FCC/ISED Test Report

FOR:
Juniper Systems, Inc.

Model Name:
MS3

Product Description:
Ultra-rugged handheld computer with Windows 10, providing long battery life, 7-inch touchscreen display, programable keys, 802.11ac, Bluetooth, camera...

FCC ID: VSFMS3
IC ID: 7980A-MS3

Per:
47 CFR: Part 22, Part 24, Part 27
RSS-130; RSS-132 Issue 3; RSS-133 Issue 6; RSS-139 Issue 3

REPORT #: EMC_JUNIP-026-19001_FCC_22_24_27_ISED

DATE: 2019-04-11

A2LA Accredited

IC recognized # 3462B-1

***CETECOM* Inc.**
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CETECOM Inc. is a Delaware Corporation with Corporation number: 2905571

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1 Assessment

The following device as further described in section 3 of this report was evaluated for radiated spurious emissions in simultaneous transmission of cellular and unlicensed radios according to criteria specified in the Code of Federal Regulations Title 47 parts 22, 24, 27 and Industry Canada Radio Standard Specifications RSS: 130, 132 Issue 3, 133 Issue 6 and 139 Issue3.

Company	Description	Model #
Juniper Systems, Inc.	Ultra-rugged handheld computer with Windows 10, providing long battery life, 7-inch touchscreen display, programable keys, 802.11ac, Bluetooth, camera...	MS3

No deficiencies were ascertained.

Responsible for Testing Laboratory:

Date	Section	Name	Signature
2019-04-11	Compliance	Cindy Li (Lab Manager)	Cindy Li Digitally signed by Cindy Li DN: cn=Cindy Li, o=Cetecom Inc., ou=EMC, email=cindy.li@cetecom.com, c=US Date: 2019.04.11 17:10:04 -07'00'

Responsible for the Report:

Date	Section	Name	Signature
2019-04-11	Compliance	Yuchan Lu (Test Engineer)	Yuchan Lu Digitally signed by: Yuchan Lu DN: CN = Yuchan Lu email = Yuchan.Lu@cetecom.com C = US O = CETECOM Inc. OU = EMC Date: 2019.04.11 16:47:53 -07'00'

The test results of this test report relate exclusively to the test item specified in Section3.
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
Lab Manager:	Cindy Li
Responsible Project Leader:	Sangeetha Sivaraman

2.2 Identification of the Client

Applicant's Name:	Juniper Systems, Inc.
Street Address:	1132 W 1700 N
City/Zip Code	Logan, UT 84321
Country	USA

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

Firmware Version Identification Number (FVIN):	MS3_SW_00
Hardware Version Identification Number (HVIN):	MS3
Product Marketing Name (PMN):	Mesa 3
Antenna (Primary & Diversity) Information as declared:	Primary antenna gains: • WCDMA II: 2 dBi • WCDMA IV: 1.3 dBi • WCDMA V: -1.2 dBi • LTE Band 4: 1.3 dBi • LTE Band 7: 1.9 dBi • LTE Band 12: -2.3 dBi • LTE Band 13: -1.2 dBi • LTE Band 25: 2 dBi • LTE Band 26: -1.2 dBi • LTE TDD Band 41: 2.6 dBi
Other Radios included in the device:	❖ WiFi, Bluetooth • Module number: HS2B56 ❖ GPS • Module number: NEO-M8N ❖ Bluetooth Long Range(Optional) • Module name: WT41 • Module number: WT41u-E • FCC/IC ID: QOQWT41U ❖ RFID(Optional) • Module number: M6e-Nano & M6e-Micro • FCC/IC ID: VSF25589,7980A-25589 & VSF26593,7980A-26593
Power Supply/ Rated Operating Voltage Range:	Battery: Vmin: 6 VDC/ Vnom: 7.3 VDC / Vmax: 7.3 VDC Charger: Vmin: 9.9 VDC/ Vnom: 12 VDC / Vmax: 15.6 VDC
Operating Temperature Range:	Low -20º C, Nominal 20º C, High 50º C
Sample Revision	☐Prototype Unit; ■Production Unit; ☐Pre-Production
EUT Dimensions(mm):	137 x 215 x 35
Weight(grams):	2 LBs
EUT Diameter	■ < 60 cm ☐ Other _____

Module Information	
Module Name:	EM7455
Model Number:	EM7455
FCC/IC ID:	N7NEM7455 / VSF28015 / 2417C-EM7455 / 7980A-28015

3.2 EUT Sample details

EUT #	IMEI number	HW Version	SW Version	Notes/Comments
1	359073060715947	MS3_00	MS3_SW_00	Radiated Measurement

3.3 Accessory Equipment (AE) Details

AE #	Comments
1	AC Adapter, Manufacture: SWITCHING POWER SUPPLY, Model: PSAA30R -120

3.4 Test Sample Configuration

EUT Set-up #	Combination of AE used for test set up	Comments
1	EUT# 1 + AE# 1	Worst Case

3.5 Mode of Operation details

Mode of Operation	Description of Operating modes	Additional Information
Op. 1	Cellular and WLAN Co-Transmission	Cellular was tested on Low, Mid, High Channels at the maximum power in a co-transmission mode. Special commands through command window used to configure the WLAN radio to 802.11g, 6Mbps, Mid channel, Both Chains On provided by the client that will not be available to the end user For radiated measurements: The internal antenna was connected.

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 WLAN radio 802.11g, 6Mbps, Mid channel, Both Chains On. Which it 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 evaluation conducted by CETECOM Inc. is to support a request for new equipment authorization under **FCC ID:** VSFMS3/ **IC ID**: 7980A-MS3.

The pre-certified module to be integrated (SW WP7603) as described in Section 3, Radiated Spurious Emissions test was performed. Results have been checked to meet limits per Code of Federal Regulations Title 47 parts 22, 24, 27 and Industry Canada Radio Standard Specifications RSS: 130, 132 Issue 3, 133 Issue 6 and 139 Issue 3.

The conducted module test data that can be obtained under the **FCC Filing ID:** N7NEM7455 is applicable for the host described in section 3.

4.1 Dates of Testing:

03/26/2019 – 03/27/2019

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)

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%

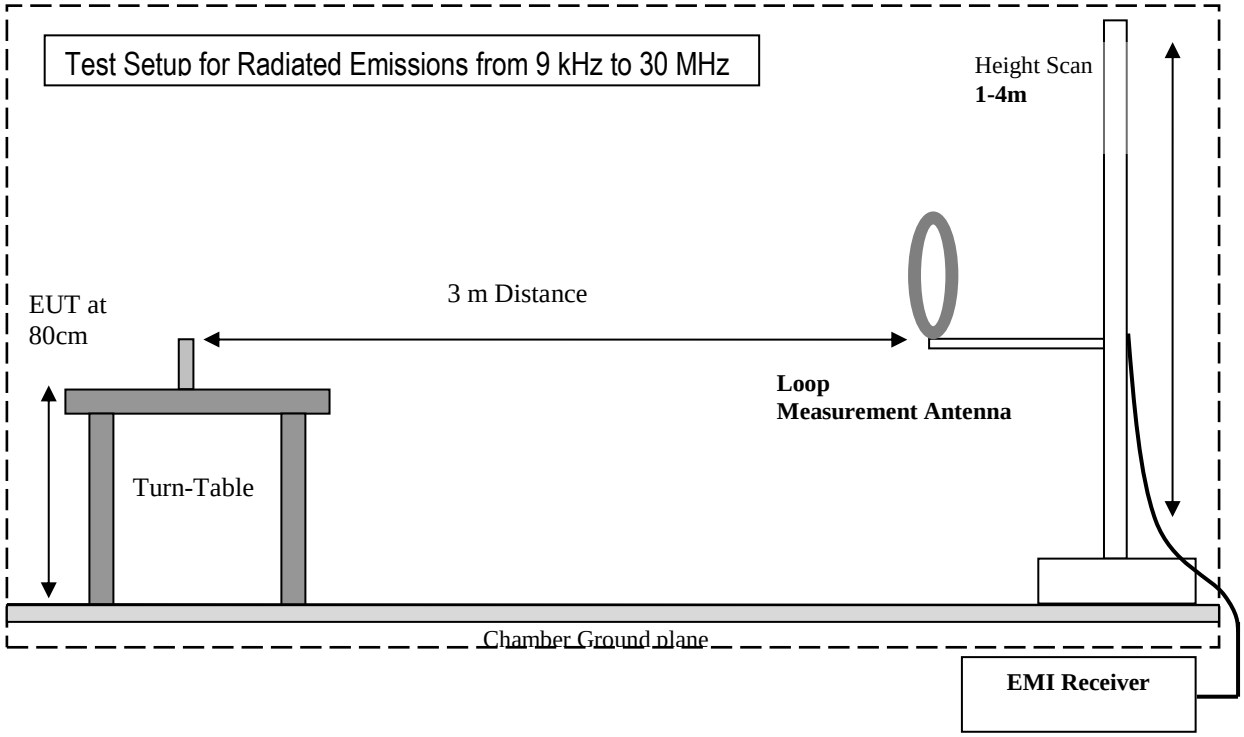
Deviating test conditions are indicated at individual test description where applicable.

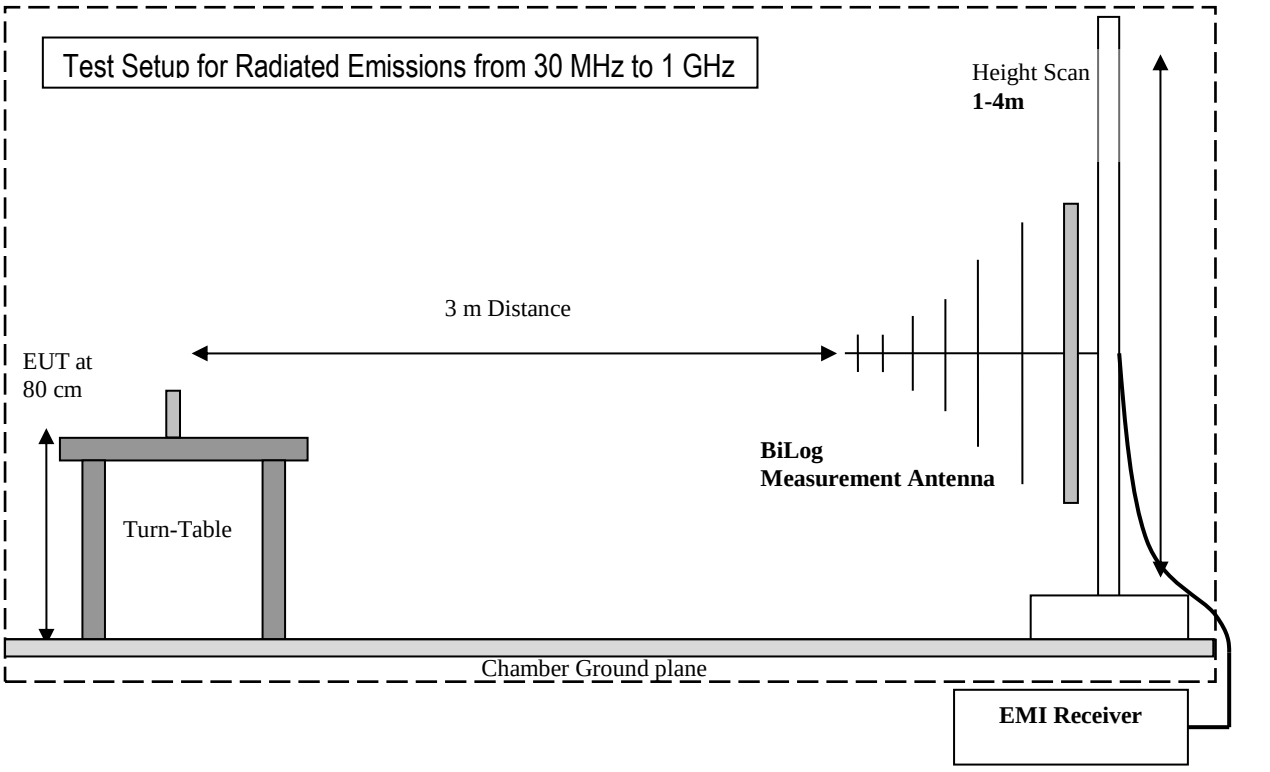
5 Measurement Procedures

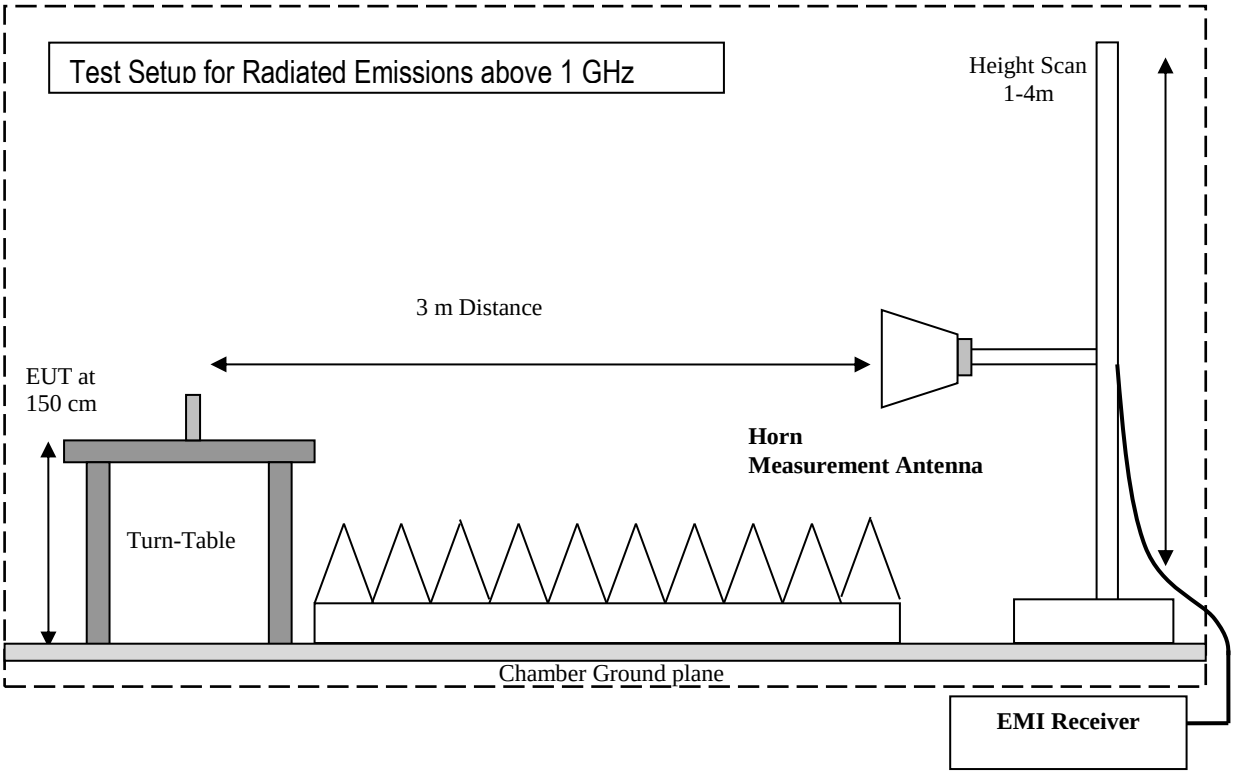
Testing is performed according to the guidelines provided in FCC publication (KDB) 971168 D01 v03 – "Measurement Guidance for Certification of Licensed Digital Transmitters" and according to ANSI C63.26 as detailed below.

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.




Test Setup for Radiated Emissions from 30 MHz to 1 GHz
Height Scan
1-4m
3 m Distance
EUT at
80 cm
BiLog
Measurement Antenna
Turn-Table
Chamber Ground plane
EMI Receiver


Test Setup for Radiated Emissions above 1 GHz
Height Scan
1-4m
3 m Distance
EUT at
150 cm
Horn
Measurement Antenna
Turn-Table
Chamber Ground plane
EMI Receiver

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 (dBµV/m) = Measured Value on SA (dBµV)- Cable Loss (dB)+ 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 FCC 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	-	☐	☐	☐	■	Note 1 Note 2
§2.1055; §22.355	Frequency Stability	Nominal	-	☐	☐	☐	■	Note 1 Note 2
§2.1049; §22.917	Occupied Bandwidth	Nominal	-	☐	☐	☐	■	Note 1 Note 2
§2.1051; §22.917	Band Edge Compliance	Nominal	-	☐	☐	☐	■	Note 1 Note 2
§2.1051; §22.917	Conducted Spurious Emissions	Nominal	-	☐	☐	☐	■	Note 1 Note 2
§2.1053; §22.917(a); RSS-132 Issue 3-5.5;	Radiated Spurious Emissions	Nominal	Op.1	■	☐	☐	☐	Complies

Note 1: NA= Not Applicable; NP= Not Performed.
Note 2: Leveraged from module certification FCC ID: N7NEM7455

6.2 FCC 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	-	☐	☐	☐	■	Note 1 Note 2
§2.1055; §24.235	Frequency Stability	Nominal	-	☐	☐	☐	■	Note 1 Note 2
§2.1049; §24.238	Occupied Bandwidth	Nominal	-	☐	☐	☐	■	Note 1 Note 2
§2.1051; §24.238	Band Edge Compliance	Nominal	-	☐	☐	☐	■	Note 1 Note 2
§2.1051; §24.238	Conducted Spurious Emissions	Nominal	-	☐	☐	☐	■	Note 1 Note 2
§2.1053; §24.238(a); RSS-133 Issue 6-6.5.1;	Radiated Spurious Emissions	Nominal	Op.1	■	☐	☐	☐	Complies

Note 1: NA= Not Applicable; NP= Not Performed.
Note 2: Leveraged from module certification FCC ID: N7NEM7455

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 (d)	RF Output Power	Nominal	-	☐	☐	☐	■	Note 1 Note 2
§2.1055; §27.54	Frequency Stability	Nominal	-	☐	☐	☐	■	Note 1 Note 2
§2.1049; §27.53	Occupied Bandwidth	Nominal	-	☐	☐	☐	■	Note 1 Note 2
§2.1051; §27.53	Band Edge Compliance	Nominal	-	☐	☐	☐	■	Note 1 Note 2
§2.1051; §27.53	Conducted Spurious Emissions	Nominal	-	☐	☐	☐	■	Note 1 Note 2
§2.1053; §27.53(g); §27.53(h); RSS-130 Issue 1-4.6; RSS-139 Issue 3-6.6;	Radiated Spurious Emissions	Nominal	Op.1	■	☐	☐	☐	Complies

Note 1: NA= Not Applicable; NP= Not Performed.
Note 2: Leveraged from module certification FCC ID: N7NEM7455

7 Test Result Data

7.1 ERP

Band	Frequency (MHz)	Power conducted (W)	Emission Designator	Gain (dBi)	gain linear	EIRP (W]	ERP (W)	Frequency deviation (ppm)	Limit ERP (W)
WCDMA II	1850 - 1910	0.231	4M14G7D	2	1.585	0.366	-	2.5	2
WCDMA IV	1710 - 1755	0.221	4M14G7D	1.3	1.349	0.298	-	2.5	1
WCDMA V	824 - 849	0.224	4M14G7D	-1.2	0.759	0.170	0.104	2.5	7
LTE 4	1710 - 1755	0.251	13M4G7D	1.3	1.349	0.339	-	2.5	1
LTE 4	1710 - 1755	0.186	17M9G7D	1.3	1.349	0.251	-	2.5	1
LTE 7	2500 - 2570	0.196	8M91G7D	1.9	1.549	0.304	-	2.5	2
LTE 7	2500 - 2570	0.133	17M9G7D	1.9	1.549	0.206	-	2.5	2
LTE 12	699 – 716	0.248	8M91G7D	-2.3	0.589	0.146	0.089	2.5	3
LTE 13	777 - 787	0.247	8M91G7D	-1.2	0.759	0.187	0.114	2.5	3
LTE 25	1850 - 1915	0.251	8M49G7D	2	1.585	0.398	-	2.5	2
LTE 25	1850 - 1915	0.248	17M9G7D	2	1.585	0.393	-	2.5	2
LTE 26	814 - 849	0.25	8M94G7D	-1.2	0.759	0.190	0.116	2.5	7
LTE 26	814 - 849	0.144	13M5W7D	-1.2	0.759	0.109	0.067	2.5	7
LTE 41	2496 - 2690	0.197	17M8G7D	2.6	1.820	0.358	-	2.5	2

Note: ERP are calculated from maximum power in grant of cellular module EM7455 adding the maximum gain of the utilized cellular antenna per operational description.

7.2 Radiated Spurious Emissions

7.2.1 Measurement according to FCC: CFR 47 Part 2.1053; CFR Part 22.917; CFR Part 24.238, Part 27.53 utilizing KDB 971168 D01 Power Meas License Digital Systems v03, and according to ANSI C63.26 2017

Spectrum Analyzer Settings for FCC 22

Frequency Range	30 MHz – 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

7.2.2 Limits:

- **FCC Part 22.917(a) and Part 24.238(a), Part 27.53 (g), and Part 27.53 (h)**
- **RSS-130-4.6, RSS-132 Issue 3 5.5, RSS-133 Issue 6 6.5.1, RSS-139 Issue 3 6.6**

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 = (-13dBm)

7.2.3 Test conditions and setup:

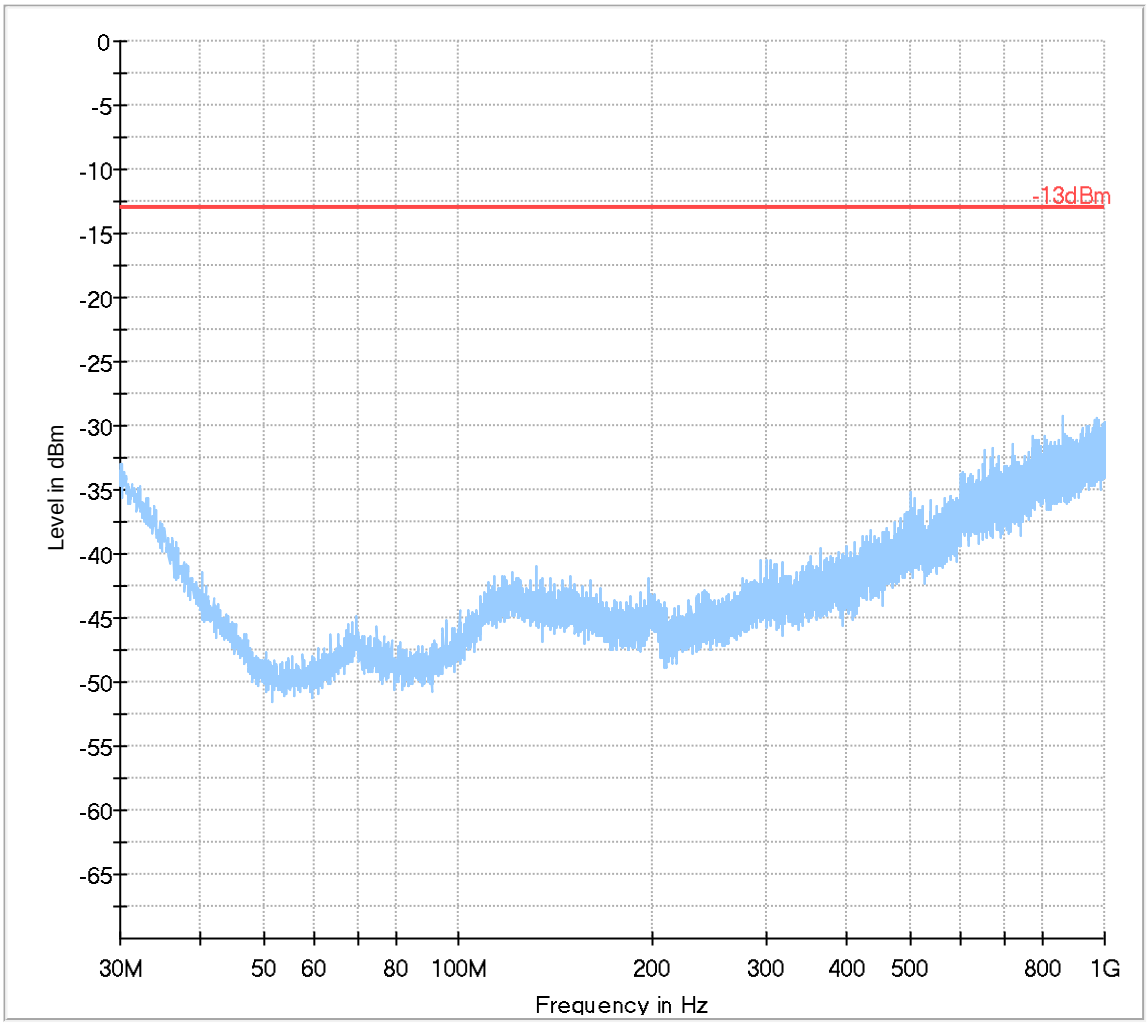
Ambient Temperature (C)	**EUT operating mode**	**Power Input**
22	Op. 1	110 VAC

7.2.4 Measurement Plots:

WCDMA Band II

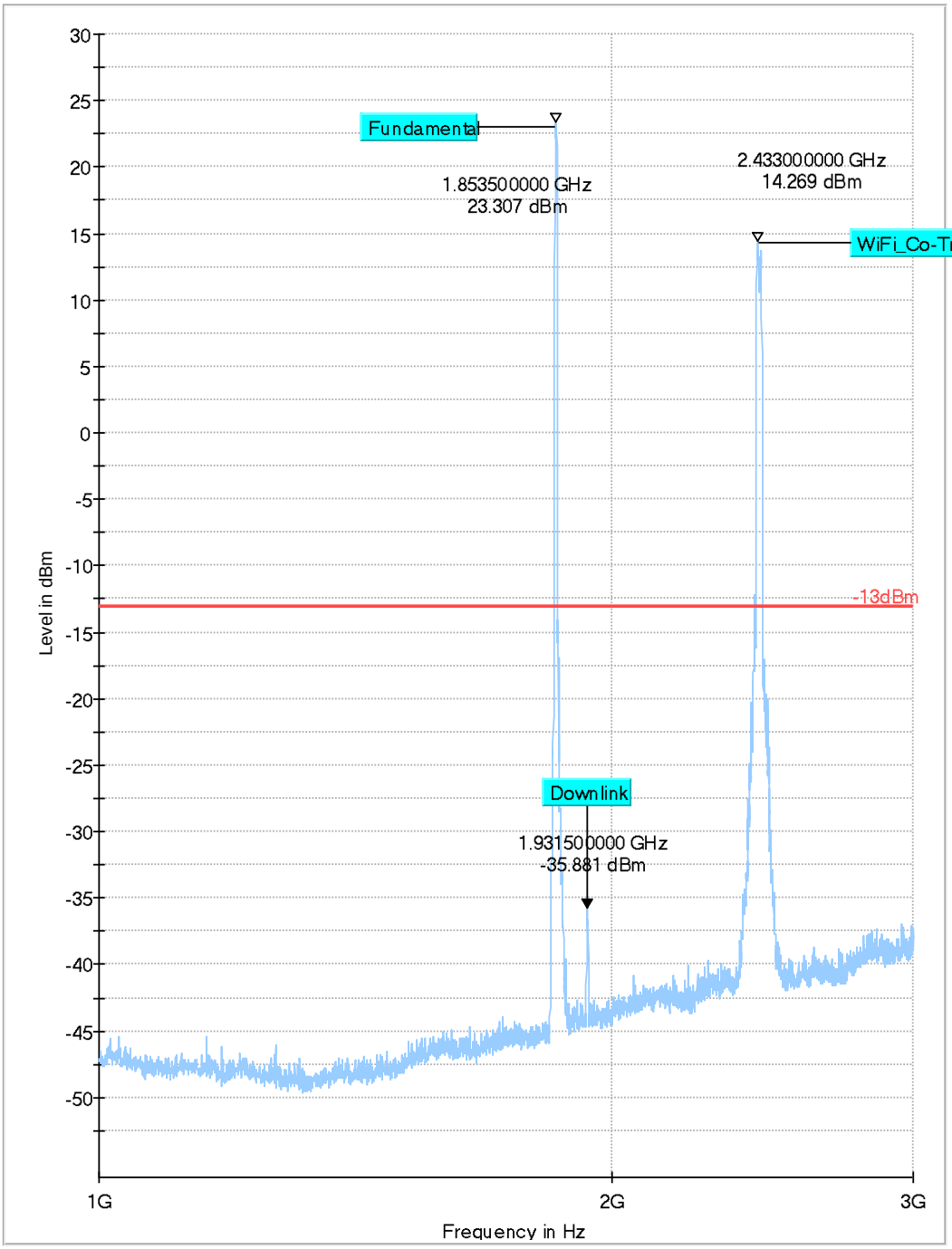
Plot # 1 Radiated Emissions: 30 MHz - 1 GHz

Channel: Low



Plot # 2 Radiated Emissions: 1 GHz - 3 GHz

Channel: Low



Plot # 3 Radiated Emissions: 3 GHz - 18 GHz

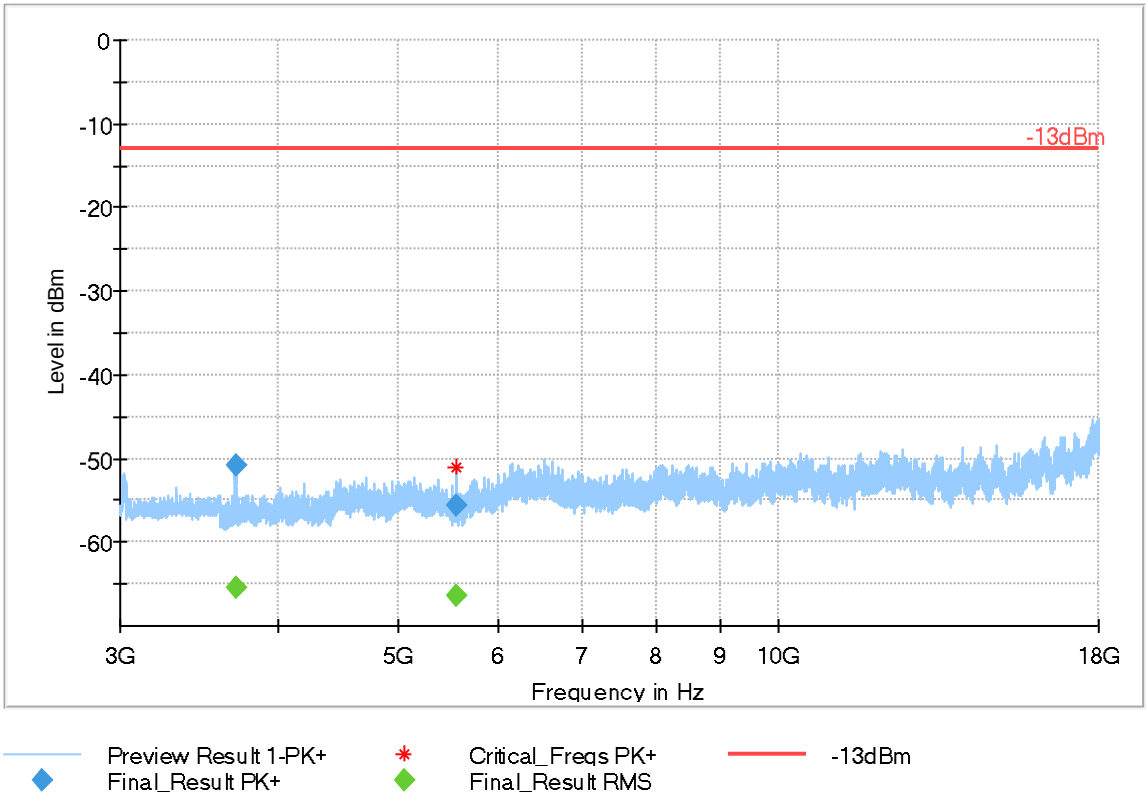
Channel: Low

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
3706.409333	---	-65.43	---	---	100.0	1000.000	151.0	H	291.0	-101.8
3706.409333	-50.75	---	-13.00	37.75	100.0	1000.000	151.0	H	291.0	-101.8
5555.588333	---	-66.41	---	---	100.0	1000.000	231.0	V	285.0	-99.7
5555.588333	-55.60	---	-13.00	42.60	100.0	1000.000	231.0	V	285.0	-99.7

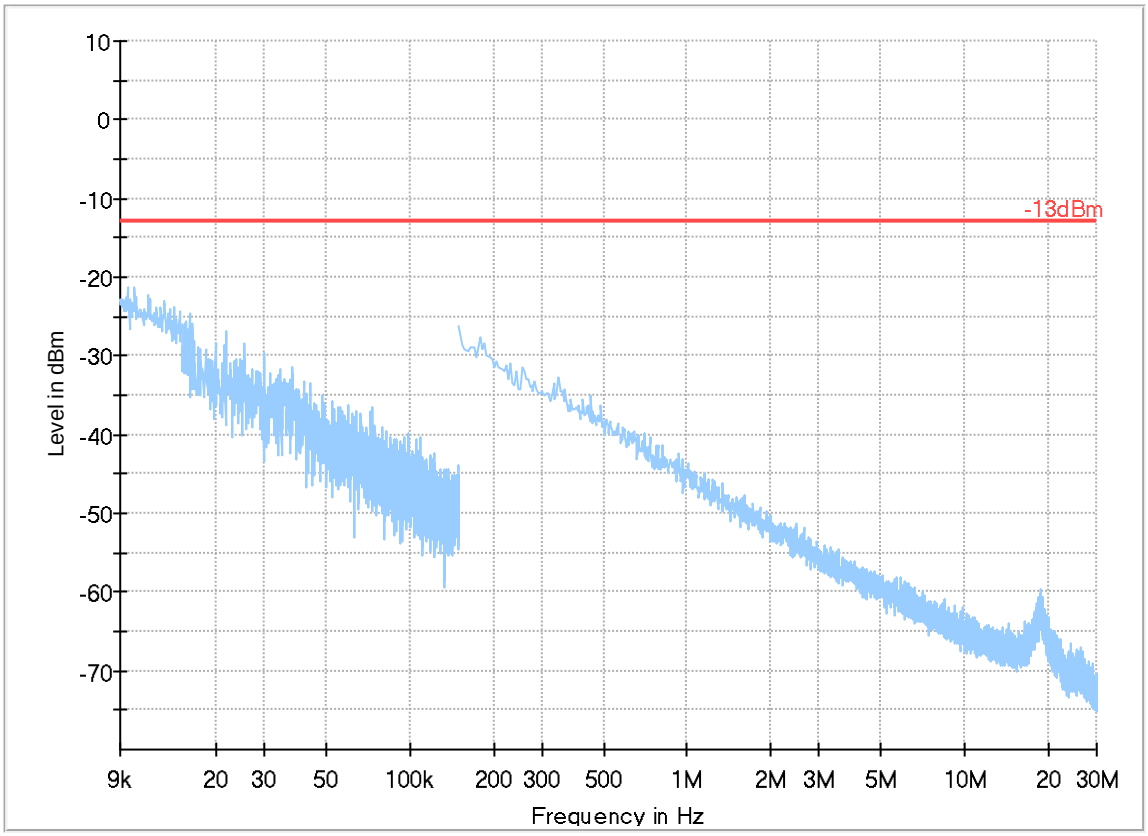
(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
3706.409333	10:13:55 AM - 3/27/2019
3706.409333	10:13:55 AM - 3/27/2019
5555.588333	10:15:43 AM - 3/27/2019
5555.588333	10:15:43 AM - 3/27/2019



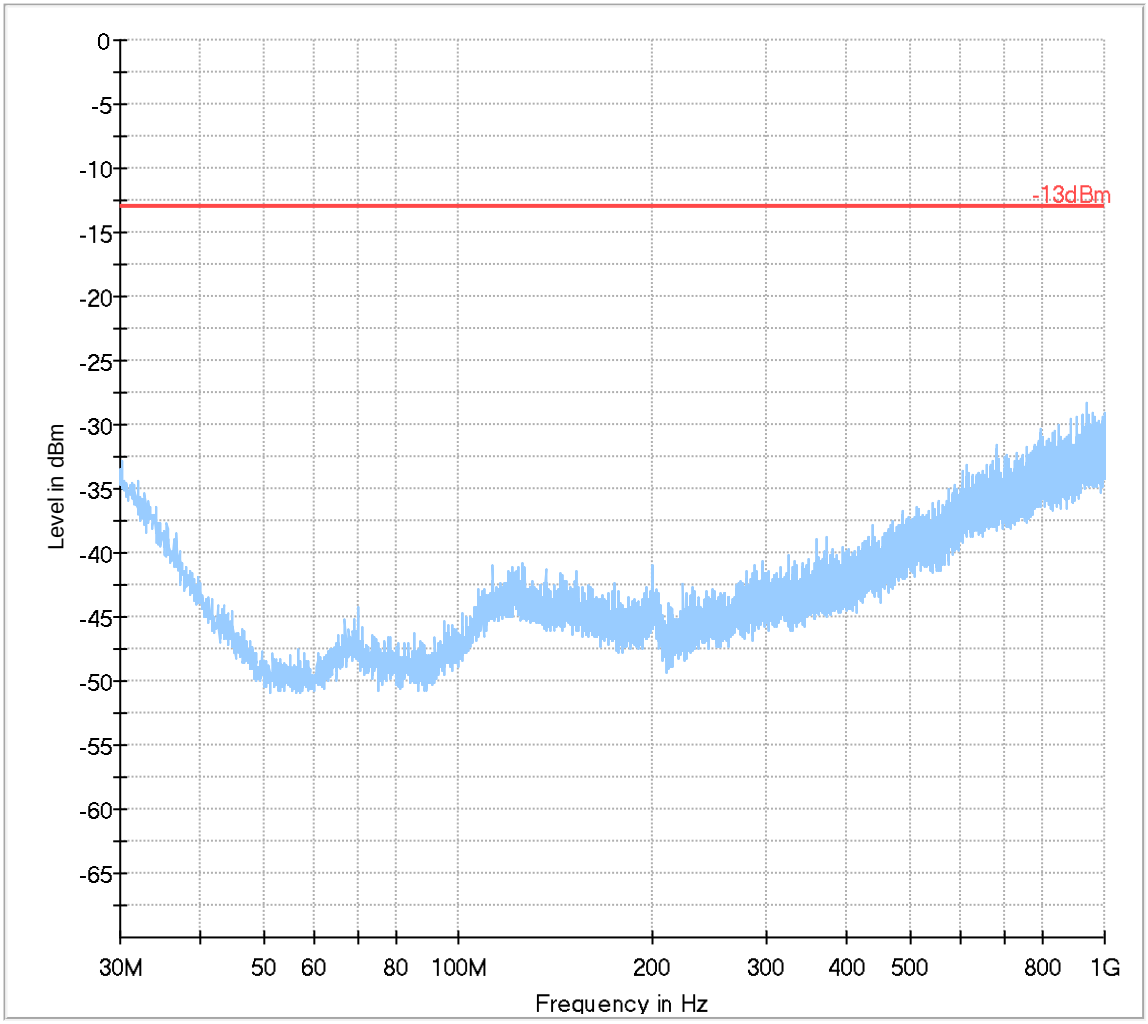
Plot # 4 Radiated Emissions: 9 kHz - 30 MHz

Channel: Mid



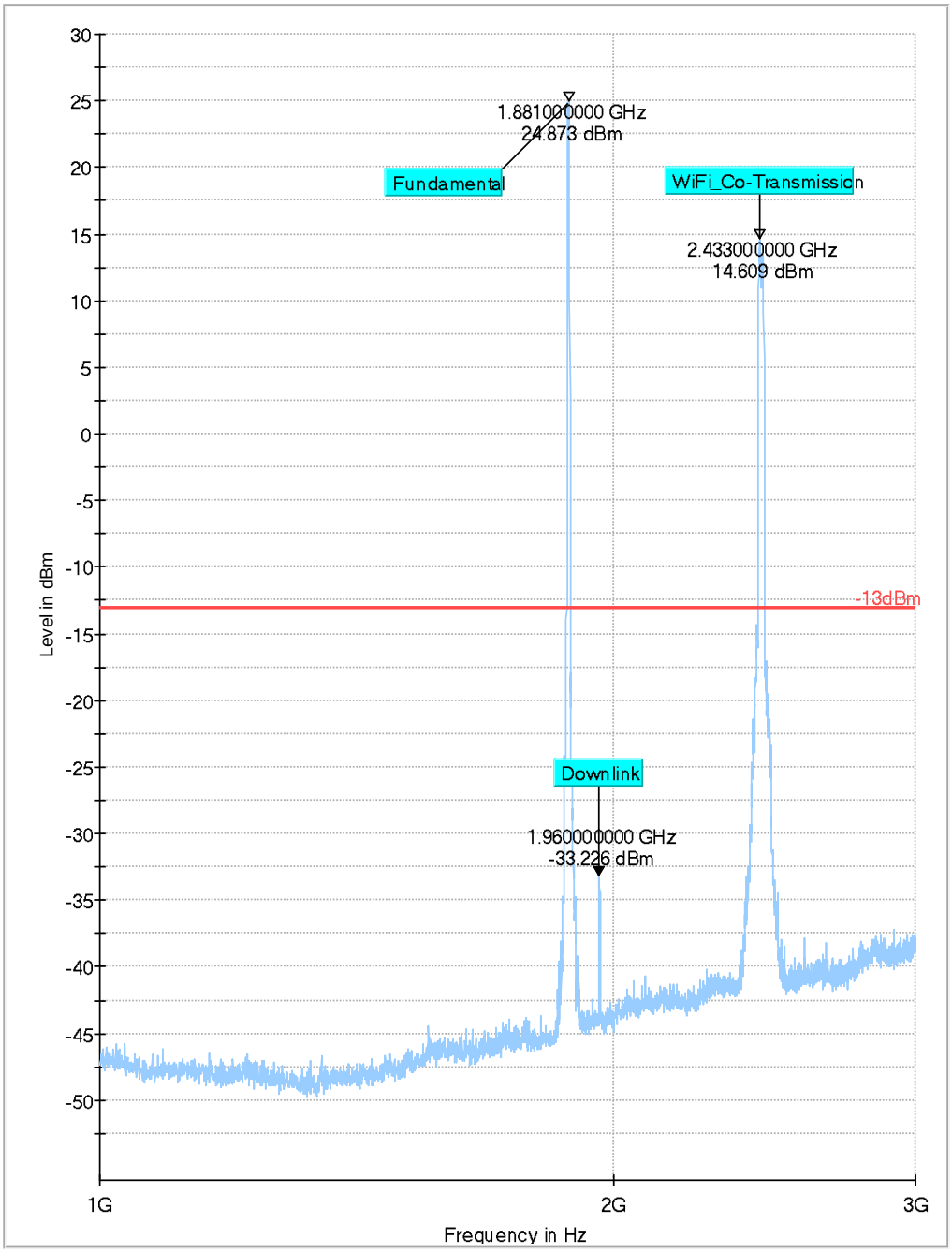
Plot # 5 Radiated Emissions: 30 MHz – 1GHz

Channel: Mid



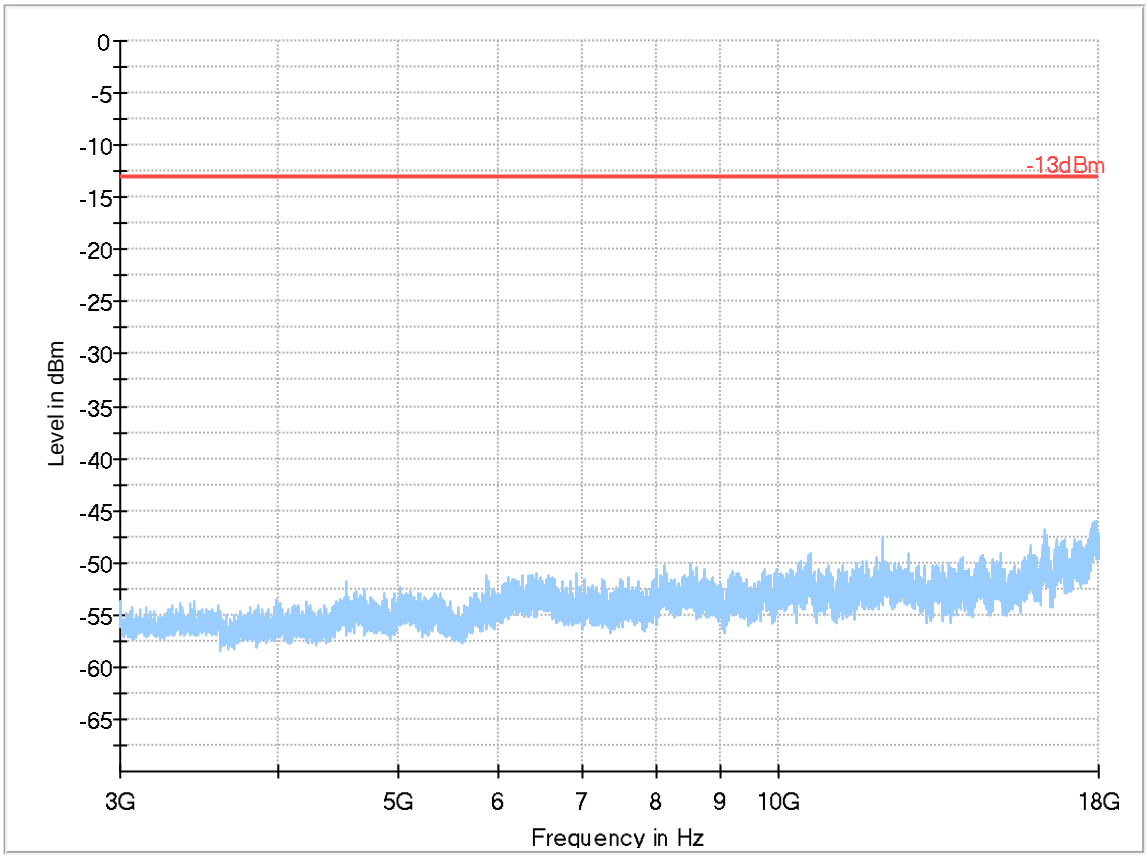
Plot # 6 Radiated Emissions: 1 GHz - 3 GHz

Channel: Mid



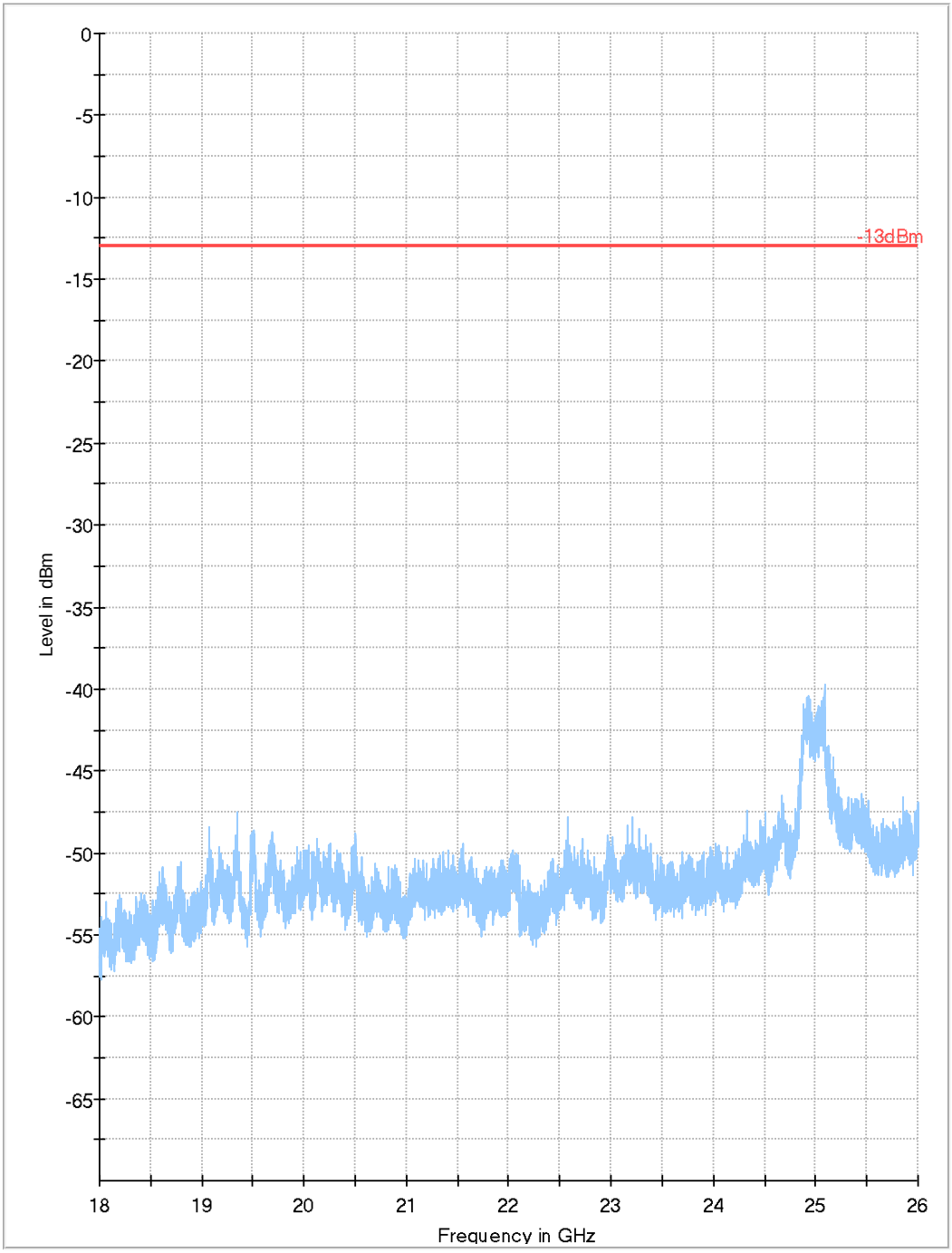
Plot # 7 Radiated Emissions: 3 GHz – 18 GHz

