

Test Report

For:

Continental Automotive Technologies GmbH

Brand:

AUMOVIO

Marketing Name:

PACCAR Connect Platform

Model Name:

SILVERBOX

Product Description:

Infotainment controller for truck

FCC ID: 2AJW5PCNPSLV

ISED: 21979-PCNPSLV

Applied Rules and Standards:

47 CFR Part 15.247 (DTS)

RSS-247 Issue 4 (DTS) & RSS-Gen Issue 5

REPORT #: EMC_CONTM_003_25001_FCC15247_BLE_Rev1

DATE: 2026-04-09



IC recognized #
3462B

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

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1 Assessment

The following device was evaluated against the applicable criteria specified in

- FCC rule Part 15.247 of Title 47 of the Code of Federal Regulations
- RSS-247, Issue 4
- RSS-Gen, Issue 5

There were no additions, deviations, or exclusions made from the test method.

Company	Description	Model #
Continental Automotive Technologies GmbH	Infotainment controller for truck	SILVERBOX

Report Authorized by:

Responsible for testing Laboratory:

2026-04-09	Compliance	Alvin Ilarina (Director of EMC Services)	Alvin ILARINA Digitally signed by Alvin ILARINA Date: 2026.04.09 17:15:44 -07'00'
Date	Section	Name	Signature

Responsible for the Report:

2026-04-09	Compliance	Guangcheng Huang (Senior EMC Test Engineer)	Guangch eng Huang Digitally signed by Guangcheng Huang DN: CN = Guangcheng Huang, email = guangcheng_huang@cetecom.com C = US O = cetecom OIU = EMC Date: 2026.04.09 17:08:39 -07'00'
Date	Section	Name	Signature

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
City/Zip Code	Milpitas, 95035 CA
Country	USA
Telephone:	+ 1 (408) 586 6200
Fax:	+ 1 (408) 586 6299
EMC Lab Manager:	Alvin Ilarina
Project Manager:	Ruby Hall

2.2 Identification of the Client

Client's Name:	Continental Automotive Technologies GmbH
Street Address:	Heinrich-Hertz-Straße 45
City/Zip Code	78052
Country	Germany

2.3 Identification of the Manufacturer

Manufacturer's Name:	Continental Automotive Guadalajara Mexico
Manufacturers Address:	Camino a la Tijera 3
City/Zip Code	45647
Country	Mexico

3 Equipment Under Test (EUT)

3.1 EUT Specifications

Model No:	SILVERBOX
Marketing Name:	PACCAR Connect Platform
HW Version:	AAA2425110200
SW Version:	EBS.A.C.2025-03-07
FCC ID:	2AJW5PCNPSLV
ISED:	21979-PCNPSLV
FWIN:	-
HVIN:	AAA26838
PMN:	-
Product Description:	Infotainment controller for truck
Power Supply / Rated operating Voltage Range:	9 V to 16 V
Operating Temperature Range	-40°C to 85°C
Sample Revision	production
EUT Dimensions	194 mm X 140 mm X 87.15 mm
Note: All information provided by the client.	

3.2 Radio Specifications

Embedded Radio Technologies	AM/FM, SDARS, WLAN, BT, GNSS
Frequency Range / number of channels:	WLAN 5GHz, UNII-1 (5150 - 5250 MHz), UNII-3 (5725 - 5850 MHz) / 36, 38, 40, 42, 44, 46, 48, 149, 151, 153 155, 157, 159, 161 BT CLASS 2 (2400-2483.5 MHz) BLE (2400-2483.5 MHz)
Antenna Type / Gain	See following table of antenna gain
Note: All information provided by the client.	

2.4 GHz band (dBi) (only use AT400/chain2)			
RF chain	AT400	AT401	
In-band Max.	2.8	1.9	
5 GHz band, U-NII-1 subband (dBi)			
RF chain	AT400	AT401	MIMO directional gain
In-band Max.	2.3	2.4	5.36
5 GHz band, U-NII-3 subband (dBi)			
RF chain	AT400	AT401	MIMO directional gain
In-band Max.	5.5	4.7	8.12

3.3 EUT Sample details

EUT #	Serial Number	HW Version	SW Version	Notes/Comments
1	25268017	AAA2425110200	EBS.A.C.2025-03-07	Conducted sample
2	-	AAA2425110200	EBS.A.C.2025-03-07	Radiated sample

3.4 Accessory Equipment (AE) details

AE #	Type	Model	Manufacturer	Serial Number
1	cable harness	-	-	-
0	0	0	0	0

3.5 Test Setup Configuration

EUT Set-up #	Combination of AE used for test set up	Comments
1	EUT#1 + AE#1	For conducted testing (test laptop used before testing to set up test mode)
2	EUT#2 + AE#1	For radiated testing (test laptop used before testing to set up test mode)

3.6 Mode of Operation and Justification for Worst Case

Mode of Operation	Comments
1	Continuous transmission at fixed channel. Data rate 1 Mbps and 2 Mbps. (for testing purposes only)
2	Simultaneous transmission with WLAN 5180MHz HE20. BLE data rate 1 Mbps. (for testing purposes only)

During the testing process, the EUT was tested with transmitter sets on low, mid and high channels and various data rates. 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.

Worst case data rate: 1 Mbps.

4 Subject of Investigation

The objective of the measurements done by CETECOM Inc. was to assess the performance of the EUT according to the relevant requirements specified in section 1.

Testing procedures are based on 558074 D01 15.247 Meas Guidance v05r02 – “GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES” - April 2, 2019, by the Federal Communications Commission, Office of Engineering and Technology, Laboratory Division.

5 Measurement Results Summary

Test Specification	Test Case	Temperature and Voltage Conditions	Mode	Pass	NA	NP	Result
§15.247(a)(1) RSS-247 5.2(a)	Emission Bandwidth	Nominal	1	☒	☐	☐	Pass
§15.247(e) RSS-247 5.2(b)	Power Spectral Density	Nominal	1	☒	☐	☐	Pass
§15.247(b)(1) RSS-247 5.4(d)	Maximum Conducted Output Power and EIRP	Nominal	1	☒	☐	☐	Pass
§15.247(d) RSS-247 5.5	Band edge compliance Unrestricted Band Edges	Nominal	2	☒	☐	☐	Pass
§15.247; 15.209; 15.205 RSS-Gen 8.9; 8.10	Band edge compliance Restricted Band Edges	Nominal	2	☒	☐	☐	Pass
§15.247(d); §15.209 RSS-Gen 6.13	TX Radiated Spurious Emissions	Nominal	2	☒	☐	☐	Pass
§15.207(a) RSS Gen 8.8	AC Conducted Emissions	Nominal	-	☐	☒	☐	Note 1

Note 1: not applicable for vehicular device.

Summary of the worst-case results

Test Specification	Test Case	Measurement	Limit	Result
§15.247(a) RSS-247 5.2(a)	Emission Bandwidth	0.57 MHz	>500 kHz	PASS
§15.247(e) RSS-247 5.2(b)	Power Spectral Density	-3.186 dBm / 3kHz	8 dBm / 3 kHz	PASS
§15.247(b) RSS-247 5.4(d)	Maximum Conducted Output Power	Peak: -3 dBm Peak: 0.501 mW	1 Watt (30 dBm)	PASS
	Maximum Radiated Output Power (EIRP)	EIRP: -0.2 dBm EIRP: 0.955 mW	4 Watt (36 dBm)	PASS
§15.247(d) RSS-247 5.5	Band edge compliance Unrestricted Band Edges	-46.3 dBm	Peak <20dBc Avg. <30dBc	PASS
§15.247; 15.209; 15.205 RSS-Gen 8.9; 8.10	Band edge compliance Restricted Band Edges	Peak: 57.01 dBµV/m AVG: 40.86 dBµV/m	*PEAK LIMIT= 74 dBµV/m @3m = -21.23 dBm *AVG. LIMIT= 54 dBµV/m @3m = -41.23 dBm	PASS
Test Specification	Test Case	Lowest Margin Emission		Result
§15.247(d); §15.209 RSS-Gen 6.13	TX Spurious Emissions- Radiated	36.422 dBµV/m		PASS
§15.207(a) RSS Gen 8.8	AC Conducted Emissions	- dBµV/m		NA

Note: Pass=Complies, NA=Not Applicable, NP=Not Performed

Note 1: This device does not connect to AC mains network

6 **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=2.

Radiated measurement

Measurement System		EMC-1	EMC-2
Conducted emissions (mains port)	150 kHz – 30 MHz	2.45 dB	N/A
Radiated emissions	9 kHz – 30 MHz	2.68 dB	2.53 dB
	30 – 100 MHz	4.39 dB	3.85 dB
	100 MHz – 1 GHz	5.65 dB	5.24 dB
	1 – 6 GHz	5.0 dB	4.88 dB
	6 – 18 GHz	4.76 dB	4.58 dB
	18 – 40 GHz	4.65 dB	4.61 dB

RF conducted measurement ± 0.5 dB

According to TR 102 273 a multiplicative propagation of error is assumed for RF measurement systems. For this reason the RMS method is applied to dB values and not to linear values as appropriate for additive propagation of error. Also used: <http://physics.nist.gov/cuu/Uncertainty/typeb.html>. The above calculated uncertainties apply to direct application of the Substitution method. The Substitution method is always used when the EUT comes closer than 3dB to the limit.

6.1 **Environmental Conditions During Testing:**

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

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

6.2 **Dates of Testing:**

2025-11-03 – 2026-04-07

6.3 **Decision Rule:**

Cetecom Inc. follows ILAC G8:09/2019 chapter 4.2.1 (Simple Acceptance Rule).

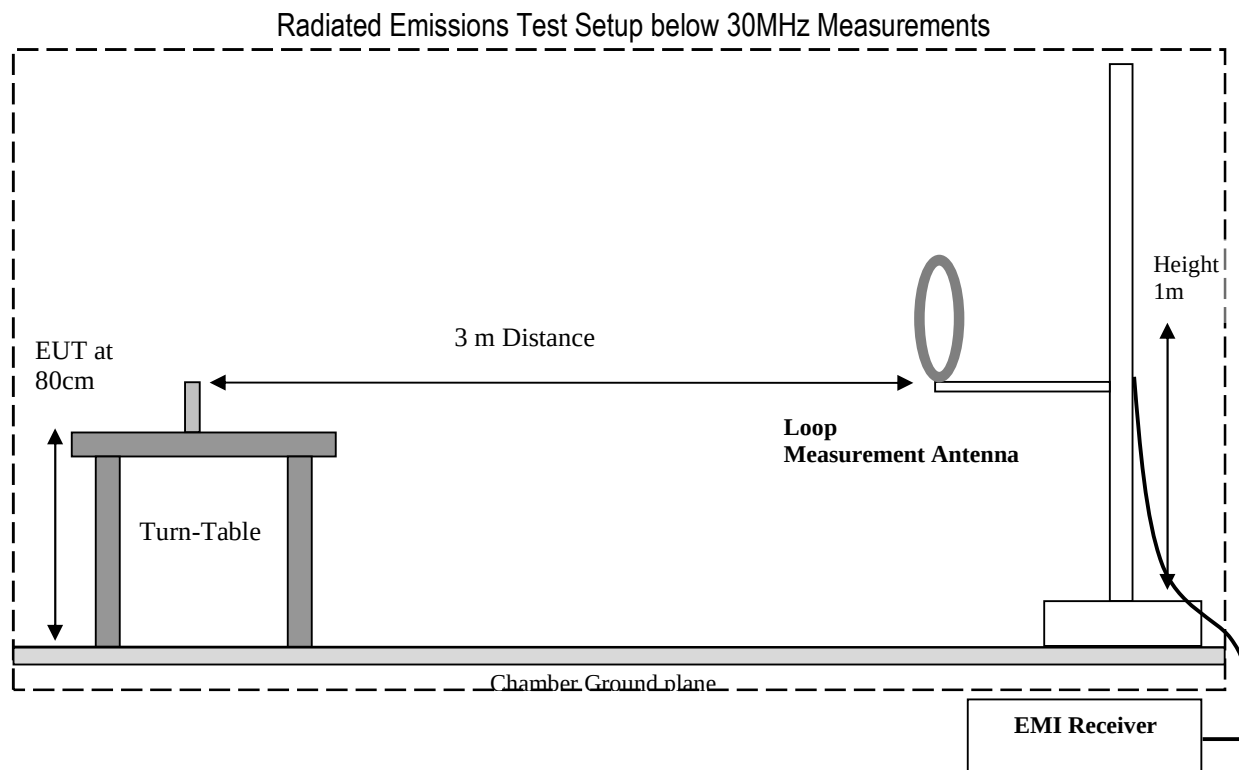
Only the measured values related to their corresponding limits will be used to decide whether the equipment under test meets the requirements of the test standards listed in chapter 3. The measurement uncertainty is mentioned in this test report, See chapter 9, but is not taken into account – neither to the limits nor to the measurement results. Measurement results with a smaller margin to the corresponding limits than the measurement uncertainty have a potential risk of more than 5% that the decision might be wrong.

7 Measurement Procedures

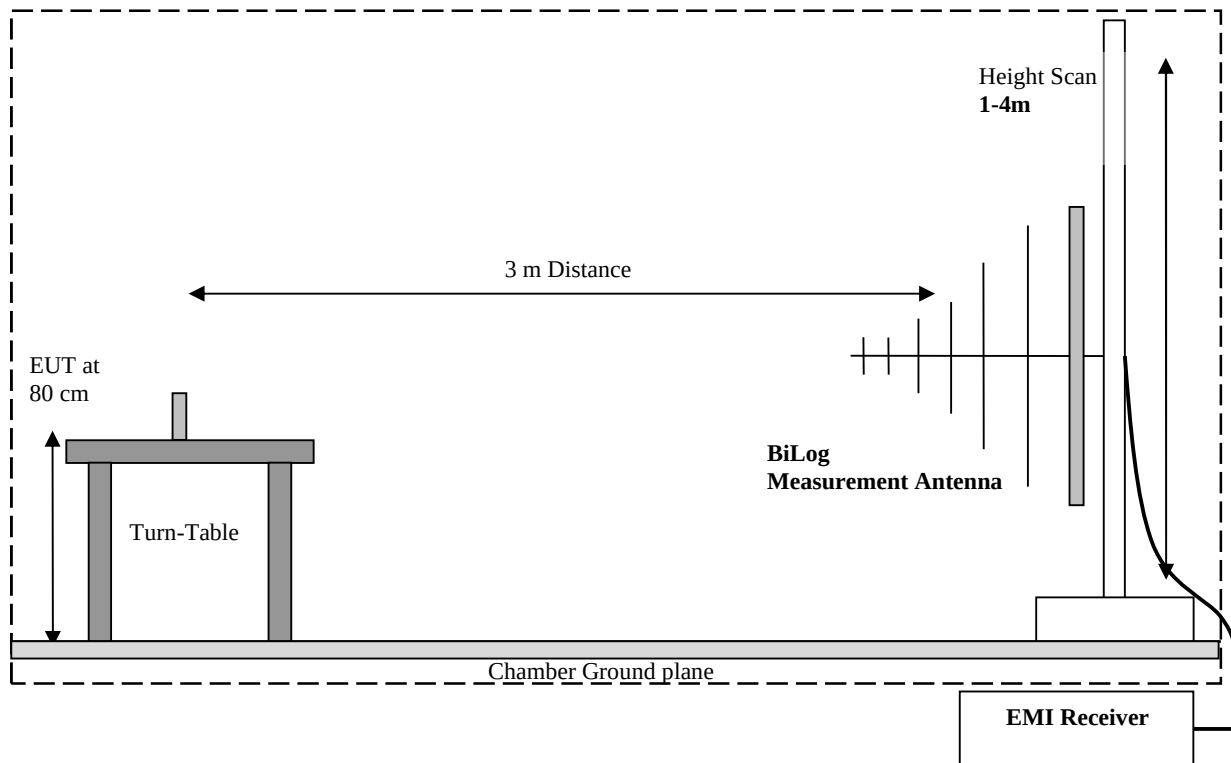
7.1 Radiated Measurement

The radiated measurement is performed according to ANSI C63.10 (2020)

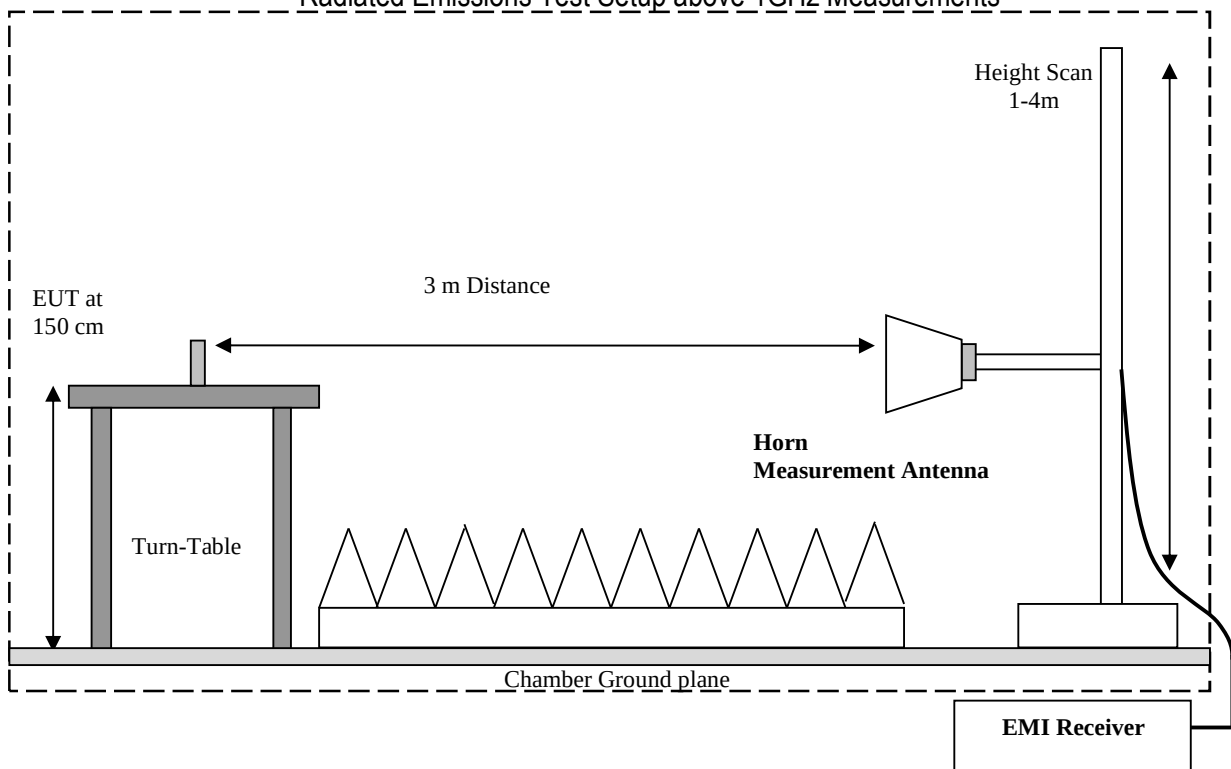
- The exploratory measurement is accomplished by running a matrix of 16 sweeps over the required frequency range with R&S Test-SW EMC32 for 4 positions of the turntable, two orthogonal positions of the EUT and both antenna polarizations. This procedure exceeds the requirement of the above standards to 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 30MHz-1GHz Measurements



Radiated Emissions Test Setup above 1GHz Measurements



7.1.1 Sample Calculations for Field Strength Measurements

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

1. Measured reading in dB μ V
2. Cable Loss between the receiving antenna and SA in dB and
3. Antenna Factor in dB/m

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

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

Example:

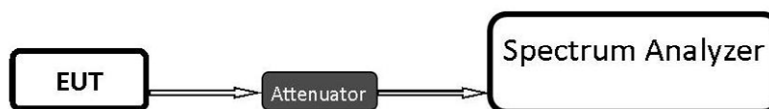
Frequency (MHz)	Measured SA (dB μ V)	Cable Loss (dB)	Antenna Factor Correction (dB)	Field Strength Result (dB μ V/m)
1000	80.5	3.5	14	98.0

7.2 Power Line Conducted Measurement Procedure

AC Power Line conducted emissions measurements performed according to: ANSI C63.4 (2014)

7.3 RF Conducted Measurement Procedure

Testing procedures are based on 558074 D01 15.247 Meas Guidance v05r02 – “GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES” - April 2, 2019, by the Federal Communications Commission, Office of Engineering and Technology, Laboratory Division.



