

RF Test Report

Project Number: 5455680**Offer Number: SUW-202605010097****Report Number: SUW5455680EMC01R2 Revision Level: 2****Client: Ergotron, Inc.****Equipment Under Test: Medical Cart****Product Name (PMN): Mosaic****Model Number: MSC-AC100****Referenced Model(s): MSC-DC100****HVIN: MC20-CMACLCD, MC20-CMACLPT, MC20-CMDCLCD, MC20-CMDCLPT****FCC ID: 2AVU2-917542CM****IC: 25915-917542CM****Applicable Standards: ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024
(FCC Part 15 Subpart C, § 15.247)****RSS-247, Issue 4****RSS-GEN Issue 5****Report issued on: 04 June 2026****Report revised on: 16 June 2026****Test Result: Compliant**

FOR THE SCOPE OF ACCREDITATION UNDER CERTIFICATE NUMBER: 3212.01

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1 Summary of Test Results

DTS:

Test Description	Test Specification		Test Result
Bandwidth	15.247(a)(2)	RSS-247 S6.3.1(a) RSS-GEN S6.7	Compliant
Output Power	15.247(b)(3)	RSS-247 S6.3.2	Compliant
Power Spectral Density	15.247(e)	RSS-247 S6.3.1(b)	Compliant
Conducted Spurious Emissions / Band Edge	15.247(d)	RSS-247 S6.6	Compliant
Emissions in Restricted Frequency Bands	15.247(d) 15.205, 15.209	RSS-GEN S8.9, S8.10	Compliant
Band Edge Emissions in Restricted Frequency Bands	15.205, 15.209	RSS-GEN S8.9, S8.10	Compliant
AC Powerline Conducted Emissions	15.207	RSS-GEN S8.8	Compliant
Antenna Requirement	15.203	RSS-GEN S6.8	Compliant ⁽¹⁾

(1) The device uses an internal FPC antenna which cannot be replaced by the end user.

1.1 Modifications Required for Compliance

- N/A

1.2 Referenced Model(s)

The following referenced models were not tested but are deemed by the manufacturer to be similar or depopulated versions in make and construction as the test sample that was tested:

- MSC-DC100

1.3 HVIN(s)

The following HVIN was tested and is referenced in this report.:

- MC20-CMACLCD

The following HVINs are referenced by the manufacturer as belonging to the family.

- MC20-CMDCLCD, MC20-CMACLPT, MC20-CMDCLPT

1.4 HVIN Descriptions and Differences

- HVIN: MC20-CMACLCD – Mosaic Cart with LCD Monitor Riser and 120V~, 60Hz, 150W AC output power for customer peripherals.
- HVIN: MC20-CMDCLCD – Mosaic Cart with LCD Monitor Riser and Three channels of 5-24VDC, 5A output power for customer peripherals
- HVIN: MC20-CMACLPT – Mosaic Laptop Cart with 120V~, 60Hz, 150W AC output power for customer peripherals.
- HVIN: MC20-CMDCLPT – Mosaic Laptop Cart with Three channels of 5-24VDC, 5A output power for customer peripherals
- The MC20-CMACLPT and MC20-CMDCLPT carts would have the same base and trunk/column as the LCD carts. The difference is the Head is designed to hold a laptop instead of a monitor. The AC and DC LPT HVINs look identical externally.
- The MC20-CMDCLCD and MC20-CMDCLPT head unit has 3 outputs to be used for Computer, Monitor, and auxiliary power.

- The MC20-CMACLCD and MC20-CMACLPT head unit has 2 AC cords. One with a single outlet AC cord and the other with a 3-output cord.
- DC Output Power System for MC20-CMDCLCD and MC20-CMDCLPT. The same Power System is used in these two HVINs.
- AC Output Power System for MC20-CMACLCD and MC20-CMACLPT. The same Power System is used in these two HVINs.
- MC20-CMACLCD and MC20-CMACLPT each have an AC Output power system with Meanwell LOP-600-15 600W AC/DC power supply and NTS-250P-112 250W True Sine Wave 120VAC Output inverter.
- MC20-CMDCLCD and MC20-CMDCLPT each have a DC Output power system with Meanwell LOP-600-15 600W AC/DC power supply and a custom 3-output DC/DC Buck-Boost PCBA.
- The MC20-CMDCLCD and MC20-CMDCLPT power system's white DC Output connector has 2 cables. The thinner cable carries the power to the Head Unit Electronics. The second cable is the 3 DC outputs that are available in the head unit to power customer peripherals.
- The MC20-CMACLCD and MC20-CMACLPT power system's red connector carries isolated 120V AC line voltage to the head unit to power customer peripherals. The white connector has one cable that carries the power to the Head Unit Electronics.
- The handle assembly at the interior front of the Head Unit is identical for all 4 HVINs both mechanically and electrically
- All four HVIN's have identical electronics in the Head Unit including Circuit Boards, RF Circuits, antenna and touch display, all located in the handle assembly at the front of the Head Unit.

2 General Information

2.1 Client Information

Name: Ergotron Inc.
Address: 1181 Trapp Road
City, State, Zip, Country: Saint Paul, MN 55121, USA

2.2 Test Laboratory

Name: SGS North America, Inc.
Address: 620 Old Peachtree Road NW, Suite 100
City, State, Zip, Country: Suwanee, GA 30024, USA

Accrediting Body: A2LA
Type of lab: Testing Laboratory
Certificate Number: 3212.01
Designation Number: US1126
CAB Identifier: US0186

2.3 General Information of EUT

Product Description: Medical Cart
Product Name (PMN): Mosaic
Model Number: MSC-AC100
HVIN: MC20-CMACLCD, MC20-CMACLPT, MC20-CMDCLCD, MC20-CMDCLPT
Serial Number: Conducted Sample: P/N: 917-542-00, S/N: ADV2418000012 (PCB Assembly); RSE: 001
Module Model: Nordic Semiconductor nRF52832
Frequency Range: 2402 – 2480 MHz
Data Modes: Nordic Proprietary Protocol (nRF) – GFSK (1M and 2M Data Rates)
Antenna*: FPC Antenna – Ethertronics 1003893FT, 3.3dBi
Rated Voltage: Battery, 100-240 Vac 50/60Hz
Test Voltage: Battery & 120Vac 60Hz

Sample Received Date: Conducted Testing: 16 May 2024; RSE: 06 May 2026

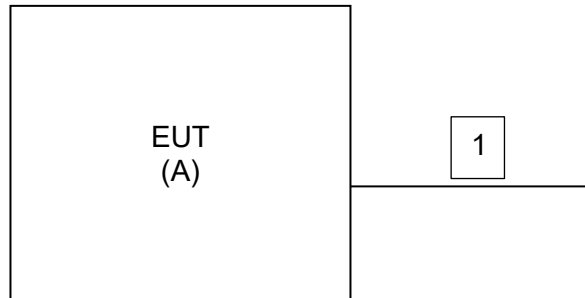
Dates of testing: Conducted: 16 May to 09 July 2024; RSE: 07 May 2026 to 22 May 2026

**Data was not measured by SGS laboratory and therefore not responsible for accuracy. Data obtained via customer, specification sheet, previous regulatory filing or other.*

2.4 Operating Modes, Conditions, and EUT Orientation

For this assessment, the nRF board was set to a +4 dBm power setting utilizing the Nordic Proprietary Protocol (nRF) for RSE. The EUT was programmed to transmit on low, mid, and high channels on the supported modulation and modes of operation. 1M was determined to be worst case data rate used for testing. The EUT is floor standing and only used in this orientation during Radiated testing.

2.5 EUT Connection Block Diagram – Radiated Measurements



Inside Chamber

.....
Outside Chamber

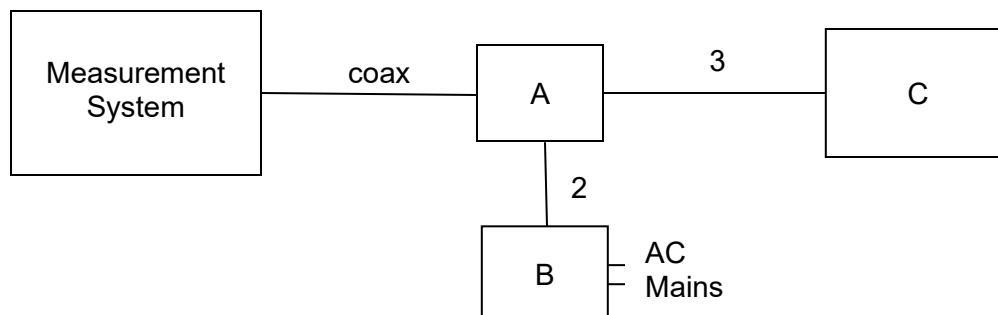
2.6 System Configurations

Device reference	Manufacturer	Description	Model Number	Serial Number
A	Ergotron, Inc.	Mosaic Medical Cart	MSC-AC100	001

2.7 Cable List

Cable reference	Port Name	Start	End	Cable Length (m)	Ferrite installed?	Shielded?
1	AC Mains	EUT	Mains	~2m	N	N

2.8 EUT Connection Block Diagram – Conducted Measurements



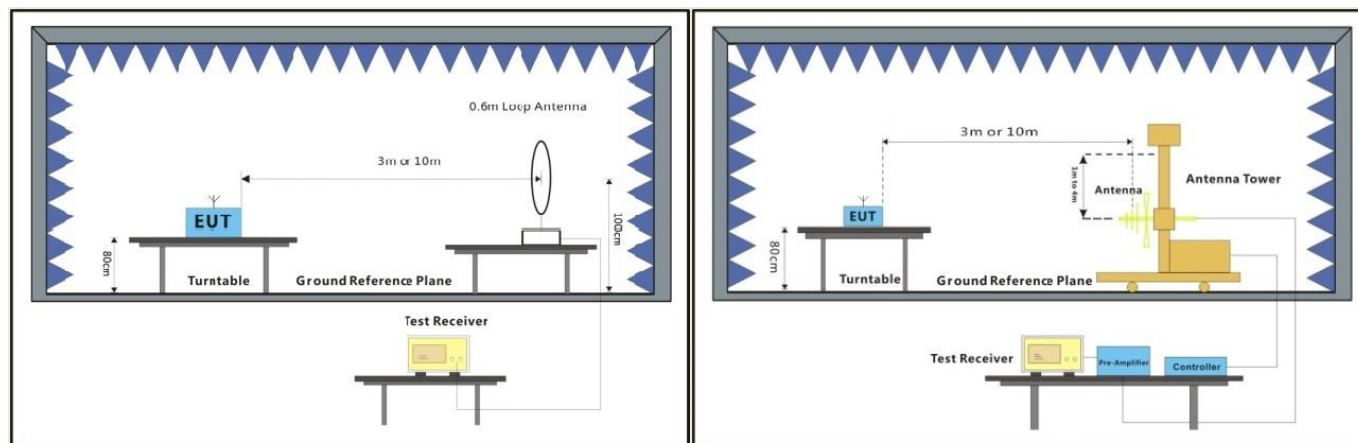
2.9 System Configurations

Device Reference	Manufacturer	Description	Model Number	Serial Number
A	Ergotron Inc.	BLE Radio PCB Assembly	917-542-00	ADV2418000012
B	-	AC/DC Adapter	YYD-1230	(not labeled)
C	HP Inc.	Desktop PC	6H836PC#AB2	4CE221CY8Y

2.10 Cable List

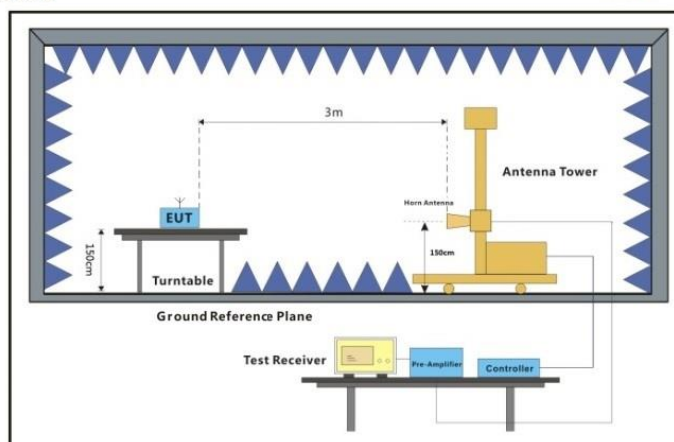
Cable reference	Port Name	Start	End	Cable Length (m)	Ferrite installed?	Shielded?
1	AC Power	EUT	AC Mains	>1	N	N
2	DC Power	BLE Radio	AC/DC Adapter	1.0	N	N
3	UART-USB	BLE Radio	Desktop PC	1.8	N	N

2.11 Configuration Diagrams (Radiated)



Below 30MHz

30MHz-1GHz



Above 1GHz

3 Bandwidth

3.1 Test Result

Test Description	Test Specification		Test Result
DTS Bandwidth (6dB)	15.247(a)(2)	RSS-247 S6.3.1(a)	Compliant
Occupied Bandwidth (99%)	2.1049	RSS-GEN S6.7	Reported

3.2 Test Methods

The DTS 6dB bandwidth measurements were performed using the procedure from ANSI C63.10 clause 11.8, and the 99% occupied bandwidth measurements were performed using the procedure from ANSI C63.10 clause 6.9.3. These procedures are referenced in KDB 558074 D01 15.247 Meas Guidance v05r02.

Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

3.3 Test Site

SGS EMC Laboratory, Suwanee, GA

Environmental Conditions

Temperature: 24.5 °C

Relative Humidity: 51.2 %

Atmospheric Pressure: 98.17 kPa

3.4 Test Equipment

Test End Date: 16-May-24

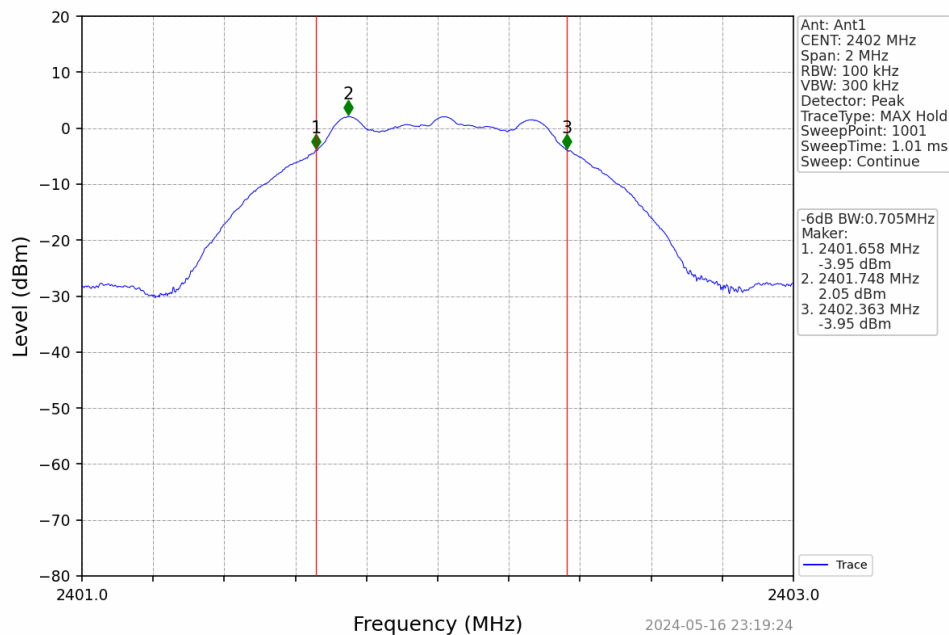
Tester: SGM

Equipment	Manufacturer	Model	Asset Number	Cal Date	Cal Due Date
RF CABLE SMA TO SMA, 0.01-40GHZ	TELEDYNE STORM MICROWAVE	084-0505-059	20108	20-Mar-2024	20-Mar-2025
SIGNAL ANALYZER (TS8997)	ROHDE & SCHWARZ	FSV30	B085749	3-Jan-2024	3-Jan-2025
TSTPASS SWITCHBOX	TSTPASS	SB2	23009	8-Apr-2024	8-Apr-2025

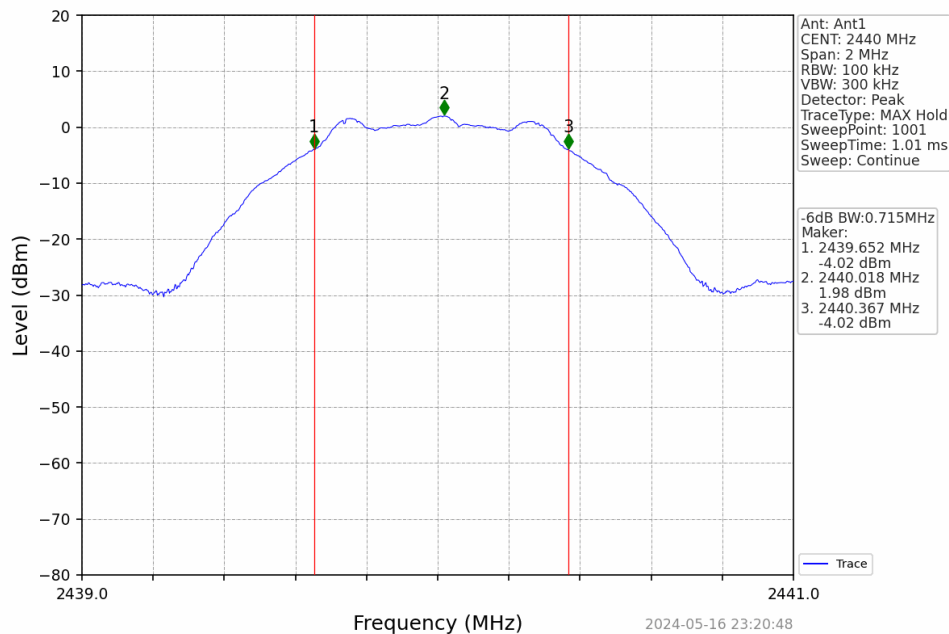
3.5 Test Data – DTS Bandwidth (6dB)

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	0.705	>=0.5	Pass
		2440	1	0.715	>=0.5	Pass
		2480	1	0.708	>=0.5	Pass
2M	SISO	2402	1	1.168	>=0.5	Pass
		2440	1	1.120	>=0.5	Pass
		2480	1	1.144	>=0.5	Pass

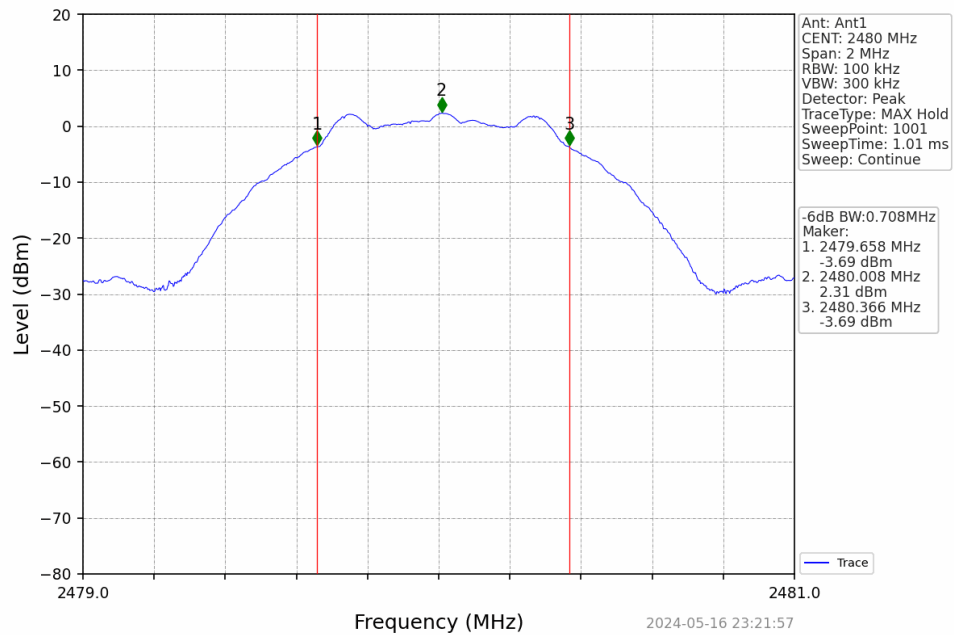
1M_LCH_2402MHz_Ant1_NTNV



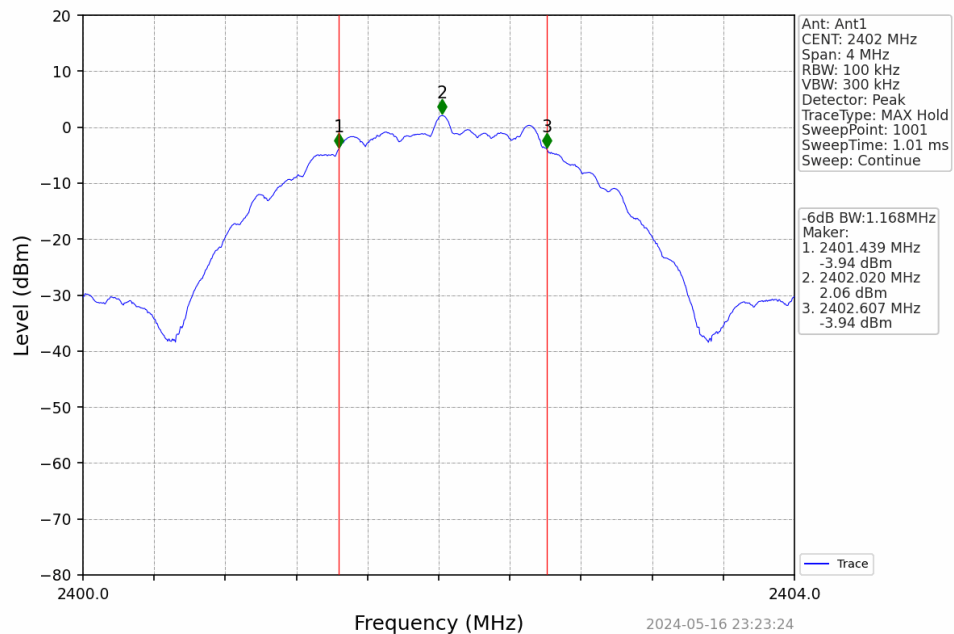
1M_MCH_2440MHz_Ant1_NTNV



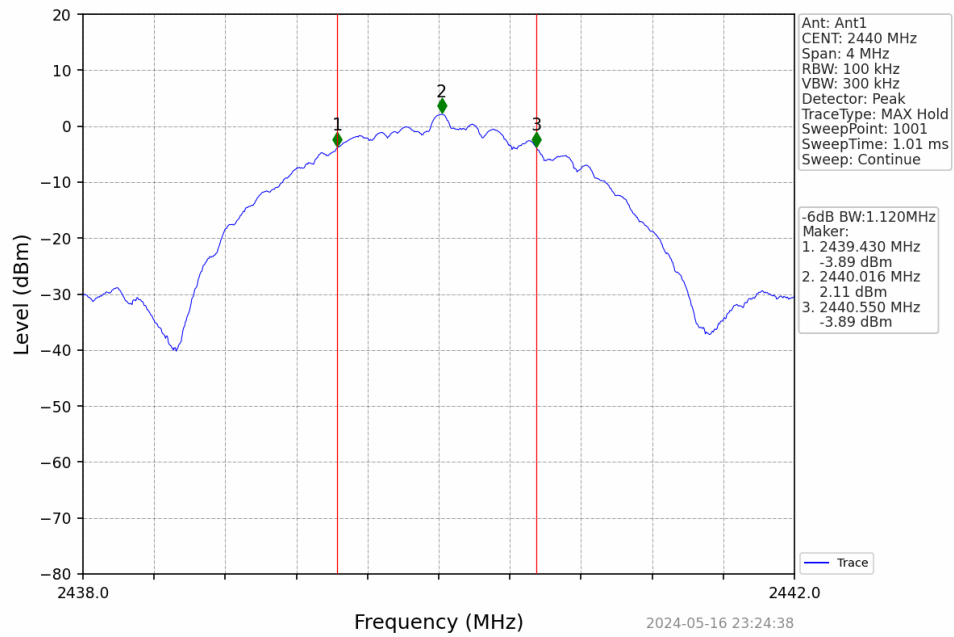
1M_HCH_2480MHz_Ant1_NTNV



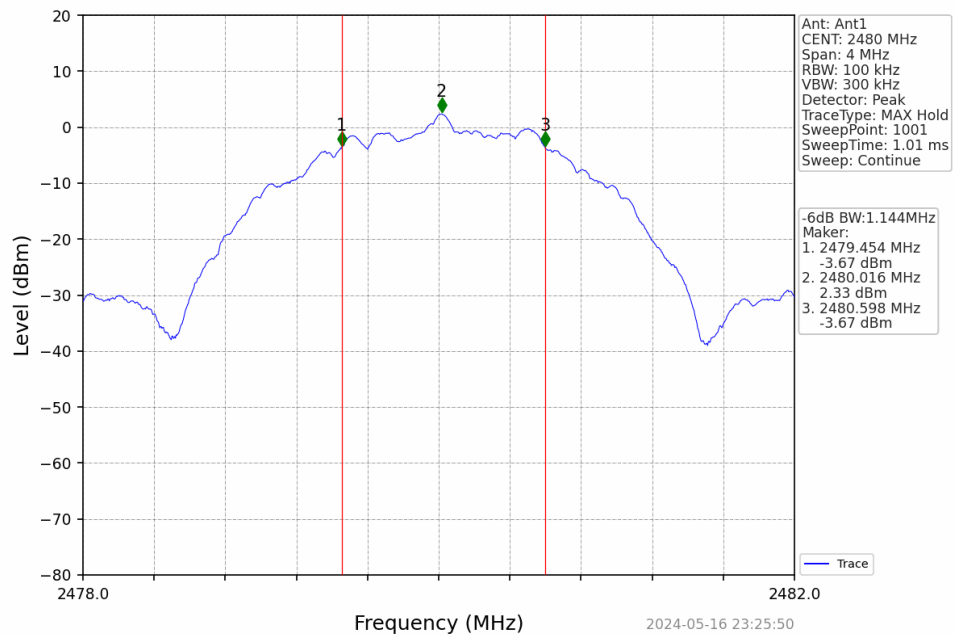
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



