MEASUREMENT REPORT

FCC ID	:	**HD5-CK67X1N**
Applicant	:	**Honeywell International Inc**
Application Type	:	**Certification**
Product	:	**Mobile Computer**
Model No.	:	**CK67X1N**
Brand Name	:	**Honeywell**
FCC Classification	:	**Unlicensed National Information Infrastructure (NII)**
FCC Rule Part(s)	:	**Part15 Subpart E (Section 15.407)**
Received Date	:	**August 5, 2024**
Test Date	:	**November 17, 2024~December 8, 2024**

Tested By : Owen Tsai
(Owen Tsai)

Reviewed By : Paddy Chen
(Paddy Chen)

Approved By : Chenz Ker
(Chenz Ker)

Testing Laboratory
3261

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 KDB 789033 D02v02r01. Test results reported herein relate only to the item(s) tested.

Revision History

Report No.	Version	Description	Issue Date	Note
2408TW0104-U5	1.0	Original Report	2024-12-27	

CONTENTS

Description Page

General Information

Applicant	Honeywell International Inc
Applicant Address	9680 Old Bailes Rd. Fort Mill, SC 29707 United States
Manufacturer	Honeywell International Inc
Manufacturer Address	9680 Old Bailes Rd. Fort Mill, SC 29707 United States
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.

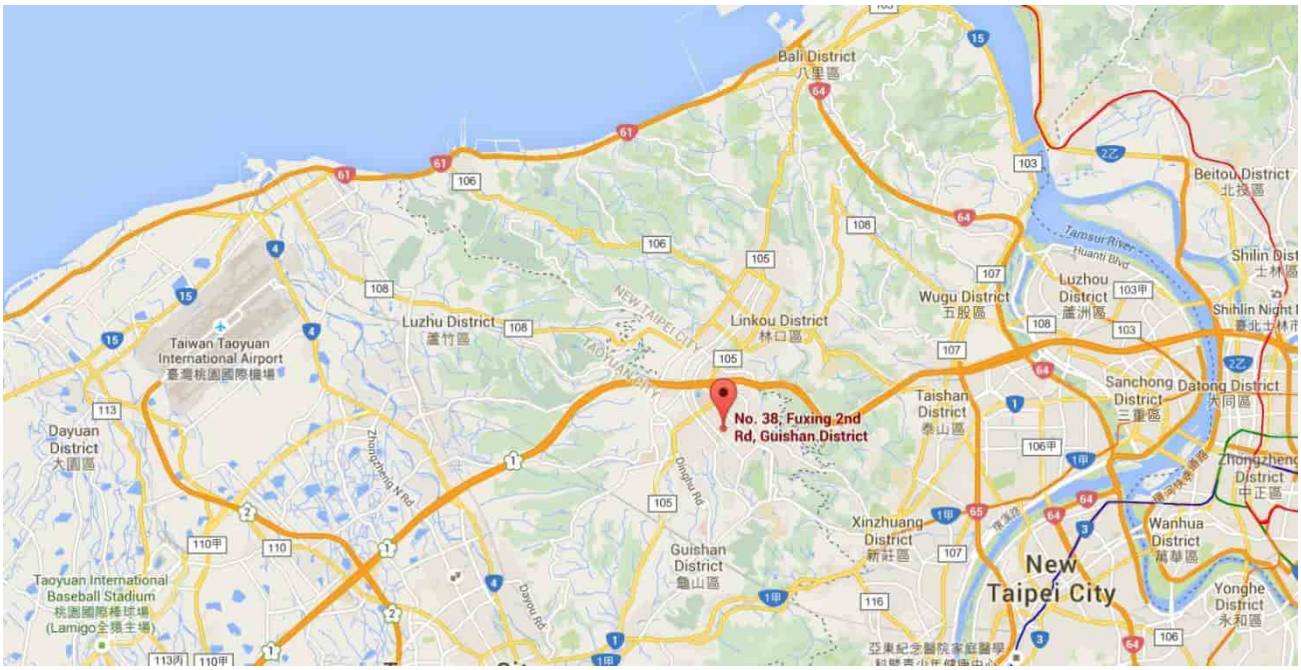
1. INTRODUCTION

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:	Mobile Computer
Model No.:	CK67X1N
Brand Name:	Honeywell
Wi-Fi Specification	802.11a/b/g/n/ac/ax
Bluetooth Specification	Main BT/BLE : V5.3 dual mode + 2nd BLE: V5.3 Single mode
NFC Specification	13.56MHz
WWAN Specification	4G-LTE: Band 2,4,5,7,12,13,14,17,25,26,30,38,41,42,43,48,66,71 5G-NR: n 2,5,7,12,13,14,25,26,30,38,41,48,66,71,77,78
CA Intra-Band	5B; 7C; 38C; 41C; 66B; 66C
EUT Identification No.:	#24295D8903 (Conducted) #24295D8059 (Radiated)
Accessory	
Battery	Brand: Honeywell MODEL:CK65-BTSC Rating: 3.6Vdc, 7000mAh, 25.2Wh

Note:

1. For other features of this EUT, test report will be issued separately.
2. This product has 3 scanners, 5 keypads, can refer as below:

Scanner	S0703	S0803FR	S0803	--	--
Keypad	Alpha Numeric	Numeric	Large Numeric	53keys Alpha Numeric	42keys Numeric

3. This report selected S0803FR with Alpha Numeric as the main test.
4. For a more detailed description, please refer to operation description supplied by the applicant and/or manufacturer.

2.2. Product Specification Subjective to this Report

Frequency Range:	For 802.11a/n-HT20/ac-VHT20/ax-HE20: 5180~5240MHz, 5260~5320MHz, 5500~5720MHz, 5745~5825MHz For 802.11n-HT40/ac-VHT40/ax-HE40: 5190~5230MHz, 5270~5310MHz, 5510~5710MHz, 5755~5795MHz For 802.11ac-VHT80/ax-HE80: 5210MHz, 5290MHz, 5530MHz, 5610 MHz, 5690MHz, 5775MHz For 802.11ac-VHT160/ax-HE160: 5250MHz, 5570MHz
Type of Modulation:	802.11a/n/ac: OFDM 802.11ax: OFDMA
Data Rate	802.11a: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 300Mbps 802.11ac: up to 1733.3Mbps 802.11ax: up to 2402Mbps

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

2.3. Working Frequencies for this report

802.11a/n-HT20/ac-VHT20/ax-HE20

Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180 MHz	40	5200 MHz	44	5220 MHz
48	5240 MHz	52	5260 MHz	56	5280 MHz
60	5300 MHz	64	5320 MHz	100	5500 MHz
104	5520 MHz	108	5540 MHz	112	5560 MHz
116	5580 MHz	120	5600 MHz	124	5620 MHz
128	5640 MHz	132	5660 MHz	136	5680 MHz
140	5700 MHz	144	5720 MHz	149	5745 MHz
153	5765 MHz	157	5785 MHz	161	5805 MHz
165	5825 MHz	--	--	--	--

802.11n-HT40/ac-VHT40/ax-HE40

Channel	Frequency	Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz	54	5270 MHz
62	5310 MHz	102	5510 MHz	110	5550MHz
118	5590 MHz	126	5630 MHz	134	5670 MHz
142	5710 MHz	151	5755 MHz	159	5795 MHz

802.11ac-VHT80/ax-HE80

Channel	Frequency	Channel	Frequency	Channel	Frequency
42	5210 MHz	58	5290 MHz	106	5530 MHz
122	5610 MHz	138	5690 MHz	155	5775 MHz

802.11ac-VHT160/ax-HE160

Channel	Frequency	Channel	Frequency	Channel	Frequency
50	5250MHz	114	5570 MHz	--	--

2.4. Description of Available Antennas

Antenna Type	Frequency Band (MHz)	T_X Paths	Number of spatial streams	Wi-Fi 0 (TX1) Gain (dBi)	Wi-Fi 1 (TX2) Gain (dBi)	Beamforming Directional Gain(dBi)	CDD Directional Gain (dBi)	
							For Power	For PSD
Wi-Fi Antenna								
PIFA	2412 ~ 2462	2	1	2.30	3.00	--	3.00	5.67
	5150 ~ 5250	2	1	1.60	2.50	--	2.50	5.07
	5250 ~ 5350	2	1	1.90	2.40	--	2.40	5.16
	5470 ~ 5725	2	1	2.70	2.10	--	2.70	5.42
	5725 ~ 5850	2	1	2.60	2.60	--	2.60	5.61
	5850 ~ 5895	2	1	2.60	2.60	--	2.60	5.61
	5925 ~ 6425	2	1	2.70	3.00	--	3.00	5.86
	6425 ~ 6525	2	1	2.70	3.00	--	3.00	5.86
	6525 ~ 6875	2	1	4.00	3.00	--	4.00	6.52
	6875 ~ 7125	2	1	3.90	3.70	--	3.90	6.81

Remark:

1. The EUT supports Cyclic Delay Diversity (CDD) mode, and CDD signals are correlated.

   If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream follows.

   - For power spectral density (PSD) measurements on all devices,

   - For power measurements on IEEE 802.11 devices,

   Array Gain = 0 dB for $N_{ANT} \leq 4$;

2. All messages of antenna were declared by manufacturer.

Test Mode	T_X Paths	CDD Mode	Beamforming Mode
802.11b/g/n (DTS)	2	√	X
802.11ax (DTS)	2	√	X
802.11a/n (NII)	2	√	X
802.11ac/ax (NII)	2	√	X
802.11ax (6CD)	2	√	X

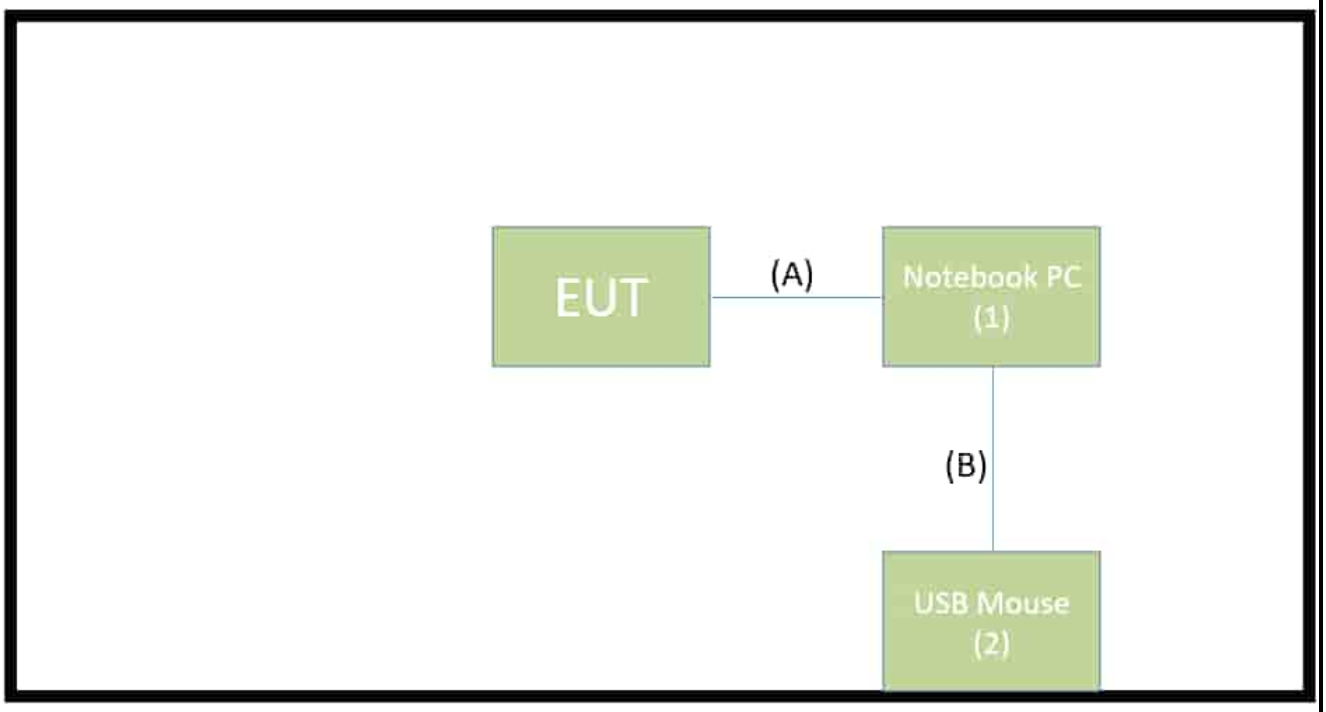
2.5. Test Mode

CDD Mode
Mode 1: Transmit by 802.11a_ (6Mbps) (CDD mode)
Mode 2: Transmit by 802.11ac-VHT20_ (MCS0) (CDD mode)
Mode 3: Transmit by 802.11ac-VHT40_ (MCS0) (CDD mode)
Mode 4: Transmit by 802.11ac-VHT80_ (MCS0) (CDD mode)
Mode 5: Transmit by 802.11ac-VHT160_ (MCS0) (CDD mode)
Mode 6: Transmit by 802.11ax-HE20_ (MCS0) (CDD mode)
Mode 7: Transmit by 802.11ax-HE40_ (MCS0) (CDD mode)
Mode 8: Transmit by 802.11ax-HE80_ (MCS0) (CDD mode)
Mode 9: Transmit by 802.11ax-HE160_ (MCS0) (CDD mode)
Mode 10: Transmit by 802.11ax-HE20_26Tone_RU0 (CDD mode)
Mode 11: Transmit by 802.11ax-HE20_26Tone_RU8 (CDD mode)
Mode 12: Transmit by 802.11ax-HE20_52Tone_RU74 (CDD mode)
Mode 13: Transmit by 802.11ax-HE20_52Tone_RU77 (CDD mode)
Mode 14: Transmit by 802.11ax-HE20_106Tone_RU106 (CDD mode)
Mode 15: Transmit by 802.11ax-HE20_106Tone_RU107 (CDD mode)
Mode 16: Transmit by 802.11ax-HE20_242Tone_RU122 (CDD mode)
Remark: 1. For Radiated emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power. 2. Due to the same modulation between 802.11n and 802.11ac, so 802.11n-HT20 and HT40 are covered by 802.11ac-VHT20 and VHT40 in this report.

