



FCC / ISED & Test Report

For:
Ezlo Inc.

Model Name:
e550-US, EzloSecure-US

Product Description:
Smart Home Controller

Applied Rules and Standards:
47 CFR Parts 22, 24, 27 and 90
RSS: 130 Issue2, 132 Issue 3, 133 Issue 6, 139 Issue 3, 140 Issue 1

FCC ID: 2AIYW-E550
IC ID: 26382-E550

REPORT #: EMC_EZLOI-001-20001_FCC_22_24_27_90

DATE: 2020-10-22



A2LA Accredited

IC recognized #
3462B-1

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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 and 90 and Industry Canada Standards RSS-GEN issue 3, RSS-130 issue 2, RSS-132 issue 3, RSS-133 issue 6, RSS-139 issue 3 and RSS-140 issue 1.

No deficiencies were ascertained.

Company Name	Product Description	Model #
Ezlo Inc.	Smart Home Controller	e550-US, EzloSecure-US

Responsible for Testing Laboratory:

2020-10-22	Compliance	Cindy Li (EMC Lab Manager)	
Date	Section	Name	Signature

Responsible for the Report:

2020-10-22	Compliance	Kevin Wang (Senior EMC Engineer)	
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:	Cindy Li
Responsible Project Leader:	Akanksha Baskaran

2.2 Identification of the Client

Client's Name:	Ezlo Inc.
Street Address:	1255 Broad St.
City/Zip Code	Clifton, NJ / 07013
Country	US

2.3 Identification of the Manufacturer

Manufacturer's Name:	Same as Client
Manufacturers Address:	-----
City/Zip Code	-----
Country	-----

3 Equipment Under Test (EUT)

3.1 EUT Specifications

Model No:	e550-US, EzloSecure-US
HW Version :	1.4
SW Version :	2.0.1.1112.7
FCC-ID :	2AIYW-E550
IC-ID:	26382-E550
FWIN:	N/A
HVIN:	e550-US, EzloSecure-US
PMN:	Ezlo Secure, Smart Home Controller, CC Compass Monitoring Hub, Connect Hub 2.0
Product Description:	Smart Home Controller All 4 variant models are electrically identical
Transceiver Technology / Type(s) of Modulation	Module: Quectel EG25-AF FCC ID: XMR201808EC25AF; IC ID: 10224A-2018EC25AF; 4G: FDD LTE Bands 2, 4, 5, 12, 13, 14, 66, 71 3G: UMTS FDD Bands II, IV, V
Frequency Range	LTE Band 2: 1850 – 1910 MHz LTE Band 4: 1710 – 1755 MHz LTE Band 5: 824 – 849 MHz LTE Band 12: 699 – 716 MHz LTE Band 13: 777 – 787 MHz LTE Band 14: 788 – 798 MHz LTE Band 66: 1710 – 1780 MHz LTE Band 71: 663 – 698 MHz UMTS Band II: 1852.4 – 1907.6 MHz UMTS Band IV: 1712.4 – 1752.6 MHz UMTS Band V: 826.4 – 846.6 MHz
Max. declared antenna gain	Type: Soft Internal Antenna Location: Internal Peak Gain: 5dBi
Other Radios included in the device:	Wi-Fi 2.4GHz/5GHz; BT/BTLE; Zigbee; Zwave
Power Supply/ Rated Operating Voltage Range	4.8V (Low) / 5.0V (Nominal) / 5.2V (Max)
Operating Temperature Range	0°C to +35°C
Sample Revision	<input type="checkbox"/> Prototype <input checked="" type="checkbox"/> Production <input type="checkbox"/> Pre-Production

3.2 EUT Sample details

EUT #	Serial Number	HW Version	SW Version	Comments
1	#1	1.4	2.0.1.1112.7	Conducted Sample
2	#2	1.4	2.0.1.1112.7	Radiated Sample for Wi-Fi, Bluetooth, Zigbee, Zwave and 15B
3	#3	1.4	2.0.1.1112.7	Radiated Sample for Cellular

3.3 Accessory Equipment (AE) details

AE #	Type	Model	Manufacturer	Serial Number
1	AC/DC Adaptor	FX18U-050300C	-----	-----

3.4 Test Sample Configuration

Set-up #	EUT / AE used for set-up	Comments
1	EUT#1 + AE#1	Conducted RF measurements were performed with EUT configured via customer provided commands and instructions.
2	EUT#2 + AE#1	Radiated RF measurements were performed with EUT configured via customer provided commands and instructions.
3	EUT#3 + AE#1	Radiated RF measurements were performed with EUT configured via customer provided commands and instructions.

3.5 Mode of Operation details

Mode of Operation	Description of Operating modes	Additional Information
Op. 1	Cellular and Zwave and Zigbee Co-Transmission	Cellular was tested on Low, Mid, High Channels at maximum power in a co-transmission mode Zwave was turned on Zigbee was configured to Mid Channel using special commands through command window 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 Zwave and Zigbee Mid Channel, 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 ISED Standards RSS-130 issue 2, RSS-132 issue 3, RSS-133 issue 6, RSS-139 issue 3 and RSS-140 issue 1.

4.1 Dates of Testing:

10/12/2020 - 10/15/2020

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.

Radiated measurement

9 kHz to 30MHz	±2.5 dB (Magnetic Loop Antenna)
30 MHz to 1000 MHz	±2.0 dB (Biconilog Antenna)
1 GHz to 40 GHz	±2.3 dB (Horn Antenna)

Conducted measurement

150 kHz to 30 MHz ±0.7 dB (LISN)

RF conducted measurement ±0.5 dB

4.3 Environmental Conditions during Testing:

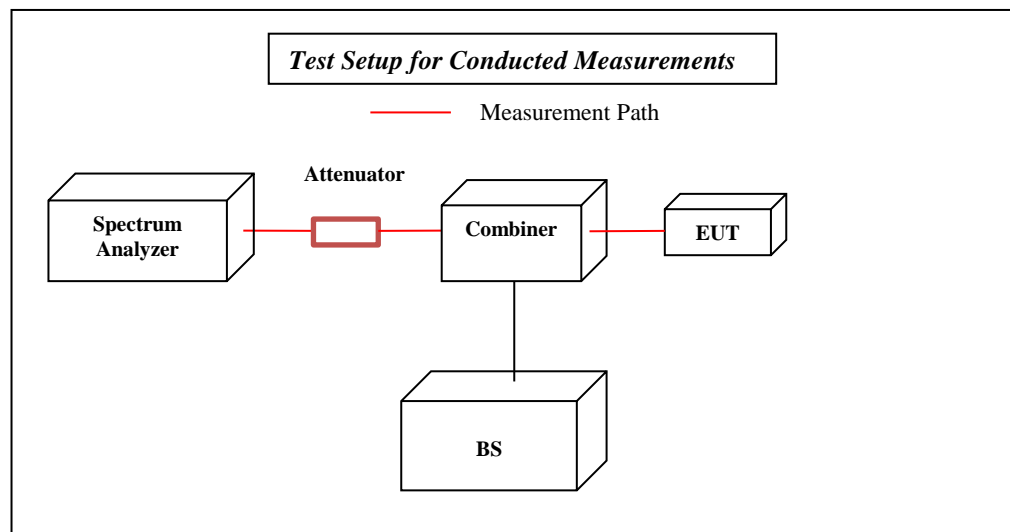
The following environmental conditions were maintained during the course of testing:

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

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

5 Measurement Procedures

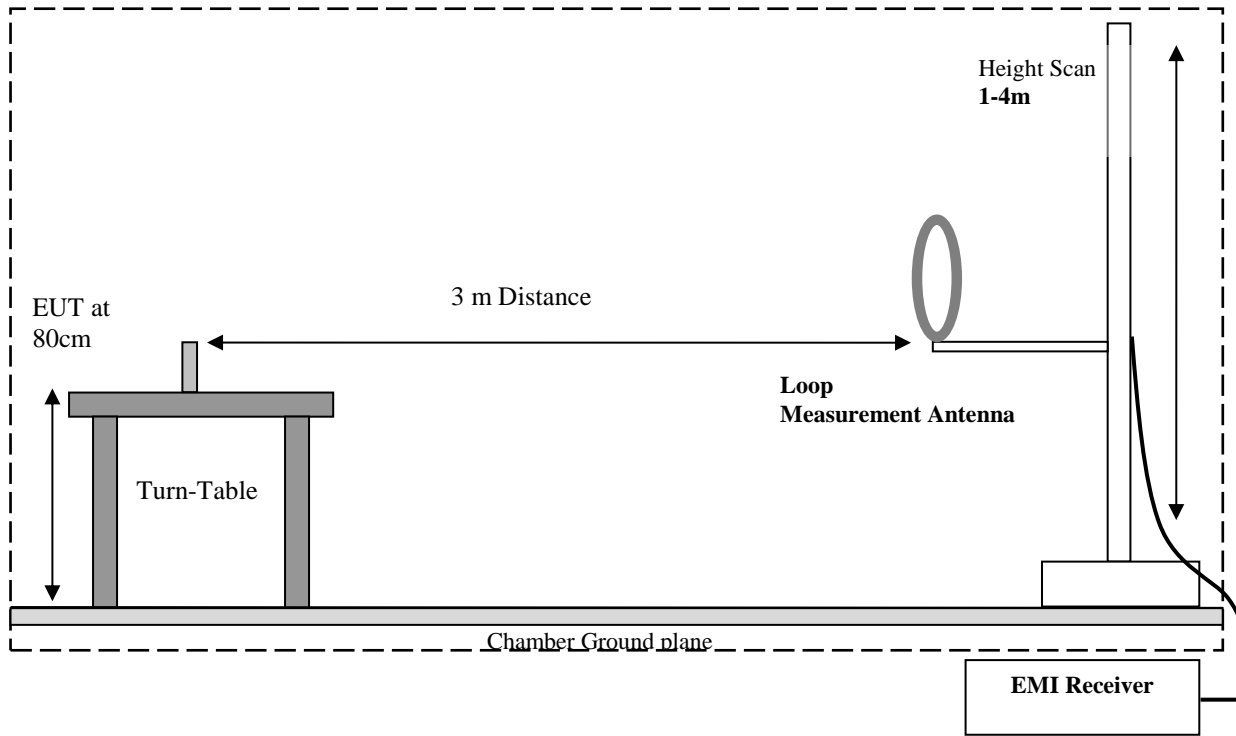
Testing is performed according to the guidelines provided in FCC publication (KDB) 971168 D01 v03r01 – “Measurement Guidance for Certification of Licensed Digital Transmitters” and according to relevant parts of ANSI/TIA-603-D-2010 as detailed below.



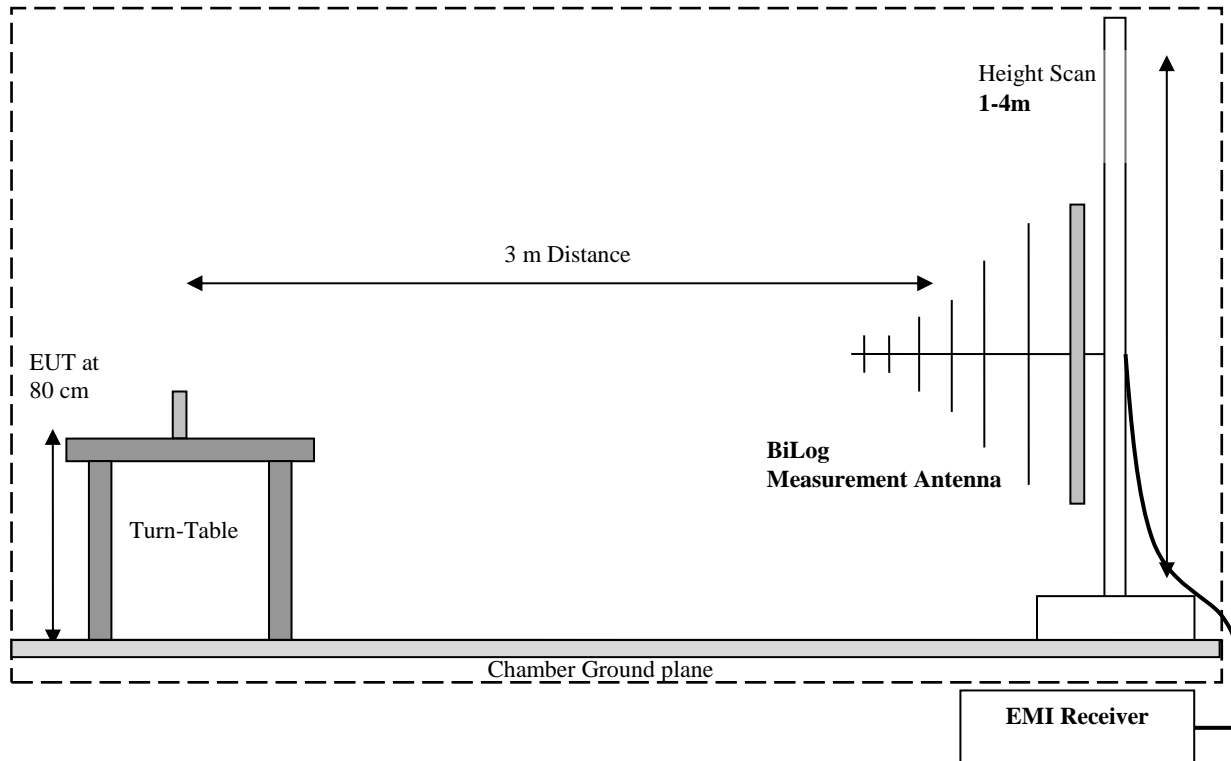
5.1 Radiated Measurement

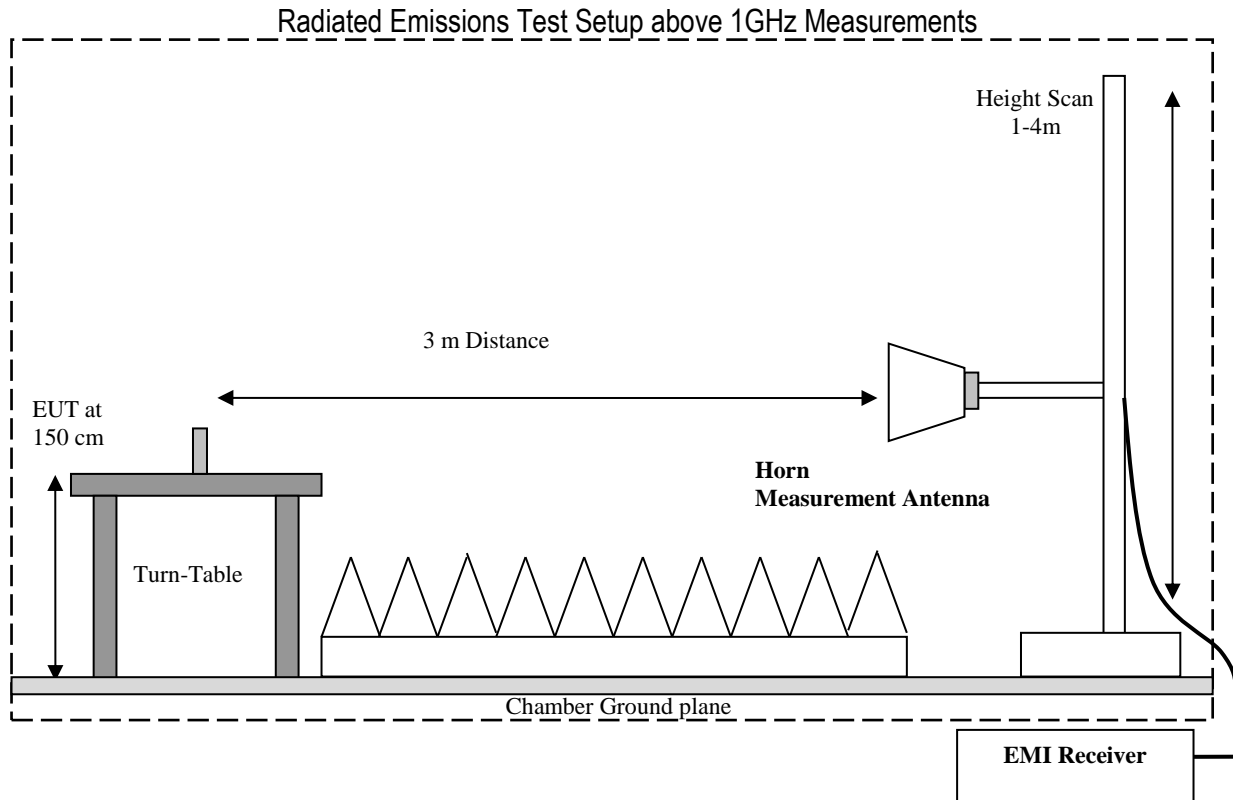
- The exploratory measurement is accomplished by running a matrix of 16 sweeps over the required frequency range with R&S Test-SW EMC32 for 4 positions of the turntable, two orthogonal positions of the EUT and both antenna polarizations. This procedure exceeds the requirement of the above standards to 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 dBµV
- 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 (dBµV)	Cable Loss (dB)	Antenna Factor Correction (dB)	Field Strength Result (dBµV/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	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Complies Note 1 Note 2
§2.1055; §22.355	Frequency Tolerance	Extreme Temperature and Voltage	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Complies Note 1 Note 2
§2.1049; §22.917	Occupied Bandwidth	Nominal	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Complies Note 1 Note 2
§2.1051; §22.917	Band Edge Compliance	Nominal	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Complies Note 1 Note 2
§2.1051; §22.917	Conducted Spurious Emissions	Nominal	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Complies Note 1 Note 2
§2.1053; §22.917	Radiated Spurious Emissions	Nominal	Op. 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Complies

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

Note 2: Leveraged from module certification Quectel EG25-AF (FCC ID: XMR201808EC25AF, IC ID: 10224A-2018EC25AF)

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	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Complies Note 1 Note 2
§2.1055; §24.235	Frequency Stability	Extreme Temperature and Voltage	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Complies Note 1 Note 2
§2.1049; §24.238	Occupied Bandwidth	Nominal	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Complies Note 1 Note 2
§2.1051; §24.238	Band Edge Compliance	Nominal	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Complies Note 1 Note 2
§2.1051; §24.238	Conducted Spurious Emissions	Nominal	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Complies Note 1 Note 2
§2.1053; §24.238	Radiated Spurious Emissions	Nominal	Op. 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Complies

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

Note 2: Leveraged from module certification Quectel EG25-AF (FCC ID: XMR201808EC25AF, IC ID: 10224A-2018EC25AF)

6.3 FCC 27 / RSS-130 / RSS-139

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

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

Note 2: Leveraged from module certification Quectel EG25-AF (FCC ID: XMR201808EC25AF, IC ID: 10224A-2018EC25AF)

6.4 FCC 90 / RSS-140

Test Specification	Test Case	Temperature and Voltage Conditions	Mode	Pass	Fail	NA	NP	Result
§2.1046; §90.635(b)	RF Output Power	Nominal	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Complies Note 1 Note 2
§2.1055; §90.539(c)	Frequency Stability	Extreme Temperature and Voltage	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Complies Note 1 Note 2
§2.1049; §90.209	Occupied Bandwidth	Nominal	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Complies Note 1 Note 2
§2.1051; §90.543	Band Edge Compliance	Nominal	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Complies Note 1 Note 2
§2.1051; §90.543(e)	Conducted Spurious Emissions	Nominal	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Complies Note 1 Note 2
§2.1053; §90.543(e)	Radiated Spurious Emissions	Nominal	Op. 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Complies

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

Note 2: Leveraged from module certification Quectel EG25-AF (FCC ID: XMR201808EC25AF, IC ID: 10224A-2018EC25AF)

7 Test Result Data

7.1 ERP/EIRP

FCC Rule Parts	Band	Frequency Range (MHz)	Power Conducted (dBm) Note 1	Power Conducted (W)	Gain (dBi)	Gain Linear	EIRP (W) Note 2	ERP (W) Note 2	Limit EIRP (W)	Limit ERP (W)
22H	LTE 5	824 – 849	25	0.316	5	3.16	-	0.610	-	7
22H	UMTS V	826.4 – 846.6	25	0.316	5	3.16	-	0.610	-	7
24E	LTE 2	1850 – 1910	25	0.316	5	3.16	1	-	2	-
24E	UMTS II	1852.4 – 1907.6	25	0.316	5	3.16	1	-	2	-
27	LTE 4	1710 – 1755	25	0.316	5	3.16	1	-	1	-
27	UMTS IV	1712.4 – 1752.6	25	0.316	5	3.16	1	-	1	-
27	LTE 12	699 – 716	25	0.316	5	3.16	-	0.610	-	3
27	LTE 13	777 – 787	25	0.316	5	3.16	-	0.610	-	3
27	LTE 66	1710 – 1780	25	0.316	5	3.16	1	-	1	-
27	LTE 71	663 – 698	25	0.316	5	3.16	-	0.610	-	3
90	LTE 14	788 – 798	25	0.316	5	3.16	-	0.610	-	3

Note 1: Power Conducted (dBm) leveraged from test report “R1806A0301-M1V3” prepared by TA Technology(Shanghai) Co., Ltd. of cellular module Quectel EG25-AF (FCC ID: XMR201808EC25AF, IC ID: 10224A-2018EC25AF).

Note 2: ERP/EIRP are based on calculations from Power Conducted by adding the declared maximum gain of the utilized cellular antenna per operational description.

7.2 Radiated Spurious Emissions

7.2.1 Measurement utilizing KDB 971168 D01 Power Meas License Digital Systems v03r01, and according to ANSI/TIA-603-D-2010

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, 27 and 90

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

7.2.2 Limits:

7.2.2.1 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.

7.2.2.2 RSS-132 Part 5.5; RSS-133 Part 6.5; RSS-139 Part 6.6 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.

7.2.3 Test conditions and setup:

Ambient Temperature (°C)	EUT Set-Up #	EUT operating mode	Power Input
22.0	3	Op. 1	120 VAC

7.2.4 Measurement result:

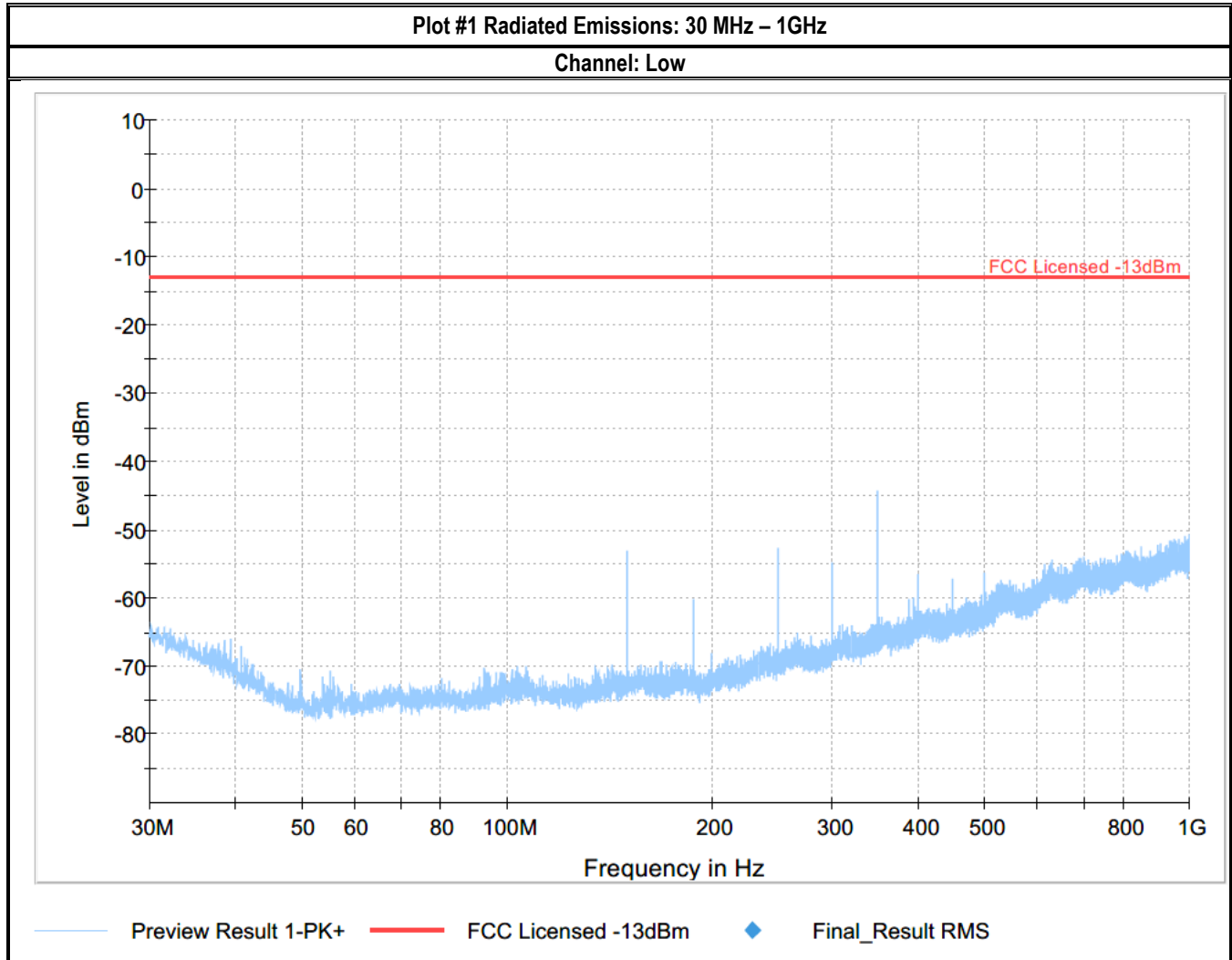
Plot #	Channel	EUT operating mode	Scan Frequency	Limit (dBm)	Result
1-3	Low	LTE Band 2	30 MHz – 18 GHz	-13	Pass
4-8	Mid		9 kHz – 26 GHz	-13	Pass
9-11	High		30 MHz – 18 GHz	-13	Pass
12-14	Low	LTE Band 4	30 MHz – 18 GHz	-13	Pass
15-18	Mid		9 kHz – 18 GHz	-13	Pass
19-21	High		30 MHz – 18 GHz	-13	Pass
22-24	Low	LTE Band 5	30 MHz – 9 GHz	-13	Pass
25-28	Mid		9 kHz – 9 GHz	-13	Pass
29-31	High		30 MHz – 9 GHz	-13	Pass
32-34	Low	LTE Band 12	30 MHz – 9 GHz	-13	Pass
35-38	Mid		9 kHz – 9 GHz	-13	Pass
39-41	High		30 MHz – 9 GHz	-13	Pass
42-44	Low	UMTS Band II	30 MHz – 18 GHz	-13	Pass
45-49	Mid		9 kHz – 26 GHz	-13	Pass
50-52	High		30 MHz – 18 GHz	-13	Pass
53-55	Low	UMTS Band IV	30 MHz – 18 GHz	-13	Pass
56-59	Mid		9 kHz – 18 GHz	-13	Pass
60-62	High		30 MHz – 18 GHz	-13	Pass
63-65	Low	UMTS Band V	30 MHz – 9 GHz	-13	Pass
66-69	Mid		9 kHz – 9 GHz	-13	Pass
70-72	High		30 MHz – 9 GHz	-13	Pass
73-76	Mid	LTE Band 13	9 kHz – 18 GHz	-13	Pass
77-80	Mid	LTE Band 14	9 kHz – 18 GHz	-13	Pass
81-83	Low	LTE Band 66	30 MHz – 18 GHz	-13	Pass
84-88	Mid		9 kHz – 26 GHz	-13	Pass
89-91	High		30 MHz – 18 GHz	-13	Pass
92-94	Low	LTE Band 71	30 MHz – 18 GHz	-13	Pass
95-98	Mid		9 kHz – 18 GHz	-13	Pass
99-101	High		30 MHz – 18 GHz	-13	Pass

Note: Tested with Zigbee and Zwave co-transition.



7.2.5 Measurement Plots:

LTE Band 2

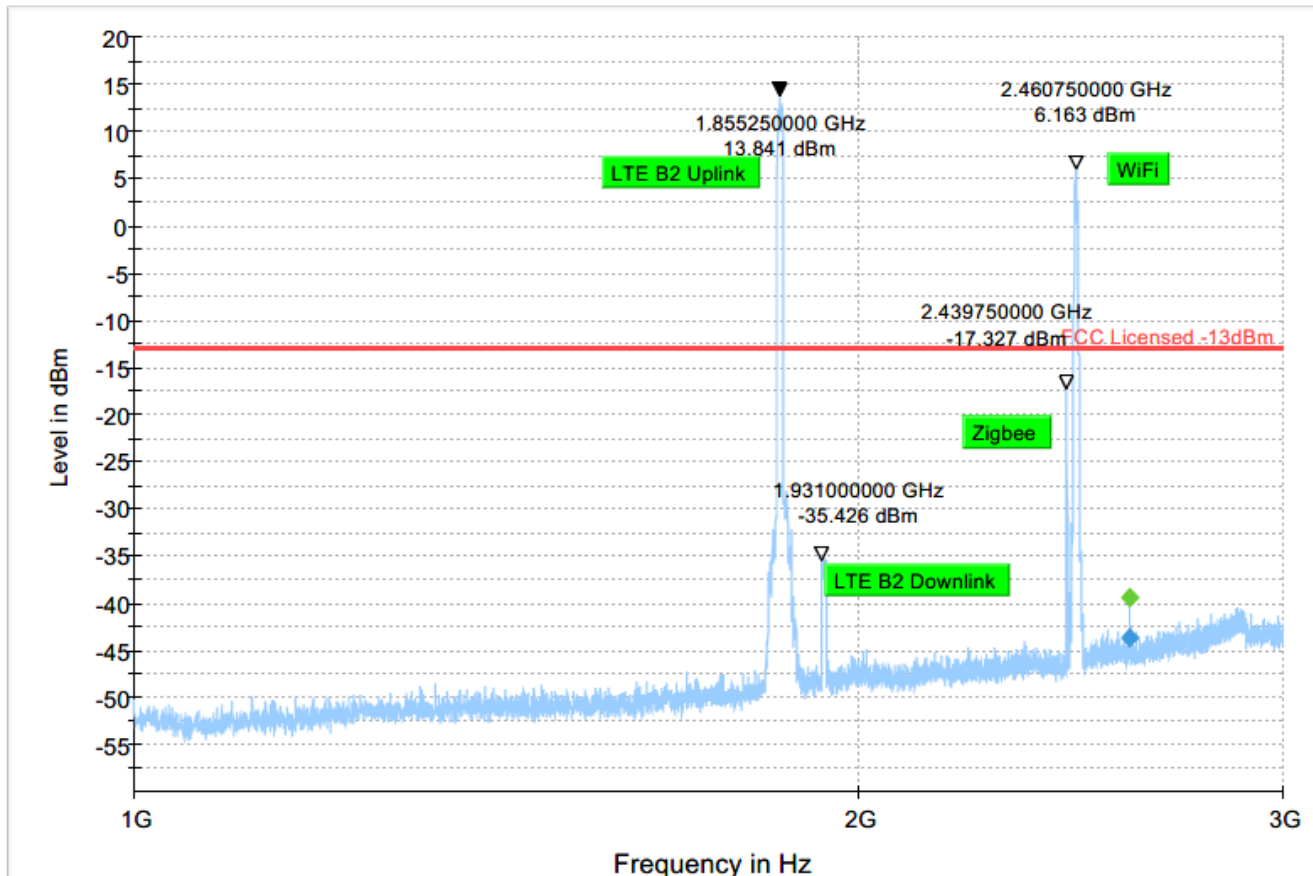


Plot # 2 Radiated Emissions: 1-3 GHz

Channel: Low

Final Result

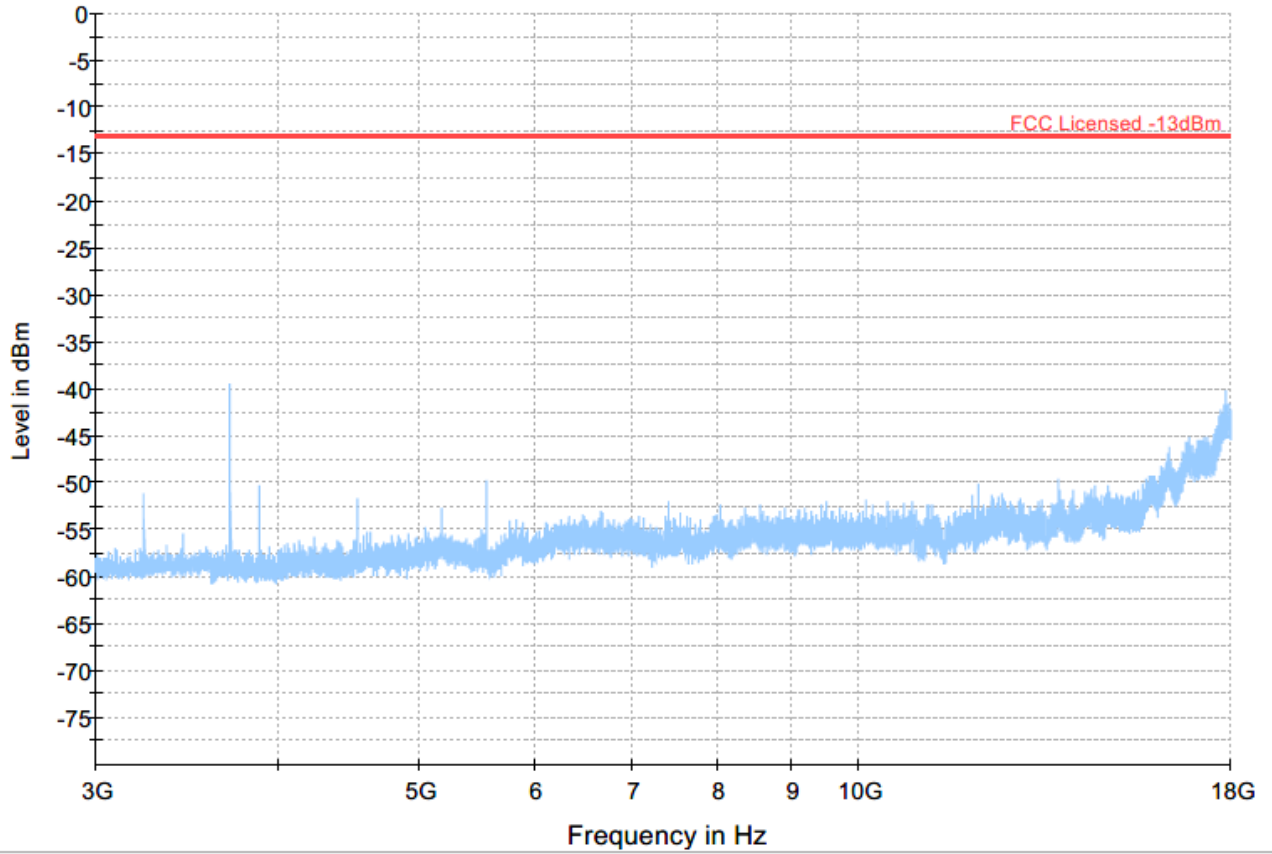
Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
2591.750	---	-39.40	---	---	500.0	1000.000	132.0	H	256.0	-62.0	
2591.750	-43.61	---	-13.00	30.61	500.0	1000.000	132.0	H	256.0	-62.0	





Plot # 3 Radiated Emissions: 3-18 GHz

Channel: Low

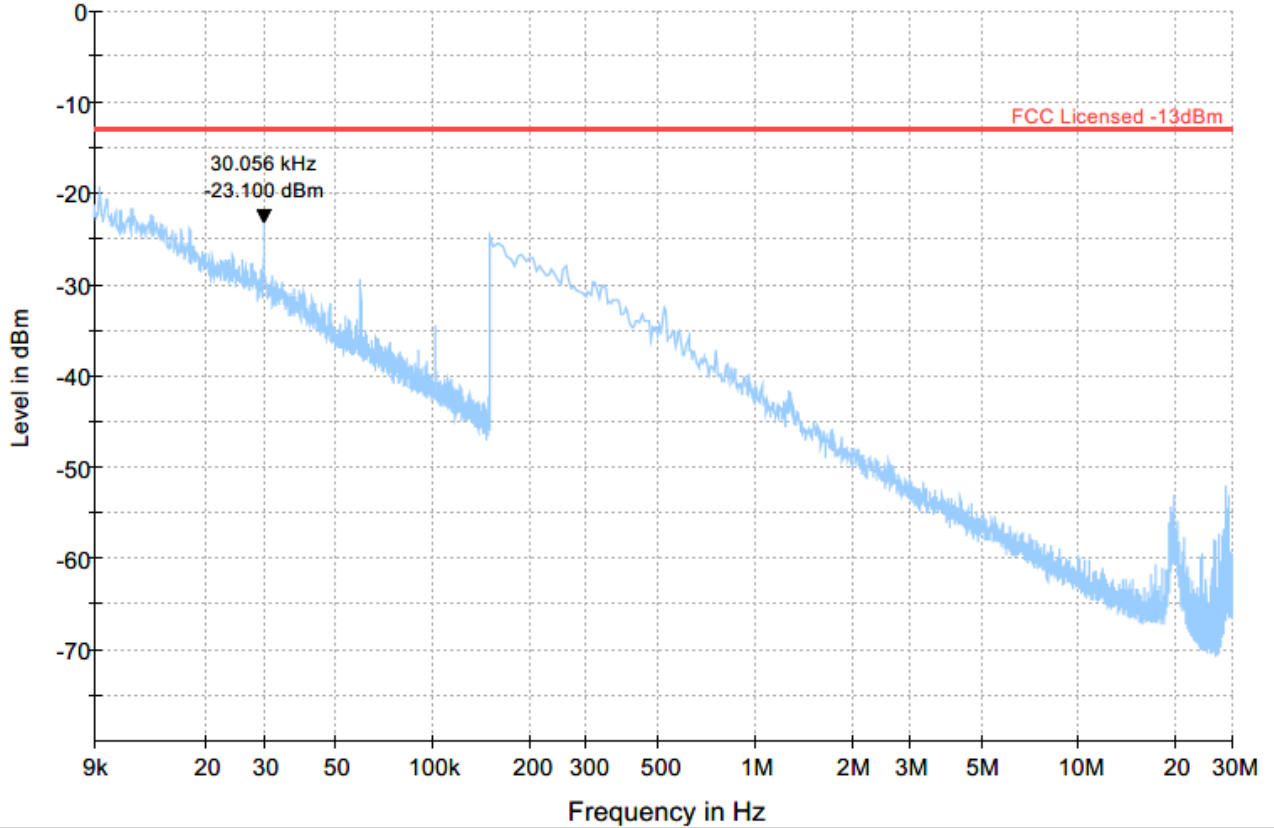


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



Plot #4 Radiated Emissions: 9 kHz – 30 MHz

Channel: Mid

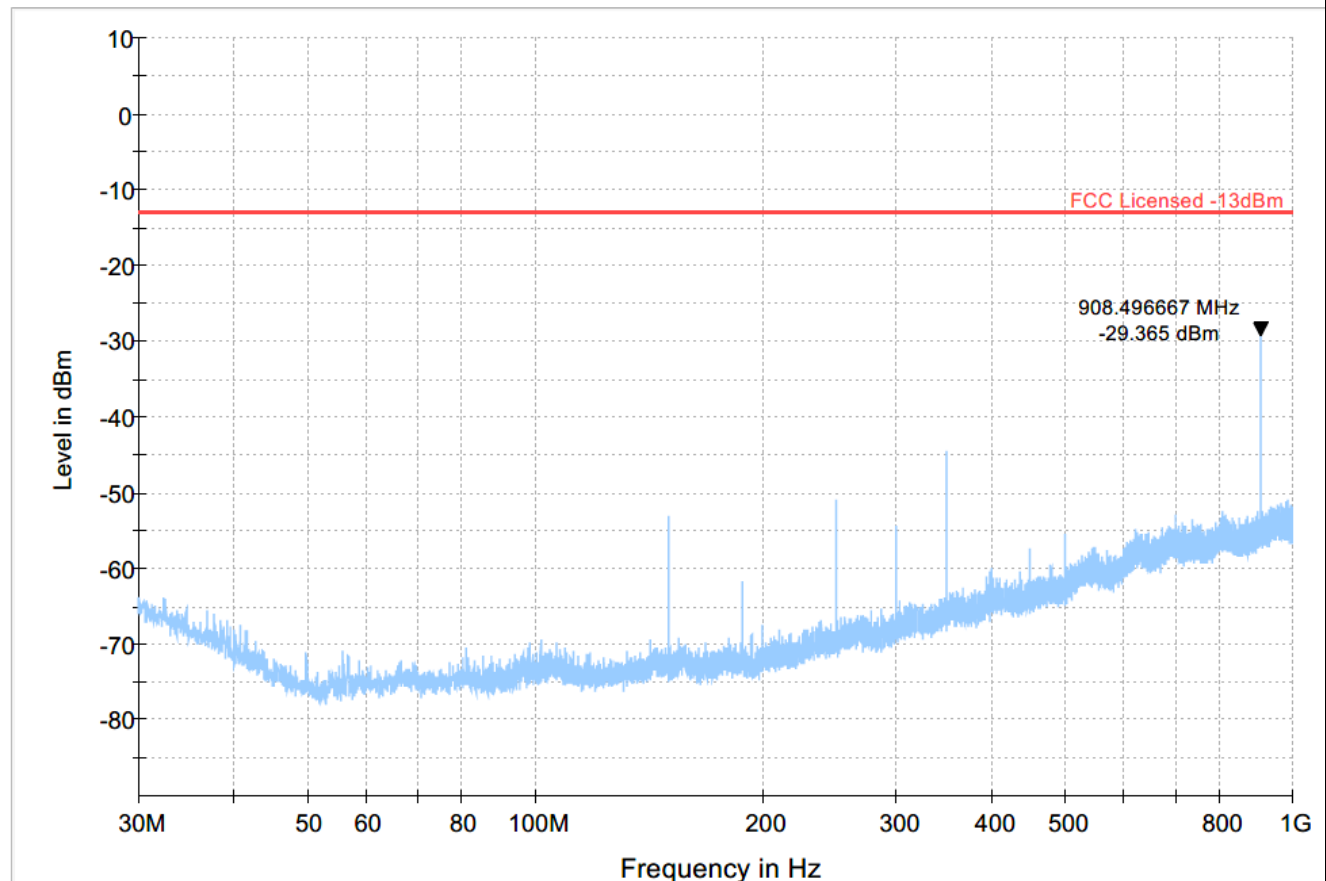


- ◆ Preview Result 1-PK+ Final_Result RMS
- * Critical_Freqs PK+ Final_Result PK+
- ◆
- FCC Licensed -13dBm



Plot #5 Radiated Emissions: 30 MHz – 1 GHz

Channel: Mid



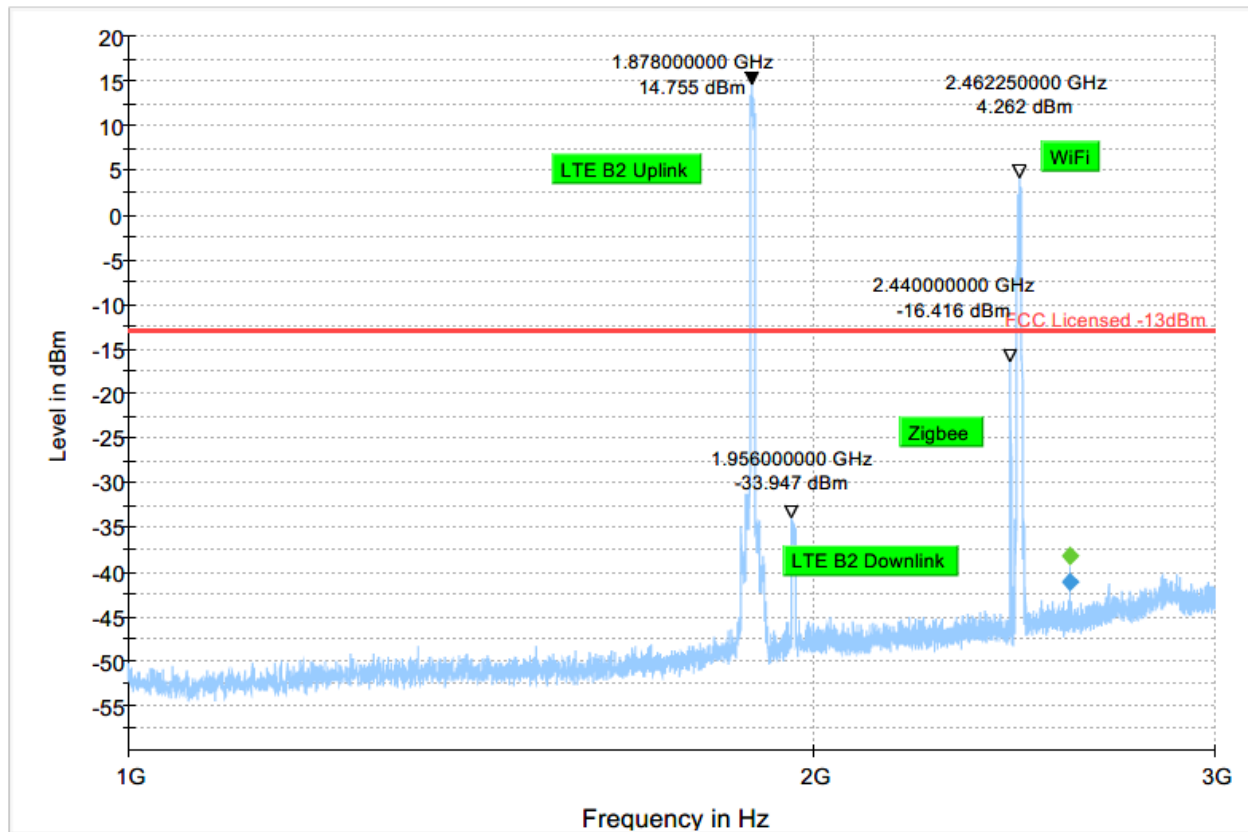
Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #6 Radiated Emissions: 1-3 GHz

Channel: Mid

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
2592.000	---	-38.14	---	---	500.0	1000.000	200.0	H	253.0	-62.0	
2592.000	-41.19	---	-13.00	28.19	500.0	1000.000	200.0	H	253.0	-62.0	

