



FCC PART 15C

TEST REPORT

No. I20Z61601-IOT05

for

TCL Communication Ltd.

5G NR/LTE/WCDMA/GSM Mobile phone

T790B

FCC ID : 2ACCJN044

with

Hardware Version: PIO

Software Version: v2.0.1A.I.R

Issued Date: 2020-10-25

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.

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I20Z61601-IOT05	Rev.0	1st edition	2020-10-25
I20Z61601-IOT05	Rev.1	corrected Tx Power and PSD data	2020-11-05

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1. TEST LATORATORY

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2005 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 (CN0066). The detail accreditation scope can be found on NVLAP website.

1.2. Testing Location

Conducted testing Location: CTTL(huayuan North Road)

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

Radiated testing Location: CTTL(BDA)

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

TestingEnvironment

Normal Temperature: 15-35°C

Extreme Temperature: -20/+55°C

Relative Humidity: 20-75%

1.3. Project date

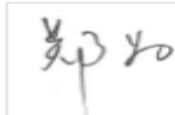
Testing Start Date: 2020-10-12

Testing End Date: 2020-10-25

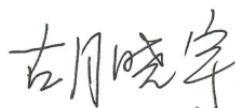
1.4. Signature



Feng Aiyu
(Prepared this test report)



Zheng Wei
(Reviewed this test report)



Hu Xiaoyu
(Approved this test report)

2. CLIENT INFORMATION

2.1. Applicant Information

Company Name: TCL Communication Ltd.
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science
Park, Shatin, NT, Hong Kong
City: Hong Kong
Postal Code: /
Country: CHINA
Contact: Gong Zhizhou
Telephone: 0086-755-36611722
E-mail: zhizhou.gong@tcl.com

2.2. Manufacturer Information

Company Name: TCL Communication Ltd.
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science
Park, Shatin, NT, Hong Kong
City: Hong Kong
Postal Code: /
Country: CHINA
Contact: Gong Zhizhou
Telephone: 0086-755-36611722
E-mail: zhizhou.gong@tcl.com

3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY

EQUIPMENT(AE)

3.1. About EUT

Description	5G NR/LTE/WCDMA/GSM Mobile phone
Model name	T790B
FCC ID	2ACCJN044
WLAN Frequency Range	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
UT07a	015852000000403	PIO	v2.0.1A.I.R
UT08a	015852000000411	PIO	v2.0.1A.I.R

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

3.1. Internal Identification of AE used during the test

AE ID*	Description	SN
AE1	Battery	/
AE2	Charger	/

AE1

Model	TLp043E7
Manufacturer	VEKEN
Capacitance	4360mAh
Nominal voltage	/

AE2

Model	QC13US
Manufacturer	BYD
Length of cable	/

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

3.2. General Description

Equipment Under Test (EUT) is a model of 5G NR/LTE/WCDMA/GSM Mobile phone with Bluetooth, WLAN with integrated antenna. It consists of normal options: Battery and Charger.

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

Samples undergoing test were selected by the Client.

4. REFERENCE DOCUMENTS

4.1. Documents supplied by applicant

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

4.2. Reference Documents for testing

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

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
KDB 558074 D01	Federal Communications Commission Office of Engineering and Technology Laboratory Division GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES	2019

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)	/	P
Peak Power Spectral Density	15.407 (a)	/	P
Occupied 6dB Bandwidth	15.407 (e)	/	P
Band Edges Compliance - Conducted& Radiated	15.407 (b)	/	P
Transmitter Spurious Emission - Conducted	15.407	/	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
NA	Not Applicable, The test was not applicable
F	Fail, The EUT does not comply with the essential requirements in the

	standard
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6.2. Statements

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

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

6.3. Test Conditions

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

Temperature	26℃
Voltage	3.8V
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	2021-05-15
2	LISN	ENV216	101459	R&S	1 year	2021-04-10
3	Test Receiver	ESC17	100948	R&S	1 year	2021-07-17
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	100376	Rohde & Schwarz	1 year	2021-10-30
2	BiLog Antenna	VULB9163	01176	Schwarzbeck	1 year	2021-03-14
3	Dual-Ridge Waveguide Horn Antenna	3117	00139065	ETS-Lindgren	1 year	2021-11-10
4	Dual-Ridge Waveguide Horn Antenna	3116	2663	ETS-Lindgren	1 year	2021-06-18
5	Vector Signal Analyzer	FSV40	101047	Rohde & Schwarz	1 year	2021-05-16

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	/
$30\text{MHz} \leq f \leq 1\text{GHz}$	5.40
$1\text{GHz} \leq f \leq 18\text{GHz}$	4.32
$18\text{GHz} \leq f \leq 40\text{GHz}$	5.26

8.6. AC Power-line Conducted Emission

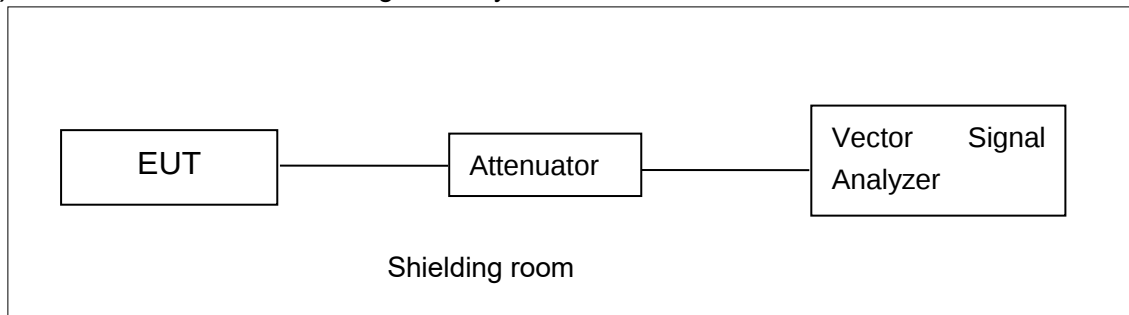
Measurement Uncertainty : 3.10dB,k=2

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

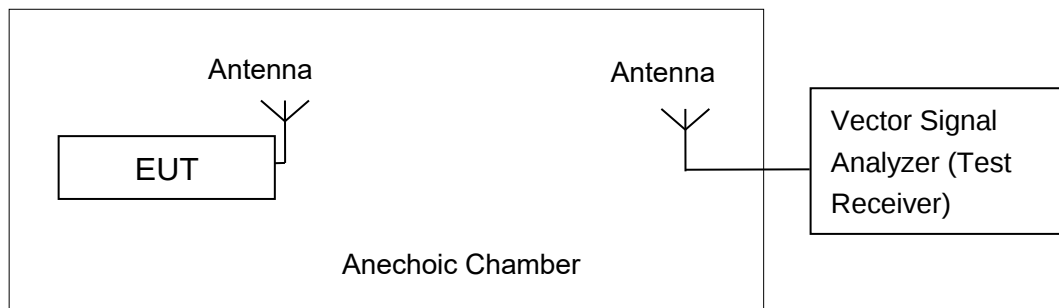


A.1.2. Radiated Emission Measurements

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 = 10Hz;



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 -1.9dBi ANT0, -1.8dBi ANT1 and the value is supplied by the applicant or manufacturer.

A.2.2. Maximum Average Output Power-Conducted

Method of Measurement: See ANSI C63.10-clause 12.3.2.2 Method SA-1

802.11a mode ANT0

Mode	Test Result (dBm)		
	5745MHz (Ch149)	5785MHz (Ch157)	5825MHz (Ch165)
802.11a	16.30	15.68	15.15

802.11a mode ANT1

Mode	Test Result (dBm)		
	5745MHz (Ch149)	5785MHz (Ch157)	5825MHz (Ch165)
802.11a	16.15	15.62	15.07

802.11a mode MIMO

Mode	Test Result (dBm)		
	5745MHz (Ch149)	5785MHz (Ch157)	5825MHz (Ch165)
802.11a	19.24	18.66	18.12

802.11n-HT20 mode ANT0

Mode	Test Result (dBm)		
	5745MHz (Ch149)	5785MHz (Ch157)	5825MHz(Ch165)
802.11n(20MHz)	13.60	13.95	13.24

802.11n-HT20 mode ANT1

Mode	Test Result (dBm)		
	5745MHz (Ch149)	5785MHz (Ch157)	5825MHz(Ch165)
802.11n(20MHz)	13.20	13.72	13.14

802.11n-HT20 mode MIMO

Mode	Test Result (dBm)		
	5745MHz	5785MHz	5825MHz(Ch165)

	(Ch149)	(Ch157)	
802.11n(20MHz)	16.41	16.84	16.20

802.11ac-HT20 mode ANT0

Mode	Test Result (dBm)		
	5745MHz (Ch149)	5785MHz (Ch157)	5825MHz(Ch165)
802.11ac(20MHz)	12.80	13.00	12.50

802.11ac-HT20 mode ANT1

Mode	Test Result (dBm)		
	5745MHz (Ch149)	5785MHz (Ch157)	5825MHz(Ch165)
802.11ac(20MHz)	12.60	13.00	12.30

802.11ac-HT20 mode MIMO

Mode	Test Result (dBm)		
	5745MHz (Ch149)	5785MHz (Ch157)	5825MHz(Ch165)
802.11ac(20MHz)	15.71	16.01	15.41

802.11n-HT40 mode ANT0

Mode	Test Result (dBm)	
	5755MHz (Ch151)	5795MHz(Ch159)
802.11n(40MHz)	13.32	13.28

802.11n-HT40 mode ANT1

Mode	Test Result (dBm)	
	5755MHz (Ch151)	5795MHz(Ch159)
802.11n(40MHz)	13.21	13.17

802.11n-HT40 mode MIMO

Mode	Test Result (dBm)	
	5755MHz (Ch151)	5795MHz(Ch159)
802.11n(40MHz)	16.28	16.24

802.11ac-HT40 mode ANT0

Mode	Test Result (dBm)	
	5755MHz (Ch151)	5795MHz(Ch159)
802.11ac(40MHz)	13.31	13.26

802.11ac-HT40 mode ANT1

Mode	Test Result (dBm)	
	5755MHz (Ch151)	5795MHz(Ch159)
802.11ac(40MHz)	13.2	13.14

802.11ac-HT40 mode MIMO

Mode	Test Result (dBm)	
	5755MHz (Ch151)	5795MHz(Ch159)
802.11ac(40MHz)	16.27	16.21

802.11ac-HT80 mode ANT0

Mode	Test Result (dBm)
	5775MHz (Ch155)
802.11ac(80MHz)	11.25

802.11ac-HT80 mode ANT1

Mode	Test Result (dBm)
	5775MHz (Ch155)
802.11ac(80MHz)	11.29

802.11ac-HT80 mode MIMO

Mode	Test Result (dBm)
	5775MHz (Ch155)
802.11ac(80MHz)	14.28

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:

MIMO:

Mode	Channel	Power Spectral Density ANT0	Power Spectral Density ANT1	Power Spectral Density (dBm/500kHz)	Conclusion
802.11a	149	-1.20	-1.45	1.69	P
	157	-0.63	-1.11	2.15	P
	165	-1.13	-1.39	1.75	P
802.11n HT20	149	-2.98	-3.29	-0.12	P
	157	-2.54	-2.83	0.33	P
	165	-3.13	-3.23	-0.17	P
802.11ac HT20	149	-6.23	-6.23	-3.22	P
	157	-5.84	-6.14	-2.98	P
	165	-3.93	-3.97	-0.94	P
802.11n HT40	151	-3.50	-3.58	-0.53	P
	159	-3.88	-4.05	-0.95	P
802.11ac HT40	151	-6.16	-6.24	-3.19	P
	159	-5.84	-6.13	-2.97	P
802.11ac HT80	155	-11.39	-11.28	-8.32	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 (MHz)		conclusion
802.11a	149	Fig.1	14.80	P
	157	Fig.2	16.30	P
	165	Fig.3	16.30	P
802.11n HT20	149	Fig.4	16.25	P
	157	Fig.5	15.10	P
	165	Fig.6	17.30	P
802.11ac HT20	149	Fig.7	14.75	P
	157	Fig.8	17.60	P
	165	Fig.9	17.55	P
802.11n HT40	151	Fig.10	36.00	P
	159	Fig.11	35.68	P
802.11ac HT40	151	Fig.12	36.32	P
	159	Fig.13	35.68	P
802.11ac HT80	155	Fig.14	75.04	P