2.6. Configuration of Test System

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

Connection Diagram



Signal Cable Type		Signal Cable Description
A	USB Cable	Shielded, 1.0m
B	USB Mouse Cable	Shielded, 1.8m

2.7. Test System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook PC	DELL	P65F	N/A	Non-shielded, 0.8m
2	USB Mouse	Logitech	M90	N/A	N/A

2.8. Description of Test Software

The test utility software used during testing was “QRCT”, the version is ver4.0-00209.

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:

- FCC Part 15.407
- KDB 789033 D02v02r01,
- KDB 662911 D01v02r01
- ANSI C63.10-2013

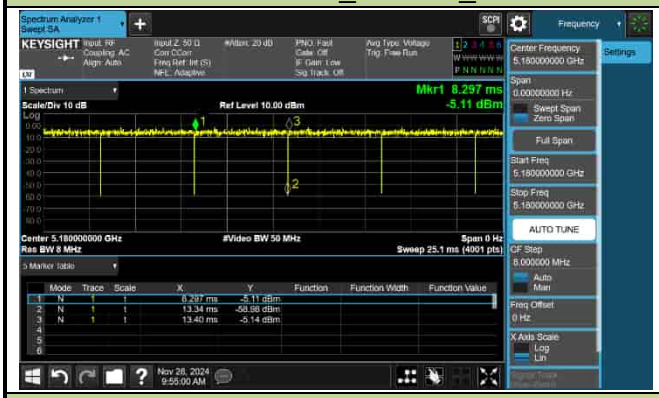
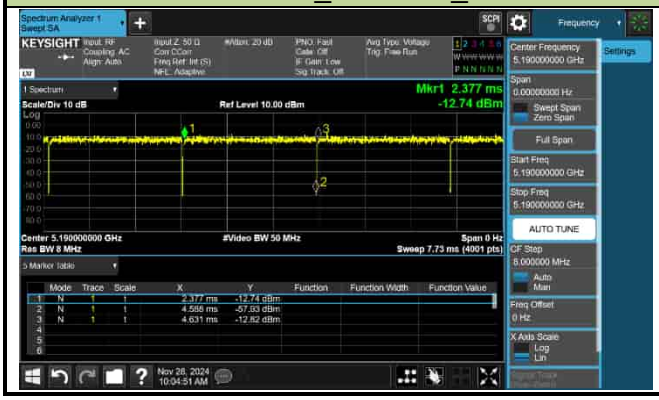
2.10. Duty Cycle

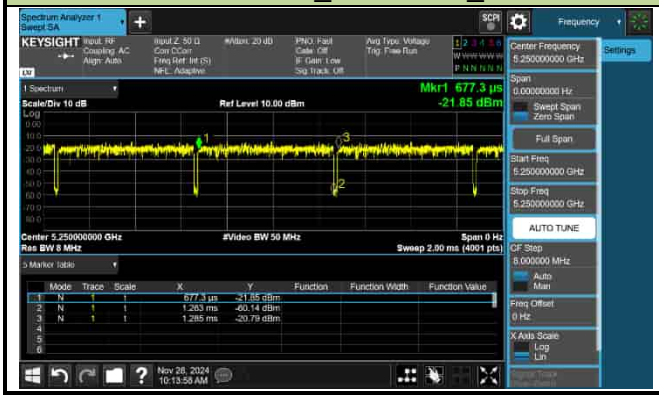
5GHz (NII) operation is possible in 20MHz, 40MHz, 80MHz and 160MHz channel bandwidths. The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz. The RBW and VBW were both greater than 50/T, where 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	98.39%
802.11ac-VHT20	99.26%
802.11ac-VHT40	98.89%
802.11ac-VHT80	99.01%
802.11ac-VHT160	98.83%
802.11ax-HE20	99.45%
802.11ax-HE40	98.76%
802.11ax-HE80	98.02%
802.11ax-HE160	98.16%
802.11ax-HE20_26 Tone_RU4	98.82%
802.11ax-HE20_52 Tone_RU75	99.41%
802.11ax-HE20_106 Tone_RU106	99.58%
802.11ax-HE20_242 Tone_RU122	99.32%
802.11ax-HE40_484 Tone_RU130	98.09%
802.11ax-HE80_996 Tone_RU134	97.34%
802.11ax-HE160_1992 Tone_RU136	96.38%

Duty Cycle	
802.11a	802.11ac-VHT20
	
802.11ac-VHT40	802.11ac-VHT80
	
802.11ac-VHT160	802.11ax-HE20
	

802.11ax-HE40	802.11ax-HE80
	
802.11ax-HE160	
	

Duty Cycle	
802.11ax-HE20_26 Tone_RU4	802.11ax-HE20_52 Tone_RU75
	
802.11ax-HE20_106 Tone_RU106	802.11ax-HE20_242 Tone_RU122
	
802.11ax-HE40_484 Tone_RU130	802.11ax-HE80_996 Tone_RU134
	

802.11ax-HE160_1992 Tone_RU136	
	

2.11. Test Configuration

The device was tested per the guidance of KDB 789033 D02v02r01.ANSI C63.10-2013 was used to reference the appropriate EUT setup for radiated spurious emissions testingand AC line conducted testing.

2.12. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

2.13. Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphletsupplied to the user and be readily visible to the purchaser at the time of purchase. However, when the deviceis so small wherein placement of the label with specified statement is not practical, only the FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label andlabel location.

3. DESCRIPTION OF TEST

3.1. Evaluation Procedure

The measurement procedures described in the American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices (ANSI C63.10-2013), and the guidance provided in KDB 789033 D02v02r01 were used in themeasurement.

3.2. AC Line Conducted Emissions

The line-conducted facility is located inside an8'x4'x4' shielded enclosure. A 1m x 2m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50Ω/50uH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.
The EUT is powered from one LISN and the support equipment is powered from the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference ground-plane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.
Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the receiver and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The receiver was scanned from 150kHz to 30MHz. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 9kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Each emission was also maximized by varying: power lines, the mode of operation or data exchange speed, or support equipment whichever determined the worst-case emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions are used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.
An extension cord was used to connect to a single LISN which powered by EUT. The extension cord was calibrated with LISN, the impedance and insertion loss are compliance with the requirements as stated in ANSI C63.10-2013.

3.3. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. A MF Model 210SS turntable is used for radiated measurement. It is a continuously rotatable, remotecontrolled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An80cm high PVC support structure is placed on top of the turntable.
For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up for frequencies below 1GHz was placed on top of the 0.8 meter high, 1 x 1.5 meter table; and test set-up for frequencies 1-40GHz was placed on top of the 1.5 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated tomaximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, clock speed, mode of operation or video resolution, if applicable, turntable azimuth, and receive antenna height was noted for each frequency found.
Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, whichever produced the worst-case emissions. According to 3dB Beam-Width of horn antenna, the horn antenna should be always directed to the EUT when rising height.

4. 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 theresponsible party can be used with the device. The use of a permanently attached antenna or of an antennathat uses a unique coupling to the intentional radiator shall be considered sufficient to comply with theprovisions of this section.”

- The antenna of thedevice is **permanently attached.**
- There are no provisions for connection to an external antenna.

Conclusion:

The unit complies with the requirement of §15.203.

5. TEST EQUIPMENT CALIBRATION DATE

Conducted Emissions

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Two-Line V-Network	R&S	ENV216	MRTTWA00020	1 year	2025/4/21
EMI Test Receiver	R&S	ESR3	MRTTWA00009	1 year	2025/3/5
Cable	Rosnol	N1C50-RG400-B 1C50-500CM	MRTTWE00013	1 year	2025/6/14

Radiated Emissions

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Acitve Loop Antenna	SCHWARZBECK	FMZB 1519B	MRTTWA00002	1 year	2025/5/7
Broadband TRILOG Antenna	SCHWARZBECK	VULB 9162	MRTTWA00086	1 year	2025/11/5
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	FSV40	MRTTWA00007	1 year	2025/3/14
Antenna Cable	HUBERSUHNER	SF106	MRTTWE00010	1 year	2025/6/14
Cable	Rosnol	K1K50-UP0264-K1K50-4M	MRTTWE00012	1 year	2025/6/14
Temperature/Humidity Meter	TFA	35.1083	MRTTWA00050	1 year	2025/6/2

Conducted Test Equipment

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2025/9/24
EXA Signal Analyzer	KEYSIGHT	N9010B	MRTTWA00074	1 year	2025/8/12
USB Wideband Power Sensor	KEYSIGHT	U2021XA	MRTTWA00015	1 year	2025/3/12
Temperature & Humidity Chamber	TEN BILLION	TTH-B3UP	MRTTWA00036	1 year	2025/6/6

Test Software

Software	Version	Function
e3	9.160520a	EMI Test Software

6. 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=2Uc(y)): 150kHz~30MHz: ± 2.53dB
Radiated Emission Measurement
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 9kHz ~ 1GHz: ± 4.25dB 1GHz ~ 40GHz: ± 4.45dB
Conducted Power (Carrier Power / Power Density)
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ± 0.84dB
Conducted Spurious Emission
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)):± 2.65 dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ± 3.3%
Temp. / Humidity
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ±0.82°C/ ±3%
Frequency Error
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ±78.4Hz

7. TEST RESULT

7.1. Summary

FCC Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.407(a)	26dB Bandwidth	N/A	Conducted	Pass	Section7.2
15.407(e)	6dB Bandwidth	≥ 500kHz		Pass	Section 7.3
15.407(a)(1)(ii), (2), (3)	Maximum Conducted Output Power	Refer to section 7.4		Pass (18.22dBm @avg)	Section 7.4
15.407(h)(1)	Transmit Power Control	≤ 24 dBm		Pass	Section 7.5
15.407(a)(1)(ii), (2), (3), (12)	Peak Power Spectral Density	Refer to section 7.6		Pass	Section 7.6
15.407(g)	Frequency Stability	N/A		Pass	Section 7.7
15.407(b)(1), (2), (3), (4)(i)	Undesirable Emissions	Refer to Section 7.8	Radiated	PASS (49.60dBuV/m@Peak)	Section 7.8
15.205, 15.209 15.407(b)(8), (9), (10)	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	Emissions in restrictedbands must meet theradiated limits detailed in15.209		PASS (66.70dBuV/m@Peak)	Section 7.9
15.207	AC Conducted Emissions 150kHz - 30MHz	< FCC 15.207 limits	Line Conducted	Pass	Section 7.10

Notes:

1) 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.
2) 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 ofthe system to connect the EUT to the analyzer at all frequencies of interest.
3) 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.
4) For radiated emission test, every axis (X, Y, Z) was also verified. The test results shown in the following sections represent the worst-case emissions.

7.2. 26dB Bandwidth Measurement

7.2.1.Test Limit

N/A

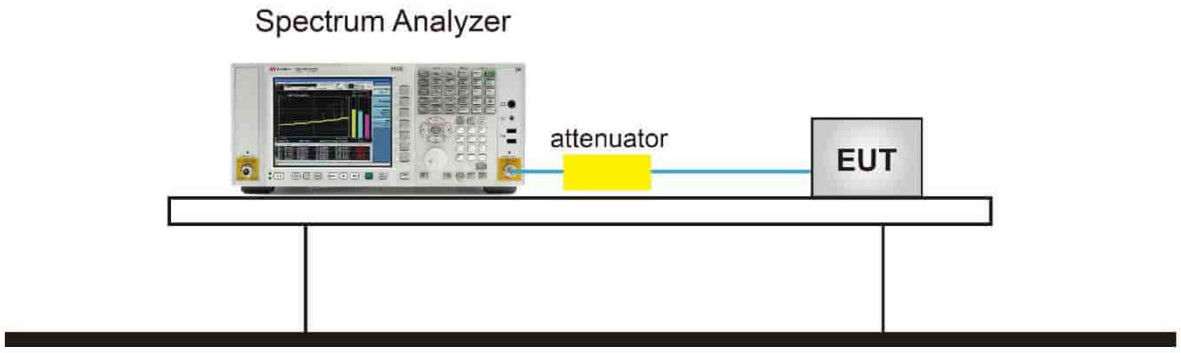
7.2.2.Test Procedure used

K DB 789033 D02v02r01- Section II)C.1) (26dB Bandwidth)
KDB 789033 D02v02r01- Section II)D) (99% Bandwidth)

7.2.3.Test Setting

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 ≥ 3×RBW.
4. Detector = Peak.
5. Trace mode = max hold.

