



FCC / IC & Test Report

FOR:

Pratt & Whitney, division of RTX

Model Name:

HMU200-2

Product Description:

Collection of aircraft engine and airframe data in flight and wireless transmission of collected data on ground

FCC ID: 2AQWD-HMU200-2

IC ID: 25562-HMU2002

Applied Rules and Standards:

47 CFR Parts 22, 24, 27 and 90

RSS: 130 Issue 2, 132 Issue 3, 133 Issue 6, 139 Issue 3, 199 Issue 3

REPORT #: EMC_PRATT-009-21001_FCC_22_24_27_90_Rev1

DATE: 2022-03-16



A2LA Accredited

IC recognized #
3462B-1

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TABLE OF CONTENTS

1	ASSESSMENT	3
2	ADMINISTRATIVE DATA	4
2.1	IDENTIFICATION OF THE TESTING LABORATORY ISSUING THE EMC TEST REPORT	4
2.2	IDENTIFICATION OF THE CLIENT	4
2.3	IDENTIFICATION OF THE MANUFACTURER.....	4
3	EQUIPMENT UNDER TEST (EUT).....	5
3.1	EUT SPECIFICATIONS	5
3.2	EUT SAMPLE DETAILS	6
3.3	ACCESSORY EQUIPMENT (AE) DETAILS.....	6
3.4	TEST SAMPLE CONFIGURATION	6
3.5	MODE OF OPERATION DETAILS	7
3.6	JUSTIFICATION FOR WORST CASE MODE OF OPERATION.....	8
4	SUBJECT OF INVESTIGATION	8
4.1	DATES OF TESTING:	8
4.2	MEASUREMENT UNCERTAINTY	8
4.3	ENVIRONMENTAL CONDITIONS DURING TESTING:	8
5	MEASUREMENT PROCEDURES.....	9
5.1	RADIATED MEASUREMENT.....	9
5.2	SAMPLE CALCULATIONS FOR FIELD STRENGTH MEASUREMENTS	11
6	MEASUREMENT RESULTS SUMMARY	12
6.1	PART 22 / RSS-132	12
6.2	PART 24 / RSS-133	12
6.3	FCC 27, 90 / RSS-130, RSS-139, RSS-199	13
6.4	MODULE SUMMARY.....	14
7	TEST RESULT DATA	15
7.1	RADIATED SPURIOUS EMISSIONS.....	15
8	TEST SETUP PHOTOS	157
9	TEST EQUIPMENT AND ANCILLARIES USED FOR TESTING	157
10	REVISION HISTORY	158

1 Assessment

The following device as further described in section 3 of this report was evaluated against the applicable criteria specified in the Code of Federal Regulations Title 47 parts 22, 24, 27, 90, and Industry Canada Standards RSS-GEN issue 5, RSS-130 Issue 2, RSS-132 issue 3, RSS-133 issue 6, RSS-139 issue 3 and RSS-199 Issue 3.

No deficiencies were ascertained.

Company Name	Product Description	Model #
Pratt & Whitney, division of RTX	Collection of aircraft engine and airframe data in flight and wireless transmission of collected data on ground	HMU200-2

Responsible for Testing Laboratory:

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Date	Section	Name	Signature

Responsible for the Report:

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Date	Section	Name	Signature

The test results of this test report relate exclusively to the test item specified in Section 3.

CETECOM Inc. USA does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of CETECOM Inc. USA.

2 Administrative Data

2.1 Identification of the Testing Laboratory Issuing the EMC Test Report

Company Name:	CETECOM Inc.
Department:	Compliance
Street Address:	411 Dixon Landing Road
City/Zip Code	Milpitas, CA 95035
Country	USA
Telephone:	+1 (408) 586 6200
Fax:	+1 (408) 586 6299
EMC Lab Manager:	Kevin Wang
Responsible Project Leader:	Cathy Palacios

2.2 Identification of the Client

Client's Name:	Pratt & Whitney, division of RTX
Street Address:	400 Main Street, MS 168-15
City/Zip Code	East Hartford, CT 06118
Country	USA

2.3 Identification of the Manufacturer

Manufacturer's Name:	Collins Aerospace & Setrix
Manufacturers Address:	400 Main Street, MS 168-15
City/Zip Code	East Hartford, CT 06118
Country	USA

3 Equipment Under Test (EUT)

3.1 EUT Specifications

Model Name:	HMU200-2
Marketing Name:	eFAST
HW Version :	5
SW Version :	1.28.6
FCC-ID :	2AQWD-HMU200-2
IC-ID:	25562-HMU2002
FWIN:	N/A
HVIN:	HMU200-2
PMN:	eFAST
Product Description:	Collection of aircraft engine and airframe data in flight and wireless transmission of collected data on ground
Transceiver Technology / Type(s) of Modulation	Module: THALES PLS83-W FCC ID: QIPPLS83-W; IC ID: 7830A-PLS83W; 4G: FDD LTE Bands 2, 4, 5, 7, 12, 13, 26, 41, 66 3G: UMTS FDD Bands II, IV, V 2G: GSM 850, 1900 MHz
Frequency Range	LTE Band 2: 1850 – 1910 MHz LTE Band 4: 1710 – 1755 MHz LTE Band 5: 824 – 849 MHz LTE Band 7: 2500 – 2570 MHz LTE Band 12: 699 – 716 MHz LTE Band 13: 777 – 787 MHz LTE Band 26: 814 – 849 MHz LTE Band 41: 2496 – 2690 MHz LTE Band 66: 1710 – 1780 MHz UMTS Band II: 1850 – 1910 MHz UMTS Band IV: 1710 – 1732.5 MHz UMTS Band V: 824 – 849 MHz GSM850: 824.2 – 848.8 MHz GSM1900: 1850.2 – 1909.8 MHz
Antenna Info:	Cellular: Antenna Type: Multiband Omnidirectional Antenna gain(dBi): • WCDMA Band II: 3 • WCDMA Band IV: 3 • WCDMA Band V: 1.5

	• LTE Band 2: 3 • LTE Band 4: 3 • LTE Band 7: 4.5 • LTE Band 12: 3 • LTE Band 13: 1.5 • LTE Band 41: 4.5 • LTE Band 66: 3 • GSM 850: 1.5 • GSM 1900: 3
Other Radios included in the device:	WLAN
Power Supply/ Rated Operating Voltage Range	Vmin: 23.8 VDC/ Vnom: 28 VDC / Vmax: 32.2 VDC
Operating Temperature Range	-30°C to 70 °C
Sample Revision	☐ Prototype Unit; ☐ Production Unit; ☒ Pre-Production

3.2 EUT Sample details

EUT #	Serial Number	HW Version	SW Version	Comments
1	5011087	5	1.28.6	Radiated

3.3 Accessory Equipment (AE) details

N/A

3.4 Test Sample Configuration

Set-up #	EUT / AE used for set-up	Comments
1	EUT#1	Radiated RF measurements were performed with EUT configured via customer provided scripts.

3.5 Mode of Operation details

Mode of Operation	Description of Operating modes	Additional Information
Op. 1	Cellular and WiFi 802.11b Co-Transmission	Cellular was tested on Low, Mid, High Channels at maximum power in a co-transmission mode WiFi radio was configured to 802.11b Mid channel using special scripts provided by the client that will not be available to the end user

3.6 Justification for Worst Case Mode of Operation

During the testing process the EUT was tested with transmitter sets on low, mid and high channels at the maximum power simultaneous transmission with WiFi radio 802.11b, which is the worst case of the radios supported, based on the maximum average conducted output power from the reports.

For radiated measurements, all data in this report shows the worst case between horizontal and vertical antenna polarizations and for all orientations of the EUT.

4 Subject of Investigation

The objective of the measurements done by CETECOM Inc. was to evaluate the compliance of the EUT against the relevant requirements specified in the Code of Federal Regulations Title 47 parts 22, 24, 27, 90 and ISSED Standards RSS-GEN issue 5, RSS-130 Issue 2, RSS-132 issue 3, RSS-133 issue 6, RSS-139 issue 3 and RSS-199 Issue 3.

4.1 Dates of Testing:

1/13/2022 - 1/18/2022

4.2 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus, with 95% confidence interval (in dB delta to result), based on a coverage factor k=1.

Measurement System	EMC 1	EMC 2
Conducted emissions (mains port)	1.12 dB	0.46 dB
Radiated emissions		
(< 30 MHz)	3.66 dB	3.88 dB
(30 MHz – 1GHz)	3.17 dB	3.34 dB
(1 GHz – 3 GHz)	5.01 dB	4.45 dB
(>3 GHz)	4.0 dB	4.79 dB

4.3 Environmental Conditions during Testing:

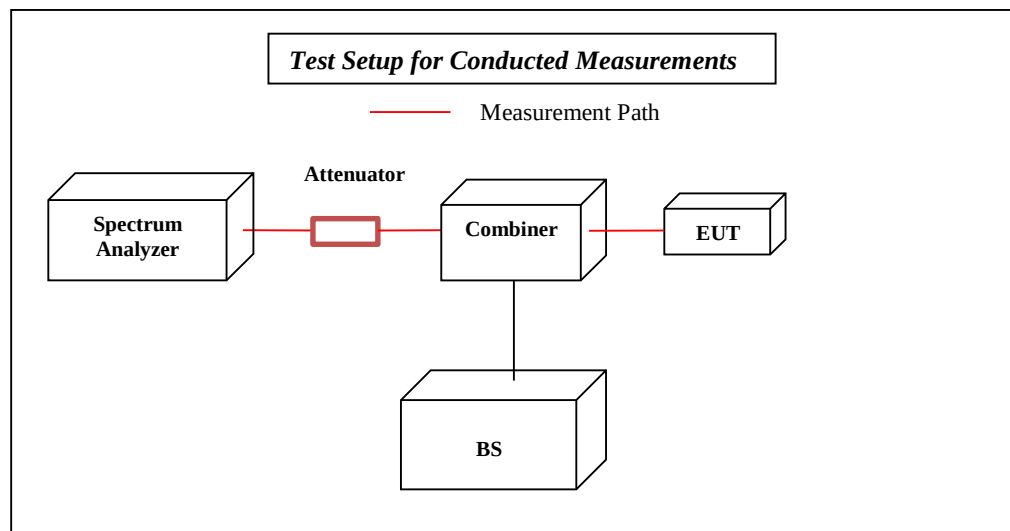
The following environmental conditions were maintained during the course of testing:

- Ambient Temperature: 20-25°C
- Relative humidity: 40-60%

Deviating test conditions are indicated at individual test description where applicable.

5 Measurement Procedures

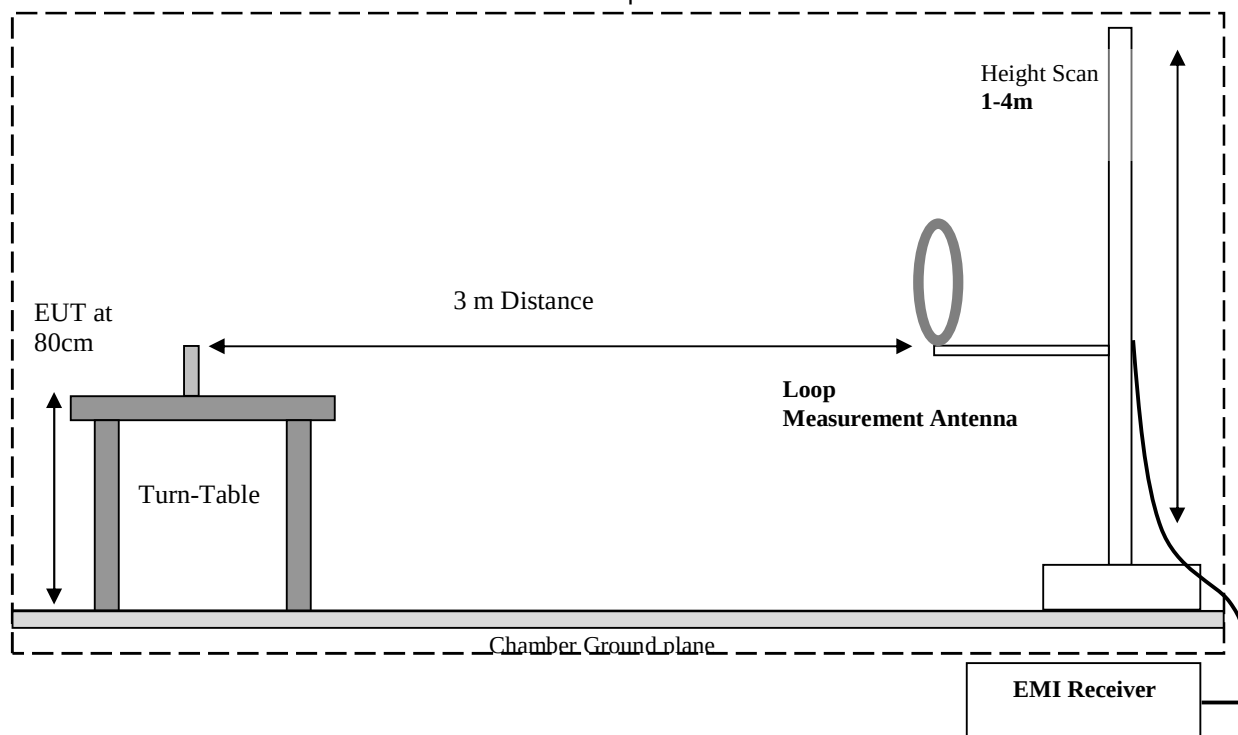
Testing is performed according to the guidelines provided in FCC publication (KDB) 971168 D01 v03r01 – “Measurement Guidance for Certification of Licensed Digital Transmitters” and according to relevant parts of ANSI/TIA-603-E (2016) as detailed below.



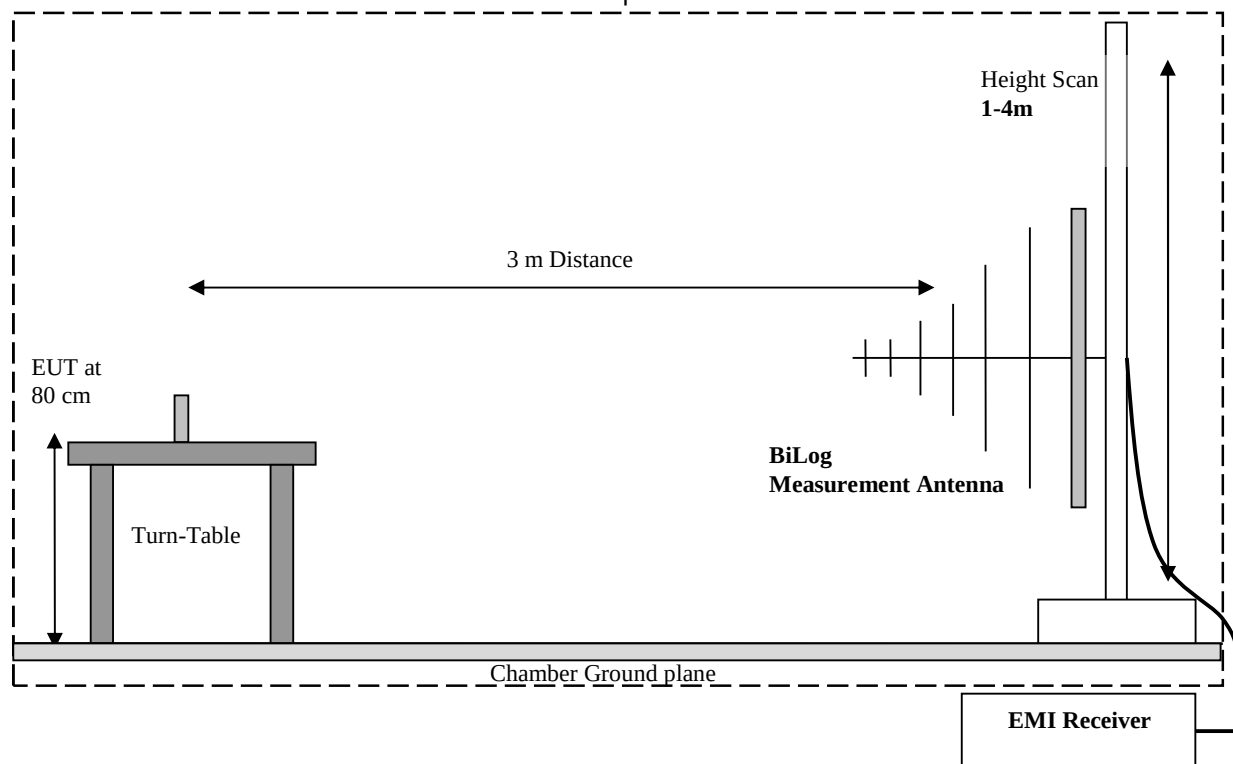
5.1 Radiated Measurement

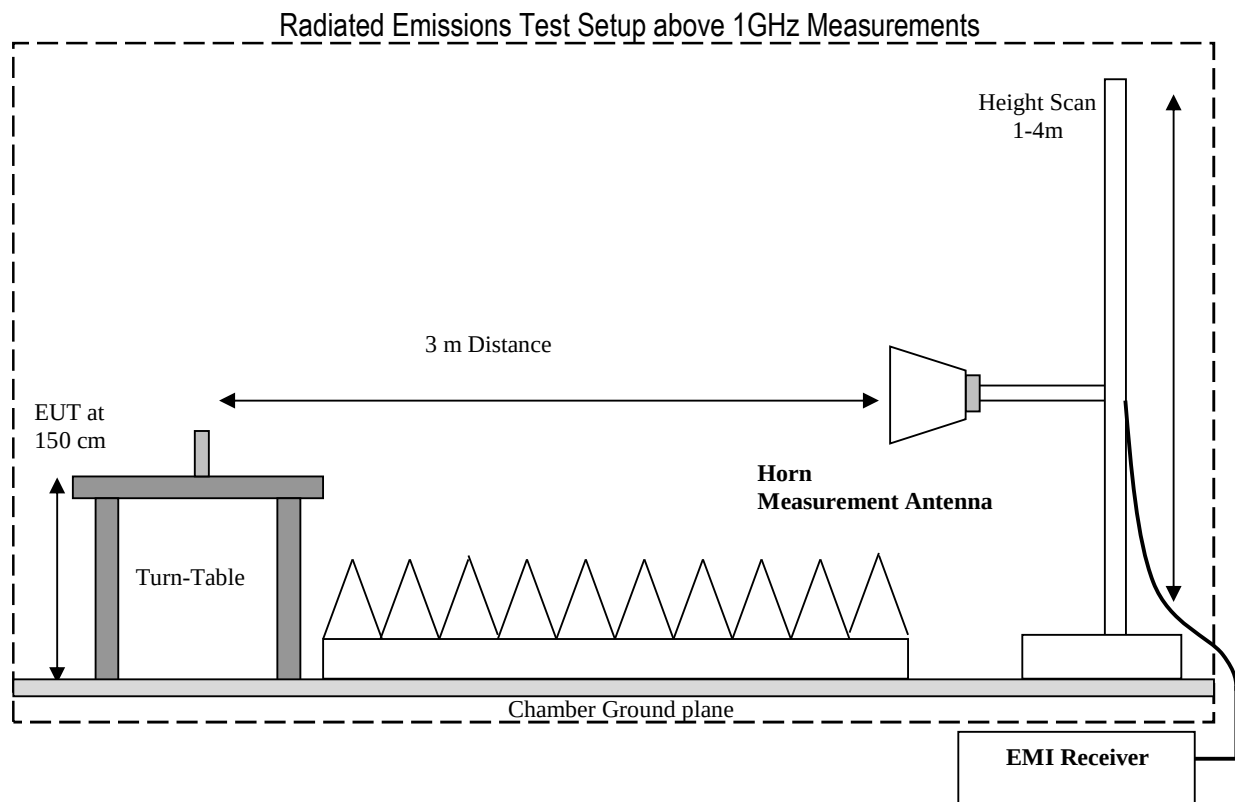
- The exploratory measurement is accomplished by running a matrix of 16 sweeps over the required frequency range with R&S Test-SW EMC32 for 4 positions of the turntable, two orthogonal positions of the EUT and both antenna polarizations. This procedure exceeds the requirement of the above standards to cover the 3 orthogonal axis of the EUT. A max peak detector is utilized during the exploratory measurement. The Test-SW creates an overall maximum trace for all 12 sweeps and saves the settings for each point of this trace. The maximum trace is part of the test report.
- The 10 highest emissions are selected with an automatic algorithm of EMC32 searching for peaks in the noise floor and ensuring that broadband signals are not selected multiple times.
- The maxima are then put through the final measurement and again maximized in a 90deg range of the turntable, fine search in frequency domain and height scan between 1m and 4m.
- The above procedure is repeated for all possible ways of power supply to EUT and for all supported modulations.
- In case there are no emissions above noise floor level only the maximum trace is reported as described above.
- The results are split up into up to 4 frequency ranges due to antenna bandwidth restrictions. A magnetic loop is used from 9 kHz to 30 MHz, a Biconilog antenna is used from 30 MHz to 1 GHz, and two different horn antennas are used to cover frequencies up to 40 GHz.

Radiated Emissions Test Setup below 30MHz Measurements



Radiated Emissions Test Setup 30MHz-1GHz Measurements





5.2 Sample Calculations for Field Strength Measurements

Field Strength is calculated from the Spectrum Analyzer/ Receiver readings, taking into account the following parameters:

- Measured reading in dB μ V
- Cable Loss between the receiving antenna and SA in dB and
- Antenna Factor in dB/m

All radiated measurement plots in this report are taken from a test SW that calculates the Field Strength based on the following equation:

$$FS \text{ (dB}\mu\text{V/m)} = \text{Measured Value on SA (dB}\mu\text{V)} + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$$

Example:

Frequency (MHz)	Measured SA (dB μ V)	Cable Loss (dB)	Antenna Factor Correction (dB)	Field Strength Result (dB μ V/m)
1000	80.5	3.5	14	98.0

6 Measurement Results Summary

6.1 Part 22 / RSS-132

Test Specification	Test Case	Temperature and Voltage Conditions	Mode	Pass	Fail	NA	NP	Result
§2.1046; §22.913 (a)	RF Output Power	Nominal	-	☐	☐	☐	☒	Complies Note 1 Note 2
§2.1055; §22.355	Frequency Tolerance	Extreme Temperature and Voltage	-	☐	☐	☐	☒	Complies Note 1 Note 2
§2.1049; §22.917	Occupied Bandwidth	Nominal	-	☐	☐	☐	☒	Complies Note 1 Note 2
§2.1051; §22.917	Band Edge Compliance	Nominal	-	☐	☐	☐	☒	Complies Note 1 Note 2
§2.1051; §22.917	Conducted Spurious Emissions	Nominal	-	☐	☐	☐	☒	Complies Note 1 Note 2
§2.1053; §22.917	Radiated Spurious Emissions	Nominal	Op. 1	☒	☐	☐	☐	Complies

Note 1: NA= Not Applicable; NP= Not Performed.

Note 2: Leveraged from module certification THALES PLS83-W (FCC ID: QIPPLS83-W; IC ID: 7830A-PLS83W)

6.2 Part 24 / RSS-133

Test Specification	Test Case	Temperature and Voltage Conditions	Mode	Pass	Fail	NA	NP	Result
§2.1046; §24.232 (a)	RF Output Power	Nominal	-	☐	☐	☐	☒	Complies Note 1 Note 2
§2.1055; §24.235	Frequency Stability	Extreme Temperature and Voltage	-	☐	☐	☐	☒	Complies Note 1 Note 2
§2.1049; §24.238	Occupied Bandwidth	Nominal	-	☐	☐	☐	☒	Complies Note 1 Note 2
§2.1051; §24.238	Band Edge Compliance	Nominal	-	☐	☐	☐	☒	Complies Note 1 Note 2
§2.1051; §24.238	Conducted Spurious Emissions	Nominal	-	☐	☐	☐	☒	Complies Note 1 Note 2
§2.1053; §24.238	Radiated Spurious Emissions	Nominal	Op. 1	☒	☐	☐	☐	Complies

Note 1: NA= Not Applicable; NP= Not Performed.

Note 2: Leveraged from module certification THALES PLS83-W (FCC ID: QIPPLS83-W; IC ID: 7830A-PLS83W)

6.3 FCC 27, 90 / RSS-130, RSS-139, RSS-199

Test Specification	Test Case	Temperature and Voltage Conditions	Mode	Pass	Fail	NA	NP	Result
§2.1046; §27.50	RF Output Power	Nominal	-	☐	☐	☐	☒	Complies Note 1 Note 2
§2.1055; §27.54	Frequency Stability	Extreme Temperature and Voltage	-	☐	☐	☐	☒	Complies Note 1 Note 2
§2.1049; §27.53	Occupied Bandwidth	Nominal	-	☐	☐	☐	☒	Complies Note 1 Note 2
§2.1051; §27.53	Band Edge Compliance	Nominal	-	☐	☐	☐	☒	Complies Note 1 Note 2
§2.1051; §27.53	Conducted Spurious Emissions	Nominal	-	☐	☐	☐	☒	Complies Note 1 Note 2
§2.1053; §27.53	Radiated Spurious Emissions	Nominal	Op. 1	☒	☐	☐	☐	Complies

Note 1: NA= Not Applicable; NP= Not Performed.

Note 2: Leveraged from module certification THALES PLS83-W (FCC ID: QIPPLS83-W; IC ID: 7830A-PLS83W)

6.4 Module Summary

Band	Frequency Range (MHz)	Power conducted (W)	Emission Designator	Antenna Gain + Cable loss (dBi)	gain linear	ERP < 1 GHz EIRP > 1 GHz (W)	Frequency deviation (ppm)	Limit ERP / EIRP (W)
GSM 850	824.2 - 848.8	2.2751	245KGXW	0.45	1.11	1.539	245KGXW	7 W
GSM 850	824.2 - 848.8	0.57412	243KG7W	0.45	1.11	0.388	243KG7W	7 W
GSM 1900	1850.2 - 1909.8	1.1885	244KGXW	1.38	1.37	1.633	244KGXW	2 W
GSM 1900	1850.2 - 1909.8	0.43351	246KG7W	1.38	1.37	0.596	246KG7W	2 W
WCDMA II	1852.4 - 1907.6	0.28314	4M14F9W	1.38	1.37	0.389	4M14F9W	1 W
WCDMA IV	1712.4 - 1752.6	0.26002	4M14F9W	1.33	1.36	0.353	4M14F9W	1 W
WCDMA V	826.4 - 846.6	0.28379	4M15F9W	0.45	1.11	0.192	4M15F9W	7 W
LTE B2	1860 - 1900	0.23281	17M9G7D	1.33	1.36	0.316	17M9G7D	2 W
LTE B2	1860 - 1900	0.23121	18M0W7D	1.33	1.36	0.314	18M0W7D	2 W
LTE B4	1710.7 - 1754.3	0.20701	1M11G7D	1.38	1.37	0.284	1M11G7D	1 W
LTE B4	1720 - 1745	0.19999	18M0G7D	1.33	1.36	0.272	18M0G7D	1 W
LTE B5	829 - 844	0.139	9M00G7D	0.45	1.11	0.094	9M00G7D	7 W
LTE B 7	2510 - 2560	0.19953	18M0G7D	2.60	1.82	0.363	18M0G7D	2 W
LTE B 7	2502.5 - 2567.5	0.20654	4M53W7D	2.60	1.82	0.376	4M53W7D	2 W
LTE B 12	699.7 - 715.3	0.15066	1M10G7D	0.56	1.14	0.105	1M10G7D	3 W
LTE B 12	704 - 711	0.14723	9M01G7D	0.56	1.14	0.102	9M01G7D	3 W
LTE B 13	782 - 782	0.13305	8M94G7D	0.49	1.12	0.091	8M94G7D	3 W
LTE B13	782 - 782	0.12474	8M96W7D	0.49	1.12	0.085	8M96W7D	3 W
LTE B 5	831.5 - 841.5	0.13459	13M5W7D	0.45	1.11	0.091	13M5W7D	7 W
LTE B 26	814.7 - 823.3	0.12764	1M11G7D	0.45	1.11	0.086	1M11G7D	100 W
LTE B 26	819 - 819	0.13335	8M95G7D	0.45	1.11	0.090	8M95G7D	100 W
LTE B 41	2545 - 2645	0.22699	18M0G7D	2.60	1.82	0.413	18M0G7D	2 W
LTE B 66	1715 - 1775	0.23227	8M99G7D	1.38	1.37	0.319	8M99G7D	1 W
LTE B 66	1720 - 1770	0.20184	17M9G7D	1.38	1.37	0.277	17M9G7D	1 W

The emissions above accounting antenna gain and cable loss are derived from the conducted Module reports for PLS83-W with FCC: QIPPLS83-W, IC: 7830A-PLS83W and named 200722013RFM-1 & 200722013RFM-2 from Shenzhen UnionTrust Quality and Technology Co., Lt

7 Test Result Data

7.1 Radiated Spurious Emissions

7.1.1 Measurement utilizing KDB 971168 D01 Power Meas License Digital Systems v03r01, and according to ANSI/TIA-603-E (2016)

Spectrum Analyzer Settings for FCC 22

Frequency Range	30MHz – 1 GHz	1 – 1.58 GHz	1.58 – 9 GHz
Resolution Bandwidth	100 kHz	1 MHz	1 MHz
Video Bandwidth	100 kHz	1 MHz	1 MHz
Detector	Peak	Peak	Peak
Trace Mode	Max Hold	Max Hold	Max Hold
Sweep Time	Auto	Auto	Auto

Spectrum Analyzer Settings for FCC 24 and 27

Frequency Range	30MHz – 1 GHz	1 – 2.7 GHz	2.7 – 18 GHz	18 – 19.1 GHz
Resolution Bandwidth	100 kHz	1 MHz	1 MHz	1 MHz
Video Bandwidth	100 kHz	1 MHz	1 MHz	1 MHz
Detector	Peak	Peak	Peak	Peak
Trace Mode	Max Hold	Max Hold	Max Hold	Max Hold
Sweep Time	Auto	Auto	Auto	Auto

7.1.2 Limits:

7.1.2.1 FCC Part 22.917 (a); FCC Part 24.238 (a); FCC Part 27.53 (h)

Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

7.1.2.2 RSS-130 Part 4.7, RSS-132 Part 5.5; RSS-133 Part 6.5; RSS-139 Part 6.6, RSS-199 Part 4.5 Transmitter Unwanted Emissions

Mobile and base station equipment shall comply with the limits in (i) and (ii) below.

i. In the first 1.0 MHz band immediately outside and adjacent to each of the sub-bands specified in Section 5.1, the power of emissions per any 1% of the occupied bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least $43 + 10 \log_{10} p$ (watts).

ii. After the first 1.0 MHz immediately outside and adjacent to each of the sub-bands, the power of emissions in any 100 kHz bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least $43 + 10 \log_{10} p$ (watts). If the measurement is performed using 1% of the occupied bandwidth, power integration over 100 kHz is required.

Note: The limit calculation result is a constant of -13 dBm.

