



TEST REPORT

No.24T04N002827-001-RLAN

for

Realme Chongqing Mobile Telecommunications Corp., Ltd.

Mobile Phone

Model Name: RMX5020

with

Hardware Version: 11

Software Version: realme UI 6.0

FCC ID: 2AUYFRMX5020

Issued Date: 2024-12-26

Designation Number: CN1210

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 SAICT.

Test Laboratory:

SAICT, Shenzhen Academy of Information and Communications Technology

Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China 518000.

Tel:+86(0)755-33322000, Fax:+86(0)755-33322001

Email: yewu@caict.ac.cn. www.saict.ac.cn



No.24T04N002827-001-RLAN

REPORT HISTORY

Report Number	Revision	Description	Issue Date
24T04N002827-001-RLAN	Rev.0	1st edition	2024-12-26

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



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1. Summary of Test Report

1.1. Test Items

Description	Mobile Phone
Model Name	RMX5020
Applicant's name	Realme Chongqing Mobile Telecommunications Corp., Ltd.
Manufacturer's Name	Realme Chongqing Mobile Telecommunications Corp., Ltd.

1.2. Test Standards

FCC Part15-2023; ANSI C63.10-2013; KDB789033-V02r01.

1.3. Test Result

Pass

Please refer to "5.2. Test Results"

1.4. Testing Location

Address: Building G, Shenzhen International Innovation Center, No.1006 Shennan Road,
Futian District, Shenzhen, Guangdong, P. R. China 518000

1.5. Project data

Testing Start Date: 2024-11-28
Testing End Date: 2024-12-24

1.6. Signature

Lin Zechuang
(Prepared this test report)

An Ran
(Reviewed this test report)

Zhang Bojun
(Approved this test report)



2. Client Information

2.1. Applicant Information

Company Name:	Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address:	No.178 Yulong Avenue,Yufengshan,Yubei District,Chongqing,China
Contact Person	HuangMinJiang
E-Mail	mega@realme.com
Telephone:	(86)18502096102
Fax:	/

2.2. Manufacturer Information

Company Name:	Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address:	No.178 Yulong Avenue,Yufengshan,Yubei District,Chongqing,China
Contact Person	HuangMinJiang
E-Mail	mega@realme.com
Telephone:	(86)18502096102
Fax:	/



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

3.1. About EUT

Description	Mobile Phone
Model Name	RMX5020
RF Protocol	IEEE 802.11a/n-HT20,40/ac-VHT20,40,80
WLAN Frequency Range	ISM Bands: 5725MHz~5850MHz.
Type of modulation	OFDM
Antenna Type	Integrated antenna
Antenna Gain	ANT3 = -2.1dBi.
Power Supply	3.82V DC by Battery
FCC ID	2AUYFRMX5020
Condition of EUT as received	No abnormality in appearance

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of Shenzhen Academy of Information and Communications Technology.

3.2. Internal Identification of EUT

EUT ID*	SN or IMEI	HW Version	SW Version	Date of Receipt
UT06aa	868617070019916	11	realme UI 6.0	2024-11-27
UT01aa	004180606972897	11	realme UI 6.0	2024-11-26

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

UT06aa is used for conduction test, UT01aa is used for radiation test and AC Power line Conducted Emission test.

3.3. Internal Identification of AE

AE No.	Description	AE ID*
AE1	Battery	/
AE2	Charger	Aa01a
AE3	USB Cable	Ca01a

AE1

Model	BLPB59
Manufacturer	Chongqing CosMX Battery Co.,Ltd.
Capacity	5180mAh
Nominal Voltage	3.82V

AE2-1

Model	VCB4JAUH
Manufacturer	Jiangsu Chenyang Electron Co., Ltd
Specification	American Standard Charger

AE2-2

Model	VCB4JAUH
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Manufacturer	Huizhou Golden Lake Industrial Co., Ltd.
Specification	American Standard Charger
AE3	
Model	DL154
Manufacturer	/

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

3.4. General Description

The Equipment under Test (EUT) is a model of Mobile Phone with integrated antenna and battery. It consists of normal options: Lithium Battery, Charger and USB Cable. 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.

Reference	Title	Version
FCC Part15	FCC CFR 47,Part 15,Subpart C	2023
	FCC CFR 47,Part 15,Subpart E	
ANSI C63.10	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	2013
KDB 789033	GUIDELINES FOR COMPLIANCE TESTING OF UNLICENSED NATIONAL INFORMATION INFRASTRUCTURE (U-NII) DEVICES PART 15, SUBPART E	V02r01

5. Test Results

5.1. Testing Environment

Normal Temperature: 15~35°C

Relative Humidity: 20~75%

5.2. Test Results

No.	Test cases	Sub-clause of Part15E	Verdict
0	Maximum Output Power	15.407(a)	P
1	Power Spectral Density	15.407(a)	P
2	Occupied 26dB Bandwidth	15.403(i)	/
3	Occupied 6dB Bandwidth	15.407(e)	P
4	99% Occupied Bandwidth	15.403	/
5	Band edge compliance	15.209	P
6	Radiated Spurious Emissions	15.209	P
7	AC Power line Conducted	15.207	P
8	Transmit Power Control	15.407	NA

See **ANNEX A** for details.

Note: According to the definition of the application description, the device will automatically discontinue transmission in case of either absence of information to transmit or operational failure.

5.3. Statements

SAICT has evaluated the test cases requested by the applicant/manufacture as listed in section 5.2 of this report, for the EUT specified in section 3, according to the standards or reference documents listed in section 4.2

Disclaimer:

A. After confirmation with the customer, the sample information provided by the customer may affect the validity of the measurement results in this report, and the impact and consequences arising therefrom shall be borne by the customer.

B. The samples in this report are provided by the customer, and the test results are only applicable to the samples received.

6. Test Equipments Utilized

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1	Vector Signal Analyzer	FSV40	100903	Rohde & Schwarz	2024-12-27	1 year
2	Power Sensor	U2021XA	MY55430013	Keysight	2024-12-27	1 year
3	Data Acquisition	U2531A	TW55443507	Keysight	/	/
4	RF Control Unit	JS0806-2	21C8060398	Tonscend	2025-05-06	1 year
5	Shielding Room	S81	CT000986-1344	ETS-Lindgren	2026-09-12	5 years

Radiated test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1	Test Receiver	ESR7	101676	Rohde & Schwarz	2025.11.21	1 year
2	Spectrum Analyzer	FSV40	101192	Rohde & Schwarz	2025.01.12	1 year
3	BiLog Antenna	3142E	00224831	ETS-Lindgren	2027.10.23	3 years
4	Horn Antenna	3117	00066577	ETS-Lindgren	2025.04.17	3 years
5	Horn Antenna	QSH-SL-1 8-26-S-20	17013	Q-par	2026.02.01	3 years
6	Horn Antenna	QSH-SL-1 8-40-K-SG	15979	Q-par	2026.01.30	3 years
7	Anechoic Chamber	FACT3-2.0	1285	ETS-Lindgren	2025.05.28	2 years
8	Loop Antenna	HLA6120	35779	TESEQ	2025-05-10	3 years
9	Test Receiver	ESCI	100702	Rohde & Schwarz	2025-01-10	1 year
10	LISN	ENV216	102067	Rohde & Schwarz	2025-10-06	1 year

Test software

No.	Equipment	Manufacturer	Version
1	JS1120-3	Tonscend	3.5
2	EMC32	Rohde & Schwarz	10.50.40

EUT is engineering software provided by the customer to control the transmitting signal.
The EUT was programmed to be in continuously transmitting mode.

7. Laboratory Environment

Shielded room

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz> 60 dB; 1MHz-18000MHz>90 dB
Electrical insulation	> 2M Ω
Ground system resistance	< 4 Ω

Anechoic chamber

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz> 60 dB; 1MHz-18000MHz>90 dB
Electrical insulation	> 2M Ω
Ground system resistance	< 4 Ω
Normalised site attenuation (NSA)	< ± 4 dB, 3 m distance, from 30 to 1000 MHz
Voltage Standing Wave Ratio (VSWR)	≤ 6 dB, from 1 to 18 GHz, 3m distance
Uniformity of field strength	Between 0 and 6 dB, from 80 to 6000 MHz

8. Measurement Uncertainty

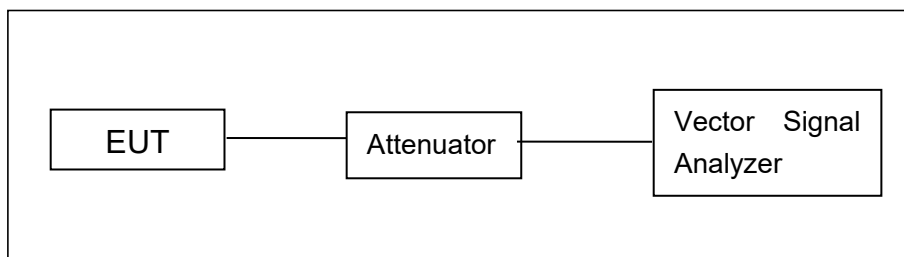
Test Name	Uncertainty ($k=2$)	
1. Maximum output Power	1.36dB	
2. Peak Power Spectral Density	1.36dB	
3. Occupied 26dB Bandwidth	4.56kHz	
4. Occupied 6dB Bandwidth	4.56kHz	
5. 99% Occupied Bandwidth	4.56kHz	
6. Band Edges Compliance	4.68dB	
7. Transmitter Spurious Emission - Radiated	$9\text{kHz} \leq f < 30\text{MHz}$	1.70dB
	$30\text{MHz} \leq f < 1\text{GHz}$	2.80dB
	$1\text{GHz} \leq f < 18\text{GHz}$	4.62dB
	$18\text{GHz} \leq f \leq 40\text{GHz}$	2.36dB
8. AC Power line Conducted Emission	$150\text{kHz} \leq f \leq 30\text{MHz}$	2.62dB

ANNEX A: Detailed Test Results

A.1. Measurement Method

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.



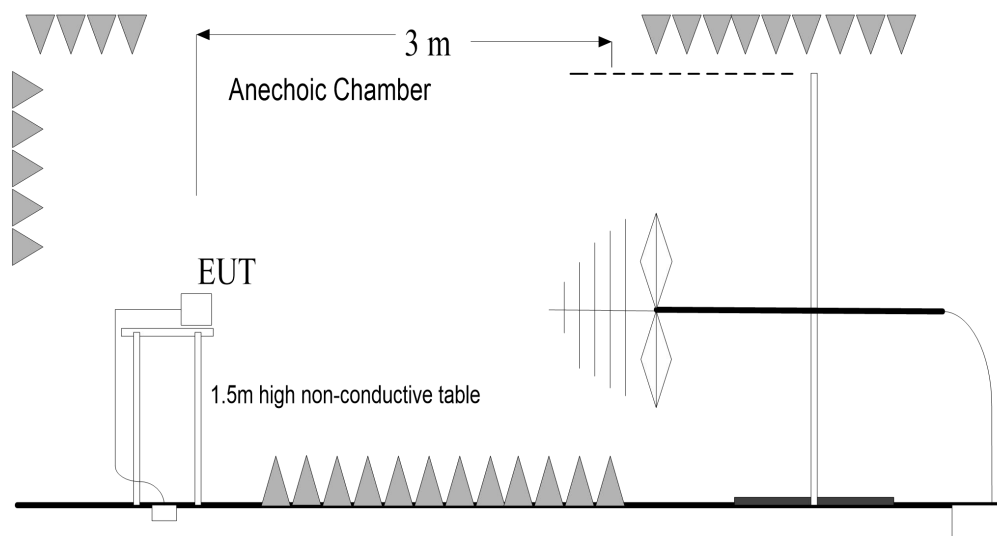
Radiated Emission Measurements

Test setup:

9kHz-30MHz:

The EUT are measured in a anechoic chamber. The EUT is placed on a non-conductive stand of 80cm high, and at a measurement distance of 3m from the receiving antenna. The center of the receiving loop antenna is 1.0 meter above the ground. The test setup refers to figure below.