7.2.4.Test Setup



7.2.5.Test Result

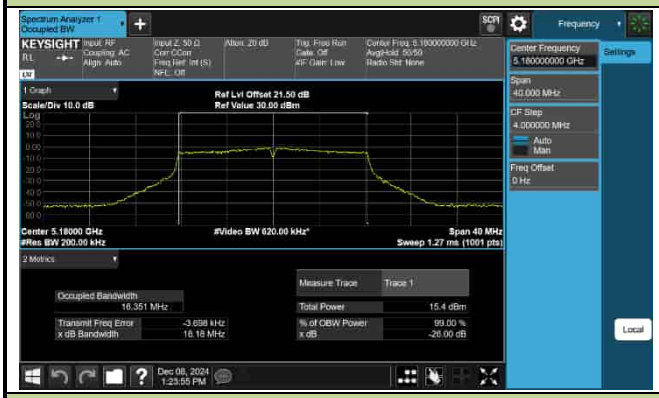
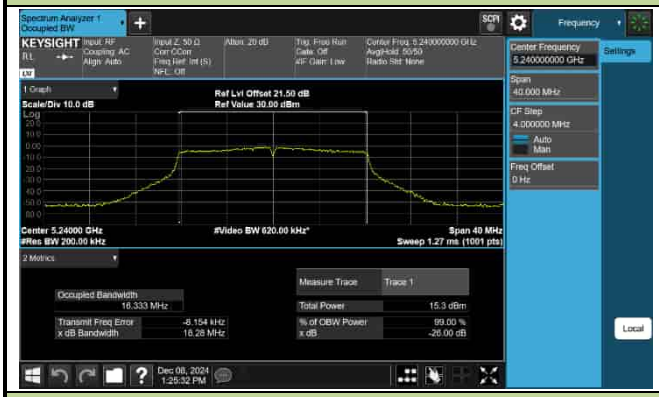
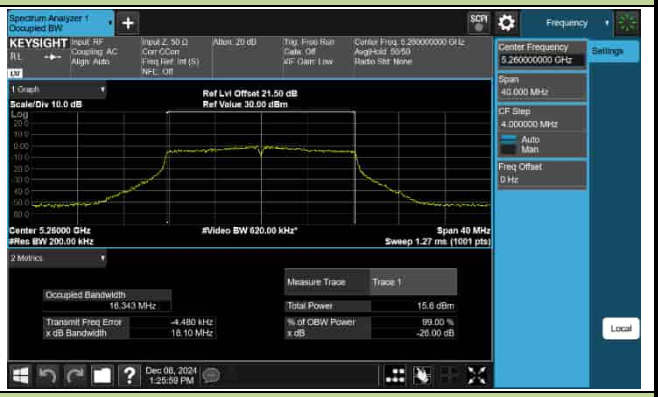
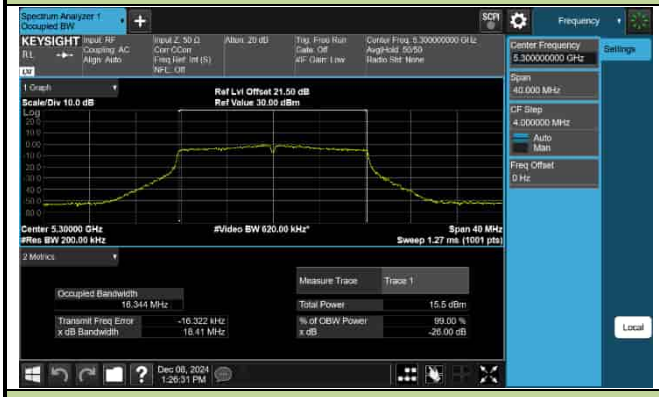
Product	Mobile Computer	Test Engineer	Marvin
Test Site	SR6	Test Date	2024/12/8

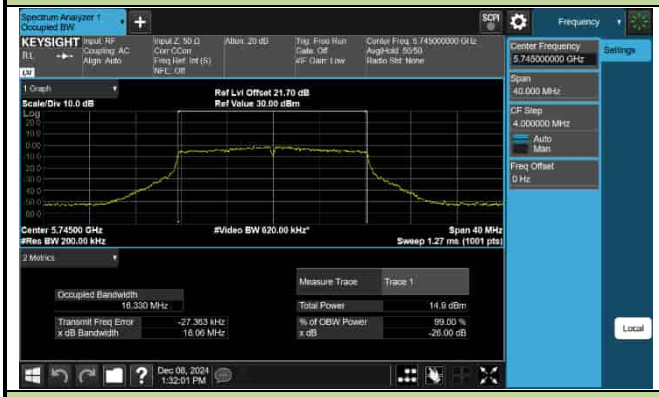
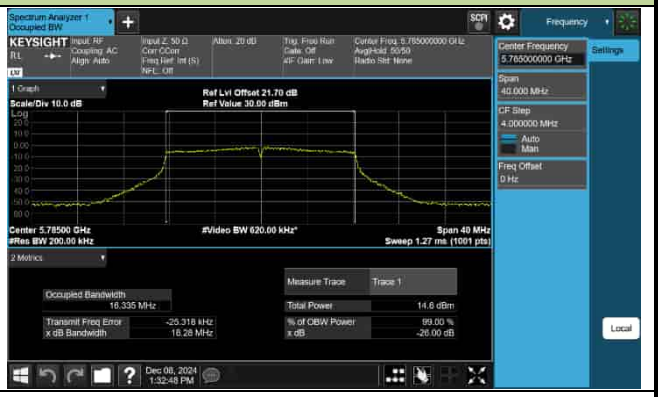
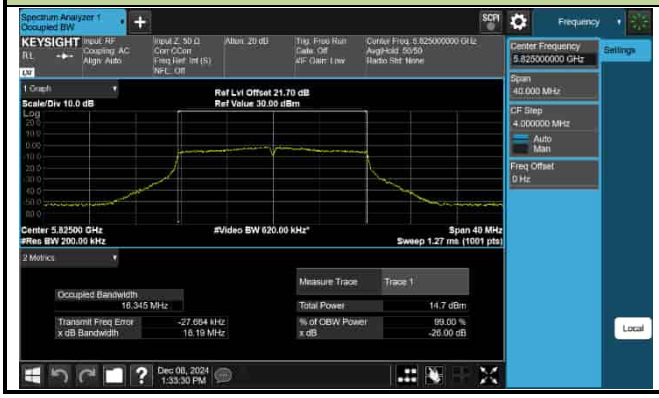
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant 0					
802.11a	6Mbps	36	5180	18.18	16.351
802.11a	6Mbps	40	5200	18.16	16.345
802.11a	6Mbps	48	5240	18.28	16.333
802.11a	6Mbps	52	5260	18.10	16.343
802.11a	6Mbps	60	5300	18.41	16.344
802.11a	6Mbps	64	5320	18.11	16.331
802.11a	6Mbps	100	5500	18.49	16.322
802.11a	6Mbps	116	5580	18.24	16.325
802.11a	6Mbps	140	5700	18.21	16.328
802.11a	6Mbps	144	5720	18.22	16.333
802.11a	6Mbps	149	5745	18.06	16.330
802.11a	6Mbps	157	5785	18.28	16.335
802.11a	6Mbps	165	5825	18.19	16.345
802.11ac-VHT20	MCS0	36	5180	19.33	17.552
802.11ac-VHT20	MCS0	40	5200	19.37	17.574
802.11ac-VHT20	MCS0	48	5240	19.55	17.558
802.11ac-VHT20	MCS0	52	5260	19.51	17.551
802.11ac-VHT20	MCS0	60	5300	19.31	17.581
802.11ac-VHT20	MCS0	64	5320	19.27	17.554
802.11ac-VHT20	MCS0	100	5500	19.23	17.542
802.11ac-VHT20	MCS0	116	5580	19.39	17.573
802.11ac-VHT20	MCS0	140	5700	19.42	17.584
802.11ac-VHT20	MCS0	144	5720	19.43	17.550
802.11ac-VHT20	MCS0	149	5745	19.44	17.561
802.11ac-VHT20	MCS0	157	5785	19.39	17.581
802.11ac-VHT20	MCS0	165	5825	19.36	17.559

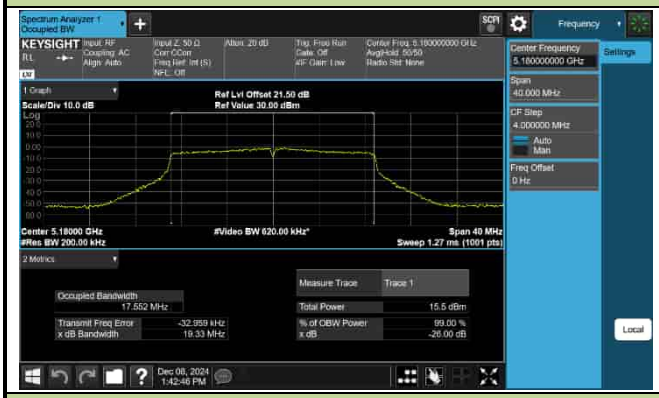
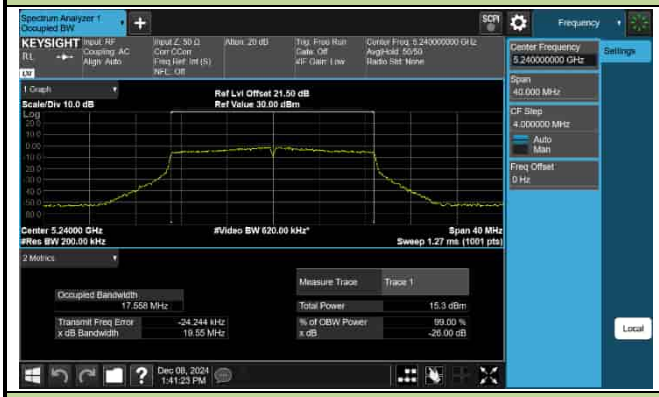
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant 0					
802.11ac-VHT40	MCS0	38	5190	38.26	36.027
802.11ac-VHT40	MCS0	46	5230	38.19	36.022
802.11ac-VHT40	MCS0	54	5270	38.20	36.007
802.11ac-VHT40	MCS0	62	5310	38.28	35.977
802.11ac-VHT40	MCS0	102	5510	38.45	36.028
802.11ac-VHT40	MCS0	110	5550	38.33	36.007
802.11ac-VHT40	MCS0	134	5670	38.48	36.033
802.11ac-VHT40	MCS0	142	5710	38.34	36.020
802.11ac-VHT40	MCS0	151	5755	38.24	36.000
802.11ac-VHT40	MCS0	159	5795	38.26	36.028
802.11ac-VHT80	MCS0	42	5210	78.87	75.259
802.11ac-VHT80	MCS0	58	5290	78.67	75.254
802.11ac-VHT80	MCS0	106	5530	78.85	75.243
802.11ac-VHT80	MCS0	122	5610	78.68	75.211
802.11ac-VHT80	MCS0	138	5690	78.85	75.208
802.11ac-VHT80	MCS0	155	5775	78.75	75.174
802.11ac-VHT160	MCS0	50	5250	160.1	153.84
802.11ac-VHT160	MCS0	114	5570	160.1	153.96
802.11ax-HE20	MCS0	36	5180	19.84	18.838
802.11ax-HE20	MCS0	40	5200	19.88	18.841
802.11ax-HE20	MCS0	48	5240	19.82	18.844
802.11ax-HE20	MCS0	52	5260	19.88	18.829
802.11ax-HE20	MCS0	60	5300	19.87	18.854
802.11ax-HE20	MCS0	64	5320	19.77	18.842
802.11ax-HE20	MCS0	100	5500	19.92	18.867
802.11ax-HE20	MCS0	116	5580	19.83	18.866
802.11ax-HE20	MCS0	140	5700	19.83	18.876
802.11ax-HE20	MCS0	144	5720	19.93	18.853
802.11ax-HE20	MCS0	149	5745	19.89	18.871
802.11ax-HE20	MCS0	157	5785	19.88	18.835
802.11ax-HE20	MCS0	165	5825	19.84	18.849

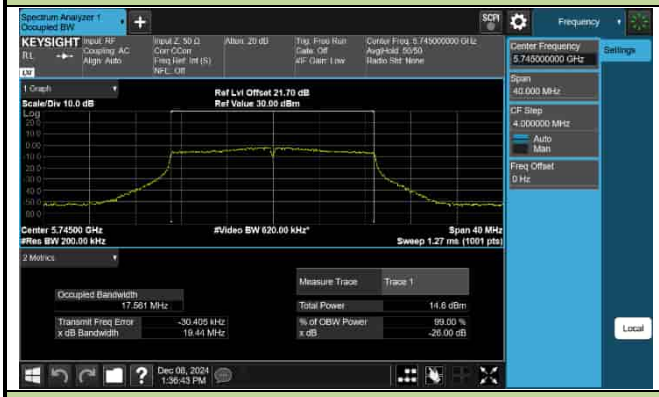
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant 0					
802.11ax-HE40	MCS0	38	5190	39.31	37.569
802.11ax-HE40	MCS0	46	5230	39.28	37.609
802.11ax-HE40	MCS0	54	5270	39.22	37.563
802.11ax-HE40	MCS0	62	5310	39.26	37.582
802.11ax-HE40	MCS0	102	5510	39.36	37.622
802.11ax-HE40	MCS0	110	5550	39.21	37.620
802.11ax-HE40	MCS0	134	5670	39.25	37.610
802.11ax-HE40	MCS0	142	5710	39.22	37.641
802.11ax-HE40	MCS0	151	5755	39.26	37.614
802.11ax-HE40	MCS0	159	5795	39.26	37.586
802.11ax-HE80	MCS0	42	5210	80.02	76.718
802.11ax-HE80	MCS0	58	5290	79.99	76.766
802.11ax-HE80	MCS0	106	5530	79.98	76.829
802.11ax-HE80	MCS0	122	5610	79.97	76.798
802.11ax-HE80	MCS0	138	5690	80.08	76.862
802.11ax-HE80	MCS0	155	5775	80.01	76.802
802.11ax-HE160	MCS0	50	5250	161.5	155.39
802.11ax-HE160	MCS0	114	5570	161.6	155.39

