



FCC Test Report

FOR:

Lucid USA, Inc.

Model Name:

P11-K2B000

Product Description:

Center Console Controller (CCC)

FCC ID: 2AXZJ-K2B000

Applied Rules and Standards:

47 CFR Part 15.247 (DTS)

REPORT #: EMC_LUCID-004-21001_15.247_DTS_Rev1

DATE: 2021-08-16



A2LA Accredited

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3462B-1

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1 Assessment

The following device was evaluated against the applicable criteria specified in FCC rule Parts 15.247 in CFR 47.

No deviations were ascertained.

Company	Description	Model #
Lucid USA, Inc.	Center Console Controller (CCC)	P11-K2B000

Responsible for Testing Laboratory:

2021-08-16	Compliance	Kevin Wang (EMC Lab Manager)	
Date	Section	Name	Signature

Responsible for the Report:

2021-08-16	Compliance	Kris Lazarov (Senior EMC Engineer)	
Date	Section	Name	Signature

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

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

2 Administrative Data

2.1 Identification of the Testing Laboratory Issuing the EMC Test Report

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

2.2 Identification of the Client

Applicant's Name:	Lucid USA, Inc.
Street Address:	7373 Gateway Blvd
City/Zip Code	Newark, CA 94560
Country	United States

2.3 Identification of the Manufacturer

Manufacturer's Name:	Same as the client
Manufacturers Address:	
City/Zip Code	
Country	

3 Equipment Under Test (EUT)

3.1 EUT Specifications

Model No	P11-K2B000
HW Version	01
SW Version	01
FCC-ID	2AXZJ-K2B000
Product Description	Center Console Controller (CCC)
Radio Module	Ublox Model: JODY-W164-03A-01; FCC ID: XPYJODYW164
Frequency Range, # of channels	Nominal band: 2400 MHz – 2483.5 MHz; Center to center: 2402 MHz (ch 0) – 2480 MHz (ch 39), 40 channels
Modes of Operation	Bluetooth LE in both advertising and connected mode of operation
Antenna Gain as declared	2.8 dBi
Max. Peak Output Power	8.1 dBm
Rated Operating Voltage Range	10V to 15V DC
Operating Temperature Range	-40 °C to 85 °C
Other Radios in the device	802.11a/ac
Sample Revision	<input type="checkbox"/> Prototype Unit; <input checked="" type="checkbox"/> Production Unit; <input type="checkbox"/> Pre-Production

3.2 EUT Sample details

EUT #	Serial Number	HW Version	SW Version	Notes/Comments
1	2036300016	01	01	

3.3 Test Sample Configuration

EUT Set-up #	Combination of AE used for test set up	Comments
1	EUT#1	Powered by 12 VDC Car battery

3.4 Mode of Operation details

Mode of Operation	Description
BTLE	The radio of the EUT was configured to a fixed channel transmission with highest possible duty cycle using confidential test software and scripts (per meta-ublox-modules-2019-11-04 document) provided by the applicant.

3.5 Justification for Worst Case Mode of Operation

During the testing process, the EUT was tested with transmitter sets on low, mid and high channels, in BLE mode. For radiated measurements, all data in this report shows the worst case between horizontal and vertical antenna polarizations.

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 FCC rules Part 15.247 in CFR 47.

This test report is to support a request for new equipment authorization under the FCC ID: 2AXZJ-K2B000

5 Measurement Results Summary

Test Specification	Test Case	Temperature and Voltage Conditions	Mode	Pass	NA	NP	Result
§15.247(a)(1)	Emission Bandwidth	Nominal	BTLE	<input type="checkbox"/>	<input type="checkbox"/>	■	See Note 2
§15.247(e)	Power Spectral Density	Nominal	BTLE	<input type="checkbox"/>	<input type="checkbox"/>	■	See Note 2
§15.247(b)(1)	Maximum Conducted Output Power and EIRP	Nominal	BTLE	<input type="checkbox"/>	<input type="checkbox"/>	■	See Note 2
§15.247(d)	Band edge compliance Unrestricted Band Edges	Nominal	BTLE	<input type="checkbox"/>	<input type="checkbox"/>	■	See Note 2
§15.247; 15.209; 15.205	Band edge compliance Restricted Band Edges	Nominal	BTLE	<input type="checkbox"/>	<input type="checkbox"/>	■	See Note 2
§15.247(d); §15.209	TX Spurious emissions-Radiated	Nominal	BTLE	■	<input type="checkbox"/>	<input type="checkbox"/>	Complies
§15.207(a)	AC Conducted Emissions	Nominal	BTLE	<input type="checkbox"/>	■	<input type="checkbox"/>	See Note 3

Note 1: NA= Not Applicable

Note 2: The measurements from modular test report # MDE_UBLOX_1701_FCCa by 7lears GmbH will be leveraged

Note 3: 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 $k=1$.

Radiated measurement

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

Conducted measurement

150 kHz to 30 MHz	± 0.7 dB (LISN)
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RF conducted measurement	± 0.5 dB
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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 3 dB 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:

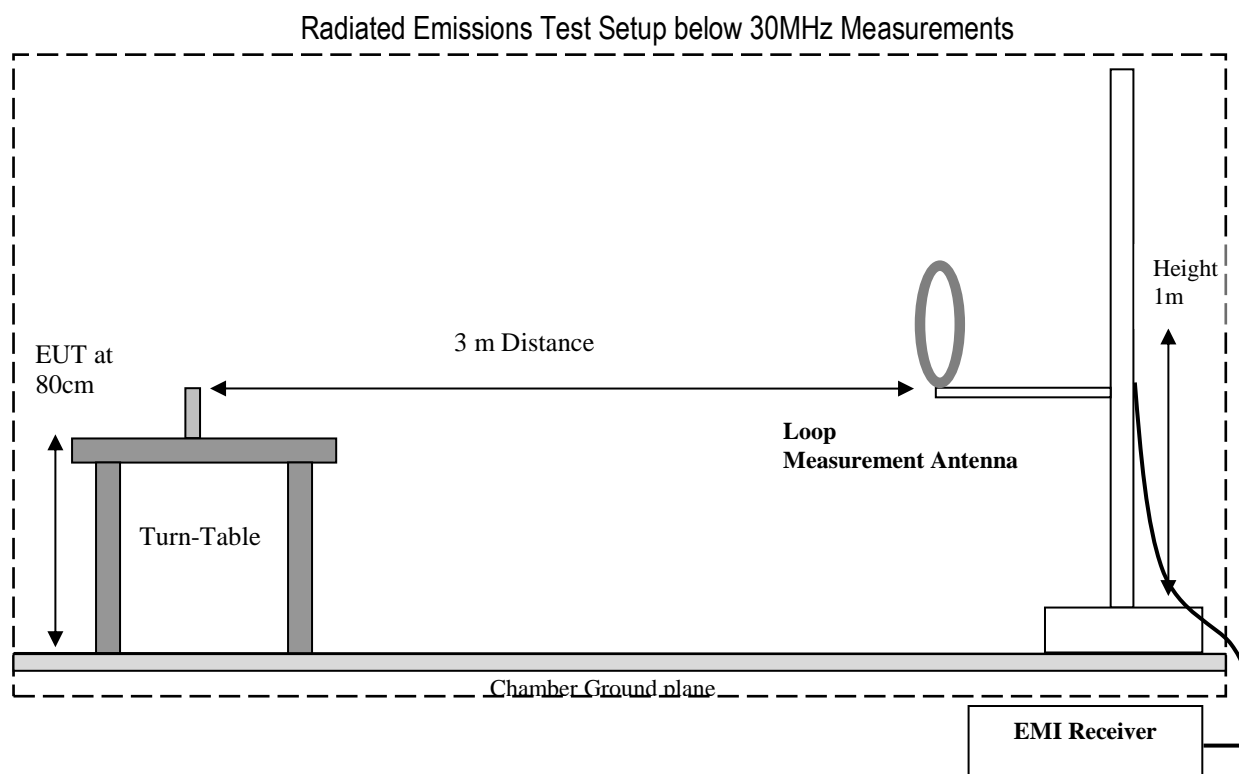
07/02/2021 - 07/06/2021

7 Measurement Procedures

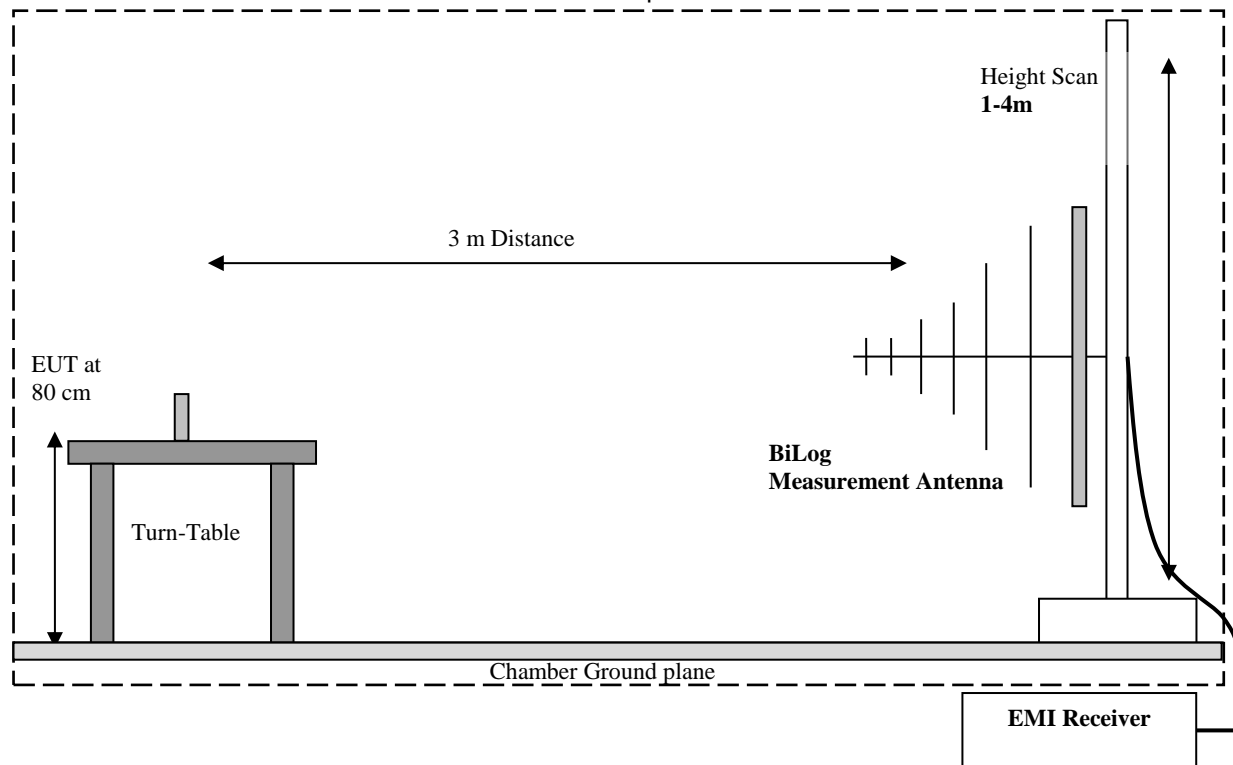
7.1 Radiated Measurement

The radiated measurement is performed according to ANSI C63.10 (2013)