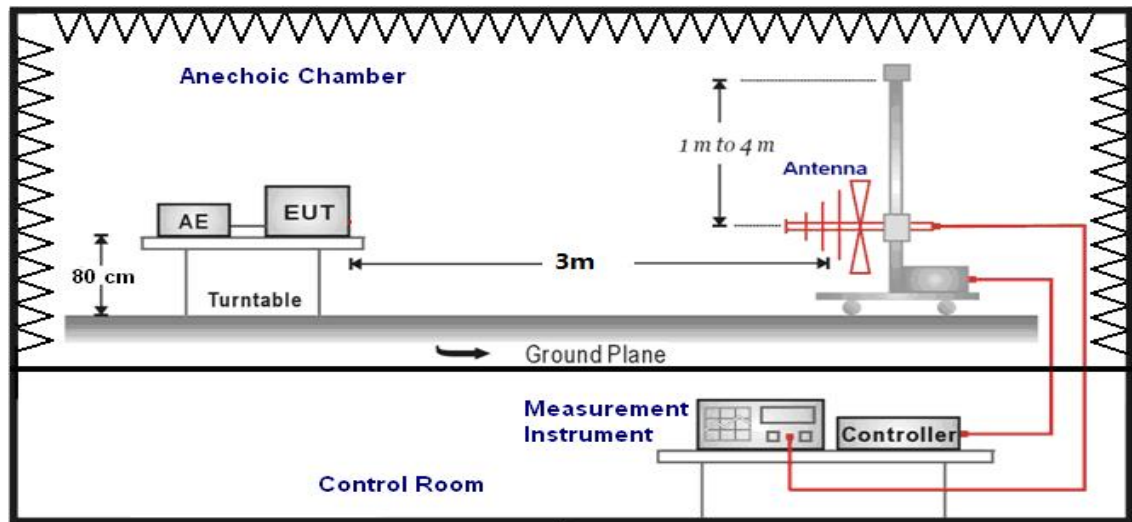
Detected emissions were maximized at each frequency by rotating the EUT and adjusting the receiver antenna polarization.



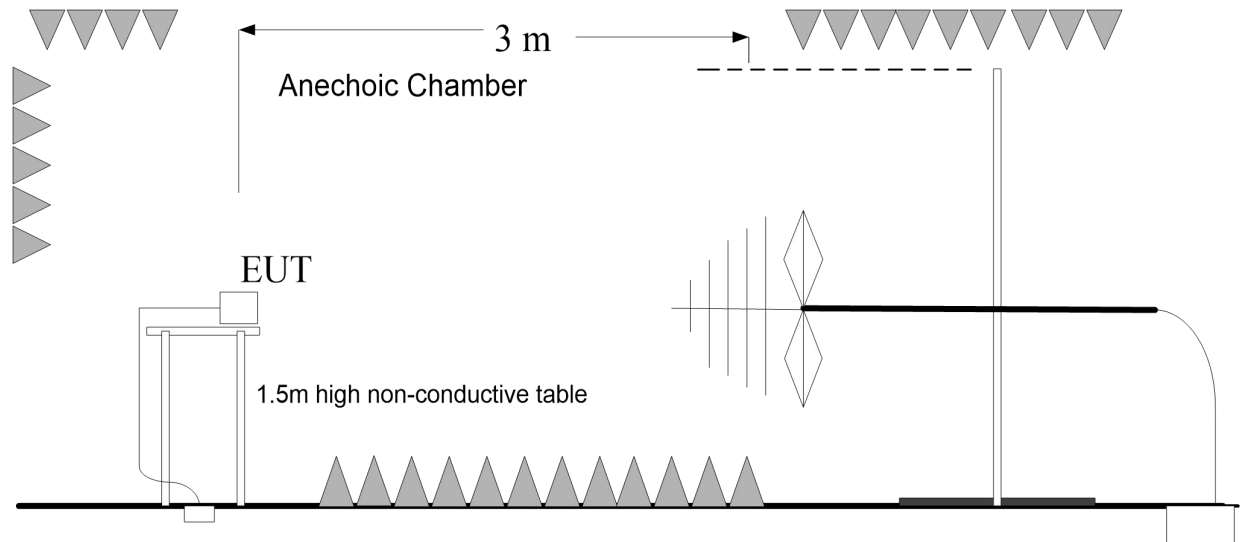
30MHz-40GHz:

The EUT are measured in an anechoic chamber. The EUT is placed on a non-conductive stand of 80cm high, and at a measurement distance of 3m from the receiving antenna. The center of the receiving antenna is 1.0 meter to 4.0 meter above the ground. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT and adjusting the receiver antenna polarization.

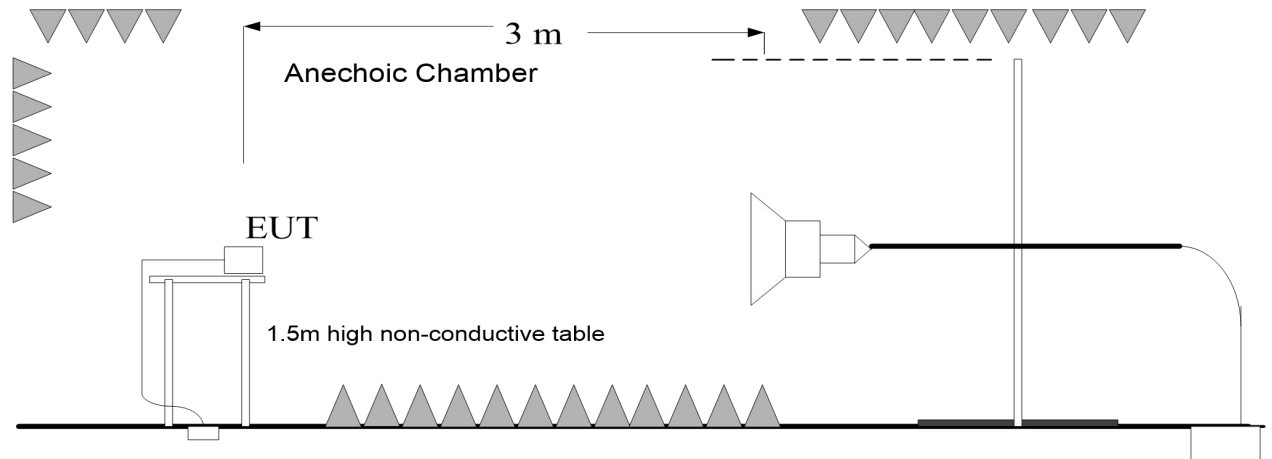
30MHz-1GHz:



1GHz-3GHz:

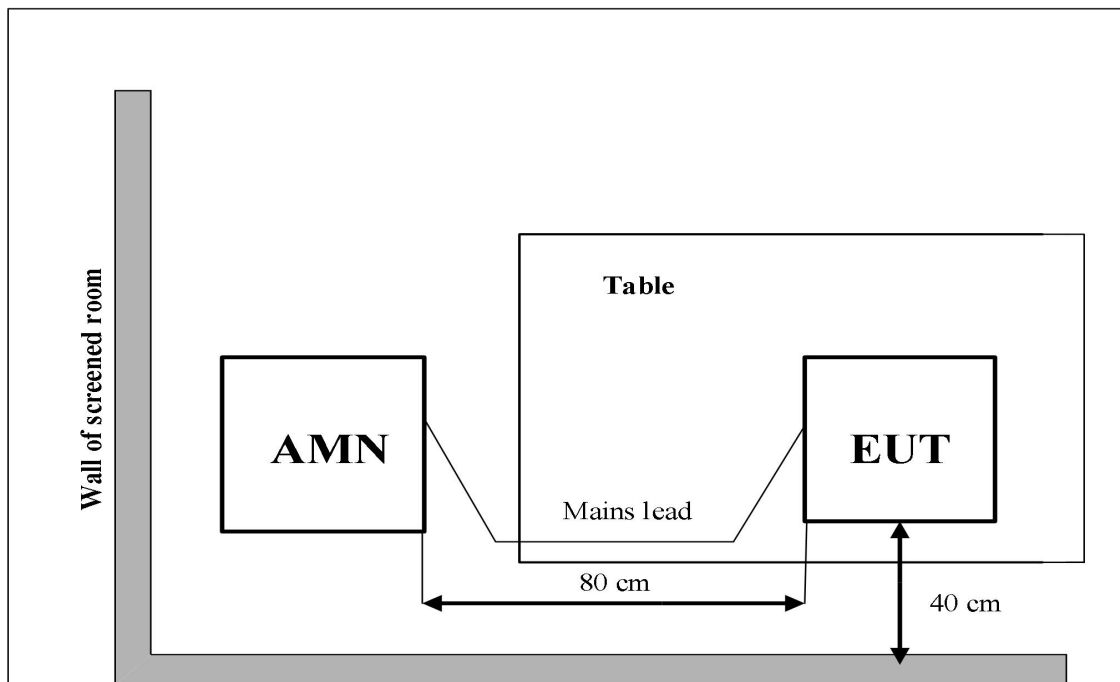


3GHz-40GHz:



3) AC Power line Conducted Emission Measurement

For WLAN, the EUT is working under test mode. The EUT is commanded to operate at maximum transmitting power.



A.2. Maximum output Power

Measurement Limit and Method:

Standard	Frequency (MHz)	Limit (dBm)
FCC CRF Part 15.407(a)	5725MHz~5850MHz	30

Limit use the less value, and B is the 26dB bandwidth.

Measurement of method: See ANSI C63.10-2013-Clause 12.3.3.2.

Method PM-G is a measurement using a gated RF average power meter.

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Because the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

Measurement Results:

ANT3:

Test Mode	Transmitter output power (dBm)		
	5745 MHz (CH149)	5785 MHz (CH157)	5825 MHz (CH165)
802.11a	14.94	14.86	15.07
802.11n-HT20	14.85	14.77	14.84
802.11ac-VHT20	14.81	14.65	14.81
/	5755 MHz (CH151)	5795 MHz (CH159)	
802.11n-HT40	14.94	15.00	
802.11ac-VHT40	14.91	14.96	
/	5775 MHz (CH155)		
802.11ac-VHT80	14.66		

Note:

The data rate 6Mbps (11a mode), MCS0 (11n mode) and MCS0 (11ac mode) are selected as the worst case. **802.11a** mode is selected as the worst condition. The following cases and test graphs are performed with this condition.

The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98%.

Conclusion: PASS

**A.3. Peak Power Spectral Density (conducted)**

Measurement of method: See KDB 789033 D02 v02r01, Section F.

Measurement Limit:

Standard	Frequency (MHz)	Limit
FCC CRF Part 15.407(a)	5725MHz~5850MHz	30dBm/500kHz

The PPSD measurement method SA-1 is made according to KDB 789033.

Measurement Results:

Mode	Frequency (MHz)	Power Spectral Density (dBm/500kHz)	Conclusion
802.11a	5745MHz (CH149)	0.69	P
	5785MHz (CH157)	0.91	P
	5825MHz (CH165)	1.16	P
802.11n-HT40	5755MHz (CH151)	-2.75	P
	5795MHz (CH159)	-2.02	P
802.11ac-VHT80	5775MHz (CH155)	-5.72	P

Conclusion: PASS

A.4. Occupied 26dB Bandwidth (conducted)

Measurement of method: See KDB 789033 D02 v02r01, Section C.1.