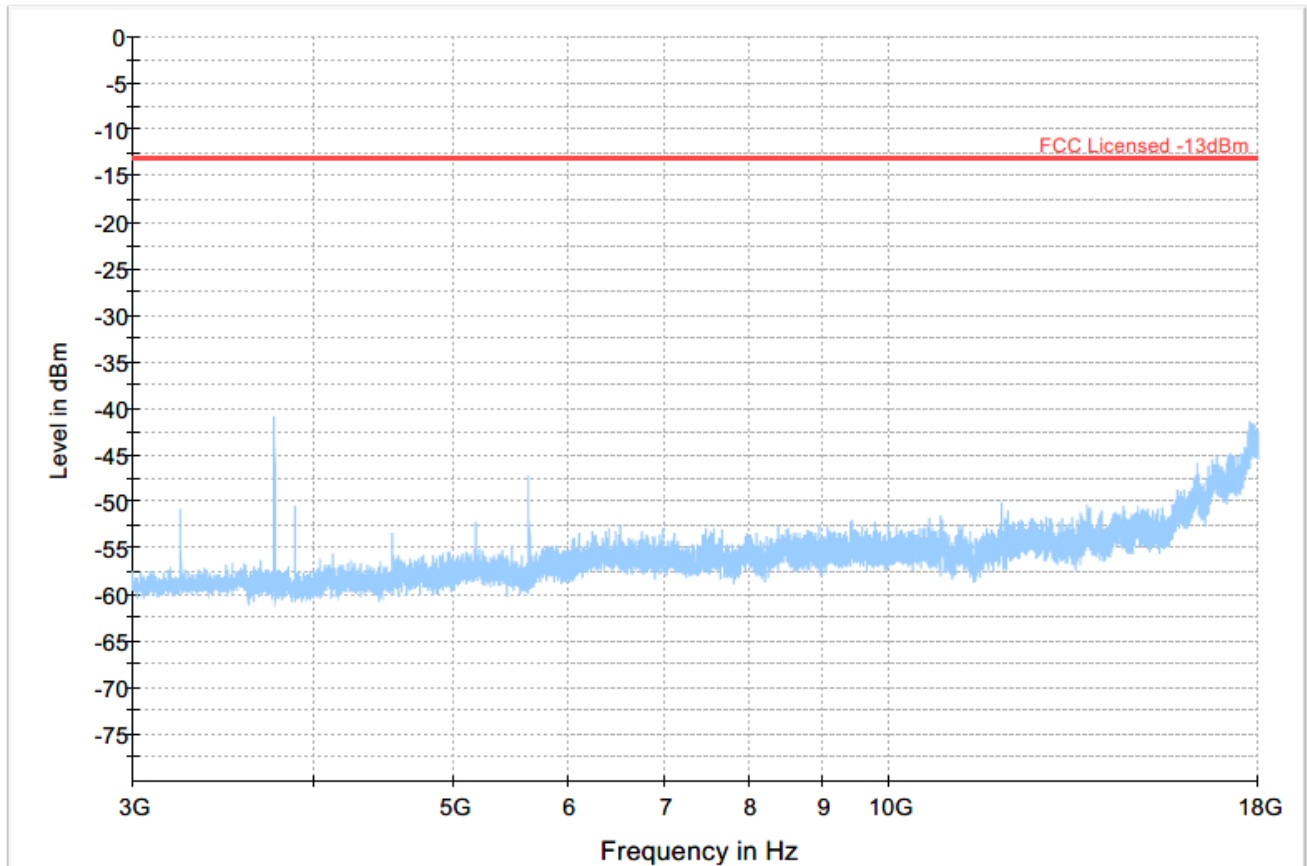


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS ◆ Final_Result PK-



Plot #7 Radiated Emissions: 3-18 GHz

Channel: Mid

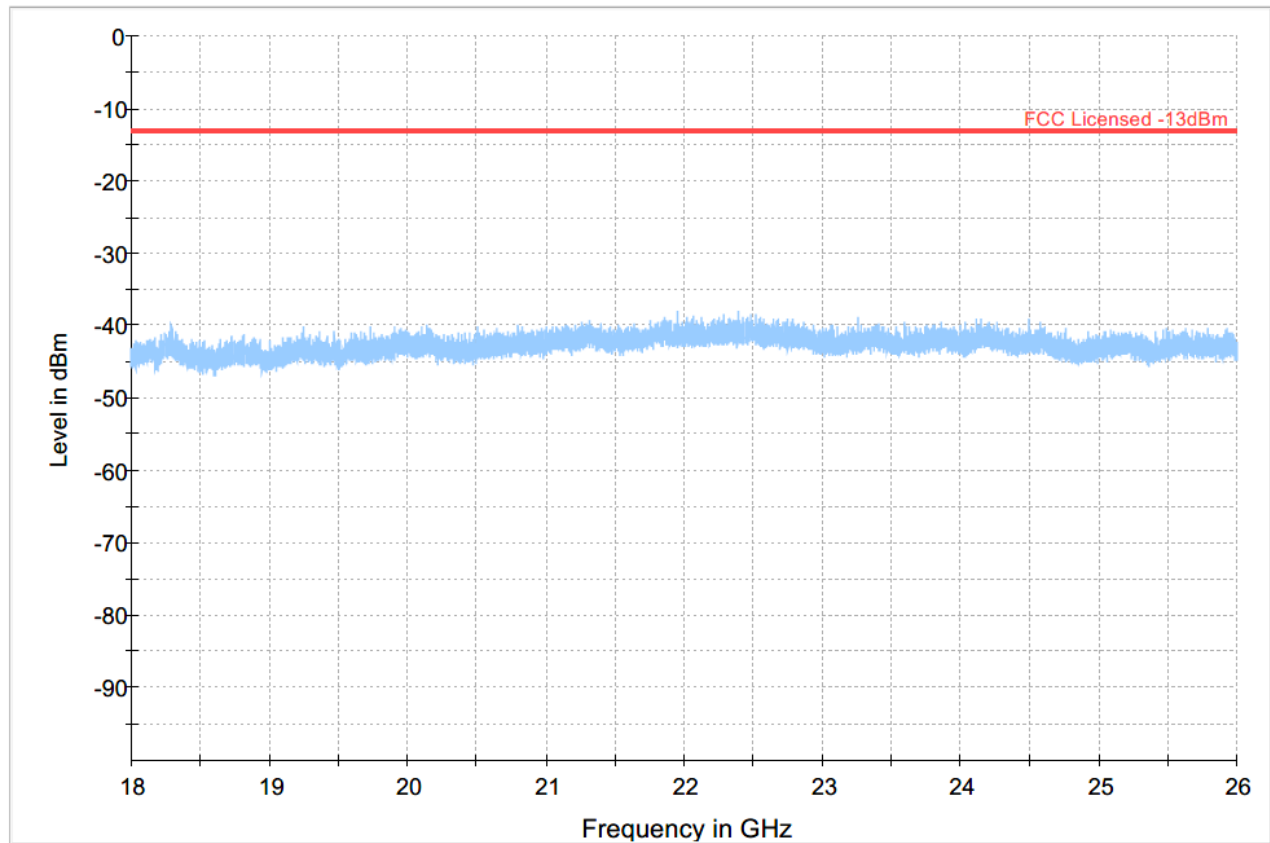


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



Plot #8 Radiated Emissions: 18-26 GHz

Channel: Mid

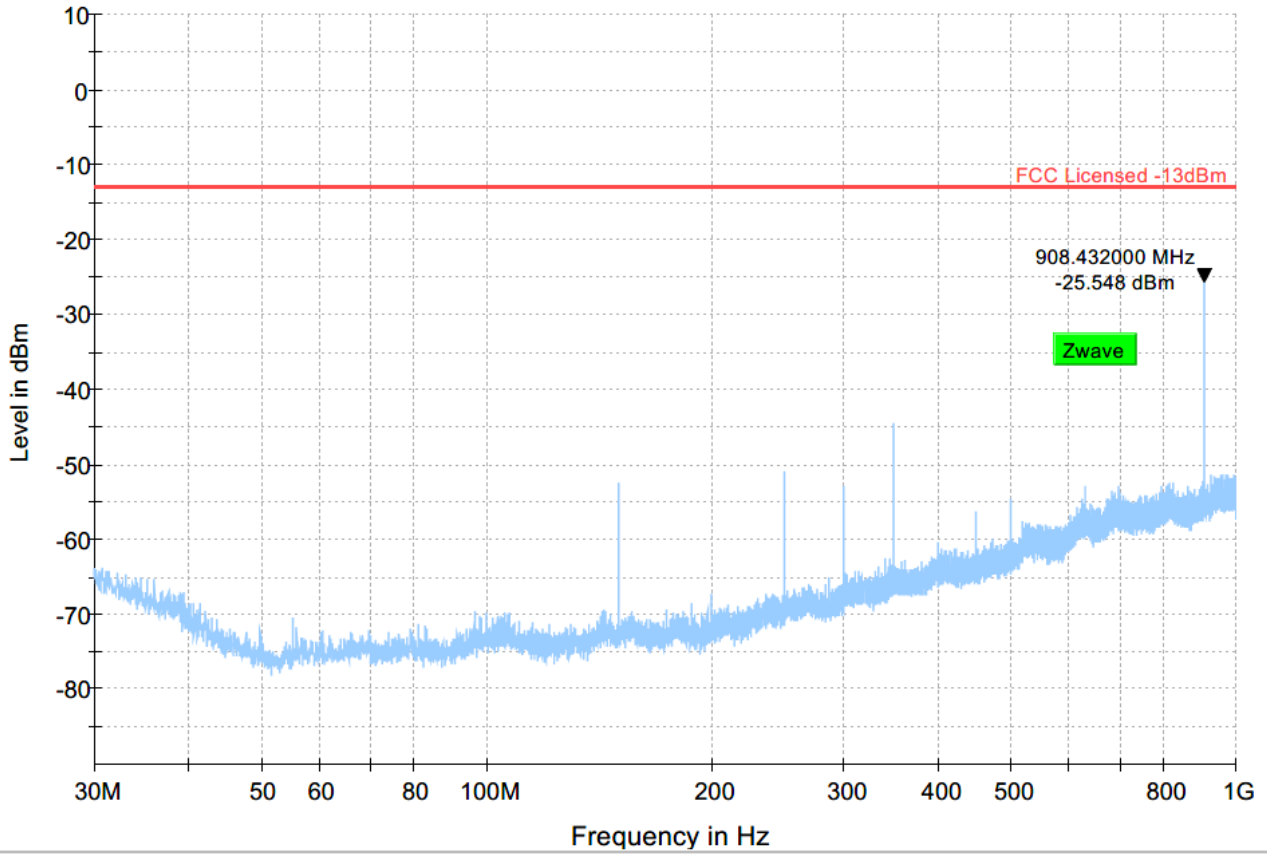


Preview Result 1-PK+ * Critical_Freqs PK+ FCC Licensed -13dBm Final_Result RN



Plot #9 Radiated Emissions: 30 MHz – 1 GHz

Channel: High



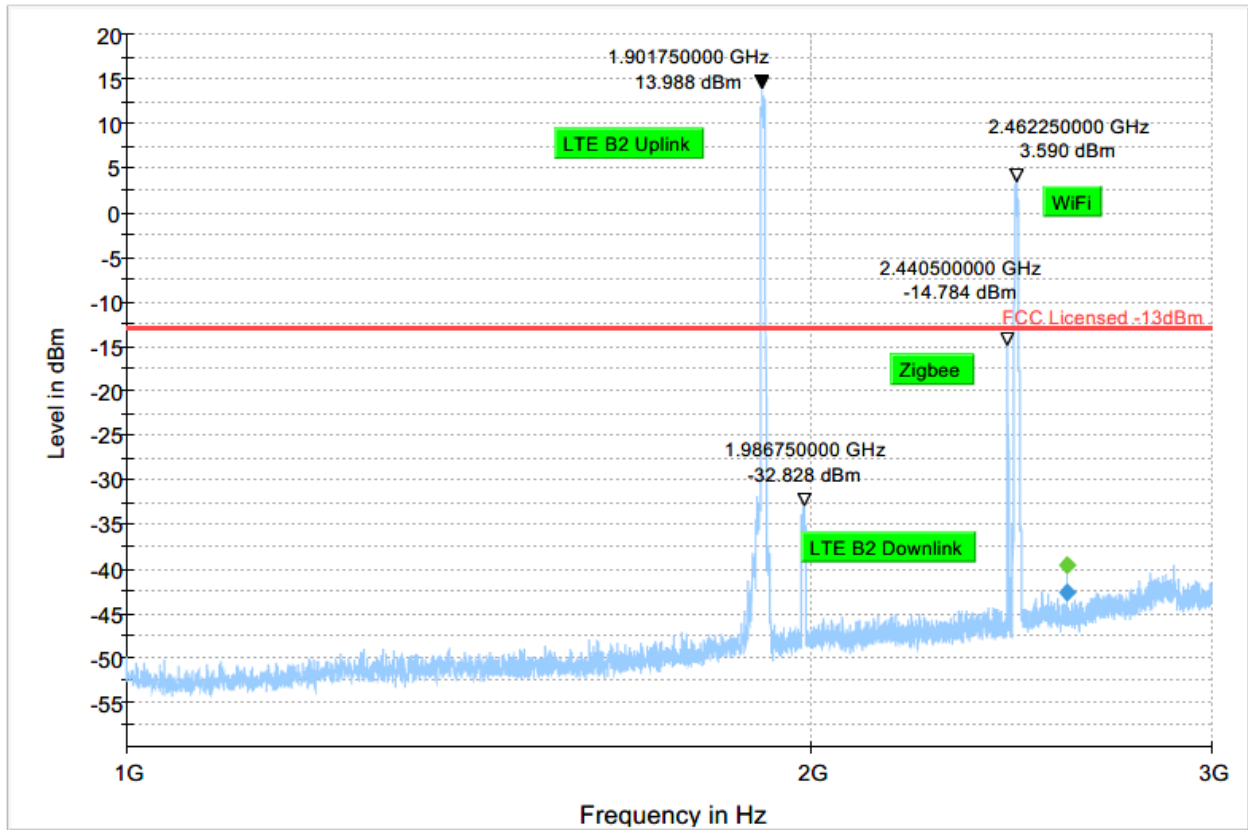
Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #10 Radiated Emissions: 1-3 GHz

Channel: High

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
2592.000	---	-39.57	---	---	500.0	1000.000	191.0	H	246.0	-62.0	
2592.000	-42.59	---	-13.00	29.59	500.0	1000.000	191.0	H	246.0	-62.0	

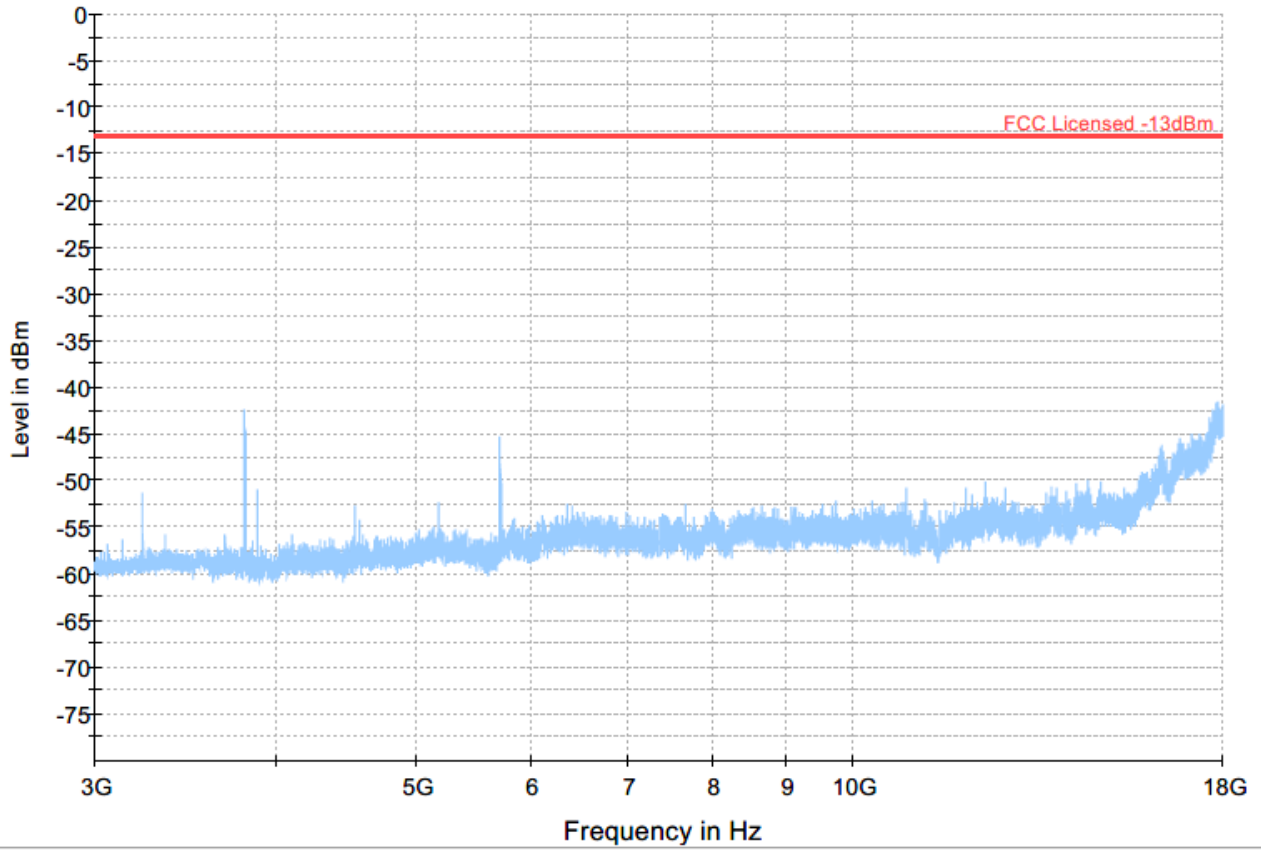


— Preview Result 1-PK+
 — FCC Licensed -13dBm
 ◆ Final_Result RMS
 ◆ Final_Result PK+



Plot #11 Radiated Emissions: 3-18 GHz

Channel: High



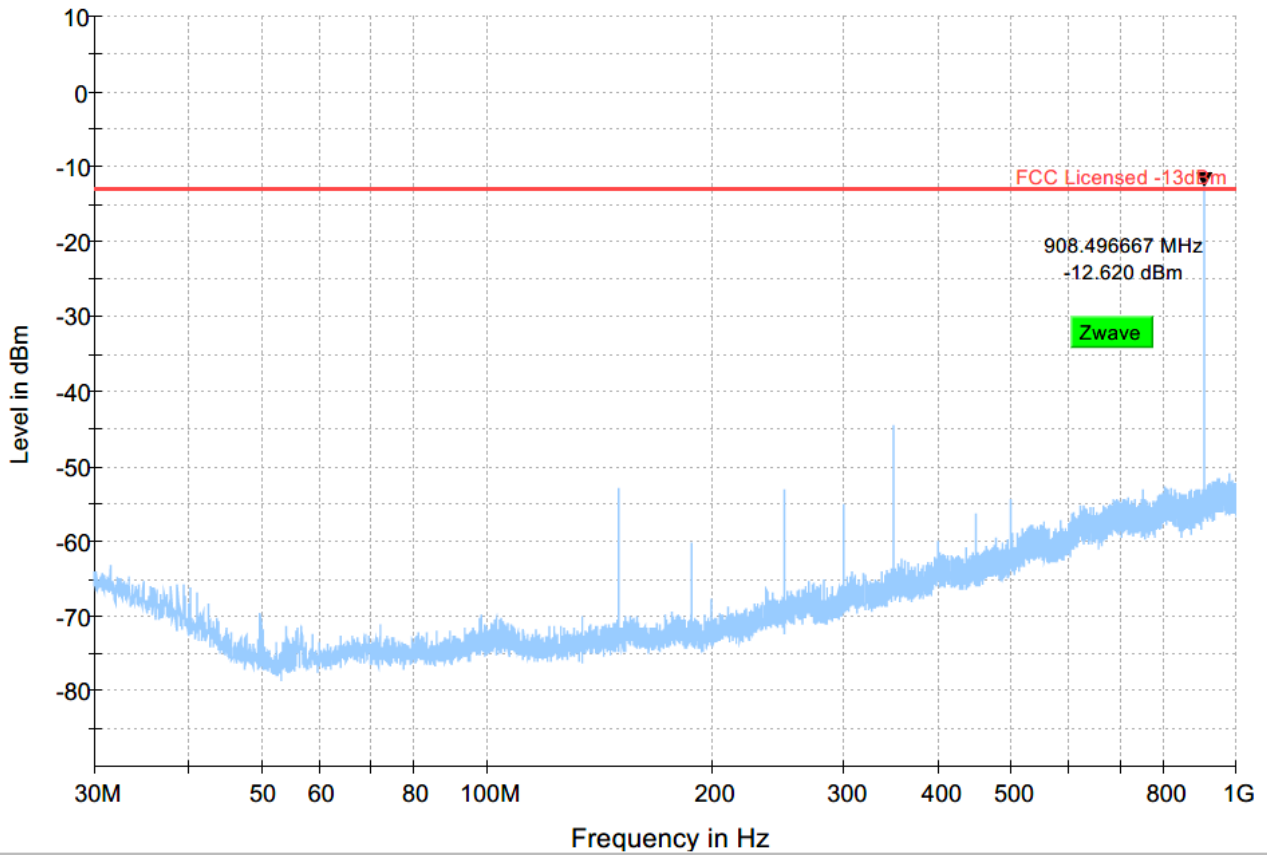
Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



LTE Band 4

Plot #12 Radiated Emissions: 30 MHz – 1GHz

Channel: Low



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

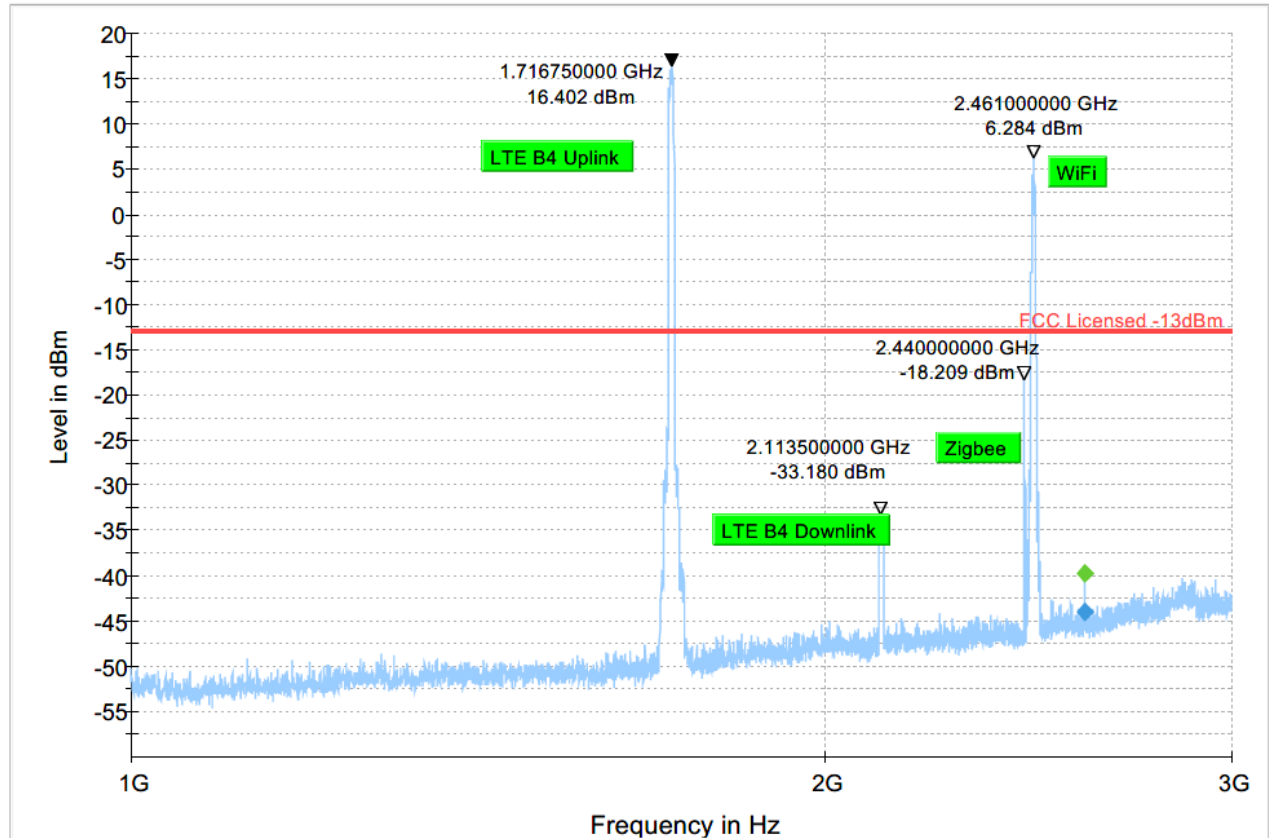


Plot # 13 Radiated Emissions: 1-3 GHz

Channel: Low

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
2591.750	---	-39.77	---	---	500.0	1000.000	107.0	H	264.0	-62.0	
2591.750	-44.04	---	-13.00	31.04	500.0	1000.000	107.0	H	264.0	-62.0	



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

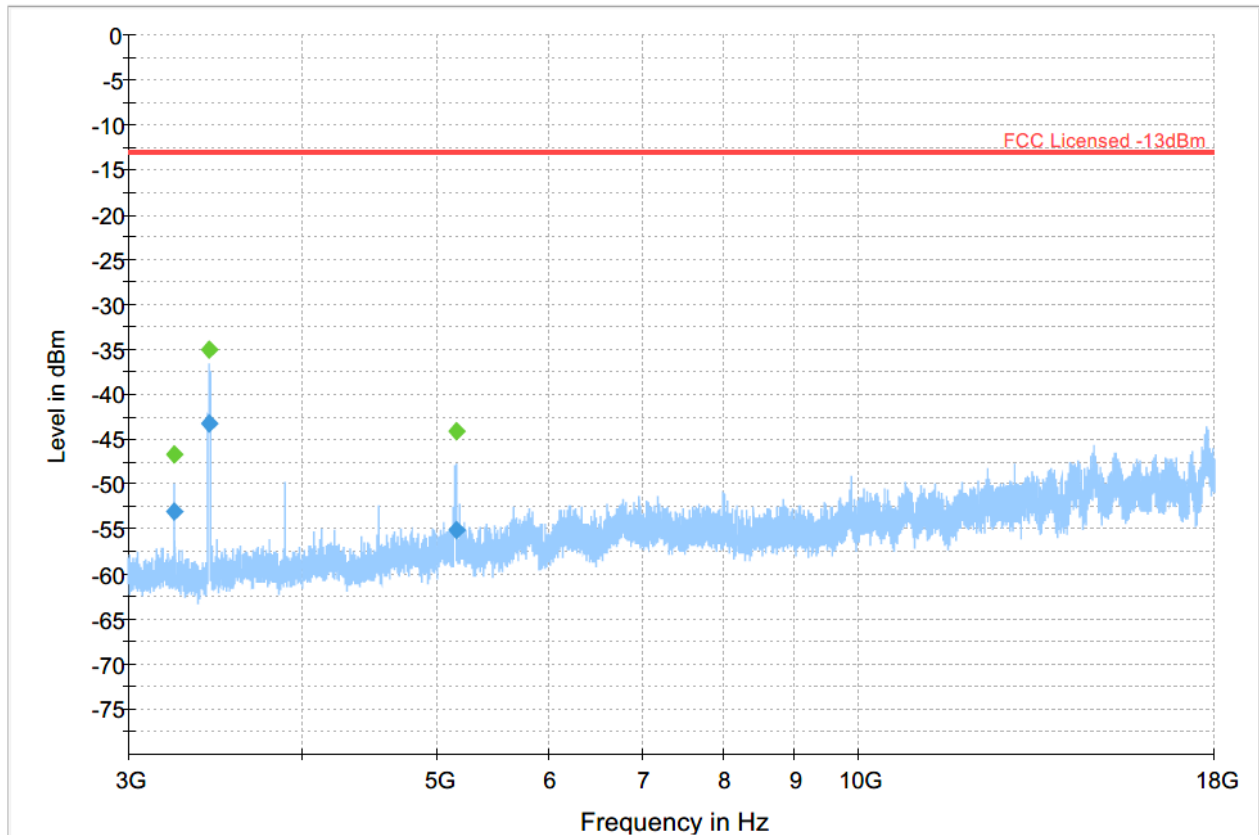


Plot # 14 Radiated Emissions: 3-18 GHz

Channel: Low

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3239.750	---	-46.68	---	---	500.0	1000.000	149.0	V	174.0	-103.9	
3239.750	-53.00	---	-13.00	40.00	500.0	1000.000	149.0	V	174.0	-103.9	
3431.250	---	-35.02	---	---	500.0	1000.000	142.0	V	214.0	-103.5	
3431.250	-43.24	---	-13.00	30.24	500.0	1000.000	142.0	V	214.0	-103.5	
5151.000	---	-44.18	---	---	500.0	1000.000	181.0	H	132.0	-98.7	
5151.000	-55.03	---	-13.00	42.03	500.0	1000.000	181.0	H	132.0	-98.7	

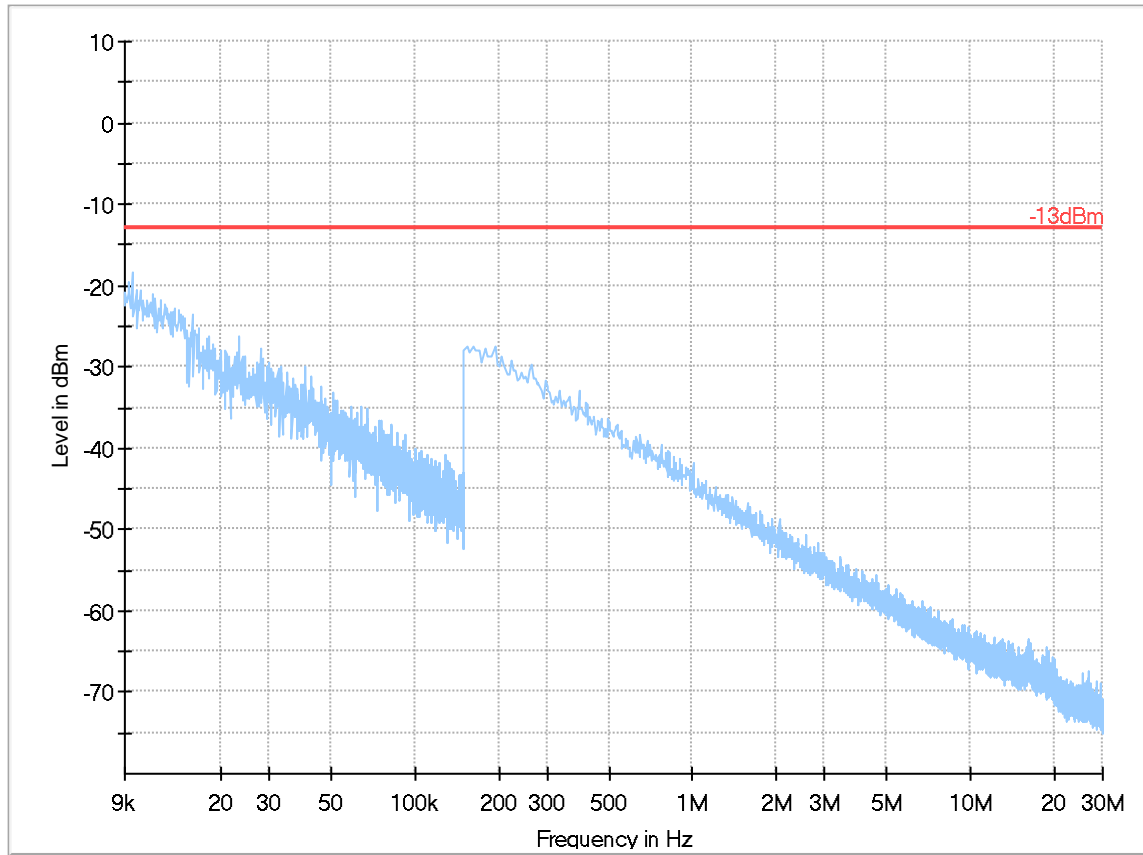


— Preview Result 1-PK+
 — FCC Licensed -13dBm
 ◆ Final_Result RMS
 ◆ Final_Result PK+



Plot #15 Radiated Emissions: 9 kHz – 30 MHz

Channel: Mid

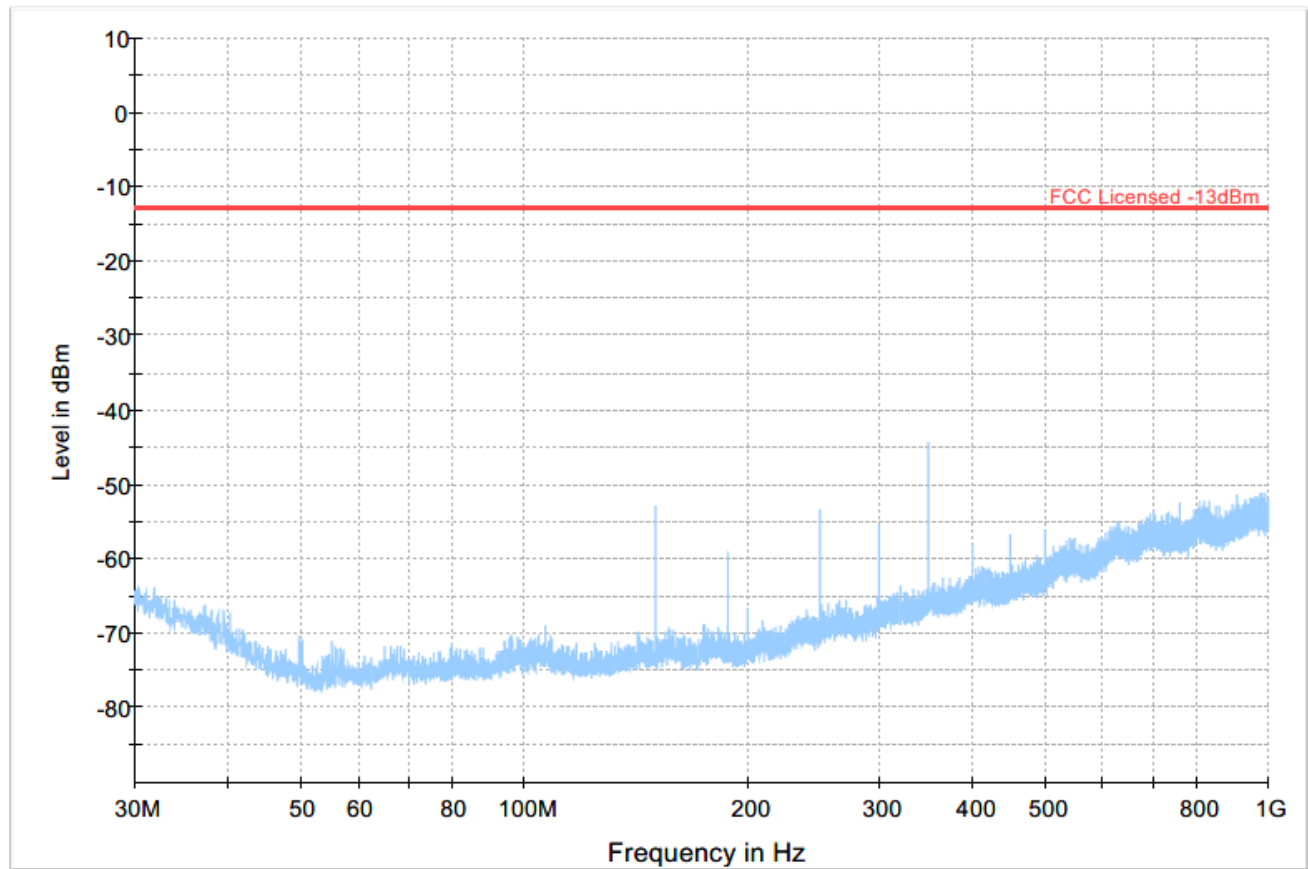


- Preview Result 2-QPK
- Preview Result 1-PK+
- Critical_Freqs QPK
- Critical_Freqs PK+
- Final_Result QPK
- 13dBm
- Final_Result PK+



Plot #16 Radiated Emissions: 30 MHz – 1 GHz

Channel: Mid



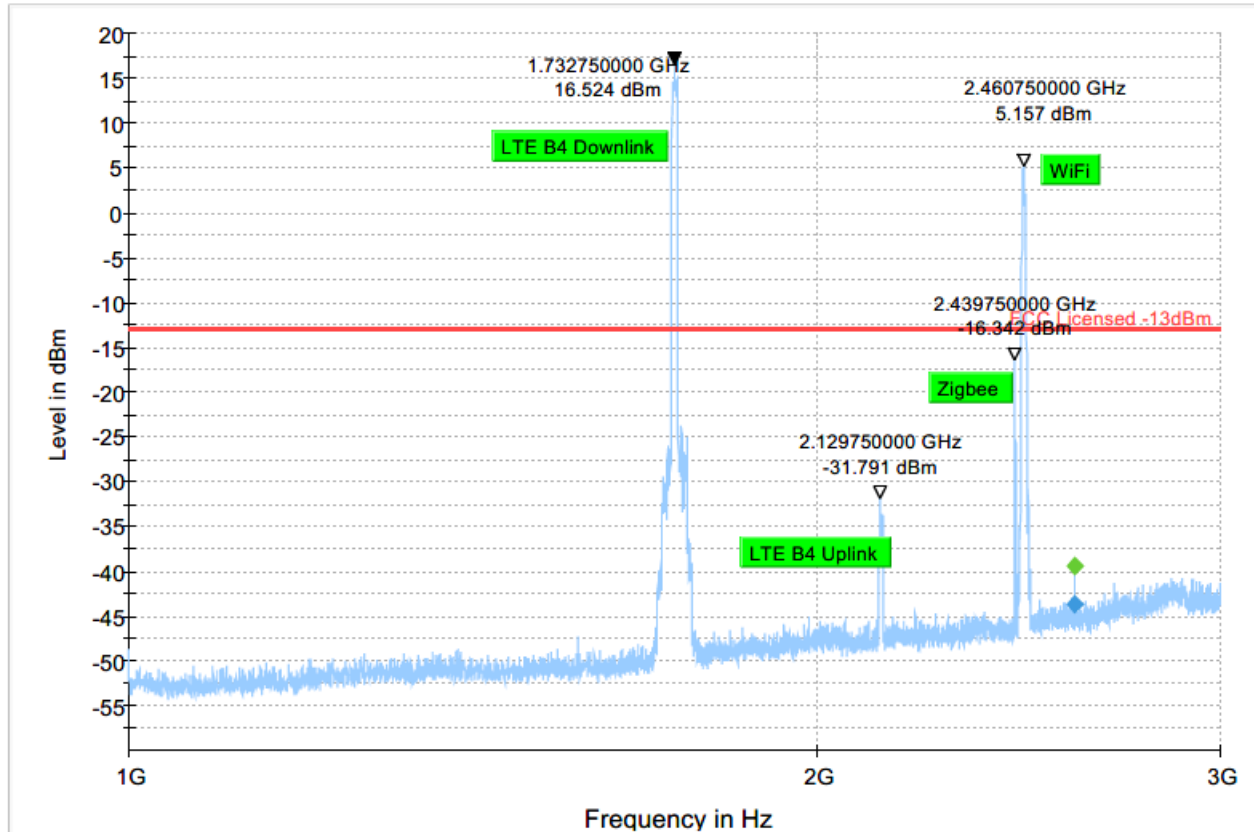
Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #17 Radiated Emissions: 1-3 GHz

Channel: Mid

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
2591.750	---	-39.40	---	---	500.0	1000.000	193.0	H	250.0	-62.0	
2591.750	-43.70	---	-13.00	30.70	500.0	1000.000	193.0	H	250.0	-62.0	



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

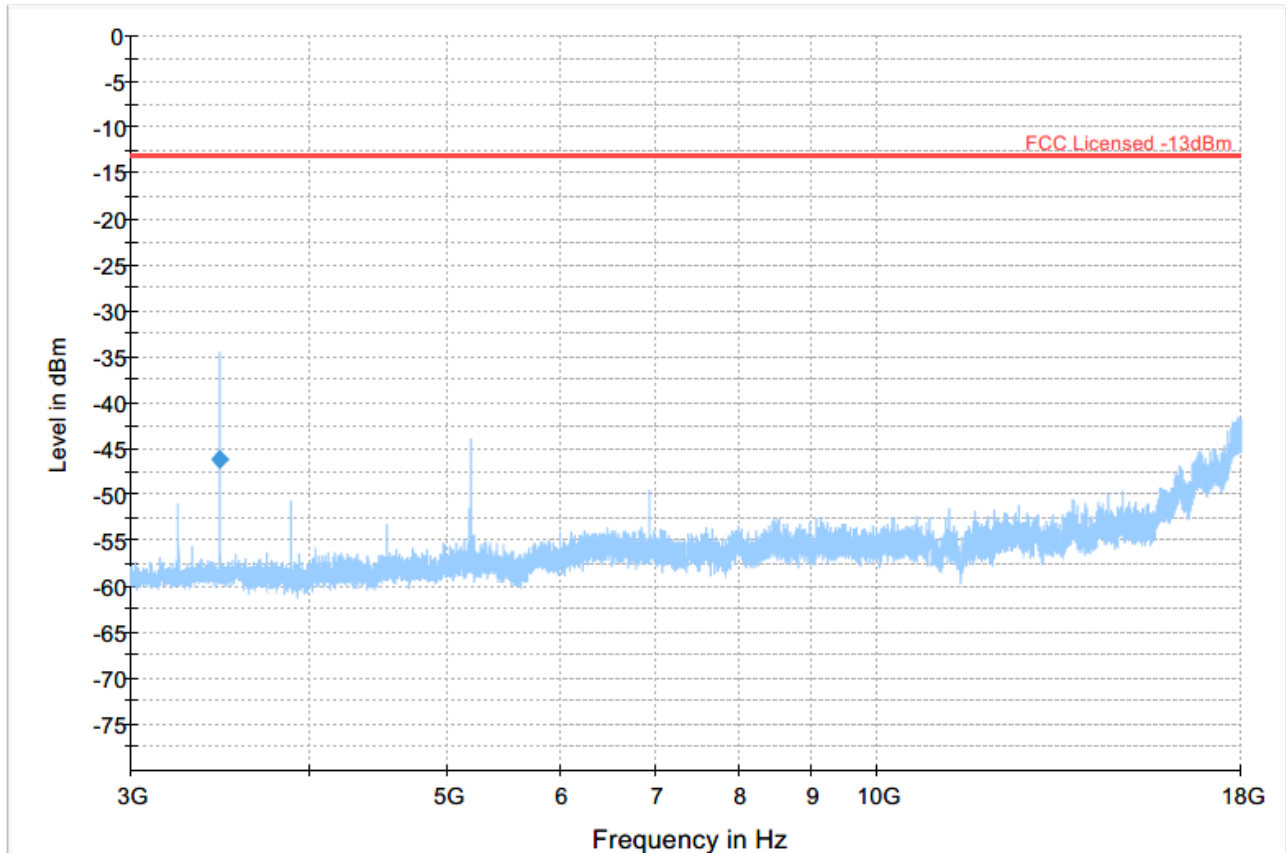


Plot #18 Radiated Emissions: 3-18 GHz

Channel: Mid

Final Result

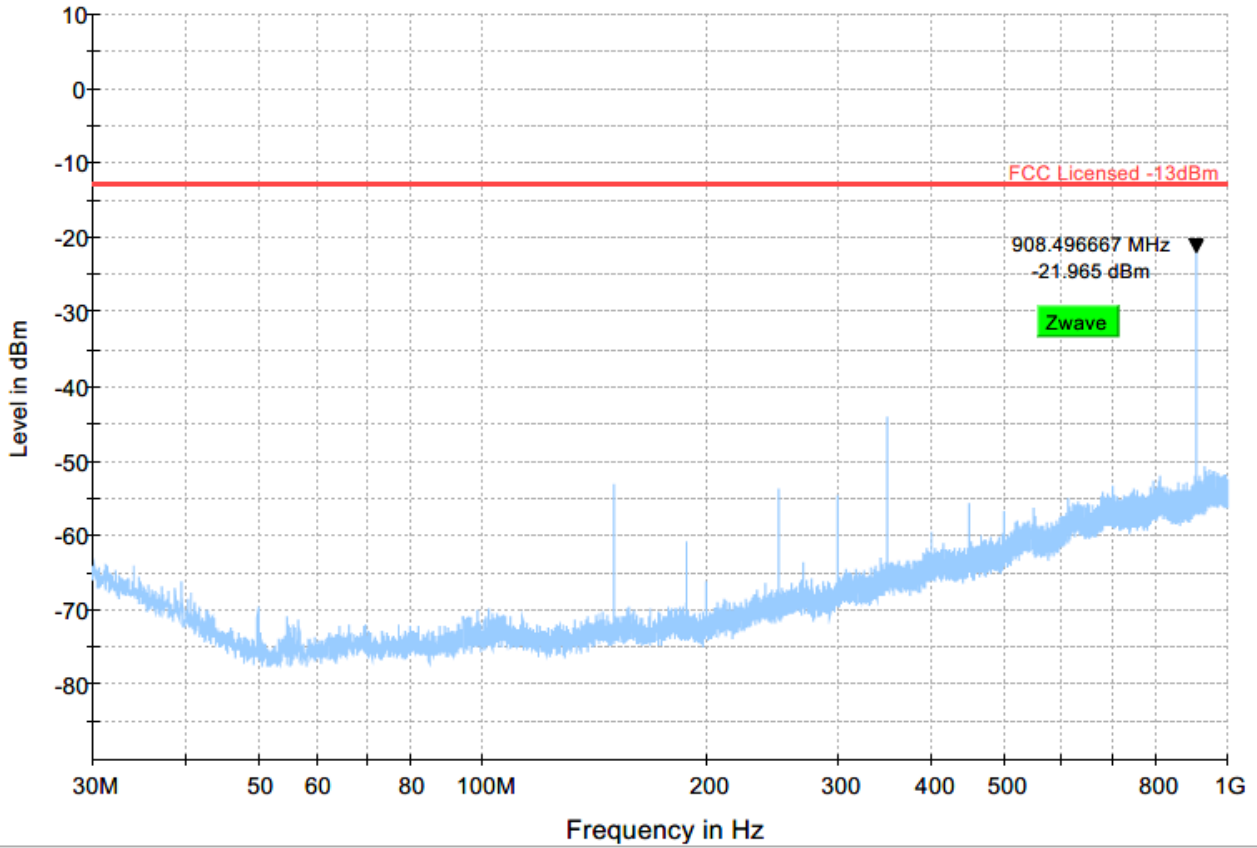
Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3463.000	-46.25	-13.00	33.25	500.0	1000.000	303.0	V	205.0	-103.1	



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

Plot #19 Radiated Emissions: 30 MHz – 1 GHz

Channel: High



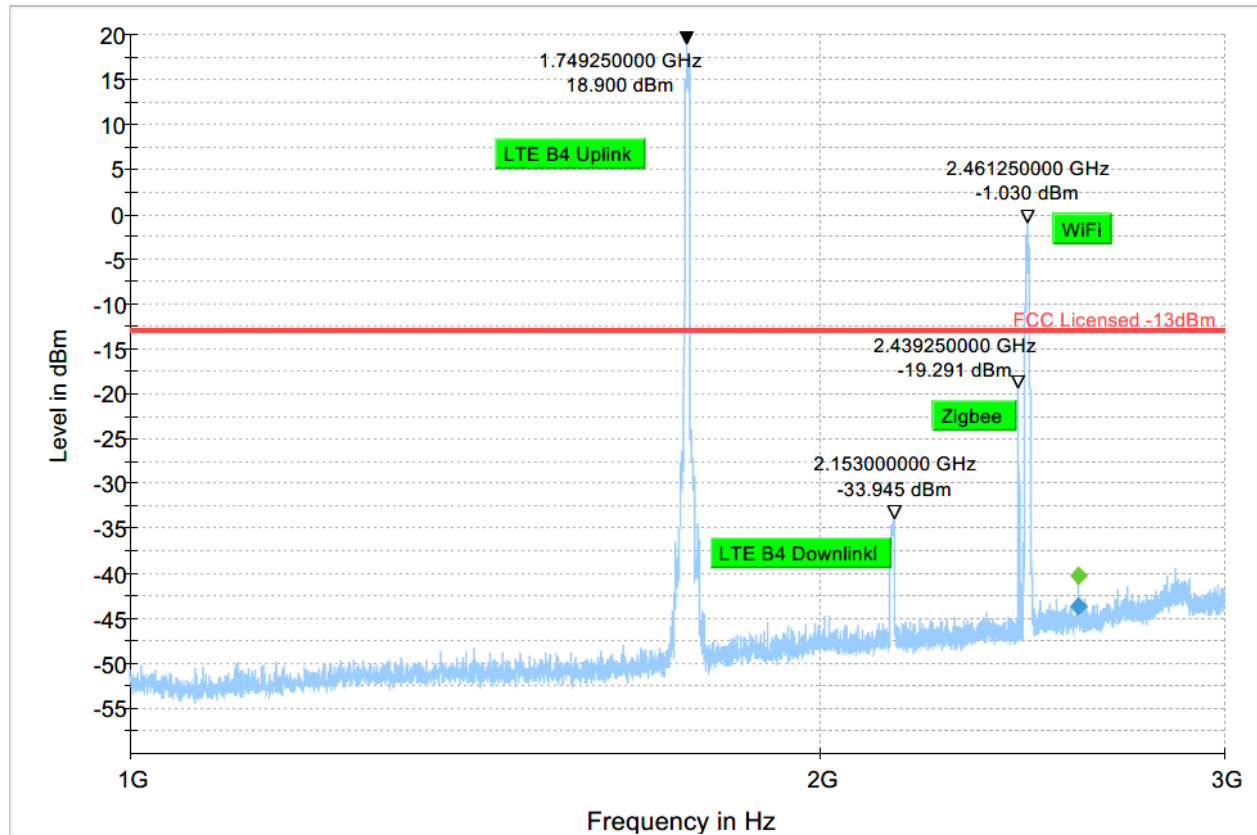
Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #20 Radiated Emissions: 1-3 GHz

Channel: High

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
2592.000	---	-40.27	---	---	500.0	1000.000	175.0	H	32.0	-62.0	
2592.000	-43.76	---	-13.00	30.76	500.0	1000.000	175.0	H	32.0	-62.0	



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

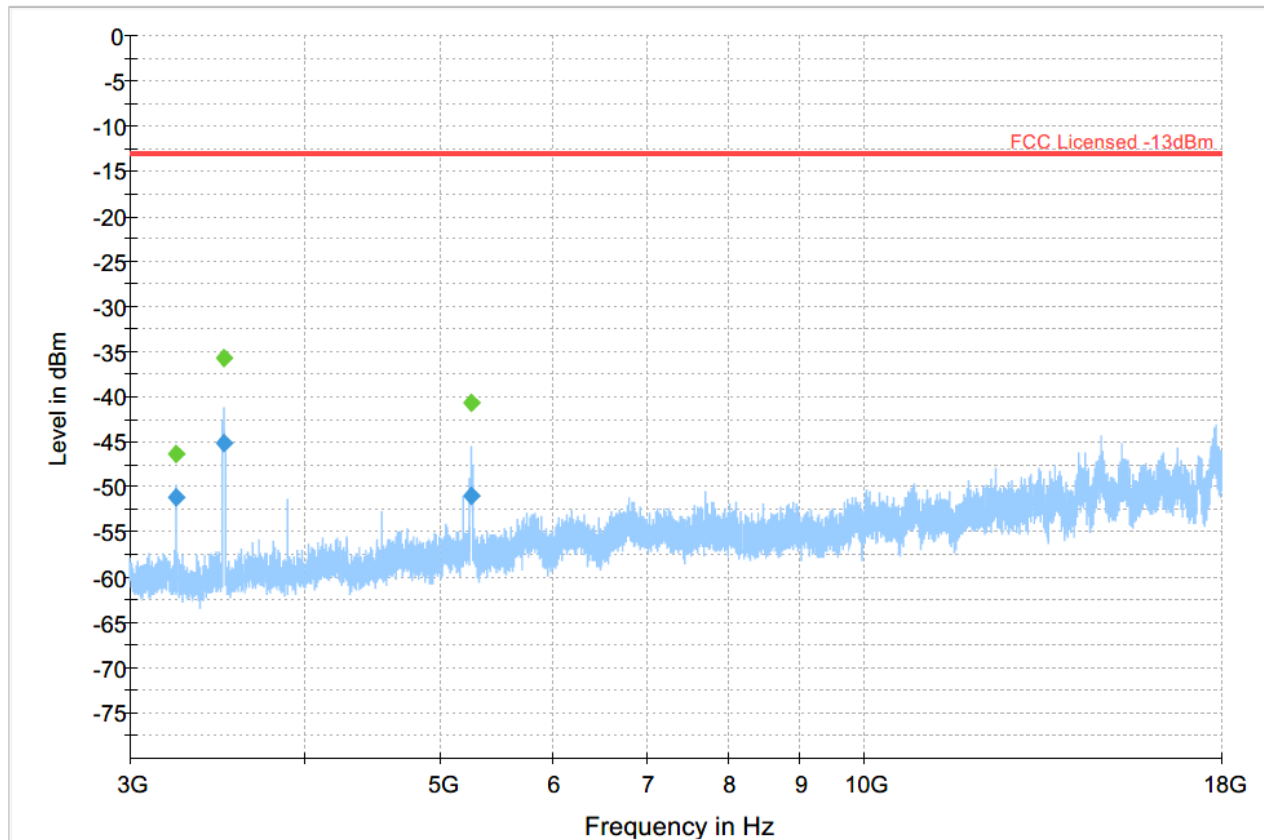


Plot #21 Radiated Emissions: 3-18 GHz

Channel: High

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3239.750	---	-46.33	---	---	500.0	1000.000	153.0	V	174.0	-103.9	
3239.750	-51.20	---	-13.00	38.20	500.0	1000.000	153.0	V	174.0	-103.9	
3501.750	---	-35.71	---	---	500.0	1000.000	176.0	V	228.0	-103.3	
3501.750	-45.15	---	-13.00	32.15	500.0	1000.000	176.0	V	228.0	-103.3	
5250.500	---	-40.74	---	---	500.0	1000.000	200.0	H	139.0	-98.6	
5250.500	-50.95	---	-13.00	37.95	500.0	1000.000	200.0	H	139.0	-98.6	



