



FCC PART 15E TEST REPORT No.25T04Z100757-017

for

TCL Communication Ltd.

GSM/UMTS/LTE/NR Mobile phone

T951P

FCC ID: 2ACCJH188

with

Hardware Version: 05

Software Version: 9ESH

Issued Date: 2025-06-25

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.

Test Laboratory:

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No.25T04Z100757-017

REPORT HISTORY

Report Number	Revision	Description	Issue Date
25T04Z100757-017	Rev.0	1st edition	2025-06-25

Note: the latest revision of the test report supersedes all previous version.

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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 American Association for Laboratory Accreditation (A2LA) with lab code 7049.01, and is also an FCC accredited test laboratory (CN1349), and ISED accredited test laboratory (CAB identifier:CN0066). The detail accreditation scope can be found on A2LA website.

1.2. Testing Location

Conducted testing Location:CTTL(Gaolizhang Road)

Address: Cuihu Cloud Center, No.1, Gaolizhang Road, Wenquan,
Haidian District, Beijing, China

Radiated testing Location: CTTL(BDA)

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

1.3. TestingEnvironment

Normal Temperature: 15-35°C

Relative Humidity: 20-75%

1.4. Project date

Testing Start Date: 2025-05-13

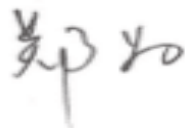
Testing End Date: 2025-06-25

1.5. Signature



Yao Xingyu

(Prepared this test report)



Zheng Wei

(Reviewed this test report)



Pang Shuai

(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name: TCL Communication Ltd.
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Park, Shatin, NT, Hong Kong
City: Hong Kong
Postal Code: /
Country: China
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Contact Email: ting.wang.hz@tcl.com
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2.2. Manufacturer Information

Company Name: TCL Communication Ltd.
Address/Post: 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 Person: Ting Wang
Contact Email: ting.wang.hz@tcl.com
Telephone: +86 752 2639091
Fax: 0086-755-36612000-81722

3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	GSM/UMTS/LTE/NR Mobile phone
Model name	T951P
FCC ID	2ACCJH188
WLAN Frequency Band	ISM Band: 5725MHz~5850MHz
Type of modulation	OFDM/OFDMA
Normal Voltage	3.85V
Extreme High Voltage	4.4V
Extreme Low Voltage	3.6V

3.2. Internal Identification of EUT used during the test

EUT ID*	IMEI	HW Version	SW Version	Date of receipt
UT36a	356448870204758/ 356448870204766	05	9ESH	2025-06-07
UT24a	356448870204436/ 356448870204543	05	9ESH	2025-05-13
UT28a	356448870204477/ 356448870204584	05	9ESH	2025-05-13

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

UT36a is used for Conduction test, UT24a and UT28a are used for Radiation test.

3.3. Internal Identification of AE used during the test

AE ID*	Description	Note	Manufacturer
AE1	Battery	TLp050D7	VEKEN
AE2	Charger	QC16US	PUAN
AE2-2	Charger	QC16EU	BaiJunDa
AE3-1	USB cable	CDA0000308C1	JUWEI
AE3-1	USB cable	CDA0000305C1	JUWEI

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

3.4. General Description

Equipment Under Test (EUT) is a model of GSM/UMTS/LTE/NR Mobile phone 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;	
	15.207 Conducted limits;	2021
	15.209 Radiated emission limits, general requirements;	
ANSI C63.10	15.407 General technical requirements.	
	Methods of Measurement of Radio-Noise Emissions from	
	Low-Voltage Electrical and Electronic Equipment in the	2013
	Range of 9 kHz to 40 GHz	
UNII: KDB 789033	General U-NII Test Procedures New Rules v02r01	2017-12
D02		

Note:UNII: KDB 789033 D02 is not in the scope of ISO/IEC 17025 accreditation by A2LA.

5. Laboratory Environment

Conducted RF performance testing is performed in shielding room.

EMC performance testing is performed in Semi-anechoic chamber.

6. Test Results

6.1. Summary of Test Results

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

6.2. Statements

CTTL has evaluated the test cases 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.

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 Facilities 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	2025-08-11
2	Vector Signal Analyzer	FSW67	104051	Rohde & Schwarz	1 year	2026-06-09
3	LISN	ENV216	101200	Rohde & Schwarz	1 year	2026-06-05
4	Test Receiver	ESCI	100344	Rohde & Schwarz	1 year	2026-04-01
5	Attenuator	10dB/2W	/	Rosenberger	/	/
6	Shielding Room	S81	/	ETS-Lindgren	/	/

Radiated emission test system

BDA SAC/FAC3

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Test Receiver	ESR26	101372	R&S	1 year	2026-01-15
2	EMI Antenna	VULB 9163	01177	R&S	1 year	2025-11-19
3	EMI Antenna	3117	00119021	Schwarzbeck	1 year	2025-09-18
4	Test Receiver	FSV40	101047	R&S	1 year	2025-07-18
5	EMI Antenna	LB-180400 -25-C-KF	J211060826	A-INFO	1 year	2025-07-29

Huayuan North Road

Test Item	Test Software and Version	Software Vendor
Conducted emission	EMC32 V8.53.0	R&S

BDA

Test Item	Test Software and Version	Software Vendor
Radiated emission	EMC32 V8.53.0	R&S

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. 6dB Emission 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	/
$30\text{MHz} \leq f \leq 1\text{GHz}$	5.73
$1\text{GHz} \leq f \leq 18\text{GHz}$	5.58
$18\text{GHz} \leq f \leq 40\text{GHz}$	3.37

8.6. AC Power-line Conducted Emission

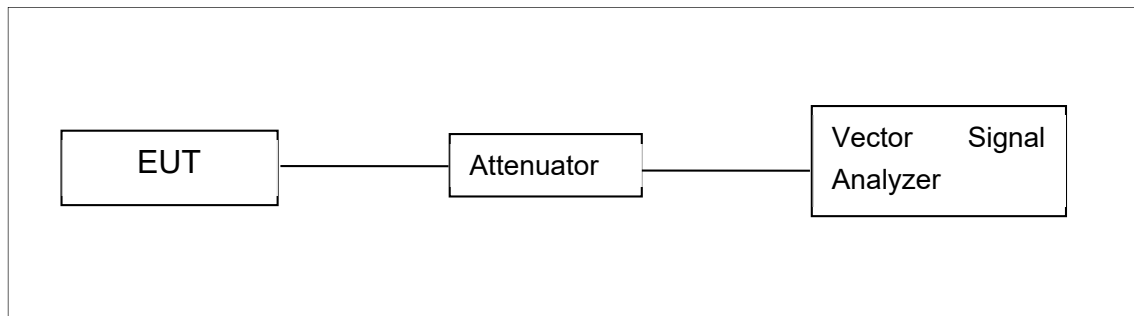
Measurement Uncertainty : 3.08dB,k=2

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

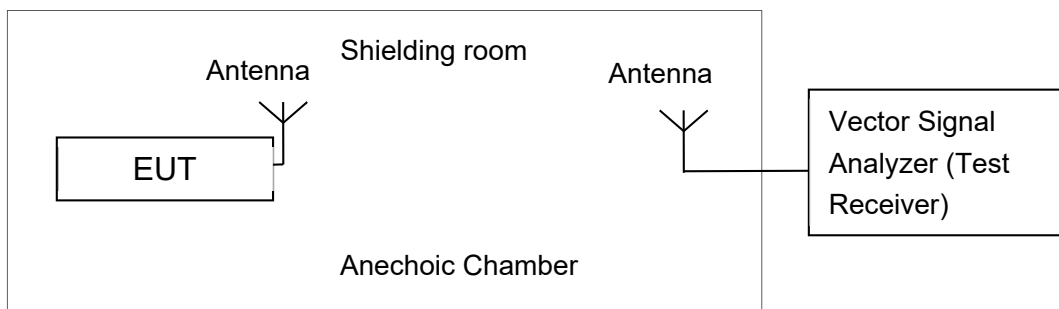


A.1.2. Radiated Emission Measurements

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

Set span to encompass the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.

Set RBW = 1 MHz.

Set VBW $\geq$ 3 MHz.

Number of points in sweep $\geq 2 \times \text{span} / \text{RBW}$.

Sweep time = auto.

Detector = power averaging (rms)

Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed to ensure that the average accurately represents the true average over the on and off periods of the transmitter.

Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal. Add $10 \log(1/x)$, where x is the duty cycle

A.2.1 Antenna Gain

Antenna gain is -5.80dBi/ -5.60dBi(Ant6/Ant9) and the value is supplied by the applicant or manufacturer.

A.2.2. Maximum Average Output Power-Conducted

EUT ID: UT36a

Measurement Results:

Full RU MIMO

Mode	Data Rate (Index)	Conducted power								
		5745MHz(Ch149)			5785MHz(Ch157)			5825MHz(Ch165)		
		Ant6	Ant9	MIMO	Ant6	Ant9	MIMO	Ant6	Ant9	MIMO
802.11a	6Mbps	18.05	18.51	21.30	18.01	18.79	21.43	18.22	18.80	21.53
802.11n-HT20	MCS0	18.00	18.57	21.30	18.11	18.67	21.41	18.06	18.83	21.47
802.11ac-VHT20	MCS0	18.01	18.64	21.35	18.07	18.87	21.50	18.06	18.82	21.47
802.11ax-HE20	MCS0	16.12	17.05	19.62	16.02	17.18	19.65	16.25	17.45	19.90

Mode	Data Rate (Index)	Conducted power					
		5755MHz(Ch151)			5795MHz(Ch159)		
		Ant6	Ant9	MIMO	Ant6	Ant9	MIMO
802.11n-HT40	MCS0	16.76	16.14	19.47	16.86	16.72	19.80
802.11ac-VHT40	MCS0	16.83	16.46	19.66	16.81	16.76	19.80
802.11ax-HE40	MCS0	16.26	15.66	18.98	16.32	16.01	19.18

Mode	Data Rate (Index)	Conducted power		
		5775MHz(Ch155)		
		Ant6	Ant9	MIMO
802.11ac-VHT80	MCS0	15.15	14.82	18.00
802.11ax-HE80	MCS0	15.37	15.12	18.26

RU mode:

Mode	RU index	Conducted power								
		5745MHz(Ch149)			5785MHz(Ch157)			5825MHz(Ch165)		
		Ant6	Ant9	MIMO	Ant6	Ant9	MIMO	Ant6	Ant9	MIMO
802.11ax -HE20	RU26 left	9.89	9.95	12.93	9.68	9.62	12.66	9.66	9.24	12.47
	RU26 right	9.88	9.94	12.92	9.71	9.60	12.67	9.60	9.36	12.49
	RU52 left	12.92	12.64	15.79	12.71	12.16	15.45	12.36	12.14	15.26
	RU52 right	12.76	12.46	15.62	12.82	12.11	15.49	12.28	12.18	15.24
	RU106 left	14.22	14.06	17.15	14.08	13.99	17.05	14.10	14.02	17.07
	RU106 right	14.34	14.01	17.19	14.14	14.04	17.10	14.08	14.13	17.12



Maximum output Power: 11a CH165 Ant9

Duty Cycle

Mode	802.11a	802.11n20	802.11n40	802.11ac20	802.11ac40	802.11ac80
Duty Cycle	100%	100%	100%	100%	100%	100%

802.11ax-20	802.11ax-40	802.11ax-80
100%	100%	100%

Mode	802.11ax-20 RU26	802.11ax-20 RU52	802.11ax-20 RU106
Duty Cycle	88%	88%	77%



Duty Cycle:RU26

Conclusion: PASS

A.3. Peak Power Spectral Density

Measurement Limit:

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

Set span to encompass the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.

Set RBW = 500 kHz.

Set VBW $\geq$ 3 MHz.

Number of points in sweep $\geq 2 \times \text{span} / \text{RBW}$.

Sweep time = auto.

Detector = power averaging (rms)

Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed to ensure that the average accurately represents the true average over the on and off periods of the transmitter. Use the peak search function on the instrument to find the peak of the spectrum and record its value. Add $10 \log (1/x)$, where x is the duty cycle.

Measurement Uncertainty:

Measurement Uncertainty	0.75dB
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EUT ID: UT36a

Full RU MIMO

Measurement Results:

TestMode	Antenna	Frequency[MHz]	Result [dBm/500KHz]	Limit[dBm/500KHz]	Verdict
11A	Ant6	5745	4.52	≤ 30.00	PASS
	Ant9	5745	4.97	≤ 30.00	PASS
	total	5745	7.76	≤ 30.00	PASS
	Ant6	5785	4.67	≤ 30.00	PASS
	Ant9	5785	5.21	≤ 30.00	PASS
	total	5785	7.96	≤ 30.00	PASS
	Ant6	5825	5.03	≤ 30.00	PASS
	Ant9	5825	5.52	≤ 30.00	PASS
	total	5825	8.29	≤ 30.00	PASS
11N40MIMO	Ant6	5755	0.30	≤ 30.00	PASS
	Ant9	5755	0.41	≤ 30.00	PASS
	total	5755	3.37	≤ 30.00	PASS
	Ant6	5795	0.37	≤ 30.00	PASS
	Ant9	5795	0.57	≤ 30.00	PASS
	total	5795	3.48	≤ 30.00	PASS
11AC20MIMO	Ant6	5745	4.42	≤ 30.00	PASS
	Ant9	5745	5.11	≤ 30.00	PASS
	total	5745	7.79	≤ 30.00	PASS

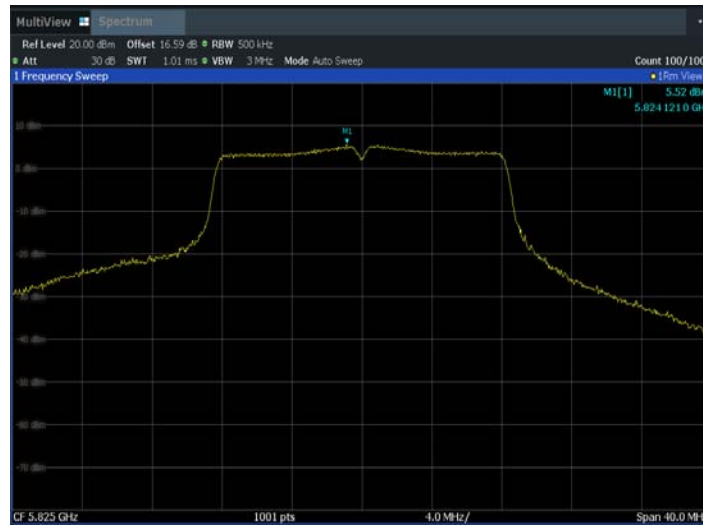
	Ant6	5785	4.57	≤30.00	PASS
	Ant9	5785	5.33	≤30.00	PASS
	total	5785	7.98	≤30.00	PASS
	Ant6	5825	4.59	≤30.00	PASS
	Ant9	5825	5.47	≤30.00	PASS
	total	5825	8.06	≤30.00	PASS
11AX80MIMO	Ant6	5775	-5.92	≤30.00	PASS
	Ant9	5775	-6.04	≤30.00	PASS
	total	5775	-2.97	≤30.00	PASS