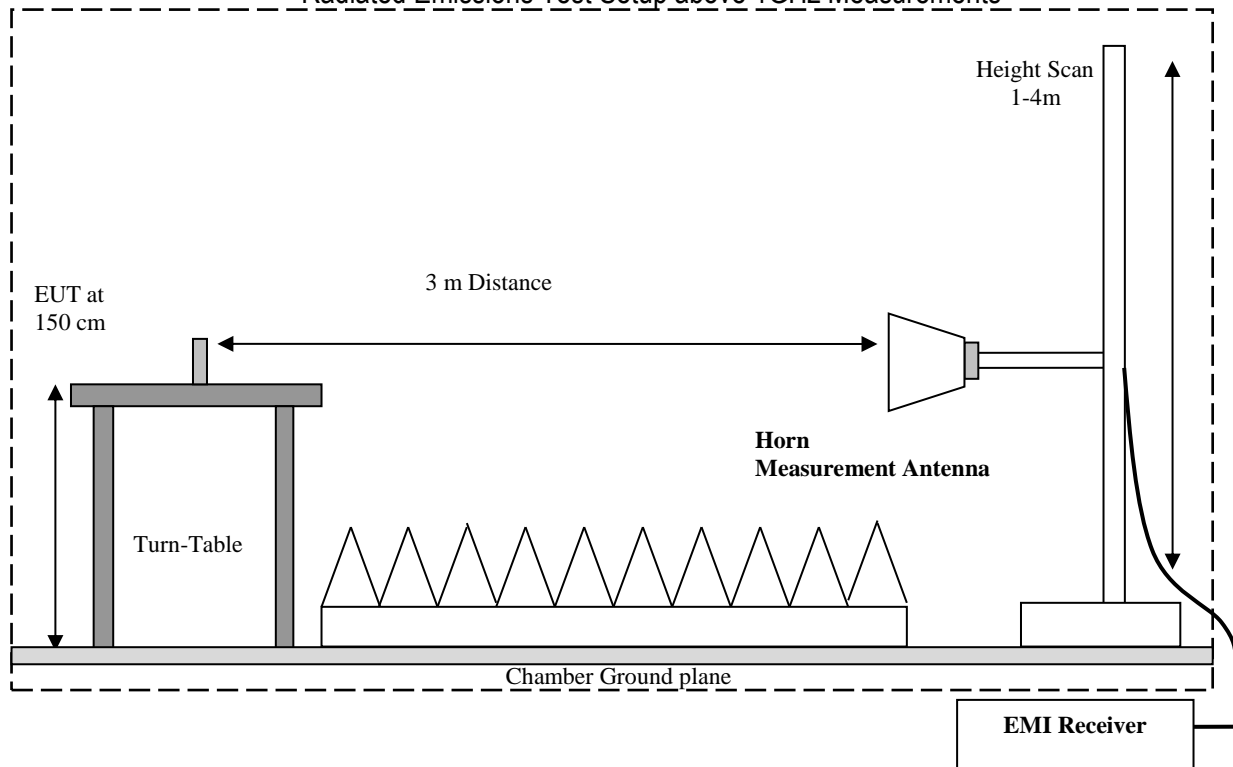
- The exploratory measurement is accomplished by running a matrix of 16 sweeps over the required frequency range with R&S Test-SW EMC32 for 4 positions of the turntable, two orthogonal positions of the EUT and both antenna polarizations. This procedure exceeds the requirement of the above standards to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

8 Test Result Data

8.1 Radiated Transmitter Spurious Emissions and Restricted Bands

8.1.1 Measurement according to ANSI C63.10 (2013)

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 at distance other than the specified in the standard, the limit conversion is calculated by using 40 dB/decade extrapolation factor as follow: Conversion factor (CF) = $40 \log (D/d) = 40 \log (300\text{m} / 3\text{m}) = 80\text{dB}$

8.1.2 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

- 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

- 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

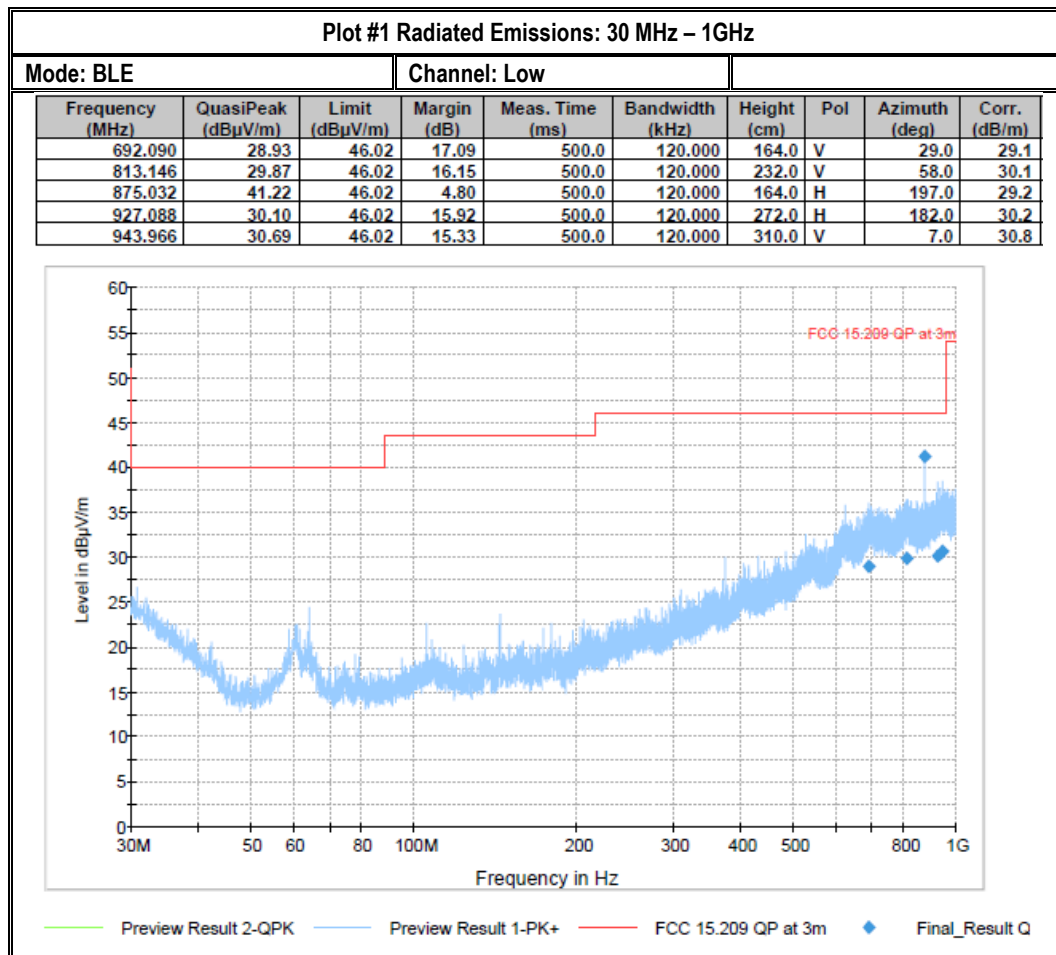
8.1.3 Test conditions and setup:

Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input
22° C	1	BTLE	12 VDC

8.1.4 Measurement result:

EUT operating mode 1 (WAP)				
Plot #	Channel #	Scan Frequency	Limit	Result
1-3	Low	30 MHz – 18 GHz	See section 8.1.2	Pass
4-8	Mid	9 kHz – 26 GHz	See section 8.1.2	Pass
9-11	High	30 MHz – 18 GHz	See section 8.1.2	Pass