Measurement Limit:

Standard	Limit (MHz)
FCC 47 CFR Part 15.403 (i)	/

Measurement Result:

Mode	Frequency (MHz)	Occupied 26dB Bandwidth (MHz)		Conclusion
802.11a	5745MHz(Ch149)	Fig.1	19.64	/
	5785MHz(Ch157)	Fig.2	19.92	/
	5825MHz(Ch165)	Fig.3	19.92	/
802.11n-HT40	5755MHz(Ch151)	Fig.4	41.12	/
	5795MHz(Ch159)	Fig.5	46.48	/
802.11ac-VHT80	5775MHz(Ch155)	Fig.6	81.60	/

See below for test graphs.

Conclusion: PASS

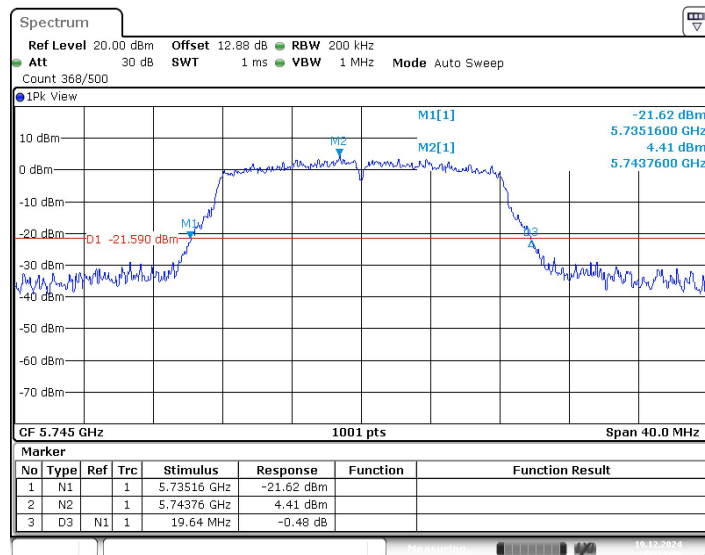


Fig. 1 Occupied 26dB Bandwidth (802.11a, 5745MHz)

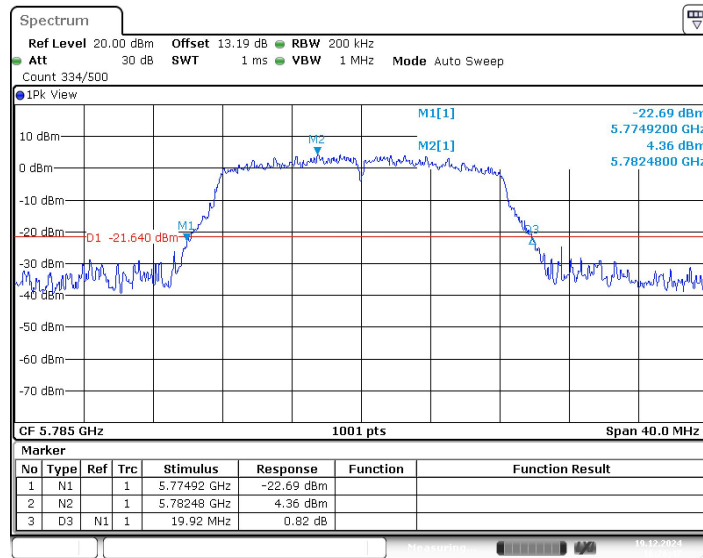


Fig. 2 Occupied 26dB Bandwidth (802.11a, 5785MHz)

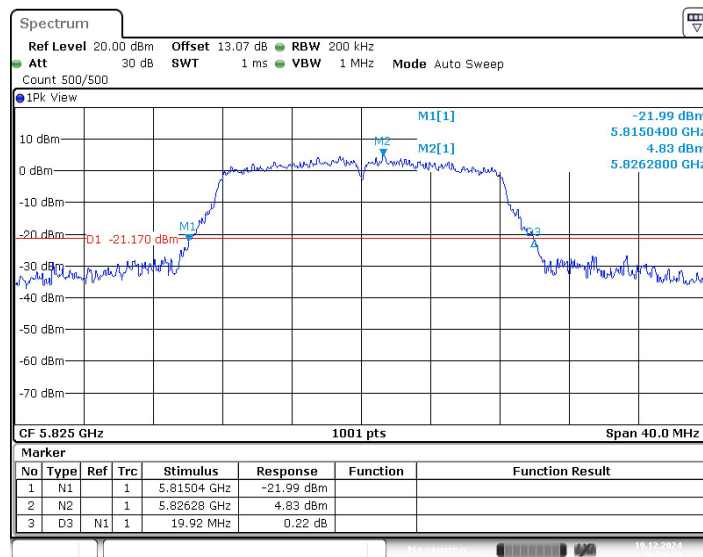


Fig. 3 Occupied 26dB Bandwidth (802.11a, 5825MHz)

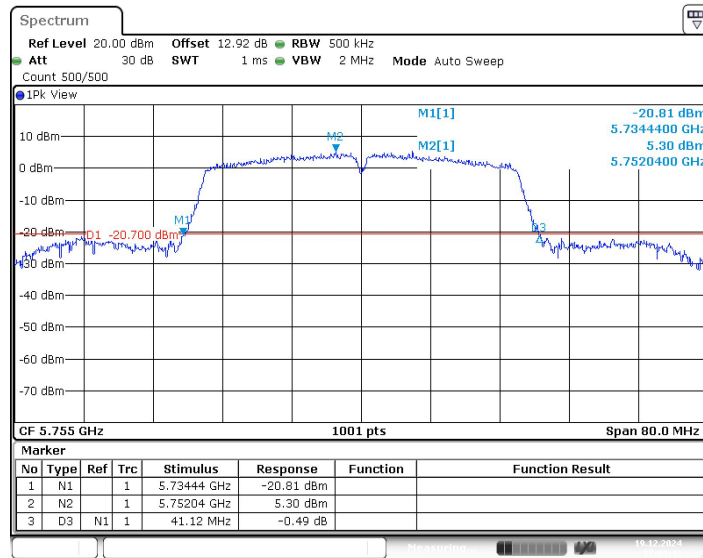


Fig. 4 Occupied 26dB Bandwidth (802.11n-HT40, 5755MHz)

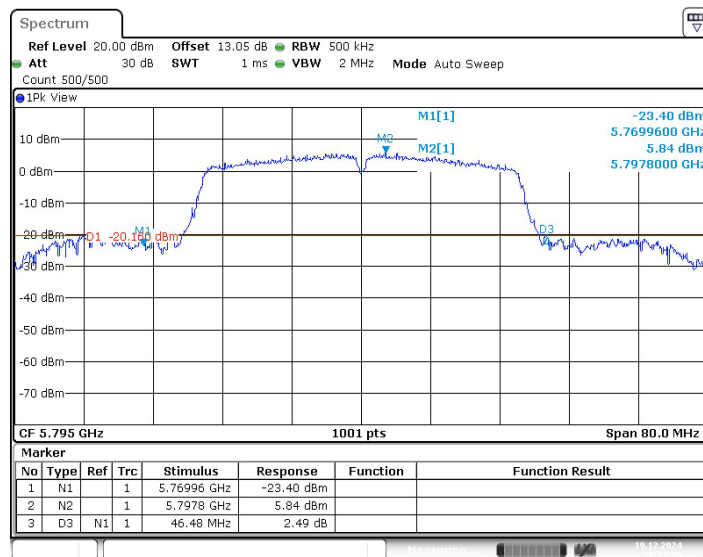


Fig. 5 Occupied 26dB Bandwidth (802.11n-HT40, 5795MHz)

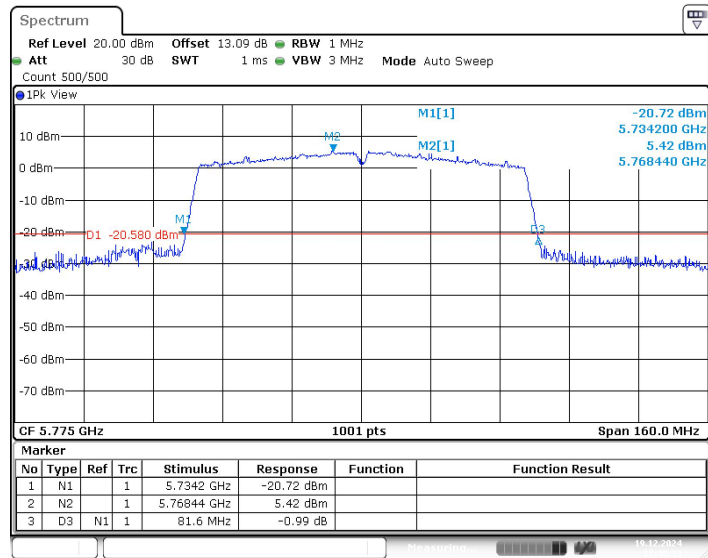


Fig. 6 Occupied 26dB Bandwidth (802.11ac-VHT80, 5775MHz)

A.5. Occupied 6dB Bandwidth (conducted)

Measurement of method: See KDB 789033 D02 v02r01, Section C.2.

Measurement Limit:

Standard	Limit (MHz)
FCC 47 CFR Part 15.407 (e)	≥ 0.5

Measurement Result:

Mode	Frequency (MHz)	Occupied 6dB Bandwidth (MHz)		Conclusion
802.11a	5745MHz(Ch149)	Fig.7	15.04	P
	5785MHz(Ch157)	Fig.8	15.08	P
	5825MHz(Ch165)	Fig.9	15.12	P
802.11n-HT40	5755MHz(Ch151)	Fig.10	35.04	P
	5795MHz(Ch159)	Fig.11	35.12	P
802.11ac-VHT80	5775MHz(Ch155)	Fig.12	75.20	P

See below for test graphs.

Conclusion: PASS

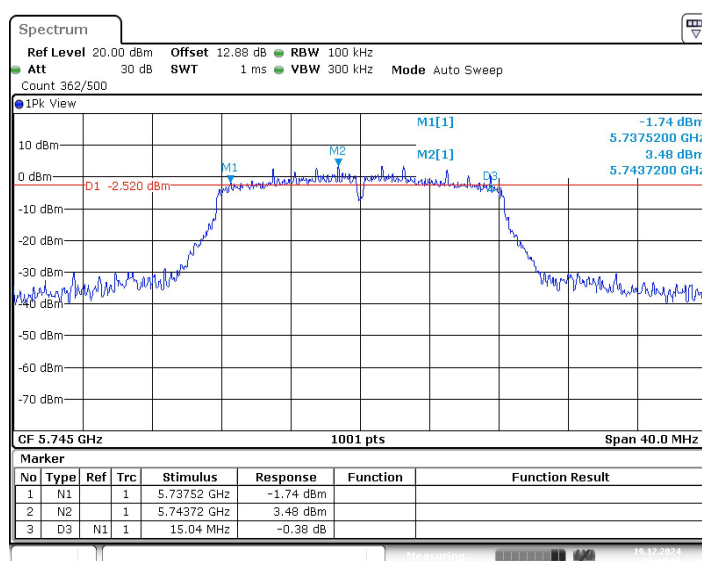


Fig. 7 Occupied 6dB Bandwidth (802.11a, 5745MHz)

