CERTIFICATION TEST REPORT

Report Number. : 4790309672-FR1V3

Applicant	:	Kaonbroadband CO., LTD. 884-3, Seongnam-daero, Bundang-gu, Seongnam-si Gyeonggi-do, South Korea
Model	:	AR1344P, AR1344, AR1344E, AR1344E2, EVO6700AP2
FCC ID	:	2AXCW-AP67002
EUT Description	:	WiFi6 Smart Mesh
Test Standard(s)	:	FCC 47 CFR PART 15 SUBPART C

Date Of Issue:
May 13, 2022

Prepared by:
UL Korea, Ltd.
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Suwon Test Site: UL Korea, LTD. Suwon Laboratory
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TEL: (031) 337-9902
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IAS ACCREDITED
Testing Laboratory
TL-637

REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	04/20/22	Initial issue	Jaehyong Lee
V2	05/10/22	Updated to address about the TCB's question	Jaehyong Lee
V3	05/13/22	Updated to address about the TCB's question	Jaehyong Lee

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TABLE OF CONTENTS

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Kaonbroadband CO., LTD.

EUT DESCRIPTION: WiFi6 Smart Mesh

MODEL NUMBER: AR1344P, AR1344, AR1344E, AR1344E2, EVO6700AP2

SERIAL NUMBER: Proto type (CONDUCTED);
Proto type (RADIATED)

DATE TESTED: MAY 03, 2021 – JULY 28, 2021 (Original);
FEB. 28, 2022 – MAR. 31, 2022 (Spot check)

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart C	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:

Robby Lee
Senior Laboratory Engineer
UL Korea, Ltd.

Tested By:

Jaehyong Lee
Laboratory Engineer Associate
UL Korea, Ltd.

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1.1. INTRODUCTION OF TEST DATA REUSE

This report referenced from the FCC ID: 2AXCW-AP6700 DTS WLAN(FCC CFR 47 Part 15C). And the applicant takes full responsibility that the test data as referenced in this report represent compliance for this FCC ID.

1.2. DIFFERENCE

The FCC ID: 2AXCW-AP67002 shares the same enclosure and circuit board as FCC ID: 2AXCW-AP6700. The WLAN antennas and surrounding circuitry and layout are identical between these two units.

After confirming through preliminary conducted data and radiated emissions that the performance of the FCC ID: 2AXCW-AP6700 remains representative of FCC ID: 2AXCW-AP67002. The test data of FCC ID: 2AXCW-AP6700 being submitted for this application to cover WLAN features.

1.3. SPOT CHECK VERIFICATION DATA

(Worst case of each test items)

- Conducted test items

Band	Test Item	Mode	Test Limit	Original model	Spot check model	Deviation	Remark
				FCC ID : 2AXCW-AP6700	FCC ID : 2AXCW-AP67002		
DTS WLAN 802.11b/g/n (2.4GHz)	6dB Bandwidth	DTS_2.4_6dB_11b_2462_A1	Minimum 0.5 MHz	7.05 MHz	7.07 MHz	0.02 MHz	
	PSD	DTS_2.4_PSD_11b_2462_A	8 dBm/3kHz	5.53 dBm/3kHz	5.23 dBm/3kHz	-0.30 dB	
	BANDEDGE	DTS_2.4_BE_11b_2412_SISO_A1	30 dBc	52.61 dBc	56.63 dBc	-4.02 dB	
		DTS_2.4_BE_11g_2417_MIMO_A1	30 dBc	39.40 dBc	44.36 dBc	-4.96 dB	
		DTS_2.4_BE_11n_HT20_2417_SISO_A1	30 dBc	39.82 dBc	43.56 dBc	-3.74 dB	
		DTS_2.4_BE_11n_HT40_2422_SISO_A1	30 dBc	41.15 dBc	44.16 dBc	-3.01 dB	
	CSE	DTS_2.4_CSE_11b_2412_MIMO_A2	30 dBc	54.42 dBc	52.28 dBc	2.14 dB	
		DTS_2.4_CSE_11g_2412_MIMO_A1	30 dBc	46.07 dBc	43.99 dBc	2.08 dB	
		DTS_2.4_CSE_11n_HT20_2417_SISO_A2	30 dBc	51.54 dBc	48.73 dBc	2.81 dB	
		DTS_2.4_CSE_11n_HT40_2422_SISO_A2	30 dBc	42.22 dBc	39.39 dBc	2.83 dB	

- Radiated emissions

Band	Test Item	Mode	Frequency	Test Limit	Original model	Spot check model	Deviation	Remark
					FCC ID : 2AXCW-AP6700	FCC ID : 2AXCW-AP67002		
DTS WLAN 802.11b/g/n (2.4GHz)	Band Edge	DTS_2.4_BE_V_11b_2462_A1	2472 MHz	54 dBuV/m	50.18 dBuV/m	44.52 dBuV/m	-5.66 dB	
	RSE	DTS_2.4_HARM_11b_2462_A2	4924 MHz	54 dBuV/m	52.88 dBuV/m	49.34 dBuV/m	-3.54 dB	
	Band Edge	DTS_2.4_BE_H_11g_2412_A2	2412 MHz	54 dBuV/m	51.56 dBuV/m	43.86 dBuV/m	-7.70 dB	
	RSE	DTS_2.4_HARM_11g_2417_A	7251 MHz	54 dBuV/m	45.63 dBuV/m	42.49 dBuV/m	-3.14 dB	2nd Harmornic
	Band Edge	DTS_2.4_BE_H_11n_HT20_2457_A	2457 MHz	54 dBuV/m	51.86 dBuV/m	43.02 dBuV/m	-8.84 dB	
	RSE	DTS_2.4_HARM_11n_HT20_2457_A	7371 MHz	54 dBuV/m	47.50 dBuV/m	46.18 dBuV/m	-1.32 dB	
	Band Edge	DTS_2.4_BE_V_11n_HT40_2452_A1	2452 MHz	54 dBuV/m	51.75 dBuV/m	44.28 dBuV/m	-7.47 dB	
	RSE	DTS_2.4_HARM_11n_HT40_2437_A	7311 MHz	54 dBuV/m	46.79 dBuV/m	42.38 dBuV/m	-4.41 dB	
	Band Edge	DTS_BE_V_ax_40_2422_26T_RU0_A	2422 MHz	54 dBuV/m	72.46 dBuV/m	57.93 dBuV/m	-14.53 dB	
	RSE	DTS_HARM_ax_40_2452_26T_RU9_A	7356 MHz	54 dBuV/m	51.62 dBuV/m	35.00 dBuV/m	-16.62 dB	

Comparison of two models, upper deviation is within 3 dB range and all test results are under FCC Technical Limits.

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1.4. REFERENCE DETAIL

Reference application that contains the reused reference data in the individual test reports:

Equipment Class	Reference FCC ID (Parent)	Application Type	Reference Test report number	Exhibit Type	Variant Test Report Number	Data Re-used
DTS	2AXCW-AP6700	Original Grant	4789901731-FR1 (802.11b/g/n)	Test Report	4790309672-FR1 (802.11b/g/n)	All (Except for section 10.3 (Below 1GHz) and 11(AC Power Line))
			4789901731-FR2 (802.11ax)	Test Report	4790309672-FR2 (802.11ax)	All (Except for section 11.3 (Below 1GHz) and 12(AC Power Line))

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2. TEST METHODOLOGY

1. FCC CFR 47 Part 2.
2. FCC CFR 47 Part 15.
3. KDB 558074 D01 DTS Meas Guidance v05r02.
4. KDB 662911 D01 Multiple Transmitter Output v02r01
5. ANSI C63.10-2013.
6. 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
☒ Chamber 1
☒ Chamber 2
☒ 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:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

28.9 dBuV/m = 36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB

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	5.78 dB
Radiated Disturbance, 18 GHz to 40 GHz	5.58 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 Accuracy Method specified in Procedure 2, Clause 4.4.3 in IEC Guide 115:2007.

5. EQUIPMENT UNDER TEST

5.1. EUT DESCRIPTION

The EUT is a WiFi6 Smart Mesh.
This test report addresses the DTS (WLAN) operational mode.

This report covers the models AR1344P and AR1344, AR1344E, AR1344E2, EVO6700AP2.
The difference between these models is only the memory size.

Model	Memory size
AR1344P, AR1344E2, EVO6700AP2	256MB/512MB (FLASH MEMORY / SDRAM)
AR1344, AR1344E	128MB/256MB (FLASH MEMORY / SDRAM)

The model AR1344P was set for final test.

WiFi operating mode

Frequency rage	Mode	ANT 1	ANT 2
2.4GHz (2412 MHz ~ 2462 MHz)	802.11b SISO	TX/RX	TX/RX
	802.11b MIMO	TX/RX	TX/RX
	802.11g SISO	TX/RX	TX/RX
	802.11g MIMO	TX/RX	TX/RX
	802.11n(HT20) SISO	TX/RX	TX/RX
	802.11n(HT20) MIMO	TX/RX	TX/RX
	802.11n(HT40) SISO	TX/RX	TX/RX
	802.11n(HT40) MIMO	TX/RX	TX/RX

Simultaneous TX Condition

Simultaneous Tx Condition - RSDB

Mode	# of TX	5GHz WLAN				2.4GHz WLAN		Test Case
		ANT1	ANT2	ANT3	ANT4	ANT1	ANT2	
2.4GHz + 5GHz RSDB MIMO	6	O	O	O	O	O	O	O

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum total conducted average output power as follows:

Frequency Range [MHz]	Mode	Output Power [dBm]		Output Power [mW]	
		ANT1	ANT2	ANT1	ANT2
2412 - 2462	802.11b SISO	19.93	19.12	64.86	65.31
	802.11b MIMO	21.34		136.14	
	802.11g SISO	19.33	20.30	85.7	107.15
	802.11g MIMO	22.93		196.34	
	802.11n(HT20) SISO	19.35	20.25	86.1	105.93
	802.11n(HT20) MIMO	19.96		99.08	
	802.11n(HT40) SISO	19.55	20.25	90.16	105.93
	802.11n(HT40) MIMO	22.78		189.67	

5.3. 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.

The radio utilizes an internal antennas, with ANT 1 & 2's maximum gain of 1.88 dBi.

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

5.4. TESTED CHANNELS LIST

Ch.	Frequency [MHz]	802.11b	802.11g	802.11n(HT20)	802.11n(HT40)
1	2 412	O	O	O	-
2	2 417	-	O	O	-
3	2 422	-	-	-	O
4	2 427	-	-	-	O
6	2 437	O	O	O	O
8	2 447	-	-	-	O
9	2 452	-	-	-	O
10	2 457	-	O	O	-
11	2 462	O	O	O	-

5.5. 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 EUT is used on the X axis as a fixed device.; therefore, all radiated testing was performed with the EUT in X orientation.

Based on the baseline scan, the worst-case data rates were:
802.11b mode: 1 Mbps 1TX/2TX
802.11g mode: 6 Mbps 1TX/2TX
802.11n HT20 mode: MCS0 1TX/2TX
802.11n HT40 mode: MCS0 1TX/2TX

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5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
Switching mode Power Adaptor	CHENZHOU FRECOM ELECTRONICS	F18L16-120150SPAU	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**
1	DC Power	1	Pin	Shielded	1.5m	N/A
2	LAN	2	RJ-45	Shielded	2.0m	N/A

TEST SETUP

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

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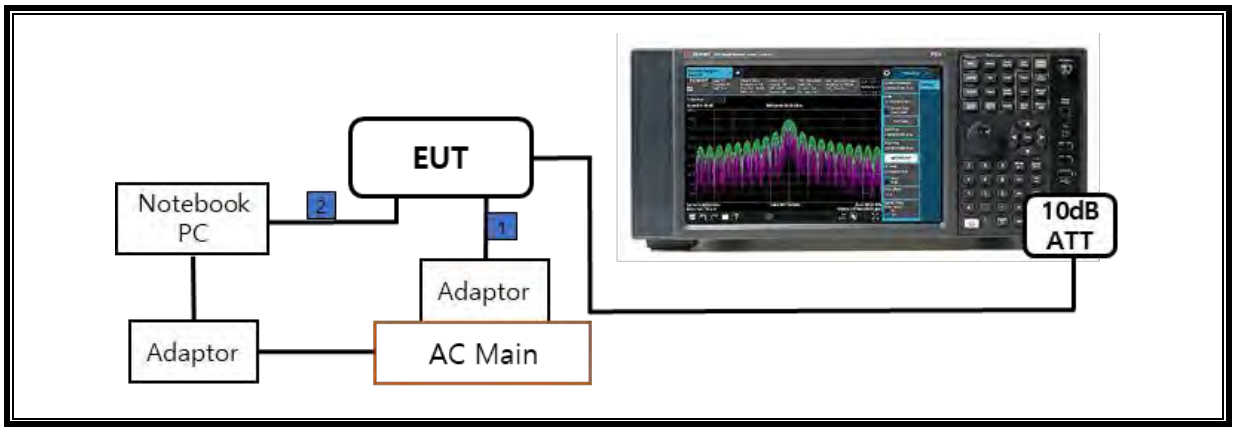
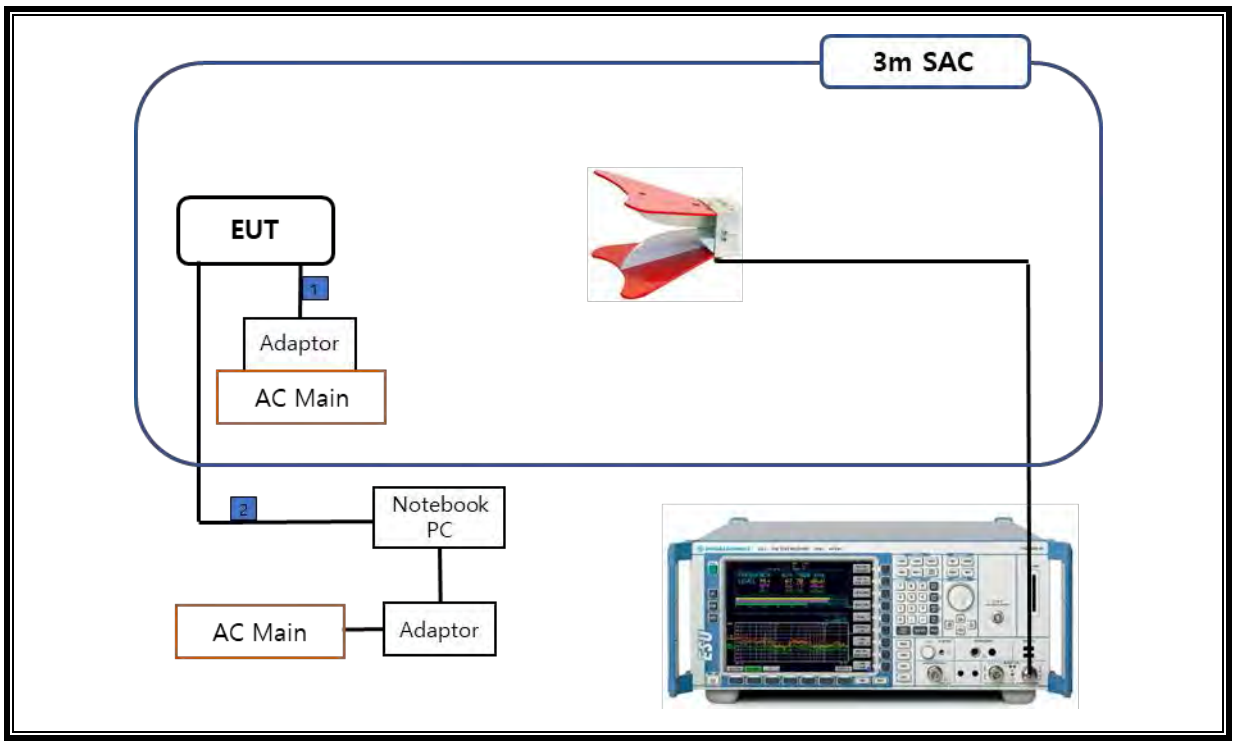
SETUP DIAGRAM FOR TESTS (CONDUCTED TEST SETUP)



SETUP DIAGRAM FOR TESTS (RADIATED TEST SETUP)



6. MEASUREMENT METHOD

6 dB BW : ANSI C63.10-2013, Section 11.8.2 Option 2

OUTPUT POWER : ANSI C63.10-2013, Section 11.9.2.3.1 Method AVGPM

POWER SPECTRAL DENSITY : ANSI C63.10-2013, Section 11.10.3 & 11.10.5 Method AVGPSD-1 and Method AVGPSD-2

Out-of-band Emissions (Conducted) : ANSI C63.10-2013, Section 11.11 Emissions in nonrestricted frequency bands

Out-of-band Emissions in Non-restricted Bands : ANSI C63.10-2013, Section 11.11 Emissions in nonrestricted frequency bands

Out-of-band Emissions in Restricted Bands : ANSI C63.10-2013, Section 11.12 Emissions in restricted frequency bands

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

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7. 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	2022-07-27
Antenna, Horn, 18 GHz	ETS	3115	00161451	2022-08-15
Antenna, Horn, 18 GHz	ETS	3117	00168724	2022-07-27
Antenna, Horn, 18 GHz	ETS	3117	00168717	2022-08-15
Antenna, Horn, 40 GHz	ETS	3116C	00166155	2022-08-04
Preamplifier	ETS	3116C-PA	00168841	2022-08-04
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	2022-08-02
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	1896138	2022-08-02
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	2029168	2022-08-02
Spectrum Analyzer, 44 GHz	KEYSIGHT	N9030B	MY57143717	2023-01-11
RF Switching Unit	TA Engineering	TA-018S-16	SW-1	N/A
10dB ATTENUATOR	MINI-CIRCUITS	BW-K10-2W44+	2117	2022-10-22
Power Sensor	R&S	NRP8S	104520	2022-08-04
Power Sensor	R&S	NRP8S	104521	2022-08-04
Power Sensor	R&S	NRP8S	111164	2022-10-15
Power Sensor	R&S	NRP-Z91	102681	2022-08-04
Attenuator	R&S	10dB	None	2022-08-05
Attenuator	R&S	10dB	None	2022-08-05
Attenuator	R&S	10dB	None	2022-08-05
Attenuator	R&S	10dB	None	2022-08-05
EMI Test Receive, 40 GHz	R&S	ESU40	100439	2022-08-02
EMI Test Receive, 40 GHz	R&S	ESU40	100457	2022-08-02
EMI Test Receive, 3 GHz	R&S	ESR3	102592	2022-08-02
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	009	2022-08-02
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	015	2022-08-02
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	019	2022-08-02
High Pass Filter 3GHz	Micro-Tronics	HPM17543	010	2022-08-02
High Pass Filter 3GHz	Micro-Tronics	HPM17543	015	2022-08-02
High Pass Filter 3GHz	Micro-Tronics	HPM17543	020	2022-08-02
High Pass Filter 6GHz	Micro-Tronics	HPS17542	009	2022-08-02
High Pass Filter 6GHz	Micro-Tronics	HPS17542	016	2022-08-02
High Pass Filter 6GHz	Micro-Tronics	HPS17542	020	2022-08-02
LISN	R&S	ENV216	102478	2022-08-06
OPEN SWITCH AND CONTROL	R&S	OSP220	101437	N/A
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

8. SUMMARY TABLE

FCC Part Section	Test Description	Test Limit	Test Condition	Test Result
15.247 (a)(2)	Occupied Band width (6dB)	> 500kHz	Conducted	Pass
2.1051, 15.247 (d)	Band Edge / Conducted Spurious Emission	-30dBc		Pass
15.247 (b)(3)	TX conducted output power	< 30dBm		Pass
15.247 (e)	PSD	< 8dBm		Pass
15.207 (a)	AC Power Line conducted emissions	Section 10	Power Line conducted	Pass
15.205, 15.209	Radiated Spurious Emission	< 54dBuV/m	Radiated	Pass

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9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

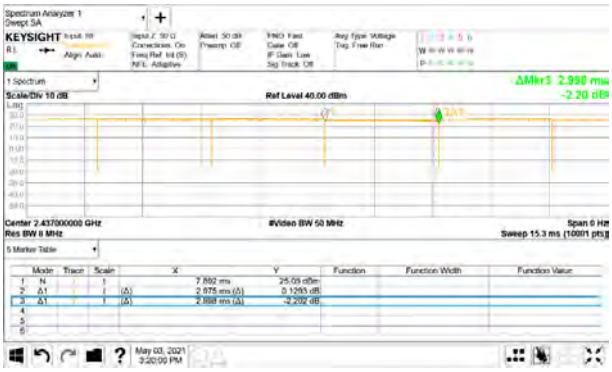
LIMITS

None; for reporting purposes only.

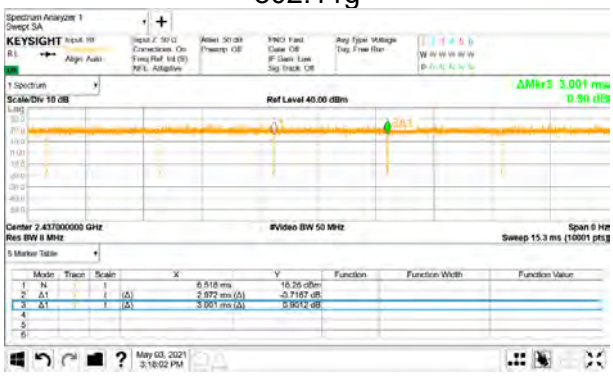
Band	Mode	On Time [ms]	Period [ms]	Duty Cycle X [Linear]	Duty Cycle X [%]	Duty Cycle Correction Factor [dB]	1/T Minimum VBW [kHz]
2.4 GHz	802.11b	2.975	2.998	0.992	99.23	0	0.336
	802.11g	2.972	3.001	0.990	99.03	0	0.336
	802.11n(HT20)	2.972	3.002	0.990	99.00	0	0.336
	802.11n(HT40)	2.972	3.001	0.990	99.03	0	0.336

Note. Since the duty cycle of all modes is over 98%, compensation is not included.(average measurement)

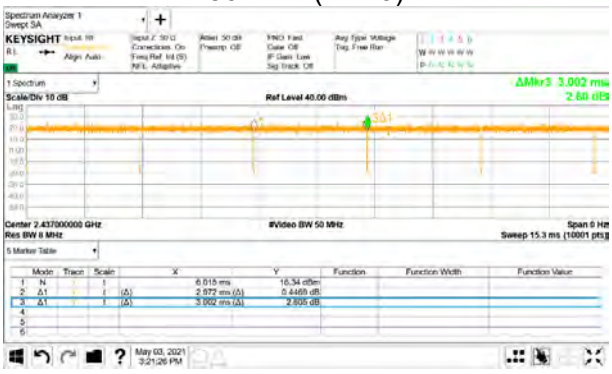
802.11b



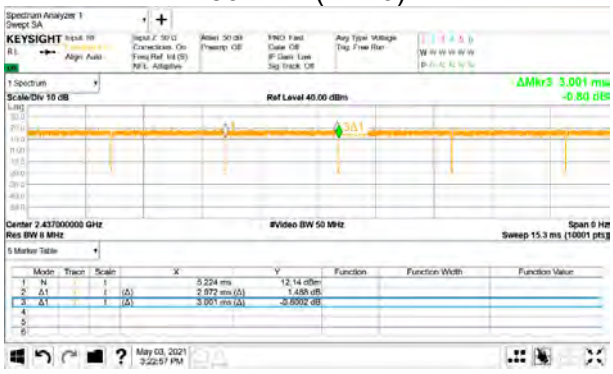
802.11g



802.11n(HT20)



802.11n(HT40)



9.2. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)
RSS-247 5.2 (a)

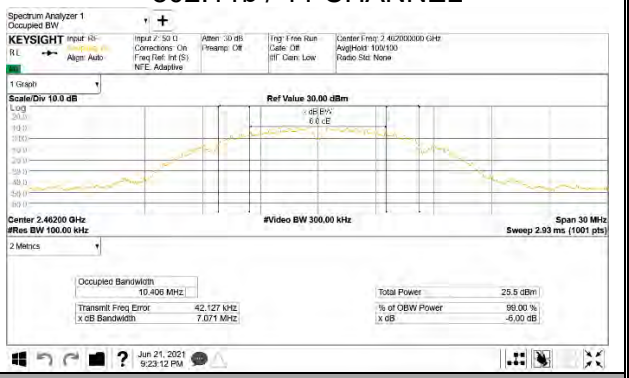
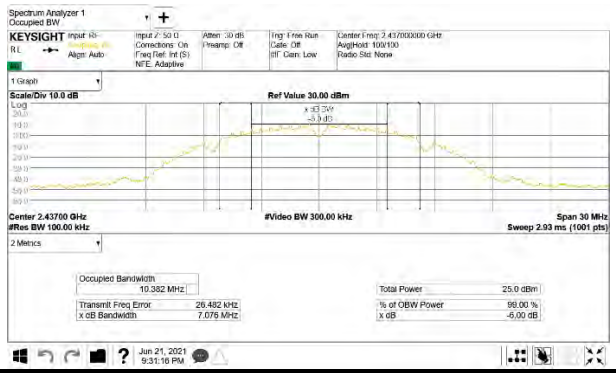
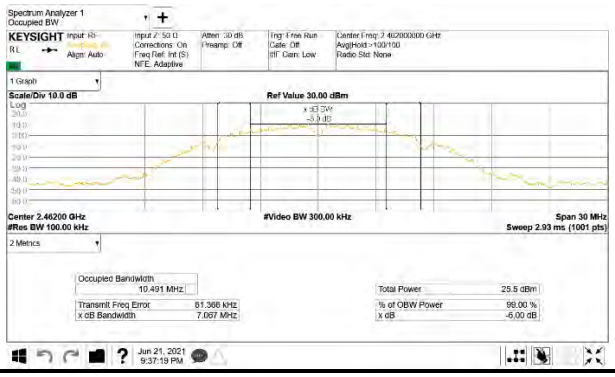
The minimum 6 dB bandwidth shall be at least 500 kHz.

TEST PROCEDURE

Reference to KDB 558074 D01 15.247 Meas Guidance: The transmitter output is connected to a spectrum analyzer with the RBW set to100 kHz, the VBW >= 3 x RBW, peak detector and max hold.

RESULTS
- Please refer to the next page

WORST CASE TEST PLOTS

SISO_ANT1	SISO_ANT2
802.11b / 11 CHANNEL	802.11b / 11 CHANNEL
	
MIMO_ANT1	**MIMO_ANT2**
802.11b / 6 CHANNEL	802.11b / 11 CHANNEL
	

9.2.1. 802.11b SISO MODE IN THE 2.4 GHz BAND

Channel	Frequency [MHz]	6 dB Bandwidth [MHz]		Minimum Limit [MHz]
		ANT 1	ANT 2	
1	2 412	7.09	7.07	0.5
6	2 437	7.10	7.08	
11	2 462	7.05	7.07	
Worst		**7.05**	**7.07**	

9.2.2. 802.11b MIMO MODE IN THE 2.4 GHz BAND

Channel	Frequency [MHz]	6 dB Bandwidth [MHz]		Minimum Limit [MHz]
		ANT 1	ANT 2	
1	2 412	7.08	7.08	0.5
6	2 437	7.08	7.09	
11	2 462	7.08	7.07	
Worst		**7.08**	**7.07**	

9.2.3. 802.11g SISO MODE IN THE 2.4 GHz BAND

Channel	Frequency [MHz]	6 dB Bandwidth [MHz]		Minimum Limit [MHz]
		ANT 1	ANT 2	
1	2 412	16.37	16.37	0.5
2	2 417	16.37	16.35	
6	2 437	16.37	16.38	
10	2 457	16.38	16.37	
11	2 462	16.38	16.37	
Worst		**16.37**	**16.35**	

9.2.4. 802.11g MIMO MODE IN THE 2.4 GHz BAND

Channel	Frequency [MHz]	6 dB Bandwidth [MHz]		Minimum Limit [MHz]
		ANT 1	ANT 2	
1	2 412	16.37	16.37	0.5
2	2 417	16.36	16.38	
6	2 437	16.38	16.39	
10	2 457	16.37	16.37	
11	2 462	16.37	16.36	
Worst		**16.36**	**16.36**	

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9.2.5. 11n(HT20) SISO MODE IN THE 2.4 GHz BAND

Channel	Frequency [MHz]	6 dB Bandwidth [MHz]		Minimum Limit [MHz]
		ANT 1	ANT 2	
1	2 412	17.60	17.61	0.5
2	2 417	17.61	17.60	
6	2 437	17.61	17.61	
10	2 457	17.60	17.60	
11	2 462	17.61	17.61	
Worst		**17.60**	**17.60**	

9.2.6. 802.11n(HT20) MIMO MODE IN THE 2.4 GHz BAND

Channel	Frequency [MHz]	6 dB Bandwidth [MHz]		Minimum Limit [MHz]
		ANT 1	ANT 2	
1	2 412	17.60	17.63	0.5
2	2 417	17.60	17.61	
6	2 437	17.60	17.61	
10	2 457	17.60	17.63	
11	2 462	17.60	17.60	
Worst		**17.60**	**17.60**	

9.2.7. 11n(HT40) SISO MODE IN THE 2.4 GHz BAND

Channel	Frequency [MHz]	6 dB Bandwidth [MHz]		Minimum Limit [MHz]
		ANT 1	ANT 2	
3	2 422	36.07	36.39	0.5
4	2 427	36.15	36.08	
6	2 437	36.10	36.16	
8	2 447	35.99	36.33	
9	2 452	36.06	36.02	
Worst		**35.99**	**36.02**	

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9.2.8. 11n(HT40) MIMO MODE IN THE 2.4 GHz BAND

Channel	Frequency [MHz]	6 dB Bandwidth [MHz]		Minimum Limit [MHz]
		ANT 1	ANT 2	
3	2 422	36.12	36.40	0.5
4	2 427	36.09	36.41	
6	2 437	36.13	36.40	
8	2 447	36.11	36.35	
9	2 452	36.00	36.41	
Worst		**36.00**	**36.35**	

9.3. OUTPUT POWER

LIMITS

FCC §15.247 (b) (3)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

TEST PROCEDURE

Measurements perform using a wideband RF frame average power sensor.
The cable assembly insertion loss and duty cycle correction factor was entered as an offset in the power sensor to allow for direct reading of power.
Output power measurement was performed utilizing the method AVGPM under KDB558074 D01 15.247 Meas Guidance 8.3.2.3.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is equal among the chains.
The directional gain is:

Bands [MHz]	ANT 1 [dBi]	ANT 2 [dBi]	Directional Gain [dBi]
2 412 – 2 462	1.88	1.88	1.88

Note: Array gain calculation for CDD

For power measurements on IEEE 802.11 devices:
- Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$
- Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT}

9.3.1. 802.11b/g/n HT20 MODE TEST RESULTS

Included in Calculations of Corr'd Power			
Duty Cycle CF	802.11b SISO	-	dB
	802.11g MIMO	-	dB
	802.11n HT20 MIMO	-	dB

Calculation of Output Power result
Average Power = Meas. Power + Duty Cycle CF / Total Corr'd Power = ANT1's Avearage Power + ANT2's Average Power

- SISO & MIMO Mode

Mode	Channel	Frequency [MHz]	SISO Average Power [dBm]		MIMO Average Power [dBm]			Power Limit [dBm]
			ANT1	ANT2	ANT1	ANT2	Total Corr'd Power [dBm]	
802.11b	1	2 412	19.93	19.12	17.85	17.80	20.84	30
	6	2 437	19.88	18.85	17.86	17.81	20.85	
	11	2 462	19.77	18.14	18.30	18.36	21.34	
Worst Case			19.93	19.12			21.34	
802.11g	1	2 412	15.29	15.00	13.68	14.47	17.10	30
	2	2 417	19.03	18.48	17.79	18.75	21.31	
	6	2 437	19.33	20.30	19.50	20.30	22.93	
	10	2 457	18.45	18.12	16.82	17.56	20.22	
	11	2 462	13.30	14.62	12.12	13.05	15.62	
Worst Case			19.33	20.30			22.93	
802.11n HT20	1	2 412	15.52	14.54	14.22	14.81	17.54	30
	2	2 417	18.88	18.42	17.00	18.03	20.56	
	6	2 437	19.35	20.25	19.43	20.08	22.78	
	10	2 457	17.55	17.92	16.46	17.07	19.79	
	11	2 462	12.01	14.21	11.69	12.49	15.12	
Worst Case			19.35	20.25			22.78	
802.11n HT40	3	2 422	13.04	12.18	11.41	12.11	14.78	30
	4	2 427	13.30	13.55	11.16	12.23	14.74	
	6	2 437	19.55	20.29	19.50	20.25	22.90	
	8	2 447	11.72	13.05	11.75	12.51	15.16	
	9	2 452	10.79	12.67	10.16	11.08	13.65	
Worst Case			19.55	20.29			22.90	

9.4. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

TEST PROCEDURE

Power Spectral Density was performed utilizing the method AVGPSD-1 under KDB558074 D01 15.247 Meas Guidance section 8.4.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is equal among the chains.
The directional gain is:

Bands [MHz]	ANT 1 [dBi]	ANT 2 [dBi]	Directional Gain [dBi]
2 412 – 2 462	1.88	1.88	1.88

RESULTS

- Please refer to the next page

WORST CASE TEST PLOTS

SISO_ANT1	SISO_ANT2
802.11b / 6 CHANNEL	802.11b / 1 CHANNEL
	
MIMO_ANT1	MIMO_ANT2
802.11b / 11 CHANNEL	802.11b / 11 CHANNEL
	

9.4.1. 802.11b/g/n HT20 MODE TEST RESULTS

Included in Calculations of Corr'd Power			
Duty Cycle CF	802.11b SISO	-	dB
	802.11g MIMO	-	dB
	802.11n HT20 MIMO	-	dB

Calculation of Output PSD result
1. 1TX : Corr'd PSD = Meas PSD + Duty Cycle CF
2. 2TX : Total PSD = ANT1 Meas PSD + ANT2 Meas PSD + Duty Cycle CF

- SISO Mode

Mode	Channel	Frequency [MHz]	Meas PSD [dBm/100kHz]		Corr'd PSD [dBm/100kHz]		PSD Limit [dBm/3kHz]
			ANT1	ANT2	ANT1	ANT2	
802.11b	1	2 412	3.913	3.128	3.913	3.128	8
	6	2 437	4.266	3.074	4.266	3.074	
	11	2 462	3.739	2.470	3.739	2.470	
802.11g	1	2 412	-4.680	-5.412	-4.680	-5.412	8
	2	2 417	-1.011	-1.981	-1.011	-1.981	
	6	2 437	-0.576	0.179	-0.576	0.179	
	10	2 457	-1.359	-1.999	-1.359	-1.999	
	11	2 462	-6.561	-5.485	-6.561	-5.485	
802.11n HT20	1	2 412	-4.862	-5.612	-4.862	-5.612	8
	2	2 417	-1.473	-1.425	-1.473	-1.425	
	6	2 437	-0.779	0.206	-0.779	0.206	
	10	2 457	-2.709	-2.236	-2.709	-2.236	
	11	2 462	-8.282	-6.071	-8.282	-6.071	
802.11n HT40	3	2 422	-10.106	-11.136	-10.106	-11.136	8
	4	2 427	-9.839	-10.084	-9.839	-10.084	
	6	2 437	-3.811	-3.492	-3.811	-3.492	
	8	2 447	-11.424	-10.026	-11.424	-10.026	
	9	2 452	-12.459	-10.326	-12.459	-10.326	

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- MIMO Mode

Mode	Channel	Frequency [MHz]	Meas PSD [dBm/100kHz]		Total PSD [dBm/100kHz]	PSD Limit [dBm/3kHz]
			ANT1	ANT2		
802.11b	1	2 412	2.009	1.489	4.770	8
	6	2 437	2.034	2.063	5.060	
	11	2 462	2.460	2.572	5.530	
802.11g	1	2 412	-6.773	-5.463	-3.060	8
	2	2 417	-0.697	-1.457	1.950	
	6	2 437	-0.635	-0.167	2.620	
	10	2 457	-3.362	-2.709	-0.010	
	11	2 462	-7.713	-6.884	-4.270	
802.11n HT20	1	2 412	-6.252	-5.530	-2.870	8
	2	2 417	-3.067	-2.422	0.280	
	6	2 437	-0.799	-0.319	2.460	
	10	2 457	-3.248	-2.883	-0.050	
	11	2 462	-8.639	-7.670	-5.120	
802.11n HT40	3	2 422	-11.892	-11.091	-8.460	8
	4	2 427	-11.700	-11.176	-8.420	
	6	2 437	-3.973	-3.994	-0.970	
	8	2 447	-11.578	-10.401	-7.940	
	9	2 452	-13.225	-12.122	-9.630	

9.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

Output power was measured based on the use of average measurement, therefore the required attenuation is 30 dB.