8.1.5 Measurement Plots:

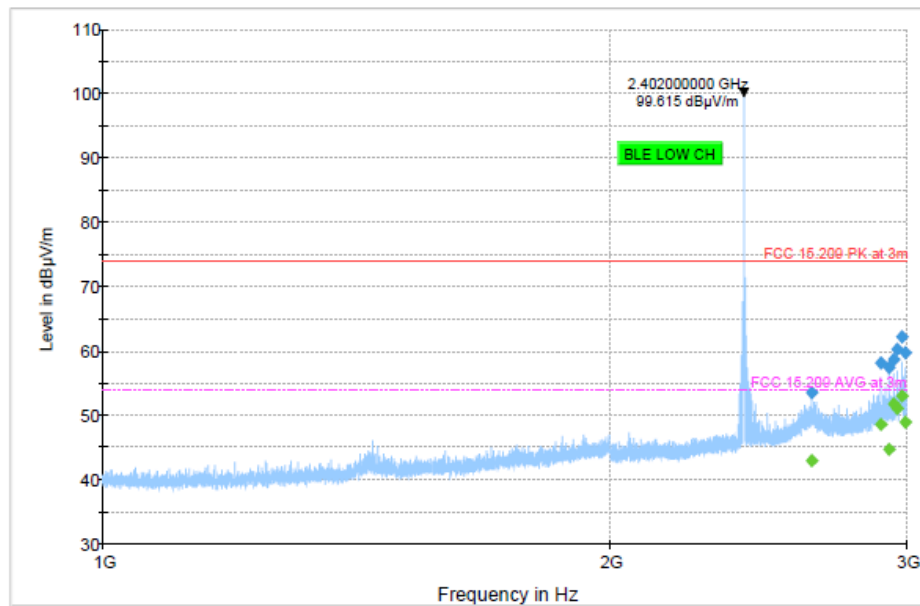


Plot # 2 Radiated Emissions: 1-3 GHz

Mode: BLE

Channel: Low

Frequency (MHz)	MaxPeak (dBuV/m)	CAverage (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2636.714	53.58	---	73.98	20.40	500.0	1000.000	198.0	H	197.0	10.7
2636.714	---	42.93	53.98	11.05	500.0	1000.000	198.0	H	197.0	10.7
2898.000	58.06	---	73.98	15.91	500.0	1000.000	199.0	H	231.0	11.6
2898.000	---	48.54	53.98	5.44	500.0	1000.000	199.0	H	231.0	11.6
2929.714	57.35	---	73.98	16.63	500.0	1000.000	140.0	H	220.0	11.6
2929.714	---	44.62	53.98	9.36	500.0	1000.000	140.0	H	220.0	11.6
2949.429	58.60	---	73.98	15.38	500.0	1000.000	242.0	H	231.0	11.6
2949.429	---	51.75	53.98	2.23	500.0	1000.000	242.0	H	231.0	11.6
2962.571	---	51.05	53.98	2.93	500.0	1000.000	188.0	H	223.0	11.7
2962.571	60.32	---	73.98	13.66	500.0	1000.000	188.0	H	223.0	11.7
2982.857	62.21	---	73.98	11.77	500.0	1000.000	275.0	H	221.0	11.8
2982.857	---	53.05	53.98	0.93	500.0	1000.000	275.0	H	221.0	11.8
2994.714	59.72	---	73.98	14.26	500.0	1000.000	282.0	H	224.0	11.9
2994.714	---	48.96	53.98	5.02	500.0	1000.000	282.0	H	224.0	11.9



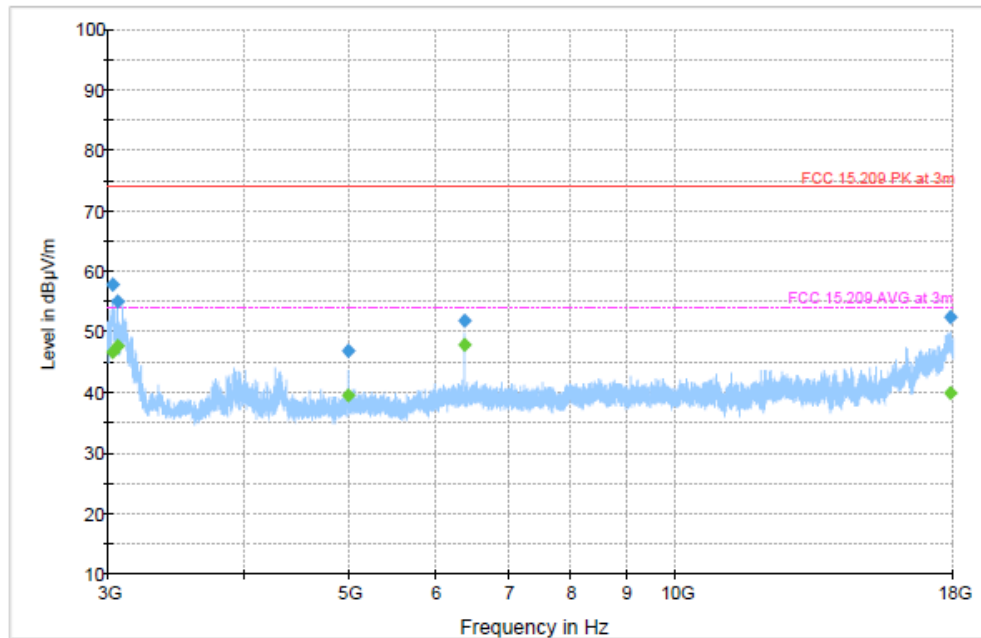
Preview Result 2-QPK Preview Result 1-PK+ FCC 15.209 PK at 3m
 FCC 15.209 AVG at 3m Final_Result PK+ Final_Result CAV

Plot # 3 Radiated Emissions: 3-18 GHz

Mode: BLE

Channel: Low

Frequency (MHz)	MaxPeak (dBuV/m)	CAverage (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3031.500	---	46.68	53.98	7.30	500.0	1000.000	140.0	H	236.0	-9.1
3031.500	57.84	---	73.98	16.14	500.0	1000.000	140.0	H	236.0	-9.1
3062.500	---	47.69	53.98	6.29	500.0	1000.000	153.0	H	238.0	-9.0
3062.500	54.91	---	73.98	19.07	500.0	1000.000	153.0	H	238.0	-9.0
4999.500	46.85	---	73.98	27.13	500.0	1000.000	186.0	V	150.0	-4.4
4999.500	---	39.51	53.98	14.47	500.0	1000.000	186.0	V	150.0	-4.4
6390.000	---	47.75	53.98	6.23	500.0	1000.000	165.0	V	170.0	-0.6
6390.000	51.81	---	73.98	22.17	500.0	1000.000	165.0	V	170.0	-0.6
17884.000	52.31	---	73.98	21.67	500.0	1000.000	315.0	H	359.0	16.8
17884.000	---	39.92	53.98	14.06	500.0	1000.000	315.0	H	359.0	16.8

