TEST REPORT

APPLICANT
Garmin International Inc

MODEL NAME
A05216

FCC ID
IPH-05216

ISED ID
1792A-05216

REPORT NUMBER
HA2603-0045-R06-01

TEST REPORT

Date of Issue
June 10, 2026

Test Site
HCT America, Inc.
840 Yosemite Way, Milpitas, CA 95035, USA

Applicant	Garmin International Inc
Applicant Address	1200 E. 151st Street Olathe, Kansas 66062, USA
FCC ID	IPH-05216
ISED ID	1792A-05216
EUT Type	Mobile GNSS navigator with 2.4 GHz and 5 GHz WLAN
Modulation Type	OFDM
FCC Classification	Unlicensed National Information Infrastructure (NII)
FCC Rule Part(s)	Part 15.407
ISED Rule Part(s)	RSS-247 Issue 4 (July 2025) RSS-Gen Issue 5 Amd 2 (February 2021)
Test Procedure	ANSI C63.10-2020, KDB 789033 D02 v02r01, KDB 662911 D01

The device bearing the trade name and model specified above, has been shown to comply with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures required. The results of testing in this report apply only to the product which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

Authorized & Released By:

Dan Coronia
Technical Manager

Tested By:

Kevin Kim
RF Engineer

REVISION HISTORY

The revision history for this document is shown in table.

TEST REPORT NO.	REVISION	DATE	DESCRIPTION
HA2603-0045-R06	0	May 30, 2026	Initial Issue
HA2603-0045-R06-01	01	June 10, 2026	Updated cover page, and pages 1 & 5 to update FCC and ISED ID, and added the FVIN

TABLE OF CONTENTS

1. GENERAL INFORMATION

EUT DESCRIPTION

Model	A05216
Product Name	A05216
Serial Number	Conducted: 3526722732 Radiated: 3526722794
Power rating	Normal operation: 10.0 – 24.0 VDC, 2 A
	*USB: 5 VDC, 3A
RF Specification	Bluetooth 5.0 LE (BR / EDR / 1M / 2M) WIFI 2.4 GHz: 802.11b/g/nHT20 WIFI 5 GHz: 802.11a/n20/n40/ac80
Transmitter Chain	Bluetooth LE / Bluetooth BR/EDR / WIFI 2.4 GHz: SISO WIFI 5 GHz: SISO

NOTE: *The 5 VDC, 3 A supply is via USB and is not used during normal operation.

RF SPECIFICATION SUBJECT TO THE REPORT

RF Specification	802.11a/nHT20/40/ac80	
Transmitter Chain	1	
Frequency Range [1)]	U-NII 2a	20 MHz BW: 5260 MHz – 5320 MHz 40 MHz BW: 5270 MHz – 5310 MHz 80 MHz BW: 5290 MHz
	U-NII 2c	20 MHz BW: 5500 MHz – 5720 MHz (Straddle at 5720 MHz) 40 MHz BW: 5510 MHz – 5710 MHz (Straddle at 5710 MHz) 80 MHz BW: 5530 MHz – 5690 MHz (Straddle at 5690 MHz)
Max. RF Output Power	14.23 dBm (26.49 mW)	
Modulation Type	OFDM	
Operating Modes	☐ Master	
	☐ Slave with radar detection	
	☒ Slave without radar detection	
TPC Feature	☐ TPC function	☒ No TPC function
Antenna Specification [2)]	Antenna Type: Inverted-F Peak Gain: 1.87 dBi	
Firmware Version [3)]	1.24	
Hardware Version [4)]	A05216	
FVIN	2.14	
Date(s) of Tests	March 25, 2026, ~ April 20, 2026	
Test Environment	Temperature: 18.9°C ~ 25°C Humidity: 35% ~ 50% R.H.	

Note:
1. The device cannot operate in the frequency range 5600 – 5650 MHz in Canada
2. Antenna information is based on the document provided.
3. Firmware and Hardware Version are as received by the client.

OPERATING FREQUENCY CHANNELS

802.11a/n(HT20)

Band	Frequency (MHz)	Channel
U-NII 2a	5260	52
	5280	56
	5300	60
	5320	64
U-NII 2c	5500	100
	5520	104
	5540	108
	5560	112
	5580	116
	5660	132
	5680	136
	5700	140
Straddle	5720	144

Note:
1. The EUT does not support operation on Channels 120 (5600 MHz), 124 (5620 MHz), and 128 (5640 MHz).
2. Straddle channels between U-NII 2c and U-NII 3.

802.11n(HT40)

Band	Frequency (MHz)	Channel
U-NII 2a	5270	54
	5310	62
U-NII 2c	5510	102
	5550	110
	5670	134
Straddle	5710	142

Note:
1. The EUT does not support operation on Channels 118 (5590 MHz), 126 (5630 MHz).
2. Straddle channels between U-NII 2c and U-NII 3.

802.11ac80

Band	Frequency (MHz)	Channel
U-NII 2a	5290	58
U-NII 2c	5530	106
Straddle	5690	138

Note:
1. The EUT does not support operation on Channel 122 (5610 MHz).
2. Straddle channels between U-NII 2c and U-NII 3.

CHANNEL FREQUENCY UNDER TEST

Mode (U-NII 2a)	Bandwidth (MHz)	Low Channel (MHz)	Mid Channel (MHz)	High Channel (MHz)
802.11a	20	5260	5280	5320
802.11n/ac	20	5260	5280	5320
	40	5270	-	5310
802.11n/ac	80	5290		

Mode (U-NII 2c)	Bandwidth (MHz)	Low Channel (MHz)	Mid Channel (MHz)	High Channel (MHz)
802.11a	20	5500	5580	5700
802.11n/ac	20	5500	5580	5700
	40	5510	5550	5670
802.11n/ac	80	5530	-	5610

Mode (Straddle)	Bandwidth (MHz)	Low Channel (MHz)	Mid Channel (MHz)	High Channel (MHz)
802.11a	20	5720 (1)		
802.11n/ac	20	5720 (1)		
	40	5710 (1)		
802.11n/ac	80	5690 (1)		

Note:
1. Straddle channels: U-NII 2c and U-NII 3 bands
2. Channel 122 (5610 MHz) is unsupported and will be disabled.

2. METHODOLOGY

The measurement procedure described in FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01 dated December 14, 2017 entitled “Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part15, Subpart E” and ANSI C63.10 (Version : 2020) ‘the American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices’ were used in the measurement.

EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

EUT EXERCISE

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209 and 15.407 under the FCC Rules Part 15 Subpart E. / the RSS-GEN issue 5 amd 2, RSS-247 issue 4.

GENERAL TEST PROCEDURES

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 6.2 of ANSI C63.10. (Version :2020) Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane below 1GHz. Above 1GHz with 1.5m using absorbers between the EUT and receive antenna. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3 m away from the receiving antenna, which varied from 1 m to 4 m to find out the highest emission. Also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emission, the relative positions of this hand-held transmitter (EUT) were rotated through three orthogonal axes according to the requirements in Section 8 of ANSI C63.10. (Version: 2020)

DESCRIPTION OF TEST MODES

The EUT has been tested at 5 GHz WLAN test mode. Power level setting at continuous TX and normal RX mode for each 802.11a/n(HT20/40) /ac(VHT20/40/80).

3. INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment’s, which is traceable to recognized national standards. Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5 (Version : 2017).

HCT America, Inc. holds A2LA accreditation (certificate no. 4201.01) covering all testing included in the scope of this report. All tests were conducted at the facilities listed below.

4. FACILITIES AND ACCREDITATIONS

FACILITIES

HCT America, Inc. holds A2LA accreditation (certificate no. 4201.01) covering all testing included in the scope of this report. All tests were conducted at the facilities listed below.

	Address	ISED CABID	ISED Company Number	FCC Registration
☒	840 Yosemite Way, Milpitas, CA 95035 USA	US0198	25729	898494
☐	1177 Comstock Road, Hollister, CA 95023 USA	US0198	25729	898494

EQUIPMENT

Radiated emissions are measured with one or more of the following types of Linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers. Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, “Radio Interference Measuring Apparatus and Measurement Methods.”

5. ANTENNA REQUIREMENTS

According to FCC 47 CFR §15.203:

"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."

(1) The antenna of this E.U.T is permanently attached and there is no provision for connection to an external antenna.
(2) The E.U.T Complies with the requirement of §15.203

According to RSS-Gen Issue 5 Amd 2 (Section 6.8) :

The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

For expediting the testing, measurements may be performed using only the antenna with highest gain of each combination of transmitter and antenna type, with the transmitter output power set at the maximum level. However, the transmitter shall comply with the applicable requirements under all operational conditions and when in combination with any type of antenna from the list provided in the test report (and in the notice to be included in the user manual, provided below).

When measurements at the antenna port are used to determine the RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna's manufacturer.

The test report shall state the RF power, output power setting and spurious emission measurements with each antenna type that is used with the transmitter being tested.

6. MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10-2020.

All measurement uncertainty values are shown with a coverage factor of k = 2 to indicate a 95 % level of confidence. The measurement data shown herein meets or exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Parameter	Expanded Uncertainty
Output Power, Conducted	± 0.54 dB
Frequency Tolerance	± 16.78 kHz
Occupied Bandwidth	± 120.66 kHz
Unwanted Emissions, Conducted	± 0.54 dB
Radiated Emissions (below 1 GHz)	± 5.29 dB
Radiated Emissions (Above 1 GHz)	± 4.29 dB

7. DESCRIPTION OF TESTS

7.1. DUTY CYCLE

TEST SETUP

TEST PROCEDURE

The transmitter output is connected to the Spectrum Analyzer.
Measurement is performed in accordance with the section B.2 in KDB 789033 D02 v02r01.

The largest available value of RBW is 8 MHz and VBW is 50 MHz.
The zero-span method of measuring duty cycle shall not be used if T ≤ 6.25 microseconds. (50/6.25 = 8)
The zero-span method was used because all measured T data are > 6.25 microseconds and both RBW and VBW are > 50/*T*.

- RBW = 8 MHz (the largest available value)
- VBW = 8 MHz (≥ RBW)
- SPAN = 0 Hz
- Detector = Peak
- Number of points in sweep > 100
- Trace mode = Clear write
- Measure T_{total} and T_{on}
- Calculate Duty Cycle = T_{on}/ T_{total} and Duty Cycle Factor = 10*log(1/Duty Cycle)

7.2. 6 dB BANDWIDTH / 26 dB BANDWIDTH / 99 % OCCUPIED BANDWIDTH

LIMIT

Emission bandwidth was measured to define the minimum frequency range which the spectrum is integrated for maximum conducted output power measurement.

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

TEST SETUP

TEST PROCEDURE (26 dB Bandwidth)

Testing was performed according to section C.1 in KDB 789033 D02 v02r01.
The transmitter output is connected to the spectrum analyzer.

- RBW = Approximately 1 % of the emission bandwidth
- VBW > RBW
- Detector = Peak
- Trace mode = max hold
- Sweep = auto couple
- Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1 %.

TEST PROCEDURE (6 dB Bandwidth)

Testing was performed according to procedure C.1 in KDB 789033 D02 v02r01.
The transmitter output is connected to the Spectrum Analyzer.

- RBW = 100 kHz
- VBW ≥ 3*RBW
- Detector = Peak
- Trace mode = Max hold
- Allow the trace to stabilize
- 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 lever measured in the fundamental emission.

TEST PROCEDURE (99% Bandwidth)

Testing was performed according to section D in KDB 789033 D02 v02r01.
The transmitter output is connected to the spectrum analyzer.

- RBW = 1% ~ 5% of the occupied bandwidth
- VBW ≒ 3 x RBW
- Detector = Peak
- Trace mode = max hold
- Sweep = auto couple
- Allow the trace to stabilize

Note:
1. The bandwidth measurement function from the spectrum analyzer is used to measure X dB bandwidth.
2. 26 dB bandwidth is used to determine the conducted power limits.

7.3. OUTPUT POWER

LIMIT

Band	47 CFR §15.407(a)(2)	RSS-247, 7.3.2.2 / 7.3.3.2
U-NII 2a	≤ 250 mW or ≤ 11 dBm + 10 log (B) Whichever is less (where B is the 26 dB Emission BW in MHz)	≤ 250 mW or ≤ 11 dBm + 10 log (B) ≤ 1 W e.i.r.p. or ≤ 17 dBm + 10 log (B) e.i.r.p. Whichever power is less (where B is 99% BW in MHz)
U-NII 2c		

Band	47 CFR §15.407(a)(3)(i)	RSS-247, 7.3.4.3
U-NII 3	≤ 30 dBm/500 kHz	≤ 30 dBm/500 kHz

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

TEST SETUP

TEST PROCEDURE

Refer to the section E.2.d) in KDB 789033 D02 v02r01
The transmitter output is connected to the Spectrum Analyzer.
Spectrum analyzer's integrated band power measurement function was used.

- Measure the duty cycle.
- Set span to encompass the 26 dB EBW of the signal.
- RBW = 1 MHz
- VBW ≥ 3 MHz
- Number of points in sweep ≥ 2*span/RBW.
- Sweep time = auto.
- Detector = RMS.
- Do not use sweep triggering. Allow the sweep to "free run".
- Trace average at least 100 traces in power averaging (RMS) mode
- Integrated bandwidth = EBW

Add 10log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times

Sample Calculation

- Conducted Output Power (Average) = Reading Value + ATT loss + Cable loss + Duty Cycle Factor

7.4. POWER SPECTRAL DENSITY

LIMIT

Band	47 CFR §15.407(a)(2)	RSS-247, 7.3.2.2 / 7.3.3.2
U-NII 2a	≤ 11 dBm/MHz	≤ 11 dBm/MHz
U-NII 2c		

Band	47 CFR §15.407(a)(3)(i)	RSS-247, 7.3.4.3
U-NII 3	≤ 30 dBm/500 kHz	≤ 30 dBm/500 kHz

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

TEST SETUP

TEST PROCEDURE

Refer to the section F in KDB 789033 D02 v02r01.

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- RBW = 1 MHz (510 kHz for UNII 3)
- VBW ≥ 3 MHz
- Number of points in sweep ≥ 2*span/RBW.
- Sweep time = auto.
- Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
- Do not use sweep triggering. Allow the sweep to “free run”.
- Trace average at least 100 traces in power averaging (RMS) mode
- Use the peak search function on the spectrum analyzer to find the peak of the spectrum.
- If Method SA-2 was used, add 10 log(1/x), where x is the duty cycle, to the peak of the spectrum.

Sample Calculation

Total PSD (Average) = Reading Value + ATT loss + Cable loss + Duty Cycle Factor

7.5. UNDESIRABLE EMISSION

LIMIT

Frequency Band		Limit
U-NII 2a	☒	In accordance with **47 CFR § 15.407(b)(2) / RSS-247, 7.3.2.3** All emissions outside the 5.15-5.35 GHz band shall not exceed an −27 dBm/MHz e.i.r.p.
U-NII 2c	☒	In accordance with **47 CFR § 15.407(b)(3) / RSS-247, 7.3.3.3** All emissions outside the 5.47-5.725 GHz band shall not exceed an −27 dBm/MHz e.i.r.p.

Emissions at the straddle channels comply with the rules for the band which the signal spans over.

