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 (DSS)

REPORT #: EMC_LUCID-004-21001_15.247_DSS_Rev1

DATE: 2021-08-16

A2LA Accredited

IC recognized #
3462B-1

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

TABLE OF CONTENTS

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:

Date	Section	Name	Signature
2021-08-16	Compliance	Kevin Wang (EMC Lab Manager)	kevin. wang@cetecom. com Digitally signed by: kevin. wang@cetecom.com DN: CN = kevin.wang@cetecom. com Date: 2021.08.16 15:07:58 -07'00'

Responsible for the Report:

Date	Section	Name	Signature
2021-08-16	Compliance	Kris Lazarov (Senior EMC Engineer)	Kris Lazarov Digitally signed by Kris Lazarov Date: 2021.08.16 14:32:38 -07'00'

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 78), 79 Channels
Modes of Operation	Bluetooth Basic/EDR: GFSK
Antenna Gain as declared	2.8 dBi
Max. Peak Output Power	12 dBm
Rated Operating Voltage Range	10V to 15V DC
Operating Temperature Range	-40 ºC to 85 ºC
Other Radios in the device	802.11a/ac
Sample Revision	☐Prototype Unit; ■Production Unit; ☐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
BDR	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 BDR 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 rule 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	BDR	☐	☐	■	See Note 2
§15.247(e)	Power Spectral Density	Nominal	BDR	☐	☐	■	See Note 2
§15.247(b)(1)	Maximum Conducted Output Power and EIRP	Nominal	BDR	☐	☐	■	See Note 2
§15.247(d)	Band edge compliance Unrestricted Band Edges	Nominal	BDR	☐	☐	■	See Note 2
§15.247; 15.209; 15.205	Band edge compliance Restricted Band Edges	Nominal	BDR	☐	☐	■	See Note 2
§15.247(d); §15.209	TX Spurious emissions-Radiated	Nominal	BDR	■	☐	☐	Complies
§15.207(a)	AC Conducted Emissions	Nominal	BDR	☐	■	☐	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)
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 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

