



FCC PART 15E TEST REPORT No. 24T04Z101591-003

for

Guangdong OPPO Mobile Telecommunications Corp., Ltd.

Mobile Phone

CPH2659

FCC ID: R9C-OP23216

with

Hardware Version: 11

Software Version: Color OS 15.0

Issued Date: 2024-10-09

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

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
24T04Z101591-003	Rev.0	1st edition	2024-09-06
24T04Z101591-003	Rev.1	Added OFDMA modulation type.	2024-10-09

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(Huayuan North Road)

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

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: 2024-08-27

Testing End Date: 2024-09-06

1.5. Signature



Dong Jiaxuan

(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: Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Company Addr: NO.18 HaiBin Road, Wusha Village, Chang'an Town, DongGuan City,
Guangdong Province, P.R. China
Contact Name: Xiong Bo
Tel No: (86)76986076999
E-mail: xiongbo@oppo.com

2.2. Manufacturer Information

Company Name: Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Company Addr: NO.18 HaiBin Road, Wusha Village, Chang'an Town, DongGuan City,
Guangdong Province, P.R. China
Contact Name: Xiong Bo
Tel No: (86)76986076999
E-mail: xiongbo@oppo.com

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

3.1. About EUT

Description	Mobile Phone
Model name	CPH2659
FCC ID	R9C-OP23216
WLAN Frequency Band	ISM Bands: -5150MHz~5250MHz -5250MHz~5350MHz -5470MHz~5725MHz
Type of modulation	OFDM/OFDMA
Antenna	Integral Antenna
Nominal Voltage	3.87V
Extreme High Voltage	4.5V
Extreme Low Voltage	3.6V

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version
UT02a	866185070019957/ 866185070019940	11	Color OS 15.0
UT12a	866185070033131	11	Color OS 15.0
UT10a	866185070033115	11	Color OS 15.0

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

UT02a is used for Conduction test, UT10a and UT12a is used for Radiation test.

3.3. Internal Identification of AE used during the test

AE ID*	Description	Model	Manufacturer
AE1	Battery	BLPB05	Dongguan NVT Technology Co., Ltd
AE2	Adapter	VCB8OAUH	Dongguan Aohai Technology Co.,Ltd.
AE3	Cable	DL129	DUWEI

*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 Mobile Phone 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	2021
	Part 15 - Radio frequency devices	
ANSI C63.10	Methods of Measurement of Radio-Noise Emissions from	2013
	Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	
UNII: KDB 789033 D02	General U-NII Test Procedures New Rules v02r01	2017-12

5. Laboratory Environment

Conducted RF performance testing is performed in shielding room.

EMC performance testing is performed in Semi-anechoic chamber.

6. 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
Occupied 26dB 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

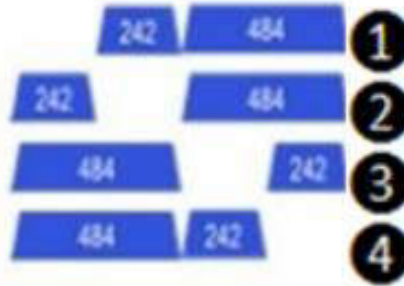
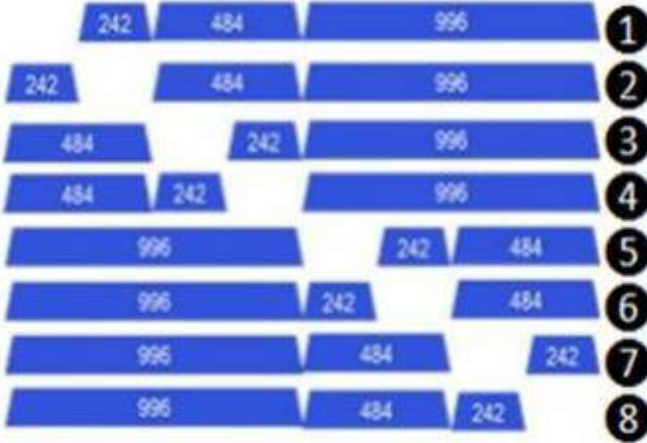
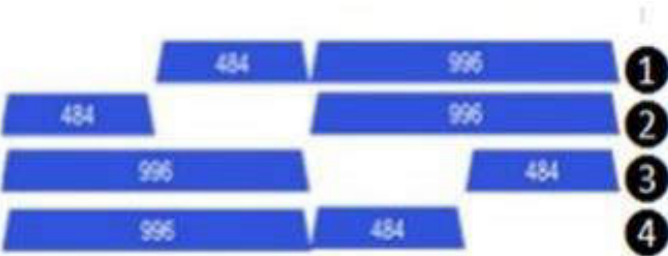
Please refer to **ANNEX A** for detail.

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. **For conducted result :**

1. EUT support 802.11a/n/ac/ax/be modes on U-NII-1/-2A/-2C, and can't transmit simultaneously in U-NII-1/-2A/-2C.
2. As WLAN SISO(1x1) & MIMO(2x2) mode have the same power setting, the whole testing has assessed only MIMO mode.
3. 802.11ax support full RU and single RU modes.
4. 802.11be support full RU, single RU, small MRU, large MRU and puncturing modes.
5. For 802.11a/n/ac/ax full RU/be full RU, the whole testing (PSD/26dB bandwidth /99% bandwidth) has reported only 802.11a/ac-VHT20/n-HT40/be-EHT80/ax-HE160MHz by referring to the higher output power.
6. For 802.11ax single RU and 802.11be single RU modes, the PSD has reported only 802.11ax-HE20-single RU by referring to the higher output power.
7. For 802.11be-EHT20/40MHz small MRU mode, the PSD has reported only 802.11be-EHT20 by referring to the higher output power.
 - a. For low channel : 52 Tone,index38 + 26Tone,index1 and 106 Tone,index53 + 26Tone,index4;
 - b. For high channel : 52 Tone,index39 + 26Tone,index7 and 106 Tone,index54 + 26Tone,index4.
8. For 802.11be-EHT80/160MHz large MRU and Puncturing modes are tested for conducted power/PSD.

Bandwidth	Pattern	index
80MHz		484+242-tone Index 1 484+242-tone Index 2 484+242-tone Index 3 484+242-tone Index 4
160MHz		996+484+242-tone Index 1 996+484+242-tone Index 2 996+484+242-tone Index 3 996+484+242-tone Index 4 996+484+242-tone Index 5 996+484+242-tone Index 6 996+484+242-tone Index 7 996+484+242-tone Index 8
160MHz		996+484-tone Index1 996+484-tone Index 2 996+484-tone Index 3 996+484-tone Index 4

6.3. Antenna Gain

Mode	Band	Ant9 (dBi)	Ant10 (dBi)	Ant14 (dBi)	Ant9&Ant10 Power(dBi)	Ant10&Ant14 Power(dBi)	Ant9&Ant10 PSD(dBi)	Ant10&Ant14 PSD(dBi)
CDD	UNII-1	-1.59	-1.11	-0.45	-1.10	-0.45	-1.10	-0.45
	UNII-2A	-0.39	0.13	-0.05	0.13	0.13	0.13	0.13
	UNII-2C	-0.17	1.25	0.70	1.25	1.25	1.25	1.25
BF	UNII-1	-1.59	-1.11	-0.45	1.66	2.24	1.66	2.24
	UNII-2A	-0.39	0.13	-0.05	2.88	3.05	2.88	3.05
	UNII-2C	-0.17	1.25	0.70	3.58	3.99	3.58	3.99

1. For BF transmissions, power and PSD directional gain is calculated as:

Directional gain = $10 \log [(10^{G1/20} + 10^{G2/20} + \dots + 10^{Gn/20})^2 / \text{NANT}]$ dBi, as following table for PSD.
NANT = number of transmit antennas NSS = number of spatial streams. (When NSS=1 or 2, both powersettings are the same, The worst case directional gain will occur when NSS = 1)

2. For CDD transmissions, directional gain is calculated as:

- a. For power, the directional gain GANT is set equal to the antenna having the highest gain, i.e., Directional gain = GANT MAX (Ant.1 Gain, Ant.2 Gain, ...) + Array Gain, where Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

- b. For PSD, the directional gain calculation is following:

Directional gain = $10 \log [(10^{G1/20} + 10^{G2/20} + \dots + 10^{Gn/20})^2 / \text{NANT}]$ dBi. NANT = number of transmit antennas NSS = number of spatial streams. (When NSS=1 or 2, both powersettings are the same, The worst case directional gain will occur when NSS = 1).

3. 802.11a support CDD mode ;
4. 802.11n support CDD and STBC mode, as they use the same power setting, only eirp results of CDD have been reported.
5. 802.11ac/ax/be support CDD, BF and STBC mode, as they use the same power setting, only eirp results of BF have been reported.
6. The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.

6.4. 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.

6.5. 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	3.87V
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	2025-08-12
2	Vector Signal Analyzer	FSW67	104051	Rohde & Schwarz	1 year	2025-04-6
3	Attenuator	10dB/2W	/	Rosenberger	/	2024-06-05
4	Shielding Room	S81	/	ETS-Lindgren	/	2024-02-21

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Test Receiver	ESW44	103144	R&S	1 year	2024-11-26
2	EMI Antenna	VULB 9163	01222	SCHWARZBECK	1 year	2025-07-30
3	EMI Antenna	3115	00167250	ETS-Lindgren	1 year	2025-04-11
4	EMI Antenna	3116	2663	ETS-Lindgren	1 year	2025-04-31

Test Software

Test Item	Test Software and Version	Software Vendor
Radiated Continuous Emission	EMC32 V10.60.20	R&S
Conducted 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 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 AC Power-line Conducted Emission

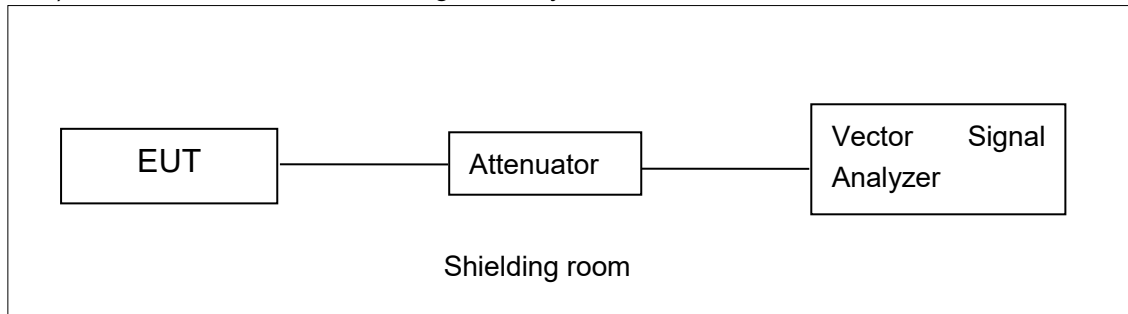
Measurement Uncertainty : 3.08dB,k=2

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 orientation.

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 -1.59/-1.11/-0.45dBi(ANT9/10/14 B1), -0.39/0.13/-0.05dBi(ANT9/10/14 B2A), -0.17/1.25/0.7dBi(ANT9/10/14 B2C) ,and the value is supplied by the applicant or manufacturer.

A.2.2 Maximum output Power-Conducted

EUT ID: UT02a

Measurement Results:

802.11a mode

Mode	Frequency	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
802.11a	5180MHz	10.41	12.09	14.34	11.45	10.44	13.98
	5200MHz	11.95	12.90	15.46	12.69	10.83	14.87
	5240MHz	10.44	12.12	14.37	11.83	10.70	14.31
	5260MHz	10.04	11.30	13.73	11.33	9.77	13.63
	5280MHz	11.30	12.18	14.77	12.15	11.17	14.70
	5320MHz	12.15	13.01	15.61	12.83	11.16	15.09
	5500MHz	12.18	12.71	15.46	12.38	11.79	15.11
	5580MHz	15.12	15.87	18.52	15.73	15.24	18.50
	5700MHz	11.34	12.95	15.23	12.70	11.65	15.22

802.11n-HT20 mode

Mode	Frequency	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
802.11n (HT20)	5180MHz	10.37	11.98	14.26	11.55	10.48	14.06
	5200MHz	11.86	12.81	15.37	12.63	10.72	14.79
	5240MHz	10.44	12.02	14.31	11.78	10.58	14.23
	5260MHz	10.03	11.25	13.69	11.03	9.68	13.42
	5280MHz	11.31	12.11	14.74	12.13	11.14	14.67
	5320MHz	12.05	13.28	15.72	12.76	11.10	15.02
	5500MHz	12.08	12.66	15.39	12.52	11.67	15.13
	5580MHz	15.02	15.73	18.40	15.77	15.27	18.54
	5700MHz	11.28	12.90	15.18	12.36	11.79	15.09

802.11ac-VHT20 mode

Mode	Frequency	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
802.11ac (VHT20)	5180MHz	10.42	12.01	14.30	11.64	10.24	14.01
	5200MHz	11.91	12.89	15.44	12.58	10.63	14.72
	5240MHz	10.49	12.06	14.36	11.72	10.49	14.16
	5260MHz	10.00	11.20	13.65	11.32	9.57	13.54
	5280MHz	11.26	12.11	14.72	12.35	10.98	14.73
	5320MHz	12.04	12.93	15.52	12.91	10.94	15.05
	5500MHz	12.10	12.58	15.36	12.52	11.59	15.09
	5580MHz	15.02	15.72	18.39	15.76	15.22	18.51
	5700MHz	11.45	12.85	15.22	12.66	11.57	15.16

802.11n-HT40 mode

Mode	Frequency	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
802.11n (HT40)	5190MHz	12.93	14.17	16.60	13.81	12.62	16.27
	5230MHz	13.07	13.83	16.48	13.83	13.11	16.50
	5270MHz	12.87	13.52	16.22	13.37	12.93	16.17
	5310MHz	9.69	11.05	13.43	11.11	9.45	13.37
	5510MHz	11.37	11.93	14.67	11.98	10.87	14.47
	5550MHz	15.19	15.82	18.53	15.78	14.86	18.35
	5670MHz	12.91	14.11	16.56	14.08	13.10	16.63

802.11ac-VHT40 mode

Mode	Frequency	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
802.11ac (VHT40)	5190MHz	12.98	14.20	16.64	13.80	12.43	16.18
	5230MHz	13.05	13.84	16.47	13.80	12.98	16.42
	5270MHz	12.95	13.56	16.28	13.61	12.73	16.20
	5310MHz	9.74	11.33	13.62	11.12	9.48	13.39
	5510MHz	11.42	12.16	14.82	11.96	10.88	14.46
	5550MHz	15.08	15.82	18.48	15.84	14.81	18.37
	5670MHz	12.84	14.10	16.53	14.05	12.87	16.51

802.11ac-VHT80 mode

Mode	Frequency	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
802.11ac (VHT80)	5210MHz	11.47	12.11	14.81	12.17	10.97	14.62
	5290MHz	12.69	13.50	16.12	13.39	12.71	16.07
	5530MHz	10.69	10.93	13.82	10.81	10.69	13.76
	5610MHz	15.20	15.86	18.55	15.62	15.28	18.46
	5690MHz	11.47	12.11	14.81	12.17	10.97	14.62

802.11ac-VHT160 mode

Mode	Frequency	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
802.11ac (VHT160)	5250MHz	8.85	10.33	12.66	10.00	8.72	12.42
	5570MHz	11.63	11.72	14.69	11.76	11.55	14.67

802.11ax-HE20 mode

Mode	Frequency	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
802.11ax (HE20)	5180MHz	10.63	12.29	14.55	11.88	10.43	14.23
	5200MHz	12.15	12.99	15.60	12.75	10.82	14.90
	5240MHz	10.68	12.29	14.57	11.67	10.67	14.21
	5260MHz	10.23	11.41	13.87	11.43	9.69	13.66
	5280MHz	11.49	12.25	14.90	12.45	11.11	14.84
	5320MHz	12.22	13.08	15.68	12.98	11.05	15.13
	5500MHz	12.29	12.85	15.59	12.65	11.73	15.22
	5580MHz	15.29	15.99	18.66	15.94	15.42	18.70
	5700MHz	11.46	13.01	15.31	12.78	11.95	15.40

802.11ax-HE40 mode

Mode	Frequency	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
802.11ax (HE40)	5190MHz	12.72	14.04	16.44	13.57	12.23	15.96
	5230MHz	13.41	14.15	16.81	13.91	13.26	16.61
	5270MHz	13.24	13.83	16.56	14.04	12.95	16.54
	5310MHz	9.44	11.32	13.49	10.80	9.14	13.06
	5510MHz	11.64	12.37	15.03	12.29	11.03	14.72
	5550MHz	15.42	16.17	18.82	16.12	15.05	18.63
	5670MHz	13.17	14.40	16.84	14.26	13.04	16.70

802.11ax-HE80 mode

Mode	Frequency	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
802.11ax (HE80)	5210MHz	11.73	12.28	15.02	12.05	11.23	14.67
	5290MHz	12.98	13.64	16.33	13.55	12.97	16.28
	5530MHz	11.01	11.24	14.14	11.07	10.70	13.90
	5610MHz	15.52	16.25	18.91	16.00	15.39	18.72
	5690MHz	11.73	12.28	15.02	12.05	11.23	14.67

802.11ax-HE160 mode

Mode	Frequency	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
802.11ax (HE160)	5250MHz	9.07	10.39	12.79	10.44	9.00	12.79
	5570MHz	11.91	12.18	15.06	11.80	11.63	14.73

802.11be-EHT20 mode

Mode	Frequency	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
802.11be (EHT 20)	5180MHz	10.63	12.35	14.58	11.72	10.54	14.18
	5200MHz	12.24	13.04	15.67	12.61	10.86	14.83
	5240MHz	10.71	12.29	14.58	11.83	10.69	14.31
	5260MHz	9.77	11.07	13.48	10.88	9.24	13.15
	5280MHz	11.55	12.37	14.99	12.35	11.14	14.80
	5320MHz	12.26	13.15	15.74	12.82	11.14	15.07
	5500MHz	12.33	12.85	15.61	12.62	11.61	15.15
	5580MHz	15.32	16.02	18.69	16.04	15.17	18.64
	5700MHz	11.52	13.11	15.40	12.46	11.74	15.13

802.11 be-HE40 mode

Mode	Frequency	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
802.11be (EHT 40)	5190MHz	12.71	13.82	16.31	13.41	12.25	15.88
	5230MHz	13.35	14.22	16.82	14.03	13.38	16.73
	5270MHz	13.28	14.07	16.70	13.71	13.03	16.39
	5310MHz	9.43	11.26	13.45	10.70	9.18	13.02
	5510MHz	11.66	12.42	15.07	12.17	10.93	14.60
	5550MHz	15.40	16.19	18.82	15.80	14.83	18.35
	5670MHz	13.08	14.40	16.80	14.28	13.02	16.71

802.11be-EHT 80 mode

Mode	Frequency	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
802.11be (EHT 80)	5210MHz	11.84	12.41	15.14	12.35	11.14	14.80
	5290MHz	12.98	13.65	16.34	13.54	12.85	16.22
	5530MHz	10.95	10.94	13.96	10.98	10.50	13.76
	5610MHz	15.61	16.08	18.86	16.05	15.31	18.71
	5690MHz	11.84	12.41	15.14	12.35	11.14	14.80

802.11be-EHT 160 mode

Mode	Frequency	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
802.11be (EHT 160)	5250MHz	9.08	10.39	12.79	10.02	8.94	12.52
	5570MHz	11.65	12.01	14.84	11.59	11.48	14.55