7.1.3 Test conditions and setup:

Ambient Temperature (°C)	EUT Set-Up #	EUT operating mode	Power Input
22.0	1	Op. 1	28 VDC

7.1.4 Measurement result:

Plot #	Channel	EUT Set-Up #	EUT operating mode	Scan Frequency	Limit (dBm)	Result
1-3	Low	1	GSM 850	30 MHz – 9 GHz	-13	Pass
4-7	Mid			9 kHz – 9 GHz	-13	Pass
8-10	High			30 MHz – 9 GHz	-13	Pass
11-13	Low	1	GSM 1900	30 MHz – 18 GHz	-13	Pass
14-18	Mid			9 kHz – 22 GHz	-13	Pass
19-21	High			30 MHz – 18 GHz	-13	Pass
22-24	Low	1	UMTS Band II	30 MHz – 18 GHz	-13	Pass
25-29	Mid			9 kHz – 22 GHz	-13	Pass
30-32	High			30 MHz – 18 GHz	-13	Pass
33-35	Low	1	UMTS Band IV	30 MHz – 18 GHz	-13	Pass
36-39	Mid			9 kHz – 18 GHz	-13	Pass
40-42	High			30 MHz – 18 GHz	-13	Pass
43-45	Low	1	UMTS Band V	30 MHz – 9 GHz	-13	Pass
46-49	Mid			9 kHz – 9 GHz	-13	Pass
50-52	High			30 MHz – 9 GHz	-13	Pass
53-55	Low	1	LTE Band 2	30 MHz – 18 GHz	-13	Pass
56-60	Mid			9 kHz – 18 GHz	-13	Pass
61-63	High			30 MHz – 18 GHz	-13	Pass
64-66	Low	1	LTE Band 4	30 MHz – 18 GHz	-13	Pass
67-70	Mid			9 kHz – 18 GHz	-13	Pass
71-73	High			30 MHz – 18 GHz	-13	Pass
74-76	Low	1	LTE Band 5	30 MHz – 9 GHz	-13	Pass
77-80	Mid			9 kHz – 9 GHz	-13	Pass
81-83	High			30 MHz – 9 GHz	-13	Pass
84-86	Low	1	LTE Band 7	30 MHz – 18 GHz	-13	Pass
87-91	Mid			9 kHz – 30 GHz	-13	Pass
92-94	High			30 MHz – 18 GHz	-13	Pass
95-97	Low	1	LTE Band 12	30 MHz – 18 GHz	-13	Pass
98-101	Mid			9 kHz – 18 GHz	-13	Pass
102-104	High			30 MHz – 18 GHz	-13	Pass
105-108	Mid	1	LTE Band 13	9 kHz – 18 GHz	-13	Pass
109-111	Low	1	LTE Band 41	30 MHz – 18 GHz	-13	Pass
112-116	Mid			9 kHz – 30 GHz	-13	Pass
117-119	High			30 MHz – 18 GHz	-13	Pass
120-122	Low	1	LTE Band 66	30 MHz – 18 GHz	-13	Pass
123-126	Mid			9 kHz – 18 GHz	-13	Pass
127-129	High			30 MHz – 18 GHz	-13	Pass
130-132	Low	1	LTE Band 26	30 MHz – 18 GHz	-13	Pass
133-136	Mid			9 kHz – 18 GHz	-13	Pass

Test Report #: EMC_PRATT-009-21001_FCC_22_24_27_90_Rev1

FCC ID: 2AQWD-HMU200-2

Date of Report 2022-03-16

Page 17 of 158

IC ID: 25562-HMU2002



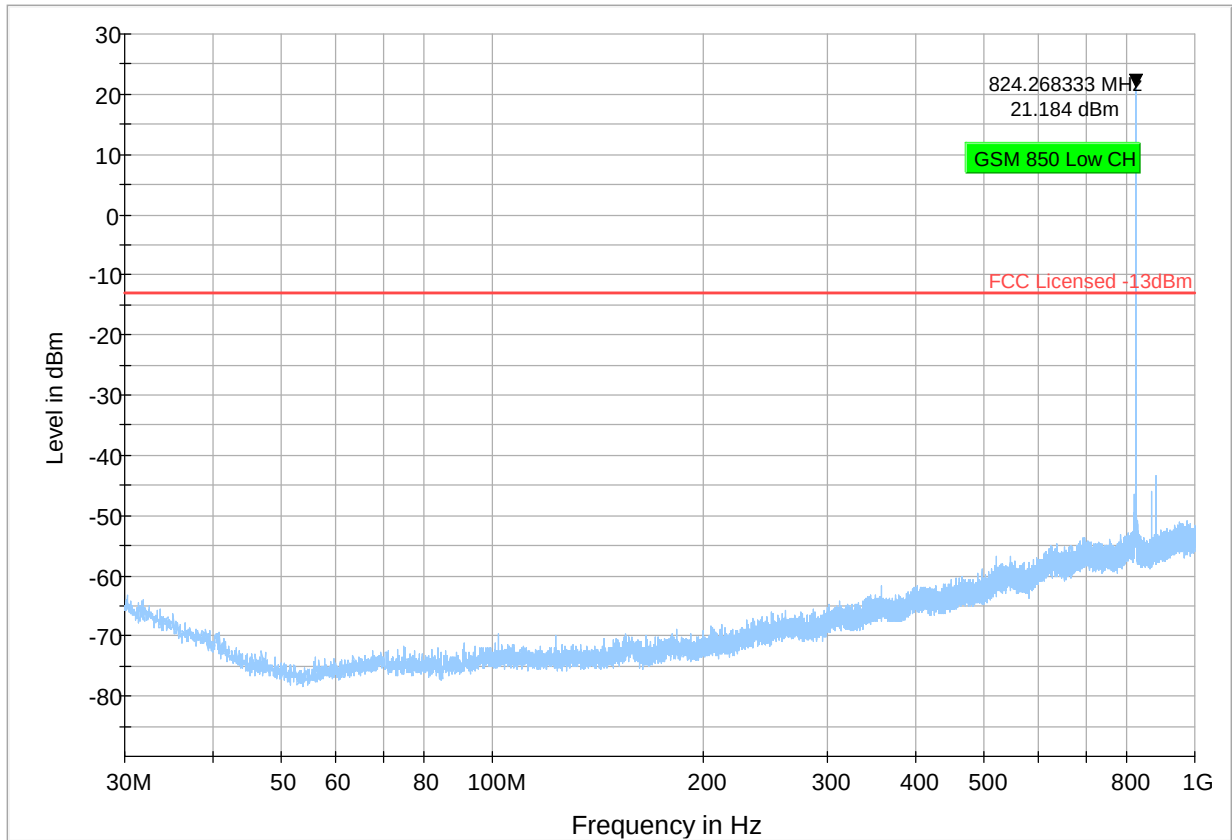
137-139	High		30 MHz – 18 GHz	-13	Pass
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7.1.5 Measurement Plots:

Plot #1 Radiated Emissions: 30 MHz – 1GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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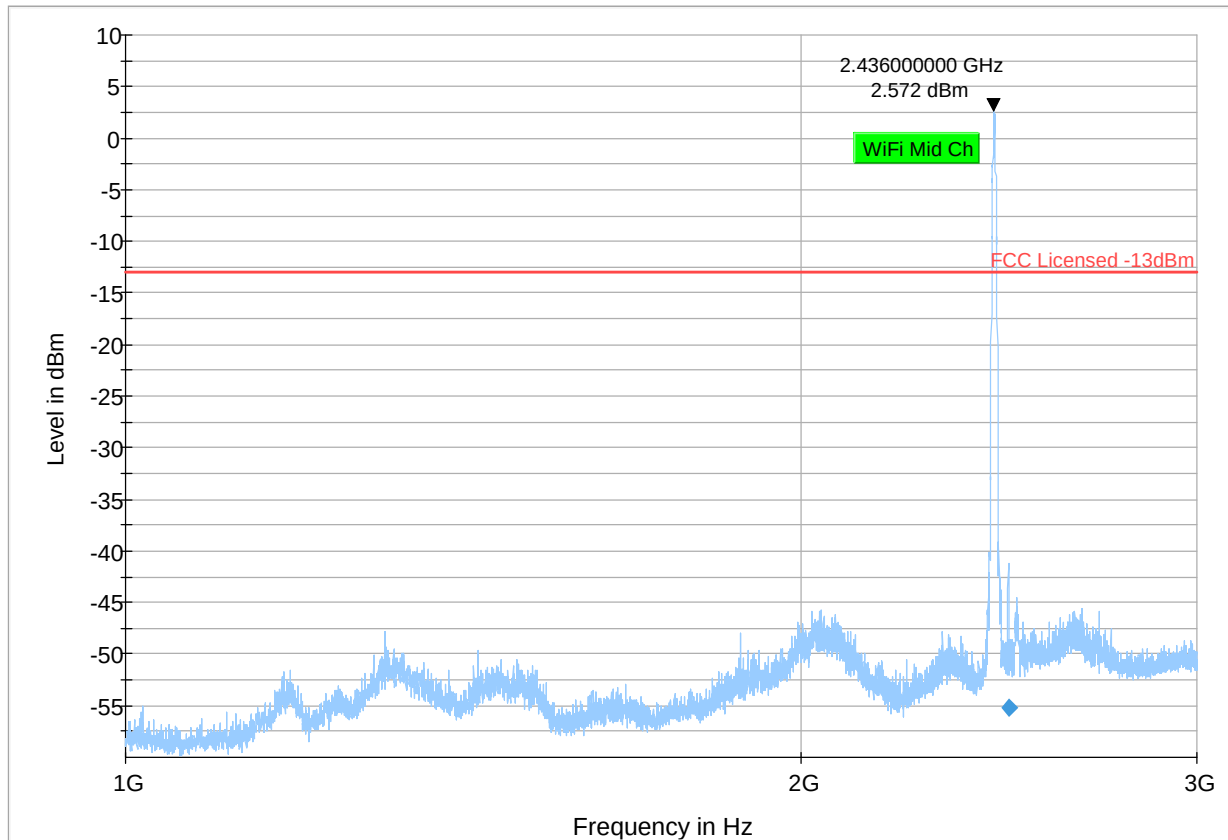


— Preview Result 1-PK+ * Critical_Freqs PK+ — FCC Licensed -13dBm ◆ Final_Result R

Plot # 2 Radiated Emissions: 1-3 GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
2472.500	-55.15	-13.00	42.15	500.0	1000.000	174.0	V	136.0	-86.2	

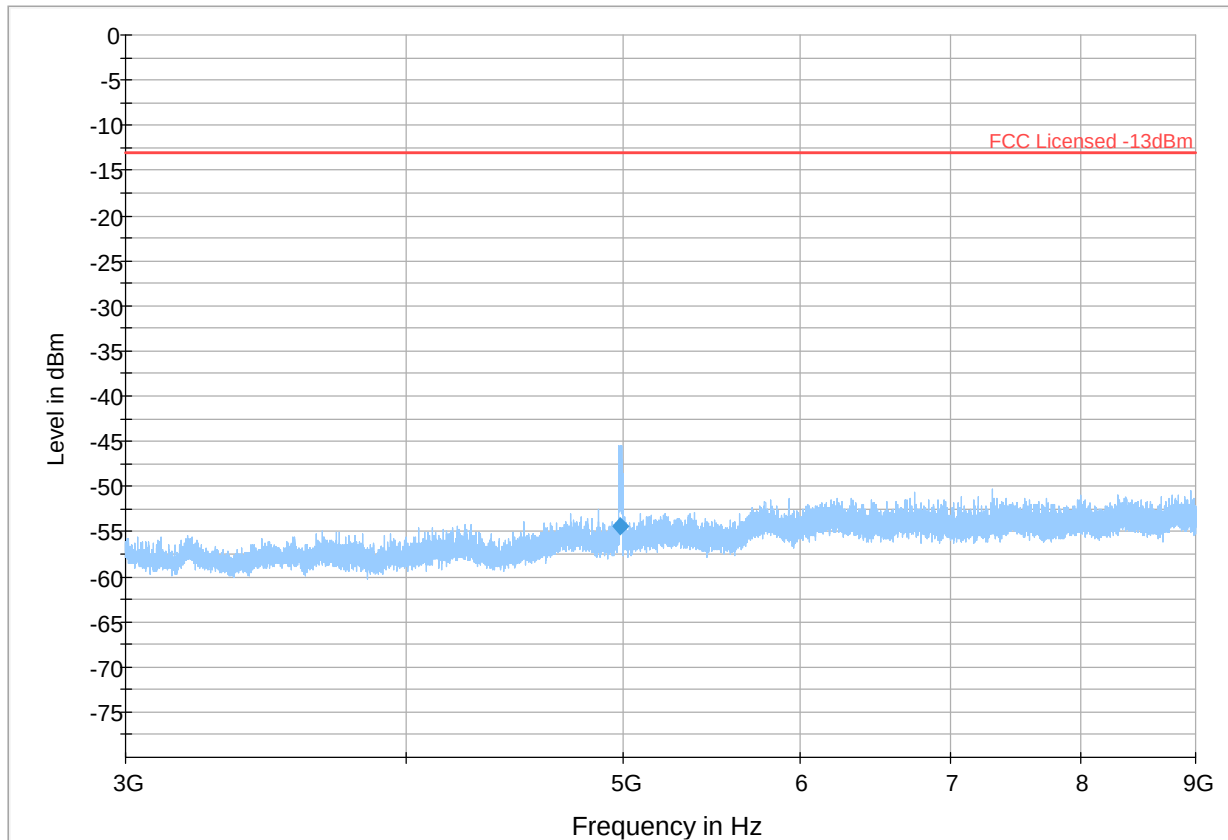


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot # 3 Radiated Emissions: 3-9 GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
4981.500	-54.42	-13.00	41.42	500.0	1000.000	277.0	V	150.0	-98.3	

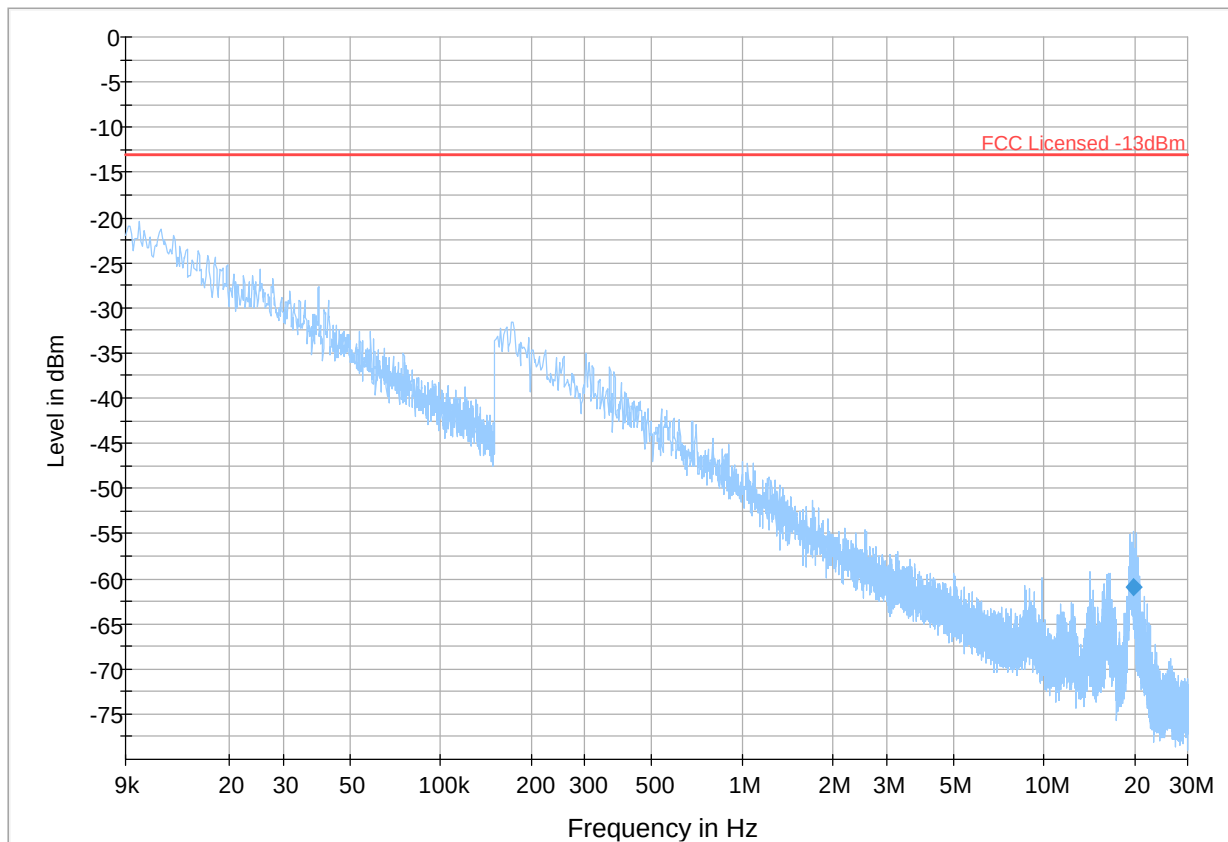


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot #4 Radiated Emissions: 9kHz-30MHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
19.890	-61.00	-13.00	48.00	500.0	3.000	163.0	V	110.0	-78.5	

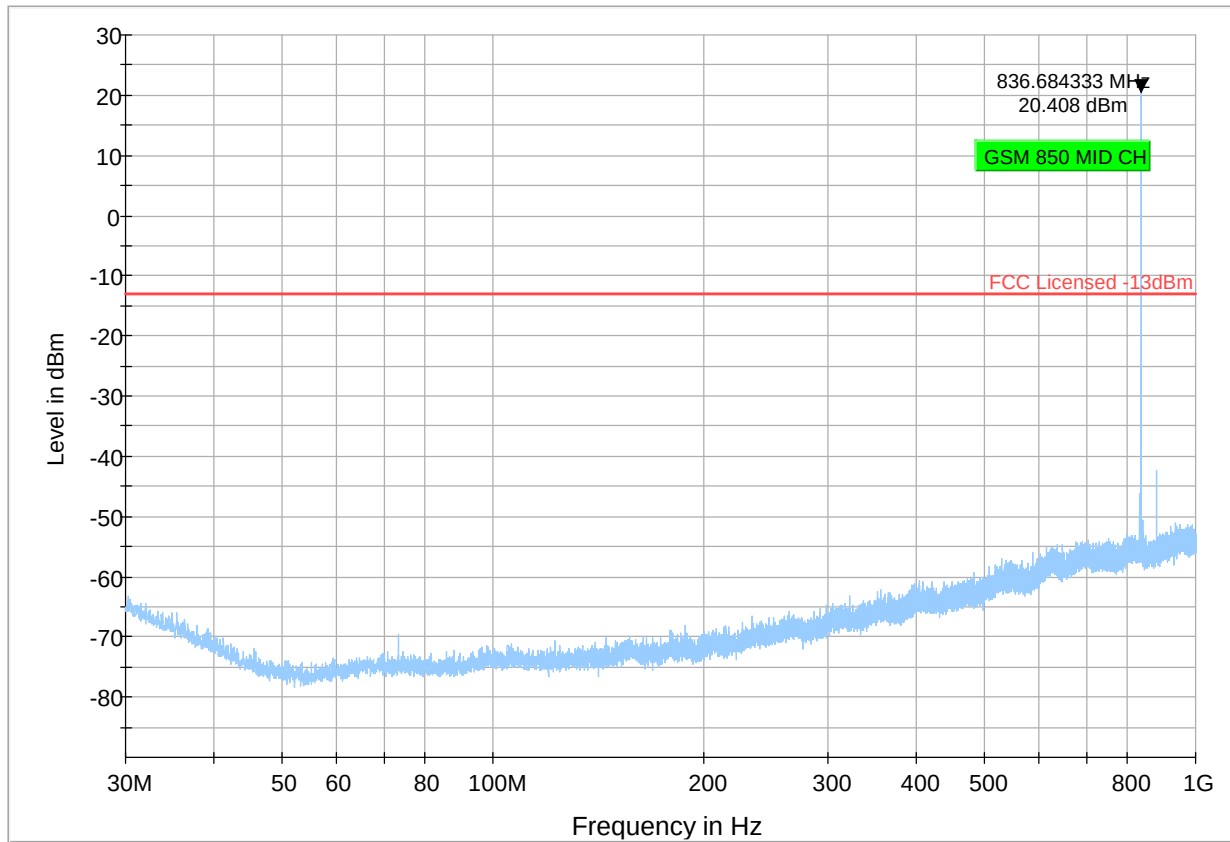


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot #5 Radiated Emissions: 30MHz-1GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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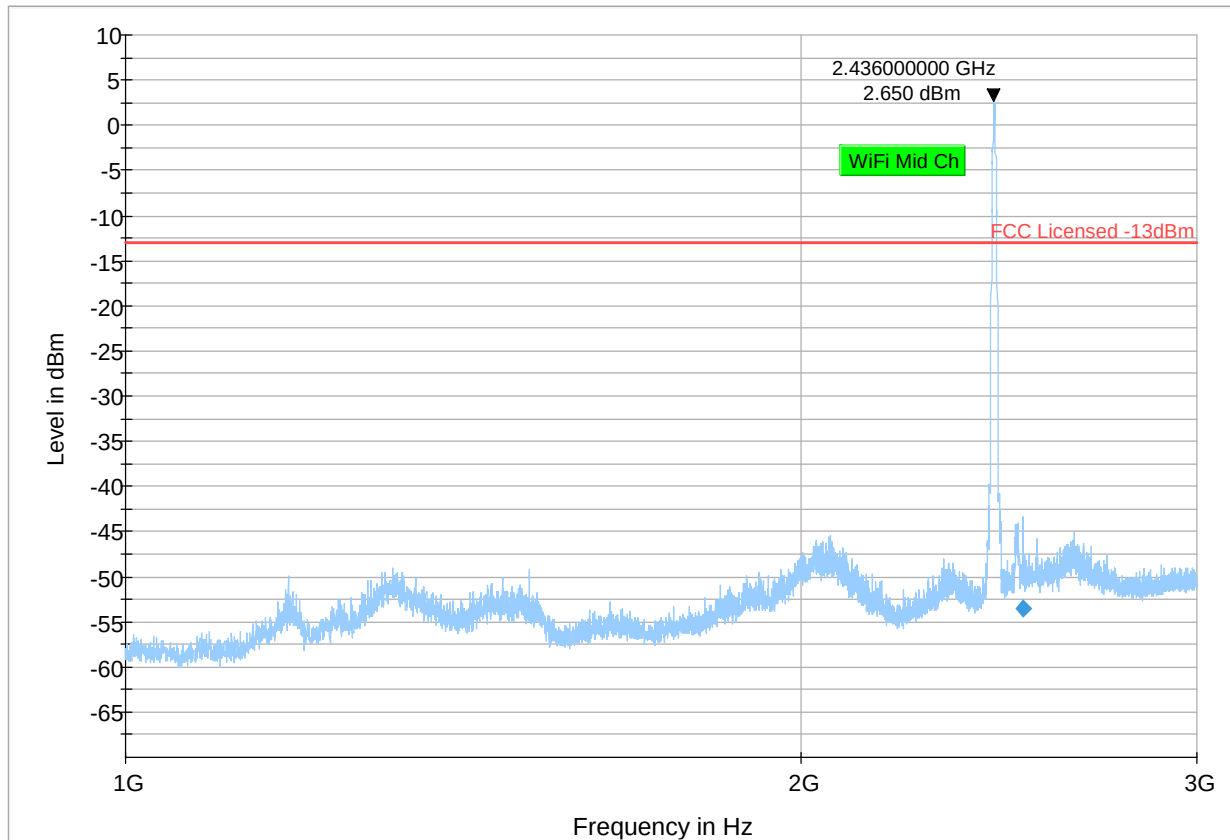


Preview Result 1-PK+ * Critical_Freqs PK+ FCC Licensed -13dBm Final_Result RM

Plot #6 Radiated Emissions: 1-3 GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
2509.750	-53.56	-13.00	40.56	500.0	1000.000	175.0	V	19.0	-86.1	

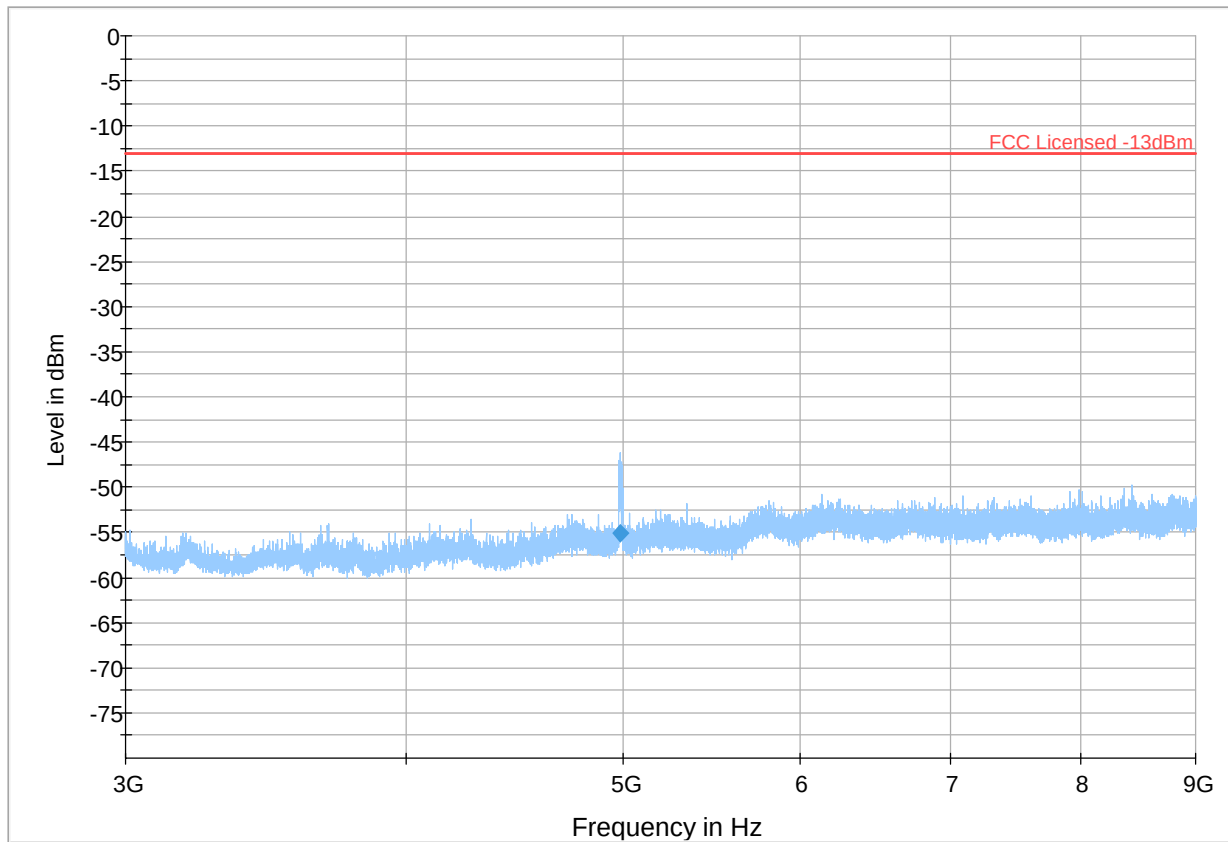


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot #7 Radiated Emissions: 3-9 GHz

Channel: Mid

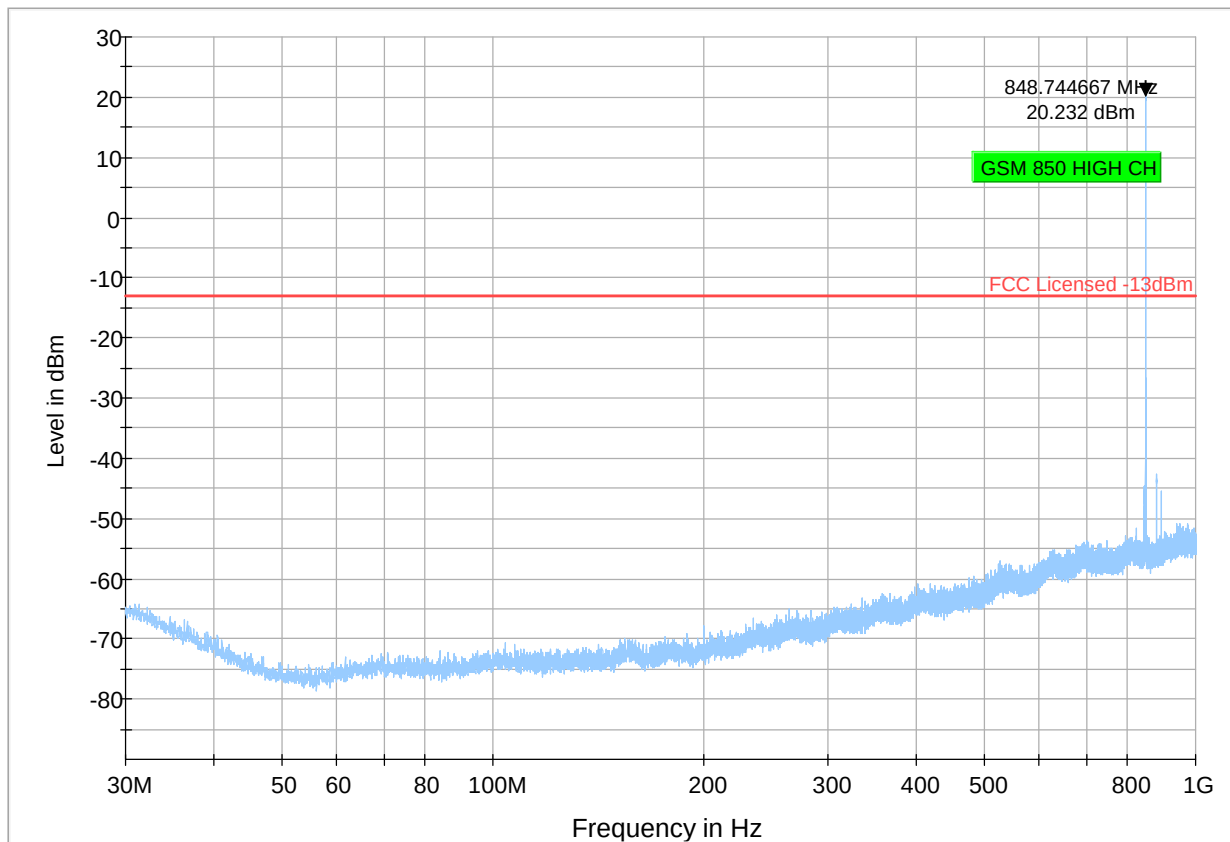
Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
4987.250	-55.16	-13.00	42.16	500.0	1000.000	282.0	V	136.0	-98.3	



Plot #8 Radiated Emissions: 30 MHz – 1 GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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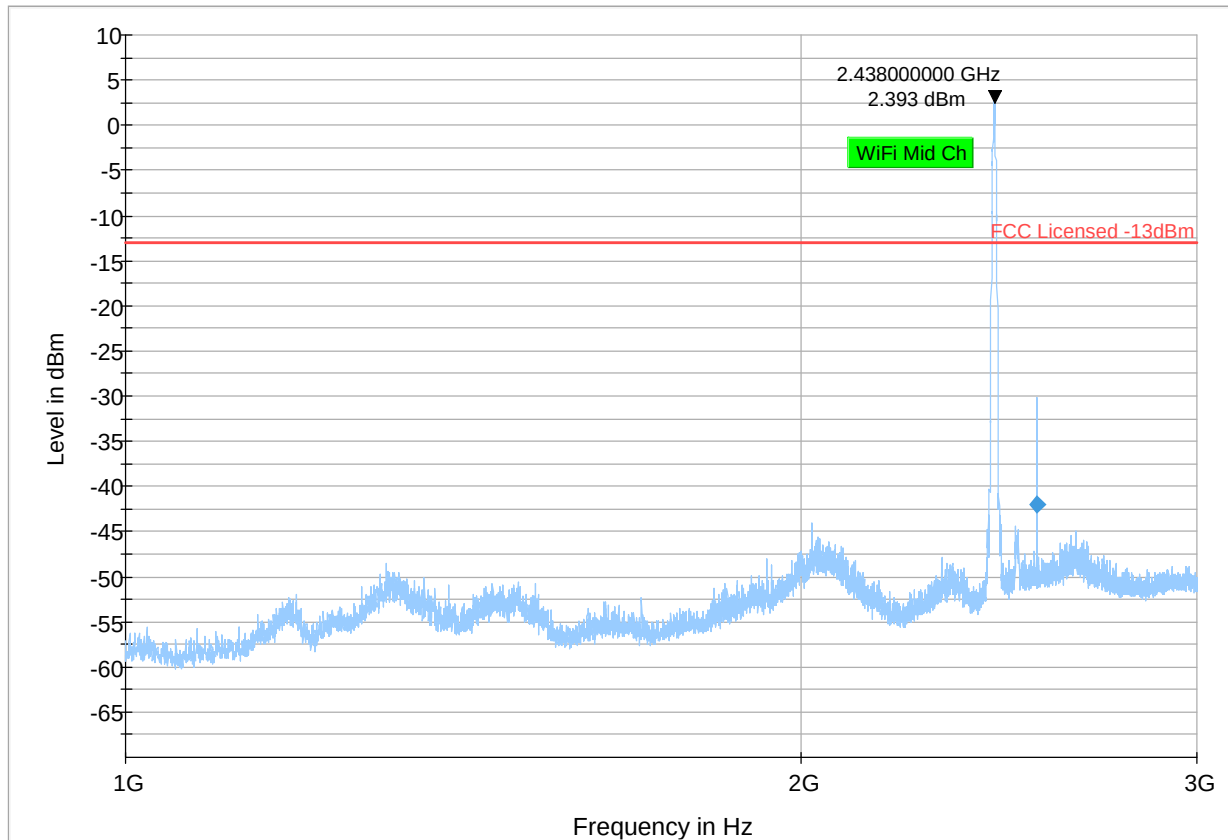


Preview Result 1-PK+ * Critical_Freqs PK+ FCC Licensed -13dBm ◆ Final_Result RM

Plot #9 Radiated Emissions: 1-3 GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
2546.250	-42.04	-13.00	29.04	500.0	1000.000	173.0	H	30.0	-85.1	

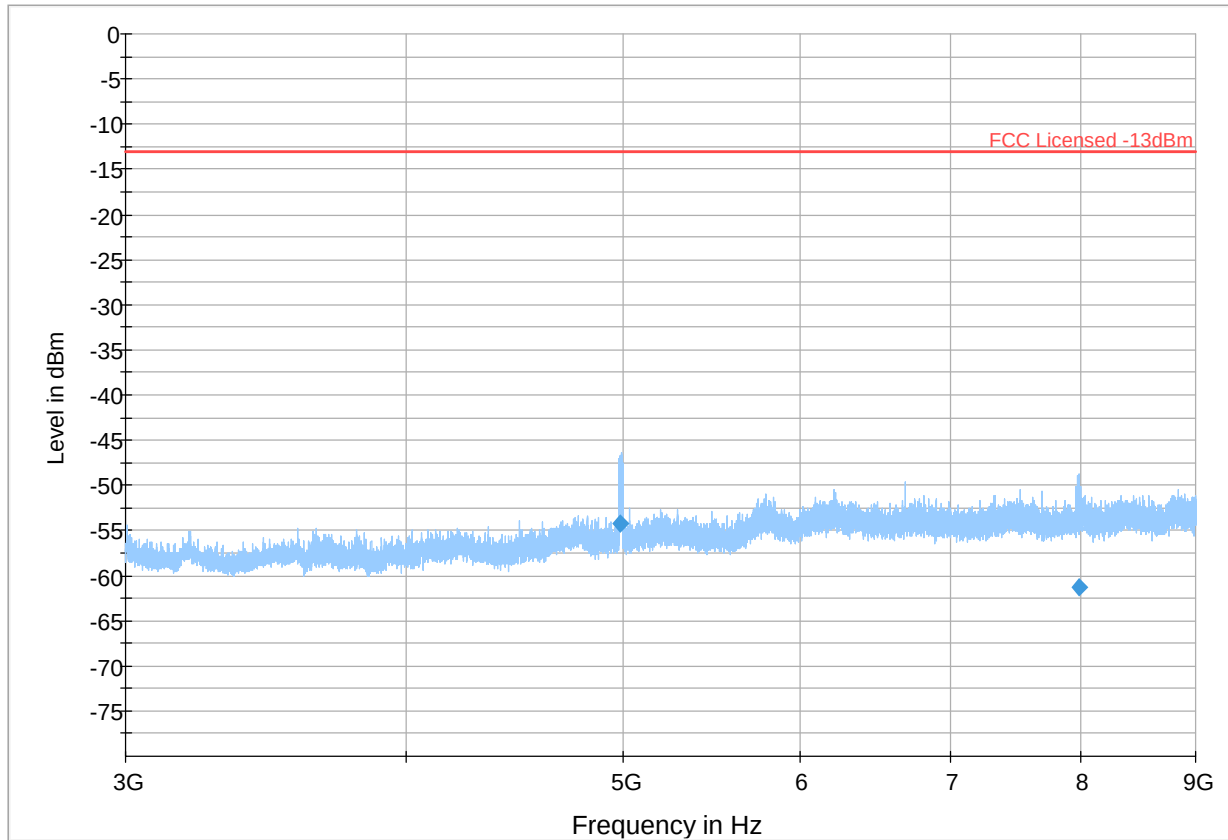


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot #10 Radiated Emissions: 3-9 GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
4982.750	-54.25	-13.00	41.25	500.0	1000.000	275.0	V	151.0	-98.3	
7989.500	-61.37	-13.00	48.37	500.0	1000.000	164.0	V	140.0	-93.2	

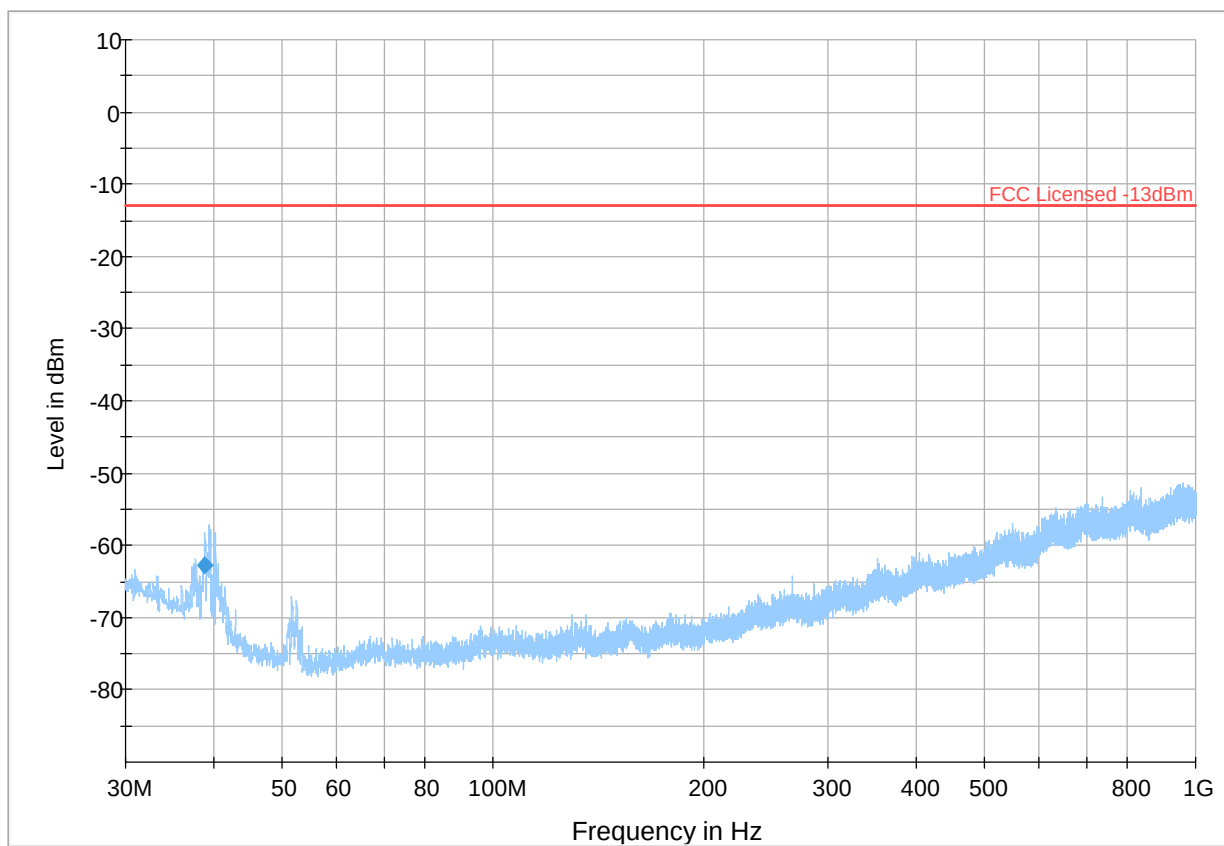


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #11 Radiated Emissions: 30 MHz -1 GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
38.924	-62.80	-13.00	49.80	500.0	100.000	217.0	V	191.0	-88.0	