Conclusion: PASS

Test graphs as below:

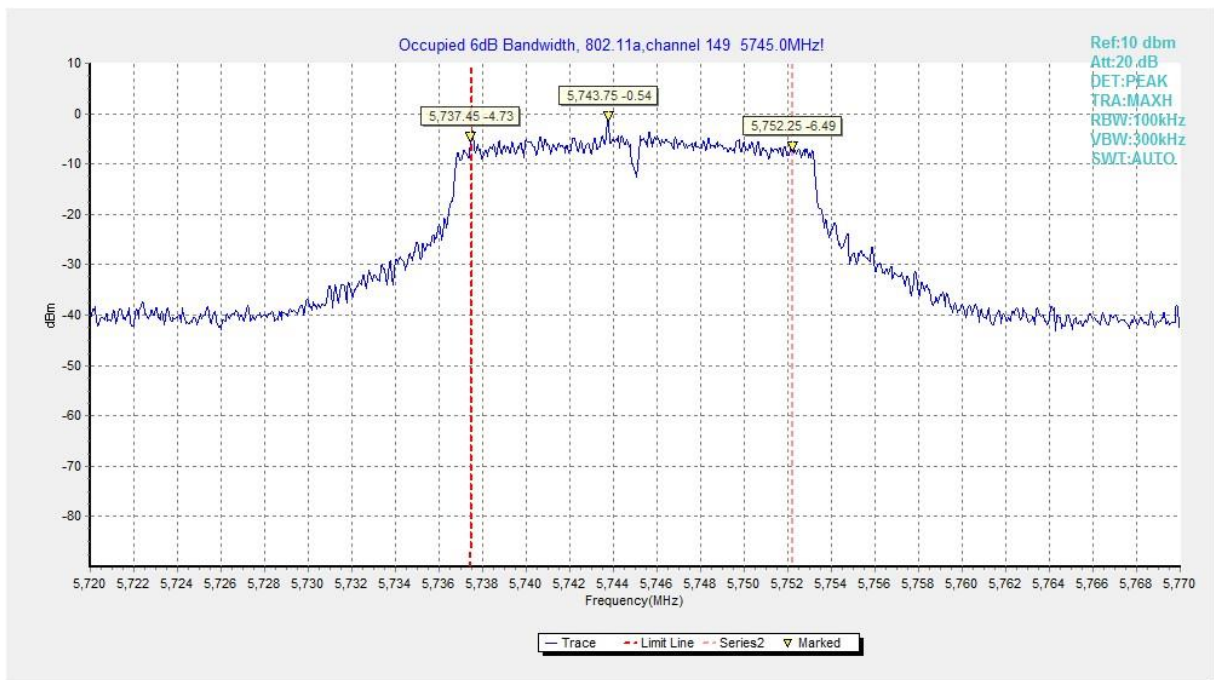


Fig. 1 Occupied 6dB Bandwidth (802.11a, Ch 149)

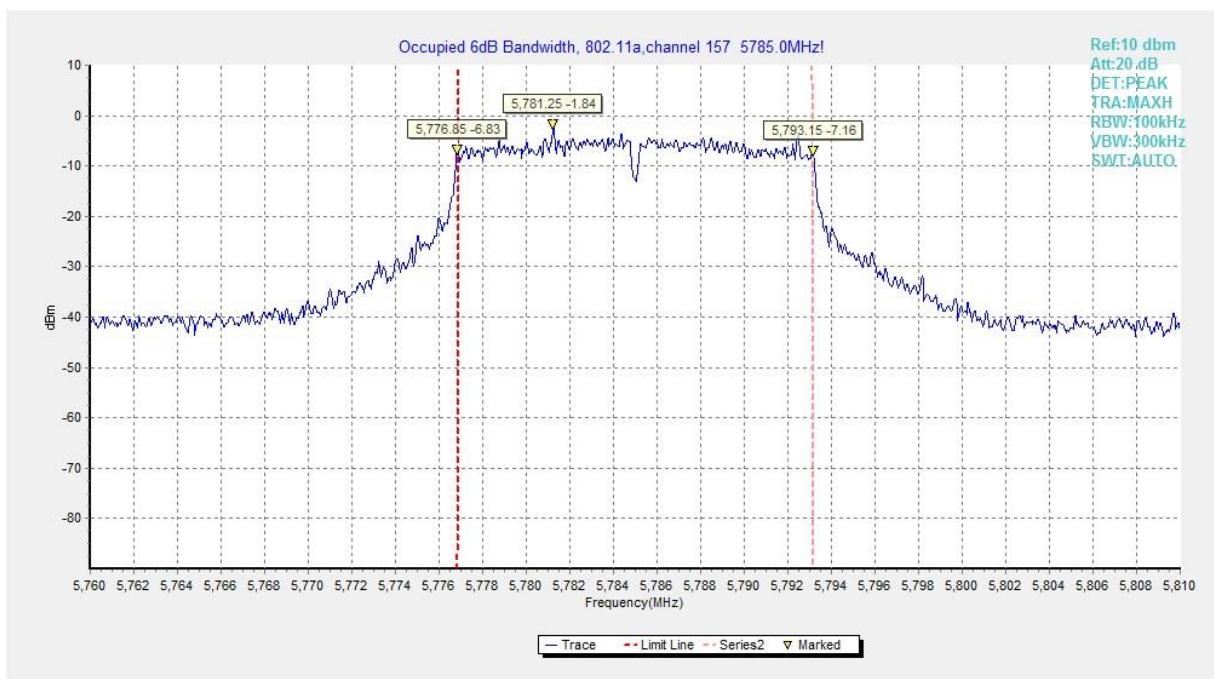


Fig. 2 Occupied 6dB Bandwidth (802.11a, Ch 157)

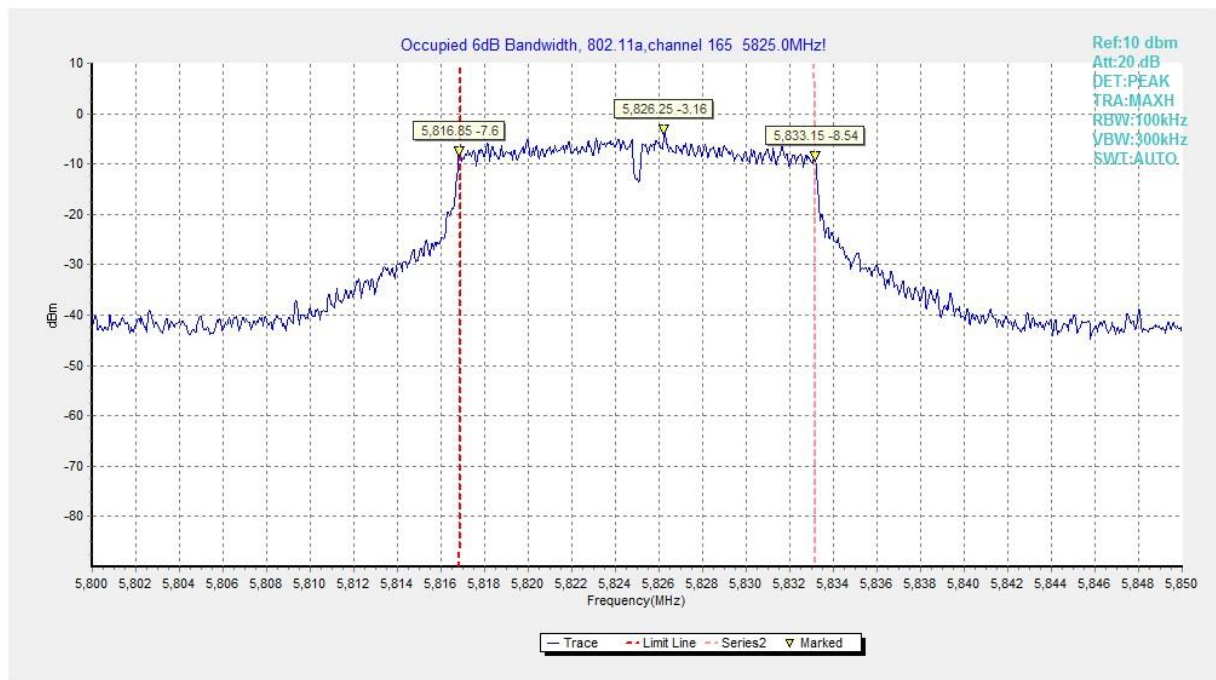


Fig. 3 Occupied 6dB Bandwidth (802.11a, Ch 165)

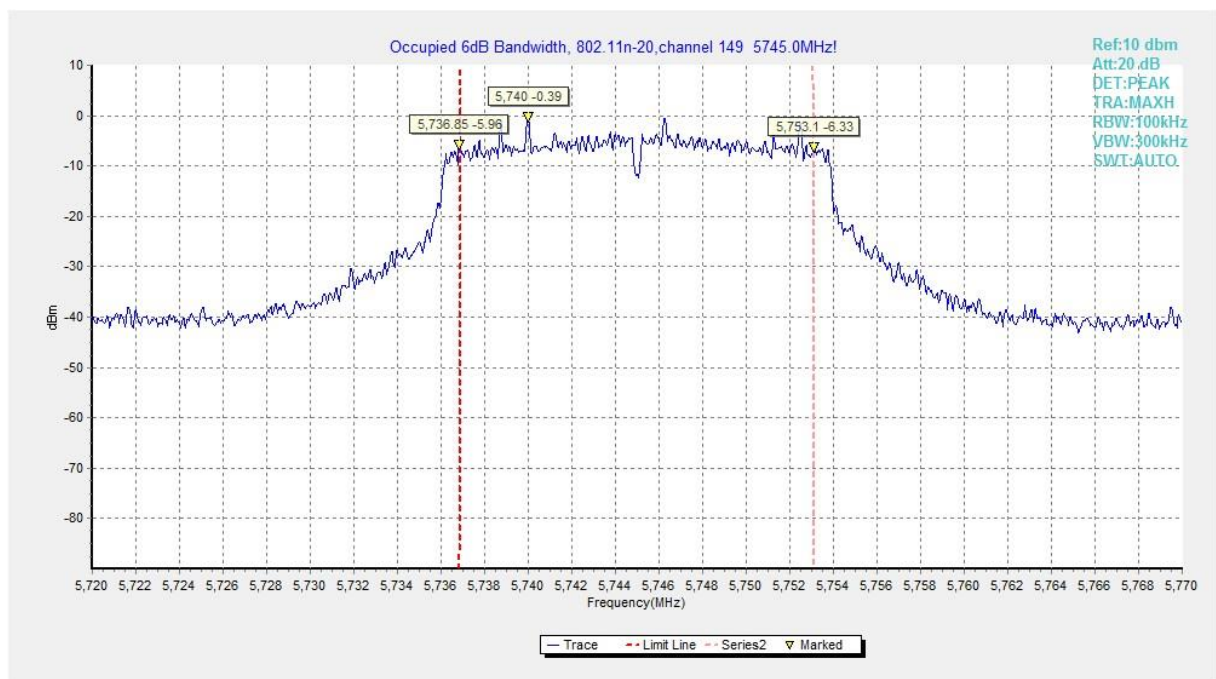


Fig. 4 Occupied 6dB Bandwidth (802.11n20, Ch 149)