RU Mode

802.11ax-20 RU MIMO mode

Mode	Channel	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
		MCS0	MCS0	MCS0	MCS0	MCS0	MCS0
RU26-L	5180MHz (Ch36)	0.54	1.41	4.01	0.93	-0.100	3.46
	5200MHz (Ch40)	0.4	1.58	4.04	1.04	-0.08	3.53
	5240MHz(Ch48)	0.55	1.57	4.10	1.65	0.49	4.12
	5260MHz(Ch52)	0.22	1.97	4.19	1.57	0.22	3.96
	5280MHz(Ch56)	0.49	1.67	4.13	1.51	0.07	3.86
	5320MHz(Ch64)	0.59	2.19	4.47	1.81	0.55	4.24
RU26-R	5500MHz(Ch100)	0.52	0.82	3.68	0.68	0.26	3.49
	5580MHz(Ch116)	0.32	0.04	3.19	0.26	0.59	3.44
	5700MHz(Ch140)	-0.15	0.70	3.31	0.58	0.61	3.61
Mode	Channel	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
		MCS0	MCS0	MCS0	MCS0	MCS0	MCS0
RU52-L	5180MHz (Ch36)	3.68	4.34	7.03	3.80	3.24	6.54
	5200MHz (Ch40)	3.40	4.46	6.97	3.91	2.96	6.47
	5240MHz(Ch48)	3.63	4.51	7.10	4.48	3.48	7.02
	5260MHz(Ch52)	3.32	4.83	7.15	4.48	3.21	6.90
	5280MHz(Ch56)	3.46	4.50	7.02	4.41	3.16	6.84
	5320MHz(Ch64)	3.60	5.03	7.38	4.74	3.51	7.18
RU52-R	5500MHz(Ch100)	3.75	3.59	6.68	3.56	3.53	6.56
	5580MHz(Ch116)	3.43	2.87	6.17	3.11	3.36	6.25
	5700MHz(Ch140)	3.09	3.52	6.32	3.38	3.47	6.44
Mode	Channel	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo

		MCS0	MCS0	MCS0	MCS0	MCS0	MCS0
RU106-L	5180MHz (Ch36)	7.19	6.91	10.06	7.00	6.67	9.85
	5200MHz (Ch40)	7.03	6.90	9.98	6.56	6.49	9.54
	5240MHz(Ch48)	7.14	6.80	9.98	7.01	7.00	10.02
	5260MHz(Ch52)	6.92	6.84	9.89	6.67	6.45	9.57
	5280MHz(Ch56)	7.06	6.92	10.00	6.85	6.72	9.80
	5320MHz(Ch64)	7.20	7.46	10.34	7.20	6.97	10.10
RU106-R	5500MHz(Ch100)	7.50	7.11	10.32	7.00	7.13	10.08
	5580MHz(Ch116)	7.09	6.42	9.78	6.62	7.31	9.99
	5700MHz(Ch140)	6.75	7.03	9.90	7.07	7.13	10.11

802.11be-20 RU MIMO mode

Mode	Channel	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
		MCS0	MCS0	MCS0	MCS0	MCS0	MCS0
RU26-L	5180MHz (Ch36)	0.54	1.31	3.95	1.36	0.11	3.79
	5200MHz (Ch40)	0.41	1.56	4.03	1.55	-0.15	3.79
	5240MHz(Ch48)	0.57	1.57	4.11	1.70	0.46	4.13
	5260MHz(Ch52)	0.28	2.09	4.29	1.57	0.35	4.01
	5280MHz(Ch56)	0.48	1.62	4.10	1.48	0.14	3.87
	5320MHz(Ch64)	0.31	2.29	4.42	1.95	0.32	4.22
RU26-R	5500MHz(Ch100)	0.58	0.93	3.77	0.63	0.33	3.49
	5580MHz(Ch116)	0.39	0.24	3.33	-0.11	0.75	3.35
	5700MHz(Ch140)	-0.12	0.53	3.23	0.62	0.31	3.48
Mode	Channel	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
		MCS0	MCS0	MCS0	MCS0	MCS0	MCS0
RU52-L	5180MHz (Ch36)	3.67	4.31	7.01	4.32	3.44	6.91
	5200MHz (Ch40)	3.41	4.44	6.97	4.33	2.94	6.70
	5240MHz(Ch48)	3.61	4.50	7.09	4.64	3.55	7.14
	5260MHz(Ch52)	3.37	4.94	7.24	4.48	3.36	6.97
	5280MHz(Ch56)	3.50	4.59	7.09	4.41	3.18	6.85
	5320MHz(Ch64)	3.67	5.16	7.49	4.88	3.55	7.28
RU52-R	5500MHz(Ch100)	3.88	3.80	6.85	3.40	3.56	6.49
	5580MHz(Ch116)	3.39	2.97	6.20	2.67	3.52	6.13
	5700MHz(Ch140)	3.15	3.44	6.31	3.44	3.12	6.29
Mode	Channel	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
		MCS0	MCS0	MCS0	MCS0	MCS0	MCS0
RU106-L	5180MHz (Ch36)	7.23	6.81	10.04	6.97	6.97	9.98

	5200MHz (Ch40)	7.01	7.19	10.11	6.99	6.45	9.74
	5240MHz(Ch48)	7.13	6.94	10.05	7.20	7.03	10.13
	5260MHz(Ch52)	7.01	7.26	10.15	6.74	6.59	9.68
	5280MHz(Ch56)	7.05	7.06	10.07	7.12	6.78	9.96
	5320MHz(Ch64)	7.20	7.42	10.32	7.09	7.10	10.11
RU106-R	5500MHz(Ch100)	7.58	7.28	10.44	7.13	7.23	10.19
	5580MHz(Ch116)	7.06	6.61	9.85	6.46	7.20	9.86
	5700MHz(Ch140)	6.68	6.93	9.82	6.93	6.70	9.83

MRU Mode

Mode	Channel	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
		MCS0	MCS0	MCS0	MCS0	MCS0	MCS0
52 Tone,index38 + 26Tone,index1	5180MHz (Ch36)	3.80	4.33	7.08	4.42	3.42	6.96
	5200MHz (Ch40)	3.40	4.57	7.03	4.16	3.22	6.73
	5240MHz(Ch48)	3.56	4.74	7.20	4.47	3.61	7.07
	5260MHz(Ch52)	3.48	4.73	7.16	4.44	3.51	7.01
	5280MHz(Ch56)	3.48	4.55	7.06	4.54	3.60	7.11
	5320MHz(Ch64)	3.71	5.14	7.49	4.61	3.68	7.18
52 Tone,index39 + 26Tone,index7	5500MHz(Ch100)	3.91	3.81	6.87	3.49	3.73	6.62
	5580MHz(Ch116)	3.65	3.28	6.48	2.88	3.71	6.33
	5700MHz(Ch140)	3.14	3.67	6.42	3.48	3.53	6.52
Mode	Channel	Test Result (dBm)					
		Ant9	Ant10	mimo	Ant10	Ant14	mimo
		MCS0	MCS0	MCS0	MCS0	MCS0	MCS0
106 Tone,index53 + 26Tone,index4	5180MHz (Ch36)	7.36	7.03	10.21	6.73	6.78	9.77
	5200MHz (Ch40)	7.03	7.04	10.05	6.69	6.64	9.68
	5240MHz(Ch48)	7.18	7.04	10.12	6.96	7.10	10.04
	5260MHz(Ch52)	7.12	7.13	10.14	6.61	6.68	9.66
	5280MHz(Ch56)	7.12	7.04	10.09	6.96	6.94	9.96
	5320MHz(Ch64)	7.29	7.49	10.40	6.94	7.33	10.15
106 Tone,index54 + 26Tone,index4	5500MHz(Ch100)	7.57	7.52	10.56	7.00	7.36	10.19
	5580MHz(Ch116)	7.39	6.88	10.15	6.39	7.58	10.04
	5700MHz(Ch140)	6.71	7.44	10.10	6.89	7.14	10.03

802.11be-80 MRU MIMO mode

Mode	Channel	Tone	Test Result (dBm)						
			configure	Ant9	Ant10	mimo	Ant10	Ant14	mimo
802.11be-80	5210MHz (Ch42)	484+242 Tone	1	13.41	14.06	16.76	14.06	13.21	16.67
			2	13.53	14.06	16.81	14.25	13.66	16.98
			3	13.45	14.26	16.88	14.07	13.30	16.71
			4	13.24	13.98	16.64	13.94	13.41	16.69
	5290MHz (Ch58)	484+242 Tone	1	13.07	14.18	16.67	13.95	13.46	16.72
			2	13.25	14.38	16.86	13.90	13.44	16.69
			3	13.25	14.07	16.69	13.82	13.45	16.65
			4	13.03	14.00	16.55	13.74	13.48	16.62
	5530MHz (Ch106)	484+242 Tone	1	15.07	16.05	18.60	15.78	15.47	18.64
			2	15.46	16.20	18.86	15.93	15.43	18.70
			3	15.22	16.22	18.76	15.92	15.62	18.78
			4	15.24	16.10	18.70	15.95	15.34	18.67
	5610MHz (Ch122)	484+242 Tone	1	15.40	15.99	18.72	15.82	15.69	18.77
			2	15.56	16.40	19.01	16.22	15.94	19.09
			3	15.59	16.23	18.93	16.20	15.87	19.05
			4	15.52	16.10	18.83	15.92	15.88	18.91

802.11be-160 MRU MIMO mode

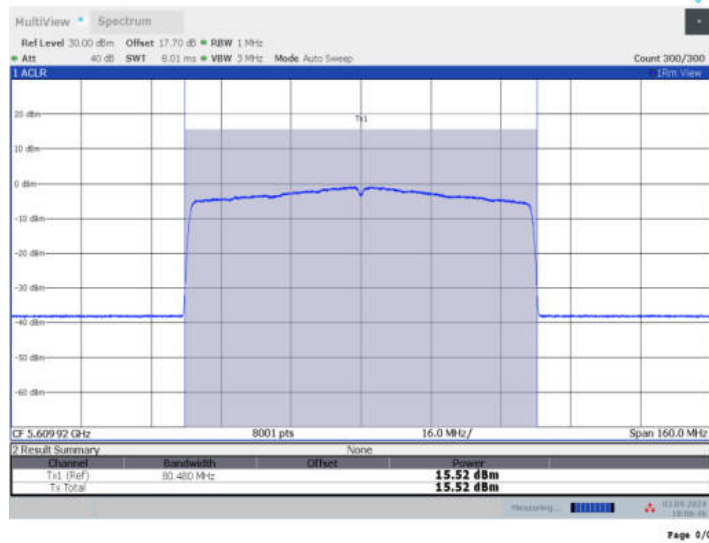
Mode	Channel	Tone	configure	Ant9	Ant10	mimo	Ant10	Ant14	mimo
802.11be-160	5250MHz (Ch50)	996+484 Tone	1	12.93	13.60	16.29	13.49	11.95	15.80
			2	12.98	13.68	16.35	13.49	11.51	15.62
			3	13.03	14.12	16.62	13.63	11.73	15.79
			4	12.91	13.70	16.33	13.54	11.56	15.67
	5570MHz (Ch114)	996+484 Tone	1	15.10	15.65	18.39	15.68	15.87	18.79
			2	15.23	15.74	18.50	15.71	15.42	18.58
			3	15.07	15.72	18.42	15.76	15.39	18.59
			4	15.03	15.70	18.39	15.71	15.34	18.54
802.11be-160	5250MHz (Ch50)	996+484+242 Tone	1	12.87	13.90	16.43	13.49	11.52	15.63
			2	12.92	13.62	16.29	13.54	11.72	15.73
			3	12.93	13.62	16.30	13.48	11.92	15.78
			4	12.97	13.67	16.34	13.88	11.65	15.92
			5	12.99	13.70	16.37	13.87	12.07	16.07
			6	12.93	13.69	16.34	13.84	11.64	15.89
			7	12.95	13.71	16.36	13.54	11.62	15.70
			8	13.19	13.65	16.44	13.48	11.92	15.78
	5570MHz (Ch114)	996+484+242 Tone	1	14.89	15.65	18.30	15.67	15.25	18.48
			2	14.92	15.68	18.33	15.70	15.30	18.51
			3	14.92	15.70	18.34	16.00	15.30	18.67
			4	15.28	16.02	18.68	16.00	15.28	18.67
			5	15.01	15.69	18.37	16.00	15.32	18.68
			6	15.02	15.70	18.38	15.70	15.34	18.53
			7	14.99	16.04	18.56	15.69	15.62	18.67
			8	14.98	15.99	18.52	15.67	15.31	18.50

The data rate 6Mbps (11a mode), MCS0 (11n-HT20 mode), MCS0 (11n-HT40 mode), MCS0 (11ac-VHT20 mode), MCS0 (11ac-VHT40 mode), MCS0 (11ac-VHT80 mode) , MCS0 (11ac-VHT160 mode), MCS0 (11ax-HE20 mode), MCS0 (11ax-HE40 mode), MCS0 (11ax-HE80 mode), MCS0 (11ax-HE160 mode),MCS0 (11be-EHT20 mode), MCS0 (11be-EHT40 mode), MCS0 (11be-EHT80 mode), MCS0 (11be-EHT160 mode)are selected as the worst condition; as the maximum power is got with these data rate. The following cases are performed with this condition.

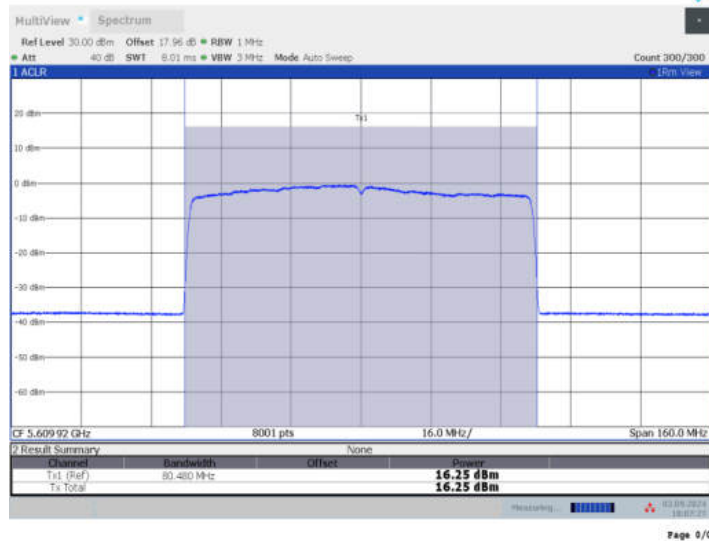
The duty cycle of all mode >98%.

Maximum output Power:

11AX80MIMO_Ant1_5610



11AX80MIMO_Ant2_5610



Conclusion: PASS

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: UT02a

Measurement Results:

TestMode	Antenna	Frequency[MHz]	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A-CDD	Ant9	5180	0.08	≤11.00	PASS
	Ant10	5180	2.07	≤11.00	PASS
	total	5180	4.20	≤11.00	PASS
	Ant9	5200	1.91	≤11.00	PASS
	Ant10	5200	2.47	≤11.00	PASS
	total	5200	5.21	≤11.00	PASS
	Ant9	5240	0.27	≤11.00	PASS
	Ant10	5240	2.01	≤11.00	PASS
	total	5240	4.24	≤11.00	PASS
	Ant9	5260	-0.08	≤11.00	PASS
	Ant10	5260	1.29	≤11.00	PASS
	total	5260	3.67	≤11.00	PASS
	Ant9	5280	1.03	≤11.00	PASS
	Ant10	5280	1.96	≤11.00	PASS
	total	5280	4.53	≤11.00	PASS
	Ant9	5320	2.09	≤11.00	PASS
	Ant10	5320	2.87	≤11.00	PASS
	total	5320	5.51	≤11.00	PASS
	Ant9	5500	2.08	≤11.00	PASS
	Ant10	5500	2.54	≤11.00	PASS
	total	5500	5.33	≤11.00	PASS
	Ant9	5580	4.90	≤11.00	PASS
	Ant10	5580	6.03	≤11.00	PASS
	total	5580	8.51	≤11.00	PASS
	Ant9	5700	1.43	≤11.00	PASS
	Ant10	5700	2.75	≤11.00	PASS
	total	5700	5.15	≤11.00	PASS
11BE20MIMO	Ant9	5180	0.33	≤11.00	PASS
	Ant10	5180	1.65	≤11.00	PASS
	total	5180	4.05	≤11.00	PASS
	Ant9	5200	1.81	≤11.00	PASS

	Ant10	5200	2.52	≤11.00	PASS
	total	5200	5.19	≤11.00	PASS
	Ant9	5240	0.46	≤11.00	PASS
	Ant10	5240	1.46	≤11.00	PASS
	total	5240	4.00	≤11.00	PASS
	Ant9	5260	-0.59	≤11.00	PASS
	Ant10	5260	0.66	≤11.00	PASS
	total	5260	3.09	≤11.00	PASS
	Ant9	5280	1.05	≤11.00	PASS
	Ant10	5280	1.77	≤11.00	PASS
	total	5280	4.44	≤11.00	PASS
	Ant9	5320	1.91	≤11.00	PASS
	Ant10	5320	2.73	≤11.00	PASS
	total	5320	5.35	≤11.00	PASS
	Ant9	5500	1.76	≤11.00	PASS
	Ant10	5500	2.38	≤11.00	PASS
	total	5500	5.09	≤11.00	PASS
	Ant9	5580	4.86	≤11.00	PASS
	Ant10	5580	5.56	≤11.00	PASS
	total	5580	8.23	≤11.00	PASS
	Ant9	5700	1.32	≤11.00	PASS
	Ant10	5700	2.28	≤11.00	PASS
	total	5700	4.84	≤11.00	PASS
11AX40MIMO	Ant9	5190	-0.84	≤11.00	PASS
	Ant10	5190	0.51	≤11.00	PASS
	total	5190	2.90	≤11.00	PASS
	Ant9	5230	0.20	≤11.00	PASS
	Ant10	5230	0.78	≤11.00	PASS
	total	5230	3.51	≤11.00	PASS
	Ant9	5270	-0.11	≤11.00	PASS
	Ant10	5270	0.81	≤11.00	PASS
	total	5270	3.38	≤11.00	PASS
	Ant9	5310	-3.44	≤11.00	PASS
	Ant10	5310	-1.88	≤11.00	PASS
	total	5310	0.42	≤11.00	PASS
	Ant9	5510	-1.63	≤11.00	PASS
	Ant10	5510	-1.00	≤11.00	PASS
	total	5510	1.71	≤11.00	PASS
	Ant9	5550	2.18	≤11.00	PASS
	Ant10	5550	2.28	≤11.00	PASS
	total	5550	5.24	≤11.00	PASS
	Ant9	5670	-0.38	≤11.00	PASS

	Ant10	5670	0.87	≤11.00	PASS
	total	5670	3.30	≤11.00	PASS
11AX80MIMO	Ant9	5210	-4.67	≤11.00	PASS
	Ant10	5210	-4.20	≤11.00	PASS
	total	5210	-1.42	≤11.00	PASS
	Ant9	5290	-3.25	≤11.00	PASS
	Ant10	5290	-2.60	≤11.00	PASS
	total	5290	0.10	≤11.00	PASS
	Ant9	5530	-5.58	≤11.00	PASS
	Ant10	5530	-5.33	≤11.00	PASS
	total	5530	-2.44	≤11.00	PASS
	Ant9	5610	-0.82	≤11.00	PASS
	Ant10	5610	-0.19	≤11.00	PASS
	total	5610	2.52	≤11.00	PASS
11AX160MIMO	Ant9	5250	-9.94	≤11.00	PASS
	Ant10	5250	-8.09	≤11.00	PASS
	total	5250	-5.91	≤11.00	PASS
	Ant9	5570	-7.11	≤11.00	PASS
	Ant10	5570	-6.58	≤11.00	PASS
	total	5570	-3.83	≤11.00	PASS

