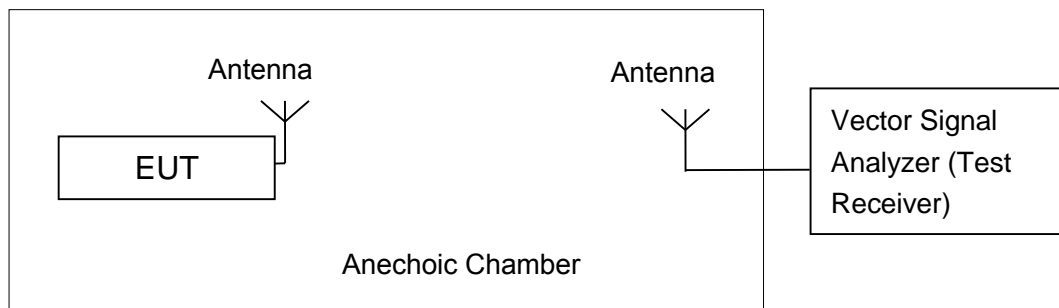


A.1.2. Radiated Emission Measurements

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

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

Sweep frequency from 1 GHz to 26GHz, RBW = 1MHz, VBW = 3MHz;



The measurement is made according to ANSI C63.10.

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.

A.2. Maximum Peak Output Power

Measurement Limit and Method:

Standard	Limit (dBm)
FCC CRF Part 15.407(a)	< 30

A.2.1 Antenna Gain

Antenna gain is -1dBi and the value is supplied by the applicant or manufacturer.

A.2.2. Maximum Average Output Power-Conducted

Measurement Results:

802.11a mode

Mode	Data Rate (Mbps)	Test Result (dBm)		
		5745MHz (Ch149)	5785MHz (Ch157)	5825MHz (Ch165)
802.11a	6	15.24	15.29	15.65
	9	/	/	15.76
	12	/	/	15.74
	18	/	/	15.83
	24	/	/	14.53
	36	/	/	14.51
	48	/	/	13.94
	54	/	/	13.96

The data rate 6Mbps is selected as worse condition, and the following cases are performed with this condition.

802.11n-HT20 mode

Mode	Data Rate (Index)	Test Result (dBm)		
		5745MHz (Ch149)	5785MHz (Ch157)	5825MHz (Ch165)
802.11n(20MHz)	MCS0	15.29	/	/
	MCS1	15.53	/	/
	MCS2	15.62	15.38	15.13
	MCS3	15.37	/	/
	MCS4	15.21	/	/
	MCS5	15.43	/	/
	MCS6	13.38	/	/
	MCS7	12.53	/	/

The data rate MCS2 is selected as worse condition, and the following cases are performed with this condition.

802.11ac-HT20 mode

Mode	Data Rate (Index)	Test Result (dBm)		
		5745MHz (Ch149)	5785MHz (Ch157)	5825MHz (Ch165)
802.11ac(20MHz)	MCS0	14.81	14.53	14.60
	MCS1	14.35	/	/
	MCS2	13.31	/	/
	MCS3	13.59	/	/
	MCS4	12.61	/	/
	MCS5	12.60	/	/
	MCS6	12.07	/	/
	MCS7	12.13	/	/
	MCS8	11.12	/	/

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

802.11n-HT40 mode

Mode	Data Rate (Index)	Test Result (dBm)	
		5755MHz (Ch151)	5795MHz (Ch159)
802.11n(40MHz)	MCS0	15.55	15.70
	MCS1	/	15.45
	MCS2	/	15.23
	MCS3	//	15.22
	MCS4	/	14.52
	MCS5	/	12.58
	MCS6	/	12.71
	MCS7	/	12.51

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

802.11ac-HT40 mode

Mode	Data Rate (Index)	Test Result (dBm)	
		5755MHz (Ch151)	5795MHz (Ch159)
802.11ac(40MHz)	MCS0	14.18	/
	MCS1	14.39	14.35
	MCS2	13.31	/
	MCS3	12.91	/
	MCS4	12.34	/
	MCS5	12.60	/
	MCS6	11.76	/
	MCS7	11.97	/
	MCS8	11.78	/

The data rate MCS1 is selected as worse condition, and the following cases are performed with this condition.

802.11ac-HT80 mode

Mode	Data Rate (Index)	Test Result (dBm)
		5775MHz (Ch155)
802.11ac(80MHz)	MCS0	14.14
	MCS1	14.22
	MCS2	13.08
	MCS3	12.96
	MCS4	12.18
	MCS5	12.06
	MCS6	11.53
	MCS7	11.49
	MCS8	10.46

The data rate MCS1 is selected as worse condition, and the following cases are performed with this condition.

Conclusion: PASS

A.3. Peak Power Spectral Density

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.407(a)	< 30 dBm/500 kHz

The measurement is made according to ANSI C63.10 and KDB789033 D02

Measurement Uncertainty:

Measurement Uncertainty	0.75dB
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Measurement Results:

Mode	Channel	Power Spectral Density (dBm/500kHz)	Conclusion
802.11a	149	1.43	P
	157	1.29	P
	165	1.46	P
802.11N HT20	149	0.94	P
	157	0.78	P
	165	0.97	P
802.11ac HT40	151	-2.05	P
	159	-2.31	P
802.11ac HT80	155	-6.21	P

Conclusion: PASS

A.4. Occupied 6dB Bandwidth

Measurement Limit:

Standard	Limit (kHz)
FCC 47 CFR Part 15.407 (e)	≥ 500

The measurement is made according to KDB789033 D02 .

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz
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Measurement Result:

Mode	Channel	Occupied 6dB Bandwidth (KHz)		conclusion
802.11a	149	Fig.1	16350.	P
	157	Fig.2	16290	P
	165	Fig.3	16350	P
802.11n HT20	149	Fig.4	17290	P
	157	Fig.5	17500	P
	165	Fig.6	17540	P
802.11n HT40	151	Fig.7	35680	P
	159	Fig.8	35680	P
802.11ac HT80	155	Fig.9	75830	P

Conclusion: PASS

Test graphs as below:

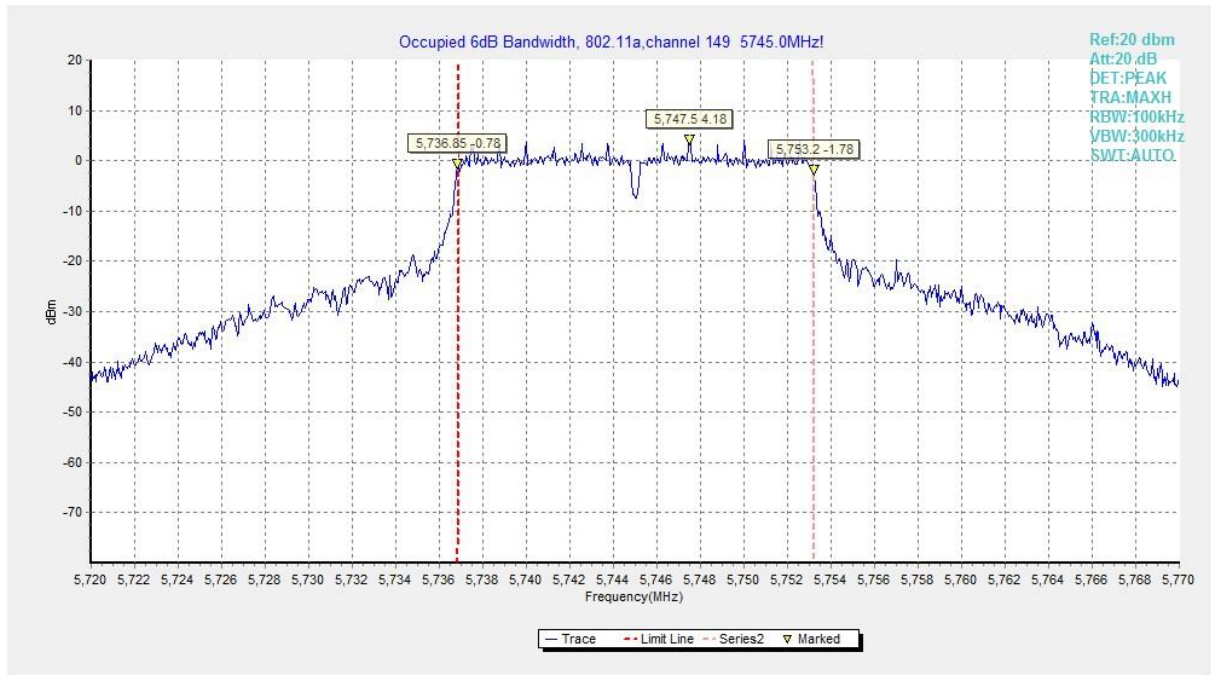


Fig. 1 Occupied 6dB Bandwidth (802.11a, Ch 149)

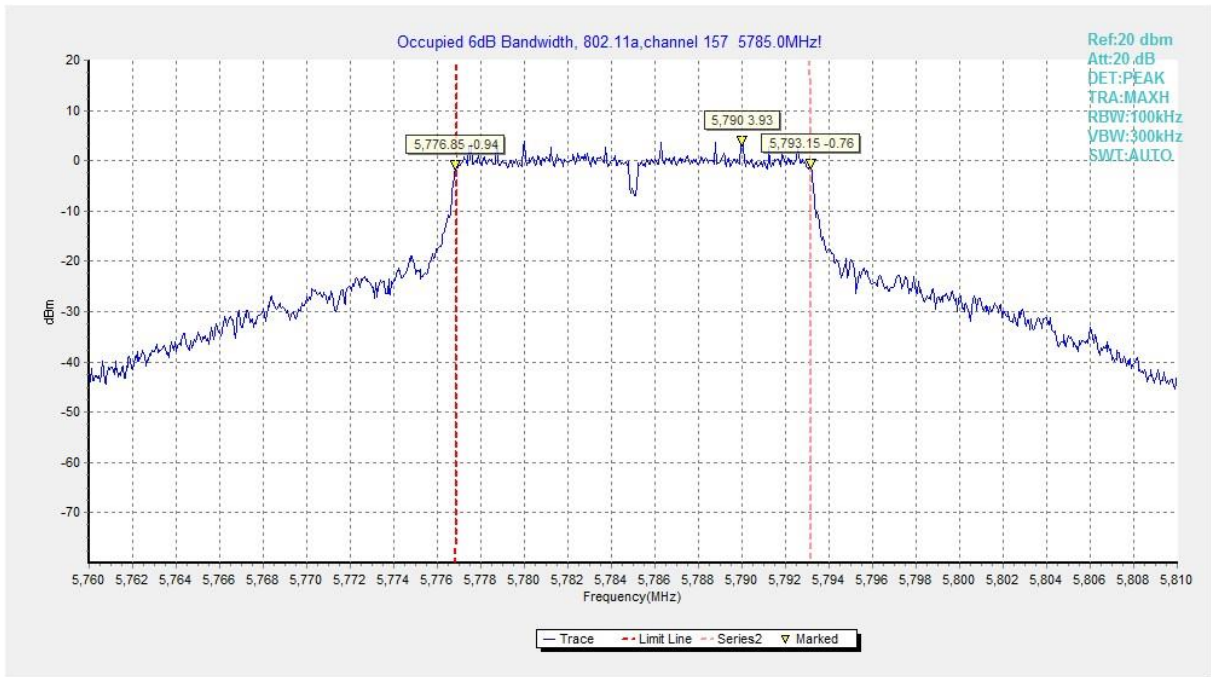


Fig. 2 Occupied 6dB Bandwidth (802.11a, Ch 157)