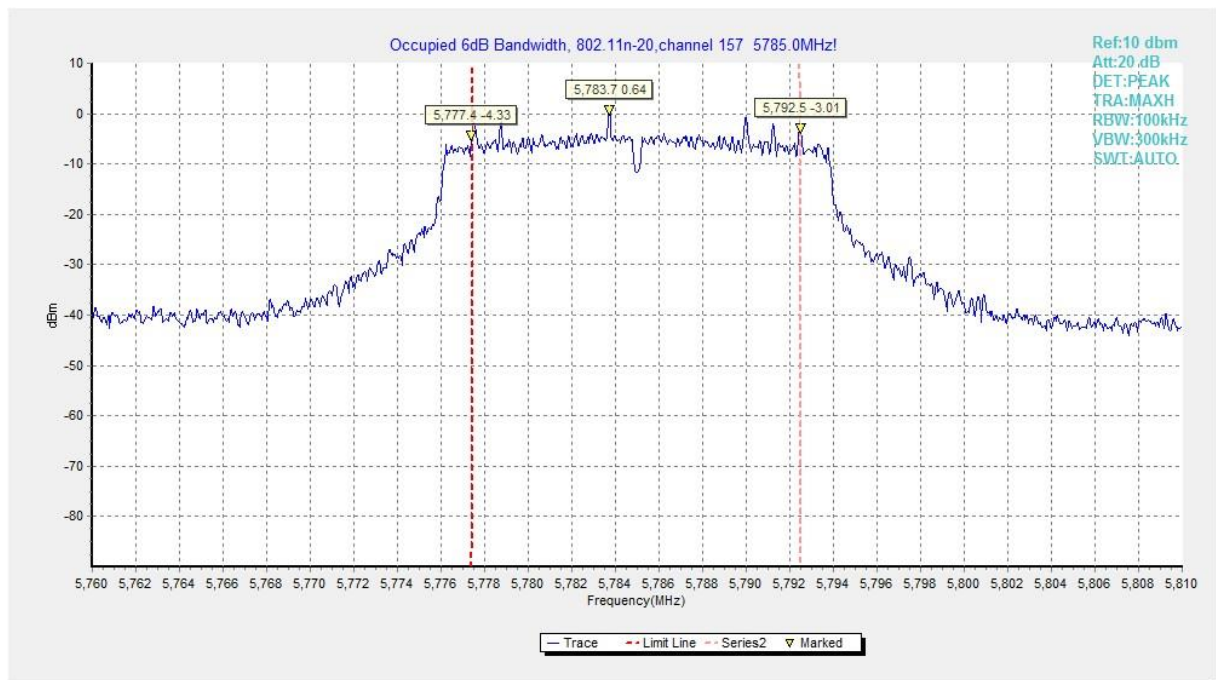


Fig. 5 Occupied 6dB Bandwidth (802.11n20, Ch 157)

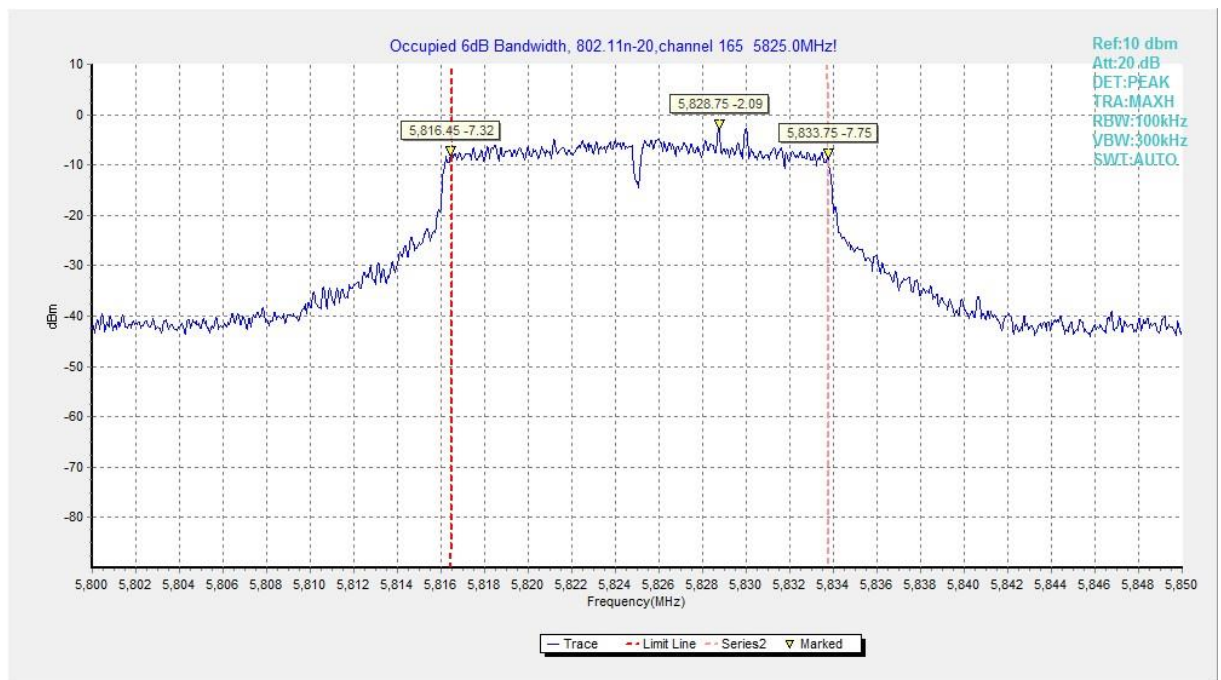


Fig. 6 Occupied 6dB Bandwidth (802.11n20, Ch 165)

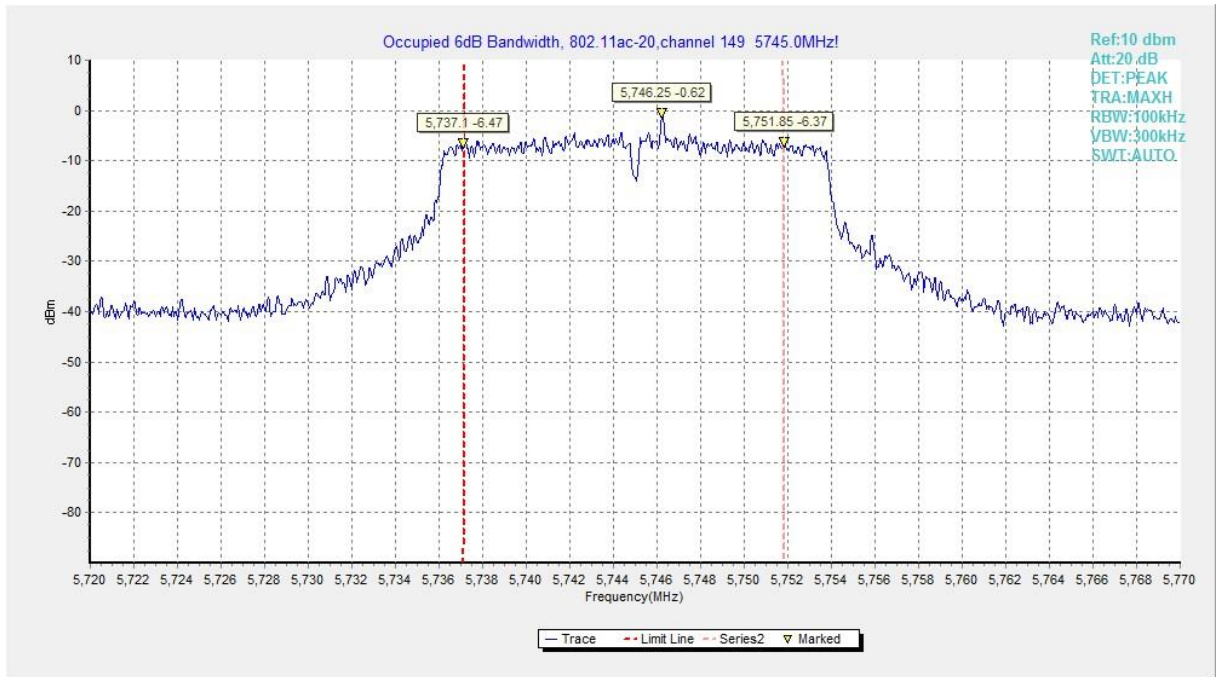


Fig. 7 Occupied 6dB Bandwidth (802.11ac20, Ch 149)

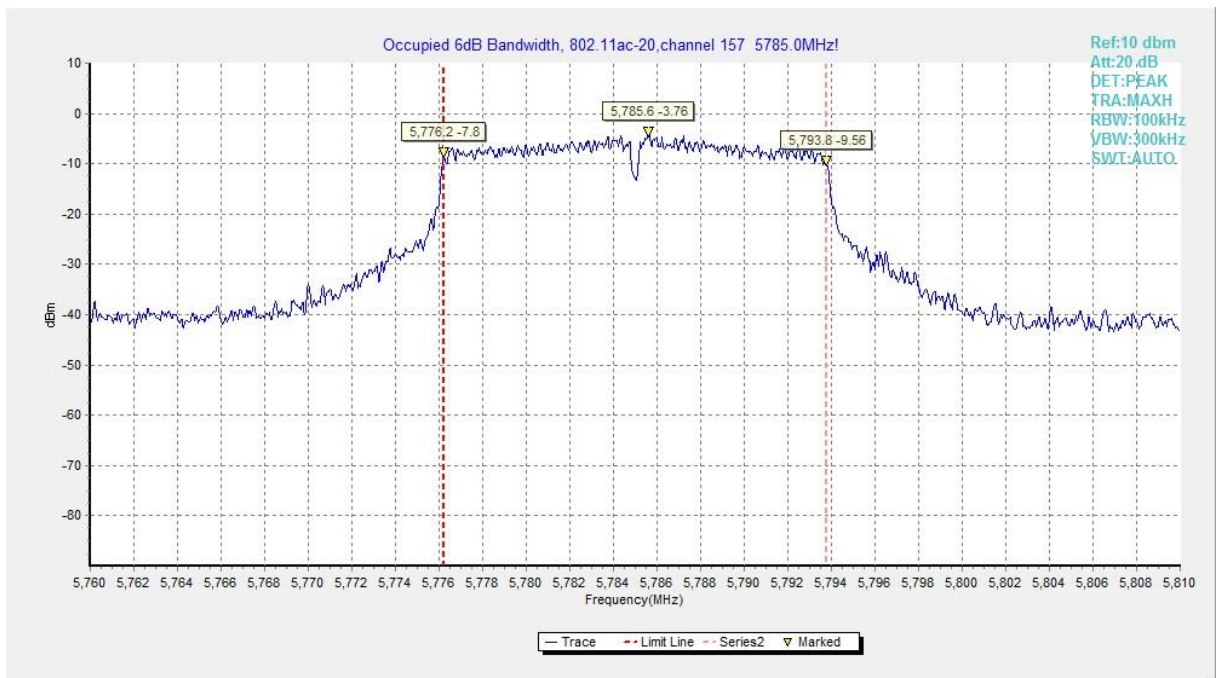


Fig. 8 Occupied 6dB Bandwidth (802.11ac20, Ch 157)

