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ROM Technologies Inc.
TEST REPORT

SCOPE OF WORK
EMC TESTING – CARDIACCONNECT

REPORT NUMBER
105635605LEX-005.1

ISSUE DATE **REVISED DATE**
1/29/2024 2/26/2024

PAGES
57

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

EMC TEST REPORT

(FULL COMPLIANCE)

Report Number: 105635605LEX-005.1
Project Number: G105635605

Report Issue Date: 1/29/2024
Report Revised Date: 2/26/2024

Model(s) Tested: CardiacConnect

Standards: Title 47 CFR Part 15.247
RSS-247 Issue 3
RSS-Gen Issue 5

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

Client:
ROM Technologies Inc.
101 Silvermine Road
Brookfield, CT 06804
USA

Report prepared by

Brian Lackey, Staff Engineer

Report reviewed by

Michael Carlson, 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	Transmitter Spurious Emissions (FCC Part 15.247(d), RSS-247 Issue 3 § 5.5)	Pass
7	Output Power (FCC Part 15.247(b)(3), RSS-247 Issue 3 § 5.4(d))	Pass
8	Occupied Bandwidth (FCC Part 15.247, RSS-247 Issue 3 § 5.2(a))	Pass
9	Power Spectral Density (FCC Part 15.247(e), RSS-247 Issue 3 § 5.2(b))	Pass
10	Antenna Requirement (FCC Part 15.203, RSS-Gen Issue 5 § 6.8)	Pass
11	AC Mains Conducted Emissions (FCC Part 15.207, RSS-Gen Issue 5 § 8.8)	Pass

3 Client Information

This product was tested at the request of the following:

Client Information	
Client Name:	ROM Technologies Inc.
Address:	101 Silvermine Road Brookfield, CT 06804 USA
Contact:	Francis Allotey
Email:	francis.allotey@romtech.com
Manufacturer Information	
Manufacturer Name:	ROM Technologies Inc.
Manufacturer Address:	101 Silvermine Road Brookfield, CT 06804 USA

4 Description of Equipment under Test and Variant Models

Equipment Under Test	
Product Name	CardiacConnect
Model Numbers	10300
Serial Number	20000
Receive Date	12/12/2023
Test Start Date	12/14/2023
Test End Date	12/29/2023
Device Received Condition	Good
Test Sample Type	Production
Input Rating	120 VAC, 2 A, 240 W
Software Used By EUT	CardiacConnect Intertek app – Intertek Testing v9 Electronic actuated pedal firmware – EAP-v1.2.9RADIOTEST_4NRF2 Pedal Unit Controller firmware – PUC-v2.6.7RADIOTEST_4NRF2 Motor Controller firmware – MC-v3.0.6
Description of Equipment Under Test (provided by client)	
The ROMTech CardiacConnect Rehab Device is a rehabilitative exercise therapy device that uses assisted movement to measure, evaluate, exercise, re-educate and strengthen muscles, and to increase joint range of motion. This device is also used in cardiac rehabilitation of patients that have undergone treatment of cardiac conditions, during sessions the CardiacConnect monitors the patients ECG (electrocardiogram), BP (Blood Pressure) and SpO2 (Oxygen Saturation) whilst session is overseen by a cardiac specialist.	
Equipment Under Test	
Product Name	Pedal Unit Controller
Model Numbers	10145-200 Rev 2
Frequency Band(s)	2402 – 2480 MHz
Modulation Type(s)	GFSK
Test Channel(s)	2402 MHz, 2440 MHz, 2480 MHz
Maximum Antenna Gain[1]	5.3 dBi
Equipment Under Test	
Product Name	Motor Controller
Model Numbers	15749-200 Rev 7
Frequency Band(s)	2402 – 2480 MHz
Modulation Type(s)	GFSK
Test Channel(s)	2402 MHz, 2440 MHz, 2480 MHz
Maximum Antenna Gain[1]	5.3 dBi

1 This information was provided by the client and may affect compliance. Intertek does not make any claims of compliance for values other than those shown.

Embedded Transmitter Subassembly	
Product Name	Samsung
Model Numbers	Galaxy Tab Active4 PRO
Supported Transmit Bands	NFC: 13.56MHz BT/BLE: 2400 – 2483.5MHz Wi-Fi: 2400 – 2483.5MHz, U-NII-1, U-NII-2A, U-NII-2C, U-NII-3 2G GSM: GSM850, GSM900, DCS1800, PCS1900 3G UMTS: B1, B2, B4, B5, B8 4G FDD LTE: B1, B2, B3, B4, B5, B7, B8, B12, B13, B17, B20, B25, B26, B28, B32, B66 4G TDD LTE: B38, B40, B41 5G FDD Sub6: N1, N3, N5, N7, N8, N20, N28, N66 5G TDD Sub6: N38, N40, N41, N77, N78
Supported Transmit Modes	Bluetooth: BDR, 2-EDR, 3-EDR, Ble Wi-Fi: 802.11a/b/g/n/ac/ax 2.4G+5GHz, HE80, MIMO, 1024-QAM

4.1 Variant Models:

There were no variant models covered by this evaluation.

5 System Setup and Method

5.1 Method:

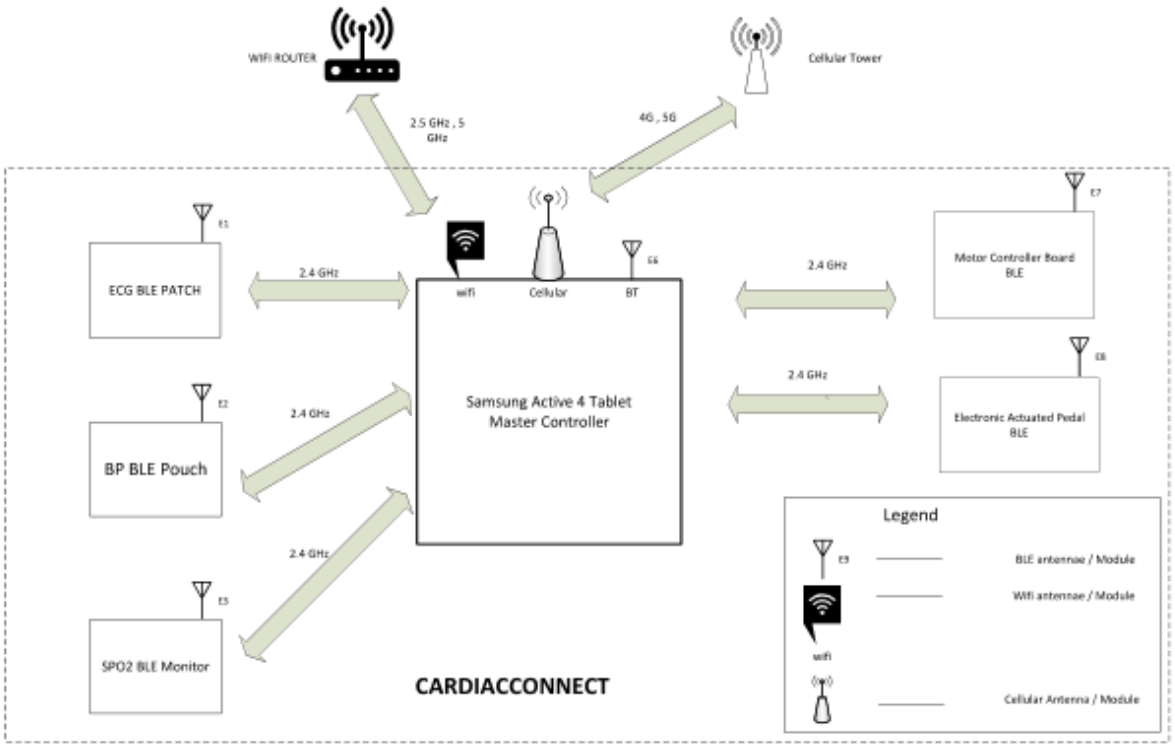
Configuration as required by ANSI C63.10:2020.

No.	Descriptions of EUT Exercising
1	Motor Controller transmitting a Bluetooth Low Energy (BLE) signal on low, middle, or high channel
2	EAP (Pedals) transmitting a Bluetooth Low Energy (BLE) signal on low, middle, or high channel
3	Both Motor Controller and EAP were active and transmitting. The EUT was configured in either an Active, Passive, Active Assist, or Resistance Mode.

Cables					
Qty	Description	Length (m)	Shielding	Ferrites	Termination
1	AC Mains	2	None	None	Plug

Support Equipment			
Description	Manufacturer	Model Number	Serial Number
CardiacConnect (Driver)	ROM Technologies Inc.	10300	-

5.2 EUT Block Diagram:



6 Transmitter Spurious Emissions

6.1 Test Limits

FCC Part 15.247(d):

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

RSS-247 Issue 3 § 5.5:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced 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 that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

6.2 Test Method

Tests are performed in accordance with ANSI C63.10:2013 § 11.12.1 Radiated emission measurements.

6.3 Test Equipment Used

Description	Asset	Manufacturer	Model	Cal Date	Cal Due
EMI Test Receiver	8258	Rohde & Schwarz	ESW44	9/19/2023	9/19/2024
Magnetic Loop Antenna	2366	ETS	6502	8/28/2023	8/28/2024
Bilog Antenna (30MHz-1GHz)	7085	SunAR	JB6	3/7/2023	3/7/2024
Horn Antenna (1-18GHz)	3780	ETS	3117	8/8/2023	8/8/2024
Horn Antenna (18-40GHz)	3779	ETS	3116c	8/23/2023	8/23/2024
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
30M-1G 3m Signal Path without Preamplifier	3339, 2592, 8188, 8185			10/5/2023	10/5/2024
1-18GHz Signal Path with Preamplifier	3074, 3918, 2588, 2593, 8188, 8185			10/5/2023	10/5/2024
18-40GHz Signal Path with Preamplifier	7020, 3921, 7021			1/12/2023	1/12/2024

6.4 Software Utilized

Name	Manufacturer	Version
EMC32	Rohde & Schwarz	Version 10.60.20

6.5 Test Results

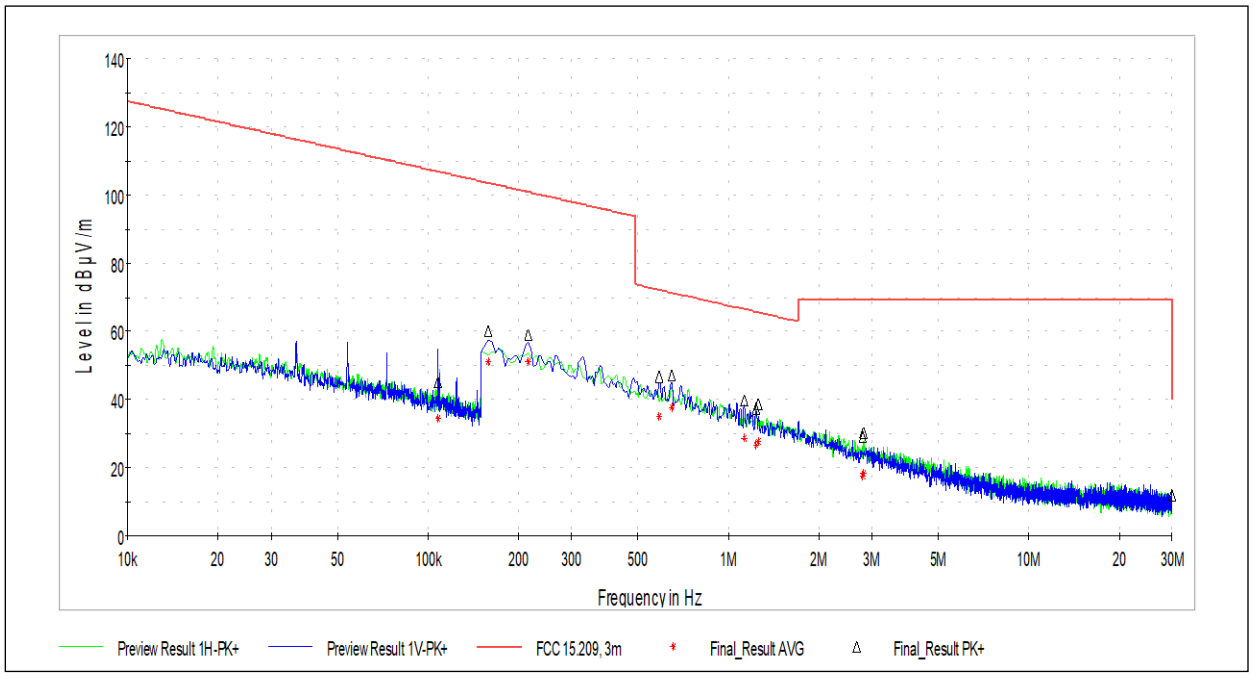
The sample tested was found to be **compliant**. The data presented represents the worst-case emissions with the device positioned in its nominal operating orientation. All observed emissions outside of the band of operation were attenuated by at least 20dB.

6.6 Test Conditions

Test Personnel:	Brian Lackey	Test Date:	12/15/2023 – 12/19/2023
Supervising/Reviewing Engineer: (Where Applicable)	NA	Limit Applied:	FCC Part 15.209 in Restricted Bands from FCC Part 15.205
Product Standard:	FCC Part 15.247 RSS-247 Issue 3	Ambient Temperature:	23.0°C
Input Voltage:	120V/60Hz	Relative Humidity:	47.2%
Pretest Verification w / Ambient Signals or BB Source:	Yes	Atmospheric Pressure:	988.8mbar

Deviations, Additions, or Exclusions: None.

6.7 Radiated Spurious Emissions, 9kHz – 30 MHz

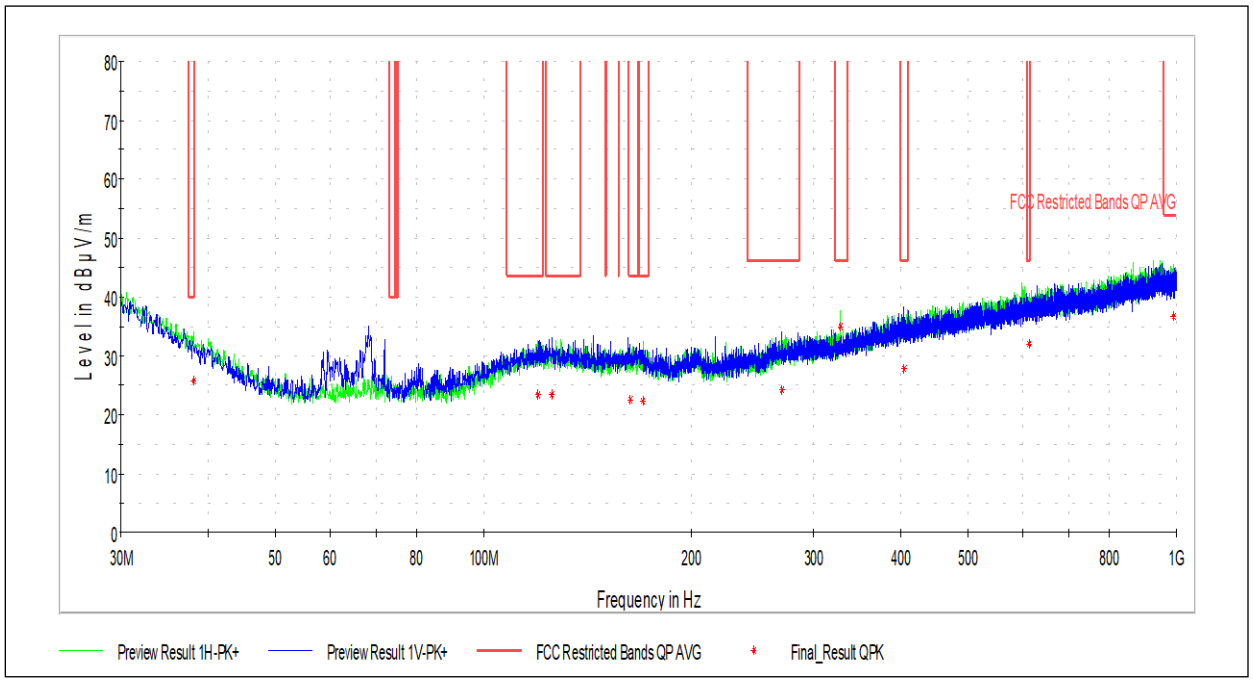


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
0.108	45.21	126.94	81.73	100.0	V	160.0	12.6
0.159	60.03	123.58	63.55	100.0	V	122.0	12.6
0.216	58.98	120.92	61.94	100.0	V	328.0	12.5
0.589	46.76	92.21	45.45	100.0	V	198.0	12.4
0.646	47.03	91.41	44.38	100.0	V	223.0	12.4
1.129	39.64	86.57	46.93	100.0	V	199.0	12.4
1.239	37.34	85.77	48.43	100.0	H	118.0	12.4
1.261	38.87	85.62	46.75	100.0	V	186.0	12.4
2.793	29.20	89.50	60.30	100.0	H	311.0	11.9
2.819	30.26	89.50	59.24	100.0	H	250.0	11.9
30.000	12.08	60.00	47.92	100.0	V	196.0	8.8

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
0.108	34.44	106.94	72.51	100.0	V	160.0	12.6
0.159	51.14	103.58	52.44	100.0	V	122.0	12.6
0.216	51.16	100.92	49.76	100.0	V	328.0	12.5
0.589	35.06	72.21	37.14	100.0	V	198.0	12.4
0.646	37.86	71.41	33.55	100.0	V	223.0	12.4
1.129	28.59	66.57	37.98	100.0	V	199.0	12.4
1.239	26.58	65.77	39.19	100.0	H	118.0	12.4
1.261	27.72	65.62	37.90	100.0	V	186.0	12.4
2.793	17.84	69.50	51.67	100.0	H	311.0	11.9
2.819	18.49	69.50	51.01	100.0	H	250.0	11.9
30.000	-1.94	40.00	41.94	100.0	V	196.0	8.8

Notes: testing represents the worst case of low, middle, and high channels for both motor controller and EAP transmission modes.