RU Mode

Test Mode	Antenna	Frequency [MHz]	Ru Size	Ru Index	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
11BE20 MIMO	Ant9	5180	26Tone	RU0	-1.97	≤11.00	PASS
			52Tone	RU37	-1.67	≤11.00	PASS
			106Tone	RU53	-1.18	≤11.00	PASS
	Ant10	5180	26Tone	RU0	-1.14	≤11.00	PASS
			52Tone	RU37	-0.68	≤11.00	PASS
			106Tone	RU53	-1.37	≤11.00	PASS
	total	5180	26Tone	RU0	1.48	≤11.00	PASS
			52Tone	RU37	1.86	≤11.00	PASS
			106Tone	RU53	1.74	≤11.00	PASS
	Ant9	5200	26Tone	RU0	-2.06	≤11.00	PASS
			52Tone	RU37	-1.70	≤11.00	PASS
			106Tone	RU53	-1.44	≤11.00	PASS
	Ant10	5200	26Tone	RU0	-0.74	≤11.00	PASS
			52Tone	RU37	-0.69	≤11.00	PASS
			106Tone	RU53	-1.34	≤11.00	PASS
	total	5200	26Tone	RU0	1.66	≤11.00	PASS
			52Tone	RU37	1.84	≤11.00	PASS
			106Tone	RU53	1.62	≤11.00	PASS
	Ant9	5240	26Tone	RU0	-1.86	≤11.00	PASS

			52Tone	RU37	-1.71	≤11.00	PASS
			106Tone	RU53	-1.18	≤11.00	PASS
	Ant10	5240	26Tone	RU0	-1.01	≤11.00	PASS
			52Tone	RU37	-0.59	≤11.00	PASS
			106Tone	RU53	-1.37	≤11.00	PASS
	total	5240	26Tone	RU0	1.60	≤11.00	PASS
			52Tone	RU37	1.90	≤11.00	PASS
			106Tone	RU53	1.74	≤11.00	PASS
	Ant9	5260	26Tone	RU0	-2.08	≤11.00	PASS
			52Tone	RU37	-1.83	≤11.00	PASS
			106Tone	RU53	-1.46	≤11.00	PASS
	Ant10	5260	26Tone	RU0	-0.42	≤11.00	PASS
			52Tone	RU37	-0.67	≤11.00	PASS
			106Tone	RU53	-1.25	≤11.00	PASS
	total	5260	26Tone	RU0	1.84	≤11.00	PASS
			52Tone	RU37	1.80	≤11.00	PASS
			106Tone	RU53	1.66	≤11.00	PASS
	Ant9	5280	26Tone	RU0	-2.02	≤11.00	PASS
			52Tone	RU37	-1.76	≤11.00	PASS
			106Tone	RU53	-1.23	≤11.00	PASS
	Ant10	5280	26Tone	RU0	-0.91	≤11.00	PASS
			52Tone	RU37	-0.79	≤11.00	PASS
			106Tone	RU53	-1.50	≤11.00	PASS
	total	5280	26Tone	RU0	1.58	≤11.00	PASS
			52Tone	RU37	1.76	≤11.00	PASS
			106Tone	RU53	1.65	≤11.00	PASS
	Ant9	5320	26Tone	RU0	-1.83	≤11.00	PASS
			52Tone	RU37	-1.65	≤11.00	PASS
			106Tone	RU53	-1.13	≤11.00	PASS
	Ant10	5320	26Tone	RU0	-0.34	≤11.00	PASS
			52Tone	RU37	0.01	≤11.00	PASS
			106Tone	RU53	-0.73	≤11.00	PASS
	total	5320	26Tone	RU0	1.99	≤11.00	PASS
			52Tone	RU37	2.27	≤11.00	PASS
			106Tone	RU53	2.08	≤11.00	PASS
	Ant9	5500	26Tone	RU8	-1.97	≤11.00	PASS
			52Tone	RU40	-1.56	≤11.00	PASS
			106Tone	RU54	-0.90	≤11.00	PASS
	Ant10	5500	26Tone	RU8	-1.54	≤11.00	PASS
			52Tone	RU40	-1.68	≤11.00	PASS
			106Tone	RU54	-1.05	≤11.00	PASS
	total	5500	26Tone	RU8	1.26	≤11.00	PASS

			52Tone	RU40	1.39	≤11.00	PASS
			106Tone	RU54	2.04	≤11.00	PASS
	Ant9	5580	26Tone	RU8	-2.17	≤11.00	PASS
			52Tone	RU40	-1.91	≤11.00	PASS
			106Tone	RU54	-1.26	≤11.00	PASS
	Ant10	5580	26Tone	RU8	-2.18	≤11.00	PASS
			52Tone	RU40	-2.51	≤11.00	PASS
			106Tone	RU54	-1.78	≤11.00	PASS
	total	5580	26Tone	RU8	0.84	≤11.00	PASS
			52Tone	RU40	0.81	≤11.00	PASS
			106Tone	RU54	1.50	≤11.00	PASS
	Ant9	5700	26Tone	RU8	-2.52	≤11.00	PASS
			52Tone	RU40	-2.21	≤11.00	PASS
			106Tone	RU54	-1.37	≤11.00	PASS
	Ant10	5700	26Tone	RU8	-2.01	≤11.00	PASS
			52Tone	RU40	-1.91	≤11.00	PASS
			106Tone	RU54	-1.36	≤11.00	PASS
	total	5700	26Tone	RU8	0.75	≤11.00	PASS
			52Tone	RU40	0.95	≤11.00	PASS
			106Tone	RU54	1.65	≤11.00	PASS

MRU Mode

Test Mode	Antenna	Channel	Mru Type	Mru Index	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
11BE20 MIMO	Ant10	5180	52+26_OFDMA	1	-3.20	≤11.00	PASS
			106+26_OFDMA	1	-1.21	≤11.00	PASS
	Ant14	5180	52+26_OFDMA	1	-3.79	≤11.00	PASS
			106+26_OFDMA	1	-1.52	≤11.00	PASS
	total	5180	52+26_OFDMA	1	-0.47	≤11.00	PASS
			106+26_OFDMA	1	1.65	≤11.00	PASS
	Ant10	5200	52+26_OFDMA	1	-3.26	≤11.00	PASS
			106+26_OFDMA	1	-1.30	≤11.00	PASS
	Ant14	5200	52+26_OFDMA	1	-4.19	≤11.00	PASS
			106+26_OFDMA	1	-1.95	≤11.00	PASS
	total	5200	52+26_OFDMA	1	-0.69	≤11.00	PASS
			106+26_OFDMA	1	1.40	≤11.00	PASS
	Ant10	5240	52+26_OFDMA	1	-2.57	≤11.00	PASS
			106+26_OFDMA	1	-1.33	≤11.00	PASS
	Ant14	5240	52+26_OFDMA	1	-3.84	≤11.00	PASS
			106+26_OFDMA	1	-1.01	≤11.00	PASS
	total	5240	52+26_OFDMA	1	-0.15	≤11.00	PASS
			106+26_OFDMA	1	1.84	≤11.00	PASS
	Ant10	5260	52+26_OFDMA	1	-2.74	≤11.00	PASS

	Ant14	5260	106+26_OFDMA	1	-1.28	≤11.00	PASS
			52+26_OFDMA	1	-4.07	≤11.00	PASS
			106+26_OFDMA	1	-1.79	≤11.00	PASS
	total	5260	52+26_OFDMA	1	-0.34	≤11.00	PASS
			106+26_OFDMA	1	1.48	≤11.00	PASS
	Ant10	5280	52+26_OFDMA	1	-2.59	≤11.00	PASS
			106+26_OFDMA	1	-1.18	≤11.00	PASS
	Ant14	5280	52+26_OFDMA	1	-4.03	≤11.00	PASS
			106+26_OFDMA	1	-1.34	≤11.00	PASS
	total	5280	52+26_OFDMA	1	-0.24	≤11.00	PASS
			106+26_OFDMA	1	1.75	≤11.00	PASS
	Ant10	5320	52+26_OFDMA	1	-2.69	≤11.00	PASS
			106+26_OFDMA	1	-1.07	≤11.00	PASS
	Ant14	5320	52+26_OFDMA	1	-4.06	≤11.00	PASS
			106+26_OFDMA	1	-1.49	≤11.00	PASS
	total	5320	52+26_OFDMA	1	-0.31	≤11.00	PASS
			106+26_OFDMA	1	1.74	≤11.00	PASS
	Ant10	5500	52+26_OFDMA	2	-3.55	≤11.00	PASS
			106+26_OFDMA	4	-1.09	≤11.00	PASS
	Ant14	5500	52+26_OFDMA	2	-3.89	≤11.00	PASS
			106+26_OFDMA	4	-1.17	≤11.00	PASS
	total	5500	52+26_OFDMA	2	-0.71	≤11.00	PASS
			106+26_OFDMA	4	1.88	≤11.00	PASS
	Ant10	5580	52+26_OFDMA	2	-4.35	≤11.00	PASS
			106+26_OFDMA	4	-2.04	≤11.00	PASS
	Ant14	5580	52+26_OFDMA	2	-3.67	≤11.00	PASS
			106+26_OFDMA	4	-1.07	≤11.00	PASS
	total	5580	52+26_OFDMA	2	-0.99	≤11.00	PASS
			106+26_OFDMA	4	1.48	≤11.00	PASS
	Ant10	5700	52+26_OFDMA	2	-3.41	≤11.00	PASS
			106+26_OFDMA	4	-1.29	≤11.00	PASS
	Ant14	5700	52+26_OFDMA	2	-3.65	≤11.00	PASS
			106+26_OFDMA	4	-1.50	≤11.00	PASS
	total	5700	52+26_OFDMA	2	-0.52	≤11.00	PASS
			106+26_OFDMA	4	1.62	≤11.00	PASS
11BE80 MIMO	Ant10	5210	484+242_OFDMA	1	-1.55	≤11.00	PASS
				2	-0.31	≤11.00	PASS
				3	-0.45	≤11.00	PASS
				4	-1.18	≤11.00	PASS
	Ant14	5210	484+242_OFDMA	1	-2.20	≤11.00	PASS
				2	-1.13	≤11.00	PASS
				3	-1.38	≤11.00	PASS

				4	-2.01	≤11.00	PASS
	total	5210	484+242_OFDMA	1	1.15	≤11.00	PASS
				2	2.31	≤11.00	PASS
				3	2.12	≤11.00	PASS
				4	1.44	≤11.00	PASS
				Ant10	5290	484+242_OFDMA	1
	2	-0.67	≤11.00				PASS
	3	-0.59	≤11.00				PASS
	4	-1.74	≤11.00				PASS
	Ant14	5290	484+242_OFDMA	1	-2.29	≤11.00	PASS
				2	-1.52	≤11.00	PASS
				3	-2.13	≤11.00	PASS
				4	-2.35	≤11.00	PASS
	total	5290	484+242_OFDMA	1	1.09	≤11.00	PASS
				2	1.94	≤11.00	PASS
				3	1.72	≤11.00	PASS
				4	0.98	≤11.00	PASS
	Ant10	5530	484+242_OFDMA	1	0.29	≤11.00	PASS
				2	1.09	≤11.00	PASS
				3	1.43	≤11.00	PASS
				4	0.41	≤11.00	PASS
	Ant14	5530	484+242_OFDMA	1	-0.59	≤11.00	PASS
				2	0.86	≤11.00	PASS
				3	0.46	≤11.00	PASS
				4	-0.51	≤11.00	PASS
	total	5530	484+242_OFDMA	1	2.88	≤11.00	PASS
				2	3.99	≤11.00	PASS
				3	3.98	≤11.00	PASS
				4	2.98	≤11.00	PASS
	Ant10	5610	484+242_OFDMA	1	0.58	≤11.00	PASS
				2	1.56	≤11.00	PASS
				3	1.70	≤11.00	PASS
				4	0.51	≤11.00	PASS
	Ant14	5610	484+242_OFDMA	1	-0.01	≤11.00	PASS
				2	0.85	≤11.00	PASS
				3	0.60	≤11.00	PASS
				4	0.33	≤11.00	PASS
	total	5610	484+242_OFDMA	1	3.31	≤11.00	PASS
				2	4.23	≤11.00	PASS
				3	4.20	≤11.00	PASS
				4	3.43	≤11.00	PASS
	11BE160	Ant10	5250	996+484	1	-4.82	≤11.00

MIMO		_UNII-1	_Non-OFDMA	2	-6.28	≤11.00	PASS
				3	-3.60	≤11.00	PASS
				4	-4.61	≤11.00	PASS
			996+484+242 _Non-OFDMA	1	-4.62	≤11.00	PASS
				2	-4.83	≤11.00	PASS
				3	-4.69	≤11.00	PASS
				4	-5.53	≤11.00	PASS
				5	-3.90	≤11.00	PASS
				6	-4.40	≤11.00	PASS
				7	-4.92	≤11.00	PASS
				8	-5.05	≤11.00	PASS
	Ant14	5250 _UNII-1	996+484 _Non-OFDMA	1	-4.87	≤11.00	PASS
				2	-6.90	≤11.00	PASS
				3	-4.35	≤11.00	PASS
				4	-5.41	≤11.00	PASS
			996+484+242 _Non-OFDMA	1	-6.14	≤11.00	PASS
				2	-5.96	≤11.00	PASS
				3	-5.70	≤11.00	PASS
				4	-5.85	≤11.00	PASS
				5	-5.49	≤11.00	PASS
				6	-5.06	≤11.00	PASS
				7	-5.48	≤11.00	PASS
				8	-6.18	≤11.00	PASS
	total	5250 _UNII-1	996+484 _Non-OFDMA	1	-1.83	≤11.00	PASS
				2	-3.57	≤11.00	PASS
				3	-0.95	≤11.00	PASS
				4	-1.98	≤11.00	PASS
			996+484+242 _Non-OFDMA	1	-2.30	≤11.00	PASS
				2	-2.35	≤11.00	PASS
				3	-2.16	≤11.00	PASS
				4	-2.68	≤11.00	PASS
				5	-1.61	≤11.00	PASS
				6	-1.71	≤11.00	PASS
				7	-2.18	≤11.00	PASS
				8	-2.57	≤11.00	PASS
	Ant10	5250 _UNII-2A	996+484 Non-OFDMA	1	-4.39	≤11.00	PASS
				2	-3.65	≤11.00	PASS
				3	-6.52	≤11.00	PASS
				4	-4.09	≤11.00	PASS
			996+484+242 _Non-OFDMA	1	-5.17	≤11.00	PASS
				2	-4.66	≤11.00	PASS
				3	-4.32	≤11.00	PASS

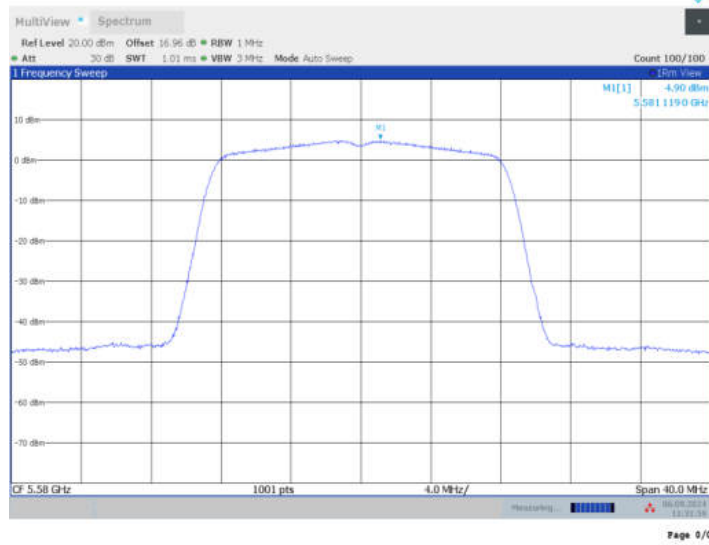
				4	-4.35	≤11.00	PASS
				5	-5.07	≤11.00	PASS
				6	-4.75	≤11.00	PASS
				7	-5.26	≤11.00	PASS
				8	-4.99	≤11.00	PASS
	Ant14	5250 _UNII-2A	996+484 _Non-OFDMA	1	-5.23	≤11.00	PASS
				2	-4.34	≤11.00	PASS
				3	-6.44	≤11.00	PASS
				4	-5.63	≤11.00	PASS
			996+484+242 _Non-OFDMA	1	-6.16	≤11.00	PASS
				2	-5.87	≤11.00	PASS
				3	-5.57	≤11.00	PASS
				4	-5.69	≤11.00	PASS
				5	-6.08	≤11.00	PASS
				6	-5.24	≤11.00	PASS
				7	-5.44	≤11.00	PASS
				8	-5.97	≤11.00	PASS
			996+484 _Non-OFDMA	1	-1.78	≤11.00	PASS
				2	-0.97	≤11.00	PASS
				3	-3.47	≤11.00	PASS
				4	-1.78	≤11.00	PASS
	total	5250 _UNII-2A	996+484+242 _Non-OFDMA	1	-2.63	≤11.00	PASS
				2	-2.21	≤11.00	PASS
				3	-1.89	≤11.00	PASS
				4	-1.96	≤11.00	PASS
				5	-2.54	≤11.00	PASS
				6	-1.98	≤11.00	PASS
				7	-2.34	≤11.00	PASS
				8	-2.44	≤11.00	PASS
	Ant10	5570	996+484 _Non-OFDMA	1	-2.45	≤11.00	PASS
				2	-1.51	≤11.00	PASS
				3	-1.59	≤11.00	PASS
				4	-2.32	≤11.00	PASS
			996+484+242 _Non-OFDMA	1	-2.77	≤11.00	PASS
				2	-2.48	≤11.00	PASS
				3	-2.10	≤11.00	PASS
				4	-1.61	≤11.00	PASS
				5	-1.86	≤11.00	PASS
				6	-2.04	≤11.00	PASS
				7	-2.87	≤11.00	PASS
				8	-2.87	≤11.00	PASS
	Ant14	5570	996+484	1	-2.64	≤11.00	PASS

			_Non-OFDMA	2	-2.21	≤11.00	PASS
				3	-2.12	≤11.00	PASS
				4	-2.71	≤11.00	PASS
			996+484+242 _Non-OFDMA	1	-3.73	≤11.00	PASS
				2	-3.41	≤11.00	PASS
				3	-2.95	≤11.00	PASS
				4	-2.91	≤11.00	PASS
				5	-3.31	≤11.00	PASS
				6	-3.30	≤11.00	PASS
				7	-3.28	≤11.00	PASS
				8	-3.43	≤11.00	PASS
	total	5570	996+484 _Non-OFDMA	1	0.47	≤11.00	PASS
				2	1.16	≤11.00	PASS
				3	1.16	≤11.00	PASS
				4	0.50	≤11.00	PASS
			996+484+242 _Non-OFDMA	1	-0.21	≤11.00	PASS
				2	0.09	≤11.00	PASS
				3	0.51	≤11.00	PASS
				4	0.80	≤11.00	PASS
				5	0.49	≤11.00	PASS
				6	0.39	≤11.00	PASS
				7	-0.06	≤11.00	PASS
				8	-0.13	≤11.00	PASS

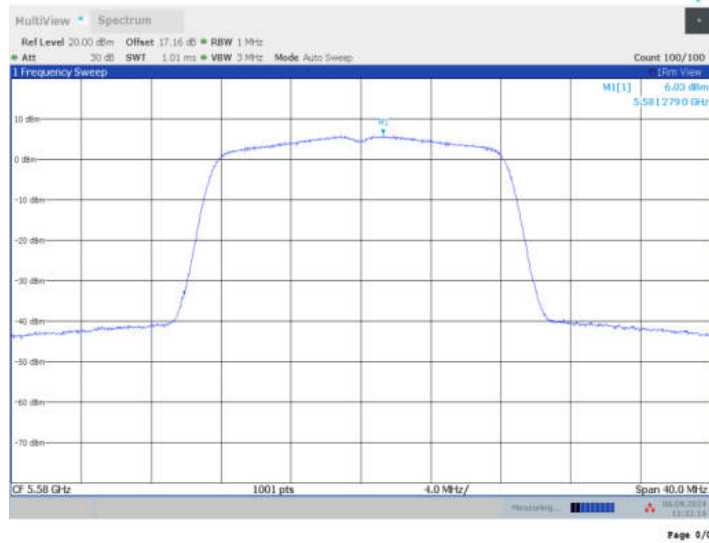
Note:All results have been tested, only shows the worst case.