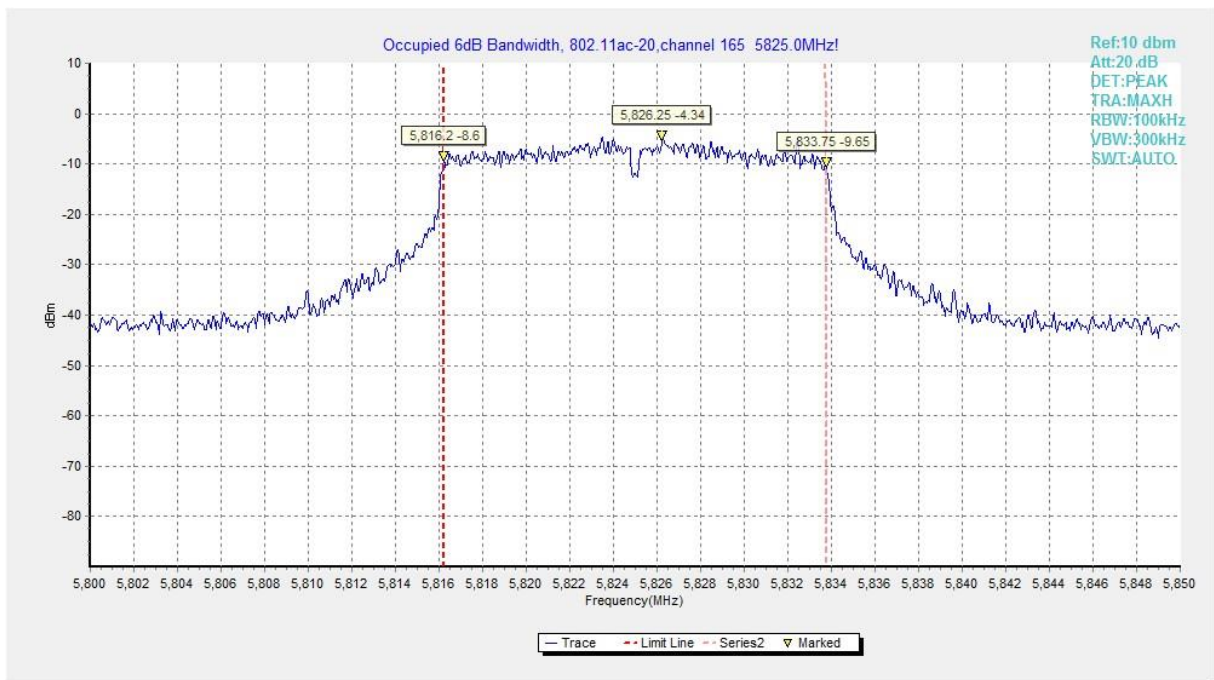


Fig. 9 Occupied 6dB Bandwidth (802.11ac20, Ch 165)

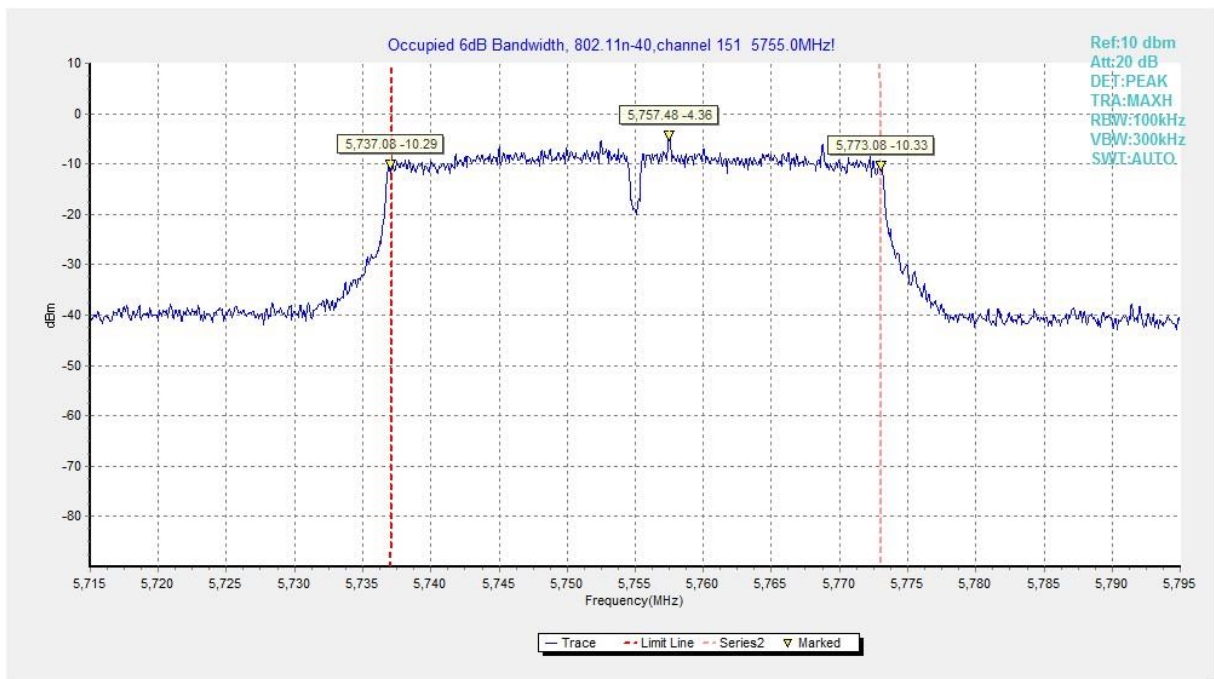


Fig. 10 Occupied 6dB Bandwidth (802.11n40, Ch 151)

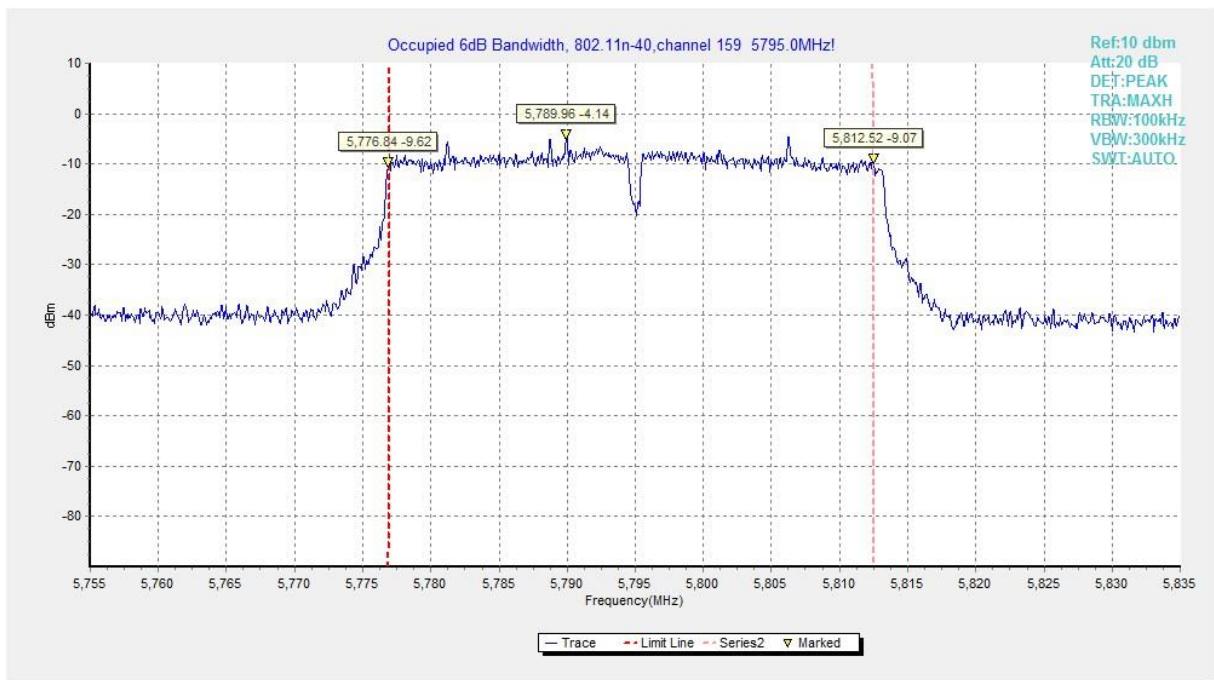


Fig. 11 Occupied 6dB Bandwidth (802.11n40, Ch 159)

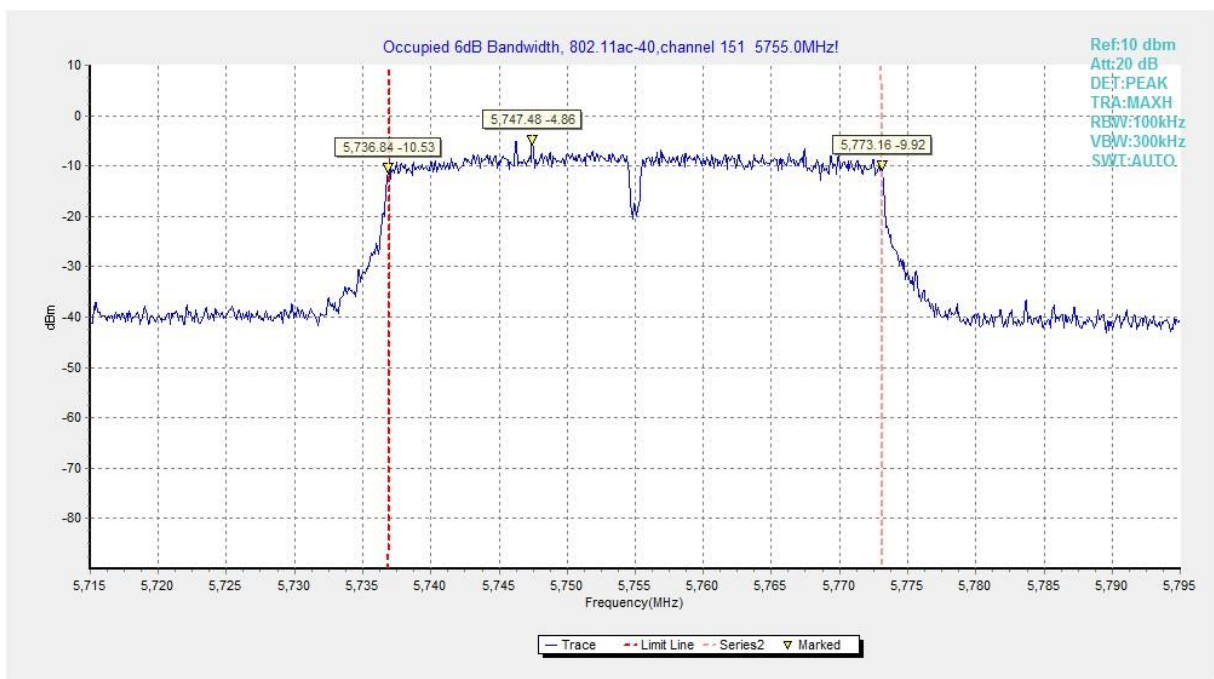


Fig. 12 Occupied 6dB Bandwidth (802.11ac40, Ch 151)

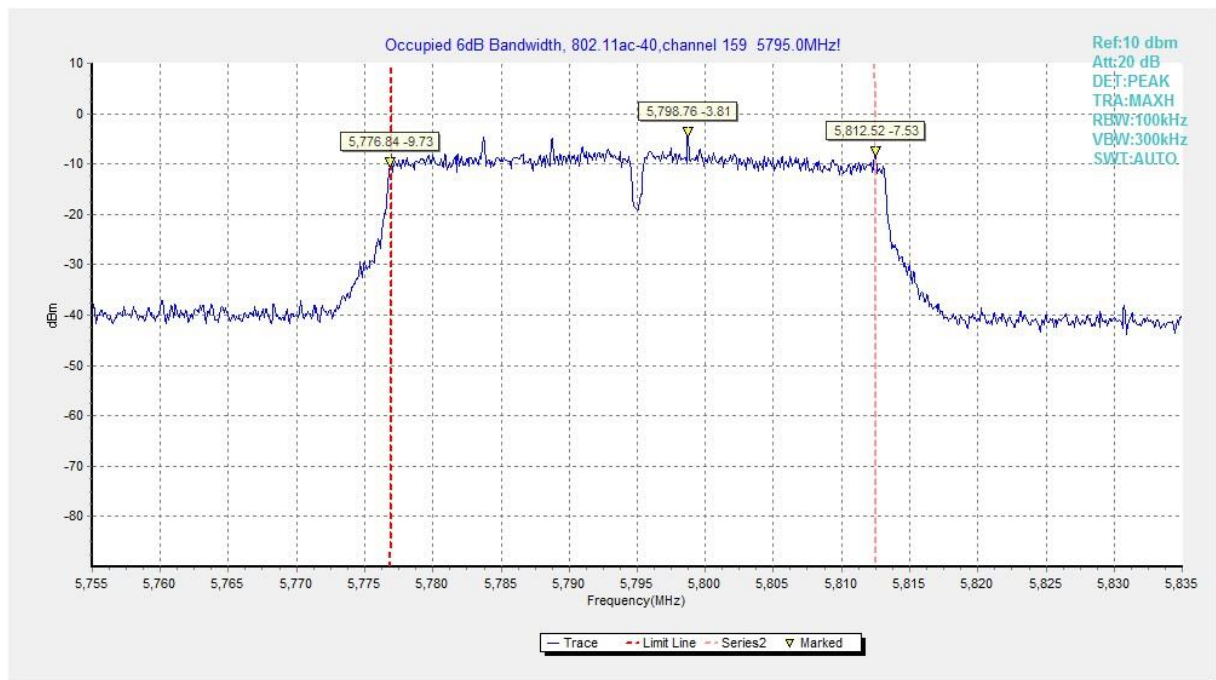


Fig. 13 Occupied 6dB Bandwidth (802.11ac40, Ch 159)

