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GPS INDUSTRIES, LLC TEST REPORT

SCOPE OF WORK
EMC TESTING – V3-1004Q

REPORT NUMBER
104702325LEX-002

ISSUE DATE

11/30/2021

PAGES
46

DOCUMENT CONTROL NUMBER
Non-Specific EMC Report Shell Rev. December 2017

EMC TEST REPORT

(FULL COMPLIANCE)

Report Number: 104702325LEX-002
Project Number: G104702325

Report Issue Date: 11/30/2021

Model(s) Tested: V3-1004Q

Standards: FCC Part 15B
ICES-003 Issue 7
FCC Part 15C, 22, 24, 27, 90
(Radiated Spurious Emissions)

Tested by:
Intertek Testing Services NA, Inc.
731 Enterprise Dr.
Lexington, KY 40510
USA

Client:
GPS INDUSTRIES, LLC
1074 N. Orange Ave.
Sarasota, FL 34236
USA

Report prepared by

Ben Coolbear,
Engineer

Report reviewed by

Bryan Taylor,
EMC Team Leader

Table of Contents

1 Introduction and Conclusion

The tests indicated in section 2.0 were performed on the product constructed as described in section 4.0. The remaining test sections are the verbatim text from the actual data sheets used during the investigation. These test sections include the test name, the specified test Method, a list of the actual Test Equipment Used, documentation Photos, Results and raw Data. No additions, deviations, or exclusions have been made from the standard(s) unless specifically noted.

Based on the results of our investigation, we have concluded the product tested **complies** with the requirements of the standard(s) indicated. The results obtained in this test report pertain only to the item(s) tested. Intertek does not make any claims of compliance for samples or variants which were not tested.

2 Test Summary

Section	Test full name	Result
6	Radiated Emissions (Transmitters Idle) (ANSI C63.4:2014)	Pass
6	Radiated Spurious Emissions (Transmitters Active) (ANSI C63.26:2015)	Pass
7	Conducted Emissions (ANSI C63.4:2014)	NA[1]

1 This test was not applicable since the V3-1004Q was battery powered from a golf cart

3 Client Information

This product was tested at the request of the following:

Client Information	
Client Name:	GPS INDUSTRIES, LLC
Address:	1074 N. Orange Ave. Sarasota, FL 34236 USA
Contact:	Josh Hubert
Telephone:	1+706.619.3122
Email:	josh.hubert@irco.com
Manufacturer Information	
Manufacturer Name:	GPS INDUSTRIES, LLC
Manufacturer Address:	1074 N. Orange Ave. Sarasota, FL 34236 USA

4 Description of Equipment under Test and Variant Models

Equipment Under Test	
Product Name	V3-1004Q
Model Number	V3-1004Q
Serial Number	861364040286518
Supported Transmit Bands	Add FCCIDs of all transmitter modules (not just cellular)
Embedded Modules	Texas Instruments Model WL18MODGB (FCCID: Z64-WL18SBMOD) Quectel Model EM06-A (FCCID: XMR201906EM06A)
Receive Date	9/9/2021
Test Start Date	9/9/2021
Test End Date	10/17/2021
Device Received Condition	Good
Test Sample Type	Production
Rated Voltage	12VDC
Description of Equipment Under Test (provided by client)	
The V3-1004Q is a tracking device that installs on golf carts. It provides distances to holes, tracking capabilities for the golf carts.	

4.1 Variant Models:

There were no variant models covered by this evaluation.

5 System Setup and Method

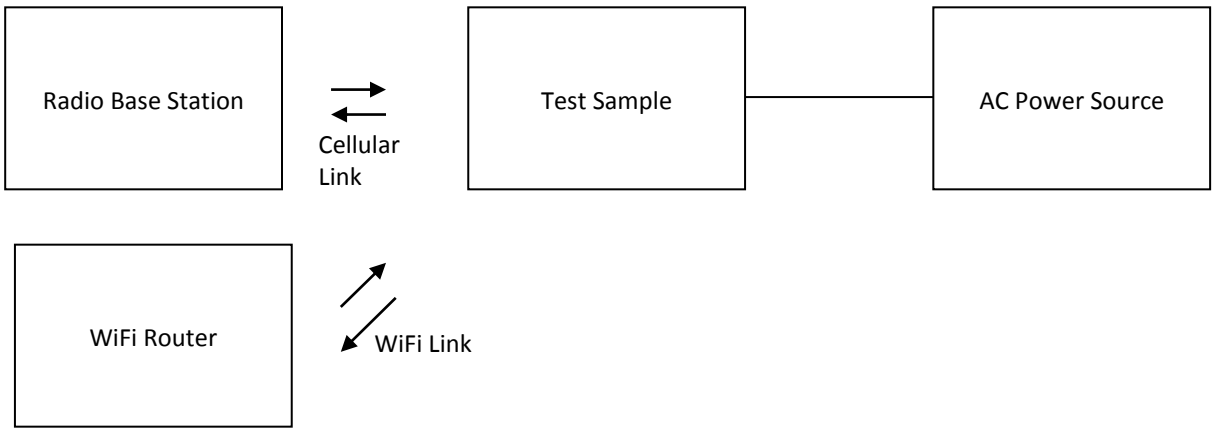
5.1 Method:

Configuration as required by ANSI C63.4:2014 and ANSI C63.26:2015.

No.	Descriptions of EUT Exercising
1	The V3-1004Q was powered and operating normally for the duration of the evaluation.
2	A wireless call was established with the V3-1004Q and the radio base station.
3	The wireless call was monitored for connectivity, bit error rates, and block error rates.
4	A Wifi Connection was established with a router and the V3-1004Q.

Cables					
#	Description	Length (m)	Shielding	Ferrites	Termination
1	Power Cable	1	None	None	AC to DC Power Adapter

5.2 EUT Block Diagram:



5.3 EUT Photo (Front):

5.4 EUT Photo (Back):

6 Radiated Emissions

6.1 Method

Tests are performed in accordance with ANSI C63.4:2014 and ANSI C63.26:2015.

TEST SITE: 10m ALSE

Site Designation: 10m Chamber

Measurement Uncertainty

Measurement	Frequency Range	Expanded Uncertainty (k=2)	Ucispr
Radiated Emissions, 10m	30-1000 MHz	3.9dB	6.3 dB
Radiated Emissions, 3m	30-1000 MHz	4.0dB	6.3 dB
Radiated Emissions, 3m	1-6 GHz	4.7dB	5.2 dB
Radiated Emissions, 3m	6-15 GHz	4.7dB	5.5 dB
Radiated Emissions, 3m	15-18 GHz	4.7dB	5.5 dB
Radiated Emissions, 3m	18-40 GHz	4.7dB	5.5 dB

As shown in the table above our radiated emissions U_{lab} is less than the corresponding U_{CISPR} reference value in CISPR 16-4-2 Table 1, hence the compliance of the product is only based on the measured value, and no measurement uncertainty correction is required.

6.2 Sample Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CF - AG

Where FS = Field Strength in dBμV/m
RA = Receiver Amplitude (including preamplifier) in dBμV
CF = Cable Attenuation Factor in dB
AF = Antenna Factor in dB
AG = Amplifier Gain in dB

In the following table(s), the reading shown on the data table reflects the preamplifier gain. An example for the calculations in the following table is as follows.

Assume a receiver reading of 52.0 dBμV is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted, giving a field strength of 32 dBμV/m. This value in dBμV/m was converted to its corresponding level in μV/m.

RA = 52.0 dBμV
AF = 7.4 dB/m
CF = 1.6 dB
AG = 29.0 dB
FS = 32 dBμV/m

To convert from dBμV to μV or mV the following was used:

$UF = 10^{(NF / 20)}$ where UF = Net Reading in μV
NF = Net Reading in dBμV

Example:

FS = RA + AF + CF – AG = 52.0 + 7.4 + 1.6 – 29.0 = 32.0
$UF = 10^{(32\ dB\mu V / 20)}$ = 39.8 μV/m

6.3 Field Strength to Power Calculation

As allowable by ANSI C63.26: 2015 section 5.2.7, the output power of unwanted emissions can be calculated from a field strength measurement. The transmitter measurements that follow in this report have applied the following calculation to the -13dBm limit to arrive an equivalent field strength limit at 3 meters as follows:

E (dBμV/m) = EIRP (dBm) − 20log(D) + 104.8; where D is the measurement distance (in the far field region) in m.

Example:
Limit (dBuV/m) = -13 -20log(3) + 104.8 = 82.25dBuV/m

6.4 Test Equipment Used:

Description	Asset	Manufacturer	Model	Cal Date	Cal Due
EMI Test Receiver	8131	Rohde & Schwarz	ESW44	1/15/2020	1/22/2022
Bilog Antenna (30MHz-1GHz)	3133	ETS	3142C	8/26/2021	8/26/2022
Horn Antenna	4001	ETS	3117	1/26/2021	1/26/2022
System Controller	4096	ETS Lindgren	2090	Verify at Time of Use	Verify at Time of Use
System Controller	3957	Sunol Sciences	SC99V	Verify at Time of Use	Verify at Time of Use
Coaxial Cable	3074			12/21/2020	12/21/2021
Preamplifier	3918	Rohde & Schwarz	TS-PR18	12/21/2020	12/21/2021
Coaxial Cable	2588			12/21/2020	12/21/2021
Coaxial Cable	2593			12/21/2020	12/21/2021
Coaxial Cable	2592			12/21/2020	12/21/2021
Coaxial Cable	3339			12/21/2020	12/21/2021
Preamplifier	7019	Rohde & Schwarz	TS-PR3	12/21/2020	12/21/2021
Coaxial Cable	3172			12/21/2020	12/21/2021
Coaxial Cable	2590			12/21/2020	12/21/2021
Coaxial Cable	2589			12/21/2020	12/21/2021

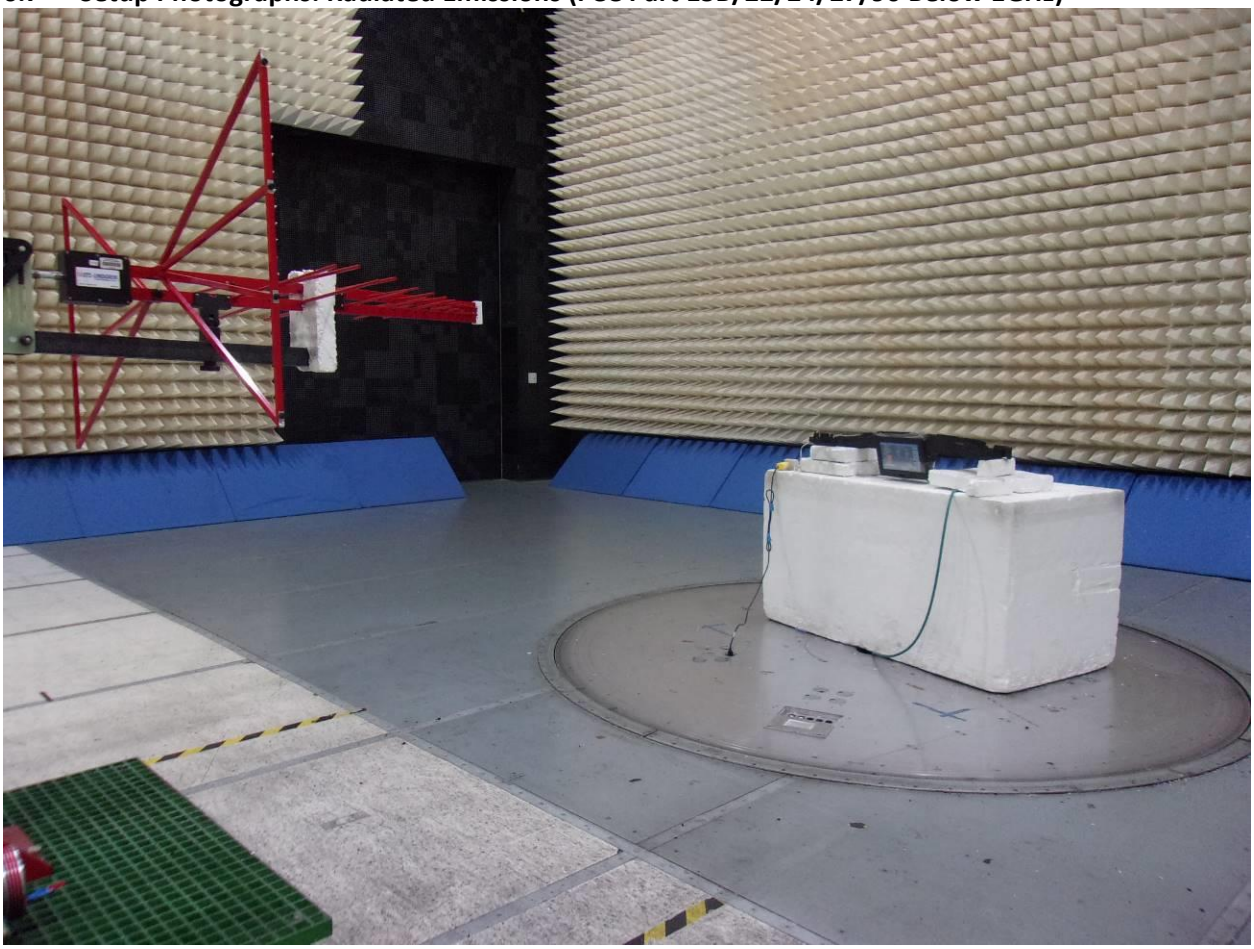
6.5 Software Utilized:

Name	Manufacturer	Version
EMC32	Rohde & Schwarz	Version 9.15.02

6.6 Results:

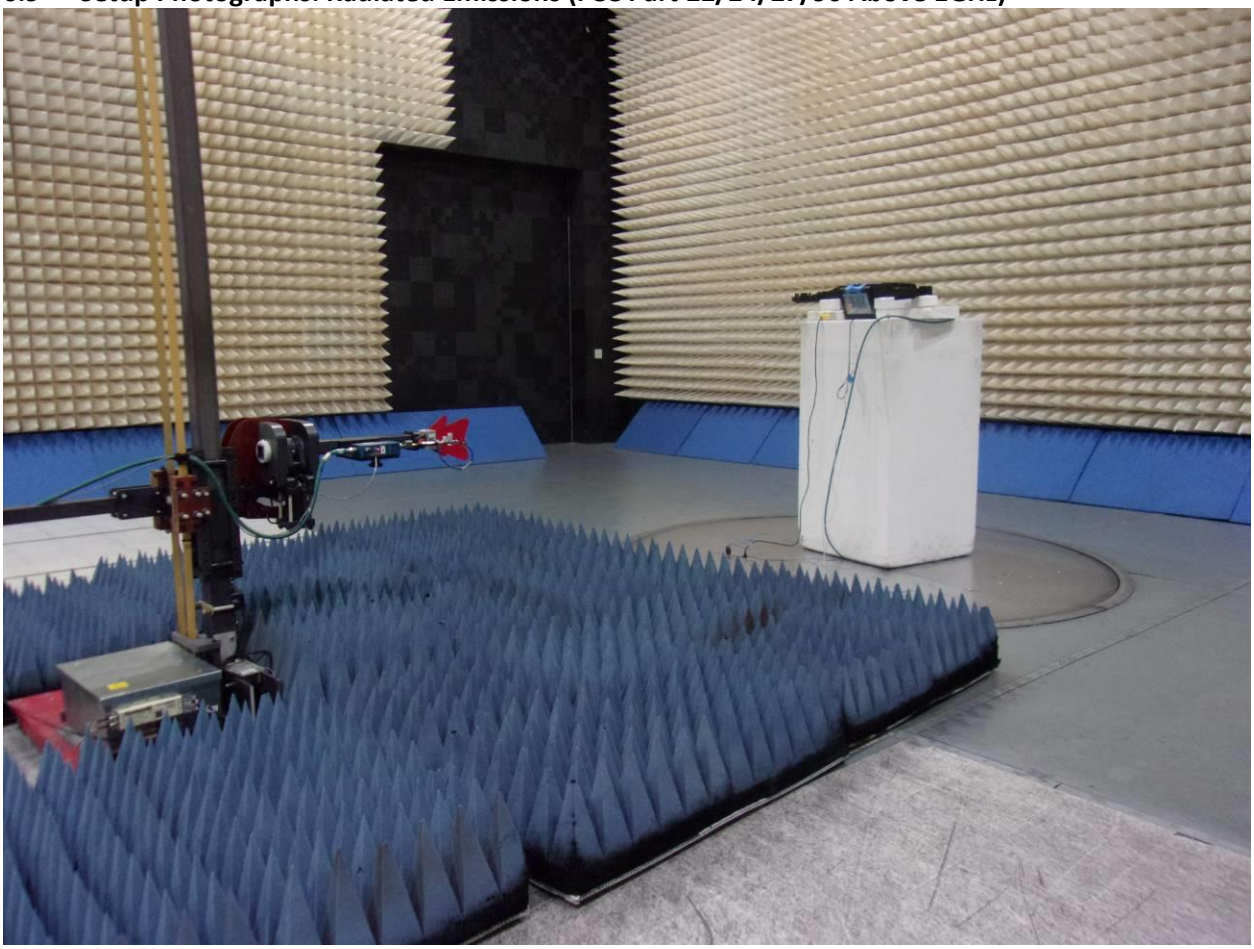
The sample tested was found to Comply.