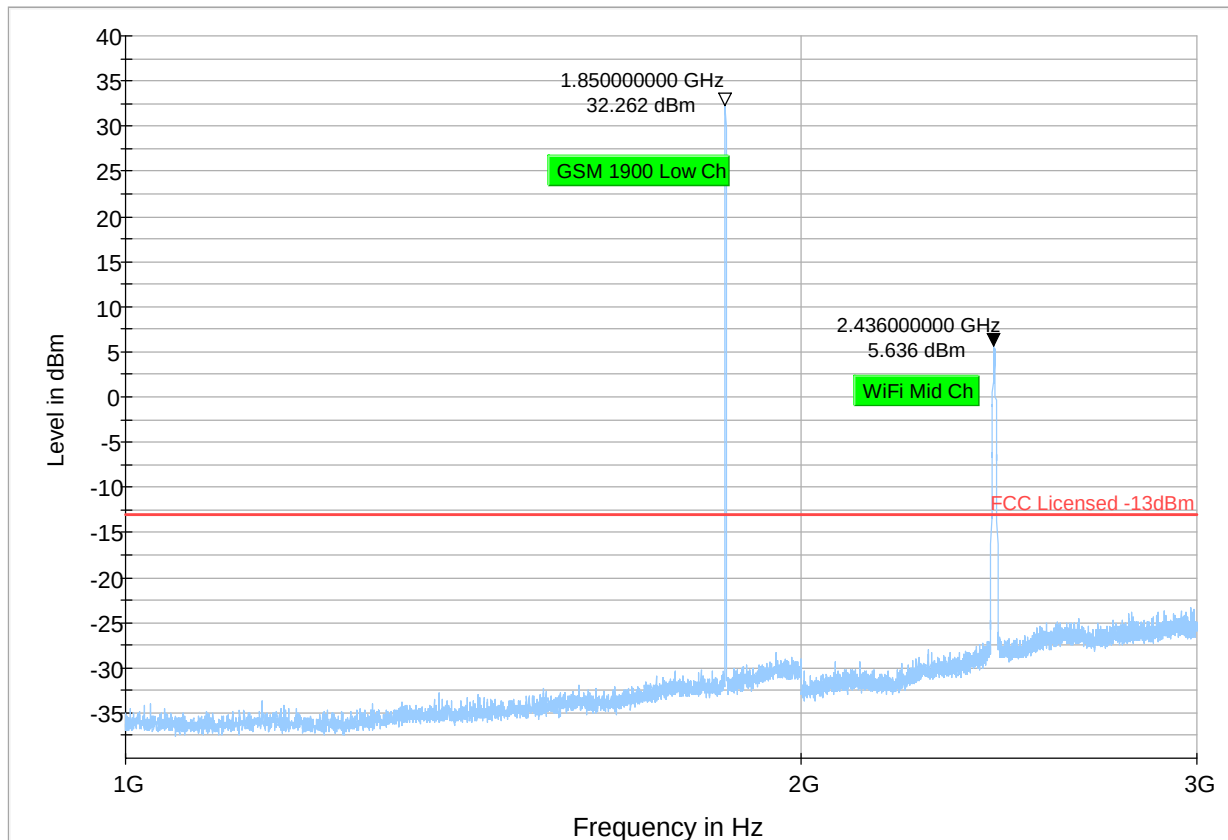


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #12 Radiated Emissions: 1-3 GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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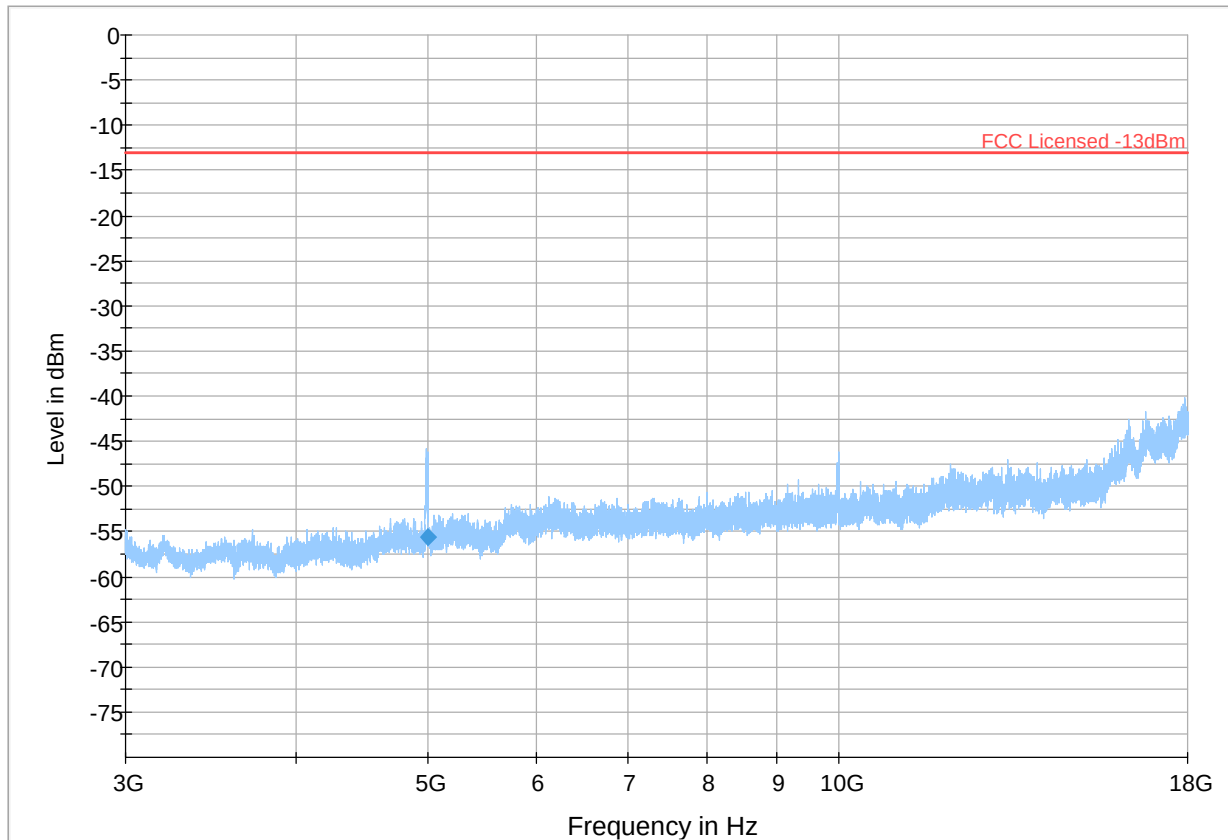


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot # 13 Radiated Emissions: 3-18 GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
4996.000	-55.54	-13.00	42.54	500.0	1000.000	273.0	V	148.0	-98.3	

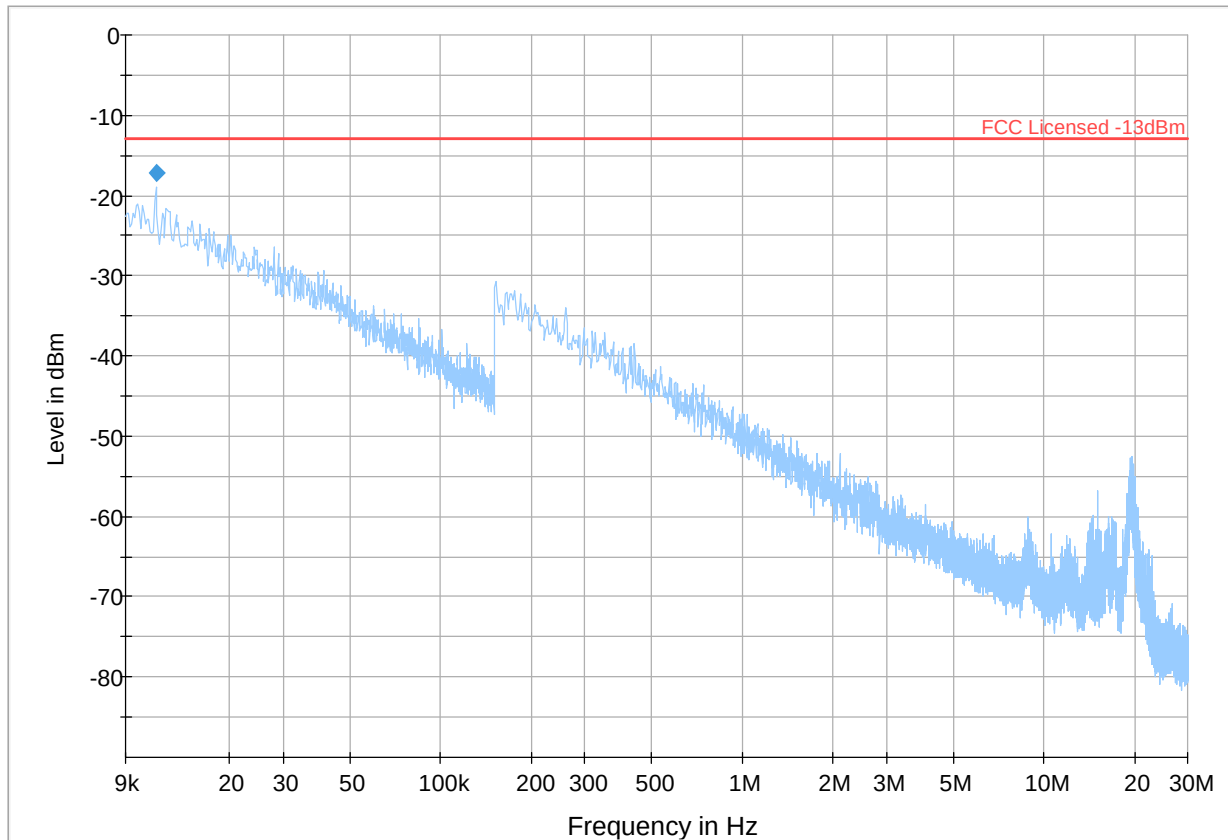


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot # 14 Radiated Emissions: 9kHz-30MHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
0.011	-17.26	-13.00	4.26	500.0	3.000	283.0	H	130.0	-66.0	

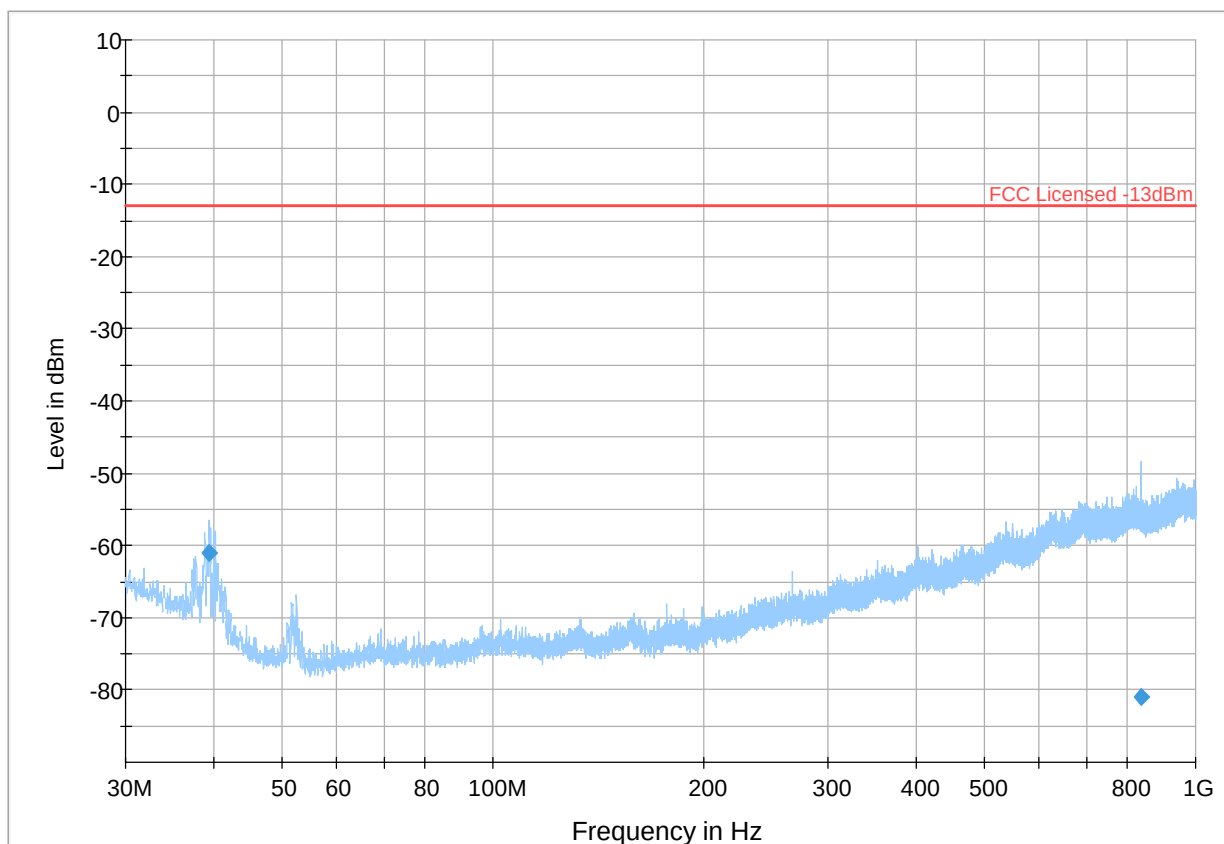


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #15 Radiated Emissions: 30MHz-1GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
39.506	-60.95	-13.00	47.95	500.0	100.000	150.0	V	130.0	-88.3	
837.719	-80.96	-13.00	67.96	500.0	100.000	219.0	H	26.0	-74.1	

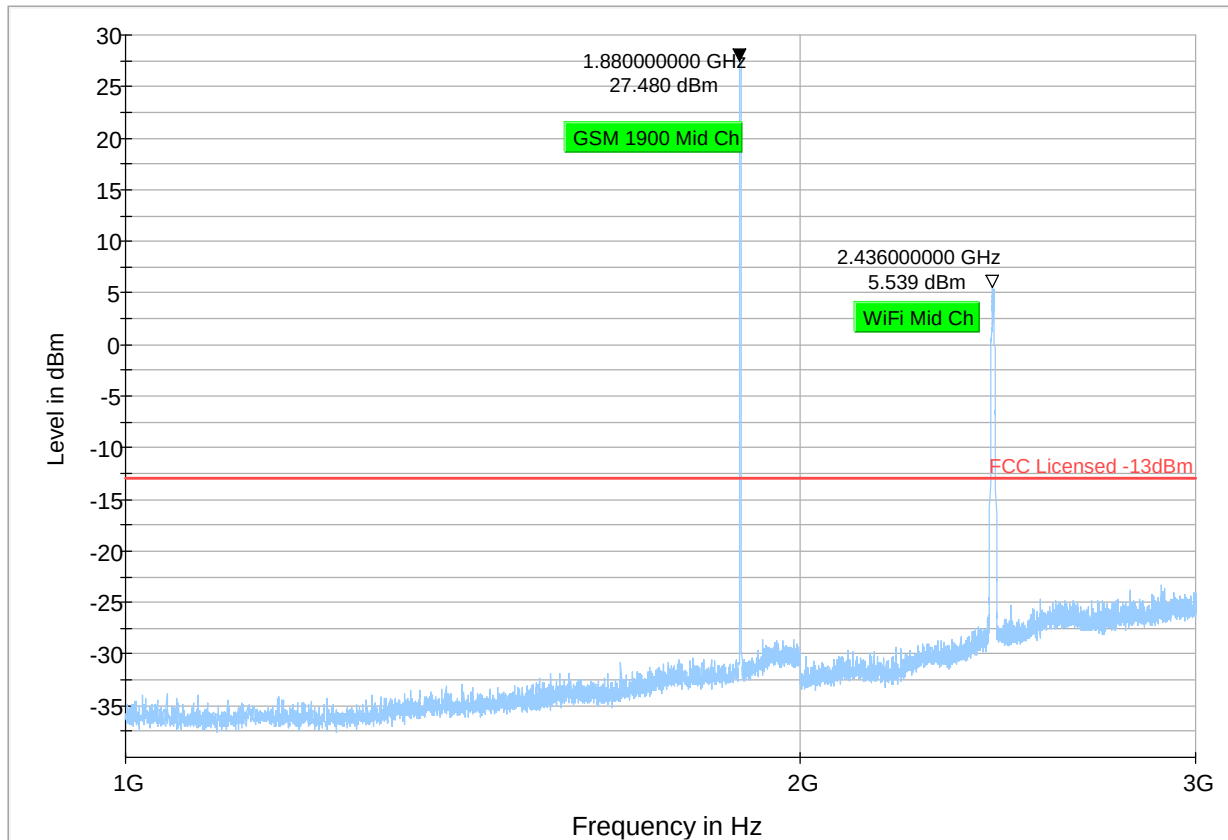


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #16 Radiated Emissions: 1-3GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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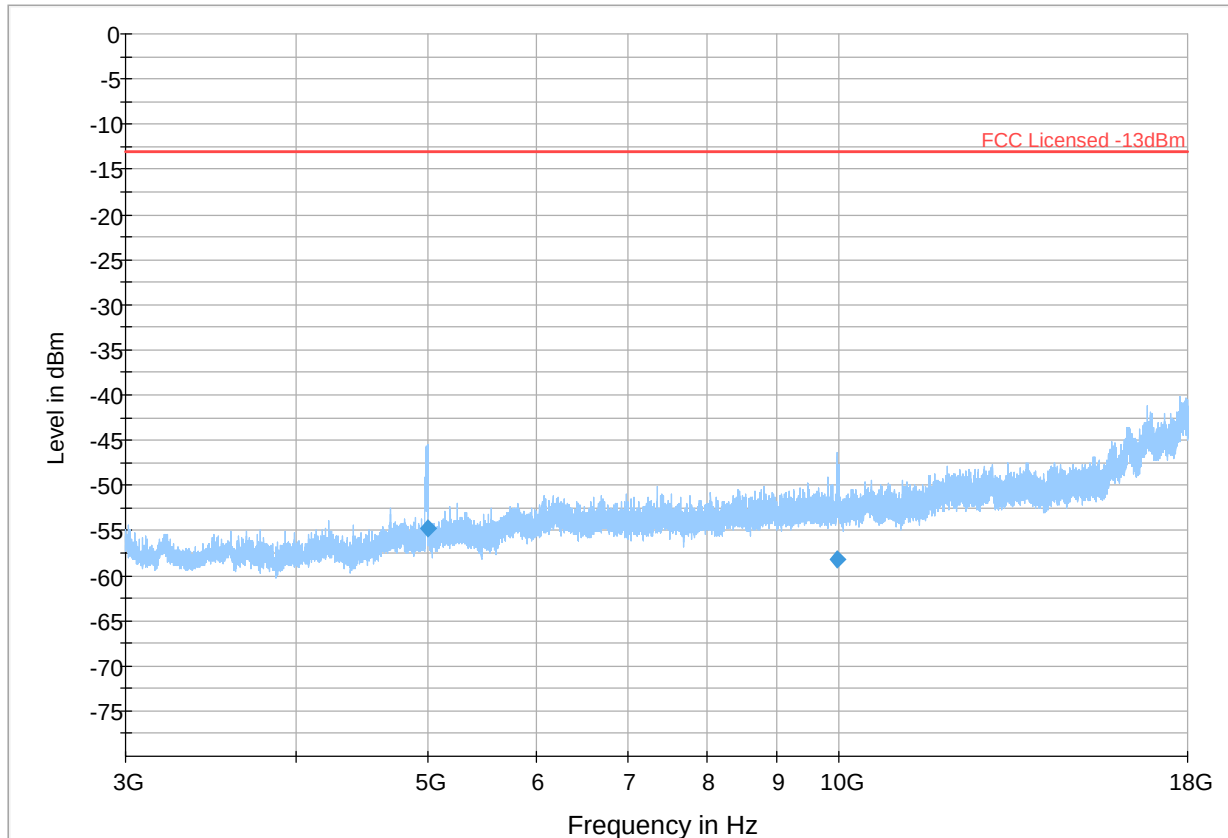


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #17 Radiated Emissions: 3-18GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
4993.000	-54.76	-13.00	41.76	500.0	1000.000	262.0	V	149.0	-98.3	
9957.000	-58.26	-13.00	45.26	500.0	1000.000	150.0	V	242.0	-91.7	

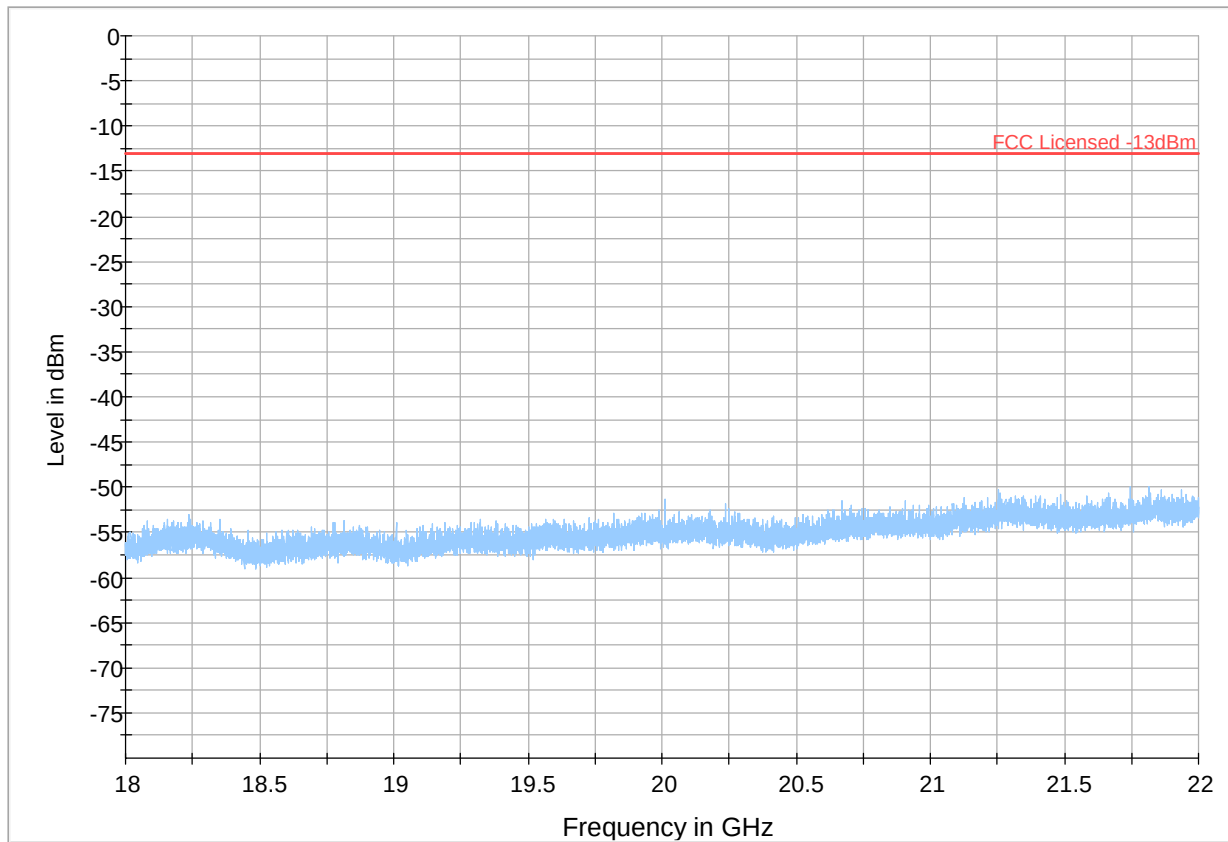


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #18 Radiated Emissions: 18-22GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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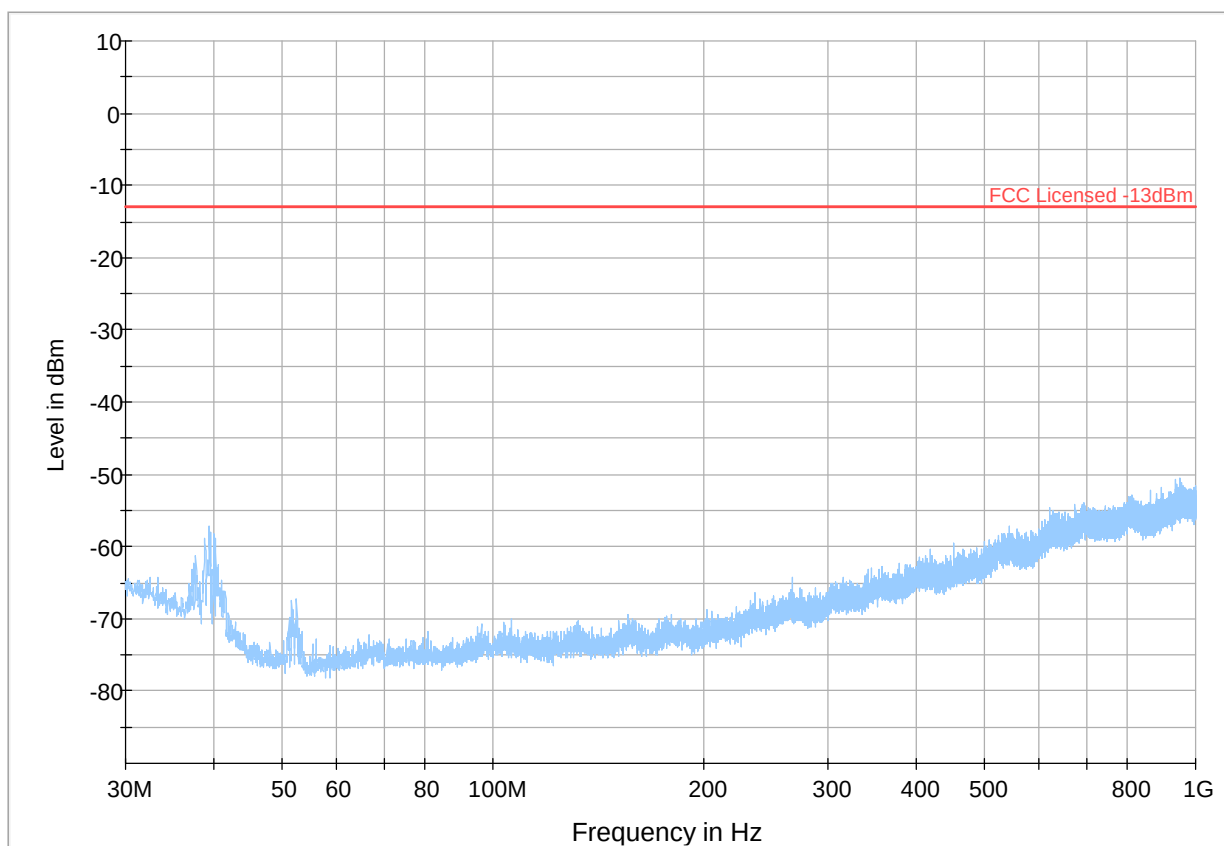


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #19 Radiated Emissions: 30 MHz – 1 GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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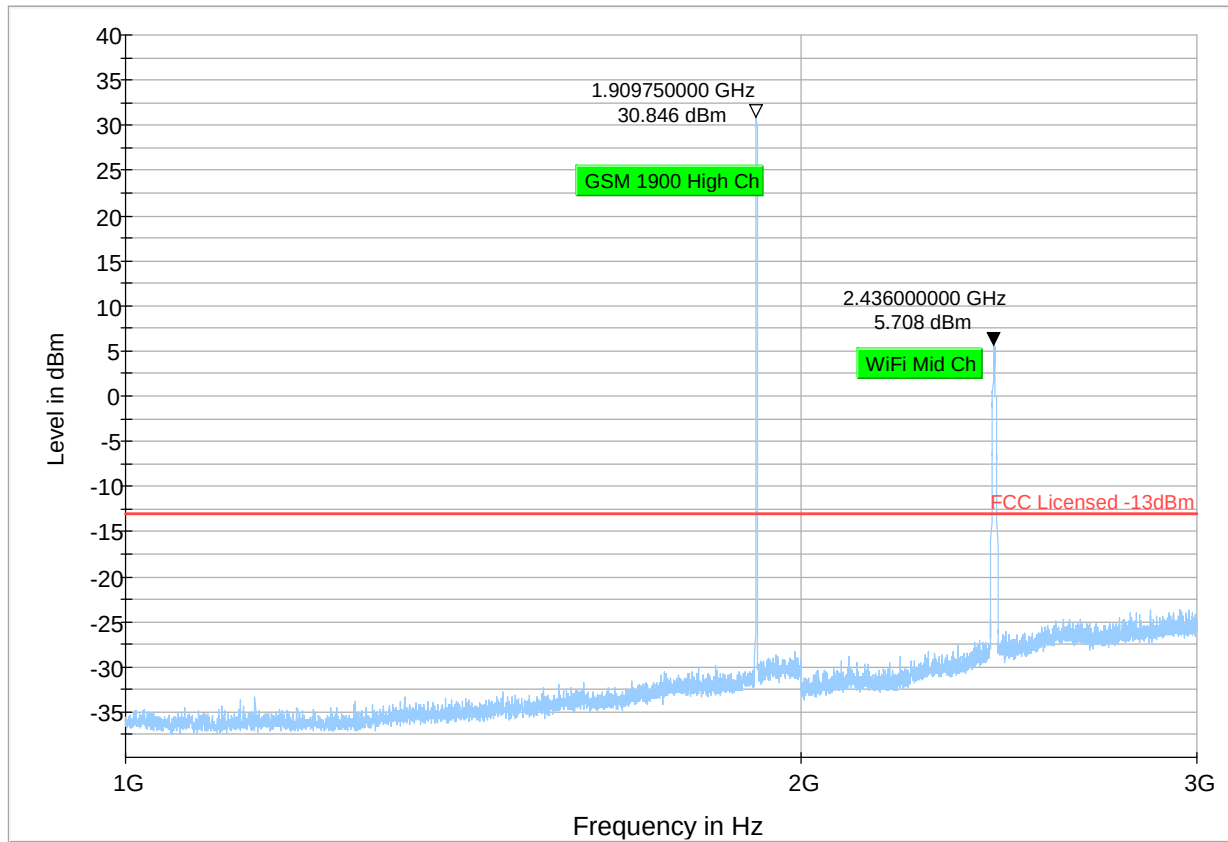


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #20 Radiated Emissions: 1-3 GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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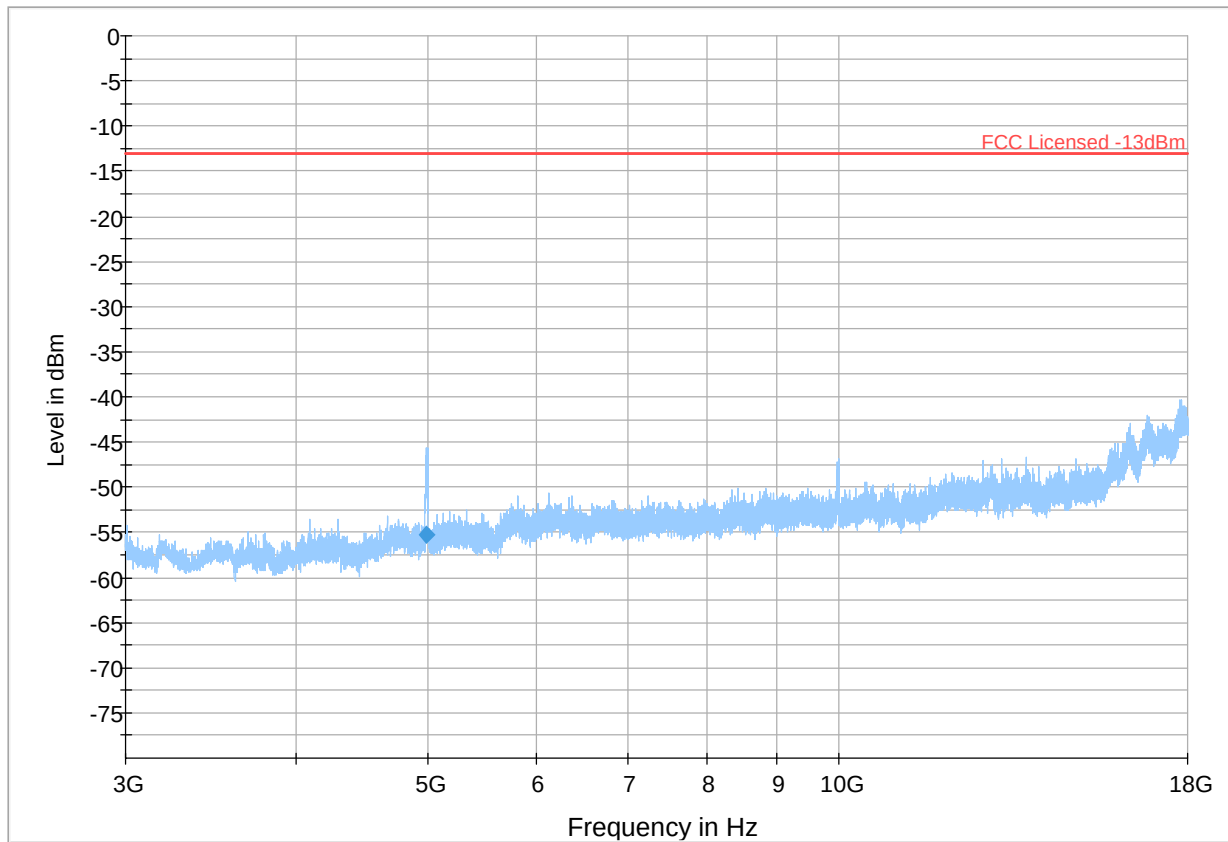


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #21 Radiated Emissions: 3-18 GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
4984.000	-55.29	-13.00	42.29	500.0	1000.000	306.0	V	155.0	-98.3	