Channel: Mid



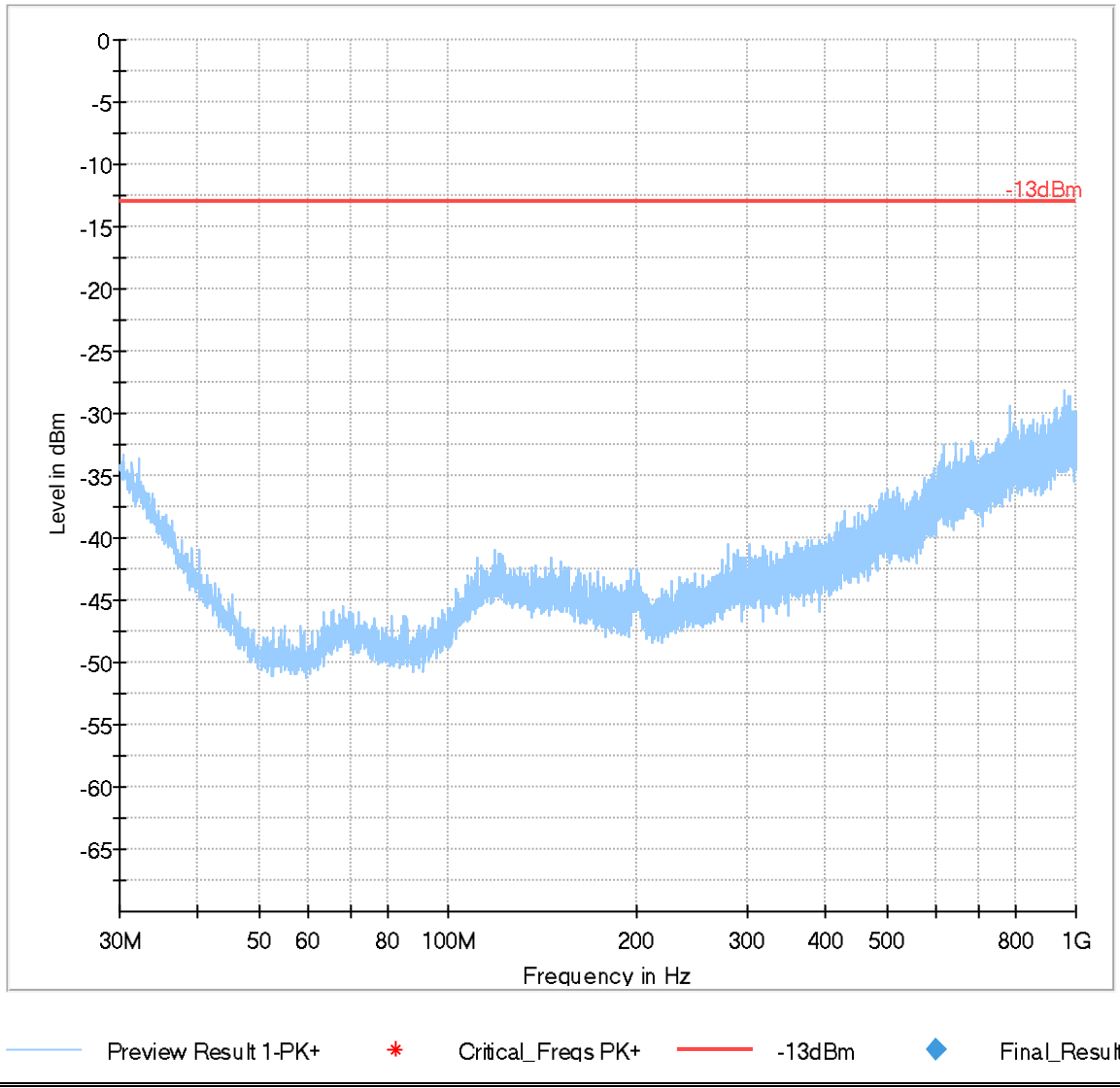
Plot # 8 Radiated Emissions: 18 GHz – 26 GHz

Channel: Mid



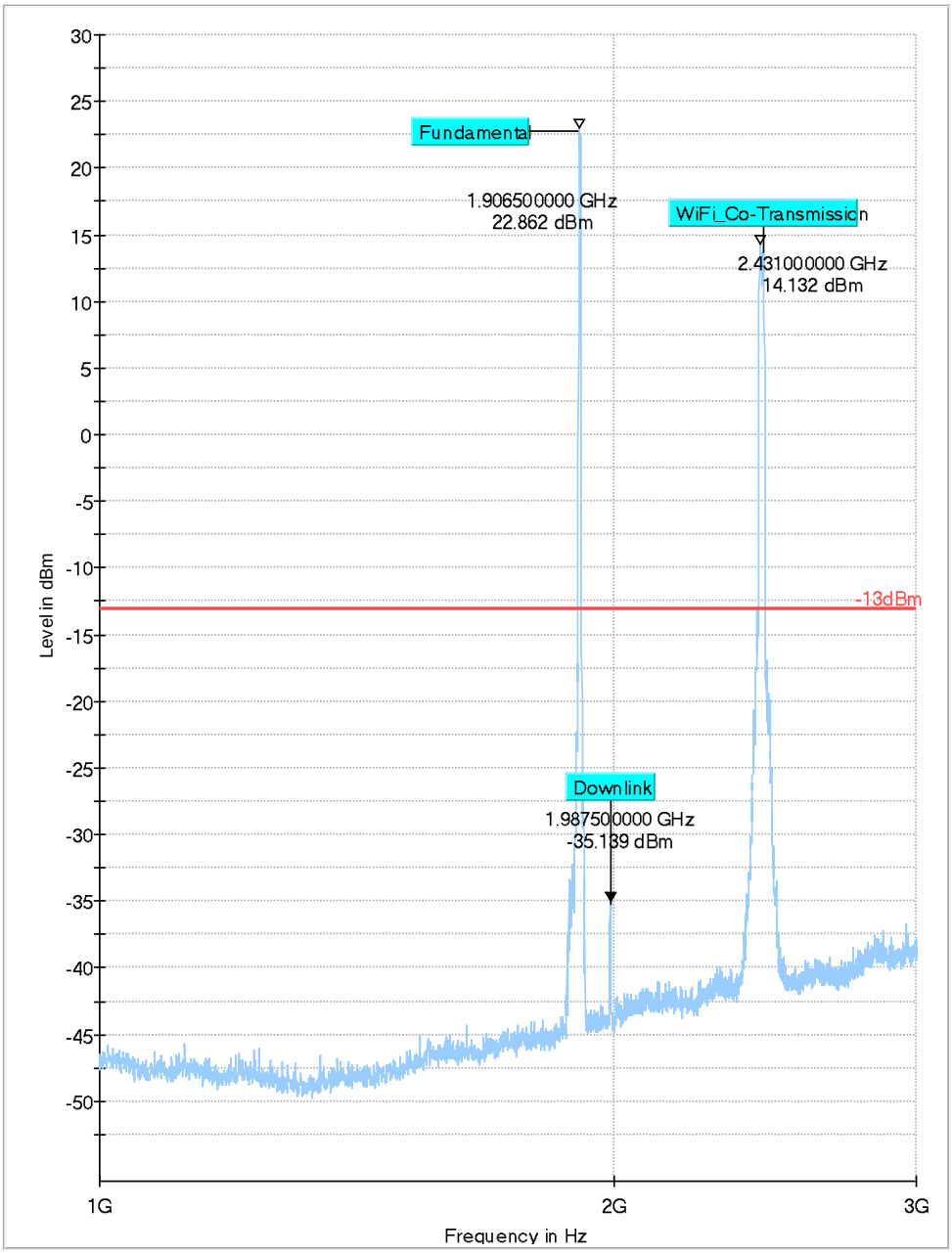
Plot # 9 Radiated Emissions: 30 MHz - 1 GHz

Channel: High



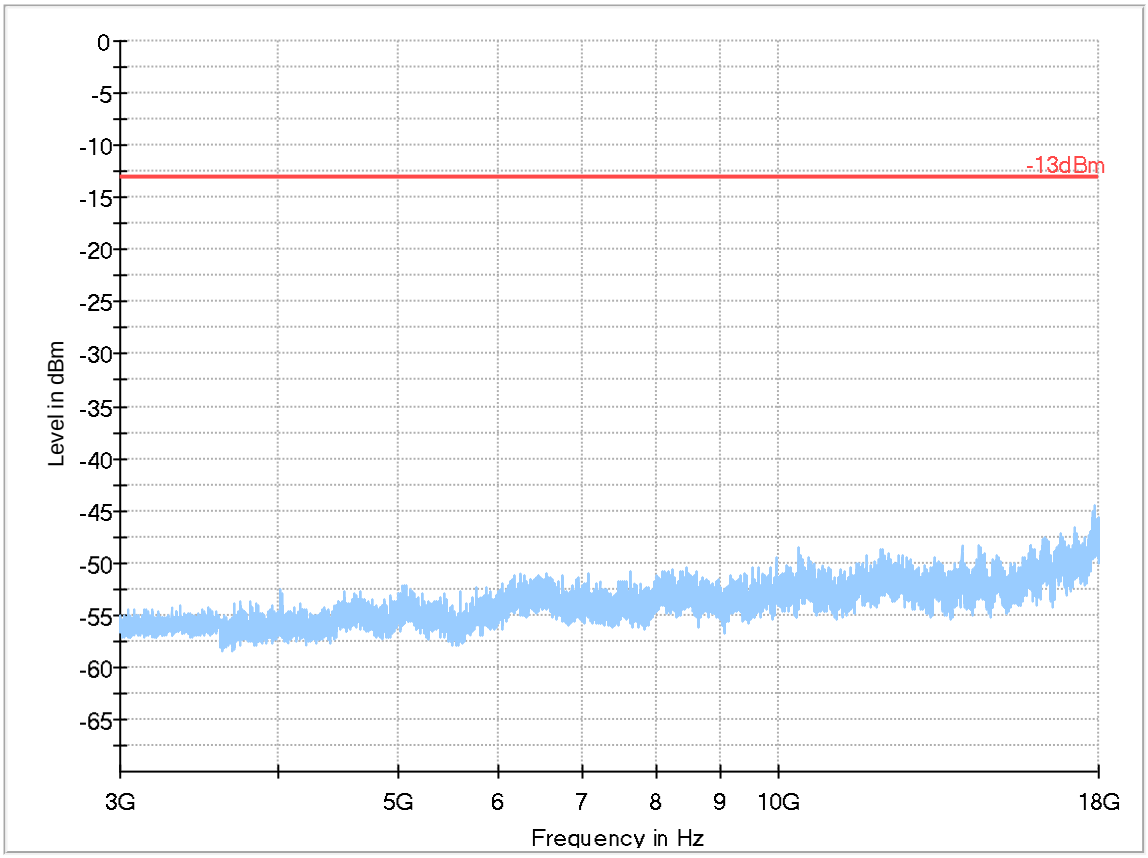
Plot # 10 Radiated Emissions: 1 GHz - 3 GHz

Channel: High



Plot # 11 Radiated Emissions: 3 GHz - 18 GHz

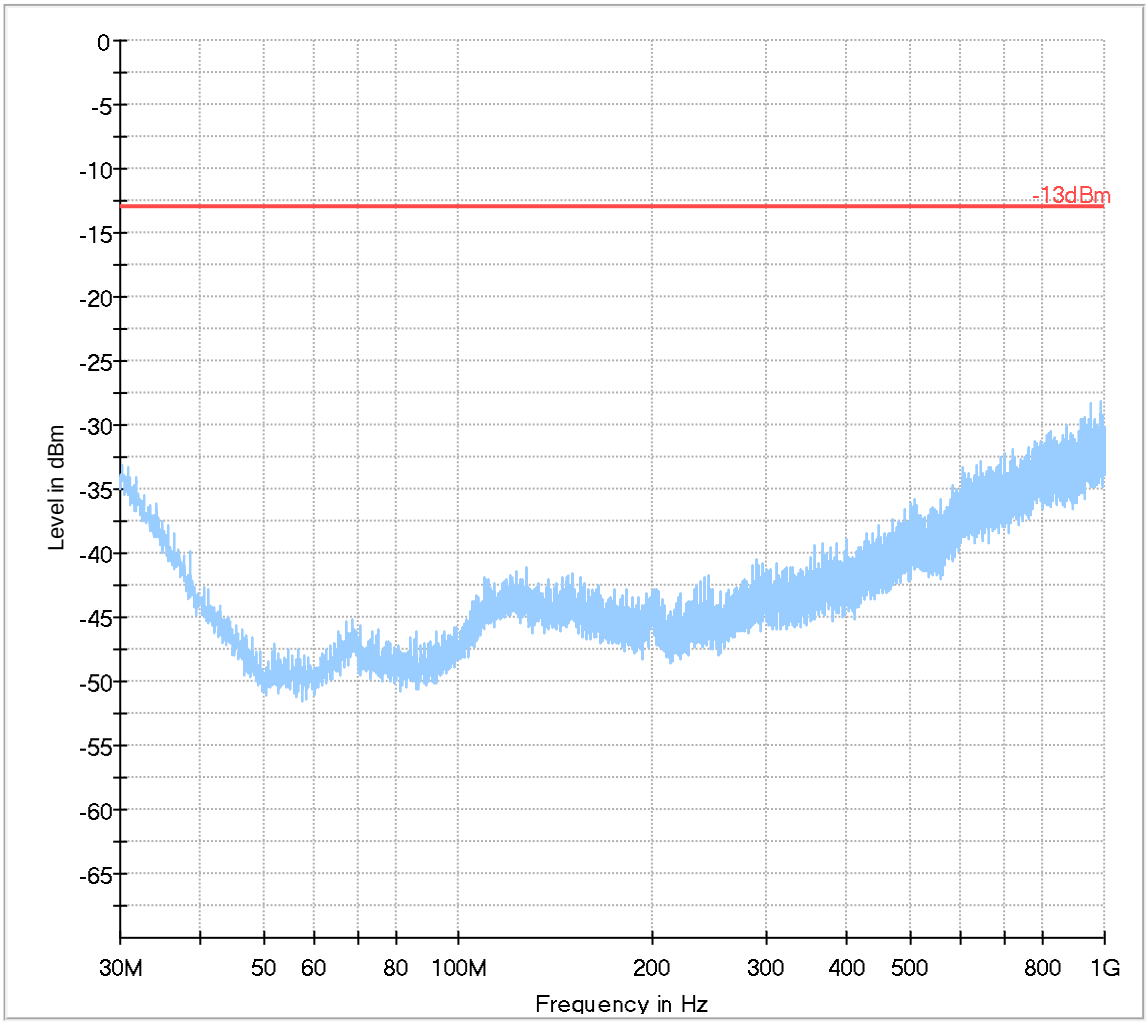
Channel: High



WCDMA Band IV

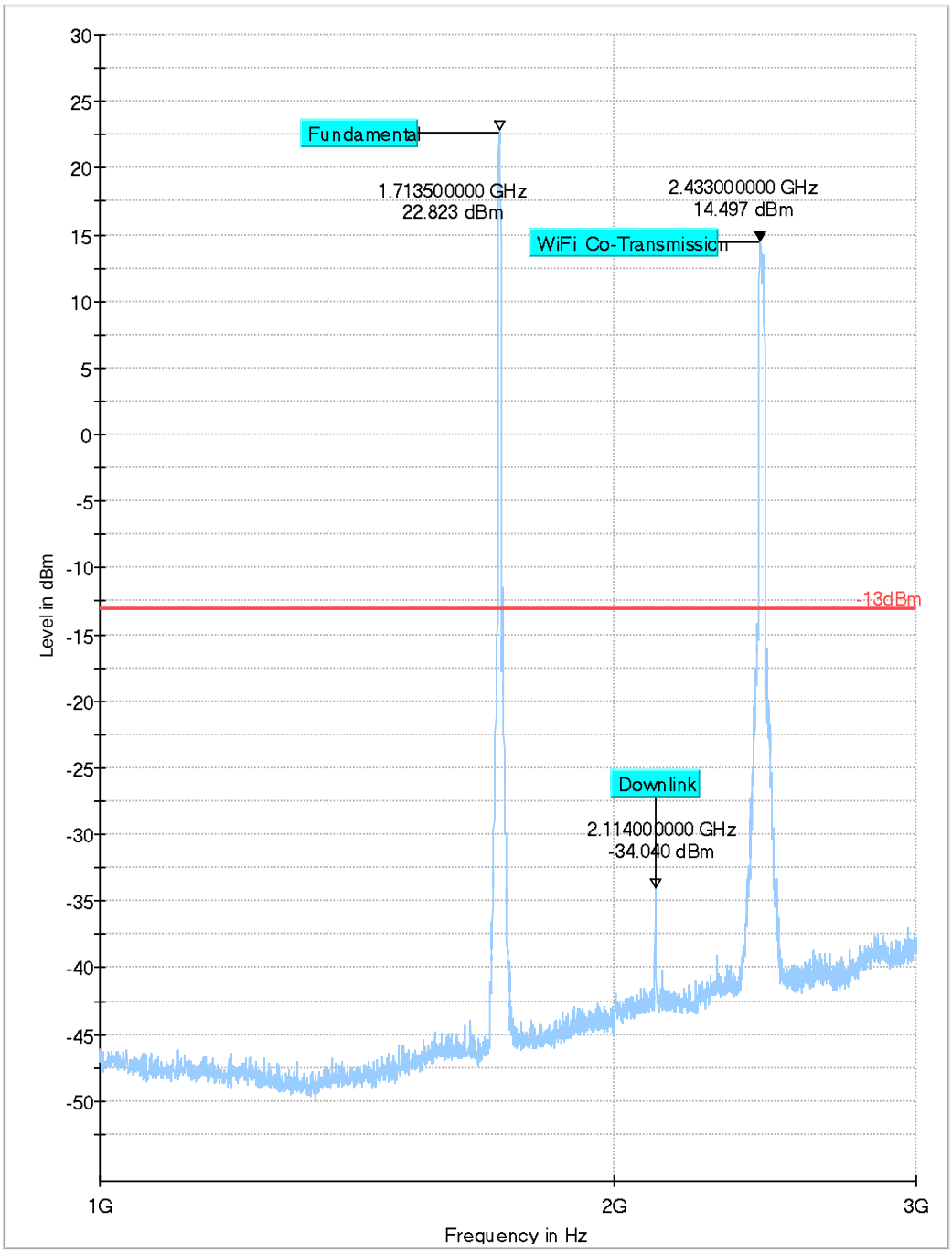
Plot # 12 Radiated Emissions: 30 MHz - 1 GHz

Channel: Low



Plot # 13 Radiated Emissions: 1 GHz - 3 GHz

Channel: Low



Plot # 14 Radiated Emissions: 3 GHz - 18 GHz

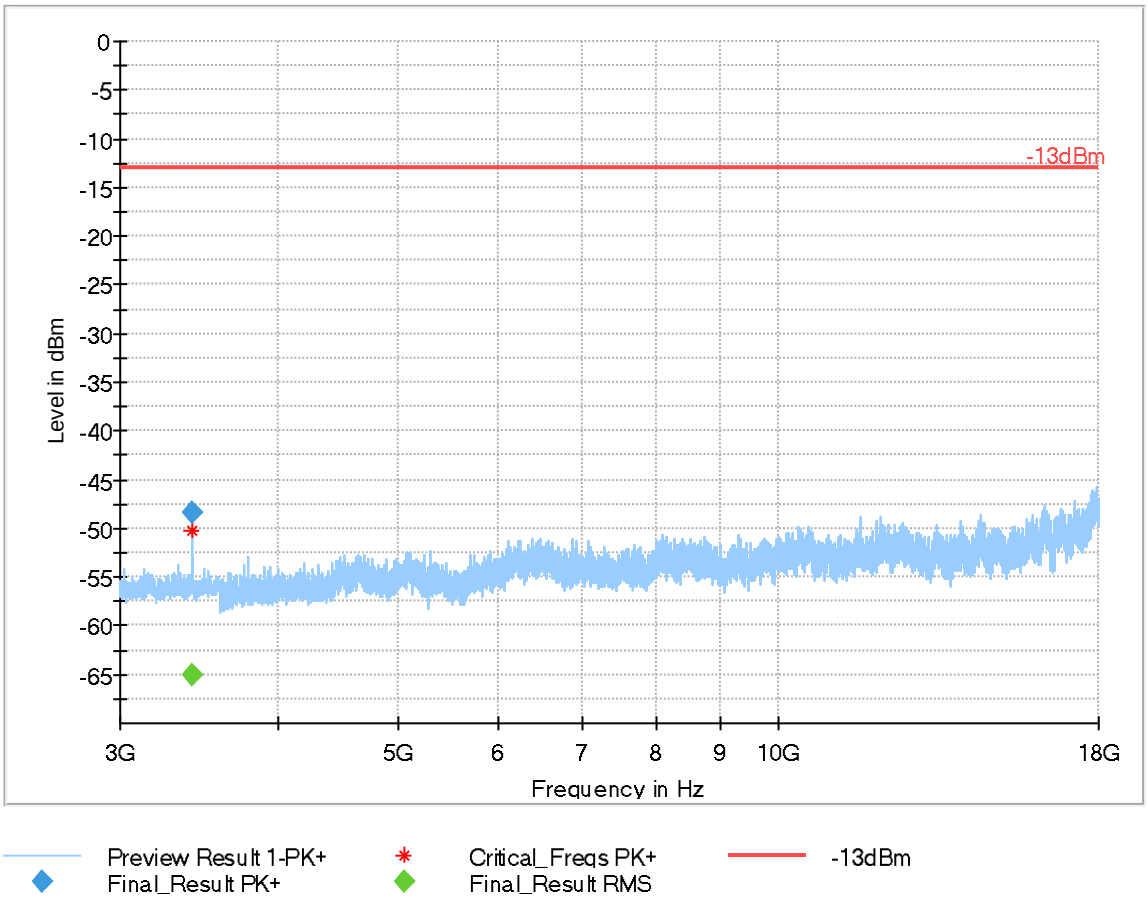
Channel: Low

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
3426.420833	---	-65.07	---	---	100.0	1000.000	298.0	H	294.0	-103.1
3426.420833	-48.42	---	-13.00	35.42	100.0	1000.000	298.0	H	294.0	-103.1

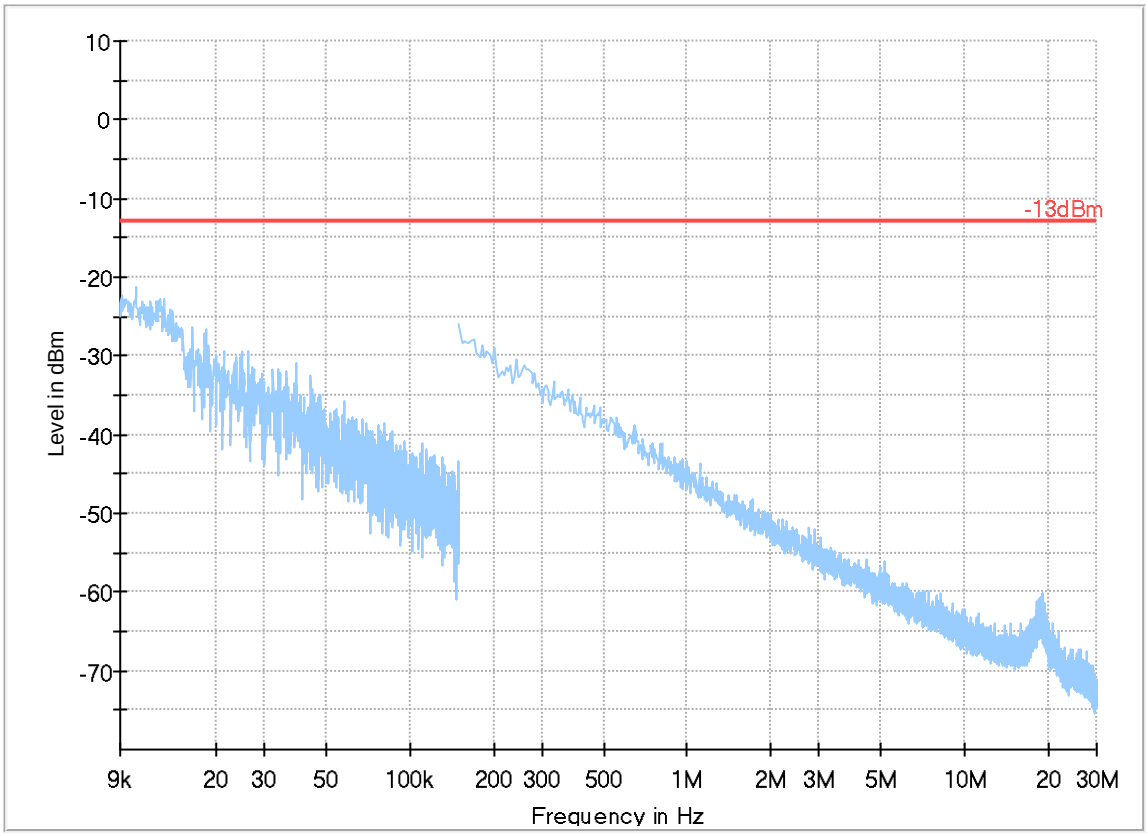
(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
3426.420833	10:35:29 AM - 3/27/2019
3426.420833	10:35:28 AM - 3/27/2019



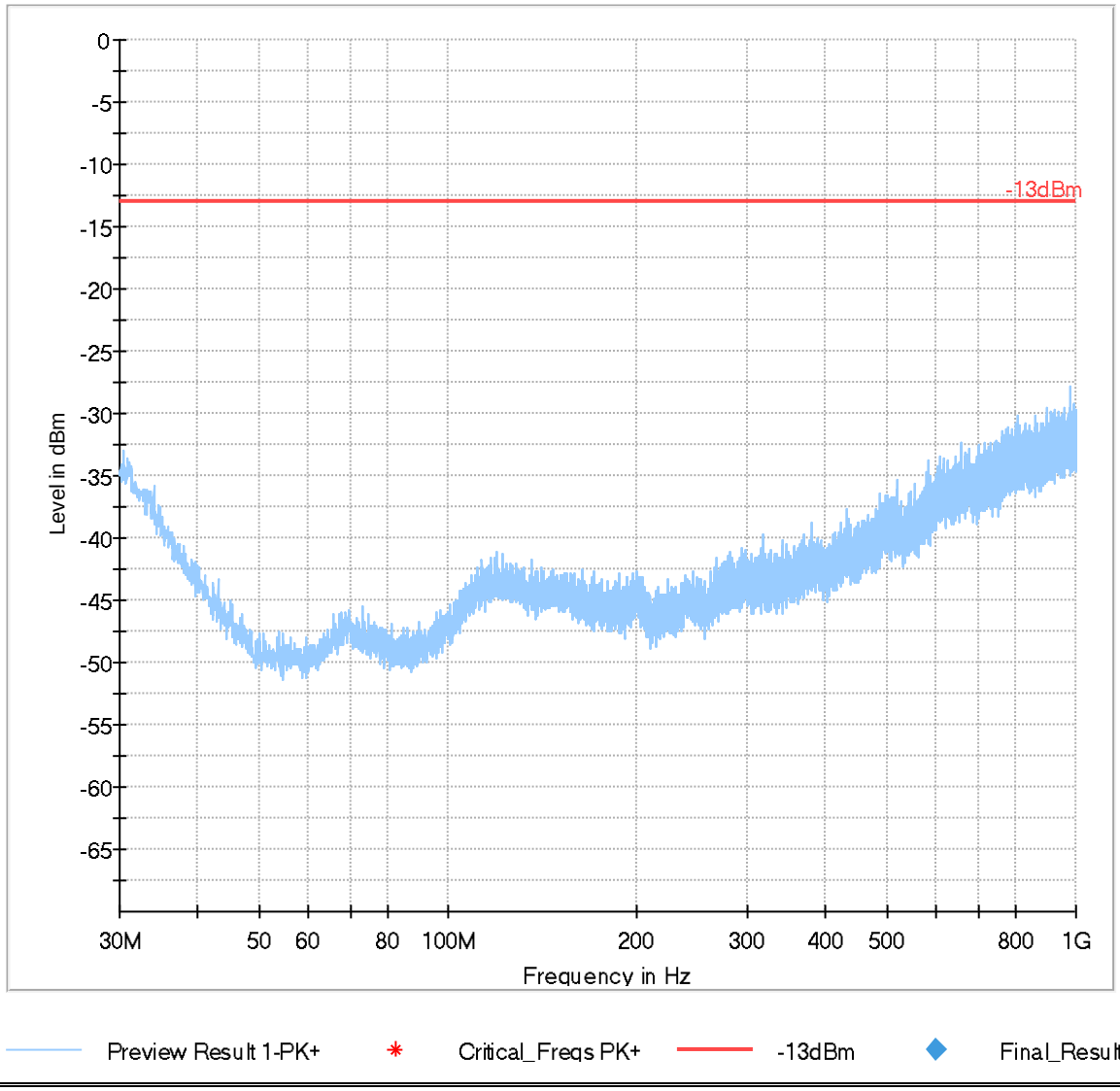
Plot # 15 Radiated Emissions: 9 kHz - 30 MHz

Channel: Mid



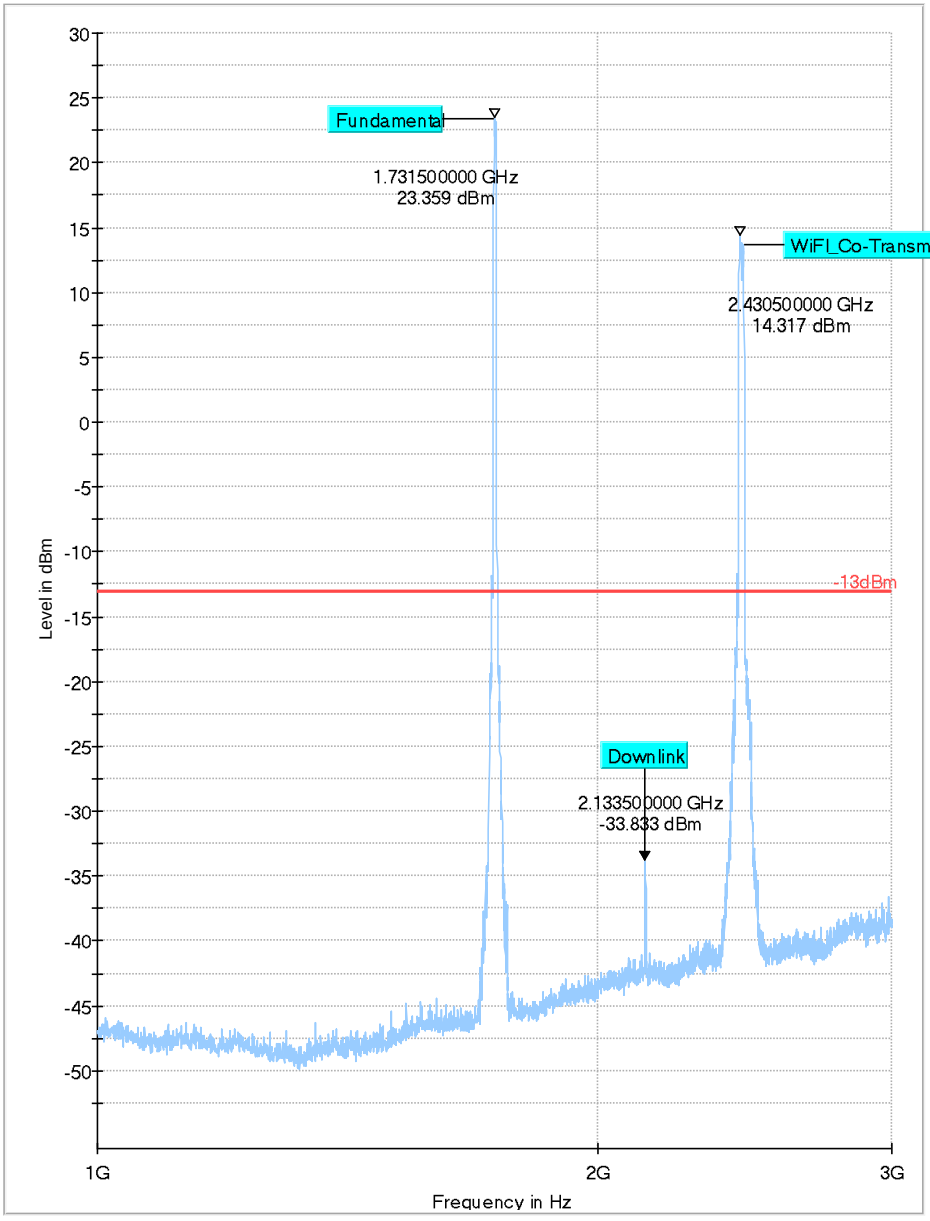
Plot # 16 Radiated Emissions: 30 MHz – 1 GHz

Channel: Mid



Plot #17 Radiated Emissions: 1 GHz - 3 GHz

Channel: Mid



Plot # 18 Radiated Emissions: 3 GHz – 18GHz

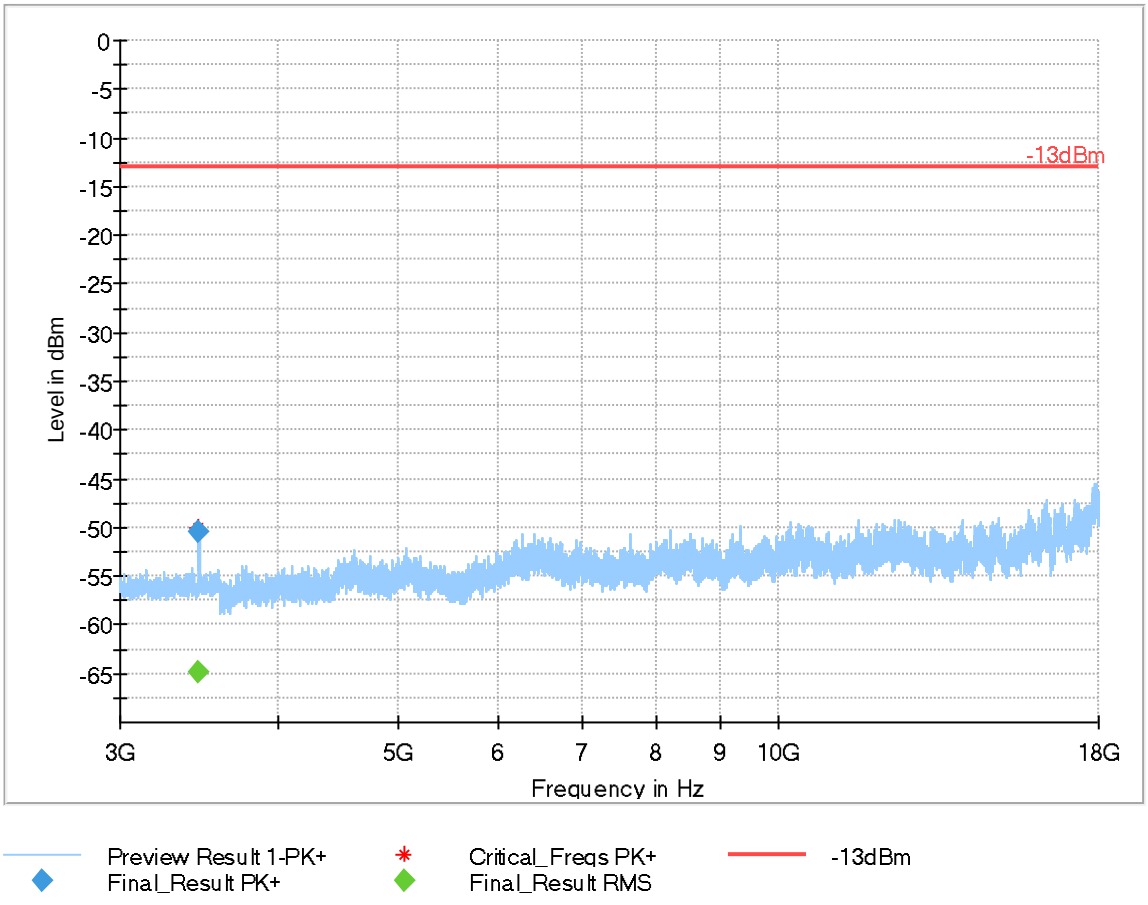
Channel: Mid

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
3463.459500	---	-64.91	---	---	100.0	1000.000	189.0	H	-5.0	-103.1
3463.459500	-50.45	---	-13.00	37.45	100.0	1000.000	189.0	H	-5.0	-103.1

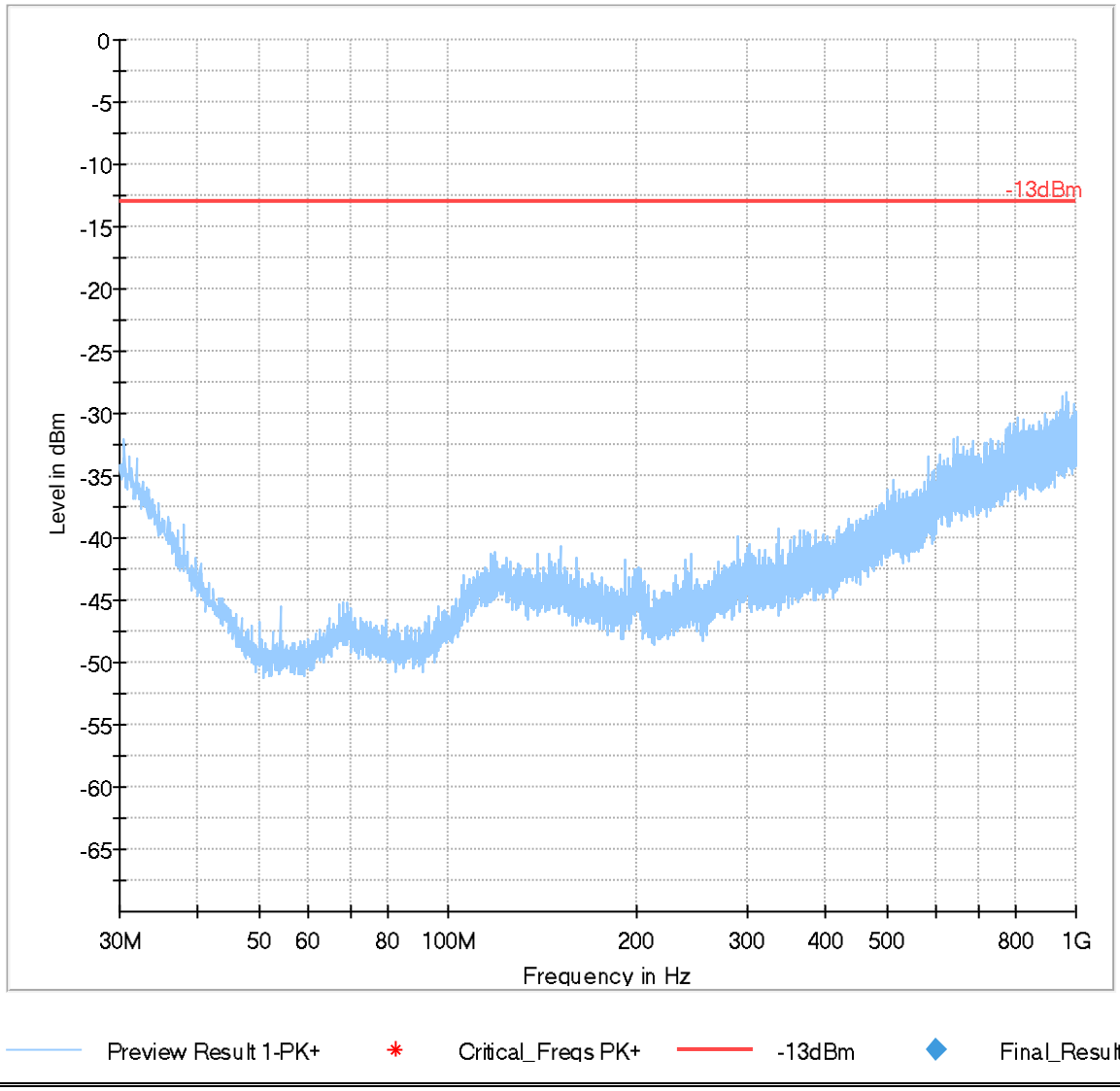
(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
3463.459500	10:42:09 AM - 3/27/2019
3463.459500	10:42:09 AM - 3/27/2019



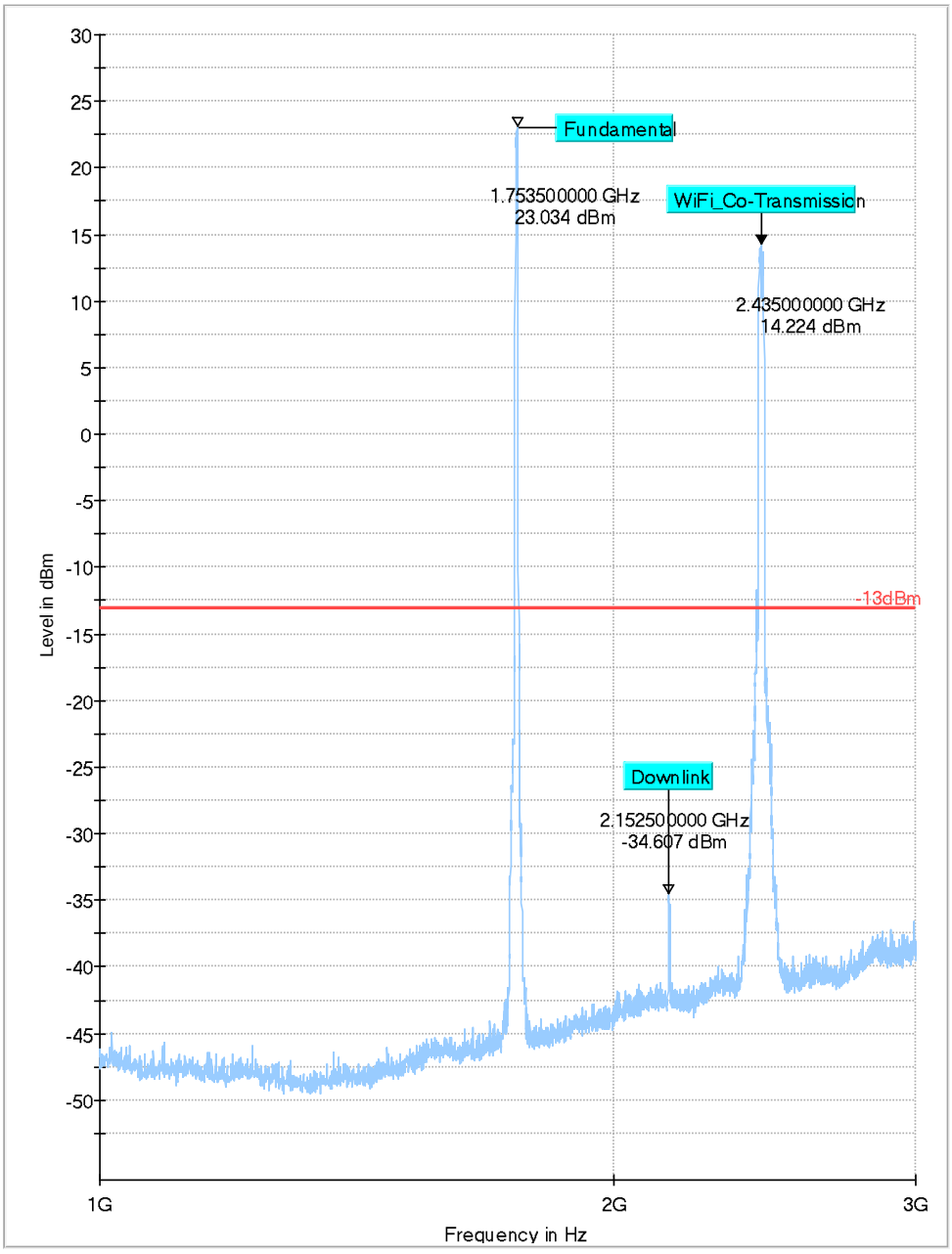
Plot # 19 Radiated Emissions: 30 MHz - 1 GHz

Channel: High



Plot # 20 Radiated Emissions: 1 GHz - 3 GHz

Channel: High



Plot # 21 Radiated Emissions: 3 GHz - 18 GHz

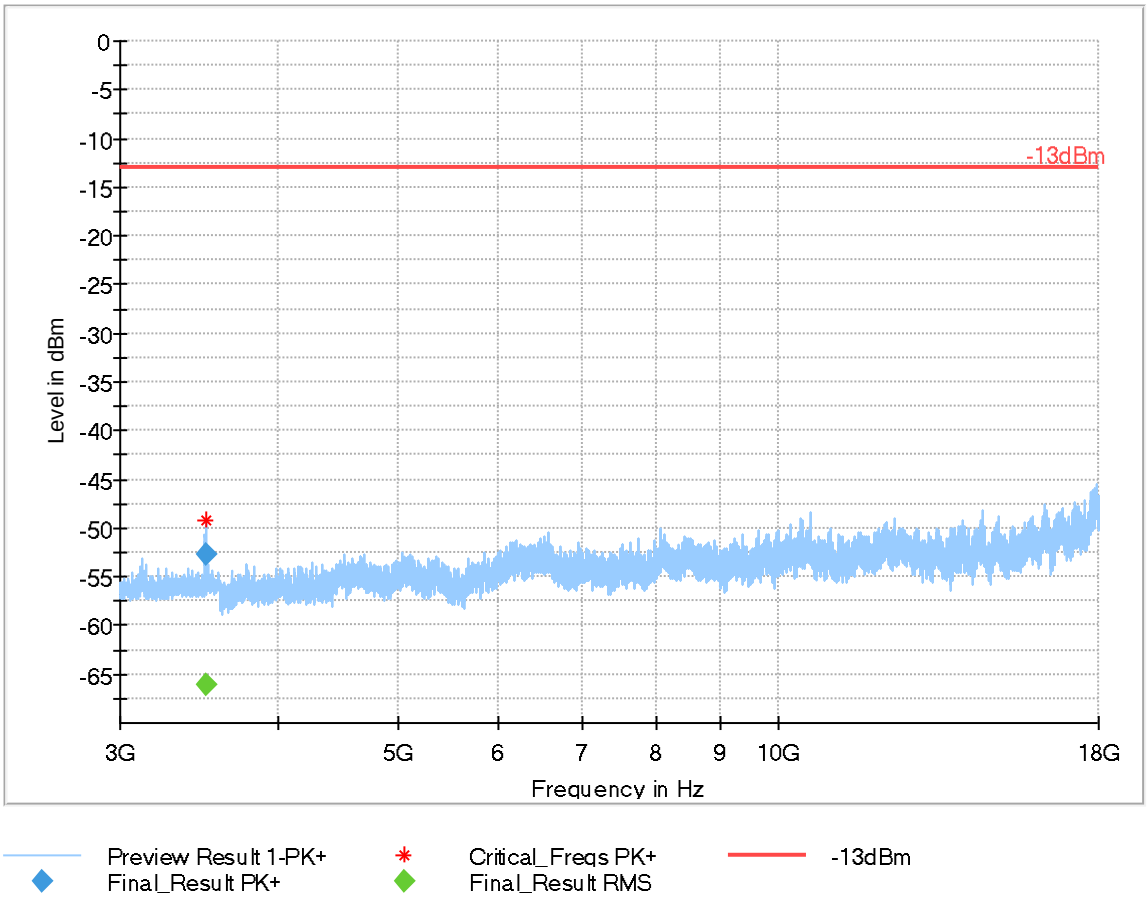
Channel: High

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
3506.145500	---	-65.99	---	---	100.0	1000.000	225.0	H	26.0	-102.9
3506.145500	-52.66	---	-13.00	39.66	100.0	1000.000	225.0	H	26.0	-102.9

(continuation of the "Final_Result" table from column 16 ...)