RADIATION EMISSION LIMIT

FCC : 47 CFR § 15.209		
Frequency (MHz)	**Field Strength (uV/m)**	**Measurement Distance (m)**
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

ISED : RSS-GEN Section 8.9		
Frequency (MHz)	**Field Strength (uV/m)**	**Measurement Distance (m)**
0.009 – 0.490	6.37/F(kHz)	300
0.490 – 1.705	63.7/F(kHz)	30
1.705 – 30	0.08	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

RECEIVER RADIATED EMISSION LIMIT

ISED : RSS-GEN Section 7.3		
Frequency (MHz)	**Field Strength (uV/m)**	**Measurement Distance (m)**
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

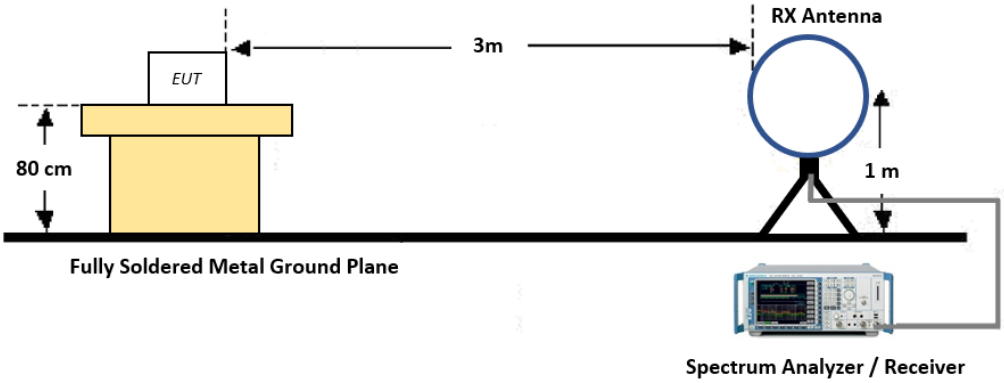
RESTRICTED BANDS OF OPERATION

FCC : 47 CFR § 15.205(a)				
Frequency (MHz)	**Frequency (MHz)**	**Frequency (MHz)**	**Frequency (MHz)**	**Frequency (MHz)**
0.090 – 0.110	12.29 - 12.293	149.9 - 150.05	1660.0 - 1710.0	8025 - 8500
0.495 - 0.505	12.51975 - 12.52025	156.52475 - 156.52525	1718.8 - 1722.2	9000 - 9200
2.1735 - 2.1905	12.57675 - 12.57725	156.7 - 156.9	2200.0 - 2300.0	9300 - 9500
4.125 - 4.128	13.36 - 13.41	162.0125 - 167.17	2310.0 - 2390.0	10600 - 12700
4.17725 - 4.17775	16.42 - 16.423	167.72 - 173.2	2483.5 - 2500.0	13250 - 13400
4.20725 - 4.20775	16.69475 - 16.69525	240.0 - 285.0	2690.0 - 2900.0	14470 - 14500
6.215 - 6.218	16.80425 - 16.80475	322.0 - 335.4	3260.0 - 3267.0	15350 - 16200
6.26775 - 6.26825	25.5 - 25.67	399.9 - 410.0	3332.0 - 3339.0	17700 - 21400
6.31175 - 6.31225	37.5 - 38.25	608.0 - 614.0	3345.8 - 3358.0	22010 - 23120
8.291 - 8.294	73 - 74.6	960.0 - 1240.0	3600.0 - 4400.0	23600 - 24000
8.362 - 8.366	74.8 - 75.2	1300.0 - 1427.0	4500.0 - 5150.0	31200 - 31800
8.37625 - 8.38675	108 - 121.94	1435.0 - 1626.5	5350.0 - 5460.0	36430 - 36500
8.41425 - 8.41475	123 - 138	1645.5 - 1646.5	7250.0 - 7750.0	Above 38600

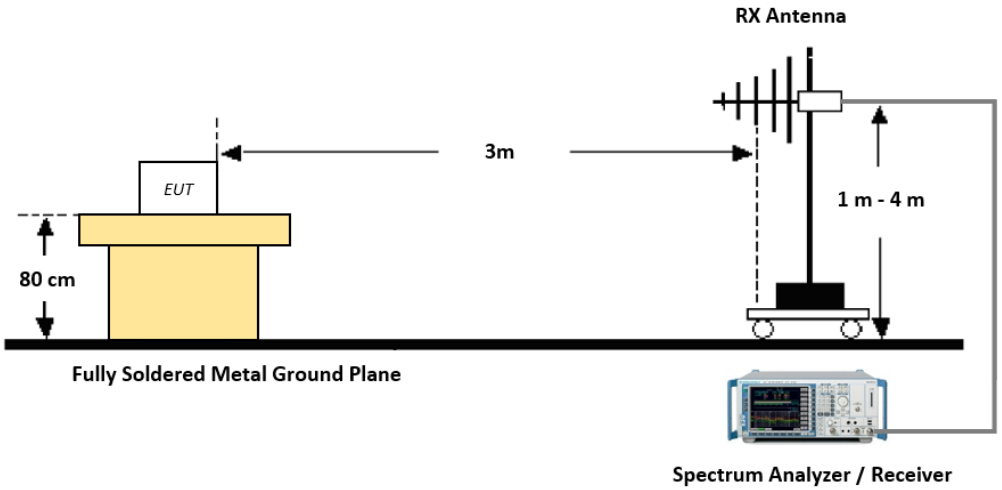
ISED : RSS-GEN Section 8.10				
Frequency (MHz)	**Frequency (MHz)**	**Frequency (MHz)**	**Frequency (MHz)**	**Frequency (MHz)**
0.090 - 0.110	8.37625 - 8.38675	108 – 138	1660 - 1710	8025 - 8500
0.495 - 0.505	8.41425 - 8.41475	149.9 - 150.05	1718.8 - 1722.2	9000 - 9200
2.1735 - 2.1905	12.29 - 12.293	156.52475 - 156.52525	2200 - 2300	9300 - 9500
3.020 - 3.026	12.51975 - 12.52025	156.7 - 156.9	2310 - 2390	10600 - 12700
4.125 - 4.128	12.57675 - 12.57725	162.0125 - 167.17	2483.5 - 2500	13250 - 13400
4.17725 - 4.17775	13.36 - 13.41	167.72 - 173.2	2655 - 2900	14470 - 14500
4.20725 - 4.20775	16.42 - 16.423	240 - 285	3260 - 3267	15350 - 16200
5.677 - 5.683	16.69475 - 16.69525	322 - 335.4	3332 - 3339	17700 - 21400
6.215 - 6.218	16.80425 - 16.80475	399.9 - 410	3345.8 - 3358	22010 - 23120
6.26775 - 6.26825	25.5 - 25.67	608 - 614	3500 - 4400	23600 - 24000
6.31175 - 6.31225	37.5 - 38.25	960 - 1427	4500 - 5150	31200 - 31800
8.291 - 8.294	73 - 74.6	1435 - 1626.5	5350 - 5460	36430 - 36500
8.362 - 8.366	74.8 - 75.2	1645.5 - 1646.5	7250 - 7750	Above 38600

TEST SETUP

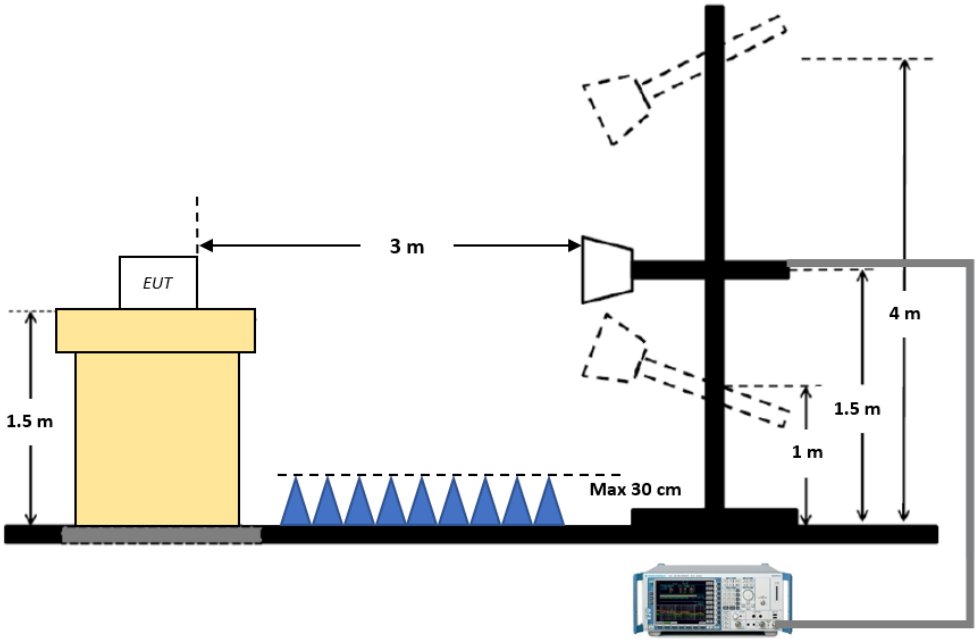
Below 30 MHz



30 MHz - 1 GHz



Above 1 GHz



TEST PROCEDURE OF RADIATED SPURIOUS EMISSION (BELOW 30 MHz)

1. The EUT was placed on a non-conductive table located on semi-anechoic chamber.
2. The loop antenna was placed at a location 3m from the EUT
3. The EUT is placed on a turntable, which is 0.8m above ground plane.
4. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
5. The turntable shall be rotated to 360 degrees to determine the position of maximum emission level.
6. Distance Correction Factor (0.009 MHz – 0.490 MHz) = 40*log (3 m/300 m) = - 80 dB
   Measurement Distance: 3 m
7. Distance Correction Factor (0.490 MHz – 30 MHz) = 40*log (3 m/30 m) = - 40 dB
   Measurement Distance: 3 m
8. Spectrum Setting

   - Frequency Range = 9 kHz ~ 30 MHz
   - Detector = Peak
   - Trace = Max hold
   - RBW = 9 kHz
   - VBW ≥ 3*RBW

9. Total = Reading Value + Antenna Factor (A.F) + Cable Loss (C.L)
10. There is a comparison data both open-field test site and alternative test site – semi-Anechoic chamber according to 414788 D01. And the results are properly calibrated.

TEST PROCEDURE OF RADIATED SPURIOUS EMISSION (30 MHz – 1 GHz)

1. The EUT was placed on a non-conductive table located on semi-anechoic chamber.
2. The EUT is placed on a turntable, which is 0.8 m above ground plane.
3. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
4. The turntable shall be rotated to 360 degrees to determine the position of maximum emission level.
5. Spectrum Setting

   (1) Measurement Type (Peak):
   - Measured Frequency Range: 30 MHz – 1 GHz
   - Detector = Peak
   - Trace = Max hold
   - RBW = 100 kHz
   - VBW ≥ 3*RBW

   (2) Measurement Type(Quasi-peak):
   - Measured Frequency Range: 30 MHz – 1 GHz
   - Detector = Quasi-Peak
   - RBW = 120 kHz

6. Total = Reading Value + Antenna Factor (A.F) + Cable Loss (C.L)

TEST PROCEDURE OF RADIATED SPURIOUS EMISSION (ABOVE 1 GHz)

1. The EUT is placed on a turntable, which is 1.5 m above ground plane.
2. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
3. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
4. EUT is set 3 m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
5. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
6. Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
7. The unit was tested with its standard battery.
8. Spectrum Setting

(1) Measurement Type (Peak, G.5 in KDB 789033 v02r01):

- RBW = 1 MHz
- VBW ≥ 3 MHz
- Detector = Peak
- Sweep Time = auto
- Trace mode = Max hold
- Allow sweeps to continue until the trace stabilizes.
- Note that if the transmission is not continuous, the time required for the trace to stabilize will increase by a factor of approximately 1/x, where x is the duty cycle.

(2) Measurement Type (Average, G.6.d in KDB 789033 v02r01):

- RBW = 1 MHz
- VBW (Duty cycle ≥ 98 percent) = VBW ≤ RBW/100(i.e., 10 kHz) but not less than 10 Hz.
- VBW (Duty cycle is < 98 percent) = VBW ≥ 1/T, where T is the minimum transmission duration.
- The analyzer is set to linear detector mode.
- Detector = Peak.
- Sweep time = auto.
- Trace mode = Max hold.
- Allow max hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98 percent duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of 1/x, where x is the duty cycle.

9. Measurement value only up to 6 maximum emissions noted or would be lesser if no specific emissions from the EUT are recorded (i.e.: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor

10. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency (or 40 GHz whichever comes first)

11. Sample Calculation

(1) Total (Peak) = Reading Value + Antenna Factor (A.F) + Cable Loss (C.L) - Amp Gain(G)
(2) Total (Average, Duty ≥ 98%) = Reading Value + Antenna Factor (A.F) + Cable Loss (C.L) - Amp Gain(G)
(3) Total (Average, Duty < 98%) = Reading Value + Antenna Factor (A.F) + Cable Loss (C.L) - Amp Gain(G) + Duty Cycle Factor

TEST PROCEDURE OF RADIATED RESTRICTED BAND EDGE

1. Radiated test is performed with hopping off (if there is any)
2. The EUT is placed on a turntable, which is 1.5 m above ground plane.
3. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
4. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
5. EUT is set 3 m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
6. Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
7. The unit was tested with its standard battery.
8. Spectrum Setting

(1) Measurement Type (Peak, G.5 in KDB 789033 v02r01):
- RBW = 1 MHz
- VBW ≥ 3 MHz
- Detector = Peak
- Sweep Time = auto
- Trace mode = Max hold
- Allow sweeps to continue until the trace stabilizes.
- Note that if the transmission is not continuous, the time required for the trace to stabilize will increase by a factor of approximately 1/x, where x is the duty cycle.

(2) Measurement Type (Average, G.6.d in KDB 789033 v02r01):
- RBW = 1 MHz
- VBW (Duty cycle ≥ 98 percent) = VBW ≤ RBW/100(i.e., 10 kHz) but not less than 10 Hz.
- VBW (Duty cycle is < 98 percent) = VBW ≥ 1/T, where T is the minimum transmission duration.
- The analyzer is set to linear detector mode.
- Detector = Peak.
- Sweep time = auto.
- Trace mode = Max hold.
- Allow max hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98 percent duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of 1/x, where x is the duty cycle.

9. Sample Calculation

(1) Total (Peak) = Reading Value + Antenna Factor (A.F) + Cable Loss (C.L)
(2) Total (Average, Duty ≥ 98%) = Reading Value + Antenna Factor (A.F) + Cable Loss (C.L) - Amp Gain(G)
(3) Total (Average, Duty < 98%) = Reading Value + Antenna Factor (A.F) + Cable Loss (C.L) - Amp Gain(G) + Duty Cycle Factor

7.6. AC POWER LINE CONDUCTED EMISSIONS

LIMIT

47 CFR § 15.207 / RSS-GEN Section 8.8

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 µH/50 ohms line impedance stabilization network (LISN).

Frequency Range (MHz)	Limits (dBµV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

*Decreases with the logarithm of the frequency.

Compliance with this provision shall be based on the measurement of the radio frequency.
voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

TEST SETUP

See test photographs attached in Annex A for the actual connections between EUT and support equipment.