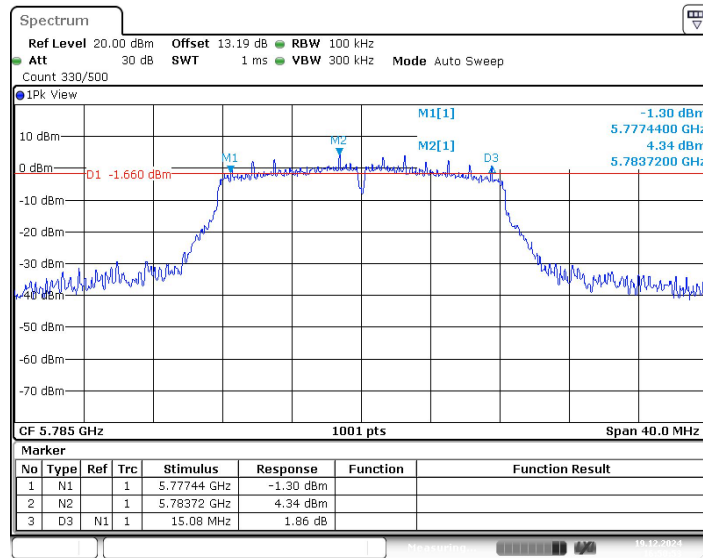


Fig. 8 Occupied 6dB Bandwidth (802.11a, 5785MHz)

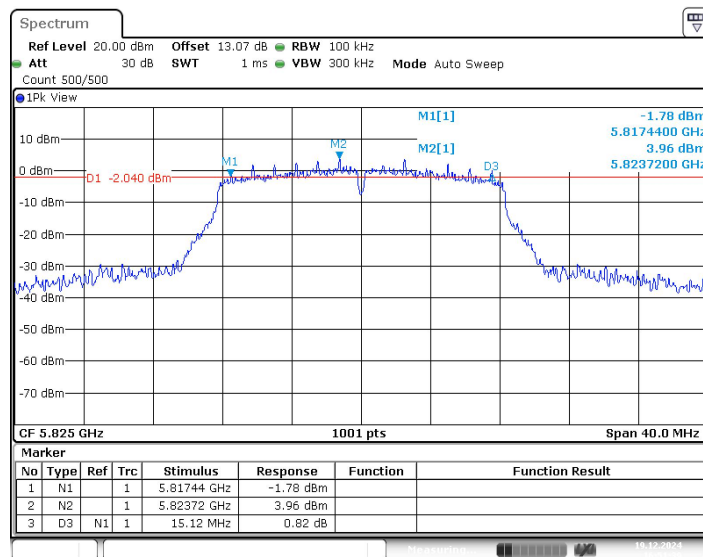


Fig. 9 Occupied 6dB Bandwidth (802.11a, 5825MHz)

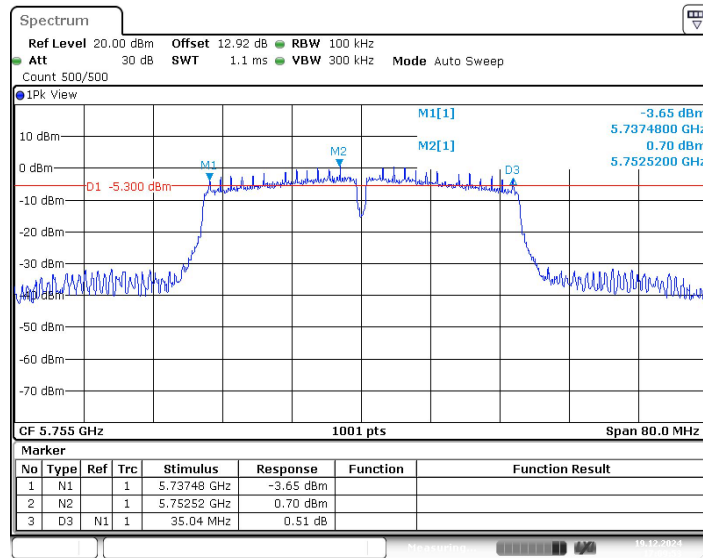


Fig. 10 Occupied 6dB Bandwidth (802.11n-HT40, 5755MHz)

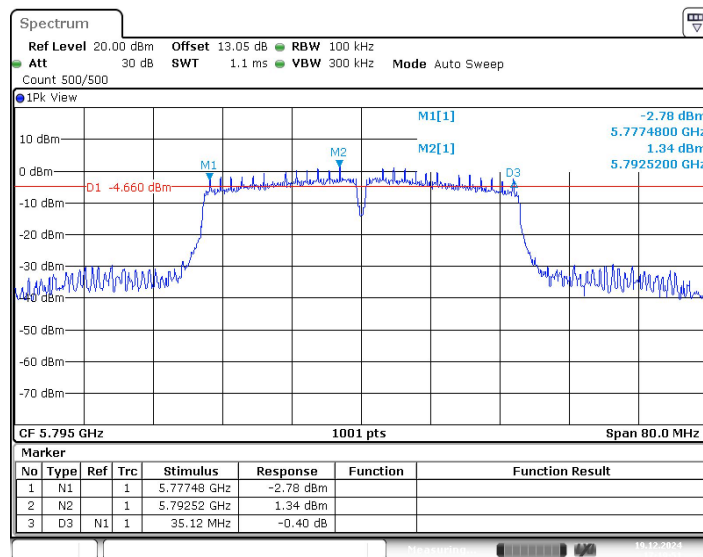


Fig. 11 Occupied 6dB Bandwidth (802.11n-HT40, 5795MHz)

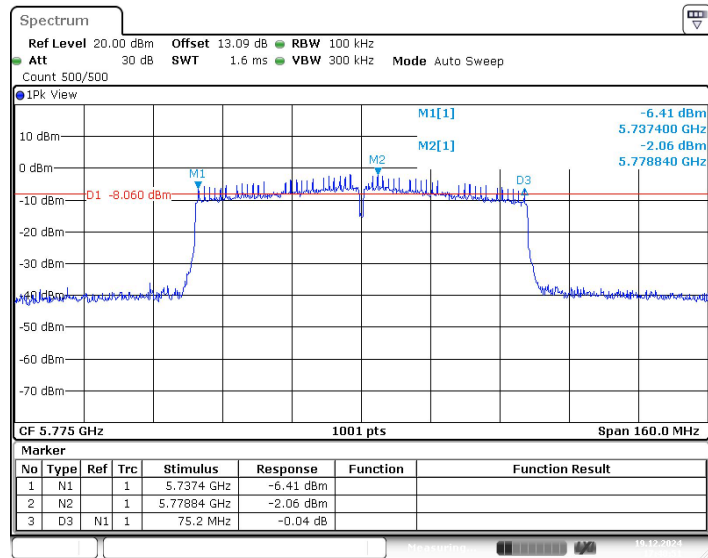


Fig. 12 Occupied 6dB Bandwidth (802.11ac-VHT80, 5775MHz)

A.6. 99% Occupied Bandwidth (conducted)

Measurement of method: See KDB 789033 D02 v02r01, Section D.

Measurement Limit:

Standard	Limit (MHz)
FCC 47 CFR Part 15.403	/

Measurement Result:

Mode	Frequency (MHz)	99% Occupied Bandwidth (MHz)		Conclusion
802.11a	5745MHz(CH149)	Fig.13	17.30	/
	5785MHz(CH157)	Fig.14	17.22	/
	5825MHz(CH165)	Fig.15	17.30	/
802.11n-HT40	5755MHz(CH151)	Fig.16	36.60	/
	5795MHz(CH159)	Fig.17	36.92	/
802.11ac-VHT80	5775MHz(CH155)	Fig.18	75.45	/

See below for test graphs.

Conclusion: PASS

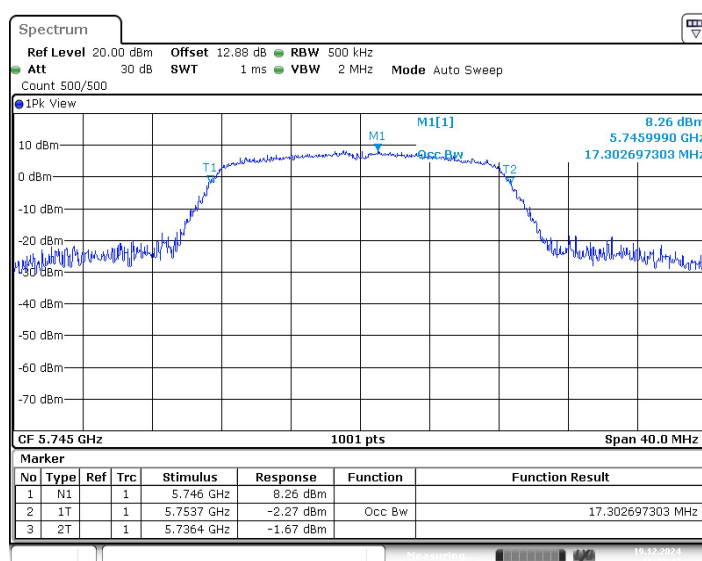


Fig. 13 99% Occupied Bandwidth (802.11a, 5745MHz)

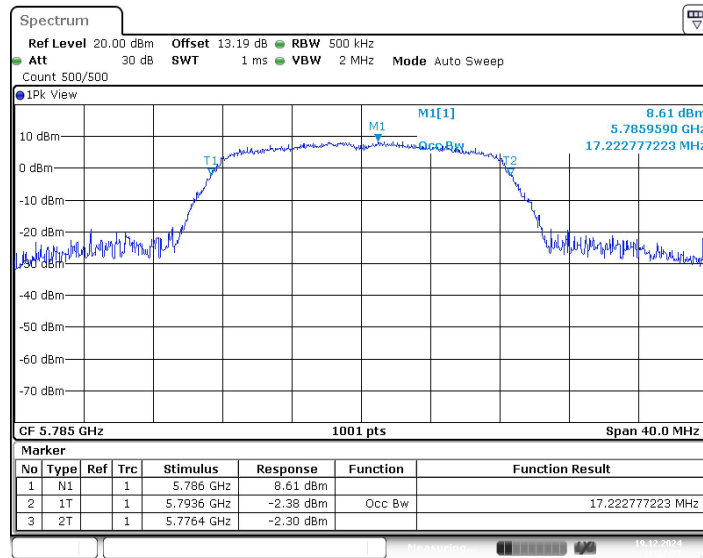


Fig. 14 99% Occupied Bandwidth (802.11a, 5785MHz)

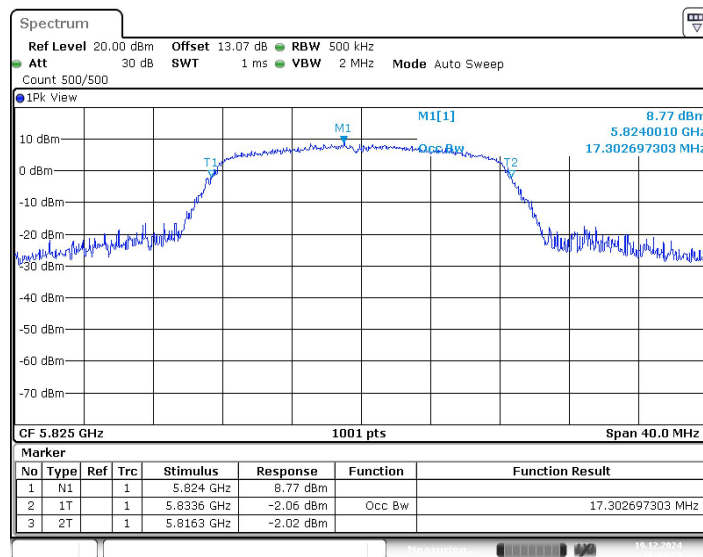


Fig. 15 99% Occupied Bandwidth (802.11a, 5825MHz)