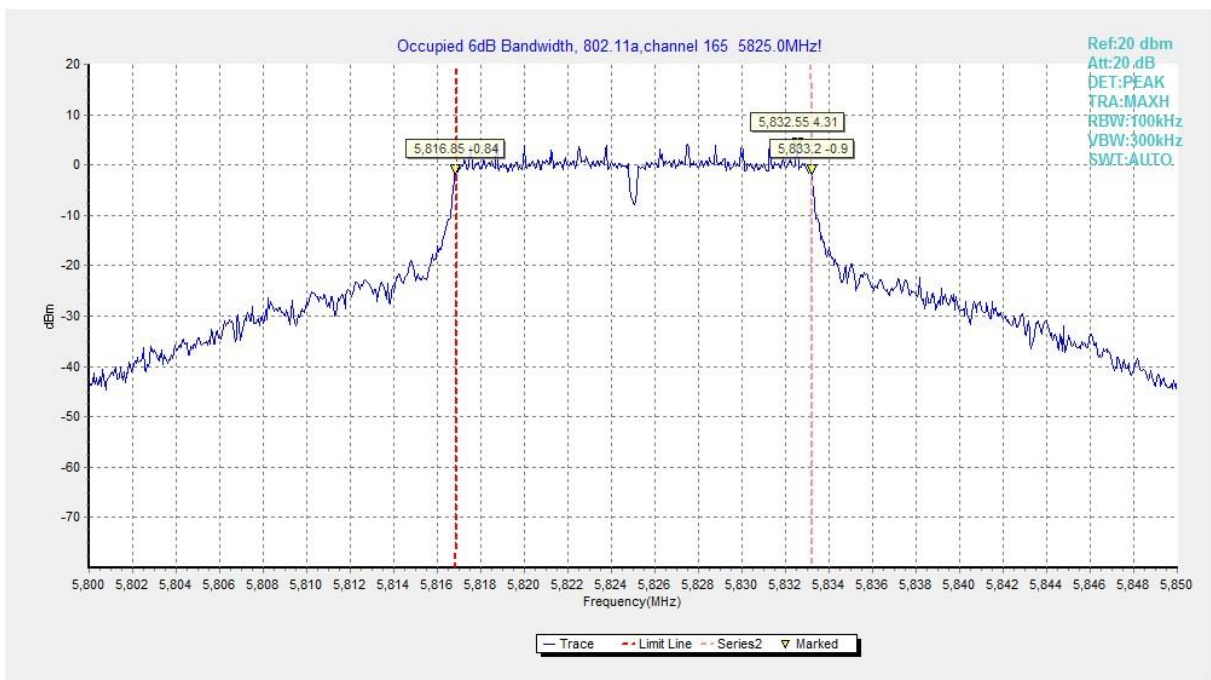


Fig. 3 Occupied 6dB Bandwidth (802.11a, Ch 165)

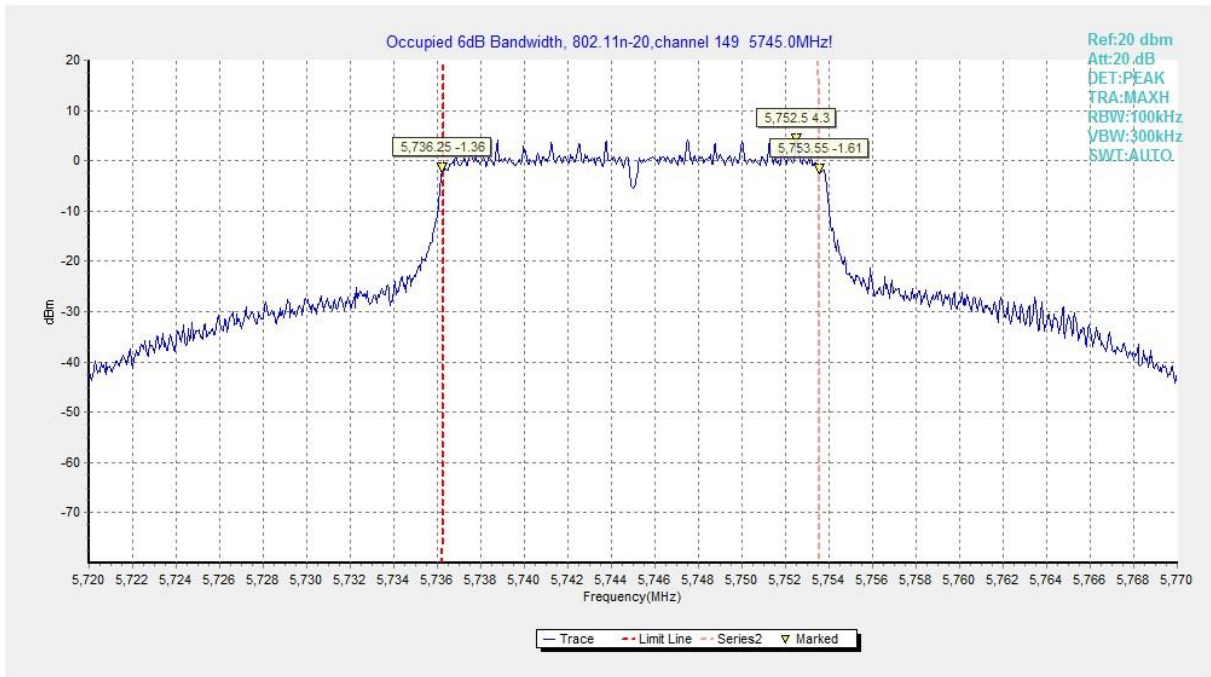


Fig. 4 Occupied 6dB Bandwidth (802.11n-HT20, Ch 149)

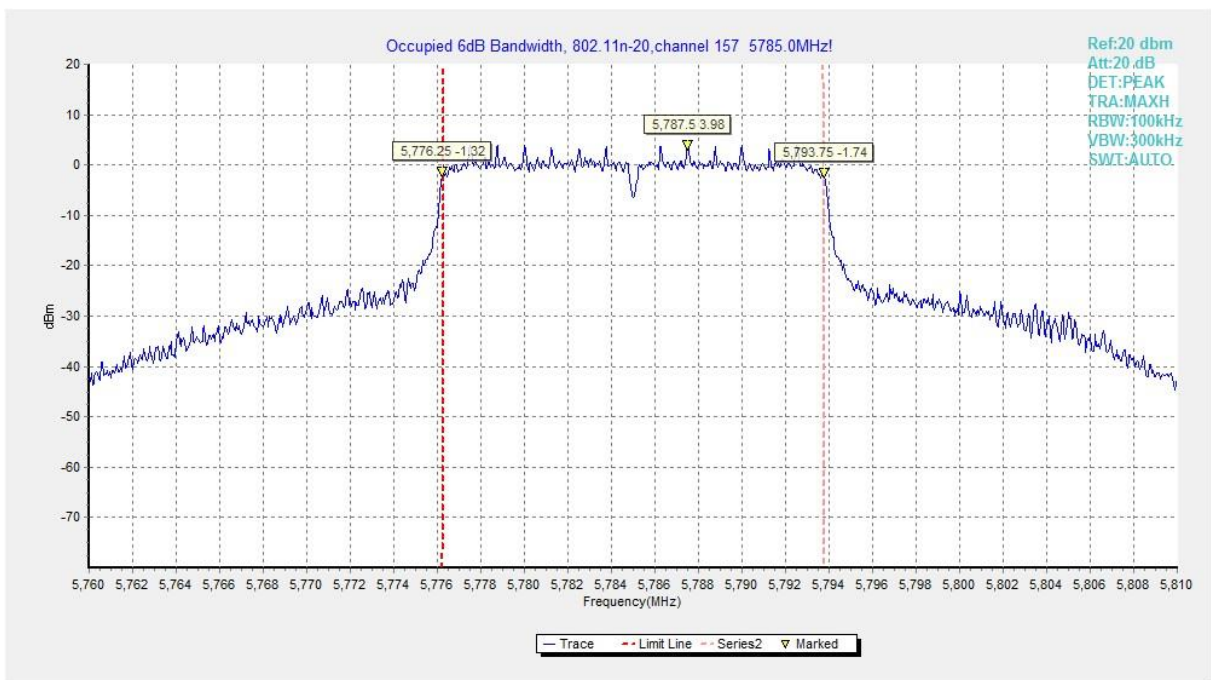


Fig. 5 Occupied 6dB Bandwidth (802.11n-HT20, Ch 157)

