

RF MEASUREMENT REPORT

FCC ID : VW3FAST5298
Applicant : SAGEMCOM BROADBAND SAS
Application Type : Certification
Product : Tri-band WIFI7 router
Model No. : Fast 5298
Brand Name : Sagemcom
FCC Classification : 15E 6GHz Low Power Indoor Access Point (6ID)
FCC Rule Part(s) : Part 15 Subpart E (Section 15.407)
Received Date : September 18, 2024
Test Date : September 24, 2024~ September 30, 2024

Tested By : Owen Tsai
(Owen Tsai)
Reviewed By : Paddy Chen
(Paddy Chen)
Approved By : Chenz Ker
(Chenz Ker)



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in KDB789033. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Taiwan) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2409TW0115-U5	1.0	Original Report	2024-10-08	

Note:

The original report number is 2406RSU023-U4 from MRT Technology (Suzhou) Co., Ltd.

The bottom and side of PCB change absorbers to shielding cover, so evaluate the power, band edge and Spurious emissions to do spot check testing.

CONTENTS

Description	Page
1. INTRODUCTION	7
1.1. Scope	7
1.2. MRT Test Location.....	7
2. Product Information	8
2.1. Equipment Description.....	8
2.2. Radio Specification	9
2.3. Working Frequencies	9
2.4. Antenna Details.....	11
2.5. Test Mode	12
2.6. Test System Connection Diagram	13
2.7. Test System Details	13
2.8. Test Software	14
2.9. Applied Standards.....	14
2.10. Duty Cycle.....	15
2.11. Test Environment Condition	16
3. Antenna Requirements	17
4. Measuring Instrument	18
5. Measurement Uncertainty.....	19
6. Test Result.....	20
6.1. Summary	20
6.2. 26dB Bandwidth	21
6.2.1. Test Limit.....	21
6.2.2. Test Procedure used.....	21
6.2.3. Test Setting	21
6.2.4. Test Setup.....	22
6.2.5. Test Result	23
6.3. Output Power	24
6.3.1. Test Limit	24
6.3.2. Test Procedure Used	24
6.3.3. Test Setting	24
6.3.4. Test Setup	25
6.3.5. Test Result	26
6.4. Power Spectral Density.....	31
6.4.1. Test Limit	31
6.4.2. Test Procedure Used	31

6.4.3.	Test Setting	31
6.4.4.	Test Setup	32
6.4.5.	Test Result	33
6.5.	In-Band Emission Measurement.....	34
6.5.1.	Test Limit	34
6.5.2.	Test Procedure used	34
6.5.3.	Test Setting	34
6.5.4.	Test Setup	35
6.5.5.	Test Result	36
6.6.	Frequency Stability Measurement	37
6.6.1.	Test Limit	37
6.6.2.	Test Procedure	37
6.6.3.	Test Setup	38
6.6.4.	Test Result	39
6.7.	Contention Based Protocol	40
6.7.1.	Test Limit	40
6.7.2.	Test Procedure Used	40
6.7.3.	Test Setting	40
6.7.4.	Test Setup	41
6.7.5.	Test Result	42
6.8.	Radiated Spurious Emission.....	43
6.8.1.	Test Limit	43
6.8.2.	Test Procedure Used	43
6.8.3.	Test Setting	43
6.8.4.	Test Setup	45
6.8.5.	Test Result	46
6.9.	Radiated Restricted Band Edge	56
6.9.1.	Test Limit	56
6.9.2.	Test Procedure Used	57
6.9.3.	Test Setting	57
6.9.4.	Test Setup	58
6.9.5.	Test Result	59
6.10.	AC Conducted Emissions	79
6.10.1.	Test Limit.....	79
6.10.2.	Test Setup.....	79
6.10.3.	Test Result.....	80
7.	Conclusion	81
	Appendix A : Test Setup Photograph	82

Appendix B : External Photograph	82
Appendix C : Internal Photograph	82

General Information

Applicant	SAGEMCOM BROADBAND SAS
Applicant Address	4 ALLEE DES MESSAGERIES 92271 BOIS-COLOMBES CEDEX - FRANCE
Manufacturer	SAGEMCOM BROADBAND SAS
Manufacturer Address	4 ALLEE DES MESSAGERIES 92271 BOIS-COLOMBES CEDEX - FRANCE
Test Site	MRT Technology (Taiwan) Co., Ltd
Test Site Address	No. 38, Fuxing Second Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C)
MRT FCC Registration No.	291082
FCC Rule Part(s)	Part 15.407

Test Facility / Accreditations

1. MRT facility is a FCC registered (Reg. No. 291082) test facility with the site description report on file and is designated by the FCC as an Accredited Test Firm.
2. MRT facility is an IC registered (MRT Reg. No. 21723) test laboratory with the site description on file at Industry Canada.
3. MRT Lab is accredited to ISO 17025 by the Taiwan Accreditation Foundation (TAF Cert. No. 3261) in EMC, Telecommunications and Radio testing for FCC (Designation Number: TW3261), Industry Canada, EU and TELEC Rules.

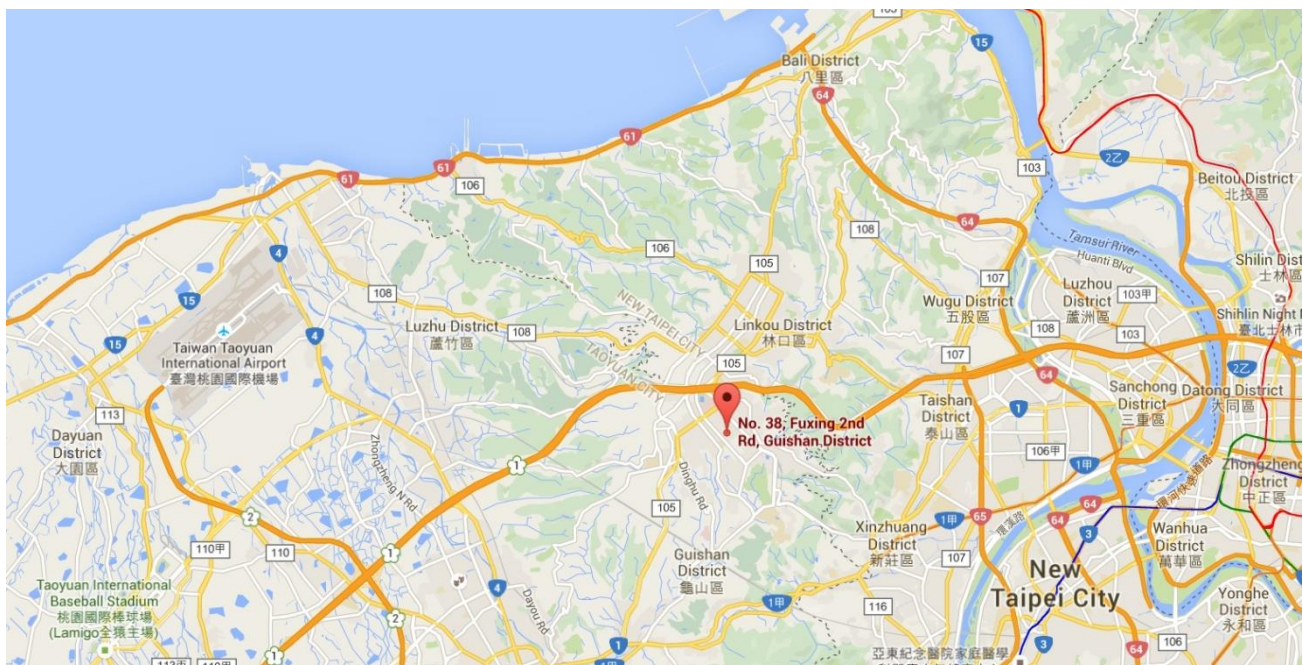
1. INTRODUCTION

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada and Certification and Engineering Bureau.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taoyuan City. These measurement tests were conducted at the MRT Technology (Taiwan) Co., Ltd. Facility located at No.38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 33377, Taiwan (R.O.C).



2. Product Information

2.1. Equipment Description

Product Name	Tri-band WIFI7 router
Model No.	Fast 5298
Brand Name	Sagemcom
Wi-Fi Specification	802.11a/b/g/n/ac/ax/be
Bluetooth Specification	Bluetooth Mode: V5.1
EUT Identification No.:	#1-1 (Conducted) #1-2 (Radiated)
Accessory	
Power Adapter#1	Brand: Sagemcom Model No: ADS-50DG-12 12049EPCU-L Input: AC 100-127V, 50-60Hz, Max 1.2A Output: 12.0V=4.1A DC Cable Out: Non-Shielded, 1.8m
Power Adapter#2	Brand: Sagemcom Model No: MS-V4100R120-050A0-US Input: AC 100-127V, 50-60Hz, Max 1.3A Output: 12.0V=4.1A 49.2W DC Cable Out: Non-Shielded, 1.8m
Power Adapter#3	Brand: Sagemcom Model No: NBS42G120410VU Input: AC 100-127V, 50-60Hz, Max 1.5A Output: 12.0V=4.1A DC Cable Out: Non-Shielded, 1.8m
Remark:	
1. The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	
2. For this report, we select Adapter 1# for testing	

2.2. Radio Specification

Frequency Range	For 802.11ax-HE20/be-EHT20: 5955 ~ 7095MHz For 802.11ax-HE40/be-EHT40: 5965 ~ 7085MHz For 802.11ax-HE80/be-EHT80: 5985 ~ 7025MHz For 802.11ax-HE160/be-EHT160: 6025 ~ 6985MHz For 802.11be-EHT320: 6105 ~ 6905MHz	
Type of Modulation	802.11ax/be: OFDMA	
Data Rate	802.11ax: up to 4804Mbps 802.11be: up to 11529.6Mbps	
Channel Puncturing Function	☐ Supported	☒ Unsupported
Support RU	☒ Full RU	☐ Partial RU

Note: For other features of this EUT, test report will be issued separately.

2.3. Working Frequencies

802.11ax-HE20/be-EHT20

Channel	Frequency	Channel	Frequency	Channel	Frequency
1	5955 MHz	5	5975 MHz	9	5995 MHz
13	6015 MHz	17	6035 MHz	21	6055 MHz
25	6075 MHz	29	6095 MHz	33	6115 MHz
37	6135 MHz	41	6155 MHz	45	6175 MHz
49	6195 MHz	53	6215 MHz	57	6235 MHz
61	6255 MHz	65	6275 MHz	69	6295 MHz
73	6315 MHz	77	6335 MHz	81	6355 MHz
85	6375 MHz	89	6395 MHz	93	6415 MHz
97	6435 MHz	101	6455 MHz	105	6475 MHz
109	5495 MHz	113	6515 MHz	117	6535 MHz
121	6555 MHz	125	6575 MHz	129	6595 MHz
133	6615 MHz	137	6635 MHz	141	6655 MHz
145	6675 MHz	149	6695 MHz	153	6715 MHz
157	6735 MHz	161	6755 MHz	165	6775 MHz
169	6795 MHz	173	6815 MHz	177	6835 MHz
181	6855 MHz	185	6875 MHz	189	6895 MHz
193	6915 MHz	197	6935 MHz	201	6955 MHz
205	6975 MHz	209	6995 MHz	213	7015 MHz
217	7035 MHz	221	7055 MHz	225	7075 MHz
225	7075 MHz	229	7095 MHz	--	--

802.11ax-HE40/be-EHT40

Channel	Frequency	Channel	Frequency	Channel	Frequency
3	5965 MHz	11	6005 MHz	19	6045 MHz
27	6085 MHz	35	6125 MHz	43	6165 MHz
51	6205 MHz	59	6245 MHz	67	6285 MHz
75	6325 MHz	83	6365 MHz	91	6405 MHz
99	6445 MHz	107	6485 MHz	115	6525 MHz
123	6565 MHz	131	6605 MHz	139	6645 MHz
147	6685 MHz	155	6725 MHz	163	6765 MHz
171	6805 MHz	179	6845 MHz	187	6885 MHz
195	6925 MHz	203	6965 MHz	211	7005 MHz
219	7045 MHz	227	7085 MHz	--	--

802.11ax-HE80/be-EHT80

Channel	Frequency	Channel	Frequency	Channel	Frequency
7	5985 MHz	23	6065 MHz	39	6145 MHz
55	6225 MHz	71	6305 MHz	87	6385 MHz
103	6465 MHz	119	6545 MHz	135	6625 MHz
151	6705 MHz	167	6785 MHz	183	6865 MHz
199	6945 MHz	215	7025 MHz	--	--

802.11ax-HE160/be-EHT160

Channel	Frequency	Channel	Frequency	Channel	Frequency
15	6025 MHz	47	6185 MHz	79	6345 MHz
111	6505 MHz	143	6665 MHz	175	6825 MHz
207	6985 MHz	--	--	--	--

802.11be-EHT320

Channel	Frequency	Channel	Frequency	Channel	Frequency
31	6105 MHz	63	6265 MHz	95	6425 MHz
127	6585 MHz	159	6745 MHz	191	6905 MHz

2.4. Antenna Details

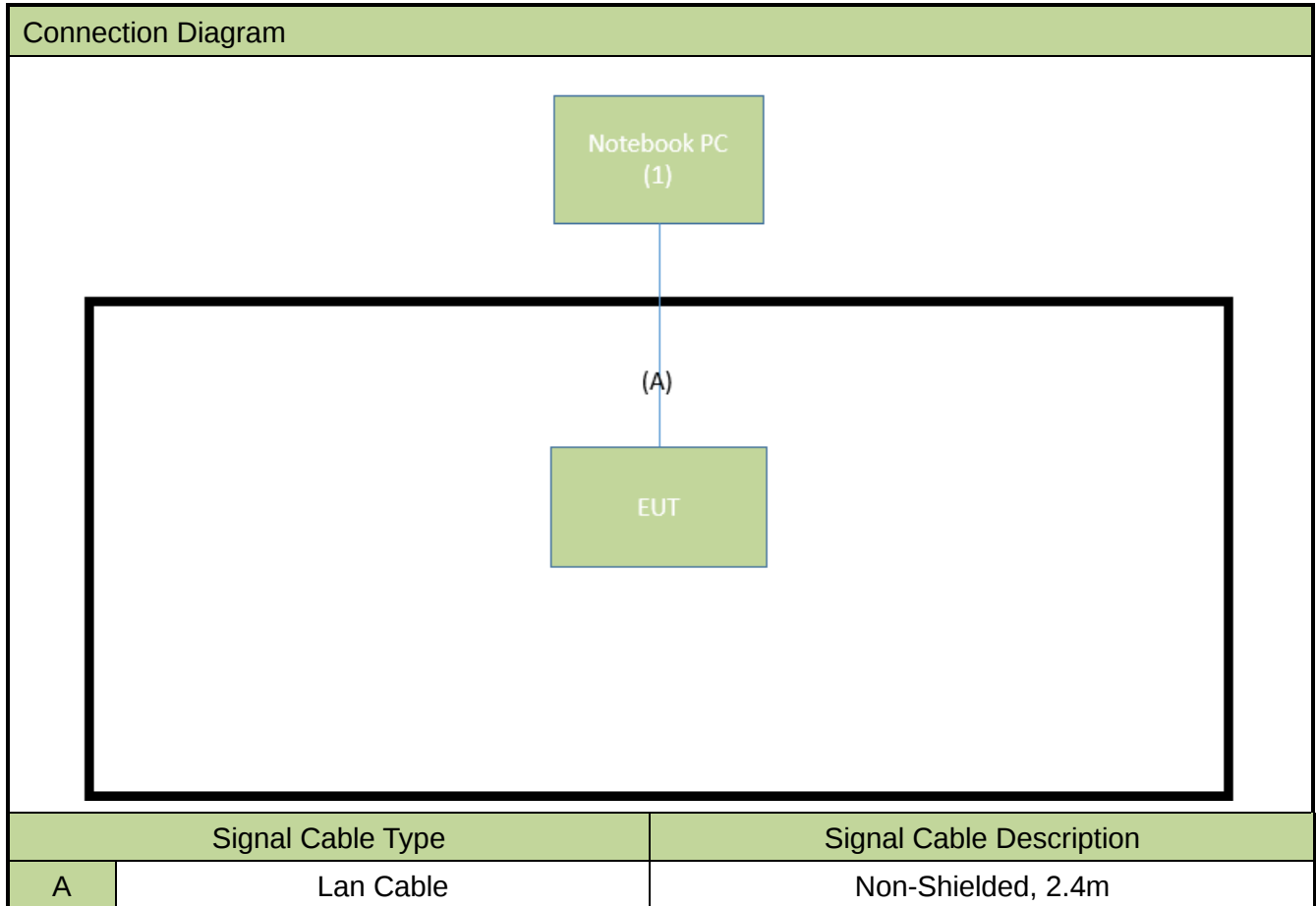
Antenna Type	Frequency Band (GHz)	Antenna Gain (dBi)				Directional Gain (dBi)	
		Ant 0	Ant 1	Ant 2	Ant 3	For Power	For PSD
Wi-Fi Internal Antenna							
PCB Antenna	2412 ~ 2462	4.42	4.37	4.42	4.40	4.42	5.96
	5180 ~ 5825	4.86	4.82	4.82	4.80	4.86	5.97
	5925 ~ 7125	4.90	4.93	4.91	4.90	4.93	5.86
Note 1: The antenna gain and directional gain refer to manufacturer's antenna specification.							
Note 2: The EUT supports Cyclic Delay Diversity (CDD) mode for 802.11a/b/g/n/ac/ax.							
Note 3: Software automatically backs power down based on CDD power for beamforming operation.							

2.5. Test Mode

CDD Mode
Mode 1: Transmit by 802.11a_Nss=1 (6Mbps) (CDD mode)
Mode 2: Transmit by 802.11ax-HE20_Nss=1 (MCS0) (CDD mode)
Mode 3: Transmit by 802.11ax-HE40_Nss=1 (MCS0) (CDD mode)
Mode 4: Transmit by 802.11ax-HE80_Nss=1 (MCS0) (CDD mode)
Mode 5: Transmit by 802.11ax-HE160_Nss=1 (MCS0) (CDD mode)
Mode 6: Transmit by 802.11be-EHT20_Nss=1 (MCS0) (CDD mode)
Mode 7: Transmit by 802.11be-EHT40_Nss=1 (MCS0) (CDD mode)
Mode 8: Transmit by 802.11be-EHT80_Nss=1 (MCS0) (CDD mode)
Mode 9: Transmit by 802.11be-EHT160_Nss=1 (MCS0) (CDD mode)
Mode 10: Transmit by 802.11be-EHT320_Nss=1 (MCS0) (CDD mode)
Remark: - For Radiated emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power. - For CDD mode, this device supports 4 N_{SS} and power level is the same of spatial multiplexing. The worst case is N_{SS}=1. - EUT supports one configuration only in 802.11ax/be full RU mode.

2.6. Test System Connection Diagram

The device was tested per the guidance ANSI C63.10: 2013 was used to reference the appropriate EUT setup for radiated emissions testing and AC line conducted testing.



2.7. Test System Details

No.	Product	Brand	Model No.	Serial No.	Power Cord
1	Notebook PC	Lenovo	21DH00A3TW	N/A	Non-shielded, 0.8m

2.8. Test Software

The test utility software used during testing was “accessMTool.exe”, and the version was 3.3.0.6.