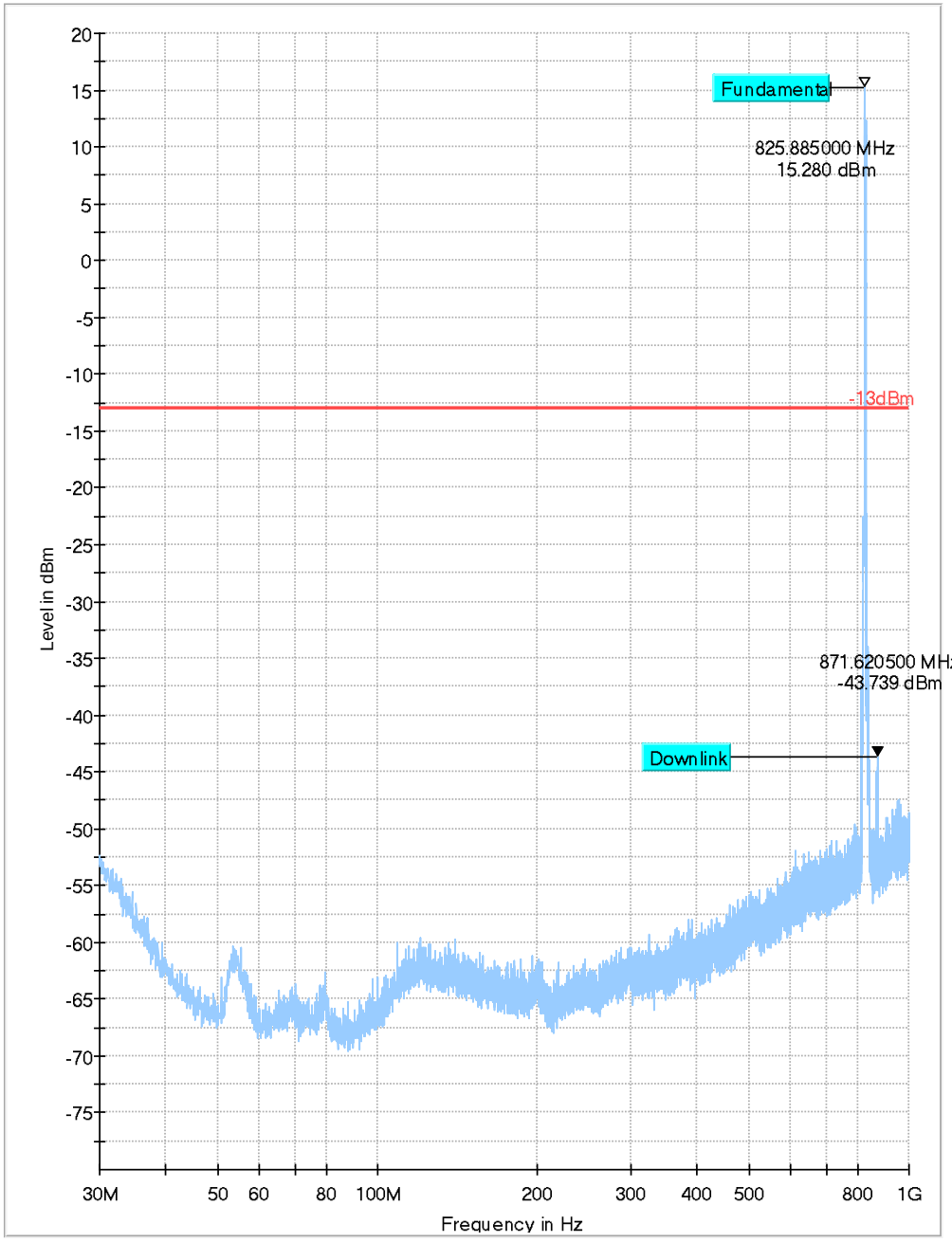
Frequency (MHz)	Comment
3506.145500	10:27:56 AM - 3/27/2019
3506.145500	10:27:56 AM - 3/27/2019



WCDMA Band V

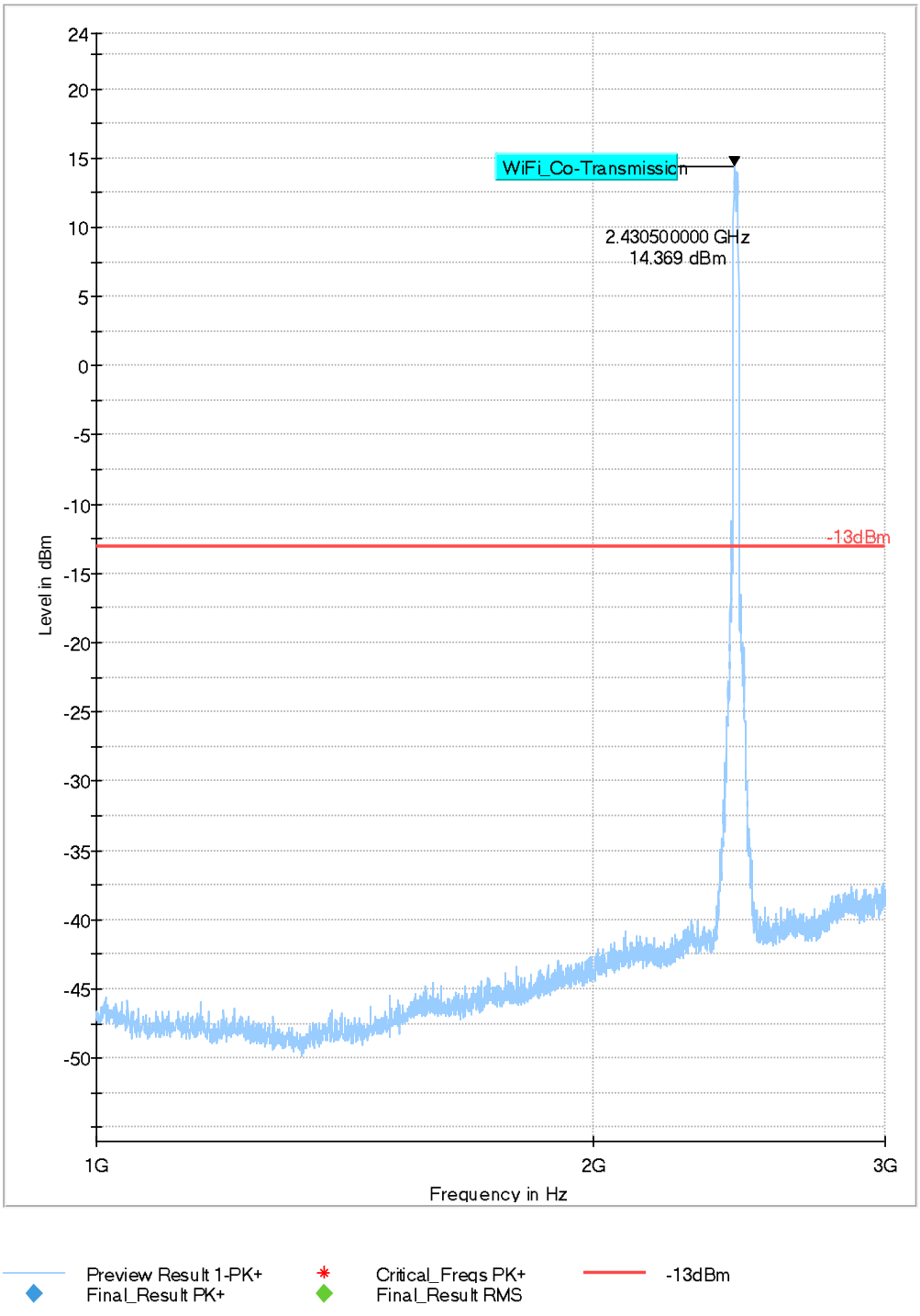
Plot # 22 Radiated Emissions: 30 MHz - 1 GHz

Channel: Low



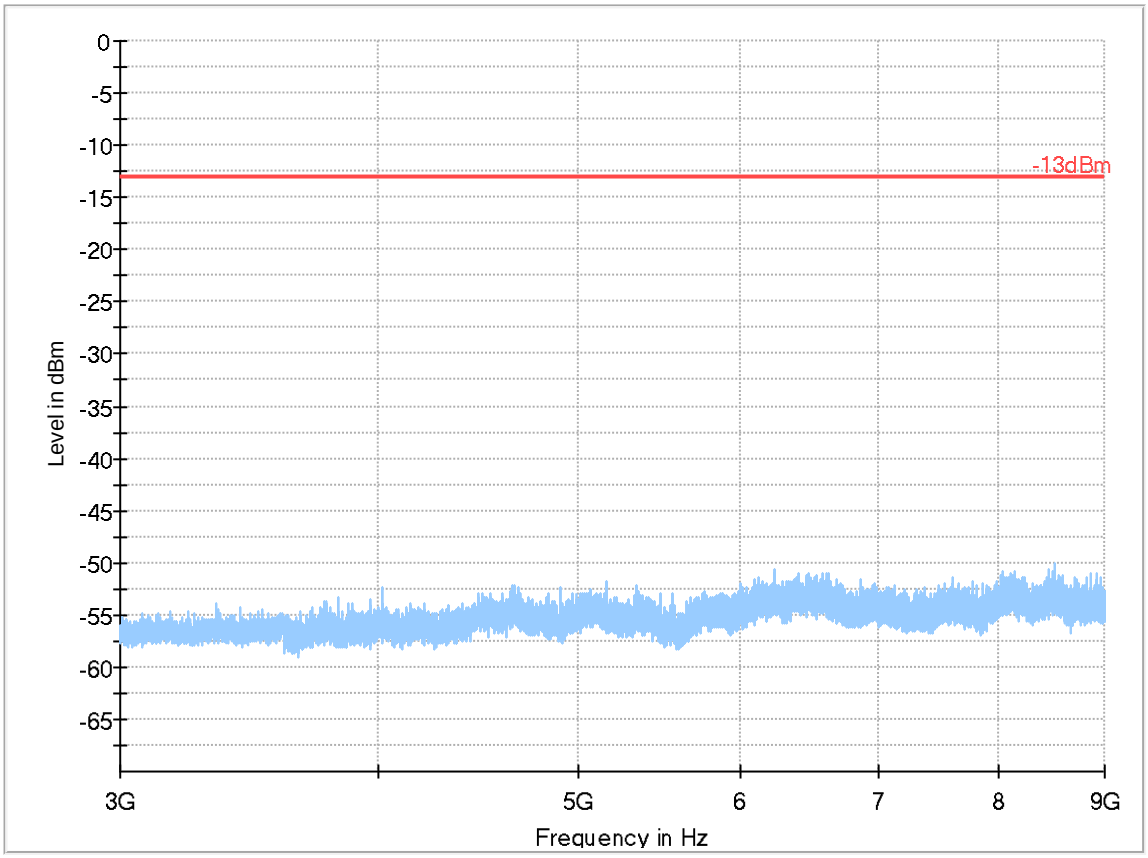
Plot # 23 Radiated Emissions: 1 GHz - 3 GHz

Channel: Low



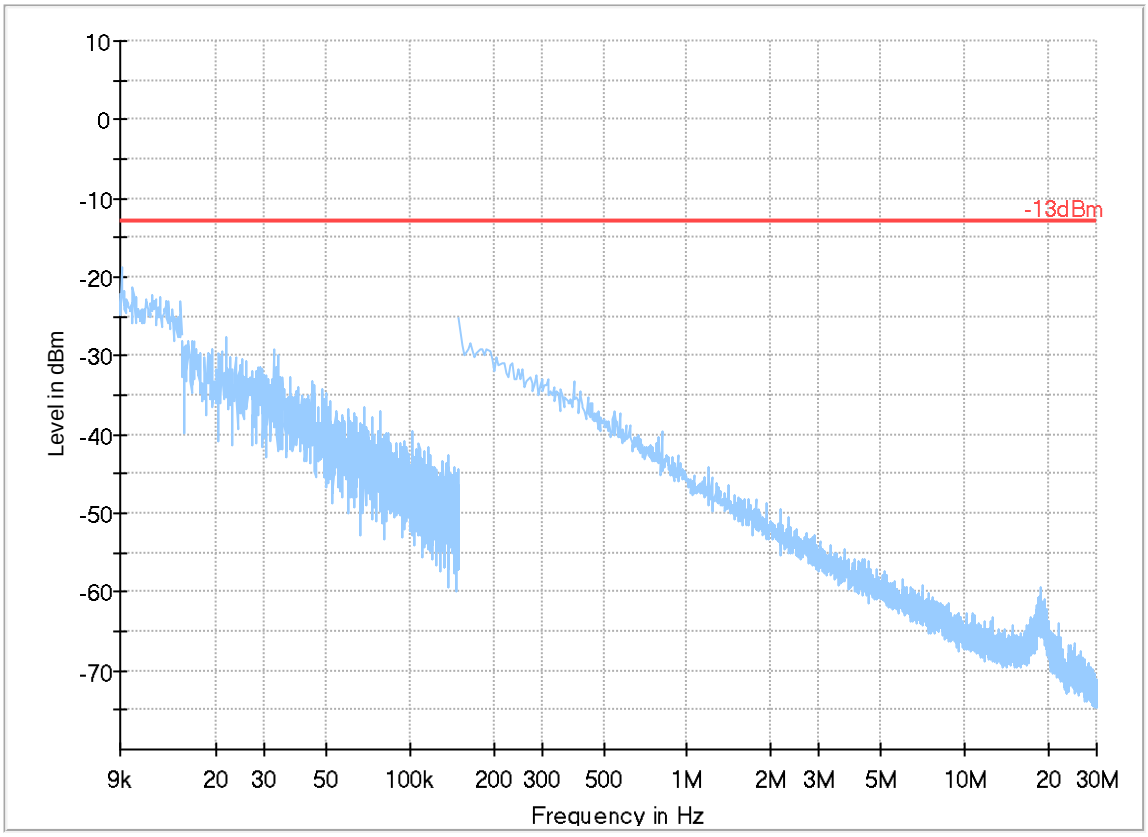
Plot # 24 Radiated Emissions: 3 GHz - 9 GHz

Channel: Low



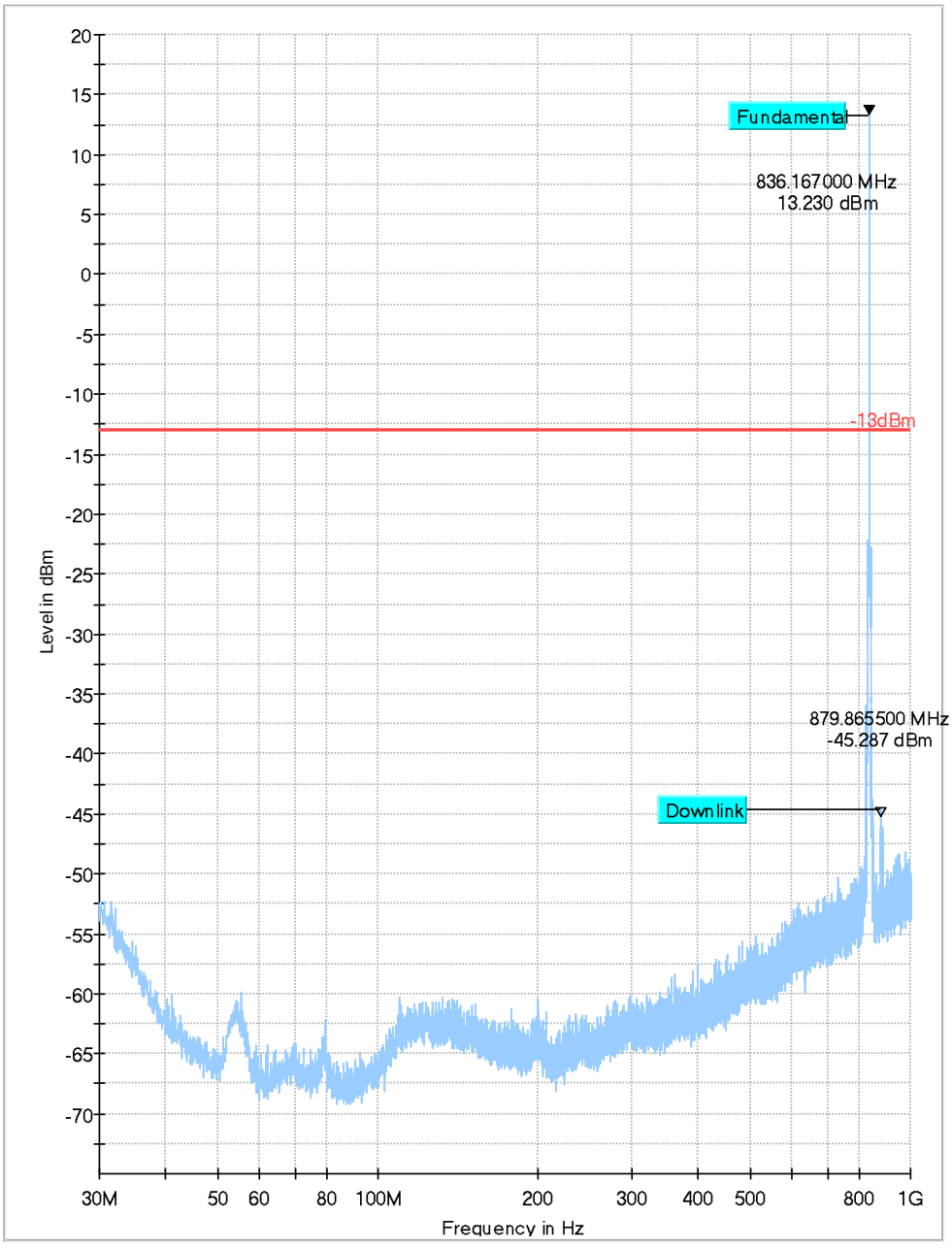
Plot # 25 Radiated Emissions: 9 kHz - 30 MHz

Channel: Mid



Plot # 26 Radiated Emissions: 30 MHz – 1 GHz

Channel: Mid



Plot # 27 Radiated Emissions: 1 GHz - 3 GHz

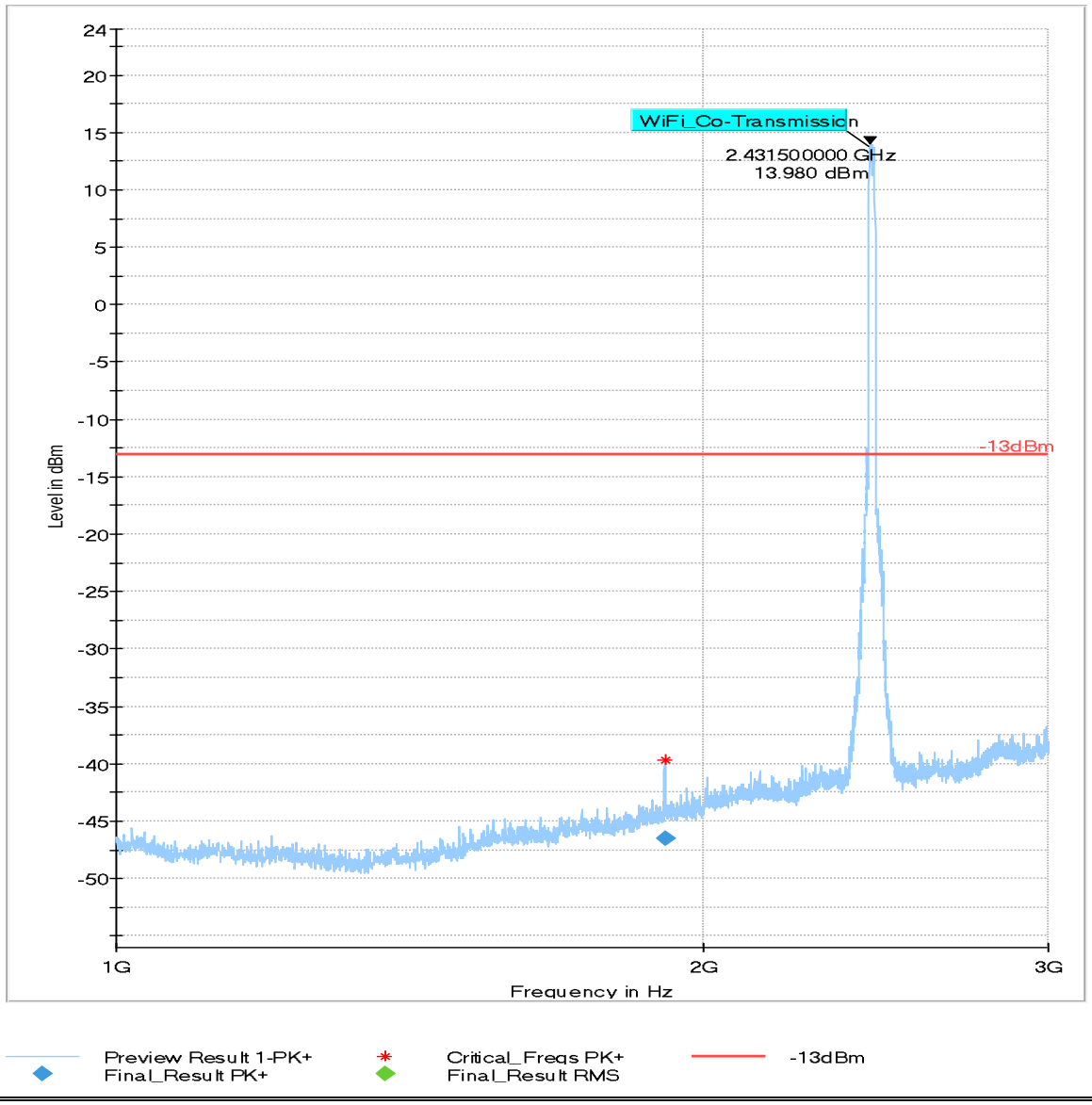
Channel: Mid

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1908.990625	---	-57.45	---	---	100.0	1000.000	270.0	H	85.0	-61.5
1908.990625	-46.51	---	-13.00	33.51	100.0	1000.000	270.0	H	85.0	-61.5

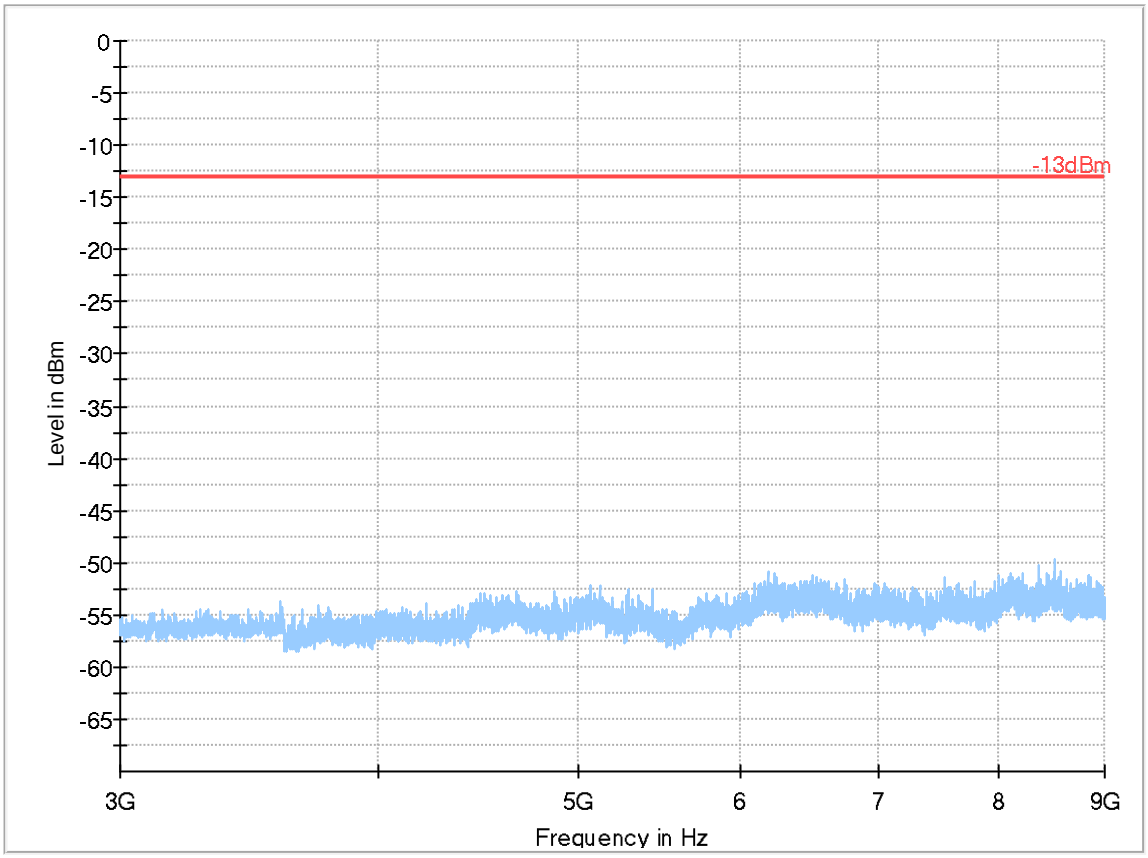
(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
1908.990625	2:55:11 PM - 3/26/2019
1908.990625	2:55:11 PM - 3/26/2019



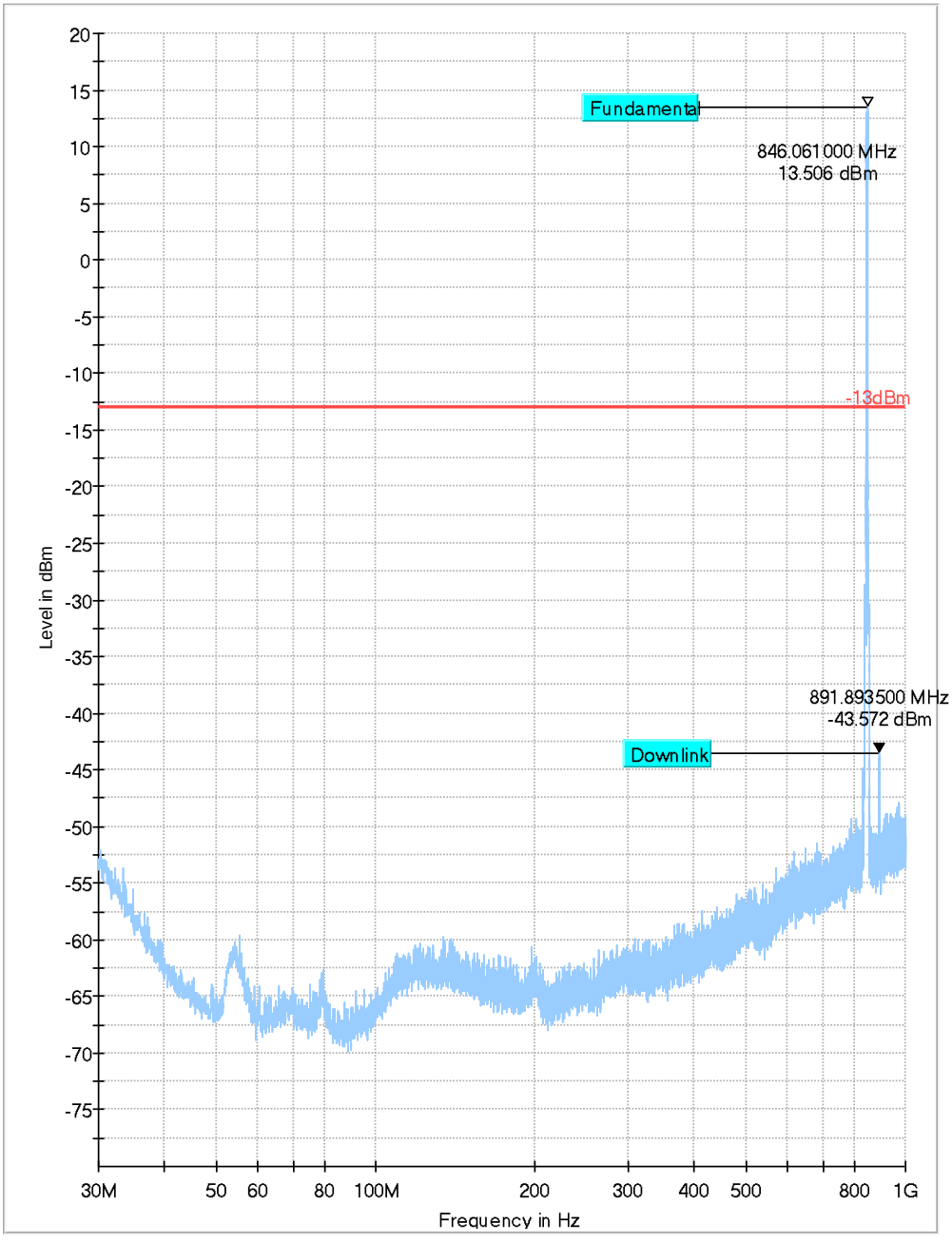
Plot # 28 Radiated Emissions: 3 GHz – 9GHz

Channel: Mid



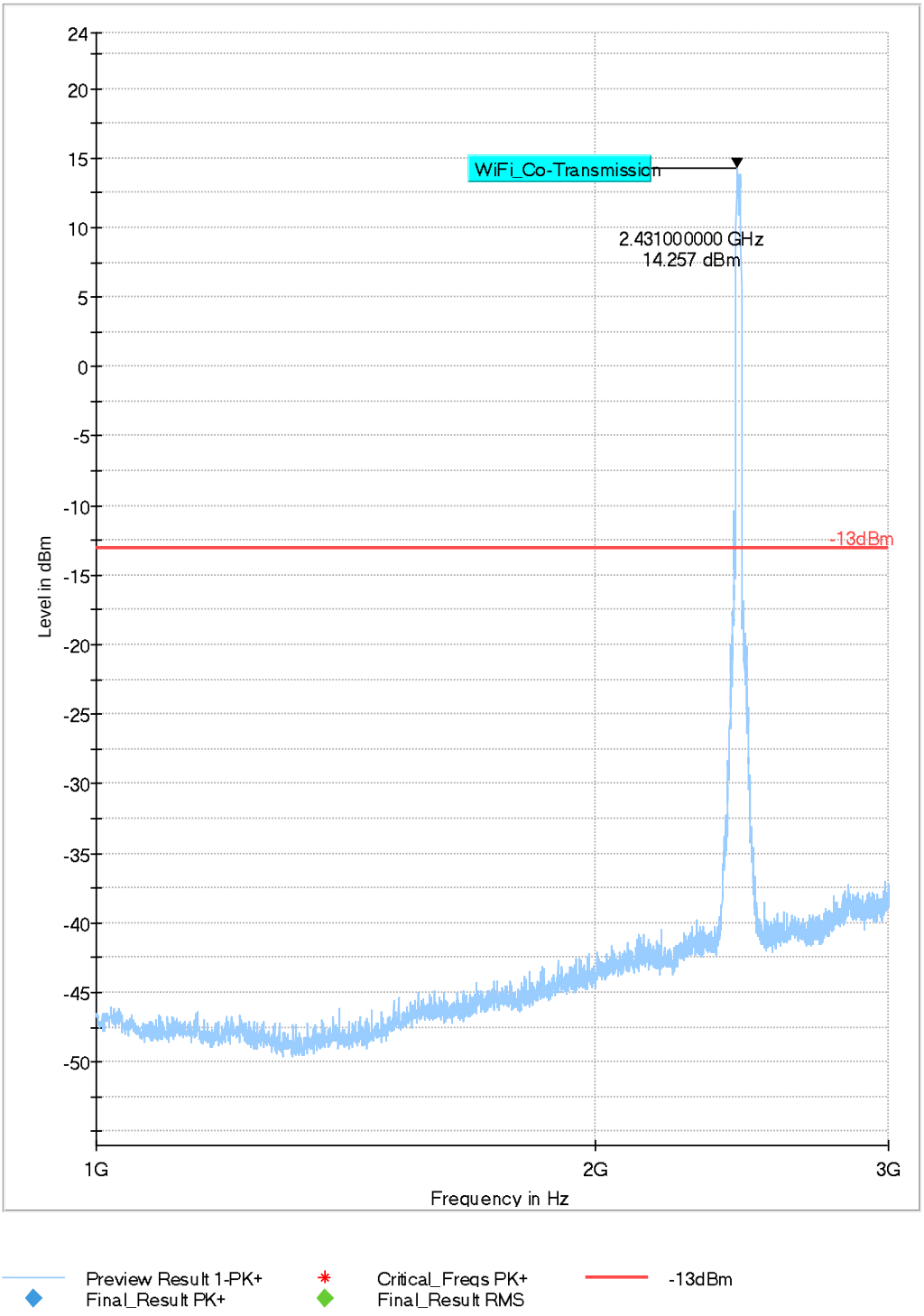
Plot # 29 Radiated Emissions: 30 MHz - 1 GHz

Channel: High



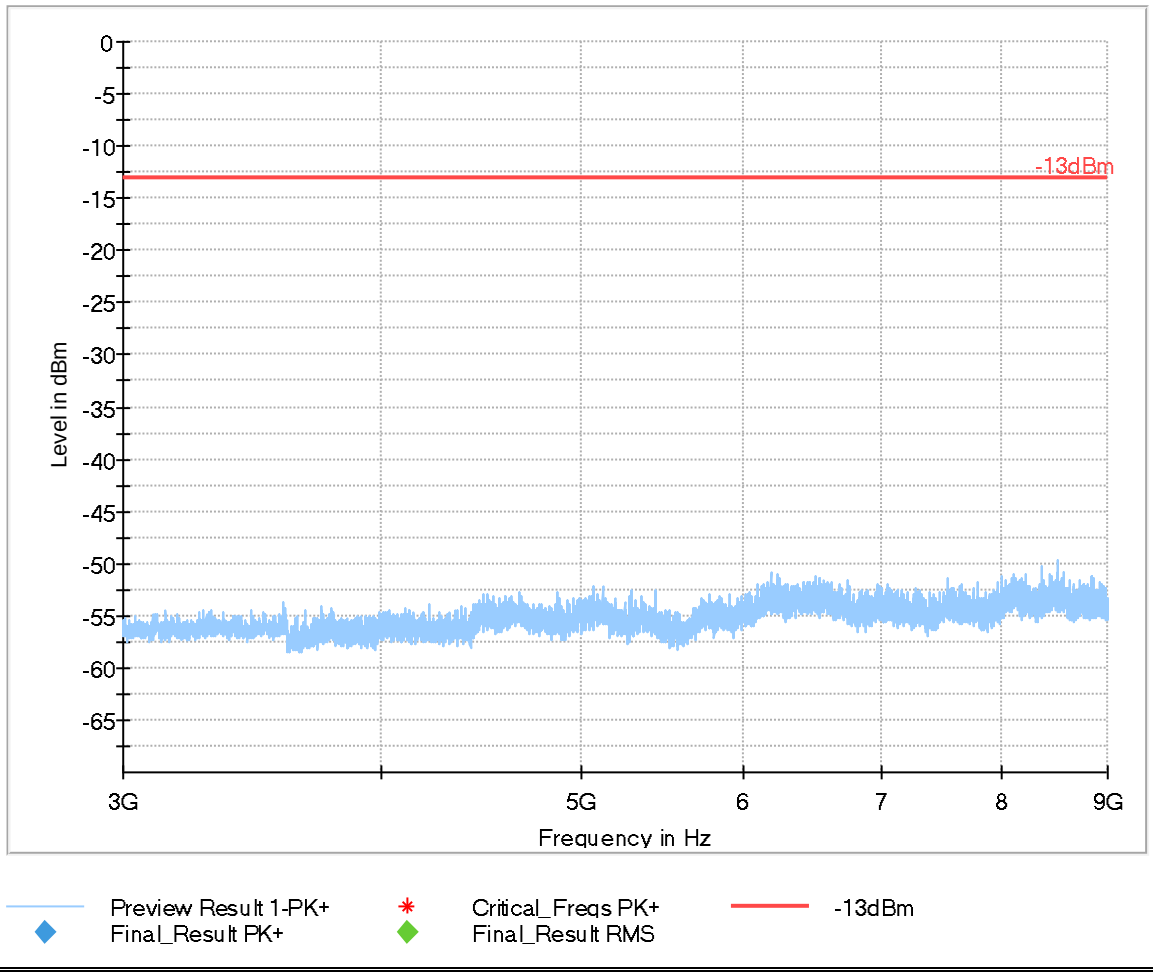
Plot # 30 Radiated Emissions: 1 GHz - 3 GHz

Channel: High



Plot # 31 Radiated Emissions: 3 GHz - 9 GHz

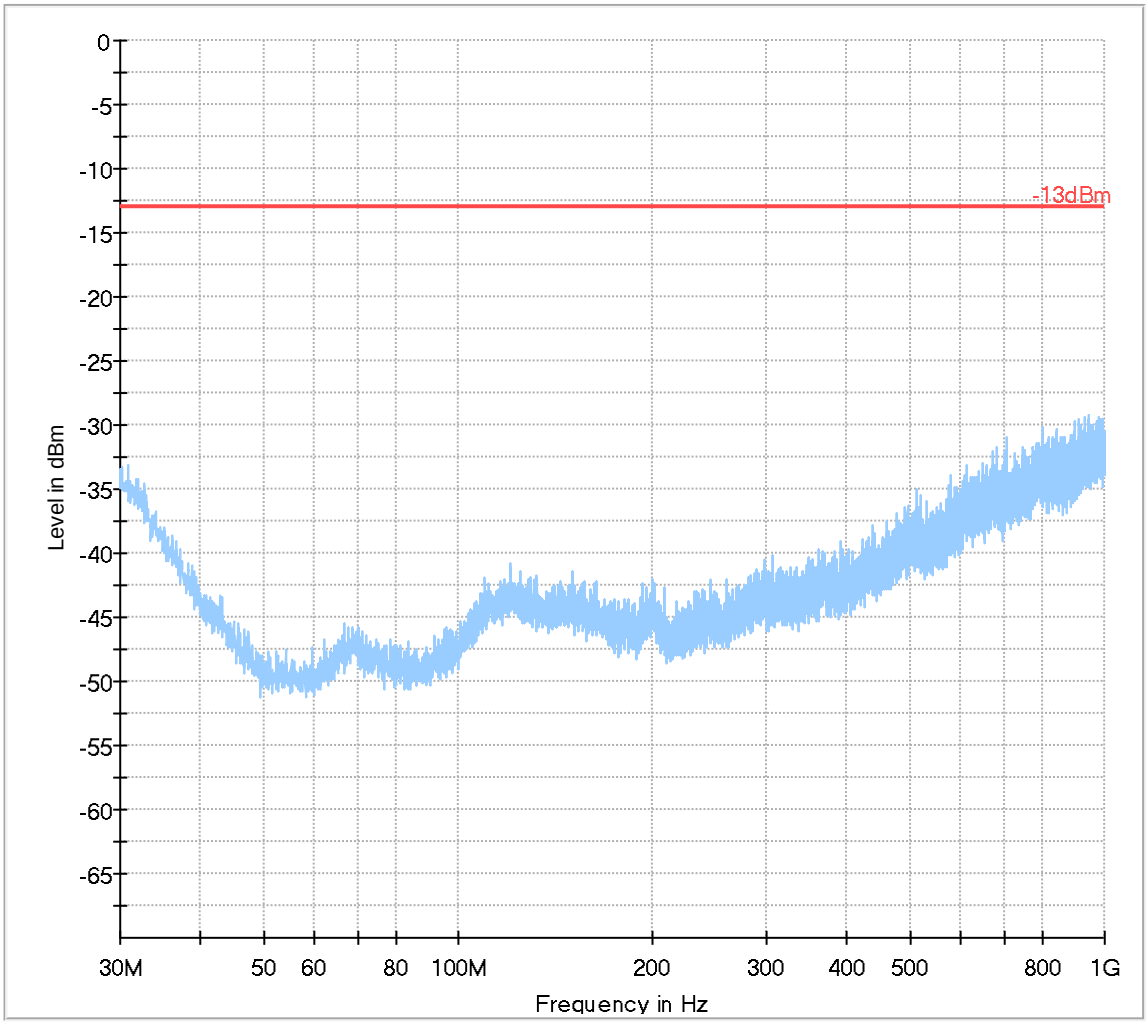
Channel: High



LTE Band 4

Plot # 32 Radiated Emissions: 30 MHz - 1 GHz

Channel: Low



Plot # 33 Radiated Emissions: 1 GHz - 3 GHz

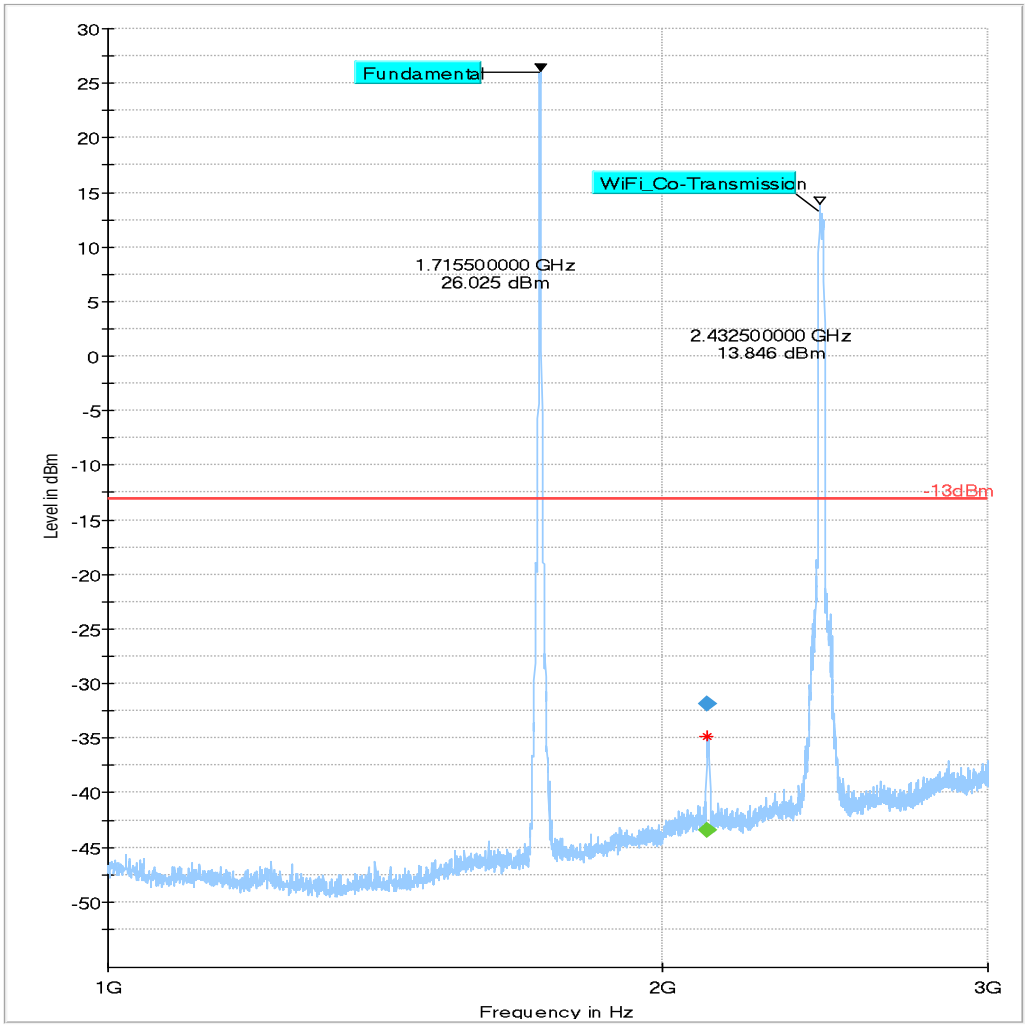
Channel: Low

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
2113.090375	---	-43.41	---	---	100.0	1000.000	194.0	V	299.0	-60.9
2113.090375	-31.80	---	-13.00	18.80	100.0	1000.000	194.0	V	299.0	-60.9

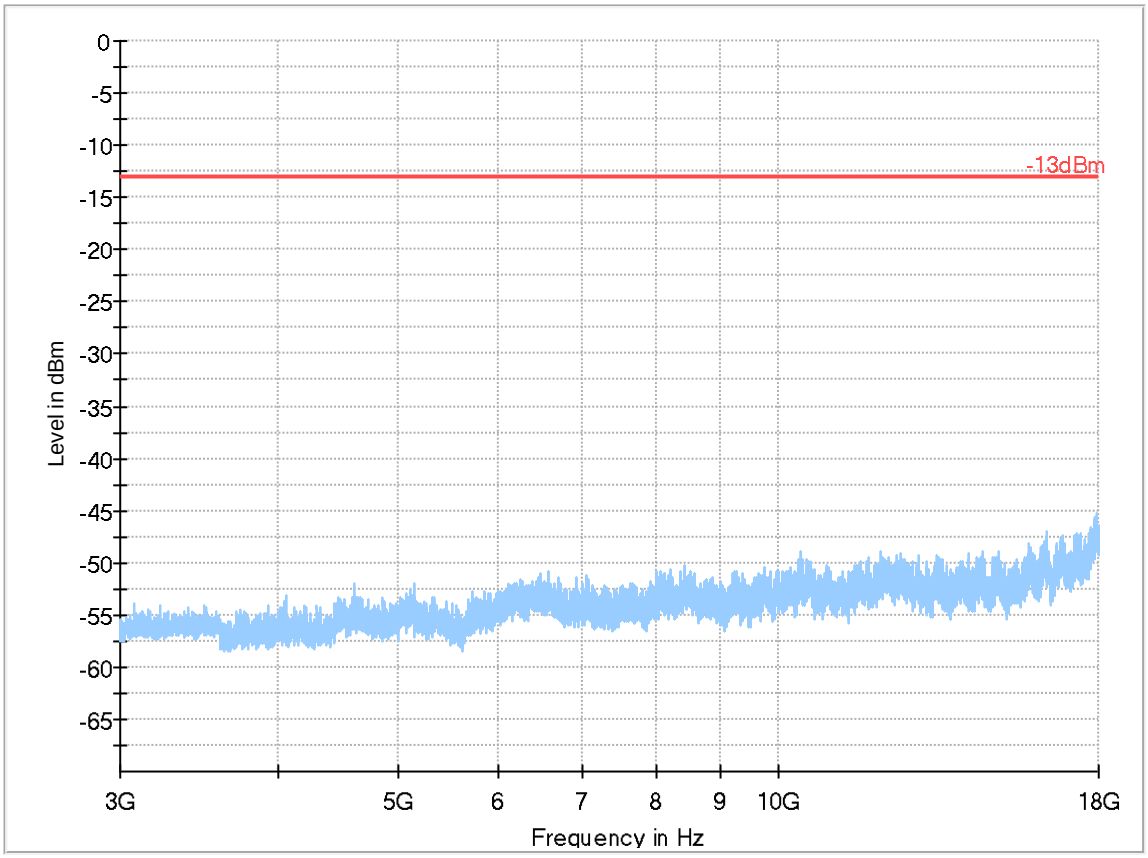
(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
2113.090375	6:29:57 PM - 3/25/2019
2113.090375	6:29:57 PM - 3/25/2019