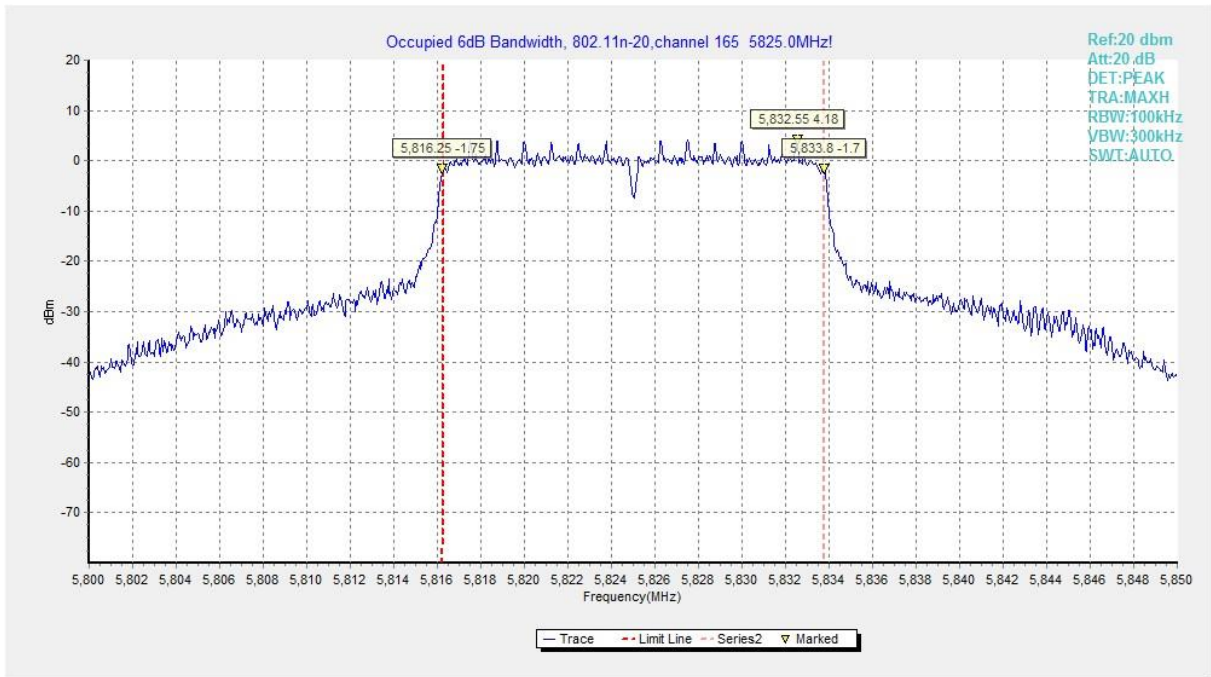


Fig. 6 Occupied 6dB Bandwidth (802.11n-HT20, Ch 165)

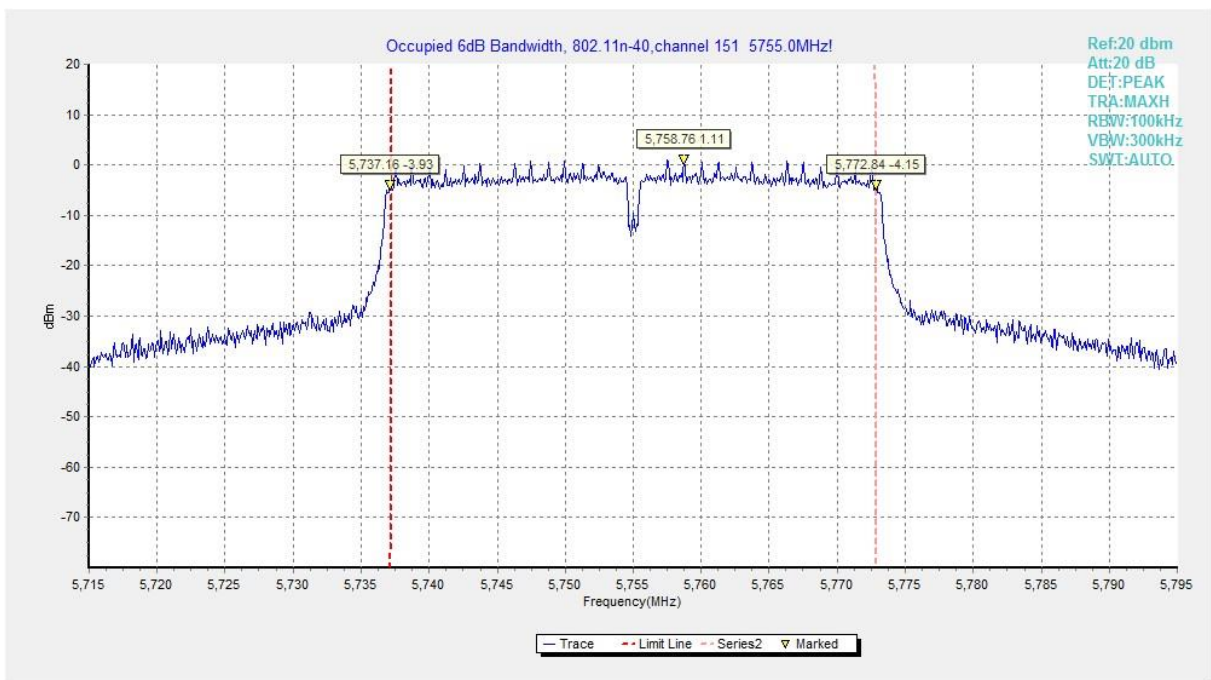


Fig. 7 Occupied 6dB Bandwidth (802.11n-HT40, Ch 151)

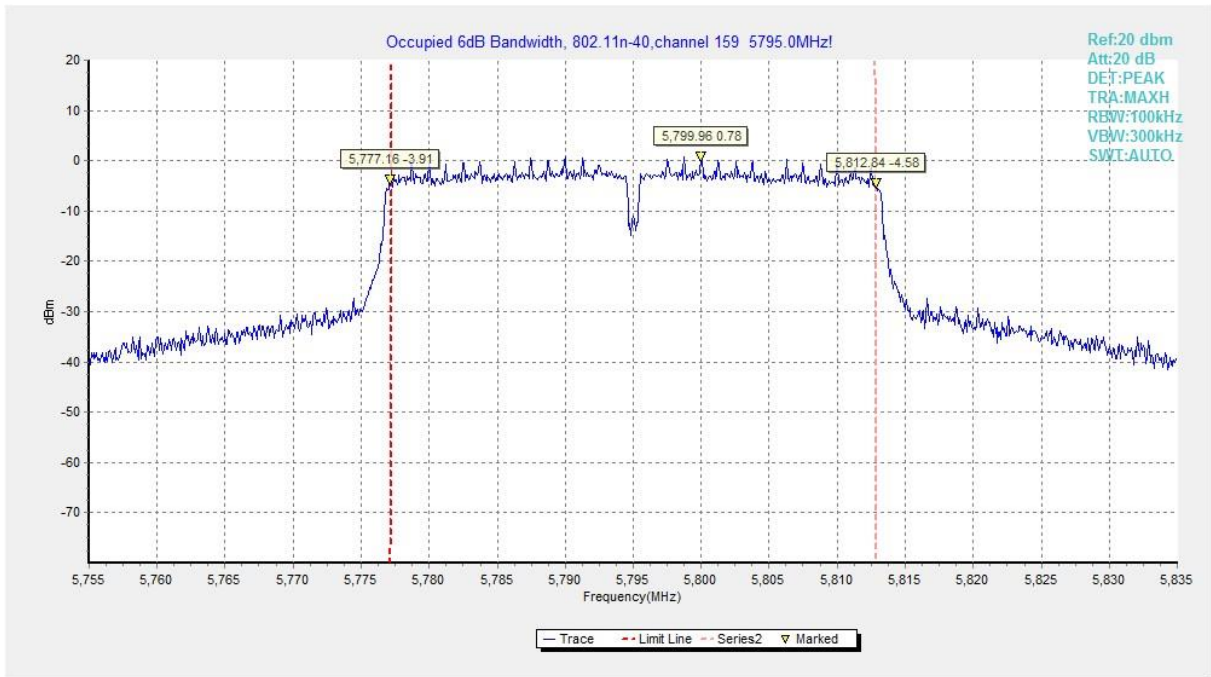


Fig. 8 Occupied 6dB Bandwidth (802.11n-HT40, Ch 159)

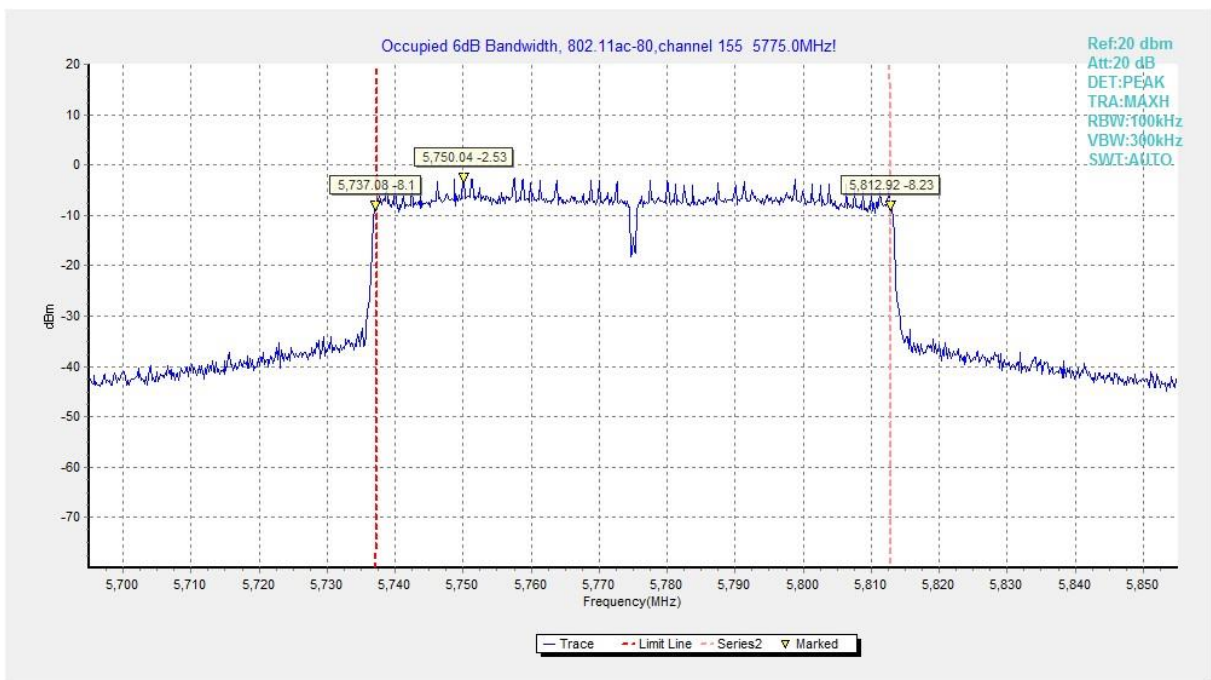


Fig. 9 Occupied 6dB Bandwidth (802.11n-HT80, Ch 155)

A.5. Transmitter Spurious Emission

A.5.1 Transmitter Spurious Emission – Radiated

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.	