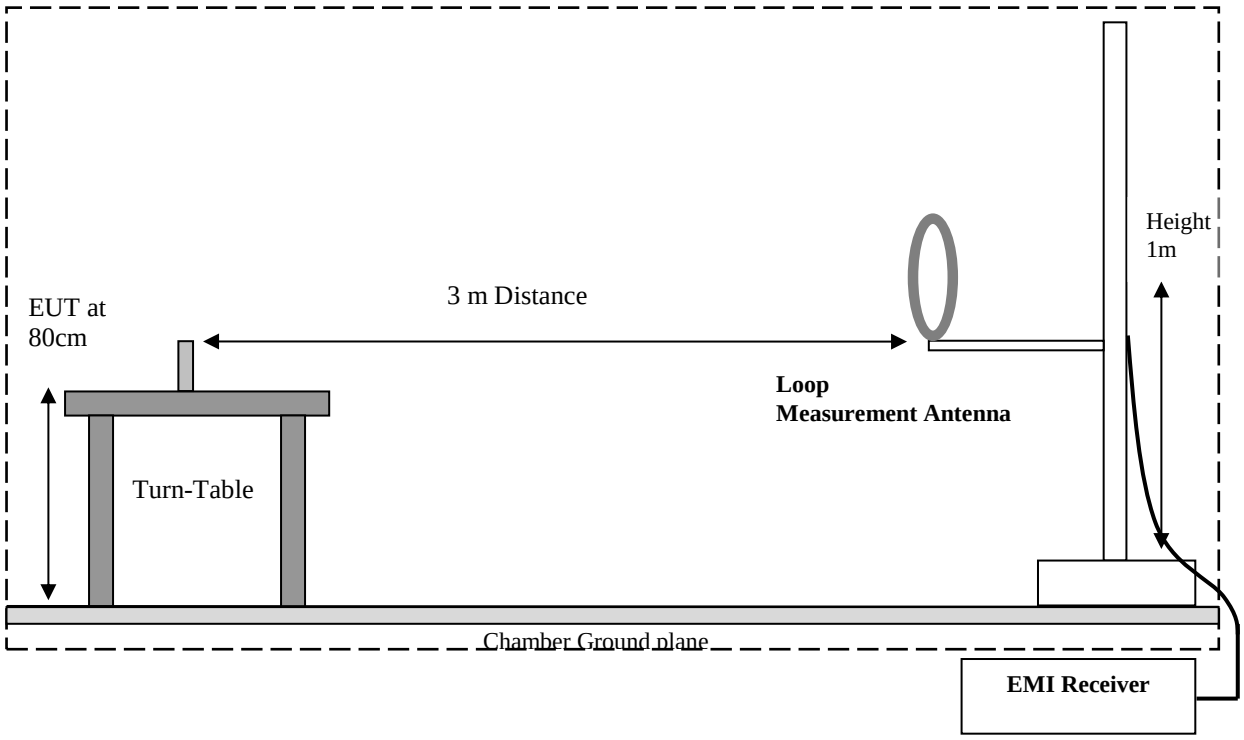
7 Measurement Procedures

7.1 Radiated Measurement

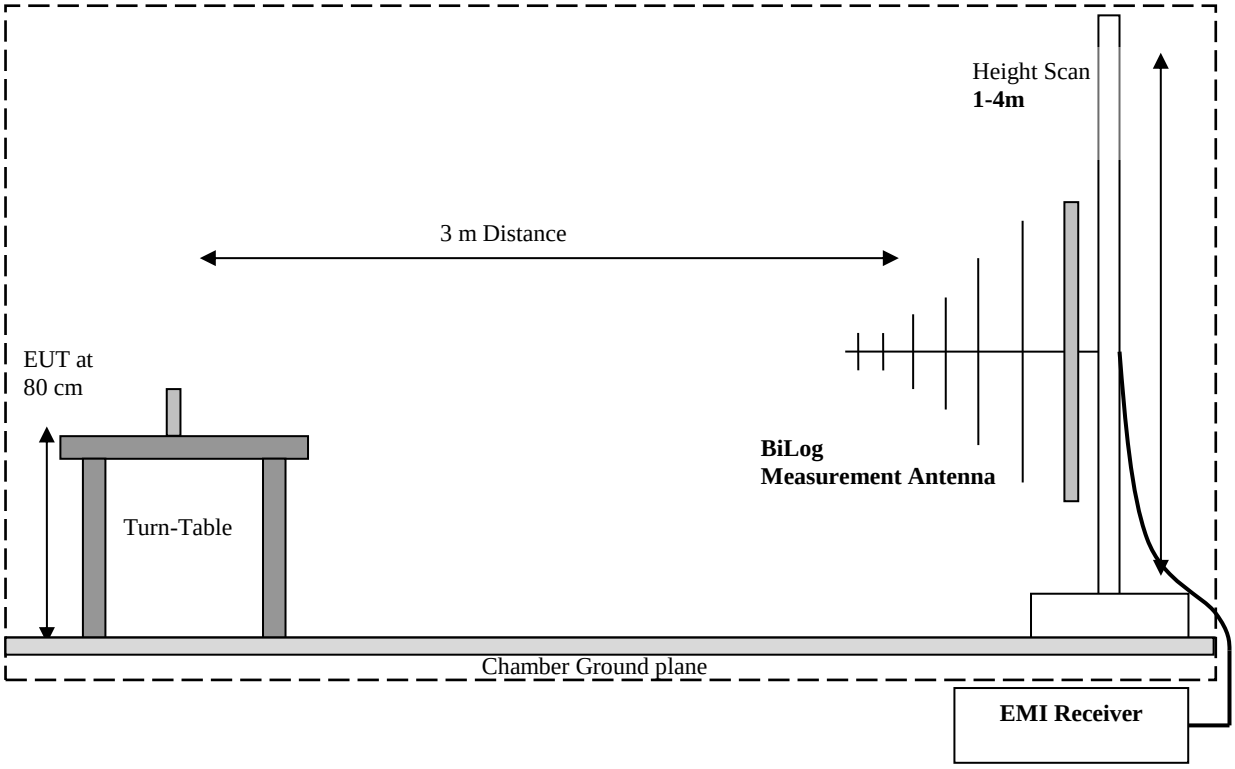
The radiated measurement is performed according to ANSI C63.10 (2013)

- 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.

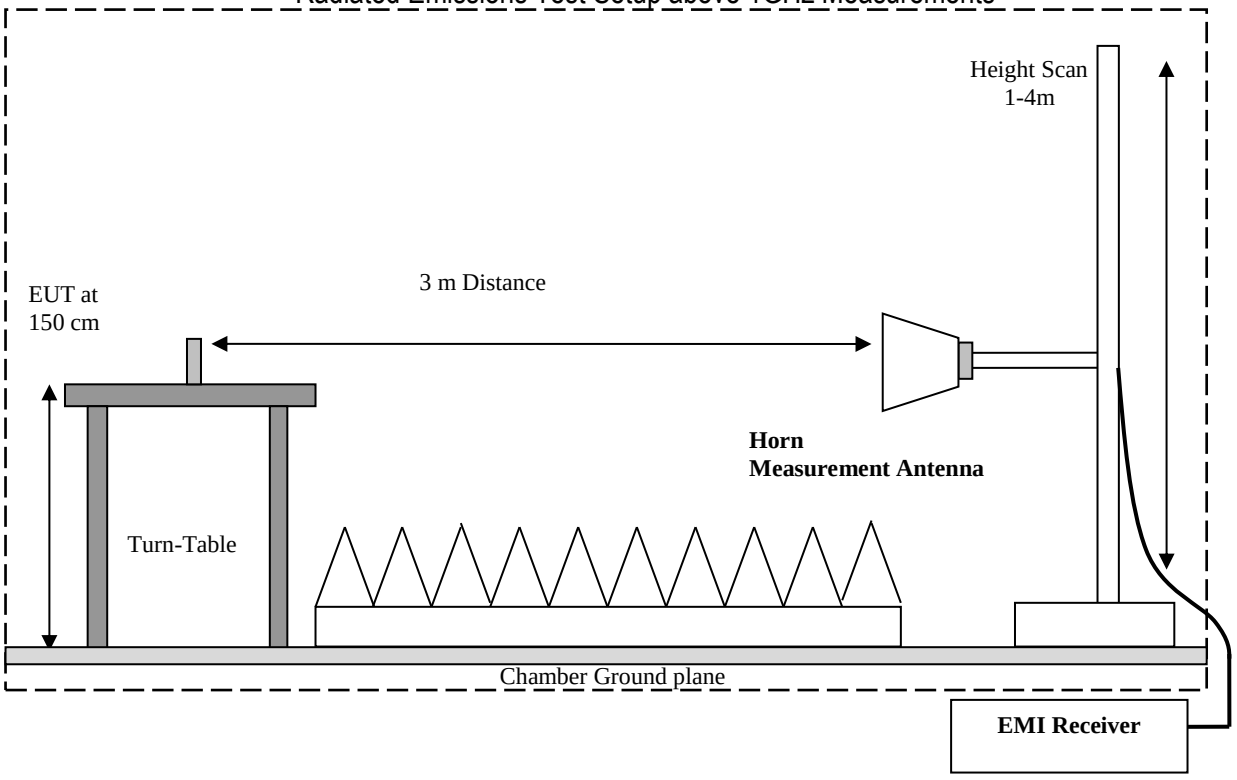
Radiated Emissions Test Setup below 30MHz Measurements



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 dBµV
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 (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

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 (300m / 3m) = 80dB

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
[1]0.495-0.505	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	BDR	12 VDC