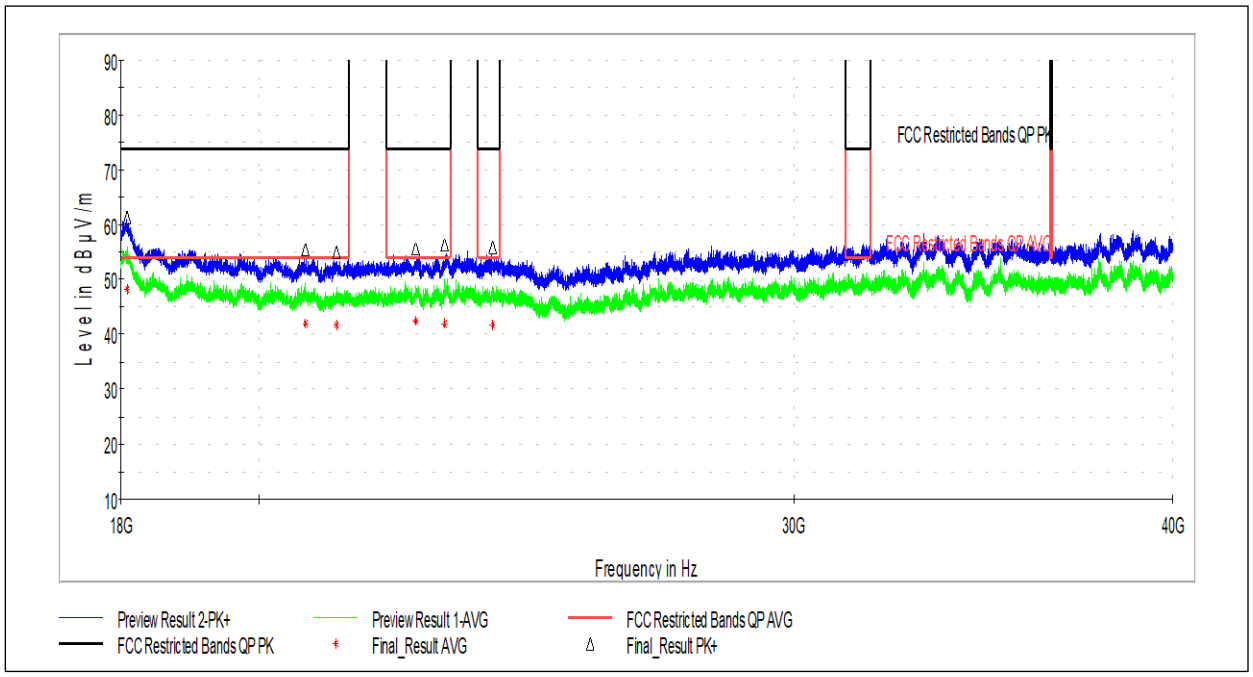
6.8 Radiated Spurious Emissions, 30 MHz – 1 GHz



Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
38.137	25.79	40.00	14.21	129.0	H	198.0	22.3
119.833	23.45	43.52	20.07	245.0	H	118.0	20.6
125.545	23.43	43.52	20.10	355.0	V	170.0	20.9
162.728	22.47	43.52	21.06	266.0	V	271.0	20.2
169.734	22.30	43.52	21.22	246.0	H	27.0	19.5
269.752	24.21	46.02	21.81	236.0	V	311.0	21.2
327.251	35.05	46.02	10.97	97.0	H	171.0	22.4
404.959	27.87	46.02	18.15	191.0	V	197.0	23.9
613.078	31.99	46.02	14.03	302.0	H	48.0	28.4
989.653	36.57	53.98	17.41	216.0	H	180.0	33.0

Notes: testing represents the worst case of low, middle, and high channels for both motor controller and EAP transmission modes.

6.9 Radiated Spurious Emissions, 18 GHz – 40 GHz



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
18082.000	61.31	73.98	12.67	410.0	V	345.0	31.1
20703.000	55.41	73.98	18.57	410.0	V	306.0	19.0
21201.000	55.04	73.98	18.94	410.0	V	0.0	17.7
22513.000	55.63	73.98	18.35	410.0	H	300.0	14.5
23016.000	56.40	73.98	17.58	410.0	V	215.0	13.6
23866.000	55.88	73.98	18.10	410.0	V	285.0	13.6

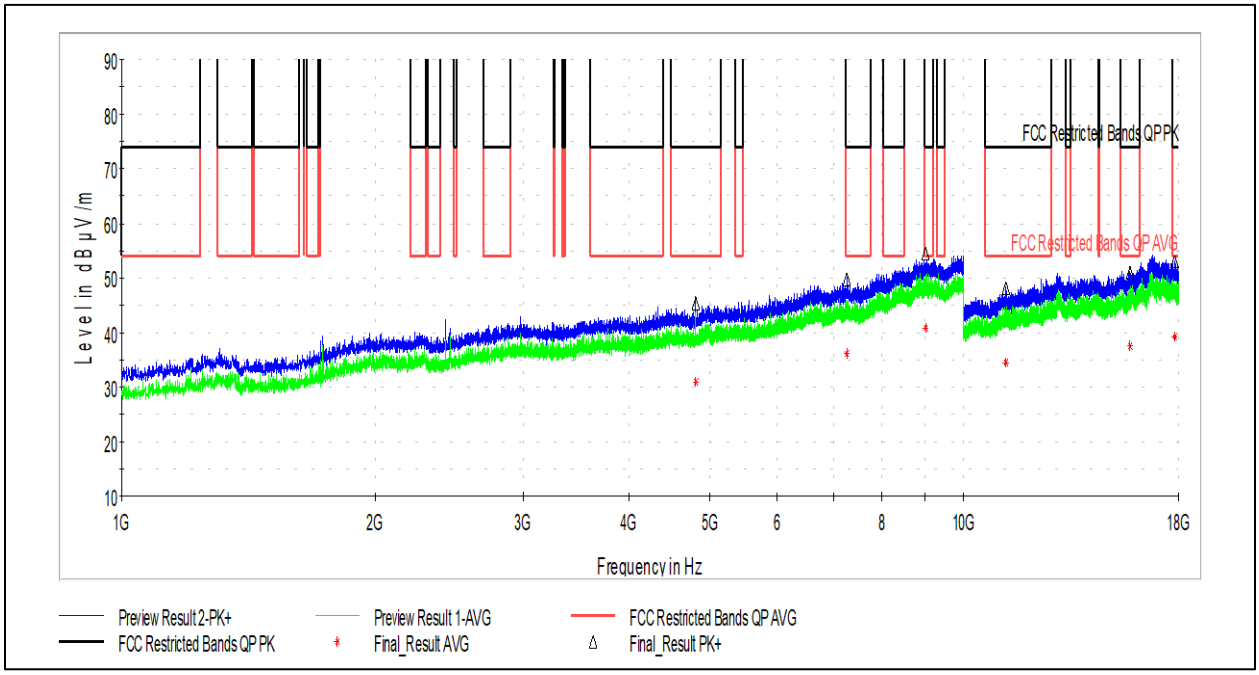
Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
18082.000	48.24	53.98	5.74	410.0	V	345.0	31.1
20703.000	41.87	53.98	12.11	410.0	V	306.0	19.0
21201.000	41.73	53.98	12.25	410.0	V	0.0	17.7
22513.000	42.46	53.98	11.52	410.0	H	300.0	14.5
23016.000	41.95	53.98	12.03	410.0	V	215.0	13.6
23866.000	41.81	53.98	12.17	410.0	V	285.0	13.6

Notes: testing represents the worst case of low, middle, and high channels for both motor controller and EAP transmission modes.

6.10 Radiated Spurious Emissions, 1 GHz – 18 GHz

6.10.1 Motor Controller

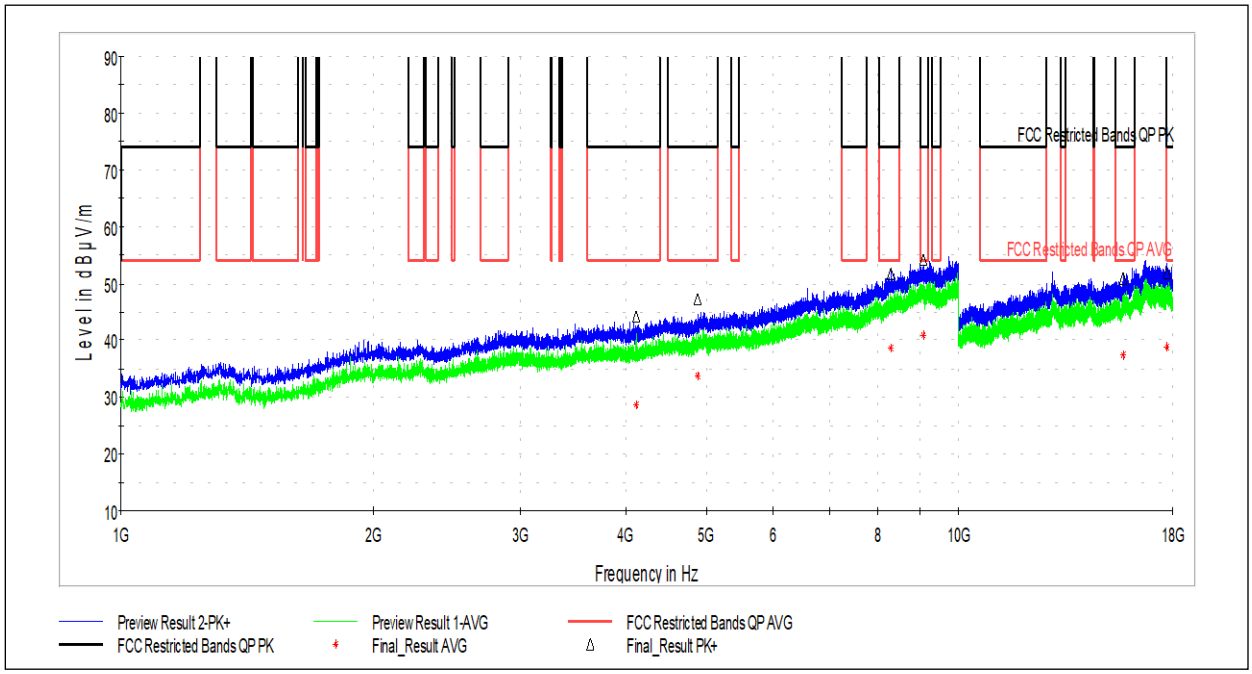
6.10.1.1 2402 MHz



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4804.000	45.30	73.98	28.68	195.0	V	252.0	9.4
7271.500	49.74	73.98	24.24	100.0	V	252.0	13.4
9017.000	54.43	73.98	19.55	410.0	H	232.0	15.4
11220.000	48.03	73.98	25.95	124.0	H	0.0	18.5
15775.500	50.84	73.98	23.14	143.0	H	0.0	23.2
17816.000	52.96	73.98	21.02	126.0	H	-1.0	26.3

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4804.000	31.05	53.98	22.93	195.0	V	252.0	9.4
7271.500	36.22	53.98	17.76	100.0	V	252.0	13.4
9017.000	40.92	53.98	13.06	410.0	H	232.0	15.4
11220.000	34.58	53.98	19.40	124.0	H	0.0	18.5
15775.500	37.62	53.98	16.36	143.0	H	0.0	23.2
17816.000	39.07	53.98	14.91	126.0	H	-1.0	26.3

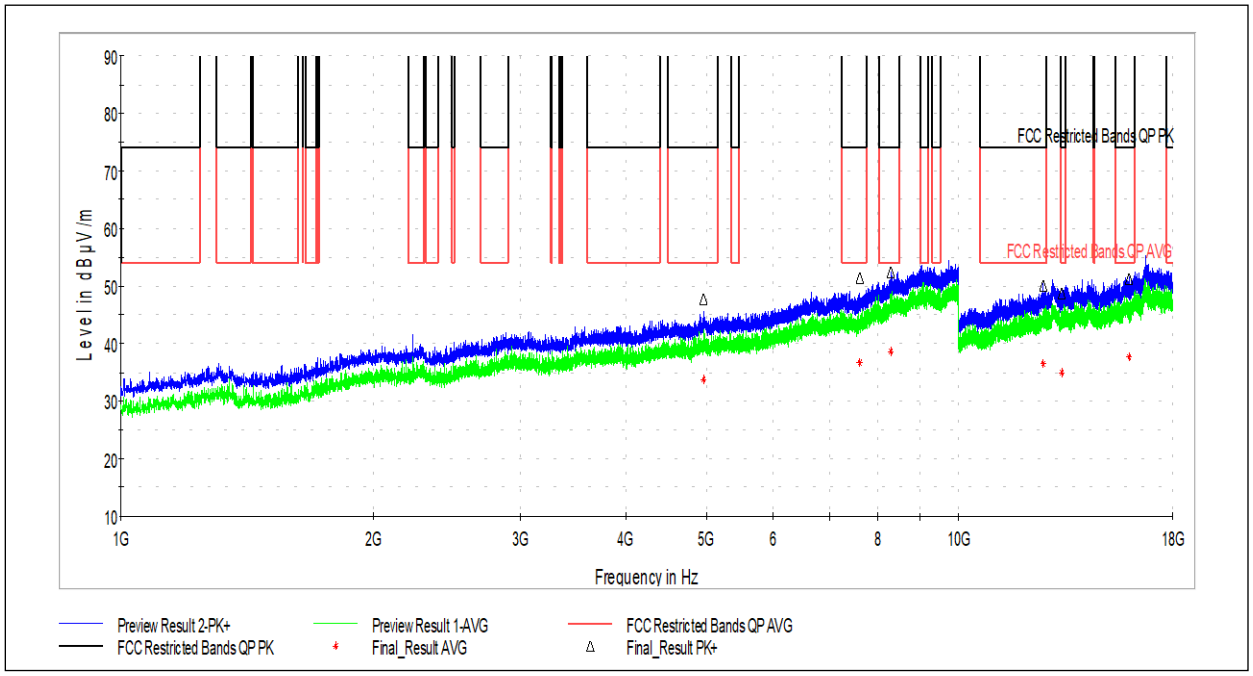
6.10.1.2 2440 MHz



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4119.500	44.24	73.98	29.74	109.0	H	300.0	8.2
4880.000	47.30	73.98	26.68	410.0	V	260.0	9.5
8294.000	51.78	73.98	22.20	410.0	V	218.0	14.5
9060.500	54.12	73.98	19.86	410.0	V	92.0	15.4
15696.000	51.00	73.98	22.98	109.0	H	274.0	23.1
17691.500	52.04	1000.00	947.96	115.0	H	199.0	25.9

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4119.500	28.72	53.98	25.26	109.0	H	300.0	8.2
4880.000	33.77	53.98	20.21	410.0	V	260.0	9.5
8294.000	38.64	53.98	15.34	410.0	V	218.0	14.5
9060.500	40.83	53.98	13.15	410.0	V	92.0	15.4
15696.000	37.49	53.98	16.49	109.0	H	274.0	23.1
17691.500	38.82	1000.00	961.18	115.0	H	199.0	25.9

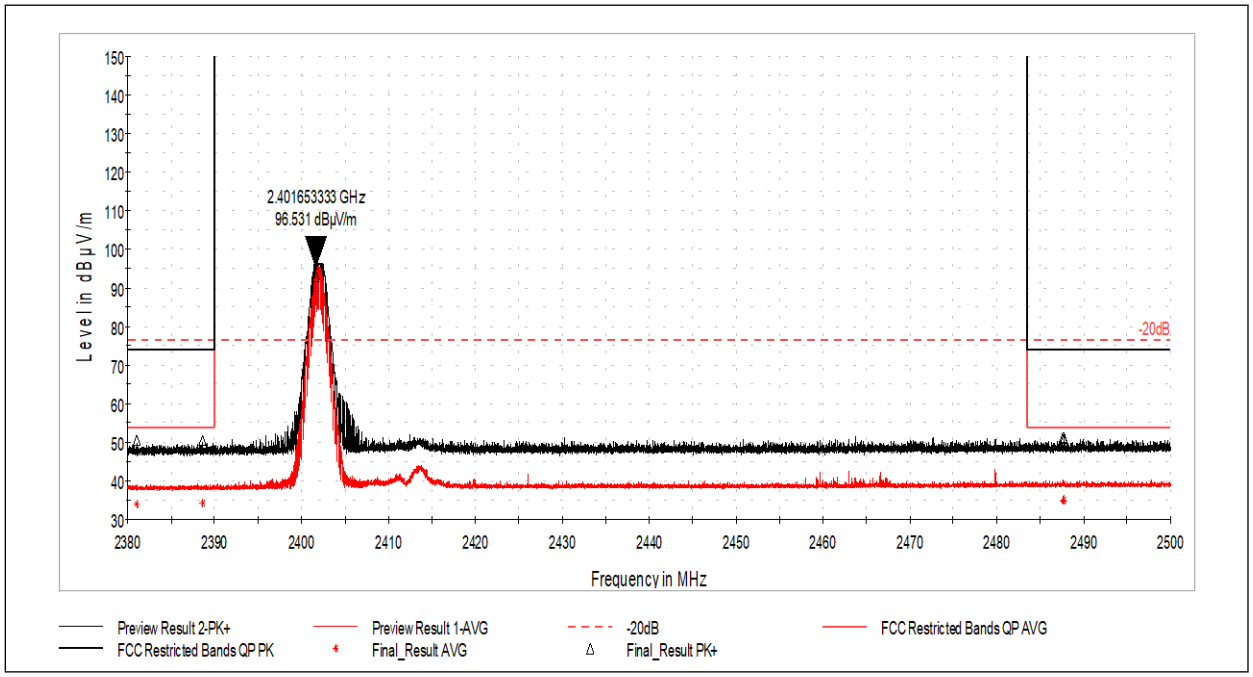
6.10.1.3 2480 MHz



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4959.500	47.83	73.98	26.15	328.0	V	89.0	9.4
7618.500	51.42	73.98	22.56	108.0	H	67.0	13.6
8297.000	52.49	73.98	21.49	109.0	V	136.0	14.5
12600.000	50.02	73.98	23.96	151.0	H	312.0	20.5
13275.500	48.79	73.98	25.19	108.0	V	262.0	20.7
15959.500	51.30	73.98	22.68	125.0	V	10.0	23.5

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4959.500	33.71	53.98	20.27	328.0	V	89.0	9.4
7618.500	36.62	53.98	17.36	108.0	H	67.0	13.6
8297.000	38.60	53.98	15.38	109.0	V	136.0	14.5
12600.000	36.47	53.98	17.51	151.0	H	312.0	20.5
13275.500	34.94	53.98	19.04	108.0	V	262.0	20.7
15959.500	37.69	53.98	16.29	125.0	V	10.0	23.5

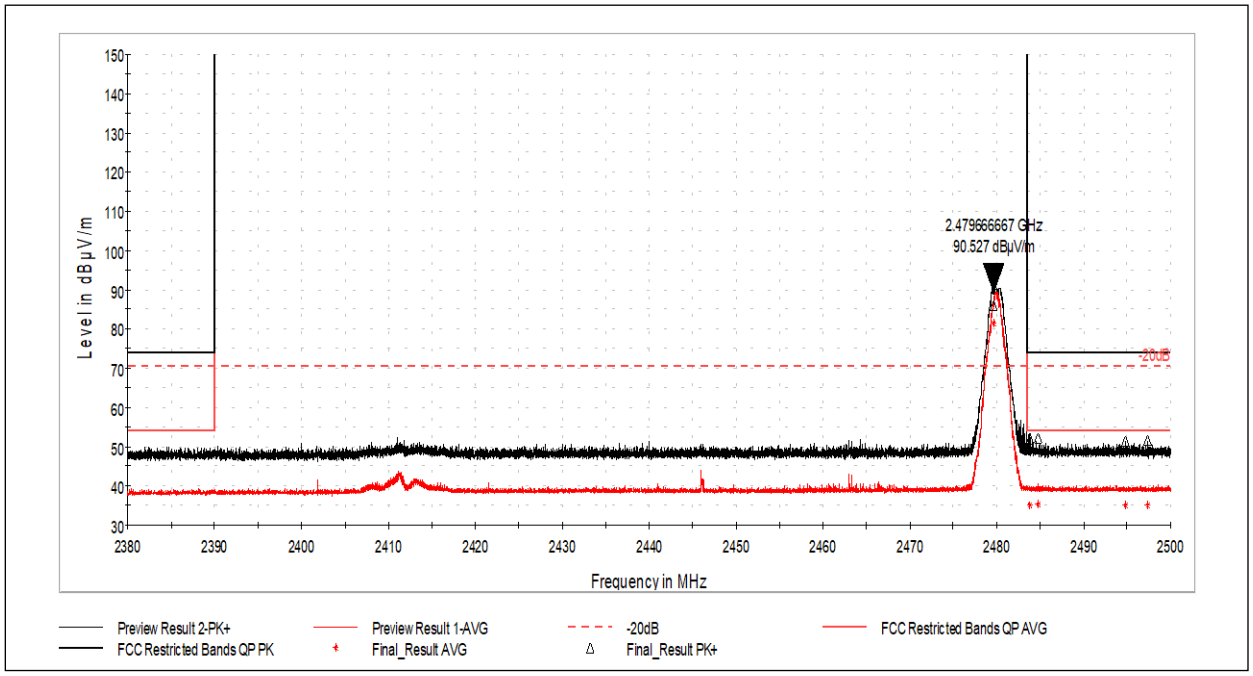
6.10.1.4 Emissions at the Low Band Edge



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2381.047	50.58	73.98	23.40	292.0	V	164.0	38.1
2388.600	50.59	73.98	23.39	100.0	H	146.0	38.2
2401.647	93.07	1000.00	906.93	142.0	H	144.0	38.2
2487.653	51.44	73.98	22.54	280.0	V	-2.0	38.8
2487.713	51.17	73.98	22.81	129.0	V	177.0	38.8