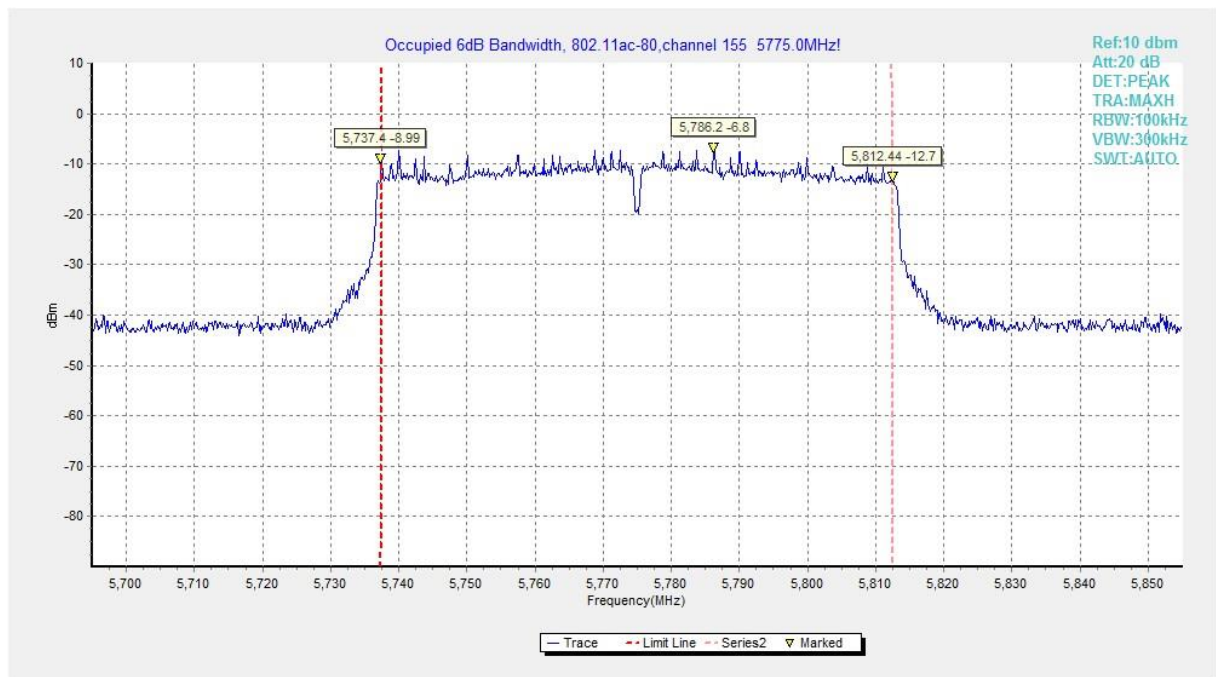


Fig. 14 Occupied 6dB Bandwidth (802.11ac80, Ch 155)

A.5. Transmitter Spurious Emission - Radiated

Measurement Limit:

Standard	Frequency (MHz)	Limit (dBm/MHz)
FCC 47 CFR Part 15.407	5725MHz~5850MHz	< -27

The measurement is made according to ANSI C63.10.

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 of emission (MHz)	Field strength (uV/m)	Field strength (dBμV/m)	Measurement distance(m)
30-88	100	40.0	3
88-216	150	43.5	3
216-960	200	46.0	3
Above 960	500	54.0	3

Measurement Results:

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.

Average Results:

802.11a

Ch149

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5448.000	39.2	-22.7	34.4	27.50	48.3	9.1	H	155	86
5458.400	39.0	-22.7	34.4	27.28	48.3	9.3	H	155	107
11490.200	33.0	-29.1	38.2	23.97	48.3	15.3	H	155	130
17725.000	38.8	-22.2	41.6	19.51	48.3	9.5	H	155	152
17826.200	38.9	-22.5	41.5	19.80	48.3	9.4	H	155	174
17915.300	38.9	-22.6	41.5	19.99	48.3	9.4	H	155	195

Ch157

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5381.200	39.4	-22.3	34.4	27.33	48.3	8.9	H	155	175
5391.200	39.3	-22.3	34.4	27.22	48.3	9.0	H	155	194
11569.950	32.8	-29.2	38.3	23.77	48.3	9.4	H	155	215
17732.700	38.9	-22.3	41.6	19.64	48.3	9.3	H	155	196
17830.600	39.0	-22.5	41.5	19.91	48.3	9.2	H	155	241
17913.100	39.1	-22.6	41.5	20.19	48.3	9.2	H	155	259

Ch165

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5367.200	39.3	-22.3	34.3	27.20	48.3	9.0	H	155	175
5391.600	39.3	-22.3	34.4	27.20	48.3	9.0	H	155	194
11649.700	32.9	-29.4	38.4	23.91	48.3	15.4	H	155	215
17743.700	38.9	-22.3	41.6	19.67	48.3	9.4	H	155	196
17820.700	38.8	-22.5	41.5	19.74	48.3	9.5	H	155	241
17904.300	39.0	-22.6	41.5	20.09	48.3	9.3	H	155	259

802.11n-HT20
Ch149

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5440.000	39.2	-22.6	34.4	27.47	48.3	9.1	H	155	40
5456.800	39.0	-22.7	34.4	27.33	48.3	9.3	H	155	65
11490.200	32.9	-29.1	38.2	23.85	48.3	15.4	H	155	84
16128.900	36.9	-23.3	40.9	19.35	48.3	11.4	H	155	107
17705.200	38.8	-22.2	41.6	19.43	48.3	9.5	H	155	135
17914.200	38.9	-22.6	41.5	20.07	48.3	9.4	H	155	151

Ch157

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5430.800	39.1	-22.6	34.4	27.30	48.3	9.2	H	155	4
5436.000	39.3	-22.6	34.4	27.47	48.3	9.1	H	155	26
11570.500	32.6	-29.2	38.3	23.61	48.3	15.7	H	155	356
16149.800	37.1	-23.3	40.9	19.49	48.3	11.2	H	155	348
17742.600	38.8	-22.3	41.6	19.54	48.3	9.5	H	155	174
17908.700	38.8	-22.6	41.5	19.96	48.3	9.5	H	155	112

Ch165

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5354.800	39.3	-22.3	34.3	27.22	48.3	9.0	H	155	8
5360.400	39.3	-22.3	34.3	27.21	48.3	9.0	H	155	28
11649.700	32.8	-29.4	38.4	23.86	48.3	15.5	H	155	6
16149.800	37.2	-23.3	40.9	19.53	48.3	11.1	H	155	278
17819.600	38.7	-22.5	41.5	19.59	48.3	9.6	H	155	122
17906.500	38.8	-22.6	41.5	19.96	48.3	9.5	H	155	245

802.11n-HT40
Ch151

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5384.400	39.3	-22.3	34.4	27.19	48.3	9.0	H	155	40
5405.600	39.2	-22.4	34.4	27.17	48.3	9.1	H	155	65
11510.000	32.6	-29.1	38.2	23.53	48.3	15.7	H	155	84
17711.800	39.0	-22.2	41.6	19.61	48.3	9.3	H	155	107
17734.900	38.9	-22.3	41.6	19.65	48.3	9.4	H	155	135
17913.100	39.2	-22.6	41.5	20.28	48.3	9.1	H	155	151

Ch159

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5352.800	39.4	-22.3	34.3	27.34	48.3	8.9	H	155	28
5389.600	39.3	-22.3	34.4	27.23	48.3	9.0	H	155	74
11590.300	32.8	-29.3	38.3	23.81	48.3	15.5	H	155	140
17751.400	38.9	-22.3	41.5	19.65	48.3	9.4	H	155	8
17799.800	38.6	-22.4	41.5	19.50	48.3	9.7	H	155	80
17839.400	39.0	-22.5	41.5	19.92	48.3	9.3	H	155	243

802.11ac-HT20
Ch149

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5386.000	39.3	-22.3	34.4	27.27	48.3	9.0	H	155	25
5461.600	39.1	-22.7	34.4	27.39	48.3	9.2	H	155	49
11490.200	32.8	-29.1	38.2	23.75	48.3	15.5	H	155	4
16185.000	37.1	-23.3	41.0	19.31	48.3	11.2	H	155	6
17819.600	38.7	-22.5	41.5	19.61	48.3	9.6	H	155	25
17903.200	38.9	-22.6	41.5	19.96	48.3	9.5	H	155	186

Ch157

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5384.000	39.4	-22.3	34.4	27.28	48.3	8.9	H	155	8
5440.800	39.2	-22.6	34.4	27.51	48.3	9.1	H	155	52
11570.500	32.7	-29.2	38.3	23.69	48.3	15.6	H	155	18
16147.600	37.2	-23.3	40.9	19.60	48.3	11.1	H	155	6
17734.900	38.9	-22.3	41.6	19.63	48.3	9.4	H	155	48
17915.300	38.9	-22.6	41.5	20.07	48.3	9.4	H	155	128

Ch165

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5352.400	39.3	-22.3	34.3	27.28	48.3	9.0	H	155	20
5389.200	39.3	-22.3	34.4	27.26	48.3	9.0	H	155	248
11649.700	32.8	-29.4	38.4	23.88	48.3	15.5	H	155	49
16148.700	37.3	-23.3	40.9	19.64	48.3	11.0	H	155	82
17828.400	38.9	-22.5	41.5	19.81	48.3	9.4	H	155	168
17915.300	39.0	-22.6	41.5	20.18	48.3	9.3	H	155	8

802.11ac-HT40

Ch151

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5360.400	39.3	-22.3	34.3	27.25	48.3	9.0	H	155	20
5388.000	39.4	-22.3	34.4	27.28	48.3	8.9	H	155	18
11510.000	32.7	-29.1	38.2	23.67	48.3	15.6	H	155	90
17720.600	39.0	-22.2	41.6	19.67	48.3	9.3	H	155	114
17750.300	38.9	-22.3	41.5	19.66	48.3	9.4	H	155	36
17836.100	39.0	-22.5	41.5	19.99	48.3	9.3	H	155	2

Ch159

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5387.600	39.3	-22.3	34.4	27.22	48.3	9.0	H	155	8
5436.800	39.2	-22.6	34.4	27.47	48.3	9.1	H	155	46
11589.900	32.7	-29.3	38.3	23.72	48.3	15.6	H	155	20
17721.700	39.0	-22.2	41.6	19.72	48.3	9.3	H	155	118
17826.200	38.9	-22.5	41.5	19.86	48.3	9.4	H	155	82
17917.500	39.1	-22.7	41.5	20.22	48.3	9.2	H	155	46

802.11ac-HT80

Ch155

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5358.000	39.4	-22.3	34.5	27.17	48.3	8.9	H	155	135
5376.000	39.3	-22.3	34.5	27.05	48.3	9.0	H	155	160
11549.600	32.9	-29.2	38.5	23.56	48.3	15.4	H	155	92
17723.900	38.9	-22.2	41.2	19.92	48.3	9.4	H	155	115
17752.500	38.9	-22.3	41.3	19.99	48.3	9.4	H	155	112
17827.300	38.9	-22.5	41.3	20.14	48.3	9.4	H	155	85

Peak Results:
802.11a

Ch149

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5650.368	54.1	-22.8	34.7	42.25	68.5	14.4	V	155	88
5651.656	55.0	-22.8	34.7	43.13	69.4	14.5	H	155	110
11490.200	46.4	-29.1	38.2	37.33	74.0	27.6	V	155	132
17234.950	54.2	-22.8	41.9	35.17	68.3	14.1	H	155	154
17363.100	55.9	-23.0	41.8	37.13	68.3	12.4	V	155	176
17562.200	56.2	-22.5	41.6	37.14	68.3	12.1	V	155	198