The measurement is made according to KDB 789033

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

Limit in restricted band:

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

Frequency of emission (MHz)	Field strength (μ V/m)	Field strength (dBuV/m)	Measurement distance (m)
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Set up:

Tabletop devices shall be placed on a nonconducting platform with nominal top surface dimensions 1 m by 1.5 m. For emissions testing at or below 1 GHz, the table height shall be 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height shall be 1.5 m

The EUT and transmitting antenna shall be centered on the turntable.

Test Procedure

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. 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. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

The receiver references:

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100kHz/300kHz	5
1000-4000	1MHz/3MHz	15
4000-18000	1MHz/3MHz	40
18000-26500	1MHz/3MHz	20

Measurement Results:
802.11a mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11a	149	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	157	9kHz ~30 MHz	---	P
		30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz~ 40 GHz	---	P
	165	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	149	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	157	9kHz ~30 MHz	---	P
		30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz~ 40 GHz	---	P
	165	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P

802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT40)	151	9kHz ~30 MHz	---	P
		30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz~ 40 GHz	---	P
	159	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P

802.11ac-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11ac (HT20)	149	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	157	9kHz ~30 MHz	---	P
		30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz~ 40 GHz	---	P
		165	1 GHz ~ 3 GHz	---
	3 GHz ~ 7 GHz		---	P
	7 GHz ~ 18 GHz		---	P

802.11ac-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11ac (HT40)	151	9kHz ~30 MHz	---	P
		30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz~ 40 GHz	---	P
	159	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P

802.11ac-HT80 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11ac (HT80)	155	9kHz ~30 MHz	---	P
		30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz~ 40 GHz	---	P

Note:

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

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

The measurement results are obtained as described below:

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

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)
17997.8	40.84	-25.5	46.66	19.68	54	13.16	H
17980.8	40.8	-25.5	46.66	19.64	54	13.2	V
16153.1	36.45	-26.77	38.93	24.29	54	17.55	V
14482.8	36.29	-28.59	42.46	22.42	54	17.71	V
11824.1	32.94	-31.85	39.05	25.74	54	21.06	H
11819.1	32.88	-31.85	39.05	25.68	54	21.12	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)
17994.5	41.07	-25.5	46.66	19.91	54	12.93	H
17992.8	41	-25.5	46.66	19.84	54	13	V
16168	36.56	-26.77	38.93	24.4	54	17.44	V
16167.4	36.45	-26.77	38.93	24.29	54	17.55	V
11820.2	33.42	-31.85	39.05	26.22	54	20.58	H
11831.2	33.19	-31.85	39.05	25.99	54	20.81	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)
17991.2	41.53	-25.5	46.66	20.37	54	12.47	V
17985.2	41.06	-25.5	46.66	19.9	54	12.94	H
14484.4	36.54	-28.59	42.46	22.67	54	17.46	V
14491	36.51	-28.59	42.46	22.64	54	17.49	V
11826.8	33.35	-31.85	39.05	26.15	54	20.65	V
11995.1	33.32	-31.48	39.09	25.71	54	20.68	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)
17997.8	40.95	-25.5	46.66	19.79	54	13.05	V
17998.9	40.81	-25.5	46.66	19.65	54	13.19	V
16160.2	36.68	-26.77	38.93	24.52	54	17.32	V
16146	36.46	-26.77	38.93	24.3	54	17.54	V
11818.6	33.07	-31.85	39.05	25.87	54	20.93	H
11990.2	32.96	-31.48	39.09	25.35	54	21.04	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)
17986.8	40.99	-25.5	46.66	19.83	54	13.01	V
17987.9	40.98	-25.5	46.66	19.82	54	13.02	V
16053.5	36.44	-27.35	38.54	25.25	54	17.56	H
16179	36.35	-26.77	38.93	24.19	54	17.65	H
11911.5	33.28	-31.85	39.05	26.08	54	20.72	H
11849.9	33.25	-31.85	39.05	26.05	54	20.75	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)
17986.8	41.11	-25.5	46.66	19.95	54	12.89	V
17994	41.06	-25.5	46.66	19.9	54	12.94	V
16171.2	36.58	-26.77	38.93	24.42	54	17.42	V
16040.4	36.49	-27.35	38.54	25.3	54	17.51	V
11812.5	33.49	-31.85	39.05	26.29	54	20.51	H
11840.6	33.26	-31.85	39.05	26.06	54	20.74	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)
17974.2	41.01	-25.5	46.66	19.85	54	12.99	V
17976.9	40.99	-25.5	46.66	19.83	54	13.01	V
14480.5	36.73	-28.59	42.46	22.86	54	17.27	H
16166.9	36.67	-26.77	38.93	24.51	54	17.33	V
11816.9	33.76	-31.85	39.05	26.56	54	20.24	V
11830.7	33.47	-31.85	39.05	26.27	54	20.53	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)
17976.3	41.27	-25.5	46.66	20.11	54	12.73	V
17978	41.16	-25.5	46.66	20	54	12.84	H
16157	36.71	-26.77	38.93	24.55	54	17.29	V
16169	36.69	-26.77	38.93	24.53	54	17.31	V
11924.2	33.46	-31.48	39.09	25.85	54	20.54	V
11944.5	33.42	-31.48	39.09	25.81	54	20.58	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)
17981.8	40.97	-25.5	46.66	19.81	54	13.03	V
17985.7	40.93	-25.5	46.66	19.77	54	13.07	V
16179.5	36.38	-26.77	38.93	24.22	54	17.62	V
16153.1	36.33	-26.77	38.93	24.17	54	17.67	V
11816.9	33.11	-31.85	39.05	25.91	54	20.89	V
11838.4	33.08	-31.85	39.05	25.88	54	20.92	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)
17972.5	40.96	-25.5	46.66	19.8	54	13.04	V
17963.2	40.85	-25.5	46.66	19.69	54	13.15	H
16037.6	36.36	-27.35	38.54	25.17	54	17.64	V
14494.3	36.34	-28.59	42.46	22.47	54	17.66	V
11917.6	33.37	-31.48	39.09	25.76	54	20.63	V
11819.1	33.3	-31.85	39.05	26.1	54	20.7	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)
17987.3	41.14	-25.5	46.66	19.98	54	12.86	H
17981.3	41.07	-25.5	46.66	19.91	54	12.93	H
16136	36.6	-26.77	38.93	24.44	54	17.4	V
16199.3	36.5	-26.77	38.93	24.34	54	17.5	V
11819.1	33.33	-31.85	39.05	26.13	54	20.67	V
11820.8	33.24	-31.85	39.05	26.04	54	20.76	V

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)
17998.3	41.27	-25.5	46.66	20.11	54	12.73	V
17980.2	41.22	-25.5	46.66	20.06	54	12.78	V
16185	36.68	-26.77	38.93	24.52	54	17.32	V
16163	36.67	-26.77	38.93	24.51	54	17.33	V
11825.2	33.58	-31.85	39.05	26.38	54	20.42	V
11843.3	33.43	-31.85	39.05	26.23	54	20.57	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)
17989.5	41.21	-25.5	46.66	20.05	54	12.79	H
17995.6	41.16	-25.5	46.66	20	54	12.84	V
16176.2	36.8	-26.77	38.93	24.64	54	17.2	V
16093.7	36.75	-26.77	38.93	24.59	54	17.25	V
11819.7	33.5	-31.85	39.05	26.3	54	20.5	V
11838.4	33.5	-31.85	39.05	26.3	54	20.5	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)
17981.8	41.25	-25.5	46.66	20.09	54	12.75	H
17979.1	41.21	-25.5	46.66	20.05	54	12.79	V
16174	36.79	-26.77	38.93	24.63	54	17.21	H
16146	36.68	-26.77	38.93	24.52	54	17.32	V
11990.2	33.61	-31.48	39.09	26	54	20.39	V
11821.3	33.58	-31.85	39.05	26.38	54	20.42	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)
17962	53.37	-25.5	46.66	32.21	74	20.63	V
17485.8	52.51	-26.85	45.25	34.11	68.3	15.79	V
16777.9	50.33	-26.62	41.49	35.46	68.3	17.97	H
16903.3	50.09	-26.32	42.36	34.04	68.3	18.21	H
11823.5	45.18	-31.85	39.05	37.98	74	28.82	H
11618.4	44.69	-32.31	38.91	38.1	74	29.31	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)
17294.9	52.82	-25.95	44.35	34.41	68.3	15.48	V
17489.6	52.67	-26.85	45.25	34.27	68.3	15.63	V
16999.5	50.77	-26.32	42.36	34.72	68.3	17.53	H
16731.7	50.5	-26.62	41.49	35.63	68.3	17.8	H
11810.3	45.06	-31.85	39.05	37.86	74	28.94	V
11850.5	44.9	-31.85	39.05	37.7	74	29.1	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)
17901.5	52.51	-25.5	46.66	31.35	74	21.49	H
17914.8	52.51	-25.5	46.66	31.35	74	21.49	H
16698.7	51.28	-26.87	40.65	37.5	68.3	17.02	H
16993.5	50.5	-26.32	42.36	34.45	68.3	17.8	V
11829.6	45.11	-31.85	39.05	37.91	74	28.89	H
11839.5	44.95	-31.85	39.05	37.75	74	29.05	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)
17988.5	52.7	-25.5	46.66	31.54	74	21.3	V
17968.7	52.42	-25.5	46.66	31.26	74	21.58	V
16975.3	50.09	-26.32	42.36	34.04	68.3	18.21	H
16730.6	49.86	-26.62	41.49	34.99	68.3	18.44	V
11598.6	45.19	-32.31	38.91	38.6	74	28.81	H
11844.4	44.92	-31.85	39.05	37.72	74	29.08	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)
17979.7	52.69	-25.5	46.66	31.53	74	21.31	H
17507.2	52.47	-26.85	45.25	34.07	68.3	15.83	H
16812.5	49.98	-26.62	41.49	35.11	68.3	18.32	H
16918.2	49.97	-26.32	42.36	33.92	68.3	18.33	H
11998.4	45.53	-31.48	39.09	37.92	74	28.47	V
11418.2	44.82	-32.42	38.79	38.45	74	29.18	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)
17907	52.62	-25.5	46.66	31.46	74	21.38	H
17981.3	52.45	-25.5	46.66	31.29	74	21.55	H
16878	51.66	-26.32	42.36	35.61	68.3	16.64	V
16958.3	51.52	-26.32	42.36	35.47	68.3	16.78	H
11893.4	45.31	-31.85	39.05	38.11	74	28.69	H
11838.4	45.16	-31.85	39.05	37.96	74	28.84	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)
17898.2	53.1	-25.5	46.66	31.94	74	20.9	H
17969.2	52.98	-25.5	46.66	31.82	74	21.02	H
16977	50.55	-26.32	42.36	34.5	68.3	17.75	H
16702.5	50.24	-26.87	40.65	36.46	68.3	18.06	H
11922.5	45.54	-31.48	39.09	37.93	74	28.46	V
11978.1	45.31	-31.48	39.09	37.7	74	28.69	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)
17886.2	53.38	-25.5	46.66	32.22	74	20.62	V
17181	52.98	-26.6	43.36	36.22	68.3	15.32	V
16968.8	51.83	-26.32	42.36	35.78	68.3	16.47	V
16947.3	51.58	-26.32	42.36	35.53	68.3	16.72	H
11977.5	45.23	-31.48	39.09	37.62	74	28.77	H
11814.7	45.05	-31.85	39.05	37.85	74	28.95	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)
17220.1	52.47	-25.95	44.35	34.06	68.3	15.83	V
17972.5	52.21	-25.5	46.66	31.05	74	21.79	V
16959.4	50.65	-26.32	42.36	34.6	68.3	17.65	V
16996.2	50.4	-26.32	42.36	34.35	68.3	17.9	V
11035.9	45.77	-32.49	38.72	39.53	74	28.23	V
11799.9	44.94	-31.85	39.05	37.74	74	29.06	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	52.95	-25.5	46.66	31.79	74	21.05	H
17393.3	52.6	-26.85	45.25	34.2	68.3	15.7	H
16995.2	50.62	-26.32	42.36	34.57	68.3	17.68	V
16978.1	50.32	-26.32	42.36	34.27	68.3	17.98	H
11840.6	45.03	-31.85	39.05	37.83	74	28.97	V
11826.8	45.01	-31.85	39.05	37.81	74	28.99	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)
17485.2	52.48	-26.85	45.25	34.08	68.3	15.82	V
17993.4	52.46	-25.5	46.66	31.3	74	21.54	V
16933.5	50.95	-26.32	42.36	34.9	68.3	17.35	H
16971.5	50.44	-26.32	42.36	34.39	68.3	17.86	H
11635.4	45.24	-32.31	38.91	38.65	74	28.76	H
11826.8	45.17	-31.85	39.05	37.97	74	28.83	V