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2381.047	33.93	53.98	20.05	292.0	V	164.0	38.1
2388.600	34.18	53.98	19.80	100.0	H	146.0	38.2
2401.647	88.79	1000.00	911.21	142.0	H	144.0	38.2
2487.653	34.96	53.98	19.02	280.0	V	-2.0	38.8
2487.713	35.00	53.98	18.98	129.0	V	177.0	38.8

6.10.1.5 Emissions at the High Band Edge

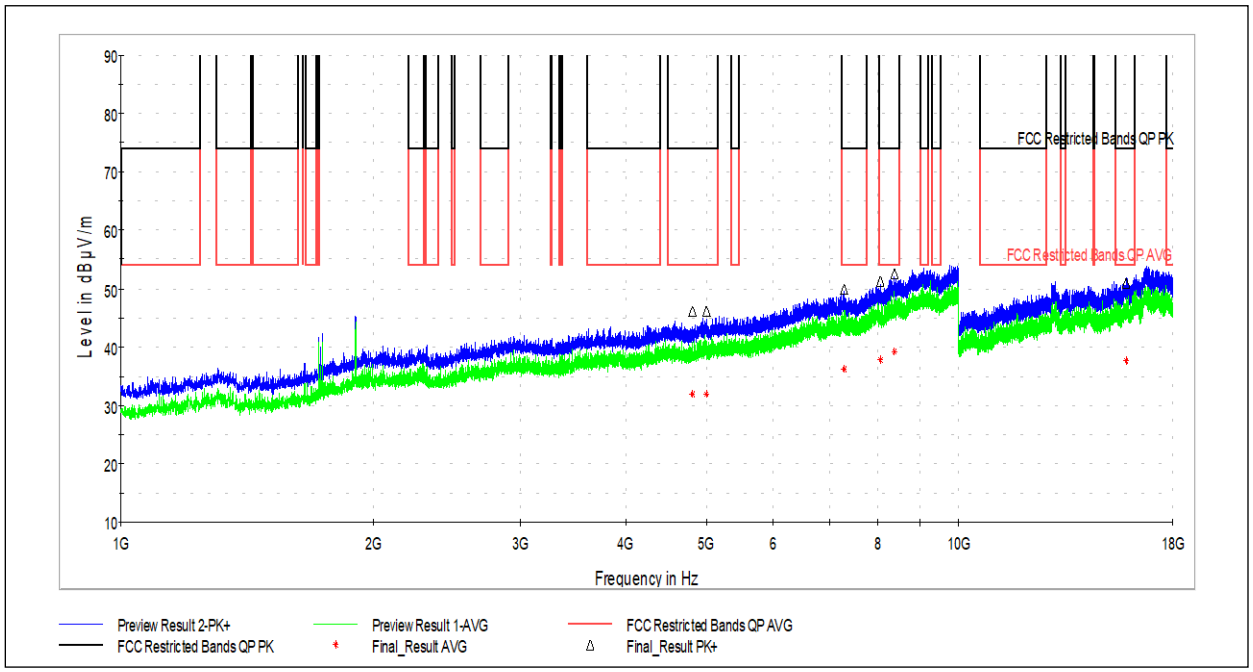


Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2479.640	85.87	1000.00	914.13	164.0	V	166.0	38.8
2483.833	51.96	73.98	22.02	175.0	V	234.0	38.8
2484.793	52.26	73.98	21.72	187.0	V	164.0	38.8
2494.780	51.36	73.98	22.62	142.0	H	0.0	38.8
2497.380	51.81	73.98	22.17	211.0	H	254.0	38.8

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2479.640	81.44	1000.00	918.56	164.0	V	166.0	38.8
2483.833	35.15	53.98	18.83	175.0	V	234.0	38.8
2484.793	35.23	53.98	18.75	187.0	V	164.0	38.8
2494.780	35.05	53.98	18.93	142.0	H	0.0	38.8
2497.380	35.04	53.98	18.94	211.0	H	254.0	38.8

6.10.3 EAP

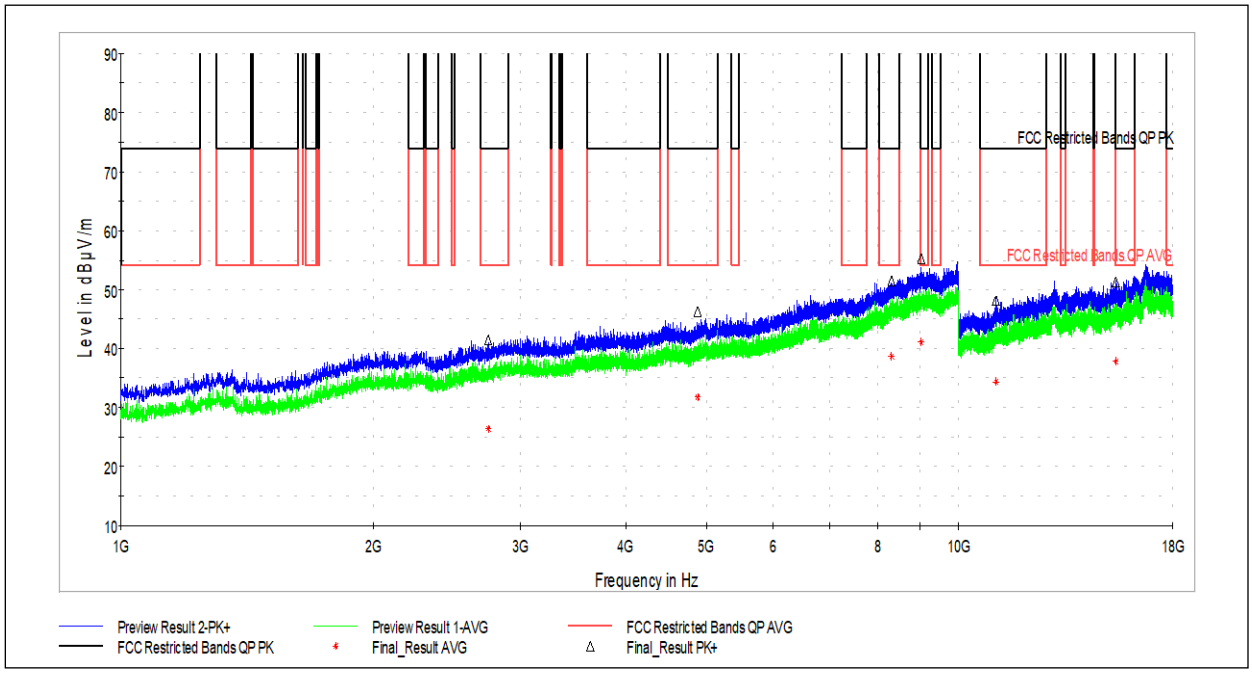
6.10.3.1 2402 MHz



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4804.000	46.18	73.98	27.80	314.0	H	148.0	9.4
4993.500	46.25	73.98	27.73	108.0	H	81.0	9.6
7294.000	49.92	73.98	24.06	134.0	V	135.0	13.5
8062.000	51.26	73.98	22.72	108.0	H	23.0	14.4
8383.500	52.57	73.98	21.41	108.0	H	0.0	14.9
15832.000	50.99	73.98	22.99	108.0	H	0.0	23.2

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4804.000	31.92	53.98	22.06	314.0	H	148.0	9.4
4993.500	31.87	53.98	22.11	108.0	H	81.0	9.6
7294.000	36.26	53.98	17.72	134.0	V	135.0	13.5
8062.000	37.79	53.98	16.19	108.0	H	23.0	14.4
8383.500	39.23	53.98	14.75	108.0	H	0.0	14.9
15832.000	37.63	53.98	16.35	108.0	H	0.0	23.2

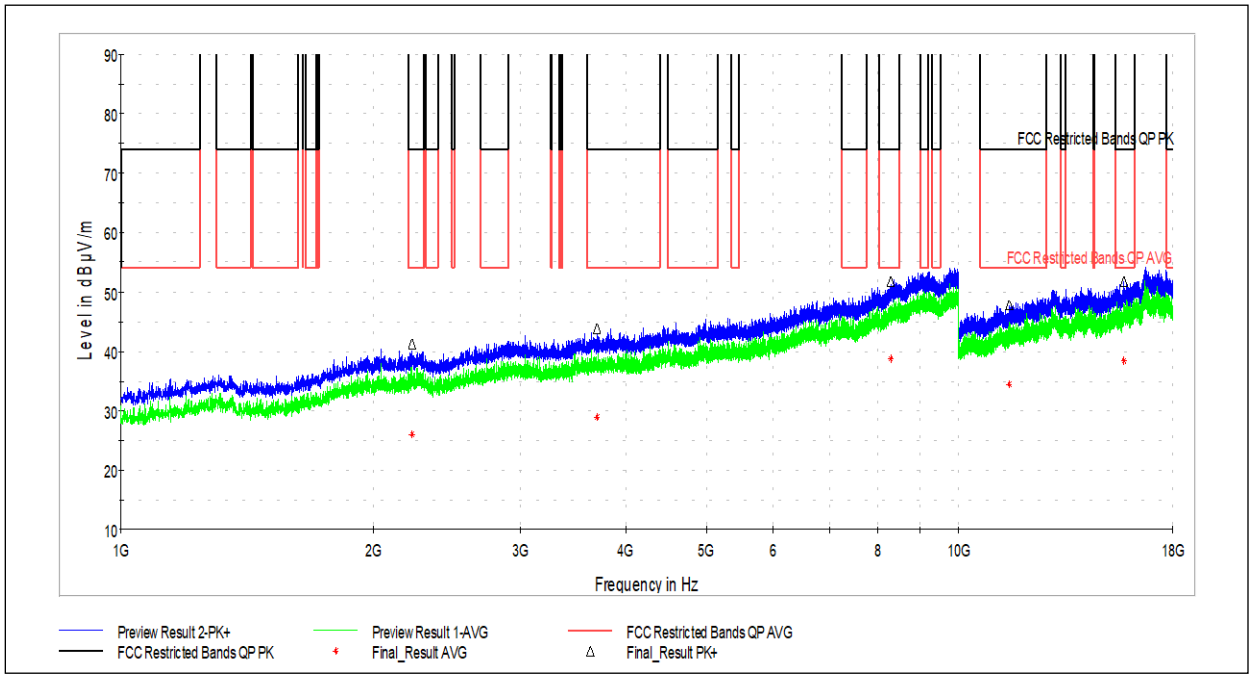
6.10.3.2 2440 MHz



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2742.500	41.40	73.98	32.58	100.0	V	174.0	5.3
4879.000	46.26	73.98	27.72	150.0	H	208.0	9.4
8305.000	51.47	73.98	22.51	388.0	V	-1.0	14.5
9021.500	55.19	73.98	18.79	410.0	V	149.0	15.5
11079.500	48.12	73.98	25.86	108.0	H	0.0	18.5
15395.500	51.33	73.98	22.65	144.0	V	319.0	22.4

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2742.500	26.41	53.98	27.57	100.0	V	174.0	5.3
4879.000	31.71	53.98	22.27	150.0	H	208.0	9.4
8305.000	38.63	53.98	15.35	388.0	V	-1.0	14.5
9021.500	41.05	53.98	12.93	410.0	V	149.0	15.5
11079.500	34.31	53.98	19.67	108.0	H	0.0	18.5
15395.500	37.75	53.98	16.23	144.0	V	319.0	22.4

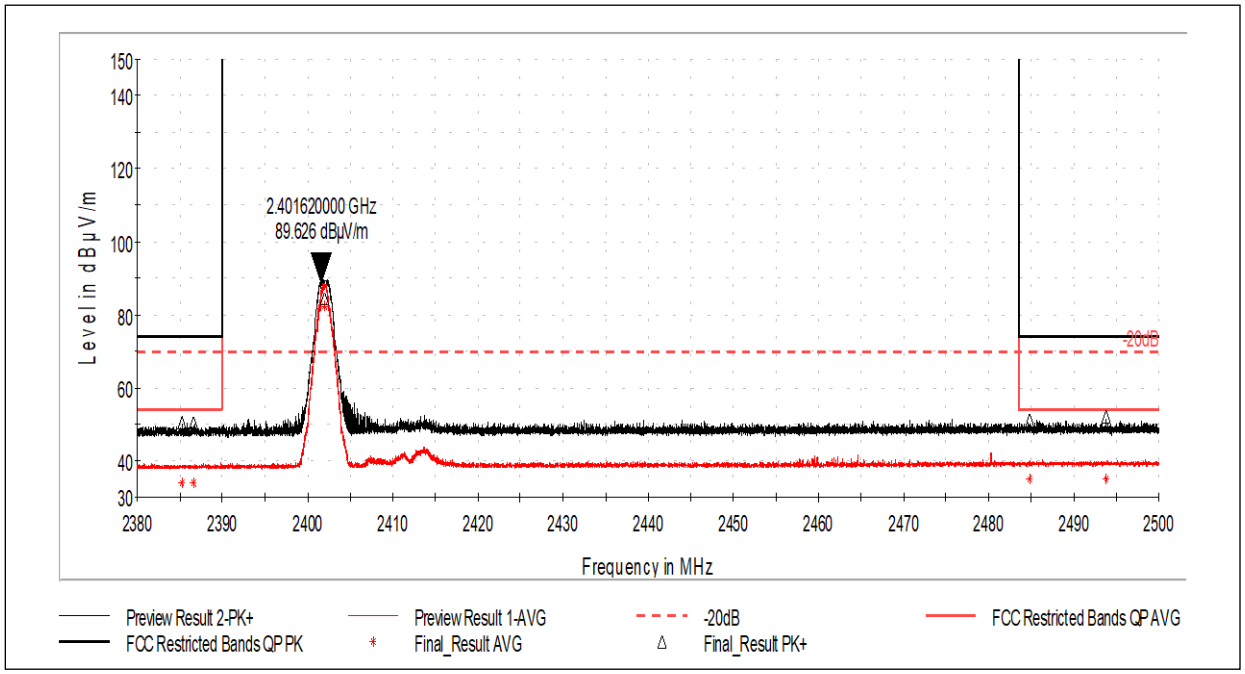
6.10.3.3 2480 MHz



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2224.500	41.31	73.98	32.67	135.0	V	280.0	3.9
3696.000	43.96	73.98	30.02	100.0	H	126.0	7.6
8289.500	51.75	73.98	22.23	200.0	H	344.0	14.5
11479.500	47.89	73.98	26.09	100.0	V	230.0	19.1
15754.000	51.73	73.98	22.25	100.0	V	0.0	23.3

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2224.500	26.00	53.98	27.98	135.0	V	280.0	3.9
3696.000	29.00	53.98	24.98	100.0	H	126.0	7.6
8289.500	38.68	53.98	15.30	200.0	H	344.0	14.5
11479.500	34.37	53.98	19.61	100.0	V	230.0	19.1
15754.000	38.47	53.98	15.51	100.0	V	0.0	23.3

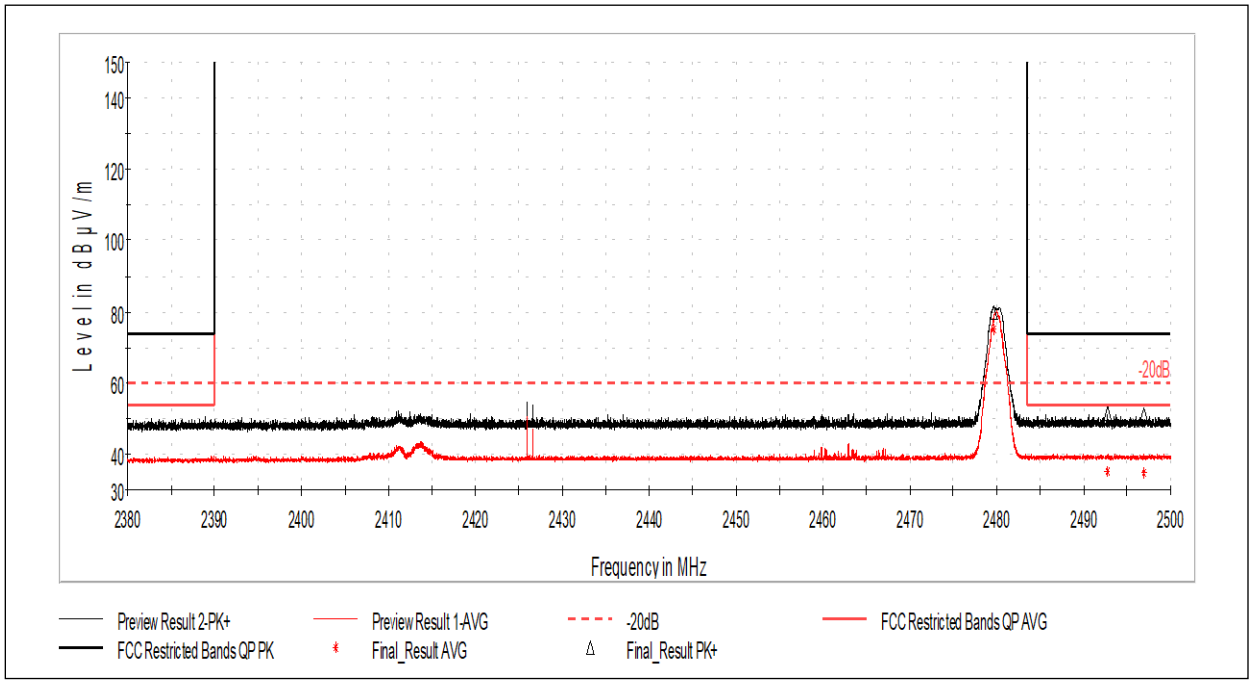
6.10.3.4 Emissions at the Low Band Edge



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2385.207	50.38	73.98	23.60	340.0	V	11.0	38.2
2386.607	50.22	73.98	23.76	152.0	V	216.0	38.2
2401.940	84.48	1000.00	915.52	141.0	H	179.0	38.2
2484.807	50.90	73.98	23.08	223.0	V	161.0	38.8
2493.793	52.11	73.98	21.87	326.0	H	0.0	38.8

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2385.207	33.94	53.98	20.04	340.0	V	11.0	38.2
2386.607	34.01	53.98	19.97	152.0	V	216.0	38.2
2401.940	82.24	1000.00	917.76	141.0	H	179.0	38.2
2484.807	34.94	53.98	19.04	223.0	V	161.0	38.8
2493.793	35.00	53.98	18.98	326.0	H	0.0	38.8

6.10.3.5 Emissions at the High Band Edge



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2479.640	79.77	1000.00	920.23	320.0	V	208.0	38.8
2492.767	51.55	73.98	22.43	245.0	V	294.0	38.8
2496.893	51.31	73.98	22.67	278.0	H	349.0	38.8

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2479.640	75.19	1000.00	924.81	320.0	V	208.0	38.8
2492.767	35.02	53.98	18.96	245.0	V	294.0	38.8
2496.893	34.98	53.98	19.00	278.0	H	349.0	38.8

7 Output Power

7.1 Test Limits

FCC Part 15.247(b)(3):

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

RSS-247 Issue 3 § 5.4(d):

For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e).