6.7 Setup Photographs: Radiated Emissions (FCC Part 15B/22/24/27/90 Below 1GHz)

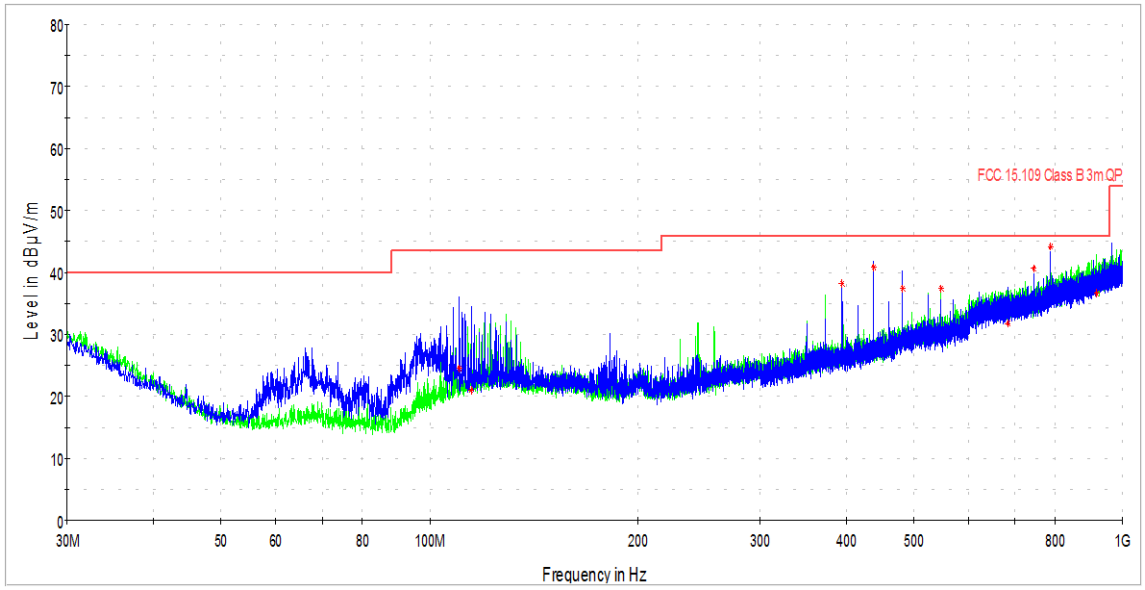


6.8 Setup Photographs: Radiated Emissions (FCC Part 15B Above 1GHz)

6.9 Setup Photographs: Radiated Emissions (FCC Part 22/24/27/90 Above 1GHz)



6.10 Plots/Data: Radiated Emissions, 30MHz – 1GHz (Transmitters Idle)

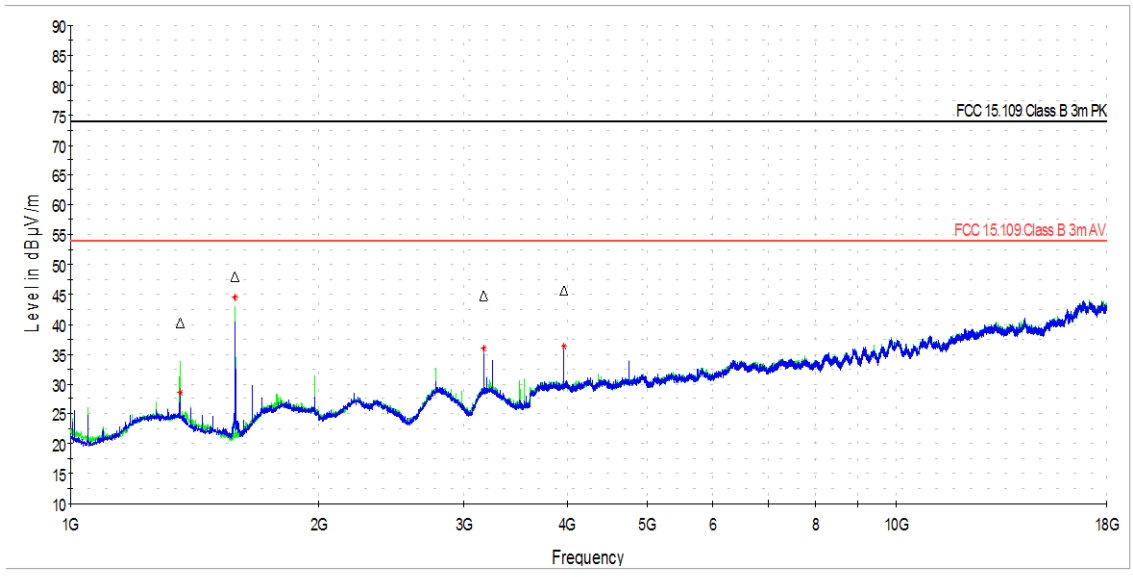


Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
110.510000	24.53	43.52	18.99	120.000	100.0	V	-1.0	21
114.875000	20.91	43.52	22.61	120.000	100.0	V	16.0	21
394.181111	38.22	46.02	7.80	120.000	104.0	V	184.0	26
437.992778	40.87	46.02	5.15	120.000	104.0	V	180.0	27
481.804444	37.39	46.02	8.63	120.000	100.0	V	202.0	29
547.495000	37.45	46.02	8.57	120.000	105.0	H	7.0	30
683.402778	31.82	46.02	14.20	120.000	238.0	V	202.0	32
744.566667	40.61	46.02	5.42	120.000	100.0	H	128.0	34
788.378333	44.25	46.02	1.77	120.000	105.0	V	252.0	34
918.412222	36.61	46.02	9.41	120.000	392.0	H	28.0	37

Test Personnel:	Bryan Taylor	Test Date:	9/10/2021
Supervising/Reviewing Engineer: (Where Applicable)	NA	Limit Applied:	Class B
Product Standard:	FCC Part 15B ICES-003 Issue 7	Ambient Temperature:	23.0 °C
Input Voltage:	12 VDC Via 120VAC to DC adapter	Relative Humidity:	54.4 %
Pretest Verification w / Ambient Signals or BB Source:	Yes	Atmospheric Pressure:	982.7 mbar

Deviations, Additions, or Exclusions: The FCC Part 15.109 limits are more stringent than the corresponding limits from ICES-003 Issue 7.

6.11 Plots/Data: Radiated Emissions, 1GHz – 18GHz (Transmitters Idle)



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1357.500000	40.22	73.98	33.76	1000.000	100.0	H	302.0	1
1584.000000	48.05	73.98	25.93	1000.000	222.0	H	0.0	0
3168.000000	44.81	73.98	29.17	1000.000	152.0	H	289.0	7
3960.000000	45.73	73.98	28.25	1000.000	204.0	V	0.0	8

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1357.500000	28.66	53.98	25.32	1000.000	100.0	H	302.0	1
1584.000000	44.56	53.98	9.42	1000.000	222.0	H	0.0	0
3168.000000	36.02	53.98	17.96	1000.000	152.0	H	289.0	7
3960.000000	36.28	53.98	17.70	1000.000	204.0	V	0.0	8

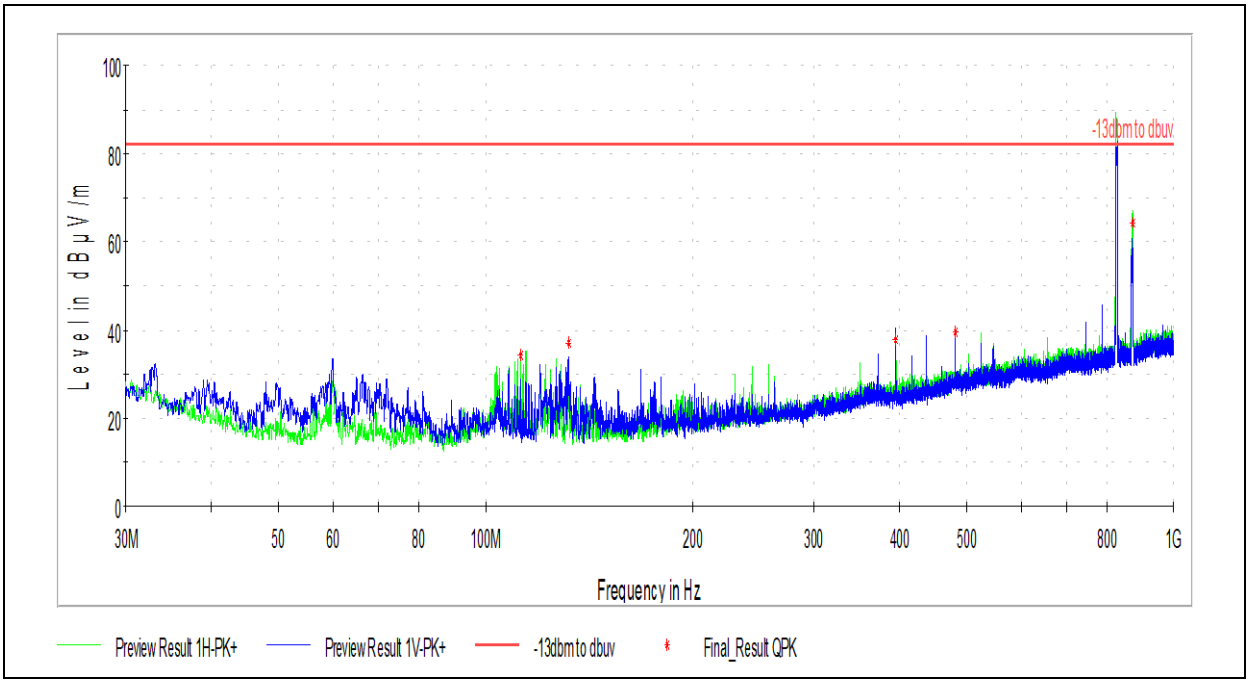
Test Personnel:	Bryan Taylor	Test Date:	9/10/2021
Supervising/Reviewing Engineer: (Where Applicable)	NA	Limit Applied:	Class B
Product Standard:	FCC Part 15B ICES-003 Issue 7	Ambient Temperature:	23.0 °C
Input Voltage:	12 VDC Via 120VAC to DC adapter	Relative Humidity:	54.4 %
Pretest Verification w / Ambient Signals or BB Source:	Yes	Atmospheric Pressure:	982.7 mbar

Deviations, Additions, or Exclusions: None

6.12 FCC Part 22 Radiated Spurious Emissions (WCDMA B5, LTE B5)

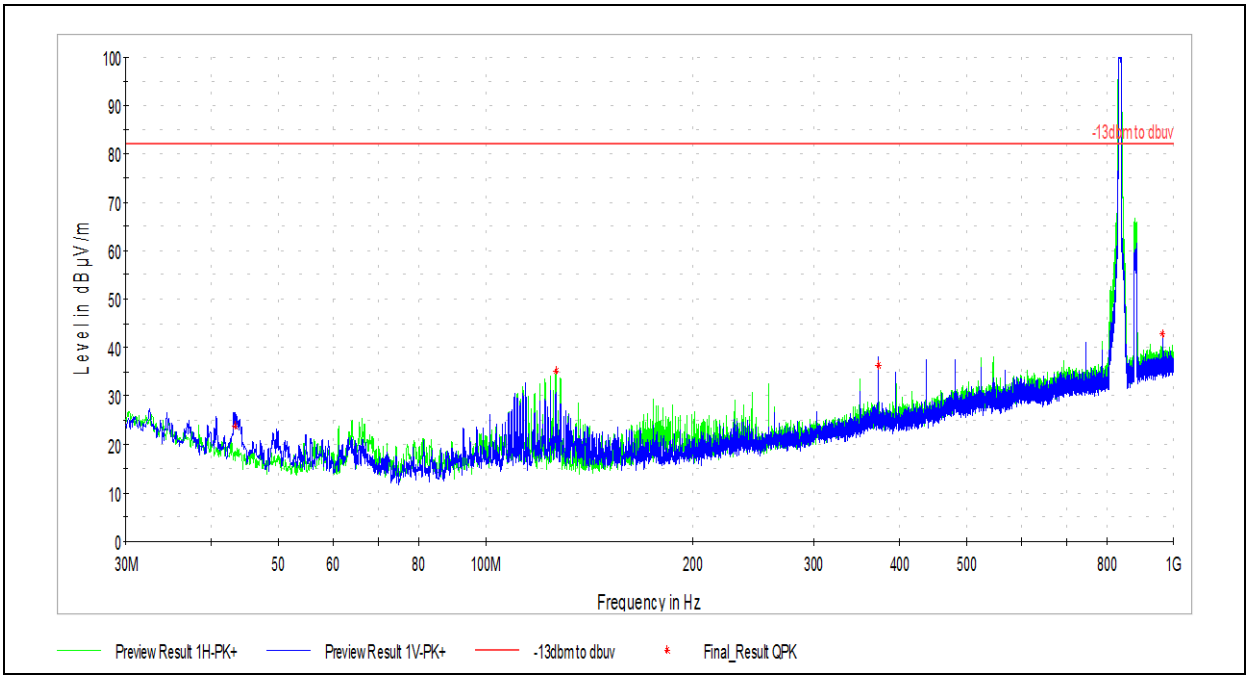
6.12.1 Radiated Spurious Emissions, 30 MHz – 1 GHz

WCDMA Band 5



Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
112.396111	34.26	82.25	47.99	120.000	164.0	H	-1.0	16
131.957778	37.11	82.25	45.14	120.000	101.0	V	0.0	16
394.127222	37.68	82.25	44.57	120.000	101.0	V	-1.0	26
481.750556	39.67	82.25	42.58	120.000	101.0	V	0.0	29
872.283333	64.38	82.25	17.87	120.000	94.0	H	-1.0	36