8.1.4 Measurement result:

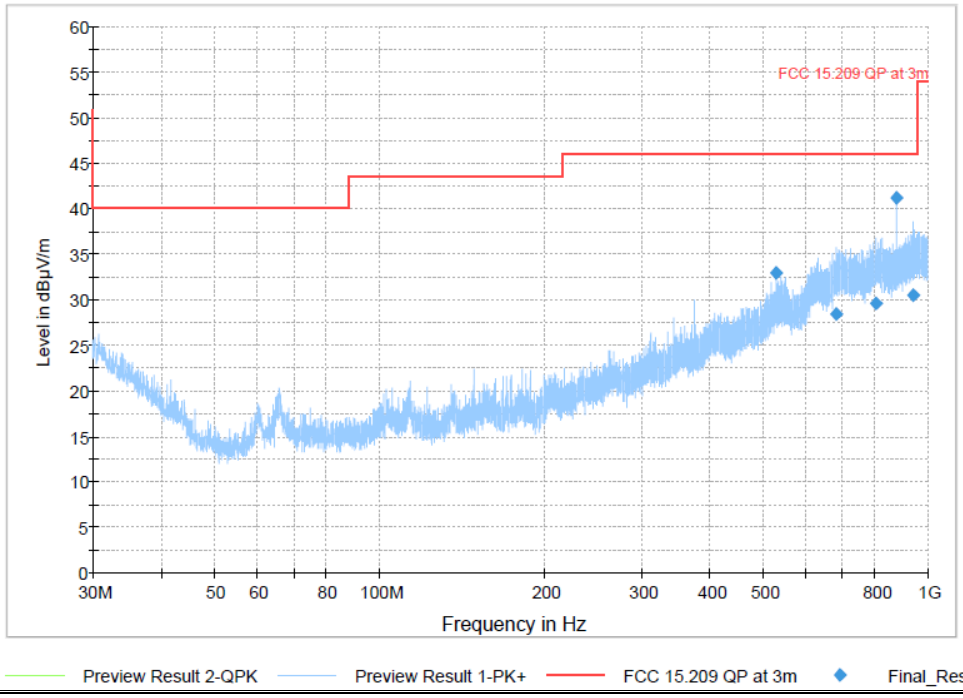
EUT operating mode 1 (WAP)				
Plot #	**Channel #**	**Scan Frequency**	**Limit**	**Result**
1-3	Low	30 MHz – 18 GHz	See section 8.1.2	Pass
4-8	Mid	9 kHz – 26 GHz	See section 8.1.2	Pass
9-11	High	30 MHz – 18 GHz	See section 8.1.2	Pass

8.1.5 Measurement Plots:

Plot #1 Radiated Emissions: 30 MHz – 1GHz

Mode: BDR **Channel: Low**

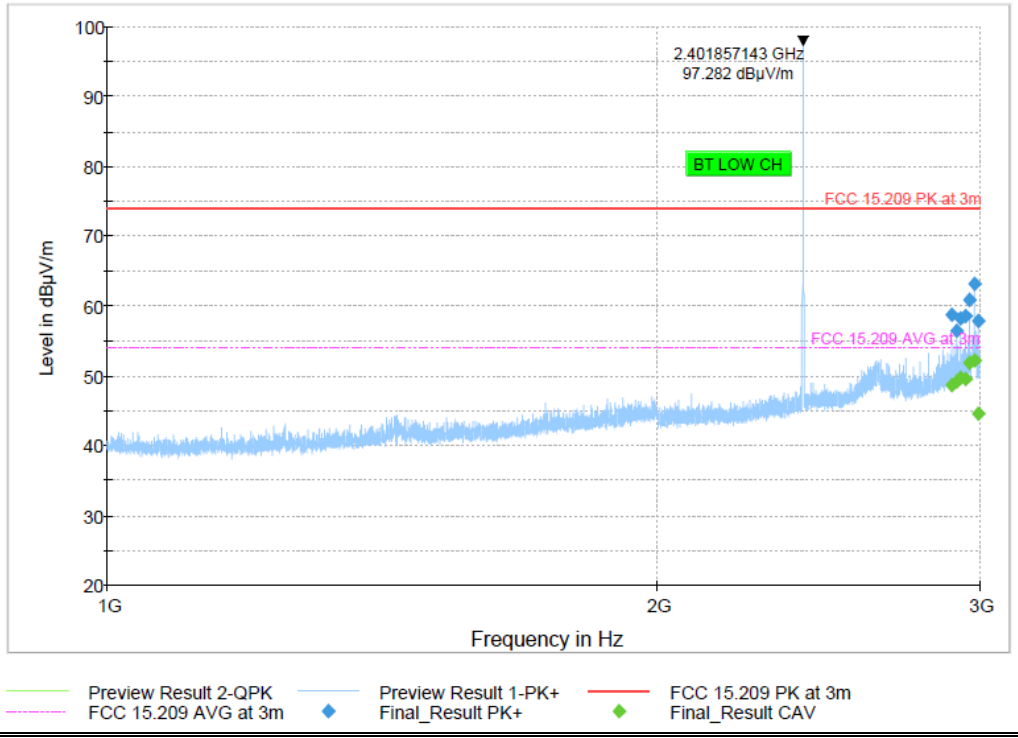
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
527.998	32.92	46.02	13.10	500.0	120.000	140.0	H	69.0	25.6
681.032	28.40	46.02	17.62	500.0	120.000	140.0	H	-23.0	28.6
805.935	29.66	46.02	16.36	500.0	120.000	255.0	V	261.0	29.9
875.032	41.21	46.02	4.81	500.0	120.000	152.0	H	136.0	29.2
941.089	30.52	46.02	15.50	500.0	120.000	289.0	H	-33.0	30.7