As an alternative to a peak power measurement, compliance can be based on a measurement of the maximum conducted output power. The maximum conducted output power is the total transmit power delivered to all antennas and antenna elements, averaged across all symbols in the signalling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or transmitting at a reduced power level. If multiple modes of operation are implemented, the maximum conducted output power is the highest total transmit power occurring in any mode.

7.2 Test Method

Tests are performed in accordance with ANSI C63.10:2013 § 11.9.1.1

7.3 Test Equipment Used

Description	Asset	Manufacturer	Model	Cal Date	Cal Due
EMI Test Receiver	8258	Rohde & Schwarz	ESW44	9/19/2023	9/19/2024
Horn Antenna (1-18GHz)	3780	ETS	3117	8/8/2023	8/8/2024
System Controller	4096	ETS Lindgren	2090	Verify at Time of Use	Verify at Time of Use
1-18GHz Signal Path without Preamplifier	3074, 2588, 2593, 8188, 8185			10/5/2023	10/5/2024

7.4 Test Results

The device was found to be **compliant**. The peak output power was less than 1W. The peak EIRP was less than 4W.

7.5 Test Conditions

Test Personnel:	Brian Lackey	Test Date:	12/14/2023
Supervising/Reviewing Engineer: (Where Applicable)	NA	Limit Applied:	See Above
Product Standard:	FCC Part 15.247 RSS-247 Issue 3	Ambient Temperature:	25.6°C
Input Voltage:	120V/60Hz	Relative Humidity:	52.2%
Pretest Verification w / Ambient Signals or BB Source:	Yes	Atmospheric Pressure:	985.4mbar

Deviations, Additions, or Exclusions: None.

7.6 Test Data

7.6.1 Motor Controller

Frequency (MHz)	Receiver Measured Power (dBm)	Receiver Measured Power (dBuV)	Path Loss (dB)	Antenna Factor (dB/m)	E Field (dBuV/m)	E Field (mV/m)	EIRP (dBm)	Antenna Gain (dBi est)	Conducted Output Power (dBm, est)
2402	-41.39	65.61	6.22	32.1	103.93	157.22	8.70	5.3	3.40
2440	-46.09	60.91	6.24	32.3	99.45	93.86	4.22	5.3	-1.08
2480	-46.98	60.02	6.27	32.5	98.79	87.00	3.56	5.3	-1.74

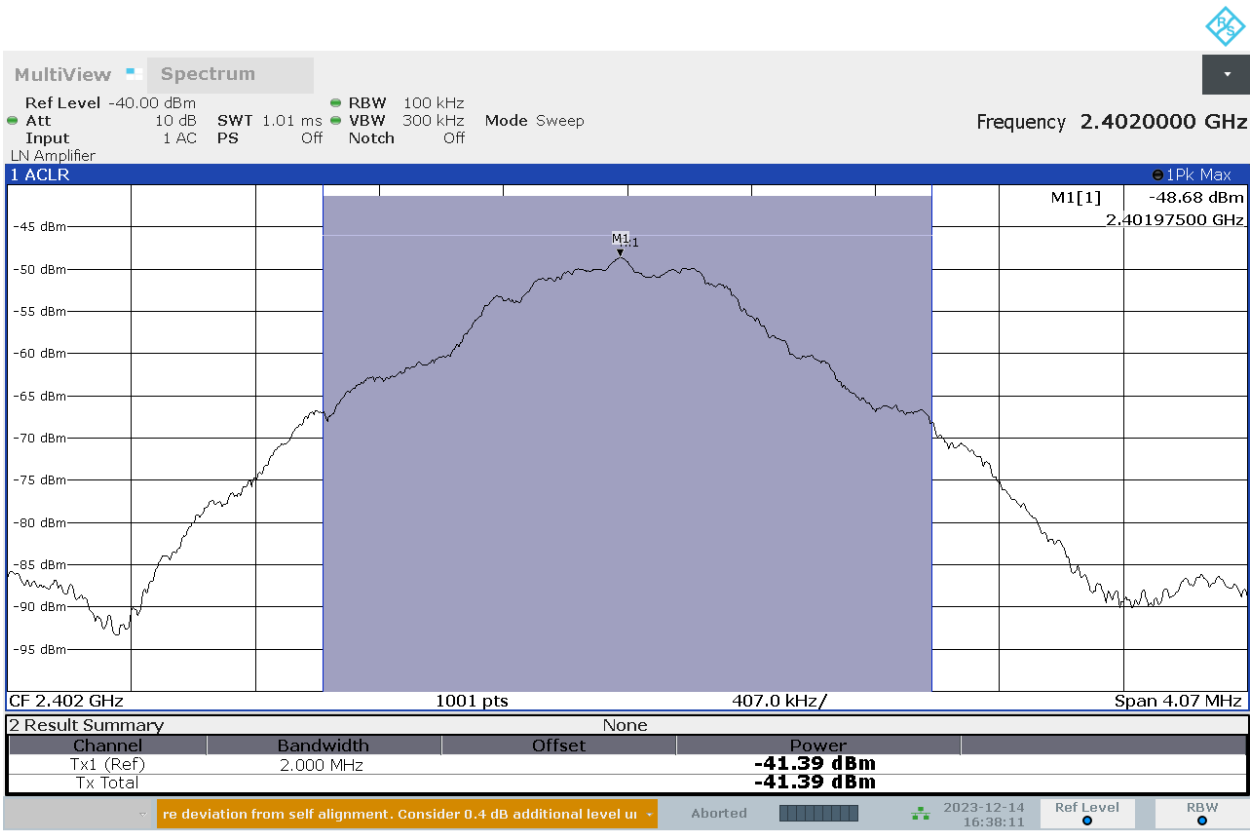


Figure 1 – Motor Controller Output Power, 2402MHz

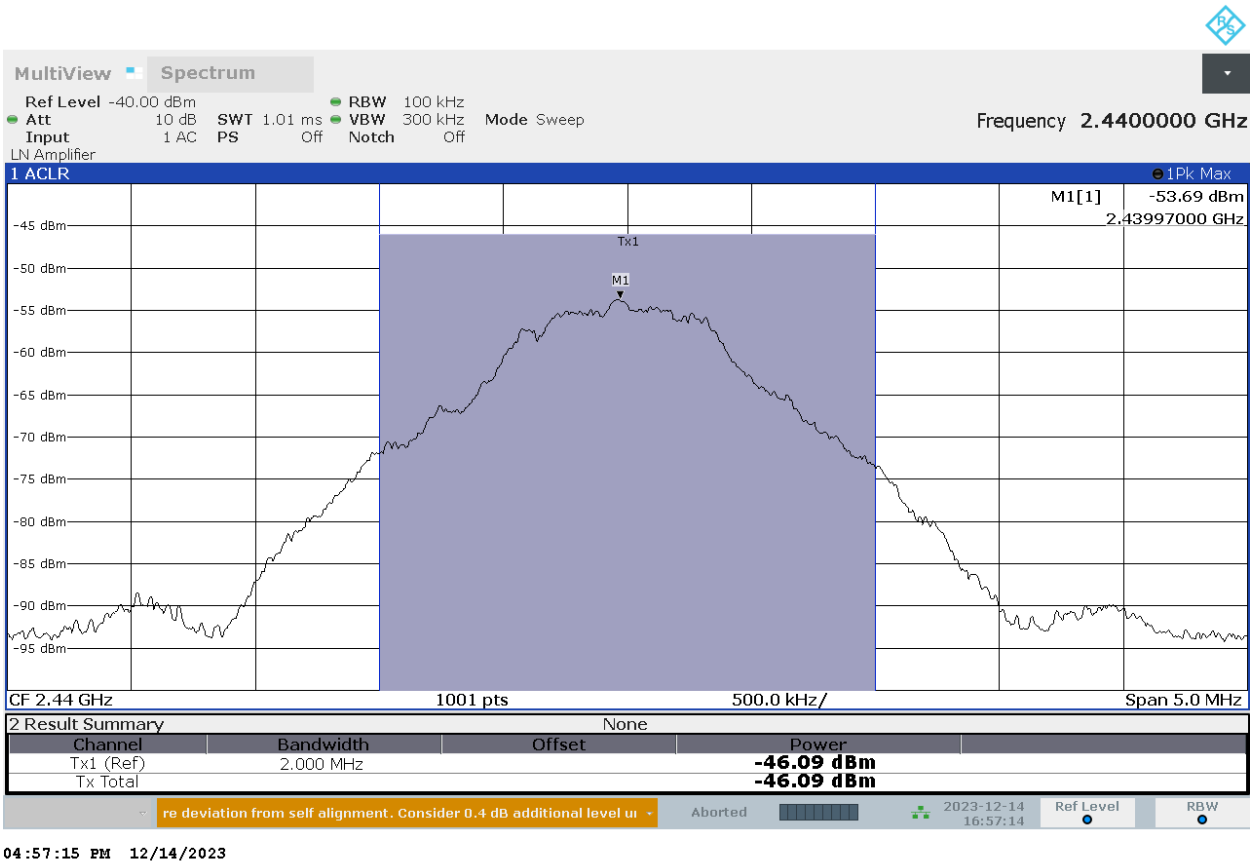


Figure 2 – Motor Controller Output Power, 2440MHz

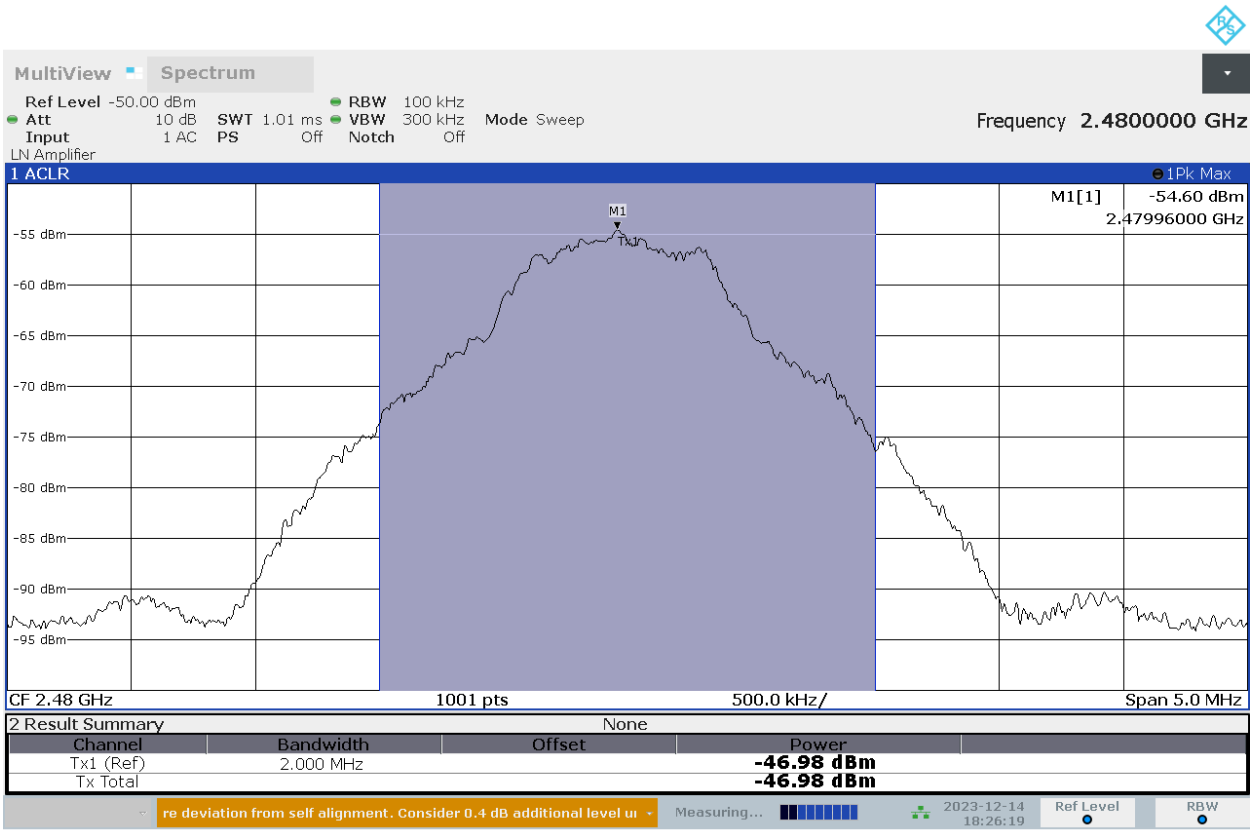


Figure 3 – Motor Controller Output Power, 2480MHz

7.6.2 EAP

Frequency (MHz)	Receiver Measured Power (dBm)	Receiver Measured Power (dBuV)	Path Loss (dB)	Antenna Factor (dB/m)	E Field (dBuV/m)	E Field (mV/m)	EIRP (dBm)	Antenna Gain (dBi est)	Conducted Output Power (dBm, est)
2402	-48.53	58.47	6.22	32.1	96.79	69.10	1.56	5.3	-3.74
2440	-49.65	57.35	6.24	32.3	95.89	62.30	0.66	5.3	-4.64
2480	-52.43	54.57	6.27	32.5	93.34	46.45	-1.89	5.3	-7.19