TEST PROCEDURE

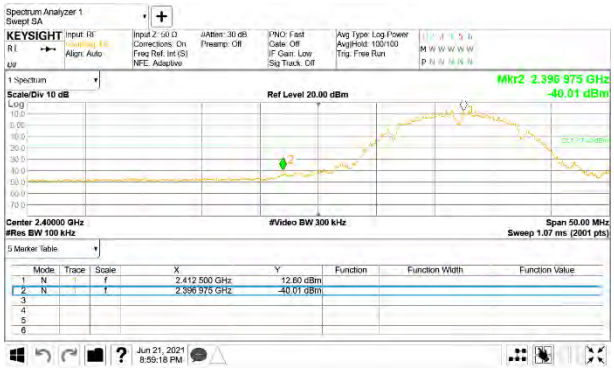
The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

RESULTS

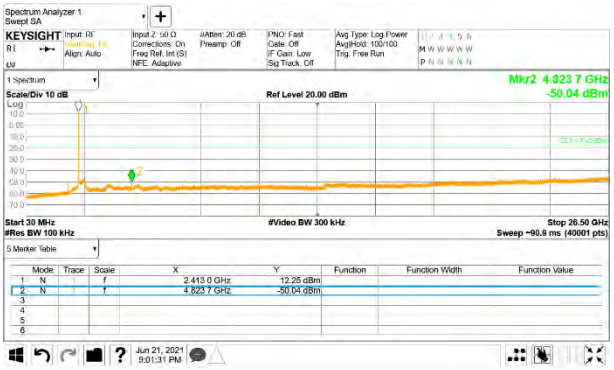
- Please refer to the next page

9.5.1. 802.11b MODE

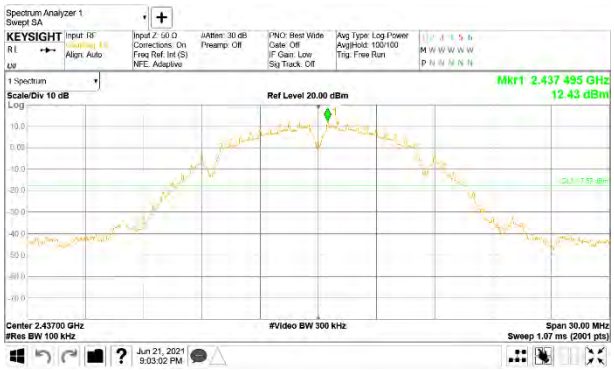
SISO ANT 1



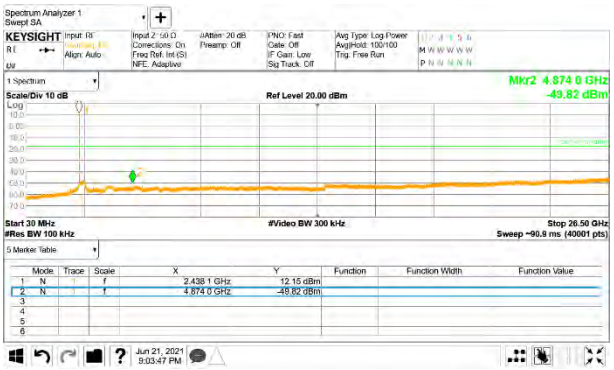
Band-edge Channel 1



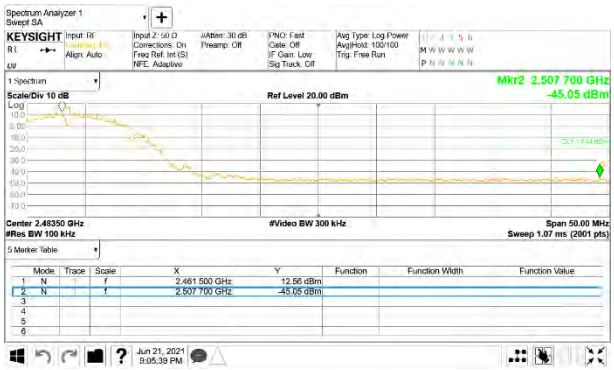
Out-Of-Band Channel 1



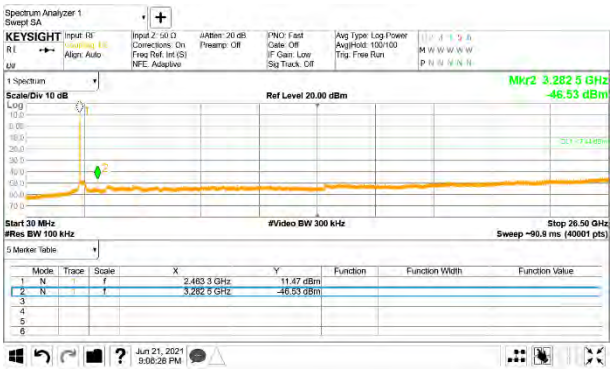
In-Band Reference Level



Out-Of-Band Channel 6

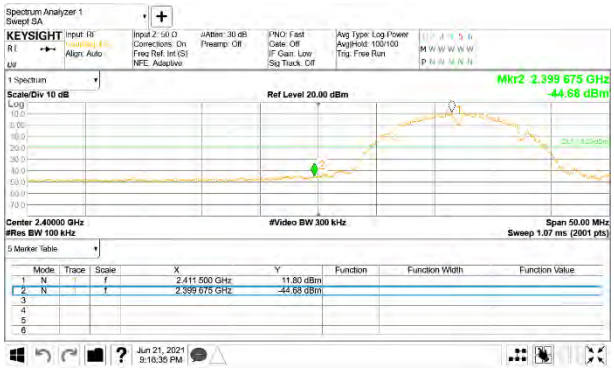


Band-edge Channel 11

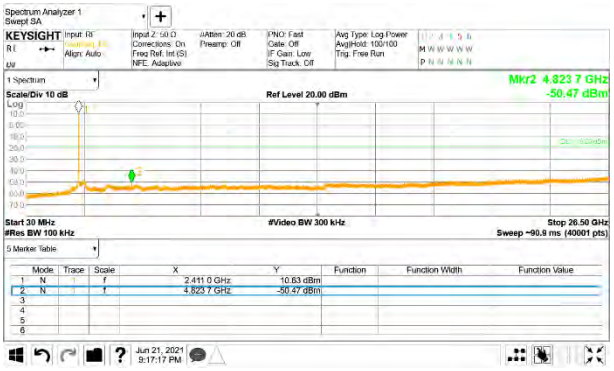


Out-Of-Band Channel 11

SISO ANT 2

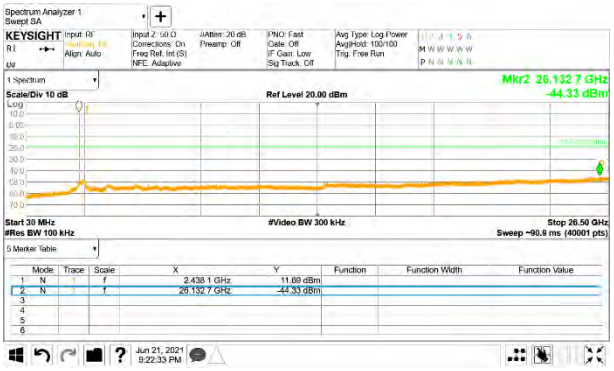


Band-edge Channel 1

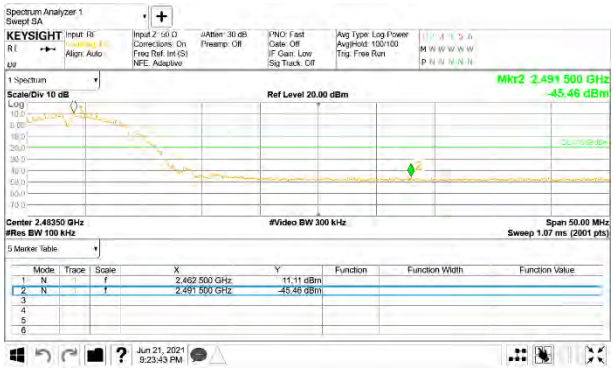


Out-Of-Band Channel 1

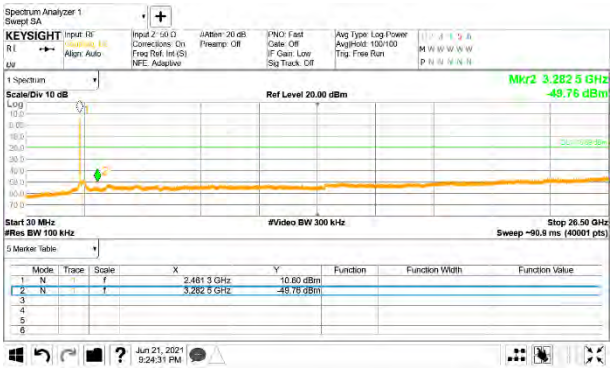
In-Band Reference Level



Out-Of-Band Channel 6

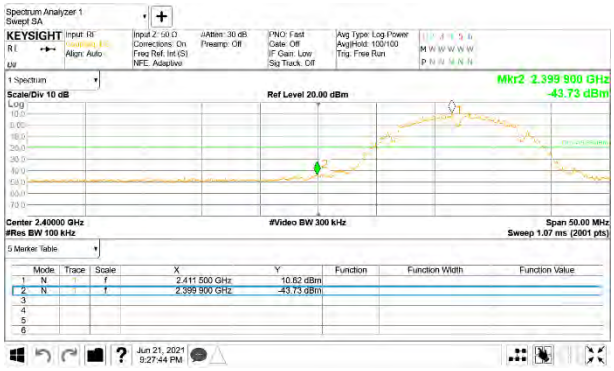


Band-edge Channel 11

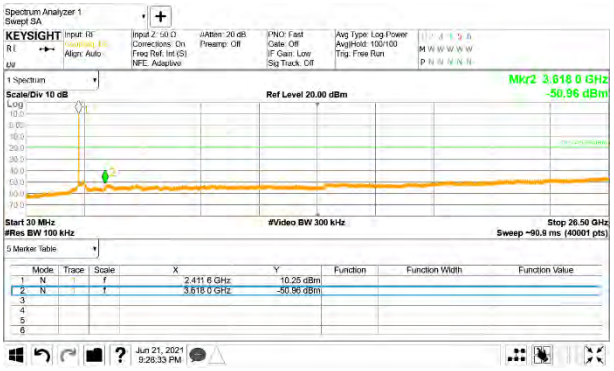


Out-Of-Band Channel 11

MIMO ANT 1

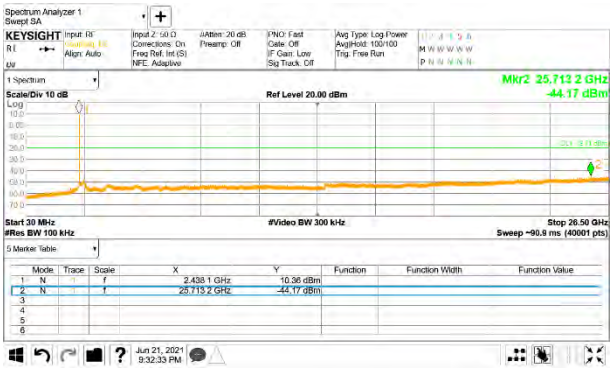


Band-edge Channel 1

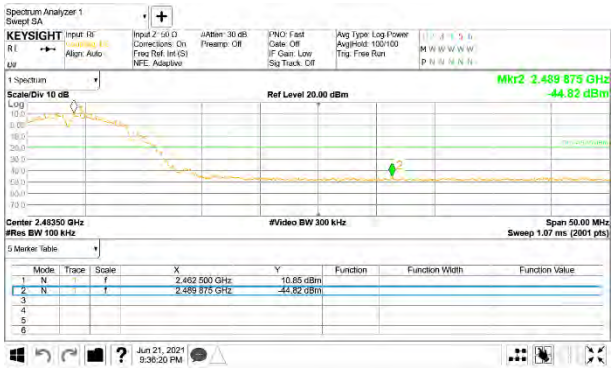


Out-Of-Band Channel 1

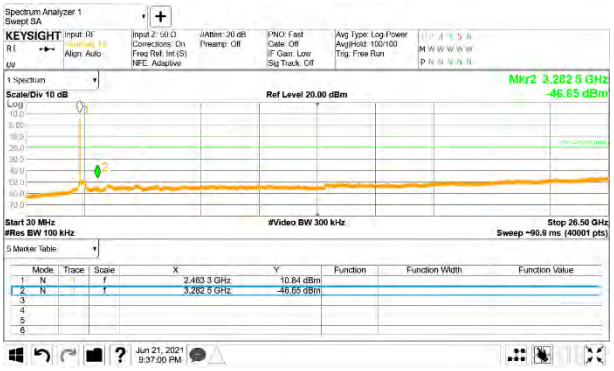
In-Band Reference Level



Out-Of-Band Channel 6

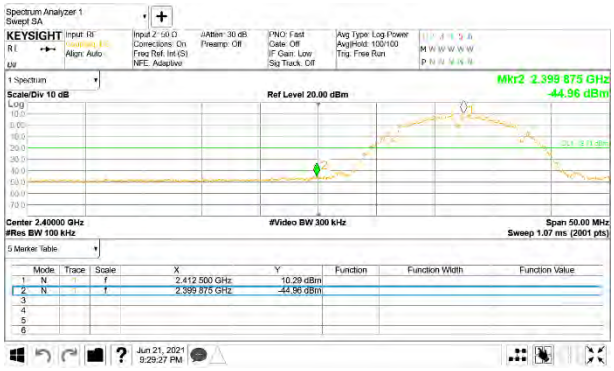


Band-edge Channel 11

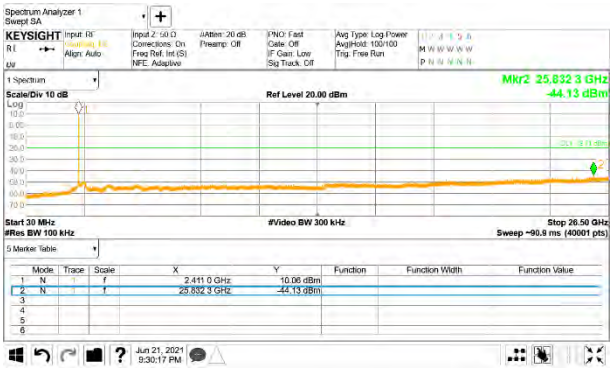


Out-Of-Band Channel 11

MIMO ANT 2

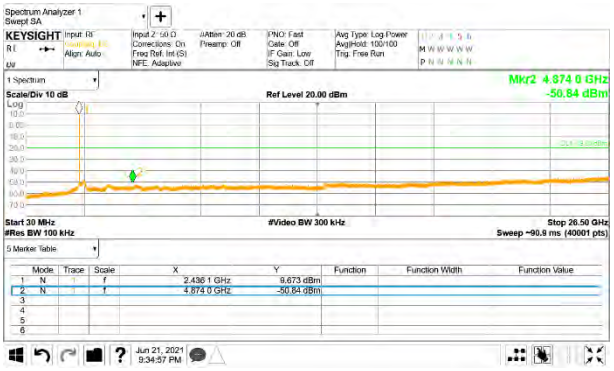


Band-edge Channel 1

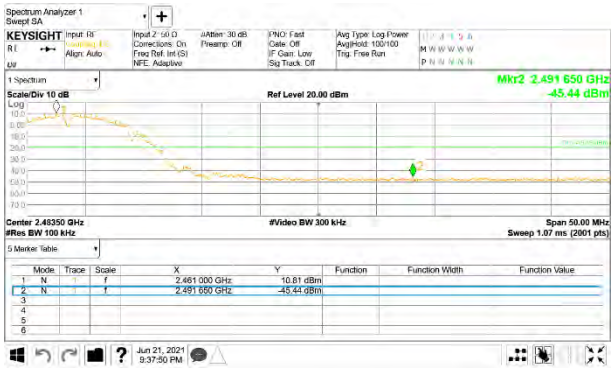


Out-Of-Band Channel 1

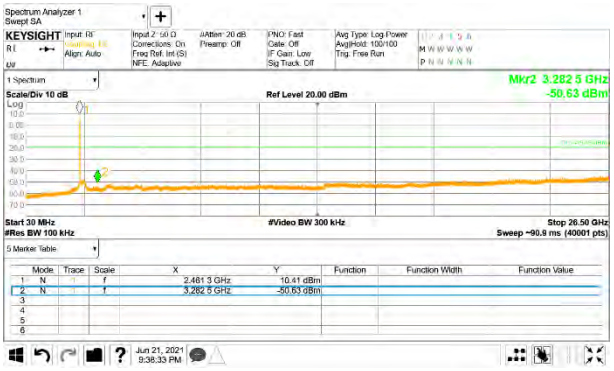
In-Band Reference Level



Out-Of-Band Channel 6



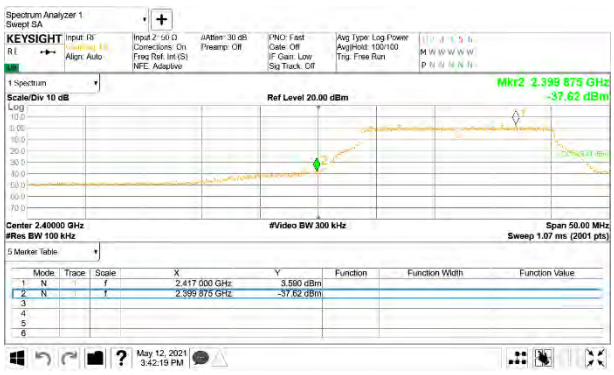
Band-edge Channel 11



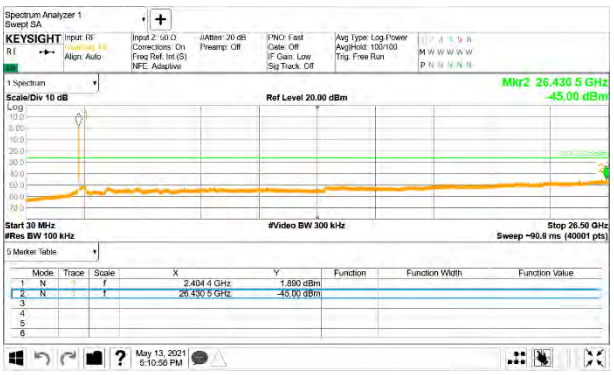
Out-Of-Band Channel 11

9.5.2. 802.11g MODE

SISO ANT 1

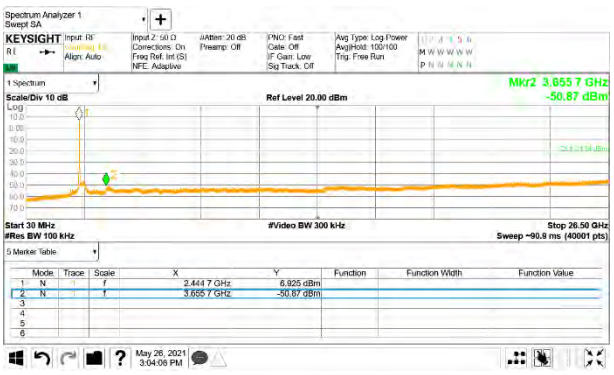


Band-edge Channel 1

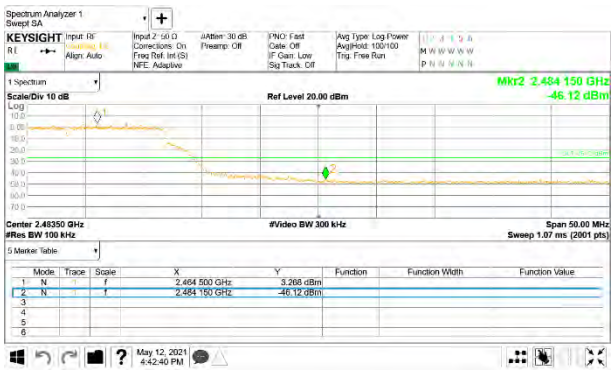


Out-Of-Band Channel 1

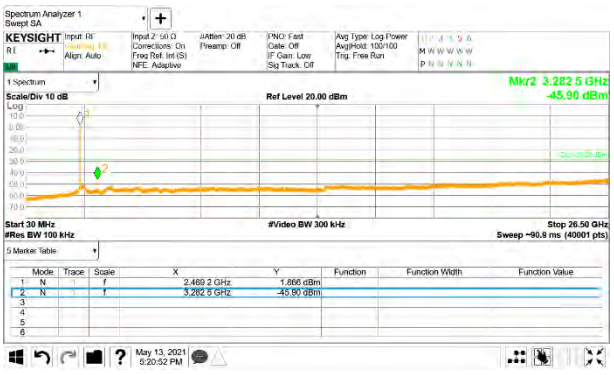
In-Band Reference Level



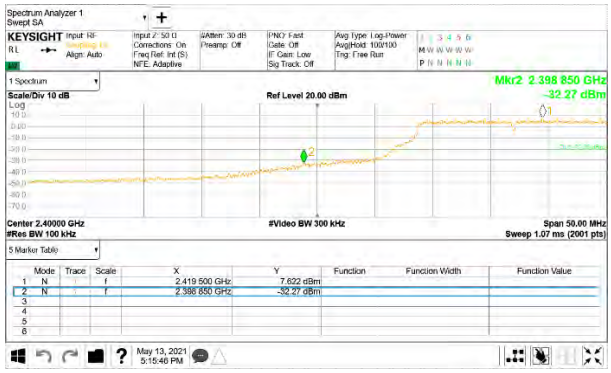
Out-Of-Band Channel 6



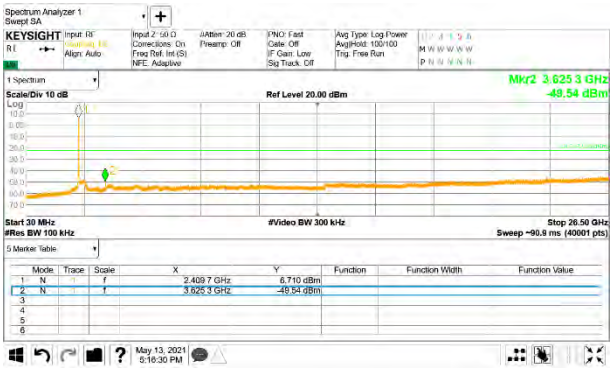
Band-edge Channel 11



Out-Of-Band Channel 11



Band-edge Channel 2



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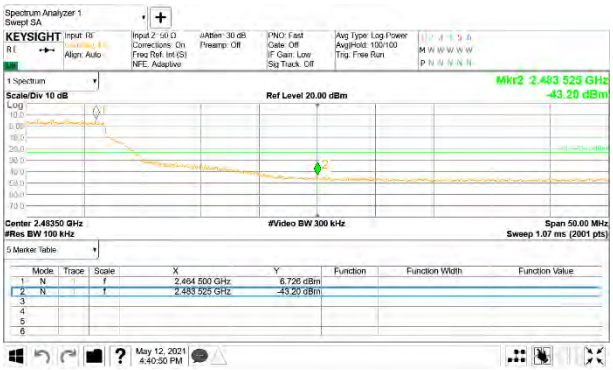
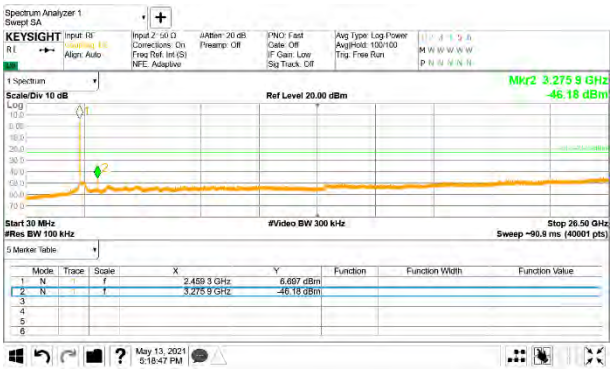
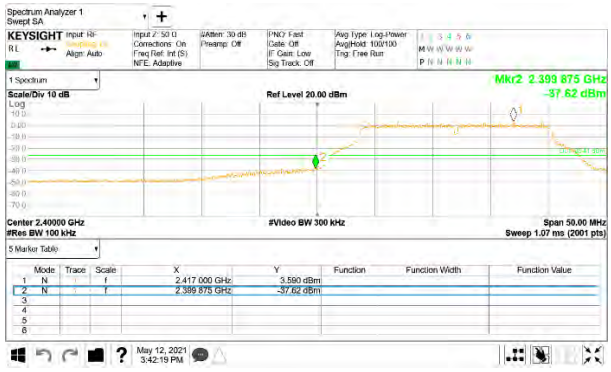


Band-edge Channel 10

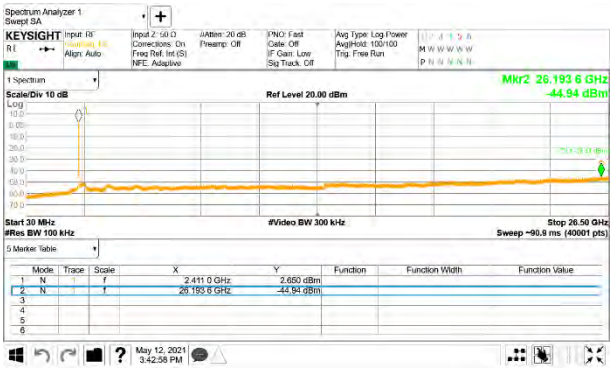


Out-Of-Band Channel 10

SISO ANT 2

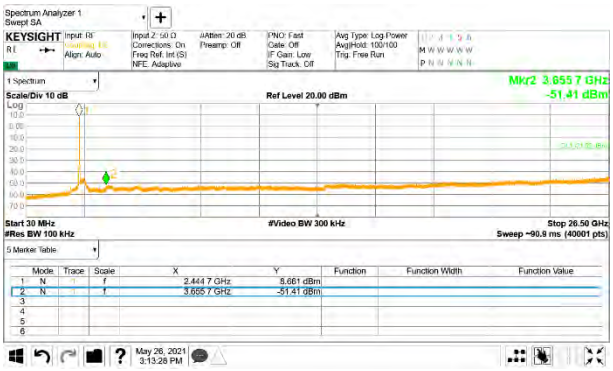


Band-edge Channel 1

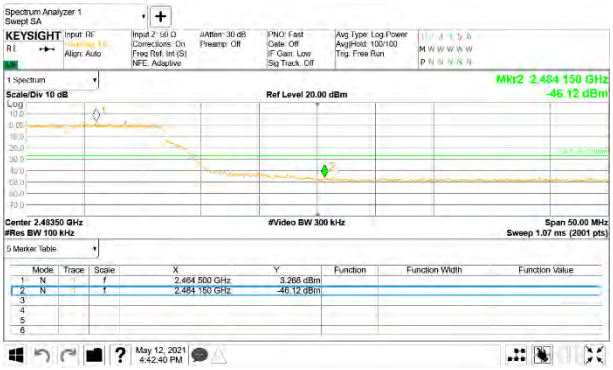


Out-Of-Band Channel 1

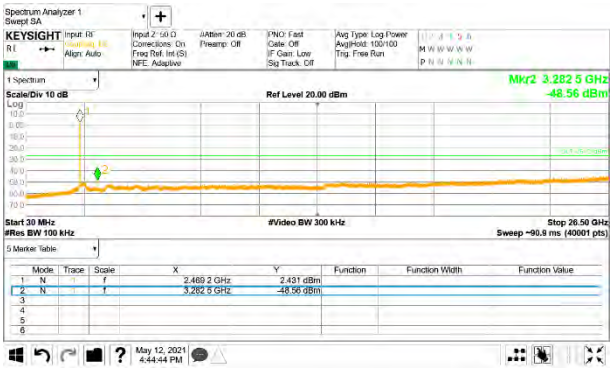
In-Band Reference Level



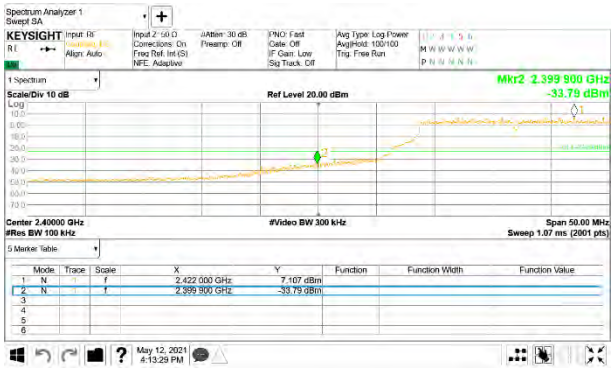
Out-Of-Band Channel 6



Band-edge Channel 11



Out-Of-Band Channel 11



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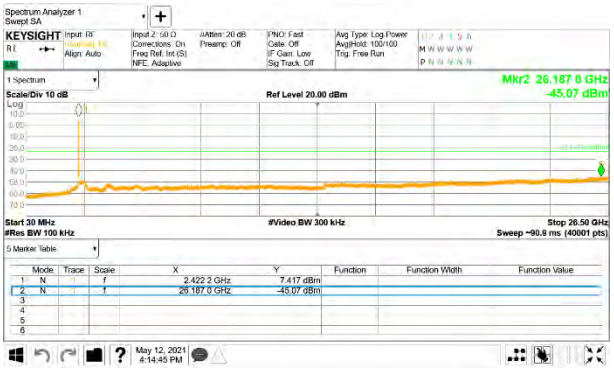

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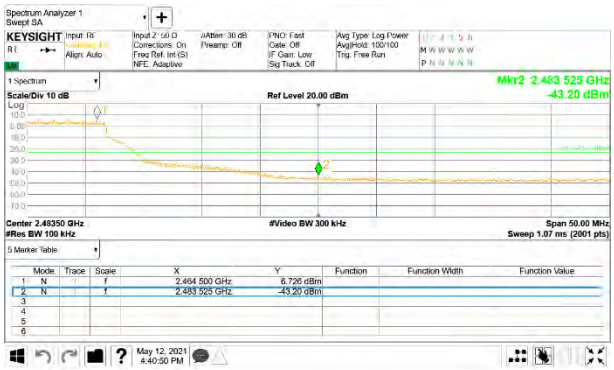
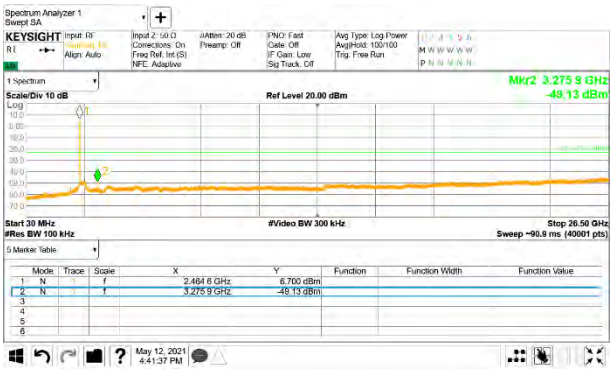
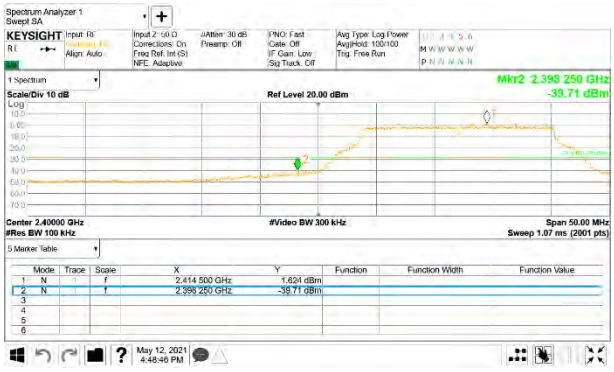


Band-edge Channel 10

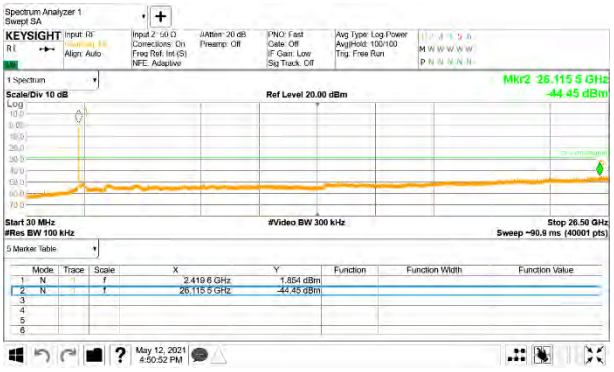


Out-Of-Band Channel 10

MIMO ANT 1

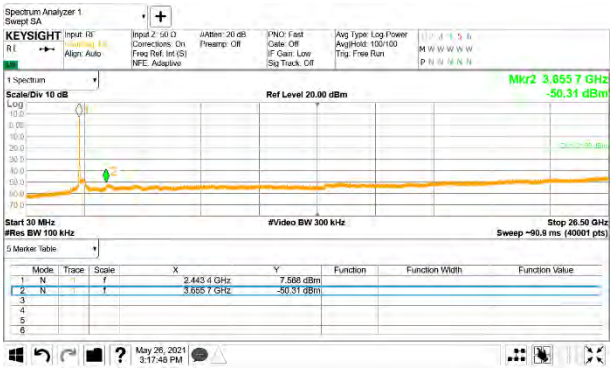


Band-edge Channel 1

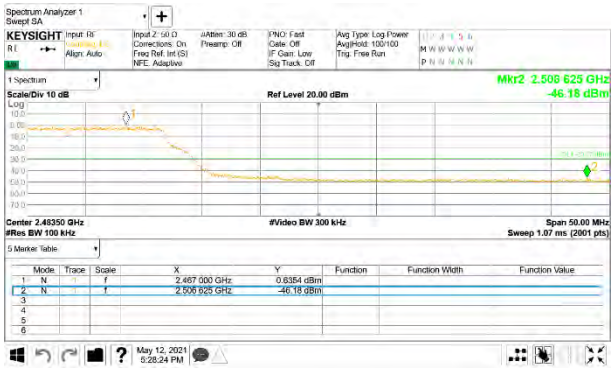


Out-Of-Band Channel 1

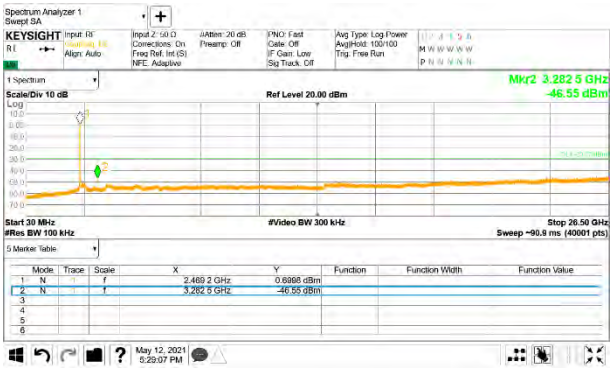
In-Band Reference Level



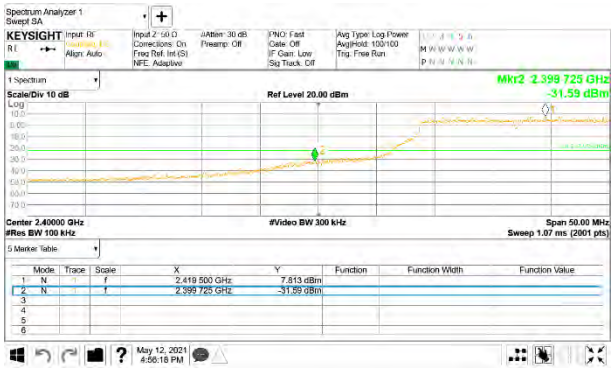
Out-Of-Band Channel 6



Band-edge Channel 11



Out-Of-Band Channel 11



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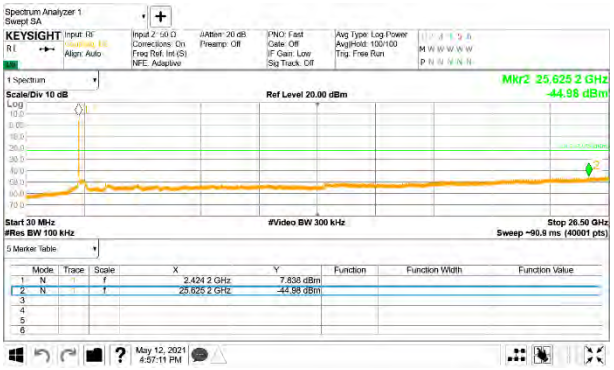