Test Mode	RU Size	RU Index	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant 0						
802.11ax-HE20	26 Tone	RU 0	36	5180	17.650	12.879
802.11ax-HE20		RU 8	64	5320	18.720	7.166
802.11ax-HE20	26 Tone	RU 0	100	5500	18.800	4.648
802.11ax-HE20		RU 8	140	5700	14.570	7.379
802.11ax-HE20	26 Tone	RU 0	149	5745	17.290	6.762
802.11ax-HE20		RU 8	165	5825	18.900	3.889
802.11ax-HE20	52 Tone	RU 74	36	5180	19.050	4.854
802.11ax-HE20		RU 77	64	5320	18.790	4.993
802.11ax-HE20	52 Tone	RU 74	100	5500	18.120	4.317
802.11ax-HE20		RU 77	140	5700	18.810	10.380
802.11ax-HE20	52 Tone	RU 74	149	5745	19.010	5.812
802.11ax-HE20		RU 77	165	5825	17.980	6.889
802.11ax-HE20	106 Tone	RU 106	36	5180	10.150	8.337
802.11ax-HE20		RU 107	64	5320	19.130	8.489
802.11ax-HE20	106 Tone	RU 106	100	5500	18.560	8.660
802.11ax-HE20		RU 107	140	5700	16.670	12.460
802.11ax-HE20	106 Tone	RU 106	149	5745	15.670	9.141
802.11ax-HE20		RU 107	165	5825	12.850	10.909
802.11ax-HE20	242 Tone	RU 122	36	5180	20.400	18.980
802.11ax-HE20		RU 122	64	5320	20.470	18.996
802.11ax-HE20	242 Tone	RU 122	100	5500	20.430	18.999
802.11ax-HE20		RU 122	140	5700	20.310	19.006
802.11ax-HE20	242 Tone	RU 122	149	5745	20.380	19.007
802.11ax-HE20		RU 122	165	5825	20.370	19.020

802.11a 26dB Bandwidth & 99% Bandwidth	
Channel 36 (5180MHz)	Channel 40 (5200MHz)
	
Channel 48 (5240MHz)	Channel 52 (5260MHz)
	
Channel 60 (5300MHz)	Channel 64 (5320MHz)
	
Channel 100 (5500MHz)	Channel 116 (5580MHz)
	

Channel 140 (5700MHz)	Channel 144 (5720MHz)
	
Channel 149 (5745MHz)	**Channel 157 (5785MHz)**
	
Channel 165 (5825MHz)	
	

802.11ac-VHT20 26dB Bandwidth & 99% Bandwidth	
Channel 36 (5180MHz)	Channel 40 (5200MHz)
	
Channel 48 (5240MHz)	Channel 52 (5260MHz)
	
Channel 60 (5300MHz)	Channel 64 (5320MHz)
	
Channel 100 (5500MHz)	Channel 116 (5580MHz)
	

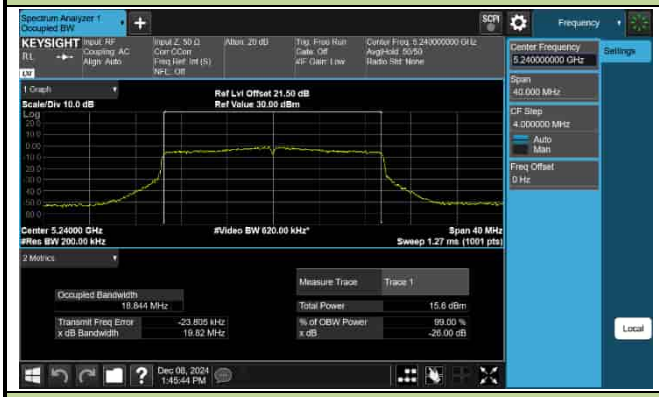
Channel 140 (5700MHz)	Channel 144 (5720MHz)
	
Channel 149 (5745MHz)	**Channel 157 (5785MHz)**
	
Channel 165 (5825MHz)	
	

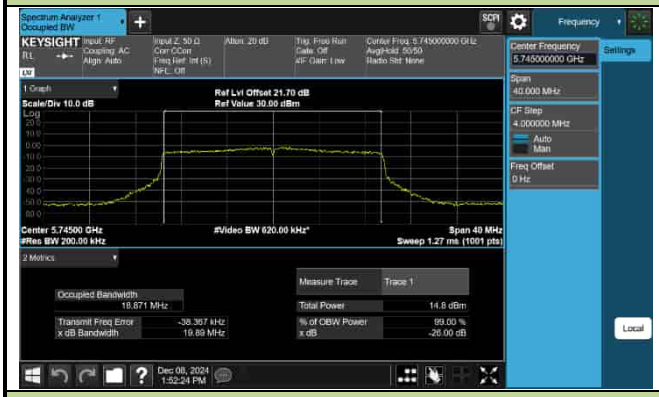
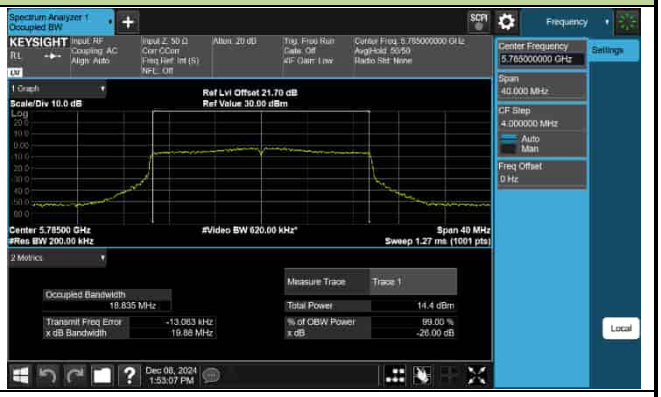
802.11ac-VHT40 26dB Bandwidth & 99% Bandwidth	
Channel 38 (5190MHz)	Channel 46 (5230MHz)
	
Channel 54 (5270MHz)	Channel 62 (5310MHz)
	
Channel 102 (5510MHz)	Channel 110 (5550MHz)
	
Channel 134 (5670MHz)	Channel 142 (5710MHz)
	

Channel 151 (5755MHz)	Channel 159 (5795MHz)
	

802.11ac-VHT80 26dB Bandwidth & 99% Bandwidth	
Channel 42 (5210MHz)	Channel 58 (5290MHz)
	
Channel 106 (5530MHz)	Channel 122 (5610MHz)
	
Channel 138 (5690MHz)	Channel 155 (5775MHz)
	

802.11ac-VHT160 26dB Bandwidth & 99% Bandwidth	
Channel 50 (5250MHz)	Channel 114 (5570MHz)
	

802.11ax-HE20 26dB Bandwidth & 99% Bandwidth	
Channel 36 (5180MHz)	Channel 40 (5200MHz)
	
Channel 48 (5240MHz)	Channel 52 (5260MHz)
	
Channel 60 (5300MHz)	Channel 64 (5320MHz)
	
Channel 100 (5500MHz)	Channel 116 (5580MHz)
	

Channel 140 (5700MHz)	Channel 144 (5720MHz)
	
Channel 149 (5745MHz)	**Channel 144 (5785MHz)**
	
Channel 144 (5825MHz)	
	

802.11ax-HE40 26dB Bandwidth & 99% Bandwidth	
Channel 38 (5190MHz)	Channel 46 (5230MHz)
	
Channel 54 (5270MHz)	Channel 62 (5310MHz)
	
Channel 102 (5510MHz)	Channel 110 (5550MHz)
	
Channel 134 (5670MHz)	Channel 142 (5710MHz)
	

Channel 151 (5755MHz)	Channel 159 (5795MHz)
	

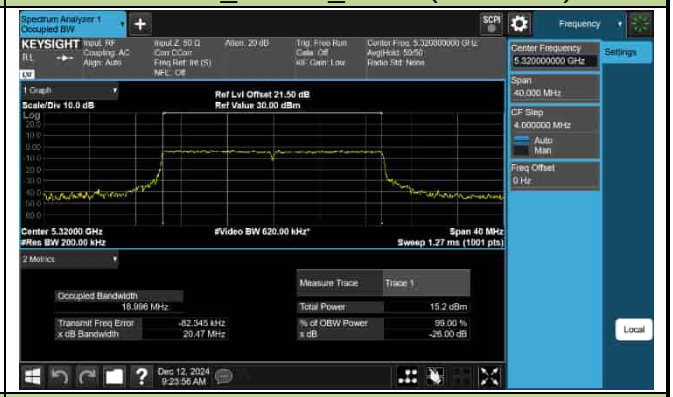
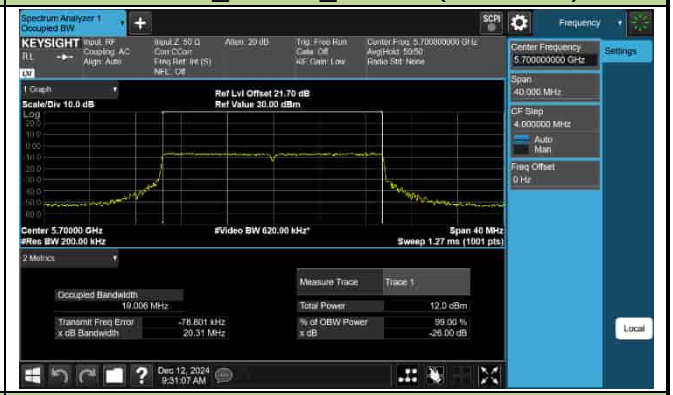
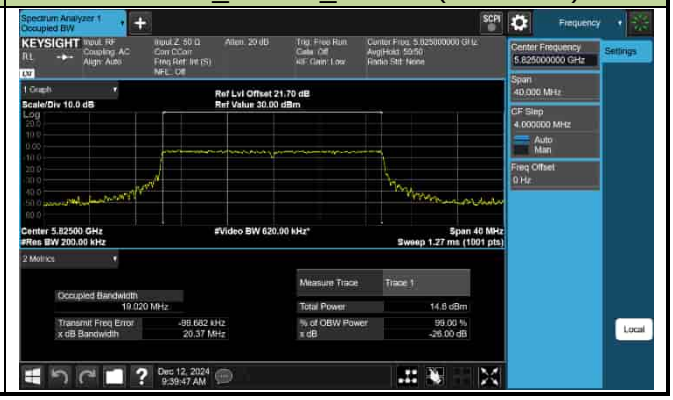
802.11ax-HE80 26dB Bandwidth & 99% Bandwidth	
Channel 42 (5210MHz)	Channel 58 (5290MHz)
	
Channel 106 (5530MHz)	Channel 122 (5610MHz)
	
Channel 138 (5690MHz)	Channel 155 (5775MHz)
	

802.11ax-HE160 26dB Bandwidth & 99% Bandwidth	
Channel 50 (5250MHz)	Channel 114 (5570MHz)
	

802.11ax-HE20 26dB Bandwidth & 99% Bandwidth	
26 Tone_RU0_CH36 (5180MHz)	26 Tone_RU8_CH64 (5320MHz)
	
26 Tone_RU0_CH100 (5500MHz)	26 Tone_RU8_CH140 (5700MHz)
	
26 Tone_RU0_CH149 (5745MHz)	26 Tone_RU8_CH165 (5825MHz)
	

802.11ax-HE20 26dB Bandwidth & 99% Bandwidth	
52 Tone_RU74_CH36 (5180MHz)	52 Tone_RU77_CH64 (5320MHz)
	
52 Tone_RU74_CH100 (5500MHz)	52 Tone_RU77_CH140 (5700MHz)
	
52 Tone_RU74_CH149 (5745MHz)	52 Tone_RU77_CH165 (5825MHz)
	

802.11ax-HE20 26dB Bandwidth & 99% Bandwidth	
106 Tone_RU106_CH36 (5180MHz)	106 Tone_RU107_CH64 (5320MHz)
	
106 Tone_RU106_CH100 (5500MHz)	106 Tone_RU107_CH140 (5700MHz)
	
106 Tone_RU106_CH149 (5745MHz)	106 Tone_RU107_CH165 (5825MHz)
	

802.11ax-HE20 26dB Bandwidth & 99% Bandwidth	
242 Tone_RU122_CH36 (5180MHz)	242 Tone_RU122_CH64 (5320MHz)
	
242 Tone_RU122_CH100 (5500MHz)	242 Tone_RU122_CH140 (5700MHz)
	
242 Tone_RU122_CH149 (5745MHz)	242 Tone_RU122_CH165 (5825MHz)
	

7.3. 6dB Bandwidth Measurement

7.3.1.Test Limit

The minimum 6dBbandwidth shall be at least 500 kHz.