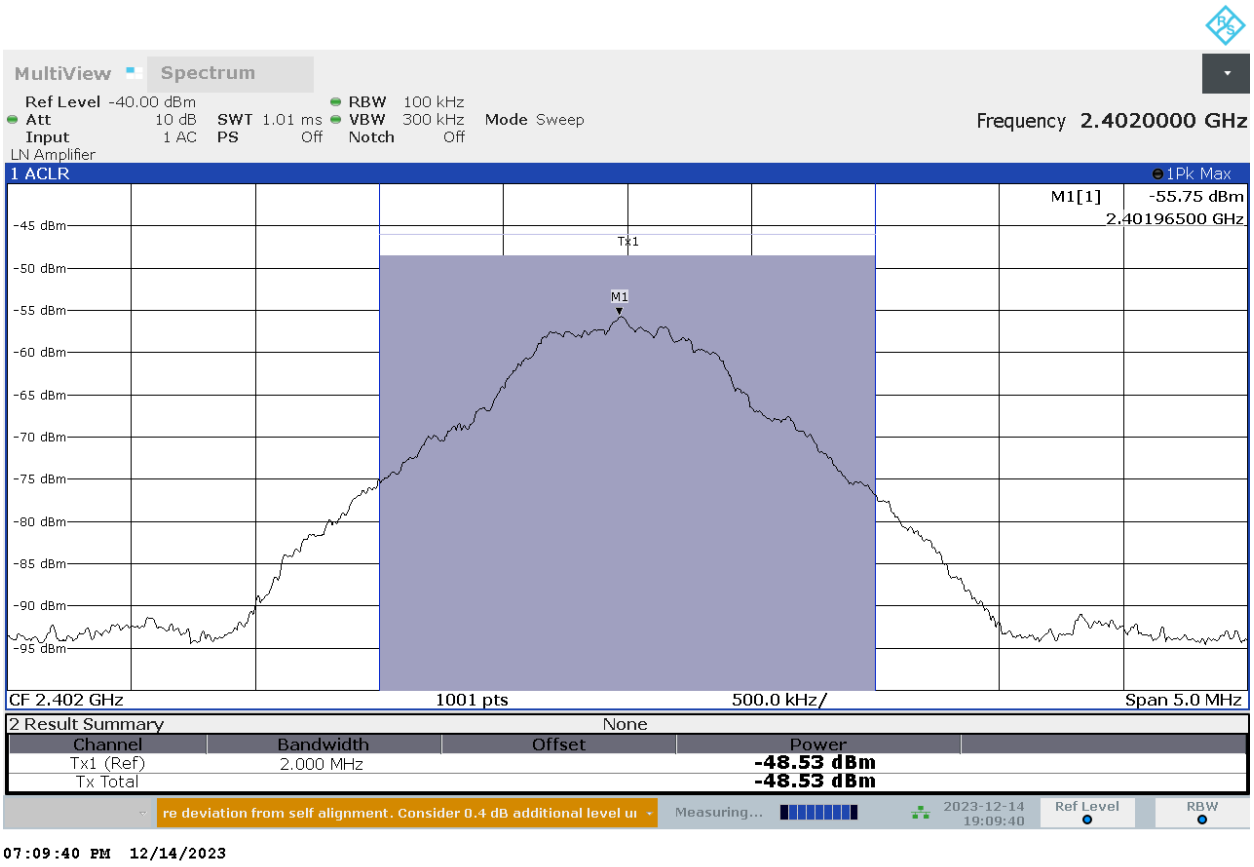


Figure 4 – EAP Output Power, 2402MHz

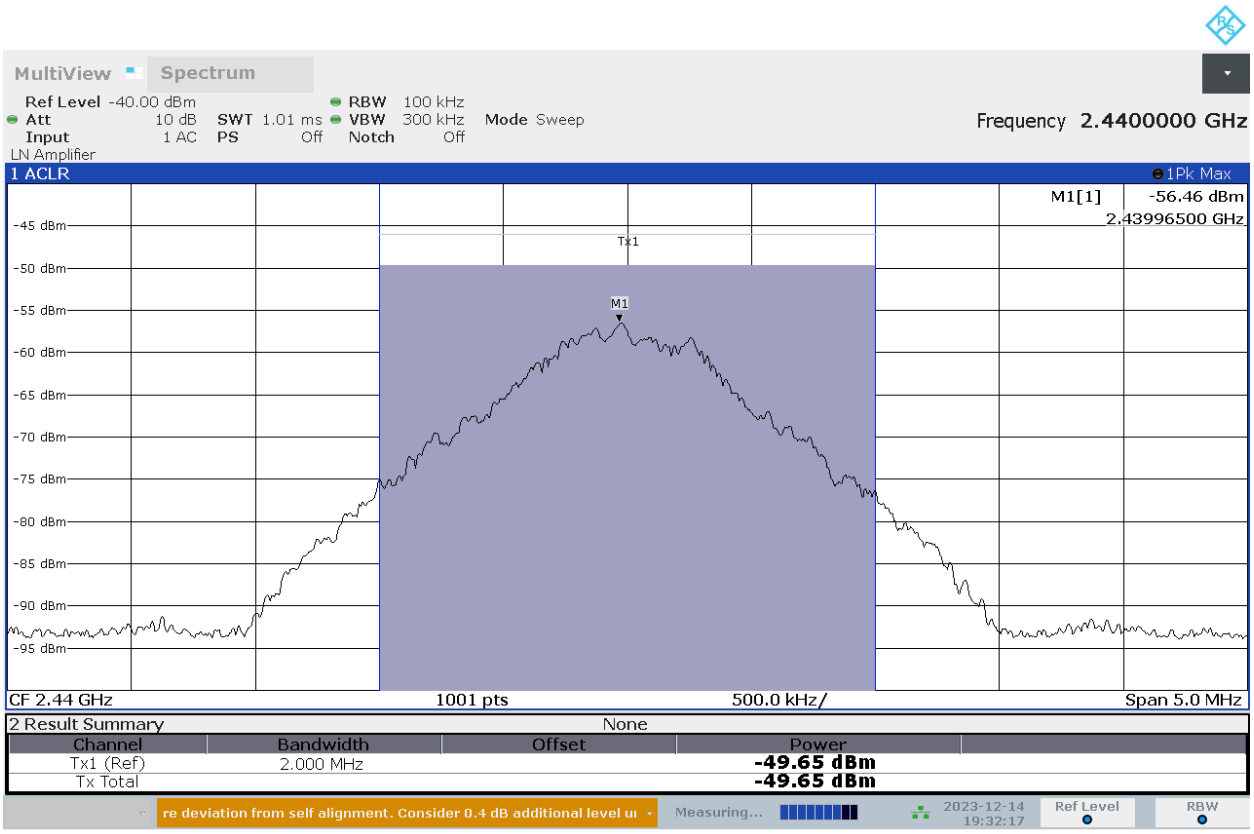


Figure 5 – EAP Output Power, 2440MHz

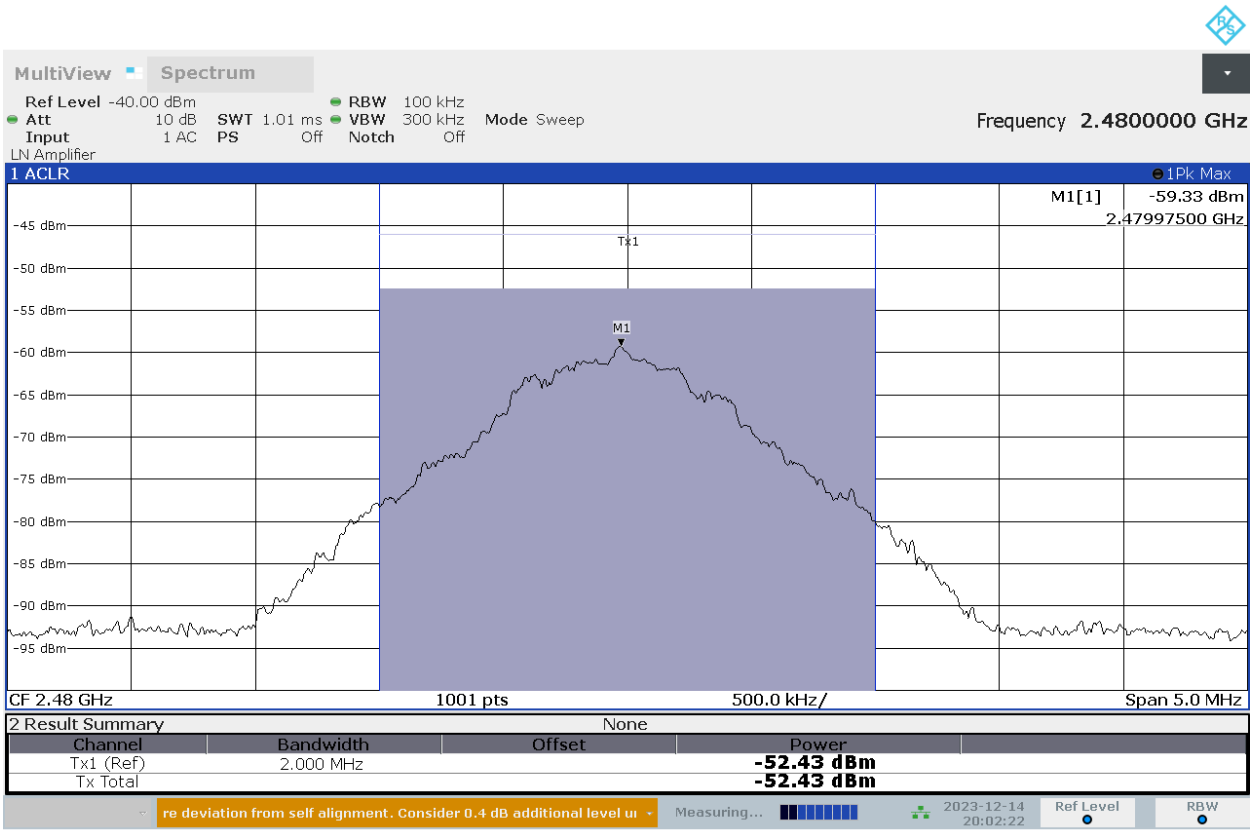


Figure 6 – EAP Output Power, 2480MHz

8 Occupied Bandwidth

8.1 Test Limits

FCC Part 15.247(a)(2):

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

RSS-247 Issue 3 § 5.2(a):

The minimum 6 dB bandwidth shall be 500 kHz.

8.2 Test Method

Tests are performed in accordance with ANSI C63.10:2013 § 11.8.1.

8.3 Test Equipment Used

Description	Asset	Manufacturer	Model	Cal Date	Cal Due
EMI Test Receiver	8258	Rohde & Schwarz	ESW44	9/19/2023	9/19/2024
Horn Antenna (1-18GHz)	3780	ETS	3117	8/8/2023	8/8/2024
System Controller	4096	ETS Lindgren	2090	Verify at Time of Use	Verify at Time of Use
1-18GHz Signal Path without Preamplifier	3074, 2588, 2593, 8188, 8185			10/5/2023	10/5/2024

8.4 Test Results

The device was found to be **compliant**. The 6dB bandwidth was at least 500kHz.

8.5 Test Conditions

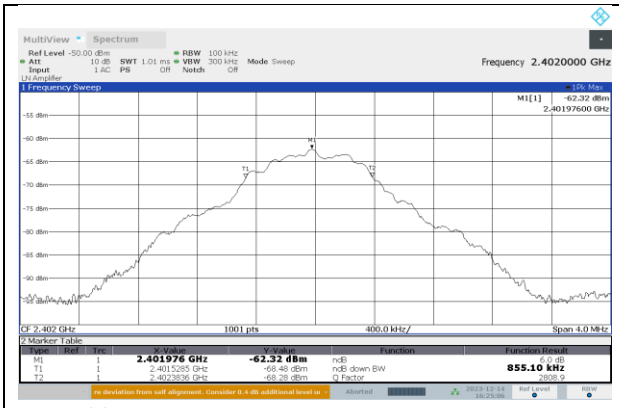
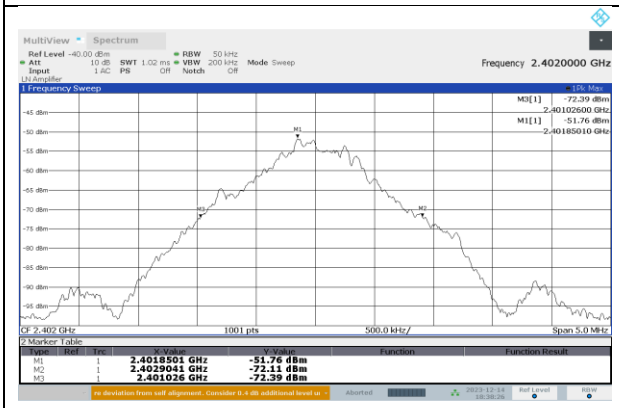
Test Personnel:	Brian Lackey	Test Date:	12/14/2023
Supervising/Reviewing Engineer: (Where Applicable)	NA	Limit Applied:	See Above
Product Standard:	FCC Part 15.247 RSS-247 Issue 3	Ambient Temperature:	25.6°C
Input Voltage:	Battery	Relative Humidity:	52.2%
Pretest Verification w / Ambient Signals or BB Source:	Yes	Atmospheric Pressure:	985.4mbar

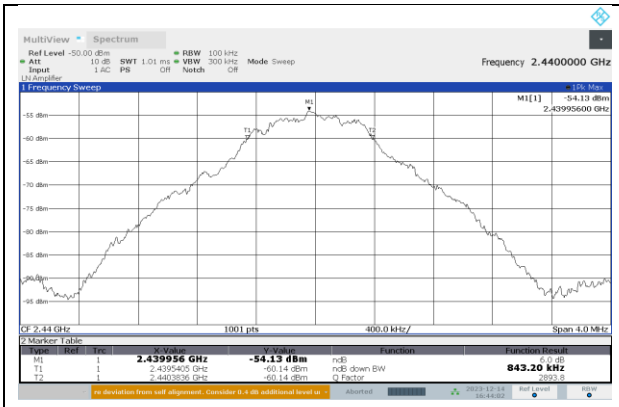
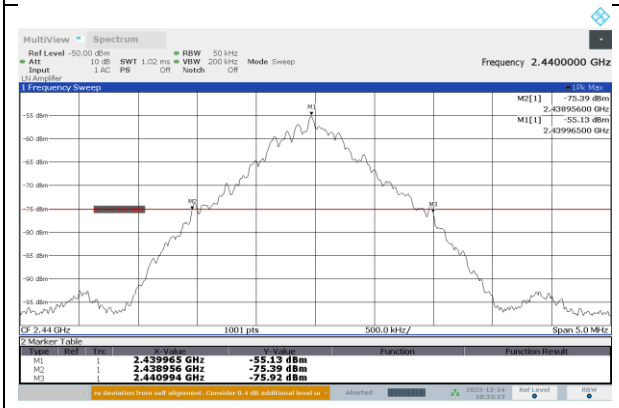
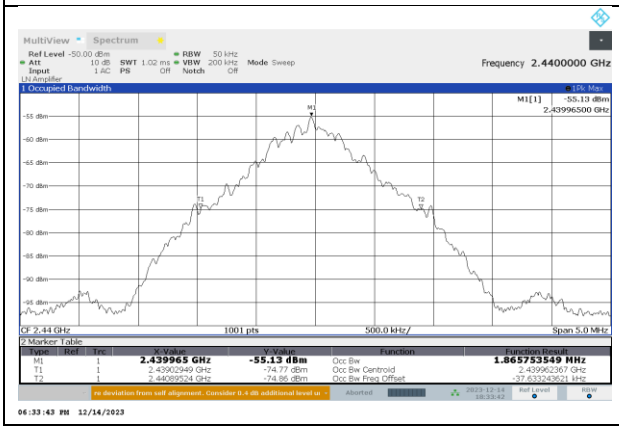
Deviations, Additions, or Exclusions: None.

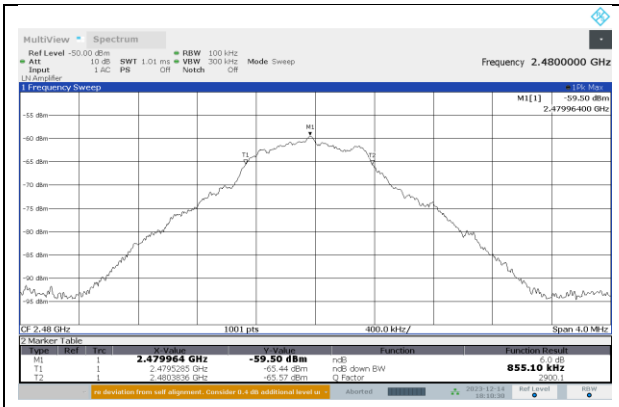
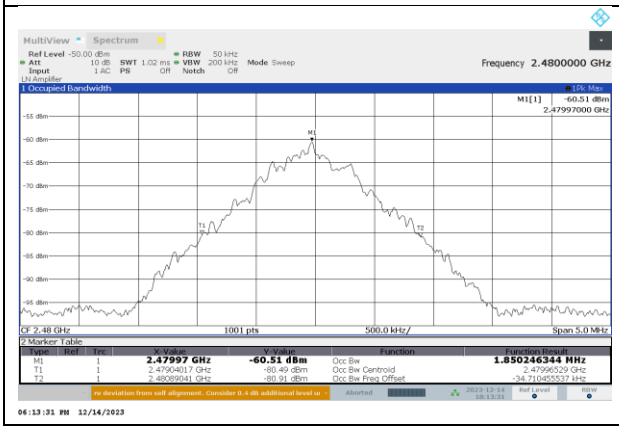
8.6 Test Data

8.6.1 Motor Controller

Frequency (MHz)	6dB BW (kHz)	20dB BW (kHz)	99% BW (kHz)
2402	855.1	1871	1771
2440	843.2	2038	1866
2480	855.1	1830	1850

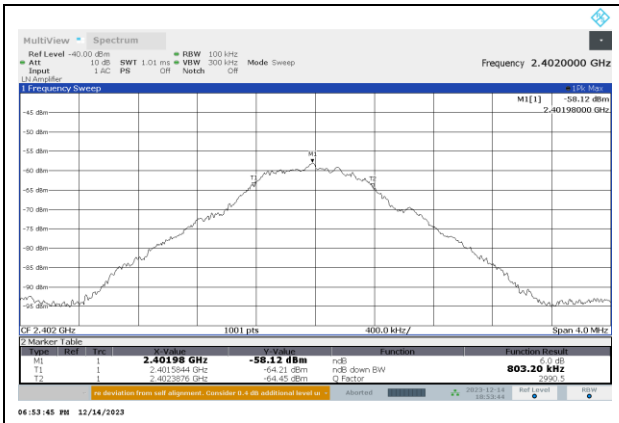
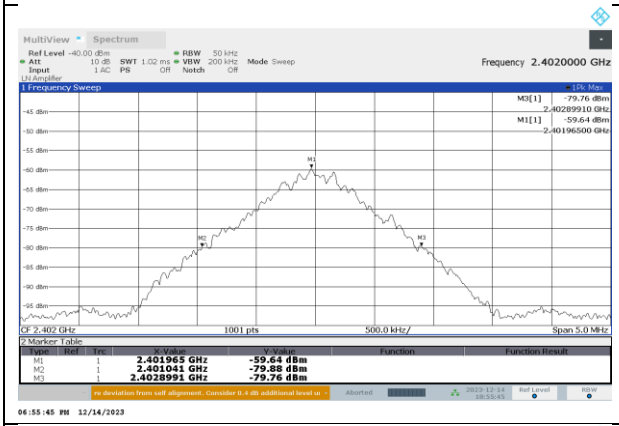
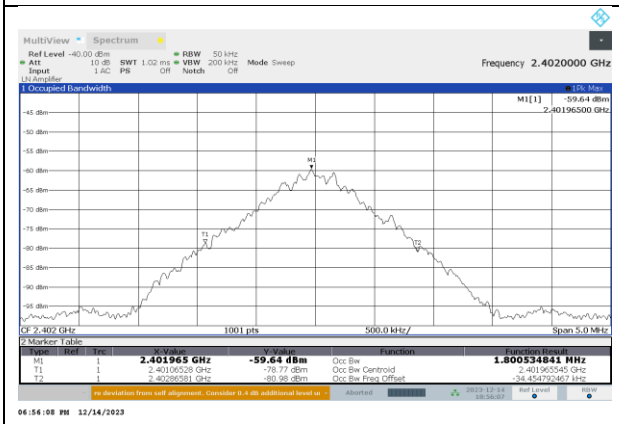
	Motor Controller 6dB BW, 2402 MHz
	Motor Controller 20dB BW, 2402 MHz
	Motor Controller 99% BW, 2402 MHz

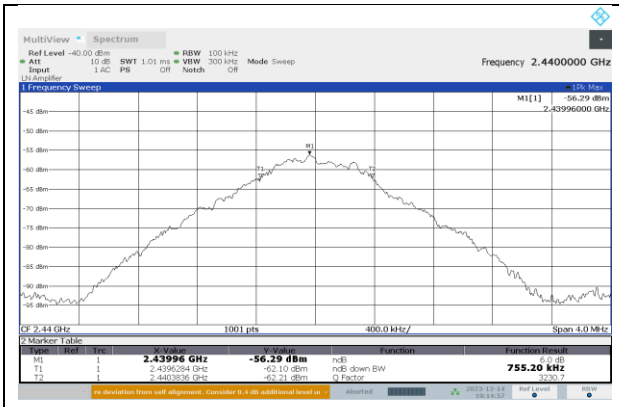
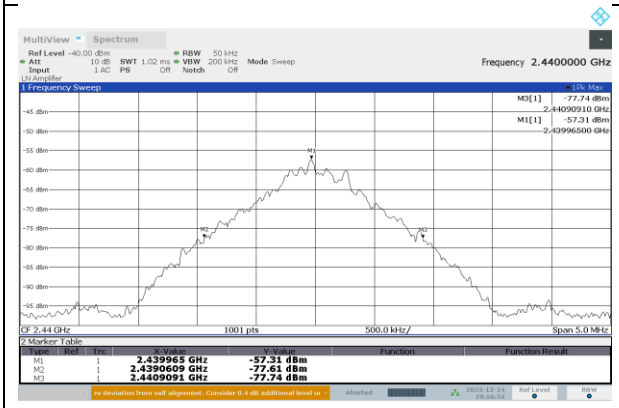
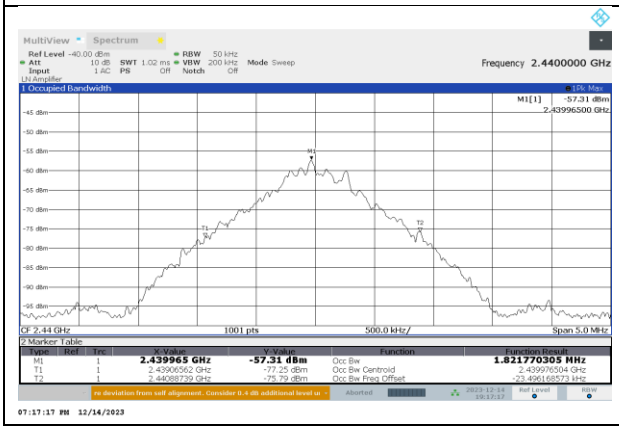
	Motor Controller 6dB BW, 2440 MHz
	Motor Controller 20dB BW, 2440 MHz
	Motor Controller 99% BW, 2440 MHz

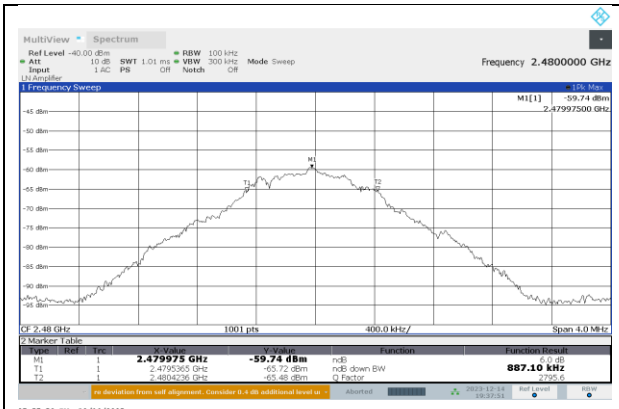
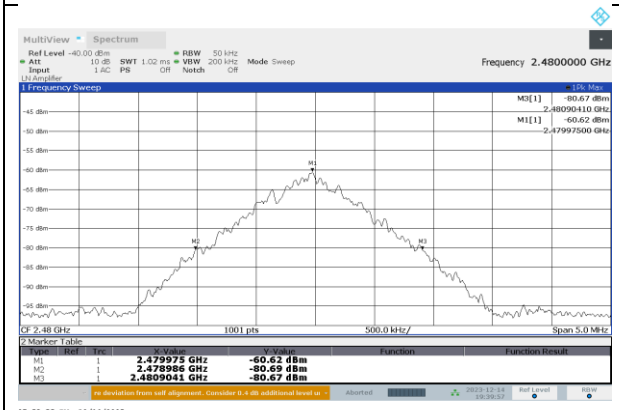
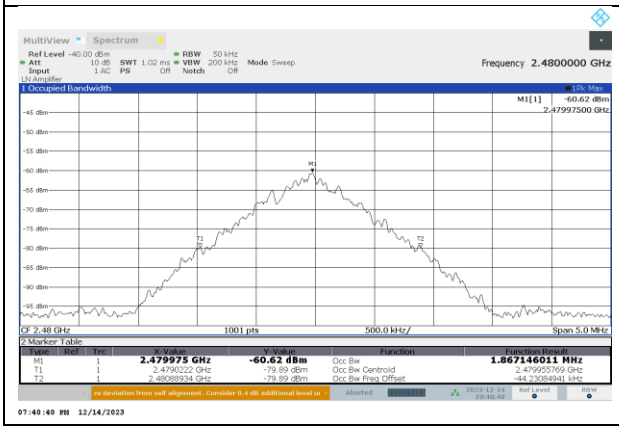
	Motor Controller 6dB BW, 2480 MHz
	Motor Controller 20dB BW, 2480 MHz
	Motor Controller 99% BW, 2480 MHz

8.6.2 EAP

Frequency (MHz)	6dB BW (kHz)	20dB BW (kHz)	99% BW (kHz)
2402	803.2	1858	1801
2440	755.2	1848	1822
2480	887.1	1918	1867

	EAP 6dB BW, 2402 MHz
	EAP 20dB BW, 2402 MHz
	EAP 99% BW, 2402 MHz

	EAP 6dB BW, 2440 MHz
	EAP 20dB BW, 2440 MHz
	EAP 99% BW, 2440 MHz

	EAP 6dB BW, 2480 MHz
	EAP 20dB BW, 2480 MHz
	EAP 99% BW, 2480 MHz

9 Power Spectral Density

9.1 Test Limits

FCC Part 15.247(e):

> For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

RSS-247 Issue 3 § 5.2(b):

> The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of section 5.4(d), (i.e. the power spectral density shall be determined using the same method as is used to determine the conducted output power).

