

TEST REPORT

Product Name : cuka-m1200c
Brand Mark : N/A
Model No. : M1200S-V3G
FCC ID : 2A5KF-M1200S-V3G
Report Number : BLA-EMC-202112-A13701
Date of Sample Receipt : 2021/12/31
Date of Test : 2022/3/4 to 2022/3/5
Date of Issue : 2022/3/5
Test Standard : 47 CFR Part 15, Subpart C 15.247
Test Result : Pass

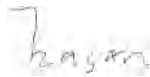
Prepared for:

Shenzhen Blueshadow Develop Co., Ltd
Room 908, Chinto Blvd, Minzhi Street, LongHua, Shenzhen, China

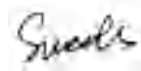
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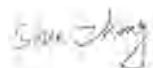
Compiled by:



Review by:



Approved by:



Date:

2022/3/5



REPORT REVISE RECORD

Version No.	Date	Description
00	2022/3/5	Original

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TABLE OF CONTENTS

1	TEST SUMMARY.....	5
2	GENERAL INFORMATION.....	6
3	GENERAL DESCRIPTION OF E.U.T.....	6
4	TEST ENVIRONMENT.....	7
5	TEST MODE.....	7
6	MEASUREMENT UNCERTAINTY.....	7
7	DESCRIPTION OF SUPPORT UNIT.....	8
8	LABORATORY LOCATION.....	8
9	TEST INSTRUMENTS LIST.....	9
10	RADIATED SPURIOUS EMISSIONS.....	12
10.1	LIMITS.....	12
10.2	BLOCK DIAGRAM OF TEST SETUP.....	13
10.3	PROCEDURE.....	13
10.4	TEST DATA.....	15
11	RADIATED EMISSIONS WHICH FALL IN THE RESTRICTED BANDS.....	23
11.1	LIMITS.....	23
11.2	BLOCK DIAGRAM OF TEST SETUP.....	24
11.3	PROCEDURE.....	24
11.4	TEST DATA.....	26
12	CONDUCTED BAND EDGES MEASUREMENT.....	42
12.1	LIMITS.....	42
12.2	BLOCK DIAGRAM OF TEST SETUP.....	42
12.3	TEST DATA.....	43
13	POWER SPECTRUM DENSITY.....	44
13.1	LIMITS.....	44
13.2	BLOCK DIAGRAM OF TEST SETUP.....	44
13.3	TEST DATA.....	44
14	CONDUCTED PEAK OUTPUT POWER.....	45
14.1	LIMITS.....	45
14.2	BLOCK DIAGRAM OF TEST SETUP.....	45

14.3	TEST DATA.....	46
15	MINIMUM 6DB BANDWIDTH.....	47
15.1	LIMITS.....	47
15.2	BLOCK DIAGRAM OF TEST SETUP.....	47
15.3	TEST DATA.....	47
16	CONDUCTED EMISSIONS AT AC POWER LINE (150KHZ-30MHZ).....	48
16.1	LIMITS.....	48
16.2	BLOCK DIAGRAM OF TEST SETUP.....	48
16.3	PROCEDURE.....	48
16.4	TEST DATA.....	50
17	ANTENNA REQUIREMENT.....	52
17.1	CONCLUSION.....	52
18	CONDUCTED SPURIOUS EMISSIONS.....	53
18.1	LIMITS.....	53
18.2	BLOCK DIAGRAM OF TEST SETUP.....	53
18.3	TEST DATA.....	54
19	APPENDIX.....	55
19.1	MAXIMUM CONDUCTED OUTPUT POWER.....	55
19.2	-6DB BANDWIDTH.....	68
19.3	OCCUPIED CHANNEL BANDWIDTH.....	81
19.4	MAXIMUM POWER SPECTRAL DENSITY LEVEL.....	94
19.5	BAND EDGE.....	107
19.6	CONDUCTED RF SPURIOUS EMISSION.....	124
APPENDIX A: PHOTOGRAPHS OF TEST SETUP.....		149
APPENDIX B: PHOTOGRAPHS OF EUT.....		151

1 TEST SUMMARY

Test item	Test Requirement	Test Method	Class/Severity	Result
Radiated Spurious Emissions	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.4,6.5,6.6	47 CFR Part 15, Subpart C 15.209 & 15.247(d)	Pass
Radiated Emissions which fall in the restricted bands	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.10.5	47 CFR Part 15, Subpart C 15.209 & 15.247(d)	Pass
Conducted Band Edges Measurement	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 7.8.8 & Section 11.13.3.2	47 CFR Part 15, Subpart C 15.247(d)	Pass
Power Spectrum Density	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.10.2	47 CFR Part 15, Subpart C 15.247(e)	Pass
Conducted Peak Output Power	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 7.8.5 & Section 11.9.1	47 CFR Part 15, Subpart C 15.247(b)(1) & 15.247(b)(3)	Pass
Minimum 6dB Bandwidth	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.8.1	47 CFR Part 15, Subpart C 15.247a(2)	Pass
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass
Antenna Requirement	47 CFR Part 15, Subpart C 15.247	N/A	47 CFR Part 15, Subpart C 15.203 & 15.247(c)	Pass
Conducted Spurious Emissions	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 7.8.6 & Section 11.11	47 CFR Part 15, Subpart C 15.247(d)	Pass

2 GENERAL INFORMATION

Applicant	Shenzhen Blueshadow Develop Co Ltd
Address	Room 908, Chinto Blvd, Minzhi Street, LongHua, Shenzhen, China
Manufacturer	Shenzhen Grandshine Technology Co Ltd
Address	Floor1-3, ShaboIndustrialPark, XintianCommunity, GuanhuStreet, LonghuaDistrict, Shenzhen
Factory	Shenzhen Grandshine Technology Co Ltd
Address	Floor1-3, ShaboIndustrialPark, XintianCommunity, GuanhuStreet, LonghuaDistrict, Shenzhen
Product Name	cuka-m1200c
Test Model No.	M1200S-V3G

3 GENERAL DESCRIPTION OF E.U.T.

Hardware Version	V2.0
Software Version	1.0.3(500)
Operation Frequency:	802.11b/g/n(HT20): 2412MHz to 2462MHz 802.11n(HT40): 2422MHz to 2452MHz
Modulation Type:	802.11b: DSSS (CCK, DQPSK, DBPSK) 802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Channel Spacing:	5MHz
Number of Channels:	802.11b/g/n(HT20):11 802.11n(HT40):7
Antenna Type:	Internal antenna
Antenna Gain:	3dBi (Provided by the customer)

4 TEST ENVIRONMENT

Environment	Temperature	Voltage
Normal	25°C	12Vdc

5 TEST MODE

TEST MODE	TEST MODE DESCRIPTION
TX	Keep the EUT in transmitting mode (Duty Cycle>98%)
Remark:Only the data of the worst mode would be recorded in this report.	

6 MEASUREMENT UNCERTAINTY

Parameter	Expanded Uncertainty (Confidence of 95%)
Radiated Emission(9kHz-30MHz)	±4.34dB
Radiated Emission(30Mz-1000MHz)	±4.24dB
Radiated Emission(1GHz-18GHz)	±4.68dB
AC Power Line Conducted Emission(150kHz-30MHz)	±3.45dB

7 DESCRIPTION OF SUPPORT UNIT

Device Type	Manufacturer	Model Name	Serial No.	Remark
PC	HASEE	K610D	N/A	N/A

8 LABORATORY LOCATION

All tests were performed at:
BlueAsia of Technical Services(Shenzhen) Co., Ltd.
Building C, No. 107, Shihuan Road, Shiyuan Sub-District, Baoan District, Shenzhen, Guangdong Province, China
Telephone: TEL: +86-755-28682673 FAX: +86-755-28682673
No tests were sub-contracted.

9 TEST INSTRUMENTS LIST

Test Equipment Of Radiated Spurious Emissions					
Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due
Chamber	SKET	966	N/A	10/11/2020	9/11/2023
Spectrum	R&S	FSP40	100817	24/9/2021	23/9/2022
Receiver	R&S	ESR7	101199	24/9/2021	23/9/2022
broadband Antenna	Schwarzbeck	VULB9168	00836 P:00227	26/9/2020	25/9/2022
Horn Antenna	Schwarzbeck	9120D	01892 P:00331	26/9/2020	25/9/2022
Amplifier	SKET	LNPA-0118-45	N/A	24/9/2021	23/9/2022
EMI software	EZ	EZ-EMC	N/A	N/A	N/A
Loop antenna	SCHNARZBECK	FMZB1519B	00102	26/9/2020	25/9/2022

Test Equipment Of Radiated Emissions which fall in the restricted bands					
Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due
Chamber	SKET	966	N/A	10/11/2020	9/11/2023
Spectrum	R&S	FSP40	100817	24/9/2021	23/9/2022
Receiver	R&S	ESR7	101199	24/9/2021	23/9/2022
broadband Antenna	Schwarzbeck	VULB9168	00836 P:00227	26/9/2020	25/9/2022
Horn Antenna	Schwarzbeck	9120D	01892 P:00331	26/9/2020	25/9/2022
Amplifier	SKET	LNPA-0118-45	N/A	24/9/2021	23/9/2022
EMI software	EZ	EZ-EMC	N/A	N/A	N/A
Loop antenna	SCHNARZBECK	FMZB1519B	00102	26/9/2020	25/9/2022

Test Equipment Of Conducted Band Edges Measurement

Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due
Spectrum	R&S	FSP40	100817	24/9/2021	23/9/2022
Spectrum	Agilent	N9020A	MY49100060	24/9/2021	23/9/2022
Signal Generator	Agilent	N5182A	MY49060650	24/9/2021	23/9/2022
Signal Generator	Agilent	E8257D	MY44320250	24/9/2021	23/9/2022

Test Equipment Of Power Spectrum Density

Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due
Spectrum	R&S	FSP40	100817	24/9/2021	23/9/2022
Spectrum	Agilent	N9020A	MY49100060	24/9/2021	23/9/2022
Signal Generator	Agilent	N5182A	MY49060650	24/9/2021	23/9/2022
Signal Generator	Agilent	E8257D	MY44320250	24/9/2021	23/9/2022

Test Equipment Of Conducted Peak Output Power

Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due
Spectrum	R&S	FSP40	100817	24/9/2021	23/9/2022
Spectrum	Agilent	N9020A	MY49100060	24/9/2021	23/9/2022
Signal Generator	Agilent	N5182A	MY49060650	24/9/2021	23/9/2022
Signal Generator	Agilent	E8257D	MY44320250	24/9/2021	23/9/2022

Test Equipment Of Minimum 6dB Bandwidth

Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due
Spectrum	R&S	FSP40	100817	24/9/2021	23/9/2022

Spectrum	Agilent	N9020A	MY49100060	24/9/2021	23/9/2022
Signal Generator	Agilent	N5182A	MY49060650	24/9/2021	23/9/2022
Signal Generator	Agilent	E8257D	MY44320250	24/9/2021	23/9/2022

Test Equipment Of Conducted Emissions at AC Power Line (150kHz-30MHz)

Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due
Shield room	SKET	833	N/A	25/11/2020	24/11/2023
Receiver	R&S	ESPI3	101082	24/9/2021	23/9/2022
LISN	R&S	ENV216	3560.6550.15	24/9/2021	23/9/2022
LISN	安泰信	AT166-2	AKK1806000003	26/9/2021	25/9/2022
EMI software	EZ	EZ-EMC	N/A	N/A	N/A

Test Equipment Of Conducted Spurious Emissions

Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due
Spectrum	R&S	FSP40	100817	24/9/2021	23/9/2022
Spectrum	Agilent	N9020A	MY49100060	24/9/2021	23/9/2022
Signal Generator	Agilent	N5182A	MY49060650	24/9/2021	23/9/2022
Signal Generator	Agilent	E8257D	MY44320250	24/9/2021	23/9/2022

10 RADIATED SPURIOUS EMISSIONS

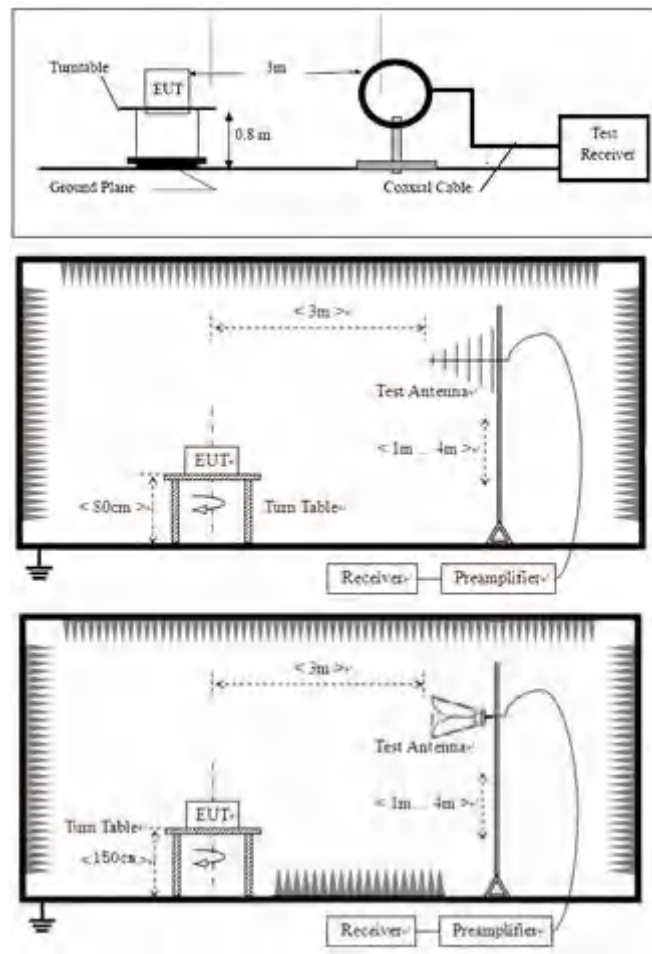
Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 6.4,6.5,6.6
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	York
Temperature	25℃
Humidity	52%

10.1 LIMITS

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

10.2 BLOCK DIAGRAM OF TEST SETUP



10.3 PROCEDURE

- For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

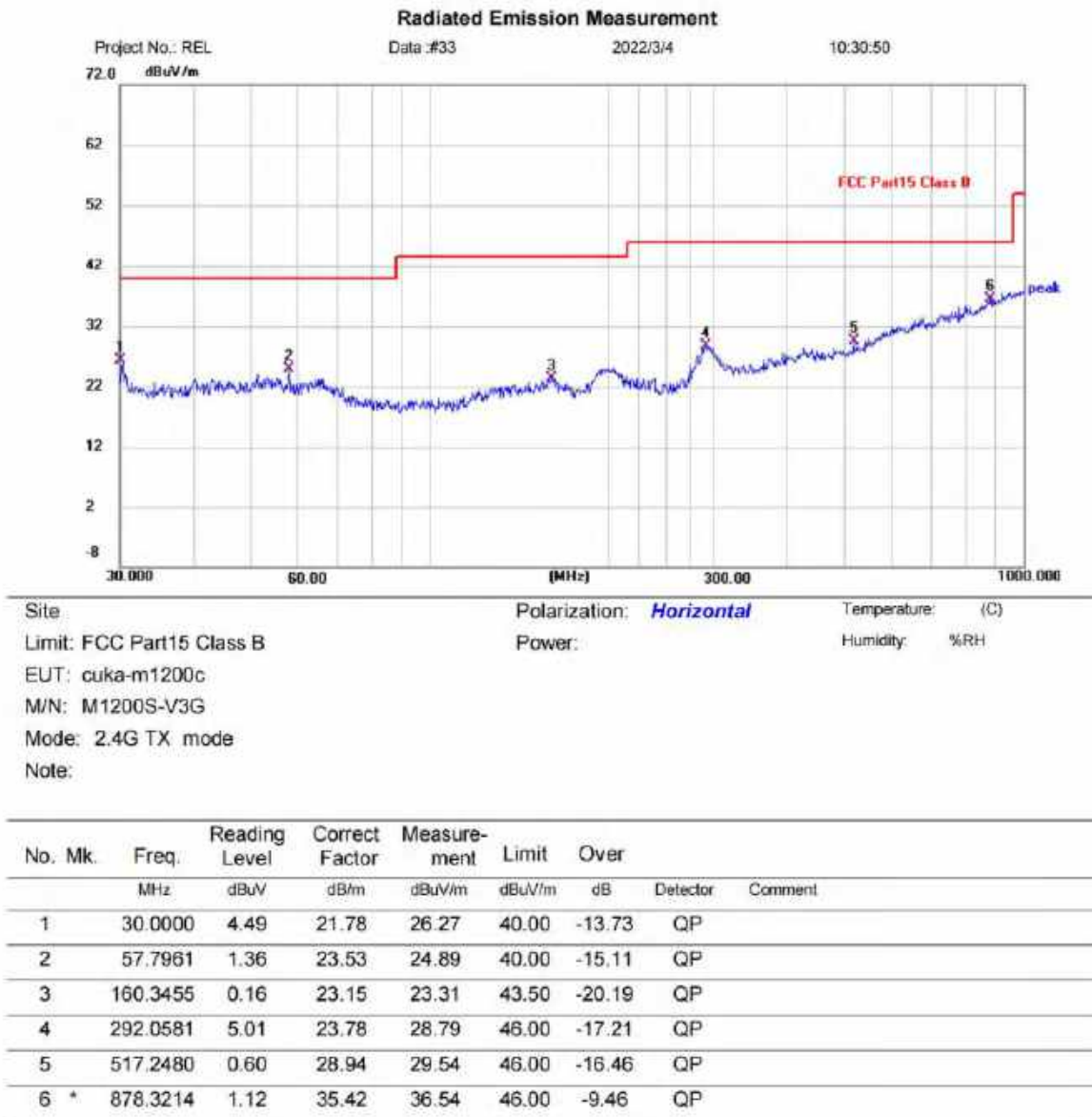
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

Remark:

- 1) For emission below 1GHz, through pre-scan found the worst case is the lowest channel. Only the worst case is recorded in the report.
- 2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:
Final Test Level = Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor
- 3) Scan from 9kHz to 25GHz, the disturbance above 18GHz and below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 4) For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

10.4 TEST DATA

[TestMode: TX]; [Polarity: Horizontal]

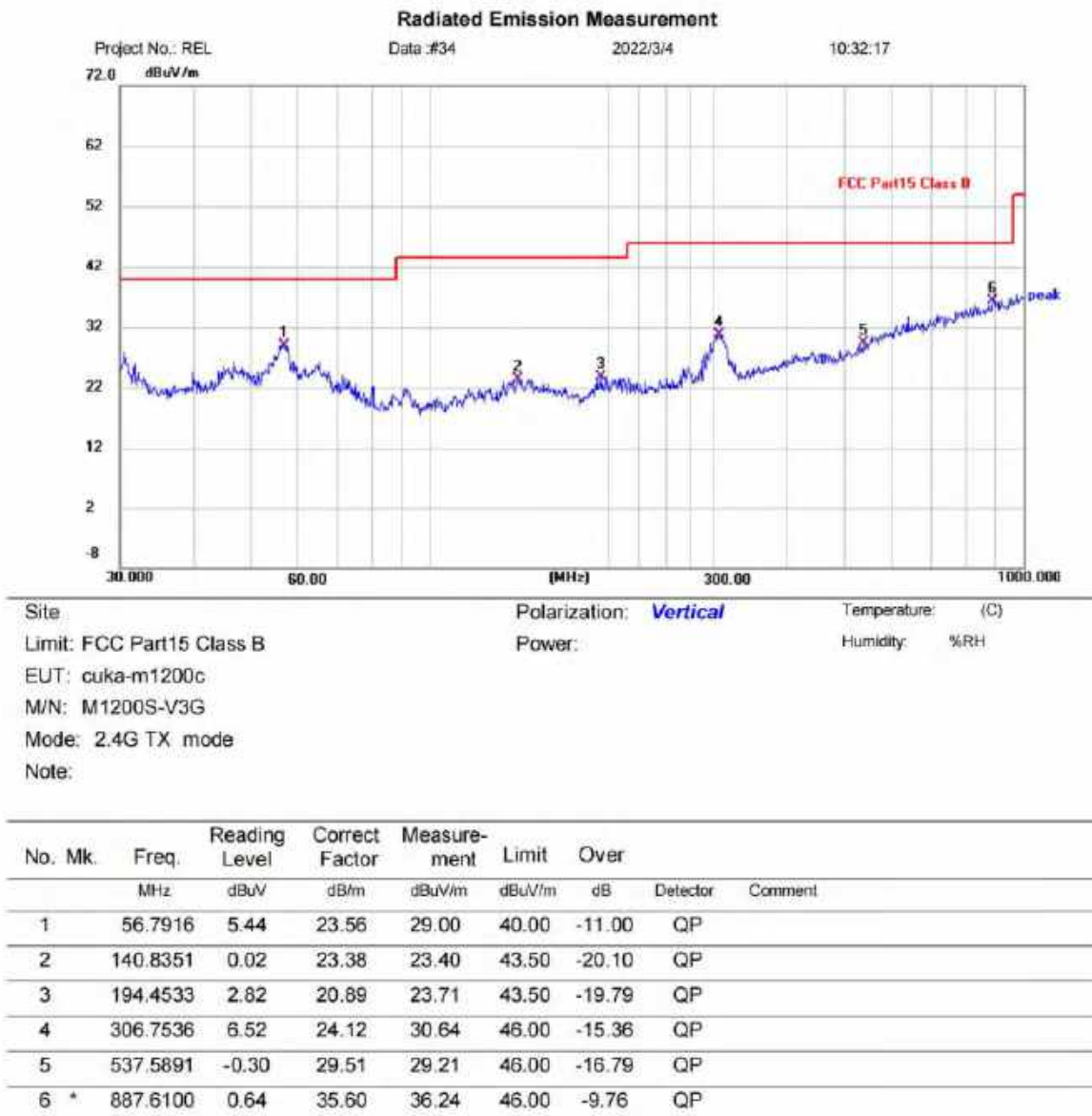


*:Maximum data x:Over limit l:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX]; [Polarity: Vertical]



*:Maximum data x:Over limit !:over margin

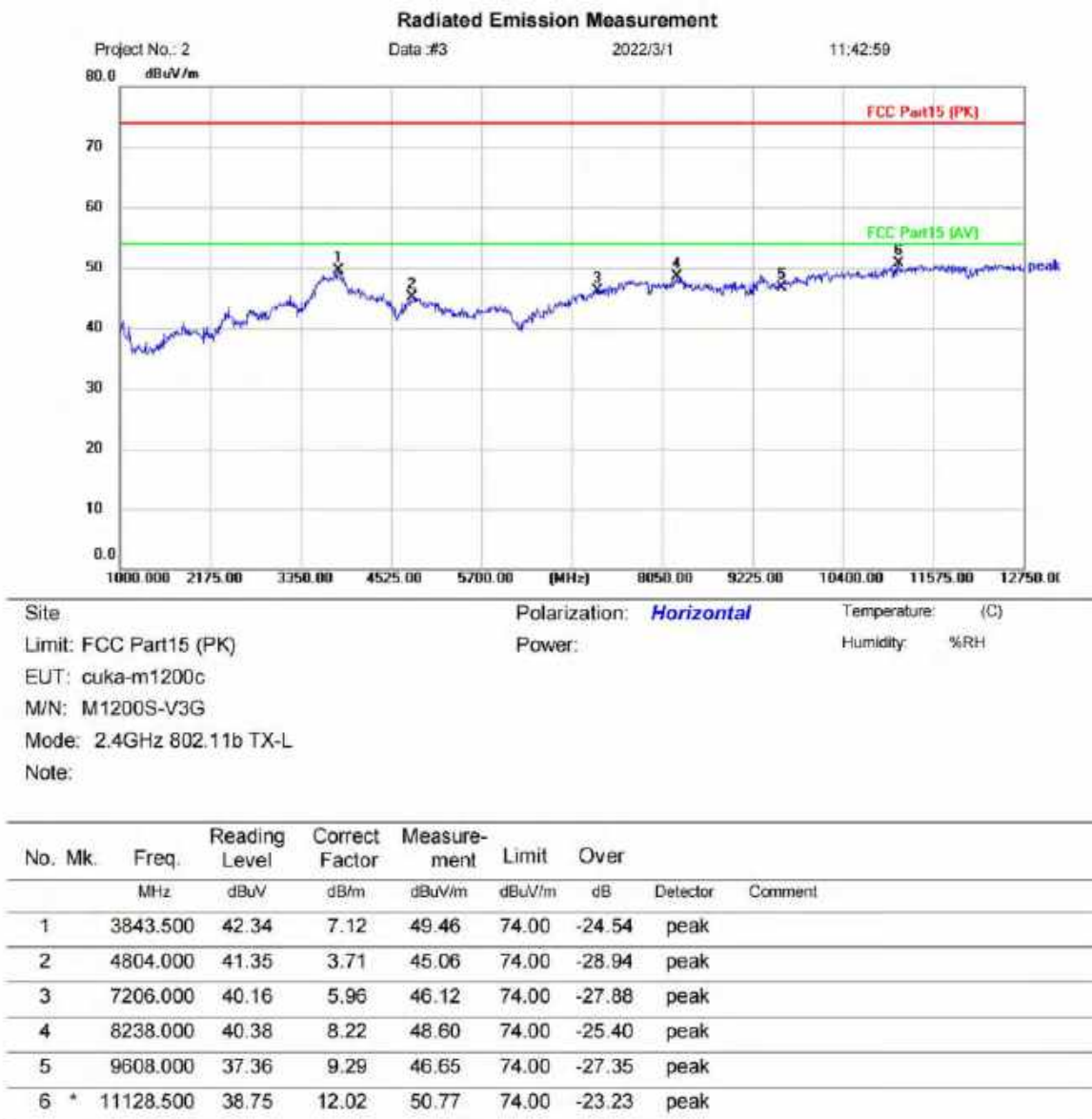
(Reference Only)

Test Result: Pass

Above 1GHz

During the test, pre-scan the 802.11b/g/n mode, and found the 802.11b mode which it is worse case.

[TestMode: TX lowest channel]; [Polarity: Horizontal]



*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX lowest channel]; [Polarity: Vertical]



*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX middle channel]; [Polarity: Horizontal]

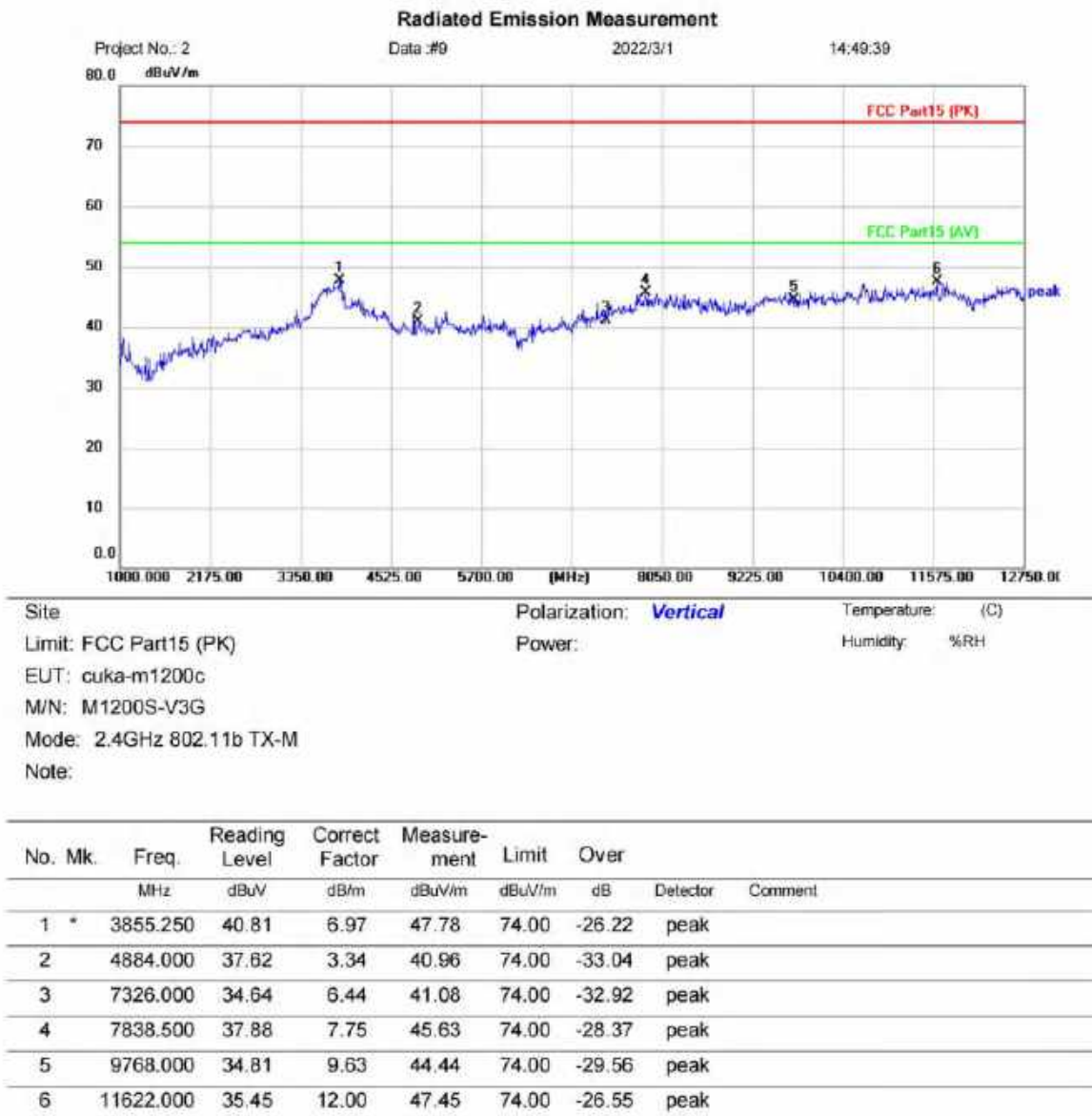


*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX middle channel]; [Polarity: Vertical]

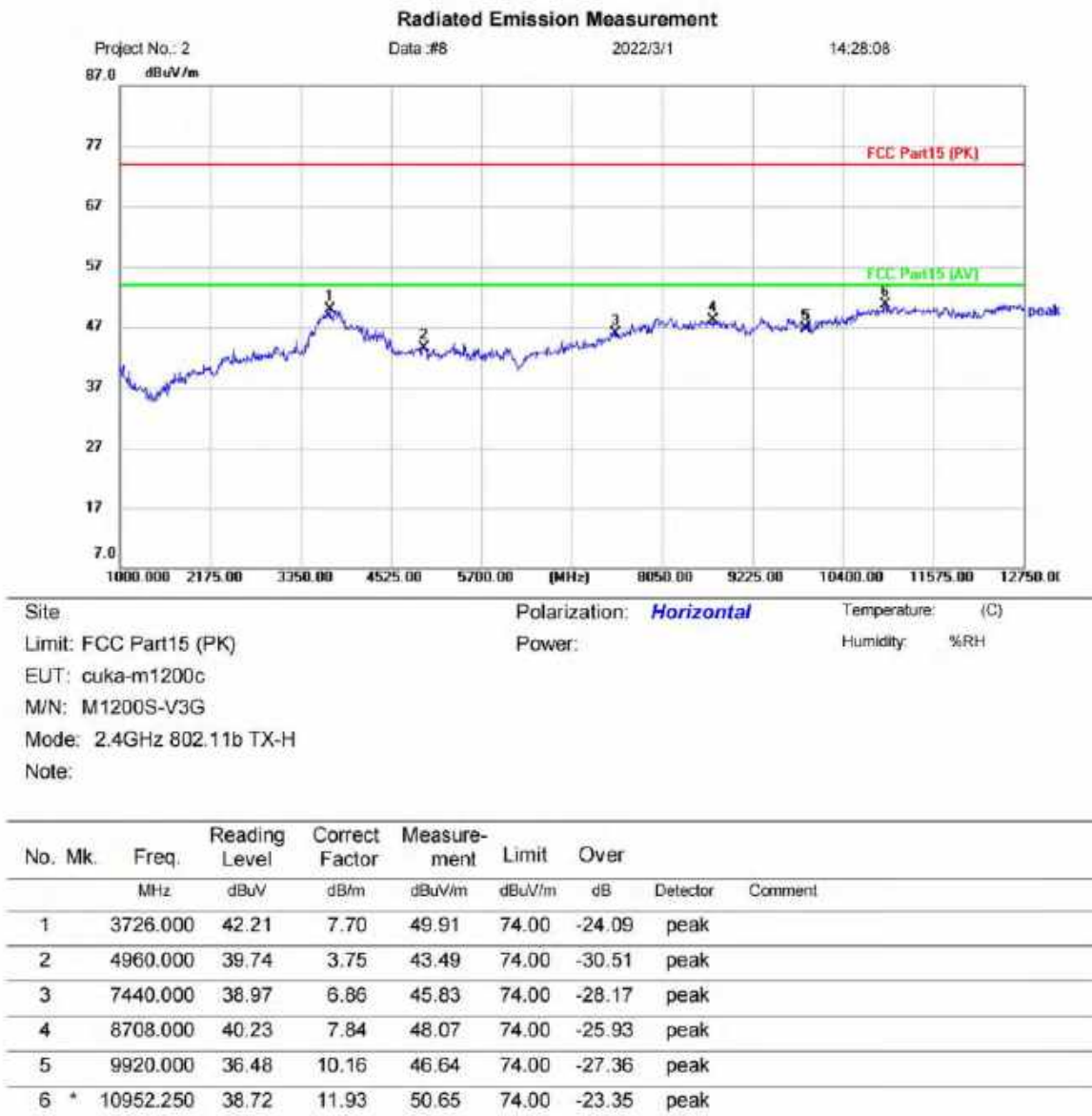


*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX highest channel]; [Polarity: Horizontal]



*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX highest channel]; [Polarity: Vertical]



*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

11 RADIATED EMISSIONS WHICH FALL IN THE RESTRICTED BANDS

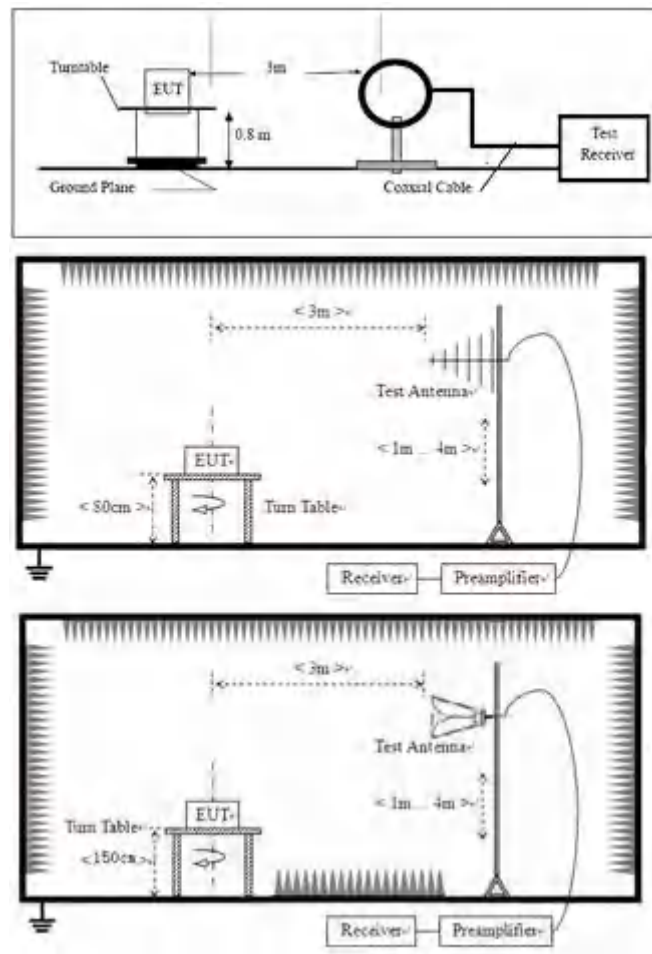
Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 6.10.5
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Eason
Temperature	25℃
Humidity	52%

11.1 LIMITS

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

11.2 BLOCK DIAGRAM OF TEST SETUP



11.3 PROCEDURE

- For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

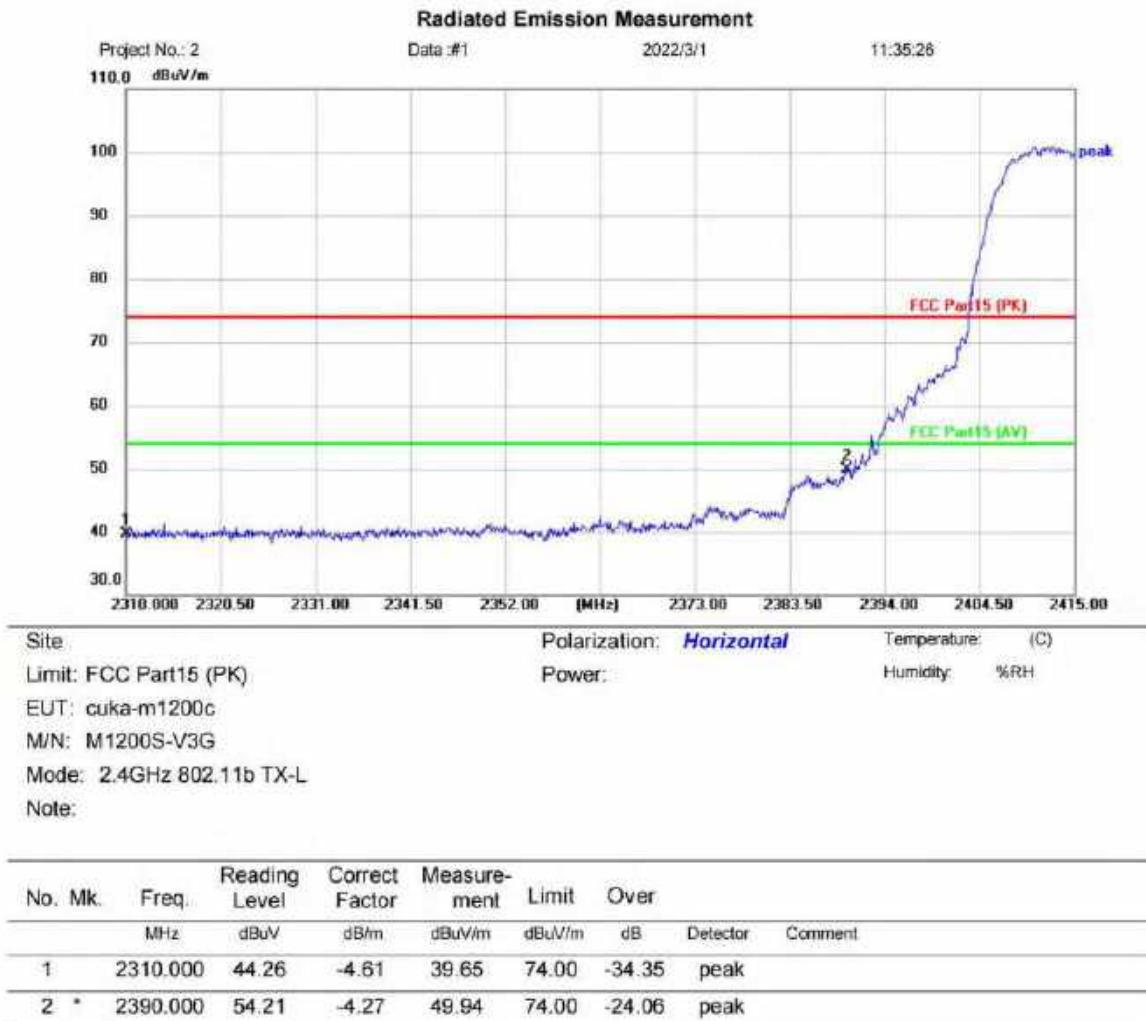
Remark 1: $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{Antenna Factor} - \text{Preamp Factor}$

Remark 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

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11.4 TEST DATA

[TestMode: TX lowest channel]; [Polarity: Horizontal]

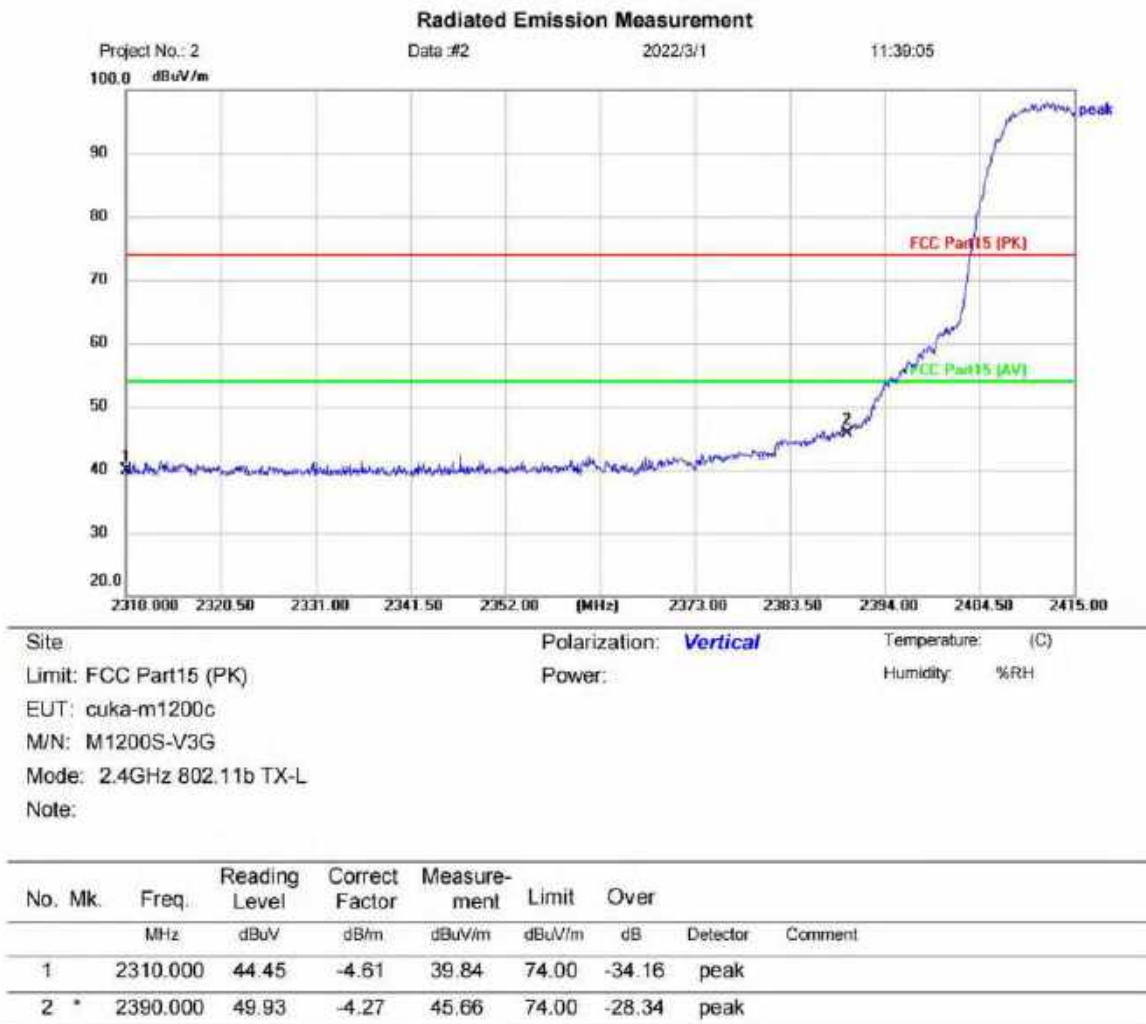


*:Maximum data x:Over limit |:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX lowest channel]; [Polarity: Vertical]

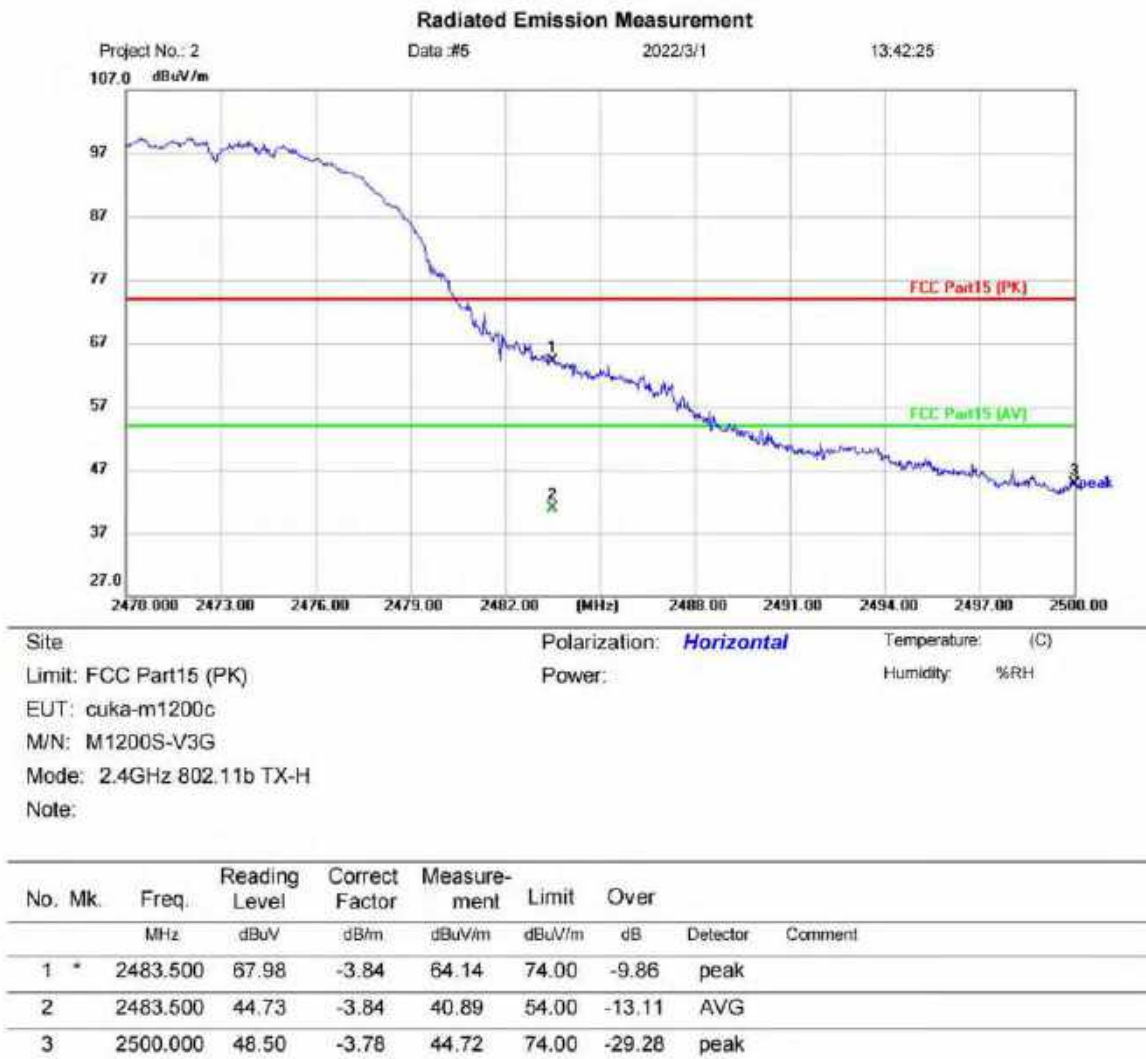


*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX highest channel]; [Polarity: Horizontal]