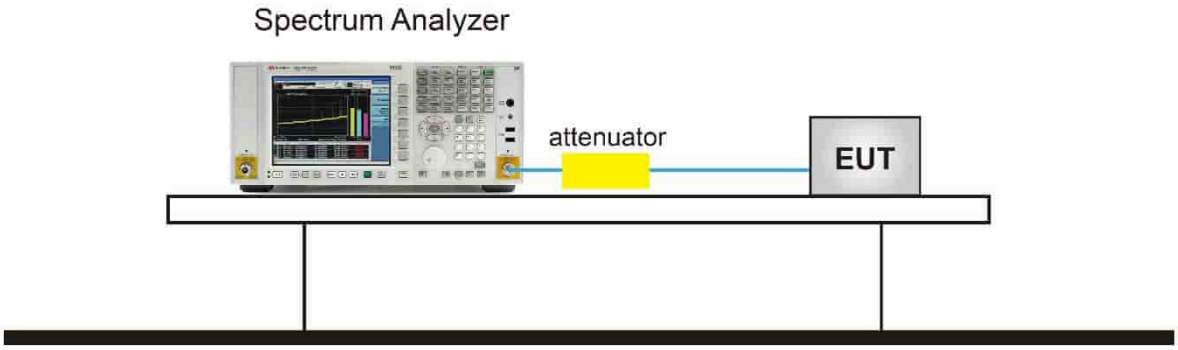
7.3.2.Test Procedure used

KDB 789033 D02v02r01- Section C.2

7.3.3.Test Setting

1. Set center frequency to the nominal EUT channel center frequency.
2. RBW = 100 kHz.
3. VBW 3 × RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

7.3.4.Test Setup

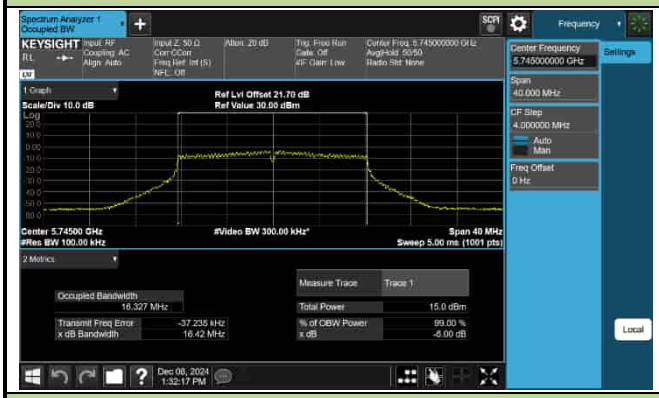
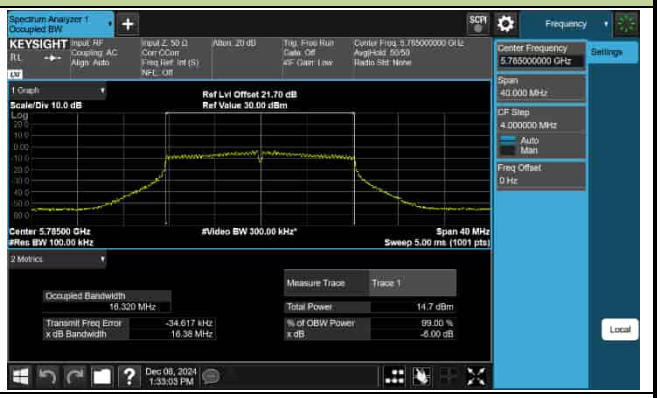
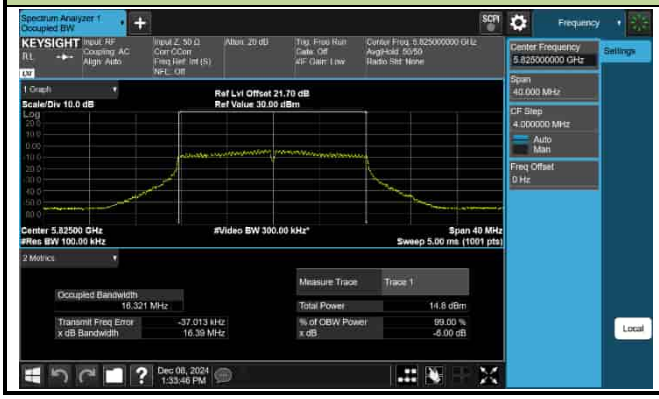


7.3.5.TestResult

Product	Mobile Computer	Test Engineer	Marvin
Test Site	SR6	Test Date	2024/12/8~2024/12/12

Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 0						
802.11a	6Mbps	149	5745	16.42	≥ 0.5	Pass
802.11a	6Mbps	157	5785	16.38	≥ 0.5	Pass
802.11a	6Mbps	165	5825	16.39	≥ 0.5	Pass
802.11ac-VHT20	MCS0	149	5745	17.62	≥ 0.5	Pass
802.11ac-VHT20	MCS0	157	5785	17.61	≥ 0.5	Pass
802.11ac-VHT20	MCS0	165	5825	17.66	≥ 0.5	Pass
802.11ac-VHT40	MCS0	151	5755	36.37	≥ 0.5	Pass
802.11ac-VHT40	MCS0	159	5795	36.40	≥ 0.5	Pass
802.11ac-VHT80	MCS0	155	5775	74.46	≥ 0.5	Pass
802.11ax-HE20	MCS0	149	5745	19.03	≥ 0.5	Pass
802.11ax-HE20	MCS0	157	5785	19.00	≥ 0.5	Pass
802.11ax-HE20	MCS0	165	5825	19.03	≥ 0.5	Pass
802.11ax-HE40	MCS0	151	5755	38.11	≥ 0.5	Pass
802.11ax-HE40	MCS0	159	5795	38.11	≥ 0.5	Pass
802.11ax-HE80	MCS0	155	5775	75.75	≥ 0.5	Pass

Test Mode	RU Size	RU Index	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 0							
802.11ax-HE20	26 Tone	RU 0	149	5745	2.087	≥ 0.5	Pass
802.11ax-HE20		RU 8	165	5825	2.102	≥ 0.5	Pass
802.11ax-HE20	52 Tone	RU 74	149	5745	4.117	≥ 0.5	Pass
802.11ax-HE20		RU 77	165	5825	4.123	≥ 0.5	Pass
802.11ax-HE20	106 Tone	RU 106	149	5745	8.324	≥ 0.5	Pass
802.11ax-HE20		RU 107	165	5825	8.332	≥ 0.5	Pass
802.11ax-HE20	242 Tone	RU 122	149	5745	19.190	≥ 0.5	Pass
802.11ax-HE20		RU 122	165	5825	19.200	≥ 0.5	Pass

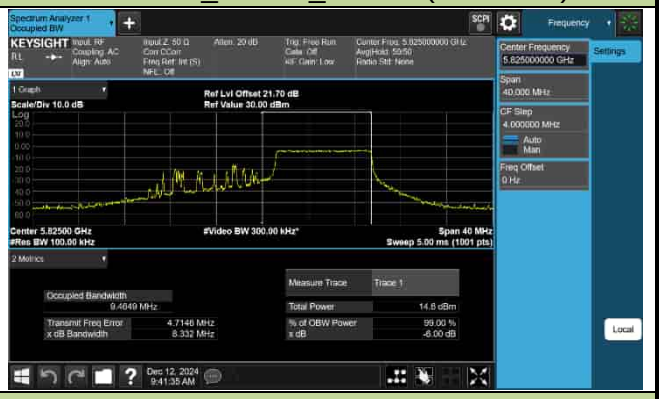
802.11a 6dB Bandwidth	
Channel 149 (5745MHz)	Channel 157 (5785MHz)
	
Channel 165 (5825MHz)	
	

802.11ac-VHT20 6dB Bandwidth	
Channel 149 (5745MHz)	Channel 157 (5785MHz)
	
Channel 165 (5825MHz)	
	

802.11ac-VHT40 6dB Bandwidth	
Channel 151 (5755MHz)	Channel 159 (5795MHz)
	
802.11ac-VHT80 6dB Bandwidth	
Channel 155 (5775MHz)	
	

802.11ax-HE20 6dB Bandwidth	
Channel 149 (5745MHz)	Channel 157 (5785MHz)
	
Channel 165 (5825MHz)	
	

802.11ax-HE40 6dB Bandwidth	
Channel 151 (5755MHz)	Channel 159 (5795MHz)
	
802.11ax-HE80 6dB Bandwidth	
Channel 155 (5775MHz)	
	

802.11ax-HE20 6dB Bandwidth	
26 Tone_RU0_CH149 (5745MHz)	26 Tone_RU8_CH165 (5825MHz)
	
52 Tone_RU74_CH149 (5745MHz)	52 Tone_RU77_CH165 (5825MHz)
	
106 Tone_RU106_CH149 (5745MHz)	106 Tone_RU107_CH165 (5825MHz)
	
242 Tone_RU122_CH149 (5745MHz)	242 Tone_RU122_CH165 (5825MHz)
	

7.4. Output Power Measurement

7.4.1.Test Limit

For the band 5.15-5.25 GHz, the maximum conductedoutput power over the frequency band of operation shall not exceed 1 W provided the maximumantenna gain does not exceed 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm).

If transmitting antennas of directional gain greater than 6dBi are used, the maximumconducted output power shall be reduced by the amount in dB that the directional gain of theantenna exceeds 6dBi.

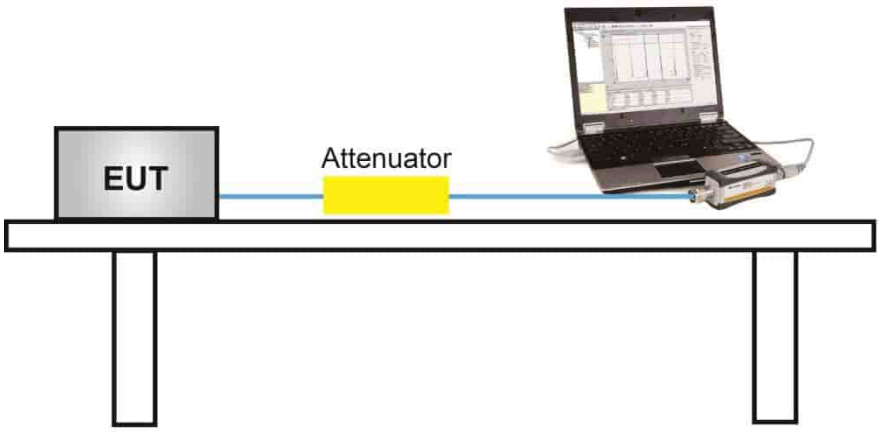
7.4.2.Test Procedure Used

KDB 789033D02v02r01- Section E)3)b) Method PM-G

7.4.3.Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

7.4.4.Test Setup



7.4.5.Test Result

Product	Mobile Computer	Test Engineer	Marvin
Test Site	SR6	Test Date	2024/11/21~2024/12/4
Test Mode	CDD Mode		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
11a	6Mbps	36	5180	15.47	14.80	18.16	≤ 23.98	Pass
11a	6Mbps	40	5200	15.49	14.88	18.21	≤ 23.98	Pass
11a	6Mbps	48	5240	15.28	14.67	18.00	≤ 23.98	Pass
11a	6Mbps	52	5260	15.50	14.45	18.02	≤ 23.98	Pass
11a	6Mbps	60	5300	15.46	14.47	18.00	≤ 23.98	Pass
11a	6Mbps	64	5320	15.47	14.38	17.97	≤ 23.98	Pass
11a	6Mbps	100	5500	14.87	14.15	17.54	≤ 23.98	Pass
11a	6Mbps	116	5580	14.98	14.64	17.82	≤ 23.98	Pass
11a	6Mbps	140	5700	14.92	14.47	17.71	≤ 23.98	Pass
11a	6Mbps	144	5720	14.99	14.53	17.78	≤ 22.50	Pass
11a	6Mbps	149	5745	14.89	14.47	17.70	≤ 30.00	Pass
11a	6Mbps	157	5785	14.82	14.19	17.53	≤ 30.00	Pass
11a	6Mbps	165	5825	14.98	14.53	17.77	≤ 30.00	Pass
11ac-VHT20	MCS0	36	5180	15.46	14.53	18.03	≤ 23.98	Pass
11ac-VHT20	MCS0	40	5200	15.43	14.63	18.06	≤ 23.98	Pass
11ac-VHT20	MCS0	48	5240	15.47	14.76	18.14	≤ 23.98	Pass
11ac-VHT20	MCS0	52	5260	15.47	14.38	17.97	≤ 23.98	Pass
11ac-VHT20	MCS0	60	5300	15.48	14.13	17.87	≤ 23.98	Pass
11ac-VHT20	MCS0	64	5320	15.46	14.65	18.08	≤ 23.98	Pass
11ac-VHT20	MCS0	100	5500	14.86	14.39	17.64	≤ 23.98	Pass
11ac-VHT20	MCS0	116	5580	14.77	14.28	17.54	≤ 23.98	Pass
11ac-VHT20	MCS0	140	5700	14.98	14.70	17.85	≤ 23.98	Pass
11ac-VHT20	MCS0	144	5720	14.86	14.21	17.56	≤ 22.68	Pass
11ac-VHT20	MCS0	149	5745	14.84	14.12	17.51	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	14.95	14.40	17.69	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	14.89	14.66	17.79	≤ 30.00	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
11ac-VHT40	MCS0	38	5190	14.96	14.06	17.54	≤ 23.98	Pass
11ac-VHT40	MCS0	46	5230	15.46	14.76	18.13	≤ 23.98	Pass
11ac-VHT40	MCS0	54	5270	15.43	14.73	18.10	≤ 23.98	Pass
11ac-VHT40	MCS0	62	5310	14.47	13.53	17.04	≤ 23.98	Pass
11ac-VHT40	MCS0	102	5510	14.43	14.12	17.29	≤ 23.98	Pass
11ac-VHT40	MCS0	110	5550	14.94	14.32	17.65	≤ 23.98	Pass
11ac-VHT40	MCS0	134	5670	14.86	14.19	17.55	≤ 23.98	Pass
11ac-VHT40	MCS0	142	5710	14.99	14.33	17.68	≤ 23.98	Pass
11ac-VHT40	MCS0	151	5755	14.96	14.22	17.62	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	14.97	14.26	17.64	≤ 30.00	Pass
11ac-VHT80	MCS0	42	5210	13.96	13.08	16.55	≤ 23.98	Pass
11ac-VHT80	MCS0	58	5290	13.95	13.04	16.53	≤ 23.98	Pass
11ac-VHT80	MCS0	106	5530	13.97	13.31	16.66	≤ 23.98	Pass
11ac-VHT80	MCS0	122	5610	14.93	14.60	17.78	≤ 23.98	Pass
11ac-VHT80	MCS0	138	5690	14.89	14.56	17.74	≤ 23.98	Pass
11ac-VHT80	MCS0	155	5775	14.94	14.40	17.69	≤ 30.00	Pass
11ac-VHT160	MCS0	50	5250	10.64	10.26	13.46	≤ 23.98	Pass
11ac-VHT160	MCS0	114	5570	11.62	11.50	14.57	≤ 23.98	Pass
11ax-HE20	MCS0	36	5180	15.44	14.73	18.11	≤ 23.98	Pass
11ax-HE20	MCS0	40	5200	15.37	14.66	18.04	≤ 23.98	Pass
11ax-HE20	MCS0	48	5240	15.43	14.98	18.22	≤ 23.98	Pass
11ax-HE20	MCS0	52	5260	15.46	14.37	17.96	≤ 23.98	Pass
11ax-HE20	MCS0	60	5300	15.48	14.42	17.99	≤ 23.98	Pass
11ax-HE20	MCS0	64	5320	15.43	14.48	17.99	≤ 23.98	Pass
11ax-HE20	MCS0	100	5500	14.93	14.61	17.78	≤ 23.98	Pass
11ax-HE20	MCS0	116	5580	14.98	14.50	17.76	≤ 23.98	Pass
11ax-HE20	MCS0	140	5700	14.95	14.57	17.77	≤ 23.98	Pass
11ax-HE20	MCS0	144	5720	14.89	14.57	17.74	≤ 22.75	Pass
11ax-HE20	MCS0	149	5745	14.91	14.48	17.71	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	14.79	14.23	17.53	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	14.96	14.52	17.76	≤ 30.00	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
11ax-HE40	MCS0	38	5190	14.96	14.10	17.56	≤ 23.98	Pass
11ax-HE40	MCS0	46	5230	15.46	14.69	18.10	≤ 23.98	Pass
11ax-HE40	MCS0	54	5270	15.43	14.39	17.95	≤ 23.98	Pass
11ax-HE40	MCS0	62	5310	14.43	13.57	17.03	≤ 23.98	Pass
11ax-HE40	MCS0	102	5510	14.42	13.84	17.15	≤ 23.98	Pass
11ax-HE40	MCS0	110	5550	14.89	14.03	17.49	≤ 23.98	Pass
11ax-HE40	MCS0	134	5670	15.00	14.41	17.73	≤ 23.98	Pass
11ax-HE40	MCS0	142	5710	14.92	14.56	17.75	≤ 23.98	Pass
11ax-HE40	MCS0	151	5755	14.96	14.38	17.69	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	15.00	13.94	17.51	≤ 30.00	Pass
11ax-HE80	MCS0	42	5210	13.98	12.97	16.51	≤ 23.98	Pass
11ax-HE80	MCS0	58	5290	13.96	12.89	16.47	≤ 23.98	Pass
11ax-HE80	MCS0	106	5530	13.83	13.19	16.53	≤ 23.98	Pass
11ax-HE80	MCS0	122	5610	14.97	14.60	17.80	≤ 23.98	Pass
11ax-HE80	MCS0	138	5690	14.93	14.53	17.74	≤ 23.98	Pass
11ax-HE80	MCS0	155	5775	14.99	14.32	17.68	≤ 30.00	Pass
11ax-HE160	MCS0	50	5250	10.74	10.25	13.51	≤ 23.98	Pass
11ax-HE160	MCS0	114	5570	11.67	11.53	14.61	≤ 23.98	Pass