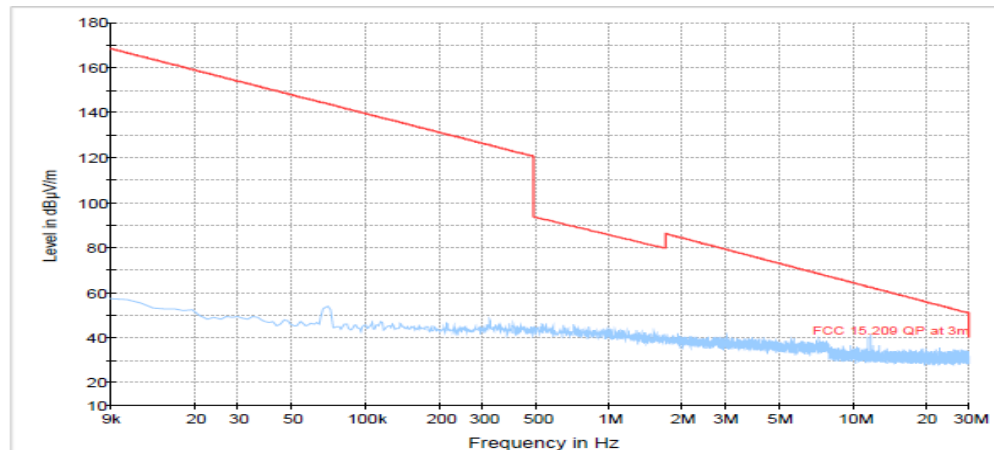


Preview Result 2-QPK Preview Result 1-PK+ FCC 15.209 PK at 3m
FCC 15.209 AVG at 3m Final_Result PK+ Final_Result CAV

Plot # 4 Radiated Emissions: 9 KHz – 30 MHz

Mode: BLE

Channel: Mid



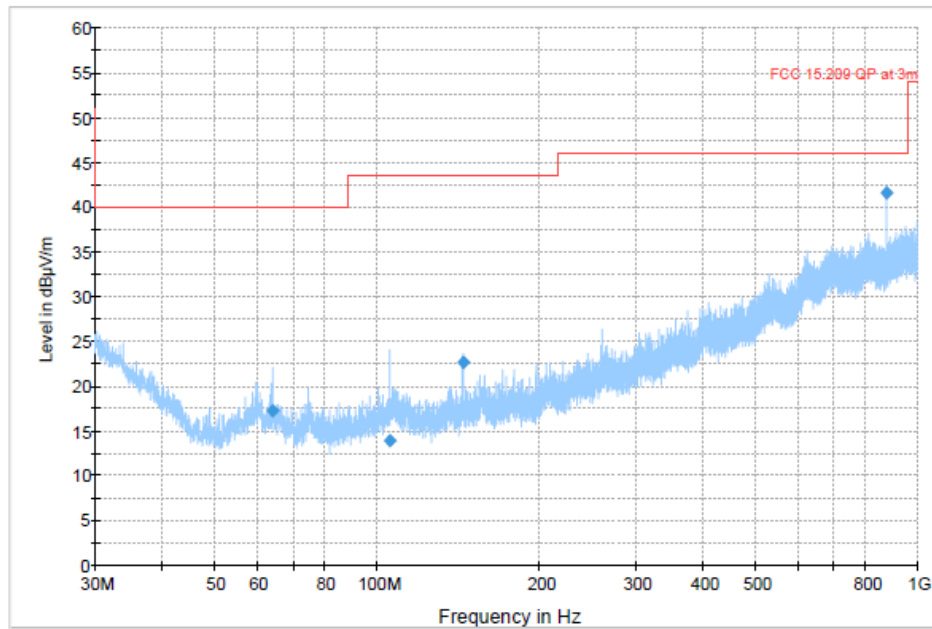
Preview Result 2-QPK Preview Result 1-PK+ Critical_Freqs QPK
Critical_Freqs PK+ FCC 15.209 QP at 3m Final_Result QPK

Plot #5 Radiated Emissions: 30 MHz – 1GHz

Mode: BLE

Channel: Mid

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
64.015	17.29	40.00	22.71	500.0	120.000	175.0	V	121.0	10.9
105.725	13.89	43.50	29.61	500.0	120.000	213.0	V	36.0	13.2
144.137	22.70	43.50	20.80	500.0	120.000	251.0	H	51.0	13.2
875.032	41.58	46.02	4.44	500.0	120.000	152.0	H	195.0	29.2



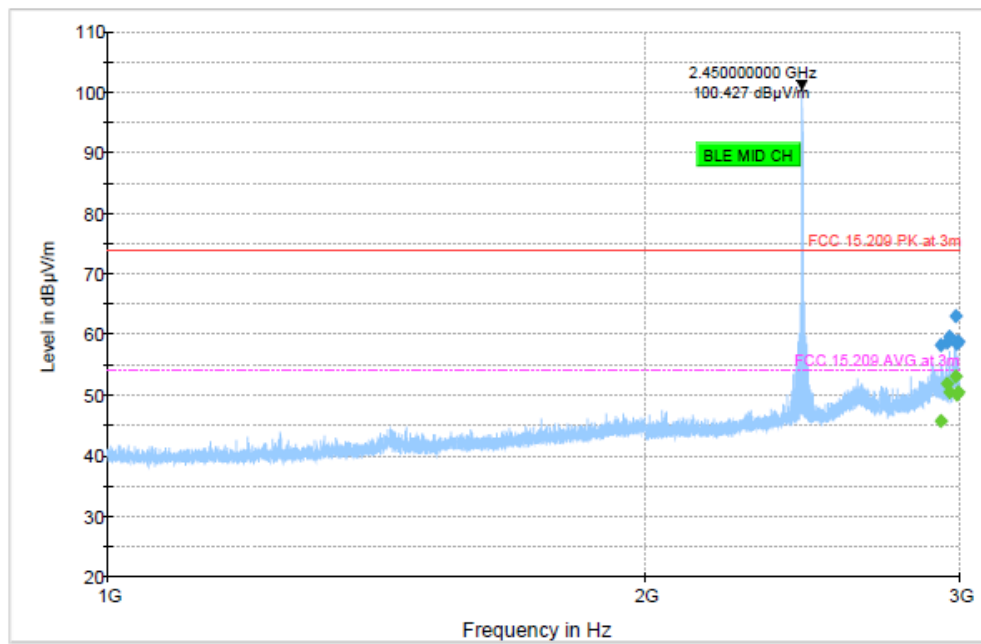
Preview Result 2-QPK Preview Result 1-PK+ FCC 15.209 QP at 3m Final_Result Q