TEST PROCEDURE

1. The EUT is placed on a wooden table 80 cm above the reference ground plane.
2. The EUT is connected via LISN to a test power supply.
3. The measurement results are obtained as described below:
4. Detectors: Quasi Peak and Average Detector.

According to FCC KDB 174176 D01 Line Conducted FAQ v01r01 :

Devices Operating Above 30 MHz

For a device with a permanent or detachable antenna operating above 30 MHz, measurements must be performed with the antenna connected as specified in clause 6.2 of ANSI C63.10-2020.

Devices Operating Below 30 MHz

For a device with a permanent or detachable antenna operating at or below 30 MHz, the FCC will accept measurements performed with a suitable dummy load in lieu of the antenna under the following conditions:

(1) Perform the AC power-line conducted tests with the antenna connected to determine compliance with Section 15.207 limits outside the transmitter's fundamental emission band;

(2) Retest with a dummy load in lieu of the antenna to determine compliance with Section 15.207 limits within the transmitter's fundamental emission band. For a detachable antenna, remove the antenna and connect a suitable dummy load to the antenna connector. For a permanent antenna, remove the antenna and terminate the RF output with a dummy load or network which simulates the antenna in the fundamental frequency band. All measurements must be performed as specified in clause 6.2 of ANSI C63.10-2020.

Sample Calculation

Quasi-peak(Final Result) = Reading Value + Correction Factor

8. SUMMARY OF TEST RESULTS

Test Description	FCC Part Section(s)	Test Limit	Test Condition	Test Result
26 dB Bandwidth	§15.407	N/A (For power measurement)	Conducted	-
6 dB Bandwidth (1)	§15.407(e)	≥ 500 kHz		PASS
Maximum Conducted Output Power	§15.407(a)(2) §15.407(a)(3)(i)	cf. Section 7.3		PASS
Power Spectral Density	§15.407(a)(2) §15.407(a)(3)(i)	cf. Section 7.4		PASS
AC Power line Conducted Emissions	§15.207 §15.407(b)(9)	cf. Section 7.6		PASS
Undesirable Emissions	§15.407(b)(2) §15.407(b)(3)	cf. Section 7.5	Radiated	PASS
Radiated Spurious Emissions	§15.209 §15.407(b)(9)	cf. Section 7.5		PASS
Radiated Restricted Band Edge	§15.205(a) §15.407(b)(9)	cf. Section 7.5		PASS

Note:
1. 6 dB bandwidth was measured for the straddle channels spanning between U-NII 2c and U-NII 3 bands

Test Description	ISED Part Section(s)	Test Limit	Test Condition	Test Result
6 dB Bandwidth (1)	RSS-247, 7.3.4.3	≥ 500 kHz	Conducted	PASS
Occupied bandwidth	RSS-Gen, 6.7	N/A		-
Maximum Conducted Output Power	RSS-247, 7.3.2.2 a RSS-247, 7.3.3.2 a RSS-247, 7.3.4.3	cf. Section 7.3		PASS
Maximum e.i.r.p.	RSS-247, 7.3.2.2 b RSS-247, 7.3.3.2 b RSS-247, 7.3.4.3	cf. Section 7.3		PASS
Power Spectral Density	RSS-247, 7.3.2.2 a RSS-247, 7.3.3.2 a RSS-247, 7.3.4.3	≤ 11 dBm/ MHz EIRP		PASS
AC Power line Conducted Emissions	RSS-Gen, 8.8	cf. Section 7.6		PASS
Undesirable Emissions	RSS-247, 7.3.2.3 RSS-247, 7.3.3.3	cf. Section 7.5	Radiated	PASS
Radiated Spurious Emissions	RSS-Gen, 8.9	cf. Section 7.5		PASS
Radiated Restricted Band Edge	RSS-Gen, 8.10	cf. Section 7.5		PASS

Note:

1. 6 dB bandwidth was measured for the straddle channels spanning between U-NII 2c and U-NII 3 bands
2. The device cannot operate in the frequency range 5600 – 5650 MHz in Canada

WORST CASE CONFIGURATION

RADIATED TEST

1. EUT Axis

   - All X, Y, and Z positions for horizontal / vertical antenna polarization were investigated to find the worst-case position.
   - Y position was selected for the final evaluation.

2. Operations with all the data rates available were investigated for each different channel BW mode. Lowest data rate was selected as the worst case.

CONDUCTED TEST

1. AC line conducted emission test was performed at the worst-case transmission mode.

WORST CASE DATA RATE

Mode	Worst Case Data Rate
802.11a	6 Mbps
802.11n	MCS0
802.11ac	MCS0

SUMMARY OF POWER LEVEL SETTING

U-NII 2a Band (20 MHz)		Power Level Setting		
Frequency (MHz)	Channel	802.11a	802.11n HT20	802.11ac VHT20
5260	52	-8	-9	-9
5280	56	-8	-9	-9
5320	64	-8	-9	-9

U-NII 2a Band (40 MHz)		Power Level Setting	
Frequency (MHz)	Channel	802.11n HT40	802.11ac VHT40
5270	38	-8	-8
5310	46	-8	-8

U-NII 2a Band (80 MHz)		Power Level Setting
Frequency (MHz)	Channel	802.11ac VHT80
5290	42	-6

U-NII 2c Band (20 MHz)		Power Level Setting		
Frequency (MHz)	Channel	802.11a	802.11n HT20	802.11ac VHT20
5500	100	-8	-9	-9
*5600	*120	-8	-9	-9
5700	140	-8	-11	-11

U-NII 2c Band (40 MHz)		Power Level Setting	
Frequency (MHz)	Channel	802.11n HT40	802.11ac VHT40
5510	102	-10	-10
*5590	*118	-9	-9
5670	134	-9	-9

U-NII 2c Band (80 MHz)		Power Level Setting
Frequency (MHz)	Channel	802.11ac VHT80
5530	106	-10
*5610	*122	-10

Note:
*Channels 120 (5600 MHz), 118 (5590 MHz) and 122 (5610 MHz) are unsupported and will be disabled.

U-NII 2c&3 Band (20 MHz)		Power Level Setting		
Frequency (MHz)	Channel	802.11a	802.11n HT20	802.11ac VHT20
5720	144	-8	-11	-11

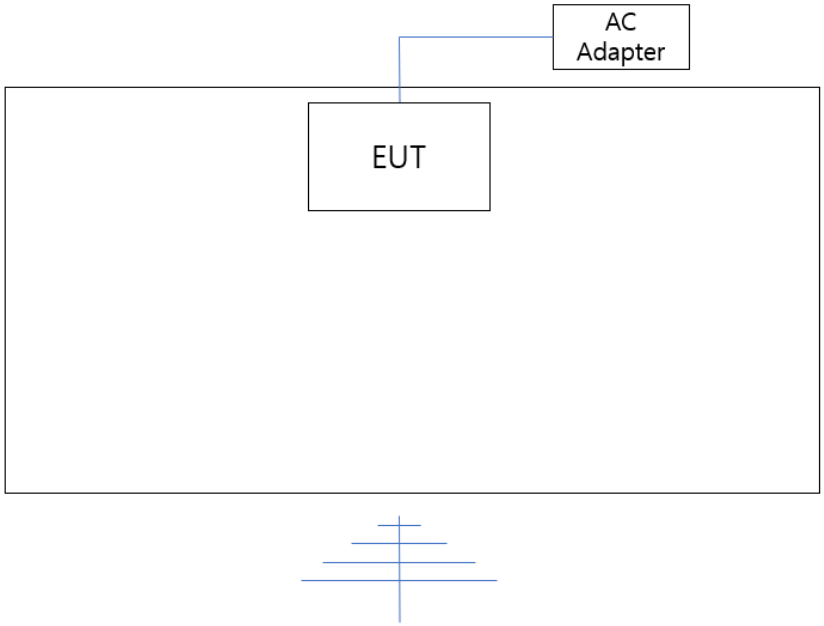
U-NII 2c&3 Band (40 MHz)		Power Level Setting	
Frequency (MHz)	Channel	802.11n HT40	802.11ac VHT40
5710	142	-9	-9

U-NII 2c&3 Band (80 MHz)		Power Level Setting
Frequency (MHz)	Channel	802.11ac VHT80
5690	138	-10

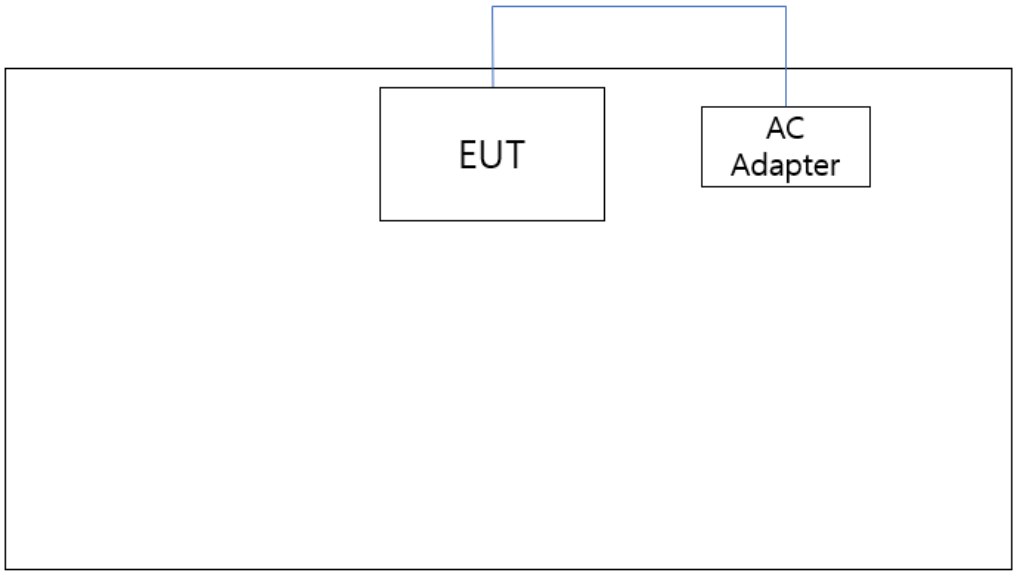
Note:
1. Straddle channels: U-NII 2c and U-NII 3 bands

TEST CONFIGURATION

Radiated Emission



Conducted Emission



LIST OF SUPPORT EQUIPMENT

Equipment Type	Model No.	Serial No.	Manufacturer	Qty	Note
EUT AC Adapter	AQ27A-59CFA	-	PHIHONG TECH CO LTD	1	

9. TEST RESULT

9.1 DUTY CYCLE

Duty cycle is 100 % continuous.

9.2 6 dB BANDWIDTH / 26 dB BANDWIDTH / 99% BANDWIDTH

U-NII 2 Band (20 MHz)			99% Bandwidth (MHz)	26 dB Bandwidth (MHz)
Mode	Frequency (MHz)	Channel		
802.11a	5260	52	16.739	21.59
	5280	56	16.677	21.52
	5320	64	16.757	21.44
	5500	100	16.720	21.27
	*5600	*120	16.713	23.31
	5700	140	16.762	23.27
802.11n HT20	5260	52	17.829	21.68
	5280	56	17.863	21.58
	5320	64	17.869	21.62
	5500	100	17.862	21.53
	*5600	*120	17.874	21.70
	5700	140	17.845	21.41

U-NII 2 Band (40 MHz)			99% Bandwidth (MHz)	26 dB Bandwidth (MHz)
Mode	Frequency (MHz)	Channel		
802.11n HT40	5270	54	36.462	53.85
	5310	62	36.428	48.54
	5510	102	36.325	39.75
	*5590	*118	36.351	41.66
	5670	134	36.363	46.04

U-NII 2 Band (80 MHz)			99% Bandwidth (MHz)	26 dB Bandwidth (MHz)
Mode	Frequency (MHz)	Channel		
802.11ac VHT80	5290	58	76.139	103.44
	5530	106	75.893	81.54
	*5610	*122	75.890	82.84

Note:
*Channels 120 (5600 MHz), 118 (5590 MHz) and 122 (5610 MHz) are unsupported and will be disabled.

Straddle Channel: U-NII 2c/3 Bands (20 MHz)				99% Bandwidth (MHz)	26 dB Bandwidth (MHz)
Mode	Frequency (MHz)	Channel	Band		
802.11a	5720	144	U-NII 2c	13.848	19.30
	5720	144	U-NII 3	8.108	6.70
802.11n HT20	5720	144	U-NII 2c	14.019	15.94
	5720	144	U-NII 3	5.284	5.925

Straddle Channel: U-NII 2c/3 Bands (40 MHz)				99% Bandwidth (MHz)	26 dB Bandwidth (MHz)
Mode	Frequency (MHz)	Channel	Band		
802.11n HT40	5710	142	U-NII 2c	33.217	46.44
	5710	142	U-NII 3	13.367	19.54

Straddle Channel: U-NII 2c/3 Bands (80 MHz)				99% Bandwidth (MHz)	26 dB Bandwidth (MHz)
Mode	Frequency (MHz)	Channel	Band		
802.11ac VHT80	5690	138	U-NII 2c	72.900	102.31
	5690	138	U-NII 3	15.660	20.0

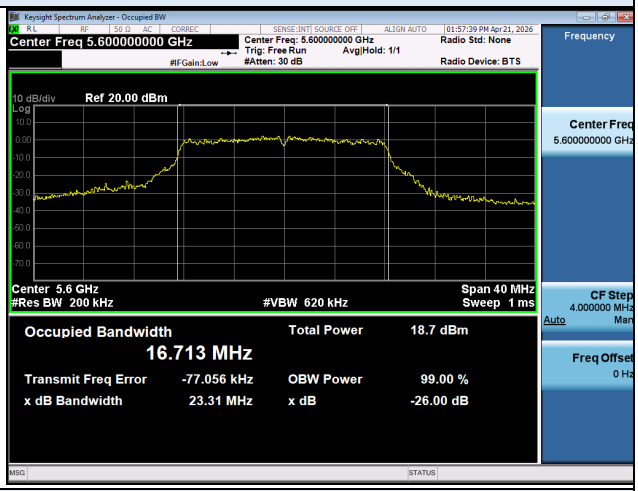
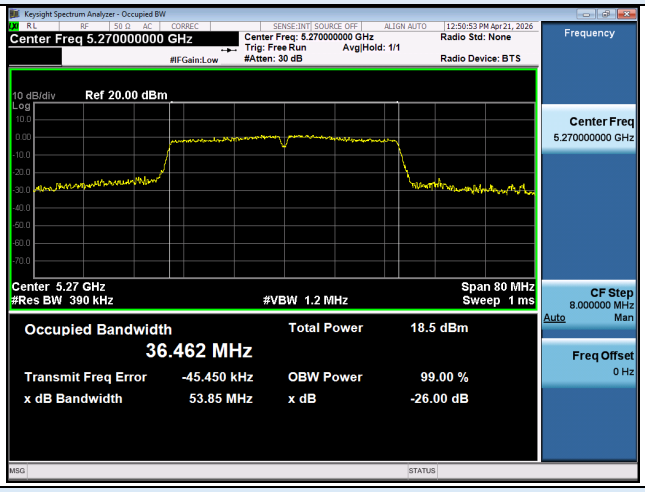
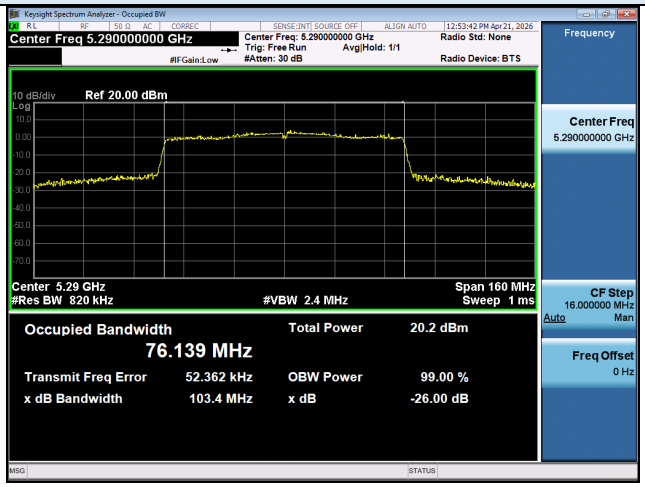
Straddle Channel: U-NII 2c/3 Bands (20 MHz)			6 dB Bandwidth (MHz)	Limit
Mode	Frequency (MHz)	Channel		
802.11a	5720	144	3.198	≥ 0.5
802.11n HT20	5720	144	3.815	

Straddle Channel: U-NII 2c/3 Bands (40 MHz)			6 dB Bandwidth (MHz)	Limit
Mode	Frequency (MHz)	Channel		
802.11n HT40	5710	142	3.197	≥ 0.5

Straddle Channel: U-NII 2c/3 Bands (80 MHz)			6 dB Bandwidth (MHz)	Limit
Mode	Frequency (MHz)	Channel		
802.11ac VHT80	5690	138	3.195	≥ 0.5

Note:
The straddle channel overlaps with the UNII-3 band; therefore, the 6 dB bandwidth was measured.