RU MIMO

Measurement Results:

Test Mode	Antenna	Frequency[MHz]	Ru Size	Ru Index	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
11AX20MIMO	Ant6	5745	26Tone	RU0	5.07	≤30.00	PASS
				RU8	5.10	≤30.00	PASS
			52Tone	RU37	5.14	≤30.00	PASS
				RU40	5.01	≤30.00	PASS
			106Tone	RU53	4.67	≤30.00	PASS
				RU54	4.38	≤30.00	PASS
	Ant9	5745	26Tone	RU0	4.75	≤30.00	PASS
				RU8	5.04	≤30.00	PASS
			52Tone	RU37	4.87	≤30.00	PASS
				RU40	4.75	≤30.00	PASS
			106Tone	RU53	4.34	≤30.00	PASS
				RU54	4.12	≤30.00	PASS
	total	5745	26Tone	RU0	7.92	≤30.00	PASS
				RU8	8.08	≤30.00	PASS
			52Tone	RU37	8.02	≤30.00	PASS
				RU40	7.89	≤30.00	PASS
			106Tone	RU53	7.52	≤30.00	PASS
				RU54	7.26	≤30.00	PASS
	Ant6	5785	26Tone	RU0	4.65	≤30.00	PASS
				RU8	4.63	≤30.00	PASS
			52Tone	RU37	4.90	≤30.00	PASS
				RU40	5.06	≤30.00	PASS
			106Tone	RU53	4.17	≤30.00	PASS
				RU54	4.06	≤30.00	PASS
	Ant9	5785	26Tone	RU0	4.40	≤30.00	PASS
				RU8	4.51	≤30.00	PASS
			52Tone	RU37	4.50	≤30.00	PASS

			106Tone	RU40	4.21	≤30.00	PASS
				RU53	3.85	≤30.00	PASS
				RU54	4.02	≤30.00	PASS
	total	5785	26Tone	RU0	7.54	≤30.00	PASS
				RU8	7.58	≤30.00	PASS
			52Tone	RU37	7.71	≤30.00	PASS
				RU40	7.67	≤30.00	PASS
			106Tone	RU53	7.02	≤30.00	PASS
				RU54	7.05	≤30.00	PASS
	Ant6	5825	26Tone	RU0	4.75	≤30.00	PASS
				RU8	4.52	≤30.00	PASS
			52Tone	RU37	4.66	≤30.00	PASS
				RU40	4.60	≤30.00	PASS
			106Tone	RU53	4.01	≤30.00	PASS
				RU54	4.04	≤30.00	PASS
	Ant9	5825	26Tone	RU0	4.07	≤30.00	PASS
				RU8	4.21	≤30.00	PASS
			52Tone	RU37	4.27	≤30.00	PASS
				RU40	4.42	≤30.00	PASS
			106Tone	RU53	3.95	≤30.00	PASS
				RU54	4.08	≤30.00	PASS
	total	5825	26Tone	RU0	7.43	≤30.00	PASS
				RU8	7.38	≤30.00	PASS
			52Tone	RU37	7.48	≤30.00	PASS
				RU40	7.52	≤30.00	PASS
			106Tone	RU53	6.99	≤30.00	PASS
				RU54	7.07	≤30.00	PASS



Peak Power Spectral Density:11a CH165 Ant9

Conclusion: PASS

A.4. 6dB Emission Bandwidth

Measurement Limit:

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

Set RBW = 100 kHz.

Set the video bandwidth (VBW) $\geq 3 \times$ RBW.

Detector = Peak.

Trace mode = max hold.

Sweep = auto couple.

Allow the trace to stabilize.

Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Measurement Uncertainty:

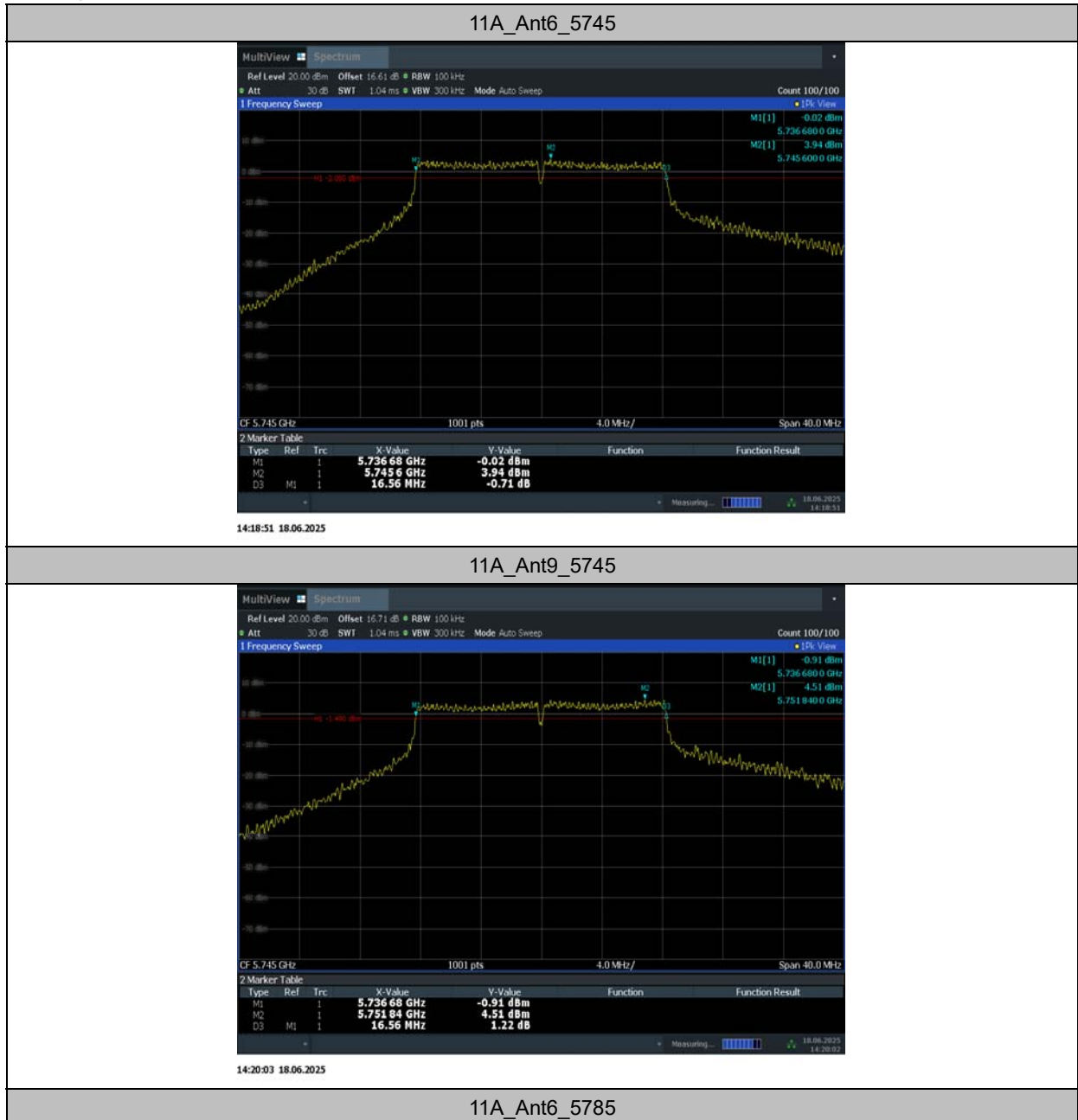
Measurement Uncertainty	60.80Hz
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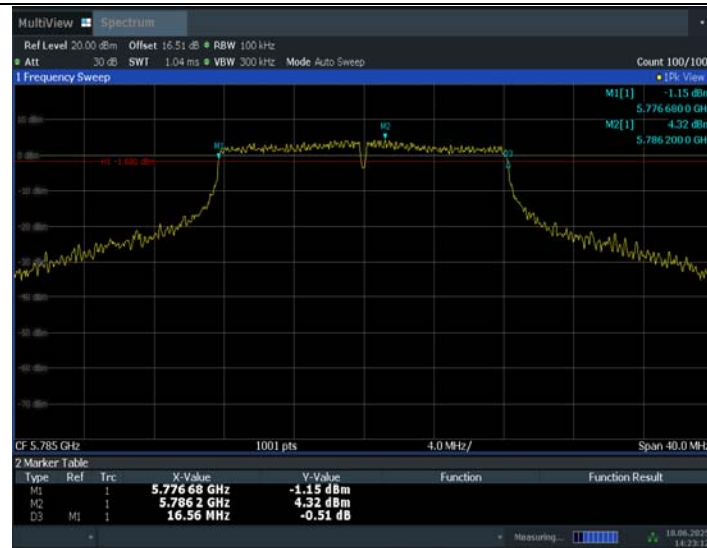
EUT ID: UT36a

Measurement Result:

TestMode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant6	5745	16.56	5736.68	5753.24	0.5	PASS
	Ant9	5745	16.56	5736.68	5753.24	0.5	PASS
	Ant6	5785	16.56	5776.68	5793.24	0.5	PASS
	Ant9	5785	16.40	5776.76	5793.16	0.5	PASS
	Ant6	5825	16.44	5816.72	5833.16	0.5	PASS
	Ant9	5825	16.44	5816.76	5833.20	0.5	PASS
11N40MIMO	Ant6	5755	36.40	5736.76	5773.16	0.5	PASS
	Ant9	5755	36.32	5736.76	5773.08	0.5	PASS
	Ant6	5795	36.40	5776.76	5813.16	0.5	PASS
	Ant9	5795	35.76	5776.76	5812.52	0.5	PASS
11AC20MIMO	Ant6	5745	17.80	5736.04	5753.84	0.5	PASS
	Ant9	5745	17.64	5736.12	5753.76	0.5	PASS
	Ant6	5785	17.76	5776.08	5793.84	0.5	PASS
	Ant9	5785	17.64	5776.12	5793.76	0.5	PASS
	Ant6	5825	17.60	5816.16	5833.76	0.5	PASS
	Ant9	5825	17.60	5816.16	5833.76	0.5	PASS
11AX80MIMO	Ant6	5775	78.24	5735.80	5814.04	0.5	PASS
	Ant9	5775	78.24	5735.80	5814.04	0.5	PASS

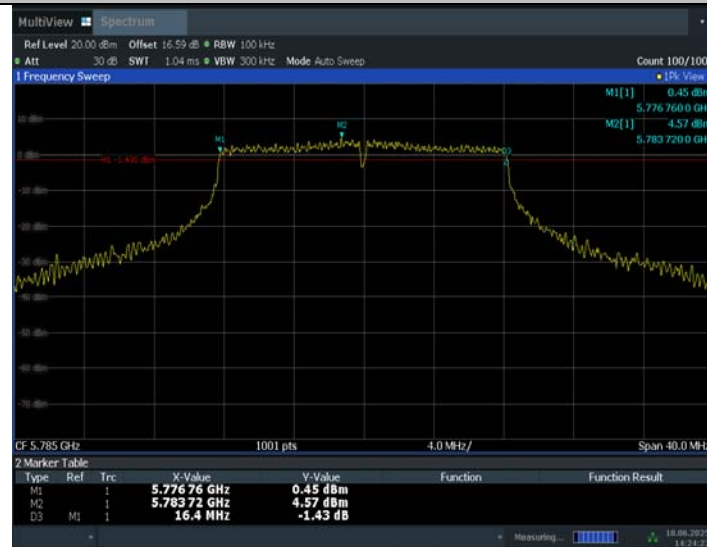
Test graphs as below:





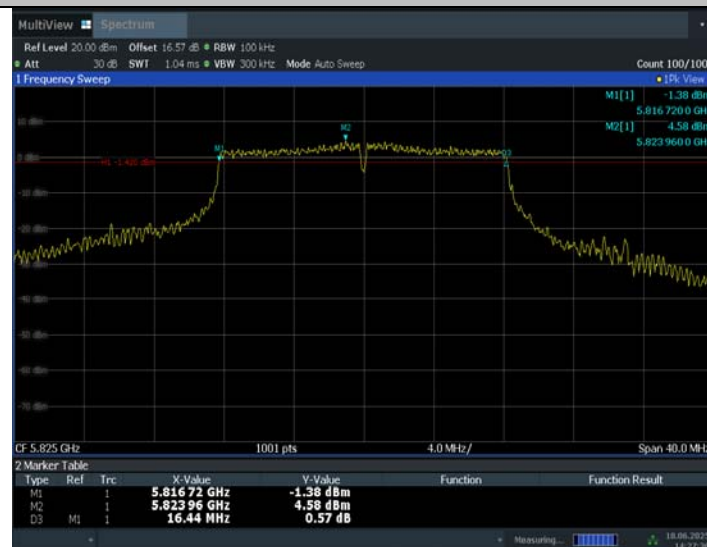
14:23:12 18.06.2025

11A_Ant9_5785



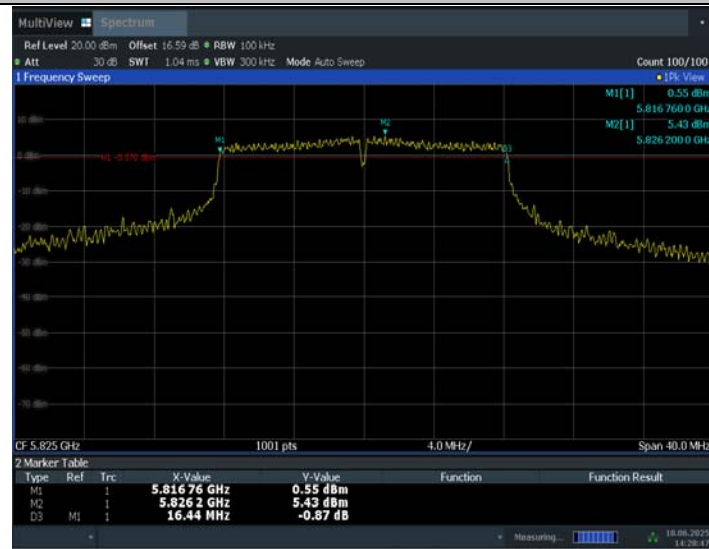
14:24:24 18.06.2025

11A_Ant6_5825



14:27:36 18.06.2025

11A_Ant9_5825



14:28:48 18.06.2025

11N40MIMO_Ant6_5755



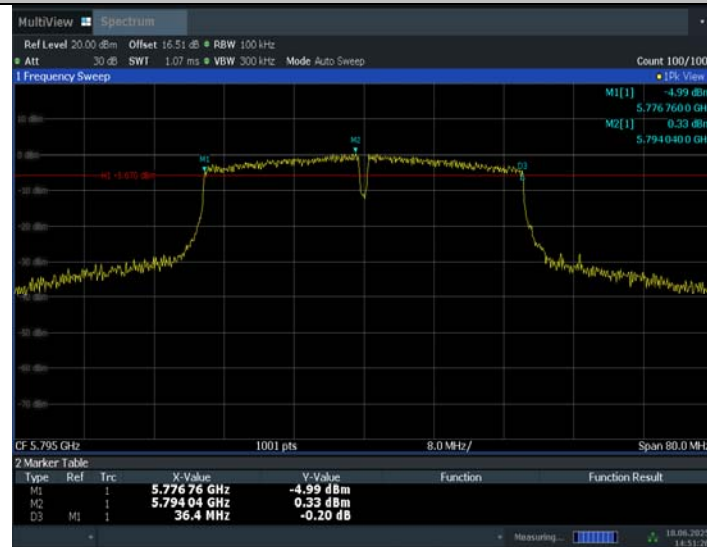
14:47:07 18.06.2025

11N40MIMO_Ant9_5755



14:48:19 18.06.2025

11N40MIMO_Ant6_5795



14:51:26 18.06.2025

11N40MIMO_Ant9_5795



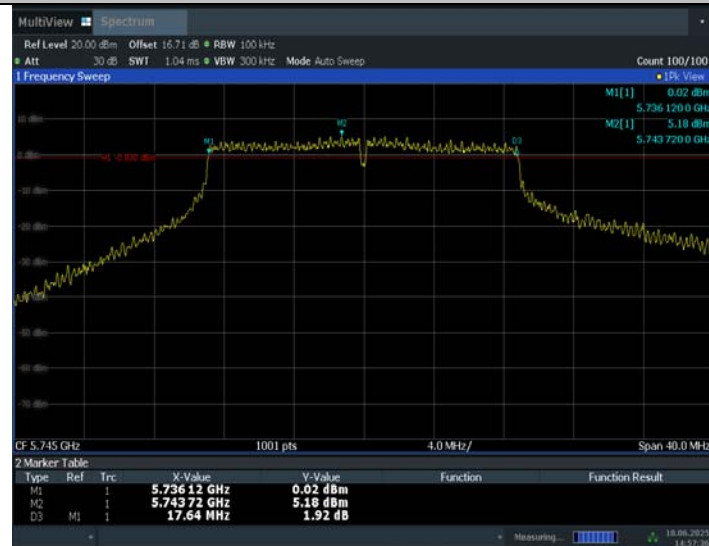
14:52:38 18.06.2025

11AC20MIMO_Ant6_5745



14:56:26 18.06.2025

11AC20MIMO_Ant9_5745



14:57:37 18.06.2025

11AC20MIMO_Ant6_5785



15:00:49 18.06.2025

11AC20MIMO_Ant9_5785



15:02:01 18.06.2025

11AC20MIMO_Ant6_5825



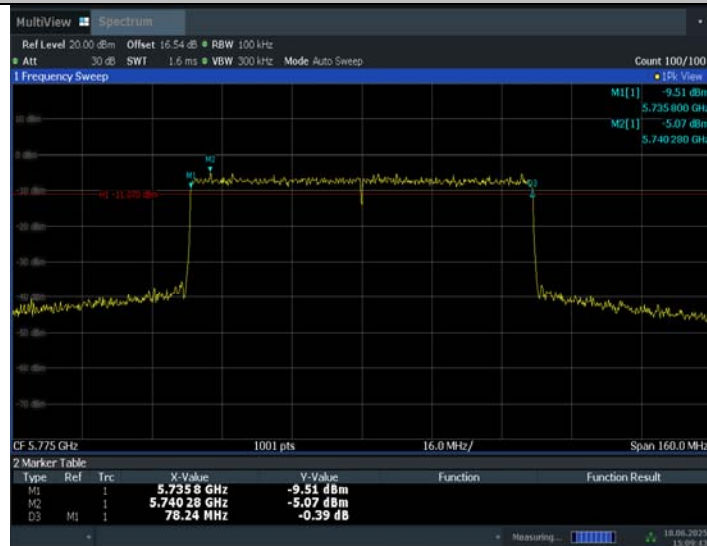
15:06:03 18.06.2025

11AC20MIMO_Ant9_5825



15:07:14 18.06.2025

11AX80MIMO_Ant6_5775



15:09:44 18.06.2025

11AX80MIMO_Ant9_5775



Conclusion: PASS

A.5. Transmitter Spurious Emission

A.5.1 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.

Conclusion: PASS

Note1: All partial RU and full RU have been tested, in spurious domain there are basically noises with suspicious emission, thus only the full RU results were reported.

Note2: All SISO and MIMO emissions have been checked, only the worst cases were reported.

Average Results:
802.11a, FULL RB

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)
5458.600	45.10	-22.50	34.47	33.13	54.00	8.90	V
5459.500	45.11	-22.48	34.46	33.13	54.00	8.89	V
11492.950	39.94	-28.39	38.09	30.23	54.00	14.06	V
15862.150	37.69	-23.32	40.86	20.15	54.00	16.31	V
17877.350	38.57	-21.05	40.52	19.10	54.00	15.43	V
17958.200	38.45	-20.93	40.56	18.82	54.00	15.55	V

Average Results:
802.11a, FULL RB

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)
5458.000	45.10	-22.50	34.47	33.14	54.00	8.90	H
5459.400	45.07	-22.48	34.46	33.10	54.00	8.93	H
11649.150	39.77	-28.43	38.50	29.69	54.00	14.23	V
15856.100	37.62	-23.46	40.86	20.22	54.00	16.38	V
17859.750	38.56	-21.28	40.54	19.29	54.00	15.44	H
17950.500	38.69	-20.83	40.55	18.97	54.00	15.31	H

Average Results:
802.11n-HT20, FULL RB

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)
5454.900	45.13	-22.54	34.48	33.19	54.00	8.87	V
5458.000	45.11	-22.50	34.47	33.14	54.00	8.89	V
11489.650	44.64	-28.27	38.09	34.83	54.00	9.36	H
15862.700	40.15	-23.30	40.86	22.59	54.00	13.85	H
17876.250	40.84	-21.09	40.52	21.41	54.00	13.16	H
17948.850	40.86	-20.89	40.55	21.21	54.00	13.14	H

Average Results:
802.11n-HT20, FULL RB

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)
5457.200	45.20	-22.51	34.47	33.24	54.00	8.80	H
5458.750	45.12	-22.49	34.46	33.14	54.00	8.88	V
11652.450	49.27	-28.23	38.50	39.00	54.00	4.73	H
15855.550	40.04	-23.47	40.86	22.65	54.00	13.96	V
17886.150	40.76	-20.97	40.51	21.22	54.00	13.24	V
17952.700	40.73	-20.86	40.55	21.04	54.00	13.27	H

Average Results:
802.11n-HT40, FULL RB

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)
5457.050	45.16	-22.52	34.47	33.21	54.00	8.84	V
5458.900	45.21	-22.49	34.46	33.23	54.00	8.79	V
11510.550	41.84	-28.37	38.14	32.07	54.00	12.16	V
15862.150	40.28	-23.32	40.86	22.74	54.00	13.72	V
17886.150	41.01	-20.97	40.51	21.47	54.00	12.99	V
17950.500	41.01	-20.83	40.55	21.29	54.00	12.99	V

Average Results:
802.11n-HT40, FULL RB

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)
5456.450	45.13	-22.52	34.47	33.18	54.00	8.87	V
5459.100	45.16	-22.49	34.46	33.19	54.00	8.84	H
11595.250	41.52	-27.99	38.48	31.02	54.00	12.48	V
15862.150	40.50	-23.32	40.86	22.95	54.00	13.50	V
17886.150	41.13	-20.97	40.51	21.59	54.00	12.87	H
17949.950	41.12	-20.83	40.55	21.39	54.00	12.88	V

Average Results:
802.11ac-HT20, FULL RB

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)
5458.500	45.09	-22.50	34.47	33.12	54.00	8.91	V
5459.550	45.10	-22.48	34.46	33.12	54.00	8.90	V
11490.200	43.73	-28.28	38.09	33.93	54.00	10.27	V
15870.950	39.36	-23.15	40.87	21.64	54.00	14.64	H
17881.200	40.42	-20.96	40.52	20.86	54.00	13.58	V
17949.950	40.37	-20.83	40.55	20.65	54.00	13.63	H

Average Results:
802.11ac-HT20, FULL RB

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)
5459.050	45.09	-22.49	34.46	33.12	54.00	8.91	V
5459.800	45.05	-22.48	34.46	33.07	54.00	8.95	H
11649.700	46.50	-28.42	38.50	36.42	54.00	7.50	V
15854.450	40.17	-23.49	40.85	22.81	54.00	13.83	H
17860.850	40.90	-21.28	40.54	21.64	54.00	13.10	V
17950.500	40.87	-20.83	40.55	21.15	54.00	13.13	V

Average Results:
802.11ac-HT40, FULL RB

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)
5435.700	45.05	-22.53	34.44	33.13	54.00	8.95	V
5458.200	45.11	-22.50	34.47	33.14	54.00	8.89	V
11507.800	40.62	-28.44	38.13	30.93	54.00	13.38	V
17791.550	40.38	-21.34	40.59	21.12	54.00	13.62	V
17867.450	40.75	-21.31	40.53	21.53	54.00	13.25	H
17950.500	40.95	-20.83	40.55	21.23	54.00	13.05	H

Average Results:
802.11ac-HT40, FULL RB

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)
5427.750	45.04	-22.51	34.41	33.13	54.00	8.96	H
5456.650	45.14	-22.52	34.47	33.19	54.00	8.86	H
11589.750	40.53	-27.73	38.46	29.80	54.00	13.47	V
15859.400	39.78	-23.38	40.86	22.31	54.00	14.22	V
17883.950	40.50	-20.96	40.52	20.95	54.00	13.50	V
17947.200	40.49	-20.99	40.55	20.94	54.00	13.51	H

Average Results:
802.11ac-HT80, FULL RB

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)
5431.850	45.08	-22.51	34.43	33.17	54.00	8.92	V
5455.400	45.20	-22.54	34.48	33.26	54.00	8.80	V
11549.050	38.21	-28.21	38.30	28.12	54.00	15.79	V
16040.350	39.70	-23.31	40.92	22.09	54.00	14.30	V
17888.900	40.49	-20.98	40.51	20.96	54.00	13.51	V
17949.400	40.49	-20.86	40.55	20.80	54.00	13.51	V

Average Results:
802.11ax-HT20, FULL RB

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)
5422.300	45.1	-22.5	34.4	33.21	54.0	8.9	V
5456.200	45.2	-22.5	34.5	33.24	54.0	8.8	V
11489.650	42.1	-28.3	38.1	32.26	54.0	11.9	V
15864.900	39.3	-23.2	40.9	21.67	54.0	14.7	H
17887.250	40.2	-21.0	40.5	20.62	54.0	13.8	H
17953.800	40.1	-20.9	40.6	20.39	54.0	13.9	H

Average Results:
802.11ax-HT20, FULL RB

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)
5433.600	45.1	-22.5	34.4	33.22	54.0	8.9	H
5458.250	45.2	-22.5	34.5	33.24	54.0	8.8	H
11649.700	44.7	-28.4	38.5	34.58	54.0	9.3	V
16164.100	39.5	-22.7	41.0	21.24	54.0	14.5	V
17877.350	40.1	-21.1	40.5	20.66	54.0	13.9	H
17949.950	40.0	-20.8	40.6	20.28	54.0	14.0	V

Average Results:
802.11ax-HT40, FULL RB

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)
5424.400	45.0	-22.5	34.4	33.15	54.0	9.0	V
5459.400	45.2	-22.5	34.5	33.23	54.0	8.8	V
11509.450	40.4	-28.4	38.1	30.63	54.0	13.6	V
15858.850	39.9	-23.4	40.9	22.42	54.0	14.1	H
17858.650	40.9	-21.3	40.5	21.62	54.0	13.1	V
17948.850	40.9	-20.9	40.5	21.27	54.0	13.1	H

Average Results:
802.11ax-HT40, FULL RB

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)
5421.200	45.1	-22.5	34.4	33.24	54.0	8.9	H
5458.350	45.2	-22.5	34.5	33.28	54.0	8.8	H
11589.750	41.7	-27.7	38.5	30.96	54.0	12.3	V
15864.900	39.8	-23.2	40.9	22.18	54.0	14.2	V
17886.150	41.2	-21.0	40.5	21.62	54.0	12.8	H
17947.750	41.0	-21.0	40.5	21.44	54.0	13.0	H

Average Results:
802.11ax-HT80, FULL RB

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)
5428.500	45.1	-22.5	34.4	33.21	54.0	8.9	V
5459.100	45.2	-22.5	34.5	33.26	54.0	8.8	V
11549.050	37.8	-28.2	38.3	27.67	54.0	16.2	V
15866.550	39.2	-23.2	40.9	21.50	54.0	14.8	V
17879.550	40.6	-21.0	40.5	21.06	54.0	13.4	V
17947.750	40.5	-21.0	40.5	20.90	54.0	13.5	V

Peak Results:
802.11a, FULL RU

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)
5650.017	55.19	-22.52	34.70	43.01	68.21	13.03	V
5650.081	55.76	-22.52	34.70	43.59	68.26	12.50	H
11495.150	53.25	-28.47	38.10	43.63	74.00	20.75	H
16651.400	52.58	-22.69	41.35	33.92	68.20	15.62	V
17234.950	49.16	-22.36	40.86	30.66	68.20	19.04	V
17619.950	52.75	-22.15	40.66	34.24	68.20	15.45	H

Peak Results:
802.11a, FULL RU

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)
5924.943	55.41	-22.02	34.80	42.63	68.24	12.83	H
5924.994	55.44	-22.02	34.80	42.66	68.20	12.77	H
11653.550	57.59	-28.15	38.50	47.24	74.00	16.41	V
16964.900	52.46	-22.20	41.21	33.46	68.20	15.74	V
17474.750	49.54	-21.83	40.77	30.60	68.20	18.66	H
17643.600	52.69	-21.44	40.61	33.52	68.20	15.51	H

