



FCC PART 15E TEST REPORT No.25T04Z100138-007

for

Xiaomi Communications Co., Ltd.

Tablet Computer

Model Name: 25040RP0AL

FCC ID:2AFZZRP0AL

with

Hardware Version: 135100O84

Software Version: Xiaomi HyperOS 2.1

Issued Date: 2025-03-05

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:

CTTL-Telecommunication Technology Labs, CAICT

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

Tel:+86(0)10-62304633-2512, Fax:+86(0)10-62304633-2504

Email: cttl_terminals@caict.ac.cn, website: www.caict.ac.cn

REPORT HISTORY

Report Number	Revision	Description	Issue Date
25T04Z100138-007	Rev.0	1st edition	2025-03-05

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

CONTENTS

1. TEST LABORATORY	5
1.1. INTRODUCTION & ACCREDITATION	5
1.2. TESTING LOCATION	5
1.3. TESTING ENVIRONMENT	5
1.4. PROJECT DATE	5
1.5. SIGNATURE	5
2. CLIENT INFORMATION	6
2.1. APPLICANT INFORMATION	6
2.2. MANUFACTURER INFORMATION	6
3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE)	7
3.1. ABOUT EUT	7
3.2. INTERNAL IDENTIFICATION OF EUT USED DURING THE TEST	7
3.3. INTERNAL IDENTIFICATION OF AE USED DURING THE TEST	7
3.4. GENERAL DESCRIPTION	7
3.5. INTERPRETATION OF THE TEST ENVIRONMENT	8
4. REFERENCE DOCUMENTS	8
4.1. DOCUMENTS SUPPLIED BY APPLICANT	8
4.2. REFERENCE DOCUMENTS FOR TESTING	8
5. LABORATORY ENVIRONMENT	8
6. TEST RESULTS	9
6.1. SUMMARY OF TEST RESULTS	9
6.2. STATEMENTS	9
6.3. TEST CONDITIONS	9
7. TEST FACILITIES UTILIZED	10
8. MEASUREMENT UNCERTAINTY	11
8.1 TRANSMITTER OUTPUT POWER	11
8.2 PEAK POWER SPECTRAL DENSITY	11
8.3 26dB EMISSION BANDWIDTH	11
8.4 BAND EDGES COMPLIANCE	11
8.5 SPURIOUS EMISSIONS	11
8.6 RADIATED UNWANTED EMISSION	11
8.7 AC POWER-LINE CONDUCTED EMISSION	11
ANNEX A: DETAILED TEST RESULTS	12
A.1. MEASUREMENT METHOD	12
A.2. MAXIMUM OUTPUT POWER	13
A.2.1 ANTENNA GAIN	13

A.2.2 MAXIMUM OUTPUT POWER-CONDUCTED	13
A.3. PEAK POWER SPECTRAL DENSITY (CONDUCTED)	16
A.4. 26dB EMISSION BANDWIDTH (CONDUCTED)	17
A.5. RADIATED UNWANTED EMISSION	30
A.5.1 LIMITS	30
A.5.2 TEST SETUP	31
A.5.3 TEST PROCEDURES	32
A.5.4 CALCULATION	32
A.6. AC POWERLINE CONDUCTED EMISSION (150kHz- 30MHz)	58
A.6.1 SUMMARY	58
A.6.2 METHOD OF MEASUREMENT	58
A.6.3 TEST CONDITION	58
A.6.4 TEST SETUP	59
A.7. 99% OCCUPIED BANDWIDTH	62
A.8. ANTENNA REQUIREMENT	67
A.9. POWER CONTROL	67
ANNEX B: EUT PARAMETERS	67
ANNEX C: ACCREDITATION CERTIFICATE	68

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(huayuan North Road)

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

1.3. Testing Environment

Normal Temperature: 15-35°C

Relative Humidity: 20-75%

1.4. Project date

Testing Start Date: 2025-02-10

Testing End Date: 2025-03-05

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: Xiaomi Communications Co., Ltd.
Address: #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District,
Beijing, China, 100085
Contact Name: Zeng Qingyao
E-mail: mi-compliance@xiaomi.com
Telephone: 010-60606666-8088
Fax: 010-60606666-1101

2.2. Manufacturer Information

Company Name: Xiaomi Communications Co., Ltd.
Address: #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District,
Beijing, China, 100085
Contact Name: Zeng Qingyao
E-mail: mi-compliance@xiaomi.com
Telephone: 010-60606666-8088
Fax: 010-60606666-1101

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

3.1. About EUT

Description	Tablet Computer
Model name	25040RP0AL
FCC ID	2AFZZRP0AL
WLAN Frequency Band	ISM Bands: -5150MHz~5250MHz -5250MHz~5350MHz -5470MHz~5725MHz
Type of modulation	OFDM
Antenna	Integral Antenna
Normal Voltage	3.85V
Extreme High Voltage	4.25V
Extreme Low Voltage	3.6V

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version	Date of receipt
UT08a	/	135100O84	Xiaomi HyperOS 2.1	2025-02-17
UT20a	/	135100O84	Xiaomi HyperOS 2.1	2025-02-10

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

UT08a is used for Conduction test, UT20a is used for Radiation test.

3.3. Internal Identification of AE used during the test

AE ID*	Description
AE1-1	Battery
AE1-2	Battery
AE2-1	Charger1
AE3-1	USB Cable1

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

3.4. General Description

The Equipment under Test (EUT) is a model of Tablet Computer with integrated antenna and inbuilt battery.

It consists of normal options: travel charger, USB cable.

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

Samples undergoing test were selected by the client.

3.5. Interpretation of the Test Environment

For the test methods, the test environment uncertainty figures correspond to an expansion factor $k=2$.

Measurement Uncertainty

Parameter	Uncertainty
temperature	0.48°C
humidity	2 %
DC voltages	0.003V

4. Reference Documents

4.1. Documents supplied by applicant

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

4.2. Reference Documents for testing

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

FCC Part15	Title 47 of the Code of Federal Regulations; Chapter I Part 15 - Radio frequency devices	2021
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

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 Part15E	Sub-clause of IC	Verdict
Maximum Output Power	15.407	/	P
Peak Power Spectral Density	15.407	/	P
26dB Emission Bandwidth	15.403	/	P
Radiated Unwanted Emission	15.407, 15.205, 15.209	/	P
AC Powerline Conducted Emission	15.107, 15.207	/	P
99% Occupied bandwidth	/	/	P
Transmit Power Control	15.407	/	NA

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	FSW67	104051	Rohde & Schwarz	1 year	2025-04-30
2	LISN	ENV216	101200	R&S	1 year	2025-05-16
3	Test Receiver	ESCI	100344	R&S	1 year	2025-04-01
4	Attenuator	10dB/2W	/	Rosenberger	/	/
5	Shielding Room	S81	/	ETS-Lindgren	/	/

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Test Receiver	ESW44	103023	R&S	1 year	2025-06-06
2	EMI Antenna	VULB9163	01222	Schwarzbeck	1 year	2025-09-11
3	EMI Antenna	3115	00167250	ETS-Lindgren	1 year	2025-04-11

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 26dB 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

8.6 Radiated Unwanted Emission

Frequency Range	Uncertainty(dB) (k=2)
9kHz-30MHz	/
$30\text{MHz} \leq f \leq 1\text{GHz}$	4.72
$1\text{GHz} \leq f \leq 18\text{GHz}$	4.84
$18\text{GHz} \leq f \leq 40\text{GHz}$	5.12

8.7 AC Power-line Conducted Emission

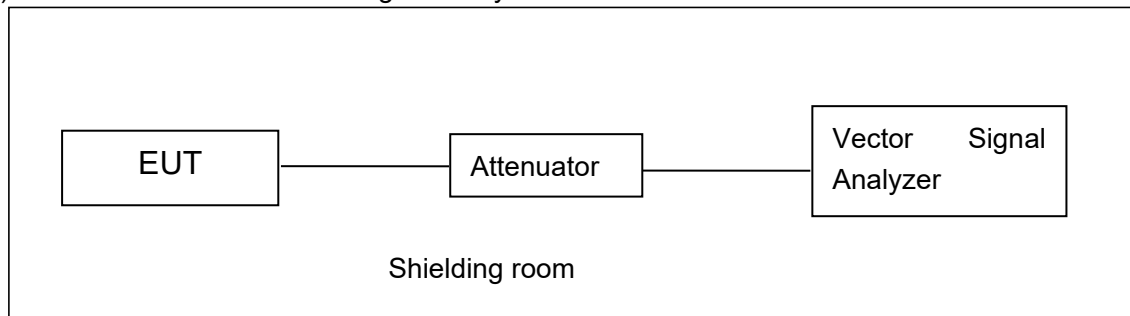
Measurement Uncertainty : 3.08dB,k=2

ANNEX A: Detailed Test 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

Measurement performed according to Clause 6.4, 6.5, 6.6 in ANSI C63.10-2013 and II.G.4, II.G.5, II.G.6 in KDB 789033.

The radiated emission test is performed in semi-anechoic chamber. The EUT was placed on a non-conductive table with 80cm above the ground plane for measurement below 1GHz and 1.5m above the ground plane for measurement above 1GHz. The measurement antenna was placed at a distance of 3 meters from the EUT. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated from 0° to 360° and the measurement antenna is moved from 1m to 4m to get the maximization result. The maximization process was repeated with the EUT positioned in each of its three orthogonal orientations

A.2. Maximum output Power

Measurement Limit and Method:

Standard	Frequency (MHz)	Limit (dBm)
FCC CRF Part 15.407(a)	5150MHz~5250MHz	24dBm
	5250MHz~5350MHz	24dBm or 11+10logB
	5470MHz~5725MHz	24dBm or 11+10logB

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

The measurement method SA-2 is made according to KDB 789033

A.2.1 Antenna Gain

Antenna gain is UNII-1:-2.4dBi、UNII-2A:-2.5dBi、UNII-2C:-2.6dBi and the value is supplied by the applicant or manufacturer.