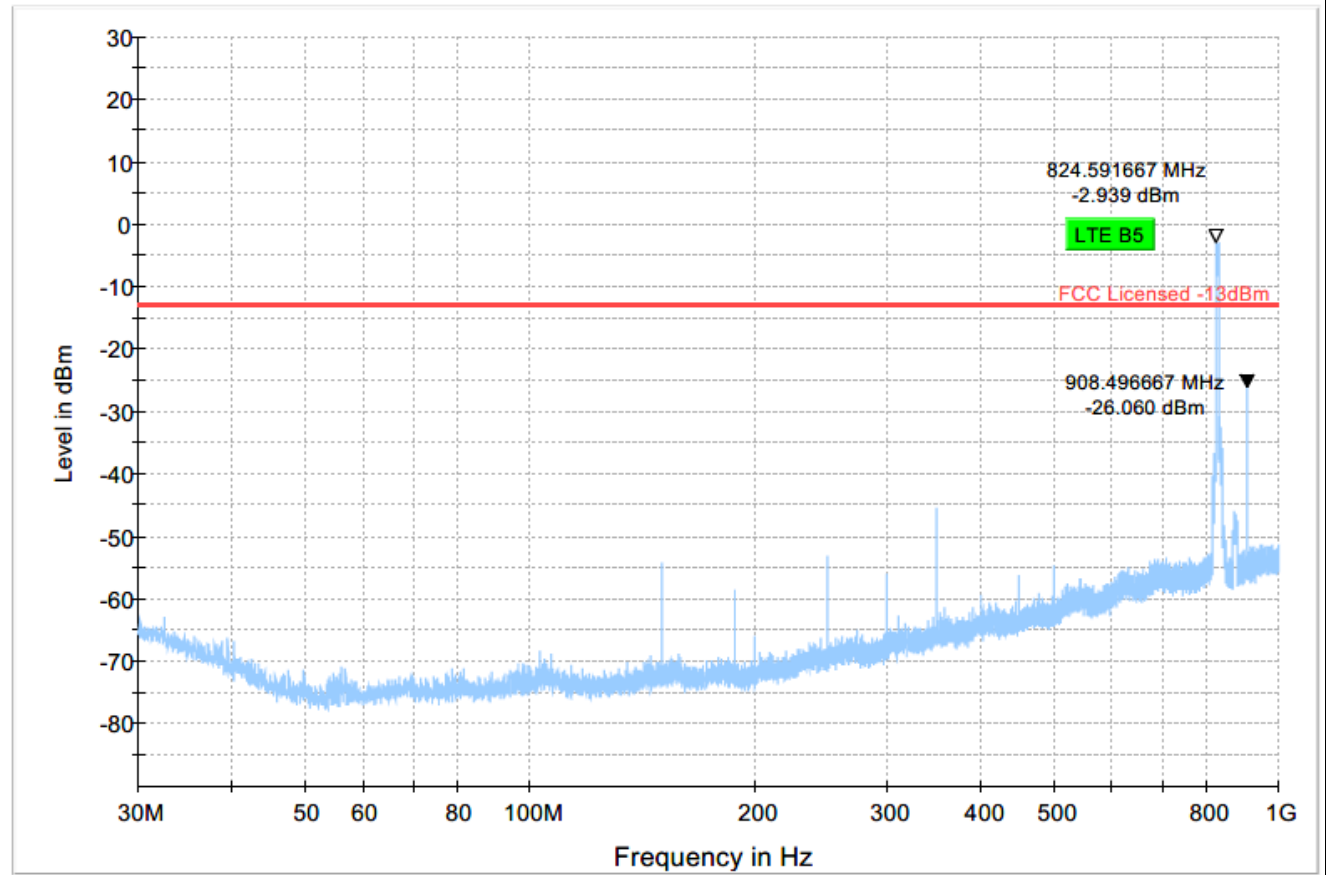
— Preview Result 1-PK+
 — FCC Licensed -13dBm
 ◆ Final_Result RMS
 ◆ Final_Result PK



LTE Band 5

Plot #22 Radiated Emissions: 30 MHz – 1GHz

Channel: Low



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

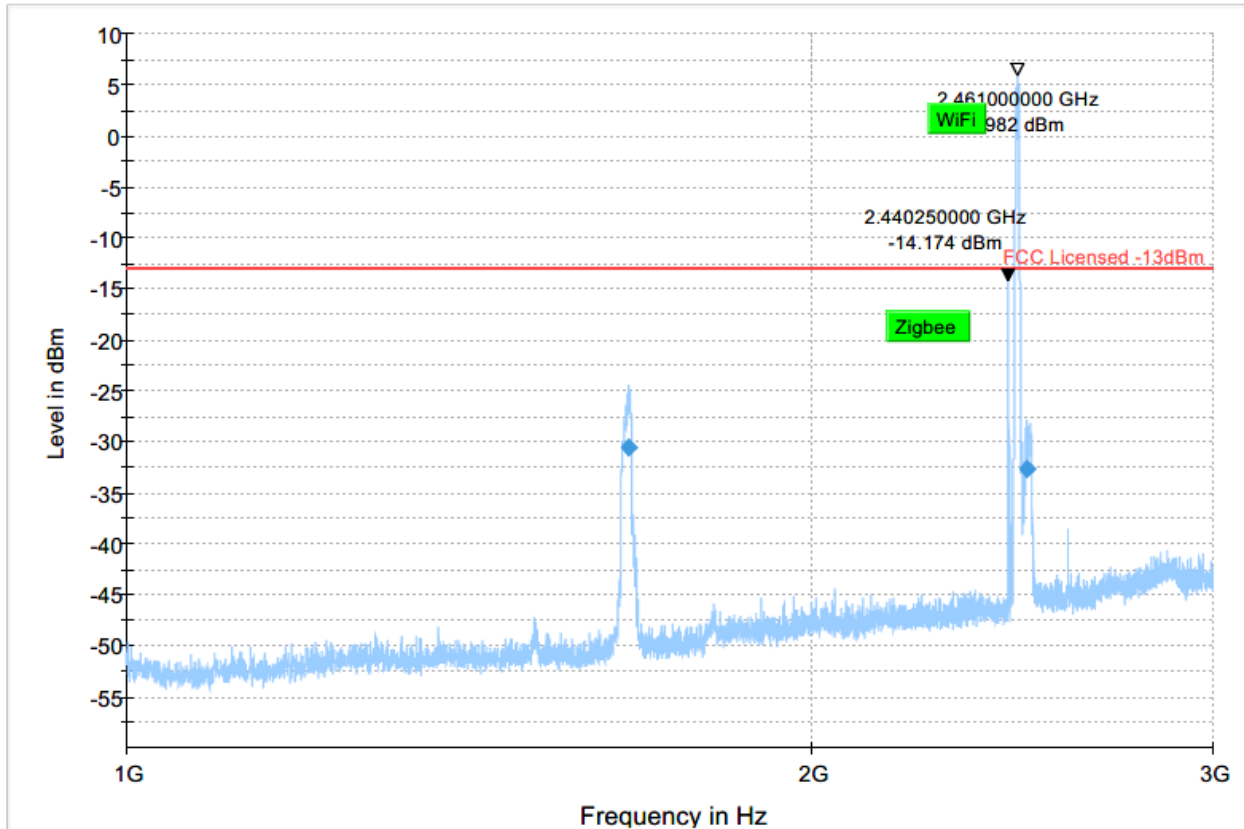


Plot # 23 Radiated Emissions: 1-3 GHz

Channel: Low

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
1662.500	-30.52	---	-13.00	17.52	500.0	1000.000	145.0	V	-7.0	-65.4	
2487.500	-32.66	---	-13.00	19.66	500.0	1000.000	200.0	V	192.0	-62.3	



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

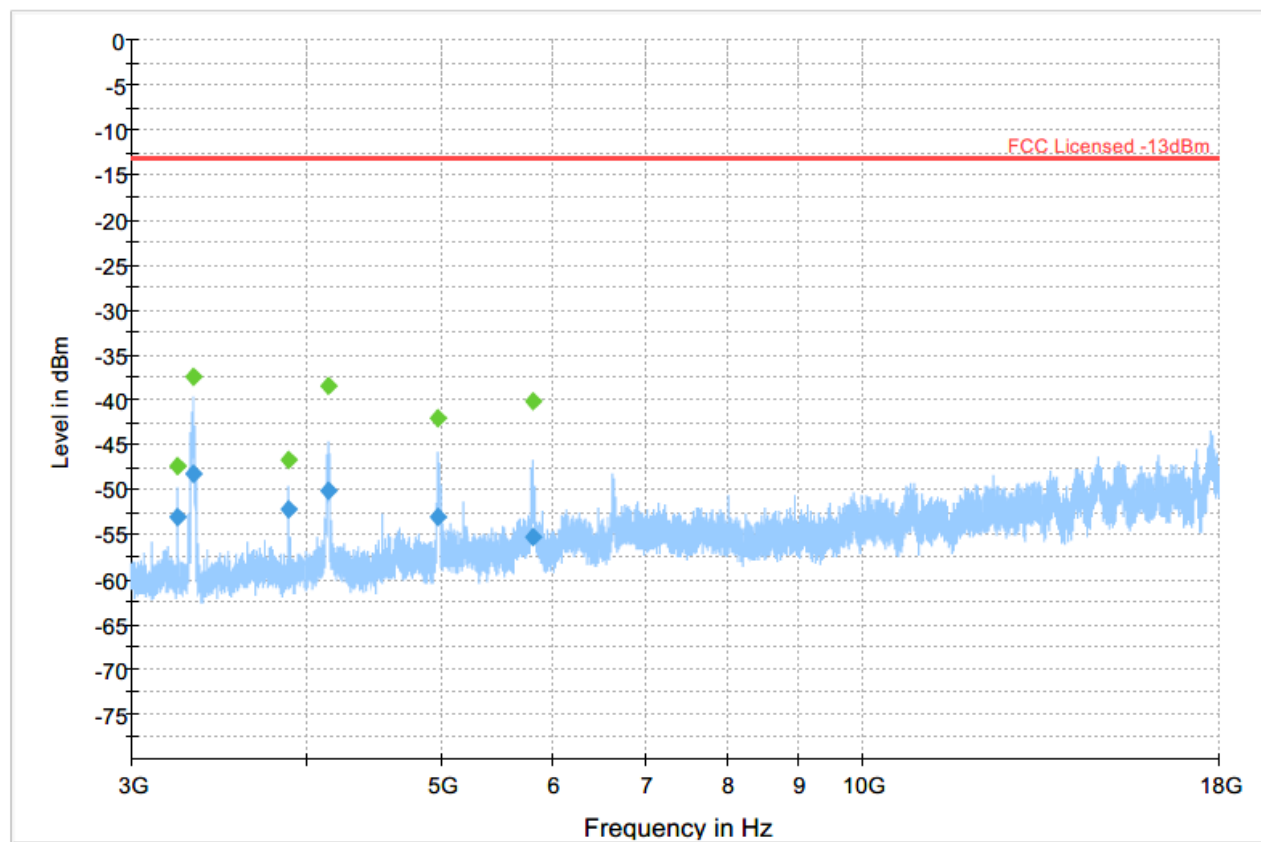


Plot # 24 Radiated Emissions: 3-18 GHz

Channel: Low

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3239.750	---	-47.37	---	---	500.0	1000.000	150.0	V	174.0	-103.9	
3239.750	-53.00	---	-13.00	40.00	500.0	1000.000	150.0	V	174.0	-103.9	
3324.750	---	-37.45	---	---	500.0	1000.000	142.0	V	236.0	-104.3	
3324.750	-48.18	---	-13.00	35.18	500.0	1000.000	142.0	V	236.0	-104.3	
3887.750	---	-46.67	---	---	500.0	1000.000	200.0	V	118.0	-102.1	
3887.750	-52.15	---	-13.00	39.15	500.0	1000.000	200.0	V	118.0	-102.1	
4144.500	---	-38.48	---	---	500.0	1000.000	186.0	V	210.0	-100.6	
4144.500	-50.11	---	-13.00	37.11	500.0	1000.000	186.0	V	210.0	-100.6	
4969.750	---	-42.10	---	---	500.0	1000.000	200.0	V	217.0	-99.3	
4969.750	-53.02	---	-13.00	40.02	500.0	1000.000	200.0	V	217.0	-99.3	
5818.750	---	-40.18	---	---	500.0	1000.000	200.0	V	84.0	-97.7	
5818.750	-55.25	---	-13.00	42.25	500.0	1000.000	200.0	V	84.0	-97.7	

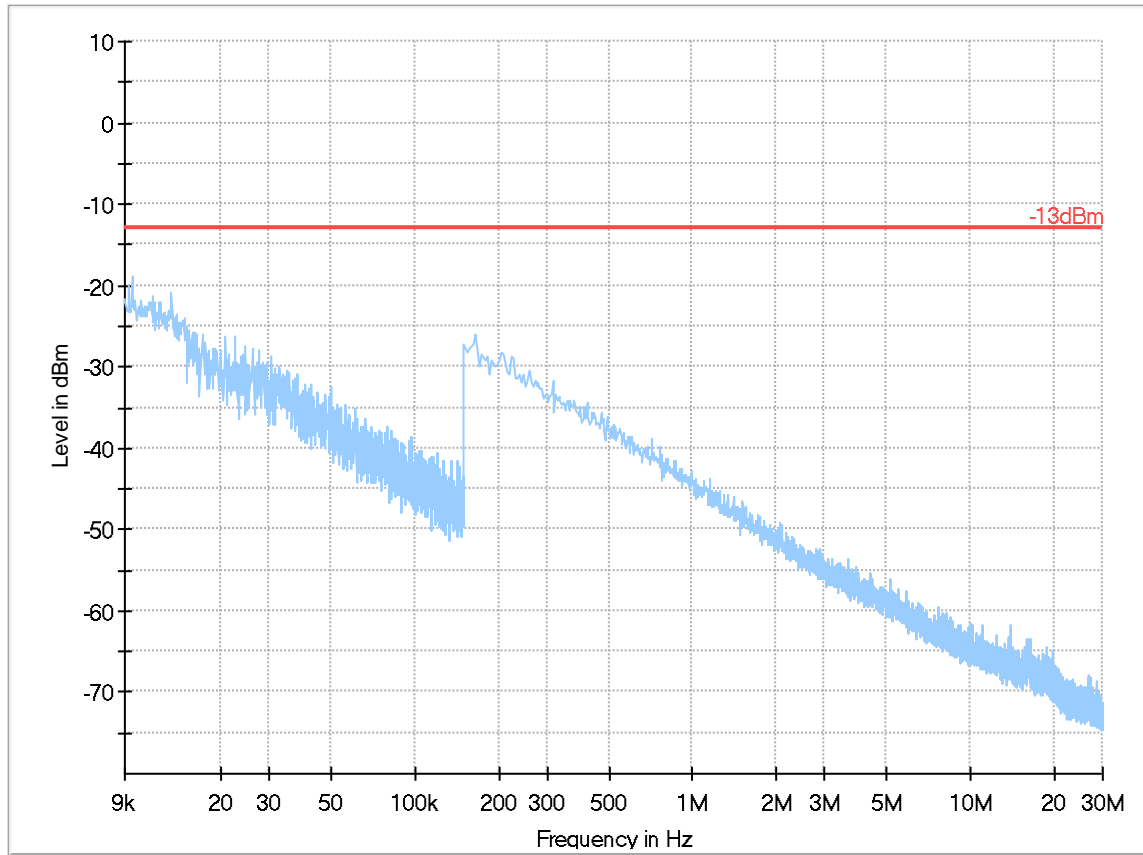


— Preview Result 1-PK+
 — FCC Licensed -13dBm
 ◆ Final_Result RMS
 ◆ Final_Result PK-



Plot #25 Radiated Emissions: 9 kHz – 30 MHz

Channel: Mid

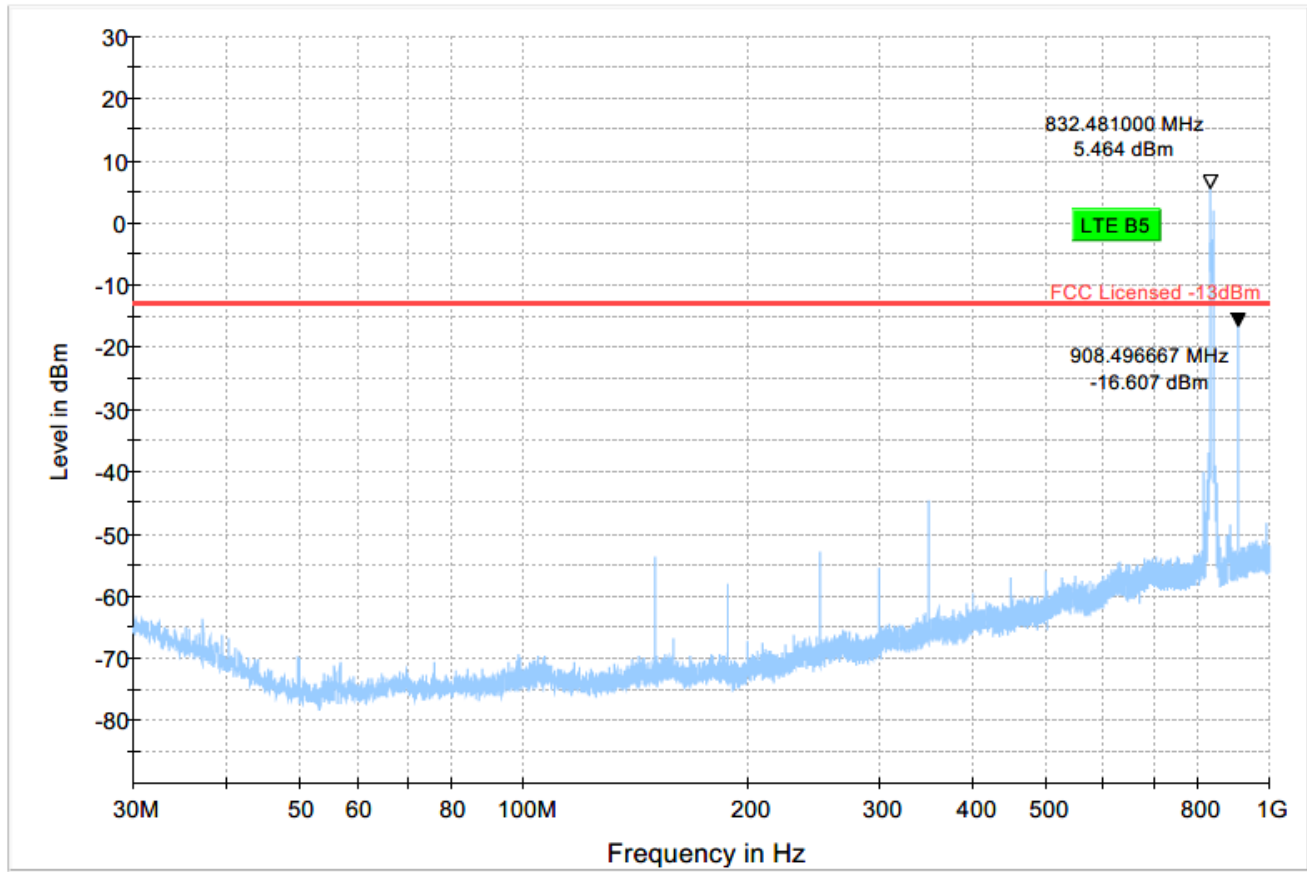


- Preview Result 2-QPK
- Preview Result 1-PK+
- Critical_Freqs QPK
- Critical_Freqs PK+
- Final_Result QPK
- 13dBm
- Final_Result PK+



Plot #26 Radiated Emissions: 30 MHz – 1 GHz

Channel: Mid



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

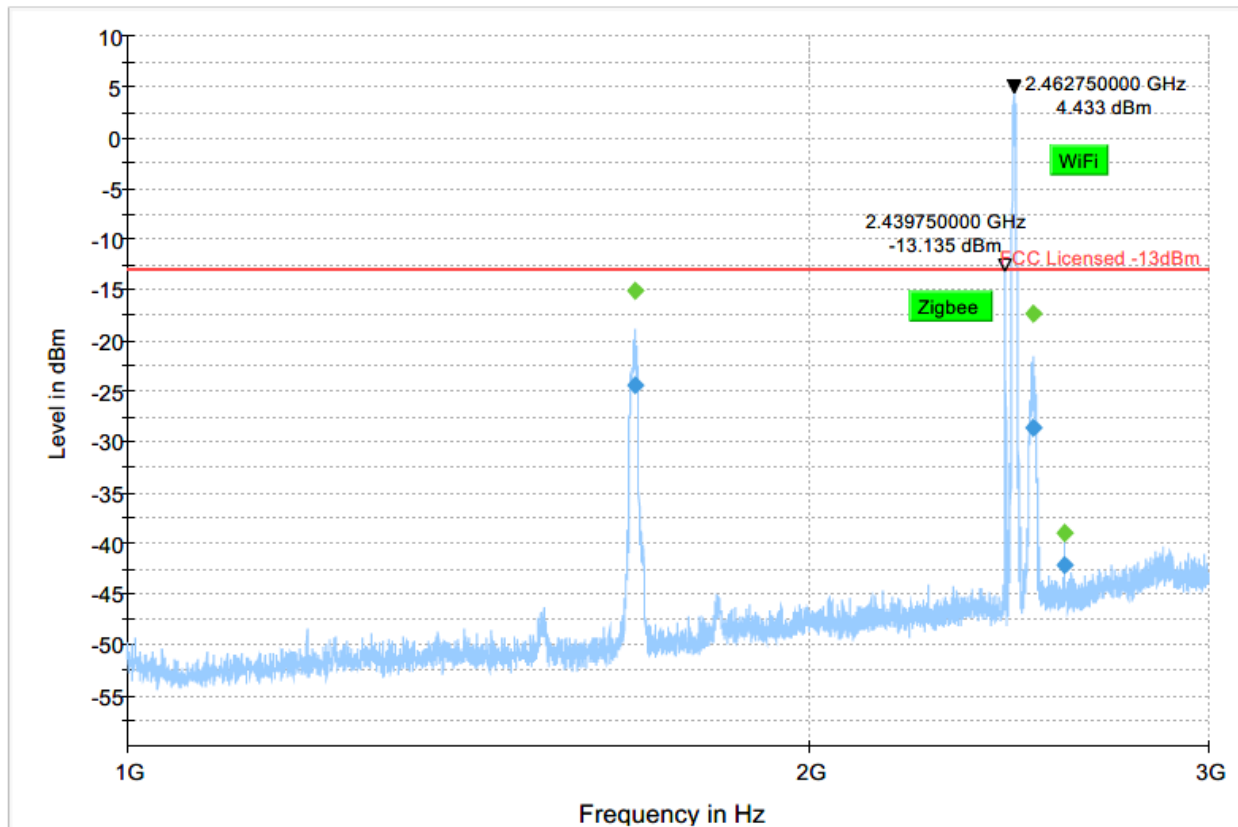


Plot #27 Radiated Emissions: 1-3 GHz

Channel: Mid

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
1675.750	---	-15.09	---	---	500.0	1000.000	133.0	H	286.0	-65.3	
1675.750	-24.37	---	-13.00	11.37	500.0	1000.000	133.0	H	286.0	-65.3	
2509.250	---	-17.31	---	---	500.0	1000.000	200.0	V	195.0	-62.2	
2509.250	-28.59	---	-13.00	15.59	500.0	1000.000	200.0	V	195.0	-62.2	
2592.000	---	-38.91	---	---	500.0	1000.000	194.0	H	246.0	-62.0	
2592.000	-42.08	---	-13.00	29.08	500.0	1000.000	194.0	H	246.0	-62.0	



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

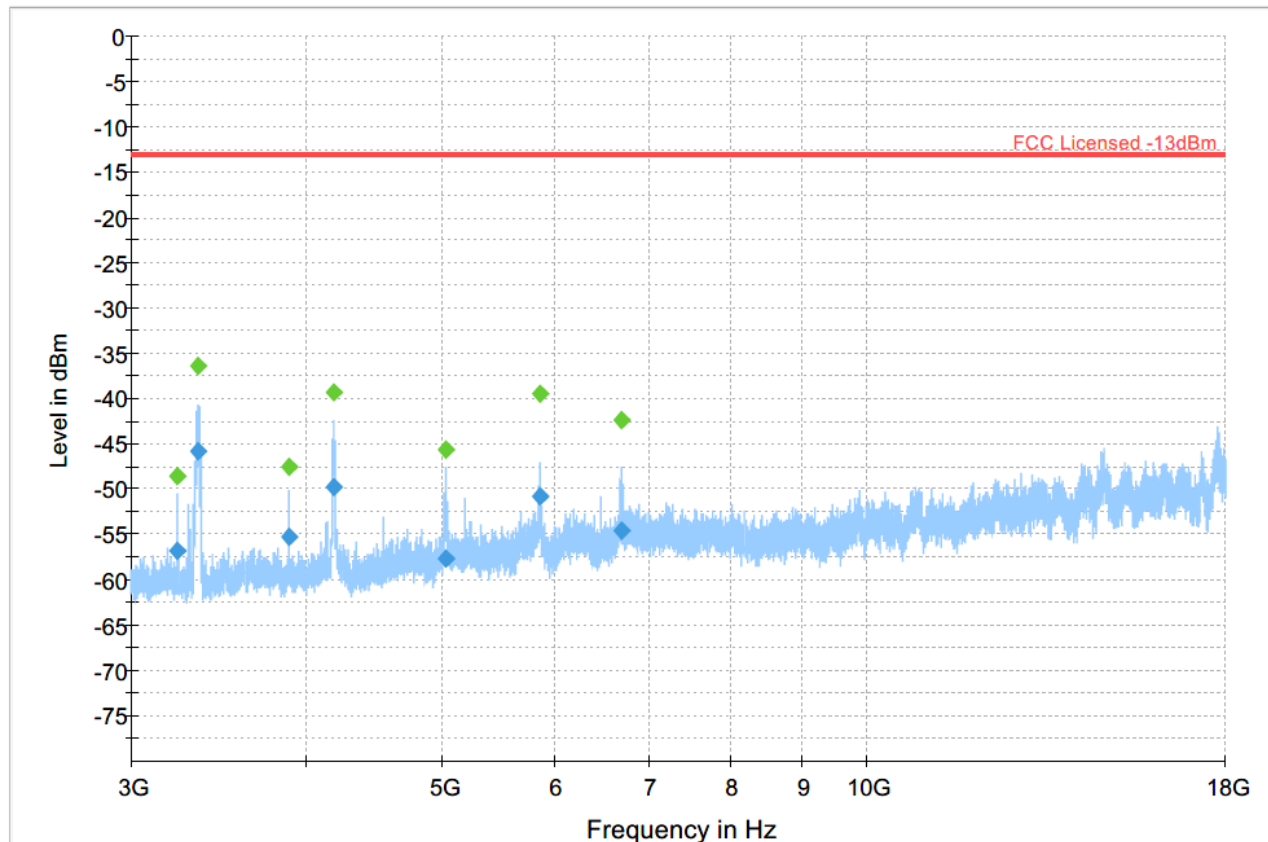


Plot #28 Radiated Emissions: 3-9 GHz

Channel: Mid

Final Result

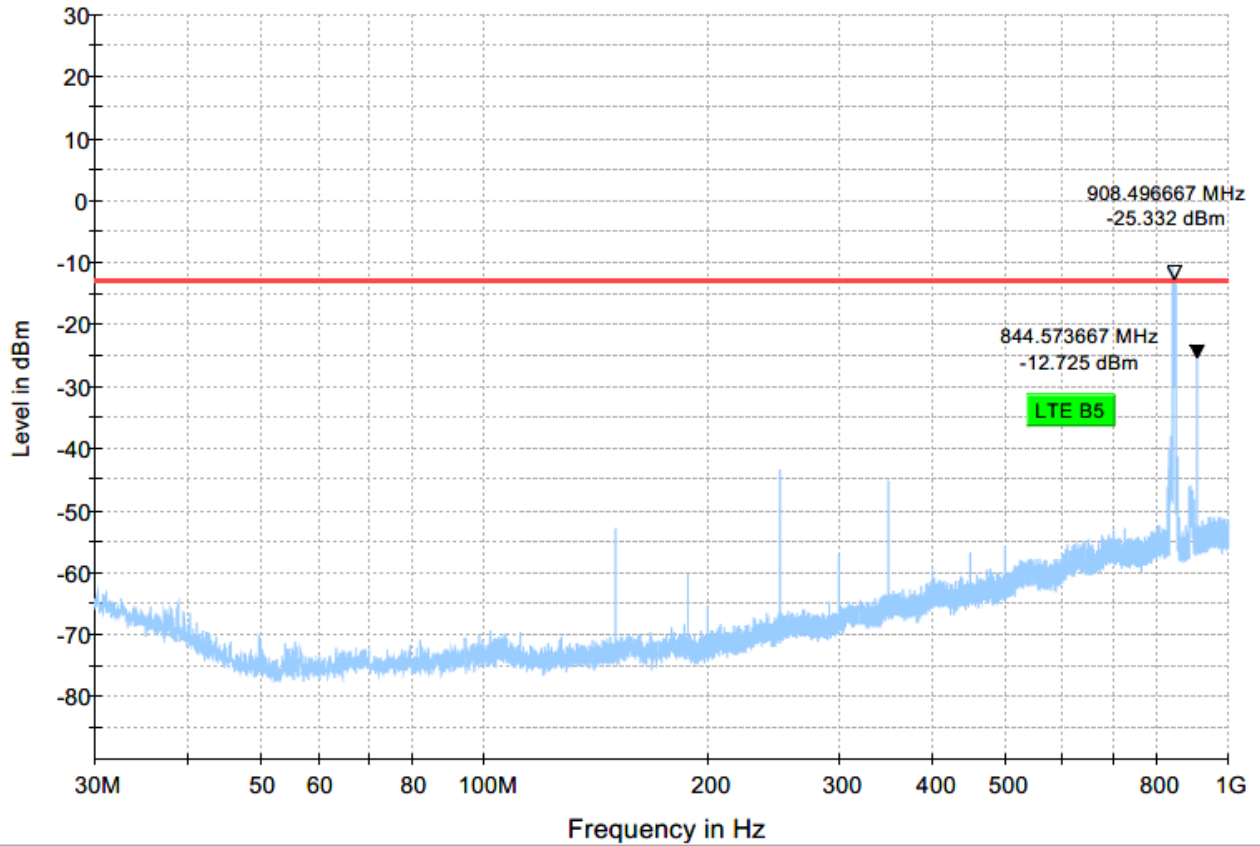
Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3239.500	---	-48.53	---	---	500.0	1000.000	149.0	V	177.0	-103.9	
3239.500	-56.75	---	-13.00	43.75	500.0	1000.000	149.0	V	177.0	-103.9	
3345.750	---	-36.33	---	---	500.0	1000.000	107.0	H	118.0	-104.4	
3345.750	-45.90	---	-13.00	32.90	500.0	1000.000	107.0	H	118.0	-104.4	
3887.500	---	-47.57	---	---	500.0	1000.000	194.0	V	132.0	-102.2	
3887.500	-55.31	---	-13.00	42.31	500.0	1000.000	194.0	V	132.0	-102.2	
4180.750	---	-39.30	---	---	500.0	1000.000	171.0	H	222.0	-100.4	
4180.750	-49.84	---	-13.00	36.84	500.0	1000.000	171.0	H	222.0	-100.4	
5020.750	---	-45.74	---	---	500.0	1000.000	184.0	H	134.0	-99.2	
5020.750	-57.73	---	-13.00	44.73	500.0	1000.000	184.0	H	134.0	-99.2	
5853.250	---	-39.54	---	---	500.0	1000.000	159.0	H	181.0	-97.9	
5853.250	-50.85	---	-13.00	37.85	500.0	1000.000	159.0	H	181.0	-97.9	
6691.000	---	-42.36	---	---	500.0	1000.000	185.0	H	134.0	-97.1	
6691.000	-54.56	---	-13.00	41.56	500.0	1000.000	185.0	H	134.0	-97.1	



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

Plot #29 Radiated Emissions: 30 MHz – 1 GHz

Channel: High



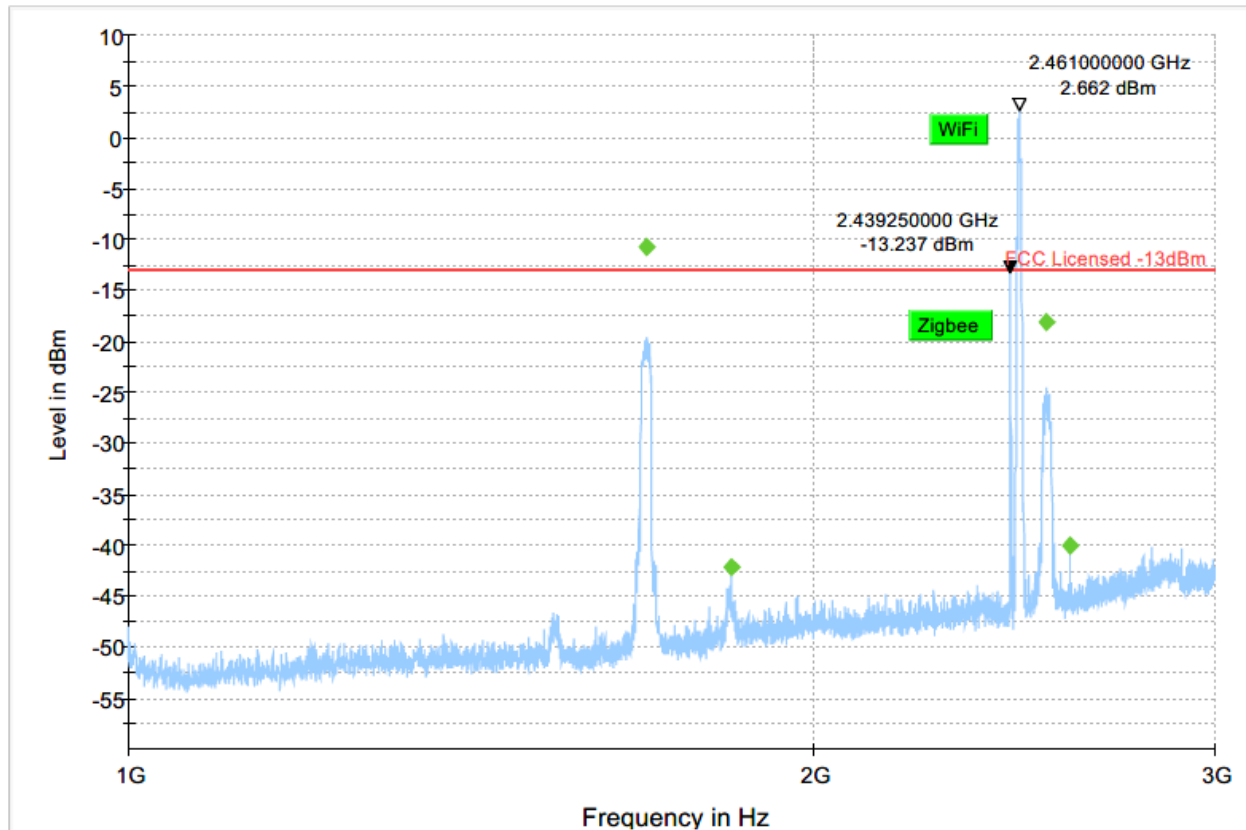
Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot #30 Radiated Emissions: 1-3 GHz

Channel: High

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
1687.750	---	-10.72	---	---	500.0	1000.000	184.0	H	-33.0	-65.2	
1840.250	---	-42.08	---	---	500.0	1000.000	100.0	H	79.0	-64.3	
2531.250	---	-18.16	---	---	500.0	1000.000	200.0	V	191.0	-62.1	
2592.000	---	-40.06	---	---	500.0	1000.000	159.0	H	38.0	-62.0	



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

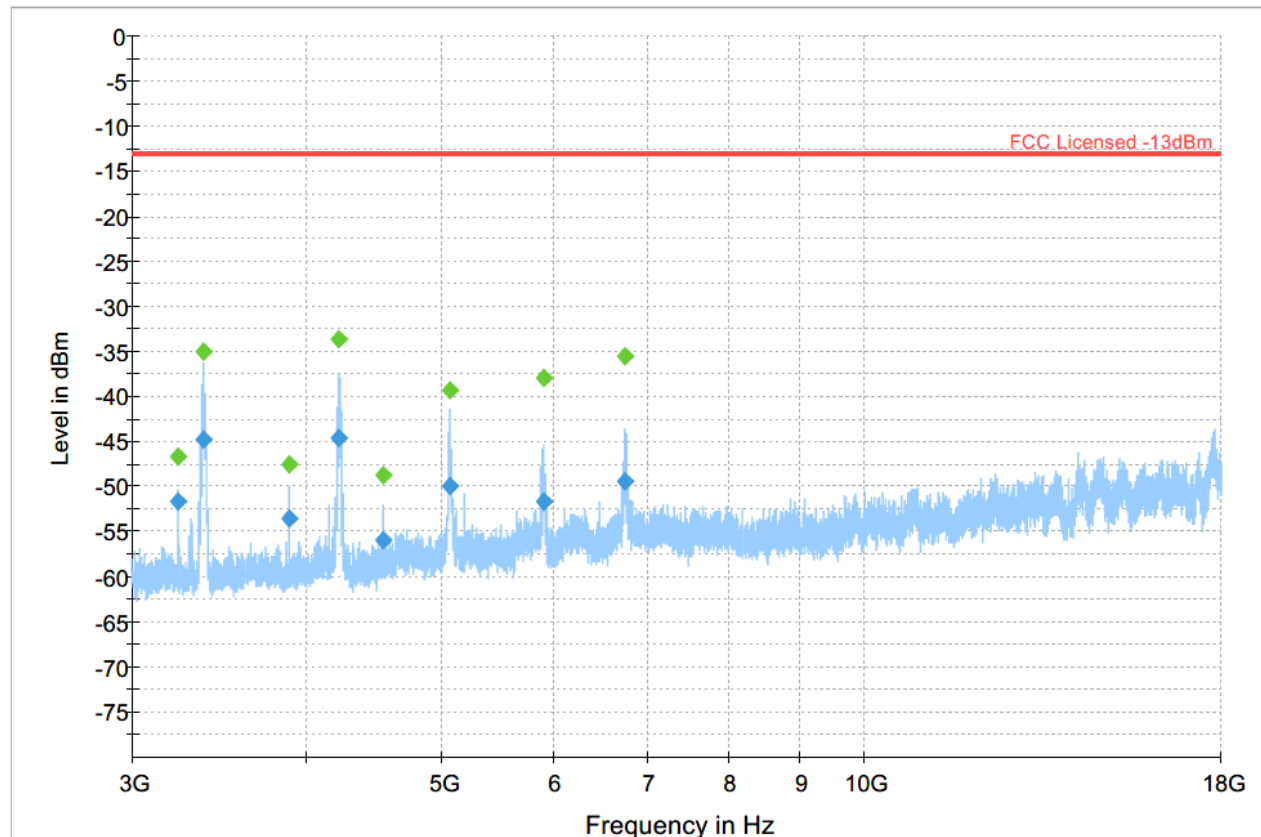


Plot #31 Radiated Emissions: 3-9 GHz

Channel: High

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3239.750	---	-46.61	---	---	500.0	1000.000	191.0	V	-4.0	-103.9	
3239.750	-51.73	---	-13.00	38.73	500.0	1000.000	191.0	V	-4.0	-103.9	
3375.500	---	-34.96	---	---	500.0	1000.000	107.0	V	218.0	-104.1	
3375.500	-44.73	---	-13.00	31.73	500.0	1000.000	107.0	V	218.0	-104.1	
3887.750	---	-47.49	---	---	500.0	1000.000	125.0	V	120.0	-102.1	
3887.750	-53.64	---	-13.00	40.64	500.0	1000.000	125.0	V	120.0	-102.1	
4218.000	---	-33.71	---	---	500.0	1000.000	151.0	V	131.0	-100.3	
4218.000	-44.69	---	-13.00	31.69	500.0	1000.000	151.0	V	131.0	-100.3	
4535.750	---	-48.73	---	---	500.0	1000.000	195.0	V	167.0	-100.2	
4535.750	-56.01	---	-13.00	43.01	500.0	1000.000	195.0	V	167.0	-100.2	
5067.000	---	-39.25	---	---	500.0	1000.000	193.0	V	228.0	-99.0	
5067.000	-49.95	---	-13.00	36.95	500.0	1000.000	193.0	V	228.0	-99.0	
5908.250	---	-37.87	---	---	500.0	1000.000	177.0	V	86.0	-98.4	
5908.250	-51.67	---	-13.00	38.67	500.0	1000.000	177.0	V	86.0	-98.4	
6752.000	---	-35.59	---	---	500.0	1000.000	125.0	V	71.0	-97.1	
6752.000	-49.50	---	-13.00	36.50	500.0	1000.000	125.0	V	71.0	-97.1	

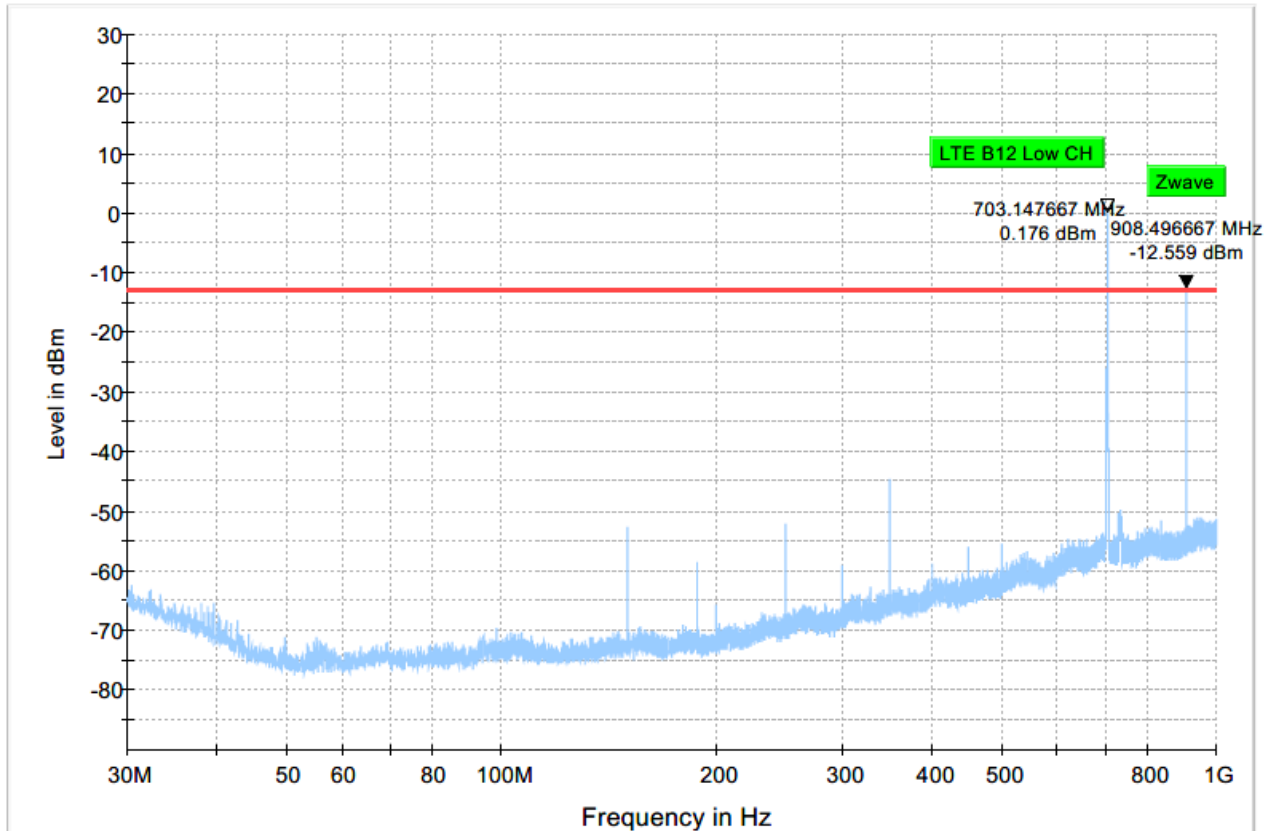


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS ◆ Final_Result PK+

LTE Band 12

Plot #32 Radiated Emissions: 30 MHz – 1GHz

Channel: Low



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

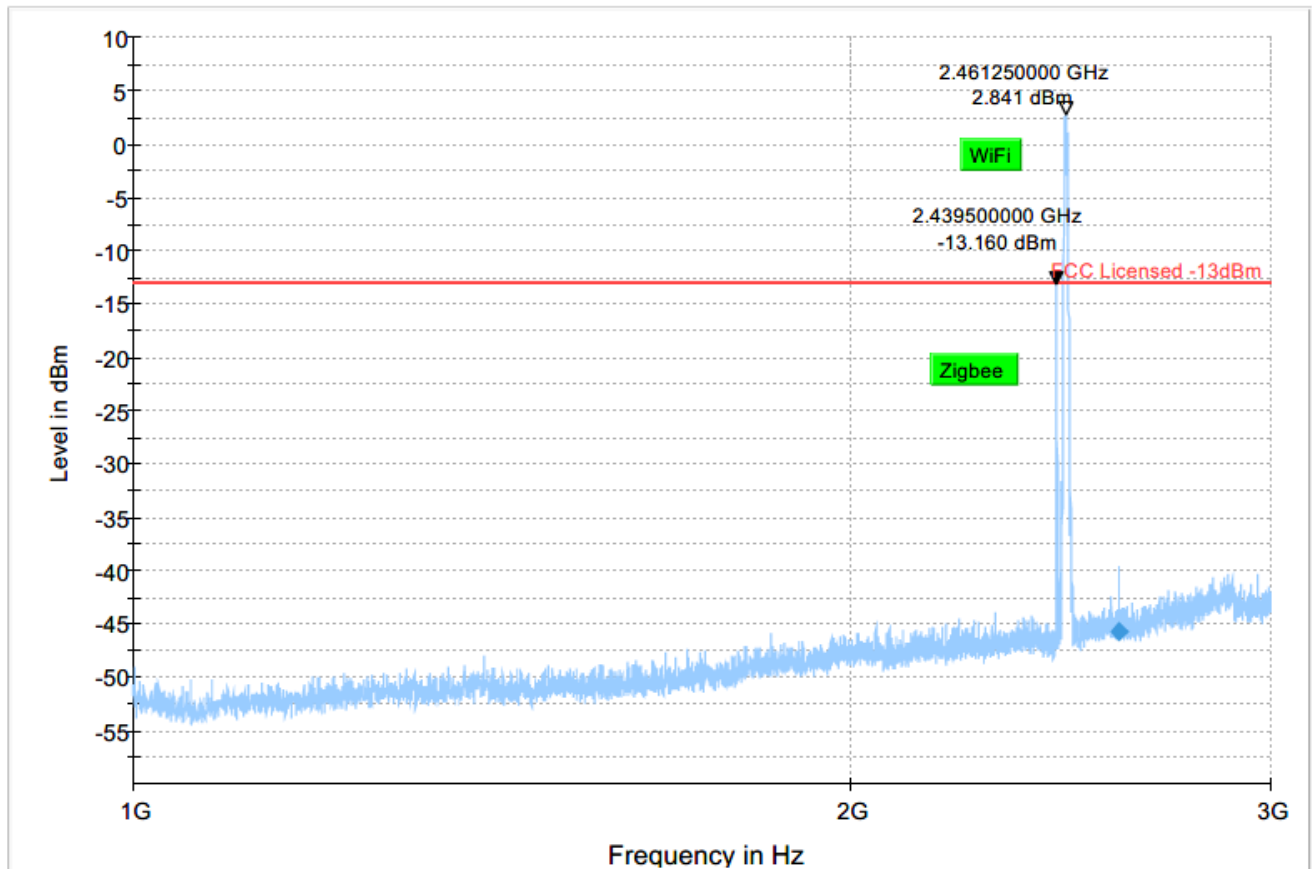


Plot # 33 Radiated Emissions: 1-3 GHz

Channel: Low

Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Poi	Azimuth (deg)	Corr. (dB)	Comment
2592.000	-45.77	-13.00	32.77	500.0	1000.000	107.0	H	-9.0	-62.0	