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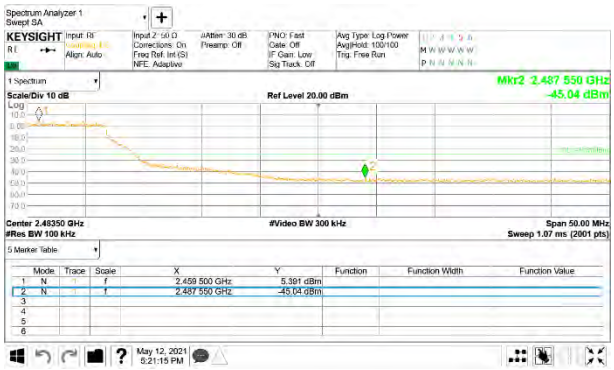
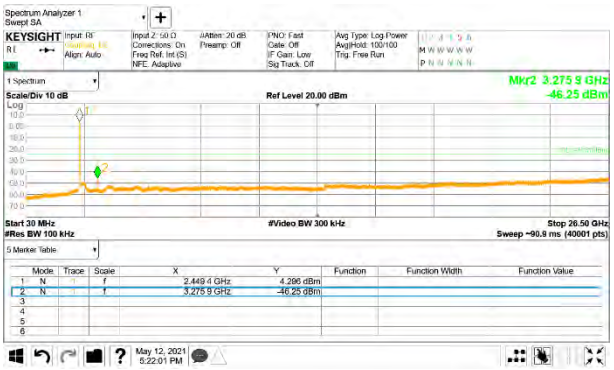
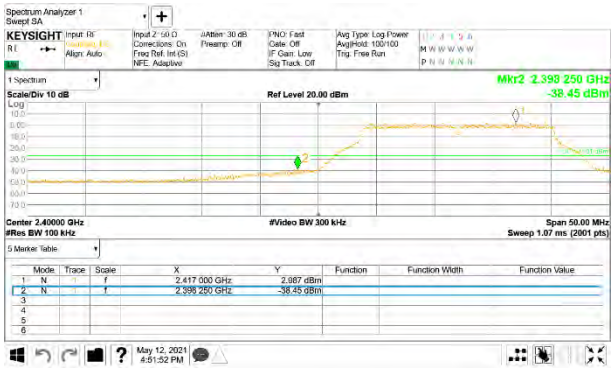


Band-edge Channel 10

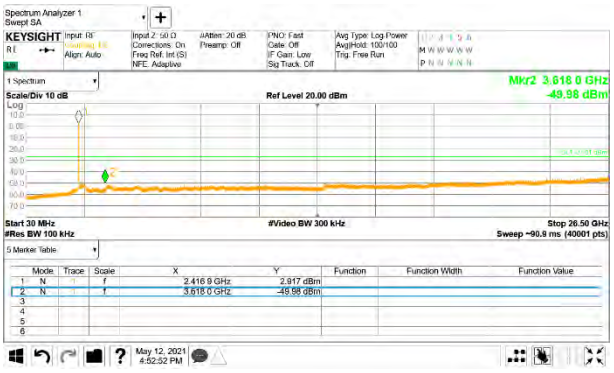


Out-Of-Band Channel 10

MIMO ANT 2

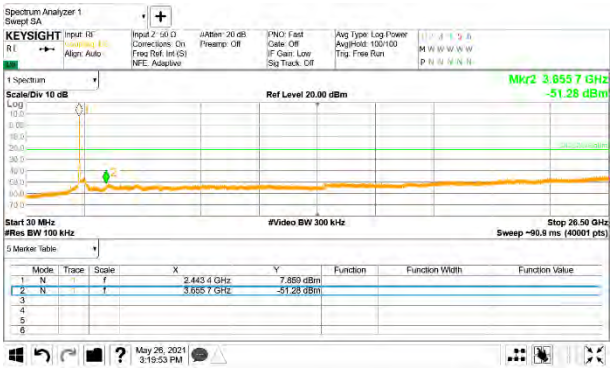


Band-edge Channel 1

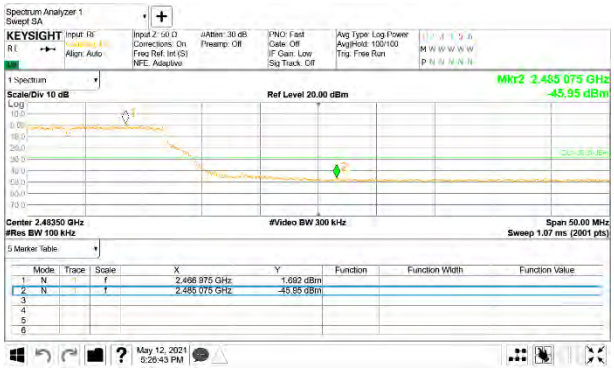


Out-Of-Band Channel 1

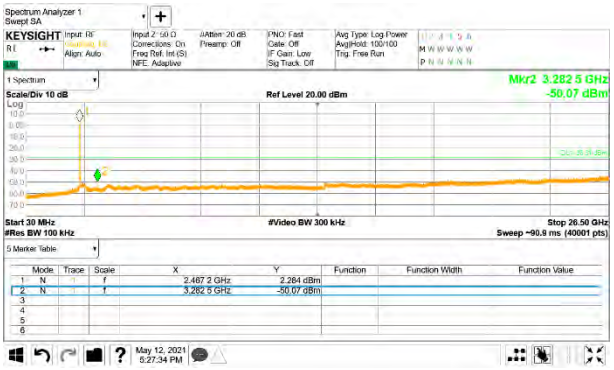
In-Band Reference Level



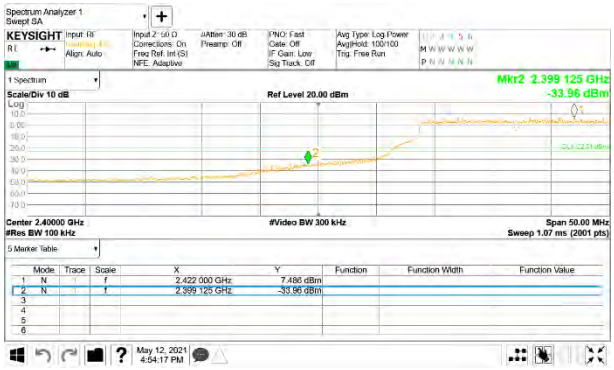
Out-Of-Band Channel 6



Band-edge Channel 11



Out-Of-Band Channel 11



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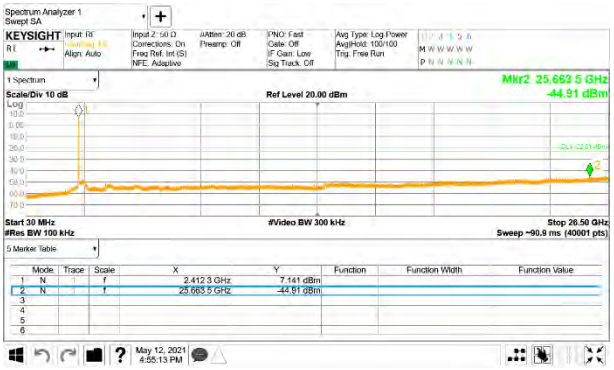

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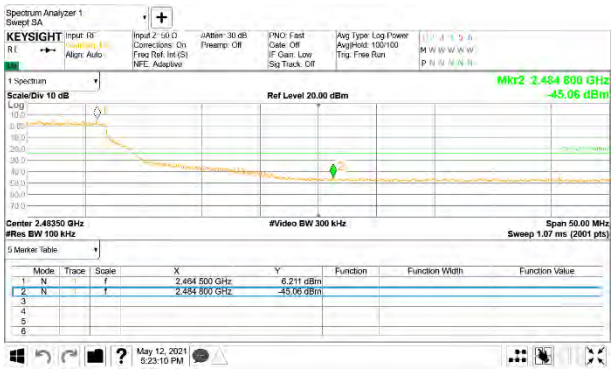
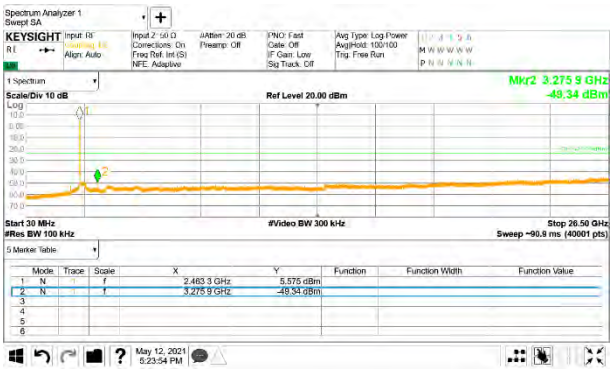


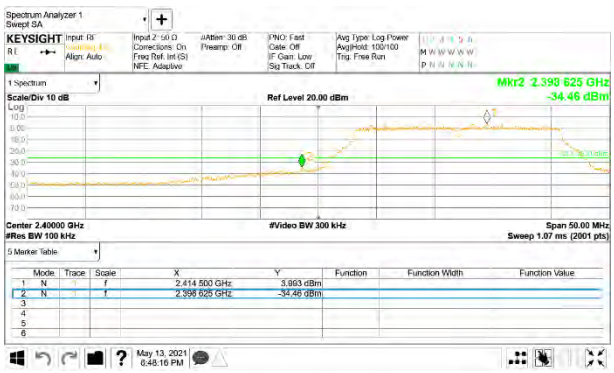
Band-edge Channel 10



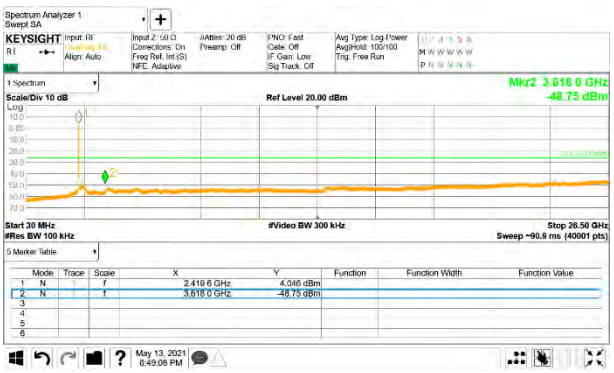
Out-Of-Band Channel 10

9.5.3. 802.11n HT20 MODE

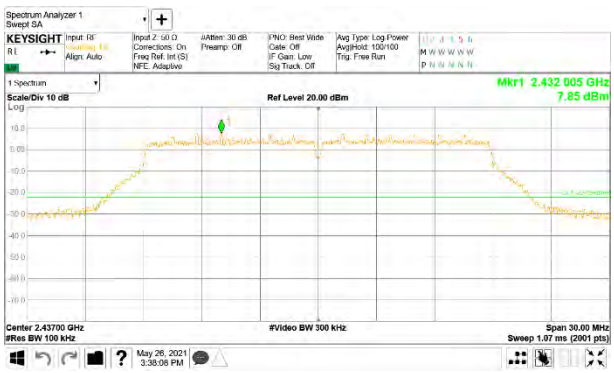
SISO ANT 1



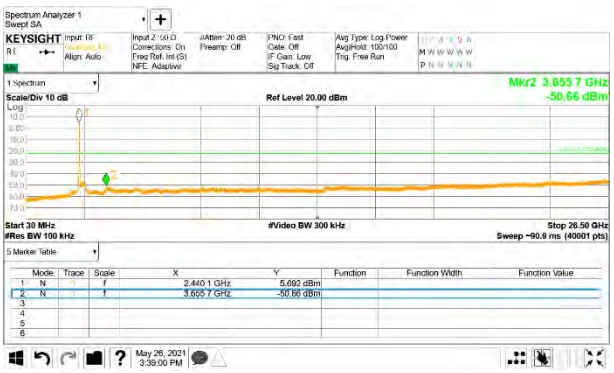
Band-edge Channel 1



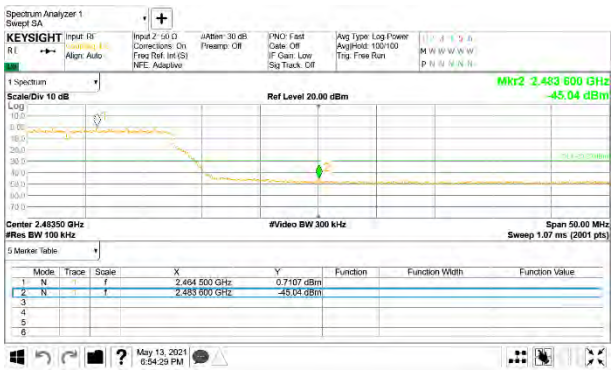
Out-Of-Band Channel 1



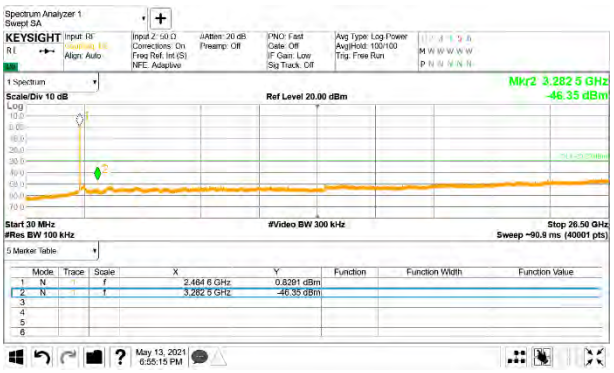
In-Band Reference Level



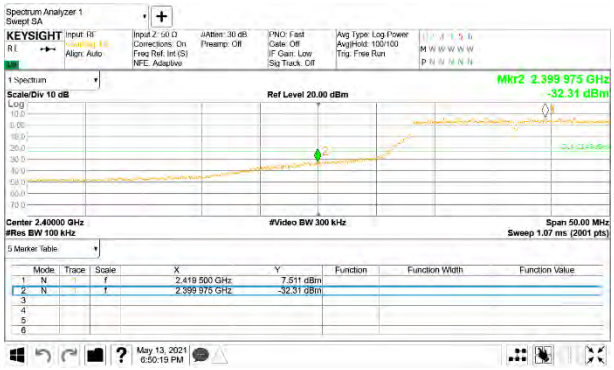
Out-Of-Band Channel 6



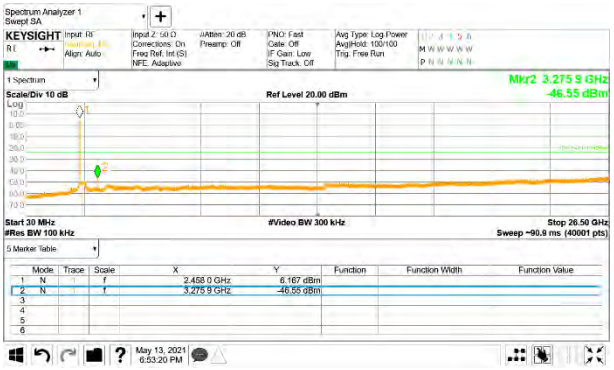
Band-edge Channel 11



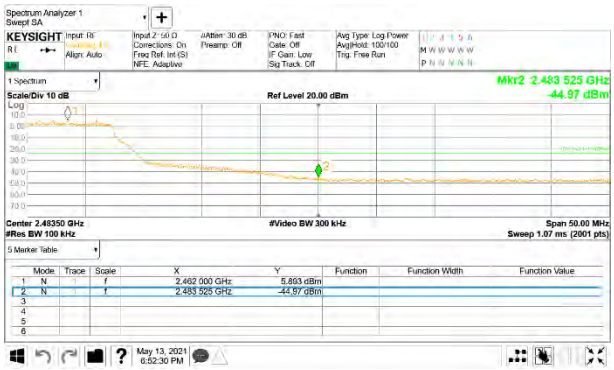
Out-Of-Band Channel 11



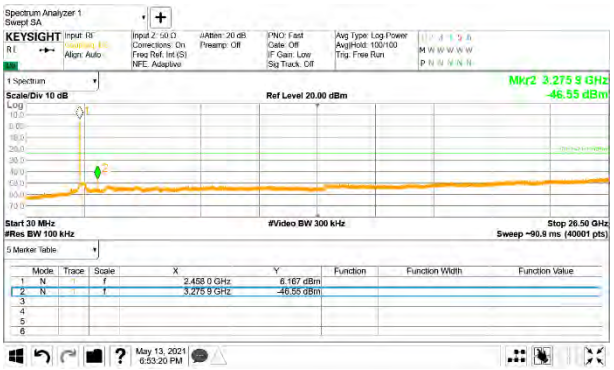
Band-edge Channel 2



Out-Of-Band Channel 2

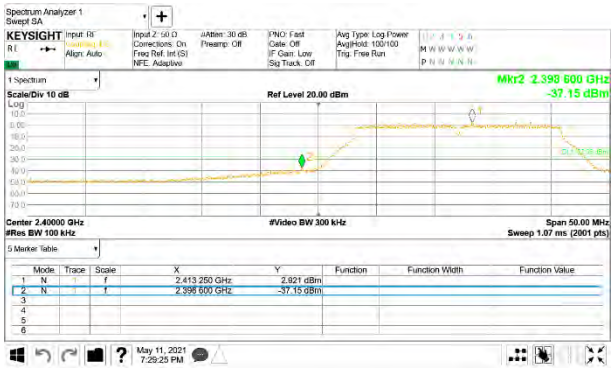


Band-edge Channel 10

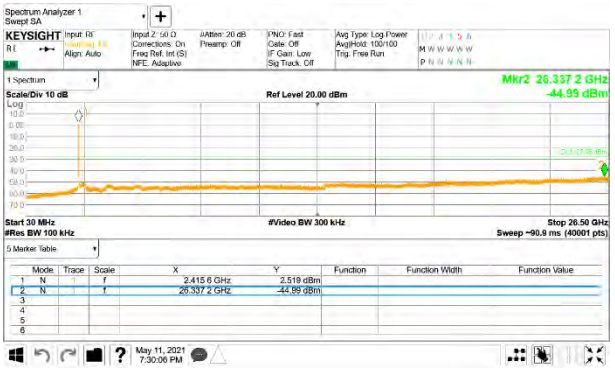


Out-Of-Band Channel 10

SISO ANT 2

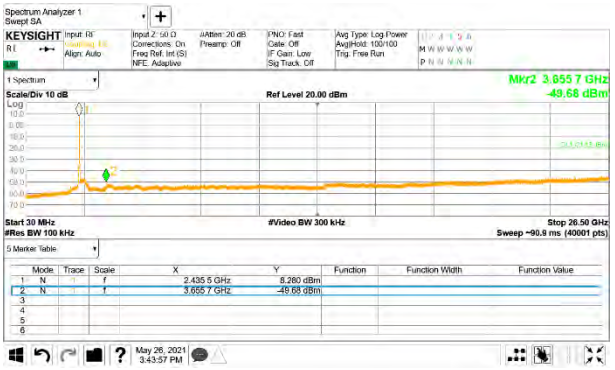


Band-edge Channel 1

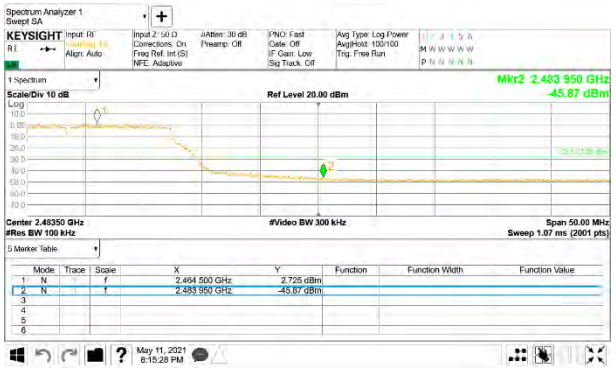


Out-Of-Band Channel 1

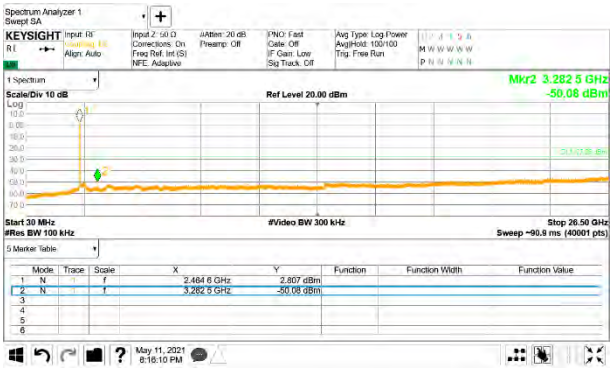
In-Band Reference Level



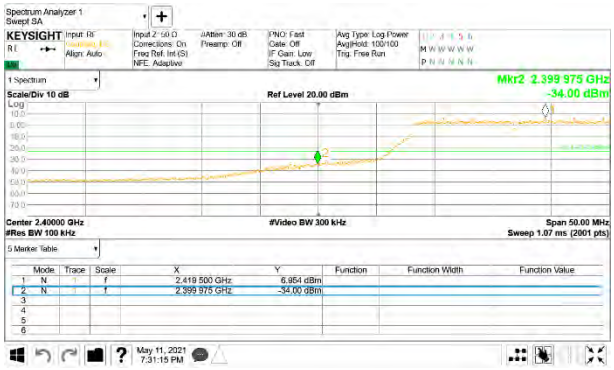
Out-Of-Band Channel 6



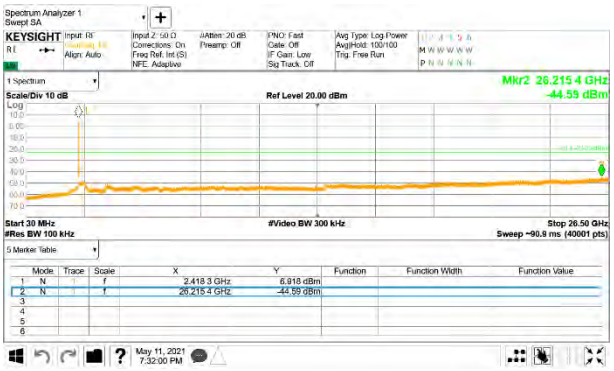
Band-edge Channel 11



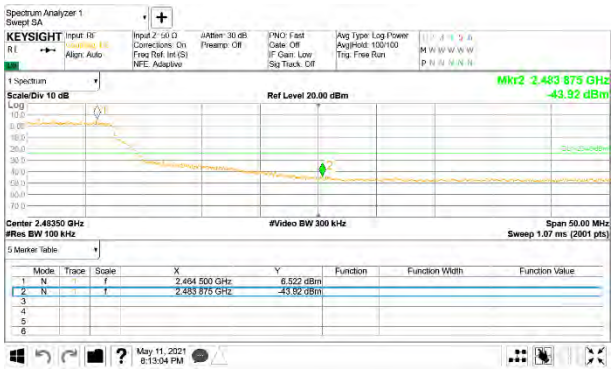
Out-Of-Band Channel 11



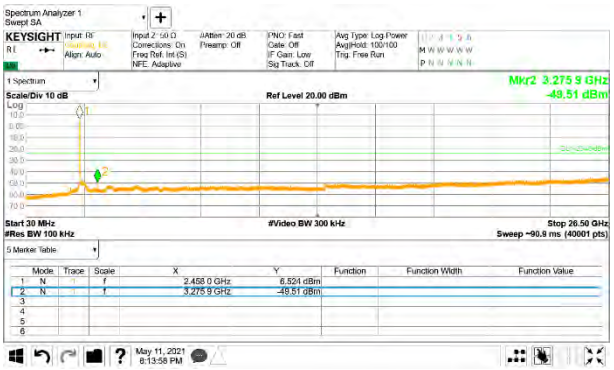
Band-edge Channel 2



Out-Of-Band Channel 2

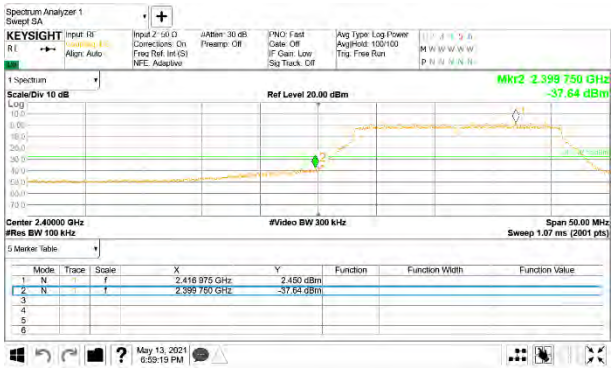


Band-edge Channel 10

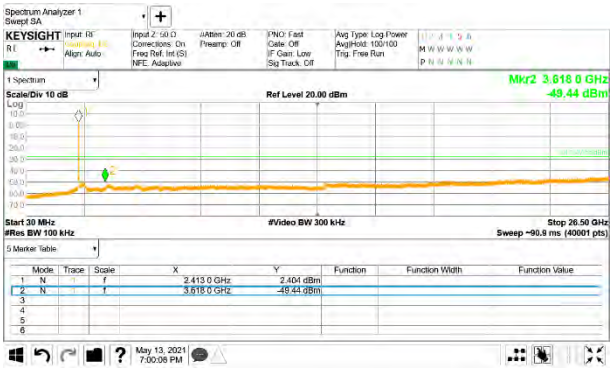


Out-Of-Band Channel 10

MIMO ANT 1

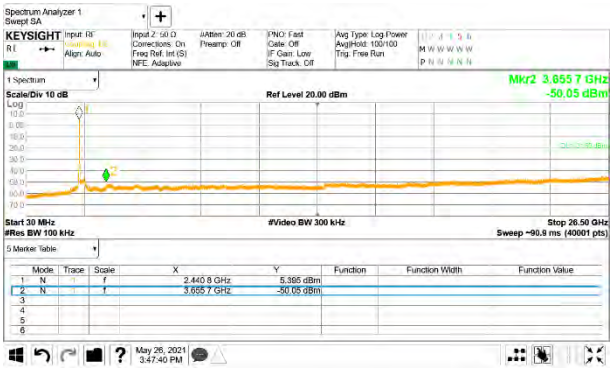


Band-edge Channel 1



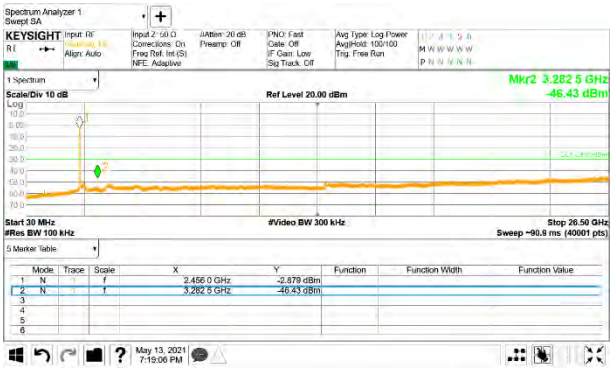
Out-Of-Band Channel 1

In-Band Reference Level

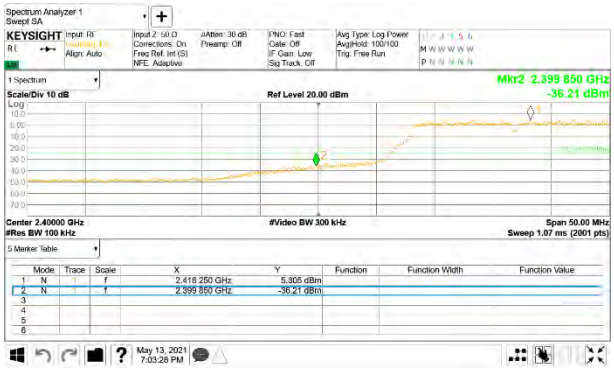


Out-Of-Band Channel 6

Band-edge Channel 11



Out-Of-Band Channel 11



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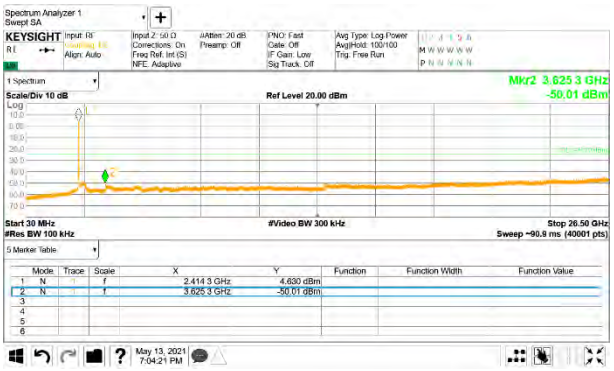
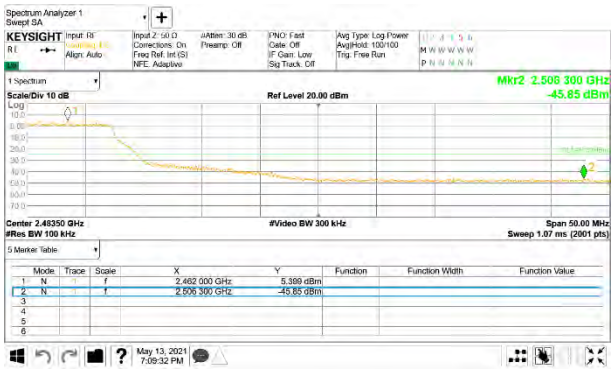
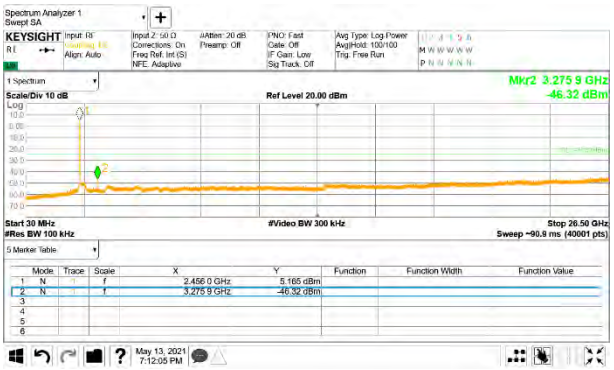