A.2.2 Maximum output Power-Conducted

EUT ID: UT08a

Measurement Results:

802.11a mode

Mode	Frequency	Test Result (dBm)							
		Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
802.11a	5180MHz	18.05	/	/	/	/	/	/	/
	5200MHz	18.32	/	/	/	/	/	/	/
	5240MHz	18.29	/	/	/	/	/	/	/
	5260MHz	18.33	/	/	/	/	/	/	/
	5280MHz	18.35	/	/	/	/	/	/	/
	5320MHz	18.32	/	/	/	/	/	/	/
	5500MHz	17.13	/	/	/	/	/	/	/
	5580MHz	16.88	/	/	/	/	/	/	/
	5700MHz	15.98	/	/	/	/	/	/	/

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

802.11n-HT20 mode

Mode	Frequency	Test Result (dBm)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT20)	5180MHz	17.14	/	/	/	/	/	/	/
	5200MHz	17.19	/	/	/	/	/	/	/
	5240MHz	17.30	/	/	/	/	/	/	/
	5260MHz	17.34	/	/	/	/	/	/	/
	5280MHz	17.45	/	/	/	/	/	/	/
	5320MHz	17.18	/	/	/	/	/	/	/

	5500MHz	14.47	/	/	/	/	/	/	/
	5580MHz	17.06	/	/	/	/	/	/	/
	5700MHz	14.81	/	/	/	/	/	/	/

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

802.11ac-VHT20 mode

Mode	Frequency	Test Result (dBm)								
		Data Rate								
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
802.11ac (VHT20)	5180MHz	16.94	/	/	/	/	/	/	/	/
	5200MHz	17.02	/	/	/	/	/	/	/	/
	5240MHz	17.31	/	/	/	/	/	/	/	/
	5260MHz	17.23	/	/	/	/	/	/	/	/
	5280MHz	17.36	/	/	/	/	/	/	/	/
	5320MHz	17.28	/	/	/	/	/	/	/	/
	5500MHz	16.58	/	/	/	/	/	/	/	/
	5580MHz	17.07	/	/	/	/	/	/	/	/
	5700MHz	14.73	/	/	/	/	/	/	/	/

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

802.11n-HT40 mode

Mode	Frequency	Test Result (dBm)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT40)	5190MHz	16.03	/	/	/	/	/	/	/
	5230MHz	16.06	/	/	/	/	/	/	/
	5270MHz	16.25	/	/	/	/	/	/	/
	5310MHz	16.15	/	/	/	/	/	/	/
	5510MHz	12.91	/	/	/	/	/	/	/
	5550MHz	16.16	/	/	/	/	/	/	/
	5670MHz	15.82	/	/	/	/	/	/	/

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

802.11ac-VHT40 mode

Mode	Frequency	Test Result (dBm)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
802.11ac (VHT40)	5190MHz	16.05	/	/	/	/	/	/	/	/	/
	5230MHz	16.13	/	/	/	/	/	/	/	/	/
	5270MHz	16.18	/	/	/	/	/	/	/	/	/
	5310MHz	16.11	/	/	/	/	/	/	/	/	/
	5510MHz	14.27	/	/	/	/	/	/	/	/	/
	5550MHz	16.18	/	/	/	/	/	/	/	/	/
	5670MHz	15.86	/	/	/	/	/	/	/	/	/

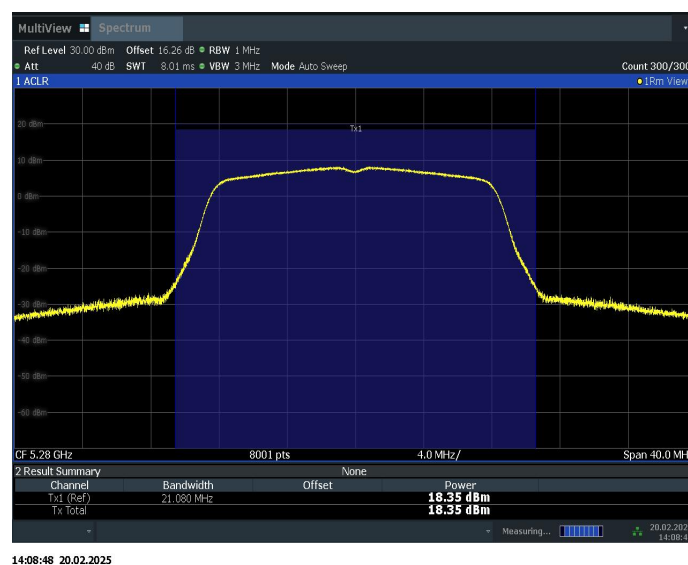
The data rate MCS0 is selected as worst condition, and the following cases are performed with this condition.

802.11ac-VHT80 mode

Mode	Frequency	Test Result (dBm)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
802.11ac (VHT80)	5210MHz	15.03	/	/	/	/	/	/	/	/	/
	5290MHz	15.49	/	/	/	/	/	/	/	/	/
	5530MHz	14.38	/	/	/	/	/	/	/	/	/
	5610MHz	14.90	/	/	/	/	/	/	/	/	/

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

The duty cycle of all mode are 100%



Maximum output Power: 11a CH56

Conclusion: PASS

©Copyright. All rights reserved by CTTL.

A.3. Peak Power Spectral Density (conducted)

Measurement Limit:

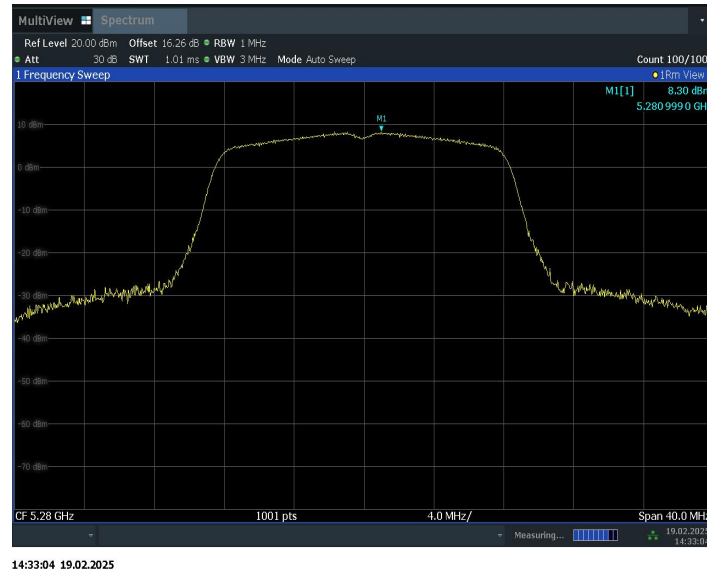
Standard	Frequency (MHz)	Limit (dBm/MHz)
FCC CRF Part 15.407(a)	5150MHz~5250MHz	11
	5250MHz~5350MHz	11
	5470MHz~5725MHz	11

The output power measurement method Section F is made according to KDB 789033

EUT ID: UT08a

Measurement Results:

TestMode	Frequency[MHz]	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	5180	7.87	≤11.00	PASS
	5200	8.13	≤11.00	PASS
	5240	8.27	≤11.00	PASS
	5260	8.04	≤11.00	PASS
	5280	8.30	≤11.00	PASS
	5320	8.05	≤11.00	PASS
	5500	7.08	≤11.00	PASS
	5580	6.39	≤11.00	PASS
	5700	5.88	≤11.00	PASS
11N20SISO	5180	6.60	≤11.00	PASS
	5200	6.90	≤11.00	PASS
	5240	6.89	≤11.00	PASS
	5260	6.93	≤11.00	PASS
	5280	6.88	≤11.00	PASS
	5320	6.71	≤11.00	PASS
	5500	4.58	≤11.00	PASS
	5580	6.62	≤11.00	PASS
	5700	4.43	≤11.00	PASS
11N40SISO	5190	2.88	≤11.00	PASS
	5230	2.84	≤11.00	PASS
	5270	2.94	≤11.00	PASS
	5310	2.98	≤11.00	PASS
	5510	-0.35	≤11.00	PASS
	5550	2.93	≤11.00	PASS
	5670	2.56	≤11.00	PASS
11AC80SISO	5210	-1.40	≤11.00	PASS
	5290	-1.19	≤11.00	PASS
	5530	-2.27	≤11.00	PASS
	5610	-1.53	≤11.00	PASS



Peak Power Spectral Density:11a CH56

Conclusion: PASS

A.4. 26dB Emission Bandwidth (conducted)

Measurement Limit:

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

The measurement is made according to KDB 789033

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz
-------------------------	---------

EUT ID: UT08a

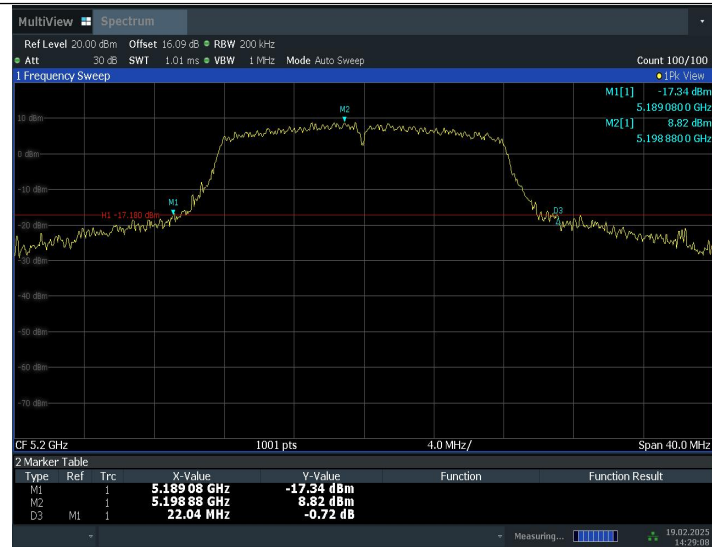
Measurement Result:

TestMode	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	5180	19.96	5169.96	5189.92	---	---
	5200	22.04	5189.08	5211.12	---	---
	5240	23.68	5228.56	5252.24	---	---
	5260	22.96	5249.20	5272.16	---	---
	5280	21.08	5269.28	5290.36	---	---
	5320	21.04	5309.80	5330.84	---	---
	5500	20.28	5489.76	5510.04	---	---
	5580	22.52	5568.44	5590.96	---	---
11N20SISO	5700	20.08	5689.80	5709.88	---	---
	5180	20.48	5169.64	5190.12	---	---
	5200	20.36	5189.84	5210.20	---	---

