



CERTIFICATION TEST REPORT

Report Number : 4790413022-FR2V3

Applicant : Snap One, LLC
1800 Continental Blvd, Suite 300 Charlotte, NC 28273

Model : C4-HALO-BL

FCC ID : 2AJAC-C4HALO
IC : 7848A-C4HALO

EUT Description : Remote Controller

Test Standard(s) : FCC 47 CFR PART 15 SUBPART E
INDUSTRY CANADA RSS-247 Issue 2
INDUSTRY CANADA RSS-GEN Issue 5

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REPORT REVISION HISTORY

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
V1	2022-12-14	Initial issue	Jaejin Lee
V2	2022-12-23	Updated about the TCB's question	Jaejin Lee
V3	2022-12-24	Updated about the TCB's question	Jaejin Lee

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Snap One, LLC
EUT DESCRIPTION: Remote Controller
MODEL NUMBER: C4-HALO-BL
SERIAL NUMBER: Proto type (CONDUCTED);
Proto type (RADIATED);
DATE TESTED: 2022-06-13 ~ 2022-07-21(Radiated Below 1GHz)
2022-08-08 (AC Power Line test)
2022-11-24 ~ 2022-12-13 (Radiated Above 1GHz)

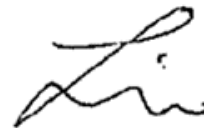
APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart E	Complies
INDUSTRY CANADA RSS-247 Issue 2	Complies
INDUSTRY CANADA RSS-GEN Issue 5	Complies

UL Korea, Ltd. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Korea, Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Korea, Ltd. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Korea, Ltd. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by IAS, any agency of the Federal Government, or any agency of any government.

Approved & Released For
UL Korea, Ltd. By:

Tested By:



Seokhwan Hong
Laboratory Test Engineer
UL Korea, Ltd.

Jaejin Lee
Laboratory Engineer
UL Korea, Ltd.

1.1. INTRODUCTION OF THE CONDUCTED TEST DATA

Please refer to the conducted test data for this EUT from the approved module FCC ID : VPYLBEE5HY1MW, IC : 772C-LBEE5HY1MW, (Report Number: 1802WSU008-U4(UNII), 1802WSU008-U5(DFS)). Because the output power is identical with the approved module. And the applicant takes full responsibility that the test data as referenced in this report represent compliance for this FCC ID and IC.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with following methods.

1. FCC CFR 47 Part 2.
2. FCC CFR 47 Part 15.
3. KDB 789033 D02 General UNII Test Procedures New Rules v02r01
4. ANSI C63.10-2013.
5. KDB 484596 D01 Referencing Test Data v01

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea. Line conducted emissions are measured only at the 218 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

218 Maeyeong-ro	
<input checked="" type="checkbox"/>	Chamber 1
<input checked="" type="checkbox"/>	Chamber 2
<input checked="" type="checkbox"/>	Chamber 3

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UL Korea, Ltd. is accredited by National Radio Research Agency, Designation Number KR0161, for all testing performed within the scope of this report.

ISED CABID	ISED Company Number	FCC Registration
KR0161	2324L	644529

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$$\begin{aligned} \text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamp Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m} \end{aligned}$$

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	2.87 dB
Radiated Disturbance, 30 MHz to 1 GHz	4.05 dB
Radiated Disturbance, 1 GHz to 18 GHz	5.06 dB
Radiated Disturbance, 18 GHz to 40 GHz	6.02 dB

Uncertainty figures are valid to a confidence level of 95%.

4.4. DECISION RULE

Decision rule for statement(s) of conformity is based on Procedure 2, Clause 4.4.3 in IEC Guide 115:2021.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a Remote Controller.

This test report addresses the 802.11a/n/ac (UNII) operational mode.

WiFi operating mode

Frequency range	Mode	ANT 1	ANT 2
5GHz (5180 MHz ~ 5825 MHz)	802.11a SISO	TX/RX	TX/RX
	802.11n(HT20/40) SISO	TX/RX	TX/RX
	802.11ac(VHT20/40/80) SISO	TX/RX	TX/RX

5.2. DESCRIPTION OF AVAILABLE ANTENNAS

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

The internal antenna was Permanently attached.

Therefore this E.U.T Complies with the requirement of §15.203.

Frequency Band [MHz]	ANT 1 Gain [dBi]	ANT 2 Gain [dBi]
UNII 1 5150 - 5250	3.40	3.40
UNII 2A 5250 - 5350	3.40	3.40
UNII 2C 5470 - 5725	3.40	3.40
UNII 3 5725 - 5850	3.40	3.40

The EUT uses ANT 1 and 2 as the same antenna.

5.3. List of test reduction and modes covering other modes:

The output power on covered modes is equal to or less than one referenced.

Authorized Frequency Band			
Mode	Antenna Stream	Mode	Covered by
802.11a	SISO	802.11a	
802.11n HT20		802.11n HT20	
802.11ac VHT20		802.11ac VHT20	802.11n HT20
802.11n HT40		802.11n HT40	
802.11ac VHT40		802.11ac VHT40	802.11n HT40
802.11ac VHT80		802.11ac VHT80	

5.4. WORST-CASE CONFIGURATION AND MODE

Radiated emission below 1GHz and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

Radiated emission above 1GHz was performed with the EUT set to transmit low/mid/high channels.

The fundamental of the EUT was investigated in three orthogonal orientations X, Y and Z it was determined that X orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in X orientation.

Worst-case selection criteria for test items :

- For the radiated band edges, all test mode were investigated and reported.
- For the radiated spurious emissions, compared to the 802.11a mode(all testing with low/mid/high channel), 802.11n/ac target power is equal or lower and the density is lower than 802.11a mode.The worst case channel was reported on 802.11n and 80211.ac modes.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
N/A	N/A	N/A	N/A	N/A

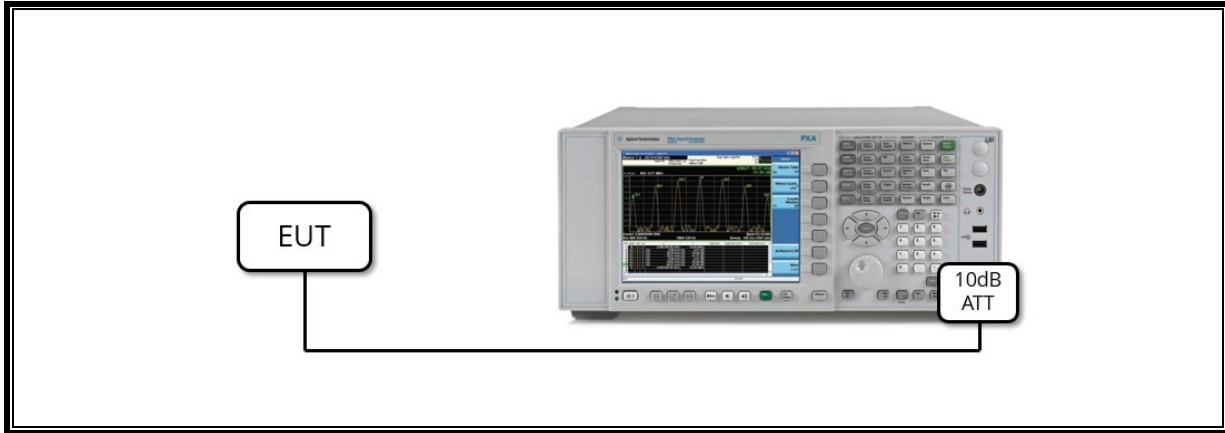
I/O CABLE

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
N/A	N/A	N/A	N/A	N/A	N/A	N/A

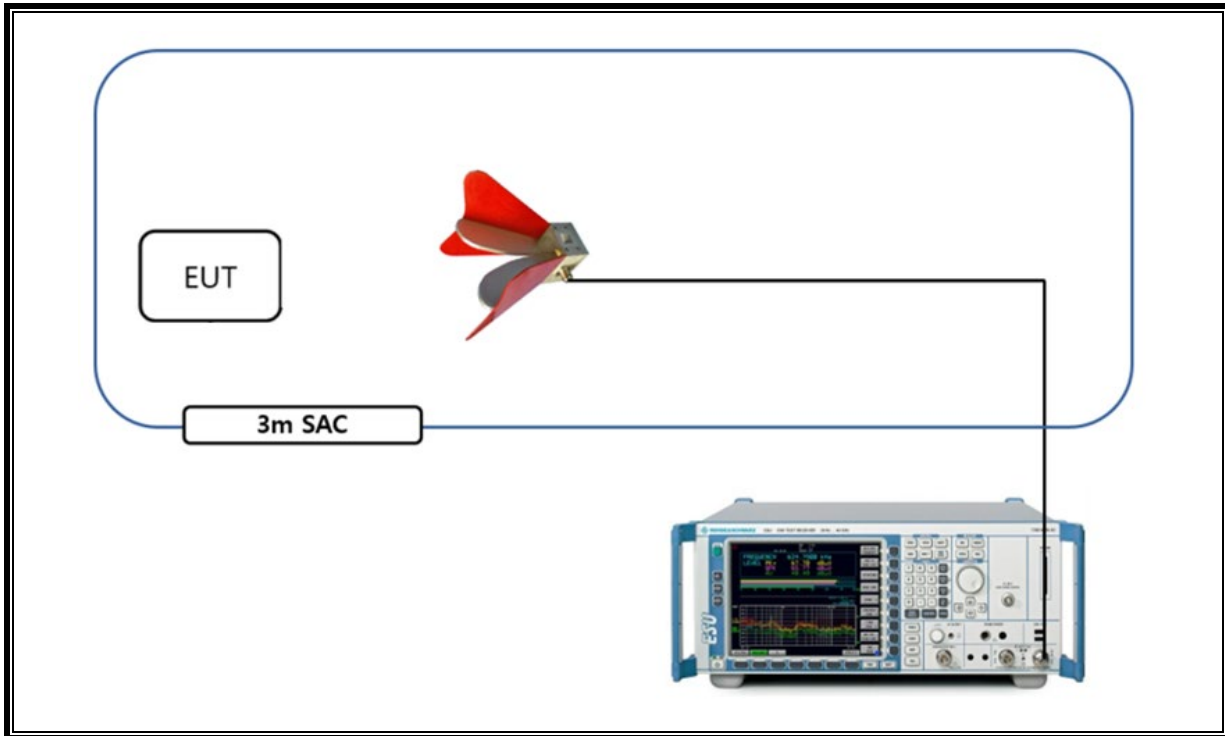
TEST SETUP

The EUT is a stand-alone unit during the tests.
Test software exercised the EUT to enable NII mode.

SETUP DIAGRAM FOR TESTS (CONDUCTED TEST SETUP)



SETUP DIAGRAM FOR TESTS (RADIATED TEST SETUP)



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Test Equipment List				
Description	Manufacturer	Model	S/N	Cal Due
*Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	750	2022-08-19
*Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	749	2022-08-13
*Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	845	2022-08-13
Antenna, Horn, 18 GHz	ETS	3115	00167211	2024-08-04
Antenna, Horn, 18 GHz	ETS	3115	00161451	2024-08-21
Antenna, Horn, 18 GHz	ETS	3117	00168724	2024-08-04
Antenna, Horn, 18 GHz	ETS	3117	00168717	2024-08-21
Antenna, Horn, 18 GHz	ETS	3117	00218957	2023-01-15
Antenna, Horn, 40 GHz	ETS	3116C	00166155	2024-08-02
Antenna, Horn, 40 GHz	ETS	3116C	00168645	2023-10-13
Preamplifier	ETS	3116C-PA	00168841	2023-08-04
*Preamplifier, 1000 MHz	Sonoma	310N	341282	2022-08-02
*Preamplifier, 1000 MHz	Sonoma	310N	351741	2022-08-02
*Preamplifier, 1000 MHz	Sonoma	310N	370599	2022-08-02
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	1876511	2023-08-02
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	1896138	2023-08-01
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	2029169	2023-08-01
Spectrum Analyzer, 44 GHz	KEYSIGHT	N9030B	MY57143652	2023-01-11
Power Sensor	R&S	NRP-Z91	102681	2023-08-03
10dB ATTENUATOR	MINI-CIRCUITS	BW-K10-2W44+	2117	2023-07-29
EMI Test Receiver, 44 GHz	R&S	ESW44	101590	2021-08-04
Attenuator	PASTERNAK	PE7087-10	A001	2023-08-03
Attenuator	PASTERNAK	PE7087-10	A008	2023-08-03
Attenuator	PASTERNAK	PE7004-10	2	2023-08-01
Attenuator	PASTERNAK	PE7087-10	A009	2023-08-03
EMI Test Receive, 44 GHz	R&S	ESW44	101590	2023-08-01
EMI Test Receive, 40 GHz	R&S	ESU40	100439	2023-08-02
EMI Test Receive, 40 GHz	R&S	ESU40	100457	2023-07-29
**EMI Test Receive, 3 GHz	R&S	ESR3	102592	2023-08-01
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	009	2023-08-02
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	015	2023-08-01
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	020	2023-08-01
High Pass Filter 3GHz	Micro-Tronics	HPM17543	010	2023-08-02
High Pass Filter 3GHz	Micro-Tronics	HPM17543	015	2023-08-01
High Pass Filter 3GHz	Micro-Tronics	HPM17543	020	2023-08-01
High Pass Filter 6GHz	Micro-Tronics	HPS17542	009	2023-08-02
High Pass Filter 6GHz	Micro-Tronics	HPS17542	016	2022-08-02
High Pass Filter 6GHz	Micro-Tronics	HPS17542	021	2023-08-01
**LISN	R&S	ENV-216	102478	2023-08-03
Antenna, Loop, 9kHz-30MHz	R&S	HFH2-Z2	100418	2023-10-06
UL Software				
Description	Manufacturer	Model	Version	
Radiated software	UL	UL EMC	Ver 9.5	
AC Line Conducted software	R&S	EMC32	Ver 10.60.10	

Note : This equipments (*) were used for radiated test below 1GHz(test date 2022-06-13~07-21)
 This equipments (**) were used for AC Power line test(test date 2022-08-08).

7. SUMMARY TABLE

FCC Part Section	IC Section	Test Description	Test Limit	Test Condition	Test Result
15.407 (a)(1)(iv)	RSS-247 6.2	TX Cond. Power (5.150-5.250)	< 24dBm	Conducted	Complies
15.407 (a)(2)	RSS-247 6.2	TX Cond. Power (5.250-5.350 & 5.470-5.725)	< 24dBm or 11+10Log(26dB BW)		Complies
15.407 (a)(3)(i)	RSS-247 6.2	TX Cond. Power (5.725-5.850)	< 30dBm		Complies
15.207 (a)	RSS-GEN 8.8	AC Power Line conducted emissions	Section 11	Power Line Conducted	Complies
15.407 (b) & 15.209	RSS-GEN 8.9 & 8.10	Radiated Spurious Emission	< 54dBuV/m	Radiated	Complies

8. MEASUREMENT METHODS

Conducted Output Power : KDB 789033 D02 v02r01, Section II.E.3.b(Method PM-G)

Unwanted emissions in restricted bands : KDB 789033 D02 v02r01, Section II.G.3 – II.G.6.

Unwanted emissions in non-restricted bands : KDB 789033 D02 v02r01, Section II.G.3 – II.G.6.

AC Power Line Conducted Emission : ANSI C63.10-2013, Section 6.2.

9. OUTPUT POWER

LIMITS

FCC §15.407 (a)(1)(iv), (a)(2), (a)(3)(i), (a)(3)(iii)

FCC

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 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 $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

TEST PROCEDURE

KDB 789033 Method PM is used for output power.

KDB 789033 Method SA-2 is used for only power of straddle Ch. and PPSD. RBW set to 1MHz(500kHz for the band 5.725-5.85 GHz, the VBW >= 3 x RBW, RMS detector and trace averaging). Band power function used for power and peak marker value of the spectrum is used for PSD. For the band 5.850-5.895 GHz, The correlated gain is added to the result to convert e.i.r.p.

9.1.1. ANT1

- 802.11a MODE

Output Power Results

Band	Channel	Center Freq. [MHz]	Average Power [dBm]	Limit [dBm]
UNII-1	36	5180	11.98	23.98
	44	5220	14.11	
	48	5240	14.12	
UNII-2A	52	5260	14.72	23.84
	60	5300	12.28	
	64	5320	12.40	
UNII-2C	100	5500	12.06	23.98
	116	5580	14.41	
	140	5700	12.03	
	144	5720	11.90	
UNII-3	149	5745	11.66	30.00
	157	5785	11.66	
	165	5825	11.49	

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]

- 802.11n HT20 MODE

Output Power Results

Band	Channel	Center Freq. [MHz]	Average Power [dBm]	Limit [dBm]
UNII-1	36	5180	11.55	23.98
	44	5220	13.72	
	48	5240	13.84	
UNII-2A	52	5260	14.39	23.98
	60	5300	11.86	
	64	5320	12.02	
UNII-2C	100	5500	11.70	23.98
	116	5580	14.05	
	140	5700	11.57	
	144	5720	11.65	
UNII-3	149	5745	11.36	30.00
	157	5785	11.20	
	165	5825	11.14	

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]

- 802.11n HT40 MODE

Output Power Results

Band	Channel	Center Freq. [MHz]	Average Power [dBm]	Limit [dBm]
UNII-1	38	5190	9.15	23.98
	46	5230	13.17	
UNII-2A	54	5270	13.44	23.98
	62	5310	9.71	
UNII-2C	102	5510	9.46	23.98
	118	5590	13.59	
	134	5670	9.12	
	142	5710	9.09	
UNII-3	151	5755	8.34	30.00
	159	5795	8.50	

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]

- 802.11ac VHT80 MODE

Output Power Results

Band	Channel	Center Freq. [MHz]	Average Power [dBm]	Limit [dBm]
UNII-1	42	5210	9.32	23.98
UNII-2A	58	5290	9.57	23.98
UNII-2C	106	5530	9.74	23.98
	122	5610	9.71	
	138	5690	9.47	
UNII-3	155	5775	8.61	30.00

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]

9.1.2. ANT2

- 802.11a MODE

Output Power Results

Band	Channel	Center Freq. [MHz]	Average Power [dBm]	Limit [dBm]
UNII-1	36	5180	11.74	23.98
	44	5220	14.23	
	48	5240	14.17	
UNII-2A	52	5260	14.76	23.84
	60	5300	12.38	
	64	5320	12.45	
UNII-2C	100	5500	12.23	23.98
	116	5580	14.61	
	140	5700	12.25	
	144	5720	12.27	
UNII-3	149	5745	11.84	30.00
	157	5785	11.76	
	165	5825	11.66	

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]

- 802.11n HT20 MODE

Output Power Results

Band	Channel	Center Freq. [MHz]	Average Power [dBm]	Limit [dBm]
UNII-1	36	5180	11.51	23.98
	44	5220	13.66	
	48	5240	13.92	
UNII-2A	52	5260	14.30	23.98
	60	5300	11.94	
	64	5320	12.06	
UNII-2C	100	5500	11.81	23.98
	116	5580	14.21	
	140	5700	11.84	
	144	5720	11.81	
UNII-3	149	5745	11.41	30.00
	157	5785	11.33	
	165	5825	11.29	

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]

- 802.11n HT40 MODE

Output Power Results

Band	Channel	Center Freq. [MHz]	Average Power [dBm]	Limit [dBm]
UNII-1	38	5190	9.07	23.98
	46	5230	13.07	
UNII-2A	54	5270	13.34	23.98
	62	5310	9.74	
UNII-2C	102	5510	9.53	23.98
	118	5590	13.73	
	134	5670	9.18	
	142	5710	9.03	
UNII-3	151	5755	8.56	30.00
	159	5795	8.48	

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]

- 802.11ac VHT80 MODE

Output Power Results

Band	Channel	Center Freq. [MHz]	Average Power [dBm]	Limit [dBm]
UNII-1	42	5210	9.29	23.98
UNII-2A	58	5290	9.77	23.98
UNII-2C	106	5530	9.92	23.98
	122	5610	9.83	
	138	5690	9.52	
UNII-3	155	5775	8.68	30.00

* Calculation of Output Power : Average Power = Meas Power + Duty CF[dB]

10. TRANSMITTER ABOVE 1 GHz

LIMITS

FCC §15.205 and §15.209

Limits for radiated disturbance of an intentional radiator		
Frequency range (MHz)	Limits (µV/m)	Measurement Distance (m)
0.009 – 0.490	2400 / F (kHz)	300
0.490 – 1.705	24000 / F (kHz)	30
1.705 – 30.0	30	30
30 – 88	100**	3
88 - 216	150**	3
216 – 960	200**	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g. §§ 15.231 and 15.241.