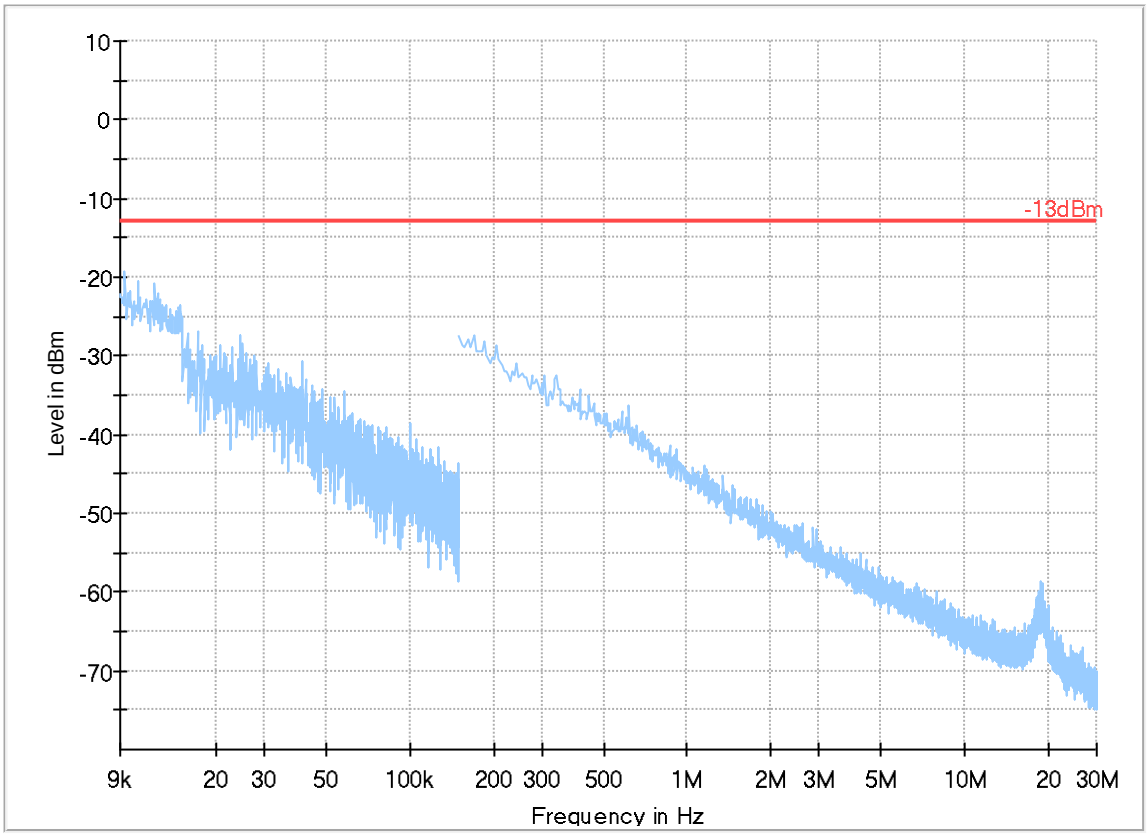
Plot # 34 Radiated Emissions: 3 GHz - 18 GHz

Channel: Low



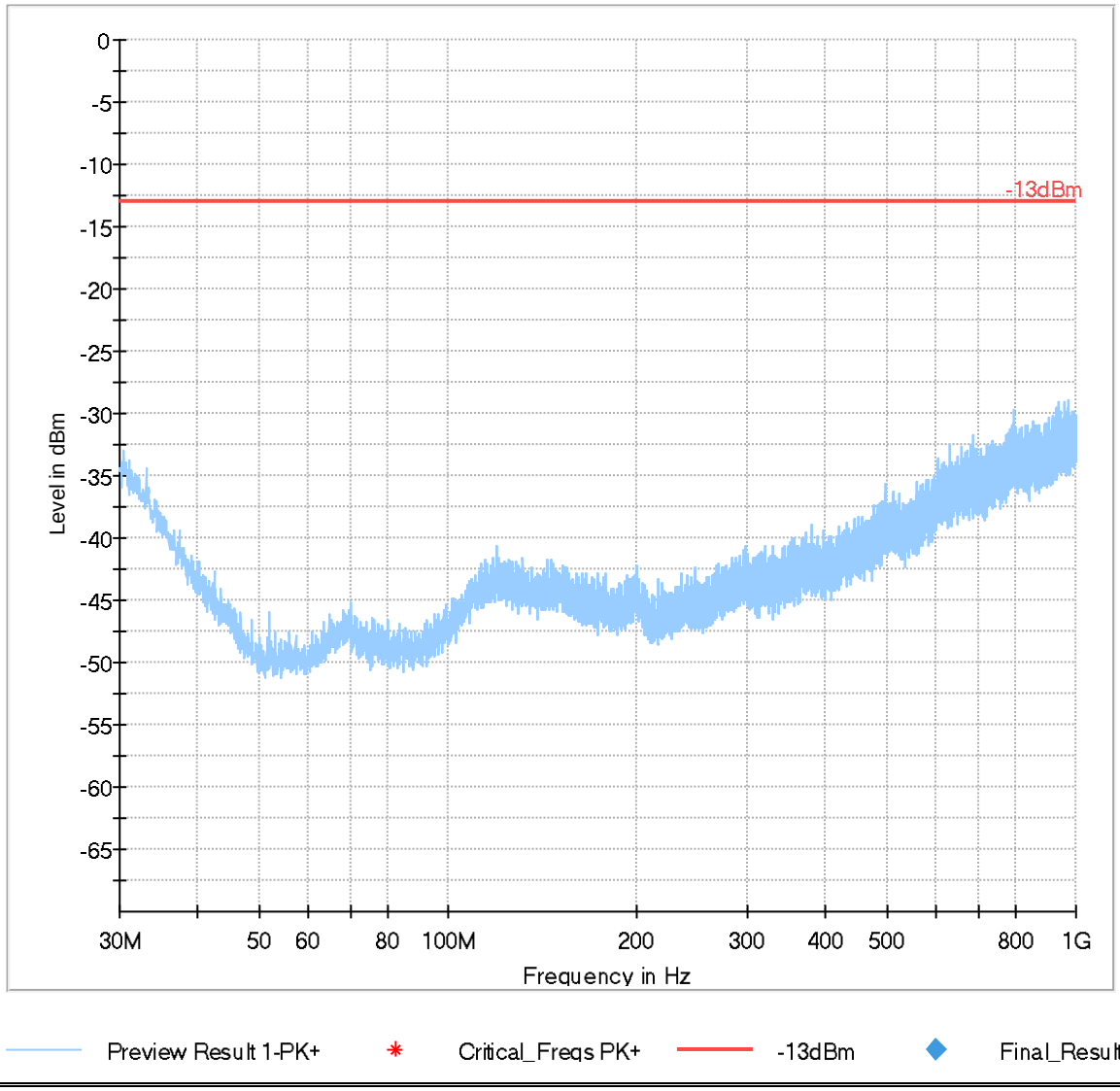
Plot # 35 Radiated Emissions: 9 kHz - 30 MHz

Channel: Mid



Plot # 36 Radiated Emissions: 30 MHz – 1 GHz

Channel: Mid



Plot # 37 Radiated Emissions: 1 GHz - 3 GHz

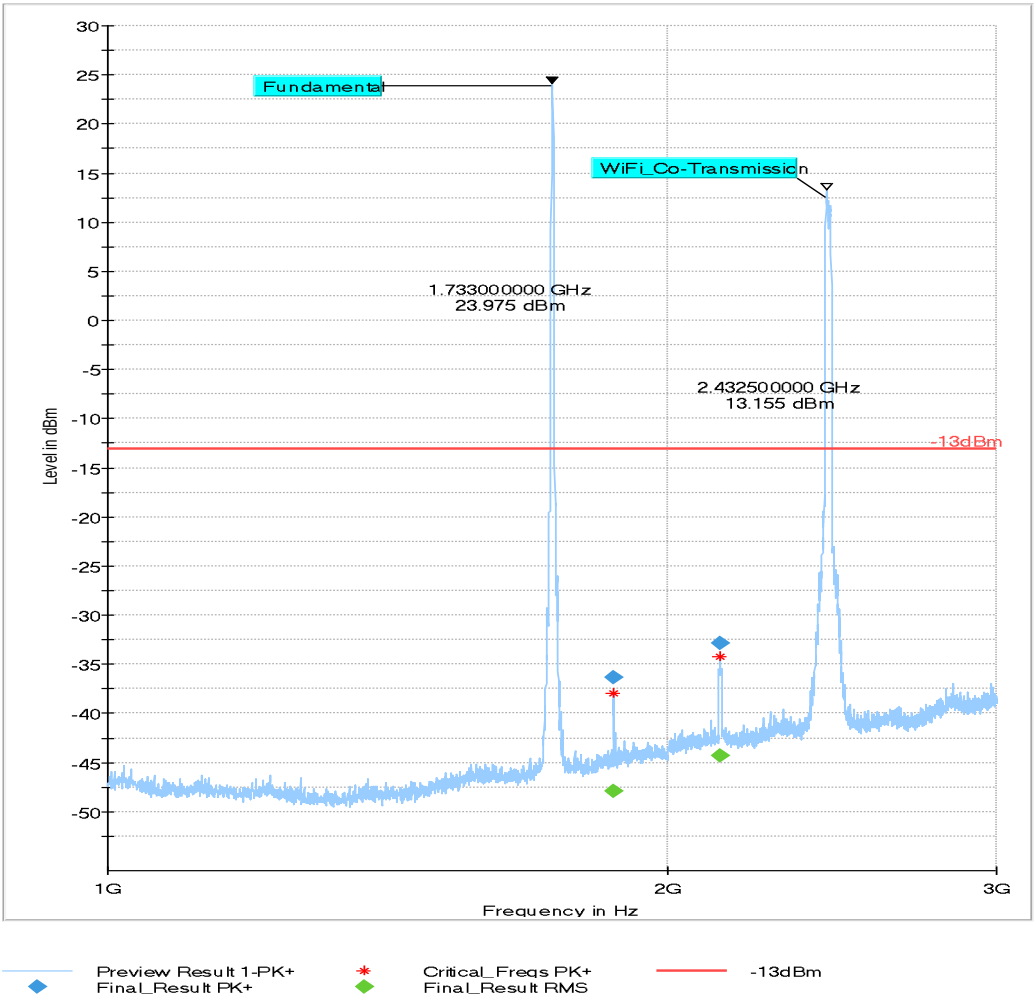
Channel: Mid

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1869.338375	---	-47.93	---	---	100.0	1000.000	269.0	V	210.0	-61.8
1869.338375	-36.29	---	-13.00	23.29	100.0	1000.000	269.0	V	210.0	-61.8
2130.426875	---	-44.33	---	---	100.0	1000.000	325.0	H	74.0	-60.8
2130.426875	-32.85	---	-13.00	19.85	100.0	1000.000	325.0	H	74.0	-60.8

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
1869.338375	6:07:58 PM - 3/25/2019
1869.338375	6:07:58 PM - 3/25/2019
2130.426875	6:09:50 PM - 3/25/2019
2130.426875	6:09:50 PM - 3/25/2019



Plot # 38 Radiated Emissions: 3 GHz – 18GHz

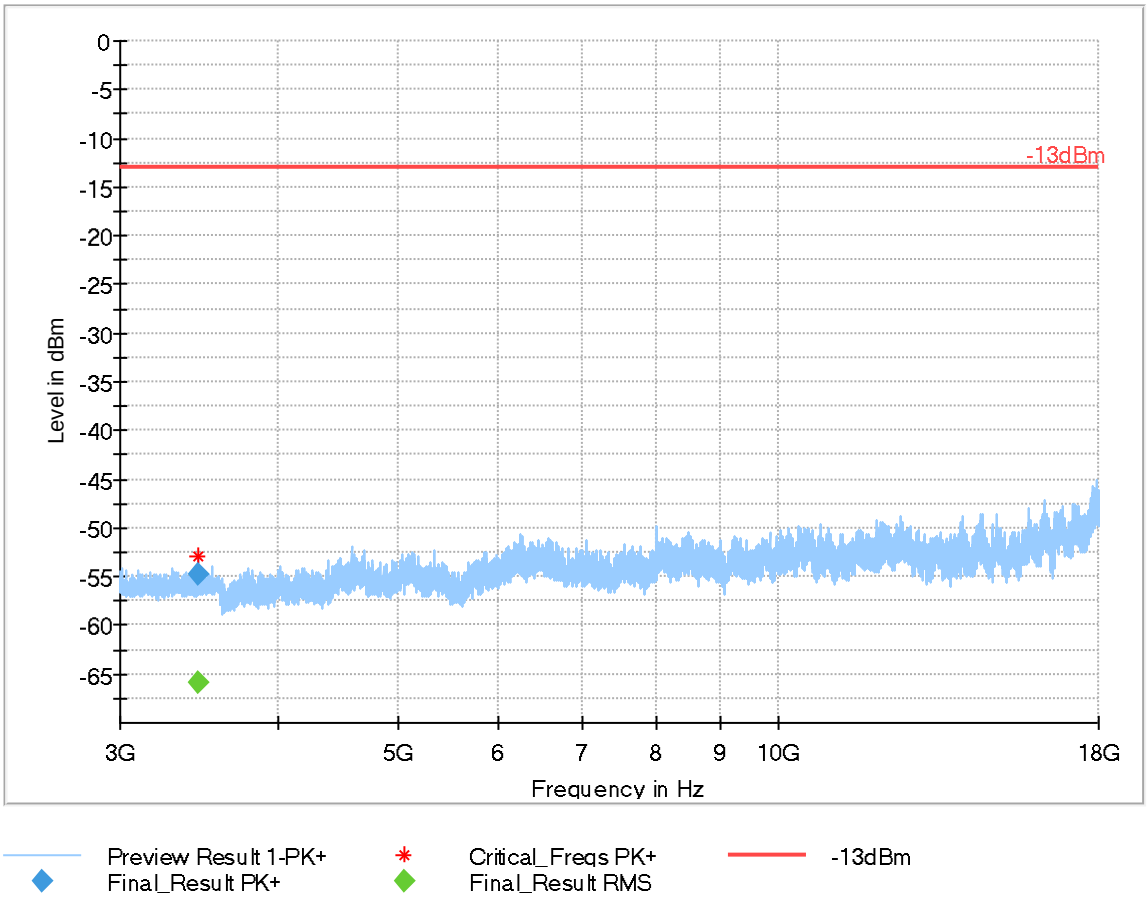
Channel: Mid

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
3465.462500	---	-65.87	---	---	100.0	1000.000	265.0	H	255.0	-103.0
3465.462500	-54.81	---	-13.00	41.81	100.0	1000.000	265.0	H	255.0	-103.0

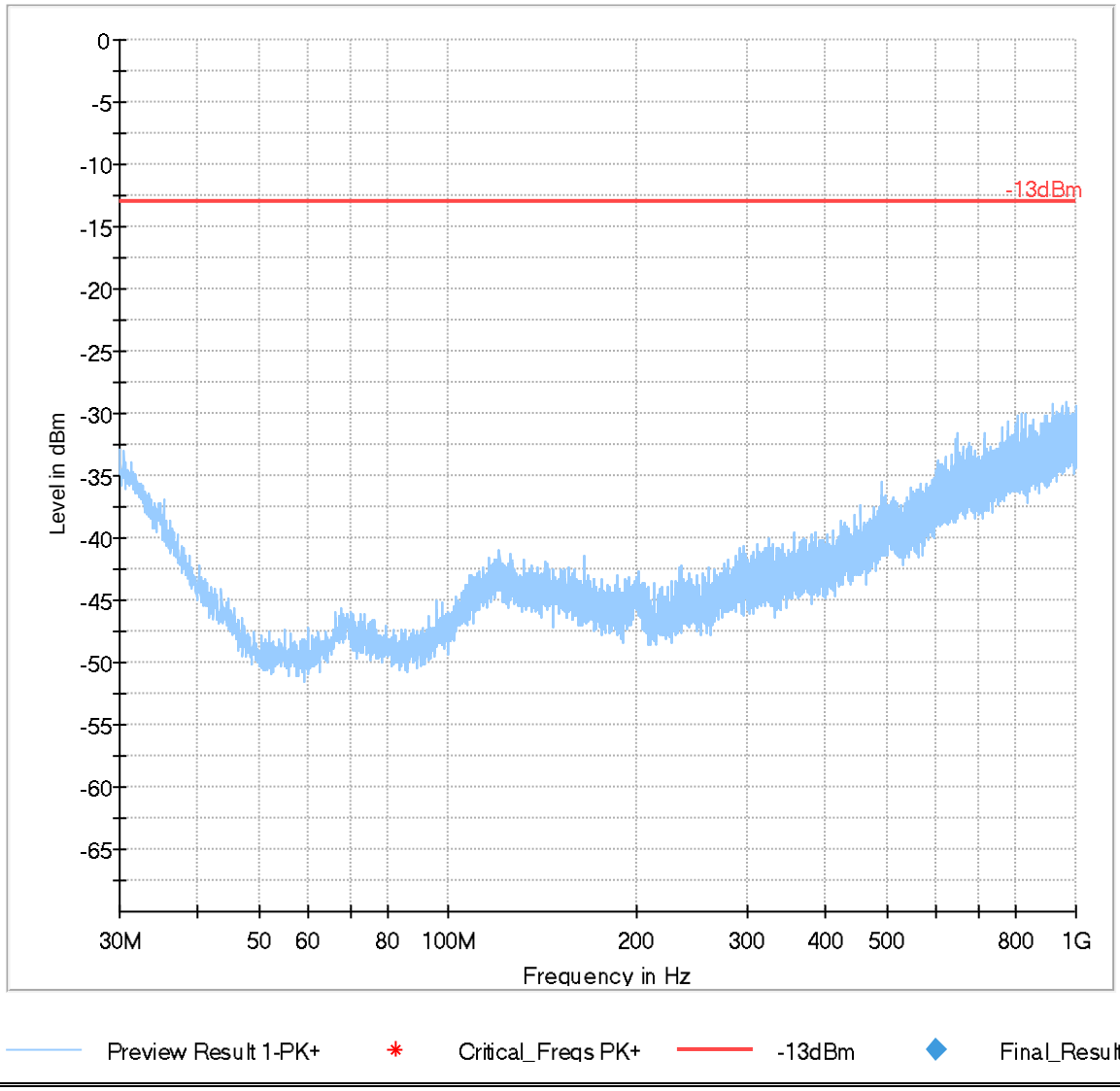
(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
3465.462500	5:14:52 PM - 3/26/2019
3465.462500	5:14:52 PM - 3/26/2019



Plot # 39 Radiated Emissions: 30 MHz - 1 GHz

Channel: High



Plot # 40 Radiated Emissions: 1 GHz - 3 GHz

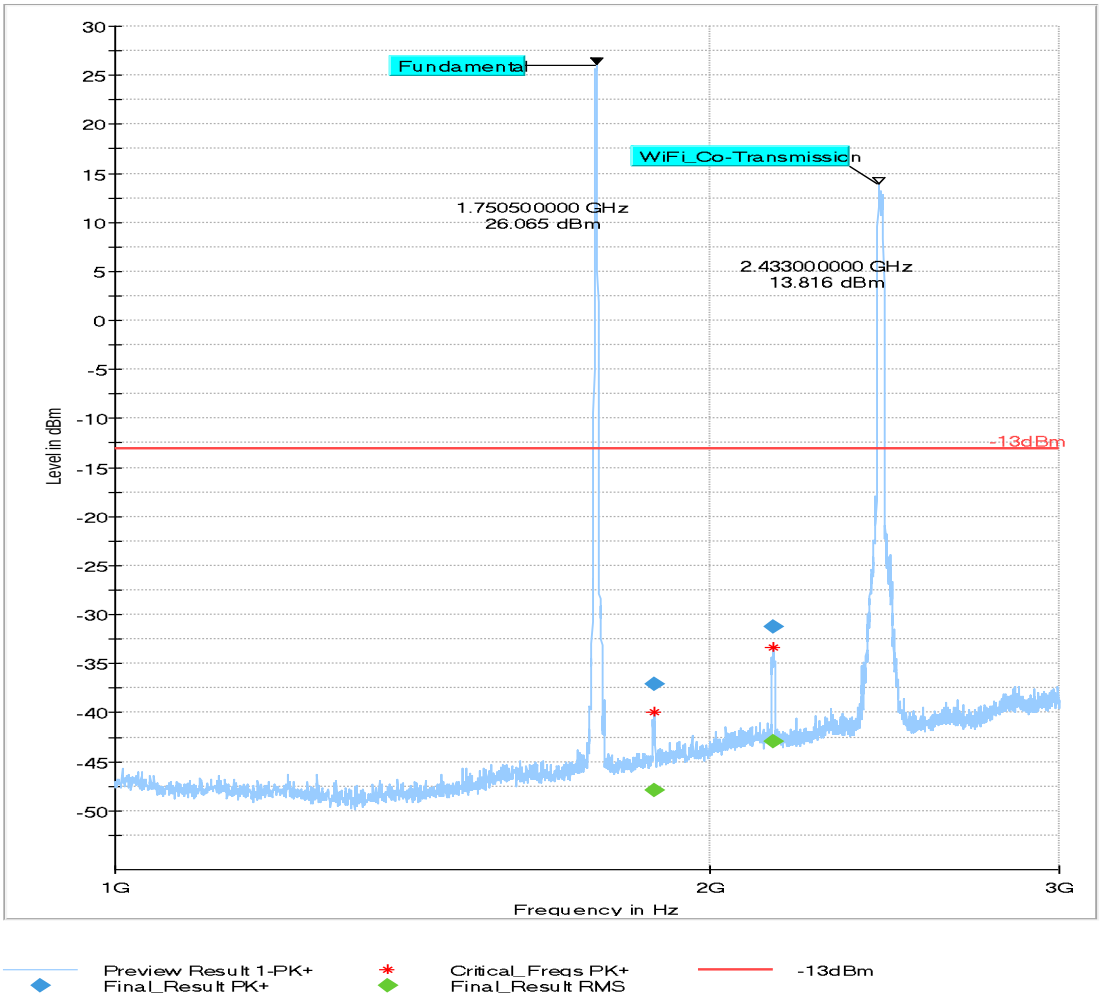
Channel: High

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1871.850375	---	-47.90	---	---	100.0	1000.000	234.0	H	161.0	-61.8
1871.850375	-37.06	---	-13.00	24.06	100.0	1000.000	234.0	H	161.0	-61.8
2149.828500	---	-42.95	---	---	100.0	1000.000	193.0	V	295.0	-60.6
2149.828500	-31.20	---	-13.00	18.20	100.0	1000.000	193.0	V	295.0	-60.6

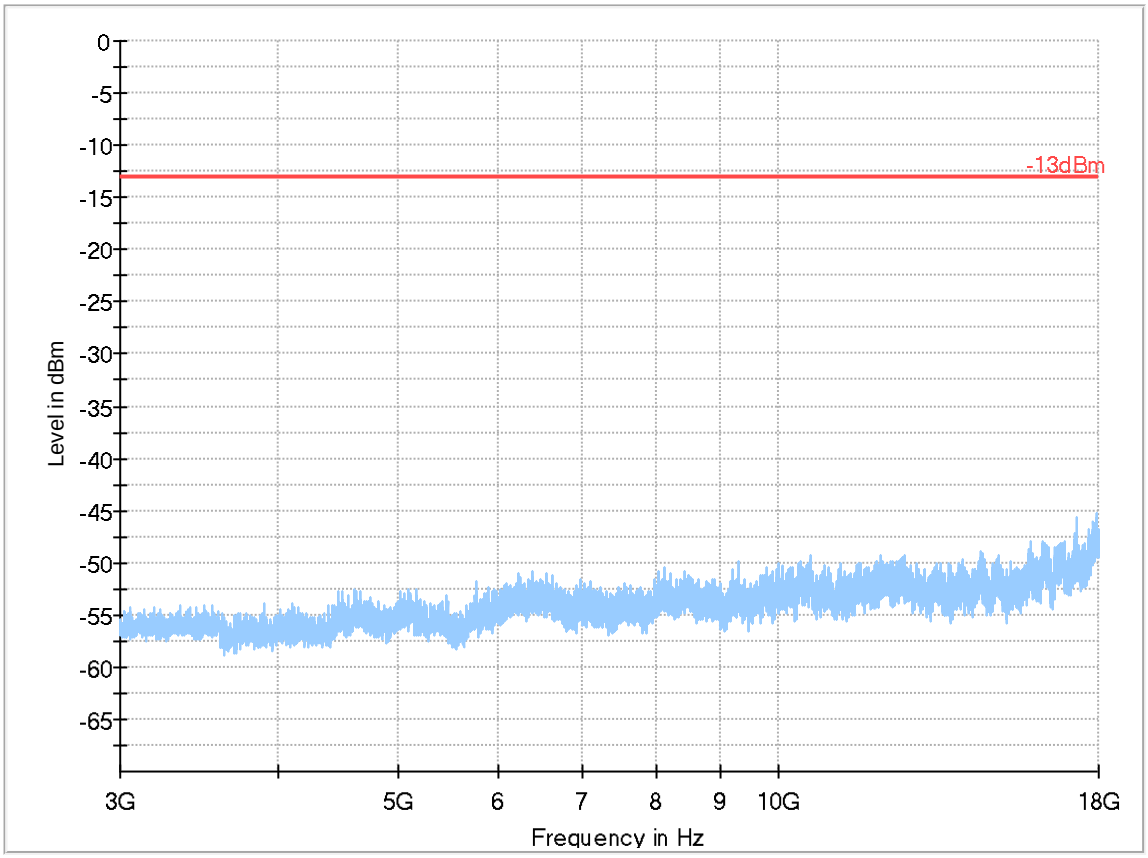
(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
1871.850375	6:36:58 PM - 3/25/2019
1871.850375	6:36:58 PM - 3/25/2019
2149.828500	6:38:56 PM - 3/25/2019
2149.828500	6:38:56 PM - 3/25/2019



Plot # 41 Radiated Emissions: 3 GHz - 18 GHz

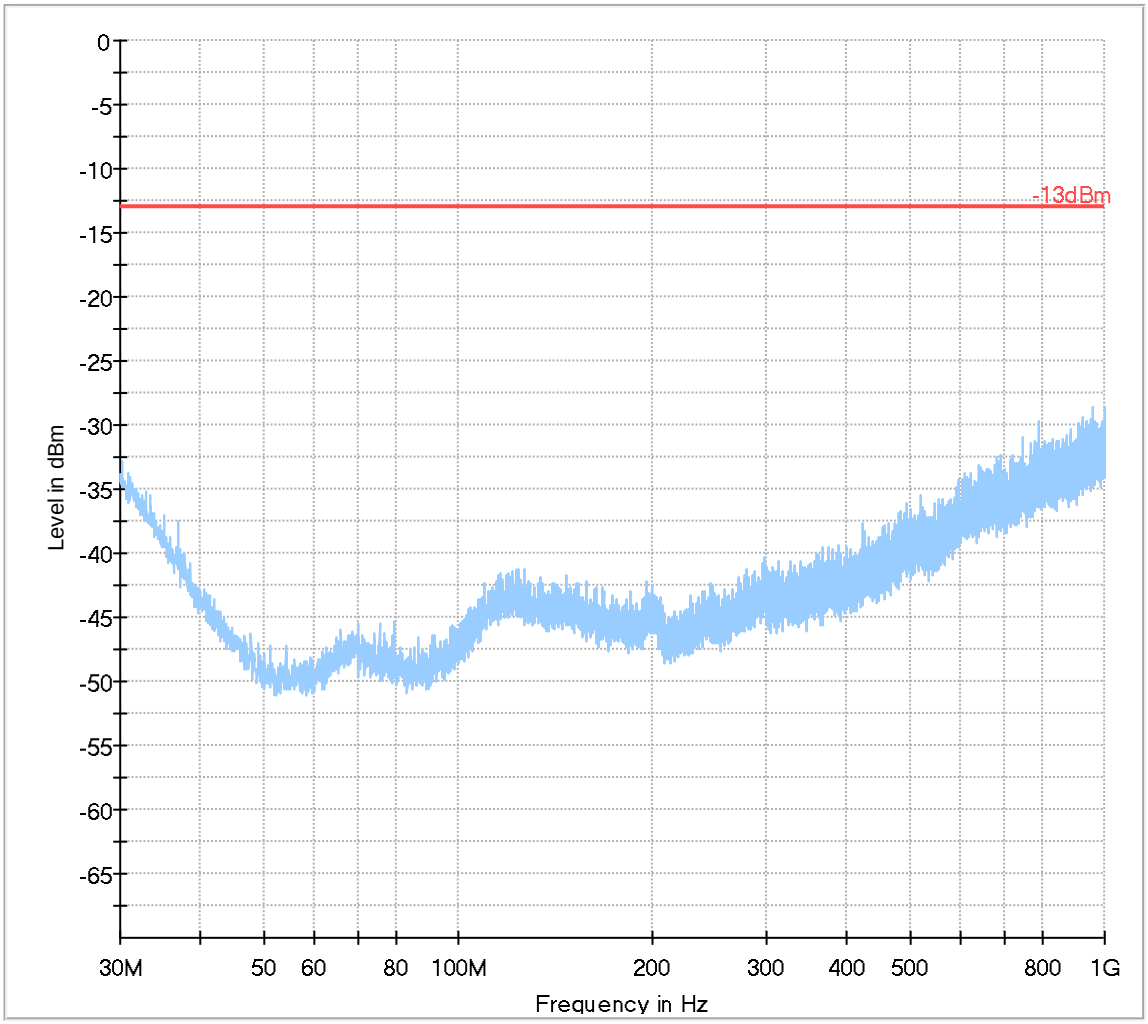
Channel: High



LTE Band 7

Plot # 42 Radiated Emissions: 30 MHz - 1 GHz

Channel: Low



Plot # 43 Radiated Emissions: 1 GHz - 3 GHz

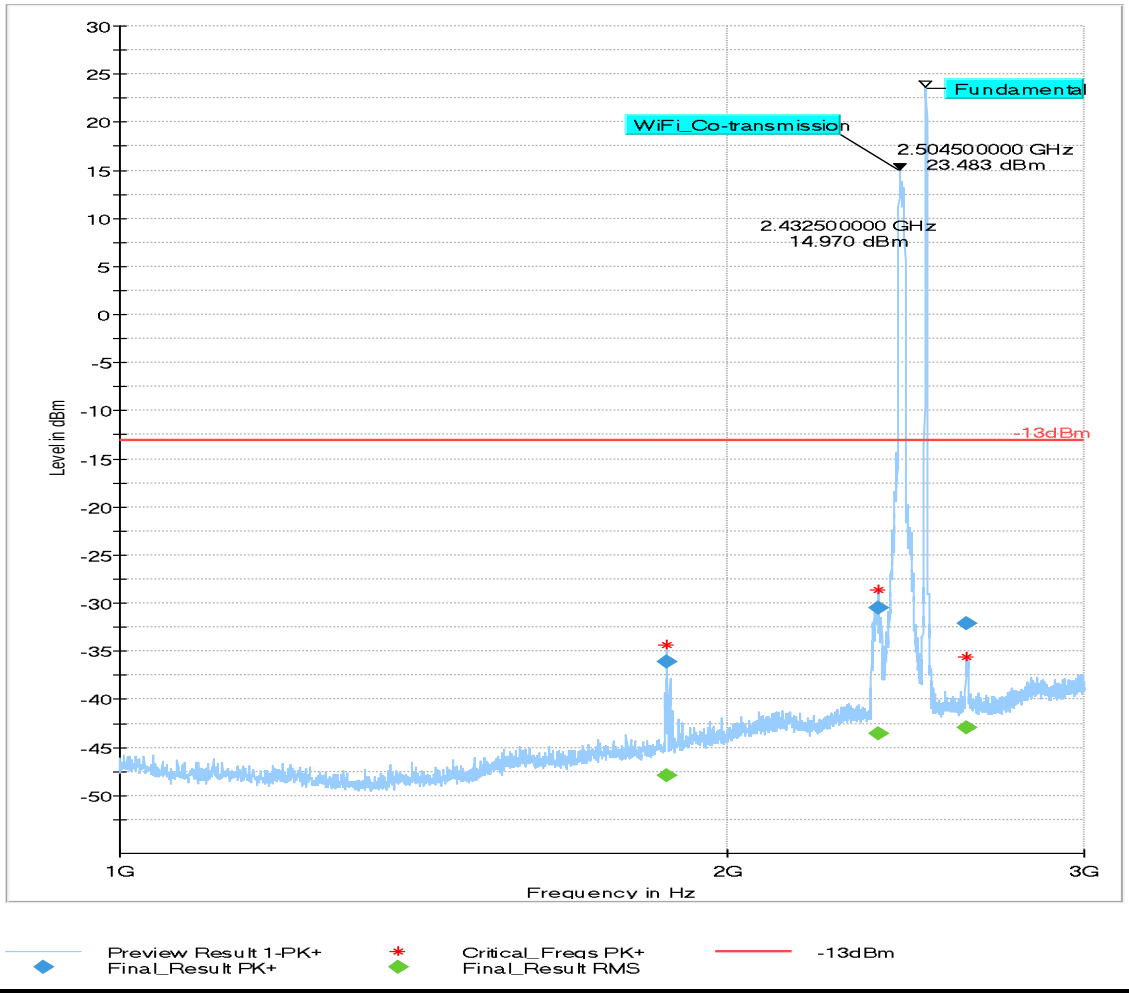
Channel: Low

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1866.097000	---	-47.97	---	---	100.0	1000.000	270.0	H	291.0	-61.8
1866.097000	-36.06	---	-13.00	23.06	100.0	1000.000	270.0	H	291.0	-61.8
2373.795375	---	-43.56	---	---	100.0	1000.000	260.0	H	253.0	-60.0
2373.795375	-30.46	---	-13.00	17.46	100.0	1000.000	260.0	H	253.0	-60.0
2624.602375	---	-42.88	---	---	100.0	1000.000	201.0	V	343.0	-58.9
2624.602375	-32.13	---	-13.00	19.13	100.0	1000.000	201.0	V	343.0	-58.9

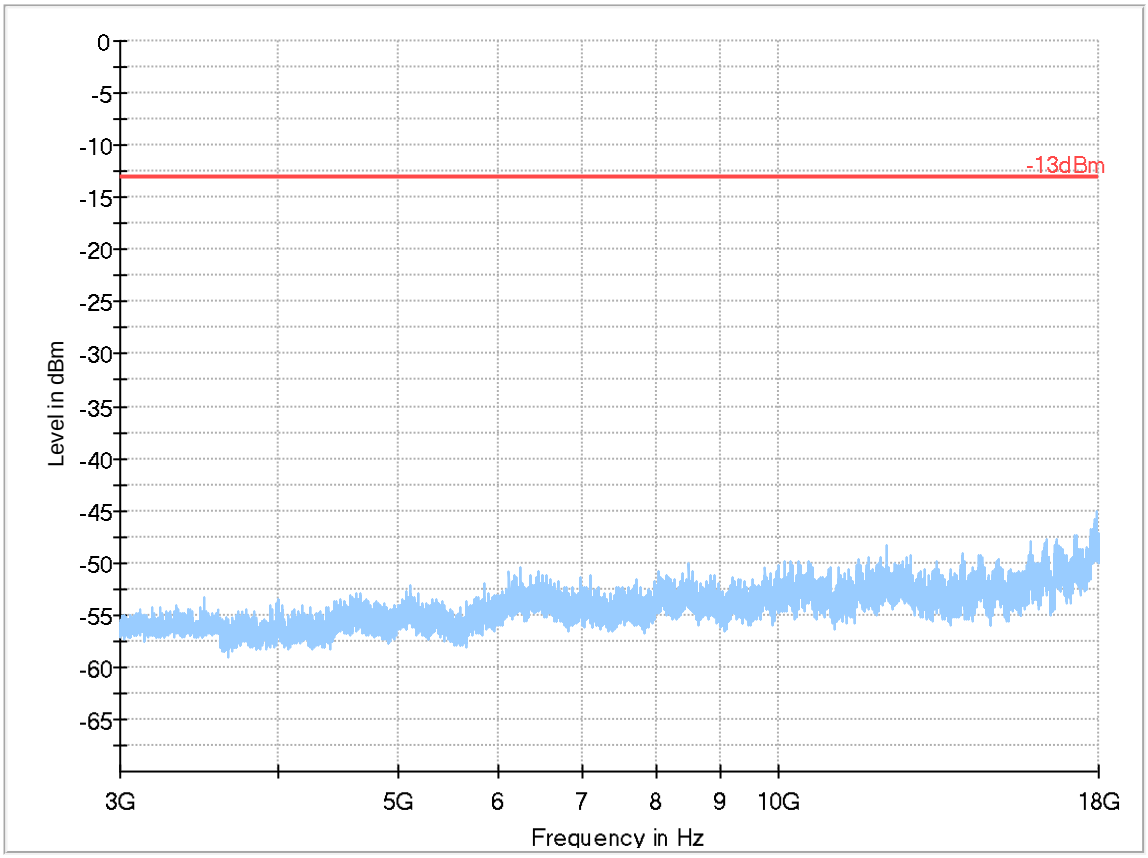
(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
1866.097000	10:33:34 AM - 3/26/2019
1866.097000	10:33:34 AM - 3/26/2019
2373.795375	10:35:22 AM - 3/26/2019
2373.795375	10:35:22 AM - 3/26/2019
2624.602375	10:37:10 AM - 3/26/2019
2624.602375	10:37:10 AM - 3/26/2019



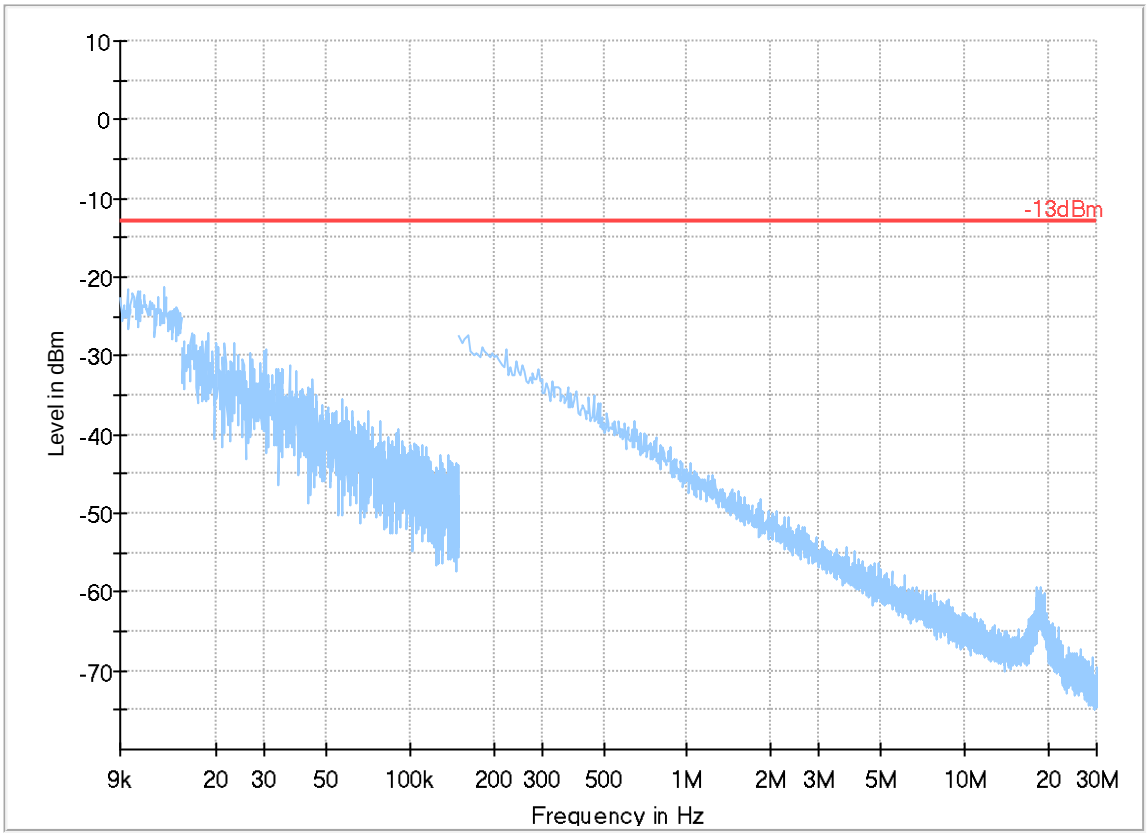
Plot # 44 Radiated Emissions: 3 GHz - 18 GHz

Channel: Low



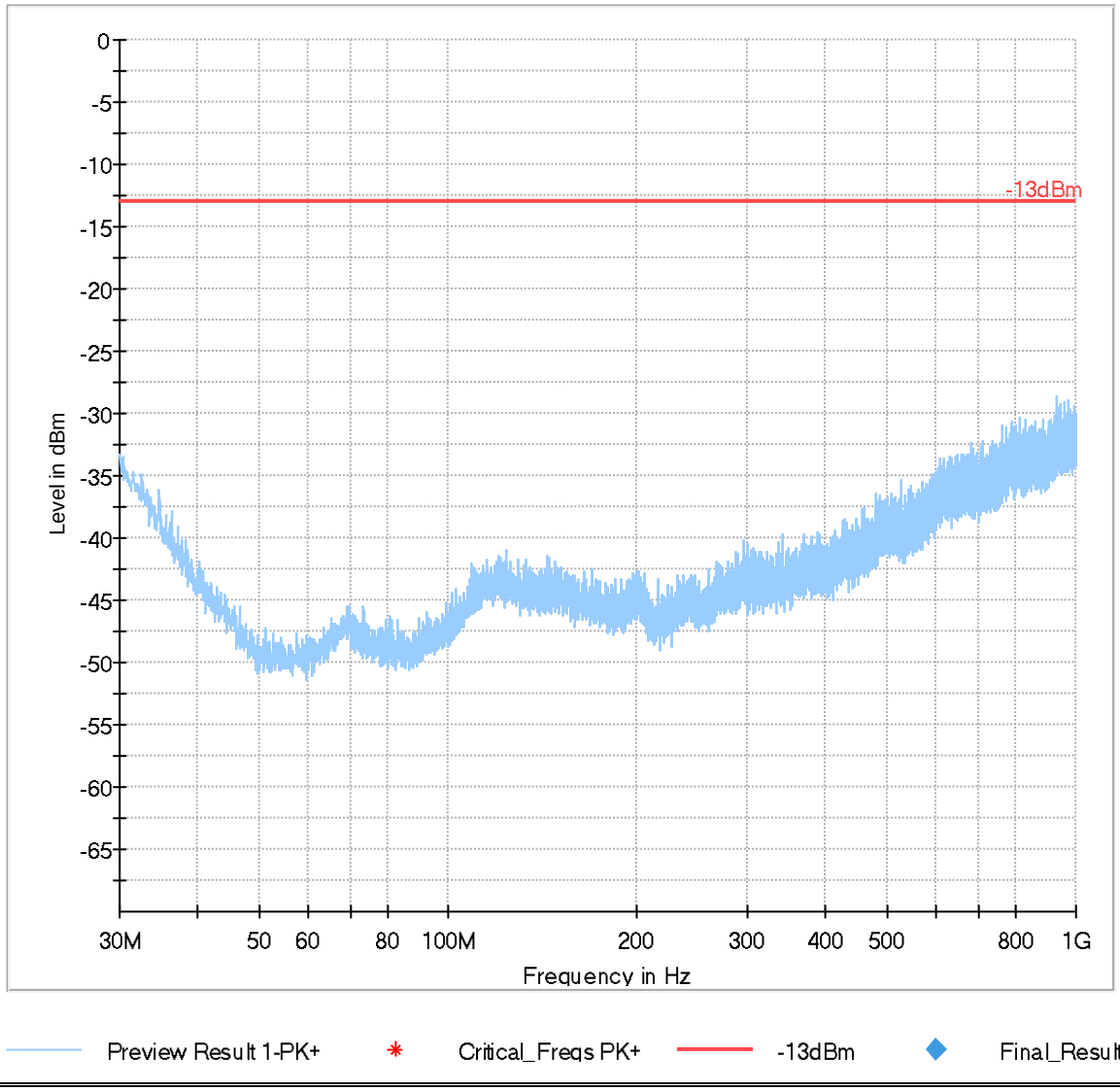
Plot # 45 Radiated Emissions: 9 kHz - 30 MHz

Channel: Mid



Plot # 46 Radiated Emissions: 30 MHz – 1GHz

Channel: Mid



Plot # 47 Radiated Emissions: 1 GHz - 3 GHz

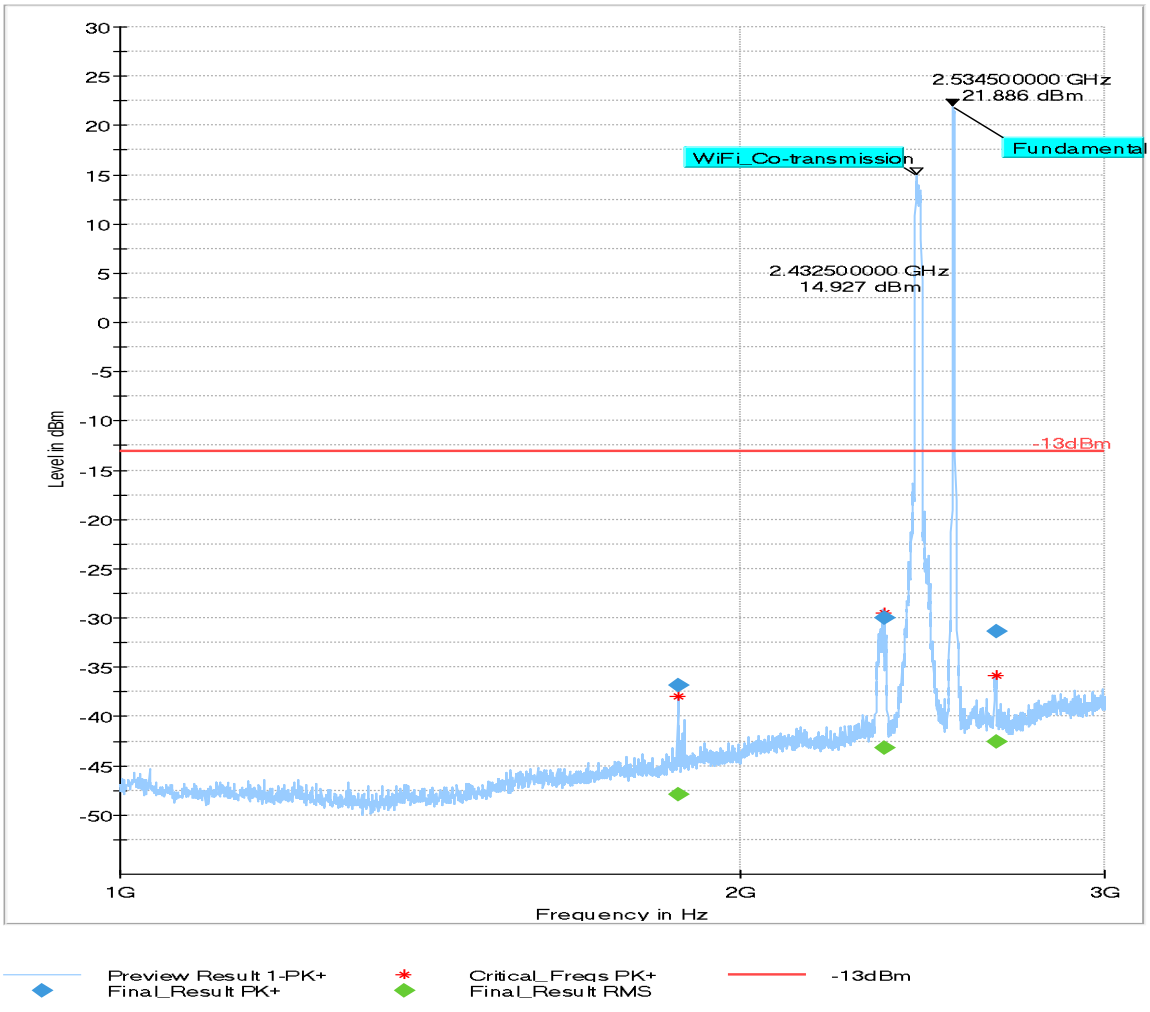
Channel: Mid

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1862.589375	---	-47.93	---	---	100.0	1000.000	261.0	V	0.0	-61.8
1862.589375	-36.79	---	-13.00	23.79	100.0	1000.000	261.0	V	0.0	-61.8
2345.015125	---	-43.17	---	---	100.0	1000.000	176.0	H	179.0	-60.0
2345.015125	-29.99	---	-13.00	16.99	100.0	1000.000	176.0	H	179.0	-60.0
2656.590750	---	-42.54	---	---	100.0	1000.000	165.0	V	293.0	-58.8
2656.590750	-31.39	---	-13.00	18.39	100.0	1000.000	165.0	V	293.0	-58.8