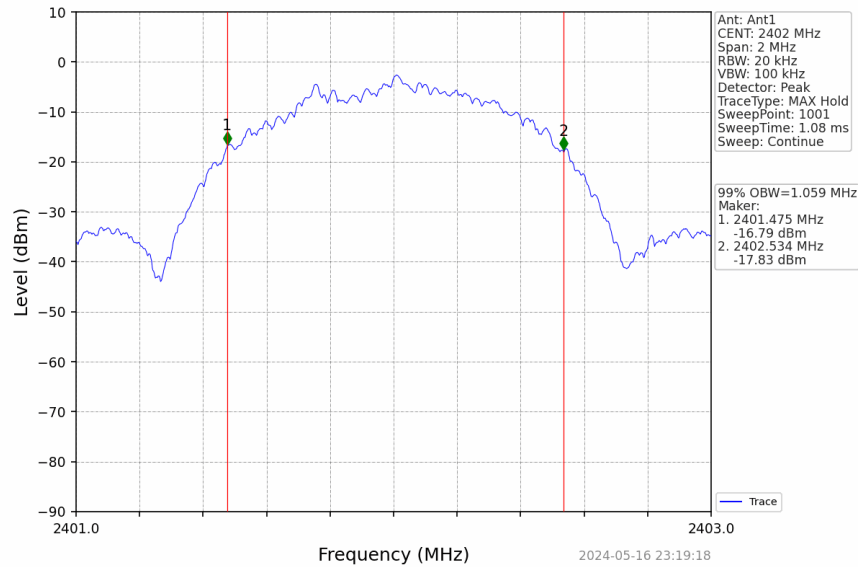
2M_HCH_2480MHz_Ant1_NTNV



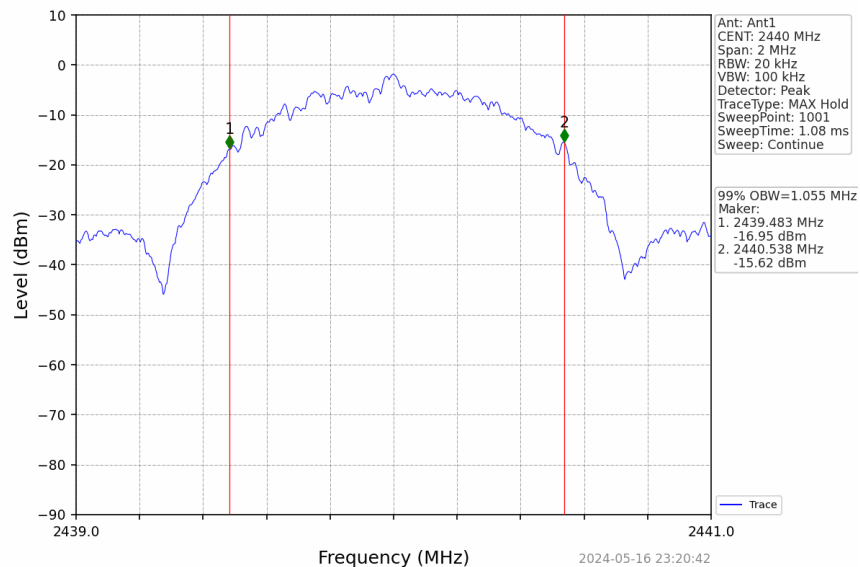
3.6 Test Data – 99% Occupied Bandwidth

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
1M	SISO	2402	1	1.059	/	Pass
		2440	1	1.055	/	Pass
		2480	1	1.049	/	Pass
2M	SISO	2402	1	2.063	/	Pass
		2440	1	2.087	/	Pass
		2480	1	2.068	/	Pass

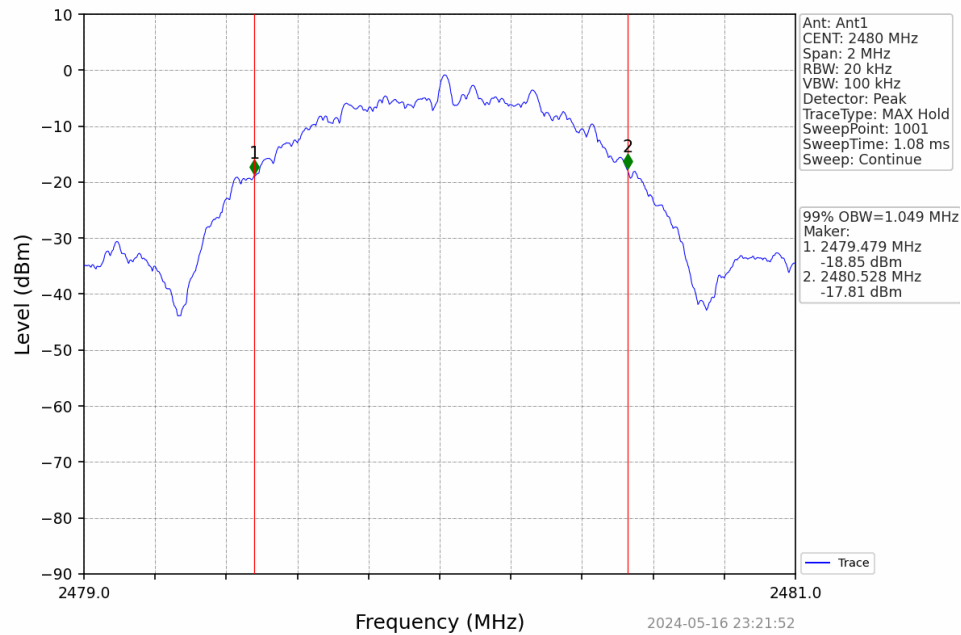
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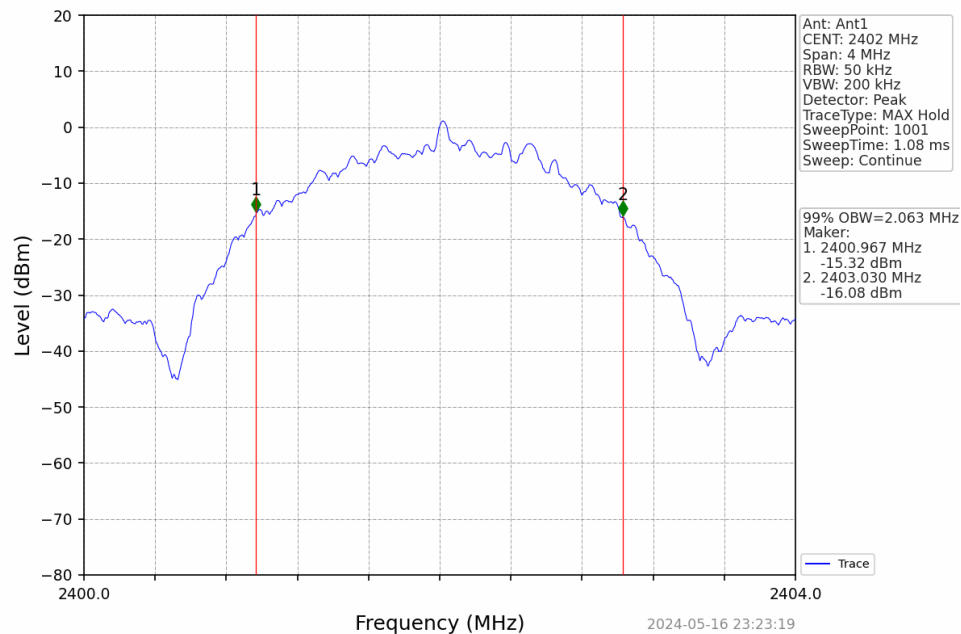
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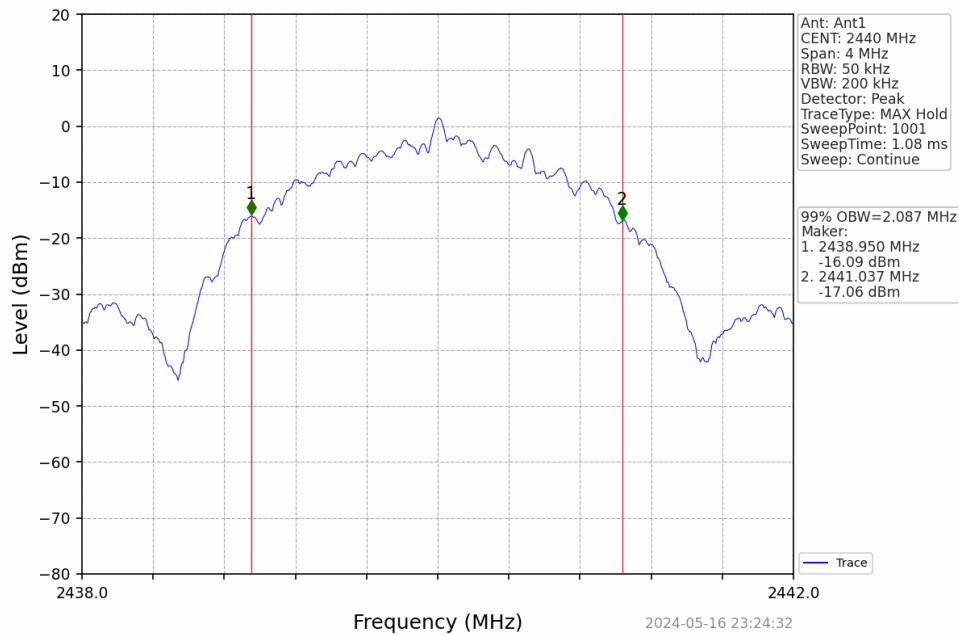
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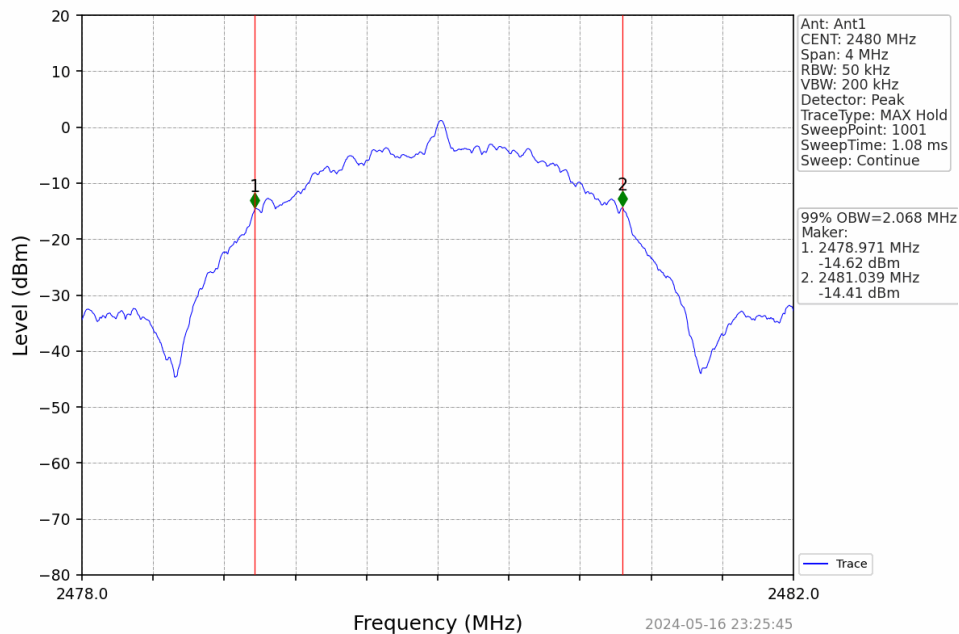
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



4 Output Power

4.1 Test Result

Test Description	Test Specification		Test Result
Fundamental Emission Output Power	15.247(b)(3)	RSS-247 S6.3.2	Compliant

4.2 Test Method

Fundamental maximum peak conducted output power measurements were performed using the method described in ANSI C63.10 clause 11.9.1.1. This procedure is referenced in KDB 558074 D01 15.247 Meas Guidance v05r02.

Limit

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. For using antennas with greater than 6dBi of gain, the limit is reduced in dB by the amount the gain exceeds 6dBi (e.g. for a 7.4dBi antenna, the limit is reduced from 30dBm to 28.6dBm). Also, the e.i.r.p. shall not exceed 4 Watts (36 dBm) based on RSS-247 S5.4 (d).

4.3 Test Site

SGS EMC Laboratory, Suwanee, GA

Environmental Conditions

Temperature: 24.5 °C

Relative Humidity: 51.2 %

Atmospheric Pressure: 98.17 kPa

4.4 Test Equipment

Test End Date: 16-May-24

Tester: SGM

Equipment	Manufacturer	Model	Asset Number	Cal Date	Cal Due Date
RF CABLE SMA TO SMA, 0.01-40GHZ	TELEDYNE STORM MICROWAVE	084-0505-059	20108	20-Mar-2024	20-Mar-2025
SIGNAL ANALYZER (TS8997)	ROHDE & SCHWARZ	FSV30	B085749	3-Jan-2024	3-Jan-2025
TSTPASS SWITCHBOX	TSTPASS	SB2	23009	8-Apr-2024	8-Apr-2025

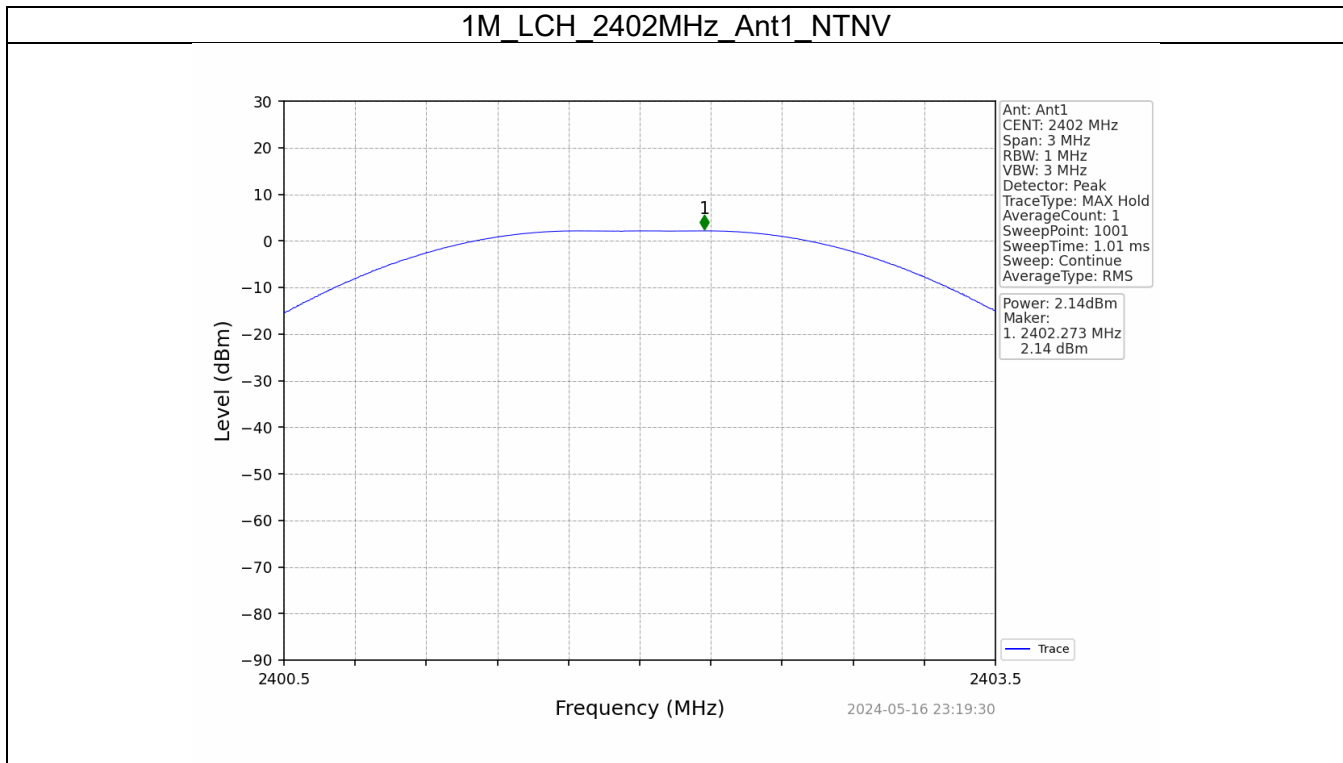
4.5 Test Data

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	2.14	<=30	Pass
		2440	2.15	<=30	Pass
		2480	2.40	<=30	Pass
2M	SISO	2402	2.21	<=30	Pass
		2440	2.36	<=30	Pass
		2480	2.44	<=30	Pass

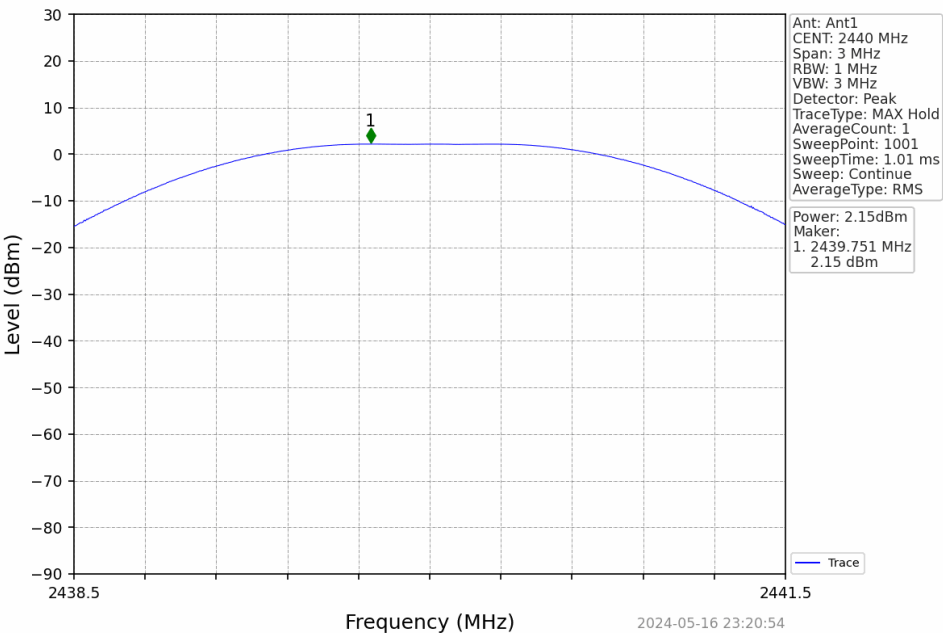
Note1: Antenna Gain: Ant1: 3.3dBi;

Mode	TX Type	Frequency (MHz)	E.I.R.P (dBm)		Verdict
			ANT1	Limit	
1M	SISO	2402	5.44	<=36.02	Pass
		2440	5.45	<=36.02	Pass
		2480	5.70	<=36.02	Pass
2M	SISO	2402	5.51	<=36.02	Pass
		2440	5.66	<=36.02	Pass
		2480	5.74	<=36.02	Pass

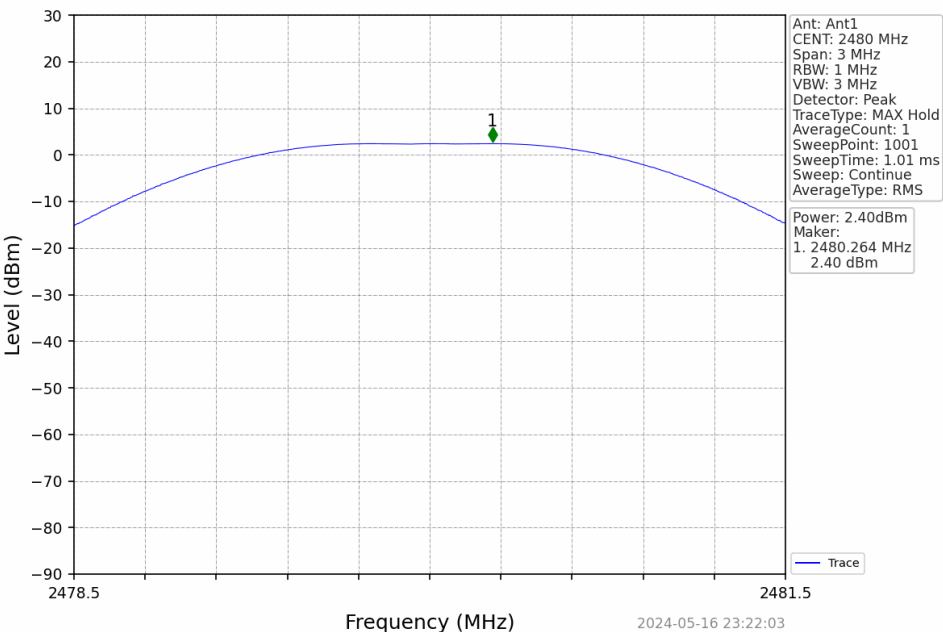
Note1: Antenna Gain: Ant1: 3.3dBi;
Note2: E.I.R.P = Measured Power + Antenna Gain