	5240	21.24	5229.60	5250.84	---	---
	5260	22.04	5249.44	5271.48	---	---
	5280	22.60	5269.60	5292.20	---	---
	5320	21.40	5308.92	5330.32	---	---
	5500	20.36	5489.72	5510.08	---	---
	5580	23.92	5566.72	5590.64	---	---
	5700	20.52	5689.60	5710.12	---	---
11N40SISO	5190	40.72	5169.60	5210.32	---	---
	5230	44.56	5205.92	5250.48	---	---
	5270	41.12	5249.44	5290.56	---	---
	5310	41.12	5289.44	5330.56	---	---
	5510	40.96	5489.36	5530.32	---	---
	5550	40.88	5529.44	5570.32	---	---
	5670	41.36	5649.36	5690.72	---	---
11AC80SISO	5210	81.12	5169.20	5250.32	---	---
	5290	81.76	5249.04	5330.80	---	---
	5530	81.44	5489.04	5570.48	---	---
	5610	81.76	5569.04	5650.80	---	---

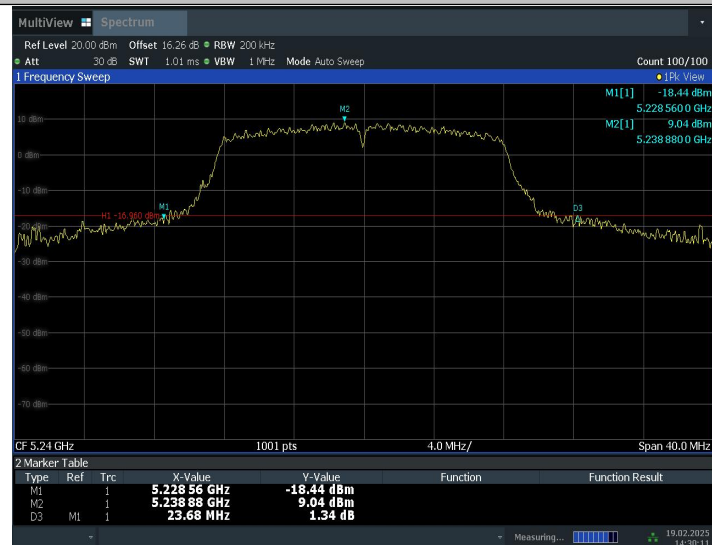
Test graphs as below:





14:29:08 19.02.2025

11A_5240



14:30:11 19.02.2025

11A_5260



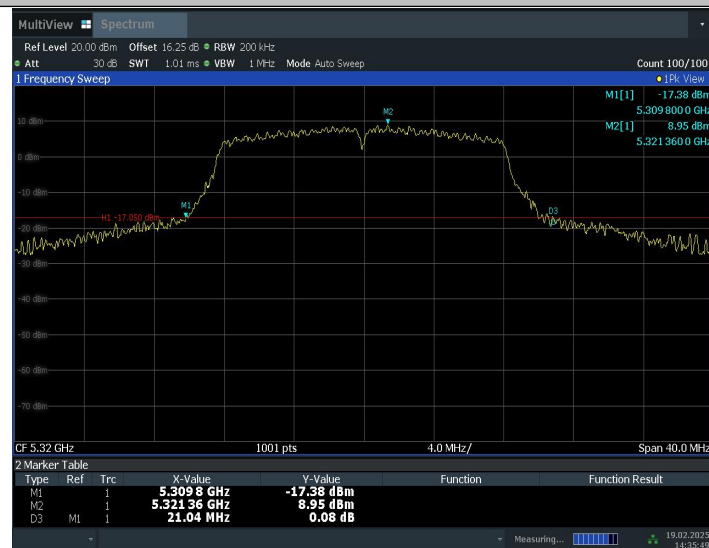
14:31:15 19.02.2025

11A_5280



14:32:22 19.02.2025

11A_5320



14:35:50 19.02.2025

11A_5500



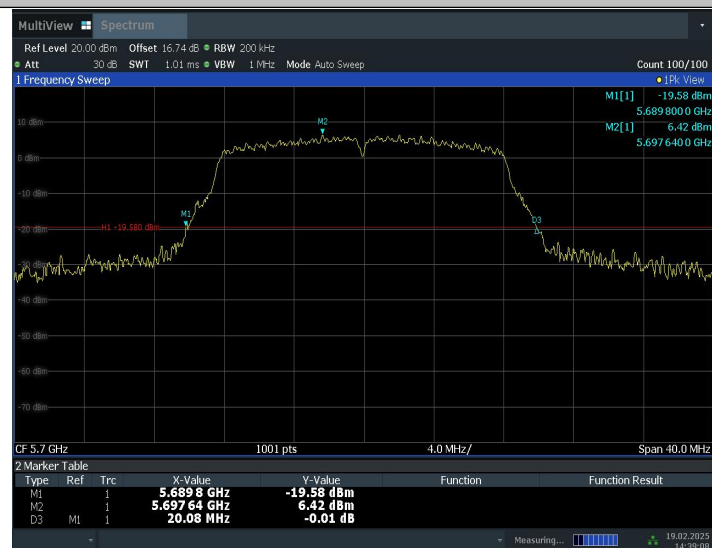
14:36:54 19.02.2025

11A_5580



14:41:17 19.02.2025

11A_5700



14:39:09 19.02.2025

11N20SISO_5180



20:57:19 19.02.2025

11N20SISO_5200



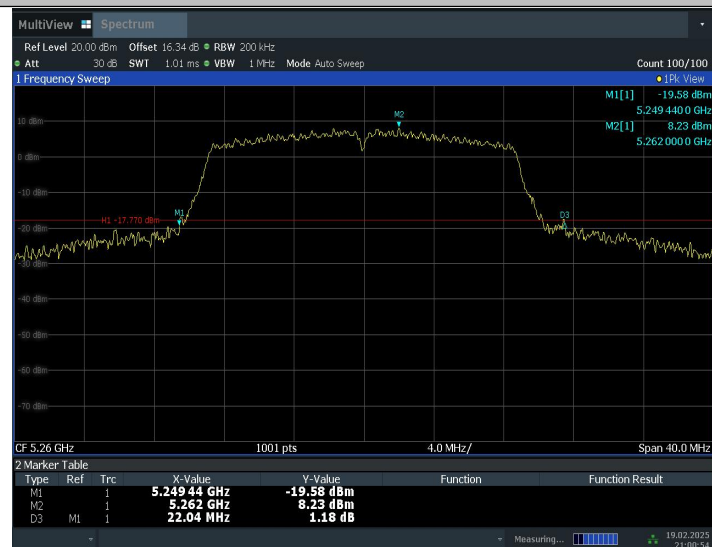
20:58:49 19.02.2025

11N20SISO_5240



20:59:52 19.02.2025

11N20SISO_5260



21:00:55 19.02.2025

11N20SISO_5280



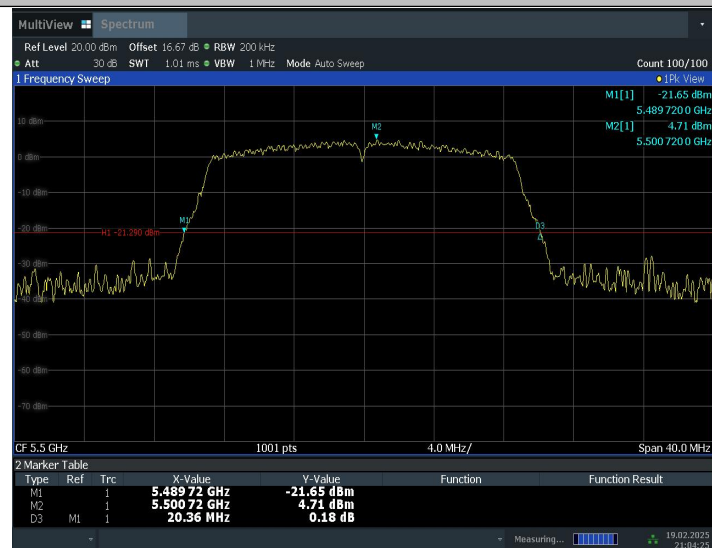
21:02:10 19.02.2025

11N20SISO_5320



21:03:14 19.02.2025

11N20SISO_5500



21:04:26 19.02.2025

11N20SISO_5580



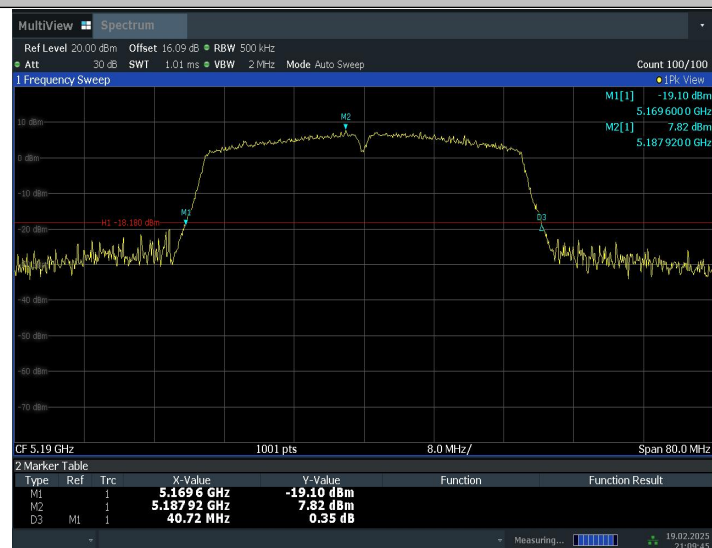
21:05:34 19.02.2025

11N20SISO_5700



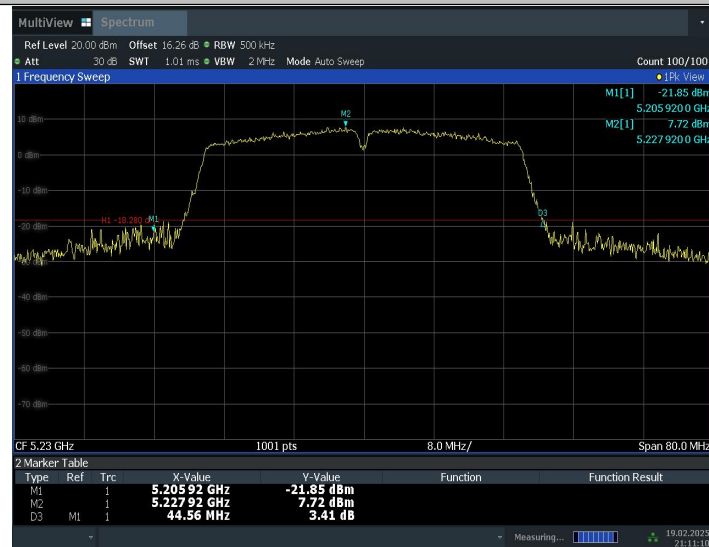
21:06:43 19.02.2025

11N40SISO_5190



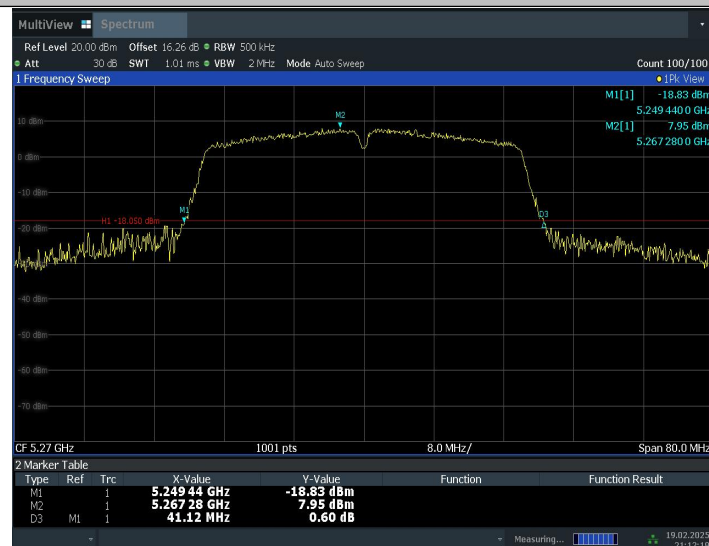
21:09:45 19.02.2025

11N40SISO_5230



21:11:10 19.02.2025

11N40SISO_5270



21:12:19 19.02.2025

11N40SISO_5310



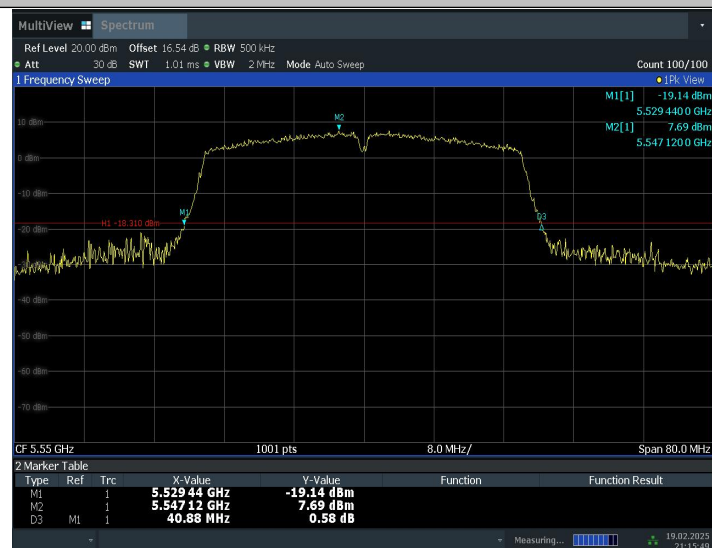
21:13:30 19.02.2025

11N40ISO_5510



21:14:40 19.02.2025

11N40ISO_5550



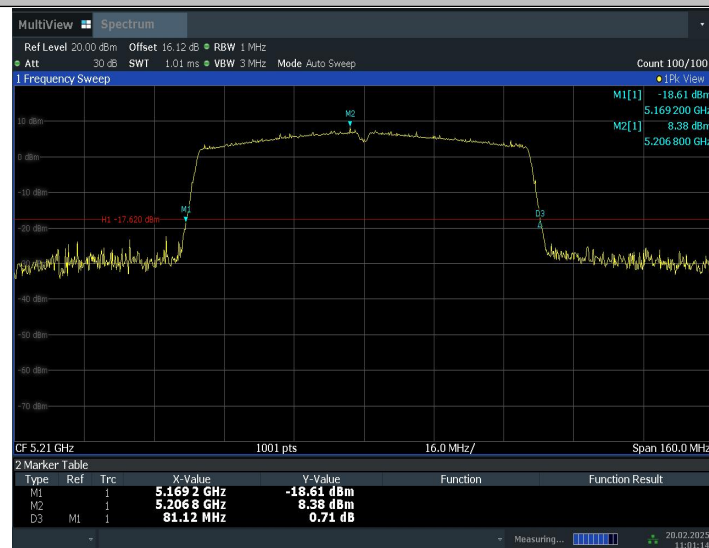
21:15:40 19.02.2025

11N40SISO_5670



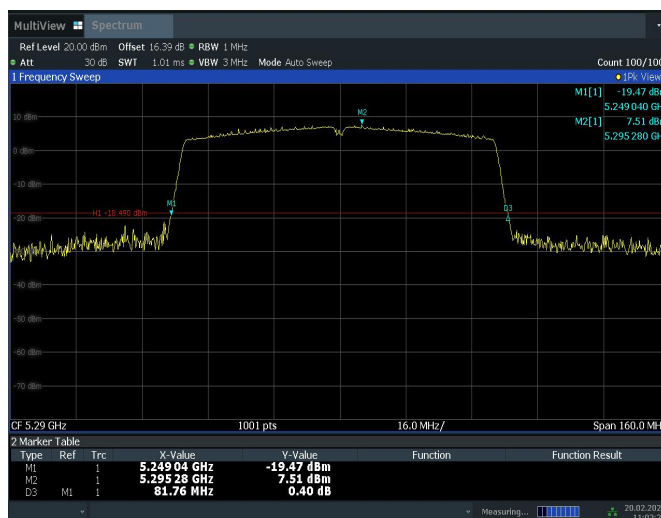
21:17:13 19.02.2025

11AC80SISO_5210



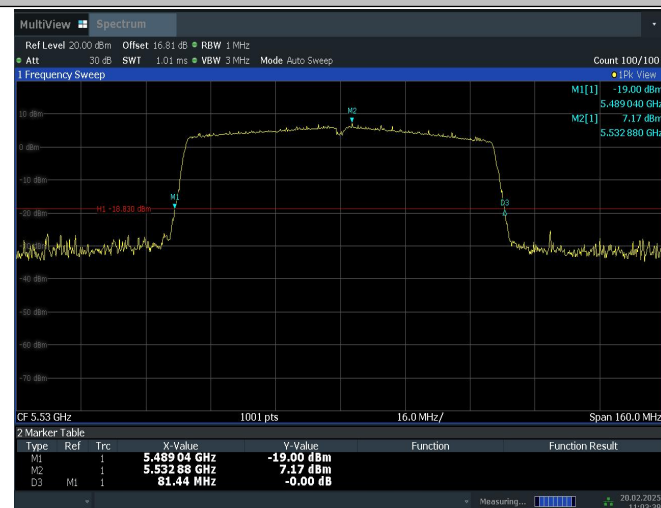
11:01:14 20.02.2025

11AC80SISO_5290



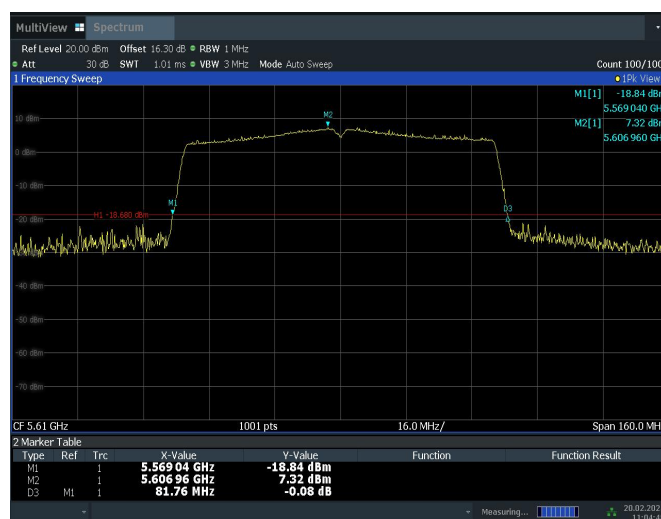
11:02:24 20.02.2025

11AC80SISO_5530



11:03:29 20.02.2025

11AC80SISO_5610



11:04:48 20.02.2025

Conclusion: PASS

A.5. Radiated Unwanted Emission

A.5.1 Limits

Unwanted Emissions in the unrestricted bands shall not exceed the limits that shown in 15.407:

Standard	Limit
FCC 47 CFR Part 15.407	(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz. (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

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))

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

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

Note: When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor (as defined in KDB 789033 II.G.2.d).