Out-Of-Band Channel 2

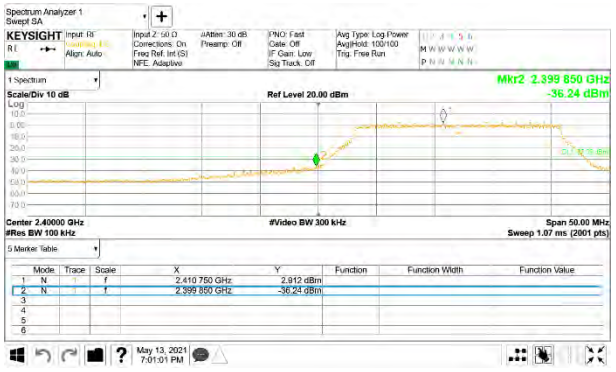


Band-edge Channel 10

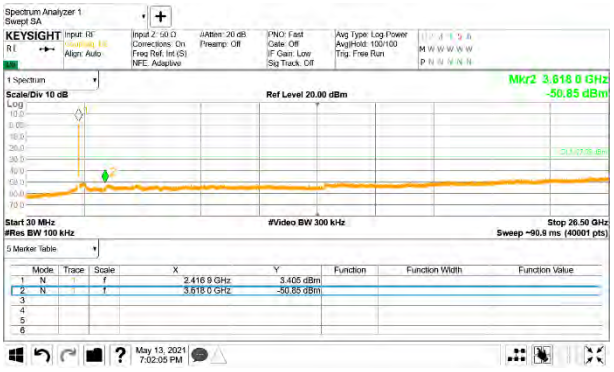


Out-Of-Band Channel 10

MIMO ANT 2

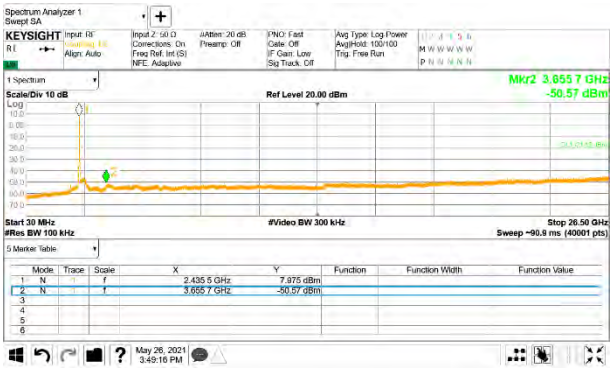


Band-edge Channel 1

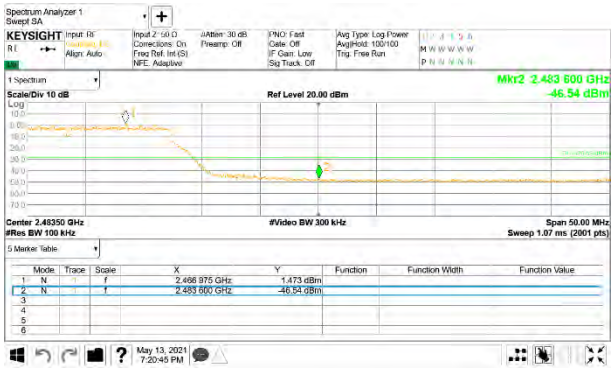


Out-Of-Band Channel 1

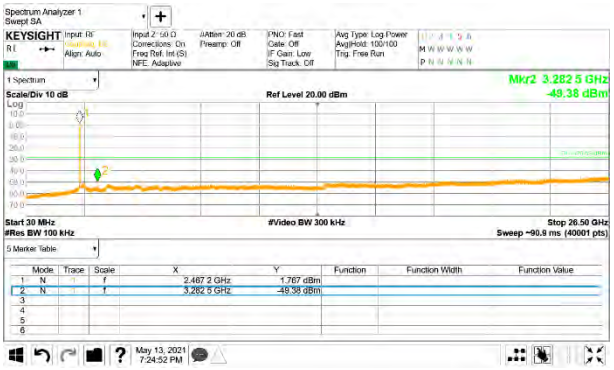
In-Band Reference Level



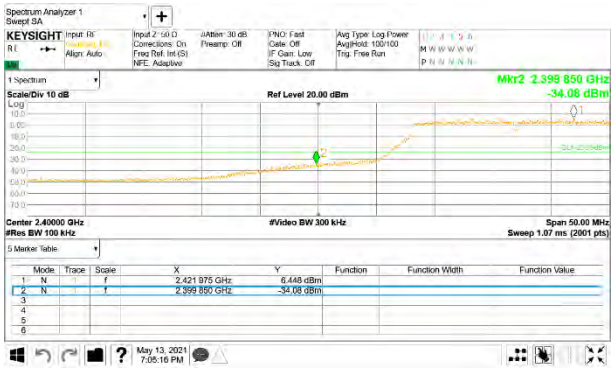
Out-Of-Band Channel 6



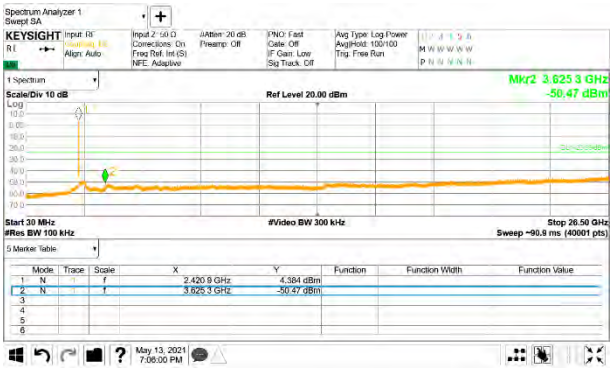
Band-edge Channel 11



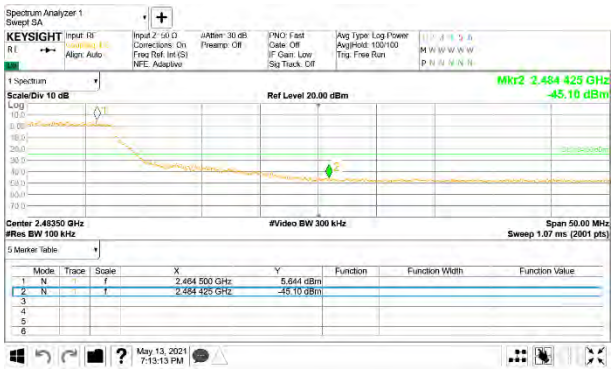
Out-Of-Band Channel 11



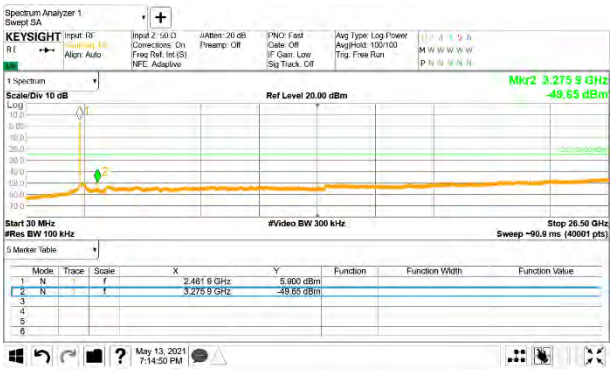
Band-edge Channel 2



Out-Of-Band Channel 2



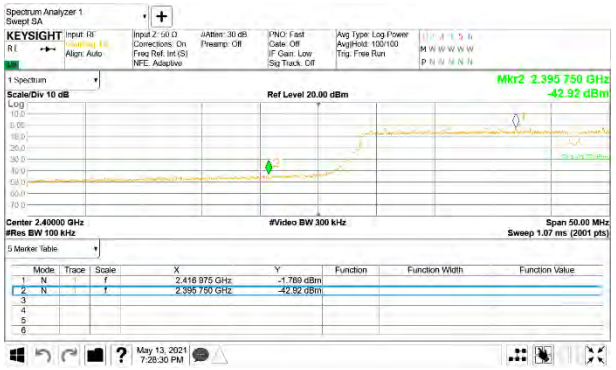
Band-edge Channel 10



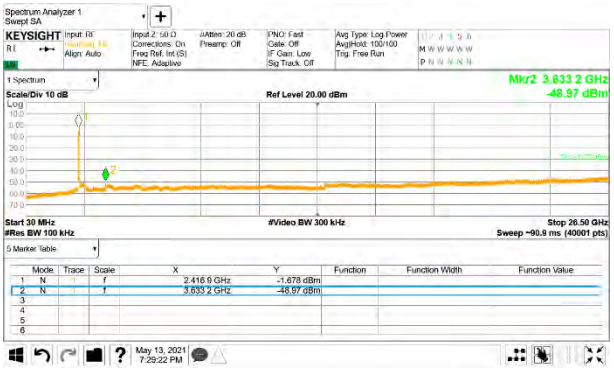
Out-Of-Band Channel 10

9.5.4. 802.11n HT40 MODE

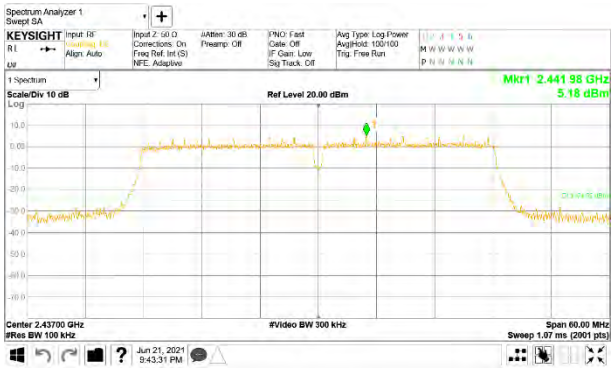
SISO ANT 1



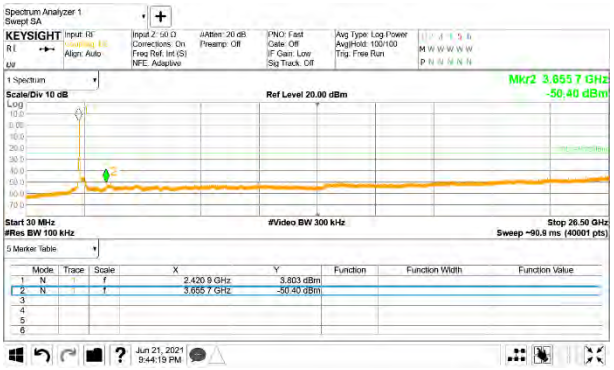
Band-edge Channel 3



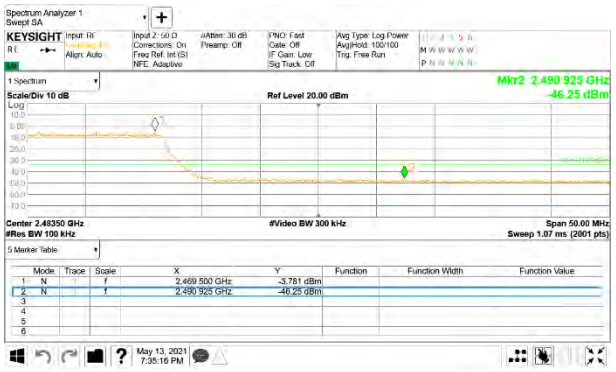
Out-Of-Band Channel 3



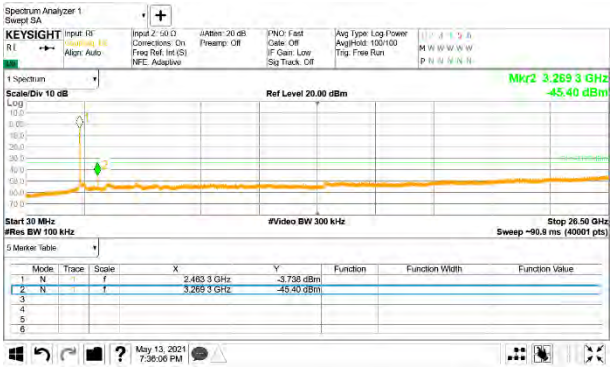
In-Band Reference Level



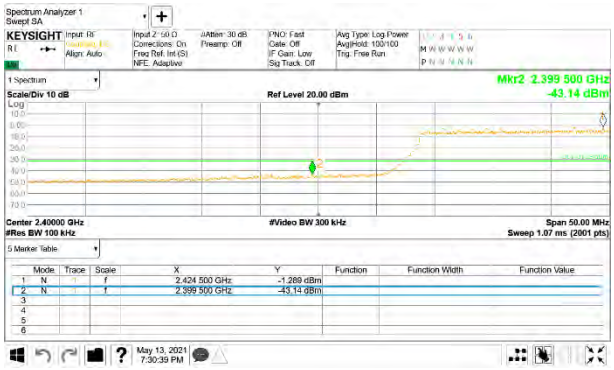
Out-Of-Band Channel 6



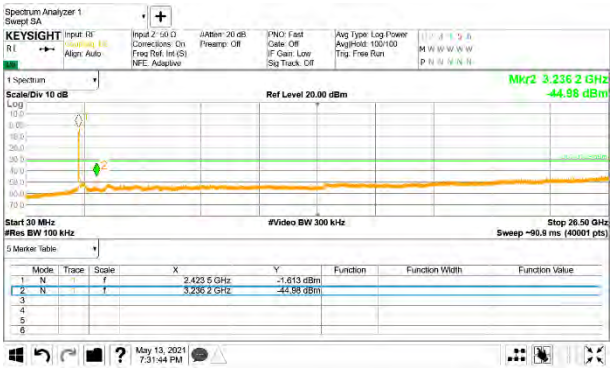
Band-edge Channel 9



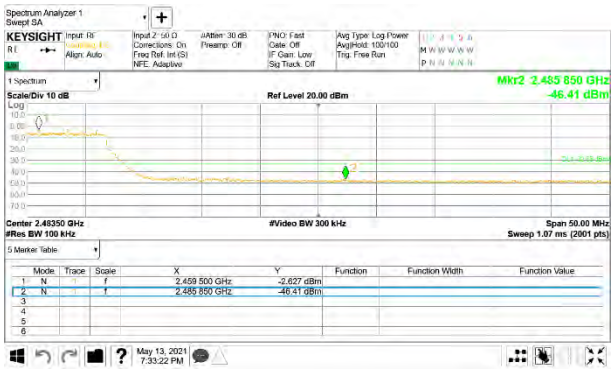
Out-Of-Band Channel 9



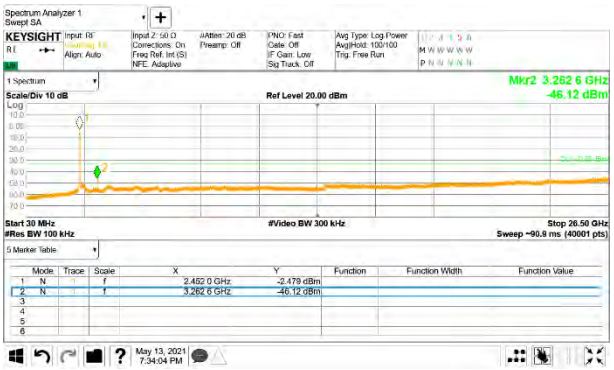
Band-edge Channel 4



Out-Of-Band Channel 4

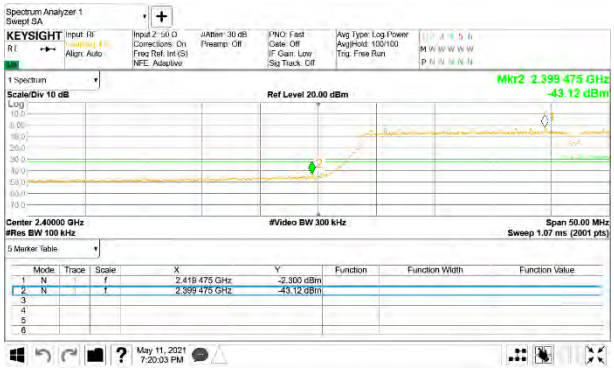


Band-edge Channel 8

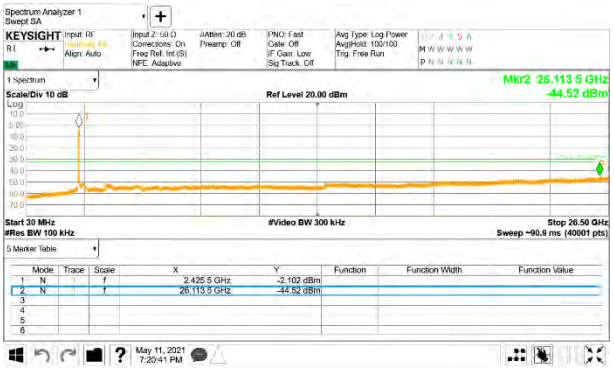


Out-Of-Band Channel 8

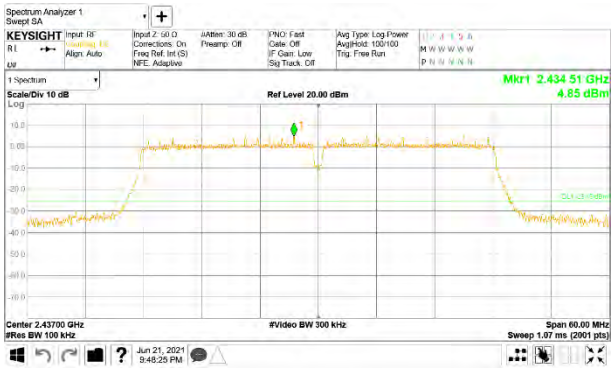
SISO ANT 2



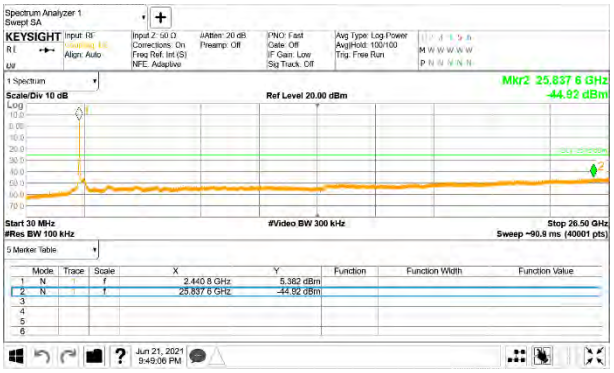
Band-edge Channel 3



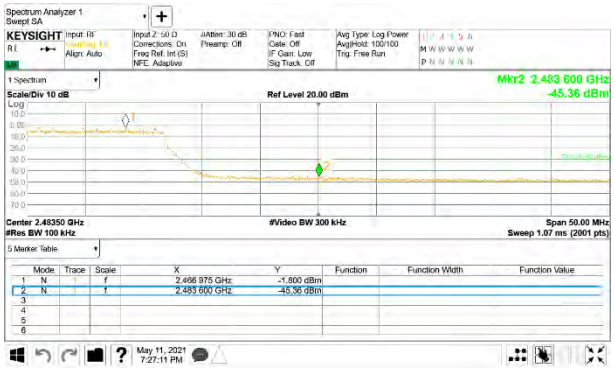
Out-Of-Band Channel 3



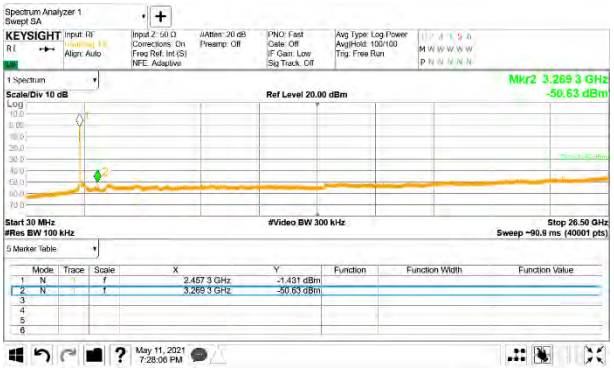
In-Band Reference Level



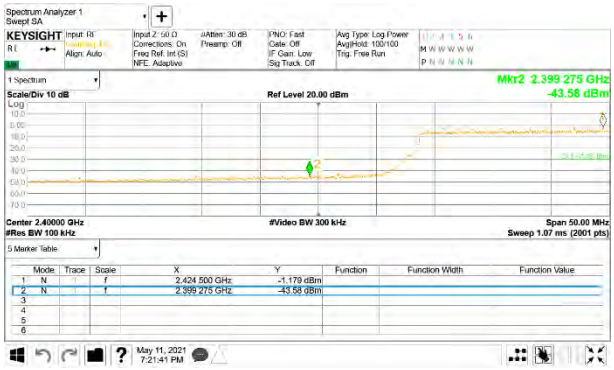
Out-Of-Band Channel 6



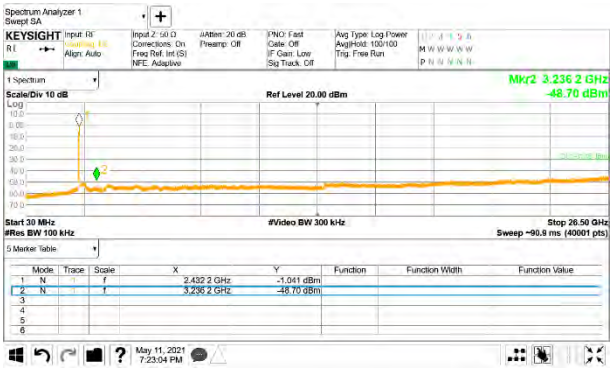
Band-edge Channel 9



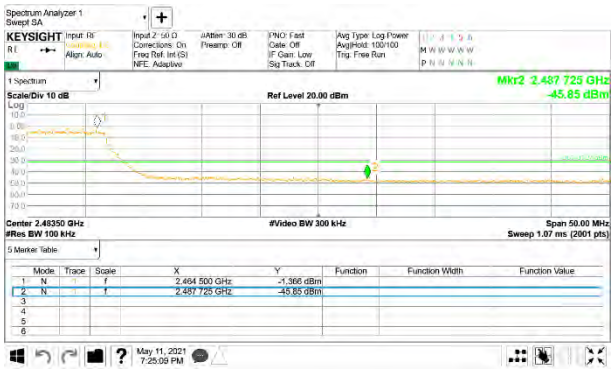
Out-Of-Band Channel 9



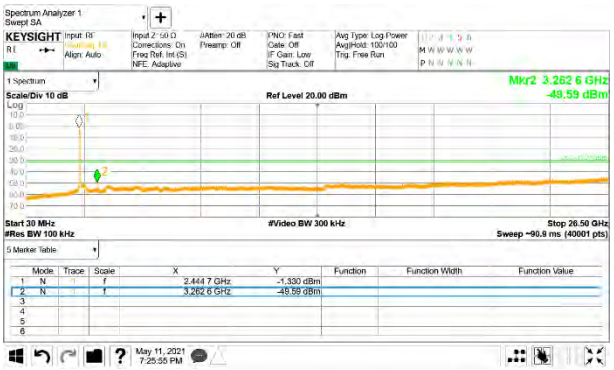
Band-edge Channel 4



Out-Of-Band Channel 4

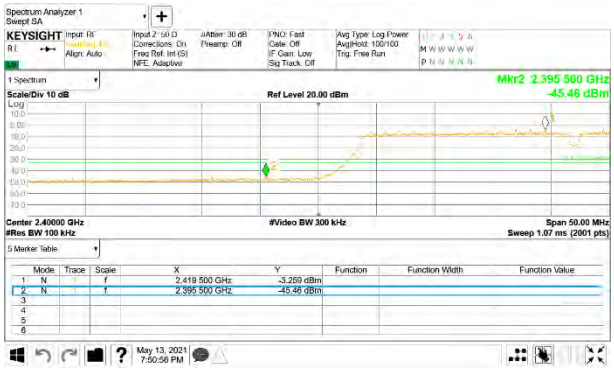


Band-edge Channel 8

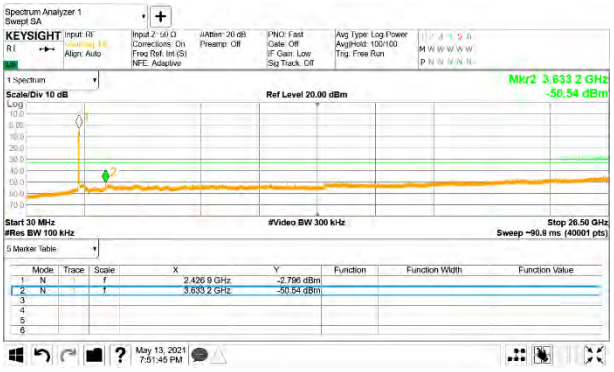


Out-Of-Band Channel 8

MIMO ANT 1

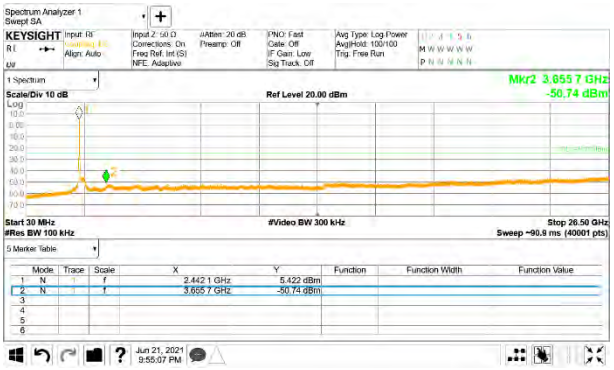


Band-edge Channel 3

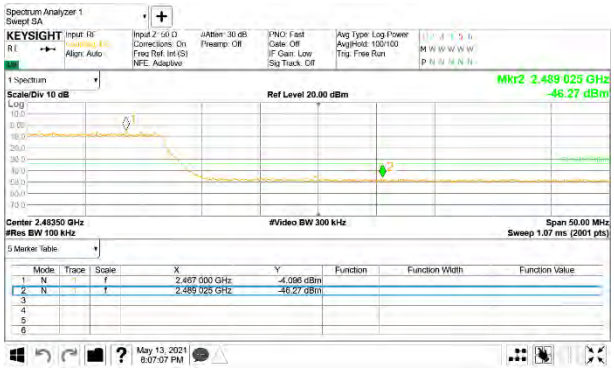


Out-Of-Band Channel 3

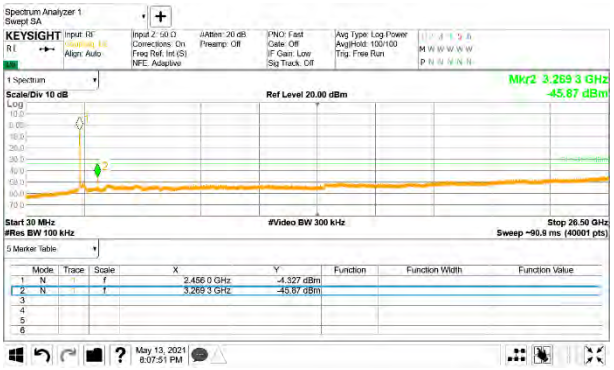
In-Band Reference Level



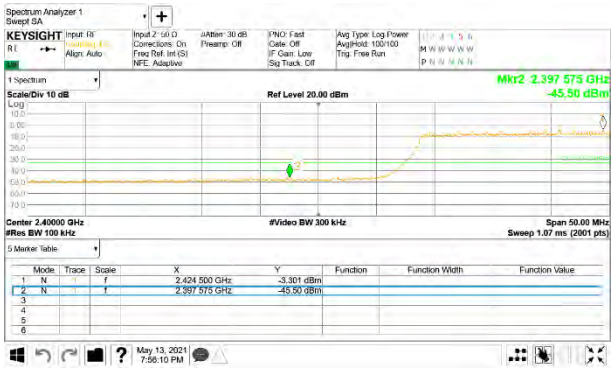
Out-Of-Band Channel 6



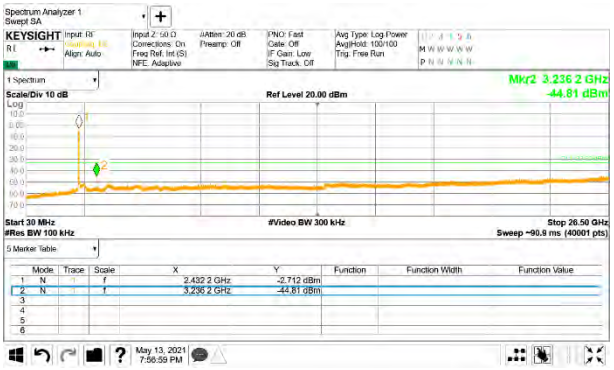
Band-edge Channel 9



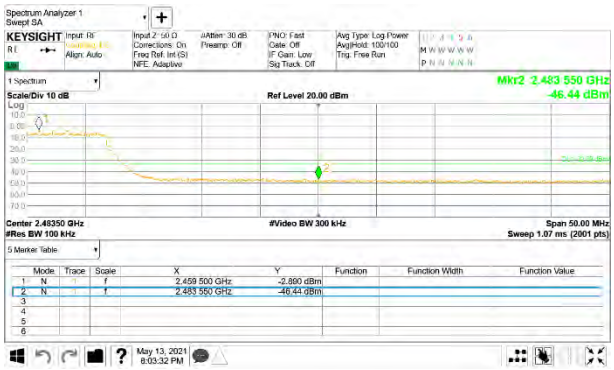
Out-Of-Band Channel 9



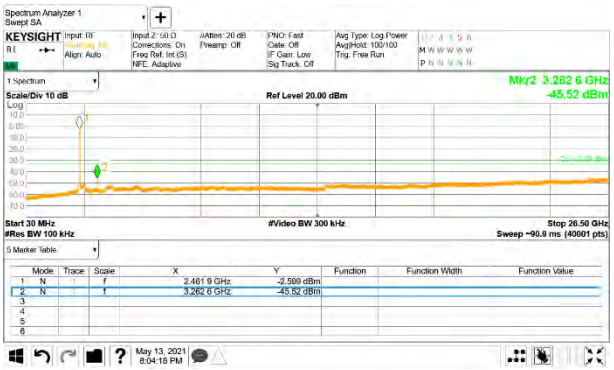
Band-edge Channel 4



Out-Of-Band Channel 4

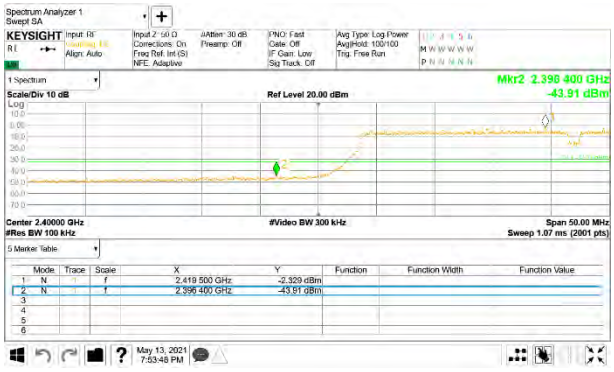


Band-edge Channel 8

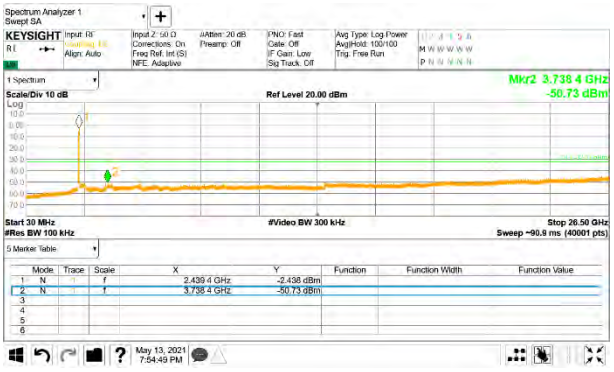


Out-Of-Band Channel 8

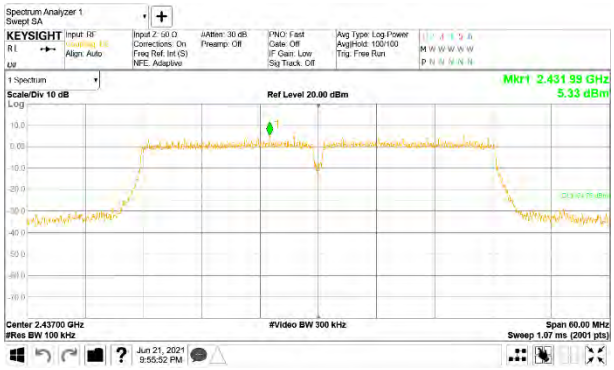
MIMO ANT 2



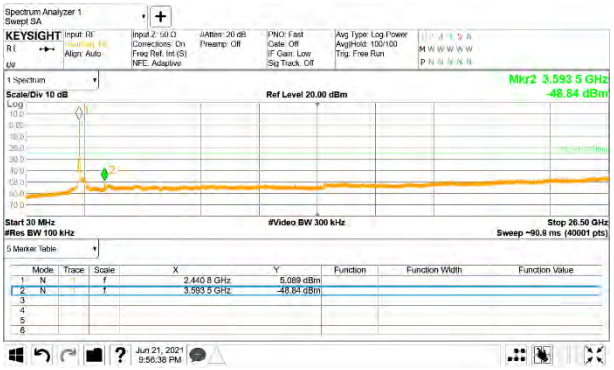
Band-edge Channel 3



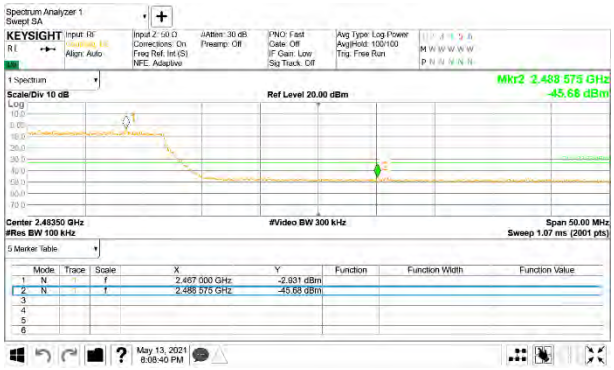
Out-Of-Band Channel 3



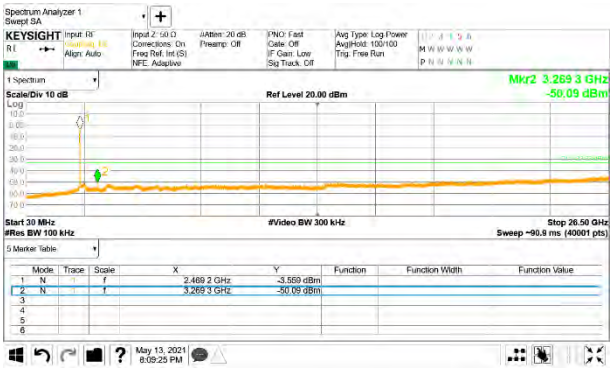
In-Band Reference Level



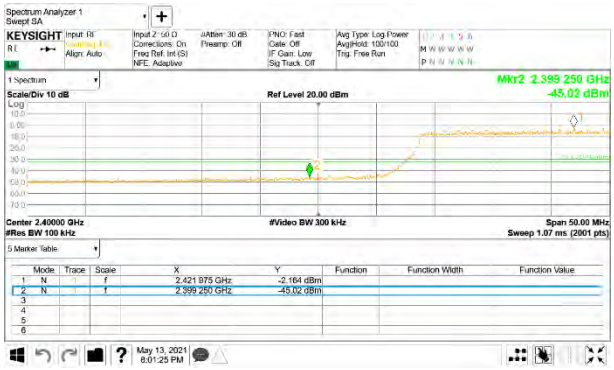
Out-Of-Band Channel 6



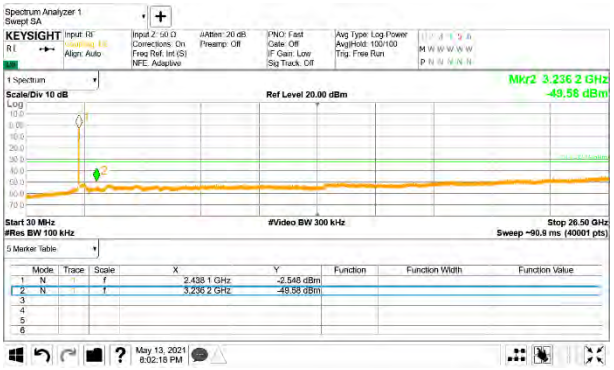
Band-edge Channel 9



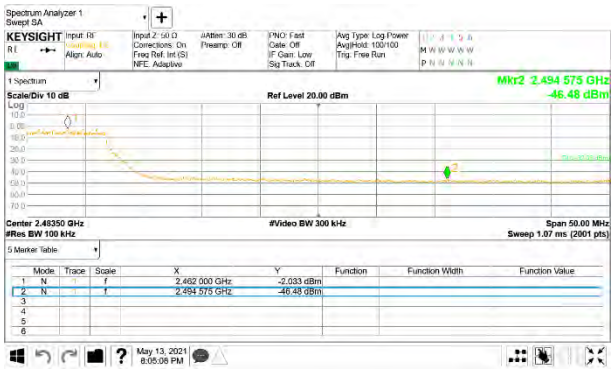
Out-Of-Band Channel 9



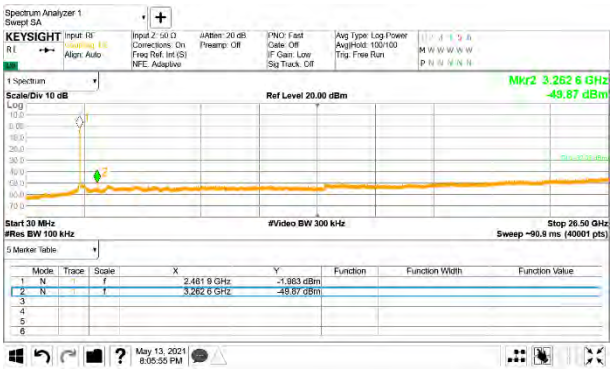
Band-edge Channel 4



Out-Of-Band Channel 4



Band-edge Channel 8



Out-Of-Band Channel 8

10. RADIATED TEST RESULTS

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 ~	1660 ~ 1710	8.025 ~ 8.5	22.01 ~ 23.12
4.17725 ~ 4.17775	13.36 ~ 13.41	156.52525	1718.8 ~ 1722.2	9.0 ~ 9.2	23.6 ~ 24.0
4.20725 ~ 4.20775	16.42 ~ 16.423	156.7 ~ 156.9	2200 ~ 2300	9.3 ~ 9.5	31.2 ~ 31.8
6.215 ~ 6.218	16.69475 ~ 16.69525	162.0125 ~	2310 ~ 2390	10.6 ~ 12.7	36.43 ~ 36.5
6.26775 ~ 6.26825	16.80425 ~ 16.80475	167.17	2483.5 ~ 2500	13.25 ~ 13.4	Above 38.6
6.31175 ~ 6.31225	25.5 ~ 25.67	167.72 ~ 173.2	2655 ~ 2900		
8.291 ~ 8.294	37.5 ~ 38.25	240 ~ 285	3260 ~ 3267		
8.362 ~ 8.366	73 ~ 74.6	322 ~ 335.4	3332 ~ 3339		
8.37625 ~ 8.38675	74.8 ~ 75.2	399.90 ~ 410	3345.8 ~ 3358		
		608 ~ 614	3600 ~ 4400		
		960 ~ 1240			

▪ 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.