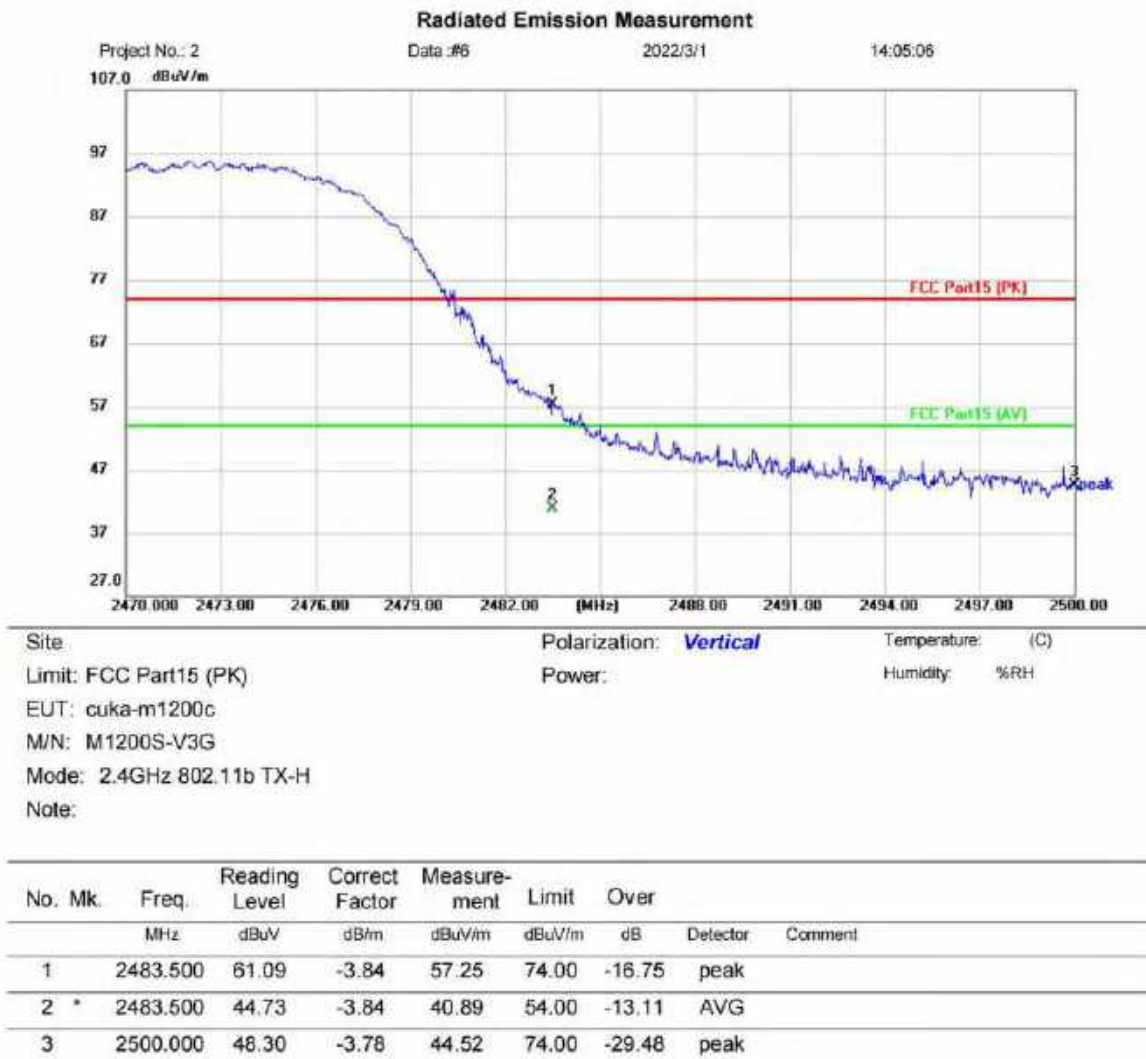


*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX highest channel]; [Polarity: Vertical]

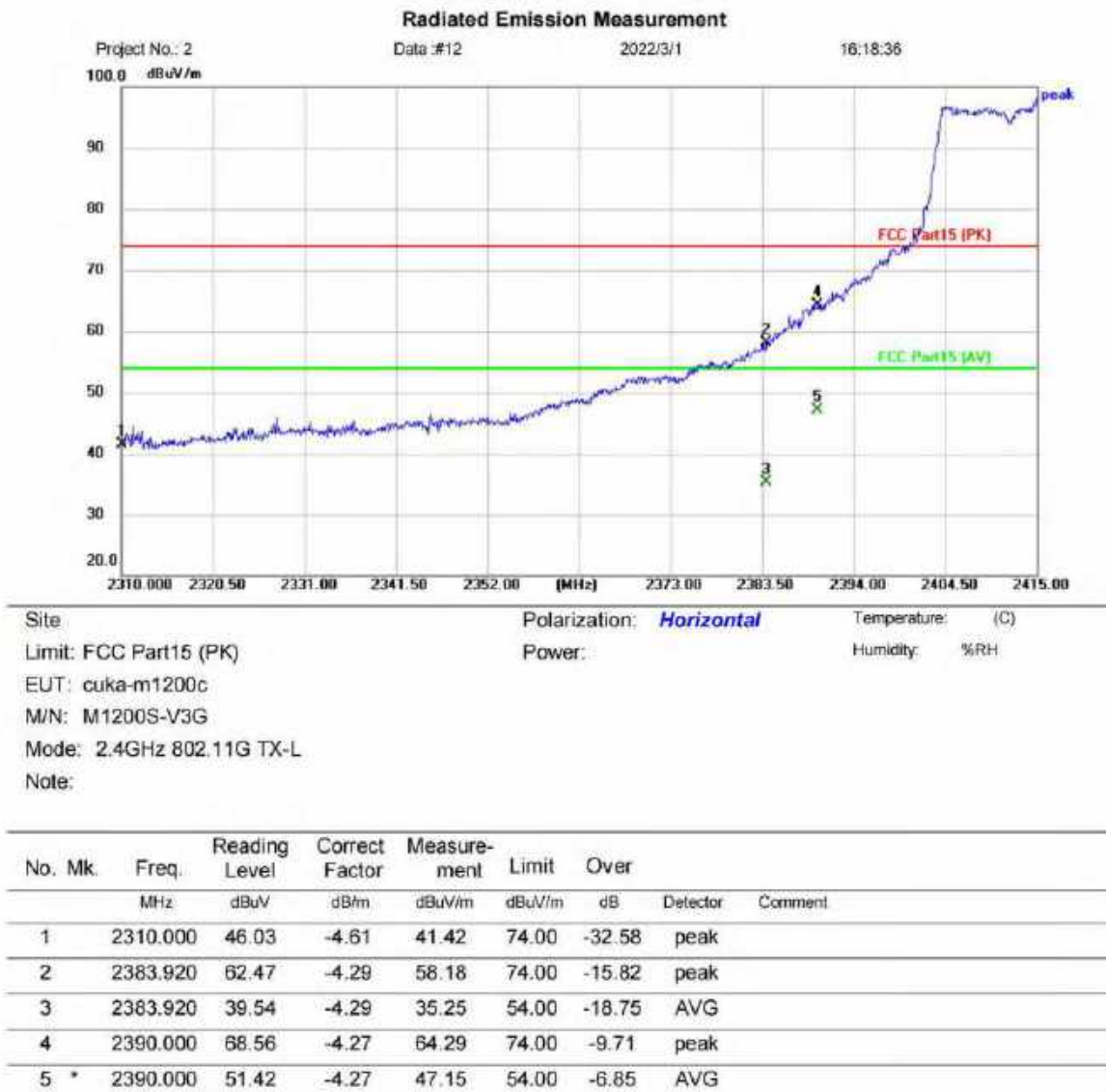


*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX lowest channel]; [Polarity: Horizontal]

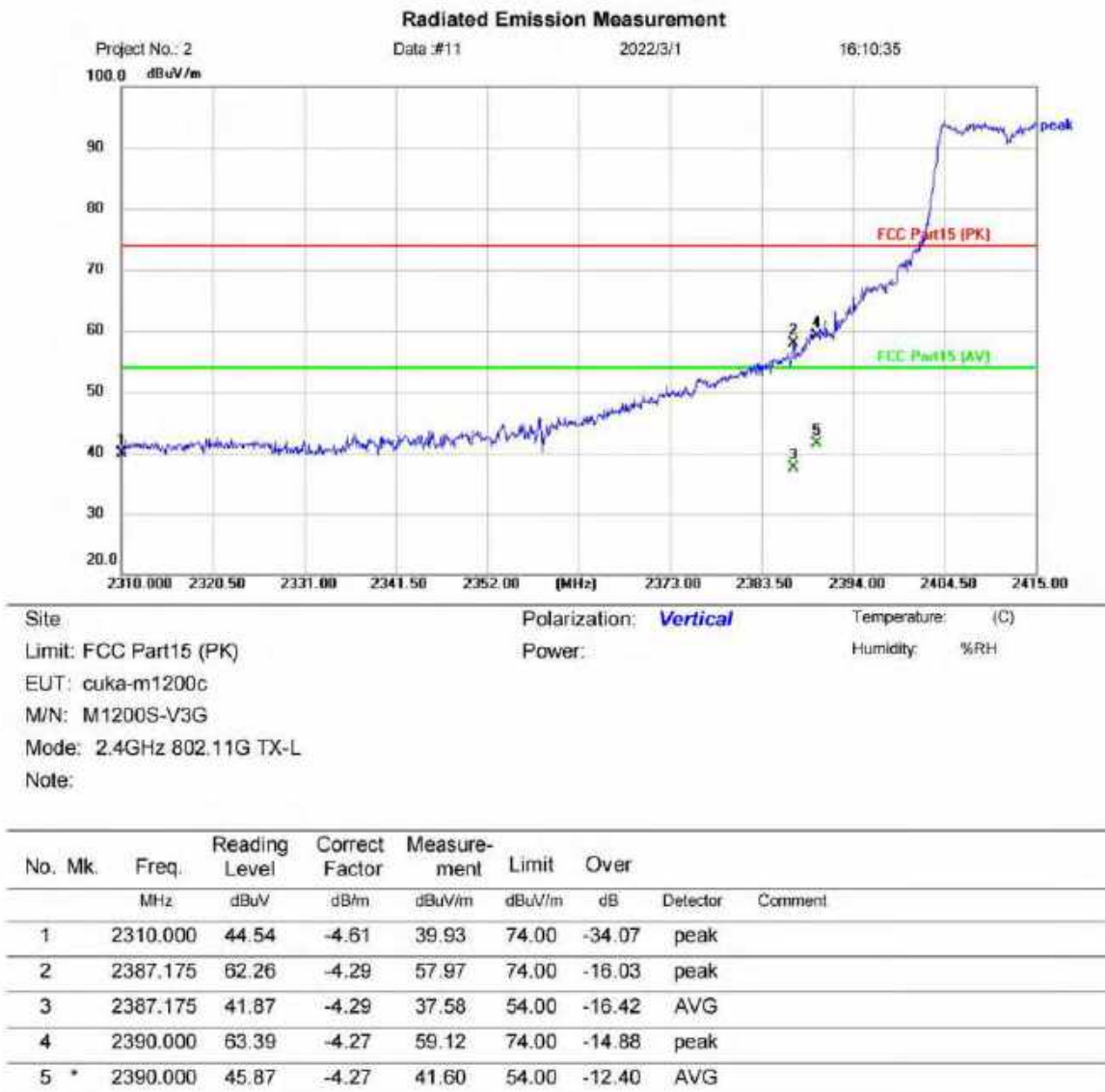


*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX lowest channel]; [Polarity: Vertical]

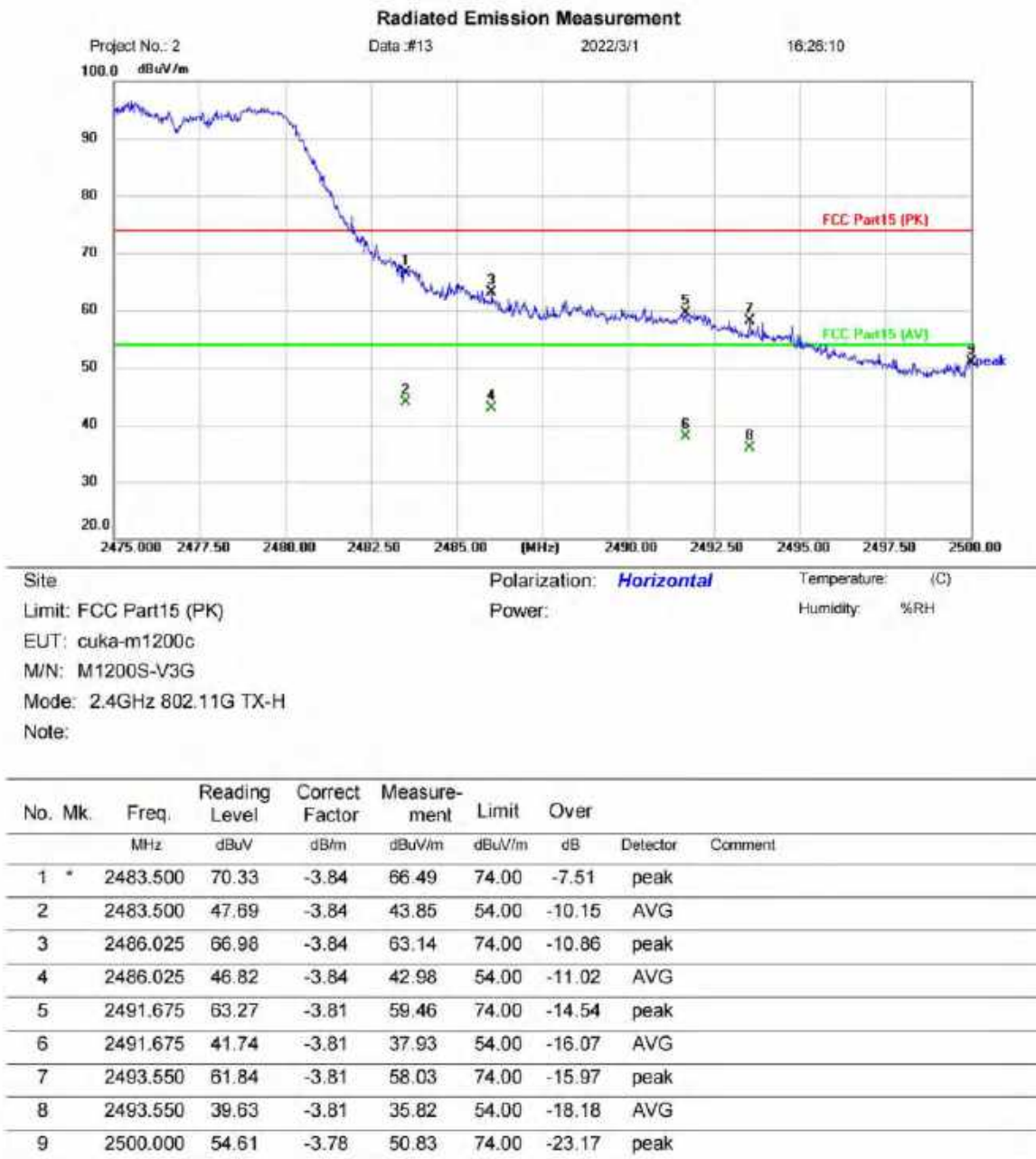


*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX highest channel]; [Polarity: Horizontal]

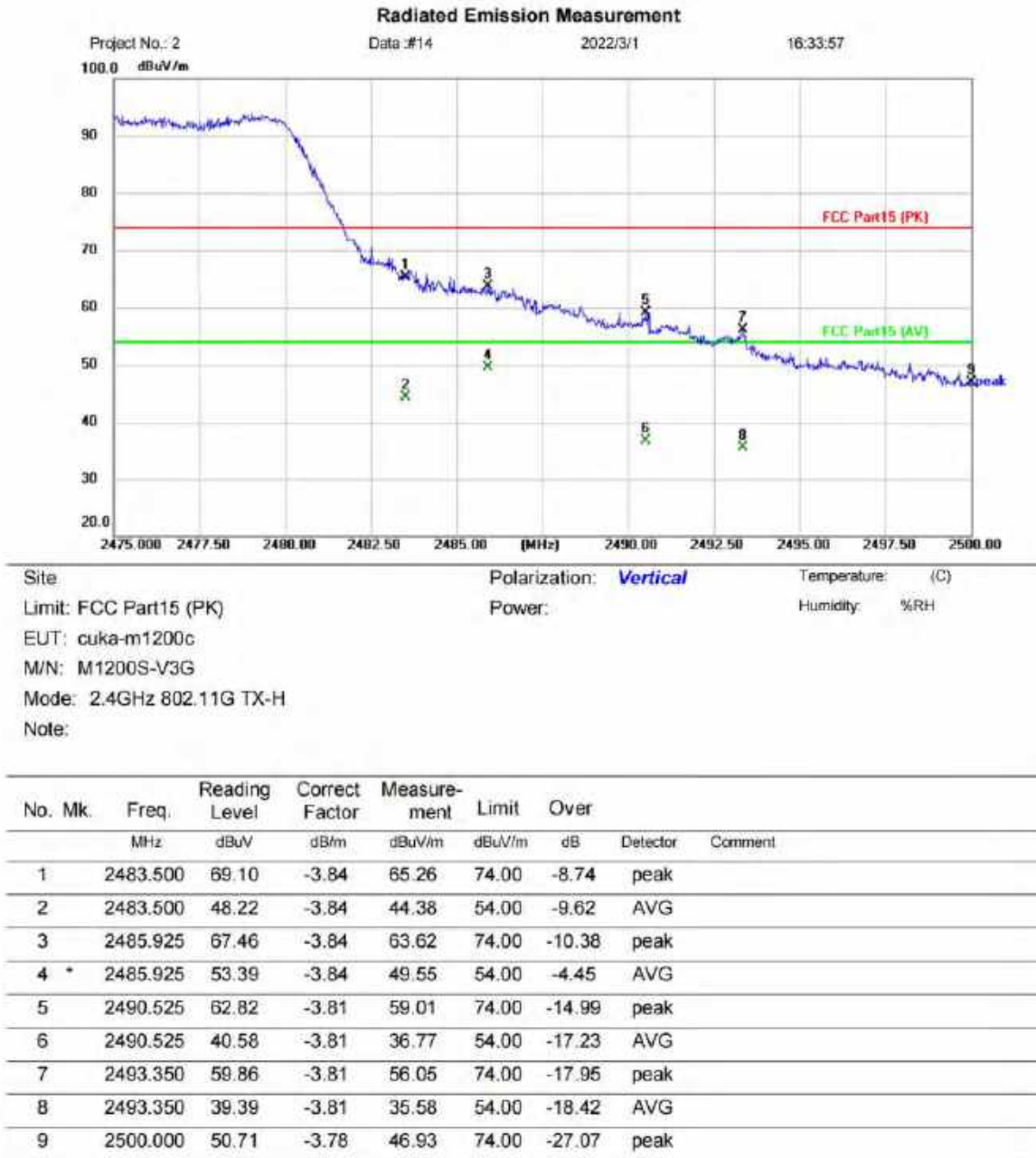


*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX highest channel]; [Polarity: Vertical]

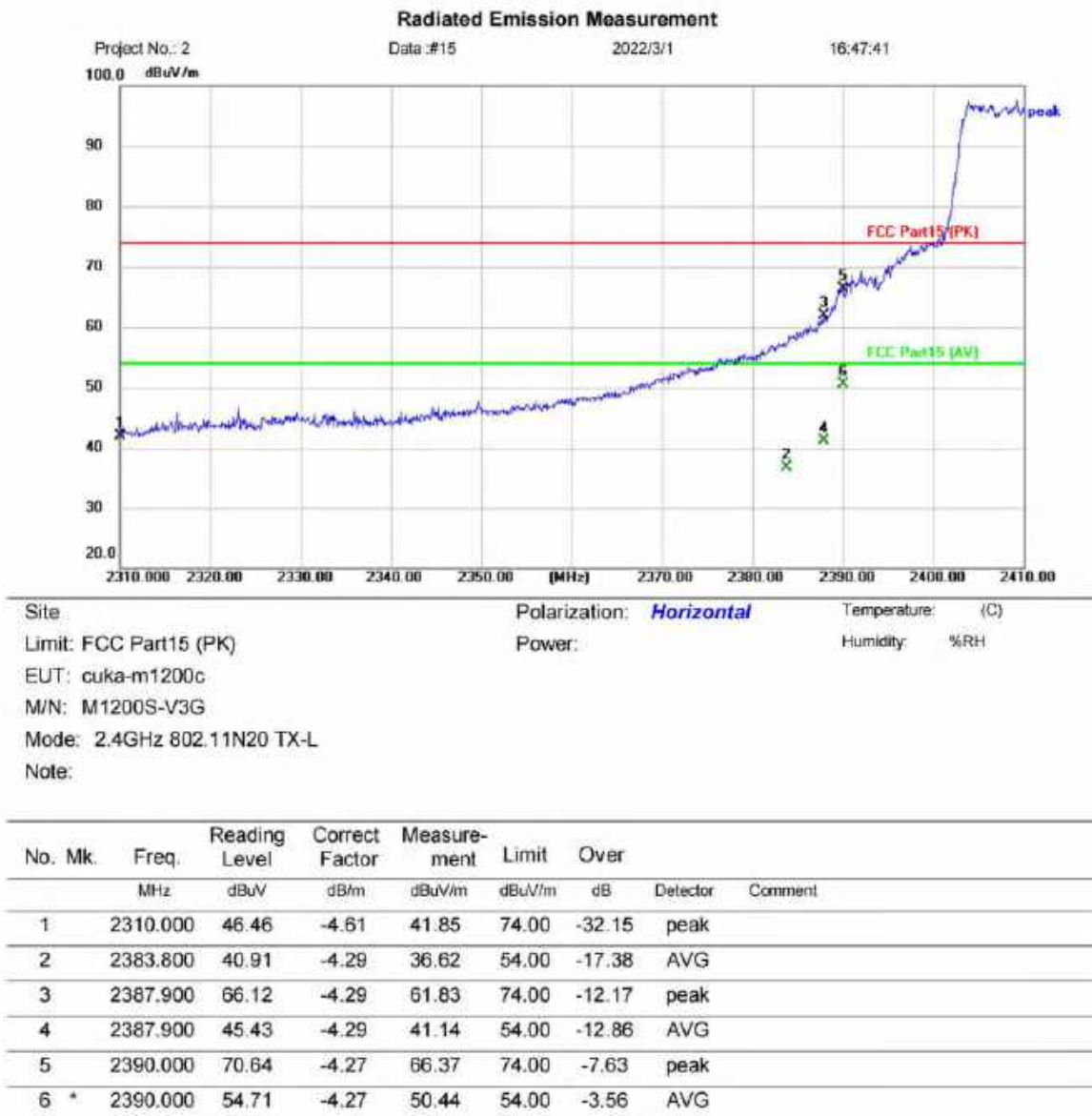


*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX lowest channel]; [Polarity: Horizontal]

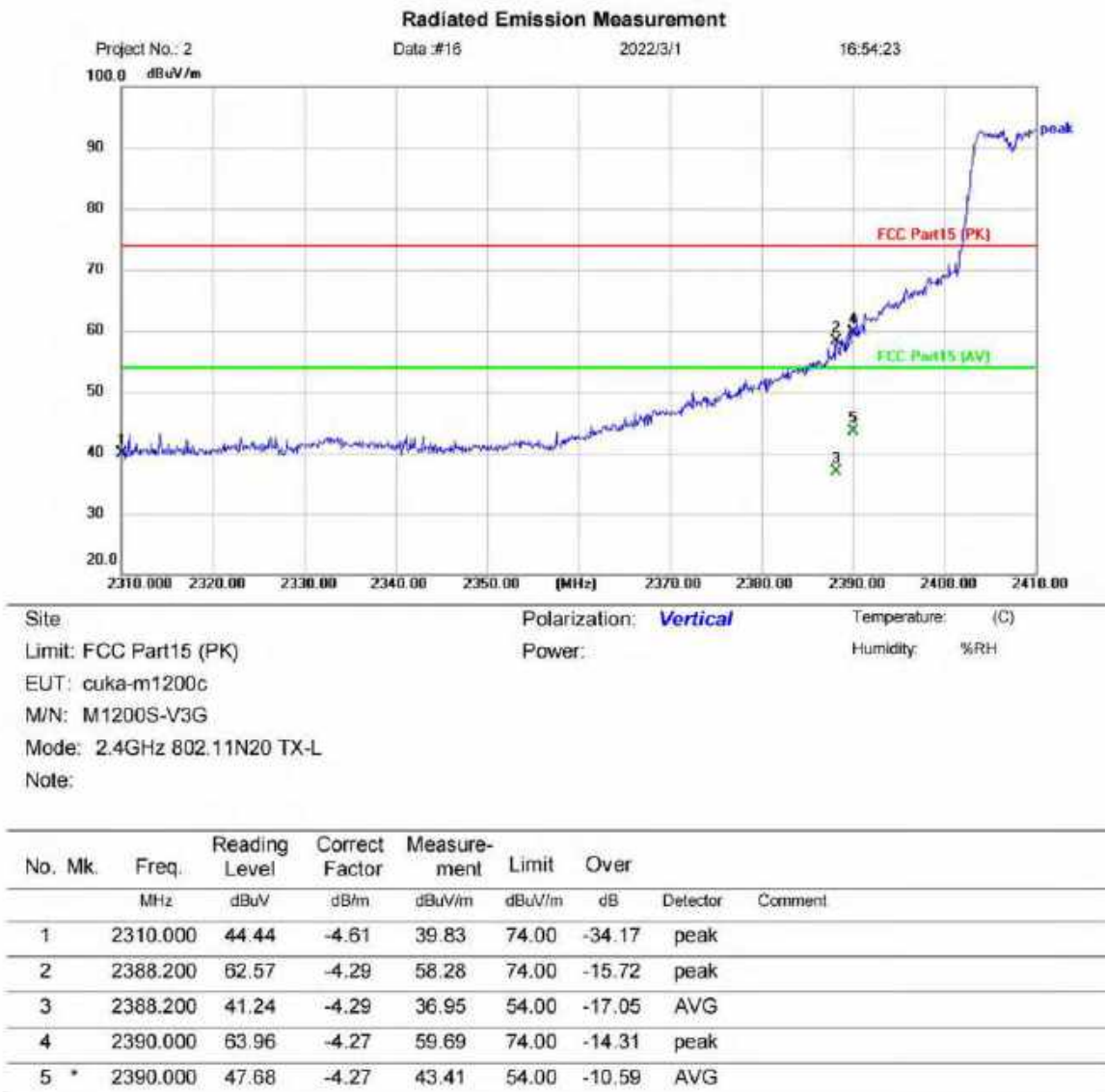


*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX lowest channel]; [Polarity: Vertical]

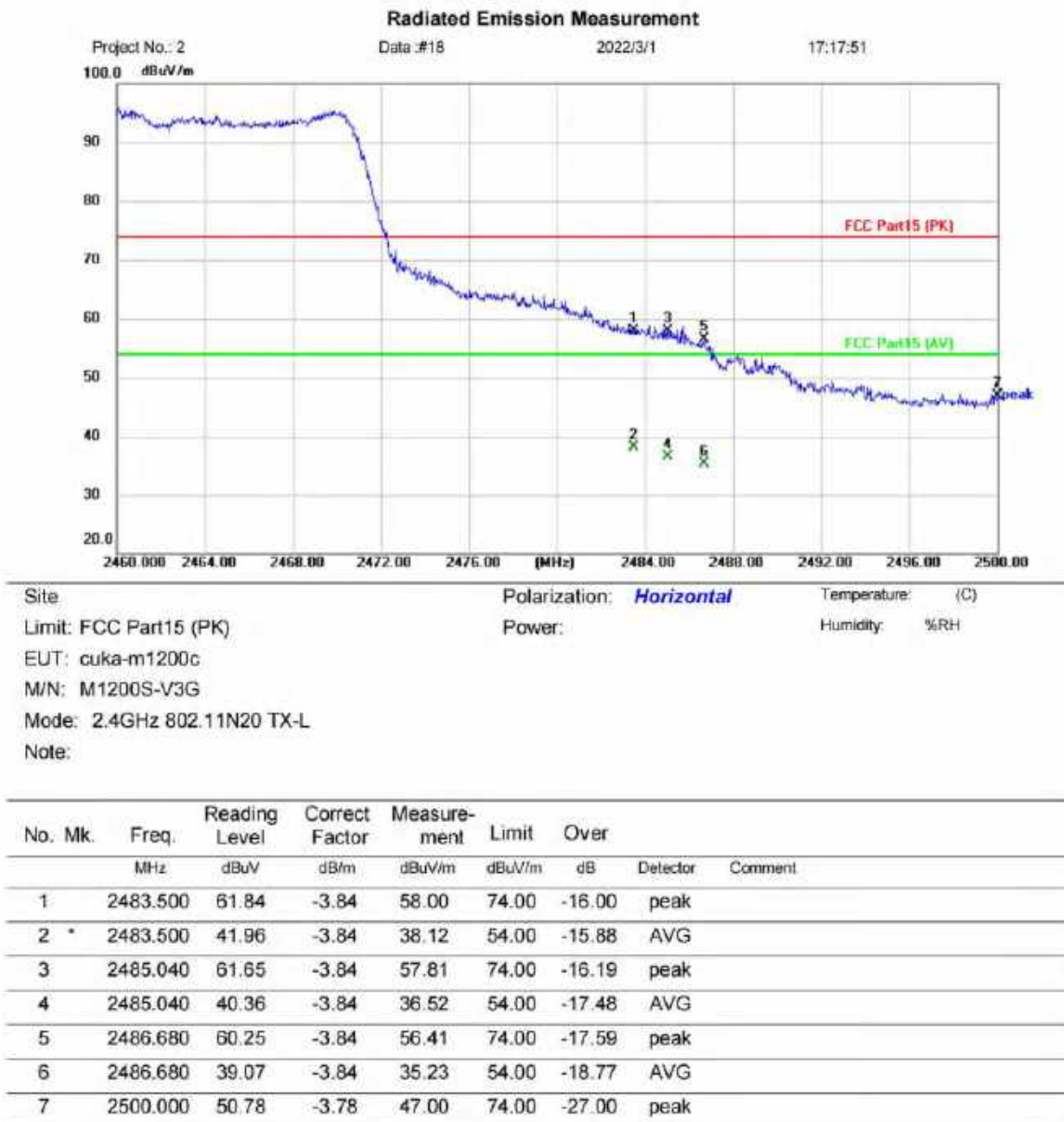


*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX highest channel]; [Polarity: Horizontal]

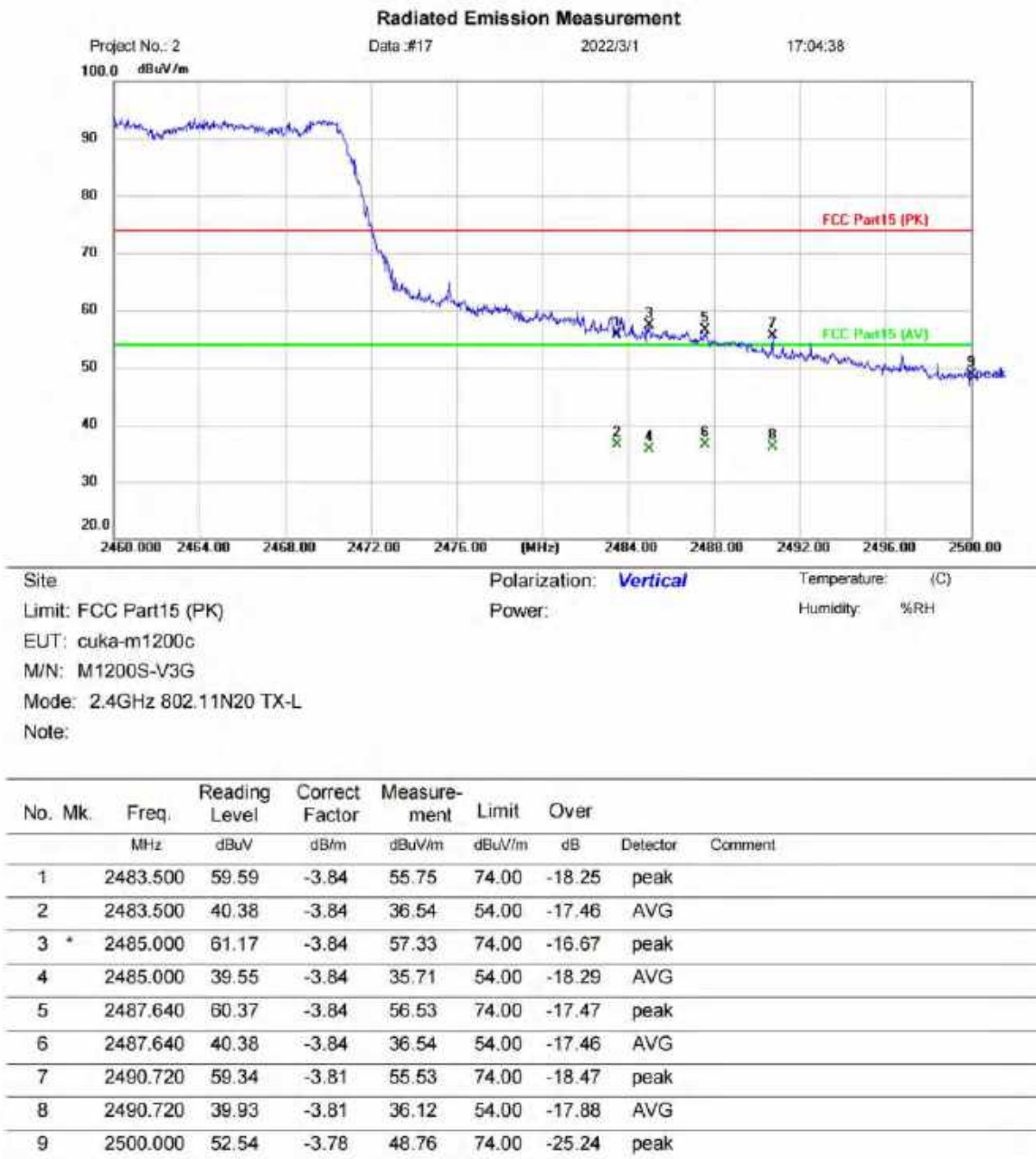


*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX highest channel]; [Polarity: Vertical]

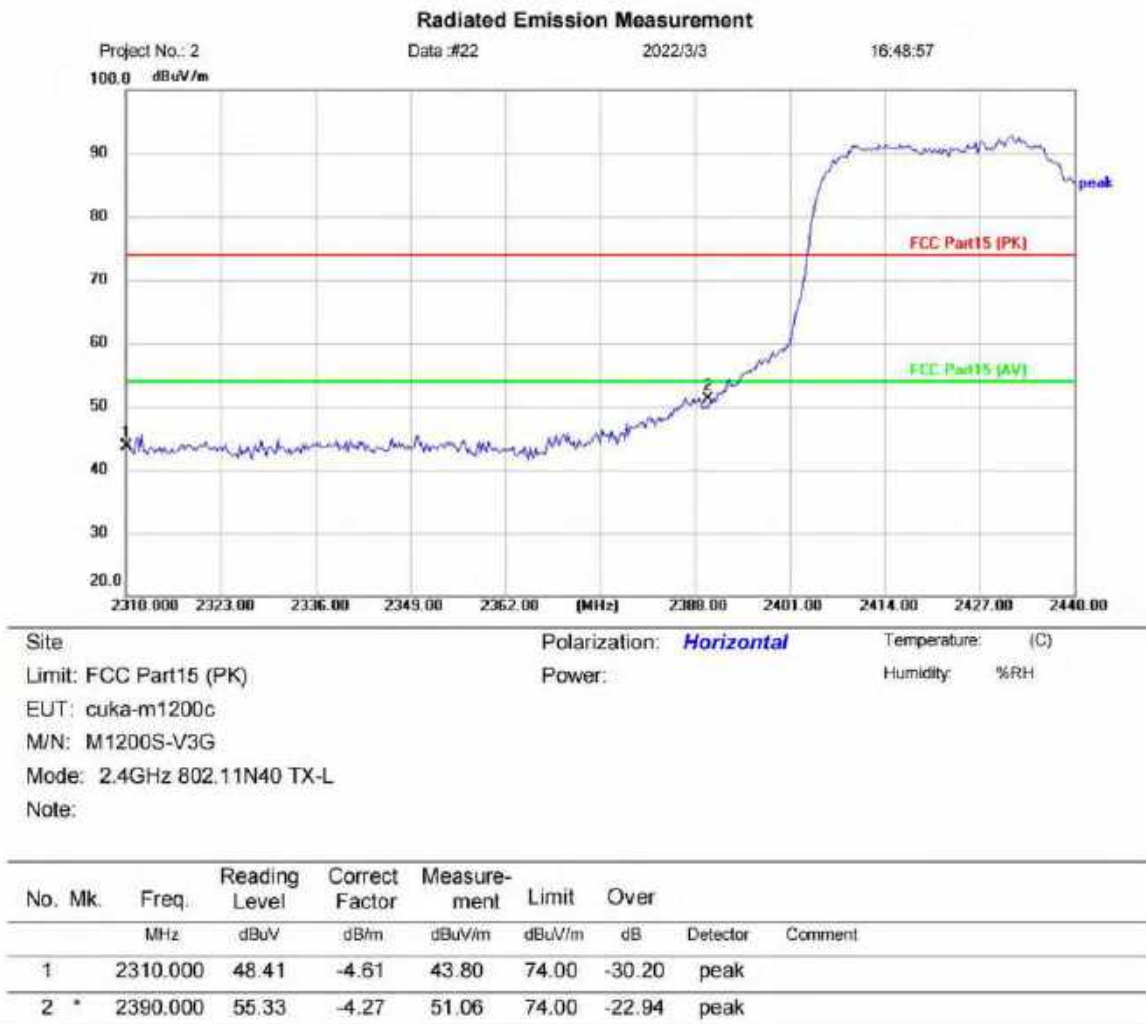


*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX lowest channel]; [Polarity: Horizontal]

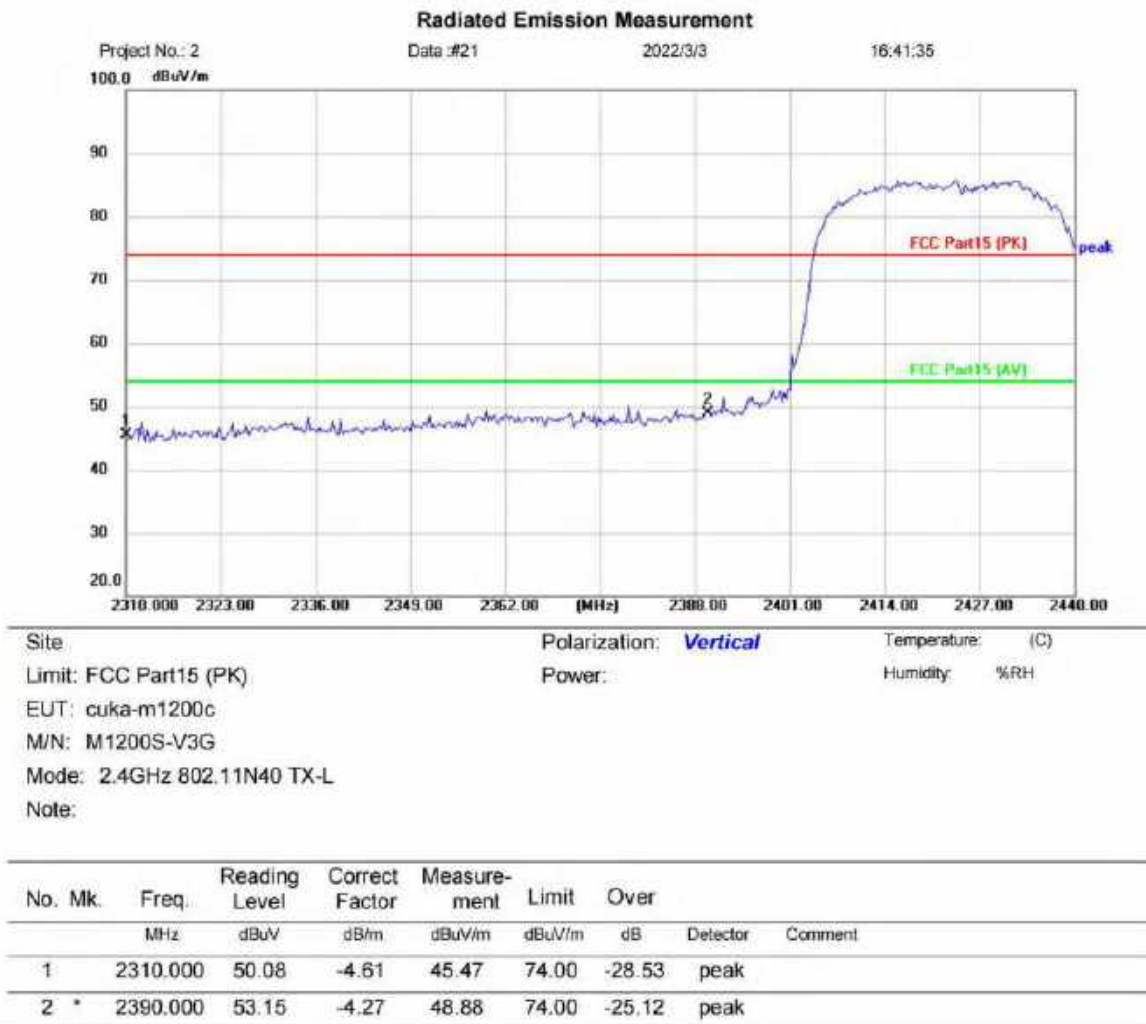


*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX lowest channel]; [Polarity: Vertical]



*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX highest channel]; [Polarity: Horizontal]

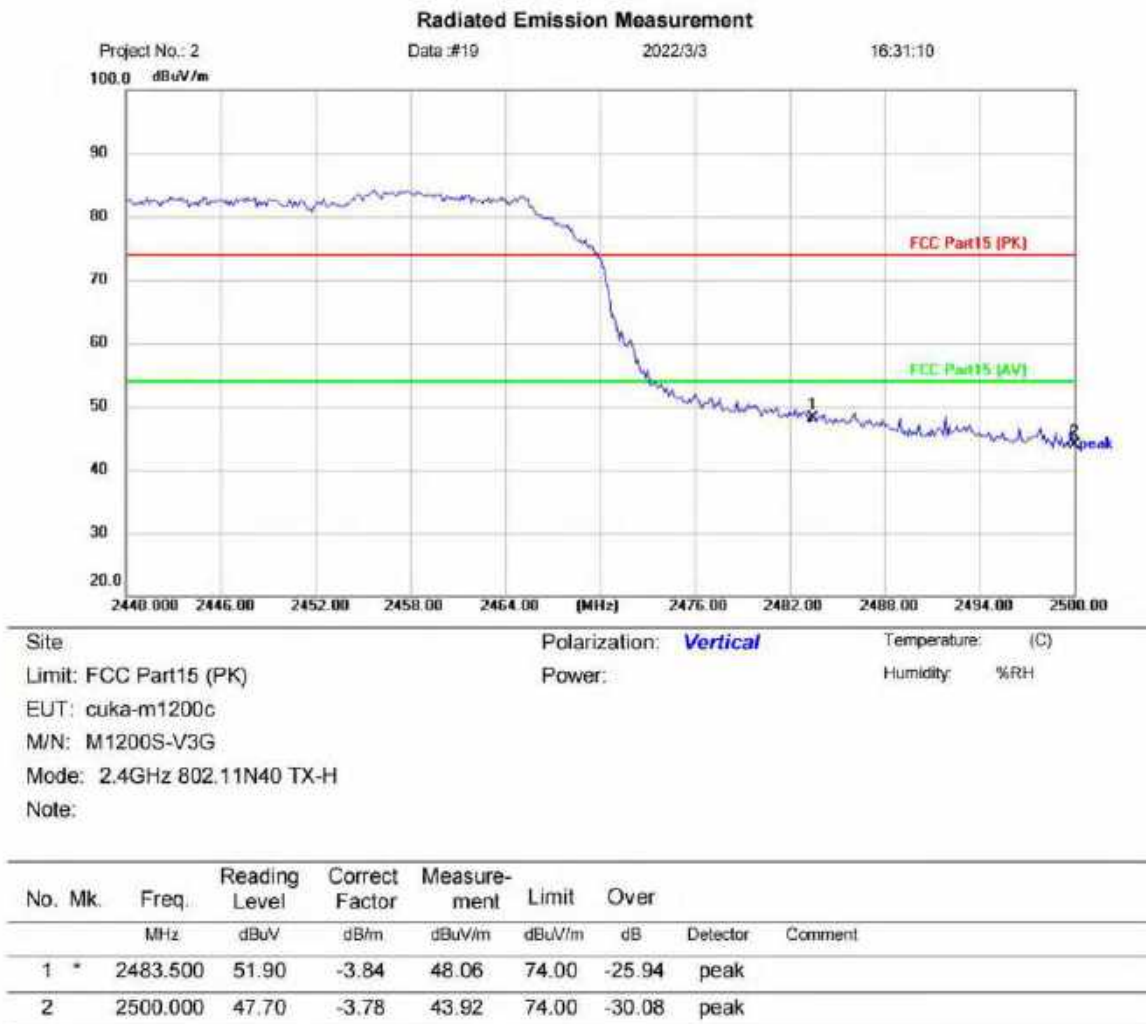


*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

[TestMode: TX highest channel]; [Polarity: Vertical]



*:Maximum data x:Over limit !:over margin

(Reference Only)