A.5.2 Test setup

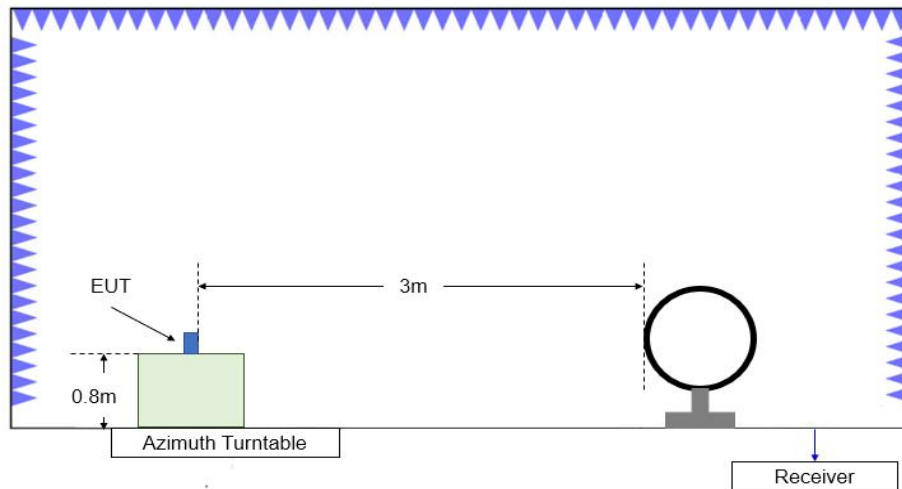


Figure A.5.1. Test Site Diagram (9kHz-30MHz)

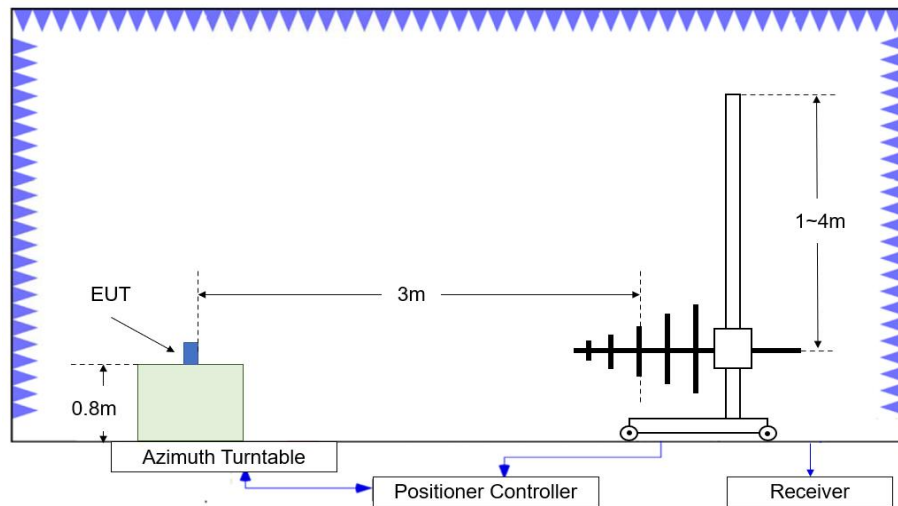


Figure A.5.2. Test Site Diagram (30MHz-1GHz)

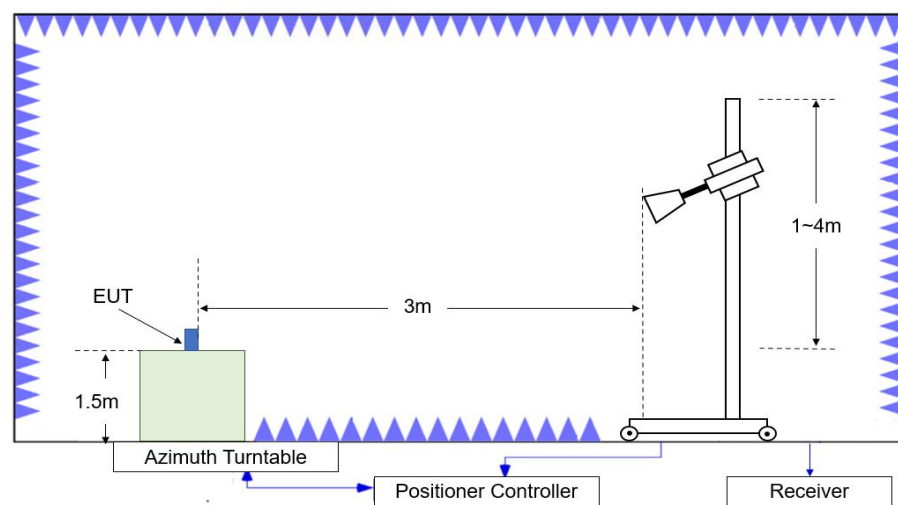


Figure A.5.3. Test Site Diagram (1GHz-40GHz)

A.5.3 Test Procedures

Radiated unwanted emissions from the EUT were measured according to ANSI C63.10 and KDB 789033 D02 v02r01.

Test setting

Frequency of emission (MHz)	RBW/VBW
30-1000	100kHz/300kHz
1000-4000	1MHz/3MHz
4000-18000	1MHz/3MHz
18000-26500	1MHz/3MHz
26500-40000	1MHz/3MHz

A.5.4 Calculation

1. The measurement results reported below is calculated by:

Measurement Results (dB μ V/m) = $P_{\text{measurement}}$ (dB μ V) + Cable Loss(dB) + Antenna Factor (dB/m)

Where: $P_{\text{measurement}}$ is the field strength recorded from the instrument

2. Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:

$$E = \text{EIRP} - 20 \log(D) + 104.77$$

Where:

E is the field strength in dB μ V/m

D is the measurement distance in meters

EIRP is the equivalent isotropically radiated power in dBm

Test note

1. The EUT is operating at its maximum duty cycle and its maximum power control level.
2. Investigation has been done on all modes and modulations/data rates. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.
3. Spurious emissions for all channels were investigated and almost the same below 1GHz. According to FCC 47 CFR §15.31, emission levels are not report much lower than the limit by over 20dB
4. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept.
5. EUT in each of three orthogonal axis emissions had been tested out only the worst case (axis data) recorded in the report.
6. Measurement frequencies were performed from 9 kHz to the 10th harmonic of highest fundamental frequency or 40GHz, whichever is lower.
7. No spurious emissions were detected within 20dB of the limit below 30MHz. OFS and semi-chamber comparison testing had been performed and the result came out very similar. (KDB 414788)

Measurement Results:
Average Results:
802.11a
Channel 36

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)
17921.350	45.24	-25.55	42.30	28.49	54.00	8.76	V
17922.450	45.17	-25.55	42.30	28.42	54.00	8.83	V
14497.050	39.25	-28.78	40.00	28.03	54.00	14.75	H
14484.400	39.07	-28.78	40.00	27.85	54.00	14.93	V
5149.320	44.76	-27.27	32.70	39.33	54.00	9.24	V
5149.060	44.55	-27.27	32.70	39.12	54.00	9.45	V

Channel 64

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)
17917.500	45.28	-25.55	42.30	28.53	54.00	8.72	V
17920.250	45.15	-25.55	42.30	28.40	54.00	8.85	H
13273.850	39.09	-29.75	40.30	28.54	54.00	14.91	H
13284.300	39.06	-29.75	40.30	28.51	54.00	14.94	H
5350.064	48.36	-27.08	33.50	41.94	54.00	5.64	V
5350.832	48.32	-27.08	33.50	41.90	54.00	5.68	V

Channel 100

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)
17914.750	45.25	-25.55	42.30	28.50	54.00	8.75	V
17916.400	45.20	-25.55	42.30	28.45	54.00	8.80	V
13291.450	39.30	-29.75	40.30	28.75	54.00	14.70	H
13289.250	39.24	-29.75	40.30	28.69	54.00	14.76	H
5458.795	42.97	-27.06	33.70	36.33	54.00	11.03	V
5453.005	42.72	-27.06	33.70	36.08	54.00	11.28	V

Channel 140

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)
17932.900	45.51	-25.55	42.30	28.76	54.00	8.49	H
17919.700	45.22	-25.55	42.30	28.47	54.00	8.78	H
13281.550	39.15	-29.75	40.30	28.60	54.00	14.85	H
13286.500	39.15	-29.75	40.30	28.60	54.00	14.85	V
11843.850	37.26	-31.75	38.90	30.11	54.00	16.74	V
11857.600	37.14	-31.75	38.90	29.99	54.00	16.86	V

802.11n-HT20

Channel 36

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)
17923.000	45.19	-25.55	42.30	28.44	54.00	8.81	H
17932.350	45.17	-25.55	42.30	28.42	54.00	8.83	V
14492.650	39.18	-28.78	40.00	27.96	54.00	14.82	V
14499.800	39.18	-28.78	40.00	27.96	54.00	14.82	H
5148.940	44.33	-27.27	32.70	38.90	54.00	9.67	V
5148.660	44.11	-27.27	32.70	38.68	54.00	9.89	V

Channel 64

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)
17925.750	45.82	-25.55	42.30	29.07	54.00	8.18	V
17925.200	45.37	-25.55	42.30	28.62	54.00	8.63	V
14495.400	39.52	-28.78	40.00	28.30	54.00	14.48	V
14483.300	39.04	-28.78	40.00	27.82	54.00	14.96	V
5350.848	47.55	-27.08	33.50	41.13	54.00	6.45	V
5351.264	47.15	-27.08	33.50	40.73	54.00	6.85	V

Channel 100

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)
17952.150	45.29	-25.55	42.30	28.54	54.00	8.71	H
17942.250	45.15	-25.55	42.30	28.40	54.00	8.85	H
13272.750	39.33	-29.75	40.30	28.78	54.00	14.67	H
13277.150	39.13	-29.75	40.30	28.58	54.00	14.87	H
5459.215	42.76	-27.06	33.70	36.12	54.00	11.24	V
5457.865	42.72	-27.06	33.70	36.08	54.00	11.28	V

Channel 140

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)
17918.050	45.39	-25.55	42.30	28.64	54.00	8.61	V
17915.850	45.24	-25.55	42.30	28.49	54.00	8.76	H
14473.400	39.27	-28.78	40.00	28.05	54.00	14.73	V
13284.850	39.26	-29.75	40.30	28.71	54.00	14.74	V
11869.150	37.23	-31.75	38.90	30.08	54.00	16.77	V
11846.050	37.10	-31.75	38.90	29.95	54.00	16.90	V

802.11n-HT40

Channel 38

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)
17914.200	45.17	-25.55	42.30	28.42	54.00	8.83	H
17919.150	45.17	-25.55	42.30	28.42	54.00	8.83	V
14477.800	39.31	-28.78	40.00	28.09	54.00	14.69	V
14484.950	39.24	-28.78	40.00	28.02	54.00	14.76	H
5149.380	45.68	-27.27	32.70	40.25	54.00	8.32	V
5148.560	45.51	-27.27	32.70	40.08	54.00	8.49	V