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)
17508.8	53.23	-26.85	45.25	34.83	68.3	15.07	V
17464.8	53.01	-26.85	45.25	34.61	68.3	15.29	H
16846.1	51.44	-26.62	41.49	36.57	68.3	16.86	V
16976.5	50.71	-26.32	42.36	34.66	68.3	17.59	V
11405.5	45.39	-32.42	38.79	39.02	74	28.61	V
11613.4	45.28	-32.31	38.91	38.69	74	28.72	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)
17951.6	52.58	-25.5	46.66	31.42	74	21.42	H
17500	52.52	-26.85	45.25	34.12	68.3	15.78	H
16898.9	50.78	-26.32	42.36	34.73	68.3	17.52	H
16840	50.44	-26.62	41.49	35.57	68.3	17.86	V
11090.9	45.2	-32.49	38.72	38.96	74	28.8	V
11621.1	45.07	-32.31	38.91	38.48	74	28.93	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)
17994	52.97	-25.5	46.66	31.81	74	21.03	H
17505	52.91	-26.85	45.25	34.51	68.3	15.39	H
16722.9	50.55	-26.62	41.49	35.68	68.3	17.75	V
16952.8	50.55	-26.32	42.36	34.5	68.3	17.75	H
11814.7	45.75	-31.85	39.05	38.55	74	28.25	V
11087.1	45.55	-32.49	38.72	39.31	74	28.45	V

A A.6. Band Edges Compliance

6.1 Band Edges – Radiated

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.	

Set up:

Tabletop devices shall be placed on a nonconducting platform with nominal top surface dimensions 1 m by 1.5 m and the table height shall be 1.5 m.

The EUT and transmitting antenna shall be centered on the turntable.

Test Procedure

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. 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. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

The receiver references:

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100kHz/300kHz	5
1000-4000	1MHz/3MHz	15
4000-18000	1MHz/3MHz	40
18000-26500	1MHz/3MHz	20

Measurement Result:

Mode	Channel	Test Results	Conclusion
802.11a	5745 MHz	Fig.10	P
	5825 MHz	Fig.11	P
802.11n HT20	5745 MHz	Fig.12	P
	5825 MHz	Fig.13	P
802.11n HT40	5755 MHz	Fig.14	P
	5795 MHz	Fig.15	P
802.11ac HT20	5745 MHz	Fig.16	P
	5825 MHz	Fig.17	P
802.11ac HT40	5755 MHz	Fig.18	P
	5795 MHz	Fig.19	P
802.11ac HT80	5775 MHz	Fig.20 Fig.21	P

Conclusion: PASS**Test graphs as below:**

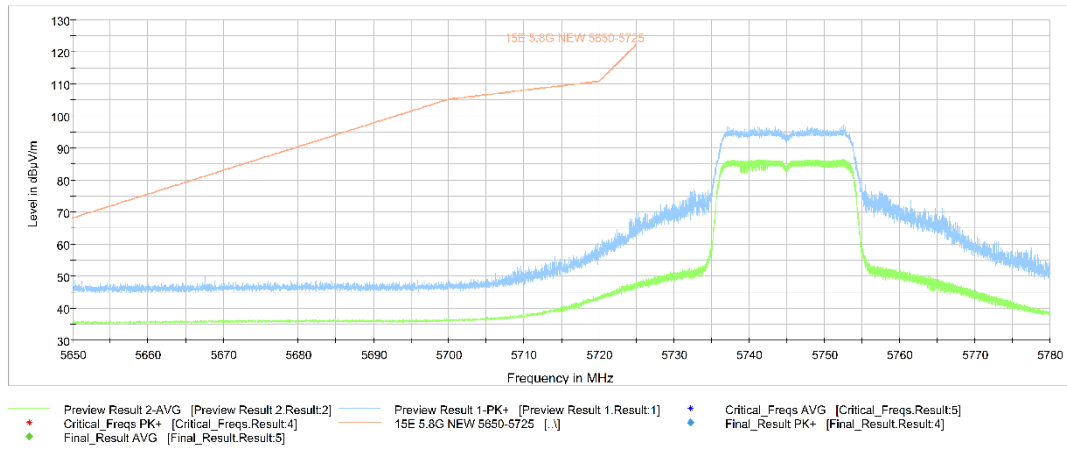


Fig. 10 Band Edges (802.11a Ch149,5745MHz)

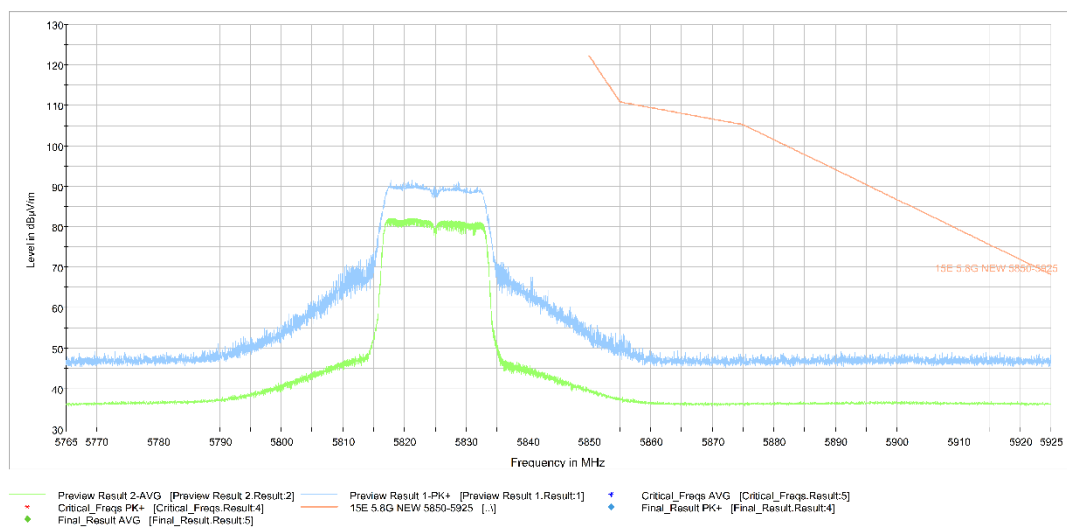


Fig. 11 Band Edges (802.11a Ch165, 5825MHz)

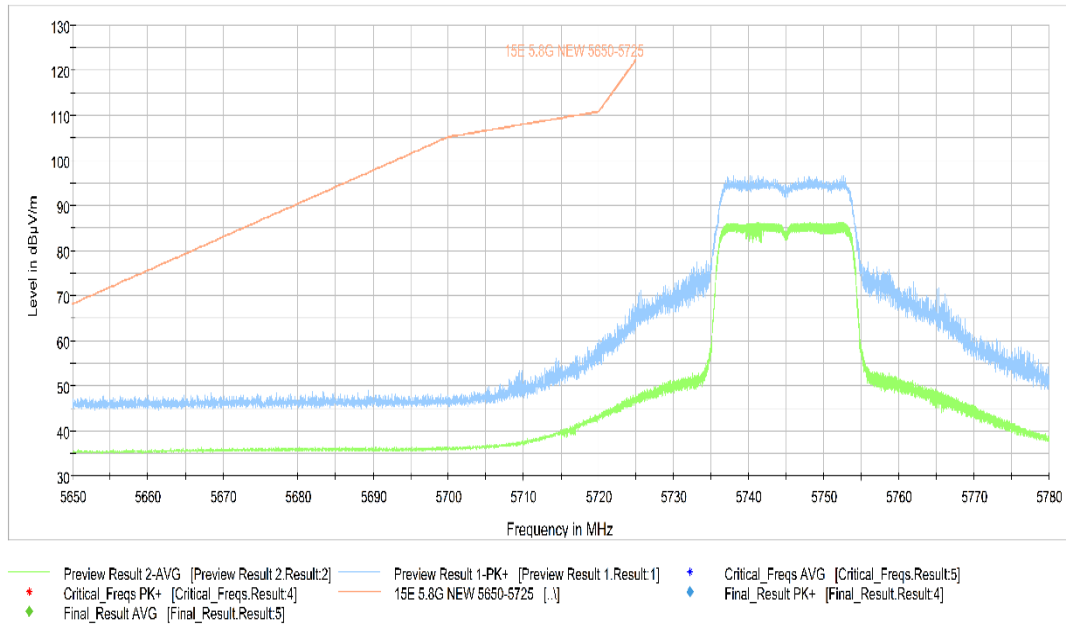


Fig. 12 Band Edges (802.11n-HT20 Ch149, 5745MHz)