- Connect the equipment as shown in the above diagram.
- Adjust the settings of the SA (Rohde-Schwarz Spectrum Analyzer) to connect the EUT at the required mode of test.
- Measurements are to be performed with the EUT set to the low, middle and high channels and for worst case modulation schemes.

8 Test Result Data

8.1 Maximum Peak Conducted Output Power

8.1.1 Measurement according to FCC 558074 D01 15.247 Meas Guidance v05r02, and ANSI C63.10 Clause 11.

Spectrum Analyzer settings:

- RBW $\geq$ DTS bandwidth
- VBW $\geq 3 \times$ RBW
- Span $\geq 3 \times$ RBW
- Sweep = Auto couple
- Detector function = PK
- Trace = Max hold
- Use peak marker function to determine the peak amplitude level

8.1.2 Limits:

Maximum Peak Output Power:

- FCC §15.247 (b): 1 W
- IC RSS-247: 1 W

8.1.3 Test conditions and setup:

Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input	Antenna Gain
22 °C	1	1	Nominal	See sec.3.2

8.1.4 Measurement result:

Plot #	Frequency (MHz)	Data Rate	Maximum Peak Conducted Output Power (dBm)	EIRP (dBm)	Limit (dBm)	Result
-	2402	1 Mbps	-3.0	-0.2	30 (Pk) / 36 (EIRP)	Pass
-	2440		-3.5	-0.7	30 (Pk) / 36 (EIRP)	Pass
-	2480		-4.0	-1.2	30 (Pk) / 36 (EIRP)	Pass
-	2402	2 Mbps	-3.1	-0.3	30 (Pk) / 36 (EIRP)	Pass
-	2440		-3.6	-0.8	30 (Pk) / 36 (EIRP)	Pass
-	2480		-3.9	-1.1	30 (Pk) / 36 (EIRP)	Pass

Note: following measurement plot shows only worst case, 2402 MHz 1 Mbps.

8.2 Power Spectral Density

8.2.1 Measurement according to FCC 558074 D01 15.247 Meas Guidance v05r02, and ANSI C63.10 Clause 11.

Spectrum Analyzer settings for Peak PSD method:

- Set analyzer center frequency to DTS channel center frequency
- Set the span to 1.5 x DTS bandwidth
- Set RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$
- Set the VBW $\geq 3 \times \text{RBW}$
- Detector = Peak
- Sweep time = Auto couple
- Trace mode = Max hold
- Allow trace to fully stabilize
- Use the peak marker function to determine the maximum amplitude level within the RBW
- If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat

8.2.2 Limits:

FCC§15.247(e) & RSS-247 5.2(b)

- For digitally modulated systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

8.2.3 Test conditions and setup:

Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input	Antenna Gain
22 °C	1	1	Nominal	See sec.3.2

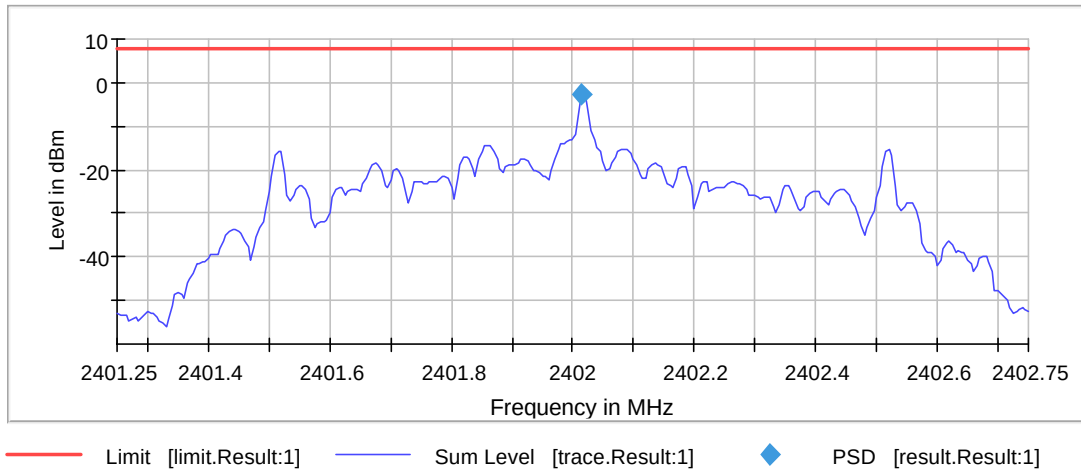
8.2.4 Measurement result:

Plot #	Frequency (MHz)	Data Rate	Maximum Power Spectral Density (dBm/3 kHz)	Limit (dBm / 3 kHz)	Result
1	2402	1 Mbps	-3.186	8	Pass
2	2440		-3.513	8	Pass
3	2480		-4.125	8	Pass
4	2402	2 Mbps	-3.400	8	Pass
5	2440		-3.520	8	Pass
6	2480		-3.867	8	Pass

8.2.5 Measurement Plots:

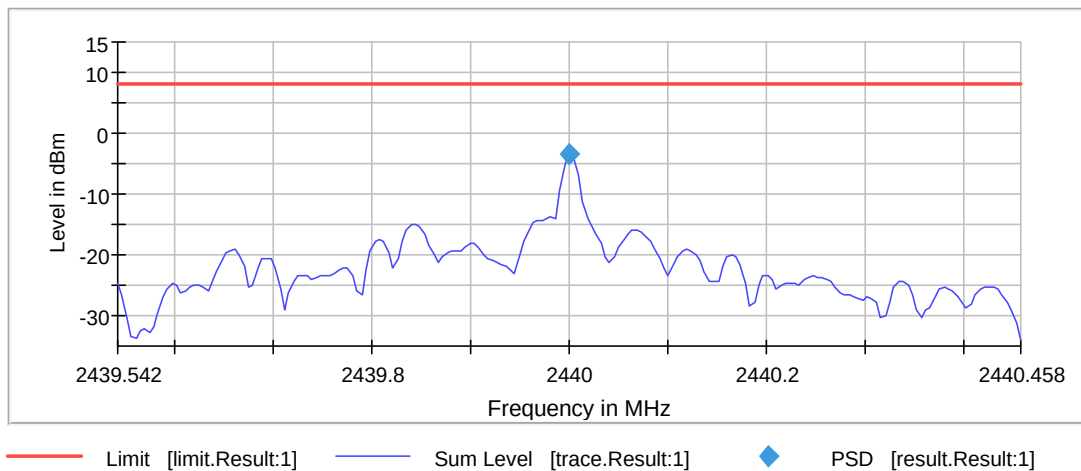
Plot 1:

Peak Power Spectral Density



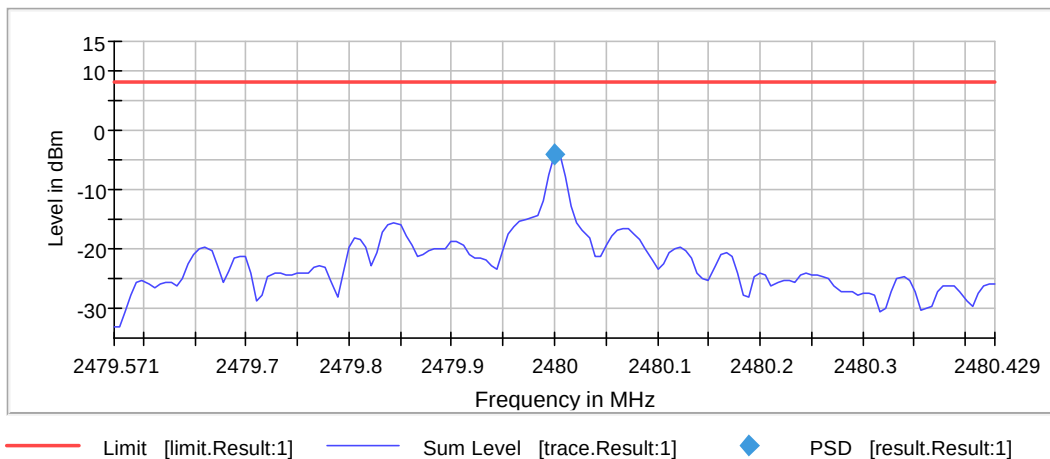
Plot 2:

Peak Power Spectral Density



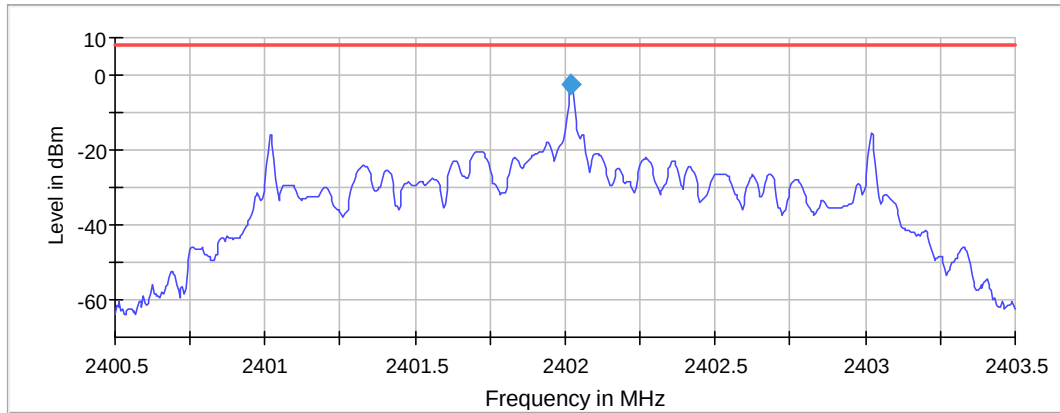
Plot 3:

Peak Power Spectral Density



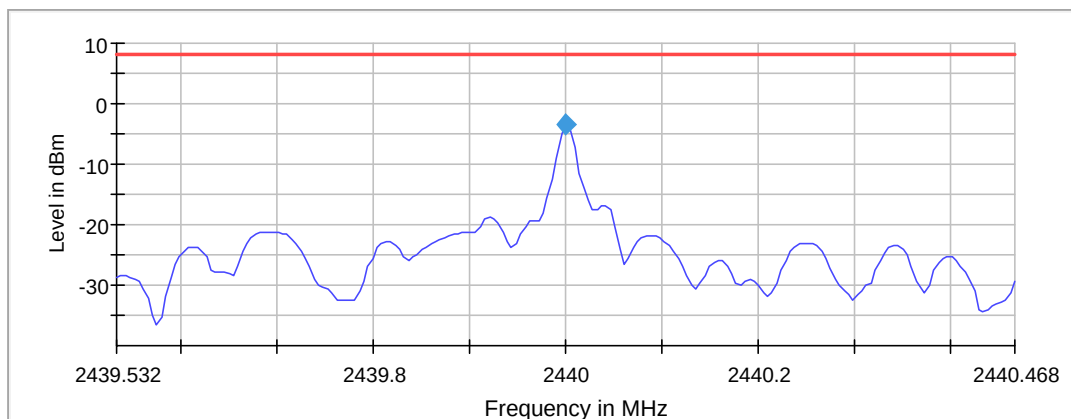
Plot 4:

Peak Power Spectral Density



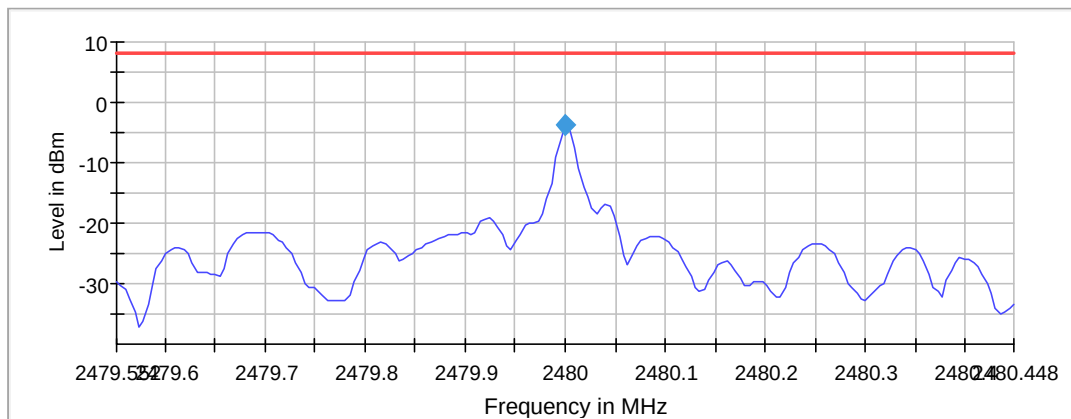
Plot 5:

Peak Power Spectral Density



Plot 6:

Peak Power Spectral Density



8.3 Emission Bandwidth 6dB and 99% Occupied Bandwidth

8.3.1 Measurement according to FCC 558074 D01 15.247 Meas Guidance v05r02, and ANSI C63.10 Clause 11.

Spectrum Analyzer settings:

6dB (DTS) Bandwidth:

- Set RBW = 100 kHz
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW
- Detector = Peak
- Trace mode = Max hold
- Sweep = Auto couple
- Allow the trace to stabilize
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

99% Occupied Bandwidth:

- Set frequency = nominal EUT channel center frequency
- Set Span = 1.5 x to 5.0 x OBW
- Set RBW = 1% to 5% of OBW
- Set the video bandwidth (VBW) $\approx 3 \times$ RBW
- Detector = Peak
- Trace mode = Max hold
- Sweep = Auto couple
- Allow the trace to stabilize
- Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth
- If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.

8.3.2 Limits:

FCC §15.247(a)(2) and RSS-247 5.2(a)

- Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

8.3.3 Test conditions and setup:

Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input
22 °C	1	1	Nominal

8.3.4 Measurement result:

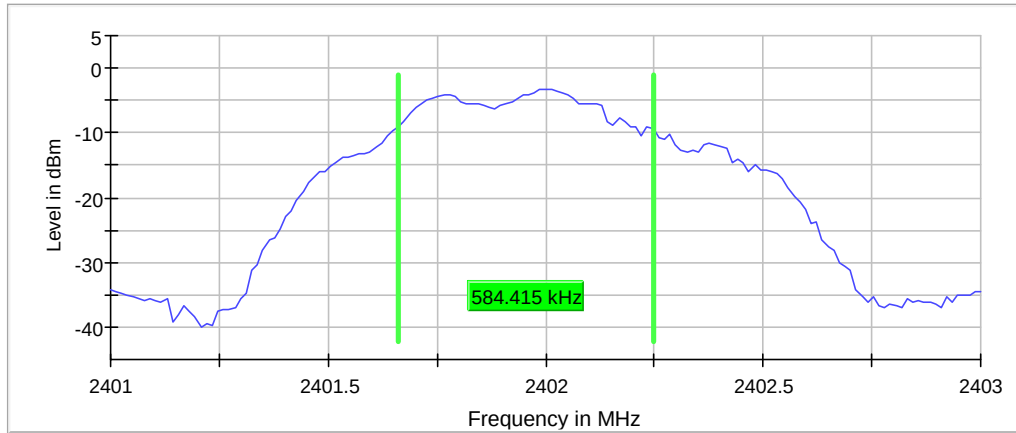
Plot #	Data Rate	Frequency	6dB Emissions Bandwidth	Limit	Result
		(MHz)	(MHz)	(MHz)	
1	1 Mbps	2402	0.58	> 0.5	Pass
2		2440	0.61	> 0.5	Pass
3		2480	0.57	> 0.5	Pass
4	2 Mbps	2402	0.68	> 0.5	Pass
5		2440	0.62	> 0.5	Pass
6		2480	0.60	> 0.5	Pass

Plot #	Data Rate	Frequency	99% Occupied Bandwidth	Limit	Result
		(MHz)	(MHz)	(MHz)	
7	1 Mbps	2402	1.02	N/A	N/A
8		2440	1.02	N/A	N/A
9		2480	1.02	N/A	N/A
10	2 Mbps	2402	2.04	N/A	N/A
11		2440	2.04	N/A	N/A
12		2480	2.04	N/A	N/A