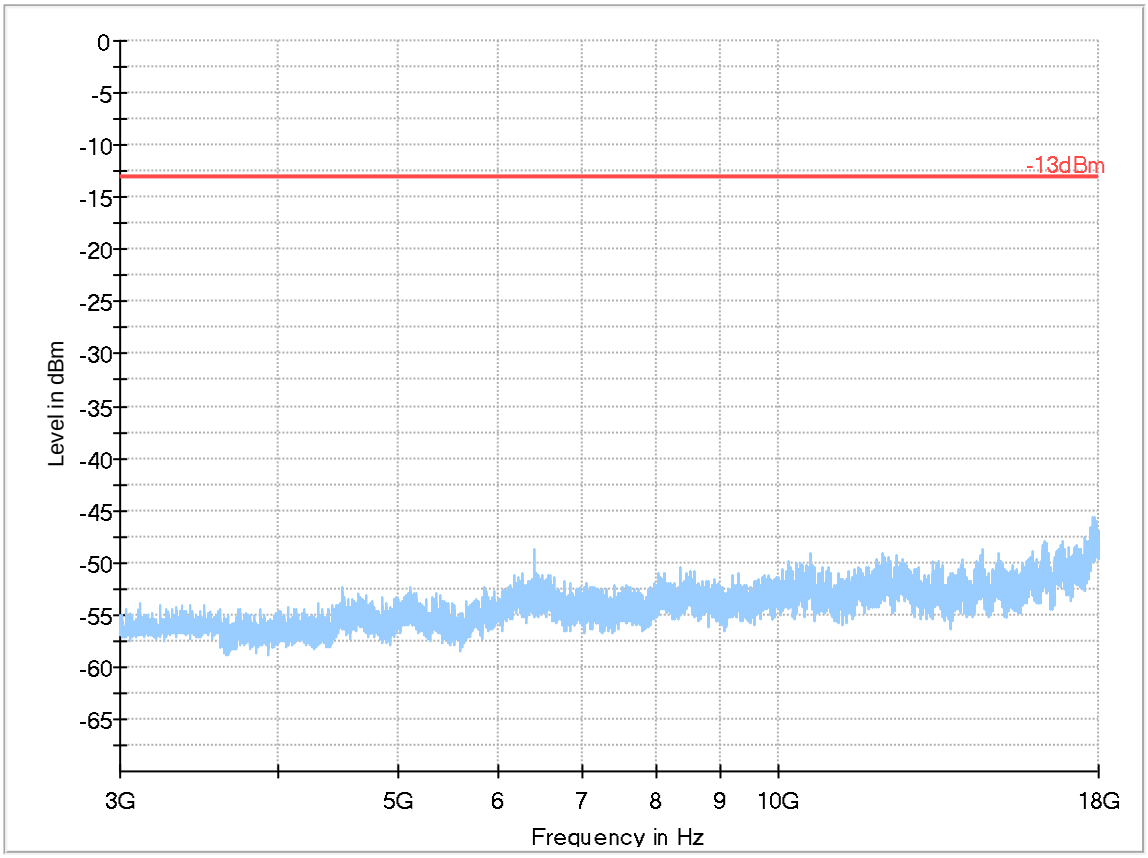
(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
1862.589375	10:16:20 AM - 3/26/2019
1862.589375	10:16:20 AM - 3/26/2019
2345.015125	10:18:31 AM - 3/26/2019
2345.015125	10:18:31 AM - 3/26/2019
2656.590750	10:20:35 AM - 3/26/2019
2656.590750	10:20:35 AM - 3/26/2019



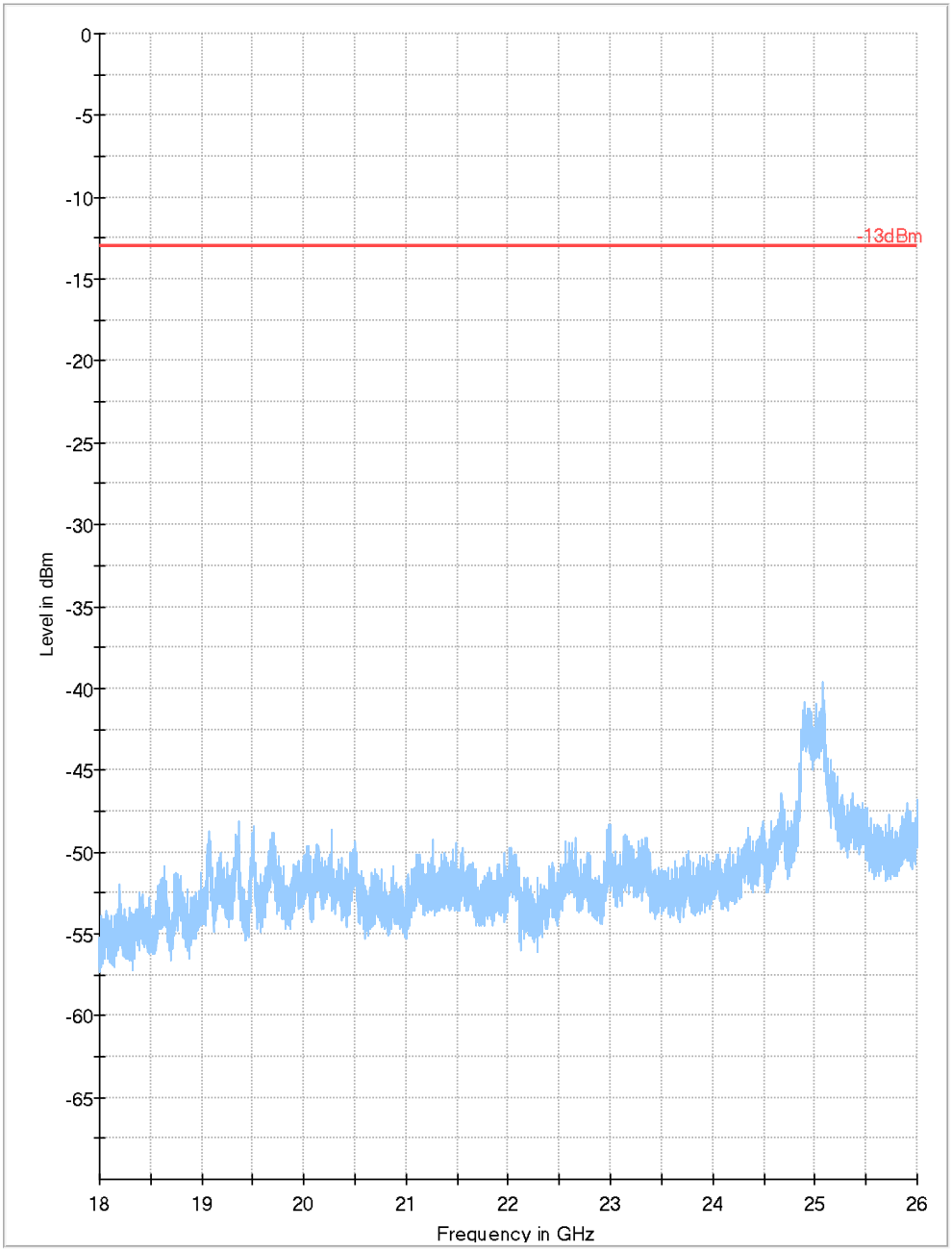
Plot # 48 Radiated Emissions: 3 GHz – 18 GHz

Channel: Mid



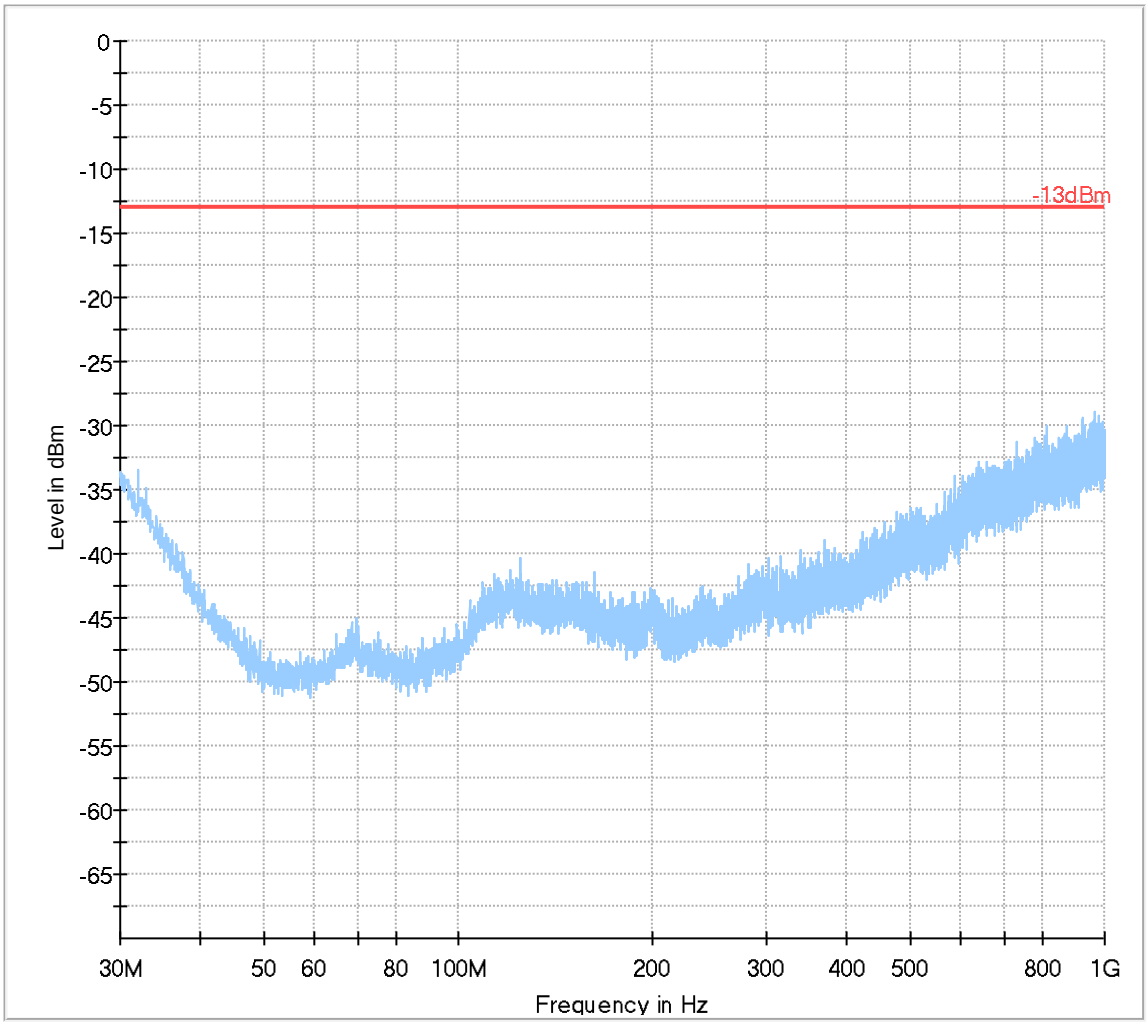
Plot # 49 Radiated Emissions: 18 GHz – 26 GHz

Channel: Mid



Plot # 50 Radiated Emissions: 30 MHz - 1 GHz

Channel: High



Plot # 51 Radiated Emissions: 1 GHz - 3 GHz

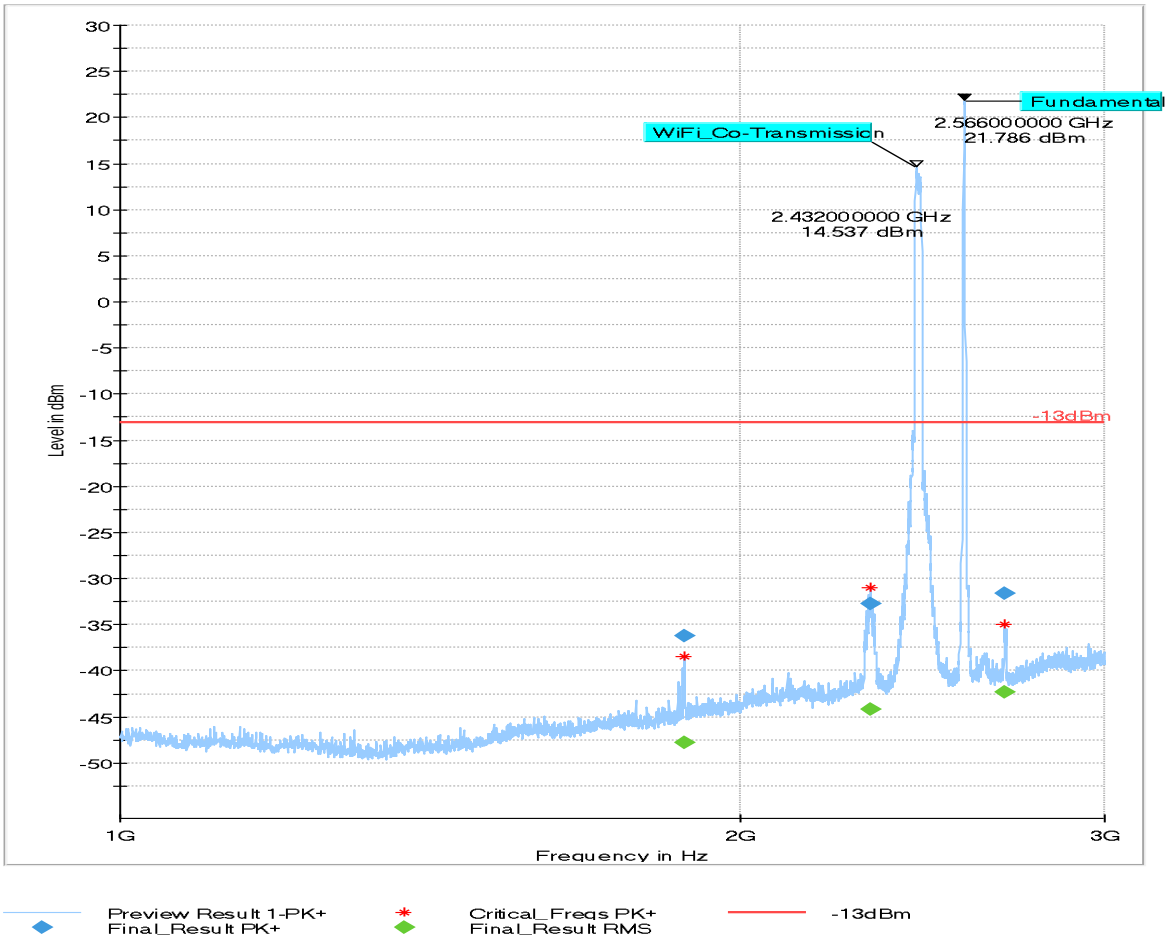
Channel: High

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1876.931000	---	-47.83	---	---	100.0	1000.000	268.0	V	100.0	-61.7
1876.931000	-36.19	---	-13.00	23.19	100.0	1000.000	268.0	V	100.0	-61.7
2309.212625	---	-44.17	---	---	100.0	1000.000	325.0	H	264.0	-60.1
2309.212625	-32.71	---	-13.00	19.71	100.0	1000.000	325.0	H	264.0	-60.1
2684.687625	---	-42.29	---	---	100.0	1000.000	303.0	V	343.0	-58.8
2684.687625	-31.59	---	-13.00	18.59	100.0	1000.000	303.0	V	343.0	-58.8

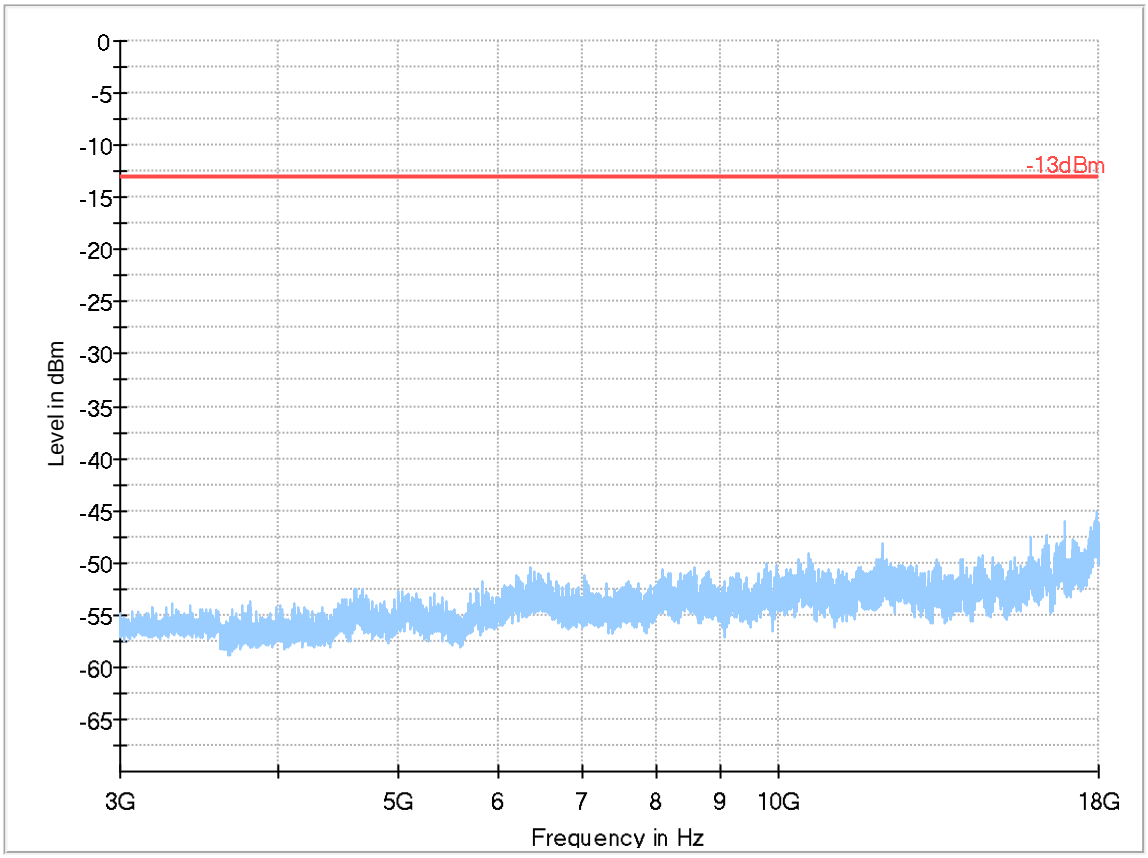
(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
1876.931000	10:44:05 AM - 3/26/2019
1876.931000	10:44:05 AM - 3/26/2019
2309.212625	10:46:02 AM - 3/26/2019
2309.212625	10:46:02 AM - 3/26/2019
2684.687625	10:47:54 AM - 3/26/2019
2684.687625	10:47:54 AM - 3/26/2019



Plot # 52 Radiated Emissions: 3 GHz - 18 GHz

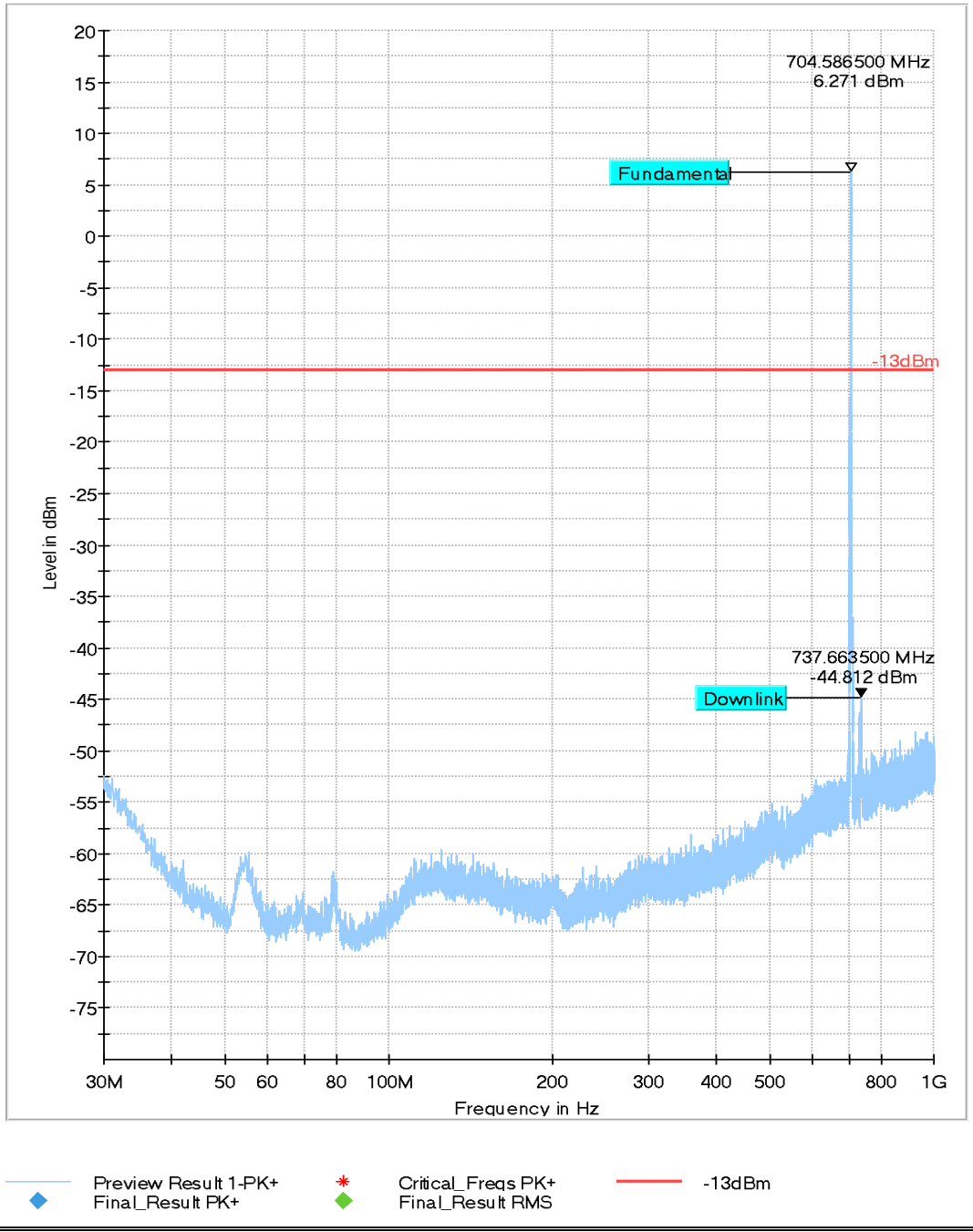
Channel: High



LTE Band 12

Plot # 53 Radiated Emissions: 30 MHz – 1GHz

Channel: Low



Plot # 54 Radiated Emissions: 1 GHz - 3 GHz

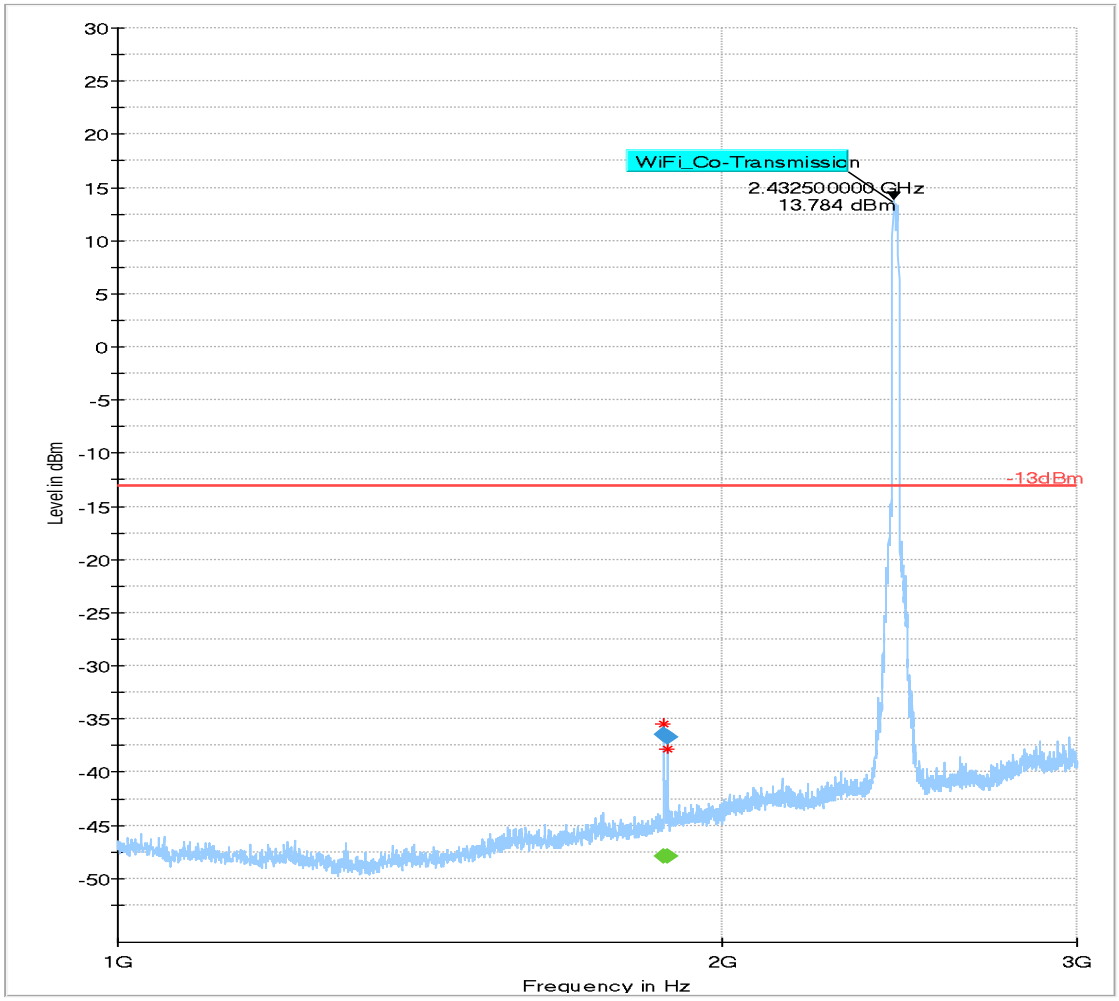
Channel: Low

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1868.519250	---	-47.93	---	---	100.0	1000.000	232.0	H	93.0	-61.8
1868.519250	-36.45	---	-13.00	23.45	100.0	1000.000	232.0	H	93.0	-61.8
1877.500125	---	-47.85	---	---	100.0	1000.000	241.0	H	233.0	-61.7
1877.500125	-36.71	---	-13.00	23.71	100.0	1000.000	241.0	H	233.0	-61.7

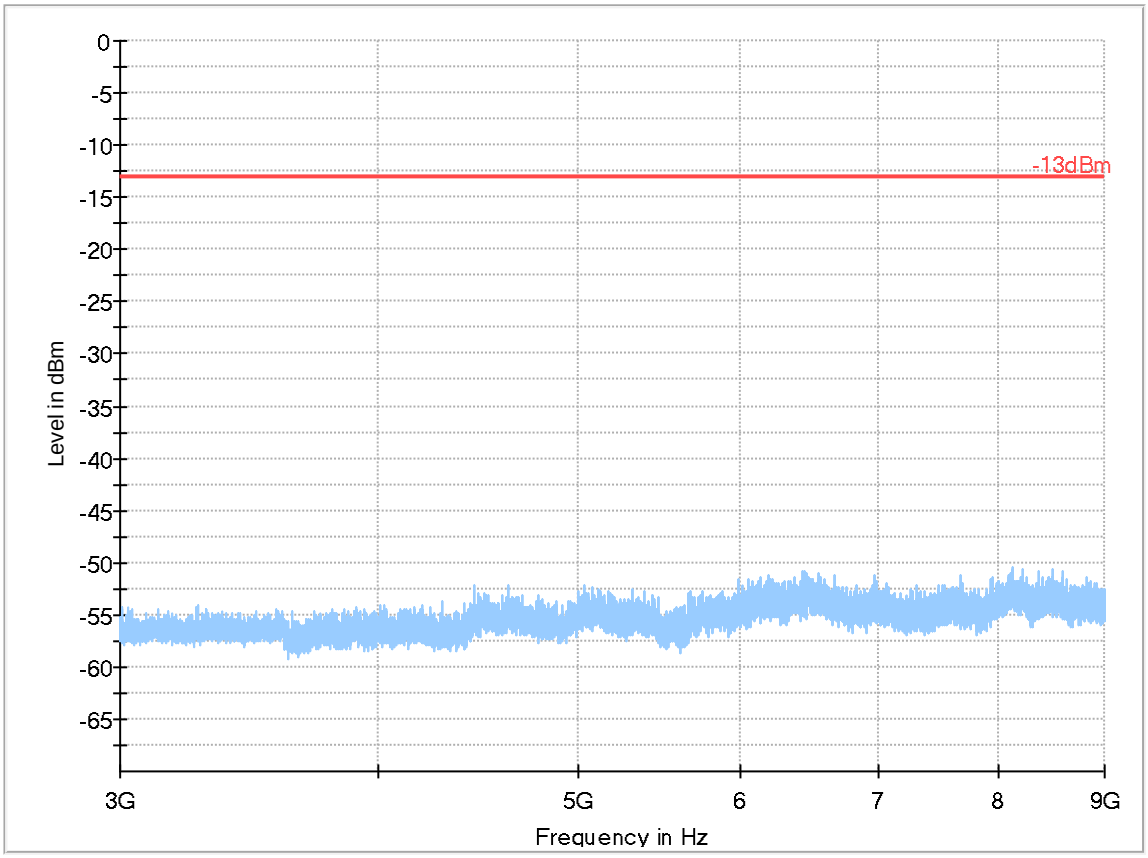
(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
1868.519250	11:10:01 AM - 3/26/2019
1868.519250	11:10:01 AM - 3/26/2019
1877.500125	11:12:09 AM - 3/26/2019
1877.500125	11:12:09 AM - 3/26/2019



Plot # 55 Radiated Emissions: 3 GHz – 9 GHz

Channel: Low



Plot # 56 Radiated Emissions: 9 kHz - 30 MHz

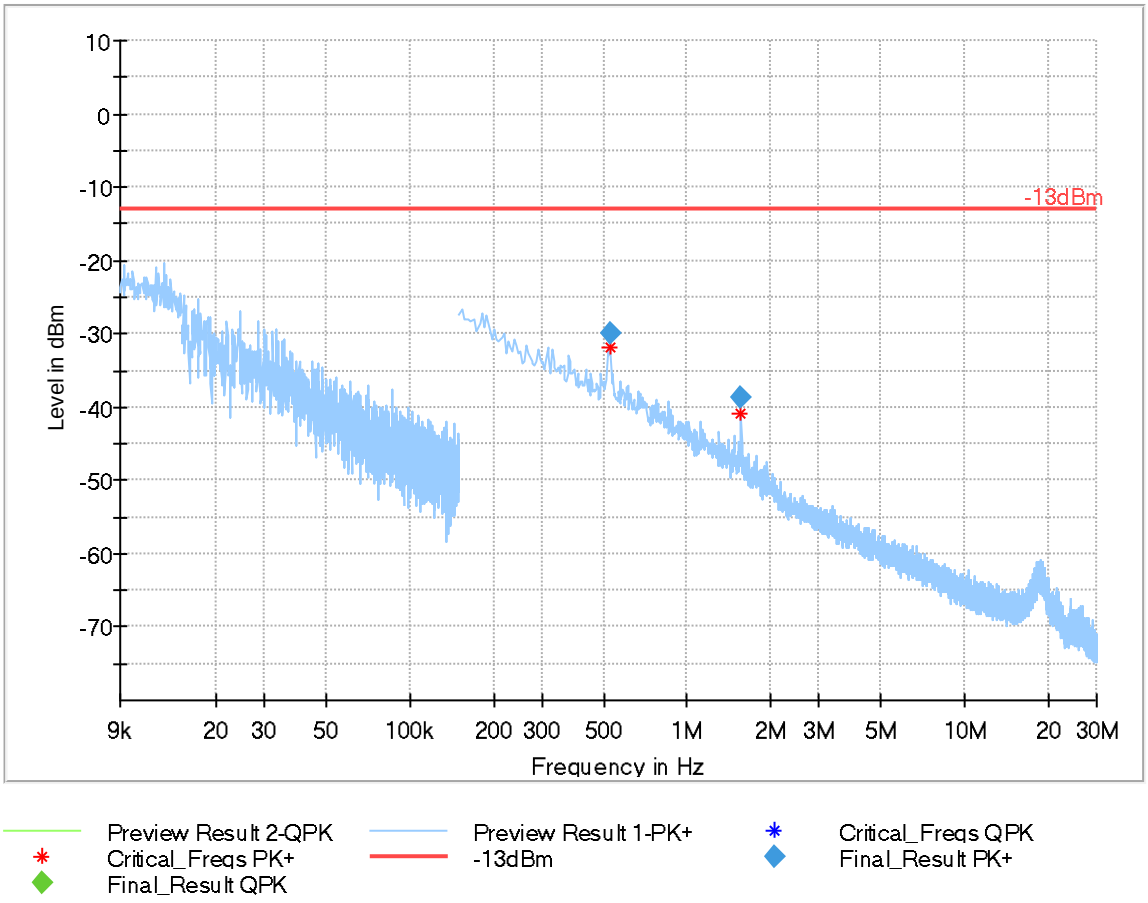
Channel: Mid

Final_Result

Frequency (MHz)	MaxPeak (dBm)	QuasiPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
0.525000	-29.89	---	-13.00	16.89	2.0	9.000	140.0	V	19.0
1.561000	-38.75	---	-13.00	25.75	2.0	9.000	152.0	V	18.0

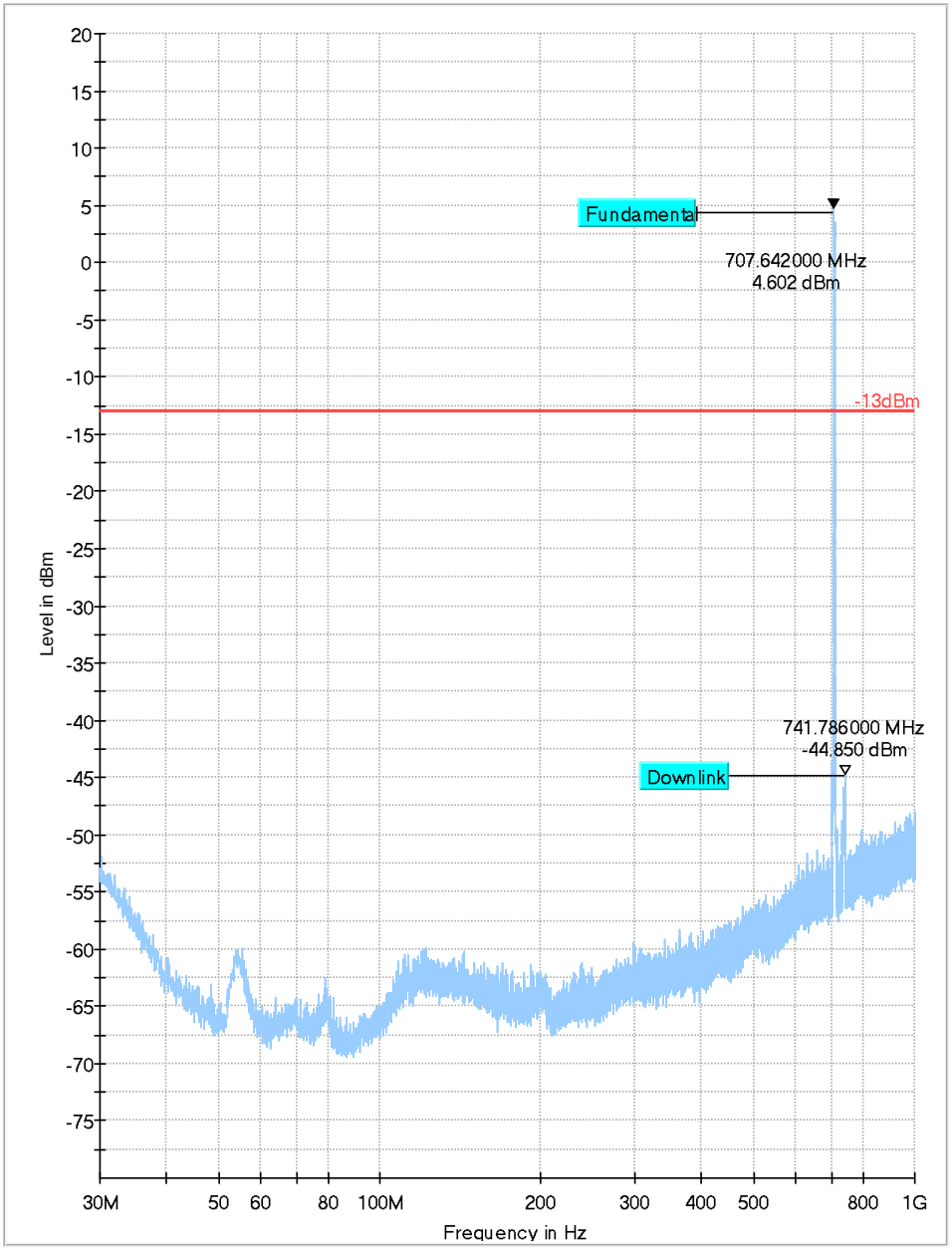
(continuation of the "Final_Result" table from column 15 ...)

Frequency (MHz)	Corr. (dB)	Comment
0.525000	-76.6	5:26:20 PM - 3/27/2019
1.561000	-76.4	5:28:40 PM - 3/27/2019



Plot # 57 Radiated Emissions: 30 MHz – 1GHz

Channel: Mid

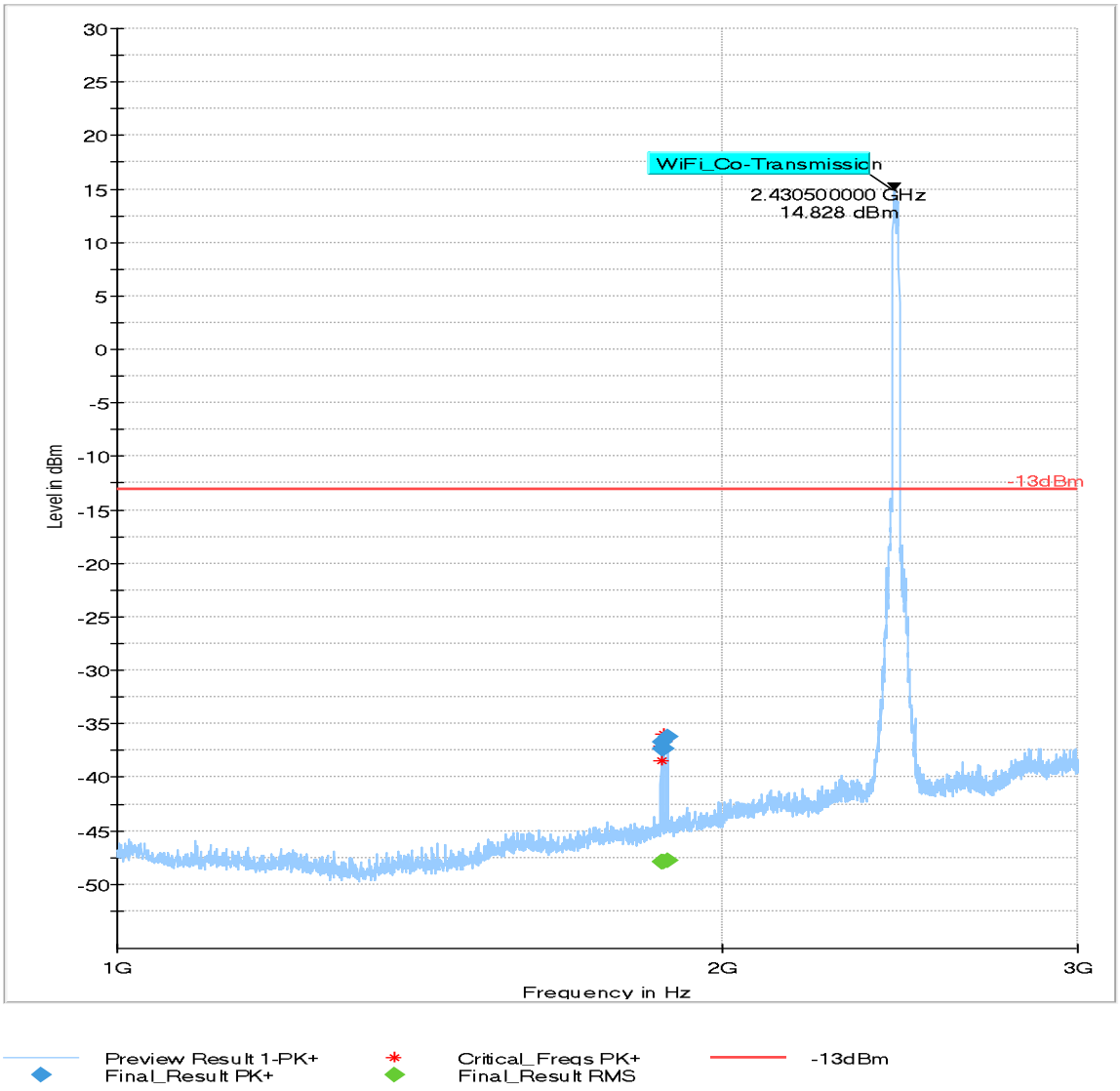


Plot # 58 Radiated Emissions: 1 GHz - 3 GHz

Channel: Mid

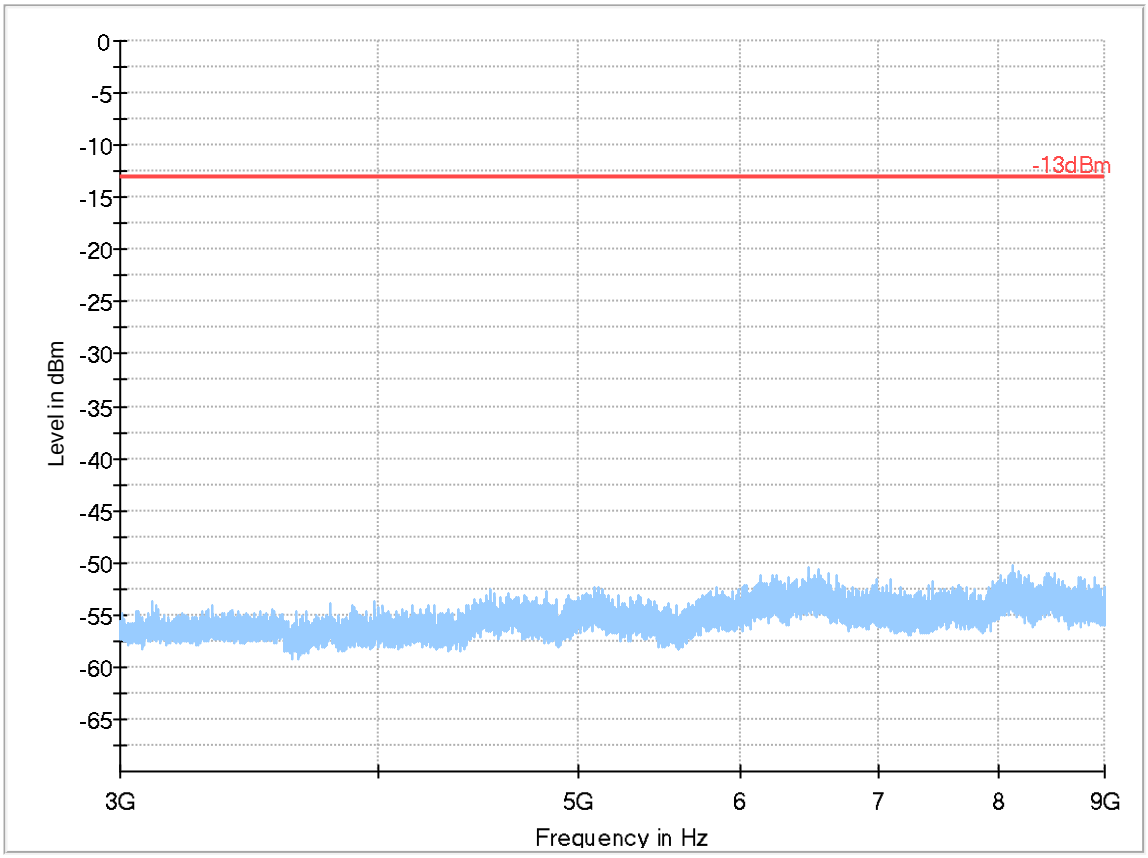
Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Comment
1863.719375	---	-47.91	---	---	100.0	1000.00	151.0	H	43.0	-61.8	10:55:15 AM -
1863.719375	-36.65	---	-13.00	23.65	100.0	1000.00	151.0	H	43.0	-61.8	10:55:15 AM -
1864.686875	---	-47.97	---	---	100.0	1000.00	245.0	V	167.0	-61.8	10:57:01 AM -
1864.686875	-37.38	---	-13.00	24.38	100.0	1000.00	245.0	V	167.0	-61.8	10:57:01 AM -
1869.829625	---	-47.91	---	---	100.0	1000.00	325.0	H	229.0	-61.8	10:58:59 AM -
1869.829625	-37.36	---	-13.00	24.36	100.0	1000.00	325.0	H	229.0	-61.8	10:58:59 AM -
1877.630750	---	-47.84	---	---	100.0	1000.00	140.0	H	80.0	-61.7	11:01:01 AM -
1877.630750	-36.23	---	-13.00	23.23	100.0	1000.00	140.0	H	80.0	-61.7	11:01:01 AM -



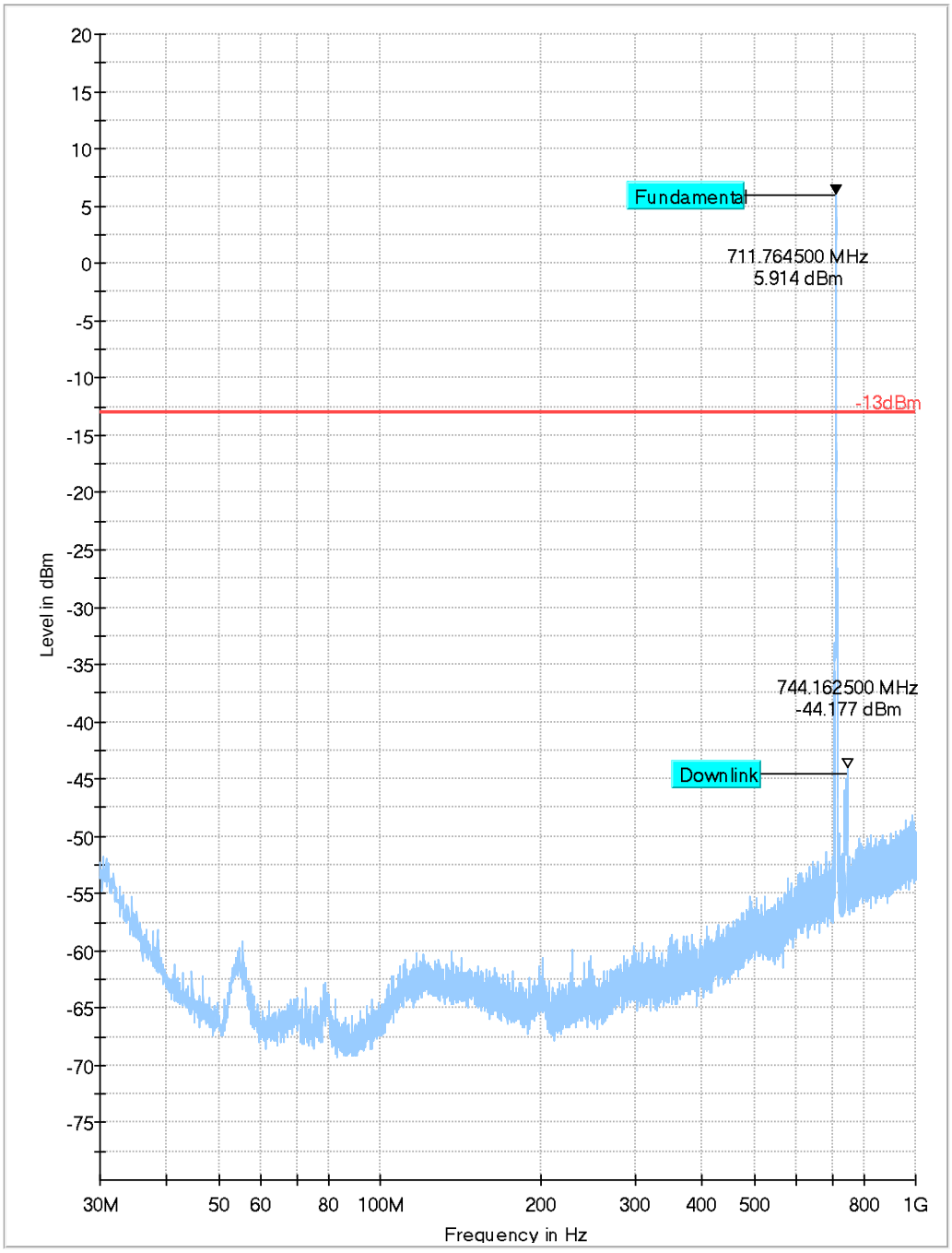
Plot # 59 Radiated Emissions: 3 GHz – 9 GHz