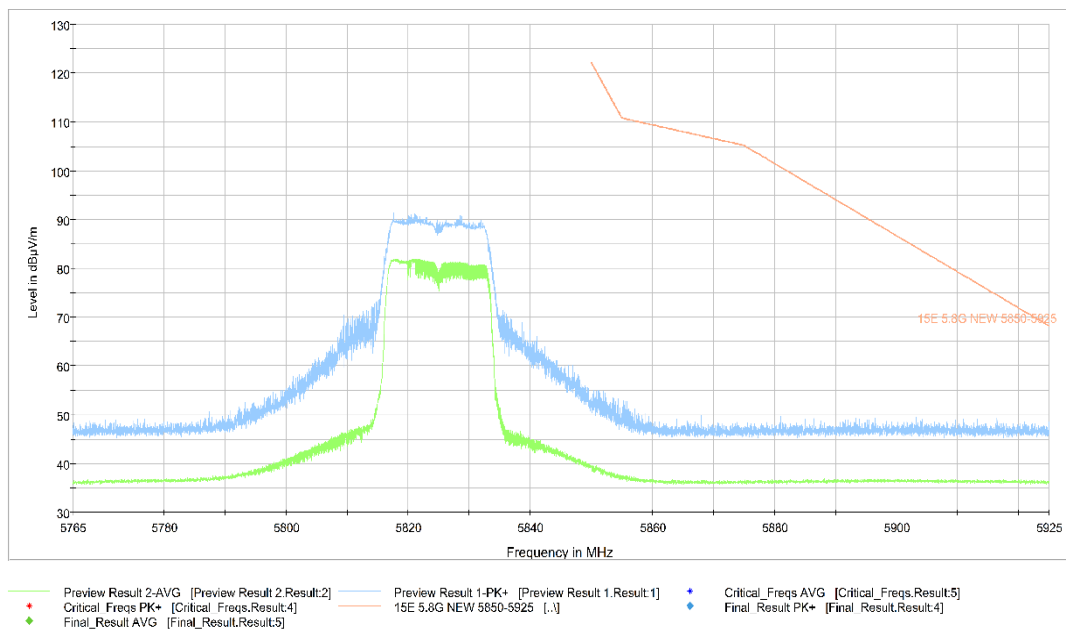


Fig. 13 Band Edges (802.11n-HT20 Ch165, 5825MHz)

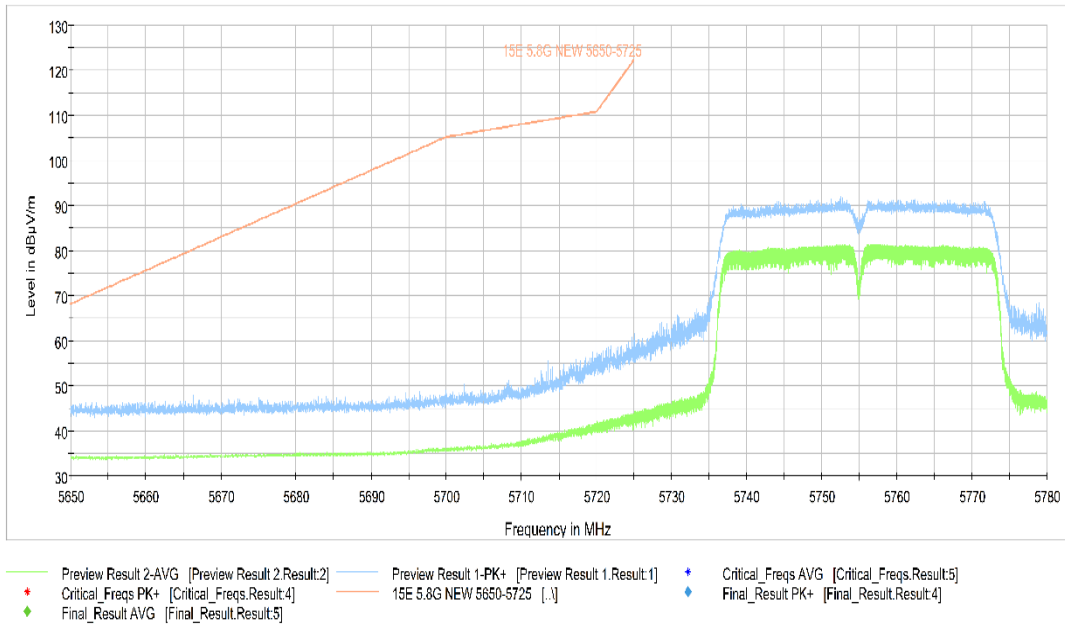


Fig. 14 Band Edges (802.11n-HT40 Ch151, 5755MHz)

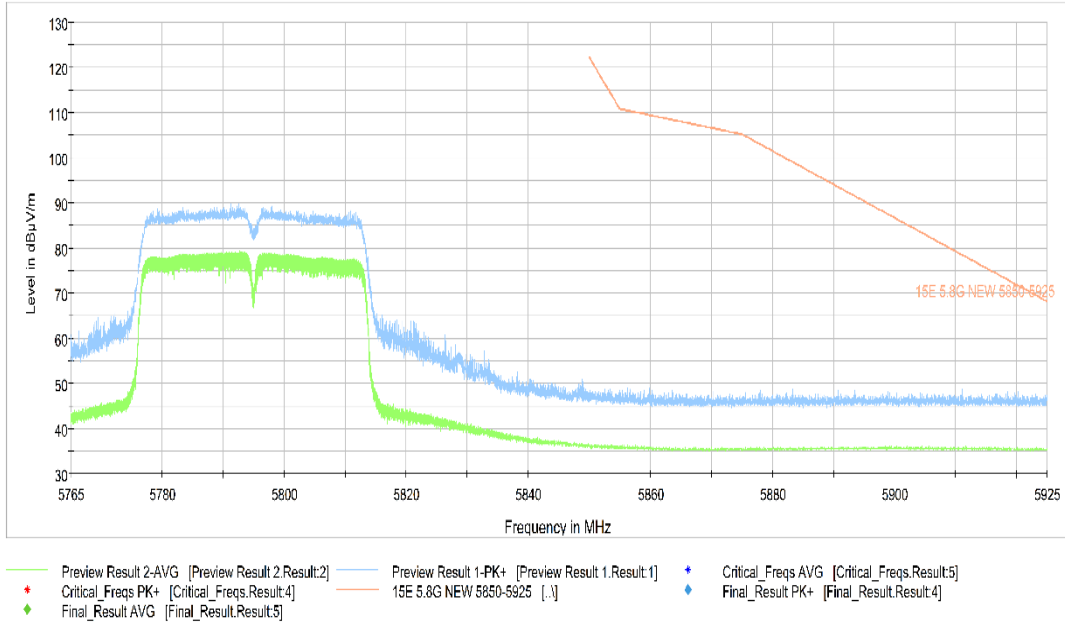


Fig. 15 Band Edges (802.11n-HT40 Ch159, 5795MHz)

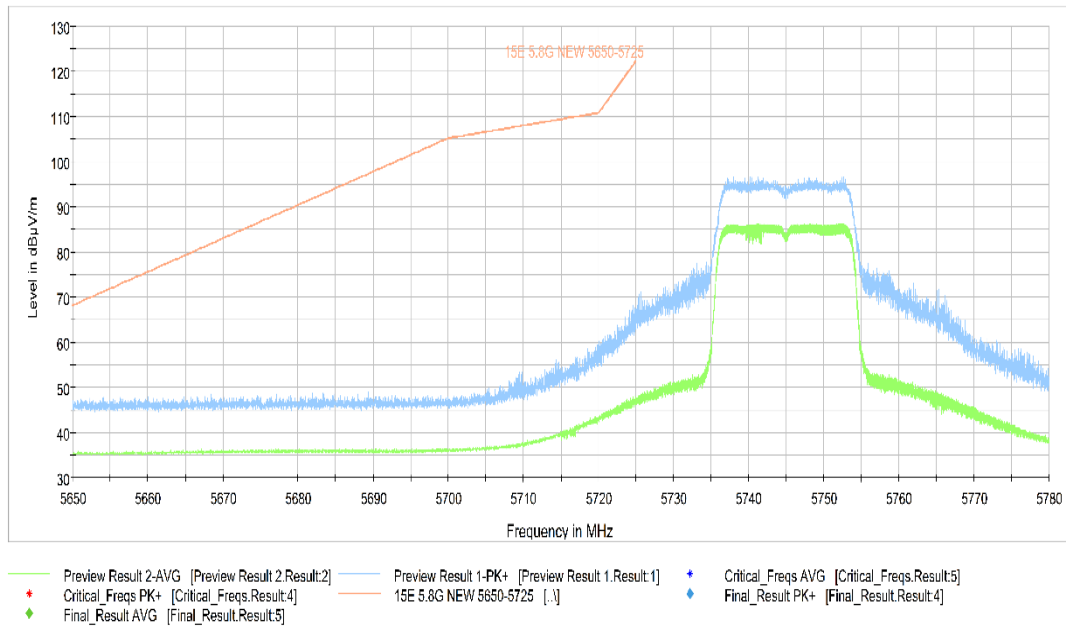


Fig. 16 Band Edges (802.11ac-HT20 Ch149, 5745MHz)