FCC Part 15.205 (a) : Only spurious emissions are permitted in any of the frequency bands listed below :

MHz	MHz	MHz	MHz	GHz	GHz
0.009 ~ 0.110	8.41425 ~ 8.41475	108 ~ 121.94	1300 ~ 1427	4.5 ~ 5.15	14.47 ~ 14.5
0.495 ~ 0.505	12.29 ~ 12.293	123 ~ 138	1435 ~ 1626.5	5.35 ~ 5.46	15.35 ~ 16.2
2.1735 ~ 2.1905	12.51975 ~ 12.52025	149.9 ~ 150.05	1645.5 ~ 1646.5	7.25 ~ 7.75	17.7 ~ 21.4
4.125 ~ 4.128	12.57675 ~ 12.57725	156.52475 ~ 156.52525	1660 ~ 1710	8.025 ~ 8.5	22.01 ~ 23.12
4.17725 ~ 4.17775	13.36 ~ 13.41	156.7 ~ 156.9	1718.8 ~ 1722.2	9.0 ~ 9.2	23.6 ~ 24.0
4.20725 ~ 4.20775	16.42 ~ 16.423	162.0125 ~ 167.17	2200 ~ 2300	9.3 ~ 9.5	31.2 ~ 31.8
6.215 ~ 6.218	16.69475 ~ 16.69525	167.72 ~ 173.2	2310 ~ 2390	10.6 ~ 12.7	36.43 ~ 36.5
6.26775 ~ 6.26825	16.80425 ~ 16.80475	240 ~ 285	2483.5 ~ 2500	13.25 ~ 13.4	Above 38.6
6.31175 ~ 6.31225	25.5 ~ 25.67	322 ~ 335.4	2655 ~ 2900		
8.291 ~ 8.294	37.5 ~ 38.25	399.90 ~ 410	3260 ~ 3267		
8.362 ~ 8.366	73 ~ 74.6	608 ~ 614	3332 ~ 3339		
8.37625 ~ 8.38675	74.8 ~ 75.2	960 ~ 1240	3345.8 ~ 3358 3600 ~ 4400		

▪ FCC Part 15.205(b) : The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in §15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in §15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in §15.35 apply to these measurements.

FCC §15.407 (b)

(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band:
 - (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
- (5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary,
provided the measured energy is integrated to show the total power over 1 MHz.
- (6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.
- (7) The provisions of §15.205 apply to intentional radiators operating under this section.
- (8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

Note

- Limit translation to field strength level (FCC §15.407)

$$E[\text{dBuV/m}] = \text{EIRP}[\text{dBm}] + 95.2 = -27\text{dBm} + 95.2 = 68.2\text{dBuV/m}$$

$$E[\text{dBuV/m}] = \text{EIRP}[\text{dBm}] + 95.2 = -17\text{dBm} + 95.2 = 78.2\text{dBuV/m}$$

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz and 100 cm for above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

Reference to KDB 789033 D02 v02r01 UNII part G) 6) c) Method AD:

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor to the reading offset for average measurements.

Duty cycle factor = $10\log(1/x)$ For this sample:

802.11a mode = 0 dB (duty cycle > 98%);
802.11n(HT20) mode = 0 dB (duty cycle > 98%);
802.11ac(VHT20) mode = 0 dB (duty cycle > 98%);
802.11n(HT40) mode = 0.14 dB (duty cycle = 96.86%);
802.11ac(VHT40) mode = 0.14 dB (duty cycle = 96.88%);
802.11ac(VHT80) mode = 0.29 dB (duty cycle = 93.45%);

Pre-scans to detect harmonic and spurious emissions, the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 kHz for peak measurements.

The spectrum from 1GHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.
(From 30MHz to 1GHz, test was performed with the EUT set to transmit at the channel with highest output power)

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

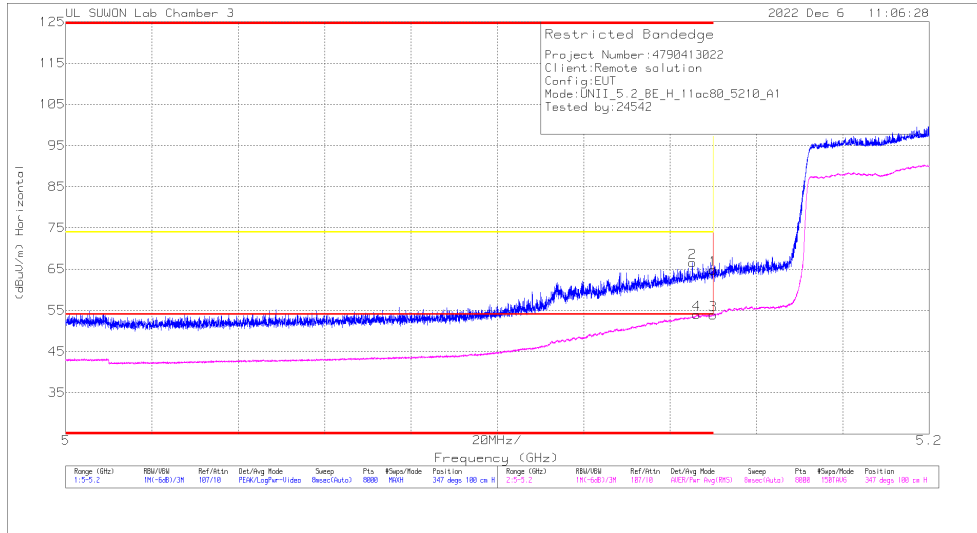
Note : Emission was pre-scanned from 9kHz to 30MHz; No emissions were detected which was at least 20dB below the specification limit (consider distance correction factor).
Per FCC part 15.31(o), test results were not reported.

Although these tests were performed other than open field test site, adequate comparison measurements were confirmed against 30 m open field test site.
Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the one of tests made in an open field based on KDB 414788.

10.1. TX ABOVE 1GHz IN THE 5.2GHz BAND

BANDEDGE (WORST CASE: 802.11ac VHT80 / ANT1 / 5210 MHz)

HORIZONTAL PEAK AND AVERAGE DATA



Trace Markers

Marker	Frequency (GHz)	Marker Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.14599	50.58	PK	34.8	-20.6	0	64.78	-	-	74	-8.22	347	100	H
2	* 5.14517	52.39	PK	34.8	-20.6	0	66.59	-	-	74	-7.41	347	100	H
3	* 5.14599	39.41	RMS	34.8	-20.6	29	53.9	54	-1	-	-	347	100	H
4	* 5.14614	39.47	RMS	34.8	-20.6	29	53.96	54	-0.4	-	-	347	100	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

BANDEDGE TEST DATA

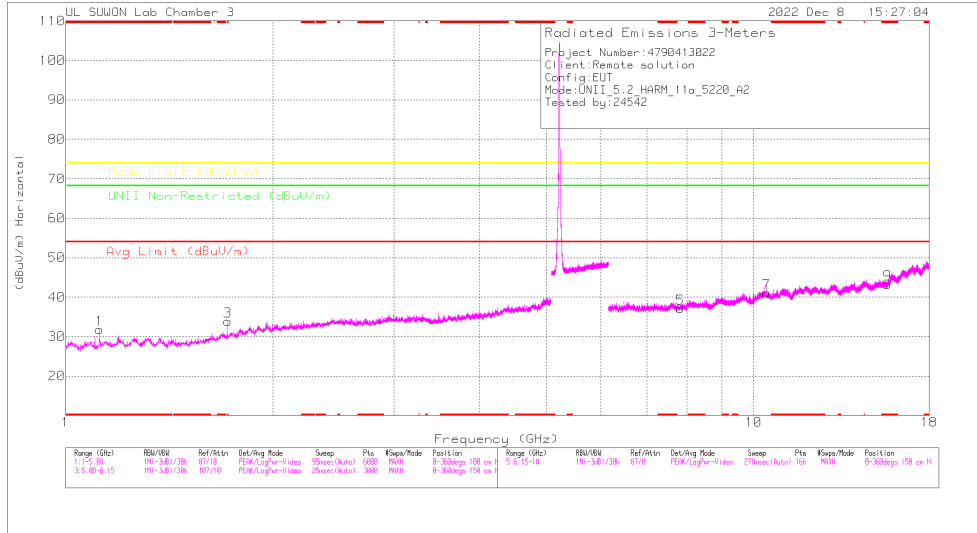
Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity			
802.11a	5180	ANT1	* 5.14999	50.34	Pk	34.80	-20.60	0.00	64.54	-	-	74.00	-9.46	320	106	H			
			* 5.14942	53.26	Pk	34.80	-20.60	0.00	67.46	-	-	74.00	-6.54	320	106	H			
			* 5.14999	34.96	RMS	34.80	-20.60	0.00	49.16	54.00	-4.84	-	-	320	106	H			
			* 5.14922	36.16	RMS	34.80	-20.60	0.00	50.36	54.00	-3.64	-	-	320	106	H			
			* 5.14999	45.90	Pk	34.80	-20.60	0.00	60.10	-	-	74.00	-13.90	170	100	V			
			* 5.14959	48.07	Pk	34.80	-20.60	0.00	62.27	-	-	74.00	-11.73	170	100	V			
			* 5.14999	29.73	RMS	34.80	-20.60	0.00	43.93	54.00	-10.07	-	-	170	100	V			
			* 5.14969	31.28	RMS	34.80	-20.60	0.00	45.48	54.00	-8.52	-	-	170	100	V			
			* 5.14999	50.43	Pk	34.80	-20.60	0.00	64.63	-	-	74.00	-9.37	320	105	H			
			* 5.14834	54.11	Pk	34.80	-20.60	0.00	68.31	-	-	74.00	-5.69	320	105	H			
802.11n(HT20)	5180	ANT1	* 5.14999	35.23	RMS	34.80	-20.60	0.00	49.43	54.00	-4.57	-	-	320	105	H			
			* 5.14819	35.99	RMS	34.80	-20.60	0.00	50.19	54.00	-3.81	-	-	320	105	H			
			* 5.14999	44.80	Pk	34.80	-20.60	0.00	59.00	-	-	74.00	-15.00	177	263	V			
			* 5.14969	47.96	Pk	34.80	-20.60	0.00	62.16	-	-	74.00	-11.84	177	263	V			
			* 5.14999	30.97	RMS	34.80	-20.60	0.00	45.17	54.00	-8.83	-	-	177	263	V			
			* 5.14824	31.66	RMS	34.80	-20.60	0.00	45.86	54.00	-8.14	-	-	177	263	V			
			* 5.14999	51.54	Pk	34.80	-20.60	0.00	65.74	-	-	74.00	-8.26	319	105	H			
			* 5.14744	55.05	Pk	34.80	-20.60	0.00	69.25	-	-	74.00	-4.75	319	105	H			
			* 5.14999	35.17	RMS	34.80	-20.60	0.00	49.37	54.00	-4.63	-	-	319	105	H			
			* 5.14994	37.21	RMS	34.80	-20.60	0.00	51.41	54.00	-2.59	-	-	319	105	H			
802.11ac(VHT20)	5180	ANT1	* 5.14999	50.46	Pk	34.80	-20.60	0.00	64.66	-	-	74.00	-9.34	30	290	V			
			* 5.14977	51.97	Pk	34.80	-20.60	0.00	66.17	-	-	74.00	-7.83	30	290	V			
			* 5.14999	32.33	RMS	34.80	-20.60	0.00	46.53	54.00	-7.47	-	-	30	290	V			
			* 5.14932	33.54	RMS	34.80	-20.60	0.00	47.74	54.00	-6.26	-	-	30	290	V			
			* 5.14999	48.53	Pk	34.80	-20.60	0.00	62.73	-	-	74.00	-11.27	321	105	H			
			* 5.14814	49.49	Pk	34.80	-20.60	0.00	63.69	-	-	74.00	-10.31	321	105	H			
			* 5.14999	36.16	RMS	34.80	-20.60	0.14	50.50	54.00	-3.50	-	-	321	105	H			
			* 5.14937	36.39	RMS	34.80	-20.60	0.14	50.73	54.00	-3.27	-	-	321	105	H			
			* 5.14999	45.10	Pk	34.80	-20.60	0.00	59.30	-	-	74.00	-14.70	191	251	V			
			* 5.14647	47.80	Pk	34.80	-20.60	0.00	62.00	-	-	74.00	-12.00	191	251	V			
802.11n(HT40)	5190	ANT1	* 5.14999	33.64	RMS	34.80	-20.60	0.14	47.98	54.00	-6.02	-	-	191	251	V			
			* 5.14832	35.32	RMS	34.80	-20.60	0.14	49.66	54.00	-4.34	-	-	191	251	V			
			* 5.14999	46.68	Pk	34.80	-20.60	0.00	60.88	-	-	74.00	-13.12	342	100	H			
			* 5.14917	48.81	Pk	34.80	-20.60	0.00	63.01	-	-	74.00	-10.99	342	100	H			
			* 5.14999	35.20	RMS	34.80	-20.60	0.14	49.54	54.00	-4.46	-	-	342	100	H			
			* 5.14979	35.47	RMS	34.80	-20.60	0.14	49.81	54.00	-4.19	-	-	342	100	H			
			* 5.14999	44.05	Pk	34.80	-20.60	0.00	58.25	-	-	74.00	-15.75	199	235	V			
			* 5.14734	46.65	Pk	34.80	-20.60	0.00	60.85	-	-	74.00	-13.15	199	235	V			
			* 5.14999	33.55	RMS	34.80	-20.60	0.14	47.89	54.00	-6.11	-	-	199	235	V			
			* 5.14982	34.17	RMS	34.80	-20.60	0.14	48.51	54.00	-5.49	-	-	199	235	V			
802.11ac(VHT40)	5190	ANT1	* 5.14999	50.58	Pk	34.80	-20.60	0.00	64.78	-	-	74.00	-9.22	347	100	H			
			* 5.14517	52.39	Pk	34.80	-20.60	0.00	66.59	-	-	74.00	-7.41	347	100	H			
			* 5.14999	39.41	RMS	34.80	-20.60	0.29	53.90	54.00	-0.10	-	-	347	100	H			
			* 5.14614	39.47	RMS	34.80	-20.60	0.29	53.96	54.00	-0.04	-	-	347	100	H			
			* 5.14999	47.10	Pk	34.80	-20.60	0.00	61.30	-	-	74.00	-12.70	34	260	V			
			* 5.14832	48.14	Pk	34.80	-20.60	0.00	62.34	-	-	74.00	-11.66	34	260	V			
			* 5.14999	35.51	RMS	34.80	-20.60	0.29	50.00	54.00	-4.00	-	-	34	260	V			
			* 5.14969	37.55	RMS	34.80	-20.60	0.29	52.04	54.00	-1.96	-	-	34	260	V			
			802.11ac(VHT80)	5210	ANT1	* 5.14999	50.58	Pk	34.80	-20.60	0.00	64.78	-	-	74.00	-9.22	347	100	H
						* 5.14517	52.39	Pk	34.80	-20.60	0.00	66.59	-	-	74.00	-7.41	347	100	H
* 5.14999	39.41	RMS				34.80	-20.60	0.29	53.90	54.00	-0.10	-	-	347	100	H			
* 5.14614	39.47	RMS				34.80	-20.60	0.29	53.96	54.00	-0.04	-	-	347	100	H			
* 5.14999	47.10	Pk				34.80	-20.60	0.00	61.30	-	-	74.00	-12.70	34	260	V			
* 5.14832	48.14	Pk				34.80	-20.60	0.00	62.34	-	-	74.00	-11.66	34	260	V			
* 5.14999	35.51	RMS				34.80	-20.60	0.29	50.00	54.00	-4.00	-	-	34	260	V			
* 5.14969	37.55	RMS				34.80	-20.60	0.29	52.04	54.00	-1.96	-	-	34	260	V			

Note1. Pk - Peak detector, RMS - RMS detector
 Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