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1 GHz and 150 cm for above 1 GHz. 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.

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 for average measurements.
(Restriced bandedge, Final detection of spurious harmonic emissions)

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

802.11b SISO/MIMO mode = 0 dB (duty cycle > 98%);
802.11g SISO/MIMO mode = 0 dB (duty cycle > 98%);
802.11n(HT20) SISO/MIMO mode = 0 dB (duty cycle > 98%);
802.11n(HT40) SISO/MIMO mode = 0 dB (duty cycle > 98%);

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 1 GHz to 26 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.

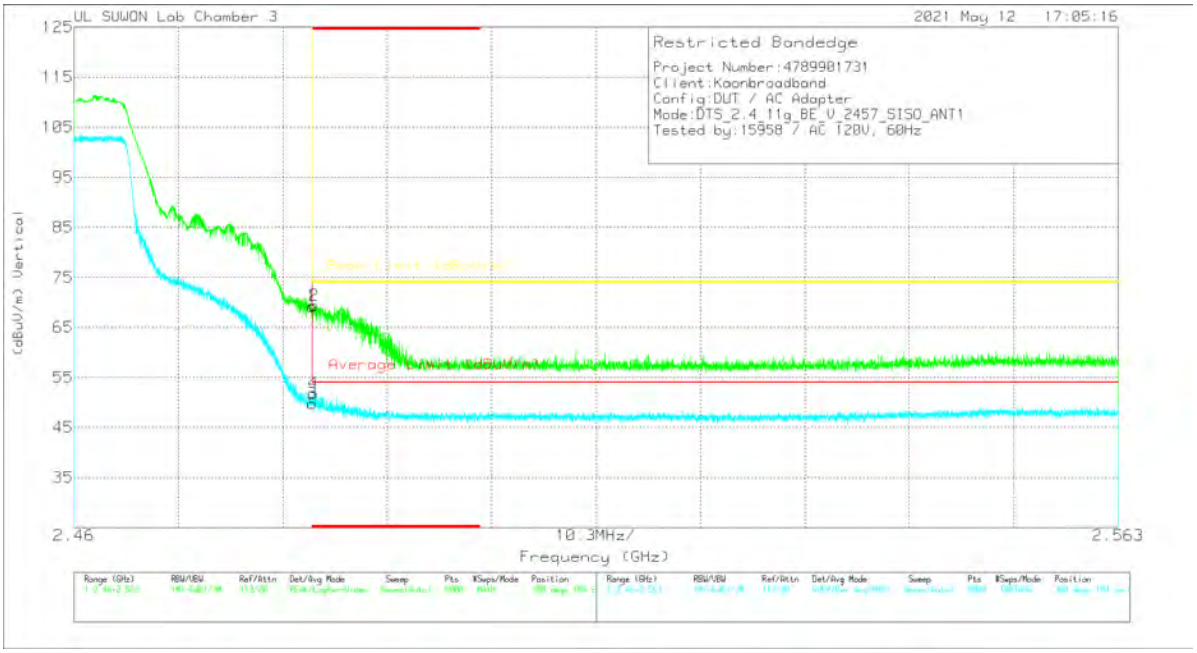
Note : Emission was pre-scanned from 9 kHz to 30 MHz; No emissions were detected which was at least 20dB below the specification limit (consider distance correction factor).
Per FCC part 15.31(o), test results were not reported.

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. TRANSMITTER ABOVE 1 GHz

BANDEDGE(WORST CASE: 802.11g_ANT1_CH 10)

VERTICAL RESULT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	61.25	Pk	32.9	-25	69.15	-	-	74	-4.85	300	104	V
2	* 2.48371	61.52	Pk	32.9	-25	69.42	-	-	74	-4.58	300	104	V
3	* 2.4835	41.93	RMS	32.9	-25	49.83	54	-4.17	-	-	300	104	V
4	* 2.48359	44.06	RMS	32.9	-25	51.96	54	-2.04	-	-	300	104	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

BANDEDGE TEST DATA

802.11b

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
2412	ANT1	* 2.39	42.81	Pk	32.80	-25.20	0	50.41	-	-	74.00	-23.59	215	346	H
		* 2.32093	45.11	Pk	32.50	-25.10	0	52.51	-	-	74.00	-21.49	215	346	H
		* 2.39	32.21	RMS	32.80	-25.20	0	39.81	54.00	-14.19	-	-	215	346	H
		* 2.38871	33.33	RMS	32.80	-25.10	0	41.03	54.00	-12.97	-	-	215	346	H
		* 2.39	47.78	Pk	32.80	-25.20	0	55.38	-	-	74.00	-18.62	346	169	V
		* 2.38863	50.05	Pk	32.80	-25.20	0	57.65	-	-	74.00	-16.35	346	169	V
		* 2.39	36.88	RMS	32.80	-25.20	0	44.48	54.00	-9.52	-	-	346	169	V
		* 2.38583	38.72	RMS	32.70	-25.10	0	46.32	54.00	-7.68	-	-	346	169	V
2462	ANT1	* 2.4835	43.36	Pk	32.90	-25.00	0	51.26	-	-	74.00	-22.74	43	334	H
		2.563	46.74	Pk	32.90	-24.90	0	54.74	-	-	74.00	-19.26	43	334	H
		* 2.4835	32.54	RMS	32.90	-25.00	0	40.44	54.00	-13.56	-	-	43	334	H
		2.561	34.68	RMS	32.90	-24.90	0	42.68	54.00	-11.32	-	-	43	334	H
		* 2.4835	49.59	Pk	32.90	-25.00	0	57.49	-	-	74.00	-16.51	321	232	V
		2.561	52.86	Pk	32.90	-24.90	0	60.86	-	-	74.00	**-13.14**	321	232	V
		* 2.4835	38.64	RMS	32.90	-25.00	0	46.54	54.00	-7.46	-	-	321	232	V
		2.563	42.18	RMS	32.90	-24.90	0	50.18	54.00	**-3.82**	-	-	321	232	V

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
2412	ANT2	* 2.39	45.12	Pk	32.80	-25.20	0	52.72	-	-	74.00	-21.28	208	218	H
		* 2.38305	46.56	Pk	32.70	-25.20	0	54.06	-	-	74.00	-19.94	208	218	H
		* 2.39	34.25	RMS	32.80	-25.20	0	41.85	54.00	-12.15	-	-	208	218	H
		* 2.38952	35.21	RMS	32.80	-25.10	0	42.91	54.00	-11.09	-	-	208	218	H
		* 2.39	42.15	Pk	32.80	-25.20	0	49.75	-	-	74.00	-24.25	103	370	V
		* 2.37013	45.24	Pk	32.70	-25.10	0	52.84	-	-	74.00	-21.16	103	370	V
		* 2.39	32.28	RMS	32.80	-25.20	0	39.88	54.00	-14.12	-	-	103	370	V
		* 2.38091	33.51	RMS	32.70	-25.20	0	41.01	54.00	-12.99	-	-	103	370	V
2462	ANT2	* 2.4835	45.59	Pk	32.90	-25.00	0	53.49	-	-	74.00	-20.51	174	282	H
		2.508	48.56	Pk	32.90	-25.00	0	56.46	-	-	74.00	**-17.54**	174	282	H
		* 2.4835	35.63	RMS	32.90	-25.00	0	43.53	54.00	-10.47	-	-	174	282	H
		* 2.49474	37.14	RMS	32.90	-25.00	0	45.04	54.00	**-8.96**	-	-	174	282	H
		* 2.4835	43.16	Pk	32.90	-25.00	0	51.06	-	-	74.00	-22.94	109	286	V
		2.560	46.71	Pk	32.90	-25.00	0	54.61	-	-	74.00	-19.39	109	286	V
		* 2.4835	33.49	RMS	32.90	-25.00	0	41.39	54.00	-12.61	-	-	109	286	V
		2.561	35.04	RMS	32.90	-24.90	0	43.04	54.00	-10.96	-	-	109	286	V

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
2412	MIMO	* 2.39	43.02	Pk	32.80	-25.20	0	50.62	-	-	74.00	-23.38	184	170	H
		* 2.37411	45.22	Pk	32.70	-25.20	0	52.72	-	-	74.00	-21.28	184	170	H
		* 2.39	33.28	RMS	32.80	-25.20	0	40.88	54.00	-13.12	-	-	184	170	H
		* 2.38593	34.06	RMS	32.70	-25.10	0	41.66	54.00	-12.34	-	-	184	170	H
		* 2.4835	44.70	Pk	32.90	-25.00	0	52.60	-	-	74.00	-21.40	199	183	H
		* 2.49376	48.46	Pk	32.90	-25.00	0	56.36	-	-	74.00	-17.64	199	183	H
		* 2.4835	34.12	RMS	32.90	-25.00	0	42.02	54.00	-11.98	-	-	199	183	H
		* 2.49303	36.56	RMS	32.90	-24.90	0	44.56	54.00	-9.44	-	-	199	183	H
2462	MIMO	* 2.39	44.59	Pk	32.80	-25.20	0	52.19	-	-	74.00	-21.81	316	109	V
		* 2.38132	47.62	Pk	32.70	-25.20	0	55.12	-	-	74.00	-18.88	316	109	V
		* 2.39	35.71	RMS	32.80	-25.20	0	43.31	54.00	-10.69	-	-	316	109	V
		* 2.38635	36.26	RMS	32.70	-25.10	0	43.86	54.00	-10.14	-	-	316	109	V
		* 2.4835	47.37	Pk	32.90	-25.00	0	55.27	-	-	74.00	-18.73	322	109	V
		2.522	50.30	Pk	32.90	-25.00	0	58.20	-	-	74.00	**-15.80**	322	109	V
		* 2.4835	37.20	RMS	32.90	-25.00	0	45.10	54.00	-8.90	-	-	322	109	V
		2.561	38.75	RMS	32.90	-24.90	0	46.75	54.00	**-7.25**	-	-	322	109	V

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

802.11g

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
2412	ANT1	* 2.39	44.21	Pk	32.80	-25.20	0	51.81	-	-	74.00	-22.19	204	166	H
		* 2.38327	45.35	Pk	32.70	-25.20	0	52.85	-	-	74.00	-21.15	204	166	H
		* 2.39	32.36	RMS	32.80	-25.20	0	39.96	54.00	-14.04	-	-	204	166	H
		* 2.38679	33.29	RMS	32.70	-25.10	0	40.89	54.00	-13.11	-	-	204	166	H
		* 2.39	62.35	Pk	32.80	-25.20	0	69.95	-	-	74.00	-4.05	300	118	V
		* 2.38994	62.60	Pk	32.80	-25.20	0	70.20	-	-	74.00	-3.80	300	118	V
		* 2.39	42.04	RMS	32.80	-25.20	0	49.64	54.00	-4.36	-	-	300	118	V
		* 2.38989	44.30	RMS	32.80	-25.20	0	51.90	54.00	-2.10	-	-	300	118	V
2417	ANT1	* 2.39	44.29	Pk	32.80	-25.20	0	51.89	-	-	74.00	-22.11	204	166	H
		* 2.38608	46.84	Pk	32.70	-25.10	0	54.44	-	-	74.00	-19.56	204	166	H
		* 2.39	33.12	RMS	32.80	-25.20	0	40.72	54.00	-13.28	-	-	204	166	H
		* 2.38513	34.13	RMS	32.70	-25.10	0	41.73	54.00	-12.27	-	-	204	166	H
		* 2.39	60.30	Pk	32.80	-25.20	0	67.90	-	-	74.00	-6.10	300	118	V
		* 2.38666	63.12	Pk	32.70	-25.10	0	70.72	-	-	74.00	**-3.28**	300	118	V
		* 2.39	41.27	RMS	32.80	-25.20	0	48.87	54.00	-5.13	-	-	300	118	V
		* 2.38838	43.58	RMS	32.80	-25.20	0	51.18	54.00	-2.82	-	-	300	118	V
2457	ANT1	* 2.4835	46.84	Pk	32.90	-25.00	0	54.74	-	-	74.00	-19.26	202	212	H
		* 2.48425	48.25	Pk	32.90	-25.00	0	56.15	-	-	74.00	-17.85	202	212	H
		* 2.4835	35.67	RMS	32.90	-25.00	0	43.57	54.00	-10.43	-	-	202	212	H
		* 2.48373	36.46	RMS	32.90	-25.00	0	44.36	54.00	-9.64	-	-	202	212	H
		* 2.4835	61.25	Pk	32.90	-25.00	0	69.15	-	-	74.00	-4.85	300	104	V
		* 2.48371	61.52	Pk	32.90	-25.00	0	69.42	-	-	74.00	-4.58	300	104	V
		* 2.4835	41.93	RMS	32.90	-25.00	0	49.83	54.00	-4.17	-	-	300	104	V
		* 2.48359	44.06	RMS	32.90	-25.00	0	51.96	54.00	**-2.04**	-	-	300	104	V
2462	ANT1	* 2.4835	43.50	Pk	32.90	-25.00	0	51.40	-	-	74.00	-22.60	200	210	H
		* 2.48372	45.91	Pk	32.90	-25.00	0	53.81	-	-	74.00	-20.19	200	210	H
		* 2.4835	32.47	RMS	32.90	-25.00	0	40.37	54.00	-13.63	-	-	200	210	H
		* 2.48353	33.73	RMS	32.90	-25.00	0	41.63	54.00	-12.37	-	-	200	210	H
		* 2.4835	61.44	Pk	32.90	-25.00	0	69.34	-	-	74.00	-4.66	300	104	V
		* 2.48353	61.79	Pk	32.90	-25.00	0	69.69	-	-	74.00	-4.31	300	104	V
		* 2.4835	42.26	RMS	32.90	-25.00	0	50.16	54.00	-3.84	-	-	300	104	V
		* 2.48389	43.37	RMS	32.90	-25.00	0	51.27	54.00	-2.73	-	-	300	104	V

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
2412	ANT2	* 2.39	57.47	Pk	32.80	-25.20	0	65.07	-	-	74.00	-8.93	170	273	H
		* 2.38997	63.06	Pk	32.80	-25.20	0	70.66	-	-	74.00	**-3.34**	170	273	H
		* 2.39	42.84	RMS	32.80	-25.20	0	50.44	54.00	-3.56	-	-	170	273	H
		* 2.38996	43.96	RMS	32.80	-25.20	0	51.56	54.00	**-2.44**	-	-	170	273	H
		* 2.39	45.93	Pk	32.80	-25.20	0	53.53	-	-	74.00	-20.47	207	209	V
		* 2.38967	47.10	Pk	32.80	-25.20	0	54.70	-	-	74.00	-19.30	207	209	V
		* 2.39	33.34	RMS	32.80	-25.20	0	40.94	54.00	-13.06	-	-	207	209	V
		* 2.38989	33.80	RMS	32.80	-25.20	0	41.40	54.00	-12.60	-	-	207	209	V
2417	ANT2	* 2.39	57.10	Pk	32.80	-25.20	0	64.70	-	-	74.00	-9.30	173	241	H
		* 2.38826	62.60	Pk	32.80	-25.20	0	70.20	-	-	74.00	-3.80	173	241	H
		* 2.39	40.32	RMS	32.80	-25.20	0	47.92	54.00	-6.08	-	-	173	241	H
		* 2.38833	43.02	RMS	32.80	-25.20	0	50.62	54.00	-3.38	-	-	173	241	H
		* 2.39	45.48	Pk	32.80	-25.20	0	53.08	-	-	74.00	-20.92	339	256	V
		* 2.38216	47.87	Pk	32.70	-25.20	0	55.37	-	-	74.00	-18.63	339	256	V
		* 2.39	35.09	RMS	32.80	-25.20	0	42.69	54.00	-11.31	-	-	339	256	V
		* 2.38737	36.17	RMS	32.70	-25.20	0	43.67	54.00	-10.33	-	-	339	256	V
2457	ANT2	* 2.4835	59.19	Pk	32.90	-25.00	0	67.09	-	-	74.00	-6.91	173	232	H
		* 2.48663	61.07	Pk	32.90	-25.00	0	68.97	-	-	74.00	-5.03	173	232	H
		* 2.4835	41.58	RMS	32.90	-25.00	0	49.48	54.00	-4.52	-	-	173	232	H
		* 2.48393	43.01	RMS	32.90	-25.00	0	50.91	54.00	-3.09	-	-	173	232	H
		* 2.4835	47.84	Pk	32.90	-25.00	0	55.74	-	-	74.00	-18.26	213	112	V
		* 2.48368	51.04	Pk	32.90	-25.00	0	58.94	-	-	74.00	-15.06	213	112	V
		* 2.4835	35.51	RMS	32.90	-25.00	0	43.41	54.00	-10.59	-	-	213	112	V
		* 2.49343	37.48	RMS	32.90	-25.00	0	45.38	54.00	-8.62	-	-	213	112	V
2462	ANT2	* 2.4835	57.07	Pk	32.90	-25.00	0	64.97	-	-	74.00	-9.03	170	272	H
		* 2.4836	61.52	Pk	32.90	-25.00	0	69.42	-	-	74.00	-4.58	170	272	H
		* 2.4835	41.57	RMS	32.90	-25.00	0	49.47	54.00	-4.53	-	-	170	272	H
		* 2.48367	42.93	RMS	32.90	-25.00	0	50.83	54.00	-3.17	-	-	170	272	H
		* 2.4835	50.74	Pk	32.90	-25.00	0	58.64	-	-	74.00	-15.36	213	118	V
		* 2.48366	49.94	Pk	32.90	-25.00	0	57.84	-	-	74.00	-16.16	213	118	V
		* 2.4835	34.12	RMS	32.90	-25.00	0	42.02	54.00	-11.98	-	-	213	118	V
		* 2.48391	35.23	RMS	32.90	-25.00	0	43.13	54.00	-10.87	-	-	213	118	V

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

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
2412	MIMO	* 2.39	62.20	Pk	32.80	-25.20	0	69.80	-	-	74.00	-4.20	176	272	H
		* 2.3899	62.53	Pk	32.80	-25.20	0	70.13	-	-	74.00	-3.87	176	272	H
		* 2.39	42.12	RMS	32.80	-25.20	0	49.72	54.00	-4.28	-	-	176	272	H
		* 2.38998	43.85	RMS	32.80	-25.20	0	51.45	54.00	-2.55	-	-	176	272	H
		* 2.39	60.81	Pk	32.80	-25.20	0	68.41	-	-	74.00	-5.59	320	100	V
		* 2.38998	61.28	Pk	32.80	-25.20	0	68.88	-	-	74.00	-5.12	320	100	V
		* 2.39	41.00	RMS	32.80	-25.20	0	48.60	54.00	-5.40	-	-	320	100	V
		* 2.38988	42.65	RMS	32.80	-25.20	0	50.25	54.00	-3.75	-	-	320	100	V
2417	MIMO	* 2.39	59.20	Pk	32.80	-25.20	0	66.80	-	-	74.00	-7.20	180	262	H
		* 2.38686	62.19	Pk	32.70	-25.10	0	69.79	-	-	74.00	-4.21	180	262	H
		* 2.39	40.57	RMS	32.80	-25.20	0	48.17	54.00	-5.83	-	-	180	262	H
		* 2.3893	43.86	RMS	32.80	-25.10	0	51.56	54.00	**-2.44**	-	-	180	262	H
		* 2.39	54.10	Pk	32.80	-25.20	0	61.70	-	-	74.00	-12.30	310	113	V
		* 2.38695	58.85	Pk	32.70	-25.20	0	66.35	-	-	74.00	-7.65	310	113	V
		* 2.39	39.12	RMS	32.80	-25.20	0	46.72	54.00	-7.28	-	-	310	113	V
		* 2.38955	39.51	RMS	32.80	-25.10	0	47.21	54.00	-6.79	-	-	310	113	V
2457	MIMO	* 2.4835	60.02	Pk	32.90	-25.00	0	67.92	-	-	74.00	-6.08	185	231	H
		* 2.48645	62.34	Pk	32.90	-25.00	0	70.24	-	-	74.00	**-3.76**	185	231	H
		* 2.4835	42.09	RMS	32.90	-25.00	0	49.99	54.00	-4.01	-	-	185	231	H
		* 2.48351	43.03	RMS	32.90	-25.00	0	50.93	54.00	-3.07	-	-	185	231	H
		* 2.4835	55.42	Pk	32.90	-25.00	0	63.32	-	-	74.00	-10.68	322	135	V
		* 2.48394	57.58	Pk	32.90	-25.00	0	65.48	-	-	74.00	-8.52	322	135	V
		* 2.4835	39.68	RMS	32.90	-25.00	0	47.58	54.00	-6.42	-	-	322	135	V
		* 2.4846	40.93	RMS	32.90	-25.00	0	48.83	54.00	-5.17	-	-	322	135	V
2462	MIMO	* 2.4835	61.02	Pk	32.90	-25.00	0	68.92	-	-	74.00	-5.08	176	252	H
		* 2.48376	61.26	Pk	32.90	-25.00	0	69.16	-	-	74.00	-4.84	176	252	H
		* 2.4835	42.47	RMS	32.90	-25.00	0	50.37	54.00	-3.63	-	-	176	252	H
		* 2.48372	43.16	RMS	32.90	-25.00	0	51.06	54.00	-2.94	-	-	176	252	H
		* 2.4835	56.43	Pk	32.90	-25.00	0	64.33	-	-	74.00	-9.67	319	113	V
		* 2.48362	58.25	Pk	32.90	-25.00	0	66.15	-	-	74.00	-7.85	319	113	V
		* 2.4835	39.80	RMS	32.90	-25.00	0	47.70	54.00	-6.30	-	-	319	113	V
		* 2.48384	40.52	RMS	32.90	-25.00	0	48.42	54.00	-5.58	-	-	319	113	V

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

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802.11n(HT20)

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
2412	ANT1	* 2.39	43.44	Pk	32.80	-25.20	0	51.04	-	-	74.00	-22.96	204	166	H
		* 2.38863	45.66	Pk	32.80	-25.20	0	53.26	-	-	74.00	-20.74	204	166	H
		* 2.39	32.71	RMS	32.80	-25.20	0	40.31	54.00	-13.69	-	-	204	166	H
		* 2.38962	33.48	RMS	32.80	-25.20	0	41.08	54.00	-12.92	-	-	204	166	H
		* 2.39	60.30	Pk	32.80	-25.20	0	67.90	-	-	74.00	-6.10	300	118	V
		* 2.38666	63.12	Pk	32.70	-25.10	0	70.72	-	-	74.00	**-3.28**	300	118	V
		* 2.39	41.27	RMS	32.80	-25.20	0	48.87	54.00	-5.13	-	-	300	118	V
		* 2.38838	43.58	RMS	32.80	-25.20	0	51.18	54.00	-2.82	-	-	300	118	V
2417	ANT1	* 2.39	44.80	Pk	32.80	-25.20	0	52.40	-	-	74.00	-21.60	204	166	H
		* 2.38536	46.43	Pk	32.70	-25.10	0	54.03	-	-	74.00	-19.97	204	166	H
		* 2.39	31.83	RMS	32.80	-25.20	0	39.43	54.00	-14.57	-	-	204	166	H
		* 2.3872	34.07	RMS	32.70	-25.20	0	41.57	54.00	-12.43	-	-	204	166	H
		* 2.39	59.46	Pk	32.80	-25.20	0	67.06	-	-	74.00	-6.94	300	119	V
		* 2.38717	62.51	Pk	32.70	-25.20	0	70.01	-	-	74.00	-3.99	300	119	V
		* 2.39	41.49	RMS	32.80	-25.20	0	49.09	54.00	-4.91	-	-	300	119	V
		* 2.38985	43.26	RMS	32.80	-25.20	0	50.86	54.00	-3.14	-	-	300	119	V
2457	ANT1	* 2.4835	46.08	Pk	32.90	-25.00	0	53.98	-	-	74.00	-20.02	205	264	H
		* 2.49282	48.18	Pk	32.90	-24.90	0	56.18	-	-	74.00	-17.82	205	264	H
		* 2.4835	34.63	RMS	32.90	-25.00	0	42.53	54.00	-11.47	-	-	205	264	H
		* 2.48404	36.22	RMS	32.90	-25.00	0	44.12	54.00	-9.88	-	-	205	264	H
		* 2.4835	61.49	Pk	32.90	-25.00	0	69.39	-	-	74.00	-4.61	317	110	V
		* 2.48409	62.64	Pk	32.90	-25.00	0	70.54	-	-	74.00	-3.46	317	110	V
		* 2.4835	43.53	RMS	32.90	-25.00	0	51.43	54.00	-2.57	-	-	317	110	V
		* 2.48439	43.37	RMS	32.90	-25.00	0	51.27	54.00	-2.73	-	-	317	110	V
2462	ANT1	* 2.4835	44.27	Pk	32.90	-25.00	0	52.17	-	-	74.00	-21.83	202	212	H
		* 2.48363	45.91	Pk	32.90	-25.00	0	53.81	-	-	74.00	-20.19	202	212	H
		* 2.4835	32.06	RMS	32.90	-25.00	0	39.96	54.00	-14.04	-	-	202	212	H
		2.502	33.59	RMS	32.90	-25.00	0	41.49	54.00	-12.51	-	-	202	212	H
		* 2.4835	60.82	Pk	32.90	-25.00	0	68.72	-	-	74.00	-5.28	300	134	V
		* 2.48372	61.54	Pk	32.90	-25.00	0	69.44	-	-	74.00	-4.56	300	134	V
		* 2.4835	42.74	RMS	32.90	-25.00	0	50.64	54.00	-3.36	-	-	300	134	V
		* 2.48364	43.91	RMS	32.90	-25.00	0	51.81	54.00	**-2.19**	-	-	300	134	V

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
2412	ANT2	* 2.39	58.76	Pk	32.80	-25.20	0	66.36	-	-	74.00	-7.64	166	277	H
		* 2.38998	61.20	Pk	32.80	-25.20	0	68.80	-	-	74.00	-5.20	166	277	H
		* 2.39	43.88	RMS	32.80	-25.20	0	51.48	54.00	-2.52	-	-	166	277	H
		* 2.38981	43.85	RMS	32.80	-25.20	0	51.45	54.00	-2.55	-	-	166	277	H
		* 2.39	41.43	Pk	32.80	-25.20	0	49.03	-	-	74.00	-24.97	175	272	V
		* 2.38778	45.23	Pk	32.80	-25.20	0	52.83	-	-	74.00	-21.17	175	272	V
		* 2.39	32.08	RMS	32.80	-25.20	0	39.68	54.00	-14.32	-	-	175	272	V
		* 2.37436	33.14	RMS	32.70	-25.20	0	40.64	54.00	-13.36	-	-	175	272	V
2417	ANT2	* 2.39	58.99	Pk	32.80	-25.20	0	66.59	-	-	74.00	-7.41	166	277	H
		* 2.38956	62.12	Pk	32.80	-25.10	0	69.82	-	-	74.00	-4.18	166	277	H
		* 2.39	40.36	RMS	32.80	-25.20	0	47.96	54.00	-6.04	-	-	166	277	H
		* 2.38811	42.99	RMS	32.80	-25.20	0	50.59	54.00	-3.41	-	-	166	277	H
		* 2.39	44.61	Pk	32.80	-25.20	0	52.21	-	-	74.00	-21.79	179	295	V
		* 2.37342	47.02	Pk	32.70	-25.20	0	54.52	-	-	74.00	-19.48	179	295	V
		* 2.39	34.22	RMS	32.80	-25.20	0	41.82	54.00	-12.18	-	-	179	295	V
		* 2.35289	35.72	RMS	32.60	-25.20	0	43.12	54.00	-10.88	-	-	179	295	V
2457	ANT2	* 2.4835	61.35	Pk	32.90	-25.00	0	69.25	-	-	74.00	-4.75	171	285	H
		* 2.48366	62.73	Pk	32.90	-25.00	0	70.63	-	-	74.00	**-3.37**	171	285	H
		* 2.4835	43.87	RMS	32.90	-25.00	0	51.77	54.00	**-2.23**	-	-	171	285	H
		* 2.48364	43.52	RMS	32.90	-25.00	0	51.42	54.00	-2.58	-	-	171	285	H
		* 2.4835	50.21	Pk	32.90	-25.00	0	58.11	-	-	74.00	-15.89	213	113	V
		* 2.48368	52.53	Pk	32.90	-25.00	0	60.43	-	-	74.00	-13.57	213	113	V
		* 2.4835	35.26	RMS	32.90	-25.00	0	43.16	54.00	-10.84	-	-	213	113	V
		* 2.48434	37.27	RMS	32.90	-25.00	0	45.17	54.00	-8.83	-	-	213	113	V
2462	ANT2	* 2.4835	56.35	Pk	32.90	-25.00	0	64.25	-	-	74.00	-9.75	164	277	H
		* 2.48353	62.32	Pk	32.90	-25.00	0	70.22	-	-	74.00	-3.78	164	277	H
		* 2.4835	42.74	RMS	32.90	-25.00	0	50.64	54.00	-3.36	-	-	164	277	H
		* 2.48353	43.53	RMS	32.90	-25.00	0	51.43	54.00	-2.57	-	-	164	277	H
		* 2.4835	45.92	Pk	32.90	-25.00	0	53.82	-	-	74.00	-20.18	213	115	V
		* 2.4836	51.36	Pk	32.90	-25.00	0	59.26	-	-	74.00	-14.74	213	115	V
		* 2.4835	34.78	RMS	32.90	-25.00	0	42.68	54.00	-11.32	-	-	213	115	V
		* 2.48362	35.80	RMS	32.90	-25.00	0	43.70	54.00	-10.30	-	-	213	115	V

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

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
2412	MIMO	* 2.39	59.27	Pk	32.80	-25.20	0	66.87	-	-	74.00	-7.13	161	197	H
		* 2.38929	62.08	Pk	32.80	-25.10	0	69.78	-	-	74.00	-4.22	161	197	H
		* 2.39	42.75	RMS	32.80	-25.20	0	50.35	54.00	-3.65	-	-	161	197	H
		* 2.38998	43.91	RMS	32.80	-25.20	0	51.51	54.00	-2.49	-	-	161	197	H
		* 2.39	57.63	Pk	32.80	-25.20	0	65.23	-	-	74.00	-8.77	296	119	V
		* 2.38994	59.00	Pk	32.80	-25.20	0	66.60	-	-	74.00	-7.40	296	119	V
		* 2.39	41.82	RMS	32.80	-25.20	0	49.42	54.00	-4.58	-	-	296	119	V
		* 2.38997	42.71	RMS	32.80	-25.20	0	50.31	54.00	-3.69	-	-	296	119	V
2417	MIMO	* 2.39	61.64	Pk	32.80	-25.20	0	69.24	-	-	74.00	-4.76	184	242	H
		* 2.38909	63.15	Pk	32.80	-25.10	0	70.85	-	-	74.00	**-3.15**	184	242	H
		* 2.39	42.72	RMS	32.80	-25.20	0	50.32	54.00	-3.68	-	-	184	242	H
		* 2.38965	43.62	RMS	32.80	-25.20	0	51.22	54.00	**-2.78**	-	-	184	242	H
		* 2.39	55.03	Pk	32.80	-25.20	0	62.63	-	-	74.00	-11.37	308	114	V
		* 2.38926	57.80	Pk	32.80	-25.10	0	65.50	-	-	74.00	-8.50	308	114	V
		* 2.39	38.27	RMS	32.80	-25.20	0	45.87	54.00	-8.13	-	-	308	114	V
		* 2.38988	40.42	RMS	32.80	-25.20	0	48.02	54.00	-5.98	-	-	308	114	V
2457	MIMO	* 2.4835	60.26	Pk	32.90	-25.00	0	68.16	-	-	74.00	-5.84	185	232	H
		* 2.48404	61.90	Pk	32.90	-25.00	0	69.80	-	-	74.00	**-4.20**	185	232	H
		* 2.4835	41.62	RMS	32.90	-25.00	0	49.52	54.00	-4.48	-	-	185	232	H
		* 2.48405	43.96	RMS	32.90	-25.00	0	51.86	54.00	**-2.14**	-	-	185	232	H
		* 2.4835	60.32	Pk	32.90	-25.00	0	68.22	-	-	74.00	-5.78	314	100	V
		* 2.48645	61.85	Pk	32.90	-25.00	0	69.75	-	-	74.00	-4.25	314	100	V
		* 2.4835	39.94	RMS	32.90	-25.00	0	47.84	54.00	-6.16	-	-	314	100	V
		* 2.48354	42.43	RMS	32.90	-25.00	0	50.33	54.00	-3.67	-	-	314	100	V
2462	MIMO	* 2.4835	57.89	Pk	32.90	-25.00	0	65.79	-	-	74.00	-8.21	176	253	H
		* 2.48398	59.30	Pk	32.90	-25.00	0	67.20	-	-	74.00	-6.80	176	253	H
		* 2.4835	42.02	RMS	32.90	-25.00	0	49.92	54.00	-4.08	-	-	176	253	H
		* 2.48368	43.88	RMS	32.90	-25.00	0	51.78	54.00	-2.22	-	-	176	253	H
		* 2.4835	54.15	Pk	32.90	-25.00	0	62.05	-	-	74.00	-11.95	314	120	V
		* 2.48478	57.12	Pk	32.90	-25.00	0	65.02	-	-	74.00	-8.98	314	120	V
		* 2.4835	40.94	RMS	32.90	-25.00	0	48.84	54.00	-5.16	-	-	314	120	V
		* 2.48386	41.67	RMS	32.90	-25.00	0	49.57	54.00	-4.43	-	-	314	120	V

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

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802.11n(HT40)

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
2422	ANT1	* 2.39	43.22	Pk	32.80	-25.20	0	50.82	-	-	74.00	-23.18	202	169	H
		* 2.37915	45.43	Pk	32.70	-25.20	0	52.93	-	-	74.00	-21.07	202	169	H
		* 2.39	33.40	RMS	32.80	-25.20	0	41.00	54.00	-13.00	-	-	202	169	H
		* 2.38569	33.61	RMS	32.70	-25.10	0	41.21	54.00	-12.79	-	-	202	169	H
		* 2.39	56.28	Pk	32.80	-25.20	0	63.88	-	-	74.00	-10.12	280	117	V
		* 2.38925	57.86	Pk	32.80	-25.10	0	65.56	-	-	74.00	-8.44	280	117	V
		* 2.39	42.34	RMS	32.80	-25.20	0	49.94	54.00	-4.06	-	-	280	117	V
		* 2.38938	44.00	RMS	32.80	-25.10	0	51.70	54.00	-2.30	-	-	280	117	V
2427	ANT1	* 2.39	42.72	Pk	32.80	-25.20	0	50.32	-	-	74.00	-23.68	202	169	H
		* 2.37371	46.02	Pk	32.70	-25.20	0	53.52	-	-	74.00	-20.48	202	169	H
		* 2.39	32.52	RMS	32.80	-25.20	0	40.12	54.00	-13.88	-	-	202	169	H
		* 2.38867	33.39	RMS	32.80	-25.10	0	41.09	54.00	-12.91	-	-	202	169	H
		* 2.39	56.67	Pk	32.80	-25.20	0	64.27	-	-	74.00	-9.73	300	117	V
		* 2.38989	57.85	Pk	32.80	-25.20	0	65.45	-	-	74.00	-8.55	300	117	V
		* 2.39	42.06	RMS	32.80	-25.20	0	49.66	54.00	-4.34	-	-	300	117	V
		* 2.38855	43.02	RMS	32.80	-25.20	0	50.62	54.00	-3.38	-	-	300	117	V
2447	ANT1	* 2.4835	42.91	Pk	32.90	-25.00	0	50.81	-	-	74.00	-23.19	201	188	H
		2.552	45.22	Pk	32.90	-24.90	0	53.22	-	-	74.00	-20.78	201	188	H
		* 2.4835	33.06	RMS	32.90	-25.00	0	40.96	54.00	-13.04	-	-	201	188	H
		* 2.48456	33.53	RMS	32.90	-25.00	0	41.43	54.00	-12.57	-	-	201	188	H
		* 2.4835	54.71	Pk	32.90	-25.00	0	62.61	-	-	74.00	-11.39	315	99	V
		* 2.48551	56.84	Pk	32.90	-25.00	0	64.74	-	-	74.00	-9.26	315	99	V
		* 2.4835	42.33	RMS	32.90	-25.00	0	50.23	54.00	-3.77	-	-	315	99	V
		* 2.48351	43.79	RMS	32.90	-25.00	0	51.69	54.00	-2.31	-	-	315	99	V
2452	ANT1	* 2.4835	42.17	Pk	32.90	-25.00	0	50.07	-	-	74.00	-23.93	201	212	H
		2.560	45.06	Pk	32.90	-24.90	0	53.06	-	-	74.00	-20.94	201	212	H
		* 2.4835	32.93	RMS	32.90	-25.00	0	40.83	54.00	-13.17	-	-	201	212	H
		* 2.48447	33.62	RMS	32.90	-25.00	0	41.52	54.00	-12.48	-	-	201	212	H
		* 2.4835	55.05	Pk	32.90	-25.00	0	62.95	-	-	74.00	-11.05	315	100	V
		* 2.48375	58.70	Pk	32.90	-25.00	0	66.60	-	-	74.00	**-7.40**	315	100	V
		* 2.4835	43.29	RMS	32.90	-25.00	0	51.19	54.00	-2.81	-	-	315	100	V
		* 2.48355	43.85	RMS	32.90	-25.00	0	51.75	54.00	**-2.25**	-	-	315	100	V