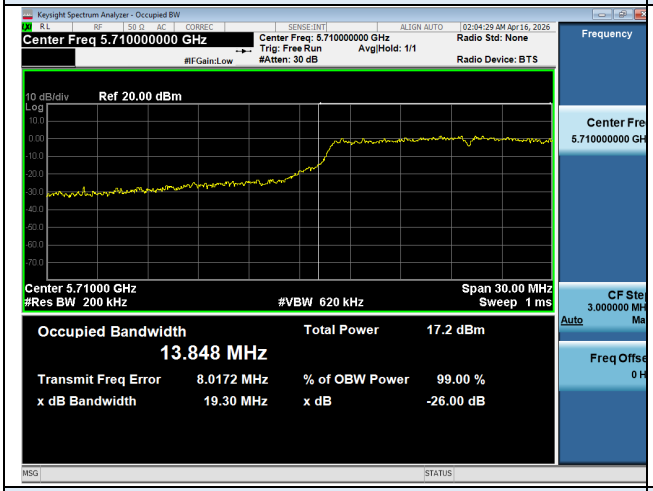
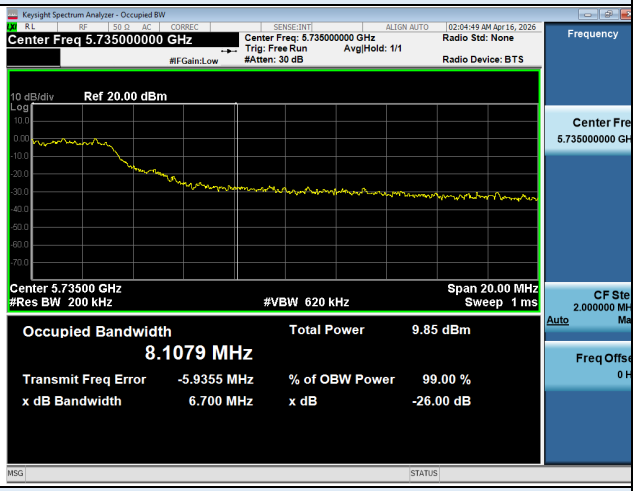
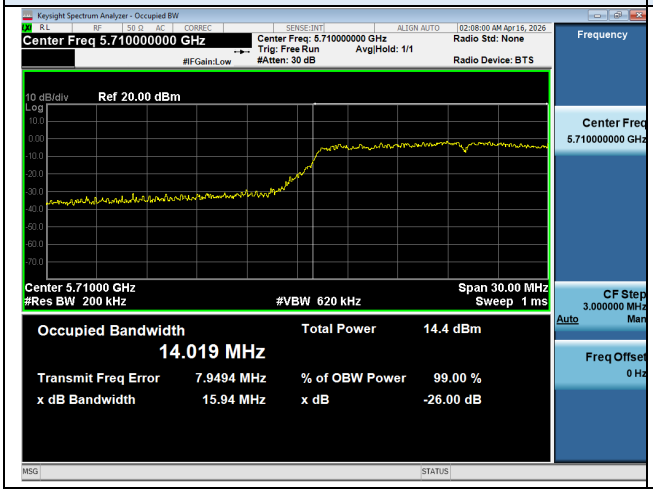
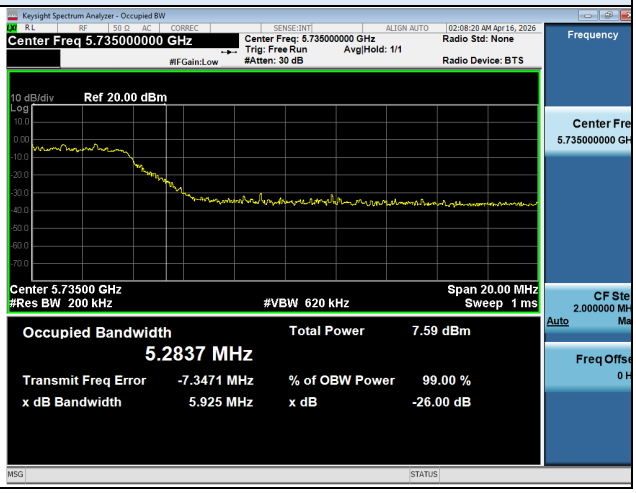
▣ TEST PLOTS (UNII-2a & UNII-2c)

99% Bandwidth	26 dB Bandwidth
802.11n HT20 (CH 64: 5320 MHz)	802.11a (CH 120: 5600 MHz)
	
802.11n HT40 (CH 54: 5270 MHz)	
	
802.11an VHT80 (CH 58: 5290 MHz)	
	

Note:

1. The worst plots are reported for each bandwidth mode.
2. Channel 120 (5600 MHz) is unsupported and will be disabled.

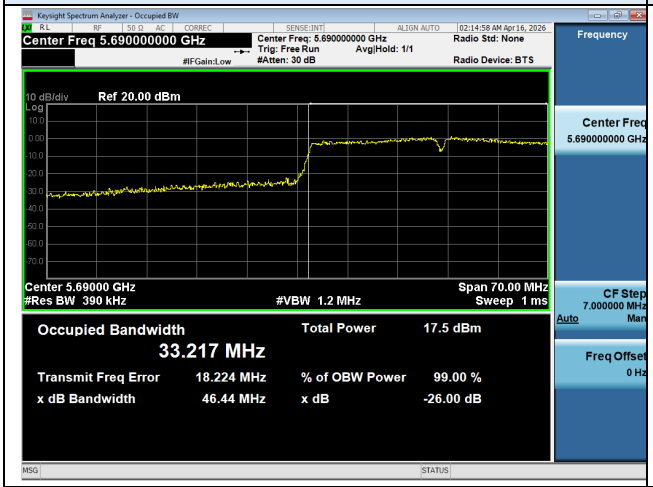
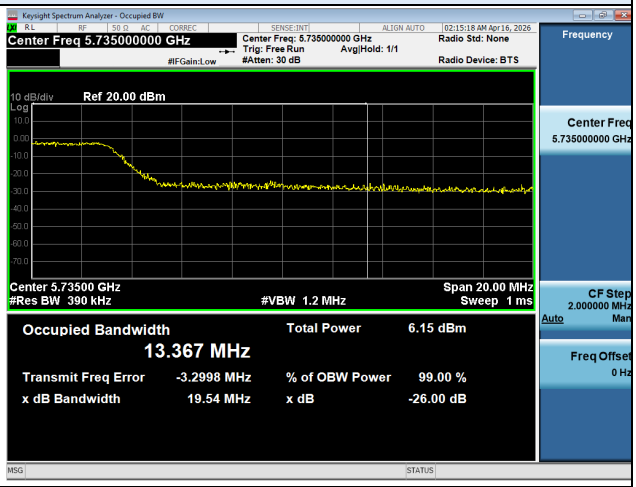
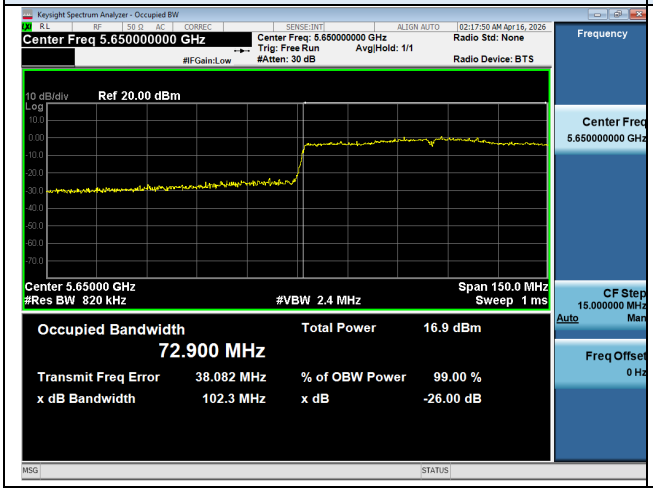
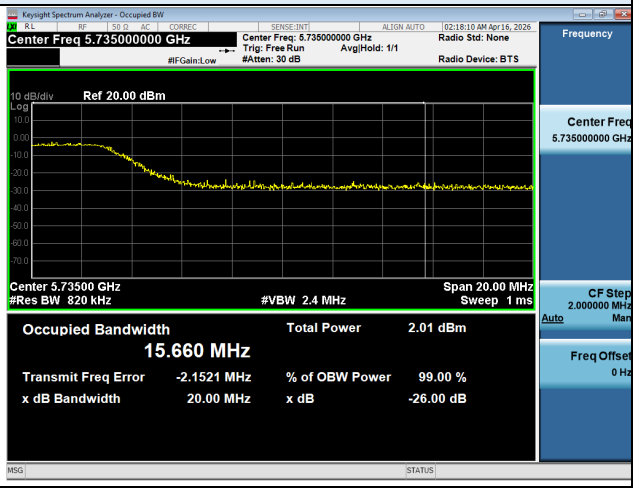
▣ TEST PLOTS (Straddle Channels)

26 dB Bandwidth / 99% Bandwidth	
802.11a (CH 144: 5720 MHz) in U-NII 2c	802.11a (CH 144: 5720 MHz) in U-NII 3
	
802.11n HT20 (CH 144: 5720 MHz) in U-NII 2c	802.11n HT20 (CH 144: 5720 MHz) in U-NII 3
	

Note:

1. The worst plots are reported for each bandwidth mode.

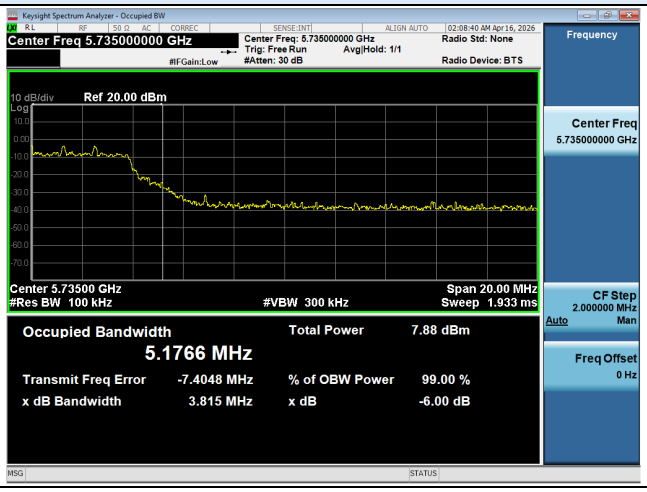
▣ TEST PLOTS

(Straddle Channels) 26 dB Bandwidth / 99% Bandwidth	
802.11n HT40 (CH 142: 5710 MHz) in U-NII 2c	802.11n HT40 (CH 142: 5710 MHz) in U-NII 3
	
802.11ac VHT80 (CH 138: 5690 MHz) in U-NII 2c	802.11ac VHT80 (CH 138: 5690 MHz) in U-NII 3
	

Note:

1. The worst plots are reported for each bandwidth mode.

▣ TEST PLOTS

(Straddle Channels) 6 dB Bandwidth
802.11n HT20 (CH 144: 5720 MHz)


Note:

1. The worst plots are reported for each bandwidth mode.

9.3 OUTPUT POWER

U-NII 2 Band (20 MHz)				Test Result	Limit (dBm)
Mode	Frequency (MHz)	Channel	Date Rate	Total Power (dBm)	
802.11a	5260	52	6 Mbps	10.903	23.24
	5280	56	6 Mbps	10.853	23.22
	5320	64	6 Mbps	11.069	23.24
	5500	100	6 Mbps	12.360	23.23
	5580	116	6 Mbps	11.570	23.23
	5700	140	6 Mbps	11.020	23.24
802.11n HT20	5260	52	MCS0	9.890	23.51
	5280	56	MCS0	10.015	23.52
	5320	64	MCS0	10.075	23.52
	5500	100	MCS0	11.240	23.52
	5580	116	MCS0	10.598	23.52
	5700	140	MCS0	8.035	23.52

Note:

1. Conducted Output Power Limit
   The limit was calculated to be 99 % according to the ISED rule, which is a worst-case limit,
   - Min [10 log(250mW) =23.98, 11+10 log (OBW)] dBm

2. Duty factor is not applied since the duty cycle is 100%.
3. Total Power = Measured Power + Duty Factor

U-NII 2 Band (40 MHz)				Test Result	Limit (dBm)
Mode	Frequency (MHz)	Channel	Date Rate	Total Power (dBm)	
802.11n HT40	5270	54	MCS0	10.951	23.98
	5310	62	MCS0	11.178	23.98
	5510	102	MCS0	10.468	23.98
	*5590	*118	MCS0	10.946	23.98
	5670	134	MCS0	10.275	23.98

U-NII 2 Band (80 MHz)				Test Result	Limit (dBm)
Mode	Frequency (MHz)	Channel	Date Rate	Total Power (dBm)	
802.11ac VHT80	5290	58	MCS0	12.27	23.98
	5530	106	MCS0	9.573	23.98
	*5610	*122	MCS0	8.967	23.98

Note:

1. Conducted Output Power Limit
   The limit was calculated to be 99 % according to the ISED rule, which is a worst-case limit,
   - Min [10 log(250mW) =23.98, 11+10 log (OBW)] dBm

2. Duty factor is not applied since the duty cycle is 100%.
3. Total Power = Measured Power + Duty Factor
4. *Channels 118 (5590 MHz) and 122 (5610 MHz) are unsupported and will be disabled.