8.3.5 Measurement Plots:

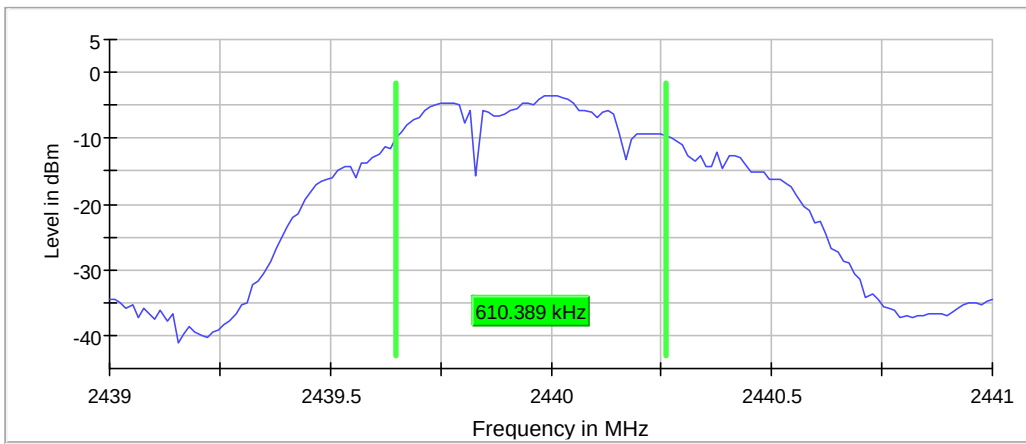
Plot 1:

6 dB Bandwidth



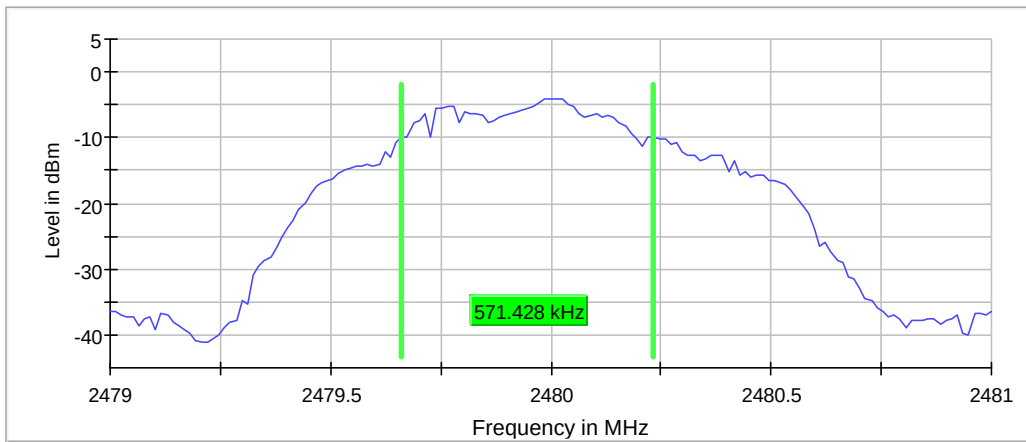
Plot 2:

6 dB Bandwidth



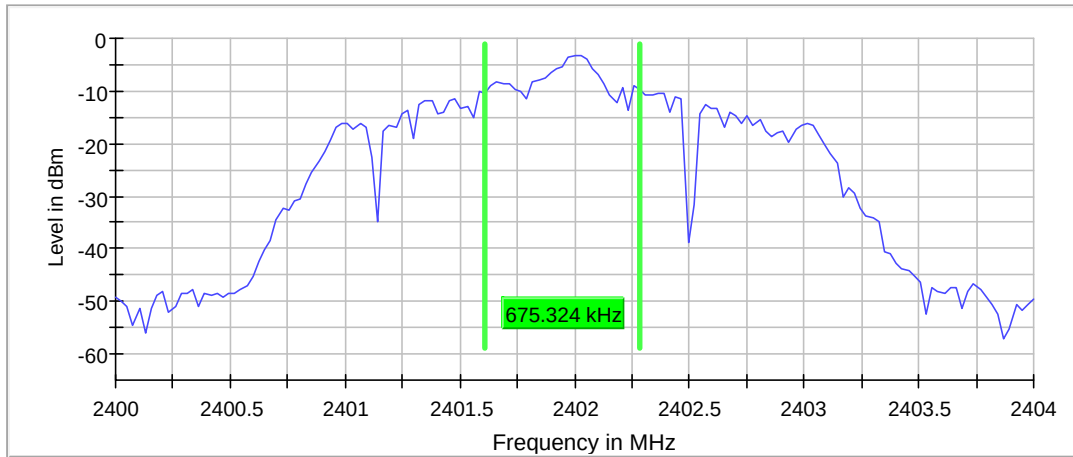
Plot 3:

6 dB Bandwidth



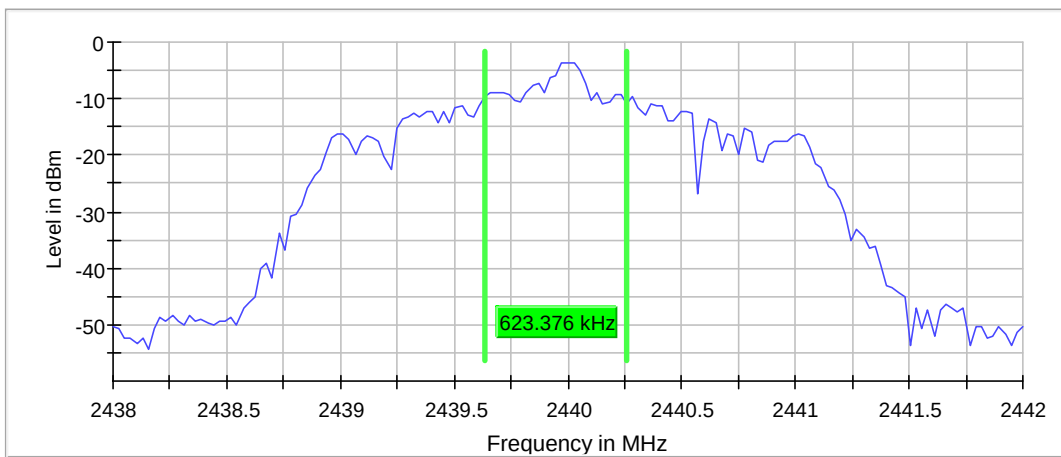
Plot 4:

6 dB Bandwidth



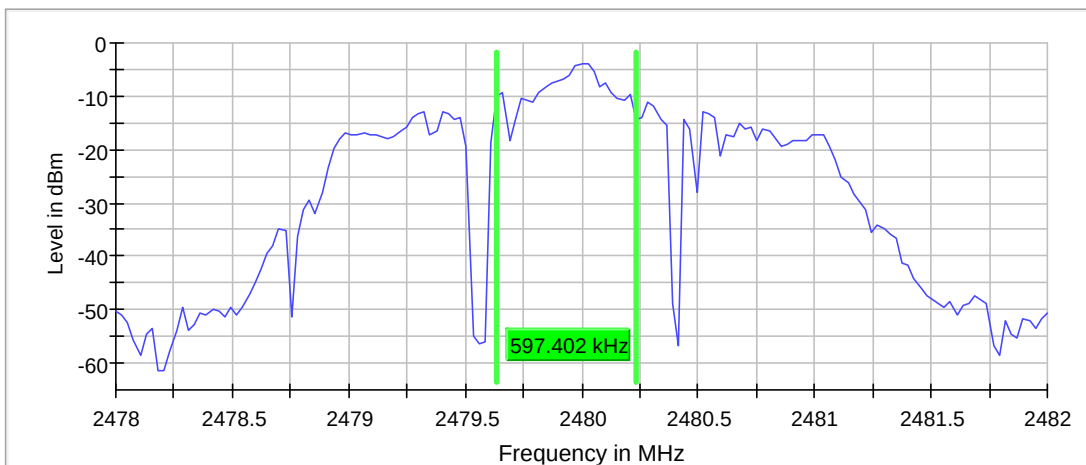
Plot 5:

6 dB Bandwidth



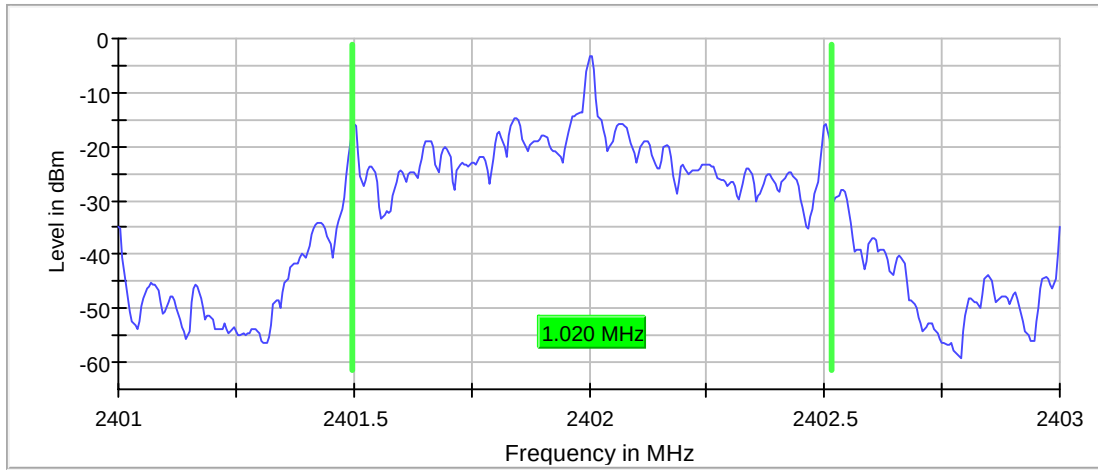
Plot 6:

6 dB Bandwidth



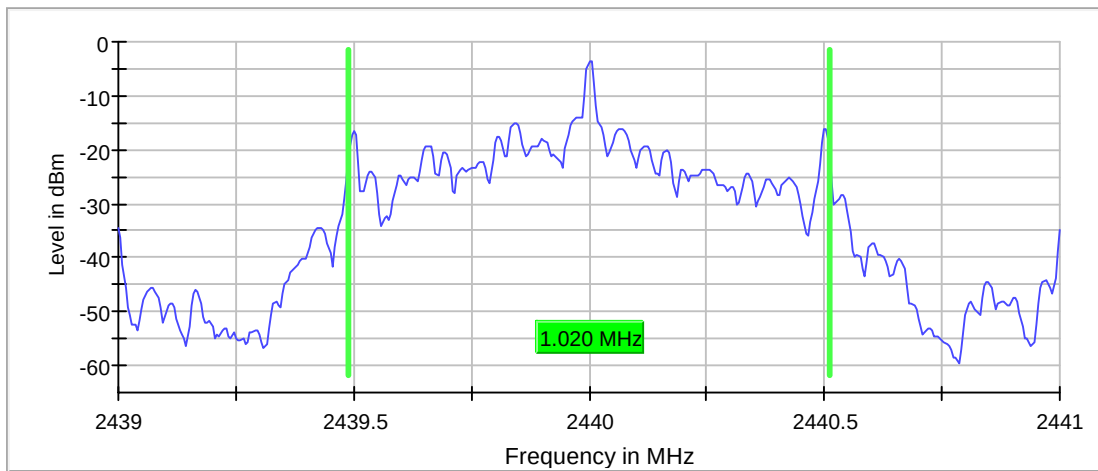
Plot 7:

99 % Bandwidth



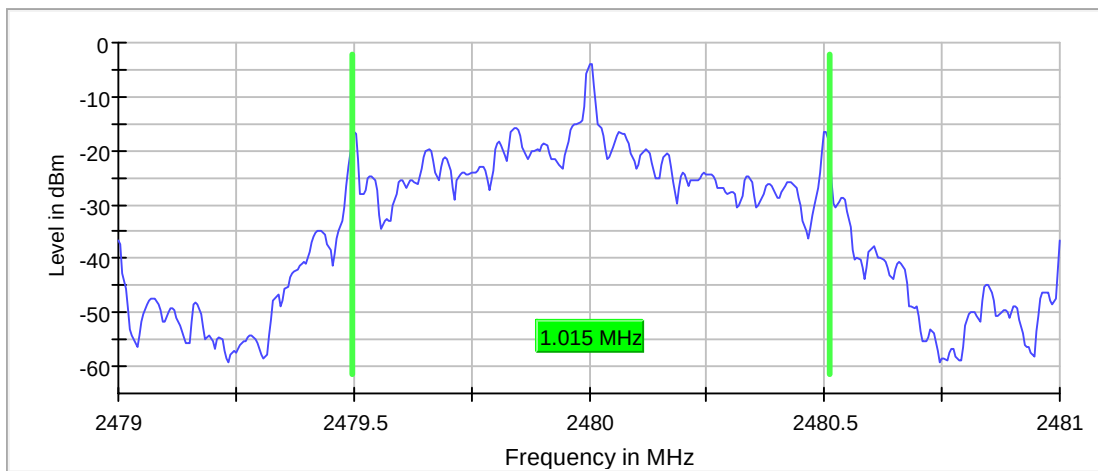
Plot 8:

99 % Bandwidth



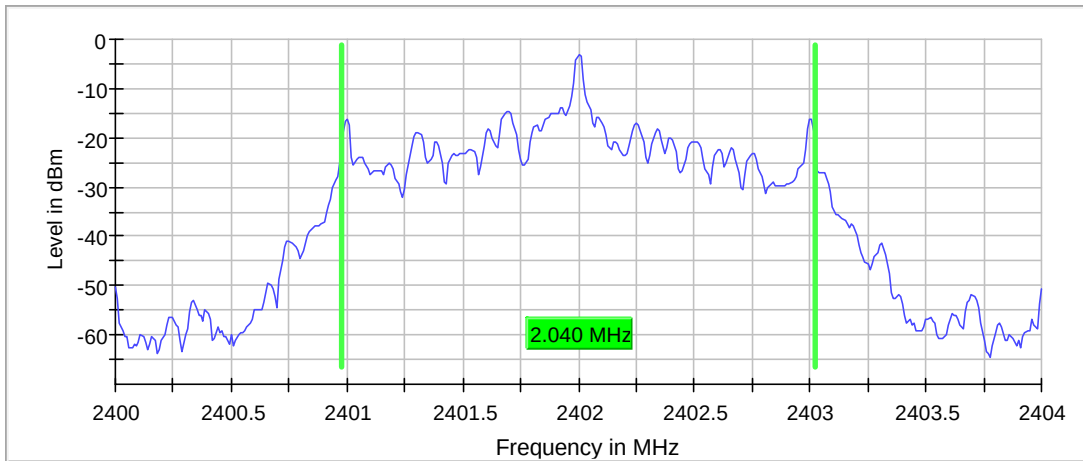
Plot 9:

99 % Bandwidth



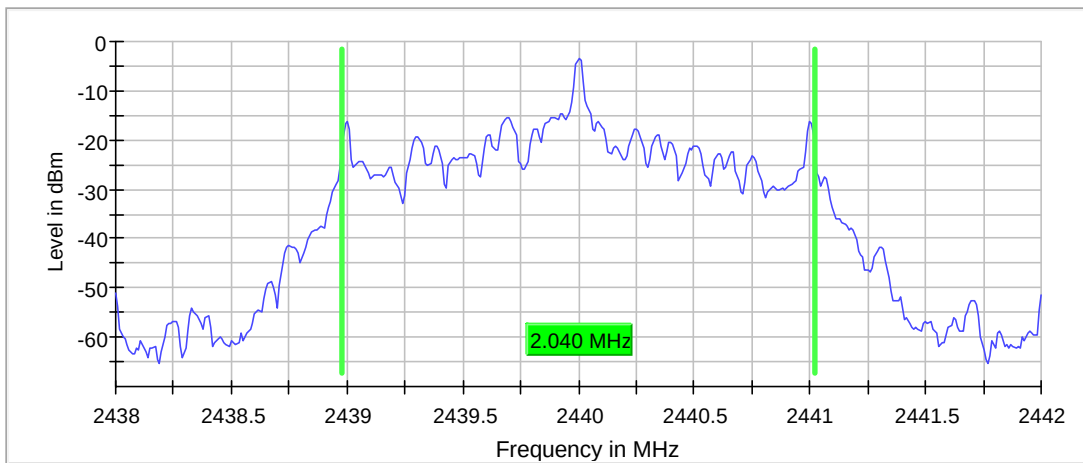
Plot 10:

99 % Bandwidth



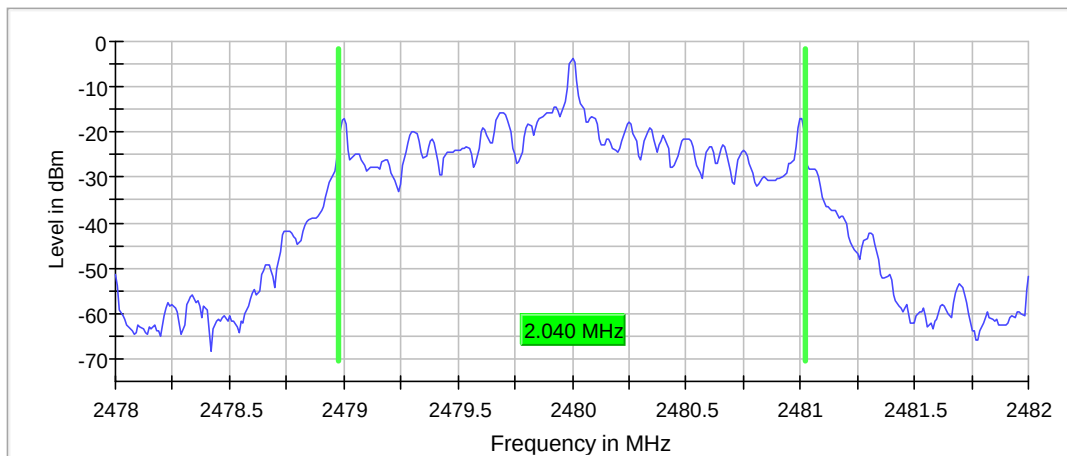
Plot 11:

99 % Bandwidth



Plot 12:

99 % Bandwidth



8.4 Duty cycle

8.4.1 Measurement according to FCC 558074 D01 15.247 Meas Guidance v05r02, and ANSI C63.10 Clause 11.

Power meter settings:

Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000
Time resolution	1.000 μ s	1.000 μ s

8.4.2 Measurement result

Duty cycle = 71.618%

Duty cycle correction factor = $10 \cdot \log(71.618\%) = -1.45$ dB

8.5 Band Edge Compliance

8.5.1 Measurement according to FCC 558074 D01 15.247 Meas Guidance v05r02, and ANSI C63.10 Clause 11.

Spectrum Analyzer settings for band edge:

- Set the center frequency and span to encompass frequency range to be measured
- RBW = 100 kHz
- VBW $\geq 3 \times$ RBW
- Sweep Time: Auto couple
- Detector = Peak
- Trace = Max hold
- Allow trace to fully stabilize
- Use the peak marker function to determine the maximum amplitude level
- Set the marker on the emission at the band edge, or on the highest modulation product outside of the band, if this level is greater than that at the band edge

8.5.2 Limits non restricted band:

FCC§15.247 (d)

- In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

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- In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30dB instead of 20dB.