Peak Results:
802.11n-HT20, FULL RU

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)
5650.891	56.16	-22.53	34.69	43.99	68.86	12.70	V
5650.966	56.20	-22.53	34.69	44.03	68.91	12.71	V
11485.250	58.54	-28.24	38.09	48.70	74.00	15.46	H
16648.650	54.59	-22.73	41.35	35.97	68.20	13.61	H
17234.950	51.34	-22.36	40.86	32.84	68.20	16.86	V
17533.600	54.78	-21.26	40.77	35.28	68.20	13.42	H

Peak Results:
802.11n-HT20, FULL RU

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)
5924.615	56.4	-22.0	34.8	43.61	68.5	12.1	H
5924.816	56.0	-22.0	34.8	43.23	68.3	12.3	H
11650.800	64.4	-28.4	38.5	54.30	74.0	9.6	V
16962.700	54.7	-22.2	41.2	35.68	68.2	13.5	V
17068.850	54.5	-22.1	41.0	35.55	68.2	13.7	H
17474.750	52.9	-21.8	40.8	33.9	68.2	15.3	H

Peak Results:
802.11n-HT40, FULL RU

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)
5650.035	55.5	-22.5	34.7	43.32	68.2	12.7	H
5650.144	55.7	-22.5	34.7	43.55	68.3	12.6	H
11508.350	54.8	-28.4	38.1	45.10	74.0	19.2	H
16625.550	55.0	-22.5	41.3	36.16	68.2	13.2	H
17079.850	55.1	-22.4	41.0	36.50	68.2	13.1	V
17265.200	51.9	-22.2	40.8	33.23	68.2	16.3	V

Peak Results:
802.11n-HT40, FULL RU

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)
5924.477	56.2	-22.0	34.8	43.38	68.6	12.4	H
5924.885	55.7	-22.0	34.8	42.91	68.3	12.6	H
11588.100	55.7	-27.8	38.5	45.03	74.0	18.3	V
16621.700	55.4	-22.5	41.3	36.54	68.2	12.8	H
17385.100	52.8	-21.9	40.7	33.97	68.2	15.4	V
17646.900	55.0	-21.4	40.6	35.75	68.2	13.2	H

Peak Results:
802.11ac-HT20, FULL RU

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)
5650.207	55.5	-22.5	34.7	43.32	68.4	12.9	V
5650.615	56.2	-22.5	34.7	44.00	68.7	12.5	H
11491.850	58.1	-28.3	38.1	48.35	74.0	15.9	V
16966.550	54.7	-22.2	41.2	35.64	68.2	13.5	V
17234.950	51.9	-22.4	40.9	33.41	68.2	16.3	H
17490.150	54.4	-22.2	40.8	35.77	68.2	13.8	H

Peak Results:
802.11ac-HT20, FULL RU

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)
5924.690	56.1	-22.0	34.8	43.28	68.4	12.4	H
5924.713	55.8	-22.0	34.8	43.07	68.4	12.6	H
11653.550	61.6	-28.1	38.5	51.21	74.0	12.4	V
16366.500	55.0	-22.7	40.9	36.81	68.2	13.2	V
16919.250	55.0	-22.4	41.3	36.12	68.2	13.2	H
17474.750	52.3	-21.8	40.8	33.35	68.2	15.9	V

Peak Results:
802.11ac-HT40, FULL RU

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)
5652.386	57.0	-22.5	34.7	44.87	70.0	12.9	H
5654.847	57.1	-22.5	34.7	45.03	71.8	14.6	H
11514.950	54.3	-28.3	38.2	44.48	74.0	19.7	V
16669.550	54.1	-22.4	41.4	35.21	68.2	14.1	V
16797.700	54.3	-22.8	41.4	35.72	68.2	13.9	H
17265.200	52.6	-22.2	40.8	33.98	68.2	15.6	V

Peak Results:
802.11ac-HT40, FULL RU

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)
5919.446	57.2	-22.0	34.8	44.45	72.3	15.1	H
5921.159	57.3	-22.0	34.8	44.49	71.0	13.8	H
11587.550	53.1	-27.8	38.5	42.44	74.0	20.9	V
16882.400	54.0	-22.1	41.4	34.68	68.2	14.2	V
17385.100	51.5	-21.9	40.7	32.62	68.2	16.7	H
17538.550	54.5	-20.8	40.8	34.47	68.2	13.7	H

Peak Results:
802.11ac-HT80, FULL RU

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)
5652.708	56.4	-22.5	34.7	44.30	70.2	13.8	H
5657.544	56.8	-22.5	34.6	44.68	73.8	17.0	H
11547.950	51.9	-28.2	38.3	41.84	74.0	22.1	H
16966.000	54.8	-22.2	41.2	35.81	68.2	13.4	V
17325.150	51.3	-22.1	40.8	32.60	68.2	16.9	H
17545.150	54.6	-21.1	40.8	34.90	68.2	13.6	H

Peak Results:
802.11ax-HT20, FULL RB

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)
5652.628	56.2	-22.5	34.7	44.05	70.1	13.9	V
5655.997	57.3	-22.5	34.7	45.17	72.6	15.4	V
11480.850	54.6	-28.2	38.1	44.77	74.0	19.4	H
17052.900	53.9	-22.5	41.0	35.31	68.2	14.3	H
17234.950	50.9	-22.4	40.9	32.37	68.2	17.3	H
17536.900	54.9	-20.9	40.8	35.09	68.2	13.3	H

Peak Results:
802.11ax-HT20, FULL RB

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)
5920.268	57.1	-22.0	34.8	44.35	71.7	14.6	H
5923.591	56.7	-22.0	34.8	43.96	69.2	12.5	H
11652.450	60.6	-28.2	38.5	50.32	74.0	13.4	V
16373.650	54.1	-22.6	40.9	35.79	68.2	14.2	V
17474.750	52.7	-21.8	40.8	33.79	68.2	15.5	H
17536.900	54.4	-20.9	40.8	34.54	68.2	13.8	H

Peak Results:
802.11ax-HT40, FULL RB

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)
5652.789	56.8	-22.5	34.7	44.65	70.3	13.5	V
5653.761	56.3	-22.5	34.7	44.17	71.0	14.7	V
11512.750	53.5	-28.3	38.2	43.67	74.0	20.5	V
16785.050	54.7	-22.9	41.4	36.13	68.2	13.5	V
17265.200	52.1	-22.2	40.8	33.43	68.2	16.1	V
17544.600	54.9	-21.0	40.8	35.18	68.2	13.3	H

Peak Results:
802.11ax-HT40, FULL RB

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)
5912.885	57.4	-22.2	34.8	44.76	77.2	19.8	H
5918.779	57.6	-22.1	34.8	44.81	72.8	15.2	H
11588.100	55.8	-27.8	38.5	45.11	74.0	18.2	H
16346.150	54.2	-22.9	40.9	36.18	68.2	14.0	V
17385.100	52.0	-21.9	40.7	33.17	68.2	16.2	V
17542.400	54.9	-20.8	40.8	34.93	68.2	13.3	H

Peak Results:
802.11ax-HT80, FULL RB

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)
5650.173	56.8	-22.5	34.7	44.61	68.3	11.5	H
5655.704	56.4	-22.5	34.7	44.25	72.4	16.1	H
11546.300	52.3	-28.2	38.3	42.27	74.0	21.7	H
16645.350	54.2	-22.7	41.3	35.56	68.2	14.0	V
17325.150	52.3	-22.1	40.8	33.61	68.2	15.9	H
17679.900	55.1	-21.2	40.5	35.78	68.2	13.1	H

A.6. Band Edges Compliance

A6.1 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.	

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.1	P
	5825 MHz	Fig.2	P
802.11n HT20	5745 MHz	Fig.3	P
	5825 MHz	Fig.4	P
802.11n HT40	5755 MHz	Fig.5	P
	5795 MHz	Fig.6	P
802.11ac HT20	5745 MHz	Fig.7	P
	5825 MHz	Fig.8	P
802.11ac HT40	5755 MHz	Fig.9	P
	5795 MHz	Fig.10	P
802.11ac HT80	5775 MHz	Fig.11	P
	5775 MHz	Fig.12	P
802.11ax HT20	5745 MHz	Fig.13	P
	5825 MHz	Fig.14	P
802.11ax HT40	5755 MHz	Fig.15	P
	5795 MHz	Fig.16	P
802.11ax HT80	5775 MHz	Fig.17	P
	5775 MHz	Fig.18	P

Partial RB

Mode	Channel	RU size and index	Test Results	Conclusion
802.11ax HT20	5745 MHz	106RU-index53	Fig.19	P
	5825 MHz	106RU-index54	Fig.20	P

802.11ax HT40	5755 MHz	242RU-index61	Fig.21	P
	5795 MHz	242RU-index62	Fig.22	P
802.11ax HT80	5775 MHz	242RU-index61	Fig.23	P
	5775 MHz	242RU-index62	Fig.24	P

Note1: All partial RU and full RU have been tested, in spurious domain there are basically noises with suspicious emission, thus only the full RU results were reported.

Note2: All SISO and MIMO emissions have been checked, only the worst cases were reported.

Conclusion: PASS

Test graphs as below:

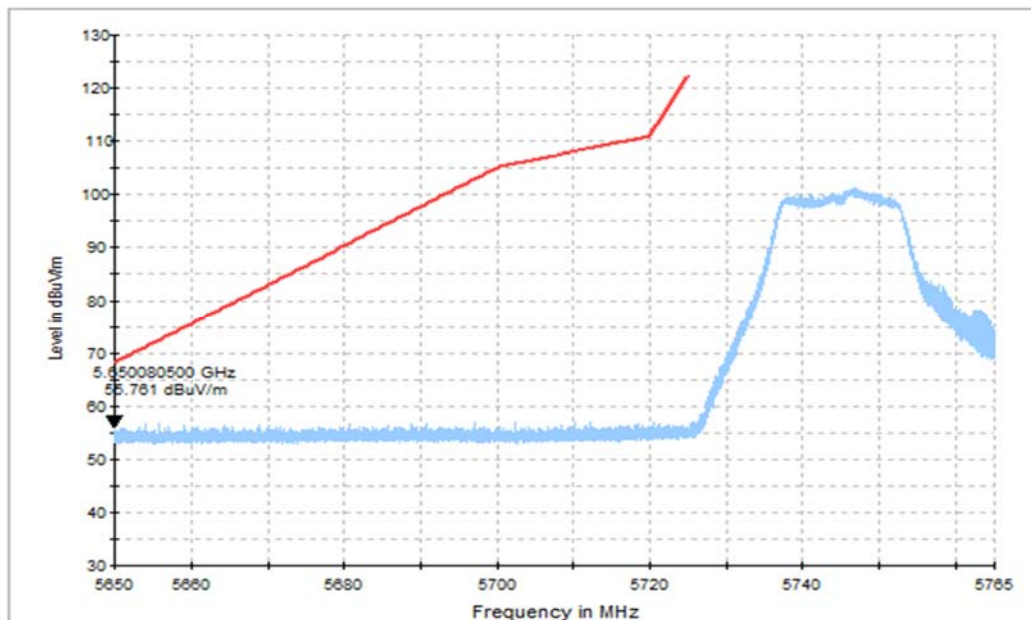


Fig. 1 Band Edges (802.11a Ch149,5745MHz, FULL RU)

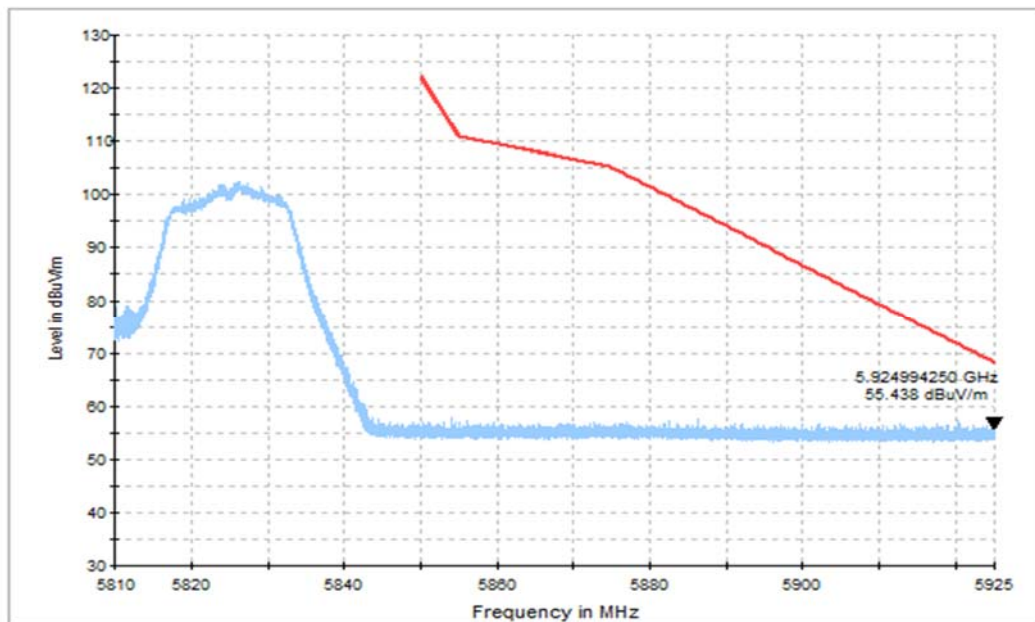


Fig. 2 Band Edges (802.11a Ch165, 5825MHz, FULL RU)

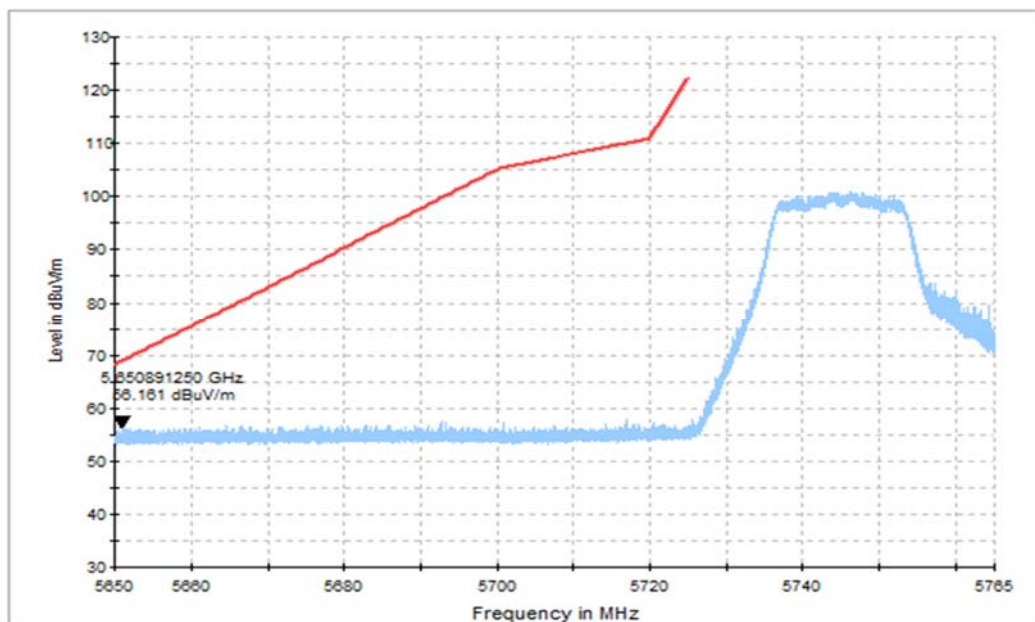


Fig. 3 Band Edges (802.11n-HT20 Ch149, 5745MHz, FULL RU)