Straddle Channel: U-NII 2c/3 Bands (20 MHz)					Test Result	Limit (dBm)
Mode	Frequency (MHz)	Channel	Band	Data Rate	Total Power (dBm)	
802.11a	5720	144	U-NII 2c	6 Mbps	10.407	22.41
	5720	144	U-NII 3	6 Mbps	3.054	30
	5720	144	Combined		11.14	-
802.11n HT20	5720	144	U-NII 2c	MCS0	7.248	22.46
	5720	144	U-NII 3	MCS0	0.541	30
	5720	144	Combined		8.088	-

Straddle Channel: U-NII 2c/3 Bands (40 MHz)					Test Result	Limit (dBm)
Mode	Frequency (MHz)	Channel	Band	Data Rate	Total Power (dBm)	
802.11n HT40	5710	142	U-NII 2c	MCS0	10.173	23.98
	5710	142	U-NII 3	MCS0	-0.798	30
	5710	142	Combined		10.507	-

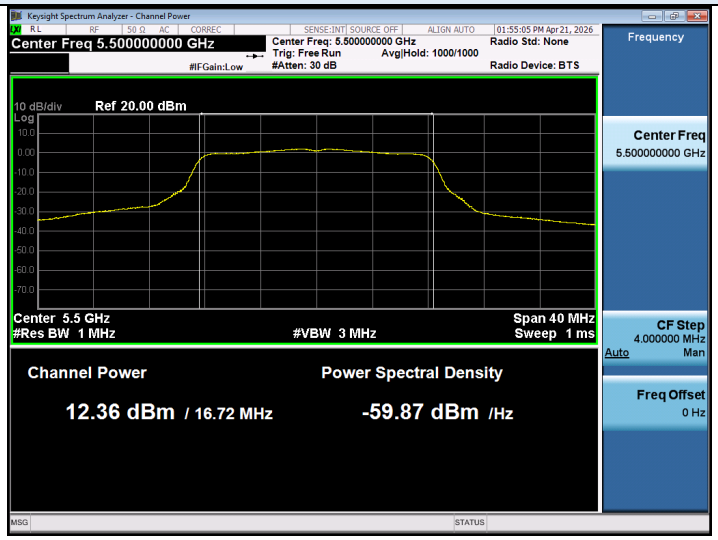
Straddle Channel: U-NII 2c/3 Bands (80 MHz)					Test Result	Limit (dBm)
Mode	Frequency (MHz)	Channel	Band	Data Rate	Total Power (dBm)	
802.11ac VHT80	5690	138	U-NII 2c	MCS0	8.789	23.98
	5690	138	U-NII 3	MCS0	-5.652	30
	5690	138	Combined		8.942	-

Note:

1. Conducted Output Power Limit
   The limit was calculated to be 99 % according to the ISED rule, which is a worst-case limit,
   - U-NII 2C: Min [10 log(250mW), 11+10 log (OBW)] dBm
   - U-NII 3: 1 W (30 dBm)

2. Duty factor is not applied since the duty cycle is 100%.
3. Total Power = Measured Power + Duty Factor

▣ TEST PLOTS

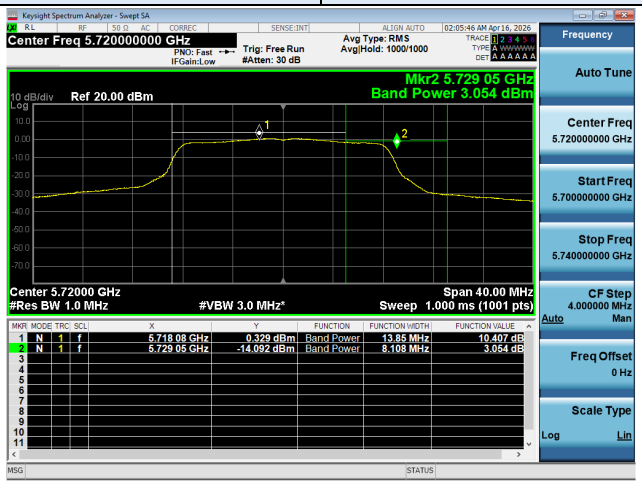
Output Power
802.11a (CH 100: 5500 MHz)


Note:

1. The worst plots are reported for each bandwidth mode.

▣ TEST PLOTS(Straddle)

Output Power	
802.11a (CH 144: 5720 MHz) in U-NII 2c	802.11a (CH 144: 5720 MHz) in U-NII 3



Note:

1. The worst plots are reported for each bandwidth mode.

9.4 POWER SPECTRAL DENSITY

U-NII 2 Band (20 MHz)				Test Result	Limit (dBm/MHz)
Mode	Frequency (MHz)	Channel	Date Rate	Total PSD (dBm/MHz)	
802.11a	5260	52	6 Mbps	0.852	11
	5280	60	6 Mbps	0.851	11
	5320	64	6 Mbps	0.973	11
	5500	100	6 Mbps	2.080	11
	5580	116	6 Mbps	1.691	11
	5700	140	6 Mbps	1.027	11
802.11n HT20	5260	52	MCS0	-0.442	11
	5280	60	MCS0	-0.190	11
	5320	64	MCS0	-0.246	11
	5500	100	MCS0	0.853	11
	5580	116	MCS0	0.384	11
	5700	140	MCS0	-2.104	11

U-NII 2 Band (40 MHz)				Test Result	Limit (dBm/MHz)
Mode	Frequency (MHz)	Channel	Date Rate	Total PSD (dBm/MHz)	
802.11n HT40	5270	54	MCS0	-2.229	11
	5310	62	MCS0	-2.273	11
	5510	102	MCS0	-2.876	11
	*5590	*118	MCS0	-2.458	11
	5670	134	MCS0	-3.236	11

U-NII 2 Band (80 MHz)				Test Result	Limit (dBm/MHz)
Mode	Frequency (MHz)	Channel	Date Rate	Total PSD (dBm/MHz)	
802.11ac VHT80	5290	58	MCS0	-3.995	11
	5530	106	MCS0	-6.398	11
	*5610	*122	MCS0	-7.697	11

Note:

1. Conducted PSD limit: 11 dBm/MHz – Δ (G_{ANT} exceeding from 6 dBi)
2. G_{ANT} = 1.87 dBi
3. Duty factor is not applied since the duty cycle is 100 %.
4. Total PSD = Measured PSD + Duty Factor
5. *Channels 118 (5590 MHz) and 122 (5610 MHz) are unsupported and will be disabled.

Straddle Channel: U-NII 2c/3 Bands (20 MHz)					Test Result	Limit (dBm/MHz) (dBm/500kHz)
Mode	Frequency (MHz)	Channel	Date Rate	Band	Total PSD (dBm/MHz)	
802.11a	5720	144	U-NII 2c	6 Mbps	0.995	11
	5720	144	U-NII 3	6 Mbps	-4.256	30
802.11n HT20	5720	144	U-NII 2c	MCS0	-2.208	11
	5720	144	U-NII 3	MCS0	-7.415	30

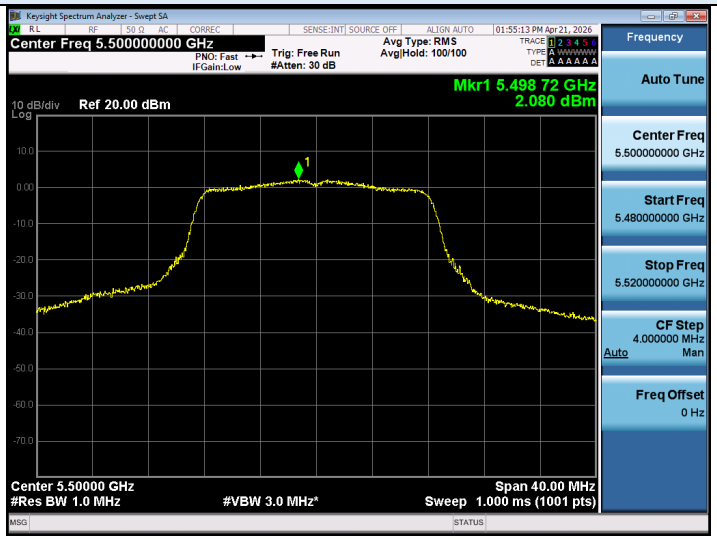
Straddle Channel: U-NII 2c/3 Bands (40 MHz)					Test Result	Limit (dBm/MHz) (dBm/500kHz)
Mode	Frequency (MHz)	Channel	Date Rate	Band	Measured PSD (dBm/MHz)	
802.11n HT40	5710	142	U-NII 2c	MCS0	-2.947	11
	5710	142	U-NII 3	MCS0	-8.290	30

Straddle Channel: U-NII 2c/3 Bands (80 MHz)					Test Result	Limit (dBm/MHz) (dBm/500kHz)
Mode	Frequency (MHz)	Channel	Date Rate	Band	Measured PSD (dBm/MHz)	
802.11ac VHT80	5690	138	U-NII 2c	MCS0	-7.279	11
	5690	138	U-NII 3	MCS0	-12.837	30

Note:

1. Conducted PSD limit:
   - U-NII 2: 11 dBm/MHz – Δ(G_{ANT} exceeding from 6 dBi)
   - U-NII 3: 30 dBm/500kHz – Δ(G_{ANT} exceeding from 6 dBi)
2. U-NII 2 G_{ANT} = 1.87 dBi / U-NII 2 G_{ANT} = 2.11 dBi
3. Duty factor is not applied since the duty cycle is 100 %.
4. Total PSD = Measured PSD + Duty Factor

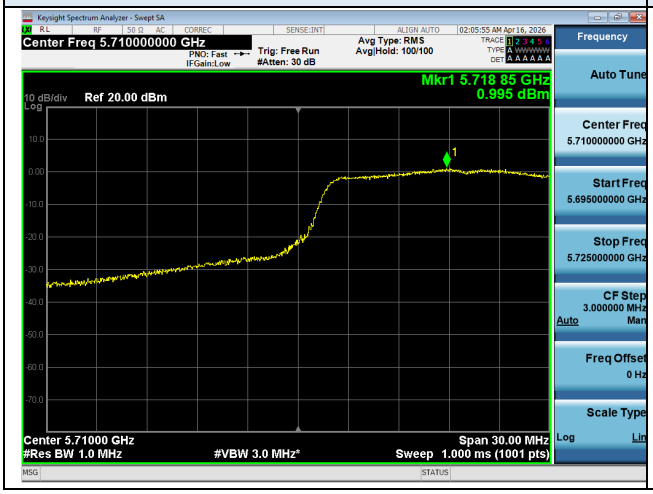
▣ TEST PLOTS (U-NII 2)

Power Spectral Density
802.11a (CH 100: 5500 MHz)


Note:

1. The worst plots are reported for test result

▣ TEST PLOTS (Straddle)

Power Spectral Density	
802.11a (CH 144: 5720 MHz) in U-NII 2c	802.11a (CH 144: 5720 MHz) in U-NII 3
	

Note:

1. The worst plots are reported for test result

9.5 RADIATED SPURIOUS EMISSIONS

Frequency Range: Below 1 GHz

Test Mode 802.11a: TX mode
Operating Frequency 5260 MHz (CH 52)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11a: TX mode
Operating Frequency 5280 MHz (CH 56)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11a: TX mode
Operating Frequency 5280 MHz (CH 56)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11a: TX mode
Operating Frequency 5320 MHz (CH 64)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11a: TX mode
Operating Frequency 5500 MHz (CH 100)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11a: TX mode
Operating Frequency 5580 MHz (CH 116)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11a: TX mode
Operating Frequency 5700 MHz (CH 140)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11n HT20: TX mode
Operating Frequency 5260 MHz (CH 52)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11n HT20: TX mode
Operating Frequency 5280 MHz (CH 56)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11n HT20: TX mode
Operating Frequency 5320 MHz (CH 64)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11n HT20: TX mode
Operating Frequency 5500 MHz (CH 100)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11n HT20: TX mode
Operating Frequency 5580 MHz (CH 116)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11n HT20: TX mode
Operating Frequency 5700 MHz (CH 140)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11n HT40: TX mode
Operating Frequency 5270 MHz (CH 54)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11n HT40: TX mode
Operating Frequency 5310 MHz (CH 62)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11n HT40: TX mode
Operating Frequency 5510 MHz (CH 102)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11n HT40: TX mode
Operating Frequency *5590 MHz (CH 118)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11n HT40: TX mode
Operating Frequency 5670 MHz (CH 134)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11ac80: TX mode
Operating Frequency 5290 MHz (CH 58)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11ac80: TX mode
Operating Frequency 5530 MHz (CH 106)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Test Mode 802.11ac80: TX mode
Operating Frequency *5610 MHz (CH 122)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
No major peaks found							

Note:
1. Correction Factor: Antenna Factor + Cable loss + Preamplifier Gain
2. Channels 118 (5590 MHz) and 122 (5610 MHz) are unsupported and will be disabled.

Frequency Range: Above 1 GHz

Test Mode 802.11a: TX mode
Operating Frequency 5260 MHz (CH 52)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
10 519.800	V	52.200	59.87	-6.38	-	45.82	53.49	54	68.2	8.18	14.71
10 520.000	H	51.21	62.38	-6.41	-	44.8	55.97	54	68.2	9.20	12.23
15 781.500	H	54.71	68.95	-4.24	-	50.47	64.71	54	74	3.53	9.29
15 782.100	V	51.31	65.48	-4.04	-	47.27	61.44	54	74	6.73	12.56

Test Mode 802.11a: TX mode
Operating Frequency 5280 MHz (CH 56)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
10 560.000	V	54.24	61.94	-6.33	-	47.91	55.61	54	68.2	6.09	12.59
10 563.900	H	49.61	62.46	-6.34	-	43.27	56.12	54	68.2	10.73	12.08
15 841.800	V	55.06	68.76	-4.04	-	51.02	64.72	54	74	2.98	9.28
15 843.300	H	53.85	68.72	-4.24	-	49.61	64.48	54	74	4.39	9.52

Test Mode 802.11a: TX mode
Operating Frequency 5320 MHz (CH 64)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
10 639.900	V	52.57	61.15	-6.21	-	46.36	54.94	54	74	7.64	19.06
10 640.100	H	54.38	64.60	-6.20	-	48.18	58.40	54	74	5.82	15.60
15 962.600	V	51.13	63.76	-4.08	-	47.05	59.68	54	74	6.95	14.32
15 964.100	H	54.63	67.61	-4.27	-	50.36	63.34	54	74	3.64	10.66

Test Mode 802.11a: TX mode
Operating Frequency 5500 MHz (CH 100)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
11 000.100	V	57.02	64.98	-5.76	-	51.26	59.22	54	74	2.74	14.78
11 002.400	H	49.78	62.10	-5.85	-	43.93	56.25	54	74	10.07	17.75
16 495.400	V	50.53	64.60	-5.61	-	44.92	58.99	54	68.2	9.08	9.21
16 496.600	H	47.55	61.77	-5.88	-	41.67	55.89	54	68.2	12.33	12.31

Test Mode 802.11a: TX mode
Operating Frequency 5580 MHz (CH 116)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
11 163.100	V	47.23	61.36	-5.85	-	41.38	55.51	54	74	12.62	18.49
11 163.800	H	47.01	62.03	-5.89	-	41.12	56.14	54	74	12.88	17.86
16 740.000	H	52.06	67.44	-6.33	-	45.73	61.11	54	68.2	8.27	7.09
16 753.500	V	44.54	57.50	-5.98	-	38.56	51.52	54	68.2	15.44	16.68