LTE Band 5



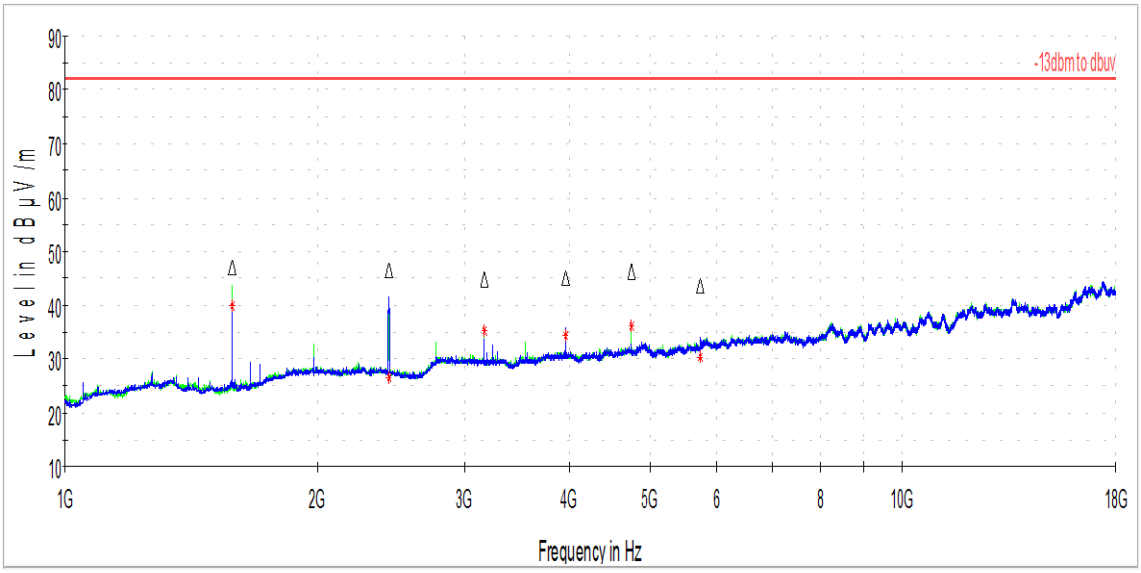
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
43.310556	23.89	82.25	58.36	120.000	100.0	V	132.0	17
126.515000	35.27	82.25	46.98	120.000	144.0	H	305.0	16
372.248333	36.37	82.25	45.88	120.000	105.0	V	332.0	26
963.517222	42.74	82.25	39.51	120.000	100.0	V	0.0	37

Test Personnel:	Ben Coolbear	Test Date:	10/11/2021
Supervising/Reviewing Engineer: (Where Applicable)	NA	Limit Applied:	-13dBm converted to field strength
Product Standard:	FCC Part 22	Ambient Temperature:	22.7 °C
Input Voltage:	12 VDC Via 120VAC to DC adapter	Relative Humidity:	68.7 %
Pretest Verification w / Ambient Signals or BB Source:	Yes	Atmospheric Pressure:	977.7 mbar

Deviations, Additions, or Exclusions: None

6.12.2 Radiated Spurious Emissions, 1 GHz – 18 GHz

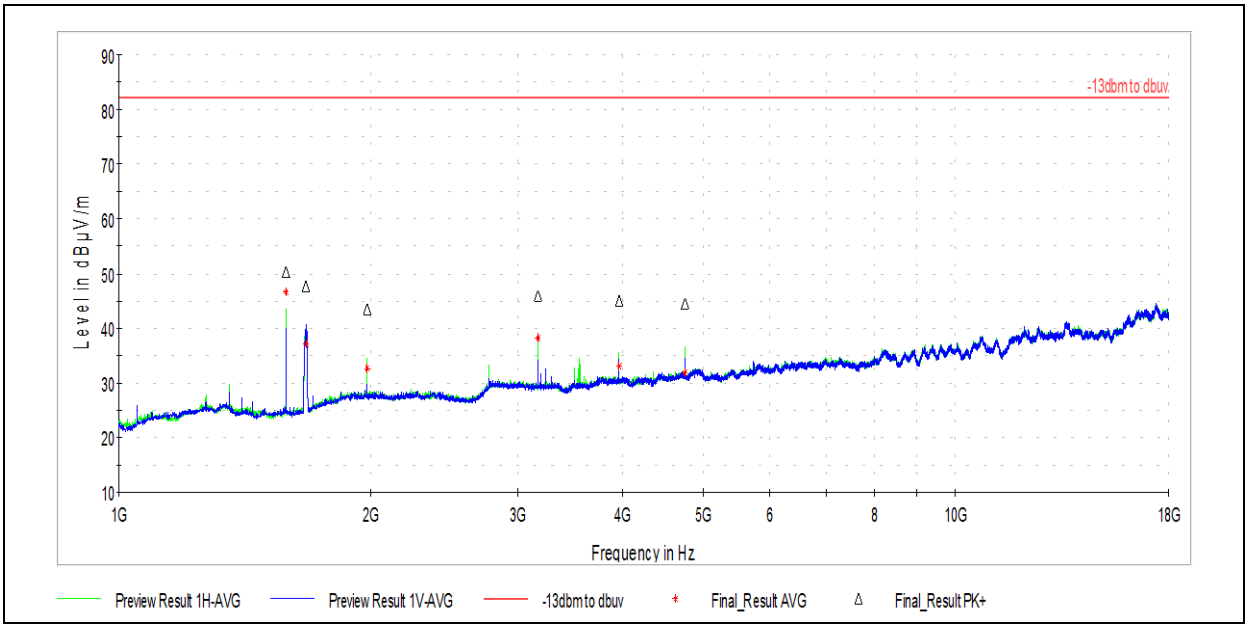
WCDMA Band 5



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1583.500000	47.00	82.25	35.25	1000.000	276.0	H	154.0	0
2438.000000	46.54	82.25	35.71	1000.000	290.0	V	34.0	5
3168.000000	44.77	82.25	37.48	1000.000	204.0	H	81.0	7
3960.000000	45.00	82.25	37.25	1000.000	216.0	V	156.0	8
4752.000000	46.13	82.25	36.12	1000.000	282.0	H	202.0	9
5740.500000	43.75	82.25	38.50	1000.000	263.0	V	60.0	11

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1583.500000	39.85	82.25	42.40	1000.000	276.0	H	154.0	0
2438.000000	26.46	82.25	55.79	1000.000	290.0	V	34.0	5
3168.000000	35.30	82.25	46.95	1000.000	204.0	H	81.0	7
3960.000000	34.36	82.25	47.89	1000.000	216.0	V	156.0	8
4752.000000	36.16	82.25	46.09	1000.000	282.0	H	202.0	9
5740.500000	30.19	82.25	52.06	1000.000	263.0	V	60.0	11

LTE Band 5



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1584.000000	50.23	82.25	32.02	1000.000	280.0	H	157.0	0
1673.500000	47.64	82.25	34.61	1000.000	339.0	V	144.0	1
1980.000000	43.62	82.25	38.63	1000.000	256.0	H	133.0	4
3168.000000	46.08	82.25	36.17	1000.000	203.0	H	92.0	7
3960.000000	44.95	82.25	37.30	1000.000	328.0	V	134.0	8
4752.000000	44.45	82.25	37.80	1000.000	228.0	H	191.0	9

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1584.000000	46.67	82.25	35.58	1000.000	280.0	H	157.0	0
1673.500000	37.19	82.25	45.06	1000.000	339.0	V	144.0	1
1980.000000	32.64	82.25	49.61	1000.000	256.0	H	133.0	4
3168.000000	38.18	82.25	44.07	1000.000	203.0	H	92.0	7
3960.000000	33.01	82.25	49.24	1000.000	328.0	V	134.0	8
4752.000000	31.78	82.25	50.47	1000.000	228.0	H	191.0	9

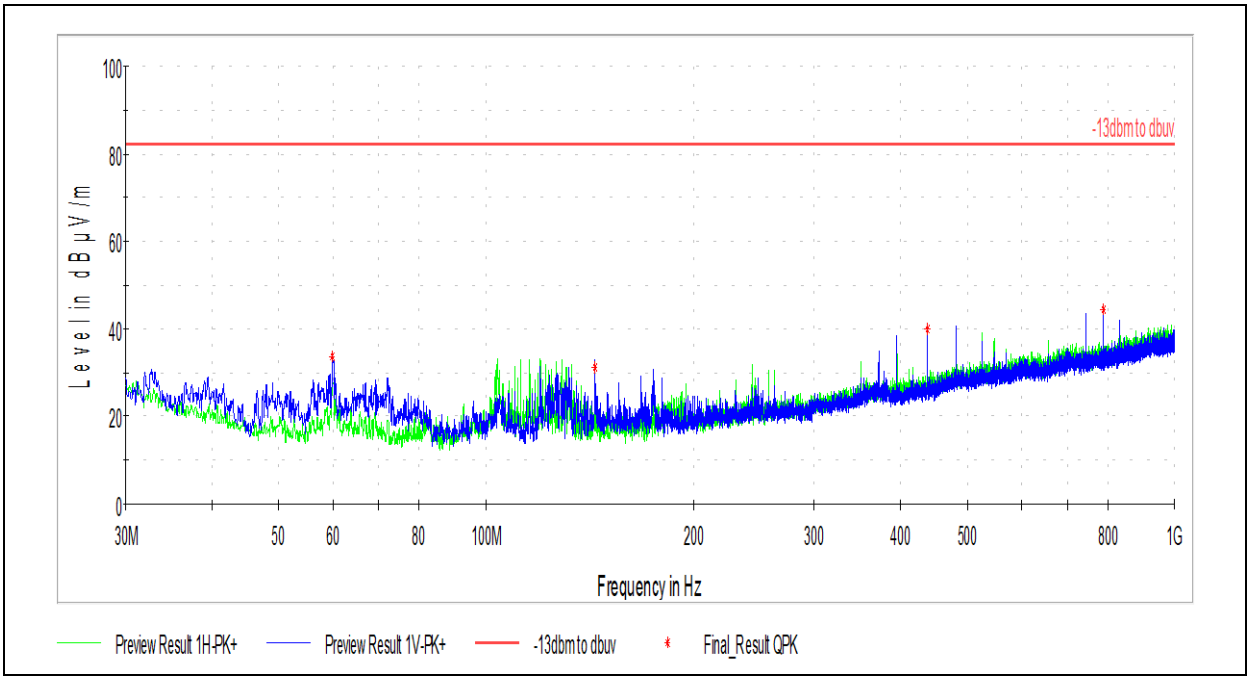
Test Personnel:	Ben Coolbear	Test Date:	10/12/2021
Supervising/Reviewing Engineer: (Where Applicable)	NA	Limit Applied:	-13dBm converted to field strength
Product Standard:	FCC Part 22	Ambient Temperature:	22.7 °C
Input Voltage:	12 VDC Via 120VAC to DC adapter	Relative Humidity:	68.7 %
Pretest Verification w / Ambient Signals or BB Source:	Yes	Atmospheric Pressure:	977.7 mbar

Deviations, Additions, or Exclusions: None

6.13 FCC Part 24 Radiated Spurious Emissions (WCDMA B2, LTE B2/B25)

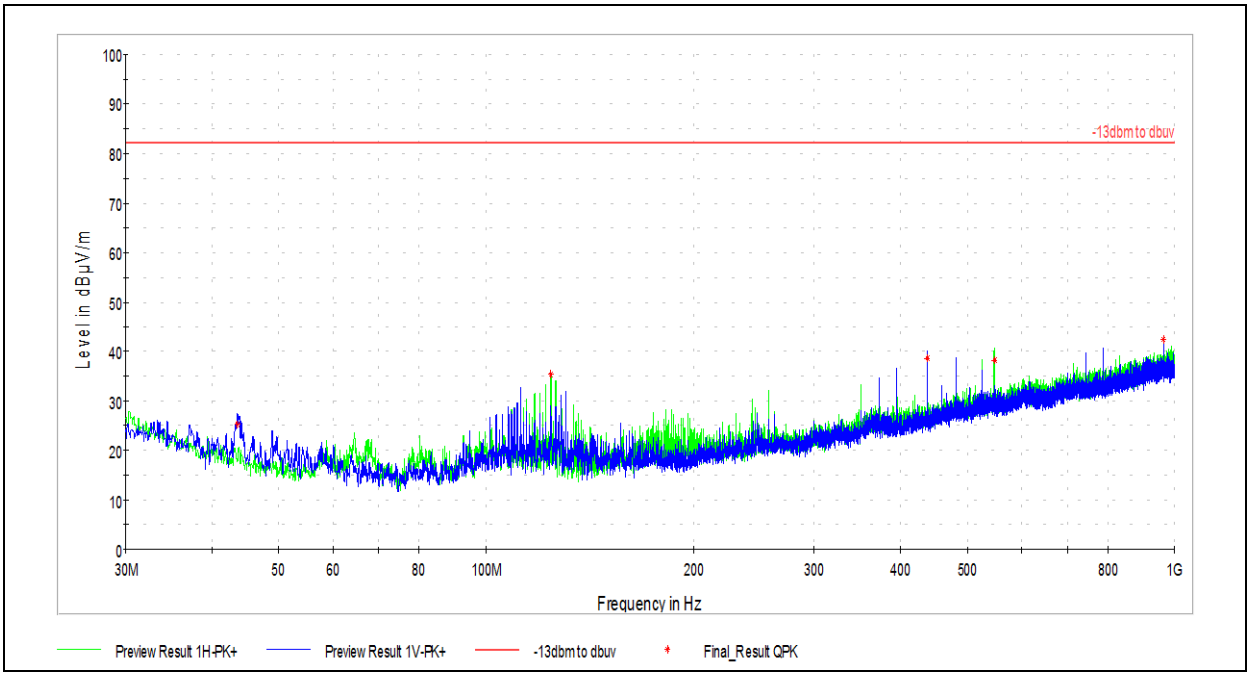
6.13.1 Radiated Spurious Emissions, 30 MHz – 1 GHz

WCDMA Band 2



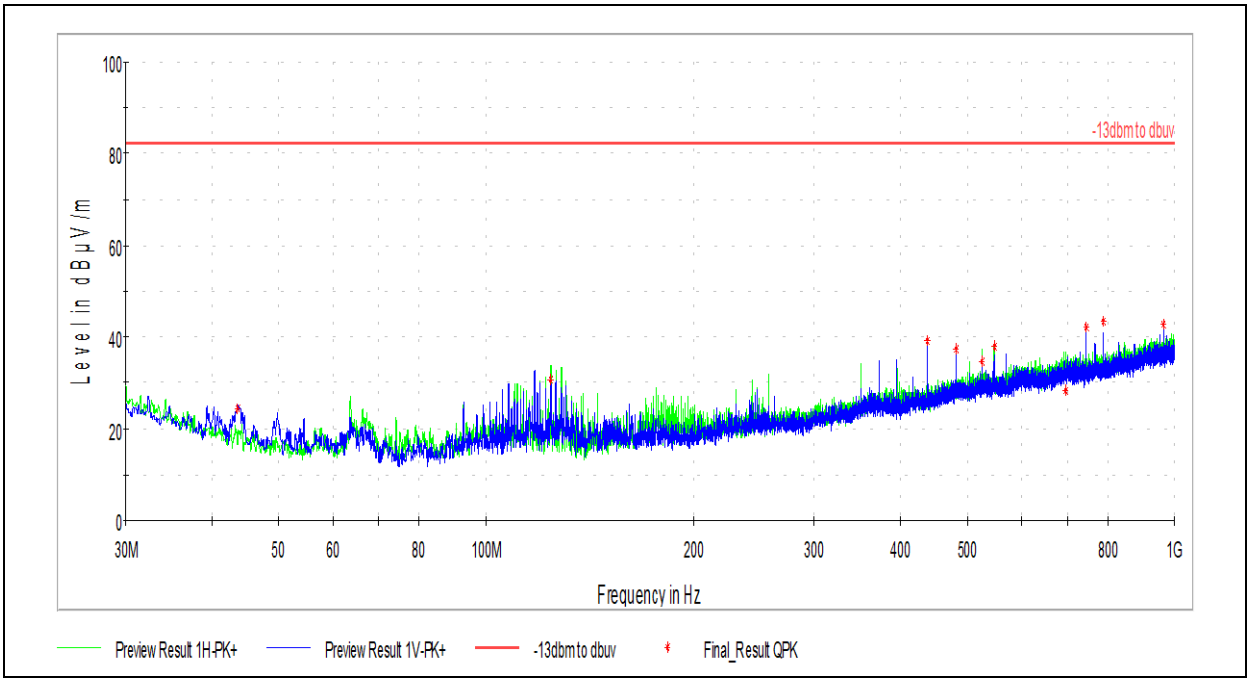
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
59.908333	33.54	82.25	48.71	120.000	100.0	V	227.0	15
143.921111	31.21	82.25	51.04	120.000	100.0	V	278.0	17
437.938889	39.94	82.25	42.31	120.000	100.0	V	6.0	27
788.324444	44.41	82.25	37.84	120.000	100.0	V	98.0	34