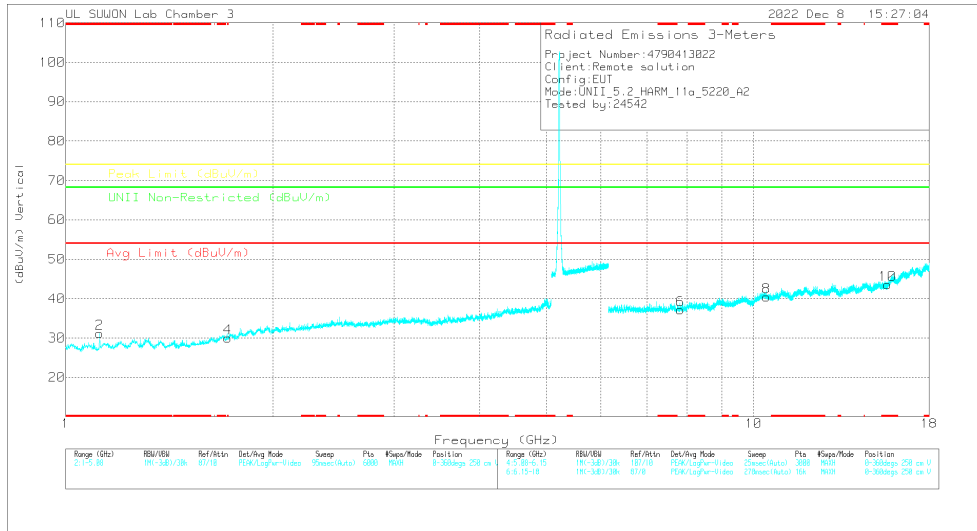
Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity	
802.11a	5180	ANT2	* 5.14999	52.00	Pk	34.80	-20.60	0.00	66.20	-	-	74.00	-7.80	125	103	H	
			* 5.14914	54.45	Pk	34.80	-20.60	0.00	68.65	-	-	74.00	-5.35	125	103	H	
			* 5.14999	36.28	RMS	34.80	-20.60	0.00	50.48	54.00	-3.52	-	-	-	125	103	H
			* 5.14917	37.76	RMS	34.80	-20.60	0.00	51.96	54.00	-2.04	-	-	-	125	103	H
			* 5.14999	49.07	Pk	34.80	-20.60	0.00	63.27	-	-	74.00	-10.73	186	224	V	
			* 5.14817	50.99	Pk	34.80	-20.60	0.00	65.19	-	-	74.00	-8.81	186	224	V	
			* 5.14999	34.53	RMS	34.80	-20.60	0.00	48.73	54.00	-5.27	-	-	-	186	224	V
			* 5.14889	35.12	RMS	34.80	-20.60	0.00	49.32	54.00	-4.68	-	-	-	186	224	V
			* 5.14999	50.14	Pk	34.80	-20.60	0.00	64.34	-	-	74.00	-9.66	120	105	H	
			* 5.14919	53.42	Pk	34.80	-20.60	0.00	67.62	-	-	74.00	-6.38	120	105	H	
802.11n(HT20)	5180	ANT2	* 5.14999	34.79	RMS	34.80	-20.60	0.00	48.99	54.00	-5.01	-	-	120	105	H	
			* 5.14897	35.78	RMS	34.80	-20.60	0.00	49.98	54.00	-4.02	-	-	120	105	H	
			* 5.14999	47.42	Pk	34.80	-20.60	0.00	61.62	-	-	74.00	-12.38	186	223	V	
			* 5.14952	49.69	Pk	34.80	-20.60	0.00	63.89	-	-	74.00	-10.11	186	223	V	
			* 5.14999	33.17	RMS	34.80	-20.60	0.00	47.37	54.00	-6.63	-	-	-	186	223	V
			* 5.14904	33.34	RMS	34.80	-20.60	0.00	47.54	54.00	-6.46	-	-	-	186	223	V
			* 5.14999	48.75	Pk	34.80	-20.60	0.00	62.95	-	-	74.00	-11.05	122	105	H	
			* 5.14687	53.19	Pk	34.80	-20.60	0.00	67.39	-	-	74.00	-6.61	122	105	H	
			* 5.14999	33.95	RMS	34.80	-20.60	0.00	48.15	54.00	-5.85	-	-	-	122	105	H
			* 5.14907	35.65	RMS	34.80	-20.60	0.00	49.85	54.00	-4.15	-	-	-	122	105	H
802.11ac(VHT20)	5180	ANT2	* 5.14999	45.07	Pk	34.80	-20.60	0.00	59.27	-	-	74.00	-14.73	191	223	V	
			* 5.14612	49.75	Pk	34.80	-20.60	0.00	63.95	-	-	74.00	-10.05	191	223	V	
			* 5.14999	33.14	RMS	34.80	-20.60	0.00	47.34	54.00	-6.66	-	-	-	191	223	V
			* 5.14992	34.15	RMS	34.80	-20.60	0.00	48.35	54.00	-5.65	-	-	-	191	223	V
			* 5.14999	47.05	Pk	34.80	-20.60	0.00	61.25	-	-	74.00	-12.75	122	104	H	
			* 5.14987	50.93	Pk	34.80	-20.60	0.00	65.13	-	-	74.00	-8.67	122	104	H	
			* 5.14999	35.78	RMS	34.80	-20.60	0.14	50.12	54.00	-3.88	-	-	-	122	104	H
			* 5.14982	36.31	RMS	34.80	-20.60	0.14	50.65	54.00	-3.35	-	-	-	122	104	H
			* 5.14999	45.88	Pk	34.80	-20.60	0.00	60.08	-	-	74.00	-13.92	190	223	V	
			* 5.14987	48.31	Pk	34.80	-20.60	0.00	62.51	-	-	74.00	-11.49	190	223	V	
802.11n(HT40)	5190	ANT2	* 5.14999	32.35	RMS	34.80	-20.60	0.14	46.69	54.00	-7.31	-	-	190	223	V	
			* 5.14944	33.44	RMS	34.80	-20.60	0.14	47.78	54.00	-6.22	-	-	-	190	223	V
			* 5.14999	48.52	Pk	34.80	-20.60	0.00	62.72	-	-	74.00	-11.28	119	100	H	
			* 5.14907	50.24	Pk	34.80	-20.60	0.00	64.44	-	-	74.00	-9.56	119	100	H	
			* 5.14999	35.21	RMS	34.80	-20.60	0.14	49.55	54.00	-4.45	-	-	-	119	100	H
			* 5.14988	36.36	RMS	34.80	-20.60	0.14	50.70	54.00	-3.30	-	-	-	119	100	H
			* 5.14999	47.12	Pk	34.80	-20.60	0.00	61.32	-	-	74.00	-12.68	177	388	V	
			* 5.14934	47.79	Pk	34.80	-20.60	0.00	61.99	-	-	74.00	-12.01	177	388	V	
			* 5.14999	34.92	RMS	34.80	-20.60	0.14	49.26	54.00	-4.74	-	-	-	177	388	V
			* 5.14914	34.66	RMS	34.80	-20.60	0.14	49.00	54.00	-5.00	-	-	-	177	388	V
802.11ac(VHT40)	5190	ANT2	* 5.14999	49.59	Pk	34.80	-20.60	0.00	63.79	-	-	74.00	-10.21	117	104	H	
			* 5.14549	51.39	Pk	34.80	-20.60	0.00	65.59	-	-	74.00	-8.41	117	104	H	
			* 5.14999	37.87	RMS	34.80	-20.60	0.29	52.36	54.00	-1.64	-	-	-	117	104	H
			* 5.14924	39.19	RMS	34.80	-20.60	0.29	53.68	54.00	-0.32	-	-	-	117	104	H
			* 5.14999	49.15	Pk	34.80	-20.60	0.00	63.35	-	-	74.00	-10.65	192	252	V	
			* 5.14939	50.38	Pk	34.80	-20.60	0.00	64.58	-	-	74.00	-9.42	192	252	V	
			* 5.14999	37.69	RMS	34.80	-20.60	0.29	52.18	54.00	-1.82	-	-	-	192	252	V
			* 5.14709	38.37	RMS	34.80	-20.60	0.29	52.86	54.00	-1.14	-	-	-	192	252	V

Note1. Pk - Peak detector, RMS - RMS detector
 Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / ANT2 / 5220 MHz)
5220 MHz HORIZONTAL



5220 MHz VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Radiated Emissions

Frequency (GHz)	Meas Reading (dBuV)	Det	3117_0019897	SCM_LF(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Admth (Degs)	Height (cm)	Polarity	
*1.11936	48.6	PK-U	28.2	-36.1	0	40.7	-	-	74	-33.3	-	-	-	204	156	H
*1.11987	39.35	ADR	28.2	-36.1	0	31.45	54	-22.55	-	-	-	-	-	204	156	H
*1.12016	47.63	PK-U	28.2	-36.1	0	39.73	-	-	74	-34.27	-	-	-	170	357	V
*1.12022	38.14	ADR	28.2	-36.1	0	30.24	54	-23.76	-	-	-	-	-	170	357	V
*1.71896	47.36	PK-U	30.2	-34.9	0	42.66	-	-	74	-31.34	-	-	-	146	223	H
*1.71907	38.27	ADR	30.2	-34.9	0	33.57	54	-20.43	-	-	-	-	-	146	223	H
*1.72002	46.34	PK-U	30.2	-34.9	0	41.64	-	-	74	-32.36	-	-	-	187	377	V
*1.71993	37.29	ADR	30.2	-34.9	0	32.59	54	-21.41	-	-	-	-	-	187	377	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

Note: In the above emissions, frequencies other than harmonic are local oscillator generated during product operation regardless of RF transmission and were measured only in worst mode.

5220 MHz DATA

Radiated Emissions

Frequency (GHz)	Max Reading (dBuV)	Det	317_002897	60Hz_FFC(dB)	DC Corr (dB)	Conducted Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Limit Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7.82159	36.38	PK-U	36.3	-24.3	0	48.38	-	-	-	-	68.2	-19.82	0	100	H
7.82659	36.2	PK-U	36.3	-24.3	0	48.2	-	-	-	-	68.2	-20	0	100	V
10.43744	35.18	PK-U	38.1	-21.2	0	52.08	-	-	-	-	68.2	-16.12	0	100	H
10.43899	33.86	PK-U	38.1	-21.2	0	50.76	-	-	-	-	68.2	-17.44	0	100	V
* 15.65682	33.15	PK-U	40.4	-21.1	0	52.45	-	-	74	-21.55	-	-	0	100	H
* 15.98533	33.59	PK-U	41	-20.4	0	54.19	-	-	74	-19.81	-	-	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
 PK-U - U-NII: Maximum Peak

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity		
802.11a	5180	ANT1	7.770	36.62	PK-U	36.30	-24.60	0.00	48.32	-	-	-	-	68.20	-19.88	0	100	H		
			7.773	36.95	PK-U	36.30	-24.60	0.00	48.65	-	-	-	-	-	68.20	-19.55	0	100	V	
			10.368	34.32	PK-U	38.10	-20.90	0.00	51.52	-	-	-	-	-	68.20	-16.68	0	100	H	
			10.351	34.19	PK-U	38.10	-21.00	0.00	51.29	-	-	-	-	-	68.20	-16.91	0	100	V	
			* 15.53585	34.42	PK-U	40.20	-21.40	0.00	53.22	-	-	-	-	74.00	-20.78	-	-	0	100	H
			* 15.54118	34.95	PK-U	40.20	-21.40	0.00	53.75	-	-	-	-	74.00	-20.25	-	-	0	100	V
			7.831	35.55	PK-U	36.30	-24.20	0.00	47.65	-	-	-	-	-	-	68.20	-20.55	0	100	H
			7.823	36.09	PK-U	36.30	-24.30	0.00	48.09	-	-	-	-	-	-	68.20	-20.11	0	100	V
			10.444	34.55	PK-U	38.10	-21.20	0.00	51.45	-	-	-	-	-	-	68.20	-16.75	0	100	H
			10.434	34.84	PK-U	38.10	-21.20	0.00	51.74	-	-	-	-	-	-	68.20	-16.46	0	100	V
			* 15.65907	34.02	PK-U	40.40	-21.10	0.00	53.32	-	-	-	-	74.00	-20.68	-	-	0	100	H
			* 15.66522	33.54	PK-U	40.40	-21.10	0.00	52.84	-	-	-	-	74.00	-21.16	-	-	0	100	V
	5240	ANT1	7.870	35.52	PK-U	36.30	-23.90	0.00	47.92	-	-	-	-	-	68.20	-20.28	0	100	H	
			7.858	35.76	PK-U	36.30	-24.10	0.00	47.96	-	-	-	-	-	68.20	-20.24	0	100	V	
			10.483	33.90	PK-U	38.20	-21.20	0.00	50.90	-	-	-	-	-	68.20	-17.30	0	100	H	
			10.482	34.51	PK-U	38.20	-21.20	0.00	51.51	-	-	-	-	-	68.20	-16.69	0	100	V	
			* 15.72229	34.18	PK-U	40.50	-20.90	0.00	53.78	-	-	-	-	74.00	-20.22	-	-	0	100	H
			* 15.72219	35.26	PK-U	40.50	-20.90	0.00	54.86	-	-	-	-	74.00	-19.14	-	-	0	100	V

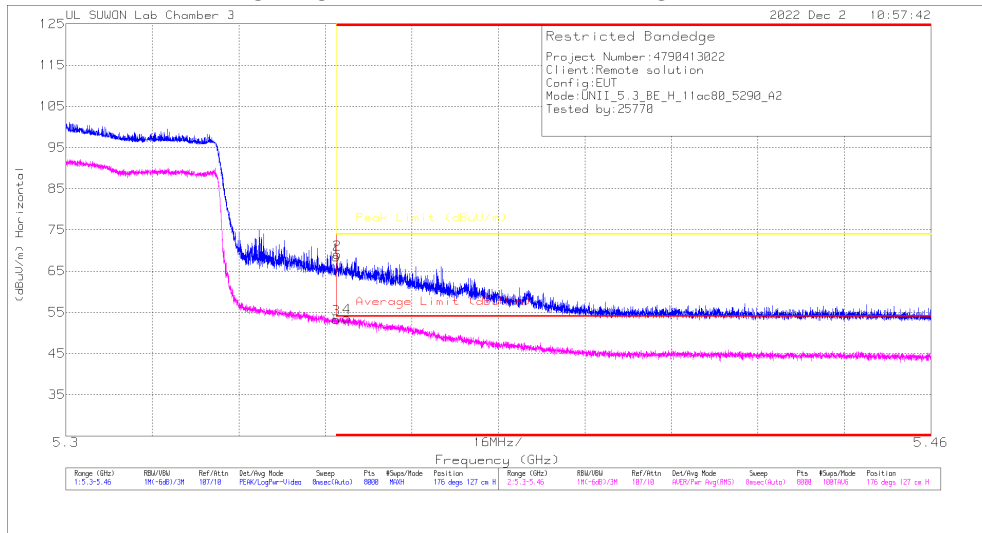
Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity				
802.11a	5180	ANT2	7.771	36.62	PK-U	36.30	-24.60	0.00	48.32	-	-	-	-	68.20	-19.88	0	100	H				
			7.770	36.27	PK-U	36.30	-24.60	0.00	47.97	-	-	-	-	-	68.20	-20.23	0	100	V			
			10.351	33.96	PK-U	38.10	-21.00	0.00	51.06	-	-	-	-	-	68.20	-17.14	0	100	H			
			10.356	34.05	PK-U	38.10	-21.10	0.00	51.05	-	-	-	-	-	68.20	-17.15	0	100	V			
			* 15.5459	34.40	PK-U	40.20	-21.40	0.00	53.20	-	-	-	-	74.00	-20.80	-	-	0	100	H		
			* 15.53675	34.57	PK-U	40.20	-21.40	0.00	53.37	-	-	-	-	74.00	-20.63	-	-	0	100	V		
			5220	ANT2	7.822	36.38	PK-U	36.30	-24.30	0.00	48.38	-	-	-	-	-	68.20	-19.82	0	100	H	
					7.827	36.20	PK-U	36.30	-24.30	0.00	48.20	-	-	-	-	-	68.20	-20.00	0	100	V	
					10.437	35.18	PK-U	38.10	-21.20	0.00	52.08	-	-	-	-	-	68.20	-16.12	0	100	H	
					10.436	33.86	PK-U	38.10	-21.20	0.00	50.76	-	-	-	-	-	68.20	-17.44	0	100	V	
					* 15.65682	33.15	PK-U	40.40	-21.10	0.00	52.45	-	-	-	-	74.00	-21.55	-	-	0	100	H
					* 15.98533	33.59	PK-U	41.00	-20.40	0.00	54.19	-	-	-	-	74.00	-19.81	-	-	0	100	V
	5240	ANT2			7.867	36.18	PK-U	36.30	-24.10	0.00	48.38	-	-	-	-	-	68.20	-19.82	0	100	H	
					7.869	35.42	PK-U	36.30	-24.00	0.00	47.72	-	-	-	-	-	68.20	-20.48	0	100	V	
					10.479	33.37	PK-U	38.20	-21.20	0.00	50.37	-	-	-	-	-	68.20	-17.83	0	100	H	
					10.478	33.20	PK-U	38.20	-21.20	0.00	50.20	-	-	-	-	-	68.20	-18.00	0	100	V	
					* 15.71849	34.40	PK-U	40.50	-21.00	0.00	53.90	-	-	-	-	74.00	-20.10	-	-	0	100	H
					* 15.72883	34.27	PK-U	40.50	-20.90	0.00	53.87	-	-	-	-	74.00	-20.13	-	-	0	100	V

Note1. PK-U - U-NII: Maximum Peak
 Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

10.2. TX ABOVE 1GHz IN THE 5.3GHz BAND

BANDEDGE (WORST CASE: 802.11ac VHT80 / ANT2 / 5290 MHz)

HORIZONTAL PEAK AND AVERAGE DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218657	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35001	53.52	Pk	35.1	-20.2	0	68.42	-	-	74	-5.58	176	127	H
2	* 5.35019	54.22	Pk	35.1	-20.2	0	69.12	-	-	74	-4.88	176	127	H
3	* 5.35001	38.12	RMS	35.1	-20.2	29	53.31	54	-69	-	-	176	127	H
4	* 5.35203	38.49	RMS	35.1	-20.2	29	53.68	54	-32	-	-	176	127	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