Test Mode 802.11a: TX mode
Operating Frequency 5700 MHz (CH 140)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
11 400.200	H	53.18	62.57	-5.78	-	47.40	56.79	54	74	6.60	17.21
11 401.500	V	48.80	62.40	-5.69	-	43.11	56.71	54	74	10.89	17.29
17 101.400	V	51.18	66.34	-5.58	-	45.60	60.76	54	68.2	8.40	7.44
17 101.900	H	53.07	68.75	-5.77	-	47.30	62.98	54	68.2	6.70	5.22

Test Mode 802.11n HT20: TX mode
Operating Frequency 5260 MHz (CH 52)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
10 519.800	V	49.91	59.59	-6.38	-	43.53	53.21	54	68.2	10.47	14.99
10 520.300	H	50.90	62.13	-6.41	-	44.49	55.72	54	68.2	9.51	12.48
15 774.400	V	50.06	64.73	-4.17	-	45.89	60.56	54	74	8.11	13.44
15 783.800	H	54.25	69.81	-4.30	-	49.95	65.51	54	74	4.05	8.49

Test Mode 802.11n HT20: TX mode
Operating Frequency 5280 MHz (CH 56)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
10 560.200	V	51.70	60.03	-6.33	-	45.37	53.70	54	68.2	8.63	14.50
10 560.400	H	51.02	62.2	-6.34	-	44.68	55.86	54	68.2	9.32	12.34
15 843.500	V	49.58	64.02	-4.03	-	45.55	59.99	54	74	8.45	14.01
15 845.500	H	53.57	68.62	-4.25	-	49.32	64.37	54	74	4.68	9.63

Test Mode 802.11n HT20: TX mode

Operating Frequency 5320 MHz (CH 64)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
10 640.100	H	53.24	60.46	-6.2	-	47.04	54.26	54	74	6.96	19.74
10 640.100	V	46.48	57.55	-6.2	-	40.28	51.35	54	74	13.72	22.65
15 955.100	V	49.97	64.00	-4.08	-	45.89	59.92	54	74	8.11	14.08
15 959.100	H	48.01	62.62	-4.22	-	43.79	58.4	54	74	10.21	15.60

Test Mode 802.11n HT20: TX mode

Operating Frequency 5500 MHz (CH 100)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
11 000.200	V	55.34	63.88	-5.76	-	49.58	58.12	54	74	4.42	15.88
11 000.300	H	53.04	62.54	-5.85	-	47.19	56.69	54	74	6.81	17.31
16 491.600	V	44.18	57.59	-5.62	-	38.56	51.97	54	68.2	15.44	16.23
16 503.300	H	51.79	66.56	-5.91	-	45.88	60.65	54	68.2	8.12	7.55

Test Mode 802.11n HT20: TX mode

Operating Frequency 5580 MHz (CH 116)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
11 159.900	H	53.13	61.20	-5.93	-	47.20	55.27	54	74	6.80	18.73
11 160.700	V	49.76	63.36	-5.90	-	43.86	57.46	54	74	10.14	16.54
16 737.500	V	46.16	62.40	-6.03	-	40.13	56.37	54	68.2	13.87	11.83
16 751.300	H	47.82	65.94	-6.25	-	41.57	59.69	54	68.2	12.43	8.51

Test Mode 802.11n HT20: TX mode

Operating Frequency 5700 MHz (CH 140)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
11 400.100	H	54.67	60.50	-5.78	-	48.89	54.72	54	74	5.11	19.28
11 400.100	V	49.89	59.27	-5.69	-	44.20	53.58	54	74	9.80	20.42
17 096.500	V	44.95	60.93	-5.6	-	39.35	55.33	54	68.2	14.65	12.87
17 099.100	H	45.16	62.52	-5.86	-	39.30	56.66	54	68.2	14.70	11.54

Test Mode 802.11n HT40: TX mode

Operating Frequency 5270 MHz (CH 54)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
10 539.900	V	50.75	59.89	-6.29	-	44.46	53.6	54	68.2	9.54	14.60
10 540.300	H	46.11	59.13	-6.31	-	39.80	52.82	54	68.2	14.20	15.38
15 803.200	H	50.65	64.69	-4.40	-	46.25	60.29	54	74	7.75	13.71
15 815.300	V	50.73	64.72	-4.10	-	46.63	60.62	54	74	7.37	13.38

Test Mode 802.11n HT40: TX mode

Operating Frequency 5310 MHz (CH 62)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
10 620.000	H	51.82	61.87	-6.26	-	45.56	55.61	54	74	8.44	18.39
10 620.300	V	53.25	61.03	-6.24	-	47.01	54.79	54	74	6.99	19.21
15 924.300	H	52.07	65.59	-4.18	-	47.89	61.41	54	74	6.11	12.59
15 942.300	V	48.93	63.64	-4.06	-	44.87	59.58	54	74	9.13	14.42

Test Mode 802.11n HT40: TX mode

Operating Frequency 5510 MHz (CH 102)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
11 019.900	V	54.11	61.89	-5.89	-	48.22	56.00	54	74	5.78	18.00
11 020.000	H	47.69	58.52	-5.97	-	41.72	52.55	54	74	12.28	21.45
16 541.600	H	45.70	58.67	-5.93	-	39.77	52.74	54	68.2	14.23	15.46
16 543.400	V	43.93	56.82	-5.70	-	38.23	51.12	54	68.2	15.77	17.08

Test Mode 802.11n HT40: TX mode

Operating Frequency 5590 MHz (CH 118)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
11 099.800	V	51.47	61.22	-5.79	-	45.68	55.43	54	74	8.32	18.57
11 100.100	H	54.82	61.44	-5.83	-	48.99	55.61	54	74	5.01	18.39
16 641.800	V	46.23	62.93	-5.88	-	40.35	57.05	54	68.2	13.65	11.15
16 642.400	H	47.22	65.25	-6.18	-	41.04	59.07	54	68.2	12.96	9.13

Note:

1. Correction Factor: Antenna Factor + Cable loss + Preamplifier Gain
2. Channel 118 (5590 MHz) are unsupported and will be disabled.

Test Mode 802.11n HT40: TX mode
Operating Frequency 5670 MHz (CH 134)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
11 340.000	V	49.80	60.45	-5.62	-	44.18	54.83	54	74	9.82	19.17
11 340.200	H	53.25	60.83	-5.67	-	47.58	55.16	54	74	6.42	18.84
17 002.900	H	47.67	64.24	-5.91	-	41.76	58.33	54	68.2	12.24	9.87
17 004.400	V	45.20	58.69	-5.64	-	39.56	53.05	54	68.2	14.44	15.15

Test Mode 802.11ac80: TX mode
Operating Frequency 5290 MHz (CH 58)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
10 580.100	V	51.74	60.34	-6.34	-	45.40	54.00	54	68.2	8.60	14.20
10 580.200	H	51.61	60.99	-6.34	-	45.27	54.65	54	68.2	8.73	13.55
15 851.100	V	50.03	63.24	-4.03	-	46.00	59.21	54	74	8.00	14.79
15 877.500	H	52.41	66.27	-4.24	-	48.17	62.03	54	74	5.83	11.97

Test Mode 802.11ac80: TX mode
Operating Frequency 5530 MHz (CH 106)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
11 060.100	H	54.46	61.12	-5.76	-	48.70	55.36	54	74	5.30	18.64
11 060.100	V	53.77	60.59	-5.69	-	48.08	54.90	54	74	5.92	19.10
16 593.100	H	43.75	56.26	-6.13	-	37.62	50.13	54	68.2	16.38	18.07
16 594.200	V	44.46	56.75	-5.83	-	38.63	50.92	54	68.2	15.37	17.28

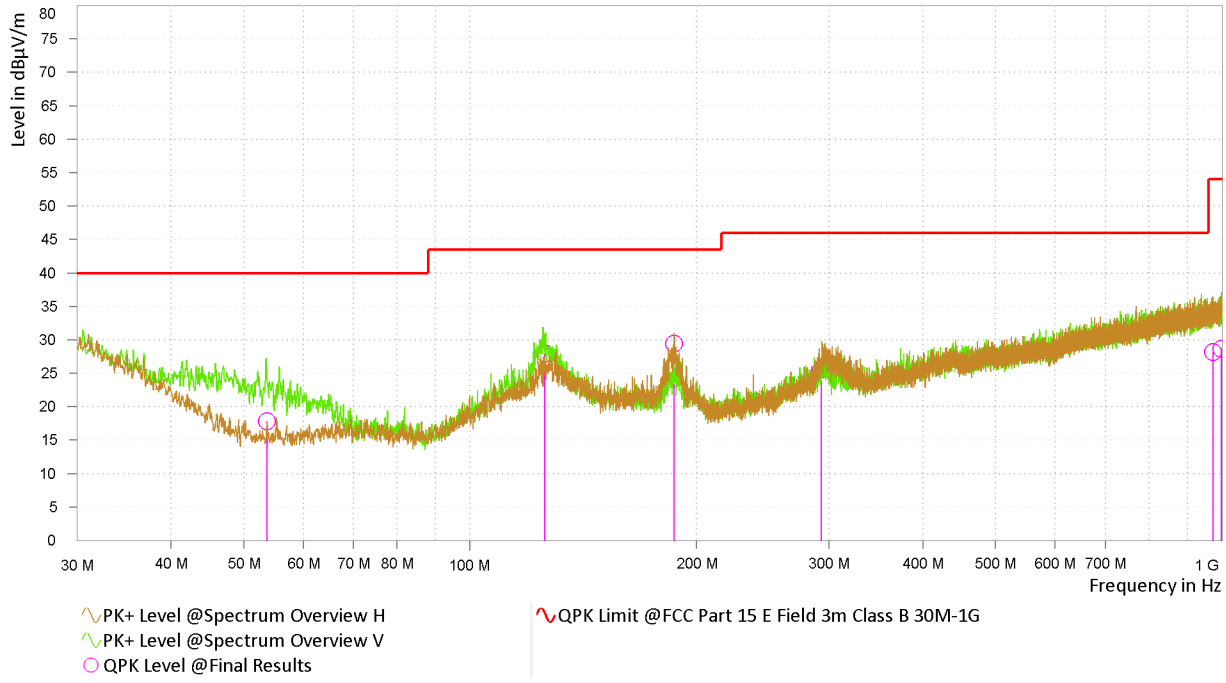
Test Mode 802.11ac80: TX mode
Operating Frequency 5610 MHz (CH 122)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
11 220.200	V	55.17	61.57	-5.81	-	49.36	55.76	54	74	4.64	18.24
11 220.300	H	53.47	60.22	-5.85	-	47.62	54.37	54	74	6.38	19.63
16 830.400	H	43.84	56.16	-6.09	-	37.75	50.07	54	68.2	16.25	18.13
16 834.500	V	43.66	56.11	-5.88	-	37.78	50.23	54	68.2	16.22	17.97

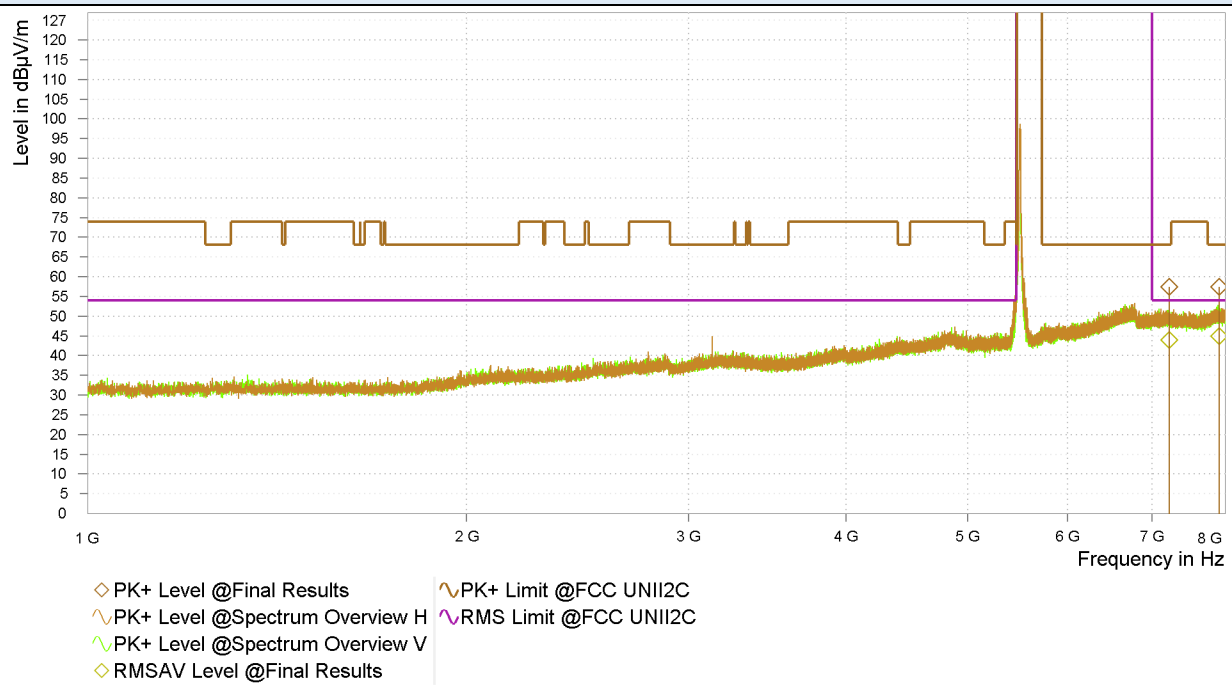
Note:
1. Correction Factor: Antenna Factor + Cable loss + Preamplifier Gain
2. Channel 122 (5610 MHz) are unsupported and will be disabled.