Plot # 2 Radiated Emissions: 1-3 GHz

Mode: BDR | **Channel: Low**

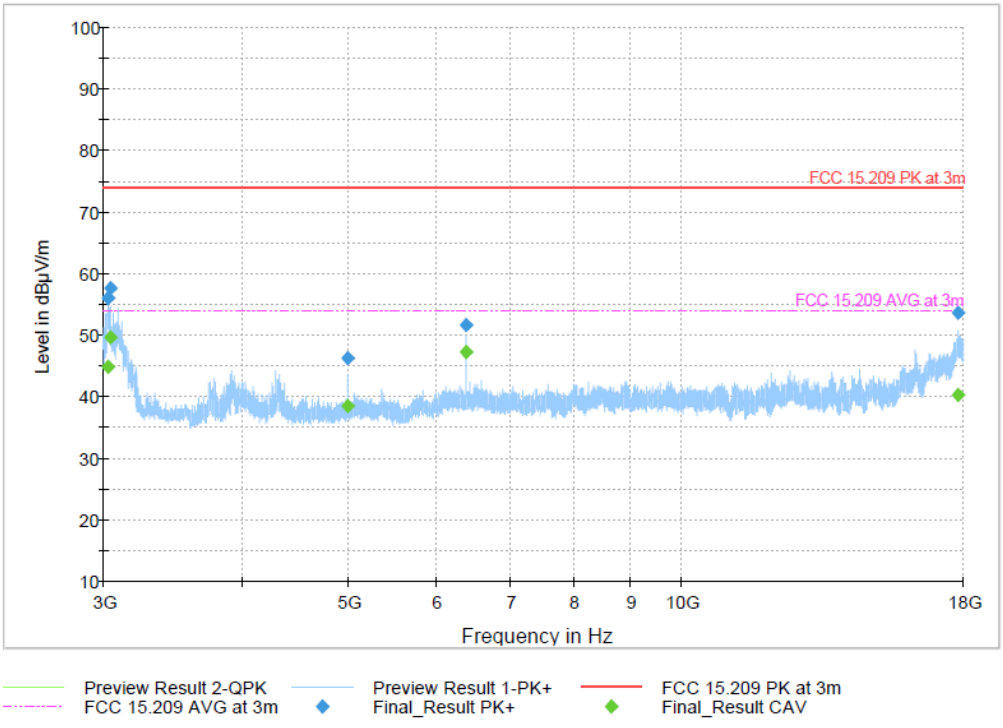
Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2895.714	58.68	---	73.98	15.30	500.0	1000.000	140.0	H	226.0	11.6
2895.714	---	48.64	53.98	5.34	500.0	1000.000	140.0	H	226.0	11.6
2913.857	---	49.29	53.98	4.69	500.0	1000.000	140.0	H	221.0	11.6
2913.857	56.51	---	73.98	17.47	500.0	1000.000	140.0	H	221.0	11.6
2928.000	---	49.66	53.98	4.32	500.0	1000.000	140.0	H	222.0	11.6
2928.000	58.18	---	73.98	15.80	500.0	1000.000	140.0	H	222.0	11.6
2947.429	---	49.49	53.98	4.48	500.0	1000.000	153.0	H	225.0	11.6
2947.429	58.65	---	73.98	15.33	500.0	1000.000	153.0	H	225.0	11.6
2960.571	60.87	---	73.98	13.11	500.0	1000.000	140.0	H	225.0	11.7
2960.571	---	51.81	53.98	2.17	500.0	1000.000	140.0	H	225.0	11.7
2980.714	---	52.30	53.98	1.68	500.0	1000.000	140.0	H	229.0	11.8
2980.714	63.22	---	73.98	10.76	500.0	1000.000	140.0	H	229.0	11.8
2993.857	---	44.52	53.98	9.46	500.0	1000.000	230.0	H	227.0	11.9
2993.857	57.79	---	73.98	16.19	500.0	1000.000	230.0	H	227.0	11.9



Plot # 3 Radiated Emissions: 3-18 GHz

Mode: BDR | **Channel: Low**

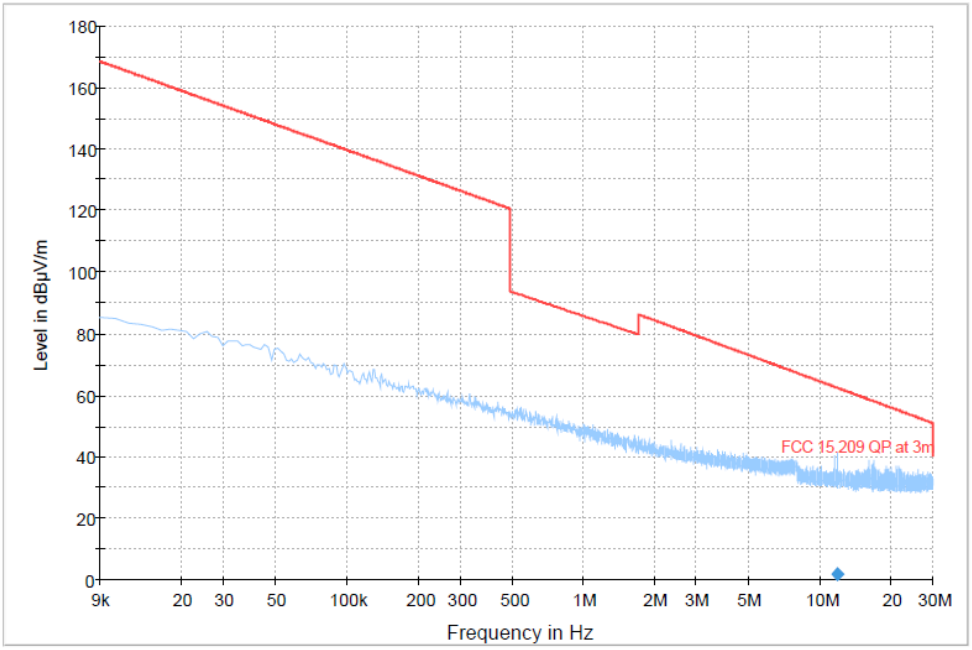
Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3029.000	---	44.89	53.98	9.09	500.0	1000.000	241.0	H	231.0	-9.1
3029.000	55.96	---	73.98	18.02	500.0	1000.000	241.0	H	231.0	-9.1
3051.000	---	49.59	53.98	4.39	500.0	1000.000	140.0	H	236.0	-9.0
3051.000	57.60	---	73.98	16.38	500.0	1000.000	140.0	H	236.0	-9.0
4999.500	46.15	---	73.98	27.83	500.0	1000.000	187.0	V	197.0	-4.4
4999.500	---	38.52	53.98	15.46	500.0	1000.000	187.0	V	197.0	-4.4
6390.000	51.62	---	73.98	22.36	500.0	1000.000	187.0	V	169.0	-0.6
6390.000	---	47.25	53.98	6.73	500.0	1000.000	187.0	V	169.0	-0.6
17800.500	---	40.34	53.98	13.64	500.0	1000.000	187.0	V	255.0	16.3
17800.500	53.55	---	73.98	20.43	500.0	1000.000	187.0	V	255.0	16.3