9.2 Test Method

Tests are performed in accordance with ANSI C63.10:2013 § 11.10.2 Method PKPSD (peak PSD).

9.3 Test Equipment Used

Description	Asset	Manufacturer	Model	Cal Date	Cal Due
EMI Test Receiver	8258	Rohde & Schwarz	ESW44	9/19/2023	9/19/2024
Horn Antenna (1-18GHz)	3780	ETS	3117	8/8/2023	8/8/2024
System Controller	4096	ETS Lindgren	2090	Verify at Time of Use	Verify at Time of Use
1-18GHz Signal Path without Preamplifier	3074, 2588, 2593, 8188, 8185			10/5/2023	10/5/2024

9.4 Test Results

The device was found to be **compliant**. The peak power spectral density in 100kHz was less than 8dBm, and the device is thereby deemed to comply with the 8dBm/3kHz limit.

9.5 Test Conditions

Test Personnel:	Brian Lackey	Test Date:	12/14/2023
Supervising/Reviewing Engineer: (Where Applicable)	NA	Limit Applied:	See Above
Product Standard:	FCC Part 15.247 RSS-247 Issue 3	Ambient Temperature:	25.6°C
Input Voltage:	120V/60Hz	Relative Humidity:	52.2%
Pretest Verification w / Ambient Signals or BB Source:	Yes	Atmospheric Pressure:	985.4mbar

Deviations, Additions, or Exclusions: None.

9.6 Test Data

9.6.1 Motor Controller

Frequency (MHz)	Receiver Measured Power (dBm)	Receiver Measured Power (dBuV)	Path Loss (dB)	Antenna Factor (dB/m)	E Field (dBuV/m)	PPSD EIRP (dBm)	Antenna Gain (dBi est)	Conducted PPSD (dBm, est)
2402	-48.68	58.32	6.22	32.1	96.64	1.41	5.3	-3.89
2440	-53.69	53.31	6.24	32.3	91.85	-3.38	5.3	-8.68
2480	-54.6	52.4	6.27	32.5	91.17	-4.06	5.3	-9.36

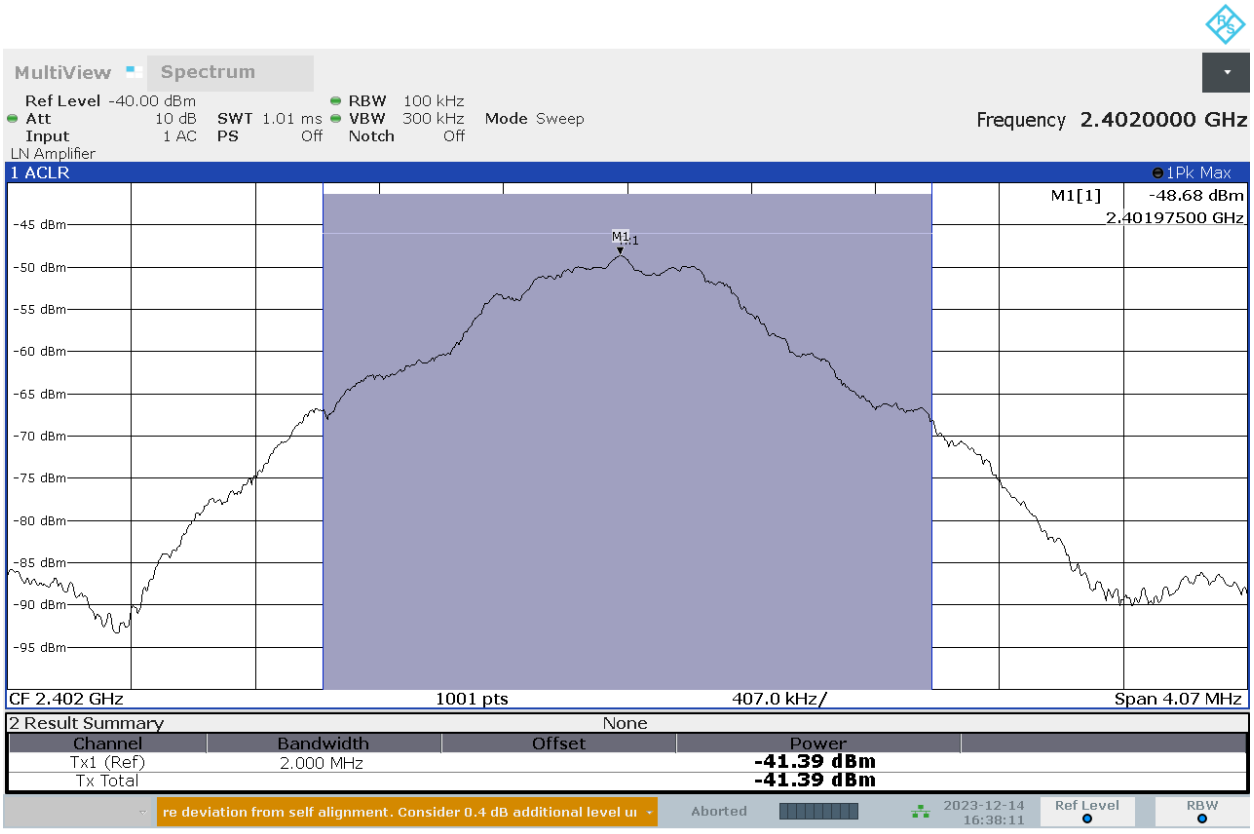


Figure 7 – Motor Controller PPSD, 2402 MHz

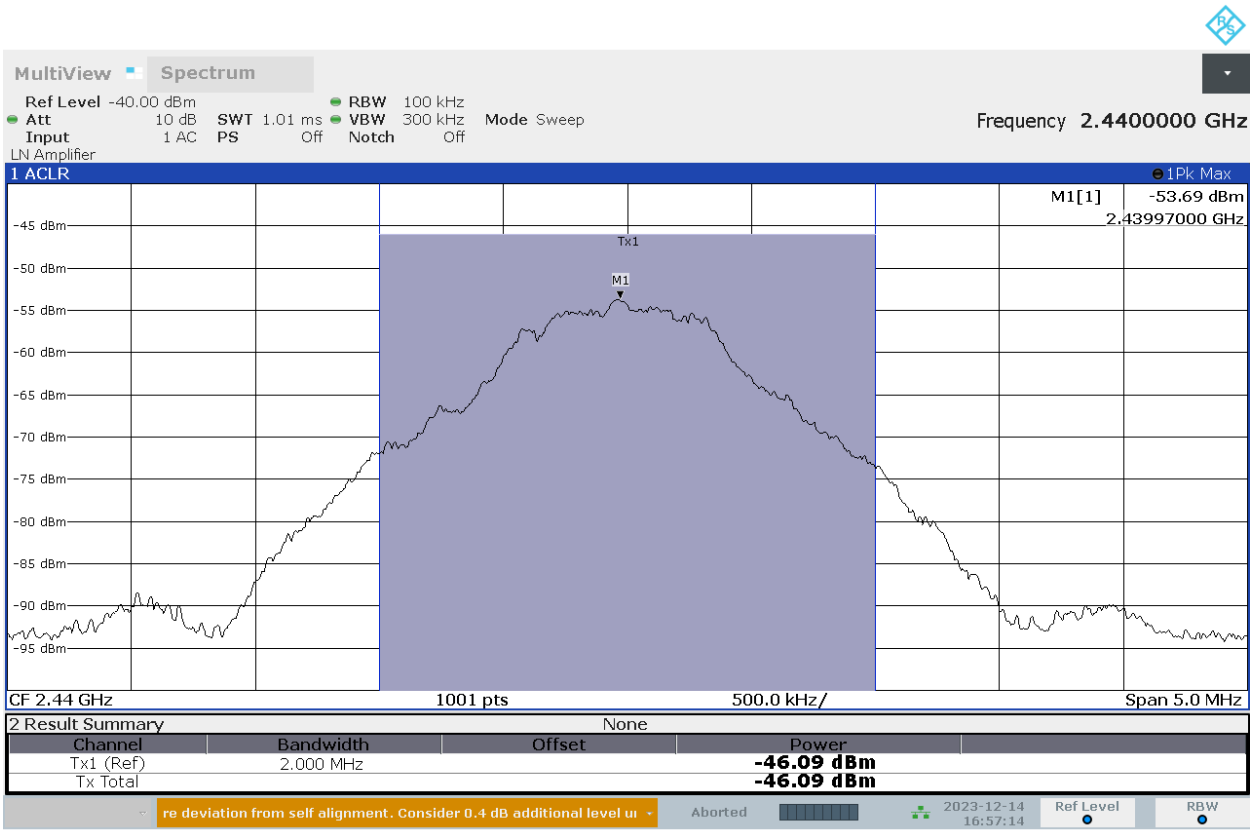


Figure 8 - Motor Controller PPSD, 2440 MHz

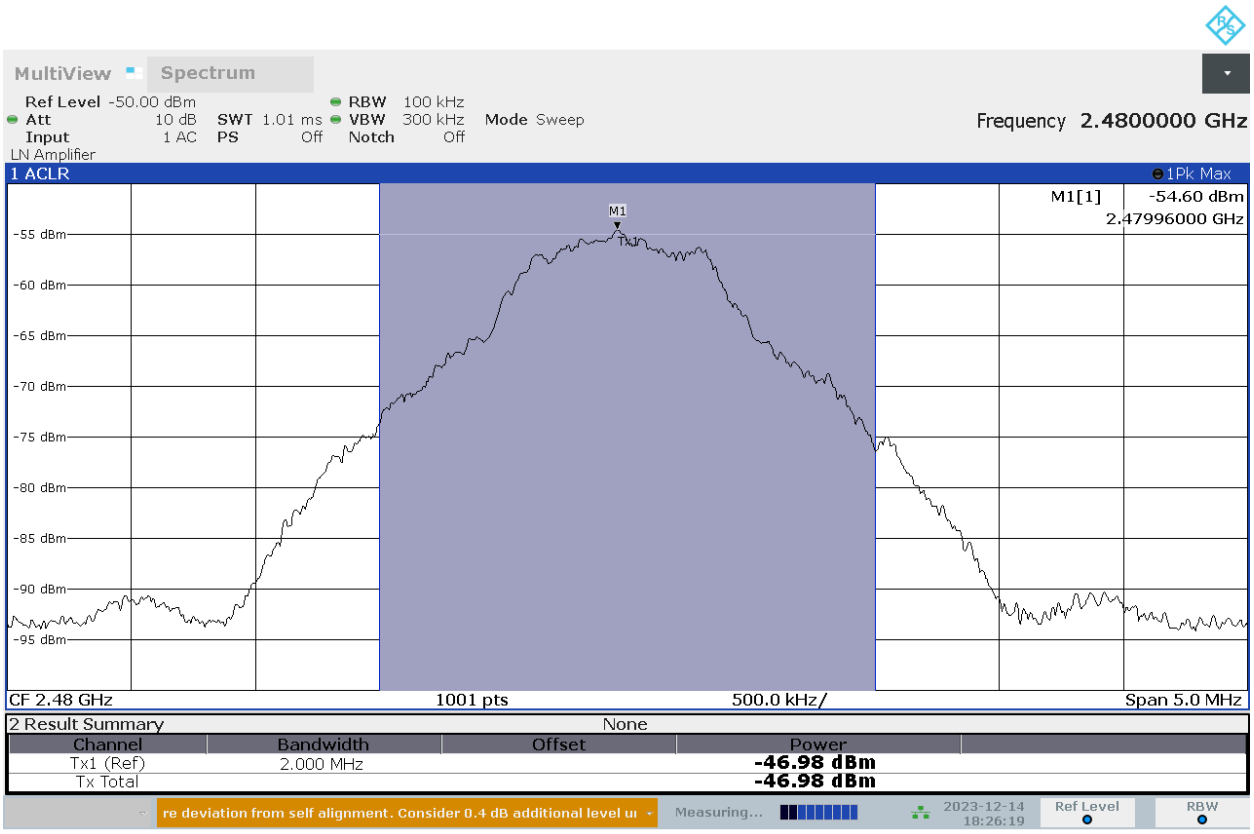


Figure 9 – Motor Controller PPSD, 2480 MHz

9.6.2 EAP

Frequency (MHz)	Receiver Measured Power (dBm)	Receiver Measured Power (dBuV)	Path Loss (dB)	Antenna Factor (dB/m)	E Field (dBuV/m)	PPSD EIRP (dBm)	Antenna Gain (dBi est)	Conducted PPSD (dBm, est)
2402	-55.75	51.25	6.22	32.1	89.57	-5.66	5.3	-10.96
2440	-56.46	50.54	6.24	32.3	89.08	-6.15	5.3	-11.45
2480	-59.33	47.67	6.27	32.5	86.44	-8.79	5.3	-14.09