▣ TEST PLOTS

Radiated Spurious Emission 30 GHz - 1 GHz: 802.11a (CH 100)



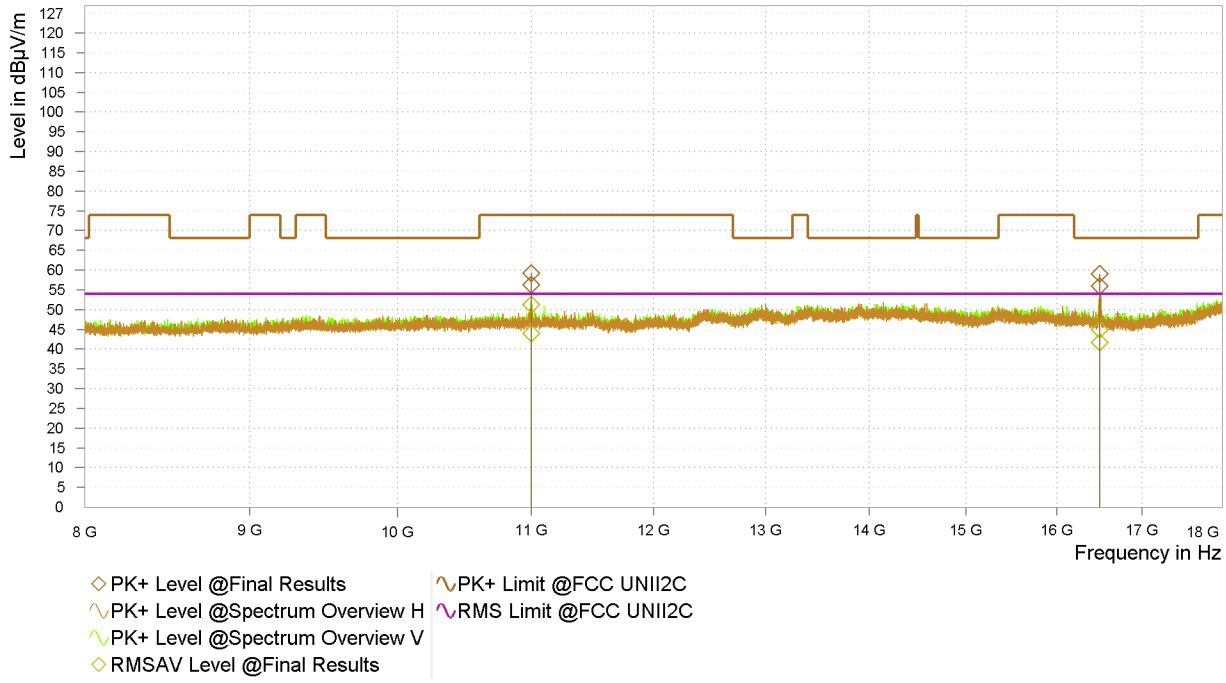
Radiated Spurious Emission 1 GHz - 8 GHz: 802.11a (CH 100)



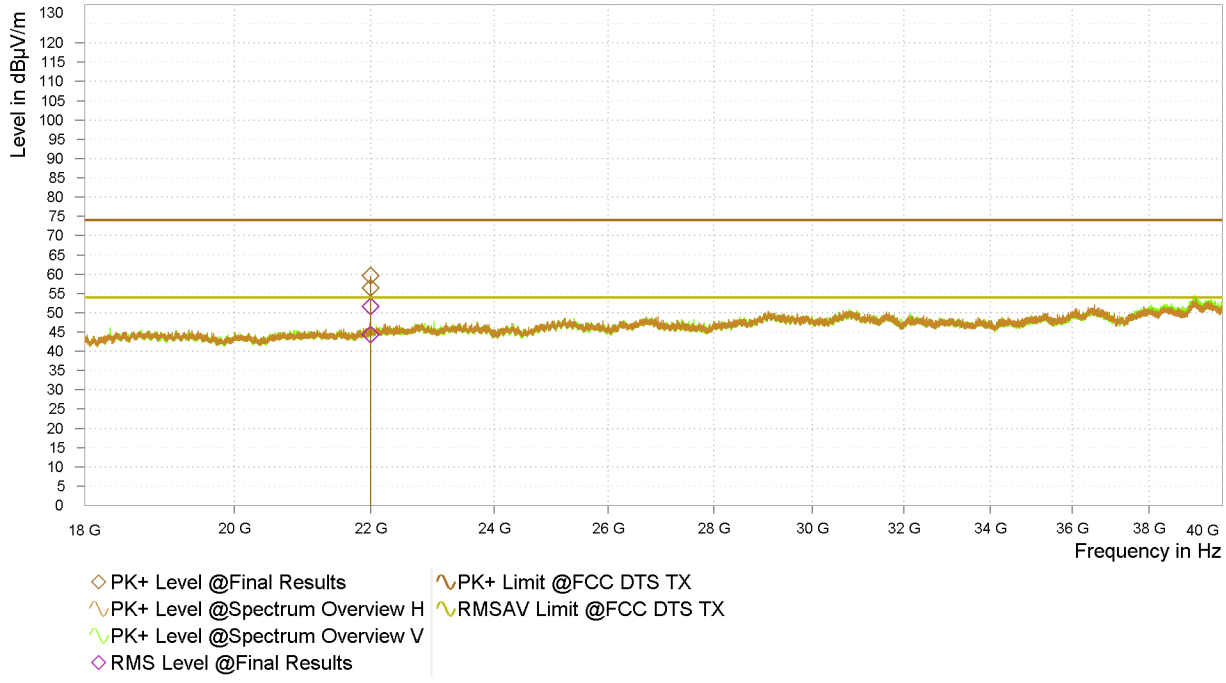
Note:

1. The plots include all used factor values for cables, antenna, preamplifier, etc.
2. All modes of operation were investigated, and the worst-case configuration results are reported in this section.

Radiated Spurious Emission 8 GHz - 18 GHz: 802.11a (CH 100)



Radiated Spurious Emission 18 GHz - 40 GHz: 802.11a (CH 100)



Note:

1. The plots include all used factor values for cables, antenna, preamplifier, etc.
2. All modes of operation were investigated and the worst-case configuration results are reported in this section.

9.6 RADIATED RESTRICTED BAND EDGES

Test Mode 802.11a: TX mode

Operating Frequency 5320 MHz (CH 64)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		AV	PK	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
5 352.434	H	41.70	61.87	0.54	-	42.24	62.41	54	74	11.76	11.59
5 357.116	V	37.17	53.86	0.51	-	37.68	54.37	54	74	16.32	19.63

Test Mode 802.11n HT20: TX mode

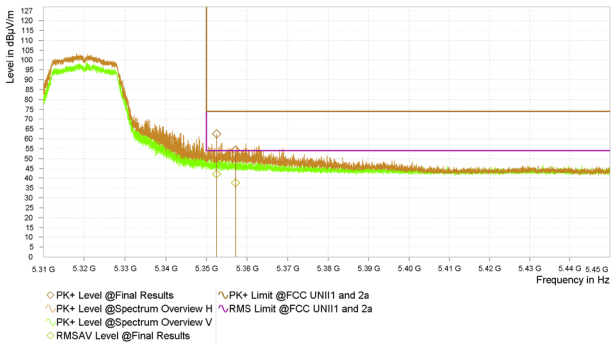
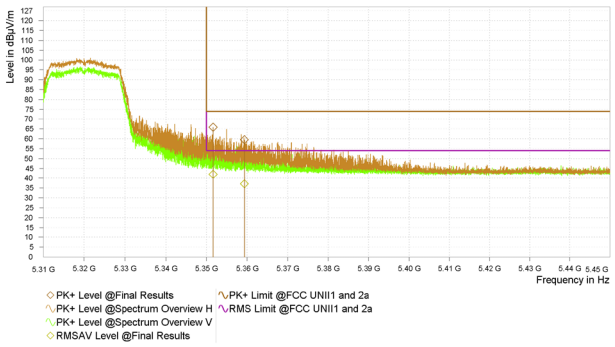
Operating Frequency 5320 MHz (CH 64)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		AV	PK	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
5 351.598	H	41.45	65.36	0.53	-	41.98	65.89	54	74	12.02	8.11
5 359.318	V	36.60	59.00	0.52	-	37.12	59.52	54	74	16.88	14.48

Note:

1. Correction Factor: Antenna Factor + Cable loss + Preamplifier Gain
2. Duty factor is not applied since the duty cycle is 100%.

▣ TEST PLOTS

Radiated Band Edges 802.11a (CH 64) - High	Radiated Band Edges 802.11n HT20 (CH 64) - High
	

Test Mode 802.11n HT40: TX mode

Operating Frequency 5310 MHz (CH 62)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		AV	PK	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
5350.222	H	47.00	67.85	0.54	-	47.54	68.39	54	74	6.46	5.61
5351.782	V	41.68	62.43	0.52	-	42.20	62.95	54	74	11.80	11.05

Test Mode 802.11ac VHT80: TX mode

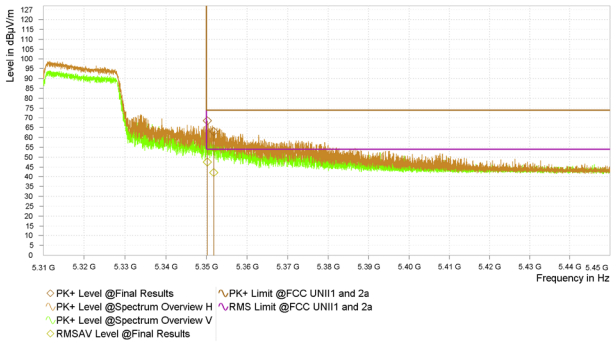
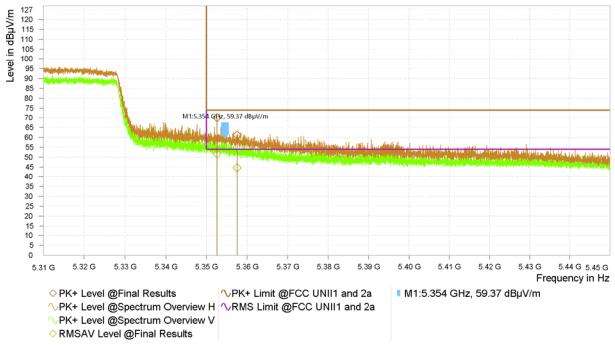
Operating Frequency 5290 MHz (CH 58)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		AV	PK	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
5352.584	H	51.15	69.58	0.54	-	51.69	70.12	54	74	2.31	3.88
5357.492	V	44.04	60.68	0.53	-	44.57	61.21	54	74	9.43	12.79

Note:

1. Correction Factor: Antenna Factor + Cable loss + Preamplifier Gain
2. Duty factor is not applied since the duty cycle is 100%.

▣ TEST PLOTS

Radiated Band Edges 802.11n HT40 (CH 62) - High	Radiated Band Edges 802.11ac VHT80 (CH 58) - High
	

Test Mode 802.11a: TX mode

Operating Frequency 5500 MHz (CH 100)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		AV	PK	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
5 455.288	H	39.83	58.42	0.79	-	40.62	59.21	54	74	13.38	14.79
5 459.530	V	38.86	56.24	0.62	-	39.48	56.86	54	74	14.52	17.14
5 463.656	H	-	63.40	0.81	-	-	64.21	-	68.2	-	3.99
5 464.390	V	-	58.53	0.67	-	-	59.2	-	68.2	-	9.00

Test Mode 802.11a: TX mode

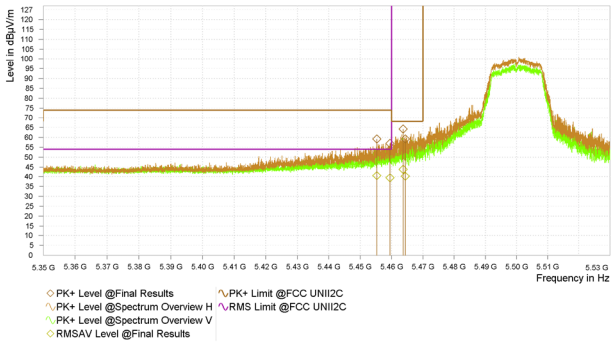
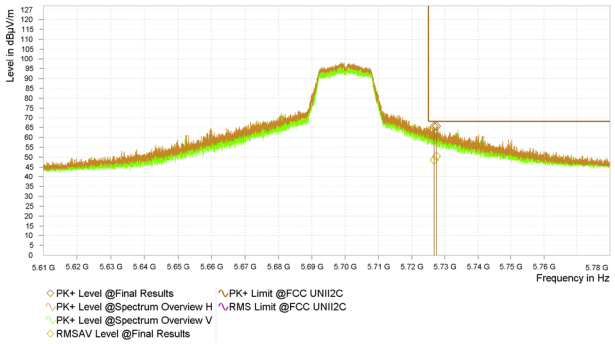
Operating Frequency 5700 MHz (CH 140)

Frequency (MHz)	Polarization	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		PK	Corr.[1)]	PK	PK	PK
5 726.819	V	63.90	1.67	65.57	68.2	2.63
5 727.554	H	63.85	1.84	65.69	68.2	2.51

Note:

1. Correction Factor: Antenna Factor + Cable loss + Preamplifier Gain
2. Duty factor is not applied since the duty cycle is 100%.

▣ TEST PLOTS

Radiated Band Edges 802.11a (CH 100) – Low	Radiated Band Edges 802.11a (CH 140) – High
	

Test Mode	802.11n HT20: TX mode
Operating Frequency	5500 MHz (CH 100)

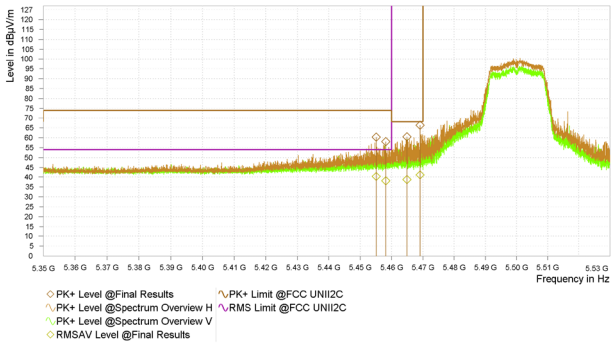
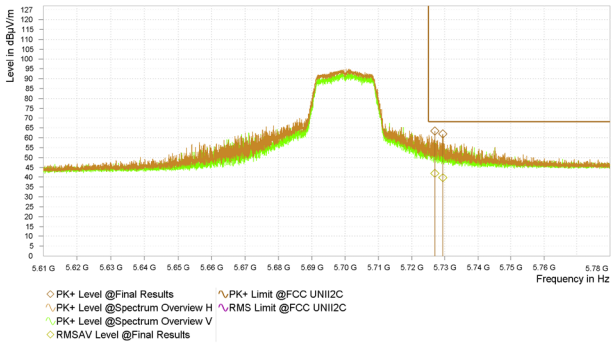
Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		AV	PK	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
5 455.158	H	39.53	59.55	0.79	-	40.32	60.34	54	74	13.68	13.66
5 458.207	V	37.51	57.39	0.64	-	38.15	58.03	54	74	15.85	15.97
5 464.934	V	-	59.77	0.65	-	-	60.42	-	68.2	-	7.78
5 469.039	H	-	65.54	0.87	-	-	66.41	-	68.2	-	1.79

Test Mode	802.11n HT20: TX mode
Operating Frequency	5700 MHz (CH 140)

Frequency (MHz)	Polarization	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		PK	Corr.[1)]	PK	PK	PK
5 727.007	V	61.79	1.67	63.46	68.2	4.74
5 729.430	H	60.16	1.83	61.99	68.2	6.21

Note:
1. Correction Factor: Antenna Factor + Cable loss + Preamplifier Gain
2. Duty factor is not applied since the duty cycle is 100%.