Spectrum Analyzer settings for restricted band:

- Peak measurements are made using a peak detector and RBW=1 MHz

8.5.3 Limits restricted band §15.247/15.209/15.205 and RSS-Gen 8.9/8.10

- *PEAK LIMIT= 74 dB μ V/m @3m =-21.23 dBm
- *AVG. LIMIT= 54 dB μ V/m @3m =-41.23 dBm
- Start frequency & stop frequency according to frequency range specified in the restricted band table in FCC section 15.205 & RSS-Gen 8.10
- Measurements with a peak detector were used to show compliance to average limits, thus showing compliance to both peak and average limits.

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
10.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

8.5.4 Test conditions and setup:

Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input	Antenna Gain
22 °C	2	1	Nominal	See sec.3.2

8.5.5 Measurement result:

Plot #	Frequency	Data Rate	Band Edge	In band Peak Level	Level	Margin	Limit	Result
	(MHz)			(dBm)	(dBm)	(dBm)	(dBm)	
1	2402	1Mbps	Lower (conducted)	-0.2	-55.2	34.9	-20.2	Pass
2	2480	1Mbps	Higher (conducted)	-1.3	-56.8	35.5	-21.3	Pass
3	2402	2Mbps	Lower (conducted)	-0.3	-46.3	26.0	-20.3	Pass
4	2480	2Mbps	Higher (conducted)	-1.1	-57.0	35.9	-21.1	Pass

Note: Results include antenna gain.

Plot #	Frequency	Band Edge	Measured Peak Value	Limit	Result
	(MHz)		(dB μ V/m)	(dB μ V/m)	
5	2402	Lower Restricted Peak	55.39	74 Peak	Pass
		Lower Restricted AVG	37.82	54 AVG	Pass
6	2480	Upper Restricted Peak	57.01	74 Peak	Pass
		Upper Restricted AVG	40.86	54 AVG	Pass

Note: Radiated testing done for the worst case data rate 1 Mbps only.

8.5.6 Measurement Plots:

Plot 1: Conducted testing, BLE 1 Mbps, low channel

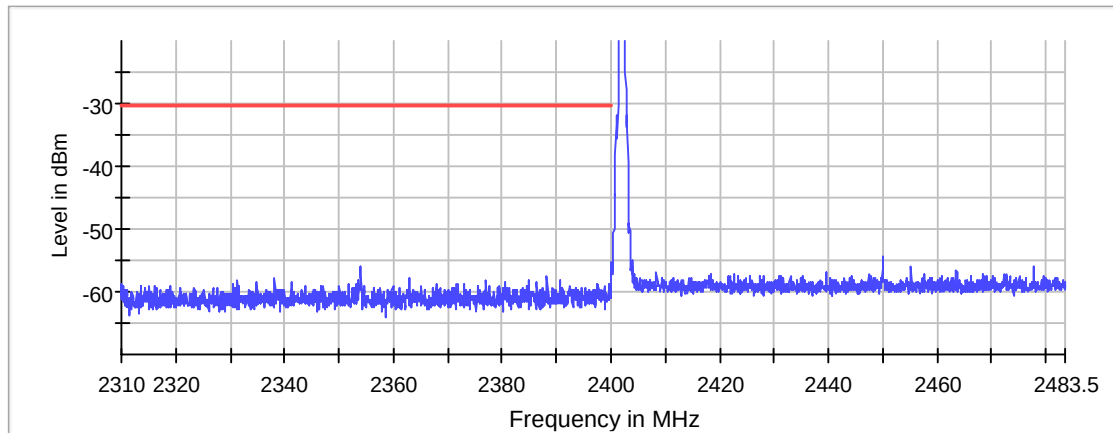
Inband Peak

Frequency (MHz)	Level (dBm)
2402.013824	-0.2

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2400.000000	-55.2	34.9	-20.2	PASS
2353.950000	-56.0	35.8	-20.2	PASS
2354.000000	-56.2	35.9	-20.2	PASS
2354.050000	-57.4	37.2	-20.2	PASS
2388.250000	-57.6	37.4	-20.2	PASS
2399.950000	-57.7	37.4	-20.2	PASS
2362.900000	-57.7	37.4	-20.2	PASS
2338.250000	-57.9	37.7	-20.2	PASS
2390.650000	-58.1	37.9	-20.2	PASS
2331.400000	-58.1	37.9	-20.2	PASS
2377.100000	-58.2	37.9	-20.2	PASS
2353.600000	-58.2	38	-20.2	PASS
2384.800000	-58.3	38	-20.2	PASS
2384.750000	-58.3	38.1	-20.2	PASS
2334.850000	-58.4	38.2	-20.2	PASS

Band Edge



— Limit [limit.Result:1] — Sum Level [trace.Result:1] × Fail [Over Limit.Result:1]

Plot 2: Conducted testing, BLE 1 Mbps, high channel

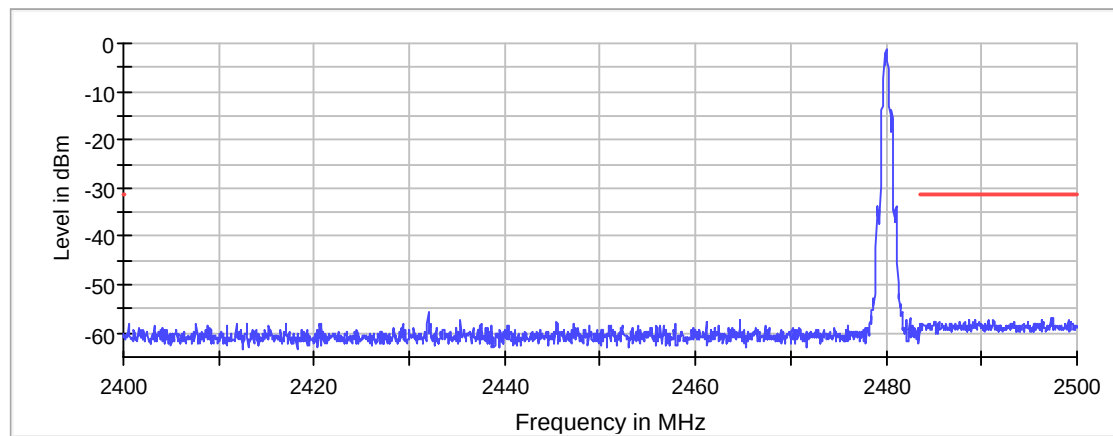
Inband Peak

Frequency (MHz)	Level (dBm)
2480.061765	-1.3

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2497.250000	-56.8	35.5	-21.3	PASS
2497.461538	-57.0	35.7	-21.3	PASS
2497.408654	-57.1	35.7	-21.3	PASS
2490.692308	-57.1	35.8	-21.3	PASS
2499.100962	-57.1	35.8	-21.3	PASS
2496.350962	-57.2	35.9	-21.3	PASS
2491.221154	-57.3	36	-21.3	PASS
2489.370192	-57.3	36	-21.3	PASS
2488.682692	-57.3	36	-21.3	PASS
2491.168269	-57.4	36.1	-21.3	PASS
2489.793269	-57.5	36.2	-21.3	PASS
2490.850962	-57.5	36.2	-21.3	PASS
2494.870192	-57.5	36.2	-21.3	PASS
2485.086538	-57.5	36.2	-21.3	PASS
2499.418269	-57.6	36.2	-21.3	PASS

Band Edge



— Limit [limit.Result:1] — Sum Level [trace.Result:1] × Fail [Over Limit.Result:1]

Plot 3: Conducted testing, BLE 2 Mbps, low channel

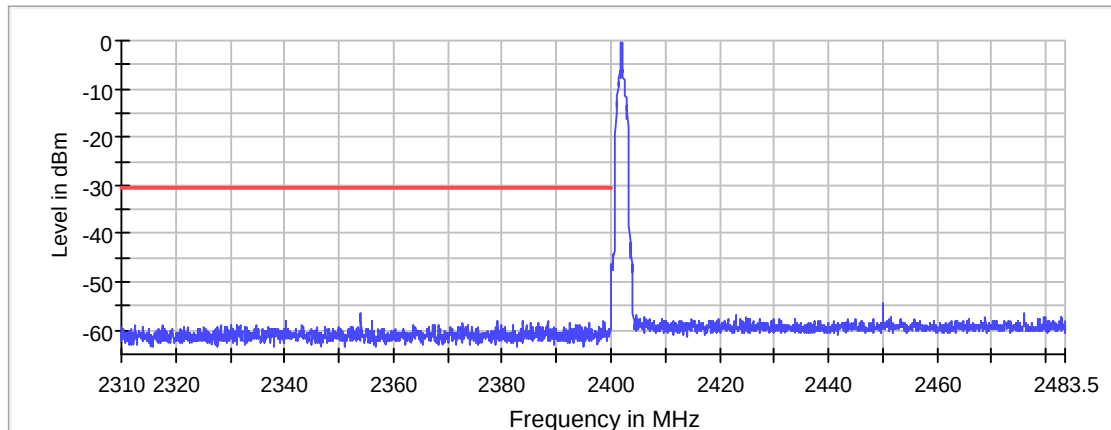
Inband Peak

Frequency (MHz)	Level (dBm)
2402.013824	-0.3

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2400.000000	-46.3	26	-20.3	PASS
2399.950000	-48.8	28.5	-20.3	PASS
2399.900000	-54.0	33.7	-20.3	PASS
2354.000000	-56.3	36	-20.3	PASS
2353.950000	-56.6	36.4	-20.3	PASS
2354.050000	-57.9	37.6	-20.3	PASS
2379.150000	-58.0	37.7	-20.3	PASS
2388.350000	-58.2	37.9	-20.3	PASS
2340.150000	-58.2	37.9	-20.3	PASS
2356.000000	-58.2	37.9	-20.3	PASS
2388.300000	-58.2	37.9	-20.3	PASS
2398.700000	-58.3	38	-20.3	PASS
2383.850000	-58.3	38	-20.3	PASS
2398.750000	-58.4	38.1	-20.3	PASS
2372.800000	-58.4	38.2	-20.3	PASS

Band Edge



— Limit [limit.Result:1] — Sum Level [trace.Result:1] X Fail [Over Limit.Result:1]

Plot 4: Conducted testing, BLE 2 Mbps, high channel

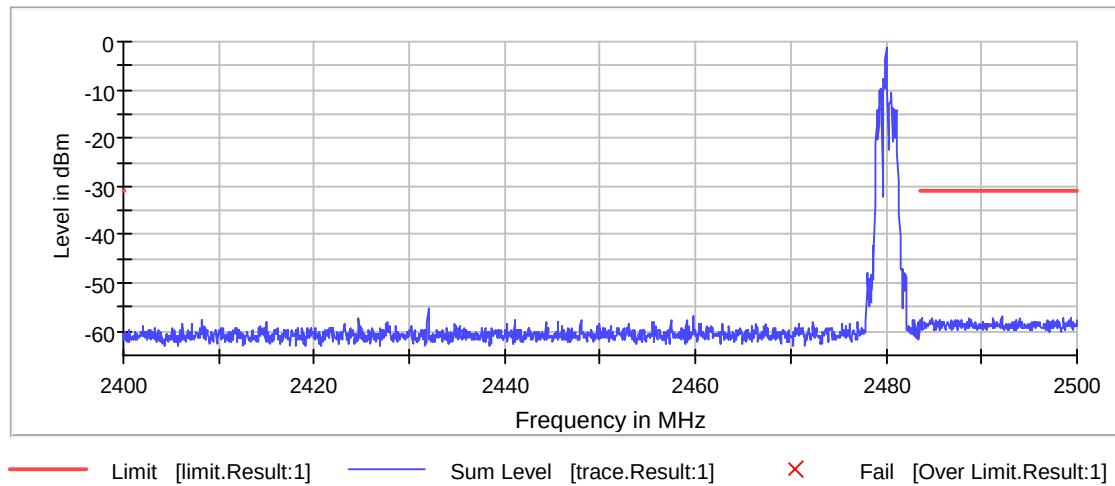
Inband Peak

Frequency (MHz)	Level (dBm)
2480.061765	-1.1

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2492.120192	-57.0	35.9	-21.1	PASS
2484.875000	-57.1	36	-21.1	PASS
2488.788462	-57.2	36.1	-21.1	PASS
2498.572115	-57.2	36.1	-21.1	PASS
2493.971154	-57.3	36.2	-21.1	PASS
2483.817308	-57.3	36.2	-21.1	PASS
2499.418269	-57.4	36.3	-21.1	PASS
2491.221154	-57.5	36.4	-21.1	PASS
2488.947115	-57.5	36.4	-21.1	PASS
2485.139423	-57.5	36.5	-21.1	PASS
2497.461538	-57.5	36.5	-21.1	PASS
2487.572115	-57.5	36.5	-21.1	PASS
2483.605769	-57.6	36.5	-21.1	PASS
2487.836538	-57.6	36.5	-21.1	PASS
2485.668269	-57.6	36.5	-21.1	PASS

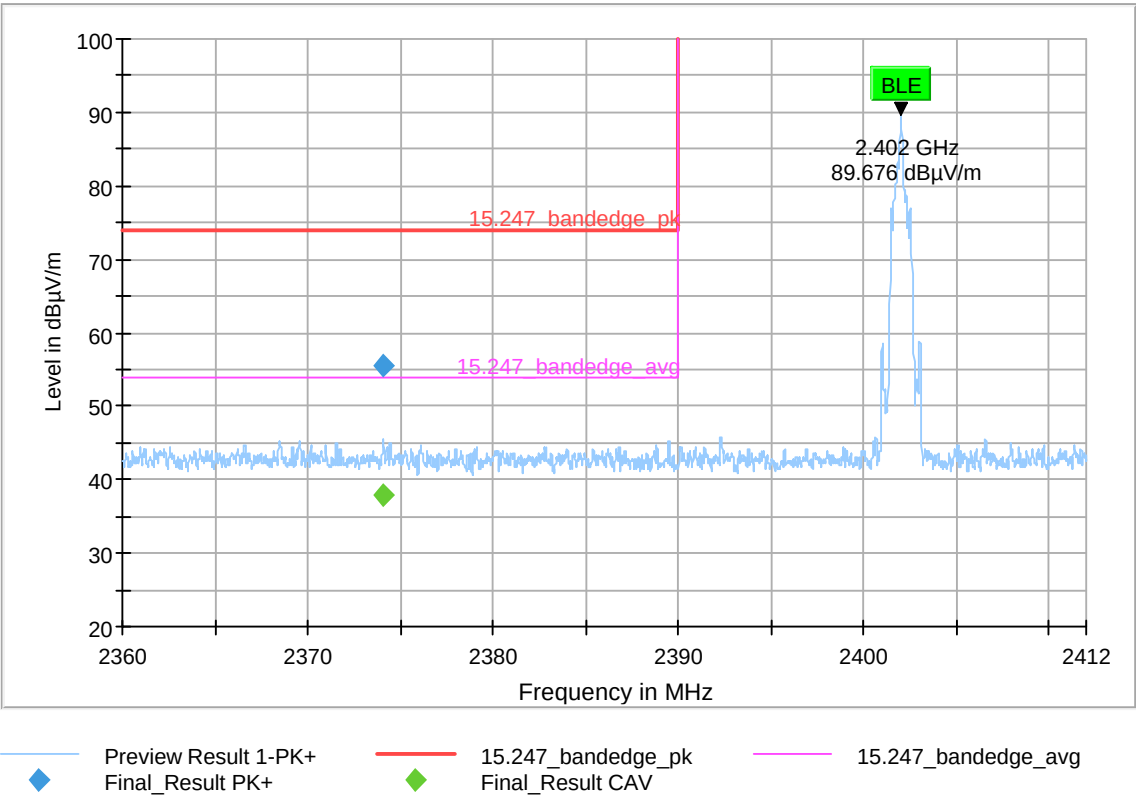
Band Edge



Plot 5: Radiated tesing, BLE 1 Mbps, LOW CH

Final_Result

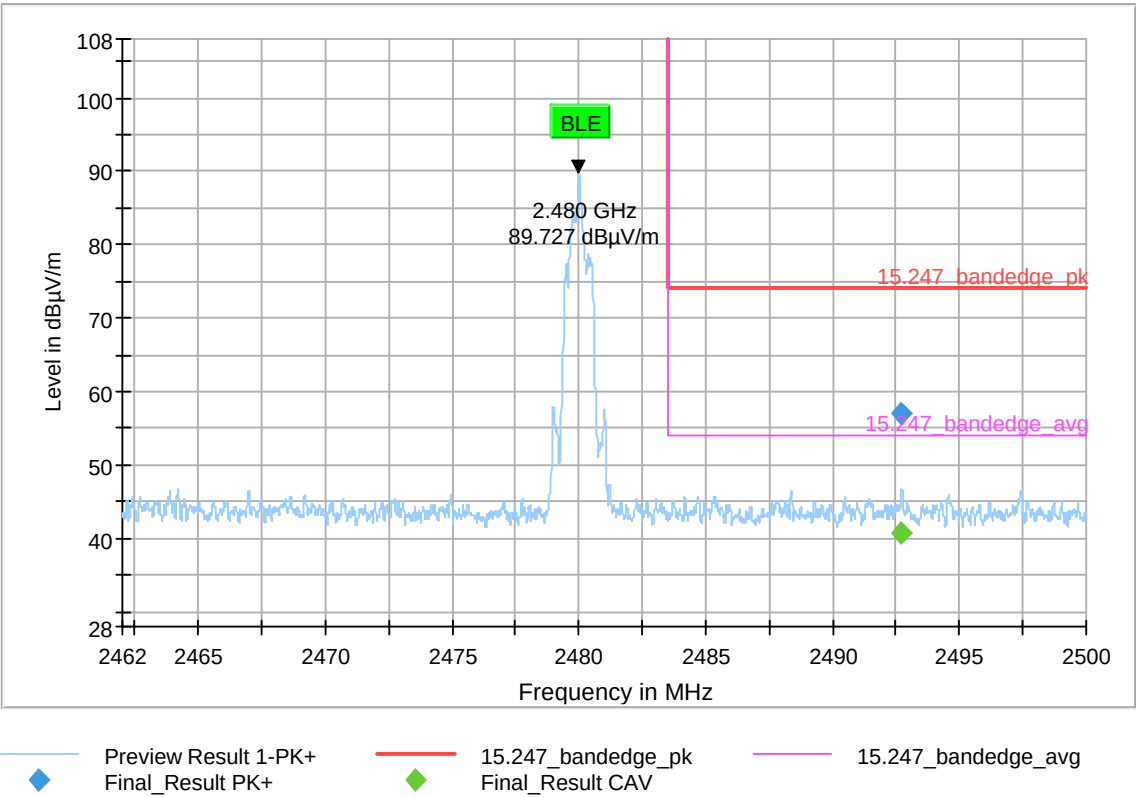
Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
2374.08	---	37.81745	54.00	16.18	500.0	1000.0	166.0	H	231.0	33.6	
2374.08	55.39482	---	74.00	18.61	500.0	1000.0	166.0	H	231.0	33.6	



Plot 6: Radiated testing, BLE 1 Mbps, HIGH CH

Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
2492.73	---	40.85834	54.00	13.14	500.0	1000.0	297.0	V	26.0	34.0	
2492.73	57.01440	---	74.00	16.99	500.0	1000.0	297.0	V	26.0	34.0	



8.6 Radiated Transmitter Spurious Emissions and Restricted Bands

8.6.1 Measurement according to ANSI C63.10 (2020)

Spectrum Analyzer Settings:

- Frequency = 9 KHz – 30 MHz
- RBW = 9 KHz
- Detector: Peak

- Frequency = 30 MHz – 1 GHz
- Detector = Peak / Quasi-Peak
- RBW= 120 KHz (<1GHz)

- Frequency > 1 GHz
- Detector = Peak / Average
- RBW = 1 MHz

- Radiated spurious emissions shall be measured for the transmit frequencies, transmit power, and data rate for the lowest, middle and highest channel in each frequency band of operation and for the highest gain antenna for each antenna type, and using the appropriate parameters and test requirements.
- The highest (or worst-case) data rate shall be recorded for each measurement.
- For testing frequencies below 30 MHz at distance other than the specified in the standard, the limit conversion is calculated by using the FCC materials for the ANSI 63 committee issued on January, 27 1991.