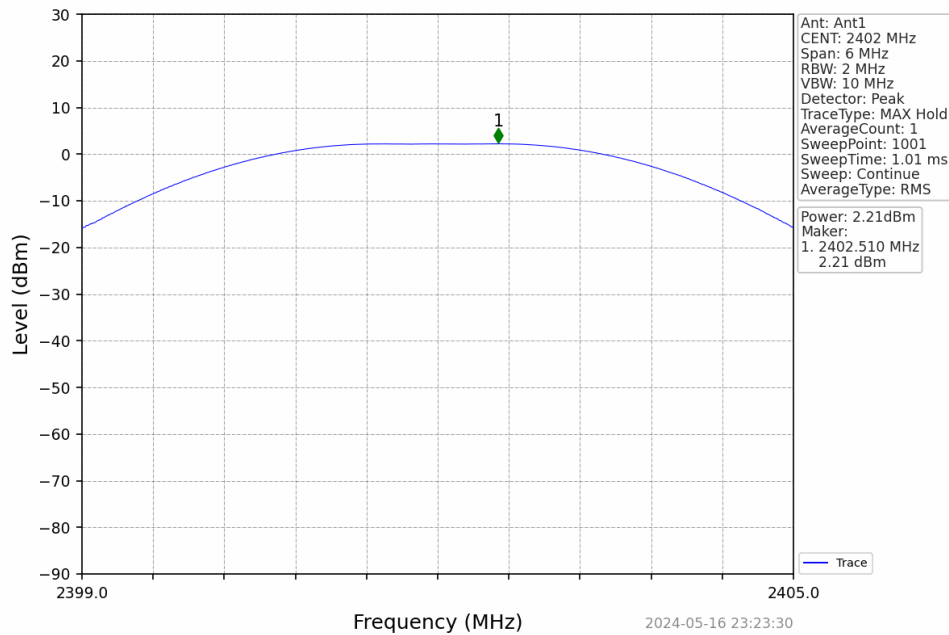
1M_MCH_2440MHz_Ant1_NTNV



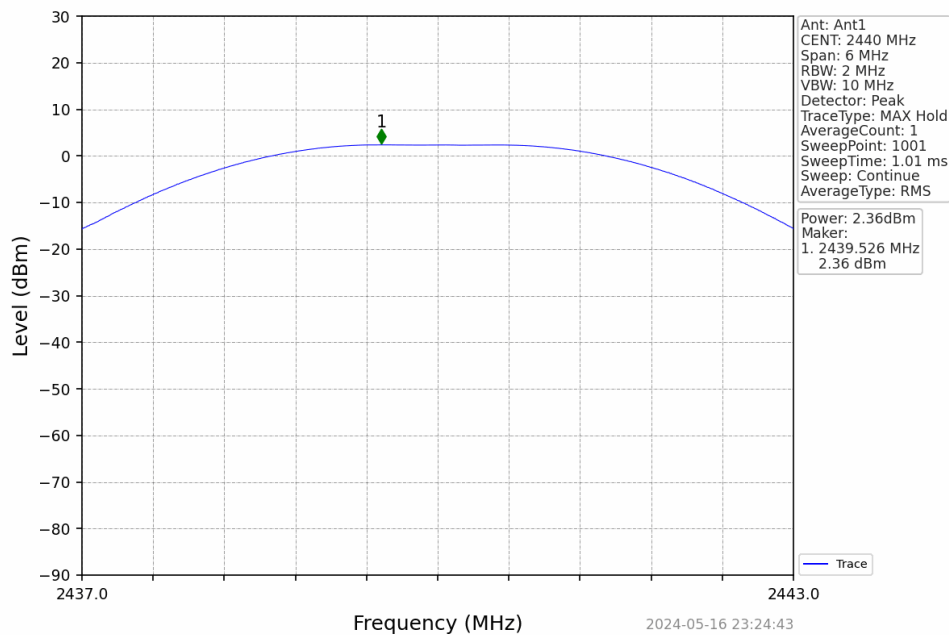
1M_HCH_2480MHz_Ant1_NTNV



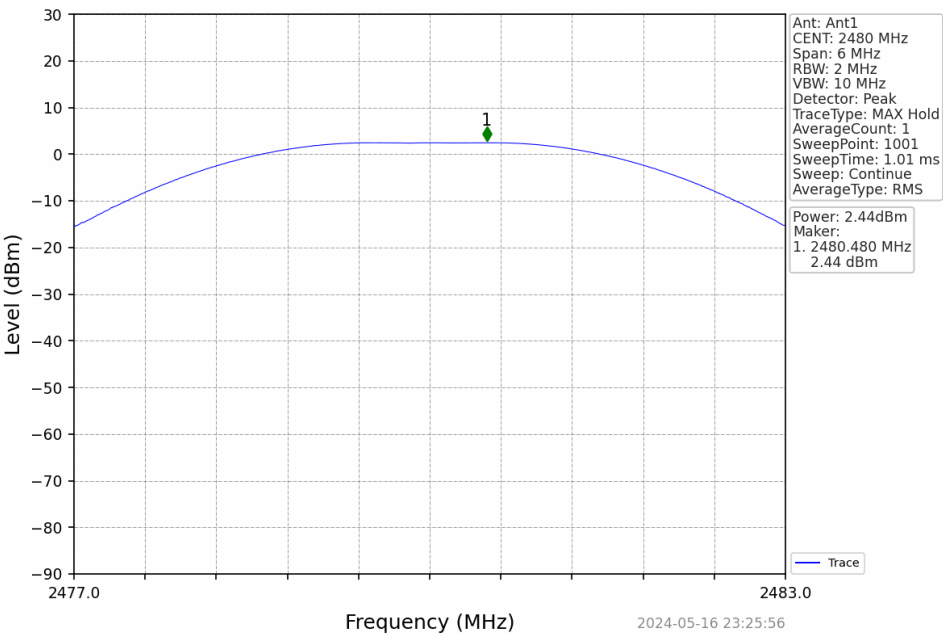
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



5 Power Spectral Density

5.1 Test Result

Test Description	Test Specification		Test Result
Power Spectral Density	15.247(e)	RSS-247 S6.3.1(b)	Compliant

5.2 Test Method

Peak power spectral density measurements were performed using the procedures from ANSI C63.10 clause 11.10.2. These procedures are referenced in KDB 558074 D01 15.247 Meas Guidance v05r02.

Limit

The maximum limit is 8 dBm / 3 kHz.

5.3 Test Site

SGS EMC Laboratory, Suwanee, GA

Environmental Conditions

Temperature: 24.5 °C

Relative Humidity: 51.2 %

Atmospheric Pressure: 98.17 kPa

5.4 Test Equipment

Test End Date: 16-May-24

Tester: SGM

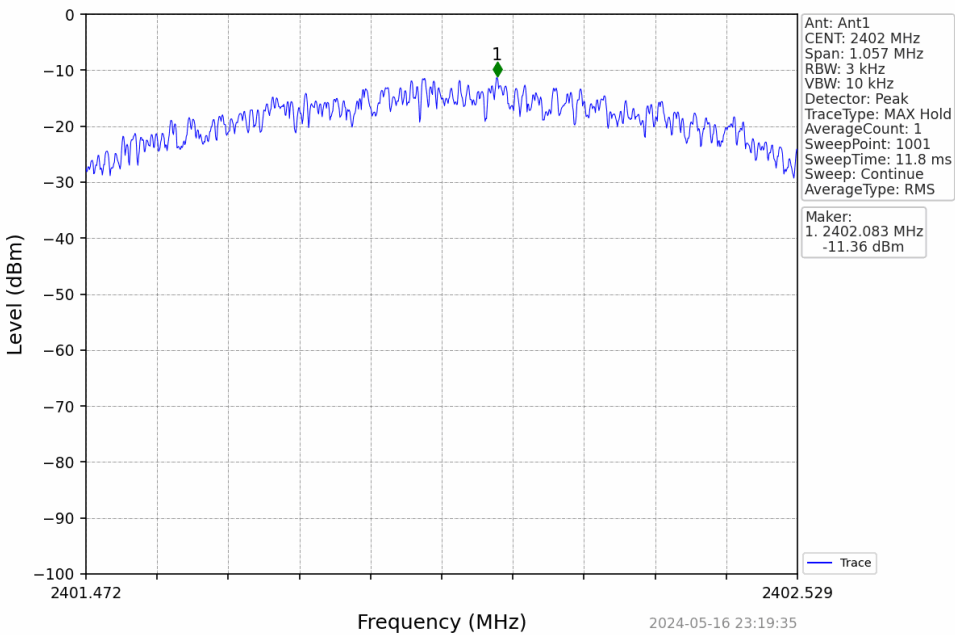
Equipment	Manufacturer	Model	Asset Number	Cal Date	Cal Due Date
RF CABLE SMA TO SMA, 0.01-40GHZ	TELEDYNE STORM MICROWAVE	084-0505-059	20108	20-Mar-2024	20-Mar-2025
SIGNAL ANALYZER (TS8997)	ROHDE & SCHWARZ	FSV30	B085749	3-Jan-2024	3-Jan-2025
TSTPASS SWITCHBOX	TSTPASS	SB2	23009	8-Apr-2024	8-Apr-2025

5.5 Test Data

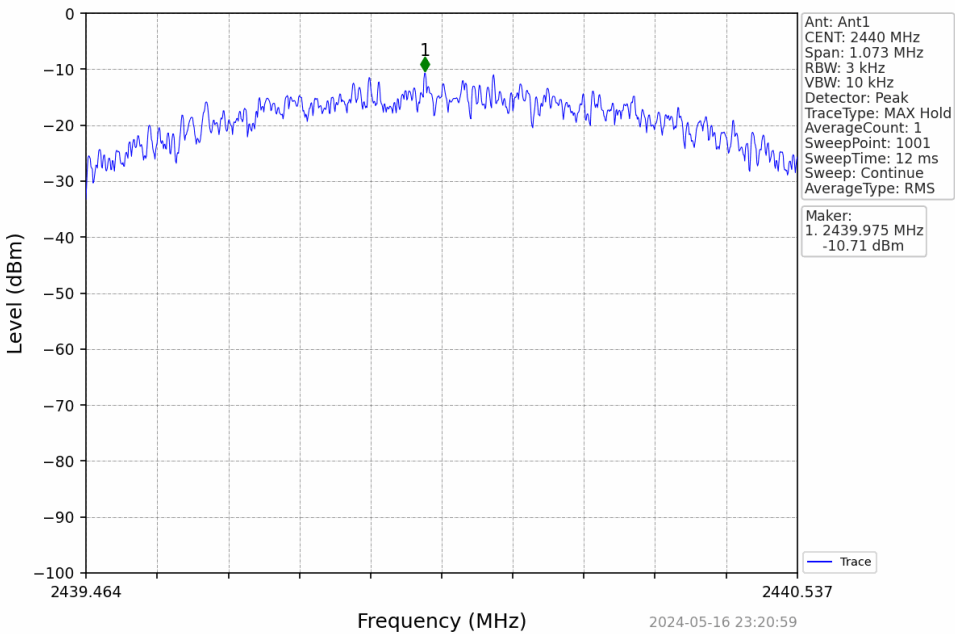
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/3kHz)		Verdict
			ANT1	Limit	
1M	SISO	2402	-11.36	<=8	Pass
		2440	-10.71	<=8	Pass
		2480	-8.36	<=8	Pass
2M	SISO	2402	-14.04	<=8	Pass
		2440	-14.25	<=8	Pass
		2480	-13.14	<=8	Pass

Note1: Antenna Gain: Ant1: 3.3dBi;

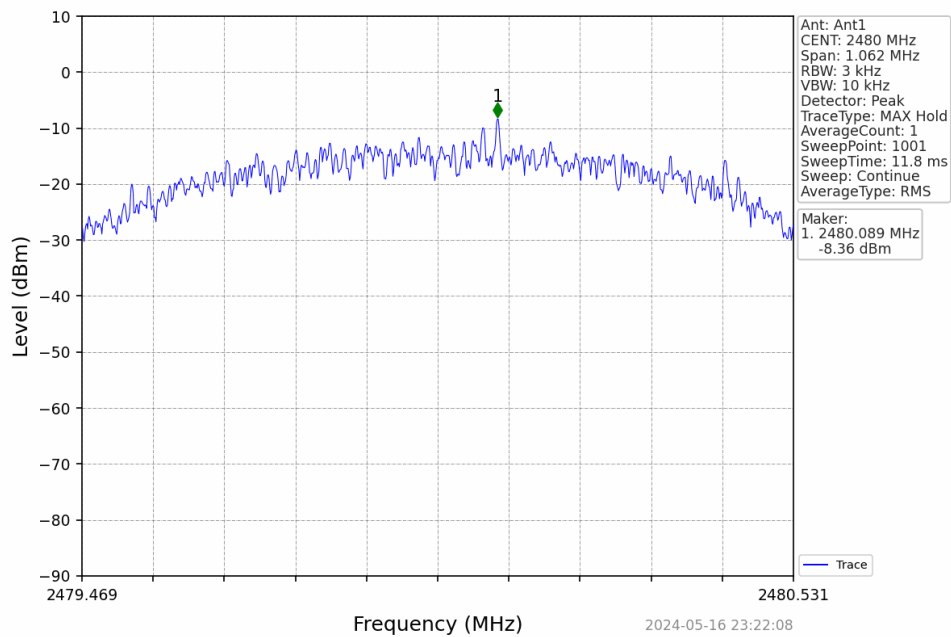
1M_LCH_2402MHz_Ant1_NTNV



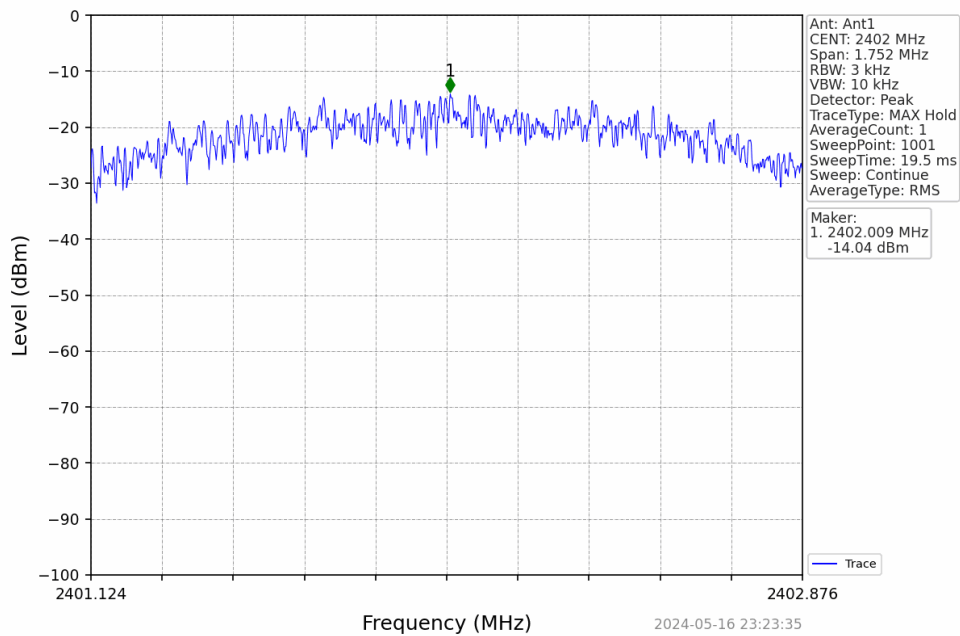
1M_MCH_2440MHz_Ant1_NTNV



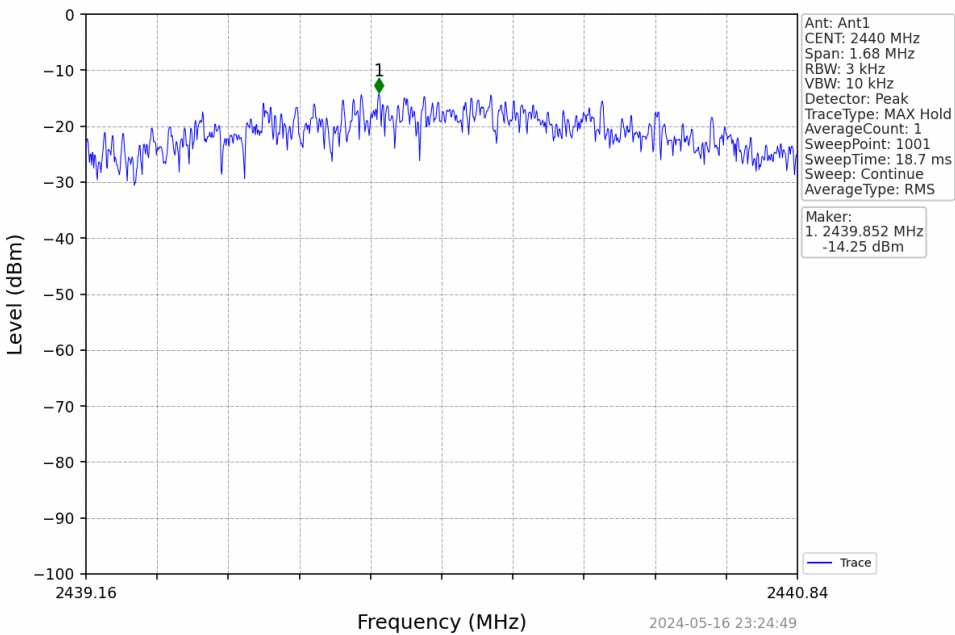
1M_HCH_2480MHz_Ant1_NTNV



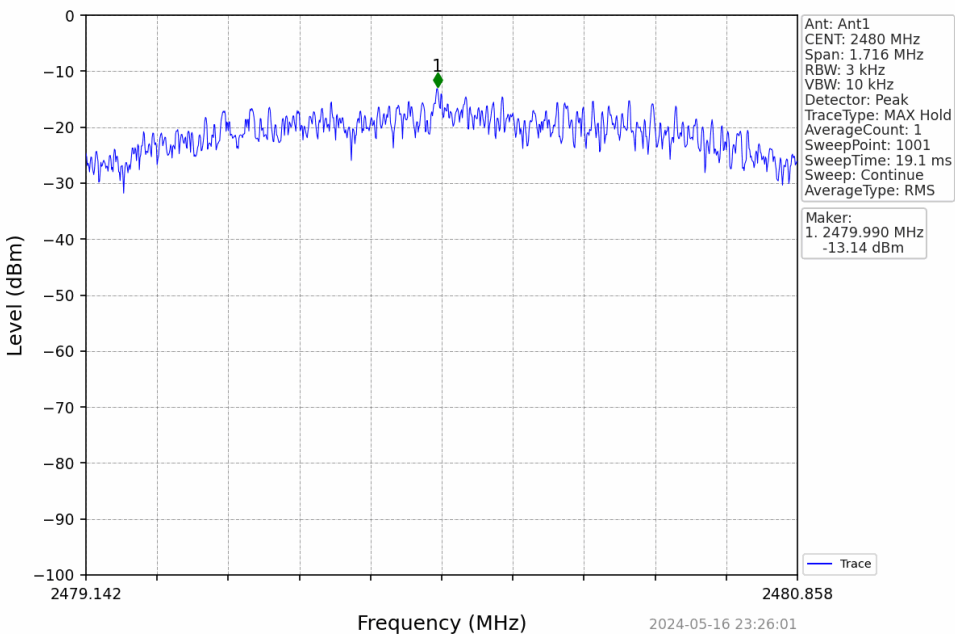
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



6 Conducted Spurious Emissions / Band Edge

6.1 Test Result

Test Description	Test Specification		Test Result
Conducted Spurious and Band Edge Emissions	15.247(d)	RSS-247 S6.6	Compliant

6.2 Test Method

Conducted band edge and spurious band emissions in non-restricted frequency bands were measured using the method defined in ANSI C63.10 clause 11.11. This procedure is referenced in KDB 558074 D01 15.247 Meas Guidance v05r02.

Limit

Because the maximum peak conducted output power was used to determine compliance with the output power limits, the limit in any 100 kHz band outside of the authorized band is 20 dB below the maximum in-band peak level.

6.3 Test Site

SGS EMC Laboratory, Suwanee, GA

Environmental Conditions

Temperature: 24.5 °C

Relative Humidity: 51.2 %

Atmospheric Pressure: 98.17 kPa

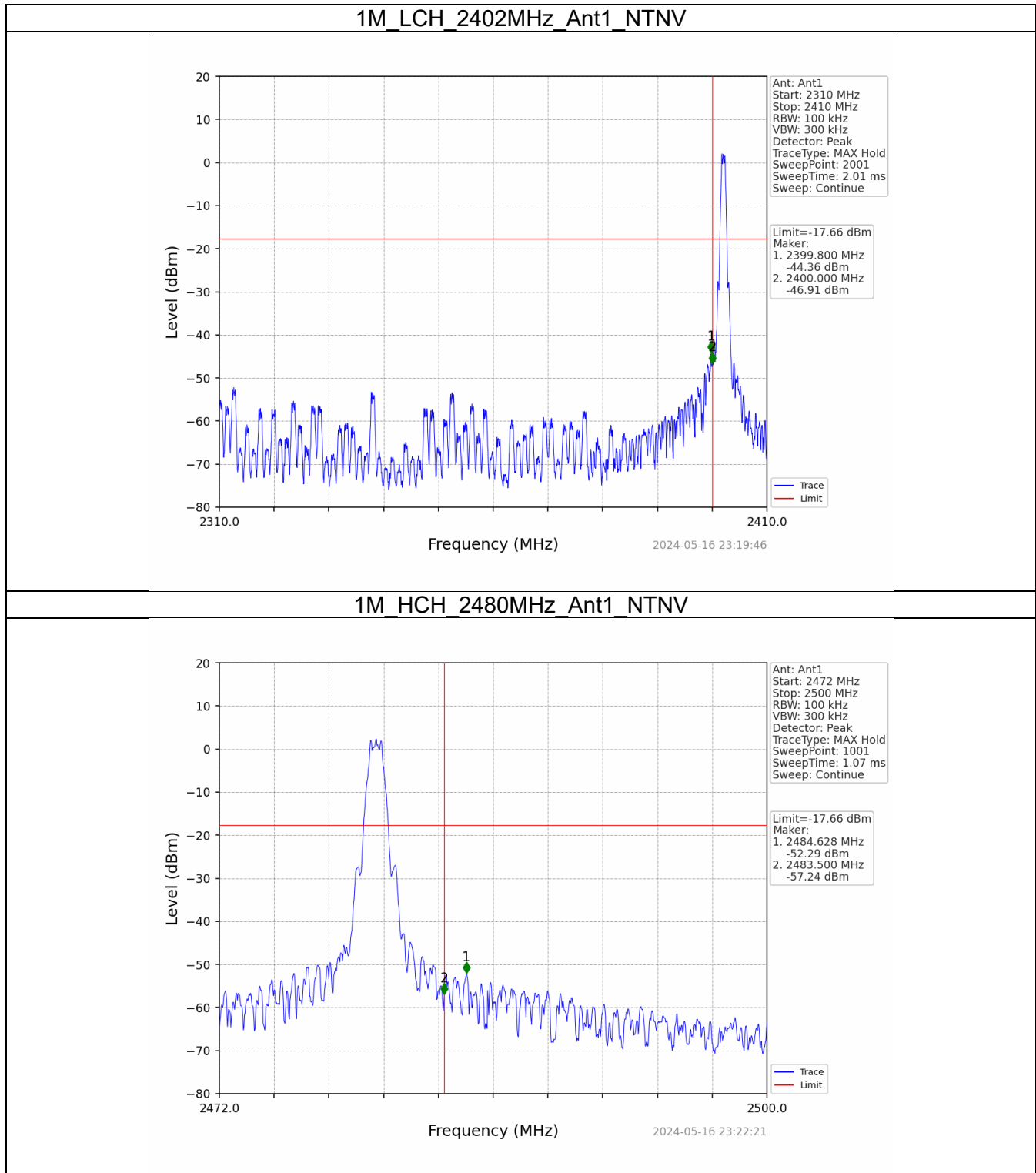
6.4 Test Equipment

Test End Date: 16-May-24

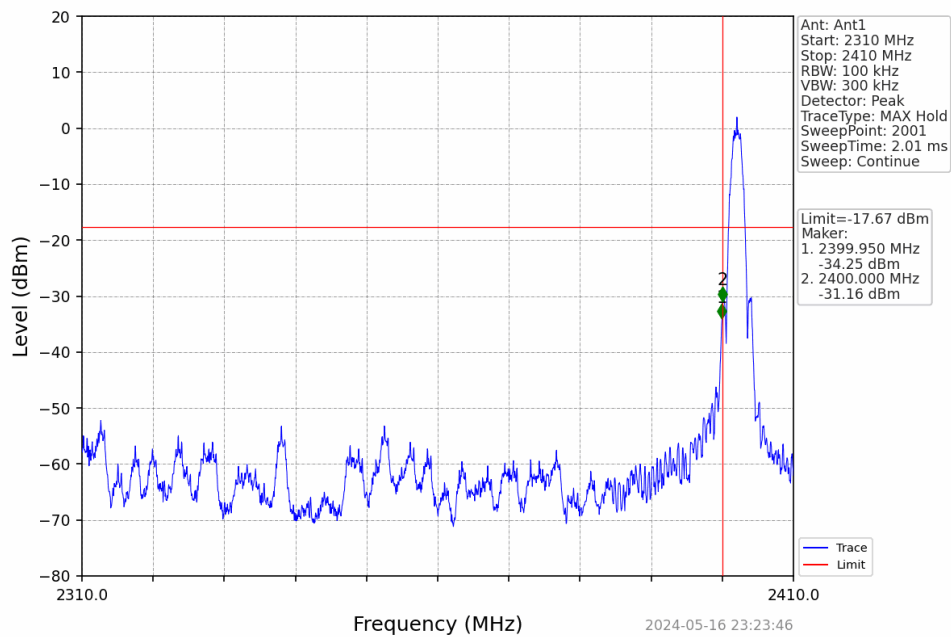
Tester: SGM

Equipment	Manufacturer	Model	Asset Number	Cal Date	Cal Due Date
RF CABLE SMA TO SMA, 0.01-40GHZ	TELEDYNE STORM MICROWAVE	084-0505-059	20108	20-Mar-2024	20-Mar-2025
SIGNAL ANALYZER (TS8997)	ROHDE & SCHWARZ	FSV30	B085749	3-Jan-2024	3-Jan-2025
TSTPASS SWITCHBOX	TSTPASS	SB2	23009	8-Apr-2024	8-Apr-2025