Test Mode	RU Size	RU Index	Channel No.	Frequency (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
802.11ax-HE20	26 Tone	RU 0	36	5180	10.02	10.95	13.52	≤ 23.98	Pass
802.11ax-HE20		RU 8	48	5240	9.83	10.37	13.12	≤ 23.98	Pass
802.11ax-HE20		RU 8	64	5320	10.40	9.75	13.10	≤ 23.98	Pass
802.11ax-HE20	26 Tone	RU 0	100	5500	10.74	10.46	13.61	≤ 23.98	Pass
802.11ax-HE20		RU 8	116	5580	10.24	10.13	13.20	≤ 23.98	Pass
802.11ax-HE20		RU 8	140	5700	10.63	10.72	13.69	≤ 23.98	Pass
802.11ax-HE20	26 Tone	RU 0	149	5745	14.86	14.25	17.58	≤ 30.00	Pass
802.11ax-HE20		RU 8	157	5785	14.76	14.21	17.50	≤ 30.00	Pass
802.11ax-HE20		RU 8	165	5825	14.79	14.57	17.69	≤ 30.00	Pass
802.11ax-HE20	52 Tone	RU 74	36	5180	13.02	13.03	16.04	≤ 23.98	Pass
802.11ax-HE20		RU 77	48	5240	12.58	12.63	15.62	≤ 23.98	Pass
802.11ax-HE20		RU 77	64	5320	13.41	12.67	16.07	≤ 23.98	Pass
802.11ax-HE20	52 Tone	RU 74	100	5500	13.30	12.99	16.16	≤ 23.98	Pass
802.11ax-HE20		RU 77	116	5580	13.63	12.92	16.30	≤ 23.98	Pass
802.11ax-HE20		RU 77	140	5700	12.82	12.45	15.65	≤ 23.98	Pass
802.11ax-HE20	52 Tone	RU 74	149	5745	14.88	14.21	17.57	≤ 30.00	Pass
802.11ax-HE20		RU 77	157	5785	14.70	14.33	17.53	≤ 30.00	Pass
802.11ax-HE20		RU 77	165	5825	14.91	14.46	17.70	≤ 30.00	Pass
802.11ax-HE20	106 Tone	RU 106	36	5180	15.41	14.73	18.09	≤ 23.98	Pass
802.11ax-HE20		RU 107	48	5240	15.49	14.95	18.24	≤ 23.98	Pass
802.11ax-HE20		RU 107	64	5320	15.73	14.90	18.35	≤ 23.98	Pass
802.11ax-HE20	106 Tone	RU 106	100	5500	14.05	13.49	16.79	≤ 23.98	Pass
802.11ax-HE20		RU 107	116	5580	15.02	14.33	17.70	≤ 23.98	Pass
802.11ax-HE20		RU 107	140	5700	13.36	12.89	16.14	≤ 23.98	Pass
802.11ax-HE20	106 Tone	RU 106	149	5745	14.79	14.19	17.51	≤ 30.00	Pass
802.11ax-HE20		RU 107	157	5785	14.74	14.28	17.53	≤ 30.00	Pass
802.11ax-HE20		RU 107	165	5825	14.94	14.26	17.62	≤ 30.00	Pass

Test Mode	RU Size	RU Index	Channel No.	Frequency (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
802.11ax-HE20	242 Tone	RU 122	36	5180	15.44	14.59	18.05	≤ 23.98	Pass
802.11ax-HE20		RU 122	64	5320	15.45	14.62	18.07	≤ 23.98	Pass
802.11ax-HE20	242 Tone	RU 122	100	5500	14.42	13.92	17.19	≤ 23.98	Pass
802.11ax-HE20		RU 122	140	5700	12.56	11.91	15.26	≤ 23.98	Pass
802.11ax-HE20	242 Tone	RU 122	149	5745	14.86	14.46	17.67	≤ 30.00	Pass
802.11ax-HE20		RU 122	165	5825	15.00	14.45	17.74	≤ 30.00	Pass

Test Mode	RU Size	RU Index	Channel No.	Frequency (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
802.11ax-HE40	26 Tone	RU 0	38	5190	9.38	10.48	12.98	≤ 23.98	Pass
802.11ax-HE40		RU 17	62	5310	9.75	9.35	12.56	≤ 23.98	Pass
802.11ax-HE40	26 Tone	RU 0	102	5510	10.54	10.23	13.40	≤ 23.98	Pass
802.11ax-HE40		RU 17	134	5670	10.36	10.33	13.36	≤ 23.98	Pass
802.11ax-HE40	26 Tone	RU 0	151	5755	14.57	13.39	17.03	≤ 30.00	Pass
802.11ax-HE40		RU 17	159	5795	14.84	13.97	17.44	≤ 30.00	Pass
802.11ax-HE40	52 Tone	RU 74	38	5190	12.92	13.07	16.01	≤ 23.98	Pass
802.11ax-HE40		RU 81	62	5310	13.31	12.40	15.89	≤ 23.98	Pass
802.11ax-HE40	52 Tone	RU 74	102	5510	13.34	12.88	16.13	≤ 23.98	Pass
802.11ax-HE40		RU 81	134	5670	12.62	11.92	15.29	≤ 23.98	Pass
802.11ax-HE40	52 Tone	RU 74	151	5755	15.48	14.24	17.91	≤ 30.00	Pass
802.11ax-HE40		RU 81	159	5795	14.91	14.03	17.50	≤ 30.00	Pass
802.11ax-HE40	106 Tone	RU 106	38	5190	15.14	14.77	17.97	≤ 23.98	Pass
802.11ax-HE40		RU 109	62	5310	14.60	13.79	17.22	≤ 23.98	Pass
802.11ax-HE40	106 Tone	RU 106	102	5510	13.77	12.99	16.41	≤ 23.98	Pass
802.11ax-HE40		RU 109	134	5670	13.17	12.46	15.84	≤ 23.98	Pass
802.11ax-HE40	106 Tone	RU 106	151	5755	14.88	13.97	17.46	≤ 30.00	Pass
802.11ax-HE40		RU 109	159	5795	14.96	13.89	17.47	≤ 30.00	Pass
802.11ax-HE40	242 Tone	RU 122	38	5190	14.85	14.27	17.58	≤ 23.98	Pass
802.11ax-HE40		RU 123	62	5310	14.77	13.84	17.34	≤ 23.98	Pass
802.11ax-HE40	242 Tone	RU 122	102	5510	14.40	13.91	17.17	≤ 23.98	Pass
802.11ax-HE40		RU 123	134	5670	12.52	11.82	15.19	≤ 23.98	Pass
802.11ax-HE40	242 Tone	RU 122	151	5755	14.89	14.22	17.58	≤ 30.00	Pass
802.11ax-HE40		RU 123	159	5795	14.91	13.88	17.44	≤ 30.00	Pass
802.11ax-HE40	484 Tone	RU 130	38	5190	14.69	13.82	17.29	≤ 23.98	Pass
802.11ax-HE40		RU 130	62	5310	14.57	13.50	17.08	≤ 23.98	Pass
802.11ax-HE40	242 Tone	RU 122	102	5510	14.31	13.86	17.10	≤ 23.98	Pass
802.11ax-HE40		RU 123	134	5670	14.44	14.04	17.25	≤ 23.98	Pass
802.11ax-HE40	242 Tone	RU 122	151	5755	15.03	14.36	17.72	≤ 30.00	Pass
802.11ax-HE40		RU 123	159	5795	14.84	14.09	17.49	≤ 30.00	Pass

Test Mode	RU Size	RU Index	Channel No.	Frequency (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
802.11ax-HE80	26 Tone	RU 0	42	5210	9.35	10.61	13.04	≤ 23.98	Pass
802.11ax-HE80		RU 36	58	5290	10.15	9.48	12.84	≤ 23.98	Pass
802.11ax-HE80	26 Tone	RU 0	106	5530	10.45	10.04	13.26	≤ 23.98	Pass
802.11ax-HE80		RU 36	138	5690	10.53	10.53	13.54	≤ 23.98	Pass
802.11ax-HE80	26 Tone	RU 0	155	5775	14.65	13.39	17.08	≤ 30.00	Pass
802.11ax-HE80		RU 36	155	5775	14.90	14.05	17.51	≤ 30.00	Pass
802.11ax-HE80	52 Tone	RU 74	42	5210	12.32	12.99	15.68	≤ 23.98	Pass
802.11ax-HE80		RU 89	58	5290	12.95	12.12	15.57	≤ 23.98	Pass
802.11ax-HE80	52 Tone	RU 74	106	5530	13.06	12.52	15.81	≤ 23.98	Pass
802.11ax-HE80		RU 89	138	5690	12.49	12.12	15.32	≤ 23.98	Pass
802.11ax-HE80	52 Tone	RU 74	155	5775	14.90	13.89	17.43	≤ 30.00	Pass
802.11ax-HE80		RU 89	155	5775	14.68	13.98	17.35	≤ 30.00	Pass
802.11ax-HE80	106 Tone	RU 106	42	5210	13.41	13.78	16.61	≤ 23.98	Pass
802.11ax-HE80		RU 113	58	5290	14.37	13.50	16.97	≤ 23.98	Pass
802.11ax-HE80	106 Tone	RU 106	106	5530	14.42	12.97	16.77	≤ 23.98	Pass
802.11ax-HE80		RU 113	138	5690	12.48	11.86	15.19	≤ 23.98	Pass
802.11ax-HE80	106 Tone	RU 106	155	5775	14.85	13.85	17.39	≤ 30.00	Pass
802.11ax-HE80		RU 113	155	5775	15.21	14.29	17.78	≤ 30.00	Pass
802.11ax-HE80	242 Tone	RU 122	42	5210	13.35	13.69	16.53	≤ 23.98	Pass
802.11ax-HE80		RU 125	58	5290	13.53	12.78	16.18	≤ 23.98	Pass
802.11ax-HE80	242 Tone	RU 122	106	5530	13.82	12.74	16.32	≤ 23.98	Pass
802.11ax-HE80		RU 125	138	5690	12.35	11.93	15.16	≤ 23.98	Pass
802.11ax-HE80	242 Tone	RU 122	155	5775	15.27	14.12	17.74	≤ 30.00	Pass
802.11ax-HE80		RU 125	155	5775	14.66	13.88	17.30	≤ 30.00	Pass
802.11ax-HE80	484 Tone	RU 130	42	5210	14.03	13.29	16.69	≤ 23.98	Pass
802.11ax-HE80		RU 131	58	5290	13.73	12.82	16.31	≤ 23.98	Pass
802.11ax-HE80	484 Tone	RU 130	106	5530	14.01	12.70	16.41	≤ 23.98	Pass
802.11ax-HE80		RU 131	138	5690	14.11	13.39	16.78	≤ 23.98	Pass
802.11ax-HE80	484 Tone	RU 130	155	5775	14.62	13.71	17.20	≤ 30.00	Pass
802.11ax-HE80		RU 131	155	5775	14.58	13.86	17.25	≤ 30.00	Pass