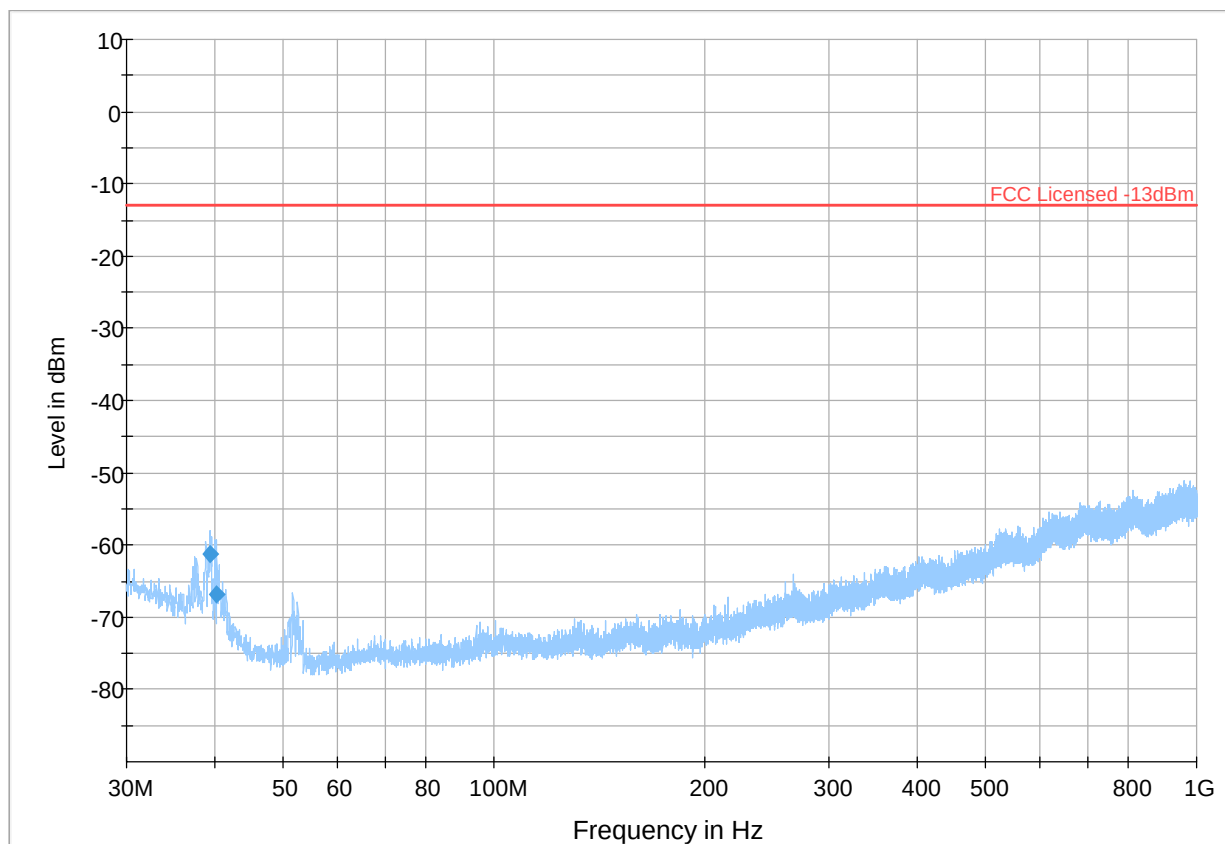


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot #22 Radiated Emissions: 30 MHz – 1GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
39.474	-61.27	-13.00	48.27	500.0	100.000	150.0	V	120.0	-88.3	
40.314	-66.76	-13.00	53.76	500.0	100.000	295.0	V	55.0	-88.8	

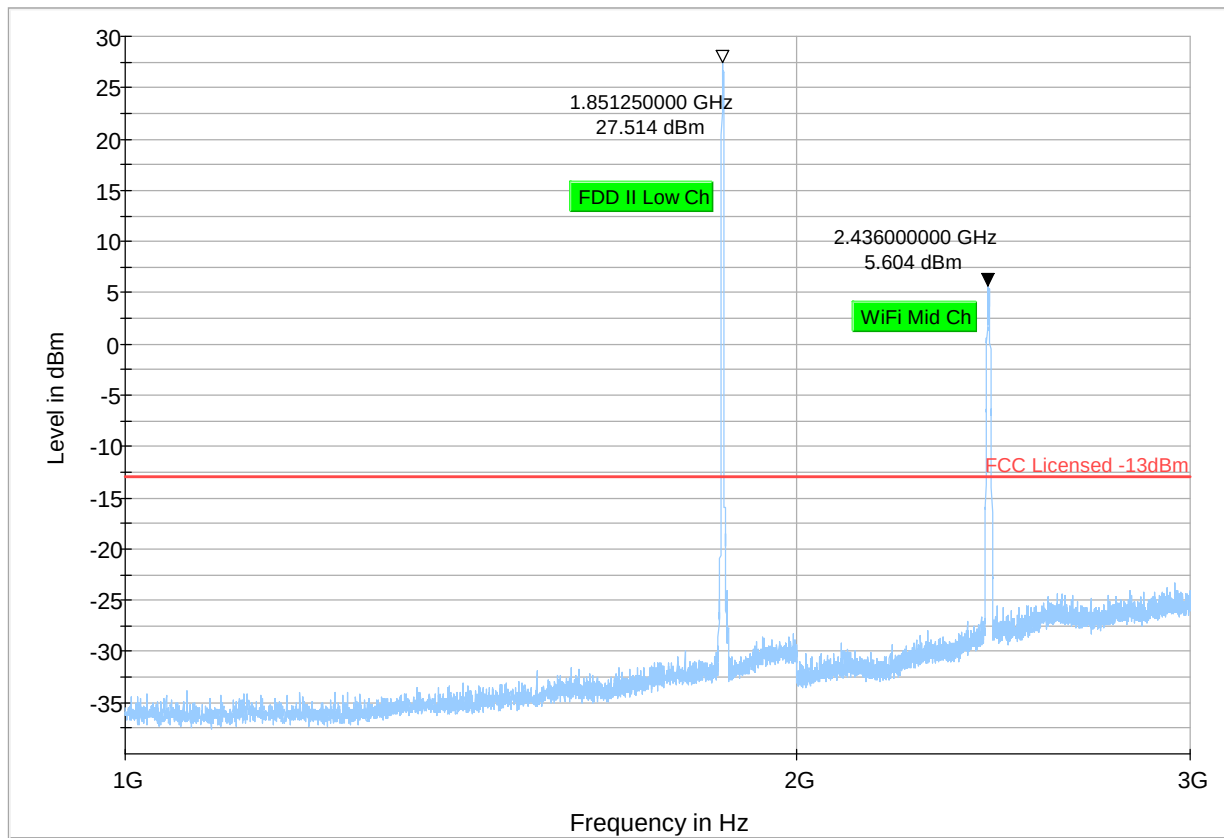


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot # 23 Radiated Emissions: 1-3 GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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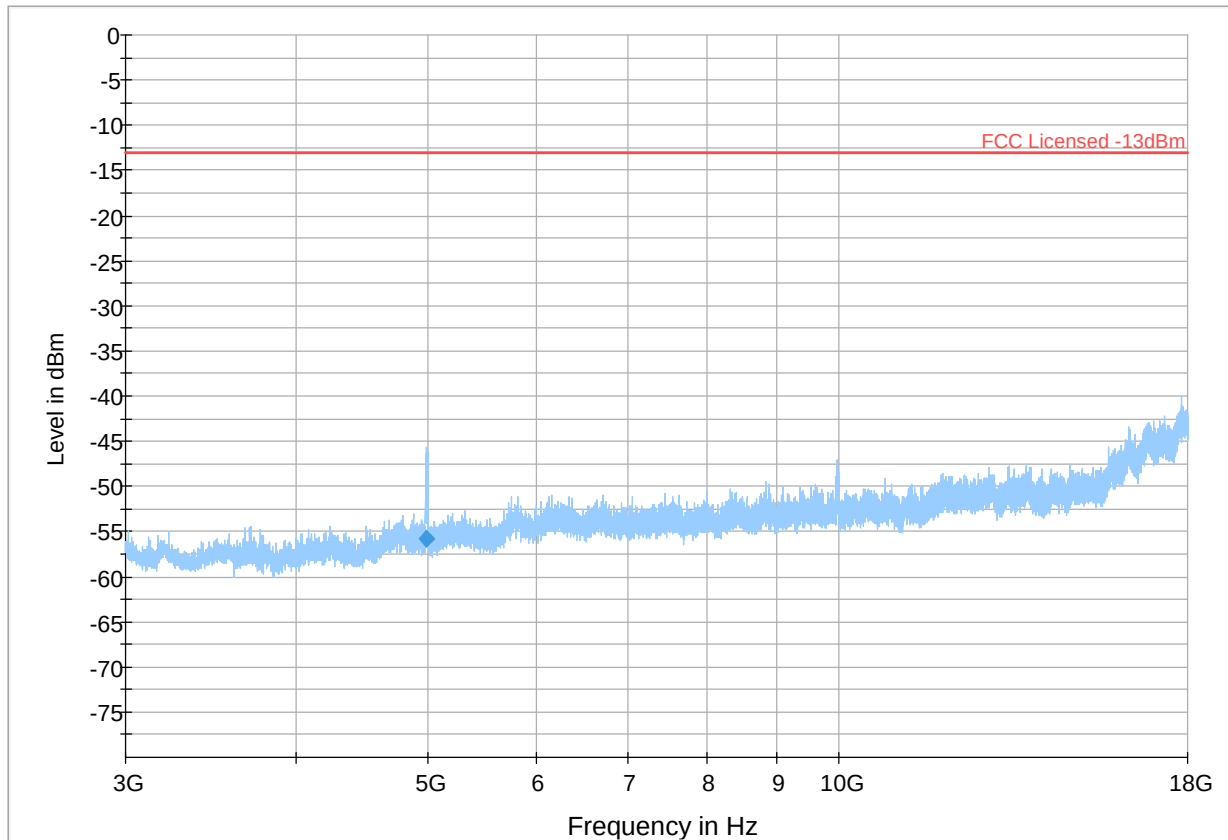


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot # 24 Radiated Emissions: 3-18 GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
4989.500	-55.73	-13.00	42.73	500.0	1000.000	305.0	V	152.0	-98.3	

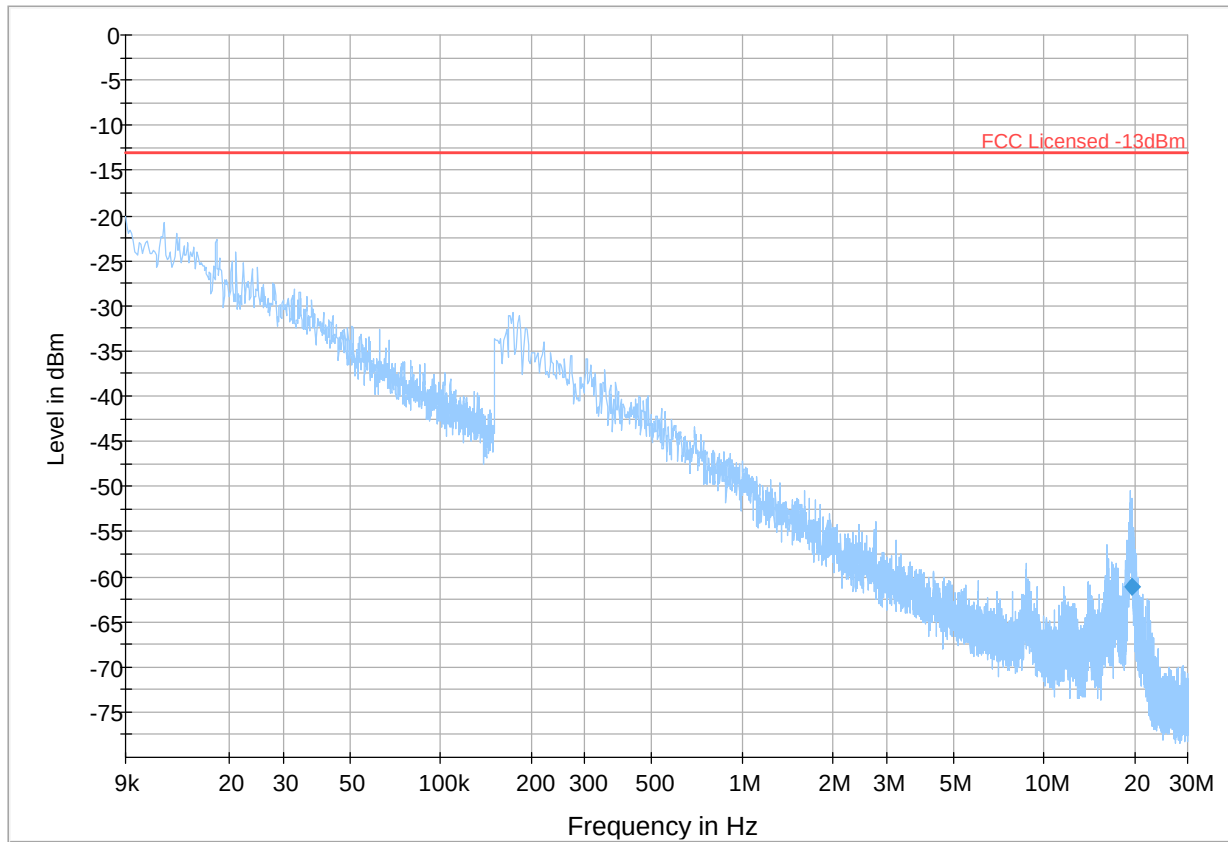


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot #25 Radiated Emissions: 9 kHz – 30 MHz

Channel: Mid

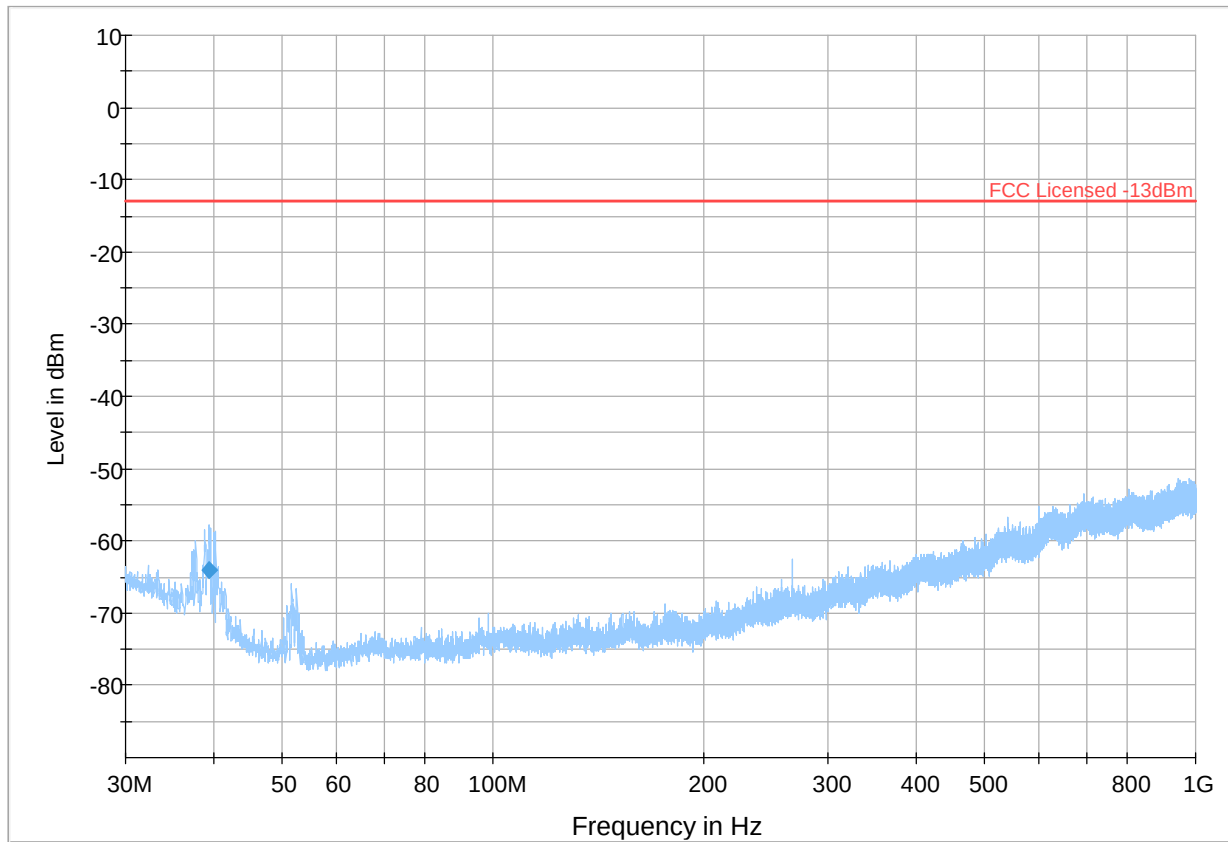
Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
19.511	-61.05	-13.00	48.05	500.0	3.000	150.0	V	189.0	-78.4	



Plot #26 Radiated Emissions: 30 MHz – 1 GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
39.441	-64.09	-13.00	51.09	500.0	100.000	192.0	V	104.0	-88.3	

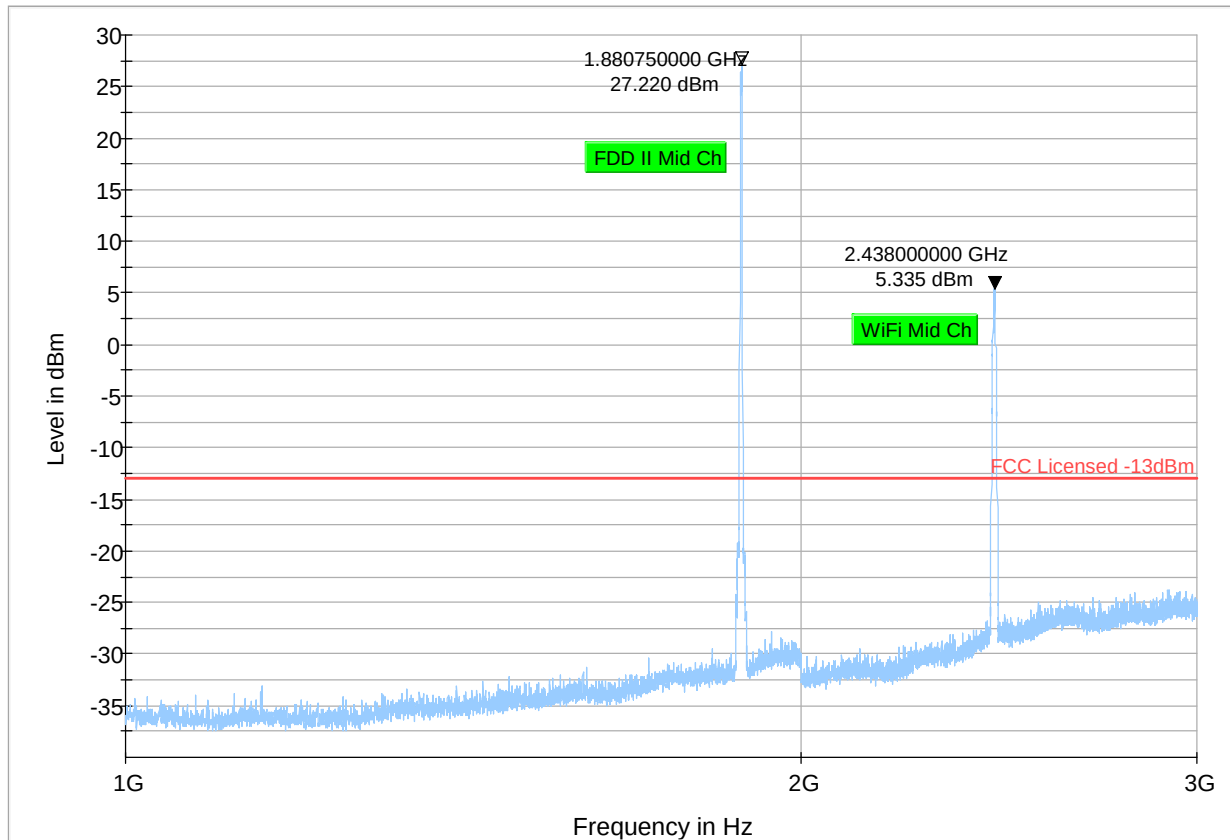


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot #27 Radiated Emissions: 1-3 GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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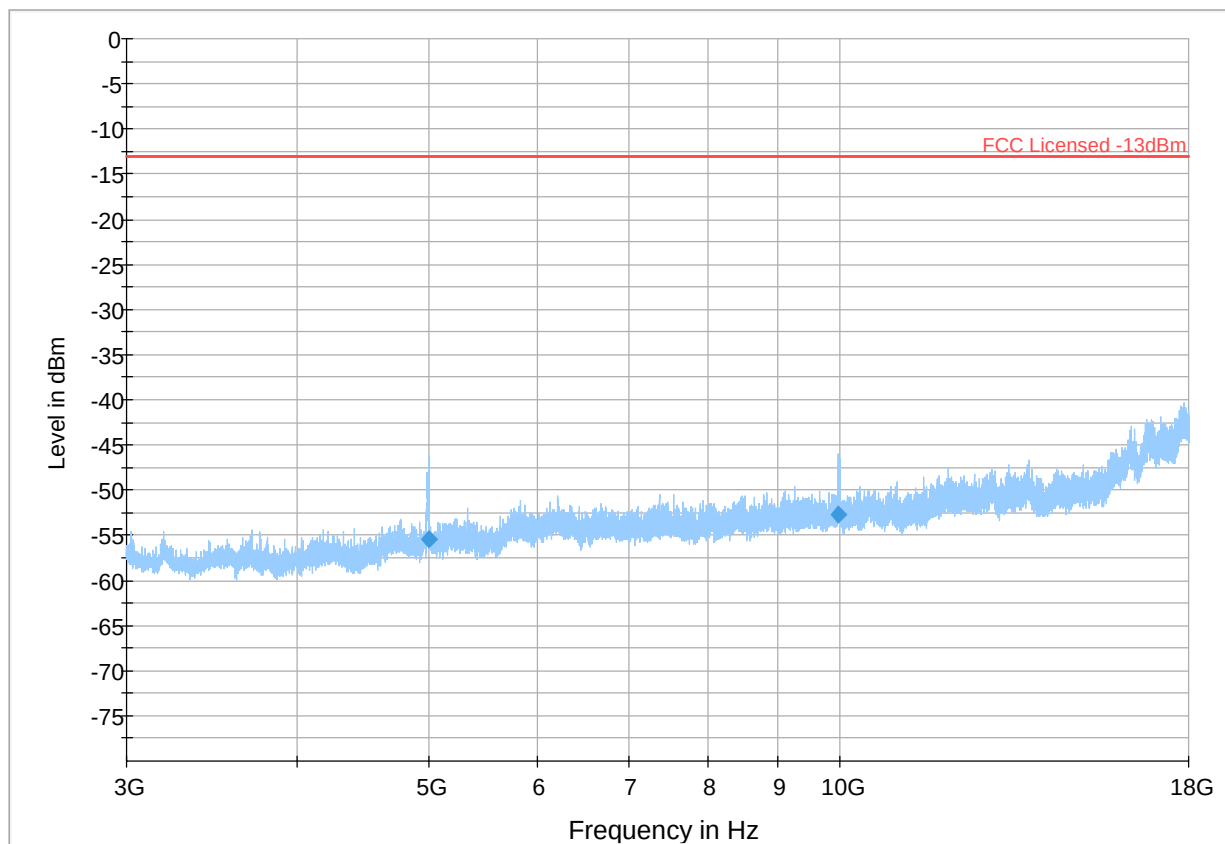


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #28 Radiated Emissions: 3-18 GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
4993.000	-55.42	-13.00	42.42	500.0	1000.000	273.0	V	149.0	-98.3	
9972.000	-52.77	-13.00	39.77	500.0	1000.000	231.0	V	355.0	-91.8	

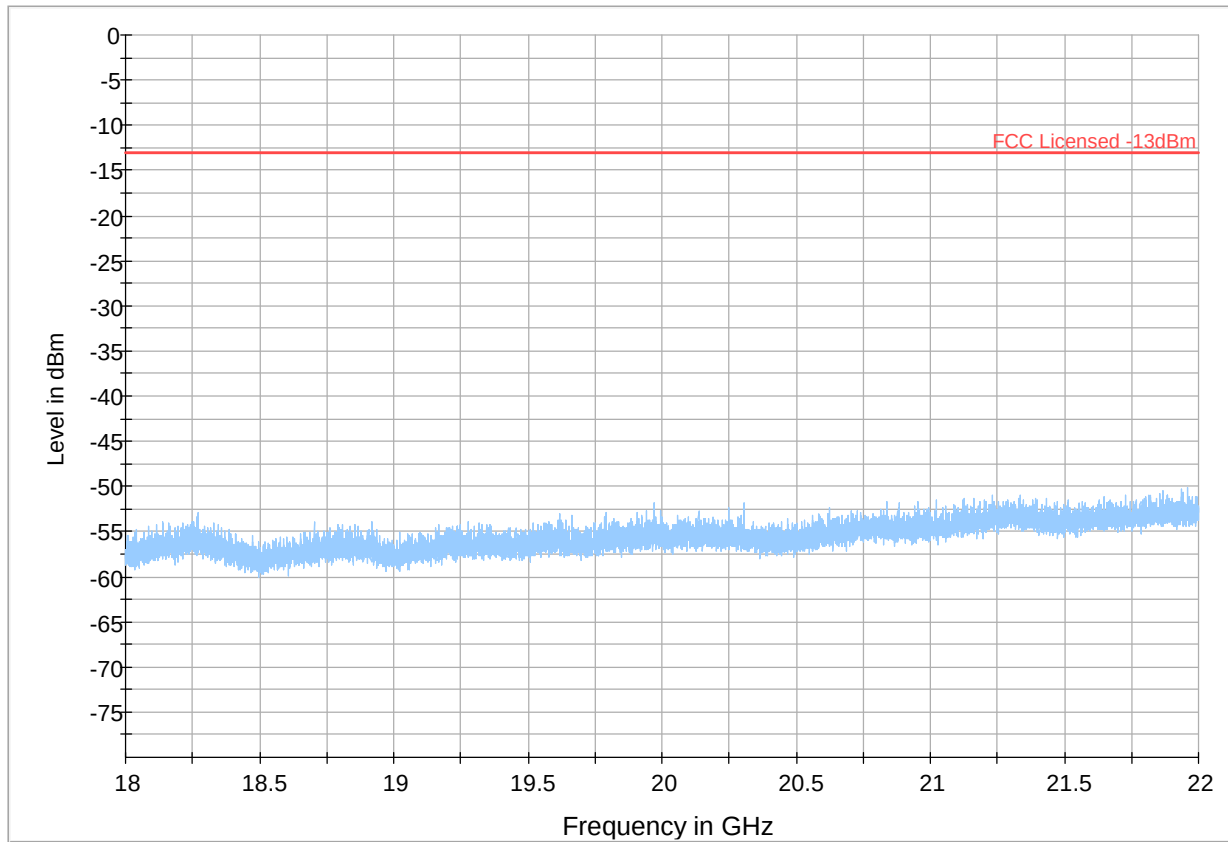


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #29 Radiated Emissions: 18-22 GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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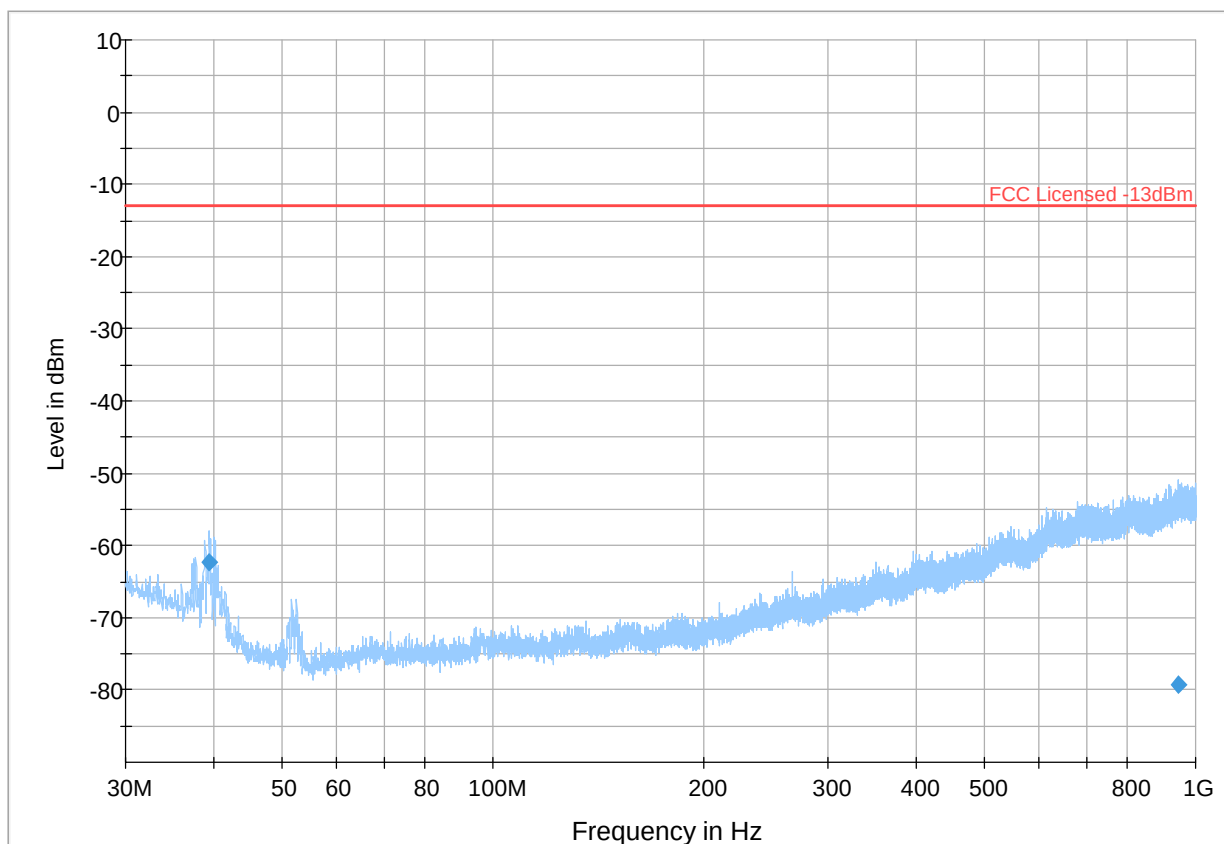


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot #30 Radiated Emissions: 30MHz-1GHz

Channel: High

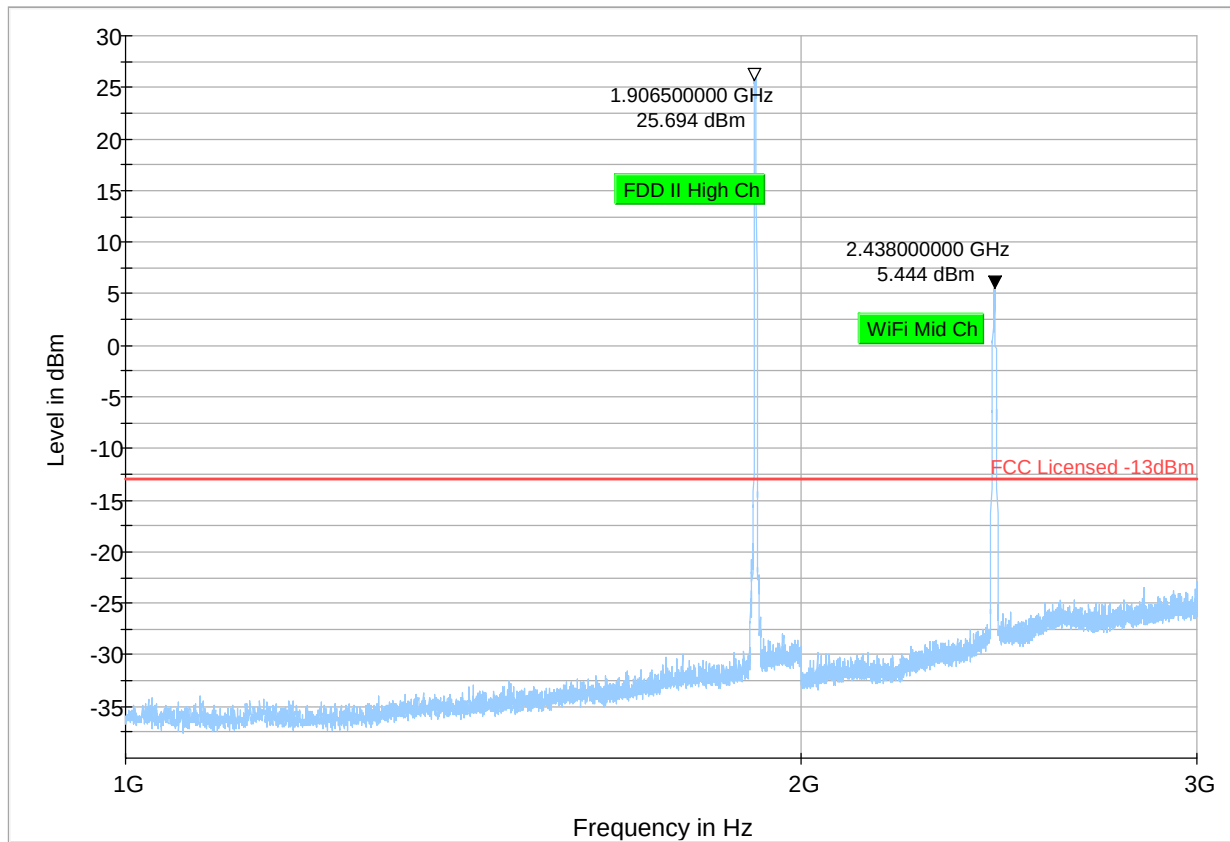
Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
39.538	-62.41	-13.00	49.41	500.0	100.000	217.0	V	119.0	-88.3	
944.451	-79.34	-13.00	66.34	500.0	100.000	287.0	H	32.0	-72.5	



Plot #31 Radiated Emissions: 1-3 GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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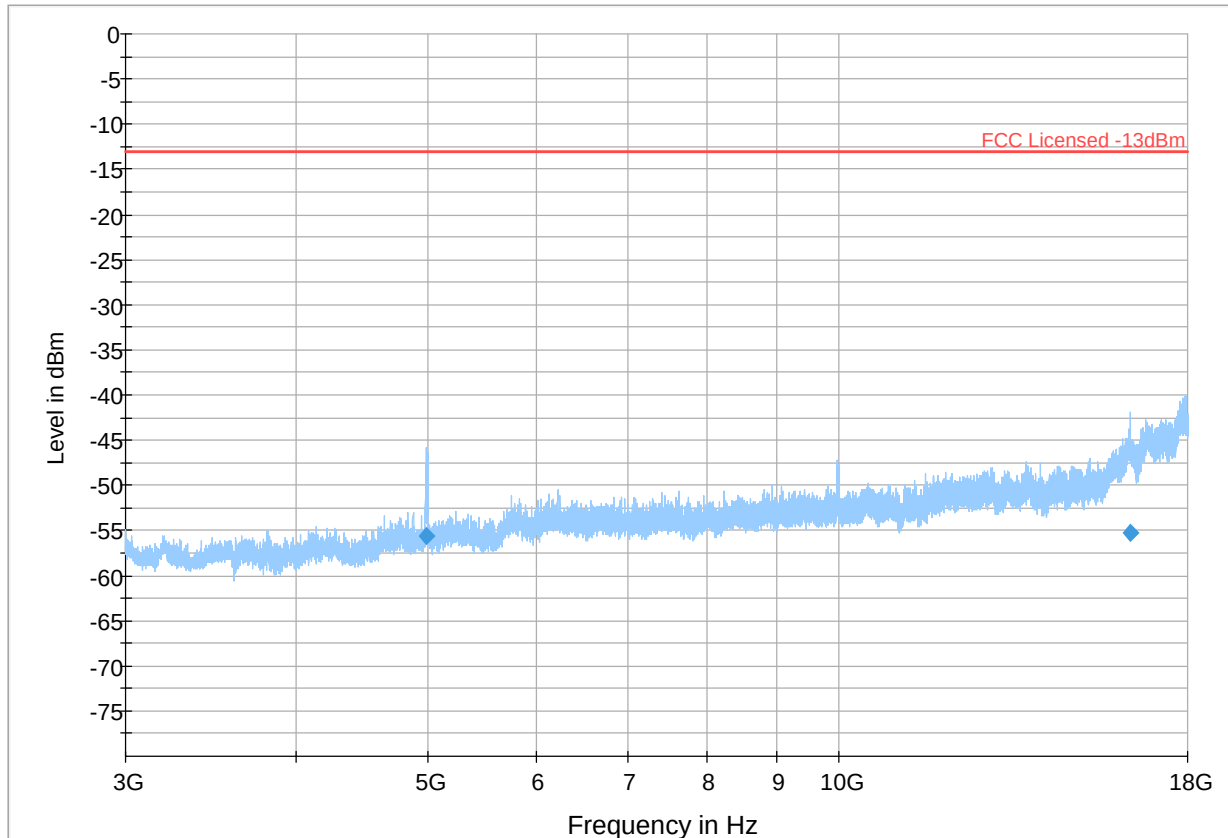