Plot # 4 Radiated Emissions: 9 KHz – 30 MHz

Mode: BDR | **Channel: Mid**

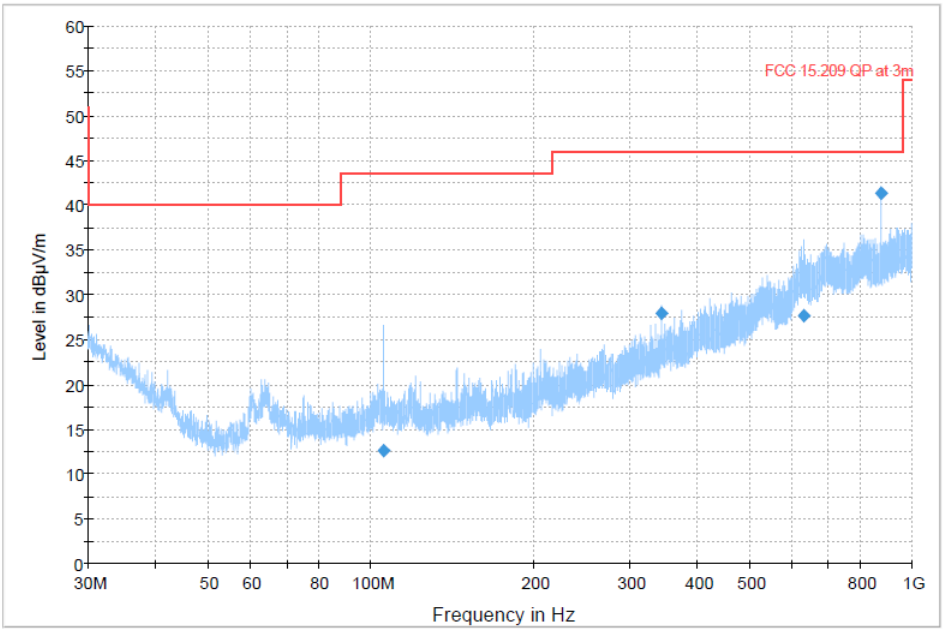
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
11.906	2.10	62.42	60.31	500.0	9.000	206.0	H	157.0	17.4



Plot #5 Radiated Emissions: 30 MHz – 1GHz

Mode: BDR | **Channel: Mid**

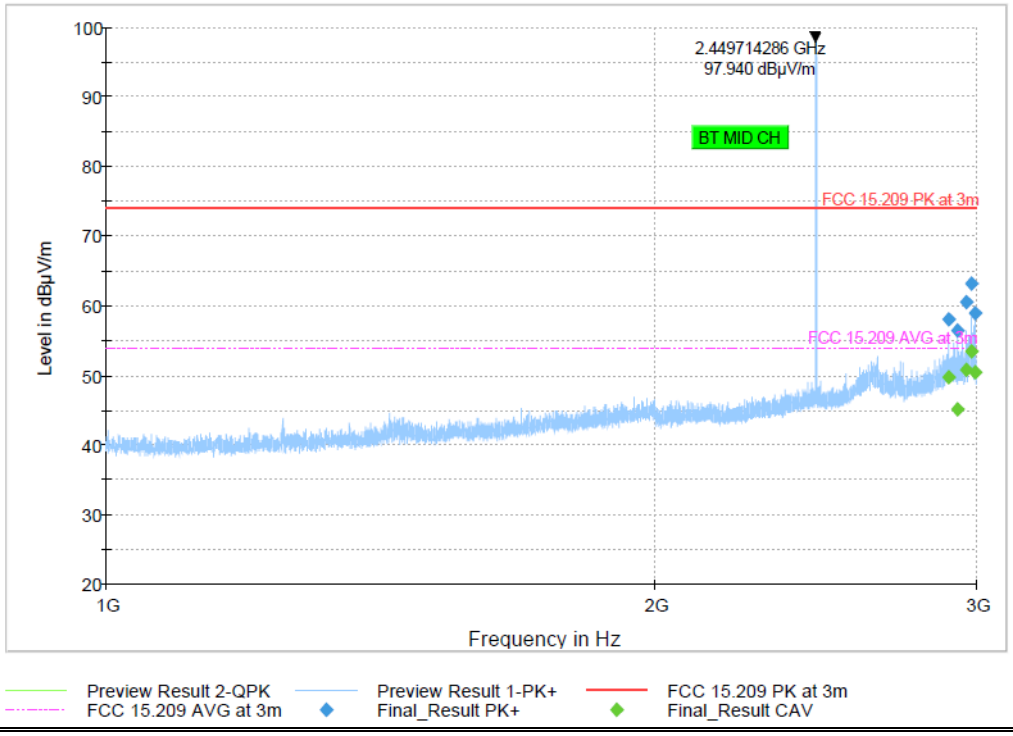
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
105.757	12.61	43.50	30.89	500.0	120.000	233.0	V	202.0	13.2
344.054	27.96	46.02	18.06	500.0	120.000	140.0	H	287.0	20.2
631.594	27.66	46.02	18.36	500.0	120.000	272.0	H	93.0	27.7
875.032	41.29	46.02	4.73	500.0	120.000	152.0	H	188.0	29.2