Channel 62

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)
17913.650	45.33	-25.55	42.30	28.58	54.00	8.67	V
17920.250	45.20	-25.55	42.30	28.45	54.00	8.80	H
13273.850	39.21	-29.75	40.30	28.66	54.00	14.79	V
14486.600	39.18	-28.78	40.00	27.96	54.00	14.82	V
5351.488	48.66	-27.08	33.50	42.24	54.00	5.34	V
5352.640	48.66	-27.08	33.50	42.24	54.00	5.34	V

Channel 102

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)
17927.400	45.33	-25.55	42.30	28.58	54.00	8.67	V
17937.300	45.30	-25.55	42.30	28.55	54.00	8.70	H
14485.500	39.60	-28.78	40.00	28.38	54.00	14.40	H
14489.900	38.96	-28.78	40.00	27.74	54.00	15.04	V
5456.890	42.90	-27.06	33.70	36.26	54.00	11.10	V
5458.525	42.80	-27.06	33.70	36.16	54.00	11.20	V

Channel 134

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)
17915.850	45.37	-25.55	42.30	28.62	54.00	8.63	H
17907.600	45.35	-25.55	42.30	28.60	54.00	8.65	V
13260.650	39.10	-29.75	40.20	28.65	54.00	14.90	V
13265.050	39.07	-29.75	40.20	28.62	54.00	14.93	V
11846.600	37.17	-31.75	38.90	30.02	54.00	16.83	H
11875.200	37.12	-31.75	38.90	29.97	54.00	16.88	V

802.11ac-HT20

Channel 36

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)
17923.000	45.57	-25.55	42.30	28.82	54.00	8.43	V
17913.650	45.28	-25.55	42.30	28.53	54.00	8.72	H
14494.300	39.35	-28.78	40.00	28.13	54.00	14.65	V
13282.100	39.09	-29.75	40.30	28.54	54.00	14.91	H
5148.980	44.15	-27.27	32.70	38.72	54.00	9.85	V
5149.880	44.13	-27.27	32.70	38.70	54.00	9.87	V

Channel 64

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)
17923.550	45.12	-25.55	42.30	28.37	54.00	8.88	H
17924.100	45.10	-25.55	42.30	28.35	54.00	8.90	H
13261.200	39.23	-29.75	40.20	28.78	54.00	14.77	V
13257.350	39.21	-29.75	40.20	28.76	54.00	14.79	V
5350.096	46.18	-27.08	33.50	39.76	54.00	7.82	V
5351.360	45.81	-27.08	33.50	39.39	54.00	8.19	V

Channel 100

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)
17916.400	45.49	-25.55	42.30	28.74	54.00	8.51	V
17915.300	45.35	-25.55	42.30	28.60	54.00	8.65	H
14497.050	39.20	-28.78	40.00	27.98	54.00	14.80	V
13279.350	39.16	-29.75	40.30	28.61	54.00	14.84	H
5456.815	43.31	-27.06	33.70	36.67	54.00	10.69	V
5458.870	43.25	-27.06	33.70	36.61	54.00	10.75	V

Channel 140

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)
17927.950	45.29	-25.55	42.30	28.54	54.00	8.71	H
17914.750	45.17	-25.55	42.30	28.42	54.00	8.83	V
14495.400	39.04	-28.78	40.00	27.82	54.00	14.96	H
13264.500	39.00	-29.75	40.20	28.55	54.00	15.00	H
11859.800	37.30	-31.75	38.90	30.15	54.00	16.70	V
11761.350	37.26	-31.84	38.90	30.20	54.00	16.74	V

802.11ac-HT40

Channel 38

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)
17918.600	45.11	-25.55	42.30	28.36	54.00	8.89	H
17928.500	45.08	-25.55	42.30	28.33	54.00	8.92	V
14498.700	39.07	-28.78	40.00	27.85	54.00	14.93	V
13289.800	39.06	-29.75	40.30	28.51	54.00	14.94	V
5149.480	48.22	-27.27	32.70	42.79	54.00	5.78	V
5149.580	48.00	-27.27	32.70	42.57	54.00	6.00	V

Channel 62

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)
17906.500	45.64	-25.55	42.30	28.89	54.00	8.36	V
17920.800	45.22	-25.55	42.30	28.47	54.00	8.78	V
13260.100	39.10	-29.75	40.20	28.65	54.00	14.90	V
13285.400	39.10	-29.75	40.30	28.55	54.00	14.90	H
5353.904	48.28	-27.08	33.50	41.86	54.00	5.72	V
5351.808	47.57	-27.08	33.50	41.15	54.00	6.43	V

Channel 102

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)
17917.500	45.58	-25.55	42.30	28.83	54.00	8.42	V
17933.450	45.26	-25.55	42.30	28.51	54.00	8.74	V
14494.300	39.12	-28.78	40.00	27.90	54.00	14.88	H
13274.400	39.08	-29.75	40.30	28.53	54.00	14.92	H
5459.665	43.77	-27.06	33.70	37.13	54.00	10.23	V
5459.845	43.33	-27.06	33.70	36.69	54.00	10.67	V

Channel 134

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)
17931.250	45.31	-25.55	42.30	28.56	54.00	8.69	H
17932.900	45.23	-25.55	42.30	28.48	54.00	8.77	V
13288.700	39.07	-29.75	40.30	28.52	54.00	14.93	V
13297.500	39.07	-29.75	40.30	28.52	54.00	14.93	V
11837.250	37.12	-31.75	38.90	29.97	54.00	16.88	H
11832.300	37.08	-31.75	38.90	29.93	54.00	16.92	V

802.11ac-HT80

Channel 42

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)
17910.900	45.26	-25.55	42.30	28.51	54.00	8.74	H
17919.700	45.23	-25.55	42.30	28.48	54.00	8.77	V
14499.250	39.13	-28.78	40.00	27.91	54.00	14.87	H
14492.100	39.07	-28.78	40.00	27.85	54.00	14.93	H
5149.860	50.97	-27.27	32.70	45.54	54.00	3.03	V
5149.580	50.95	-27.27	32.70	45.52	54.00	3.05	V

Channel 58

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)
17934.000	45.34	-25.55	42.30	28.59	54.00	8.66	V
17931.250	45.19	-25.55	42.30	28.44	54.00	8.81	H
13256.250	39.28	-29.75	40.20	28.83	54.00	14.72	V
14493.200	39.22	-28.78	40.00	28.00	54.00	14.78	H
5351.216	50.06	-27.08	33.50	43.64	54.00	3.94	V
5350.400	50.01	-27.08	33.50	43.59	54.00	3.99	V

Channel 106

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)
17914.200	45.49	-25.55	42.30	28.74	54.00	8.51	H
17913.650	45.39	-25.55	42.30	28.64	54.00	8.61	V
13274.950	39.43	-29.75	40.30	28.88	54.00	14.57	H
13293.650	39.06	-29.75	40.30	28.51	54.00	14.94	V
5454.475	45.31	-27.06	33.70	38.67	54.00	8.69	V
5457.490	45.22	-27.06	33.70	38.58	54.00	8.78	V

Channel 122

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)
17916.400	45.33	-25.55	42.30	28.58	54.00	8.67	H
17935.100	45.27	-25.55	42.30	28.52	54.00	8.73	V
13274.400	39.34	-29.75	40.30	28.79	54.00	14.66	H
14489.350	39.09	-28.78	40.00	27.87	54.00	14.91	H
11787.200	37.58	-31.84	38.90	30.52	54.00	16.42	V
11858.150	37.10	-31.75	38.90	29.95	54.00	16.90	V

PEAK Results:
802.11a
Channel 36

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)
17919.150	57.15	-25.55	42.30	40.40	74.00	16.85	H
17901.000	55.97	-25.55	42.30	39.22	74.00	18.03	V
14101.600	52.30	-28.98	40.50	40.78	68.20	15.90	H
13862.350	51.92	-29.33	40.90	40.35	68.20	16.28	H
5147.620	62.86	-27.34	32.70	57.50	74.00	11.14	V
5144.340	62.30	-27.34	32.70	56.94	74.00	11.70	V

Channel 64

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)
17929.600	55.90	-25.55	42.30	39.15	74.00	18.10	H
17928.500	55.84	-25.55	42.30	39.09	74.00	18.16	H
13742.450	52.69	-29.41	40.70	41.40	68.20	15.51	V
14142.300	52.15	-28.86	40.50	40.51	68.20	16.05	V
5352.480	67.66	-27.08	33.50	61.24	74.00	6.34	V
5353.056	67.14	-27.08	33.50	60.72	74.00	6.86	V

Channel 100

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)
17936.750	56.86	-25.55	42.30	40.11	74.00	17.14	H
17890.000	56.01	-25.55	42.30	39.26	74.00	17.99	H
14136.250	52.08	-28.86	40.50	40.44	68.20	16.12	V
14222.600	51.69	-28.86	40.40	40.15	68.20	16.51	V
5449.735	58.33	-27.06	33.70	51.69	74.00	15.67	V
5469.790	63.52	-27.06	33.70	56.88	68.20	4.68	V

Channel 140

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)
17810.800	56.07	-25.55	42.30	39.32	74.00	17.93	H
17399.950	55.78	-26.50	42.10	40.18	68.20	12.42	V
14064.750	51.87	-28.98	40.50	40.35	68.20	16.33	V
14162.650	51.85	-28.86	40.40	40.31	68.20	16.35	V
5725.215	64.48	-26.90	33.90	57.48	68.20	3.72	V
5726.002	64.34	-26.90	33.90	57.34	68.20	3.86	V

802.11n-HT20

Channel 36

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)
17917.500	56.20	-25.55	42.30	39.45	74.00	17.80	V
17960.950	55.99	-25.55	42.30	39.24	74.00	18.01	V
13703.400	51.74	-29.88	40.70	40.92	68.20	16.46	V
14156.600	51.56	-28.86	40.50	39.92	68.20	16.64	H
5150.000	66.95	-27.27	32.70	61.52	74.00	7.05	V
5149.460	66.23	-27.27	32.70	60.80	74.00	7.77	V