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
2422	ANT2	* 2.39	56.99	Pk	32.80	-25.20	0	64.59	-	-	74.00	-9.41	168	269	H
		* 2.38897	57.92	Pk	32.80	-25.10	0	65.62	-	-	74.00	-8.38	168	269	H
		* 2.39	41.82	RMS	32.80	-25.20	0	49.42	54.00	-4.58	-	-	168	269	H
		* 2.38989	43.61	RMS	32.80	-25.20	0	51.21	54.00	**-2.79**	-	-	168	269	H
		* 2.39	45.48	Pk	32.80	-25.20	0	53.08	-	-	74.00	-20.92	339	256	V
		* 2.38216	47.87	Pk	32.70	-25.20	0	55.37	-	-	74.00	-18.63	339	256	V
		* 2.39	35.09	RMS	32.80	-25.20	0	42.69	54.00	-11.31	-	-	339	256	V
		* 2.38737	36.17	RMS	32.70	-25.20	0	43.67	54.00	-10.33	-	-	339	256	V
2427	ANT2	* 2.39	48.54	Pk	32.80	-25.20	0	56.14	-	-	74.00	-17.86	188	247	H
		* 2.38996	51.65	Pk	32.80	-25.20	0	59.25	-	-	74.00	-14.75	188	247	H
		* 2.39	37.05	RMS	32.80	-25.20	0	44.65	54.00	-9.35	-	-	188	247	H
		* 2.38998	37.85	RMS	32.80	-25.20	0	45.45	54.00	-8.55	-	-	188	247	H
		* 2.39	44.76	Pk	32.80	-25.20	0	52.36	-	-	74.00	-21.64	0	341	V
		* 2.37028	47.25	Pk	32.70	-25.20	0	54.75	-	-	74.00	-19.25	0	341	V
		* 2.39	34.20	RMS	32.80	-25.20	0	41.80	54.00	-12.20	-	-	0	341	V
		* 2.38476	35.41	RMS	32.70	-25.20	0	42.91	54.00	-11.09	-	-	0	341	V
2447	ANT2	* 2.4835	50.60	Pk	32.90	-25.00	0	58.50	-	-	74.00	-15.50	163	292	H
		* 2.48578	52.51	Pk	32.90	-25.00	0	60.41	-	-	74.00	-13.59	163	292	H
		* 2.4835	38.72	RMS	32.90	-25.00	0	46.62	54.00	-7.38	-	-	163	292	H
		* 2.48354	39.37	RMS	32.90	-25.00	0	47.27	54.00	-6.73	-	-	163	292	H
		* 2.4835	44.82	Pk	32.90	-25.00	0	52.72	-	-	74.00	-21.28	118	356	V
		2.550	48.30	Pk	32.90	-25.00	0	56.20	-	-	74.00	-17.80	118	356	V
		* 2.4835	34.99	RMS	32.90	-25.00	0	42.89	54.00	-11.11	-	-	118	356	V
		2.558	36.81	RMS	32.90	-25.00	0	44.71	54.00	-9.29	-	-	118	356	V
2452	ANT2	* 2.4835	58.11	Pk	32.90	-25.00	0	66.01	-	-	74.00	-7.99	164	284	H
		* 2.48372	59.35	Pk	32.90	-25.00	0	67.25	-	-	74.00	**-6.75**	164	284	H
		* 2.4835	43.30	RMS	32.90	-25.00	0	51.20	54.00	-2.80	-	-	164	284	H
		* 2.48565	43.08	RMS	32.90	-25.00	0	50.98	54.00	-3.02	-	-	164	284	H
		* 2.4835	44.77	Pk	32.90	-25.00	0	52.67	-	-	74.00	-21.33	212	110	V
		* 2.48393	49.14	Pk	32.90	-25.00	0	57.04	-	-	74.00	-16.96	212	110	V
		* 2.4835	34.18	RMS	32.90	-25.00	0	42.08	54.00	-11.92	-	-	212	110	V
		* 2.48438	35.49	RMS	32.90	-25.00	0	43.39	54.00	-10.61	-	-	212	110	V

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

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
2422	MIMO	* 2.39	55.93	Pk	32.80	-25.20	0	63.53	-	-	74.00	-10.47	179	301	H
		* 2.38908	59.96	Pk	32.80	-25.10	0	67.66	-	-	74.00	**-6.34**	179	301	H
		* 2.39	43.41	RMS	32.80	-25.20	0	51.01	54.00	-2.99	-	-	179	301	H
		* 2.38902	43.61	RMS	32.80	-25.10	0	51.31	54.00	**-2.69**	-	-	179	301	H
		* 2.39	53.99	Pk	32.80	-25.20	0	61.59	-	-	74.00	-12.41	322	118	V
		* 2.38893	55.96	Pk	32.80	-25.10	0	63.66	-	-	74.00	-10.34	322	118	V
		* 2.39	40.32	RMS	32.80	-25.20	0	47.92	54.00	-6.08	-	-	322	118	V
		* 2.38996	41.35	RMS	32.80	-25.20	0	48.95	54.00	-5.05	-	-	322	118	V
2427	MIMO	* 2.39	54.33	Pk	32.80	-25.20	0	61.93	-	-	74.00	-12.07	186	241	H
		* 2.3899	58.26	Pk	32.80	-25.20	0	65.86	-	-	74.00	**-8.14**	186	241	H
		* 2.39	42.37	RMS	32.80	-25.20	0	49.97	54.00	-4.03	-	-	186	241	H
		* 2.38967	43.84	RMS	32.80	-25.20	0	51.44	54.00	**-2.56**	-	-	186	241	H
		* 2.39	54.06	Pk	32.80	-25.20	0	61.66	-	-	74.00	-12.34	309	114	V
		* 2.38975	55.27	Pk	32.80	-25.20	0	62.87	-	-	74.00	-11.13	309	114	V
		* 2.39	38.93	RMS	32.80	-25.20	0	46.53	54.00	-7.47	-	-	309	114	V
		* 2.38998	39.37	RMS	32.80	-25.20	0	46.97	54.00	-7.03	-	-	309	114	V
2447	MIMO	* 2.4835	52.03	Pk	32.90	-25.00	0	59.93	-	-	74.00	-14.07	174	308	H
		* 2.48356	54.49	Pk	32.90	-25.00	0	62.39	-	-	74.00	-11.61	174	308	H
		* 2.4835	39.94	RMS	32.90	-25.00	0	47.84	54.00	-6.16	-	-	174	308	H
		* 2.48434	41.40	RMS	32.90	-25.00	0	49.30	54.00	-4.70	-	-	174	308	H
		* 2.4835	56.27	Pk	32.90	-25.00	0	64.17	-	-	74.00	-9.83	318	104	V
		* 2.48479	57.24	Pk	32.90	-25.00	0	65.14	-	-	74.00	-8.86	318	104	V
		* 2.4835	42.77	RMS	32.90	-25.00	0	50.67	54.00	-3.33	-	-	318	104	V
		* 2.48363	43.29	RMS	32.90	-25.00	0	51.19	54.00	-2.81	-	-	318	104	V
2452	MIMO	* 2.4835	54.24	Pk	32.90	-25.00	0	62.14	-	-	74.00	-11.86	176	252	H
		* 2.48378	58.25	Pk	32.90	-25.00	0	66.15	-	-	74.00	-7.85	176	252	H
		* 2.4835	42.07	RMS	32.90	-25.00	0	49.97	54.00	-4.03	-	-	176	252	H
		* 2.48412	43.16	RMS	32.90	-25.00	0	51.06	54.00	-2.94	-	-	176	252	H
		* 2.4835	56.16	Pk	32.90	-25.00	0	64.06	-	-	74.00	-9.94	320	100	V
		* 2.48407	57.94	Pk	32.90	-25.00	0	65.84	-	-	74.00	-8.16	320	100	V
		* 2.4835	41.43	RMS	32.90	-25.00	0	49.33	54.00	-4.67	-	-	320	100	V
		* 2.48506	42.10	RMS	32.90	-25.00	0	50.00	54.00	-4.00	-	-	320	100	V

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

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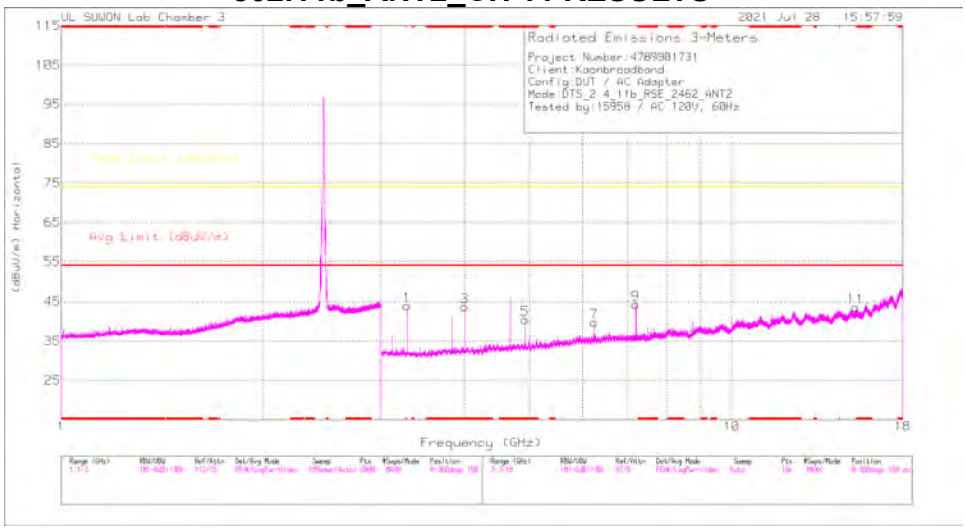
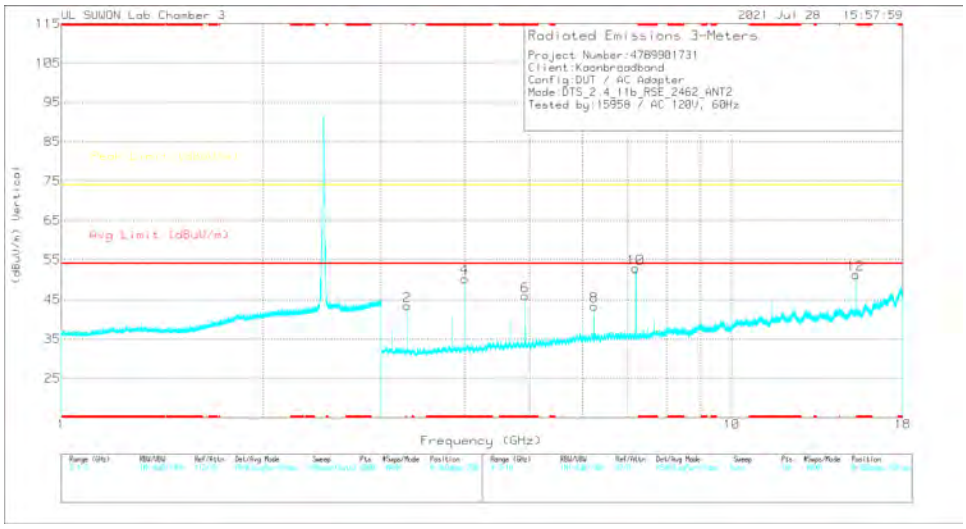
HARMONICS AND SPURIOUS EMISSIONS (WORST CASE)

802.11b_ANT2_CH 11 RESULTS



HORIZONTAL



VERTICAL

Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

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DATA

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	3GHz_HP[dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3.28275	45.86	PK2	33.4	-32.7	46.56	-	-	74	-27.44	305	225	H
* 3.99993	45.81	PK2	33.9	-31.3	48.41	-	-	74	-25.59	93	393	H
* 3.99996	41.68	MAv1	33.9	-31.3	44.28	54	-9.72	-	-	93	393	H
* 4.92403	51.57	PK2	34.7	-30.9	55.37	-	-	74	-18.63	3	272	H
* 4.924	49.08	MAv1	34.7	-30.9	52.88	54	-1.12	-	-	3	272	H
6.234	39.35	PK2	36.1	-27	48.45	-	-	74	-25.55	340	206	H
7.19998	38.84	PK2	36.1	-25.5	49.44	-	-	74	-24.56	29	177	H
15.32012	33.43	PK2	40	-20.5	52.93	-	-	74	-21.07	268	192	H
3.28268	46.84	PK2	33.4	-32.7	47.54	-	-	74	-26.46	42	245	V
* 4.00001	48.04	PK2	33.9	-31.3	50.64	-	-	74	-23.36	332	274	V
* 4	45	MAv1	33.9	-31.3	47.6	54	-6.4	-	-	332	274	V
* 4.92394	45.83	PK2	34.7	-30.9	49.63	-	-	74	-24.37	239	100	V
* 4.924	41.21	MAv1	34.7	-30.9	45.01	54	-8.99	-	-	239	100	V
6.23387	37.01	PK2	36.1	-27	46.11	-	-	74	-27.89	68	222	V
7.20002	44.57	PK2	36.1	-25.5	55.17	-	-	74	-18.83	3	145	V
15.3199	35.77	PK2	40	-20.5	55.27	-	-	74	-18.73	15	363	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

Note 1: 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.
Note 2: Of all emissions, only six frequencies were listed for each polarization, and it was confirmed that the remaining frequencies met the limit in advance.

HARMONICS AND SPURIOUS EMISSIONS TEST DATA

802.11b

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
2412	ANT1	* 4.82402	42.88	PK2	34.60	-30.30	0	47.18	-	-	74.00	-26.82	127	138	H
		* 4.82396	36.66	MAv1	34.60	-30.30	0	40.96	54.00	-13.04	-	-	127	138	H
		7.236	36.36	PK2	36.00	-25.60	0	46.76	-	-	74.00	-27.24	129	118	H
		* 4.82387	45.50	PK2	34.60	-30.30	0	49.80	-	-	74.00	-24.20	189	102	V
		* 4.82403	40.78	MAv1	34.60	-30.30	0	45.08	54.00	-8.92	-	-	189	102	V
		7.235	36.46	PK2	36.00	-25.60	0	46.86	-	-	74.00	-27.14	131	113	V
2437	ANT1	* 4.87395	42.39	PK2	34.60	-30.80	0	46.19	-	-	74.00	-27.81	160	100	H
		* 4.874	35.06	MAv1	34.60	-30.80	0	38.86	54.00	-15.14	-	-	160	100	H
		* 7.31076	35.63	PK2	36.00	-25.10	0	46.53	-	-	74.00	-27.47	0	115	H
		* 7.31104	27.33	MAv1	36.00	-25.10	0	38.23	54.00	-15.77	-	-	0	115	H
		* 4.87409	45.58	PK2	34.60	-30.80	0	49.38	-	-	74.00	-24.62	270	200	V
		* 4.87401	41.17	MAv1	34.60	-30.80	0	44.97	54.00	-9.03	-	-	270	200	V
		* 7.31193	38.41	PK2	36.00	-25.10	0	49.31	-	-	74.00	-24.69	200	108	V
		* 7.31018	30.06	MAv1	36.00	-25.20	0	40.86	54.00	-13.14	-	-	200	108	V
2462	ANT1	* 4.92405	44.84	PK2	34.70	-30.90	0	48.64	-	-	74.00	-25.36	119	144	H
		* 4.92395	39.76	MAv1	34.70	-30.90	0	43.56	54.00	-10.44	-	-	119	144	H
		* 7.38456	35.82	PK2	36.00	-24.50	0	47.32	-	-	74.00	-26.68	257	179	H
		* 4.92403	46.79	PK2	34.70	-30.90	0	50.59	-	-	74.00	**-23.41**	199	100	V
		* 4.92395	42.93	MAv1	34.70	-30.90	0	46.73	54.00	**-7.27**	-	-	199	100	V
		* 7.38565	36.48	PK2	36.00	-24.40	0	48.08	-	-	74.00	-25.92	215	100	V

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
2412	ANT2	* 4.82403	50.95	PK2	34.60	-30.30	0	55.25	-	-	74.00	-18.75	205	313	H
		* 4.82406	48.52	MAv1	34.60	-30.30	0	52.82	54.00	-1.18	-	-	205	313	H
		7.237	43.09	PK2	36.00	-25.60	0	53.49	-	-	74.00	-20.51	188	168	H
		* 4.82403	49.12	PK2	34.60	-30.30	0	53.42	-	-	74.00	-20.58	141	145	V
		* 4.824	46.08	MAv1	34.60	-30.30	0	50.38	54.00	-3.62	-	-	141	145	V
		7.236	37.61	PK2	36.00	-25.60	0	48.01	-	-	74.00	-25.99	17	122	V
2437	ANT2	* 4.87397	51.50	PK2	34.60	-30.80	0	55.30	-	-	74.00	-18.70	3	183	H
		* 4.87397	49.02	MAv1	34.60	-30.80	0	52.82	54.00	-1.18	-	-	3	183	H
		* 7.31184	43.18	PK2	36.00	-25.10	0	54.08	-	-	74.00	-19.92	192	150	H
		* 7.31202	38.66	MAv1	36.00	-25.10	0	49.56	54.00	-4.44	-	-	192	150	H
		* 4.87394	46.91	PK2	34.60	-30.80	0	50.71	-	-	74.00	-23.29	134	186	V
		* 4.87403	43.32	MAv1	34.60	-30.80	0	47.12	54.00	-6.88	-	-	134	186	V
		* 7.31103	36.38	PK2	36.00	-25.10	0	47.28	-	-	74.00	-26.72	337	115	V
		* 7.311	28.31	MAv1	36.00	-25.10	0	39.21	54.00	-14.79	-	-	337	115	V
2462	ANT2	* 4.92403	51.57	PK2	34.70	-30.90	0	55.37	-	-	74.00	**-18.63**	3	272	H
		* 4.924	49.08	MAv1	34.70	-30.90	0	52.88	54.00	**-1.12**	-	-	3	272	H
		* 4.92394	45.83	PK2	34.70	-30.90	0	49.63	-	-	74.00	-24.37	239	100	V
		* 4.924	41.21	MAv1	34.70	-30.90	0	45.01	54.00	-8.99	-	-	239	100	V

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
2412	MIMO	* 4.82409	50.70	PK2	34.60	-30.30	0	55.00	-	-	74.00	**-19.00**	199	167	H
		* 4.824	48.20	MAv1	34.60	-30.30	0	52.50	54.00	**-1.50**	-	-	199	167	H
		7.238	44.15	PK2	36.00	-25.60	0	54.55	-	-	74.00	-19.45	190	167	H
		* 4.82403	46.56	PK2	34.60	-30.30	0	50.86	-	-	74.00	-23.14	139	131	V
		* 4.82391	42.29	MAv1	34.60	-30.30	0	46.59	54.00	-7.41	-	-	139	131	V
		7.236	38.63	PK2	36.00	-25.60	0	49.03	-	-	74.00	-24.97	14	129	V
2437	MIMO	* 4.874	49.24	PK2	34.60	-30.80	0	53.04	-	-	74.00	-20.96	5	183	H
		* 4.87397	46.14	MAv1	34.60	-30.80	0	49.94	54.00	-4.06	-	-	5	183	H
		* 7.31102	37.84	PK2	36.00	-25.10	0	48.74	-	-	74.00	-25.26	0	100	H
		* 7.311	30.05	MAv1	36.00	-25.10	0	40.95	54.00	-13.05	-	-	0	100	H
		* 4.874	47.09	PK2	34.60	-30.80	0	50.89	-	-	74.00	-23.11	355	139	V
		* 4.874	43.08	MAv1	34.60	-30.80	0	46.88	54.00	-7.12	-	-	355	139	V
		* 7.31142	37.11	PK2	36.00	-25.10	0	48.01	-	-	74.00	-25.99	333	107	V
		* 7.31115	28.28	MAv1	36.00	-25.10	0	39.18	54.00	-14.82	-	-	333	107	V
2462	MIMO	* 4.924	50.43	PK2	34.70	-30.90	0	54.23	-	-	74.00	-19.77	183	239	H
		* 4.92397	47.55	MAv1	34.70	-30.90	0	51.35	54.00	-2.65	-	-	183	239	H
		* 7.3852	40.63	PK2	36.00	-24.40	0	52.23	-	-	74.00	-21.77	193	169	H
		* 7.38708	34.76	MAv1	36.00	-24.40	0	46.36	54.00	-7.64	-	-	193	169	H
		* 4.924	47.68	PK2	34.70	-30.90	0	51.48	-	-	74.00	-22.52	290	351	V
		* 4.92403	44.04	MAv1	34.70	-30.90	0	47.84	54.00	-6.16	-	-	290	351	V
		* 7.38696	36.39	PK2	36.00	-24.40	0	47.99	-	-	74.00	-26.01	211	100	V
		* 7.38516	28.13	MAv1	36.00	-24.40	0	39.73	54.00	-14.27	-	-	211	100	V

Note1. PK2 - KDB558074 Method: Maximum Peak / MAv1 - KDB558074 Option 1 Maximum RMS Average
Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

802.11g

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
2417	ANT1	* 4.83113	37.42	PK2	34.60	-30.40	0	41.62	-	-	74.00	-32.38	165	101	H
		* 4.83461	26.74	MAv1	34.60	-30.40	0	30.94	54.00	-23.06	-	-	165	101	H
		* 7.49963	35.03	PK2	36.10	-25.10	0	46.03	-	-	74.00	-27.97	3	109	H
		* 7.50037	25.34	MAv1	36.10	-25.20	0	36.24	54.00	-17.76	-	-	3	109	H
		* 4.83314	41.12	PK2	34.60	-30.40	0	45.32	-	-	74.00	-28.68	272	118	V
		* 4.83478	29.39	MAv1	34.60	-30.40	0	33.59	54.00	-20.41	-	-	272	118	V
		* 7.67495	34.81	PK2	36.20	-23.90	0	47.11	-	-	74.00	**-26.89**	19	128	V
		* 7.50075	23.91	MAv1	36.10	-25.10	0	34.91	54.00	-19.09	-	-	19	128	V
2437	ANT1	* 4.87438	40.53	PK2	34.60	-30.80	0	44.33	-	-	74.00	-29.67	161	103	H
		* 4.87771	28.38	MAv1	34.70	-30.80	0	32.28	54.00	-21.72	-	-	161	103	H
		* 7.31117	35.39	PK2	36.00	-25.10	0	46.29	-	-	74.00	-27.71	0	125	H
		* 7.31098	27.10	MAv1	36.00	-25.10	0	38.00	54.00	**-16.00**	-	-	0	125	H
		* 4.87551	42.91	PK2	34.70	-30.80	0	46.81	-	-	74.00	-27.19	270	203	V
		* 4.87366	30.93	MAv1	34.60	-30.80	0	34.73	54.00	-19.27	-	-	270	203	V
		* 7.31096	35.74	PK2	36.00	-25.10	0	46.64	-	-	74.00	-27.36	335	101	V
		* 7.311	26.50	MAv1	36.00	-25.10	0	37.40	54.00	-16.60	-	-	335	101	V
2457	ANT1	* 4.91268	40.10	PK2	34.70	-31.00	0	43.80	-	-	74.00	-30.20	167	109	H
		* 4.91528	28.75	MAv1	34.70	-31.00	0	32.45	54.00	-21.55	-	-	167	109	H
		* 7.50095	34.00	PK2	36.10	-25.10	0	45.00	-	-	74.00	-29.00	36	359	H
		* 7.49897	22.23	MAv1	36.10	-25.10	0	33.23	54.00	-20.77	-	-	36	359	H
		* 4.91325	42.30	PK2	34.70	-30.90	0	46.10	-	-	74.00	-27.90	270	129	V
		* 4.91406	30.15	MAv1	34.70	-30.90	0	33.95	54.00	-20.05	-	-	270	129	V
		* 7.50002	35.86	PK2	36.10	-25.20	0	46.76	-	-	74.00	-27.24	358	143	V
		* 7.50002	24.85	MAv1	36.10	-25.20	0	35.75	54.00	-18.25	-	-	358	143	V

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
2417	ANT2	* 4.87045	51.88	PK2	34.60	-30.80	0	55.68	-	-	74.00	-18.32	10	177	H
		* 4.87478	39.73	MAv1	34.60	-30.80	0	43.53	54.00	-10.47	-	-	10	177	H
		* 7.31229	47.36	PK2	36.00	-25.10	0	58.26	-	-	74.00	**-15.74**	190	142	H
		* 7.31148	34.20	MAv1	36.00	-25.10	0	45.10	54.00	**-8.90**	-	-	190	142	H
		* 4.87053	45.52	PK2	34.60	-30.70	0	49.42	-	-	74.00	-24.58	154	152	V
		* 4.87253	33.57	MAv1	34.60	-30.80	0	37.37	54.00	-16.63	-	-	154	152	V
		* 7.31095	36.74	PK2	36.00	-25.10	0	47.64	-	-	74.00	-26.36	334	102	V
		* 7.31097	28.30	MAv1	36.00	-25.10	0	39.20	54.00	-14.80	-	-	334	102	V
2437	ANT2	* 4.87588	51.33	PK2	34.70	-30.80	0	55.23	-	-	74.00	-18.77	10	185	H
		* 4.8765	39.31	MAv1	34.70	-30.80	0	43.21	54.00	-10.79	-	-	10	185	H
		* 7.3127	47.20	PK2	36.00	-25.10	0	58.10	-	-	74.00	-15.90	190	138	H
		* 7.31346	33.46	MAv1	36.00	-25.00	0	44.46	54.00	-9.54	-	-	190	138	H
		* 4.87423	45.57	PK2	34.60	-30.80	0	49.37	-	-	74.00	-24.63	154	153	V
		* 4.87451	33.52	MAv1	34.60	-30.80	0	37.32	54.00	-16.68	-	-	154	153	V
		* 7.31112	36.64	PK2	36.00	-25.10	0	47.54	-	-	74.00	-26.46	336	103	V
		* 7.31092	28.27	MAv1	36.00	-25.10	0	39.17	54.00	-14.83	-	-	336	103	V
2457	ANT2	* 4.91062	47.31	PK2	34.70	-31.00	0	51.01	-	-	74.00	-22.99	354	221	H
		* 4.91484	34.74	MAv1	34.70	-31.00	0	38.44	54.00	-15.56	-	-	354	221	H
		* 7.37231	44.08	PK2	36.00	-24.60	0	55.48	-	-	74.00	-18.52	195	135	H
		* 7.37183	30.23	MAv1	36.00	-24.60	0	41.63	54.00	-12.37	-	-	195	135	H
		* 4.91412	44.66	PK2	34.70	-30.90	0	48.46	-	-	74.00	-25.54	128	385	V
		* 4.914	32.60	MAv1	34.70	-30.90	0	36.40	54.00	-17.60	-	-	128	385	V
		* 7.37246	38.32	PK2	36.00	-24.60	0	49.72	-	-	74.00	-24.28	278	387	V
		* 7.37062	25.22	MAv1	36.00	-24.70	0	36.52	54.00	-17.48	-	-	278	387	V

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
2417	MIMO	* 4.83732	47.05	PK2	34.60	-30.40	0	51.25	-	-	74.00	-22.75	19	178	H
		* 4.83696	34.39	MAv1	34.60	-30.40	0	38.59	54.00	-15.41	-	-	19	178	H
		* 7.25271	46.70	PK2	36.00	-25.40	0	57.30	-	-	74.00	-16.70	172	173	H
		* 7.25031	35.03	MAv1	36.00	-25.40	0	45.63	54.00	**-8.37**	-	-	172	173	H
		* 4.82799	43.03	PK2	34.60	-30.40	0	47.23	-	-	74.00	-26.77	215	118	V
		* 4.833	31.39	MAv1	34.60	-30.40	0	35.59	54.00	-18.41	-	-	215	118	V
		* 7.25099	37.43	PK2	36.00	-25.40	0	48.03	-	-	74.00	-25.97	338	104	V
		* 7.25097	27.73	MAv1	36.00	-25.40	0	38.33	54.00	-15.67	-	-	338	104	V
2437	MIMO	* 4.87724	52.39	PK2	34.70	-30.80	0	56.29	-	-	74.00	-17.71	193	200	H
		* 4.87388	40.78	MAv1	34.60	-30.80	0	44.58	54.00	-9.42	-	-	193	200	H
		* 7.30561	47.12	PK2	36.00	-25.30	0	57.82	-	-	74.00	-16.18	164	159	H
		* 7.31114	34.72	MAv1	36.00	-25.10	0	45.62	54.00	-8.38	-	-	164	159	H
		* 4.87046	47.20	PK2	34.60	-30.80	0	51.00	-	-	74.00	-23.00	147	122	V
		* 4.8748	35.27	MAv1	34.60	-30.80	0	39.07	54.00	-14.93	-	-	147	122	V
		* 7.31042	39.52	PK2	36.00	-25.20	0	50.32	-	-	74.00	-23.68	344	100	V
		* 7.31094	27.82	MAv1	36.00	-25.10	0	38.72	54.00	-15.28	-	-	344	100	V
2457	MIMO	* 4.91424	48.54	PK2	34.70	-31.00	0	52.24	-	-	74.00	-21.76	192	204	H
		* 4.91452	36.72	MAv1	34.70	-31.00	0	40.42	54.00	-13.58	-	-	192	204	H
		* 7.37058	47.46	PK2	36.00	-24.70	0	58.76	-	-	74.00	**-15.24**	209	281	H
		* 7.37024	33.52	MAv1	36.00	-24.70	0	44.82	54.00	-9.18	-	-	209	281	H
		* 4.9142	44.56	PK2	34.70	-30.90	0	48.36	-	-	74.00	-25.64	352	188	V
		* 4.9143	32.33	MAv1	34.70	-31.00	0	36.03	54.00	-17.97	-	-	352	188	V
		* 7.37252	38.69	PK2	36.00	-24.60	0	50.09	-	-	74.00	-23.91	165	111	V
		* 7.37184	26.70	MAv1	36.00	-24.60	0	38.10	54.00	-15.90	-	-	165	111	V

Note1. PK2 - KDB558074 Method: Maximum Peak / MAv1 - KDB558074 Option 1 Maximum RMS Average
Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

802.11n(HT20)

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
2417	ANT1	* 4.83324	40.07	PK2	34.60	-30.40	0	44.27	-	-	74.00	-29.73	160	110	H
		* 4.83732	28.46	MAv1	34.60	-30.40	0	32.66	54.00	-21.34	-	-	160	110	H
		* 7.50045	35.98	PK2	36.10	-25.20	0	46.88	-	-	74.00	-27.12	0	126	H
		* 7.49984	26.63	MAv1	36.10	-25.10	0	37.63	54.00	-16.37	-	-	0	126	H
		* 4.83447	40.34	PK2	34.60	-30.40	0	44.54	-	-	74.00	-29.46	273	101	V
		* 4.834	28.68	MAv1	34.60	-30.40	0	32.88	54.00	-21.12	-	-	273	101	V
2437	ANT1	* 4.87332	41.62	PK2	34.60	-30.80	0	45.42	-	-	74.00	-28.58	164	101	H
		* 4.87526	29.98	MAv1	34.70	-30.80	0	33.88	54.00	-20.12	-	-	164	101	H
		* 7.3109	37.30	PK2	36.00	-25.10	0	48.20	-	-	74.00	**-25.80**	2	112	H
		* 7.31104	29.68	MAv1	36.00	-25.10	0	40.58	54.00	**-13.42**	-	-	2	112	H
		* 4.87836	43.77	PK2	34.70	-30.90	0	47.57	-	-	74.00	-26.43	283	230	V
		* 4.87418	32.21	MAv1	34.60	-30.80	0	36.01	54.00	-17.99	-	-	283	230	V
		* 7.31114	36.76	PK2	36.00	-25.10	0	47.66	-	-	74.00	-26.34	336	116	V
		* 7.31104	28.52	MAv1	36.00	-25.10	0	39.42	54.00	-14.58	-	-	336	116	V
2457	ANT1	* 4.91596	41.13	PK2	34.70	-31.00	0	44.83	-	-	74.00	-29.17	164	101	H
		* 4.91532	29.44	MAv1	34.70	-31.00	0	33.14	54.00	-20.86	-	-	164	101	H
		* 7.36191	35.52	PK2	36.00	-24.80	0	46.72	-	-	74.00	-27.28	220	112	H
		* 7.37292	24.41	MAv1	36.00	-24.60	0	35.81	54.00	-18.19	-	-	220	112	H
		* 4.91304	42.47	PK2	34.70	-31.00	0	46.17	-	-	74.00	-27.83	303	200	V
		* 4.91468	30.48	MAv1	34.70	-31.00	0	34.18	54.00	-19.82	-	-	303	200	V
		* 7.37801	36.56	PK2	36.00	-24.60	0	47.96	-	-	74.00	-26.04	205	110	V
		* 7.37258	24.46	MAv1	36.00	-24.60	0	35.86	54.00	-18.14	-	-	205	110	V