Note: Final power setting please refer to operational description.

2.9. Applied Standards

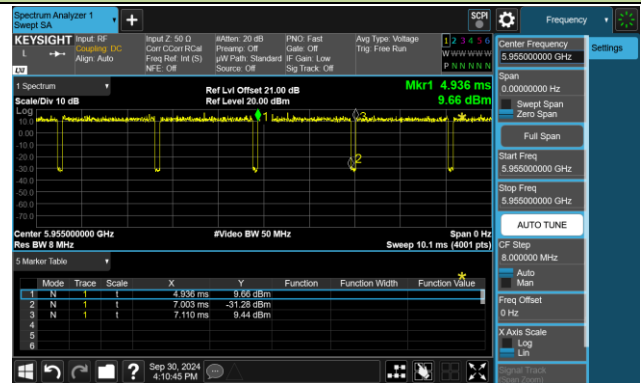
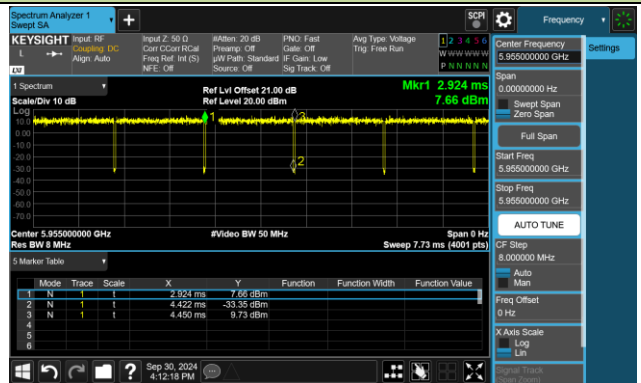
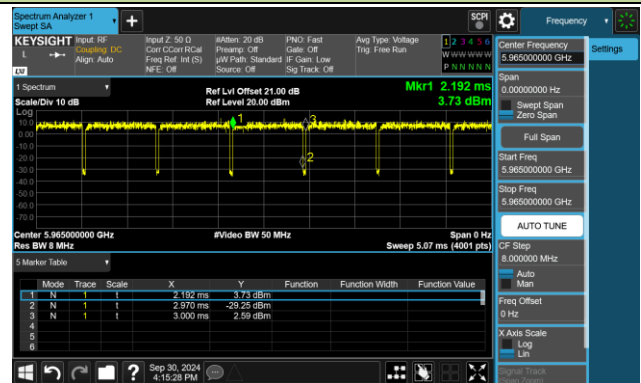
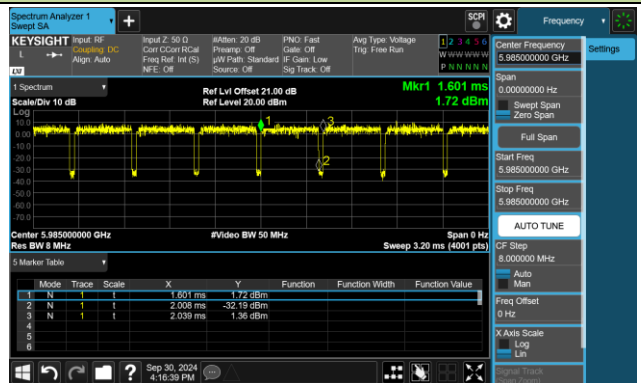
According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ANSI C63.10-2013
- FCC KDB 789033 D02v02r01
- FCC KDB 987594 D02v02r01
- FCC KDB 987594 D04v02
- FCC KDB 662911 D01v02r01
- FCC KDB 414788 D01v01r01
- FCC KDB 412172 D01v01r01

2.10. Duty Cycle

The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz. The RBW and VBW were both greater than 50/T, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

Test Mode	Duty Cycle
802.11a	95.08%
802.11ax-HE20	98.17%
802.11ax-HE40	96.29%
802.11ax-HE80	92.92%
802.11ax-HE160	88.97%
802.11be-EHT20	98.10%
802.11be-EHT40	95.94%
802.11be-EHT80	93.20%
802.11be-EHT160	89.16%
802.11be-EHT320	84.87%

Duty Cycle (T = Transmission Duration)	
802.11a	802.11ax-HE20
	
802.11ax-HE40	802.11ax-HE80
	



2.11. Test Environment Condition

Ambient Temperature	15°C~35°C
Relative Humidity	20%RH ~75%RH

3. Antenna Requirements

Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.”

The antenna of the device is built in and locked inside the enclosure.

Conclusion:

The device complies with the requirement of §15.407(a)(9).

4. Measuring Instrument

Radiated Emissions

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Active Loop Antenna	SCHWARZBECK	FMZB 1519B	MRTTWA00002	1 year	2025/5/7
Broadband TRILOG Antenna	SCHWARZBECK	VULB 9162	MRTTWA00001	1 year	2024/10/31
Broadband Hornantenna	RFSPIN	DRH18-E	MRTTWA00087	1 year	2025/5/20
Broadband Preamplifier	EMC Instruments corporation	EMC118A45SE	MRTTWA00088	1 year	2025/5/14
Breitband Hornantenna	SCHWARZBECK	BBHA 9170	MRTTWA00004	1 year	2025/3/26
Broadband Amplifier	SCHWARZBECK	BBV 9721	MRTTWA00006	1 year	2025/3/21
EMI Test Receiver	R&S	ESR3	MRTTWA00009	1 year	2025/3/5
Signal Analyzer	R&S	FSVA3044	MRTTWA00092	1 year	2025/6/20
Antenna Cable	HUBERSUHNER	SF106	MRTTWE00034	1 year	2025/6/25

Conducted Test Equipment

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
X-Series USB Peak and Average Power Sensor	KEYSIGHT	U2021XA	MRTTWA00014	1 year	2025/4/16
X-Series USB Peak and Average Power Sensor	KEYSIGHT	U2021XA	MRTTWA00015	1 year	2025/3/12
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2025/9/24
EXA Signal Analyzer	KEYSIGHT	N9010B	MRTTWA00074	1 year	2025/8/12

Software	Version	Function
e3	9.160520a	EMI Test Software

5. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

AC Conducted Emission Measurement
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 150kHz~30MHz: $\pm 2.53\text{dB}$
Radiated Emission Measurement
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 9kHz ~ 1GHz: $\pm 4.25\text{dB}$ 1GHz ~ 40GHz: $\pm 4.45\text{dB}$
Conducted Power (Carrier Power / Power Density)
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 0.84\text{dB}$
Conducted Spurious Emission
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 2.65\text{ dB}$
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 3.3\%$
Temp. / Humidity
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 0.82^\circ\text{C} / \pm 3\%$
Frequency Error
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): $\pm 78.4\text{Hz}$

6. Test Result

6.1. Summary

FCC Section(s)	Test Description	Test Condition	Verdict
15.407(a)(10)	26dB Bandwidth	Conducted	N/A
15.407(a)(5)	Maximum Equivalent Isotropically Radiated Power (E.I.R.P)	Radiated	Pass
15.407(a)(5)	Peak Power Spectral Density (E.I.R.P)		N/A
15.407(b)(7)	In-Band Emission	Conducted	N/A
15.407(g)	Frequency Stability		N/A
15.407(d)(6)	Contention-Based Protocol		N/A
15.407(b)(6)	Unwanted Emissions	Radiated	Pass
15.407(b)(9), (10)	General Field Strength (Restricted Bands and Radiated Emission)		Pass
15.207	AC Conducted Emissions 150kHz - 30MHz	Line Conducted	N/A

Remark:

- Determining compliance is based on the test results met the regulation limits or requirements declared by clients, and the test results don't take into account the value of measurement uncertainty.
- The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
- Output power test was verified over all data rates of each mode (data refers to operational description), and then choose the maximum power output (low data rate) for final test of each channel.
- For radiated emission test, the test results shown in the following sections represent the worst-case emissions.
- EUT supports one configuration only in 802.11ax/be full RU mode.

6.2. 26dB Bandwidth

6.2.1. Test Limit

N/A

6.2.2. Test Procedure used

KDB 789033 D02v02r01- Section C.1 (26dB Bandwidth)

KDB 789033 D02v02r01- Section D (99% Bandwidth)

6.2.3. Test Setting

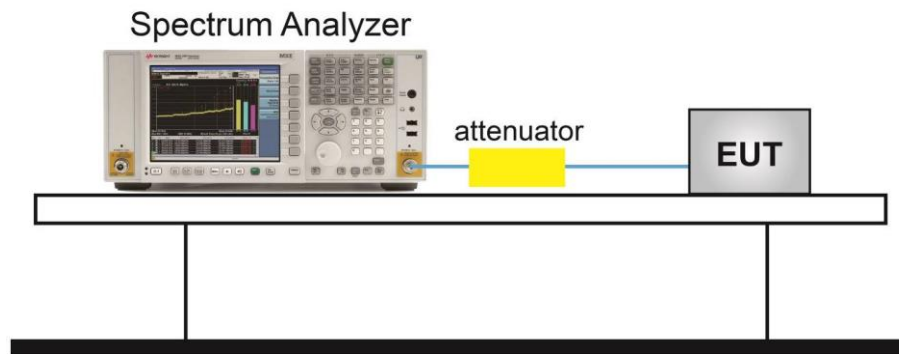
26dB Bandwidth

1. The analyzers' automatic bandwidth measurement capability was used to perform the 26dB bandwidth measurement. The "X" dB bandwidth parameter was set to $X = 26$. The automatic bandwidth measurement function also has the capability of simultaneously measuring the 99% occupied bandwidth. The bandwidth measurement was not influenced by any intermediated power nulls in the fundamental emission.
2. RBW = approximately 1% of the emission bandwidth.
3. VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold.

99% Bandwidth

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1% to 5% of the OBW
4. Set VBW $\geq 3 \times$ RBW
5. Detector = Peak.
6. Use the 99% power bandwidth function of the instrument.

6.2.4. Test Setup



6.2.5. Test Result

Note: Refer to the original report is 2406RSU023-U4.

6.3. Output Power

6.3.1. Test Limit

For an indoor access point operating in the 5.925-7.125 GHz band, the maximum e.i.r.p. over the frequency band of operation must not exceed 30 dBm.

For a subordinate device operating under the control of an indoor access point in the 5.925-7.125 GHz band, the maximum e.i.r.p. over the frequency band of operation must not exceed 30 dBm.

6.3.2. Test Procedure Used

KDB 789033D02v02r01- Section II)A)1

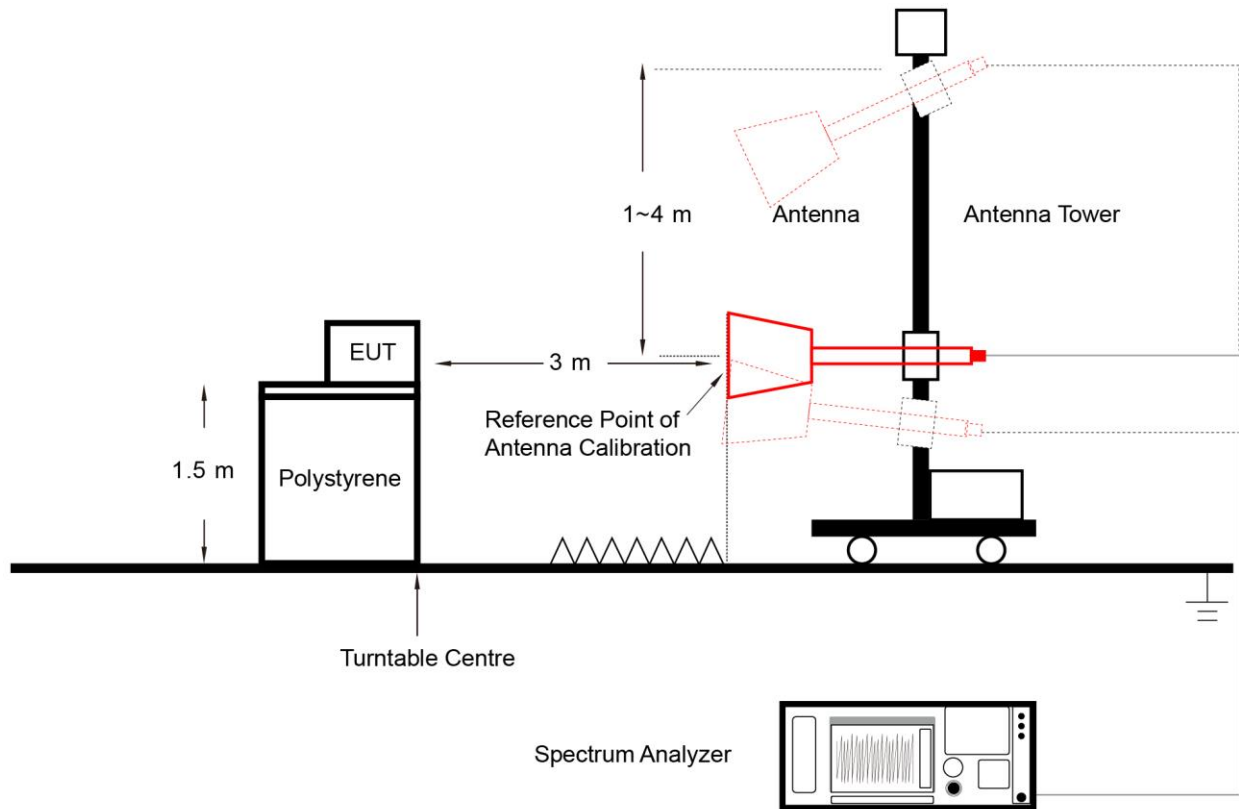
KDB 789033D02v02r01- Section II)E)2)b) Method SA-2

6.3.3. Test Setting

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire 26dB EBW of the signal.
3. RBW = 1MHz
4. VBW = 3MHz
5. Number of sweep points $\geq 2 \times (\text{span} / \text{RBW})$
6. Detector = power averaging (Average)
7. Sweep time = auto
8. Trigger = free run
9. Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed to ensure that the average accurately represents the true average over the on and off periods of the transmitter.
10. Use the channel power function on the instrument to measure the power of the spectrum and record its value.
11. Add $10 \cdot \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add $10 \cdot \log(1/0.25) = 6$ dB if the duty cycle

is 25 percent..

6.3.4. Test Setup



6.3.5. Test Result

Test Site	SR6	Test Engineer	Peter
Test Date	2024/9/30		N _{ss} =1

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	EIRP (dBuV/m)	EIRP (dBm)	Total EIRP (dBm)	EIRP Limit (dBm)
802.11a	MCS0	1	5955	107.95	12.75	12.97	≤ 30.00
802.11a	MCS0	49	6195	108.36	13.16	13.38	≤ 30.00
802.11a	MCS0	93	6415	107.80	12.60	12.82	≤ 30.00
802.11a	MCS0	97	6435	107.61	12.41	12.63	≤ 30.00
802.11a	MCS0	105	6475	107.41	12.21	12.43	≤ 30.00
802.11a	MCS0	113	6515	106.90	11.70	11.92	≤ 30.00
802.11a	MCS0	117	6535	107.03	11.83	12.05	≤ 30.00
802.11a	MCS0	149	6695	109.38	14.18	14.40	≤ 30.00
802.11a	MCS0	181	6855	108.75	13.55	13.77	≤ 30.00
802.11a	MCS0	185	6875	109.42	14.22	14.44	≤ 30.00
802.11a	MCS0	189	6895	110.36	15.16	15.38	≤ 30.00
802.11a	MCS0	209	6995	109.00	13.80	14.02	≤ 30.00
802.11a	MCS0	229	7095	108.67	13.47	13.69	≤ 30.00

Note 1: EIRP (dBm) = EIRP (dBuV/m) – 95.2.

Note 2: Total EIRP (dBm) = EIRP (dBm) + 10*log(1/duty cycle).

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	EIRP (dBuV/m)	EIRP (dBm)	Total EIRP (dBm)	EIRP Limit (dBm)
802.11ax-HE20	MCS0	1	5955	111.02	15.82	15.90	≤ 30.00
802.11ax-HE20	MCS0	49	6195	110.24	15.04	15.12	≤ 30.00
802.11ax-HE20	MCS0	93	6415	109.82	14.62	14.70	≤ 30.00
802.11ax-HE20	MCS0	97	6435	109.33	14.13	14.21	≤ 30.00
802.11ax-HE20	MCS0	105	6475	110.00	14.80	14.88	≤ 30.00
802.11ax-HE20	MCS0	113	6515	109.88	14.68	14.76	≤ 30.00
802.11ax-HE20	MCS0	117	6535	109.81	14.61	14.69	≤ 30.00
802.11ax-HE20	MCS0	149	6695	108.86	13.66	13.74	≤ 30.00
802.11ax-HE20	MCS0	181	6855	109.46	14.26	14.34	≤ 30.00
802.11ax-HE20	MCS0	185	6875	108.56	13.36	13.44	≤ 30.00
802.11ax-HE20	MCS0	189	6895	109.73	14.53	14.61	≤ 30.00
802.11ax-HE20	MCS0	209	6995	109.59	14.39	14.47	≤ 30.00
802.11ax-HE20	MCS0	229	7095	110.40	15.20	15.28	≤ 30.00
802.11ax-HE40	MCS0	3	5965	111.50	16.30	16.46	≤ 30.00
802.11ax-HE40	MCS0	51	6205	111.98	16.78	16.94	≤ 30.00
802.11ax-HE40	MCS0	91	6405	112.48	17.28	17.44	≤ 30.00
802.11ax-HE40	MCS0	99	6445	112.48	17.28	17.44	≤ 30.00
802.11ax-HE40	MCS0	107	6485	112.61	17.41	17.57	≤ 30.00
802.11ax-HE40	MCS0	115	6525	112.72	17.52	17.68	≤ 30.00
802.11ax-HE40	MCS0	123	6565	112.89	17.69	17.85	≤ 30.00
802.11ax-HE40	MCS0	147	6685	112.16	16.96	17.12	≤ 30.00
802.11ax-HE40	MCS0	179	6845	111.58	16.38	16.54	≤ 30.00
802.11ax-HE40	MCS0	187	6885	112.39	17.19	17.35	≤ 30.00
802.11ax-HE40	MCS0	195	6925	112.39	17.19	17.35	≤ 30.00
802.11ax-HE40	MCS0	211	7005	112.55	17.35	17.51	≤ 30.00
802.11ax-HE40	MCS0	227	7085	113.36	18.16	18.32	≤ 30.00

Note 1: EIRP (dBm) = EIRP (dBuV/m) – 95.2.

Note 2: Total EIRP (dBm) = EIRP (dBm) + 10*log(1/duty cycle).