Plot #6 Radiated Emissions: 1-3 GHz

Mode: BLE

Channel: Mid

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)
2930.286	58.17	---	73.98	15.81	500.0	1000.000	195.0	H	225.0	11.6
2930.286	---	45.59	53.98	8.39	500.0	1000.000	195.0	H	225.0	11.6
2950.143	58.64	---	73.98	15.34	500.0	1000.000	152.0	H	226.0	11.6
2950.143	---	51.79	53.98	2.19	500.0	1000.000	152.0	H	226.0	11.6
2963.571	59.69	---	73.98	14.29	500.0	1000.000	185.0	H	222.0	11.7
2963.571	---	50.50	53.98	3.48	500.0	1000.000	185.0	H	222.0	11.7
2983.571	---	53.14	53.98	0.84	500.0	1000.000	153.0	H	226.0	11.8
2983.571	62.96	---	73.98	11.02	500.0	1000.000	153.0	H	226.0	11.8
2989.286	---	50.00	53.98	3.98	500.0	1000.000	200.0	H	226.0	11.9
2989.286	58.38	---	73.98	15.60	500.0	1000.000	200.0	H	226.0	11.9
2996.143	58.91	---	73.98	15.07	500.0	1000.000	140.0	H	224.0	11.9
2996.143	---	50.53	53.98	3.45	500.0	1000.000	140.0	H	224.0	11.9



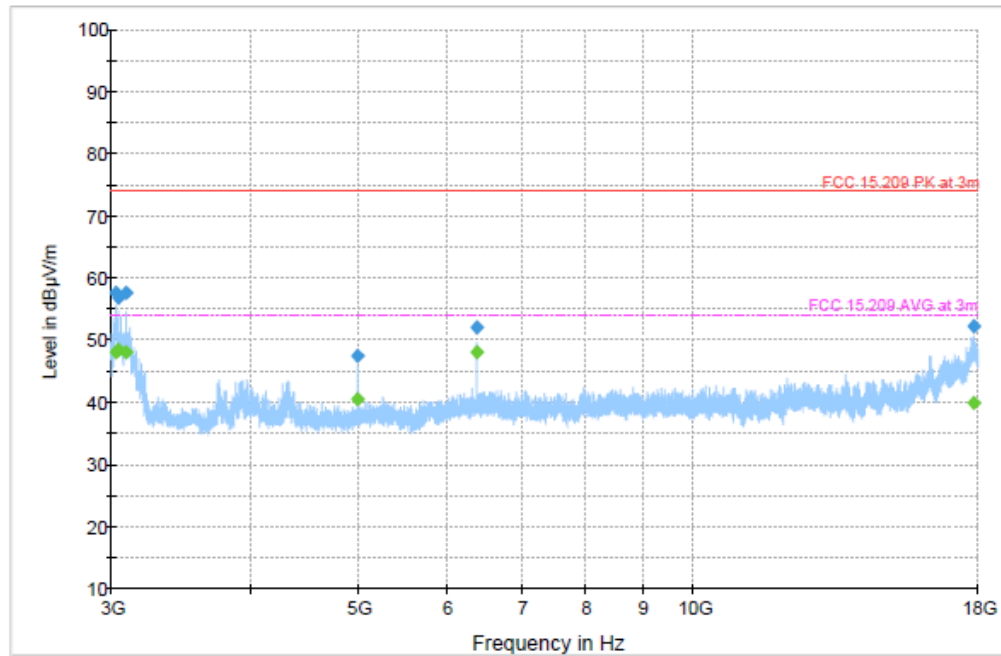
Preview Result 2-QPK Preview Result 1-PK+ FCC 15.209 PK at 3m
FCC 15.209 AVG at 3m Final_Result PK+ Final_Result CAV