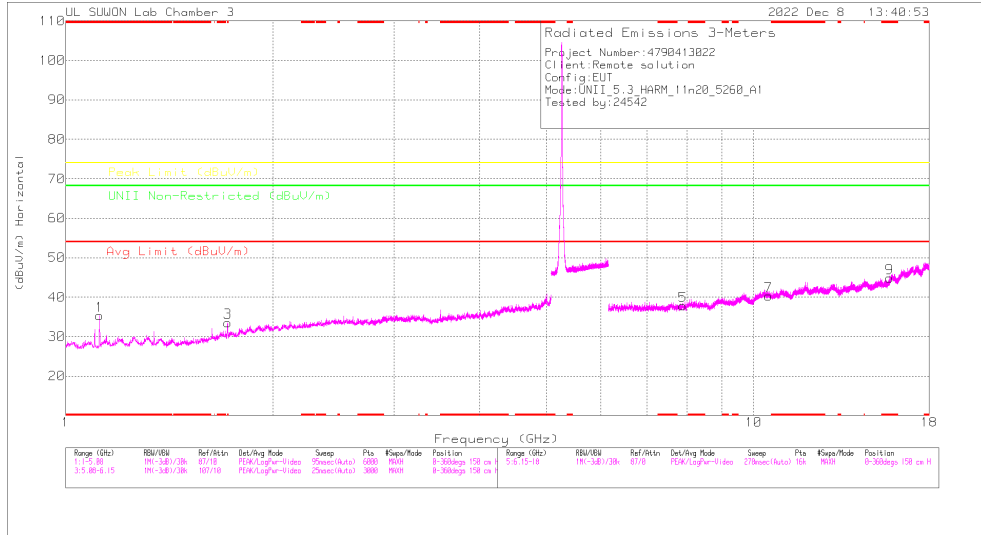
RMS - RMS detection

BANDEDGE TEST DATA

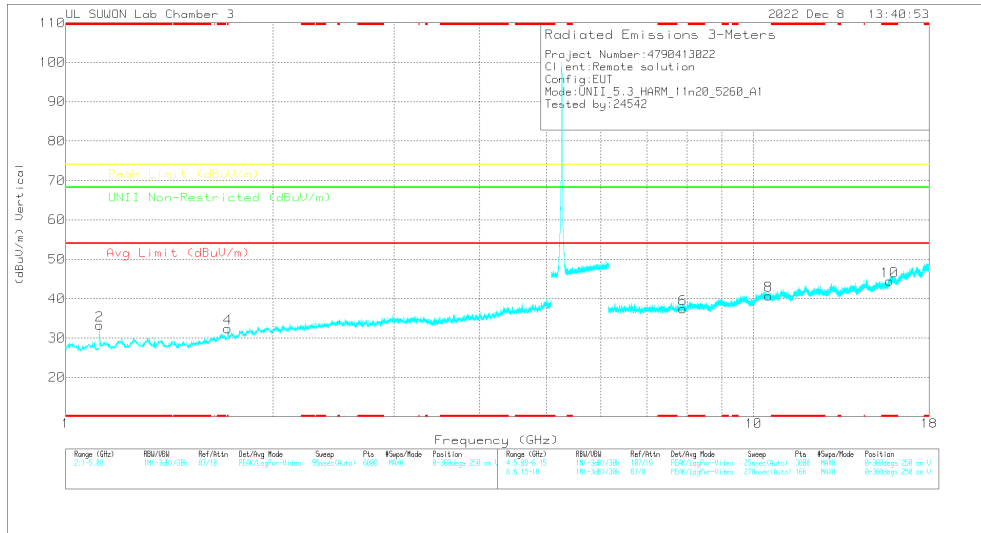
Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity		
802.11a	5320	ANT1	* 5.35001	52.40	Pk	35.10	-20.20	0.00	67.30	-	-	74.00	-6.70	351	117	H		
			* 5.35003	52.47	Pk	35.10	-20.20	0.00	67.37	-	-	74.00	-6.63	351	117	H		
			* 5.35001	34.94	RMS	35.10	-20.20	0.00	49.84	54.00	-4.16	-	-	-	351	117	H	
			* 5.35047	36.68	RMS	35.10	-20.20	0.00	51.58	54.00	-2.42	-	-	-	351	117	H	
			* 5.35001	47.25	Pk	35.10	-20.20	0.00	62.15	-	-	-	-	74.00	-11.85	175	100	V
			* 5.35273	47.63	Pk	35.10	-20.20	0.00	62.53	-	-	-	-	74.00	-11.47	175	100	V
			* 5.35001	30.95	RMS	35.10	-20.20	0.00	45.85	54.00	-8.15	-	-	-	-	175	100	V
			* 5.35025	32.32	RMS	35.10	-20.20	0.00	47.22	54.00	-6.78	-	-	-	-	175	100	V
			* 5.35001	48.10	Pk	35.10	-20.20	0.00	63.00	-	-	-	-	74.00	-11.00	352	109	H
			* 5.35145	52.02	Pk	35.10	-20.20	0.00	66.92	-	-	-	-	74.00	-7.08	352	109	H
802.11n(HT20)	5320	ANT1	* 5.35001	33.82	RMS	35.10	-20.20	0.00	48.72	54.00	-5.28	-	-	352	109	H		
			* 5.35147	34.62	RMS	35.10	-20.20	0.00	49.52	54.00	-4.48	-	-	-	352	109	H	
			* 5.35001	47.18	Pk	35.10	-20.20	0.00	62.08	-	-	-	74.00	-11.92	177	100	V	
			* 5.35345	46.64	Pk	35.10	-20.20	0.00	61.54	-	-	-	74.00	-12.46	177	100	V	
			* 5.35001	29.62	RMS	35.10	-20.20	0.00	44.52	54.00	-9.48	-	-	-	-	177	100	V
			* 5.35051	30.28	RMS	35.10	-20.20	0.00	45.18	54.00	-8.82	-	-	-	-	177	100	V
			* 5.35001	47.91	Pk	35.10	-20.20	0.00	62.81	-	-	-	-	74.00	-11.19	351	112	H
			* 5.35037	52.20	Pk	35.10	-20.20	0.00	67.10	-	-	-	-	74.00	-6.90	351	112	H
			* 5.35001	32.70	RMS	35.10	-20.20	0.00	47.60	54.00	-6.40	-	-	-	-	351	112	H
			* 5.35155	34.69	RMS	35.10	-20.20	0.00	49.59	54.00	-4.41	-	-	-	-	351	112	H
802.11ac(VHT20)	5320	ANT1	* 5.35001	42.88	Pk	35.10	-20.20	0.00	57.78	-	-	74.00	-16.22	177	100	V		
			* 5.35231	46.09	Pk	35.10	-20.20	0.00	60.99	-	-	-	74.00	-13.01	177	100	V	
			* 5.35001	30.09	RMS	35.10	-20.20	0.14	45.13	54.00	-8.87	-	-	-	-	177	100	V
			* 5.35031	30.71	RMS	35.10	-20.20	0.14	45.75	54.00	-8.25	-	-	-	-	177	100	V
			* 5.35001	48.39	Pk	35.10	-20.20	0.00	63.29	-	-	-	-	74.00	-10.71	349	109	H
			* 5.35035	53.74	Pk	35.10	-20.20	0.00	68.64	-	-	-	-	74.00	-5.36	349	109	H
			* 5.35001	35.19	RMS	35.10	-20.20	0.14	50.23	54.00	-3.77	-	-	-	-	349	109	H
			* 5.35035	36.06	RMS	35.10	-20.20	0.14	51.10	54.00	-2.90	-	-	-	-	349	109	H
			* 5.35001	44.19	Pk	35.10	-20.20	0.00	59.09	-	-	-	-	74.00	-14.91	176	100	V
			* 5.35213	46.98	Pk	35.10	-20.20	0.00	61.88	-	-	-	-	74.00	-12.12	176	100	V
802.11n(HT40)	5310	ANT1	* 5.35001	30.65	RMS	35.10	-20.20	0.14	45.69	54.00	-8.31	-	-	-	176	100	V	
			* 5.35113	31.40	RMS	35.10	-20.20	0.14	46.44	54.00	-7.56	-	-	-	-	176	100	V
			* 5.35001	49.11	Pk	35.10	-20.20	0.00	64.01	-	-	-	74.00	-9.99	350	117	H	
			* 5.35073	51.44	Pk	35.10	-20.20	0.00	66.34	-	-	-	-	74.00	-7.66	350	117	H
			* 5.35001	34.95	RMS	35.10	-20.20	0.14	49.99	54.00	-4.01	-	-	-	-	350	117	H
			* 5.35015	35.37	RMS	35.10	-20.20	0.14	50.41	54.00	-3.59	-	-	-	-	350	117	H
			* 5.35001	40.90	Pk	35.10	-20.20	0.00	55.80	-	-	-	-	74.00	-18.20	173	112	V
			* 5.35163	44.62	Pk	35.10	-20.20	0.00	59.52	-	-	-	-	74.00	-14.48	173	112	V
			* 5.35001	29.29	RMS	35.10	-20.20	0.14	44.33	54.00	-9.67	-	-	-	-	173	112	V
			* 5.35013	30.65	RMS	35.10	-20.20	0.14	45.69	54.00	-8.31	-	-	-	-	173	112	V
802.11ac(VHT40)	5310	ANT1	* 5.35001	49.11	Pk	35.10	-20.20	0.00	64.01	-	-	74.00	-9.99	350	117	H		
			* 5.35073	51.44	Pk	35.10	-20.20	0.00	66.34	-	-	-	74.00	-7.66	350	117	H	
			* 5.35001	34.95	RMS	35.10	-20.20	0.14	49.99	54.00	-4.01	-	-	-	-	350	117	H
			* 5.35015	35.37	RMS	35.10	-20.20	0.14	50.41	54.00	-3.59	-	-	-	-	350	117	H
			* 5.35001	40.90	Pk	35.10	-20.20	0.00	55.80	-	-	-	-	74.00	-18.20	173	112	V
			* 5.35163	44.62	Pk	35.10	-20.20	0.00	59.52	-	-	-	-	74.00	-14.48	173	112	V
			* 5.35001	29.29	RMS	35.10	-20.20	0.14	44.33	54.00	-9.67	-	-	-	-	173	112	V
			* 5.35013	30.65	RMS	35.10	-20.20	0.14	45.69	54.00	-8.31	-	-	-	-	173	112	V
			* 5.35001	47.70	Pk	35.10	-20.20	0.00	62.60	-	-	-	-	74.00	-11.40	325	117	H
			* 5.35345	51.75	Pk	35.10	-20.20	0.00	66.65	-	-	-	-	74.00	-7.35	325	117	H
802.11ac(VHT80)	5290	ANT1	* 5.35001	36.69	RMS	35.10	-20.20	0.29	51.88	54.00	-2.12	-	-	-	325	117	H	
			* 5.35045	36.84	RMS	35.10	-20.20	0.29	52.03	54.00	-1.97	-	-	-	-	325	117	H
			* 5.35001	48.36	Pk	35.10	-20.20	0.00	63.26	-	-	-	74.00	-10.74	20	363	V	
			* 5.35395	51.38	Pk	35.10	-20.20	0.00	66.28	-	-	-	-	74.00	-7.72	20	363	V
			* 5.35001	35.26	RMS	35.10	-20.20	0.29	50.45	54.00	-3.55	-	-	-	-	20	363	V
			* 5.35119	36.50	RMS	35.10	-20.20	0.29	51.69	54.00	-2.31	-	-	-	-	20	363	V

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity		
802.11a	5320	ANT2	* 5.35001	52.89	Pk	35.10	-20.20	0.00	67.79	-	-	74.00	-6.21	125	100	H		
			* 5.35143	54.07	Pk	35.10	-20.20	0.00	68.97	-	-	-	74.00	-5.03	125	100	H	
			* 5.35001	37.57	RMS	35.10	-20.20	0.00	52.47	54.00	-1.53	-	-	-	-	125	100	H
			* 5.35019	37.71	RMS	35.10	-20.20	0.00	52.61	54.00	-1.39	-	-	-	-	125	100	H
			* 5.35001	45.85	Pk	35.10	-20.20	0.00	60.75	-	-	-	74.00	-13.25	190	264	V	
			* 5.35393	49.54	Pk	35.10	-20.20	0.00	64.44	-	-	-	-	74.00	-9.56	190	264	V
			* 5.35001	33.93	RMS	35.10	-20.20	0.00	48.83	54.00	-5.17	-	-	-	-	190	264	V
			* 5.35035	35.21	RMS	35.10	-20.20	0.00	50.11	54.00	-3.89	-	-	-	-	190	264	V
			* 5.35001	51.79	Pk	35.10	-20.20	0.00	66.69	-	-	-	-	74.00	-7.31	120	116	H
			* 5.35039	51.81	Pk	35.10	-20.20	0.00	66.71	-	-	-	-	74.00	-7.29	120	116	H
802.11n(HT20)	5320	ANT2	* 5.35001	33.00	RMS	35.10	-20.20	0.00	47.90	54.00	-6.10	-	-	-	120	116	H	
			* 5.35181	35.20	RMS	35.10	-20.20	0.00	50.10	54.00	-3.90	-	-	-	-	120	116	H
			* 5.35001	45.15	Pk	35.10	-20.20	0.00	60.05	-	-	-	74.00	-13.95	185	382	V	
			* 5.35189	48.61	Pk	35.10	-20.20	0.00	63.51	-	-	-	-	74.00	-10.49	185	382	V
			* 5.35001	31.78	RMS	35.10	-20.20	0.00	46.68	54.00	-7.32	-	-	-	-	185	382	V
			* 5.35103	32.16	RMS	35.10	-20.20	0.00	47.06	54.00	-6.94	-	-	-	-	185	382	V
			* 5.35001	51.31	Pk	35.10	-20.20	0.00	66.21	-	-	-	-	74.00	-7.79	121	101	H
			* 5.35037	54.55	Pk	35.10	-20.20	0.00	69.45	-	-	-	-	74.00	-4.55	121	101	H
			* 5.35001	34.37	RMS	35.10	-20.20	0.00	49.27	54.00	-4.73	-	-	-	-	121	101	H
			* 5.35007	35.45	RMS	35.10	-20.20	0.00	50.35	54.00	-3.65	-	-	-	-	121	101	H
802.11ac(VHT20)	5320	ANT2	* 5.35001</															

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11n HT20 / ANT1 / 5260 MHz)
5260 MHz HORIZONTAL



5260 MHz VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

5260 MHz DATA

Radiated Emissions

Frequency (GHz)	Meas Reading (dBuV)	Det	317_0021867	5GHz_HF(dB)	DC Corr (dB)	Correction Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Admth (Dbgs)	Height (cm)	Polarity
7.58451	36.04	PK-U	36.3	-23.9	0	48.44	-	-	-	-	68.2	-19.76	0	100	H
7.89519	35.74	PK-U	36.3	-24	0	48.04	-	-	-	-	68.2	-20.16	0	100	V
10.51465	33.54	PK-U	38.2	-21.1	0	50.64	-	-	-	-	68.2	-17.56	0	100	H
10.52005	34.1	PK-U	38.2	-21.1	0	51.2	-	-	-	-	68.2	-17	0	100	V
*15.78785	34.98	PK-U	40.6	-20.8	0	54.78	-	-	74	-19.22	-	-	0	100	H
*15.78659	34.39	PK-U	40.6	-20.8	0	54.19	-	-	74	-19.81	-	-	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity	
802.11a	5260	ANT1	7.895	35.86	PK-U	36.30	-24.00	0.00	48.16	-	-	-	-	68.20	-20.04	0	100	H	
			7.898	35.72	PK-U	36.30	-23.90	0.00	48.12	-	-	-	-	-	68.20	-20.08	0	100	V
			10.520	33.54	PK-U	38.20	-21.10	0.00	50.64	-	-	-	-	-	68.20	-17.56	0	100	H
			10.524	33.09	PK-U	38.20	-21.10	0.00	50.19	-	-	-	-	-	68.20	-18.01	0	100	V
			* 15.78212	34.62	PK-U	40.60	-20.80	0.00	54.42	-	-	74.00	-19.58	-	-	-	0	100	H
			* 15.78396	34.61	PK-U	40.60	-20.80	0.00	54.41	-	-	74.00	-19.59	-	-	-	0	100	V
	5300	ANT1	7.949	36.00	PK-U	36.30	-24.10	0.00	48.20	-	-	-	-	68.20	-20.00	0	100	H	
			7.954	36.30	PK-U	36.30	-24.20	0.00	48.40	-	-	-	-	68.20	-19.80	0	100	V	
			10.593	33.32	PK-U	38.30	-21.20	0.00	50.42	-	-	-	-	-	68.20	-17.78	0	100	H
			10.596	32.66	PK-U	38.30	-21.20	0.00	49.76	-	-	-	-	-	68.20	-18.44	0	100	V
			* 15.89686	34.22	PK-U	40.80	-20.30	0.00	54.72	-	-	74.00	-19.28	-	-	-	0	100	H
			* 15.89661	33.67	PK-U	40.80	-20.30	0.00	54.17	-	-	74.00	-19.83	-	-	-	0	100	V
	5320	ANT1	7.990	35.95	PK-U	36.30	-24.30	0.00	47.95	-	-	-	-	68.20	-20.25	0	100	H	
			7.986	36.17	PK-U	36.30	-24.30	0.00	48.17	-	-	-	-	68.20	-20.03	0	100	V	
			* 10.63618	32.97	PK-U	38.30	-21.10	0.00	50.17	-	-	74.00	-23.83	-	-	-	0	100	H
			10.6376	33.36	PK-U	38.30	-21.10	0.00	50.96	-	-	74.00	-23.44	-	-	-	0	100	V
			* 15.96427	33.74	PK-U	40.90	-20.40	0.00	54.24	-	-	74.00	-19.76	-	-	-	0	100	H
			* 15.96026	34.23	PK-U	40.90	-20.40	0.00	54.73	-	-	74.00	-19.27	-	-	-	0	100	V
802.11n(HT20) Spot check	5260	ANT1	7.885	36.04	PK-U	36.30	-23.90	0.00	48.44	-	-	-	-	68.20	-19.76	0	100	H	
			7.895	35.74	PK-U	36.30	-24.00	0.00	48.04	-	-	-	-	68.20	-20.16	0	100	V	
			10.515	33.54	PK-U	38.20	-21.10	0.00	50.64	-	-	-	-	68.20	-17.56	0	100	H	
			10.520	34.10	PK-U	38.20	-21.10	0.00	51.20	-	-	-	-	68.20	-17.00	0	100	V	
			* 15.78785	34.98	PK-U	40.60	-20.80	0.00	54.78	-	-	74.00	-19.22	-	-	-	0	100	H
			* 15.78659	34.39	PK-U	40.60	-20.80	0.00	54.19	-	-	74.00	-19.81	-	-	-	0	100	V

Note1. PK-U - U-NII: Maximum Peak / ADR - U-NII AD primary method, RMS average
 Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