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	EIRP (dBuV/m)	EIRP (dBm)	Total EIRP (dBm)	EIRP Limit (dBm)
802.11ax-HE80	MCS0	7	5985	113.74	18.54	18.86	≤ 30.00
802.11ax-HE80	MCS0	55	6225	114.53	19.33	19.65	≤ 30.00
802.11ax-HE80	MCS0	87	6385	115.31	20.11	20.43	≤ 30.00
802.11ax-HE80	MCS0	103	6465	115.16	19.96	20.28	≤ 30.00
802.11ax-HE80	MCS0	119	6545	115.68	20.48	20.80	≤ 30.00
802.11ax-HE80	MCS0	135	6625	115.31	20.11	20.43	≤ 30.00
802.11ax-HE80	MCS0	151	6705	114.73	19.53	19.85	≤ 30.00
802.11ax-HE80	MCS0	167	6785	114.49	19.29	19.61	≤ 30.00
802.11ax-HE80	MCS0	183	6865	114.61	19.41	19.73	≤ 30.00
802.11ax-HE80	MCS0	199	6945	114.51	19.31	19.63	≤ 30.00
802.11ax-HE80	MCS0	215	7025	115.01	19.81	20.13	≤ 30.00
802.11ax-HE160	MCS0	15	6025	116.12	20.92	21.43	≤ 30.00
802.11ax-HE160	MCS0	47	6185	118.33	23.13	23.64	≤ 30.00
802.11ax-HE160	MCS0	79	6345	118.11	22.91	23.42	≤ 30.00
802.11ax-HE160	MCS0	111	6505	117.79	22.59	23.10	≤ 30.00
802.11ax-HE160	MCS0	143	6665	117.69	22.49	23.00	≤ 30.00
802.11ax-HE160	MCS0	175	6825	117.66	22.46	22.97	≤ 30.00
802.11ax-HE160	MCS0	207	6985	117.72	22.52	23.03	≤ 30.00

Note 1: EIRP (dBm) = EIRP (dBuV/m) – 95.2.

Note 2: Total EIRP (dBm) = EIRP (dBm) + 10*log(1/duty cycle).

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	EIRP (dBuV/m)	EIRP (dBm)	Total EIRP (dBm)	EIRP Limit (dBm)
802.11be-EHT20	24Mbps	1	5955	109.06	13.86	13.94	≤ 30.00
802.11be-EHT20	24Mbps	49	6195	109.32	14.12	14.20	≤ 30.00
802.11be-EHT20	24Mbps	61	6255	109.91	14.71	14.79	≤ 30.00
802.11be-EHT20	24Mbps	93	6415	109.73	14.53	14.61	≤ 30.00
802.11be-EHT20	24Mbps	97	6435	109.44	14.24	14.32	≤ 30.00
802.11be-EHT20	24Mbps	105	6475	109.54	14.34	14.42	≤ 30.00
802.11be-EHT20	24Mbps	113	6515	109.40	14.20	14.28	≤ 30.00
802.11be-EHT20	24Mbps	117	6535	109.51	14.31	14.39	≤ 30.00
802.11be-EHT20	24Mbps	149	6695	109.01	13.81	13.89	≤ 30.00
802.11be-EHT20	24Mbps	181	6855	109.47	14.27	14.35	≤ 30.00
802.11be-EHT20	24Mbps	185	6875	109.80	14.60	14.68	≤ 30.00
802.11be-EHT20	24Mbps	189	6895	109.52	14.32	14.40	≤ 30.00
802.11be-EHT20	24Mbps	209	6995	109.09	13.89	13.97	≤ 30.00
802.11be-EHT20	24Mbps	229	7095	109.96	14.76	14.84	≤ 30.00
802.11be-EHT40	MCS0	3	5965	111.68	16.48	16.66	≤ 30.00
802.11be-EHT40	MCS0	51	6205	111.61	16.41	16.59	≤ 30.00
802.11be-EHT40	MCS0	91	6405	111.69	16.49	16.67	≤ 30.00
802.11be-EHT40	MCS0	99	6445	112.45	17.25	17.43	≤ 30.00
802.11be-EHT40	MCS0	107	6485	112.88	17.68	17.86	≤ 30.00
802.11be-EHT40	MCS0	115	6525	112.70	17.50	17.68	≤ 30.00
802.11be-EHT40	MCS0	123	6565	112.37	17.17	17.35	≤ 30.00
802.11be-EHT40	MCS0	147	6685	112.19	16.99	17.17	≤ 30.00
802.11be-EHT40	MCS0	179	6845	112.23	17.03	17.21	≤ 30.00
802.11be-EHT40	MCS0	187	6885	111.85	16.65	16.83	≤ 30.00
802.11be-EHT40	MCS0	195	6925	111.89	16.69	16.87	≤ 30.00
802.11be-EHT40	MCS0	211	7005	111.96	16.76	16.94	≤ 30.00
802.11be-EHT40	MCS0	227	7085	111.71	16.51	16.69	≤ 30.00

Note 1: EIRP (dBm) = EIRP (dBuV/m) – 95.2.

Note 2: Total EIRP (dBm) = EIRP (dBm) + 10*log(1/duty cycle).

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	EIRP (dBuV/m)	EIRP (dBm)	Total EIRP (dBm)	EIRP Limit (dBm)
802.11be-EHT80	MCS0	7	5985	114.33	19.13	19.44	≤ 30.00
802.11be-EHT80	MCS0	55	6225	115.02	19.82	20.13	≤ 30.00
802.11be-EHT80	MCS0	87	6385	115.45	20.25	20.56	≤ 30.00
802.11be-EHT80	MCS0	103	6465	115.21	20.01	20.32	≤ 30.00
802.11be-EHT80	MCS0	119	6545	115.67	20.47	20.78	≤ 30.00
802.11be-EHT80	MCS0	135	6625	115.43	20.23	20.54	≤ 30.00
802.11be-EHT80	MCS0	151	6705	114.94	19.74	20.05	≤ 30.00
802.11be-EHT80	MCS0	167	6785	114.83	19.63	19.94	≤ 30.00
802.11be-EHT80	MCS0	183	6865	114.94	19.74	20.05	≤ 30.00
802.11be-EHT80	MCS0	199	6945	115.33	20.13	20.44	≤ 30.00
802.11be-EHT80	MCS0	215	7025	115.95	20.75	21.06	≤ 30.00
802.11be-EHT160	MCS0	15	6025	118.02	22.82	23.32	≤ 30.00
802.11be-EHT160	MCS0	47	6185	117.98	22.78	23.28	≤ 30.00
802.11be-EHT160	MCS0	79	6345	118.35	23.15	23.65	≤ 30.00
802.11be-EHT160	MCS0	111	6505	118.21	23.01	23.51	≤ 30.00
802.11be-EHT160	MCS0	143	6665	118.11	22.91	23.41	≤ 30.00
802.11be-EHT160	MCS0	175	6825	118.23	23.03	23.53	≤ 30.00
802.11be-EHT160	MCS0	207	6985	117.87	22.67	23.17	≤ 30.00
802.11be-EHT320	MCS0	31	6105	120.00	24.80	25.51	≤ 30.00
802.11be-EHT320	MCS0	95	6425	120.72	25.52	26.23	≤ 30.00
802.11be-EHT320	MCS0	159	6745	120.45	25.25	25.96	≤ 30.00
802.11be-EHT320	MCS0	63	6265	120.51	25.31	26.02	≤ 30.00
802.11be-EHT320	MCS0	127	6585	120.02	24.82	25.53	≤ 30.00
802.11be-EHT320	MCS0	191	6905	119.38	24.18	24.89	≤ 30.00

Note 1: EIRP (dBm) = EIRP (dBuV/m) – 95.2.

Note 2: Total EIRP (dBm) = EIRP (dBm) + 10*log(1/duty cycle).

6.4. Power Spectral Density

6.4.1. Test Limit

For an indoor access point operating in the 5.925-7.125 GHz band, the maximum power spectral density must not exceed 5 dBm e.i.r.p. in any 1-megahertz band.

For a subordinate device operating under the control of an indoor access point in the 5.925-7.125 GHz band, the maximum power spectral density must not exceed 5 dBm e.i.r.p in any 1-megahertz band.

6.4.2. Test Procedure Used

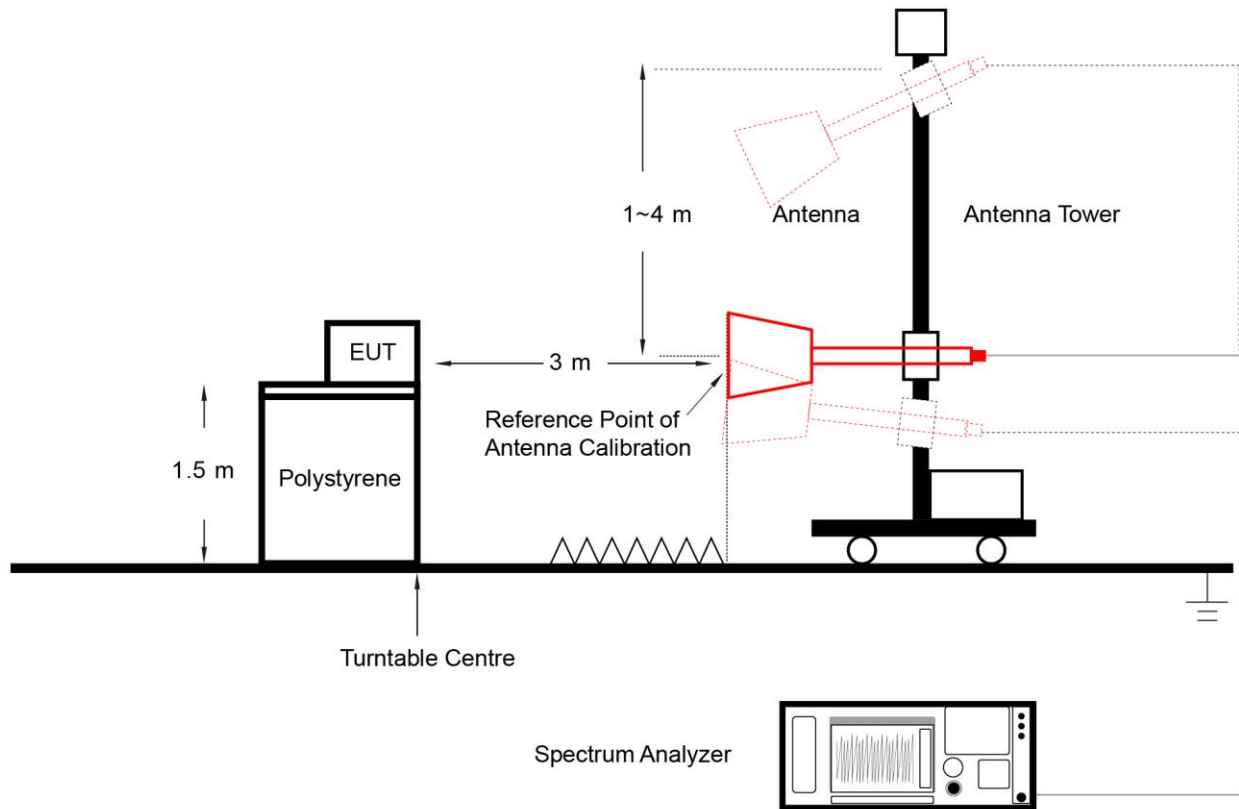
KDB 789033D02v02r01- Section II)A)1

KDB 789033 D02v02r01-Section II)F

6.4.3. Test Setting

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire 26dB EBW of the signal.
3. RBW = 1MHz
4. VBW = 3MHz
5. Number of sweep points $\geq 2 \times (\text{span} / \text{RBW})$
6. Detector = power averaging (Average)
7. Sweep time = auto
8. Trigger = free run
9. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
10. Add $10 \cdot \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add $10 \cdot \log(1/0.25) = 6 \text{ dB}$ if the duty cycle is 25 percent.

6.4.4. Test Setup



6.4.5. Test Result

Note: Refer to the original report is 2406RSU023-U4.

6.5. In-Band Emission Measurement

6.5.1. Test Limit

Suppressed by 20 dB at 1 MHz outside of the channel edge. (The channel edge is defined as the 26-dB point on either side of the carrier center frequency.)

Suppressed by 28 dB at one channel bandwidth from the channel center.

Suppressed by 40 dB at one- and one-half times the channel bandwidth from the channel center.

6.5.2. Test Procedure used

KDB 789033D02v02r01- Section II)A)1

KDB 987594 D02v02r01- Section J

6.5.3. Test Setting

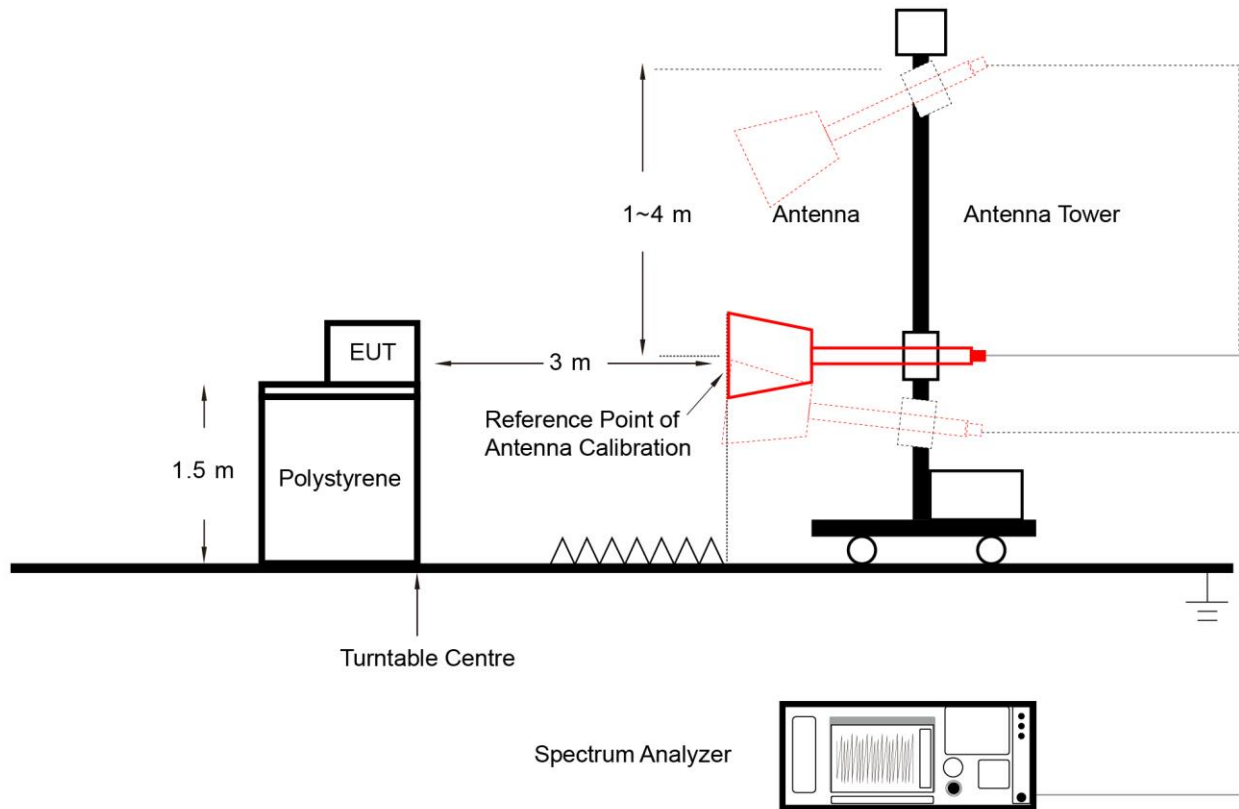
Emissions Mask Reference Level Measurement

1. Set the span to encompass the entire 26 dB EBW of the signal.
2. Set RBW = same RBW used for 26 dB EBW measurement.
3. Set VBW $\geq 3 \times$ RBW.
4. Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$.
5. Sweep time = auto.
6. Detector = RMS.
7. Trace average at least 100 traces in power averaging (rms) mode.
8. Use the peak search function on the instrument to find the peak of the spectrum.

In-Band Emission

1. Using the measuring equipment limit line function, develop the emissions mask based on rule.
2. Adjust the span to encompass the entire mask as necessary.
3. Clear trace.
4. Trace average at least 100 traces in power averaging (rms) mode.
5. Adjust the reference level as necessary so that the crest of the channel touches the top of the emission mask.

6.5.4. Test Setup



6.5.5. Test Result

Note: Refer to the original report is 2406RSU023-U4.

6.6. Frequency Stability Measurement

6.6.1. Test Limit

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

6.6.2. Test Procedure

Frequency Stability Under Temperature Variations:

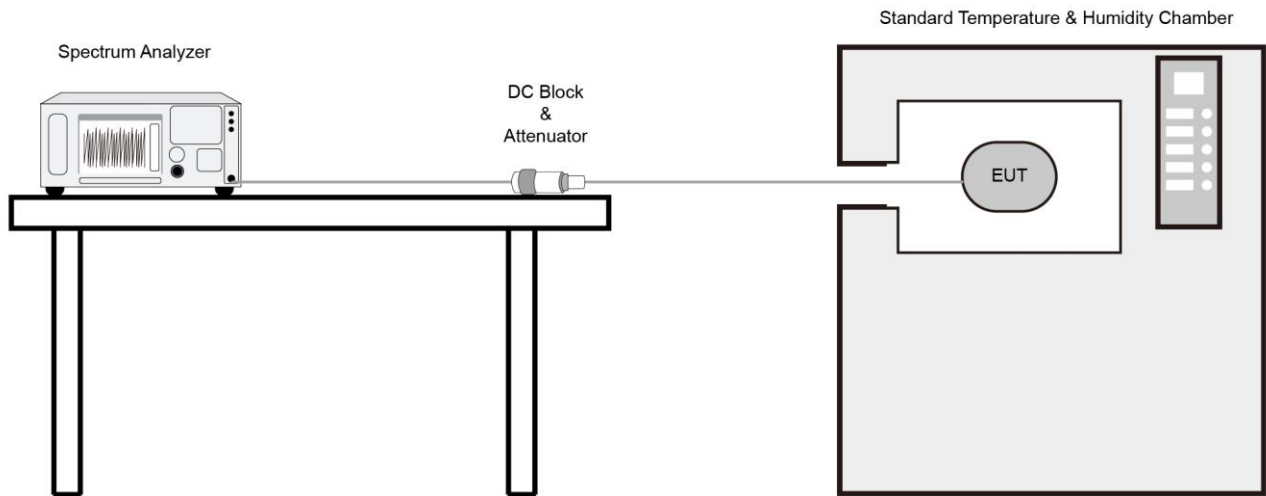
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to highest. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C decreased per stage until the lowest temperature reached.

Frequency Stability Under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation ($\pm 15\%$) and endpoint, record the maximum frequency change.

6.6.3. Test Setup



6.6.4. Test Result

Note: Refer to the original report is 2406RSU023-U4.

6.7. Contention Based Protocol

6.7.1. Test Limit

Unlicensed indoor low power device must detect co-channel radio frequency power that is at least -62dBm (The threshold is referenced to a 0dBi antenna gain.) or low.

Indoor low power device must detect an AWGN signal with 90% (or better) level of certainty.