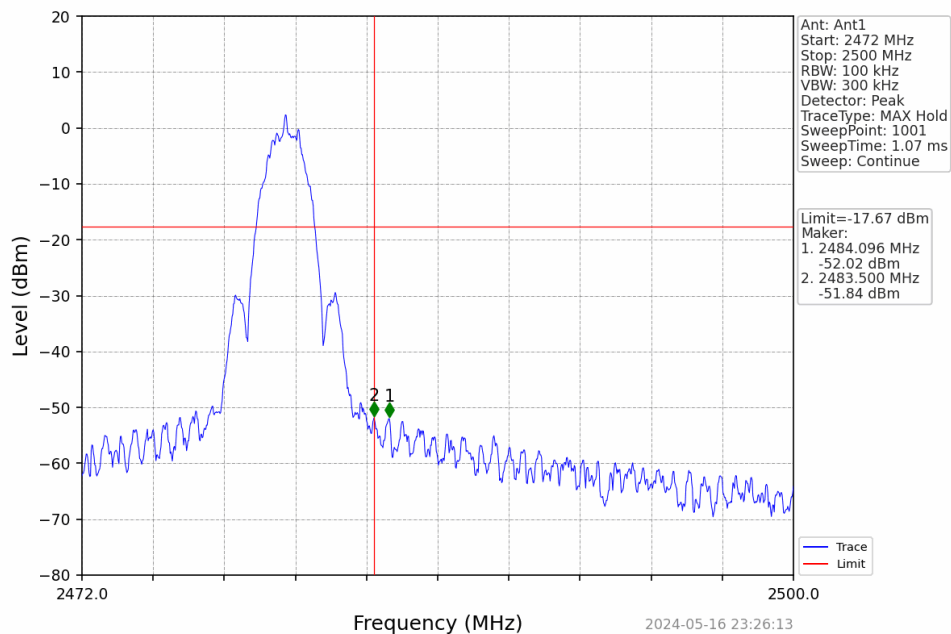
6.5 Test Data – DTS Band Edge



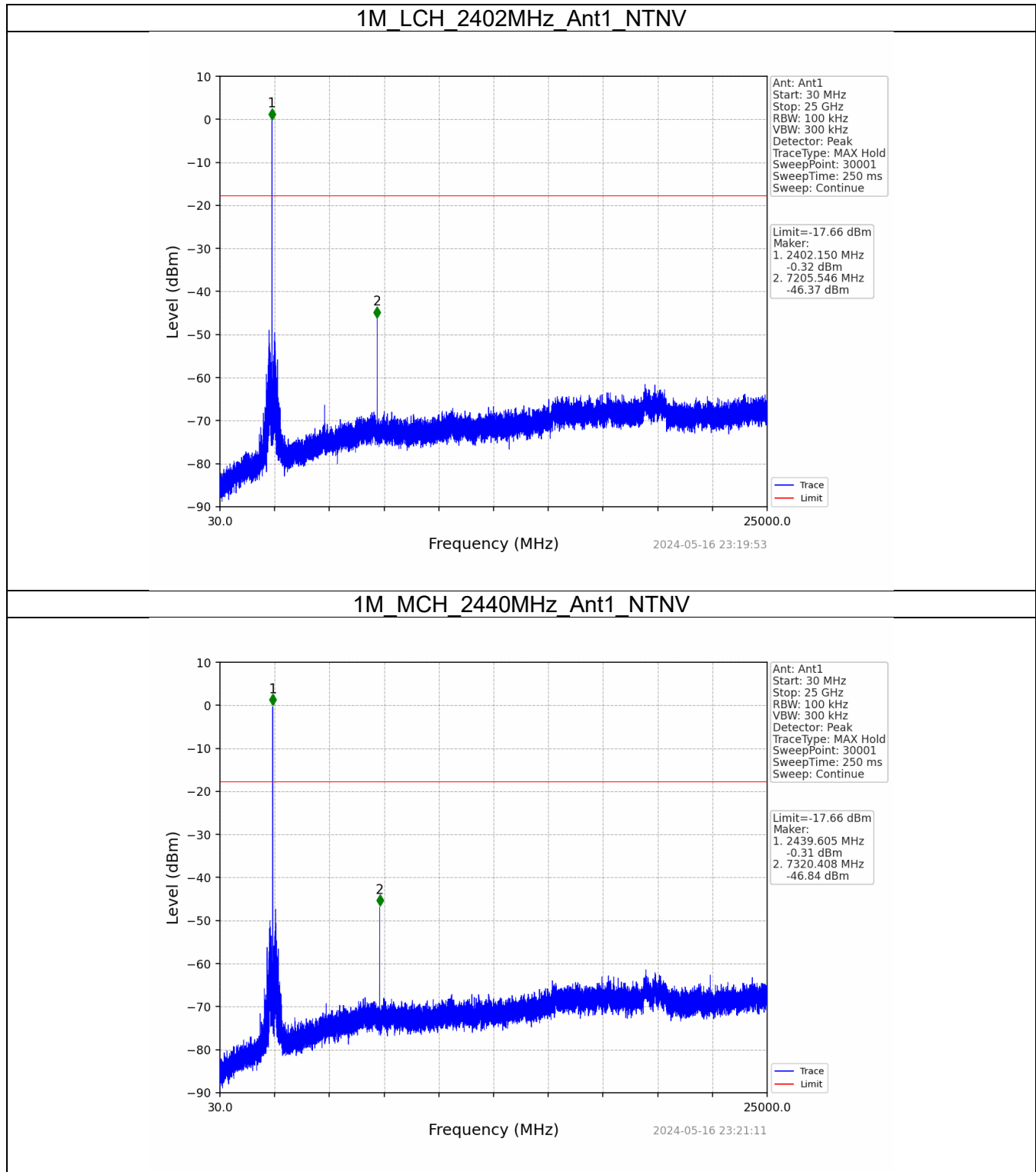
2M_LCH_2402MHz_Ant1_NTNV



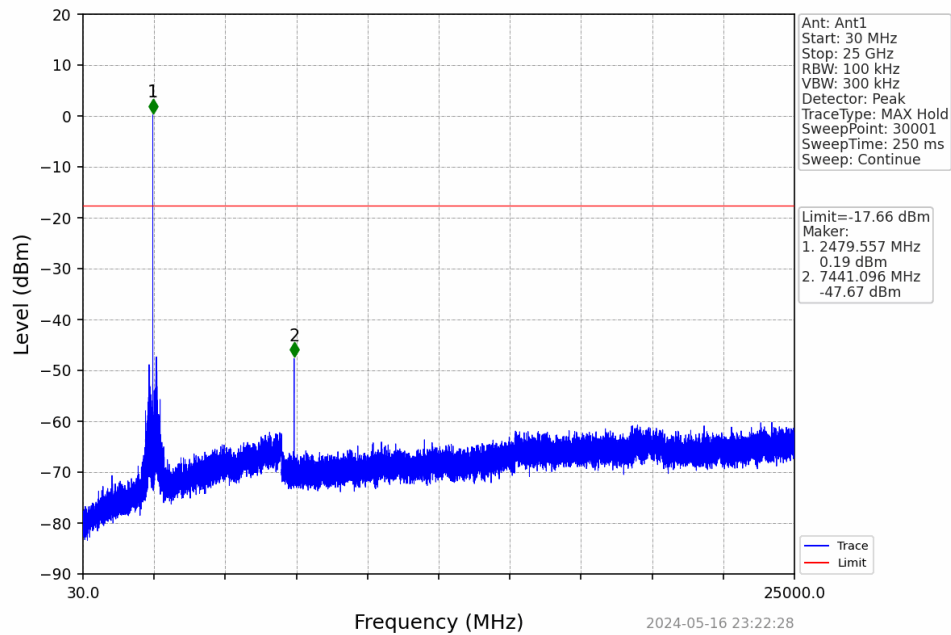
2M_HCH_2480MHz_Ant1_NTNV



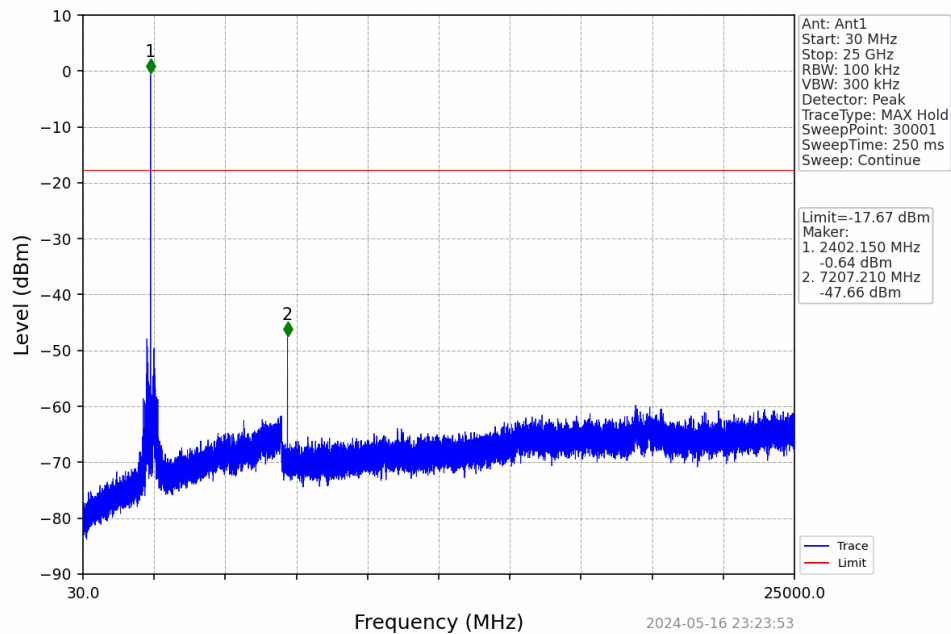
6.6 Test Data – DTS Conducted Spurious Emissions



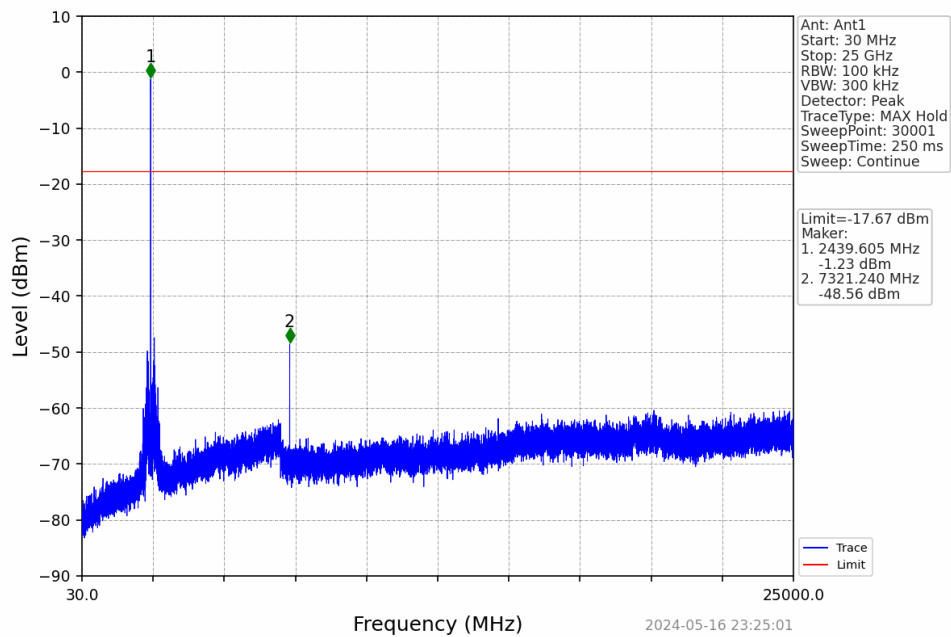
1M_HCH_2480MHz_Ant1_NTNV



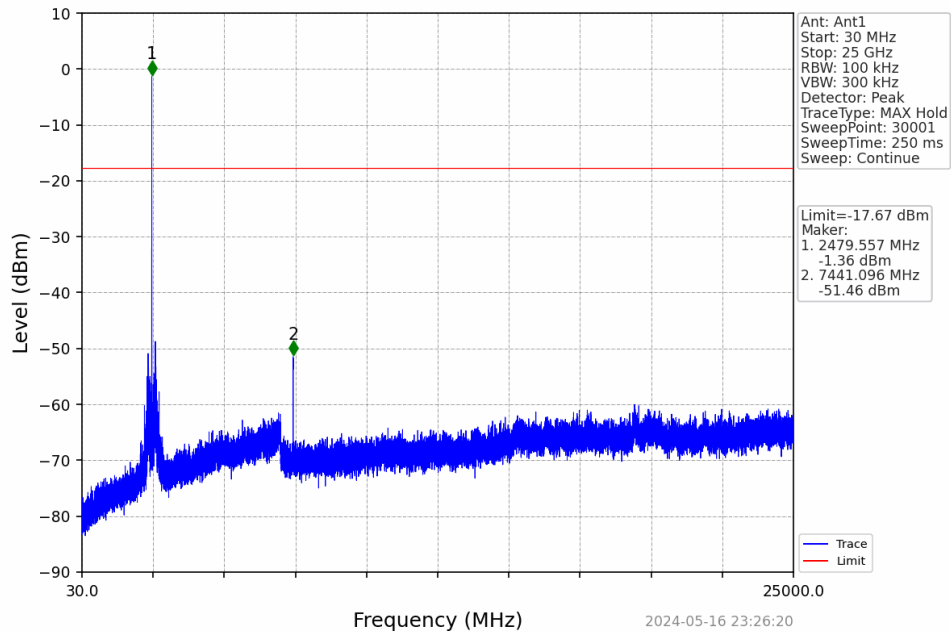
2M_LCH_2402MHz_Ant1_NTNV



2M_MCH_2440MHz_Ant1_NTNV



2M_HCH_2480MHz_Ant1_NTNV



7 Field Strength of Spurious Radiation (Restricted Bands)

7.1 Test Result

Test Description	Test Specification		Test Result
Radiated Spurious Emissions	15.247(d), 15.205, 15.209	RSS-GEN S8.9, S8.10	Compliant

7.2 Test Method

Radiated emissions in restricted frequency bands were measured using methods defined in ANSI C63.10 clause 11.12. These procedures are referenced in KDB 558074 D01 15.247 Meas Guidance v05r02.

Lowest, middle, and highest channels were investigated with the device commanded to continuously transmit during testing. See section 2.4 for EUT configuration during testing.

Test distance:

- 9k to 30 MHz – The EUT to measurement antenna distance was 3 meters
- 30 to 1000 MHz - The EUT to measurement antenna distance was 3 meters
- 1 to 18 GHz - The EUT to measurement antenna distance was 3 meters
- 18 to 26 GHz - The EUT to measurement antenna distance was 3 meters

Limits within restricted bands of operation:

Frequency	Limits ⁽¹⁾		Peak Limits dBuV/m
	Microvolts/m	dBuV/m	
30 - 88 MHz	100	40 ⁽²⁾	--
88 - 216 MHz	150	43.5 ⁽²⁾	--
216 - 960 MHz	200	46 ⁽²⁾	--
960 - 1000 MHz	500	54 ⁽²⁾	--
1 - 40 GHz	500	54 ⁽³⁾	74

(1) These limits are applicable to emissions outside of the intentional transmit frequency band.

(2) Quasi-peak limit

(3) Average limit

7.3 Test Site

10m Absorber Lined Shielded Enclosure (ALSE), Suwanee, GA

Environmental Conditions	May 14 2026	18-May-2026	19-May-2026	May 28 2026
Temperature:	21.74 °C	22.85 °C	22.88 °C	22.85 °C
Relative Humidity:	26.5 %	53.5 %	55.6 %	53.5 %
Atmospheric Pressure:	97.23 kPa	98.8 kPa	98.8 kPa	98.8 kPa

7.4 Test Equipment

9kHz-30MHz

Test End Date: 18-May-2026

Tester: PL

Equipment	Model	Manufacturer	Asset	Cal Date	Cal Due Date
ANTENNA, LOOP, ACTIVE	6502	ETS LINDGREN	B085752	30-Mar-2026	30-Mar-2028
RF Cable, Armored, N to N, 276 inches	EM-B810NM-276PA	Echelon	25012	19-Sep-2025	18-Sep-2026
RF CABLE NM TO NM, 0.01-18GHz	EM-B810NM-276	Echelon	25013	19-Sep-2025	18-Sep-2026
N to N RF Cable	RF280-06SP-06SP-2000	SAMTEC	23013	25-May-2026	24-May-2027
EMI TEST RECEIVER	ESW44	ROHDE & SCHWARZ	22027	19-Mar-2026	18-Mar-2027

30-1000MHz

Test End Date: 28-May-2026

Tester: SGM

Equipment	Model	Manufacturer	Asset	Cal Date	Cal Due Date
ANTENNA, BILOG	JB6	SUNOL	B079690	21-Apr-2026	20-Apr-2028
RF Cable, Armored, N to N, 276 inches	EM-B810NM-276PA	Echelon	25012	19-Sep-2025	18-Sep-2026
RF CABLE NM TO NM, 0.01-18GHz	EM-B810NM-276	Echelon	25013	19-Sep-2025	18-Sep-2026
RF CABLE RIGHT ANGLE NM TO NM, 0.01-18GHZ	90-076-020	TELEDYNE STORM MICROWAVE	20133	22-Mar-2026	22-Mar-2027
N to N RF Cable	RF280-06SP-06SP-2000	SAMTEC	23013	25-May-2026	24-May-2027
LOW NOISE AMPLIFIER	ZKL-2+	MINI-CIRCUITS	B079817	6-Aug-2025	5-Aug-2026
EMI Test Receiver	ESW44	ROHDE & SCHWARZ	22032	25-Apr-2026	24-June-2026

1-18 GHz

Test End Date: 14-May-2026

Tester: SGM

Equipment	Model	Manufacturer	Asset	Cal Date	Cal Due Date
ANTENNA, DRG HORN (MEDIUM)	3117	ETS LINDGREN	B079699	23-Jul-2024	22-Jul-2026
RF Cable, Armored, N to N, 276 inches	EM-B810NM-276PA	Echelon	25012	19-Sep-2025	18-Sep-2026
RF CABLE	SF106	HUBER & SUHNER	B085895	6-Aug-2025	5-Aug-2026
LOW NOISE AMPLIFIER	TS-PR18	ROHDE & SCHWARZ	B094463	3-Jul-2025	2-Jul-2026
EMI Test Receiver	ESW44	ROHDE & SCHWARZ	22032	25-Apr-2026	24-June-2026
FILTER, HIGH PASS, >6250MHZ	HPM50112	MICRO-TRONICS	B093647	7-Jul-2025	6-Jul-2026

FILTER, HIGH PASS, >2800MHZ	HPM50111	MICRO-TRONICS	22017	16-Jun-2025	15-Jun-2026
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18-26GHz

Test End Date: 19-May-2026

Tester: PL

Equipment	Model	Manufacturer	Asset	Cal Date	Cal Due Date
ANTENNA, DRG HORN (MEDIUM)	3117	ETS LINDGREN	B07969 9	23-Jul-2024	22-Jul-2026
RF Cable, Armored, N to N, 276 inches	EM-B810NM- 276PA	Echelon	25012	19-Sep-2025	18-Sep-2026
RF CABLE RIGHT ANGLE NM TO NM, 0.01-18GHZ	90-076-020	TELEDYNE STORM MICROWAVE	22037	19-Dec-2025	18-Dec-2026
LOW NOISE AMPLIFIER	TS-PR18	ROHDE & SCHWARZ	15003	12-Jun-2025	11-Jun-2026
EMI TEST RECEIVER	ESW44	ROHDE & SCHWARZ	22027	19-Mar-2026	18-Mar-2027
ANTENNA, DRG HORN (MEDIUM)	3117	ETS LINDGREN	B07969 9	23-Jul-2024	22-Jul-2026
RF Cable, Armored, N to N, 276 inches	EM-B810NM- 276PA	Echelon	25012	19-Sep-2025	18-Sep-2026

Software:

TILE! RSE 9k-30MHz 260402 Maturo

TILE! RSE 30-1000 MHz 260302 Maturo

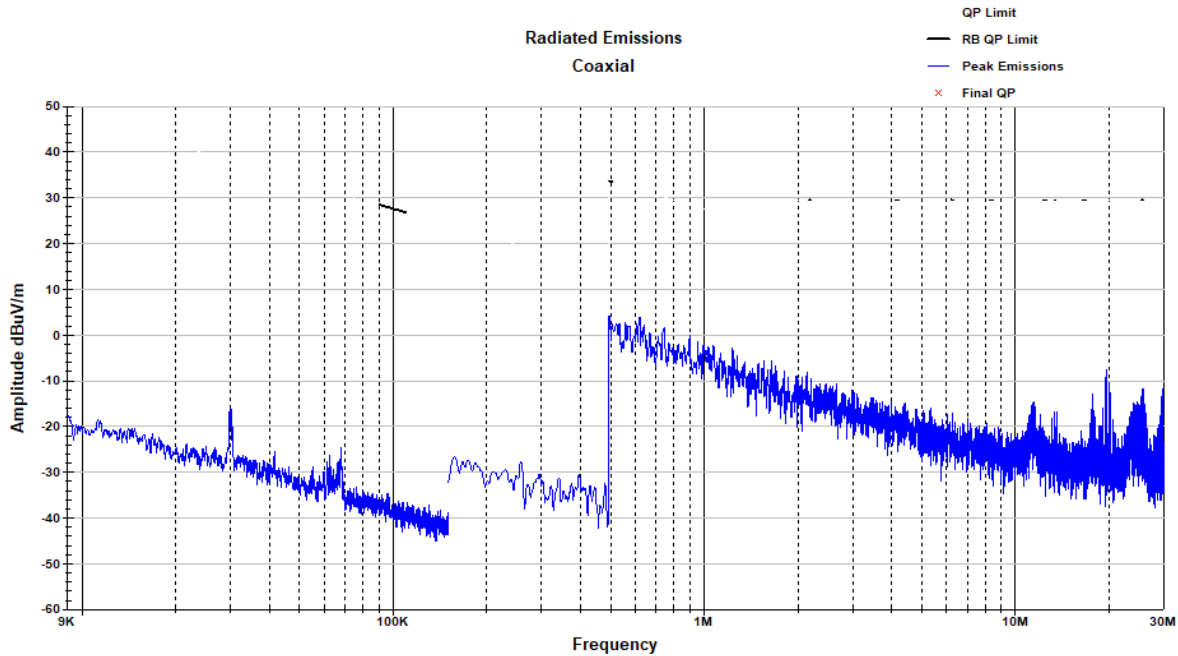
TILE! RSE 1-40GHz 260302_Maturo

Note: Since 2M demonstrated a lower PSD than 1M, only the 1M data is recorded in the report.