8.6.2 Limits:

FCC §15.247

- In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

FCC §15.209 & RSS-Gen 8.9

- Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency of emission (MHz)	Field strength (μV/m)	Measurement Distance (m)	Field strength @ 3m (dBμV/m)
0.009–0.490	2400/F(kHz) / -----	300	-
0.490–1.705	24000/F(kHz) / -----	30	-
1.705–30.0	30 / (29.5)	30	-
30–88	100	3	40 dBμV/m
88–216	150	3	43.5 dBμV/m
216–960	200	3	46 dBμV/m
Above 960	500	3	54 dBμV/m

FCC §15.205 & RSS-Gen 8.10

- Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
10.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

- Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

*PEAK LIMIT= 74 dBμV/m

*AVG. LIMIT= 54 dBμV/m

8.6.3 Test conditions and setup:

Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input
22 °C	2	2	Nominal

8.6.4 Measurement result:

Plot #	Channel #	Scan Frequency	Limit	Result
1, 4, 7, 10, 13, 16, 19	Low	9 kHz – 40 GHz	See section 8.5.2	Pass
2, 5, 8, 11, 14, 17, 20	Mid	9 kHz – 40 GHz	See section 8.5.2	Pass
3, 6, 9, 12, 15, 18, 21	High	9 kHz – 40 GHz	See section 8.5.2	Pass

8.6.5 Measurement Plots:

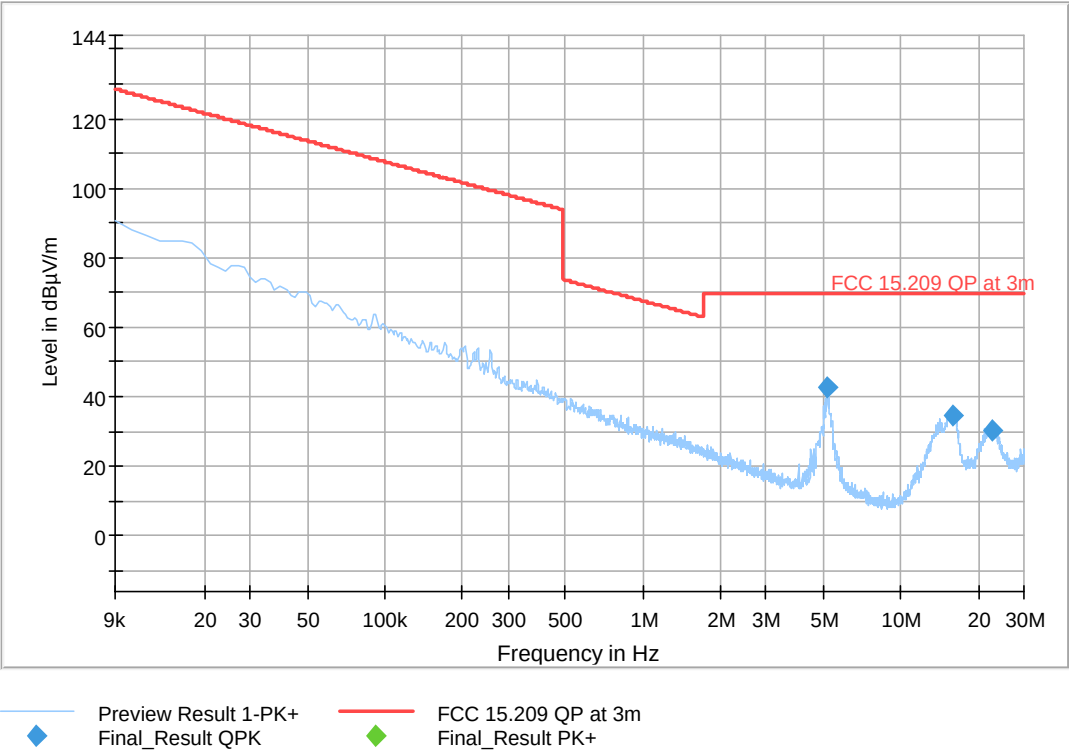
Plot 1: 9 kHz – 30 MHz, channel low

Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
5.176	42.560	---	69.50	26.94	500.0	9.0	100.0	H	136.0	7.3	0.3	-28.7	35.6
15.790	34.514	---	69.50	34.99	500.0	9.0	100.0	H	338.0	5.2	0.5	-28.9	33.7
22.599	30.231	---	69.50	39.27	500.0	9.0	100.0	H	5.0	4.7	0.5	-28.9	33.1

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBµV)
5.176	35.3
15.790	29.3
22.599	25.6



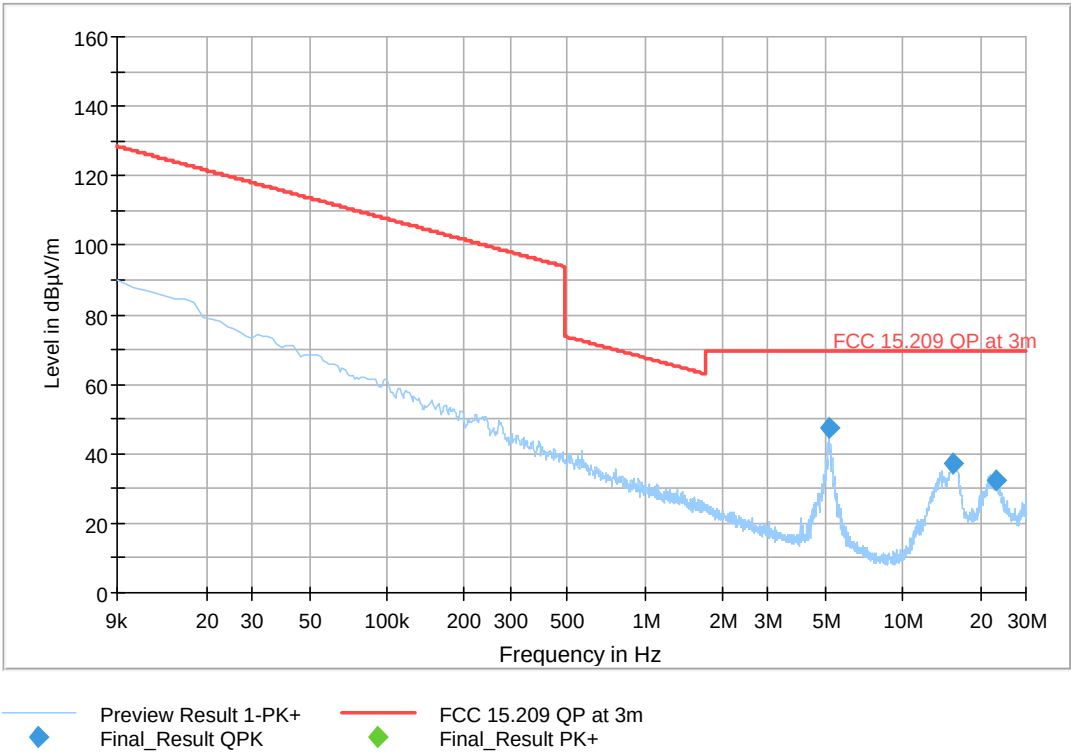
Plot 2: 9 kHz – 30 MHz, channel mid

Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
5.185	47.631	---	69.50	21.87	500.0	9.0	100.0	V	118.0	7.3	0.3	-28.7	35.6
15.528	37.399	---	69.50	32.10	500.0	9.0	100.0	H	277.0	5.2	0.5	-28.9	33.7
22.994	32.564	---	69.50	36.94	500.0	9.0	100.0	H	236.0	4.7	0.5	-28.9	33.1

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBµV)
5.185	40.4
15.528	32.2
22.994	27.9



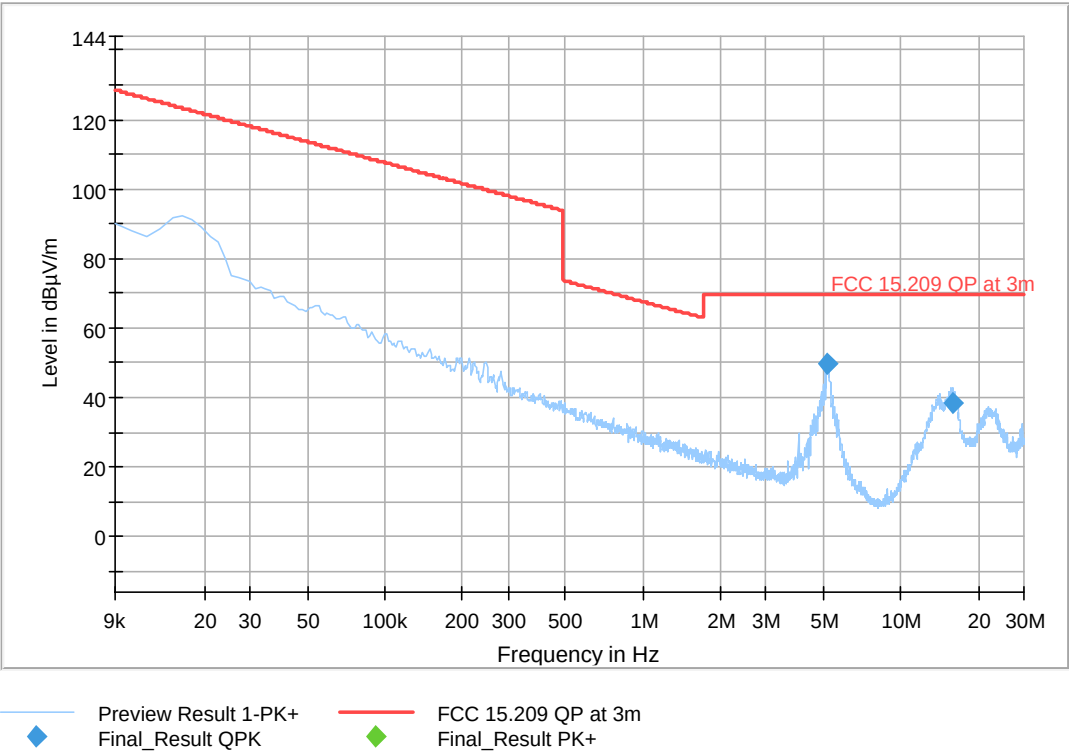
Plot 3: 9 kHz – 30 MHz, channel high

Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
5.186	49.646	---	69.50	19.85	500.0	9.0	100.0	H	244.0	7.3	0.3	-28.7	35.6
15.790	38.341	---	69.50	31.16	500.0	9.0	100.0	V	317.0	5.2	0.5	-28.9	33.7

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBµV)
5.186	42.4
15.790	33.2



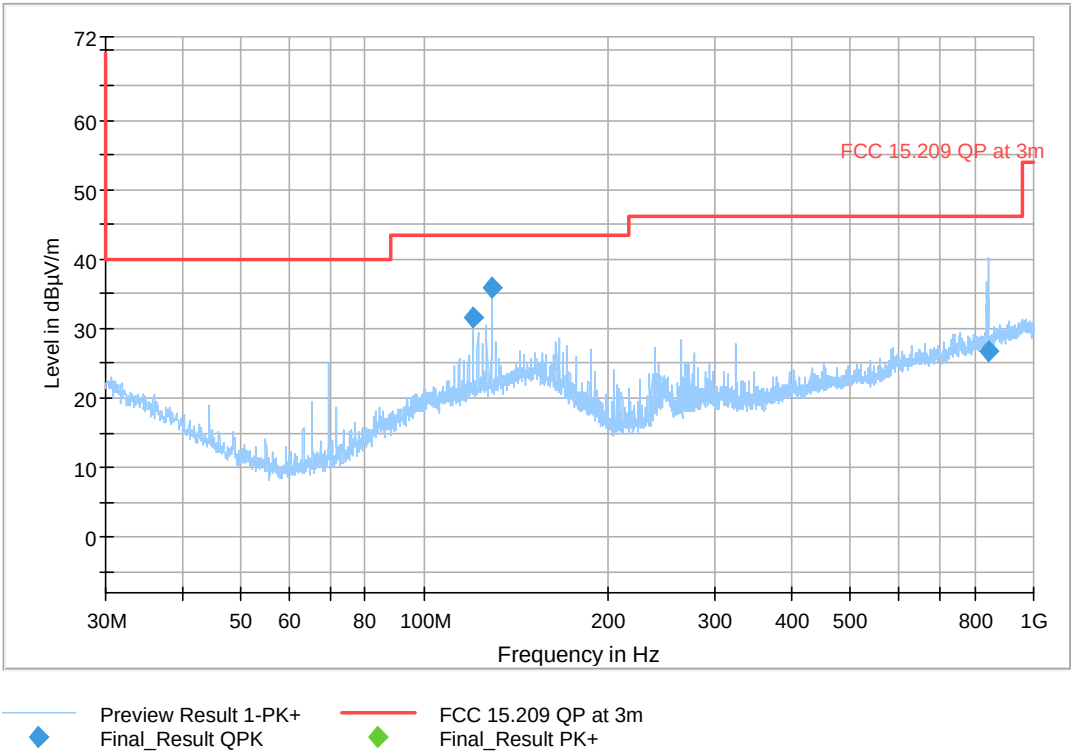
Plot 4: 30 MHz – 1 GHz, channel low

Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
120.395	31.718	---	43.50	11.78	500.0	120.0	100.0	V	138.0	-10.9	-34.6	0.0	23.7
128.837	35.894	---	43.50	7.61	500.0	120.0	100.0	V	160.0	-10.5	-34.5	0.0	24.0
844.279	26.864	---	46.02	19.16	500.0	120.0	254.0	V	18.0	-3.7	-32.0	0.0	28.3

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBµV)
120.395	42.6
128.837	46.4
844.279	30.6



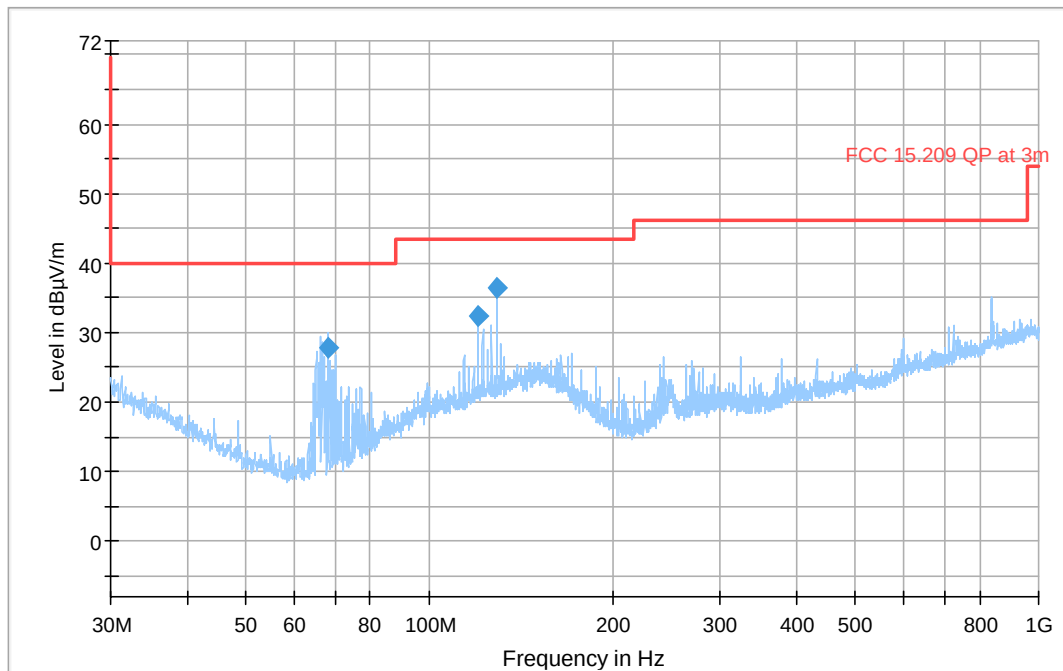
Plot 5: 30 MHz – 1 GHz, channel mid

Final Result

Frequency (MHz)	QuasiPeak (dBμV/m)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
68.282	27.868	---	40.00	12.13	500.0	120.0	142.0	V	94.0	-22.0	-34.8	0.0	12.9
120.396	32.356	---	43.50	11.14	500.0	120.0	100.0	V	135.0	-10.9	-34.6	0.0	23.7
128.819	36.381	---	43.50	7.12	500.0	120.0	100.0	V	146.0	-10.5	-34.5	0.0	24.0