LTE Band 2



Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
43.580000	25.24	82.25	57.01	120.000	100.0	V	155.0	17
124.305556	35.43	82.25	46.82	120.000	145.0	H	312.0	16
437.938889	38.68	82.25	43.57	120.000	100.0	V	335.0	27
547.441111	38.17	82.25	44.08	120.000	100.0	H	251.0	31
963.517222	42.46	82.25	39.79	120.000	100.0	V	0.0	37

LTE Band 25



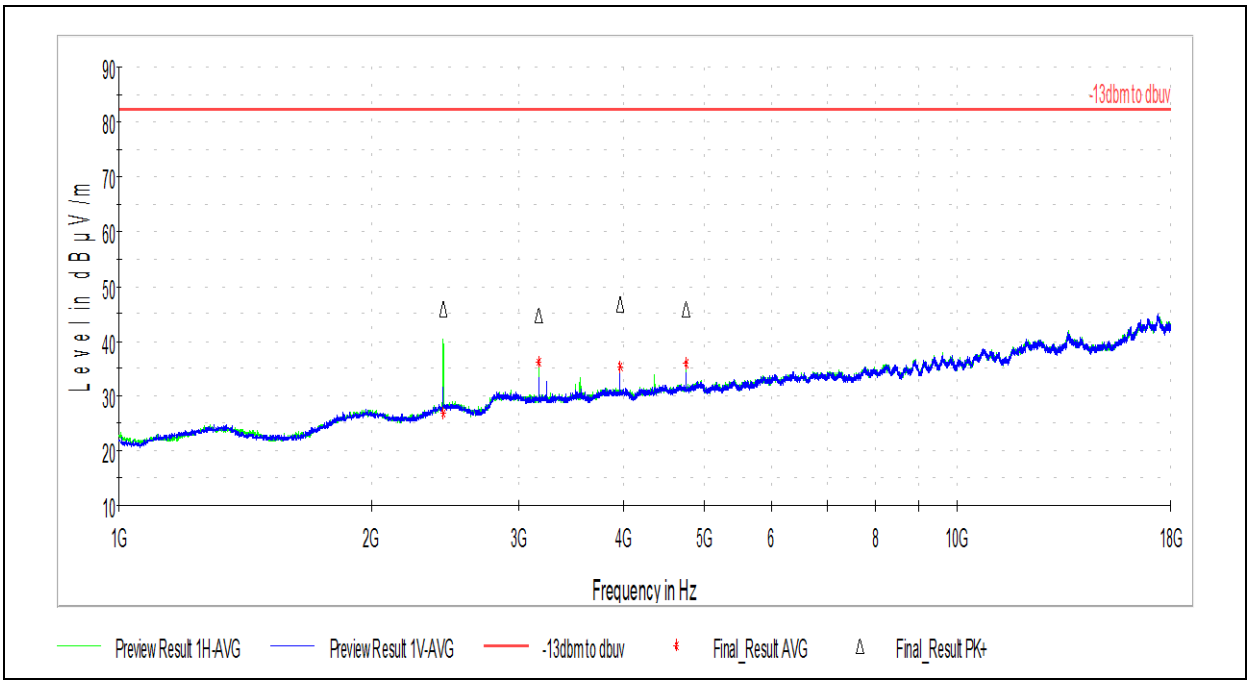
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
43.741667	24.46	82.25	57.79	120.000	100.0	V	186.0	17
126.515000	35.92	82.25	46.33	120.000	145.0	H	312.0	16
437.938889	39.00	82.25	43.25	120.000	100.0	V	334.0	27
744.566667	42.77	82.25	39.48	120.000	105.0	V	50.0	33
963.517222	42.95	82.25	39.30	120.000	100.0	V	0.0	37

Test Personnel:	Ben Coolbear	Test Date:	10/11/2021
Supervising/Reviewing Engineer: (Where Applicable)	NA	Limit Applied:	-13dBm converted to field strength
Product Standard:	FCC Part 24	Ambient Temperature:	21.3 °C
Input Voltage:	12 VDC Via 120VAC to DC adapter	Relative Humidity:	60.5 %
Pretest Verification w / Ambient Signals or BB Source:	Yes	Atmospheric Pressure:	9838 mbar

Deviations, Additions, or Exclusions: None

6.13.2 Radiated Spurious Emissions, 1 GHz – 18 GHz

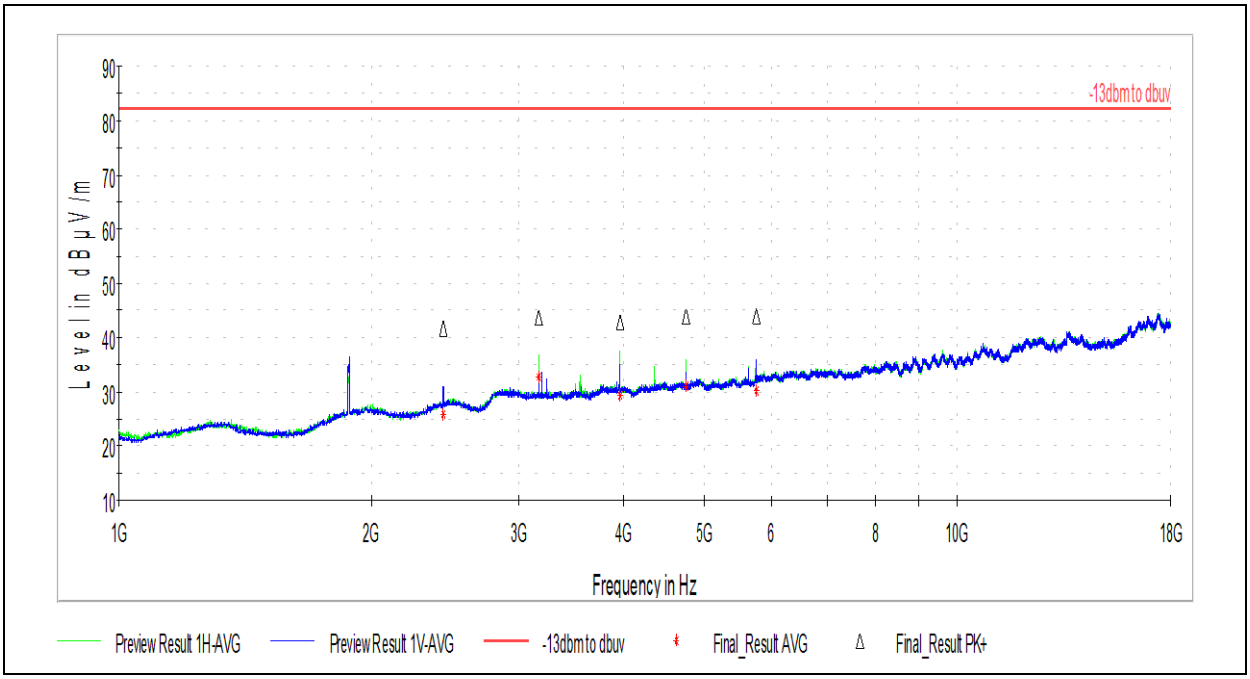
WCDMA Band 2



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2438.500000	45.77	82.25	36.48	1000.000	283.0	H	45.0	6
3168.000000	44.75	82.25	37.50	1000.000	201.0	H	86.0	7
3960.000000	46.62	82.25	35.63	1000.000	220.0	V	154.0	8
4752.000000	45.83	82.25	36.42	1000.000	282.0	H	202.0	9

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2438.500000	26.71	82.25	55.54	1000.000	283.0	H	45.0	6
3168.000000	36.11	82.25	46.14	1000.000	201.0	H	86.0	7
3960.000000	35.38	82.25	46.87	1000.000	220.0	V	154.0	8
4752.000000	35.90	82.25	46.35	1000.000	282.0	H	202.0	9

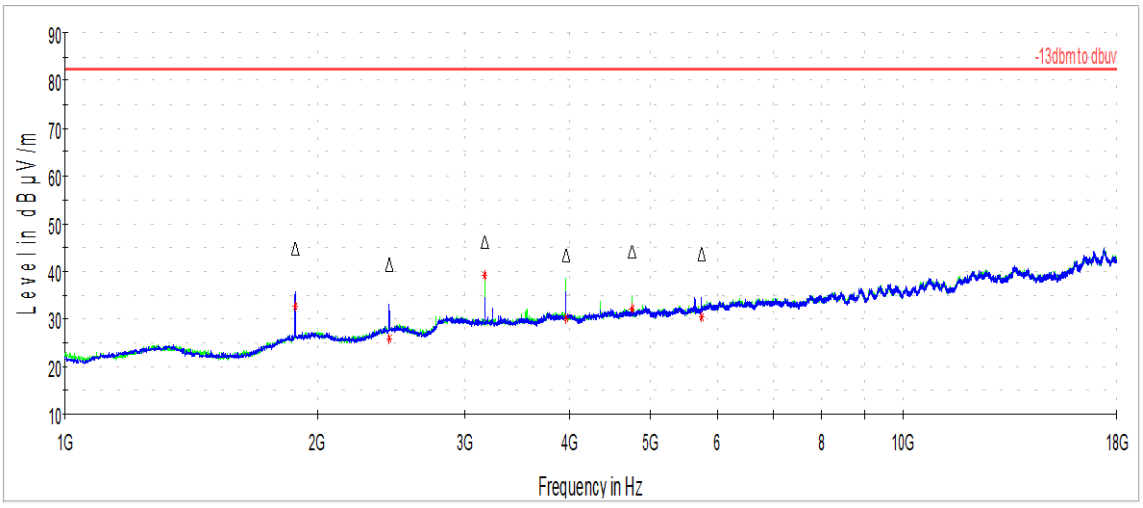
LTE Band 2



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2438.500000	41.71	82.25	40.54	1000.000	381.0	V	-1.0	5
3167.500000	43.75	82.25	38.50	1000.000	203.0	H	90.0	7
3960.000000	42.67	82.25	39.58	1000.000	290.0	H	156.0	8
4751.500000	43.86	82.25	38.39	1000.000	228.0	H	191.0	9
5761.500000	43.95	82.25	38.30	1000.000	100.0	V	14.0	11

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2438.500000	25.95	82.25	56.30	1000.000	381.0	V	-1.0	5
3167.500000	32.76	82.25	49.49	1000.000	203.0	H	90.0	7
3960.000000	29.26	82.25	52.99	1000.000	290.0	H	156.0	8
4751.500000	30.91	82.25	51.34	1000.000	228.0	H	191.0	9
5761.500000	30.21	82.25	52.04	1000.000	100.0	V	14.0	11

LTE Band 25



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1881.500000	44.84	82.25	37.41	1000.000	262.0	V	166.0	4
2436.000000	41.31	82.25	40.94	1000.000	305.0	V	341.0	5
3168.000000	46.32	82.25	35.93	1000.000	241.0	H	92.0	7
3960.000000	43.42	82.25	38.83	1000.000	272.0	H	156.0	8
4752.000000	44.29	82.25	37.96	1000.000	235.0	H	191.0	9
5750.500000	43.60	82.25	38.65	1000.000	100.0	V	131.0	11

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1881.500000	32.61	82.25	49.64	1000.000	262.0	V	166.0	4
2436.000000	25.90	82.25	56.35	1000.000	305.0	V	341.0	5
3168.000000	39.01	82.25	43.24	1000.000	241.0	H	92.0	7
3960.000000	30.10	82.25	52.15	1000.000	272.0	H	156.0	8
4752.000000	32.10	82.25	50.15	1000.000	235.0	H	191.0	9
5750.500000	30.25	82.25	52.00	1000.000	100.0	V	131.0	11

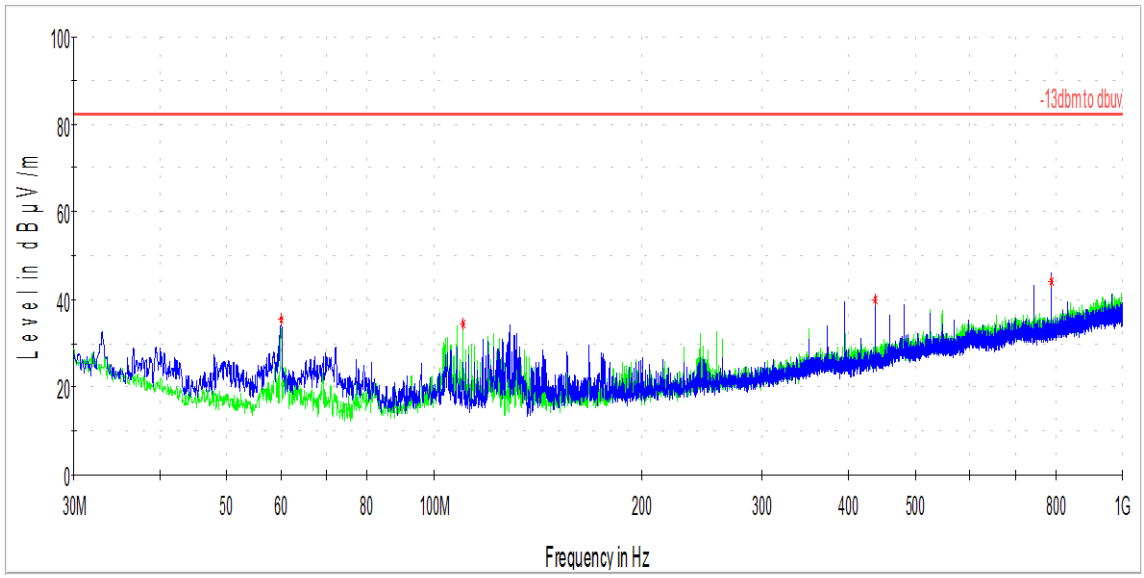
Test Personnel:	Ben Coolbear	Test Date:	10/12/2021
Supervising/Reviewing Engineer: (Where Applicable)	NA	Limit Applied:	-13dBm converted to field strength
Product Standard:	FCC Part 24	Ambient Temperature:	21.3 °C
Input Voltage:	12 VDC Via 120VAC to DC adapter	Relative Humidity:	60.5 %
Pretest Verification w / Ambient Signals or BB Source:	Yes	Atmospheric Pressure:	9838 mbar