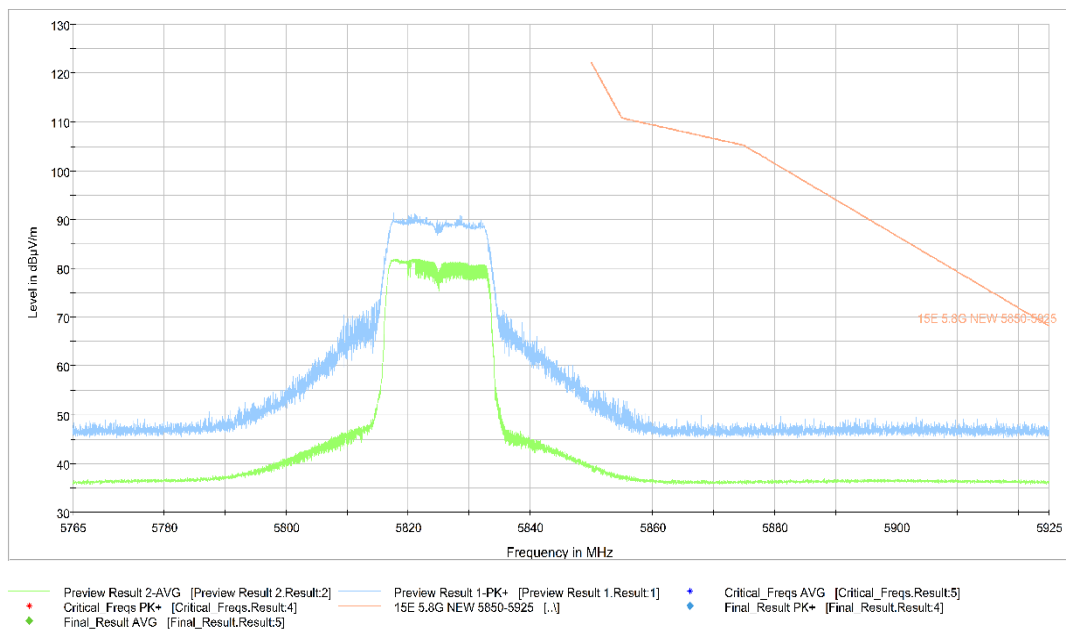


Fig. 17 Band Edges (802.11ac-HT20 Ch165, 5825MHz)

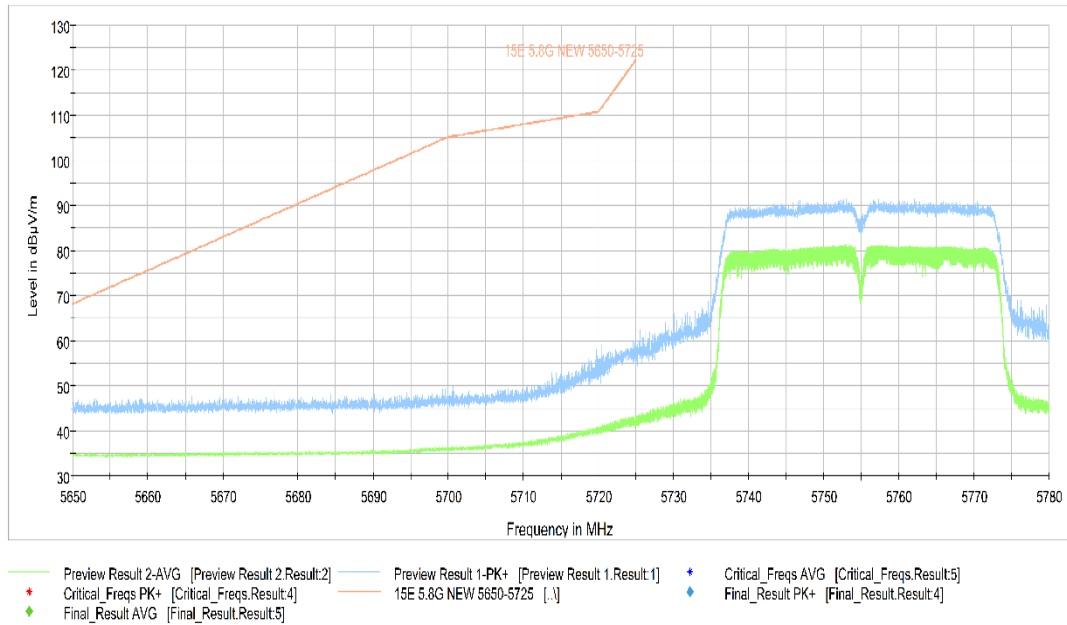


Fig. 18 Band Edges (802.11ac-HT40 Ch151, 5755MHz)

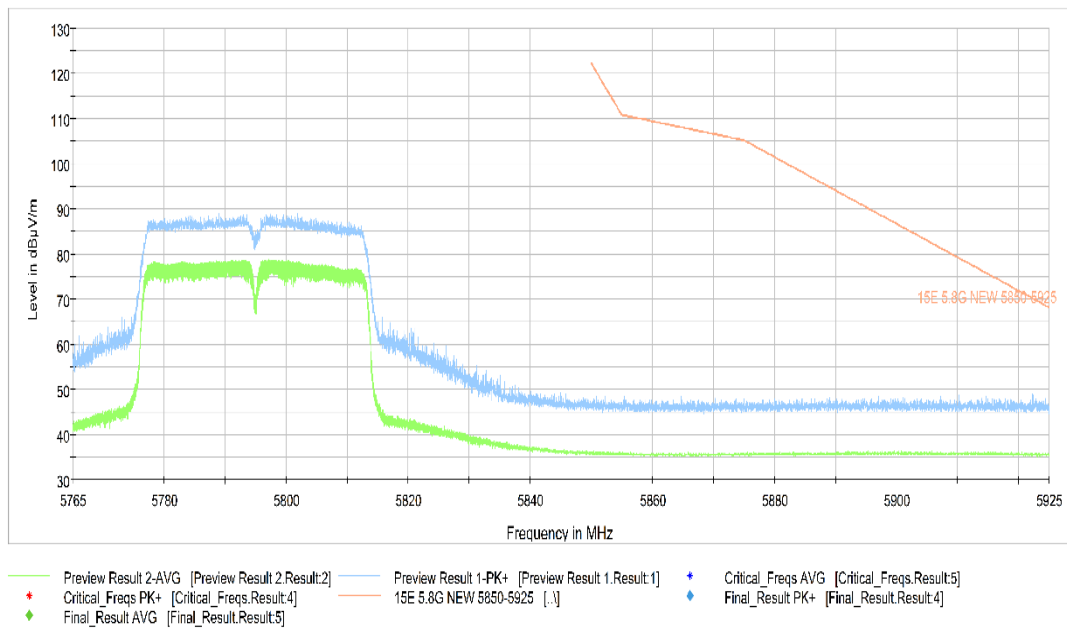


Fig. 19 Band Edges (802.11ac-HT40 Ch159, 5795MHz)

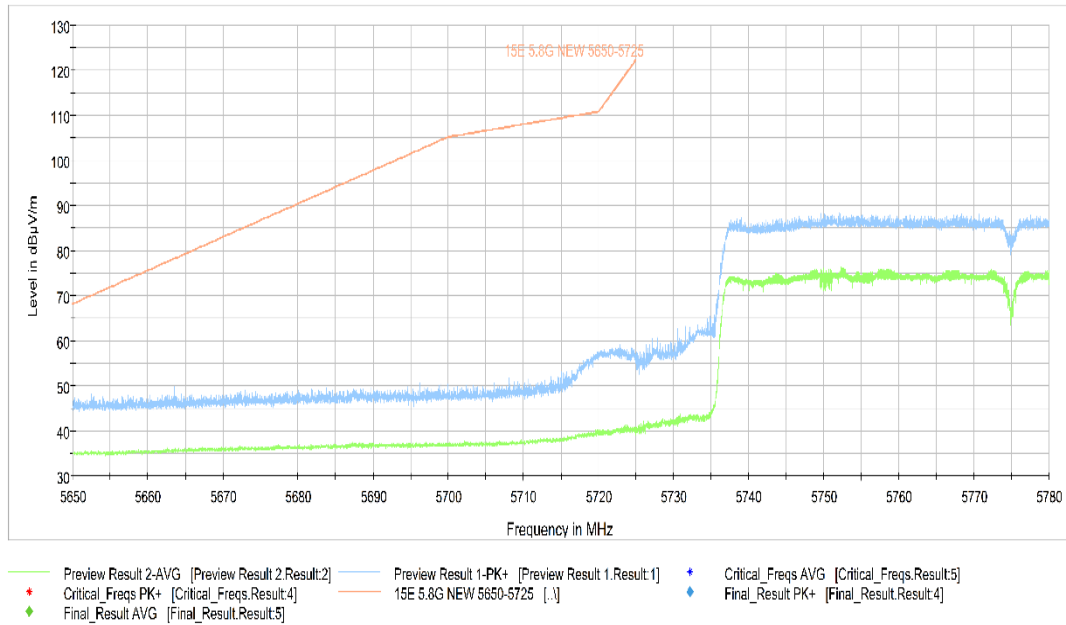


Fig. 20 Band Edges (802.11ac-HT80 Ch155, 5775MHz)

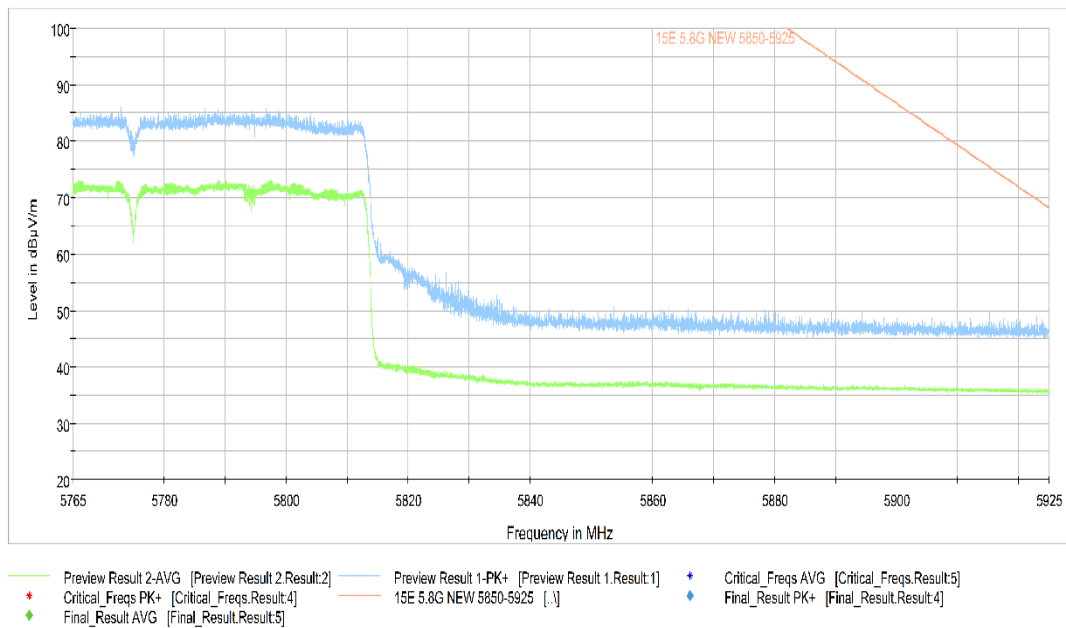


Fig. 21 Band Edges (802.11ac-HT80 Ch155, 5775MHz)

A.7. AC Powerline Conducted Emission

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.