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

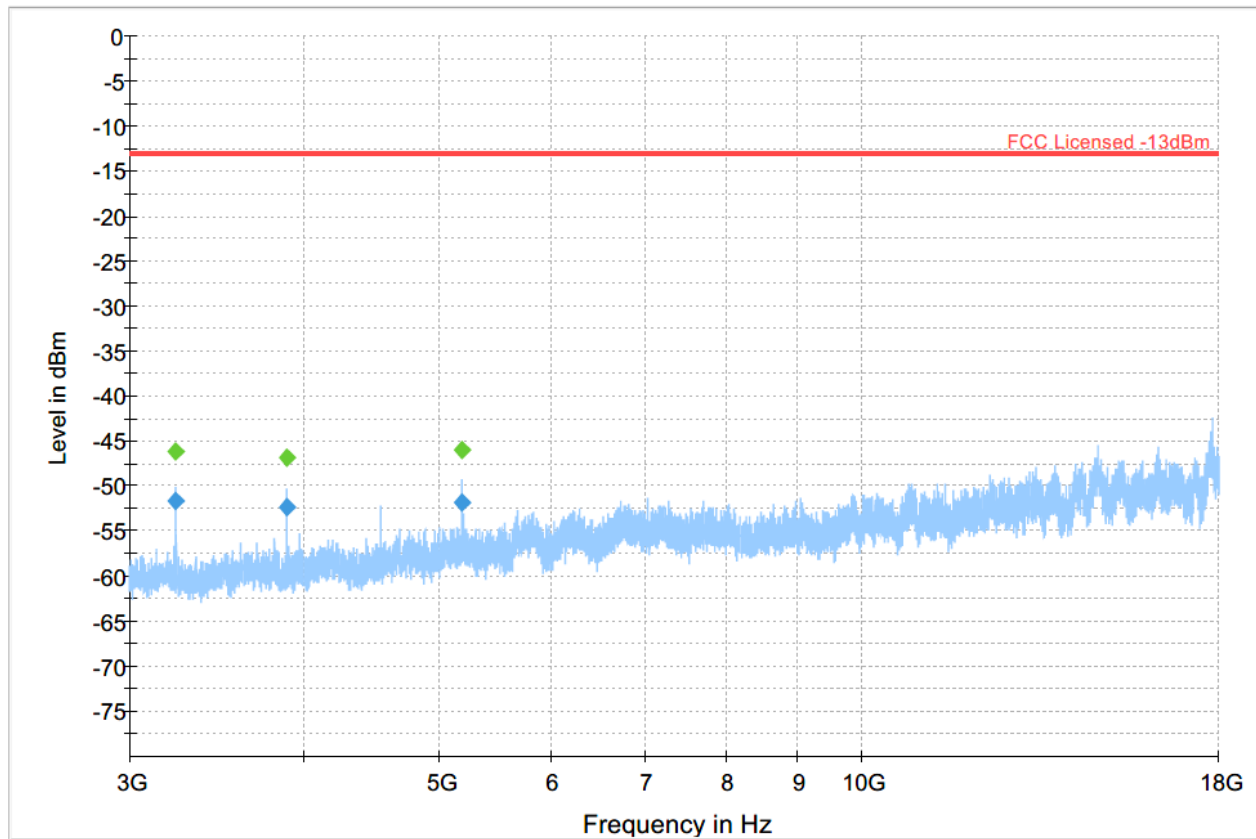


Plot # 34 Radiated Emissions: 3-9 GHz

Channel: Low

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3239.750	---	-46.15	---	---	500.0	1000.000	186.0	V	-7.0	-103.9	
3239.750	-51.62	---	-13.00	38.62	500.0	1000.000	186.0	V	-7.0	-103.9	
3887.750	---	-46.83	---	---	500.0	1000.000	159.0	V	128.0	-102.1	
3887.750	-52.42	---	-13.00	39.42	500.0	1000.000	159.0	V	128.0	-102.1	
5184.000	---	-46.04	---	---	500.0	1000.000	200.0	V	137.0	-98.7	
5184.000	-51.87	---	-13.00	38.87	500.0	1000.000	200.0	V	137.0	-98.7	

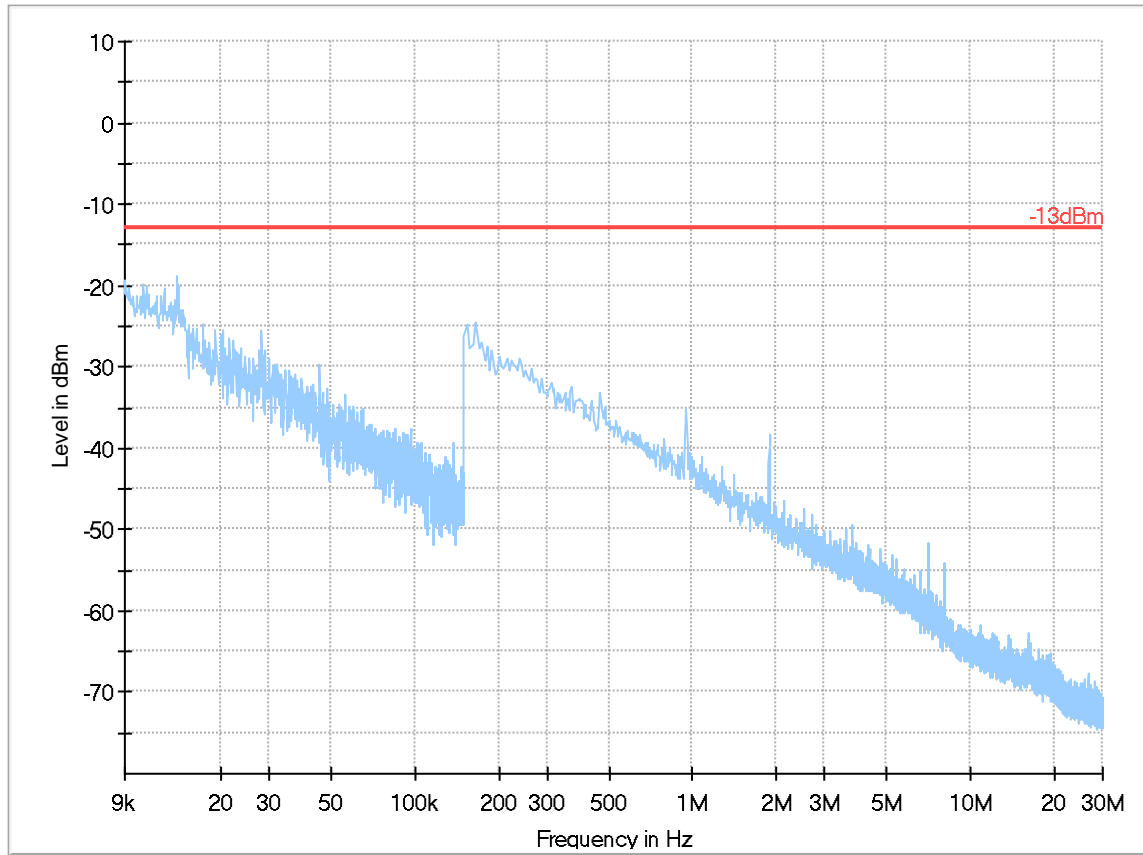


— Preview Result 1-PK+
 — FCC Licensed -13dBm
 ◆ Final_Result RMS
 ◆ Final_Result PK



Plot #35 Radiated Emissions: 9 kHz – 30 MHz

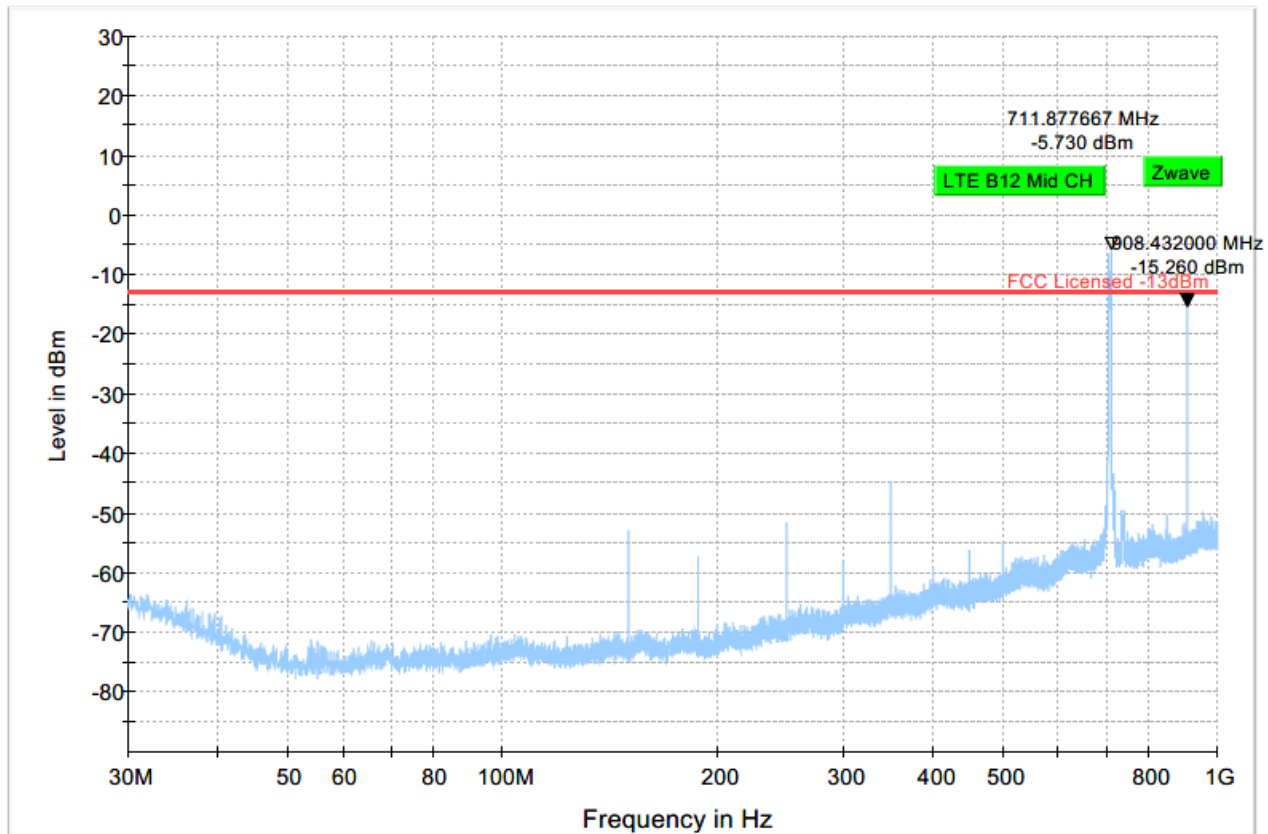
Channel: Mid



- Preview Result 2-QPK
- Preview Result 1-PK+
- Critical_Freqs QPK
- Critical_Freqs PK+
- Final_Result QPK
- 13dBm
- Final_Result PK+

Plot #36 Radiated Emissions: 30 MHz – 1 GHz

Channel: Mid



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

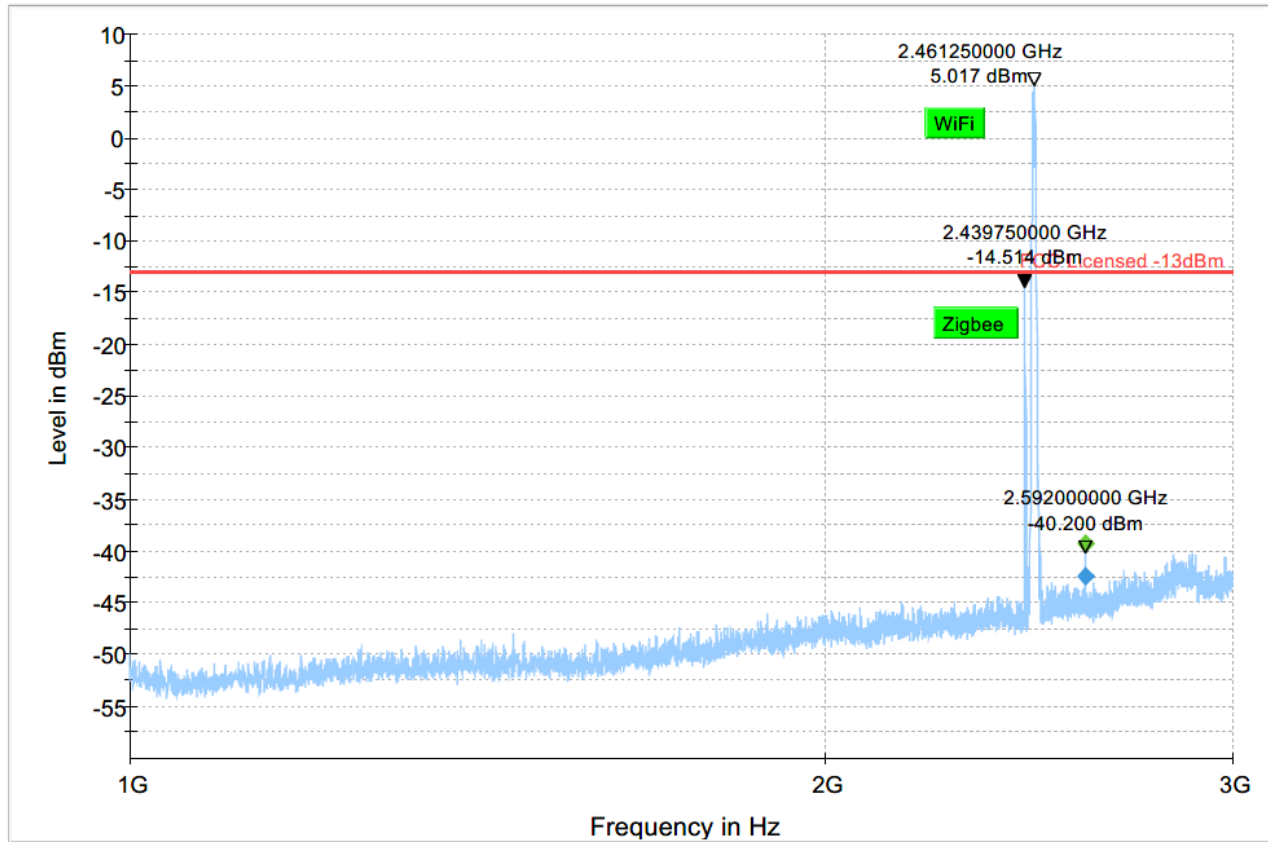


Plot #37 Radiated Emissions: 1-3 GHz

Channel: Mid

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
2592.000	---	-39.27	---	---	500.0	1000.000	175.0	H	31.0	-62.0	
2592.000	-42.45	---	-13.00	29.45	500.0	1000.000	175.0	H	31.0	-62.0	



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

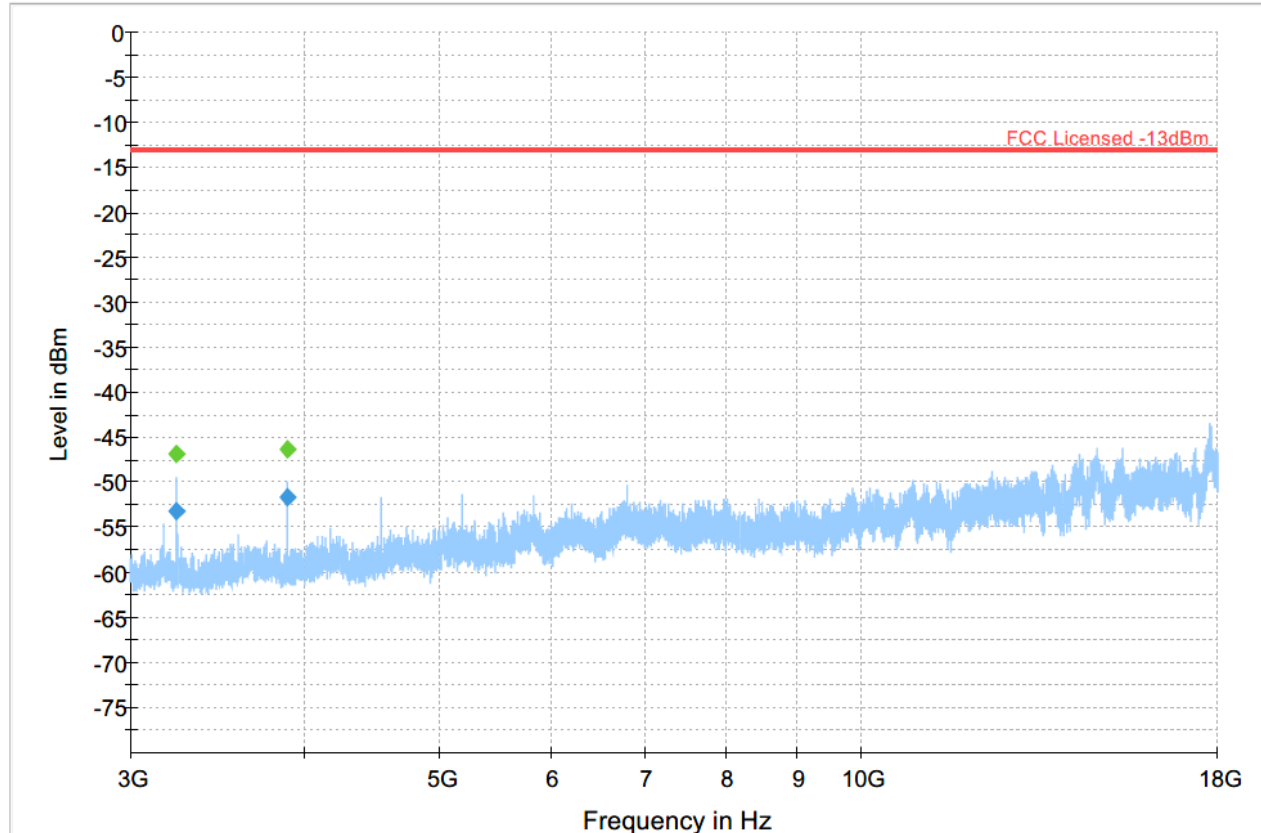


Plot #38 Radiated Emissions: 3-9 GHz

Channel: Mid

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3239.750	---	-46.80	---	---	500.0	1000.000	150.0	V	172.0	-103.9	
3239.750	-53.15	---	-13.00	40.15	500.0	1000.000	150.0	V	172.0	-103.9	
3887.750	---	-46.30	---	---	500.0	1000.000	169.0	V	130.0	-102.1	
3887.750	-51.70	---	-13.00	38.70	500.0	1000.000	169.0	V	130.0	-102.1	

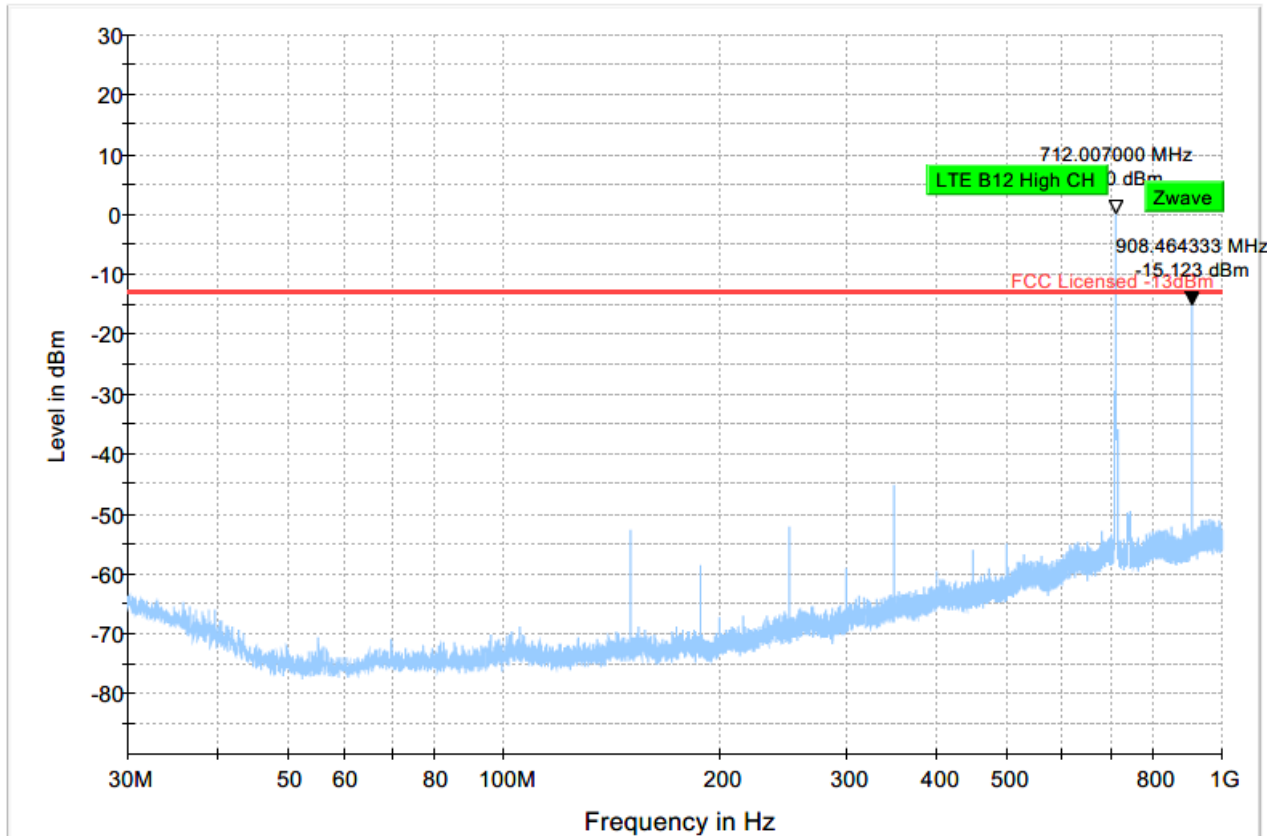


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS Final_Result PK+



Plot #39 Radiated Emissions: 30 MHz – 1 GHz

Channel: High



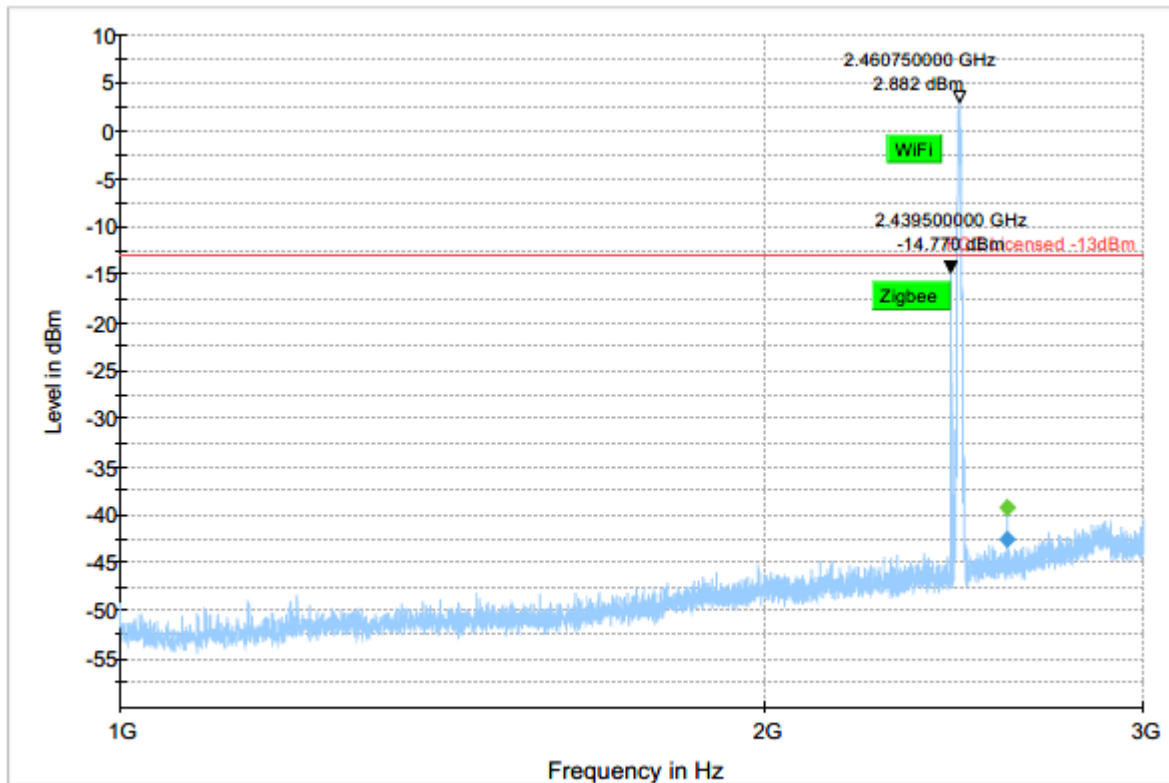
Preview Result 1-PK+ * Critical_Freqs PK+ FCC Licensed -13dBm Final_Result RM

Plot #40 Radiated Emissions: 1-3 GHz

Channel: High

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
2592.000	---	-39.29	---	---	500.0	1000.000	100.0	H	34.0	-62.0	
2592.000	-42.51	---	-13.00	29.51	500.0	1000.000	100.0	H	34.0	-62.0	



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

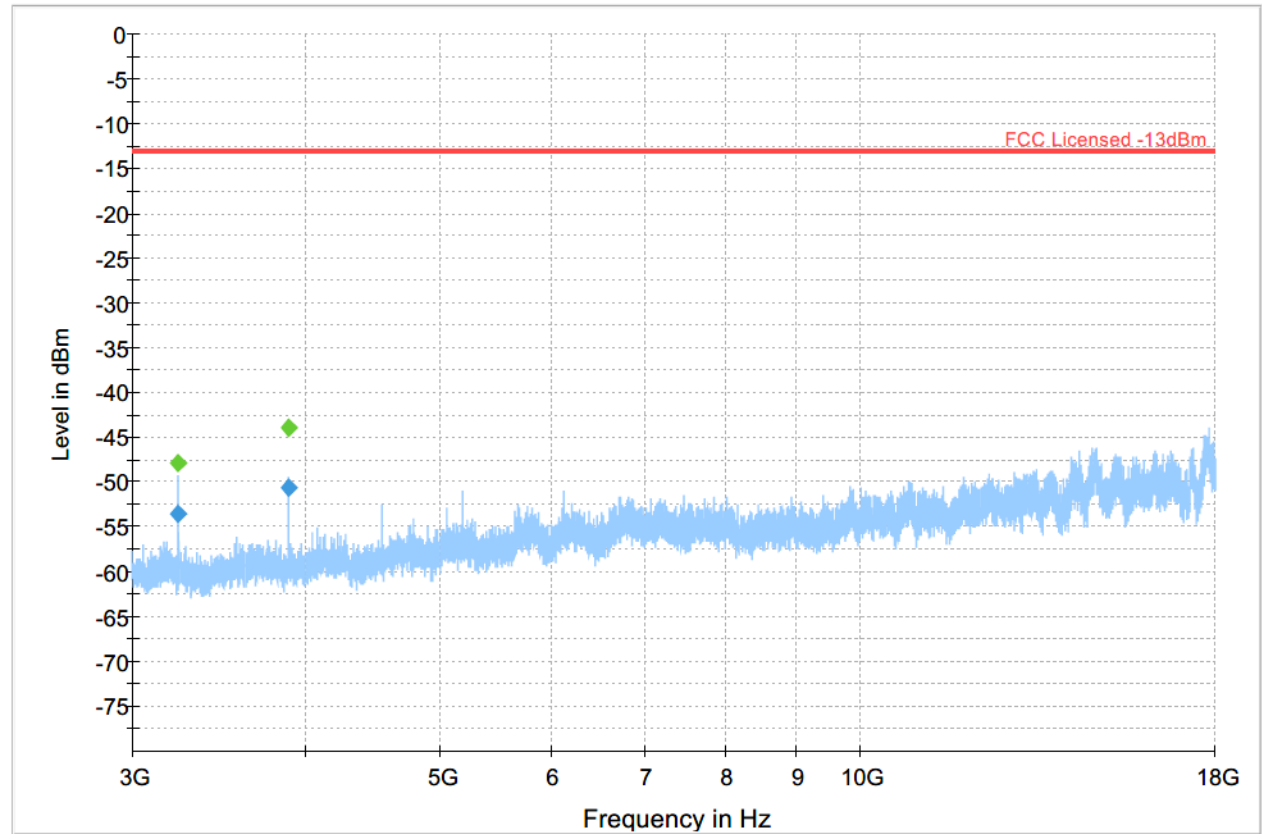


Plot #41 Radiated Emissions: 3-9 GHz

Channel: High

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3239.750	---	-47.91	---	---	500.0	1000.000	149.0	V	172.0	-103.9	
3239.750	-53.65	---	-13.00	40.65	500.0	1000.000	149.0	V	172.0	-103.9	
3888.000	---	-43.89	---	---	500.0	1000.000	176.0	V	127.0	-102.1	
3888.000	-50.59	---	-13.00	37.59	500.0	1000.000	176.0	V	127.0	-102.1	



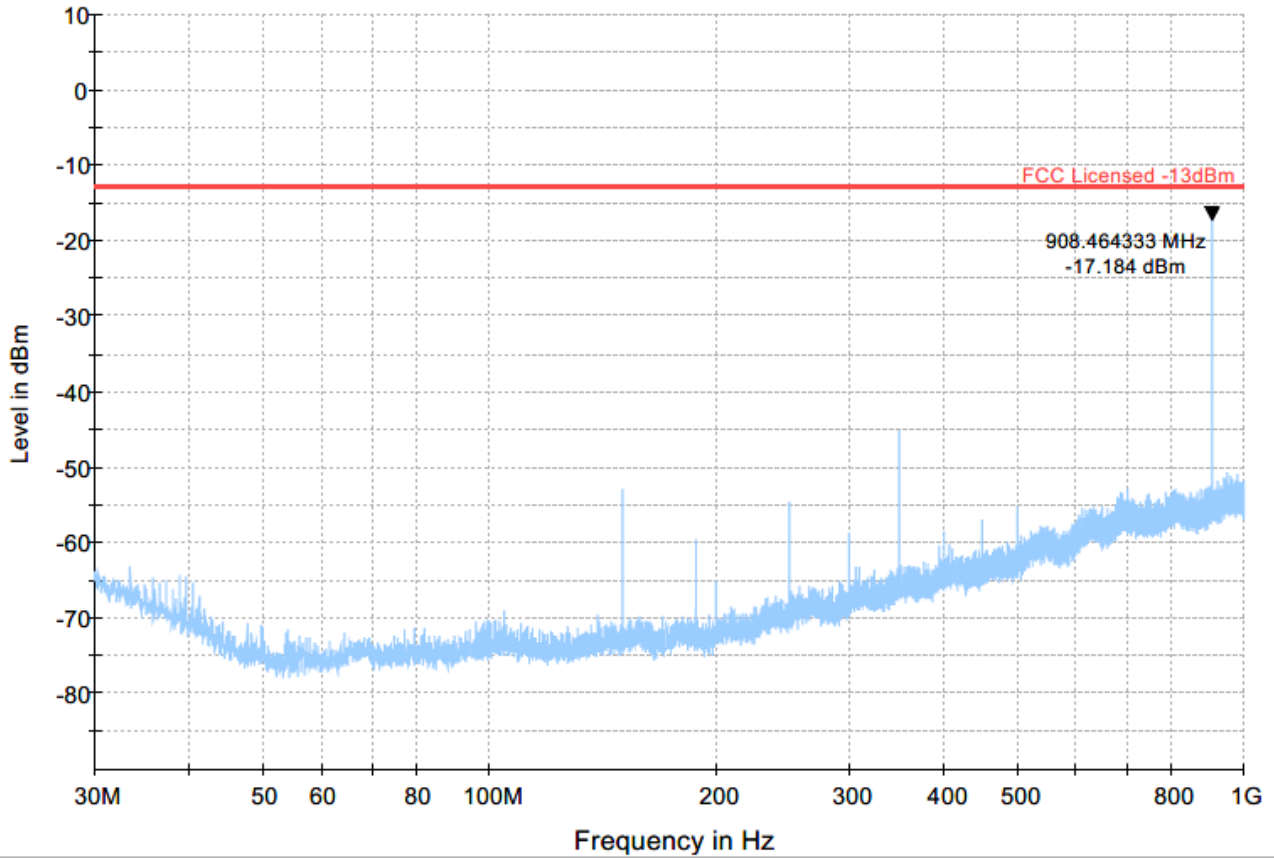
— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS ◆ Final_Result PK+



UMTS Band II

Plot #42 Radiated Emissions: 30 MHz – 1GHz

Channel: Low

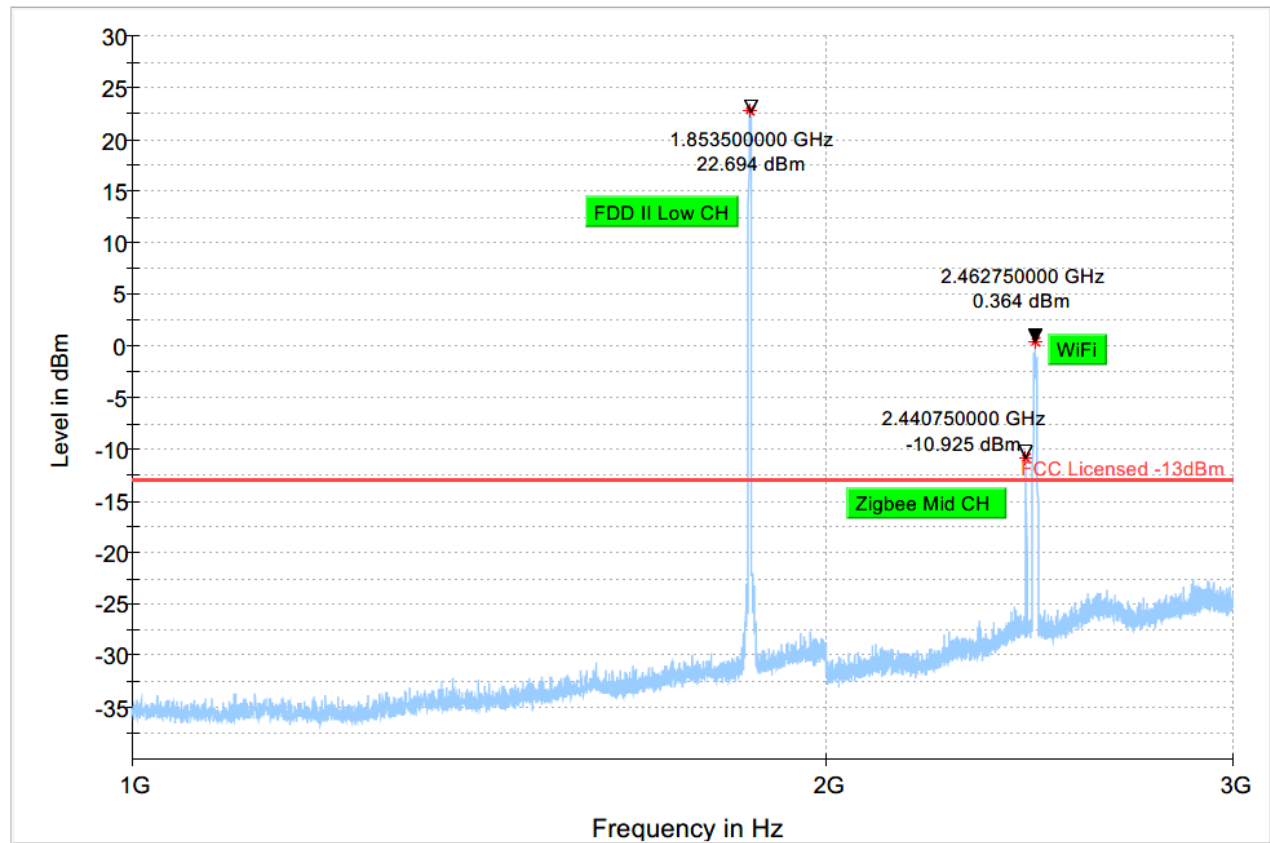


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS



Plot #43 Radiated Emissions: 1-3 GHz

Channel: Low

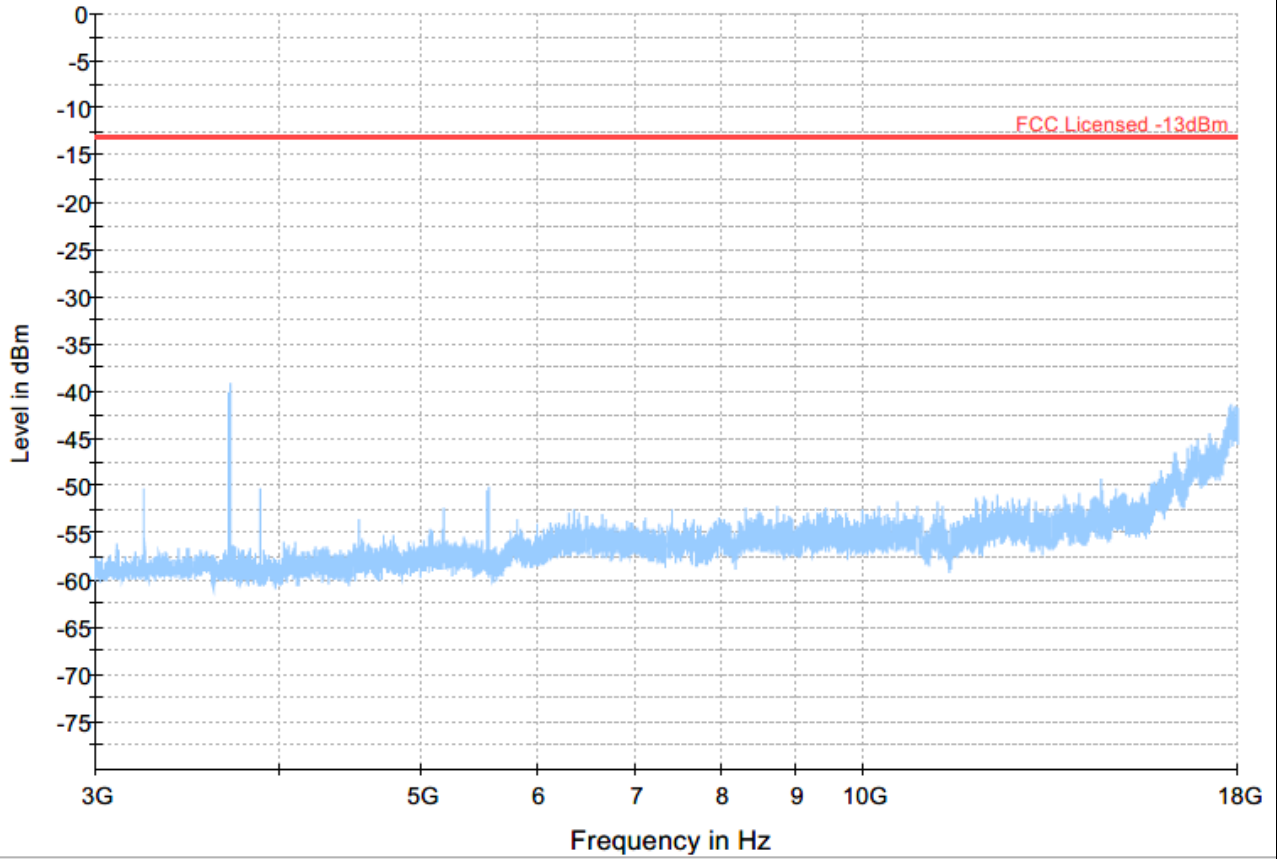


Preview Result 1-PK+ * Critical_Freqs PK+ FCC Licensed -13dBm Final_Result RM



Plot #44 Radiated Emissions: 3-18 GHz

Channel: Low

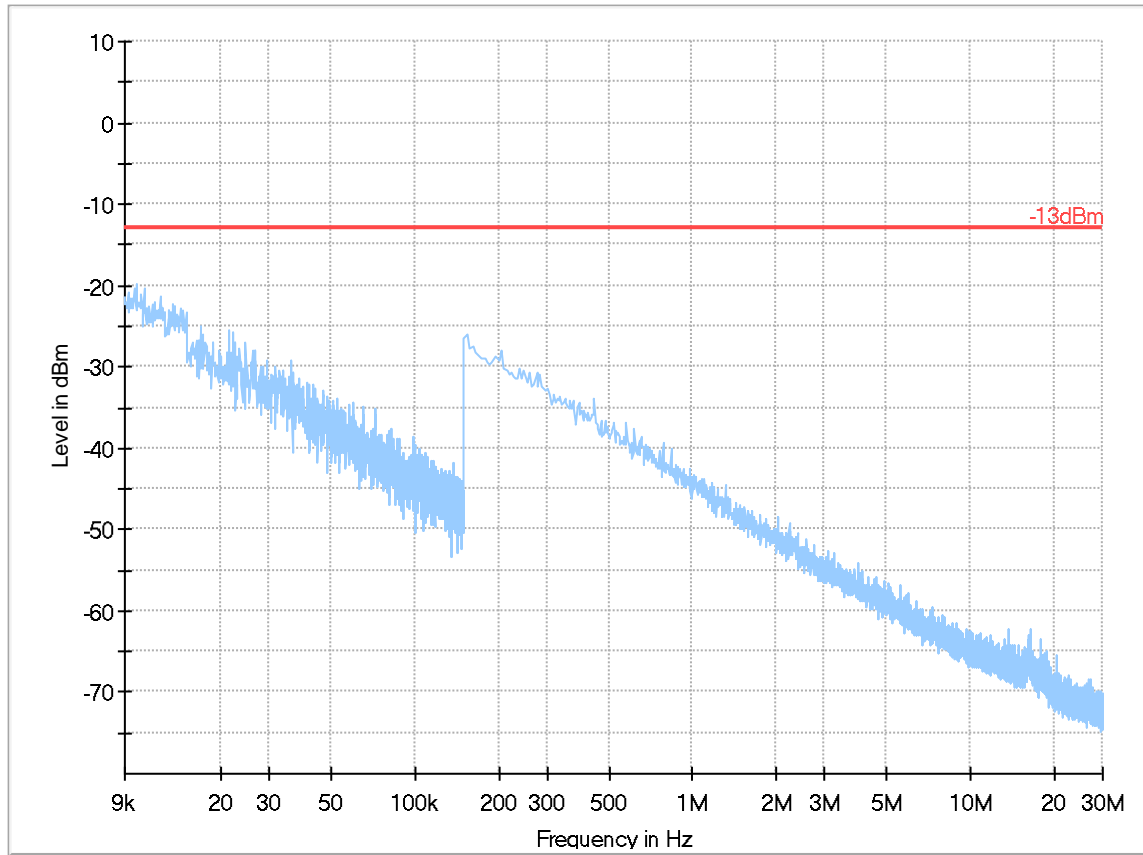


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



Plot #45 Radiated Emissions: 9 kHz – 30 MHz

Channel: Mid

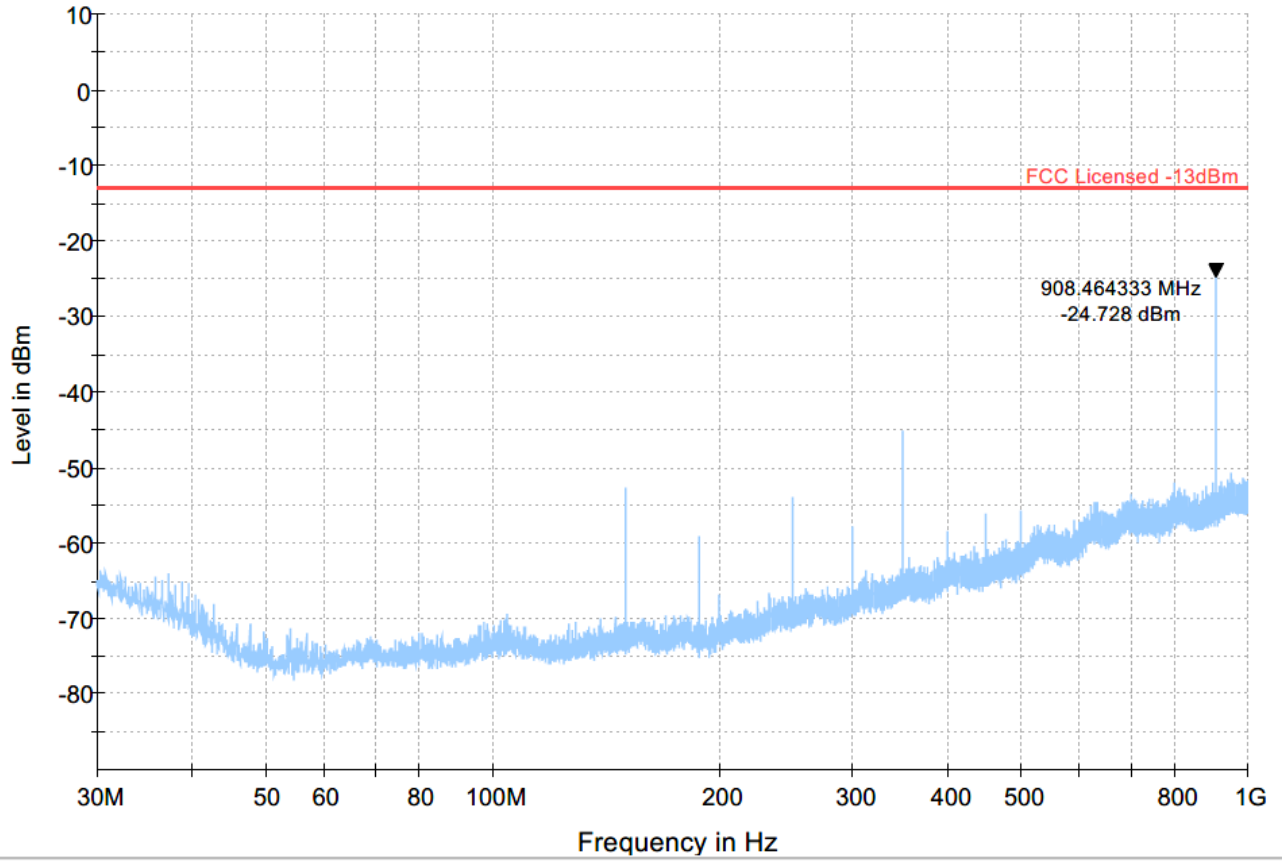


- Preview Result 2-QPK
- Preview Result 1-PK+
- Critical_Freqs QPK
- Critical_Freqs PK+
- Final_Result QPK
- 13dBm
- Final_Result PK+