Plot #7 Radiated Emissions: 3-18 GHz

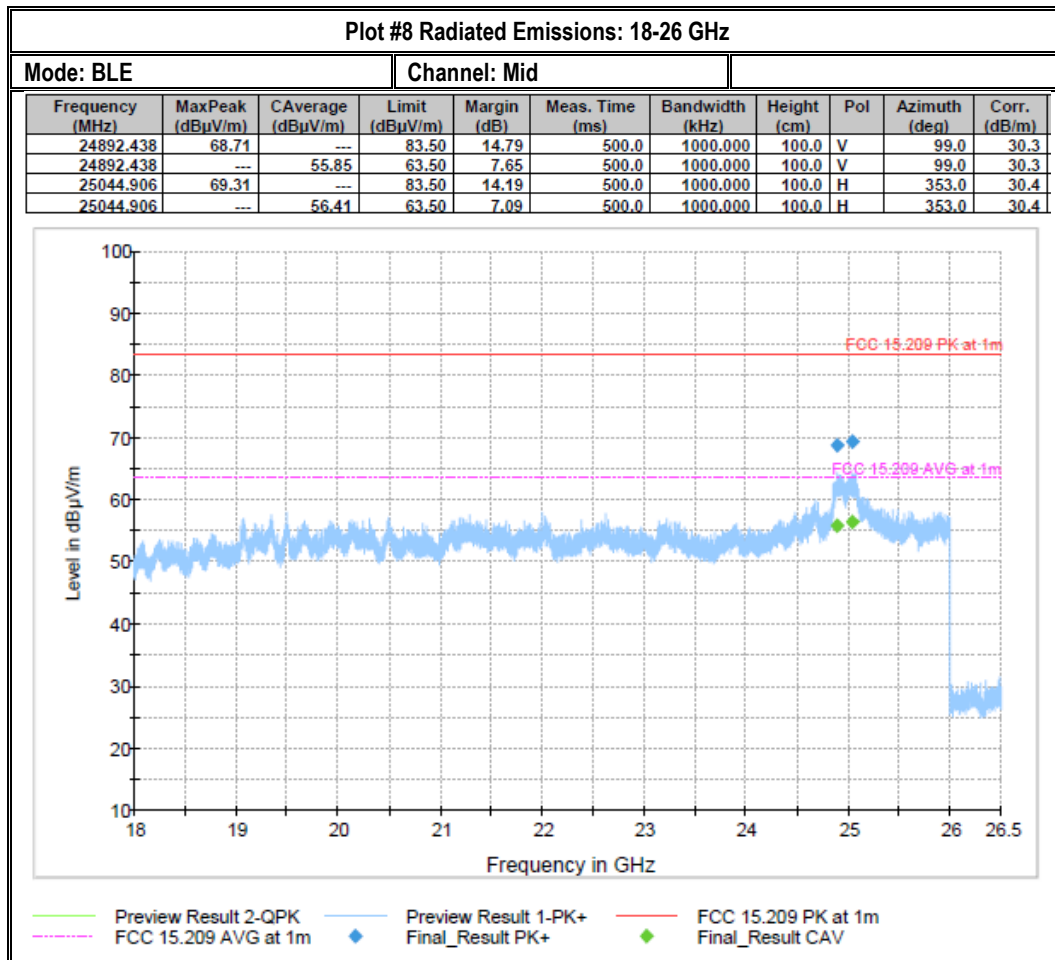
Mode: BLE

Channel: Mid

Frequency (MHz)	MaxPeak (dBuV/m)	CAverage (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3030.500	57.53	---	73.98	16.45	500.0	1000.000	140.0	H	227.0	-9.1
3030.500	---	47.95	53.98	6.02	500.0	1000.000	140.0	H	227.0	-9.1
3050.500	---	48.52	53.98	5.46	500.0	1000.000	222.0	H	236.0	-9.0
3050.500	56.74	---	73.98	17.24	500.0	1000.000	222.0	H	236.0	-9.0
3094.500	---	47.94	53.98	6.04	500.0	1000.000	198.0	H	230.0	-9.0
3094.500	57.62	---	73.98	16.36	500.0	1000.000	198.0	H	230.0	-9.0
4999.500	47.49	---	73.98	26.49	500.0	1000.000	210.0	V	155.0	-4.4
4999.500	---	40.50	53.98	13.48	500.0	1000.000	210.0	V	155.0	-4.4
6390.000	52.04	---	73.98	21.94	500.0	1000.000	232.0	V	171.0	-0.6
6390.000	---	48.04	53.98	5.94	500.0	1000.000	232.0	V	171.0	-0.6
17854.500	52.17	---	73.98	21.81	500.0	1000.000	315.0	H	131.0	16.6
17854.500	---	39.85	53.98	14.13	500.0	1000.000	315.0	H	131.0	16.6



Preview Result 2-QPK Preview Result 1-PK+ FCC 15.209 PK at 3m
FCC 15.209 AVG at 3m Final_Result PK+ Final_Result CAV

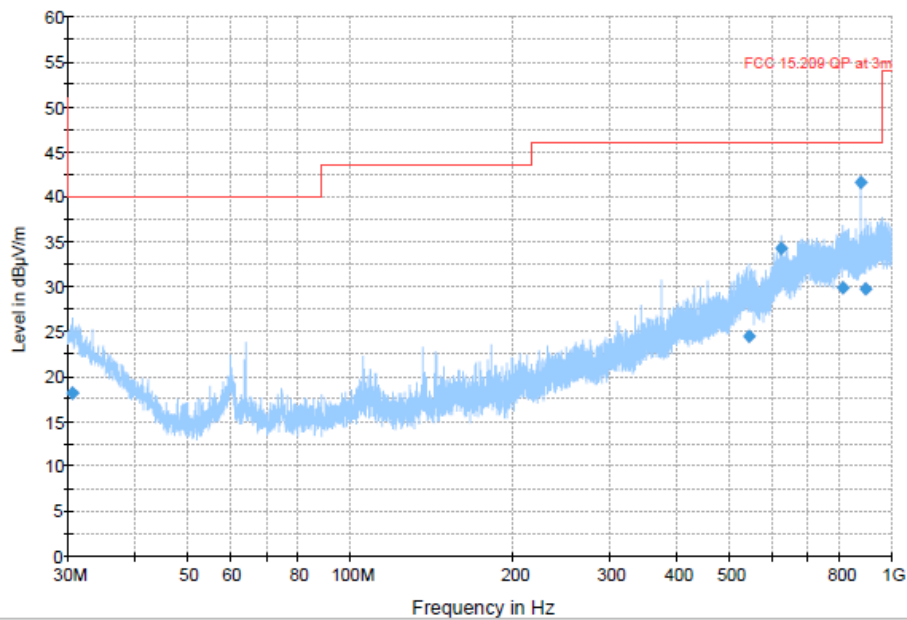


Plot # 9 Radiated Emissions: 30 MHz – 1GHz

Mode: BLE

Channel: High

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
30.647	18.15	40.00	21.85	500.0	120.000	280.0	V	335.0	20.6
545.458	24.52	46.02	21.50	500.0	120.000	298.0	V	313.0	25.9
625.030	34.22	46.02	11.80	500.0	120.000	140.0	H	134.0	27.7
814.310	29.86	46.02	16.16	500.0	120.000	220.0	V	204.0	30.1
875.032	41.61	46.02	4.41	500.0	120.000	152.0	H	193.0	29.2
897.018	29.73	46.02	16.29	500.0	120.000	140.0	V	85.0	29.8



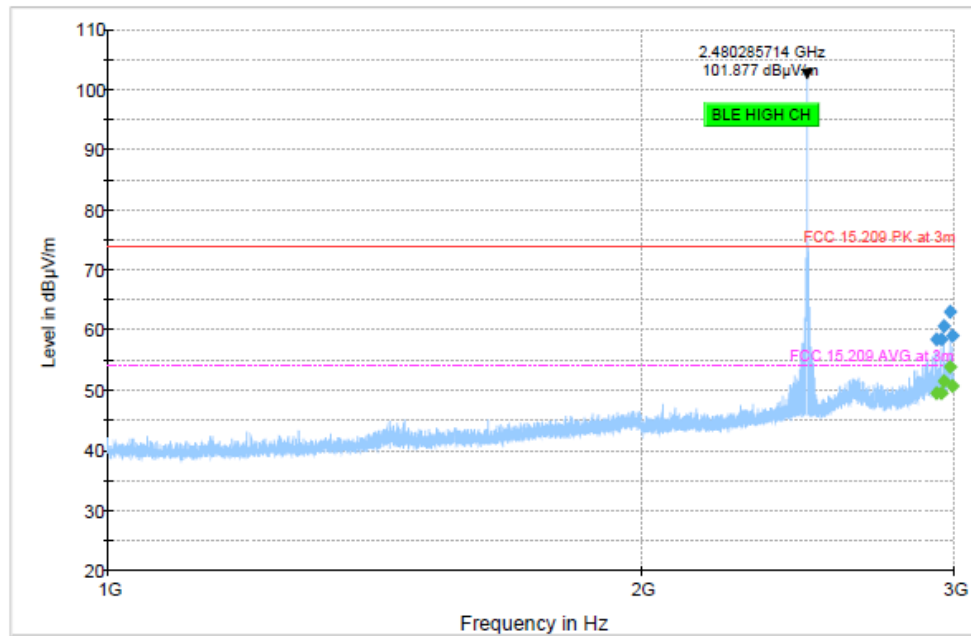
Preview Result 2-QPK Preview Result 1-PK+ FCC 15.209 QP at 3m Final_Result Q