Channel 64

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)
17914.750	56.06	-25.55	42.30	39.31	74.00	17.94	V
17925.200	56.02	-25.55	42.30	39.27	74.00	17.98	V
14131.300	52.09	-28.86	40.50	40.45	68.20	16.11	H
14147.800	51.66	-28.86	40.50	40.02	68.20	16.54	H
5350.256	66.55	-27.08	33.50	60.13	74.00	7.45	V
5351.120	66.54	-27.08	33.50	60.12	74.00	7.46	V

Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17962.600	56.23	-25.55	42.30	39.48	74.00	17.77	V
17905.950	56.01	-25.55	42.30	39.26	74.00	17.99	V
13738.600	51.82	-29.41	40.70	40.53	68.20	16.38	V
14124.150	51.81	-28.86	40.50	40.17	68.20	16.39	V
5459.755	59.66	-27.06	33.70	53.02	74.00	14.34	V
5466.175	61.57	-27.06	33.70	54.93	68.20	6.63	V

Channel 140

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)
17914.200	56.83	-25.55	42.30	40.08	74.00	17.17	V
17933.450	56.18	-25.55	42.30	39.43	74.00	17.82	V
14180.250	52.02	-28.86	40.40	40.48	68.20	16.18	V
13269.450	51.88	-29.75	40.30	41.33	74.00	22.12	V
5725.233	63.08	-26.90	33.90	56.08	68.20	5.12	V
5725.023	62.62	-26.90	33.90	55.62	68.20	5.58	V

802.11n-HT40

Channel 38

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)
17914.200	56.17	-25.55	42.30	39.42	74.00	17.83	H
17840.500	56.00	-25.55	42.30	39.25	74.00	18.00	V
14140.100	51.94	-28.86	40.50	40.30	68.20	16.26	V
14223.700	51.81	-28.86	40.40	40.27	68.20	16.39	V
5148.780	64.80	-27.27	32.70	59.37	74.00	9.20	V
5149.880	64.67	-27.27	32.70	59.24	74.00	9.33	V

Channel 62

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)
17924.100	56.74	-25.55	42.30	39.99	74.00	17.26	V
17932.350	56.52	-25.55	42.30	39.77	74.00	17.48	V
14108.750	51.82	-28.98	40.50	40.30	68.20	16.38	H
14113.150	51.71	-28.86	40.50	40.07	68.20	16.49	V
5350.016	69.58	-27.08	33.50	63.16	74.00	4.42	V
5350.224	69.51	-27.08	33.50	63.09	74.00	4.49	V

Channel 102

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)
17920.250	56.34	-25.55	42.30	39.59	74.00	17.66	H
17936.200	56.24	-25.55	42.30	39.49	74.00	17.76	V
13709.450	52.18	-29.88	40.70	41.36	68.20	16.02	H
14153.850	51.88	-28.86	40.50	40.24	68.20	16.32	V
5449.510	58.39	-27.06	33.70	51.75	74.00	15.61	V
5469.775	61.58	-27.06	33.70	54.94	68.20	6.62	V

Channel 134

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)
17905.400	56.66	-25.55	42.30	39.91	74.00	17.34	V
17903.750	56.04	-25.55	42.30	39.29	74.00	17.96	V
14123.050	52.41	-28.86	40.50	40.77	68.20	15.79	H
13699.550	52.14	-29.88	40.70	41.32	68.20	16.06	H
5741.052	63.02	-26.90	33.90	56.02	68.20	5.18	V
5742.733	62.67	-27.01	34.30	55.38	68.20	5.53	V

802.11ac-HT20

Channel 36

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)
17880.100	56.27	-25.55	42.30	39.52	74.00	17.73	V
17917.500	56.02	-25.55	42.30	39.27	74.00	17.98	H
13699.550	51.72	-29.88	40.70	40.90	68.20	16.48	V
13746.850	51.71	-29.41	40.70	40.42	68.20	16.49	V
5148.620	62.49	-27.27	32.70	57.06	74.00	11.51	V
5148.700	61.03	-27.27	32.70	55.60	74.00	12.97	V

Channel 64

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)
17948.300	56.02	-25.55	42.30	39.27	74.00	17.98	V
17898.800	55.82	-25.55	42.30	39.07	74.00	18.18	V
14121.400	51.89	-28.86	40.50	40.25	68.20	16.31	V
13700.100	51.69	-29.88	40.70	40.87	68.20	16.51	H
5350.992	65.69	-27.08	33.50	59.27	74.00	8.31	V
5352.416	65.39	-27.08	33.50	58.97	74.00	8.61	V

Channel 100

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17898.250	56.10	-25.55	42.30	39.35	74.00	17.90	V
17924.650	56.00	-25.55	42.30	39.25	74.00	18.00	H
13688.550	51.73	-29.88	40.70	40.91	68.20	16.47	H
14142.300	51.54	-28.86	40.50	39.90	68.20	16.66	H
5455.750	58.87	-27.06	33.70	52.23	74.00	15.13	V
5466.985	64.48	-27.06	33.70	57.84	68.20	3.72	V

Channel 140

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)
17903.750	55.96	-25.55	42.30	39.21	74.00	18.04	H
17958.750	55.82	-25.55	42.30	39.07	74.00	18.18	H
14029.550	51.75	-28.98	40.70	40.03	68.20	16.45	H
14093.900	51.58	-28.98	40.50	40.06	68.20	16.62	V
5729.275	64.43	-26.90	33.90	57.43	68.20	3.77	V
5725.845	63.47	-26.90	33.90	56.47	68.20	4.73	H

802.11ac-HT40

Channel 38

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)
17897.150	56.09	-25.55	42.30	39.34	74.00	17.91	H
17923.550	55.86	-25.55	42.30	39.11	74.00	18.14	V
14076.850	51.94	-28.98	40.50	40.42	68.20	16.26	V
13653.900	51.87	-29.88	40.60	41.15	68.20	16.33	H
5145.980	68.71	-27.34	32.70	63.35	74.00	5.29	V
5146.860	64.38	-27.34	32.70	59.02	74.00	9.62	V

Channel 62

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)
17934.550	55.78	-25.55	42.30	39.03	74.00	18.22	H
17833.900	55.76	-25.55	42.30	39.01	74.00	18.24	V
13622.000	52.16	-29.88	40.60	41.44	68.20	16.04	V
13706.150	51.87	-29.88	40.70	41.05	68.20	16.33	V
5351.008	69.11	-27.08	33.50	62.69	74.00	4.89	V
5352.896	67.69	-27.08	33.50	61.27	74.00	6.31	V

Channel 102

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)
17947.200	56.65	-25.55	42.30	39.90	74.00	17.35	V
17912.000	56.14	-25.55	42.30	39.39	74.00	17.86	H
14085.650	51.77	-28.98	40.50	40.25	68.20	16.43	H
14194.550	51.52	-28.86	40.40	39.98	68.20	16.68	H
5456.530	60.24	-27.06	33.70	53.60	74.00	13.76	V
5469.160	62.42	-27.06	33.70	55.78	68.20	5.78	V

Channel 134

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)
17902.100	56.62	-25.55	42.30	39.87	74.00	17.38	H
17855.900	55.98	-25.55	42.30	39.23	74.00	18.02	H
13751.800	51.76	-29.41	40.70	40.47	68.20	16.44	V
14128.550	51.60	-28.86	40.50	39.96	68.20	16.60	H
5728.715	62.84	-26.90	33.90	55.84	68.20	5.36	V
5729.852	61.99	-26.90	33.90	54.99	68.20	6.21	V

802.11ac-HT80

Channel 42

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)
17918.050	56.55	-25.55	42.30	39.80	74.00	17.45	V
17974.700	56.41	-25.55	42.30	39.66	74.00	17.59	H
13708.900	51.88	-29.88	40.70	41.06	68.20	16.32	H
14221.500	51.81	-28.86	40.40	40.27	68.20	16.39	H
5148.200	64.95	-27.34	32.70	59.59	74.00	9.05	V
5139.560	64.59	-27.34	32.70	59.23	74.00	9.41	V

Channel 58

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)
17918.050	56.69	-25.55	42.30	39.94	74.00	17.31	V
17923.550	56.10	-25.55	42.30	39.35	74.00	17.90	H
13590.100	52.10	-29.88	40.60	41.38	68.20	16.10	H
13728.700	51.81	-29.41	40.70	40.52	68.20	16.39	H
5353.616	66.92	-27.08	33.50	60.50	74.00	7.08	V
5354.304	66.79	-27.08	33.50	60.37	74.00	7.21	V

Channel 106

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)
17890.000	56.55	-25.55	42.30	39.80	74.00	17.45	H
17936.750	56.30	-25.55	42.30	39.55	74.00	17.70	V
14242.950	51.83	-28.86	40.40	40.29	68.20	16.37	H
14130.200	51.44	-28.86	40.50	39.80	68.20	16.76	V
5458.060	62.96	-27.06	33.70	56.32	74.00	11.04	V
5468.005	65.03	-27.06	33.70	58.39	68.20	3.17	V

Channel 122

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)
17939.500	56.91	-25.55	42.30	40.16	74.00	17.09	H
17904.300	55.91	-25.55	42.30	39.16	74.00	18.09	H
14111.500	52.23	-28.86	40.50	40.59	68.20	15.97	V
14031.200	51.81	-28.98	40.70	40.09	68.20	16.39	H
5733.055	59.49	-26.90	33.90	52.49	68.20	8.71	V
5732.547	59.29	-26.90	33.90	52.29	68.20	8.91	V

Conclusion: PASS

Band edge compliance

Mode	Channel	Test Results	Conclusion
802.11a	5180 MHz	Fig.1	P
	5320 MHz	Fig.2	P
	5500 MHz	Fig.3	P
	5700 MHz	Fig.4	P
802.11n HT20	5180 MHz	Fig.5	P
	5320 MHz	Fig.6	P
	5500 MHz	Fig.7	P
	5700 MHz	Fig.8	P
802.11n HT40	5190 MHz	Fig.9	P
	5310 MHz	Fig.10	P
	5510 MHz	Fig.11	P
	5670 MHz	Fig.12	P
802.11ac HT20	5180 MHz	Fig.13	P
	5320 MHz	Fig.14	P
	5500 MHz	Fig.15	P
	5700 MHz	Fig.16	P
802.11ac HT40	5190 MHz	Fig.17	P
	5310 MHz	Fig.18	P
	5510 MHz	Fig.19	P
	5670 MHz	Fig.20	P
802.11ac HT80	5210MHz	Fig.21	P
	5290MHz	Fig.22	P
	5530MHz	Fig.23	P
	5610MHz	Fig.24	P