Test Result: Pass

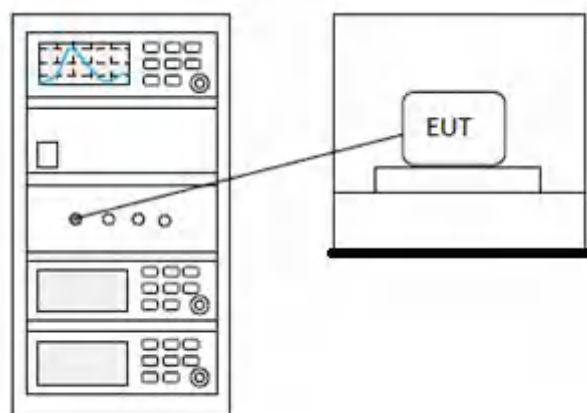
12 CONDUCTED BAND EDGES MEASUREMENT

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 7.8.8 & Section 11.13.3.2
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Eason
Temperature	25°C
Humidity	52%

12.1 LIMITS

Limit:	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)).
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12.2 BLOCK DIAGRAM OF TEST SETUP



12.3 TEST DATA**Pass: Please Refer To Appendix: For Details**

BlueAsia

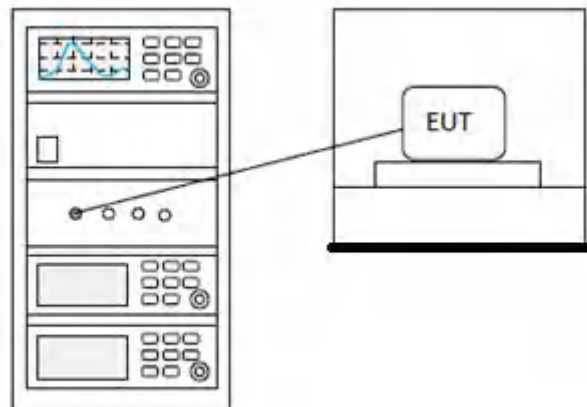
13 POWER SPECTRUM DENSITY

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 11.10.2
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Eason
Temperature	25°C
Humidity	52%

13.1 LIMITS

Limit: $\leq 8\text{dBm}$ in any 3 kHz band during any time interval of continuous transmission

13.2 BLOCK DIAGRAM OF TEST SETUP



13.3 TEST DATA

Pass: Please Refer To Appendix: For Details

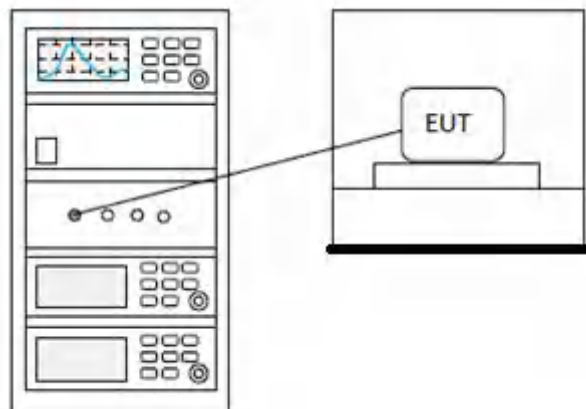
14 CONDUCTED PEAK OUTPUT POWER

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 7.8.5 & Section 11.9.1
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Eason
Temperature	25°C
Humidity	52%

14.1 LIMITS

Frequency range(MHz)	Output power of the intentional radiator(watt)
902-928	1 for ≥ 50 hopping channels
	0.25 for $25 \leq \text{hopping channels} < 50$
	1 for digital modulation
2400-2483.5	1 for ≥ 75 non-overlapping hopping channels
	0.125 for all other frequency hopping systems
	1 for digital modulation
5725-5850	1 for frequency hopping systems and digital modulation

14.2 BLOCK DIAGRAM OF TEST SETUP



14.3 TEST DATA**Pass: Please Refer To Appendix: For Details**

BlueAsia

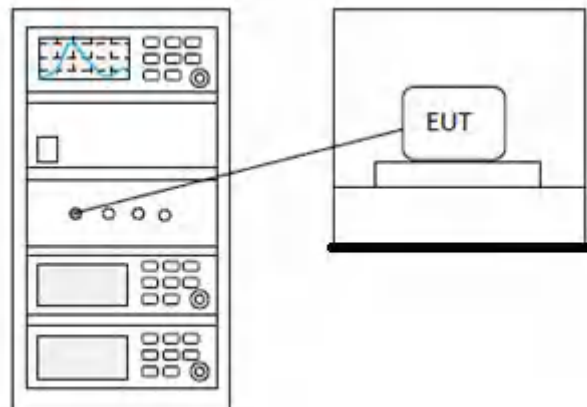
15 MINIMUM 6DB BANDWIDTH

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 11.8.1
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Eason
Temperature	25°C
Humidity	52%

15.1 LIMITS

Limit:	≥ 500 kHz
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15.2 BLOCK DIAGRAM OF TEST SETUP



15.3 TEST DATA

Pass: Please Refer To Appendix: For Details

16 CONDUCTED EMISSIONS AT AC POWER LINE (150KHZ-30MHZ)

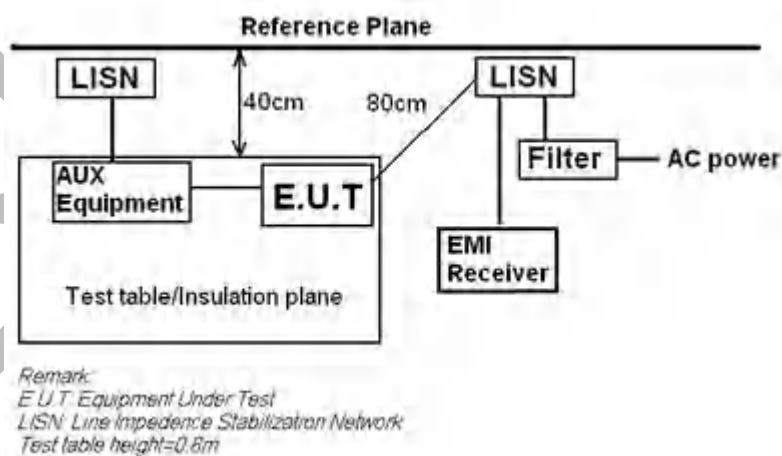
Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 6.2
Test Mode (Pre-Scan)	Operation(WiFi)
Test Mode (Final Test)	Operation(WiFi)
Tester	Eason
Temperature	25℃
Humidity	52%

16.1 LIMITS

Frequency of emission(MHz)	Conducted limit(dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

16.2 BLOCK DIAGRAM OF TEST SETUP



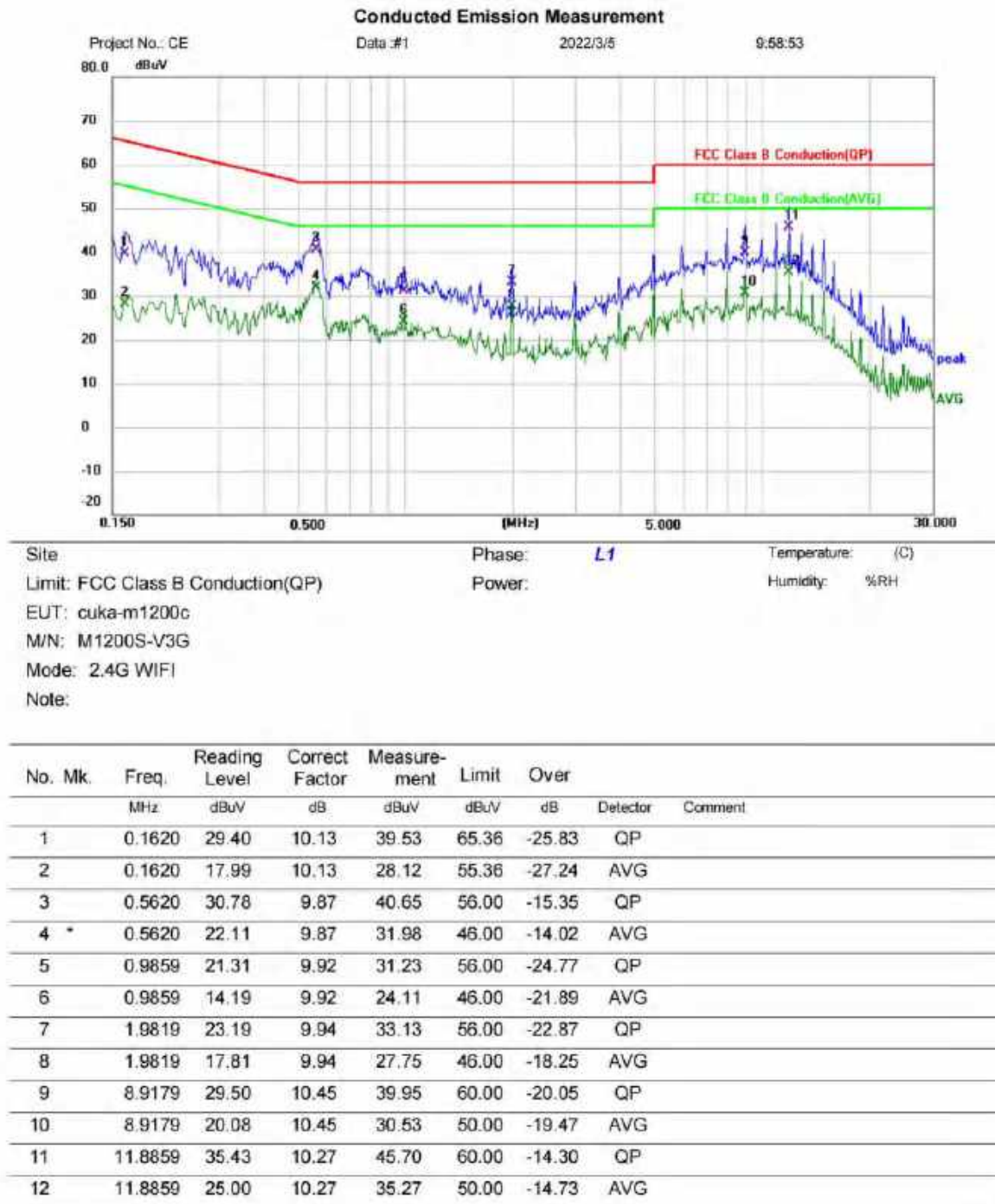
16.3 PROCEDURE

- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50H + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.

- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.
- Remark: $LISN = Read\ Level + Cable\ Loss + LISN\ Factor$

16.4 TEST DATA

[TestMode: Operation(WiFi)]; [Line: Line]

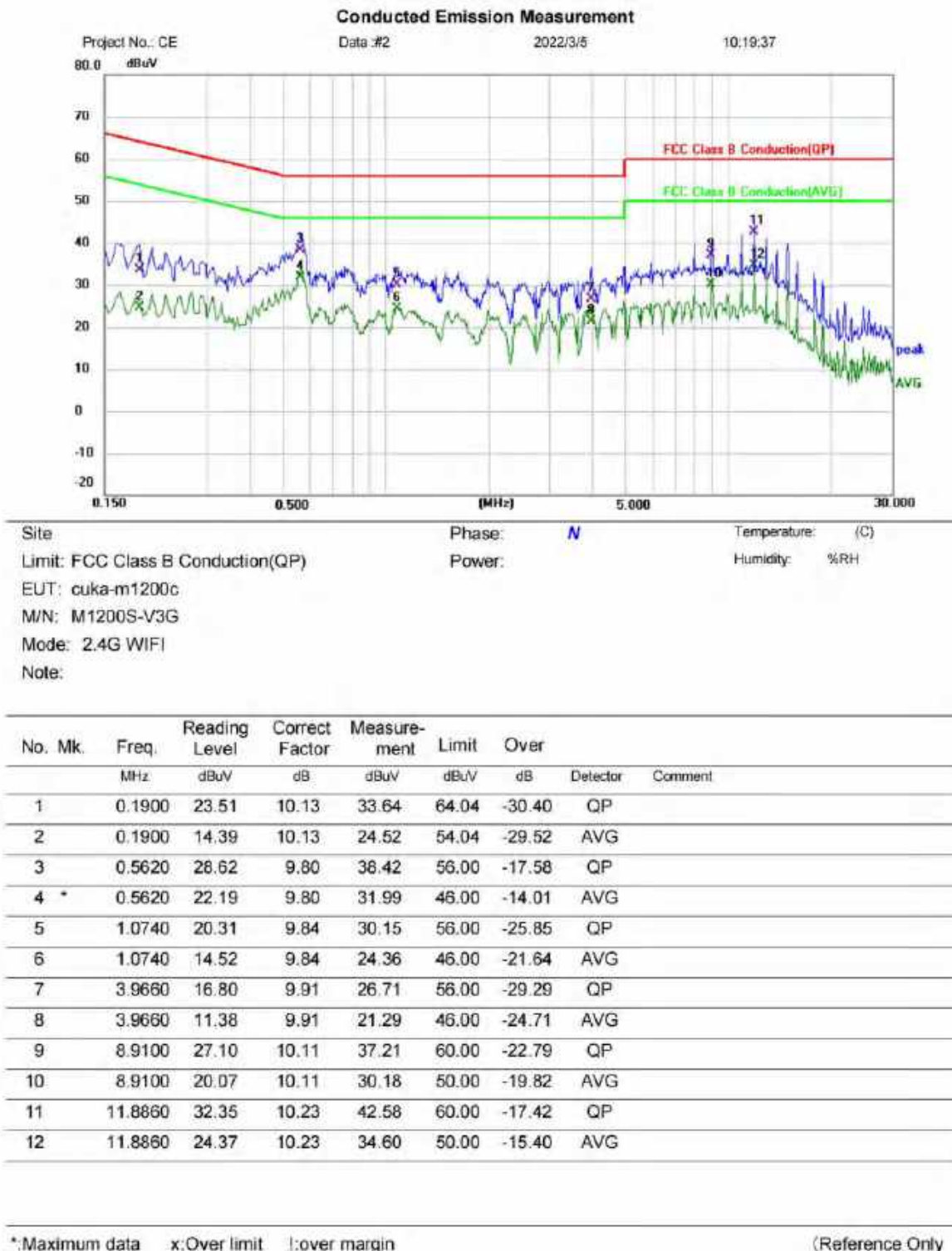


*:Maximum data x:Over limit |:over margin

(Reference Only)

Test Result: Pass

[TestMode: Operation(WiFi)]; [Line: Nutral]



Test Result: Pass

17 ANTENNA REQUIREMENT

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	N/A

17.1 CONCLUSION

Standard Requirement:

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 an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 3dBi.



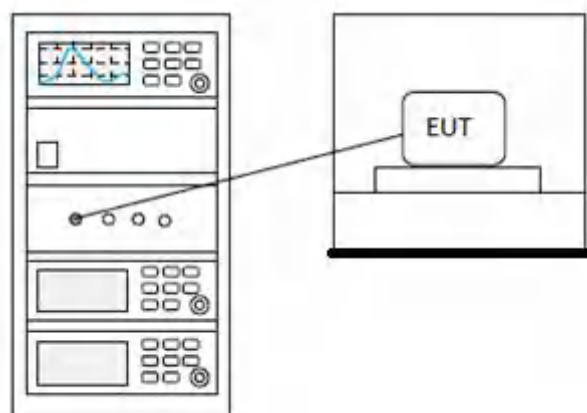
18 CONDUCTED SPURIOUS EMISSIONS

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 7.8.6 & Section 11.11
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Eason
Temperature	25°C
Humidity	52%

18.1 LIMITS

Limit:	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)).
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18.2 BLOCK DIAGRAM OF TEST SETUP



18.3 TEST DATA

Pass: Please Refer To Appendix: For Details

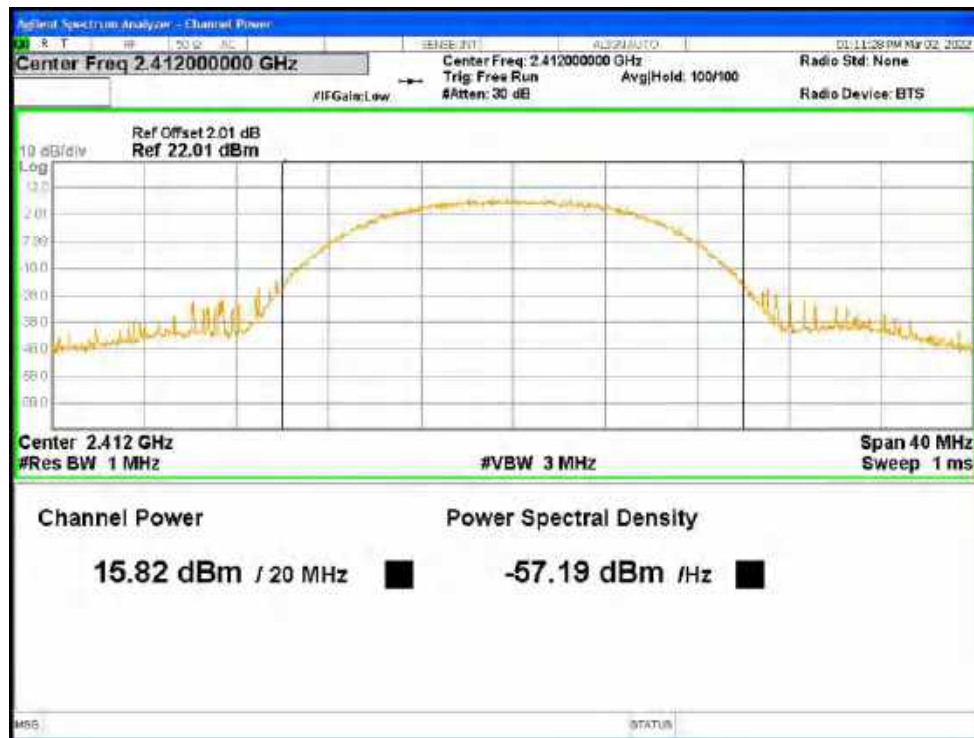
BlueAsia

19 APPENDIX

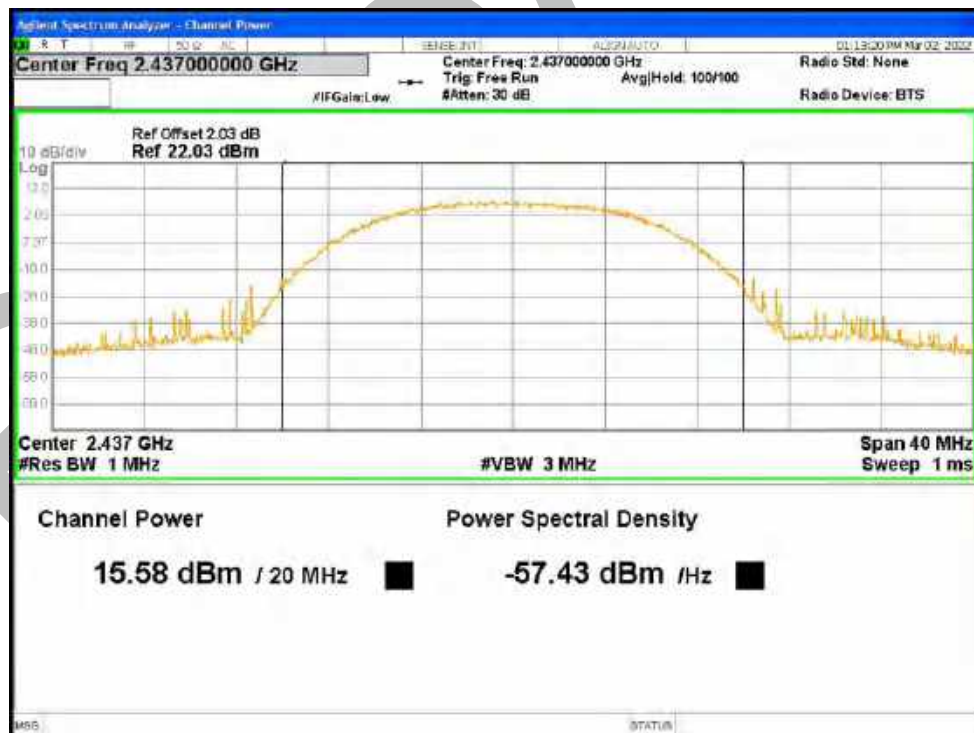
19.1 MAXIMUM CONDUCTED OUTPUT POWER

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	15.816	30	Pass
NVNT	b	2437	Ant1	15.581	30	Pass
NVNT	b	2462	Ant1	15.214	30	Pass
NVNT	b	2412	Ant2	12.701	30	Pass
NVNT	b	2437	Ant2	12.118	30	Pass
NVNT	b	2462	Ant2	12.073	30	Pass
NVNT	g	2412	Ant1	16.535	30	Pass
NVNT	g	2437	Ant1	15.891	30	Pass
NVNT	g	2462	Ant1	15.676	30	Pass
NVNT	g	2412	Ant2	13.858	30	Pass
NVNT	g	2437	Ant2	13.317	30	Pass
NVNT	g	2462	Ant2	13.208	30	Pass
NVNT	n20	2412	Ant1	16.263	30	Pass
NVNT	n20	2412	Ant2	13.612	30	Pass
NVNT	n20	2412	Sum	18.147	30	Pass
NVNT	n20	2437	Ant1	15.801	30	Pass
NVNT	n20	2437	Ant2	13.029	30	Pass
NVNT	n20	2437	Sum	17.643	30	Pass
NVNT	n20	2462	Ant1	15.32	30	Pass
NVNT	n20	2462	Ant2	12.749	30	Pass
NVNT	n20	2462	Sum	17.232	30	Pass
NVNT	n40	2422	Ant1	16.608	30	Pass
NVNT	n40	2422	Ant2	13.486	30	Pass
NVNT	n40	2422	Sum	18.332	30	Pass
NVNT	n40	2437	Ant1	15.601	30	Pass
NVNT	n40	2437	Ant2	13.08	30	Pass
NVNT	n40	2437	Sum	17.531	30	Pass
NVNT	n40	2452	Ant1	15.433	30	Pass
NVNT	n40	2452	Ant2	12.961	30	Pass
NVNT	n40	2452	Sum	17.381	30	Pass