Channel: Mid



Plot # 60 Radiated Emissions: 30 MHz – 1GHz

Channel: High



Plot # 61 Radiated Emissions: 1 GHz - 3 GHz

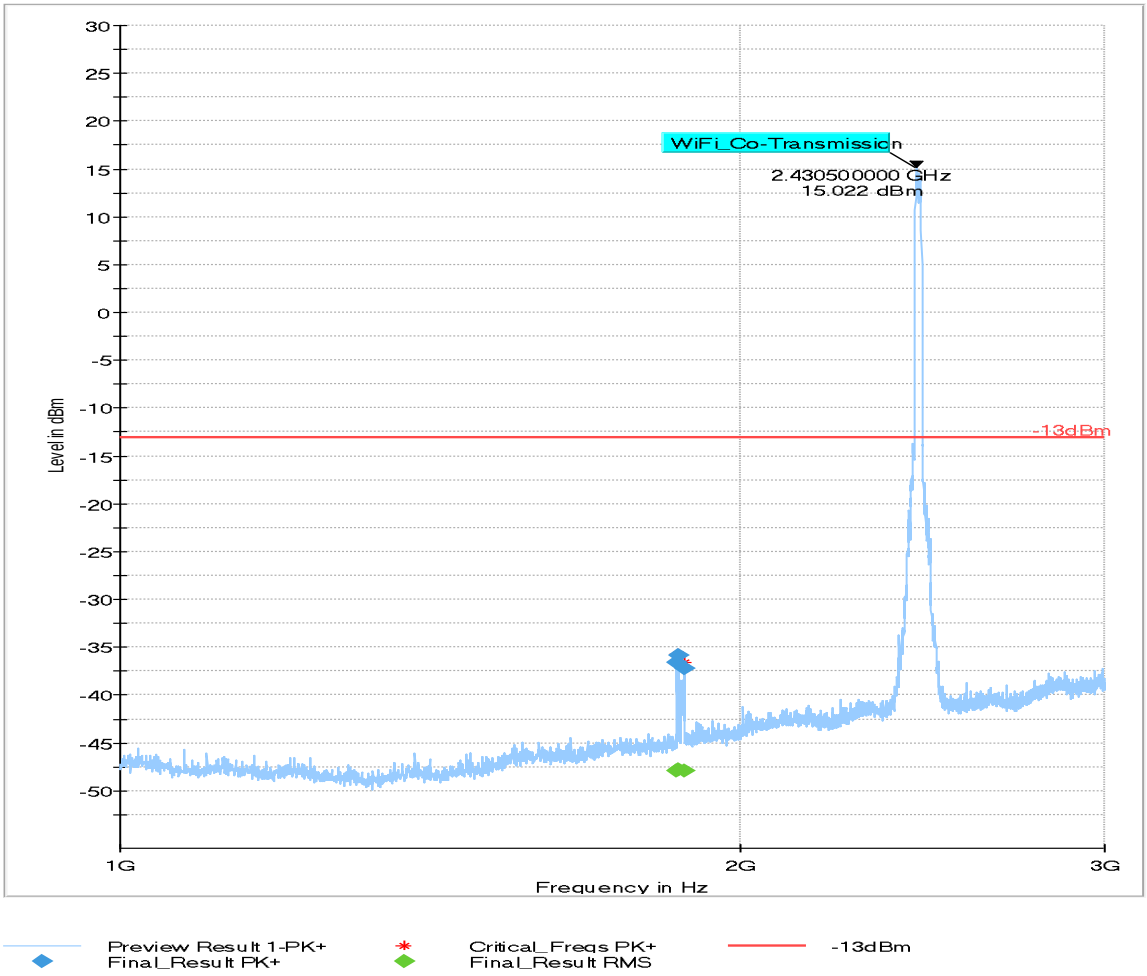
Channel: High

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1861.747625	---	-47.94	---	---	100.0	1000.000	155.0	V	11.0	-61.9
1861.747625	-36.59	---	-13.00	23.59	100.0	1000.000	155.0	V	11.0	-61.9
1865.876125	---	-47.83	---	---	100.0	1000.000	222.0	V	28.0	-61.8
1865.876125	-35.81	---	-13.00	22.81	100.0	1000.000	222.0	V	28.0	-61.8
1875.375625	---	-47.86	---	---	100.0	1000.000	229.0	V	91.0	-61.7
1875.375625	-37.26	---	-13.00	24.26	100.0	1000.000	229.0	V	91.0	-61.7

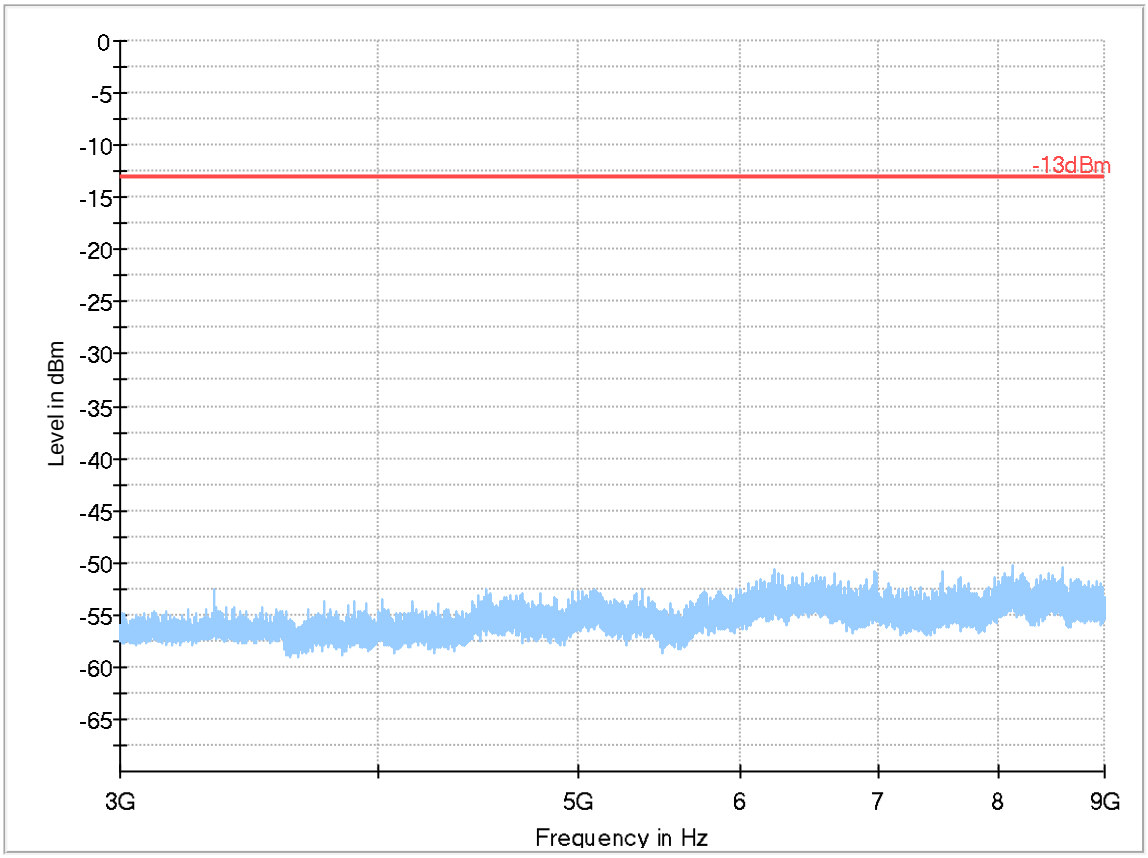
(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
1861.747625	11:19:12 AM - 3/26/2019
1861.747625	11:19:12 AM - 3/26/2019
1865.876125	11:21:42 AM - 3/26/2019
1865.876125	11:21:42 AM - 3/26/2019
1875.375625	11:23:42 AM - 3/26/2019
1875.375625	11:23:42 AM - 3/26/2019



Plot # 62 Radiated Emissions: 3 GHz – 9 GHz

Channel: High



LTE Band 13

Plot # 63 Radiated Emissions: 9 kHz - 30 MHz

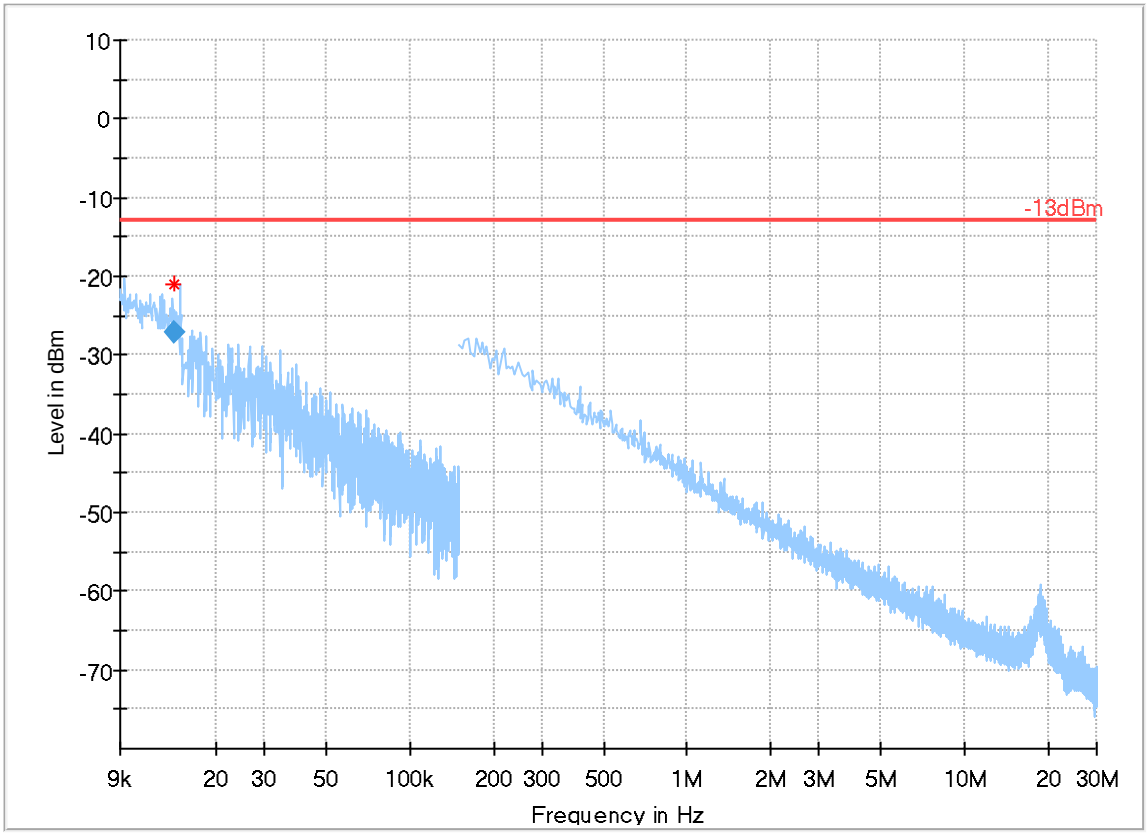
Channel: Mid

Final_Result

Frequency (MHz)	MaxPeak (dBm)	QuasiPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
0.014060	-27.02	---	-13.00	14.02	2.0	0.200	236.0	V	219.0

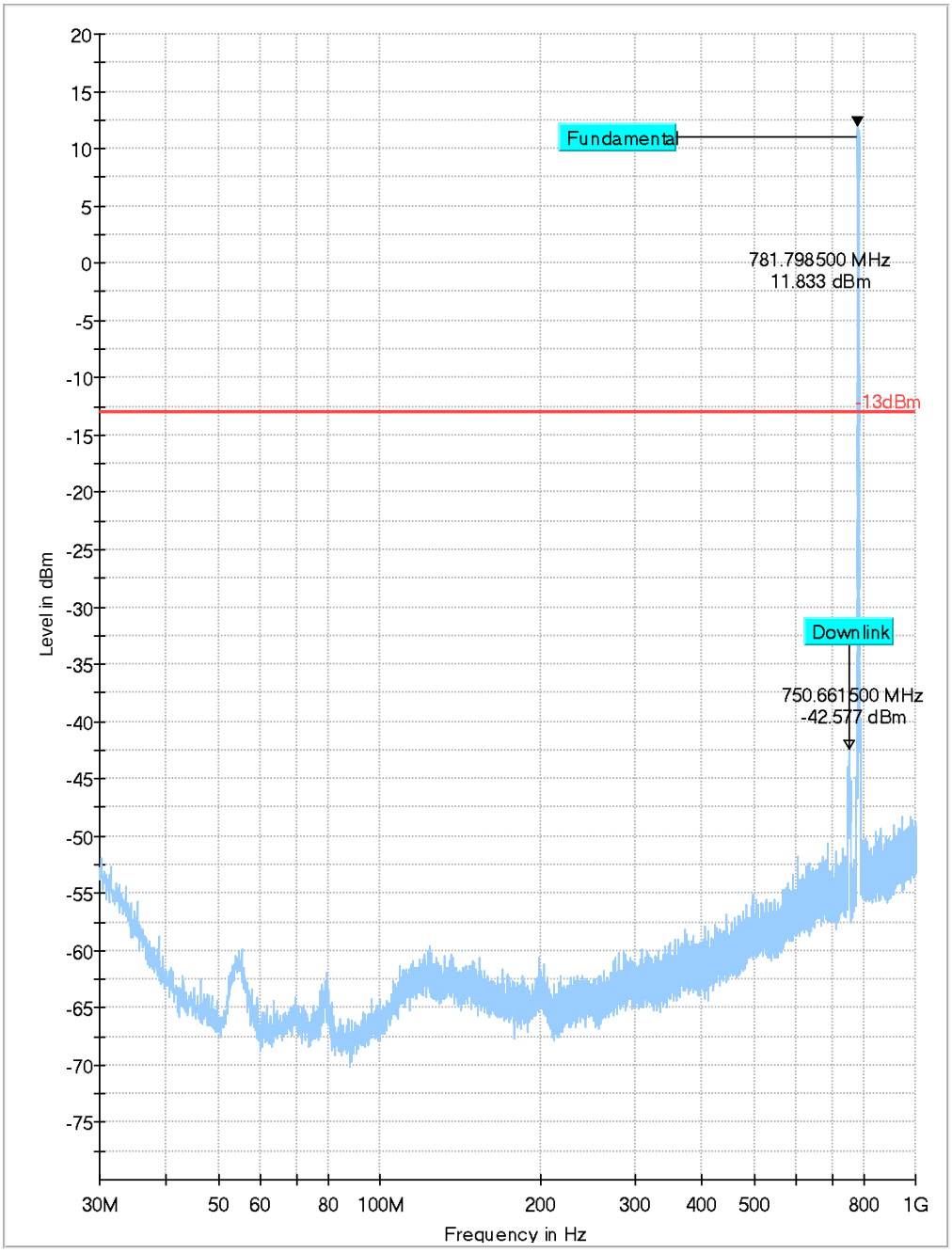
(continuation of the "Final_Result" table from column 15 ...)

Frequency (MHz)	Corr. (dB)	Comment
0.014060	-67.4	5:39:54 PM - 3/27/2019



Plot # 64 Radiated Emissions: 30 MHz – 1GHz

Channel: Mid



Plot # 65 Radiated Emissions: 1 GHz - 3 GHz

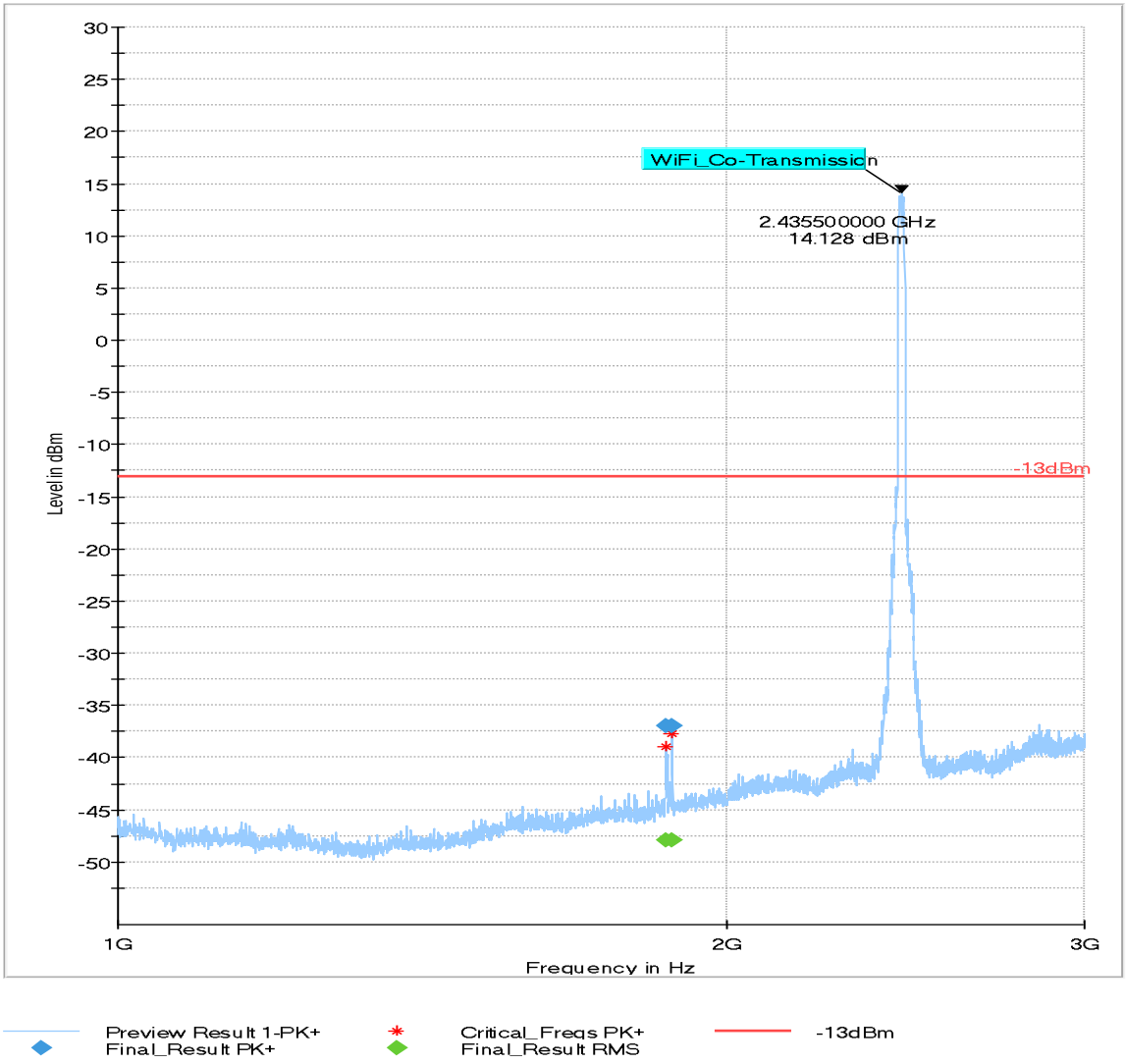
Channel: Mid

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1865.706125	---	-47.93	---	---	100.0	1000.000	205.0	H	168.0	-61.8
1865.706125	-36.93	---	-13.00	23.93	100.0	1000.000	205.0	H	168.0	-61.8
1877.736500	---	-47.85	---	---	100.0	1000.000	221.0	V	33.0	-61.7
1877.736500	-36.98	---	-13.00	23.98	100.0	1000.000	221.0	V	33.0	-61.7

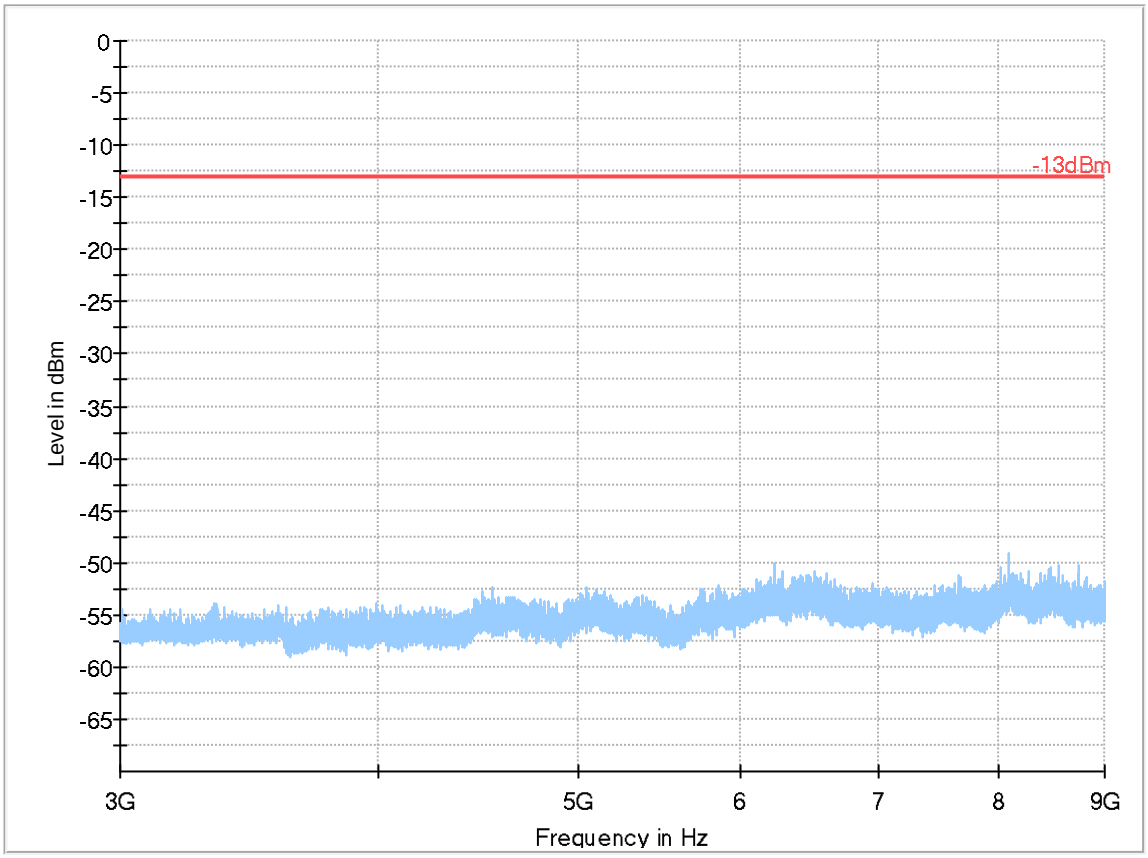
(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
1865.706125	11:30:21 AM - 3/26/2019
1865.706125	11:30:21 AM - 3/26/2019
1877.736500	11:32:22 AM - 3/26/2019



Plot # 66 Radiated Emissions: 3 GHz – 9 GHz

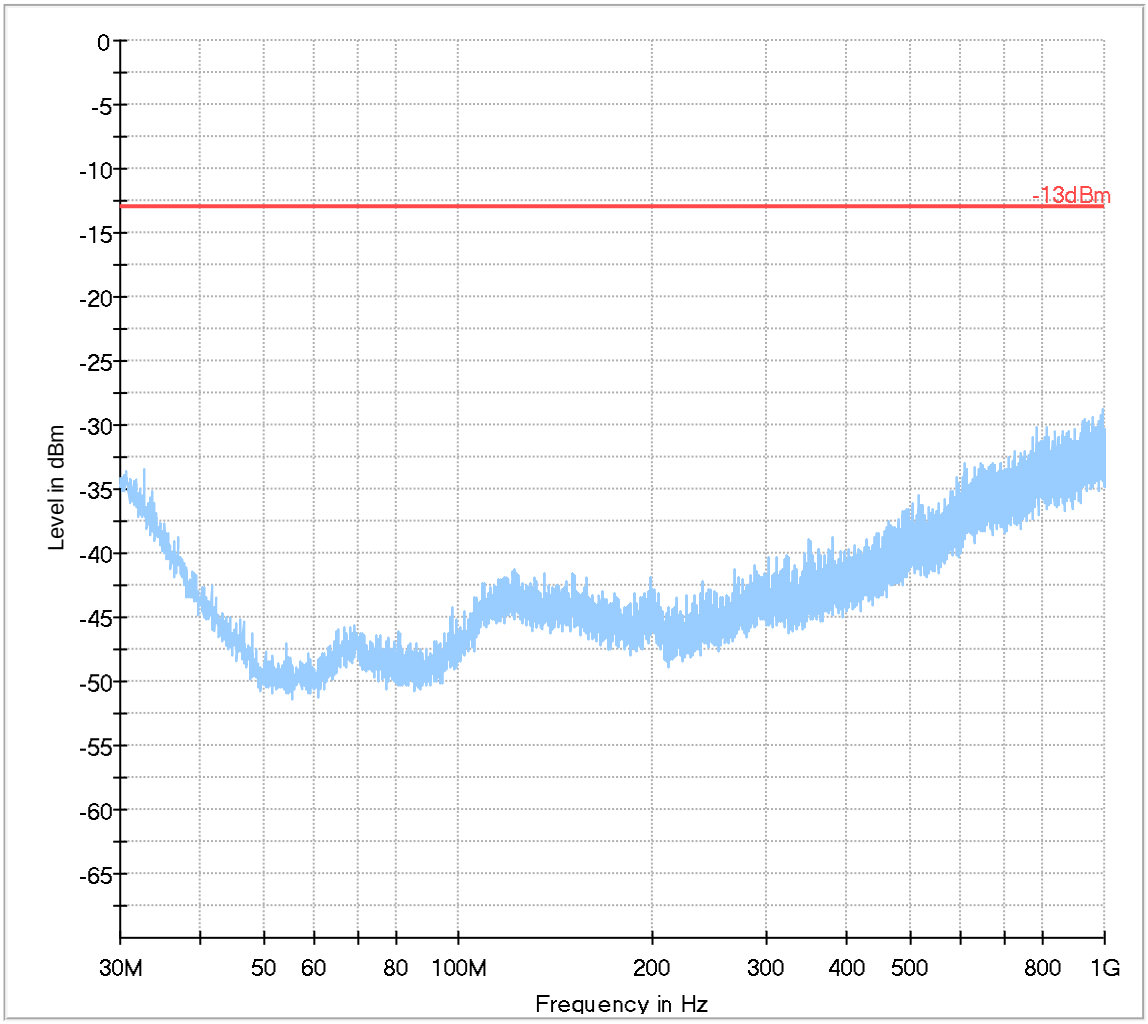
Channel: Mid



LTE Band 25

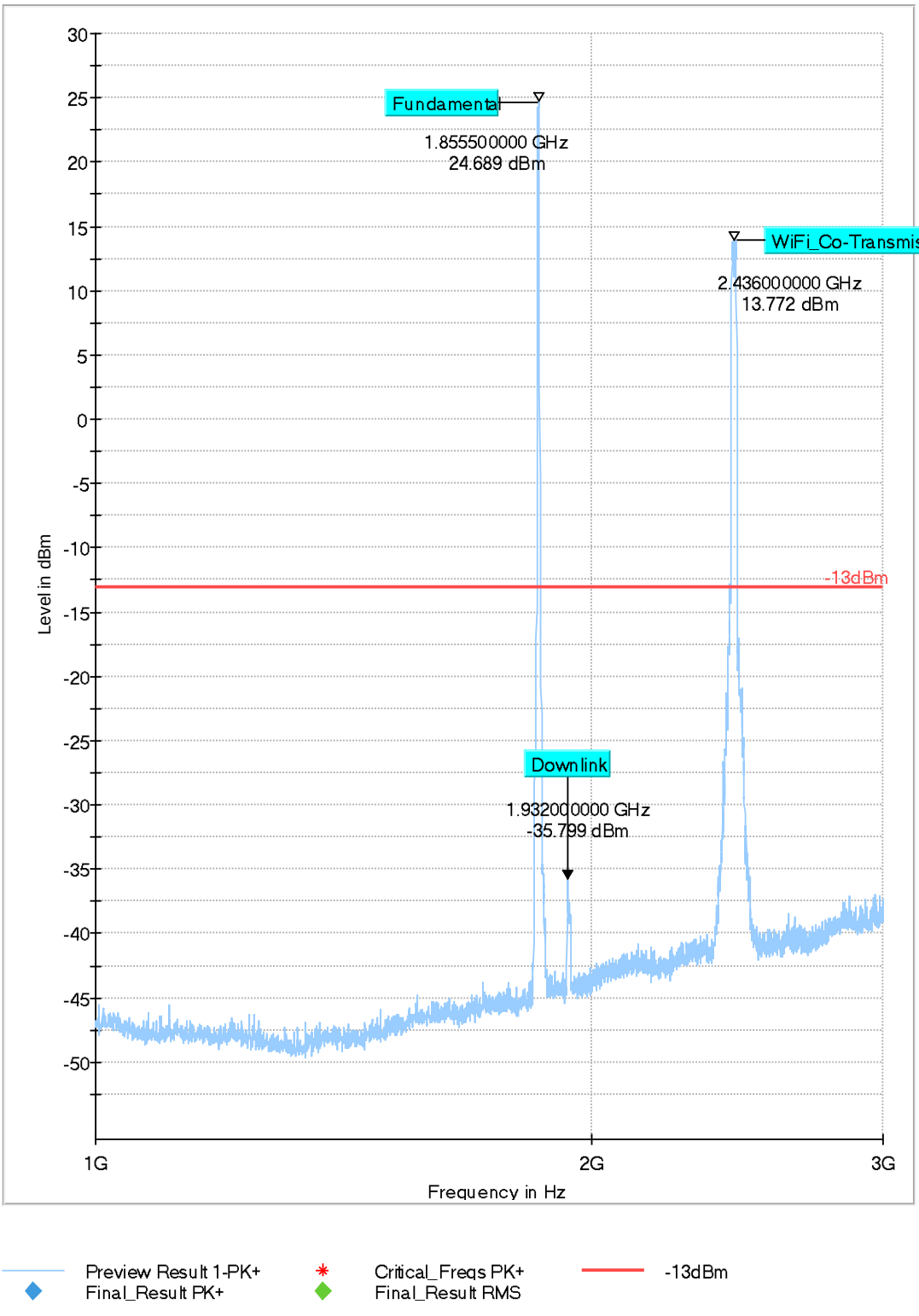
Plot # 67 Radiated Emissions: 30 MHz - 1 GHz

Channel: Low



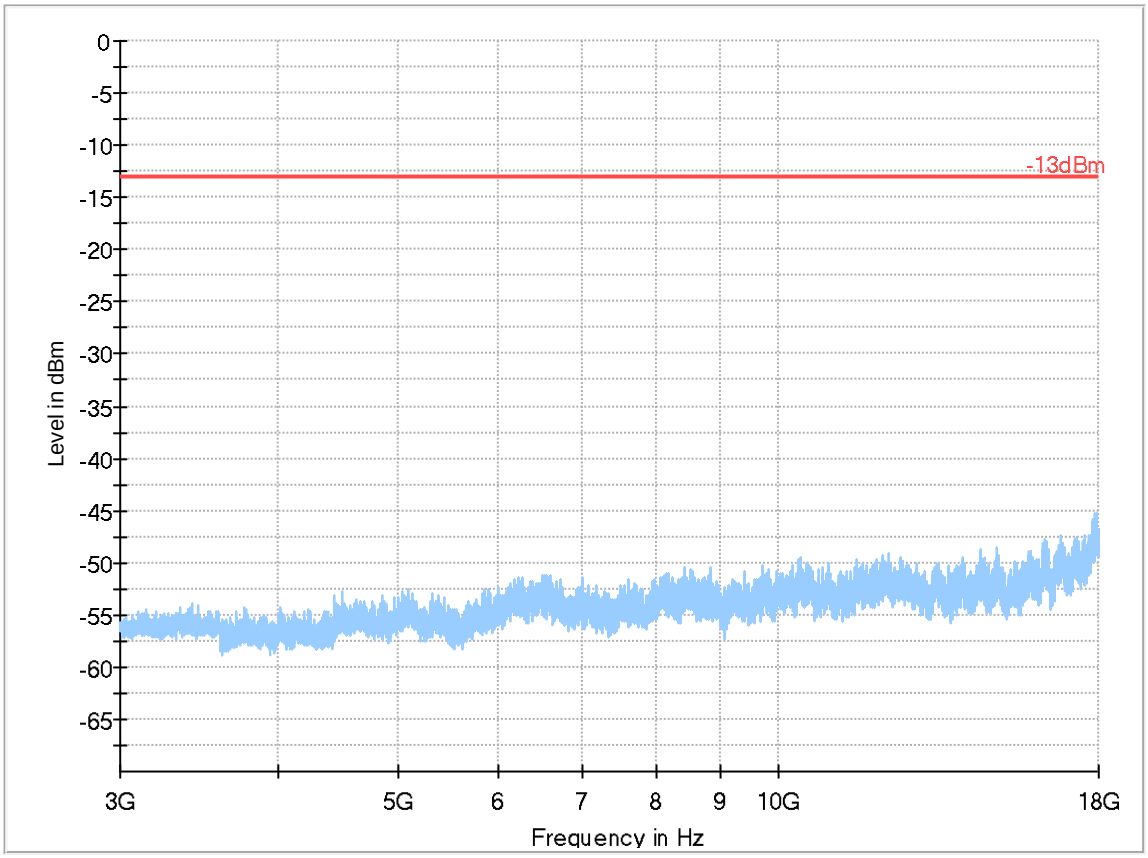
Plot # 68 Radiated Emissions: 1 GHz - 3 GHz

Channel: Low



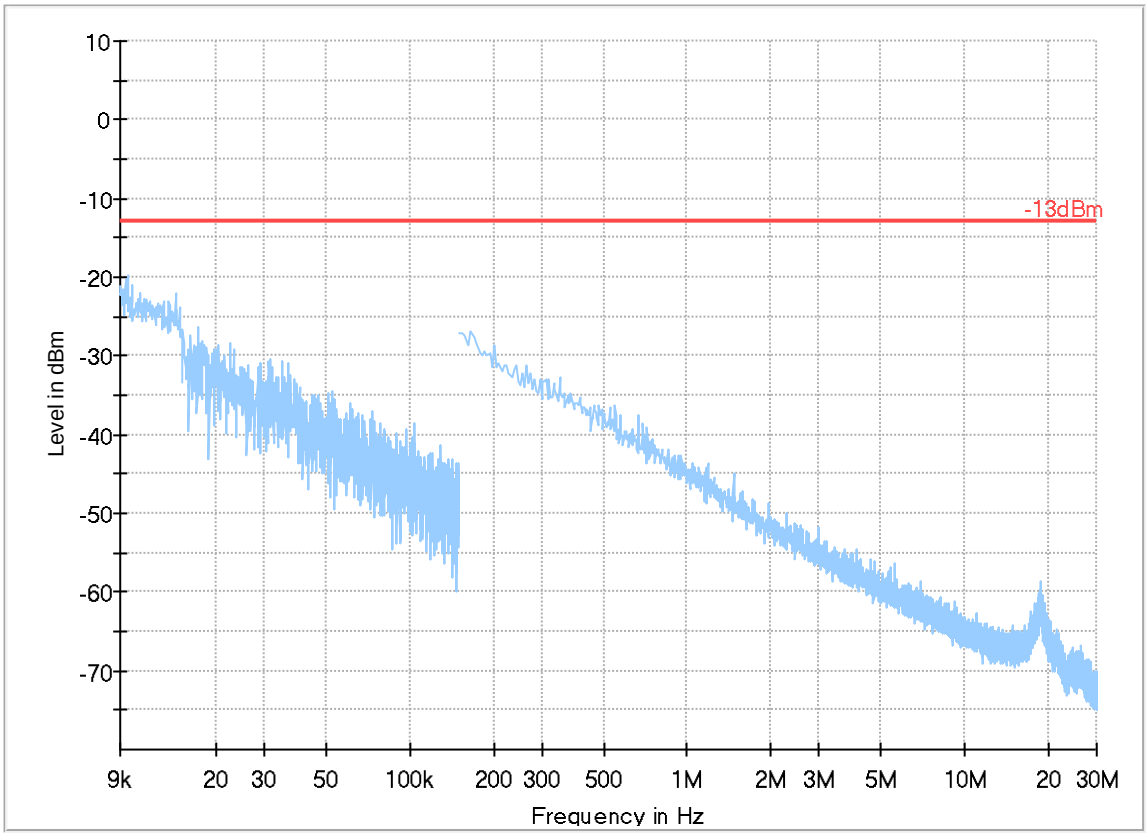
Plot # 69 Radiated Emissions: 3 GHz - 18 GHz

Channel: Low



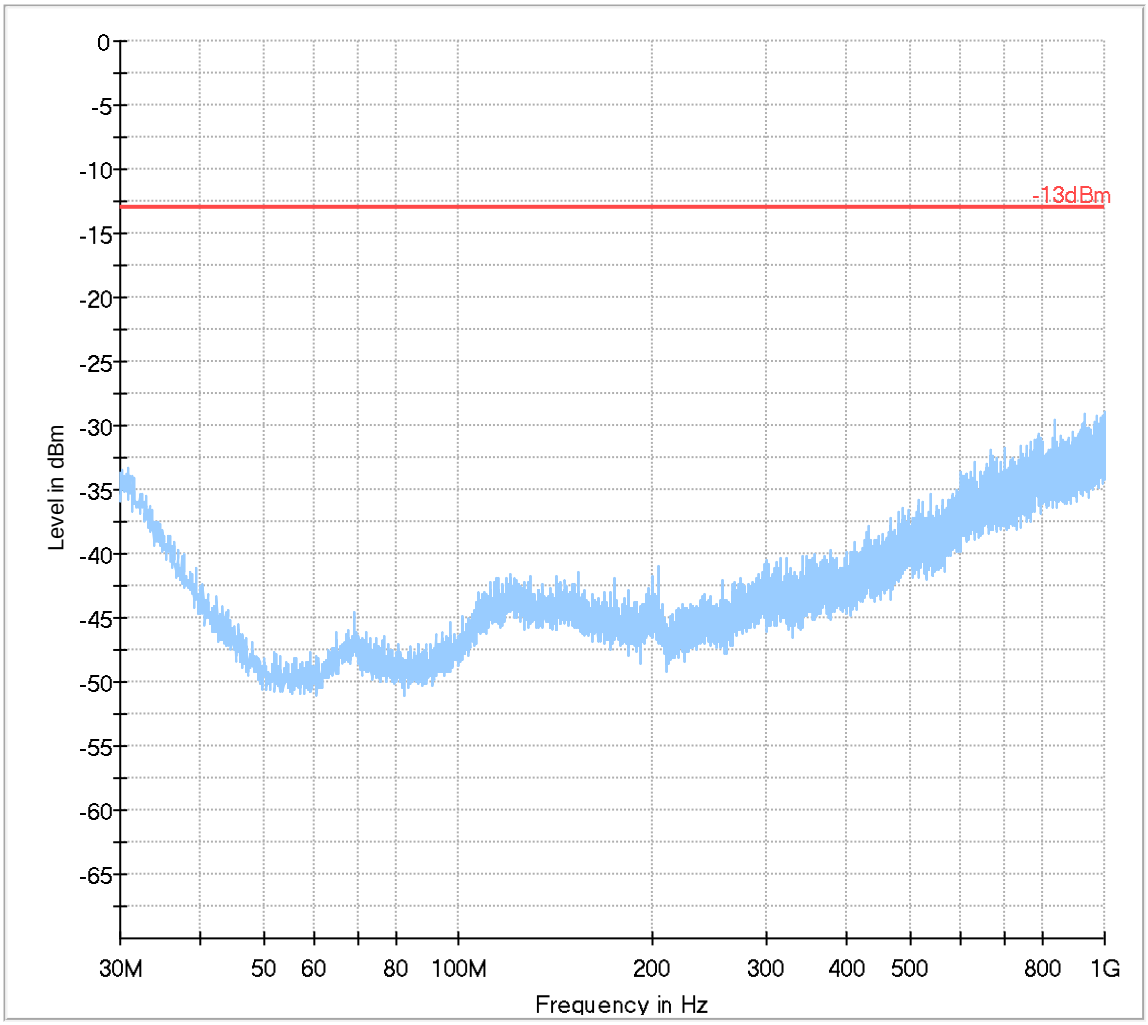
Plot # 70 Radiated Emissions: 9 kHz - 30 MHz

Channel: Mid



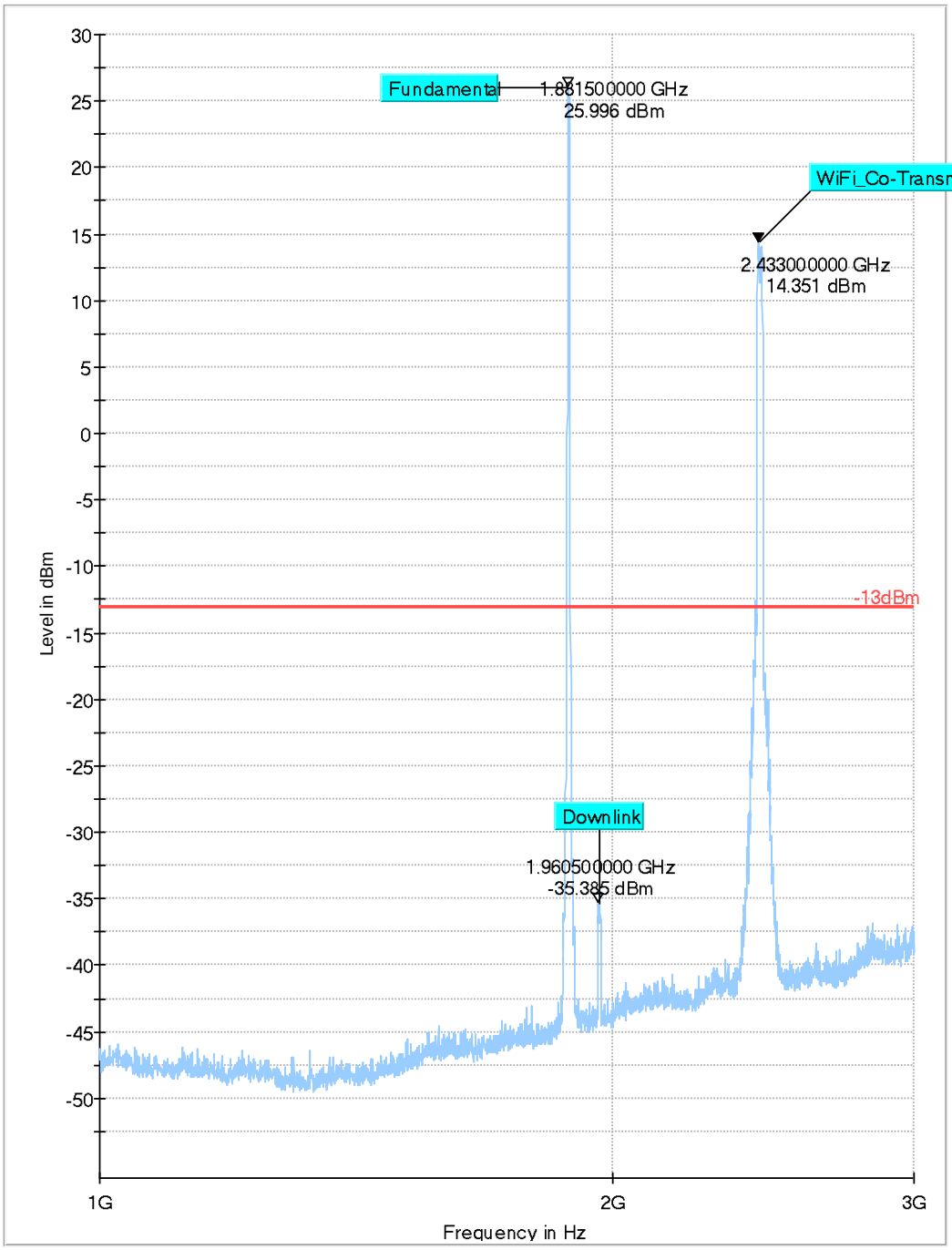
Plot # 71 Radiated Emissions: 30 MHz – 1GHz

Channel: Mid



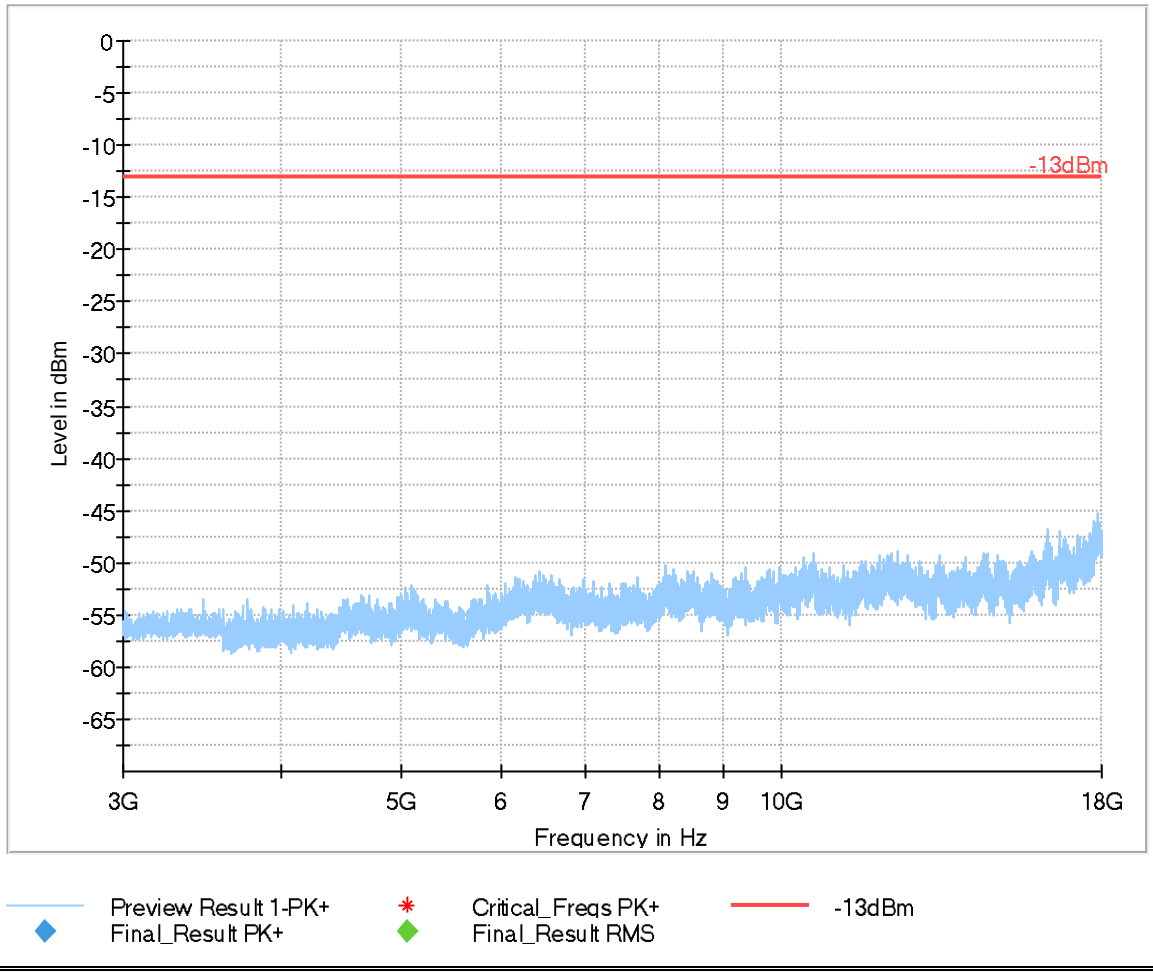
Plot # 72 Radiated Emissions: 1 GHz - 3 GHz