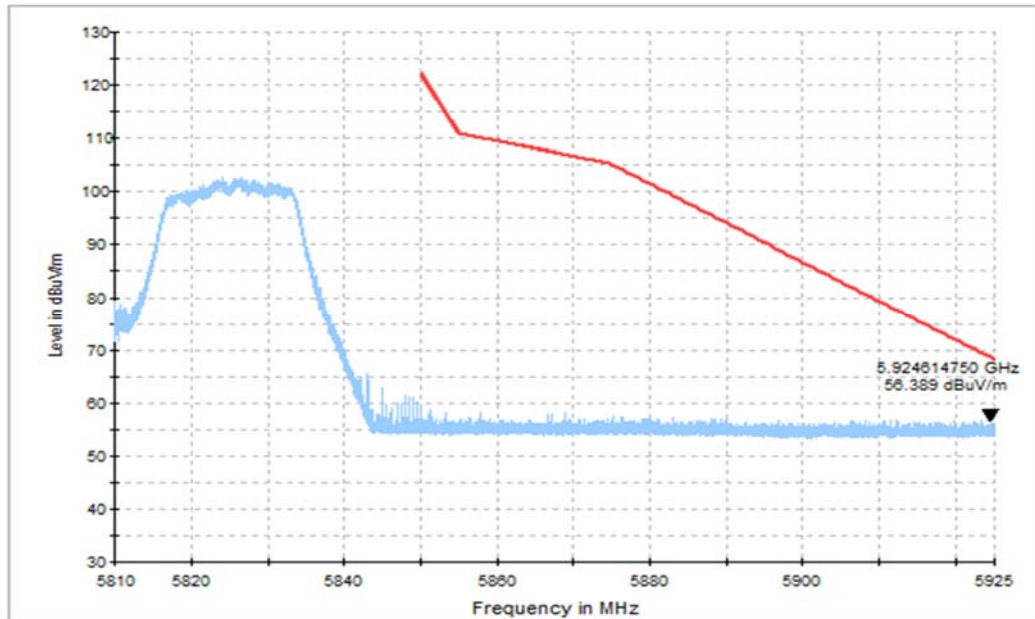


Fig. 4 Band Edges (802.11n-HT20 Ch165, 5825MHz, FULL RU)

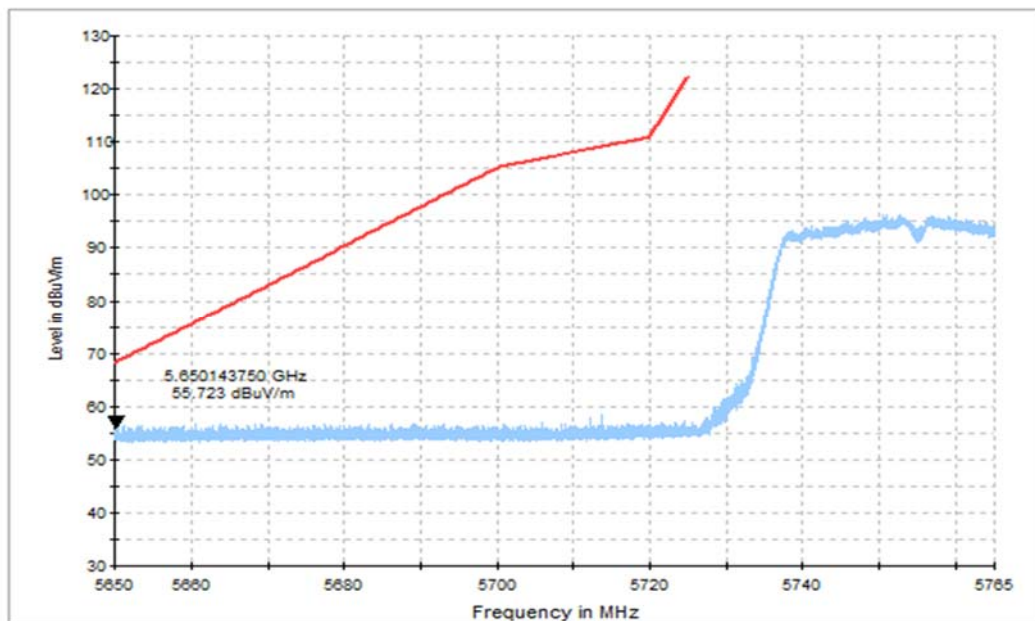


Fig. 5 Band Edges (802.11n-HT40 Ch151, 5755MHz, FULL RU)

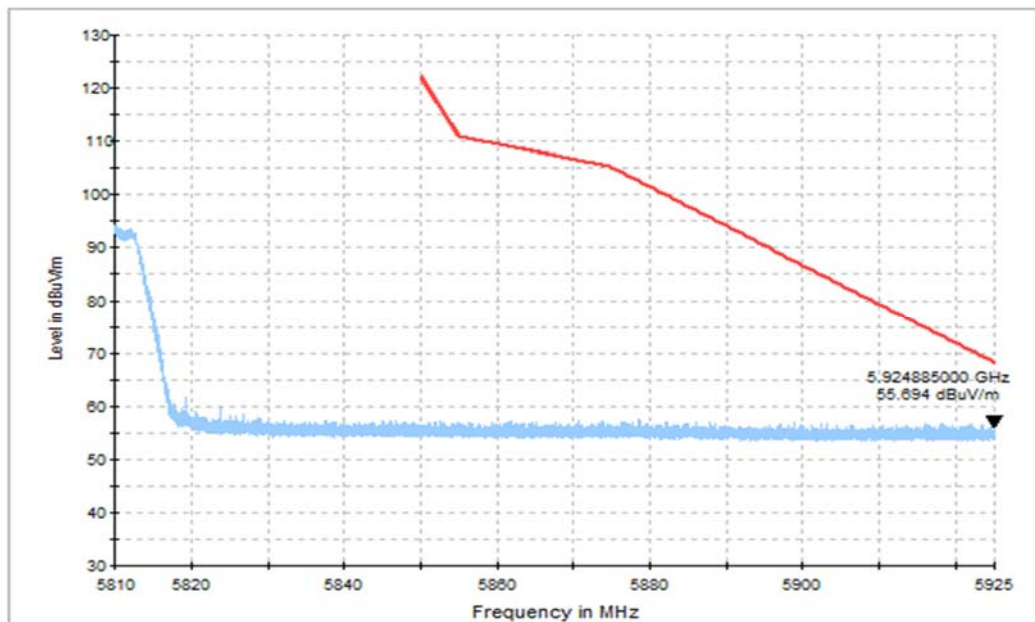


Fig. 6 Band Edges (802.11n-HT40 Ch159, 5795MHz, FULL RU)

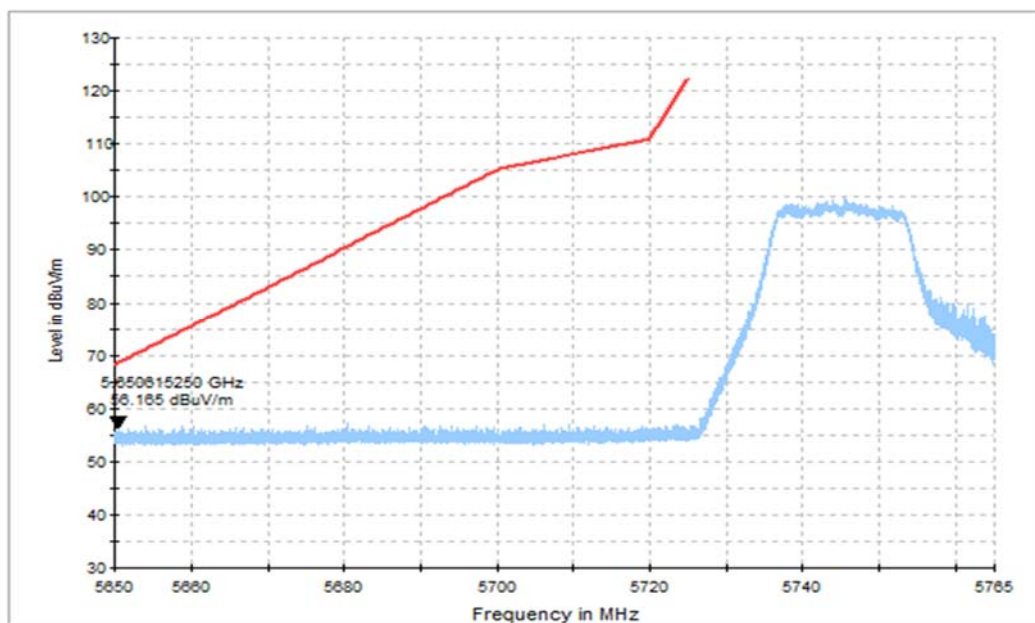


Fig. 7 Band Edges (802.11ac-HT20 Ch149, 5745MHz, FULL RU)

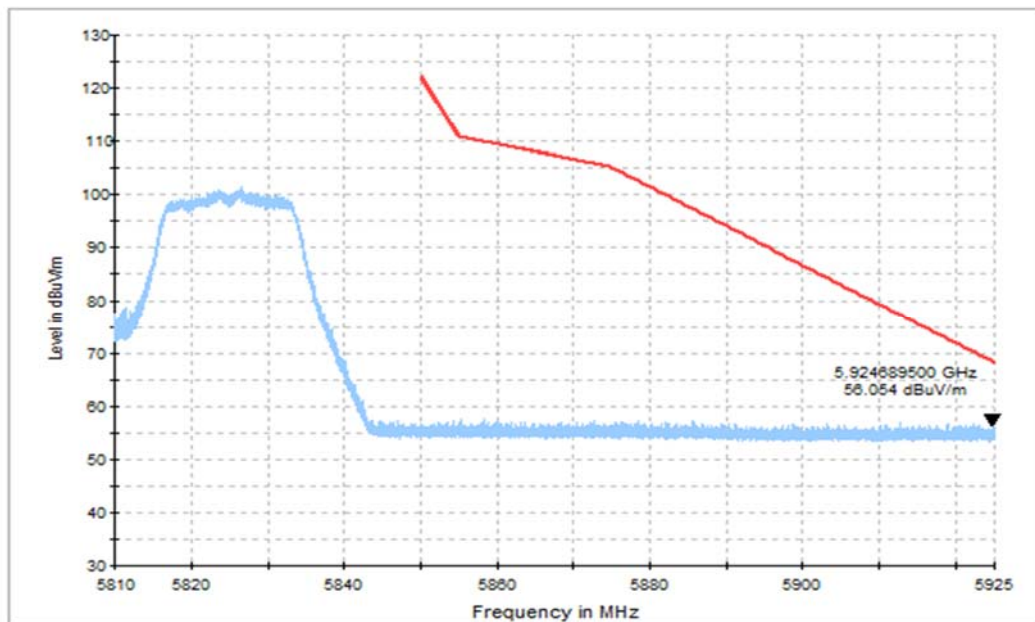


Fig. 8 Band Edges (802.11ac-HT20 Ch165, 5825MHz, FULL RU)

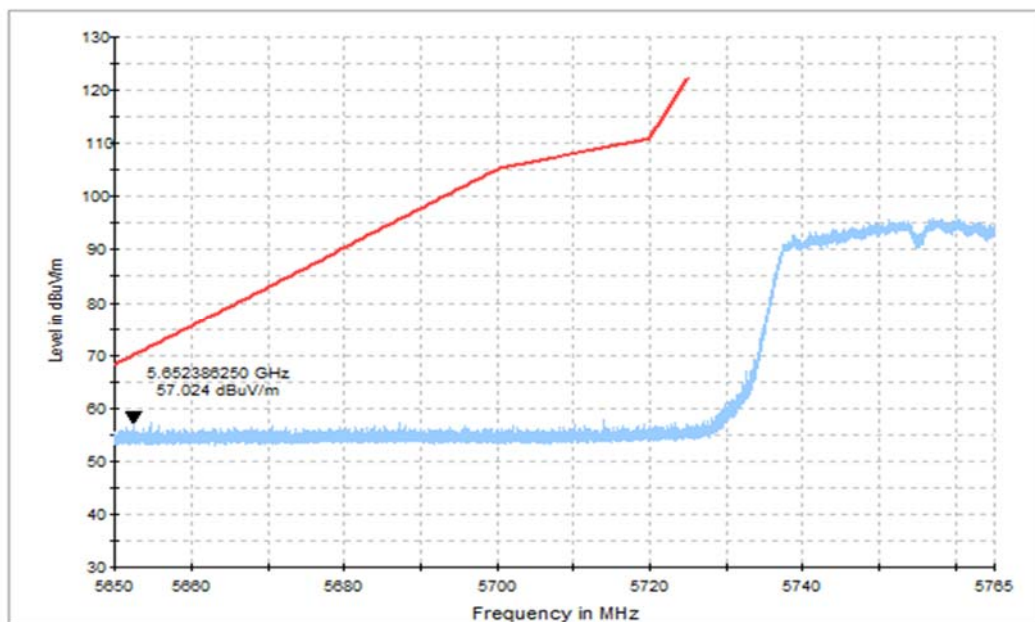


Fig. 9 Band Edges (802.11ac-HT40 Ch151, 5755MHz, FULL RU)