Power NVNT b 2412MHz Ant1



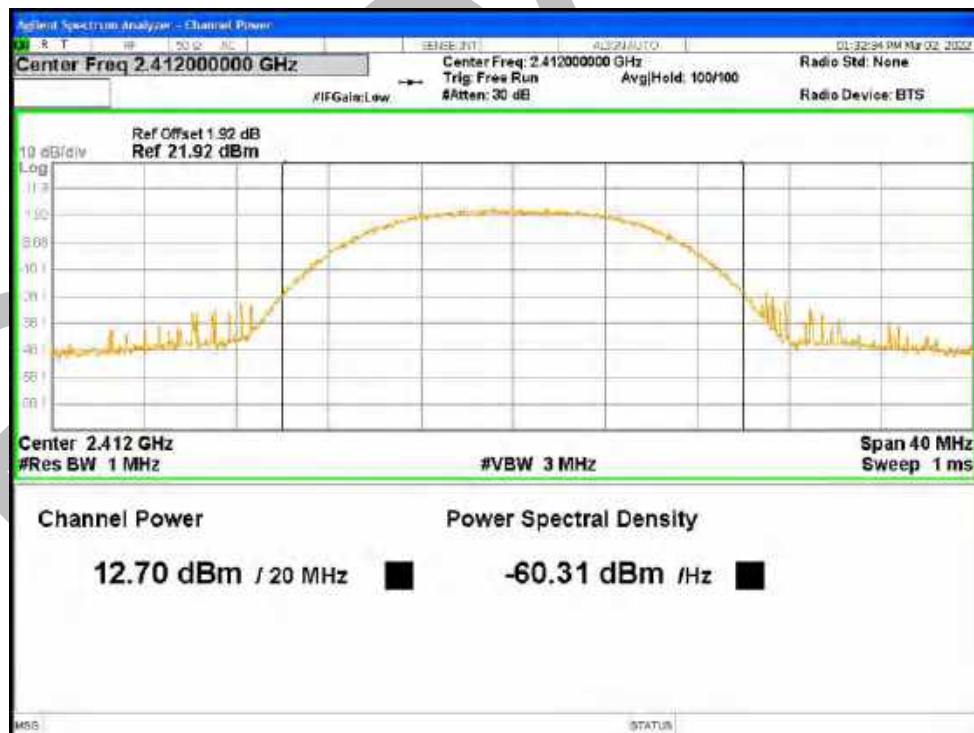
Power NVNT b 2437MHz Ant1



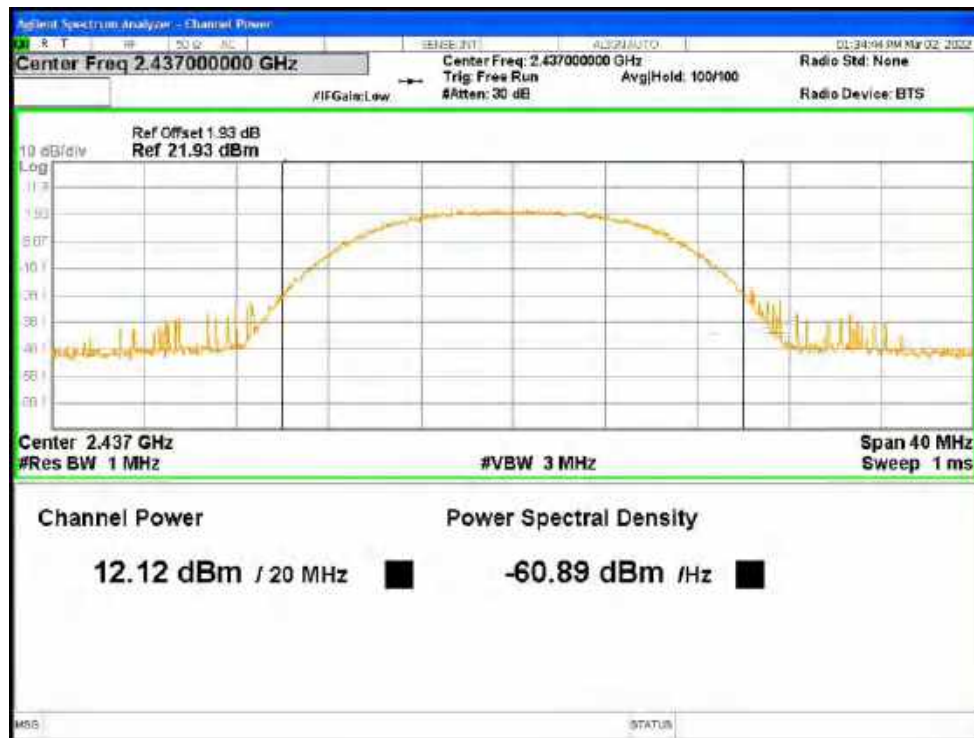
Power NVNT b 2462MHz Ant1



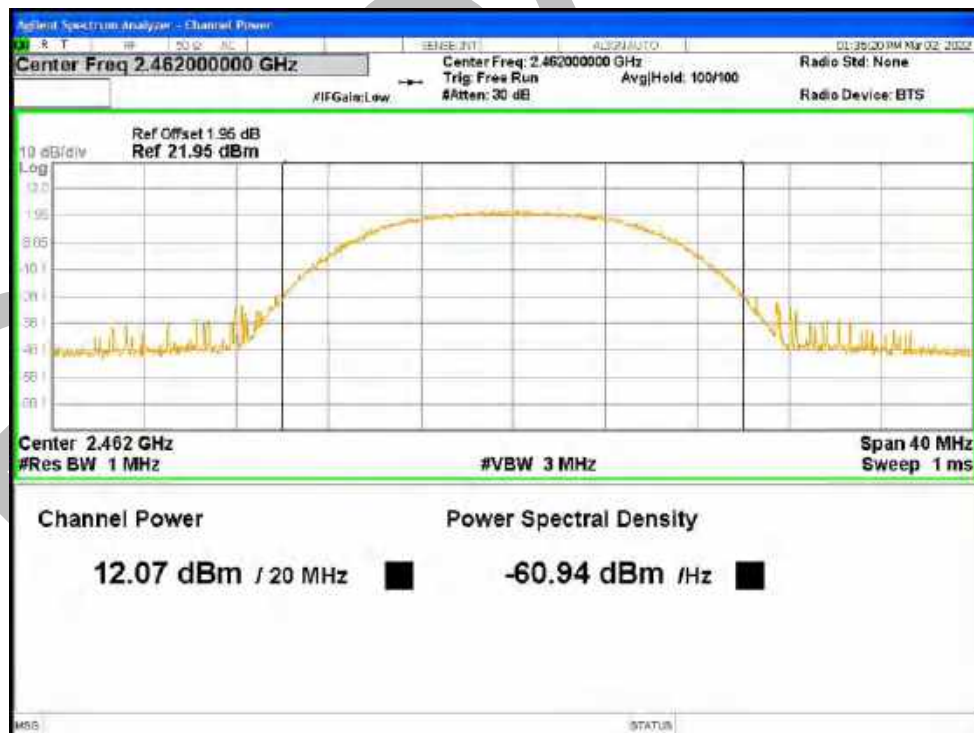
Power NVNT b 2412MHz Ant2



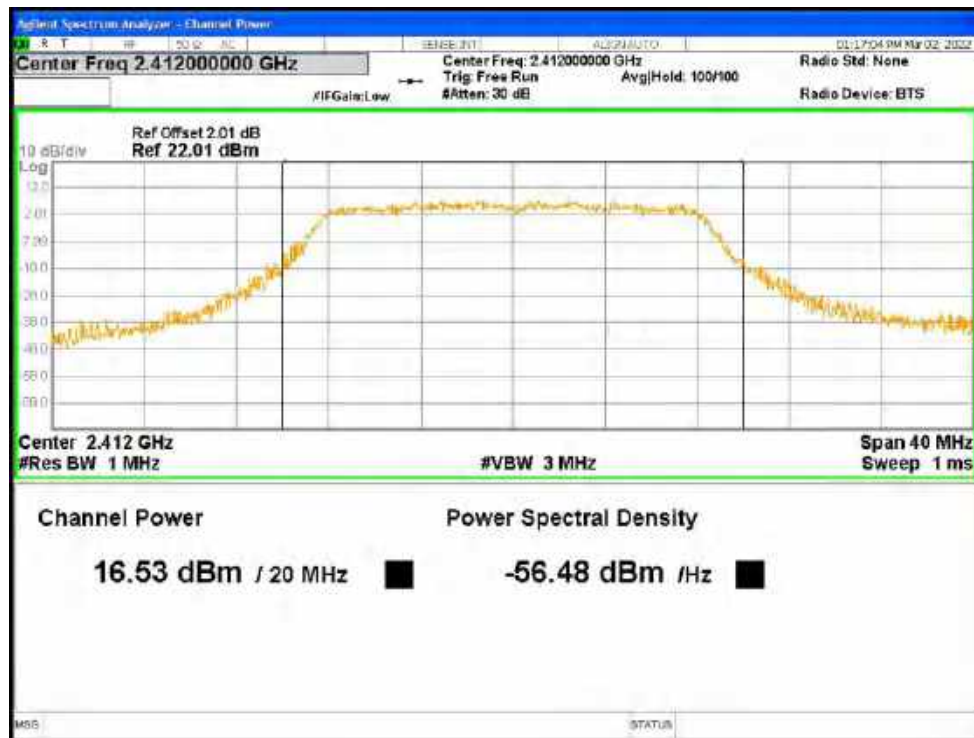
Power NVNT b 2437MHz Ant2



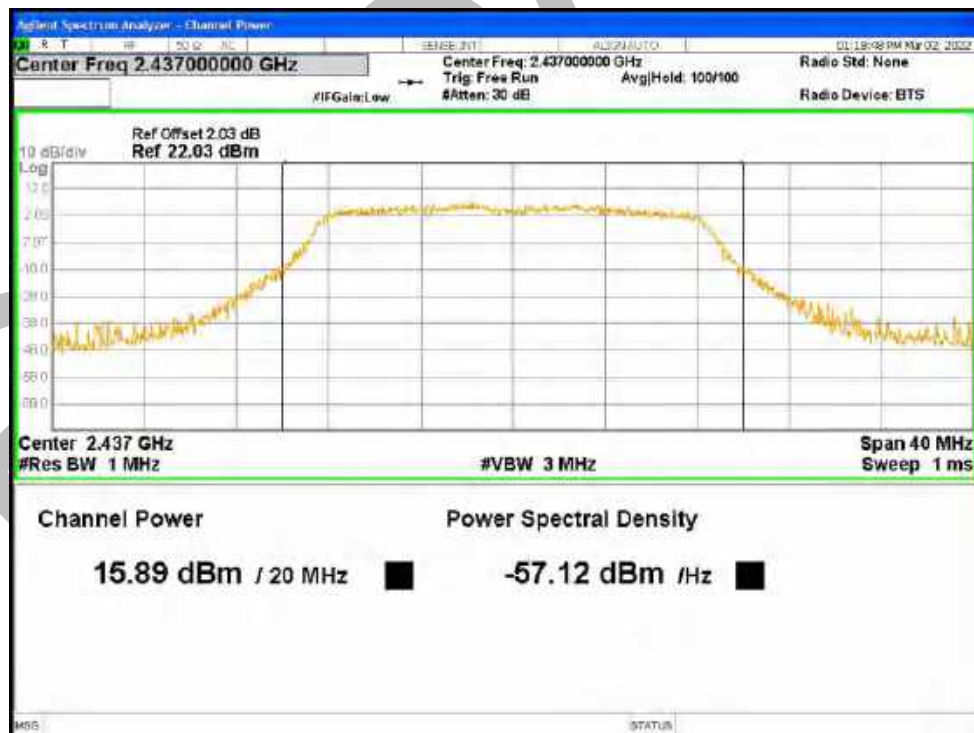
Power NVNT b 2462MHz Ant2



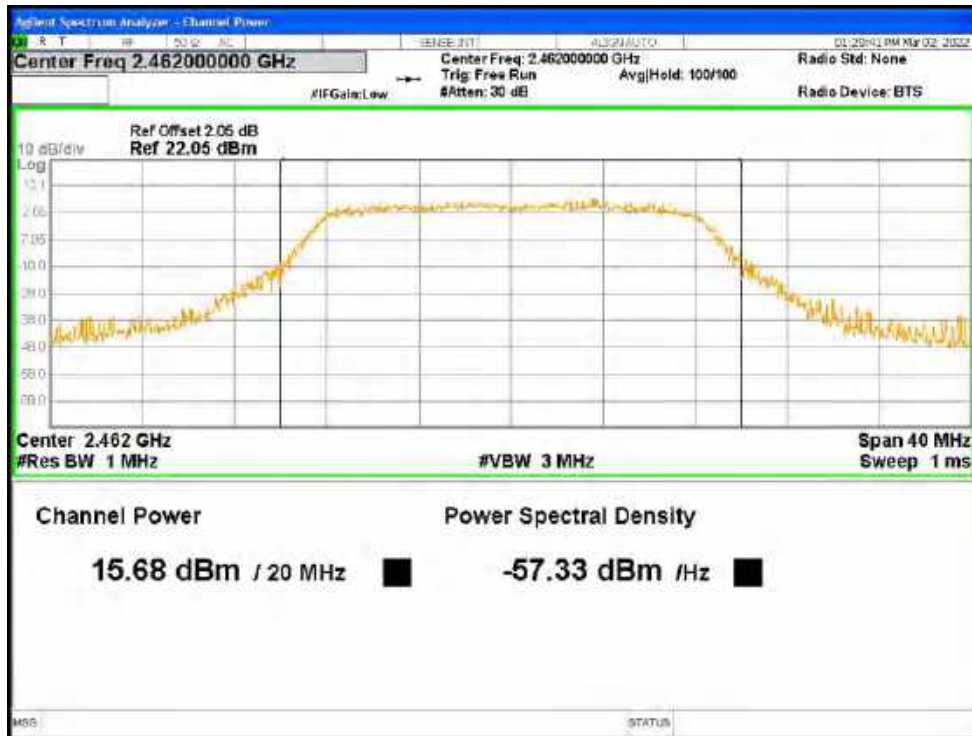
Power NVNT g 2412MHz Ant1



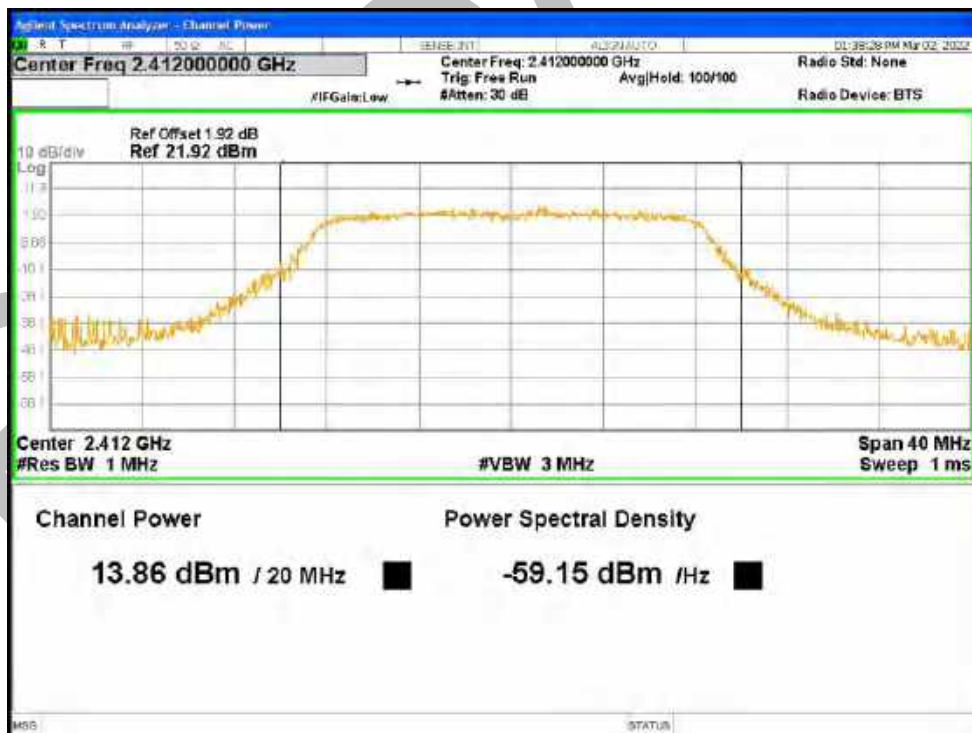
Power NVNT g 2437MHz Ant1



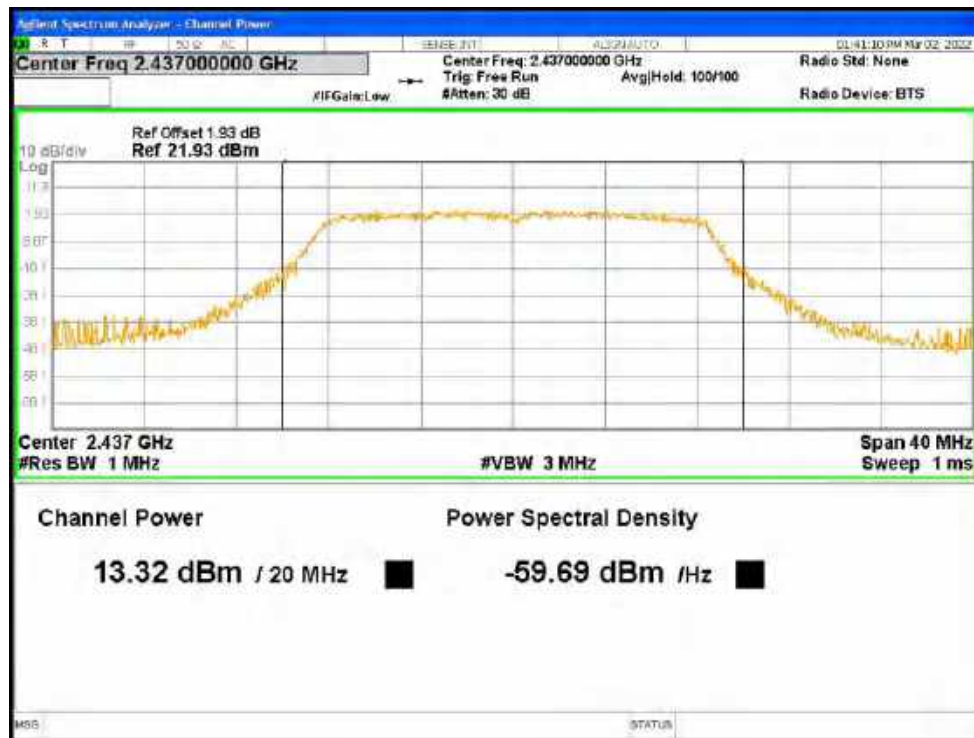
Power NVNT g 2462MHz Ant1



Power NVNT g 2412MHz Ant2



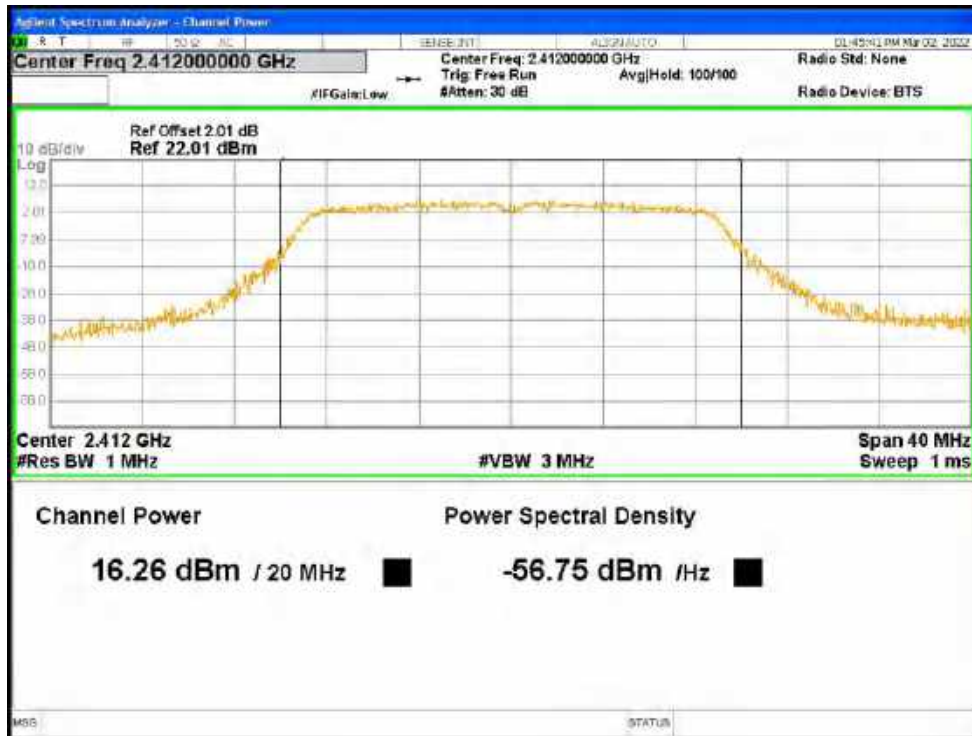
Power NVNT g 2437MHz Ant2



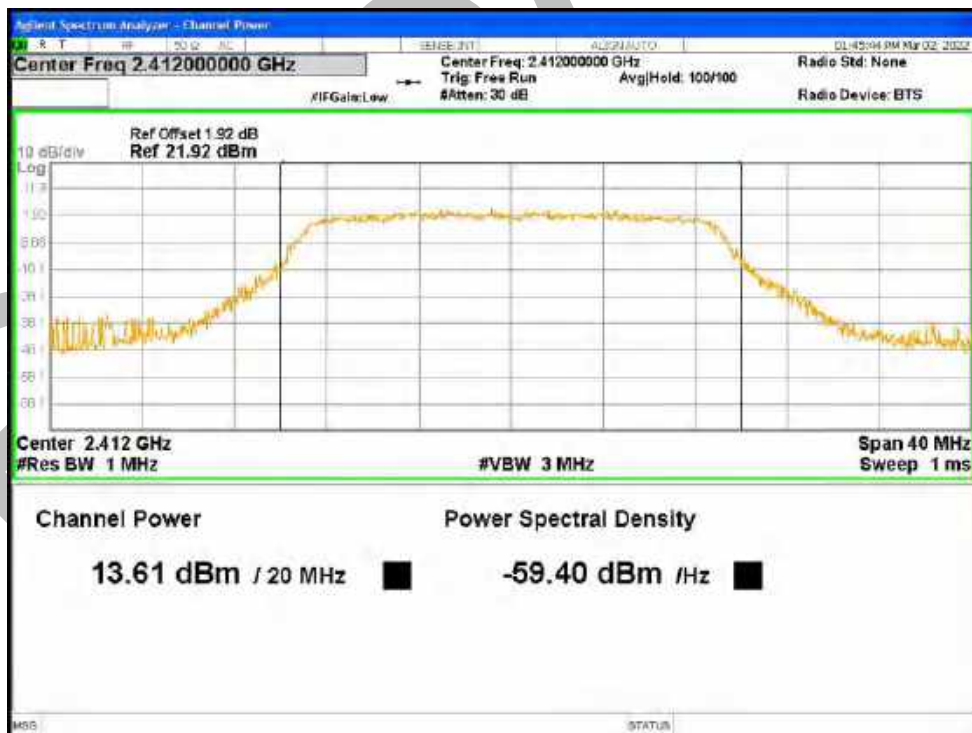
Power NVNT g 2462MHz Ant2



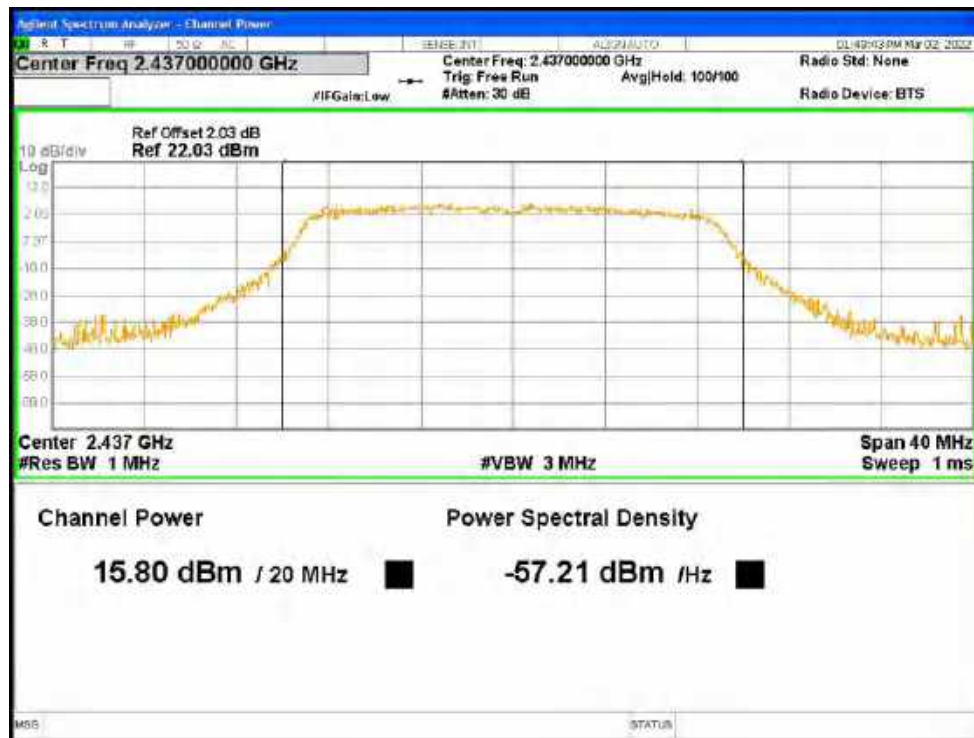
Power NVNT n20 2412MHz Ant1



Power NVNT n20 2412MHz Ant2



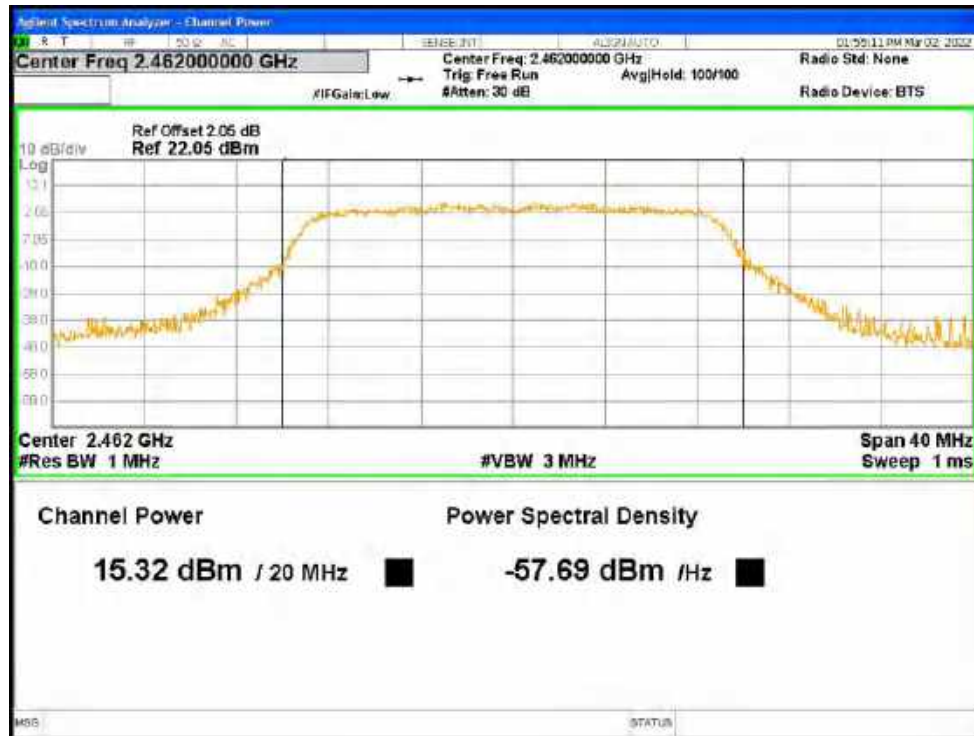
Power NVNT n20 2437MHz Ant1



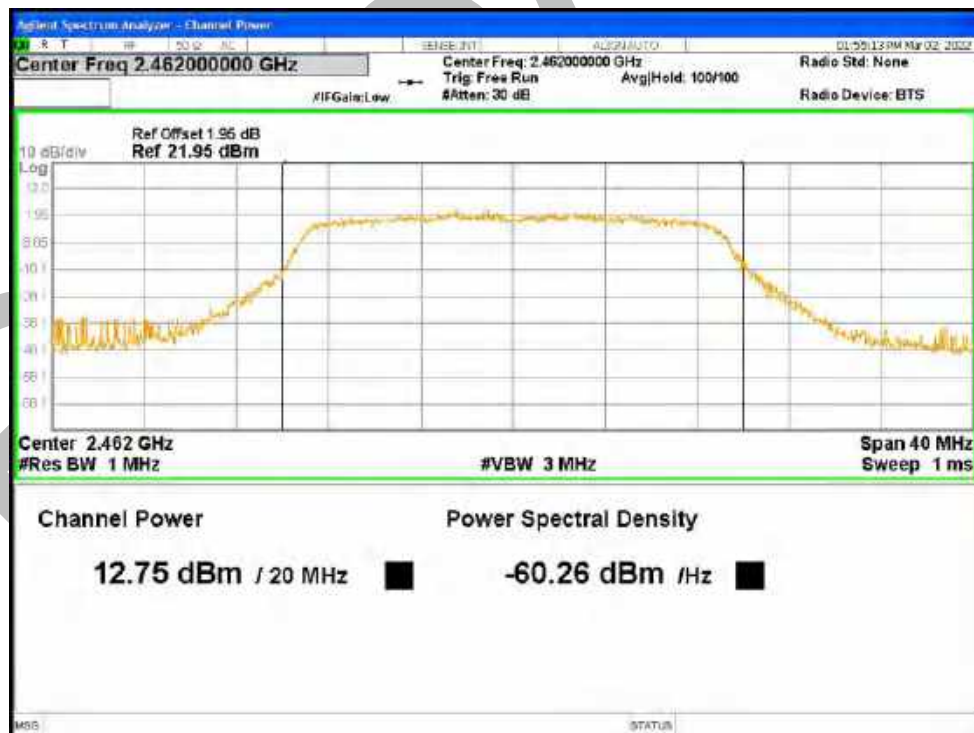
Power NVNT n20 2437MHz Ant2



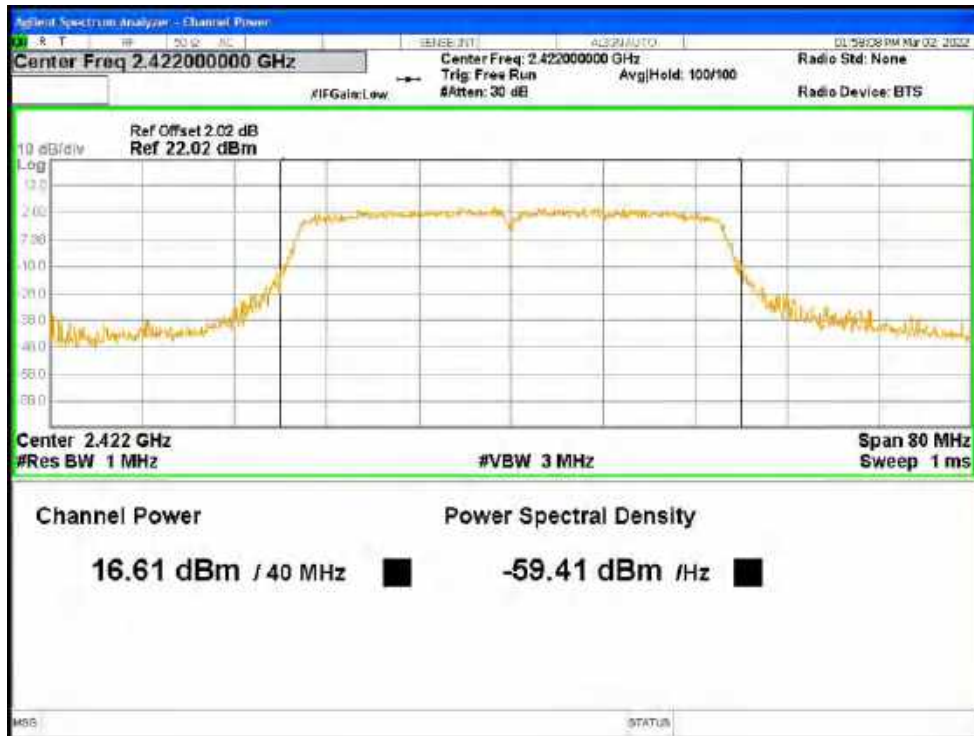
Power NVNT n20 2462MHz Ant1



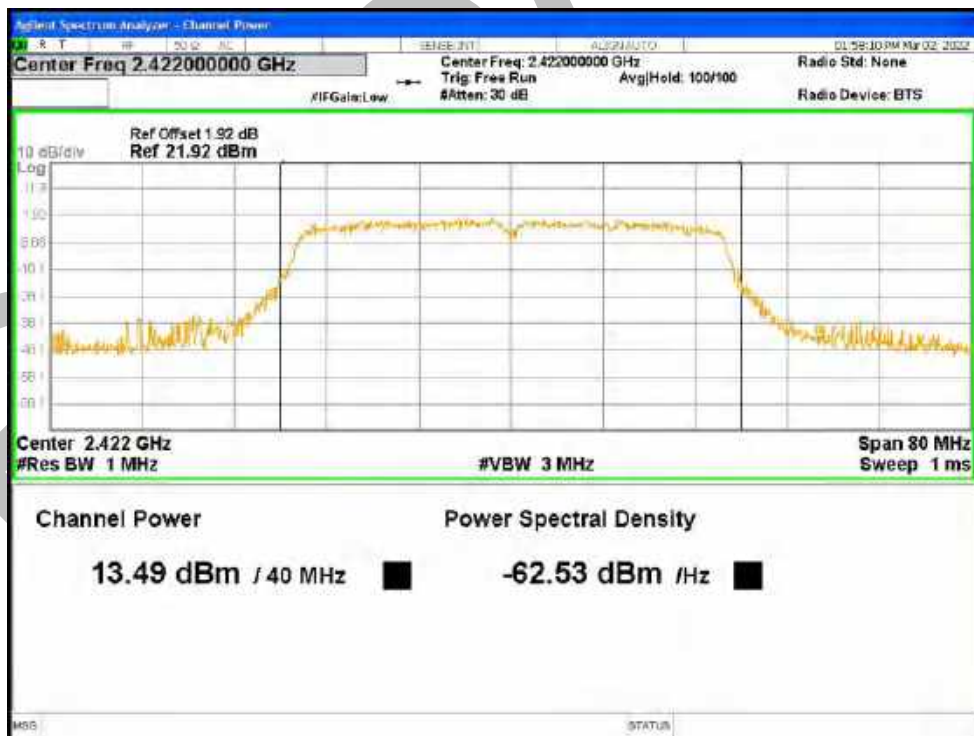
Power NVNT n20 2462MHz Ant2



Power NVNT n40 2422MHz Ant1



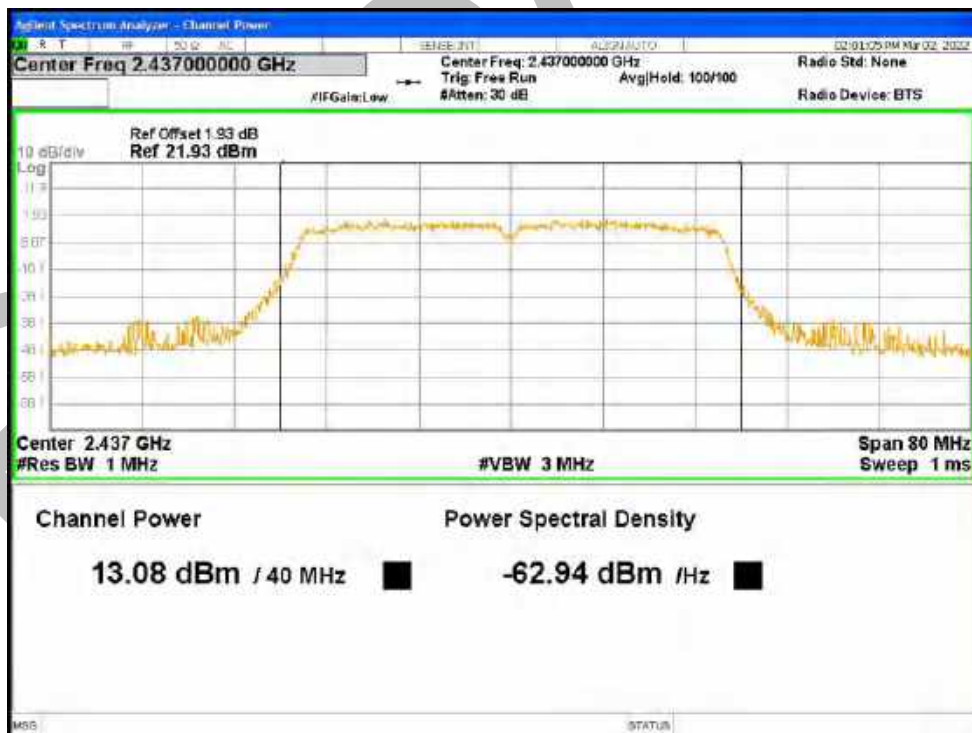
Power NVNT n40 2422MHz Ant2



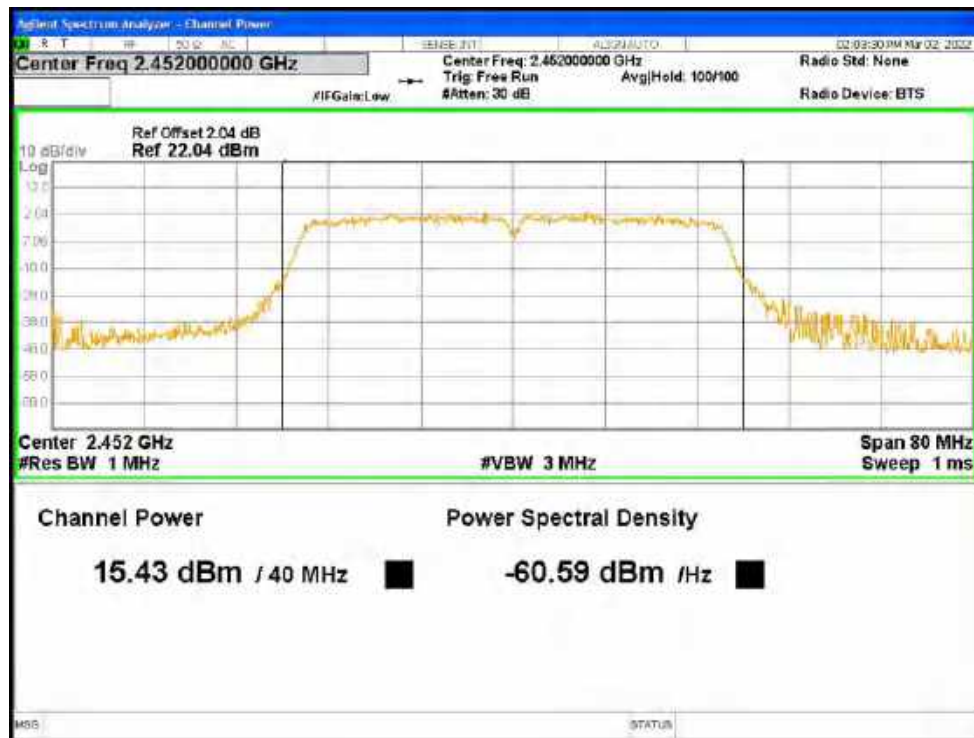
Power NVNT n40 2437MHz Ant1



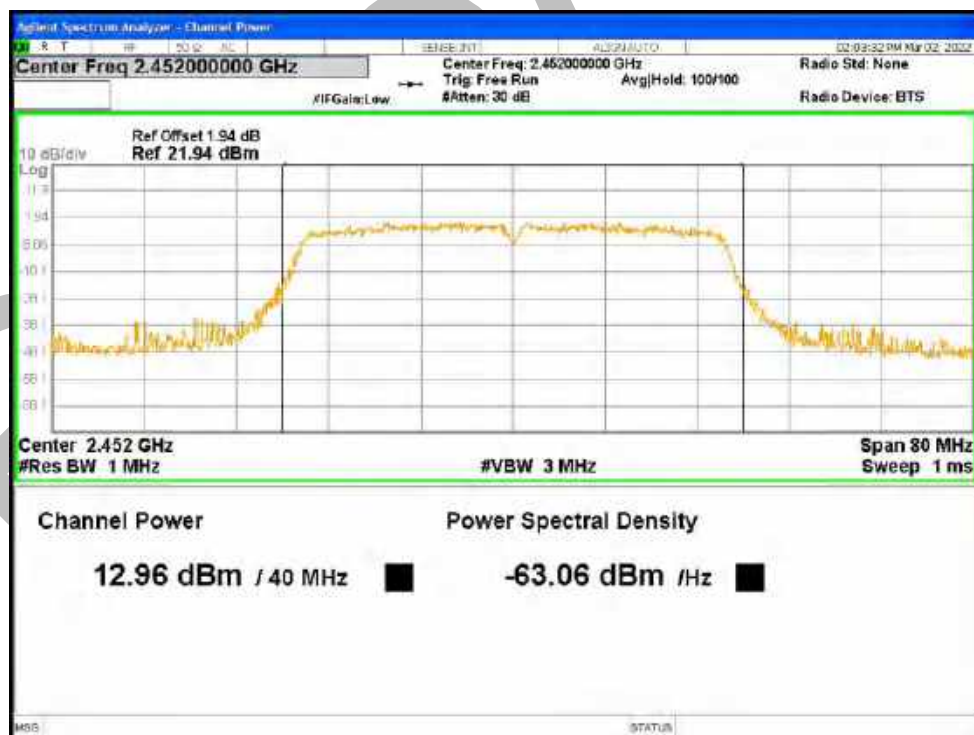
Power NVNT n40 2437MHz Ant2



Power NVNT n40 2452MHz Ant1



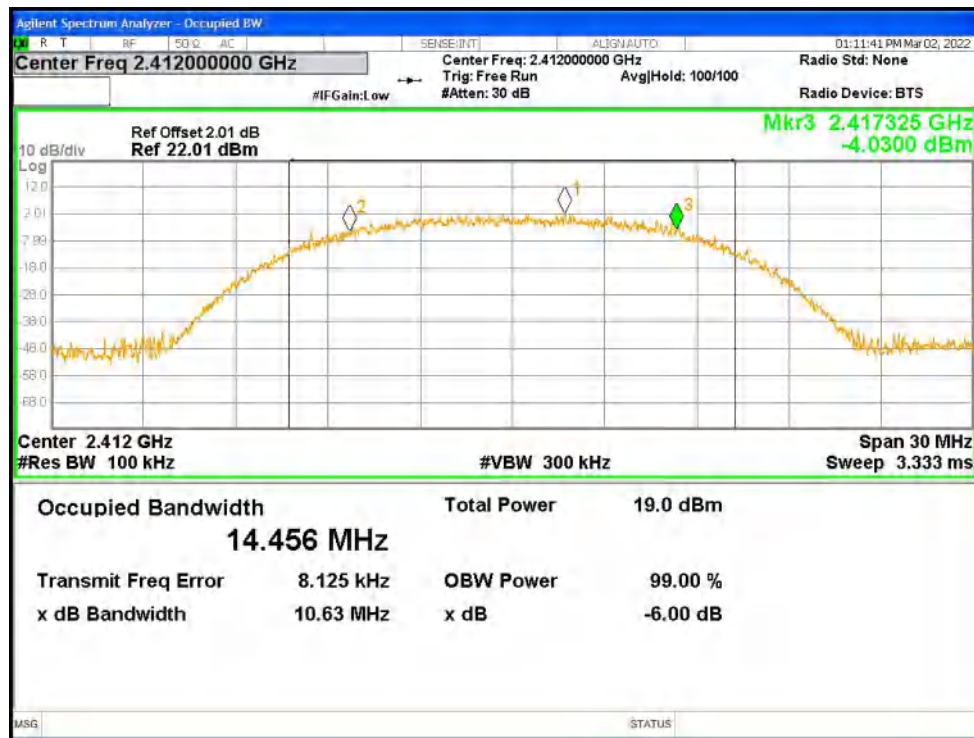
Power NVNT n40 2452MHz Ant2



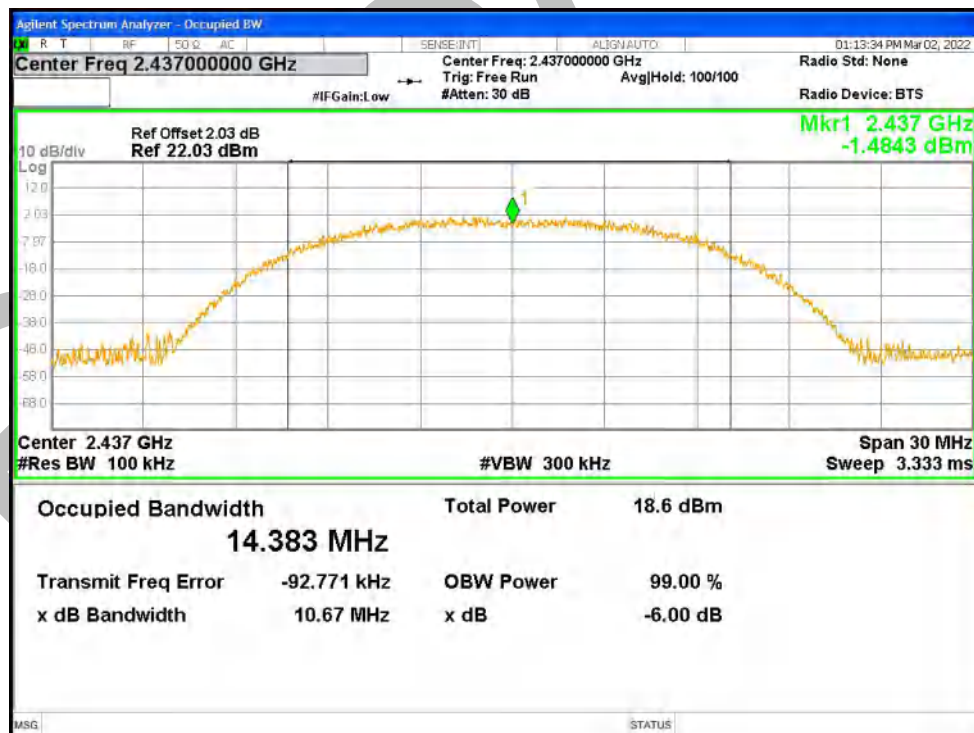
19.2 -6DB BANDWIDTH

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	10.634	0.5	Pass
NVNT	b	2437	Ant1	10.668	0.5	Pass
NVNT	b	2462	Ant1	9.923	0.5	Pass
NVNT	b	2412	Ant2	10.142	0.5	Pass
NVNT	b	2437	Ant2	10.506	0.5	Pass
NVNT	b	2462	Ant2	10.216	0.5	Pass
NVNT	g	2412	Ant1	16.046	0.5	Pass
NVNT	g	2437	Ant1	16.053	0.5	Pass
NVNT	g	2462	Ant1	16.108	0.5	Pass
NVNT	g	2412	Ant2	15.672	0.5	Pass
NVNT	g	2437	Ant2	15.989	0.5	Pass
NVNT	g	2462	Ant2	16.383	0.5	Pass
NVNT	n20	2412	Ant1	15.944	0.5	Pass
NVNT	n20	2412	Ant2	16.244	0.5	Pass
NVNT	n20	2437	Ant1	16.637	0.5	Pass
NVNT	n20	2437	Ant2	16.656	0.5	Pass
NVNT	n20	2462	Ant1	16.915	0.5	Pass
NVNT	n20	2462	Ant2	16.627	0.5	Pass
NVNT	n40	2422	Ant1	35.129	0.5	Pass
NVNT	n40	2422	Ant2	35.088	0.5	Pass
NVNT	n40	2437	Ant1	35.349	0.5	Pass
NVNT	n40	2437	Ant2	35.357	0.5	Pass
NVNT	n40	2452	Ant1	35.128	0.5	Pass
NVNT	n40	2452	Ant2	35.131	0.5	Pass