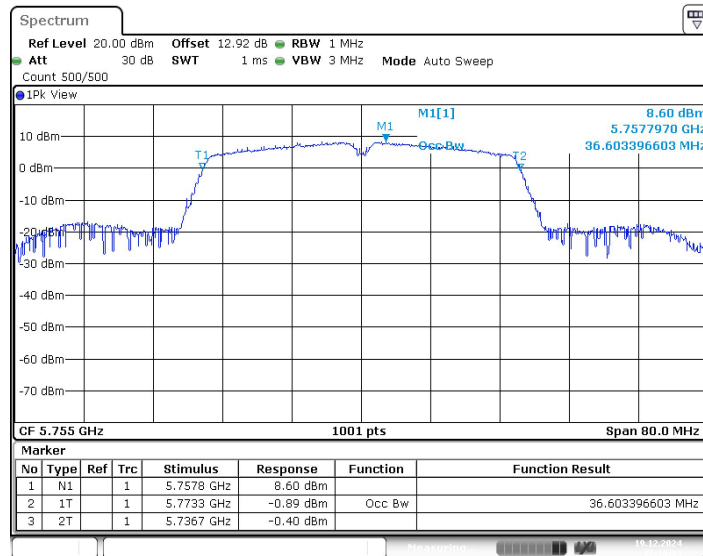


Fig. 16 99% Occupied Bandwidth (802.11n-HT40, 5755MHz)

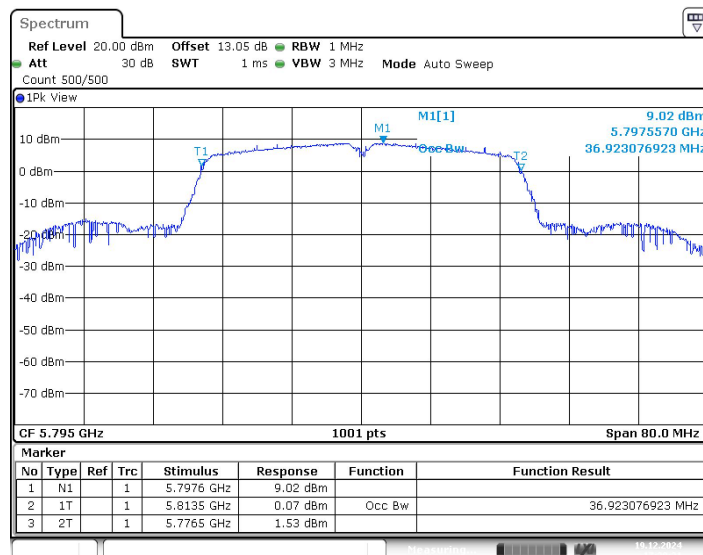


Fig. 17 99% Occupied Bandwidth (802.11n-HT40, 5795MHz)

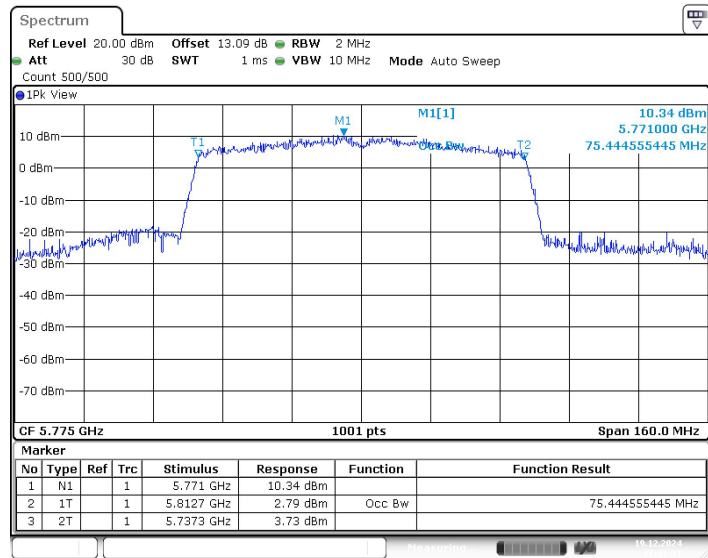


Fig. 18 99% Occupied Bandwidth (802.11ac-VHT80, 5775MHz)

A.7. Band Edges Compliance

Method of Measurement: See ANSI C63.10-clause 6.10.

Measurement Limit:

Standard	Limit (dB μ V/m)	
	Peak	74
FCC 47 CFR Part 15.209	Average	54

The measurement is made according to KDB 789033

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	Frequency (MHz)	Test Results	Conclusion
802.11a	5745MHz(CH149)	Fig.19	P
	5825MHz(CH165)	Fig.20	P
802.11n-HT40	5755MHz(CH151)	Fig.21	P
	5795MHz(CH159)	Fig.22	P
802.11ac-VHT80	5775MHz(CH155)	Fig.23	P

See below for test graphs.

Conclusion: PASS

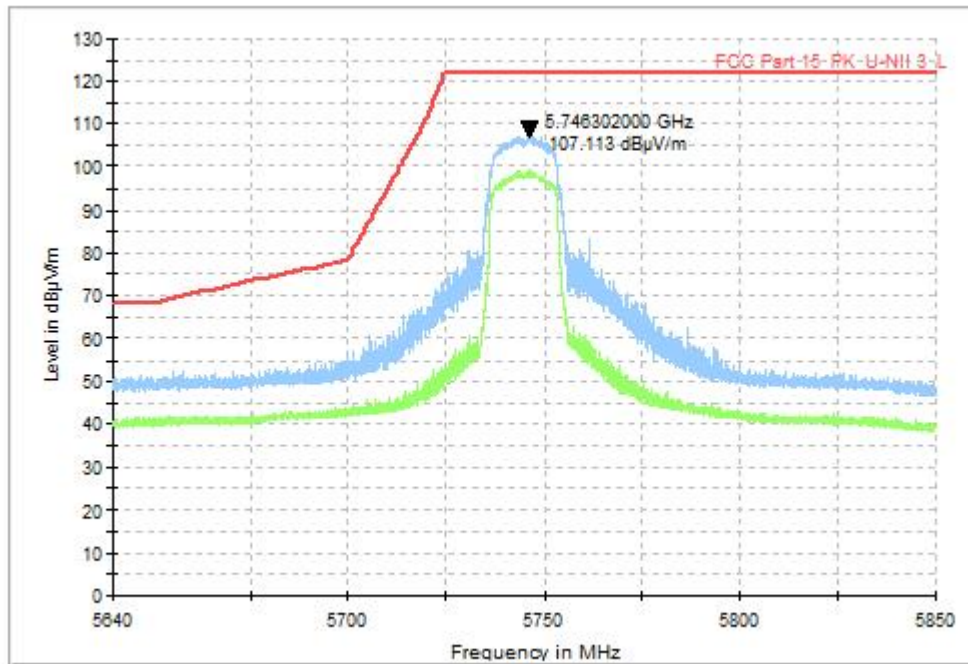


Fig. 19 Band Edges (802.11a, CH149 5745MHz)

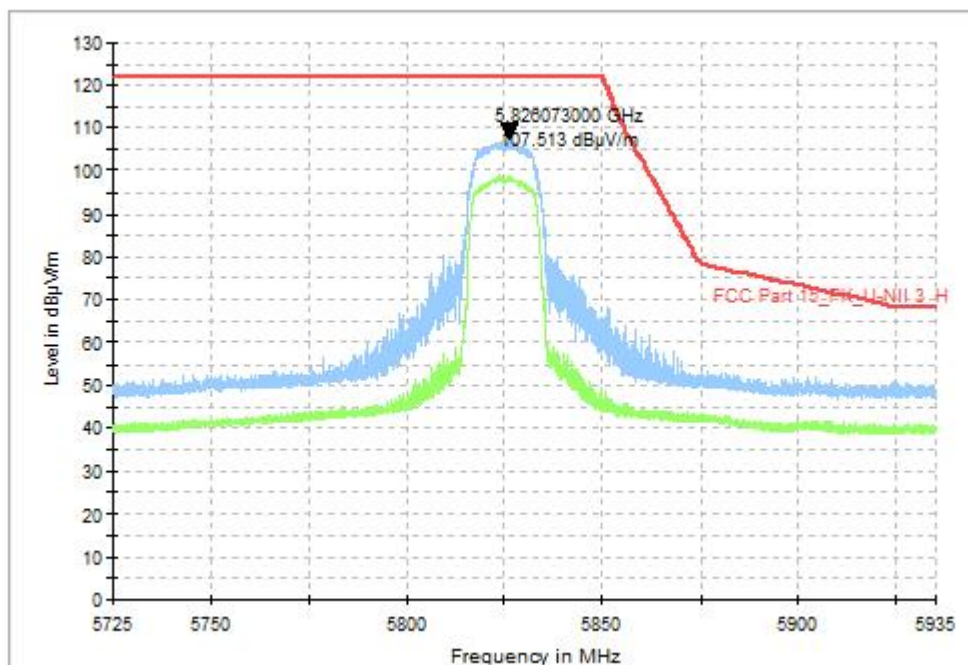


Fig. 20 Band Edges (802.11a, CH165 5825MHz)

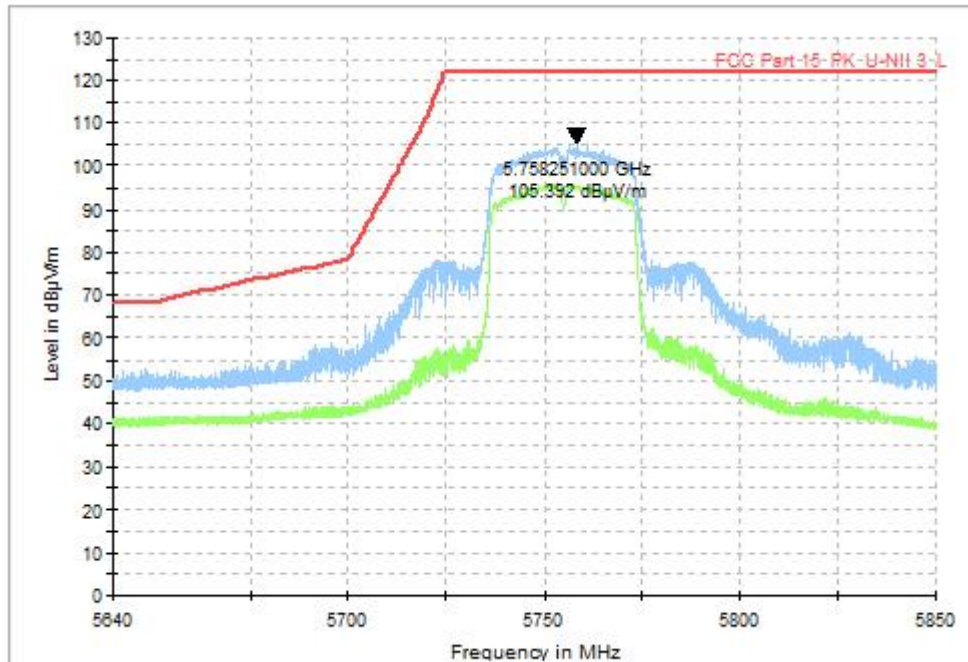


Fig. 21 Band Edges (802.11n-HT40, CH151 5755MHz)