Ch157

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5644.800	56.2	-22.8	34.7	44.33	68.3	12.1	V	155	176
5845.800	55.8	-22.4	35.0	43.17	68.3	12.5	H	155	198
10411.650	48.5	-29.3	37.7	40.12	74.0	25.5	V	155	220
17354.850	54.4	-22.9	41.8	35.58	68.3	13.9	H	155	198
17439.000	56.6	-23.1	41.7	38.09	68.3	11.7	H	155	242
17547.900	56.9	-22.6	41.6	37.89	68.3	11.4	V	155	264

Ch165

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5923.137	55.4	-22.2	35.2	42.44	69.6	14.2	V	155	176
5924.655	55.3	-22.2	35.2	42.29	68.5	13.2	H	155	198
11650.250	46.5	-29.4	38.4	37.53	74.0	27.5	V	155	220
17474.750	55.1	-23.1	41.6	36.57	68.3	13.2	H	155	198
17530.850	56.9	-22.7	41.6	37.97	68.3	11.4	H	155	242
17643.050	56.9	-22.0	41.6	37.35	68.3	11.4	V	155	264

802.11n-HT20
Ch149

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5650.586	54.6	-22.8	34.7	42.73	68.6	14.1	H	155	88
5652.082	55.8	-22.8	34.7	43.94	69.7	14.0	H	155	110
11490.200	46.8	-29.1	38.2	37.78	74.0	27.2	H	155	88
17234.950	55.6	-22.8	41.9	36.55	68.3	12.7	V	155	110
17483.550	57.8	-23.0	41.6	39.22	68.3	10.5	V	155	132
17628.200	58.0	-22.1	41.6	38.51	68.3	10.3	H	155	154

Ch157

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5755.400	54.4	-22.9	34.9	42.42	68.3	13.9	H	155	0
5812.000	54.8	-22.7	35.0	42.53	68.3	13.5	V	155	22
11569.950	47.2	-29.2	38.3	38.13	74.0	26.8	V	155	352
16943.450	58.0	-23.0	42.1	38.89	68.3	10.3	V	155	352
17354.850	54.9	-22.9	41.8	36.08	68.3	13.4	V	155	176
17668.900	58.0	-22.1	41.6	38.51	68.3	10.3	V	155	110

Ch165

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5922.873	55.2	-22.2	35.2	42.29	69.8	14.5	V	155	0
5924.345	55.2	-22.2	35.2	42.26	68.7	13.5	V	155	22
11650.250	47.6	-29.4	38.4	38.69	74.0	26.4	H	155	0
17429.100	58.3	-23.1	41.7	39.73	68.3	10.0	H	155	264
17470.350	58.0	-23.1	41.6	39.49	68.3	10.3	H	155	110
17474.750	55.8	-23.1	41.6	37.26	68.3	12.5	H	155	242

802.11n-HT40
Ch151

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5650.633	54.5	-22.8	34.7	42.71	68.7	14.1	V	155	44
5652.289	54.5	-22.8	34.7	42.68	69.9	15.4	H	155	66
11510.000	45.5	-29.1	38.2	36.47	74.0	28.5	H	155	88
17265.200	55.1	-22.8	41.9	35.98	68.3	13.2	V	155	110
17365.850	58.0	-23.0	41.8	39.21	68.3	10.3	V	155	132
17503.350	57.4	-22.9	41.6	38.65	68.3	10.9	H	155	154

Ch159

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5922.689	56.1	-22.2	35.2	43.13	69.9	13.8	H	155	22
5924.368	55.7	-22.2	35.2	42.72	68.7	13.0	H	155	66
11589.750	46.5	-29.3	38.3	37.48	74.0	27.5	V	155	132
17385.100	54.8	-23.0	41.7	36.02	68.3	13.5	H	155	0
17520.950	57.5	-22.8	41.6	38.62	68.3	10.8	V	155	88
17606.750	57.8	-22.2	41.6	38.44	68.3	10.5	V	155	242

802.11ac-HT20

Ch149

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5650.770	54.1	-22.8	34.7	42.25	68.8	14.7	H	155	22
5651.553	55.4	-22.8	34.7	43.51	69.3	14.0	V	155	44
11490.200	47.9	-29.1	38.2	38.85	74.0	26.1	H	155	0
16924.750	57.8	-23.0	42.1	38.70	68.3	10.5	H	155	0
17234.950	56.7	-22.8	41.9	37.65	68.3	11.6	H	155	22
17536.350	57.7	-22.7	41.6	38.76	68.3	10.6	H	155	176

Ch157

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5751.200	54.7	-22.9	34.9	42.81	68.3	13.6	V	155	0
5813.400	54.8	-22.7	35.0	42.44	68.3	13.5	H	155	44
11569.950	46.8	-29.2	38.3	37.72	74.0	27.3	V	155	22
16881.300	57.9	-23.0	42.0	38.84	68.3	10.4	H	155	0
17354.850	55.1	-22.9	41.8	36.23	68.3	13.2	H	155	44
17605.650	59.3	-22.2	41.6	39.94	68.3	9.0	V	155	132

Ch165

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5921.688	55.3	-22.2	35.2	42.34	70.7	15.4	H	155	22
5924.586	55.6	-22.2	35.2	42.65	68.5	12.9	V	155	242
11650.250	47.5	-29.4	38.4	38.59	74.0	26.5	H	155	44
17040.250	58.2	-23.0	42.2	39.05	68.3	10.1	V	155	88
17474.750	56.6	-23.1	41.6	37.99	68.3	11.7	V	155	176
17599.600	58.0	-22.2	41.6	38.64	68.3	10.3	V	155	0

802.11ac-HT40
Ch151

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5650.909	54.9	-22.8	34.7	43.02	68.9	14.0	H	155	22
5652.369	54.8	-22.8	34.7	42.94	70.0	15.2	H	155	22
11510.000	46.1	-29.1	38.2	37.03	74.0	27.9	H	155	88
17265.200	56.3	-22.8	41.9	37.17	68.3	12.1	V	155	110
17421.950	56.3	-23.1	41.7	37.68	68.3	12.0	V	155	44
17525.375	57.4	-22.7	41.6	38.51	68.3	10.9	H	155	0

Ch159

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5922.574	55.8	-22.2	35.2	42.87	70.0	14.2	H	155	0
5924.885	55.6	-22.2	35.2	42.59	68.3	12.7	H	155	44
11589.750	46.1	-29.3	38.3	37.08	74.0	27.9	V	155	22
17385.100	55.0	-23.0	41.7	36.28	68.3	13.3	H	155	110
17490.700	56.9	-23.0	41.6	38.25	68.3	11.4	H	155	88
17573.200	57.1	-22.4	41.6	37.95	68.3	11.2	H	155	44

802.11ac-HT80
Ch155

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
5650.552	54.6	-22.8	34.8	42.65	68.6	14.0	H	155	132
5651.725	54.7	-22.8	34.8	42.78	69.5	14.7	H	155	154
11550.150	46.8	-29.2	38.5	37.46	74.0	27.2	V	155	88
17325.150	55.4	-22.9	41.4	36.87	68.3	12.9	H	155	110
17503.350	57.7	-22.9	41.2	39.34	68.3	10.6	V	155	110
17646.900	58.1	-22.1	41.2	38.90	68.3	10.2	V	155	88

A6. 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.	

The measurement is made according to KDB 789033 D02

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)).

Measurement Result:

Mode	Channel	Test Results	Conclusion
802.11a	5745 MHz	Fig.15	P
	5825 MHz	Fig.16	P
802.11n HT20	5745 MHz	Fig.17	P
	5825 MHz	Fig.18	P
802.11ac HT20	5745 MHz	Fig.19	P
	5825 MHz	Fig.20	P
802.11n HT40	5755 MHz	Fig.21	P
	5795 MHz	Fig.22	P
802.11ac HT40	5755 MHz	Fig.23	P
	5795 MHz	Fig.24	P
802.11ac HT80	5775 MHz	Fig.25	P
	5775 MHz	Fig.26	P

Conclusion: PASS

Test graphs as below:

RE - Power-5.650GHz-5.765GHz

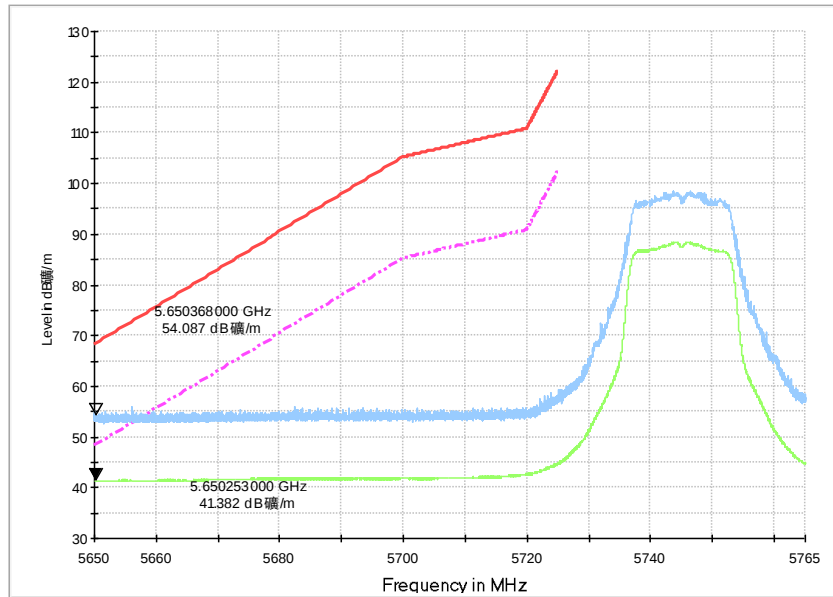


Fig. 15 Band Edges (802.11a, 5745MHz)

RE - Power-5.810GHz-5.925GHz

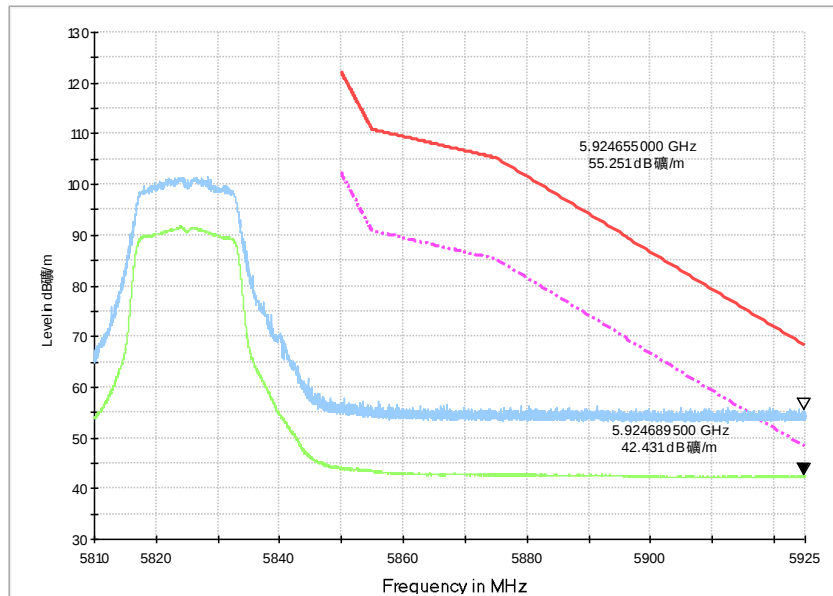


Fig. 16 Band Edges (802.11a, 5825MHz)