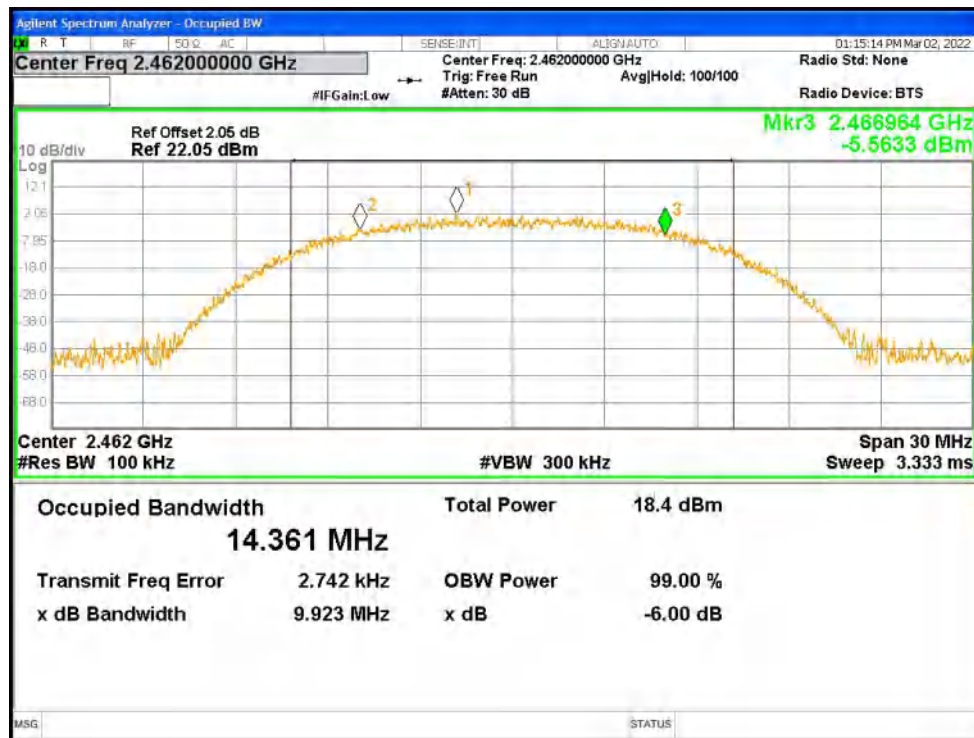
-6dB Bandwidth NVNT b 2412MHz Ant1



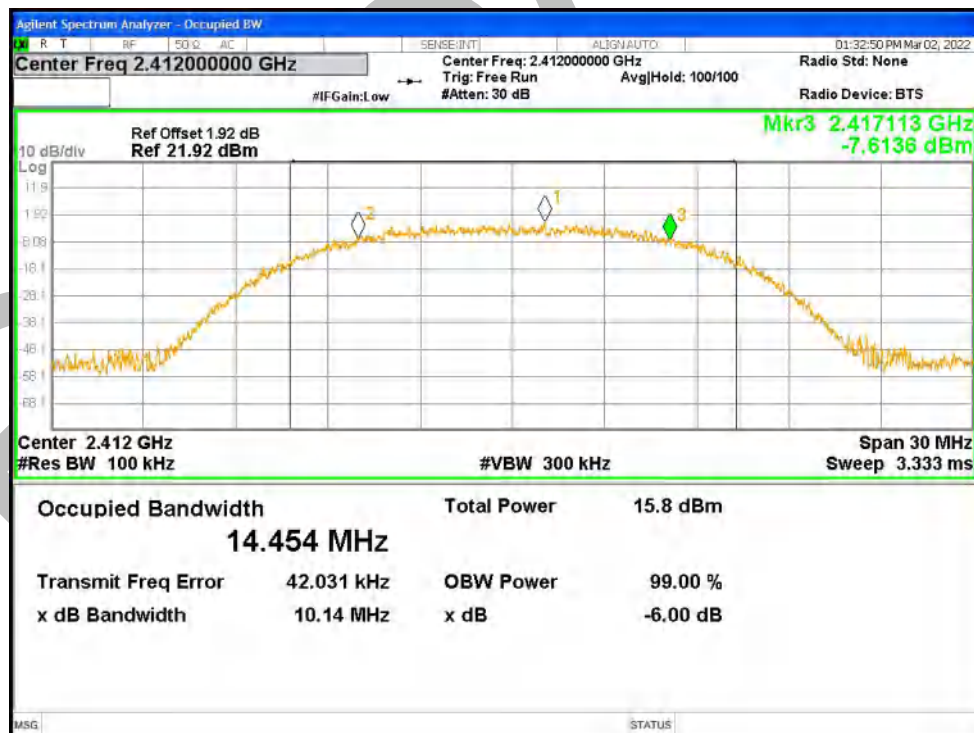
-6dB Bandwidth NVNT b 2437MHz Ant1



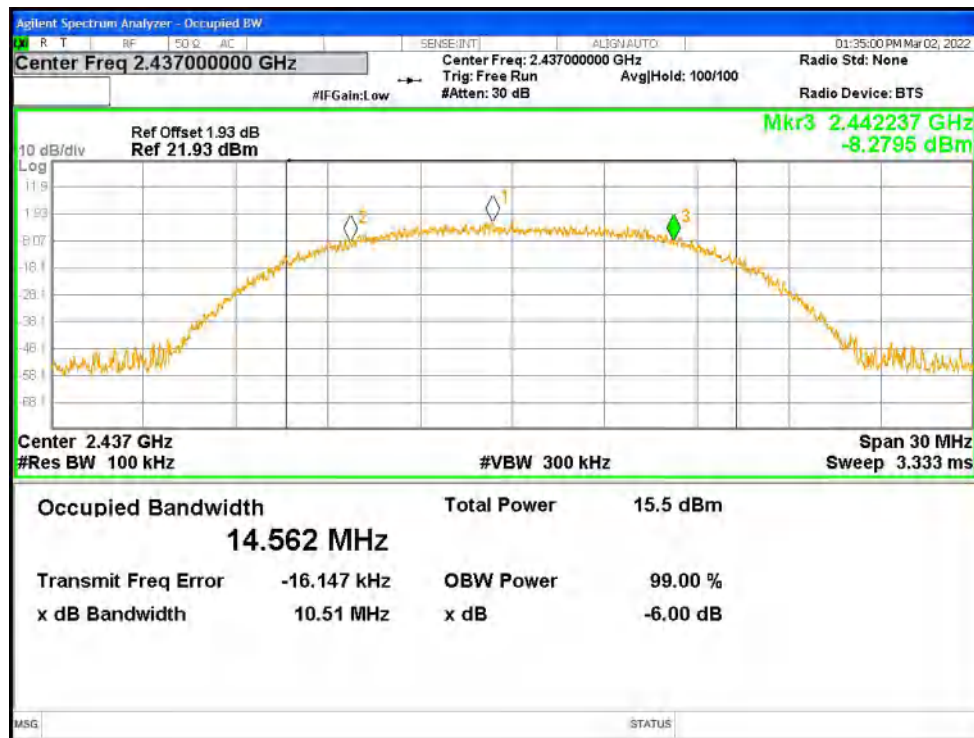
-6dB Bandwidth NVNT b 2462MHz Ant1



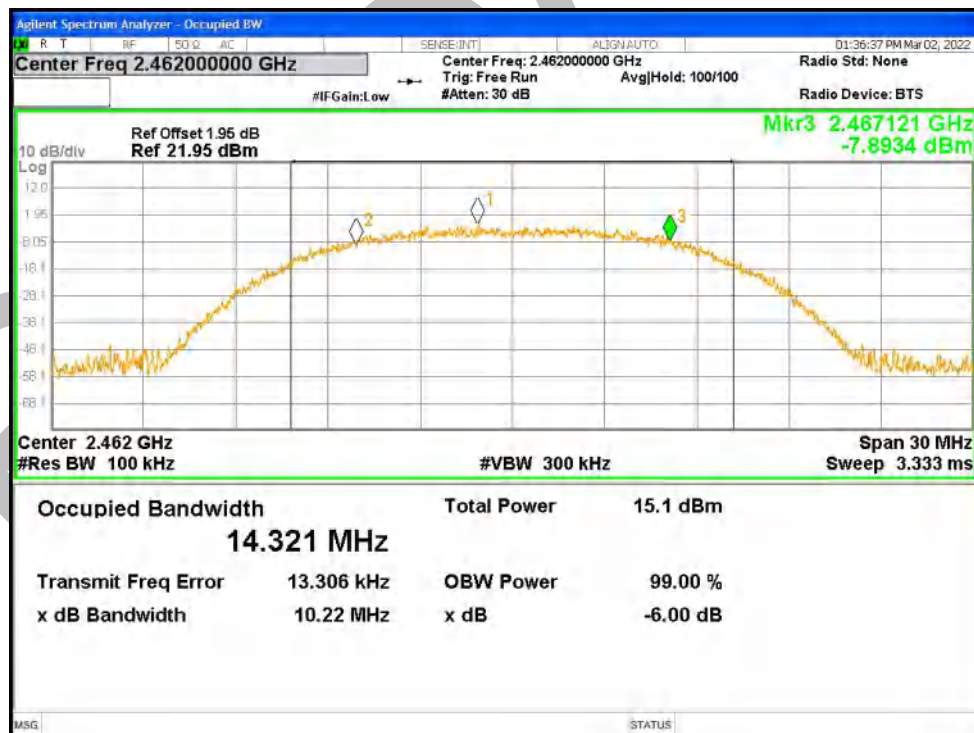
-6dB Bandwidth NVNT b 2412MHz Ant2



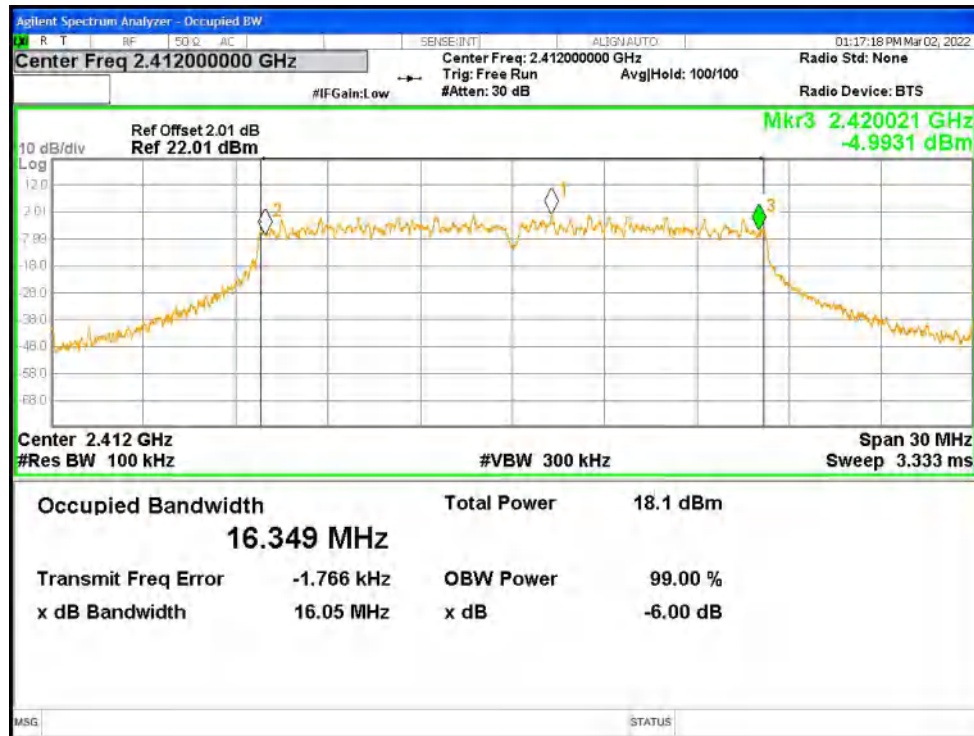
-6dB Bandwidth NVNT b 2437MHz Ant2



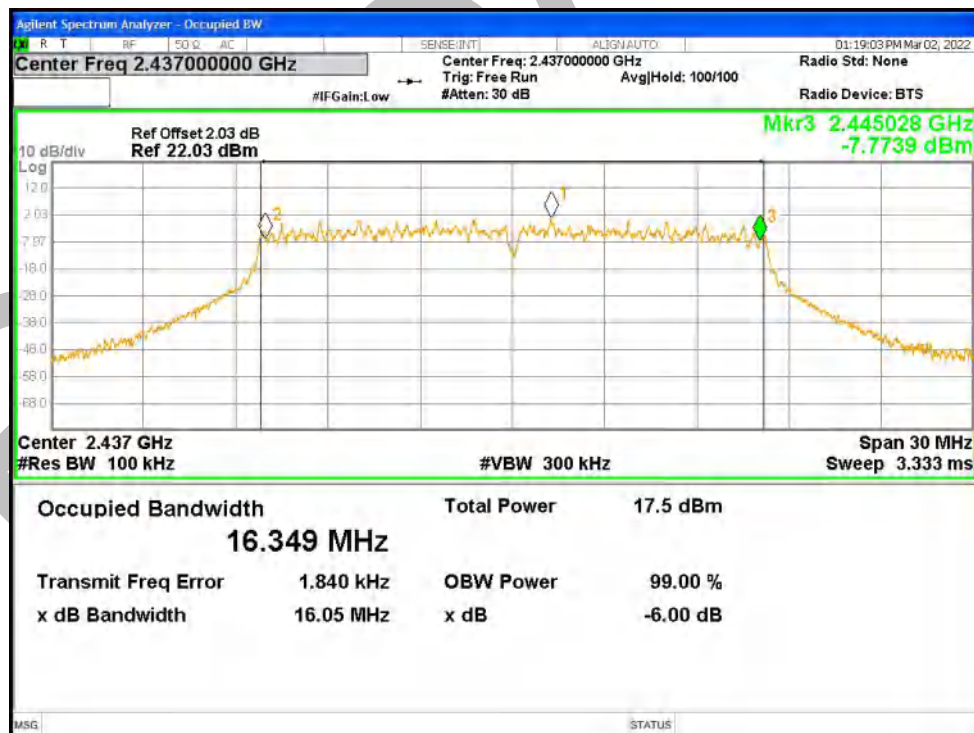
-6dB Bandwidth NVNT b 2462MHz Ant2



-6dB Bandwidth NVNT g 2412MHz Ant1



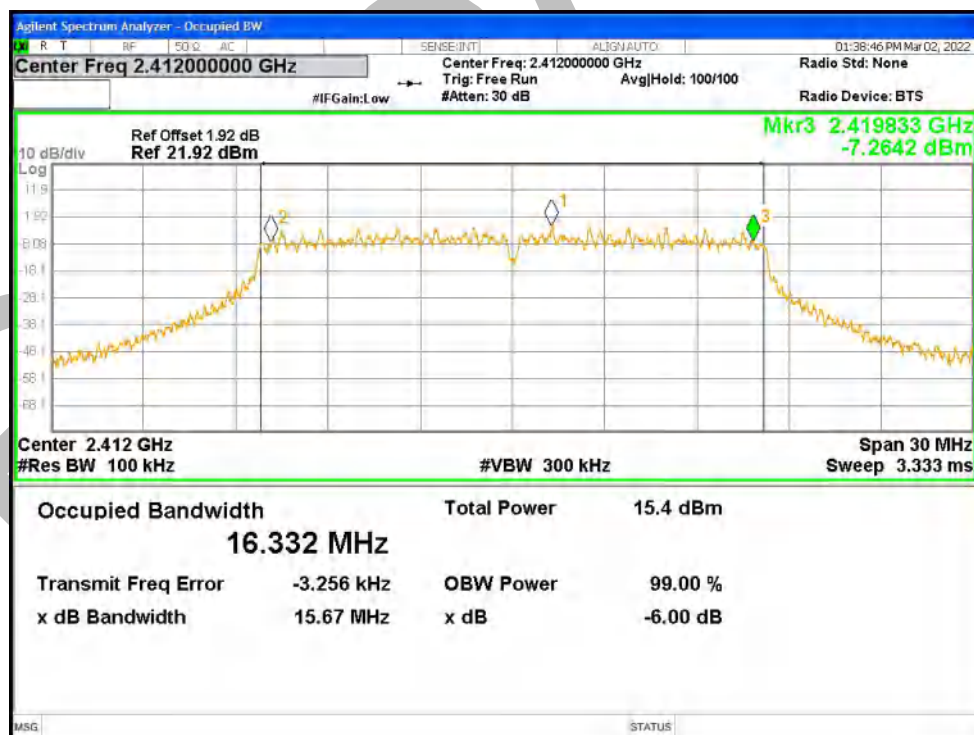
-6dB Bandwidth NVNT g 2437MHz Ant1



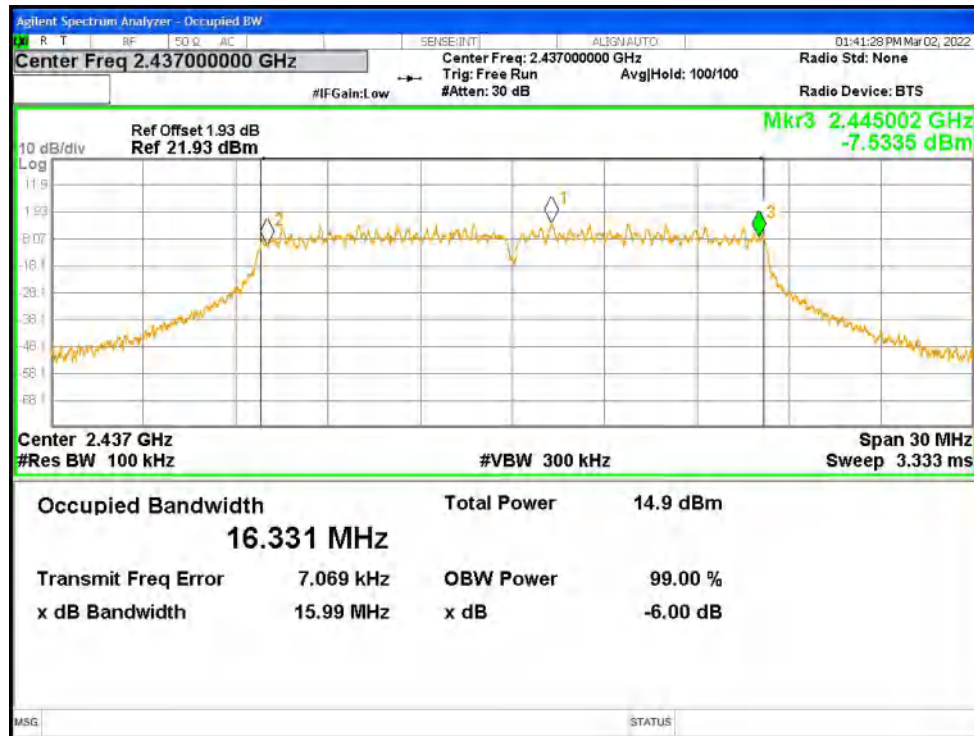
-6dB Bandwidth NVNT g 2462MHz Ant1



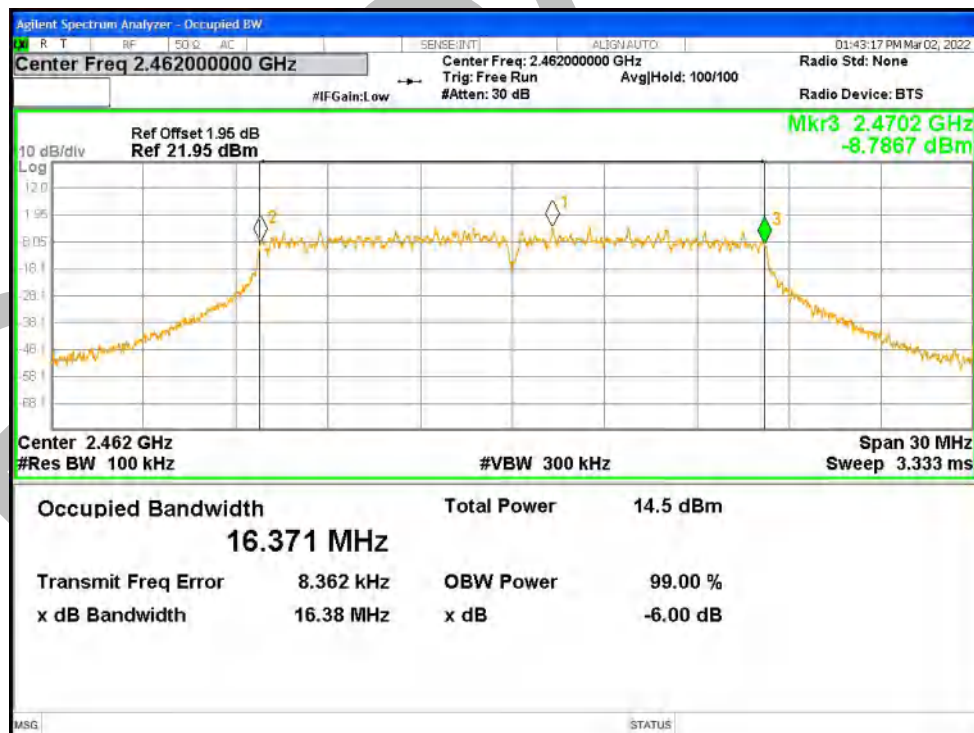
-6dB Bandwidth NVNT g 2412MHz Ant2



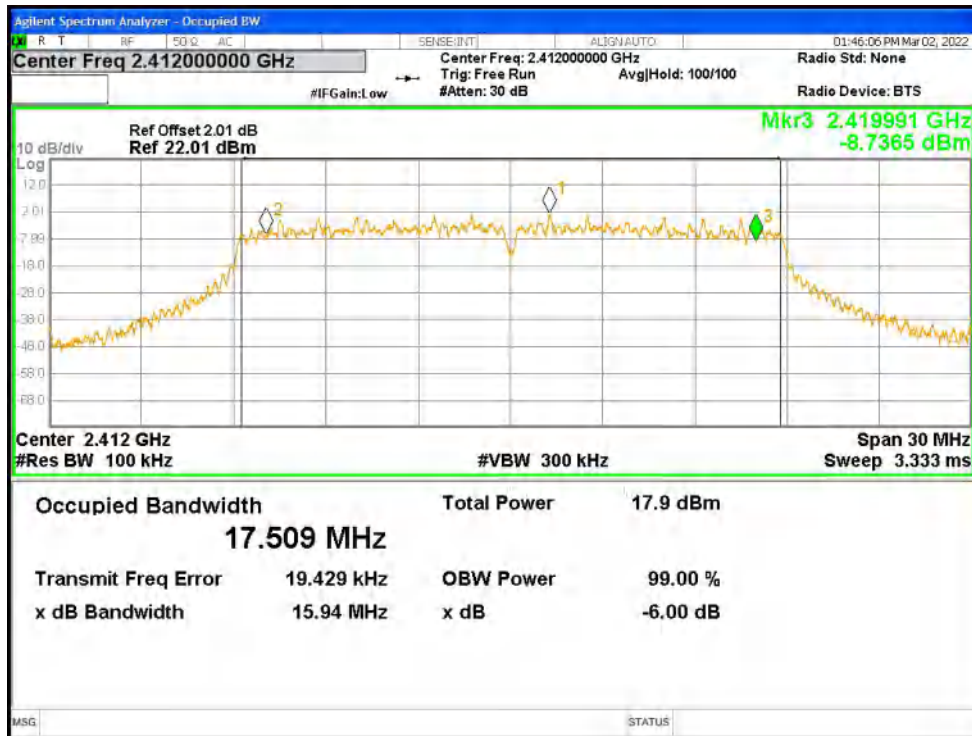
-6dB Bandwidth NVNT g 2437MHz Ant2



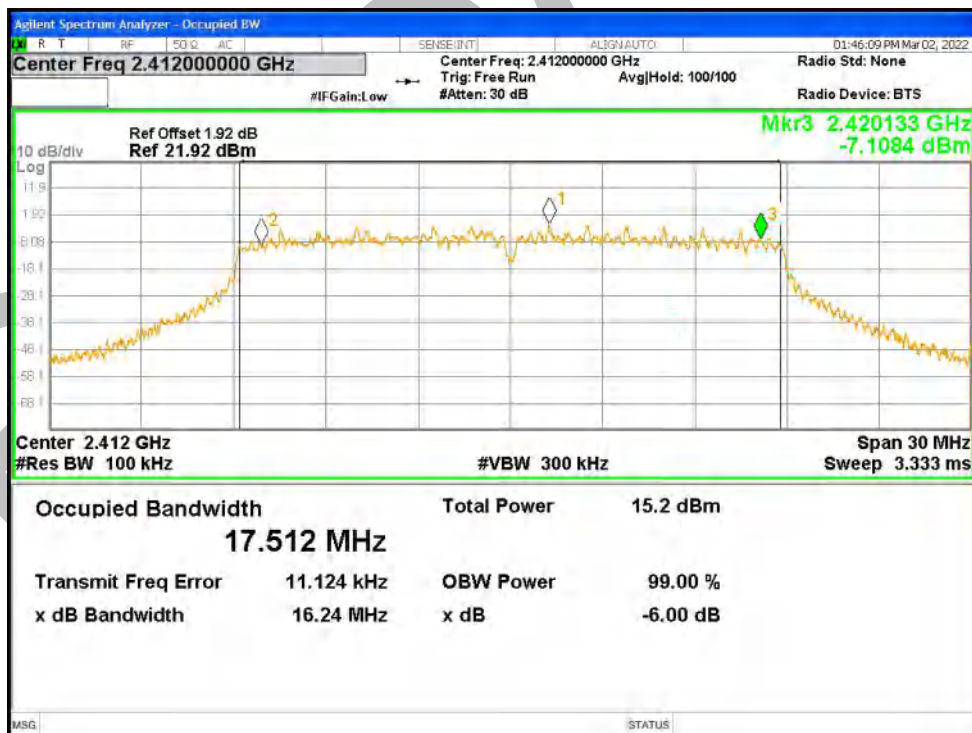
-6dB Bandwidth NVNT g 2462MHz Ant2



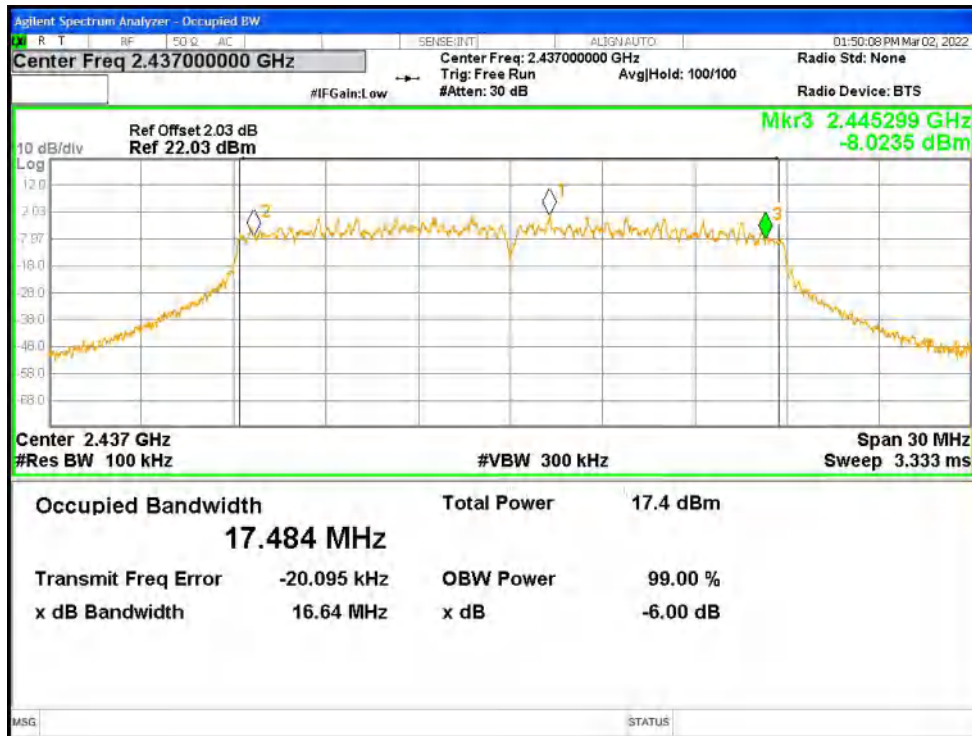
-6dB Bandwidth NVNT n20 2412MHz Ant1



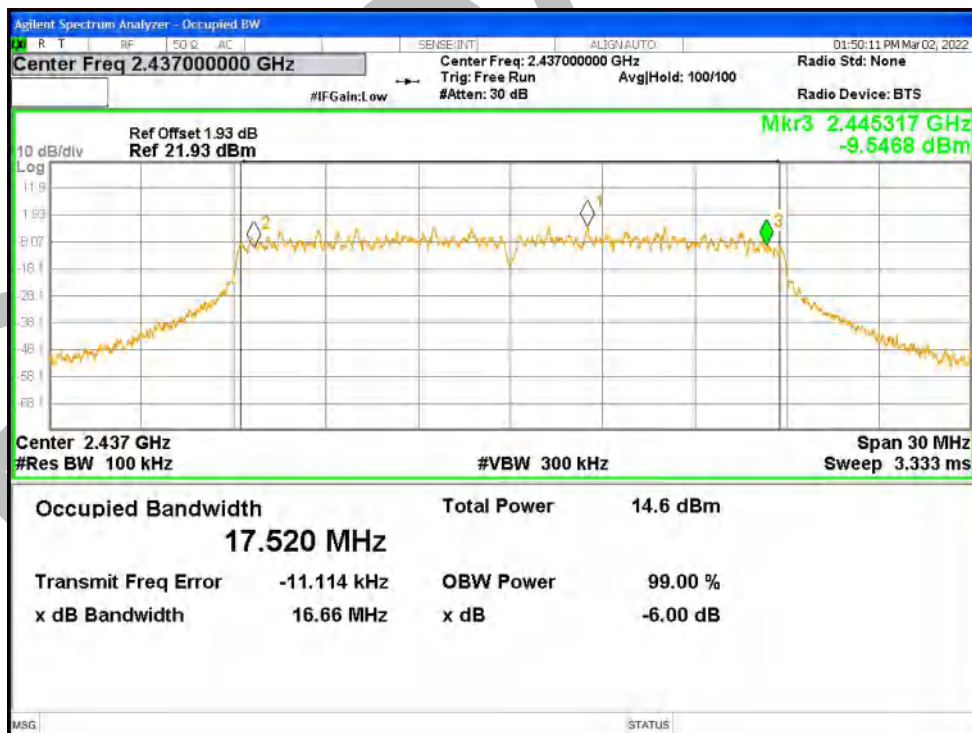
-6dB Bandwidth NVNT n20 2412MHz Ant2



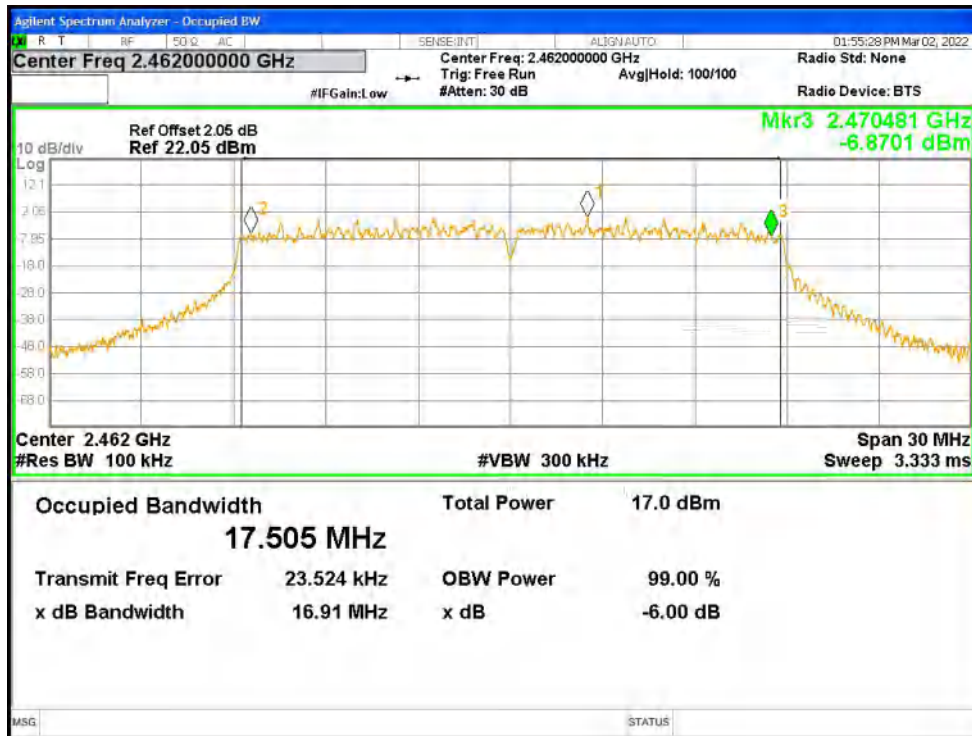
-6dB Bandwidth NVNT n20 2437MHz Ant1



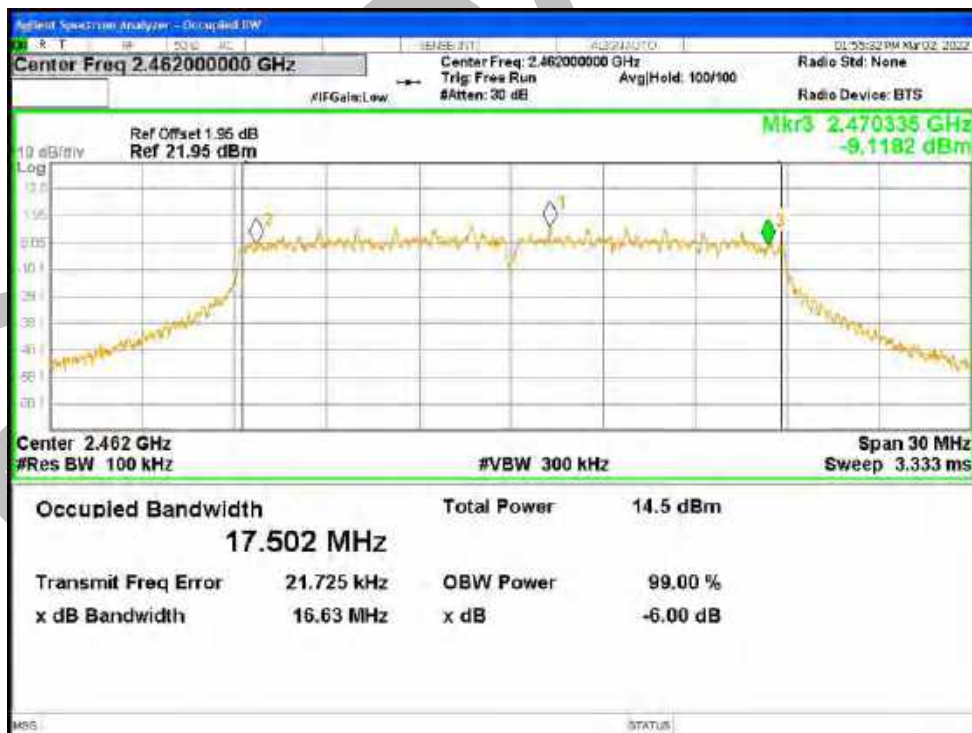
-6dB Bandwidth NVNT n20 2437MHz Ant2



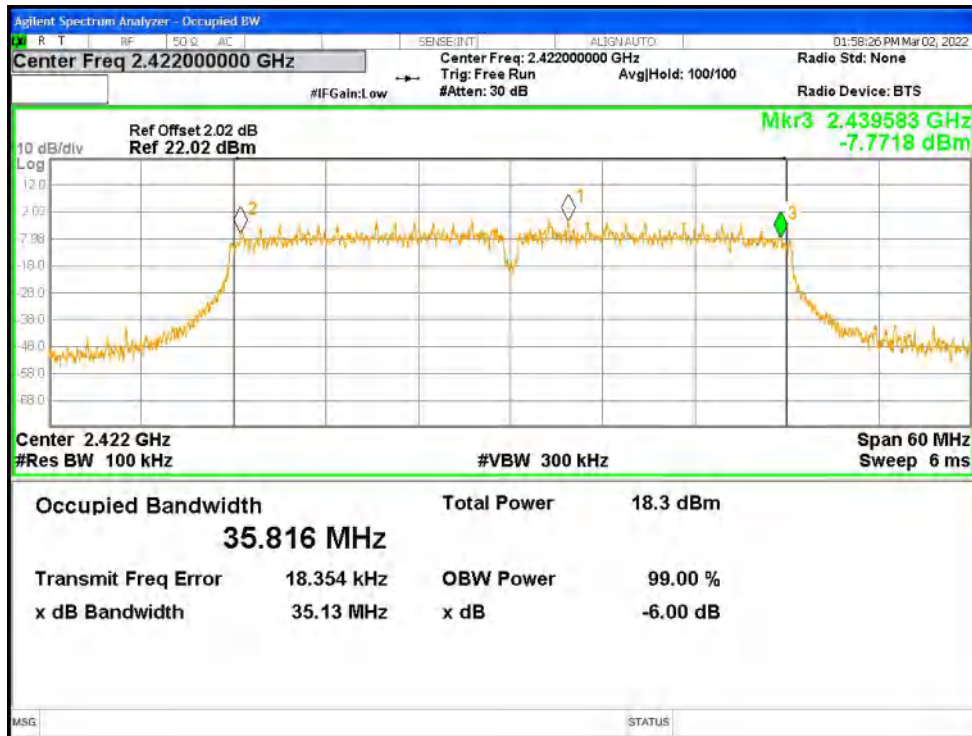
-6dB Bandwidth NVNT n20 2462MHz Ant1



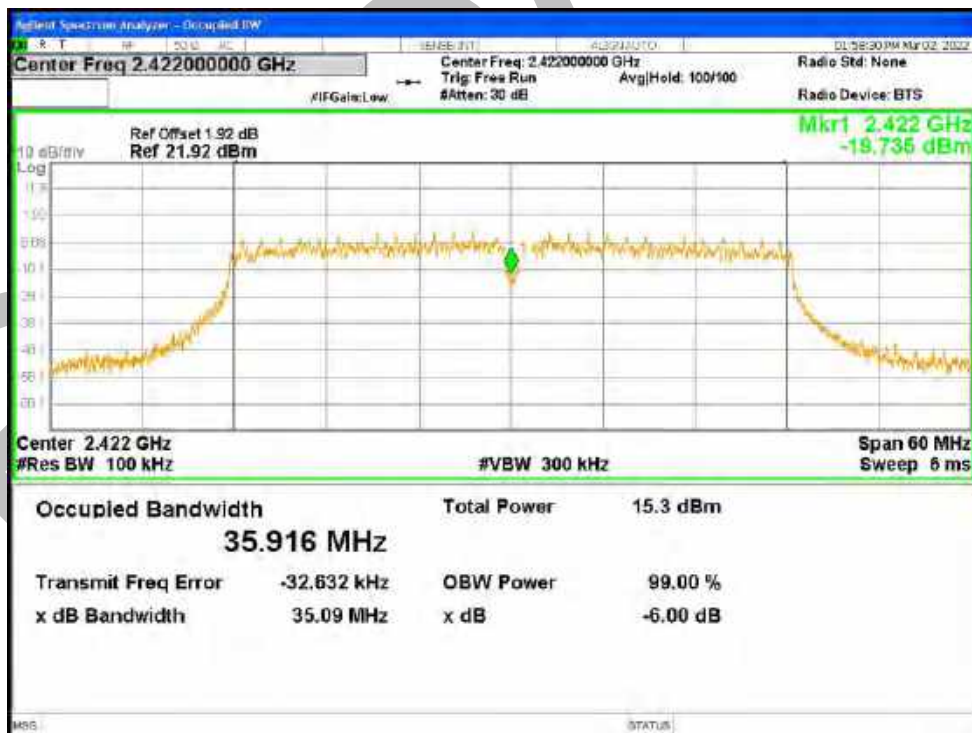
-6dB Bandwidth NVNT n20 2462MHz Ant2



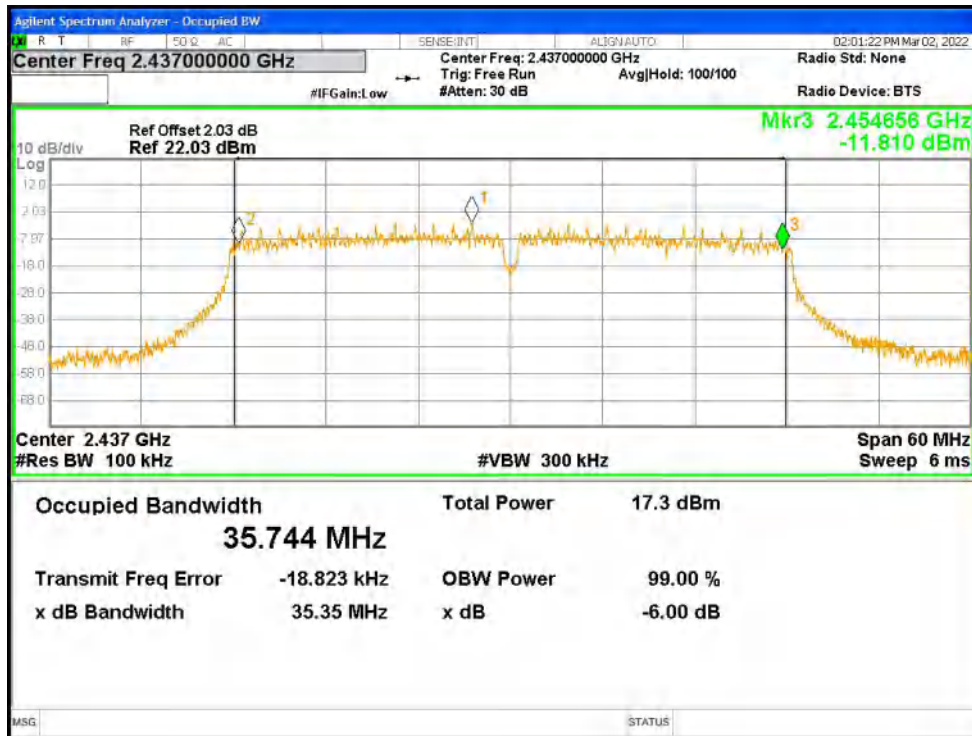
-6dB Bandwidth NVNT n40 2422MHz Ant1



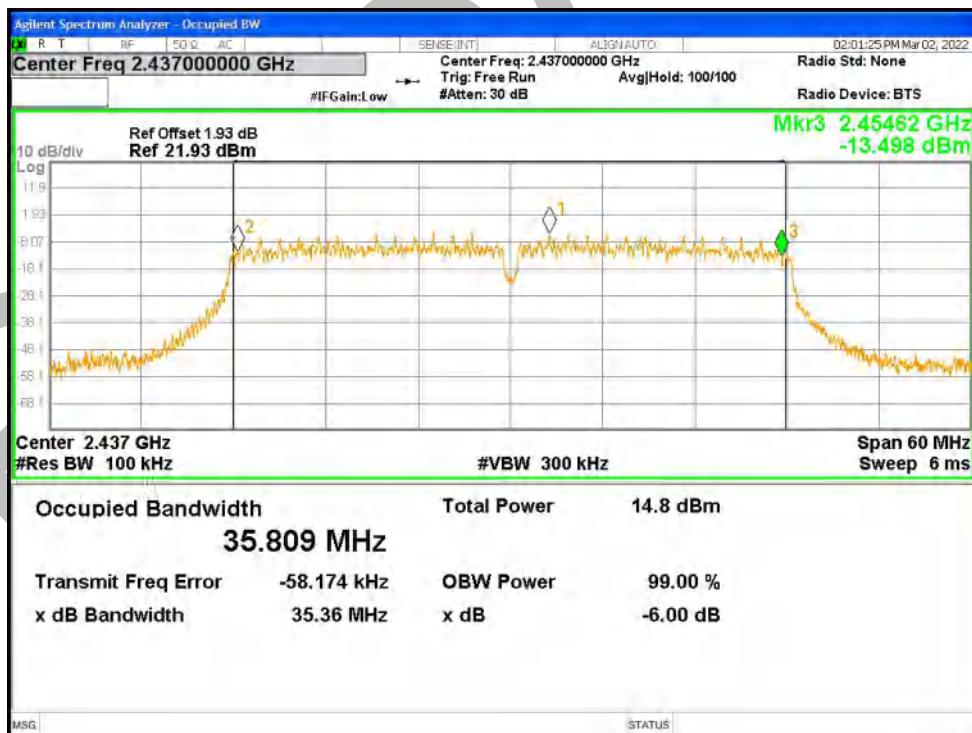
-6dB Bandwidth NVNT n40 2422MHz Ant2



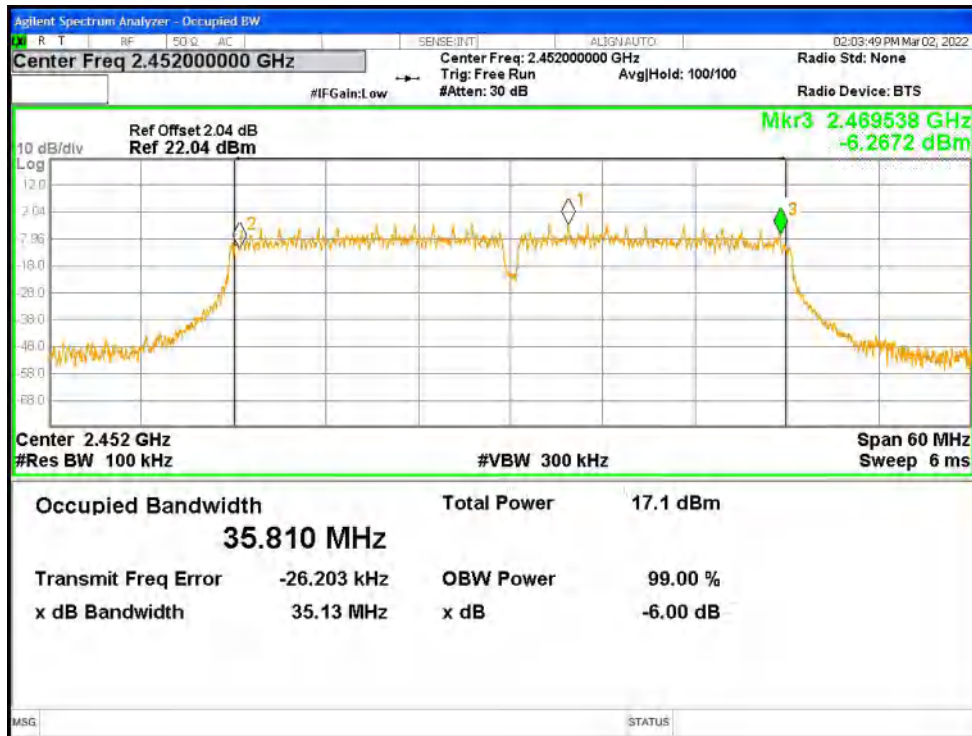
-6dB Bandwidth NVNT n40 2437MHz Ant1



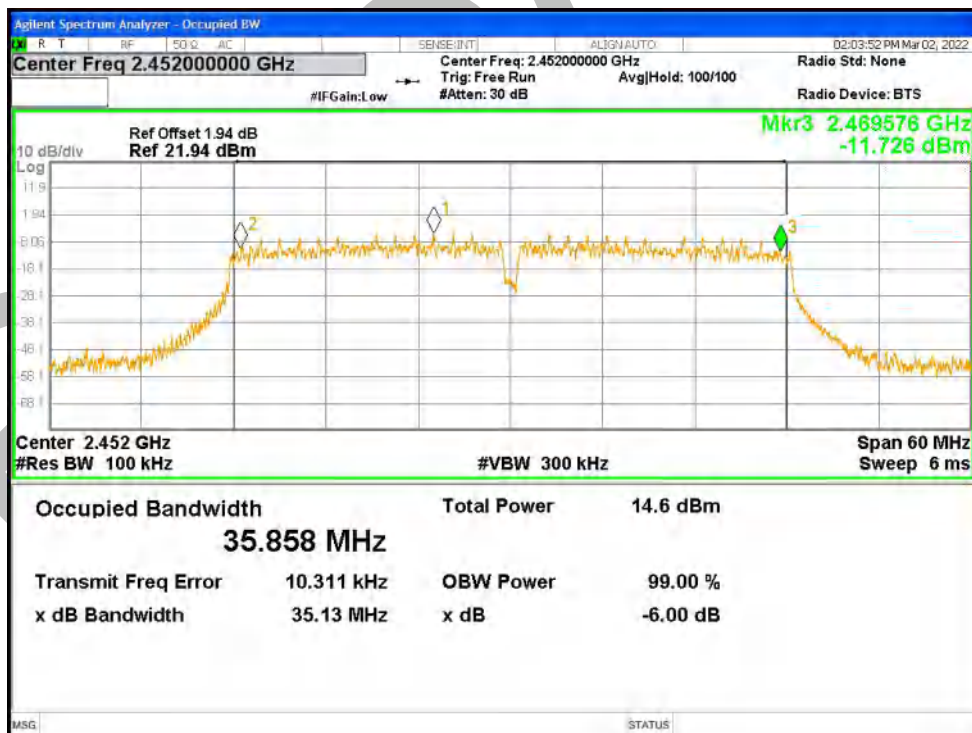
-6dB Bandwidth NVNT n40 2437MHz Ant2



-6dB Bandwidth NVNT n40 2452MHz Ant1



-6dB Bandwidth NVNT n40 2452MHz Ant2



19.3 OCCUPIED CHANNEL BANDWIDTH

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	14.47616411
NVNT	b	2437	Ant1	14.41905744
NVNT	b	2462	Ant1	14.23950127
NVNT	b	2412	Ant2	14.38824348
NVNT	b	2437	Ant2	14.52445913
NVNT	b	2462	Ant2	14.38918705
NVNT	g	2412	Ant1	16.36994255
NVNT	g	2437	Ant1	16.37411525
NVNT	g	2462	Ant1	16.4070989
NVNT	g	2412	Ant2	16.37265876
NVNT	g	2437	Ant2	16.37033725
NVNT	g	2462	Ant2	16.46981861
NVNT	n20	2412	Ant1	17.57019948
NVNT	n20	2412	Ant2	17.55685586
NVNT	n20	2437	Ant1	17.4949056
NVNT	n20	2437	Ant2	17.52244004
NVNT	n20	2462	Ant1	17.51971935
NVNT	n20	2462	Ant2	17.55708074
NVNT	n40	2422	Ant1	36.08360469
NVNT	n40	2422	Ant2	36.10091963
NVNT	n40	2437	Ant1	35.97758194
NVNT	n40	2437	Ant2	36.00564717
NVNT	n40	2452	Ant1	36.01540556
NVNT	n40	2452	Ant2	36.01081998