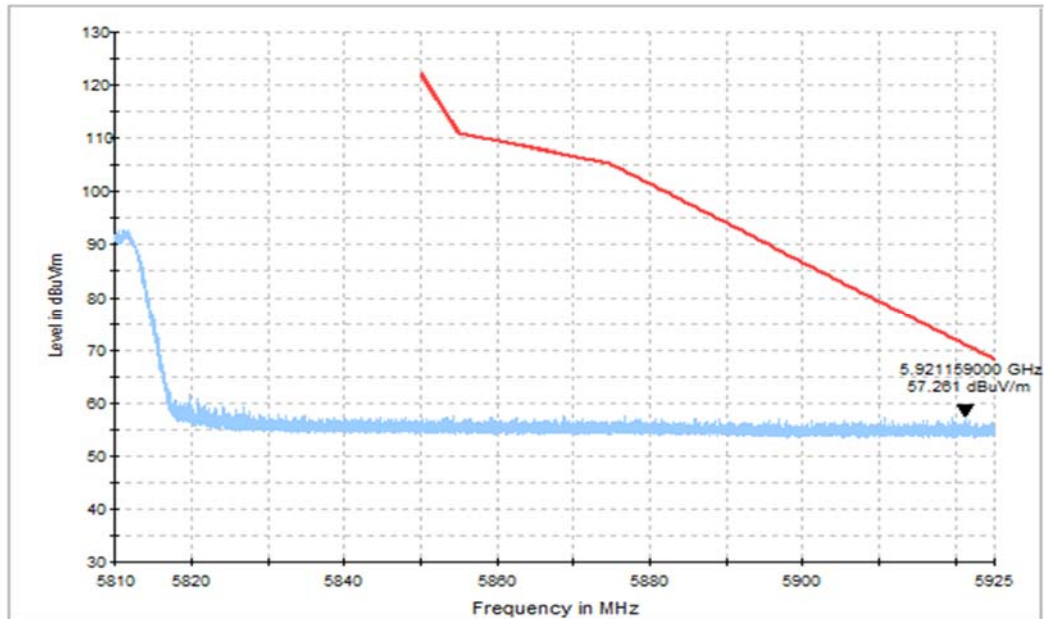


Fig. 10 Band Edges (802.11ac-HT40 Ch159, 5795MHz, FULL RU)

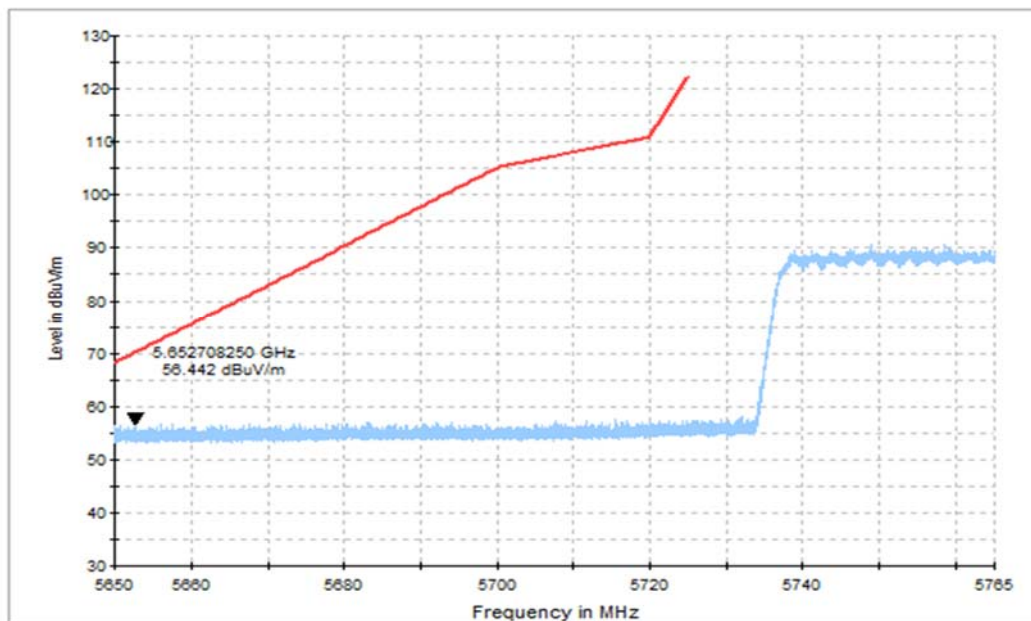


Fig. 11 Band Edges (802.11ac-HT80 Ch155, 5775MHz, FULL RU)

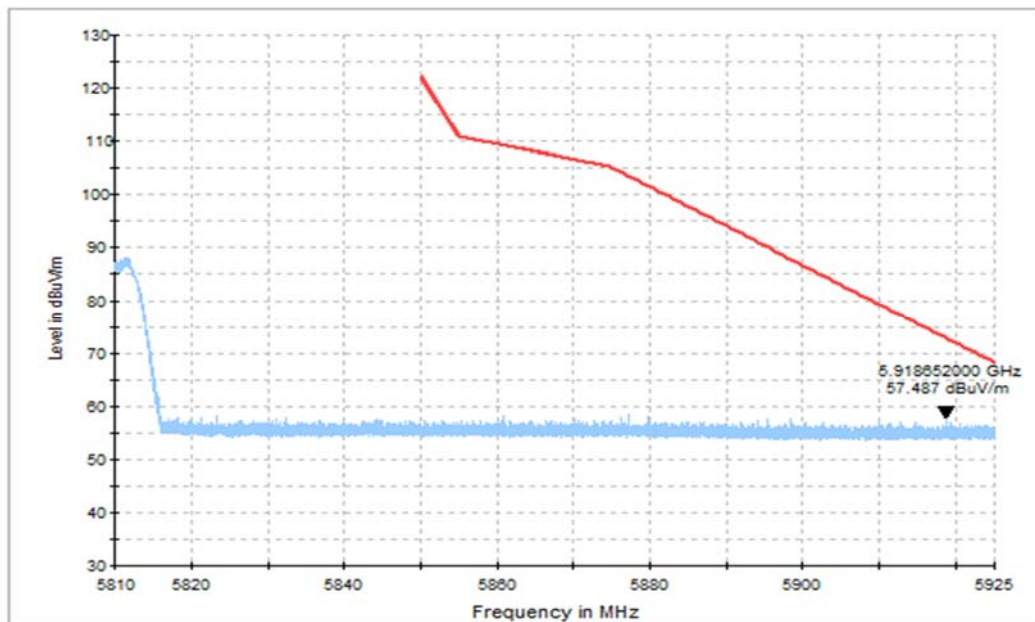


Fig. 12 Band Edges (802.11ac-HT80 Ch155, 5775MHz, FULL RU)

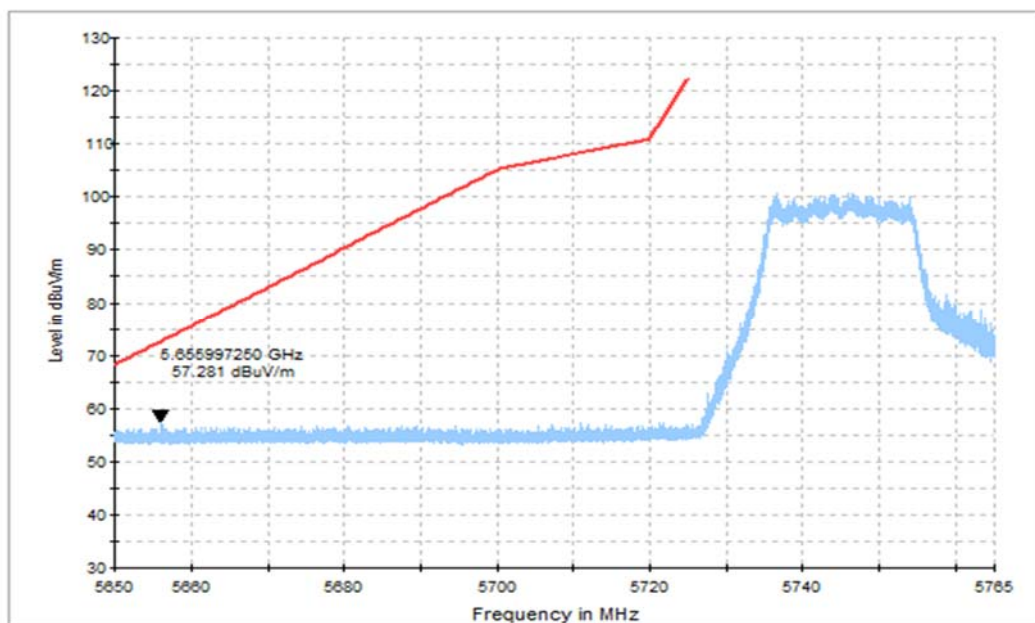


Fig. 13 Band Edges (802.11ax-HT20 Ch149, 5745MHz, FULL RU)

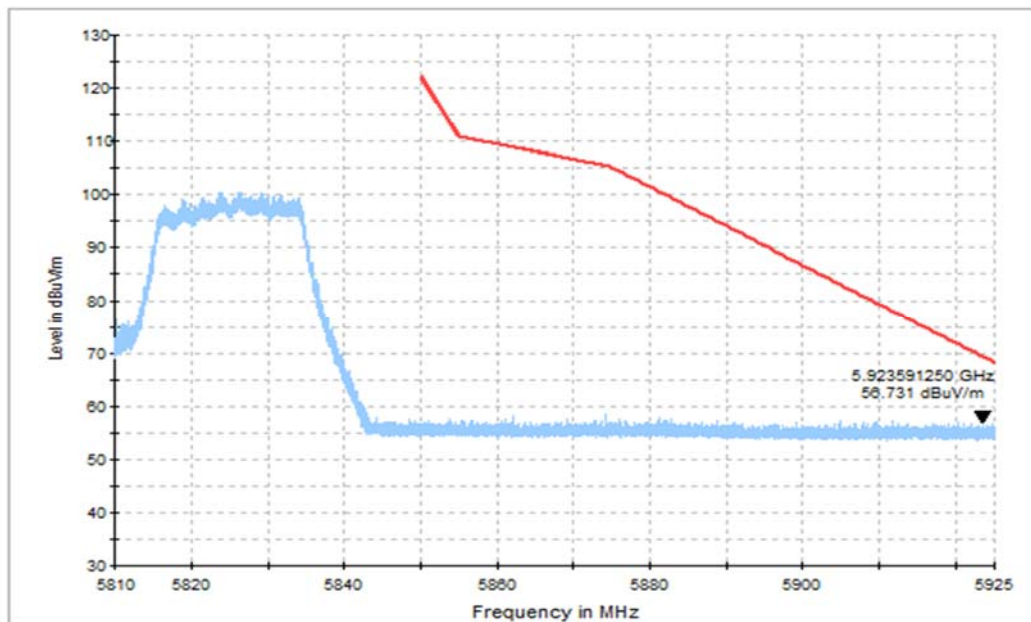


Fig. 14 Band Edges (802.11ax-HT20 Ch165, 5825MHz, FULL RU)

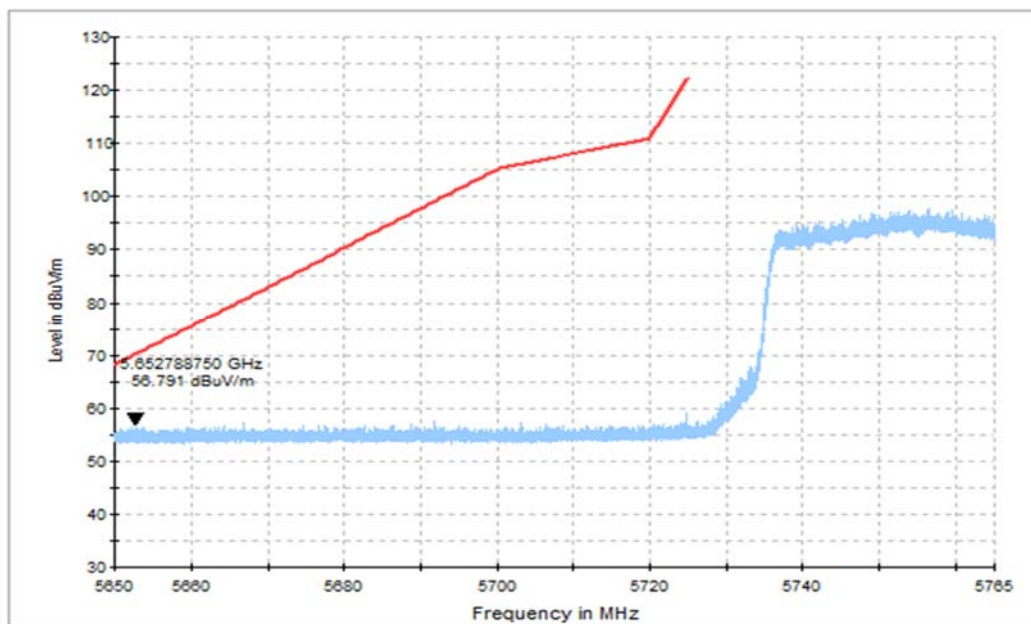


Fig. 15 Band Edges (802.11ax-HT40 Ch151, 5755MHz, FULL RU)

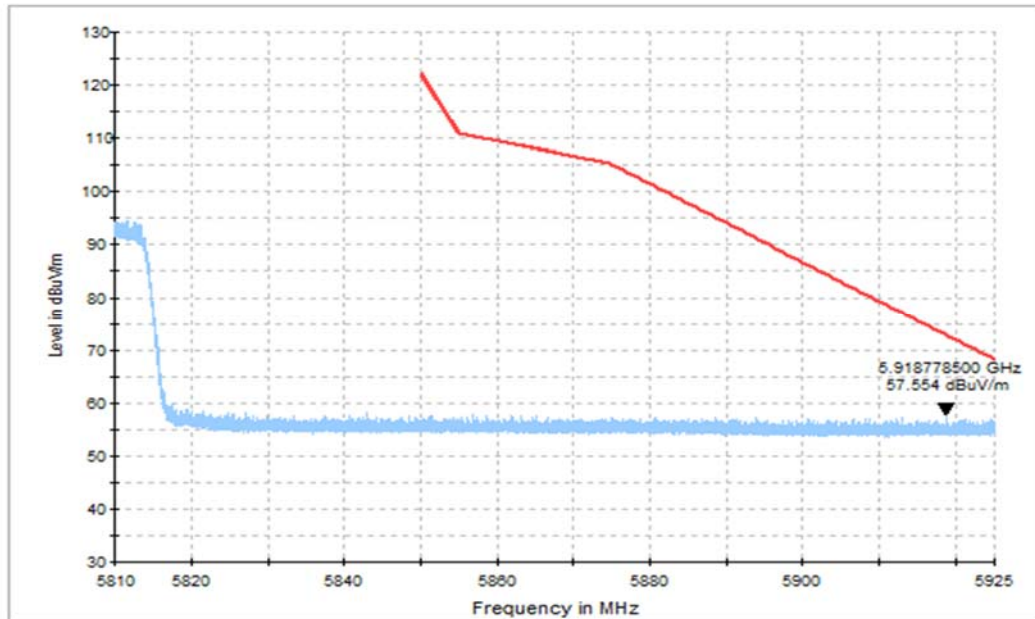


Fig. 16 Band Edges (802.11ax-HT40 Ch159, 5795MHz, FULL RU)