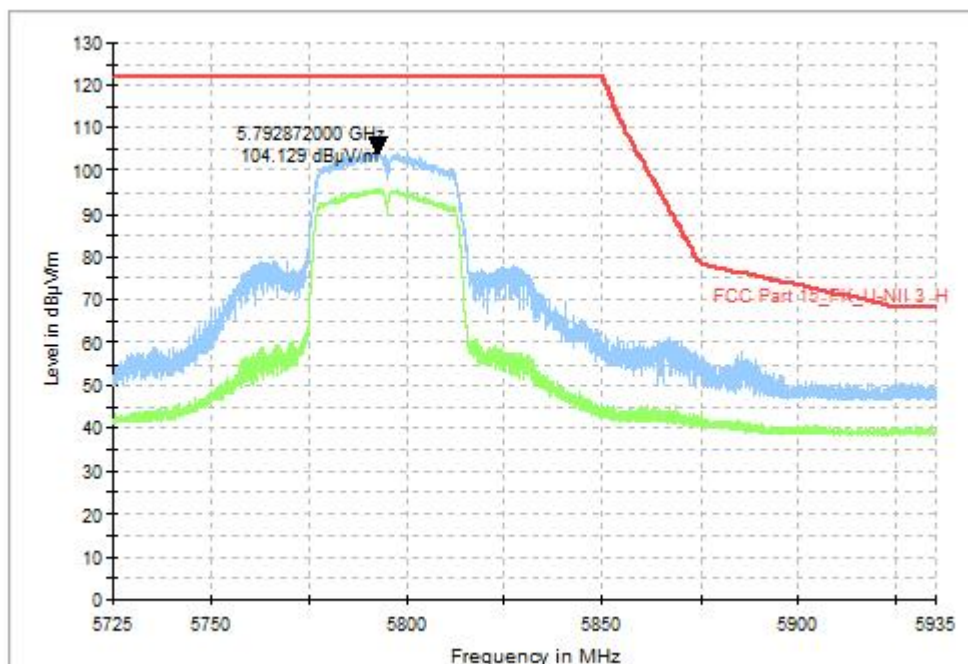


Fig. 22 Band Edges (802.11n-HT40, CH159 5795MHz)

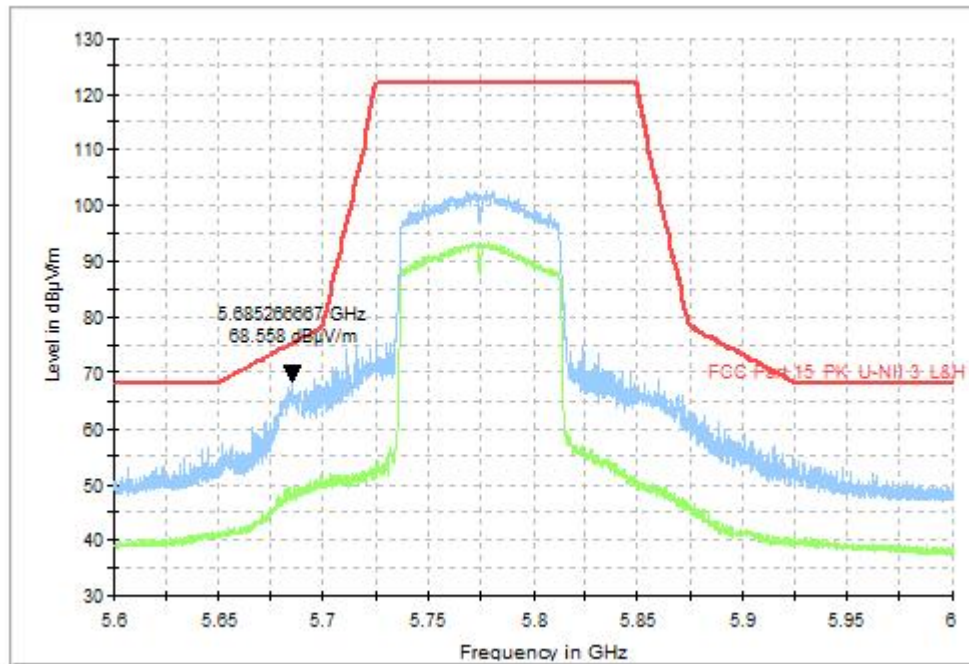


Fig. 23 Band Edges (802.11ac-VHT80, CH155 5775MHz)

A.8. Transmitter Spurious Emission

Measurement of method: See KDB 789033 D02 v02r01, Section G.3, G.4, G.5 and G.6.

Measurement Limit:

Standard	Limit (dBμV/m)	
FCC 47 CFR Part 15.209	Peak	74
	Average	54

The measurement is made according to KDB 789033.

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 (dBμV/m)	Measurement distance (m)
30-88	40.0	3
88-216	43.5	3
216-960	46.0	3
Above 960	54.0	3

Note: For frequency range below 960MHz, the limit in 15.209 is defined in 10m test distance. The limit used above is calculated from 10m to 3m.

The measurement results include the horizontal polarization and vertical polarization measurements. For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane) were recorded in this report.

Measurement Result:

Mode	Frequency (MHz)	Frequency Range	Test Results	Conclusion
802.11a	5745MHz(Ch149)	1 GHz ~18 GHz	Fig.24	P
	5785MHz(Ch157)	1 GHz ~18 GHz	Fig.25	P
	5825MHz(Ch165)	1 GHz ~18 GHz	Fig.26	P
802.11n-HT40	5755MHz(Ch151)	1 GHz ~18 GHz	Fig.27	P
	5795MHz(Ch159)	1 GHz ~18 GHz	Fig.28	P
802.11ac-VHT80	5775MHz(Ch155)	1 GHz ~18 GHz	Fig.29	P
All channels		30 MHz ~1 GHz	Fig.30	P
		18 GHz ~26.5 GHz	Fig.31	P
		26.5GHz~40GHz	Fig.32	P

Worst Case Result:

802.11a CH165

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
7434.461539	44.22	74.00	29.78	H	7.0
8358.000000	45.14	74.00	28.86	V	7.3

11107.846154	46.34	74.00	27.66	H	10.9
12346.153846	49.02	74.00	24.98	H	12.8
16035.692308	51.64	74.00	22.36	H	15.8
17713.384615	53.75	74.00	20.25	H	20.5

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
7434.461539	34.32	54.00	19.68	H	7.0
8358.000000	34.28	54.00	19.72	V	7.3
11107.846154	36.19	54.00	17.81	H	10.9
12346.153846	38.43	54.00	15.57	H	12.8
16035.692308	41.09	54.00	12.91	H	15.8
17713.384615	43.83	54.00	10.17	H	20.5

802.11n-HT40 CH159

Frequency (MHz)	Max Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
7495.846154	45.31	74.00	28.69	H	7.0
8038.153846	45.11	74.00	28.89	V	7.5
11173.846154	46.12	74.00	27.88	H	10.3
12441.692308	47.94	74.00	26.06	H	12.3
15649.384615	51.31	74.00	22.69	V	14.0
17968.615385	52.95	74.00	21.05	H	20.6

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
7495.846154	34.79	54.00	19.21	H	7.0
8038.153846	34.96	54.00	19.04	V	7.5
11173.846154	36.14	54.00	17.86	H	10.3
12441.692308	37.19	54.00	16.81	H	12.3
15649.384615	40.75	54.00	13.25	V	14.0
17968.615385	43.14	54.00	10.86	H	20.6

802.11ac-VHT80 CH155

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
7451.500000	45.02	74.00	28.98	H	7.0
8084.000000	44.85	74.00	29.15	V	7.4
11075.000000	47.60	74.00	26.40	H	11.0
12352.000000	48.85	74.00	25.15	V	12.8
15649.500000	51.32	74.00	22.68	V	14.0
17977.000000	54.00	74.00	20.00	H	20.6

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
7451.500000	34.54	54.00	19.46	H	7.0
8084.000000	34.52	54.00	19.48	V	7.4
11075.000000	36.20	54.00	17.80	H	11.0
12352.000000	38.41	54.00	15.59	V	12.8
15649.500000	40.83	54.00	13.17	V	14.0
17977.000000	43.46	54.00	10.54	H	20.6

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

See below for test graphs.

Conclusion: PASS

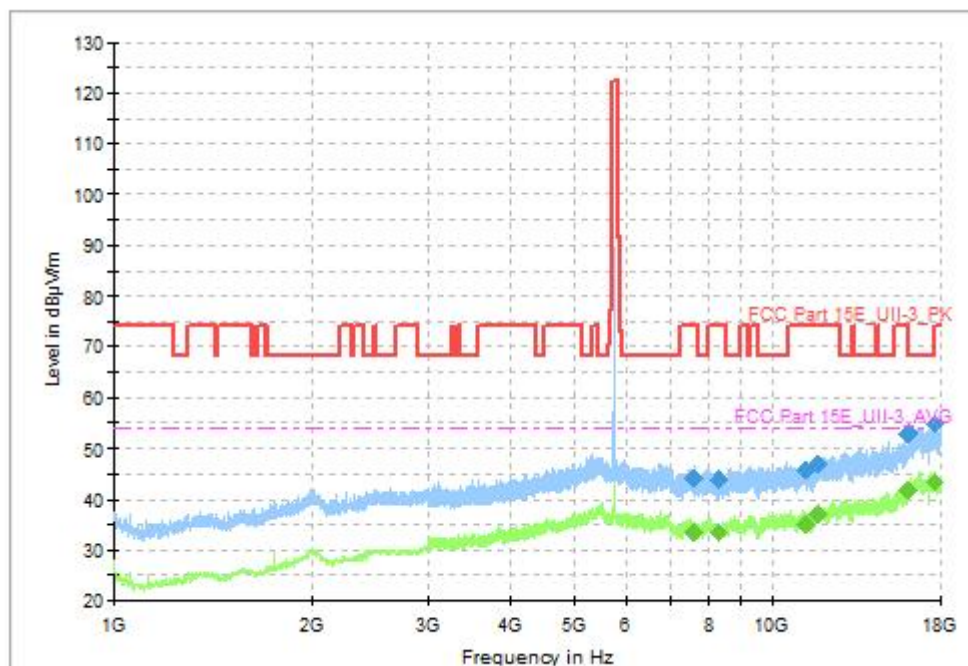


Fig. 24 Transmitter Spurious Emission (802.11a, CH149 5745MHz, 1GHz-18GHz)

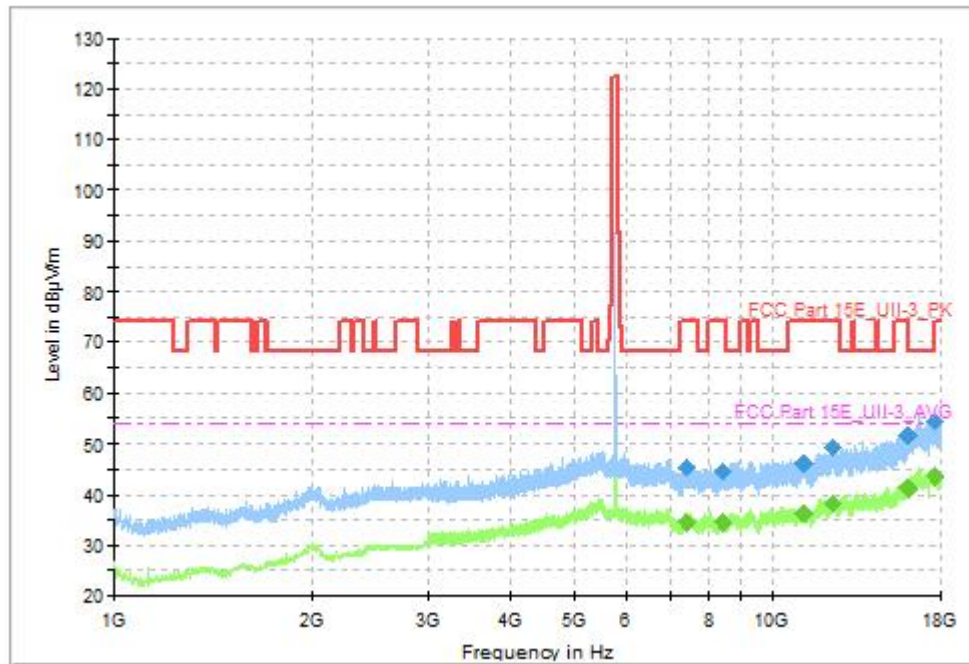


Fig. 25 Transmitter Spurious Emission (802.11a, CH157 5785MHz, 1GHz-18GHz)