6.7.2. Test Procedure Used

KDB 987594 D02v02r01- Section I

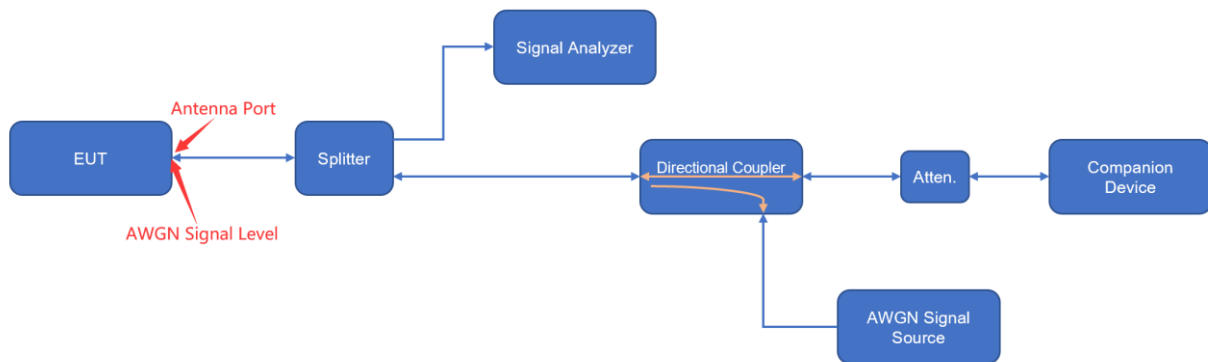
6.7.3. Test Setting

1. Configure the EUT to transmit with a constant duty cycle.
2. Set the operating parameters of the EUT including power level, operating frequency, modulation and bandwidth.
3. Set the signal analyzer center frequency to the nominal EUT channel center frequency. The span range of the signal analyzer shall be between two times and five times the OBW of the EUT.
Connect the output port of the EUT to the signal analyzer 2. Ensure that the attenuator 2 provides enough attenuation to not overload the signal analyzer 2 receiver.
4. Monitoring the signal analyzer 2, verify the EUT is operating and transmitting with the parameters set at step two.
5. Using an AWGN signal source, generate a 10 MHz-wide AWGN signal. Use Table 1 of KDB 987594 to determine the center frequency of the 10 MHz AWGN signal relative to the EUT's channel bandwidth and center frequency.
6. Set the AWGN signal power to an extremely low level. Connect the AWGN signal source, via a 3-dB splitter, to the signal analyzer 1 and the EUT as shown in below figure.
7. Transmit the AWGN signal (RF ON) and verify its characteristics on the signal analyzer 1.
8. Monitor the signal analyzer 2 to verify if the AWGN signal has been detected and the EUT has ceased transmission. If the EUT continues to transmit, then incrementally increase the AWGN signal power level until the EUT stops transmitting.

9. Determine and record the AWGN signal power level (at the EUT's antenna port) at which the EUT ceased transmission. Repeat the procedure at least 10 times to verify the EUT can detect an AWGN signal with 90% (or better) level of certainty.

10. Refer to Table 1 to determine number of times the detection threshold testing needs to be repeated. If testing is required more than once, then go back to step 5, choose a different center frequency for the AWGN signal and repeat the process.

6.7.4. Test Setup



6.7.5. Test Result

Note: Refer to the original report is 2406RSU023-U4.

6.8. Radiated Spurious Emission

6.8.1. Test Limit

For 15.407(b)(5) requirement

For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of -27 dBm/MHz.

Refer to 987594 D02 U-NII 6GHz EMC Measurement v02r01 clause G

Use guidance in KDB 789033 for measurements below 1000 MHz and above 1000 MHz. Unwanted emissions outside of restricted bands are measured with a RMS detector. In addition, 15.35(b) applies where the peak emissions must be limited to no more than 20 dB above the average limit.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

6.8.2. Test Procedure Used

KDB 789033 D02v02r01- Section G

6.8.3. Test Setting

Table 1 - RBW as a function of frequency

Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000MHz	1MHz

Quasi-Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = as specified in Table 1
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

Peak Measurements above 1GHz

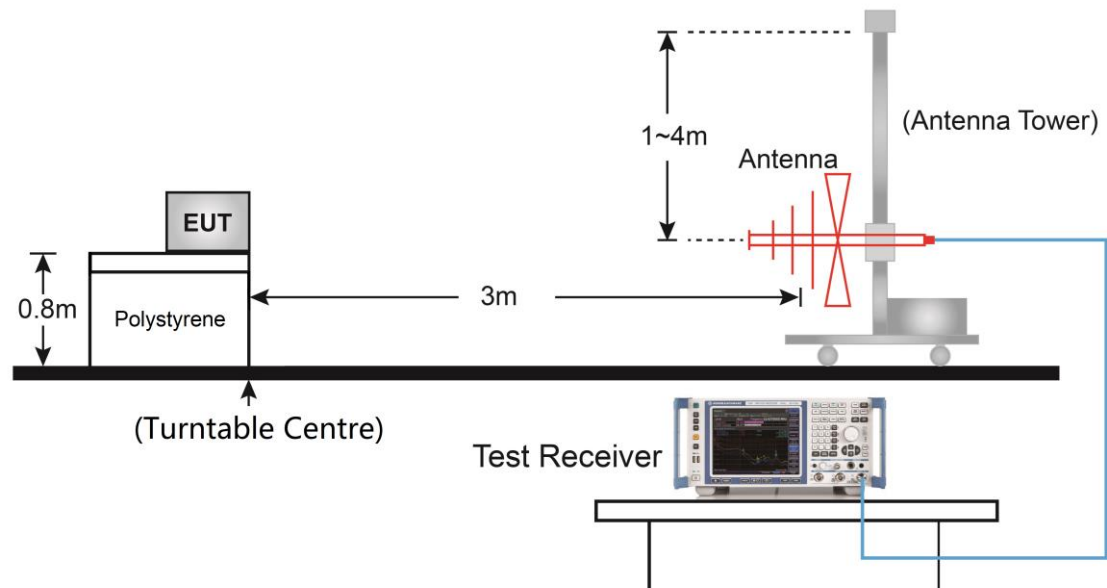
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

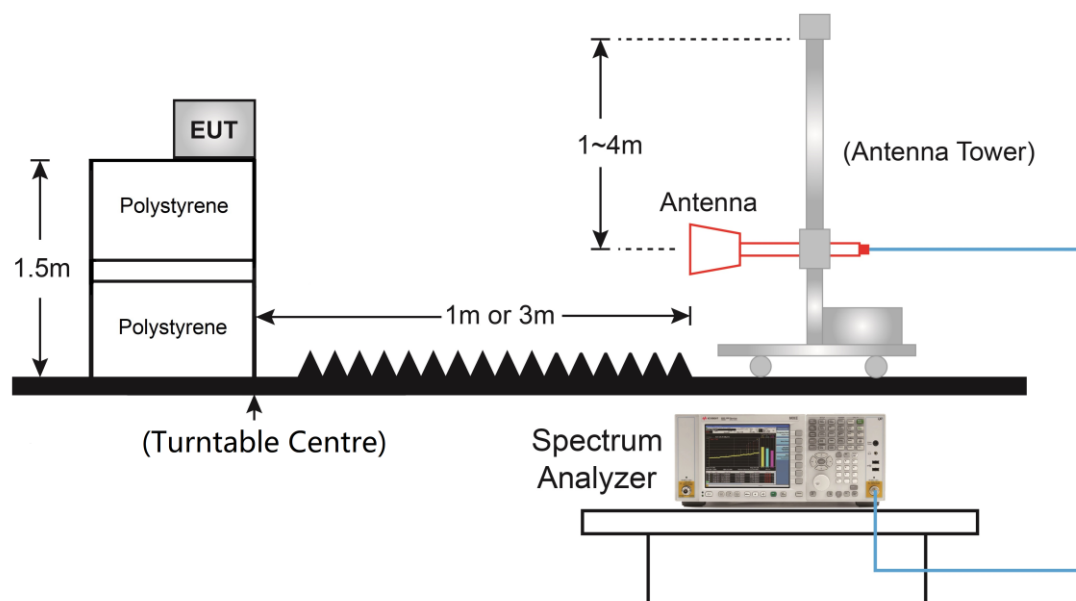
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.
If the EUT duty cycle is $< 98\%$, set VBW $\geq 1/T$. T is the minimum transmission duration.
4. Detector = Peak
5. Sweep time = auto
6. Trace mode = max hold
7. Trace was allowed to stabilize

6.8.4. Test Setup

Below 1GHz Test Setup:

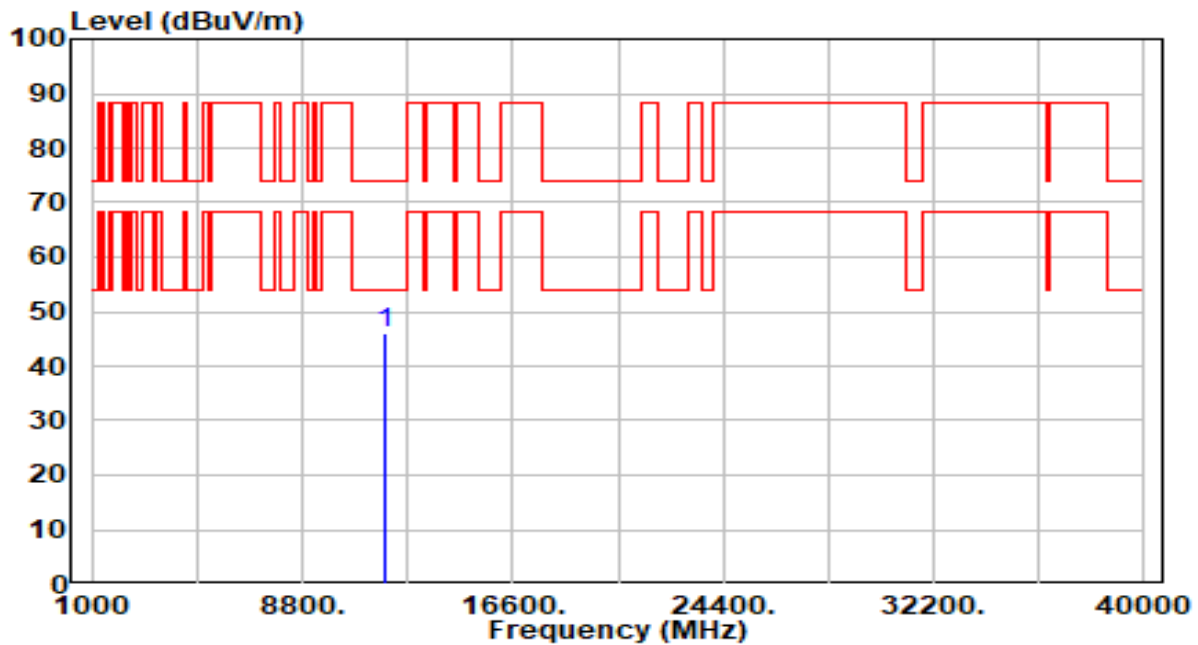


Above 1GHz Test Setup:



6.8.5. Test Result

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E & BBHA 9170	Temp. / Humidity	20°C /63%
Polarity	Horizontal	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11a_TX_Band5_CH 1_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

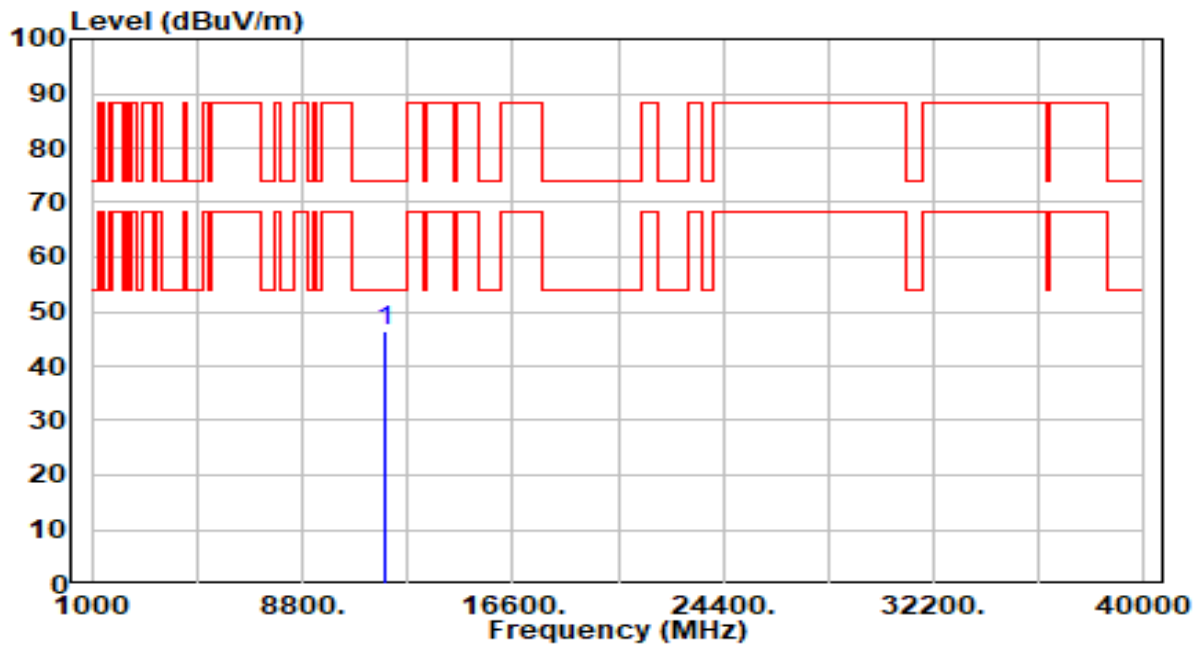


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	* 11910.000	40.37	5.57	45.93	-28.07	74.00	100	80	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E & BBHA 9170	Temp. / Humidity	20°C /63%
Polarity	Vertical	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11a_TX_Band5_CH 1_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

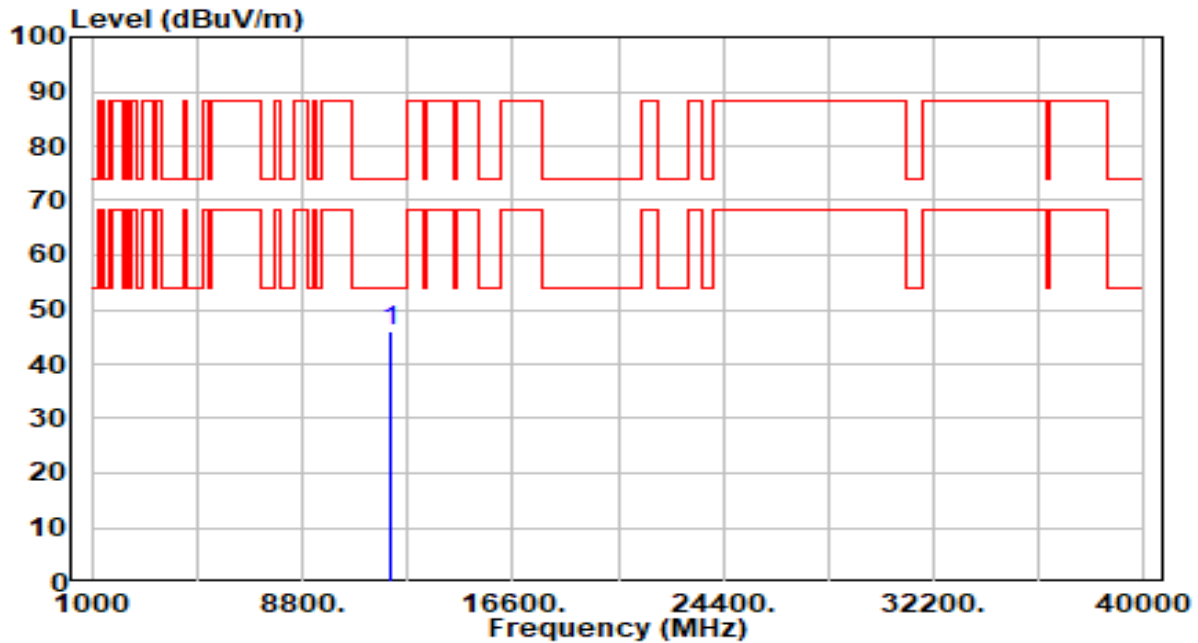


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	* 11910.000	40.98	5.57	46.55	-27.45	74.00	200	91	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E & BBHA 9170	Temp. / Humidity	20°C /63%
Polarity	Horizontal	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11ax-160MHz_TX_Band5_CH 15_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

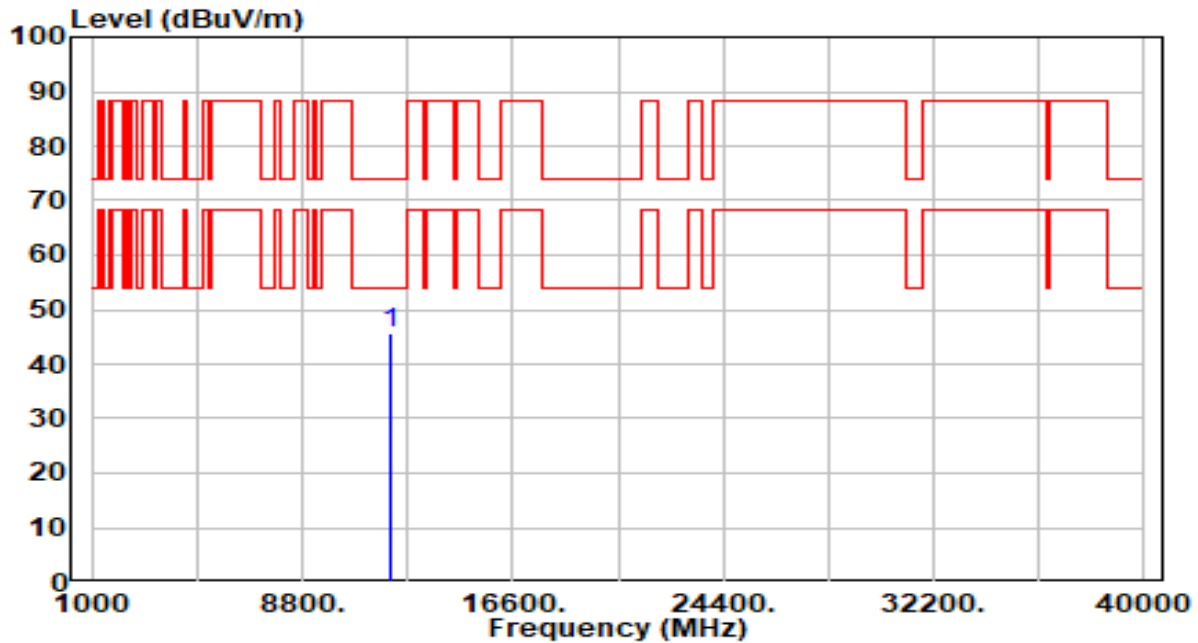


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	12050.000	40.21	5.76	45.97	-28.03	74.00	100	360	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E & BBHA 9170	Temp. / Humidity	20°C /63%
Polarity	Vertical	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11ax-160MHz_TX_Band5_CH 15_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