Peak Power Spectral Density:

11A-CDD_Ant9_5580



11A-CDD_Ant10_5580



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
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EUT ID: UT02a

Measurement Result:

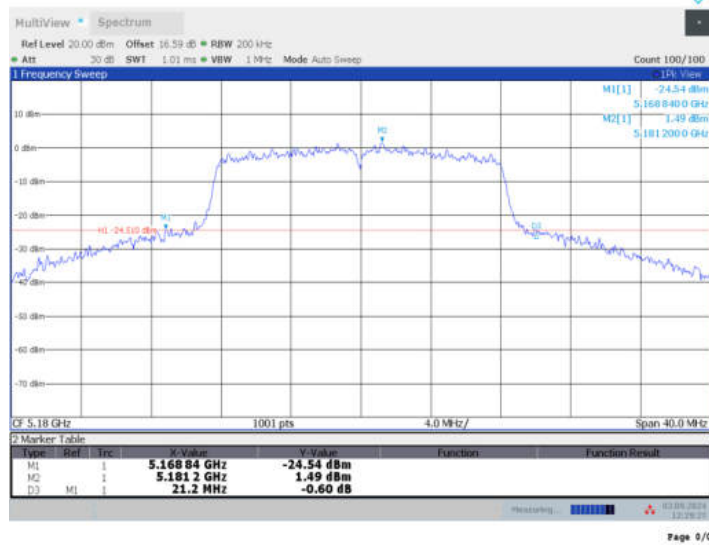
TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Verdict
11A-CDD	Ant9	5180	21.20	5168.84	5190.04	PASS
	Ant10	5180	21.36	5168.24	5189.60	PASS
	Ant9	5200	19.84	5189.84	5209.68	PASS
	Ant10	5200	23.76	5187.56	5211.32	PASS
	Ant9	5240	18.28	5230.80	5249.08	PASS
	Ant10	5240	19.60	5230.68	5250.28	PASS
	Ant9	5260	18.16	5250.88	5269.04	PASS
	Ant10	5260	18.64	5250.36	5269.00	PASS
	Ant9	5280	20.68	5269.12	5289.80	PASS
	Ant10	5280	24.00	5268.68	5292.68	PASS
	Ant9	5320	19.28	5310.48	5329.76	PASS
	Ant10	5320	23.52	5308.28	5331.80	PASS
	Ant9	5500	18.40	5490.72	5509.12	PASS
	Ant10	5500	18.32	5490.80	5509.12	PASS
	Ant9	5580	18.08	5570.88	5588.96	PASS
	Ant10	5580	18.04	5570.92	5588.96	PASS
	Ant9	5700	18.72	5690.60	5709.32	PASS
	Ant10	5700	18.76	5690.56	5709.32	PASS
11BE20MIMO	Ant9	5180	21.32	5169.16	5190.48	PASS
	Ant10	5180	19.84	5170.00	5189.84	PASS
	Ant9	5200	19.84	5190.00	5209.84	PASS
	Ant10	5200	24.76	5187.08	5211.84	PASS
	Ant9	5240	19.96	5229.92	5249.88	PASS
	Ant10	5240	20.04	5230.00	5250.04	PASS
	Ant9	5260	19.84	5250.00	5269.84	PASS
	Ant10	5260	20.40	5250.00	5270.40	PASS
	Ant9	5280	22.40	5268.92	5291.32	PASS

	Ant10	5280	19.88	5270.00	5289.88	PASS
	Ant9	5320	19.88	5310.00	5329.88	PASS
	Ant10	5320	26.76	5305.48	5332.24	PASS
	Ant9	5500	19.84	5490.00	5509.84	PASS
	Ant10	5500	19.84	5490.00	5509.84	PASS
	Ant9	5580	19.88	5569.96	5589.84	PASS
	Ant10	5580	19.80	5570.00	5589.80	PASS
	Ant9	5700	19.84	5690.00	5709.84	PASS
	Ant10	5700	19.84	5690.00	5709.84	PASS
11AX40MIMO	Ant9	5190	39.76	5170.08	5209.84	PASS
	Ant10	5190	39.84	5170.08	5209.92	PASS
	Ant9	5230	39.44	5210.24	5249.68	PASS
	Ant10	5230	39.60	5210.00	5249.60	PASS
	Ant9	5270	39.52	5250.16	5289.68	PASS
	Ant10	5270	39.52	5250.16	5289.68	PASS
	Ant9	5310	41.20	5288.64	5329.84	PASS
	Ant10	5310	39.84	5290.00	5329.84	PASS
	Ant9	5510	39.68	5490.08	5529.76	PASS
	Ant10	5510	40.08	5490.16	5530.24	PASS
	Ant9	5550	39.60	5530.16	5569.76	PASS
	Ant10	5550	39.84	5529.92	5569.76	PASS
	Ant9	5670	39.68	5650.08	5689.76	PASS
	Ant10	5670	39.68	5650.00	5689.68	PASS
11AX80MIMO	Ant9	5210	89.44	5169.68	5259.12	PASS
	Ant10	5210	95.04	5169.52	5264.56	PASS
	Ant9	5290	91.20	5239.12	5330.32	PASS
	Ant10	5290	81.44	5248.88	5330.32	PASS
	Ant9	5530	93.60	5489.68	5583.28	PASS
	Ant10	5530	93.76	5486.00	5579.76	PASS
	Ant9	5610	80.48	5569.68	5650.16	PASS
	Ant10	5610	80.48	5569.68	5650.16	PASS
11AX160MIMO	Ant9	5250	162.50	5168.75	5331.25	PASS
	Ant10	5250	162.88	5168.72	5331.60	PASS
	Ant9	5250_UNII-1	81.25	5168.75	5250	PASS
	Ant10	5250_UNII-1	81.28	5168.72	5250	PASS
	Ant9	5250_UNII-2A	81.25	5250	5331.25	PASS
	Ant10	5250_UNII-2A	81.6	5250	5331.60	PASS
	Ant9	5570	162.88	5488.40	5651.28	PASS
	Ant10	5570	162.88	5488.72	5651.60	PASS

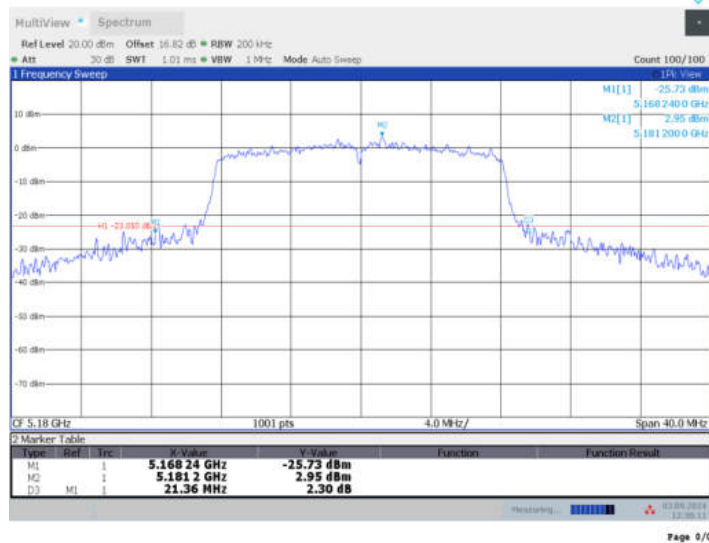
Note:All results have been tested, only shows the worst case.

Test graphs as below:

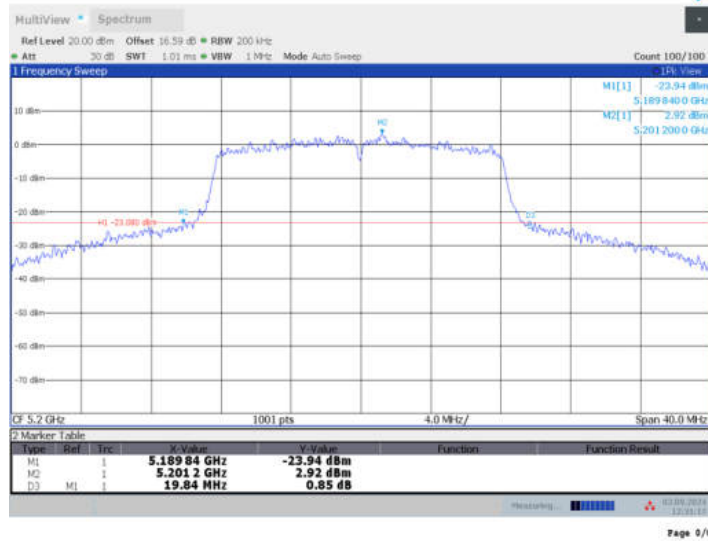
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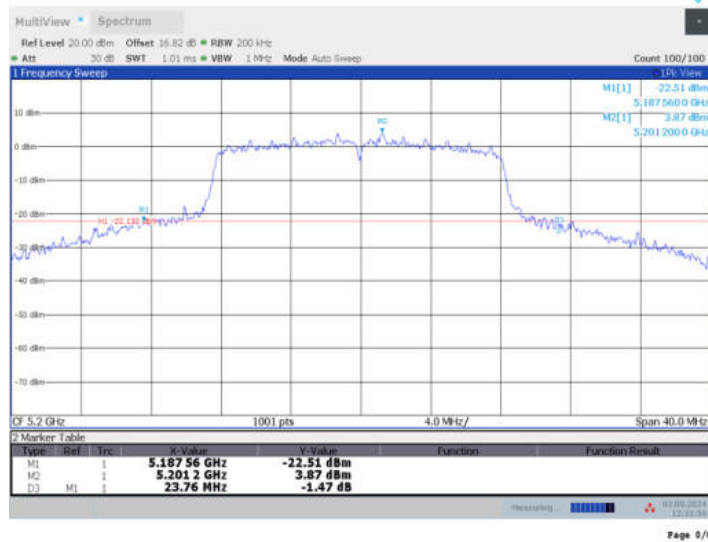
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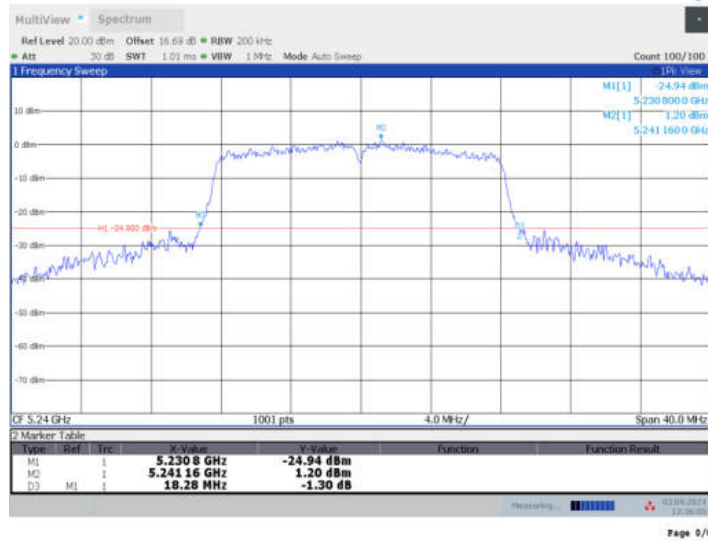
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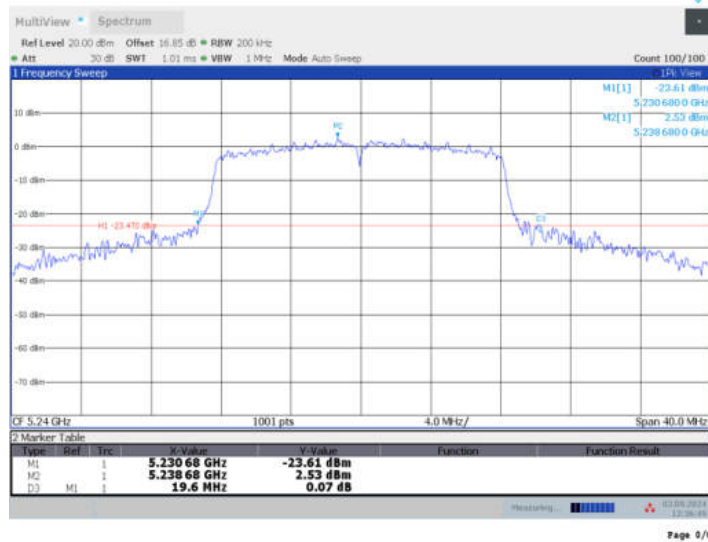
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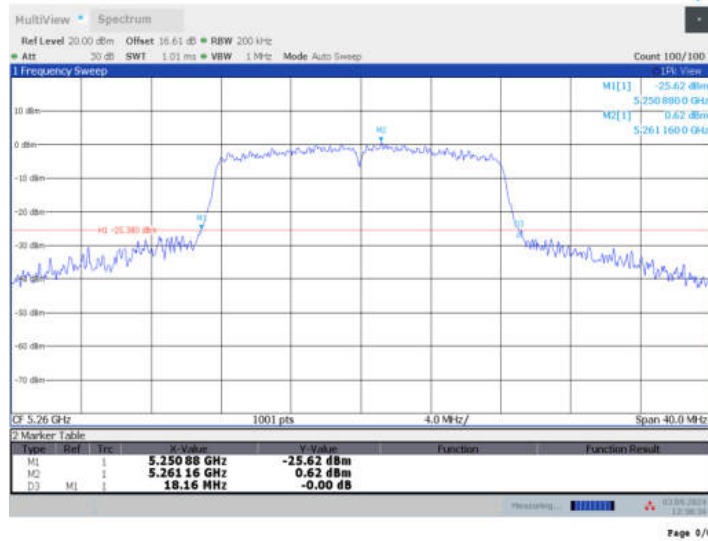
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11A-CDD_Ant10_5240

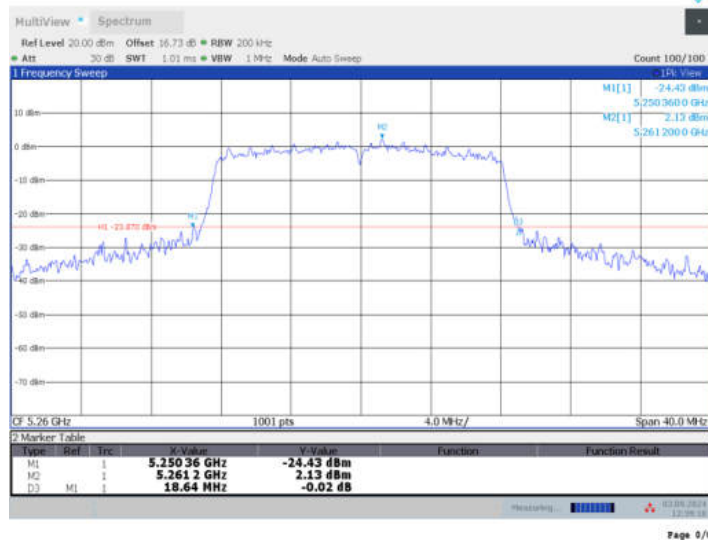


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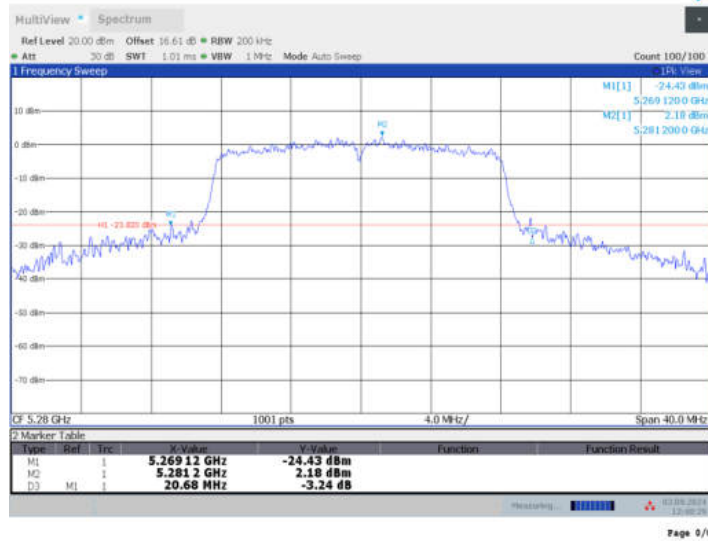
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11A-CDD_Ant10_5260



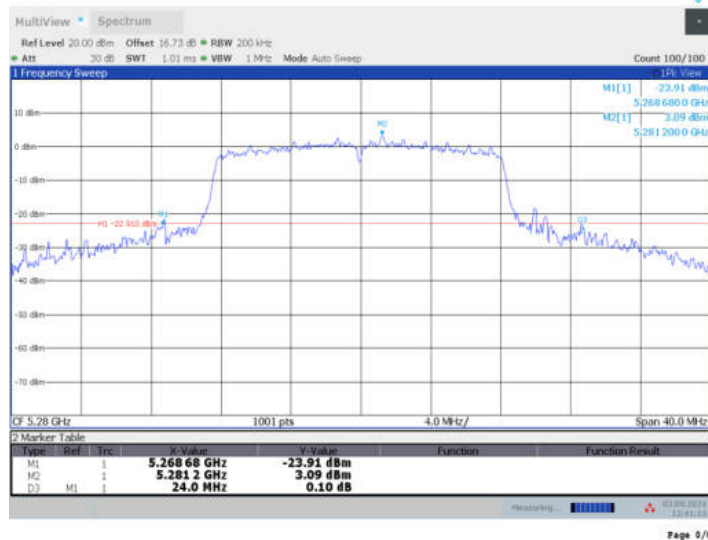
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11A-CDD_Ant9_5280



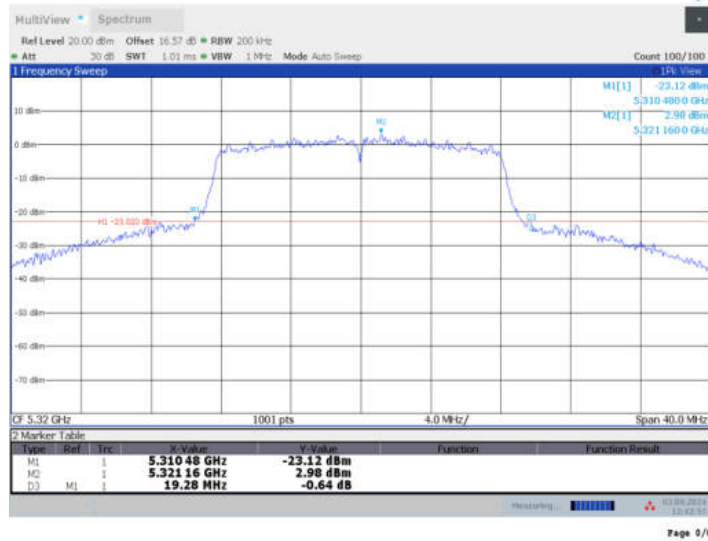
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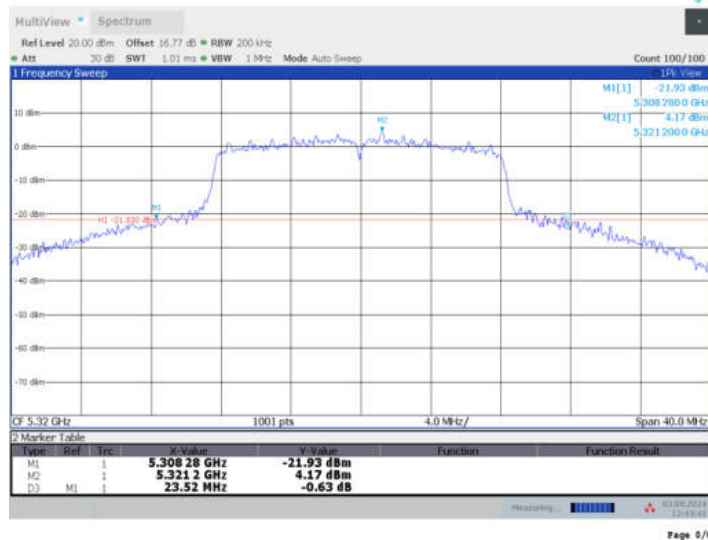
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11A-CDD_Ant9_5320