7.5 Test Data

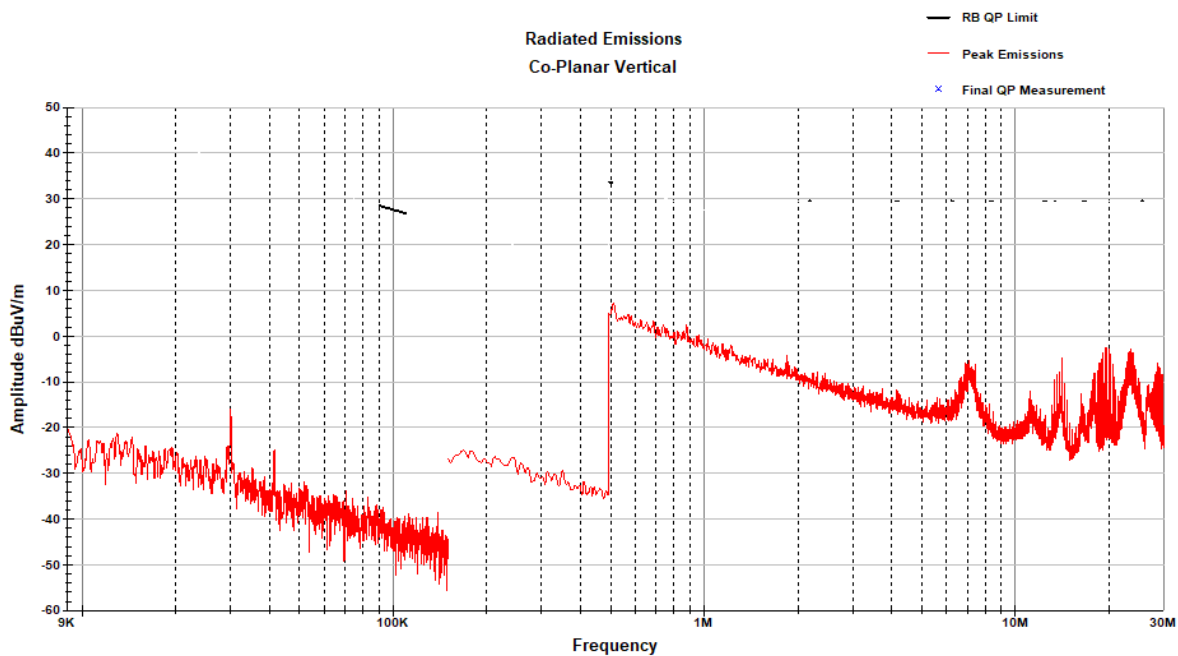
7.5.1 9kHz-30MHz

9 kHz – 30 MHz (Coaxial) – Middle Channel (2440 MHz)



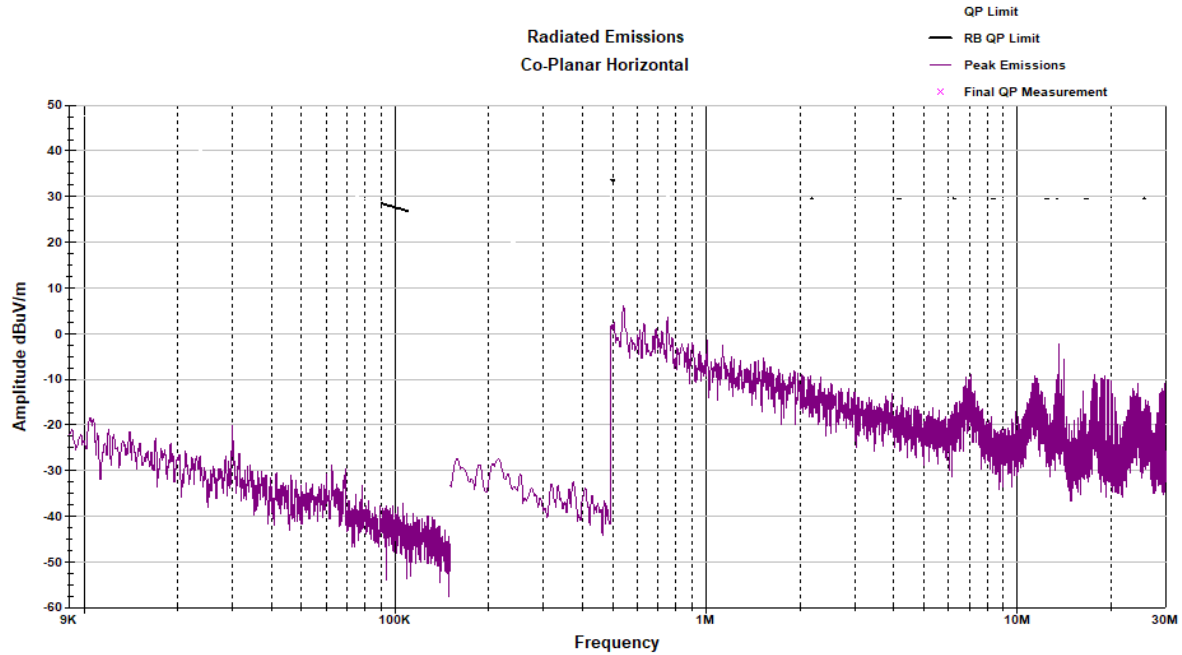
Note: No significant deviation with respect to channel. No discernable difference detected when tested in nRF modes.

9 kHz – 30 MHz (Co-Planar Horizontal) – Middle Channel (2440 MHz)



Note: No significant deviation with respect to channel. No discernable difference detected when tested in nRF modes.

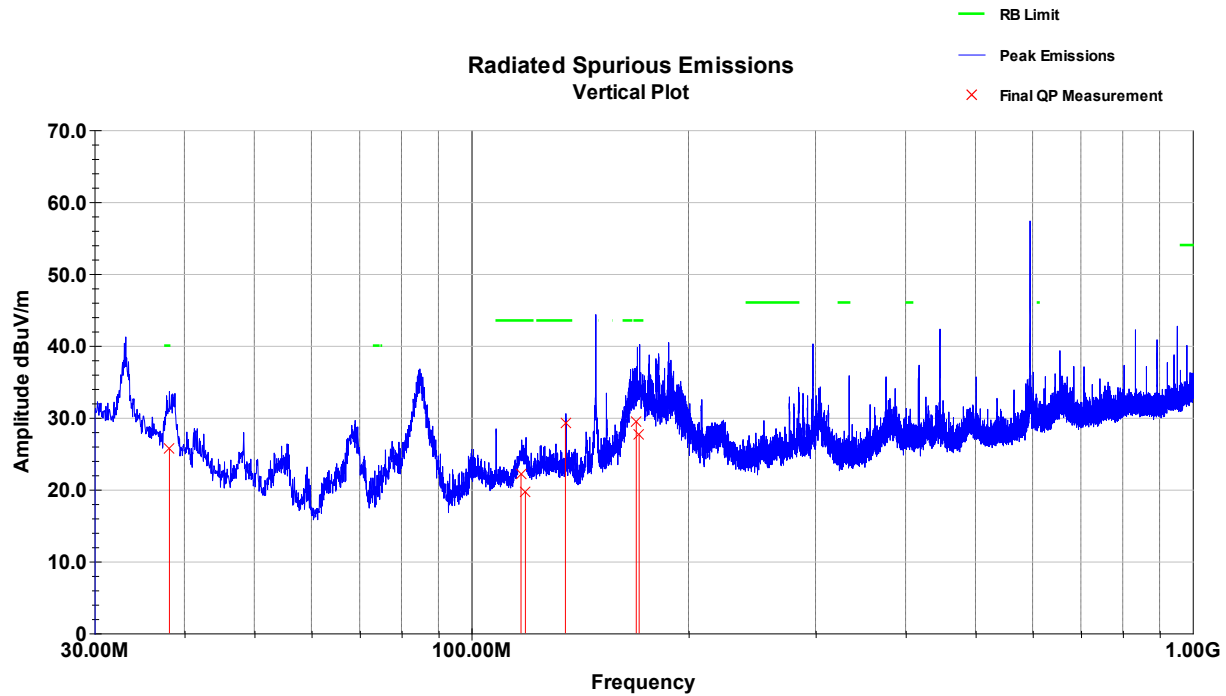
9 kHz – 30 MHz (Co-Planar Vertical) – Middle Channel (2440 MHz)



Note: No significant deviation with respect to channel. No discernable difference detected when tested in nRF modes.

7.5.2 30-1000 MHz

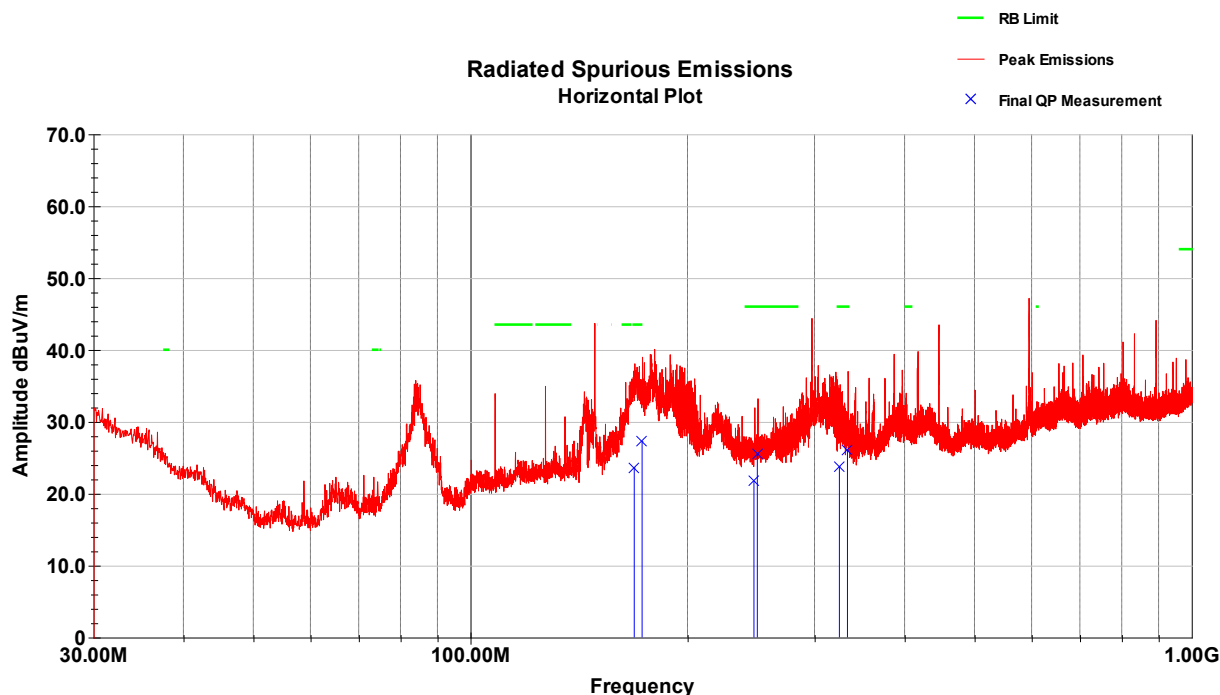
Plot Data - Vertical Polarity – Low Channel (2402 MHz)



Tabular Data – Vertical Polarity – Low Channel (2402 MHz)

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw QP dBuV/m	AF dB/m	Loss dB	DCF dB	Amp dB	Final QP dBuV/m	Limit dBuV/m	Margin dB
38.13	V	261.0	107.0	36.1	20.0	0.3	0.0	30.7	25.7	40.0	-14.3
117.14	V	128.0	105.0	34.3	17.5	0.8	0.0	30.5	22.1	43.5	-21.4
118.82	V	0.0	100.0	31.8	17.6	0.8	0.0	30.5	19.6	43.5	-23.9
135.01	V	68.0	100.0	41.4	17.7	0.8	0.0	30.6	29.3	43.5	-14.2
169.30	V	47.0	105.0	42.4	16.4	1.0	0.0	30.4	29.4	43.5	-14.1
170.84	V	27.0	209.0	40.8	16.2	1.0	0.0	30.4	27.6	43.5	-15.9
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

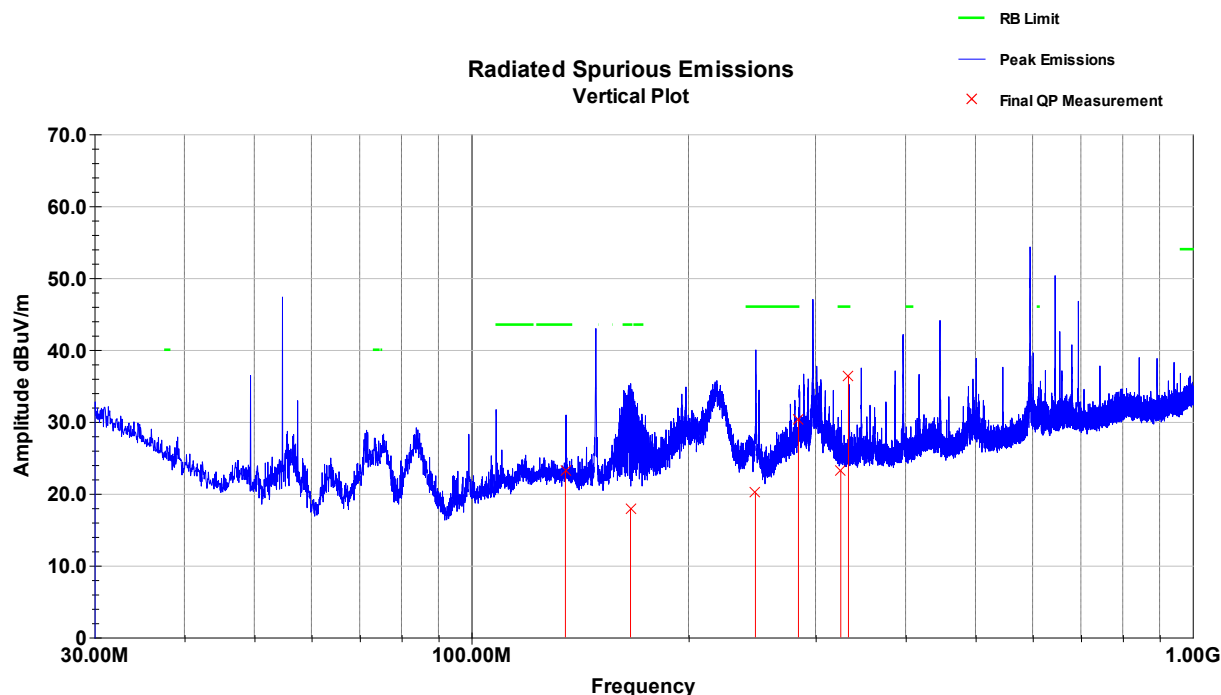
Plot Data - Horizontal Polarity – Low Channel (2402 MHz)



Tabular Data – Horizontal Polarity – Low Channel (2402 MHz)

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw QP dBuV/m	AF dB/m	Loss dB	DCF dB	Amp dB	Final QP dBuV/m	Limit dBuV/m	Margin dB
168.71	H	359.0	182.0	36.6	16.4	1.0	0.0	30.4	23.6	43.5	-19.9
173.00	H	359.0	105.0	40.6	16.0	1.1	0.0	30.4	27.3	43.5	-16.2
247.31	H	359.0	100.0	34.6	16.3	1.2	0.0	30.3	21.8	46.0	-24.2
249.94	H	359.0	105.0	38.4	16.2	1.3	0.0	30.3	25.6	46.0	-20.4
324.86	H	359.0	100.0	33.7	18.8	1.5	0.0	30.2	23.8	46.0	-22.2
333.25	H	359.0	100.0	35.8	18.9	1.5	0.0	30.2	26.1	46.0	-19.9
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

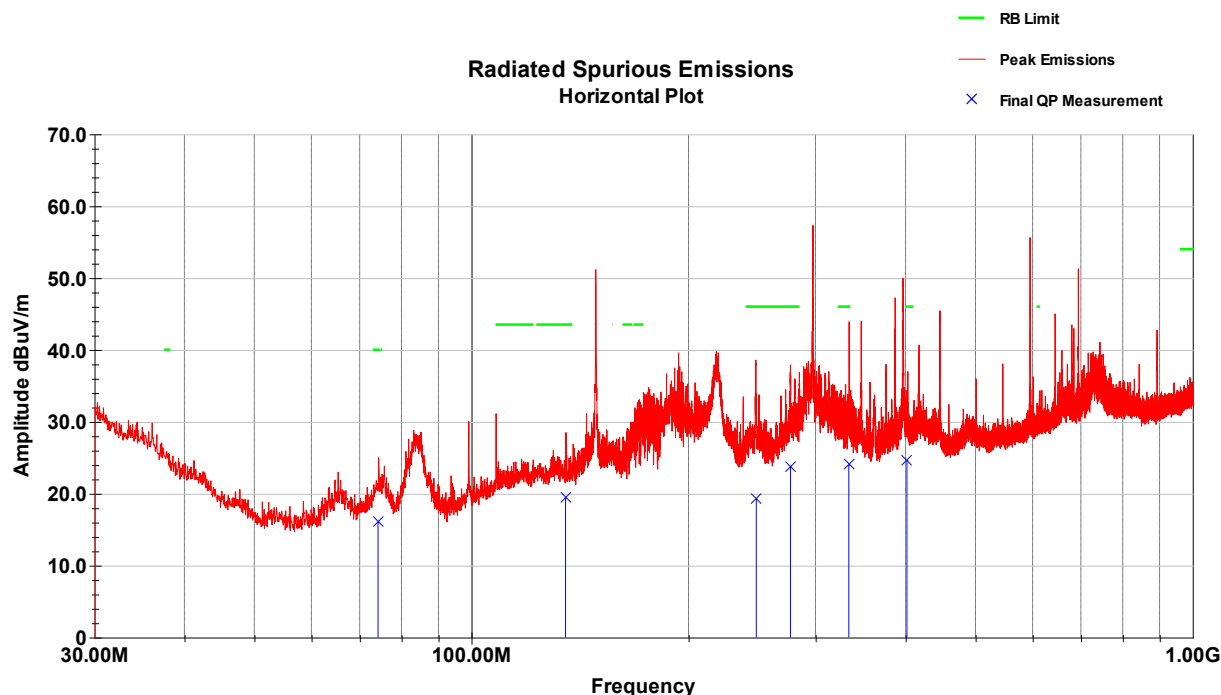
Plot Data - Vertical Polarity – Middle Channel (2440 MHz)



Tabular Data – Vertical Polarity – Middle Channel (2440 MHz)

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw QP dBuV/m	AF dB/m	Loss dB	DCF dB	Amp dB	Final QP dBuV/m	Limit dBuV/m	Margin dB
135.00	V	288.0	324.0	35.2	17.7	0.8	0.0	30.6	23.1	43.5	-20.4
166.19	V	187.0	212.0	30.6	16.7	1.0	0.0	30.4	17.9	43.5	-25.6
247.67	V	47.0	127.0	33.0	16.2	1.2	0.0	30.3	20.1	46.0	-25.9
284.08	V	294.0	100.0	41.1	18.1	1.4	0.0	30.2	30.4	46.0	-15.6
325.19	V	15.0	152.0	33.1	18.8	1.5	0.0	30.2	23.2	46.0	-22.8
333.33	V	69.0	152.0	46.0	18.9	1.5	0.0	30.2	36.3	46.0	-9.7
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

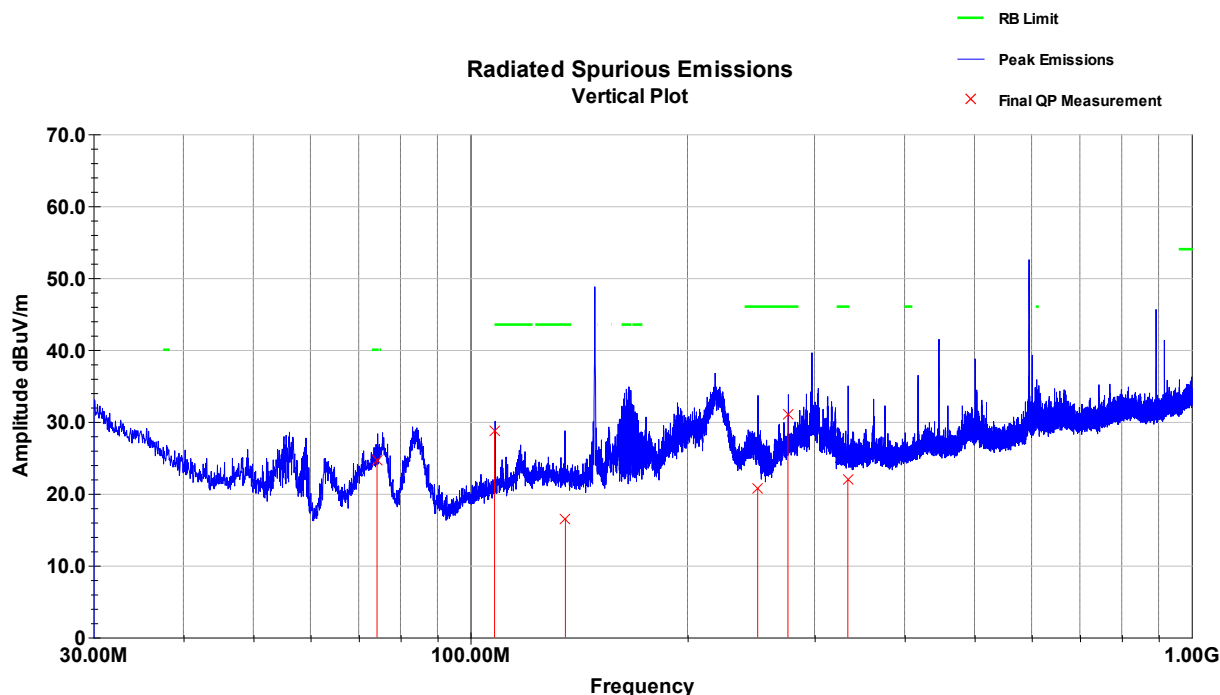
Plot Data - Horizontal Polarity – Middle Channel (2440 MHz)



Tabular Data – Horizontal Polarity – Middle Channel (2440 MHz)

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw QP dBuV/m	AF dB/m	Loss dB	DCF dB	Amp dB	Final QP dBuV/m	Limit dBuV/m	Margin dB
74.23	H	359.0	291.0	34.1	12.0	0.6	0.0	30.6	16.0	40.0	-24.0
135.05	H	359.0	186.0	31.5	17.7	0.8	0.0	30.6	19.5	43.5	-24.0
248.31	H	359.0	288.0	32.2	16.2	1.2	0.0	30.3	19.3	46.0	-26.7
277.00	H	359.0	139.0	34.7	18.0	1.4	0.0	30.3	23.8	46.0	-22.2
333.67	H	359.0	244.0	33.8	18.9	1.5	0.0	30.2	24.0	46.0	-22.0
401.65	H	359.0	174.0	32.3	20.4	1.9	0.0	30.0	24.6	46.0	-21.4
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

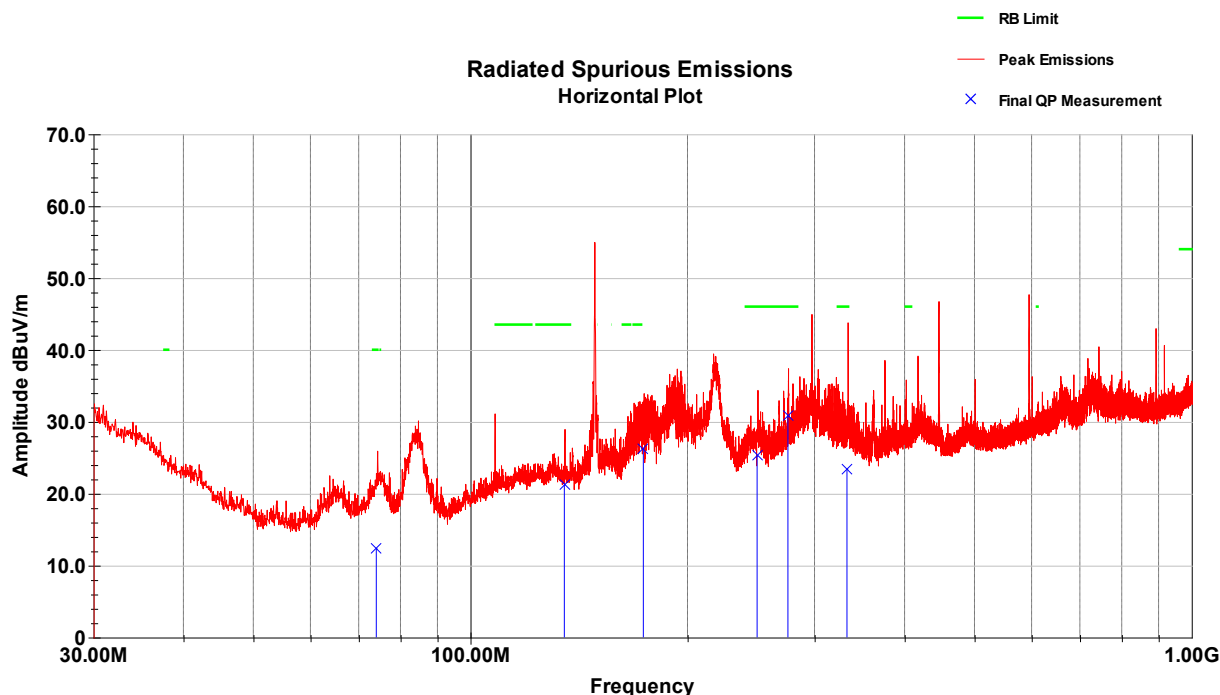
Plot Data - Vertical Polarity – High Channel (2480 MHz)



Tabular Data – Vertical Polarity – High Channel (2480 MHz)

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw QP dBuV/m	AF dB/m	Loss dB	DCF dB	Amp dB	Final QP dBuV/m	Limit dBuV/m	Margin dB
74.22	V	53.0	209.0	42.7	12.0	0.6	0.0	30.6	24.6	40.0	-15.4
108.01	V	99.0	100.0	42.3	16.3	0.8	0.0	30.6	28.8	43.5	-14.7
135.43	V	344.0	335.0	28.6	17.7	0.8	0.0	30.6	16.5	43.5	-27.0
250.22	V	24.0	120.0	33.6	16.2	1.3	0.0	30.3	20.7	46.0	-25.3
275.63	V	354.0	174.0	42.0	17.9	1.4	0.0	30.3	31.0	46.0	-15.0
333.70	V	54.0	174.0	31.6	18.9	1.5	0.0	30.2	21.9	46.0	-24.1
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Plot Data - Horizontal Polarity – High Channel (2480 MHz)