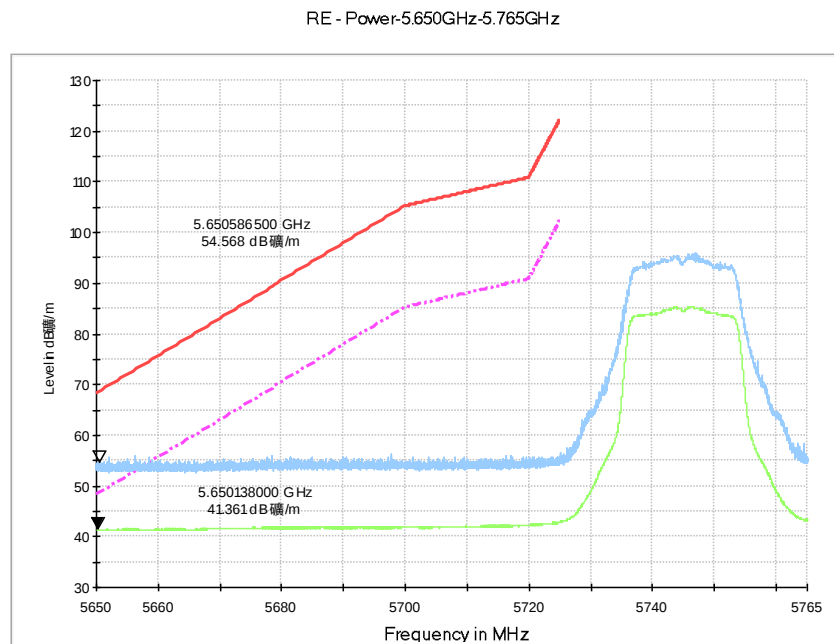


Fig. 17 Band Edges (802.11n-HT20, 5745MHz)

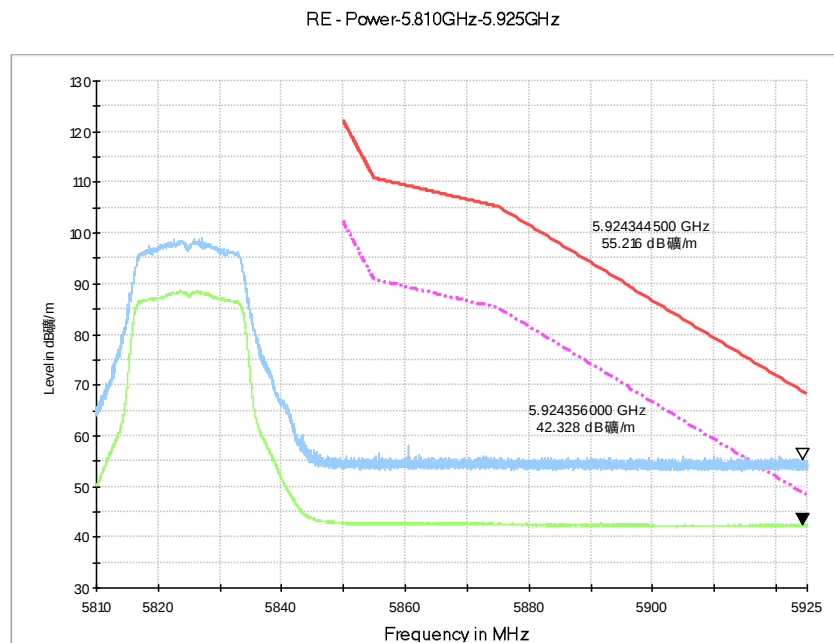


Fig. 18 Band Edges (802.11n-HT20, 5825MHz)

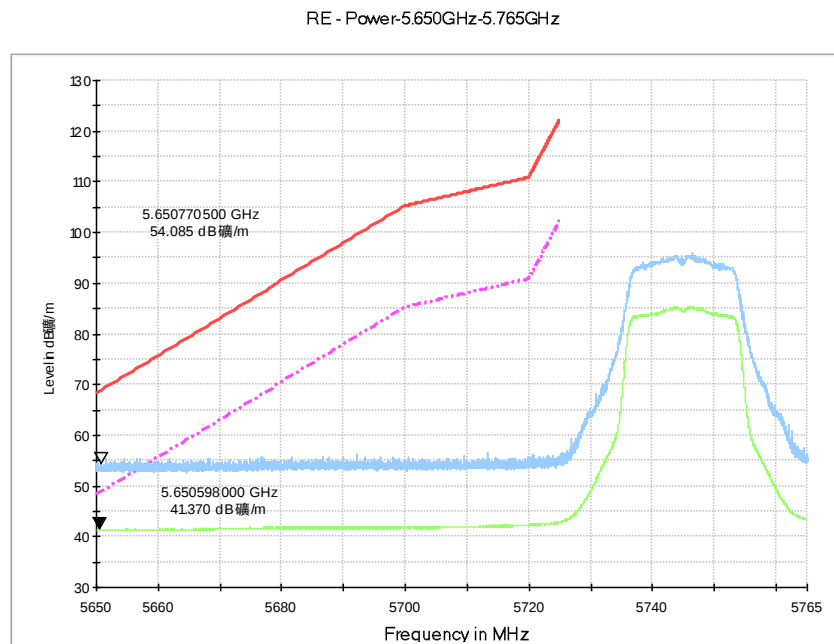


Fig. 19 Band Edges (802.11ac-HT20, 5745MHz)

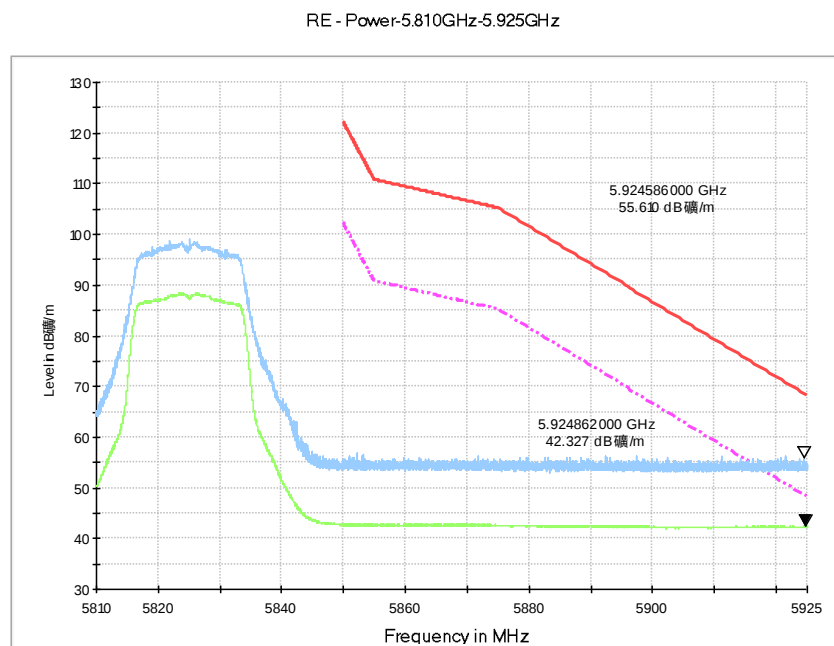


Fig. 20 Band Edges (802.11ac-HT20, 5825MHz)

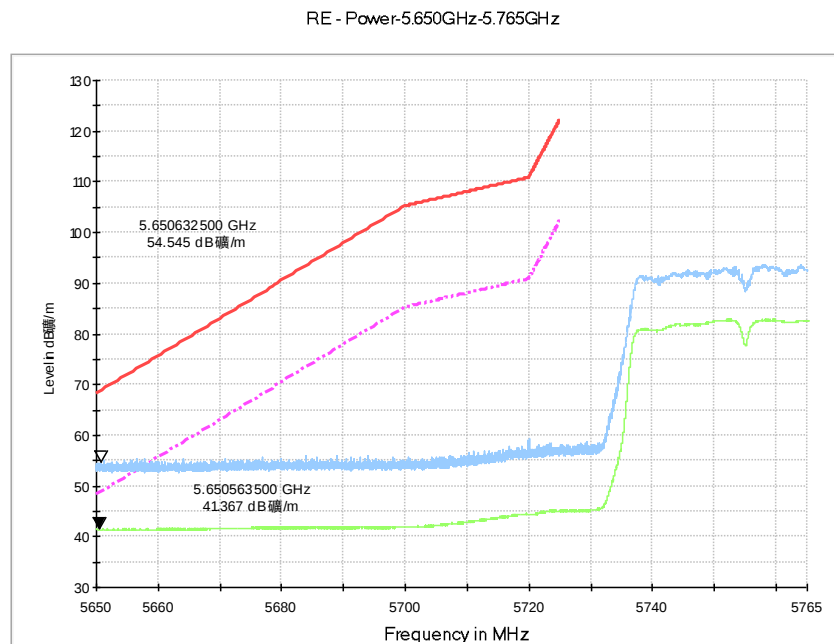


Fig. 21 Band Edges (802.11n-HT40, 5755MHz)

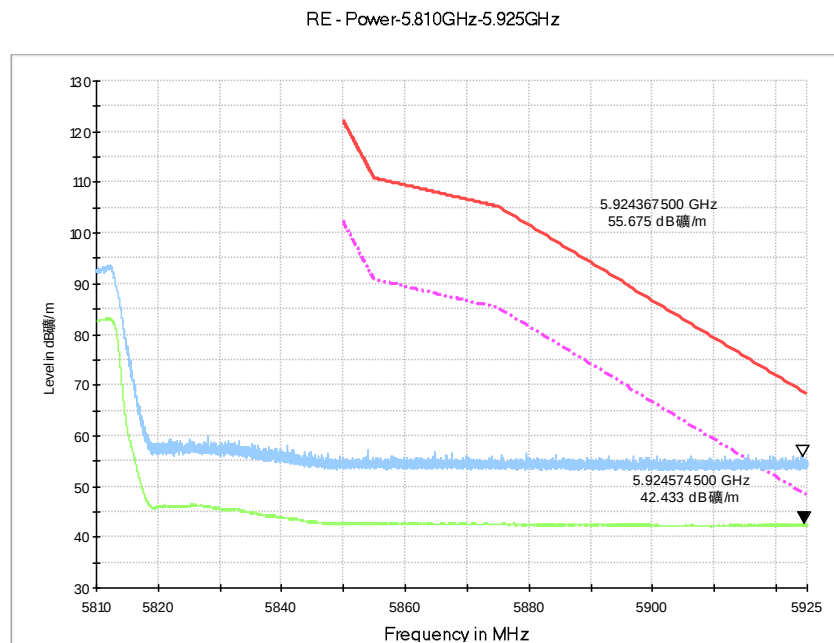


Fig. 22 Band Edges (802.11n-HT40, 5795MHz)

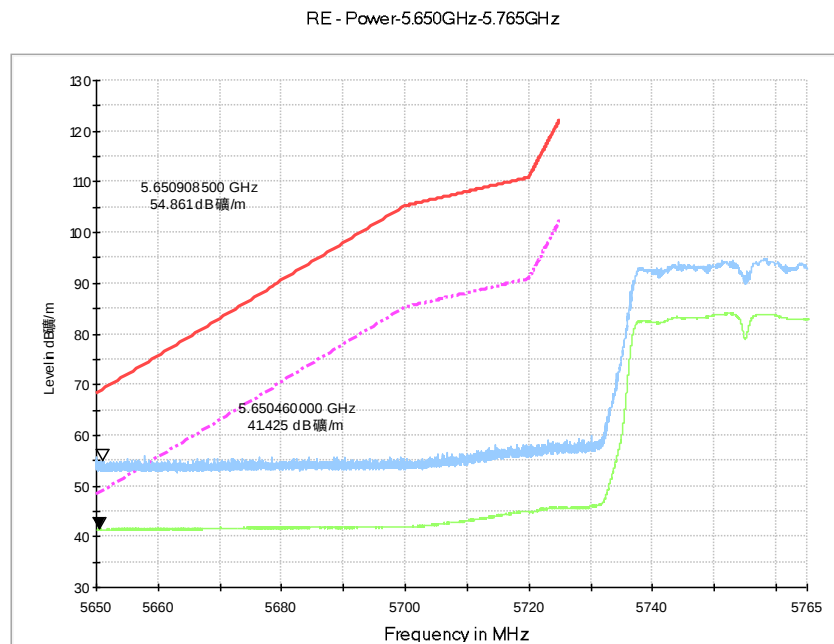


Fig. 23 Band Edges (802.11ac-HT40, 5755MHz)