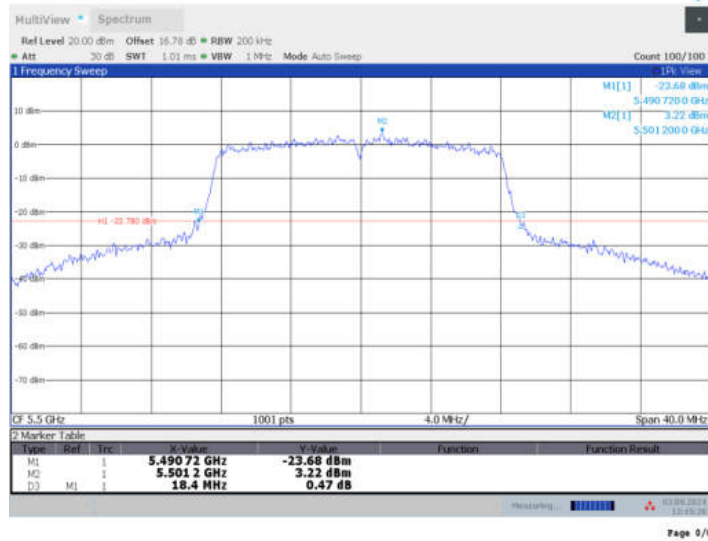
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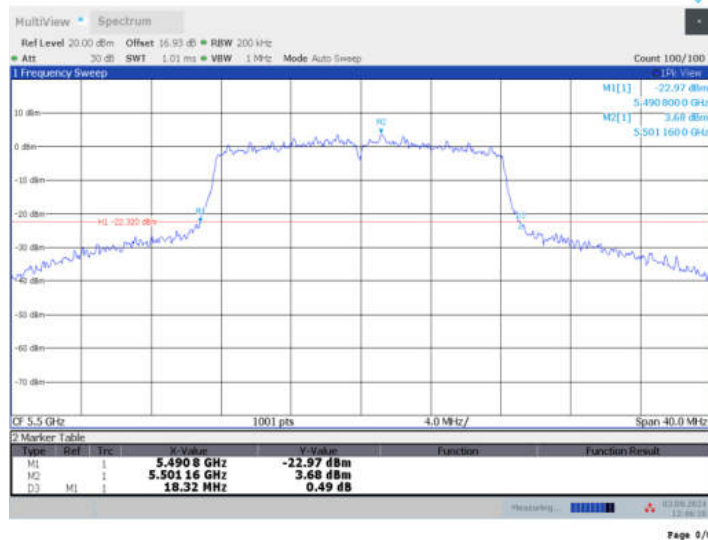