Deviations, Additions, or Exclusions: None

6.14 FCC Part 27 Radiated Spurious Emissions (WCDMA B4, LTE B4/B7/B12/B13/B30/B41/B66)

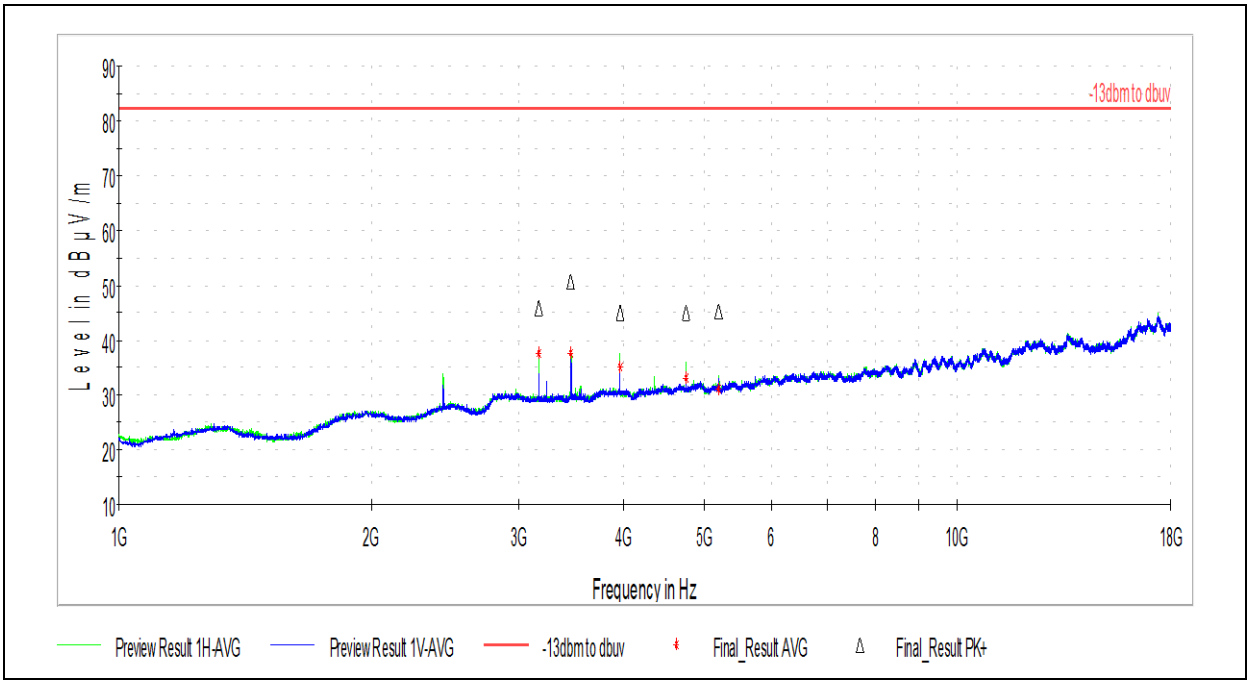
6.14.1 Radiated Spurious Emissions, 30 MHz – 1 GHz

WCDMA Band 4



Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
60.016111	35.52	82.25	46.73	120.000	100.0	V	236.0	15
110.240556	34.54	82.25	47.71	120.000	164.0	H	-2.0	16
437.938889	40.02	82.25	42.23	120.000	100.0	V	0.0	27
788.378333	44.24	82.25	38.01	120.000	100.0	V	93.0	34

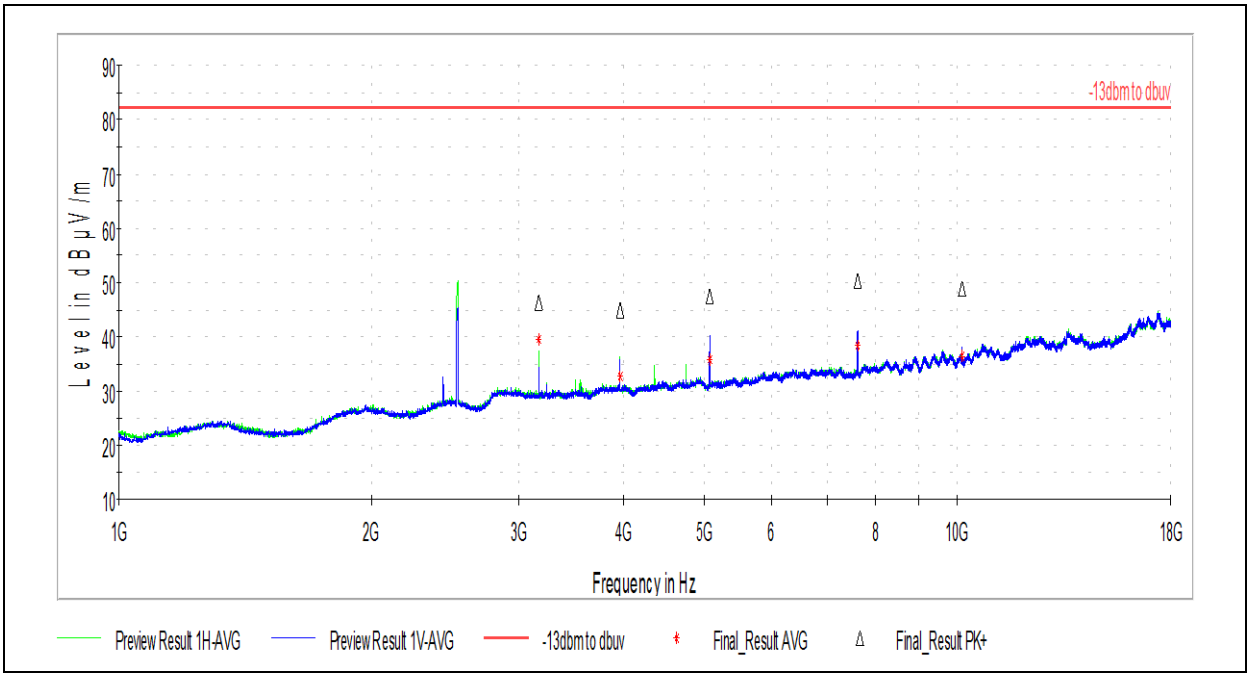
LTE Band 4



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3168.000000	45.93	82.25	36.32	1000.000	205.0	H	90.0	7
3459.000000	50.59	82.25	31.66	1000.000	144.0	H	236.0	7
3960.000000	45.04	82.25	37.21	1000.000	358.0	H	158.0	8
4752.000000	44.96	82.25	37.29	1000.000	245.0	H	192.0	9
5198.000000	45.25	82.25	37.00	1000.000	374.0	H	143.0	10

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3168.000000	37.73	82.25	44.52	1000.000	205.0	H	90.0	7
3459.000000	37.55	82.25	44.70	1000.000	144.0	H	236.0	7
3960.000000	35.03	82.25	47.22	1000.000	358.0	H	158.0	8
4752.000000	32.96	82.25	49.29	1000.000	245.0	H	192.0	9
5198.000000	31.18	82.25	51.07	1000.000	374.0	H	143.0	10

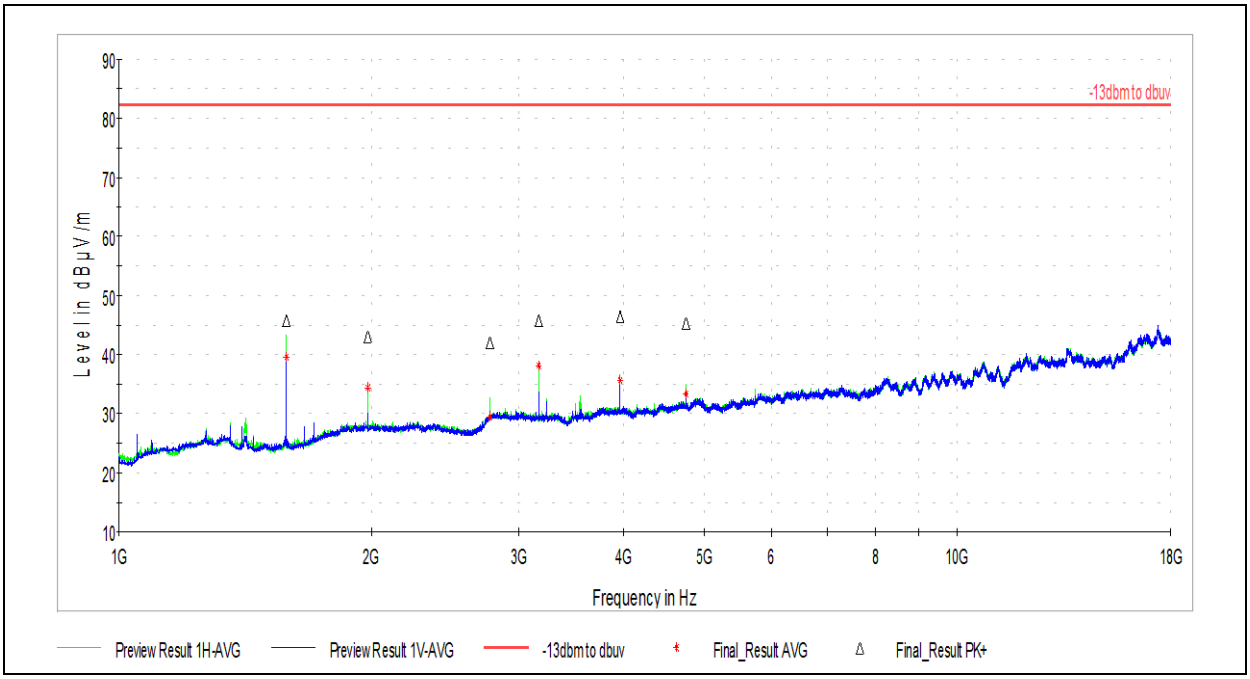
LTE Band 7



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3168.000000	46.34	82.25	35.91	1000.000	238.0	H	101.0	7
3960.000000	44.85	82.25	37.40	1000.000	277.0	H	156.0	8
5070.500000	47.57	82.25	34.68	1000.000	268.0	V	163.0	9
7609.000000	50.26	82.25	31.99	1000.000	266.0	V	129.0	13
10140.000000	49.00	82.25	33.25	1000.000	328.0	V	181.0	17

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3168.000000	39.49	82.25	42.76	1000.000	238.0	H	101.0	7
3960.000000	32.60	82.25	49.65	1000.000	277.0	H	156.0	8
5070.500000	35.75	82.25	46.50	1000.000	268.0	V	163.0	9
7609.000000	38.25	82.25	44.00	1000.000	266.0	V	129.0	13
10140.000000	36.33	82.25	45.92	1000.000	328.0	V	181.0	17

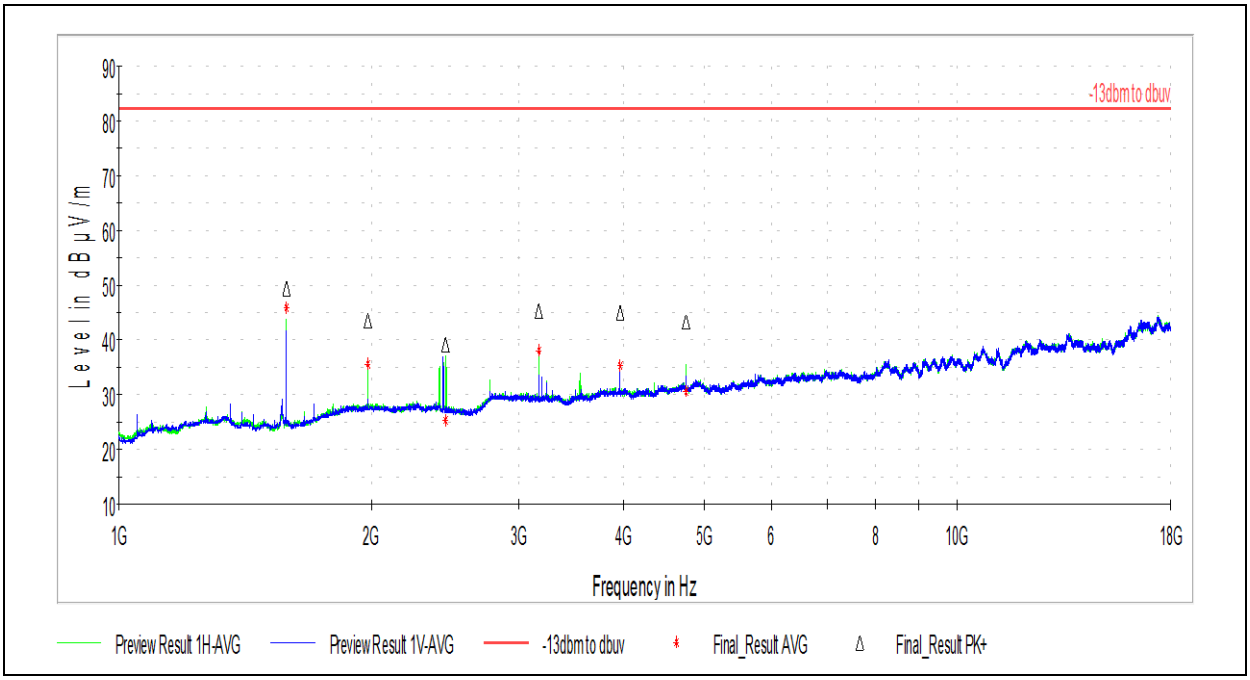
LTE Band 12



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1583.500000	45.69	82.25	36.56	1000.000	281.0	H	146.0	0
1980.000000	43.14	82.25	39.11	1000.000	257.0	H	140.0	4
2771.500000	42.02	82.25	40.23	1000.000	274.0	H	146.0	6
3168.000000	45.76	82.25	36.49	1000.000	202.0	H	92.0	7
3960.000000	46.28	82.25	35.97	1000.000	274.0	H	98.0	8
4752.000000	45.29	82.25	36.96	1000.000	239.0	H	194.0	9

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1583.500000	39.53	82.25	42.72	1000.000	281.0	H	146.0	0
1980.000000	34.31	82.25	47.94	1000.000	257.0	H	140.0	4
2771.500000	29.35	82.25	52.90	1000.000	274.0	H	146.0	6
3168.000000	38.20	82.25	44.05	1000.000	202.0	H	92.0	7
3960.000000	35.60	82.25	46.65	1000.000	274.0	H	98.0	8
4752.000000	33.30	82.25	48.95	1000.000	239.0	H	194.0	9

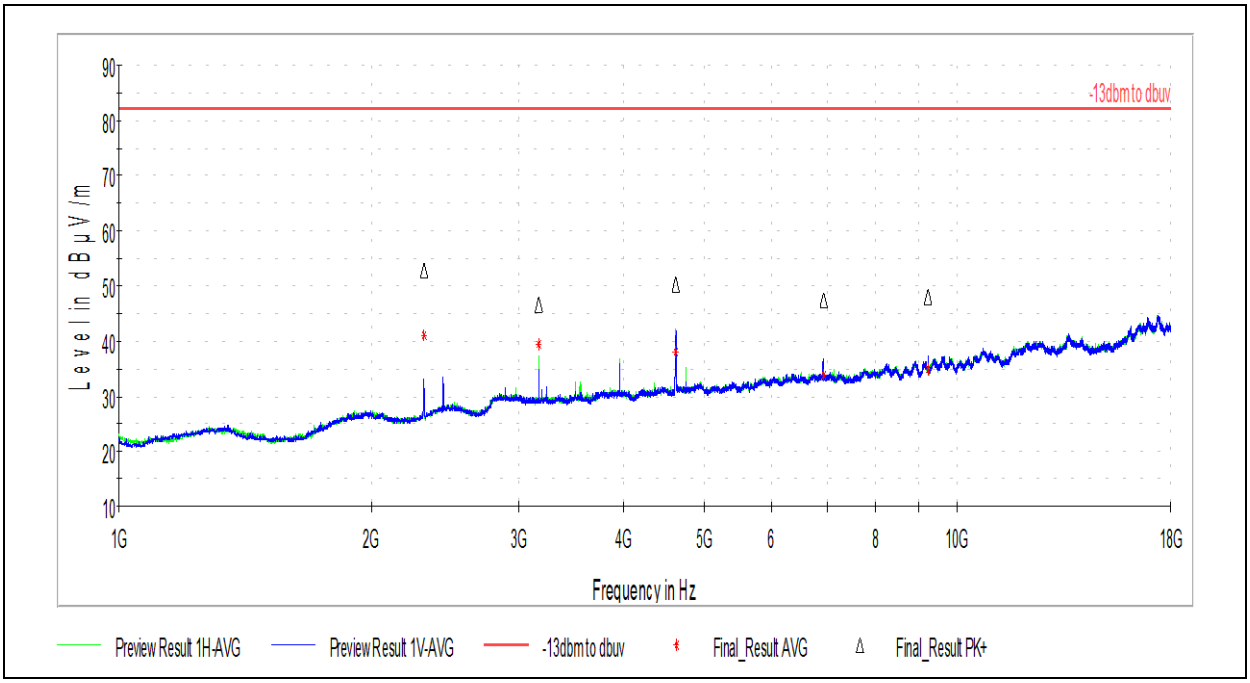
LTE Band 13



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1584.000000	49.43	82.25	32.82	1000.000	275.0	H	155.0	0
1980.000000	43.48	82.25	38.77	1000.000	293.0	H	144.0	4
2453.500000	39.05	82.25	43.20	1000.000	100.0	H	84.0	5
3168.000000	45.41	82.25	36.84	1000.000	186.0	H	92.0	7
3960.000000	44.96	82.25	37.29	1000.000	262.0	H	158.0	8
4752.000000	43.20	82.25	39.05	1000.000	230.0	H	144.0	9