Channel: Mid



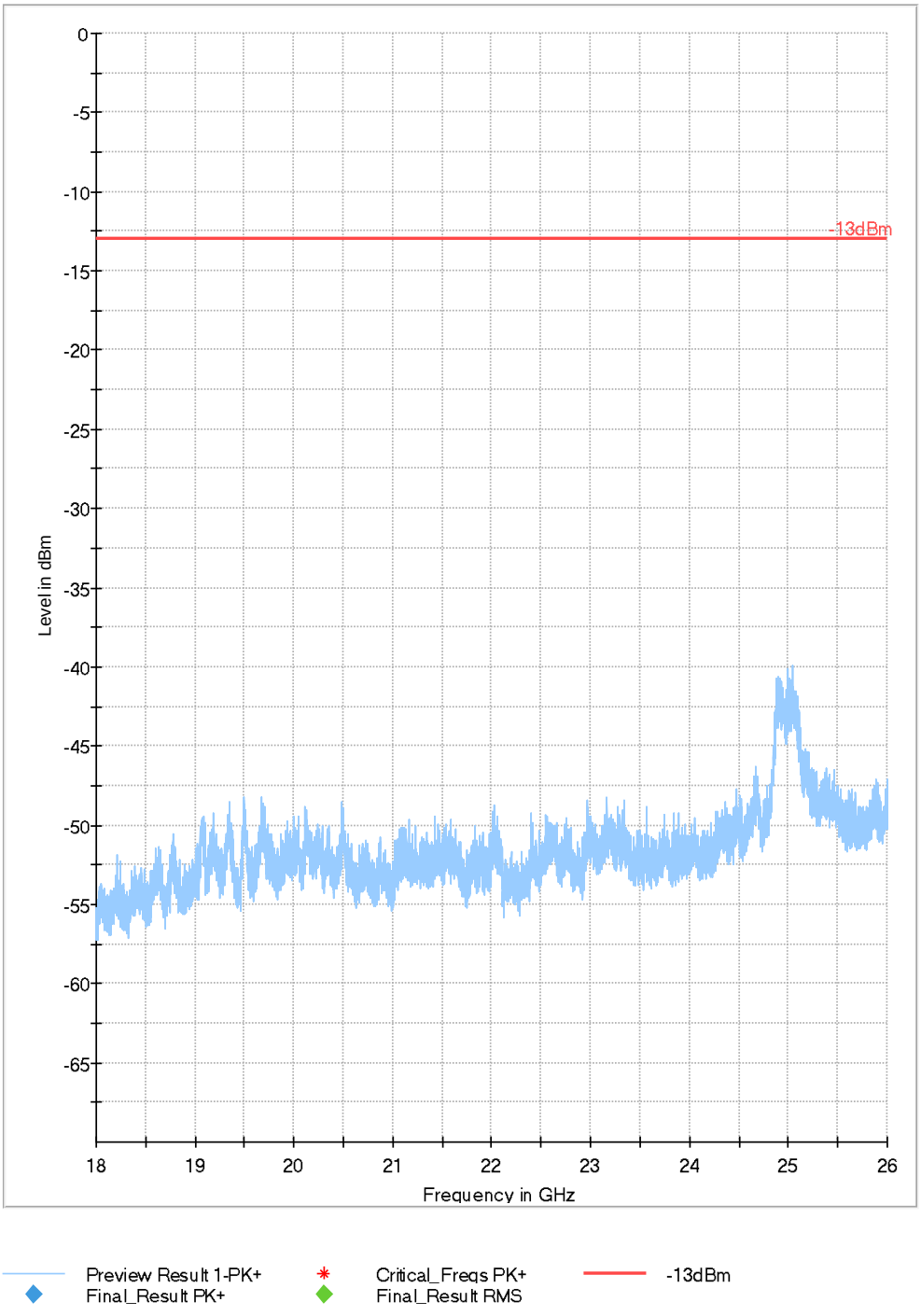
Plot # 73 Radiated Emissions: 3 GHz – 18 GHz

Channel: Mid



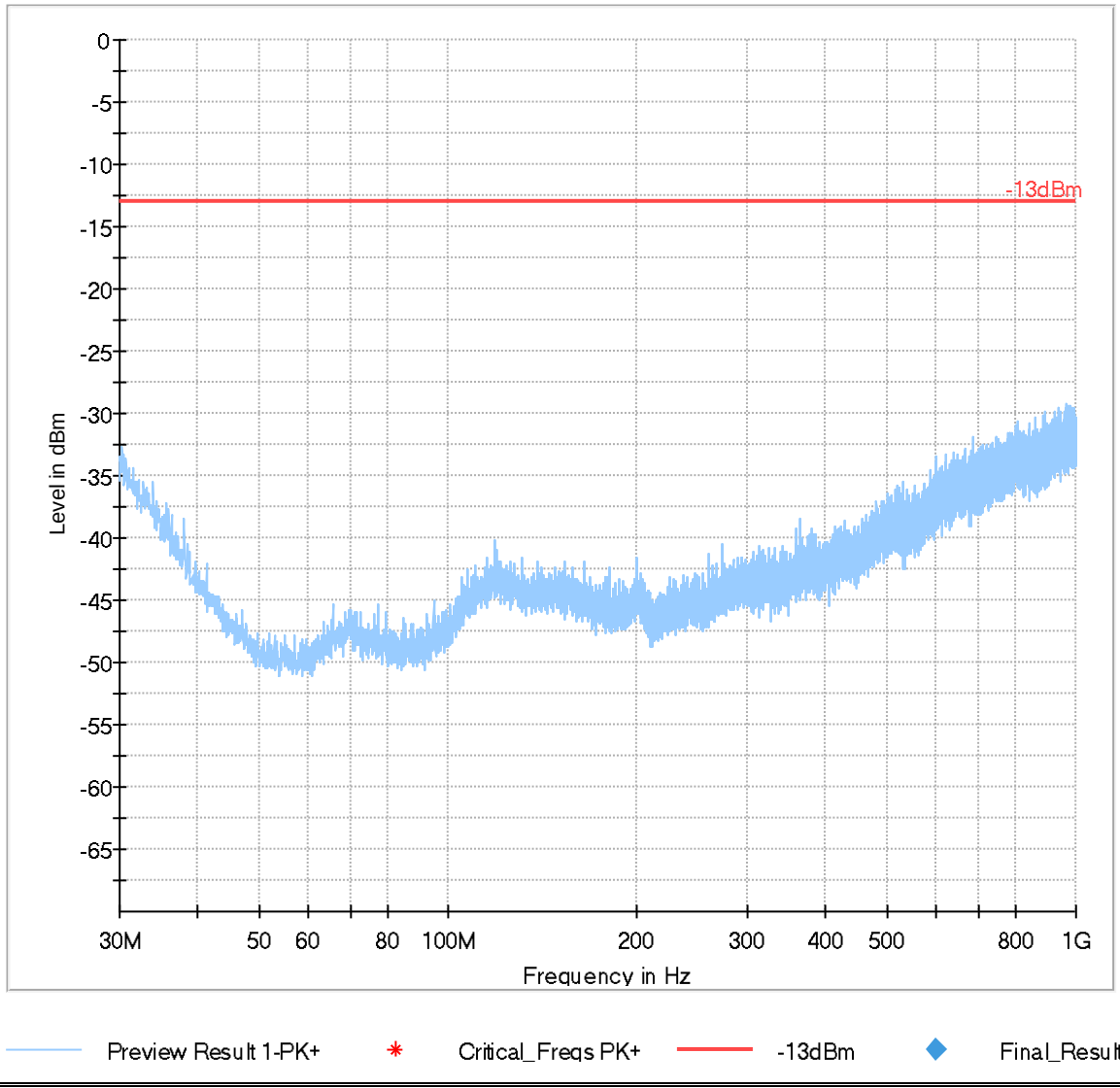
Plot # 74 Radiated Emissions: 18 GHz – 26 GHz

Channel: Mid



Plot # 75 Radiated Emissions: 30 MHz - 1 GHz

Channel: High



Plot # 76 Radiated Emissions: 1 GHz - 3 GHz

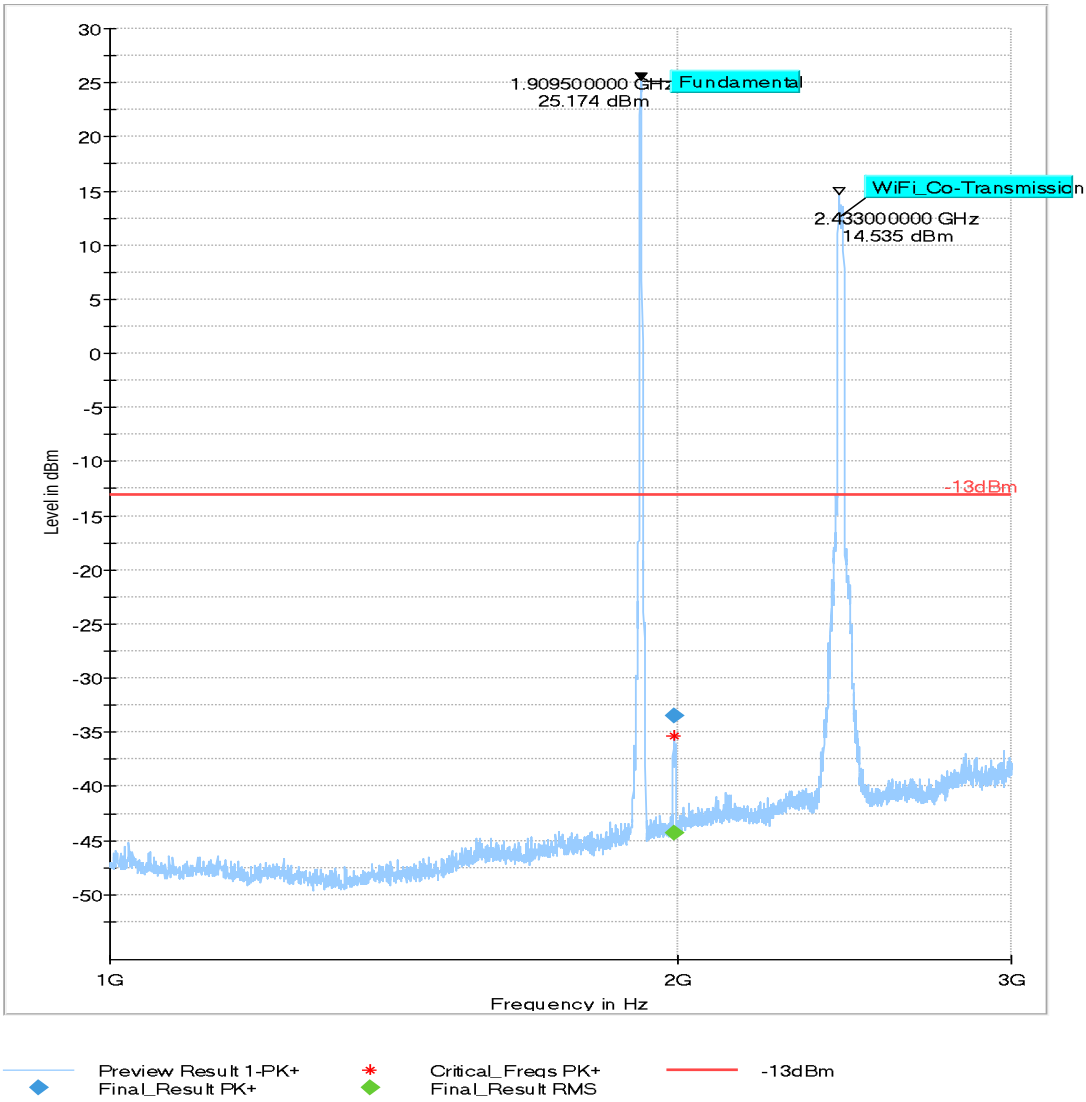
Channel: High

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1989.126625	---	-44.32	---	---	100.0	1000.000	205.0	H	261.0	-61.3
1989.126625	-33.51	---	-13.00	20.51	100.0	1000.000	205.0	H	261.0	-61.3

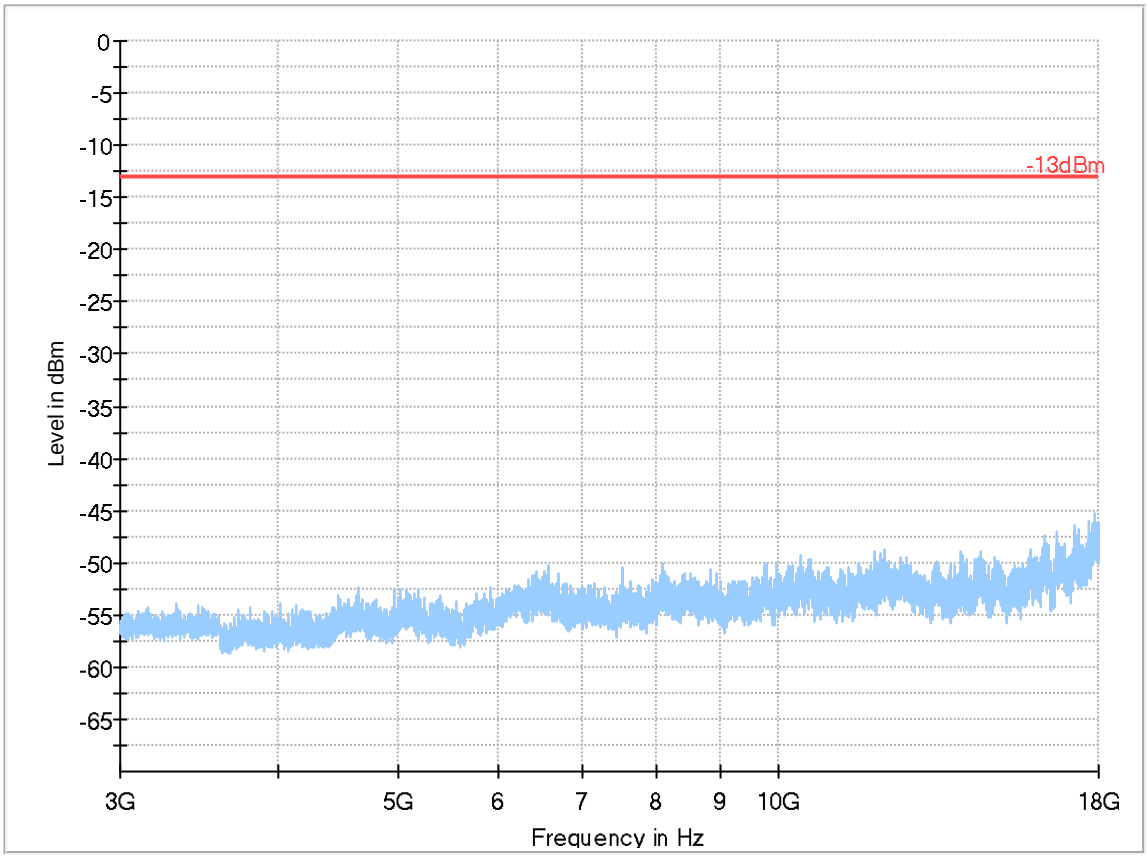
(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
1989.126625	1:39:23 PM - 3/26/2019
1989.126625	1:39:23 PM - 3/26/2019



Plot # 77 Radiated Emissions: 3 GHz - 18 GHz

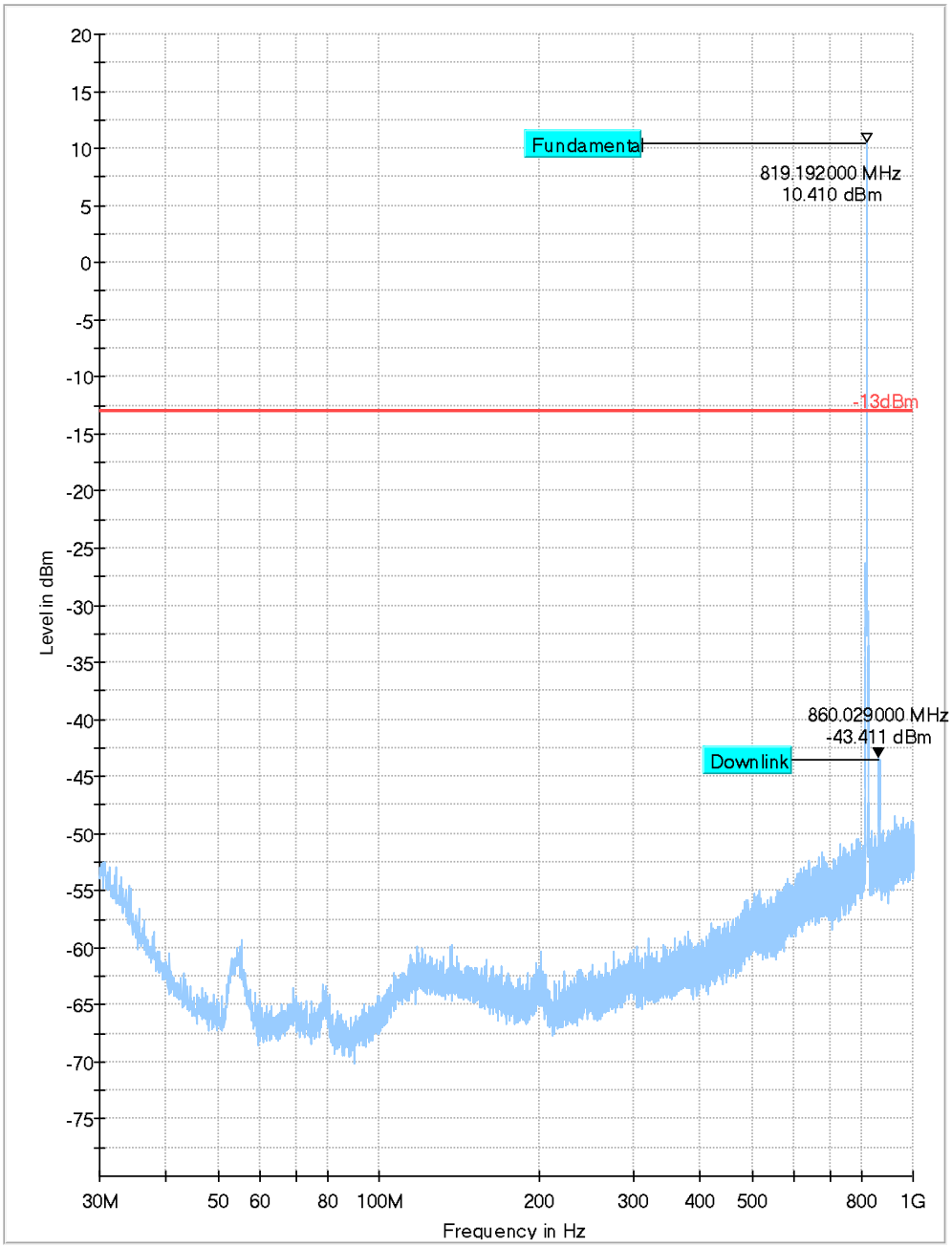
Channel: High



LTE Band 26

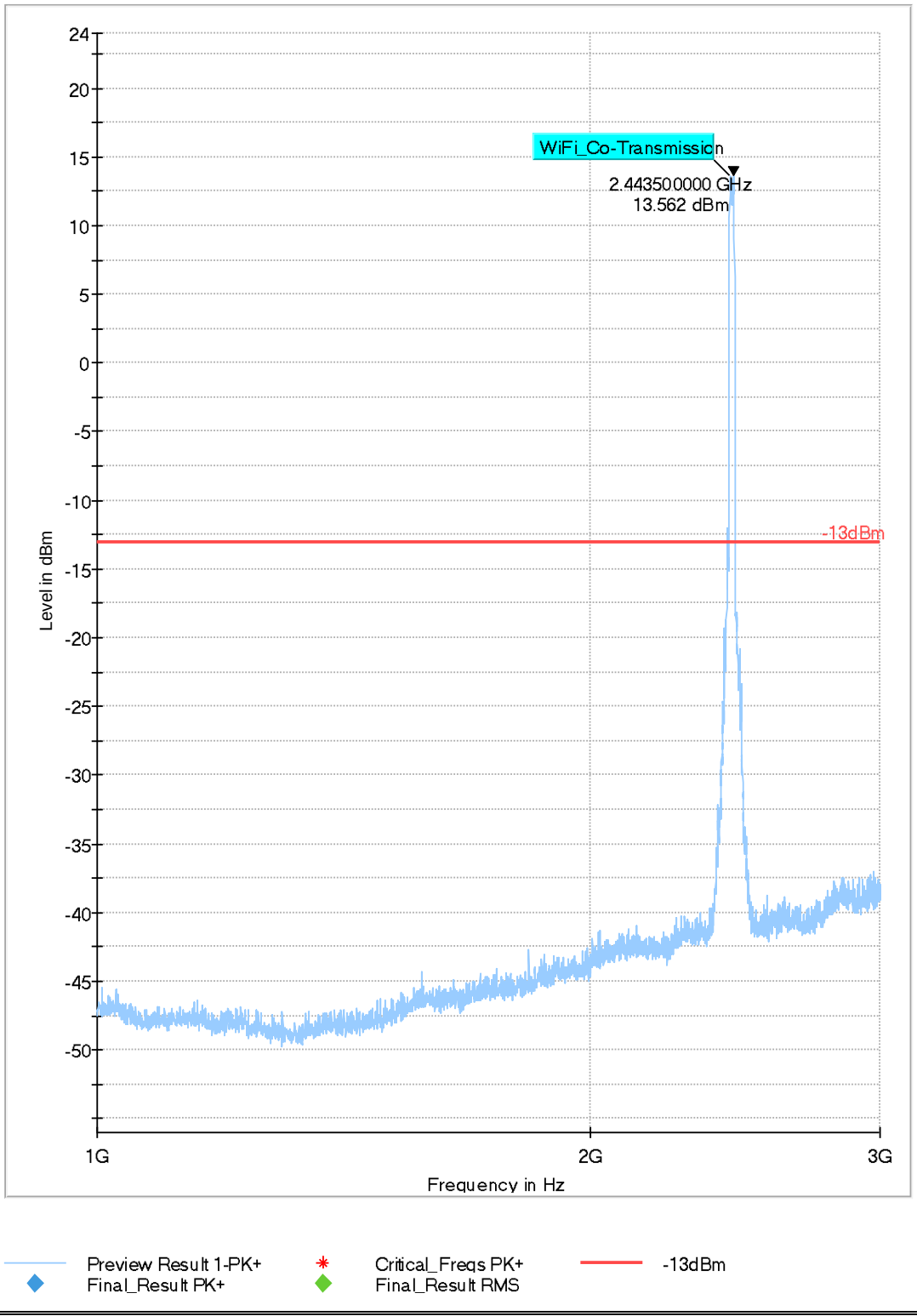
Plot # 78 Radiated Emissions: 30 MHz - 1 GHz

Channel: Low



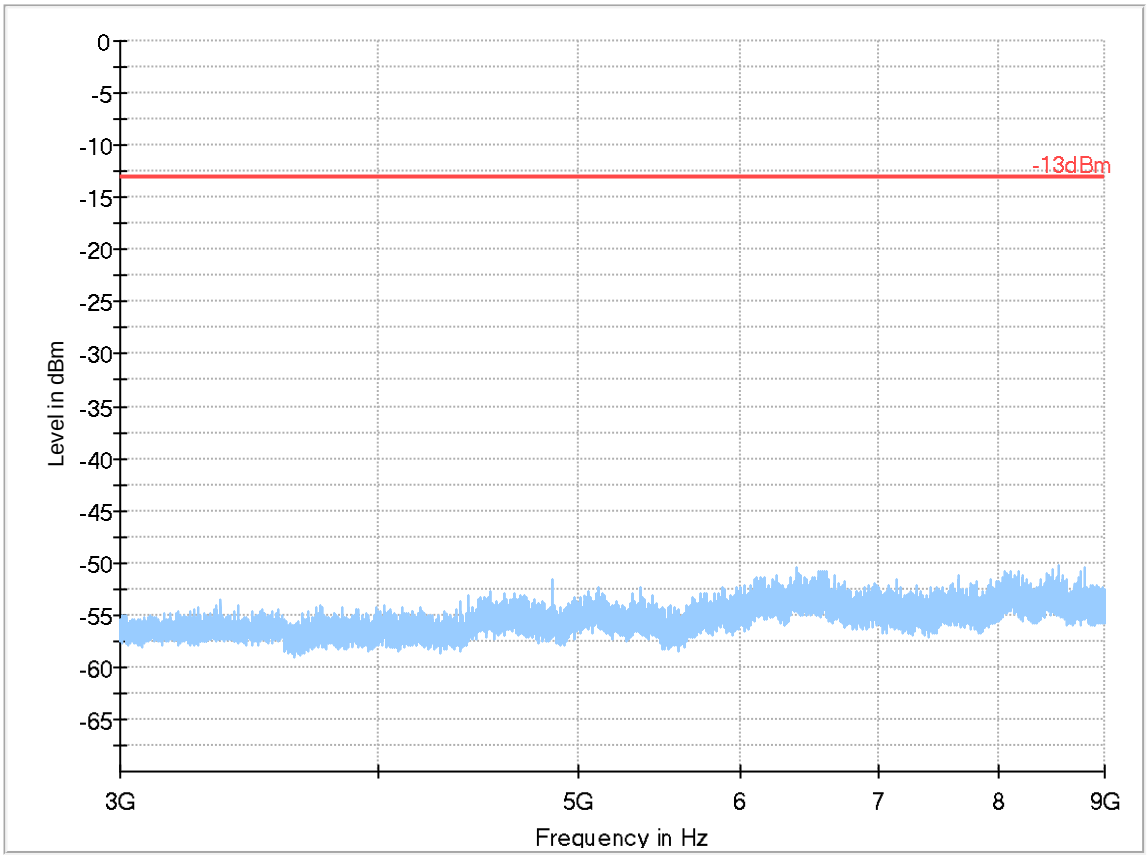
Plot # 79 Radiated Emissions: 1 GHz - 3 GHz

Channel: Low



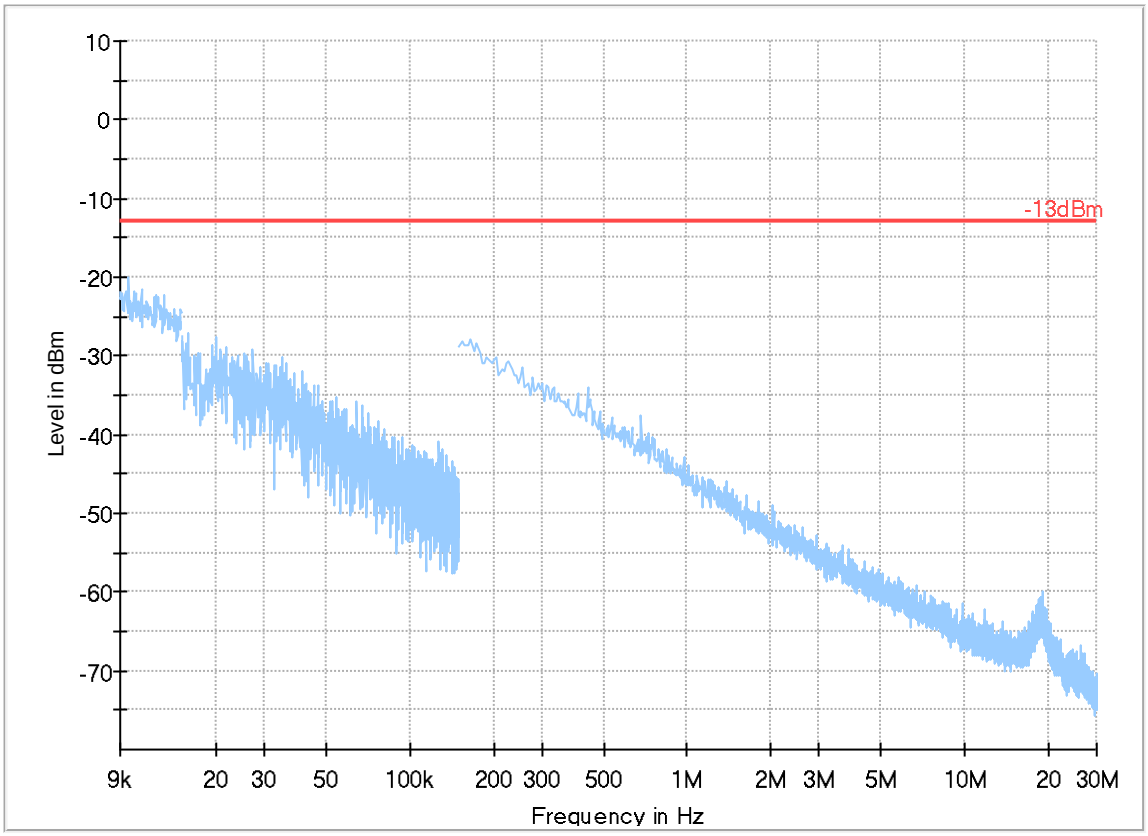
Plot # 80 Radiated Emissions: 3 GHz - 9 GHz

Channel: Low



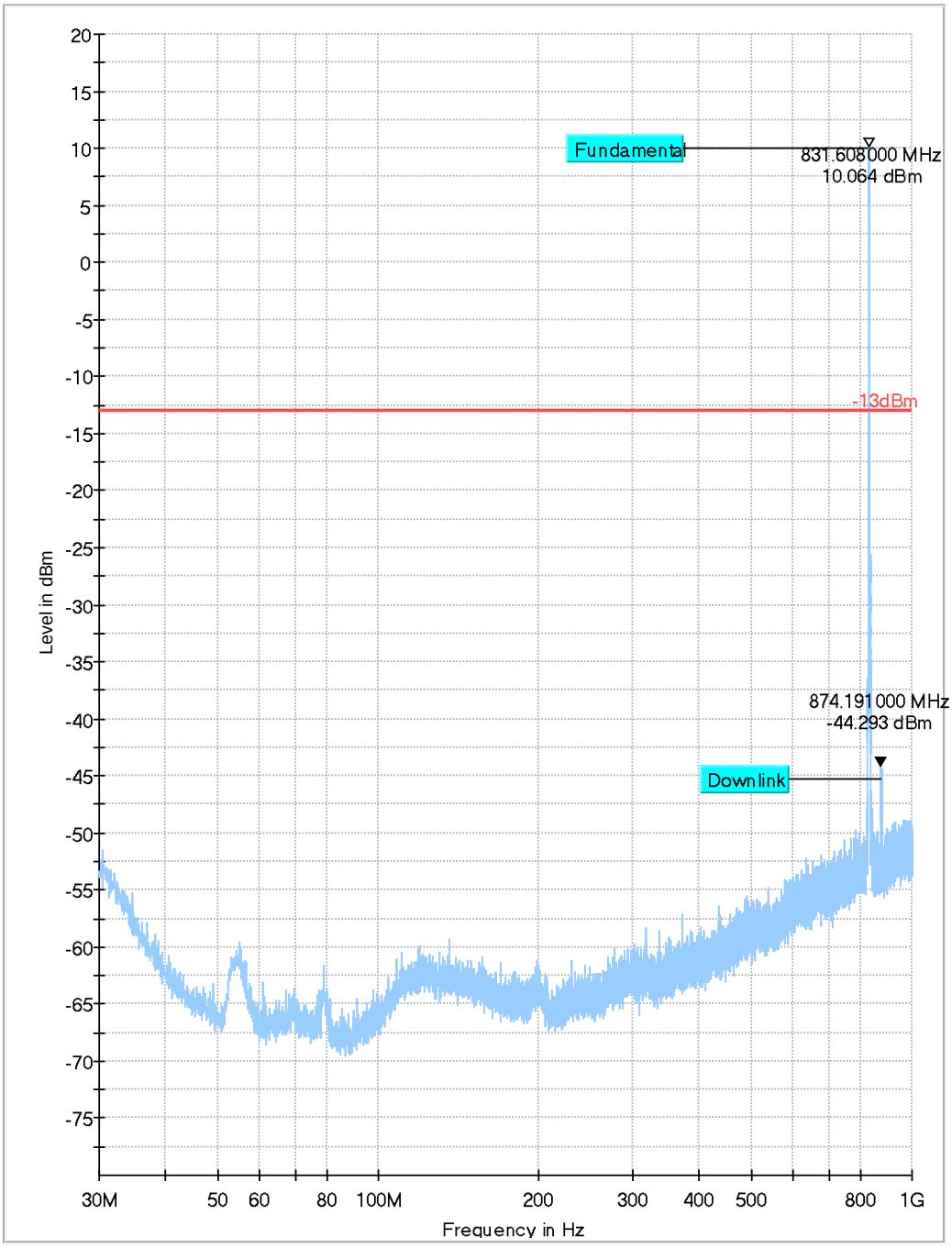
Plot # 81 Radiated Emissions: 9 kHz - 30 MHz

Channel: Mid



Plot # 82 Radiated Emissions: 30 MHz – 1 GHz

Channel: Mid



Plot # 83 Radiated Emissions: 1 GHz - 3 GHz

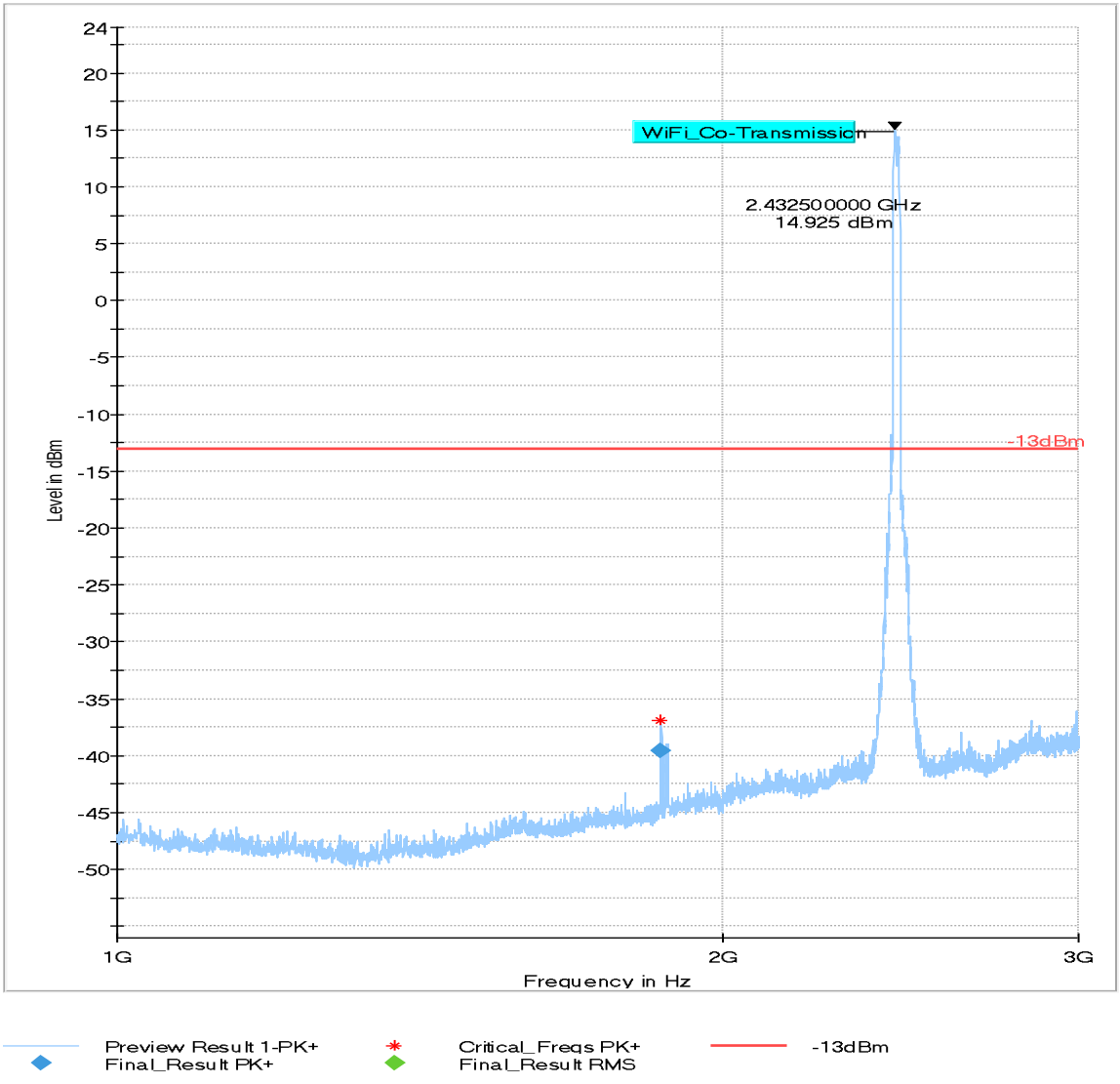
Channel: Mid

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1860.985313	---	-56.64	---	---	100.0	1000.000	169.0	H	-56.0	-61.9
1860.985313	-39.58	---	-13.00	26.58	100.0	1000.000	169.0	H	-56.0	-61.9

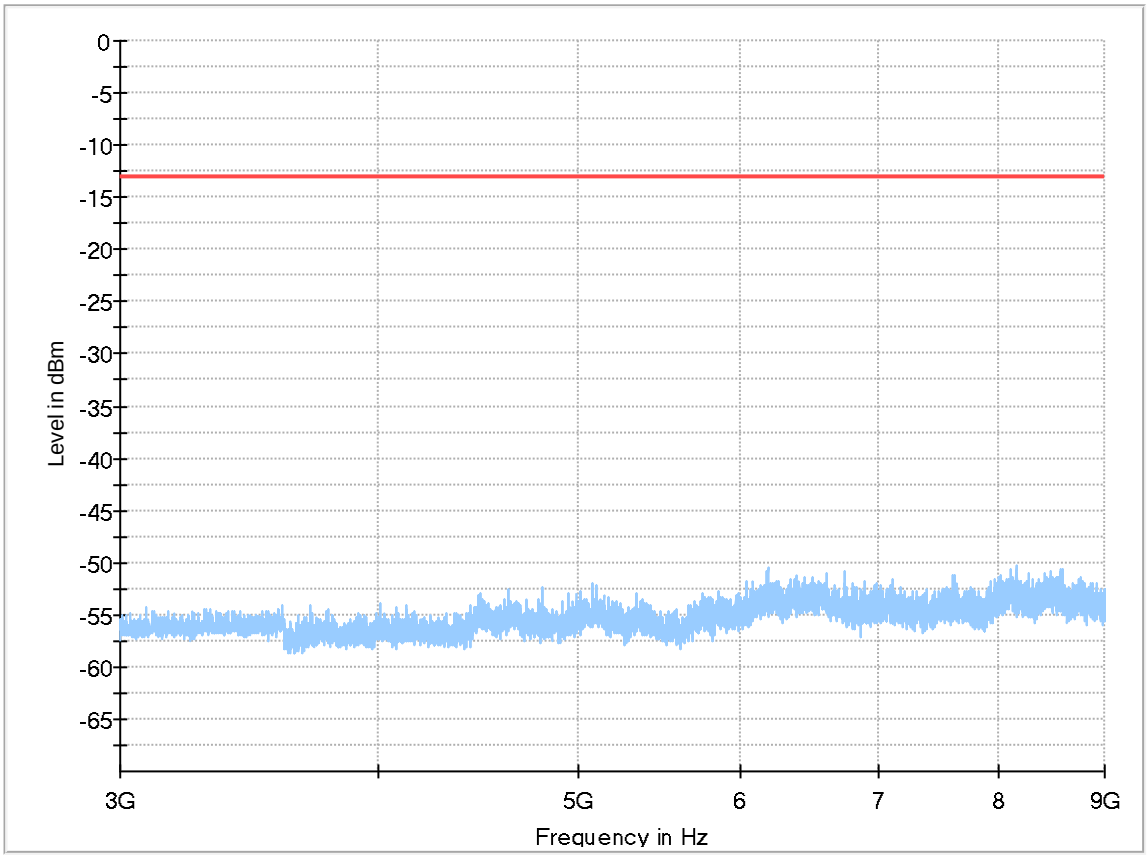
(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
1860.985313	12:12:52 PM - 3/26/2019
1860.985313	12:12:52 PM - 3/26/2019



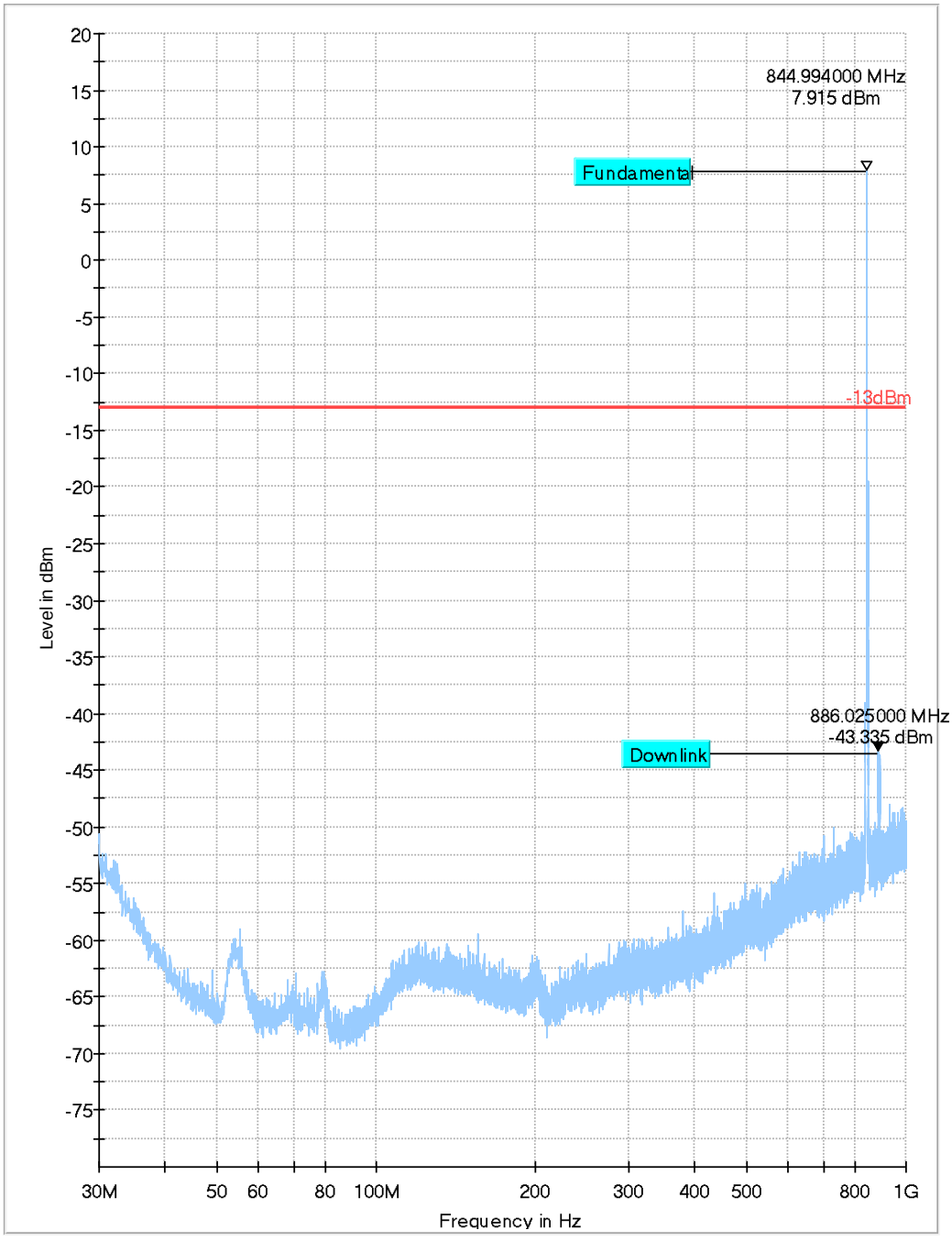
Plot # 84 Radiated Emissions: 3 GHz – 9 GHz

Channel: Mid



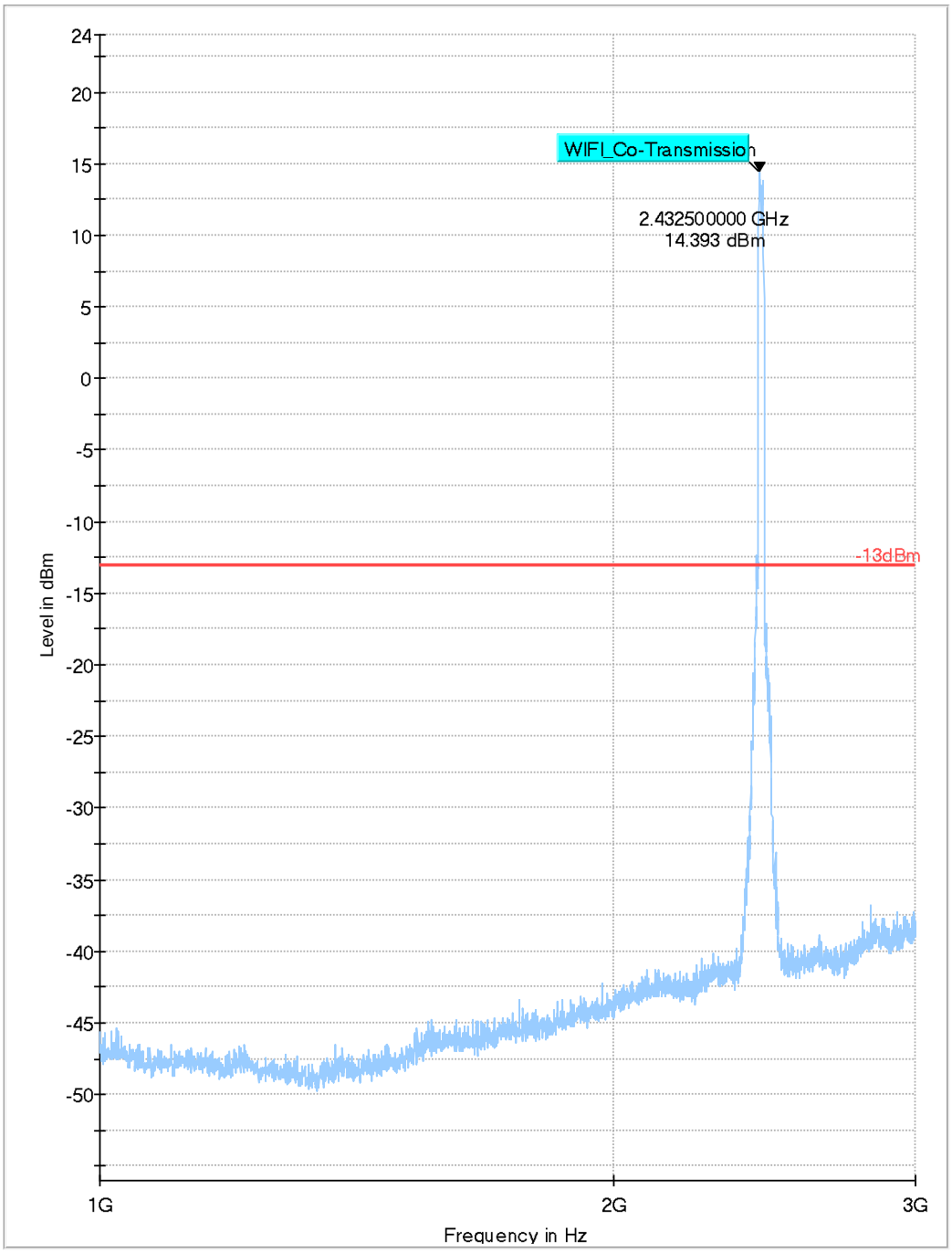
Plot # 85 Radiated Emissions: 30 MHz - 1 GHz