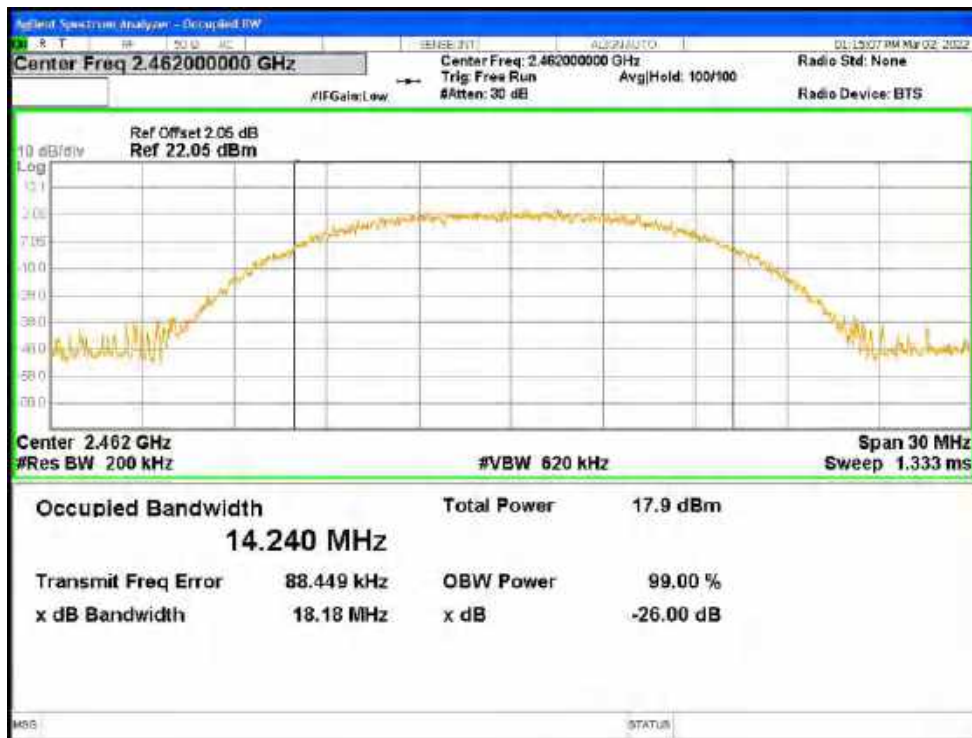
OBW NVNT b 2412MHz Ant1



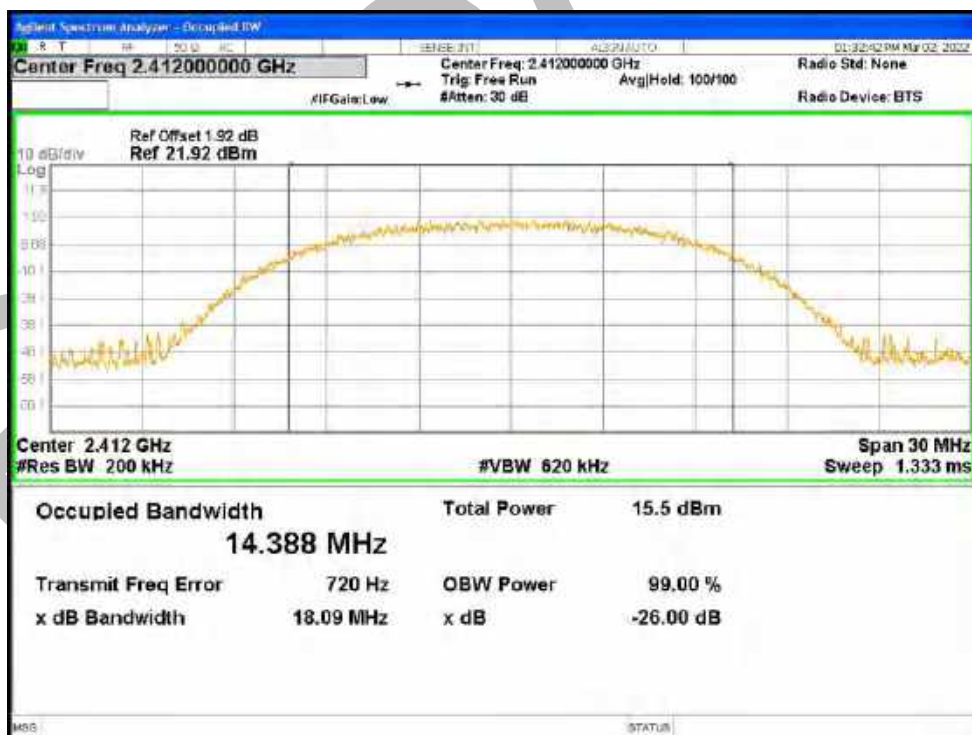
OBW NVNT b 2437MHz Ant1



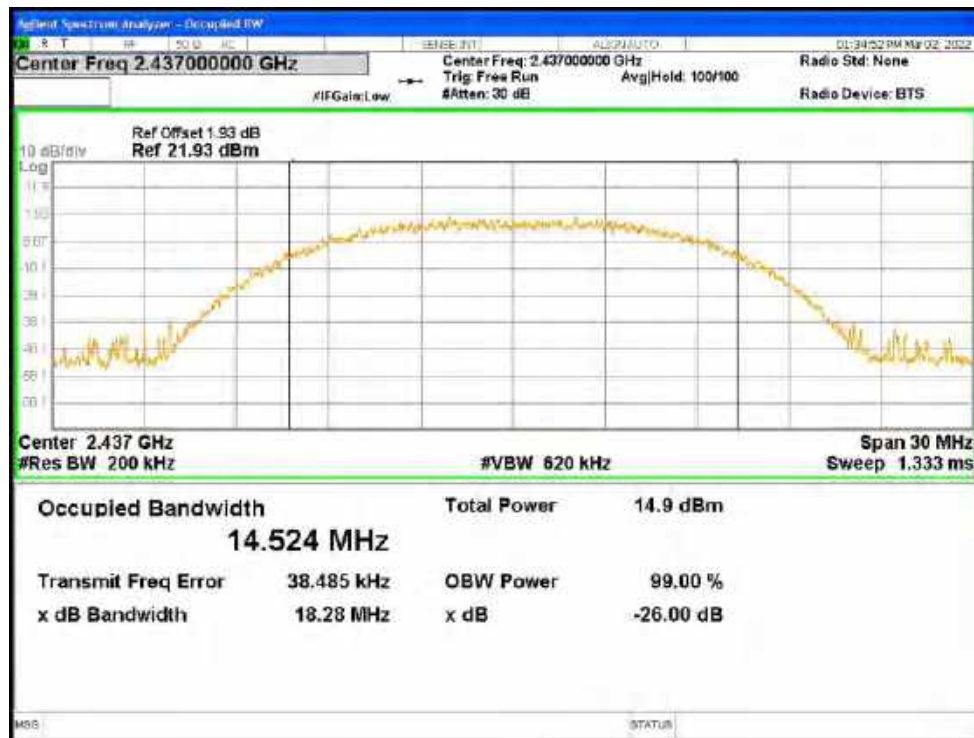
OBW NVNT b 2462MHz Ant1



OBW NVNT b 2412MHz Ant2



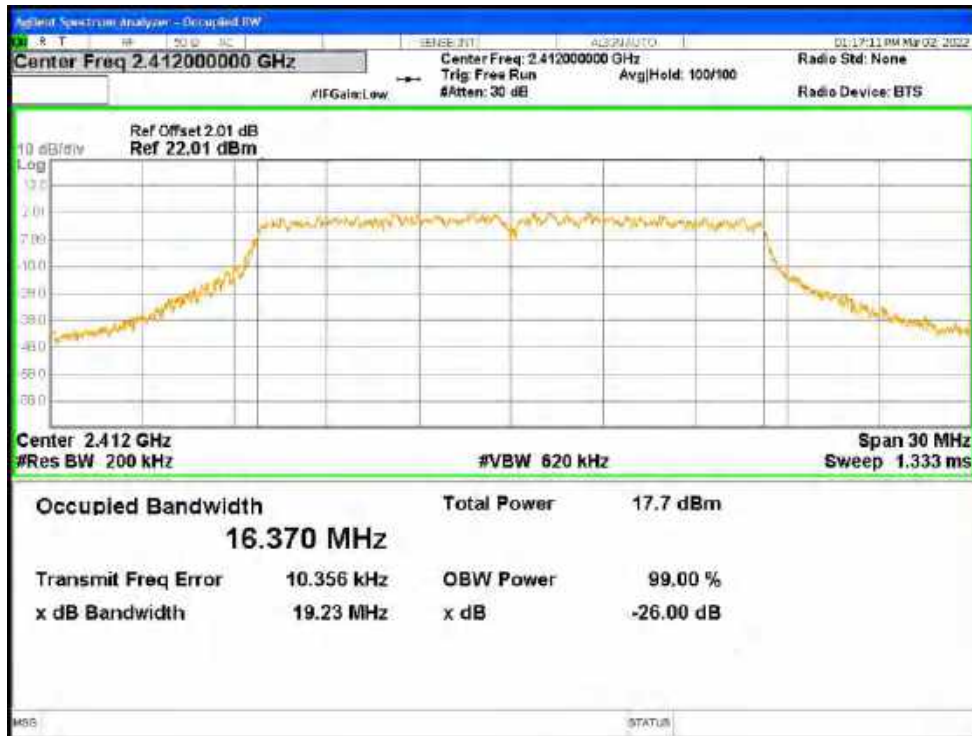
OBW NVNT b 2437MHz Ant2



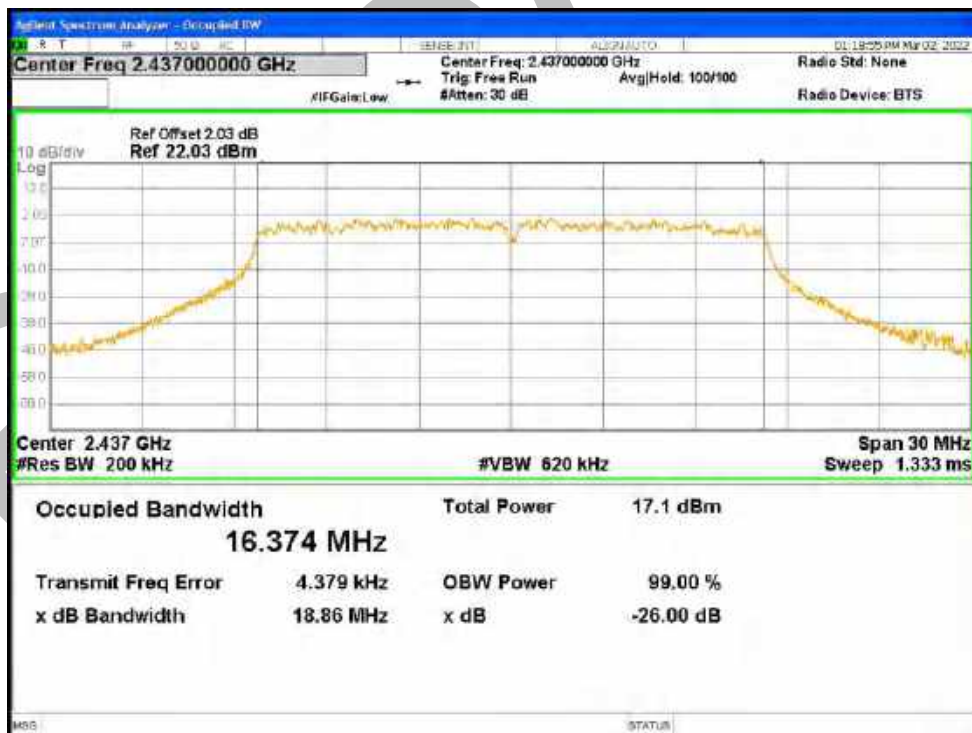
OBW NVNT b 2462MHz Ant2



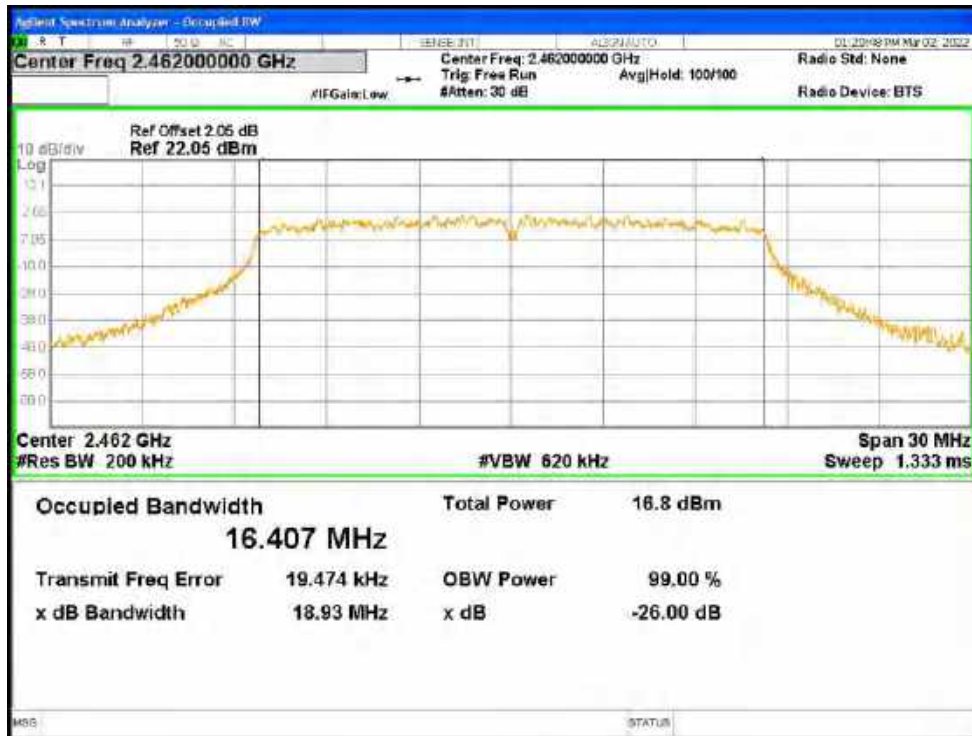
OBW NVNT g 2412MHz Ant1



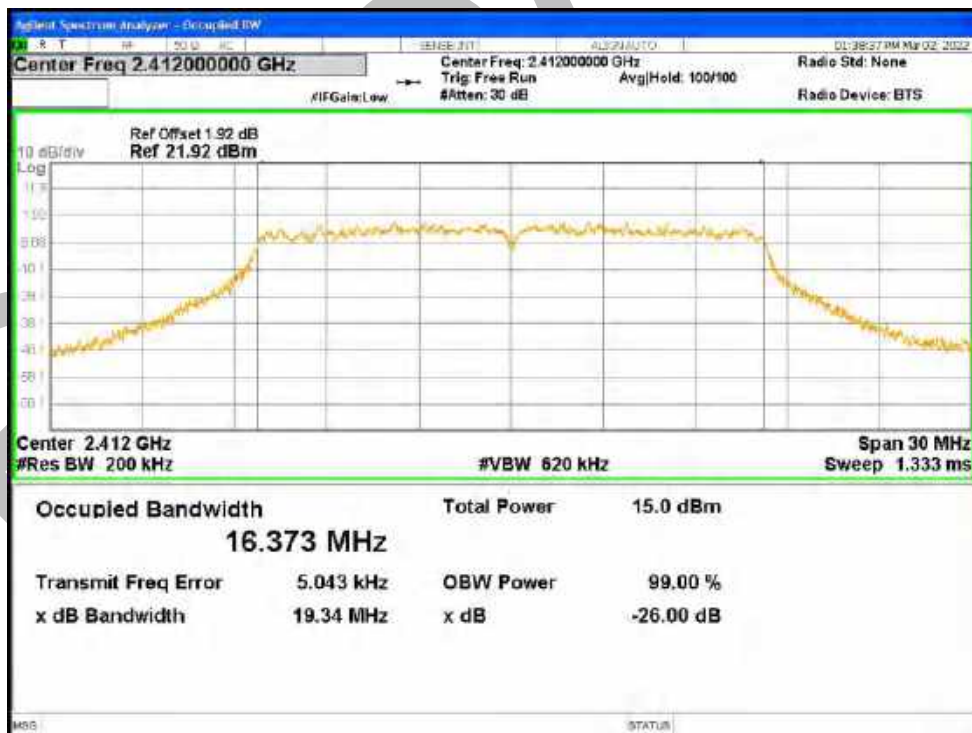
OBW NVNT g 2437MHz Ant1



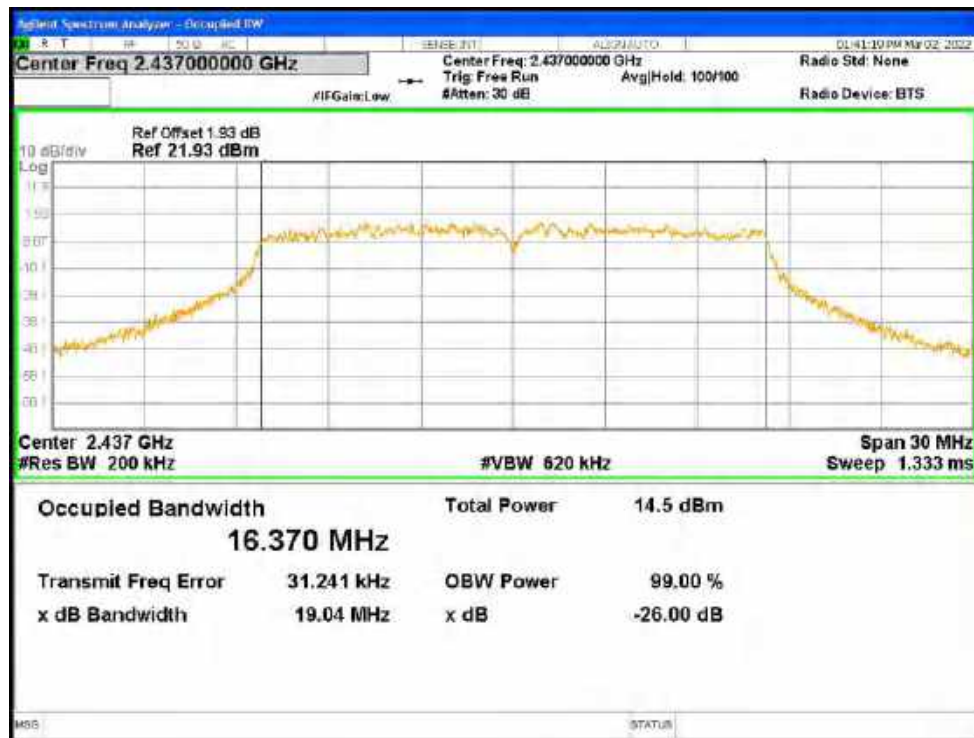
OBW NVNT g 2462MHz Ant1



OBW NVNT g 2412MHz Ant2



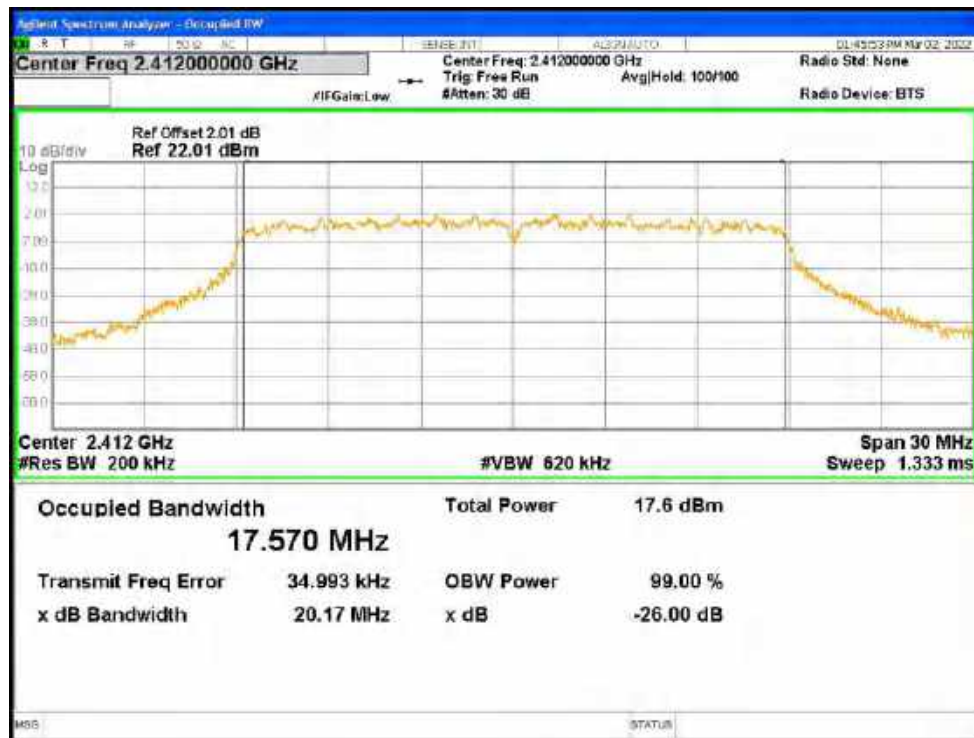
OBW NVNT g 2437MHz Ant2



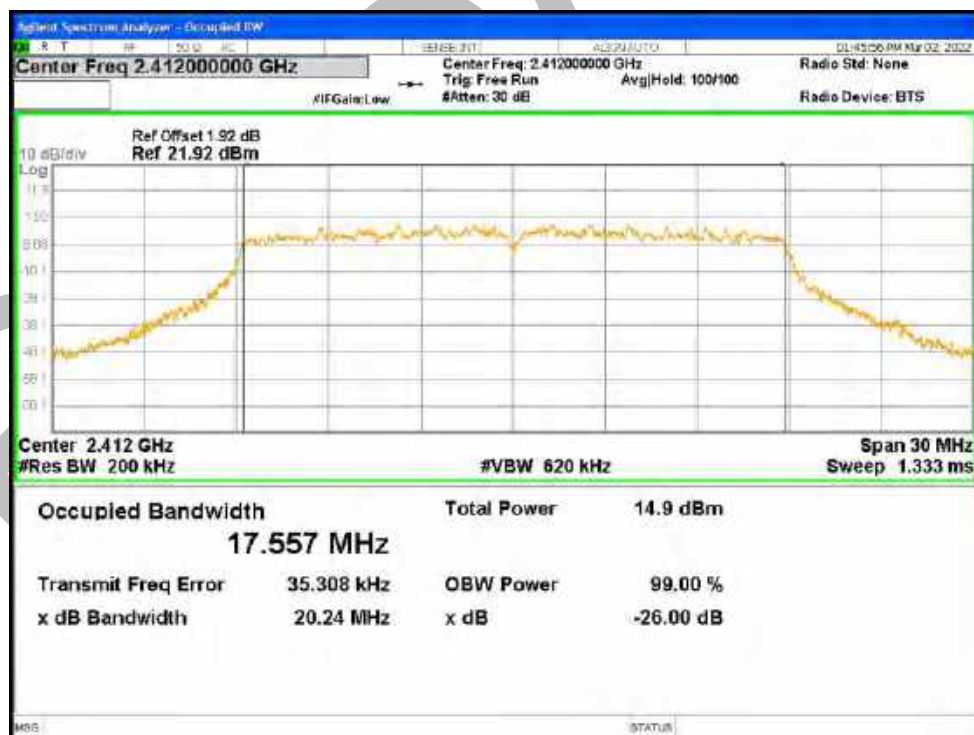
OBW NVNT g 2462MHz Ant2



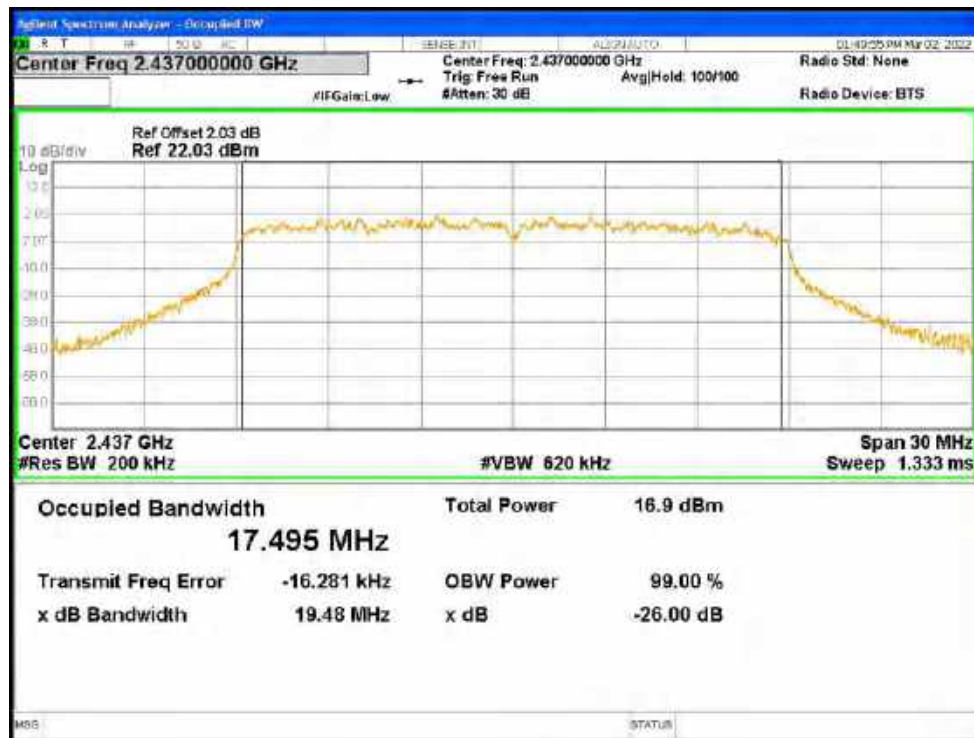
OBW NVNT n20 2412MHz Ant1



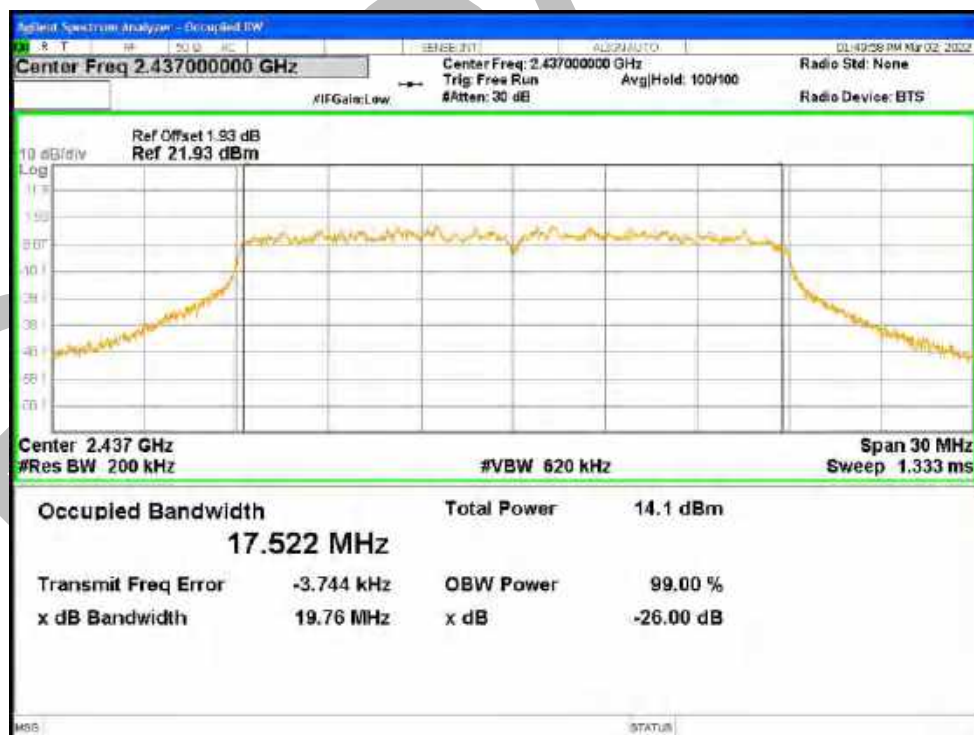
OBW NVNT n20 2412MHz Ant2



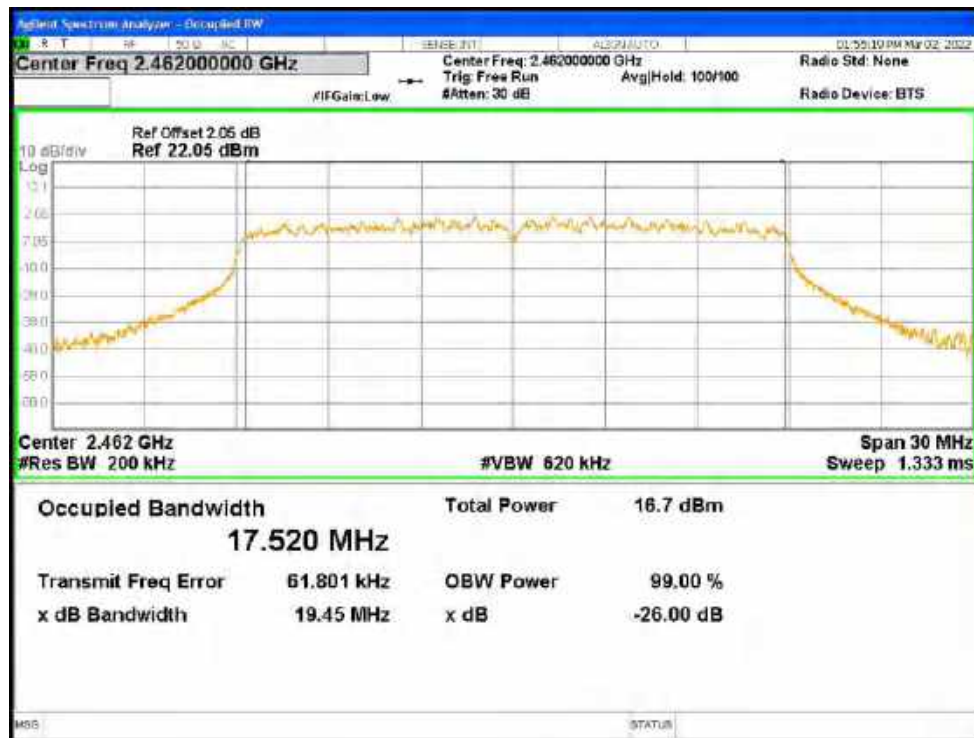
OBW NVNT n20 2437MHz Ant1



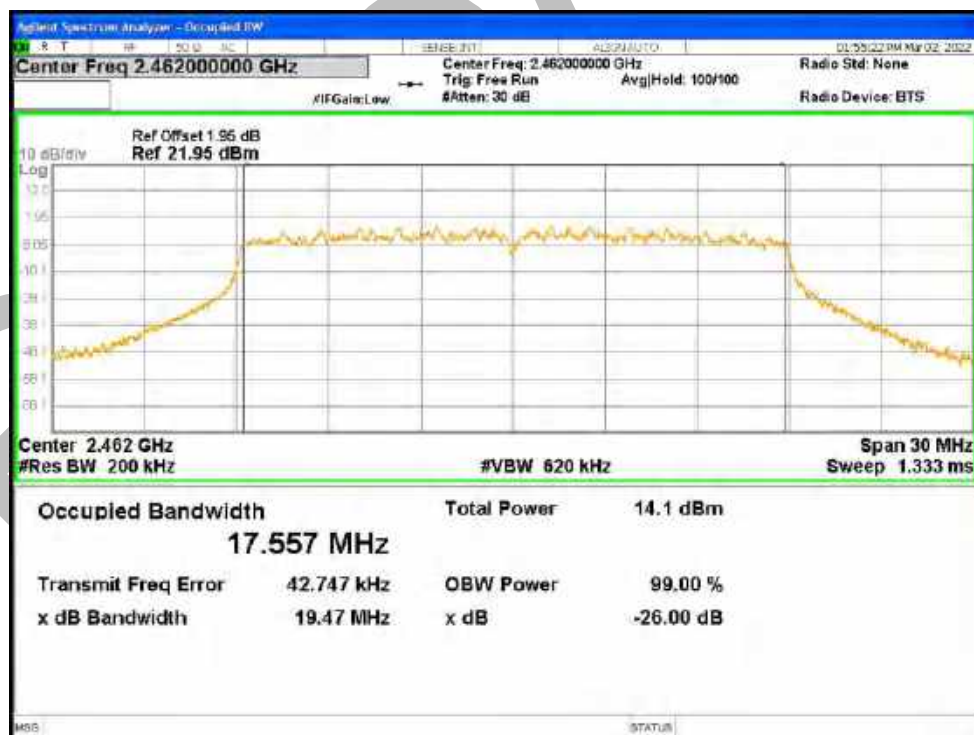
OBW NVNT n20 2437MHz Ant2



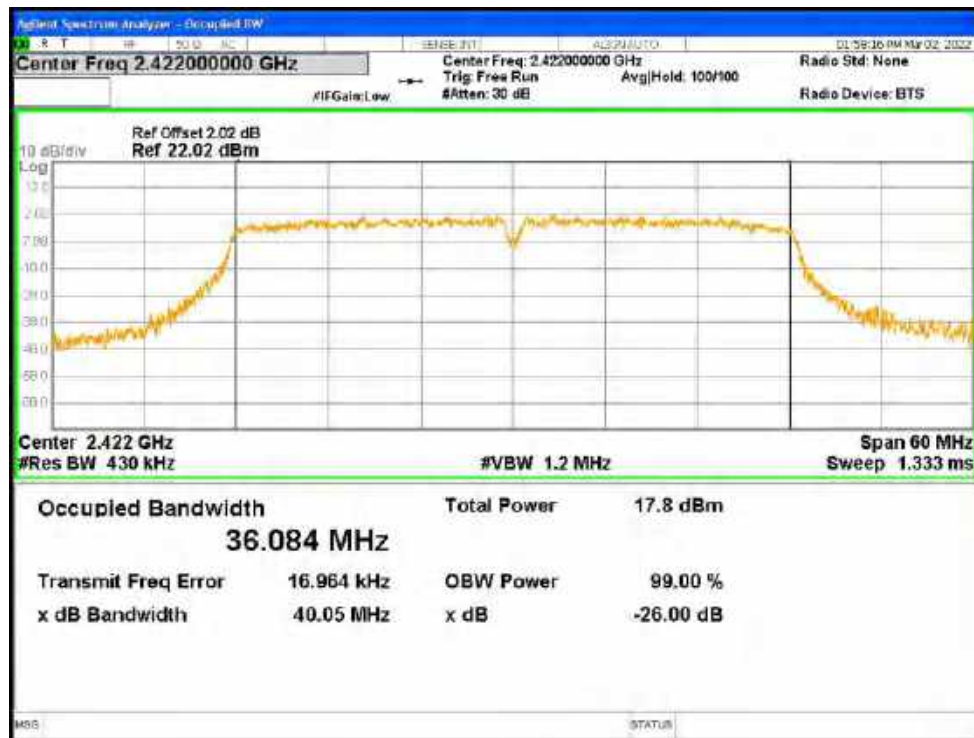
OBW NVNT n20 2462MHz Ant1



OBW NVNT n20 2462MHz Ant2



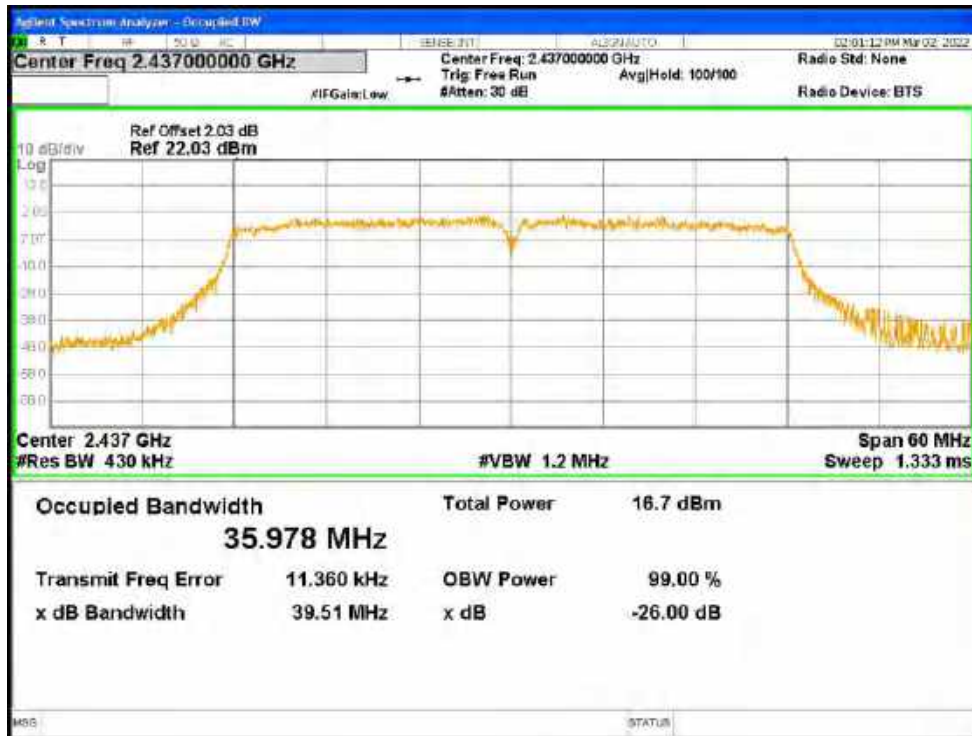
OBW NVNT n40 2422MHz Ant1



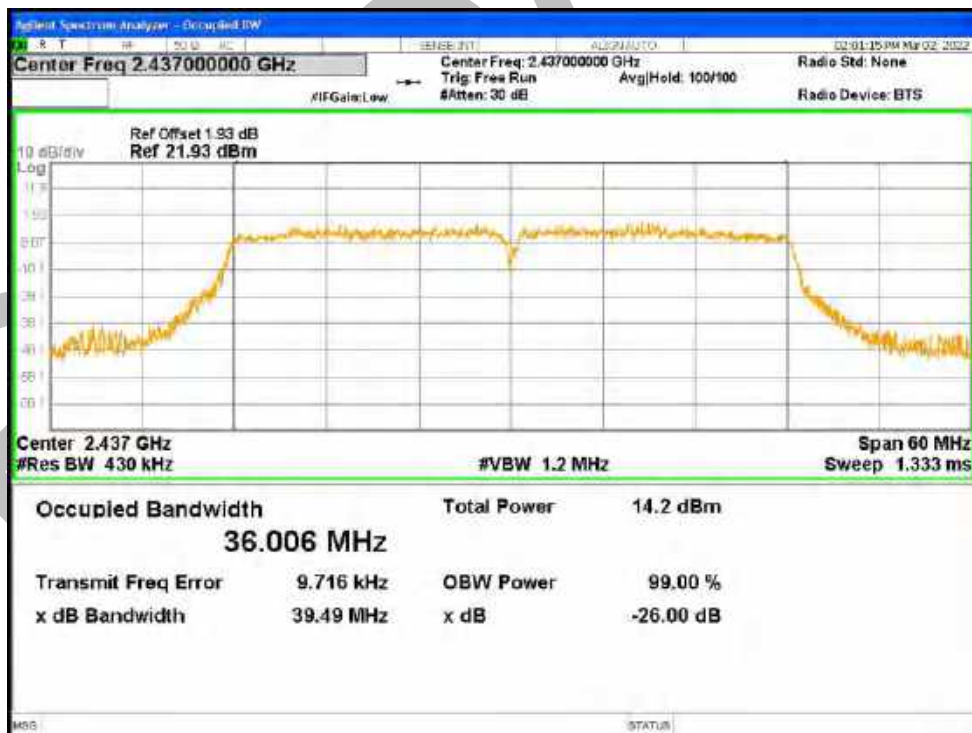
OBW NVNT n40 2422MHz Ant2



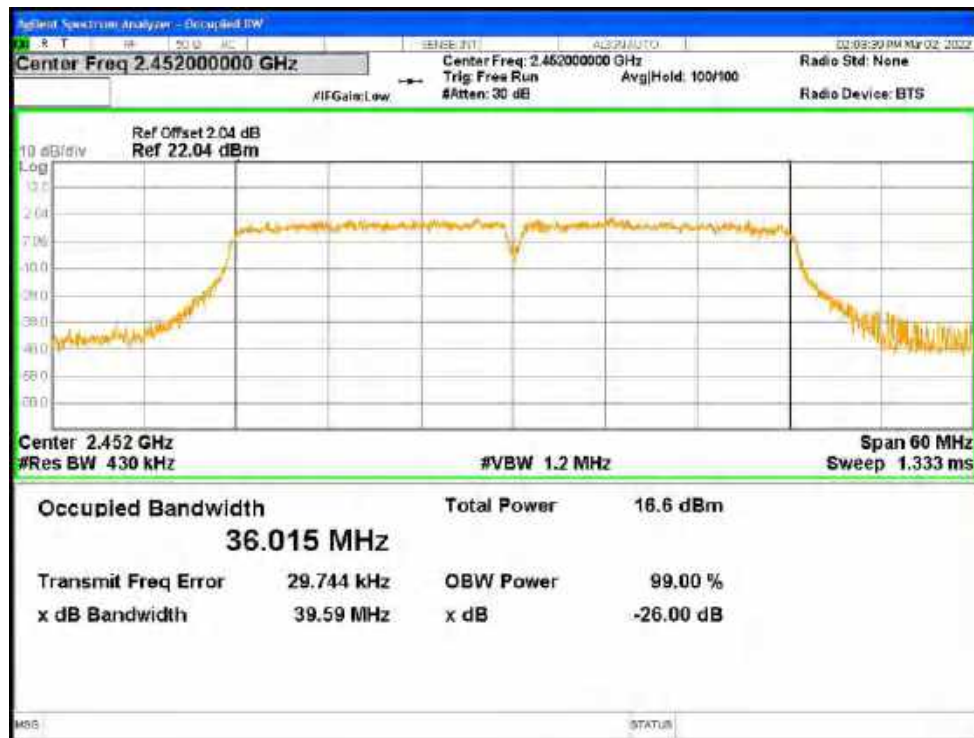
OBW NVNT n40 2437MHz Ant1



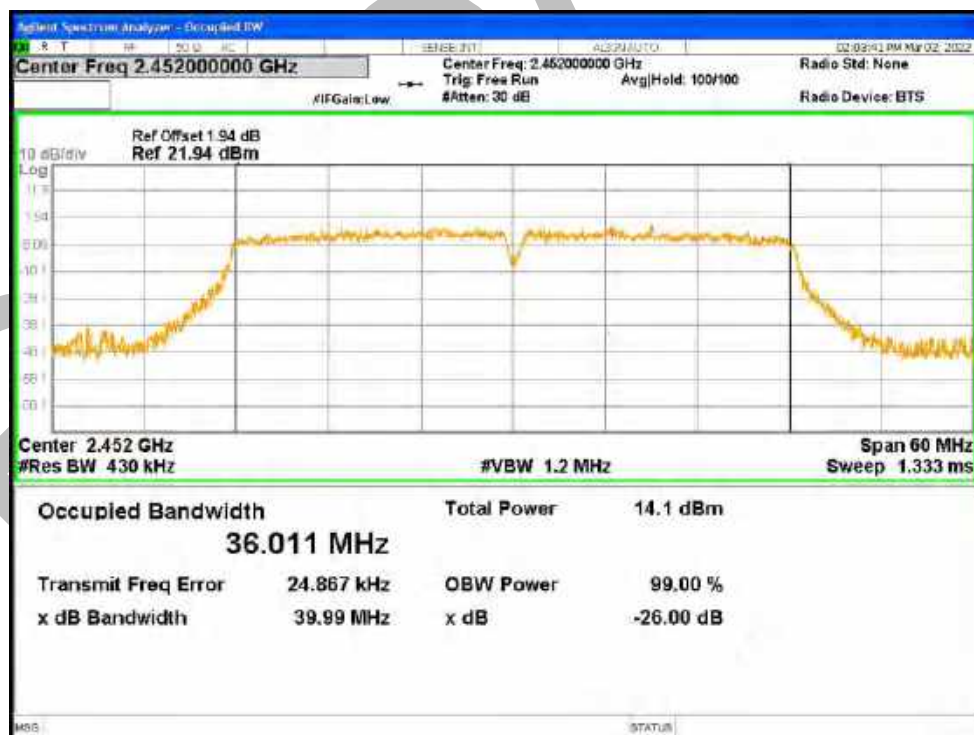
OBW NVNT n40 2437MHz Ant2



OBW NVNT n40 2452MHz Ant1



OBW NVNT n40 2452MHz Ant2



19.4 MAXIMUM POWER SPECTRAL DENSITY LEVEL

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	2.413	8	Pass
NVNT	b	2437	Ant1	2.135	8	Pass
NVNT	b	2462	Ant1	1.201	8	Pass
NVNT	b	2412	Ant2	-0.329	8	Pass
NVNT	b	2437	Ant2	-1.299	8	Pass
NVNT	b	2462	Ant2	-1.261	8	Pass
NVNT	g	2412	Ant1	1.019	8	Pass
NVNT	g	2437	Ant1	0.442	8	Pass
NVNT	g	2462	Ant1	0.447	8	Pass
NVNT	g	2412	Ant2	-1.382	8	Pass
NVNT	g	2437	Ant2	-2.985	8	Pass
NVNT	g	2462	Ant2	-2.412	8	Pass
NVNT	n20	2412	Ant1	1.336	8	Pass
NVNT	n20	2412	Ant2	-1.482	8	Pass
NVNT	n20	2412	Sum	3.162	8	Pass
NVNT	n20	2437	Ant1	0.788	8	Pass
NVNT	n20	2437	Ant2	-2.06	8	Pass
NVNT	n20	2437	Sum	2.604	8	Pass
NVNT	n20	2462	Ant1	0.073	8	Pass
NVNT	n20	2462	Ant2	-2.396	8	Pass
NVNT	n20	2462	Sum	2.022	8	Pass
NVNT	n40	2422	Ant1	-1.242	8	Pass
NVNT	n40	2422	Ant2	-4.238	8	Pass
NVNT	n40	2422	Sum	0.524	8	Pass
NVNT	n40	2437	Ant1	-2.081	8	Pass
NVNT	n40	2437	Ant2	-4.95	8	Pass
NVNT	n40	2437	Sum	-0.272	8	Pass
NVNT	n40	2452	Ant1	-2.696	8	Pass
NVNT	n40	2452	Ant2	-4.702	8	Pass
NVNT	n40	2452	Sum	-0.574	8	Pass

PSD NVNT b 2412MHz Ant1



PSD NVNT b 2437MHz Ant1



PSD NVNT b 2462MHz Ant1



PSD NVNT b 2412MHz Ant2



PSD NVNT b 2437MHz Ant2



PSD NVNT b 2462MHz Ant2



PSD NVNT g 2412MHz Ant1



PSD NVNT g 2437MHz Ant1



PSD NVNT g 2462MHz Ant1



PSD NVNT g 2412MHz Ant2



PSD NVNT g 2437MHz Ant2



PSD NVNT g 2462MHz Ant2



PSD NVNT n20 2412MHz Ant1



PSD NVNT n20 2412MHz Ant2



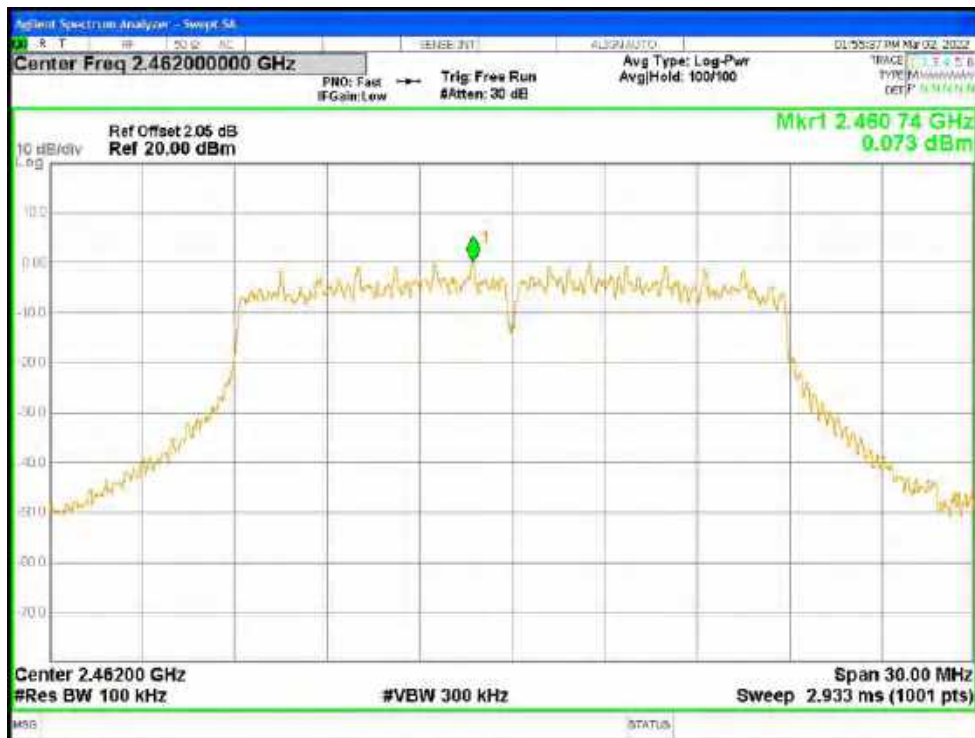
PSD NVNT n20 2437MHz Ant1



PSD NVNT n20 2437MHz Ant2



PSD NVNT n20 2462MHz Ant1



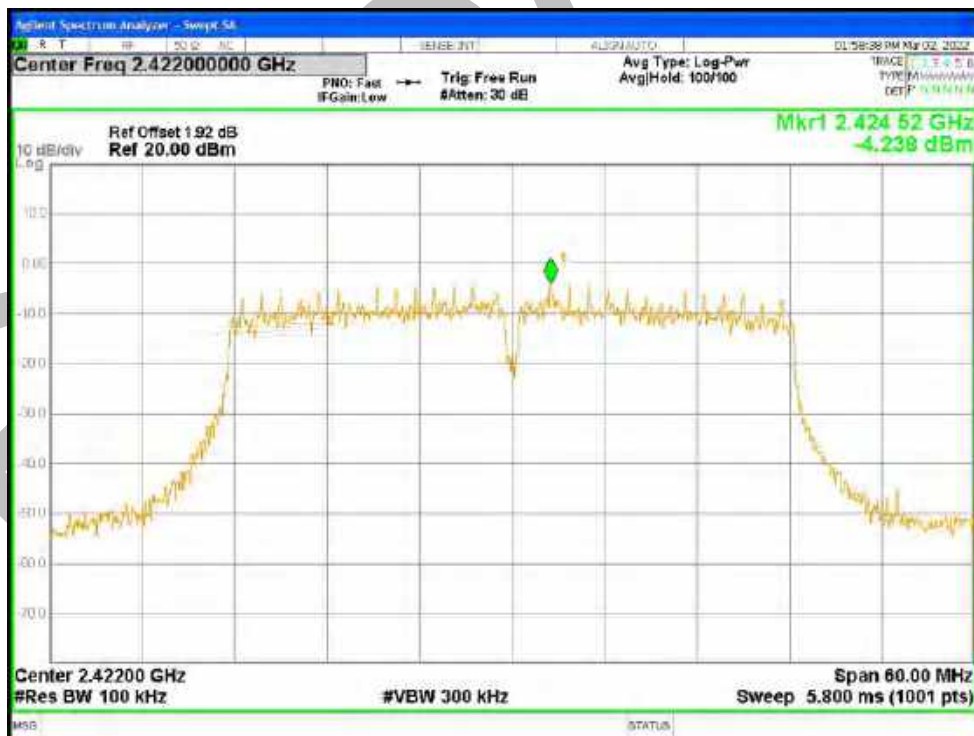
PSD NVNT n20 2462MHz Ant2



PSD NVNT n40 2422MHz Ant1



PSD NVNT n40 2422MHz Ant2



PSD NVNT n40 2437MHz Ant1



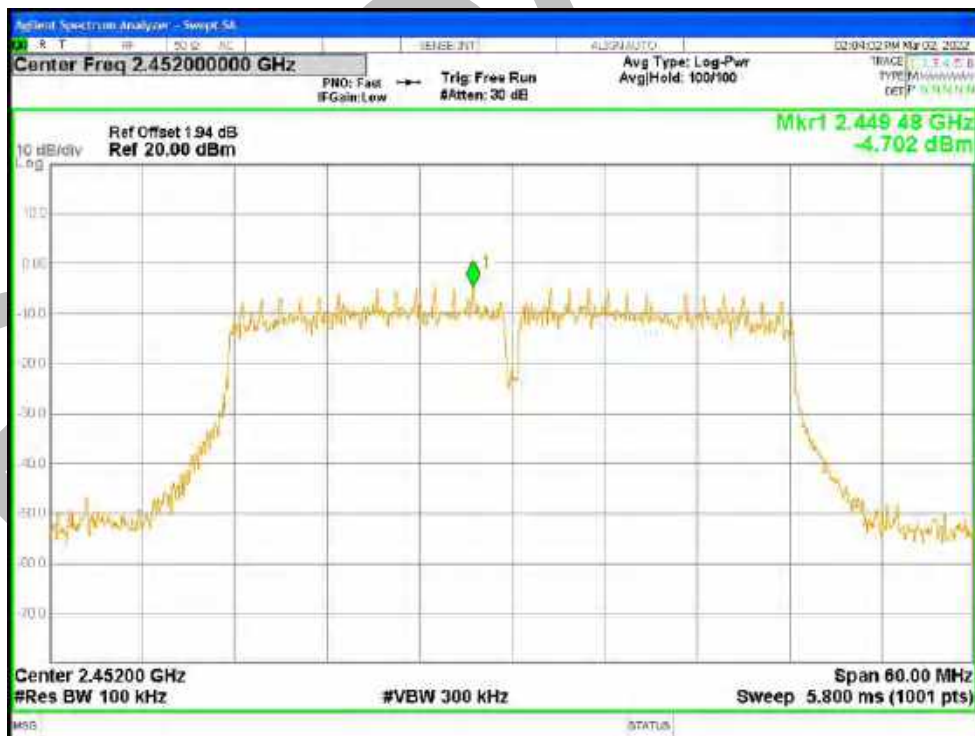
PSD NVNT n40 2437MHz Ant2



PSD NVNT n40 2452MHz Ant1



PSD NVNT n40 2452MHz Ant2



19.5 BAND EDGE

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-52.58	-30	Pass
NVNT	b	2462	Ant1	-54.3	-30	Pass
NVNT	b	2412	Ant2	-52.3	-30	Pass
NVNT	b	2462	Ant2	-52.54	-30	Pass
NVNT	g	2412	Ant1	-53.28	-30	Pass
NVNT	g	2462	Ant1	-51.89	-30	Pass
NVNT	g	2412	Ant2	-52.57	-30	Pass
NVNT	g	2462	Ant2	-51.72	-30	Pass
NVNT	n20	2412	Ant1	-52.89	-30	Pass
NVNT	n20	2412	Ant2	-53.02	-30	Pass
NVNT	n20	2462	Ant1	-53.3	-30	Pass
NVNT	n20	2462	Ant2	-51.38	-30	Pass
NVNT	n40	2422	Ant1	-44.98	-30	Pass
NVNT	n40	2422	Ant2	-45.03	-30	Pass
NVNT	n40	2452	Ant1	-47.44	-30	Pass
NVNT	n40	2452	Ant2	-45.34	-30	Pass

Band Edge NVNT b 2412MHz Ant1 Ref



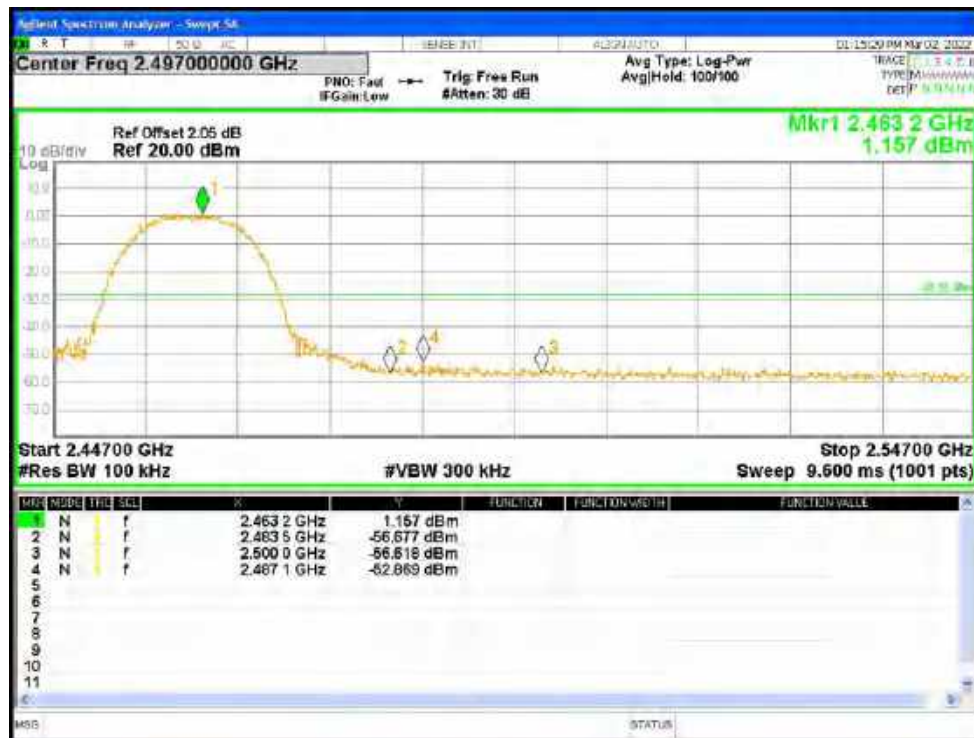
Band Edge NVNT b 2412MHz Ant1 Emission



Band Edge NVNT b 2462MHz Ant1 Ref



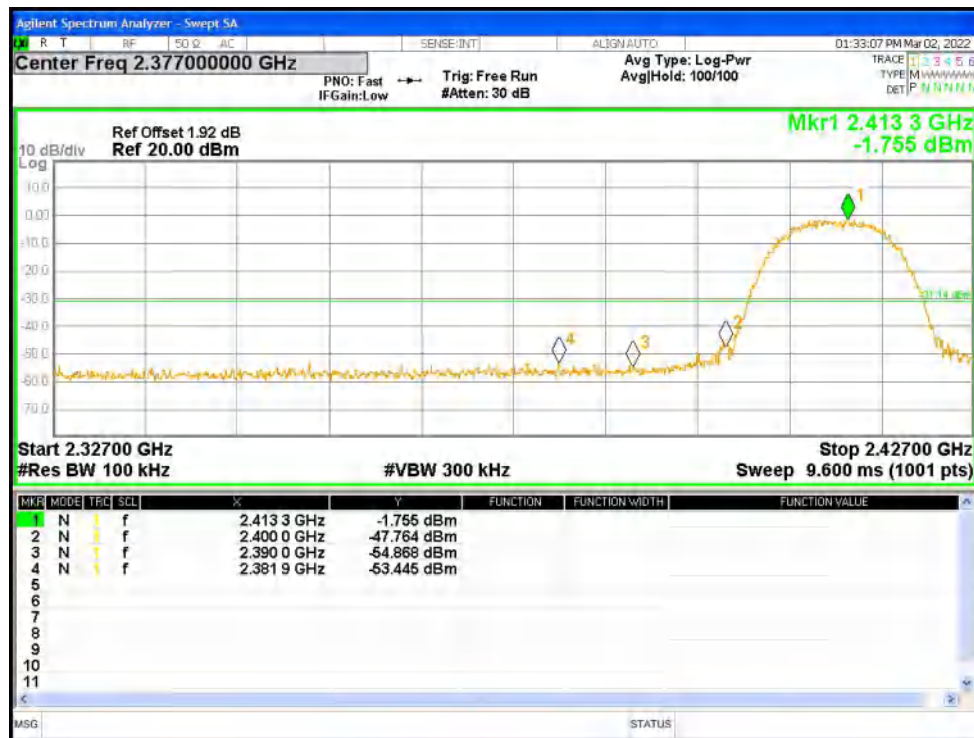
Band Edge NVNT b 2462MHz Ant1 Emission



Band Edge NVNT b 2412MHz Ant2 Ref



Band Edge NVNT b 2412MHz Ant2 Emission



Band Edge NVNT b 2462MHz Ant2 Ref



Band Edge NVNT b 2462MHz Ant2 Emission



Band Edge NVNT g 2412MHz Ant1 Ref



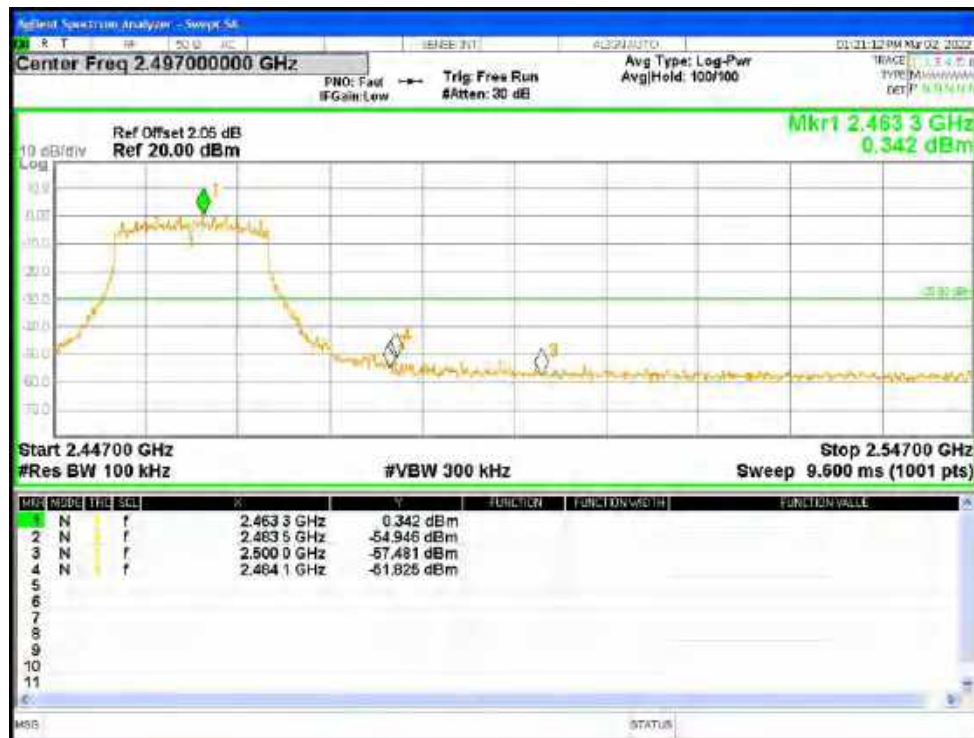
Band Edge NVNT g 2412MHz Ant1 Emission



Band Edge NVNT g 2462MHz Ant1 Ref



Band Edge NVNT g 2462MHz Ant1 Emission



Band Edge NVNT g 2412MHz Ant2 Ref



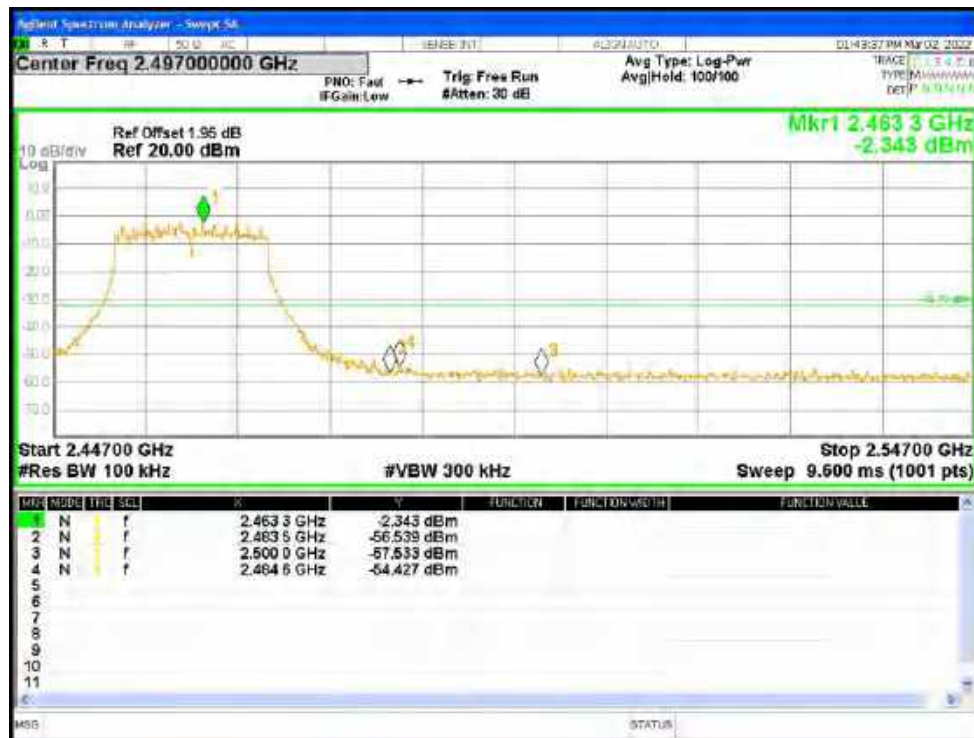
Band Edge NVNT g 2412MHz Ant2 Emission



Band Edge NVNT g 2462MHz Ant2 Ref



Band Edge NVNT g 2462MHz Ant2 Emission



Band Edge NVNT n20 2412MHz Ant1 Ref



Band Edge NVNT n20 2412MHz Ant1 Emission



Band Edge NVNT n20 2412MHz Ant2 Ref



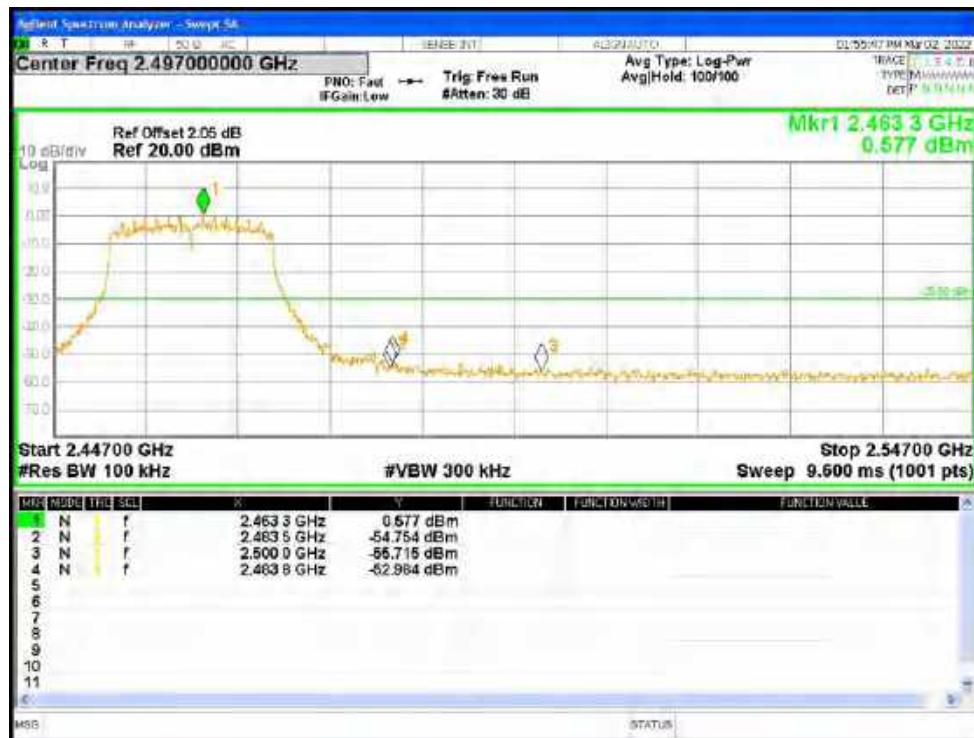
Band Edge NVNT n20 2412MHz Ant2 Emission