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBμV)
68.282	49.8
120.396	43.2
128.819	46.9



◆ Preview Result 1-PK+ Final_Result QPK
 ◆ FCC 15.209 QP at 3m Final_Result PK+

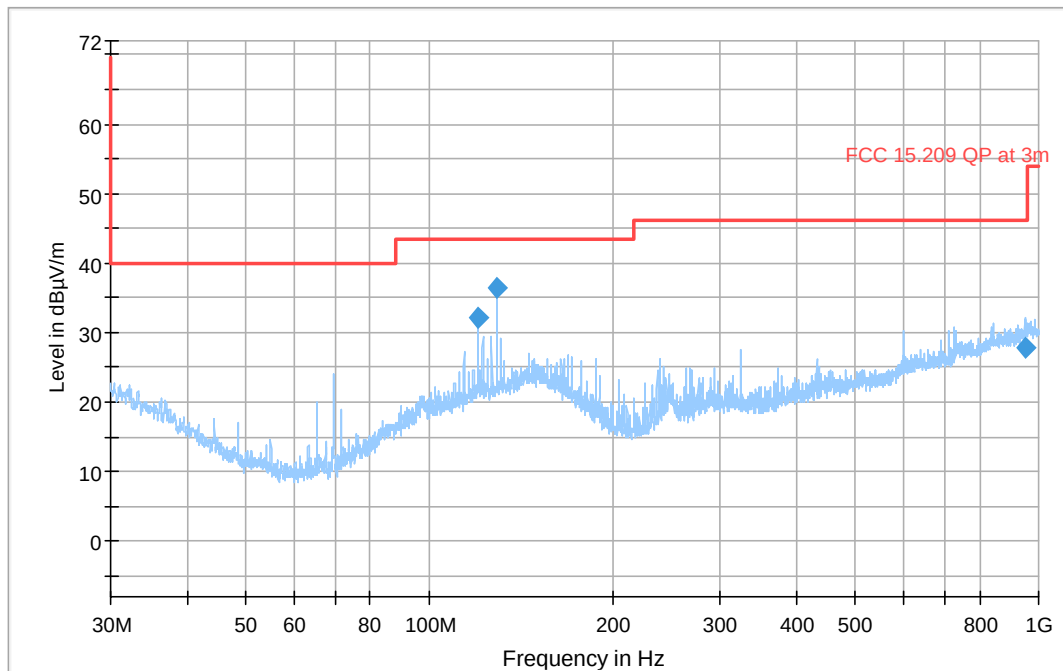
Plot 6: 30 MHz – 1 GHz, channel high

Final Result

Frequency (MHz)	QuasiPeak (dBμV/m)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
120.379	32.061	---	43.50	11.44	500.0	120.0	100.0	V	121.0	-10.9	-34.6	0.0	23.7
128.846	36.422	---	43.50	7.08	500.0	120.0	100.0	V	135.0	-10.5	-34.5	0.0	24.0
948.521	27.866	---	46.02	18.15	500.0	120.0	400.0	H	302.0	-2.1	-31.9	0.0	29.8

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBμV)
120.379	42.9
128.846	47.0
948.521	29.9



◆ Preview Result 1-PK+ Final_Result QPK
 ◆ FCC 15.209 QP at 3m Final_Result PK+

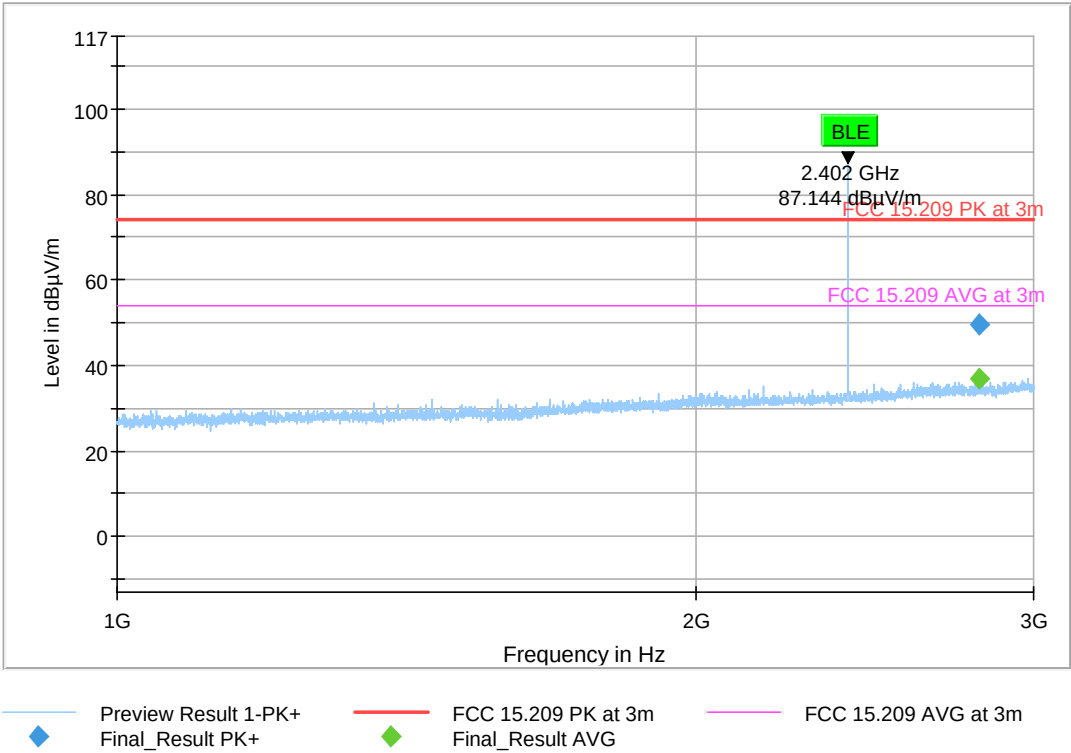
Plot 7: 1-3 GHz, channel low

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
2808.274	49.699	---	73.98	24.28	500.0	1000.0	109.0	V	-8.0	7.0	-22.0	0.0	29.0
2808.274	---	36.899	53.98	17.08	500.0	1000.0	109.0	V	-8.0	7.0	-22.0	0.0	29.0

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBμV)
2808.274	42.7
2808.274	29.9



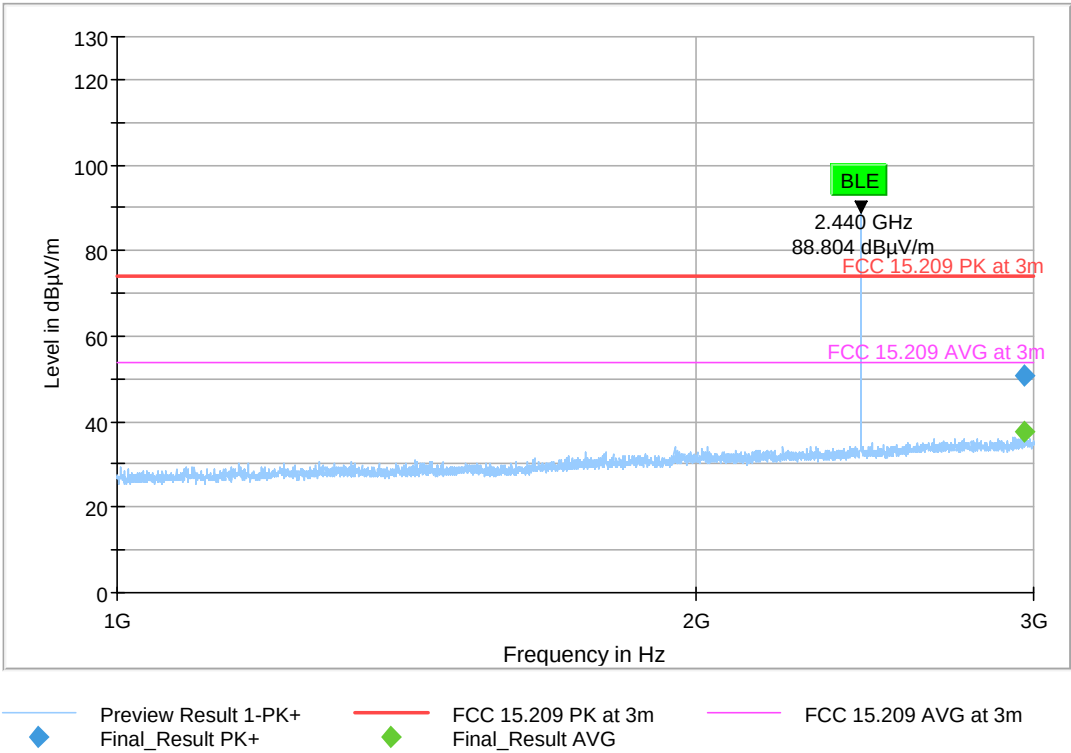
Plot 8: 1-3 GHz, channel mid

Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
2965.879	---	37.691	53.98	16.29	500.0	1000.0	356.0	H	-27.0	8.0	-21.8	0.0	29.8
2965.879	50.569	---	73.98	23.41	500.0	1000.0	356.0	H	-27.0	8.0	-21.8	0.0	29.8

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBµV)
2965.879	29.7
2965.879	42.6



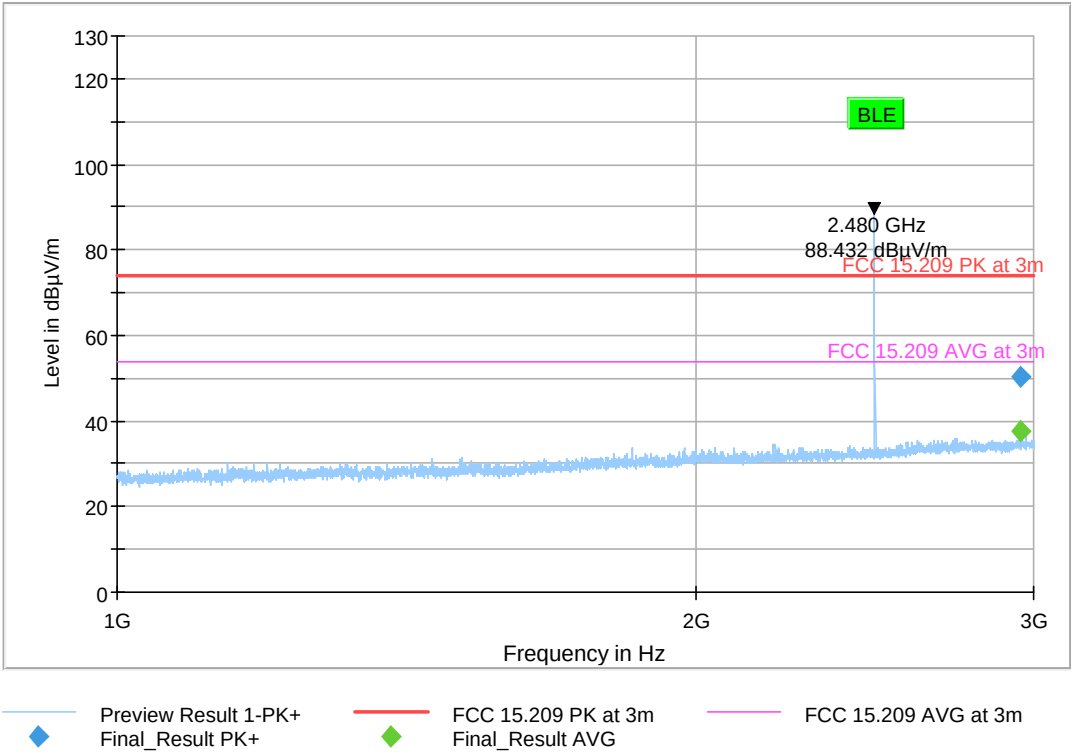
Plot 9: 1-3 GHz, channel high

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
2955.010	---	37.597	53.98	16.38	500.0	1000.0	384.0	V	318.0	7.9	-21.8	0.0	29.7
2955.010	50.134	---	73.98	23.85	500.0	1000.0	384.0	V	318.0	7.9	-21.8	0.0	29.7

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBμV)
2955.010	29.7
2955.010	42.2



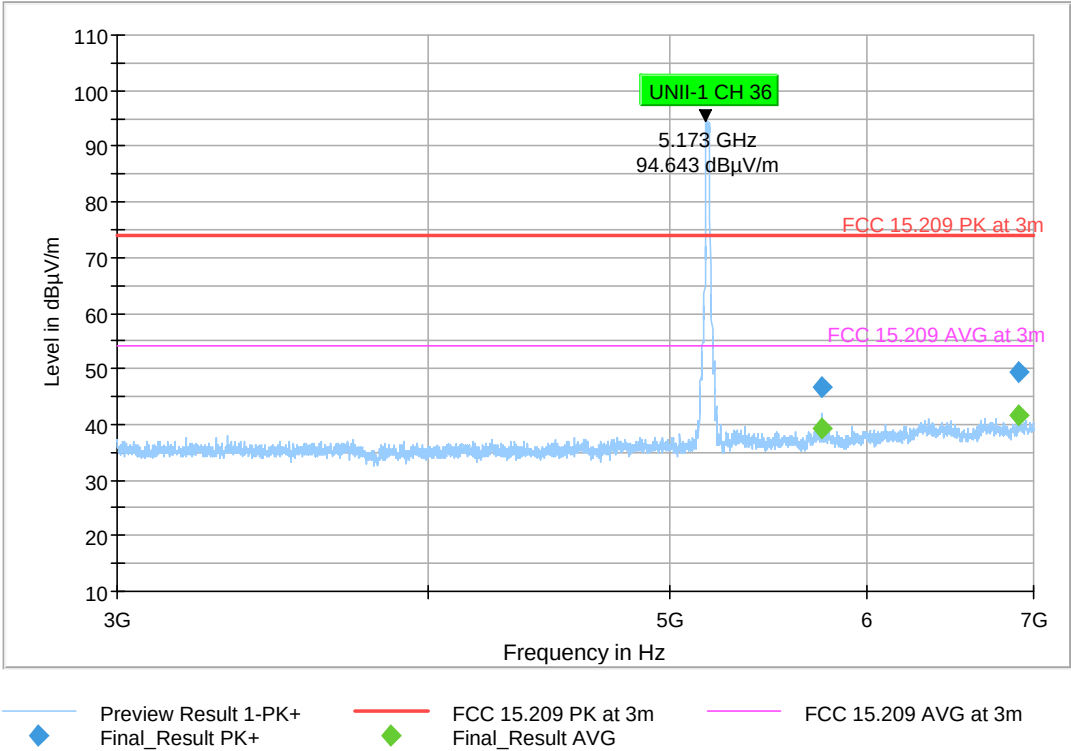
Plot 10: 3-7 GHz, channel low

Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
5759.909	---	39.281	53.98	14.70	500.0	1000.0	178.0	V	46.0	-2.7	7.9	-45.6	35.0
5759.909	46.839	---	73.98	27.14	500.0	1000.0	178.0	V	46.0	-2.7	7.9	-45.6	35.0
6906.683	---	41.552	53.98	12.43	500.0	1000.0	209.0	V	179.0	-1.9	8.6	-46.9	36.5
6906.683	49.275	---	73.98	24.70	500.0	1000.0	209.0	V	179.0	-1.9	8.6	-46.9	36.5

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBµV)
5759.909	42.0
5759.909	49.6
6906.683	43.4
6906.683	51.1



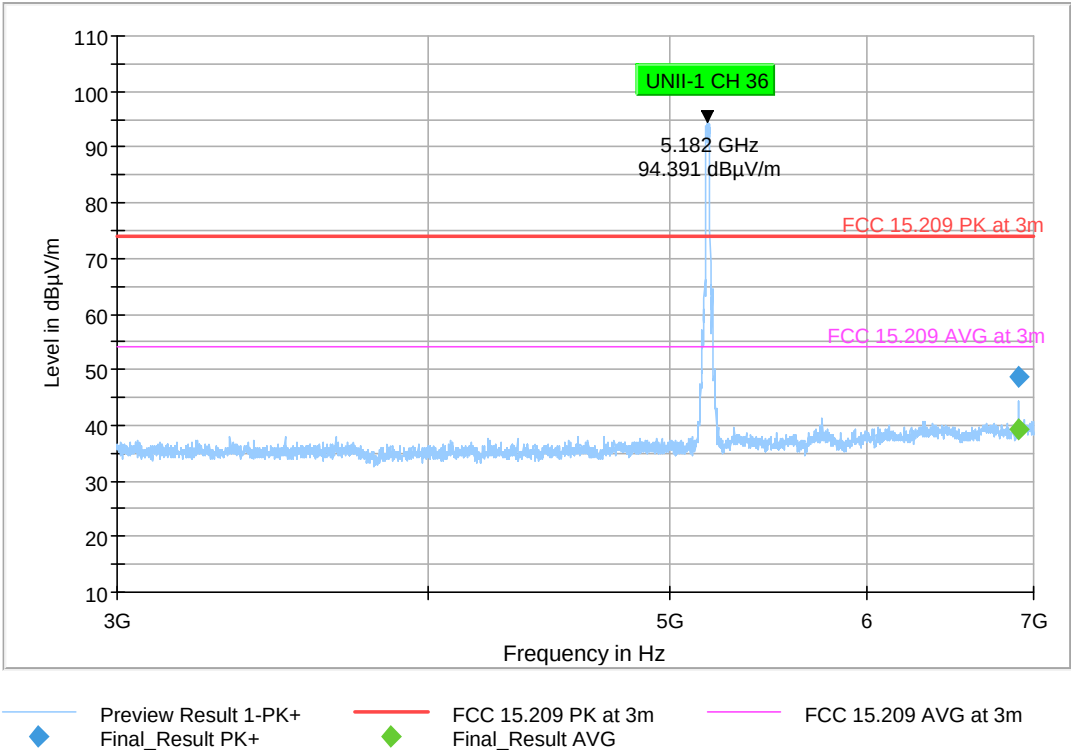
Plot 11: 3-7 GHz, channel mid

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
6906.607	---	39.131	53.98	14.85	500.0	1000.0	330.0	V	230.0	-1.9	8.6	-46.9	36.5
6906.607	48.607	---	73.98	25.37	500.0	1000.0	330.0	V	230.0	-1.9	8.6	-46.9	36.5