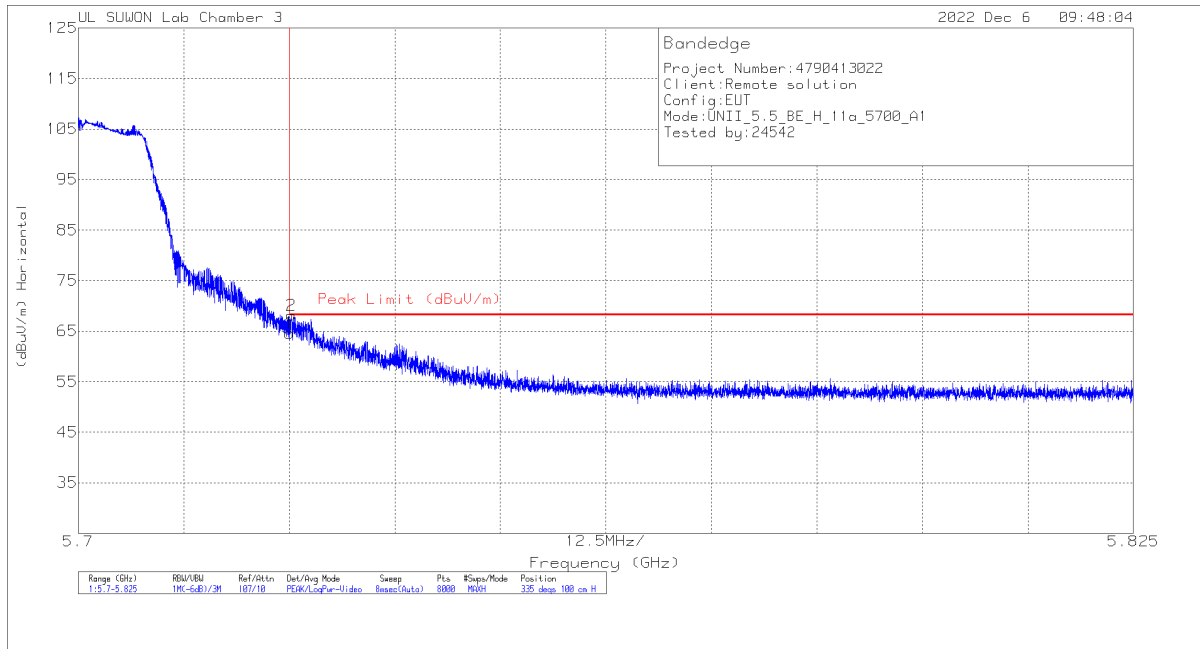
Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity	
802.11a	5260	ANT2	7.887	36.15	PK-U	36.30	-23.90	0.00	48.55	-	-	-	-	68.20	-19.65	0	100	H	
			7.886	36.21	PK-U	36.30	-23.90	0.00	48.61	-	-	-	-	68.20	-19.59	0	100	V	
			10.526	33.12	PK-U	38.20	-21.10	0.00	50.22	-	-	-	-	68.20	-17.98	0	100	H	
			10.528	33.33	PK-U	38.20	-21.10	0.00	50.43	-	-	-	-	68.20	-17.77	0	100	V	
			* 15.77273	35.02	PK-U	40.60	-20.80	0.00	54.82	-	-	74.00	-19.18	-	-	-	0	100	H
			* 15.77024	34.85	PK-U	40.60	-20.80	0.00	54.65	-	-	74.00	-19.35	-	-	-	0	100	V
	5300	ANT2	7.944	35.96	PK-U	36.30	-24.20	0.00	48.06	-	-	-	-	68.20	-20.14	0	100	H	
			7.948	36.37	PK-U	36.30	-24.10	0.00	48.57	-	-	-	-	68.20	-19.63	0	100	V	
			10.592	33.48	PK-U	38.30	-21.20	0.00	50.58	-	-	-	-	68.20	-17.62	0	100	H	
			10.597	33.42	PK-U	38.30	-21.20	0.00	50.52	-	-	-	-	68.20	-17.68	0	100	V	
			* 15.89833	34.19	PK-U	40.80	-20.30	0.00	54.69	-	-	74.00	-19.31	-	-	-	0	100	H
			* 15.90937	34.20	PK-U	40.80	-20.30	0.00	54.70	-	-	74.00	-19.30	-	-	-	0	100	V
	5320	ANT2	7.989	35.72	PK-U	36.30	-24.30	0.00	47.72	-	-	-	-	68.20	-20.48	0	100	H	
			7.988	35.97	PK-U	36.30	-24.30	0.00	47.97	-	-	-	-	68.20	-20.23	0	100	V	
			* 10.63611	32.91	PK-U	38.30	-21.10	0.00	50.11	-	-	74.00	-23.89	-	-	-	0	100	H
			* 10.63795	33.14	PK-U	38.30	-21.10	0.00	50.34	-	-	74.00	-23.66	-	-	-	0	100	V
			* 15.959	34.57	PK-U	40.90	-20.40	0.00	55.07	-	-	74.00	-18.93	-	-	-	0	100	H
			* 15.95573	33.95	PK-U	40.90	-20.40	0.00	54.45	-	-	74.00	-19.55	-	-	-	0	100	V
802.11n(HT20) Spot check	5260	ANT2	7.888	35.59	PK-U	36.30	-23.90	0.00	47.99	-	-	-	-	68.20	-20.21	0	100	H	
			7.897	35.75	PK-U	36.30	-24.00	0.00	48.05	-	-	-	-	68.20	-20.15	0	100	V	
			10.520	34.00	PK-U	38.20	-21.10	0.00	51.10	-	-	-	-	68.20	-17.10	0	100	H	
			10.519	33.61	PK-U	38.20	-21.10	0.00	50.71	-	-	-	-	68.20	-17.49	0	100	V	
			* 15.77818	34.29	PK-U	40.60	-20.80	0.00	54.09	-	-	74.00	-19.91	-	-	-	0	100	H
			* 15.78837	34.50	PK-U	40.60	-20.80	0.00	54.30	-	-	74.00	-19.70	-	-	-	0	100	V

Note1. PK-U - U-NII: Maximum Peak / ADR - U-NII AD primary method, RMS average
 Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

10.3. TX ABOVE 1GHz IN THE 5.5 GHz BAND

BANDEDGE (WORST CASE: 802.11a / ANT1 / 5700 MHz)

HORIZONTAL PEAK DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.725	48.35	Pk	35.7	-19.5	0	64.55	68.2	-3.65	335	100	H
2	5.72522	51.94	Pk	35.7	-19.5	0	68.14	68.2	-0.06	335	100	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

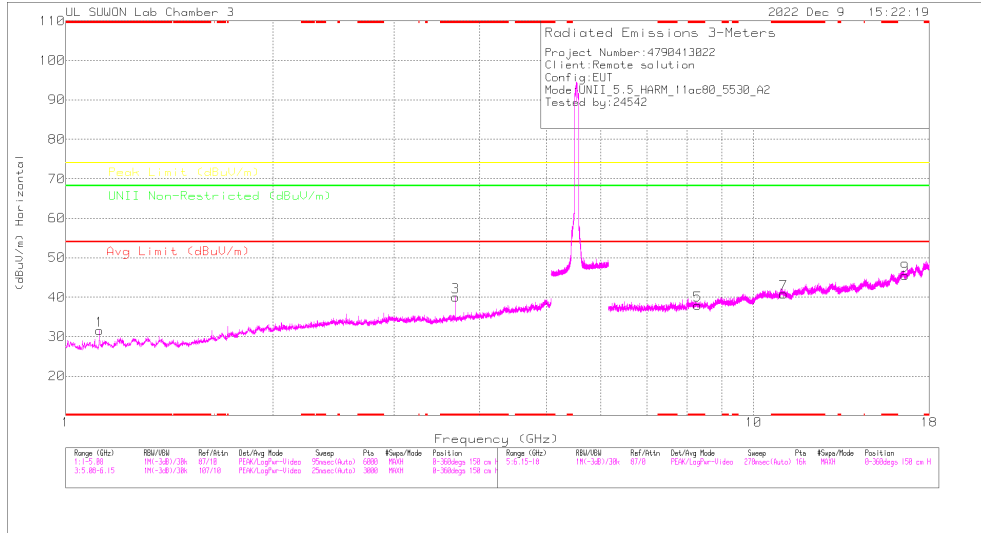
RMS - RMS detection

BANDEDGE TEST DATA

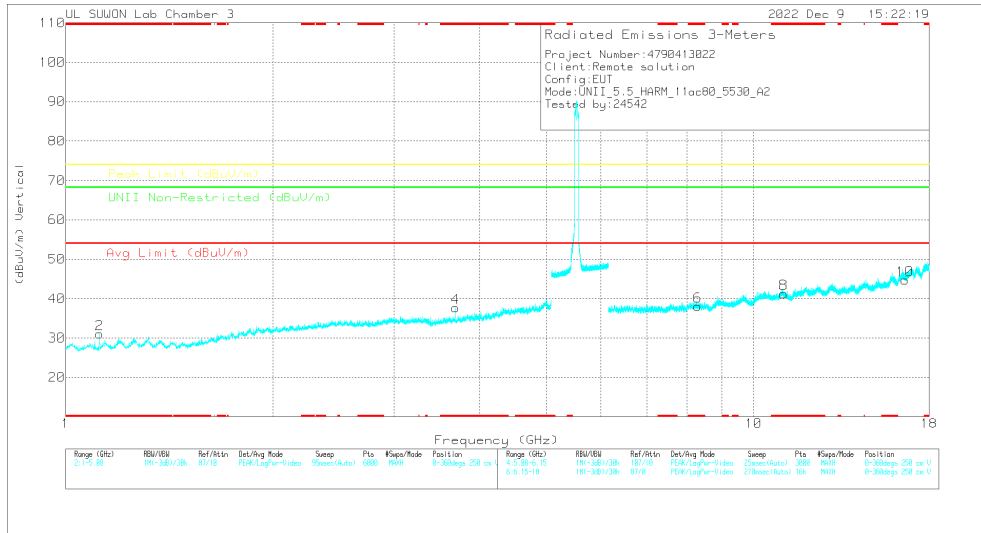
Mode	Freq. [MHz]	Antenna	Frequency [dBuV]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Deg]	Height [m]	Polarity	
802.11a	5500	ANT1	* 5.45998	44.84	Pk	35.30	-19.10	0.00	60.04	-	-	74.00	-13.96	310	100	H	
			* 5.45996	46.39	Pk	35.30	-20.10	0.00	61.59	-	-	74.00	-12.41	310	100	H	
			5.46998	46.72	Pk	35.30	-20.10	0.00	61.92	-	-	68.20	-6.28	310	100	H	
			5.46956	50.70	Pk	35.30	-20.10	0.00	65.90	-	-	68.20	-2.30	310	100	H	
			* 5.45998	31.88	RMS	35.30	-20.10	0.00	47.08	54.00	-6.92	-	-	-	350	115	H
			* 5.45998	33.10	RMS	35.30	-20.10	0.00	48.30	54.00	-5.70	-	-	-	350	115	H
			5.46998	35.72	RMS	35.30	-20.10	0.00	50.92	-	-	-	-	-	350	115	H
			5.46976	38.30	RMS	35.30	-20.10	0.00	53.50	-	-	-	-	-	350	115	H
			* 5.45998	44.69	Pk	35.30	-20.10	0.00	59.89	-	-	74.00	-14.11	194	238	V	
			* 5.45792	47.15	Pk	35.30	-20.10	0.00	62.35	-	-	74.00	-11.65	194	238	V	
	5.46998	49.49	Pk	35.30	-20.10	0.00	64.80	-	-	68.20	-3.40	194	238	V			
	5.46989	52.25	Pk	35.30	-20.10	0.00	67.45	-	-	68.20	-0.75	194	238	V			
	* 5.45998	31.38	RMS	35.30	-20.10	0.00	46.58	54.00	-7.42	-	-	-	194	238	V		
	* 5.45987	32.76	RMS	35.30	-20.10	0.00	47.96	54.00	-6.04	-	-	-	194	238	V		
	5.46998	35.19	RMS	35.30	-20.10	0.00	50.39	-	-	-	-	-	194	238	V		
	5.46954	38.91	RMS	35.30	-20.10	0.00	52.11	-	-	-	-	-	194	238	V		
	5.72500	48.35	Pk	35.70	-19.50	0.00	64.55	-	-	68.20	-3.65	335	100	H			
	5.72522	51.94	Pk	35.70	-19.50	0.00	68.14	-	-	68.20	-0.06	335	100	H			
	5.72500	47.93	Pk	35.70	-19.50	0.00	64.13	-	-	68.20	-4.07	175	100	V			
	5.72527	48.98	Pk	35.70	-19.50	0.00	65.18	-	-	68.20	-3.02	175	100	V			
802.11n(HT20)	5500	ANT1	* 5.45998	43.07	Pk	35.30	-20.10	0.00	58.27	-	-	74.00	-15.73	354	113	H	
			* 5.45733	45.66	Pk	35.30	-20.10	0.00	60.86	-	-	74.00	-13.14	354	113	H	
			5.46998	48.43	Pk	35.30	-20.10	0.00	63.63	-	-	68.20	-4.57	354	113	H	
			5.46886	50.08	Pk	35.30	-20.10	0.00	65.28	-	-	68.20	-2.92	354	113	H	
			* 5.45998	32.07	RMS	35.30	-20.10	0.00	47.27	54.00	-6.73	-	-	-	354	113	H
			* 5.45989	33.15	RMS	35.30	-20.10	0.00	48.35	54.00	-5.65	-	-	-	354	113	H
			5.46998	35.81	RMS	35.30	-20.10	0.00	51.01	-	-	-	-	-	354	113	H
			5.46987	36.89	RMS	35.30	-20.10	0.00	52.09	-	-	-	-	-	354	113	H
			* 5.45998	41.28	Pk	35.30	-20.10	0.00	56.48	-	-	74.00	-17.52	194	239	V	
			* 5.45722	45.40	Pk	35.30	-20.10	0.00	60.80	-	-	74.00	-13.40	194	239	V	
	5.46998	46.48	Pk	35.30	-20.10	0.00	61.68	-	-	68.20	-6.52	194	239	V			
	5.46355	48.49	Pk	35.30	-20.10	0.00	63.69	-	-	68.20	-4.51	194	239	V			
	* 5.45998	33.92	RMS	35.30	-19.10	0.00	48.52	54.00	-7.85	-	-	-	194	239	V		
	* 5.45878	31.18	RMS	35.30	-20.10	0.00	46.38	54.00	-7.62	-	-	-	194	239	V		
	5.46998	34.14	RMS	35.30	-20.10	0.00	49.34	-	-	-	-	-	194	239	V		
	5.46950	34.79	RMS	35.30	-20.10	0.00	49.99	-	-	-	-	-	194	239	V		
	5.72500	47.55	Pk	35.70	-19.50	0.00	63.75	-	-	68.20	-4.45	339	100	H			
	5.72513	47.55	Pk	35.70	-19.50	0.00	63.75	-	-	68.20	-4.45	339	100	H			
	5.72500	42.19	Pk	35.70	-19.50	0.00	58.39	-	-	68.20	-9.81	173	100	V			
	5.72543	45.54	Pk	35.70	-19.50	0.00	61.74	-	-	68.20	-6.46	173	100	V			
802.11ac(VHT20)	5500	ANT1	* 5.45998	43.53	Pk	35.30	-20.10	0.00	58.73	-	-	74.00	-15.27	350	106	H	
			* 5.45733	47.08	Pk	35.30	-20.10	0.00	62.28	-	-	74.00	-11.72	350	106	H	
			5.46998	48.00	Pk	35.30	-20.10	0.00	63.20	-	-	68.20	-5.00	350	106	H	
			5.46994	50.51	Pk	35.30	-20.10	0.00	65.79	-	-	68.20	-2.49	350	106	H	
			* 5.45998	31.94	RMS	35.30	-20.10	0.00	47.14	54.00	-5.86	-	-	-	350	106	H
			* 5.45823	32.03	RMS	35.30	-20.10	0.00	47.23	54.00	-6.77	-	-	-	350	106	H
			5.46998	34.73	RMS	35.30	-20.10	0.00	49.93	-	-	-	-	-	350	106	H
			5.46985	35.81	RMS	35.30	-20.10	0.00	51.01	-	-	-	-	-	350	106	H
			* 5.45998	41.64	Pk	35.30	-20.10	0.00	56.84	-	-	74.00	-17.16	29	379	V	
			* 5.45915	44.49	Pk	35.30	-20.10	0.00	60.59	-	-	74.00	-14.31	29	379	V	
	5.46998	44.76	Pk	35.30	-20.10	0.00	59.96	-	-	68.20	-8.24	29	379	V			
	5.46770	47.74	Pk	35.30	-20.10	0.00	62.94	-	-	68.20	-5.26	29	379	V			
	* 5.45998	30.08	RMS	35.30	-20.10	0.00	45.28	54.00	-8.72	-	-	-	29	379	V		
	* 5.45976	30.79	RMS	35.30	-20.10	0.00	45.99	54.00	-8.01	-	-	-	29	379	V		
	5.46998	32.29	RMS	35.30	-20.10	0.00	47.49	-	-	-	-	-	29	379	V		
	5.46982	33.32	RMS	35.30	-20.10	0.00	48.52	-	-	-	-	-	29	379	V		
	5.72500	45.68	Pk	35.70	-19.50	0.00	61.88	-	-	68.20	-6.32	278	100	H			
	5.72539	48.79	Pk	35.70	-19.50	0.00	64.99	-	-	68.20	-3.21	278	100	H			
	5.72500	45.03	Pk	35.70	-19.50	0.00	61.23	-	-	68.20	-6.97	191	101	V			
	5.72547	48.36	Pk	35.70	-19.50	0.00	64.56	-	-	68.20	-3.64	191	101	V			
802.11n(HT40)	5510	ANT1	* 5.45998	44.56	Pk	35.30	-20.10	0.00	59.76	-	-	74.00	-14.24	351	101	H	
			* 5.45992	45.66	Pk	35.30	-20.10	0.00	60.86	-	-	74.00	-13.14	351	101	H	
			5.46998	48.13	Pk	35.30	-20.10	0.00	63.33	-	-	68.20	-4.87	351	101	H	
			5.46893	49.92	Pk	35.30	-20.10	0.00	65.12	-	-	68.20	-3.08	351	101	H	
			* 5.45998	32.24	RMS	35.30	-20.10	0.14	47.58	54.00	-6.42	-	-	-	351	100	H
			* 5.45995	33.46	RMS	35.30	-20.10	0.14	48.80	54.00	-5.20	-	-	-	351	100	H
			5.46998	36.17	RMS	35.30	-20.10	0.14	51.51	-	-	-	-	-	351	100	H
			5.46994	37.11	RMS	35.30	-20.10	0.14	52.45	-	-	-	-	-	351	100	H
			* 5.45998	40.87	Pk	35.30	-20.10	0.00	56.07	-	-	74.00	-17.93	194	238	V	
			* 5.45849	44.39	Pk	35.30	-20.10	0.00	59.59	-	-	74.00	-14.41	194	238	V	
	5.46998	44.21	Pk	35.30	-20.10	0.00	59.41	-	-	68.20	-8.79	194	238	V			
	5.46762	47.37	Pk	35.30	-20.10	0.00	62.57	-	-	68.20	-5.63	194	238	V			
	* 5.45998	31.52	RMS	35.30	-20.10	0.14	46.86	54.00	-7.14	-	-	-	194	238	V		
	* 5.45994	31.63	RMS	35.30	-20.10	0.14	46.97	54.00	-7.03	-	-	-	194	238	V		
	5.46998	34.32	RMS	35.30	-20.10	0.14	49.66	-	-	-	-	-	194	238	V		
	5.46991	35.05	RMS	35.30	-20.10	0.14	50.39	-	-	-	-	-	194	238	V		
	5.72500	37.82	Pk	35.70	-19.50	0.00	54.02	-	-	68.20	-14.18	283	100	H			
	5.72589	41.37	Pk	35.70	-19.50	0.00	57.67	-	-	68.20	-10.53	283	100	H			
	5.72500	36.90	Pk	35.70	-19.50	0.00	53.10	-	-	68.20	-15.10	180	100	V			
	5.73346	40.17	Pk	35.70	-19.50	0.00	56.37	-	-	68.20	-11.83	180	100	V			
802.11ac(VHT40)	5510	ANT1	* 5.45998	44.67	Pk	35.30	-20.10	0.00	59.87	-	-	74.00	-14.13	310	100	H	
			* 5.45985	46.61	Pk	35.30	-20.10	0.00	61.81	-	-	74.00	-12.19	310	100	H	
			5.46998	48.45	Pk	35.30	-20.10	0.00	63.65	-	-	68.20	-4.55	310	100	H	
			5.46851	50.66	Pk	35.30	-20.10	0.00	65.86	-	-	68.20	-2.34	310	100	H	
			* 5.45998	32.81	RMS	35.30	-20.10	0.14									