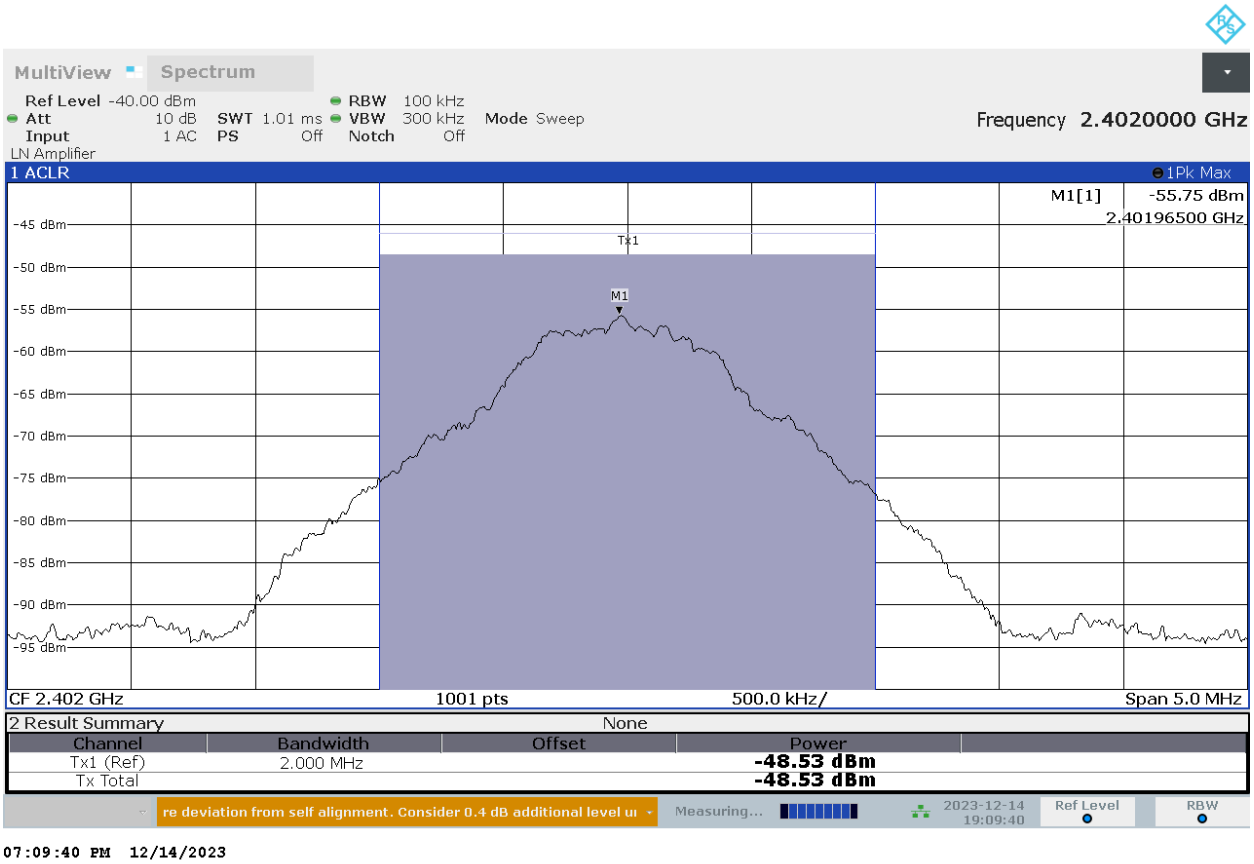


Figure 10 – EAP PPSD, 2402 MHz

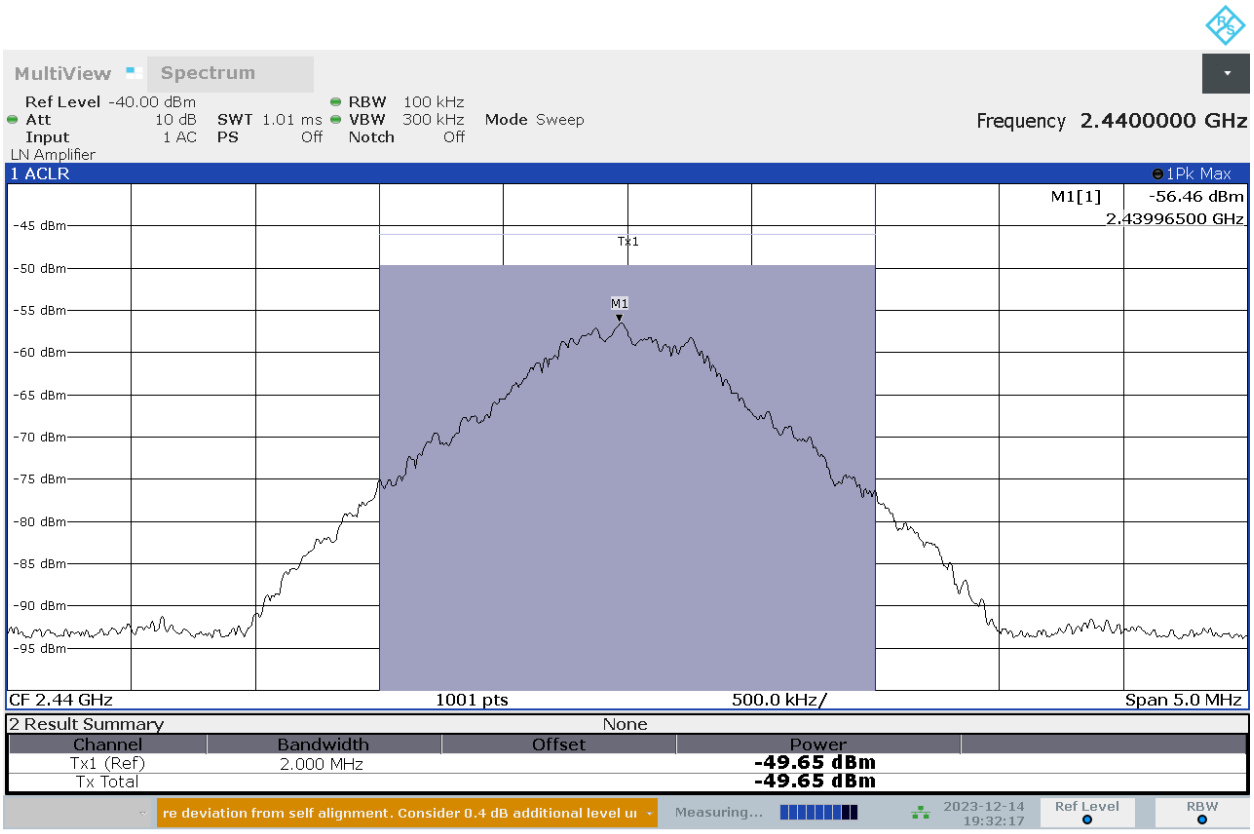


Figure 11 - EAP PPSD, 2440 MHz

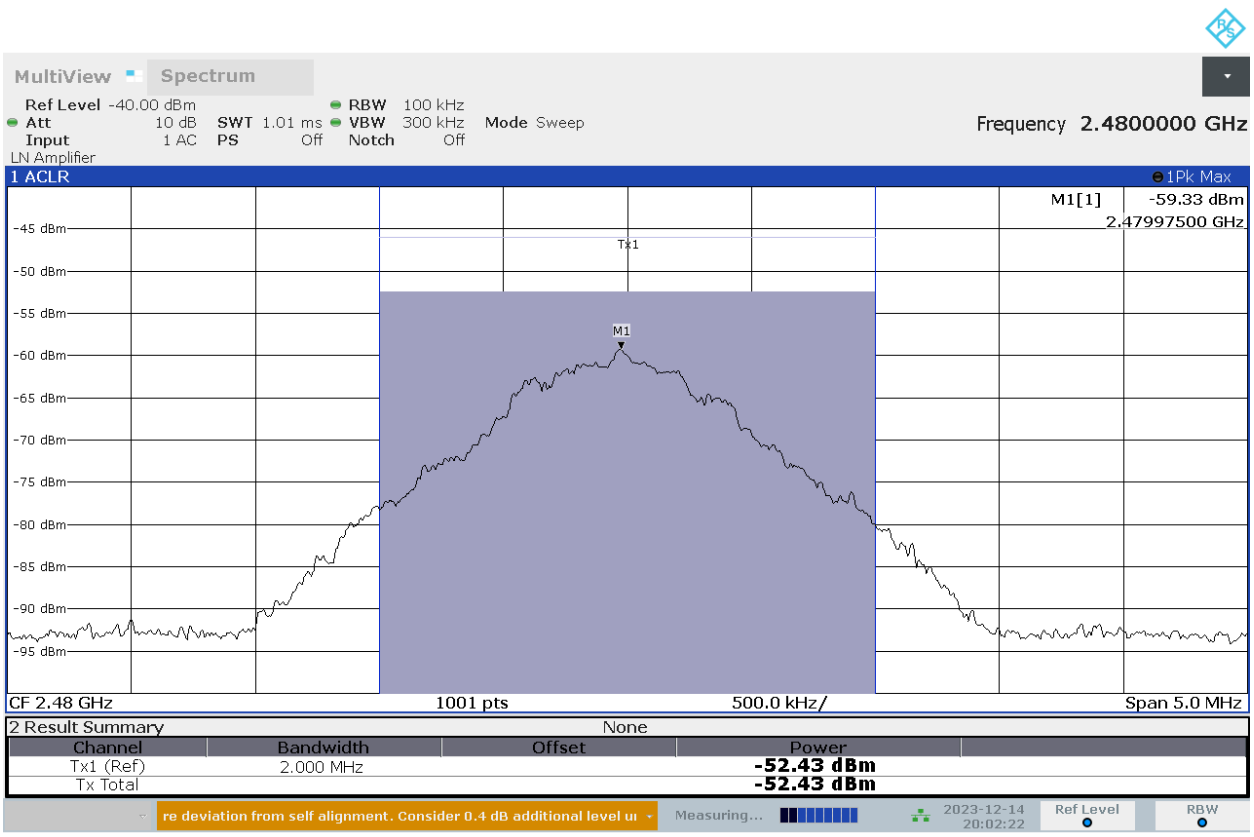


Figure 12 – EAP PPSD, 2480 MHz

10 Antenna Requirement

10.1 Test Limits

FCC Part 15.203:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §§15.211, 15.213, 15.217, 15.219, 15.221, or §15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

RSS-Gen Issue 5 § 6.8:

The applicant for equipment certification, as per RSP-100, must provide a list of all antenna types that may be used with the licence-exempt transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna.

Licence-exempt transmitters that have received equipment certification may operate with different types of antennas. However, it is not permissible to exceed the maximum equivalent isotropically radiated power (e.i.r.p.) limits specified in the applicable standard (RSS) for the licence-exempt apparatus.

Testing shall be performed using the highest gain antenna of each combination of licence-exempt transmitter and antenna type, with the transmitter output power set at the maximum level. When a measurement at the antenna connector is used to determine RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna manufacturer.

User manuals for transmitters equipped with detachable antennas shall also contain the following notice in a conspicuous location:

This radio transmitter (identify the device by certification number) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Immediately following the above notice, the manufacturer shall provide a list of all antenna types approved for use with the transmitter, indicating the maximum permissible antenna gain (in dBi).

10.2 Test Results

The device was found to be **compliant**. The device has internal, permanently affixed antennas.

11 AC Mains Conducted Emissions

11.1 Method

Tests are performed in accordance with ANSI C63.4.

TEST SITE: Ground Plane

Site Designation: Ground Plane

Measurement Uncertainty

Measurement	Frequency Range	Expanded Uncertainty (k=2)	Ucispr
AC Line Conducted Emissions	150 kHz - 30 MHz	3.1dB	3.4dB

As shown in the table above our conducted 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.

11.2 Sample Calculations

The following is how net line-conducted readings were determined:

NF = RF + LF + CF + AF
Where NF = Net Reading in dBμV
RF = Reading from receiver in dBμV
LF = LISN or ISN Correction Factor in dB
CF = Cable Correction Factor in dB
AF = Attenuator Loss Factor in dB

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:
NF = RF + LF + CF + AF = 28.5 + 0.2 + 0.4 + 20.0 = 49.1 dBμV
$UF = 10^{(49.1\ dB\mu V / 20)}$ = 285.1 μV/m

11.3 Test Equipment Used:

Description	Asset	Manufacturer	Model	Cal Date	Cal Due
EMI Test Receiver	3900	Rohde & Schwarz	ESU40	10/13/2023	10/13/2024
LISN	2508	Fischer Custom Communication	FCC-LISN-50-50-2M	7/31/2023	7/31/2024
Coaxial Cable	7024			1/13/2023	1/13/2024

11.4 Software Utilized:

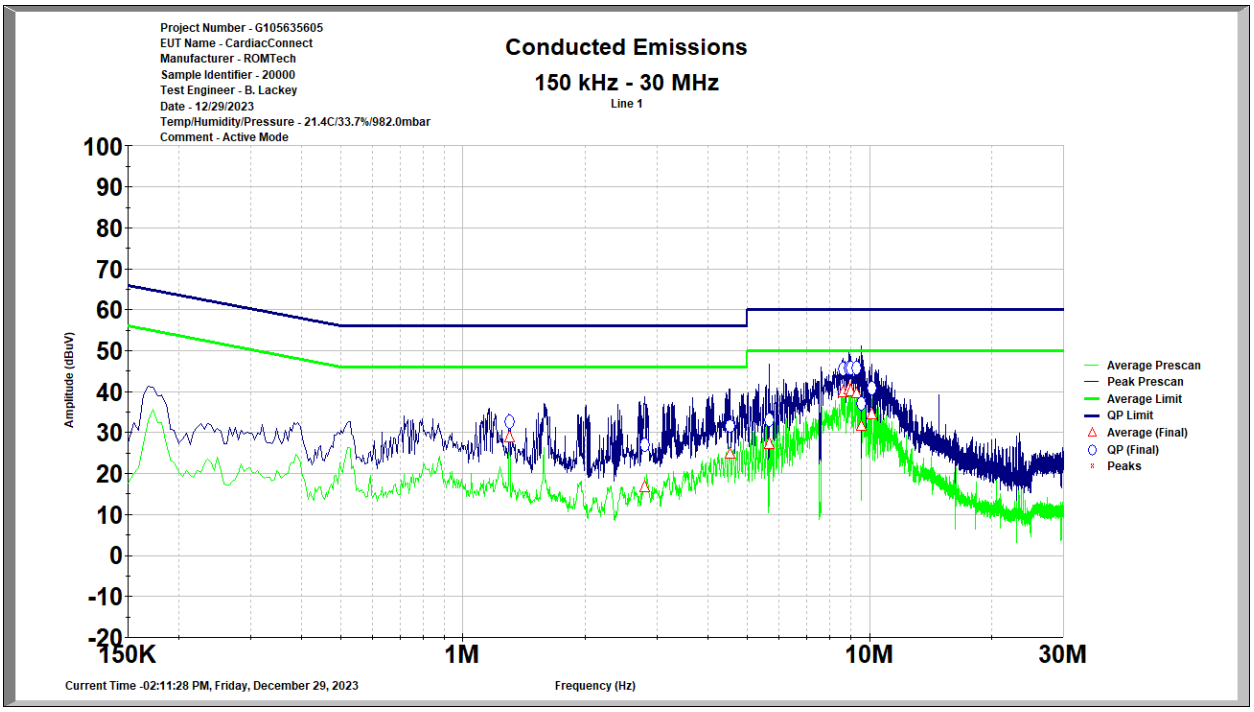
Name	Manufacturer	Version
TILE	ETS Lindgren	V7.0.6.545

11.5 Results:

The sample tested was found to Comply.

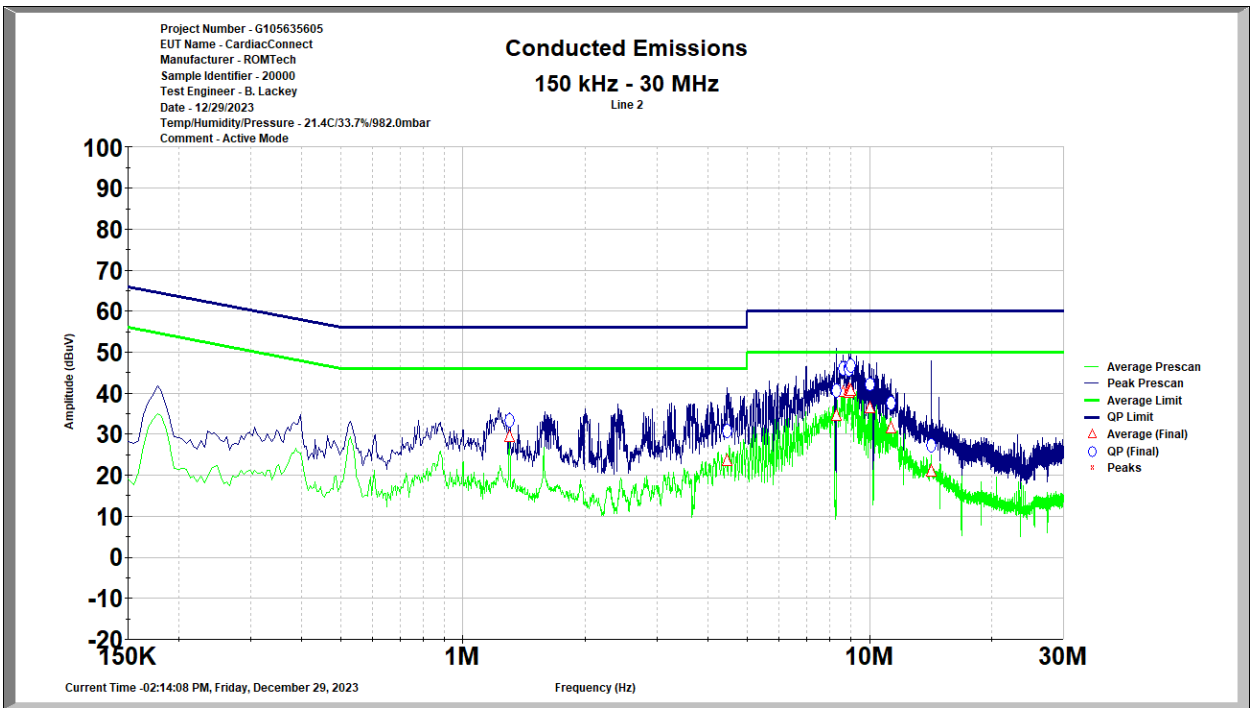
11.6 Plots/Data: Conducted Emissions

11.6.1 Active Mode



Line

Frequency (MHz)	Quasi-Peak (dBuV)	Quasi-Peak Limit (dBuV)	Quasi-Peak Margin (dB)	Average (dBuV)	Average Limit (dBuV)	Average Margin (dB)
1.302	32.644	56.000	23.356	28.989	46.000	17.011
2.801	26.938	56.000	29.062	16.603	46.000	29.397
4.535	31.802	56.000	24.198	24.999	46.000	21.001
5.660	33.090	60.000	26.910	27.142	50.000	22.858
8.622	45.547	60.000	14.453	39.818	50.000	10.182
8.919	45.753	60.000	14.247	40.546	50.000	9.454
9.000	45.691	60.000	14.309	40.173	50.000	9.827
9.294	45.848	60.000	14.152	39.713	50.000	10.287
9.550	37.145	60.000	22.855	31.596	50.000	18.404
10.118	40.743	60.000	19.257	34.397	50.000	15.603



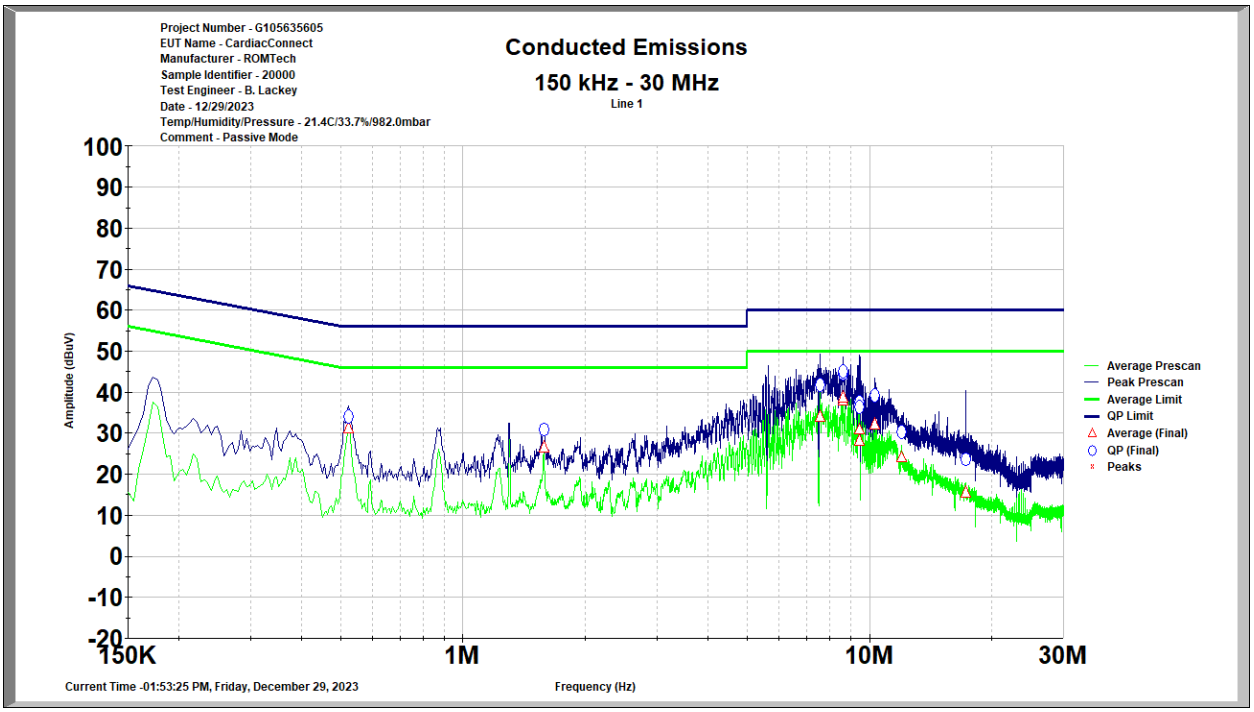
Neutral

Frequency (MHz)	Quasi-Peak (dBuV)	Quasi-Peak Limit (dBuV)	Quasi-Peak Margin (dB)	Average (dBuV)	Average Limit (dBuV)	Average Margin (dB)
1.302	33.281	56.000	22.719	29.433	46.000	16.567
4.458	30.842	56.000	25.158	23.517	46.000	22.483
8.303	40.540	60.000	19.460	34.483	50.000	15.517
8.622	46.061	60.000	13.939	40.353	50.000	9.647
8.919	46.416	60.000	13.584	40.838	50.000	9.162
8.924	45.798	60.000	14.202	40.056	50.000	9.944
8.995	46.585	60.000	13.415	40.643	50.000	9.357
10.037	42.345	60.000	17.655	36.359	50.000	13.641
11.278	37.534	60.000	22.466	31.415	50.000	18.585
14.210	27.316	60.000	32.684	20.939	50.000	29.061

Test Personnel:	Brian Lackey	Test Date:	12/29/2023
Supervising/Reviewing Engineer: (Where Applicable)	NA	Limit Applied:	FCC Part 15.207
Product Standard:	FCC Part 15.247 RSS-247 Issue 3	Ambient Temperature:	21.4°C
Input Voltage:	120V/60Hz	Relative Humidity:	33.7%
Pretest Verification w / Ambient Signals or BB Source:	Yes	Atmospheric Pressure:	982.0mbar

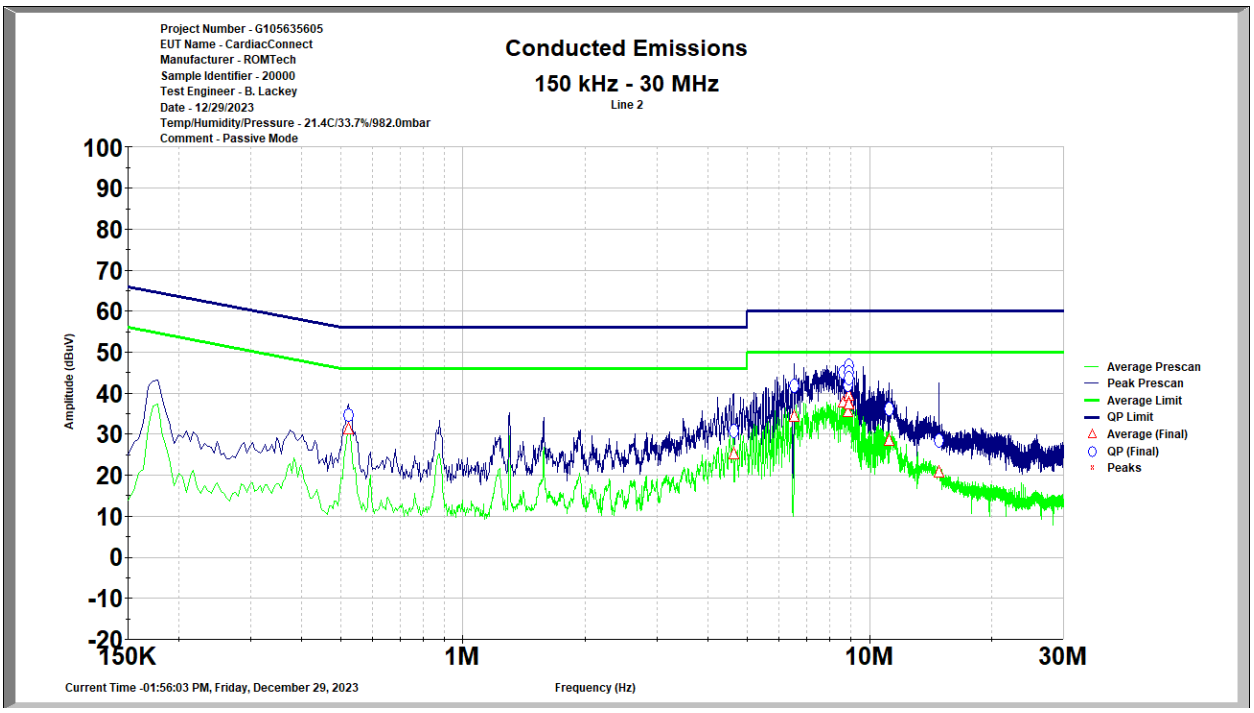
Deviations, Additions, or Exclusions: Motor Controller and EAP were both active during testing.