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBμV)
6906.607	41.0
6906.607	50.5



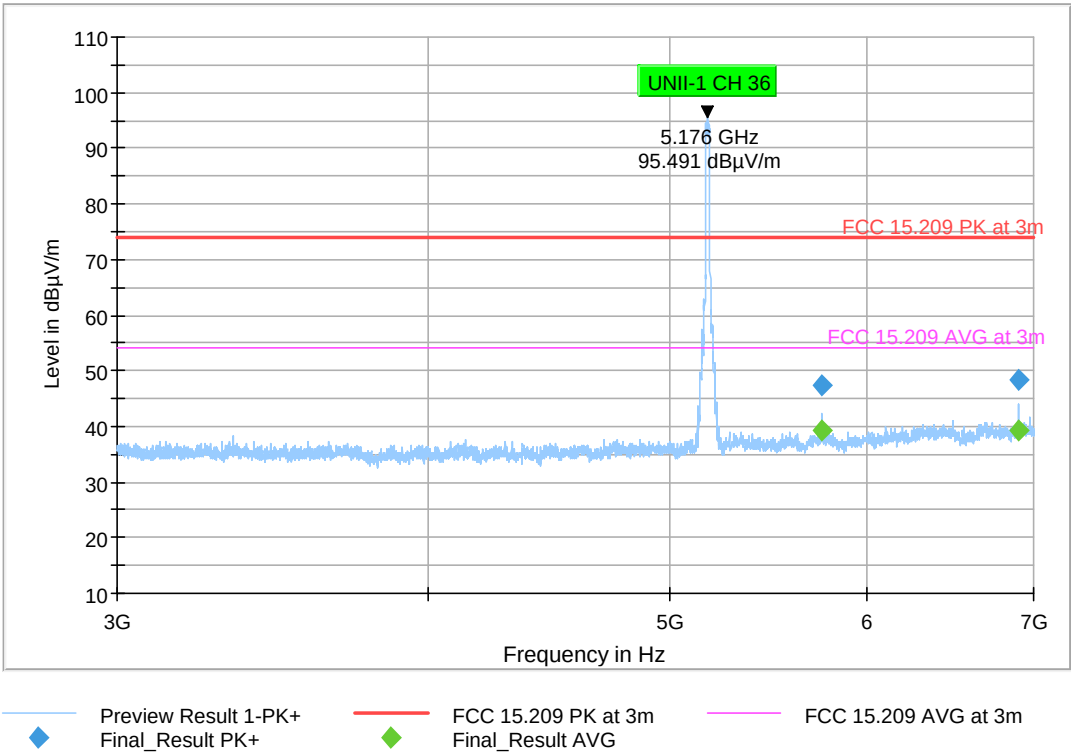
Plot 12: 3-7 GHz, channel high

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
5759.985	---	39.209	53.98	14.77	500.0	1000.0	160.0	V	123.0	-2.7	7.9	-45.6	35.0
5759.985	47.243	---	73.98	26.74	500.0	1000.0	160.0	V	123.0	-2.7	7.9	-45.6	35.0
6906.745	---	39.444	53.98	14.54	500.0	1000.0	128.0	V	154.0	-1.9	8.6	-46.9	36.5
6906.745	48.501	---	73.98	25.48	500.0	1000.0	128.0	V	154.0	-1.9	8.6	-46.9	36.5

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBμV)
5759.985	41.9
5759.985	50.0
6906.745	41.3
6906.745	50.4



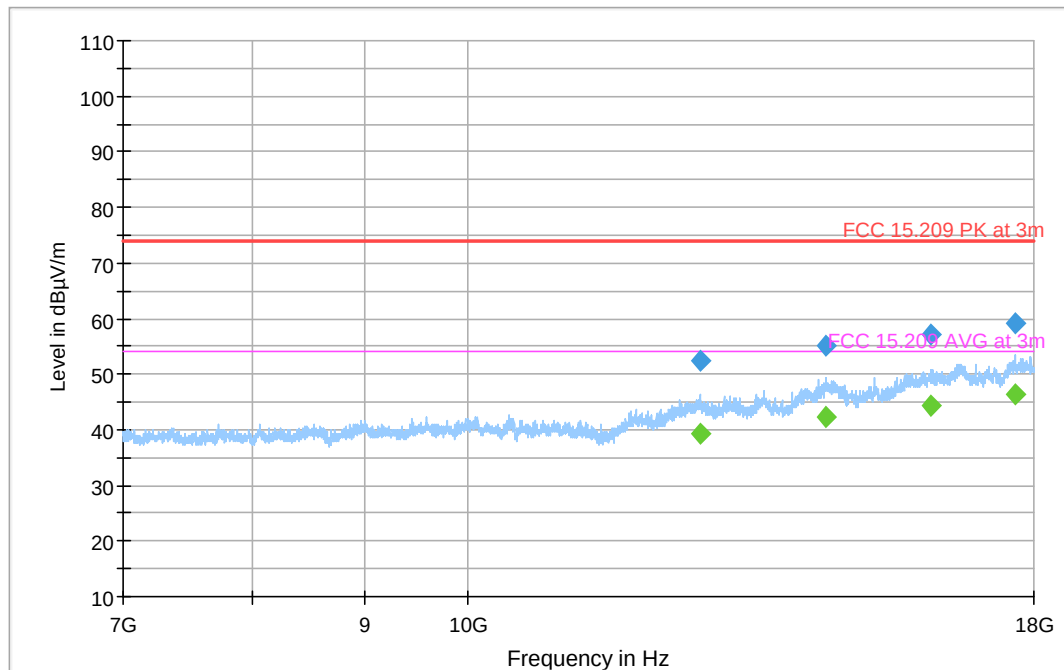
Plot 13: 7-18 GHz, channel low

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
12726.435	---	39.385	53.98	14.59	500.0	1000.0	100.0	V	180.0	7.3	11.9	-43.3	38.7
12726.435	52.274	---	73.98	21.70	500.0	1000.0	100.0	V	180.0	7.3	11.9	-43.3	38.7
14507.637	55.195	---	73.98	18.78	500.0	1000.0	199.0	V	317.0	9.3	13.4	-44.8	40.8
14507.637	---	42.273	53.98	11.71	500.0	1000.0	199.0	V	317.0	9.3	13.4	-44.8	40.8
16178.246	---	44.445	53.98	9.53	500.0	1000.0	366.0	H	-12.0	12.1	14.7	-43.4	40.9
16178.246	56.979	---	73.98	17.00	500.0	1000.0	366.0	H	-12.0	12.1	14.7	-43.4	40.9
17651.492	59.314	---	73.98	14.67	500.0	1000.0	363.0	H	39.0	14.2	15.4	-42.8	41.6
17651.492	---	46.252	53.98	7.73	500.0	1000.0	363.0	H	39.0	14.2	15.4	-42.8	41.6

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBμV)
12726.435	32.1
12726.435	45.0
14507.637	45.8
14507.637	32.9
16178.246	32.3
16178.246	44.9
17651.492	45.2
17651.492	32.1



◆ Preview Result 1-PK+ ◆ FCC 15.209 PK at 3m — FCC 15.209 AVG at 3m
◆ Final_Result PK+ ◆ Final_Result AVG

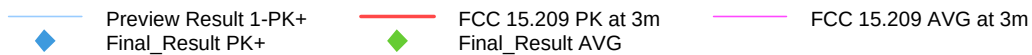
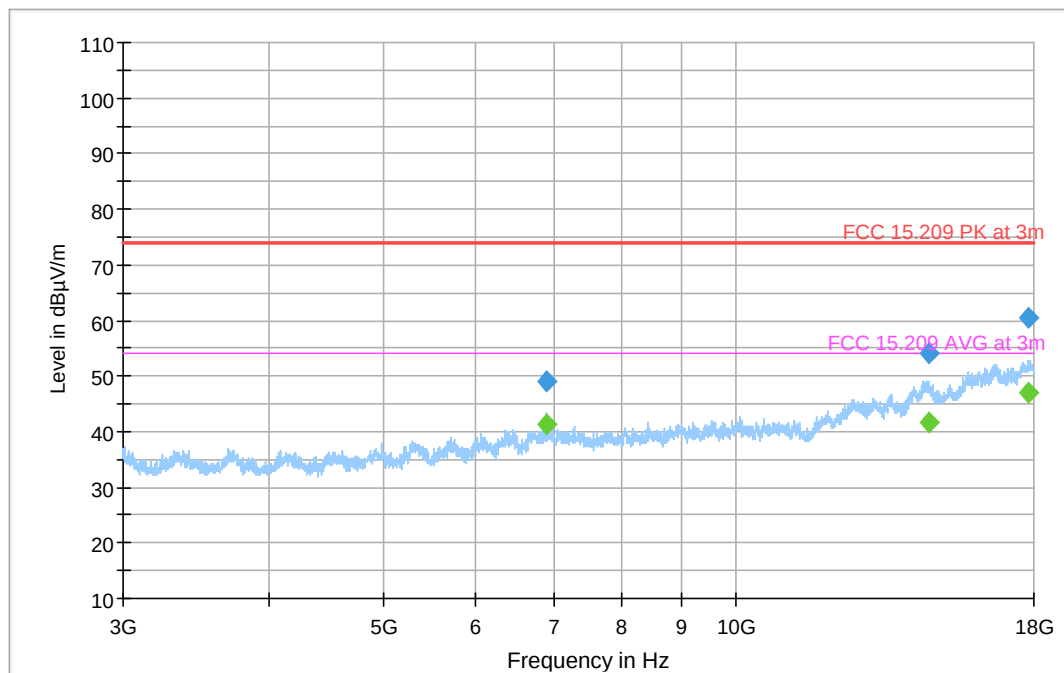
Plot 14: 3-18 GHz, channel mid

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
6906.629	49.157	---	73.98	24.82	500.0	1000.0	215.0	V	133.0	-1.9	8.6	-46.9	36.5
6906.629	---	41.407	53.98	12.57	500.0	1000.0	215.0	V	133.0	-1.9	8.6	-46.9	36.5
14615.691	---	41.686	53.98	12.29	500.0	1000.0	364.0	V	35.0	9.8	13.5	-44.9	41.2
14615.691	54.240	---	73.98	19.74	500.0	1000.0	364.0	V	35.0	9.8	13.5	-44.9	41.2
17802.545	60.445	---	73.98	13.53	500.0	1000.0	218.0	V	16.0	14.5	15.5	-42.6	41.6
17802.545	---	47.156	53.98	6.82	500.0	1000.0	218.0	V	16.0	14.5	15.5	-42.6	41.6

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBμV)
6906.629	51.0
6906.629	43.3
14615.691	31.9
14615.691	44.5
17802.545	46.0
17802.545	32.7



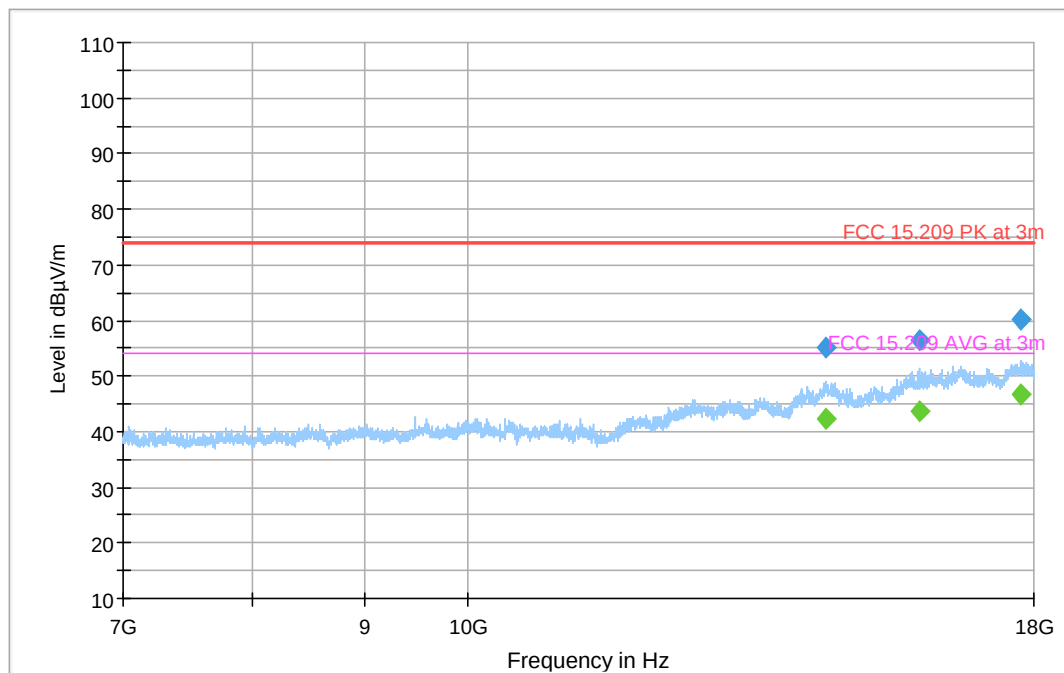
Plot 15: 7-18 GHz, channel high

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
14513.397	55.003	---	73.98	18.98	500.0	1000.0	162.0	V	304.0	9.4	13.4	-44.8	40.8
14513.397	---	42.216	53.98	11.76	500.0	1000.0	162.0	V	304.0	9.4	13.4	-44.8	40.8
15977.208	---	43.763	53.98	10.22	500.0	1000.0	247.0	V	70.0	11.9	13.9	-43.1	41.1
15977.208	56.355	---	73.98	17.62	500.0	1000.0	247.0	V	70.0	11.9	13.9	-43.1	41.1
17768.691	60.023	---	73.98	13.96	500.0	1000.0	182.0	H	142.0	14.4	15.5	-42.6	41.6
17768.691	---	46.848	53.98	7.13	500.0	1000.0	182.0	H	142.0	14.4	15.5	-42.6	41.6

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBμV)
14513.397	45.6
14513.397	32.9
15977.208	31.8
15977.208	44.4
17768.691	45.6
17768.691	32.4



◆ Preview Result 1-PK+ Final_Result PK+
 ◆ FCC 15.209 PK at 3m Final_Result AVG
 ◆ FCC 15.209 AVG at 3m

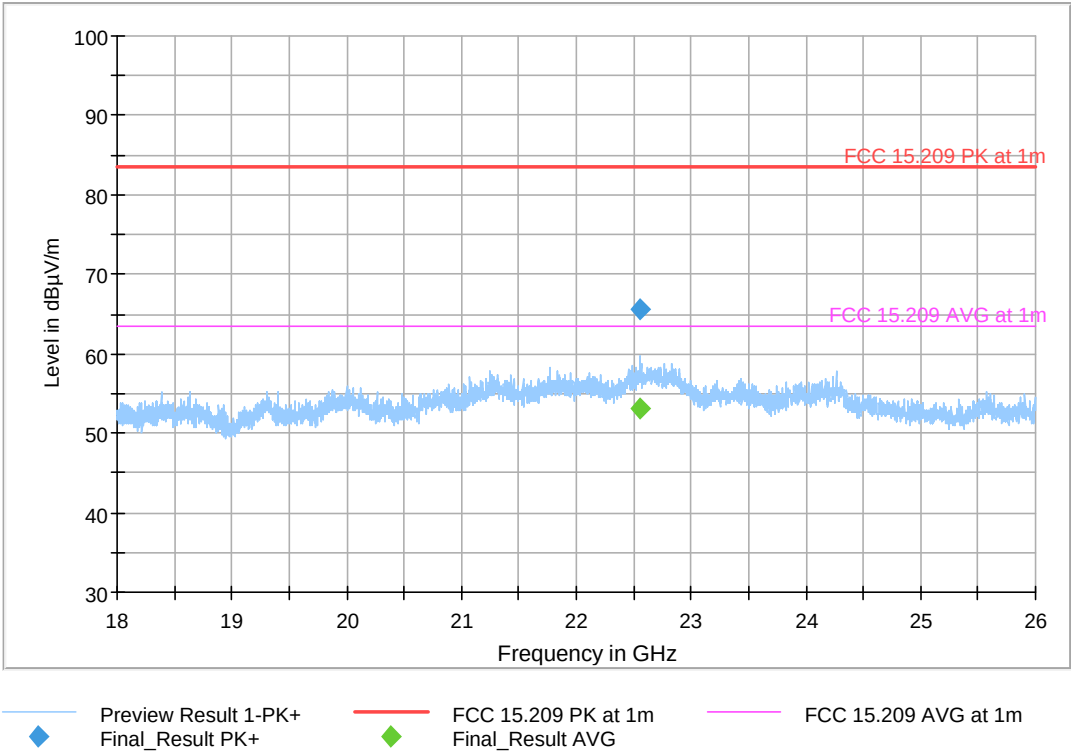
Plot 16: 18-26 GHz, channel low

Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
22548.570	---	53.081	63.50	10.42	500.0	1000.0	150.0	V	105.0	20.5	9.8	0.0	10.7
22548.570	65.689	---	83.50	17.81	500.0	1000.0	150.0	V	105.0	20.5	9.8	0.0	10.7

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBµV)
22548.570	32.6
22548.570	45.2