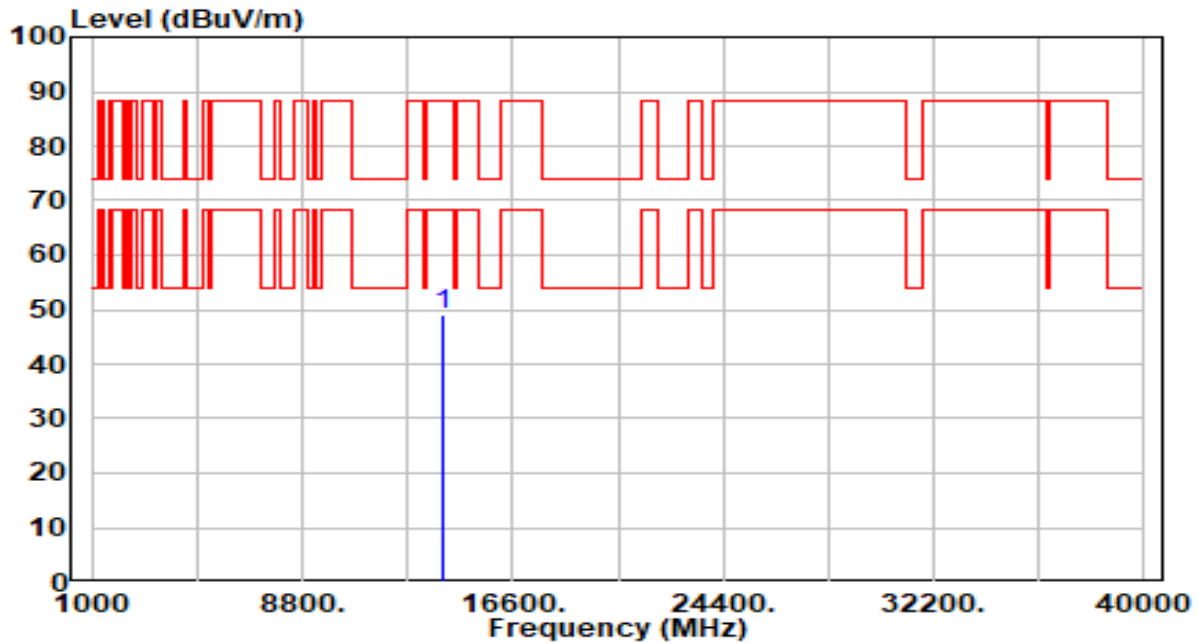


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	* 12050.000	40.01	5.76	45.77	-28.23	74.00	100	242	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E & BBHA 9170	Temp. / Humidity	20°C /63%
Polarity	Horizontal	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11be-160MHz_TX_Band8_CH 207_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

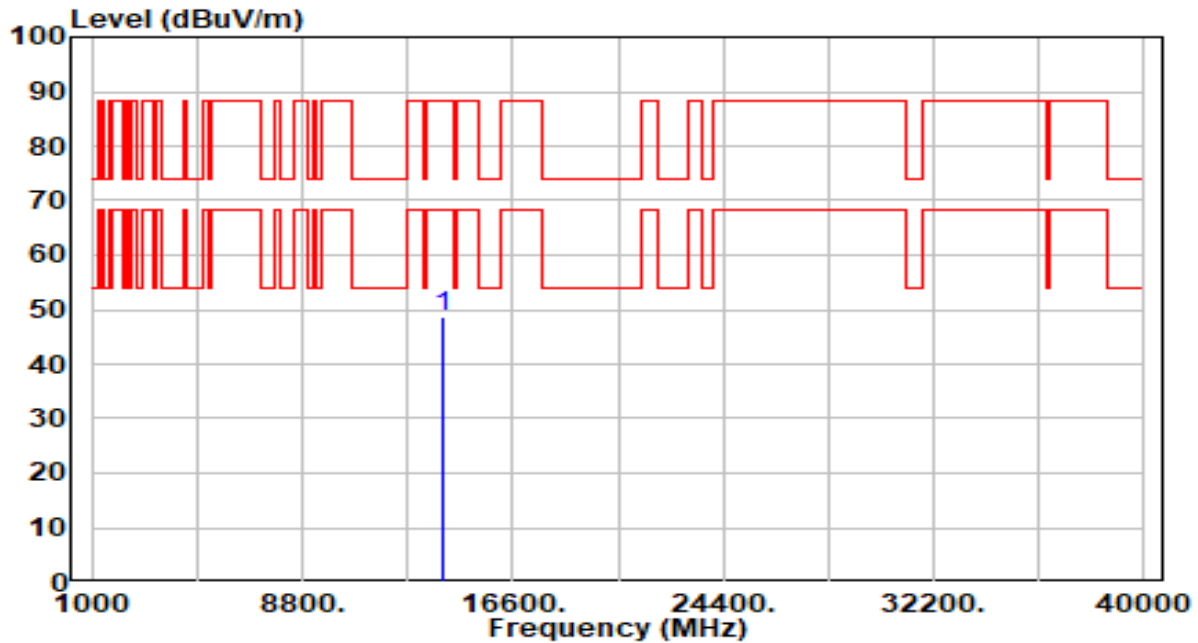


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	* 13970.000	42.62	6.53	49.16	-39.04	88.20	100	320	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E & BBHA 9170	Temp. / Humidity	20°C /63%
Polarity	Vertical	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11be-160MHz_TX_Band8_CH 207_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

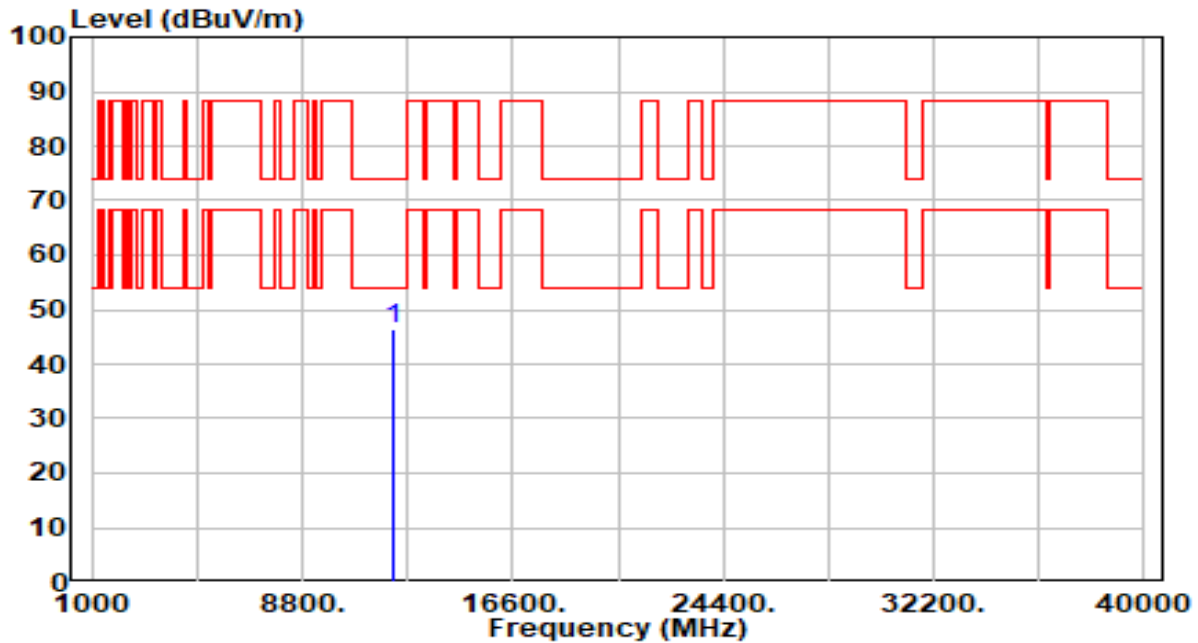


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	* 13970.000	42.20	6.53	48.74	-39.46	88.20	100	46	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E & BBHA 9170	Temp. / Humidity	20°C /63%
Polarity	Horizontal	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11be-320MHz_TX_Band5_CH 31_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

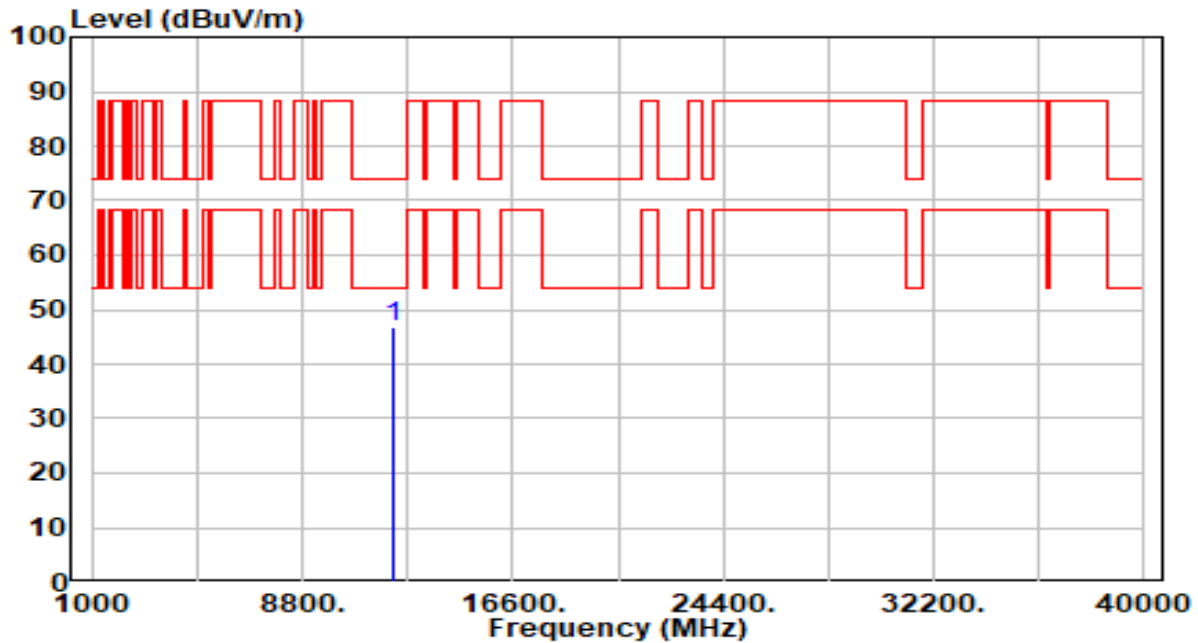


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	12210.000	40.44	5.86	46.30	-27.70	74.00	100	152	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E & BBHA 9170	Temp. / Humidity	20°C /63%
Polarity	Vertical	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11be-320MHz_TX_Band5_CH 31_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

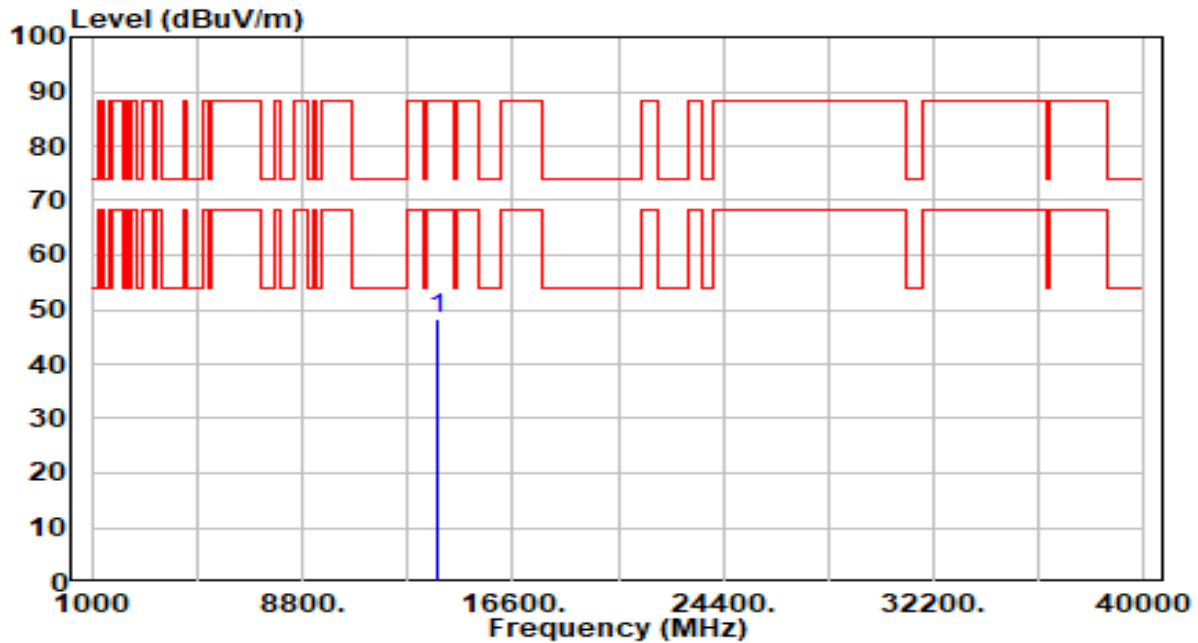


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	* 12210.000	41.09	5.86	46.94	-27.06	74.00	100	298	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E & BBHA 9170	Temp. / Humidity	20°C /63%
Polarity	Horizontal	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11be-320MHz_TX_Band8_CH 191_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

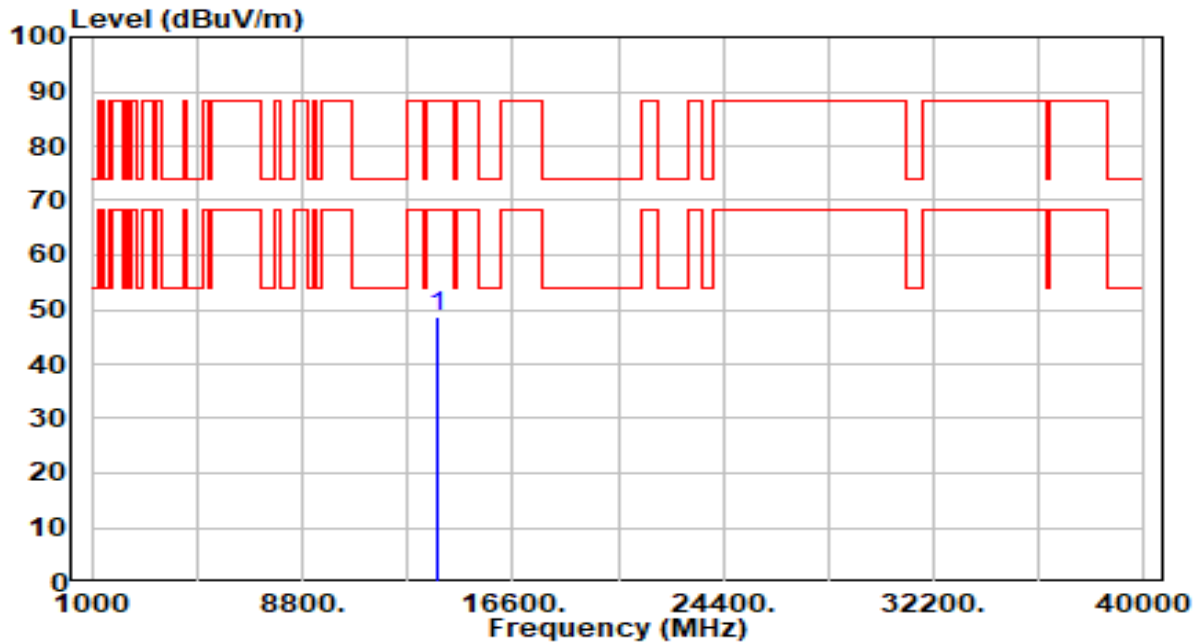


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	13810.000	41.76	6.61	48.38	-39.82	88.20	100	150	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E & BBHA 9170	Temp. / Humidity	20°C /63%
Polarity	Vertical	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11be-320MHz_TX_Band8_CH 191_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz



No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	* 13810.000	42.15	6.61	48.77	-39.43	88.20	100	213	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB).
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

6.9. Radiated Restricted Band Edge

6.9.1. Test Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)
13.36 - 13.41	--	--	--

For 15.407(b)(5) requirement

For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of -27 dBm/MHz.

Refer to 987594 D02 U-NII 6GHz EMC Measurement v02r01 clause G - Unwanted Emission Measurement

Use guidance in KDB 789033 for measurements below 1000 MHz and above 1000 MHz. Unwanted emissions outside of restricted bands are measured with a RMS detector. In addition, 15.35(b) applies where the peak emissions must be limited to no more than 20 dB above the average limit.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

6.9.2. Test Procedure Used

KDB 789033 D02v02r01- Section G

6.9.3. Test Setting

Peak Measurements above 1GHz

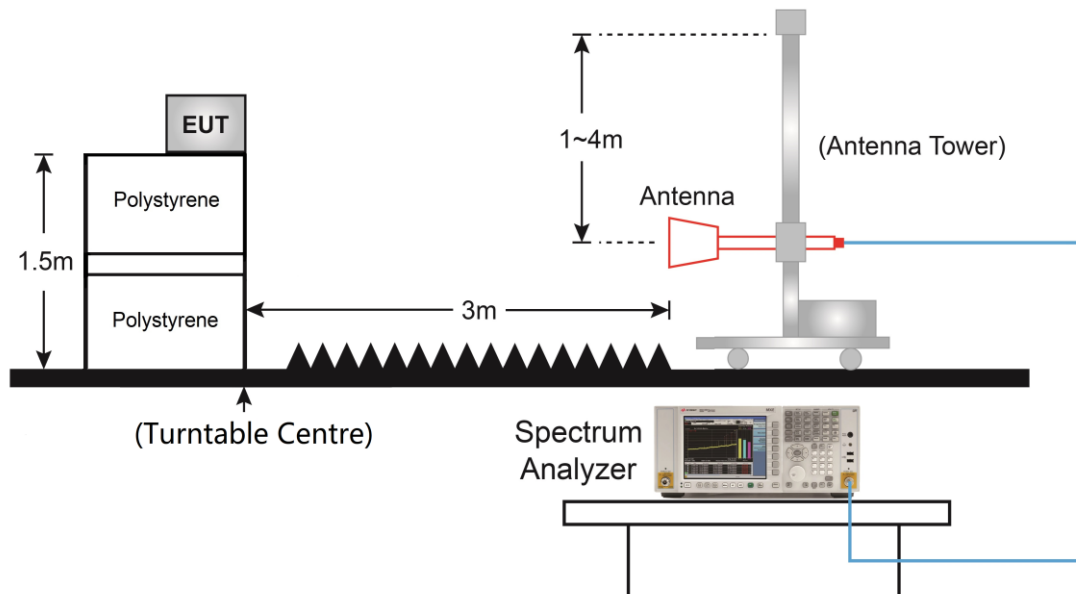
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = Peak
5. Sweep time = Auto couple
6. Trace mode = Max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; if the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10Hz
4. If the EUT duty cycle is $< 98\%$, set VBW $\geq 1/T$. T is the minimum transmission duration
5. Detector = Peak