Plot #6 Radiated Emissions: 1-3 GHz

Mode: BDR | **Channel: Mid**

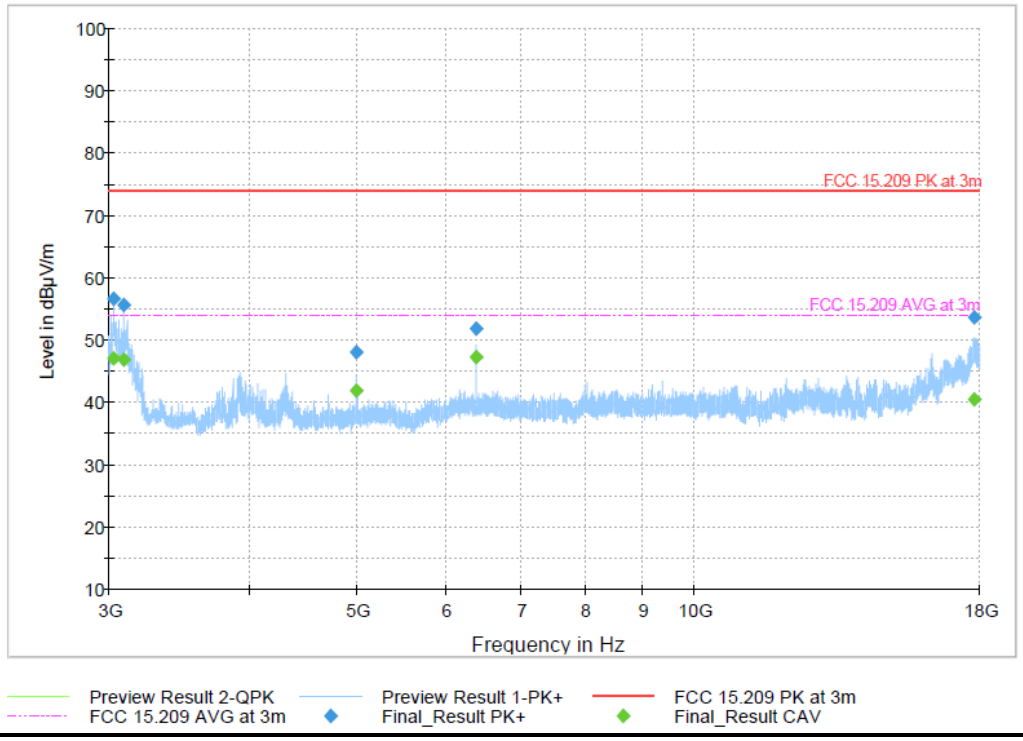
Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2895.143	58.07	---	73.98	15.91	500.0	1000.000	140.0	H	228.0	11.6
2895.143	---	49.67	53.98	4.31	500.0	1000.000	140.0	H	228.0	11.6
2928.286	---	45.21	53.98	8.77	500.0	1000.000	188.0	H	227.0	11.6
2928.286	56.53	---	73.98	17.45	500.0	1000.000	188.0	H	227.0	11.6
2960.571	---	50.87	53.98	3.11	500.0	1000.000	188.0	H	227.0	11.7
2960.571	60.52	---	73.98	13.46	500.0	1000.000	188.0	H	227.0	11.7
2979.857	63.15	---	73.98	10.83	500.0	1000.000	153.0	H	229.0	11.8
2979.857	---	53.49	53.98	0.49	500.0	1000.000	153.0	H	229.0	11.8
2993.286	---	50.52	53.98	3.46	500.0	1000.000	186.0	H	229.0	11.9
2993.286	59.02	---	73.98	14.96	500.0	1000.000	186.0	H	229.0	11.9



Plot #7 Radiated Emissions: 3-18 GHz

Mode: BDR **Channel: Mid**

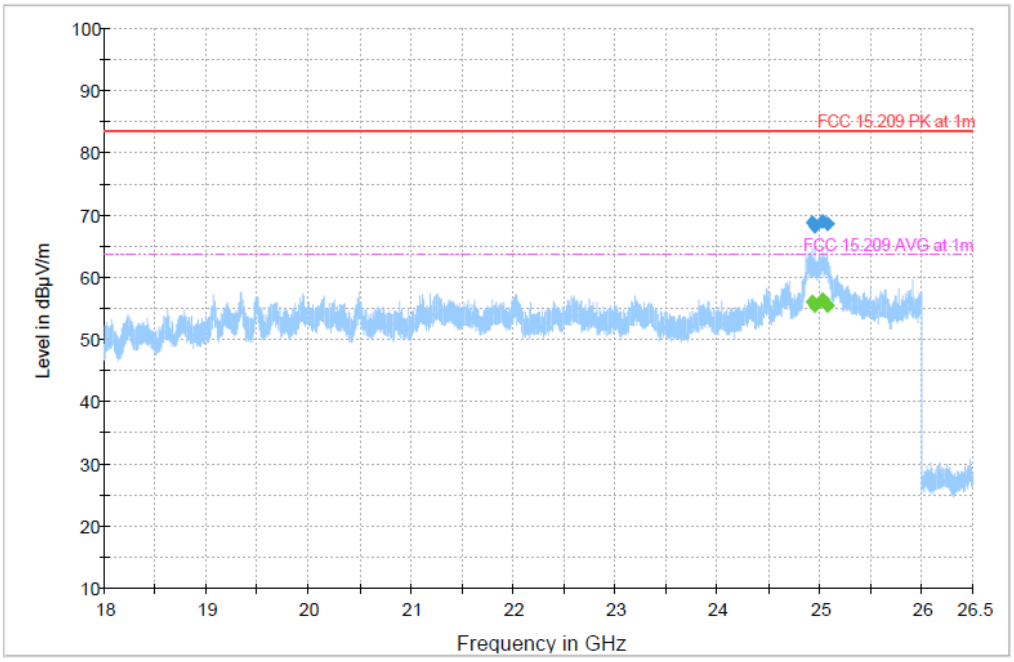
Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3030.000	---	47.11	53.98	6.87	500.0	1000.000	173.0	H	232.0	-9.1
3030.000	56.54	---	73.98	17.44	500.0	1000.000	173.0	H	232.0	-9.1
3094.500	---	46.76	53.98	7.22	500.0	1000.000	230.0	H	233.0	-9.0
3094.500	55.53	---	73.98	18.45	500.0	1000.000	230.0	H	233.0	-9.0
4999.500	48.00	---	73.98	25.98	500.0	1000.000	140.0	V	154.0	-4.4
4999.500	---	41.86	53.98	12.12	500.0	1000.000	140.0	V	154.0	-4.4
6389.500	---	47.31	53.98	6.67	500.0	1000.000	221.0	V	169.0	-0.6
6389.500	51.79	---	73.98	22.19	500.0	1000.000	221.0	V	169.0	-0.6
17797.000	53.59	---	73.98	20.39	500.0	1000.000	315.0	V	28.0	16.3
17797.000	---	40.48	53.98	13.50	500.0	1000.000	315.0	V	28.0	16.3