Band Edge NVNT n20 2462MHz Ant1 Ref



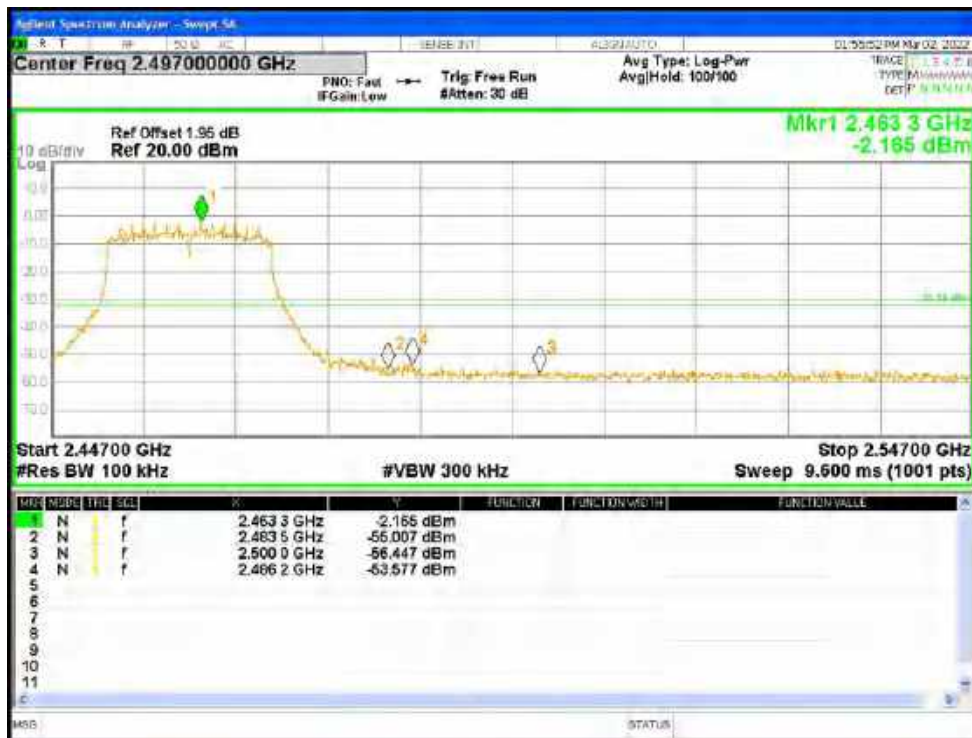
Band Edge NVNT n20 2462MHz Ant1 Emission



Band Edge NVNT n20 2462MHz Ant2 Ref



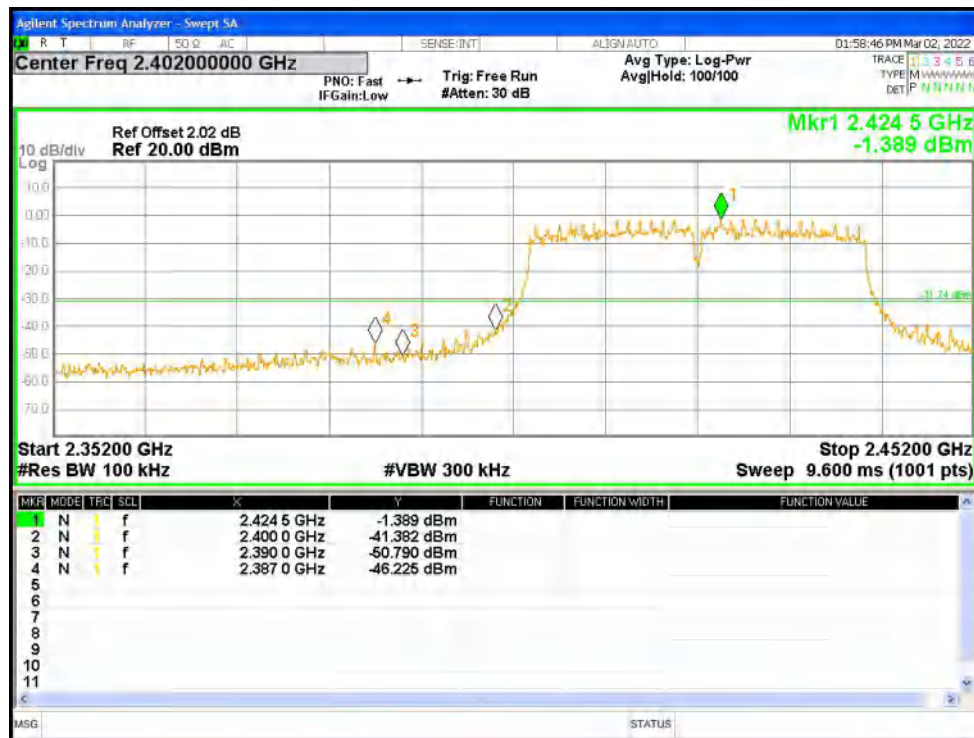
Band Edge NVNT n20 2462MHz Ant2 Emission



Band Edge NVNT n40 2422MHz Ant1 Ref



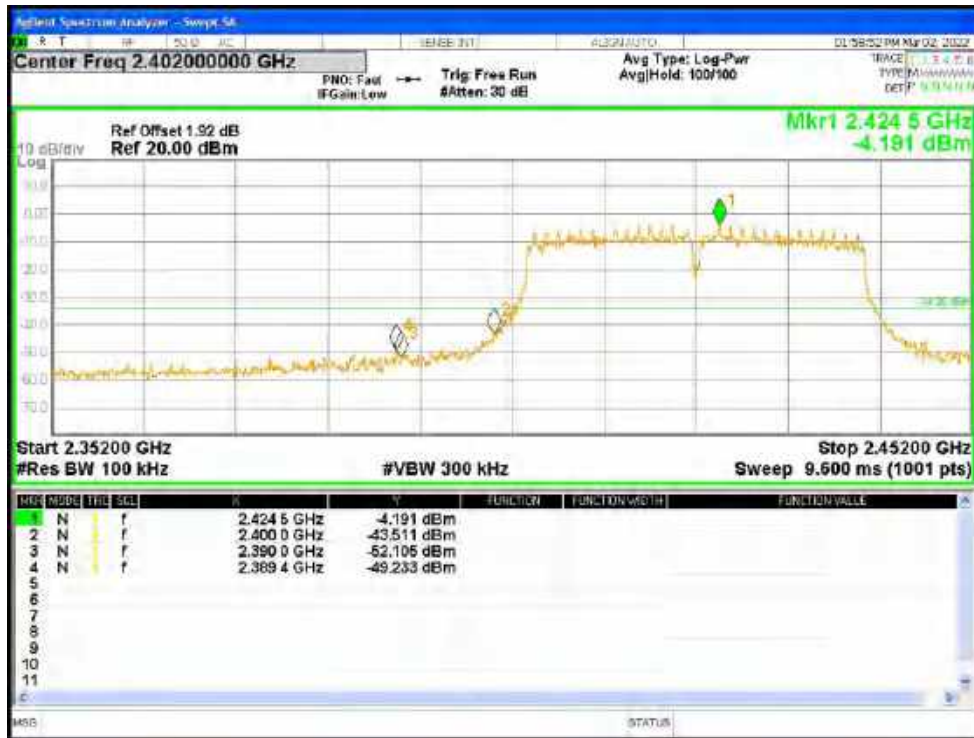
Band Edge NVNT n40 2422MHz Ant1 Emission



Band Edge NVNT n40 2422MHz Ant2 Ref



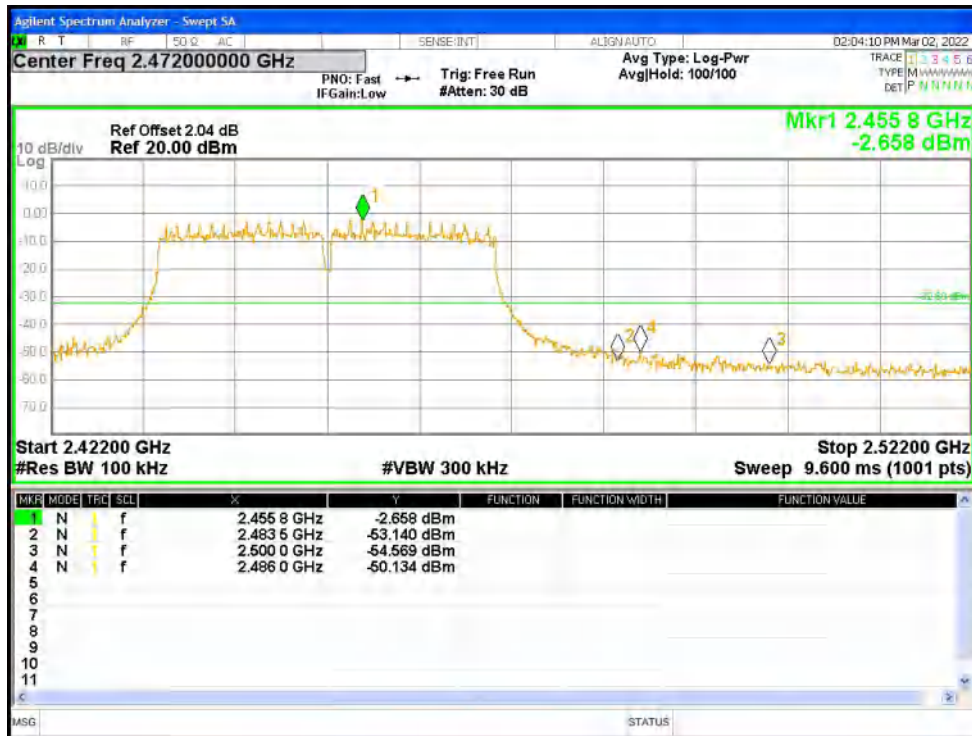
Band Edge NVNT n40 2422MHz Ant2 Emission



Band Edge NVNT n40 2452MHz Ant1 Ref



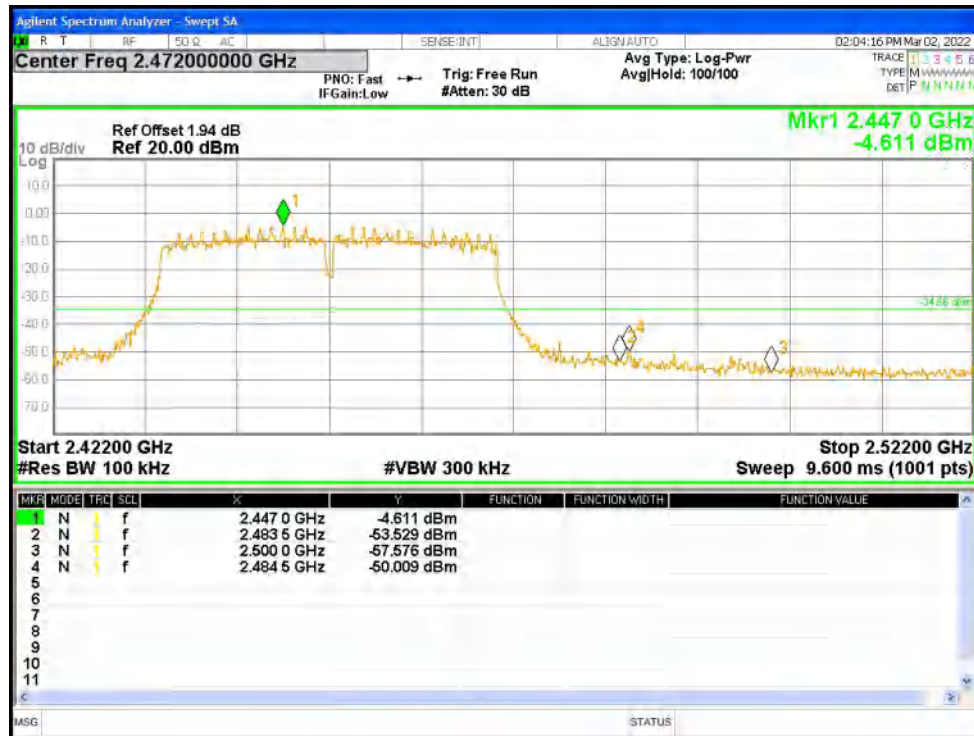
Band Edge NVNT n40 2452MHz Ant1 Emission



Band Edge NVNT n40 2452MHz Ant2 Ref



Band Edge NVNT n40 2452MHz Ant2 Emission



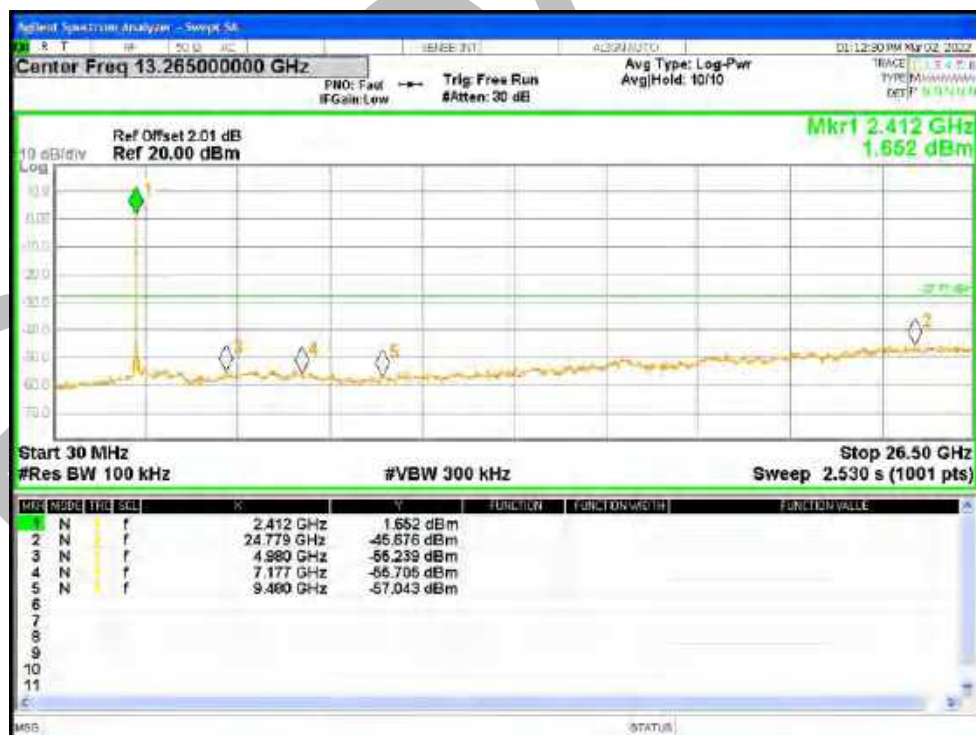
19.6 CONDUCTED RF SPURIOUS EMISSION

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-47.9	-30	Pass
NVNT	b	2437	Ant1	-46.74	-30	Pass
NVNT	b	2462	Ant1	-47.15	-30	Pass
NVNT	b	2412	Ant2	-44.05	-30	Pass
NVNT	b	2437	Ant2	-44.16	-30	Pass
NVNT	b	2462	Ant2	-42.9	-30	Pass
NVNT	g	2412	Ant1	-46.72	-30	Pass
NVNT	g	2437	Ant1	-45.96	-30	Pass
NVNT	g	2462	Ant1	-46.31	-30	Pass
NVNT	g	2412	Ant2	-44.14	-30	Pass
NVNT	g	2437	Ant2	-43.27	-30	Pass
NVNT	g	2462	Ant2	-42.9	-30	Pass
NVNT	n20	2412	Ant1	-46.41	-30	Pass
NVNT	n20	2412	Ant2	-43.78	-30	Pass
NVNT	n20	2437	Ant1	-46.48	-30	Pass
NVNT	n20	2437	Ant2	-43.1	-30	Pass
NVNT	n20	2462	Ant1	-46.26	-30	Pass
NVNT	n20	2462	Ant2	-42.16	-30	Pass
NVNT	n40	2422	Ant1	-43.92	-30	Pass
NVNT	n40	2422	Ant2	-40.69	-30	Pass
NVNT	n40	2437	Ant1	-42.96	-30	Pass
NVNT	n40	2437	Ant2	-40.37	-30	Pass
NVNT	n40	2452	Ant1	-42.9	-30	Pass
NVNT	n40	2452	Ant2	-40.64	-30	Pass

Tx. Spurious NVNT b 2412MHz Ant1 Ref



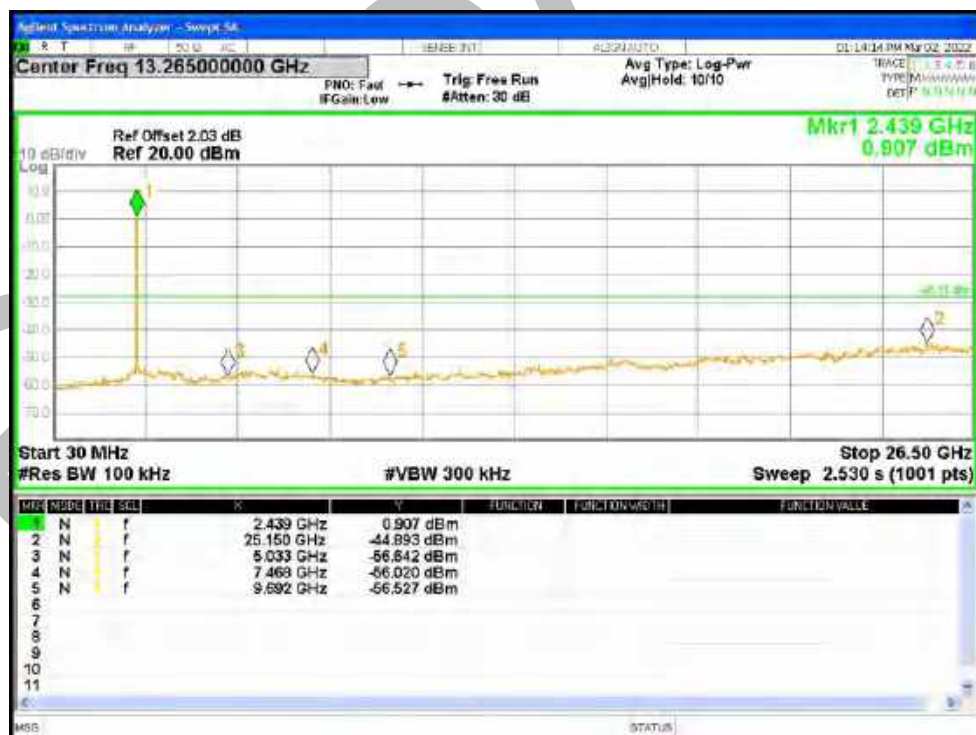
Tx. Spurious NVNT b 2412MHz Ant1 Emission



Tx. Spurious NVNT b 2437MHz Ant1 Ref



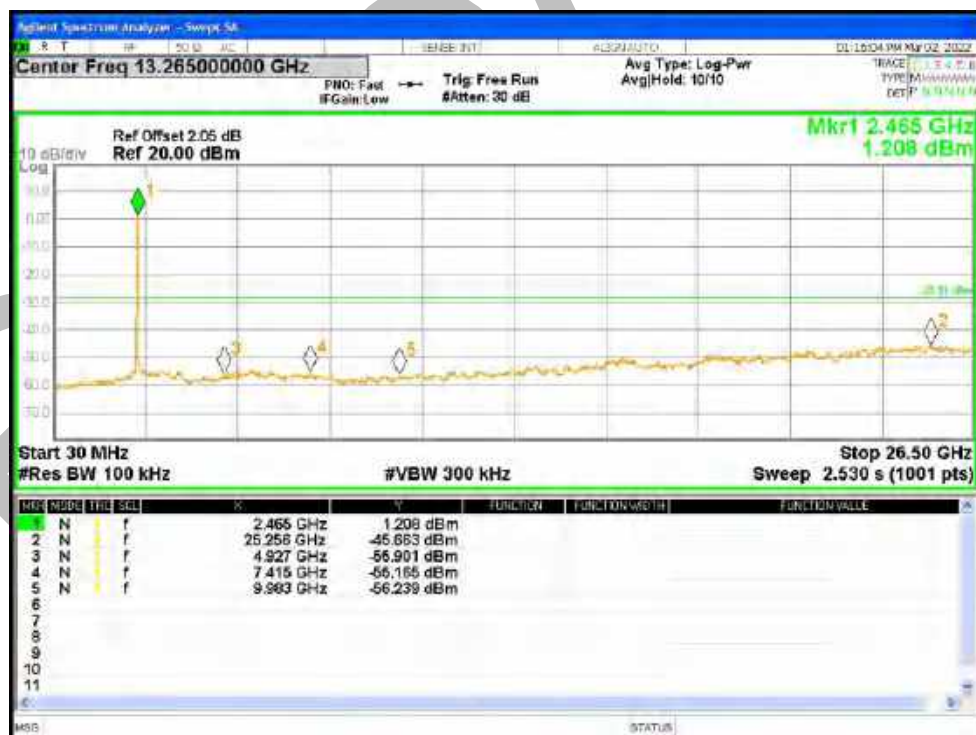
Tx. Spurious NVNT b 2437MHz Ant1 Emission



Tx. Spurious NVNT b 2462MHz Ant1 Ref



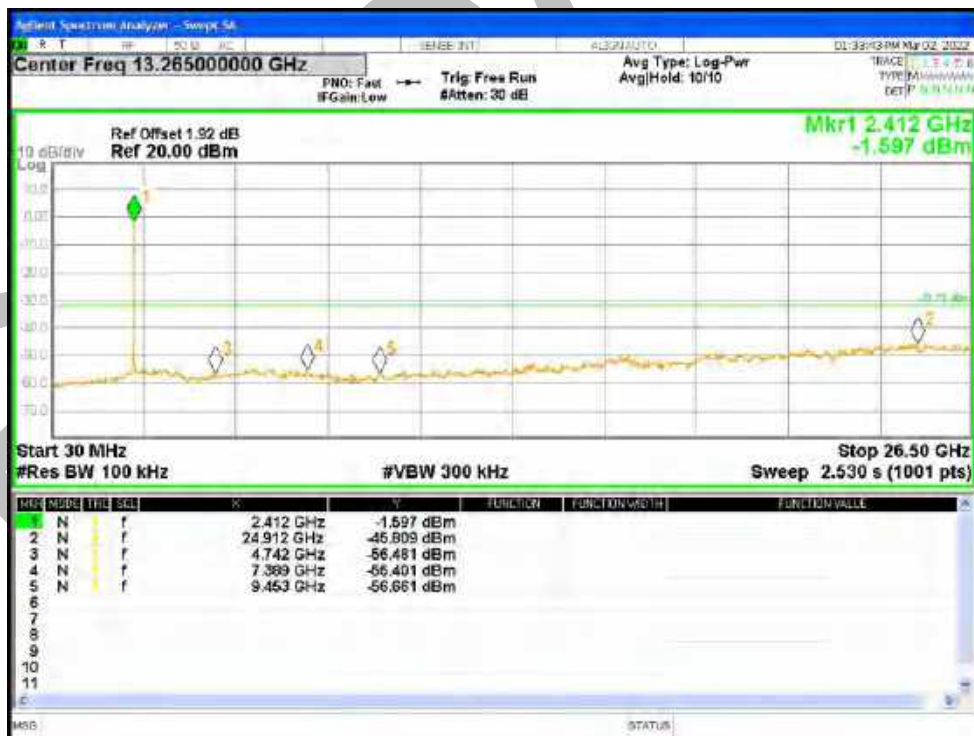
Tx. Spurious NVNT b 2462MHz Ant1 Emission



Tx. Spurious NVNT b 2412MHz Ant2 Ref



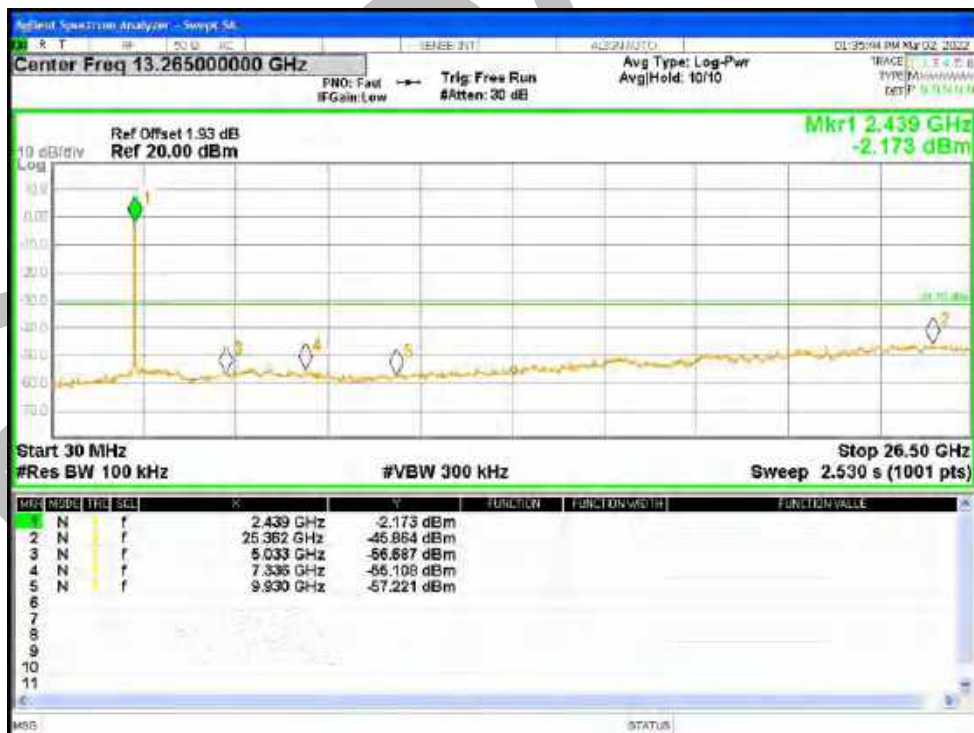
Tx. Spurious NVNT b 2412MHz Ant2 Emission



Tx. Spurious NVNT b 2437MHz Ant2 Ref



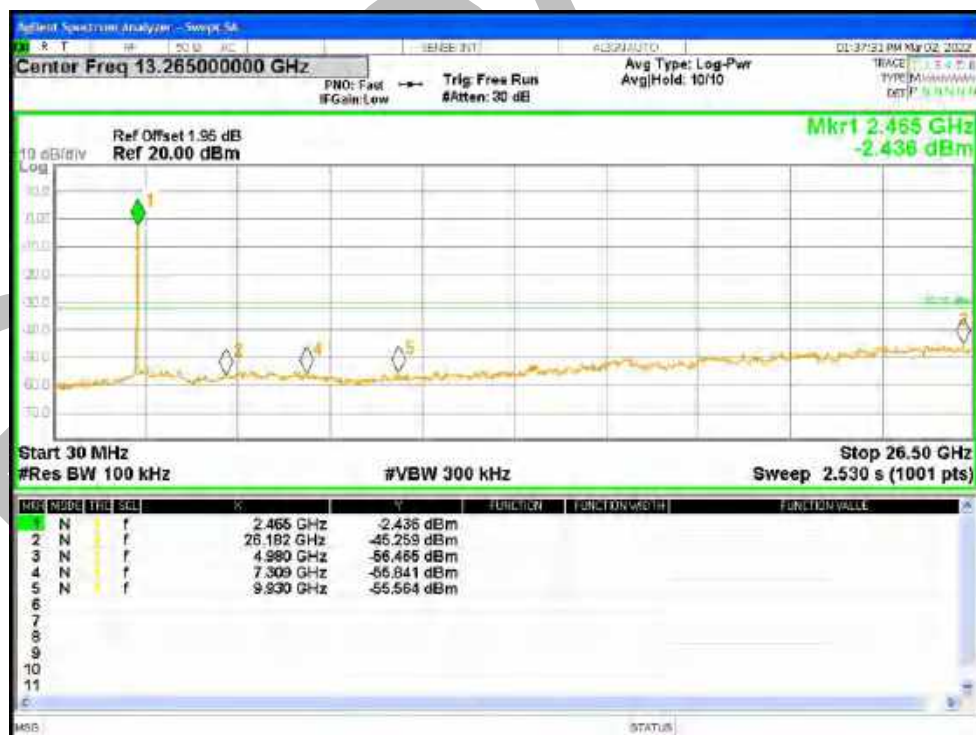
Tx. Spurious NVNT b 2437MHz Ant2 Emission



Tx. Spurious NVNT b 2462MHz Ant2 Ref



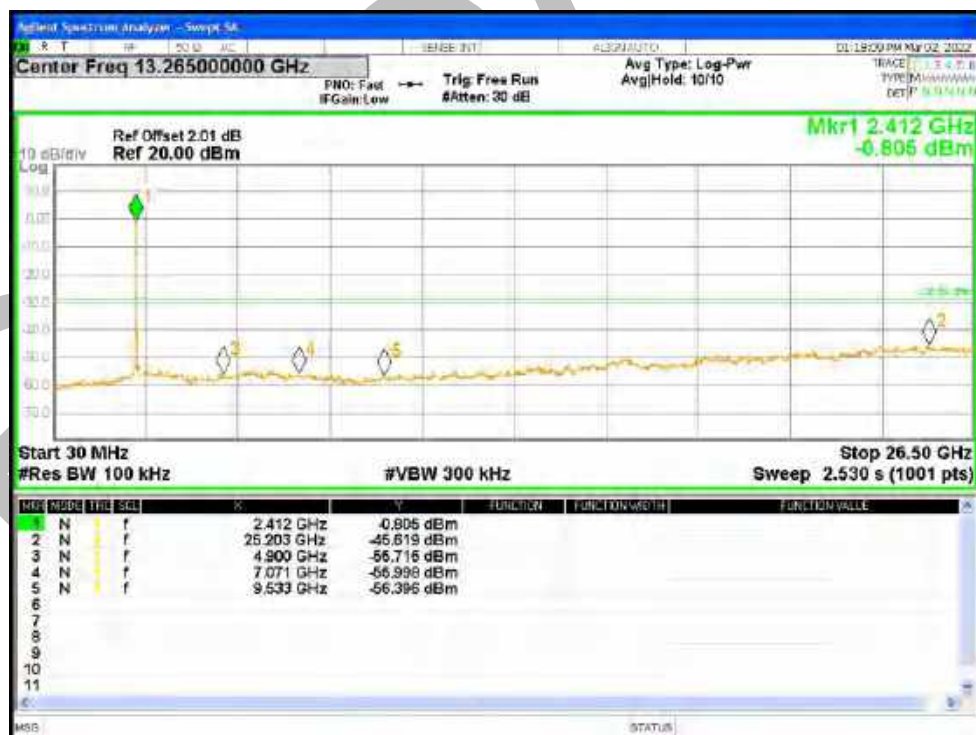
Tx. Spurious NVNT b 2462MHz Ant2 Emission



Tx. Spurious NVNT g 2412MHz Ant1 Ref



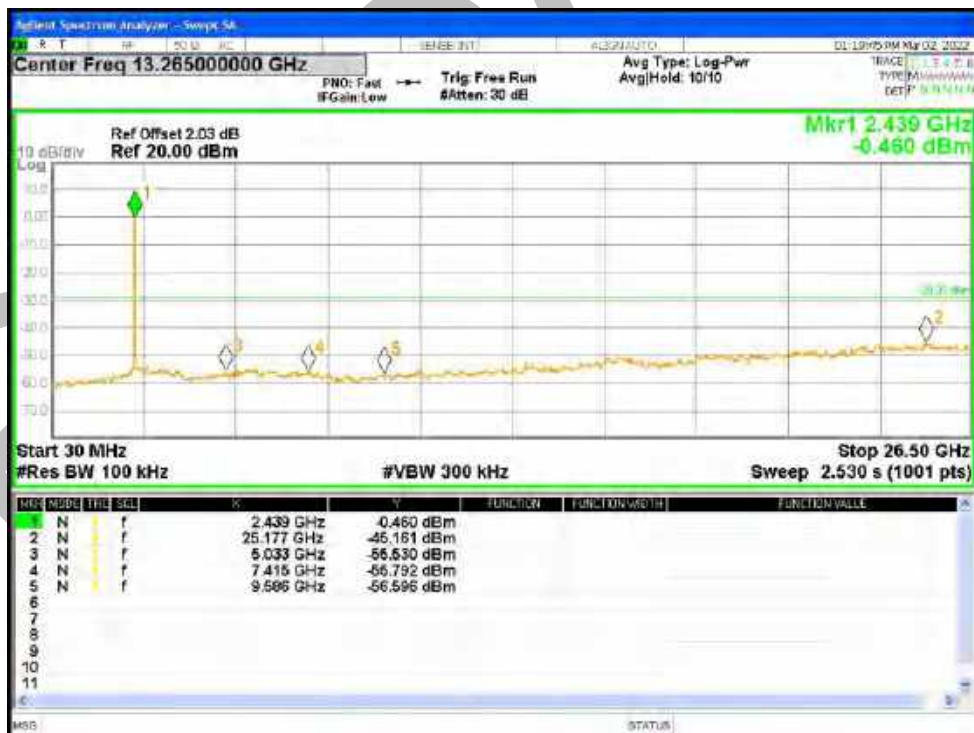
Tx. Spurious NVNT g 2412MHz Ant1 Emission



Tx. Spurious NVNT g 2437MHz Ant1 Ref



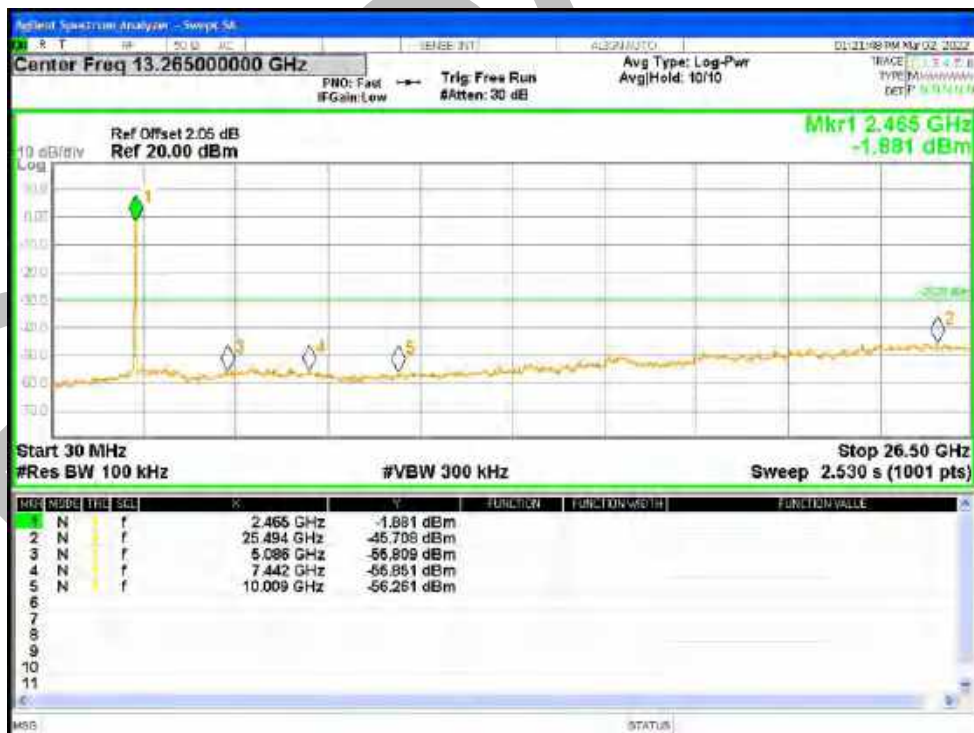
Tx. Spurious NVNT g 2437MHz Ant1 Emission



Tx. Spurious NVNT g 2462MHz Ant1 Ref



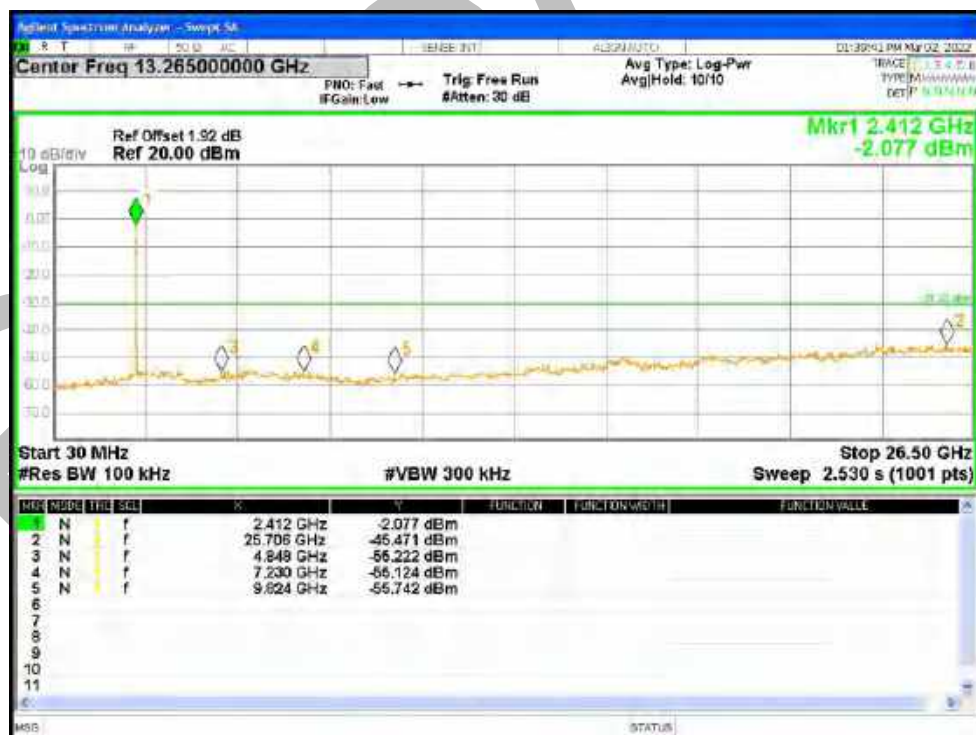
Tx. Spurious NVNT g 2462MHz Ant1 Emission



Tx. Spurious NVNT g 2412MHz Ant2 Ref



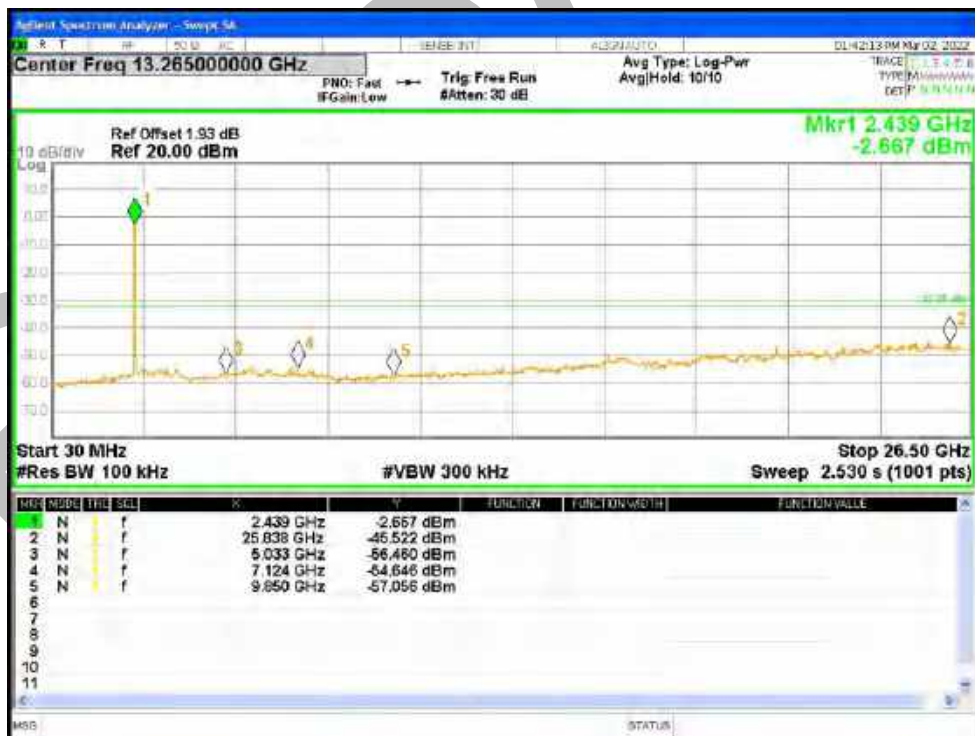
Tx. Spurious NVNT g 2412MHz Ant2 Emission



Tx. Spurious NVNT g 2437MHz Ant2 Ref



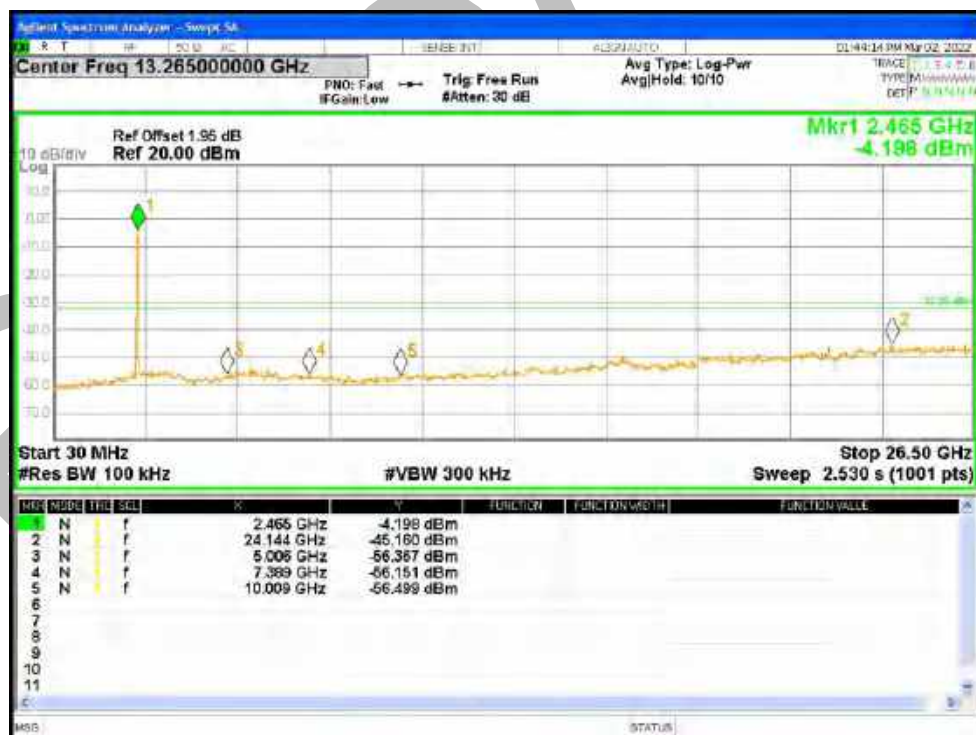
Tx. Spurious NVNT g 2437MHz Ant2 Emission



Tx. Spurious NVNT g 2462MHz Ant2 Ref



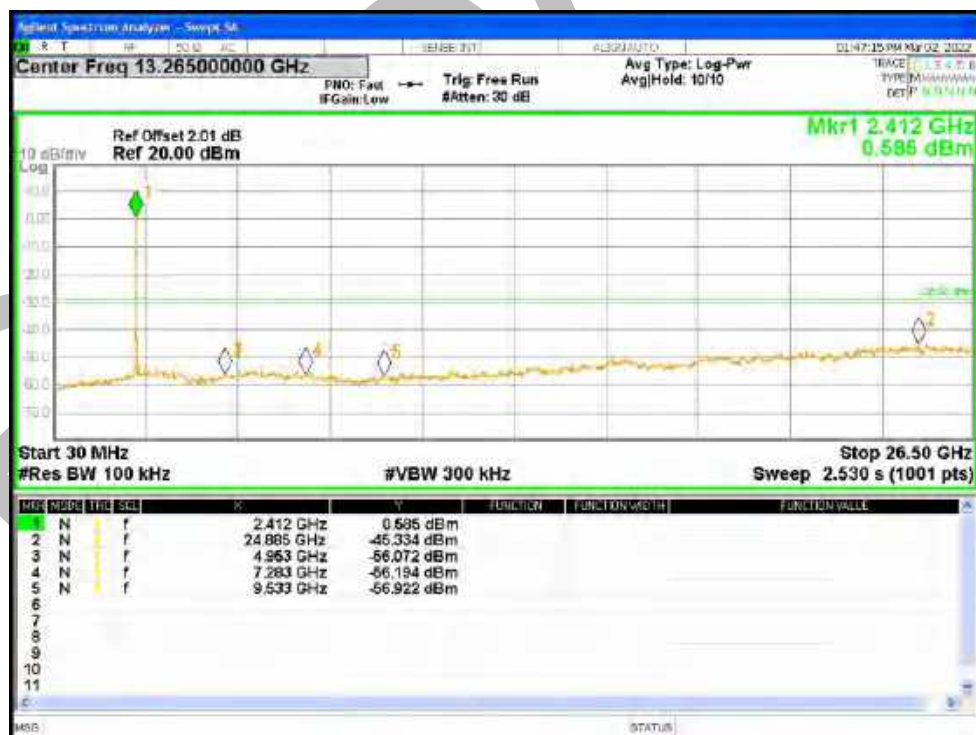
Tx. Spurious NVNT g 2462MHz Ant2 Emission