Plot #46 Radiated Emissions: 30 MHz – 1 GHz

Channel: Mid

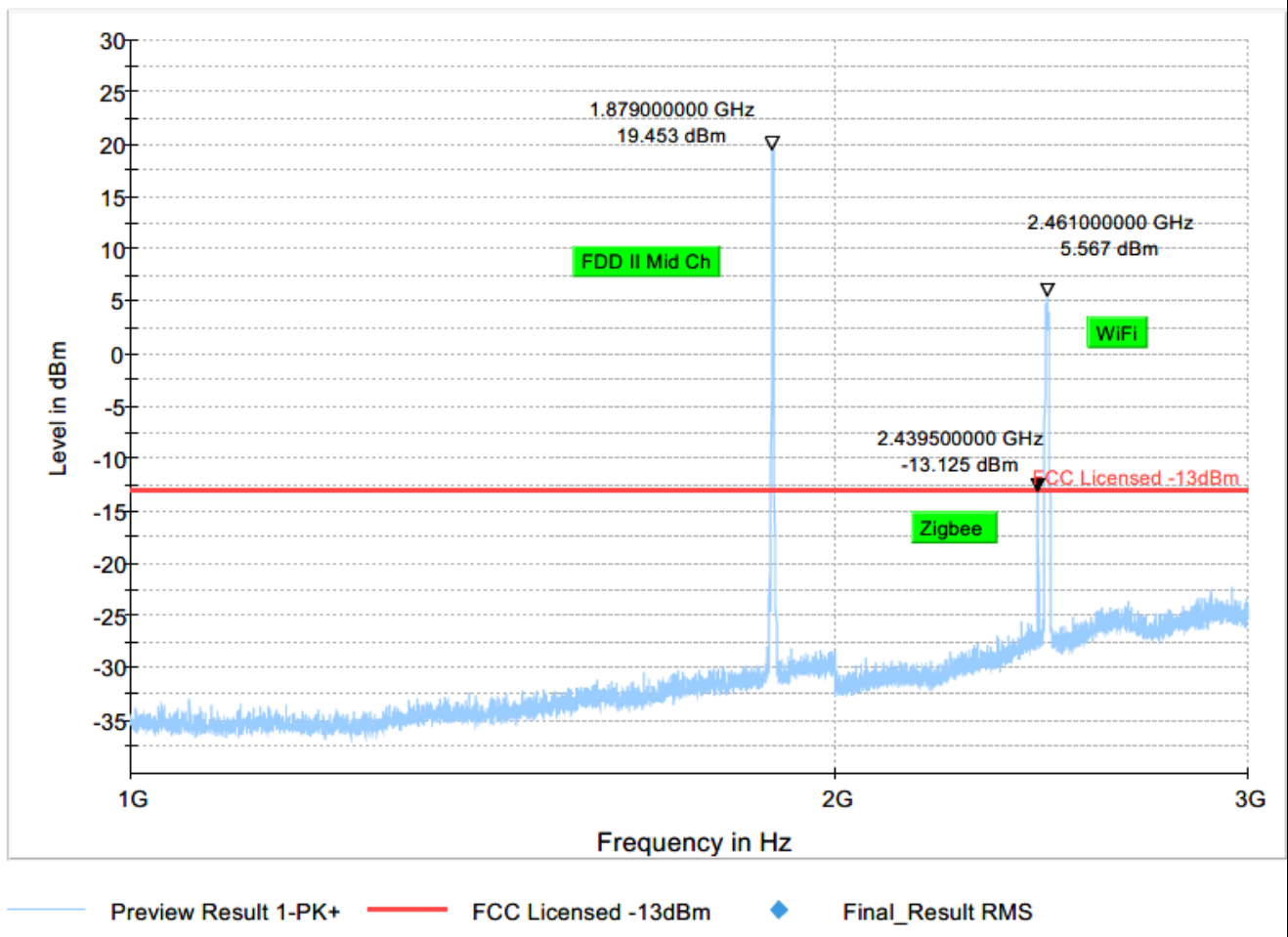


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



Plot #47 Radiated Emissions: 1-3 GHz

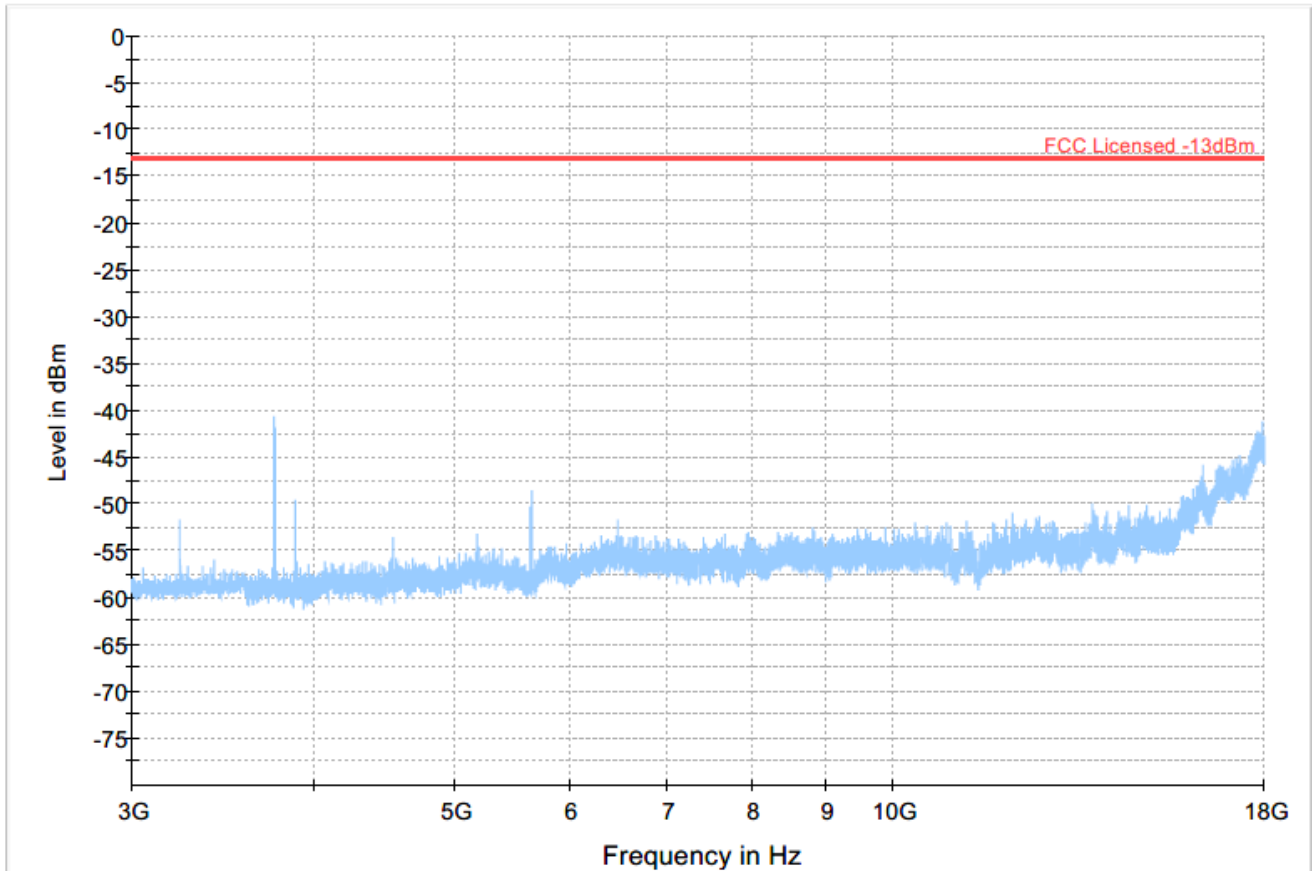
Channel: Mid





Plot #48 Radiated Emissions: 3-18 GHz

Channel: Mid

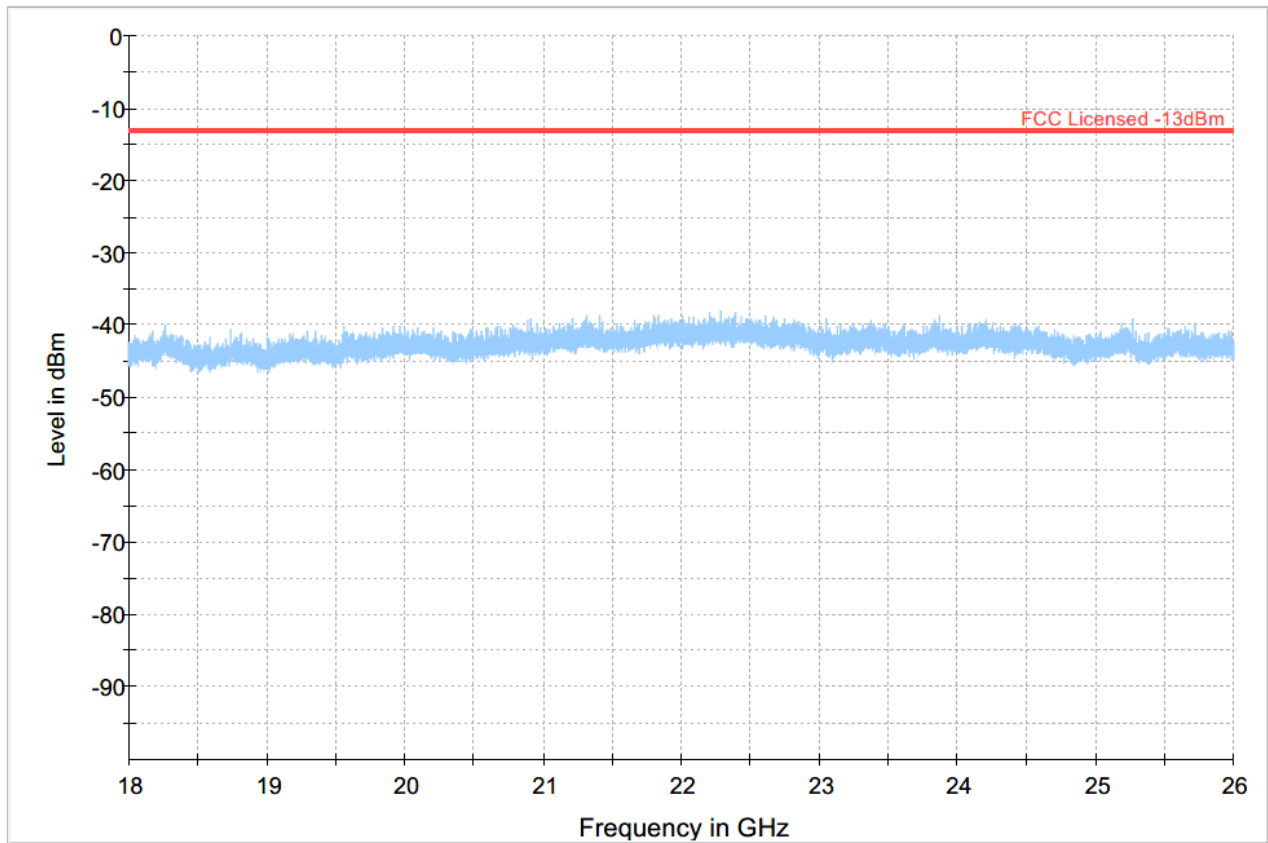


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



Plot #49 Radiated Emissions: 18-26 GHz

Channel: Mid

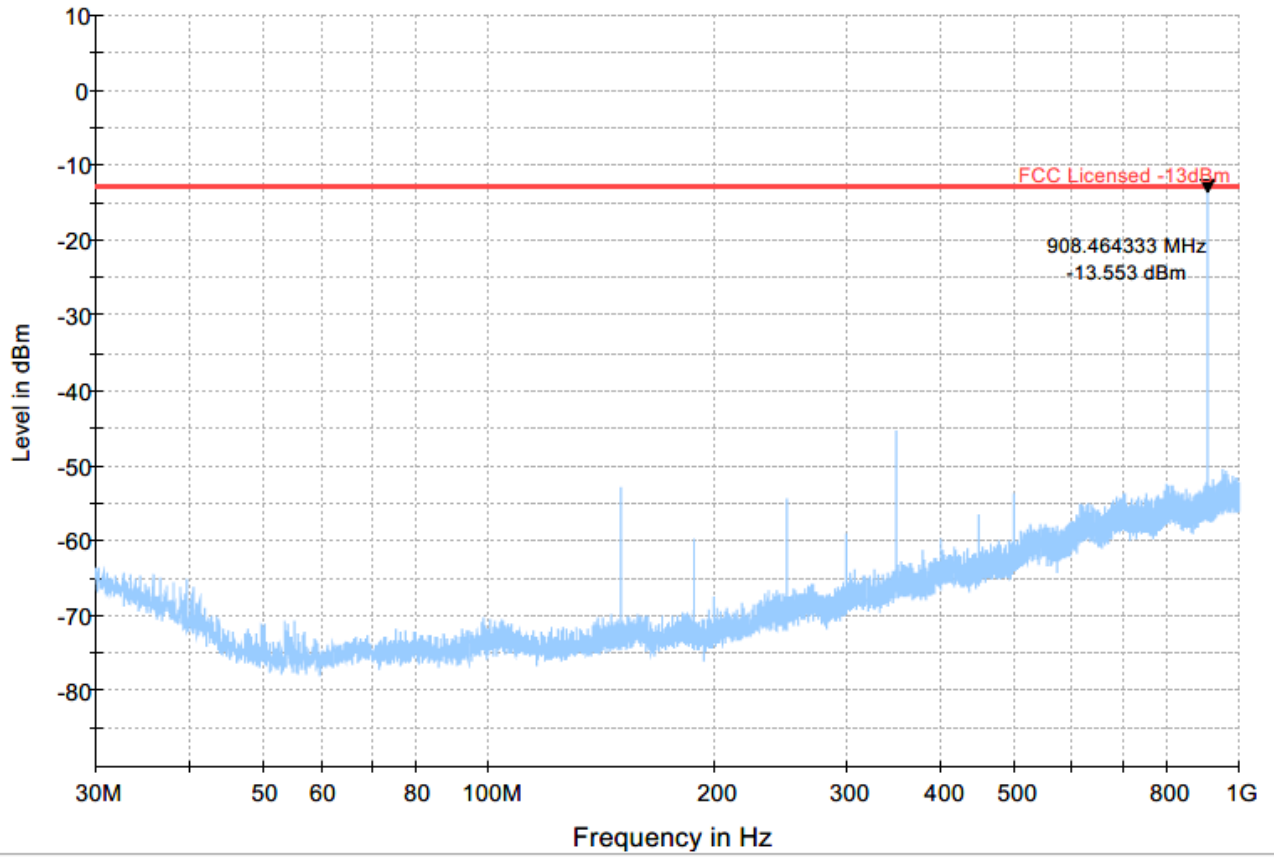


Preview Result 1-PK+ * Critical_Freqs PK+ FCC Licensed -13dBm Final_Result R



Plot #50 Radiated Emissions: 30 MHz – 1 GHz

Channel: High

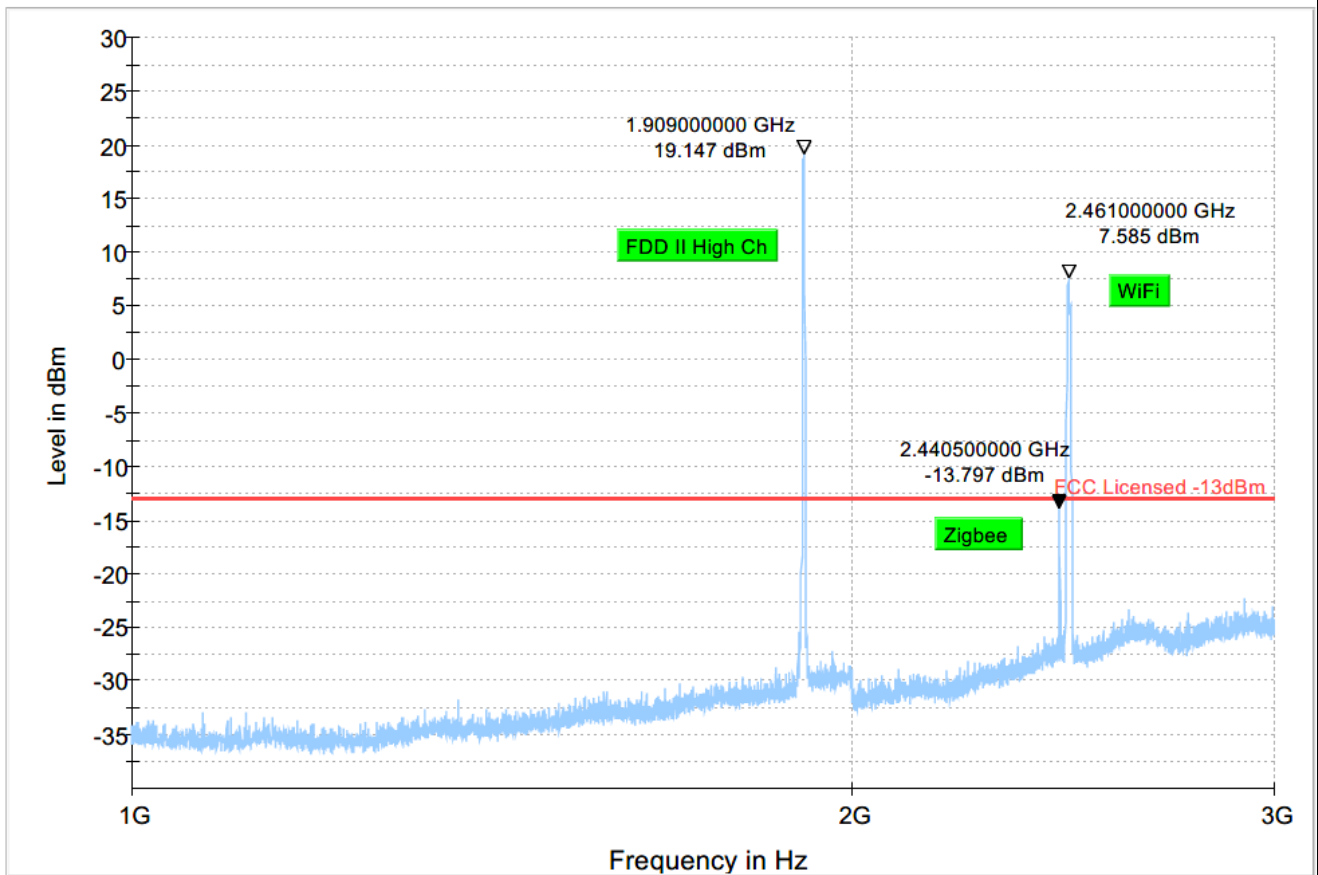


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



Plot #51 Radiated Emissions: 1-3 GHz

Channel: High

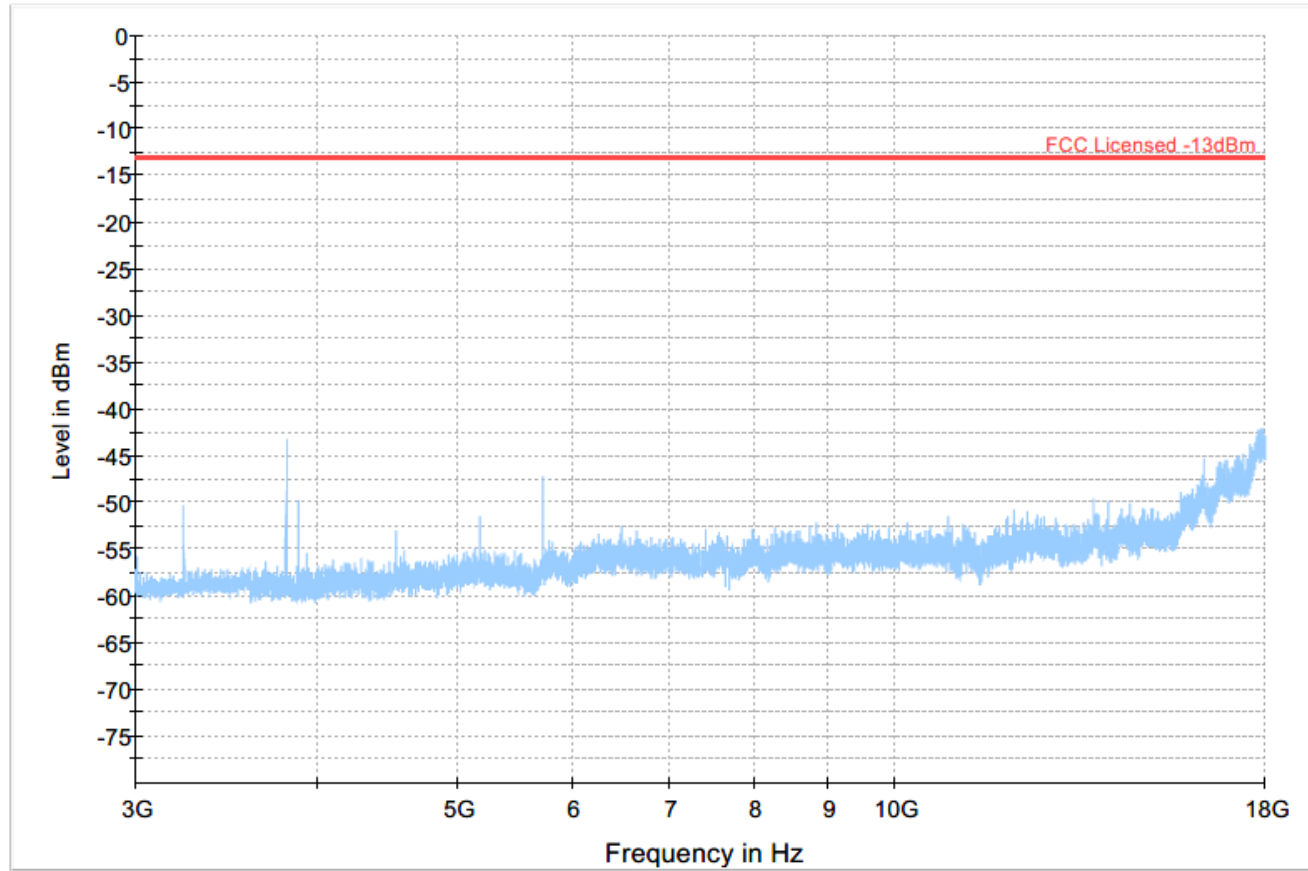


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



Plot #52 Radiated Emissions: 3-18 GHz

Channel: High



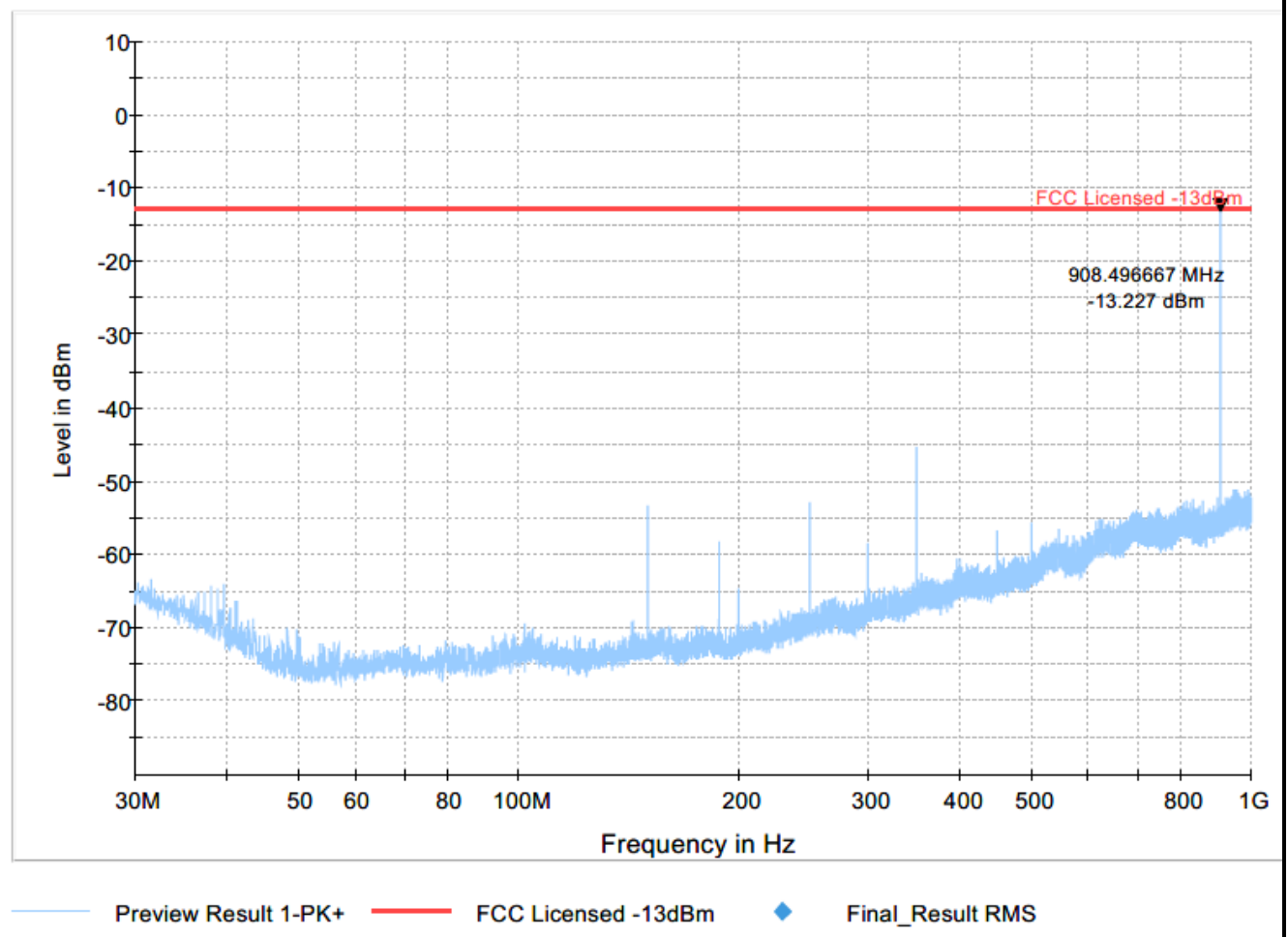
Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



UMTS Band IV

Plot #53 Radiated Emissions: 30 MHz – 1GHz

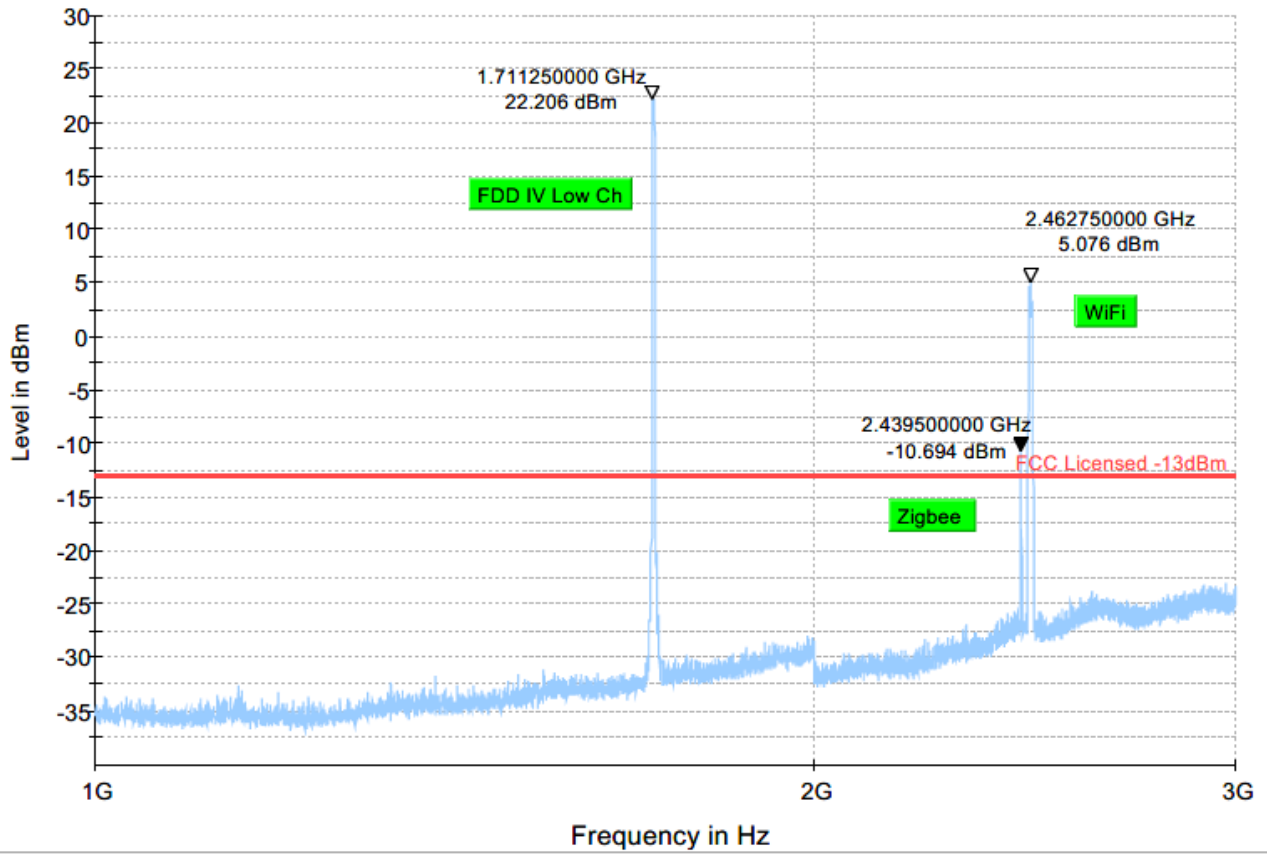
Channel: Low





Plot #54 Radiated Emissions: 1-3 GHz

Channel: Low



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

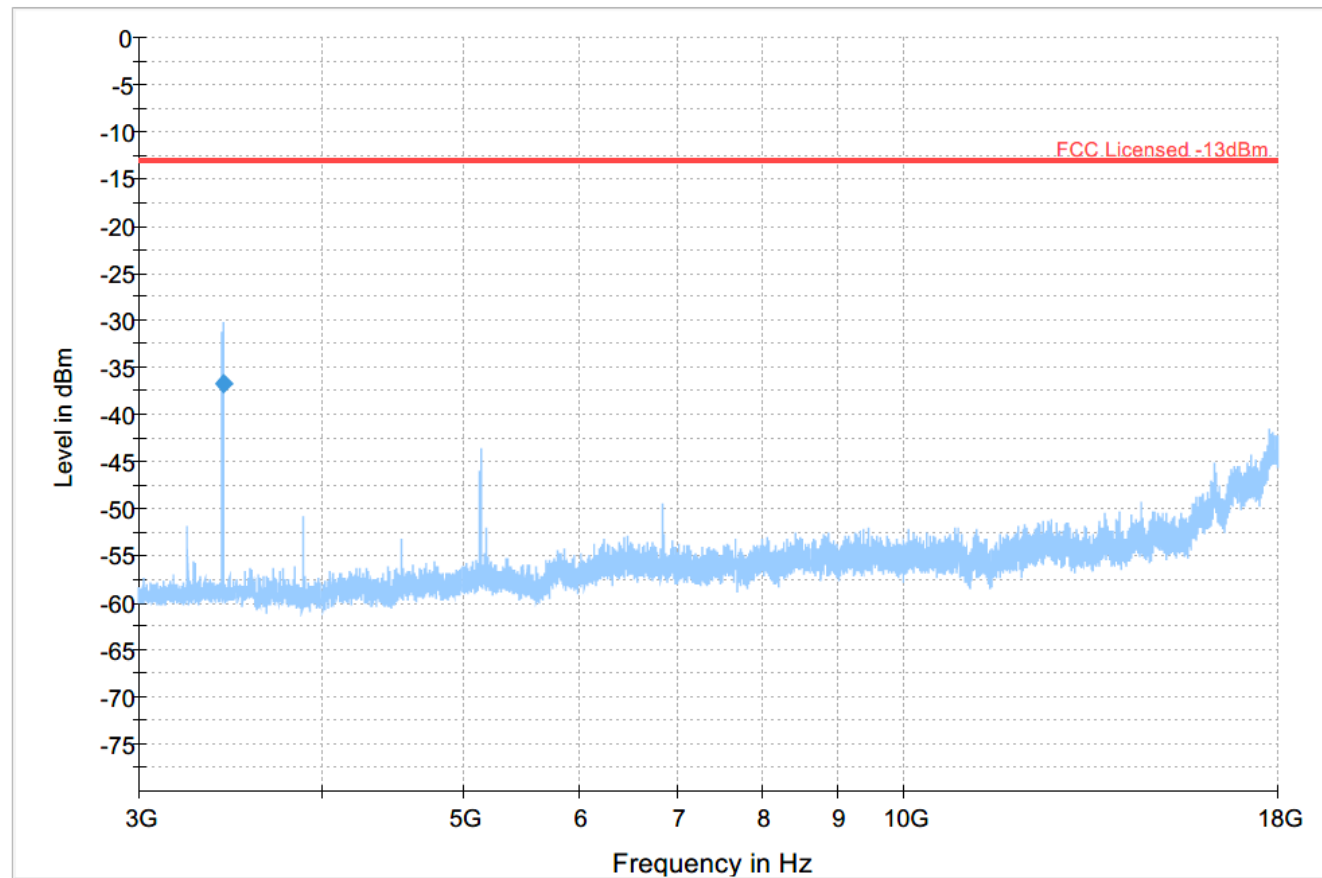


Plot #55 Radiated Emissions: 3-18 GHz

Channel: Low

Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3426.000	-36.80	-13.00	23.80	500.0	1000.000	269.0	V	205.0	-103.3	

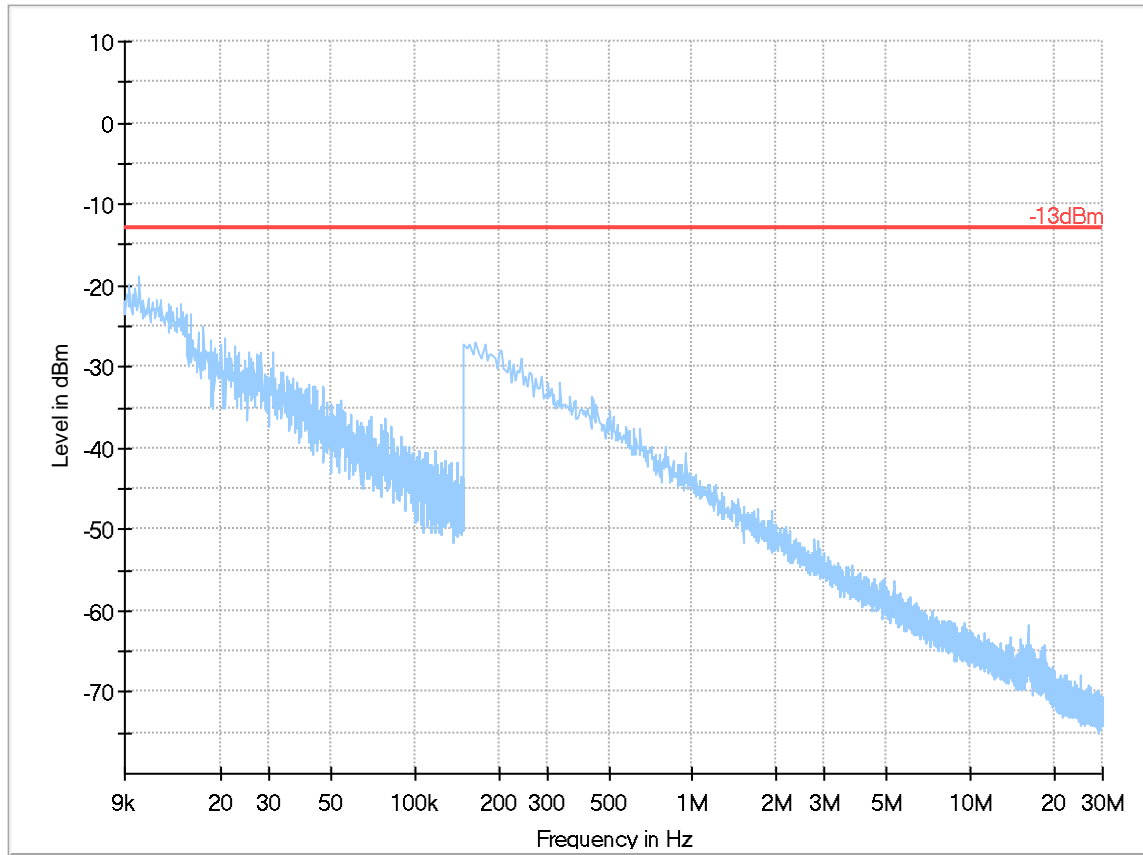


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS



Plot #56 Radiated Emissions: 9 kHz – 30 MHz

Channel: Mid

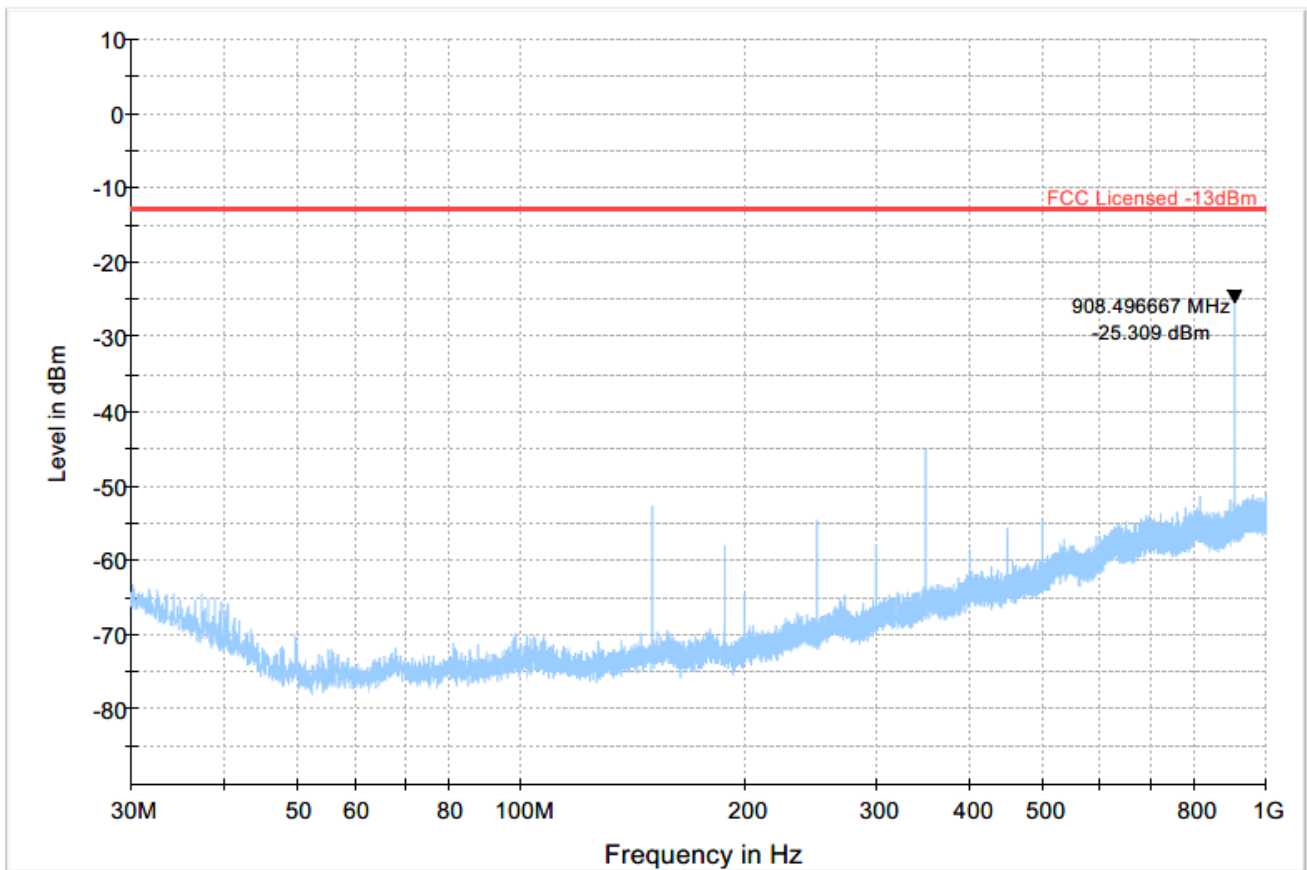


- Preview Result 2-QPK
- Preview Result 1-PK+
- Critical_Freqs QPK
- Critical_Freqs PK+
- Final_Result QPK
- 13dBm
- Final_Result PK+