Plot #10 Radiated Emissions: 1-3 GHz

Mode: BLE

Channel: High

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)
2931.429	58.36	---	73.98	15.62	500.0	1000.000	140.0	H	230.0	11.6
2931.429	---	49.54	53.98	4.44	500.0	1000.000	140.0	H	230.0	11.6
2950.857	58.37	---	73.98	15.61	500.0	1000.000	185.0	H	232.0	11.6
2950.857	---	49.43	53.98	4.55	500.0	1000.000	185.0	H	232.0	11.6
2963.571	---	51.54	53.98	2.44	500.0	1000.000	185.0	H	228.0	11.7
2963.571	60.63	---	73.98	13.35	500.0	1000.000	185.0	H	228.0	11.7
2983.857	---	53.83	53.98	0.15	500.0	1000.000	188.0	H	231.0	11.8
2983.857	62.92	---	73.98	11.05	500.0	1000.000	188.0	H	231.0	11.8
2996.286	---	50.75	53.98	3.23	500.0	1000.000	186.0	H	235.0	11.9
2996.286	59.04	---	73.98	14.94	500.0	1000.000	186.0	H	235.0	11.9



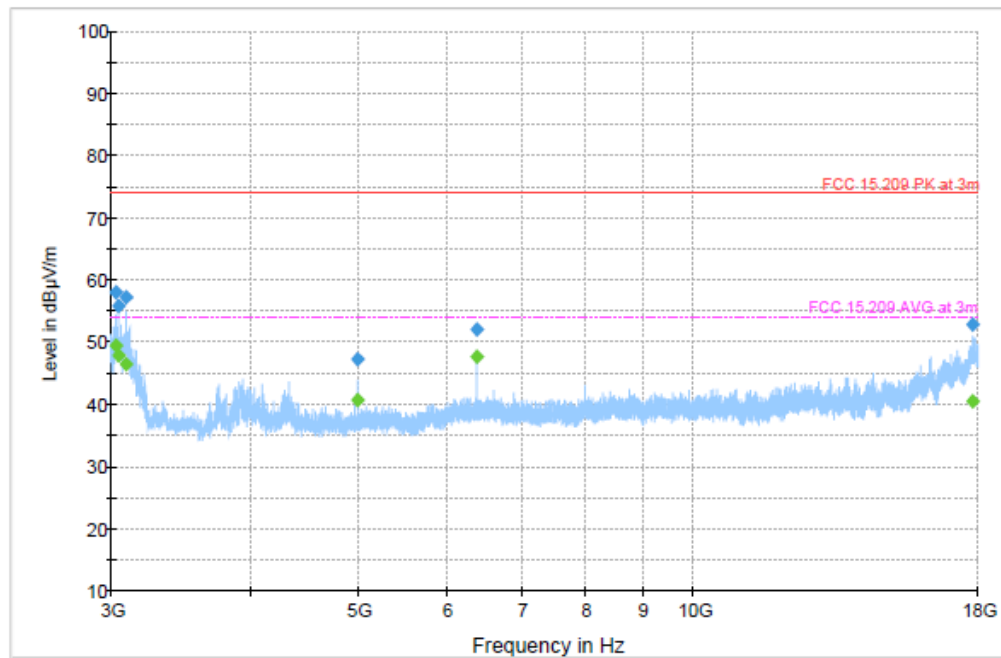
Preview Result 2-QPK Preview Result 1-PK+ FCC 15.209 PK at 3m
 FCC 15.209 AVG at 3m Final_Result PK+ Final_Result CAV

Plot #11 Radiated Emissions: 3-18 GHz

Mode: BLE

Channel: High

Frequency (MHz)	MaxPeak (dBuV/m)	CAverage (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3029.000	57.93	---	73.98	16.05	500.0	1000.000	244.0	H	237.0	-9.1
3029.000	---	49.45	53.98	4.53	500.0	1000.000	244.0	H	237.0	-9.1
3050.000	55.74	---	73.98	18.24	500.0	1000.000	176.0	H	238.0	-9.0
3050.000	---	47.74	53.98	6.24	500.0	1000.000	176.0	H	238.0	-9.0
3094.000	---	46.39	53.98	7.59	500.0	1000.000	140.0	H	227.0	-9.0
3094.000	57.23	---	73.98	16.75	500.0	1000.000	140.0	H	227.0	-9.0
4999.500	47.24	---	73.98	26.74	500.0	1000.000	164.0	V	155.0	-4.4
4999.500	---	40.63	53.98	13.35	500.0	1000.000	164.0	V	155.0	-4.4
6390.000	51.94	---	73.98	22.04	500.0	1000.000	223.0	V	172.0	-0.6
6390.000	---	47.56	53.98	6.42	500.0	1000.000	223.0	V	172.0	-0.6
17792.500	---	40.39	53.98	13.59	500.0	1000.000	183.0	H	-11.0	16.2
17792.500	52.77	---	73.98	21.21	500.0	1000.000	183.0	H	-11.0	16.2



Preview Result 2-QPK Preview Result 1-PK+ FCC 15.209 PK at 3m
FCC 15.209 AVG at 3m Final_Result PK+ Final_Result CAV

9 Test setup photos

Setup photos are included in supporting file name: "EMC_LUCID-004-21001_Setup_Photos.pdf"

10 Test Equipment And Ancillaries Used For Testing

Equipment Name/Type	Manufacturer	Model	Serial #	Calibration Cycle	Last Calibration Date
EMI Receiver/Analyzer	Rohde&Schwarz	ESU 40	100251	3 Years	07/16/2019
Loop antenna	ETS Lindgren	6507	161344	3 Years	10/30/2020
Biconlog Antenna	EMCO	3142E	166067	3 years	03/12/2020
Horn Antenna	EMCO	3115	35114	3 years	08/10/2020
Horn Antenna	ETS Lindgren	3117-PA	215984	3 years	01/31/2021
Horn Antenna	ETS Lindgren	3116C-PA	169535	3 years	09/23/2020
Compact Digital Barometer	Control Company	D4540001	130070752	3 Years	04/13/2020

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.

11 History

Date	Report Name	Changes to report	Report prepared by
2021-07-14	EMC_LUCID-004-21001_15.247_DTS	Initial Version	Kris Lazarov
2021-08-16	EMC_LUCID-004-21001_15.247_DTS_Rev1	Updater table 3.4 software description	Kris Lazarov

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