Plot #8 Radiated Emissions: 18-26 GHz

Mode: BDR **Channel: Mid**

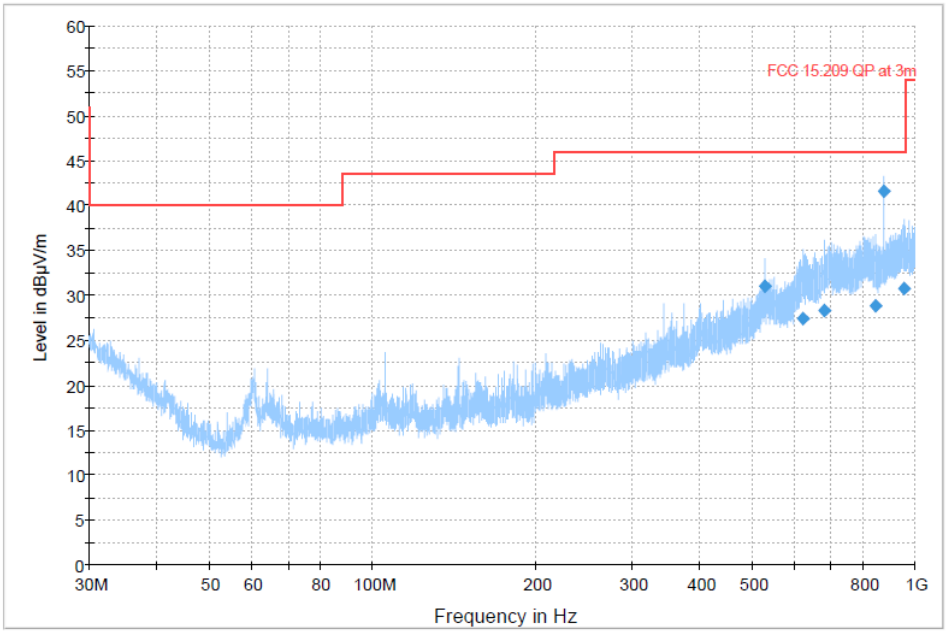
Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
24926.438	---	55.93	63.50	7.57	500.0	1000.000	100.0	H	7.0	30.2
24926.438	68.81	---	83.50	14.69	500.0	1000.000	100.0	H	7.0	30.2
24955.656	68.24	---	83.50	15.26	500.0	1000.000	100.0	V	263.0	29.5
24955.656	---	55.42	63.50	8.08	500.0	1000.000	100.0	V	263.0	29.5
25024.719	---	56.43	63.50	7.07	500.0	1000.000	100.0	V	18.0	30.4
25024.719	68.98	---	83.50	14.52	500.0	1000.000	100.0	V	18.0	30.4
25077.047	68.48	---	83.50	15.02	500.0	1000.000	100.0	V	98.0	30.2
25077.047	---	55.47	63.50	8.03	500.0	1000.000	100.0	V	98.0	30.2



Plot # 9 Radiated Emissions: 30 MHz – 1GHz

Mode: BDR | **Channel: High**

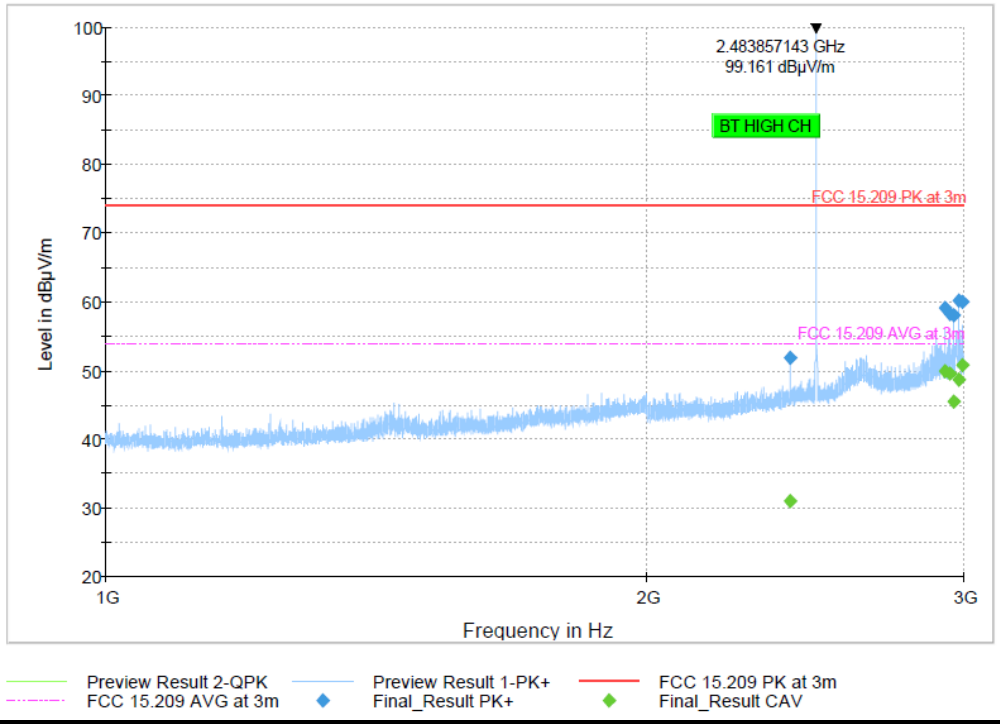
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
527.998	31.05	46.02	14.97	500.0	120.000	140.0	H	23.0	25.6
620.892	27.49	46.02	18.53	500.0	120.000	221.0	V	26.0	27.5
681.161	28.36	46.02	17.66	500.0	120.000	233.0	H	232.0	28.6
848.066	28.78	46.02	17.24	500.0	120.000	315.0	V	24.0	29.1
875.032	41.61	46.02	4.41	500.0	120.000	152.0	H	189.0	29.2
955.089	30.74	46.02	15.28	500.0	120.000	289.0	H	125.0	30.8