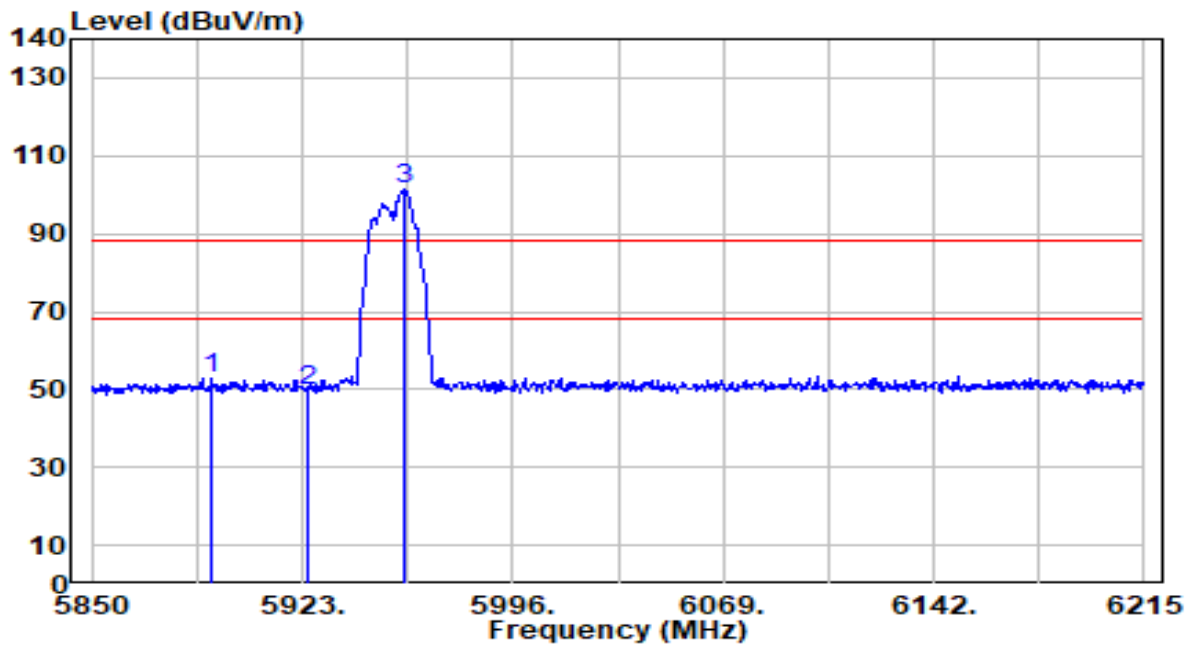
6. Sweep time = Auto
7. Trace mode = Max hold
8. Trace was allowed to stabilize

6.9.4. Test Setup



6.9.5. Test Result

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Horizontal	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11a_TX_Band5_CH 1_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

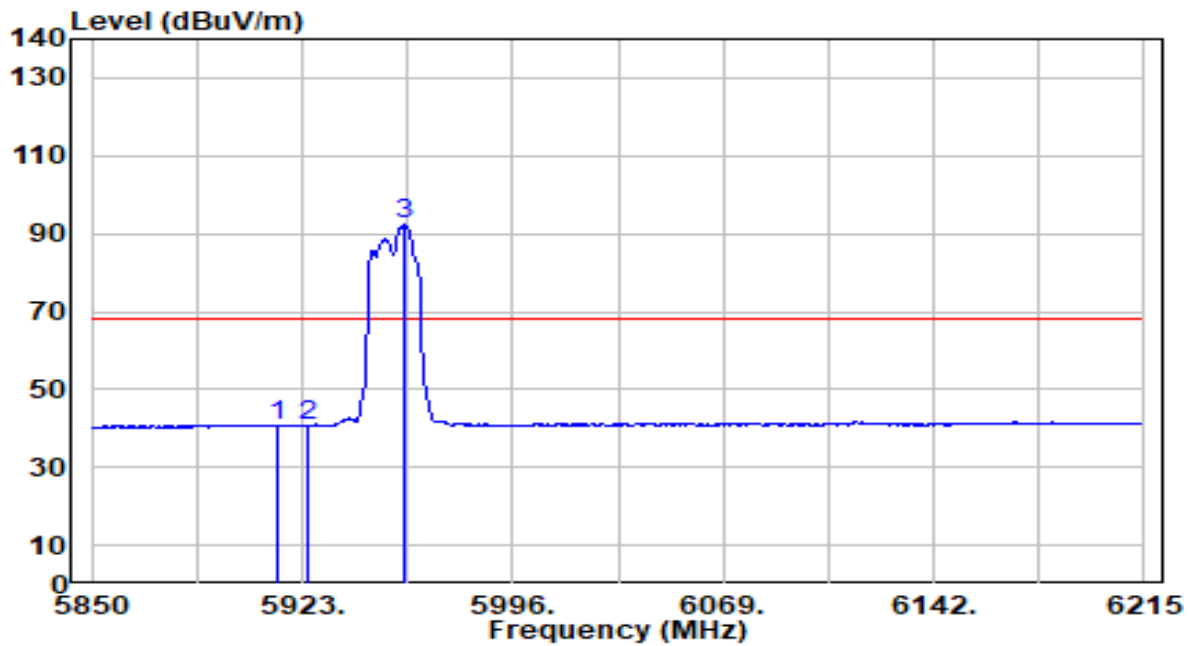


No	Frequency (MHz)	Reading (dBUV)	C.F (dB/m)	Measurement (dBUV/m)	Margin (dB)	Limit (dBUV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	* 5891.610	50.68	2.26	52.94	-35.26	88.20	271	19	Peak
2	5925.000	47.60	2.27	49.86	-38.34	88.20	271	19	Peak
3	5958.770	98.98	2.27	101.25	N/A	N/A	271	19	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBUV/m) = Reading(dBUV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Horizontal	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11a_TX_Band5_CH 1_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

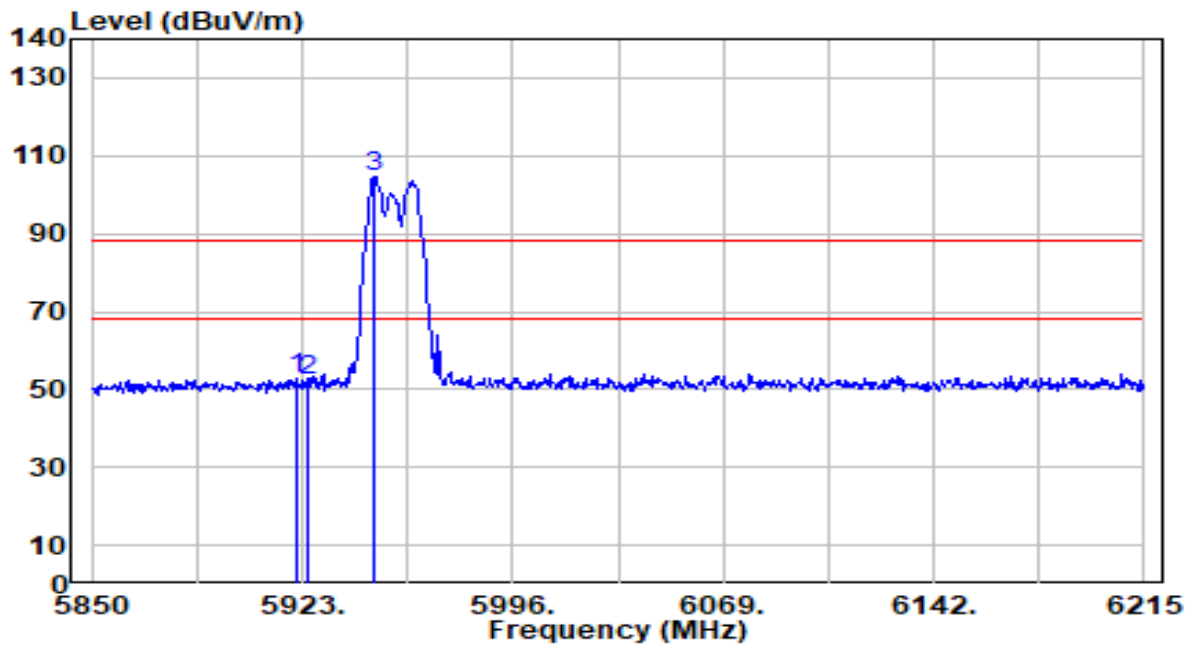


No	Frequency (MHz)	Reading (dBUV)	C.F (dB/m)	Measurement (dBUV/m)	Margin (dB)	Limit (dBUV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	* 5914.605	38.50	2.26	40.77	-27.43	68.20	271	19	Average
2	5925.000	38.37	2.27	40.63	-27.57	68.20	271	19	Average
3	5958.405	90.01	2.27	92.29	N/A	N/A	271	19	Average

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBUV/m) = Reading(dBUV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Vertical	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11a_TX_Band5_CH 1_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

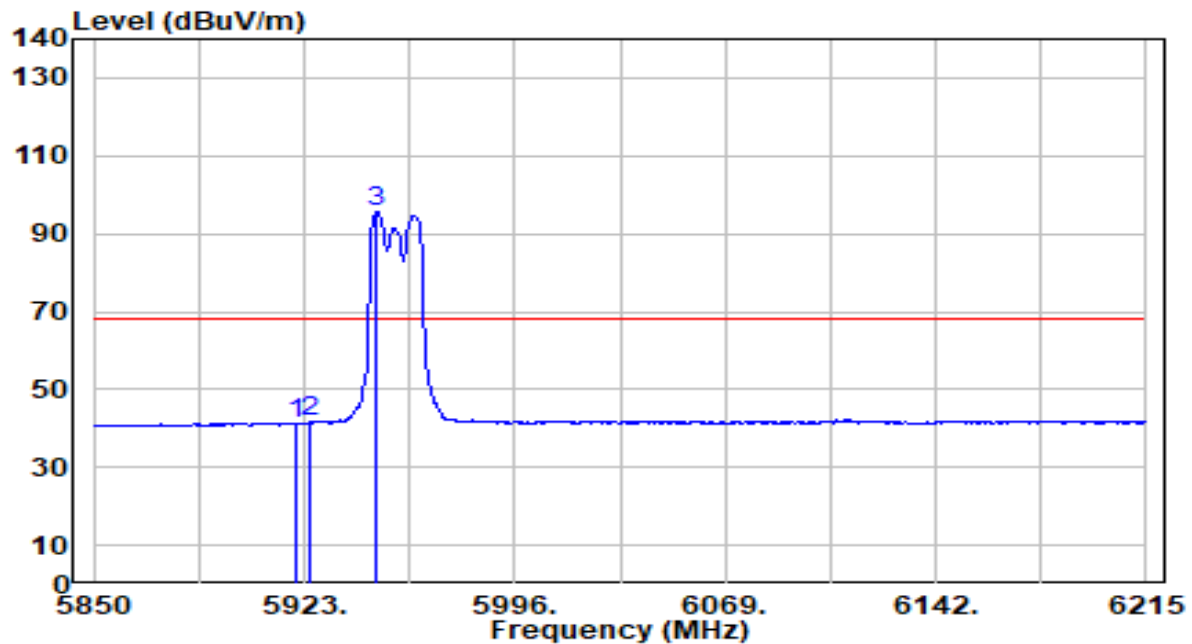


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5921.540	50.51	2.27	52.77	-35.43	88.20	146	326	Peak
2		5925.000	49.93	2.27	52.19	-36.01	88.20	146	326	Peak
3		5947.820	102.54	2.27	104.81	N/A	N/A	146	326	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Vertical	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11a_TX_Band5_CH 1_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

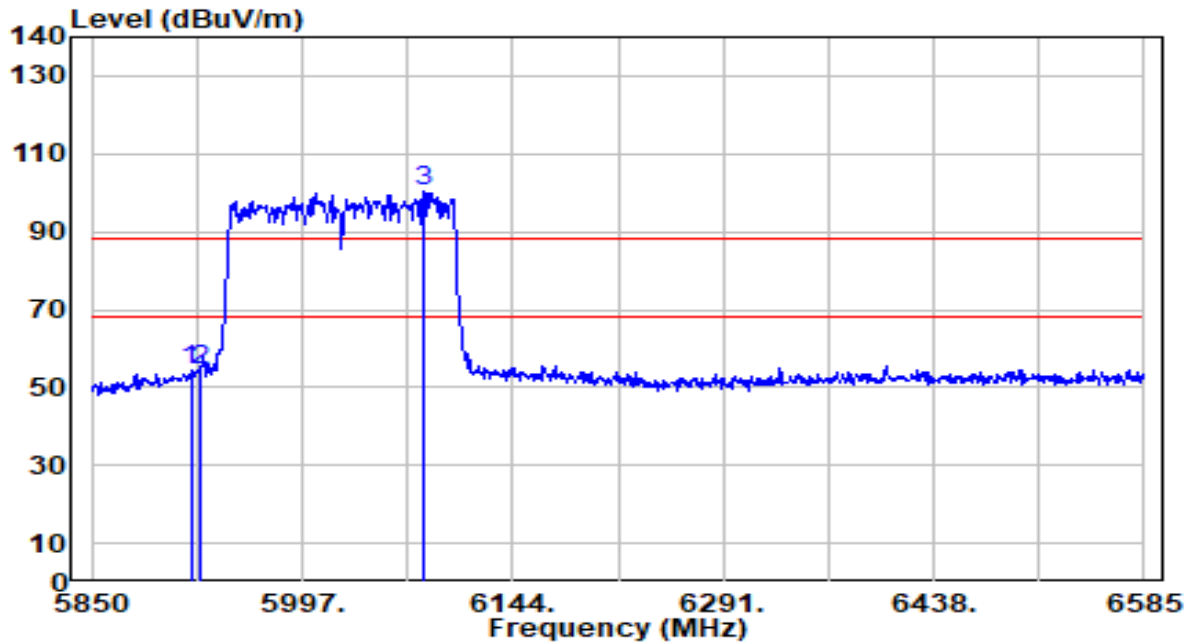


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	5920.445	39.11	2.27	41.37	-26.83	68.20	146	326	Average
2	* 5925.000	39.28	2.27	41.55	-26.65	68.20	146	326	Average
3	5948.185	93.29	2.27	95.56	N/A	N/A	146	326	Average

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Horizontal	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11ax-160MHz_TX_Band5_CH 15_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

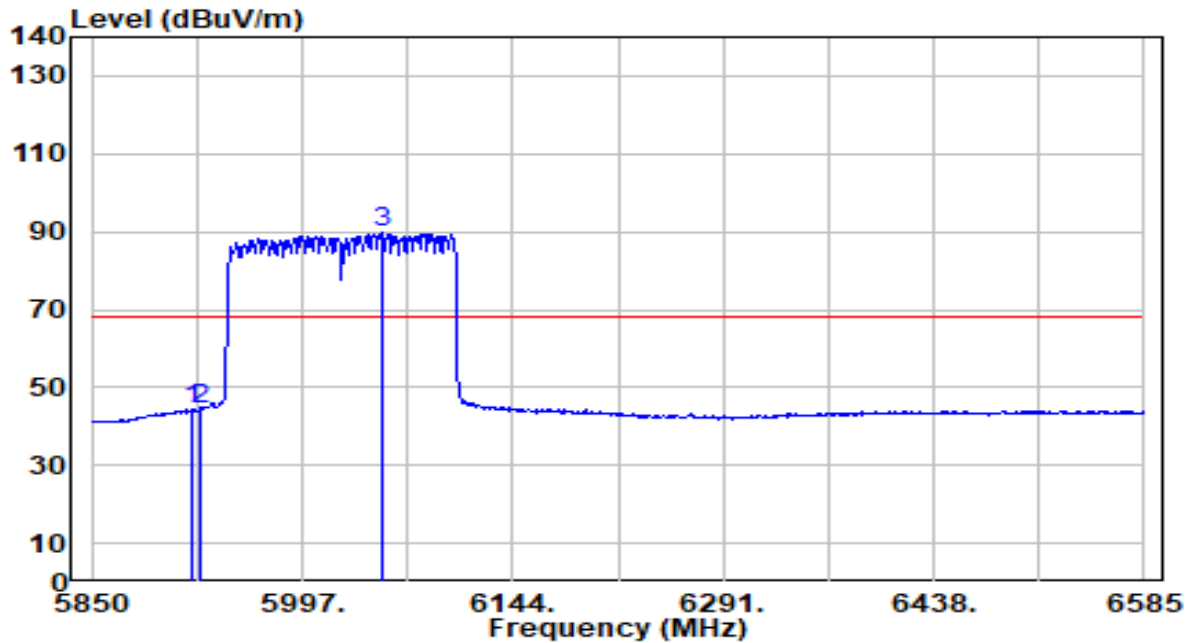


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5919.090	52.24	2.27	54.50	-33.70	88.20	271	19	Peak
2		5925.000	52.17	2.27	54.44	-33.76	88.20	271	19	Peak
3		6082.260	97.96	2.65	100.62	N/A	N/A	271	19	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Horizontal	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11ax-160MHz_TX_Band5_CH 15_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

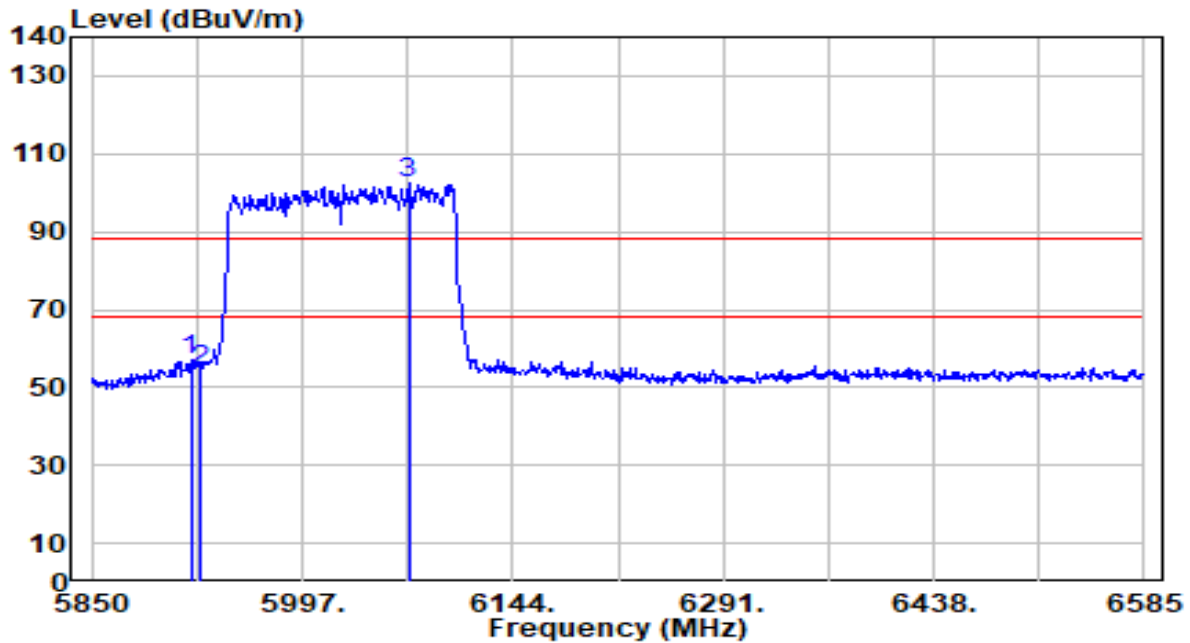


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5919.825	42.24	2.27	44.51	-23.69	68.20	271	19	Average
2		5925.000	42.12	2.27	44.39	-23.81	68.20	271	19	Average
3		6052.860	87.03	2.52	89.55	N/A	N/A	271	19	Average

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Vertical	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11ax-160MHz_TX_Band5_CH 15_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