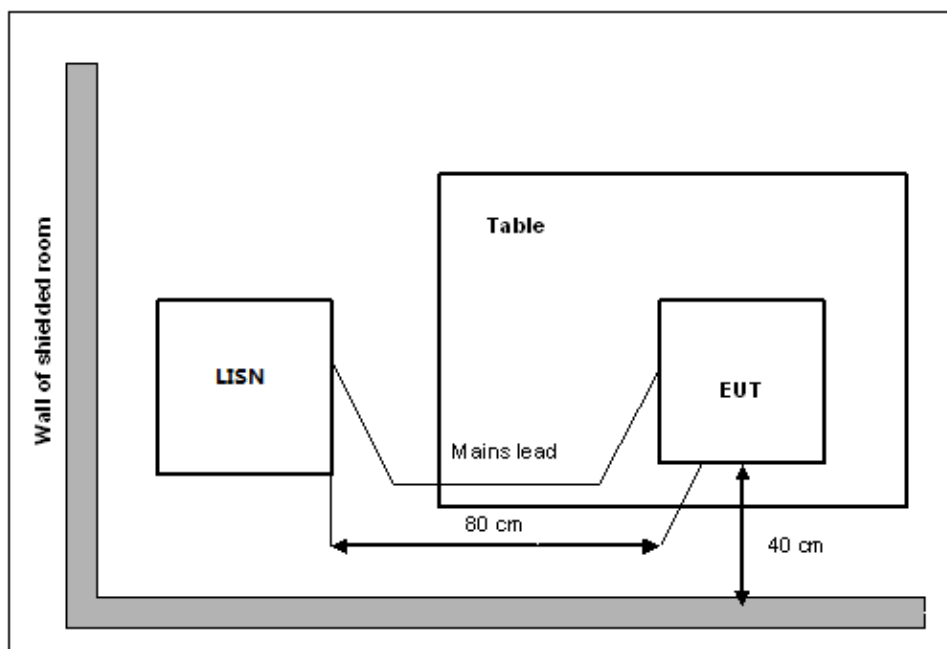
The measurement bandwidth is:

Frequency of Emission (MHz)	RBW/IF bandwidth
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 (dB μ V)	Result (dB μ V)		Conclusion
		With charger		
		802.11a	Idle	
0.15 to 0.5	66 to 56	Fig.22	Fig.23	P
0.5 to 5	56			
5 to 30	60			

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

WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dB μ V)	Result (dB μ V)		Conclusion
		With charger		
		802.11a	Idle	
0.15 to 0.5	56 to 46	Fig.22	Fig.23	P
0.5 to 5	46			
5 to 30	50			

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

The measurement is made according to ANSI C63.10 .

Conclusion: PASS
Test graphs as below:

Traffic:

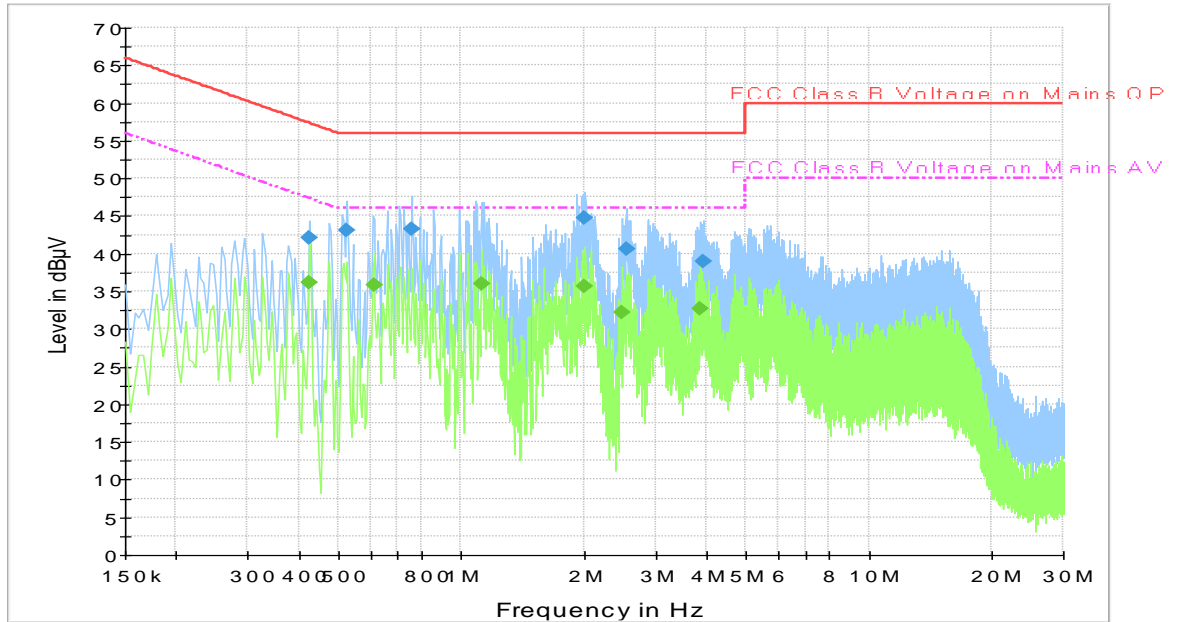


Fig. 22 AC Power line Conducted Emission-802.11a

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	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.426000	42.2	2000	9.000	On	L1	19.9	15.2	57.3
0.526000	43.1	2000	9.000	On	L1	19.9	12.9	56.0
0.754000	43.2	2000	9.000	On	L1	19.7	12.8	56.0
2.014000	44.7	2000	9.000	On	L1	19.4	11.3	56.0
2.542000	40.6	2000	9.000	On	L1	19.5	15.4	56.0
3.918000	39.0	2000	9.000	On	L1	19.6	17.0	56.0

Final Result 2

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.426000	36.2	2000	9.000	On	L1	19.9	11.1	47.3
0.610000	35.8	2000	9.000	On	L1	19.7	10.2	46.0
1.122000	36.0	2000	9.000	On	L1	19.5	10.0	46.0
2.014000	35.7	2000	9.000	On	L1	19.4	10.3	46.0
2.482000	32.2	2000	9.000	On	L1	19.5	13.8	46.0
3.846000	32.7	2000	9.000	On	L1	19.5	13.3	46.0

Idle:

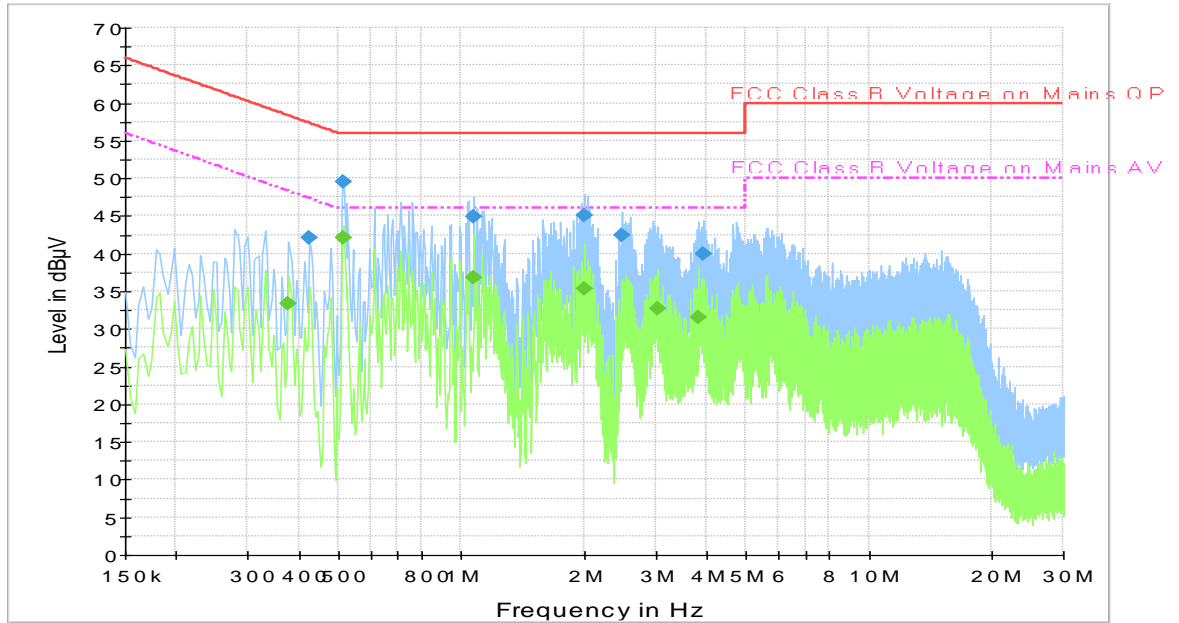


Fig. 23 AC Power line Conducted Emission-Idle

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	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.426000	42.1	2000	9.000	On	L1	19.9	15.3	57.3
0.514000	49.5	2000	9.000	On	L1	19.9	6.5	56.0
1.074000	45.0	2000	9.000	On	L1	19.6	11.0	56.0
2.010000	45.0	2000	9.000	On	L1	19.4	11.0	56.0
2.478000	42.4	2000	9.000	On	L1	19.5	13.6	56.0
3.926000	40.0	2000	9.000	On	L1	19.6	16.0	56.0

Final Result 2

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.378000	33.3	2000.0	9.000	On	L1	20.0	15.0	48.3
0.514000	42.0	2000.0	9.000	On	L1	19.9	4.0	46.0
1.074000	36.8	2000.0	9.000	On	L1	19.6	9.2	46.0
2.010000	35.3	2000.0	9.000	On	L1	19.4	10.7	46.0
3.030000	32.6	2000.0	9.000	On	L1	19.5	13.4	46.0
3.810000	31.5	2000.0	9.000	On	L1	19.5	14.5	46.0

Note: The measurement results showed here are worst cases of the combinations of different AE.

ANNEX B: EUT parameters

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

ANNEX C: Accreditation Certificate

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 600118-0

Telecommunication Technology Labs, CAICT
Beijing
China

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:*

Electromagnetic Compatibility & Telecommunications

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

2021-09-29 through 2022-09-30
Effective Dates

 
For the National Voluntary Laboratory Accreditation Program

*** END OF REPORT BODY ***