Test Mode	RU Size	RU Index	Channel No.	Frequency (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
802.11ax-HE80	996 Tone	RU 134	42	5210	13.81	13.01	16.44	≤ 23.98	Pass
802.11ax-HE80		RU 134	58	5290	13.73	12.55	16.19	≤ 23.98	Pass
802.11ax-HE80	996 Tone	RU 134	106	5530	13.83	12.99	16.44	≤ 23.98	Pass
802.11ax-HE80		RU 134	138	5690	14.83	14.25	17.56	≤ 23.98	Pass
802.11ax-HE80	996 Tone	RU 134	155	5775	14.75	13.97	17.39	≤ 30.00	Pass

Test Mode	RU Size	RU Index	Channel No.	Frequency (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Average Power Limit (dBm)	Result
802.11ax-HE160	26	RU 0	50	5250	10.22	9.91	13.08	≤ 23.98	Pass
802.11ax-HE160	Tone	RU 73	114	5570	10.78	9.38	13.15	≤ 23.98	Pass
802.11ax-HE160	52	RU 74	50	5250	10.65	9.98	13.34	≤ 23.98	Pass
802.11ax-HE160	Tone	RU 105	114	5570	12.40	11.29	14.89	≤ 23.98	Pass
802.11ax-HE160	106	RU 106	50	5250	10.56	10.33	13.46	≤ 23.98	Pass
802.11ax-HE160	Tone	RU 121	114	5570	12.03	10.44	14.32	≤ 23.98	Pass
802.11ax-HE160	242	RU 122	50	5250	10.71	9.76	13.27	≤ 23.98	Pass
802.11ax-HE160	Tone	RU 129	114	5570	11.78	11.02	14.43	≤ 23.98	Pass
802.11ax-HE160	1484	RU 130	50	5250	11.02	10.63	13.84	≤ 23.98	Pass
802.11ax-HE160	Tone	RU 133	114	5570	11.85	11.05	14.48	≤ 23.98	Pass
802.11ax-HE160	996	RU 134	50	5250	10.75	10.15	13.47	≤ 23.98	Pass
802.11ax-HE160	Tone	RU 135	114	5570	11.77	11.34	14.57	≤ 23.98	Pass
802.11ax-HE160	1992	RU 136	50	5250	10.33	10.02	13.19	≤ 23.98	Pass
802.11ax-HE160	Tone	RU 136	114	5570	11.65	11.48	14.58	≤ 23.98	Pass

Note 1: The Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power }/10)} + 10^{(\text{Ant 1 Average Power }/10)}\}$.

Note 2:

For 5250- 5350MHz and 5470 - 5725MHz Band: Average Power Limit (dBm) = 23.98 dBm.

For 5150 - 5250MHz and 5725 - 5850MHz Bands: Average Power Limit (dBm) = 30 dBm.

For Channel 144 (5720MHz), Average Power Limit (dBm) = $11+10*\log(5\text{MHz} + BW_{26dBc}/2)$

7.5. Transmit Power Control

7.5.1.Test Limit

The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm.

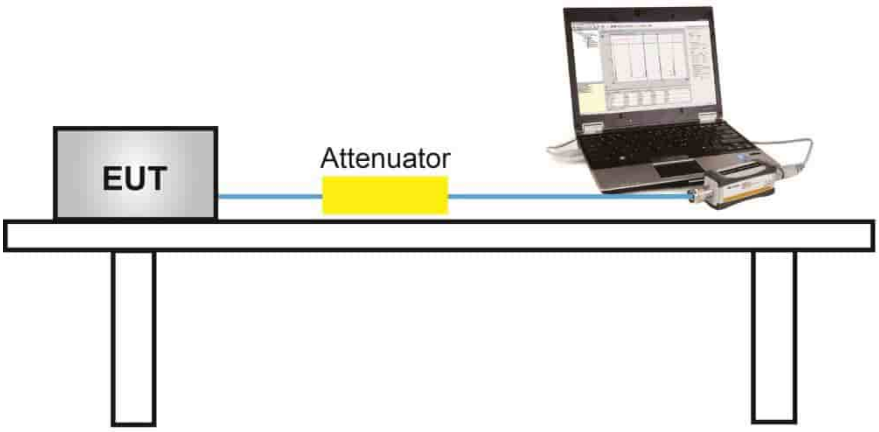
7.5.2.Test Procedure Used

KDB 789033 D02v02r01- Section E)3)b) Method PM-G

7.5.3.Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

7.5.4.Test Setup



7.5.5.Test Result

Device supports TPC mechanism, details refer to the operational description.

7.6. Power Spectral Density Measurement

7.6.1.Test Limit

For the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band for master divice and the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band for mobile/portable client divice.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

If transmitting antennas of directional gain greater than 6dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of theantenna exceeds 6dBi.

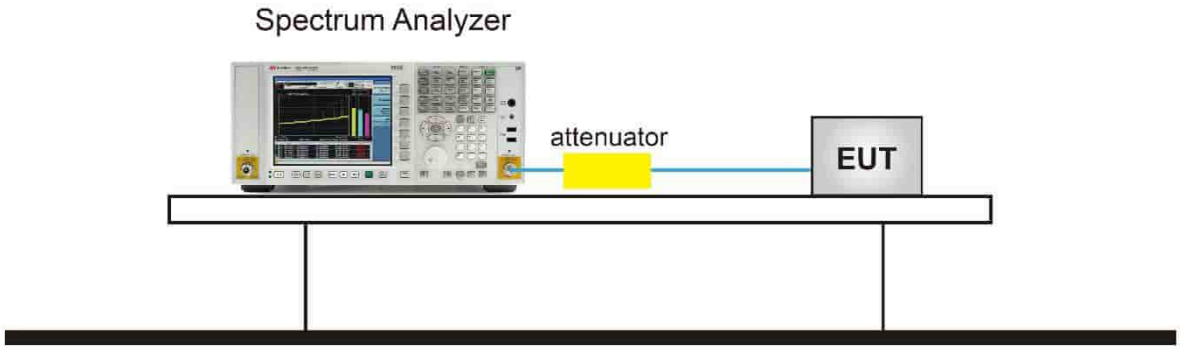
7.6.2.Test Procedure Used

KDB 789033 D02v02r01-SectionF

7.6.3.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, if measurement bandwidth of Maximum PSD is specified in 500 kHz, RBW = 510 kHz
4. VBW = 3MHz
5. Number of sweep points ≥ 2 × (span / 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*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*log(1/0.25) = 6 dB if the duty cycle is 25 percent.

7.6.4.Test Setup



7.6.5.Test Result

Product	Mobile Computer	Test Engineer	Marvin
Test Site	SR6	Test Date	2024/11/21
Mode	Power Spectral Density (U-NII- 1/-2a / -2c) CDD Mode		

Test Mode	Data Rate /MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/MHz)	Ant 1 PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/MHz)	Result
11a	6Mbps	36	5180	5.949	5.030	98.39%	8.594	≤ 11.00	Pass
11a	6Mbps	40	5200	5.777	4.845	98.39%	8.417	≤ 11.00	Pass
11a	6Mbps	48	5240	5.597	5.526	98.39%	8.642	≤ 11.00	Pass
11a	6Mbps	52	5260	5.846	5.184	98.39%	8.608	≤ 11.00	Pass
11a	6Mbps	60	5300	5.954	4.986	98.39%	8.578	≤ 11.00	Pass
11a	6Mbps	64	5320	5.967	5.253	98.39%	8.705	≤ 11.00	Pass
11a	6Mbps	100	5500	5.025	4.275	98.39%	7.747	≤ 11.00	Pass
11a	6Mbps	116	5580	5.021	4.864	98.39%	8.024	≤ 11.00	Pass
11a	6Mbps	140	5700	4.877	4.636	98.39%	7.839	≤ 11.00	Pass
11a	6Mbps	144	5720	5.173	4.959	98.39%	8.148	≤ 11.00	Pass
11ac-VHT20	MCS0	36	5180	5.768	4.595	99.26%	8.264	≤ 11.00	Pass
11ac-VHT20	MCS0	40	5200	5.509	5.197	99.26%	8.398	≤ 11.00	Pass
11ac-VHT20	MCS0	48	5240	5.530	4.821	99.26%	8.233	≤ 11.00	Pass
11ac-VHT20	MCS0	52	5260	5.674	4.775	99.26%	8.290	≤ 11.00	Pass
11ac-VHT20	MCS0	60	5300	5.797	5.125	99.26%	8.517	≤ 11.00	Pass
11ac-VHT20	MCS0	64	5320	5.636	5.237	99.26%	8.484	≤ 11.00	Pass
11ac-VHT20	MCS0	100	5500	5.092	4.672	99.26%	7.930	≤ 11.00	Pass
11ac-VHT20	MCS0	116	5580	4.802	4.334	99.26%	7.617	≤ 11.00	Pass
11ac-VHT20	MCS0	140	5700	5.416	4.957	99.26%	8.235	≤ 11.00	Pass
11ac-VHT20	MCS0	144	5720	4.851	4.210	99.26%	7.585	≤ 11.00	Pass

Test Mode	Data Rate /MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/MHz)	Ant 1 PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/MHz)	Result
11ac-VHT40	MCS0	38	5190	2.287	1.236	98.89%	4.852	≤ 11.00	Pass
11ac-VHT40	MCS0	46	5230	2.203	1.297	98.89%	4.832	≤ 11.00	Pass
11ac-VHT40	MCS0	54	5270	2.833	2.301	98.89%	5.634	≤ 11.00	Pass
11ac-VHT40	MCS0	62	5310	2.042	1.239	98.89%	4.718	≤ 11.00	Pass
11ac-VHT40	MCS0	102	5510	1.513	0.877	98.89%	4.265	≤ 11.00	Pass
11ac-VHT40	MCS0	110	5550	2.182	1.394	98.89%	4.864	≤ 11.00	Pass
11ac-VHT40	MCS0	134	5670	1.627	0.859	98.89%	4.319	≤ 11.00	Pass
11ac-VHT40	MCS0	142	5710	2.140	1.165	98.89%	4.738	≤ 11.00	Pass
11ac-VHT80	MCS0	42	5210	-1.076	-2.217	99.01%	1.445	≤ 11.00	Pass
11ac-VHT80	MCS0	58	5290	-1.354	-1.843	99.01%	1.462	≤ 11.00	Pass
11ac-VHT80	MCS0	106	5530	-1.166	-2.125	99.01%	1.435	≤ 11.00	Pass
11ac-VHT80	MCS0	122	5610	-0.164	-0.823	99.01%	2.573	≤ 11.00	Pass
11ac-VHT80	MCS0	138	5690	-0.482	-1.178	99.01%	2.238	≤ 11.00	Pass
11ac-VHT160	MCS0	50	5250	-7.555	-7.689	98.83%	-4.560	≤ 11.00	Pass
11ac-VHT160	MCS0	114	5570	-7.112	-6.886	98.83%	-3.936	≤ 11.00	Pass
11ax-HE20	MCS0	36	5180	5.101	4.228	99.45%	7.721	≤ 11.00	Pass
11ax-HE20	MCS0	40	5200	4.867	4.212	99.45%	7.586	≤ 11.00	Pass
11ax-HE20	MCS0	48	5240	5.876	5.012	99.45%	8.500	≤ 11.00	Pass
11ax-HE20	MCS0	52	5260	5.812	4.849	99.45%	8.391	≤ 11.00	Pass
11ax-HE20	MCS0	60	5300	5.805	4.555	99.45%	8.259	≤ 11.00	Pass
11ax-HE20	MCS0	64	5320	6.081	4.924	99.45%	8.575	≤ 11.00	Pass
11ax-HE20	MCS0	100	5500	5.107	4.697	99.45%	7.941	≤ 11.00	Pass
11ax-HE20	MCS0	116	5580	5.340	4.523	99.45%	7.985	≤ 11.00	Pass
11ax-HE20	MCS0	140	5700	4.639	4.454	99.45%	7.582	≤ 11.00	Pass
11ax-HE20	MCS0	144	5720	5.194	4.326	99.45%	7.816	≤ 11.00	Pass

Test Mode	Data Rate/ MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/MHz)	Ant 1 PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/MHz)	Result
11ax-HE40	MCS0	38	5190	2.068	1.372	98.76%	4.799	≤ 11.00	Pass
11ax-HE40	MCS0	46	5230	1.986	1.272	98.76%	4.708	≤ 11.00	Pass
11ax-HE40	MCS0	54	5270	3.353	2.420	98.76%	5.976	≤ 11.00	Pass
11ax-HE40	MCS0	62	5310	1.895	0.991	98.76%	4.531	≤ 11.00	Pass
11ax-HE40	MCS0	102	5510	1.152	0.569	98.76%	3.935	≤ 11.00	Pass
11ax-HE40	MCS0	110	5550	2.076	1.570	98.76%	4.895	≤ 11.00	Pass
11ax-HE40	MCS0	134	5670	1.636	1.076	98.76%	4.430	≤ 11.00	Pass
11ax-HE40	MCS0	142	5710	2.174	1.246	98.76%	4.799	≤ 11.00	Pass
11ax-HE80	MCS0	42	5210	-1.090	-1.969	98.02%	1.590	≤ 11.00	Pass
11ax-HE80	MCS0	58	5290	-1.300	-2.211	98.02%	1.365	≤ 11.00	Pass
11ax-HE80	MCS0	106	5530	-1.630	-2.193	98.02%	1.195	≤ 11.00	Pass
11ax-HE80	MCS0	122	5610	-0.451	-0.943	98.02%	2.407	≤ 11.00	Pass
11ax-HE80	MCS0	122	5690	-0.672	-1.047	98.02%	2.242	≤ 11.00	Pass
11ax-HE160	MCS0	50	5250	-7.347	-7.651	98.16%	-4.406	≤ 11.00	Pass
11ax-HE160	MCS0	114	5570	-6.639	-6.692	98.16%	-3.575	≤ 11.00	Pass

Note 1: The total PSD (dBm/MHz) = 10*log {$10^{(\text{Ant 0 PSD}/10)}$ + $10^{(\text{Ant 1 PSD}/10)}$} + 10*log (1/Duty Cycle)(dBm/MHz).