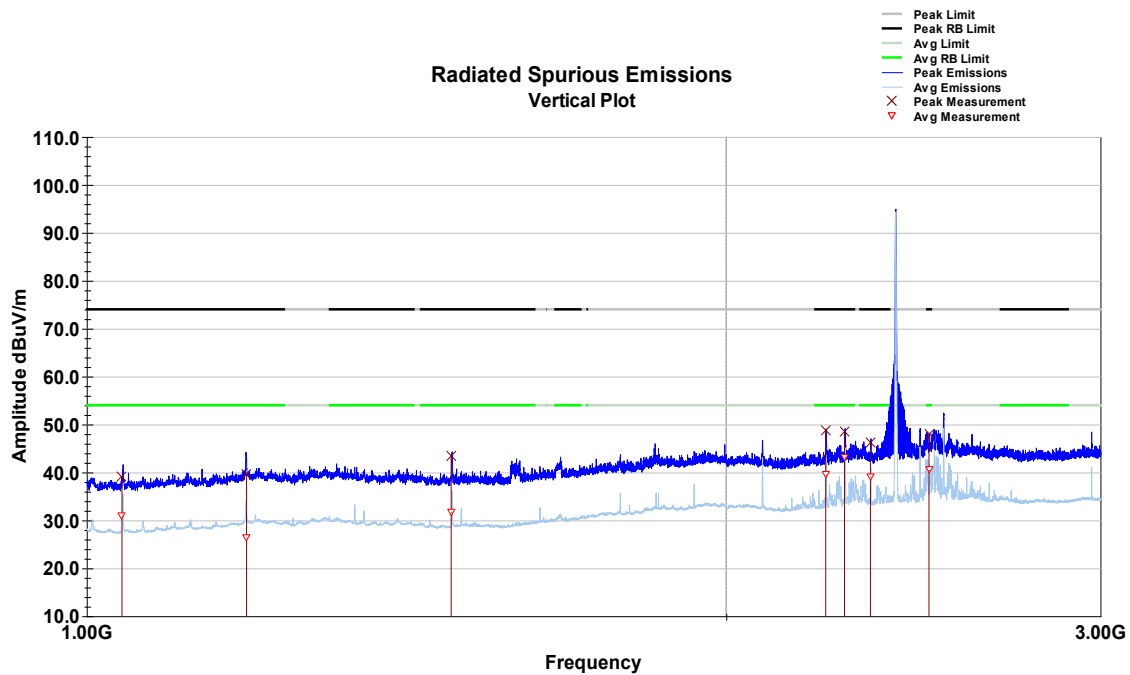


Tabular Data – Horizontal Polarity – High Channel (2480 MHz)

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw QP dBuV/m	AF dB/m	Loss dB	DCF dB	Amp dB	Final QP dBuV/m	Limit dBuV/m	Margin dB
74.04	H	359.0	195.0	30.5	12.0	0.6	0.0	30.6	12.4	40.0	-27.6
134.97	H	359.0	199.0	33.3	17.7	0.8	0.0	30.6	21.3	43.5	-22.2
173.73	H	359.0	104.0	39.8	15.9	1.1	0.0	30.4	26.3	43.5	-17.2
249.81	H	359.0	104.0	38.1	16.2	1.3	0.0	30.3	25.3	46.0	-20.7
275.64	H	359.0	100.0	41.8	17.9	1.4	0.0	30.3	30.8	46.0	-15.2
332.83	H	359.0	218.0	33.2	18.9	1.5	0.0	30.2	23.5	46.0	-22.5
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

7.5.3 1-3 GHz

Plot Data - Vertical Polarity – Low Channel (2402 MHz)



Tabular Data – Vertical Polarity – Low Channel (2402 MHz)
Peak

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Pk dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Pk dBuV/m	Limit dBuV/m	Margin dB
1039.16	V	296.0	100.0	46.0	26.8	1.1	0.0	34.7	39.2	74.0	-34.8
1189.30	V	298.0	100.0	44.2	28.5	1.3	0.0	34.5	39.5	74.0	-34.5
1484.53	V	249.0	100.0	48.9	27.6	1.3	0.0	34.5	43.3	74.0	-30.7
2227.91	V	125.0	100.0	50.3	31.4	1.6	0.0	34.5	48.7	74.0	-25.3
2273.72	V	265.0	100.0	49.6	31.7	1.6	0.0	34.4	48.5	74.0	-25.5
2338.30	V	259.0	100.0	47.2	31.9	1.7	0.0	34.6	46.2	74.0	-27.8
2491.56	V	221.0	100.0	48.1	32.4	1.7	0.0	34.2	48.0	74.0	-26.0
Final Pk = Raw Pk + AF + Loss + DCF - Amp											

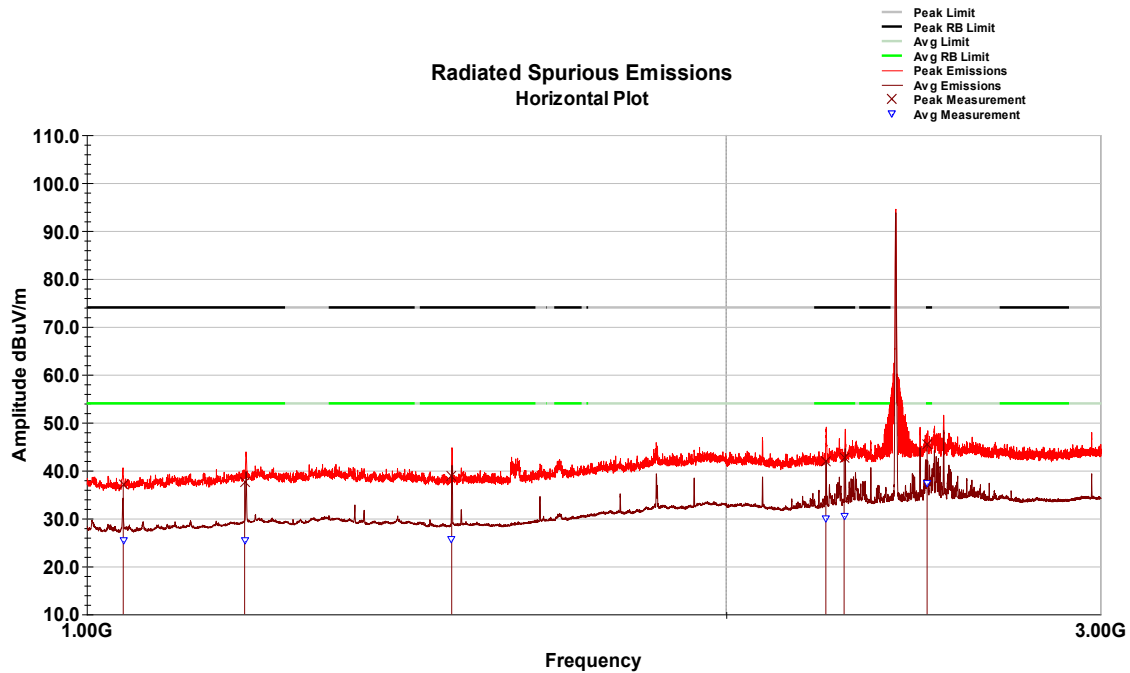
Margin = Final Pk - Limit

Average

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Avg dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Avg dBuV/m	Limit dBuV/m	Margin dB
1039.16	V	296.0	100.0	37.7	26.8	1.1	0.0	34.7	31.0	54.0	-23.0
1189.30	V	298.0	100.0	31.1	28.5	1.3	0.0	34.5	26.4	54.0	-27.6
1484.53	V	249.0	100.0	37.3	27.6	1.3	0.0	34.5	31.7	54.0	-22.2
2227.91	V	125.0	100.0	41.1	31.4	1.6	0.0	34.5	39.5	54.0	-14.4
2273.72	V	265.0	100.0	44.3	31.7	1.6	0.0	34.4	43.2	54.0	-10.8
2338.30	V	259.0	100.0	40.1	31.9	1.7	0.0	34.6	39.1	54.0	-14.9
2491.56	V	221.0	100.0	40.5	32.4	1.7	0.0	34.2	40.5	54.0	-13.5
Final Avg = Raw Avg + AF + Loss + DCF - Amp											

Margin = Final Avg - Limit

Plot Data - Horizontal Polarity – Low Channel (2402 MHz)



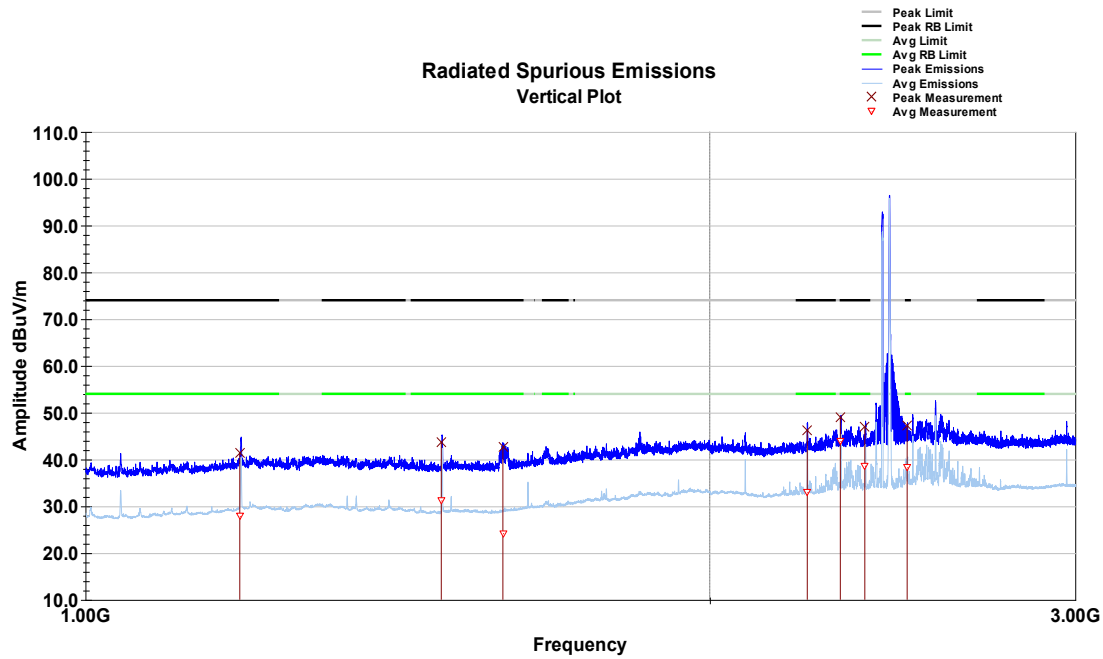
Tabular Data – Horizontal Polarity – Low Channel (2402 MHz) Peak

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Pk dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Pk dBuV/m	Limit dBuV/m	Margin dB
1040.49	H	101.0	100.0	43.8	26.8	1.1	0.0	34.6	37.1	74.0	-36.9
1186.84	H	0.0	100.0	42.4	28.5	1.3	0.0	34.5	37.7	74.0	-36.3
1485.43	H	0.0	100.0	44.3	27.6	1.3	0.0	34.5	38.8	74.0	-35.2
2228.15	H	0.0	100.0	43.5	31.4	1.6	0.0	34.5	41.9	74.0	-32.1
2272.66	H	0.0	100.0	43.7	31.7	1.6	0.0	34.4	42.6	74.0	-31.4
2486.67	H	0.0	100.0	45.6	32.4	1.7	0.0	34.3	45.5	74.0	-28.5
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Average

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Avg dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Avg dBuV/m	Limit dBuV/m	Margin dB
1040.49	H	101.0	100.0	32.1	26.8	1.1	0.0	34.6	25.3	54.0	-28.7
1186.84	H	0.0	100.0	30.0	28.5	1.3	0.0	34.5	25.3	54.0	-28.7
1485.43	H	0.0	100.0	31.1	27.6	1.3	0.0	34.5	25.6	54.0	-28.4
2228.15	H	0.0	100.0	31.5	31.4	1.6	0.0	34.5	30.0	54.0	-24.0
2272.66	H	0.0	100.0	31.6	31.7	1.6	0.0	34.4	30.5	54.0	-23.5
2486.67	H	0.0	100.0	37.4	32.4	1.7	0.0	34.3	37.3	54.0	-16.7
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Plot Data - Vertical Polarity – Middle Channel (2440 MHz)



Tabular Data – Vertical Polarity – Middle Channel (2440 MHz)

Peak

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Pk dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Pk dBuV/m	Limit dBuV/m	Margin dB
1187.09	V	293.0	100.0	46.1	28.5	1.3	0.0	34.5	41.3	74.0	-32.7
1484.53	V	276.0	100.0	49.2	27.6	1.3	0.0	34.5	43.7	74.0	-30.3
1589.60	V	120.0	100.0	48.0	27.9	1.3	0.0	34.5	42.6	74.0	-31.4
2228.47	V	123.0	100.0	47.7	31.4	1.6	0.0	34.5	46.2	74.0	-27.8
2311.89	V	242.0	100.0	49.8	31.9	1.7	0.0	34.4	48.9	74.0	-25.1
2375.39	V	257.0	100.0	47.7	32.0	1.7	0.0	34.4	47.0	74.0	-27.0
2489.74	V	254.0	100.0	47.4	32.4	1.7	0.0	34.2	47.3	74.0	-26.7

Final Pk = Raw Pk + AF + Loss + DCF - Amp

Margin = Final Pk - Limit

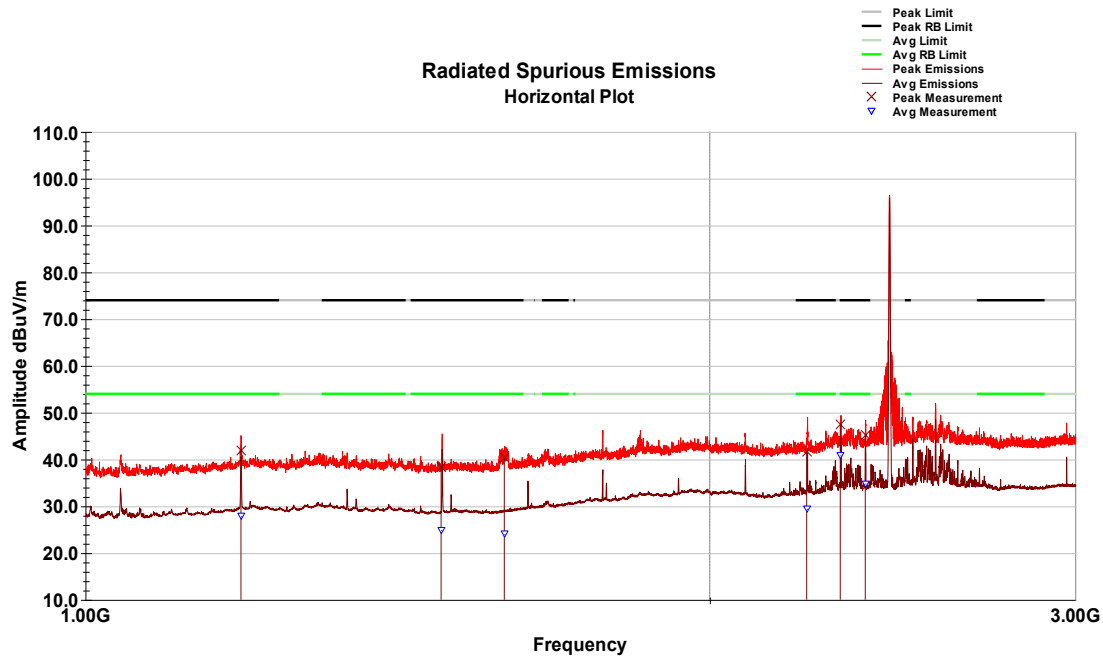
Average

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Avg dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Avg dBuV/m	Limit dBuV/m	Margin dB
1187.09	V	293.0	100.0	32.6	28.5	1.3	0.0	34.5	27.9	54.0	-26.1
1484.53	V	276.0	100.0	36.8	27.6	1.3	0.0	34.5	31.2	54.0	-22.7
1589.60	V	120.0	100.0	29.6	27.9	1.3	0.0	34.5	24.2	54.0	-29.7
2228.47	V	123.0	100.0	34.5	31.4	1.6	0.0	34.5	33.0	54.0	-21.0
2311.89	V	242.0	100.0	44.8	31.9	1.7	0.0	34.4	43.9	54.0	-10.0
2375.39	V	257.0	100.0	39.4	32.0	1.7	0.0	34.4	38.6	54.0	-15.3
2489.74	V	254.0	100.0	38.4	32.4	1.7	0.0	34.2	38.3	54.0	-15.7

Final Avg = Raw Avg + AF + Loss + DCF - Amp

Margin = Final Avg - Limit

Plot Data - Horizontal Polarity – Middle Channel (2440 MHz)



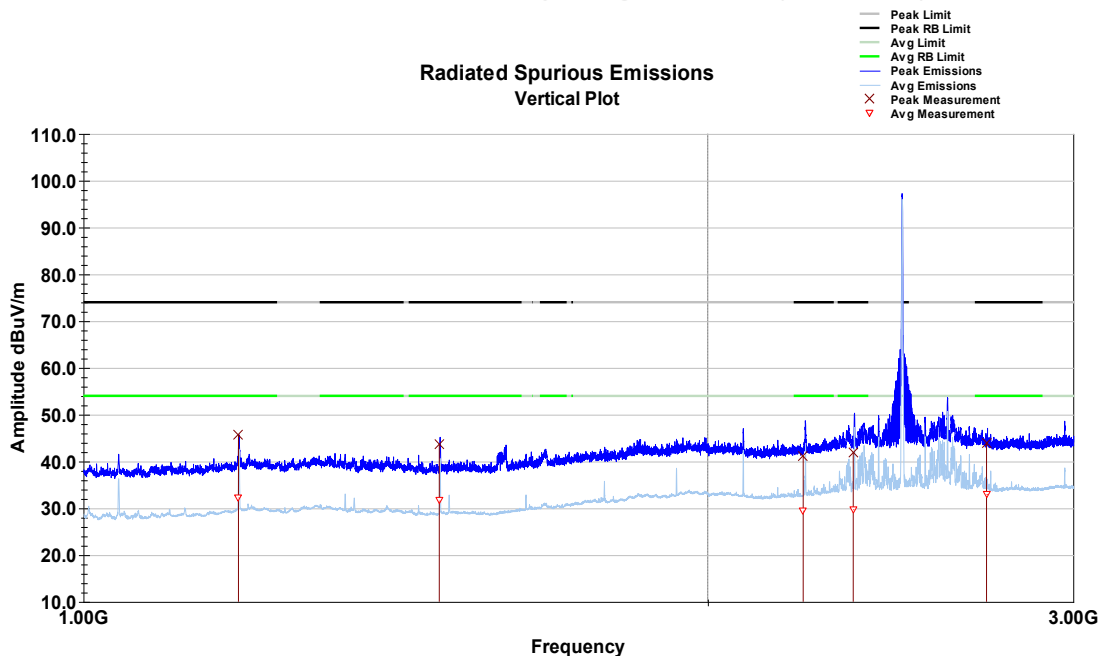
Tabular Data – Horizontal Polarity – Middle Channel (2440 MHz) Peak

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Pk dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Pk dBuV/m	Limit dBuV/m	Margin dB
1188.65	H	92.0	100.0	46.6	28.5	1.3	0.0	34.5	41.9	74.0	-32.1
1484.30	H	0.0	100.0	43.9	27.6	1.3	0.0	34.5	38.4	74.0	-35.6
1592.01	H	0.0	100.0	45.6	27.9	1.3	0.0	34.5	40.3	74.0	-33.7
2227.14	H	0.0	100.0	43.1	31.3	1.6	0.0	34.5	41.6	74.0	-32.4
2311.61	H	0.0	100.0	48.3	31.9	1.7	0.0	34.4	47.4	74.0	-26.6
2376.59	H	0.0	100.0	45.8	32.0	1.7	0.0	34.4	45.1	74.0	-28.9
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Average

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Avg dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Avg dBuV/m	Limit dBuV/m	Margin dB
1188.65	H	92.0	100.0	32.6	28.5	1.3	0.0	34.5	27.9	54.0	-26.1
1484.30	H	0.0	100.0	30.4	27.6	1.3	0.0	34.5	24.9	54.0	-29.1
1592.01	H	0.0	100.0	29.3	27.9	1.3	0.0	34.5	24.0	54.0	-29.9
2227.14	H	0.0	100.0	31.0	31.3	1.6	0.0	34.5	29.4	54.0	-24.6
2311.61	H	0.0	100.0	41.7	31.9	1.7	0.0	34.4	40.9	54.0	-13.1
2376.59	H	0.0	100.0	35.5	32.0	1.7	0.0	34.4	34.8	54.0	-19.1
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Plot Data - Vertical Polarity – High Channel (2480 MHz)



Tabular Data – Vertical Polarity – High Channel (2480 MHz)

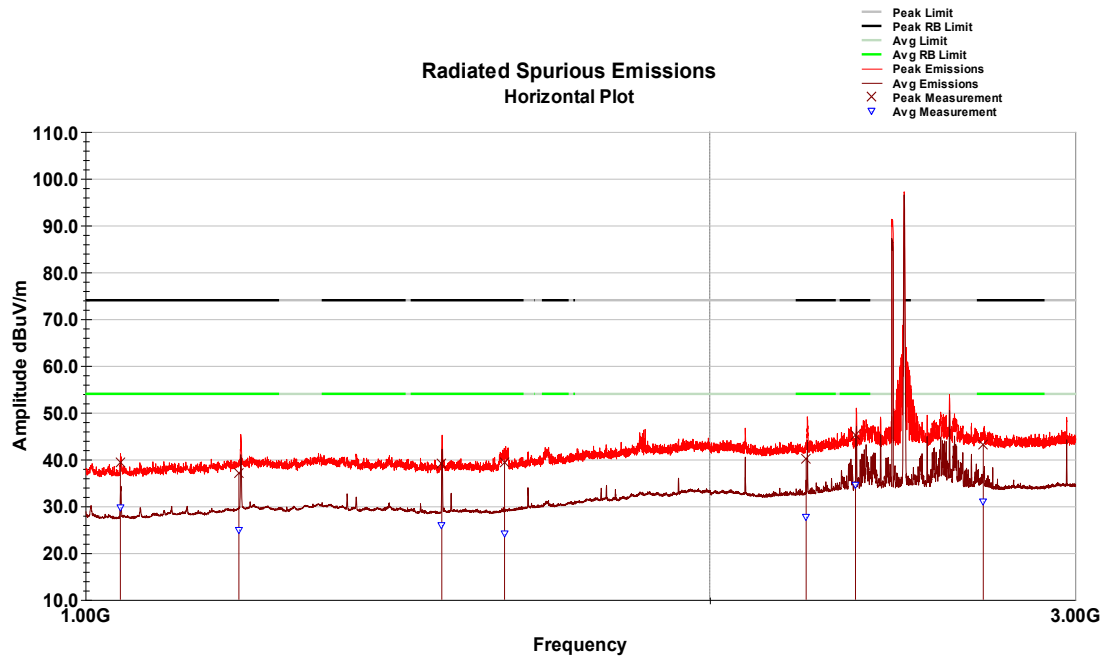
Peak

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Pk dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Pk dBuV/m	Limit dBuV/m	Margin dB
1187.99	V	288.0	100.0	50.4	28.5	1.3	0.0	34.5	45.7	74.0	-28.3
1484.55	V	278.0	100.0	49.2	27.6	1.3	0.0	34.5	43.6	74.0	-30.4
2223.30	V	246.0	100.0	42.7	31.3	1.6	0.0	34.5	41.1	74.0	-32.9
2350.26	V	222.0	100.0	43.0	31.9	1.7	0.0	34.7	42.0	74.0	-32.0
2725.05	V	204.0	100.0	44.1	32.1	1.9	0.0	34.3	43.8	74.0	-30.2
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Average