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity		
802.11a	5500	ANT2	* 5.45992	43.69	Pk	35.30	-20.10	0.00	58.89	-	-	74.00	-15.11	-	174	142	H	
			5.46998	46.59	Pk	35.30	-20.10	0.00	61.79	-	-	74.00	-12.21	-	174	142	H	
			5.46998	50.88	Pk	35.30	-20.10	0.00	66.08	-	-	74.00	-2.12	-	174	142	H	
			5.46945	51.32	Pk	35.30	-20.10	0.00	66.52	-	-	68.20	-1.68	-	174	142	H	
			* 5.45998	32.69	RMS	35.30	-20.10	0.00	47.89	-	54.00	-6.11	-	-	-	174	142	H
			* 5.45976	33.21	RMS	35.30	-20.10	0.00	48.41	-	54.00	-5.99	-	-	-	174	142	H
			5.46998	35.39	RMS	35.30	-20.10	0.00	50.59	-	-	-	-	-	-	174	142	H
			5.46965	36.52	RMS	35.30	-20.10	0.00	51.72	-	-	-	-	-	-	174	142	H
			* 5.45998	43.06	Pk	35.30	-20.10	0.00	58.26	-	-	-	74.00	-15.74	-	191	100	V
			* 5.45517	46.04	Pk	35.30	-20.10	0.00	61.24	-	-	-	74.00	-12.76	-	191	100	V
	5.46998	52.53	Pk	35.30	-20.10	0.00	67.73	-	-	-	68.20	-0.47	-	191	100	V		
	5.46996	52.84	Pk	35.30	-20.10	0.00	68.04	-	-	-	68.20	-0.16	-	191	100	V		
	* 5.45998	32.66	RMS	35.30	-20.10	0.00	47.86	-	54.00	-6.14	-	-	-	191	100	V		
	* 5.45997	33.39	RMS	35.30	-20.10	0.00	48.59	-	54.00	-5.41	-	-	-	191	100	V		
	5.46998	36.48	RMS	35.30	-20.10	0.00	51.68	-	-	-	-	-	-	191	100	V		
	5.46989	36.82	RMS	35.30	-20.10	0.00	52.02	-	-	-	-	-	-	191	100	V		
	5.72552	49.70	Pk	35.70	-19.50	0.00	65.90	-	-	-	-	68.20	-2.30	-	192	103	H	
	5.72666	51.85	Pk	35.70	-19.50	0.00	68.05	-	-	-	-	68.20	-0.15	-	120	103	H	
	5.72500	50.75	Pk	35.70	-19.50	0.00	66.95	-	-	-	-	68.20	-1.25	-	181	103	V	
	5.72507	51.17	Pk	35.70	-19.50	0.00	67.37	-	-	-	-	68.20	-0.83	-	181	103	V	
802.11n(HT20)	5500	ANT2	* 5.45998	44.07	Pk	35.30	-20.10	0.00	59.27	-	-	74.00	-14.73	-	194	263	V	
			* 5.45762	45.83	Pk	35.30	-20.10	0.00	61.03	-	-	74.00	-12.97	-	194	263	V	
			5.46998	47.60	Pk	35.30	-20.10	0.00	62.80	-	-	-	68.20	-5.40	-	194	263	V
			5.46965	51.22	Pk	35.30	-20.10	0.00	66.42	-	-	-	68.20	-1.78	-	194	263	V
			* 5.45998	30.41	RMS	35.30	-20.10	0.00	45.61	-	54.00	-8.39	-	-	-	194	263	V
			* 5.45987	31.39	RMS	35.30	-20.10	0.00	46.59	-	54.00	-7.41	-	-	-	194	263	V
			5.46998	33.96	RMS	35.30	-20.10	0.00	49.06	-	-	-	-	-	-	194	263	V
			5.46995	34.74	RMS	35.30	-20.10	0.00	49.84	-	-	-	-	-	-	194	263	V
			* 5.45998	44.07	Pk	35.30	-20.10	0.00	59.27	-	-	-	74.00	-14.73	-	194	263	V
			* 5.45762	45.83	Pk	35.30	-20.10	0.00	61.03	-	-	-	74.00	-12.97	-	194	263	V
	5.46998	47.60	Pk	35.30	-20.10	0.00	62.80	-	-	-	68.20	-5.40	-	194	263	V		
	5.46965	51.22	Pk	35.30	-20.10	0.00	66.42	-	-	-	68.20	-1.78	-	194	263	V		
	* 5.45998	30.41	RMS	35.30	-20.10	0.00	45.61	-	54.00	-8.39	-	-	-	194	263	V		
	* 5.45987	31.39	RMS	35.30	-20.10	0.00	46.59	-	54.00	-7.41	-	-	-	194	263	V		
	5.46998	33.96	RMS	35.30	-20.10	0.00	49.06	-	-	-	-	-	-	194	263	V		
	5.46995	34.74	RMS	35.30	-20.10	0.00	49.84	-	-	-	-	-	-	194	263	V		
	5.72500	47.21	Pk	35.70	-19.50	0.00	63.41	-	-	-	-	68.20	-4.79	-	172	135	H	
	5.72613	49.32	Pk	35.70	-19.50	0.00	65.52	-	-	-	-	68.20	-2.68	-	172	135	H	
	5.72500	46.56	Pk	35.70	-19.50	0.00	65.70	-	-	-	-	68.20	-5.45	-	195	235	V	
	5.72510	49.60	Pk	35.70	-19.50	0.00	65.80	-	-	-	-	68.20	-2.40	-	195	235	V	
802.11ac(VHT20)	5500	ANT2	* 5.45998	44.08	Pk	35.30	-20.10	0.00	59.28	-	-	74.00	-14.72	-	178	126	H	
			* 5.45922	47.05	Pk	35.30	-20.10	0.00	62.25	-	-	74.00	-11.75	-	178	126	H	
			5.46998	47.50	Pk	35.30	-20.10	0.00	62.70	-	-	-	68.20	-5.50	-	178	126	H
			5.46950	51.56	Pk	35.30	-20.10	0.00	66.76	-	-	-	68.20	-1.44	-	178	126	H
			* 5.45998	32.36	RMS	35.30	-20.10	0.00	47.56	-	54.00	-6.44	-	-	-	178	126	H
			* 5.45915	33.67	RMS	35.30	-20.10	0.00	48.87	-	54.00	-5.13	-	-	-	178	126	H
			5.46998	35.91	RMS	35.30	-20.10	0.00	51.11	-	-	-	-	-	-	178	126	H
			5.46893	37.81	RMS	35.30	-20.10	0.00	53.01	-	-	-	-	-	-	178	126	H
			* 5.45998	43.40	Pk	35.30	-20.10	0.00	58.60	-	-	-	74.00	-15.40	-	192	250	V
			* 5.45994	45.61	Pk	35.30	-20.10	0.00	60.81	-	-	-	74.00	-13.19	-	192	250	V
	5.46998	46.88	Pk	35.30	-20.10	0.00	62.08	-	-	-	68.20	-6.12	-	192	250	V		
	5.46932	51.15	Pk	35.30	-20.10	0.00	66.35	-	-	-	68.20	-1.85	-	192	250	V		
	* 5.45998	31.31	RMS	35.30	-20.10	0.00	46.51	-	54.00	-7.49	-	-	-	192	250	V		
	* 5.45937	31.86	RMS	35.30	-20.10	0.00	47.06	-	54.00	-6.94	-	-	-	192	250	V		
	5.46998	35.66	RMS	35.30	-20.10	0.00	50.86	-	-	-	-	-	-	192	250	V		
	5.46934	35.86	RMS	35.30	-20.10	0.00	51.06	-	-	-	-	-	-	192	250	V		
	5.72500	49.02	Pk	35.70	-19.50	0.00	65.22	-	-	-	-	68.20	-2.98	-	121	104	H	
	5.72525	49.56	Pk	35.70	-19.50	0.00	65.76	-	-	-	-	68.20	-2.44	-	121	104	H	
	5.72500	45.07	Pk	35.70	-19.50	0.00	61.27	-	-	-	-	68.20	-6.93	-	184	100	V	
	5.72535	47.60	Pk	35.70	-19.50	0.00	64.00	-	-	-	-	68.20	-4.20	-	184	100	V	
802.11n(HT40)	5510	ANT2	* 5.45998	46.06	Pk	35.30	-20.10	0.00	61.28	-	-	74.00	-12.74	-	178	119	H	
			* 5.45981	49.01	Pk	35.30	-20.10	0.00	64.21	-	-	74.00	-9.79	-	178	119	H	
			5.46998	51.26	Pk	35.30	-20.10	0.00	66.46	-	-	-	68.20	-1.74	-	178	119	H
			5.46996	51.22	Pk	35.30	-20.10	0.00	66.42	-	-	-	68.20	-1.78	-	178	119	H
			* 5.45998	34.03	RMS	35.30	-20.10	0.14	49.37	-	54.00	-4.63	-	-	-	178	119	H
			* 5.45983	34.61	RMS	35.30	-20.10	0.14	49.95	-	54.00	-4.05	-	-	-	178	119	H
			5.46998	39.08	RMS	35.30	-20.10	0.14	54.42	-	-	-	-	-	-	178	119	H
			5.46996	39.20	RMS	35.30	-20.10	0.14	54.54	-	-	-	-	-	-	178	119	H
			* 5.45998	41.26	Pk	35.30	-20.10	0.00	56.46	-	-	-	74.00	-17.54	-	186	103	V
			* 5.45996	43.85	Pk	35.30	-20.10	0.00	59.05	-	-	-	74.00	-14.95	-	186	103	V
	5.46998	46.28	Pk	35.30	-20.10	0.00	61.48	-	-	-	68.20	-6.72	-	186	103	V		
	5.46956	48.72	Pk	35.30	-20.10	0.00	63.92	-	-	-	68.20	-4.28	-	186	103	V		
	* 5.45998	30.45	RMS	35.30	-20.10	0.14	45.79	-	54.00	-8.21	-	-	-	186	103	V		
	* 5.45954	31.52	RMS	35.30	-20.10	0.14	46.86	-	54.00	-7.14	-	-	-	186	103	V		
	5.46998	34.27	RMS	35.30	-20.10	0.14	49.61	-	-	-	-	-	-	186	103	V		
	5.46969	34.92	RMS	35.30	-20.10	0.14	50.26	-	-	-	-	-	-	186	103	V		
	5.72500	37.69	Pk	35.70	-19.50	0.00	53.89	-	-	-	-	68.20	-14.31	-	164	146	H	
	5.72522	41.14	Pk	35.70	-19.50	0.00	57.74	-	-	-	-	68.20	-10.76	-	164	146	H	
	5.72500	38.52	Pk	35.70	-19.50	0.00	54.72	-	-	-	-	68.20	-13.48	-	164	103	V	
	5.72580	41.89	Pk	35.70	-19.50	0.00</												

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11ac VHT80 / ANT2 / 5530 MHz)
5530 MHz HORIZONTAL



5530 MHz VERTICAL



Note. Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

5530 MHz DATA

Radiated Emissions

Frequency (GHz)	Max Reading (dBuV)	Det	317_0021867	6GHz_HPSSE	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Deg)	Height (m)	Polarity
* 8.29883	36.21	PK-U	36.2	-23.6	0	48.81	-	-	74	-25.19	-	-	0	100	H
* 8.29274	36.44	PK-U	36.2	-23.6	0	49.04	-	-	74	-24.96	-	-	0	100	V
* 11.06366	33.71	PK-U	38.5	-21.3	0	50.91	-	-	74	-23.09	-	-	0	100	H
* 11.06067	33.61	PK-U	38.5	-21.3	0	50.81	-	-	74	-23.19	-	-	0	100	V
16.59452	32.99	PK-U	42.2	-19.1	0	56.09	-	-	-	-	68.2	-12.11	0	100	H
16.59686	34.32	PK-U	42.2	-19.1	0	57.42	-	-	-	-	68.2	-10.78	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

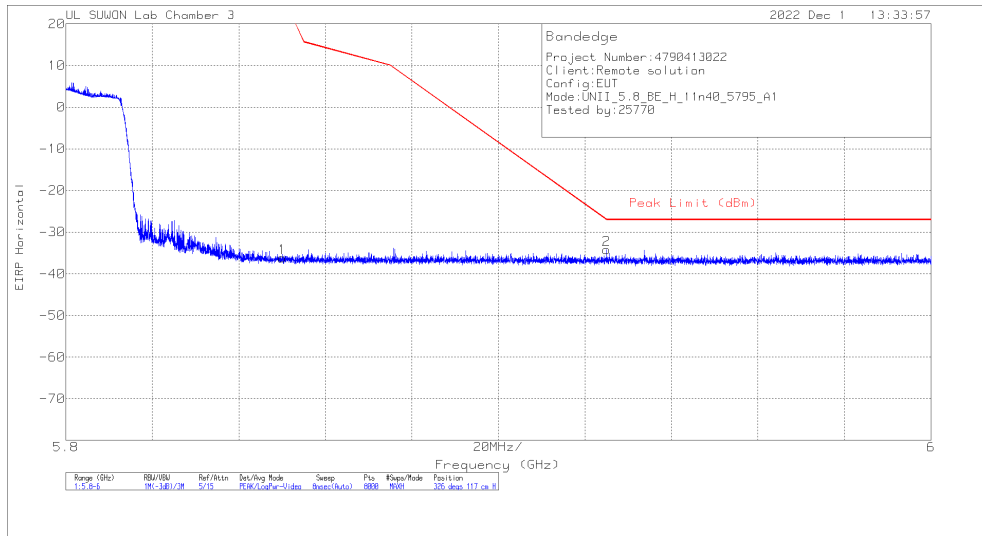
Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity		
802.11a	5500	ANT1	* 8.25161	37.31	PK-U	36.20	-23.60	0.00	49.91	-	-	74.00	-24.09	-	-	0	100	H		
			* 8.25483	36.25	PK-U	36.20	-23.60	0.00	48.85	-	-	-	74.00	-25.15	-	-	0	100	V	
			** 11.00153	34.20	PK-U	38.50	-21.20	0.00	51.50	-	-	-	74.00	-22.50	-	-	0	100	H	
			* 10.99682	33.57	PK-U	38.50	-21.20	0.00	50.87	-	-	-	74.00	-23.13	-	-	0	100	V	
			16.494	34.04	PK-U	42.00	-19.30	0.00	56.74	-	-	-	-	-	-	68.20	-11.46	0	100	H
			16.499	33.43	PK-U	42.00	-19.30	0.00	56.13	-	-	-	-	-	-	68.20	-12.07	0	100	V
	5580	ANT1	* 8.36693	36.16	PK-U	36.20	-23.60	0.00	48.76	-	-	-	74.00	-25.24	-	-	0	100	H	
			* 8.36906	36.52	PK-U	36.20	-23.60	0.00	49.12	-	-	-	74.00	-24.88	-	-	0	100	V	
			** 11.15307	34.51	PK-U	38.60	-21.50	0.00	51.61	-	-	-	74.00	-22.39	-	-	0	100	H	
			** 11.16786	34.83	PK-U	38.60	-21.50	0.00	51.93	-	-	-	74.00	-22.07	-	-	0	100	V	
			16.734	32.97	PK-U	42.30	-18.80	0.00	55.87	-	-	-	-	-	-	68.20	-12.33	0	100	H
			16.749	32.14	PK-U	42.30	-18.80	0.00	55.64	-	-	-	-	-	-	68.20	-12.56	0	100	V
	5700	ANT1	8.554	35.02	PK-U	36.50	-22.90	0.00	48.62	-	-	-	-	-	68.20	-19.58	0	100	H	
			8.549	34.62	PK-U	36.50	-22.90	0.00	48.22	-	-	-	-	-	68.20	-19.98	0	100	V	
			* 11.40194	33.03	PK-U	38.60	-21.40	0.00	50.23	-	-	-	74.00	-23.77	-	-	0	100	H	
			* 11.3971	33.61	PK-U	38.60	-21.40	0.00	50.81	-	-	-	74.00	-23.19	-	-	0	100	V	
			17.099	32.42	PK-U	42.30	-17.90	0.00	56.82	-	-	-	-	-	-	68.20	-11.38	0	100	H
			17.104	32.22	PK-U	42.30	-18.00	0.00	56.52	-	-	-	-	-	-	68.20	-11.68	0	100	V
	5720	ANT1	8.585	35.06	PK-U	36.50	-23.10	0.00	48.46	-	-	-	-	-	68.20	-19.74	0	100	H	
			8.582	34.50	PK-U	36.50	-23.00	0.00	48.00	-	-	-	-	-	68.20	-20.20	0	100	V	
			** 11.44055	32.76	PK-U	38.60	-21.30	0.00	50.06	-	-	-	74.00	-23.94	-	-	0	100	H	
			** 11.44282	32.94	PK-U	38.60	-21.30	0.00	50.24	-	-	-	74.00	-23.76	-	-	0	100	V	
			17.163	32.41	PK-U	42.20	-18.00	0.00	56.61	-	-	-	-	-	-	68.20	-11.59	0	100	H
			17.161	32.35	PK-U	42.20	-17.90	0.00	56.65	-	-	-	-	-	-	68.20	-11.55	0	100	V
802.11n(HT40) Spot check	5590	ANT1	* 8.38969	35.29	PK-U	36.30	-23.50	0.00	48.09	-	-	74.00	-25.91	-	-	0	100	H		
			* 8.3918	35.13	PK-U	36.30	-23.50	0.00	47.93	-	-	-	74.00	-26.07	-	-	0	100	V	
			* 11.18553	34.18	PK-U	38.60	-21.40	0.00	51.38	-	-	-	74.00	-22.62	-	-	0	100	H	
			* 11.17813	34.44	PK-U	38.60	-21.40	0.00	51.64	-	-	-	74.00	-22.36	-	-	0	100	V	
			16.766	30.73	PK-U	42.40	-18.70	0.00	54.43	-	-	-	-	-	-	68.20	-13.77	0	100	H
			16.764	31.98	PK-U	42.40	-18.70	0.00	55.88	-	-	-	-	-	-	68.20	-12.52	0	100	V
802.11ac(VHT80) Spot check	5530	ANT1	* 8.29917	35.97	PK-U	36.20	-23.60	0.00	48.57	-	-	74.00	-25.43	-	-	0	100	H		
			* 8.30564	35.51	PK-U	36.20	-23.60	0.00	48.11	-	-	-	74.00	-25.89	-	-	0	100	V	
			* 11.06352	33.18	PK-U	38.50	-21.30	0.00	50.38	-	-	-	74.00	-23.62	-	-	0	100	H	
			* 11.06368	34.35	PK-U	38.50	-21.30	0.00	51.55	-	-	-	74.00	-22.45	-	-	0	100	V	
			16.887	31.93	PK-U	42.50	-18.30	0.00	56.13	-	-	-	-	-	-	68.20	-12.07	0	100	H
			16.593	32.44	PK-U	42.20	-19.10	0.00	55.54	-	-	-	-	-	-	68.20	-12.66	0	100	V