Conclusion: PASS

Test graphs as below:

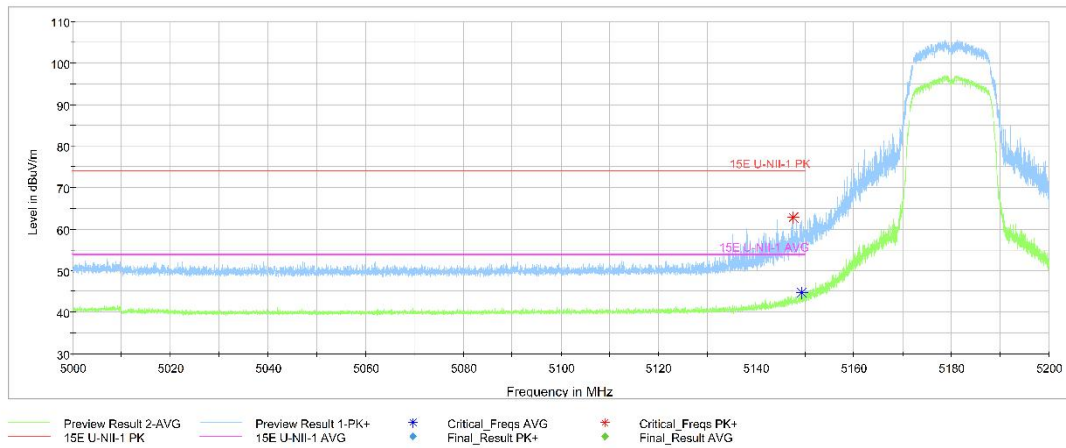


Fig. 1 Band Edges (802.11a Ch36, 5180MHz)

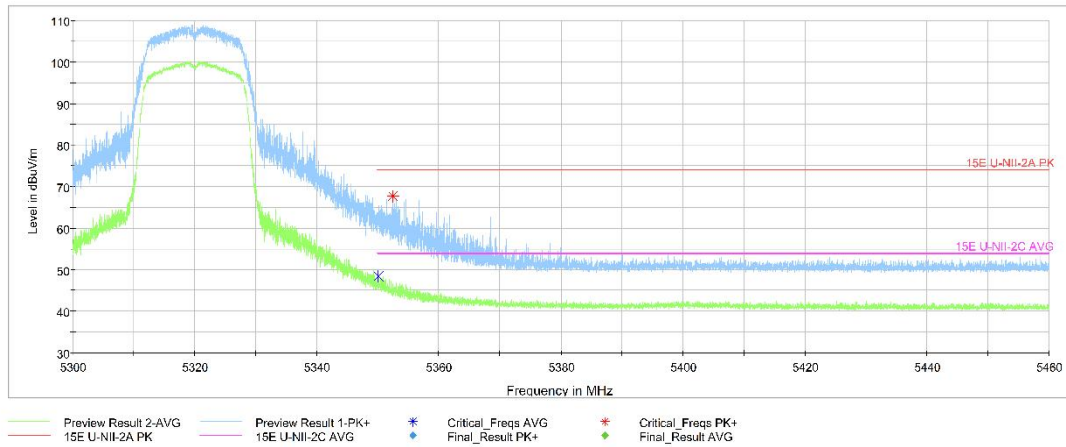


Fig. 2 Band Edges (802.11a Ch64, 5320MHz)

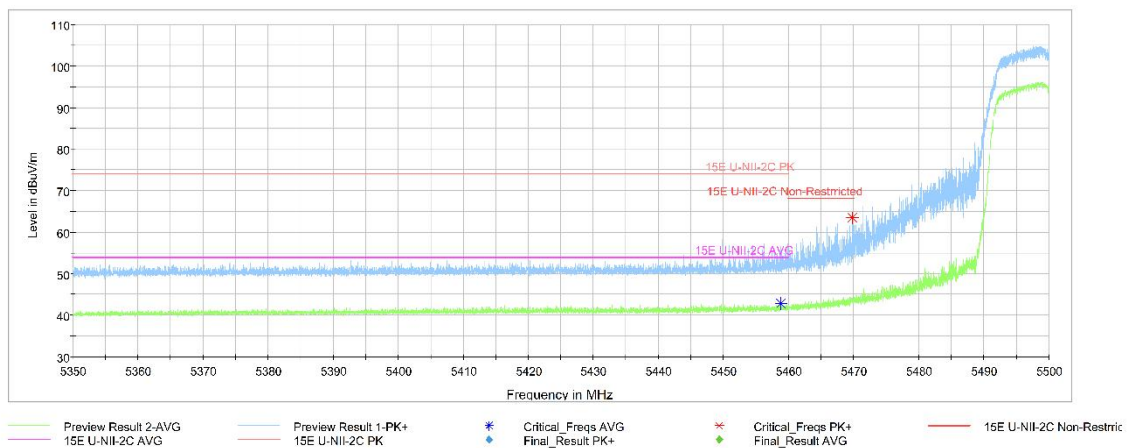


Fig. 3 Band Edges (802.11a Ch100, 5500MHz)

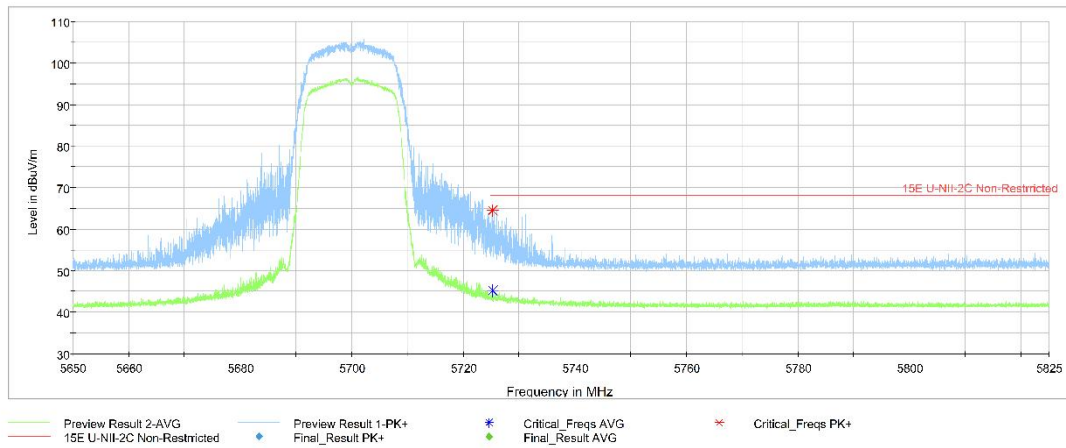


Fig. 4 Band Edges (802.11a Ch140, 5700MHz)

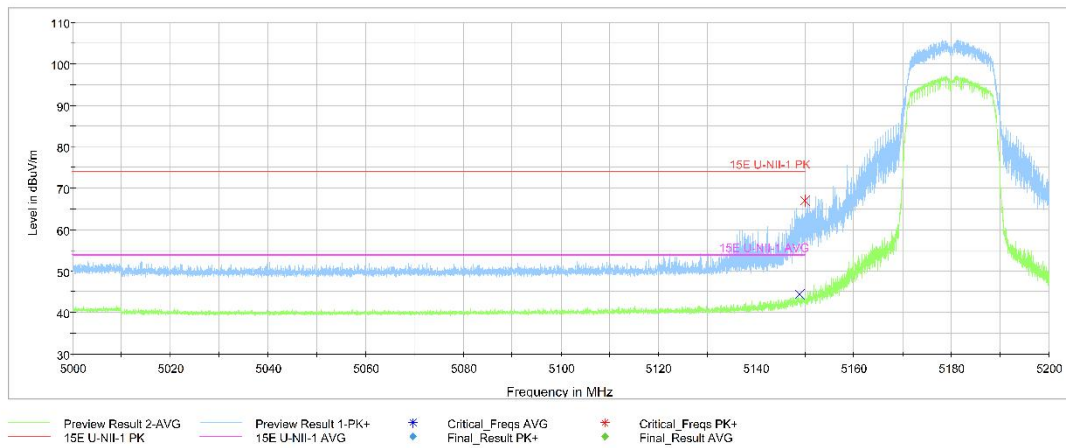


Fig. 5 Band Edges (802.11n-HT20 Ch36, 5180MHz)

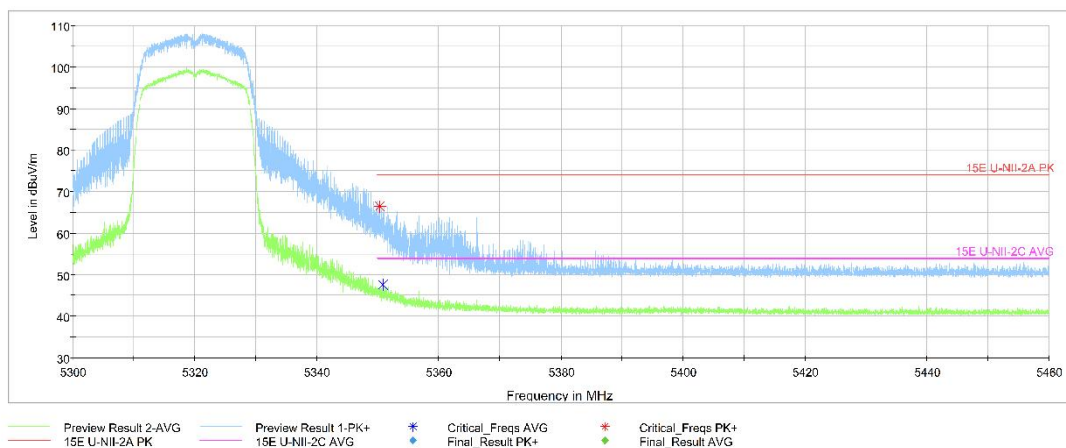


Fig. 6 Band Edges (802.11n-HT20 Ch64, 5320MHz)