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Avg dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Avg dBuV/m	Limit dBuV/m	Margin dB
1187.99	V	288.0	100.0	37.0	28.5	1.3	0.0	34.5	32.3	54.0	-21.7
1484.55	V	278.0	100.0	37.1	27.6	1.3	0.0	34.5	31.6	54.0	-22.4
2223.30	V	246.0	100.0	31.0	31.3	1.6	0.0	34.5	29.5	54.0	-24.5
2350.26	V	222.0	100.0	30.8	31.9	1.7	0.0	34.7	29.8	54.0	-24.2
2725.05	V	204.0	100.0	33.3	32.1	1.9	0.0	34.3	33.0	54.0	-20.9
Final Avg = Raw Avg + AF + Loss + DCF - Amp											

Plot Data - Horizontal Polarity – High Channel (2480 MHz)



Tabular Data – Horizontal Polarity – High Channel (2480 MHz)

Peak

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Pk dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Pk dBuV/m	Limit dBuV/m	Margin dB
1039.70	H	96.0	100.0	46.0	26.8	1.1	0.0	34.6	39.3	74.0	-34.7
1185.94	H	0.0	100.0	41.9	28.4	1.3	0.0	34.5	37.1	74.0	-36.9
1485.43	H	0.0	100.0	44.6	27.6	1.3	0.0	34.5	39.0	74.0	-35.0
1592.59	H	0.0	100.0	44.7	27.9	1.3	0.0	34.5	39.4	74.0	-34.6
2225.74	H	0.0	100.0	41.8	31.3	1.6	0.0	34.5	40.2	74.0	-33.8
2350.95	H	0.0	100.0	46.2	31.9	1.7	0.0	34.7	45.2	74.0	-28.8
2709.30	H	0.0	100.0	43.2	32.2	1.9	0.0	34.1	43.1	74.0	-30.9

Final Pk = Raw Pk + AF + Loss + DCF - Amp

Margin = Final Pk - Limit

Average

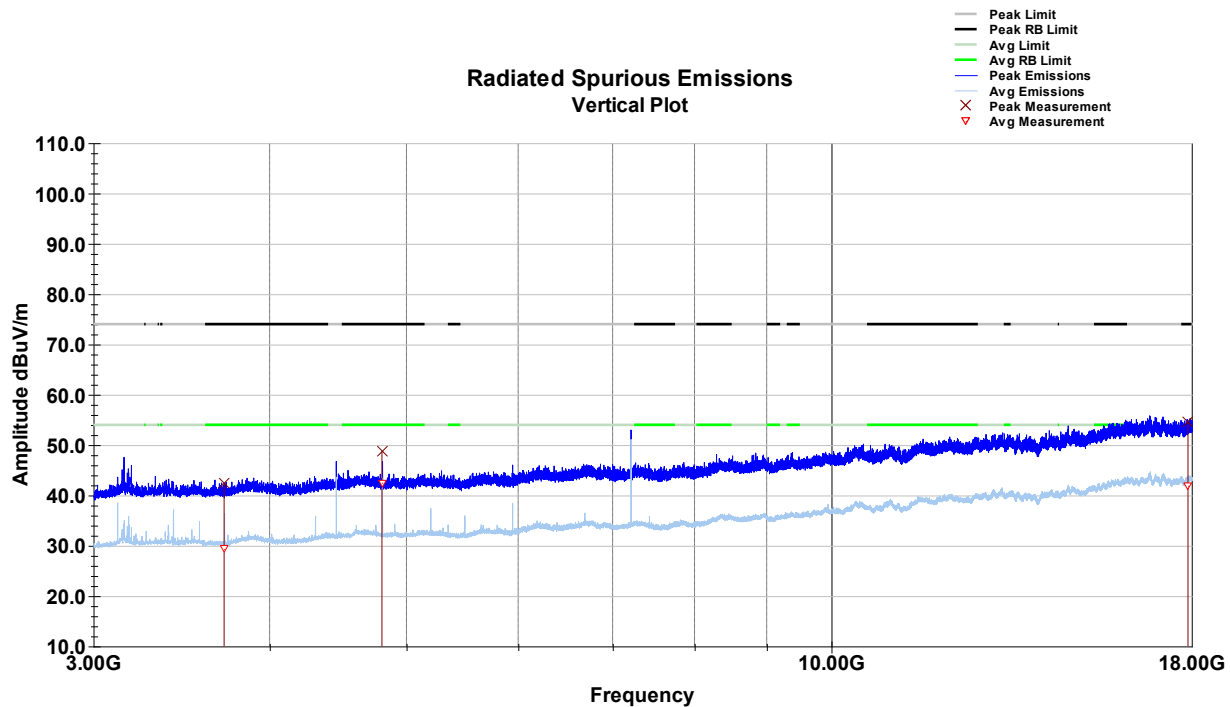
Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Avg dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Avg dBuV/m	Limit dBuV/m	Margin dB
1039.70	H	96.0	100.0	36.5	26.8	1.1	0.0	34.6	29.8	54.0	-24.2
1185.94	H	0.0	100.0	29.8	28.4	1.3	0.0	34.5	25.0	54.0	-29.0
1485.43	H	0.0	100.0	31.5	27.6	1.3	0.0	34.5	25.9	54.0	-28.0
1592.59	H	0.0	100.0	29.3	27.9	1.3	0.0	34.5	24.0	54.0	-29.9
2225.74	H	0.0	100.0	29.3	31.3	1.6	0.0	34.5	27.7	54.0	-26.2
2350.95	H	0.0	100.0	35.7	31.9	1.7	0.0	34.7	34.6	54.0	-19.4
2709.3	H	0.0	100.0	31.1	32.2	1.9	0.0	34.1	31.0	54.0	-22.9

Final Avg = Raw Avg + AF + Loss + DCF - Amp

Margin = Final Avg - Limit

7.5.4 3-18 GHz

Plot Data - Vertical Polarity – Low Channel (2402 MHz)

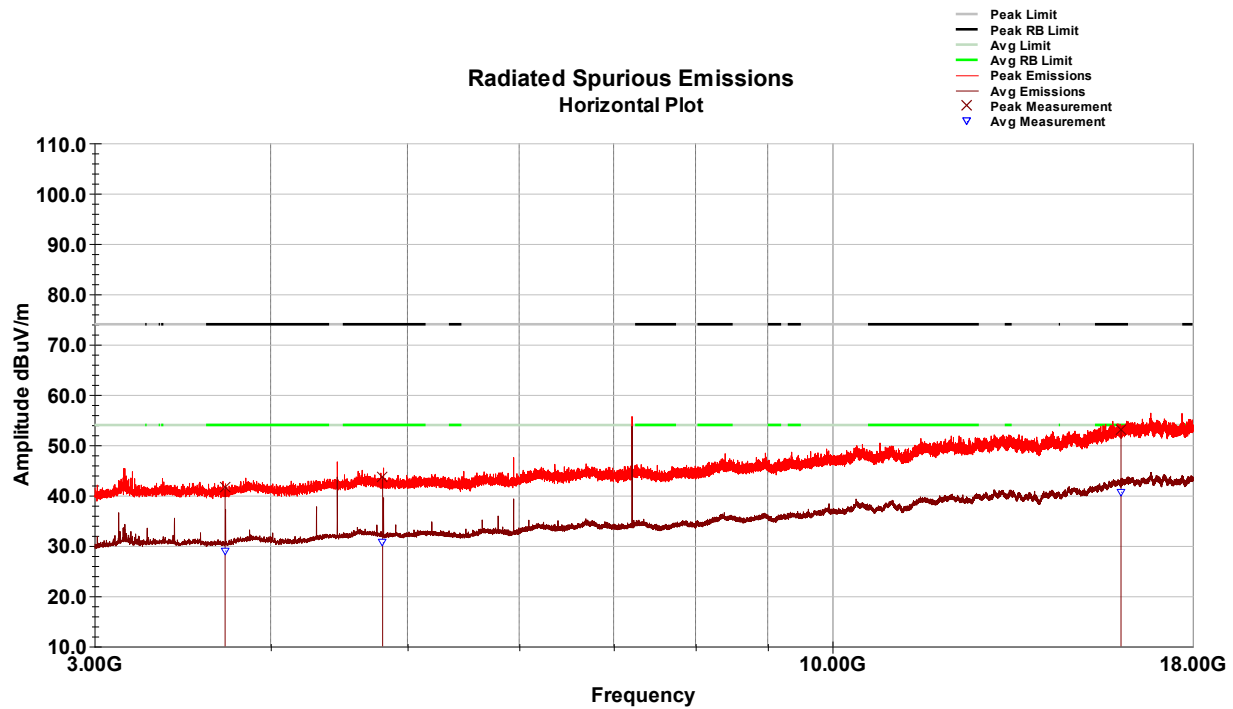

Tabular Data – Vertical Polarity – Low Channel (2402 MHz)
Peak

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Pk dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Pk dBuV/m	Limit dBuV/m	Margin dB
3713.60	V	209.0	123.0	48.8	33.2	2.4	0.0	42.1	42.4	74.0	-31.6
4803.87	V	253.0	165.0	53.9	34.4	2.8	0.0	42.3	48.8	74.0	-25.2
17895.05	V	28.0	400.0	48.5	41.3	5.4	0.0	40.8	54.5	74.0	-19.5
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Average

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Avg dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Avg dBuV/m	Limit dBuV/m	Margin dB
3713.60	V	209.0	123.0	35.8	33.2	2.4	0.0	42.1	29.4	54.0	-24.6
4803.87	V	253.0	165.0	47.7	34.4	2.8	0.0	42.3	42.5	54.0	-11.5
17895.05	V	28.0	400.0	35.9	41.3	5.4	0.0	40.8	41.9	54.0	-12.1
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Plot Data - Horizontal Polarity – Low Channel (2402 MHz)



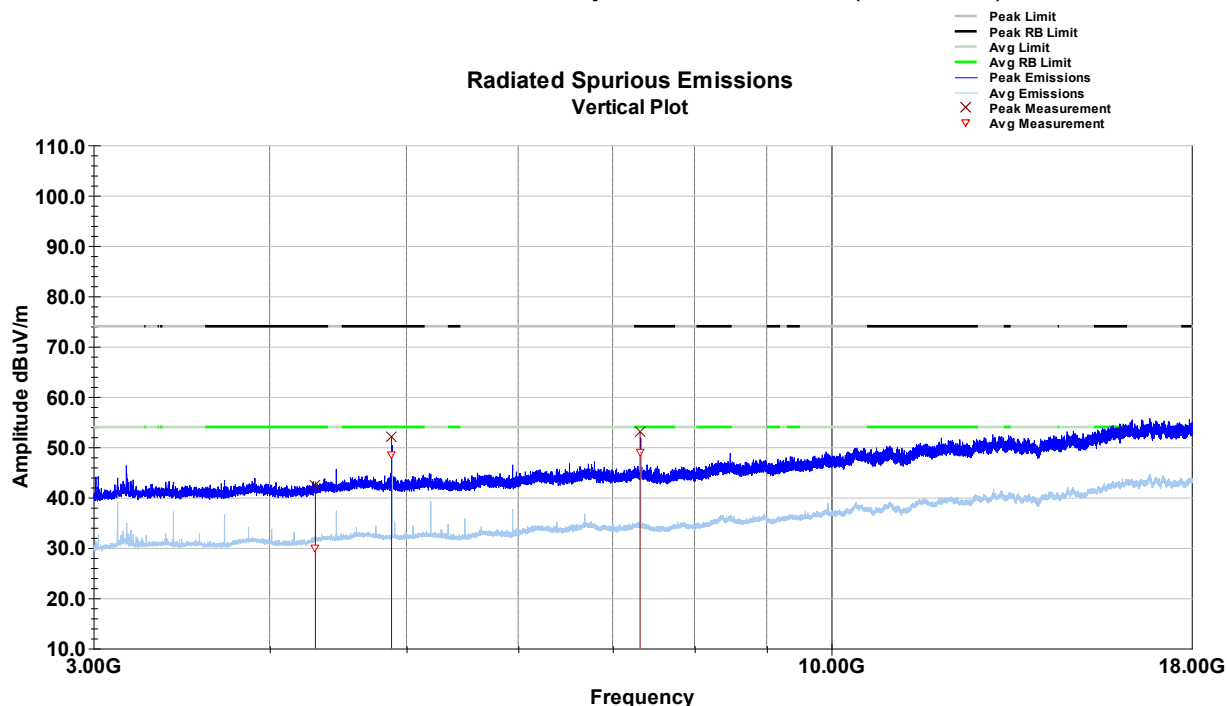
Tabular Data – Horizontal Polarity – Low Channel (2402 MHz) Peak

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Pk dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Pk dBuV/m	Limit dBuV/m	Margin dB
3713.73	H	0.0	305.0	48.0	33.2	2.4	0.0	42.1	41.6	74.0	-32.4
4801.88	H	0.0	234.0	48.8	34.4	2.7	0.0	42.3	43.7	74.0	-30.3
16015.65	H	0.0	195.0	47.8	40.8	5.2	0.0	40.8	53.1	74.0	-20.9
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Average

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Avg dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Avg dBuV/m	Limit dBuV/m	Margin dB
3713.73	H	0.0	305.0	35.5	33.2	2.4	0.0	42.1	29.1	54.0	-24.9
4801.88	H	0.0	234.0	35.9	34.4	2.7	0.0	42.3	30.7	54.0	-23.3
16015.65	H	0.0	195.0	35.5	40.8	5.2	0.0	40.8	40.8	54.0	-13.2
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Plot Data - Vertical Polarity – Middle Channel (2440 MHz)



Tabular Data – Vertical Polarity – Middle Channel (2440 MHz)

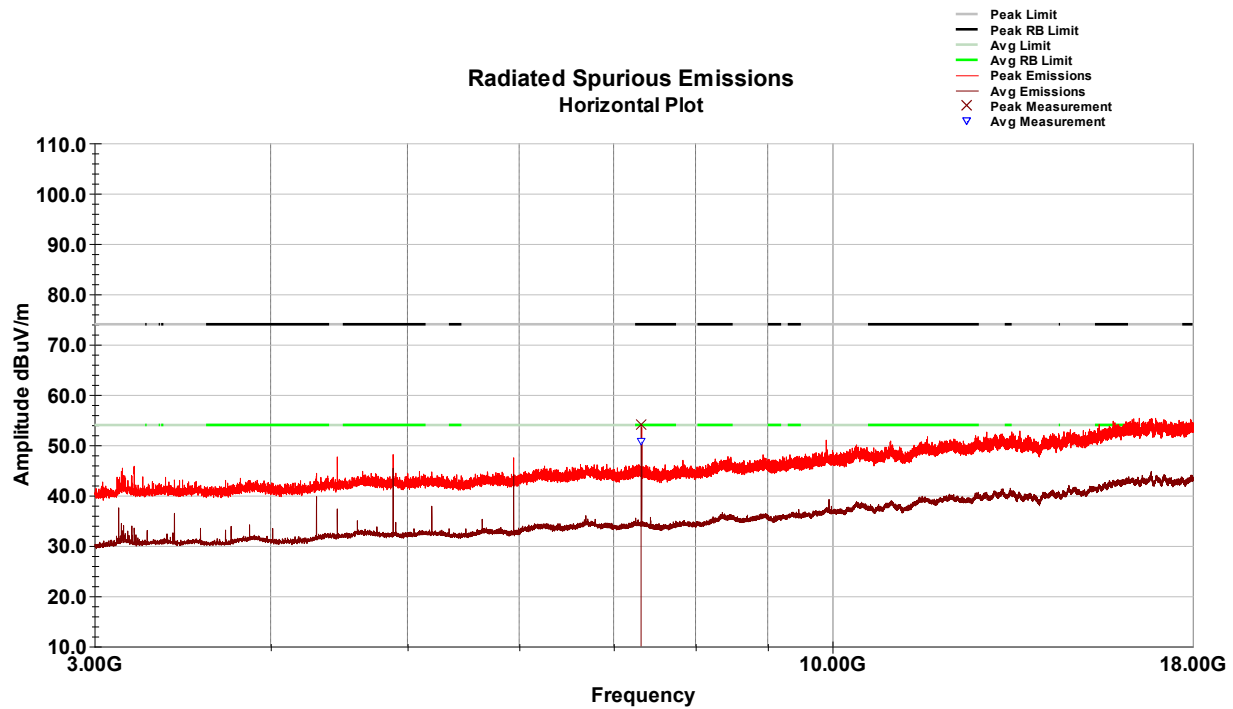
Peak

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Pk dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Pk dBuV/m	Limit dBuV/m	Margin dB
4310.22	V	38.0	144.0	48.3	33.5	2.6	0.0	42.0	42.5	74.0	-31.5
4879.72	V	240.0	145.0	57.2	34.4	2.8	0.0	42.3	52.1	74.0	-21.9
7320.33	V	253.0	155.0	56.0	35.7	3.2	0.0	42.0	53.0	74.0	-21.0
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Average

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Avg dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Avg dBuV/m	Limit dBuV/m	Margin dB
4310.22	V	38.0	144.0	35.8	33.5	2.6	0.0	42.0	30.0	54.0	-24.0
4879.72	V	240.0	145.0	53.7	34.4	2.8	0.0	42.3	48.6	54.0	-5.4
7320.33	V	253.0	155.0	52.1	35.7	3.2	0.0	42.0	49.1	54.0	-4.9
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Plot Data - Horizontal Polarity – Middle Channel (2440 MHz)



Tabular Data – Horizontal Polarity – Middle Channel (2440 MHz)

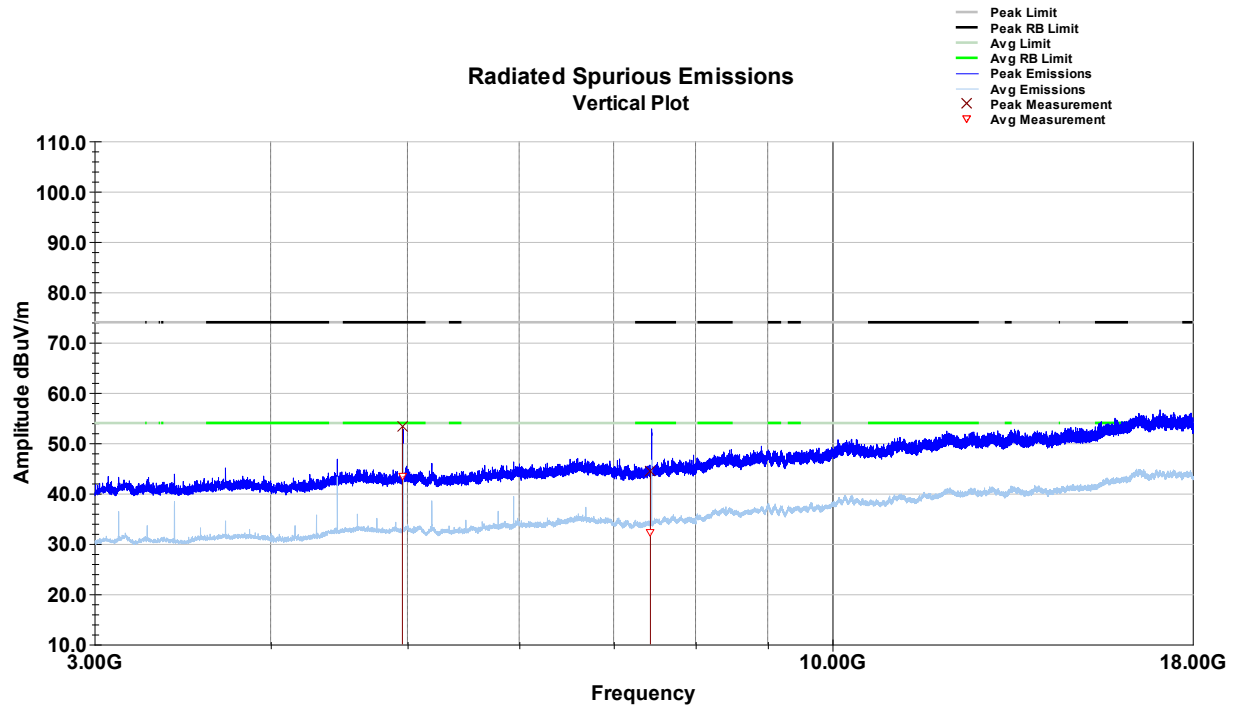
Peak

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Pk dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Pk dBuV/m	Limit dBuV/m	Margin dB
7320.02	H	253.0	175.0	57.1	35.7	3.2	0.0	42.0	54.1	74.0	-19.9
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Average

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Avg dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Avg dBuV/m	Limit dBuV/m	Margin dB
7320.02	H	253.0	175.0	53.7	35.7	3.2	0.0	42.0	50.7	54.0	-3.3
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Plot Data - Vertical Polarity – High Channel (2480 MHz)



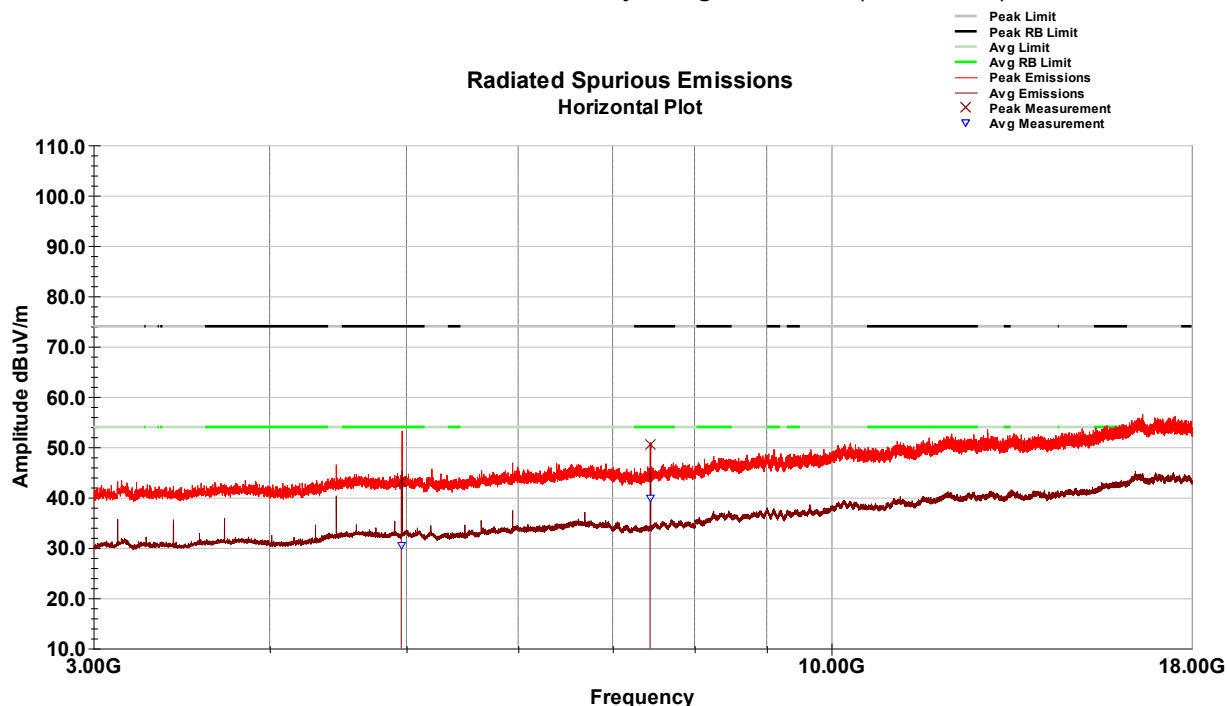
Tabular Data – Vertical Polarity – High Channel (2480 MHz) Peak

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Pk dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Pk dBuV/m	Limit dBuV/m	Margin dB
4959.60	V	285.0	254.0	51.1	34.2	2.3	0.0	34.3	53.3	74.0	-20.7
7431.89	V	223.0	295.0	40.9	35.8	2.7	0.0	34.8	44.5	74.0	-29.5
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

Average

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Avg dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Avg dBuV/m	Limit dBuV/m	Margin dB
4959.60	V	285.0	254.0	41.2	34.2	2.3	0.0	34.3	43.4	54.0	-10.5
7431.89	V	223.0	295.0	28.6	35.8	2.7	0.0	34.8	32.2	54.0	-21.8
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

Plot Data - Horizontal Polarity – High Channel (2480 MHz)



Tabular Data – Horizontal Polarity – High Channel (2480 MHz) Peak

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Pk dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Pk dBuV/m	Limit dBuV/m	Margin dB
4958.11	H	56.0	232.0	40.9	34.2	2.3	0.0	34.3	43.1	74.0	-30.9
7441.01	H	0.0	136.0	47.0	35.8	2.7	0.0	34.9	50.6	74.0	-23.4
Final Pk = Raw Pk + AF + Loss + DCF - Amp											
Margin = Final Pk - Limit											