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity		
802.11a	5500	ANT2	* 8.24303	36.01	PK-U	36.20	-23.70	0.00	48.51	-	-	74.00	-25.49	-	-	0	100	H		
			* 8.24508	36.79	PK-U	36.20	-23.60	0.00	49.39	-	-	-	74.00	-24.61	-	-	0	100	V	
			* 10.99571	33.52	PK-U	38.50	-21.20	0.00	50.82	-	-	-	74.00	-23.18	-	-	0	100	H	
			* 10.99797	33.34	PK-U	38.50	-21.20	0.00	50.64	-	-	-	74.00	-23.36	-	-	0	100	V	
			16.496	33.70	PK-U	42.00	-19.30	0.00	56.40	-	-	-	-	-	-	68.20	-11.80	0	100	H
			16.508	33.26	PK-U	42.00	-19.20	0.00	56.06	-	-	-	-	-	-	68.20	-12.14	0	100	V
	5580	ANT2	* 8.36582	35.70	PK-U	36.20	-23.60	0.00	48.30	-	-	-	74.00	-25.70	-	-	0	100	H	
			* 8.36877	35.95	PK-U	36.20	-23.60	0.00	48.55	-	-	-	74.00	-25.45	-	-	0	100	V	
			** 11.16434	33.96	PK-U	38.60	-21.50	0.00	51.06	-	-	-	74.00	-22.94	-	-	0	100	H	
			** 11.1548	34.56	PK-U	38.60	-21.50	0.00	51.66	-	-	-	74.00	-22.34	-	-	0	100	V	
			16.740	31.80	PK-U	42.30	-18.80	0.00	55.30	-	-	-	-	-	-	68.20	-12.90	0	100	H
			16.748	32.13	PK-U	42.30	-18.80	0.00	55.63	-	-	-	-	-	-	68.20	-12.57	0	100	V
	5700	ANT2	8.554	34.73	PK-U	36.50	-22.90	0.00	48.33	-	-	-	-	-	68.20	-19.87	0	100	H	
			8.541	34.92	PK-U	36.50	-23.00	0.00	48.42	-	-	-	-	-	68.20	-19.78	0	100	V	
			* 11.40063	32.88	PK-U	38.60	-21.40	0.00	50.08	-	-	-	74.00	-23.92	-	-	0	100	H	
			* 11.40526	33.10	PK-U	38.60	-21.40	0.00	50.30	-	-	-	74.00	-23.70	-	-	0	100	V	
			17.110	32.74	PK-U	42.30	-18.00	0.00	57.04	-	-	-	-	-	-	68.20	-11.16	0	100	H
			17.091	32.10	PK-U	42.30	-17.90	0.00	56.50	-	-	-	-	-	-	68.20	-11.70	0	100	V
	5720	ANT2	8.574	34.86	PK-U	36.50	-23.00	0.00	48.36	-	-	-	-	-	68.20	-19.84	0	100	H	
			8.581	34.85	PK-U	36.50	-23.00	0.00	48.35	-	-	-	-	-	68.20	-19.85	0	100	V	
			* 11.43421	32.81	PK-U	38.60	-21.30	0.00	50.11	-	-	-	74.00	-23.89	-	-	0	100	H	
			* 11.43925	33.15	PK-U	38.60	-21.30	0.00	50.45	-	-	-	74.00	-23.55	-	-	0	100	V	
			17.160	32.99	PK-U	42.20	-17.90	0.00	57.29	-	-	-	-	-	-	68.20	-10.91	0	100	H
			17.166	32.85	PK-U	42.20	-17.90	0.00	57.15	-	-	-	-	-	-	68.20	-11.05	0	100	V
802.11n(HT40) Spot check	5590	ANT2	* 8.38269	36.08	PK-U	36.30	-23.50	0.00	48.88	-	-	74.00	-25.12	-	-	0	100	H		
			* 8.37773	35.87	PK-U	36.30	-23.50	0.00	48.67	-	-	-	74.00	-25.33	-	-	0	100	V	
			* 11.18337	34.76	PK-U	38.60	-21.30	0.00	52.06	-	-	-	74.00	-21.94	-	-	0	100	H	
			* 11.18864	35.09	PK-U	38.60	-21.30	0.00	52.39	-	-	-	74.00	-21.61	-	-	0	100	V	
			16.773	31.55	PK-U	42.40	-18.60	0.00	55.35	-	-	-	-	-	-	68.20	-12.85	0	100	H
			16.761	32.24	PK-U	42.40	-18.70	0.00	55.94	-	-	-	-	-	-	68.20	-12.26	0	100	V
802.11ac(VHT80) Spot check	5530	ANT2	* 8.29883	36.21	PK-U	36.20	-23.60	0.00	48.81	-	-	74.00	-25.19	-	-	0	100	H		
			* 8.29274	36.44	PK-U	36.20	-23.60	0.00	49.04	-	-	-	74.00	-24.96	-	-	0	100	V	
			* 11.06366	33.71	PK-U	38.50	-21.30	0.00	50.91	-	-	-	74.00	-23.09	-	-	0	100	H	
			* 11.06067	33.61	PK-U	38.50	-21.30	0.00	50.81	-	-	-	74.00	-23.19	-	-	0	100	V	
			16.595	32.99	PK-U	42.20	-19.10	0.00	56.09	-	-	-	-	-	-	68.20	-12.11	0	100	H
			16.597	34.32	PK-U	42.20	-19.10	0.00	57.42	-	-									

10.4. TX ABOVE 1GHz IN THE 5.8 GHz BAND

BANDEDGE (WORST CASE: 802.11n HT40 / ANT1 / 5795 MHz)

HORIZONTAL PEAK DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBm)	Det	3117_00218957	10dB_ATT[dB]	Conversion Factor (dB)	DC Corr (dB)	Corrected Reading EIRP	Peak Limit (dBm)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.85001	-64.6	Pk	35.9	-19.3	11.8	0	-36.2	26.99	-63.19	326	117	H
2	5.92502	-62.72	Pk	36	-19.3	11.8	0	-34.22	-27	-7.22	326	117	H

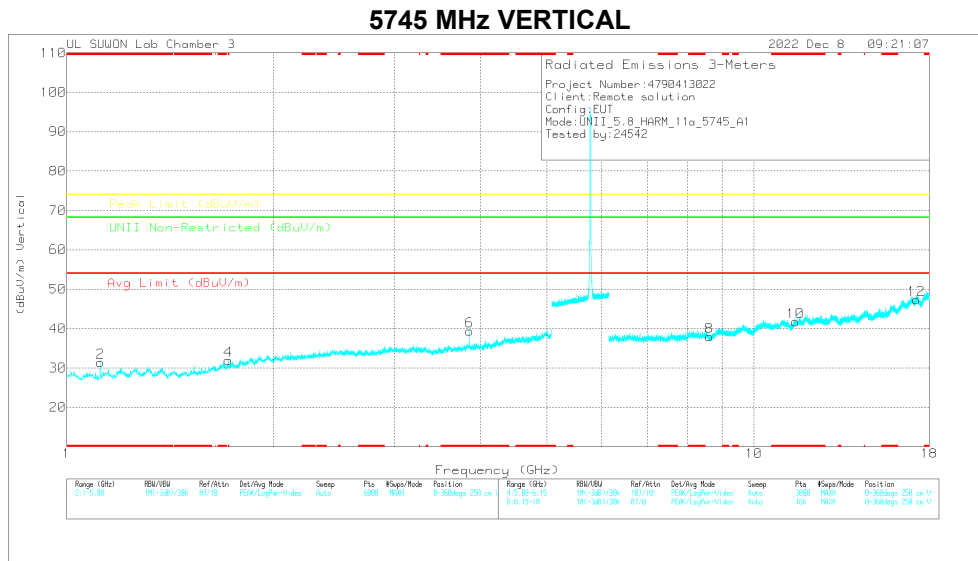
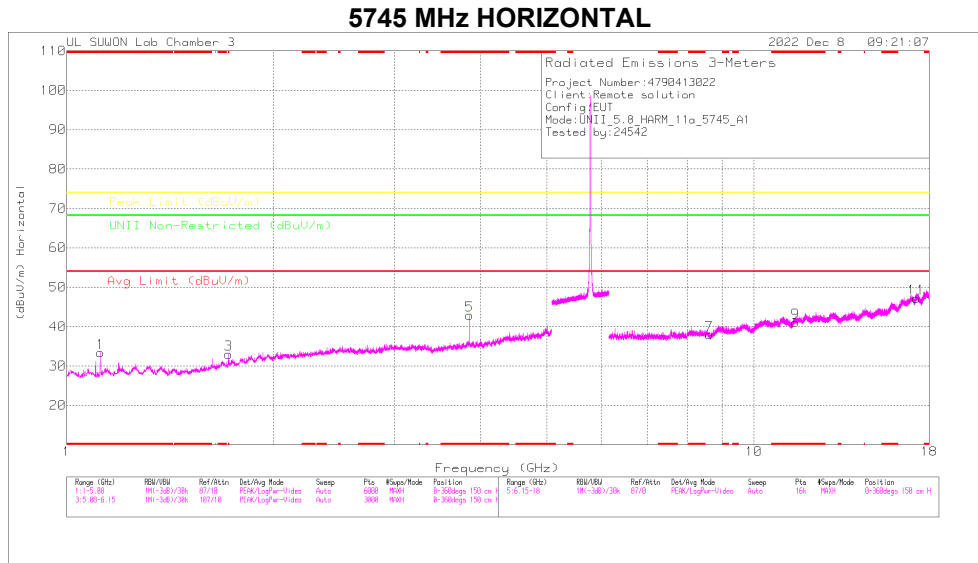
Pk - Peak detector

BANDEDGE TEST DATA

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBm]	Detector Mode	ANT Factor	Loss [dB]	Conv. F [dB]	DC Corr [dB]	Result [dBm]	PK Limit [dBm]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11a	5745	ANT1	5.72500	-48.42	Pk	35.60	-19.50	11.80	0.00	-20.52	27.00	-47.52	281	100	H
			5.64925	-62.92	Pk	35.50	-19.80	11.80	0.00	-35.42	27.00	-8.42	281	100	H
			5.72500	-53.39	Pk	35.60	-19.50	11.80	0.00	-25.49	27.00	-52.49	179	100	V
			5.63569	-63.70	Pk	35.50	-19.80	11.80	0.00	-36.20	27.00	-9.20	179	100	V
			5.85001	-49.53	Pk	35.90	-19.30	11.80	0.00	-21.13	26.99	-48.12	326	108	H
	5825	ANT1	5.99935	-63.61	Pk	36.00	-19.20	11.80	0.00	-35.01	27.00	-8.01	326	108	H
			5.85001	-57.73	Pk	35.90	-19.30	11.80	0.00	-29.33	26.99	-56.32	177	193	V
			5.96897	-63.32	Pk	36.00	-19.30	11.80	0.00	-34.82	27.00	-7.82	177	193	V
			5.72500	-52.24	Pk	35.60	-19.50	11.80	0.00	-24.34	27.00	-51.34	280	100	H
			5.63803	-63.07	Pk	35.50	-19.80	11.80	0.00	-35.57	27.00	-8.57	280	100	H
802.11n(HT20)	5745	ANT1	5.72500	-55.93	Pk	35.60	-19.50	11.80	0.00	-28.03	27.00	-55.03	179	100	V
			5.64062	-63.90	Pk	35.50	-19.80	11.80	0.00	-36.40	27.00	-9.40	179	100	V
			5.85001	-60.88	Pk	35.90	-19.30	11.80	0.00	-32.48	26.99	-59.47	329	108	H
			5.94169	-63.54	Pk	36.00	-19.30	11.80	0.00	-35.04	27.00	-8.04	329	108	H
			5.85001	-61.94	Pk	35.90	-19.30	11.80	0.00	-33.54	26.99	-60.53	184	103	V
	5825	ANT1	5.95664	-63.33	Pk	36.00	-19.30	11.80	0.00	-34.83	27.00	-7.83	184	103	V
			5.72500	-52.90	Pk	35.60	-19.50	11.80	0.00	-25.00	27.00	-52.00	279	100	H
			5.64021	-63.36	Pk	35.50	-19.80	11.80	0.00	-35.86	27.00	-8.86	279	100	H
			5.72500	-56.12	Pk	35.60	-19.50	11.80	0.00	-28.22	27.00	-55.22	178	100	V
			5.64562	-64.35	Pk	35.50	-19.80	11.80	0.00	-36.85	27.00	-9.85	178	100	V
802.11ac(VHT20)	5745	ANT1	5.85001	-59.57	Pk	35.90	-19.30	11.80	0.00	-31.17	26.99	-58.16	332	108	H
			5.96349	-64.05	Pk	36.00	-19.20	11.80	0.00	-35.45	27.00	-8.45	332	108	H
			5.85001	-61.47	Pk	35.90	-19.30	11.80	0.00	-33.07	26.99	-60.06	181	103	V
			5.93307	-63.62	Pk	36.00	-19.30	11.80	0.00	-35.12	27.00	-8.12	181	103	V
			5.72500	-55.95	Pk	35.60	-19.50	11.80	0.00	-28.09	27.00	-55.09	278	100	H
	5755	ANT1	5.62742	-63.77	Pk	35.50	-19.80	11.80	0.00	-36.37	27.00	-9.37	278	100	H
			5.72500	-60.46	Pk	35.60	-19.50	11.80	0.00	-32.56	27.00	-59.56	171	103	V
			5.62885	-63.74	Pk	35.50	-19.80	11.80	0.00	-36.34	27.00	-9.34	171	103	V
			5.85001	-64.60	Pk	35.90	-19.30	11.80	0.00	-36.20	26.99	-63.19	326	117	H
			5.92502	-62.72	Pk	36.00	-19.30	11.80	0.00	-34.22	27.00	-7.22	326	117	H
802.11n(HT40)	5795	ANT1	5.85001	-65.92	Pk	35.90	-19.30	11.80	0.00	-37.52	26.99	-64.51	172	100	V
			5.98972	-63.60	Pk	36.00	-19.20	11.80	0.00	-35.00	27.00	-8.00	172	100	V
			5.72500	-57.81	Pk	35.60	-19.50	11.80	0.00	-29.91	27.00	-56.91	280	100	H
			5.64809	-63.39	Pk	35.50	-19.80	11.80	0.00	-35.89	27.00	-8.89	280	100	H
			5.72500	-60.16	Pk	35.60	-19.50	11.80	0.00	-32.26	27.00	-59.26	174	100	V
	5755	ANT1	5.63766	-63.80	Pk	35.50	-19.80	11.80	0.00	-36.30	27.00	-9.30	174	100	V
			5.85001	-65.01	Pk	35.90	-19.30	11.80	0.00	-36.61	26.99	-63.60	327	100	H
			5.94529	-63.52	Pk	36.00	-19.30	11.80	0.00	-35.02	27.00	-8.02	327	100	H
			5.85001	-66.63	Pk	35.90	-19.30	11.80	0.00	-38.23	26.99	-65.22	172	100	V
			5.96357	-63.89	Pk	36.00	-19.20	11.80	0.00	-35.29	27.00	-8.29	172	100	V
802.11ac(VHT80)	5775 (Front)	ANT1	5.72500	-58.61	Pk	35.60	-19.50	11.80	0.00	-30.71	27.00	-57.71	281	100	H
			5.63961	-63.33	Pk	35.50	-19.80	11.80	0.00	-35.83	27.00	-8.83	281	100	H
			5.72500	-62.64	Pk	35.60	-19.50	11.80	0.00	-34.74	27.00	-61.74	178	101	V
			5.63342	-63.73	Pk	35.50	-19.80	11.80	0.00	-36.33	27.00	-9.33	178	101	V
			5.85001	-64.84	Pk	35.90	-19.30	11.80	0.00	-36.44	26.99	-63.43	279	109	H
	5775 (Rear)	ANT1	5.95357	-63.73	Pk	36.00	-19.30	11.80	0.00	-35.23	27.00	-8.23	279	109	H
			5.85001	-66.47	Pk	35.90	-19.30	11.80	0.00	-38.07	26.99	-65.06	175	100	V
			5.96975	-63.89	Pk	36.00	-19.20	11.80	0.00	-35.29	27.00	-8.29	175	100	V

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBm]	Detector Mode	ANT Factor	Loss [dB]	Conv. F [dB]	DC Corr [dB]	Result [dBm]	PK Limit [dBm]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
802.11a	5745	ANT2	5.72500	-43.61	Pk	35.60	-19.50	11.80	0.00	-15.71	27.00	-42.71	168	142	H
			5.62854	-62.94	Pk	35.50	-19.80	11.80	0.00	-35.54	27.00	-8.54	168	142	H
			5.72500	-44.85	Pk	35.60	-19.50	11.80	0.00	-16.95	27.00	-43.95	184	101	V
			5.63259	-62.93	Pk	35.50	-19.80	11.80	0.00	-35.53	27.00	-8.53	184	101	V
			5.85001	-52.04	Pk	35.90	-19.30	11.80	0.00	-23.64	26.99	-50.63	189	134	H
	5825	ANT2	5.96369	-63.87	Pk	36.00	-19.20	11.80	0.00	-35.27	27.00	-8.27	189	134	H
			5.85001	-57.88	Pk	35.90	-19.30	11.80	0.00	-29.48	26.99	-56.47	201	214	V
			5.92572	-63.84	Pk	36.00	-19.30	11.80	0.00	-35.34	27.00	-8.34	201	214	V
			5.72500	-50.85	Pk	35.60	-19.50	11.80	0.00	-22.95	27.00	-49.95	173	133	H
			5.64824	-62.91	Pk	35.50	-19.80	11.80	0.00	-35.41	27.00	-8.41	173	133	H
802.11n(HT20)	5745	ANT2	5.72500	-51.57	Pk	35.60	-19.50	11.80	0.00	-23.67	27.00	-50.67	188	101	V
			5.63473	-63.60	Pk	35.50	-19.80	11.80	0.00	-36.10	27.00	-9.10	188	101	V
			5.85001	-57.96	Pk	35.90	-19.30	11.80	0.00	-29.56	26.99	-56.55	162	130	H
			5.98645	-63.03	Pk	36.00	-19.20	11.80	0.00	-34.43	27.00	-7.43	162	130	H
			5.85001	-61.56	Pk	35.90	-19.30	11.80	0.00	-33.16	26.99	-60.15	182	316	V
	5825	ANT2	5.94832	-63.97	Pk	36.00	-19.30	11.80	0.00	-35.47	27.00	-8.47	182	316	V
			5.72500	-48.28	Pk	35.60	-19.50	11.80	0.00	-20.38	27.00	-47.38	169	142	H
			5.64722	-63.60	Pk	35.50	-19.80	11.80	0.00	-36.10	27.00	-9.10	169	142	H
			5.72500	-53.21	Pk	35.60	-19.50	11.80	0.00	-25.31	27.00	-52.31	194	257	V
			5.64935	-63.21	Pk	35.50	-19.80	11.80	0.00	-35.71	27.00	-8.71	194	257	V
802.11ac(VHT20)	5745	ANT2	5.85001	-59.49	Pk	35.90	-19.30	11.80	0.00	-31.09	26.99	-58.08	179	132	H
			5.99077	-63.98	Pk	36.00	-19.20	11.80	0.00	-35.38	27.00	-8.38	179	132	H
			5.85001	-61.58	Pk	35.90	-19.30	11.80	0.00	-33.18	26.99	-60.17	190	101	V
			5.94004	-63.23	Pk	36.00	-19.30	11.80	0.00	-34.73	27.00	-7.73	190	101	V
			5.72500	-55.37	Pk	35.60	-19.50	11.80	0.00	-27.47	27.00	-54.47	172	142	H
	5755	ANT2	5.64818	-63.18	Pk	35.50	-19.80	11.80	0.00	-35.68	27.00	-8.68	172	142	H
			5.72500	-56.61	Pk	35.60	-19.50	11.80	0.00	-28.71	27.00	-55.71	184	100	V
			5.64421	-63.01	Pk	35.50	-19.80	11.80	0.00	-35.51	27.00	-8.51	184	100	V
			5.85001	-65.52	Pk	35.90	-19.30	11.80	0.00	-37.12	26.99	-64.11	171	122	H
			5.96707	-63.18	Pk	36.00	-19.30	11.80	0.00	-34.68	27.00	-7.68	171	122	H
802.11n(HT40)	5795	ANT2	5.85001	-65.39	Pk	35.90	-19.30	11.80	0.00	-36.99	26.99	-63.98	188	100	V
			5.99750	-63.66	Pk	36.00	-19.20	11.80	0.00	-35.06	27.00	-8.06	188	100	V
			5.72500	-55.61	Pk	35.60	-19.50	11.80	0.00	-27.71	27.00	-54.71	173	121	H
			5.62654	-63.08	Pk	35.50	-19.80	11.							