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
2417	ANT2	* 4.83778	45.66	PK2	34.60	-30.40	0	49.86	-	-	74.00	-24.14	10	182	H
		* 4.83698	33.22	MAv1	34.60	-30.40	0	37.42	54.00	-16.58	-	-	10	182	H
		* 7.25111	38.19	PK2	36.00	-25.40	0	48.79	-	-	74.00	-25.21	2	103	H
		* 7.251	29.11	MAv1	36.00	-25.40	0	39.71	54.00	-14.29	-	-	2	103	H
		* 4.83518	43.66	PK2	34.60	-30.40	0	47.86	-	-	74.00	-26.14	151	107	V
		* 4.83434	31.33	MAv1	34.60	-30.40	0	35.53	54.00	-18.47	-	-	151	107	V
		* 7.25092	36.75	PK2	36.00	-25.40	0	47.35	-	-	74.00	-26.65	335	110	V
		* 7.25094	27.66	MAv1	36.00	-25.40	0	38.26	54.00	-15.74	-	-	335	110	V
2437	ANT2	* 4.87125	51.12	PK2	34.60	-30.70	0	55.02	-	-	74.00	-18.98	10	183	H
		* 4.87433	38.85	MAv1	34.60	-30.80	0	42.65	54.00	-11.35	-	-	10	183	H
		* 7.31371	47.03	PK2	36.00	-25.00	0	58.03	-	-	74.00	**-15.97**	190	138	H
		* 7.31143	33.33	MAv1	36.00	-25.10	0	44.23	54.00	**-9.77**	-	-	190	138	H
		* 4.87114	44.89	PK2	34.60	-30.70	0	48.79	-	-	74.00	-25.21	153	122	V
		* 4.87206	32.87	MAv1	34.60	-30.70	0	36.77	54.00	-17.23	-	-	153	122	V
		* 7.31105	36.92	PK2	36.00	-25.10	0	47.82	-	-	74.00	-26.18	336	106	V
		* 7.31099	28.20	MAv1	36.00	-25.10	0	39.10	54.00	-14.90	-	-	336	106	V
2457	ANT2	* 4.91239	47.36	PK2	34.70	-31.00	0	51.06	-	-	74.00	-22.94	0	322	H
		* 4.91403	35.49	MAv1	34.70	-30.90	0	39.29	54.00	-14.71	-	-	0	322	H
		* 7.37072	42.99	PK2	36.00	-24.70	0	54.29	-	-	74.00	-19.71	196	135	H
		* 7.36972	29.81	MAv1	36.00	-24.70	0	41.11	54.00	-12.89	-	-	196	135	H
		* 4.91209	42.58	PK2	34.70	-31.00	0	46.28	-	-	74.00	-27.72	236	105	V
		* 4.9176	30.37	MAv1	34.70	-30.90	0	34.17	54.00	-19.83	-	-	236	105	V
		* 7.35743	35.49	PK2	36.00	-24.80	0	46.69	-	-	74.00	-27.31	265	101	V
		* 7.35837	23.64	MAv1	36.00	-24.80	0	34.84	54.00	-19.16	-	-	265	101	V

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
2417	MIMO	* 4.83934	44.59	PK2	34.60	-30.40	0	48.79	-	-	74.00	-25.21	160	176	H
		* 4.83235	32.38	MAv1	34.60	-30.40	0	36.58	54.00	-17.42	-	-	160	176	H
		* 7.25644	46.42	PK2	36.00	-25.40	0	57.02	-	-	74.00	-16.98	184	133	H
		* 7.25137	33.80	MAv1	36.00	-25.40	0	44.40	54.00	-9.60	-	-	184	133	H
		* 4.83145	42.35	PK2	34.60	-30.40	0	46.55	-	-	74.00	-27.45	232	234	V
		* 4.83388	30.43	MAv1	34.60	-30.40	0	34.63	54.00	-19.37	-	-	232	234	V
		* 7.25113	37.80	PK2	36.00	-25.40	0	48.40	-	-	74.00	-25.60	40	236	V
		* 7.25145	27.87	MAv1	36.00	-25.40	0	38.47	54.00	-15.53	-	-	40	236	V
2437	MIMO	* 4.87358	51.91	PK2	34.60	-30.80	0	55.71	-	-	74.00	-18.29	190	198	H
		* 4.87348	39.54	MAv1	34.60	-30.80	0	43.34	54.00	-10.66	-	-	190	198	H
		* 7.30714	48.27	PK2	36.00	-25.20	0	59.07	-	-	74.00	**-14.93**	169	164	H
		* 7.30753	36.05	MAv1	36.00	-25.20	0	46.85	54.00	-7.15	-	-	169	164	H
		* 4.87143	46.28	PK2	34.60	-30.70	0	50.18	-	-	74.00	-23.82	351	139	V
		* 4.87429	34.67	MAv1	34.60	-30.80	0	38.47	54.00	-15.53	-	-	351	139	V
		* 7.31166	40.74	PK2	36.00	-25.10	0	51.64	-	-	74.00	-22.36	320	159	V
		* 7.31181	28.33	MAv1	36.00	-25.10	0	39.23	54.00	-14.77	-	-	320	159	V
2457	MIMO	* 4.91937	45.36	PK2	34.70	-30.90	0	49.16	-	-	74.00	-24.84	207	269	H
		* 4.91436	33.99	MAv1	34.70	-31.00	0	37.69	54.00	-16.31	-	-	207	269	H
		* 4.91382	42.29	PK2	34.70	-30.90	0	46.09	-	-	74.00	-27.91	141	184	V
		* 4.9145	30.99	MAv1	34.70	-31.00	0	34.69	54.00	-19.31	-	-	141	184	V
		* 7.37411	47.65	PK2	36.00	-24.70	0	58.95	-	-	74.00	-15.05	168	228	H
		* 7.36737	36.30	MAv1	36.00	-24.80	0	47.50	54.00	**-6.50**	-	-	168	228	H
		* 7.36894	40.44	PK2	36.00	-24.70	0	51.74	-	-	74.00	-22.26	254	199	V
		* 7.36752	29.06	MAv1	36.00	-24.80	0	40.26	54.00	-13.74	-	-	254	199	V

Note1. PK2 - KDB558074 Method: Maximum Peak / MAv1 - KDB558074 Option 1 Maximum RMS Average
Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

802.11n(HT40)

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
2427	ANT1	* 4.85532	40.03	PK2	34.60	-30.50	0	44.13	-	-	74.00	-29.87	313	307	H
		* 4.86327	28.43	MAv1	34.60	-30.60	0	32.43	54.00	-21.57	-	-	313	307	H
		* 7.28683	35.11	PK2	36.00	-25.40	0	45.71	-	-	74.00	-28.29	305	363	H
		* 7.29794	23.63	MAv1	36.00	-25.30	0	34.33	54.00	-19.67	-	-	305	363	H
		* 4.86543	39.71	PK2	34.60	-30.70	0	43.61	-	-	74.00	-30.39	334	101	V
		* 4.86451	28.29	MAv1	34.60	-30.60	0	32.29	54.00	-21.71	-	-	334	101	V
		* 7.2804	35.66	PK2	36.00	-25.40	0	46.26	-	-	74.00	-27.74	198	100	V
		* 7.28288	23.82	MAv1	36.00	-25.50	0	34.32	54.00	-19.68	-	-	198	100	V
2437	ANT1	* 4.87458	41.06	PK2	34.60	-30.80	0	44.86	-	-	74.00	-29.14	163	100	H
		* 4.86978	29.26	MAv1	34.60	-30.70	0	33.16	54.00	-20.84	-	-	163	100	H
		* 7.3112	36.87	PK2	36.00	-25.10	0	47.77	-	-	74.00	**-26.23**	3	108	H
		* 7.31112	29.77	MAv1	36.00	-25.10	0	40.67	54.00	**-13.33**	-	-	3	108	H
		* 4.87724	43.28	PK2	34.70	-30.80	0	47.18	-	-	74.00	-26.82	275	110	V
		* 4.87672	31.45	MAv1	34.70	-30.80	0	35.35	54.00	-18.65	-	-	275	110	V
		* 7.31092	36.61	PK2	36.00	-25.10	0	47.51	-	-	74.00	-26.49	336	105	V
		* 7.31096	27.96	MAv1	36.00	-25.10	0	38.86	54.00	-15.14	-	-	336	105	V
2447	ANT1	* 4.90302	40.24	PK2	34.70	-30.90	0	44.04	-	-	74.00	-29.96	360	100	H
		* 4.89865	28.47	MAv1	34.70	-31.00	0	32.17	54.00	-21.83	-	-	360	100	H
		* 7.34971	34.72	PK2	36.00	-24.80	0	45.92	-	-	74.00	-28.08	360	100	H
		* 7.35009	23.58	MAv1	36.00	-24.80	0	34.78	54.00	-19.22	-	-	360	100	H
		* 4.88894	39.80	PK2	34.70	-30.90	0	43.60	-	-	74.00	-30.40	360	100	V
		* 4.8853	28.50	MAv1	34.70	-30.90	0	32.30	54.00	-21.70	-	-	360	100	V
		* 7.34401	31.70	PK2	36.00	-24.80	0	42.90	-	-	74.00	-31.10	360	100	V
		* 7.34466	23.73	MAv1	36.00	-24.80	0	34.93	54.00	-19.07	-	-	360	100	V

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
2427	ANT2	* 4.99993	40.68	PK2	34.70	-30.00	0	45.38	-	-	74.00	-28.62	314	108	H
		* 4.99995	32.13	MAv1	34.70	-30.00	0	36.83	54.00	-17.17	-	-	314	108	H
		* 7.49985	37.34	PK2	36.10	-25.10	0	48.34	-	-	74.00	-25.66	27	176	H
		* 7.50022	27.13	MAv1	36.10	-25.20	0	38.03	54.00	-15.97	-	-	27	176	H
		* 5.00025	38.83	PK2	34.70	-30.00	0	43.53	-	-	74.00	-30.47	22	148	V
		* 5.00001	29.34	MAv1	34.70	-30.00	0	34.04	54.00	-19.96	-	-	22	148	V
		* 7.50022	36.87	PK2	36.10	-25.20	0	47.77	-	-	74.00	-26.23	3	135	V
		* 7.50008	27.04	MAv1	36.10	-25.20	0	37.94	54.00	-16.06	-	-	3	135	V
2437	ANT2	* 4.87184	49.04	PK2	34.60	-30.70	0	52.94	-	-	74.00	**-21.06**	11	184	H
		* 4.876	36.23	MAv1	34.70	-30.80	0	40.13	54.00	**-13.87**	-	-	11	184	H
		* 7.30155	37.48	PK2	36.00	-25.30	0	48.18	-	-	74.00	-25.82	1	116	H
		* 7.31088	28.99	MAv1	36.00	-25.10	0	39.89	54.00	-14.11	-	-	1	116	H
		* 4.8717	43.42	PK2	34.60	-30.70	0	47.32	-	-	74.00	-26.68	151	125	V
		* 4.87464	31.55	MAv1	34.60	-30.80	0	35.35	54.00	-18.65	-	-	151	125	V
		* 7.30881	36.67	PK2	36.00	-25.20	0	47.47	-	-	74.00	-26.53	169	111	V
		* 7.30074	24.88	MAv1	36.00	-25.40	0	35.48	54.00	-18.52	-	-	169	111	V
2447	ANT2	* 4.99965	39.99	PK2	34.70	-30.00	0	44.69	-	-	74.00	-29.31	312	108	H
		* 4.99993	32.19	MAv1	34.70	-30.00	0	36.89	54.00	-17.11	-	-	312	108	H
		* 7.50004	38.17	PK2	36.10	-25.20	0	49.07	-	-	74.00	-24.93	28	169	H
		* 7.50004	27.27	MAv1	36.10	-25.20	0	38.17	54.00	-15.83	-	-	28	169	H
		* 5.00023	39.46	PK2	34.70	-30.00	0	44.16	-	-	74.00	-29.84	22	101	V
		* 4.99991	29.00	MAv1	34.70	-30.00	0	33.70	54.00	-20.30	-	-	22	101	V
		* 7.50015	37.02	PK2	36.10	-25.20	0	47.92	-	-	74.00	-26.08	360	158	V
		* 7.50003	27.51	MAv1	36.10	-25.20	0	38.41	54.00	-15.59	-	-	360	158	V

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
2427	MIMO	* 7.29226	47.33	PK2	36.00	-25.40	0	57.93	-	-	74.00	-16.07	171	163	H
		* 7.28779	35.28	MAv1	36.00	-25.40	0	45.88	54.00	-8.12	-	-	171	163	H
		* 7.29233	40.82	PK2	36.00	-25.40	0	51.42	-	-	74.00	-22.58	162	100	V
		* 7.29193	28.60	MAv1	36.00	-25.40	0	39.20	54.00	-14.80	-	-	162	100	V
2437	MIMO	* 4.87142	49.56	PK2	34.60	-30.70	0	53.46	-	-	74.00	-20.54	7	173	H
		* 4.8759	36.53	MAv1	34.70	-30.80	0	40.43	54.00	-13.57	-	-	7	173	H
		* 7.30169	48.17	PK2	36.00	-25.30	0	58.87	-	-	74.00	**-15.13**	166	151	H
		* 7.31066	35.99	MAv1	36.00	-25.20	0	46.79	54.00	**-7.21**	-	-	166	151	H
		* 4.87158	44.97	PK2	34.60	-30.70	0	48.87	-	-	74.00	-25.13	148	351	V
		* 4.87697	32.05	MAv1	34.70	-30.80	0	35.95	54.00	-18.05	-	-	148	351	V
		* 7.3105	36.30	PK2	36.00	-25.20	0	47.10	-	-	74.00	-26.90	334	117	V
		* 7.31101	28.24	MAv1	36.00	-25.10	0	39.14	54.00	-14.86	-	-	334	117	V
2447	MIMO	* 4.90139	40.07	PK2	34.70	-30.90	0	43.87	-	-	74.00	-30.13	139	129	H
		* 4.91077	28.72	MAv1	34.70	-31.00	0	32.42	54.00	-21.58	-	-	139	129	H
		* 7.33163	41.82	PK2	36.00	-24.80	0	53.02	-	-	74.00	-20.98	202	149	H
		* 7.34629	31.22	MAv1	36.00	-24.80	0	42.42	54.00	-11.58	-	-	202	149	H
		* 4.90461	39.87	PK2	34.70	-31.00	0	43.57	-	-	74.00	-30.43	196	170	V
		* 4.90201	28.35	MAv1	34.70	-31.00	0	32.05	54.00	-21.95	-	-	196	170	V
		* 7.35453	39.20	PK2	36.00	-24.80	0	50.40	-	-	74.00	-23.60	141	108	V
		* 7.34215	27.53	MAv1	36.00	-24.80	0	38.73	54.00	-15.27	-	-	141	108	V

Note1. PK2 - KDB558074 Method: Maximum Peak / MAv1 - KDB558074 Option 1 Maximum RMS Average
Note2. * - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

10.2. Spurious Emissions for Simultaneous Transmission

10.2.1. Worst test case RSDB condition

Case 1 (2.4GHz WLAN SISO & 5GHz WLAN MIMO)

Case 1	2.4 GHz WLAN Antenna ANT2	5GHz WLAN Antenna ALL
Mode	802.11b	802.11a
Channel	11	157
Frequency[MHz]	2462	5785
Data Rate	1Mbps	6Mbps

Case 2 (2.4GHz WLAN MIMO & 5GHz WLAN MIMO)

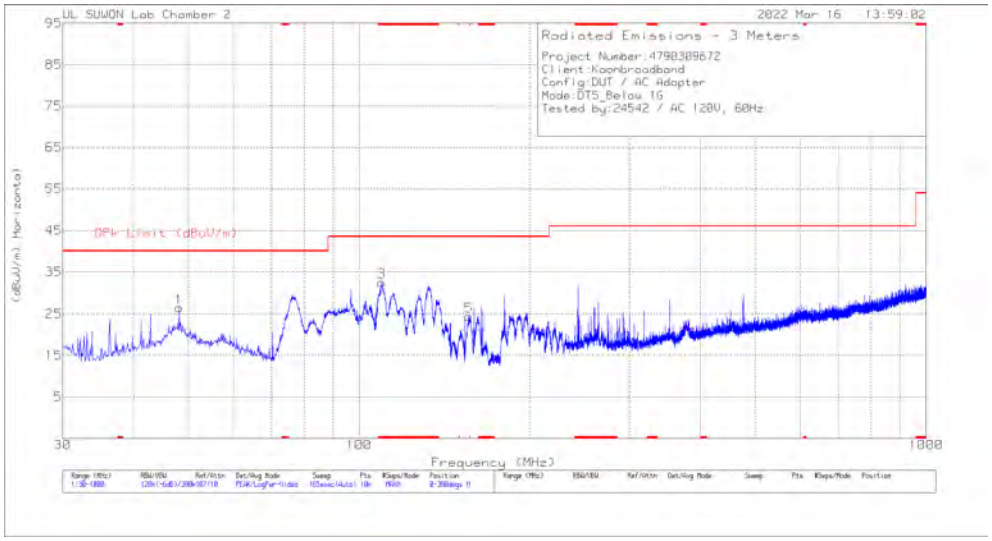
Case 1	2.4 GHz WLAN Antenna ALL	5GHz WLAN Antenna ALL
Mode	802.11b	802.11a
Channel	1	157
Frequency[MHz]	2412	5785
Data Rate	1Mbps	6Mbps

10.2.2. Test Results

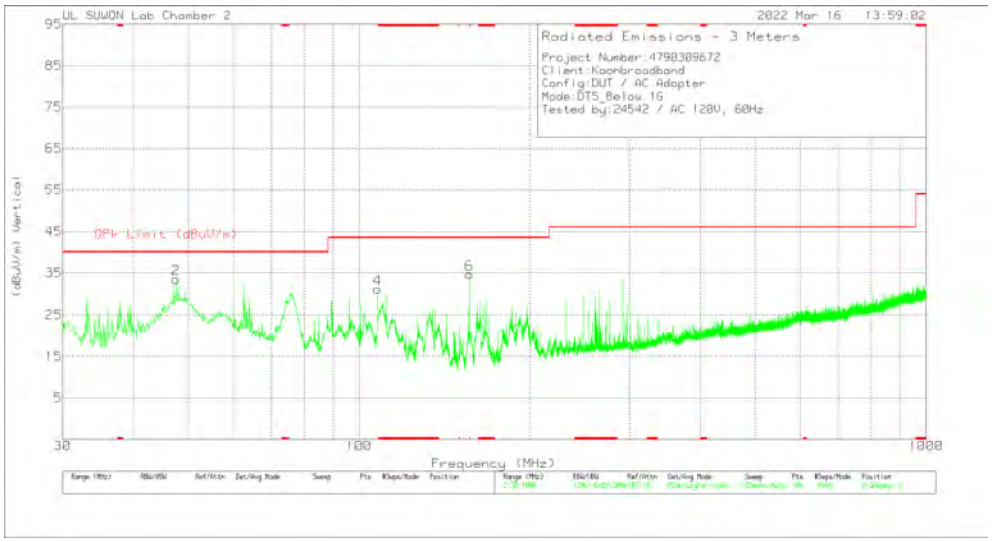
Please refer to the FCC Report UNII 802.11a_n_ac WLAN (Report No.: 4790309672-FR3)

10.3. WORST CASE BELOW 1 GHZ

SPURIOUS EMISSIONS 30 TO 1000 MHz (802.11g MIMO 2437 MHz, HORIZONTAL)



SPURIOUS EMISSIONS 30 TO 1000 MHz (802.11g MIMO 2437 MHz, VERTICAL)



Below 1G Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163_750	Below_1G[dB]	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	48.139	38.35	Pk	19.9	-31.7	26.55	40	-13.45	0-360	100	H
3	* 109.637	46.76	Pk	17	-31.2	32.56	43.52	-10.96	0-360	200	H
5	156.294	41.36	Pk	14	-30.9	24.46	43.52	-19.06	0-360	100	H
2	47.557	45.41	Pk	19.9	-31.7	33.61	40	-6.39	0-360	100	V
4	107.794	45.16	Pk	17.3	-31.3	31.16	43.52	-12.36	0-360	100	V
6	156.585	51.57	Pk	14.1	-31	34.67	43.52	-8.85	0-360	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
Qp - Quasi-Peak detector

11. 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.

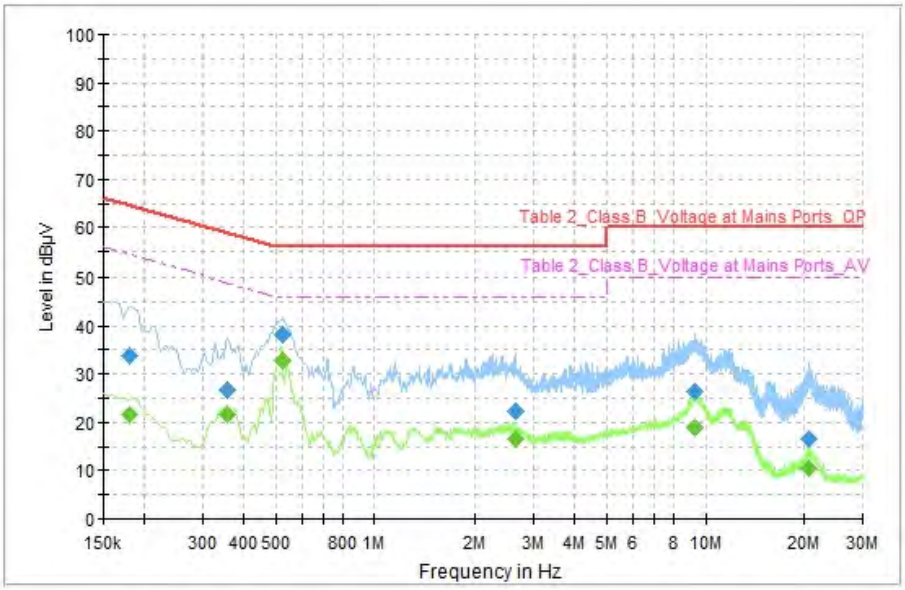
Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

- Please refer to the next page

WORST EMISSIONS

LINE 1 DATA



Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.180728	33.62	64.45	30.84	L1	ON	9.9
0.356316	26.53	58.81	32.28	L1	ON	9.8
0.523125	38.27	56.00	17.73	L1	ON	9.9
2.634574	22.19	56.00	33.81	L1	ON	9.7
9.271809	26.41	60.00	33.59	L1	ON	9.7
20.487507	16.42	60.00	43.58	L1	ON	9.8

Final_Result_CAV

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.180728	21.62	54.45	32.84	L1	ON	9.9
0.356316	21.75	48.81	27.07	L1	ON	9.8
0.523125	32.71	46.00	13.29	L1	ON	9.9
2.634574	16.45	46.00	29.55	L1	ON	9.7
9.271809	19.02	50.00	30.98	L1	ON	9.7
20.487507	10.41	50.00	39.59	L1	ON	9.8

UL Korea, Ltd. Suwon Laboratory FORM ID: FCC_15C(04)
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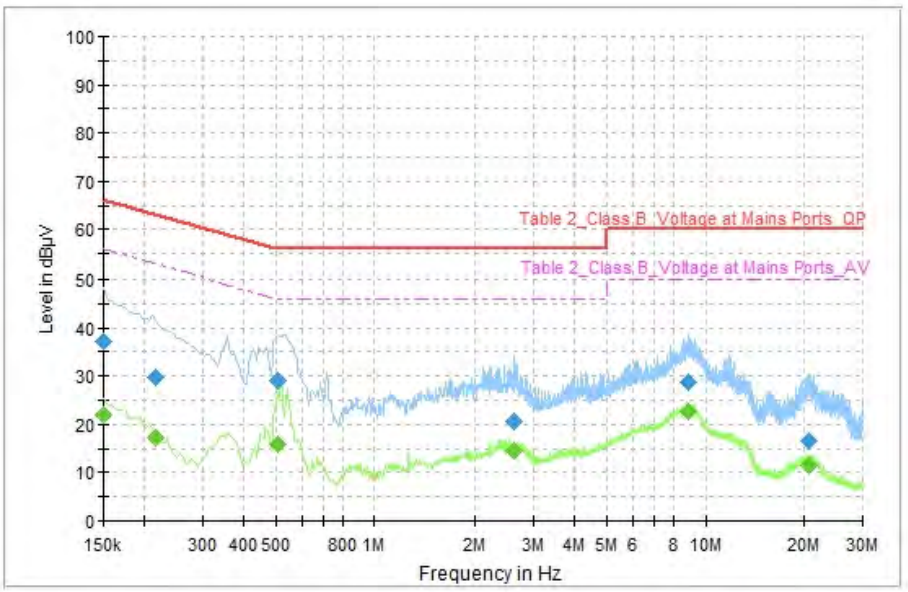
LINE 2 DATA



Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	37.11	66.00	28.89	N	ON	9.7
0.215846	29.68	62.98	33.30	N	ON	9.7
0.505566	28.90	56.00	27.10	N	ON	9.9
2.617015	20.72	56.00	35.28	N	ON	9.7
8.872346	28.79	60.00	31.21	N	ON	9.7
20.654316	16.63	60.00	43.37	N	ON	9.8

Final_Result_CAV

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	22.07	56.00	33.93	N	ON	9.7
0.215846	17.34	52.98	35.64	N	ON	9.7
0.505566	15.87	46.00	30.13	N	ON	9.9
2.617015	14.52	46.00	31.48	N	ON	9.7
8.872346	22.57	50.00	27.43	N	ON	9.7
20.654316	11.53	50.00	38.47	N	ON	9.8

UL Korea, Ltd. Suwon Laboratory FORM ID: FCC_15C(04)
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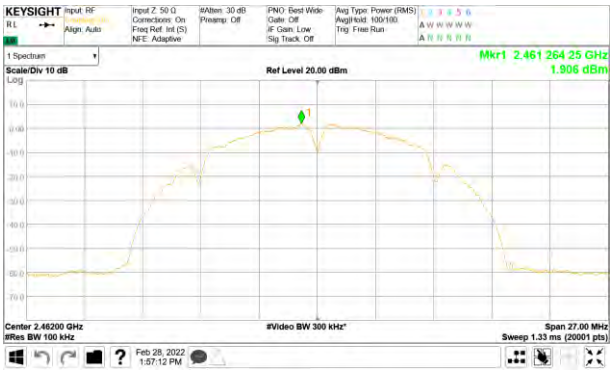
APPENDIX A. SPOT CHECK DATA

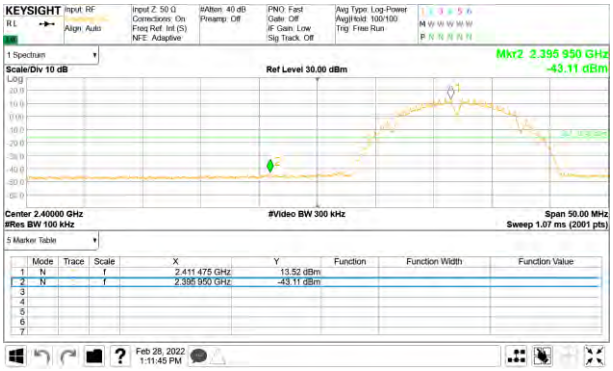
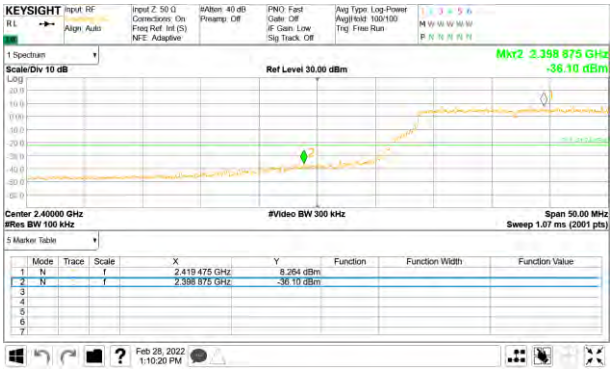
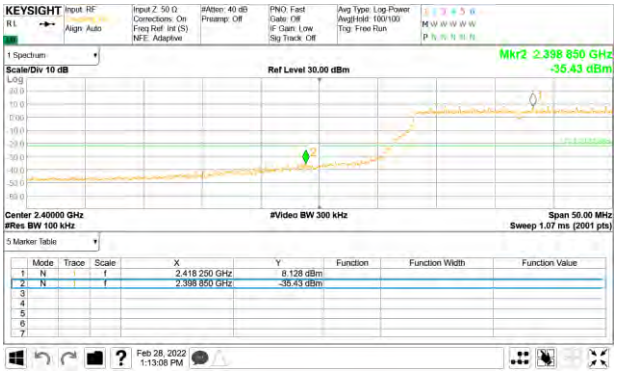
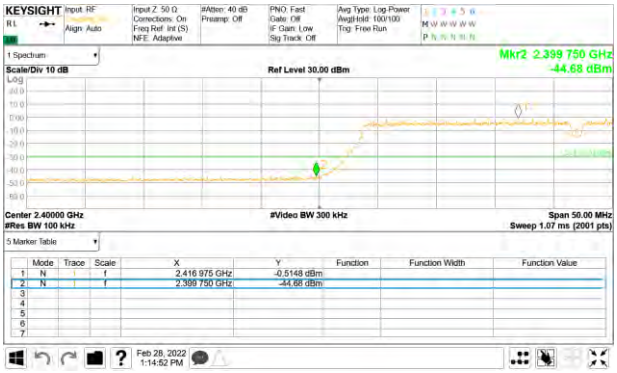
➢ 6 dB BANDWIDTH

802.11b
ANT1 / 11 CHANNEL

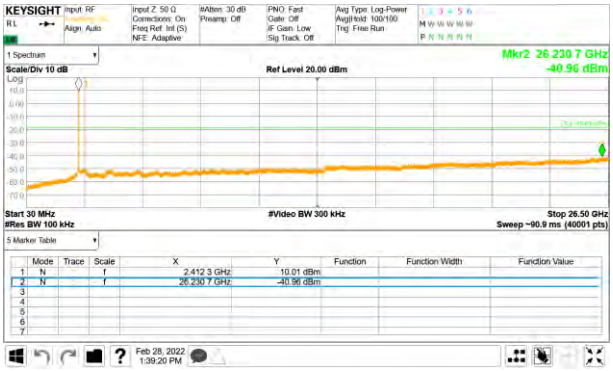
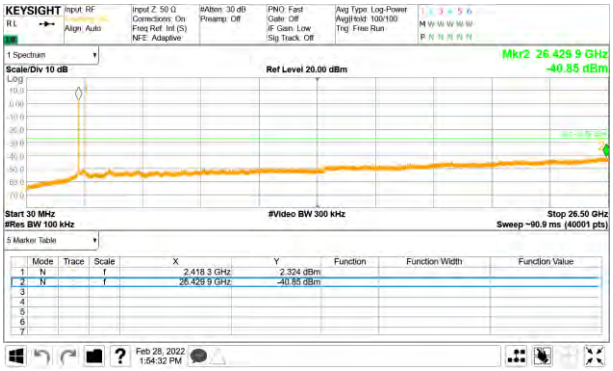
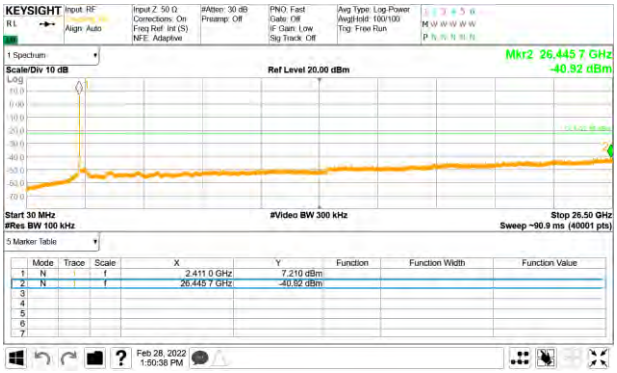
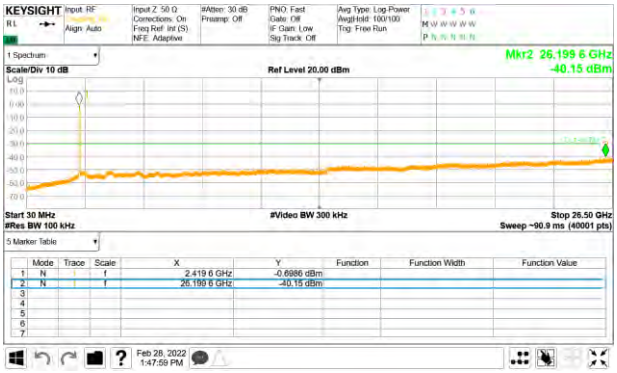

➢ PSD

802.11b MIMO	
11 CHANNEL / ANT1	11 CHANNEL / ANT2
	

➢ BANDEDGE

802.11b	802.11g
1 CHANNEL / ANT1	2 CHANNEL / ANT1
	
802.11n HT20	**802.11n HT40**
2 CHANNEL / ANT1	3 CHANNEL / ANT1
	

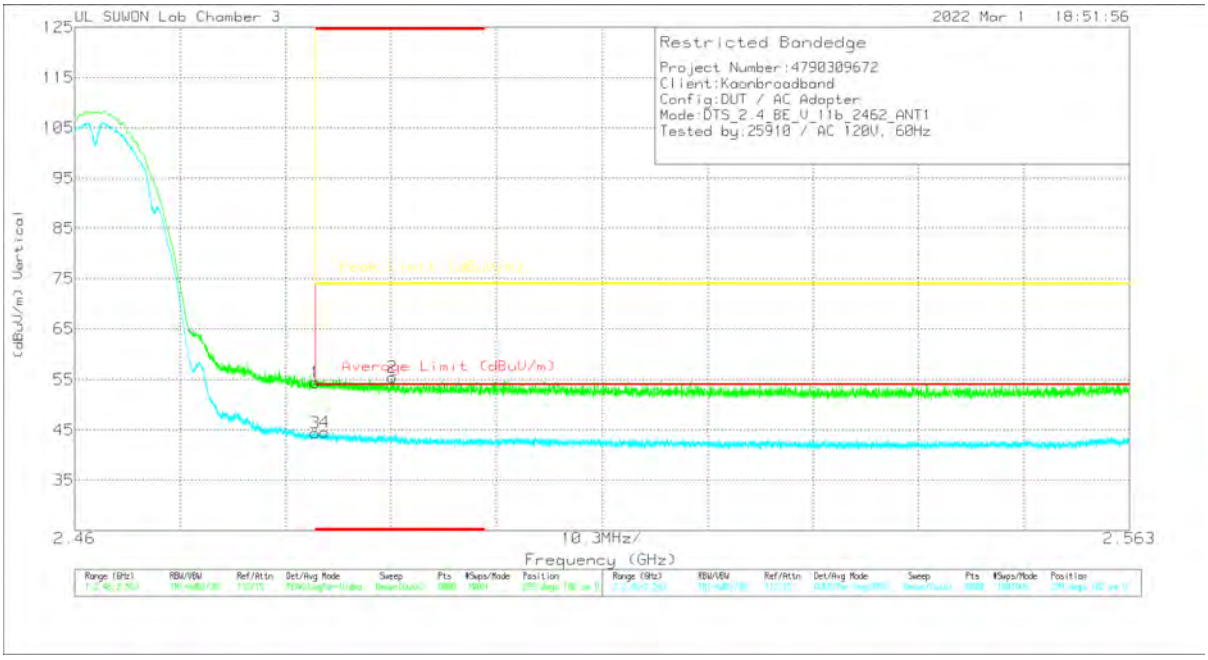
➢ CONDUCTED SPURIOUS EMISSIONS

802.11b	802.11g
1 CHANNEL / ANT2	1 CHANNEL / ANT1
	
802.11n HT20	**802.11n HT40**
2 CHANNEL / ANT2	3 CHANNEL / ANT2
	

➢ BANDEDGE

802.11b_ANT1_CH11

VERTICAL RESULT



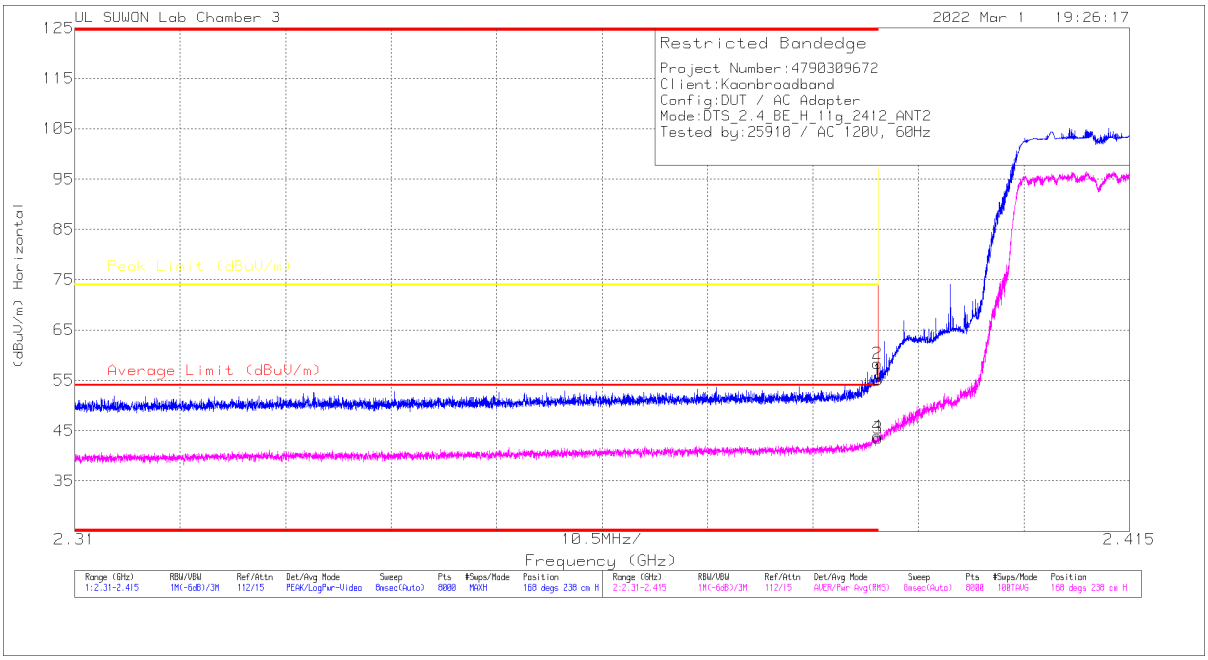
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	46.74	Pk	32.9	-25.3	54.34	-	-	74	-19.66	299	102	V
2	* 2.49102	47.79	Pk	32.9	-25.2	55.49	-	-	74	-18.51	299	102	V
3	* 2.4835	36.77	RMS	32.9	-25.3	44.37	54	-9.63	-	-	299	102	V
4	* 2.48444	36.92	RMS	32.9	-25.3	44.52	54	-9.48	-	-	299	102	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