Product	Mobile Computer	Test Engineer	Marvin
Test Site	SR6	Test Date	2024/7/16~2024/7/17
Test Item	Power Spectral Density (U-NII-3) CDD Mode		

Test Mode	Data Rate/ MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/510KHz)	Ant 1 PSD (dBm/510KHz)	Duty Cycle (%)	Total PSD (dBm/ 510kHz)	Limit (dBm/ 500kHz)	Result
11a	6Mbps	149	5745	2.613	2.376	98.39%	5.577	≤ 30.00	Pass
11a	6Mbps	157	5785	2.626	2.000	98.39%	5.405	≤ 30.00	Pass
11a	6Mbps	165	5825	2.882	2.374	98.39%	5.716	≤ 30.00	Pass
11ac-VHT20	MCS0	149	5745	2.151	1.688	99.26%	4.968	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	2.343	1.786	99.26%	5.116	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	2.698	1.883	99.26%	5.352	≤ 30.00	Pass
11ac-VHT40	MCS0	151	5755	-0.586	-1.141	98.89%	2.204	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	-0.523	-1.354	98.89%	2.140	≤ 30.00	Pass
11ac-VHT80	MCS0	155	5775	-3.246	-3.631	99.01%	-0.381	≤ 30.00	Pass
11ax-HE20	MCS0	149	5745	2.226	1.869	99.45%	5.085	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	2.520	1.413	99.45%	5.036	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	1.824	1.485	99.45%	4.692	≤ 30.00	Pass
11ax-HE40	MCS0	151	5755	-0.832	-0.873	98.76%	2.212	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	-0.873	-1.582	98.76%	1.852	≤ 30.00	Pass
11ax-HE80	MCS0	155	5775	-3.018	-3.942	98.02%	-0.358	≤ 30.00	Pass

Note 1: The total PSD (dBm/510kHz) = $10*\log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$ (dBm/510kHz) + 10*log (1/Duty Cycle).

Test Mode	RU Size	RU Index	Channel No.	Frequency (MHz)	Ant 0 PSD (dBm/MHz)	Ant 1 PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/MHz)	Result
802.11ax-HE20	26 Tone	RU 0	36	5180	7.360	7.994	98.82%	10.750	≤ 11.00	Pass
802.11ax-HE20		RU 8	48	5240	7.252	7.866	98.82%	10.632	≤ 11.00	Pass
802.11ax-HE20		RU 8	64	5320	7.893	7.265	98.82%	10.652	≤ 11.00	Pass
802.11ax-HE20	26 Tone	RU 0	100	5500	7.665	7.492	98.82%	10.641	≤ 11.00	Pass
802.11ax-HE20		RU 8	116	5580	7.562	7.498	98.82%	10.592	≤ 11.00	Pass
802.11ax-HE20		RU 8	140	5700	7.779	7.911	98.82%	10.907	≤ 11.00	Pass
802.11ax-HE20	26 Tone	RU 0	149	5745	9.846	8.923	98.82%	12.471	≤ 30.00	Pass
802.11ax-HE20		RU 8	157	5785	9.902	9.092	98.82%	12.578	≤ 30.00	Pass
802.11ax-HE20		RU 8	165	5825	9.883	9.391	98.82%	12.706	≤ 30.00	Pass
802.11ax-HE20	52 Tone	RU 74	36	5180	7.552	7.789	99.41%	10.708	≤ 11.00	Pass
802.11ax-HE20		RU 77	48	5240	7.583	7.513	99.41%	10.584	≤ 11.00	Pass
802.11ax-HE20		RU 77	64	5320	8.032	7.207	99.41%	10.675	≤ 11.00	Pass
802.11ax-HE20	52 Tone	RU 74	100	5500	7.860	7.665	99.41%	10.800	≤ 11.00	Pass
802.11ax-HE20		RU 77	116	5580	8.096	7.403	99.41%	10.799	≤ 11.00	Pass
802.11ax-HE20		RU 77	140	5700	7.846	7.605	99.41%	10.763	≤ 11.00	Pass
802.11ax-HE20	52 Tone	RU 74	149	5745	7.819	6.672	99.41%	10.319	≤ 30.00	Pass
802.11ax-HE20		RU 77	157	5785	6.744	6.200	99.41%	9.516	≤ 30.00	Pass
802.11ax-HE20		RU 77	165	5825	7.115	6.451	99.41%	9.832	≤ 30.00	Pass
802.11ax-HE20	106 Tone	RU 106	36	5180	7.800	7.391	99.58%	10.629	≤ 11.00	Pass
802.11ax-HE20		RU 107	48	5240	7.642	7.785	99.58%	10.743	≤ 11.00	Pass
802.11ax-HE20		RU 107	64	5320	8.051	7.059	99.58%	10.612	≤ 11.00	Pass
802.11ax-HE20	106 Tone	RU 106	100	5500	5.925	5.355	99.58%	8.678	≤ 11.00	Pass
802.11ax-HE20		RU 107	116	5580	7.326	6.539	99.58%	9.979	≤ 11.00	Pass
802.11ax-HE20		RU 107	140	5700	5.396	5.035	99.58%	8.248	≤ 11.00	Pass
802.11ax-HE20	106 Tone	RU 106	149	5745	4.527	3.650	99.58%	7.139	≤ 30.00	Pass
802.11ax-HE20		RU 107	157	5785	4.864	3.984	99.58%	7.475	≤ 30.00	Pass
802.11ax-HE20		RU 107	165	5825	4.015	3.329	99.58%	6.714	≤ 30.00	Pass
802.11ax-HE20	242 Tone	RU 122	36	5180	4.044	3.599	99.32%	6.867	≤ 11.00	Pass
802.11ax-HE20		RU 122	64	5320	4.671	3.819	99.32%	7.306	≤ 11.00	Pass
802.11ax-HE20	242 Tone	RU 122	100	5500	3.258	2.556	99.32%	5.961	≤ 11.00	Pass
802.11ax-HE20		RU 122	140	5700	1.064	0.491	99.32%	3.827	≤ 11.00	Pass
802.11ax-HE20	242 Tone	RU 122	149	5745	1.180	0.162	99.32%	3.741	≤ 30.00	Pass
802.11ax-HE20		RU 122	165	5825	0.762	-0.167	99.32%	3.362	≤ 30.00	Pass

802.11a Power Spectral Density - Ant 0	
Channel 36 (5180MHz)	Channel 40 (5200MHz)
	
Channel 48 (5240MHz)	Channel 52 (5260MHz)
	
Channel 60 (5300MHz)	Channel 64 (5320MHz)
	
Channel 100 (5500MHz)	Channel 116 (5580MHz)
	

Channel 140 (5700MHz)	Channel 144 (5720MHz)
	
Channel 149 (5745MHz)	**Channel 157 (5785MHz)**
	
Channel 165 (5825MHz)	
	

802.11ac-VHT20 Power Spectral Density - Ant 0	
Channel 36 (5180MHz)	Channel 40 (5200MHz)
	
Channel 48 (5240MHz)	Channel 52 (5260MHz)
	
Channel 60 (5300MHz)	Channel 64 (5320MHz)
	

Channel 100 (5500MHz)	Channel 116 (5580MHz)
	
Channel 140 (5700MHz)	**Channel 144 (5720MHz)**
	
Channel 149 (5745MHz)	**Channel 157 (5785MHz)**
	
Channel 165 (5825MHz)	
	

802.11ac-VHT40 Power Spectral Density - Ant 0	
Channel 38 (5190MHz)	Channel 46 (5230MHz)
	
Channel 54 (5270MHz)	Channel 62 (5310MHz)
	
Channel 102 (5510MHz)	Channel 110 (5550MHz)
	
Channel 134 (5670MHz)	Channel 142 (5710MHz)
	

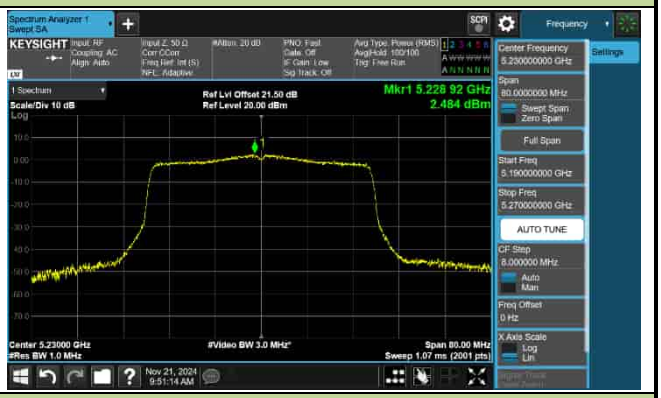
Channel 151 (5755MHz)	Channel 159 (5795MHz)
	

802.11ac-VHT80 Power Spectral Density - Ant 0	
Channel 42 (5210MHz)	Channel 58 (5290MHz)
	
Channel 106 (5530MHz)	Channel 122 (5610MHz)
	
Channel 138 (5690MHz)	Channel 155 (5775MHz)
	

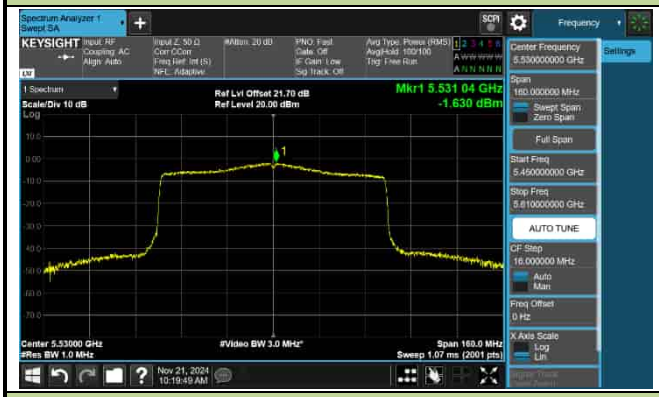
802.11ac-VHT160 Power Spectral Density - Ant 0	
Channel 50 (5250MHz)	Channel 114 (5570MHz)
	

802.11ax-HE20 Power Spectral Density - Ant 0	
Channel 36 (5180MHz)	Channel 40 (5200MHz)
	
Channel 48 (5240MHz)	Channel 52 (5260MHz)
	
Channel 60 (5300MHz)	Channel 64 (5320MHz)
	

Channel 100 (5500MHz)	Channel 116 (5580MHz)
	
Channel 140 (5700MHz)	**Channel 144 (5720MHz)**
	
Channel 149 (5745MHz)	**Channel 157 (5785MHz)**
	
Channel 165 (5825MHz)	
	

802.11ax-HE40 Power Spectral Density - Ant 0	
Channel 38 (5190MHz)	Channel 46 (5230MHz)
	
Channel 54 (5270MHz)	Channel 62 (5310MHz)
	
Channel 102 (5510MHz)	Channel 110 (5550MHz)
	

Channel 134 (5670MHz)	Channel 142 (5710MHz)
	
Channel 151 (5755MHz)	**Channel 159 (5795MHz)**
	

802.11ax-HE80 Power Spectral Density - Ant 0	
Channel 42 (5210MHz)	Channel 58 (5290MHz)
	
Channel 106 (5530MHz)	Channel 122 (5610MHz)
	
Channel 138 (5690MHz)	Channel 155 (5775MHz)
	
802.11ax-HE160 Power Spectral Density - Ant 0	
Channel 50 (5250MHz)	Channel 114 (5570MHz)
	

802.11ax-HE20 Power Spectral Density - Ant 0	
26 Tone_RU0_CH36 (5180MHz)	26 Tone_RU8_CH48 (5240MHz)
	
26 Tone_RU8_CH64 (5320MHz)	26 Tone_RU0_CH100 (5500MHz)
	
26 Tone_RU8_CH116 (5580MHz)	26 Tone_RU8_CH140 (5700MHz)
	
26 Tone_RU0_CH149 (5745MHz)	26 Tone_RU8_CH157 (5785MHz)
	

26 Tone_RU8_CH165 (5825MHz)	
	

802.11ax-HE20 Power Spectral Density - Ant 0	
52 Tone_RU74_CH36 (5180MHz)	52 Tone_RU77_CH48 (5240MHz)
	
52 Tone_RU77_(5320MHz)	52 Tone_RU74_CH100 (5500MHz)
	
52 Tone_RU77_CH116 (5580MHz)	52 Tone_RU77_CH140 (5700MHz)
	
52 Tone_RU74_CH149 (5745MHz)	52 Tone_RU77_CH157 (5785MHz)
	

52 Tone_RU77_CH165 (5825MHz)	
	

802.11ax-HE20 Power Spectral Density - Ant 0	
106 Tone_RU106_CH36 (5180MHz)	106 Tone_RU107_CH48 (5240MHz)
	
106 Tone_RU107_CH64 (5320MHz)	106 Tone_RU106_CH100 (5500MHz)
	
106 Tone_RU107_CH116 (5580MHz)	106 Tone_RU107_CH140 (5700MHz)
	
106 Tone_RU106_CH149 (5745MHz)	106 Tone_RU107_CH157 (5785MHz)
	

106 Tone_RU107_CH165 (5825MHz)