11.6.2 Passive Mode



Line

Frequency (MHz)	Quasi-Peak (dBuV)	Quasi-Peak Limit (dBuV)	Quasi-Peak Margin (dB)	Average (dBuV)	Average Limit (dBuV)	Average Margin (dB)
0.523	34.103	56.000	21.897	31.231	46.000	14.769
1.581	30.877	56.000	25.123	26.423	46.000	19.577
7.556	41.698	60.000	18.302	34.119	50.000	15.881
8.617	44.554	60.000	15.446	37.936	50.000	12.064
8.622	45.130	60.000	14.870	38.778	50.000	11.222
9.465	37.613	60.000	22.387	31.050	50.000	18.950
9.470	36.285	60.000	23.715	28.138	50.000	21.862
10.329	39.281	60.000	20.719	32.176	50.000	17.824
12.008	30.171	60.000	29.829	24.275	50.000	25.725
17.249	23.697	60.000	36.303	15.643	50.000	34.357



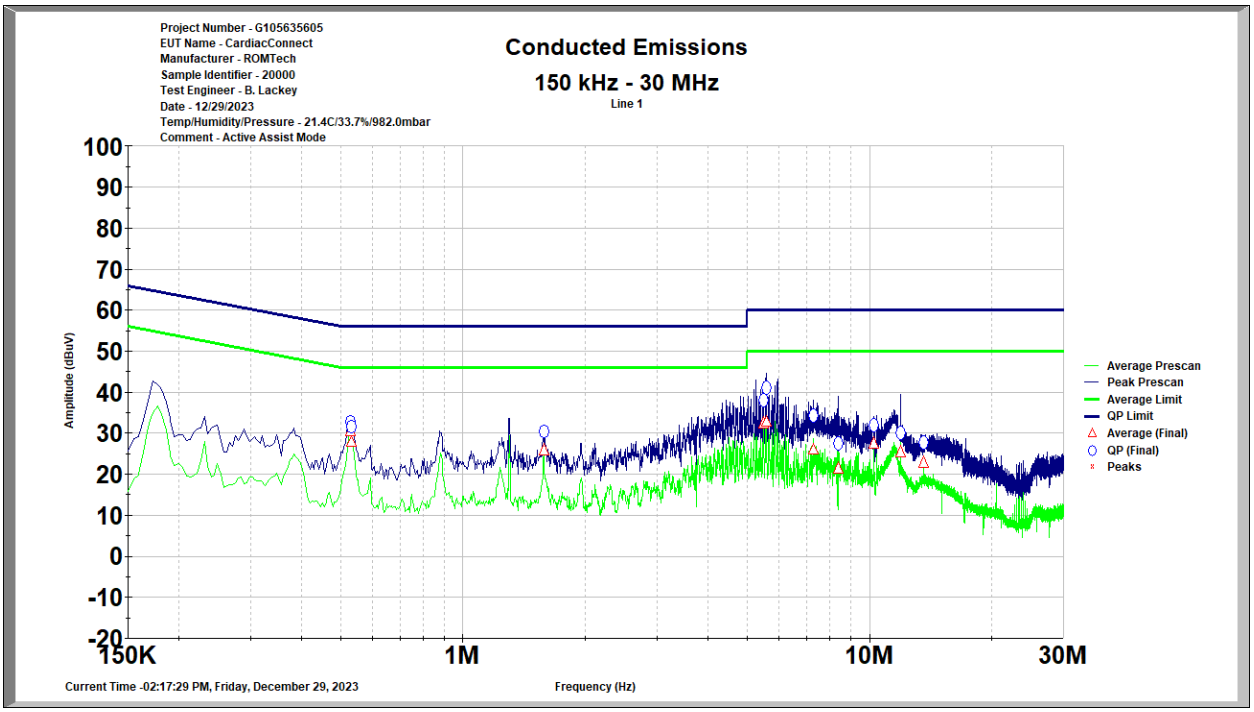
Neutral

Frequency (MHz)	Quasi-Peak (dBuV)	Quasi-Peak Limit (dBuV)	Quasi-Peak Margin (dB)	Average (dBuV)	Average Limit (dBuV)	Average Margin (dB)
0.523	34.801	56.000	21.199	31.274	46.000	14.726
4.629	30.691	56.000	25.309	25.155	46.000	20.845
6.529	41.840	60.000	18.160	34.177	50.000	15.823
8.627	45.099	60.000	14.901	37.818	50.000	12.182
8.829	42.075	60.000	17.925	35.551	50.000	14.449
8.915	46.704	60.000	13.296	39.463	50.000	10.537
8.919	45.059	60.000	14.941	37.586	50.000	12.414
8.924	43.546	60.000	16.454	37.443	50.000	12.557
11.171	36.227	60.000	23.773	28.464	50.000	21.536
14.849	28.382	60.000	31.618	20.643	50.000	29.357

Test Personnel:	Brian Lackey	Test Date:	12/29/2023
Supervising/Reviewing Engineer: (Where Applicable)	NA	Limit Applied:	FCC Part 15.207
Product Standard:	FCC Part 15.247 RSS-247 Issue 3	Ambient Temperature:	21.4°C
Input Voltage:	120V/60Hz	Relative Humidity:	33.7%
Pretest Verification w / Ambient Signals or BB Source:	Yes	Atmospheric Pressure:	982.0mbar

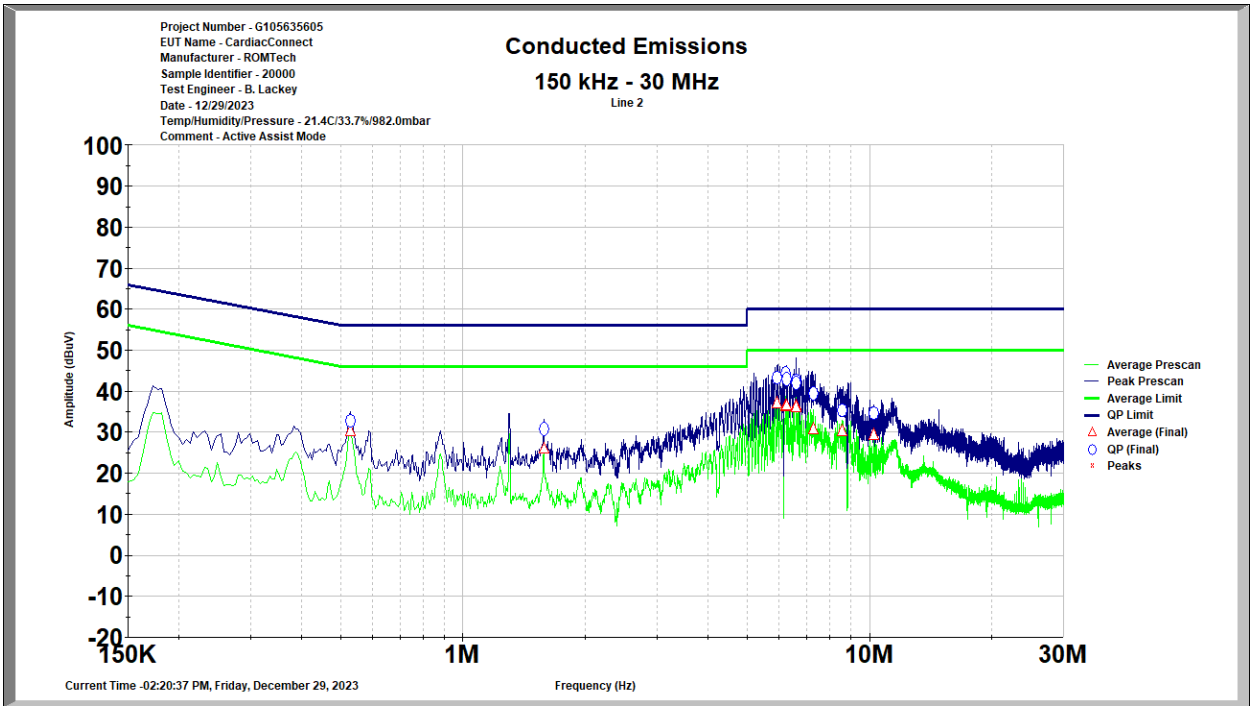
Deviations, Additions, or Exclusions: Motor Controller and EAP were both active during testing.

11.6.3 Active Assist Mode



Line

Frequency (MHz)	Quasi-Peak (dBuV)	Quasi-Peak Limit (dBuV)	Quasi-Peak Margin (dB)	Average (dBuV)	Average Limit (dBuV)	Average Margin (dB)
0.528	32.791	56.000	23.209	30.535	46.000	15.465
0.532	31.716	56.000	24.284	28.003	46.000	17.997
1.581	30.584	56.000	25.416	25.740	46.000	20.260
5.475	37.971	60.000	22.029	32.521	50.000	17.479
5.565	41.012	60.000	18.988	32.943	50.000	17.057
7.277	34.215	60.000	25.785	25.974	50.000	24.026
8.393	27.435	60.000	32.565	21.333	50.000	28.667
10.239	31.898	60.000	28.102	27.373	50.000	22.627
11.931	30.029	60.000	29.971	25.253	50.000	24.747
13.562	27.669	60.000	32.331	22.726	50.000	27.274



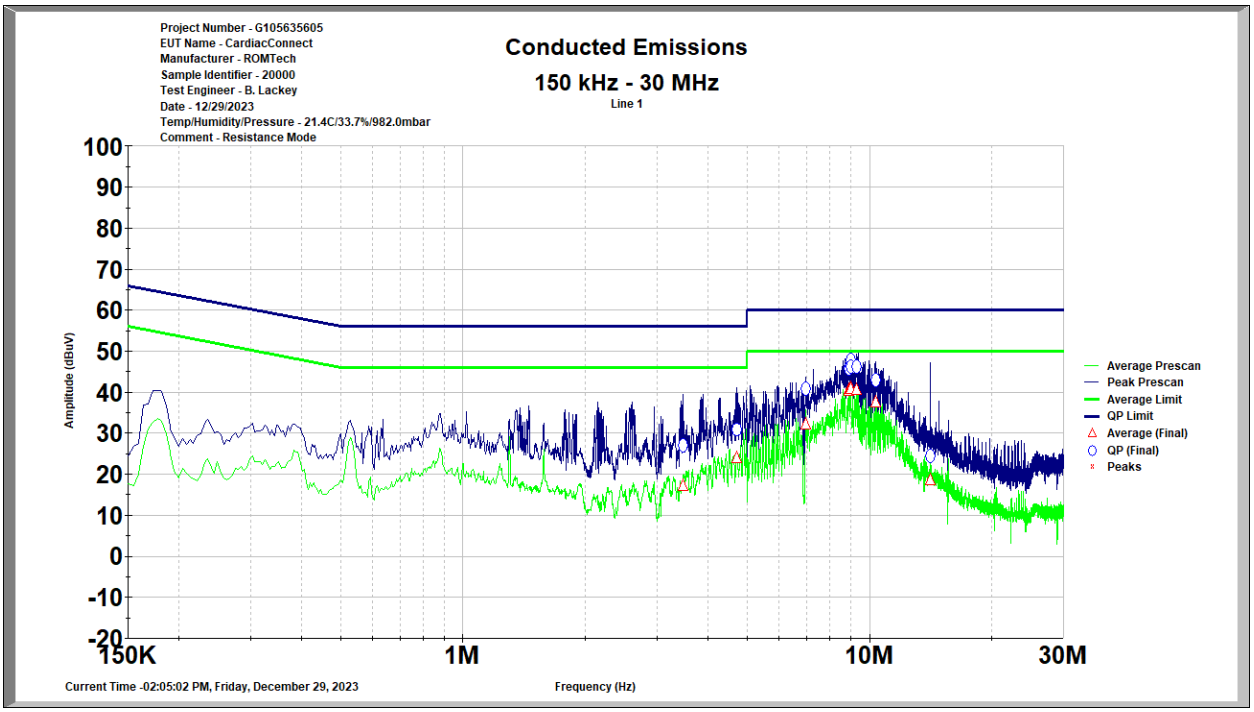
Neutral

Frequency (MHz)	Quasi-Peak (dBuV)	Quasi-Peak Limit (dBuV)	Quasi-Peak Margin (dB)	Average (dBuV)	Average Limit (dBuV)	Average Margin (dB)
0.528	32.880	56.000	23.120	30.376	46.000	15.624
1.581	30.854	56.000	25.146	26.039	46.000	19.961
5.934	43.448	60.000	16.552	37.137	50.000	12.863
6.223	44.315	60.000	15.685	36.285	50.000	13.715
6.237	42.922	60.000	17.078	36.683	50.000	13.317
6.606	42.604	60.000	17.396	36.608	50.000	13.392
6.611	42.047	60.000	17.953	36.167	50.000	13.833
7.277	39.520	60.000	20.480	30.749	50.000	19.251
8.550	35.494	60.000	24.506	30.367	50.000	19.633
10.239	34.646	60.000	25.354	29.333	50.000	20.667

Test Personnel:	Brian Lackey	Test Date:	12/29/2023
Supervising/Reviewing Engineer: (Where Applicable)	NA	Limit Applied:	FCC Part 15.207
Product Standard:	FCC Part 15.247 RSS-247 Issue 3	Ambient Temperature:	21.4°C
Input Voltage:	120V/60Hz	Relative Humidity:	33.7%
Pretest Verification w / Ambient Signals or BB Source:	Yes	Atmospheric Pressure:	982.0mbar

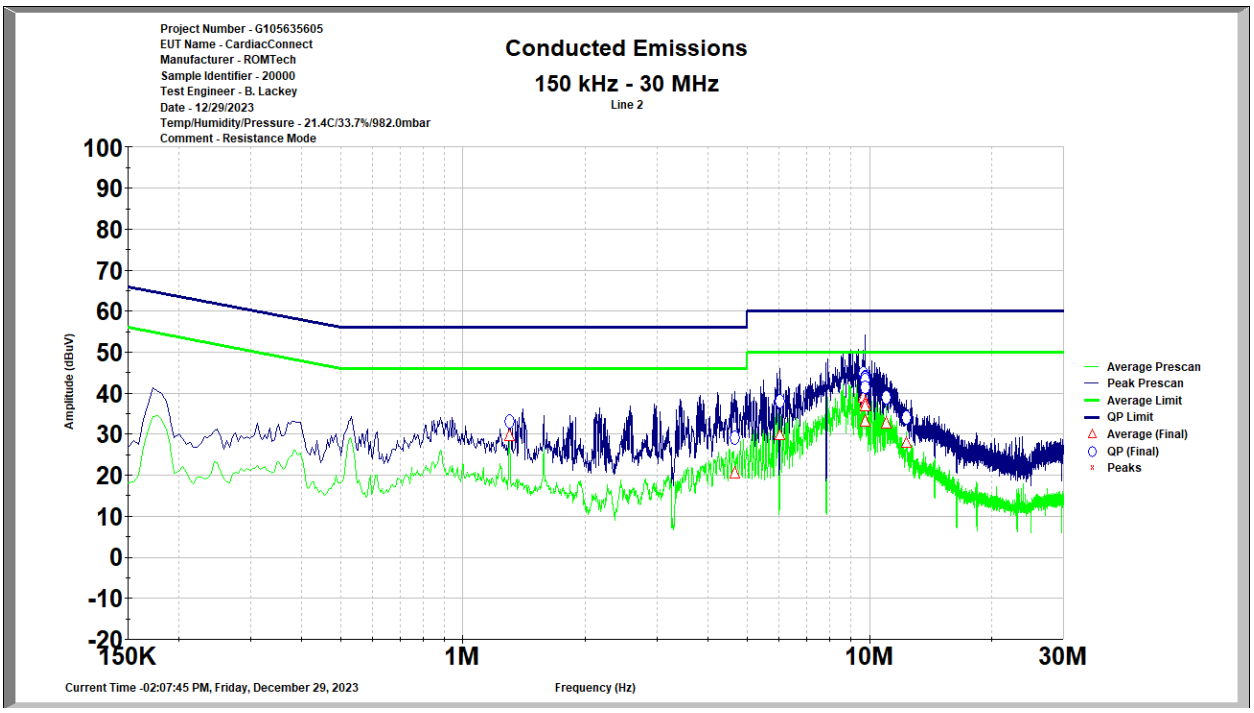
Deviations, Additions, or Exclusions: Motor Controller and EAP were both active during testing.

11.6.4 Resistance Mode



Line

Frequency (MHz)	Quasi-Peak (dBuV)	Quasi-Peak Limit (dBuV)	Quasi-Peak Margin (dB)	Average (dBuV)	Average Limit (dBuV)	Average Margin (dB)
3.477	27.014	56.000	28.986	17.167	46.000	28.833
4.723	31.045	56.000	24.955	24.009	46.000	21.991
6.975	40.898	60.000	19.102	32.227	50.000	17.773
8.915	45.991	60.000	14.009	40.636	50.000	9.364
8.924	45.691	60.000	14.309	40.422	50.000	9.578
8.995	47.770	60.000	12.230	41.127	50.000	8.873
9.000	46.252	60.000	13.748	40.833	50.000	9.167
9.294	46.132	60.000	13.868	40.686	50.000	9.314
10.338	42.947	60.000	17.053	37.476	50.000	12.524
14.102	24.482	60.000	35.518	18.600	50.000	31.400



Neutral

Frequency (MHz)	Quasi-Peak (dBuV)	Quasi-Peak Limit (dBuV)	Quasi-Peak Margin (dB)	Average (dBuV)	Average Limit (dBuV)	Average Margin (dB)
1.302	33.185	56.000	22.815	29.660	46.000	16.340
4.660	29.034	56.000	26.966	20.505	46.000	25.495
6.024	37.999	60.000	22.001	29.746	50.000	20.254
9.672	44.794	60.000	15.206	38.900	50.000	11.100
9.744	43.931	60.000	16.069	37.802	50.000	12.198
9.748	43.706	60.000	16.294	37.780	50.000	12.220
9.753	43.250	60.000	16.750	36.897	50.000	13.103
9.767	41.628	60.000	18.372	33.059	50.000	16.941
11.004	39.031	60.000	20.969	32.671	50.000	17.329
12.315	33.919	60.000	26.081	27.996	50.000	22.004

Test Personnel:	Brian Lackey	Test Date:	12/29/2023
Supervising/Reviewing Engineer: (Where Applicable)	NA	Limit Applied:	FCC Part 15.207
Product Standard:	FCC Part 15.247 RSS-247 Issue 3	Ambient Temperature:	21.4°C
Input Voltage:	120V/60Hz	Relative Humidity:	33.7%
Pretest Verification w / Ambient Signals or BB Source:	Yes	Atmospheric Pressure:	982.0mbar

Deviations, Additions, or Exclusions: Motor Controller and EAP were both active during testing.

12 Revision History

Revision Level	Date	Report Number	Prepared By	Reviewed By	Notes
0	1/29/2024	105635605LEX-005	BL	MC	Original Issue
1	2/26/2024	105635605LEX-005.1	BL	MC	Added conducted emissions data.