Plot #57 Radiated Emissions: 30 MHz – 1 GHz

Channel: Mid

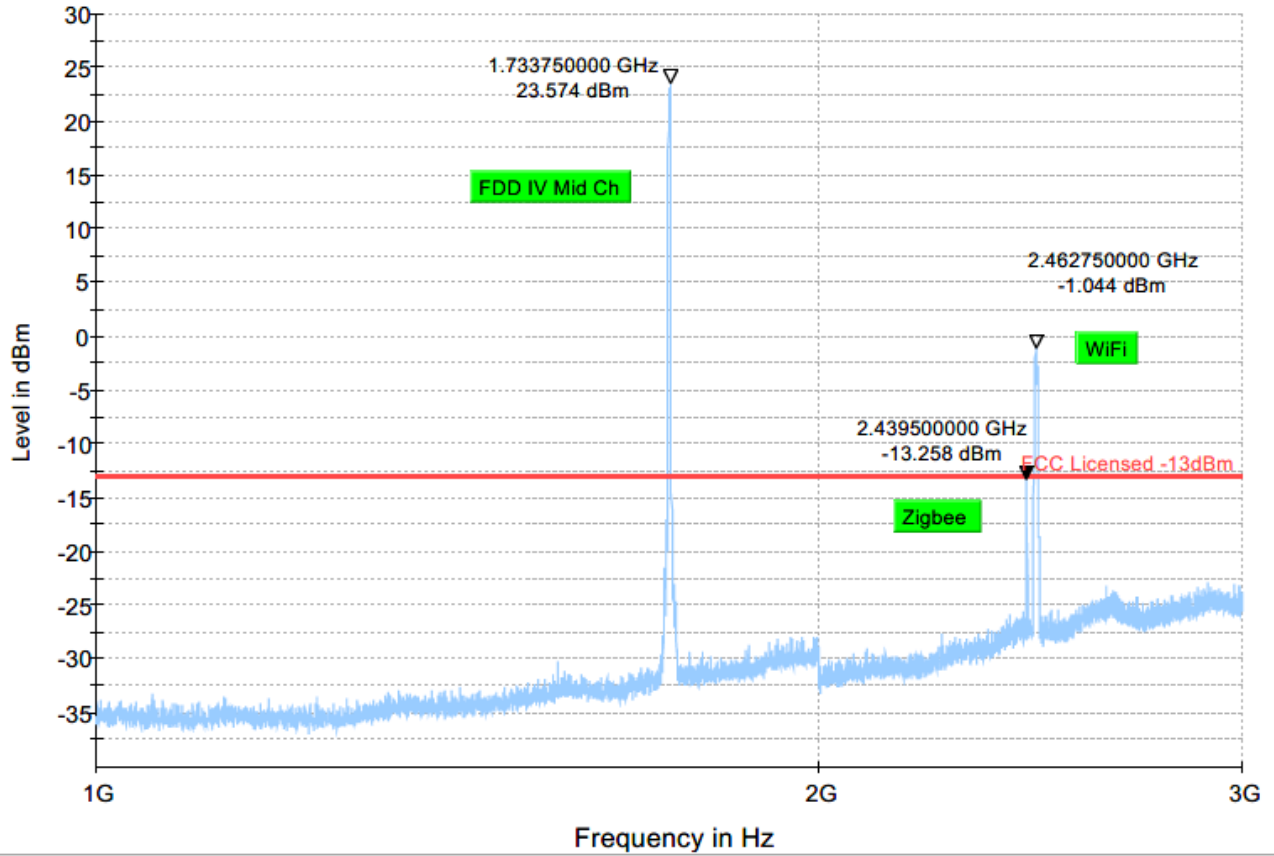


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



Plot #58 Radiated Emissions: 1-3 GHz

Channel: Mid

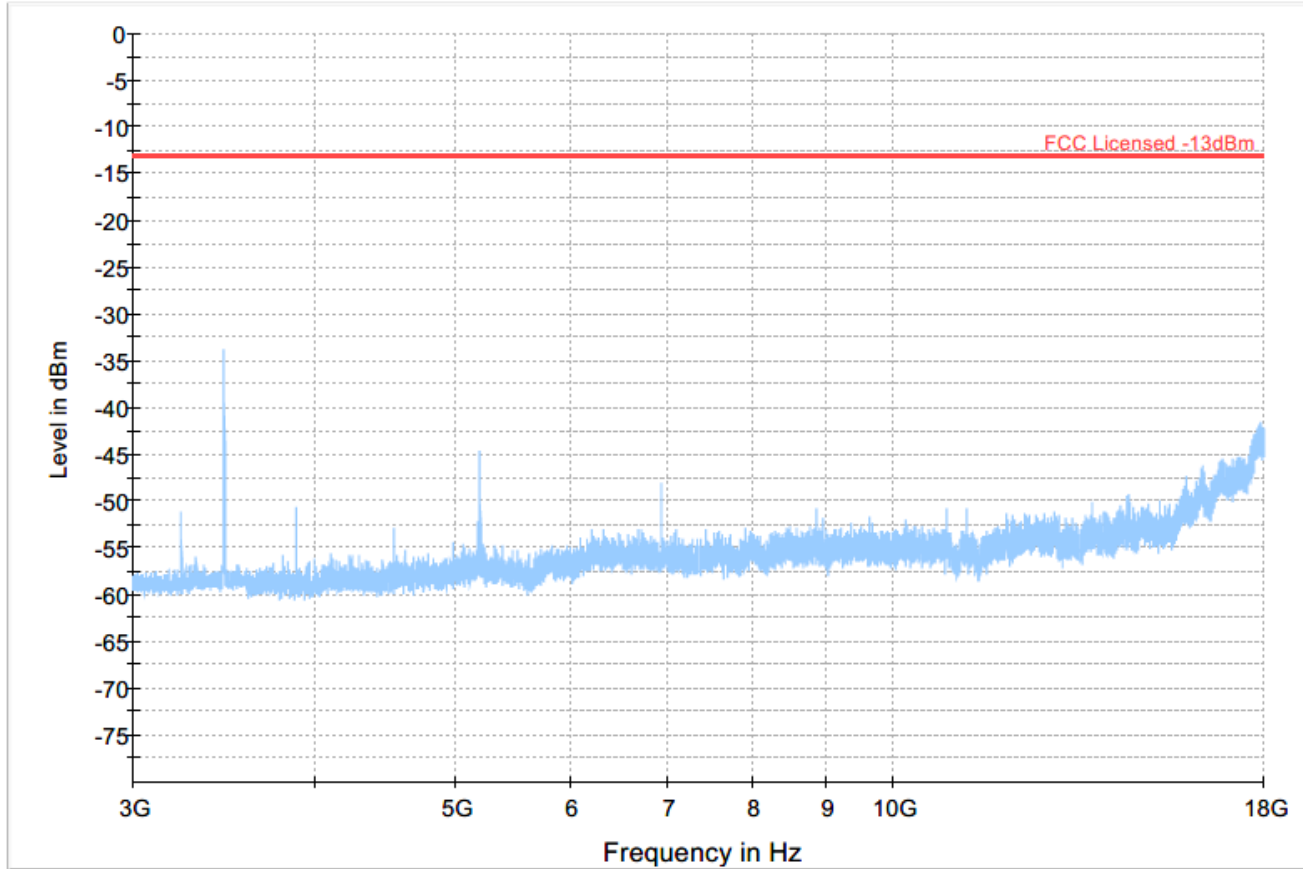


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



Plot #59 Radiated Emissions: 3-18 GHz

Channel: Mid

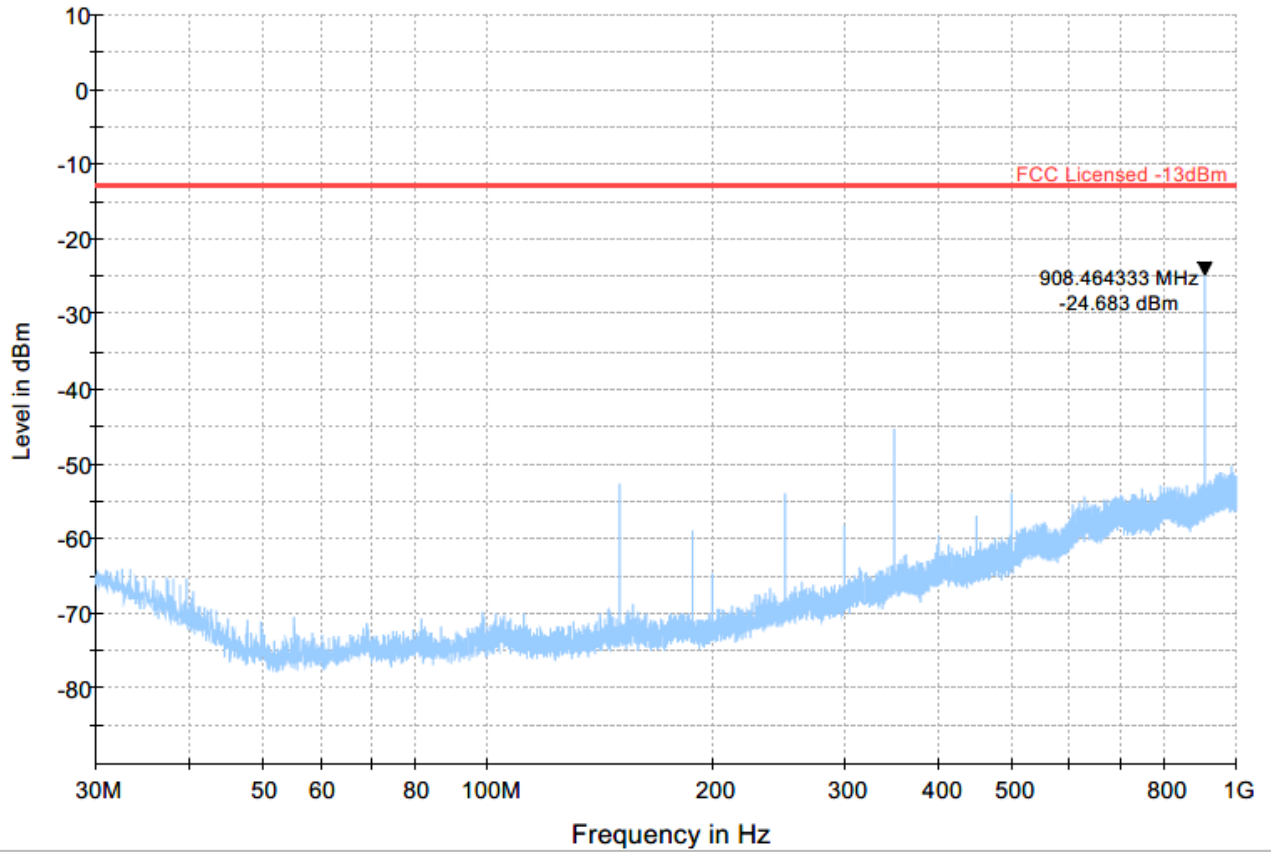


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



Plot #60 Radiated Emissions: 30 MHz – 1 GHz

Channel: High

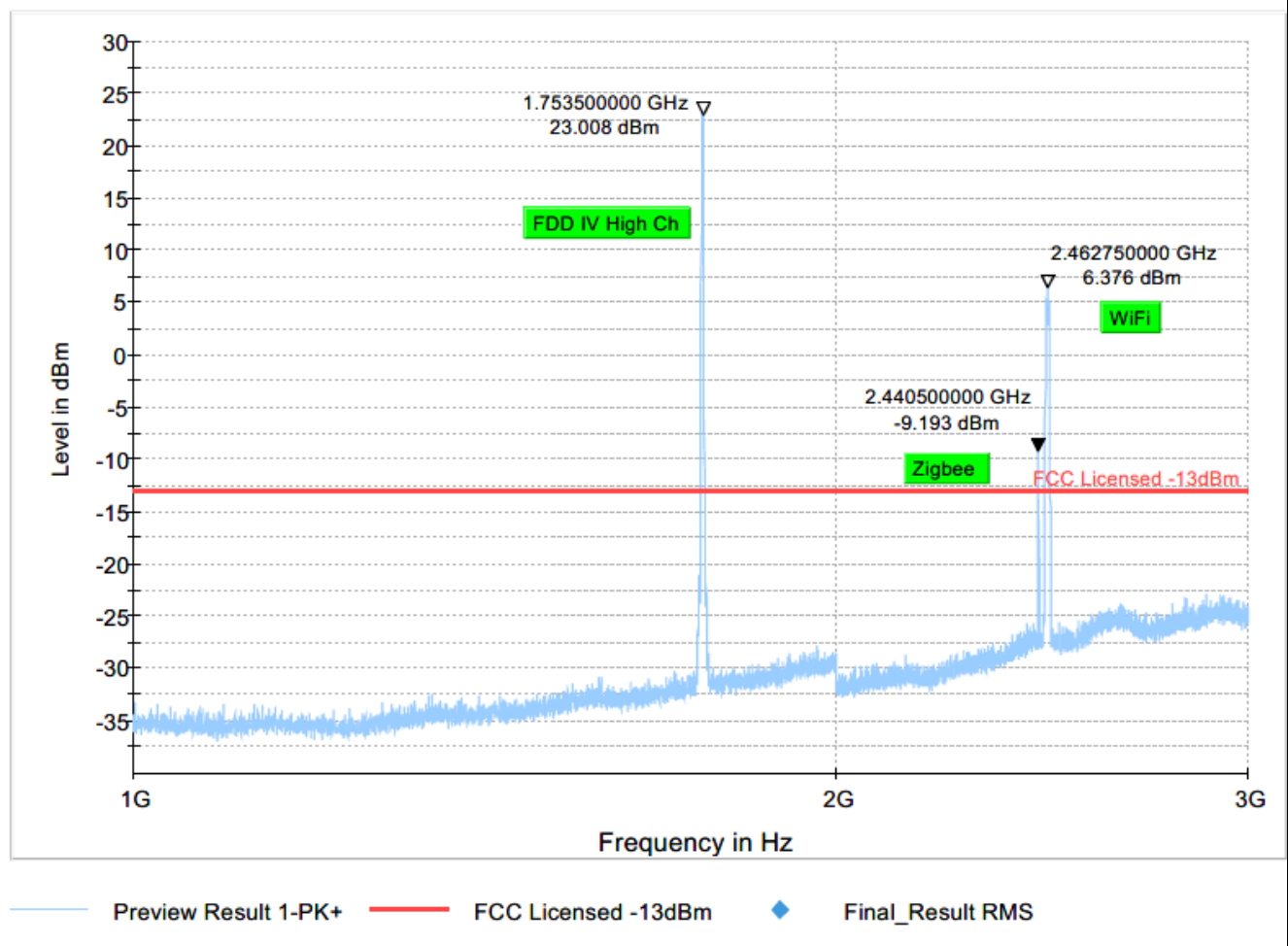


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



Plot #61 Radiated Emissions: 1-3 GHz

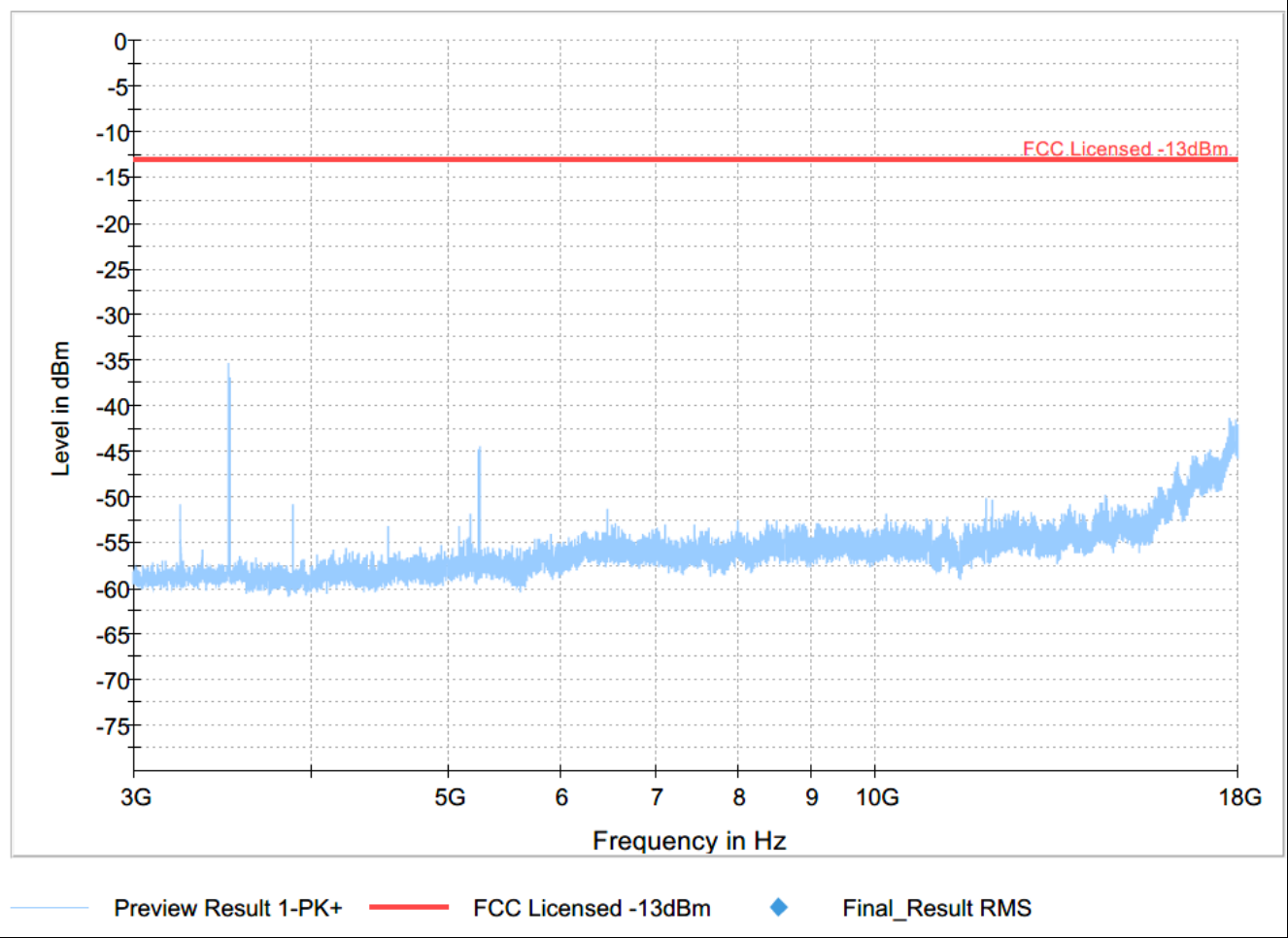
Channel: High





Plot #62 Radiated Emissions: 3-18 GHz

Channel: High

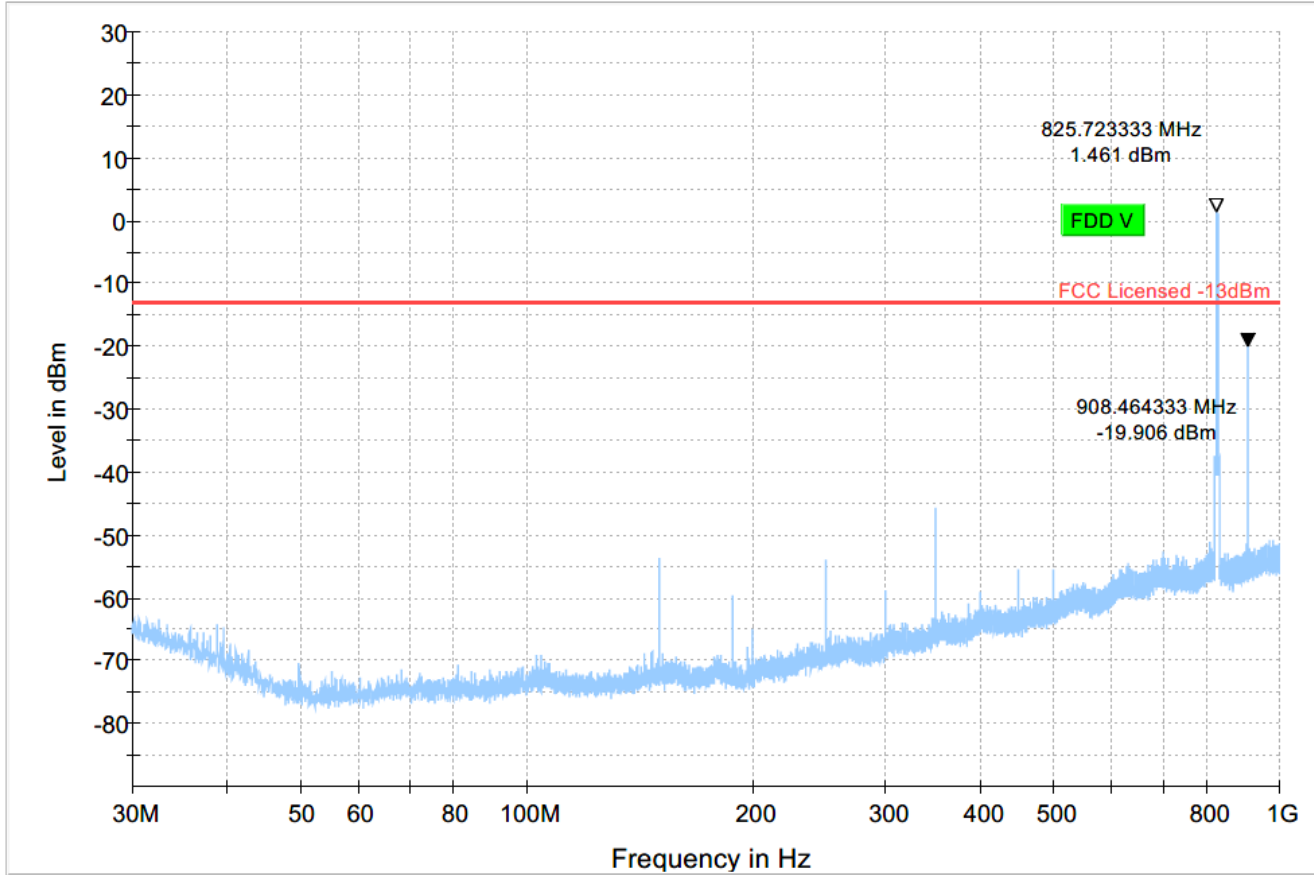




UMTS Band V

Plot #63 Radiated Emissions: 30 MHz – 1GHz

Channel: Low



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

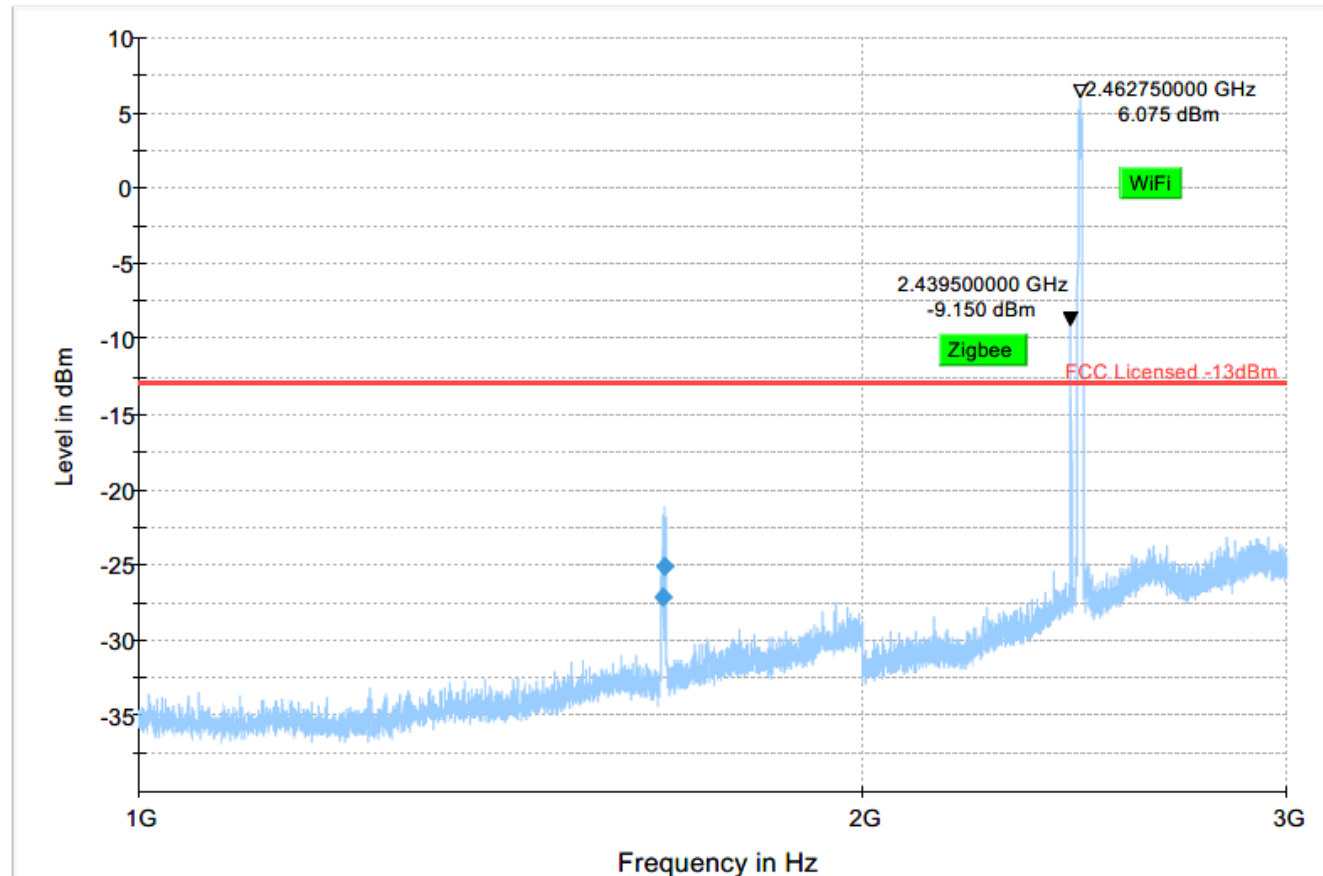


Plot #64 Radiated Emissions: 1-3 GHz

Channel: Low

Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
1651.250	-27.18	-13.00	14.18	500.0	1000.000	284.0	H	245.0	-62.4	
1654.250	-25.11	-13.00	12.11	500.0	1000.000	291.0	H	244.0	-62.3	

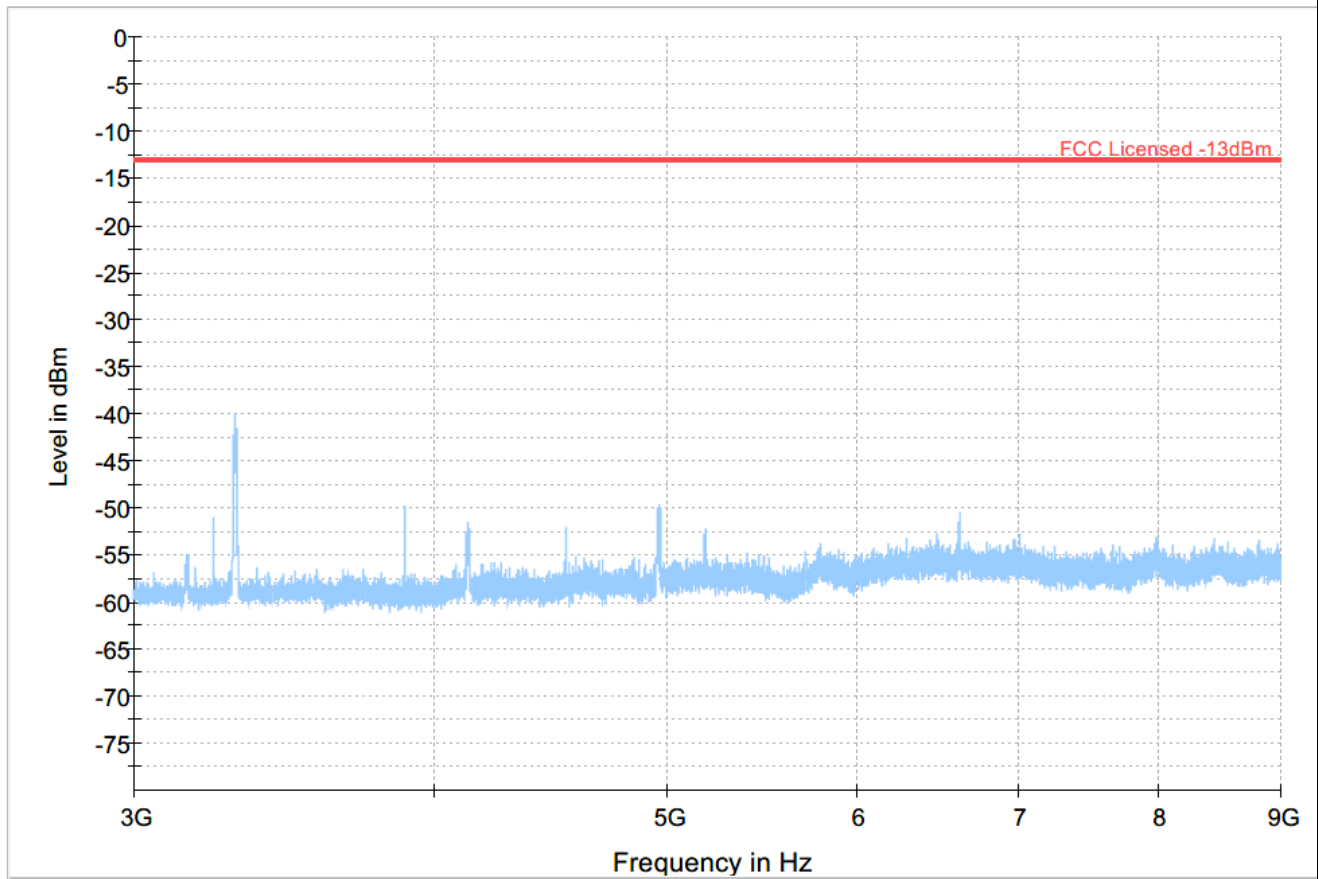


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



Plot #65 Radiated Emissions: 3-9 GHz

Channel: Low

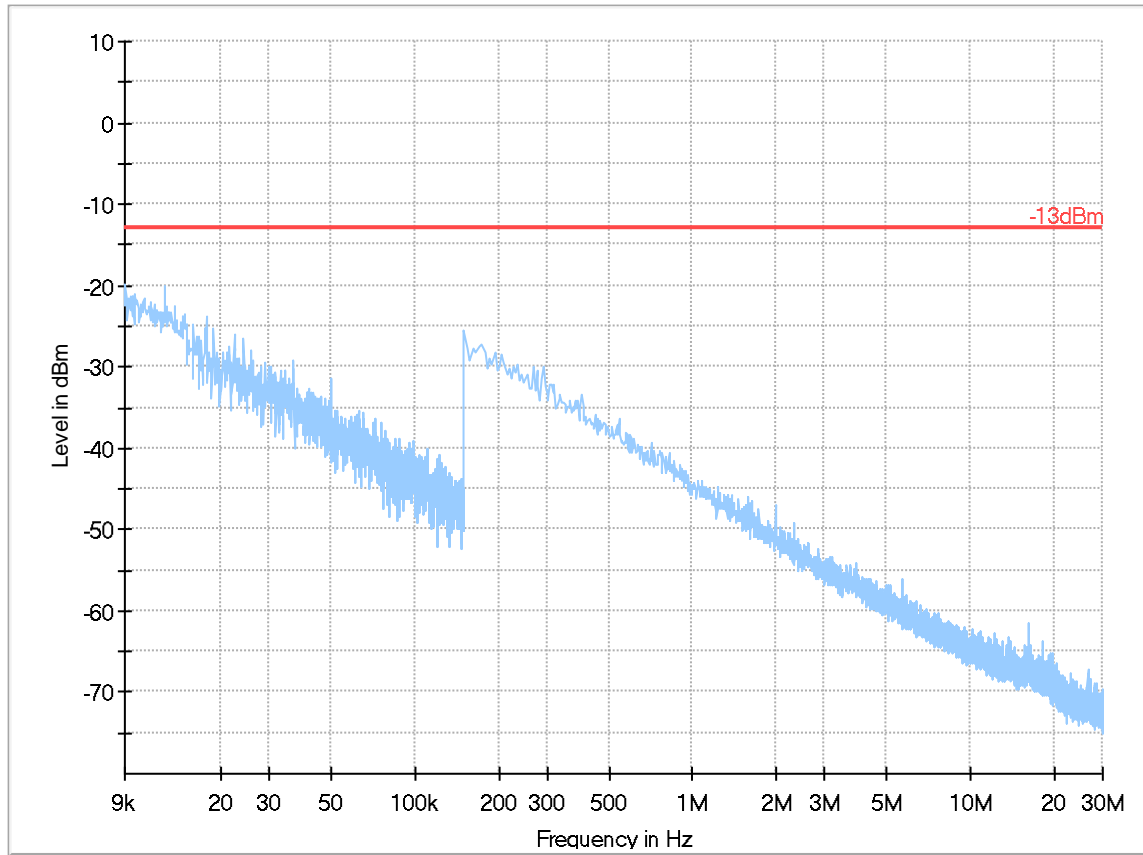


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



Plot #66 Radiated Emissions: 9 kHz – 30 MHz

Channel: Mid

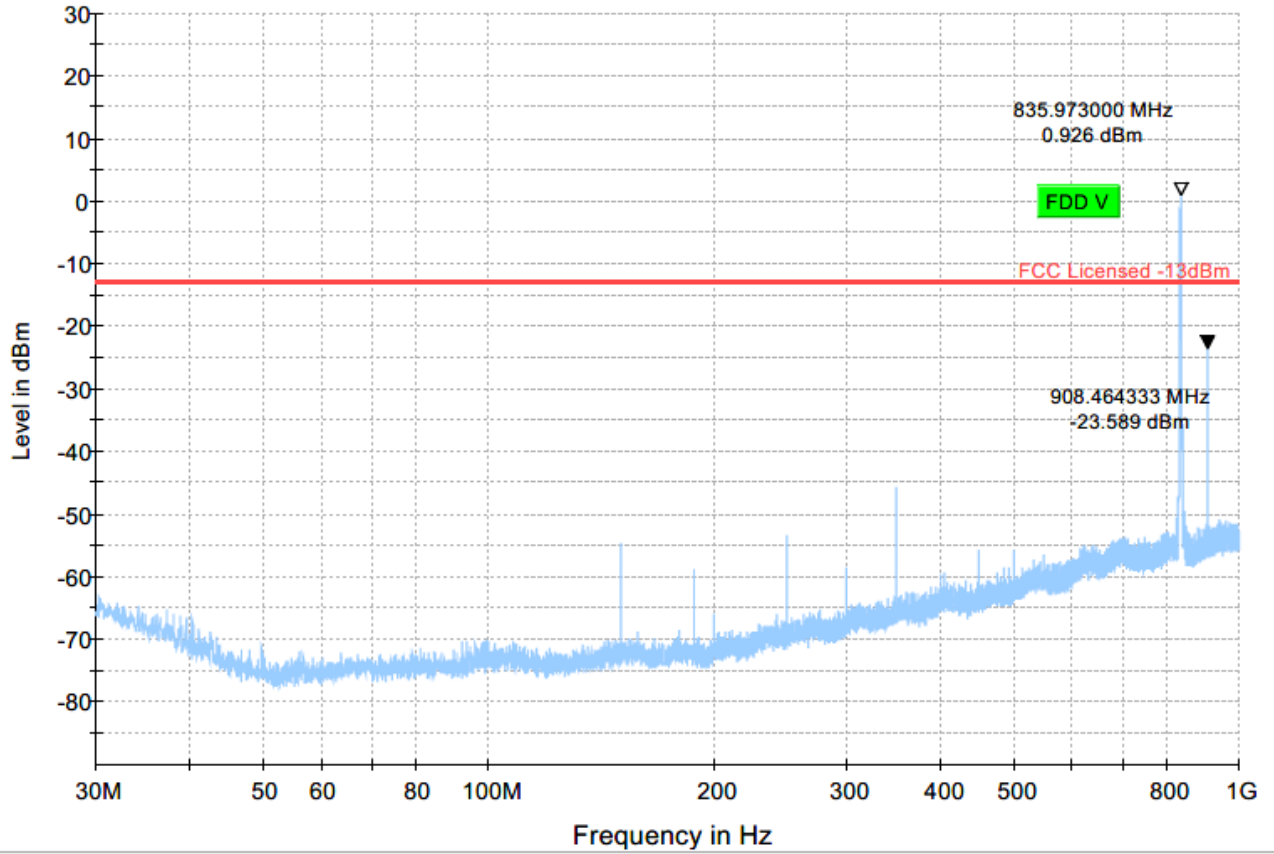


- Preview Result 2-QPK
- Preview Result 1-PK+
- Critical_Freqs QPK
- Critical_Freqs PK+
- Final_Result QPK
- 13dBm
- Final_Result PK+



Plot #67 Radiated Emissions: 30 MHz – 1 GHz

Channel: Mid



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

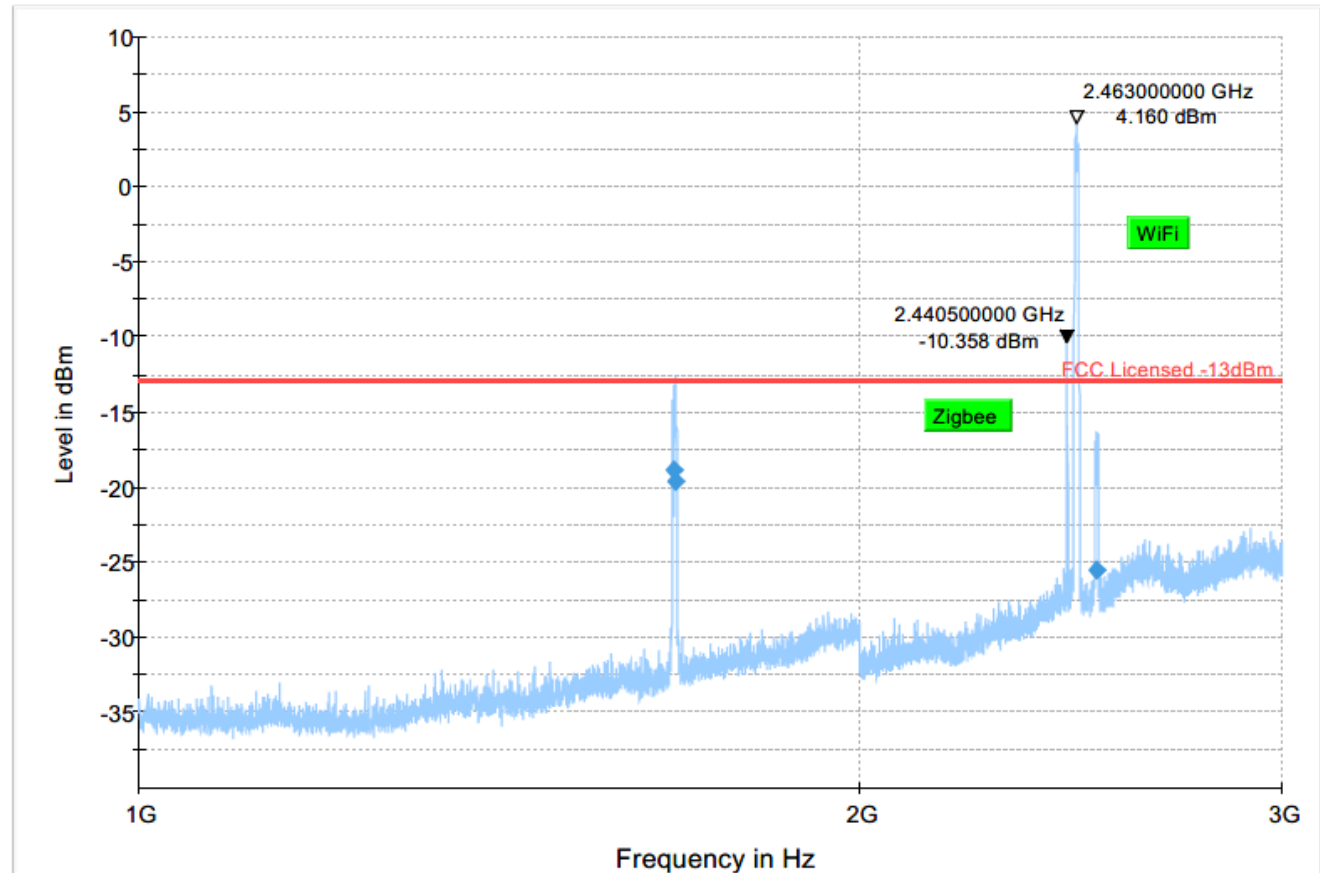


Plot #68 Radiated Emissions: 1-3 GHz

Channel: Mid

Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
1671.750	-18.83	-13.00	5.83	500.0	1000.000	226.0	V	54.0	-62.2	
1674.750	-19.57	-13.00	6.57	500.0	1000.000	228.0	V	31.0	-62.2	
2508.750	-25.51	-13.00	12.51	500.0	1000.000	296.0	V	189.0	-58.6	

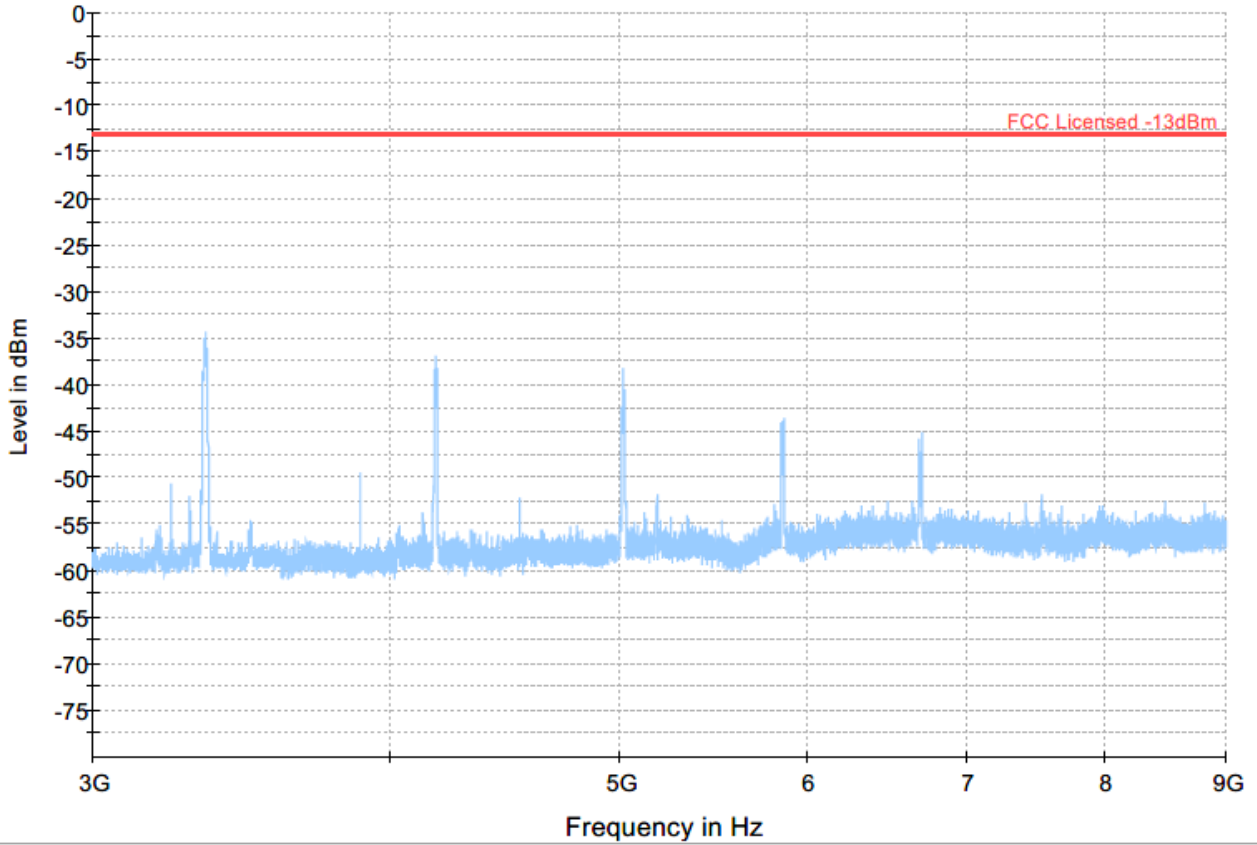


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



Plot #69 Radiated Emissions: 3-9 GHz

Channel: Mid

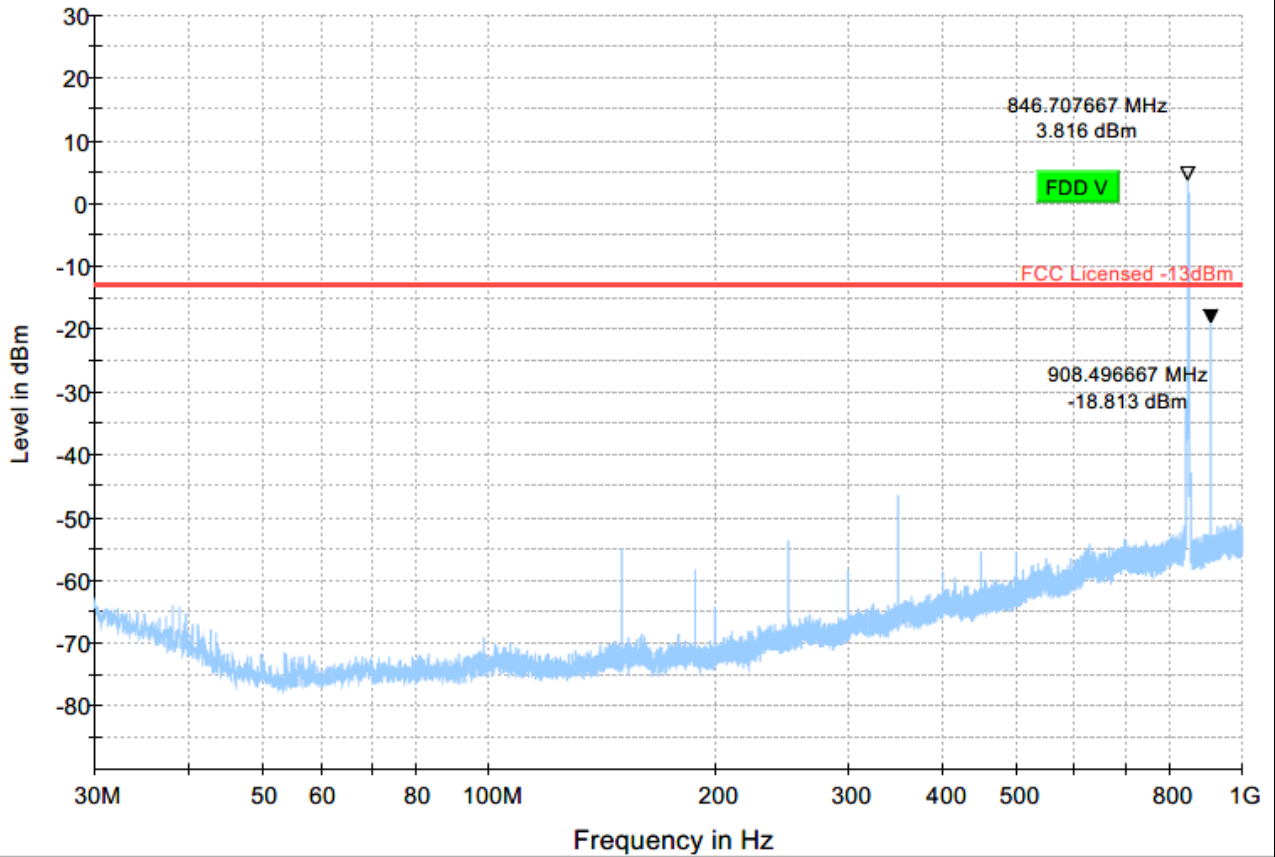


— Preview Result 1-PK+ — FCC Licensed -13dBm ◆ Final_Result RMS



Plot #70 Radiated Emissions: 30 MHz – 1 GHz

Channel: High



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

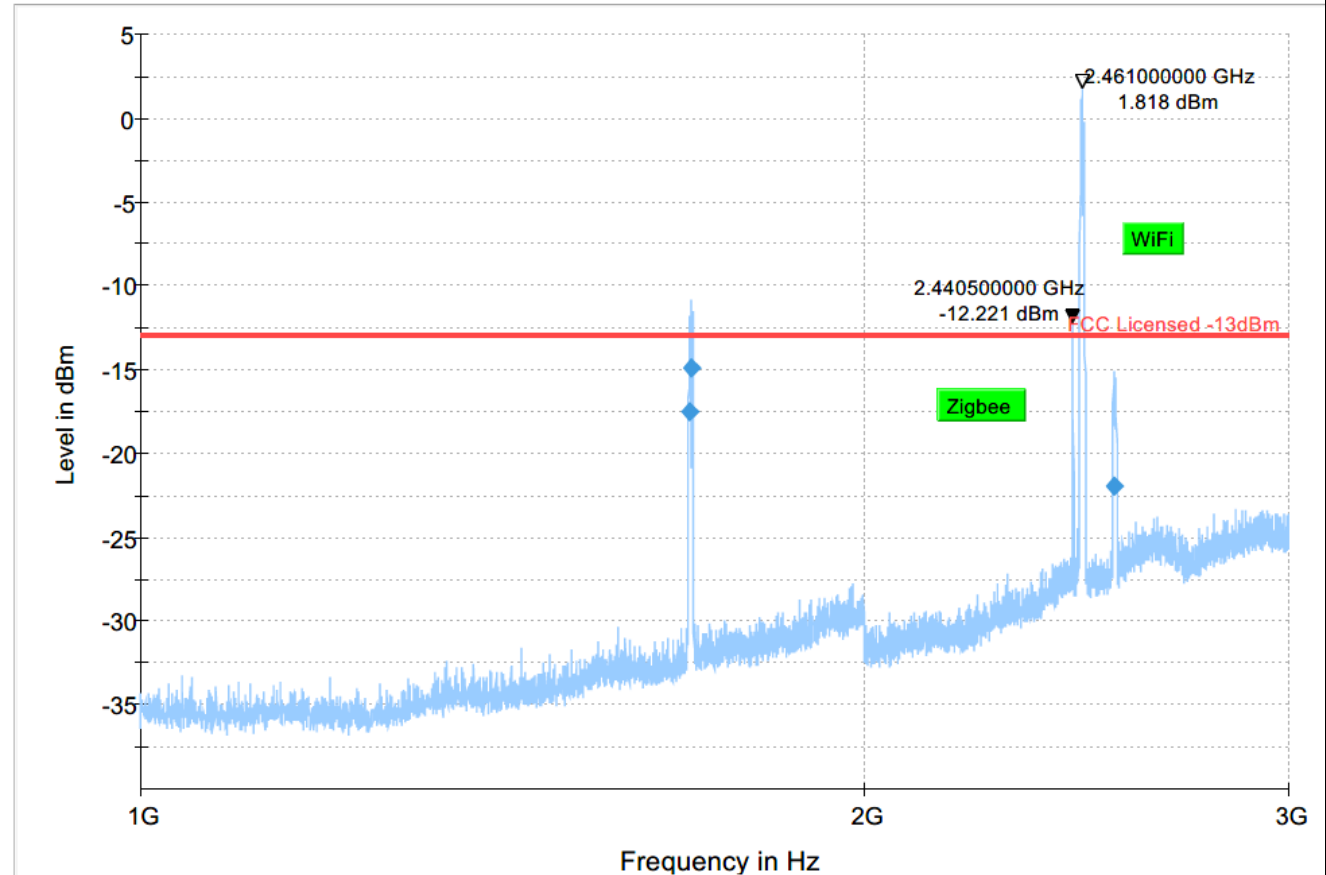


Plot #71 Radiated Emissions: 1-3 GHz

Channel: High

Final Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
1691.750	-17.50	-13.00	4.50	500.0	1000.000	262.0	H	243.0	-62.1	
1694.750	-14.88	-13.00	1.88	500.0	1000.000	270.0	H	243.0	-62.1	
2536.750	-21.97	-13.00	8.97	500.0	1000.000	281.0	V	187.0	-58.5	