Tx. Spurious NVNT n20 2412MHz Ant1 Ref



Tx. Spurious NVNT n20 2412MHz Ant1 Emission



Tx. Spurious NVNT n20 2412MHz Ant2 Ref



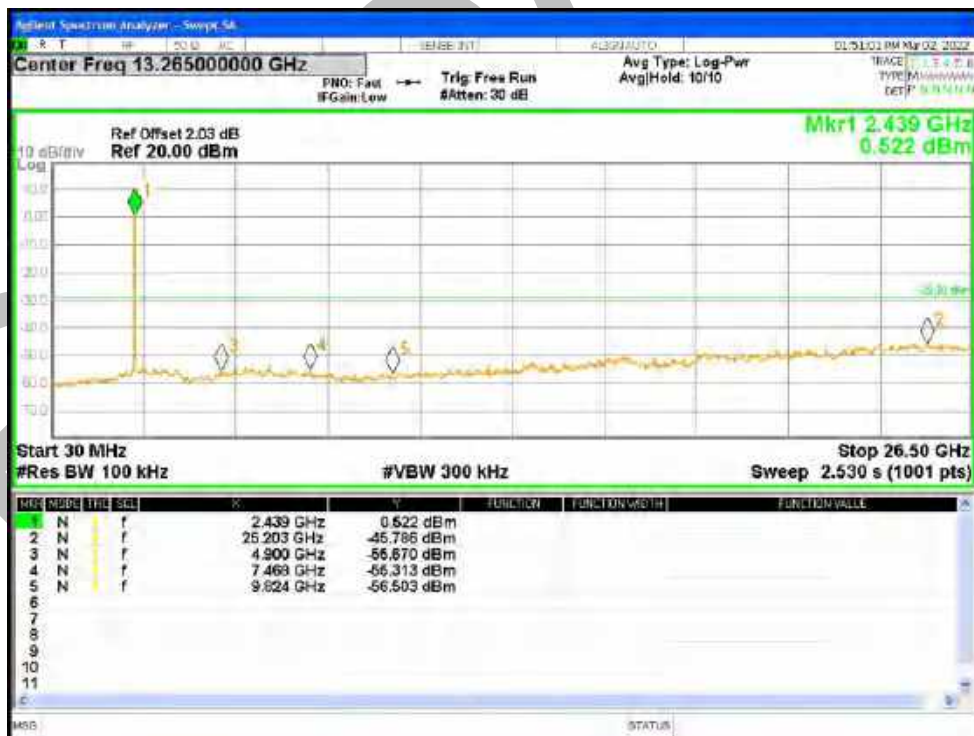
Tx. Spurious NVNT n20 2412MHz Ant2 Emission



Tx. Spurious NVNT n20 2437MHz Ant1 Ref



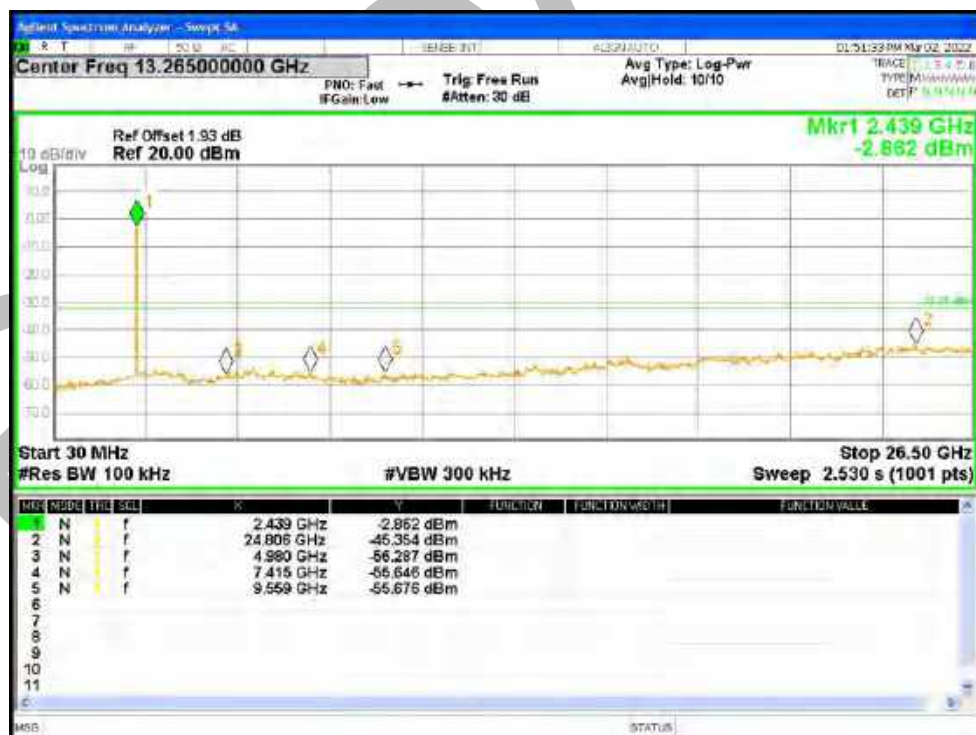
Tx. Spurious NVNT n20 2437MHz Ant1 Emission



Tx. Spurious NVNT n20 2437MHz Ant2 Ref



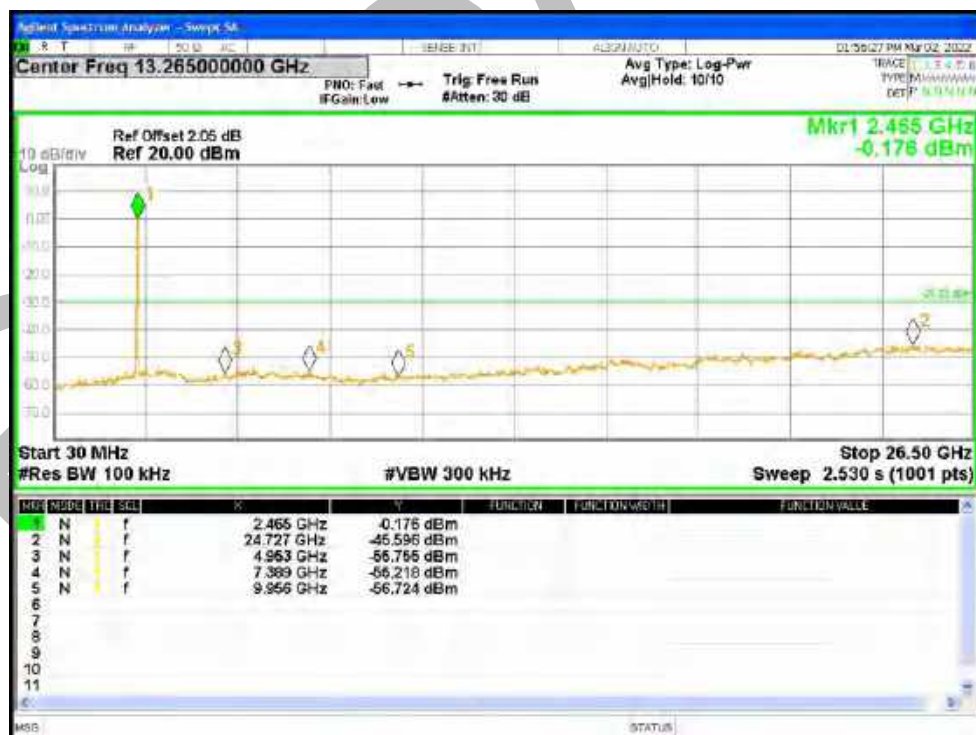
Tx. Spurious NVNT n20 2437MHz Ant2 Emission



Tx. Spurious NVNT n20 2462MHz Ant1 Ref



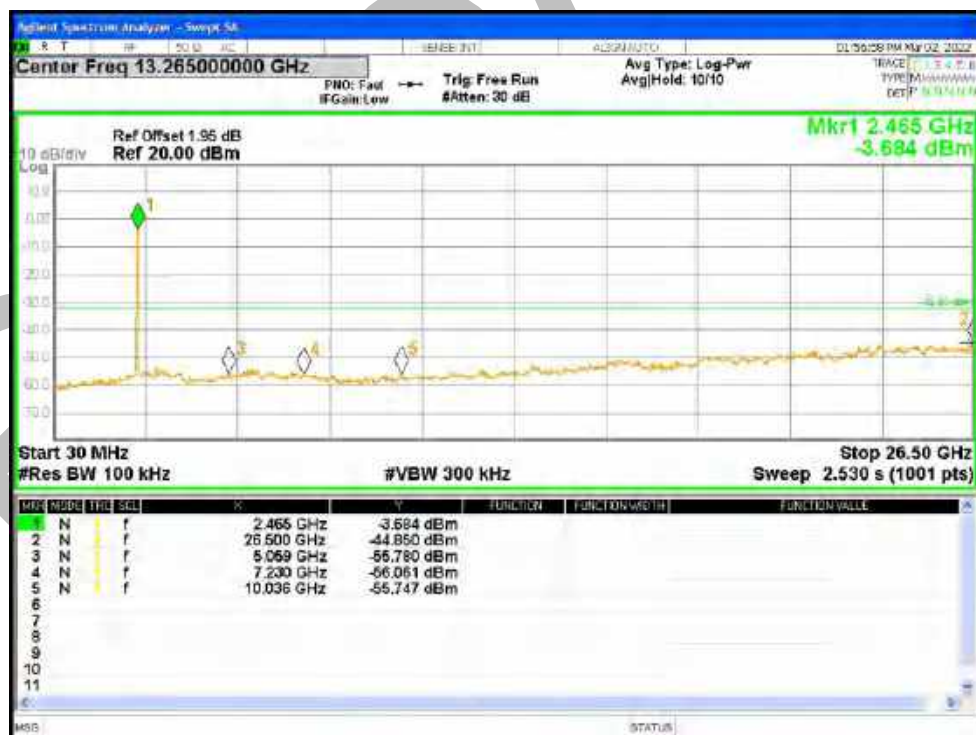
Tx. Spurious NVNT n20 2462MHz Ant1 Emission



Tx. Spurious NVNT n20 2462MHz Ant2 Ref



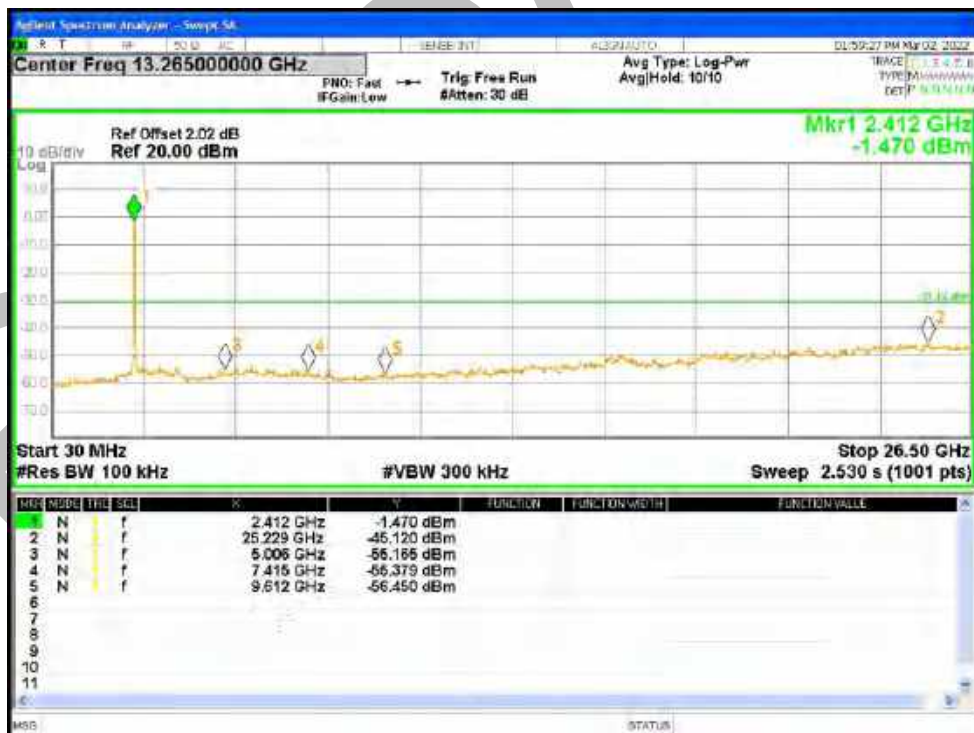
Tx. Spurious NVNT n20 2462MHz Ant2 Emission



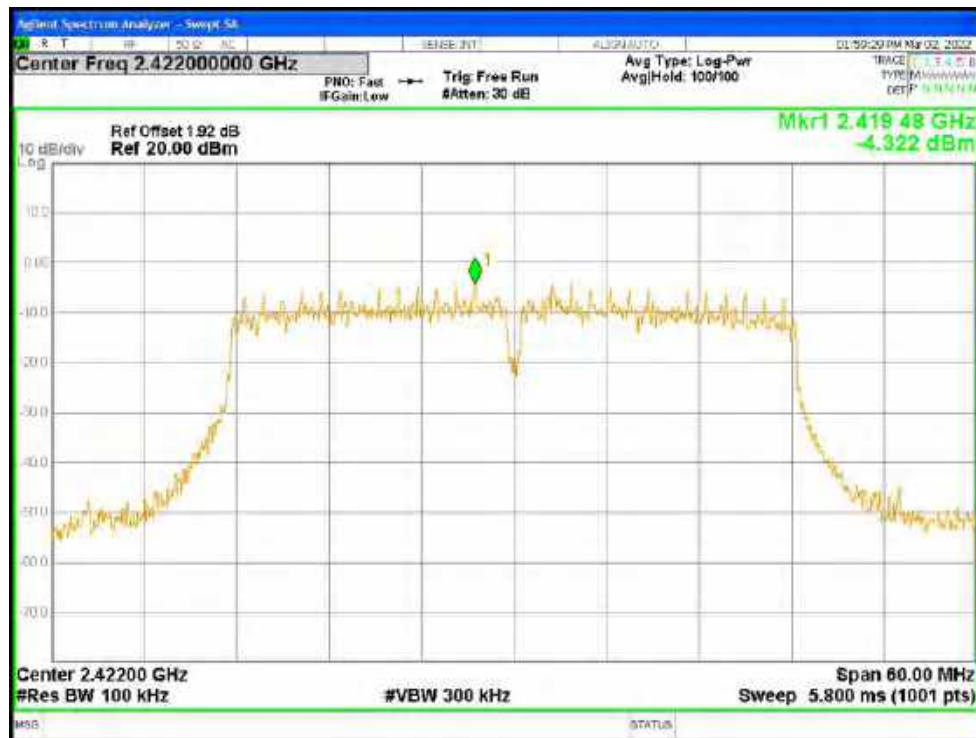
Tx. Spurious NVNT n40 2422MHz Ant1 Ref



Tx. Spurious NVNT n40 2422MHz Ant1 Emission



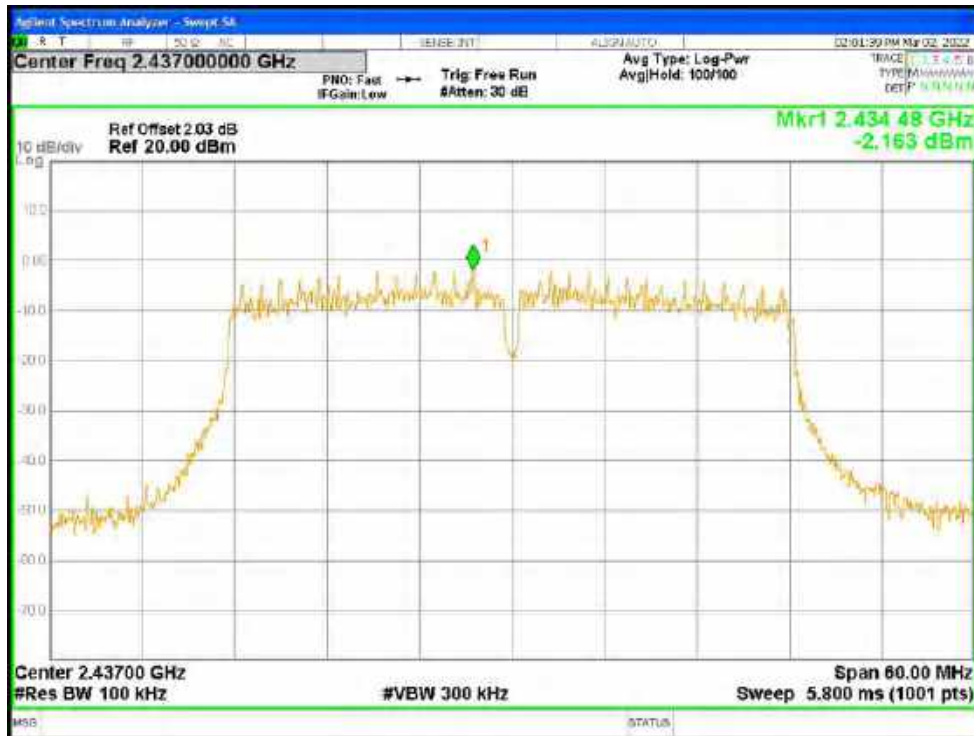
Tx. Spurious NVNT n40 2422MHz Ant2 Ref



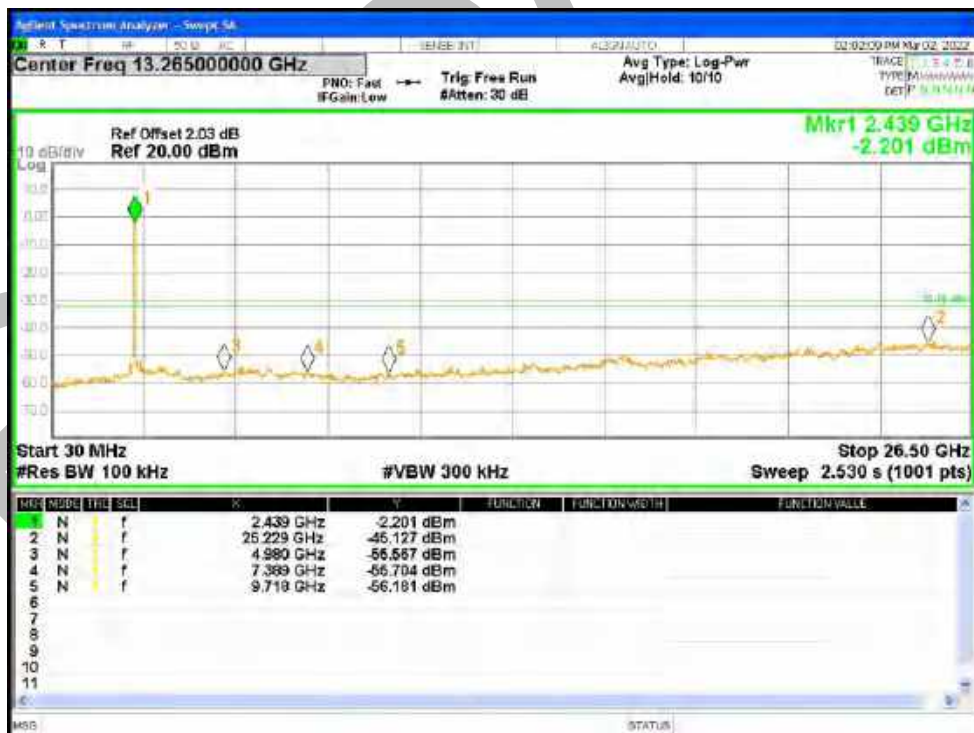
Tx. Spurious NVNT n40 2422MHz Ant2 Emission



Tx. Spurious NVNT n40 2437MHz Ant1 Ref



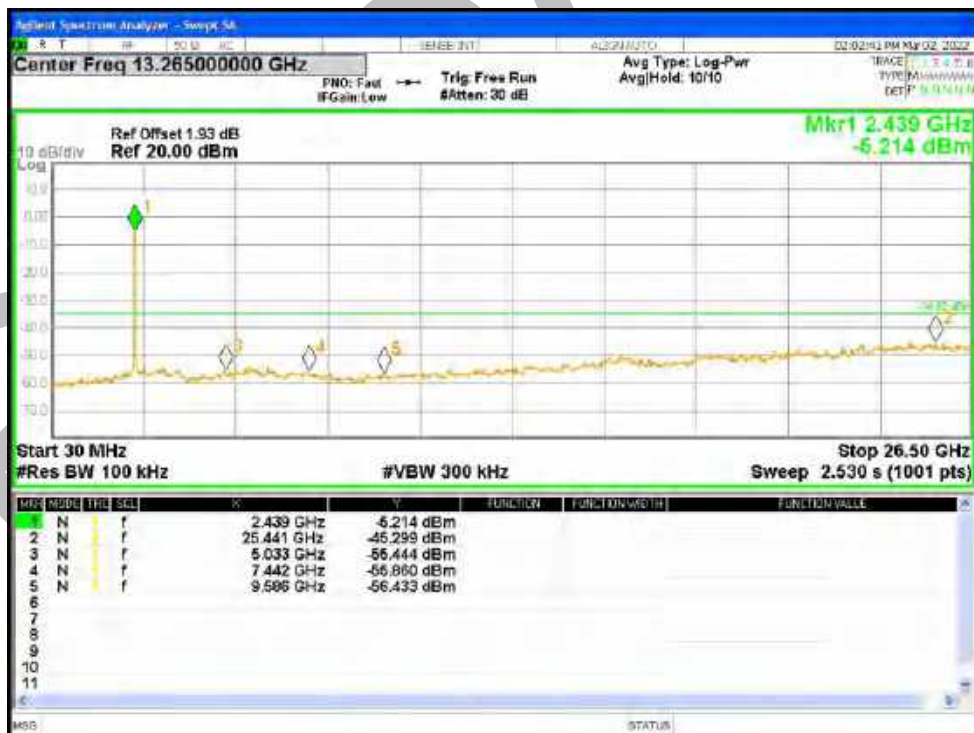
Tx. Spurious NVNT n40 2437MHz Ant1 Emission



Tx. Spurious NVNT n40 2437MHz Ant2 Ref



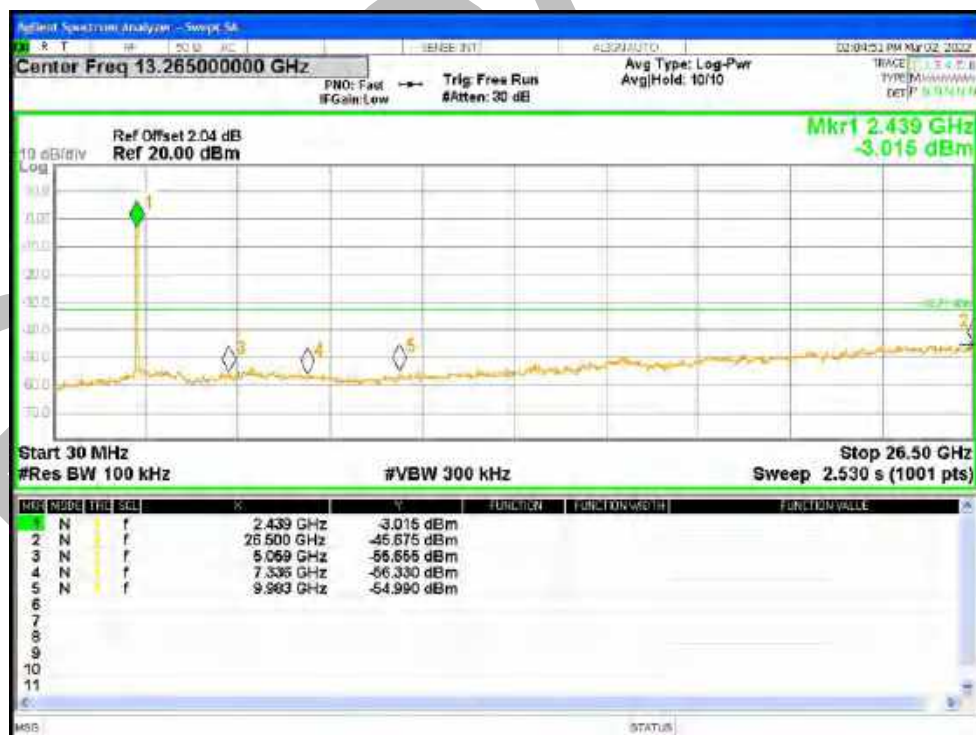
Tx. Spurious NVNT n40 2437MHz Ant2 Emission



Tx. Spurious NVNT n40 2452MHz Ant1 Ref



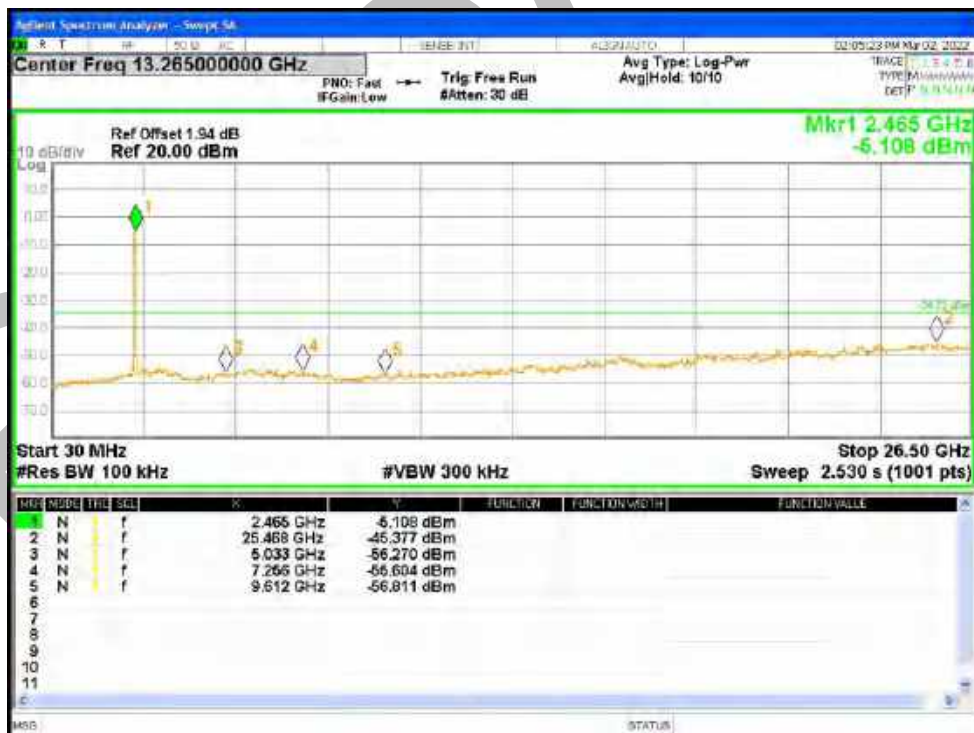
Tx. Spurious NVNT n40 2452MHz Ant1 Emission



Tx. Spurious NVNT n40 2452MHz Ant2 Ref

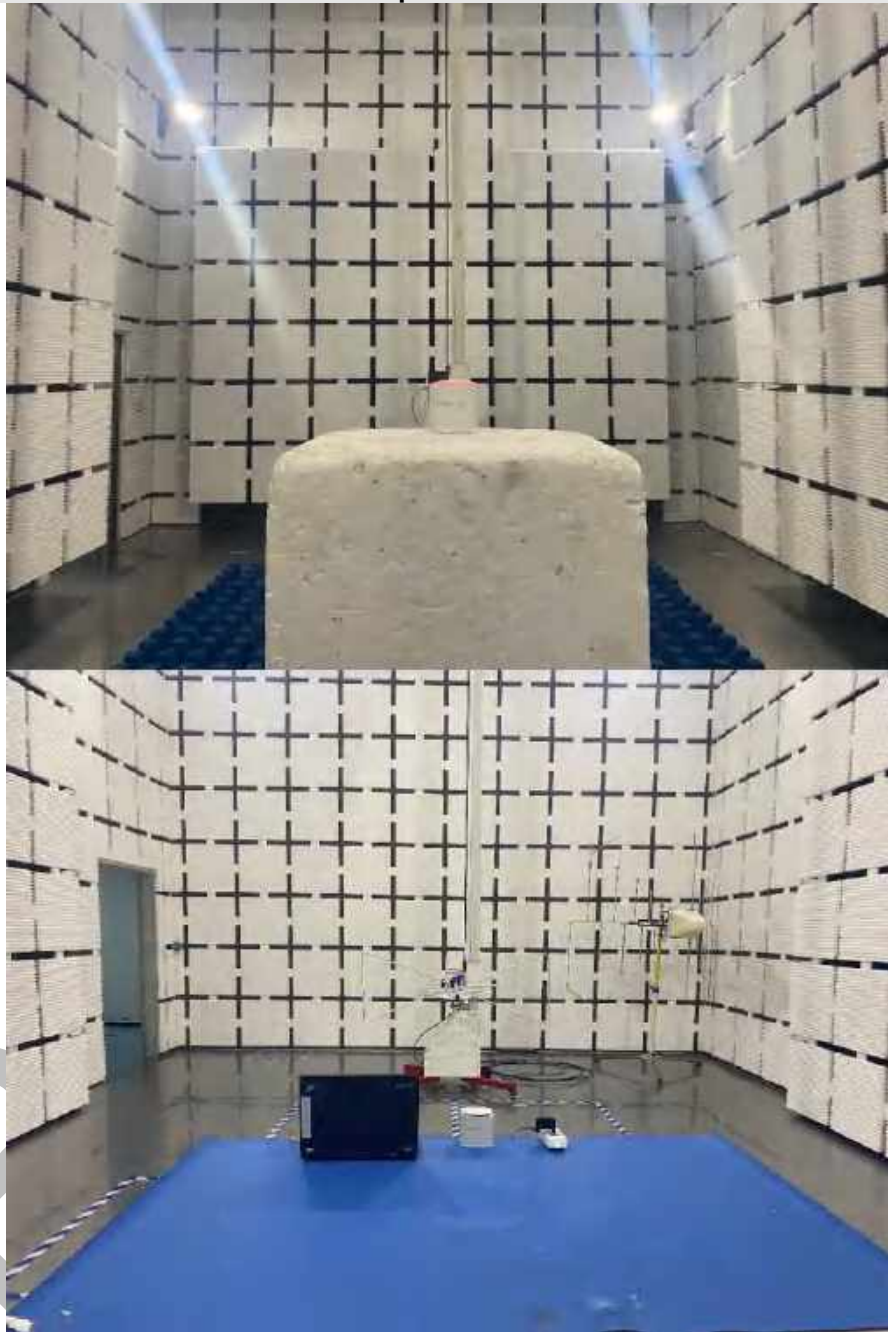


Tx. Spurious NVNT n40 2452MHz Ant2 Emission



APPENDIX A: PHOTOGRAPHS OF TEST SETUP

Radiated Spurious Emissions

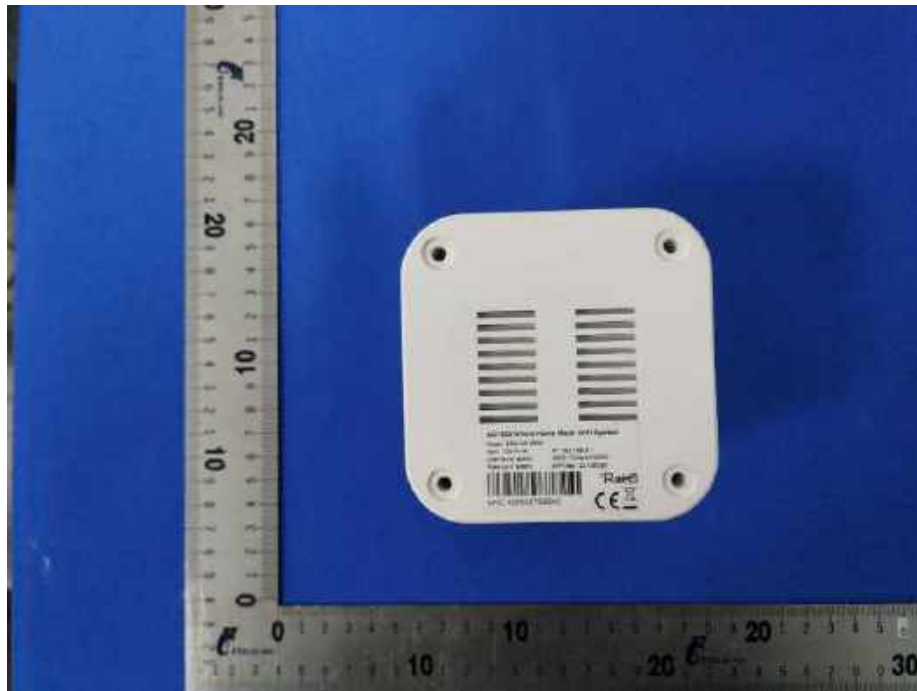


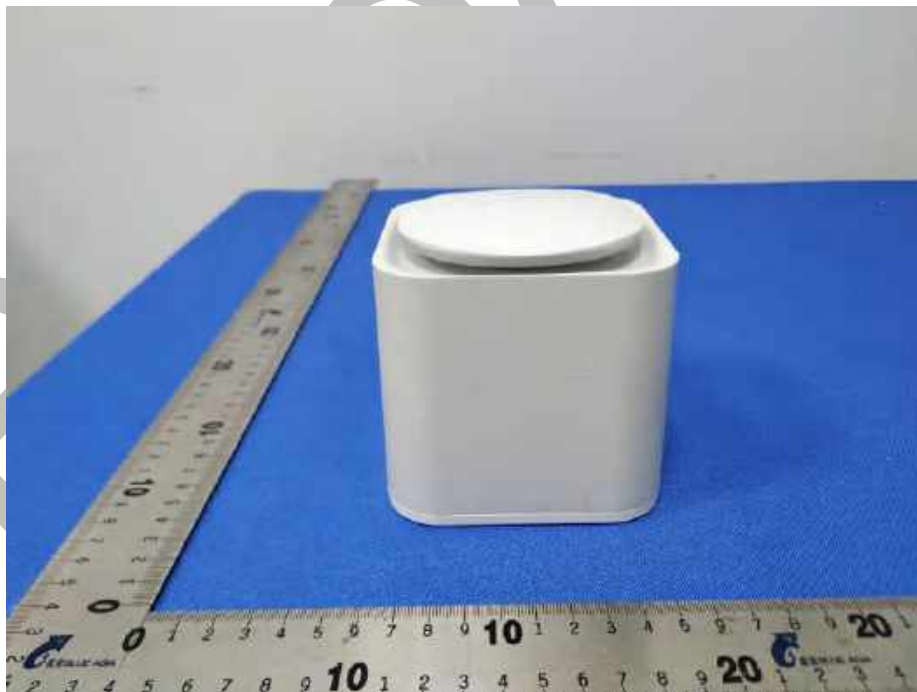
Conducted Emissions at AC Power Line (150kHz-30MHz)



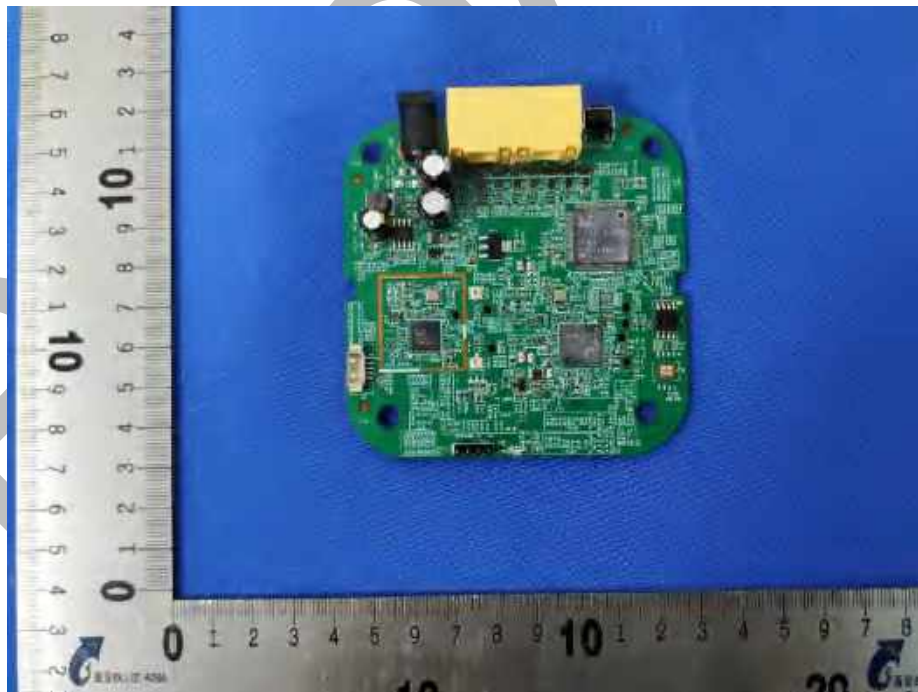
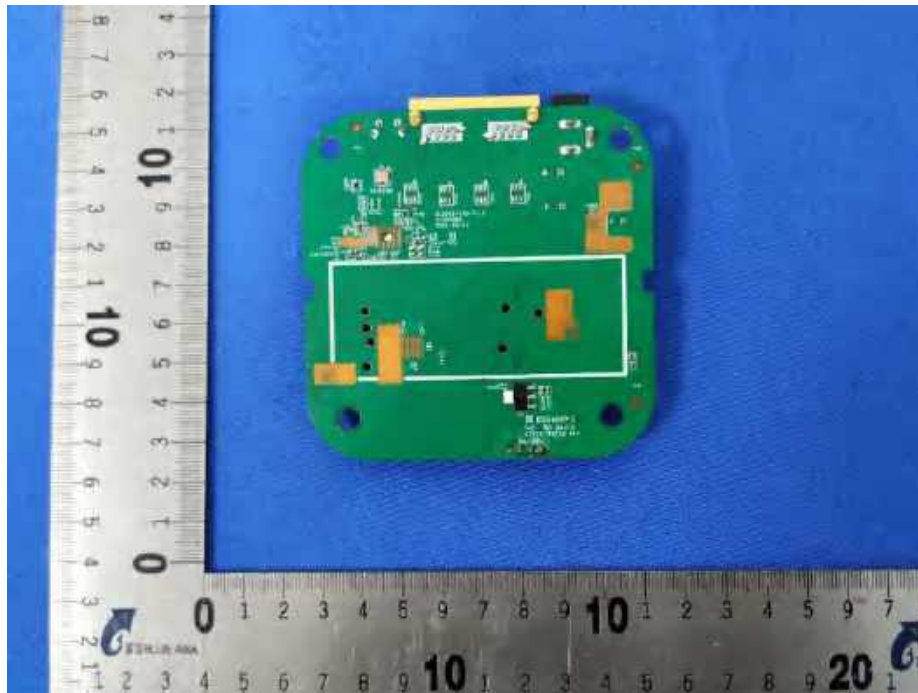
APPENDIX B: PHOTOGRAPHS OF EUT

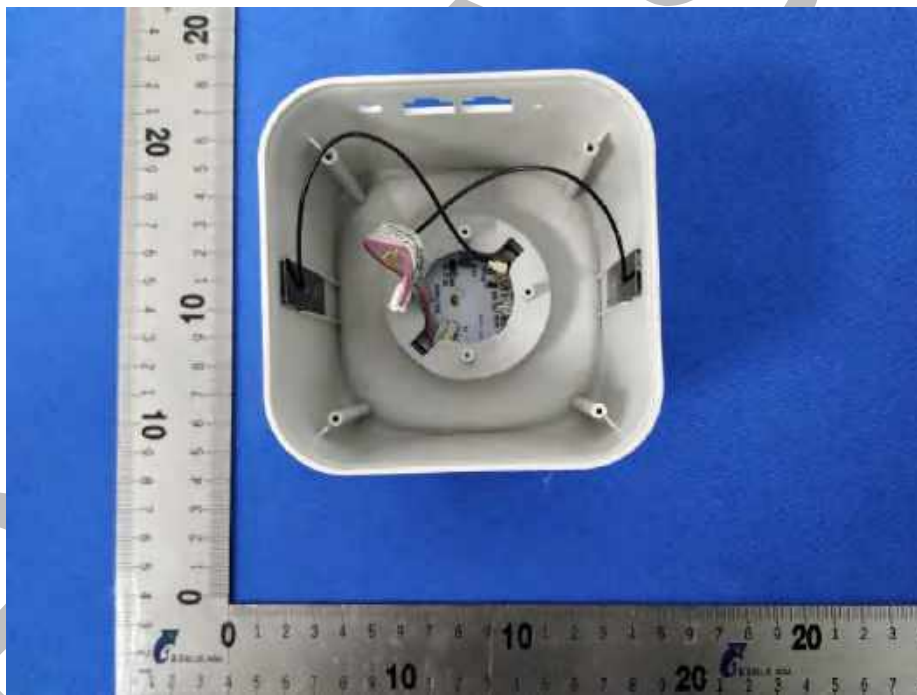
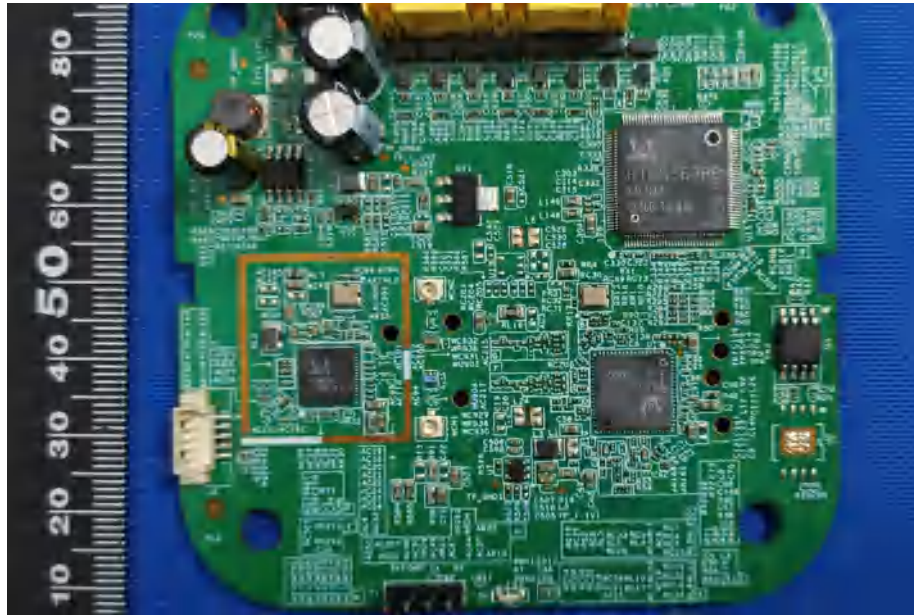


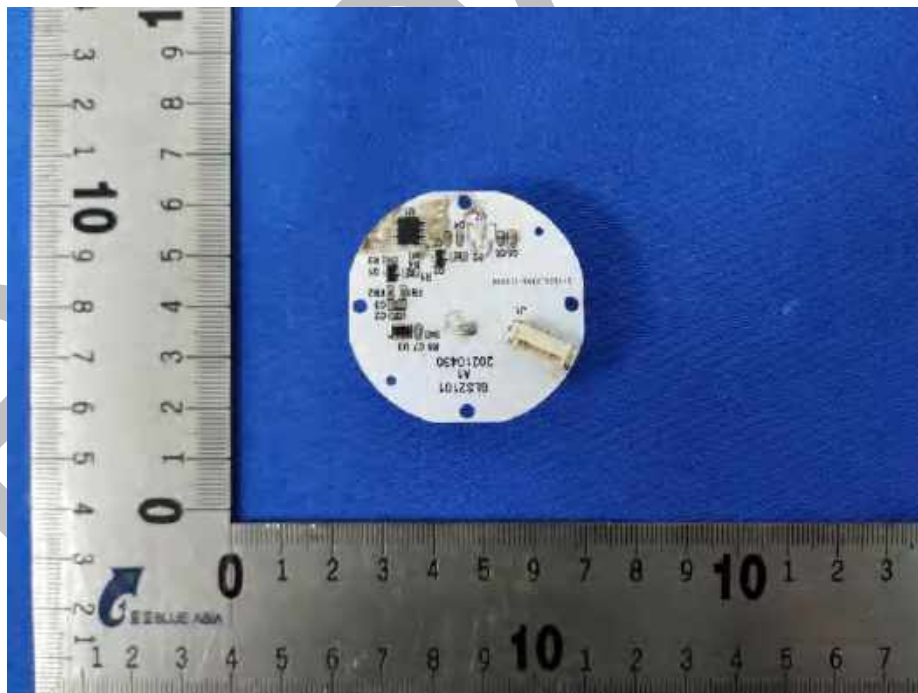
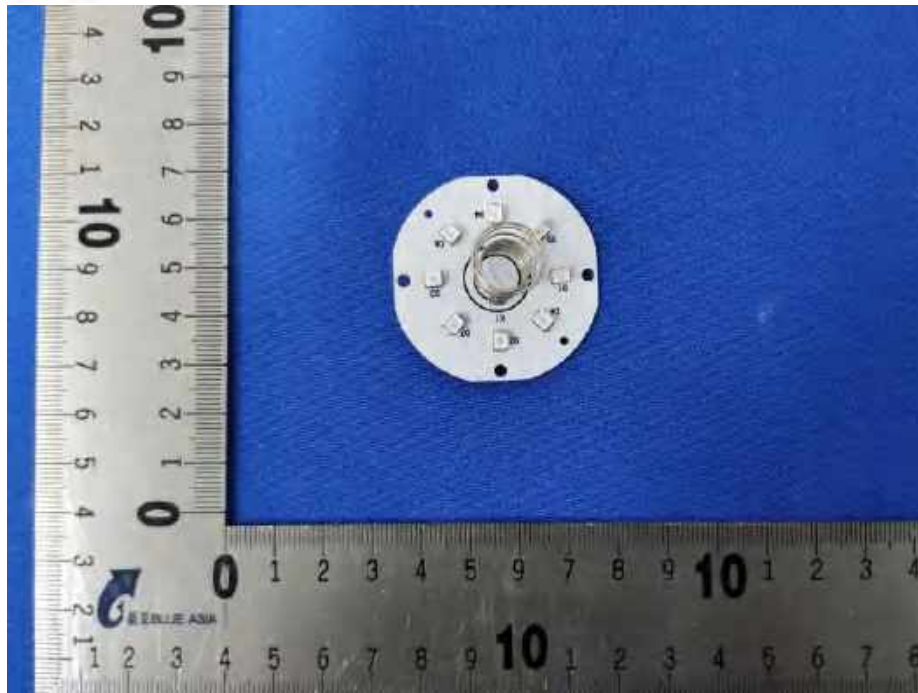












----END OF REPORT----

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