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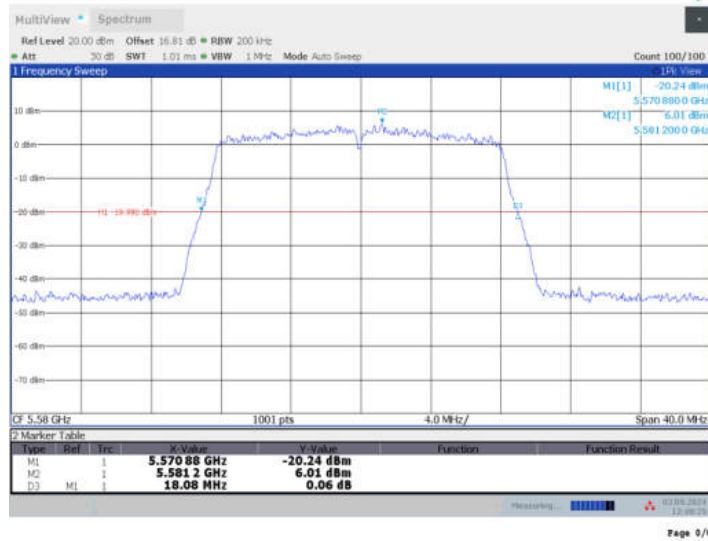
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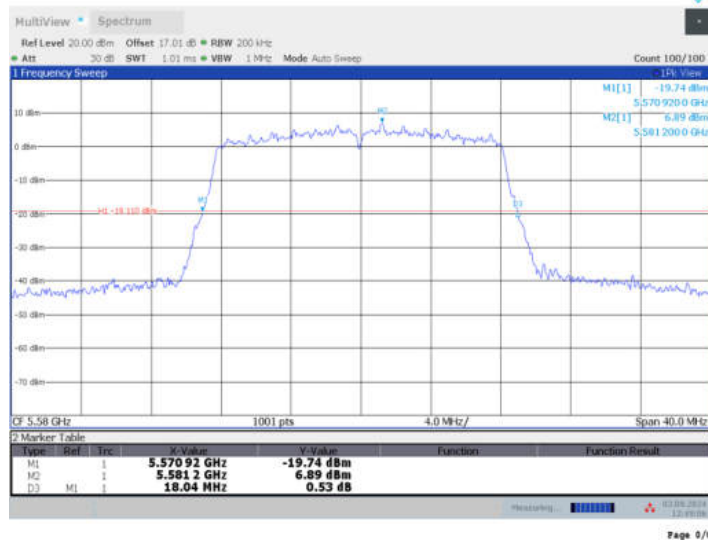
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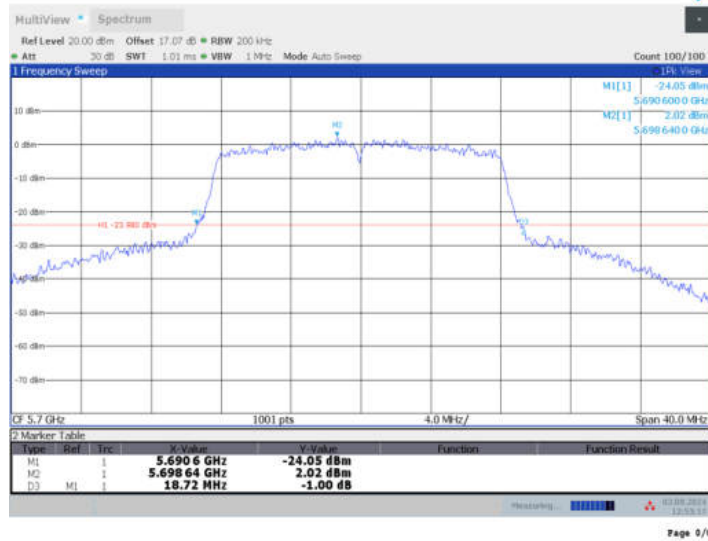
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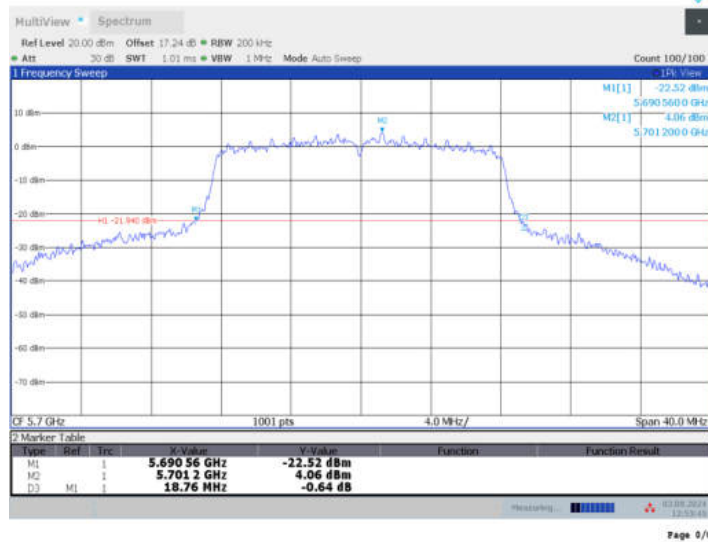
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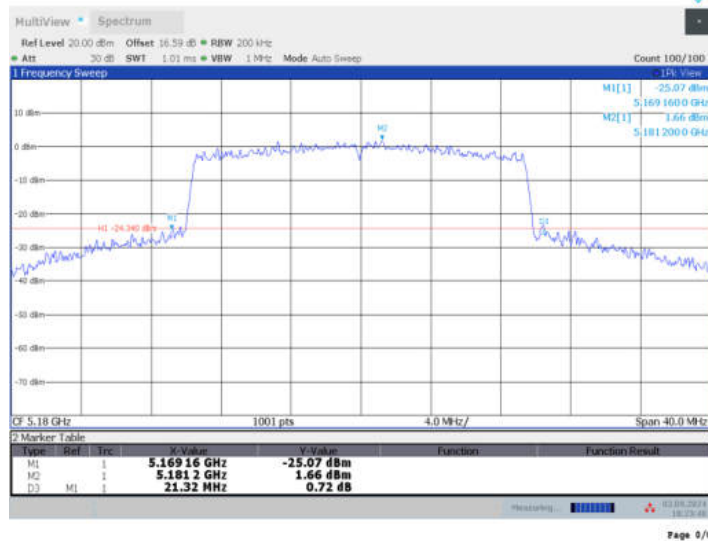
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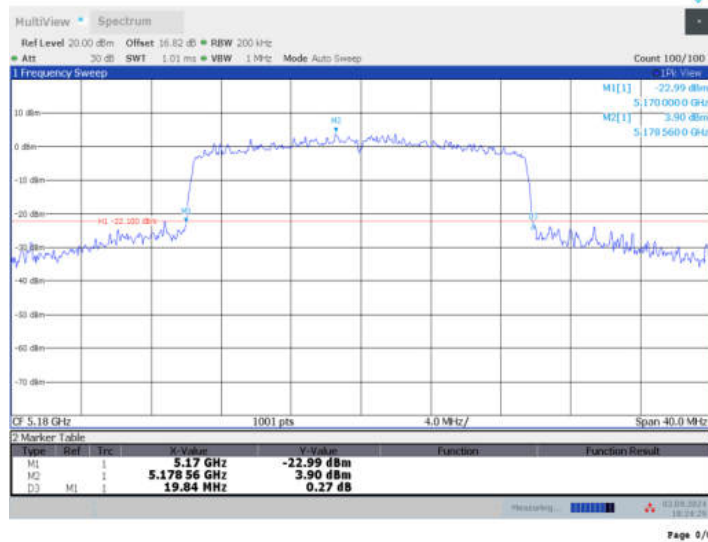
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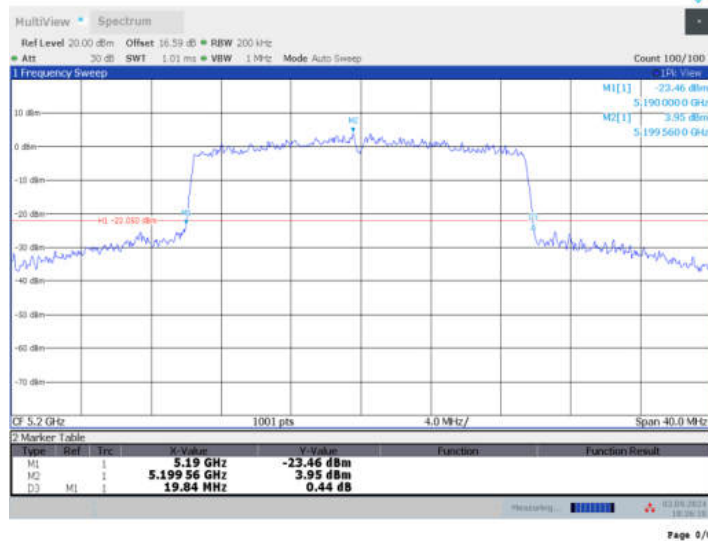
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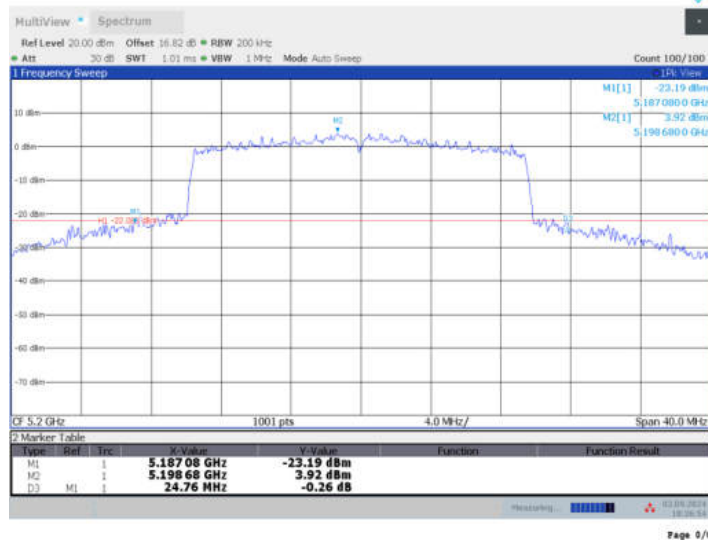
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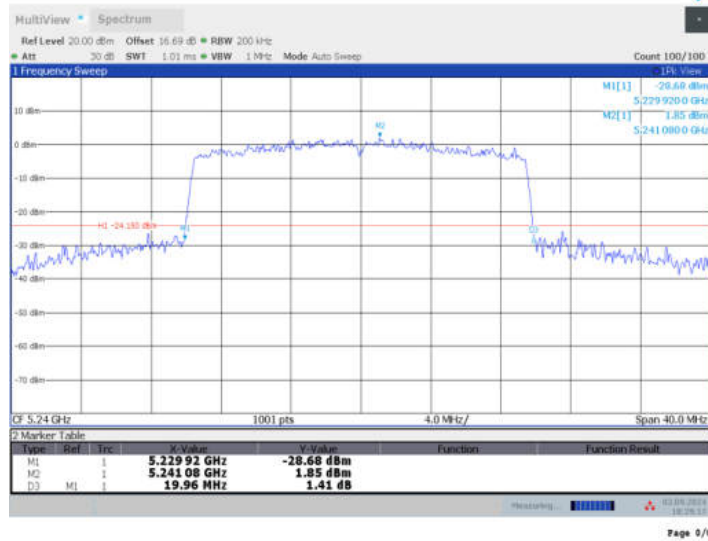
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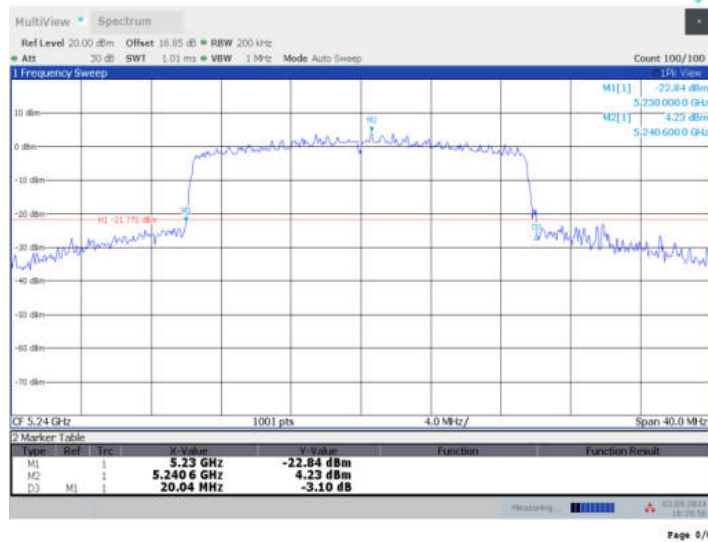
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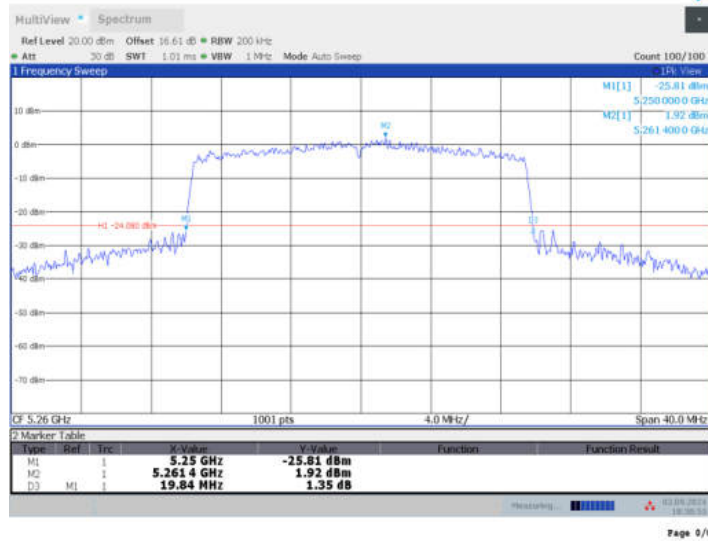
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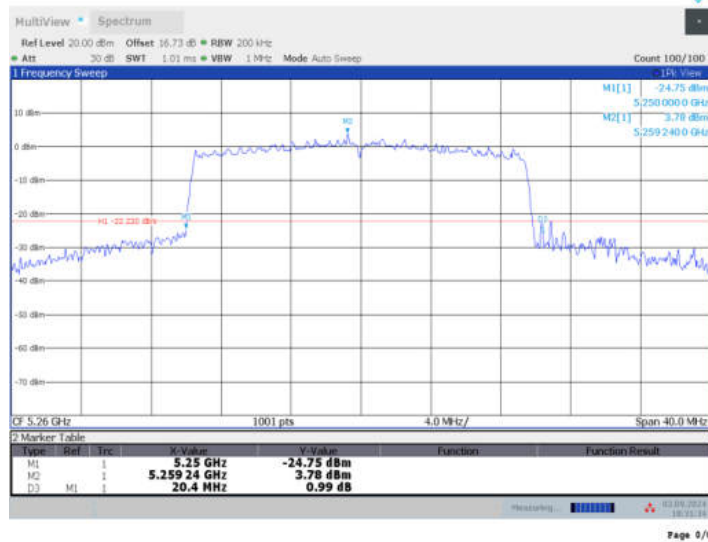
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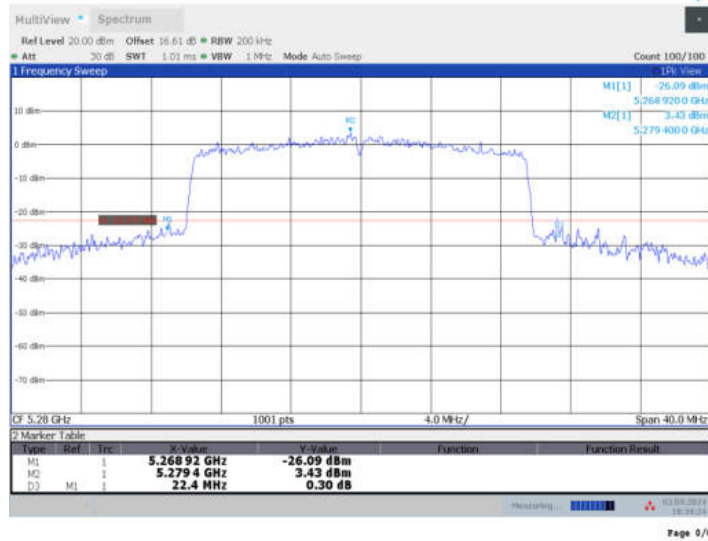
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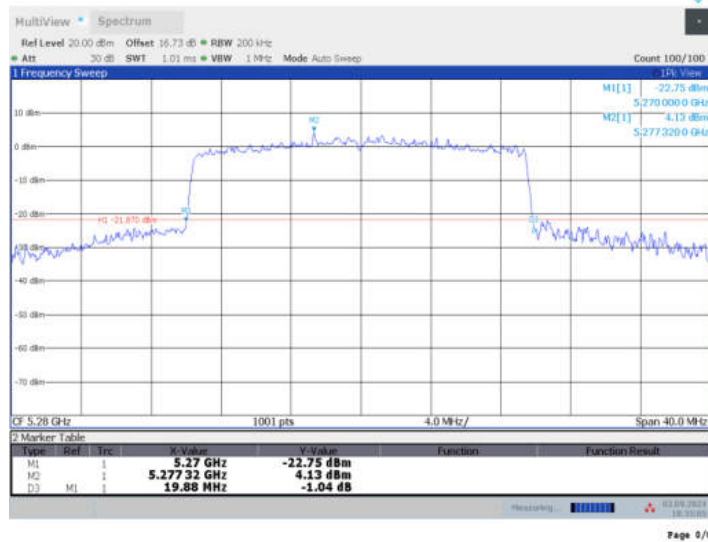
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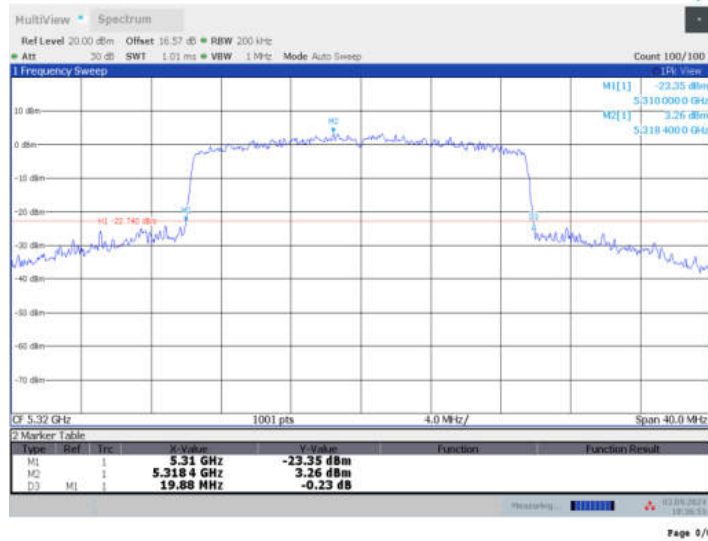
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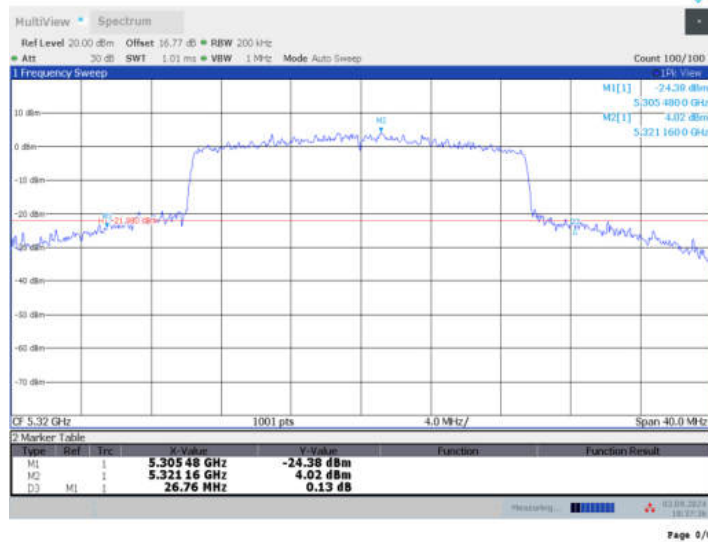
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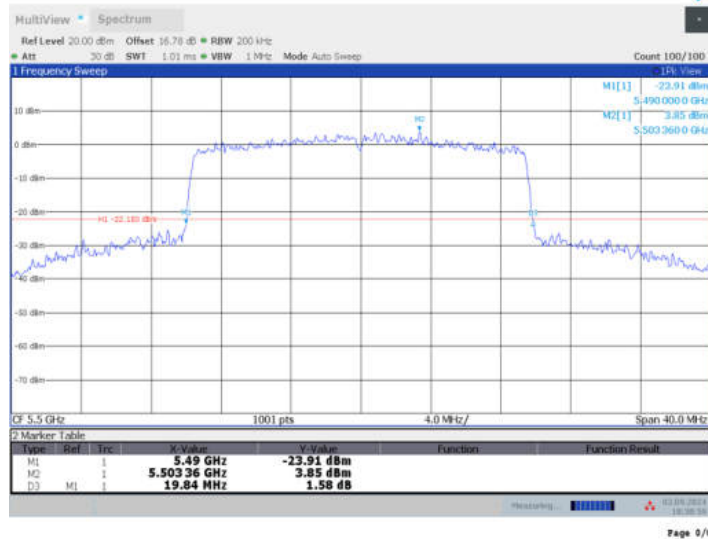
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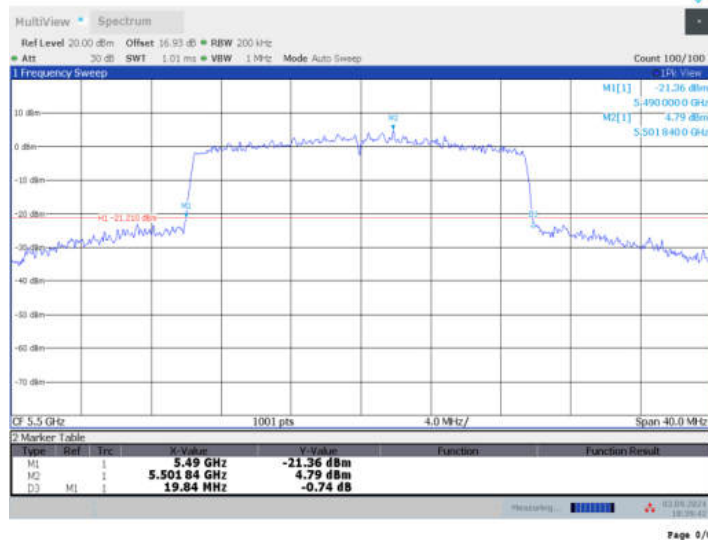
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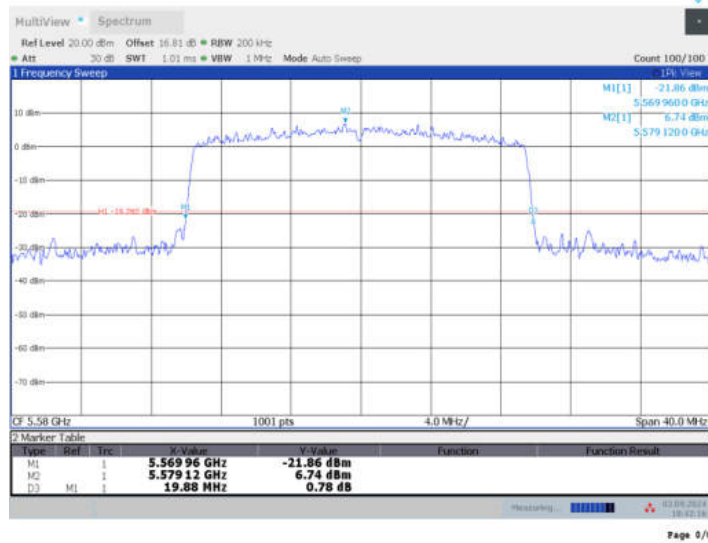
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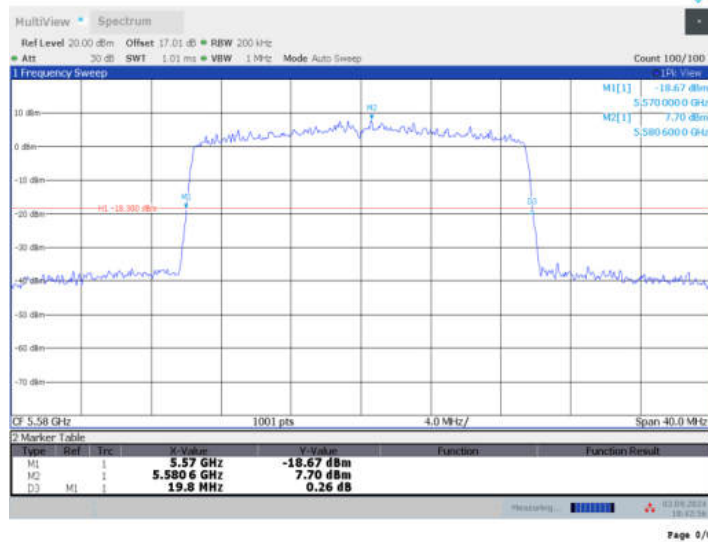
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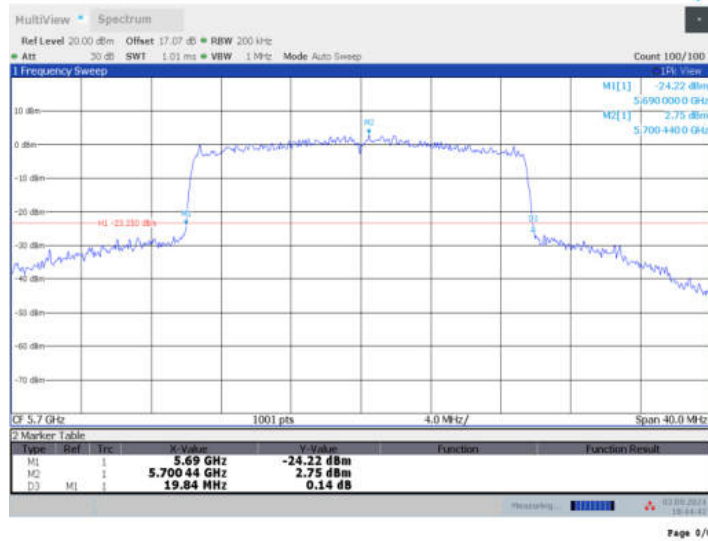
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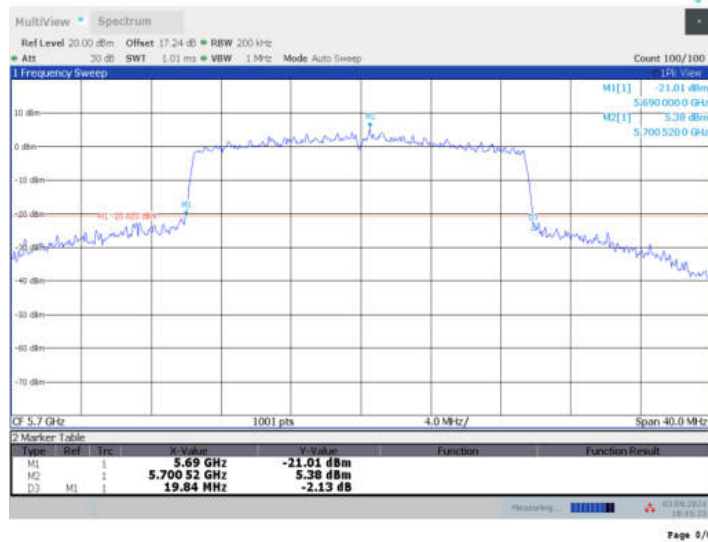
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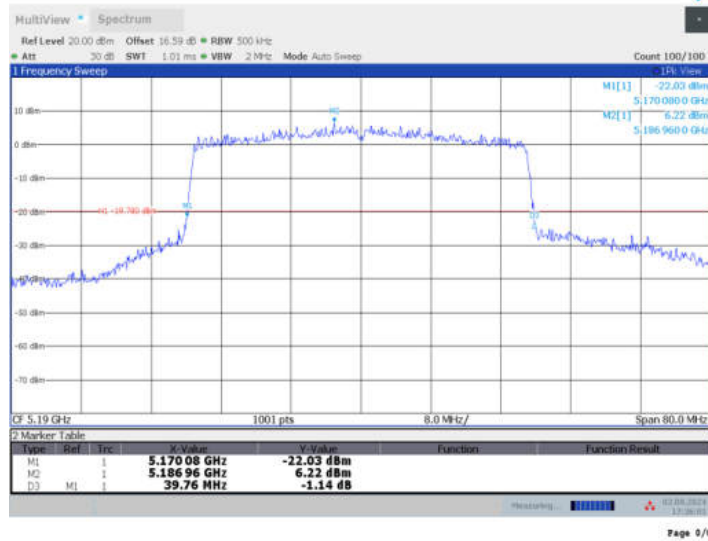
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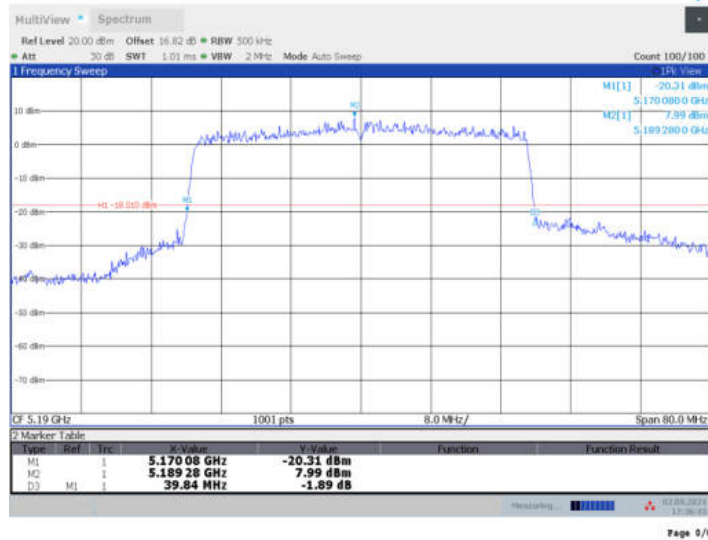