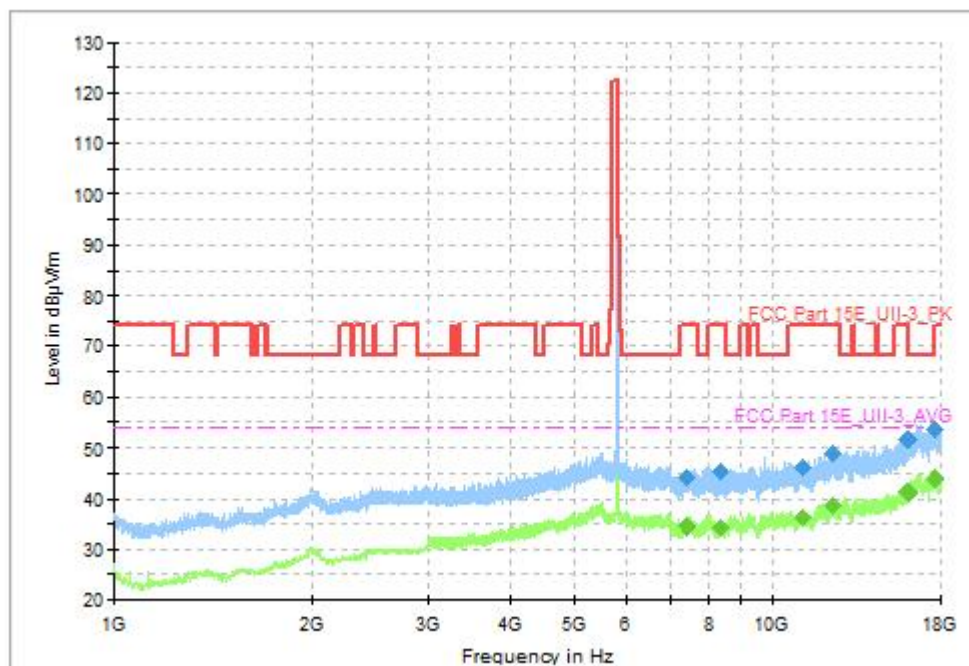


Fig. 26 Transmitter Spurious Emission (802.11a, CH165 5825MHz, 1GHz-18GHz)

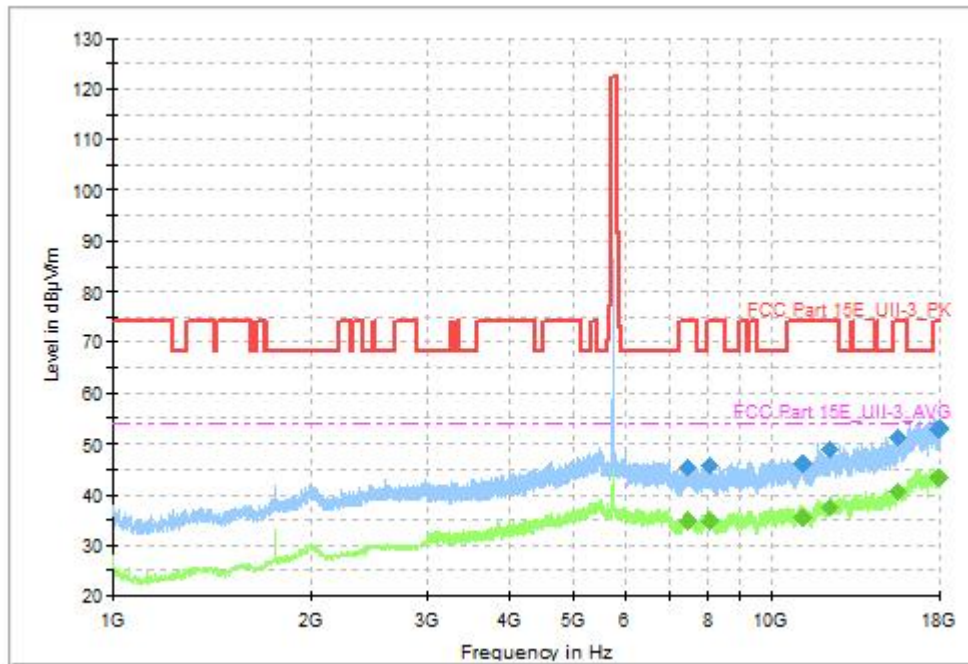


Fig. 27 Transmitter Spurious Emission (802.11n-HT40, CH151 5755MHz, 1GHz-18GHz)

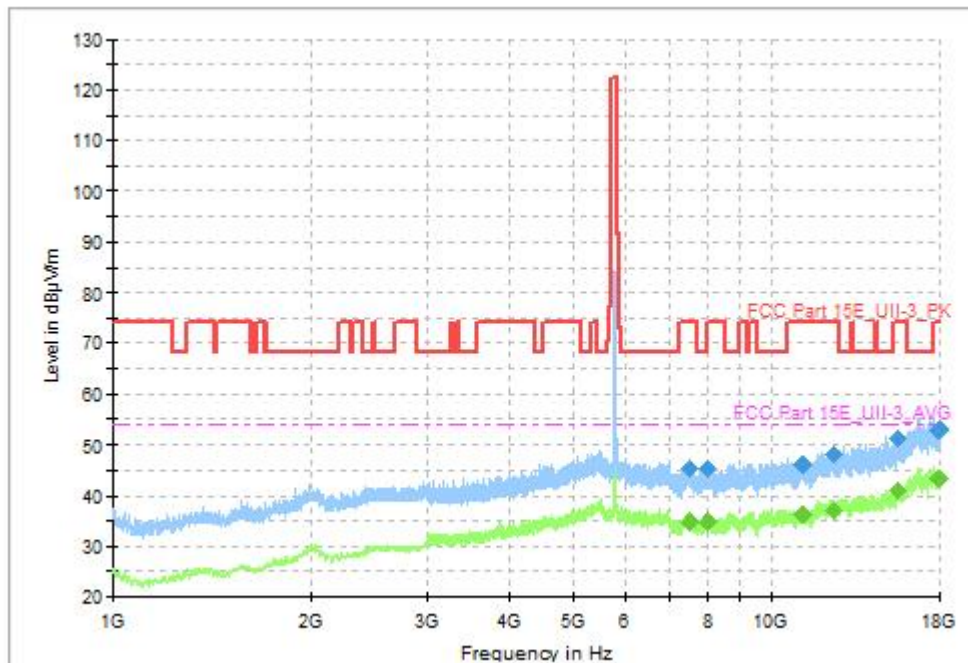


Fig. 28 Transmitter Spurious Emission (802.11n-HT40, CH159 5795MHz, 1GHz-18GHz)

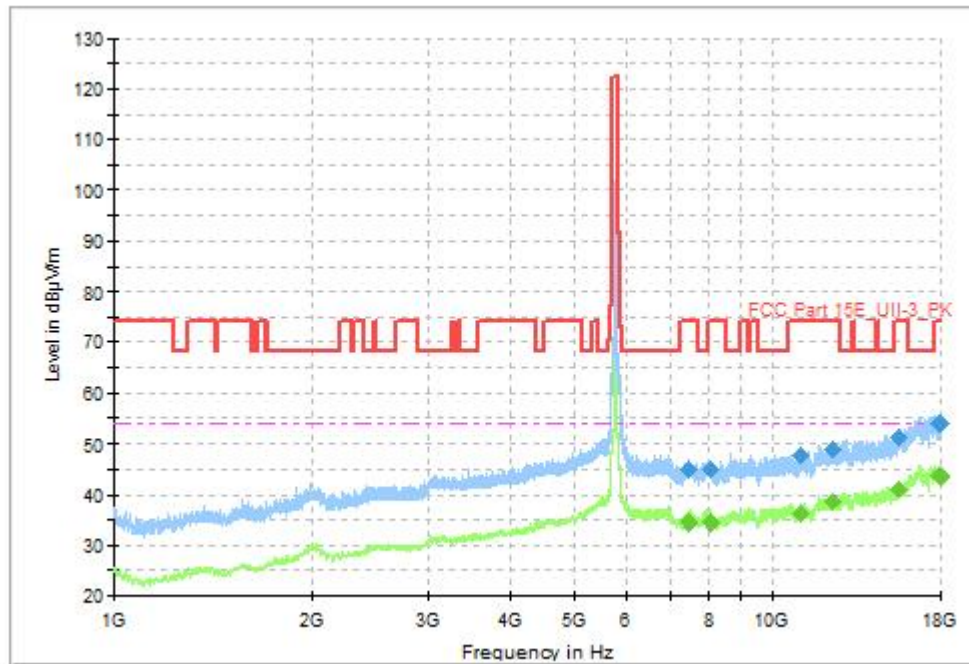


Fig. 29 Transmitter Spurious Emission (802.11ac-VHT80, CH155 5775MHz, 1GHz-18GHz)

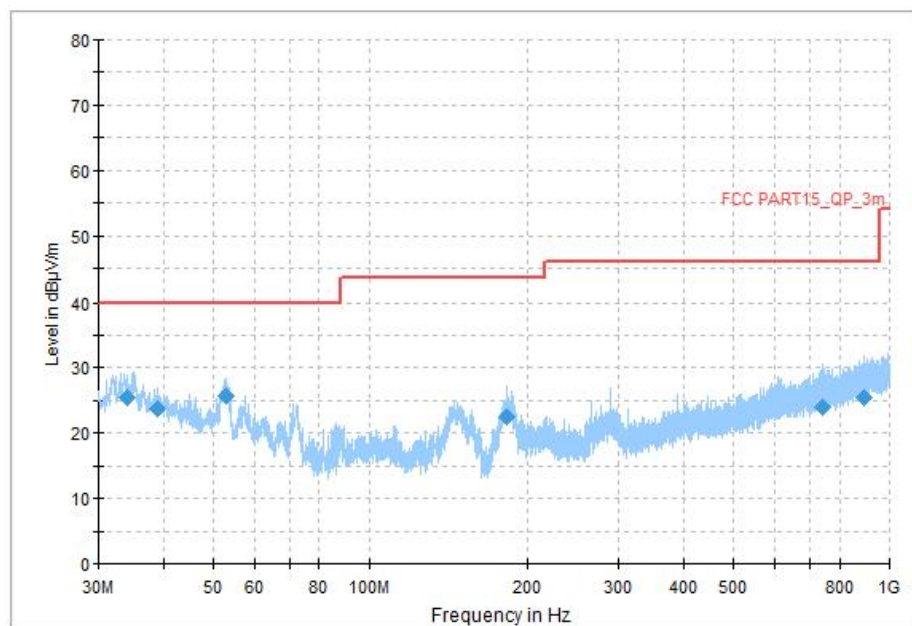


Fig. 30 Transmitter Spurious Emission (All channel, 30MHz~1GHz)