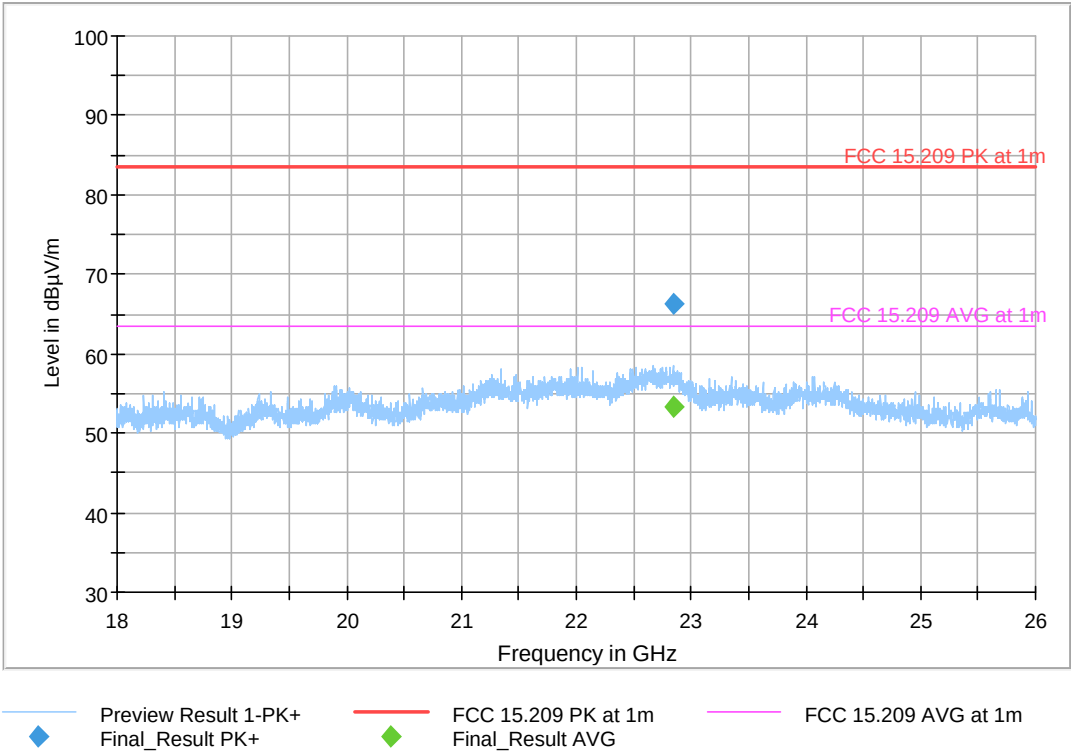
Plot 17: 18-26 GHz, channel mid

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
22841.608	---	53.323	63.50	10.18	500.0	1000.0	150.0	V	37.0	20.8	9.7	0.0	11.1
22841.608	66.253	---	83.50	17.25	500.0	1000.0	150.0	V	37.0	20.8	9.7	0.0	11.1

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBμV)
22841.608	32.5
22841.608	45.4



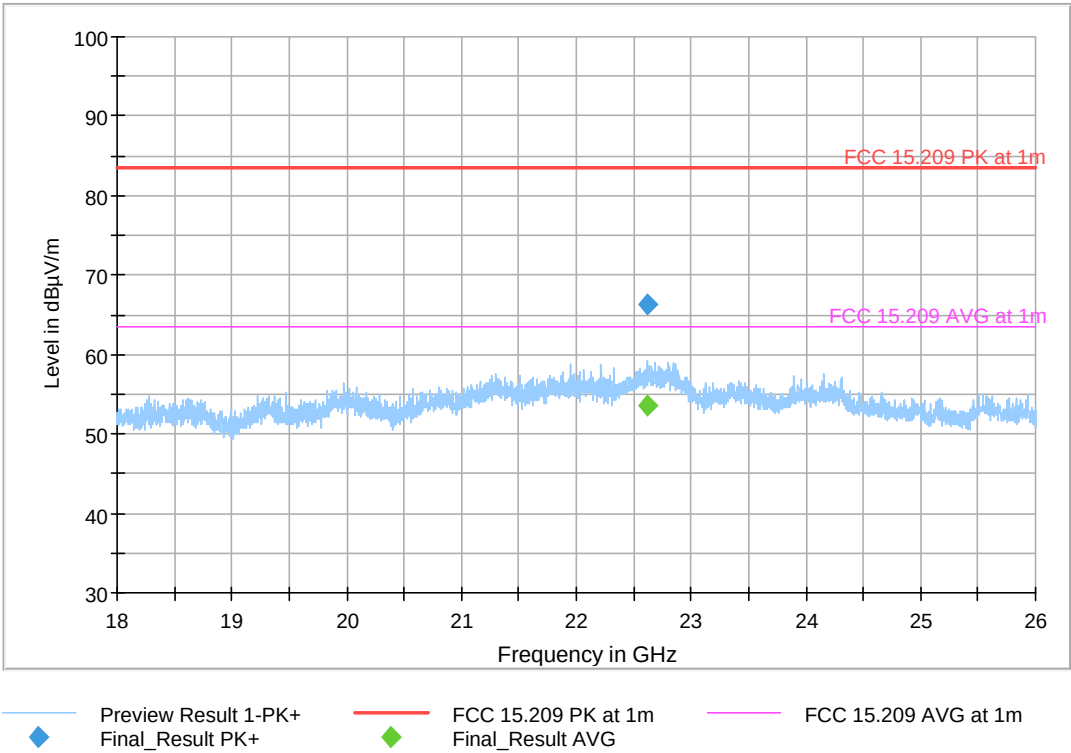
Plot 18: 18-26 GHz, channel high

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
22622.200	---	53.501	63.50	10.00	500.0	1000.0	150.0	V	227.0	20.9	9.8	0.0	11.1
22622.200	66.401	---	83.50	17.10	500.0	1000.0	150.0	V	227.0	20.9	9.8	0.0	11.1

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBμV)
22622.200	32.6
22622.200	45.5



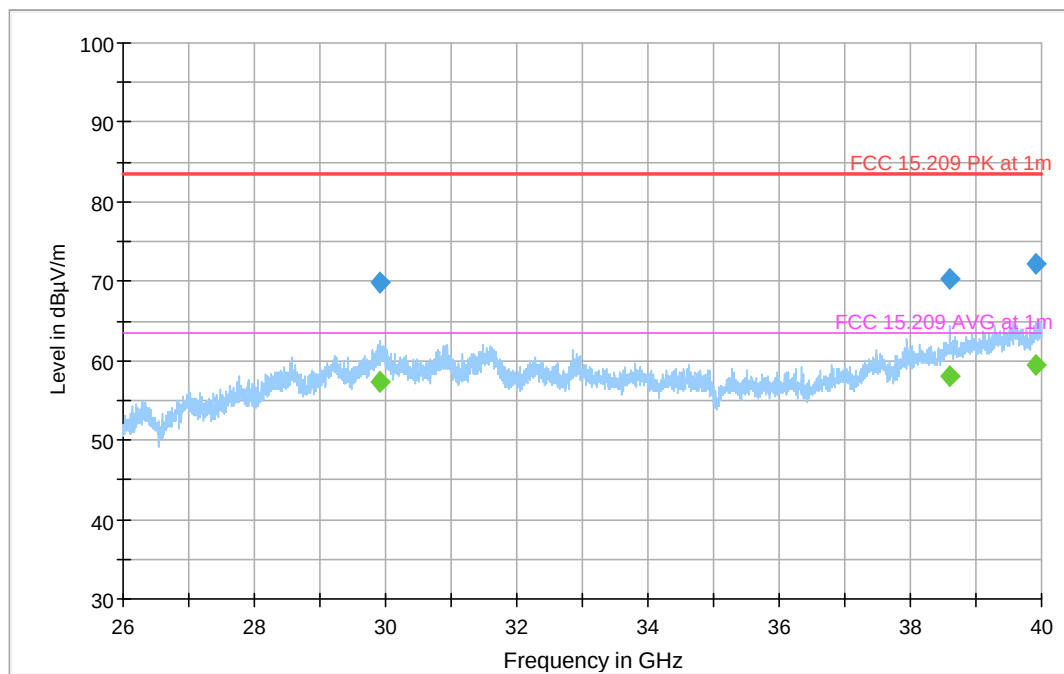
Plot 19: 26-40 GHz, channel low

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
29910.483	---	57.450	63.50	6.05	500.0	1000.0	150.0	V	183.0	25.0	10.4	0.0	14.6
29910.483	69.946	---	83.50	13.55	500.0	1000.0	150.0	V	183.0	25.0	10.4	0.0	14.6
38604.186	70.324	---	83.50	13.18	500.0	1000.0	150.0	H	46.0	24.1	12.3	0.0	11.8
38604.186	---	57.989	63.50	5.51	500.0	1000.0	150.0	H	46.0	24.1	12.3	0.0	11.8
39927.424	72.300	---	83.50	11.20	500.0	1000.0	150.0	H	186.0	24.7	12.7	0.0	11.9
39927.424	---	59.522	63.50	3.98	500.0	1000.0	150.0	H	186.0	24.7	12.7	0.0	11.9

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBμV)
29910.483	32.4
29910.483	44.9
38604.186	46.3
38604.186	33.9
39927.424	47.6
39927.424	34.9



◆ Preview Result 1-PK+ Final_Result PK+
◆ FCC 15.209 PK at 1m Final_Result AVG
— FCC 15.209 AVG at 1m

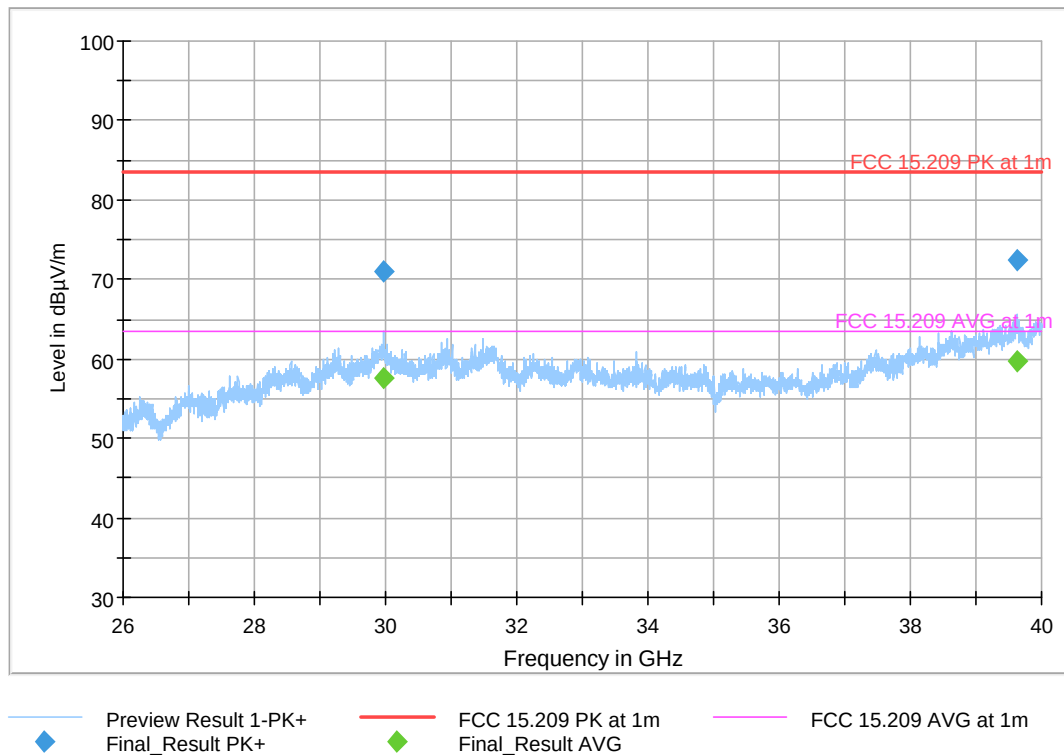
Plot 20: 26-40 GHz, channel mid

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
29966.194	71.113	---	83.50	12.39	500.0	1000.0	150.0	H	229.0	25.1	10.4	0.0	14.7
29966.194	---	57.502	63.50	6.00	500.0	1000.0	150.0	H	229.0	25.1	10.4	0.0	14.7
39629.020	72.492	---	83.50	11.01	500.0	1000.0	150.0	H	287.0	24.1	12.6	0.0	11.5
39629.020	---	59.594	63.50	3.91	500.0	1000.0	150.0	H	287.0	24.1	12.6	0.0	11.5

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBμV)
29966.194	46.0
29966.194	32.4
39629.020	48.4
39629.020	35.5



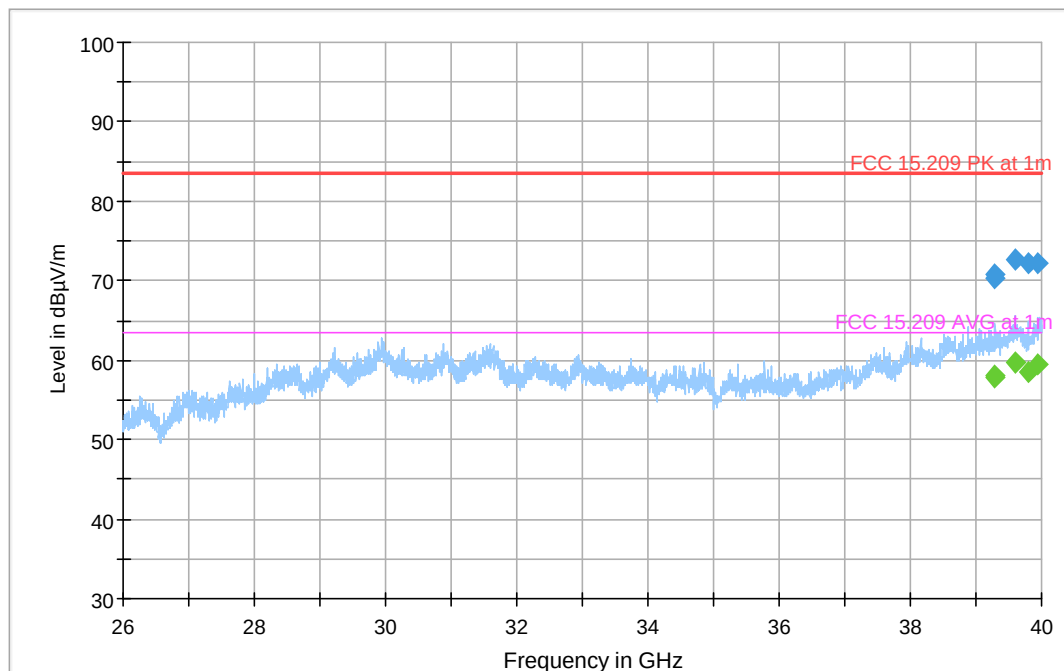
Plot 21: 26-40 GHz, channel high

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)
39297.015	---	57.870	63.50	5.63	500.0	1000.0	150.0	H	220.0	24.5	12.5	0.0	12.0
39297.015	70.662	---	83.50	12.84	500.0	1000.0	150.0	H	220.0	24.5	12.5	0.0	12.0
39297.085	---	58.067	63.50	5.43	500.0	1000.0	150.0	H	231.0	24.5	12.5	0.0	12.0
39297.085	70.404	---	83.50	13.10	500.0	1000.0	150.0	H	231.0	24.5	12.5	0.0	12.0
39608.243	---	59.599	63.50	3.90	500.0	1000.0	150.0	V	238.0	24.2	12.6	0.0	11.6
39608.243	72.579	---	83.50	10.92	500.0	1000.0	150.0	V	238.0	24.2	12.6	0.0	11.6
39797.951	---	58.460	63.50	5.04	500.0	1000.0	150.0	H	327.0	24.2	12.7	0.0	11.5
39797.951	72.199	---	83.50	11.30	500.0	1000.0	150.0	H	327.0	24.2	12.7	0.0	11.5
39956.933	---	59.452	63.50	4.05	500.0	1000.0	150.0	V	305.0	25.0	12.7	0.0	12.2
39956.933	72.198	---	83.50	11.30	500.0	1000.0	150.0	V	305.0	25.0	12.7	0.0	12.2

(continuation of the "Final_Result" table from column 19 ...)

Frequency (MHz)	Raw Rec (dBμV)
39297.015	33.3
39297.015	46.1
39297.085	33.5
39297.085	45.9
39608.243	35.4
39608.243	48.4
39797.951	34.3
39797.951	48.0
39956.933	34.5
39956.933	47.2



◆ Preview Result 1-PK+ Final_Result PK+
◆ FCC 15.209 PK at 1m Final_Result AVG
— FCC 15.209 AVG at 1m

9 Test Equipment And Ancillaries Used For Testing

Equipment Type	Manufacturer	Model	Serial #	Calibration Cycle	Last Calibration Date
PASSIVE LOOP ANTENNA	ETS LINDGREN	6512	000164698	3 Years	09/05/2025
BILOG ANTENNA	A.H. SYSTEMS	BiLA2G	569	3 Years	09/08/2025
HORN ANTENNA	EMCO	3115	00035111	3 Years	09/04/2025
HORN ANTENNA	ETS LINDGREN	3117-PA	00167061	3 Years	09/04/2025
HORN ANTENNA	ETS LINDGREN	3116C-PA	00166821	3 Years	09/04/2025
DIGITAL THERMOMETER	Control Company	4410.90080-03	230712972	3 Years	10/18/2023
Signal Analyzer	R&S	FSV40	101022	3 Years	09/30/2025
Multimeter	Fluke	115	56090717MV	3 Years	09/25/2025
Software	EMC32	Version 10.50.40	-	-	-
Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	1201.002K50-127068-mX	3 Years	10/02/2024
Notch Filter	MICRO-TRONICS	BRC50722	G051	-	-

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.

Equipment Type	Manufacturer	Model	Serial #	Calibration Cycle	Last Calibration Date
Vector Signal Generator	ROHDE & SCHWARZ	SMW 200A	14120000K02-111326-gW	-	N/A
Signal Generator	ROHDE & SCHWARZ	SMF 100A	1167.0000K02-101833-NX	3 Years	09/27/2023
Spectrum Analyzer	ROHDE & SCHWARZ	FSU	200302	3 Years	01/25/2024
Switch	ROHDE & SCHWARZ	OSP 120	100083	3 Years	12/14/2023
Vector Signal Generator	ROHDE & SCHWARZ	SMJ 100A	101173	-	N/A
Spectrum Analyzer	ROHDE & SCHWARZ	FSU	100189	3 Years	10/21/2024
RF Step Attenuator	ROHDE & SCHWARZ	RSP	100062	-	N/A
Temperature Chamber	TESTEQUITY	123H	230159	-	N/A
Digital Thermometer	Traceable	-	230713047	3 Years	10/18/2023
Software	WMS32	12.00.01	-	-	N/A

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 Test setup photos

Setup photos are included in supporting file name:
"EMC_CONTM_003_25001_FCC15247_Setup_Photos_Rev1.pdf"

11 Revision History

Date	Report name	Changes to report	Prepared by
2026-01-02	EMC_CONTM_003_25001_FCC15247_BLE	Initial version	Guangcheng Huang
2026-04-08	EMC_CONTM_003_25001_FCC15247_BLE_Rev1	Remove cetecom logo Update antenna gain Update test results of data rate 2 Mbps	Guangcheng Huang
2026-04-09	EMC_CONTM_003_25001_FCC15247_BLE_Rev2	Correct typo in Summary of the worst-case results	Guangcheng Huang

<<< The End >>>