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #32 Radiated Emissions: 3-18GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
4983.000	-55.60	-13.00	42.60	500.0	1000.000	283.0	V	151.0	-98.3	
16335.000	-55.25	-13.00	42.25	500.0	1000.000	163.0	V	273.0	-83.0	

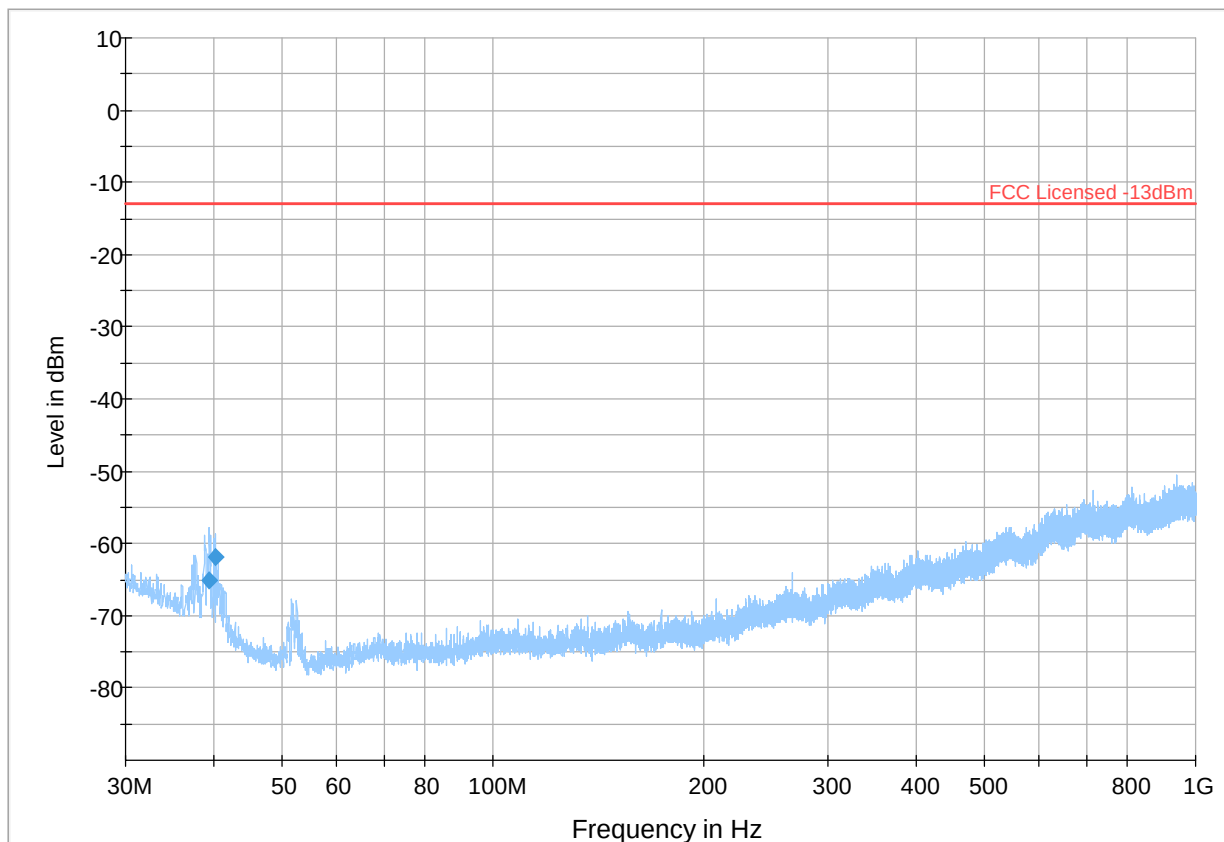


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot # 33 Radiated Emissions: 30MHz-1GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
39.474	-65.02	-13.00	52.02	500.0	100.000	315.0	V	142.0	-88.3	
40.347	-61.80	-13.00	48.80	500.0	100.000	150.0	V	159.0	-88.8	

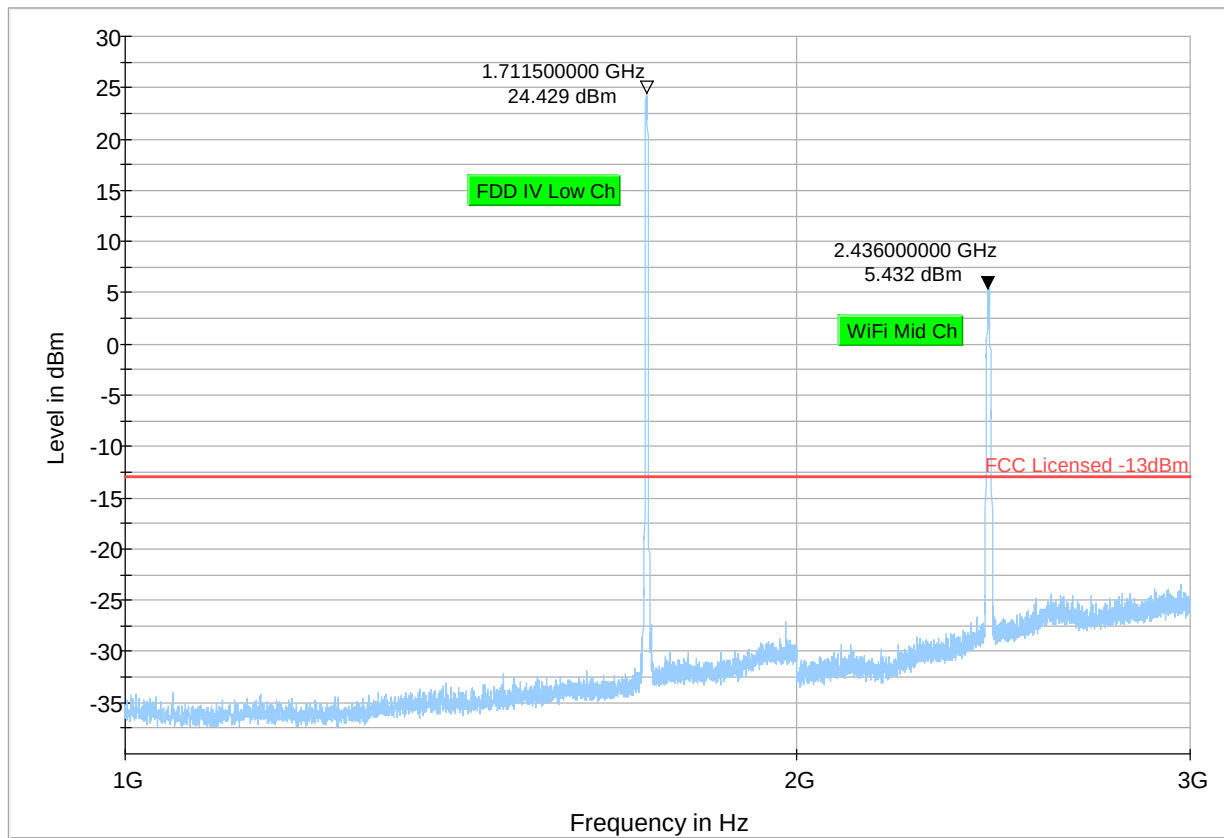


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot # 34 Radiated Emissions: 1-3GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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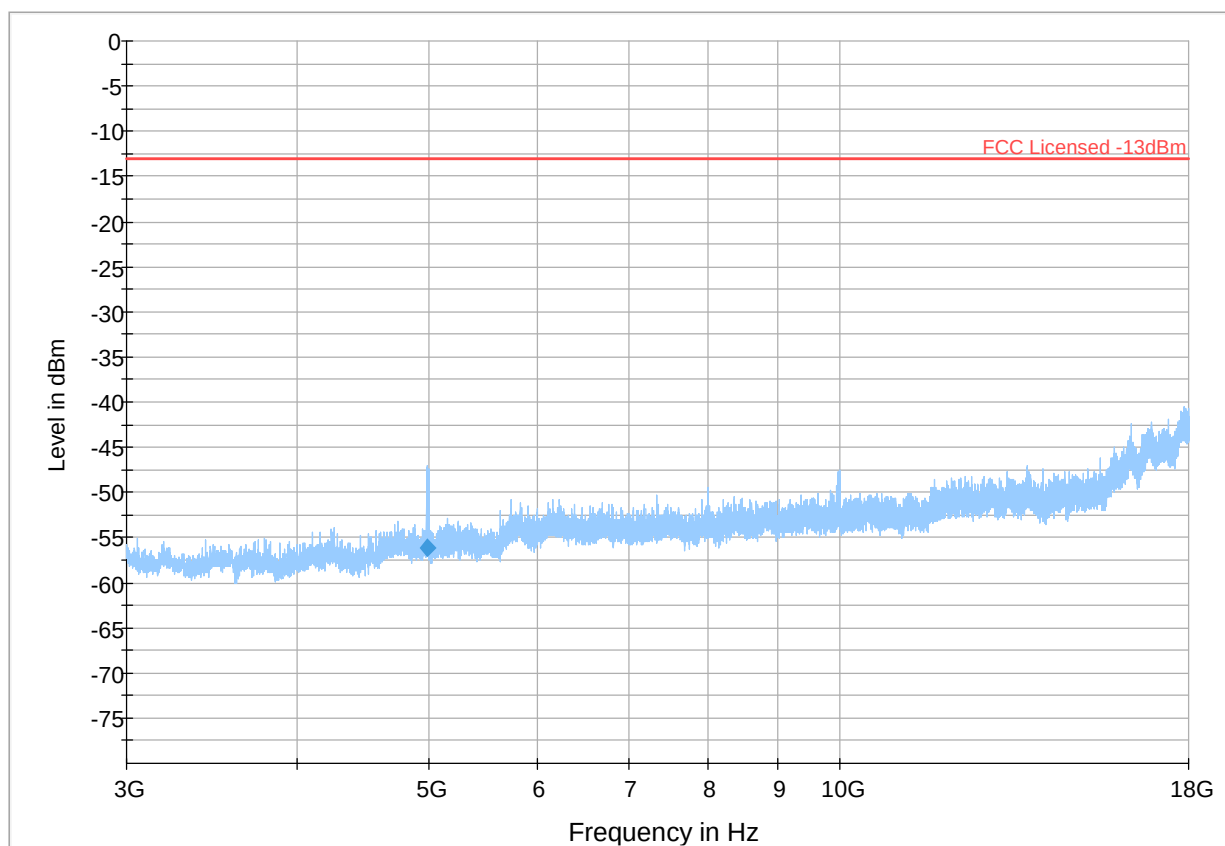


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #35 Radiated Emissions: 3-18GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
4977.500	-56.14	-13.00	43.14	500.0	1000.000	260.0	V	148.0	-98.3	

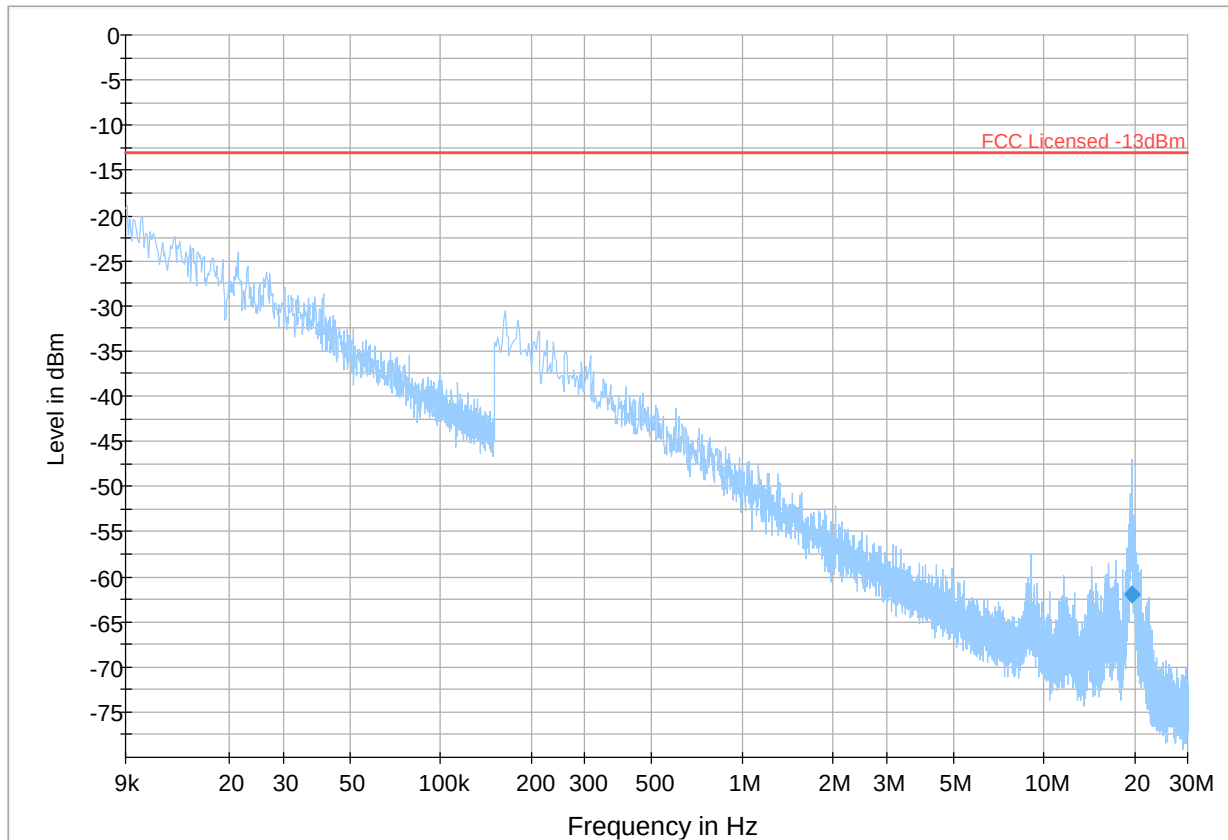


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot #36 Radiated Emissions: 9kHz-30MHz

Channel: Mid

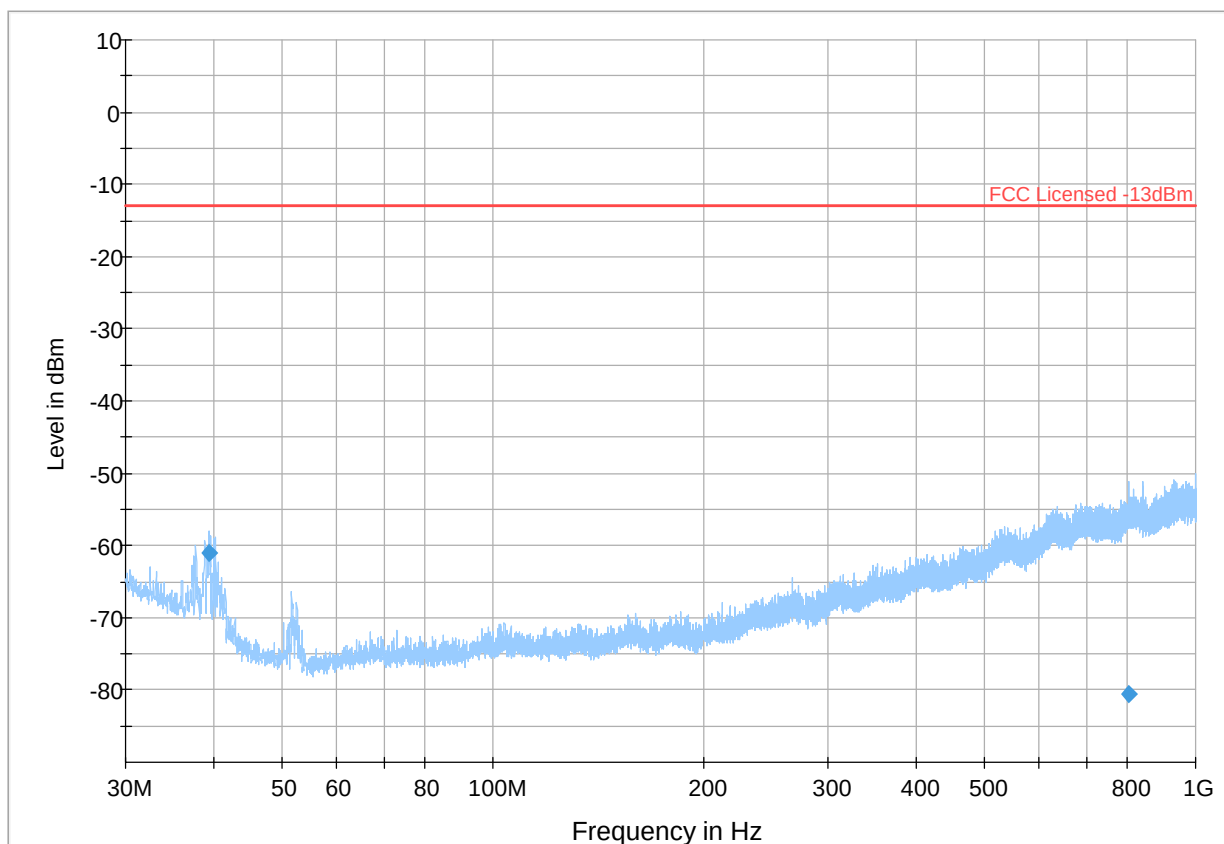
Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
19.635	-61.90	-13.00	48.90	500.0	3.000	150.0	V	161.0	-78.4	



Plot #37 Radiated Emissions: 30MHz-1GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
39.538	-61.08	-13.00	48.08	500.0	100.000	150.0	V	117.0	-88.3	
803.252	-80.45	-13.00	67.45	500.0	100.000	195.0	V	67.0	-73.6	

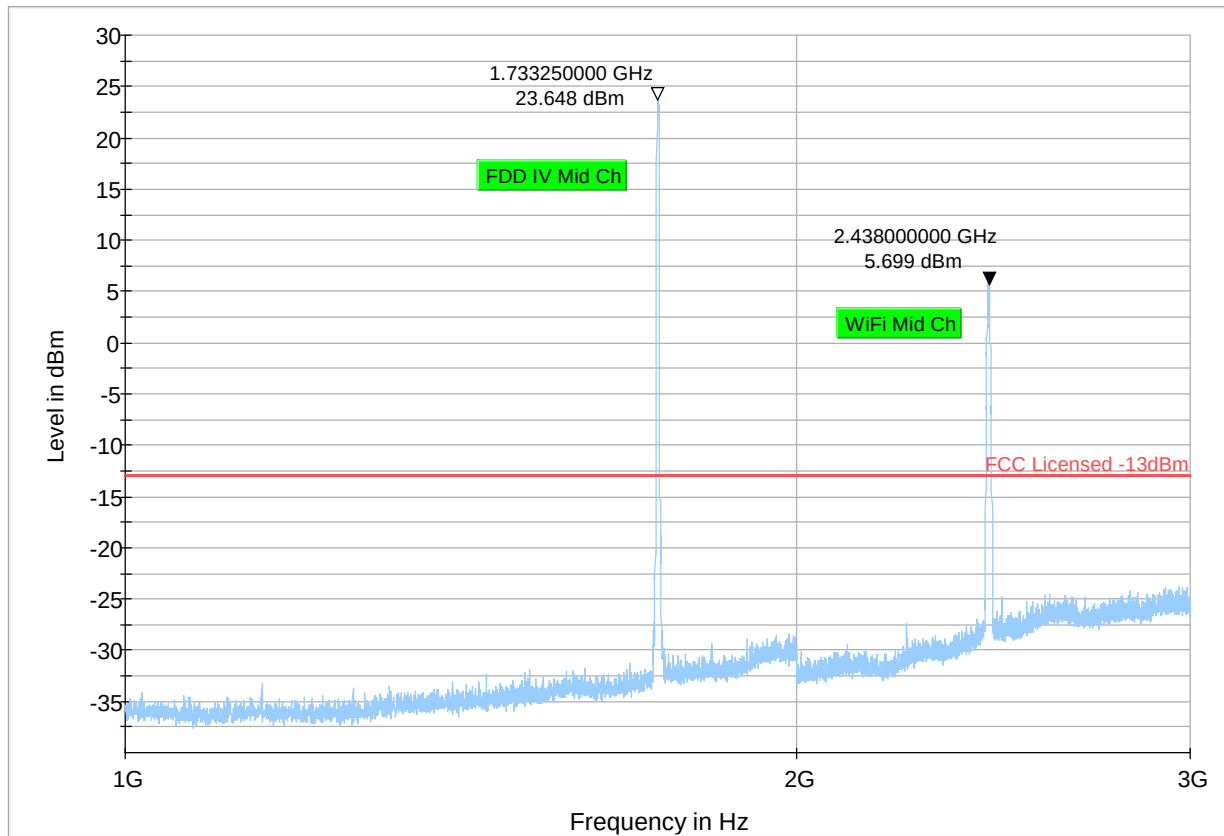


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #38 Radiated Emissions: 1-3 GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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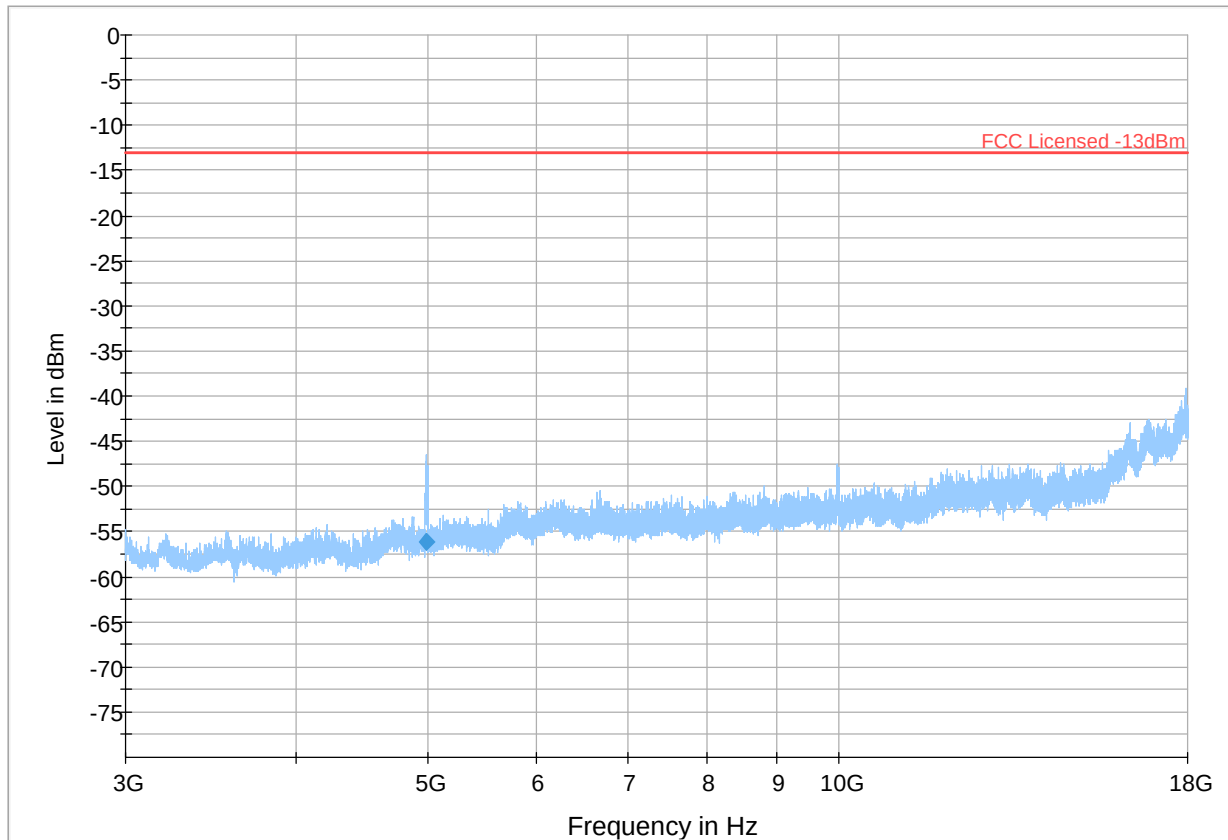


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #39 Radiated Emissions: 3-18GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
4977.500	-56.15	-13.00	43.15	500.0	1000.000	285.0	V	151.0	-98.3	

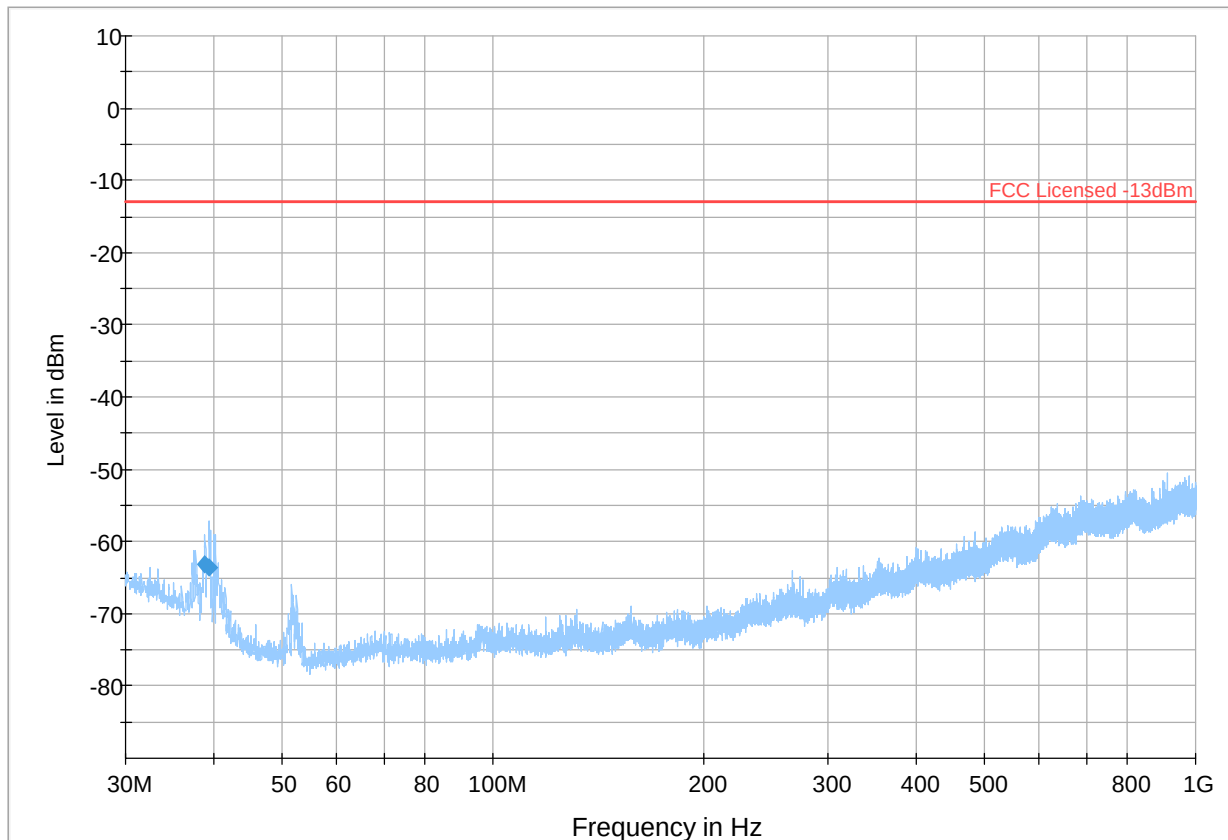


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot #40 Radiated Emissions: 30MHz-1GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
38.924	-63.21	-13.00	50.21	500.0	100.000	150.0	V	134.0	-88.0	
39.441	-63.60	-13.00	50.60	500.0	100.000	173.0	V	120.0	-88.3	

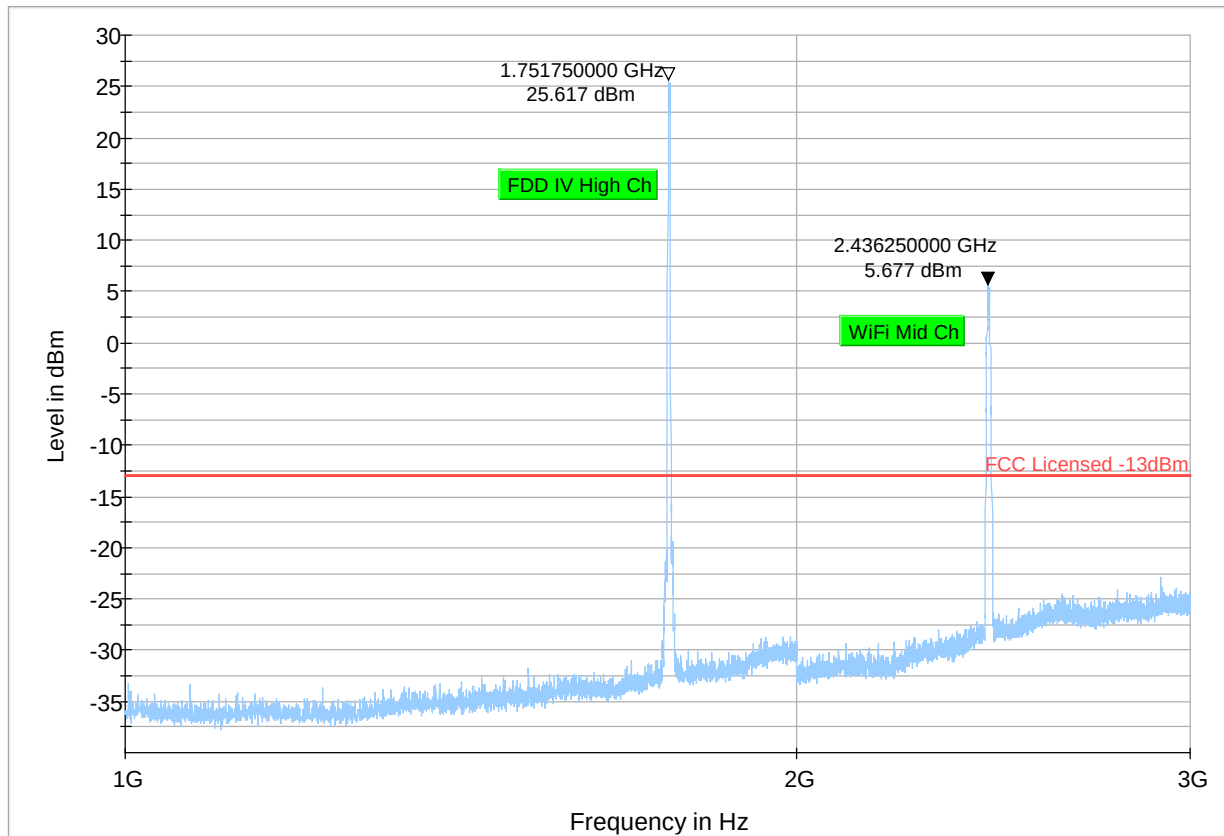


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #41 Radiated Emissions: 1-3 GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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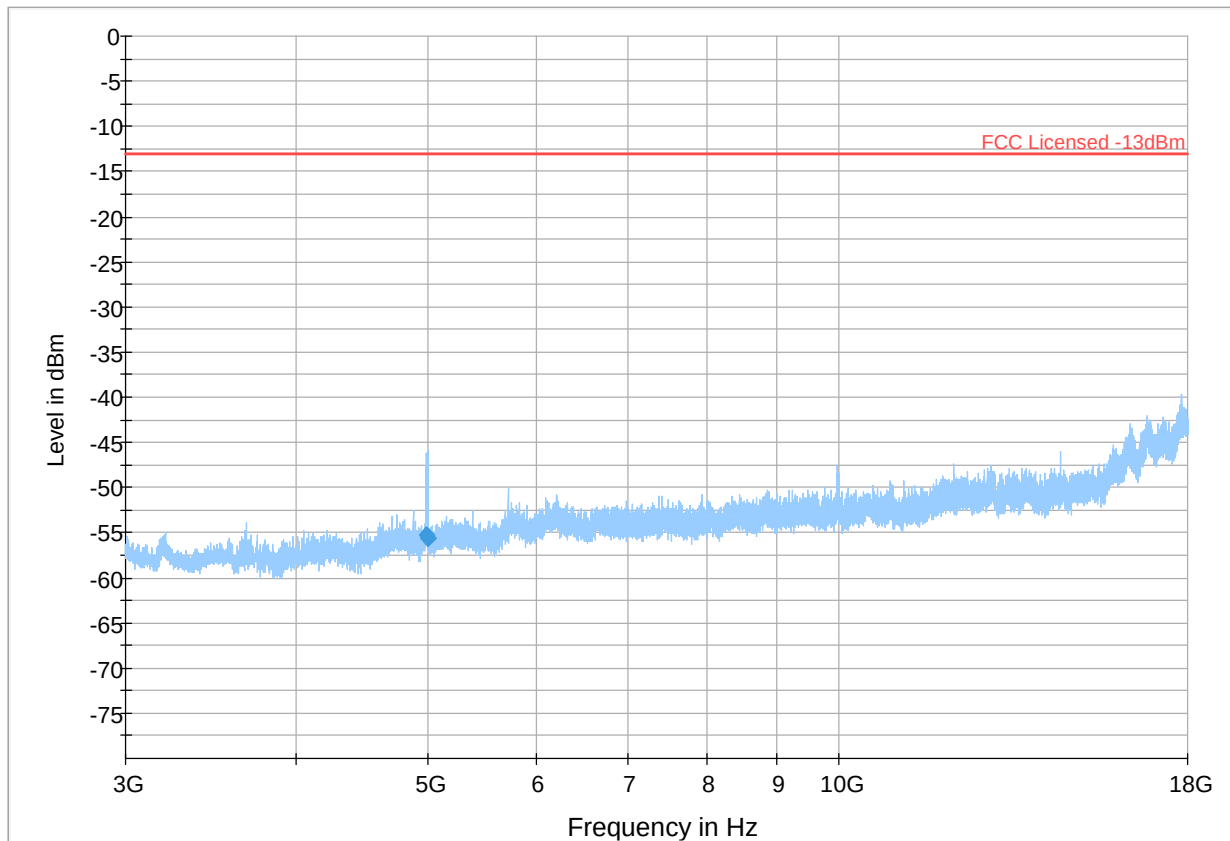


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #42 Radiated Emissions: 3-18GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
4980.500	-55.19	-13.00	42.20	500.0	1000.000	275.0	V	150.0	-98.3	
4994.500	-55.62	-13.00	42.62	500.0	1000.000	263.0	V	149.0	-98.3	