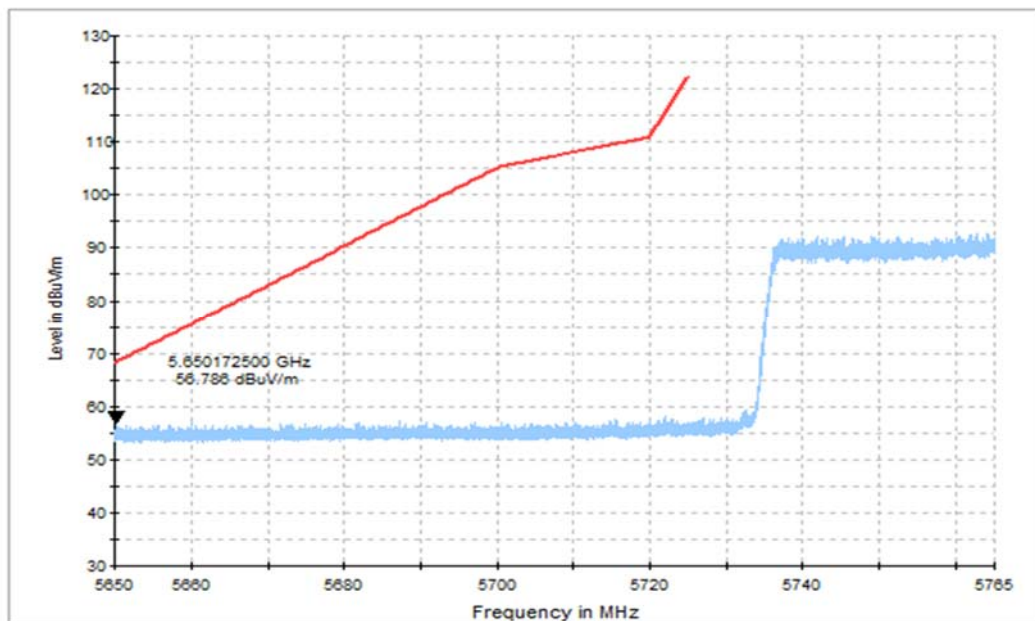


Fig. 17 Band Edges (802.11ax-HT80 Ch155, 5775MHz, FULL RU)

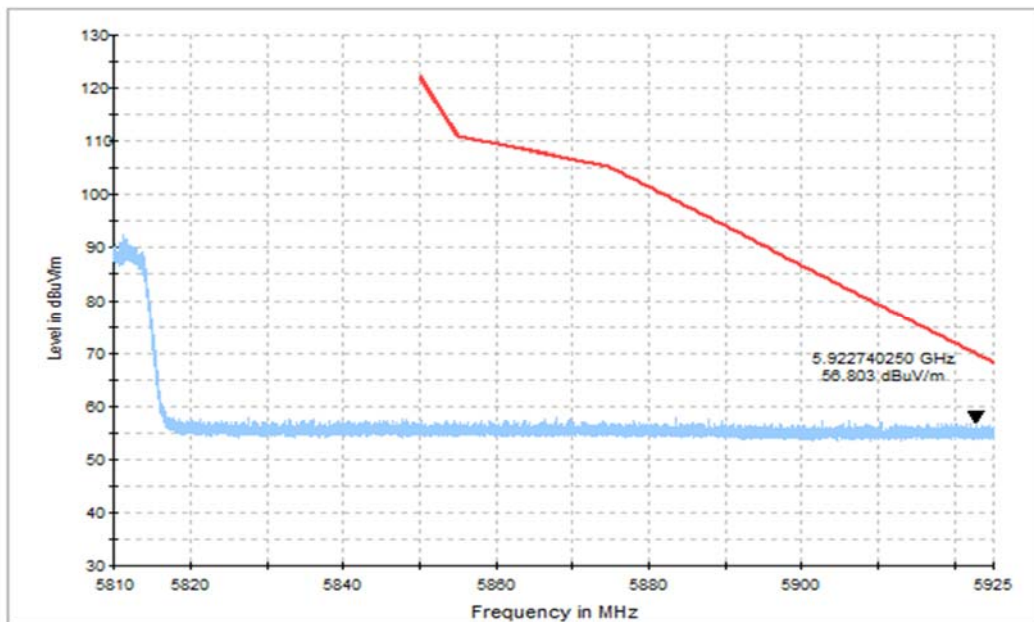


Fig. 18 Band Edges (802.11ax-HT80 Ch155, 5775MHz, FULL RU)

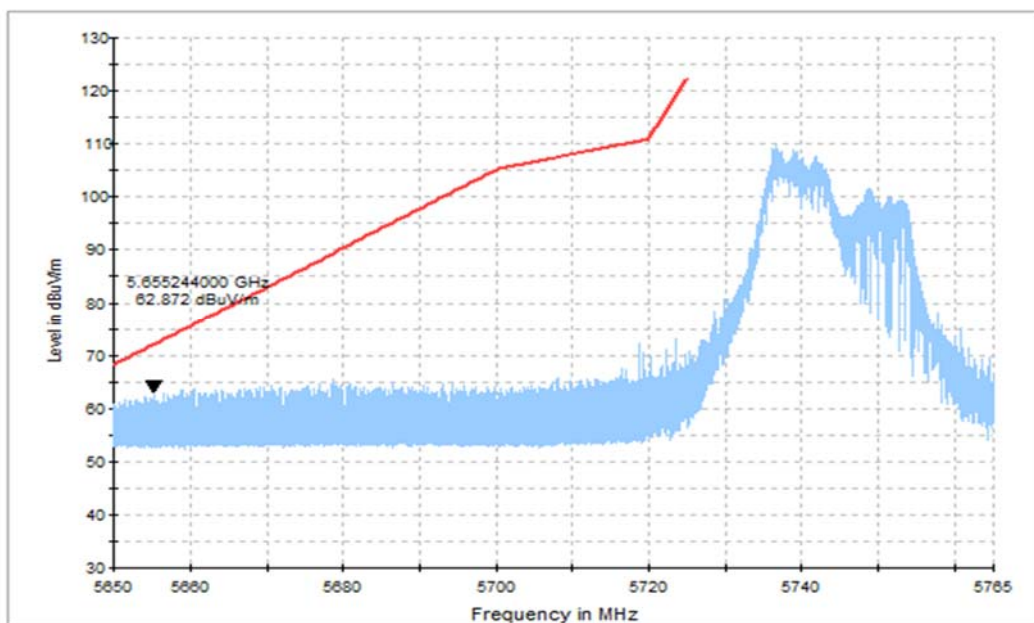


Fig. 19 Band Edges (802.11ax-HT20 Ch149, 5745MHz, Partial RU)

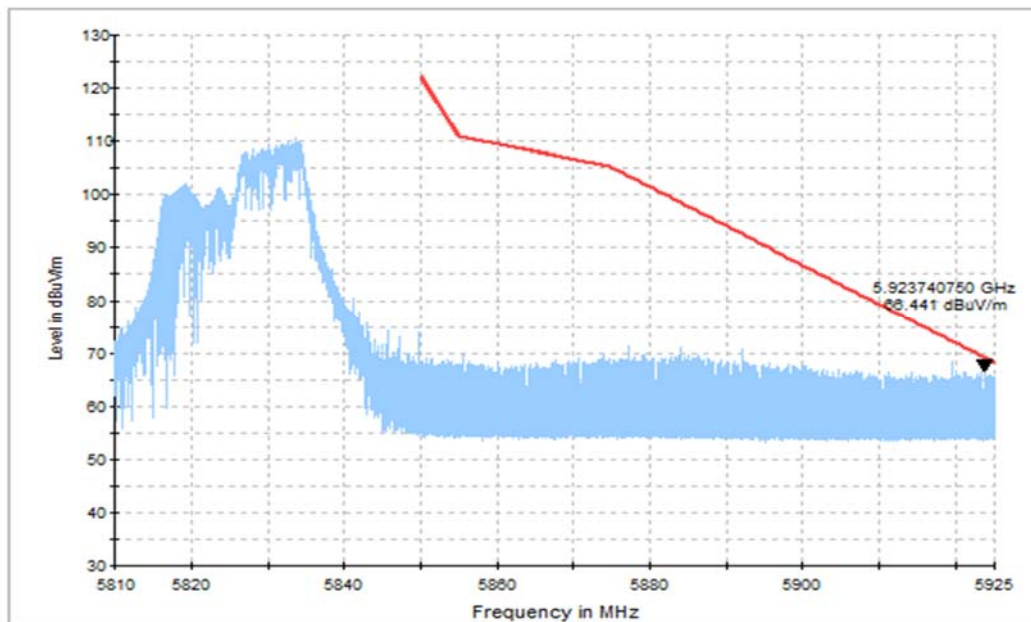


Fig. 20 Band Edges (802.11ax-HT20 Ch165, 5825MHz, Partial RU)

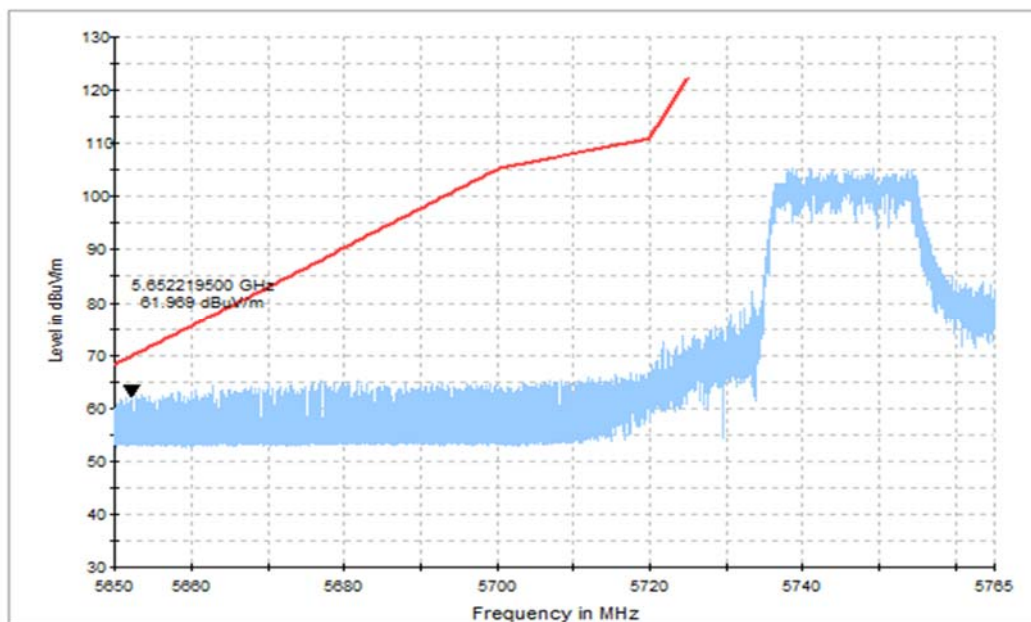


Fig. 21 Band Edges (802.11ax-HT40 Ch151, 5755MHz, Partial RU)

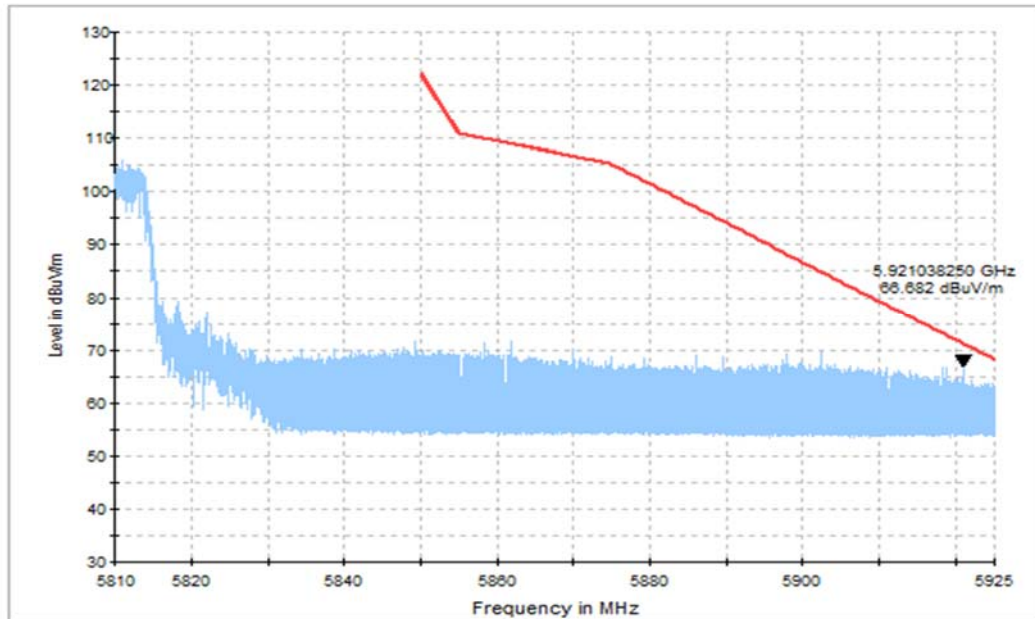


Fig. 22 Band Edges (802.11ax-HT40 Ch159, 5795MHz, Partial RU)

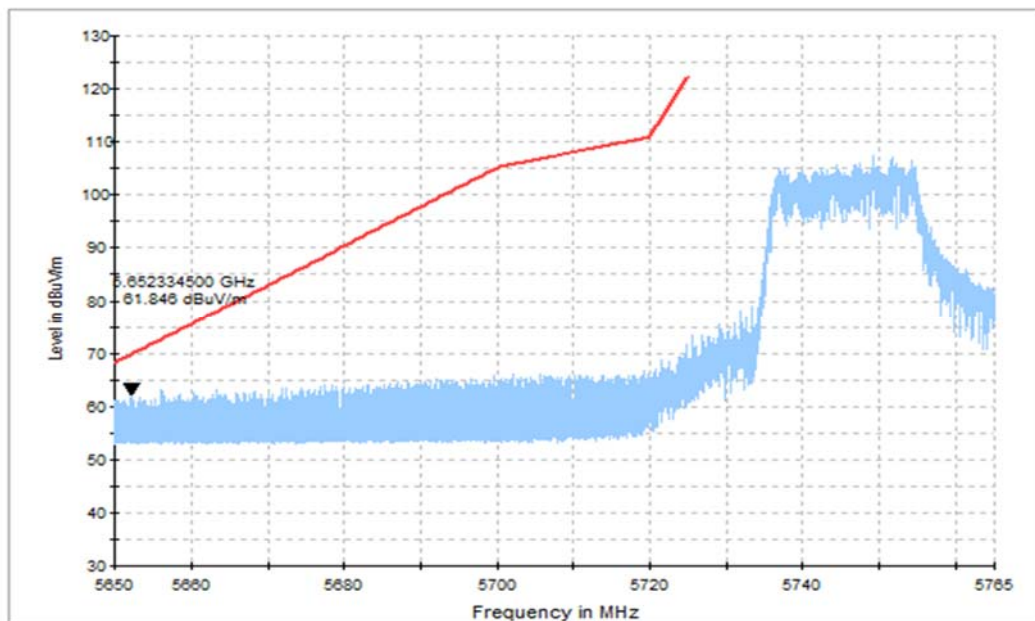


Fig. 23 Band Edges (802.11ax-HT80 Ch155, 5775MHz, Partial RU)