Plot #10 Radiated Emissions: 1-3 GHz

Mode: BDR | **Channel: High**

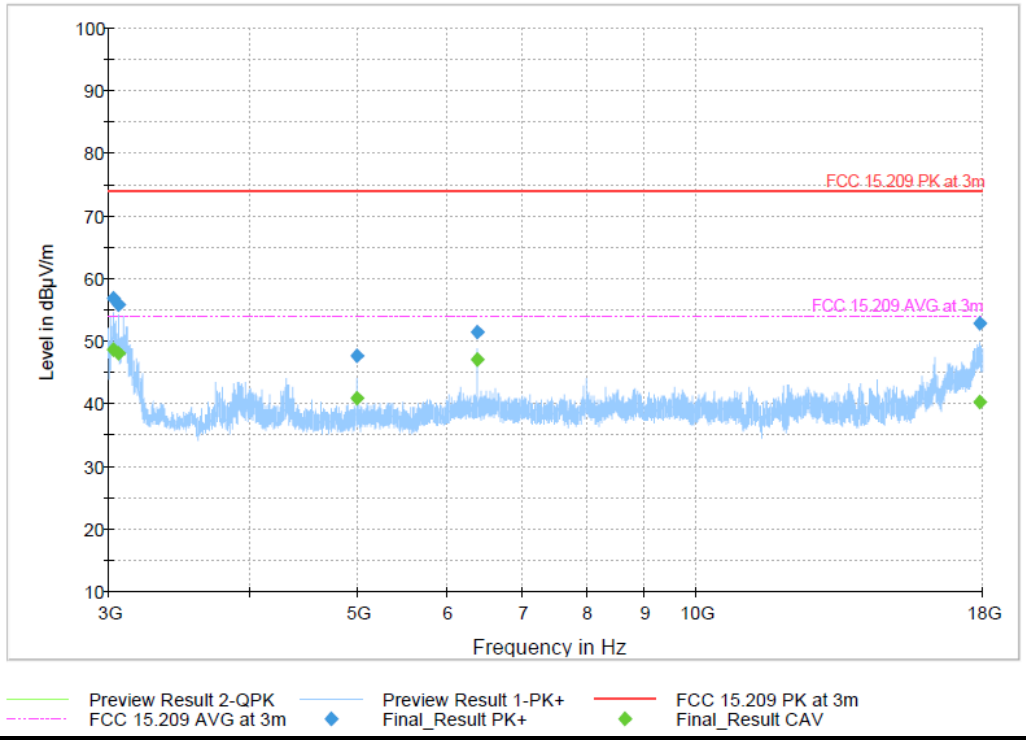
Frequency (MHz)	MaxPeak (dBµV/m)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2401.714	51.92	---	73.98	22.06	500.0	1000.000	315.0	H	311.0	9.2
2401.714	---	30.97	53.98	23.01	500.0	1000.000	315.0	H	311.0	9.2
2928.286	59.14	---	73.98	14.84	500.0	1000.000	152.0	H	227.0	11.6
2928.286	---	49.91	53.98	4.07	500.0	1000.000	152.0	H	227.0	11.6
2947.714	58.20	---	73.98	15.78	500.0	1000.000	240.0	H	225.0	11.6
2947.714	---	49.62	53.98	4.36	500.0	1000.000	240.0	H	225.0	11.6
2960.571	58.12	---	73.98	15.86	500.0	1000.000	242.0	H	224.0	11.7
2960.571	---	45.57	53.98	8.41	500.0	1000.000	242.0	H	224.0	11.7
2980.857	---	48.67	53.98	5.31	500.0	1000.000	186.0	H	226.0	11.8
2980.857	60.18	---	73.98	13.80	500.0	1000.000	186.0	H	226.0	11.8
2993.571	---	50.75	53.98	3.23	500.0	1000.000	188.0	H	226.0	11.9
2993.571	60.00	---	73.98	13.98	500.0	1000.000	188.0	H	226.0	11.9



Plot #11 Radiated Emissions: 3-18 GHz

Mode: BDR **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)
3029.500	56.72	---	73.98	17.26	500.0	1000.000	242.0	H	231.0	-9.1
3029.500	---	48.59	53.98	5.39	500.0	1000.000	242.0	H	231.0	-9.1
3062.000	55.76	---	73.98	18.22	500.0	1000.000	140.0	H	231.0	-9.0
3062.000	---	48.10	53.98	5.88	500.0	1000.000	140.0	H	231.0	-9.0
4999.500	47.67	---	73.98	26.31	500.0	1000.000	178.0	V	153.0	-4.4
4999.500	---	40.95	53.98	13.03	500.0	1000.000	178.0	V	153.0	-4.4
6390.000	---	47.09	53.98	6.89	500.0	1000.000	164.0	V	169.0	-0.6
6390.000	51.37	---	73.98	22.61	500.0	1000.000	164.0	V	169.0	-0.6
17895.000	52.90	---	73.98	21.08	500.0	1000.000	208.0	V	136.0	16.8
17895.000	---	40.18	53.98	13.80	500.0	1000.000	208.0	V	136.0	16.8



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_DSS	Initial Version	Kris Lazarov
2021-08-16	EMC_LUCID-004-21001_15.247_DSS_Rev1	Updater table 3.4 software description: Updated section 3.5 to BDR mode	Kris Lazarov

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