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1584.000000	45.77	82.25	36.48	1000.000	275.0	H	155.0	0
1980.000000	35.47	82.25	46.78	1000.000	293.0	H	144.0	4
2453.500000	25.23	82.25	57.02	1000.000	100.0	H	84.0	5
3168.000000	38.04	82.25	44.21	1000.000	186.0	H	92.0	7
3960.000000	35.18	82.25	47.07	1000.000	262.0	H	158.0	8
4752.000000	30.47	82.25	51.78	1000.000	230.0	H	144.0	9

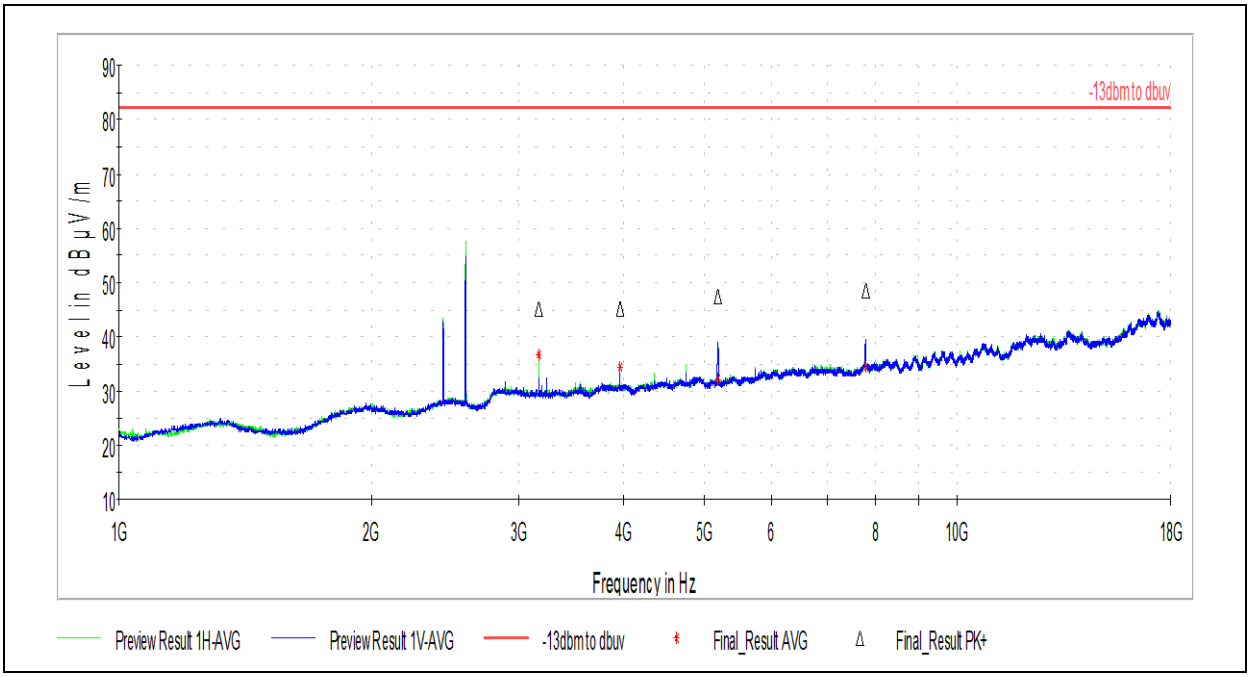
LTE Band 30



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2313.500000	52.69	82.25	29.56	1000.000	209.0	V	156.0	5
3168.000000	46.61	82.25	35.64	1000.000	245.0	H	92.0	7
4615.000000	50.31	82.25	31.94	1000.000	190.0	H	131.0	9
6936.000000	47.54	82.25	34.71	1000.000	247.0	V	105.0	13
9240.500000	48.06	82.25	34.19	1000.000	236.0	V	142.0	15

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2313.500000	41.07	82.25	41.18	1000.000	209.0	V	156.0	5
3168.000000	39.43	82.25	42.82	1000.000	245.0	H	92.0	7
4615.000000	37.90	82.25	44.35	1000.000	190.0	H	131.0	9
6936.000000	33.69	82.25	48.56	1000.000	247.0	V	105.0	13
9240.500000	34.95	82.25	47.30	1000.000	236.0	V	142.0	15

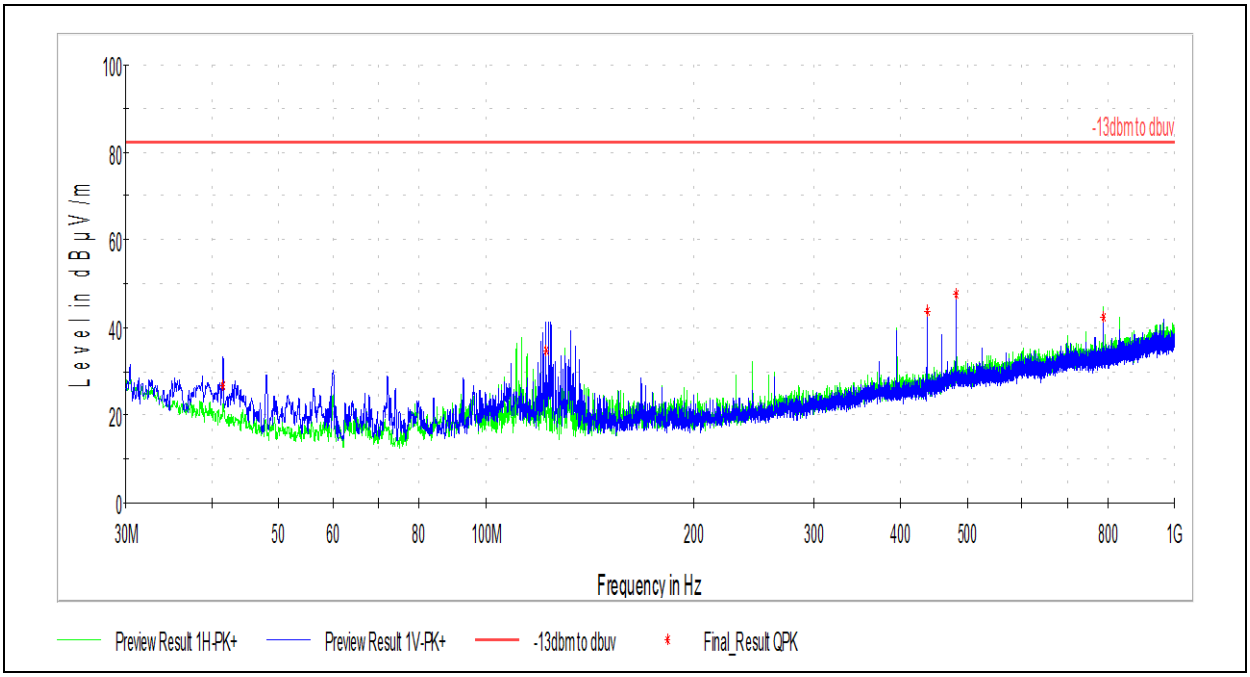
LTE Band 41



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3168.000000	45.14	82.25	37.11	1000.000	202.0	H	90.0	7
3960.000000	45.23	82.25	37.02	1000.000	319.0	V	252.0	8
5188.500000	47.47	82.25	34.78	1000.000	312.0	V	179.0	10
7781.000000	48.63	82.25	33.62	1000.000	280.0	V	129.0	14

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3168.000000	36.75	82.25	45.50	1000.000	202.0	H	90.0	7
3960.000000	34.31	82.25	47.94	1000.000	319.0	V	252.0	8
5188.500000	32.06	82.25	50.19	1000.000	312.0	V	179.0	10
7781.000000	34.28	82.25	47.97	1000.000	280.0	V	129.0	14

LTE Band 66



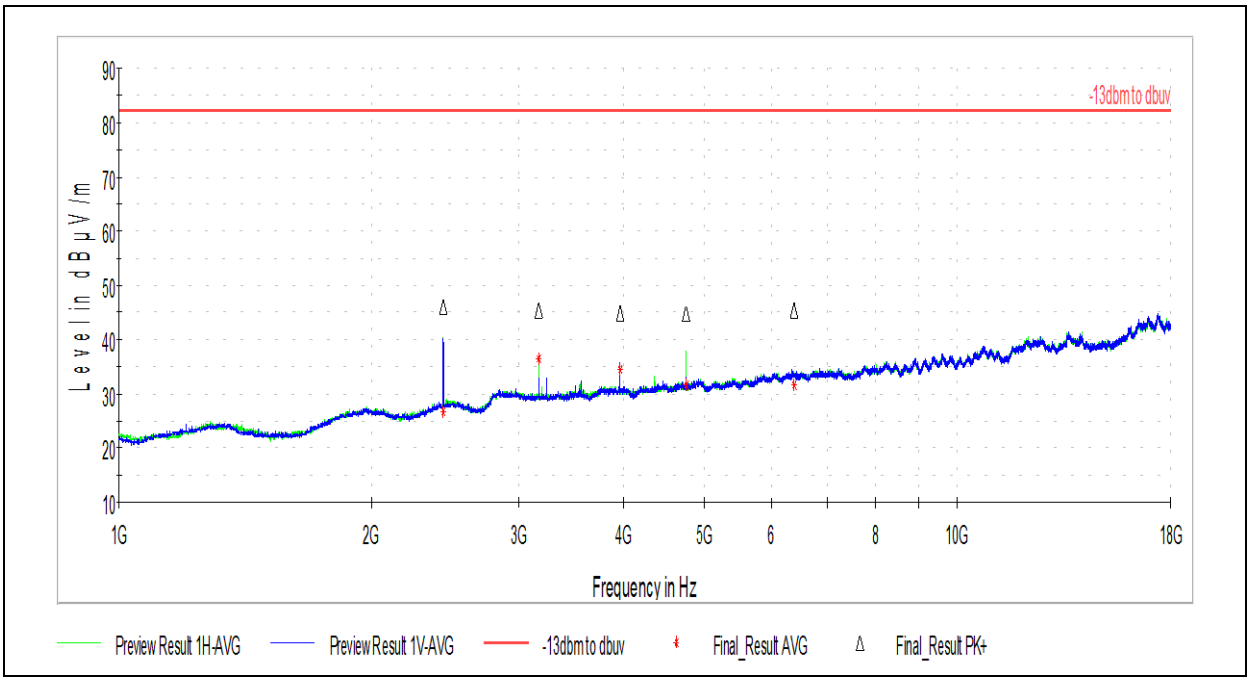
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
41.532222	26.80	82.25	55.45	120.000	100.0	V	233.0	17
122.257778	34.56	82.25	47.69	120.000	99.0	V	80.0	16
437.938889	43.61	82.25	38.64	120.000	105.0	V	0.0	27
481.750556	47.64	82.25	34.61	120.000	100.0	V	7.0	29
788.324444	42.36	82.25	39.89	120.000	100.0	H	292.0	35

Test Personnel:	Ben Coolbear, Michael Carlson	Test Date:	10/27/2021
Supervising/Reviewing Engineer: (Where Applicable)	NA	Limit Applied:	-13dBm converted to field strength
Product Standard:	FCC Part 27	Ambient Temperature:	21.3 °C
Input Voltage:	12 VDC Via 120VAC to DC adapter	Relative Humidity:	60.5 %
Pretest Verification w / Ambient Signals or BB Source:	Yes	Atmospheric Pressure:	9838 mbar

Deviations, Additions, or Exclusions: None

6.14.2 Radiated Spurious Emissions, 1 GHz – 18 GHz

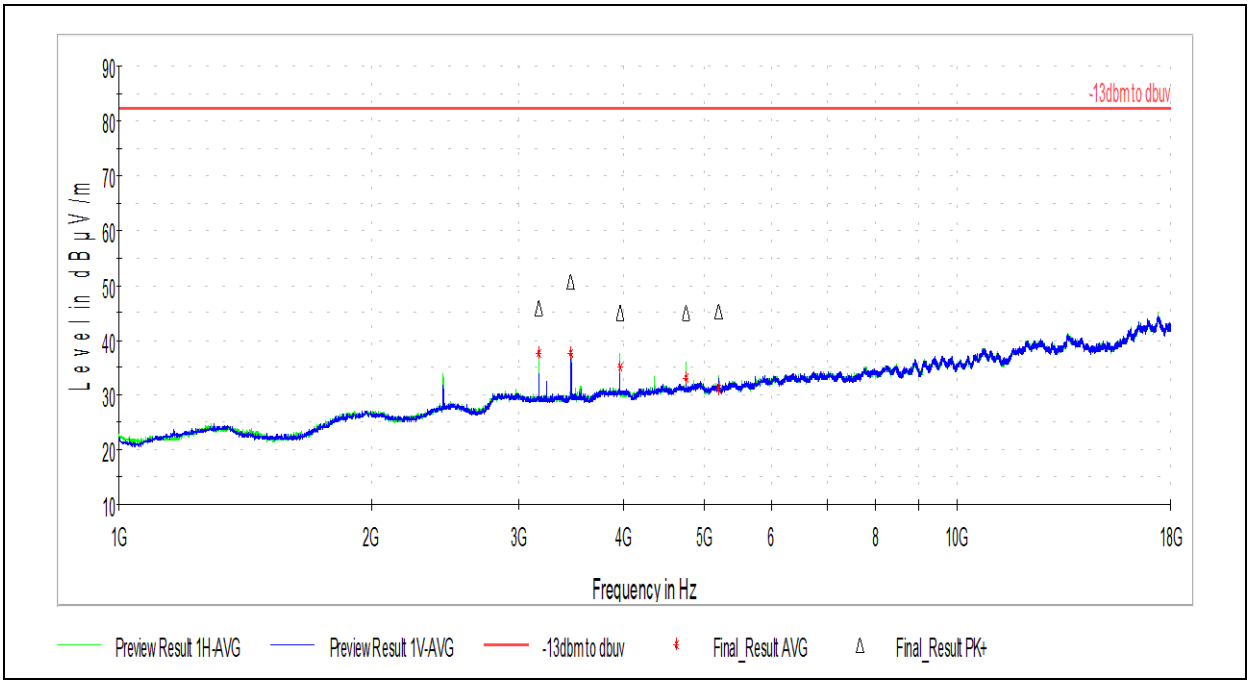
WCDMA Band 4



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2438.500000	45.86	82.25	36.39	1000.000	303.0	H	316.0	6
3168.000000	45.46	82.25	36.79	1000.000	237.0	H	95.0	7
3960.000000	44.80	82.25	37.45	1000.000	216.0	V	157.0	8
4752.000000	44.91	82.25	37.34	1000.000	253.0	H	192.0	9
6393.000000	45.33	82.25	36.92	1000.000	316.0	H	131.0	12