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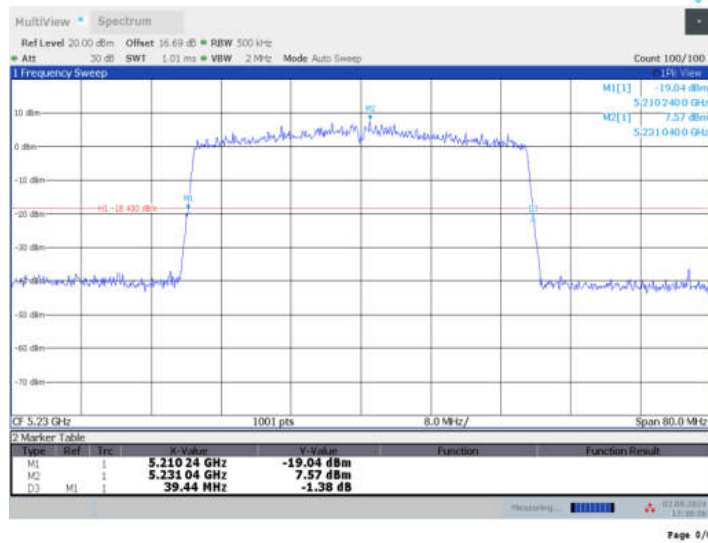
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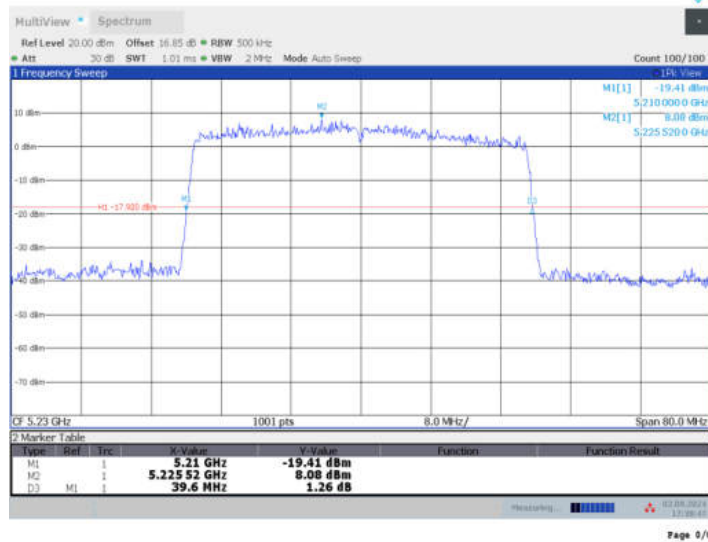
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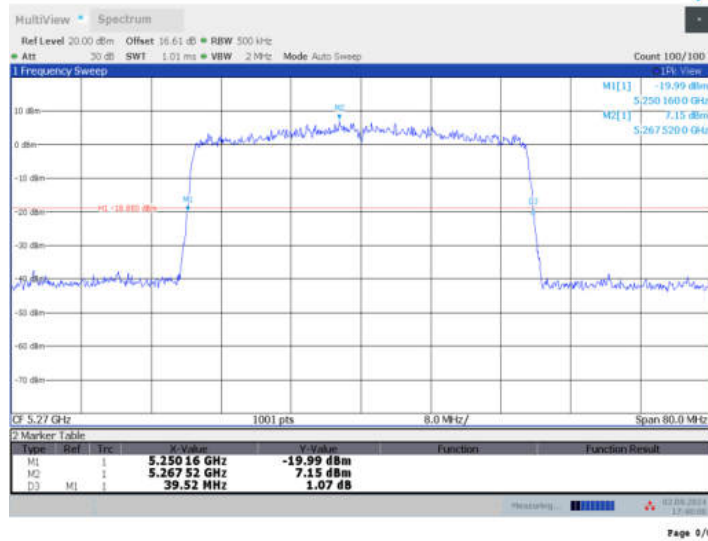
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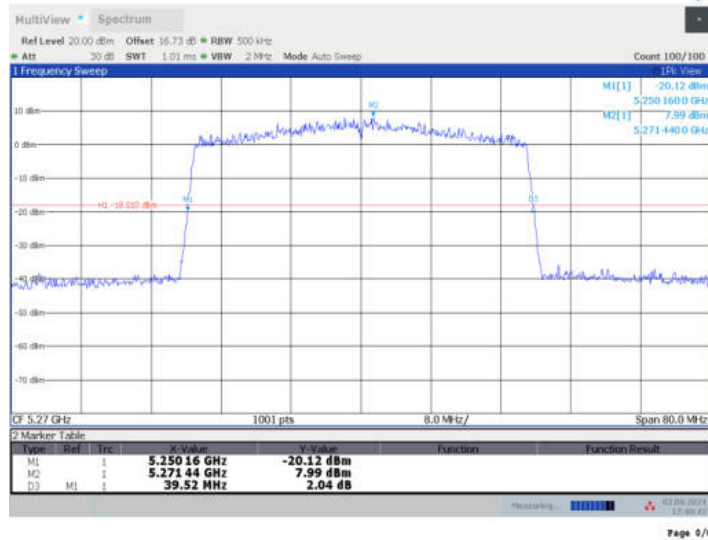
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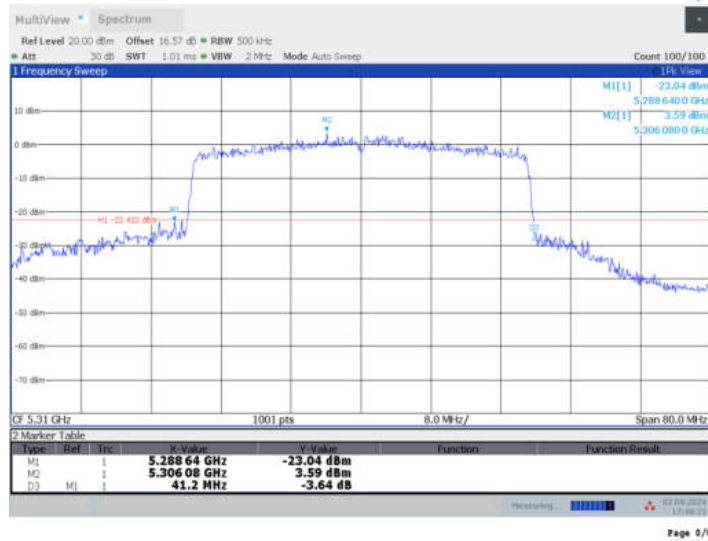
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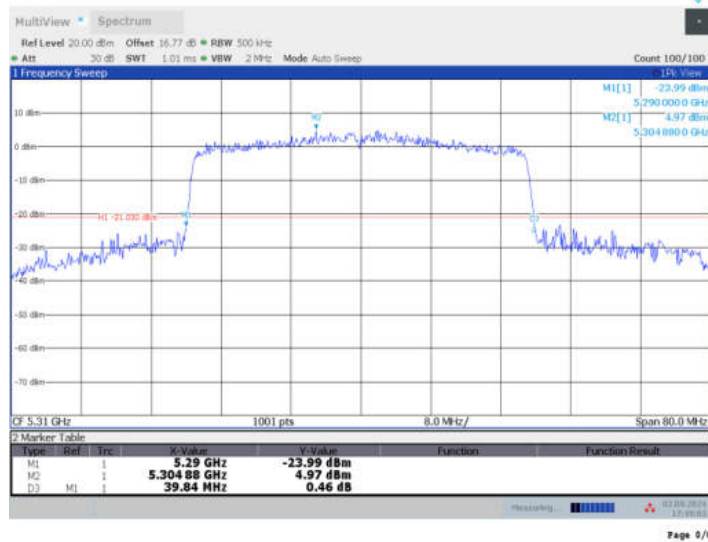
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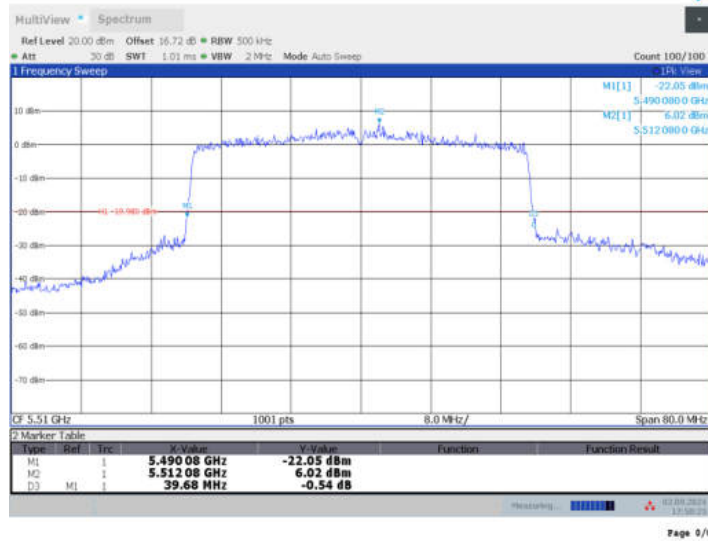
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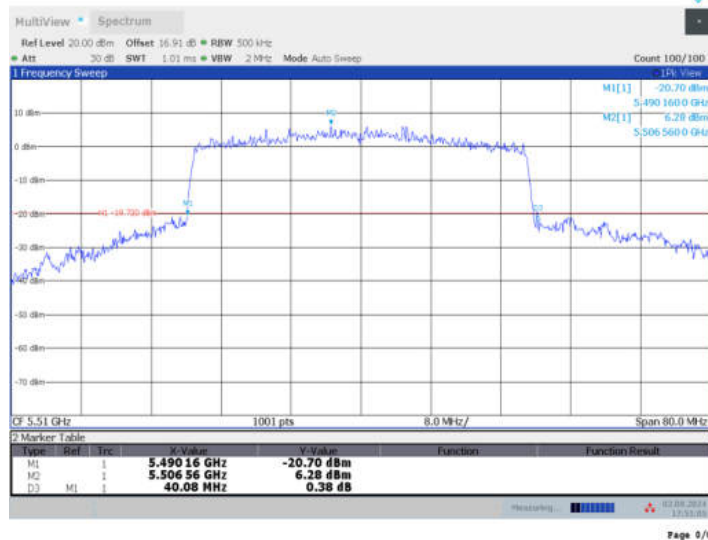
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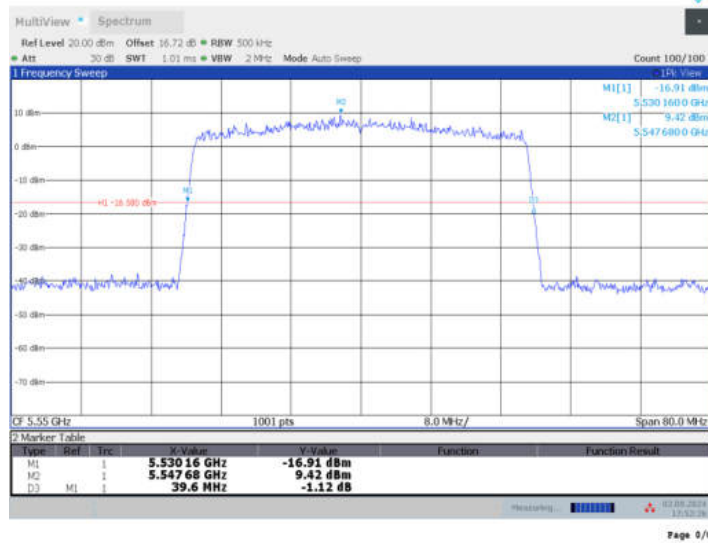
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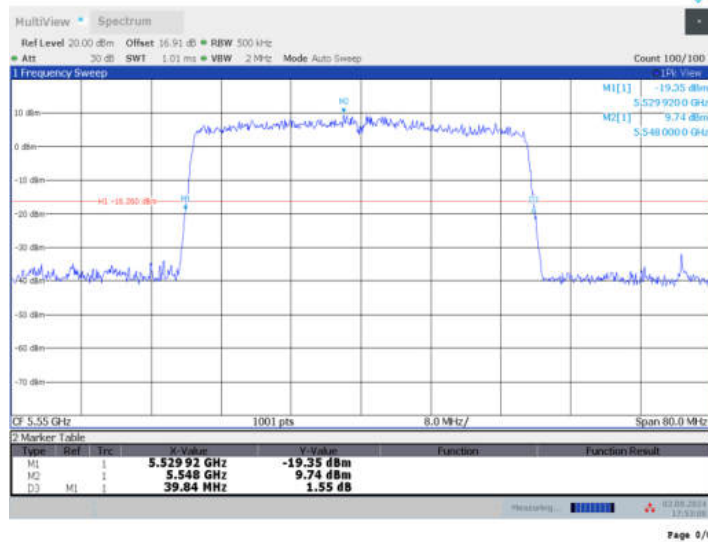
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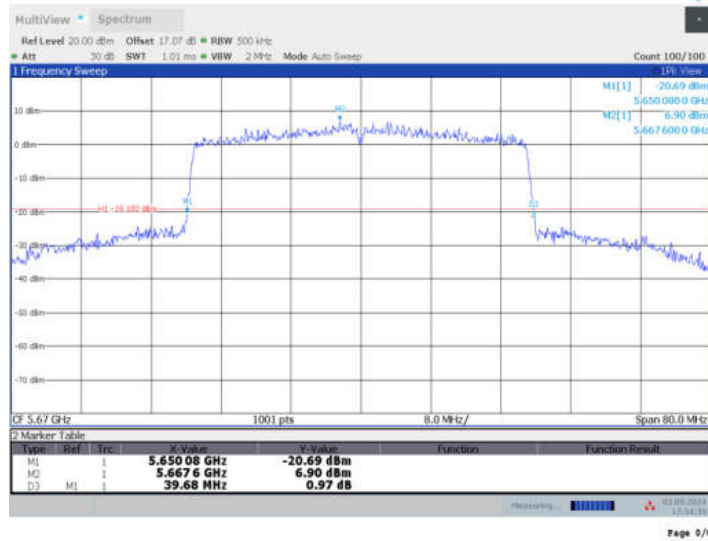
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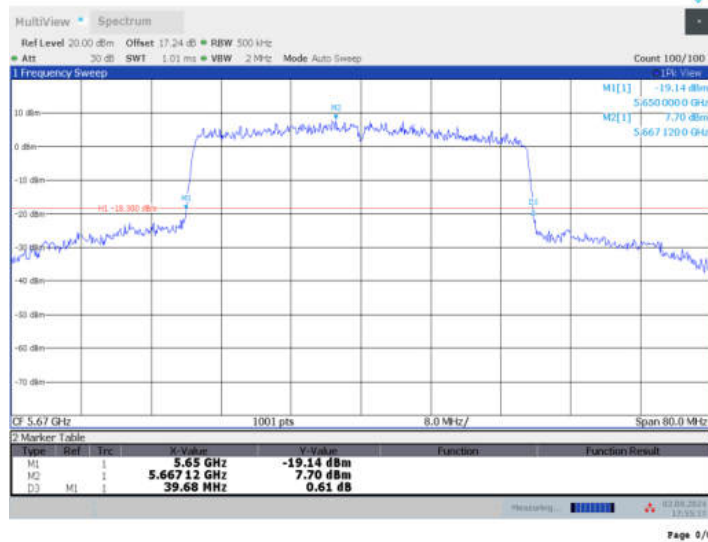
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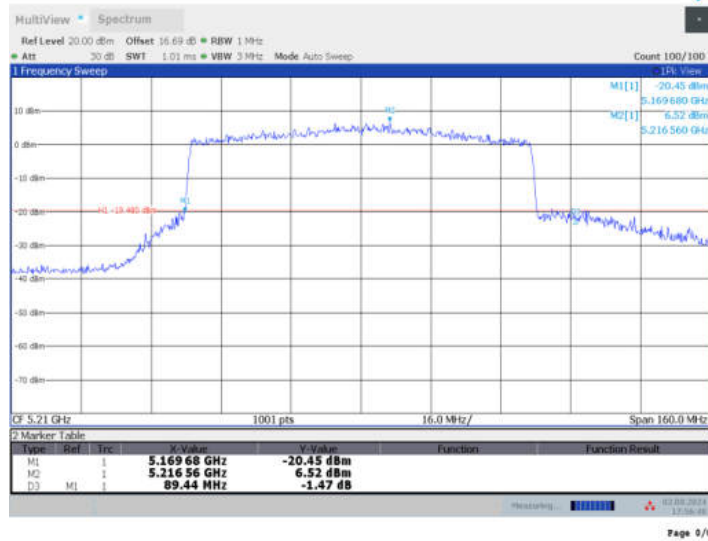
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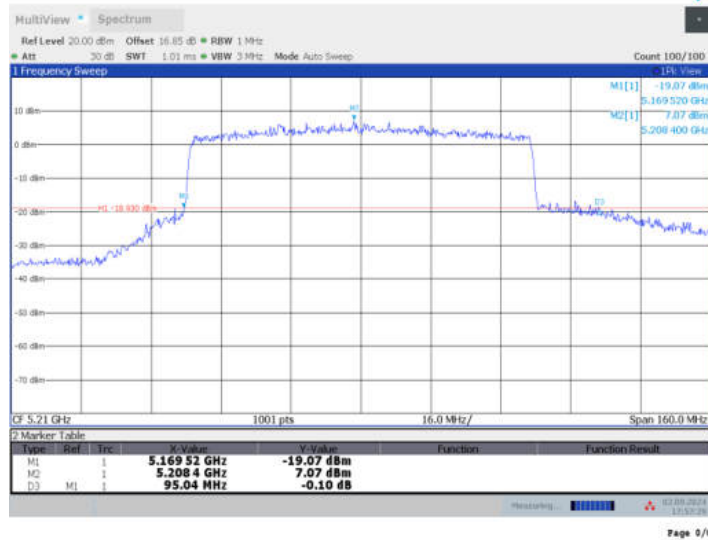
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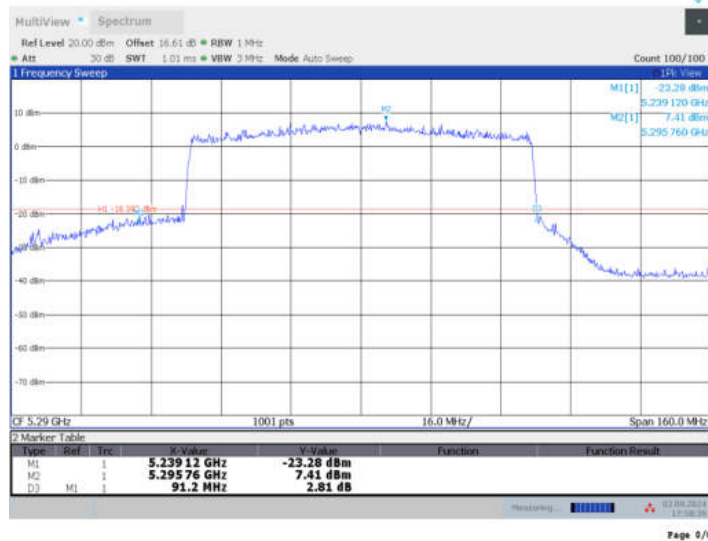
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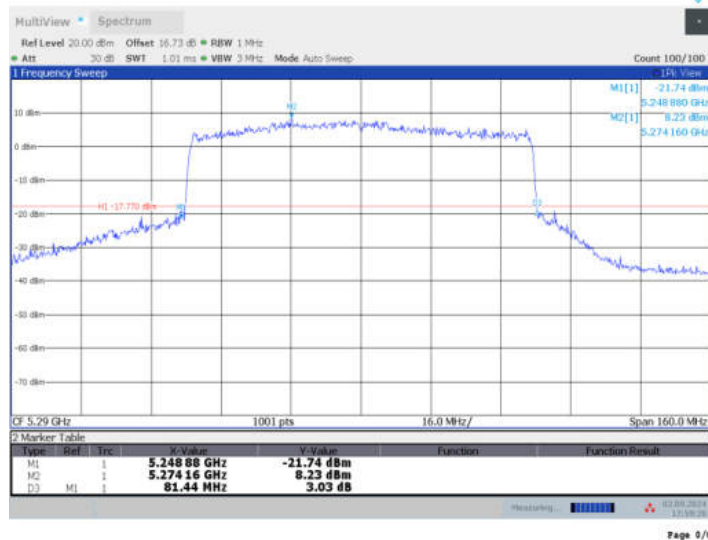
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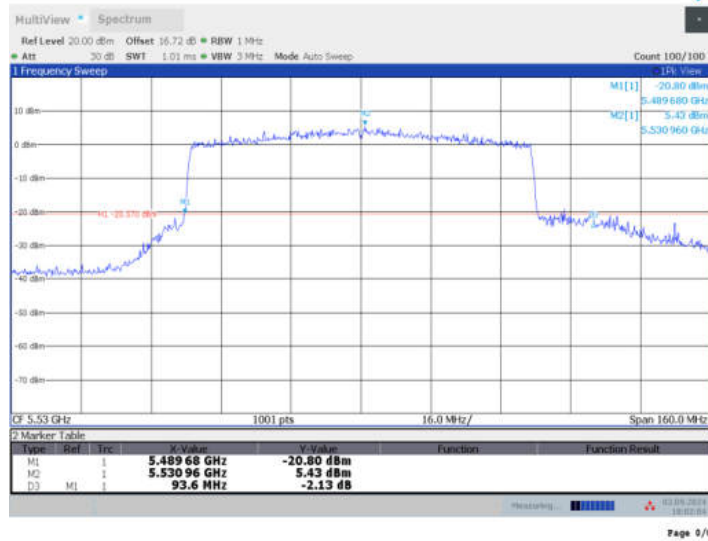
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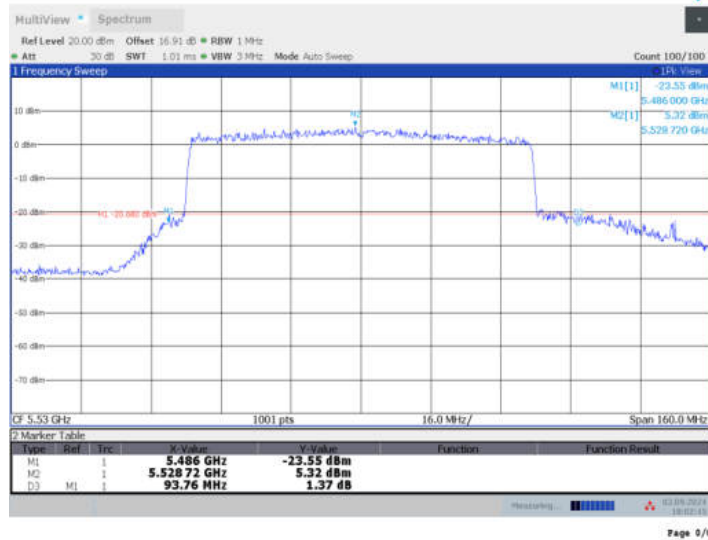
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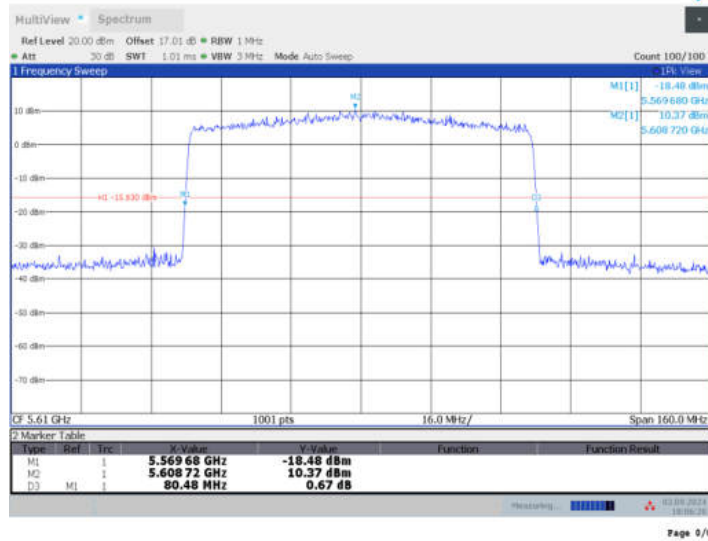
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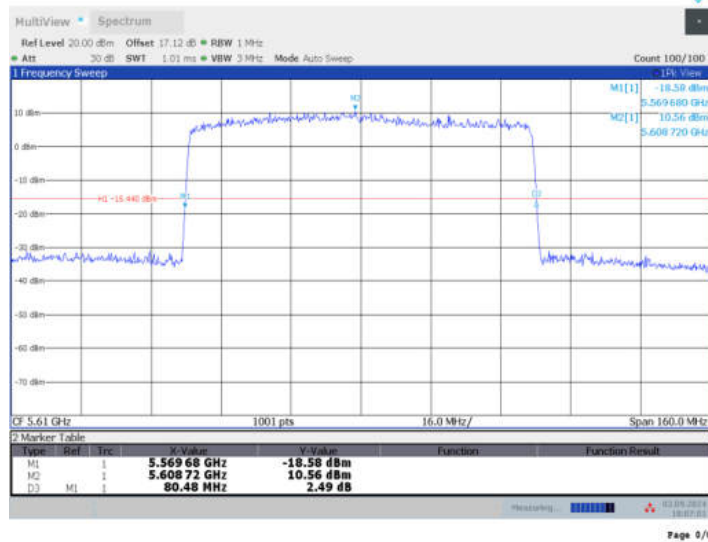
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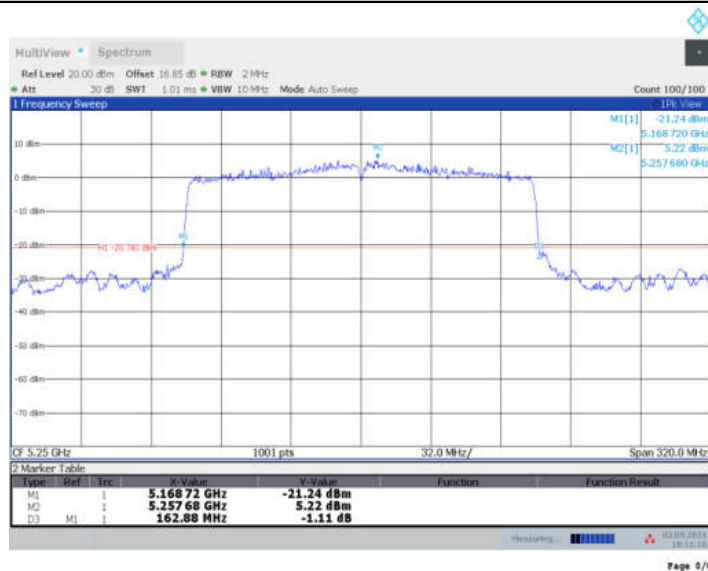
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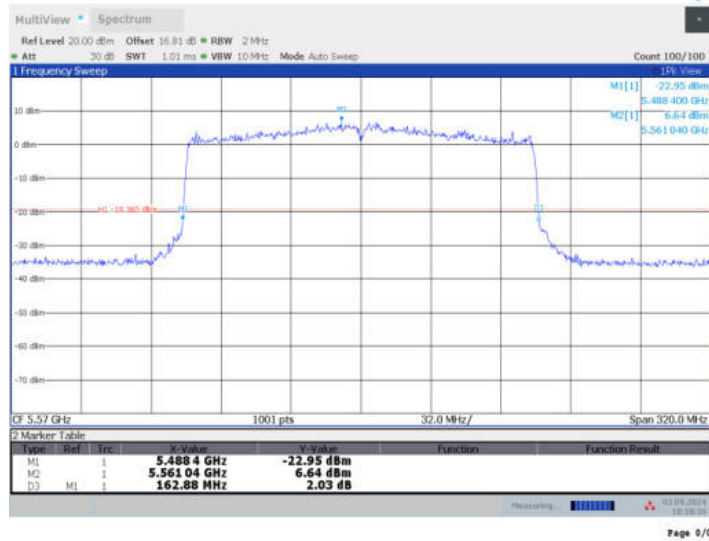
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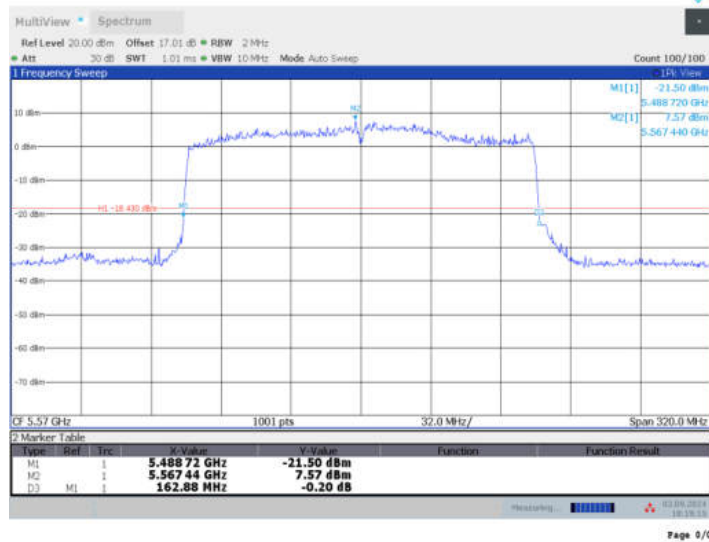
11AX160MIMO_Ant10_5250