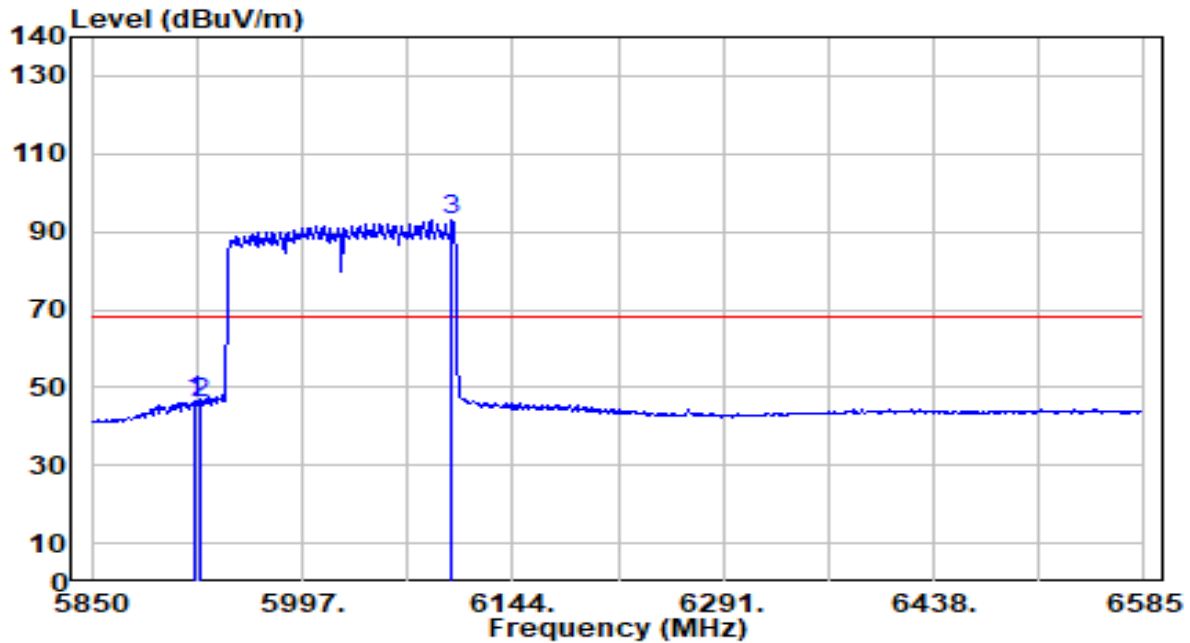


No		Frequency (MHz)	Reading (dBUV)	C.F (dB/m)	Measurement (dBUV/m)	Margin (dB)	Limit (dBUV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5919.090	54.63	2.27	56.90	-31.30	88.20	146	326	Peak
2		5925.000	51.96	2.27	54.22	-33.98	88.20	146	326	Peak
3		6071.235	99.72	2.60	102.32	N/A	N/A	146	326	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBUV/m) = Reading(dBUV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Vertical	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11ax-160MHz_TX_Band5_CH 15_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

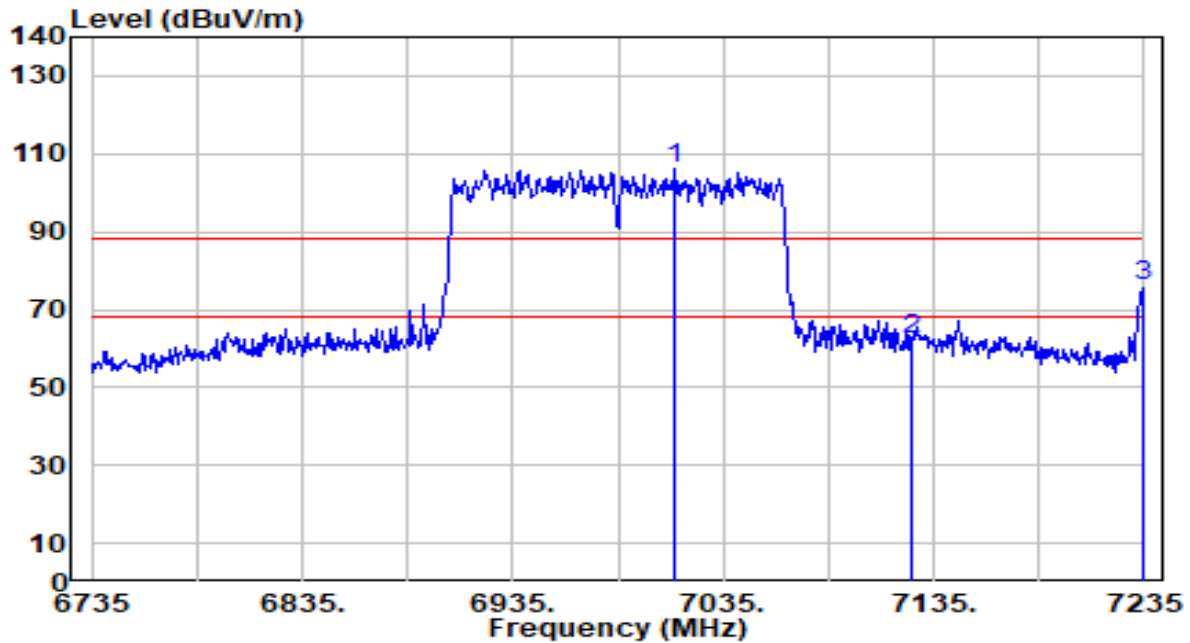


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5921.295	44.41	2.27	46.67	-21.53	68.20	146	326	Average
2		5925.000	43.75	2.27	46.02	-22.18	68.20	146	326	Average
3		6101.370	90.31	2.74	93.05	N/A	N/A	146	326	Average

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Horizontal	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11be-160MHz_TX_Band8_CH 207_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

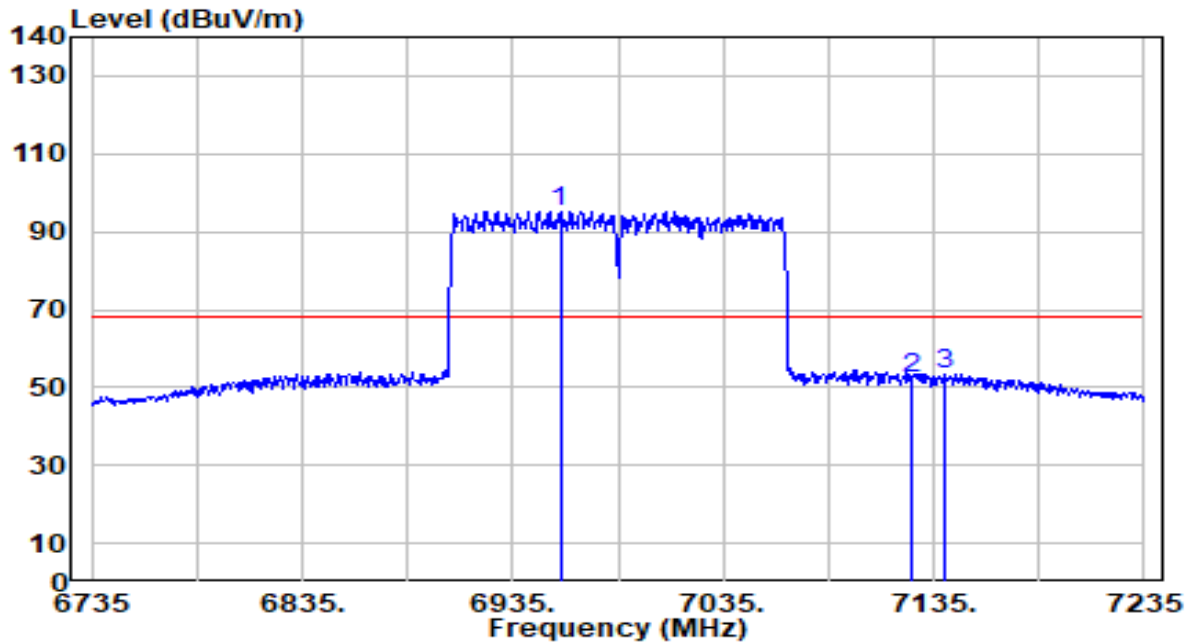


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	7012.500	100.69	5.60	106.29	N/A	N/A	245	326	Peak
2	7125.000	56.44	5.73	62.16	-26.04	88.20	245	326	Peak
3	* 7235.000	70.24	5.81	76.05	-12.15	88.20	245	326	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Horizontal	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11be-160MHz_TX_Band8_CH 207_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

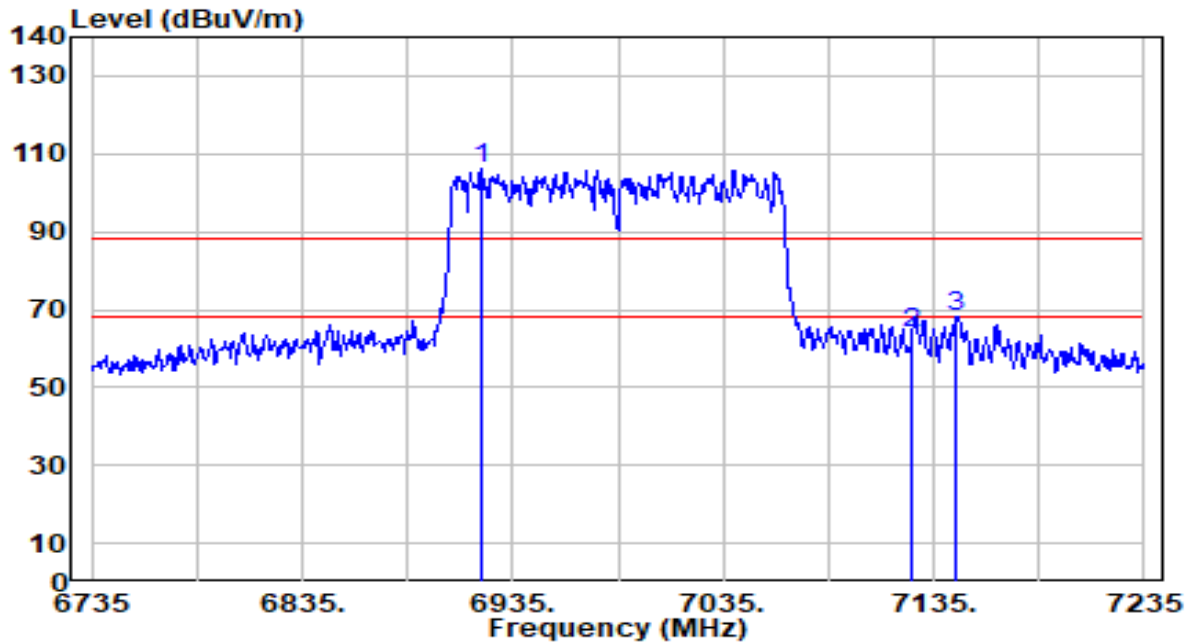


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	6957.500	89.69	5.56	95.26	N/A	N/A	245	326	Average
2	7125.000	46.83	5.73	52.55	-15.65	68.20	245	326	Average
3	* 7140.500	47.77	5.74	53.51	-14.69	68.20	245	326	Average

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Vertical	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11be-160MHz_TX_Band8_CH 207_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

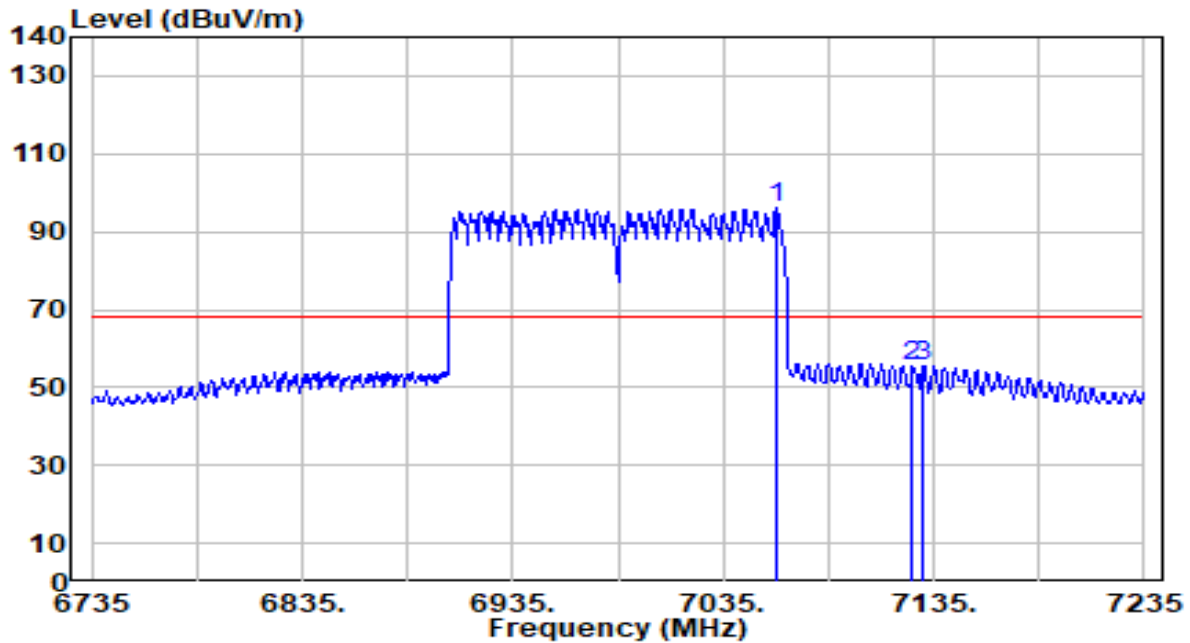


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	6920.000	100.80	5.53	106.34	N/A	N/A	100	184	Peak
2	7125.000	58.26	5.73	63.99	-24.21	88.20	100	184	Peak
3	* 7146.000	62.33	5.75	68.08	-20.12	88.20	100	184	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Vertical	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11be-160MHz_TX_Band8_CH 207_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

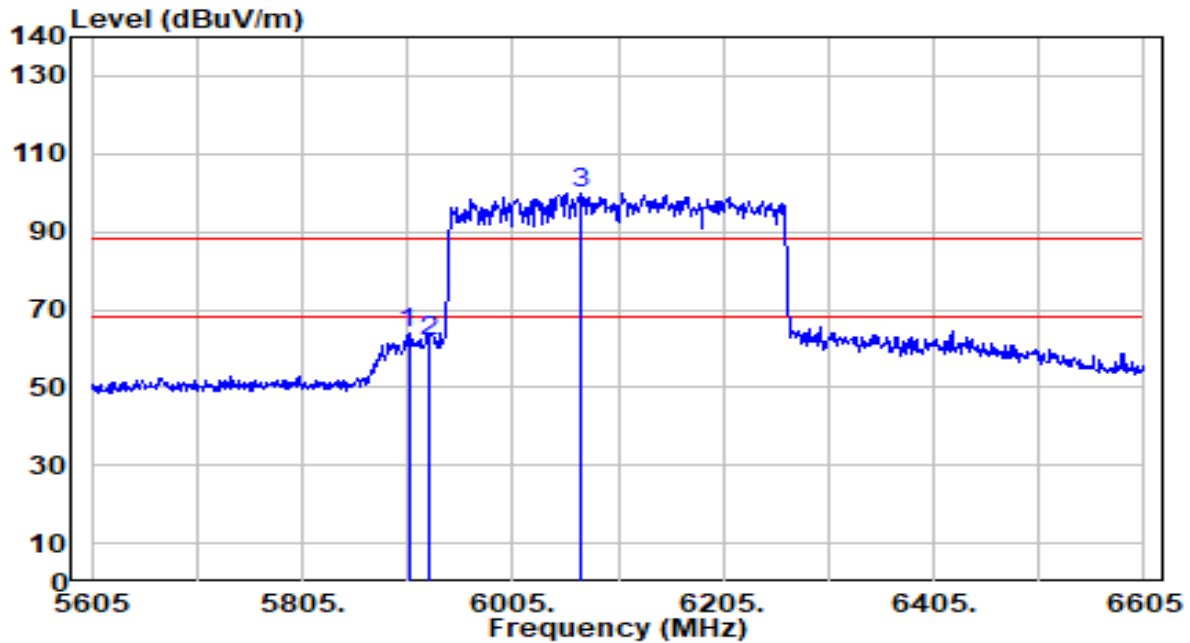


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	7060.000	90.34	5.66	95.99	N/A	N/A	100	184	Average
2	7125.000	49.72	5.73	55.45	-12.75	68.20	100	184	Average
3	* 7130.000	49.78	5.73	55.51	-12.69	68.20	100	184	Average

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Horizontal	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11be-320MHz_TX_Band5_CH 31_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

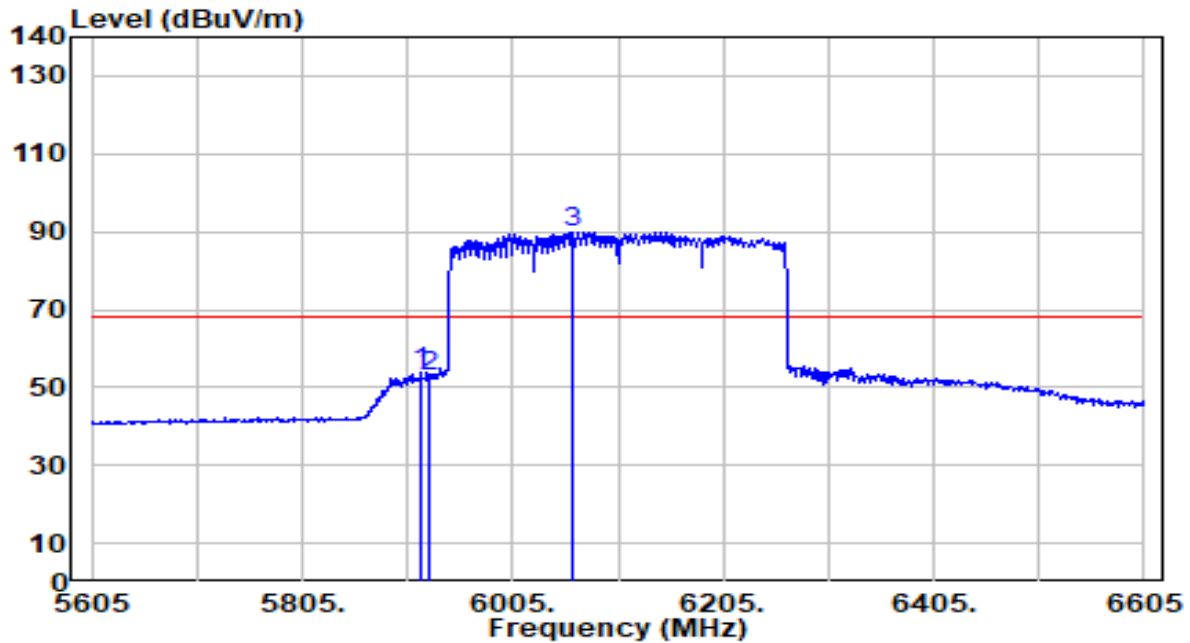


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5906.000	61.78	2.26	64.04	-24.16	88.20	271	19	Peak
2		5925.000	59.46	2.27	61.73	-26.47	88.20	271	19	Peak
3		6070.000	97.21	2.60	99.81	N/A	N/A	271	19	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Horizontal	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11be-320MHz_TX_Band5_CH 31_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