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2438.500000	26.78	82.25	55.47	1000.000	303.0	H	316.0	6
3168.000000	36.56	82.25	45.69	1000.000	237.0	H	95.0	7
3960.000000	34.32	82.25	47.93	1000.000	216.0	V	157.0	8
4752.000000	31.65	82.25	50.60	1000.000	253.0	H	192.0	9
6393.000000	31.61	82.25	50.64	1000.000	316.0	H	131.0	12

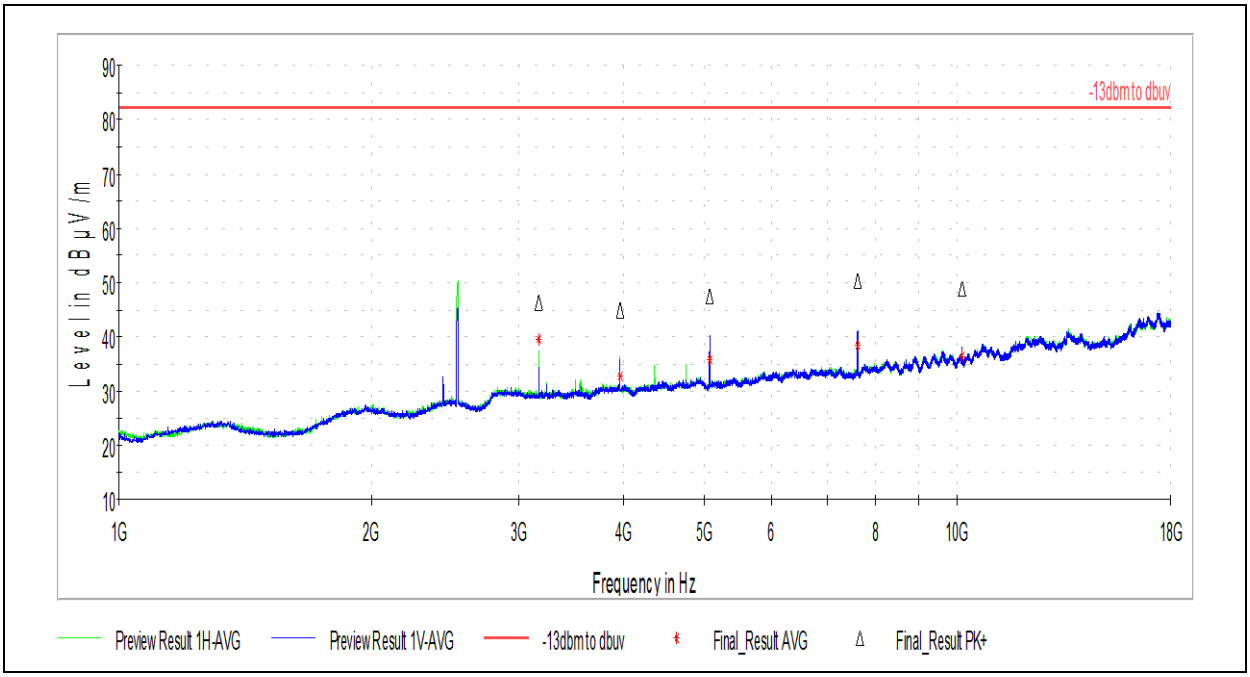
LTE Band 4



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3168.000000	45.93	82.25	36.32	1000.000	205.0	H	90.0	7
3459.000000	50.59	82.25	31.66	1000.000	144.0	H	236.0	7
3960.000000	45.04	82.25	37.21	1000.000	358.0	H	158.0	8
4752.000000	44.96	82.25	37.29	1000.000	245.0	H	192.0	9
5198.000000	45.25	82.25	37.00	1000.000	374.0	H	143.0	10

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3168.000000	37.73	82.25	44.52	1000.000	205.0	H	90.0	7
3459.000000	37.55	82.25	44.70	1000.000	144.0	H	236.0	7
3960.000000	35.03	82.25	47.22	1000.000	358.0	H	158.0	8
4752.000000	32.96	82.25	49.29	1000.000	245.0	H	192.0	9
5198.000000	31.18	82.25	51.07	1000.000	374.0	H	143.0	10

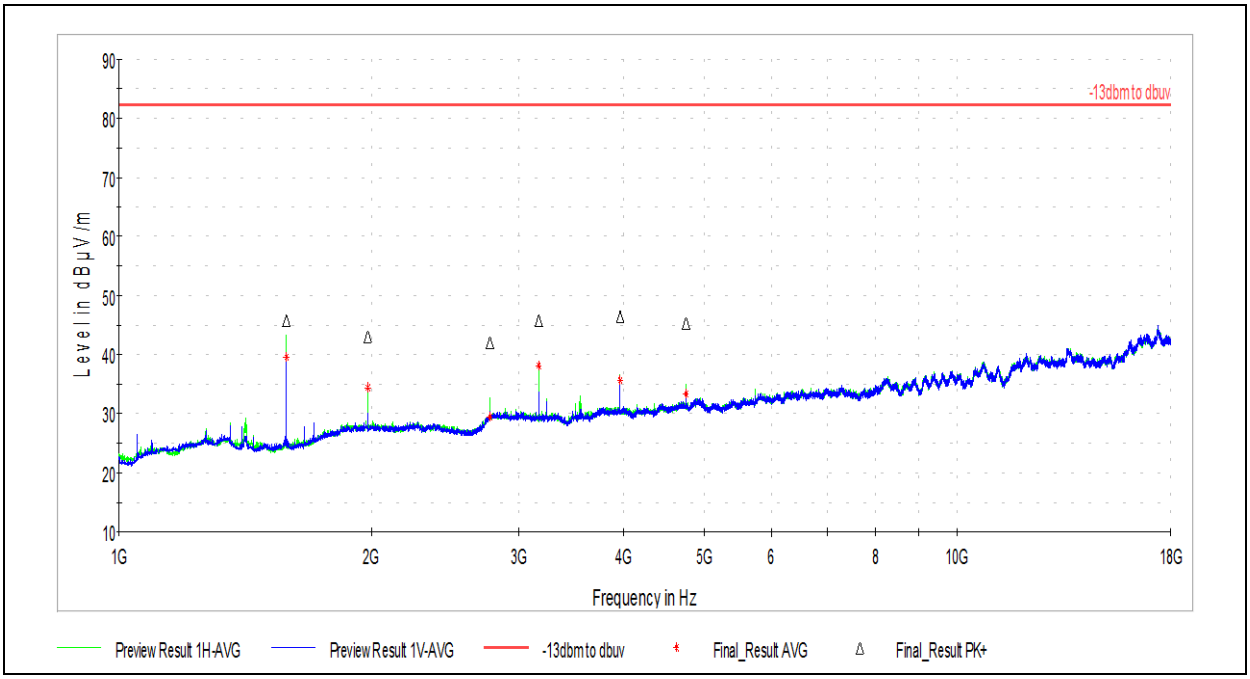
LTE Band 7



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3168.000000	46.34	82.25	35.91	1000.000	238.0	H	101.0	7
3960.000000	44.85	82.25	37.40	1000.000	277.0	H	156.0	8
5070.500000	47.57	82.25	34.68	1000.000	268.0	V	163.0	9
7609.000000	50.26	82.25	31.99	1000.000	266.0	V	129.0	13
10140.000000	49.00	82.25	33.25	1000.000	328.0	V	181.0	17

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3168.000000	39.49	82.25	42.76	1000.000	238.0	H	101.0	7
3960.000000	32.60	82.25	49.65	1000.000	277.0	H	156.0	8
5070.500000	35.75	82.25	46.50	1000.000	268.0	V	163.0	9
7609.000000	38.25	82.25	44.00	1000.000	266.0	V	129.0	13
10140.000000	36.33	82.25	45.92	1000.000	328.0	V	181.0	17

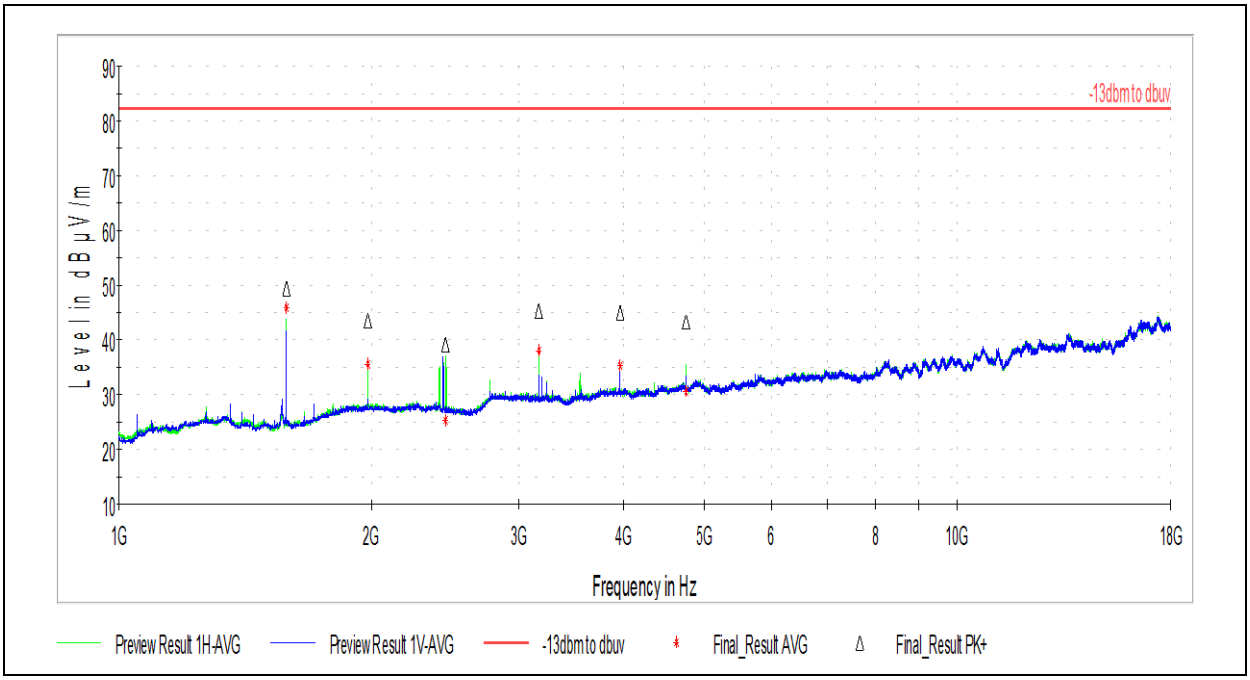
LTE Band 12



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1583.500000	45.69	82.25	36.56	1000.000	281.0	H	146.0	0
1980.000000	43.14	82.25	39.11	1000.000	257.0	H	140.0	4
2771.500000	42.02	82.25	40.23	1000.000	274.0	H	146.0	6
3168.000000	45.76	82.25	36.49	1000.000	202.0	H	92.0	7
3960.000000	46.28	82.25	35.97	1000.000	274.0	H	98.0	8
4752.000000	45.29	82.25	36.96	1000.000	239.0	H	194.0	9

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1583.500000	39.53	82.25	42.72	1000.000	281.0	H	146.0	0
1980.000000	34.31	82.25	47.94	1000.000	257.0	H	140.0	4
2771.500000	29.35	82.25	52.90	1000.000	274.0	H	146.0	6
3168.000000	38.20	82.25	44.05	1000.000	202.0	H	92.0	7
3960.000000	35.60	82.25	46.65	1000.000	274.0	H	98.0	8
4752.000000	33.30	82.25	48.95	1000.000	239.0	H	194.0	9

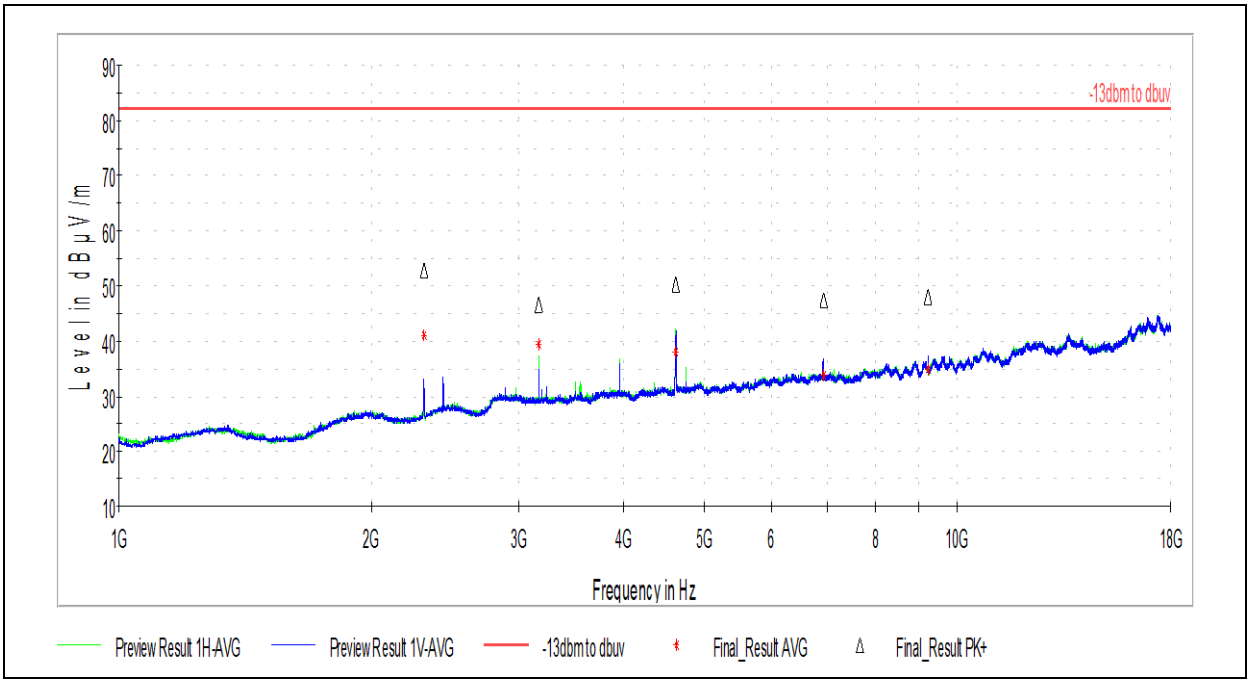
LTE Band 13



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1584.000000	49.43	82.25	32.82	1000.000	275.0	H	155.0	0
1980.000000	43.48	82.25	38.77	1000.000	293.0	H	144.0	4
2453.500000	39.05	82.25	43.20	1000.000	100.0	H	84.0	5
3168.000000	45.41	82.25	36.84	1000.000	186.0	H	92.0	7
3960.000000	44.96	82.25	37.29	1000.000	262.0	H	158.0	8
4752.000000	43.20	82.25	39.05	1000.000	230.0	H	144.0	9

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1584.000000	45.77	82.25	36.48	1000.000	275.0	H	155.0	0
1980.000000	35.47	82.25	46.78	1000.000	293.0	H	144.0	4
2453.500000	25.23	82.25	57.02	1000.000	100.0	H	84.0	5
3168.000000	38.04	82.25	44.21	1000.000	186.0	H	92.0	7
3960.000000	35.18	82.25	47.07	1000.000	262.0	H	158.0	8
4752.000000	30.47	82.25	51.78	1000.000	230.0	H	144.0	9