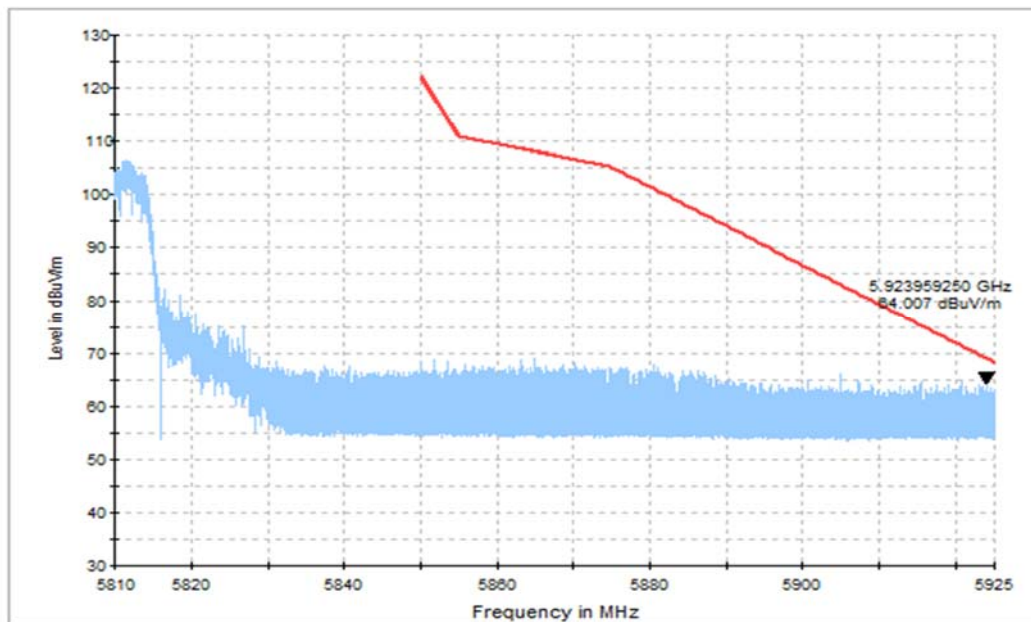


Fig. 24 Band Edges (802.11ax-HT80 Ch155, 5775MHz, Partial RU)

A.7. AC Powerline Conducted Emission

Method of Measurement: See ANSI C63.10-2013-clause 6.2

- 1 The one EUT cable configuration and arrangement and mode of operation that produced the emission with the highest amplitude relative to the limit is selected for the final measurement, while applying the appropriate modulating signal to the EUT.
- 2 If the EUT is relocated from an exploratory test site to a final test site, the highest emissions shall be remaximized at the final test location before final ac power-line conducted emission measurements are performed.
- 3 The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment in the system) is then performed for the full frequency range for which the EUT is being tested for compliance without further variation of the EUT arrangement, cable positions, or EUT mode of operation.
- 4 If the EUT is comprised of equipment units that have their own separate ac power connections, e.g., floor-standing equipment with independent power cords for each shelf that are able to connect directly to the ac power network, each current-carrying conductor of one unit is measured while the other units are connected to a second (or more) LISN(s). All units shall be separately measured. If a power strip is provided by the manufacturer, to supply all of the units making up the EUT, only the conductors in the power cord of the power strip shall be measured.
- 5 If the EUT uses a detachable antenna, these measurements shall be made with a suitable dummy load connected to the antenna output terminals; otherwise, the tests shall be made with the antenna connected and, if adjustable, fully extended. When measuring the ac conducted emissions from a device that operates between 150 kHz and 30 MHz a non-detachable antenna may be replaced with a dummy load for the measurements within the fundamental emission band of the transmitter, but only for those measurements.³⁶ Record the six highest EUT emissions relative to the limit of each of the current-carrying conductors of the power cords of the equipment that comprises the EUT over the frequency range specified by the procuring or regulatory agency. Diagram or photograph the test setup that was used. See Clause 8 for full reporting requirements.

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

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

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger QC16US		
		802.11a	Idle	
0.15 to 0.5	66 to 56	Fig.25	Fig.26	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 QC16US		
		802.11a	Idle	
0.15 to 0.5	56 to 46	Fig.25	Fig.26	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.

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger QC16EU		
		802.11a	Idle	
0.15 to 0.5	67 to 56	Fig.27	/	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 QC16EU		
		802.11a	Idle	
0.15 to 0.5	56 to 46	Fig.27	/	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:

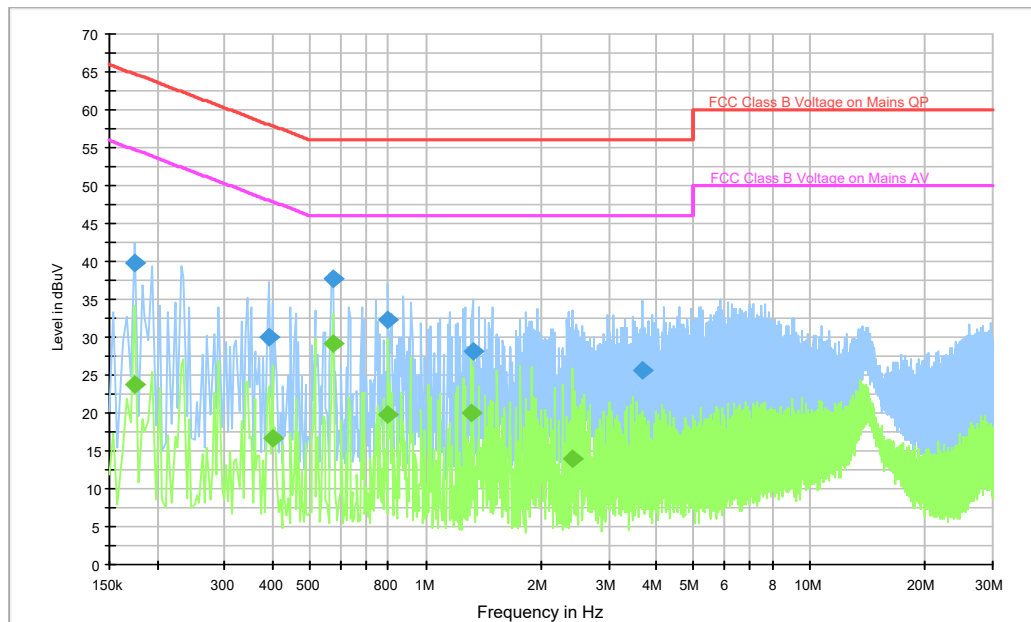


Fig. 25 AC Powerline Conducted Emission-802.11a, With charger QC16US

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.174000	39.8	L1	19.9	25.0	64.8
0.390000	30.0	L1	19.9	28.1	58.1
0.574000	37.6	L1	20.0	18.4	56.0
0.798000	32.3	L1	19.9	23.7	56.0
1.326000	28.2	L1	19.9	27.8	56.0
3.678000	25.5	L1	19.8	30.5	56.0

Final Result 2

Frequency (MHz)	Average (dBuV)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.174000	23.8	L1	19.9	31.0	54.8
0.398000	16.6	L1	20.0	31.3	47.9
0.574000	29.2	L1	20.0	16.8	46.0
0.798000	19.7	L1	19.9	26.3	46.0
1.314000	20.0	L1	19.9	26.0	46.0
2.402000	14.0	L1	19.8	32.0	46.0

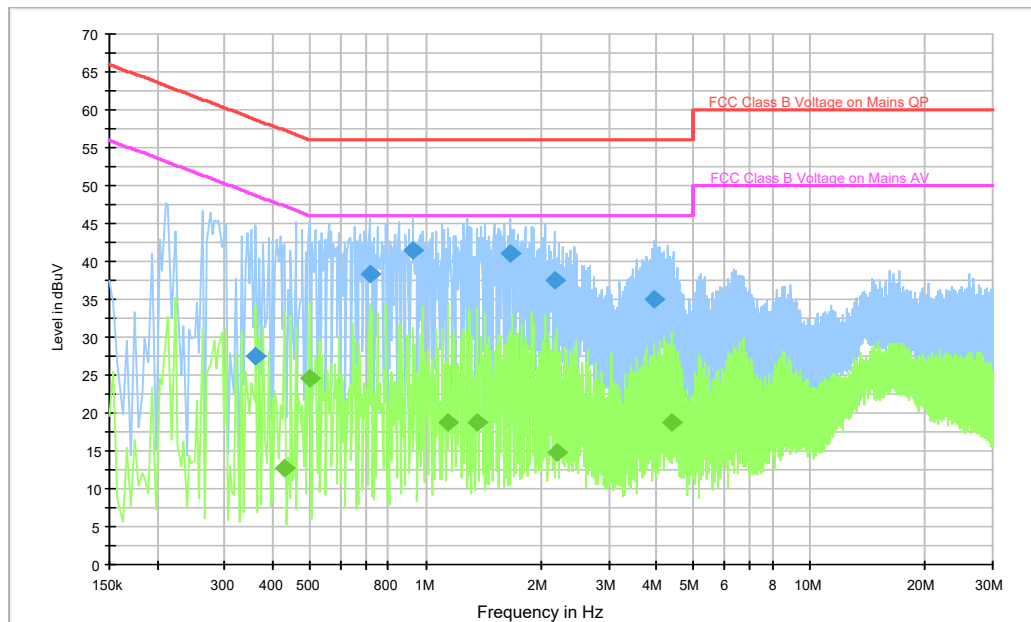


Fig. 26 AC Powerline Conducted Emission-Idle, With charger QC16US

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.362000	27.4	L1	19.9	31.3	58.7
0.714000	38.3	L1	20.0	17.7	56.0
0.926000	41.4	L1	19.9	14.6	56.0
1.658000	41.1	L1	19.8	14.9	56.0
2.162000	37.5	L1	19.8	18.5	56.0
3.954000	34.9	L1	19.8	21.1	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.430000	12.7	L1	20.0	34.5	47.3
0.498000	24.5	L1	20.0	21.5	46.0
1.142000	18.8	L1	19.9	27.2	46.0
1.354000	18.7	N	19.7	27.3	46.0
2.194000	14.7	N	19.6	31.3	46.0
4.382000	18.6	L1	19.8	27.4	46.0

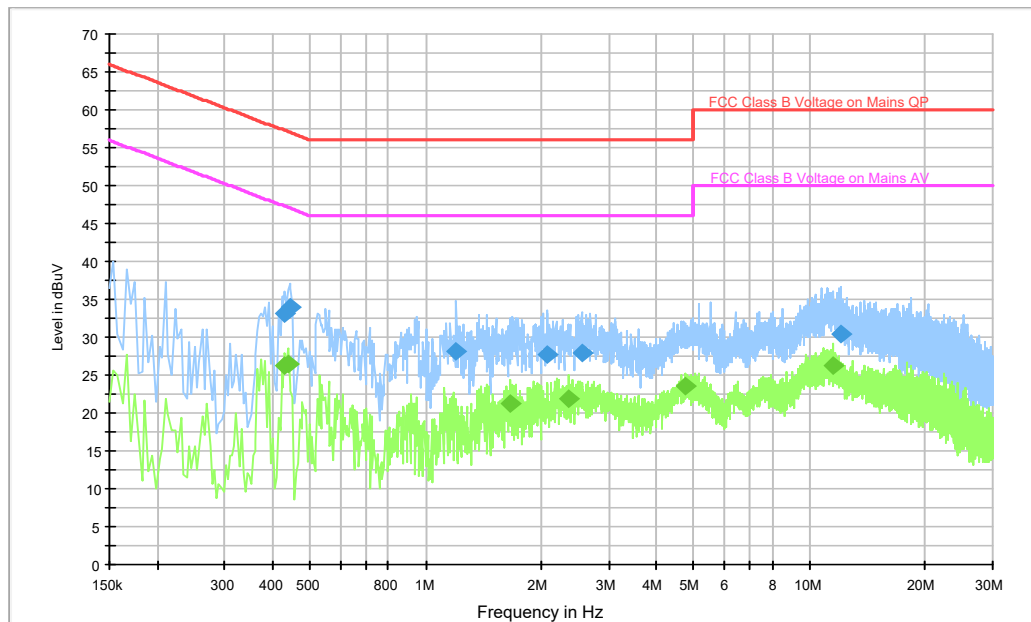


Fig. 27 AC Powerline Conducted Emission-802.11a, With charger QC16EU

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.430000	33.2	L1	20.0	24.1	57.3
0.442000	34.0	L1	20.0	23.0	57.0
1.202000	28.1	L1	19.9	27.9	56.0
2.078000	27.7	L1	19.8	28.3	56.0
2.542000	27.9	L1	19.8	28.1	56.0
12.110000	30.4	L1	20.0	29.6	60.0

Final Result 2

Frequency (MHz)	Average (dBuV)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.430000	26.3	L1	20.0	21.0	47.3
0.438000	26.4	L1	20.0	20.7	47.1
1.658000	21.2	L1	19.8	24.8	46.0
2.358000	22.0	L1	19.8	24.0	46.0
4.730000	23.5	L1	19.8	22.5	46.0
11.474000	26.3	L1	20.0	23.7	50.0

A.8. Antenna Requirement

The antenna of the device is permanently attached. There are no provisions for connection to an external antenna.

The unit complies with the requirement of FCC Part 15.203.

ANNEX B: EUT parameters

Disclaimer: The antenna gain and worse case 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



Accredited Laboratory

A2LA has accredited

TELECOMMUNICATION TECHNOLOGY LABS, CAICT

Beijing, People's Republic of China

for technical competence in the field of

Electrical Testing

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



Presented this 23rd day of July 2024.



Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 7049.01
Valid to July 31, 2026

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

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