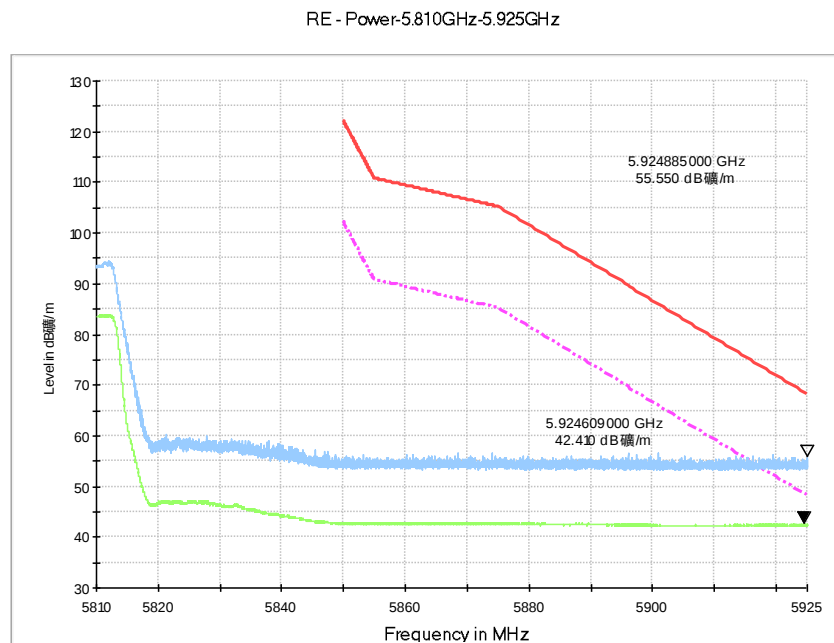


Fig. 24 Band Edges (802.11ac-HT40, 5795MHz)

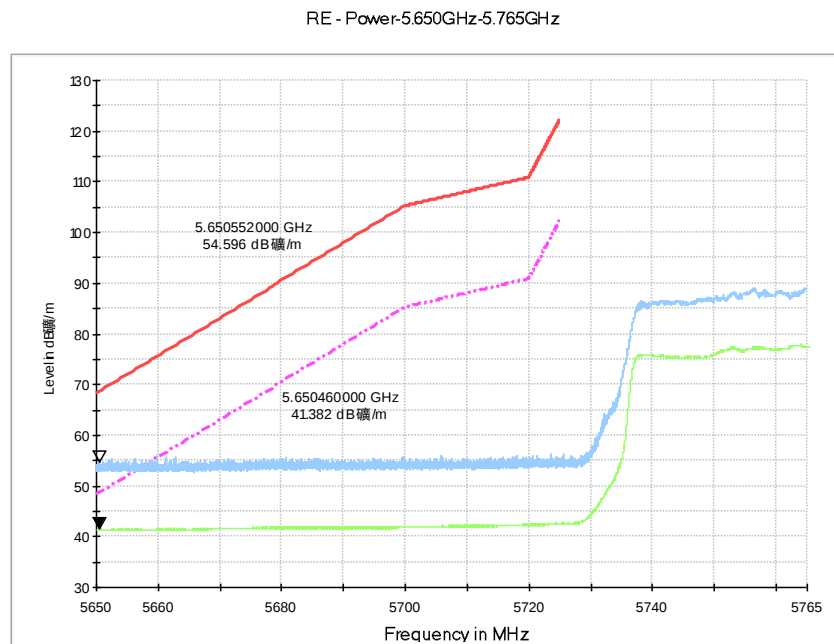


Fig. 25 Band Edges (802.11ac-HT80, 5775MHz)

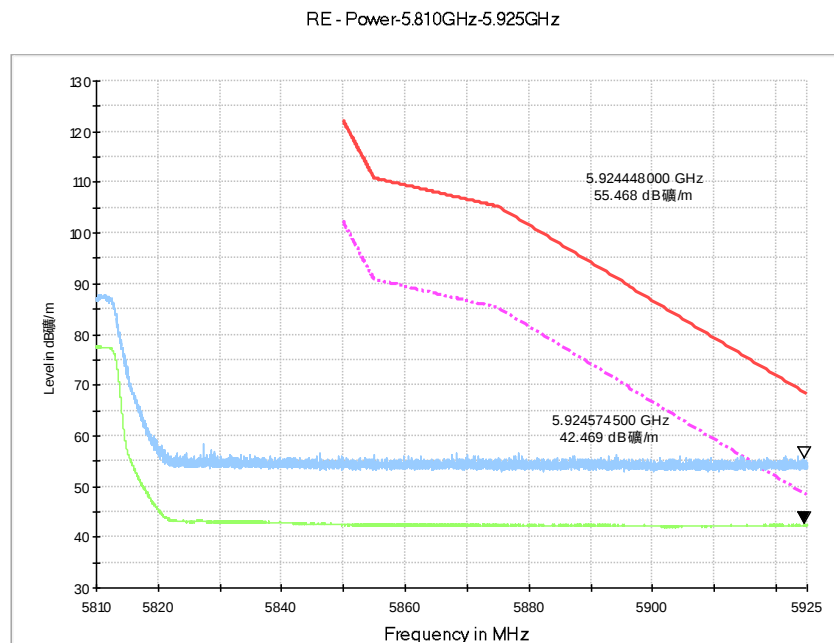


Fig. 26 Band Edges (802.11ac-HT80, 5775MHz)

A.7. AC Powerline Conducted Emission

Test Condition:

Voltage (V)	Frequency (Hz)
110	60

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. 27	Fig. 28	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. 29	Fig. 30	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:

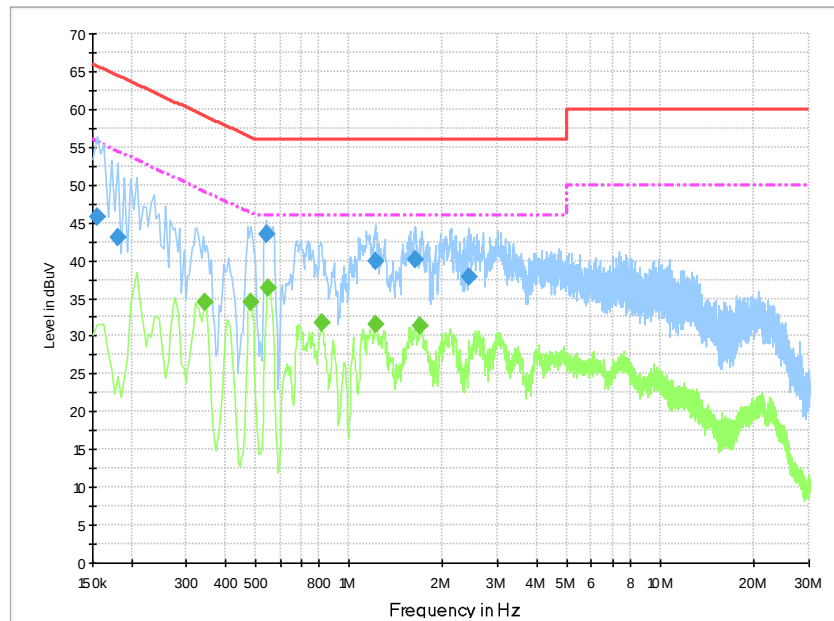


Fig. 27 AC Powerline Conducted Emission-802.11a

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.154500	45.8	5000.	9.000	On	L1	19.9	20.0	65.8	
0.181500	43.0	5000.	9.000	On	L1	20.1	21.5	64.4	
0.541500	43.6	5000.	9.000	On	L1	20.0	12.4	56.0	
1.212000	40.0	5000.	9.000	On	L1	19.8	16.0	56.0	
1.621500	40.1	5000.	9.000	On	L1	19.8	15.9	56.0	
2.431500	37.8	5000.	9.000	On	L1	19.8	18.2	56.0	

Final Result 2

Frequency (MHz)	Average (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.343500	34.5	5000.	9.000	On	L1	20.0	14.7	49.1	
0.483000	34.5	5000.	9.000	On	L1	20.0	11.8	46.3	
0.550500	36.4	5000.	9.000	On	L1	20.0	9.6	46.0	
0.816000	31.7	5000.	9.000	On	L1	19.9	14.3	46.0	
1.216500	31.5	5000.	9.000	On	L1	19.8	14.5	46.0	
1.689000	31.3	5000.	9.000	On	L1	19.8	14.7	46.0	

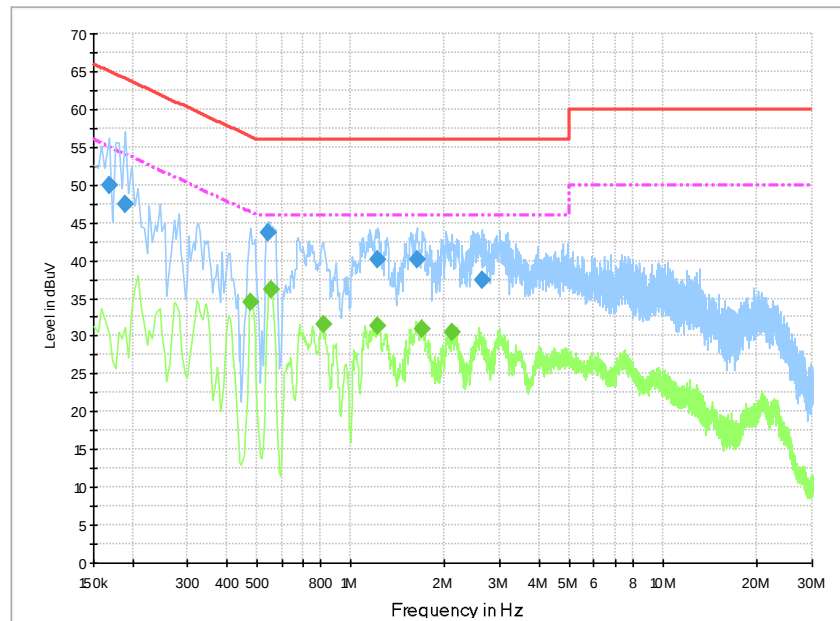


Fig. 28 AC Powerline Conducted Emission-Idle

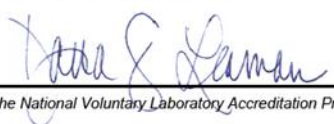
Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.168000	49.9	5000.	9.000	On	N	20.1	15.2	65.1	
0.190500	47.4	5000.	9.000	On	N	20.0	16.6	64.0	
0.541500	43.6	5000.	9.000	On	L1	20.0	12.4	56.0	
1.221000	40.1	5000.	9.000	On	L1	19.8	15.9	56.0	
1.626000	40.0	5000.	9.000	On	L1	19.8	16.0	56.0	
2.620500	37.4	5000.	9.000	On	L1	19.8	18.6	56.0	

Final Result 2

Frequency (MHz)	Average (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.478500	34.5	5000.	9.000	On	L1	20.0	11.9	46.4	
0.555000	36.1	5000.	9.000	On	L1	20.0	9.9	46.0	
0.816000	31.6	5000.	9.000	On	L1	19.9	14.4	46.0	
1.221000	31.4	5000.	9.000	On	L1	19.8	14.6	46.0	
1.684500	30.9	5000.	9.000	On	L1	19.8	15.1	46.0	
2.112000	30.6	5000.	9.000	On	L1	19.8	15.4	46.0	

ANNEX B: Accreditation Certificate

United States Department of Commerce National Institute of Standards and Technology NVLAP[®]  ilac-MRA	
Certificate of Accreditation to ISO/IEC 17025:2017	
NVLAP LAB CODE: 600118-0	
Telecommunication Technology Labs, CAICT Beijing China	
<i>is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:</i>	
Electromagnetic Compatibility & Telecommunications	
<i>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).</i>	
2020-09-29 through 2021-09-30 <i>Effective Dates</i>	 DEPARTMENT OF COMMERCE UNITED STATES OF AMERICA  _____ <i>For the National Voluntary Laboratory Accreditation Program</i>

*** END OF REPORT BODY ***