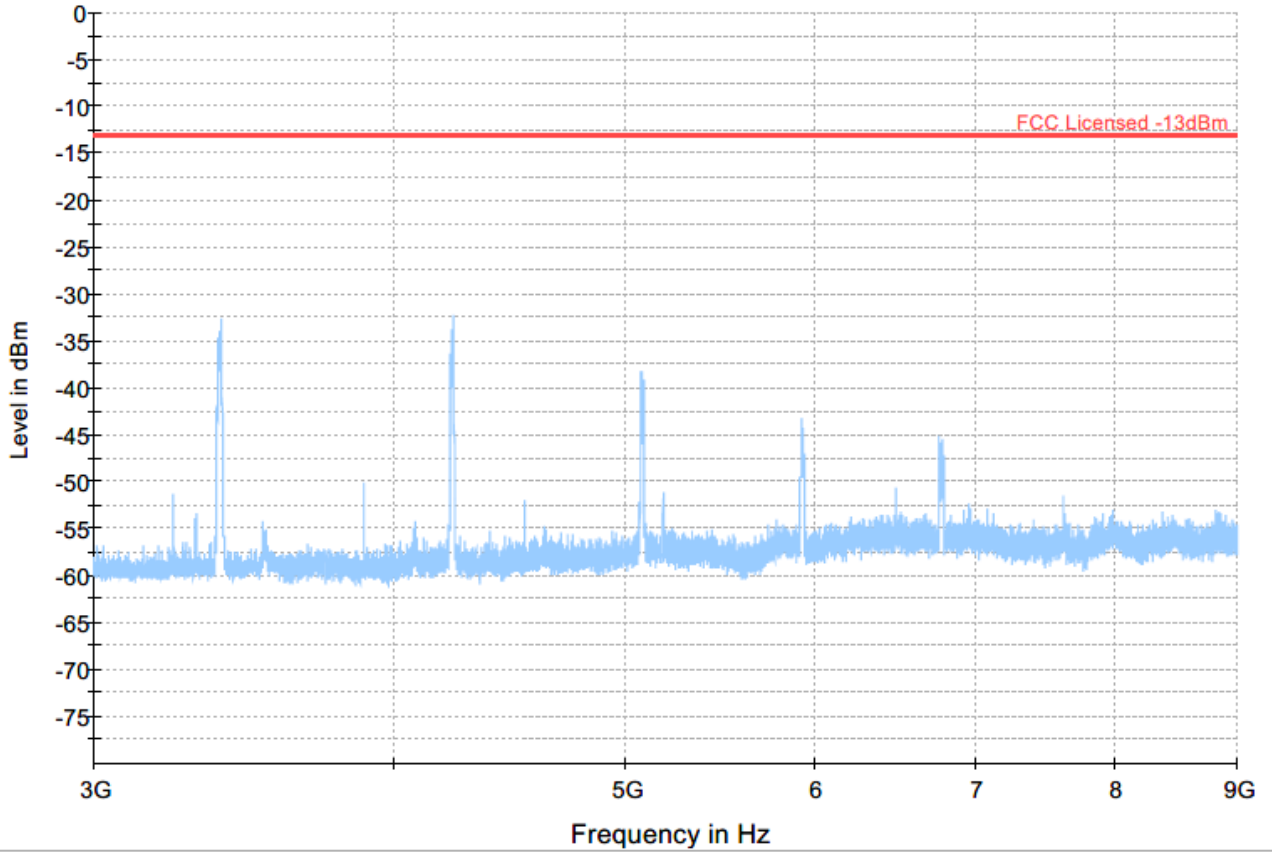


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



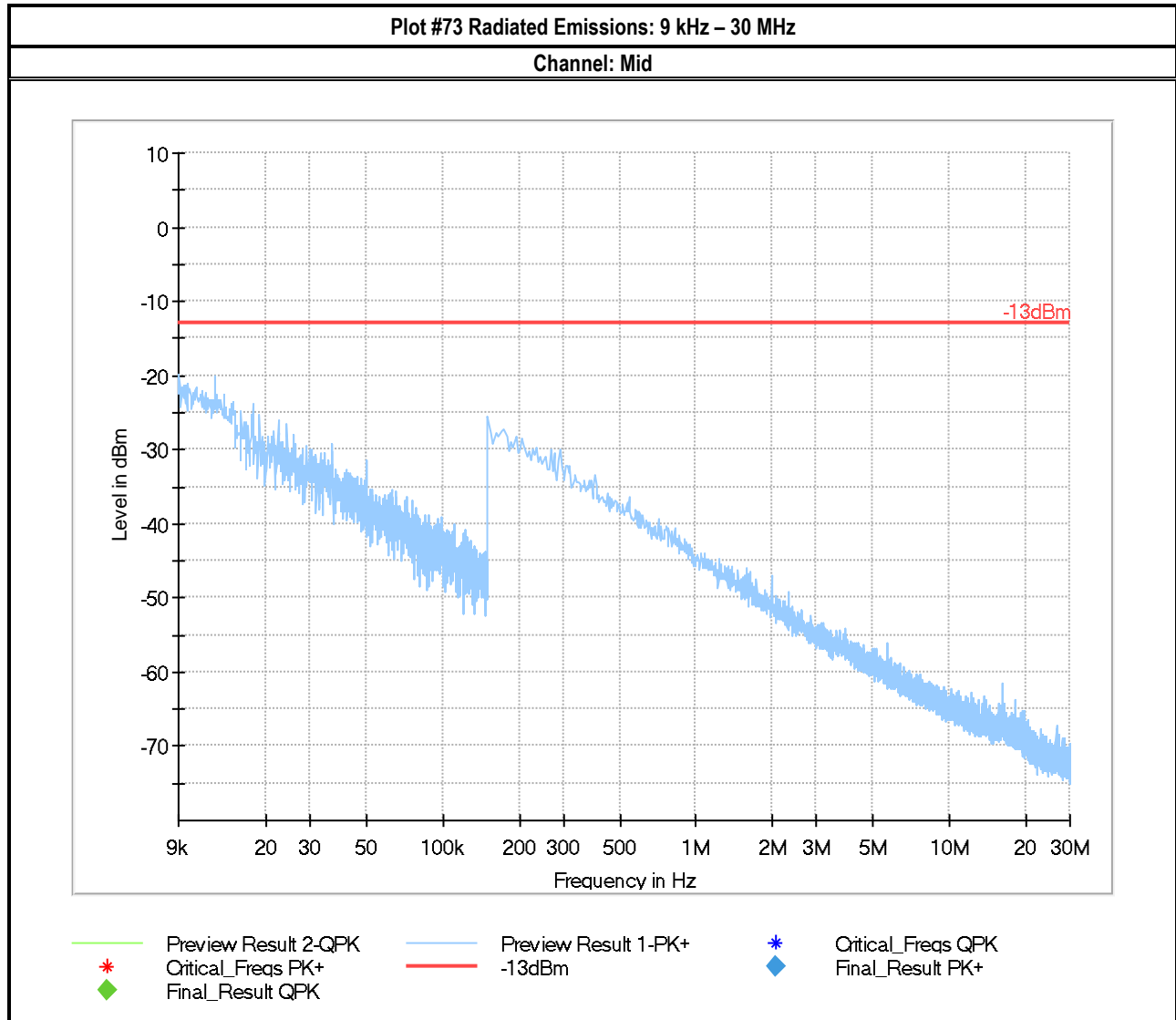
Plot #72 Radiated Emissions: 3-9 GHz

Channel: High



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

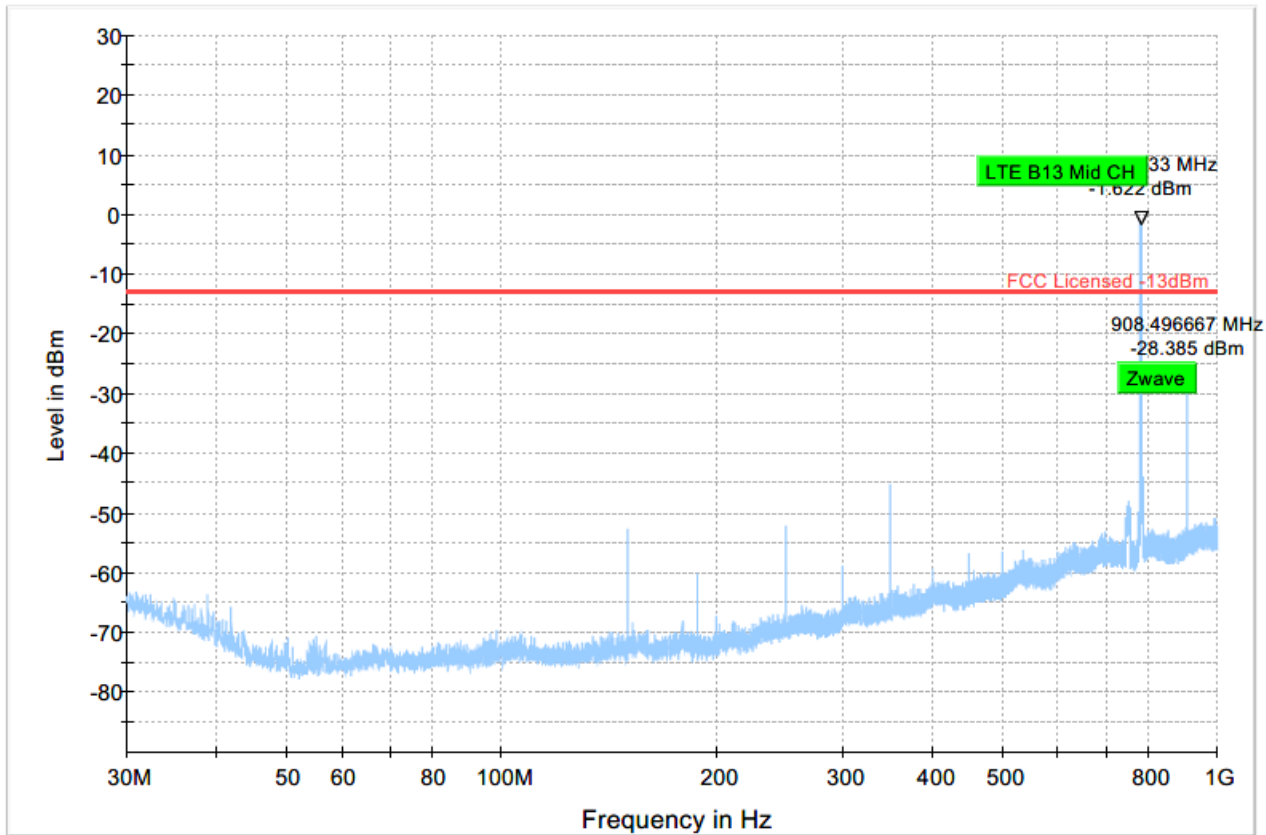
LTE Band 13





Plot #74 Radiated Emissions: 30 MHz – 1 GHz

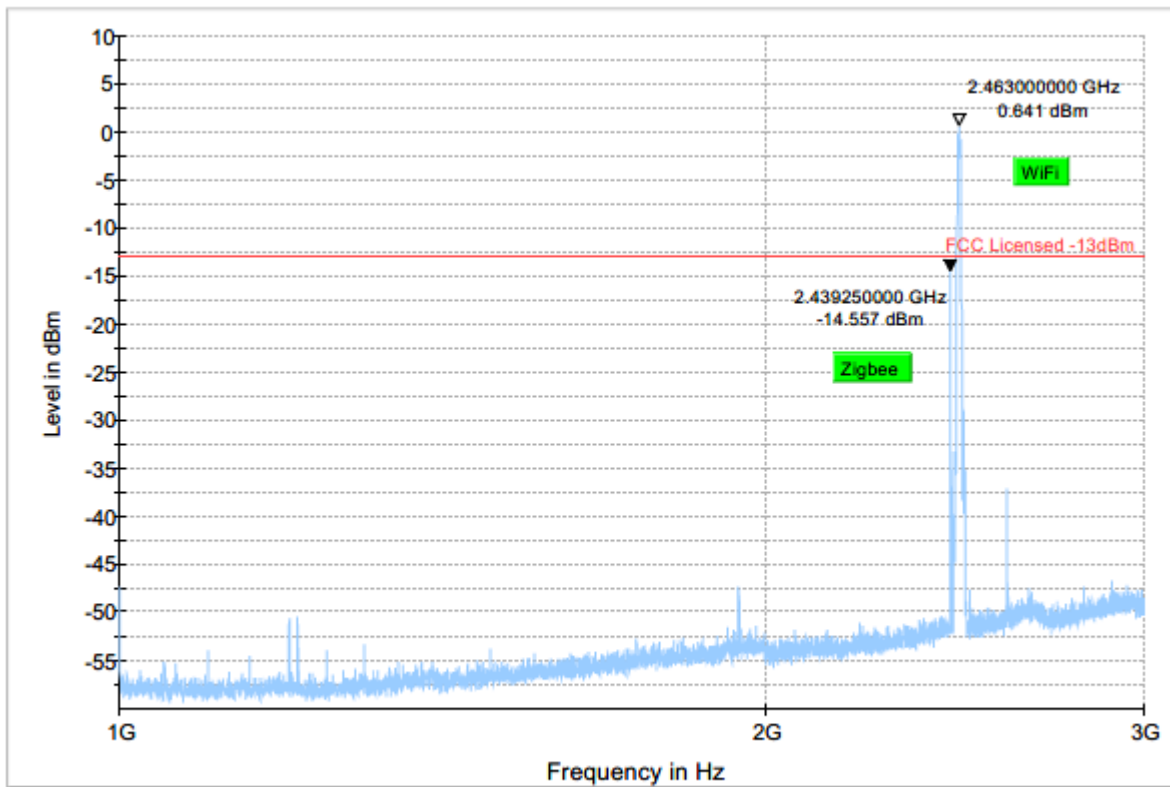
Channel: Mid



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

Plot #75 Radiated Emissions: 1-3 GHz

Channel: Mid



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

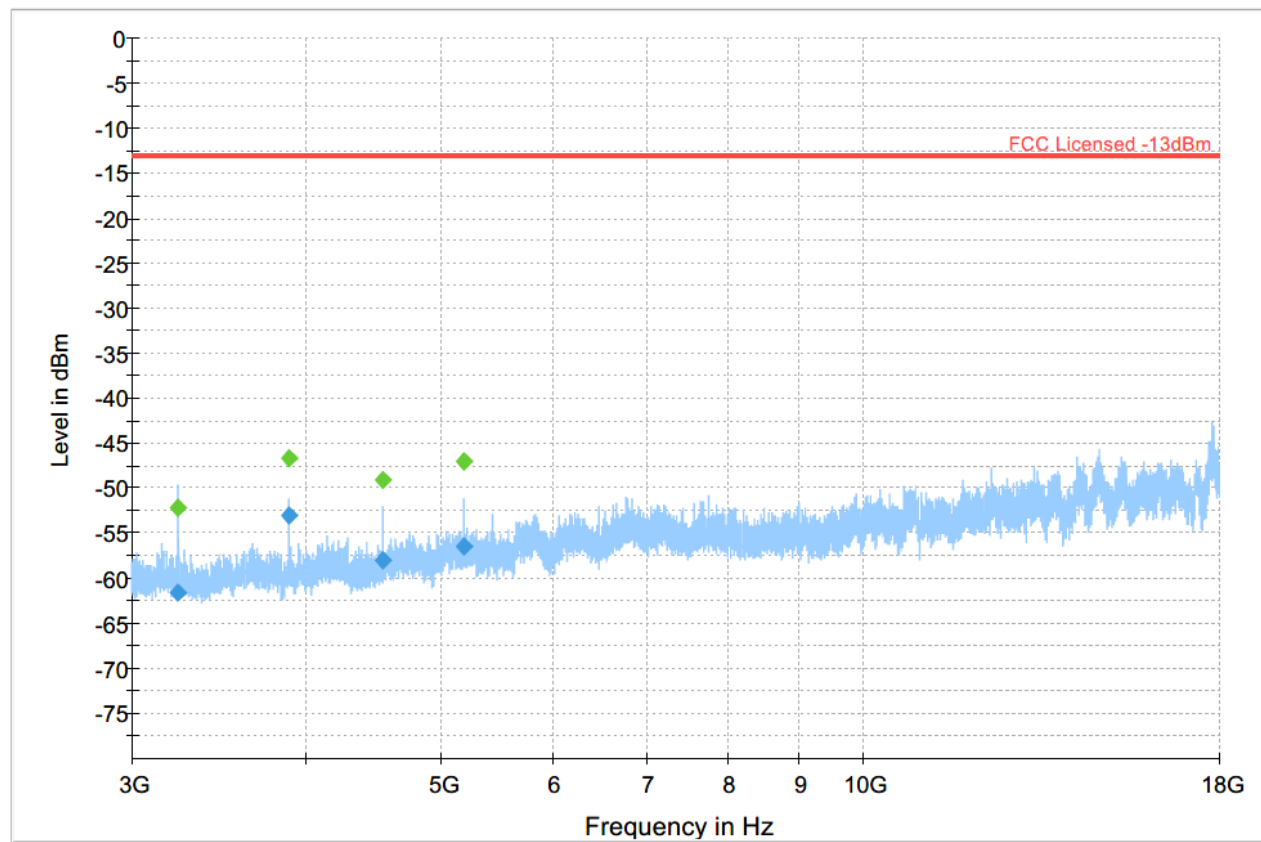


Plot #76 Radiated Emissions: 3-18 GHz

Channel: Mid

Final Result

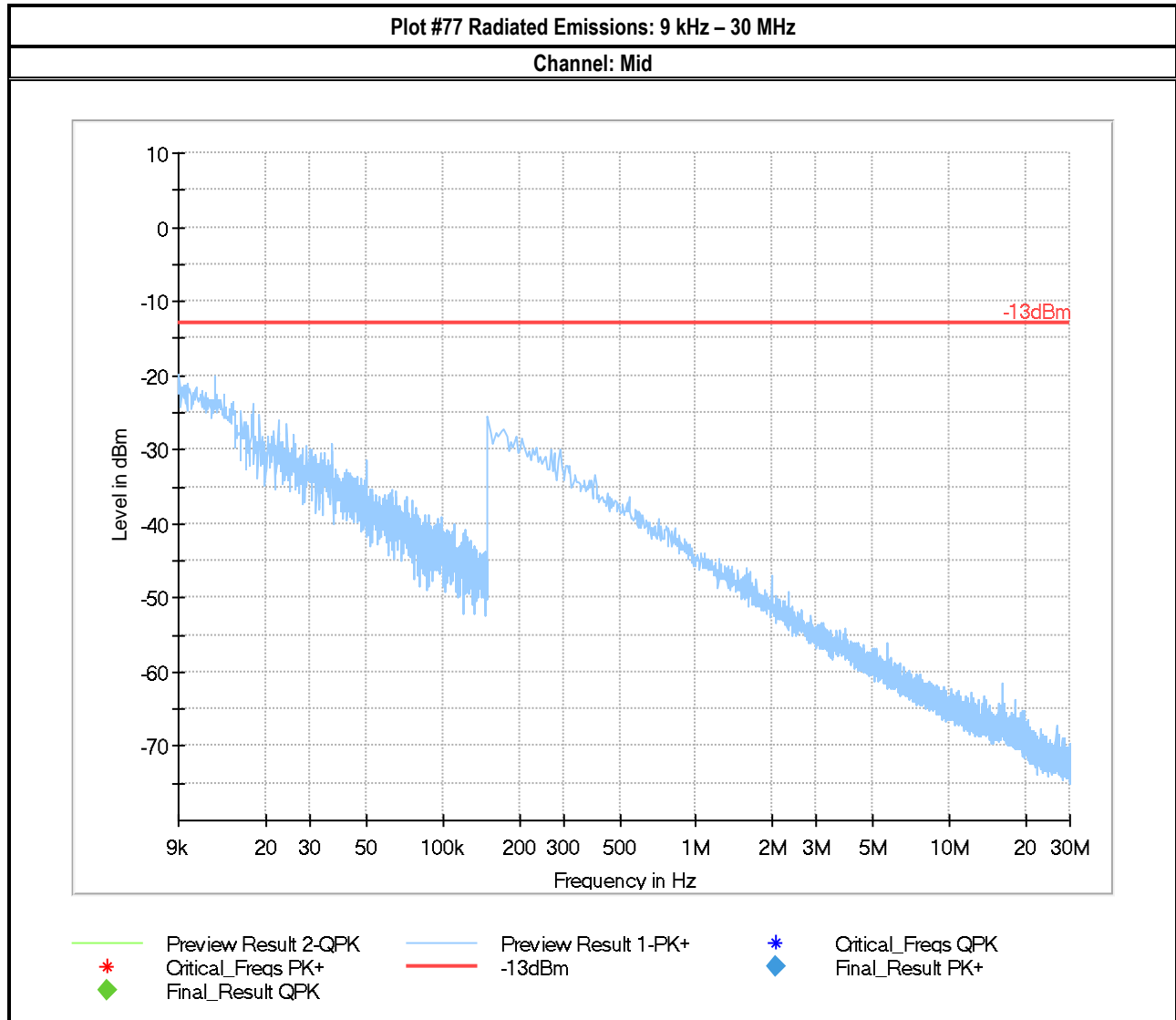
Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3239.750	---	-52.11	---	---	500.0	1000.000	133.0	V	-89.0	-103.9	
3239.750	-61.62	---	-13.00	48.62	500.0	1000.000	133.0	V	-89.0	-103.9	
3887.750	---	-46.62	---	---	500.0	1000.000	185.0	V	148.0	-102.1	
3887.750	-53.09	---	-13.00	40.09	500.0	1000.000	185.0	V	148.0	-102.1	
4535.500	---	-49.17	---	---	500.0	1000.000	142.0	V	166.0	-100.2	
4535.500	-58.05	---	-13.00	45.05	500.0	1000.000	142.0	V	166.0	-100.2	
5183.500	---	-47.04	---	---	500.0	1000.000	200.0	V	151.0	-98.7	
5183.500	-56.42	---	-13.00	43.42	500.0	1000.000	200.0	V	151.0	-98.7	



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



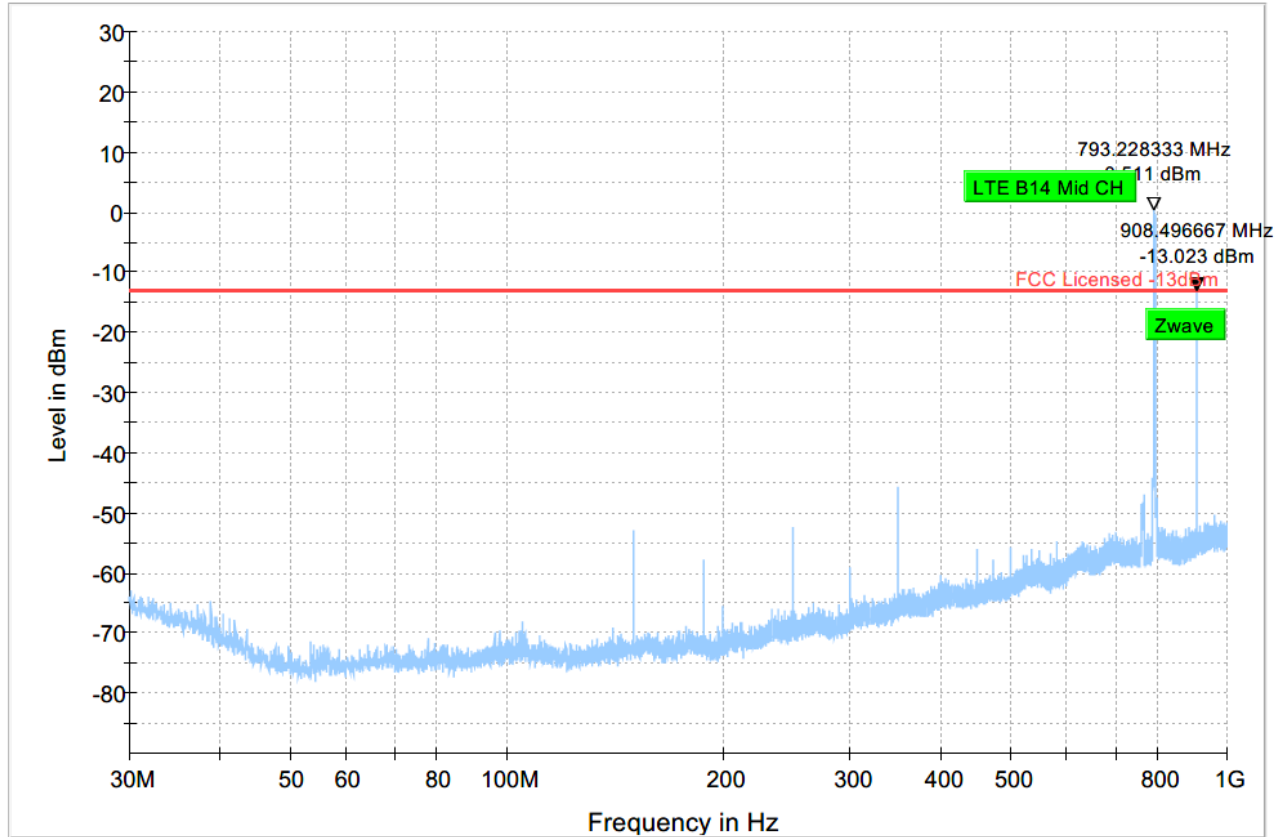
LTE Band 14





Plot #78 Radiated Emissions: 30 MHz – 1 GHz

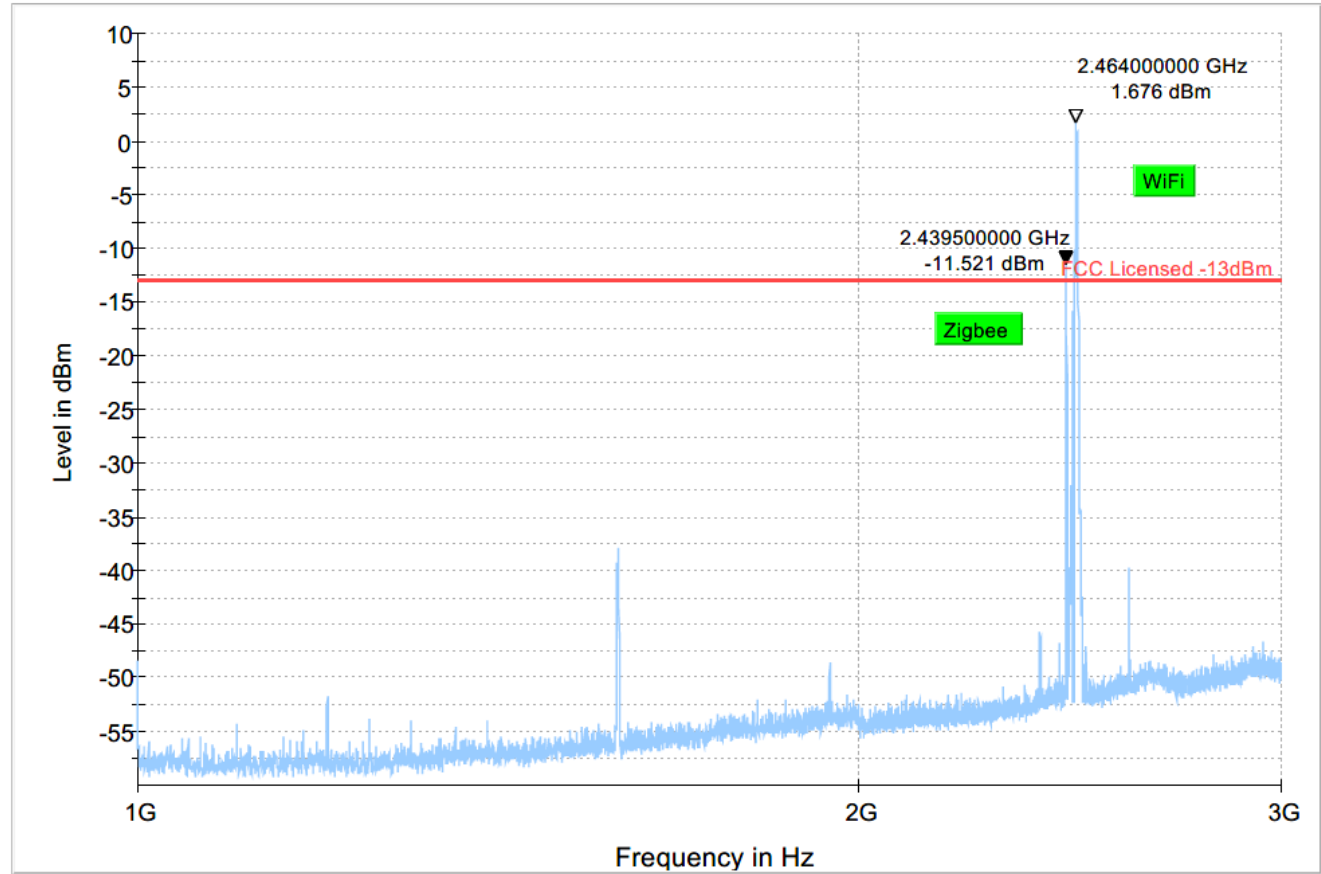
Channel: Mid



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

Plot #79 Radiated Emissions: 1-3 GHz

Channel: Mid



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

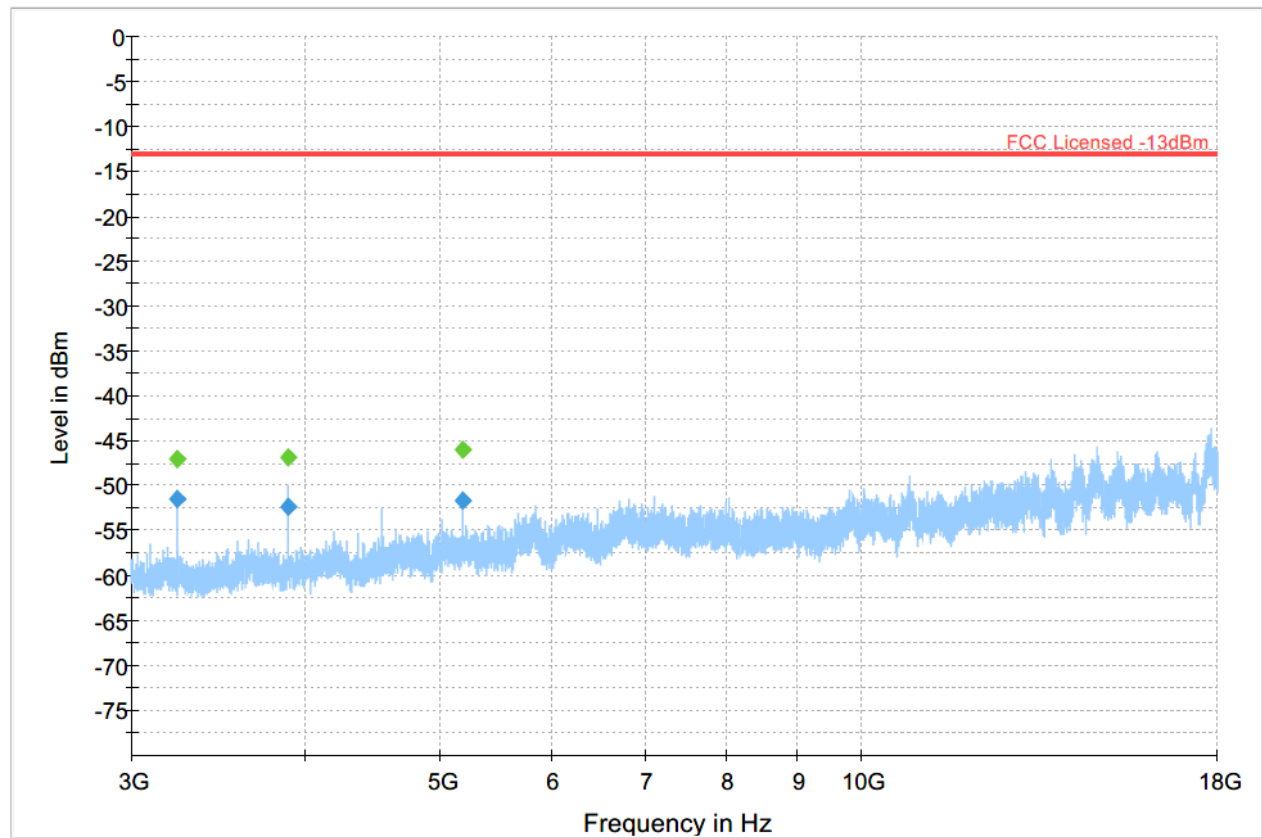


Plot #80 Radiated Emissions: 3-18 GHz

Channel: Mid

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3240.000	---	-47.11	---	---	500.0	1000.000	149.0	V	174.0	-103.9	
3240.000	-51.47	---	-13.00	38.47	500.0	1000.000	149.0	V	174.0	-103.9	
3887.750	---	-46.79	---	---	500.0	1000.000	194.0	V	138.0	-102.1	
3887.750	-52.33	---	-13.00	39.33	500.0	1000.000	194.0	V	138.0	-102.1	
5184.000	---	-46.00	---	---	500.0	1000.000	194.0	V	138.0	-98.7	
5184.000	-51.71	---	-13.00	38.71	500.0	1000.000	194.0	V	138.0	-98.7	



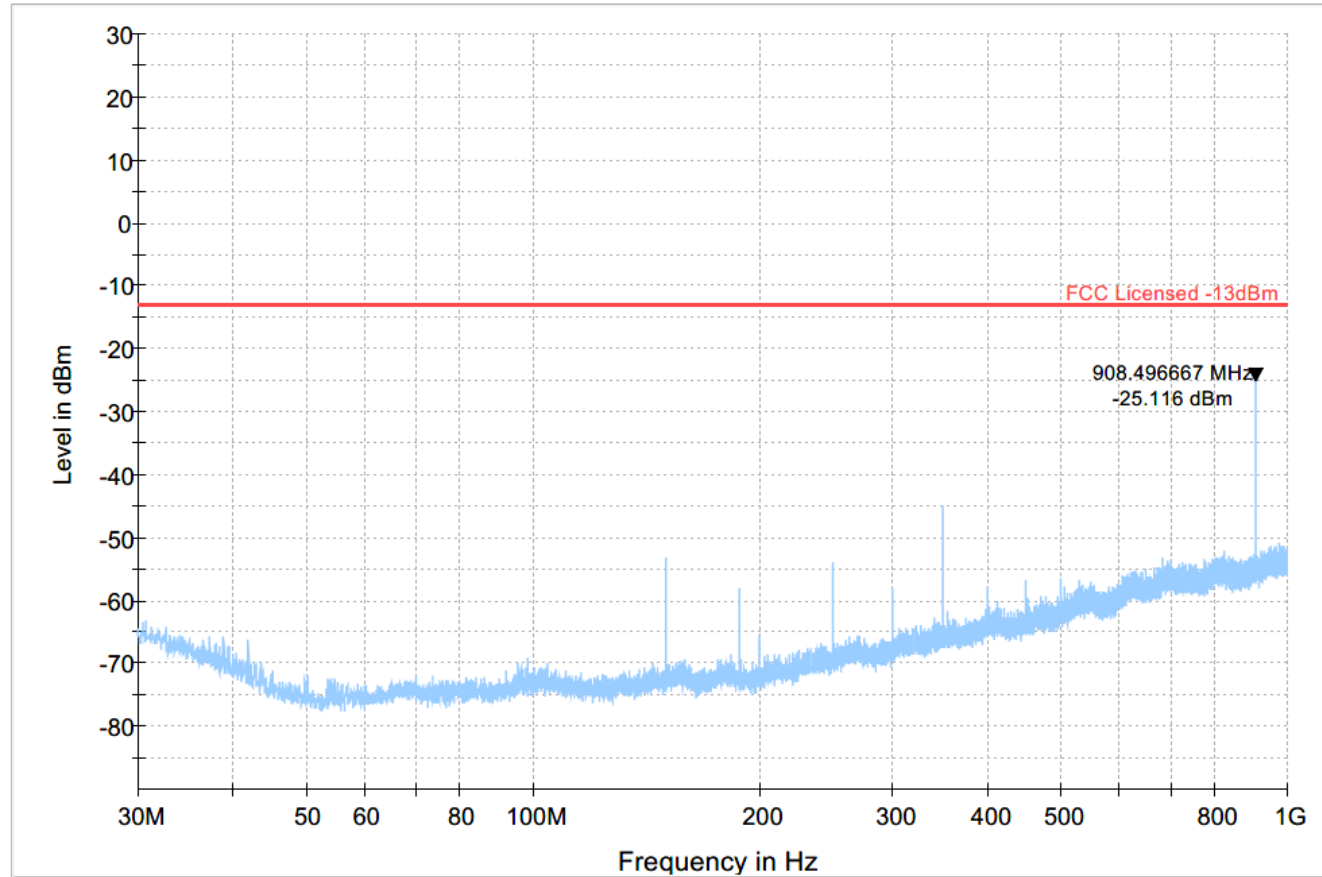
Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS Final_Result PK+



LTE Band 66

Plot #81 Radiated Emissions: 30 MHz – 1GHz

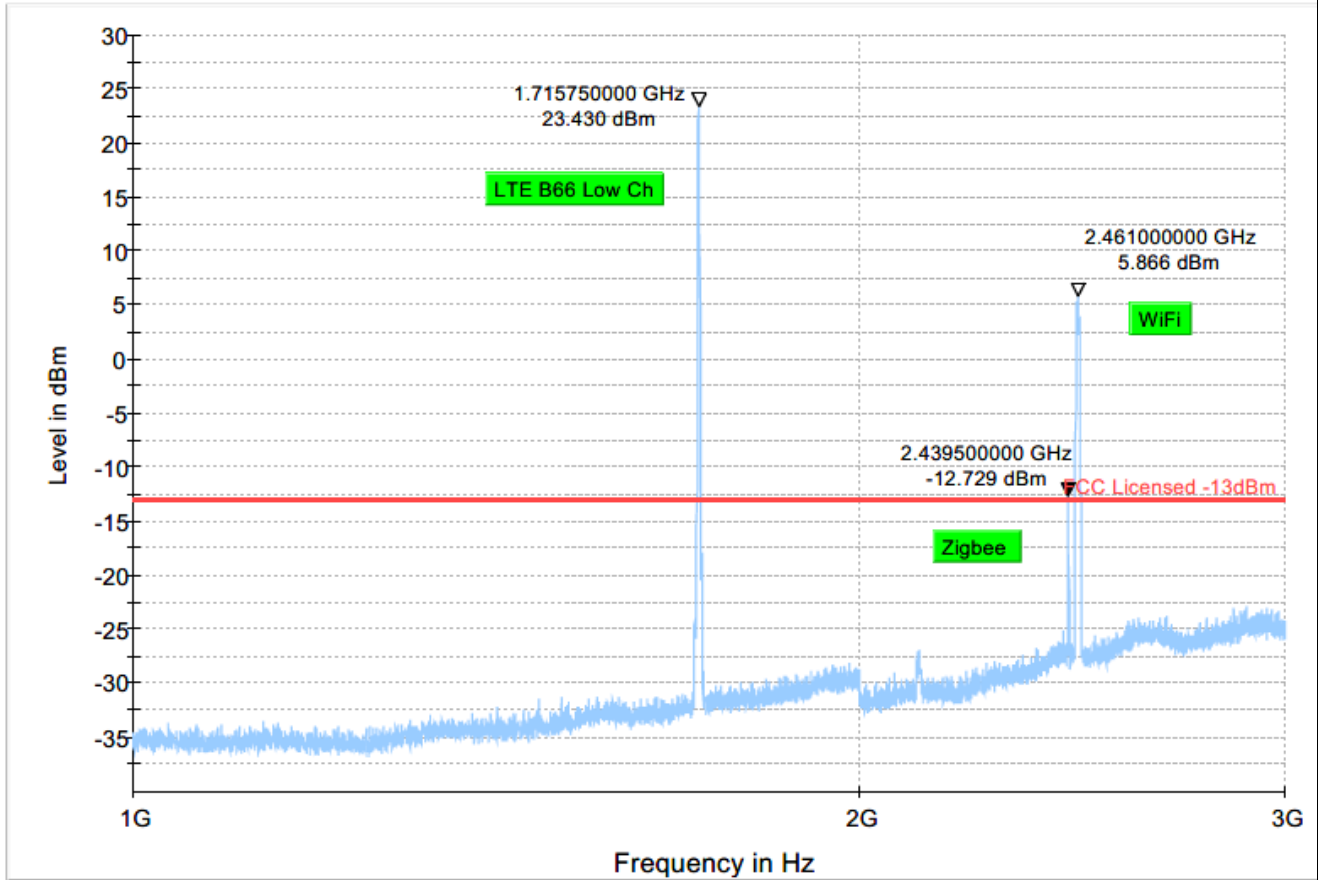
Channel: Low



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

Plot # 82 Radiated Emissions: 1-3 GHz

Channel: Low



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

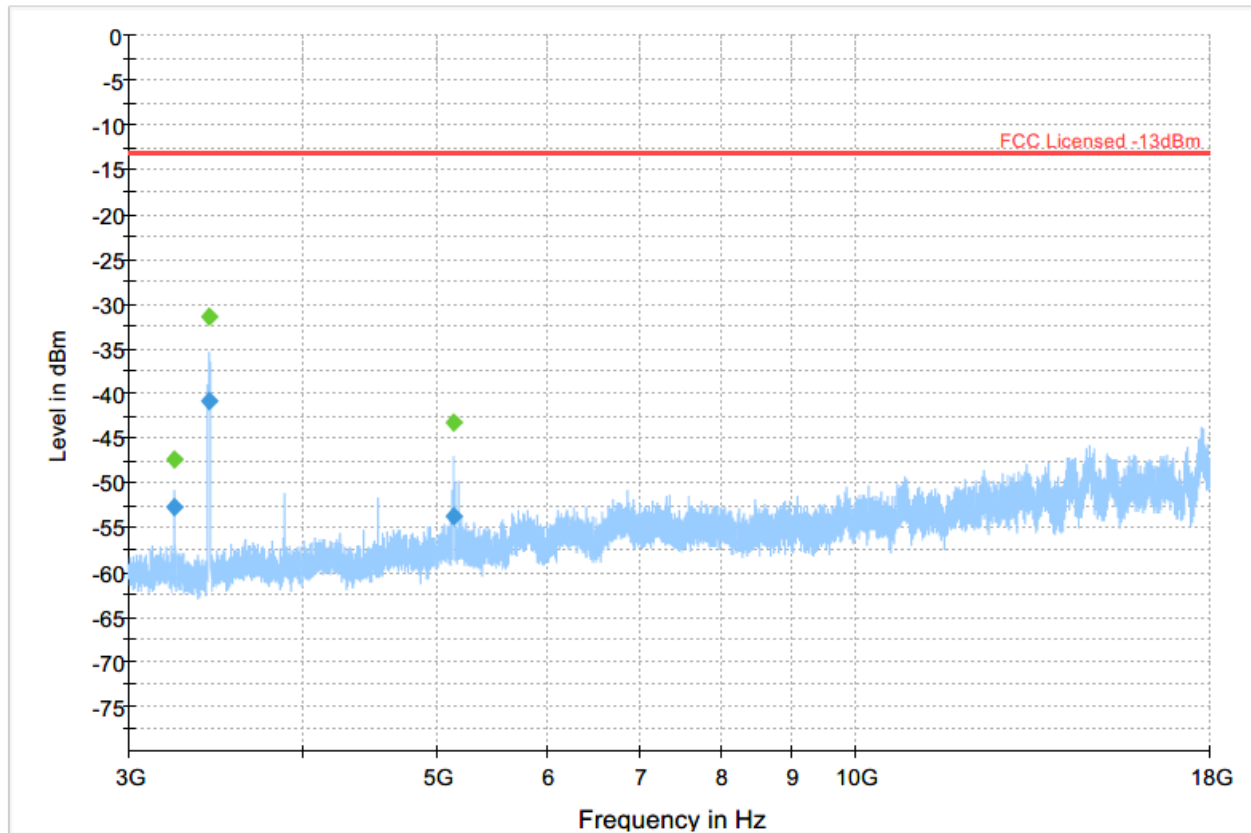


Plot # 83 Radiated Emissions: 3-18 GHz

Channel: Low

Final Result

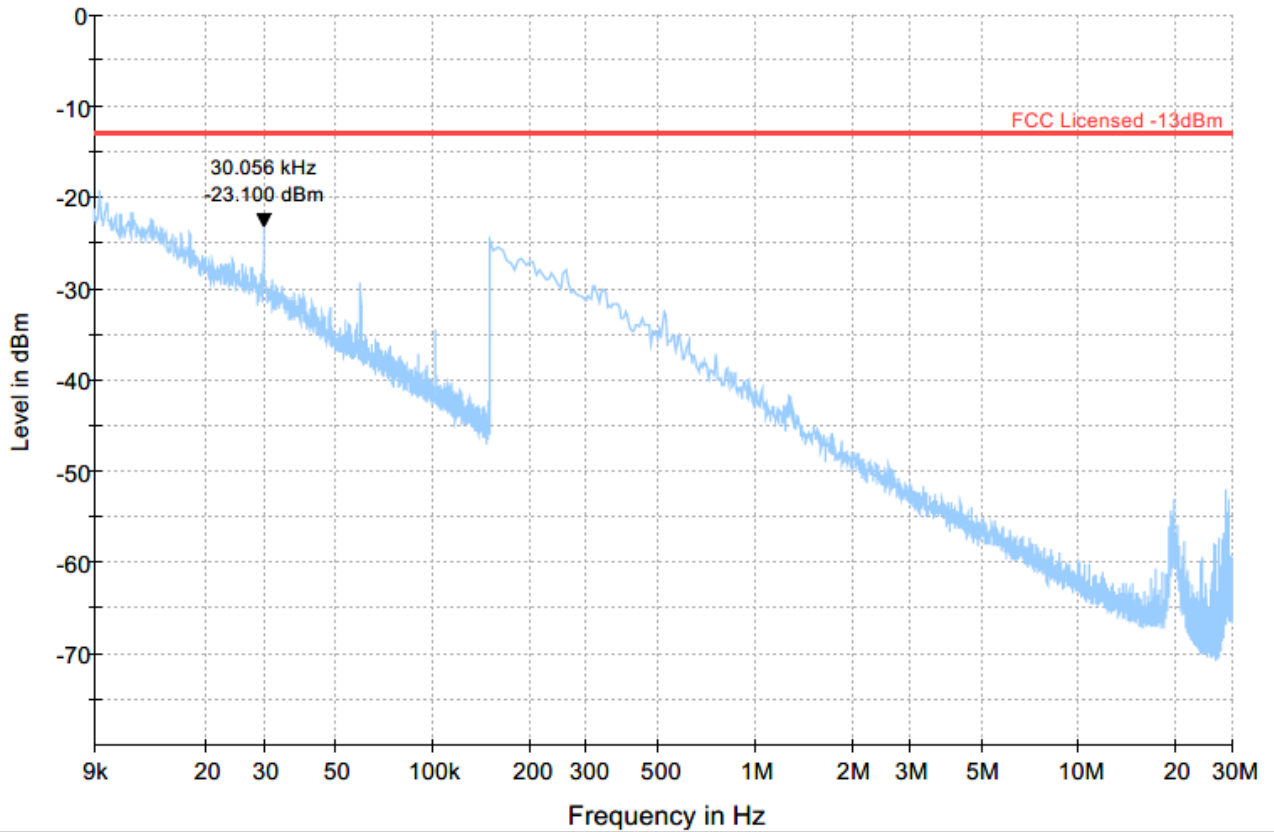
Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3239.750	---	-47.31	---	---	500.0	1000.000	184.0	V	-5.0	-103.9	
3239.750	-52.64	---	-13.00	39.64	500.0	1000.000	184.0	V	-5.0	-103.9	
3432.250	---	-31.49	---	---	500.0	1000.000	125.0	V	199.0	-103.5	
3432.250	-40.84	---	-13.00	27.84	500.0	1000.000	125.0	V	199.0	-103.5	
5146.250	---	-43.32	---	---	500.0	1000.000	159.0	V	220.0	-98.7	
5146.250	-53.80	---	-13.00	40.80	500.0	1000.000	159.0	V	220.0	-98.7	



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

Plot #84 Radiated Emissions: 9 kHz – 30 MHz

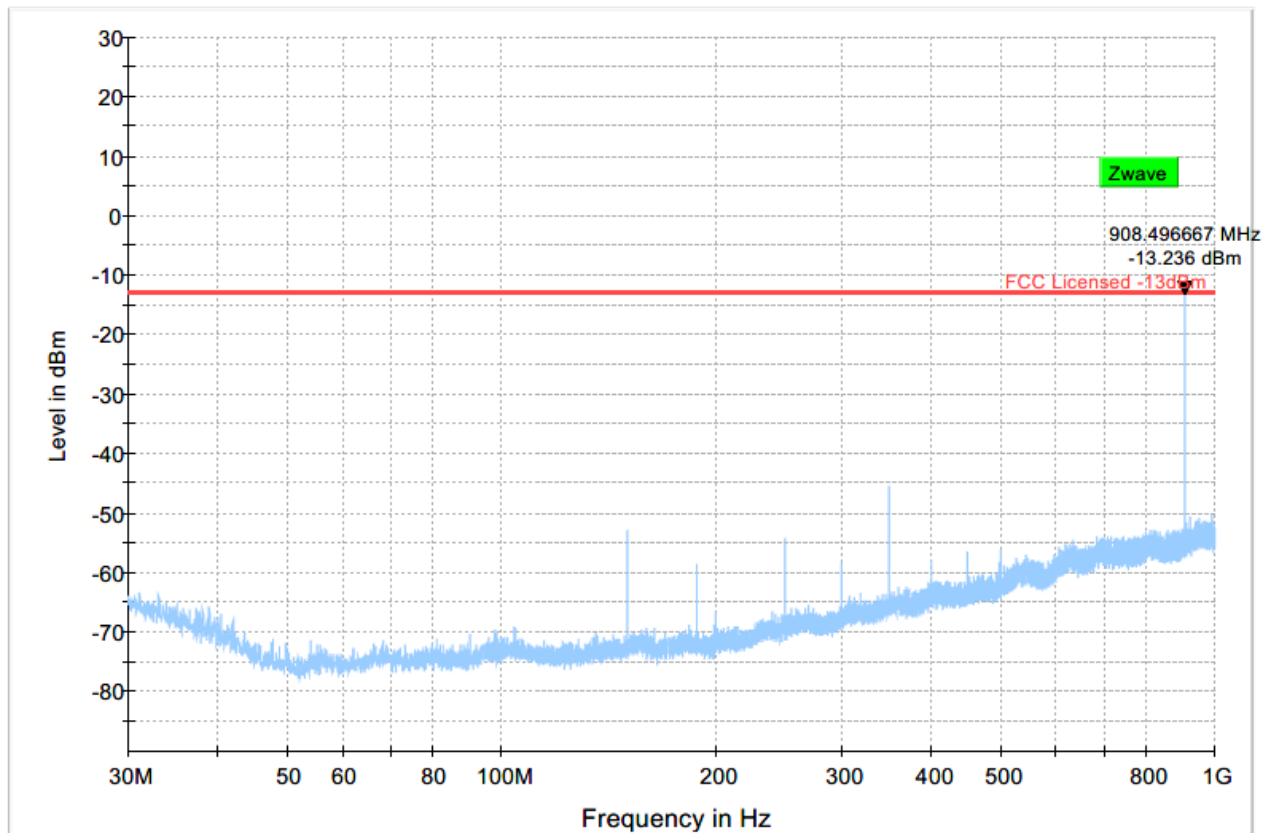
Channel: Mid



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

Plot #85 Radiated Emissions: 30 MHz – 1 GHz

Channel: Mid

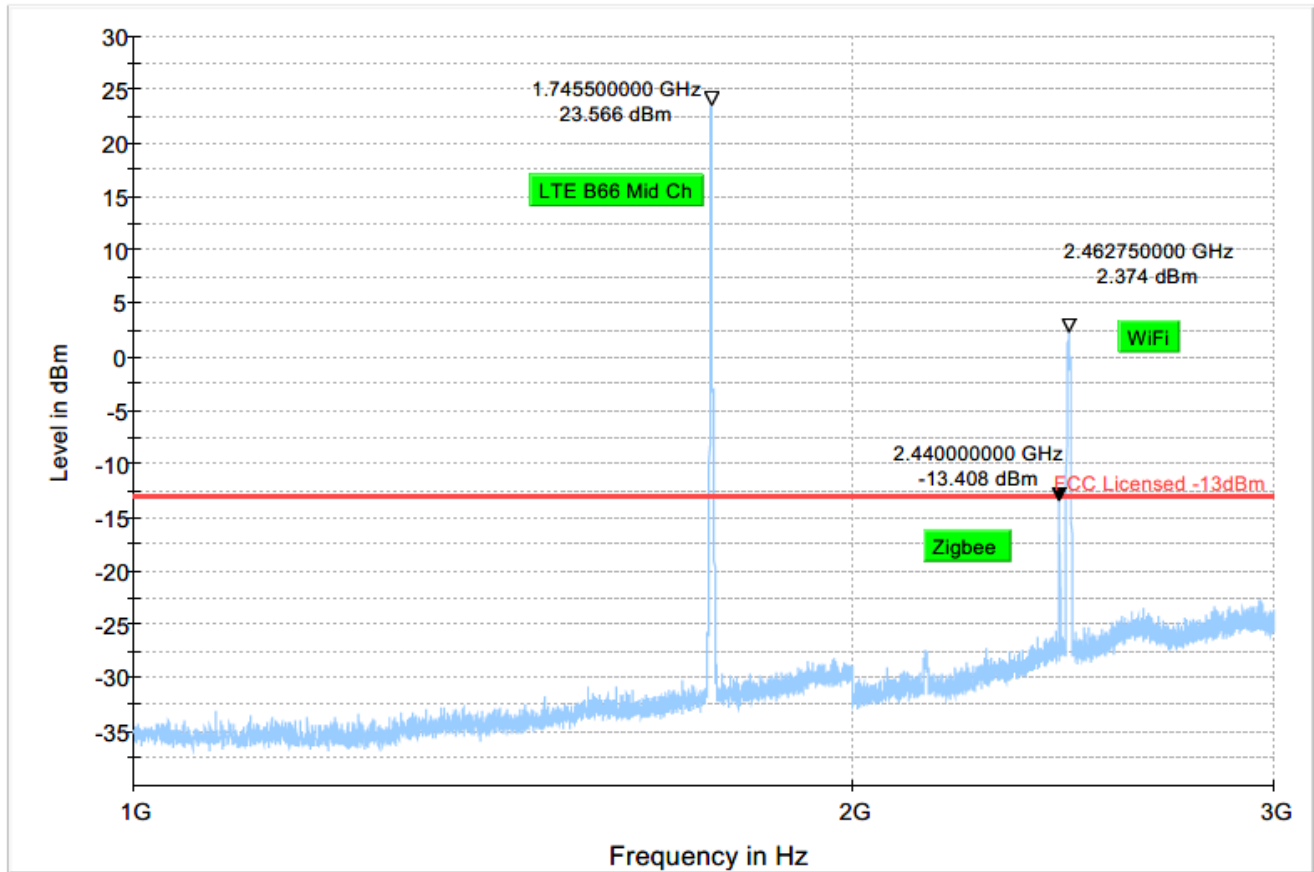


Preview Result 1-PK+ * Critical_Freqs PK+ FCC Licensed -13dBm Final_Result RM



Plot #86 Radiated Emissions: 1-3 GHz

Channel: Mid



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

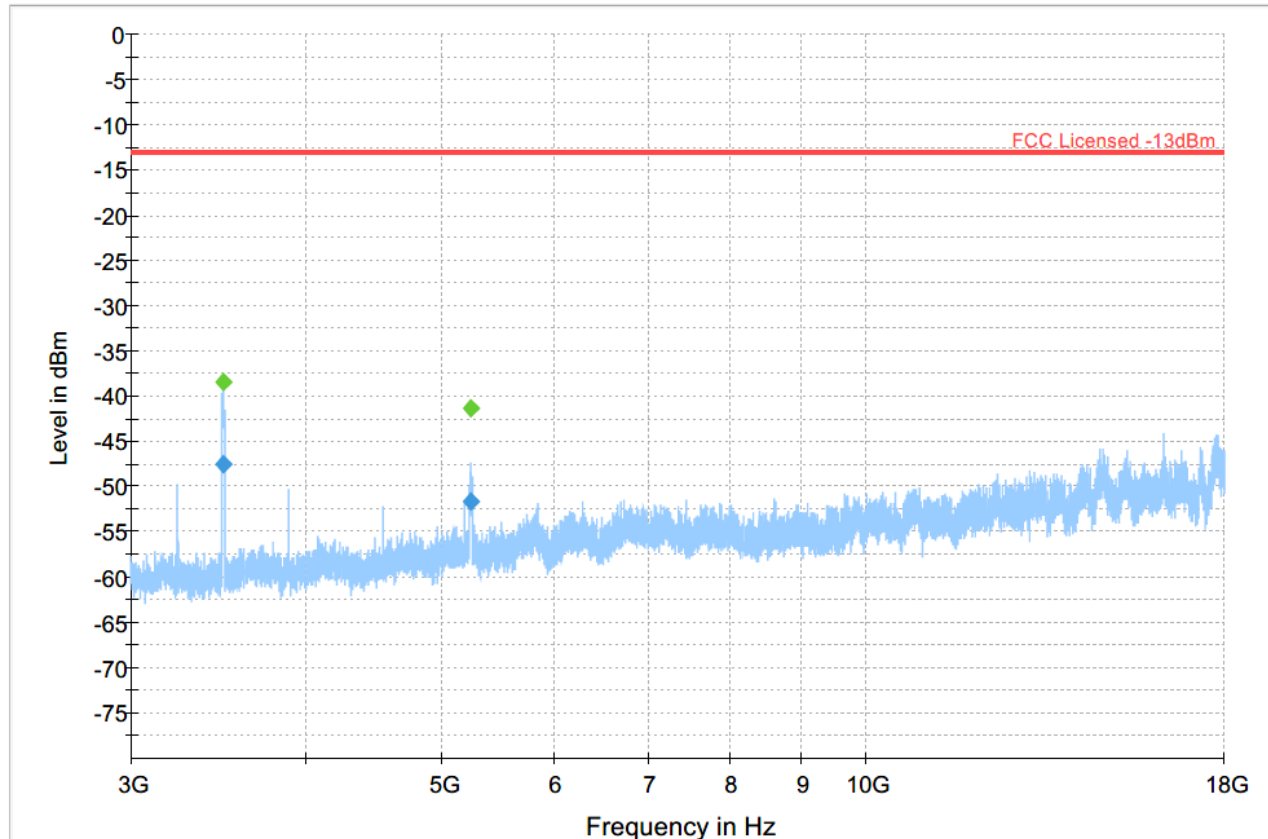


Plot #87 Radiated Emissions: 3-18 GHz

Channel: Mid

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3491.750	---	-38.44	---	---	500.0	1000.000	107.0	V	60.0	-103.3	
3491.750	-47.58	---	-13.00	34.58	500.0	1000.000	107.0	V	60.0	-103.3	
5235.500	---	-41.39	---	---	500.0	1000.000	200.0	H	134.0	-98.6	
5235.500	-51.72	---	-13.00	38.72	500.0	1000.000	200.0	H	134.0	-98.6	

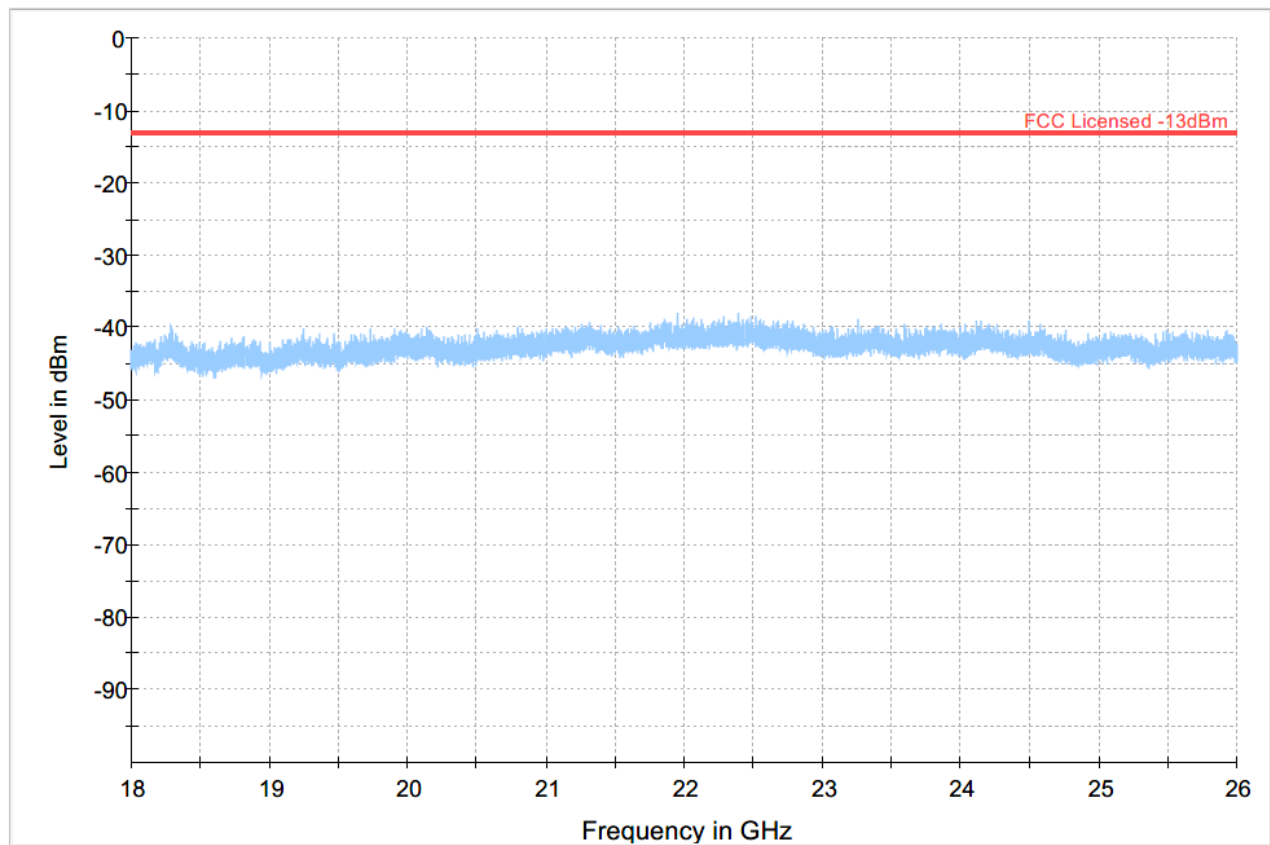


— Preview Result 1-PK+
 — FCC Licensed -13dBm
 ◆ Final_Result RMS
 ◆ Final_Result PK