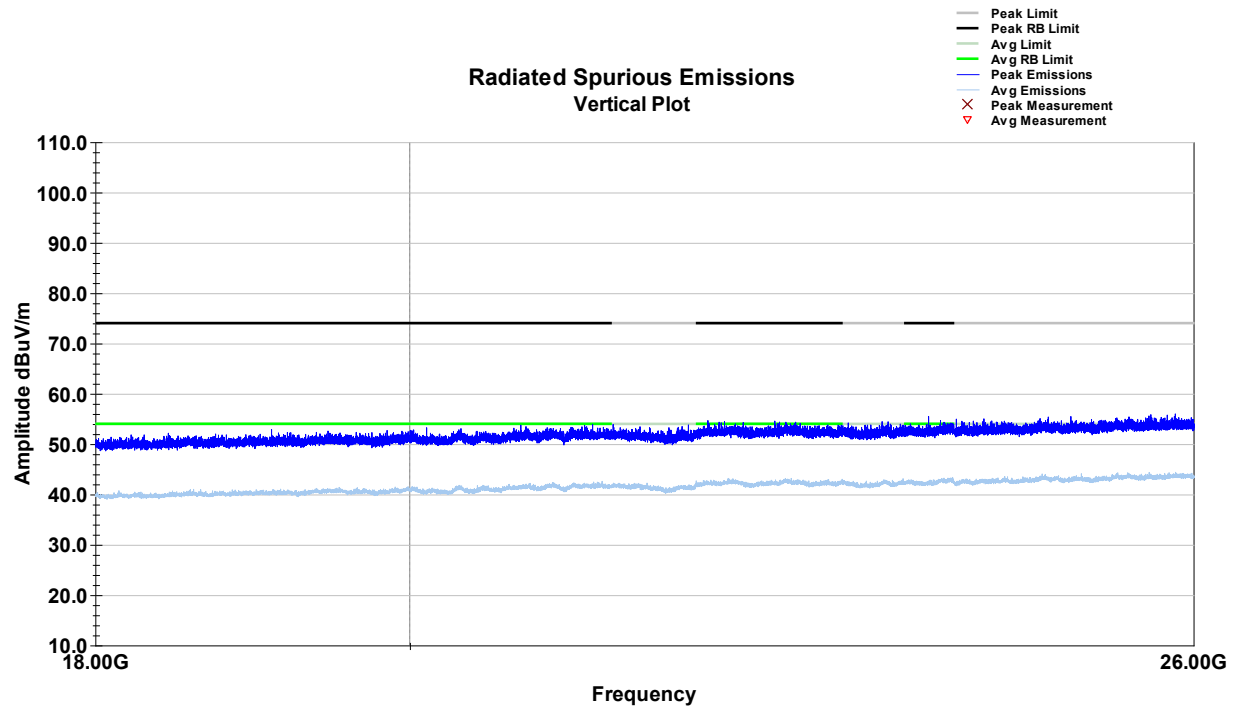
Average

Frequency MHz	Polarity V/H	Azimuth degrees	Height cm	Raw Avg dBuV	AF dB/m	Loss dB	DCF dB	Amp dB	Final Avg dBuV/m	Limit dBuV/m	Margin dB
4958.11	H	56.0	232.0	28.3	34.2	2.3	0.0	34.3	30.5	54.0	-23.5
7441.01	H	0.0	136.0	36.3	35.8	2.7	0.0	34.9	39.9	54.0	-14.1
Final Avg = Raw Avg + AF + Loss + DCF - Amp											
Margin = Final Avg - Limit											

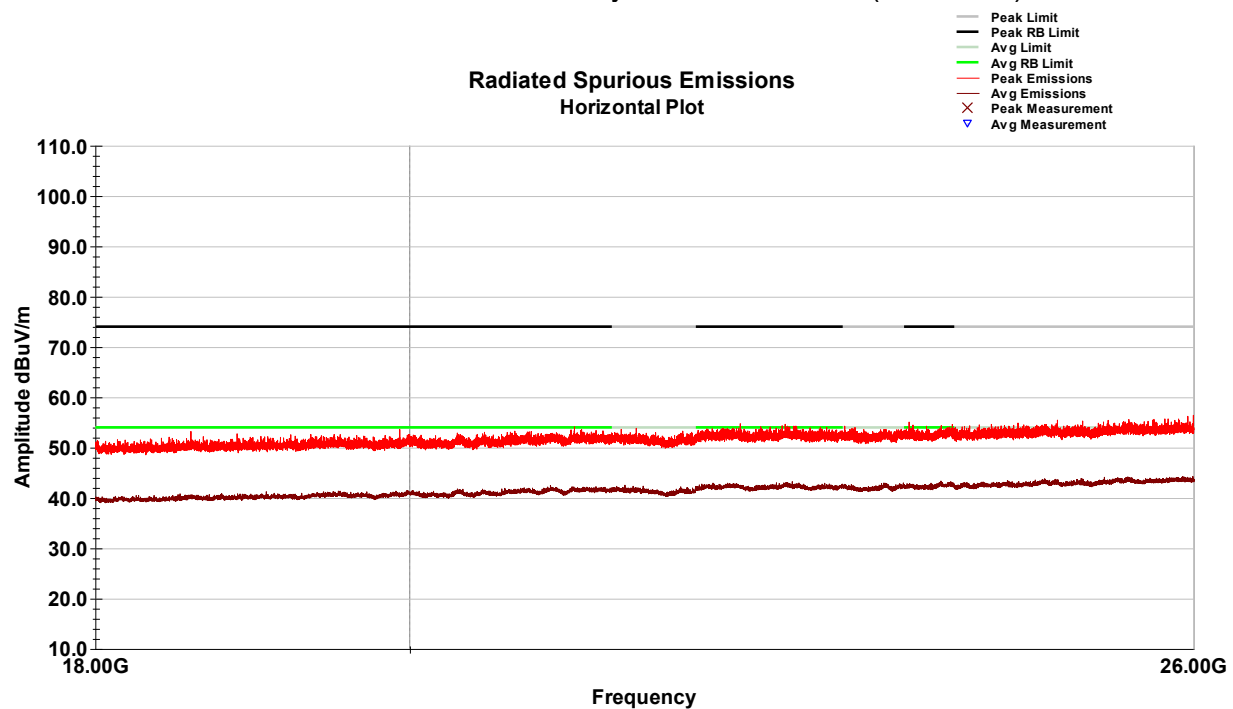
7.5.5 18-26 GHz

Note: No significant deviation with respect to channel. No discernable difference detected when tested in nRF modes. Worst case plots shown below:

Plot Data - Vertical Polarity – Middle Channel (2440 MHz)



Plot Data - Horizontal Polarity – Middle Channel (2440 MHz)



No discernable spurious emissions detected within 20 dB of limit.

8 Band Edge Emissions in Restricted Frequency Bands

8.1 Test Result

Test Description	Test Specification		Test Result
Band Edge Emissions in Restricted Frequency Bands	15.205, 15.209	RSS-GEN S8.9, 8.10	Compliant

8.2 Test Method

Field strength measurements were performed at the restricted band edges of 2390MHz and 2483.5MHz. Measurements were made using the conducted methods defined in ANSI C63.10 clause 11.12.2. The measurements were converted to a radiated field strength equivalent using the equations defined in that section. Both peak and average measurements were performed at the antenna port. These procedures are referenced in KDB 558074 D01 15.247 Meas Guidance v05r02.

A reference level offset was applied to the spectrum analyzer so that conducted measurements represent field strength measurements in dB μ V/m.

Results are reported for only BLE 2Mbps data mode since that is the worst case for this test.

8.3 Test Site

SGS EMC Laboratory, Suwanee, GA

Environmental Conditions

Temperature: 24.5 °C

Relative Humidity: 51.2 %

Atmospheric Pressure: 98.17 kPa

8.4 Test Equipment

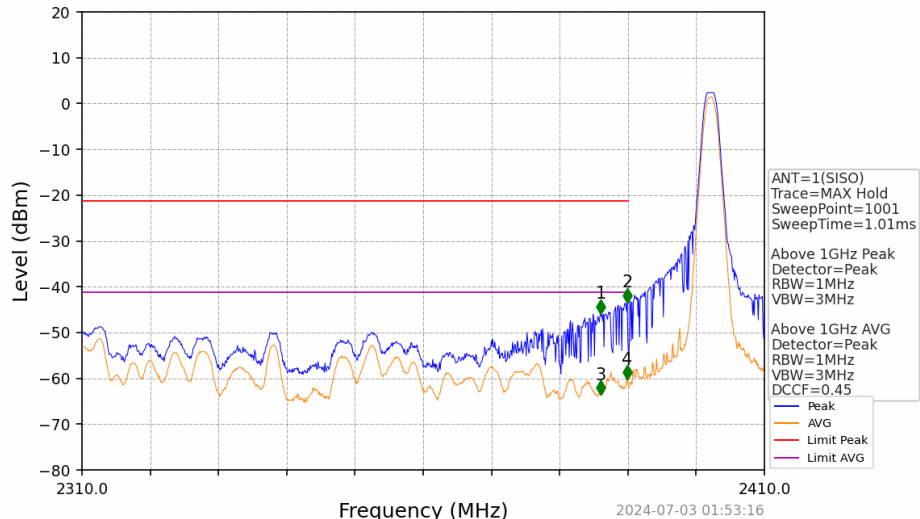
Test End Date: 2-Jul-24

Tester: SGM

Equipment	Manufacturer	Model	Asset Number	Cal Date	Cal Due Date
RF CABLE SMA TO SMA, 0.01-40GHZ	TELEDYNE STORM MICROWAVE	084-0505-059	20108	20-Mar-2024	20-Mar-2025
SIGNAL ANALYZER (TS8997)	ROHDE & SCHWARZ	FSV30	B085749	3-Jan-2024	3-Jan-2025
TSTPASS SWITCHBOX	TSTPASS	SB2	23009	8-Apr-2024	8-Apr-2025

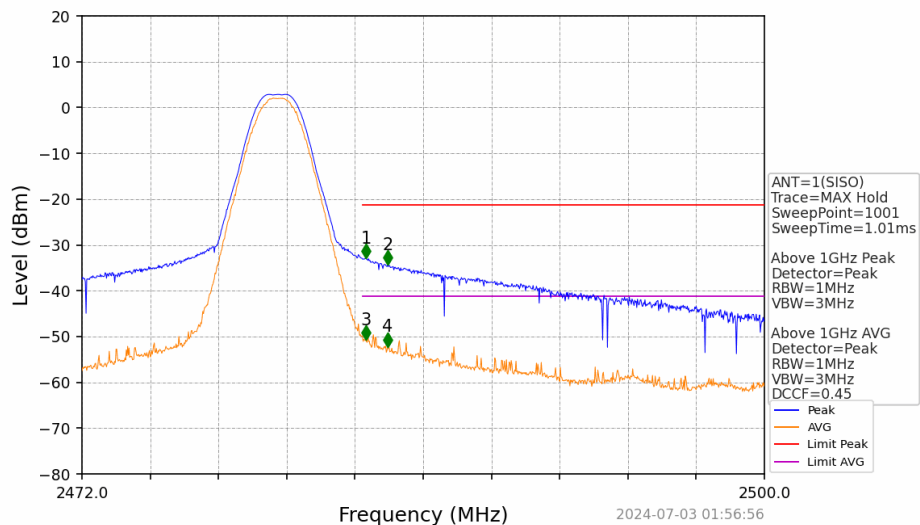
8.5 Test Data

2M_LCH_2402MHz_Ant1_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	2386.000	-45.88	-21.20	22.18	Pass	Peak	3	2386.000	/	-21.20	/	/	AVG
2	2389.900	-43.41	-21.20	19.71	Pass	Peak	4	2389.900	/	-21.20	/	/	AVG

2M_HCH_2480MHz_Ant1_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	2483.648	-32.91	-21.20	9.21	Pass	Peak	3	2483.648	/	-21.20	/	/	AVG
2	2484.544	-34.35	-21.20	10.65	Pass	Peak	4	2484.544	/	-21.20	/	/	AVG

9 AC Powerline Conducted Emissions

9.1 Test Result

Test Description	Test Specification		Test Result
AC Powerline Conducted Emissions	FCC 15.207	RSS-GEN S8.8	Compliant

9.2 Test Method

With the receiver's resolution bandwidth was set to 9 kHz, exploratory scans were performed over the measuring frequency range (0.15 MHz to 30 MHz) using a max hold mode incorporating a Peak detector and Average detector and using the TILE! software. The final test data was measured using a Quasi-Peak detector and Average detector and compared against the limits indicated in the table below.

Frequency Range	Limits (dBuV)
0.15 to 0.5 MHz	Avg 56 to 46 QP 66 to 56
0.5 to 5 MHz	Avg 46 Pk 56
5 to 30 MHz	Avg 50 Pk 60

9.3 Test Site

SGS EMC Laboratory, Suwanee, GA

Environmental Conditions:

Temperature: 25.71 °C

Relative Humidity: 52.3 %

Atmospheric Pressure 97.48 kPa

9.4 Test Equipment

Test End Date: 9-Jul-2024

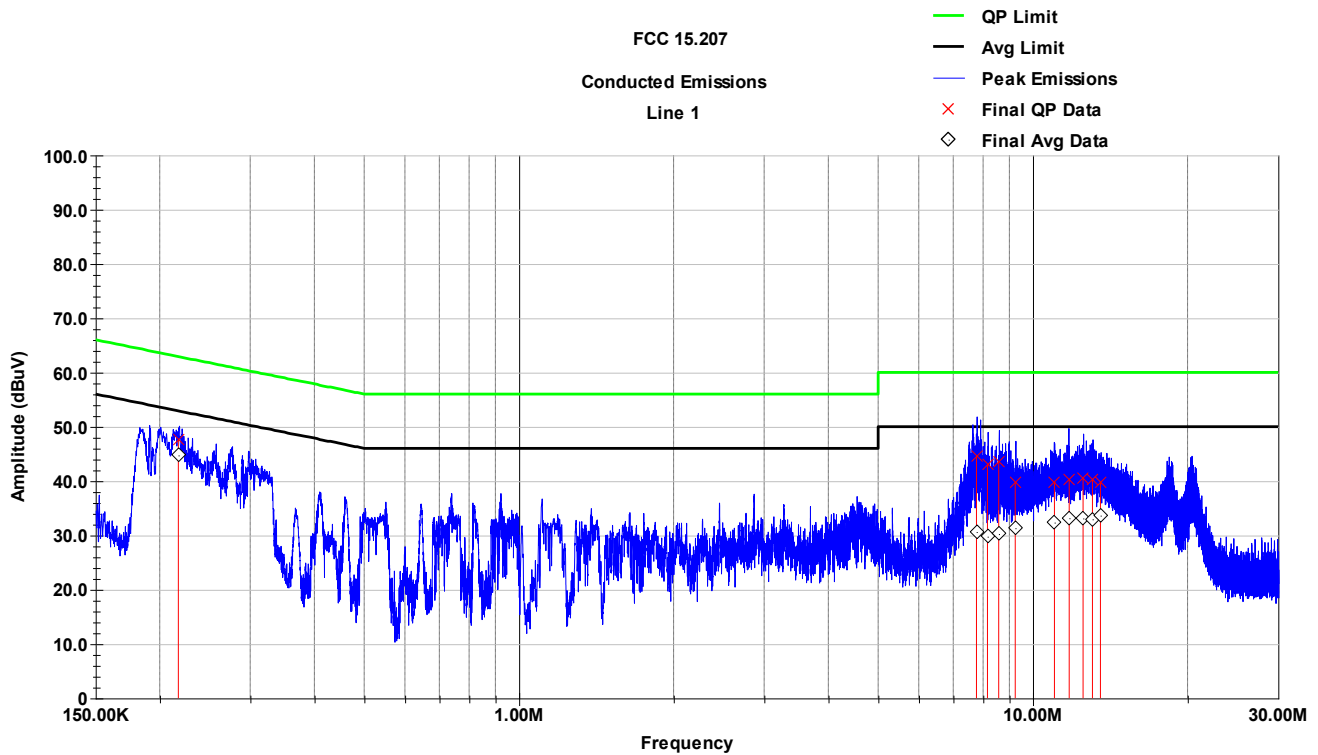
Tester: ZH

Equipment	Model	Manufacturer	Asset	Cal Date	Cal Due Date
LINE IMPEDANCE STABILIZATION NETWORK	NNB 51	TESEQ	B085882	22-Apr-2024	22-Apr-2025
RF CABLE	UC-N-MM-78	MAURY MICROWAVE	17017	7-Aug-2023	7-Aug-2024
EMI TEST RECEIVER	ESW44	ROHDE & SCHWARZ	22027	3-Oct-2023	3-Oct-2024

Software: TILE 7 software profile "Conducted Emissions 240521" dated 21 May 2024

9.5 Test Data

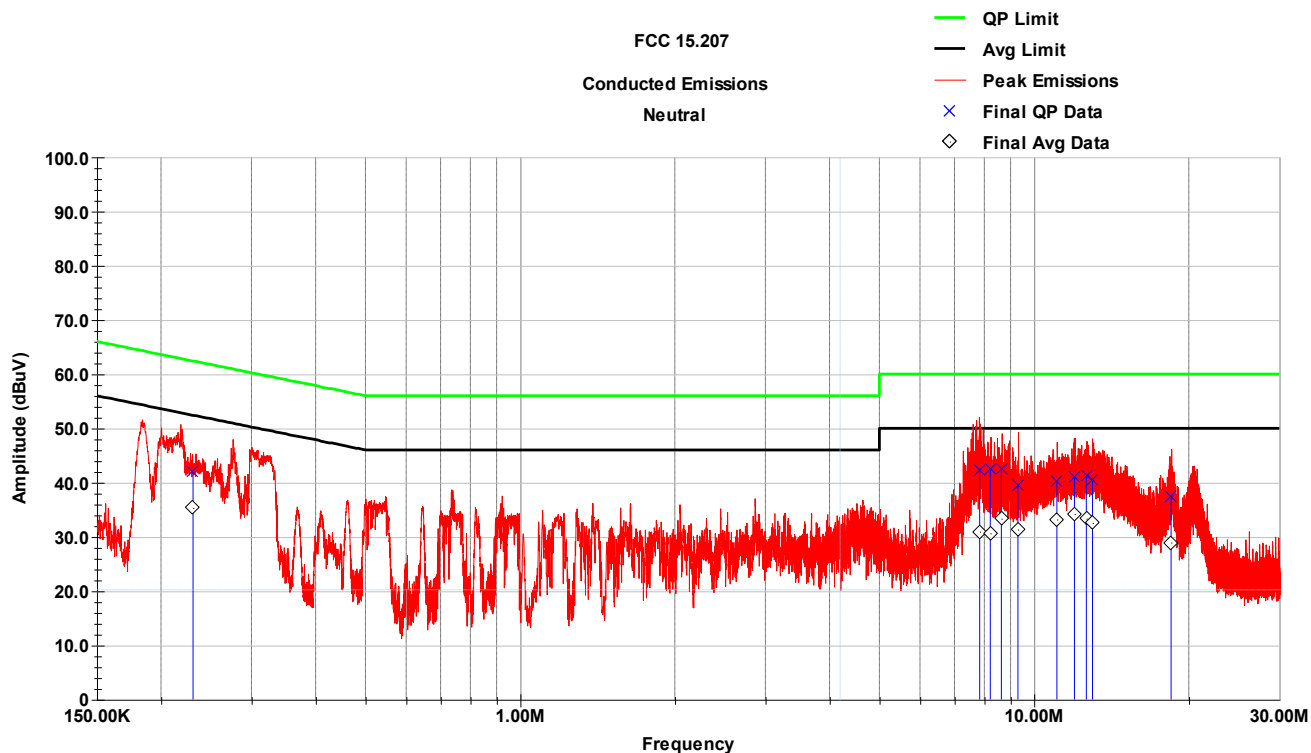
Line 1 Conducted Emissions – Peak Plot



Line 1 Conducted Emissions – Tabular Data

Frequency MHz	LISN dB	CF dB	TL dB	Raw Avg dBuV	Final Avg dBuV	Avg Limit dBuV	Avg Margin dB	Raw QP dBuV	Final QP dBuV	QP Limit dBuV	QP Margin dB
0.217	9.8	0.00	0.0	34.9	44.7	52.9	-8.2	37.8	47.6	62.9	-15.3
7.767	9.9	0.00	0.0	20.7	30.6	50	-19.4	34.7	44.6	60.0	-15.4
8.159	9.9	0.00	0.0	19.9	29.8	50	-20.2	33.2	43.1	60.0	-16.9
8.581	9.9	0.00	0.0	20.3	30.2	50	-19.8	33.8	43.7	60.0	-16.3
9.239	9.9	0.00	0.0	21.4	31.3	50.0	-18.7	29.9	39.8	60.0	-20.2
11.014	9.9	0.10	0.0	22.4	32.4	50.0	-17.6	29.8	39.8	60.0	-20.2
11.768	9.9	0.10	0.0	23.2	33.2	50.0	-16.8	30.3	40.3	60.0	-19.7
12.521	9.9	0.10	0.0	23.2	33.1	50.0	-16.9	30.5	40.4	60.0	-19.6
13.060	9.9	0.10	0.0	23.0	33.0	50.0	-17.0	30.3	40.3	60.0	-19.7
13.536	9.9	0.10	0.0	23.7	33.6	50.0	-16.4	29.7	39.6	60.0	-20.4
Final QP = Raw QP + LISN + CF + TL											
QP Margin = Final QP - QP Limit											
Final Avg = Raw Avg + LISN + CF + TL											
Avg Margin = Final Avg - Avg Limit											

Neutral Conducted Emissions – Peak Plot



Neutral Conducted Emissions – Tabular Data

Frequency MHz	LISN dB	CF dB	TL dB	Raw Avg dBUV	Final Avg dBUV	Avg Limit dBUV	Avg Margin dB	Raw QP dBUV	Final QP dBUV	QP Limit dBUV	QP Margin dB
0.231	9.8	0.00	0.0	25.6	35.4	52.4	-17.0	32.2	41.9	62.4	-20.4
7.835	9.9	0.00	0.0	21.1	31	50	-19	32.5	42.4	60.0	-17.6
8.22	9.9	0.00	0.0	20.8	30.7	50	-19.3	32.6	42.5	60.0	-17.5
8.637	9.9	0.00	0.0	23.5	33.4	50	-16.6	32.6	42.6	60.0	-17.4
9.300	9.9	0.00	0.0	21.4	31.4	50.0	-18.6	29.5	39.4	60.0	-20.6
11.075	9.9	0.10	0.0	23.3	33.2	50.0	-16.8	30.4	40.4	60.0	-19.6
11.982	9.9	0.10	0.0	24.3	34.2	50.0	-15.8	31.0	40.9	60.0	-19.1
12.640	9.9	0.10	0.0	23.4	33.4	50.0	-16.6	31.2	41.2	60.0	-18.8
12.997	9.9	0.10	0.0	22.6	32.6	50.0	-17.4	30.6	40.5	60.0	-19.5
18.476	10.0	0.10	0.0	18.9	29.0	50.0	-21.0	27.5	37.6	60.0	-22.4
Final QP = Raw QP + LISN + CF + TL											
QP Margin = Final QP - QP Limit											
Final Avg = Raw Avg + LISN + CF + TL											
Avg Margin = Final Avg - Avg Limit											

10 Measurement Uncertainty

The measurement uncertainty figures are be calculated in accordance with TR 100 028-1 [2] and correspond to an expansion factor (coverage factor) $k = 2$ (which provide confidence levels of 95,45 % in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)).

Measurement uncertainty is not used to adjust the measurements to determine compliance.
Measurement uncertainty values in the table below comply with CISPR 16-4-2.

Parameter	Expanded Uncertainty for Normal k factor equal to 2	
	Required	Laboratory Actual
Radio Frequency	$\pm 1 \times 10^{-5}$	$\pm 9.8 \times 10^{-8}$
total RF power, conducted	± 1.5 dB	± 1.2 dB
RF power density, conducted	± 3 dB	± 0.7 dB
spurious emissions, conducted	± 3 dB	± 2.1 dB
all emissions, radiated	± 6 dB	± 4.8 dB
temperature	$\pm 1^{\circ}\text{C}$	$\pm 0.5^{\circ}\text{C}$
humidity	± 5 %	± 3.5 %
DC and low frequency voltages	± 3 %	± 0.4 %

11 Revision History

Revision Level	Description of changes	Revision Date
0	Initial Release	04 June 2026
1	Conducted RF Data was added to report.	16 June 2026
2	Section 1.3 added to better identify which HVIN was tested and which are being referenced as part of the family. References to ANSI C63.4 were updated.	19 June 2026