HARMONICS AND SPURIOUS EMISSIONS(WORST CASE: 802.11a / ANT1 / 5745 MHz)



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

5745 MHz DATA

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_0021895 7	eGHz_HP(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarit y
8.81352	34.66	PK-U		-23.1	0	48.06	-	-	-	-	68.2	-20.14	0	100	H
8.81121	34.13	PK-U		-23.1	0	47.53	-	-	-	-	68.2	-20.67	0	100	V
* 11.49296	32.99	PK-U		-21.4	0	50.29	-	-	74	-23.71	-	-	0	100	H
* 11.48673	33.05	PK-U		-21.4	0	50.35	-	-	74	-23.65	-	-	0	100	V
17.24545	33.05	PK-U		-17.1	0	58.05	-	-	-	-	68.2	-10.15	0	100	H
17.23549	32.94	PK-U		-17.1	0	57.94	-	-	-	-	68.2	-10.26	0	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

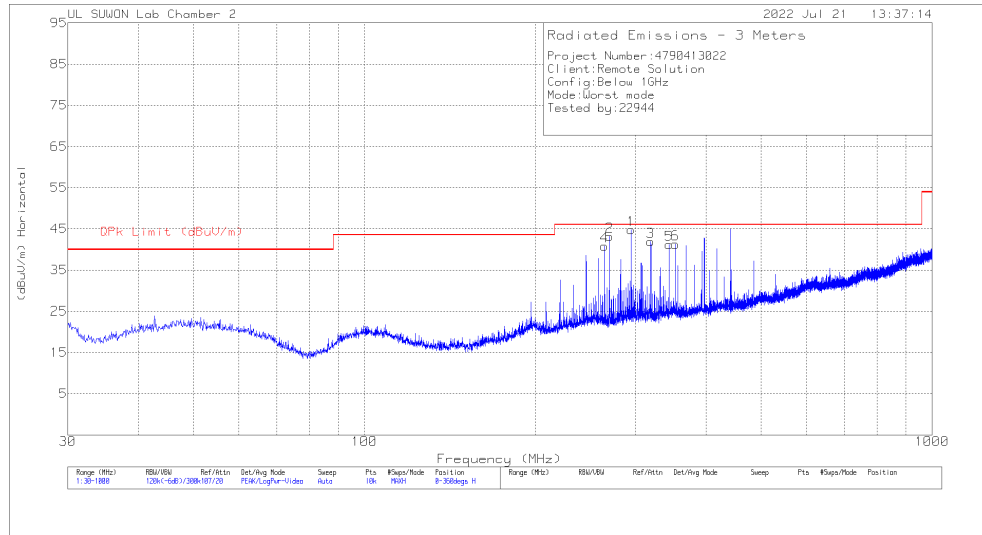
Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity		
802.11a	5745	ANT1	8.614	34.66	PK-U	36.50	-23.10	0.00	48.06	-	-	-	-	68.20	-20.14	0	100	H		
			8.611	34.13	PK-U	36.50	-23.10	0.00	47.53	-	-	-	-	-	68.20	-20.67	0	100	V	
			* 11.48296	32.96	PK-U	38.70	-21.40	0.00	50.29	-	-	74.00	-23.71	-	-	-	0	100	H	
			* 11.48673	33.05	PK-U	38.70	-21.40	0.00	50.35	-	-	74.00	-23.65	-	-	-	0	100	V	
			17.245	33.05	PK-U	42.10	-17.10	0.00	58.05	-	-	-	-	-	-	68.20	-10.15	0	100	H
			17.235	32.94	PK-U	42.10	-17.10	0.00	57.94	-	-	-	-	-	-	68.20	-10.26	0	100	V
	5785	ANT1	8.671	34.22	PK-U	36.50	-23.00	0.00	47.72	-	-	-	-	-	68.20	-20.48	0	100	H	
			8.682	34.40	PK-U	36.50	-23.00	0.00	47.90	-	-	-	-	-	68.20	-20.30	0	100	V	
			* 11.57004	33.99	PK-U	38.80	-21.50	0.00	51.29	-	-	74.00	-22.71	-	-	-	0	100	H	
			* 11.57629	34.18	PK-U	38.80	-21.60	0.00	51.38	-	-	74.00	-22.62	-	-	-	0	100	V	
			17.359	31.77	PK-U	42.00	-17.20	0.00	56.57	-	-	-	-	-	-	68.20	-11.63	0	100	H
			17.351	31.79	PK-U	42.00	-17.20	0.00	56.59	-	-	-	-	-	-	68.20	-11.61	0	100	V
	5825	ANT1	8.732	34.49	PK-U	36.50	-22.80	0.00	48.19	-	-	-	-	-	68.20	-20.01	0	100	H	
			8.729	34.86	PK-U	36.50	-22.90	0.00	48.46	-	-	-	-	-	68.20	-19.74	0	100	V	
			* 11.64746	34.37	PK-U	38.90	-21.50	0.00	51.67	-	-	74.00	-22.33	-	-	-	0	100	H	
			* 11.65372	34.65	PK-U	38.90	-21.50	0.00	52.05	-	-	74.00	-21.95	-	-	-	0	100	V	
			17.470	31.01	PK-U	42.00	-16.80	0.00	56.21	-	-	-	-	-	-	68.20	-11.99	0	100	H
			17.481	31.35	PK-U	42.00	-16.80	0.00	56.55	-	-	-	-	-	-	68.20	-11.65	0	100	V

Mode	Freq. [MHz]	Antenna	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Non-Restricted [dBuV/m]	Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity		
802.11a	5745	ANT2	8.613	34.84	PK-U	36.50	-23.10	0.00	48.24	-	-	-	-	68.20	-19.96	0	100	H		
			8.614	34.53	PK-U	36.50	-23.10	0.00	47.93	-	-	-	-	-	68.20	-20.27	0	100	V	
			* 11.49411	33.27	PK-U	38.70	-21.40	0.00	50.57	-	-	74.00	-23.43	-	-	-	0	100	H	
			* 11.48595	33.22	PK-U	38.70	-21.40	0.00	50.52	-	-	74.00	-23.48	-	-	-	0	100	V	
			17.236	31.98	PK-U	42.10	-17.10	0.00	56.98	-	-	-	-	-	-	68.20	-11.22	0	100	H
			17.231	32.44	PK-U	42.10	-17.10	0.00	57.44	-	-	-	-	-	-	68.20	-10.76	0	100	V
	5785	ANT2	8.682	35.26	PK-U	36.50	-23.00	0.00	48.76	-	-	-	-	-	68.20	-19.44	0	100	H	
			8.685	34.70	PK-U	36.50	-22.90	0.00	48.30	-	-	-	-	-	68.20	-19.90	0	100	V	
			* 11.56897	34.01	PK-U	38.80	-21.50	0.00	51.31	-	-	74.00	-22.69	-	-	-	0	100	H	
			* 11.57546	34.09	PK-U	38.80	-21.60	0.00	51.29	-	-	74.00	-22.71	-	-	-	0	100	V	
			17.359	31.81	PK-U	42.00	-17.20	0.00	56.61	-	-	-	-	-	-	68.20	-11.59	0	100	H
			17.361	32.07	PK-U	42.00	-17.20	0.00	56.87	-	-	-	-	-	-	68.20	-11.33	0	100	V
	5825	ANT2	8.734	34.57	PK-U	36.50	-22.80	0.00	48.27	-	-	-	-	-	68.20	-19.93	0	100	H	
			8.731	34.86	PK-U	36.50	-22.90	0.00	48.46	-	-	-	-	-	68.20	-19.74	0	100	V	
			* 11.65428	35.06	PK-U	38.90	-21.50	0.00	52.46	-	-	74.00	-21.54	-	-	-	0	100	H	
			* 11.64377	34.84	PK-U	38.80	-21.50	0.00	52.14	-	-	74.00	-21.86	-	-	-	0	100	V	
			17.468	31.28	PK-U	42.00	-16.80	0.00	56.48	-	-	-	-	-	-	68.20	-11.72	0	100	H
			17.481	31.41	PK-U	42.00	-16.80	0.00	56.61	-	-	-	-	-	-	68.20	-11.59	0	100	V

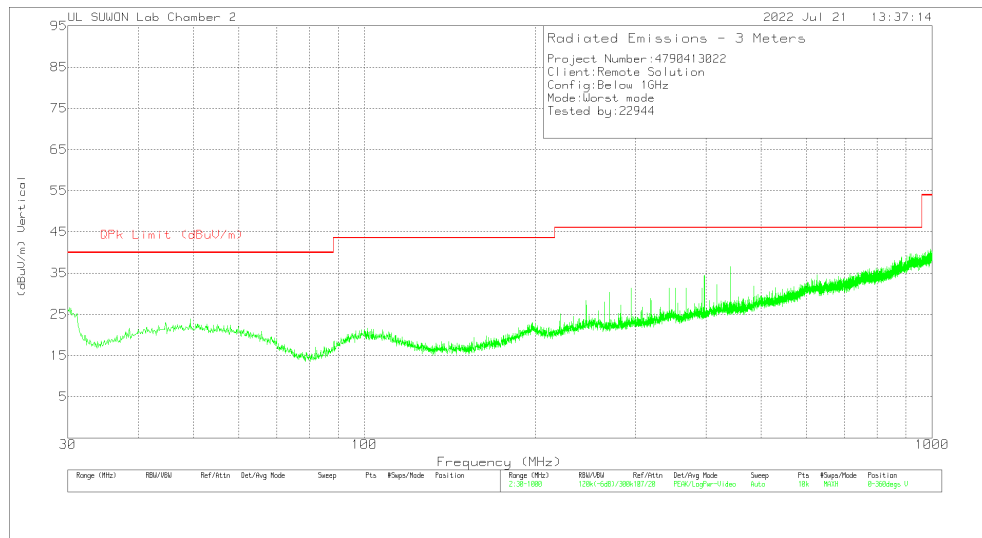
Note1. PK-U - U-NII: Maximum Peak / ADR - U-NII AD primary method, RMS average

Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

11. WORST-CASE BELOW 1 GHz SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)



HORIZONTAL



VERTICAL

Below 1GHz Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_749	Below 1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	294.907	54.73	Pk	19.2	-29.1	44.83	46.02	-1.19	0-360	100	H
2	270.269	53.72	Pk	18.6	-29.1	43.22	46.02	-2.8	0-360	100	H
3	319.448	51.06	Pk	19.8	-28.9	41.96	46.02	-4.06	0-360	100	H
4	264.546	51.54	Pk	18.6	-29.3	40.84	46.02	-5.18	0-360	100	H
5	344.086	49.15	Pk	20.8	-28.8	41.15	46.02	-4.87	0-360	100	H
6	352.816	49.16	Pk	20.8	-28.7	41.26	46.02	-4.76	0-360	100	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

Qp - Quasi-Peak detector

12. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

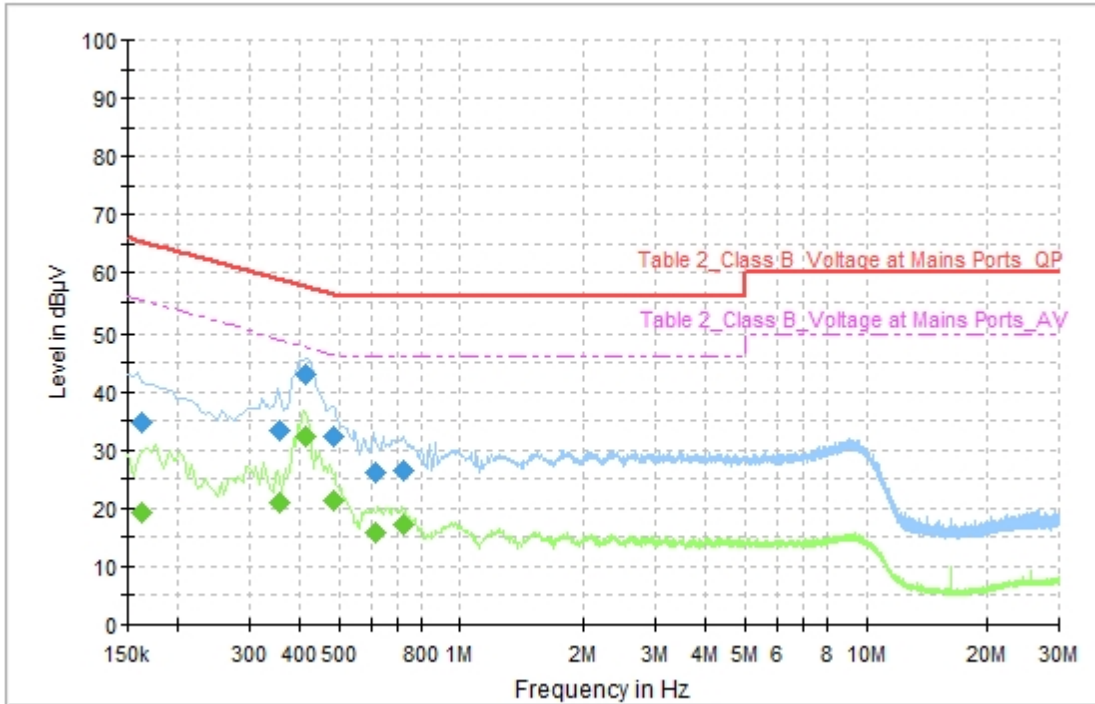
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

WORST EMISSIONS

LINE 1 DATA



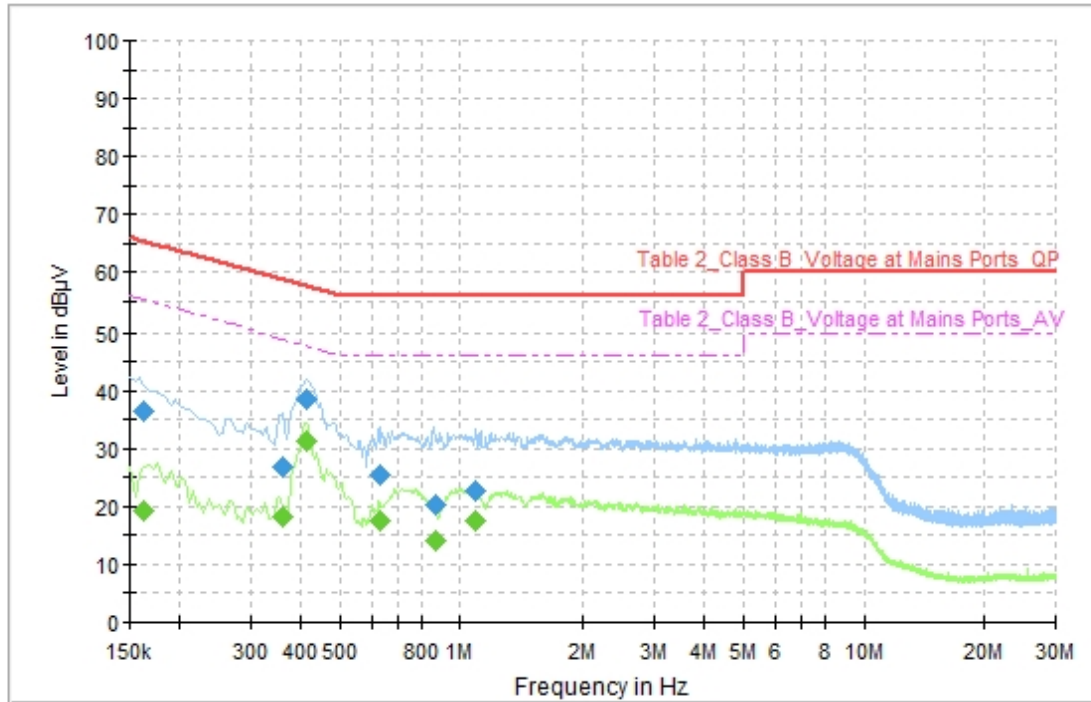
Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.162279	34.86	65.35	30.49	L1	ON	10.0
0.356426	33.33	58.81	25.48	L1	ON	9.9
0.413272	43.11	57.58	14.47	L1	ON	10.0
0.483728	32.27	56.28	24.01	L1	ON	10.0
0.615419	26.12	56.00	29.88	L1	ON	10.0
0.720162	26.54	56.00	29.46	L1	ON	10.0

Final_Result_CAV

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.162279	19.18	55.35	36.16	L1	ON	10.0
0.356426	20.85	48.81	27.96	L1	ON	9.9
0.413272	32.16	47.58	15.42	L1	ON	10.0
0.483728	21.44	46.28	24.83	L1	ON	10.0
0.615419	15.85	46.00	30.15	L1	ON	10.0
0.720162	17.25	46.00	28.75	L1	ON	10.0

LINE 2 DATA



Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.163279	36.40	65.30	28.90	N	ON	10.0
0.360206	26.79	58.72	31.93	N	ON	9.9
0.412882	38.65	57.59	18.94	N	ON	10.0
0.627978	25.41	56.00	30.59	N	ON	10.0
0.864632	20.25	56.00	35.75	N	ON	9.9
1.094844	22.56	56.00	33.44	N	ON	9.9

Final_Result_CAV

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.163279	19.30	55.30	35.99	N	ON	10.0
0.360206	18.19	48.72	30.54	N	ON	9.9
0.412882	31.20	47.59	16.39	N	ON	10.0
0.627978	17.49	46.00	28.51	N	ON	10.0
0.864632	14.25	46.00	31.75	N	ON	9.9
1.094844	17.49	46.00	28.51	N	ON	9.9

END OF TEST REPORT