Plot #88 Radiated Emissions: 18-26 GHz

Channel: Mid

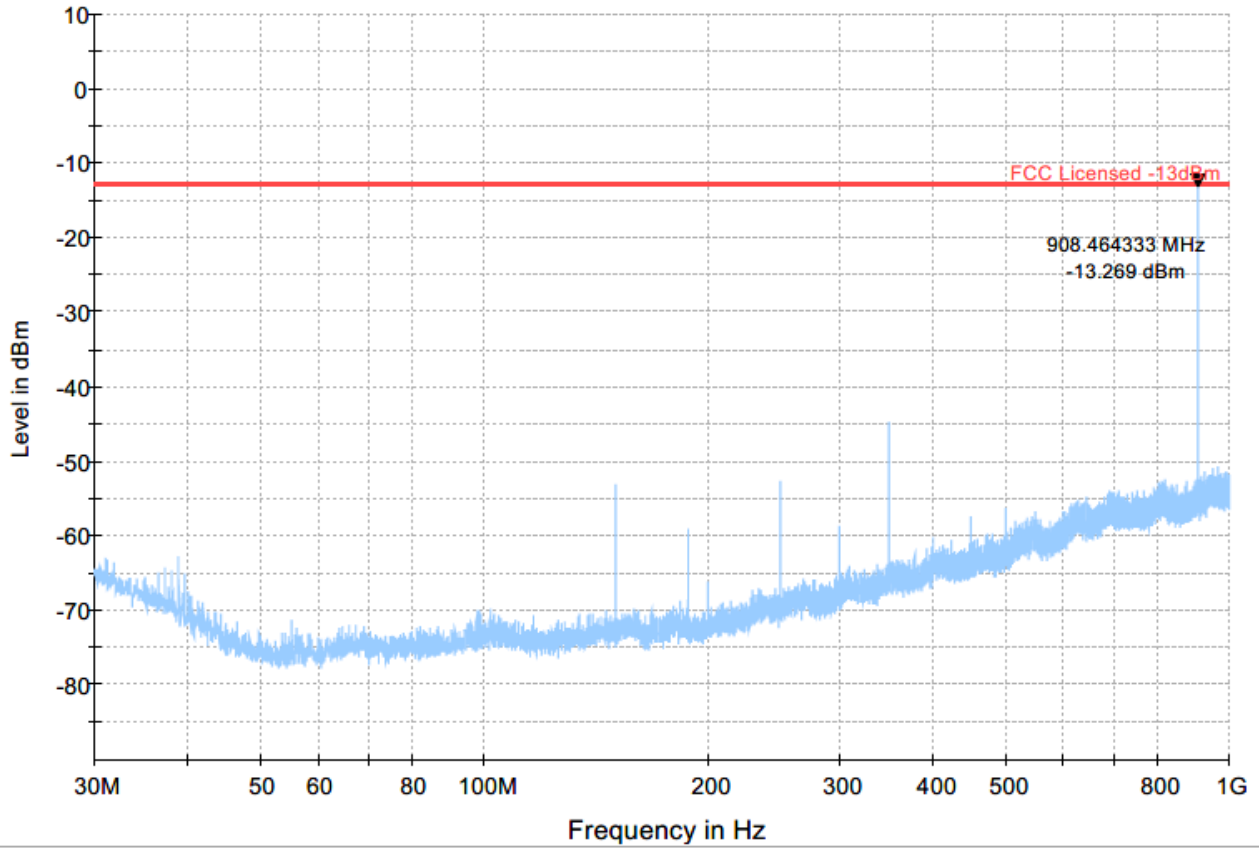


Preview Result 1-PK+ * Critical_Freqs PK+ FCC Licensed -13dBm Final_Result RN



Plot #89 Radiated Emissions: 30 MHz – 1 GHz

Channel: High

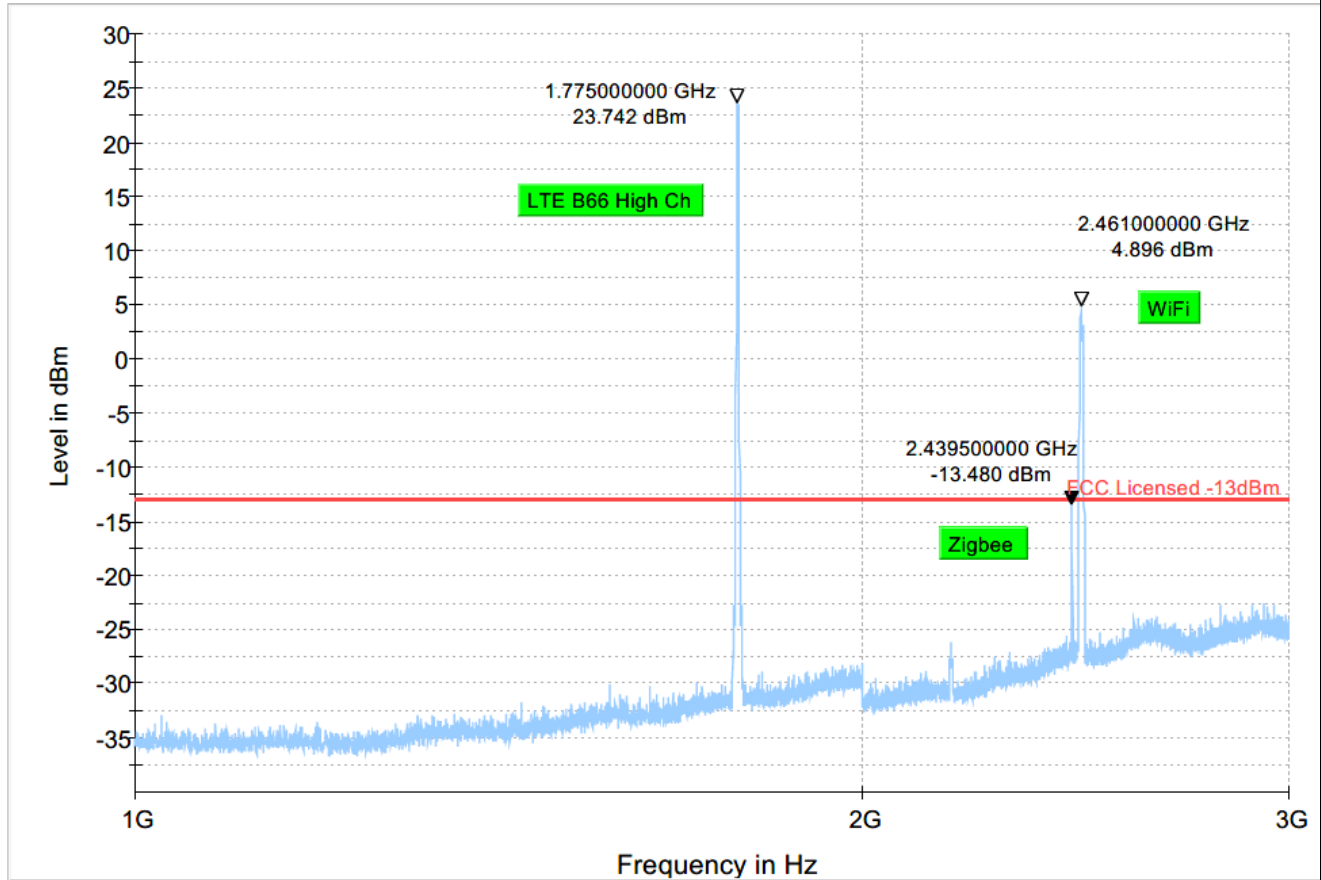


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



Plot #90 Radiated Emissions: 1-3 GHz

Channel: High



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

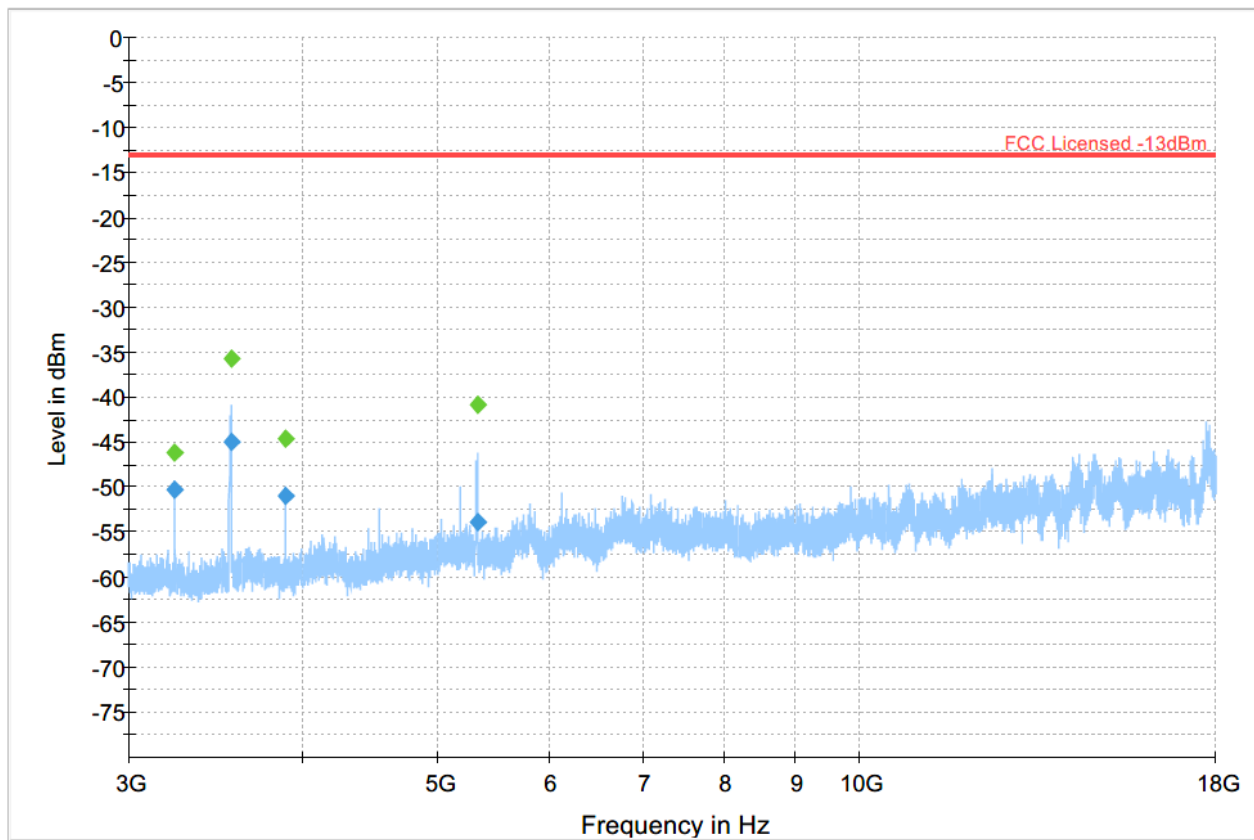


Plot #91 Radiated Emissions: 3-18 GHz

Channel: High

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3240.000	---	-46.16	---	---	500.0	1000.000	151.0	V	174.0	-103.9	
3240.000	-50.33	---	-13.00	37.33	500.0	1000.000	151.0	V	174.0	-103.9	
3552.250	---	-35.77	---	---	500.0	1000.000	181.0	V	222.0	-103.0	
3552.250	-44.96	---	-13.00	31.96	500.0	1000.000	181.0	V	222.0	-103.0	
3888.000	---	-44.65	---	---	500.0	1000.000	160.0	V	127.0	-102.1	
3888.000	-50.93	---	-13.00	37.93	500.0	1000.000	160.0	V	127.0	-102.1	
5331.750	---	-40.85	---	---	500.0	1000.000	160.0	V	278.0	-98.9	
5331.750	-53.88	---	-13.00	40.88	500.0	1000.000	160.0	V	278.0	-98.9	

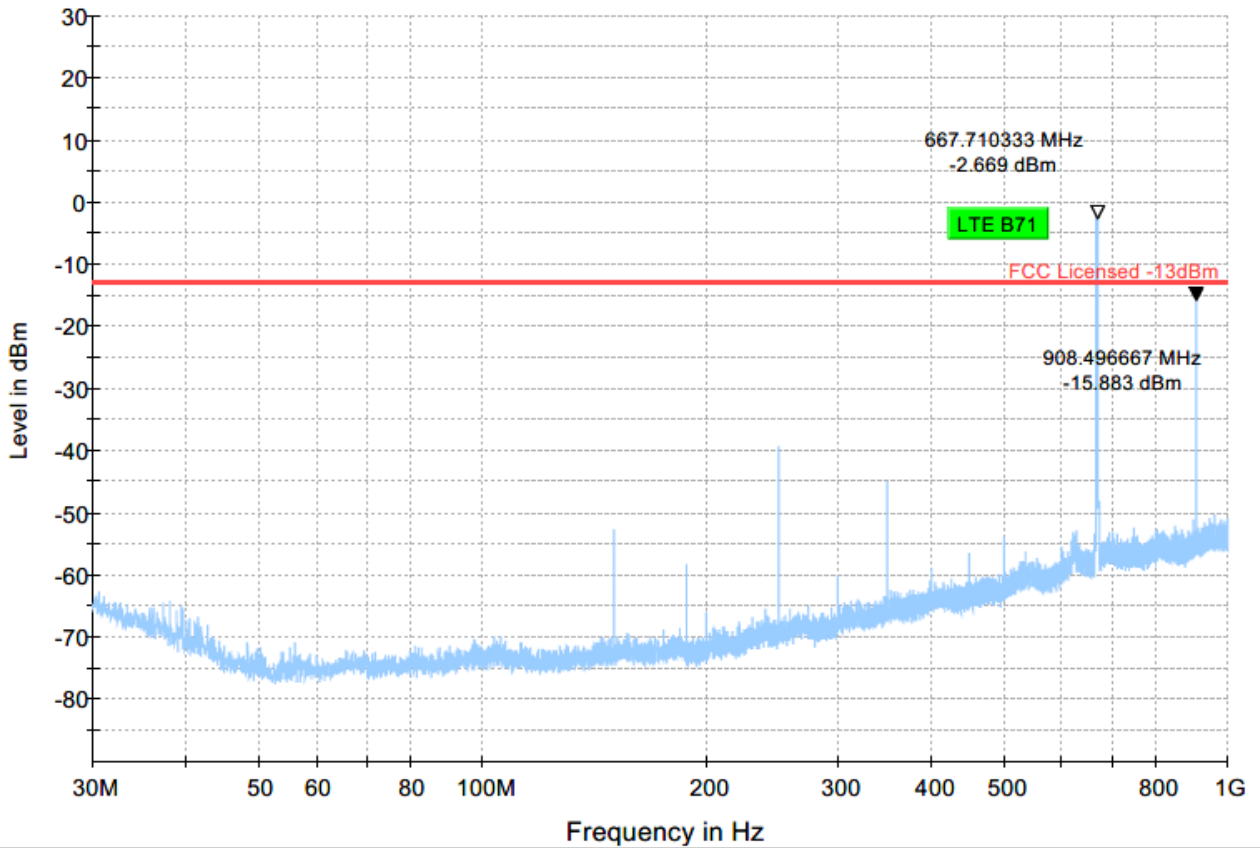


— Preview Result 1-PK+
 — FCC Licensed -13dBm
 ◆ Final_Result RMS
 ◆ Final_Result PK

LTE Band 71

Plot #92 Radiated Emissions: 30 MHz – 1GHz

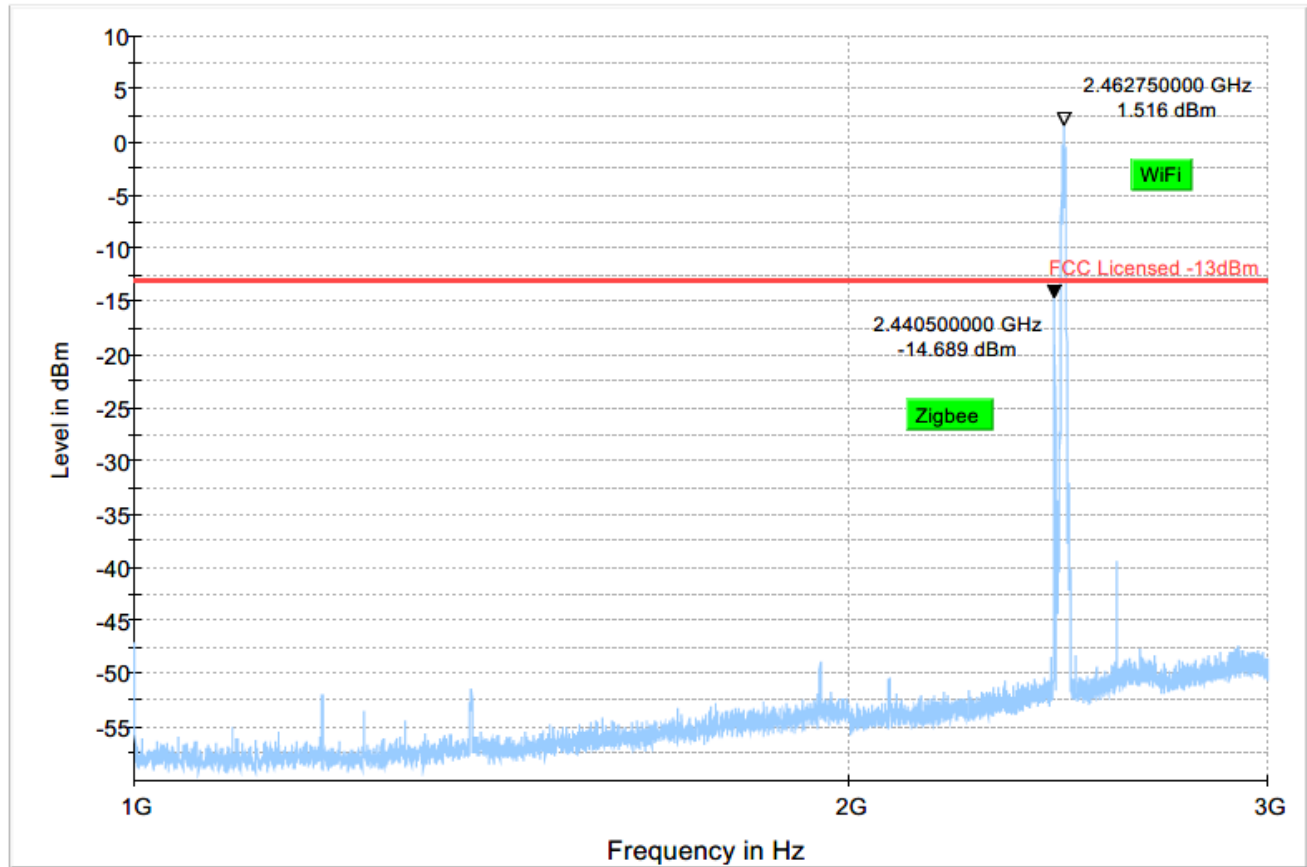
Channel: Low



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

Plot # 93 Radiated Emissions: 1-3 GHz

Channel: Low



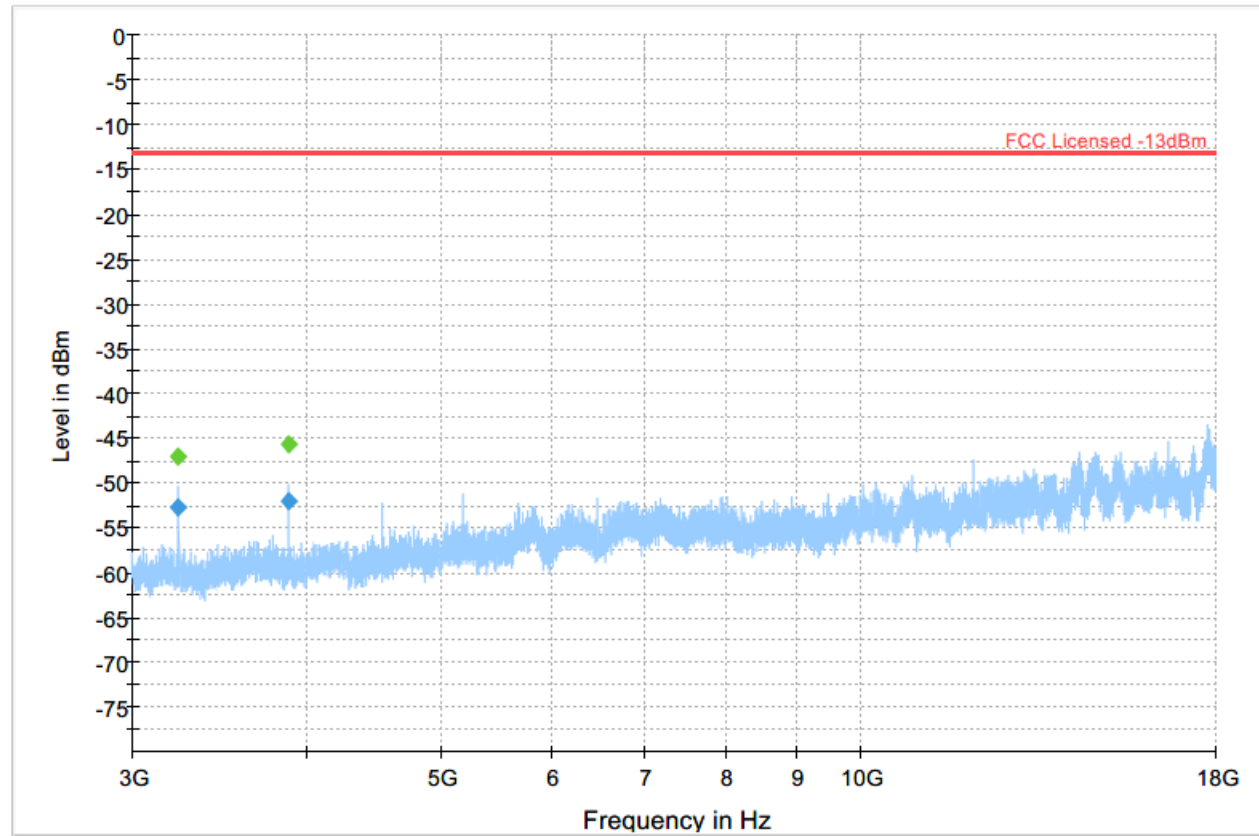
Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS

Plot # 94 Radiated Emissions: 3-18 GHz

Channel: Low

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3239.750	---	-47.04	---	---	500.0	1000.000	192.0	V	-3.0	-103.9	
3239.750	-52.64	---	-13.00	39.64	500.0	1000.000	192.0	V	-3.0	-103.9	
3887.750	---	-45.74	---	---	500.0	1000.000	164.0	V	127.0	-102.1	
3887.750	-52.02	---	-13.00	39.02	500.0	1000.000	164.0	V	127.0	-102.1	

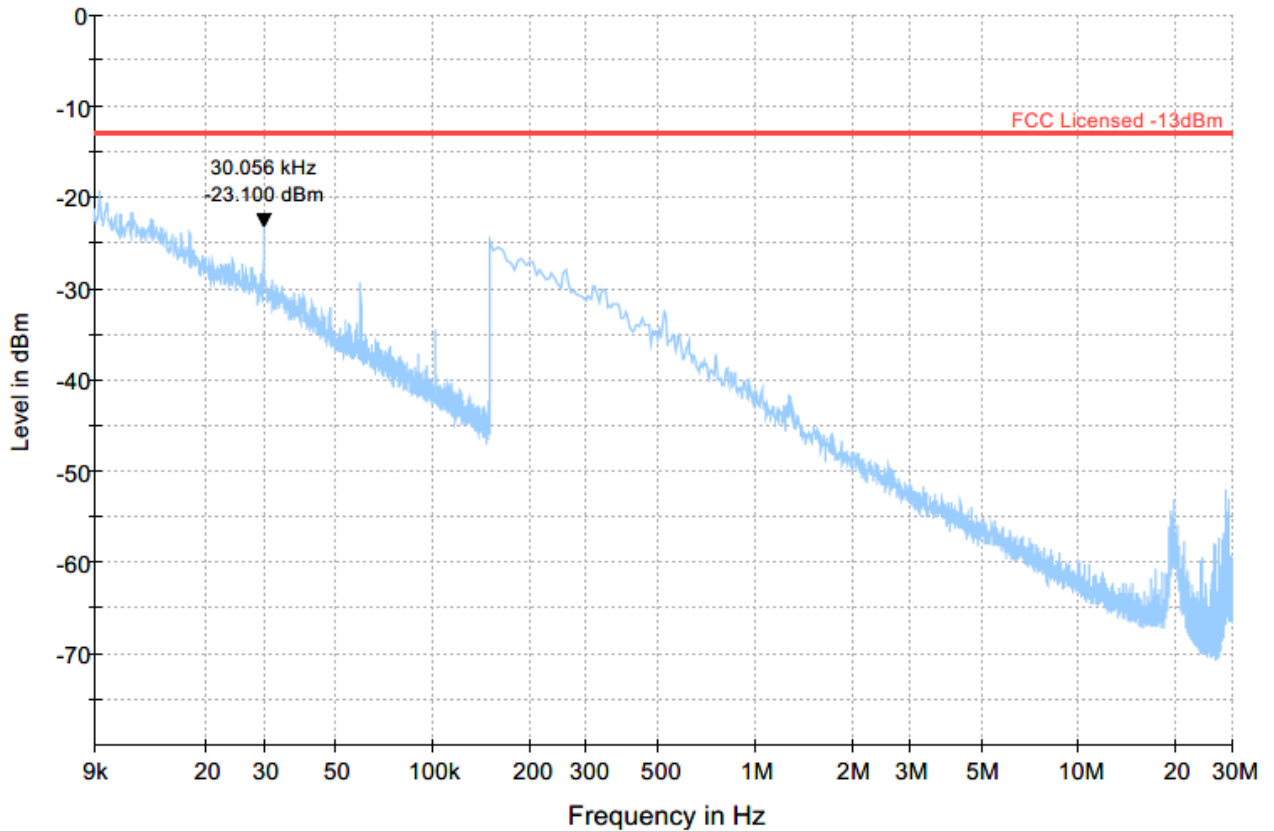


— Preview Result 1-PK+
 — FCC Licensed -13dBm
 ◆ Final_Result RMS
 ◆ Final_Result PK+



Plot #95 Radiated Emissions: 9 kHz – 30 MHz

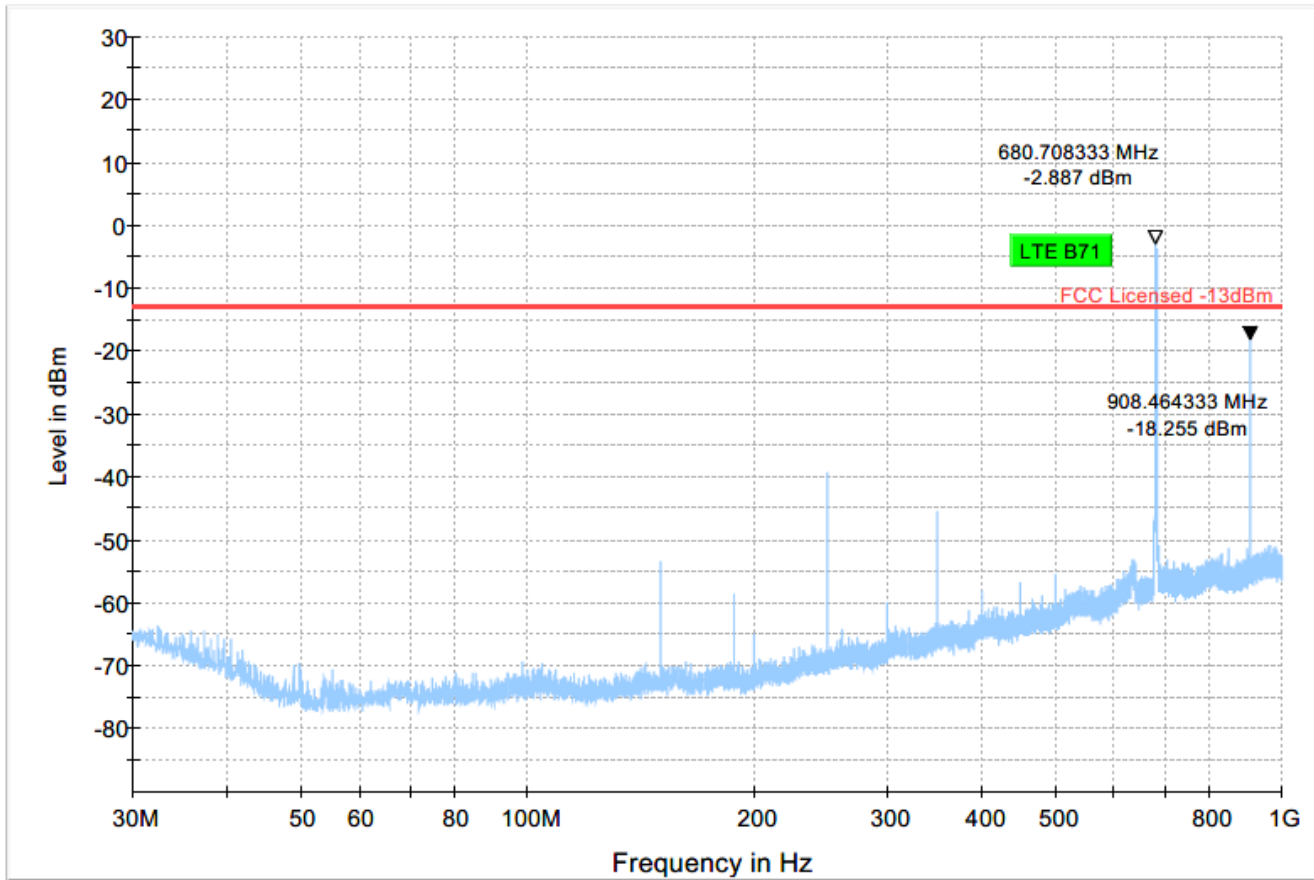
Channel: Mid



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

Plot #96 Radiated Emissions: 30 MHz – 1 GHz

Channel: Mid

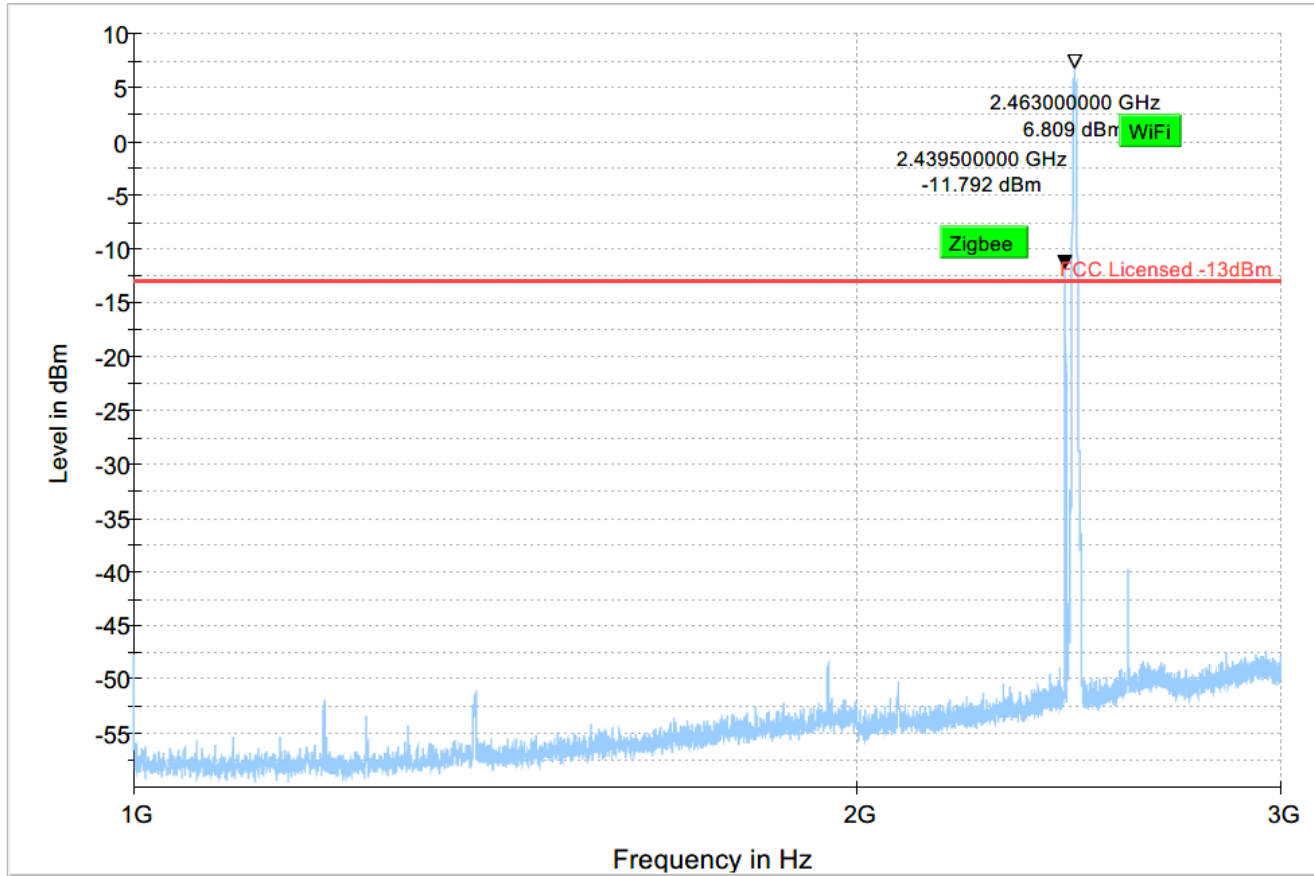


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



Plot #97 Radiated Emissions: 1-3 GHz

Channel: Mid



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

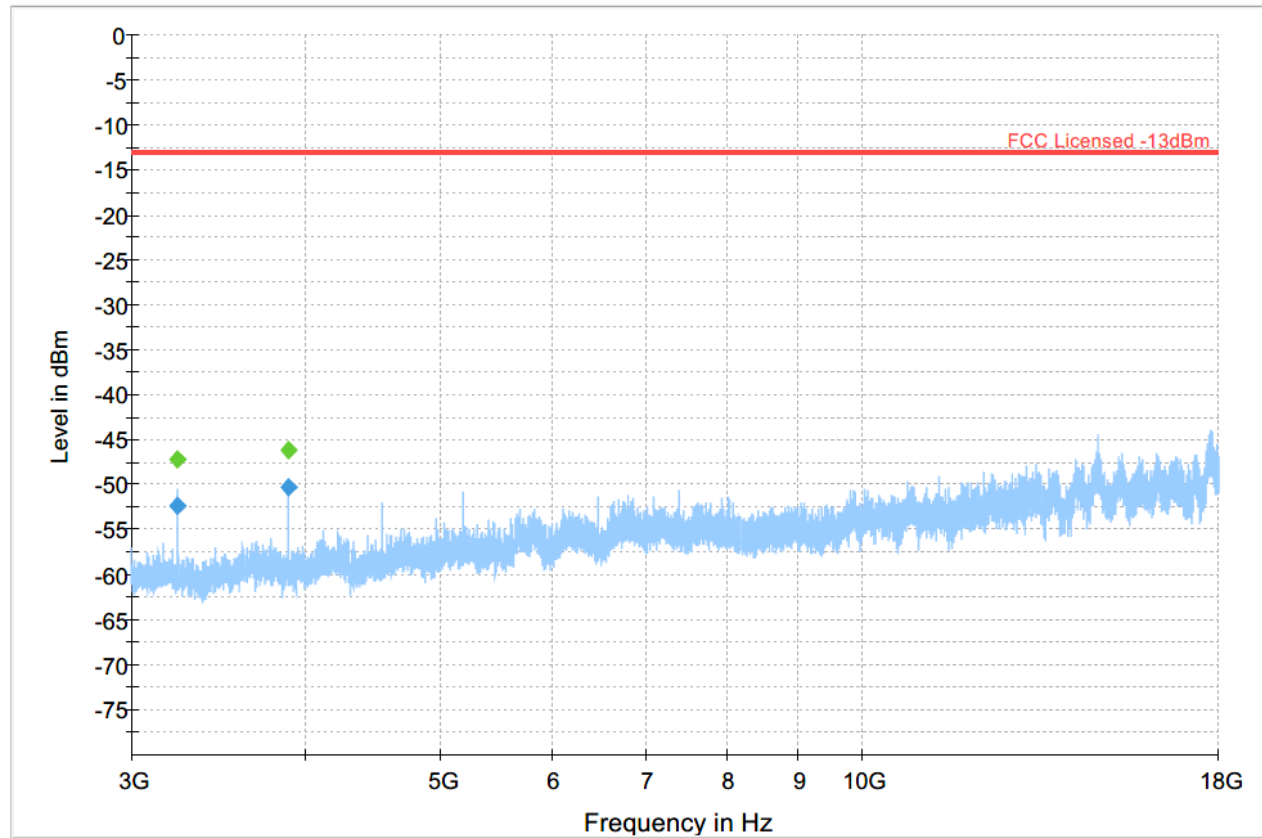


Plot #98 Radiated Emissions: 3-18 GHz

Channel: Mid

Final Result

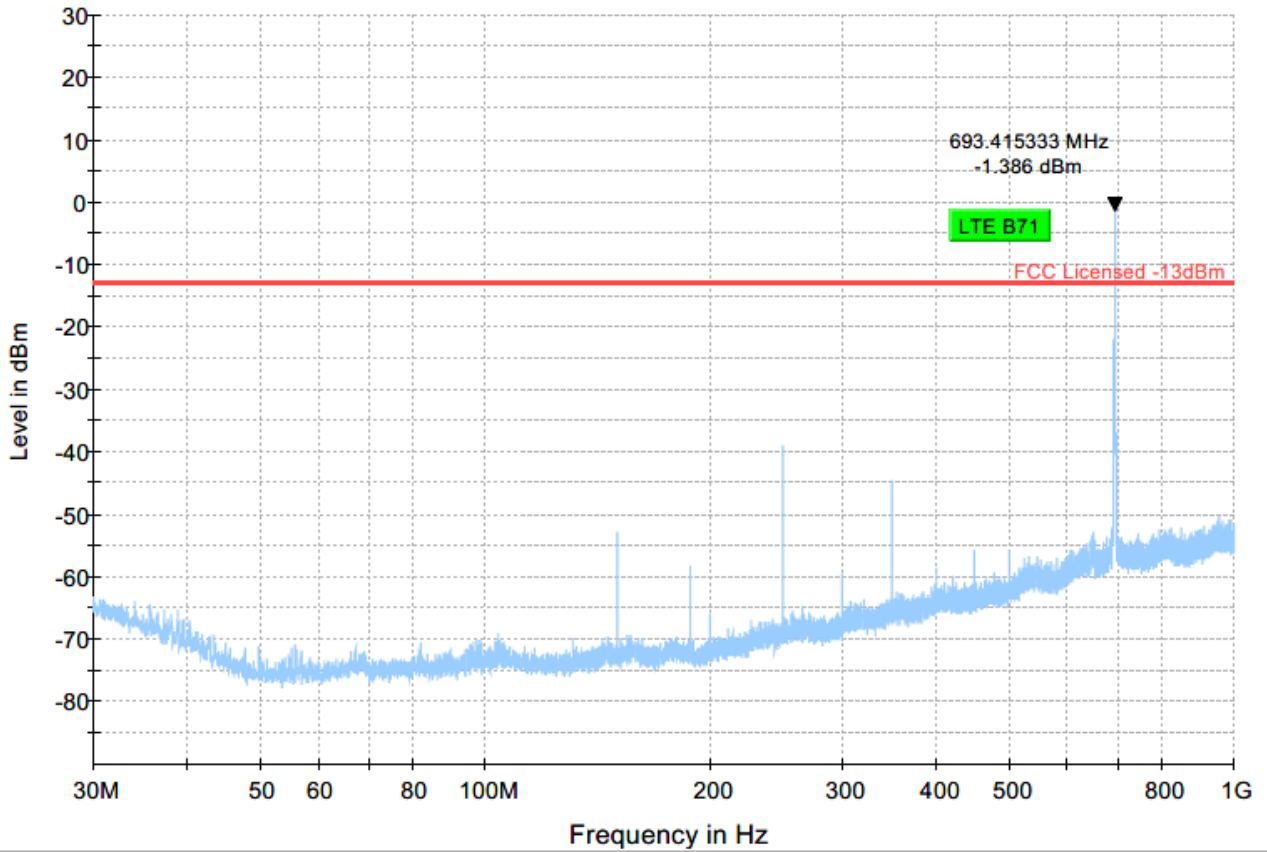
Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3239.750	---	-47.12	---	---	500.0	1000.000	132.0	V	-4.0	-103.9	
3239.750	-52.42	---	-13.00	39.42	500.0	1000.000	132.0	V	-4.0	-103.9	
3888.000	---	-46.21	---	---	500.0	1000.000	134.0	V	148.0	-102.1	
3888.000	-50.36	---	-13.00	37.36	500.0	1000.000	134.0	V	148.0	-102.1	



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

Plot #99 Radiated Emissions: 30 MHz – 1 GHz

Channel: High

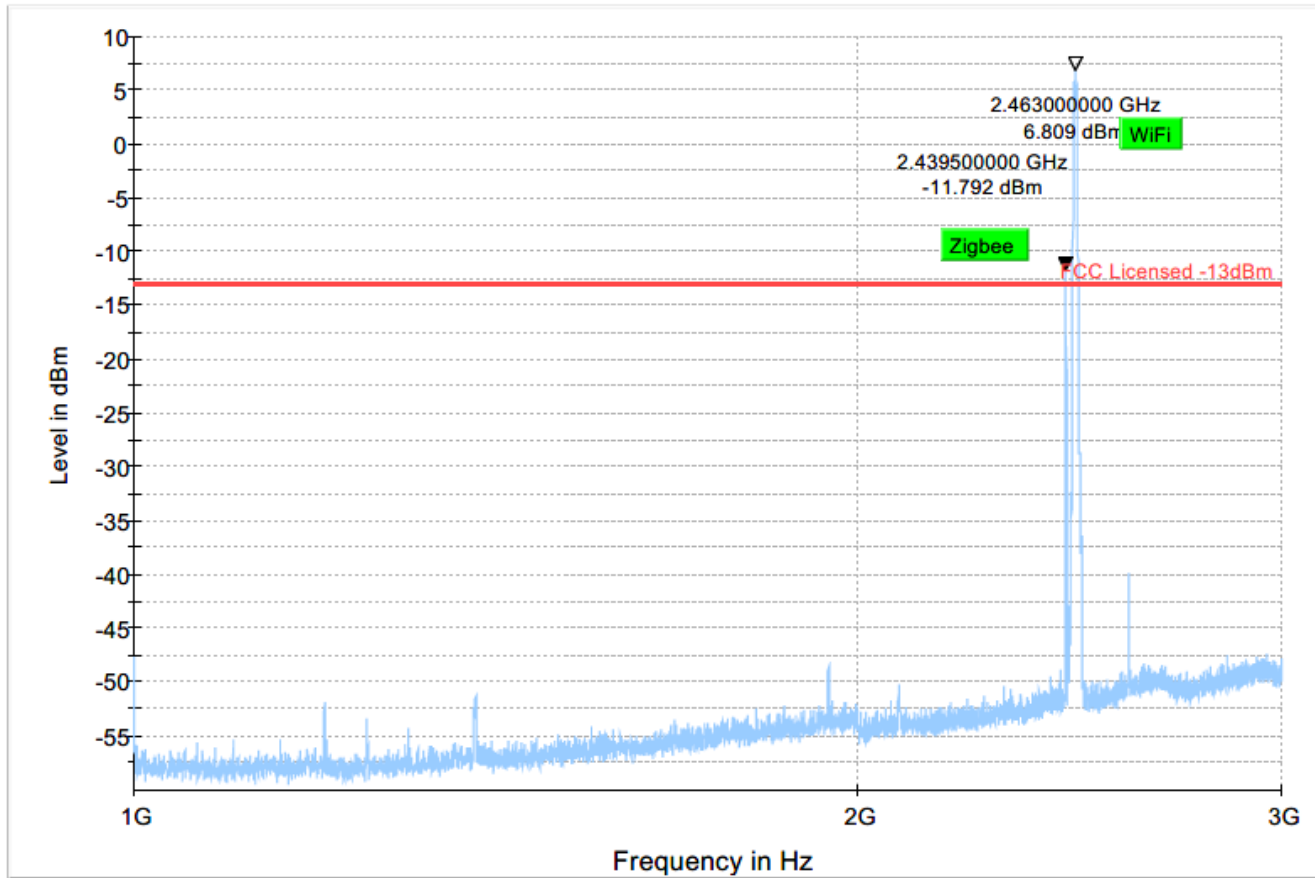


Preview Result 1-PK+ FCC Licensed -13dBm Final_Result RMS



Plot #100 Radiated Emissions: 1-3 GHz

Channel: High



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

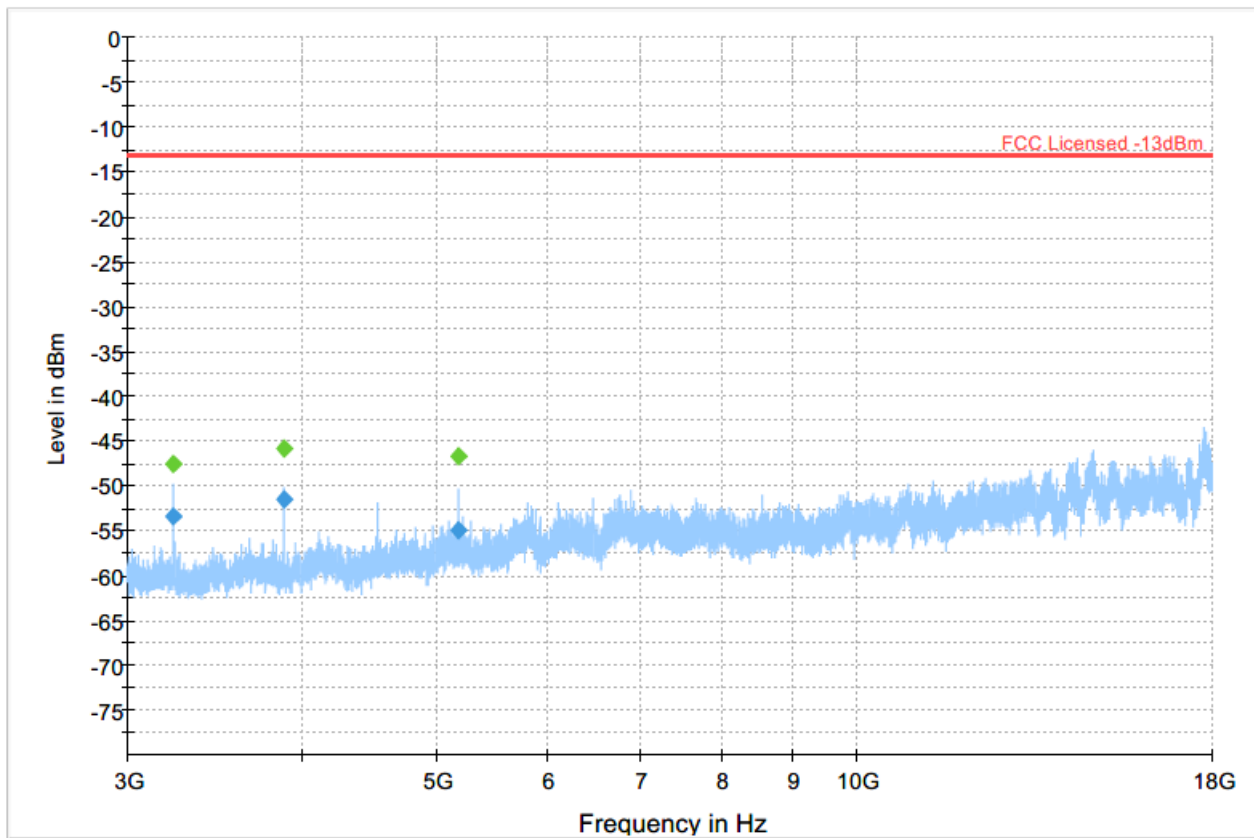


Plot #101 Radiated Emissions: 3-18 GHz

Channel: High

Final Result

Frequency (MHz)	RMS (dBm)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
3239.750	---	-47.55	---	---	500.0	1000.000	150.0	V	172.0	-103.9	
3239.750	-53.35	---	-13.00	40.35	500.0	1000.000	150.0	V	172.0	-103.9	
3887.750	---	-45.81	---	---	500.0	1000.000	200.0	V	127.0	-102.1	
3887.750	-51.49	---	-13.00	38.49	500.0	1000.000	200.0	V	127.0	-102.1	
5183.750	---	-46.77	---	---	500.0	1000.000	186.0	V	149.0	-98.7	
5183.750	-54.89	---	-13.00	41.89	500.0	1000.000	186.0	V	149.0	-98.7	



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

8 Test setup photos

Setup photos are included in supporting file name: "EMC_EZLOI-001-20001_FCC_IC_Setup_photos.pdf"

9 Test Equipment And Ancillaries Used For Testing

Item Name	Equipment Type	Manufacturer	Model	Serial #	Calibration Cycle	Last Calibration Date
Antenna Biconilog 3142E	Biconilog Antenna	EMCO	3142E	166067	3 years	03/12/2020
Magnetic Loop Antenna	Loop Antenna	ETS Lindgren	6507	161344	3 years	10/26/2017
Antenna Horn 3115 SN 35111	Horn Antenna	EMCO	3115	35111	3 years	04/17/2019
Antenna Horn 3116	Horn Antenna	ETS Lindgren	3116	70497	3 years	10/31/2017
Antenna Horn 3117	Horn Antenna	ETS Lindgren	3117-PA	169547	3 years	09/01/2020
FSU26	Spectrum Analyzer	R&S	FSU26	200302	3 years	7/16/2019
LISN	Line Impedance Stabilization Network	FCC	FCC-LISN-50-25-2-08	8014	3 Year	7/19/2019
Thermometer Humidity	Thermometer Humidity	Control Company	36934-164	191871994	2 Year	1/10/2019

Note: Equipment used meets the measurement uncertainty requirements as required per applicable standards for 95% confidence levels. Calibration due dates, unless defined specifically, falls on the last day of the month. Items indicated "N/A" for cal status either do not specifically require calibration or is internally characterized before use.



10 Revision History

Date	Report Name	Changes to report	Report prepared by
2020-10-20	EMC_EZLOI-001-20001_FCC_22_24_27_90	Initial Version	Kevin Wang

<<< The End >>>