Channel: High



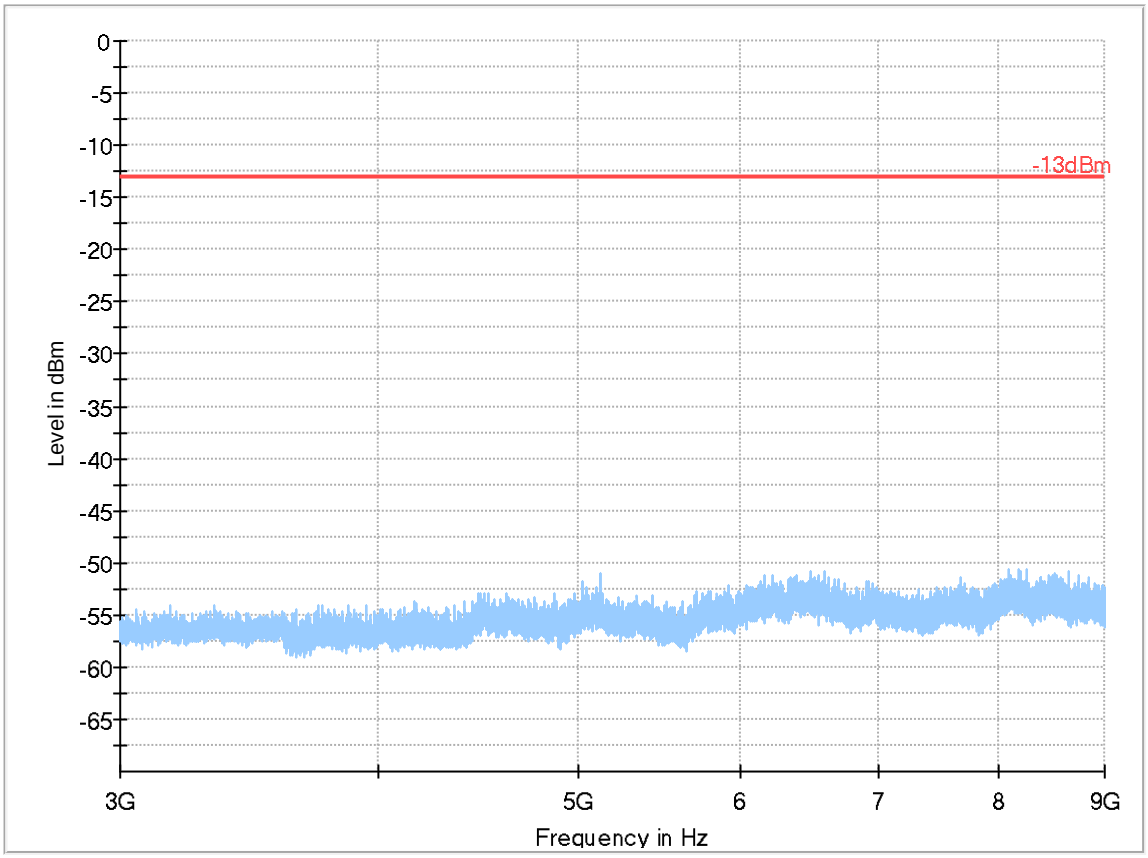
Plot # 86 Radiated Emissions: 1 GHz - 3 GHz

Channel: High



Plot # 87 Radiated Emissions: 3 GHz - 9 GHz

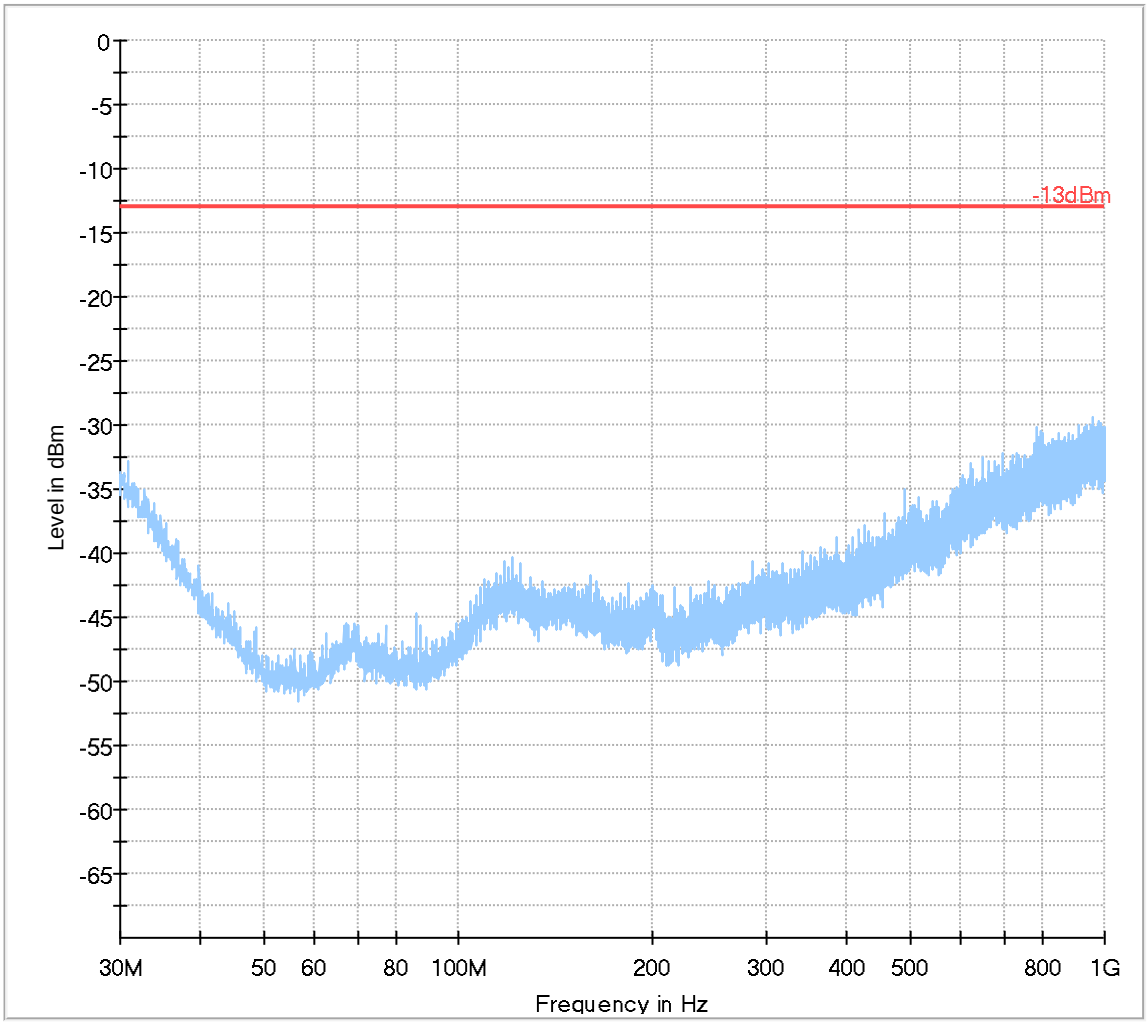
Channel: High



LTE Band 41

Plot # 88 Radiated Emissions: 30 MHz - 1 GHz

Channel: Low



Plot # 89 Radiated Emissions: 1 GHz - 3 GHz

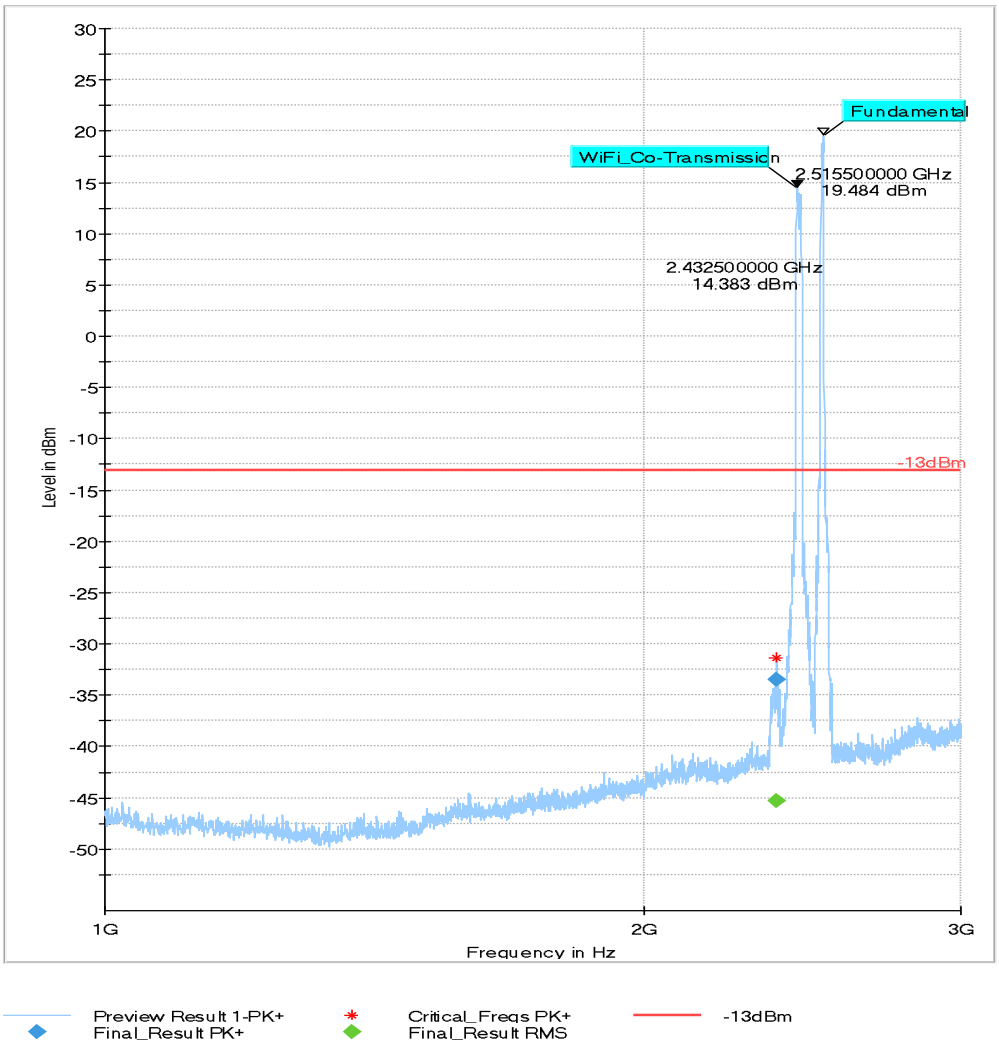
Channel: Low

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
2369.601750	---	-45.25	---	---	100.0	1000.000	269.0	H	258.0	-60.0
2369.601750	-33.43	---	-13.00	20.43	100.0	1000.000	269.0	H	258.0	-60.0

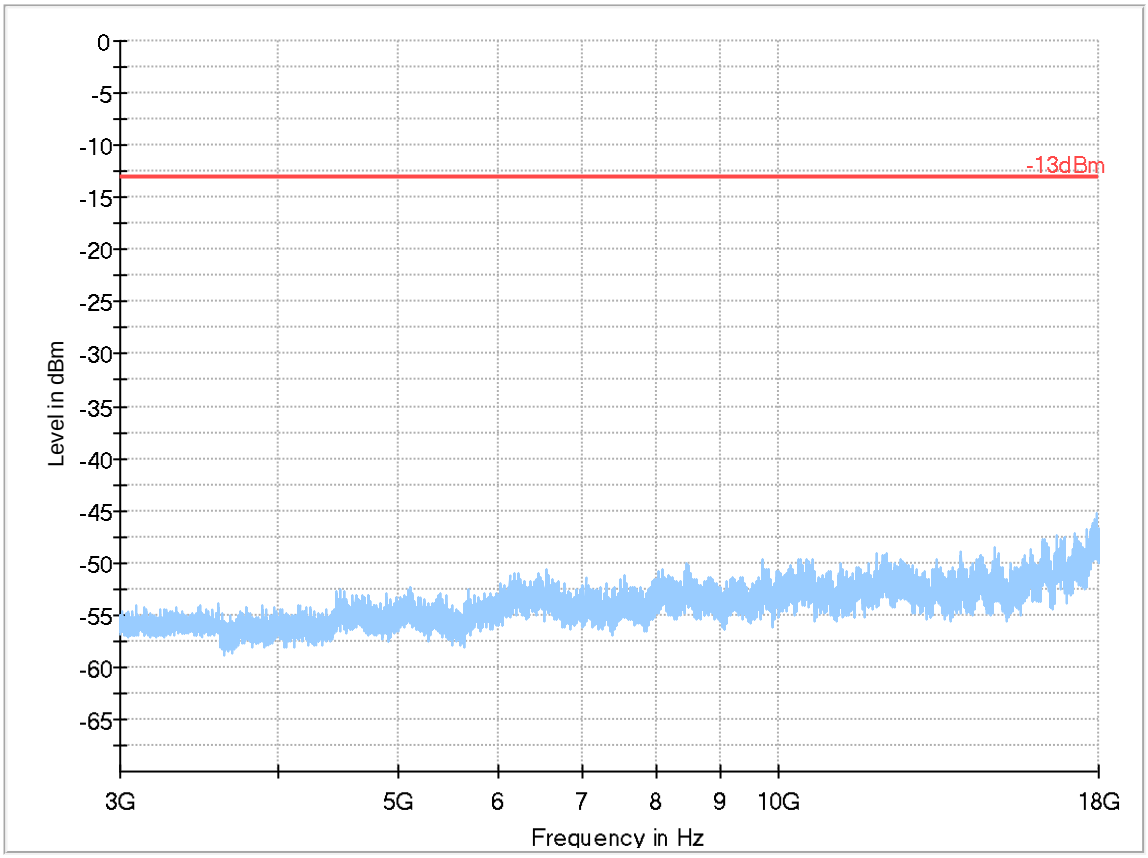
(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
2369.601750	4:41:21 PM - 3/26/2019
2369.601750	4:41:21 PM - 3/26/2019



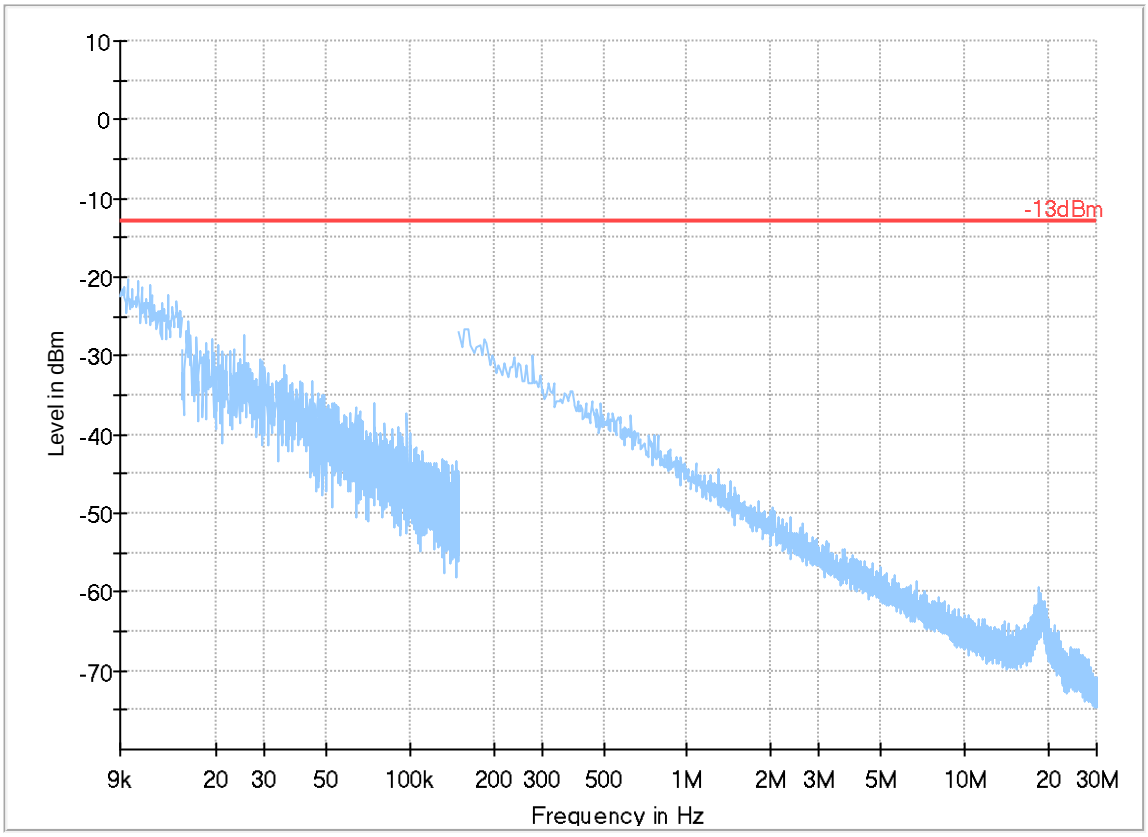
Plot # 90 Radiated Emissions: 3 GHz - 18 GHz

Channel: Low



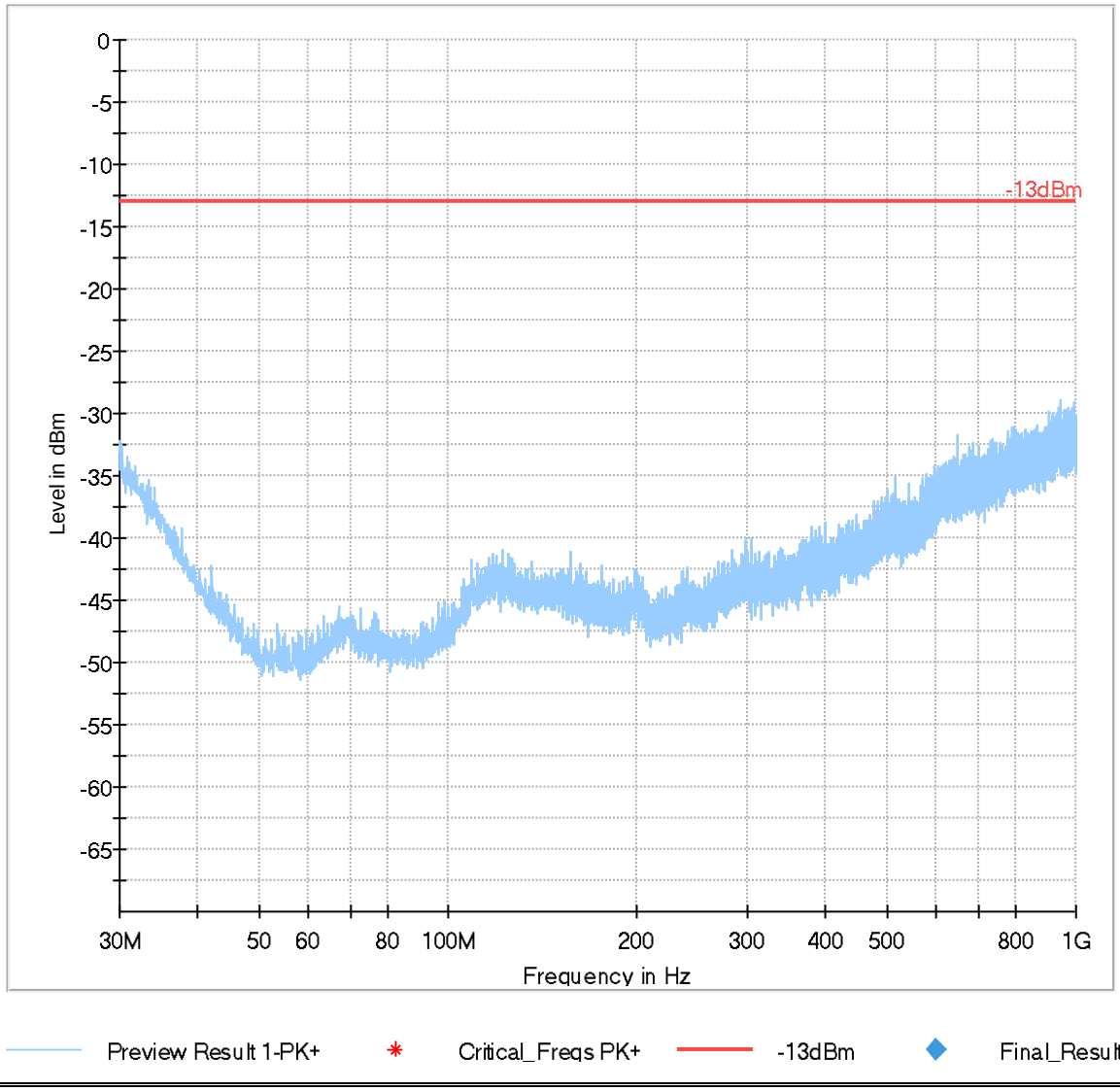
Plot # 91 Radiated Emissions: 9 kHz - 30 MHz

Channel: Mid



Plot # 92 Radiated Emissions: 30 MHz – 1GHz

Channel: Mid



Plot # 93 Radiated Emissions: 1 GHz - 3 GHz

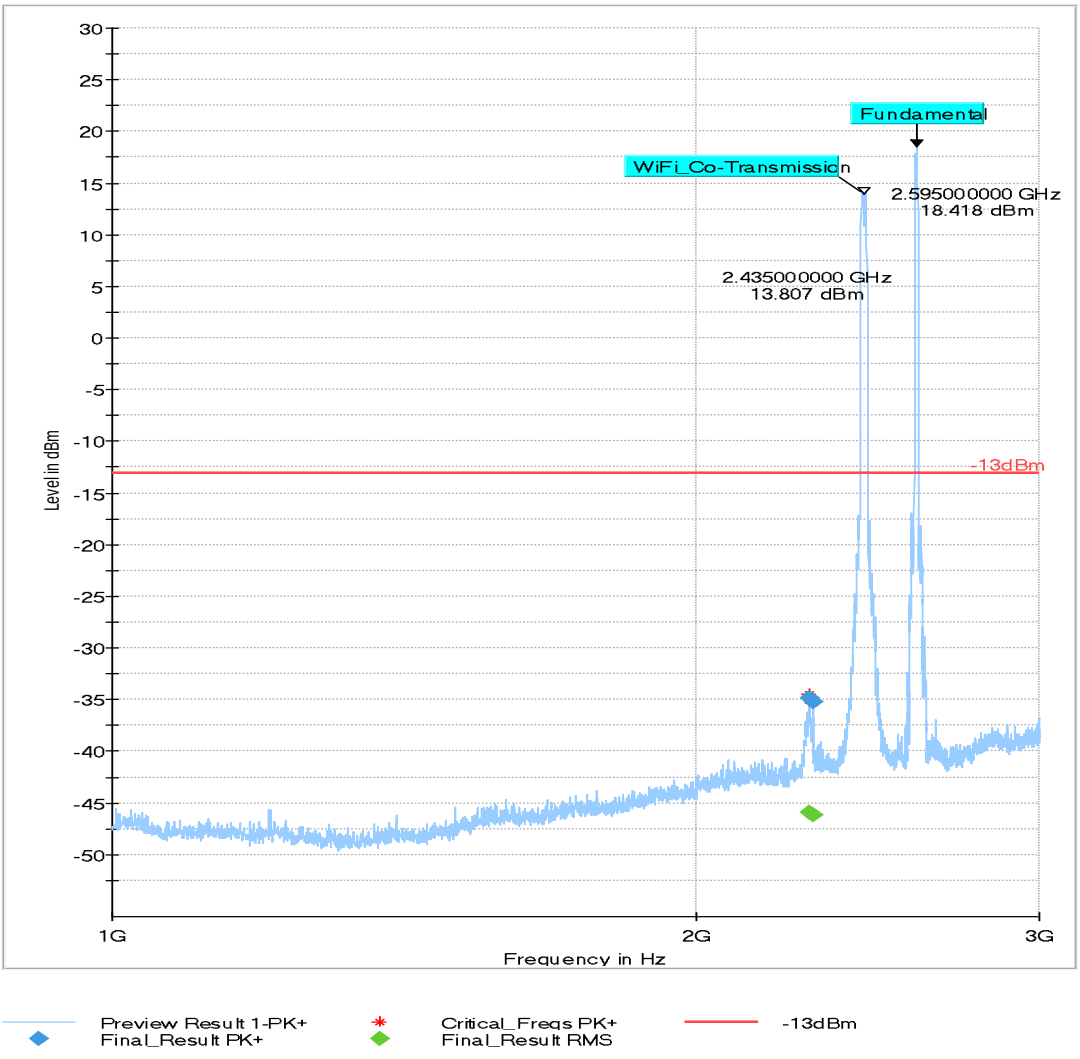
Channel: Mid

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
2284.651500	---	-45.87	---	---	100.0	1000.000	325.0	H	211.0	-60.1
2284.651500	-34.90	---	-13.00	21.90	100.0	1000.000	325.0	H	211.0	-60.1
2295.223375	---	-46.13	---	---	100.0	1000.000	176.0	H	253.0	-60.1
2295.223375	-35.22	---	-13.00	22.22	100.0	1000.000	176.0	H	253.0	-60.1

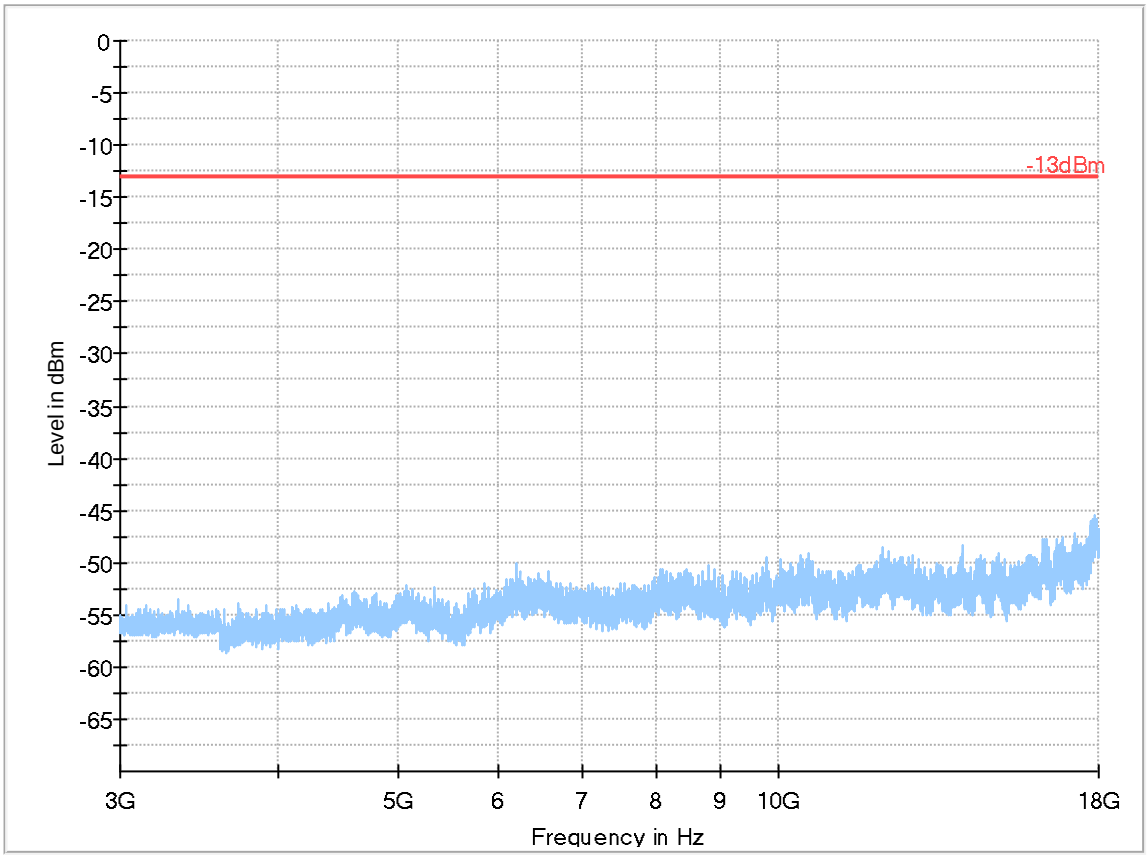
(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
2284.651500	4:00:02 PM - 3/26/2019
2284.651500	4:00:02 PM - 3/26/2019
2295.223375	4:01:46 PM - 3/26/2019
2295.223375	4:01:46 PM - 3/26/2019



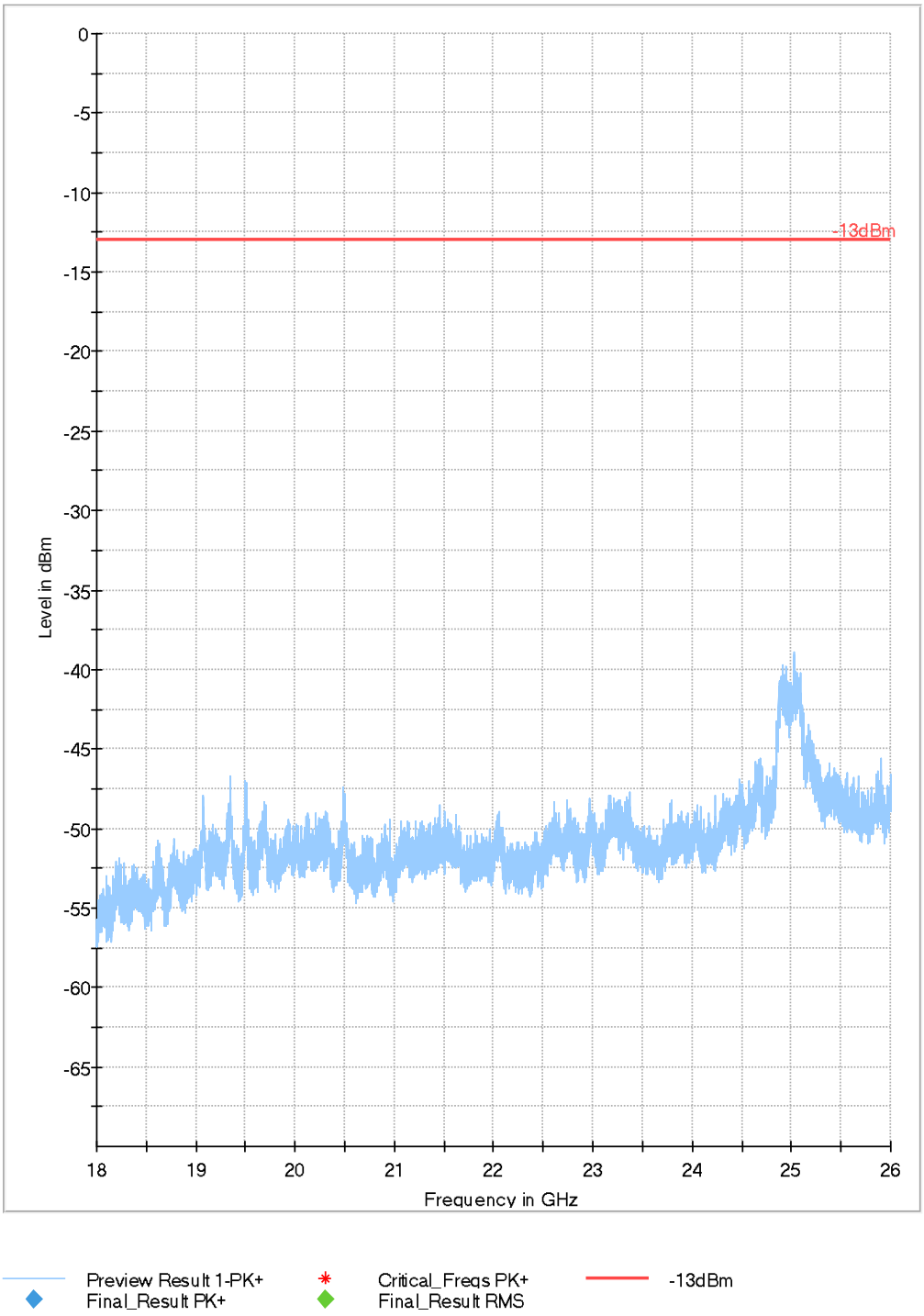
Plot # 94 Radiated Emissions: 3 GHz – 18 GHz

Channel: Mid



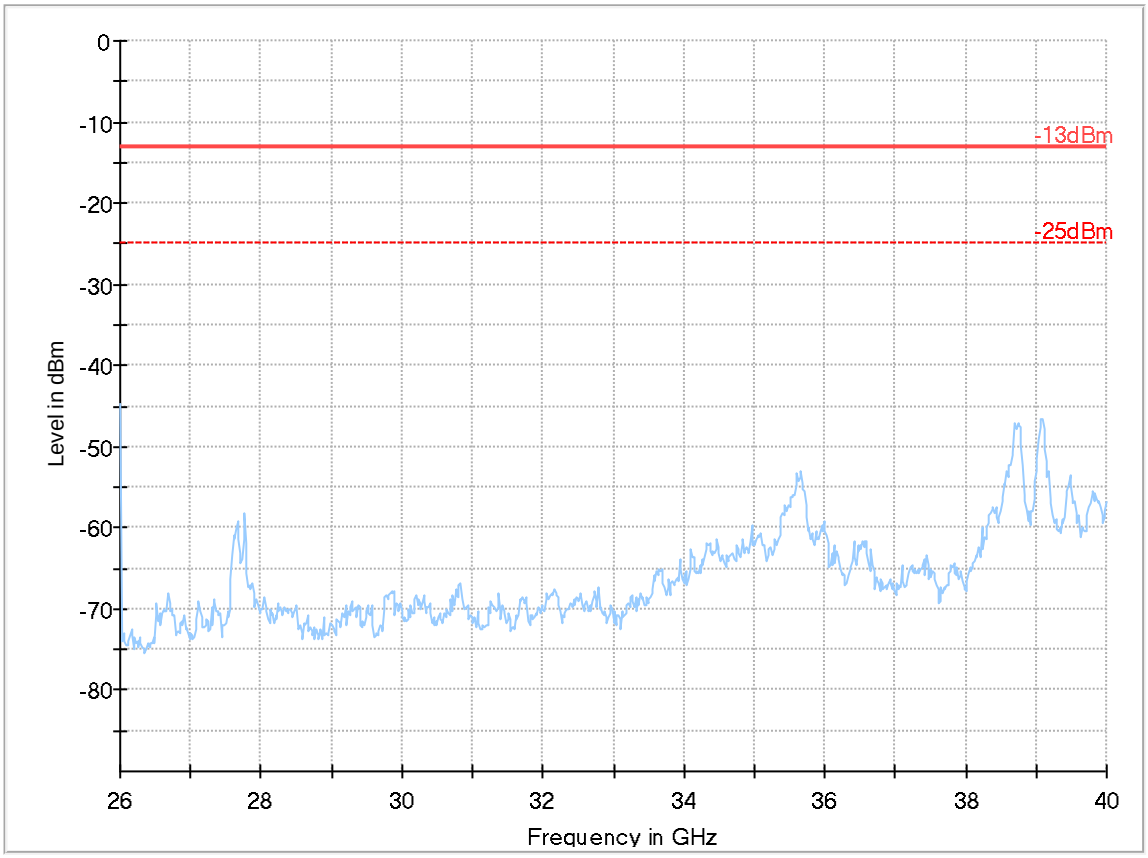
Plot # 95 Radiated Emissions: 18 GHz – 26 GHz

Channel: Mid



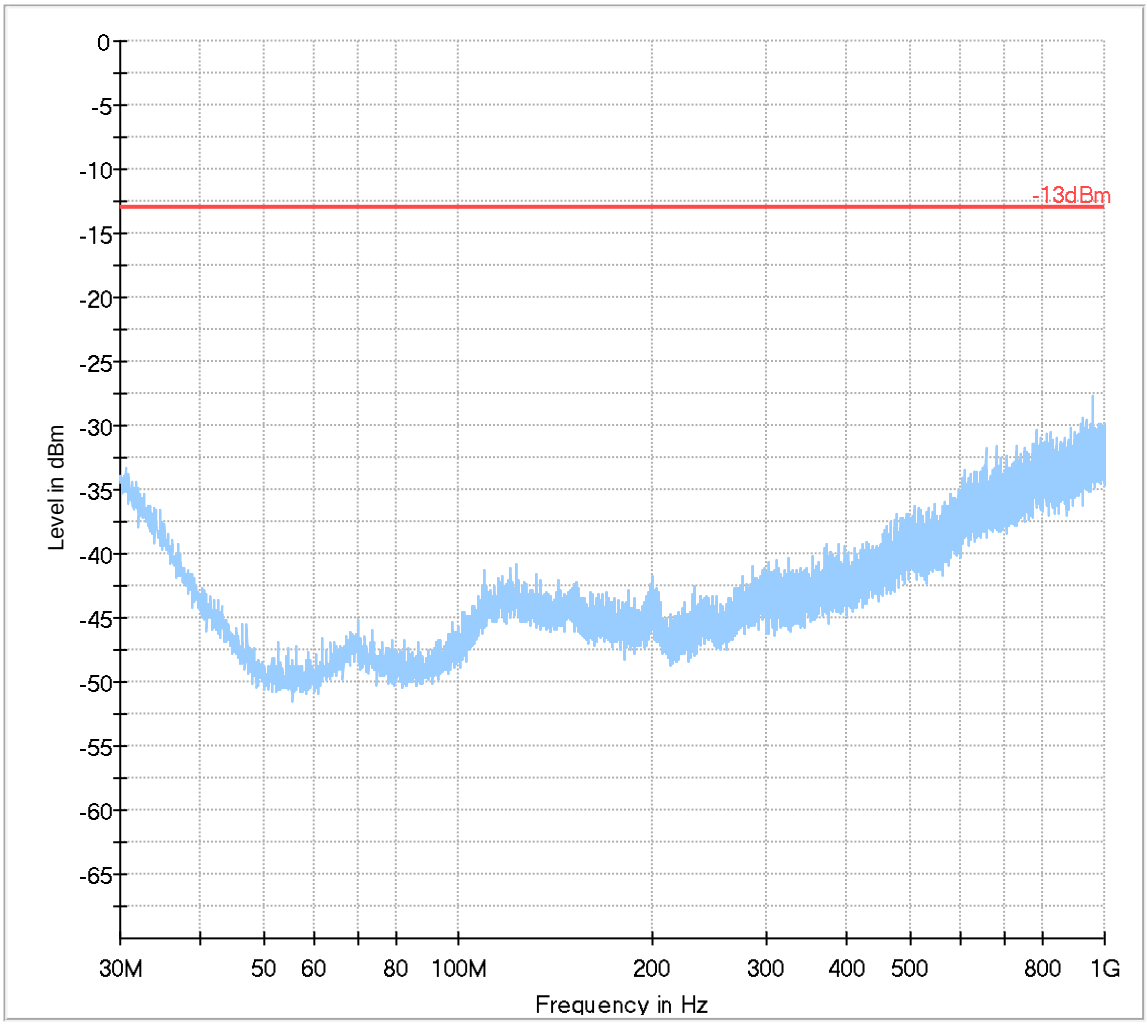
Plot # 96 Radiated Emissions: 26 GHz – 40 GHz

Channel: Mid



Plot # 97 Radiated Emissions: 30 MHz - 1 GHz

Channel: High



Plot # 98 Radiated Emissions: 1 GHz - 3 GHz

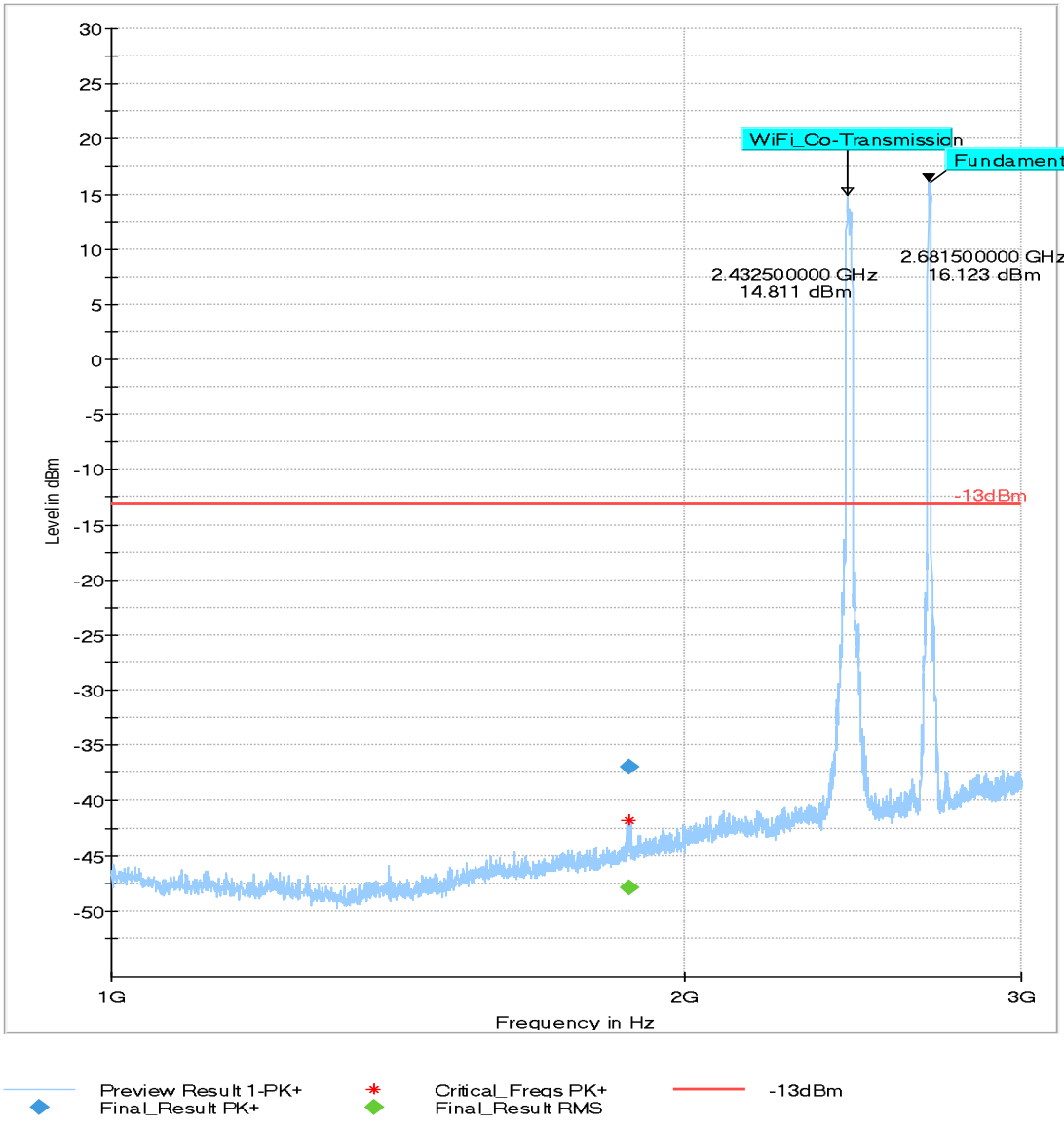
Channel: High

Final_Result

Frequency (MHz)	MaxPeak (dBm)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1868.257750	---	-47.95	---	---	100.0	1000.000	190.0	H	335.0	-61.8
1868.257750	-37.00	---	-13.00	24.00	100.0	1000.000	190.0	H	335.0	-61.8

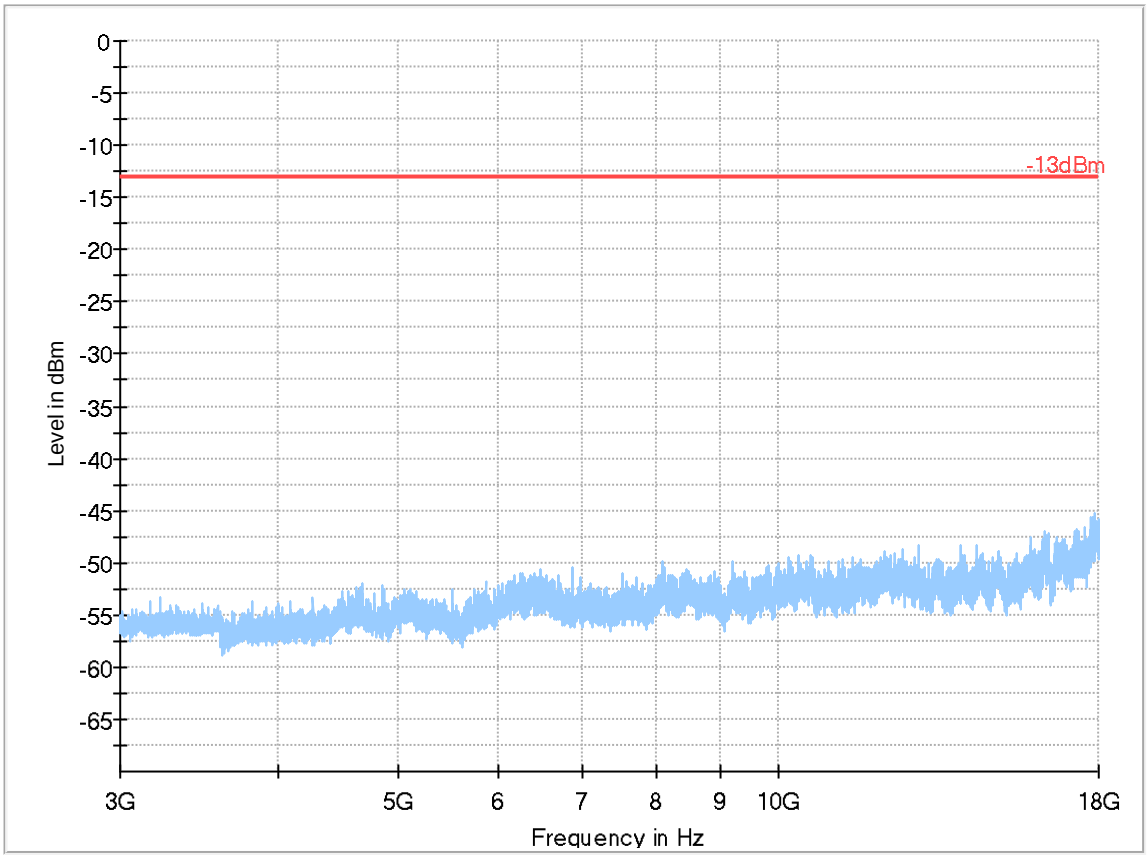
(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Comment
1868.257750	4:50:27 PM - 3/26/2019
1868.257750	4:50:27 PM - 3/26/2019



Plot # 99 Radiated Emissions: 3 GHz - 18 GHz

Channel: High



8 Test setup photos

Setup photos are included in supporting file name: "EMC_JUNIP_026_19001_ISED_Setup_Photos.pdf"

9 Test Equipment And Ancillaries Used For Testing

Equipment Type	Manufacturer	Model	Serial #	Calibration Cycle	Last Calibration Date
PASSIVE LOOP ANTENNA	ETS LINDGREN	6512	00164698	3 YEARS	08/08/2017
BILOG ANTENNA	TESEO	CBL 6141B	41106	3 YEARS	11/01/2017
HORN ANTENNA	EMCO	3115	00035114	3 YEARS	07/31/2017
HORN ANTENNA	ETS LINDGREN	3117	00167061	3 YEARS	08/08/2017
HORN ANTENNA	ETS LINDGREN	3116C	00166821	3 YEARS	09/24/2017
UNIVERSAL RADIO COMMUNICATION TESTER	R&S	CMU 200	101821	2 YEARS	07/06/2017
WIDEBAND RADIO COMMUNICATION	R&S	CMW500	127068	2 YEARS	07/01/2017
SIGNAL ANALYZER	R&S	FSV 40	101022	2 YEARS	07/05/2017
COMPACT DIGITAL BAROMETER	CONTROL COMPANY	35519-055	91119547	2 YEARS	06/20/2017
TEST RECEIVER	R&S	ESU.EMI	100256	3 YEARS	01/31/2018
THRMOMETER HUMIDIY	DICKSON	TM320	16253639	3 YEARS	11/02/2017

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
2019-04-11	EMC_ JUNIP_026_19001_FCC_22_24_27_ISED	Initial version	Yuchan Lu