▣ TEST PLOTS

Radiated Band Edges 802.11n HT20 (CH 100)- Low	Radiated Band Edges 802.11n HT20 (CH 140) – High
	

Test Mode 802.11n HT40: TX mode
Operating Frequency 5510 MHz (CH 102)

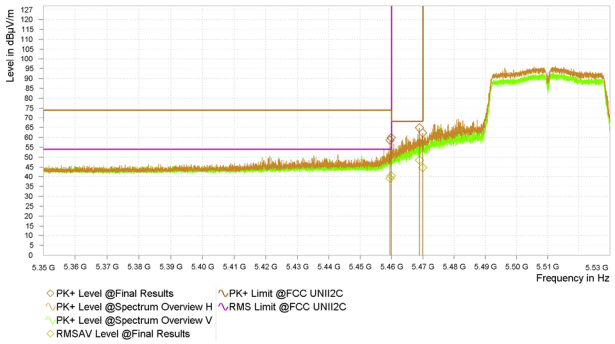
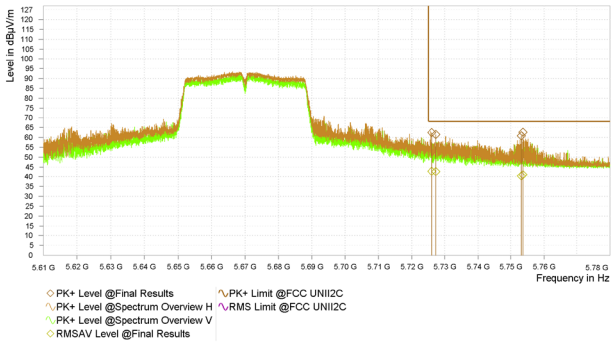
Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		AV	PK	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
5 459.474	V	38.47	57.88	0.62	-	39.09	58.5	54	74	14.91	15.50
5 459.948	H	39.75	59.04	0.77	-	40.52	59.81	54	74	13.48	14.19
5 468.855	H	-	64.08	0.86	-	-	64.94	-	68.2	-	3.26
5 469.844	V	-	61.59	0.68	-	-	62.27	-	68.2	-	5.93

Test Mode 802.11n HT40: TX mode
Operating Frequency 5670 MHz (CH 134)

Frequency (MHz)	Polarization	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		PK	Corr.[1)]	PK	PK	PK
5 753.685	H	60.64	1.99	62.63	68.2	5.57
5 727.333	V	59.77	1.67	61.44	68.2	6.76

Note:
1. Correction Factor: Antenna Factor + Cable loss + Preamplifier Gain
2. Duty factor is not applied since the duty cycle is 100%.

▣ TEST PLOTS

Radiated Band Edges 802.11n HT40 (CH 102) – Low	Radiated Band Edges 802.11n HT40 (CH 134) – High
	

Test Mode 802.11ac80: TX mode
Operating Frequency 5530 MHz (CH 106)

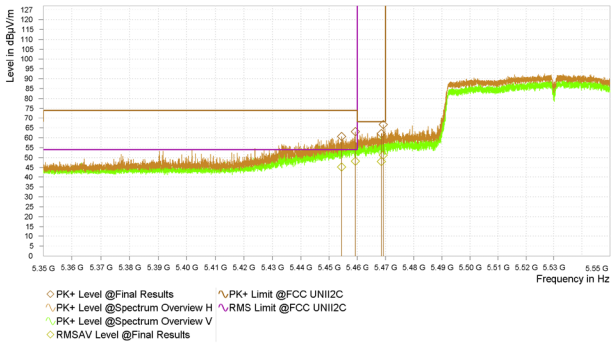
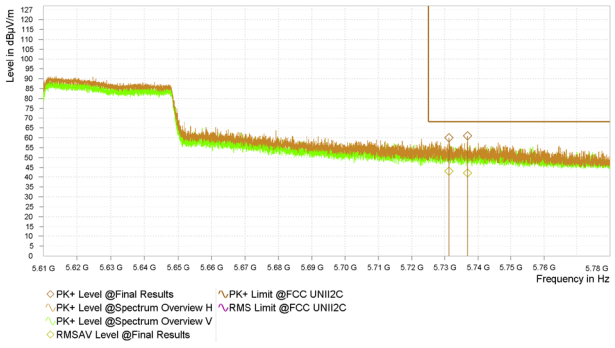
Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		AV	PK	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
5454.437	V	44.58	59.96	0.65	-	45.23	60.61	54	74	8.77	13.39
5459.329	H	47.35	62.32	0.76	-	48.11	63.08	54	74	5.89	10.92
5468.565	V	-	61.41	0.72	-	-	62.13	-	68.2	-	6.07
5469.243	H	-	65.83	0.85	-	-	66.68	-	68.2	-	1.52

Test Mode 802.11ac80: TX mode
Operating Frequency 5610 MHz (CH 122)

Frequency (MHz)	Polarization	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		PK	Corr.[1)]	PK	PK	PK
5731.239	H	58.09	1.86	59.95	68.2	8.25
5736.869	V	59.20	1.74	60.94	68.2	7.26

Note:
1. Correction Factor: Antenna Factor + Cable loss + Preamplifier Gain
2. Duty factor is not applied since the duty cycle is 100%.
3. Channel 122 (5610 MHz) is unsupported and will be disabled.

▣ TEST PLOTS

Radiated Band Edges 802.11ac VHT80 (CH 106) – Low	Radiated Band Edges 802.11ac VHT80 (CH 122) – High
	

Test Mode 802.11n HT40: TX mode

Operating Frequency 5550 MHz (CH 110)

Frequency (MHz)	Polarization	Reading (dBuV)		Factor (dB)		Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		AV	PK	Corr.[1)]	Duty	AV	PK	AV	PK	AV	PK
5 456.984	V	36.79	54.43	0.6	-	37.39	55.03	54	74	16.61	18.97
5 457.683	H	40.31	59.01	0.77	-	41.08	59.78	54	74	12.92	14.22
5 464.689	V	-	58.00	0.66	-	-	58.66	-	68.2	-	9.54
5 469.333	H	-	61.90	0.85	-	-	62.75	-	68.2	-	5.45

Test Mode 802.11n HT20: TX mode

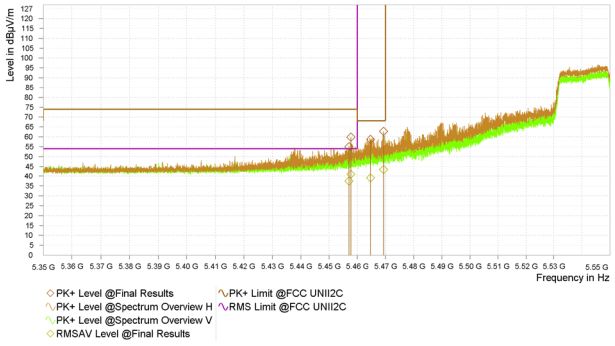
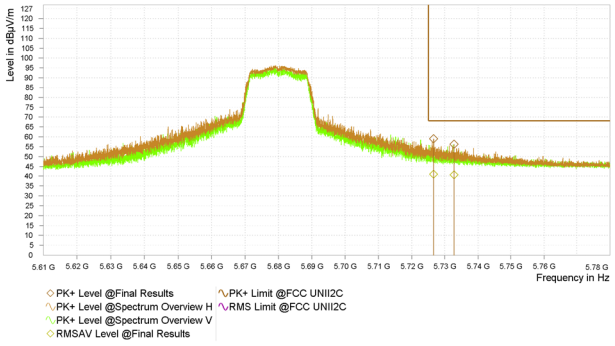
Operating Frequency 5680 MHz (CH 136)

Frequency (MHz)	Polarization	Reading (dBuV)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
		PK	Corr.[1)]	PK	PK	PK
5 726.656	H	57.25	1.84	59.09	68.2	9.11
5 732.769	V	54.62	1.68	56.30	68.2	11.9

Note:

1. Correction Factor: Antenna Factor + Cable loss + Preamplifier Gain
2. Duty factor is not applied since the duty cycle is 100 %.
3. Additional band edge tests were conducted due to change in power.

▣ TEST PLOTS

Radiated Band Edges 802.11n HT40 (CH 110) – Low	Radiated Band Edges 802.11n HT20 (CH 136) – High
	

9.7 POWERLINE CONDUCTED EMISSIONS

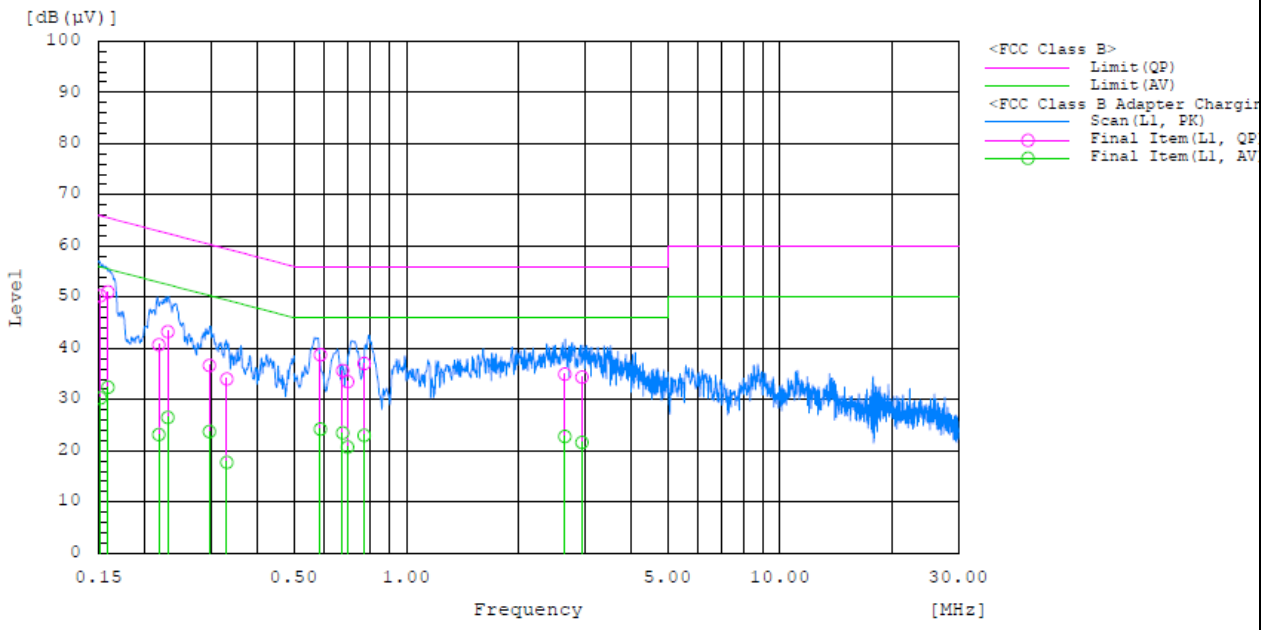
Frequency (MHz)	Line	Reading (dBµV)		Corr. [1] (dB)	Level (dBµV)		Limit (dBµV)		Margin (dB)	
		QP	CAV		QP	CAV	QP	CAV	QP	CAV
No major peaks found										

Frequency (MHz)	Line	Reading (dBµV)		Corr. [1] (dB)	Level (dBµV)		Limit (dBµV)		Margin (dB)	
		QP	CAV		QP	CAV	QP	CAV	QP	CAV
No major peaks found										

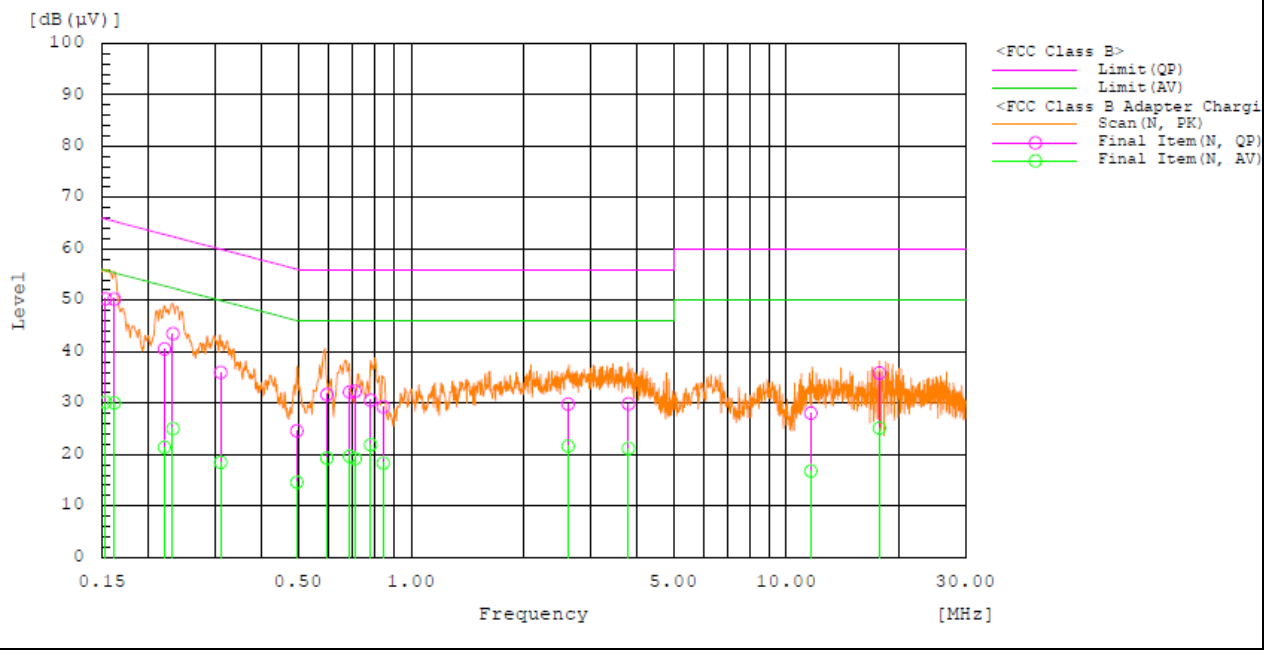
Note:
1. Quasi-peak (Final Result) = Reading Value + Correction Factor

▣ TEST PLOTS

AC Line Conducted Emission (L1)



AC Line Conducted Emission (N)



10. LIST OF TEST EQUIPMENT

No.	Instrument	Model No.	Calibration Due (mm/dd/yy)	Manufacture	Serial No.
☒	Signal Analyzer (1 Hz ~ 44.0 GHz)	ESW44	08/05/2026	Rohde & Schwarz	103176
☒	Signal Analyzer (20 Hz ~ 26.5 GHz)	N9020A	10/09/2026	Keysight	MY53280148
☒	Attenuator (20 dB, DC ~ 26.5 GHz)	8493C 20 dB	10/14/2026	KEYSIGHT	9072
☒	Loop Antenna (0.009 ~ 30 MHz)	HLA 6121	03/03/2027	TESEQ	43964
☒	BI-LOG Antenna (30 MHz ~ 6 GHz)	JB6	02/27/2027	Sunol	A060916
☒	Horn Antenna (1 GHz ~ 18 GHz)	BBHA 9120 D	07/15/2027	Schwarzbeck	03023
☒	Horn Antenna (15 GHz ~ 40 GHz)	BBHA 9170	01/21/2027	Schwarzbeck	1342
☒	RF Switch Matrix System	HRSMS-VL	01/02/2027	HCT Ltd.	2-51-001
☒	EMI Test Receiver	ESR3	07/18/2026	Rohde & Schwarz	102363
☒	LISN	ENV216	08/28/2026	Rohde & Schwarz	101550
☒	Temperature & Humidity Chamber	SH-662	08/05/2026	ESPEC	93024017
☒	ESR Test Receiver	ESR3	07/18/2026	Rohde & Schwarz	102363
☒	Test Software	R&S*ELEKTRA	-	Rohde & Schwarz	-

Note:

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

APPENDIX A. TEST SETUP PHOTOS

The setup photos are provided as a separate document.

APPENDIX B. PHOTOGRAPHS OF EUT

B.1. EXTERNAL PHOTOS

The external photos are provided as separate documents.

B.2. INTERNAL PHOTOS

The internal photos are provided as separate documents.

END OF TEST REPORT