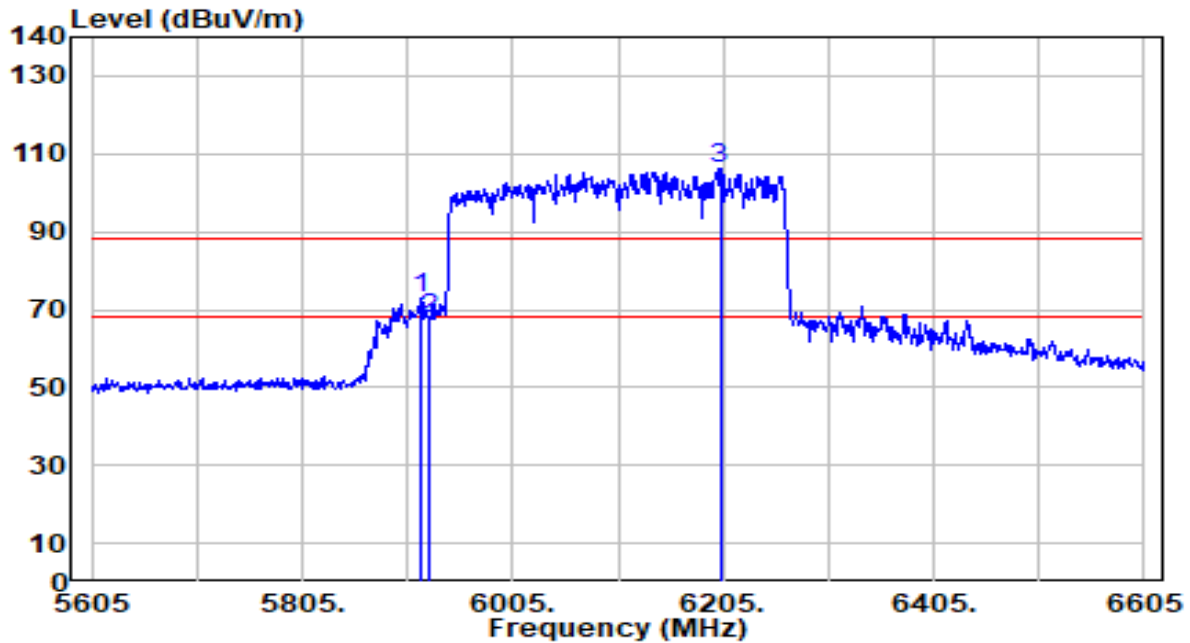


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5918.000	51.42	2.27	53.69	-14.51	68.20	271	19	Average
2		5925.000	50.64	2.27	52.91	-15.29	68.20	271	19	Average
3		6063.000	87.28	2.57	89.85	N/A	N/A	271	19	Average

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Vertical	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11be-320MHz_TX_Band5_CH 31_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

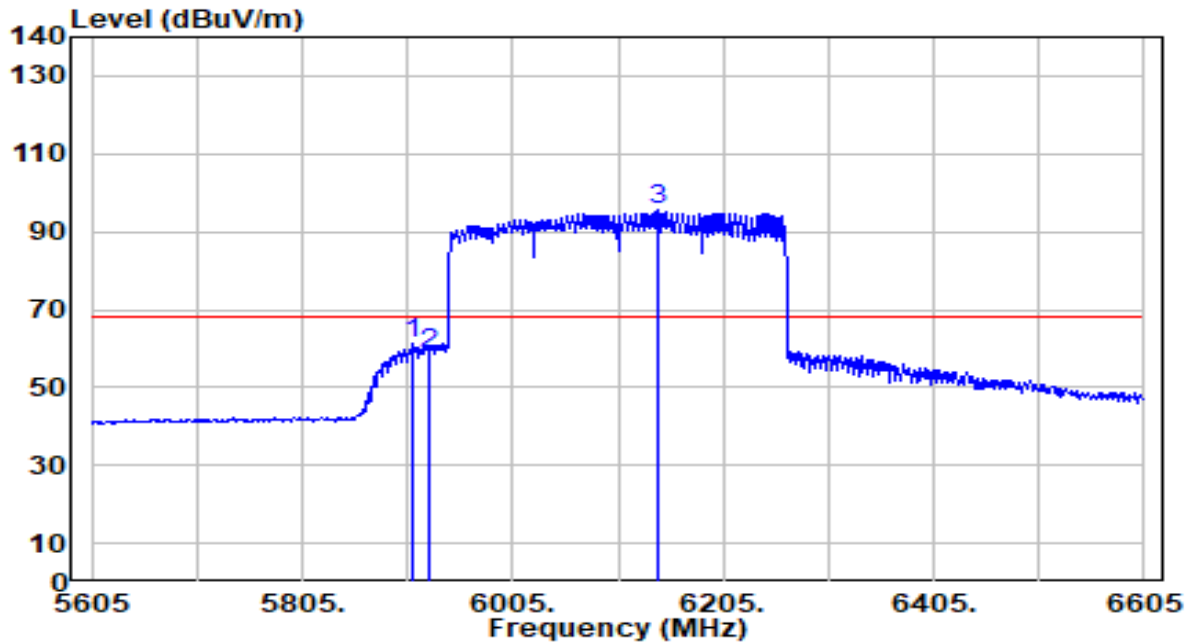


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5919.000	70.67	2.27	72.94	-15.26	88.20	146	326	Peak
2		5925.000	65.37	2.27	67.64	-20.56	88.20	146	326	Peak
3		6202.000	102.91	3.20	106.11	N/A	N/A	146	326	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Vertical	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11be-320MHz_TX_Band5_CH 31_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

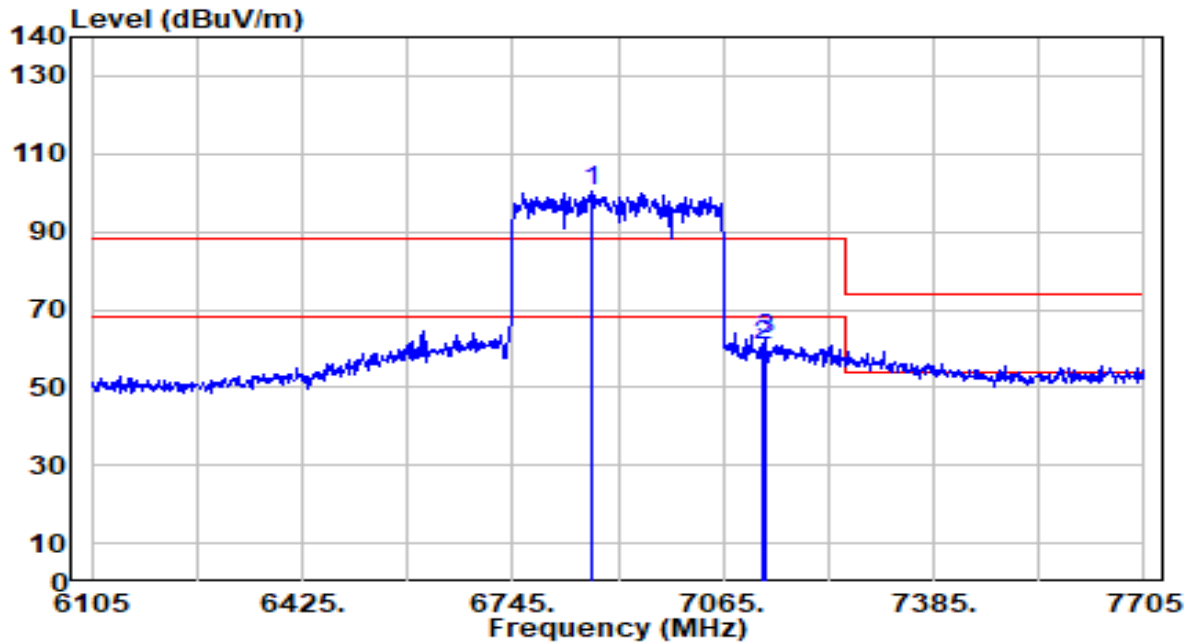


No		Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5909.000	58.82	2.26	61.08	-7.12	68.20	146	326	Average
2		5925.000	56.25	2.27	58.51	-9.69	68.20	146	326	Average
3		6142.000	92.45	2.92	95.38	N/A	N/A	146	326	Average

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Horizontal	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11be-320MHz_TX_Band8_CH 191_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

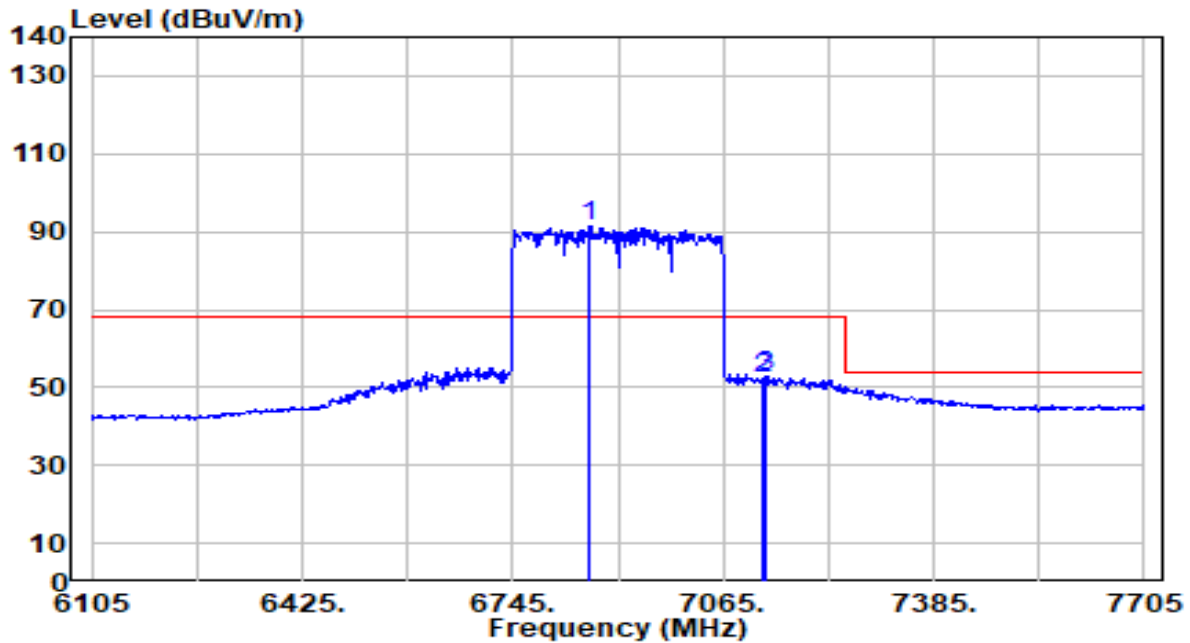


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	6866.600	94.92	5.50	100.41	N/A	N/A	245	326	Peak
2	7125.000	55.02	5.73	60.75	-27.45	88.20	245	326	Peak
3	* 7130.600	56.81	5.73	62.54	-25.66	88.20	245	326	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Horizontal	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11be-320MHz_TX_Band8_CH 191_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

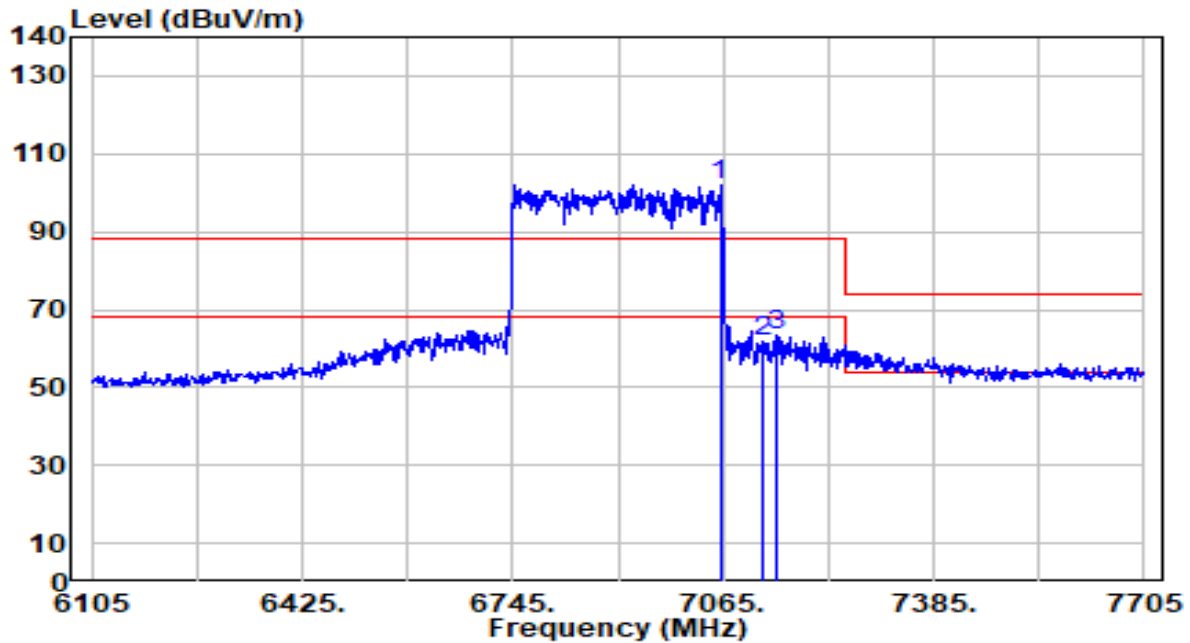


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	6861.800	86.02	5.49	91.52	N/A	N/A	245	326	Average
2	7125.000	46.49	5.73	52.21	-15.99	68.20	245	326	Average
3	* 7127.400	47.31	5.73	53.04	-15.16	68.20	245	326	Average

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Vertical	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11be-320MHz_TX_Band8_CH 191_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz

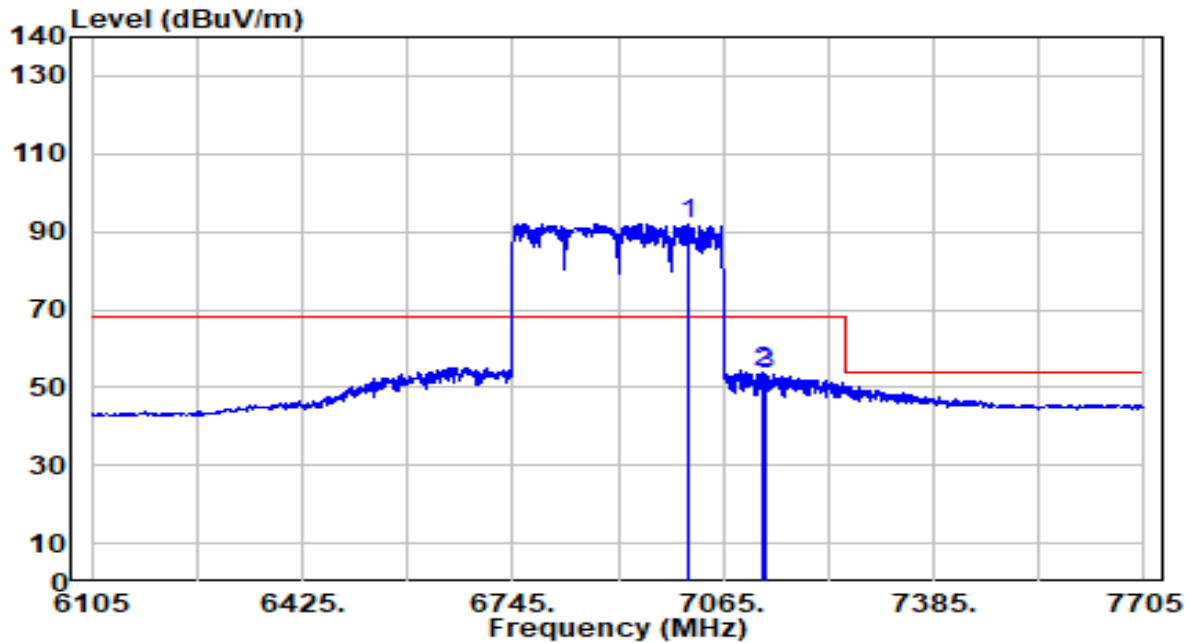


No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	7060.200	96.33	5.66	101.98	N/A	N/A	100	184	Peak
2	7125.000	56.28	5.73	62.00	-26.20	88.20	100	184	Peak
3	* 7146.600	57.81	5.75	63.56	-24.64	88.20	100	184	Peak

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

EUT	Tri-band WIFI7 router	Date of Test	2024-09-24
Factor	DRH18-E	Temp. / Humidity	20°C /63%
Polarity	Vertical	Site / Test Engineer	AC2 / Stanley
Test Mode	802.11be-320MHz_TX_Band8_CH 191_ANT 0+1+2+3	Test Voltage	AC 120V/60Hz



No	Frequency (MHz)	Reading (dBuV)	C.F (dB/m)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	7010.600	86.40	5.60	92.00	N/A	N/A	100	184	Average
2	* 7125.000	47.97	5.73	53.70	-14.50	68.20	100	184	Average
3	7130.600	47.47	5.73	53.20	-15.00	68.20	100	184	Average

Note:

1. " *", means this data is the worst emission level.
2. C.F (Correction Factor) = Antenna Factor (dB/m) + Cable Loss (dB) – Preamplifier(dB) + 10dB Attenuation.
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

6.10. AC Conducted Emissions

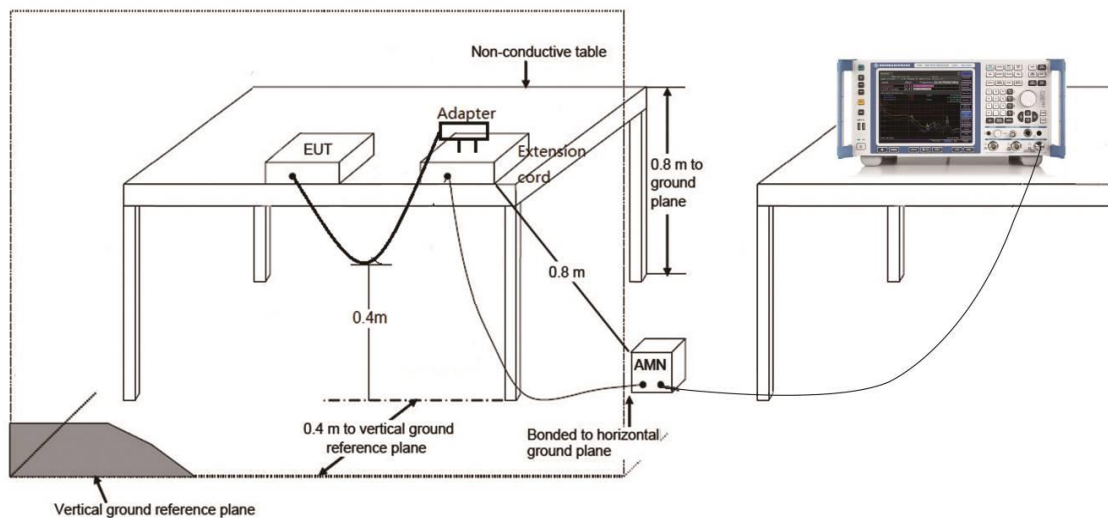
6.10.1. Test Limit

FCC Part 15.207 Limits		
Frequency (MHz)	QP (dBuV)	AV (dBuV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

6.10.2. Test Setup



6.10.3. Test Result

Note: Refer to the original report is 2406RSU023-U4.

7. Conclusion

The data collected relate only the item(s) tested and show that the device is in compliance with Part 15E of the FCC rules.

Appendix A : Test Setup Photograph

Refer to “2409TW0115-UT” file.

Appendix B : External Photograph

Refer to “2409TW0115-UE” file.

Appendix C : Internal Photograph

Refer to “2409TW0115-UI” file.

_____ The End _____