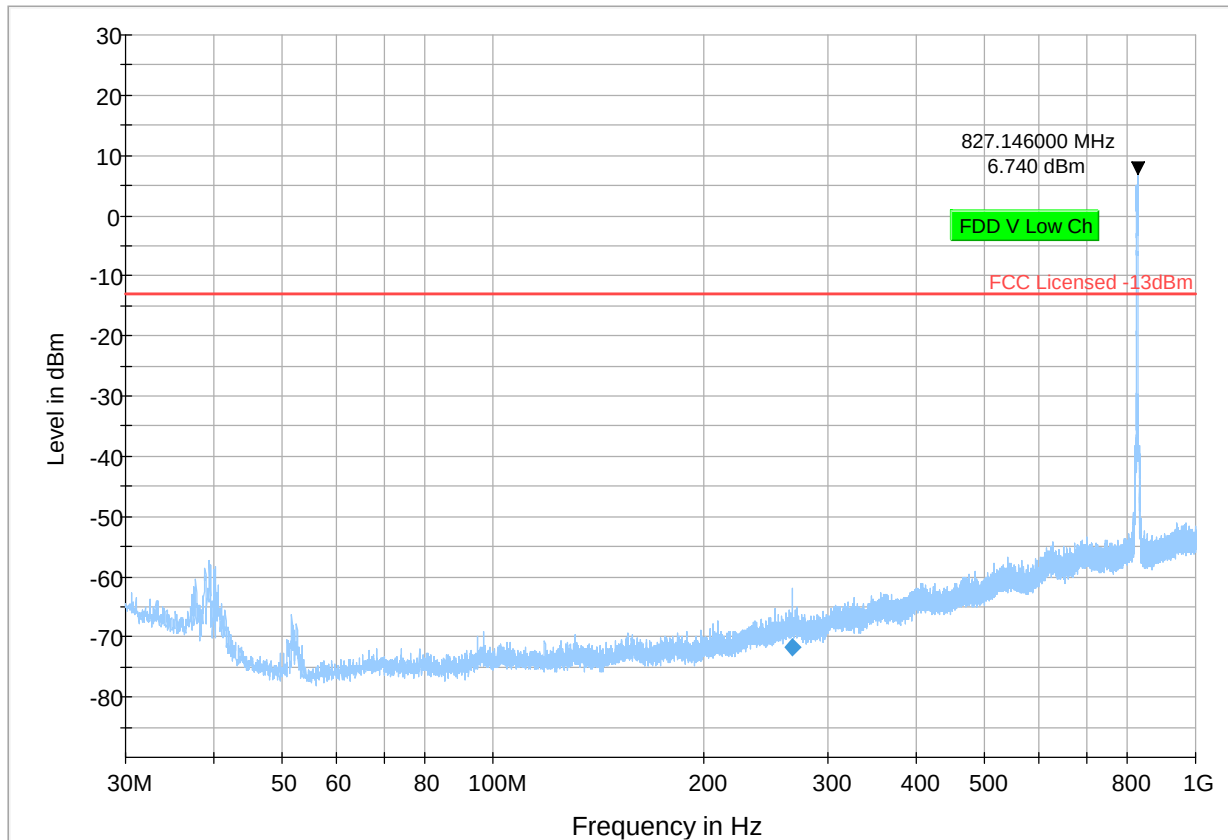


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot #43 Radiated Emissions: 30MHz-1GHz

Channel: Low

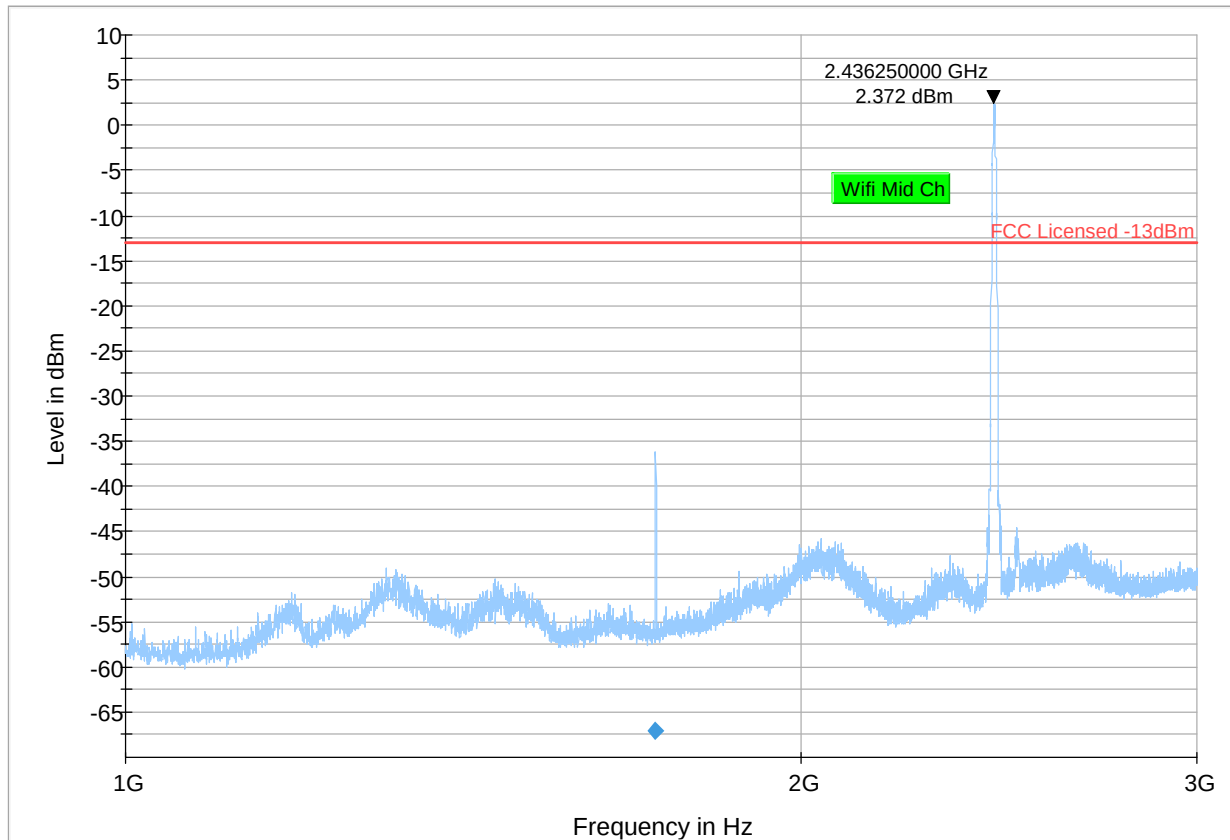
Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
266.389	-71.65	-13.00	58.65	500.0	100.000	150.0	V	127.0	-85.1	



Plot #44 Radiated Emissions: 1-3 GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
1722.000	-67.03	-13.00	54.03	500.0	1000.000	162.0	V	8.0	-89.3	

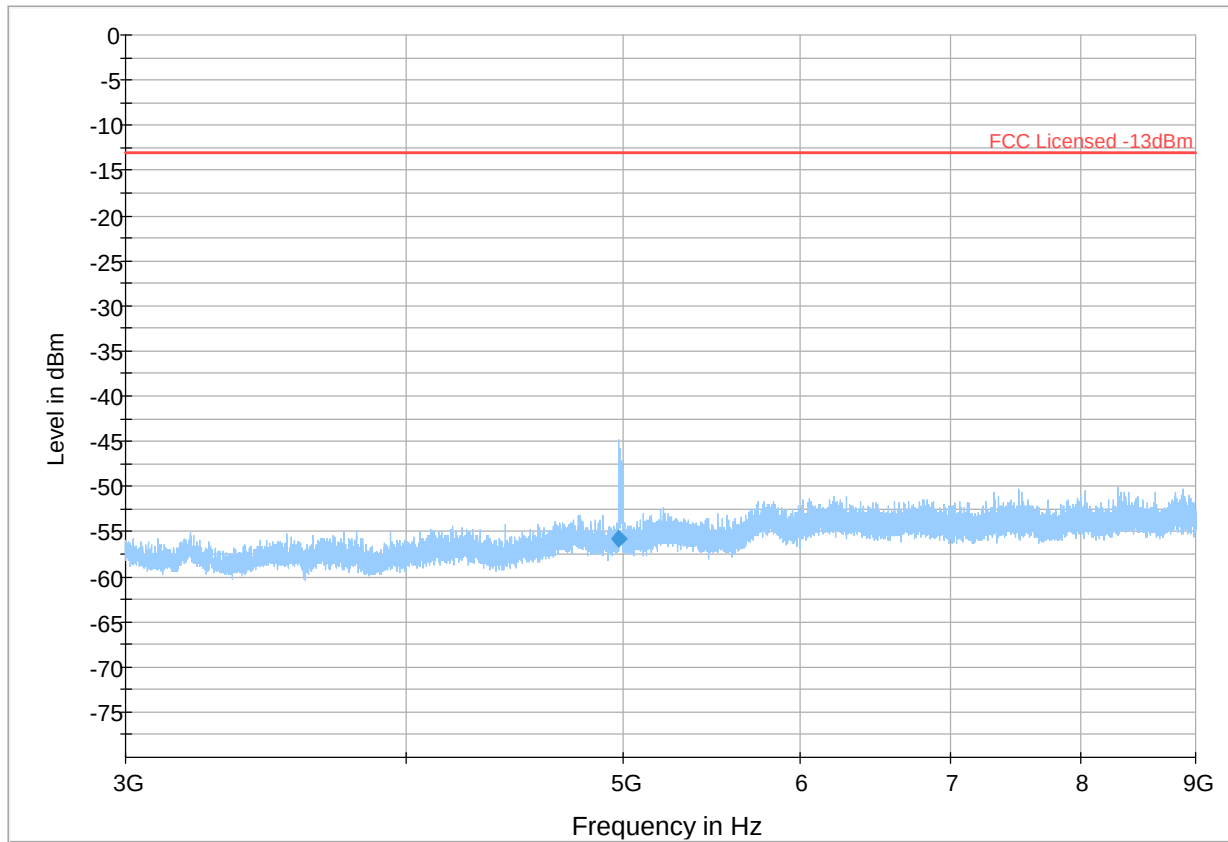


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #45 Radiated Emissions: 3-9 GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
4978.000	-55.71	-13.00	42.71	500.0	1000.000	262.0	V	149.0	-98.3	

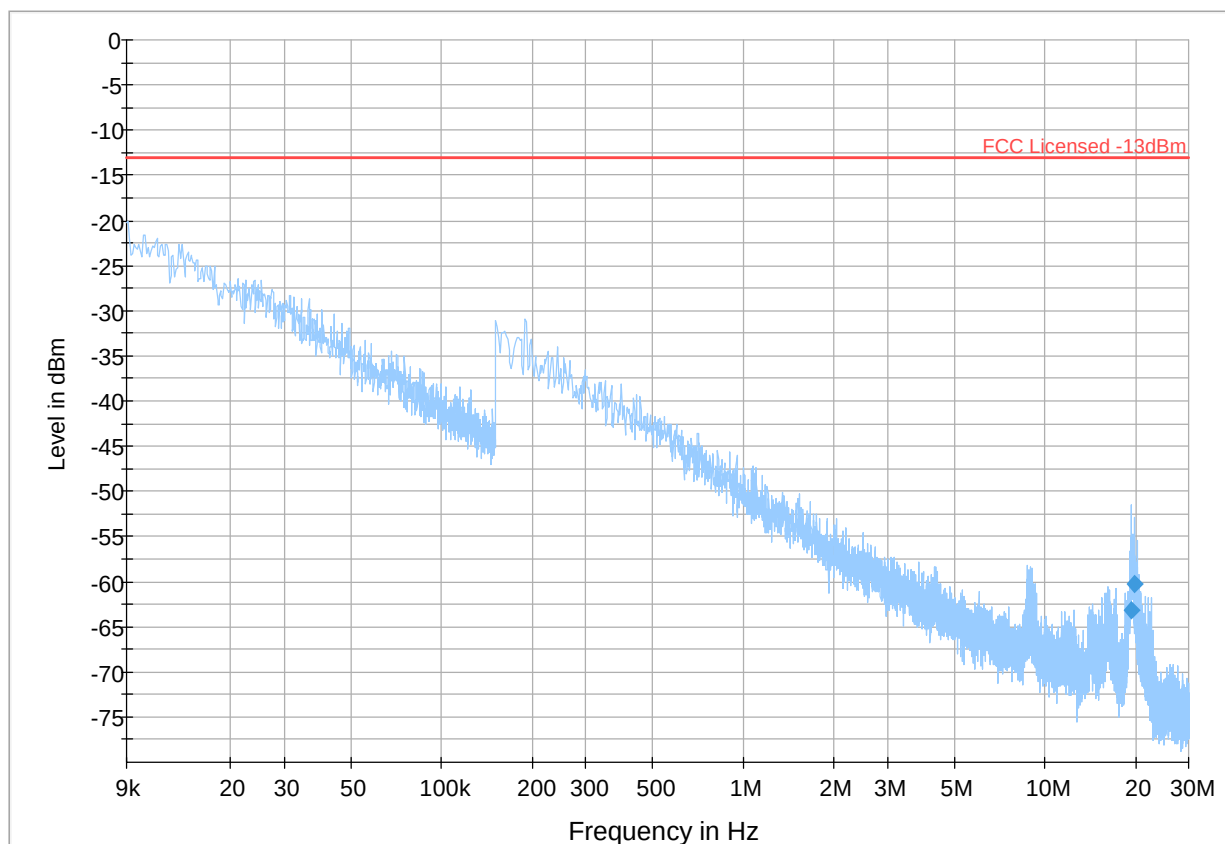


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #46 Radiated Emissions: 9kHz-30MHz

Channel: Mid

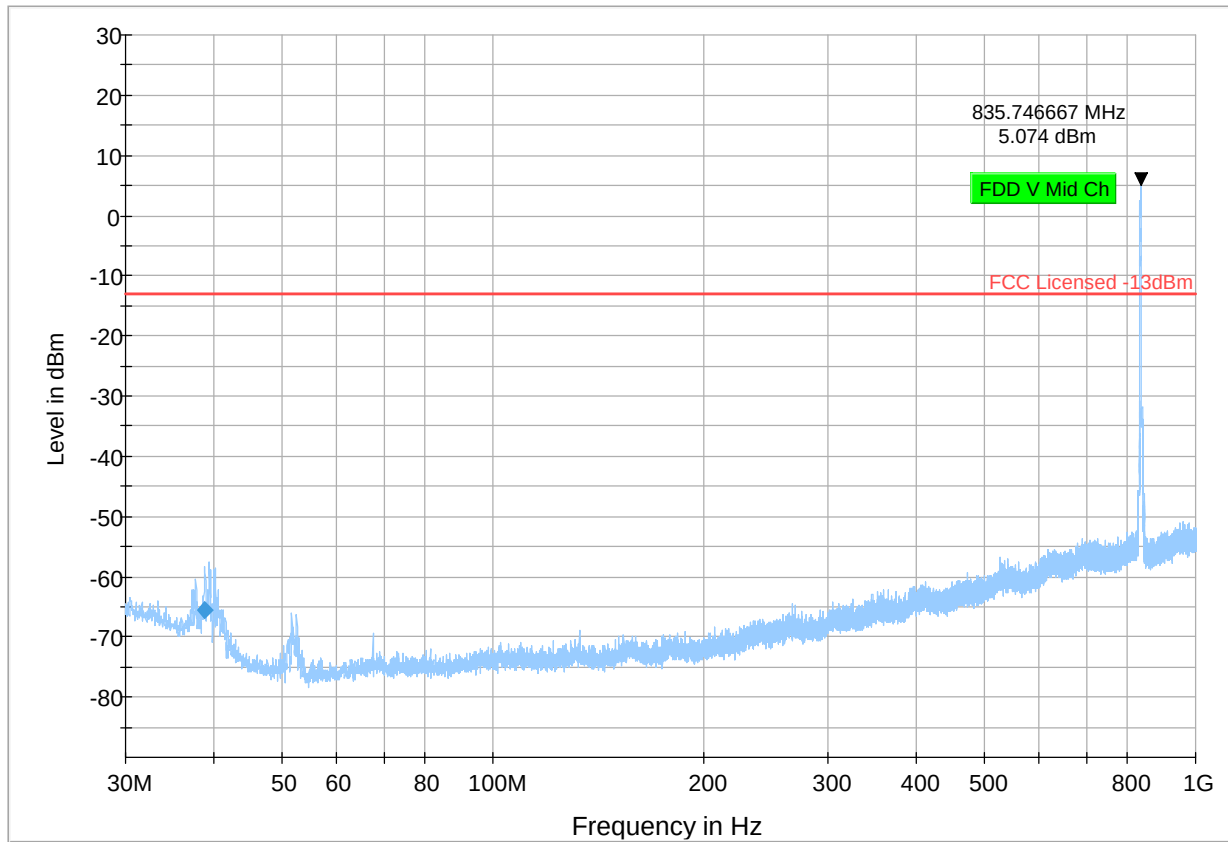
Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
19.405	-63.18	-13.00	50.18	500.0	3.000	149.0	V	-7.0	-78.4	
19.890	-60.19	-13.00	47.19	500.0	3.000	150.0	V	82.0	-78.5	



Plot #47 Radiated Emissions: 30MHz-1GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
38.924	-65.49	-13.00	52.49	500.0	100.000	315.0	V	143.0	-88.0	

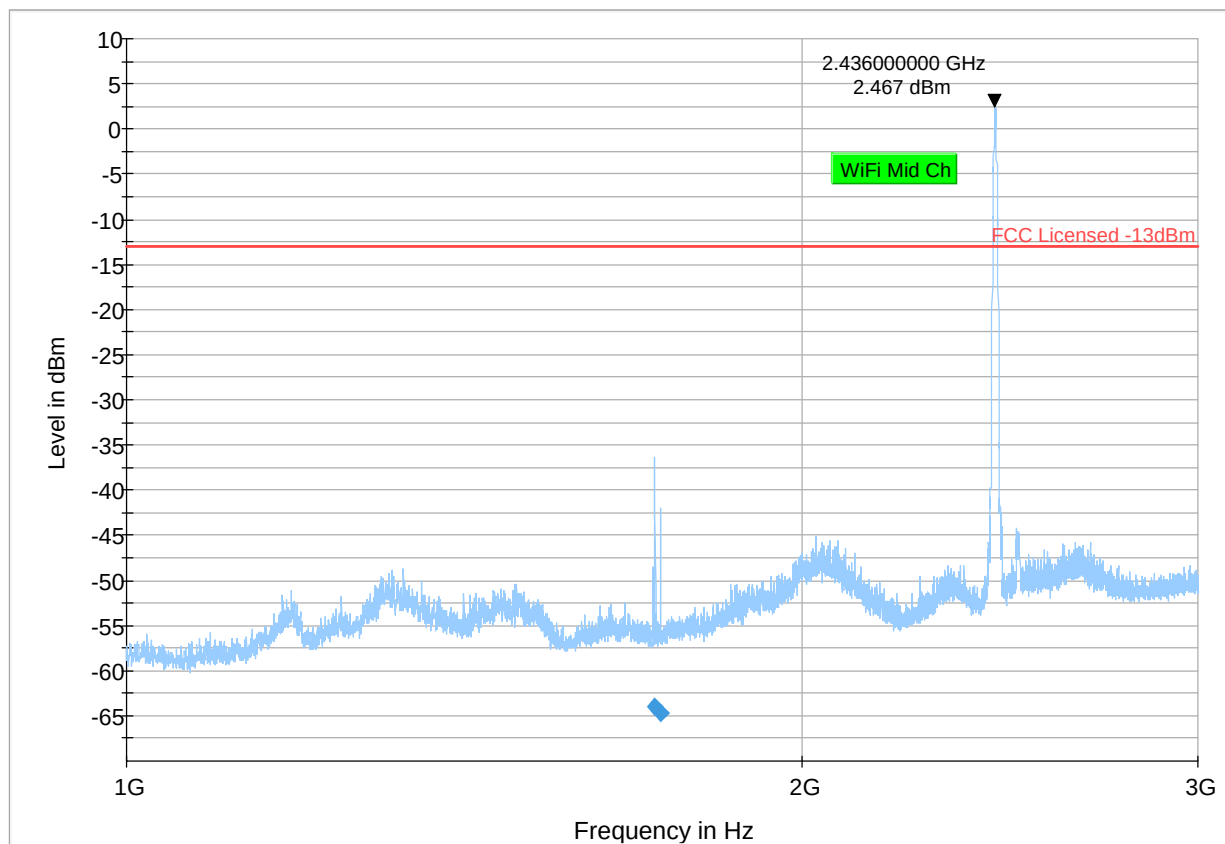


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #48 Radiated Emissions: 1-3 GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
1719.000	-64.02	-13.00	51.02	500.0	1000.000	219.0	V	36.0	-89.4	
1729.000	-64.62	-13.00	51.62	500.0	1000.000	227.0	V	120.0	-89.3	

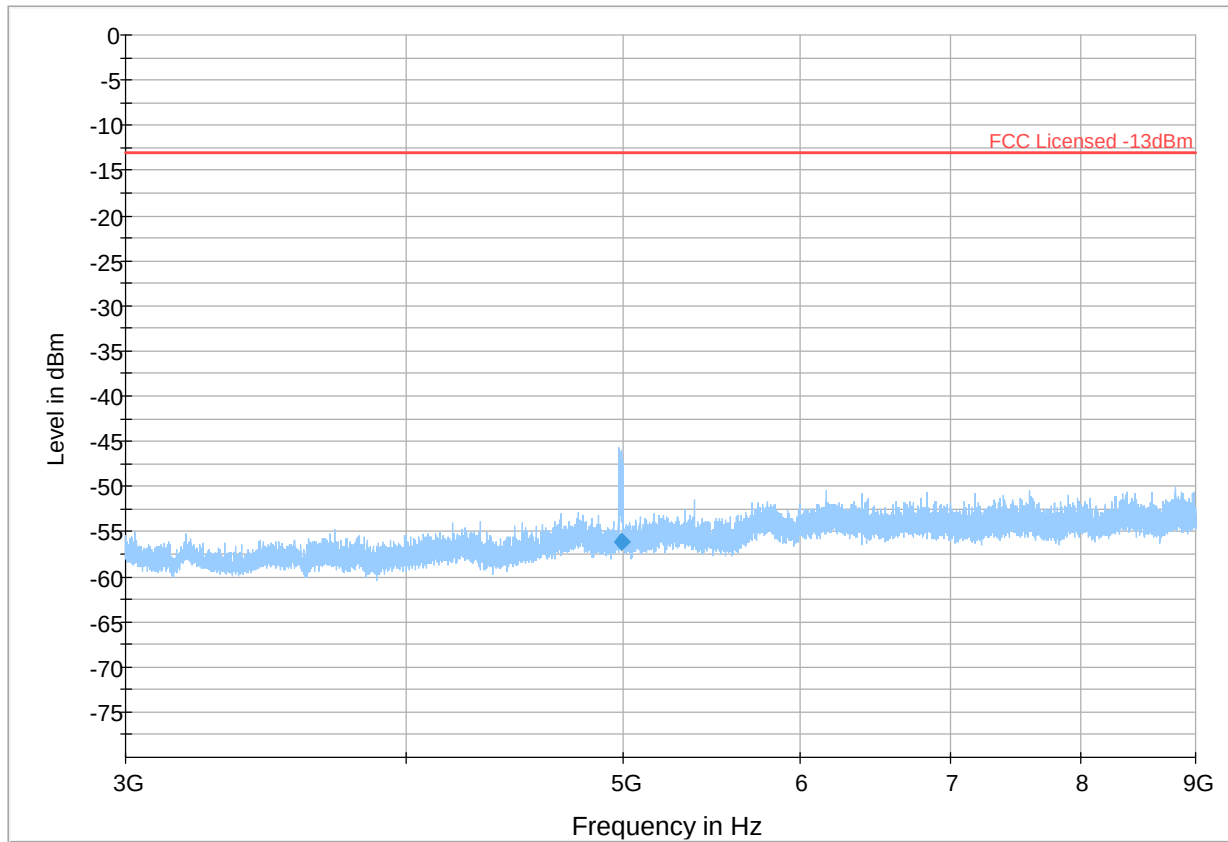


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #49 Radiated Emissions: 3-9 GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
4995.750	-56.19	-13.00	43.19	500.0	1000.000	261.0	V	149.0	-98.3	

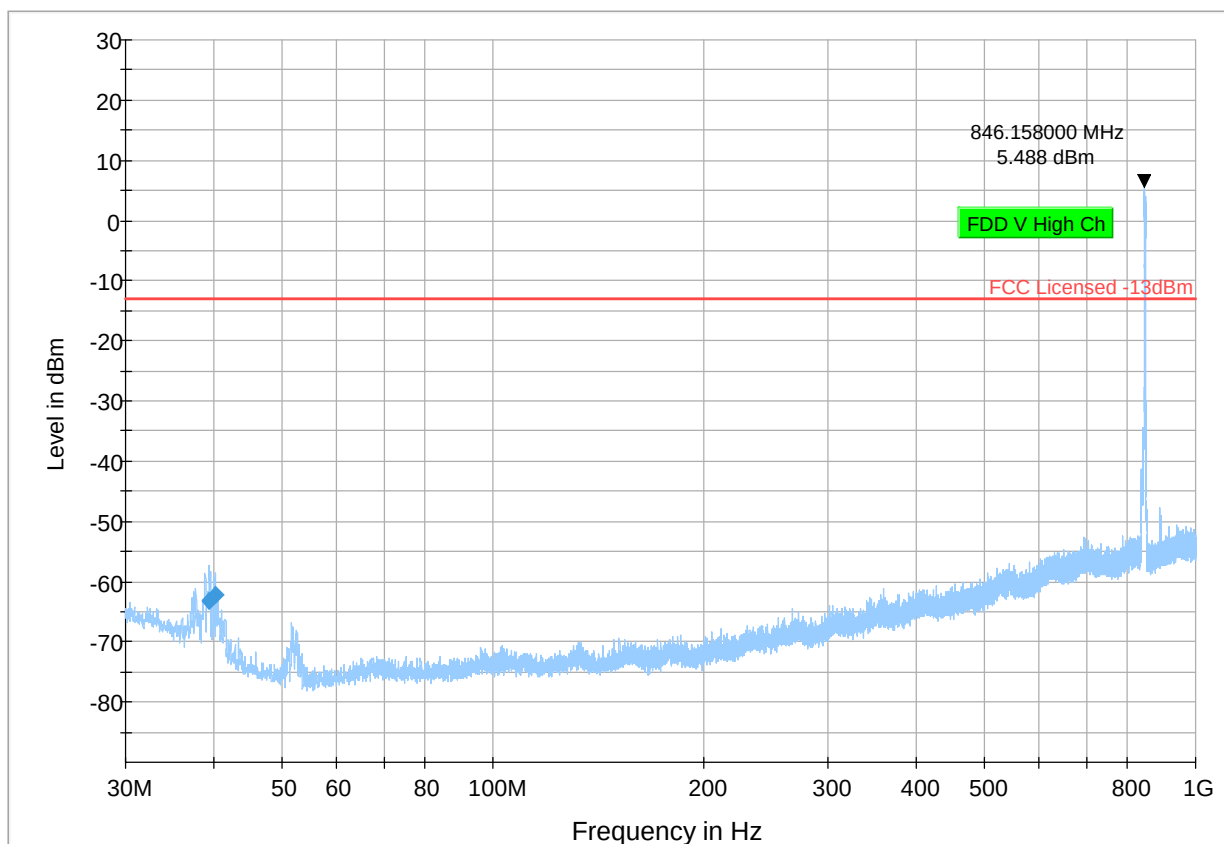


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #50 Radiated Emissions: 30 MHz – 1 GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
39.441	-63.25	-13.00	50.25	500.0	100.000	175.0	V	127.0	-88.3	
40.347	-62.17	-13.00	49.17	500.0	100.000	150.0	V	124.0	-88.8	

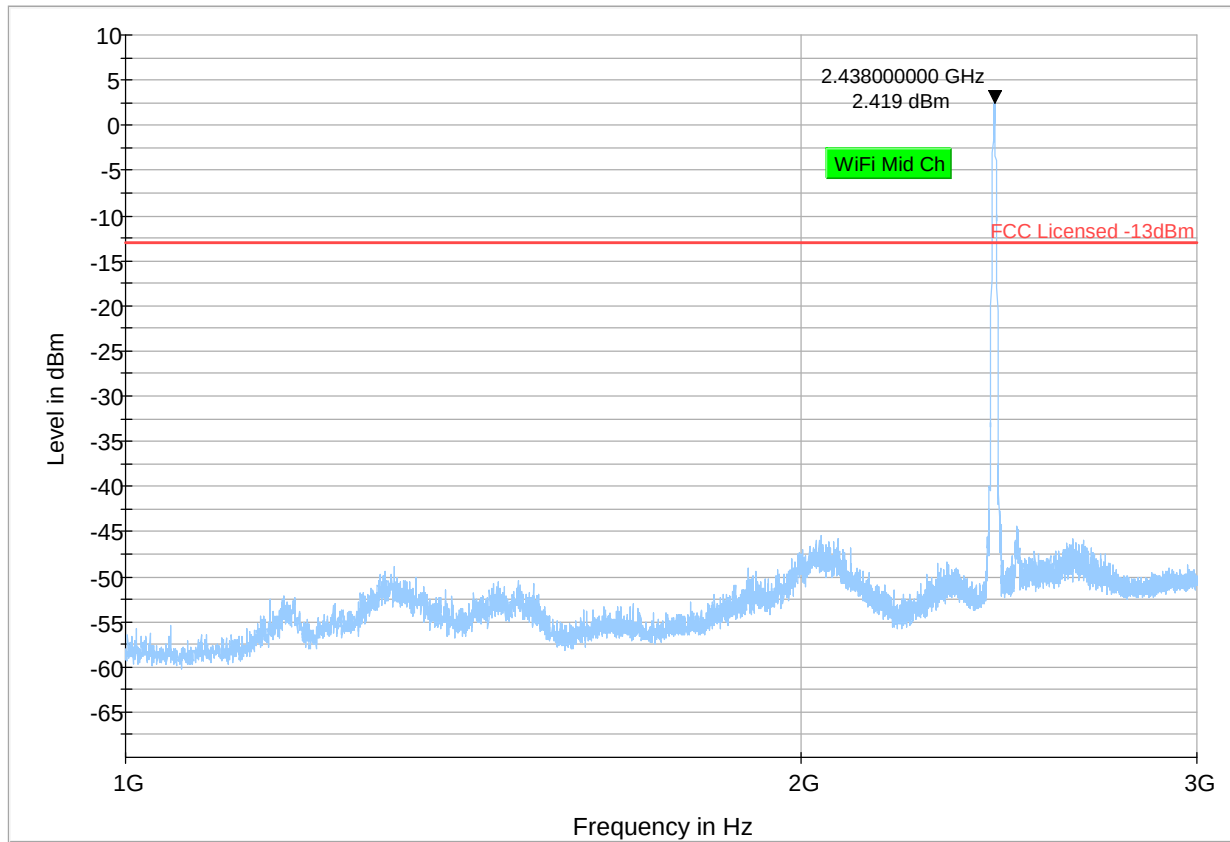


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #51 Radiated Emissions: 1-3 GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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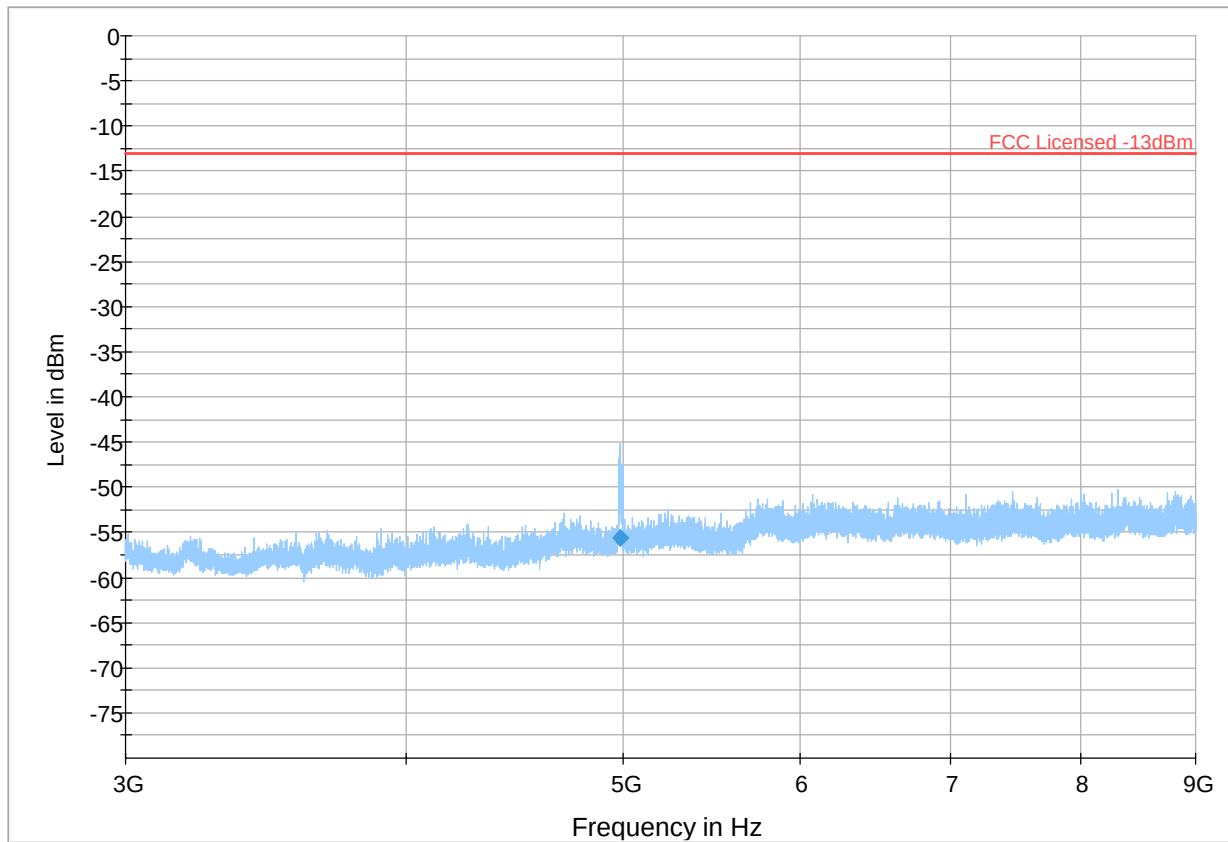


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #52 Radiated Emissions: 3-9 GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
4985.750	-55.55	-13.00	42.55	500.0	1000.000	284.0	V	151.0	-98.3	

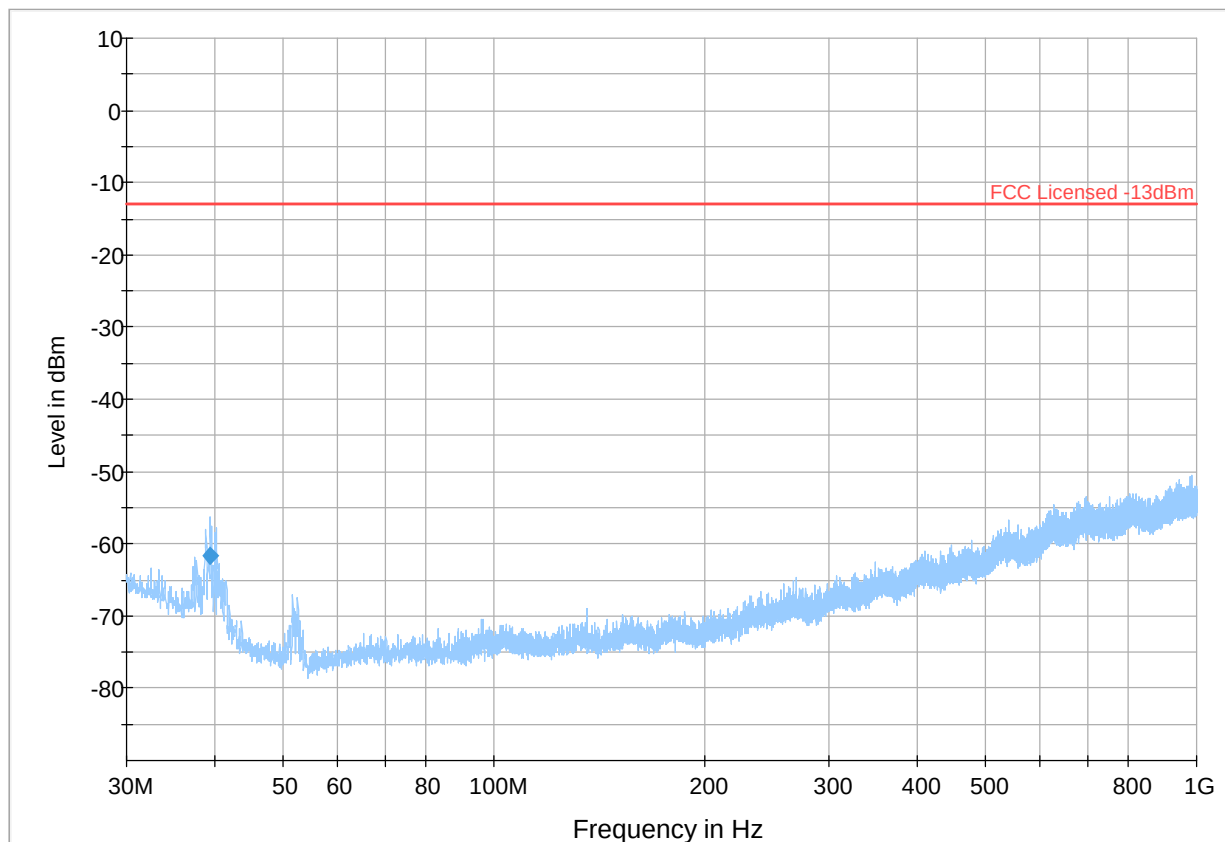


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #53 Radiated Emissions: 30 MHz – 1GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
39.441	-61.69	-13.00	48.69	500.0	100.000	175.0	V	167.0	-88.3	