802.11g_ANT2 CH1

HORIZONTAL RESULT



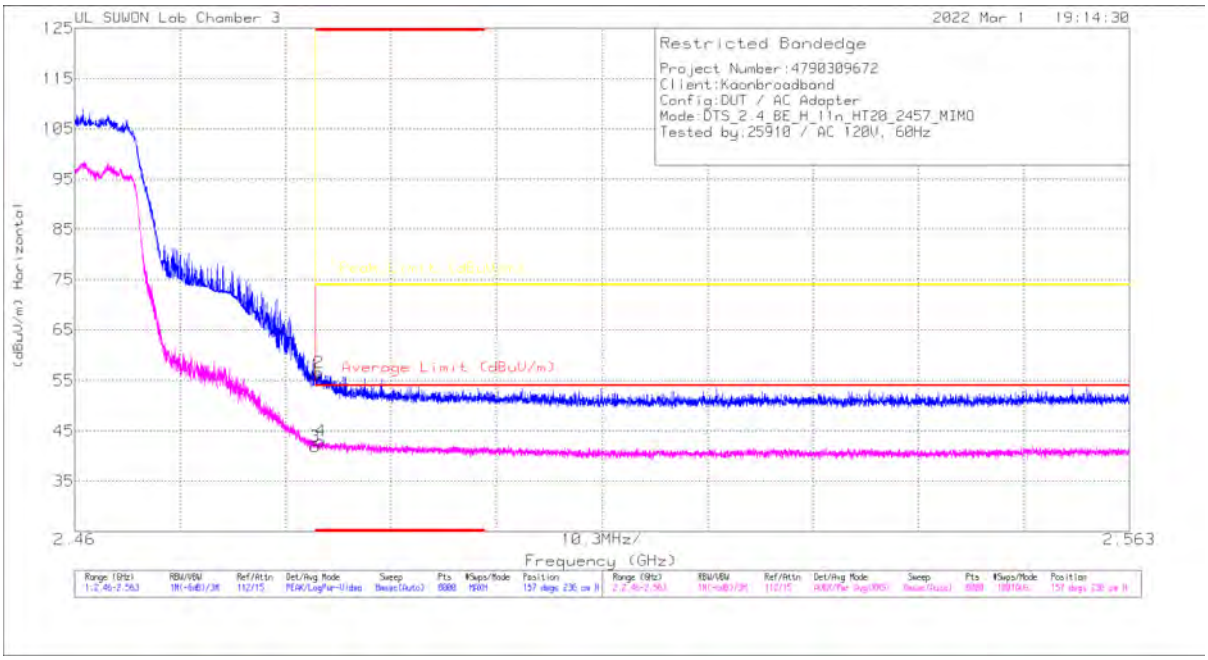
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	46.74	Pk	32.9	-25.3	54.34	-	-	74	-19.66	299	102	V
2	* 2.49102	47.79	Pk	32.9	-25.2	55.49	-	-	74	-18.51	299	102	V
3	* 2.4835	36.77	RMS	32.9	-25.3	44.37	54	-9.63	-	-	299	102	V
4	* 2.48444	36.92	RMS	32.9	-25.3	44.52	54	-9.48	-	-	299	102	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

802.11n HT20_MIMO CH10

HORIZONTAL RESULT



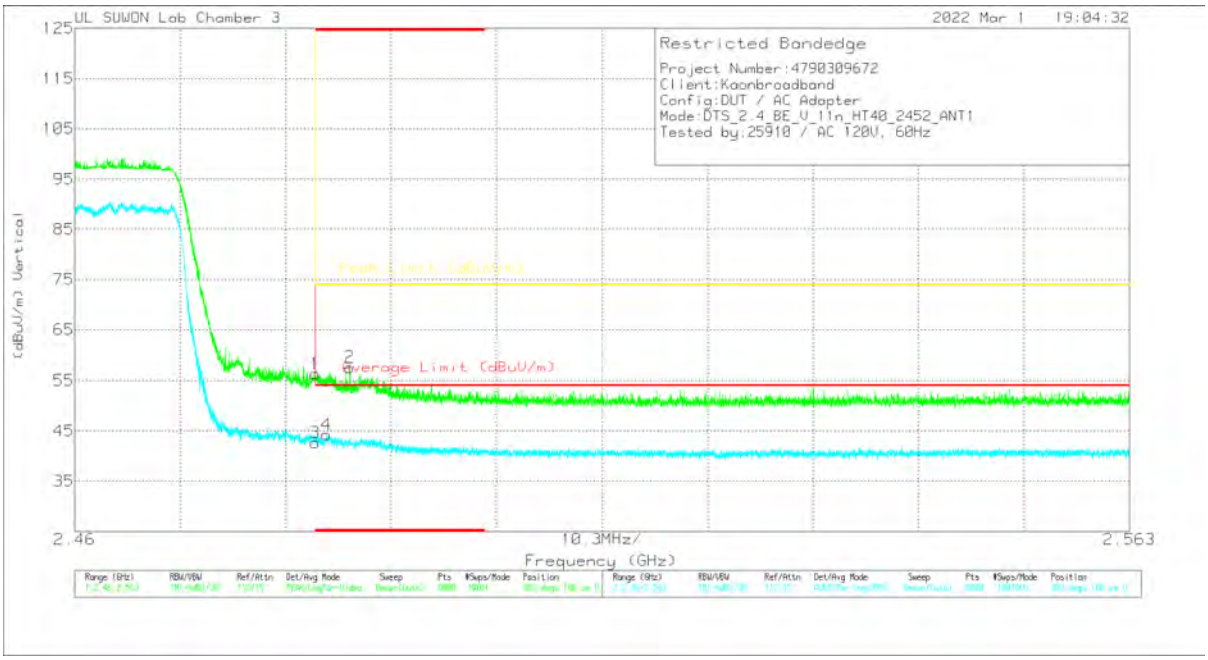
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	48.55	Pk	32.9	-25.3	56.15	-	-	74	-17.85	157	236	H
2	* 2.48387	48.97	Pk	32.9	-25.3	56.57	-	-	74	-17.43	157	236	H
3	* 2.4835	34.28	RMS	32.9	-25.3	41.88	54	-12.12	-	-	157	236	H
4	* 2.48405	35.42	RMS	32.9	-25.3	43.02	54	-10.98	-	-	157	236	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

802.11n HT40_ANT1_CH9

VERTICAL RESULT



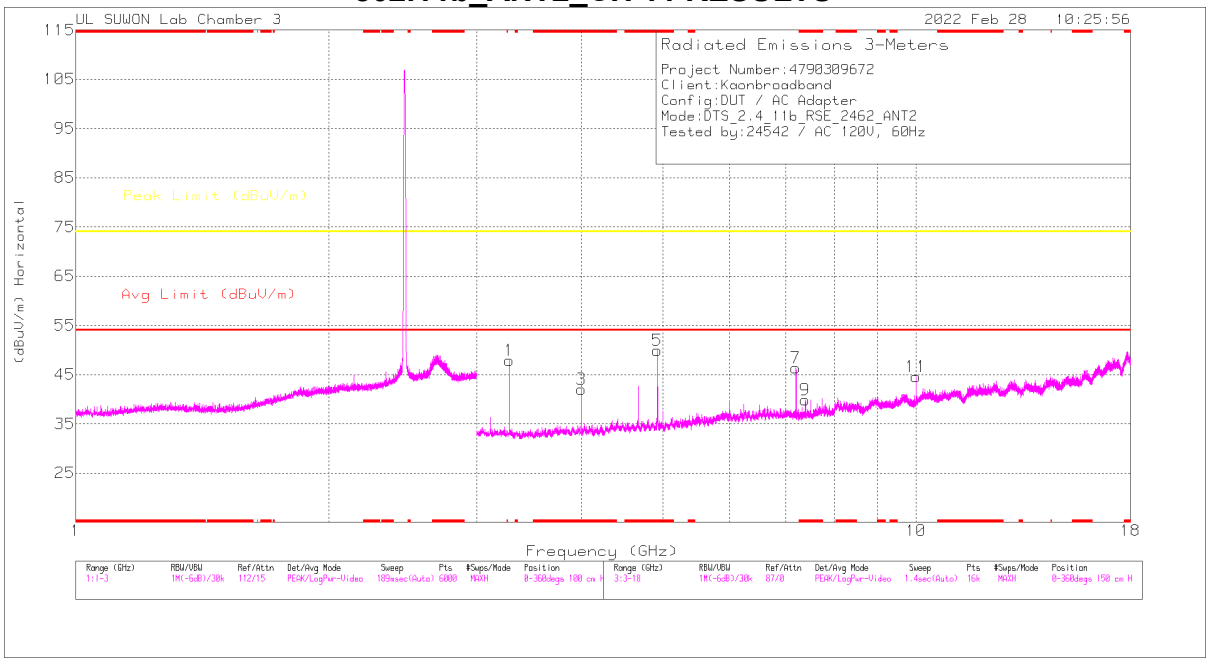
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.4835	48.75	Pk	32.9	-25.3	56.35	-	-	74	-17.65	303	106	V
2	* 2.48689	50.07	Pk	32.9	-25.3	57.67	-	-	74	-16.33	303	106	V
3	* 2.4835	35.03	RMS	32.9	-25.3	42.63	54	-11.37	-	-	303	106	V
4	* 2.48461	36.68	RMS	32.9	-25.3	44.28	54	-9.72	-	-	303	106	V

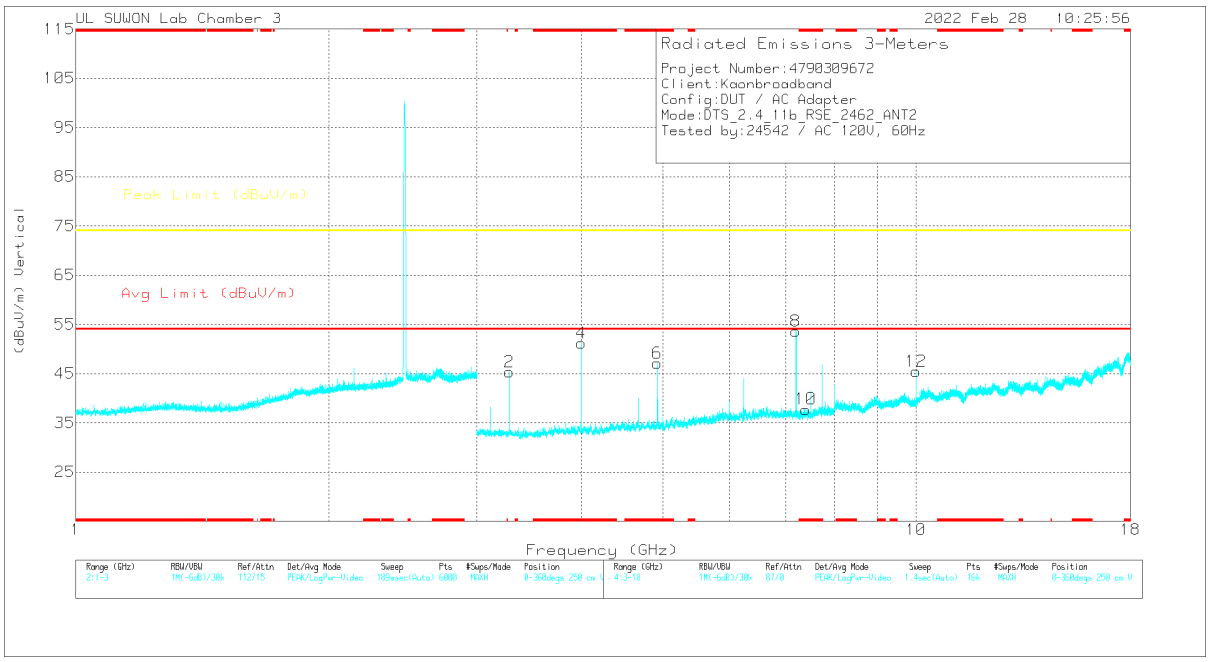
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

➢ HARMONICS AND SPURIOUS EMISSIONS

802.11b_ANT2_CH 11 RESULTS



HORIZONTAL



VERTICAL

Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

DATA

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	3GHz_HP[dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3.2827	49.61	PK2	33.4	-32.7	50.31	-	-	74	-23.69	302	220	H
* 4.00003	47.48	PK2	33.9	-31.3	50.08	-	-	74	-23.92	315	387	H
* 3.99993	43.43	MAv1	33.9	-31.3	46.03	54	-7.97	-	-	315	387	H
* 4.92401	48.88	PK2	34.7	-30.9	52.68	-	-	74	-21.32	359	172	H
* 4.92398	45.54	MAv1	34.7	-30.9	49.34	54	-4.66	-	-	359	172	H
7.20015	39.82	PK2	36.1	-25.5	50.42	-	-	74	-23.58	341	100	H
* 7.38548	36.64	PK2	36	-24.4	48.24	-	-	74	-25.76	181	176	H
* 7.38526	26.04	MAv1	36	-24.4	37.64	54	-16.36	-	-	181	176	H
9.99999	35.2	PK2	37.9	-21.1	52	-	-	74	-22	13	100	H
3.28266	49.12	PK2	33.4	-32.7	49.82	-	-	74	-24.18	310	400	V
* 4.00004	50.81	PK2	33.9	-31.3	53.41	-	-	74	-20.59	10	105	V
* 4	48.69	MAv1	33.9	-31.3	51.29	54	-2.71	-	-	10	105	V
* 4.92386	43.99	PK2	34.7	-30.9	47.79	-	-	74	-26.21	1	112	V
* 4.92394	36.62	MAv1	34.7	-30.9	40.42	54	-13.58	-	-	1	112	V
7.20005	44.12	PK2	36.1	-25.5	54.72	-	-	74	-19.28	16	106	V
* 7.39192	34.69	PK2	36	-24.4	46.29	-	-	74	-27.71	131	106	V
* 7.39429	23.37	MAv1	36	-24.4	34.97	54	-19.03	-	-	131	106	V
9.99999	35.53	PK2	37.9	-21.1	52.33	-	-	74	-21.67	304	104	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

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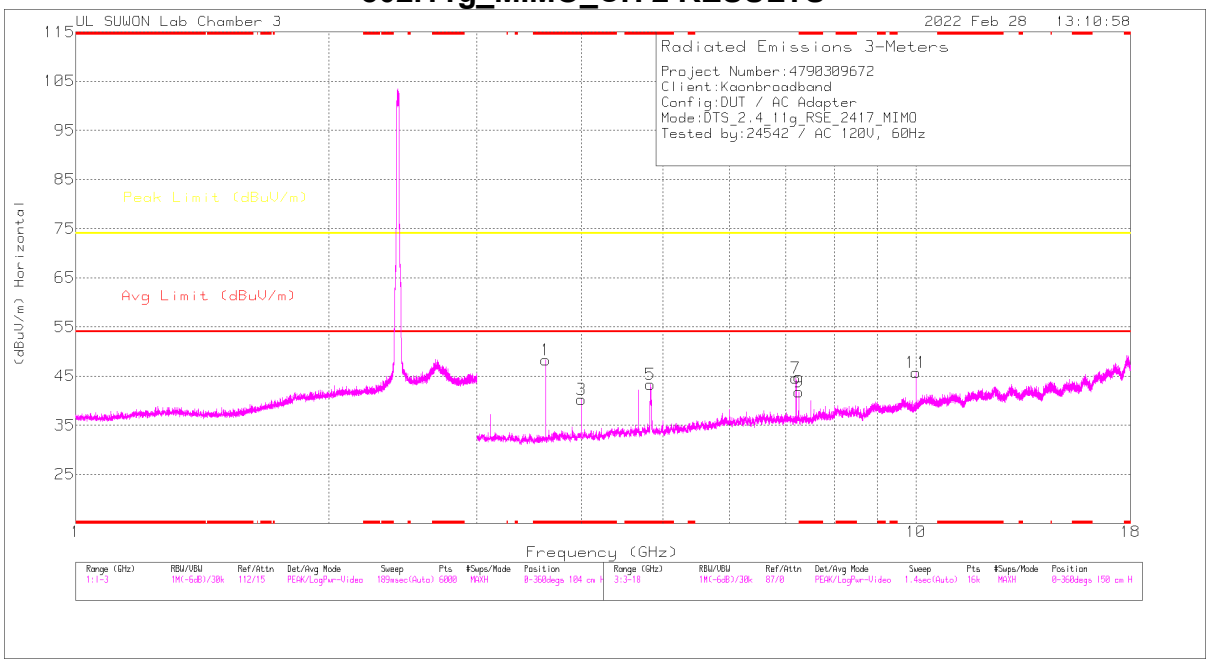
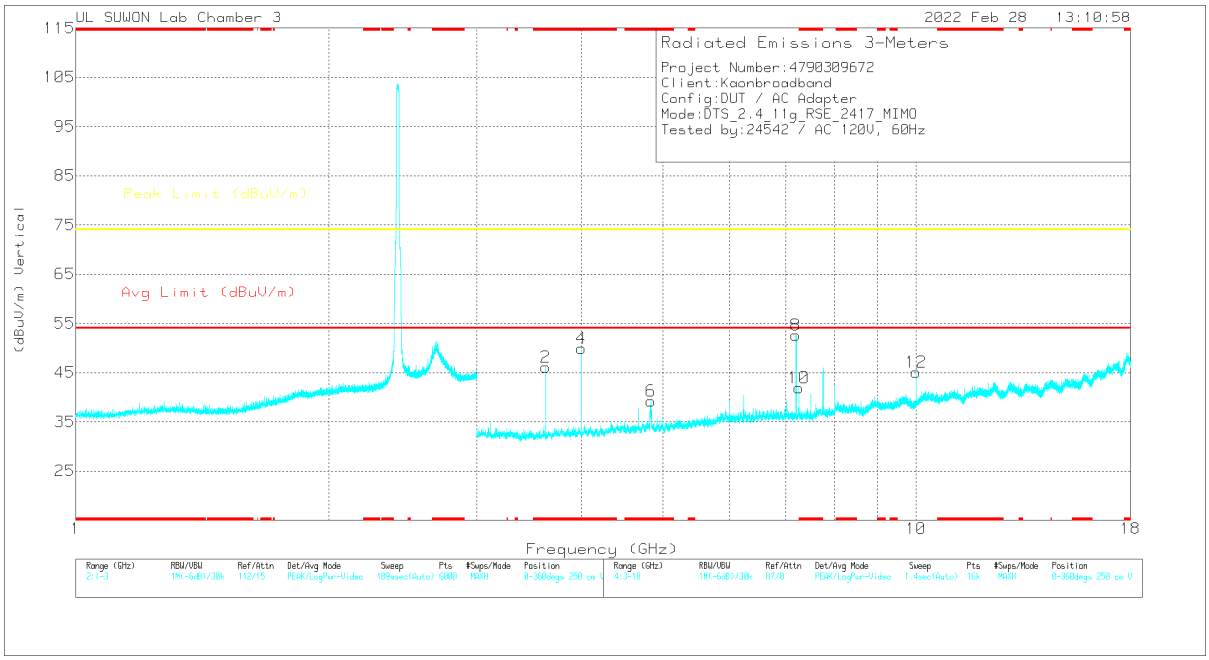
802.11g_MIMO_CH 2 RESULTS



HORIZONTAL



VERTICAL

Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

DATA

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	3GHz_HP[dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.8333	50.31	PK2	34.6	-30.4	54.51	-	-	74	-19.49	196	282	H
* 4.83432	38.29	MAv1	34.6	-30.4	42.49	54	-11.51	-	-	196	282	H
7.24951	39.88	PK2	36	-25.5	50.38	-	-	74	-23.62	85	117	H
* 7.25088	27.64	MAv1	36	-25.4	38.24	54	-15.76	-	-	85	117	H
* 4.83335	44.42	PK2	34.6	-30.4	48.62	-	-	74	-25.38	204	119	V
* 4.83387	32.53	MAv1	34.6	-30.4	36.73	54	-17.27	-	-	204	119	V
7.24956	44.63	PK2	36	-25.5	55.13	-	-	74	-18.87	227	112	V
7.24943	31.12	MAv1	36	-25.5	41.62	-	-	-	-	227	112	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

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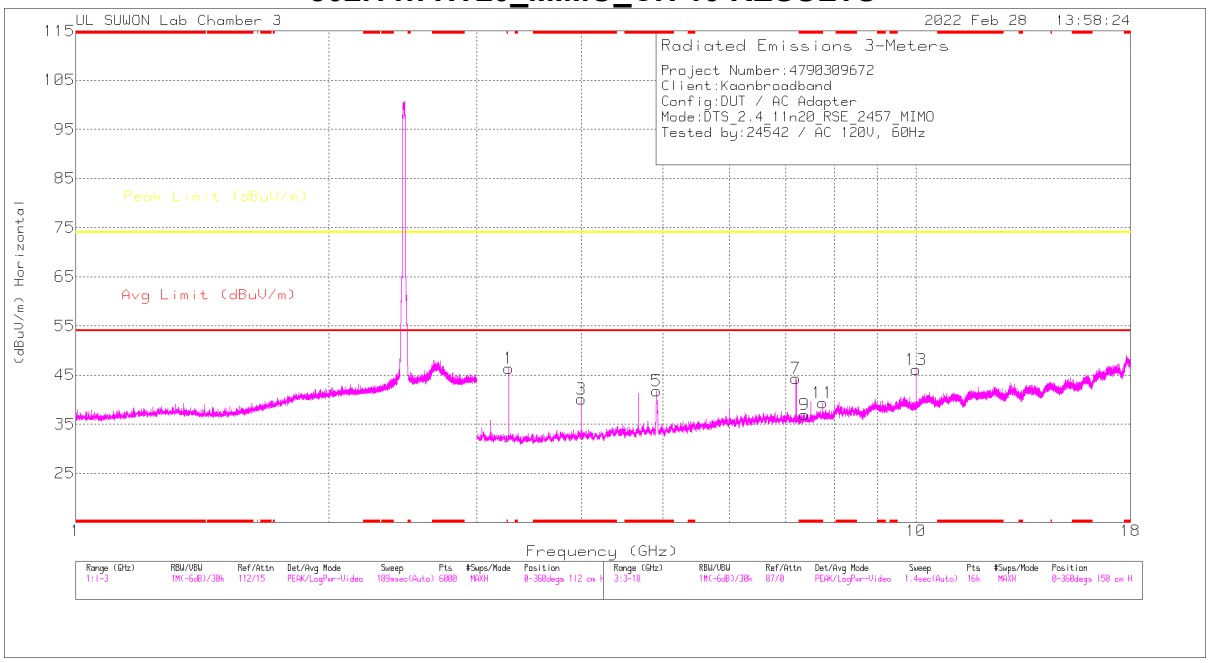
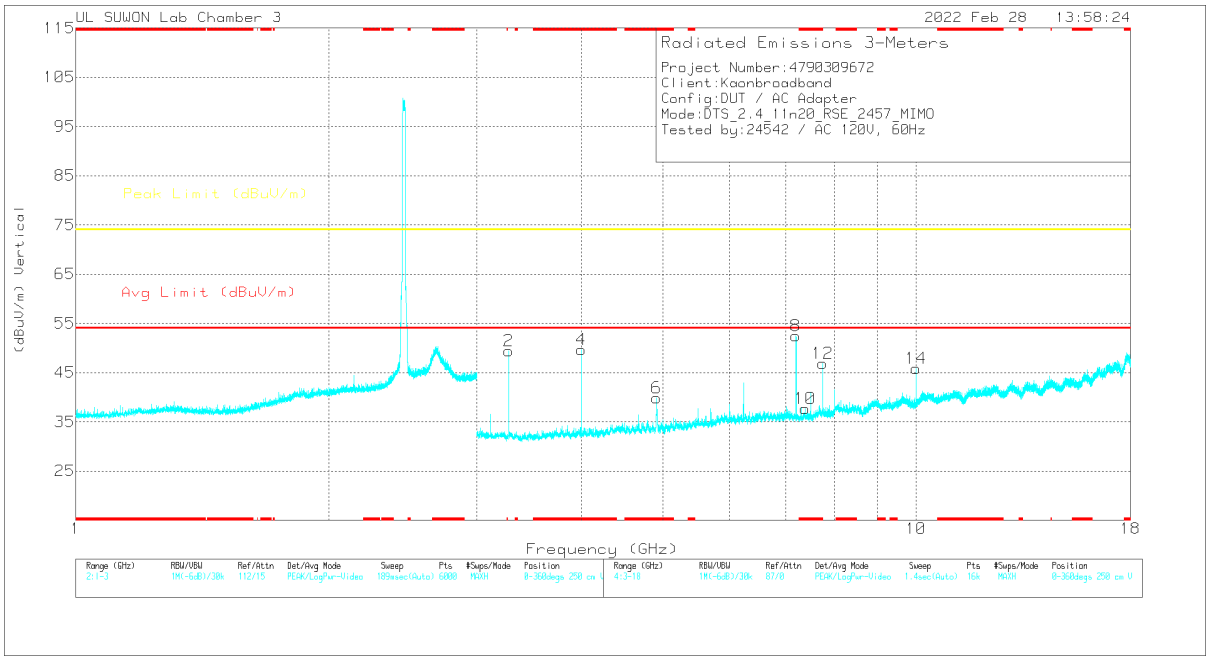
802.11n HT20_MIMO_CH 10 RESULTS



HORIZONTAL



VERTICAL

Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

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DATA

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	3GHz_HP[dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.91953	47.87	PK2	34.7	-30.9	51.67	-	-	74	-22.33	354	280	H
* 4.91423	36.38	MAv1	34.7	-30.9	40.18	54	-13.82	-	-	354	280	H
* 7.36405	36.53	PK2	36	-24.8	47.73	-	-	74	-26.27	152	119	H
* 7.36565	24.79	MAv1	36	-24.8	35.99	54	-18.01	-	-	152	119	H
* 7.74887	36.1	PK2	36.3	-23.6	48.8	-	-	74	-25.2	192	100	H
* 7.74879	26.71	MAv1	36.3	-23.6	39.41	54	-14.59	-	-	192	100	H
* 4.91411	42.55	PK2	34.7	-30.9	46.35	-	-	74	-27.65	359	100	V
* 4.91405	31.35	MAv1	34.7	-30.9	35.15	54	-18.85	-	-	359	100	V
* 7.36855	39.38	PK2	36	-24.7	50.68	-	-	74	-23.32	227	103	V
* 7.37001	25.96	MAv1	36	-24.7	37.26	54	-16.74	-	-	227	103	V
* 7.74885	39.36	PK2	36.3	-23.6	52.06	-	-	74	-21.94	349	129	V
* 7.74882	33.48	MAv1	36.3	-23.6	46.18	54	-7.82	-	-	349	129	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

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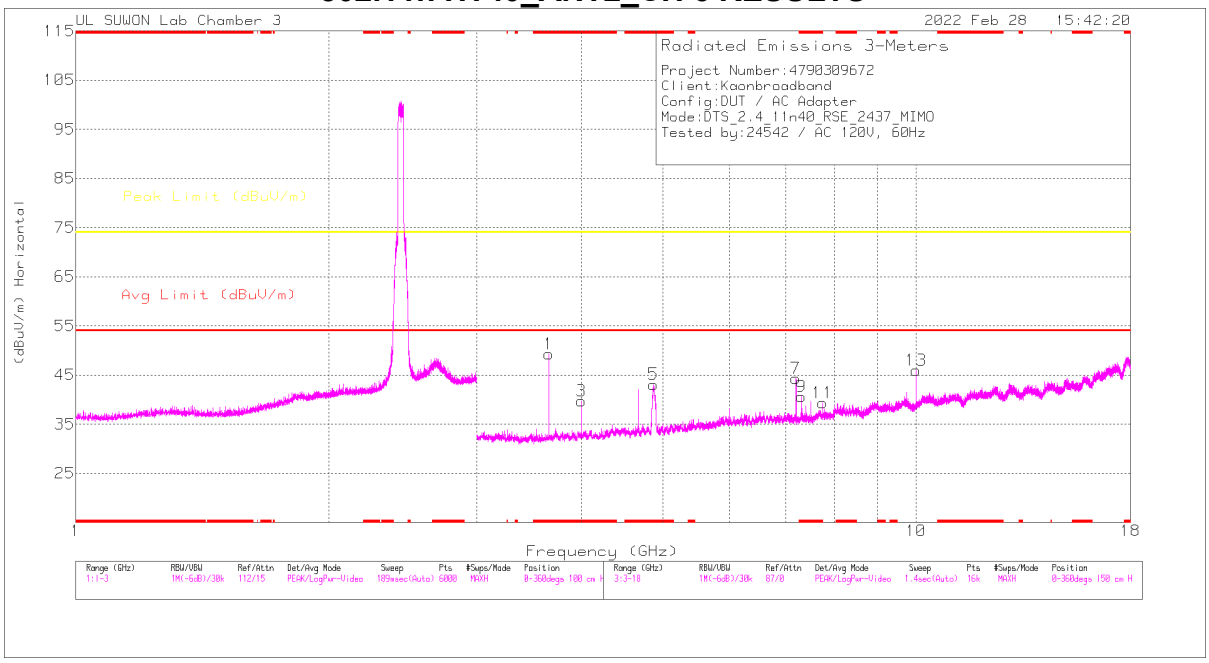
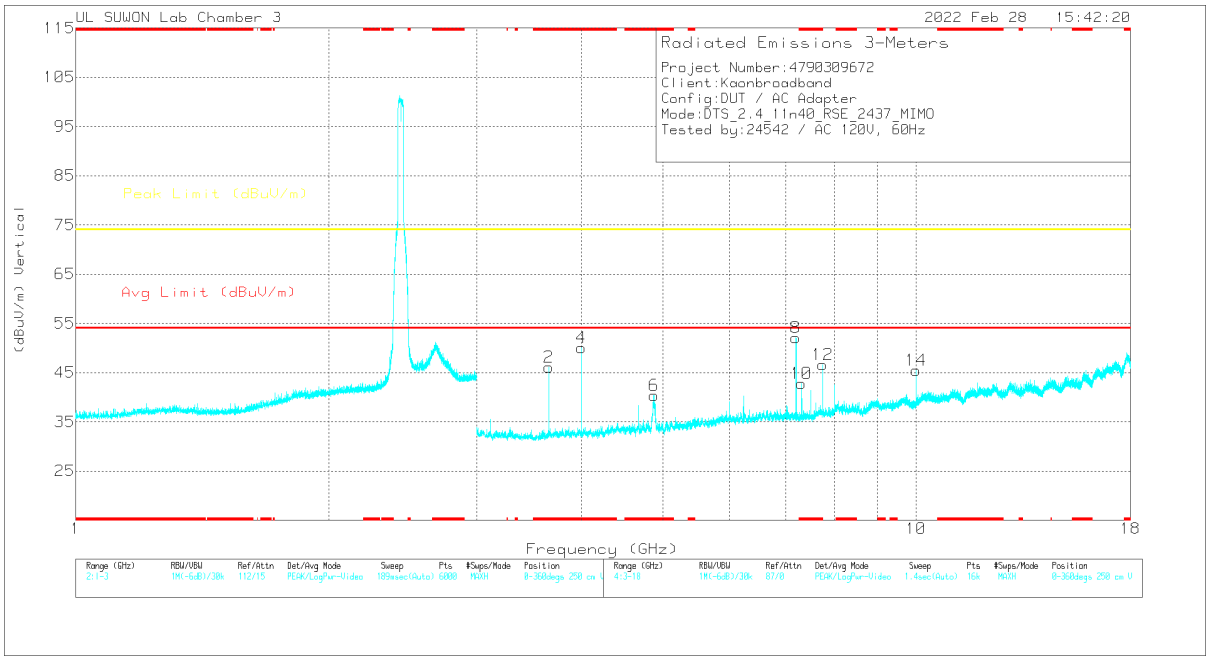
802.11n HT40_ANT2_CH 6 RESULTS



HORIZONTAL



VERTICAL

Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

DATA

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	3GHz_HP[dB]	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 3.65558	50.44	PK2	33.6	-32.4	51.64	-	-	74	-22.36	303	250	H
* 3.65553	47.63	MAv1	33.6	-32.4	48.83	54	-5.17	-	-	303	250	H
* 4.8715	50.64	PK2	34.6	-30.7	54.54	-	-	74	-19.46	353	318	H
* 4.87383	38.23	MAv1	34.6	-30.8	42.03	54	-11.97	-	-	353	318	H
* 7.3072	36.33	PK2	36	-25.2	47.13	-	-	74	-26.87	183	130	H
* 7.31087	24.88	MAv1	36	-25.1	35.78	54	-18.22	-	-	183	130	H
* 3.65542	48.98	PK2	33.6	-32.4	50.18	-	-	74	-23.82	342	237	V
* 3.65549	45.35	MAv1	33.6	-32.4	46.55	54	-7.45	-	-	342	237	V
* 4.87159	48.43	PK2	34.6	-30.7	52.33	-	-	74	-21.67	224	243	V
* 4.87407	35.43	MAv1	34.6	-30.8	39.23	54	-14.77	-	-	224	243	V
* 7.31115	38.39	PK2	36	-25.1	49.29	-	-	74	-24.71	17	148	V
* 7.31106	31.48	MAv1	36	-25.1	42.38	54	-11.62	-	-	17	148	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

END OF TEST REPORT

UL Korea, Ltd. Suwon Laboratory FORM ID: FCC_15C(04)
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