11AX160MIMO_Ant9_5570



11AX160MIMO_Ant10_5570



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.

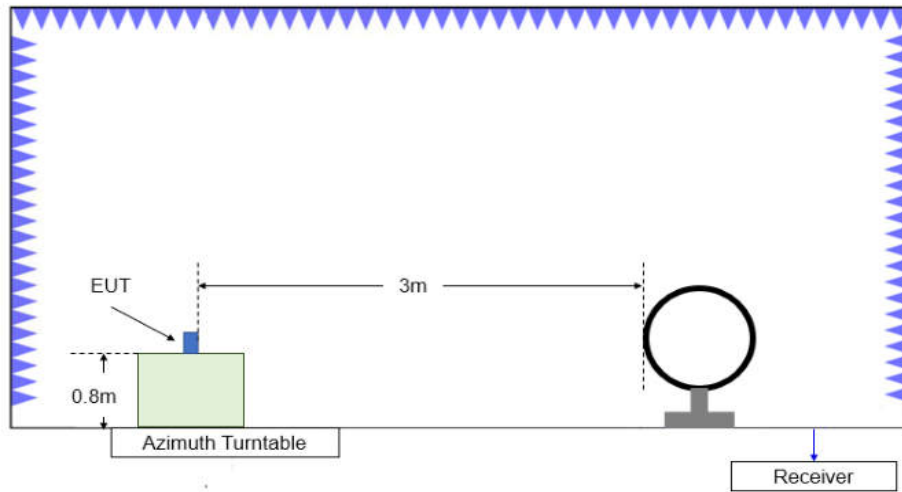
In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c))

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

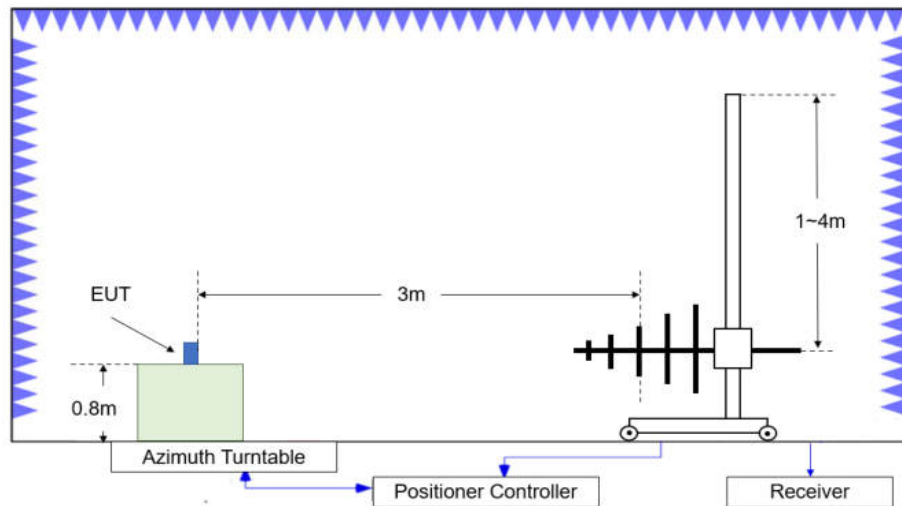
Frequency of emission (MHz)	Field strength (μ V/m)	Field strength (dBuV/m)	Measurement distance (m)
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

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).

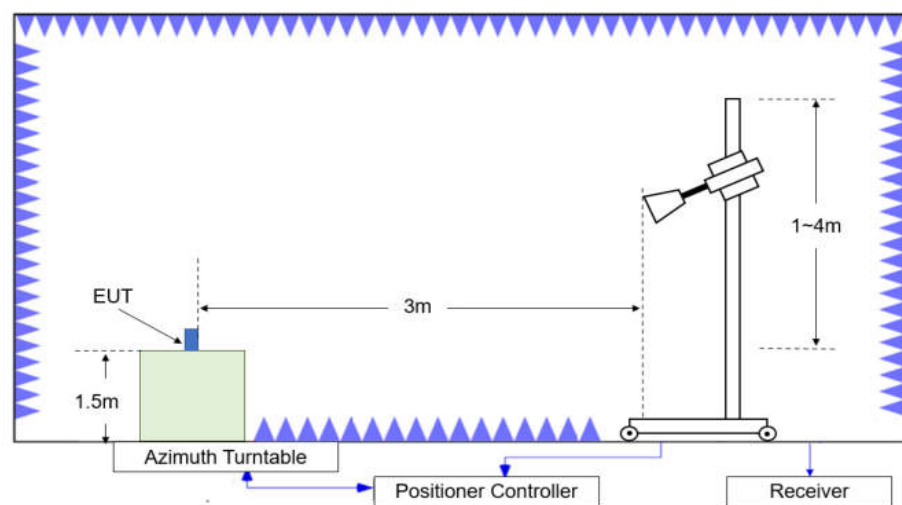
A.5.2 Test setup



Test Site Diagram (9kHz-30MHz)



Test Site Diagram (30MHz-1GHz)



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 (dBμV/m) = $P_{\text{measurement}}$ (dBμV) + 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 dBμV/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 20dBof the limit below 30MHz. OFS and semi-chamber comparison testing had been performed and the result came out very similar.

(KDB 414788)

8. The low/mid/high channels of all working mode with different bandwidths were all tested, only the worst ones were reported.

9. The EUT supports SISOs for chain0/chain1/chain2, and MIMO for Chain01/Chain12, all combinations are evaluated, only the worst cases are reported.

10. The EUT support full RU and partial RU for 802.11ax and 802.11be, both full RU and partial RU spurious emission was tested. And the results are basically noises with no suspicious emission. In this case, the measurement results of full RU were reported and represented worst cases.

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)
17908.150	45.50	-26.18	45.95	25.73	54.00	8.50	H
17912.000	45.46	-26.18	45.95	25.69	54.00	8.54	H
14491.550	39.24	-28.77	41.90	26.11	54.00	14.76	H
13297.500	39.17	-30.02	40.60	28.59	54.00	14.83	V
5149.400	41.62	-27.28	34.00	34.90	54.00	12.38	H
5147.760	41.26	-27.29	34.00	34.55	54.00	12.74	H

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)
17914.200	45.05	-26.18	45.95	25.28	54.00	8.95	V
17908.700	44.61	-26.18	45.95	24.84	54.00	9.39	V
14482.200	38.91	-28.77	41.90	25.78	54.00	15.09	H
14497.600	38.66	-28.77	41.90	25.53	54.00	15.34	V
5410.448	42.30	-27.13	34.30	35.13	54.00	11.70	H
5395.328	42.25	-27.12	34.20	35.17	54.00	11.75	H

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)
17923.000	44.74	-26.18	45.95	24.97	54.00	9.26	V
17915.850	44.73	-26.18	45.95	24.96	54.00	9.27	H
14499.800	38.78	-28.77	41.90	25.65	54.00	15.22	H
13266.700	38.49	-29.90	40.50	27.89	54.00	15.51	V
5424.445	41.60	-27.13	34.30	34.43	54.00	12.40	H
5450.095	41.59	-27.10	34.20	34.49	54.00	12.41	H

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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)
17916.950	44.79	-26.18	45.95	25.02	54.00	9.21	H
17913.650	44.78	-26.18	45.95	25.01	54.00	9.22	H
14481.100	38.67	-28.77	41.90	25.54	54.00	15.33	H
13258.450	38.52	-29.90	40.50	27.92	54.00	15.48	V
5149.720	41.59	-27.28	34.00	34.87	54.00	12.41	H
5149.900	41.22	-27.28	34.00	34.50	54.00	12.78	H

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)
17925.200	44.81	-26.18	45.95	25.04	54.00	9.19	H
17930.700	44.76	-26.18	45.95	24.99	54.00	9.24	H
14484.950	38.71	-28.77	41.90	25.58	54.00	15.29	H
14495.950	38.63	-28.77	41.90	25.50	54.00	15.37	H
5425.920	42.49	-27.13	34.30	35.32	54.00	11.51	H
5366.096	42.28	-27.12	34.20	35.20	54.00	11.72	H

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)
17921.350	44.74	-26.18	45.95	24.97	54.00	9.26	H
17930.700	44.66	-26.18	45.95	24.89	54.00	9.34	H
14488.250	38.70	-28.77	41.90	25.57	54.00	15.30	H
14490.450	38.50	-28.77	41.90	25.37	54.00	15.50	H
5402.560	42.01	-27.13	34.30	34.84	54.00	11.99	H
5398.000	41.93	-27.13	34.30	34.76	54.00	12.07	H

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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)
17914.750	44.71	-26.18	45.95	24.94	54.00	9.29	V
17927.950	44.67	-26.18	45.95	24.90	54.00	9.33	H
14498.150	38.85	-28.77	41.90	25.72	54.00	15.15	H
14471.200	38.44	-28.77	41.90	25.31	54.00	15.56	V
5149.260	43.52	-27.28	34.00	36.80	54.00	10.48	H
5149.760	43.42	-27.28	34.00	36.70	54.00	10.58	H

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)
17900.450	45.01	-26.18	45.95	25.24	54.00	8.99	H
17948.850	44.82	-26.18	45.95	25.05	54.00	9.18	H
14471.750	38.63	-28.77	41.90	25.50	54.00	15.37	H
14487.150	38.63	-28.77	41.90	25.50	54.00	15.37	V
5357.200	42.90	-27.12	34.20	35.82	54.00	11.10	H
5354.640	42.76	-27.12	34.20	35.68	54.00	11.24	H

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)
17915.300	44.84	-26.18	45.95	25.07	54.00	9.16	H
17916.400	44.78	-26.18	45.95	25.01	54.00	9.22	H
14488.250	38.84	-28.77	41.90	25.71	54.00	15.16	V
14494.850	38.68	-28.77	41.90	25.55	54.00	15.32	H
5426.455	42.00	-27.13	34.30	34.83	54.00	12.00	H
5459.695	41.87	-27.10	34.20	34.77	54.00	12.13	H

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)
17894.400	44.59	-26.18	45.95	24.82	54.00	9.41	V
17912.550	44.56	-26.18	45.95	24.79	54.00	9.44	H
14480.550	38.58	-28.77	41.90	25.45	54.00	15.42	H
14473.950	38.54	-28.77	41.90	25.41	54.00	15.46	H
5149.120	41.06	-27.28	34.00	34.34	54.00	12.94	H
5149.320	40.98	-27.28	34.00	34.26	54.00	13.02	H

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)
17911.450	44.76	-26.18	45.95	24.99	54.00	9.24	V
17917.500	44.71	-26.18	45.95	24.94	54.00	9.29	V
14483.300	38.65	-28.77	41.90	25.52	54.00	15.35	V
14493.200	38.61	-28.77	41.90	25.48	54.00	15.39	H
5351.520	41.96	-27.12	34.20	34.88	54.00	12.04	H
5350.288	41.88	-27.12	34.20	34.80	54.00	12.12	H

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)
17932.350	44.78	-26.18	45.95	25.01	54.00	9.22	H
17921.350	44.77	-26.18	45.95	25.00	54.00	9.23	V
14480.550	38.72	-28.77	41.90	25.59	54.00	15.28	V
14499.800	38.50	-28.77	41.90	25.37	54.00	15.50	V
5443.150	41.49	-27.13	34.30	34.32	54.00	12.51	H
5433.220	41.40	-27.13	34.30	34.23	54.00	12.60	H

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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)
17919.700	44.85	-26.18	45.95	25.08	54.00	9.15	H
17914.200	44.74	-26.18	45.95	24.97	54.00	9.26	H
14497.600	38.76	-28.77	41.90	25.63	54.00	15.24	V
14494.850	38.67	-28.77	41.90	25.54	54.00	15.33	V
5149.740	43.60	-27.28	34.00	36.88	54.00	10.40	H
5149.340	43.41	-27.28	34.00	36.69	54.00	10.59	H

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)
17916.400	44.70	-26.18	45.95	24.93	54.00	9.30	V
17896.600	44.67	-26.18	45.95	24.90	54.00	9.33	H
14482.200	38.90	-28.77	41.90	25.77	54.00	15.10	H
14486.050	38.79	-28.77	41.90	25.66	54.00	15.21	H
5351.296	42.15	-27.12	34.20	35.07	54.00	11.85	H
5351.552	42.12	-27.12	34.20	35.04	54.00	11.88	H

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)
17913.650	44.91	-26.18	45.95	25.14	54.00	9.09	H
17918.050	44.82	-26.18	45.95	25.05	54.00	9.18	V
14475.600	38.39	-28.77	41.90	25.26	54.00	15.61	H
14487.150	38.38	-28.77	41.90	25.25	54.00	15.62	V
5454.970	41.75	-27.10	34.20	34.65	54.00	12.25	H
5457.295	41.60	-27.10	34.20	34.50	54.00	12.40	H

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)
17912.550	44.77	-26.18	45.95	25.00	54.00	9.23	V
17929.600	44.68	-26.18	45.95	24.91	54.00	9.32	H
14492.100	38.74	-28.77	41.90	25.61	54.00	15.26	V
14498.150	38.43	-28.77	41.90	25.30	54.00	15.57	V
5122.600	43.43	-27.29	34.00	36.72	54.00	10.57	H
5138.980	43.32	-27.29	34.00	36.61	54.00	10.68	H

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)
17914.750	44.85	-26.18	45.95	25.08	54.00	9.15	V
17912.550	44.63	-26.18	45.95	24.86	54.00	9.37	V
14486.050	38.66	-28.77	41.90	25.53	54.00	15.34	V
14489.350	38.65	-28.77	41.90	25.52	54.00	15.35	V
5350.016	44.61	-27.12	34.20	37.53	54.00	9.39	H
5352.416	43.50	-27.12	34.20	36.42	54.00	10.50	H

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)
17923.000	45.02	-26.18	45.95	25.25	54.00	8.98	V
17913.650	44.83	-26.18	45.95	25.06	54.00	9.17	V
14495.950	38.70	-28.77	41.90	25.57	54.00	15.30	V
14498.150	38.56	-28.77	41.90	25.43	54.00	15.44	H
5457.115	44.34	-27.10	34.20	37.24	54.00	9.66	H
5450.095	44.22	-27.10	34.20	37.12	54.00	9.78	H

802.11ax-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)
17920.800	44.90	-26.18	45.95	25.13	54.00	9.10	V
17910.900	44.79	-26.18	45.95	25.02	54.00	9.21	H
14494.300	39.03	-28.77	41.90	25.90	54.00	14.97	V
14483.850	38.65	-28.77	41.90	25.52	54.00	15.35	H
5149.380	40.87	-27.28	34.00	34.15	54.00	13.13	H
5148.440	40.74	-27.29	34.00	34.03	54.00	13.26	H

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	44.85	-26.18	45.95	25.08	54.00	9.15	V
17913.100	44.57	-26.18	45.95	24.80	54.00	9.43	V
14487.700	38.75	-28.77	41.90	25.62	54.00	15.25	H
13290.350	38.62	-30.02	40.60	28.04	54.00	15.38	H
5354.288	41.81	-27.12	34.20	34.73	54.00	12.19	H
5385.520	41.67	-27.12	34.20	34.59	54.00	12.33	H