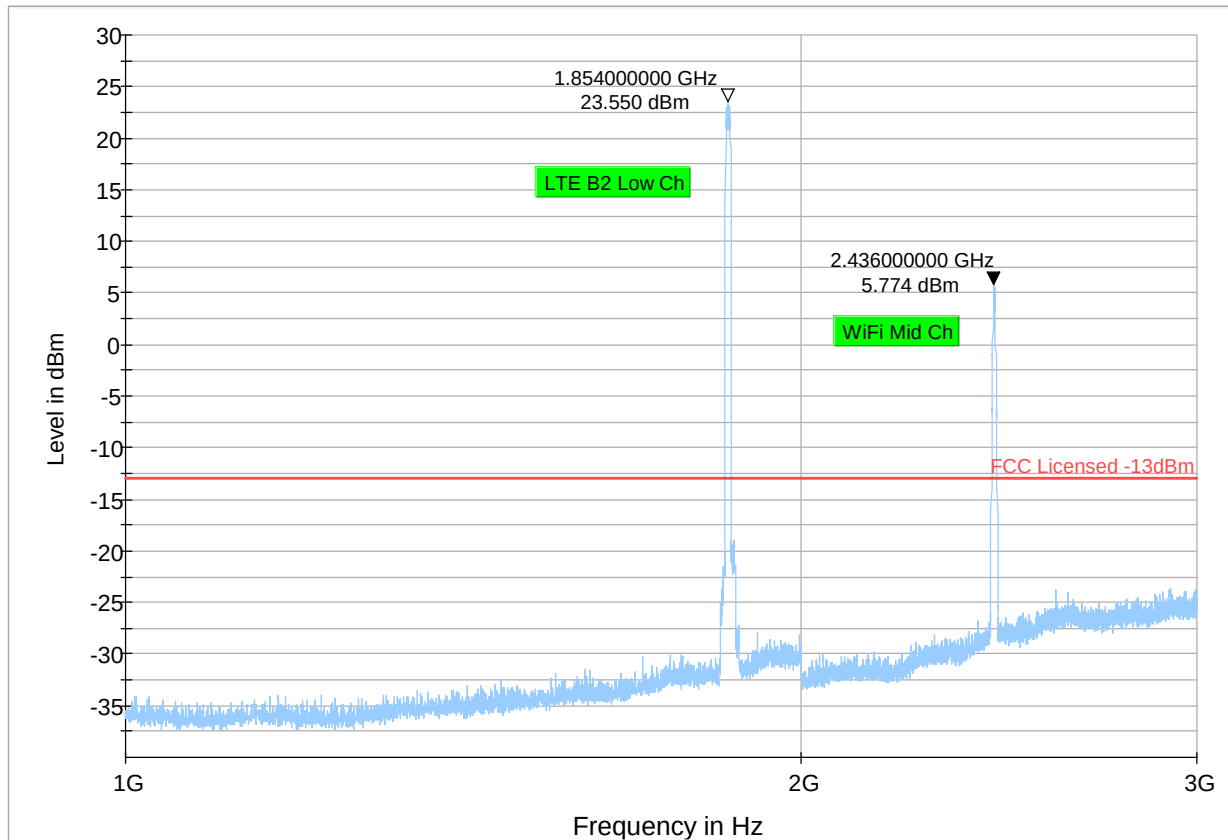


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #54 Radiated Emissions: 1-3 GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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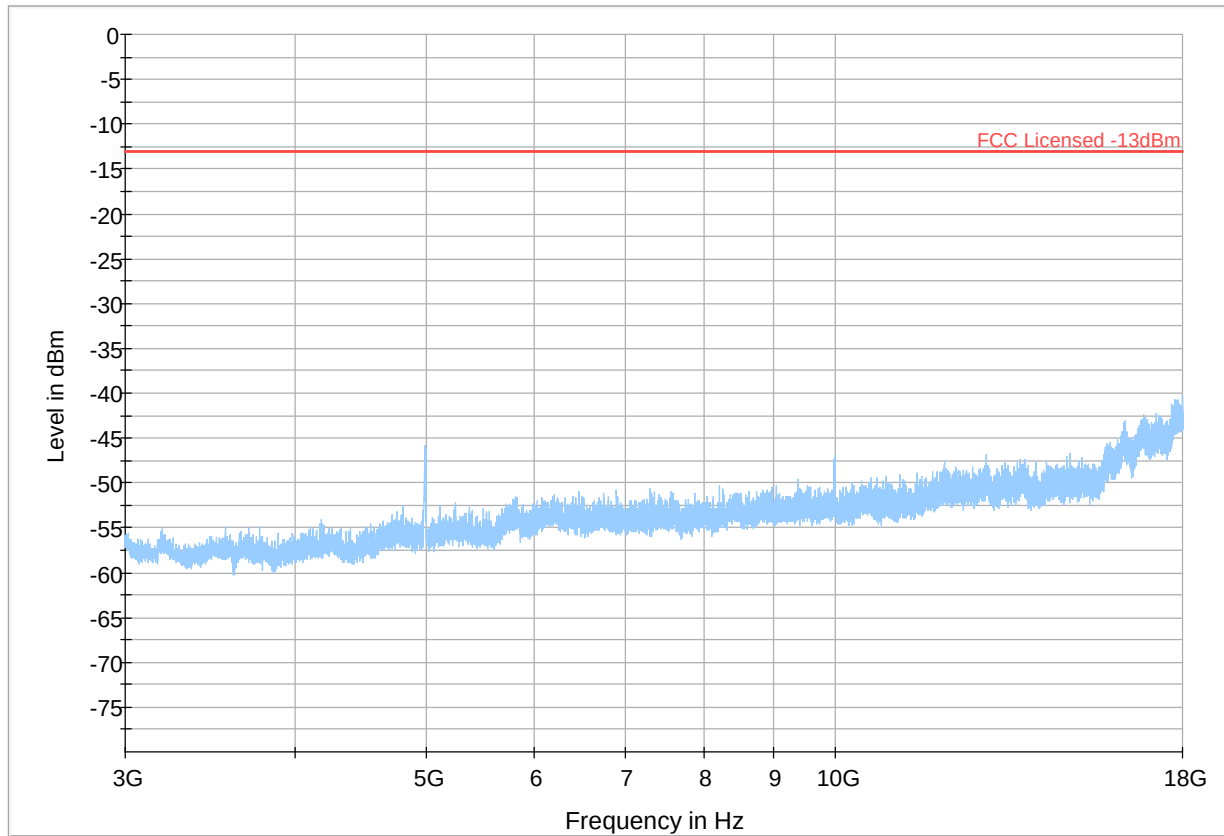


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #55 Radiated Emissions: 3-18 GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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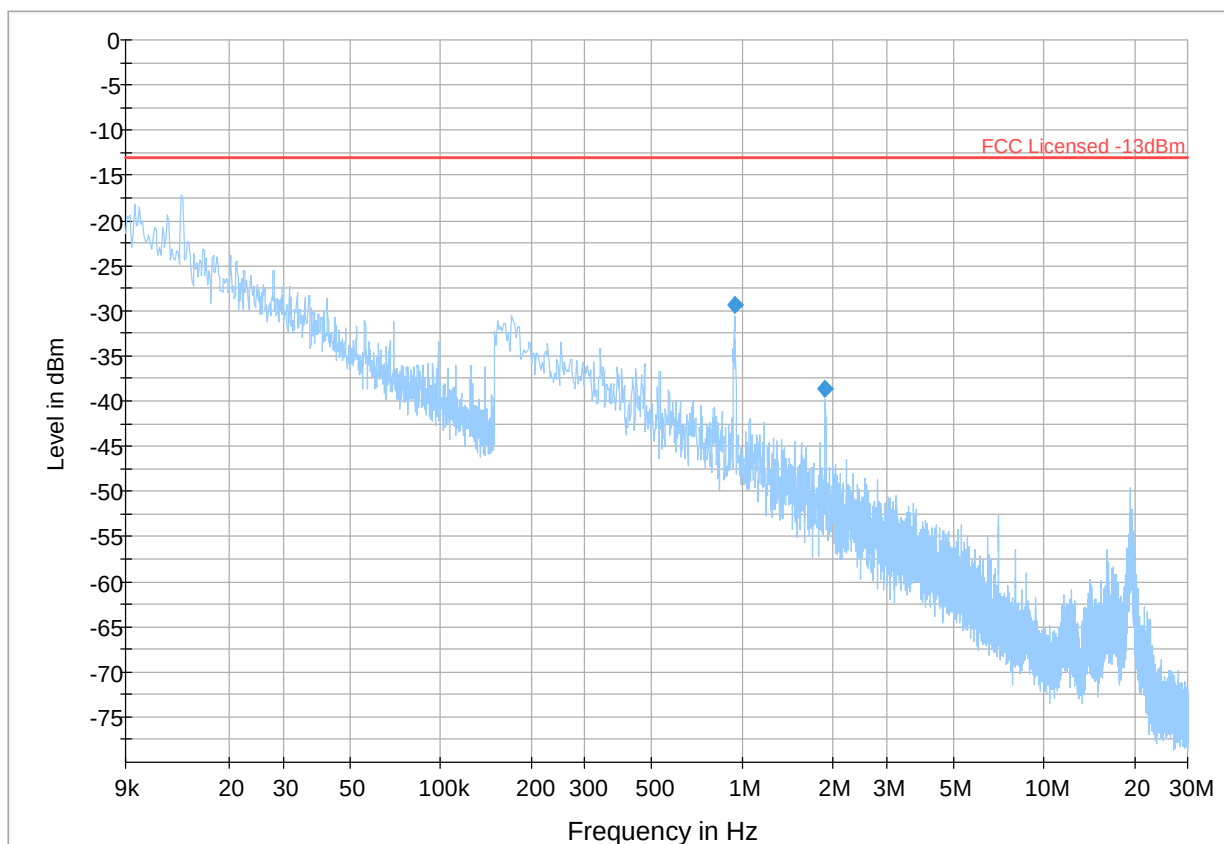


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #56 Radiated Emissions: 9 kHz – 30 MHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
0.941	-29.36	-13.00	16.36	500.0	3.000	162.0	H	-40.0	-76.5	
1.889	-38.61	-13.00	25.61	500.0	3.000	163.0	H	-19.0	-76.3	

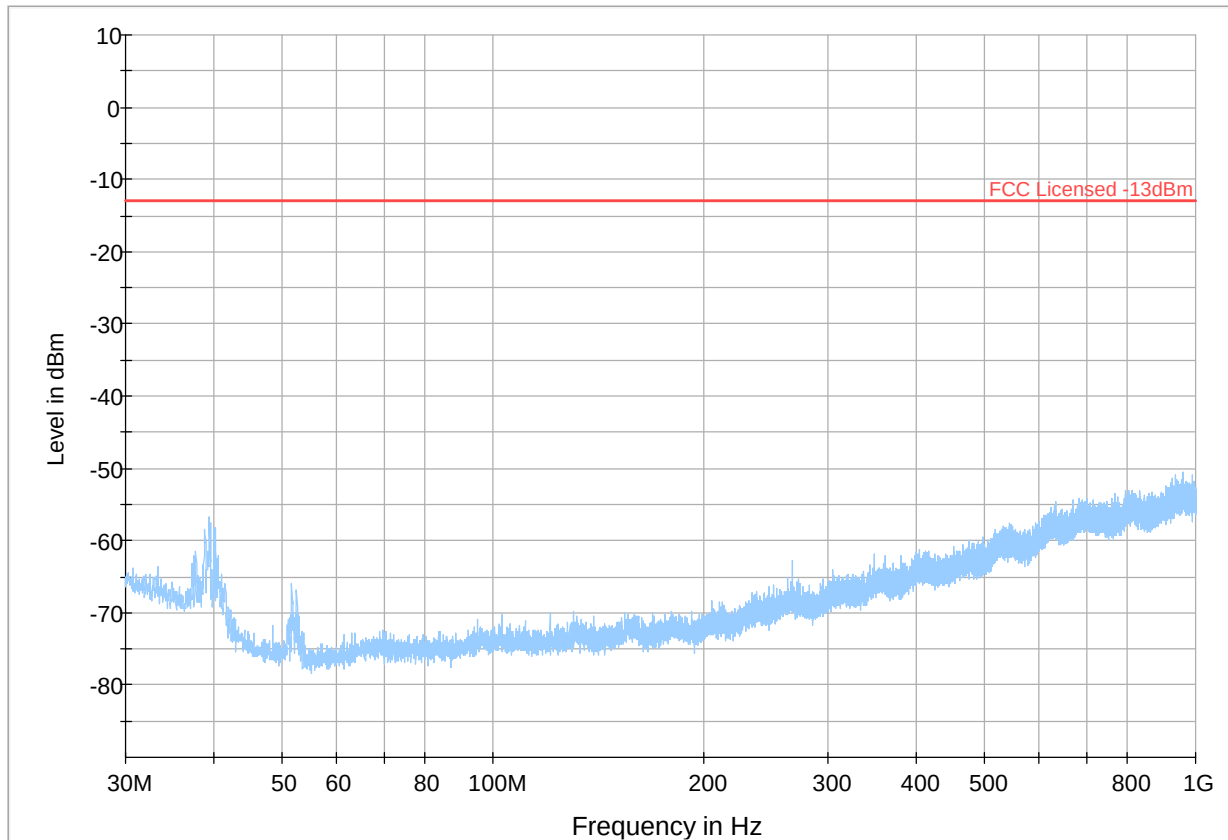


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot #57 Radiated Emissions: 30 MHz – 1 GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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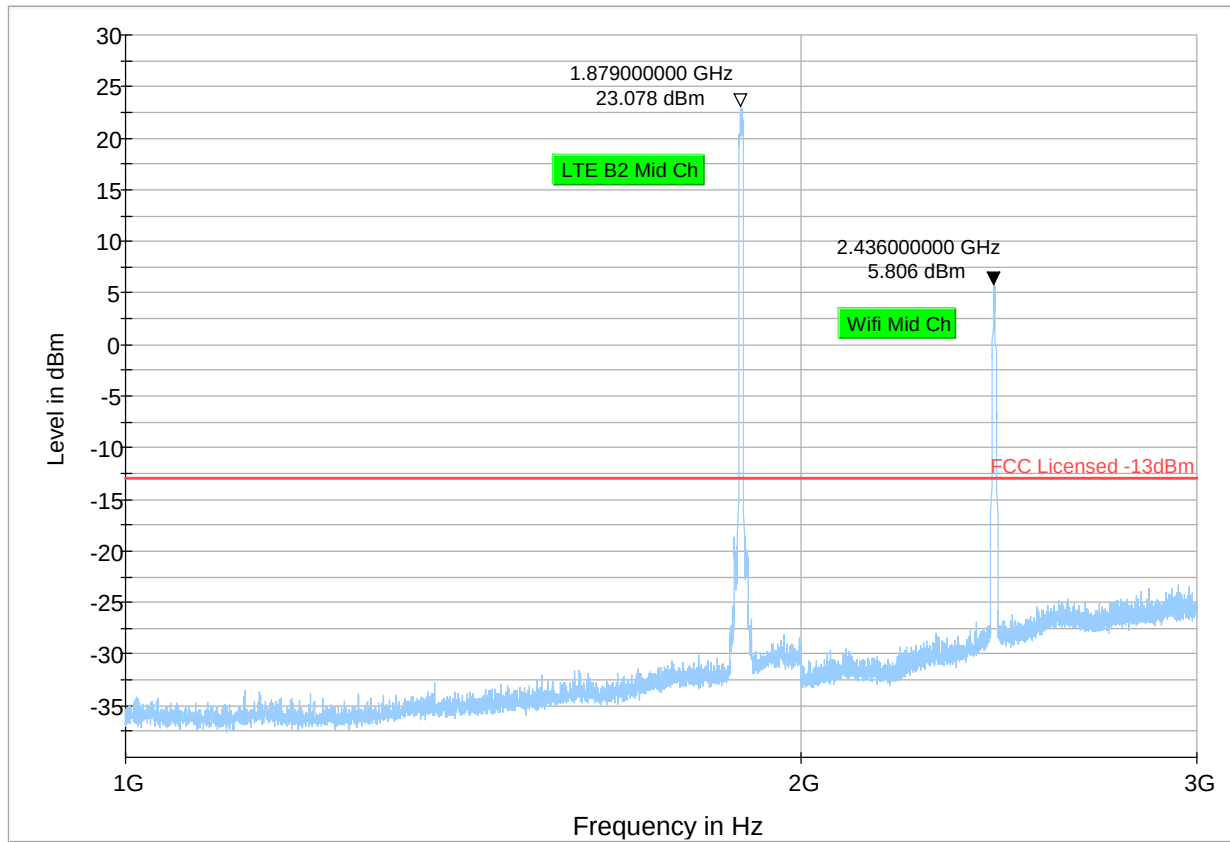


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #58 Radiated Emissions: 1-3 GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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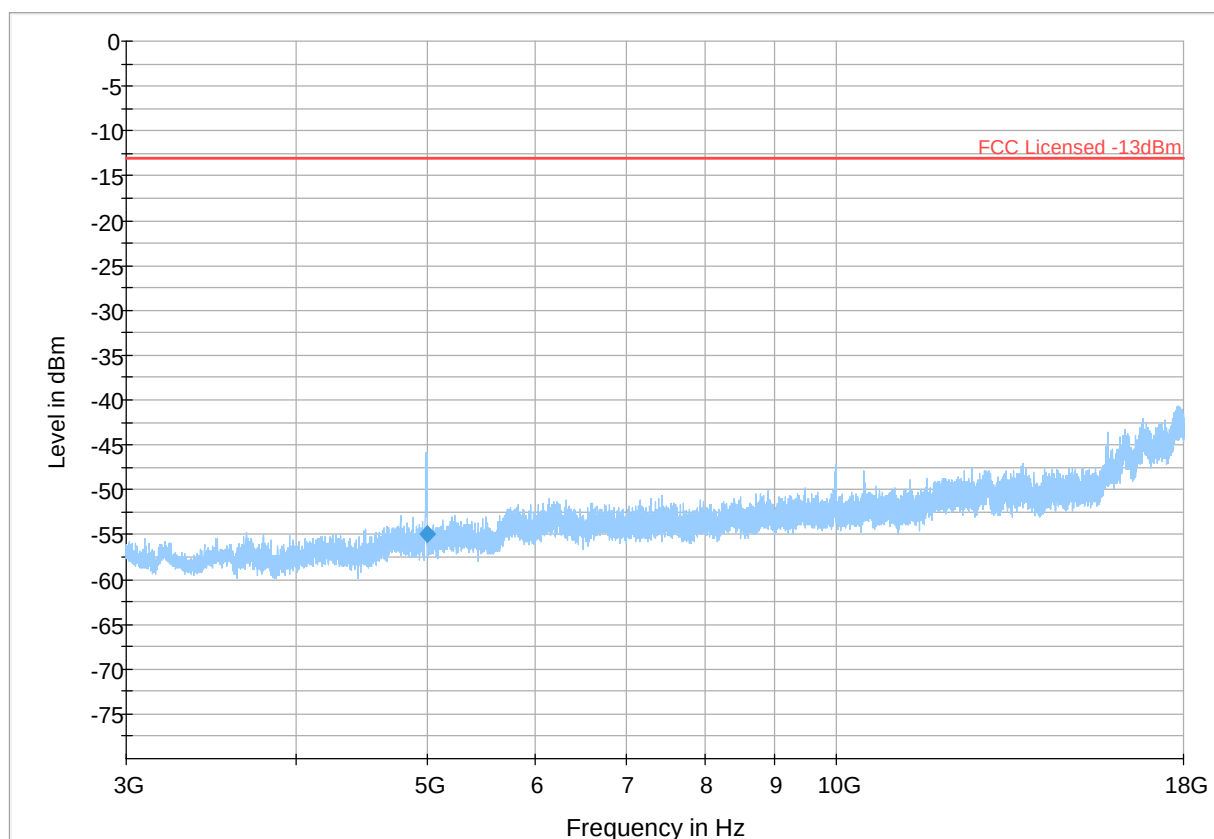


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #59 Radiated Emissions: 3-18 GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
4993.000	-54.94	-13.00	41.94	500.0	1000.000	263.0	V	151.0	-98.3	

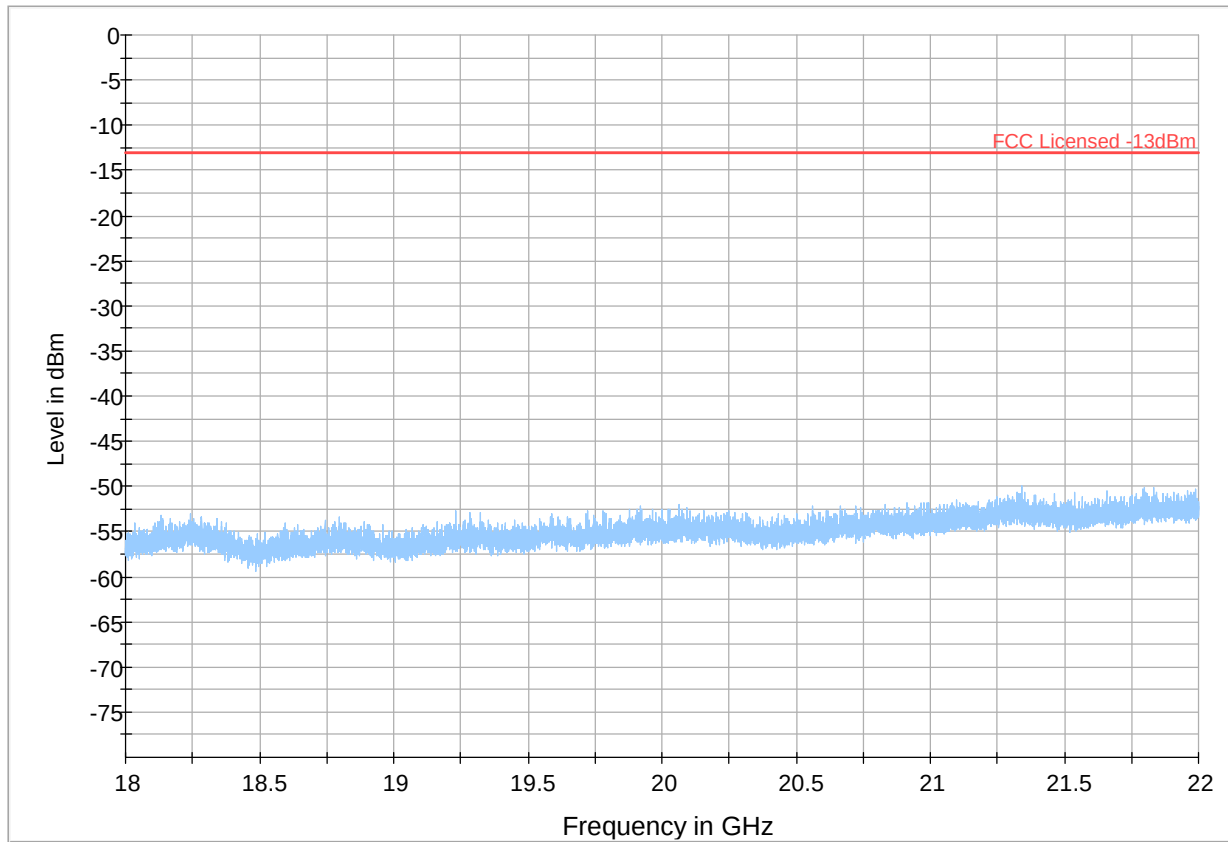


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot #60 Radiated Emissions: 18-22 GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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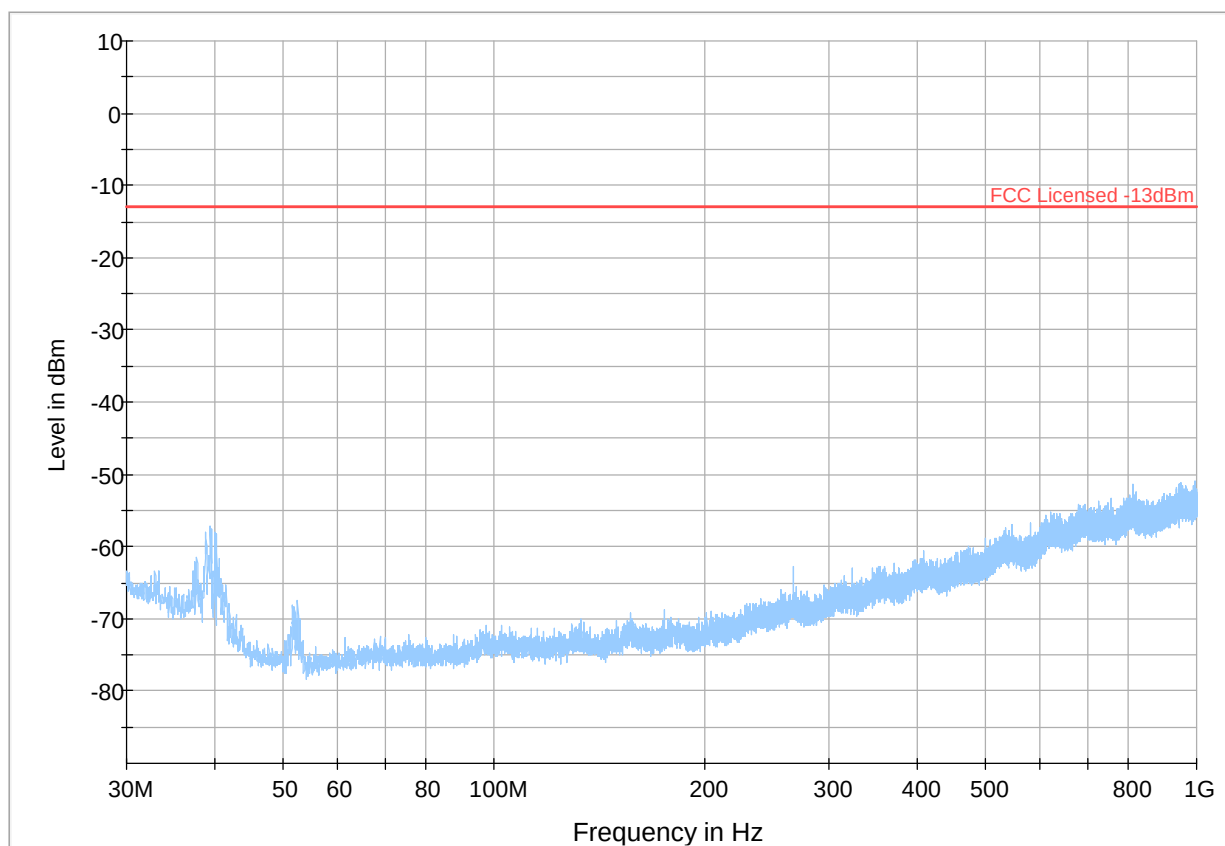


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #61 Radiated Emissions: 30MHz-1GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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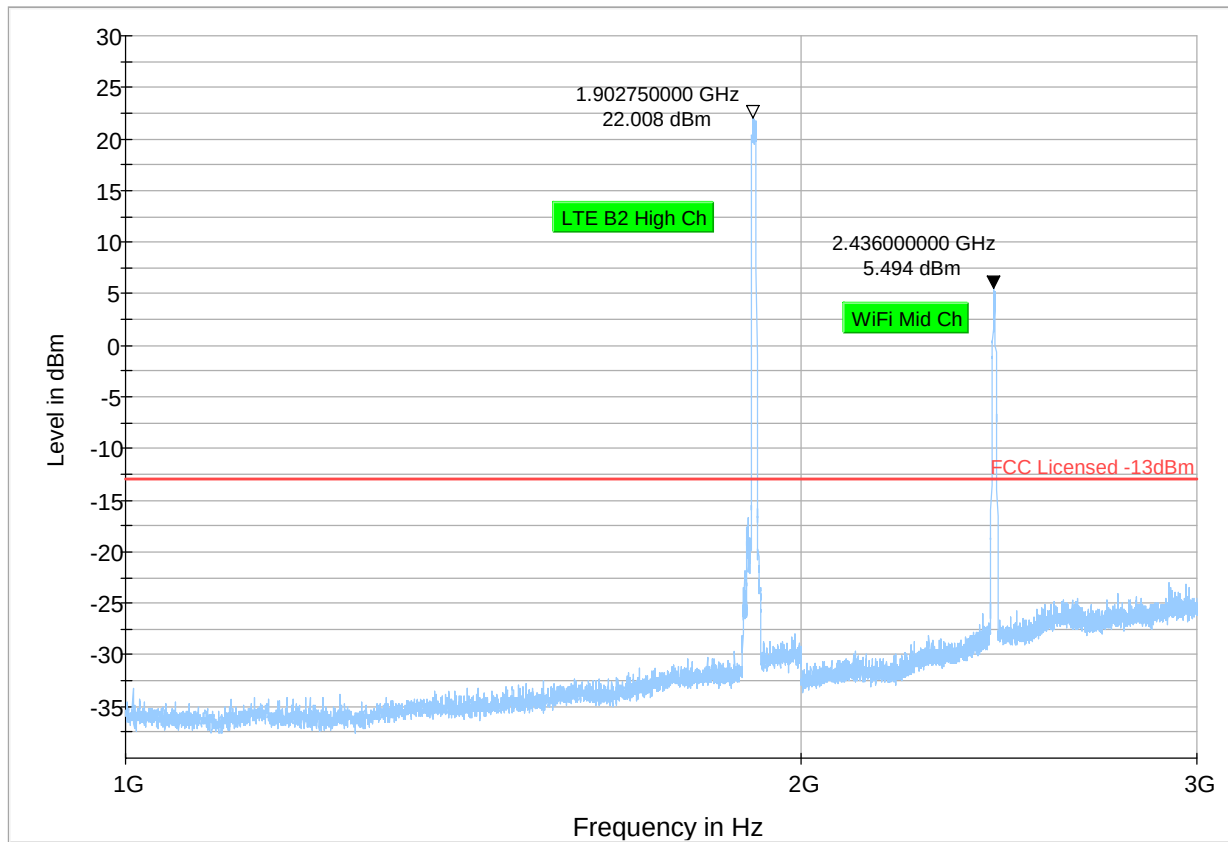


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #62 Radiated Emissions: 1-3 GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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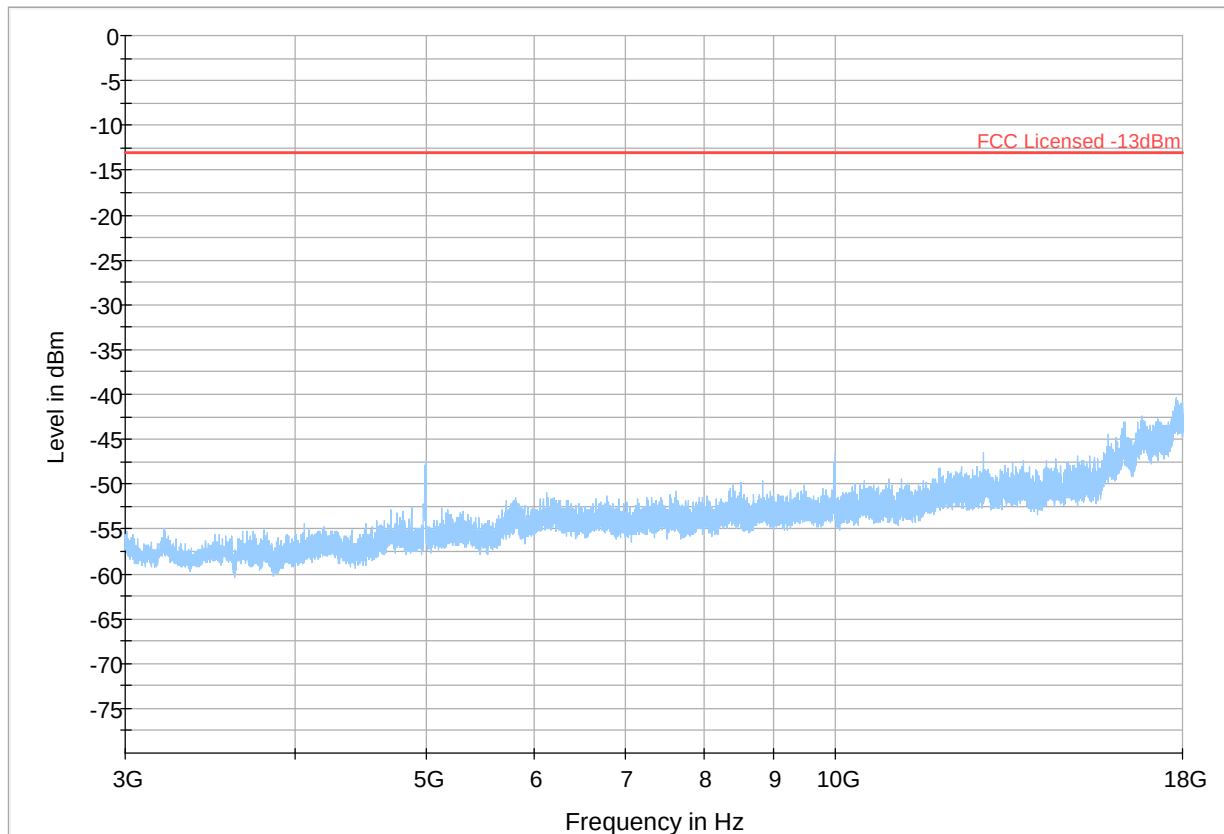