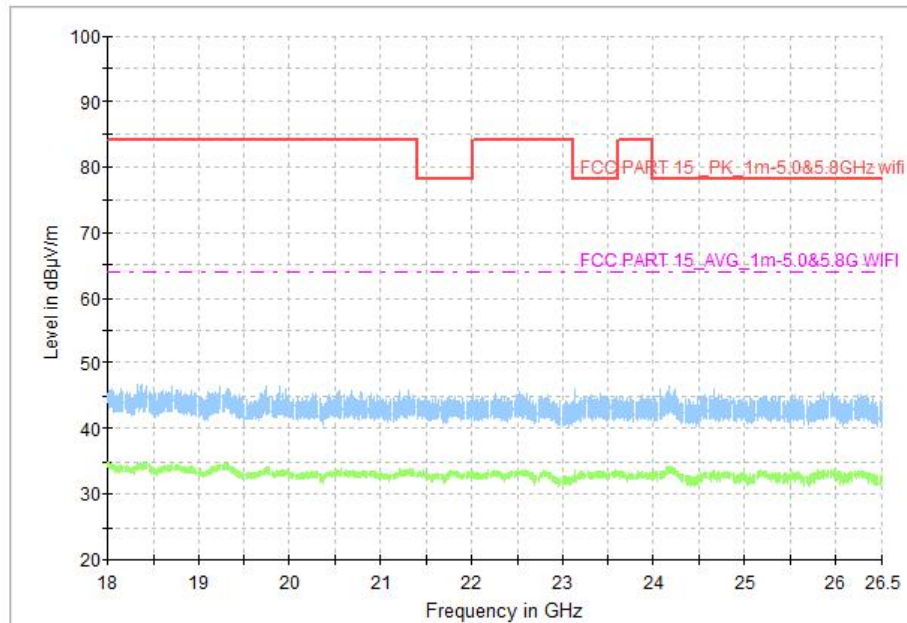


Fig. 31 Transmitter Spurious Emission (All channel, 18GHz~26.5GHz)

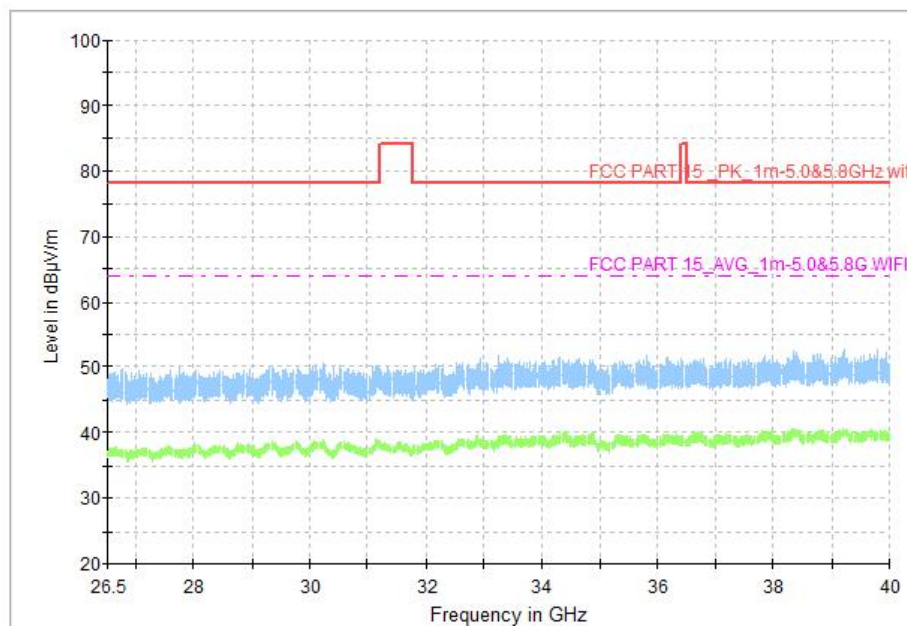


Fig. 32 Transmitter Spurious Emission (All channel, 26.5GHz~40GHz)

A.9. Radiated Spurious Emissions < 30MHz

Method of Measurement: See ANSI C63.10-clause 6.4.

Measurement Limit (15.209, 9kHz-30MHz):

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

The measurement is made according to KDB 789033.

Note: The measurement distance during the test is 3m. The limit used in plots recalculated based on the extrapolation factor of 40 dB/decade.

Measurement Result (Worst case):

Mode	Frequency Range	Test Results	Conclusion
All Channel	9 kHz ~30 MHz	Fig.33	P

See below for test graphs.

Conclusion: PASS

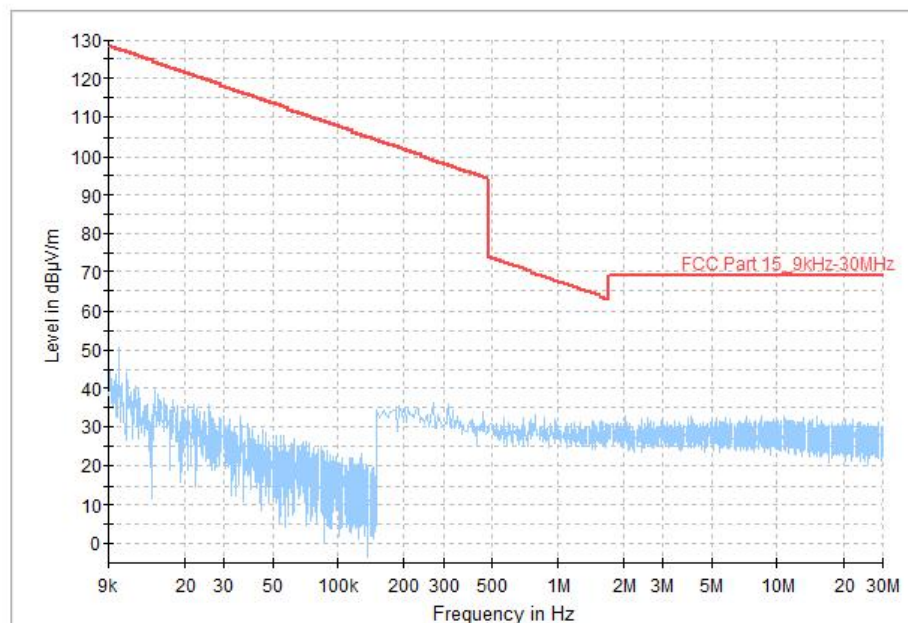


Fig. 33 Radiated Spurious Emission (All Channel, 9 kHz ~30 MHz)

**A.10. AC Power Line Conducted Emission**

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

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average-peak Limit (dBμV)	Result (dBμV)		Conclusion
			Traffic	Idle	
0.15 to 0.5	66 to 56	56 to 46	Fig.34	Fig.35	P
0.5 to 5	56	46			
5 to 30	60	50			

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

Note: The measurement results include the L1 and N measurements.

See below for test graphs.

Conclusion: PASS

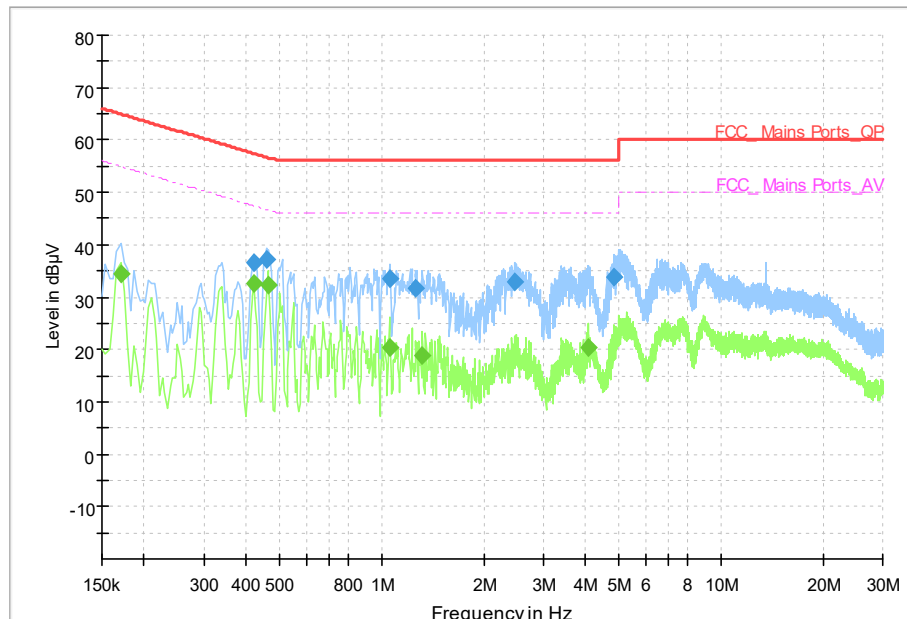


Fig. 34 AC Power line Conducted Emission (Traffic)

Measurement Result: Quasi Peak

Frequency (MHz)	Quasi Peak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.422000	36.47	57.41	20.94	L1	ON	10
0.458000	37.32	56.73	19.41	L1	ON	10
1.062000	33.55	56.00	22.45	L1	ON	10
1.266000	31.62	56.00	24.38	L1	ON	10
2.462000	32.94	56.00	23.06	L1	ON	10
4.846000	33.93	56.00	22.07	L1	ON	10

Measurement Result: Average

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.170000	34.52	54.96	20.44	L1	ON	10
0.422000	32.56	47.41	14.85	L1	ON	10
0.462000	32.17	46.66	14.49	L1	ON	10
1.054000	20.29	46.00	25.71	L1	ON	10
1.322000	18.79	46.00	27.21	L1	ON	10
4.082000	20.33	46.00	25.67	L1	ON	10

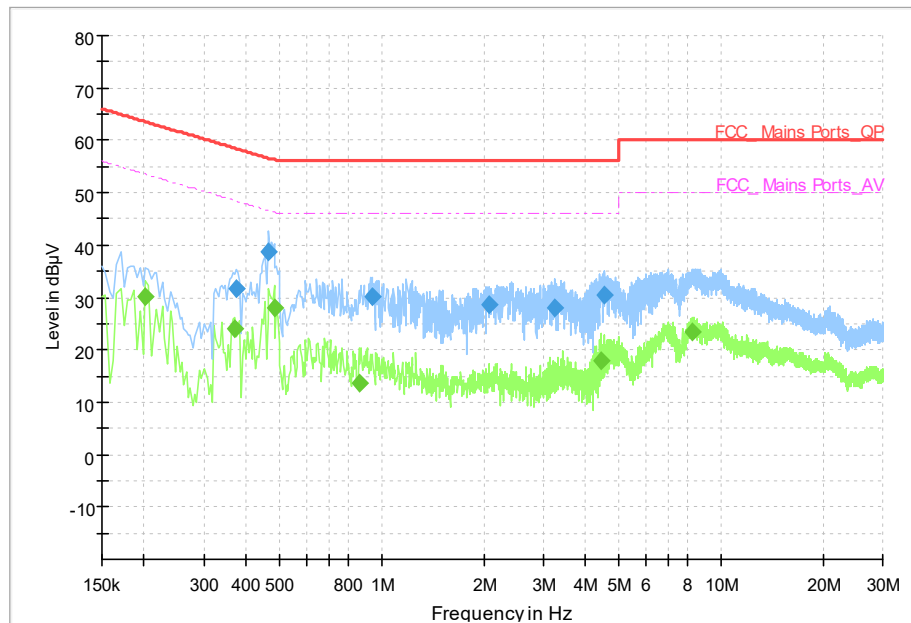


Fig. 35 AC Power line Conducted Emission (Idle)

Measurement Result: Quasi Peak

Frequency (MHz)	Quasi Peak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.374000	31.67	58.41	26.75	N	ON	10
0.466000	38.72	56.59	17.86	N	ON	10
0.938000	30.29	56.00	25.71	L1	ON	10
2.078000	28.75	56.00	27.25	L1	ON	10
3.250000	28.09	56.00	27.91	L1	ON	10
4.530000	30.35	56.00	25.65	L1	ON	10

Measurement Result: Average

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.202000	30.16	53.53	23.36	L1	ON	10
0.370000	24.16	48.50	24.34	N	ON	10
0.482000	28.14	46.31	18.16	L1	ON	10
0.858000	13.70	46.00	32.30	N	ON	10
4.458000	17.93	46.00	28.07	L1	ON	10
8.286000	23.41	50.00	26.59	N	ON	10



A.11. Power control

A Transmission Power Control mechanism is not required for systems with an e.i.r.p. of less than 27dBm (500mW).

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