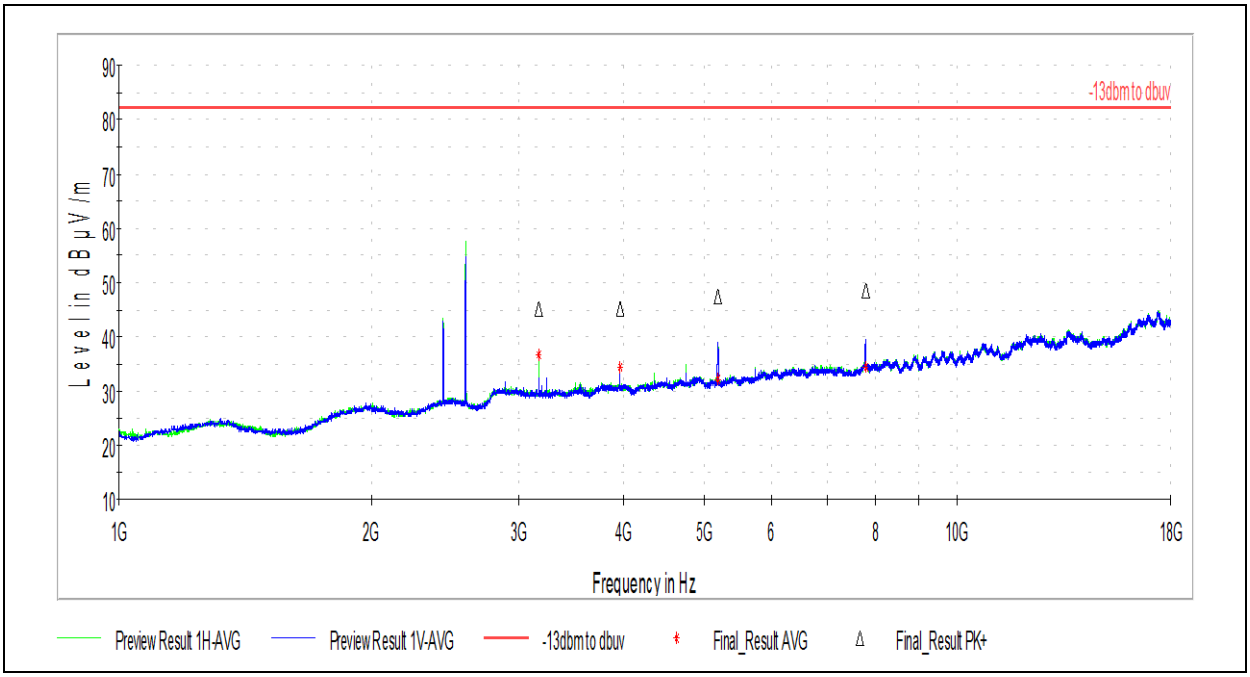
LTE Band 30



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2313.500000	52.69	82.25	29.56	1000.000	209.0	V	156.0	5
3168.000000	46.61	82.25	35.64	1000.000	245.0	H	92.0	7
4615.000000	50.31	82.25	31.94	1000.000	190.0	H	131.0	9
6936.000000	47.54	82.25	34.71	1000.000	247.0	V	105.0	13
9240.500000	48.06	82.25	34.19	1000.000	236.0	V	142.0	15

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2313.500000	41.07	82.25	41.18	1000.000	209.0	V	156.0	5
3168.000000	39.43	82.25	42.82	1000.000	245.0	H	92.0	7
4615.000000	37.90	82.25	44.35	1000.000	190.0	H	131.0	9
6936.000000	33.69	82.25	48.56	1000.000	247.0	V	105.0	13
9240.500000	34.95	82.25	47.30	1000.000	236.0	V	142.0	15

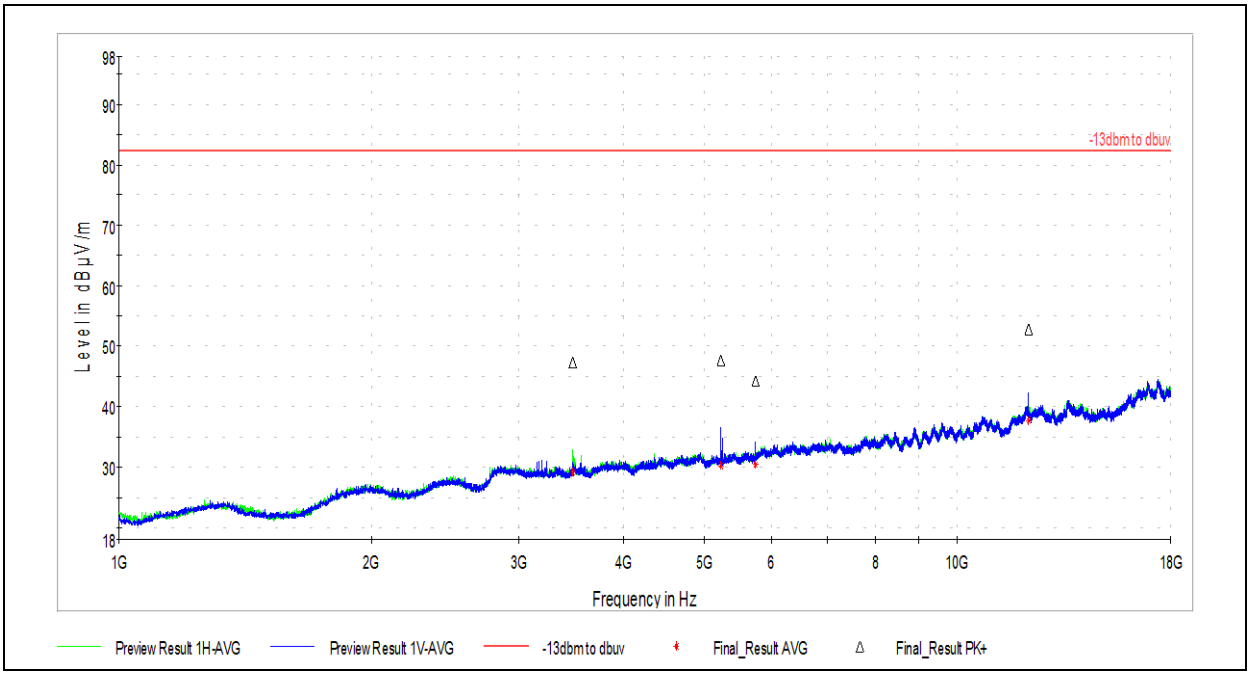
LTE Band 41



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3168.000000	45.14	82.25	37.11	1000.000	202.0	H	90.0	7
3960.000000	45.23	82.25	37.02	1000.000	319.0	V	252.0	8
5188.500000	47.47	82.25	34.78	1000.000	312.0	V	179.0	10
7781.000000	48.63	82.25	33.62	1000.000	280.0	V	129.0	14

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3168.000000	36.75	82.25	45.50	1000.000	202.0	H	90.0	7
3960.000000	34.31	82.25	47.94	1000.000	319.0	V	252.0	8
5188.500000	32.06	82.25	50.19	1000.000	312.0	V	179.0	10
7781.000000	34.28	82.25	47.97	1000.000	280.0	V	129.0	14

LTE Band 66



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3482.000000	47.31	82.25	34.94	1000.000	210.0	H	292.0	7
5222.500000	47.76	82.25	34.49	1000.000	191.0	V	145.0	10
5748.000000	44.31	82.25	37.94	1000.000	100.0	V	275.0	11
12187.000000	52.88	82.25	29.37	1000.000	243.0	V	167.0	20

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
3482.000000	29.07	82.25	53.18	1000.000	210.0	H	292.0	7
5222.500000	30.17	82.25	52.08	1000.000	191.0	V	145.0	10
5748.000000	30.34	82.25	51.91	1000.000	100.0	V	275.0	11
12187.000000	37.75	82.25	44.50	1000.000	243.0	V	167.0	20

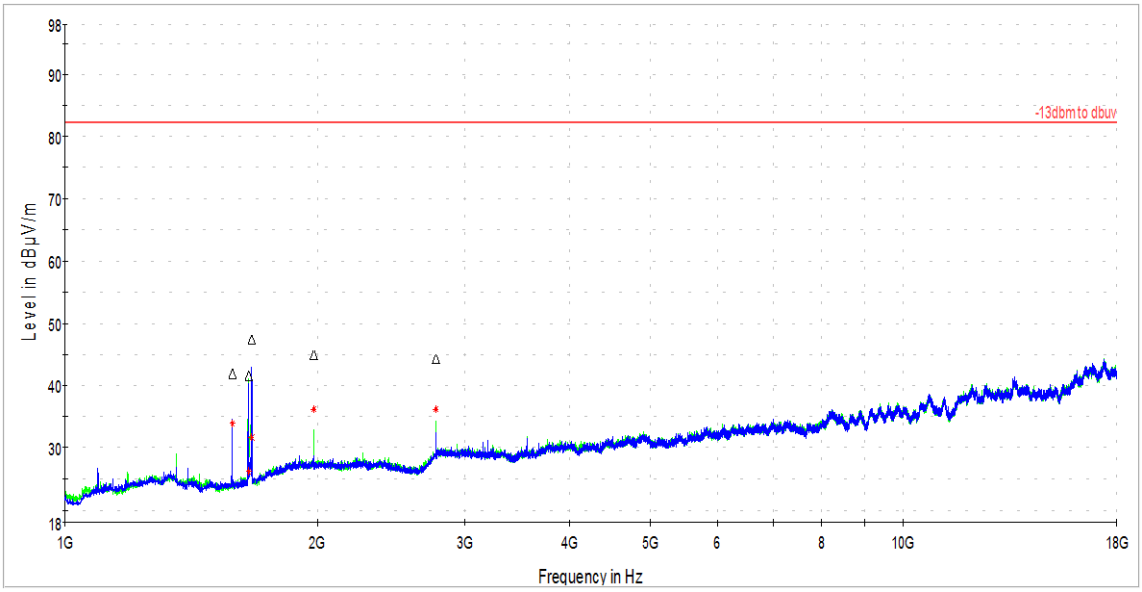
Test Personnel:	Ben Coolbear, Michael Carlson	Test Date:	10/27/2021
Supervising/Reviewing Engineer: (Where Applicable)	NA	Limit Applied:	-13dBm converted to field strength
Product Standard:	FCC Part 27	Ambient Temperature:	21.3 °C
Input Voltage:	12 VDC Via 120VAC to DC adapter	Relative Humidity:	60.5 %
Pretest Verification w / Ambient Signals or BB Source:	Yes	Atmospheric Pressure:	9838 mbar

Deviations, Additions, or Exclusions: None

6.15 FCC Part 90 Radiated Spurious Emissions (LTE B26)

6.15.1 Radiated Spurious Emissions, 30 MHz – 1 GHz

LTE Band 26



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1584.000000	42.00	82.25	40.25	1000.000	109.0	V	131.0	0
1654.500000	41.67	82.25	40.58	1000.000	254.0	H	202.0	1
1671.000000	47.35	82.25	34.90	1000.000	109.0	V	84.0	1
1980.000000	44.94	82.25	37.31	1000.000	161.0	H	102.0	4
2772.000000	44.31	82.25	37.94	1000.000	127.0	H	158.0	6

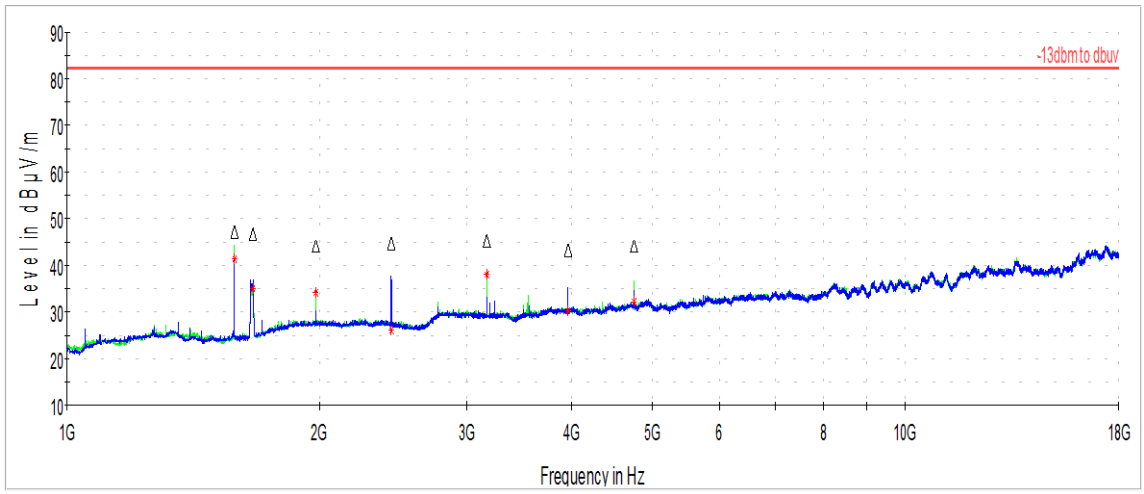
Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1584.000000	33.94	82.25	48.31	1000.000	109.0	V	131.0	0
1654.500000	26.15	82.25	56.10	1000.000	254.0	H	202.0	1
1671.000000	31.70	82.25	50.55	1000.000	109.0	V	84.0	1
1980.000000	36.09	82.25	46.16	1000.000	161.0	H	102.0	4
2772.000000	36.15	82.25	46.10	1000.000	127.0	H	158.0	6

Test Personnel:	Michael Carlson	Test Date:	10/12/2021
Supervising/Reviewing Engineer: (Where Applicable)	NA	Limit Applied:	-13dBm converted to field strength
Product Standard:	FCC Part 90	Ambient Temperature:	21.3 °C
Input Voltage:	12 VDC Via 120VAC to DC adapter	Relative Humidity:	60.5 %
Pretest Verification w / Ambient Signals or BB Source:	Yes	Atmospheric Pressure:	9838 mbar

Deviations, Additions, or Exclusions: None

6.15.2 Radiated Spurious Emissions, 1 GHz – 18 GHz

LTE Band 26



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1583.500000	47.29	82.25	34.96	1000.000	279.0	H	158.0	0
1665.500000	46.63	82.25	35.62	1000.000	309.0	V	144.0	1
1980.000000	44.06	82.25	38.19	1000.000	263.0	H	132.0	4
2438.500000	44.73	82.25	37.52	1000.000	399.0	V	343.0	5
3168.000000	45.39	82.25	36.86	1000.000	203.0	H	91.0	7
3959.500000	43.29	82.25	38.96	1000.000	343.0	H	129.0	8
4752.000000	44.11	82.25	38.14	1000.000	254.0	H	193.0	9

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
1583.500000	41.33	82.25	40.92	1000.000	279.0	H	158.0	0
1665.500000	35.00	82.25	47.25	1000.000	309.0	V	144.0	1
1980.000000	34.17	82.25	48.08	1000.000	263.0	H	132.0	4
2438.500000	26.00	82.25	56.25	1000.000	399.0	V	343.0	5
3168.000000	38.06	82.25	44.19	1000.000	203.0	H	91.0	7
3959.500000	30.26	82.25	51.99	1000.000	343.0	H	129.0	8
4752.000000	32.30	82.25	49.95	1000.000	254.0	H	193.0	9

Test Personnel:	Michael Carlson	Test Date:	10/12/2021
Supervising/Reviewing Engineer: (Where Applicable)	NA	Limit Applied:	-13dBm converted to field strength
Product Standard:	FCC Part 90	Ambient Temperature:	21.3 °C
Input Voltage:	12 VDC Via 120VAC to DC adapter	Relative Humidity:	60.5 %
Pretest Verification w / Ambient Signals or BB Source:	Yes	Atmospheric Pressure:	9838 mbar

Deviations, Additions, or Exclusions: None

7 Revision History

Revision Level	Date	Report Number	Prepared By	Reviewed By	Notes
0	11/30/2021	104702325LEX-002	[signature]	BCT	Original Issue