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #63 Radiated Emissions: 3-18GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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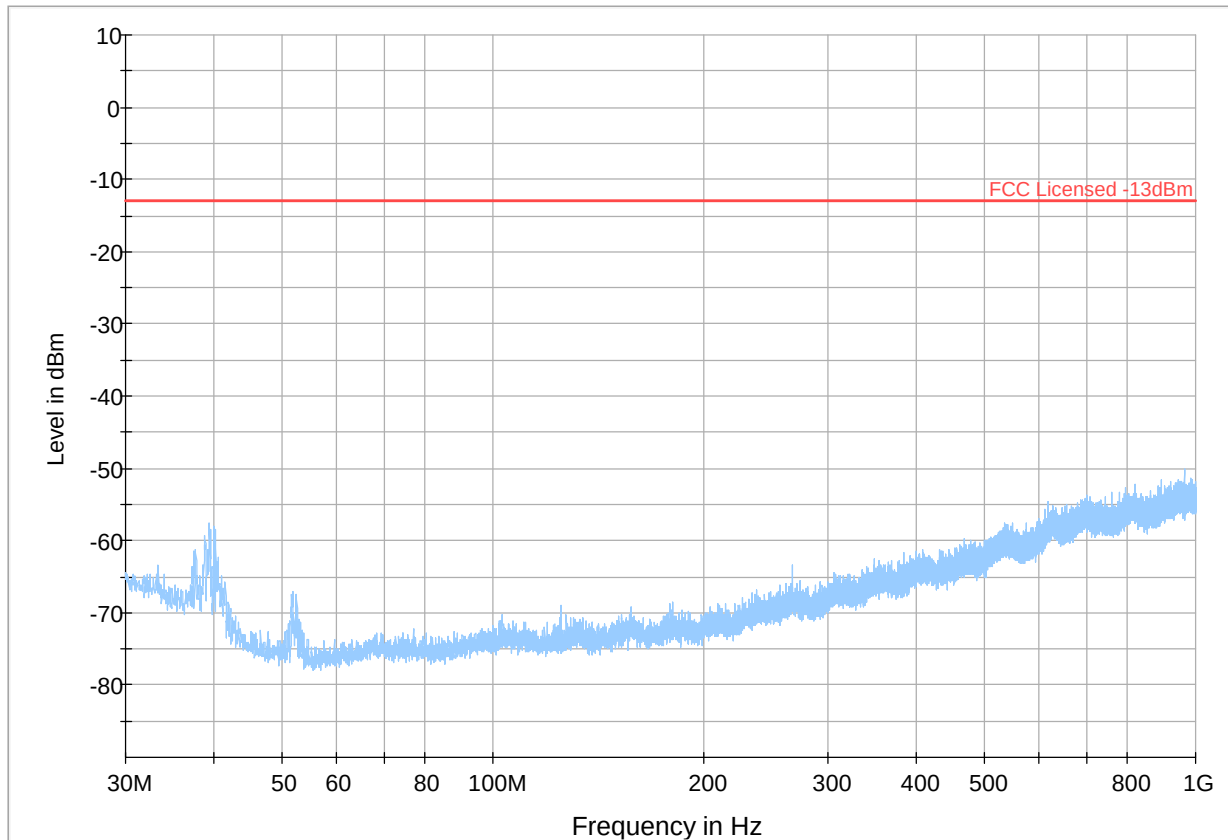


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #64 Radiated Emissions: 30MHz-1GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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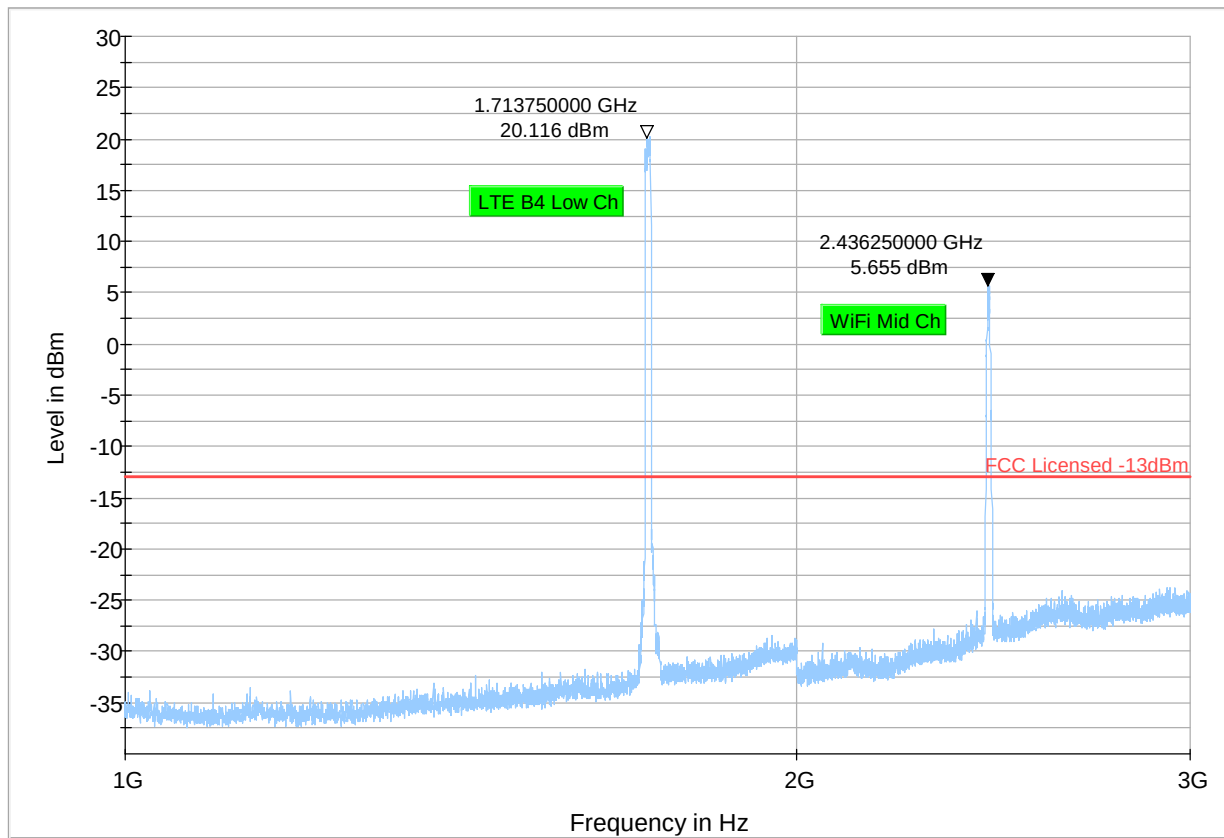


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot #65 Radiated Emissions: 1-3GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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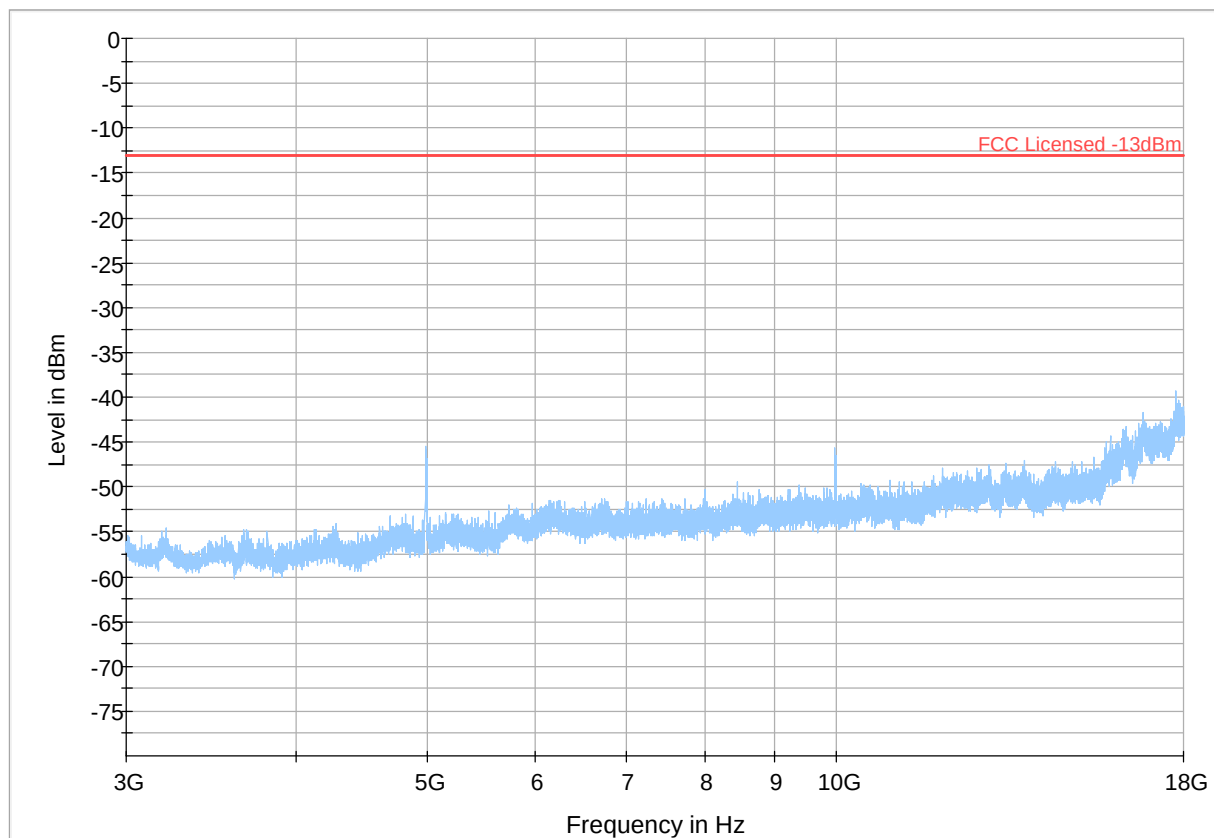


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #66 Radiated Emissions: 3-18GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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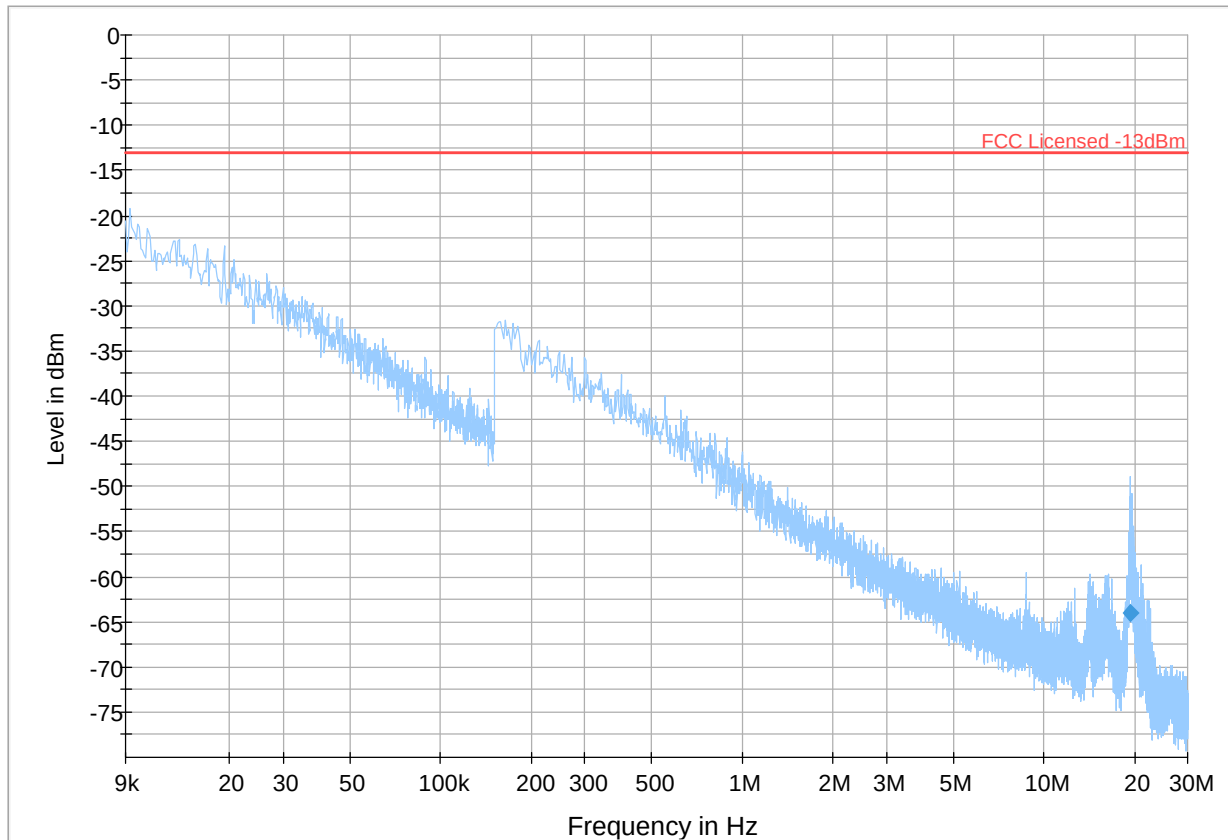


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #67 Radiated Emissions: 9kHz-30MHz

Channel: Mid

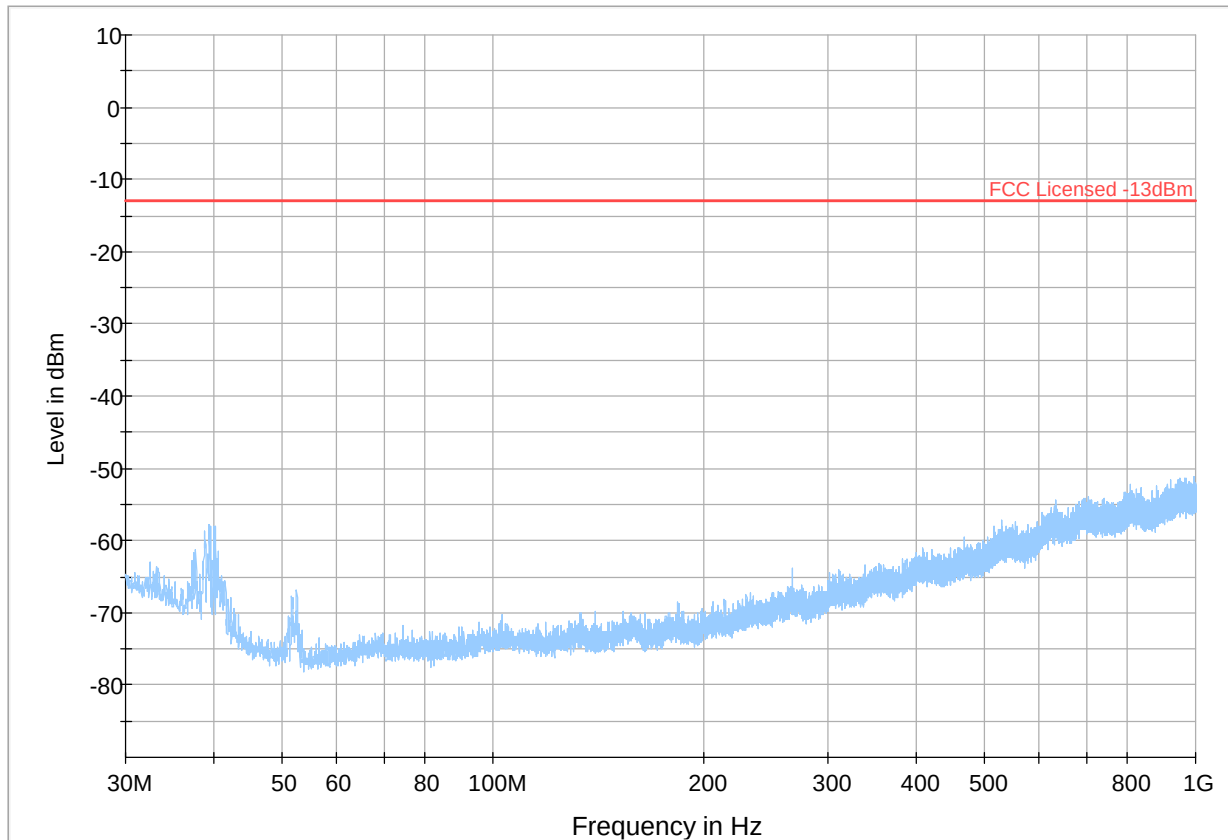
Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
19.439	-64.04	-13.00	51.04	500.0	3.000	149.0	V	35.0	-78.4	



Plot #68 Radiated Emissions: 30MHz-1GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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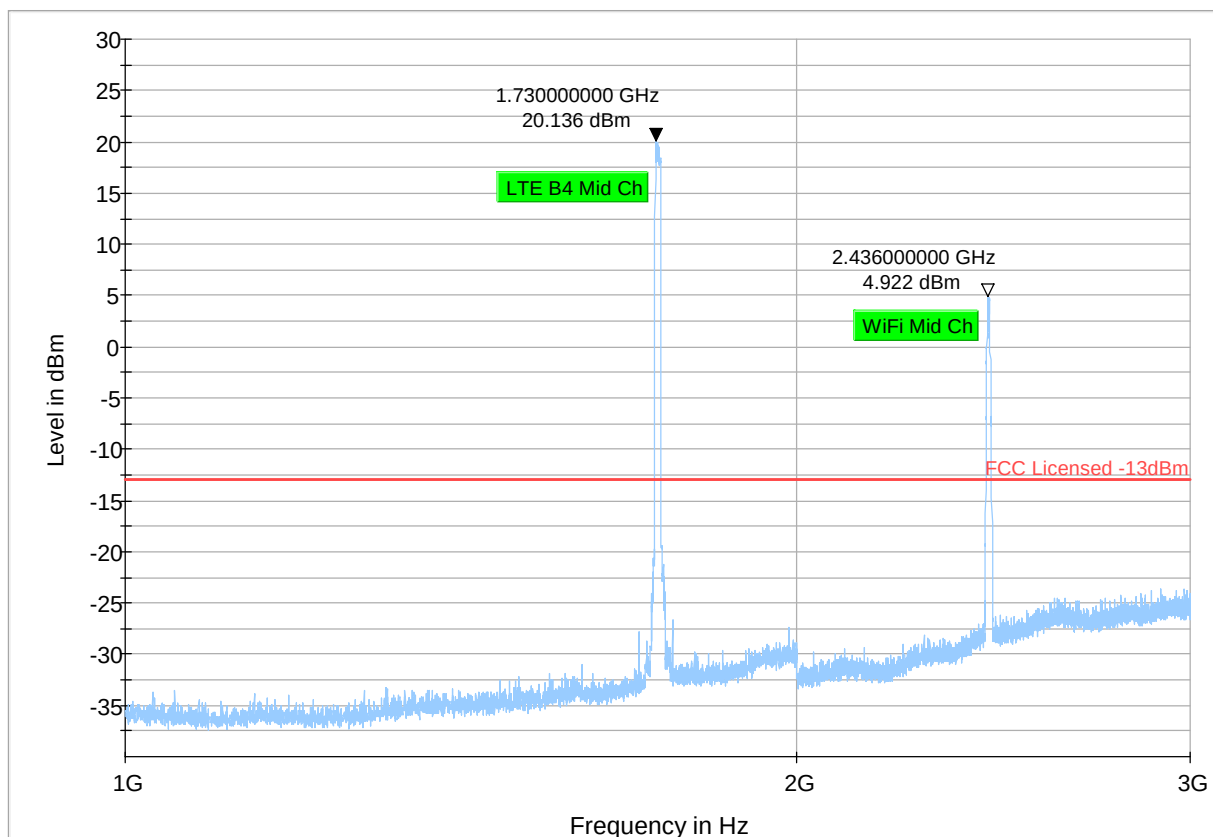


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot #69 Radiated Emissions: 1-3GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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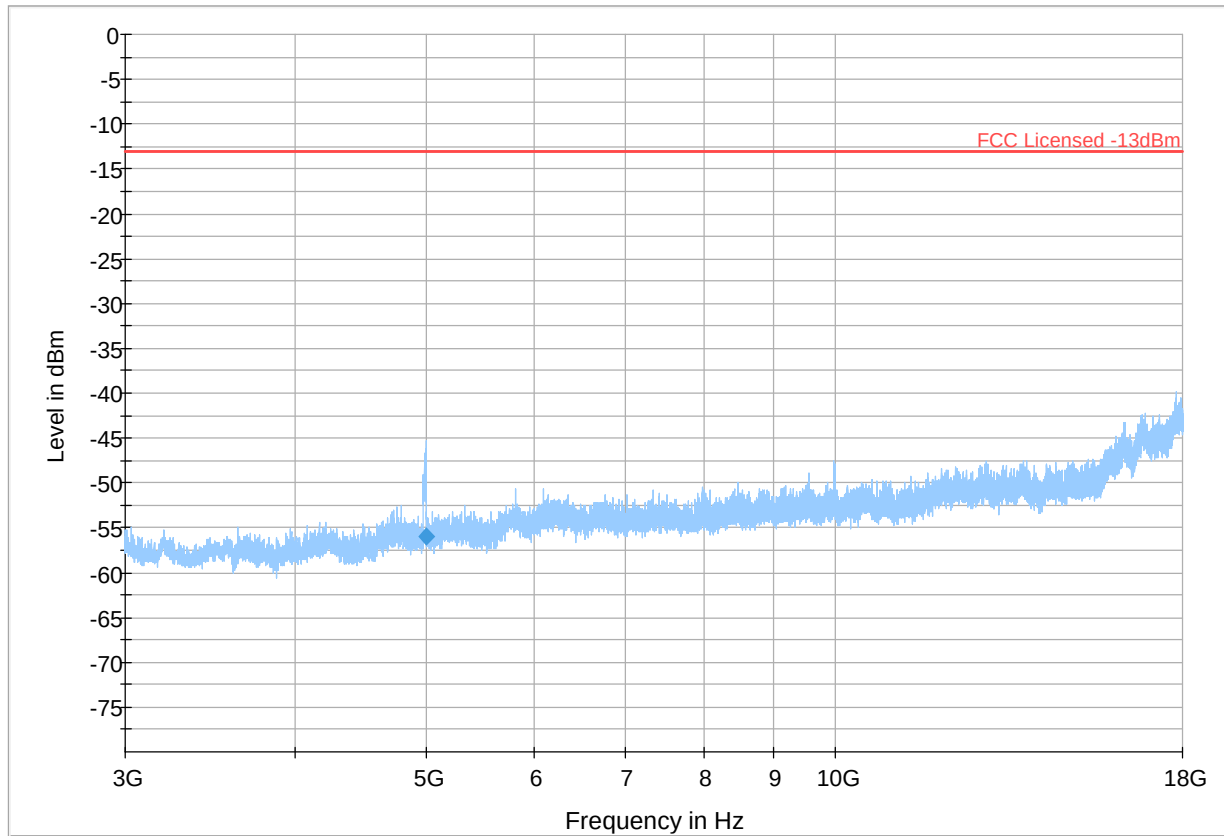


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #70 Radiated Emissions: 3-18GHz

Channel: Mid

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
4996.500	-56.05	-13.00	43.05	500.0	1000.000	265.0	V	138.0	-98.3	

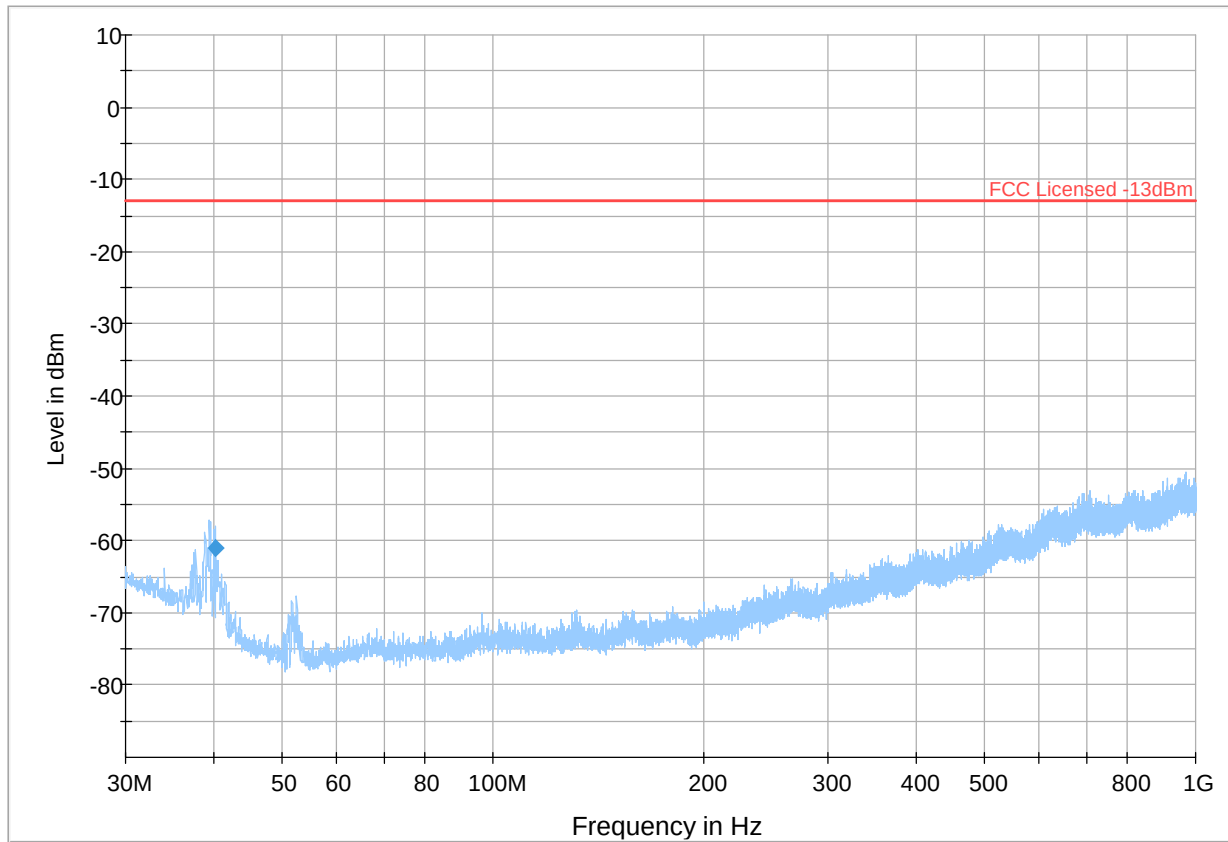


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot #71 Radiated Emissions: 30MHz-1GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
40.347	-61.07	-13.00	48.07	500.0	100.000	150.0	V	208.0	-88.8	

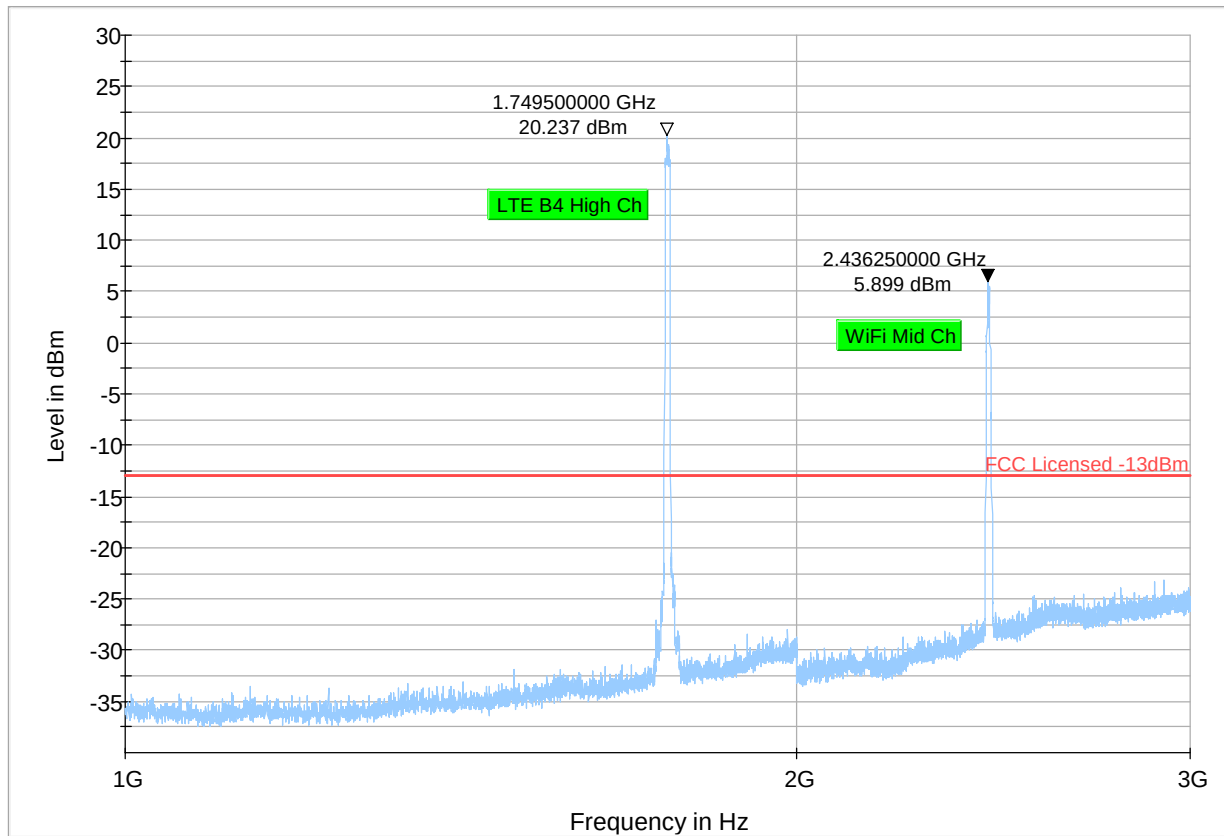


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot #72 Radiated Emissions: 1-3GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
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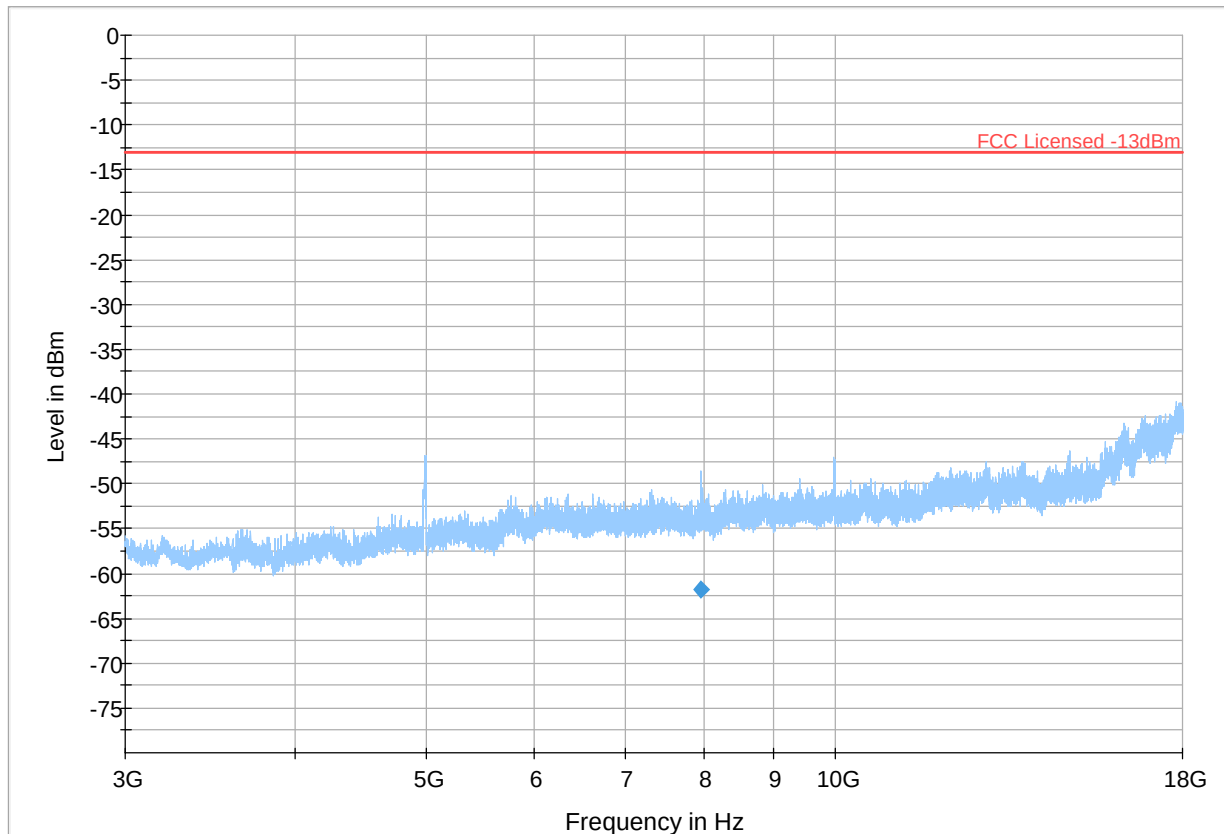


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #73 Radiated Emissions: 3-18GHz

Channel: High

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
7967.500	-61.77	-13.00	48.77	500.0	1000.000	275.0	V	167.0	-93.2	

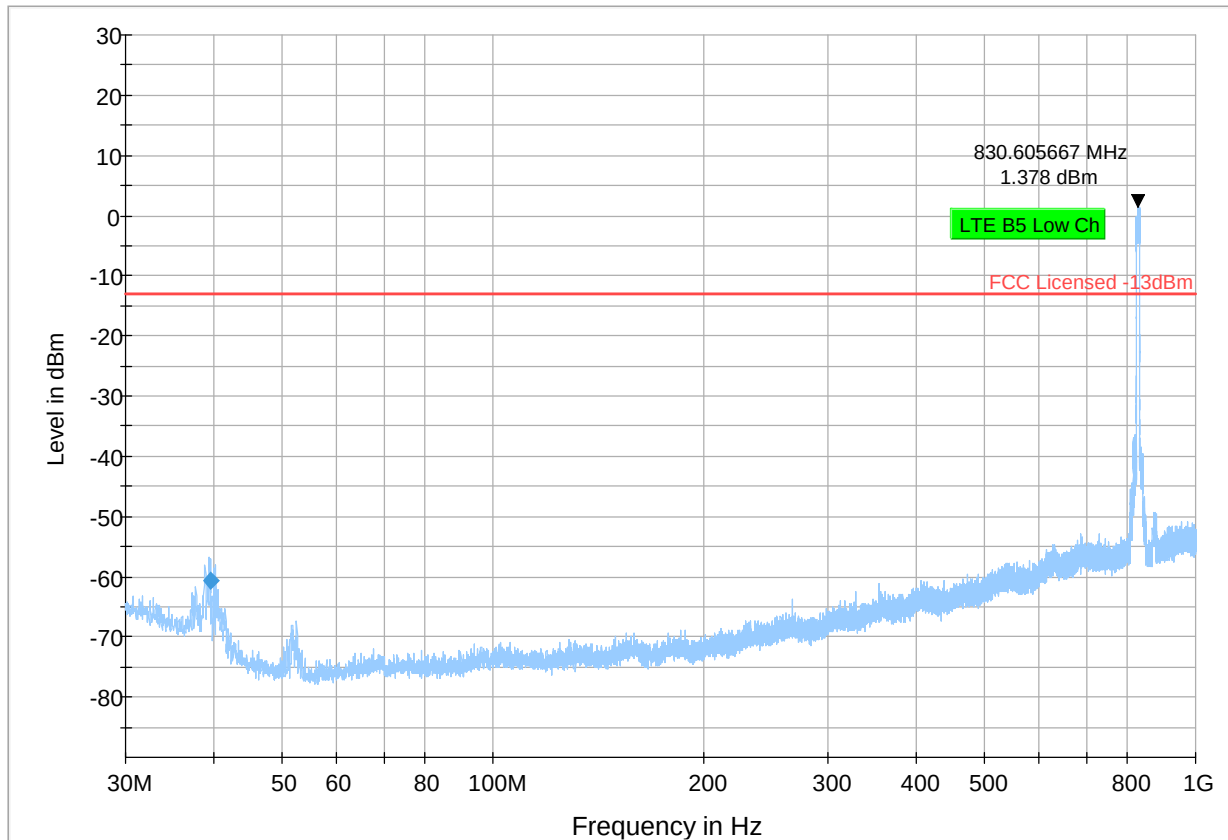


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS

Plot # 74 Radiated Emissions: 30MHz-1GHz

Channel: Low

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
39.668	-60.67	-13.00	47.67	500.0	100.000	161.0	V	170.0	-88.4	



Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS