

**CFR 47 FCC PART 15 SUBPART C(DTS)**

**TEST REPORT**

*For*

**SkyView Pro Table Lamp**

**MODEL NUMBER: BH-SKY2-P00-CBK001-1**

**REPORT NUMBER: E01A23060334F01001**

**ISSUE DATE: August 25, 2023**

**FCC ID:2BAZK-SKY2**

*Prepared for*

**BIOLOGICAL INNOVATION AND OPTIMIZATION SYSTEMS LLC**

**274 E EAU GALLIE BLVD STE 116 INDN HBR BCH Florida United states**

*Prepared by*

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Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
<u>V0</u>	<u>August 25, 2023</u>	<u>Initial Issue</u>	<u>Luke</u>

Summary of Test Results			
Test Item	Clause	Limit/Requirement	Result
Antenna Requirement	N/A	FCC Part 15.203/15.247 (c)	Pass
AC Power Line Conducted Emission	ANSI C63.10-2013, Clause 6.2	FCC Part 15.207	Pass
Conducted Output Power	ANSI C63.10-2013, Clause 11.9.1.3	FCC Part 15.247 (b)(3)	Pass
6dB Bandwidth and 99% Occupied Bandwidth	ANSI C63.10-2013, Clause 11.8.1	FCC Part 15.247 (a)(2)	Pass
Power Spectral Density	ANSI C63.10-2013, Clause 11.10.2	FCC Part 15.247 (e)	Pass
Conducted Band edge and spurious emission	ANSI C63.10-2013, Clause 11.11	FCC Part 15.247(d)	Pass
Radiated Band edge and Spurious Emission	ANSI C63.10-2013, Clause 11.11 & Clause 11.12	FCC Part 15.205/15.209	Pass
Duty Cycle	ANSI C63.10-2013, Clause 11.6	None; for reporting purposes only.	Pass

\*The measurement result for the sample received is <Pass> according to <CFR 47 FCC PART 15 SUBPART C(DTS)> when <Accuracy Method> decision rule is applied.

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## ATTESTATION OF TEST RESULTS

### Applicant Information

Company Name: BIOLOGICAL INNOVATION AND OPTIMIZATION SYSTEMS LLC  
 Address: 274 E EAU GALLIE BLVD STE 116 INDN HBR BCH Florida United states

### Manufacturer Information

Company Name: Meko Lighting Company Limited  
 Address: No.2, Songlin East Road, Zeng Tian Village, Xin An District, Chang An Town Dongguan Guangdong 523883 China

### EUT Information

EUT Name: SkyView Pro Table Lamp  
 Model: BH-SKY2-P00-CBK001-1  
 Brand: BIOS  
 Sample Received Date: July 25, 2023  
 Sample Status: Normal  
 Sample ID: A23060334 003  
 Date of Tested: July 26, 2023 to August 01, 2023  
 Hardware version: V1.0  
 Software version: V1.0

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 FCC PART 15 SUBPART C(DTS)	Pass

Date of Test : July 26, 2023 to August 01, 2023

Prepared by : Luke Li  
 Luke Li/Editor

Reviewer & Authorized Signer : Tiger Xu  
 Tiger Xu/ Supervisor



## TEST METHODOLOGY

All tests were performed in accordance with the standard CFR 47 FCC PART 15 SUBPART C(DTS).

## FACILITIES AND ACCREDITATION

Site Description

EMC Lab. : Accredited by A2LA, 2018.03.15  
The Certificate Number is 4422.01.  
CAB identifier: CN0079  
ISED Company number: 22768

Name of Firm

Site Location

: Dong Guan Anci Electronic Technology Co., Ltd.  
: 1-2 Floor, Building A, No.11, Headquarters 2 Road,  
Songshan, Lake Hi-tech Industrial Development  
Zone, Dongguan City, Guangdong Pr., China.

## CALIBRATION AND UNCERTAINTY

### 1.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

### 1.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Items	k	Uncertainty
DTS Bandwidth	1.96	±9.2 PPM
20dB Emission Bandwidth	1.96	±9.2 PPM
Carrier Frequency Separation	1.96	±9.2 PPM
Number of Hopping Channel	1.96	±9.2 PPM
Time of Occupancy	1.96	±0.57%
Maximum Conducted Output Power	1.96	± 0.73 dB
Max Peak Conducted Output Power	1.96	±1.5 dB
Maximum Power Spectral Density Level	1.96	±1.9 dB
Conducted Band edge	1.96	±9.2 PPM
Conducted spurious emission	1.96	9 kHz-30 MHz: ± 0.95 dB 30 MHz-1 GHz: ± 1.5 dB 1GHz-12.75GHz: ± 1.8 dB 12.75 GHz-26.5 GHz: ± 2.1dB
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.		

Test Item	Measurement Frequency Range	K	U(dB)
Conducted emissions from the AC mains power ports (AMN)	150 kHz ~ 30 MHz	2	3.37
Radiated emissions	30 MHz ~ 1 GHz	2	3.79
Radiated emissions	1 GHz ~ 18 GHz	2	5.62
Radiated emissions	18 GHz ~ 40 GHz	2	5.54
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.			

## EQUIPMENT UNDER TEST

### 1.3. DESCRIPTION OF EUT

EUT Name	SkyView Pro Table Lamp
Model	BH-SKY2-P00-CBK001-1
Ratings	AC 120-240V
Test Power Supply	120Vac

Frequency Band:	2400 MHz to 2483.5 MHz
Frequency Range:	2412 MHz to 2462 MHz
Support Standards:	802.11 b/g/n
Type of Modulation:	IEEE 802.11b: DSSS(CCK, DQPSK, DBPSK) IEEE 802.11g/n: OFDM(64-QAM, 16-QAM, QPSK, BPSK)
Data Rate:	IEEE 802.11b: Up to 11 Mbps IEEE 802.11g: Up to 54 Mbps IEEE 802.11n: Up to MCS7
Number of Channels:	IEEE 802.11b/g/n-HT20: 11 IEEE 802.11n-HT40: 7
Maximum Peak Power:	IEEE 802.11b: 13.47dBm IEEE 802.11g: 12.52dBm IEEE 802.11n-HT20: 12.5 dBm IEEE 802.11n-HT40: 10.7 dBm
Antenna Type:	PCB Antenna
Antenna Gain:	2.2dBi



## 1.4. CHANNEL LIST

Channel List for 802.11b/g/n (20 MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	4	2427	7	2442	10	2457
2	2417	5	2432	8	2447	11	2462
3	2422	6	2437	9	2452	/	/

Channel List for 802.11n (40 MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	5	2432	7	2442	9	2452
4	2427	6	2437	8	2447	/	/

## 1.5. MAXIMUM AVERAGE EIRP

IEEE Std. 802.11	Frequency (MHz)	Channel Number	Maximum Conducted AVG Output Power (dBm)	Maximum AVG EIRP (dBm)
b	2412 ~ 2462	1-11[11]	13.47	15.67
g	2412 ~ 2462	1-11[11]	12.52	14.72
n HT20	2412 ~ 2462	1-11[11]	12.5	14.7
n HT40	2422 ~ 2452	3-9[7]	10.7	12.9

## 1.6. TEST CHANNEL CONFIGURATION

IEEE Std. 802.11	Test Channel Number	Frequency
b	CH 1(Low Channel), CH 6(MID Channel), CH 11(High Channel)	2412 MHz, 2437 MHz, 2462 MHz
g	CH 1(Low Channel), CH 6(MID Channel), CH 11(High Channel)	2412 MHz, 2437 MHz, 2462 MHz
n HT20	CH 1(Low Channel), CH 6(MID Channel), CH 11(High Channel)	2412 MHz, 2437 MHz, 2462 MHz
n HT40	CH 3(Low Channel), CH 6(MID Channel), CH 9(High Channel)	2422 MHz, 2437 MHz, 2452 MHz

## 1.7. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band							
Test Software		Beken Wi-Fi Tool V1.6.0					
Modulation Mode	Transmit Antenna Number	Test Channel					
		NCB: 20MHz			NCB: 40MHz		
		CH 1	CH 6	CH 11	CH 3	CH 6	CH 9
802.11b	1	30	30	30	/		
802.11g	1	15	15	15			
802.11n HT20	1	15	15	15			
802.11n HT40	1	/			15	15	15

## WORST-CASE CONFIGURATIONS

The EUT was tested in the following configuration(s):

Controlled in test mode using a software application on the EUT supplied by customer. The application was used to enable a continuous transmission and to select the mode, test channels, bandwidth, data rates as required.

Test channels referring to section 5.4.

Maximum power setting referring to section 5.5.

Worst-case data rates as provided by the client were:

802.11b mode: 1 Mbps  
 802.11g mode: 6 Mbps  
 802.11n HT20 mode: MCS0  
 802.11n HT40 mode: MCS0

### 1.8. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency (MHz)	Antenna Type	MAX Antenna Gain (dBi)
1	2412-2462	PCB Antenna	2.2dBi

Test Mode	Transmit and Receive Mode	Description
IEEE 802.11b	<input checked="" type="checkbox"/> 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
IEEE 802.11g	<input checked="" type="checkbox"/> 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
IEEE 802.11n HT20	<input checked="" type="checkbox"/> 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
IEEE 802.11n HT40	<input checked="" type="checkbox"/> 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.

### 1.9. SUPPORT UNITS FOR SYSTEM TEST

The EUT has been tested as an independent unit

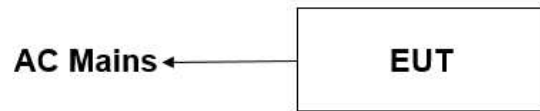
Item	Equipment	Trademark	Model No.	FCC ID	Note
1.	SkyView Pro Table Lamp	BIOS	BH-SKY2-P00-CBK001-1	2BAZK-SKY2	<b><i>EUT</i></b>

**Note:**

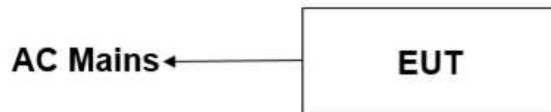
- (1) Unless otherwise denoted as EUT in 『Remark』 column, device(s) used in tested system is a support equipment.

## 1.10. SETUP DIAGRAM

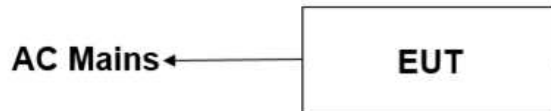
**AC conducted emission :**



**Radiated Emission:**



**RF conducted:**



**MEASURING EQUIPMENT AND SOFTWARE USED**

<b>Test Equipment of Conducted RF</b>					
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Last Cal.</b>	<b>Due Date</b>
Spectrum Analyzer	Rohde & Schwarz	FSV40	US40240623	2022-10-29	2023-10-28
RF Test Software	MWRF-test	MTS 8310	N/A	N/A	N/A
Radio Frequency control box	MWRF-test	MW200-RFCB	MW220111 ANCI	2023-05-10	2024-05-09
Radio Frequency control box	MWRF-test	MW200-RFCB 2#	/	2023-05-10	2024-05-09

<b>Test Equipment of Radiated emissions below 1GHz</b>					
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Last Cal.</b>	<b>Due Date</b>
EMI Test Receiver	ROHDE&SCHWARZ	ESCI	100302	2023-05-10	2024-05-09
Bilog Antenna	Schwarzbeck	VULB9163	VULB9163-1290	2022-12-12	2023-12-11
RF Cable	ZKJC	ZT06S-NJ-NJ-11M	19060398	2023-05-10	2024-05-09
RF Cable	ZKJC	ZT06S-NJ-NJ-0.5M	19060400	2023-05-10	2024-05-09
RF Cable	ZKJC	ZT06S-NJ-NJ-2.5M	19060404	2023-05-10	2024-05-09
EMI Test Receiver	ROHDE&SCHWARZ	ESPI7	100502	2022-10-08	2023-10-07
3m Semi-anechoic Chamber	Keysight	9m*6m*6m	N/A	2021-11-13	2024-11-12

<b>Test Equipment of Radiated emissions above 1GHz</b>					
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Last Cal.</b>	<b>Due Date</b>
Low noise Amplifiers	A-INFO	LA1018N4009	J1013130524001	2023-05-10	2024-05-09
Horn antenna	A-INFO	LB-10180-SF	J2031090612123	2023-05-10	2024-05-09
RF Cable	ZKJC	ZT26-NJ-NJ-11M	19060401	2023-05-10	2024-05-09
RF Cable	ZKJC	ZT26-NJ-NJ-2.5M	19060402	2023-05-10	2024-05-09
RF Cable	ZKJC	ZT26-NJ-NJ-0.5M	19060403	2023-05-10	2024-05-09
Spectrum Analyzer	Rohde & Schwarz	FSV40	US40240623	2022-10-29	2023-10-28
3m Semi-anechoic Chamber	Keysight	9m*6m*6m	N/A	2021-11-13	2024-11-12
Test Software	Farad	EZ-EMC (Ver.FA-03A2RE)	N/A	N/A	N/A

Test Equipment of Conducted emissions					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
EMI Test Receiver	ROHDE&SCH WARZ	ESCI	101358	2023-05-10	2024-05-09
1# Shielded Room	chengyu	8m*4m*3.3m	N/A	2022-11-22	2025-11-21
LISN	ROHDE&SCH WARZ	ENV216	101413	2022-10-08	2023-10-07
Test Software	Farad	EZ-EMC (Ver.ANCI-3A1)	N/A	N/A	N/A
RF Cable	N/A	ZT06S-NJ-NJ-2.5M	19044022	2023-05-10	2024-05-09

## ANTENNA PORT TEST RESULTS

### 1.11. CONDUCTED OUTPUT POWER

#### LIMITS

CFR 47 FCC Part15 (15.247) Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247(b)(3)	Peak Conduct Output Power	1 watt or 30 dBm	2400-2483.5

#### TEST PROCEDURE

Connect the EUT to a low loss RF cable from the antenna port to the power sensor (video bandwidth is greater than the occupied bandwidth).

Measure peak emission level, the indicated level is the peak output power, after any corrections for external attenuators and cables.

#### TEST ENVIRONMENT

Temperature	23.1°C	Relative Humidity	50%
Atmosphere Pressure	101kPa		

#### TEST RESULTS

Please refer to section "Test Data"

## 1.12. 6DB BANDWIDTH

### LIMITS

CFR 47 FCC Part15 (15.247) Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247(a)(2)	6 dB Bandwidth	≥ 500 kHz	2400-2483.5

### TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.8 for DTS bandwidth and clause 6.9 for Occupied Bandwidth.

Connect the EUT to the spectrum analyser and use the following settings:

Center Frequency	The center frequency of the channel under test
Frequency Span	For 6 dB Bandwidth: Enough to capture all products of the modulation carrier emission
Detector	Peak
RBW	100 kHz
VBW	≥3 × RBW
Trace	Max hold
Sweep	Auto couple

a) Use the 99 % power bandwidth function of the instrument, allow the trace to stabilize and report the measured bandwidth.

b) Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

### TEST ENVIRONMENT

Temperature	24°C	Relative Humidity	52%
Atmosphere Pressure	101kPa		

### TEST RESULTS

Please refer to section "Test Data"

## 1.13. POWER SPECTRAL DENSITY

### LIMITS

CFR 47 FCC Part15 (15.247) Subpart C			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC §15.247 (e)	Power Spectral Density	8 dBm in any 3 kHz band	2400-2483.5

### TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.10.

Connect the EUT to the spectrum analyser and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	PEAK
RBW	$3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$
VBW	$\geq 3 \times \text{RBW}$
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple

Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.

If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

### TEST ENVIRONMENT

Temperature	24°C	Relative Humidity	52%
Atmosphere Pressure	101kPa		

### TEST RESULTS

Please refer to section "Test Data"

## 1.14. CONDUCTED BAND EDGE AND SPURIOUS EMISSION

CFR 47 FCC Part15 (15.247) Subpart C		
Section	Test Item	Limit
CFR 47 FCC §15.247 (d)	Conducted Bandedge and Spurious Emissions	at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power

### LIMITS

### TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.11 and 11.13.

Connect the EUT to the spectrum analyser and use the following settings for reference level measurement:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	100 kHz
VBW	$\geq 3 \times \text{RBW}$
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

Allow trace to fully stabilize and use the peak marker function to determine the maximum PSD level.

Change the settings for emission level measurement:

Span	Set the center frequency and span to encompass frequency range to be measured
Detector	Peak
RBW	100 kHz
VBW	$\geq 3 \times \text{RBW}$
measurement points	$\geq \text{span}/\text{RBW}$
Trace	Max hold
Sweep time	Auto couple.

Allow trace to fully stabilize and use the peak marker function to determine the maximum PSD level. Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11.



**TEST ENVIRONMENT**

Temperature	23.5°C	Relative Humidity	52.6%
Atmosphere Pressure	101kPa		

**TEST RESULTS**

Please refer to section "Test Data"

## 1.15. DUTY CYCLE

### LIMITS

None; for reporting purposes only.

### TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.6 Zero – Span Spectrum Analyzer method.

### TEST ENVIRONMENT

Temperature	24°C	Relative Humidity	52%
Atmosphere Pressure	101kPa		

### TEST RESULTS

Please refer to section "Test Data"

## RADIATED TEST RESULTS

### LIMITS

Please refer to CFR 47 FCC §15.205 and §15.209.

Radiation Disturbance Test Limit for FCC (Class B) (9 kHz ~ 1 GHz)

Emissions radiated outside of the specified frequency bands above 30 MHz			
Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m	
		Quasi-Peak	
30 - 88	100	40	
88 - 216	150	43.5	
216 - 960	200	46	
Above 960	500	54	
Above 1000	500	Peak	Average
		74	54

FCC Emissions radiated outside of the specified frequency bands below 30 MHz		
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

FCC Restricted bands of operation refer to FCC §15.205 (a):

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	( <sup>2</sup> )
13.36-13.41			

Note: <sup>1</sup>Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

<sup>2</sup>Above 38.6c

## **TEST PROCEDURE**

Below 30 MHz

The setting of the spectrum analyser

RBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
VBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
Sweep	Auto

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.4.
2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 80 cm above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a 1 m height antenna tower.
5. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.
6. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak and average detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak and average detector and reported.
7. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KDB 414788.
8. The limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of  $377\Omega$ . For example, the measurement frequency X KHz resulted in a level of Y dBuV/m, which is equivalent to  $Y-51.5 = Z$  dBuA/m, which has the same margin, W dB.

Below 1 GHz and above 30 MHz

The setting of the spectrum analyser

RBW	120 kHz
VBW	300 kHz
Sweep	Auto
Detector	Peak/QP

Trace	Max hold
-------	----------

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.5.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 80 cm above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

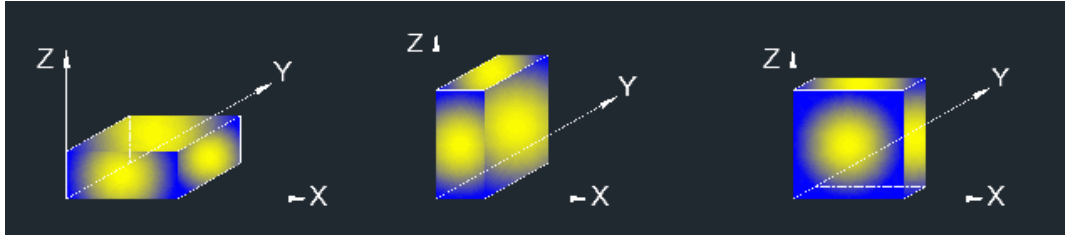
Above 1G

The setting of the spectrum analyser

RBW	1 MHz
VBW	PEAK: 3 MHz AVG: see note 6
Sweep	Auto
Detector	Peak
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.6.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 1.5 m above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. For measurement above 1 GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.
6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 7.1.ON TIME AND DUTY CYCLE.

X axis, Y axis, Z axis positions:



Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

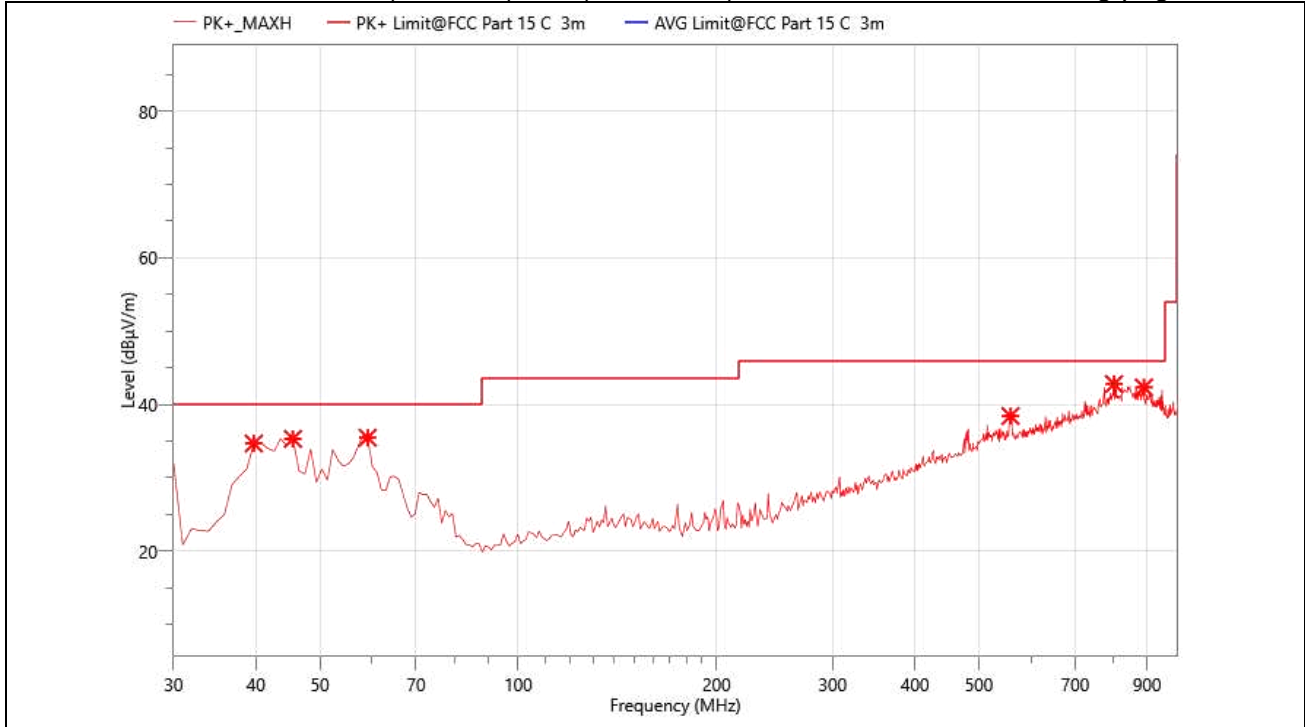
**TEST ENVIRONMENT**

Temperature	23°C	Relative Humidity	51%
Atmosphere Pressure	101kPa		

**TEST RESULTS**

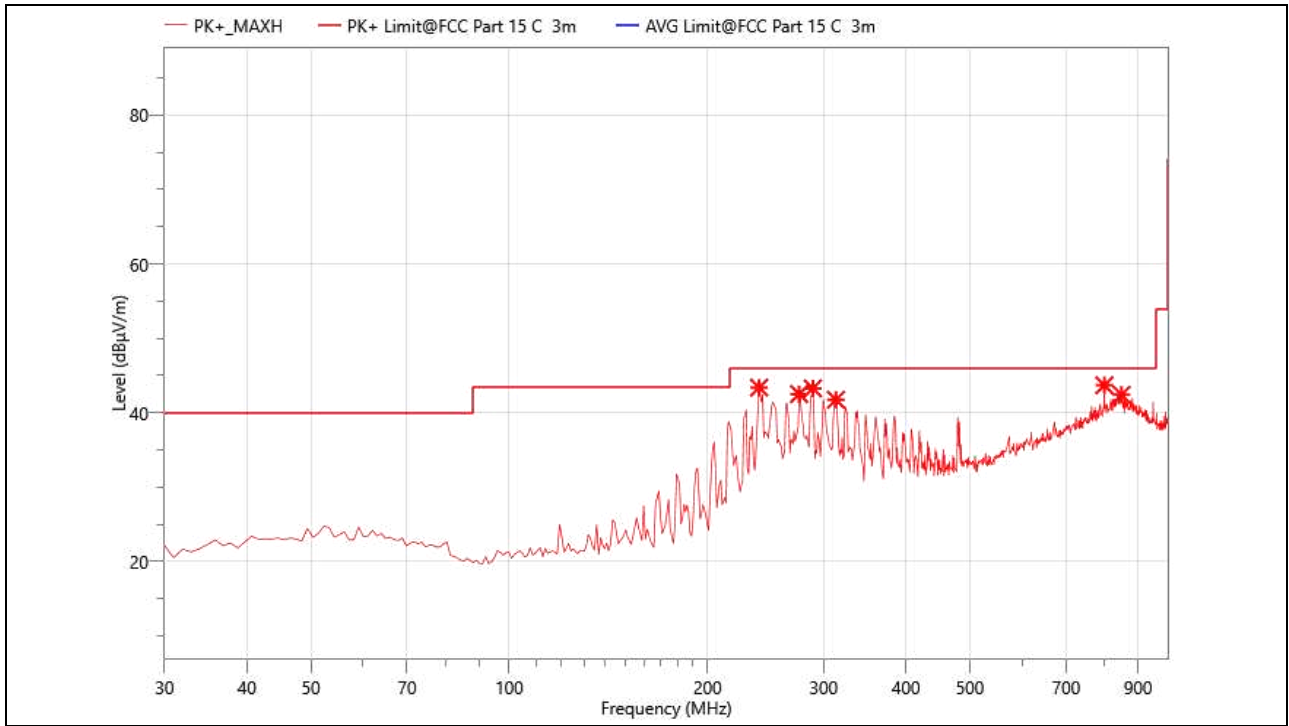
**Radiated Spurious Emission :**

The worst data of the mode (802.11n(HT40) 2437MHz) are recorded in the following pages.



<b>Site:</b>	<b>ChamberA-2</b>	<b>Antenna::</b>	<b>Vertical</b>	<b>Temperature(C):</b>	<b>23.9(C)</b>
<b>Limit:</b>	<b>FCC Part 15 C 3m Radiation(QP)</b>			<b>Humidity(%):</b>	<b>50.8%</b>
<b>EUT:</b>	<b>SkyView Pro Table Lamp</b>	<b>Test Time:</b>		<b>2023-08-01</b>	
<b>M/N.:</b>	<b>BH-SKY2-P00-CBK001-1</b>	<b>Power Rating:</b>		<b>AC 120V 60Hz</b>	
<b>Mode:</b>	<b>TX2437</b>	<b>Test Engineer:</b>		<b>Rock</b>	
<b>Note:</b>					

No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Corr. (dB)
1	39.700	39.44	34.67	40.00	5.33	PK+	V	-4.77
2	45.520	39.50	35.30	40.00	4.70	PK+	V	-4.2
3	59.100	39.00	35.46	40.00	4.54	PK+	V	-3.54
4	558.650	31.57	38.42	46.00	7.58	PK+	V	6.85
5	802.120	29.94	42.78	46.00	3.22	PK+	V	12.84
6	890.390	29.53	42.32	46.00	3.68	PK+	V	12.79



<b>Site:</b>	<b>ChamberA-2</b>	<b>Antenna::Horizontal</b>	<b>Temperature(C):23.9(C)</b>
<b>Limit:</b>	<b>FCC Part 15 3m Radiation(QP)</b>		<b>Humidity(%):50.8%</b>
<b>EUT:</b>	<b>SkyView Pro Table Lamp</b>	<b>Test Time:</b>	<b>2023-08-01</b>
<b>M/N.:</b>	<b>BH-SKY2-P00-CBK001-1</b>	<b>Power Rating:</b>	<b>AC 120V 60Hz</b>
<b>Mode:</b>	<b>TX2437</b>	<b>Test Engineer:</b>	<b>Rock</b>
<b>Note:</b>			

No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Corr. (dB)
1	239.520	47.21	43.39	46.00	2.61	PK+	H	-3.82
2	275.410	44.11	42.52	46.00	3.48	PK+	H	-1.59
3	288.990	44.32	43.29	46.00	2.71	PK+	H	-1.03
4	313.240	42.19	41.76	46.00	4.24	PK+	H	-0.43
5	800.180	30.84	43.71	46.00	2.29	PK+	H	12.87
6	849.650	28.50	42.43	46.00	3.57	PK+	H	13.93



**Above 1000MHz~10<sup>th</sup> Harmonics:**

All the modulation modes were tested the data of the worst mode (TX 802.11n(HT40) are recorded in the following pages and the others modulation methods do not exceed the limits. The frequency range from 1GHz to 25GHz is investigated.

Operation Mode: 802.11b Lowest      Test Date : 2023-08-01  
 Test Voltage: AC 120V 60Hz      Test by: Rock

Freq. (MHz)	Ant. Pol. H/V	Emission Level(dBuV/m)		Limit 3m(dBuV/m)		Over(dB)	
		PK	AV	PK	AV	PK	AV
2360	V	64.25	44.37	74	54	-9.75	-9.63
2596	V	59.83	43.92	74	54	-14.17	-10.08
9237	V	58.13	40.39	74	54	-15.87	-13.61
13256	V	56.23	37.35	74	54	-17.77	-16.65
15897	V	55.32	36.17	74	54	-18.68	-17.83
17326	V	55.69	39.58	74	54	-18.31	-14.42
2360	H	64.09	45.21	74	54	-9.91	-8.79
2596	H	60.28	41.28	74	54	-13.72	-12.72
9237	H	57.63	38.44	74	54	-16.37	-15.56
13256	H	56.82	37.16	74	54	-17.18	-16.84
15897	H	55.32	36.48	74	54	-18.68	-17.52
17326	H	56.32	38.69	74	54	-17.68	-15.31

Operation Mode: 802.11b Middle      Test Date : 2023-08-01  
 Test Voltage: AC 120V 60Hz      Test by: Rock

Freq. (MHz)	Ant. Pol. H/V	Emission Level(dBuV/m)		Limit 3m(dBuV/m)		Over(dB)	
		PK	AV	PK	AV	PK	AV
4236	V	64.2	45.16	74	54	-9.8	-8.84
5265	V	60.25	41.25	74	54	-13.75	-12.75
9823	V	58.36	39.65	74	54	-15.64	-14.35
13263	V	56.14	37.45	74	54	-17.86	-16.55
16622	V	55.62	36.85	74	54	-18.38	-17.15
17350	V	56.23	37.55	74	54	-17.77	-16.45
4236	H	63.14	64.32	74	54	-10.86	10.32
5265	H	61.23	42.58	74	54	-12.77	-11.42
9823	H	59.65	41.32	74	54	-14.35	-12.68
13263	H	58.47	40.02	74	54	-15.53	-13.98
16622	H	56.2	37.26	74	54	-17.8	-16.74
17350	H	56.27	38.47	74	54	-17.73	-15.53

Operation Mode: 802.11b Highest

Test Date : 2023-08-01

Test Voltage: AC 120V 60Hz

Test by: Rock

Freq. (MHz)	Ant. Pol. H/V	Emission Level(dBuV/m)		Limit 3m(dBuV/m)		Over(dB)	
		PK	AV	PK	AV	PK	AV
3507	V	62.81	42.67	74	54	-11.19	-11.33
4692	V	59.63	40.2	74	54	-14.37	-13.8
7963	V	58.47	40.25	74	54	-15.53	-13.75
11206	V	59.3	40.55	74	54	-14.7	-13.45
13265	V	56.25	37.16	74	54	-17.75	-16.84
16873	V	56.39	37.45	74	54	-17.61	-16.55
3507	H	63.52	43.69	74	54	-10.48	-10.31
4692	H	60.23	41.36	74	54	-13.77	-12.64
7963	H	59.36	40.21	74	54	-14.64	-13.79
11206	H	58.32	39.14	74	54	-15.68	-14.86
13265	H	56.74	37.26	74	54	-17.26	-16.74
16873	H	56.36	37.15	74	54	-17.64	-16.85

**No others harmonics emissions are higher than 20 dB below the limits of 47 CFR Part 15.247.**

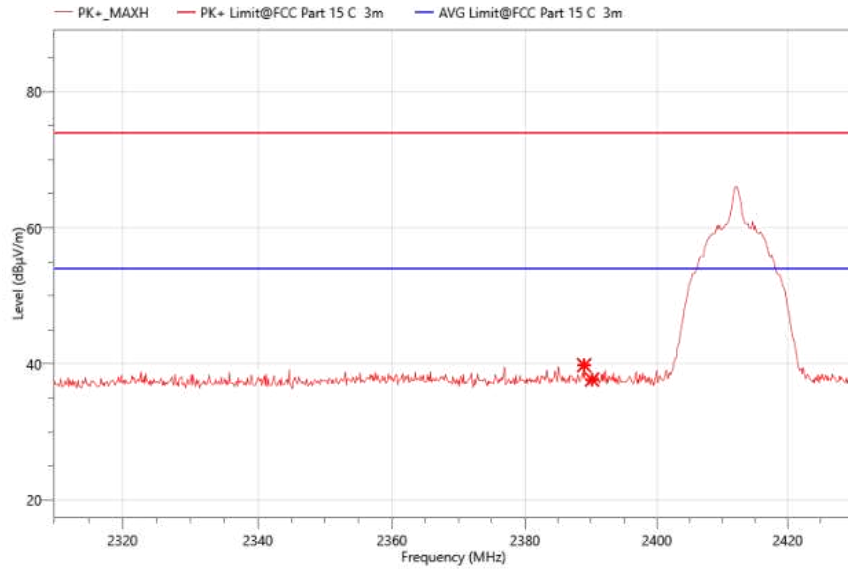
**Note:** (1) All Readings are Peak Value and AV.

(2) Emission Level= Reading Level+Probe Factor +Cable Loss.

(3) Data of measurement within this frequency range shown “ – ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

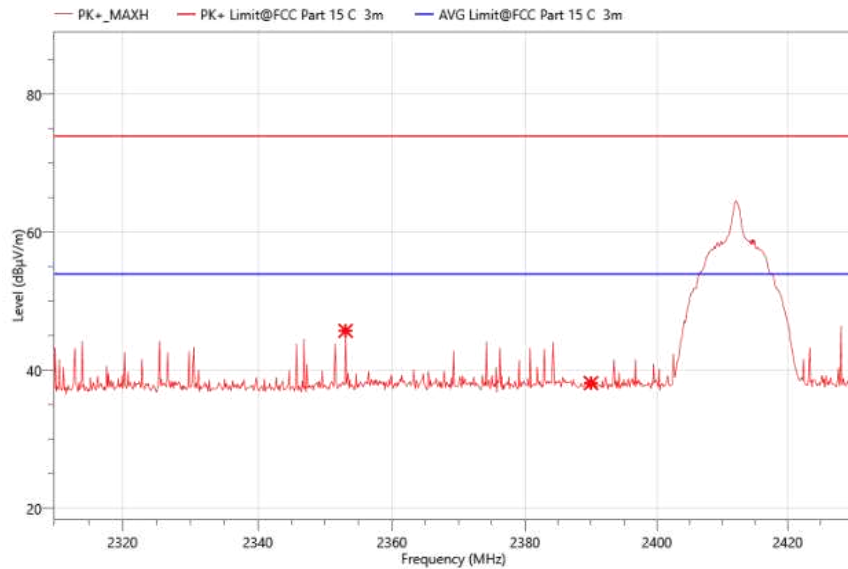
**Band edge:**

**802.11b 2412MHz**  
 Horizontal



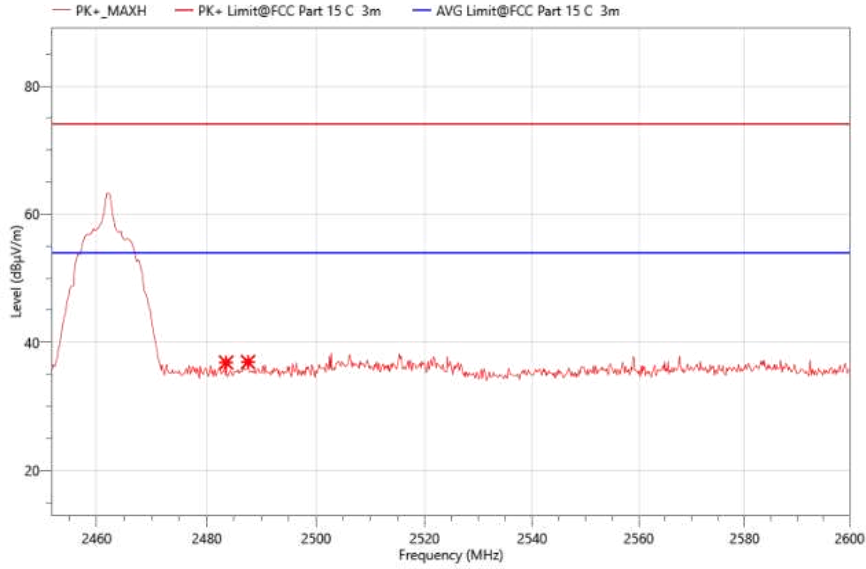
No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Corr. (dB)
1	2388.960	60.54	39.81	74.00	34.19	PK+	H	-20.73
2	2390.160	58.43	37.70	74.00	36.30	PK+	H	-20.73

**Vertical**



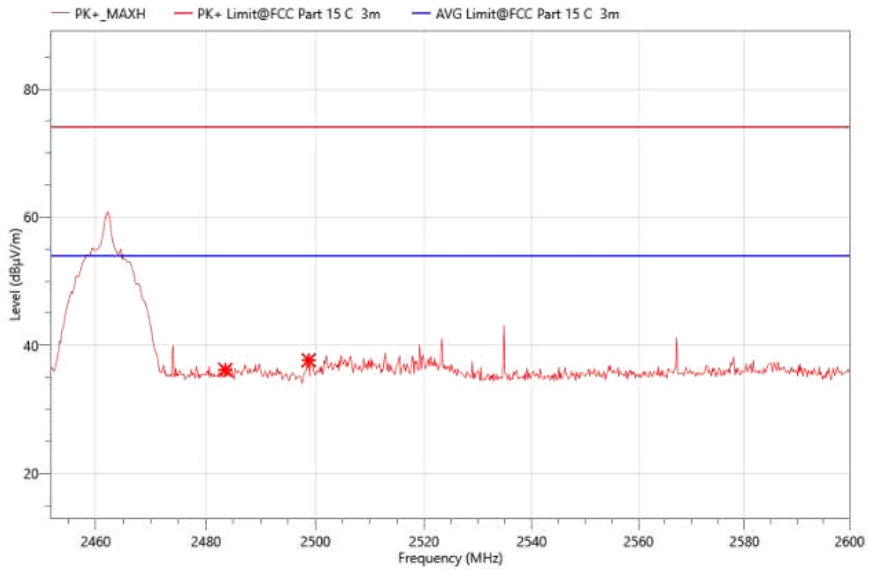
No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Corr. (dB)
1	2353.080	66.52	45.76	74.00	28.24	PK+	V	-20.76
2	2390.000	58.91	38.18	74.00	35.82	PK+	V	-20.73

**802.11b 2462MHz**  
 Horizontal



No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Corr. (dB)
1	2483.524	57.13	36.83	74.00	37.17	PK+	H	-20.3
2	2487.520	57.19	36.91	74.00	37.09	PK+	H	-20.28

**Vertical**



No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Det.	Pol.	Corr. (dB)
1	2483.524	56.45	36.15	74.00	37.85	PK+	V	-20.3
2	2498.768	57.92	37.66	74.00	36.34	PK+	V	-20.26

## **ANTENNA REQUIREMENT**

### **REQUIREMENT**

The EUT'S antenna is met the requirement of FCC part 15C section 15.203 and 15.247.

FCC part 15C section 15.247 requirements:

Systems operating in the 2402-2480MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum peak output power of the intentional radiator is reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

### **DESCRIPTION**

Pass

## AC POWER LINE CONDUCTED EMISSION

### LIMITS

Please refer to CFR 47 FCC §15.207 (a) and ISED RSS-Gen Clause 8.8

FREQUENCY (MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

### TEST PROCEDURE

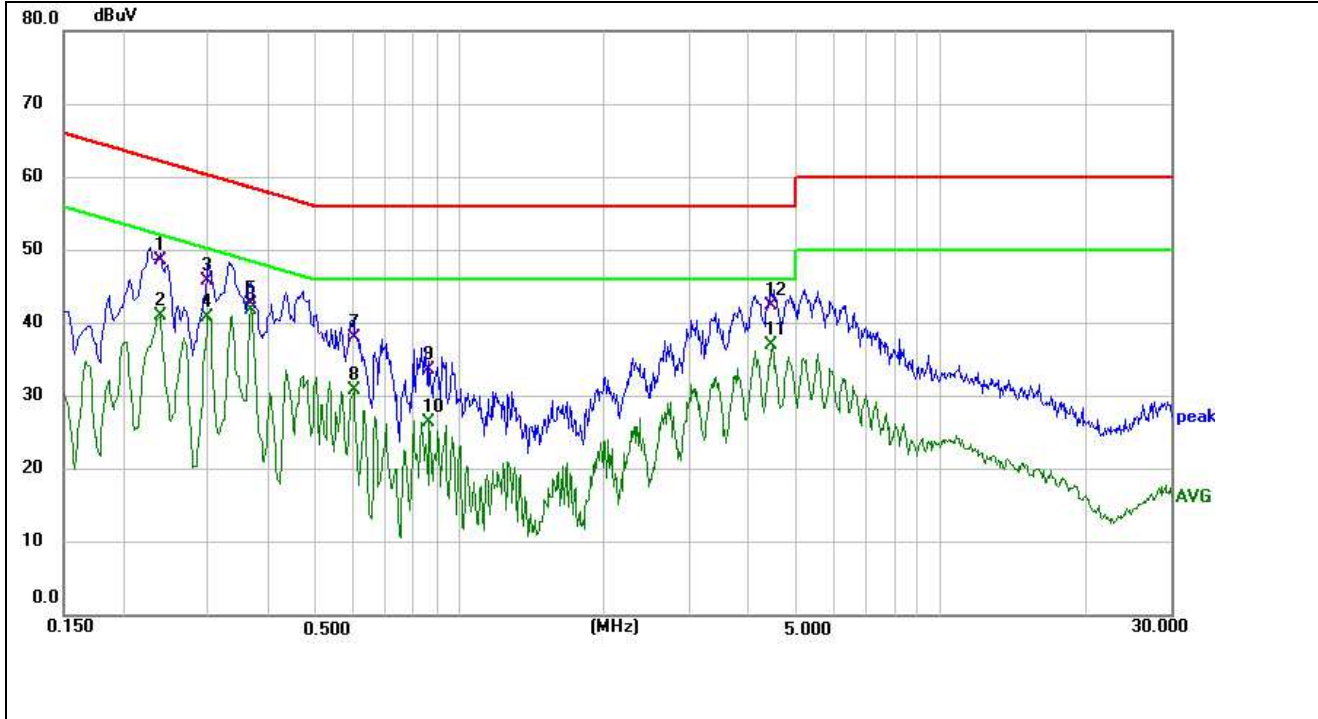
The EUT is put on a table of non-conducting material that is 80 cm high. The vertical conducting wall of shielding is located 40 cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9 kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

### TEST ENVIRONMENT

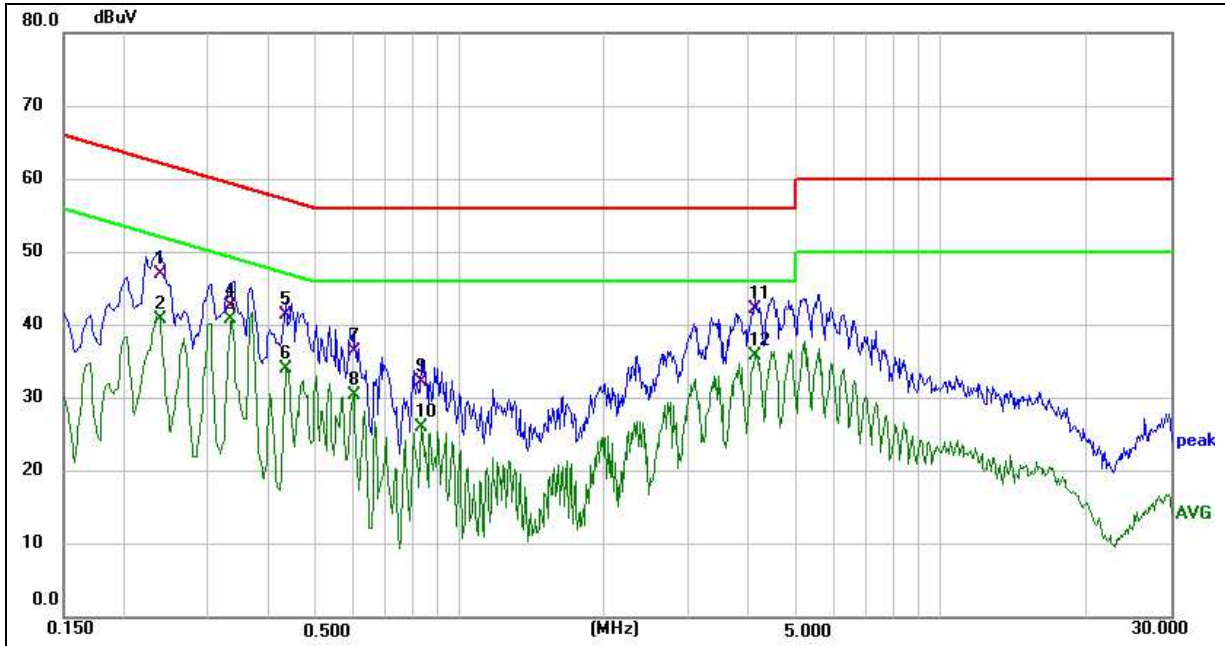
Temperature	23.5°C	Relative Humidity	52.6%
Atmosphere Pressure	101kPa		

**TEST RESULTS**



<b>Site:</b>		<b>Phase:</b> L1	<b>Temperature(C):</b> 24.5(C)
<b>Limit:</b>	FCC Part 15 C Conduction(QP)		<b>Humidity(%):</b> 51.2%
<b>EUT:</b>	SkyView Pro Table Lamp	<b>Test Time:</b>	2023-07-26
<b>M/N.:</b>	BH-SKY2-P00-CBK001-1	<b>Power Rating:</b>	AC 120V 60Hz
<b>Mode:</b>	2.4G WIFI mode	<b>Test Engineer:</b>	Rock
<b>Note:</b>			

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measurement(dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
1	0.2380	38.57	10.03	48.60	62.17	-13.57	QP	
2	0.2380	30.87	10.03	40.90	52.17	-11.27	AVG	
3	0.2980	35.54	10.16	45.70	60.30	-14.60	QP	
4	0.2980	30.55	10.16	40.71	50.30	-9.59	AVG	
5	0.3660	32.29	10.31	42.60	58.59	-15.99	QP	
6 *	0.3660	31.40	10.31	41.71	48.59	-6.88	AVG	
7	0.6020	27.33	10.77	38.10	56.00	-17.90	QP	
8	0.6020	19.96	10.77	30.73	46.00	-15.27	AVG	
9	0.8660	24.00	9.60	33.60	56.00	-22.40	QP	
10	0.8660	16.77	9.60	26.37	46.00	-19.63	AVG	
11	4.4699	27.29	9.69	36.98	46.00	-9.02	AVG	
1	0.2380	38.57	10.03	48.60	62.17	-13.57	QP	



<b>Site:</b>		<b>Phase:</b> N	<b>Temperature(C):</b> 24.5(C)
<b>Limit:</b>	FCC Part 15 C Conduction(QP)		<b>Humidity(%):</b> 51.2%
<b>EUT:</b>	SkyView Pro Table Lamp	<b>Test Time:</b>	2023-07-26
<b>M/N.:</b>	BH-SKY2-P00-CBK001-1	<b>Power Rating:</b>	AC 120V 60Hz
<b>Mode:</b>	2.4G WIFI mode	<b>Test Engineer:</b>	Rock
<b>Note:</b>			

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measurement(dBuV)	Limit (dBuV)	Margin (dB)	Detector	Comment
1	0.2380	36.86	10.04	46.90	62.17	-15.27	QP	
2	0.2380	30.72	10.04	40.76	52.17	-11.41	AVG	
3 *	0.3339	30.53	10.22	40.75	49.35	-8.60	AVG	
4	0.3339	32.28	10.22	42.50	59.35	-16.85	QP	
5	0.4340	30.87	10.43	41.30	57.18	-15.88	QP	
6	0.4340	23.54	10.43	33.97	47.18	-13.21	AVG	
7	0.6020	25.73	10.77	36.50	56.00	-19.50	QP	
8	0.6020	19.63	10.77	30.40	46.00	-15.60	AVG	
9	0.8340	22.71	9.59	32.30	56.00	-23.70	QP	
10	0.8340	16.49	9.59	26.08	46.00	-19.92	AVG	
11	4.1060	32.42	9.68	42.10	56.00	-13.90	QP	
12	4.1060	26.06	9.68	35.74	46.00	-10.26	AVG	

- Note: 1. Result = Reading + Correct Factor.  
 2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.  
 3. Test setup: RBW: 200 Hz (9 kHz ~ 150 kHz), 9 kHz (150 kHz ~ 30 MHz).  
 4. Step size: 80 Hz (0.009 MHz ~ 0.15 MHz), 4 kHz (0.15 MHz ~ 30 MHz), Scan time: auto.

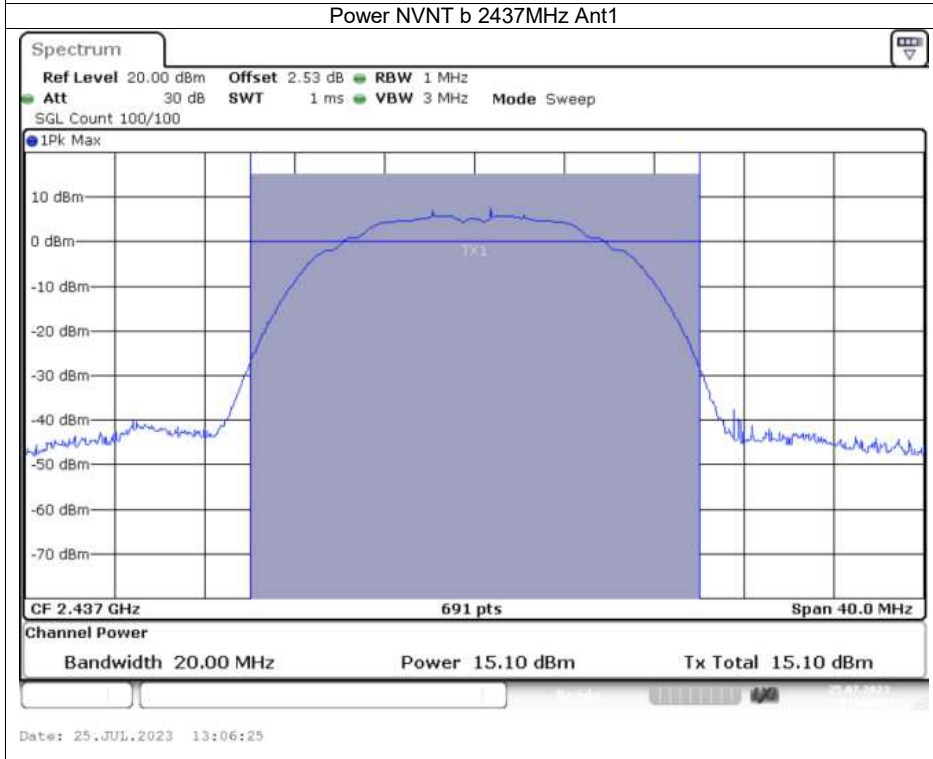
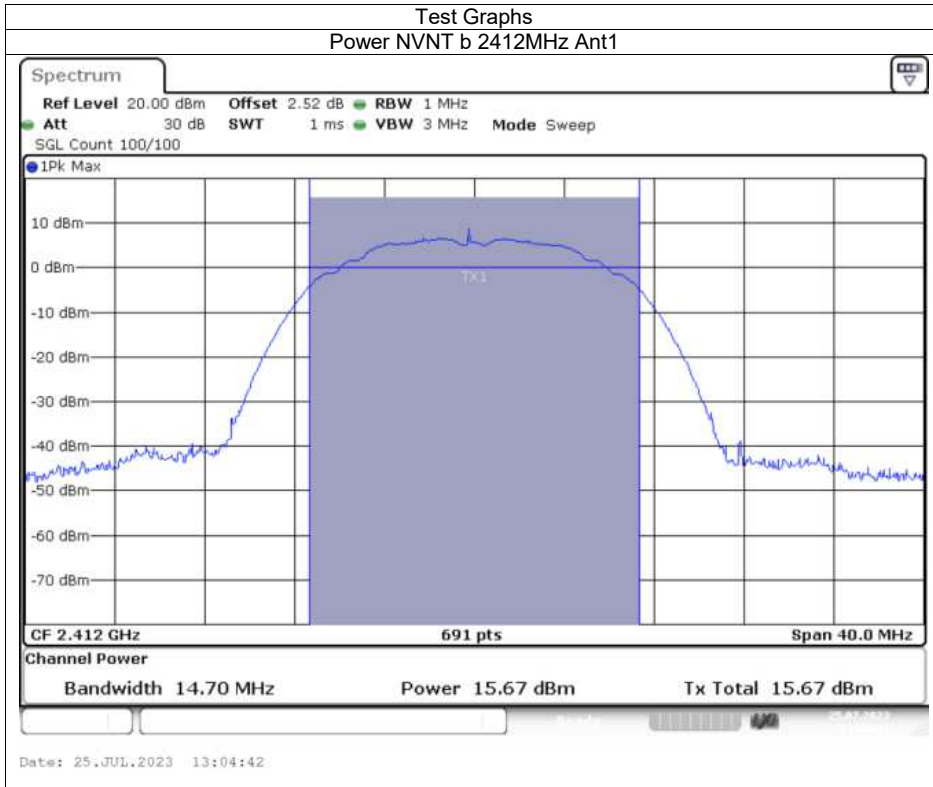
Note: All the modes have been tested, only the worst data was recorded in the report.

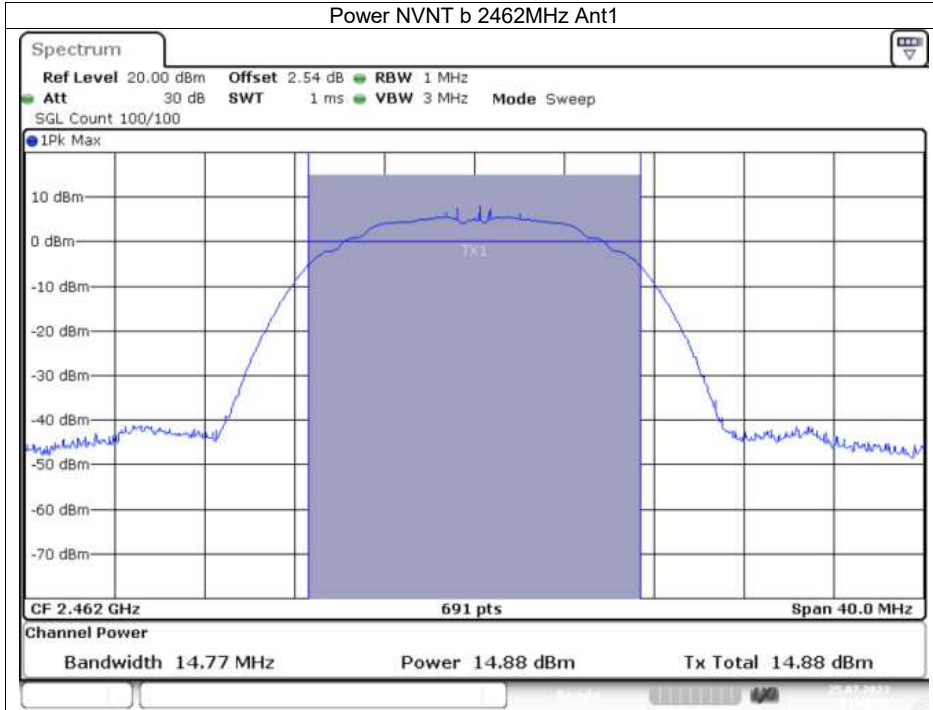


## TEST DATA

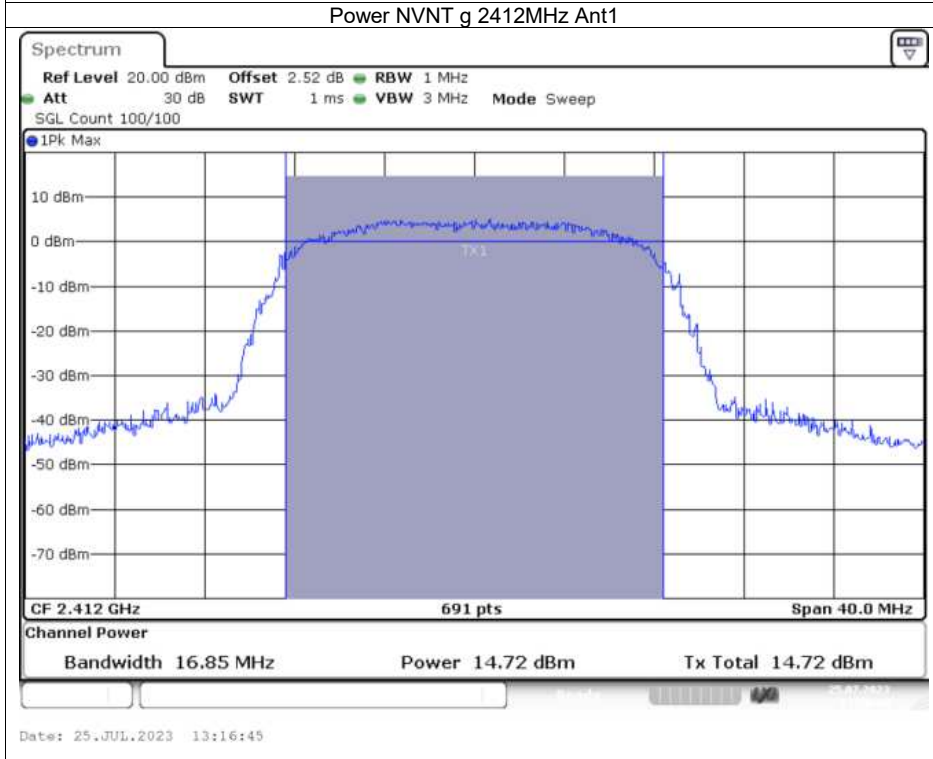
### Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	13.47	0	15.67	30	Pass
NVNT	b	2437	Ant1	12.9	0	15.1	30	Pass
NVNT	b	2462	Ant1	12.68	0	14.88	30	Pass
NVNT	g	2412	Ant1	12.52	0	14.72	30	Pass
NVNT	g	2437	Ant1	12.21	0	14.41	30	Pass
NVNT	g	2462	Ant1	11.86	0	14.06	30	Pass
NVNT	n20	2412	Ant1	12.5	0	14.7	30	Pass
NVNT	n20	2437	Ant1	12.03	0	14.23	30	Pass
NVNT	n20	2462	Ant1	11.93	0	14.13	30	Pass
NVNT	n40	2422	Ant1	10.7	0	12.9	30	Pass
NVNT	n40	2437	Ant1	10.52	0	12.72	30	Pass
NVNT	n40	2452	Ant1	10.57	0	12.77	30	Pass

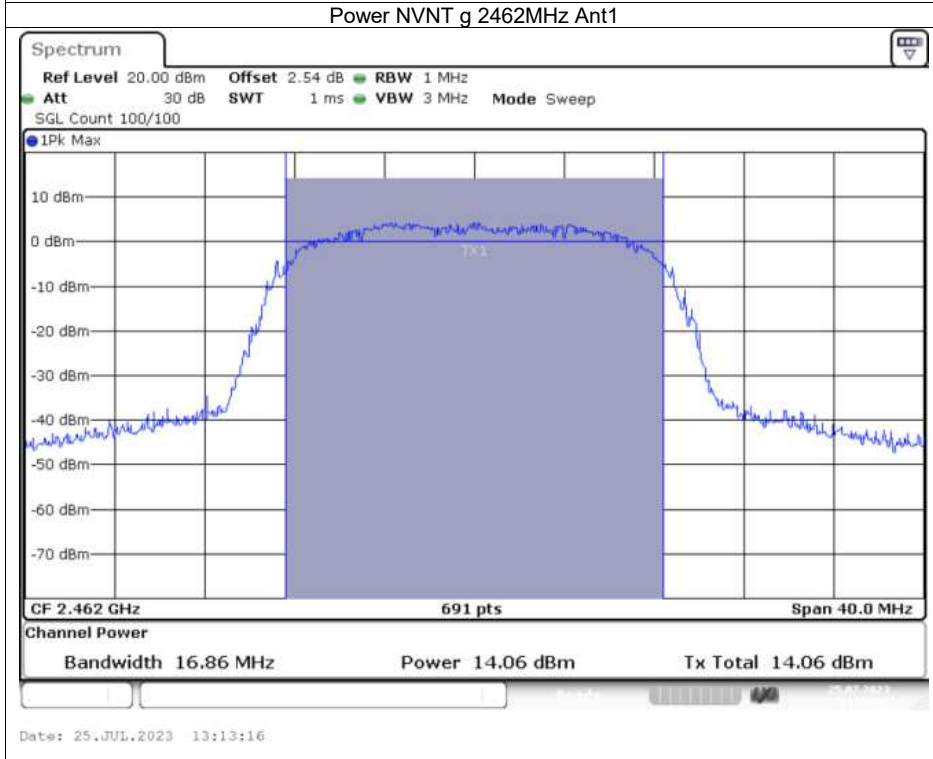
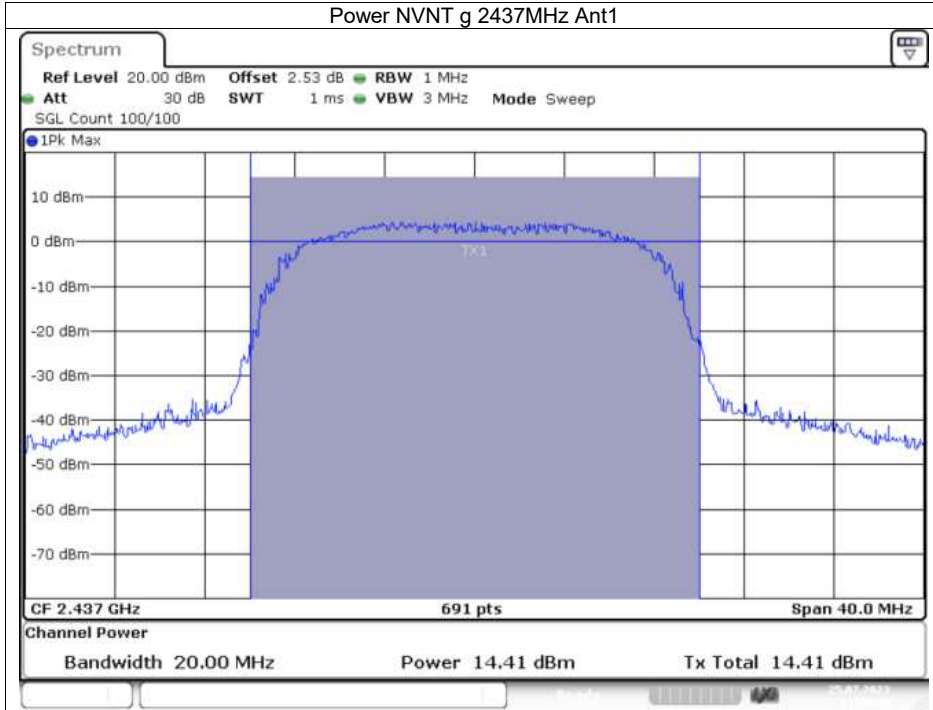


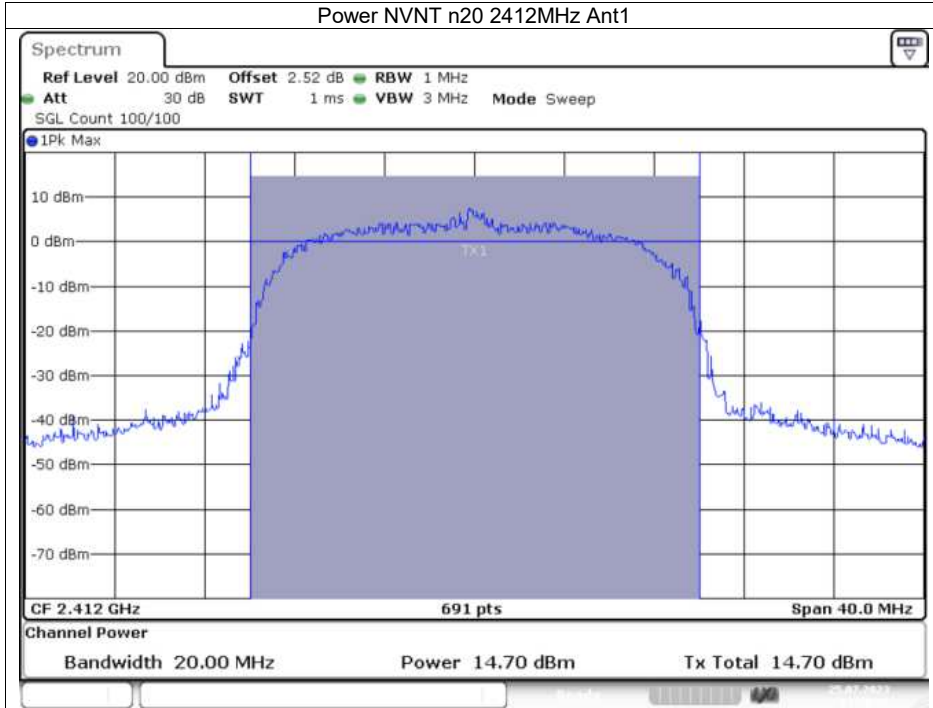


Date: 25.JUL.2023 13:08:56

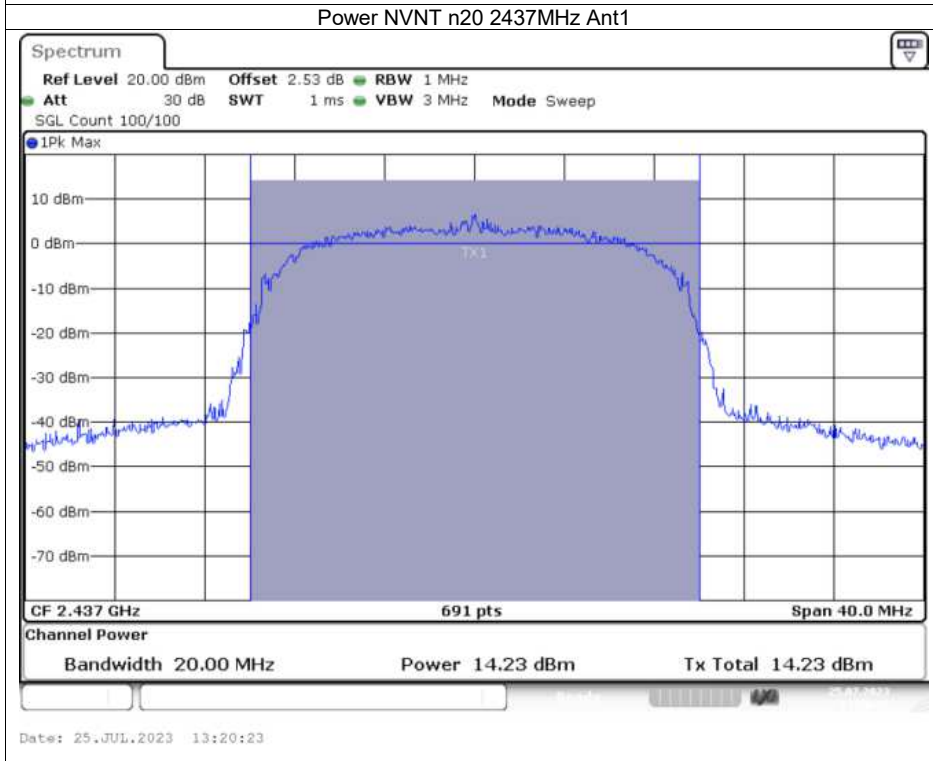


Date: 25.JUL.2023 13:16:45

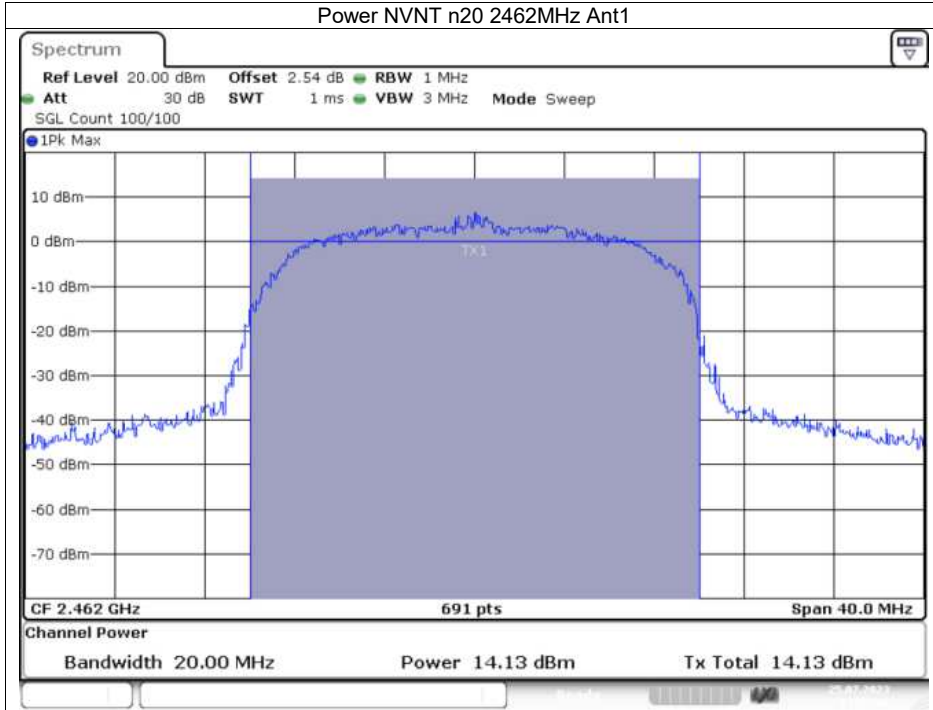




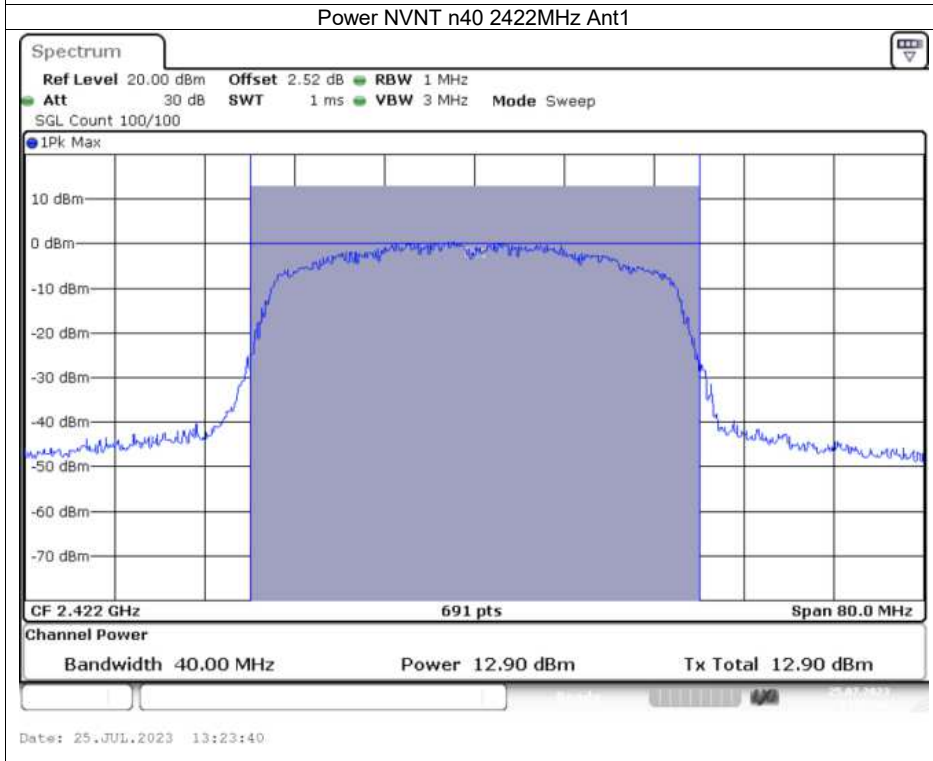
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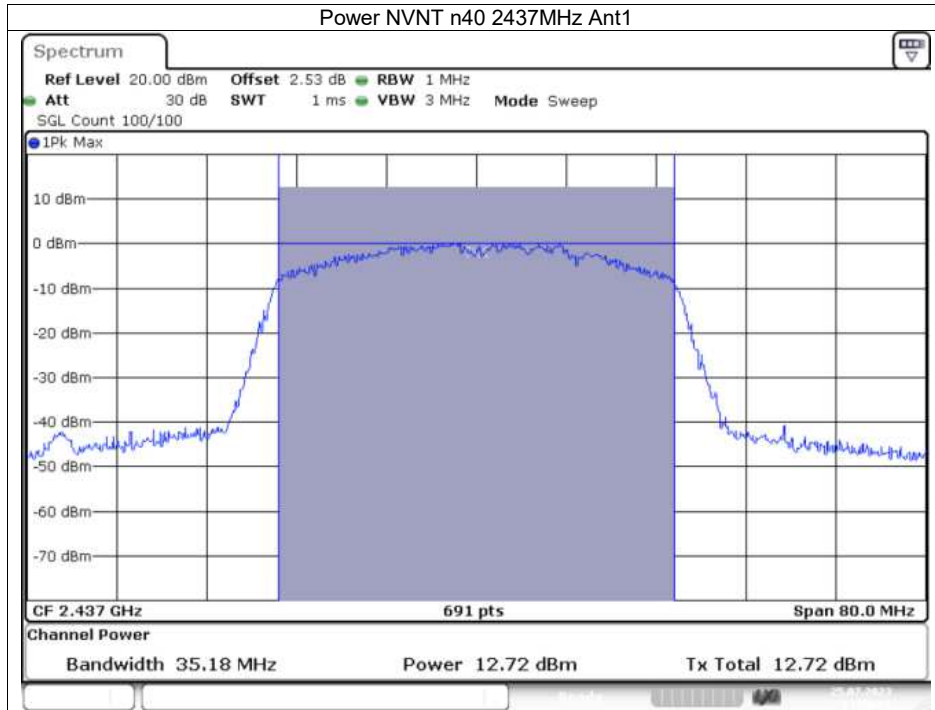
Date: 25.JUL.2023 13:20:23



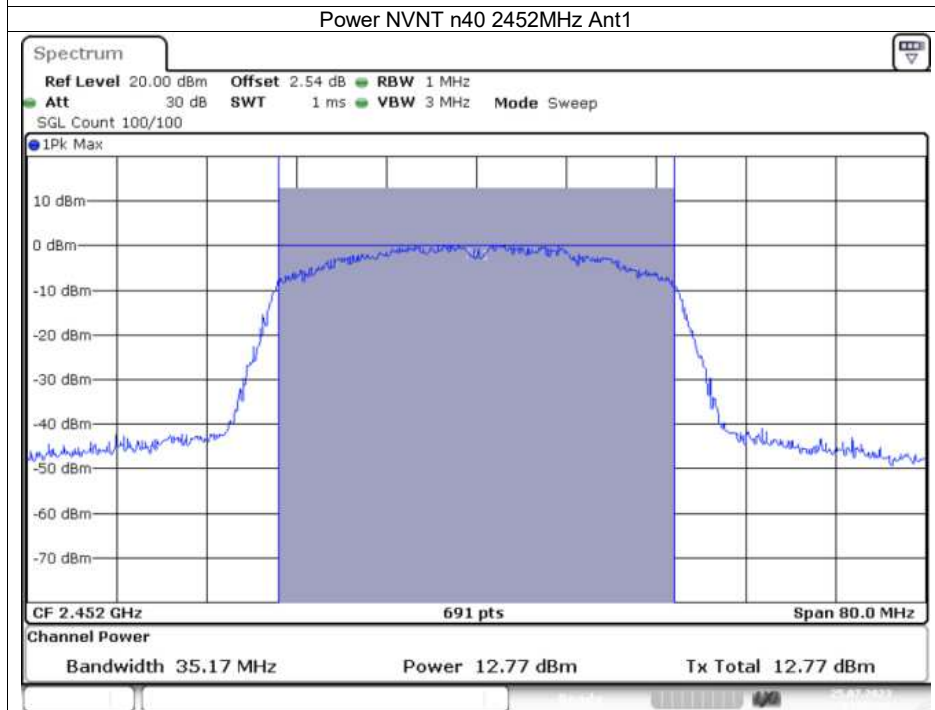
Date: 25.JUL.2023 13:21:48



Date: 25.JUL.2023 13:23:40



Date: 25.JUL.2023 13:26:01

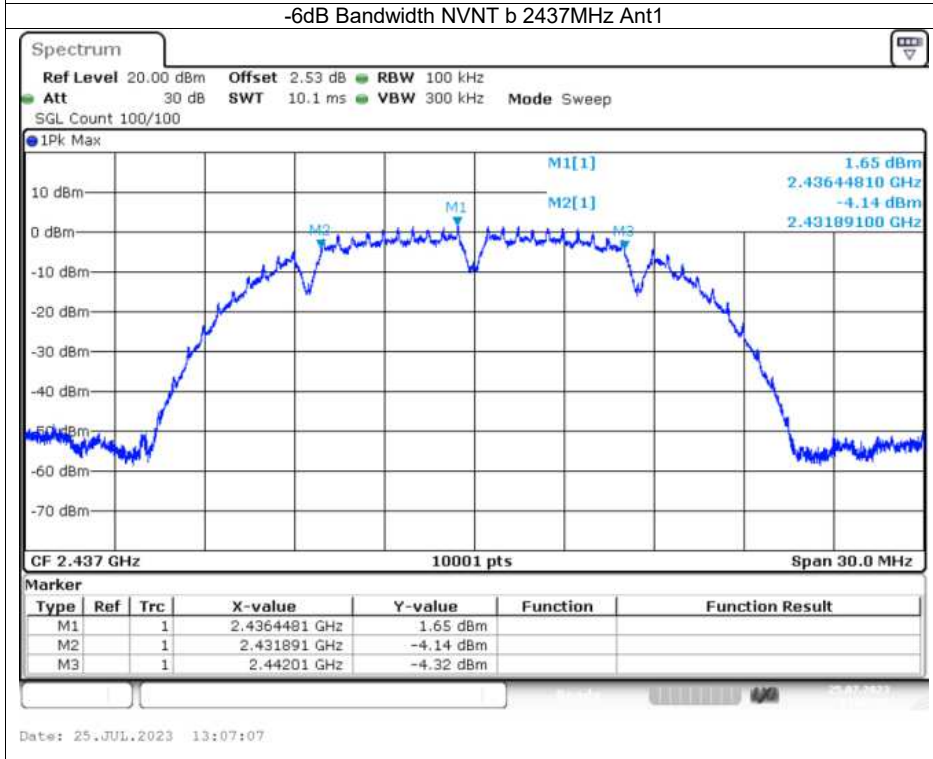
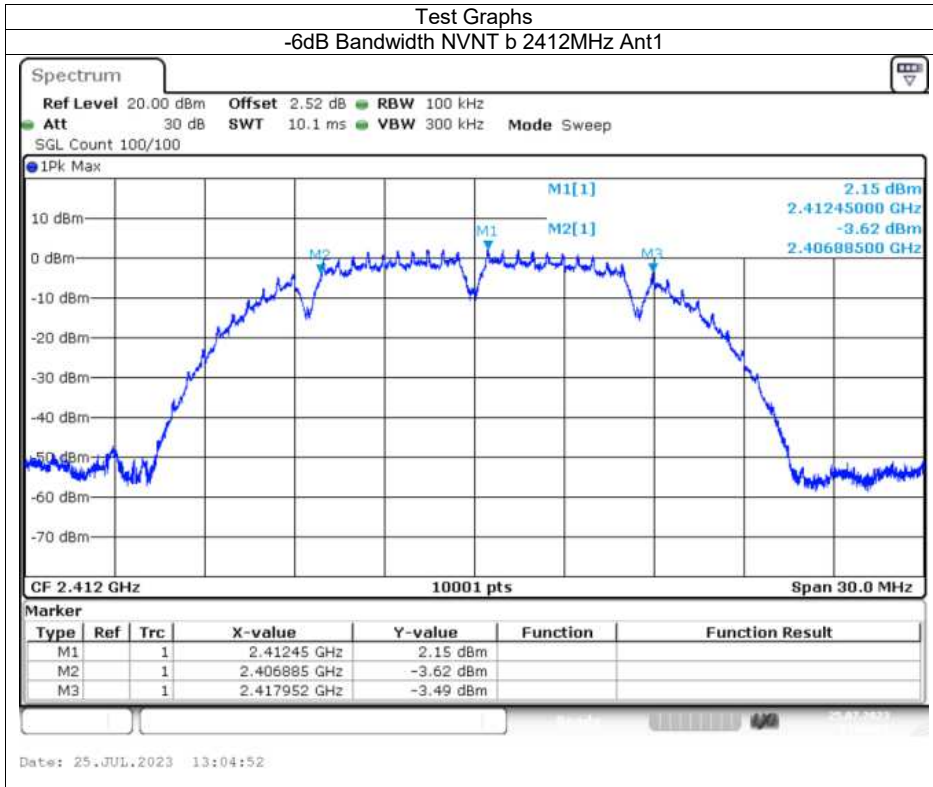


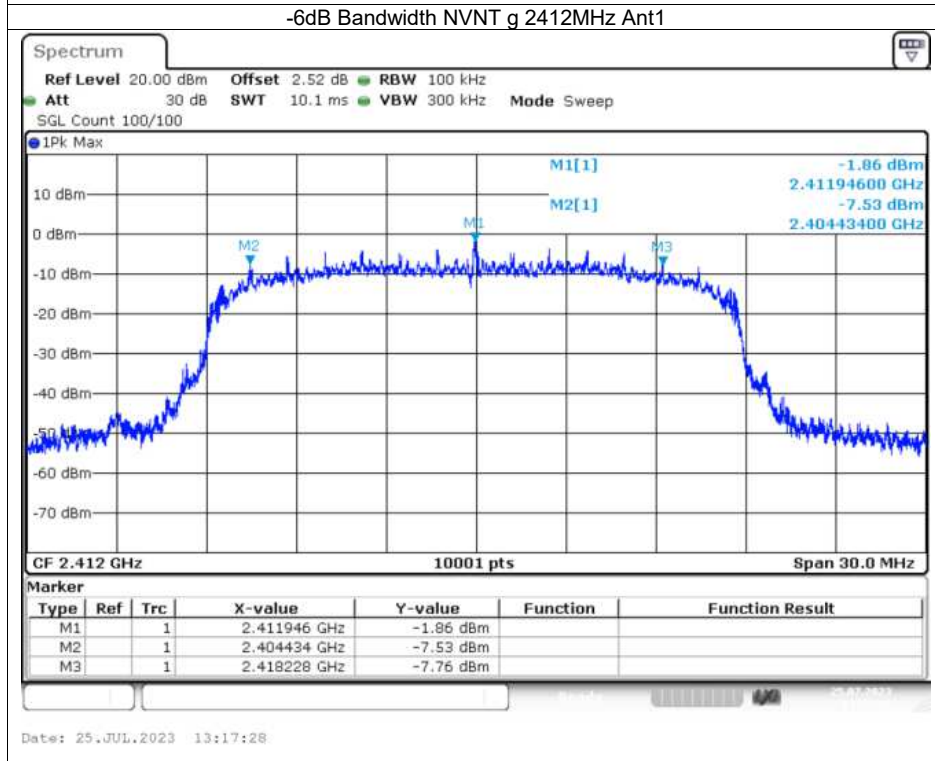
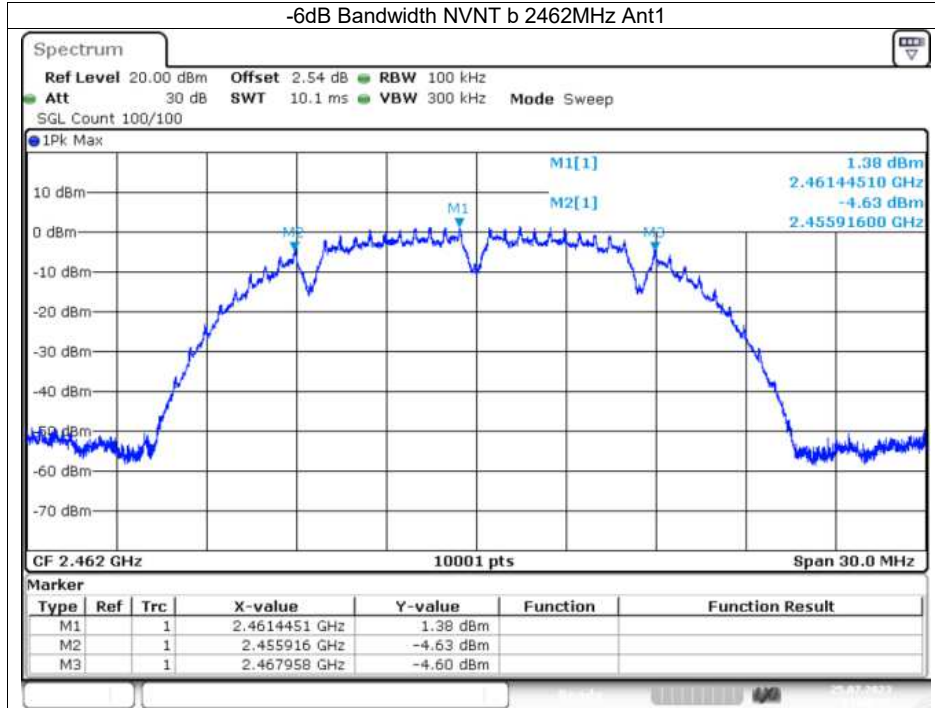
Date: 25.JUL.2023 13:27:59

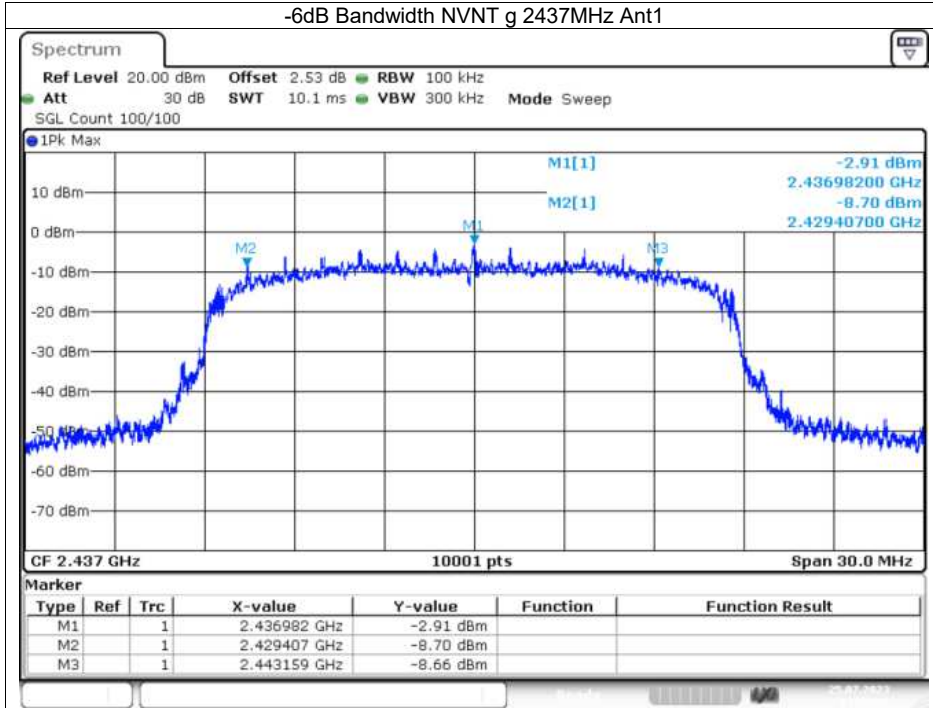
**-6dB Bandwidth**

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	11.067	0.5	Pass
NVNT	b	2437	Ant1	10.119	0.5	Pass
NVNT	b	2462	Ant1	12.042	0.5	Pass
NVNT	g	2412	Ant1	13.794	0.5	Pass
NVNT	g	2437	Ant1	13.752	0.5	Pass
NVNT	g	2462	Ant1	13.746	0.5	Pass
NVNT	n20	2412	Ant1	11.274	0.5	Pass
NVNT	n20	2437	Ant1	11.283	0.5	Pass
NVNT	n20	2462	Ant1	11.28	0.5	Pass
NVNT	n40	2422	Ant1	31.302	0.5	Pass
NVNT	n40	2437	Ant1	31.308	0.5	Pass
NVNT	n40	2452	Ant1	31.26	0.5	Pass

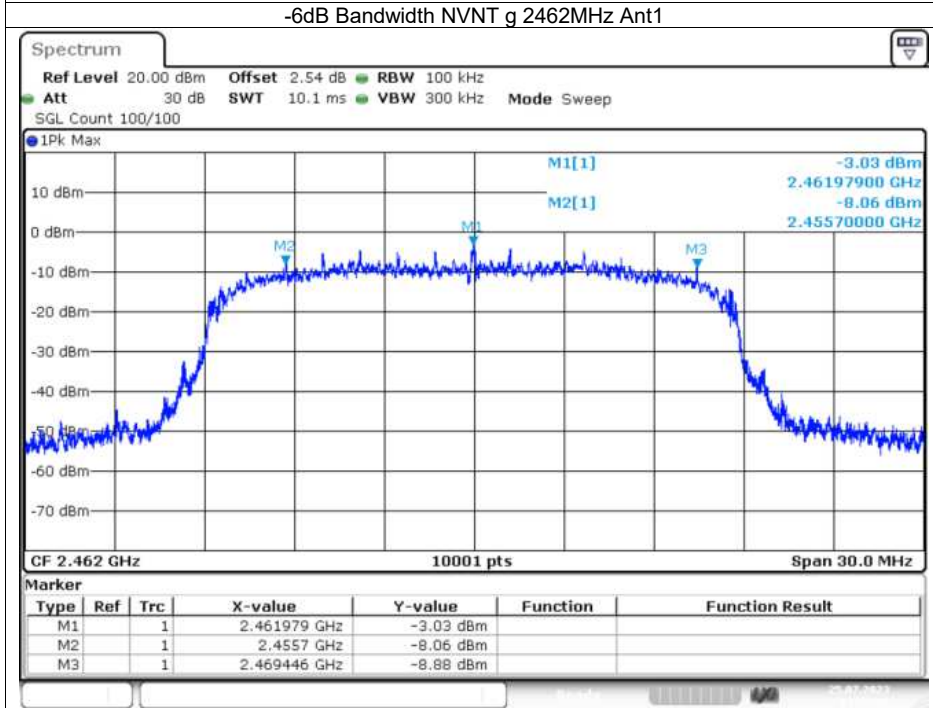




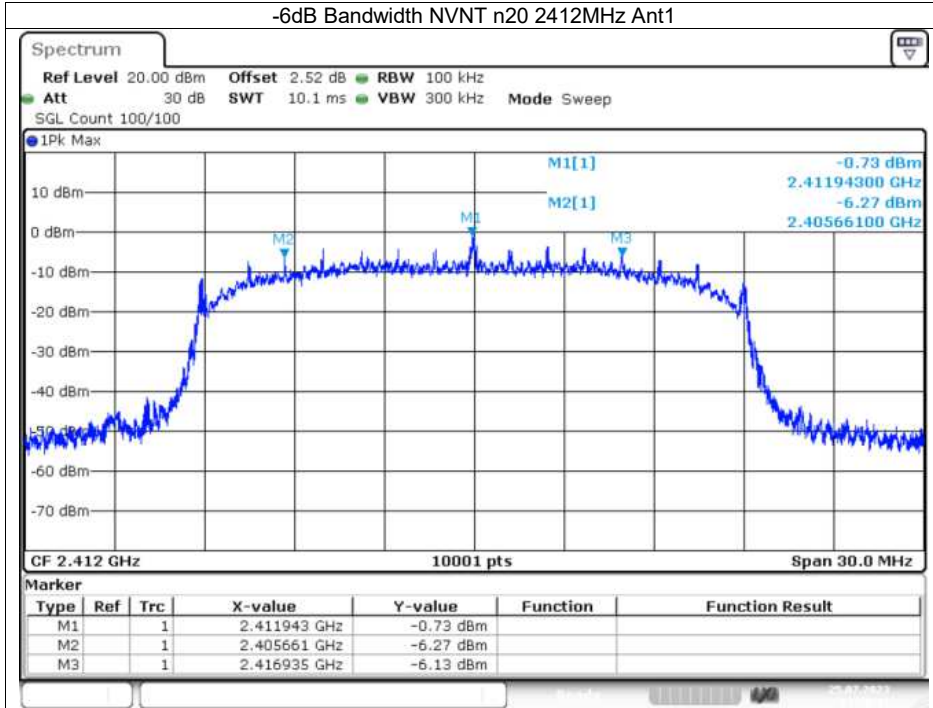




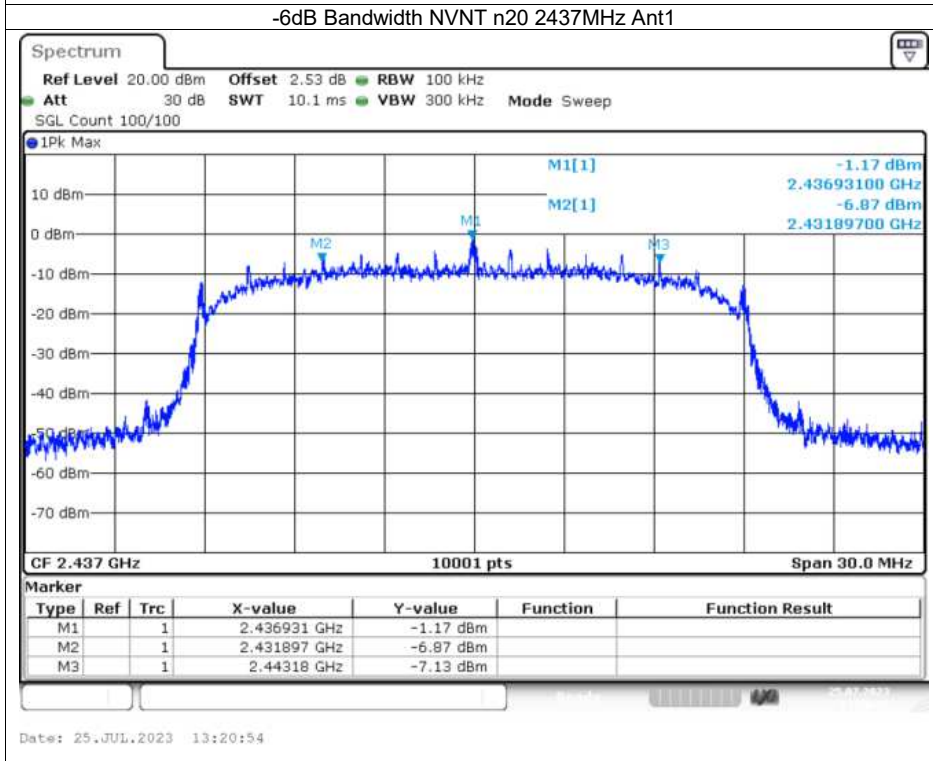
Date: 25.JUL.2023 13:15:17



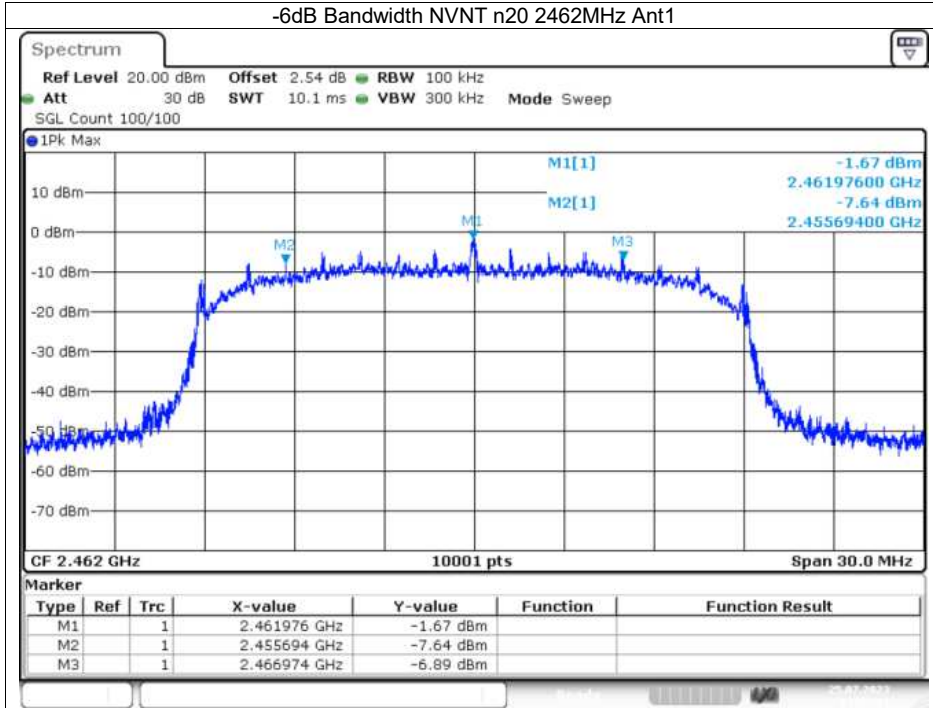
Date: 25.JUL.2023 13:13:27



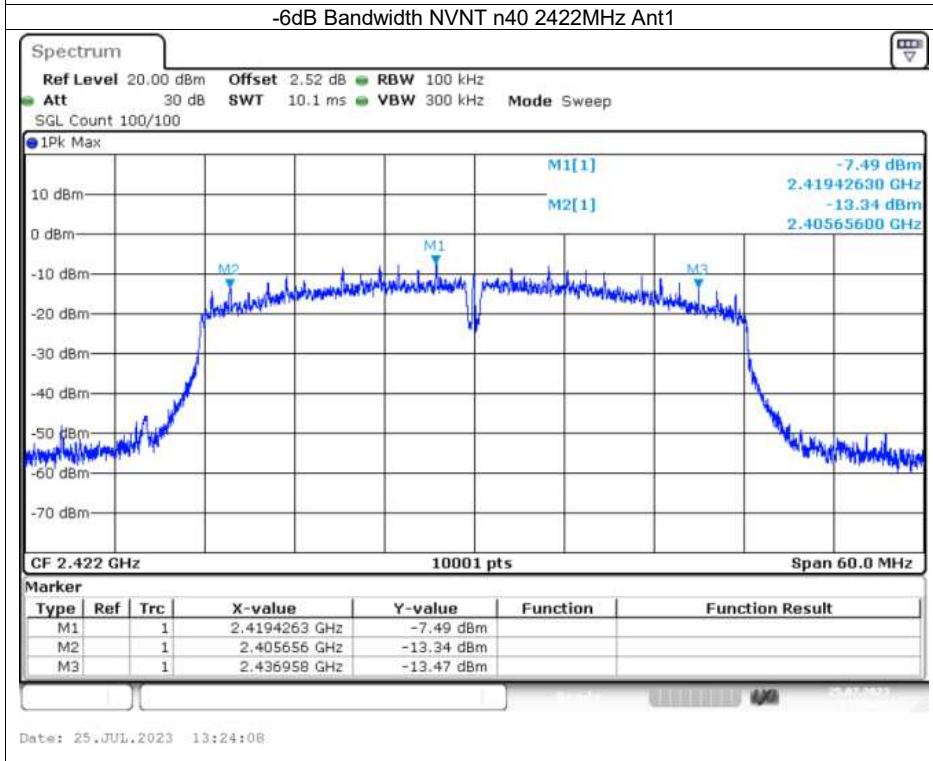
Date: 25.JUL.2023 13:19:12



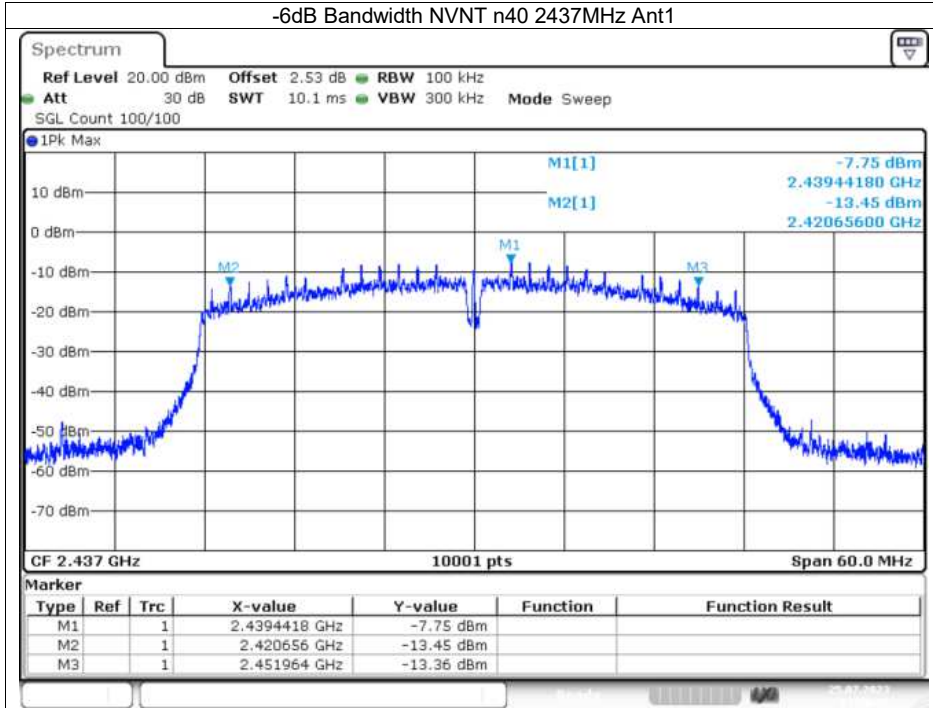
Date: 25.JUL.2023 13:20:54



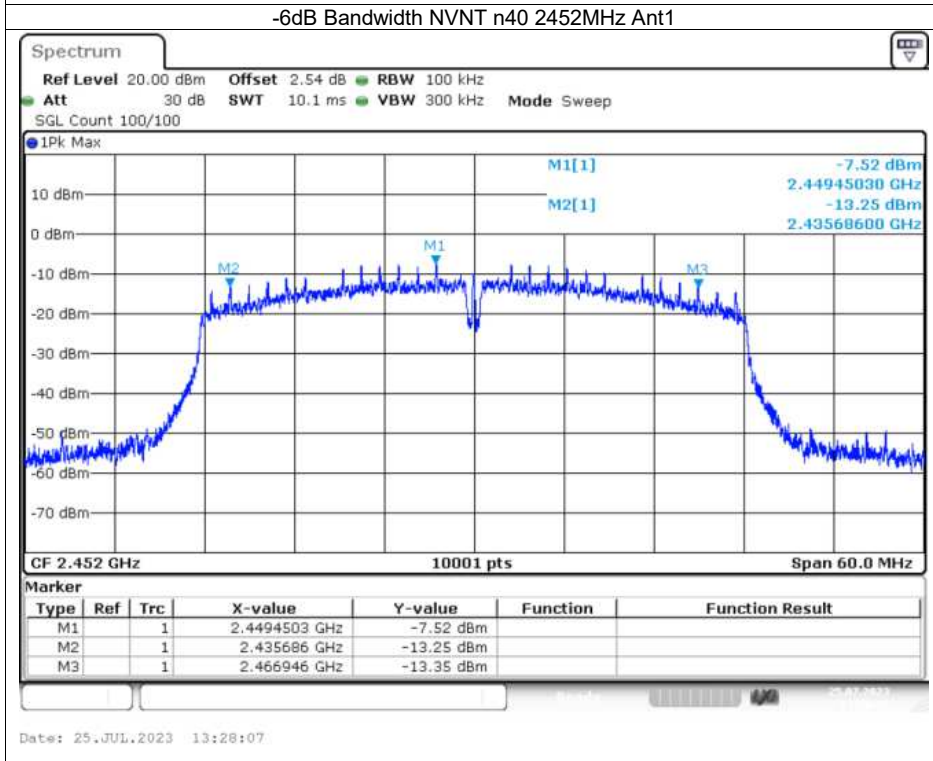
Date: 25.JUL.2023 13:22:21



Date: 25.JUL.2023 13:24:08



Date: 25.JUL.2023 13:26:09

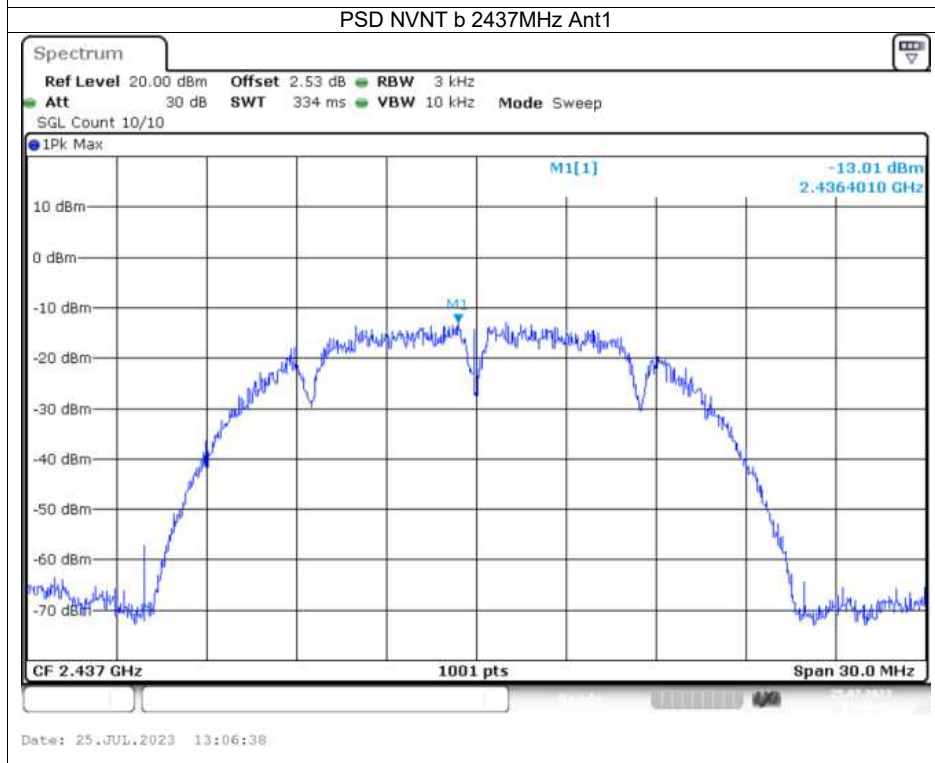
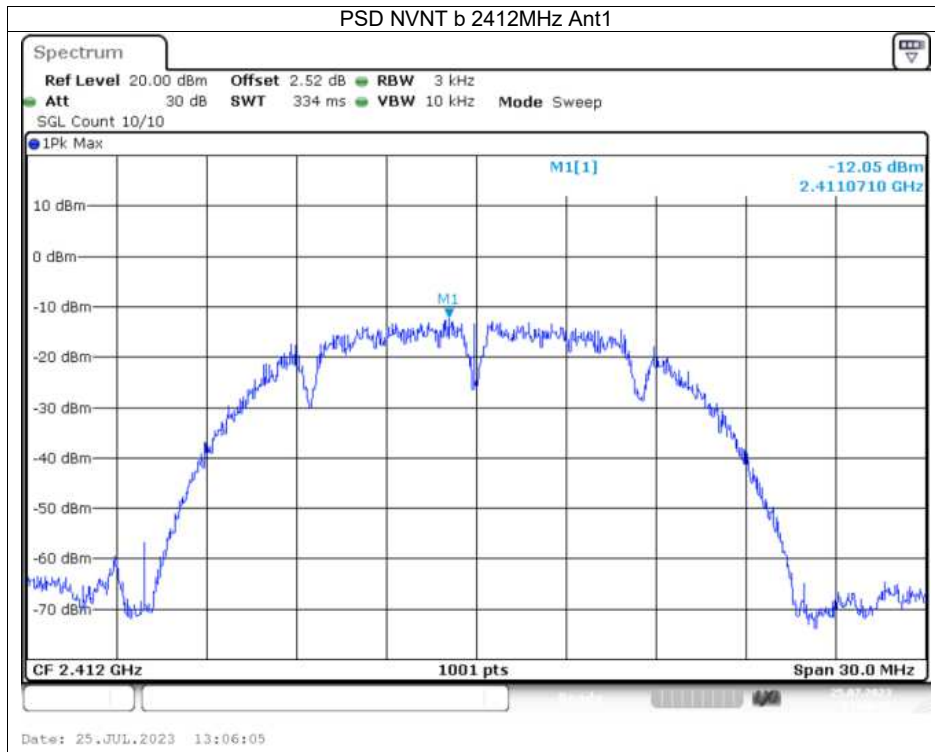


Date: 25.JUL.2023 13:28:07

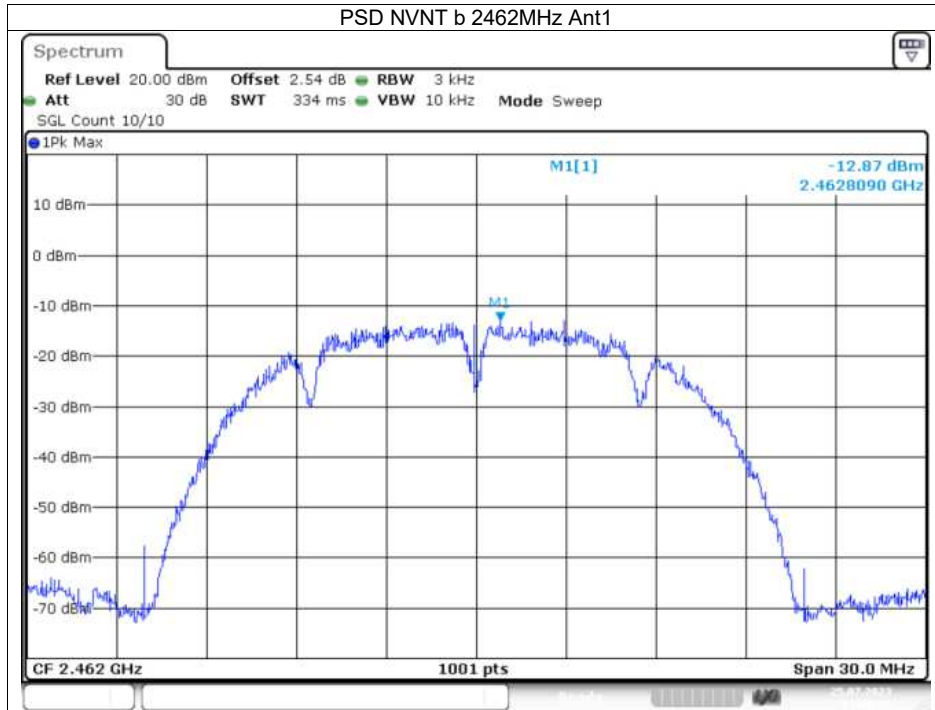
### Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-12.05	0	-12.05	8	Pass
NVNT	b	2437	Ant1	-13.01	0	-13.01	8	Pass
NVNT	b	2462	Ant1	-12.87	0	-12.87	8	Pass
NVNT	g	2412	Ant1	-10.54	0	-10.54	8	Pass
NVNT	g	2437	Ant1	-11.05	0	-11.05	8	Pass
NVNT	g	2462	Ant1	-11.34	0	-11.34	8	Pass
NVNT	n20	2412	Ant1	-10.02	0	-10.02	8	Pass
NVNT	n20	2437	Ant1	-10.38	0	-10.38	8	Pass
NVNT	n20	2462	Ant1	-10.63	0	-10.63	8	Pass
NVNT	n40	2422	Ant1	-11.39	0	-11.39	8	Pass
NVNT	n40	2437	Ant1	-11.08	0	-11.08	8	Pass
NVNT	n40	2452	Ant1	-11.03	0	-11.03	8	Pass

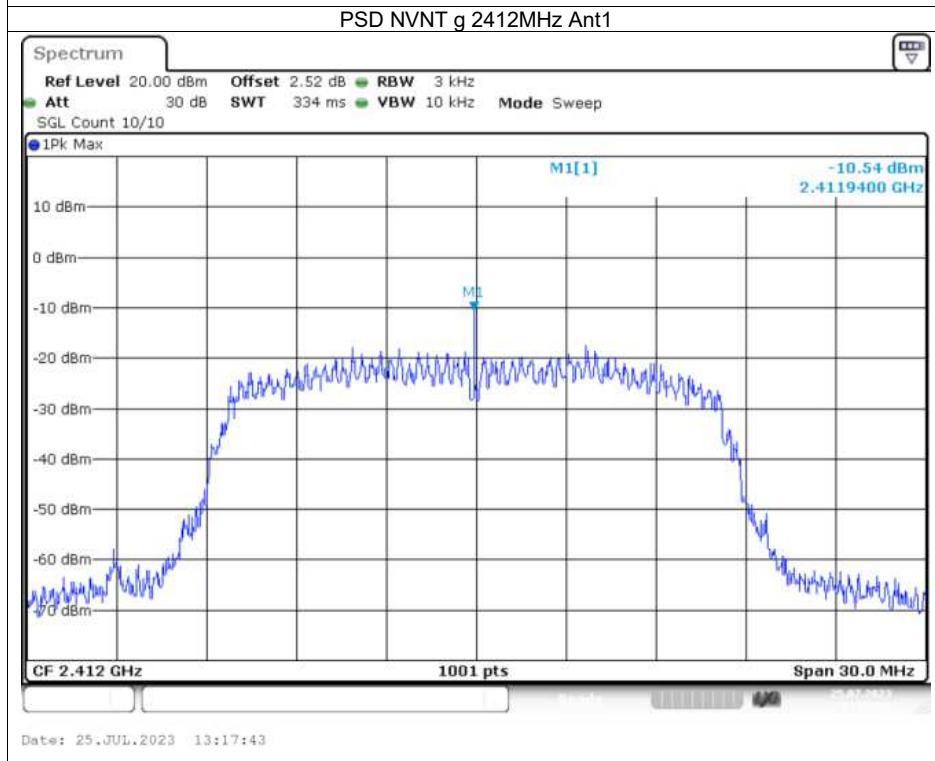
Test Graphs



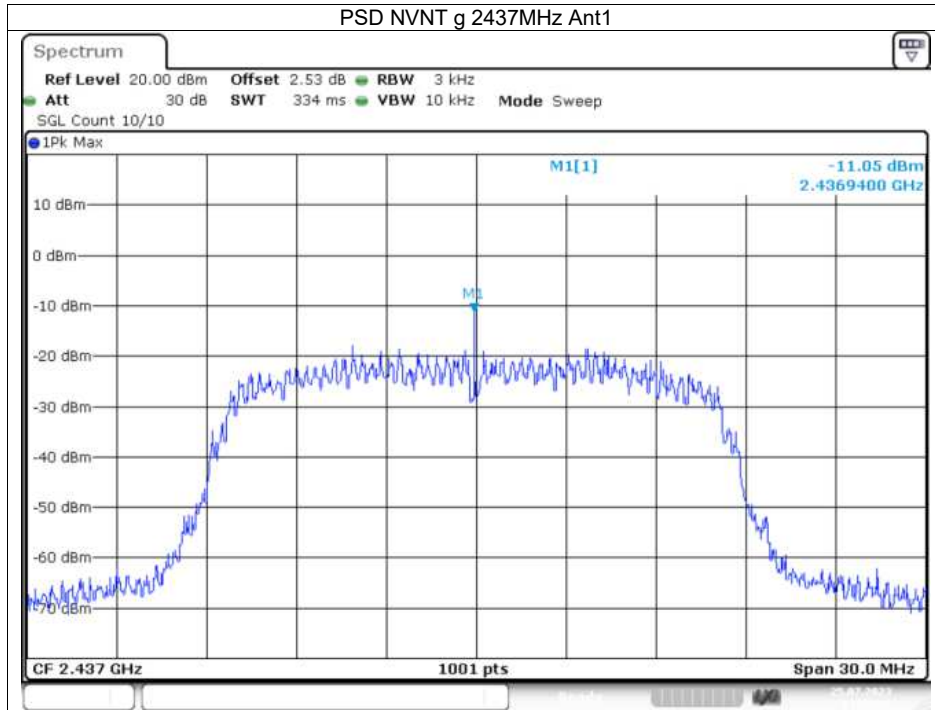




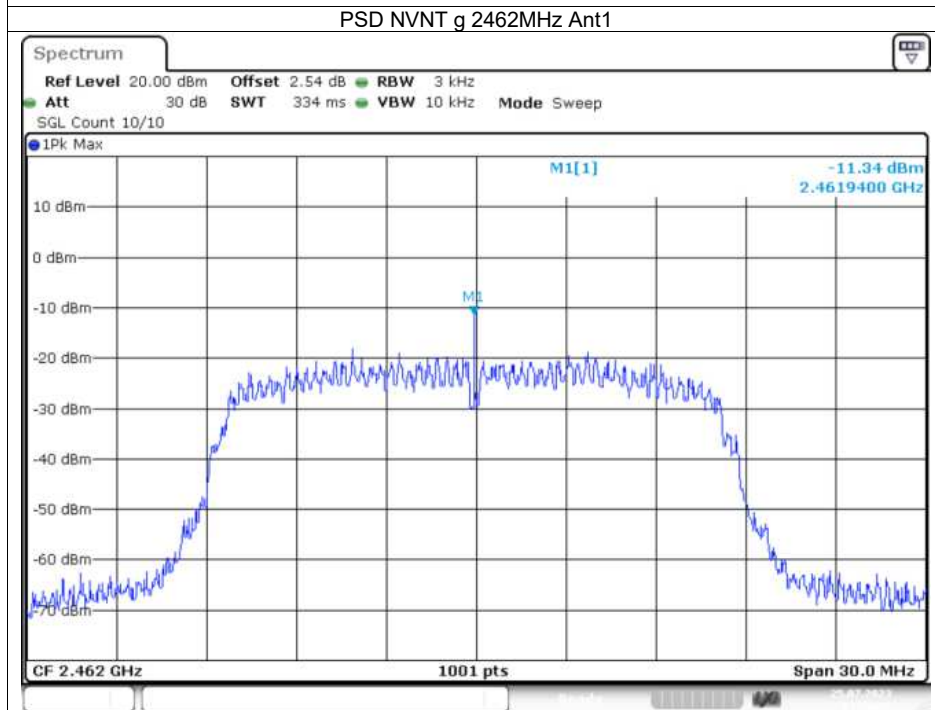
Date: 25.JUL.2023 13:09:23



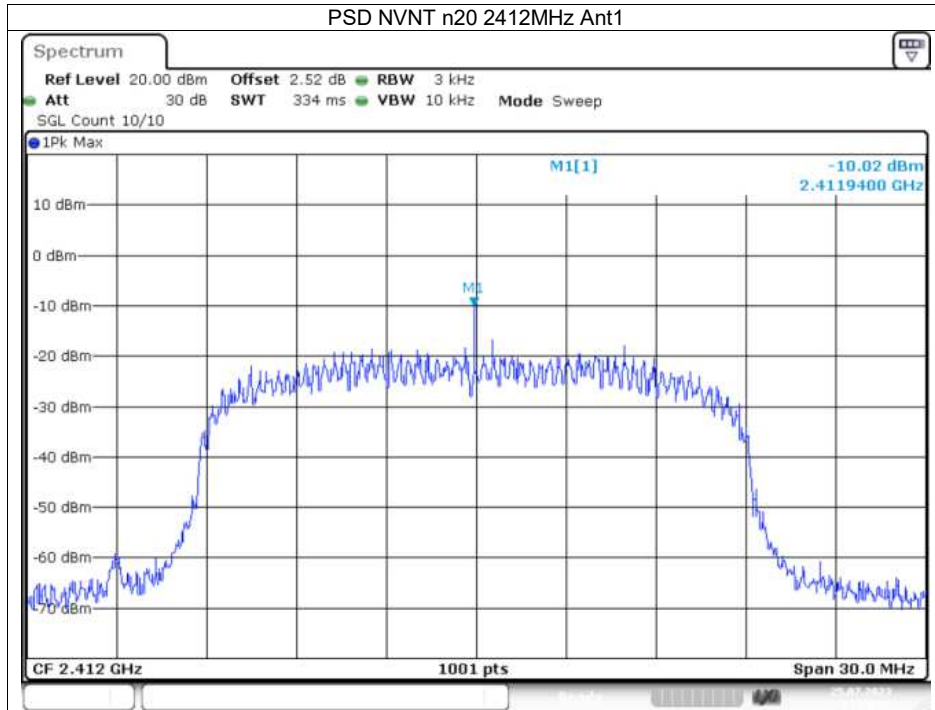
Date: 25.JUL.2023 13:17:43



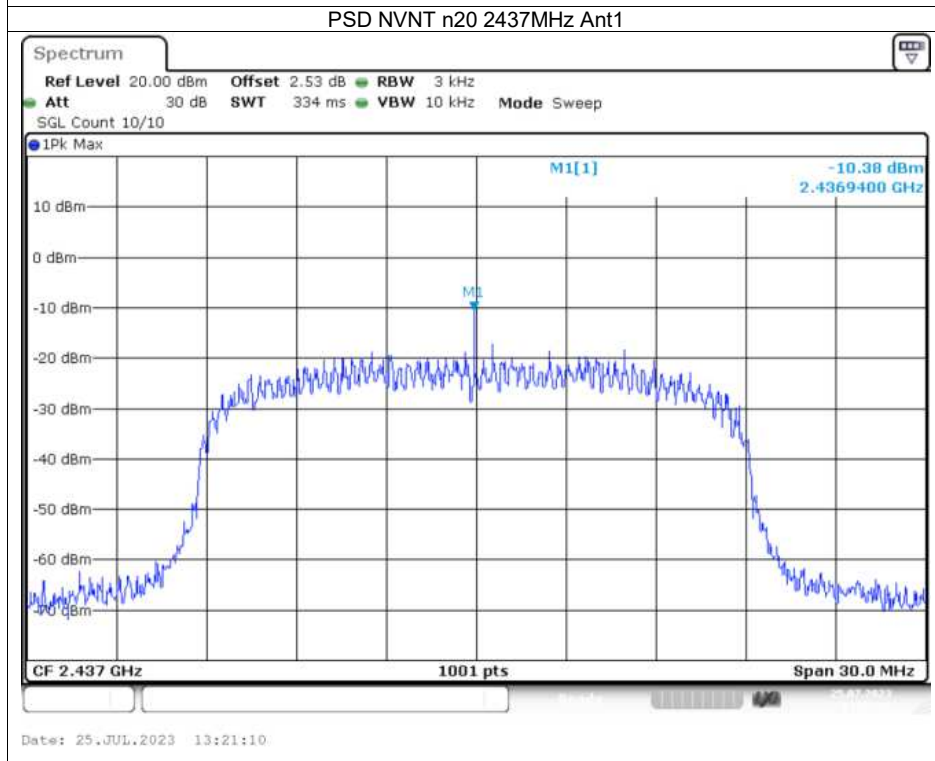
Date: 25.JUL.2023 13:15:30



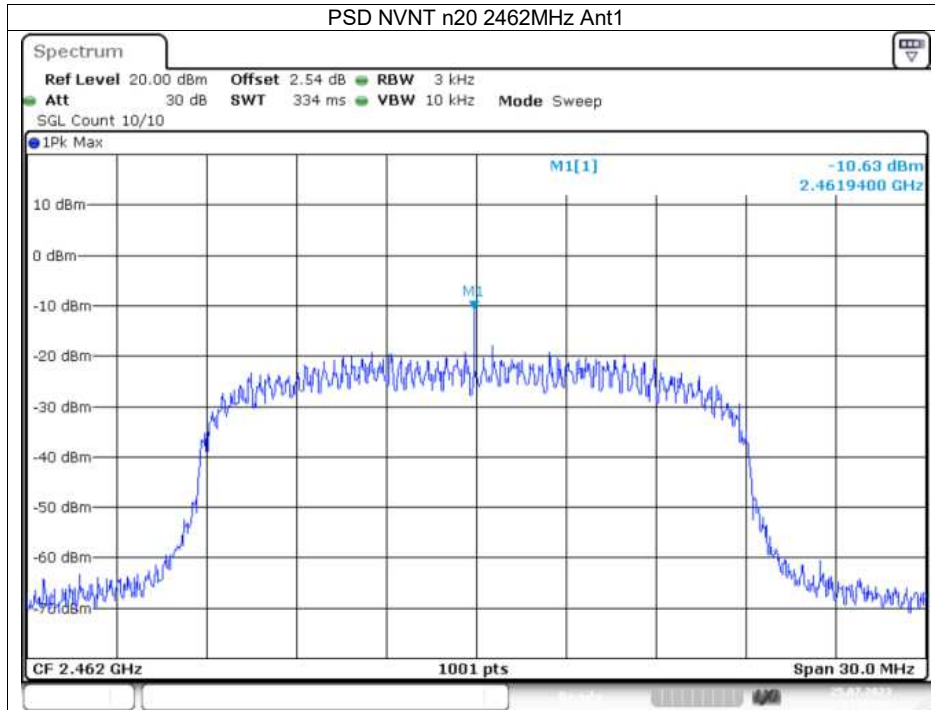
Date: 25.JUL.2023 13:14:29



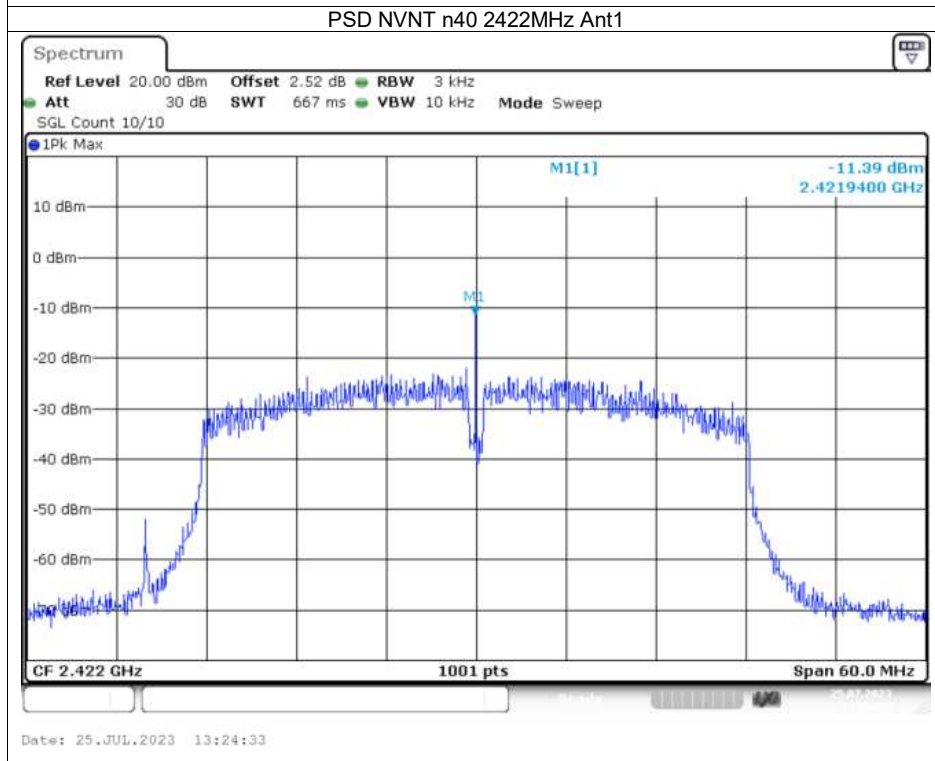
Date: 25.JUL.2023 13:19:27



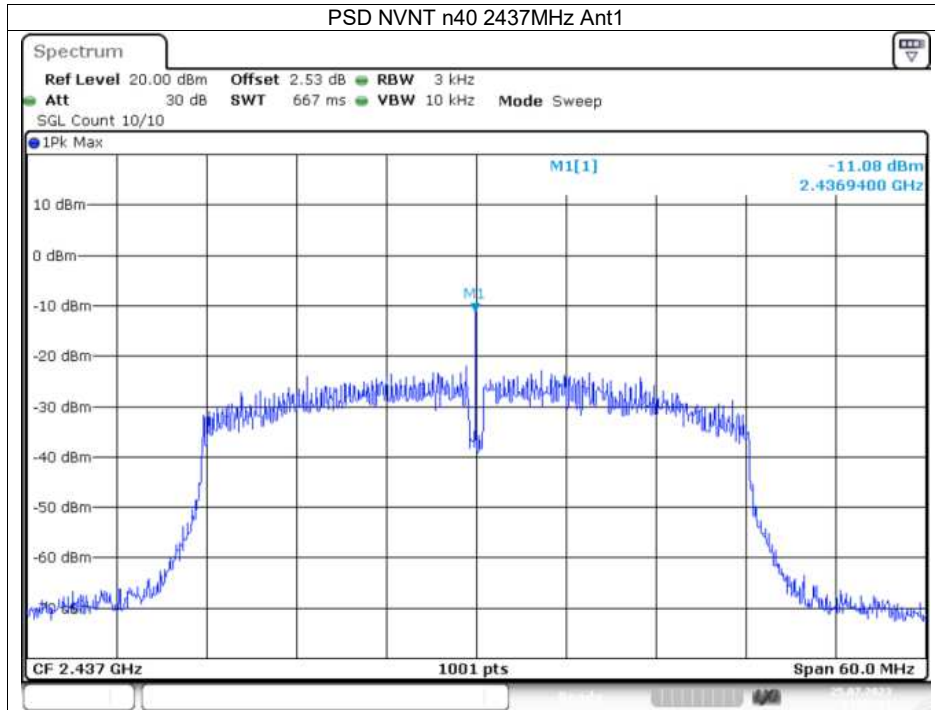
Date: 25.JUL.2023 13:21:10



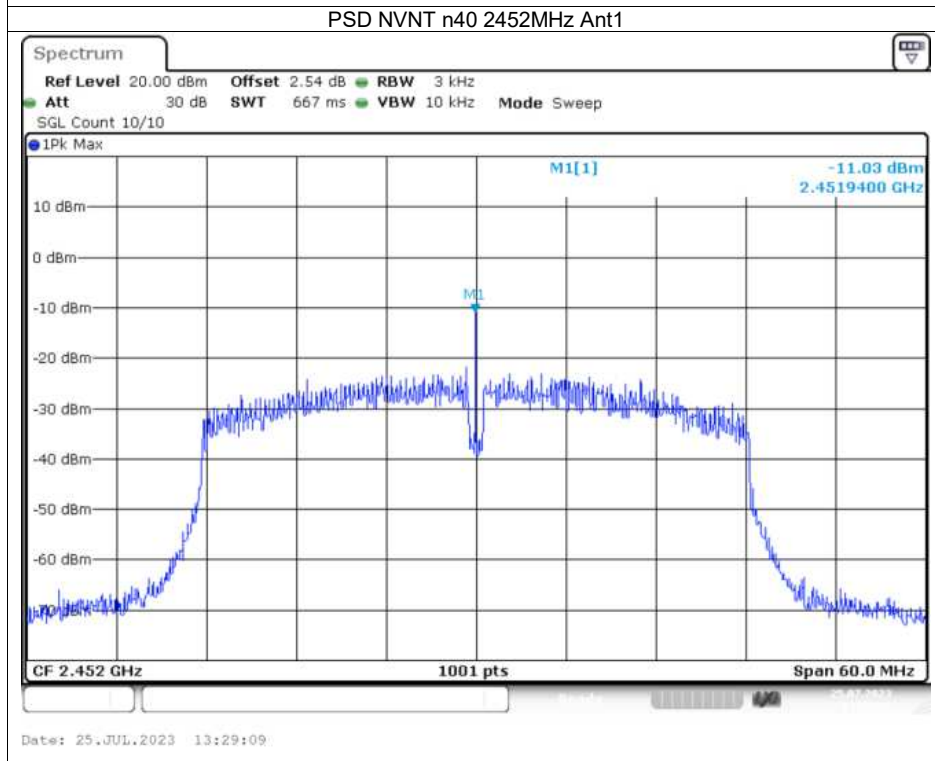
Date: 25.JUL.2023 13:23:20



Date: 25.JUL.2023 13:24:33



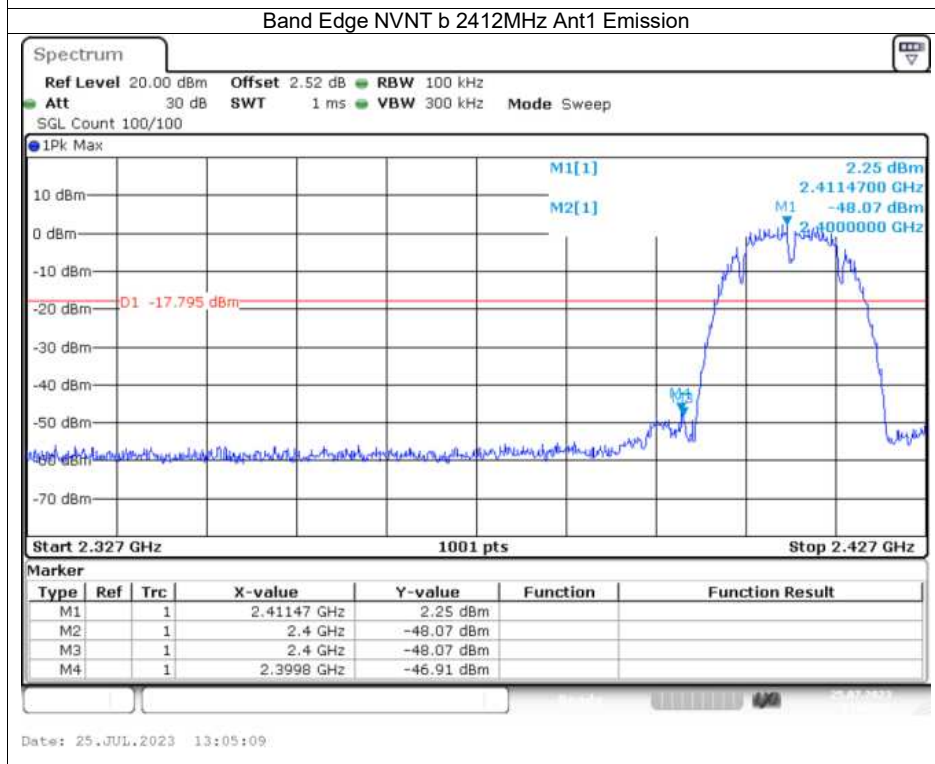
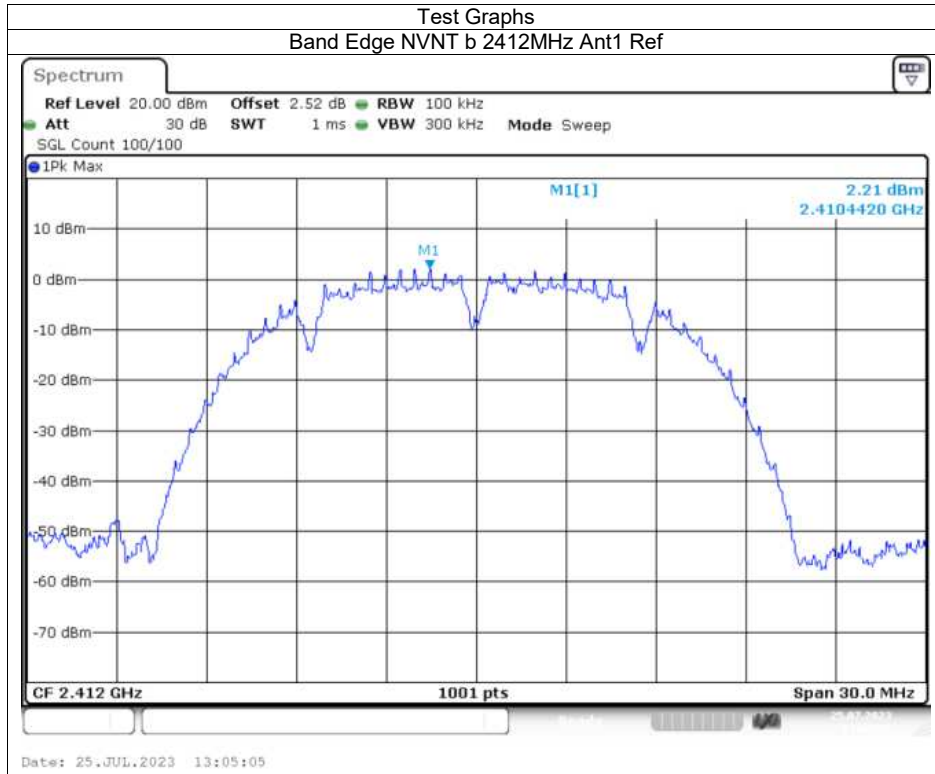
Date: 25.JUL.2023 13:27:21



Date: 25.JUL.2023 13:29:09

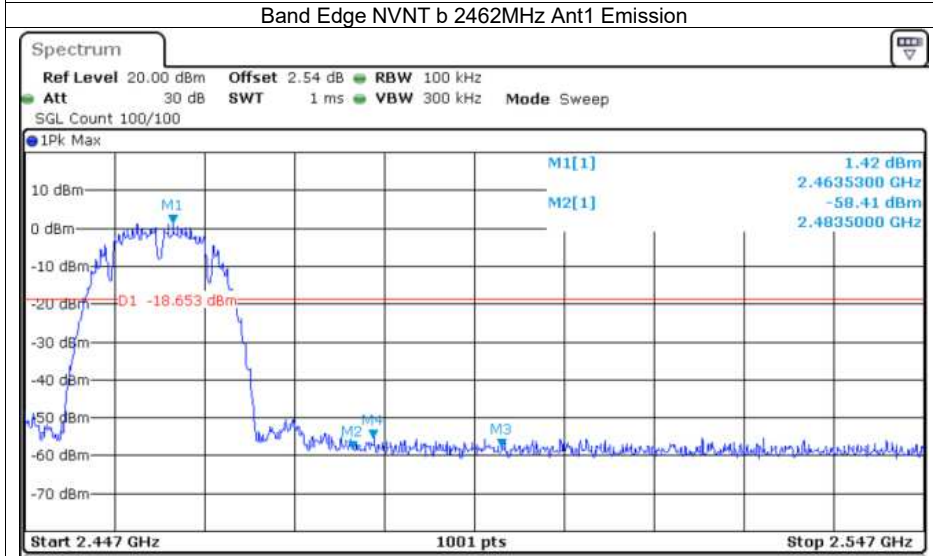
## Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-49.12	-20	Pass
NVNT	b	2462	Ant1	-56.85	-20	Pass
NVNT	g	2412	Ant1	-42.17	-20	Pass
NVNT	g	2462	Ant1	-50.27	-20	Pass
NVNT	n20	2412	Ant1	-44.64	-20	Pass
NVNT	n20	2462	Ant1	-53.93	-20	Pass
NVNT	n40	2422	Ant1	-37.55	-20	Pass
NVNT	n40	2452	Ant1	-46.01	-20	Pass





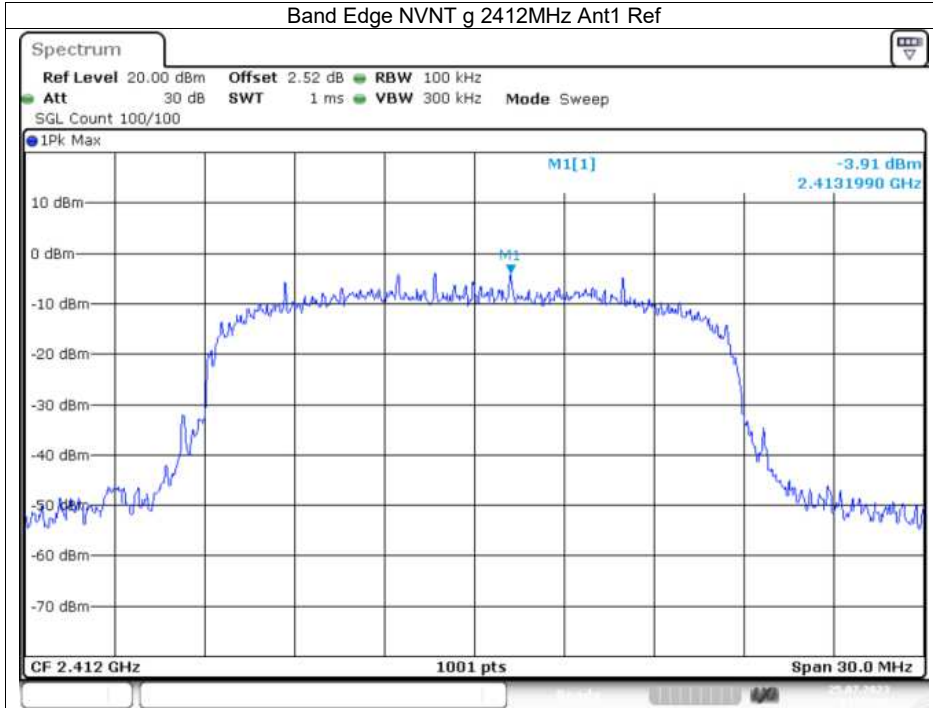
Date: 25.JUL.2023 13:09:31



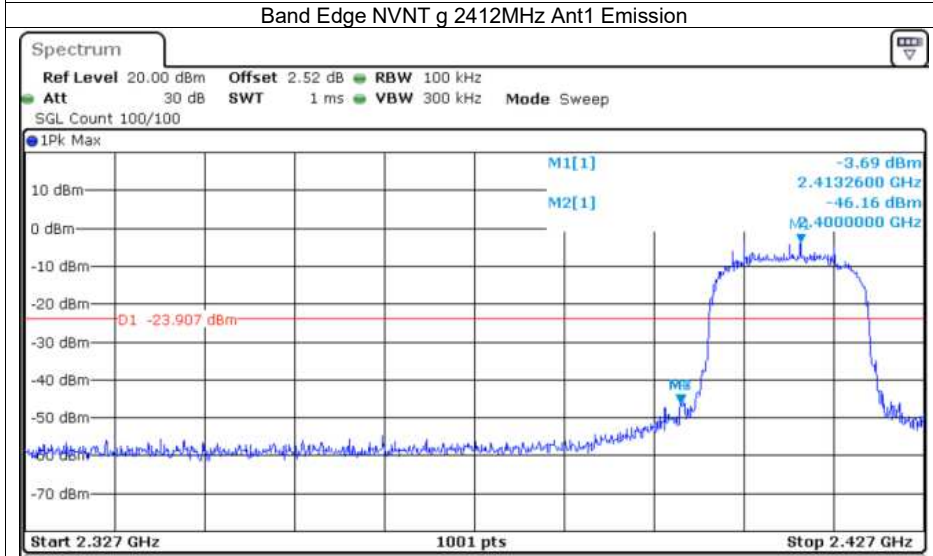
Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1		1	2.46353 GHz	1.42 dBm		
M2	1		1	2.4835 GHz	-58.41 dBm		
M3	1		1	2.5 GHz	-57.66 dBm		
M4	1		1	2.4858 GHz	-55.51 dBm		

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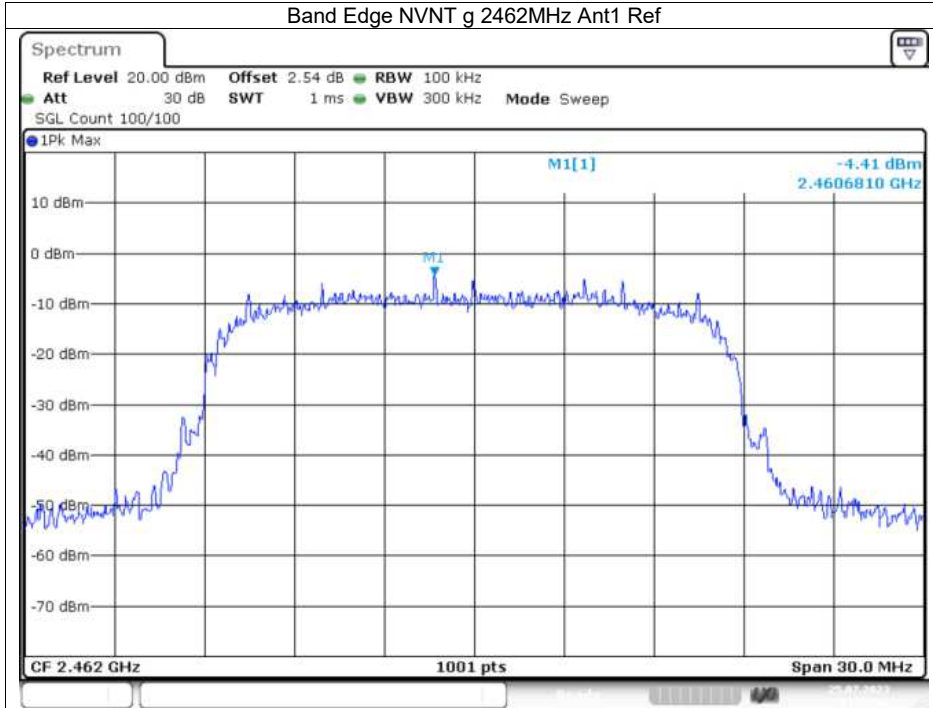


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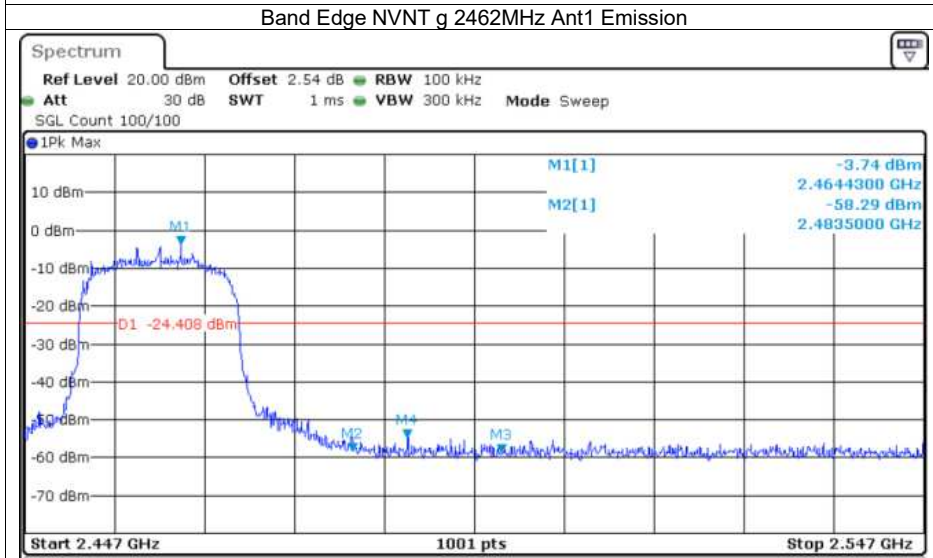


Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1		1	2.41326 GHz	-3.69 dBm		
M2	1		1	2.4 GHz	-46.16 dBm		
M3	1		1	2.4 GHz	-46.15 dBm		
M4	1		1	2.3999 GHz	-46.09 dBm		

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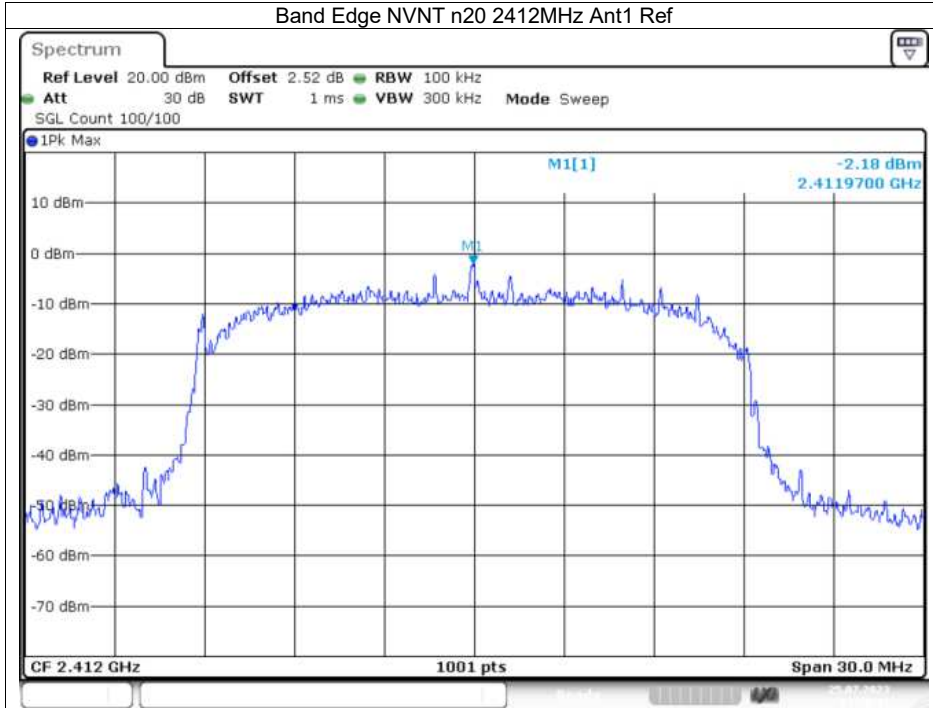


Date: 25.JUL.2023 13:13:42

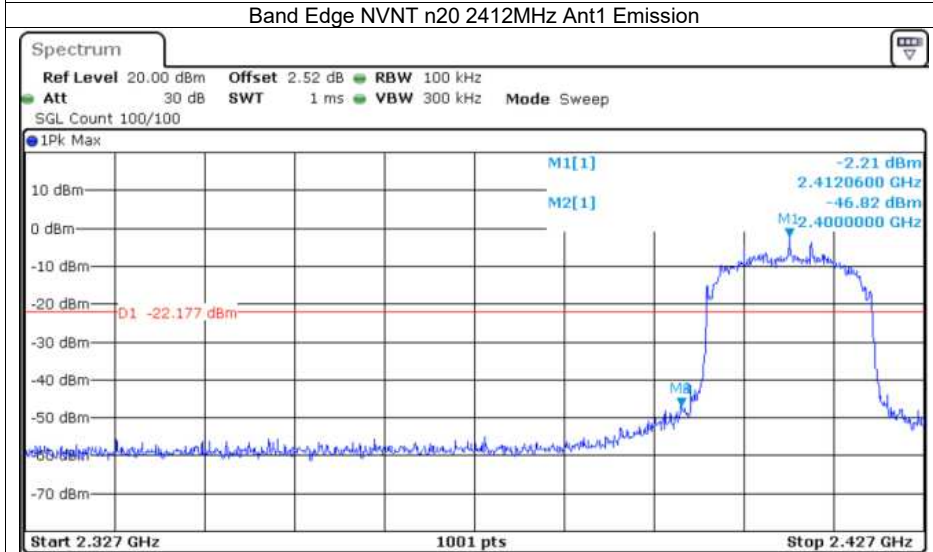


Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1	1	2.46443 GHz	-3.74 dBm		
M2	1	1	2.4835 GHz	-58.29 dBm		
M3	1	1	2.5 GHz	-58.55 dBm		
M4	1	1	2.4896 GHz	-54.68 dBm		

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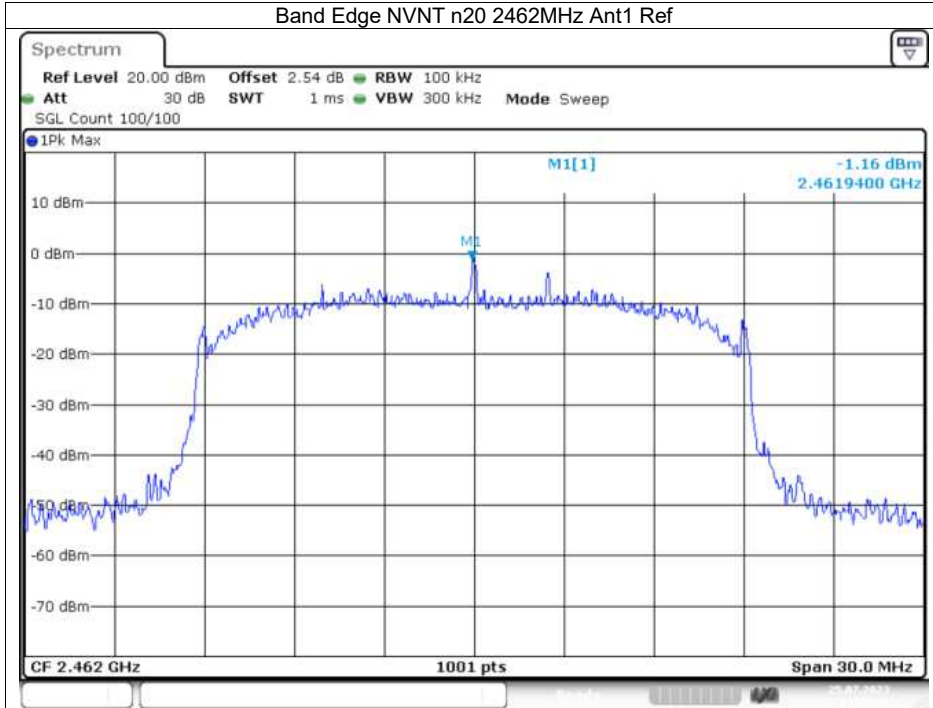


Date: 25.JUL.2023 13:19:42

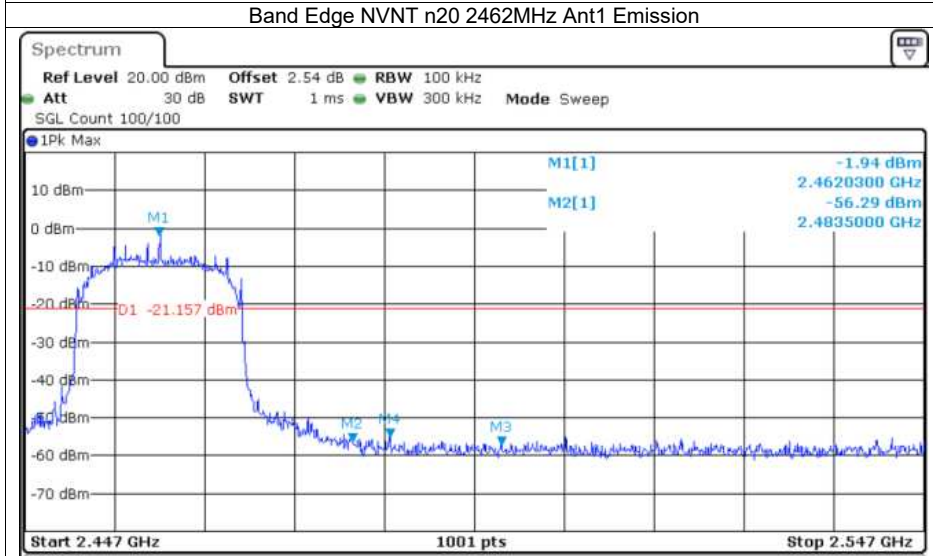


Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1		1	2.41206 GHz	-2.21 dBm		
M2	1		1	2.4 GHz	-46.82 dBm		
M3	1		1	2.4 GHz	-46.82 dBm		
M4	1		1	2.4 GHz	-46.82 dBm		

Date: 25.JUL.2023 13:19:45

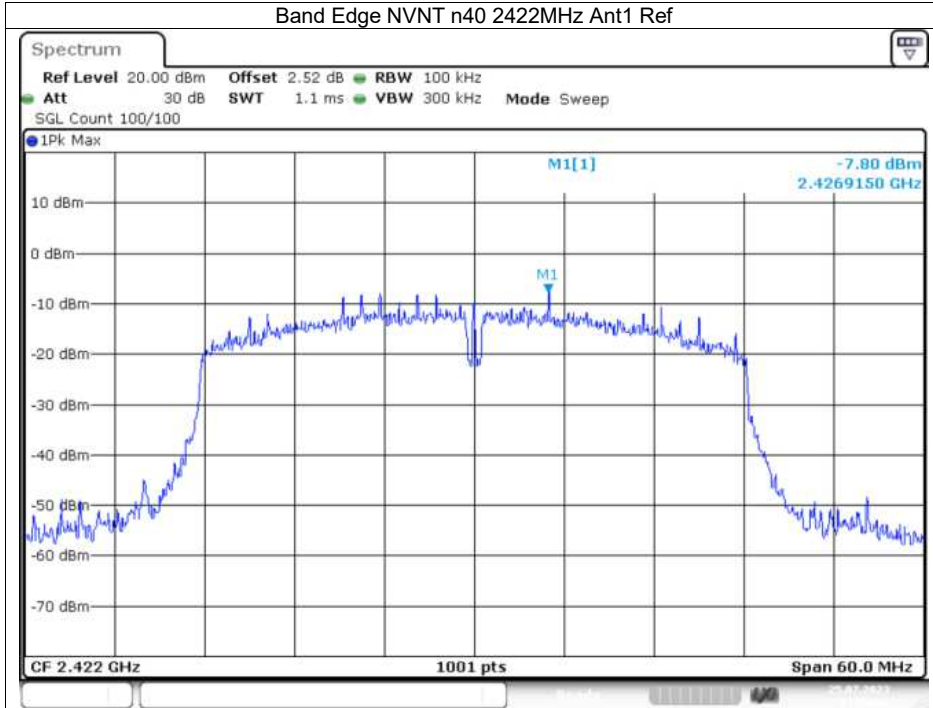


Date: 25.JUL.2023 13:22:36

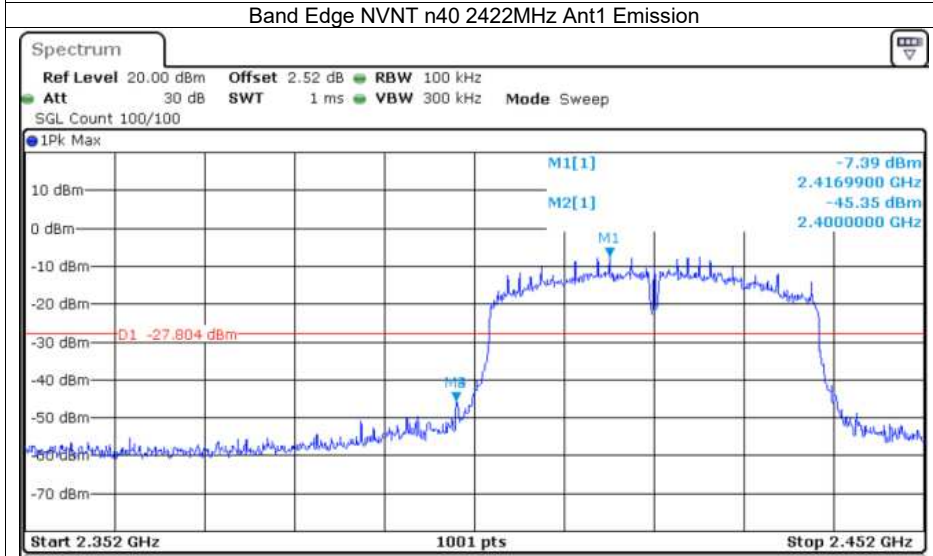


Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1		1	2.46203 GHz	-1.94 dBm		
M2	1		1	2.4835 GHz	-56.29 dBm		
M3	1		1	2.5 GHz	-57.05 dBm		
M4	1		1	2.4876 GHz	-55.10 dBm		

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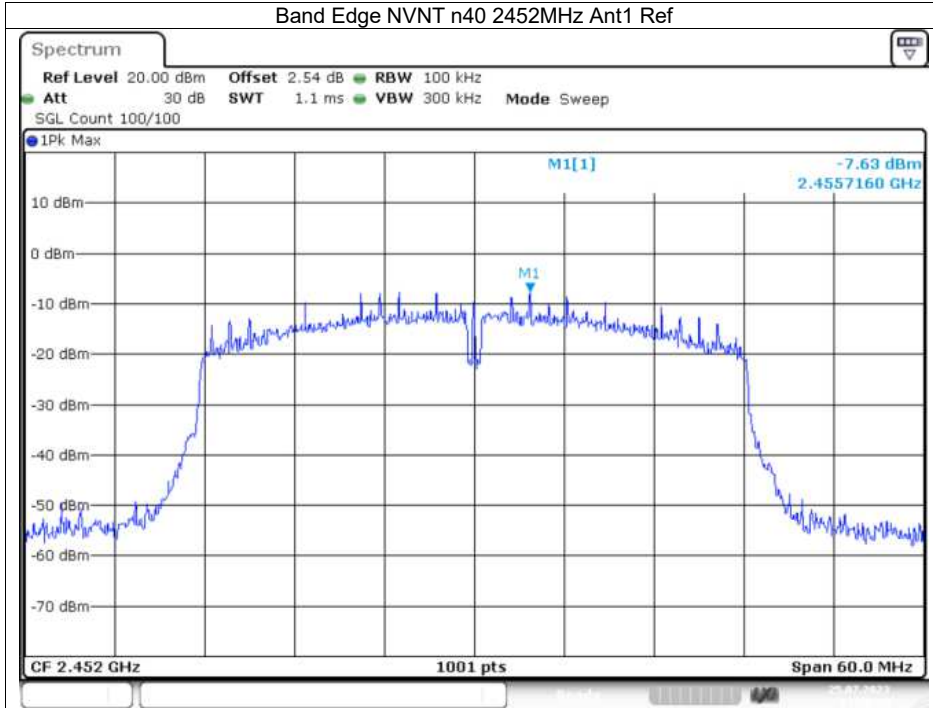


Date: 25.JUL.2023 13:24:42

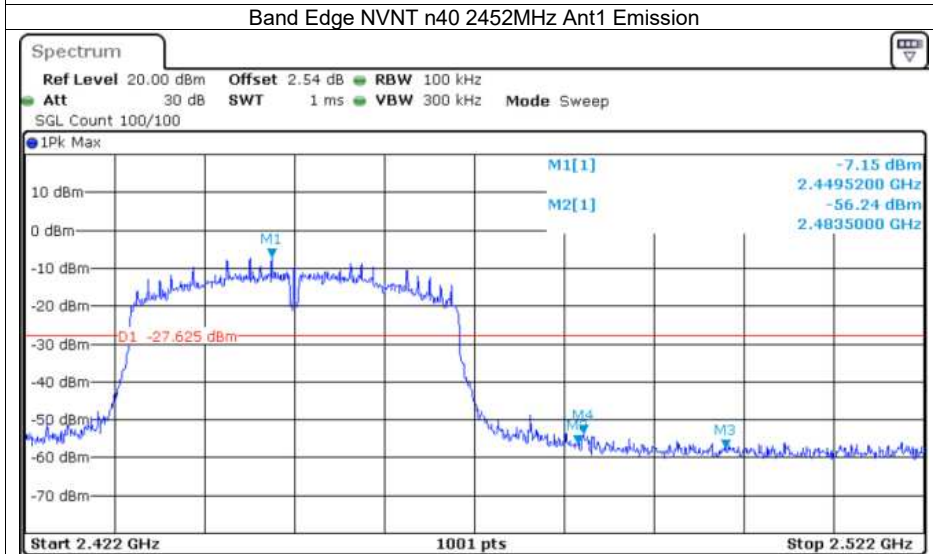


Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1			2.41699 GHz	-7.39 dBm		
M2	1			2.4 GHz	-45.35 dBm		
M3	1			2.4 GHz	-45.35 dBm		
M4	1			2.4 GHz	-45.35 dBm		

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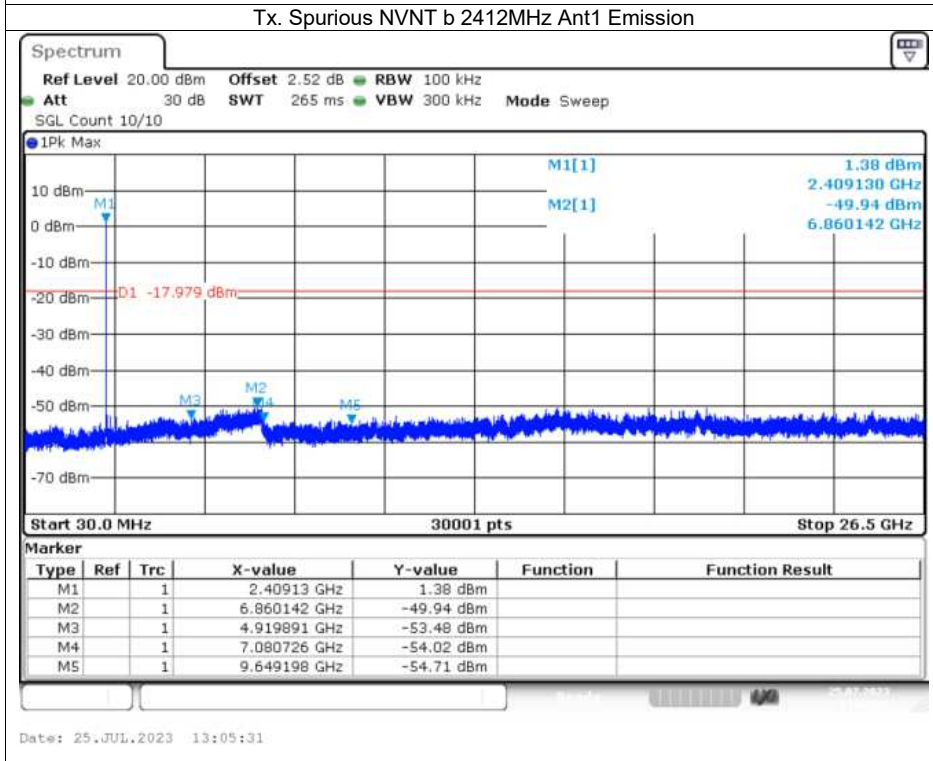
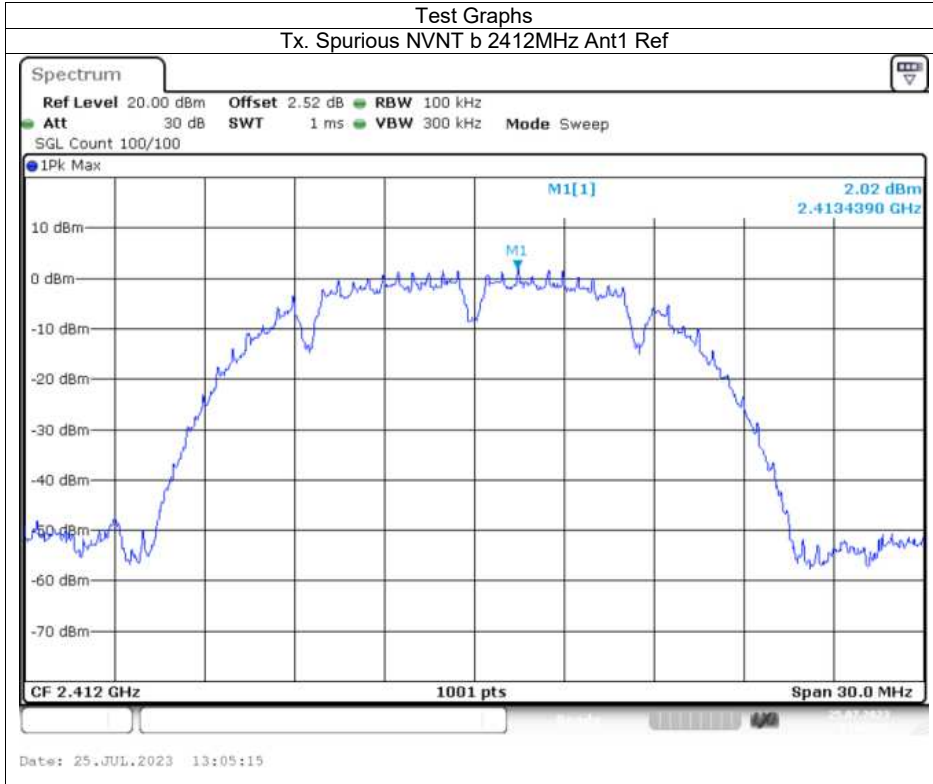


Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1	1		2.44952 GHz	-7.15 dBm		
M2	1	1		2.4835 GHz	-56.24 dBm		
M3	1	1		2.5 GHz	-57.52 dBm		
M4	1	1		2.4842 GHz	-53.65 dBm		

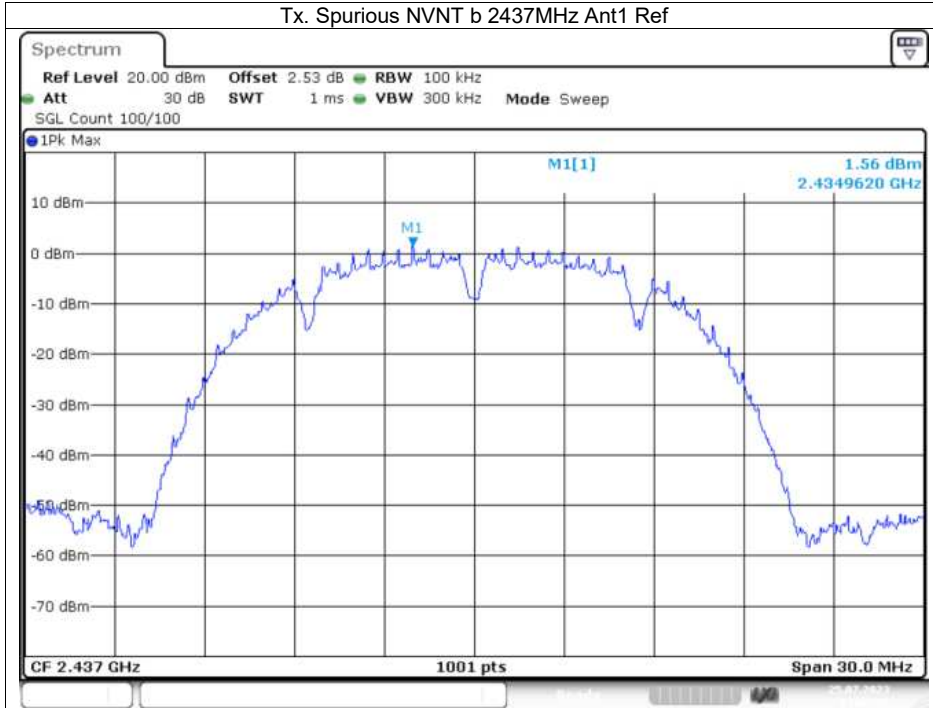
Date: 25.JUL.2023 13:28:26

## Conducted RF Spurious Emission

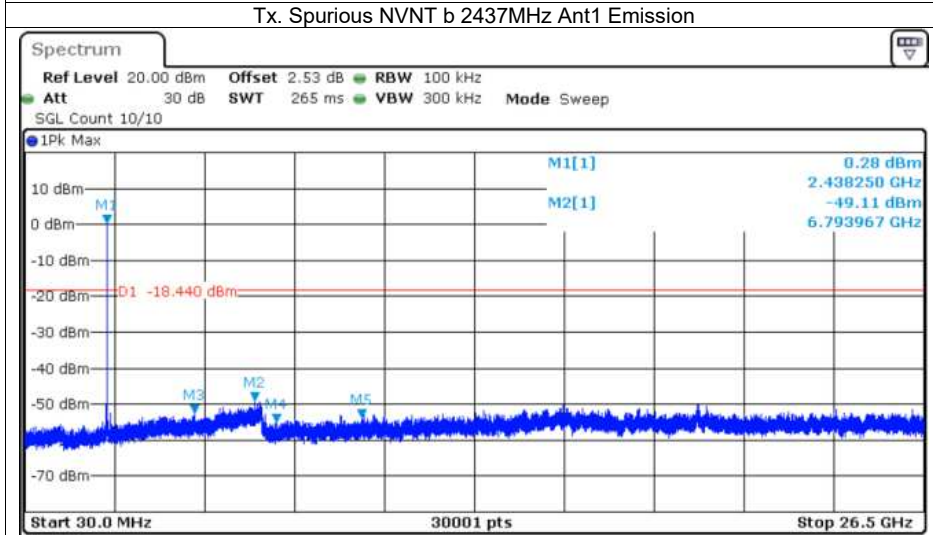
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-51.95	-20	Pass
NVNT	b	2437	Ant1	-50.66	-20	Pass
NVNT	b	2462	Ant1	-51.04	-20	Pass
NVNT	g	2412	Ant1	-45.74	-20	Pass
NVNT	g	2437	Ant1	-46.35	-20	Pass
NVNT	g	2462	Ant1	-44.92	-20	Pass
NVNT	n20	2412	Ant1	-48.31	-20	Pass
NVNT	n20	2437	Ant1	-48.22	-20	Pass
NVNT	n20	2462	Ant1	-47.69	-20	Pass
NVNT	n40	2422	Ant1	-42.44	-20	Pass
NVNT	n40	2437	Ant1	-42.37	-20	Pass
NVNT	n40	2452	Ant1	-42.07	-20	Pass







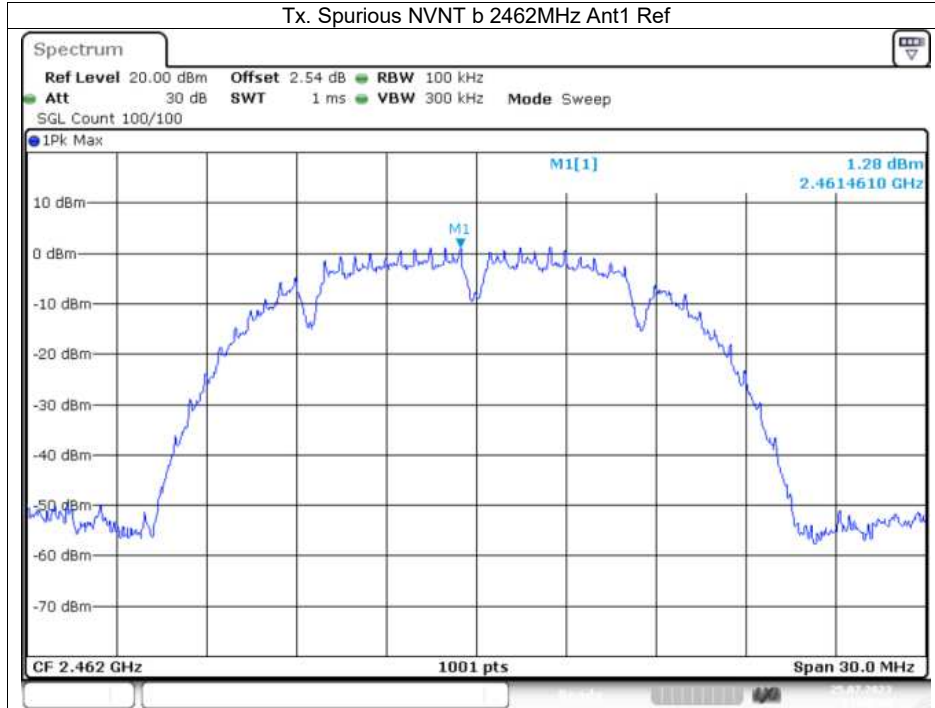
Date: 25.JUL.2023 13:07:16



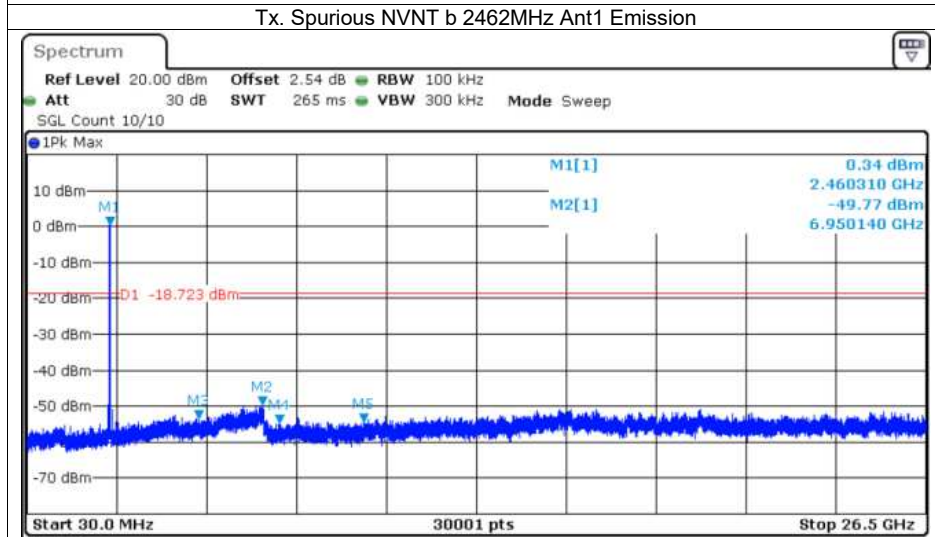
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1		2.43825 GHz	0.28 dBm		
M2	1		6.793967 GHz	-49.11 dBm		
M3	1		5.012536 GHz	-52.52 dBm		
M4	1		7.450423 GHz	-55.03 dBm		
M5	1		9.940368 GHz	-53.65 dBm		

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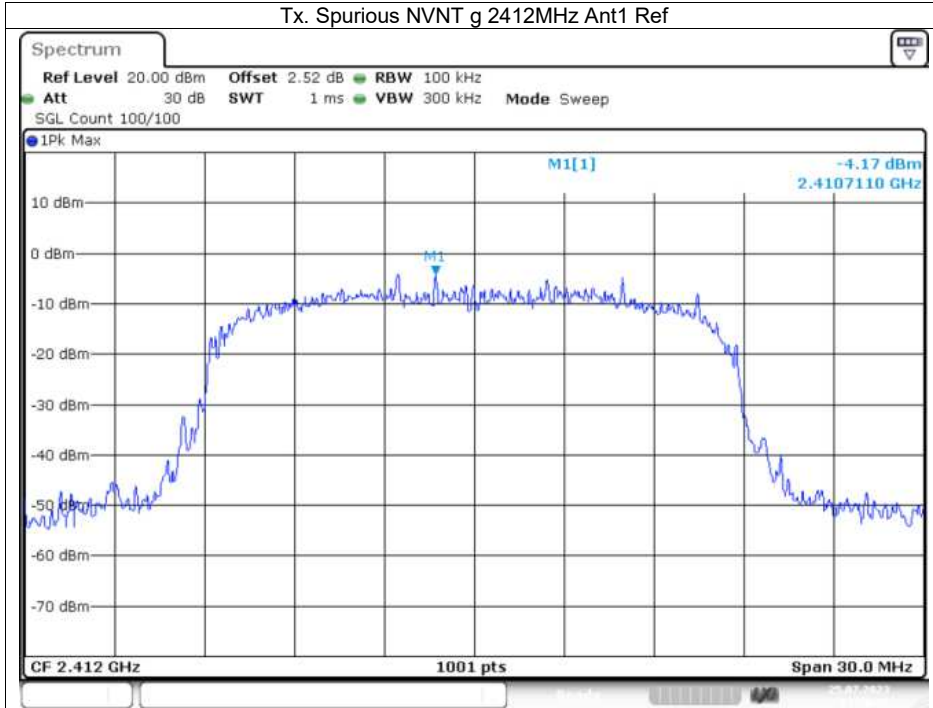
Date: 25.JUL.2023 13:09:44



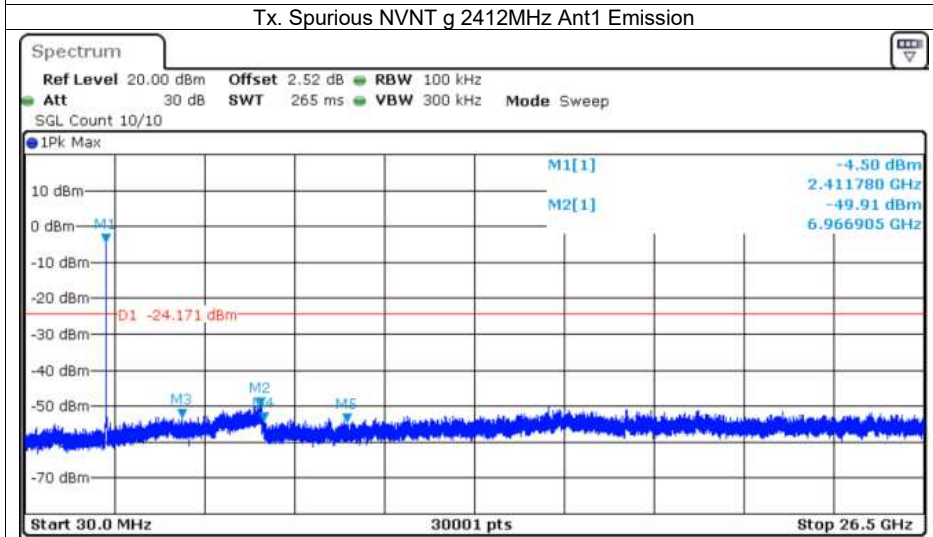
**Marker**

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1		2.46031 GHz	0.34 dBm		
M2	1		6.95014 GHz	-49.77 dBm		
M3	1		5.089417 GHz	-53.45 dBm		
M4	1		7.465423 GHz	-54.64 dBm		
M5	1		9.959779 GHz	-54.37 dBm		

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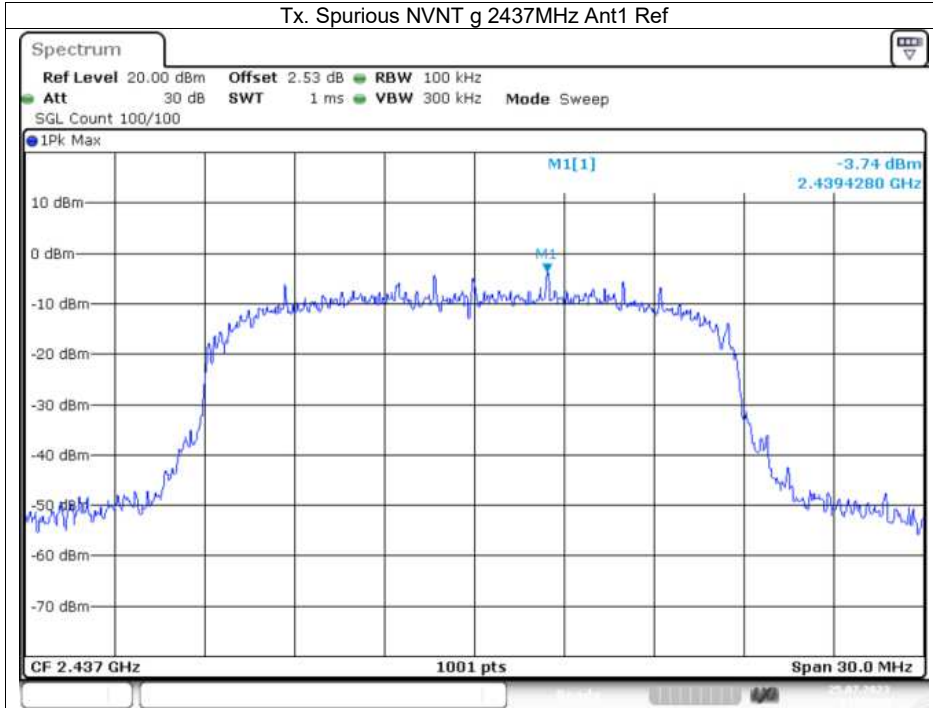
Date: 25.JUL.2023 13:18:08



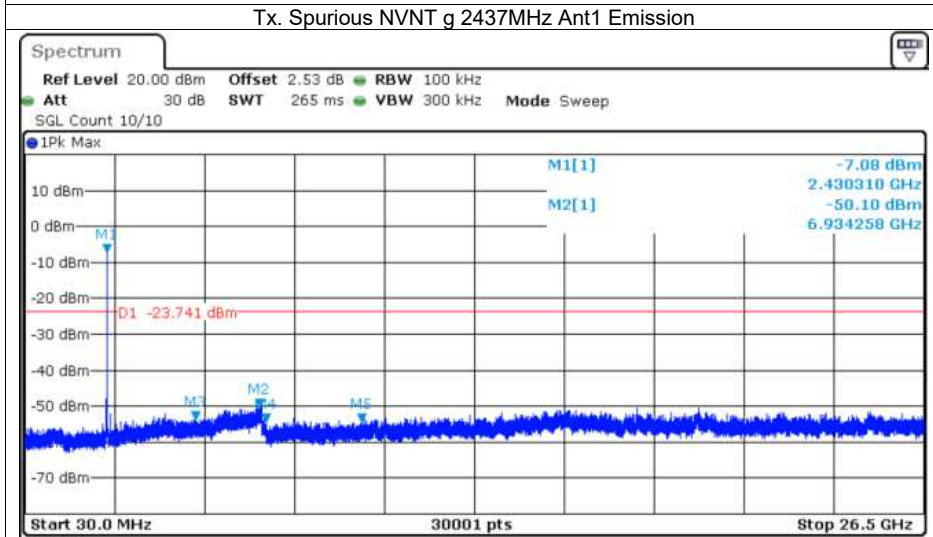
**Marker**

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.41178 GHz	-4.50 dBm		
M2		1	6.966905 GHz	-49.91 dBm		
M3		1	4.658721 GHz	-52.96 dBm		
M4		1	7.053373 GHz	-54.18 dBm		
M5		1	9.510672 GHz	-54.25 dBm		

Date: 25.JUL.2023 13:18:23



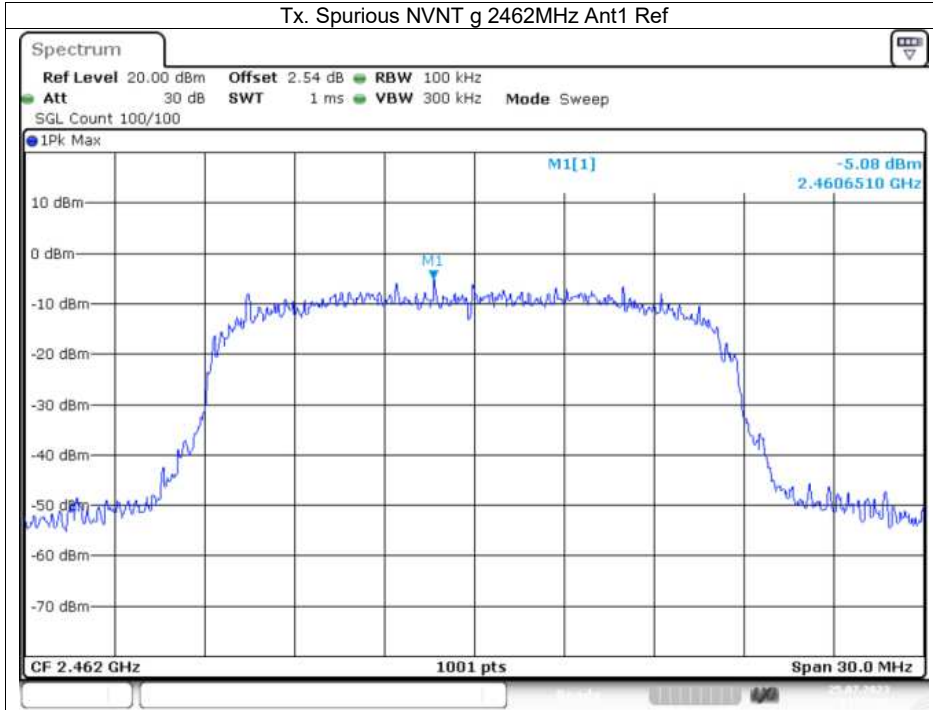
Date: 25.JUL.2023 13:15:54



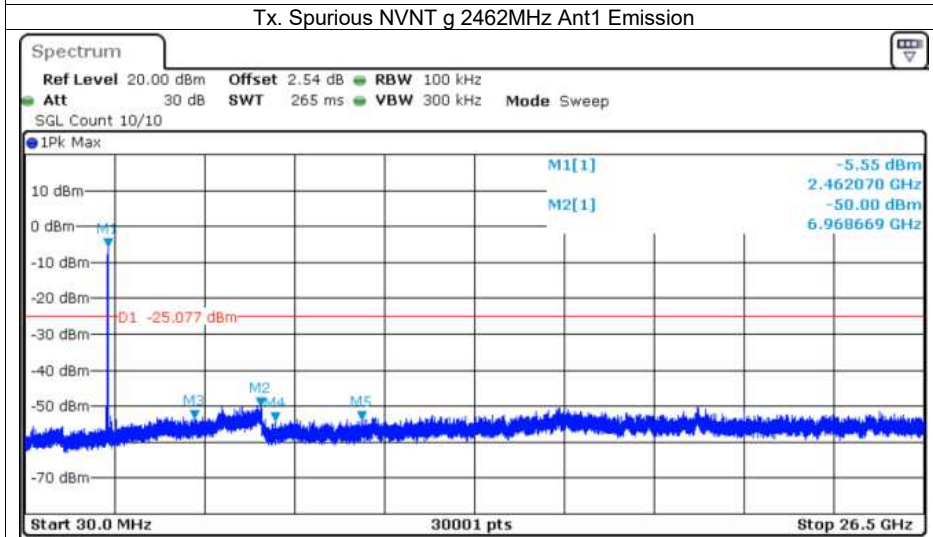
**Marker**

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.43031 GHz	-7.08 dBm		
M2		1	6.934258 GHz	-50.10 dBm		
M3		1	5.072535 GHz	-53.59 dBm		
M4		1	7.127489 GHz	-54.41 dBm		
M5		1	9.946544 GHz	-54.52 dBm		

Date: 25.JUL.2023 13:16:09



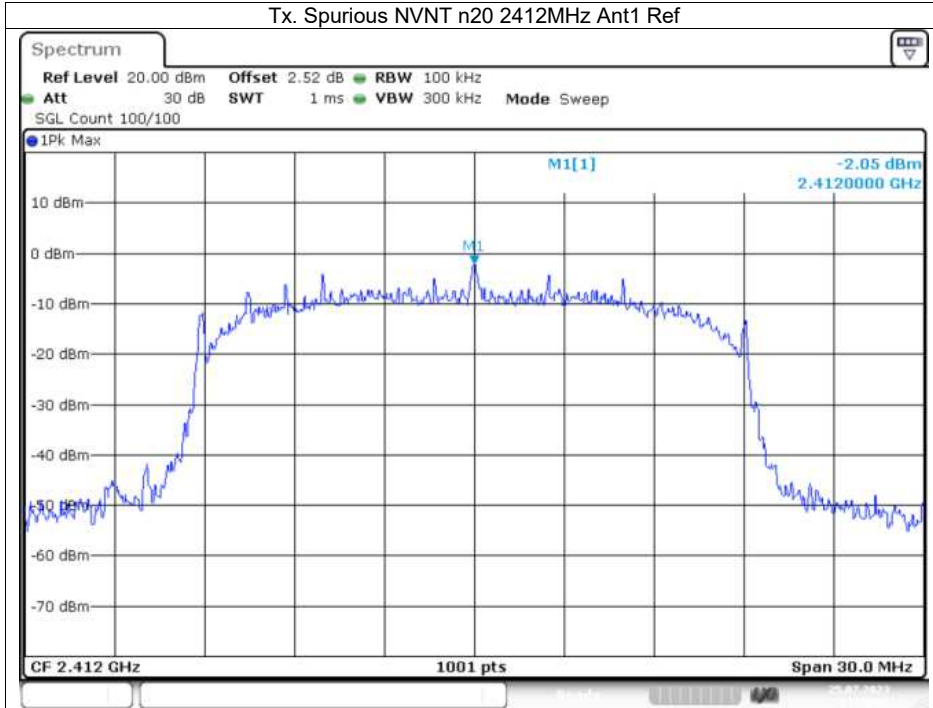
Date: 25.JUL.2023 13:13:53



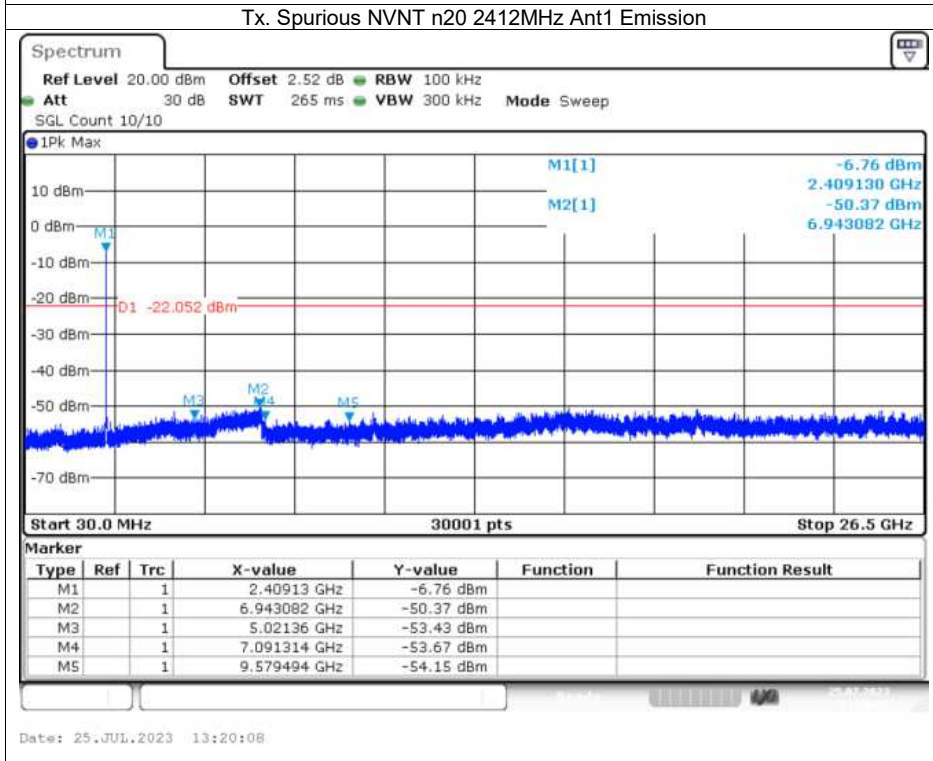
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.46207 GHz	-5.55 dBm		
M2		1	6.968669 GHz	-50.00 dBm		
M3		1	5.019595 GHz	-53.45 dBm		
M4		1	7.411601 GHz	-54.18 dBm		
M5		1	9.931545 GHz	-53.61 dBm		

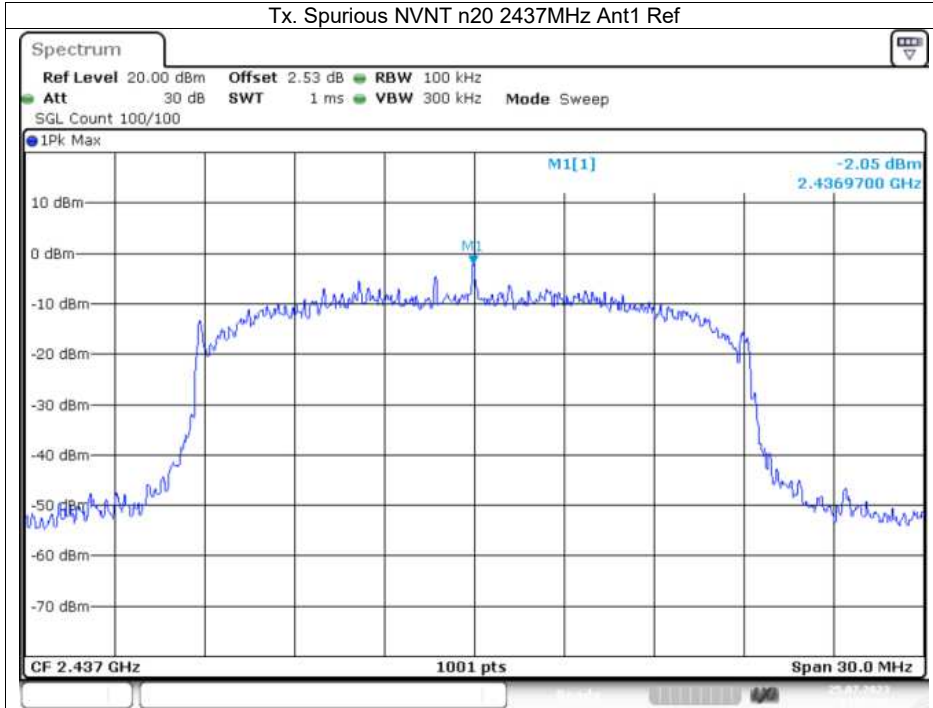
Date: 25.JUL.2023 13:14:08



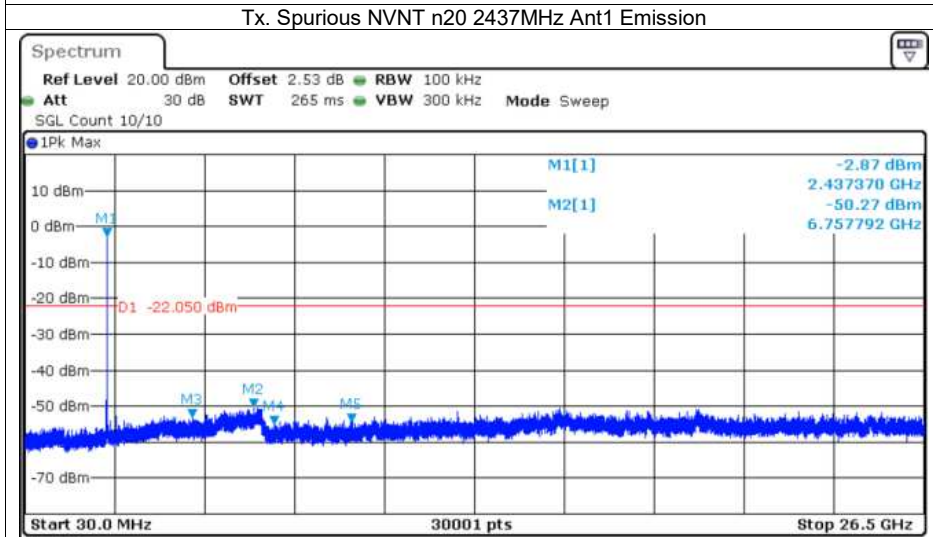
Date: 25.JUL.2023 13:19:53



Date: 25.JUL.2023 13:20:08



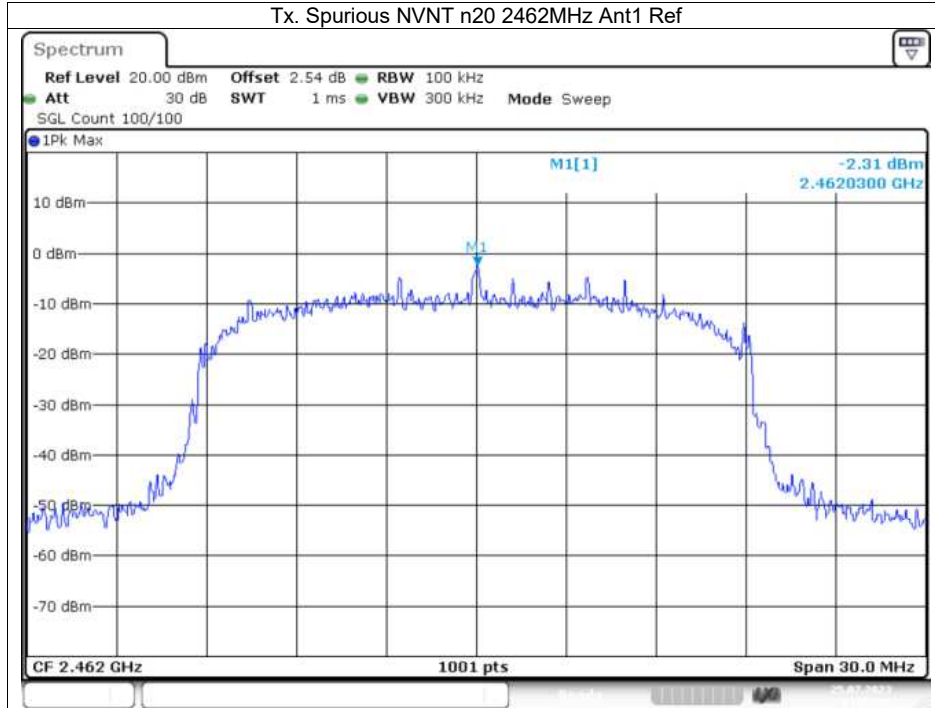
Date: 25.JUL.2023 13:21:19



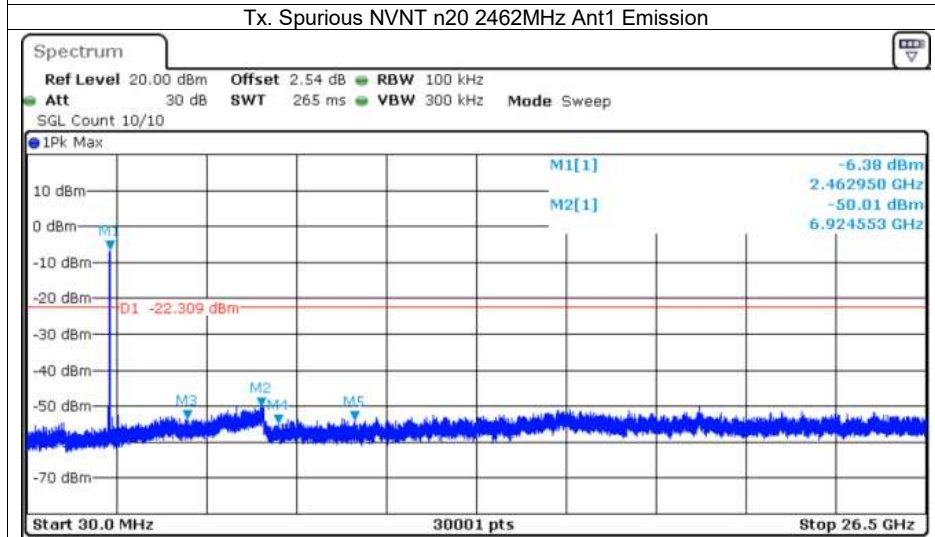
**Marker**

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.43737 GHz	-2.87 dBm		
M2		1	6.757792 GHz	-50.27 dBm		
M3		1	4.94195 GHz	-52.97 dBm		
M4		1	7.363072 GHz	-55.11 dBm		
M5		1	9.632434 GHz	-54.35 dBm		

Date: 25.JUL.2023 13:21:35



Date: 25.JUL.2023 13:22:47

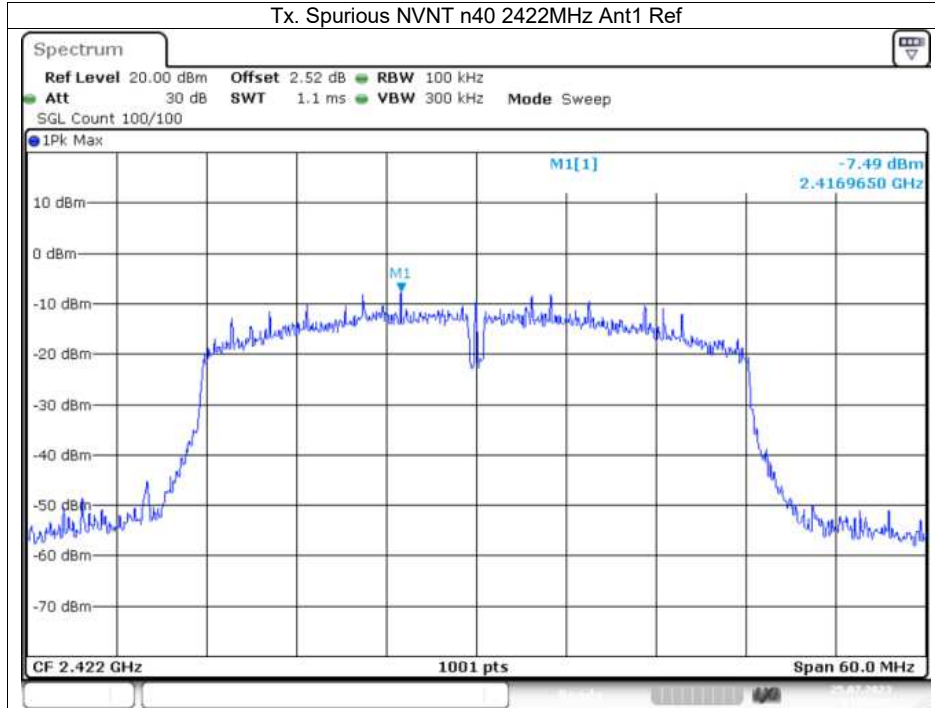


**Marker**

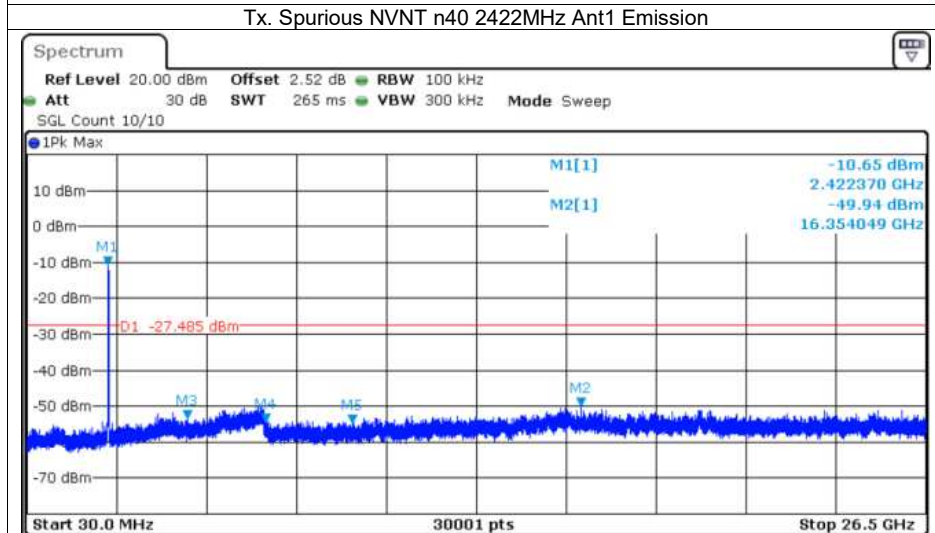
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.46295 GHz	-6.38 dBm		
M2		1	6.924553 GHz	-50.01 dBm		
M3		1	4.757542 GHz	-53.54 dBm		
M4		1	7.429247 GHz	-54.60 dBm		
M5		1	9.673021 GHz	-53.81 dBm		

Date: 25.JUL.2023 13:23:02





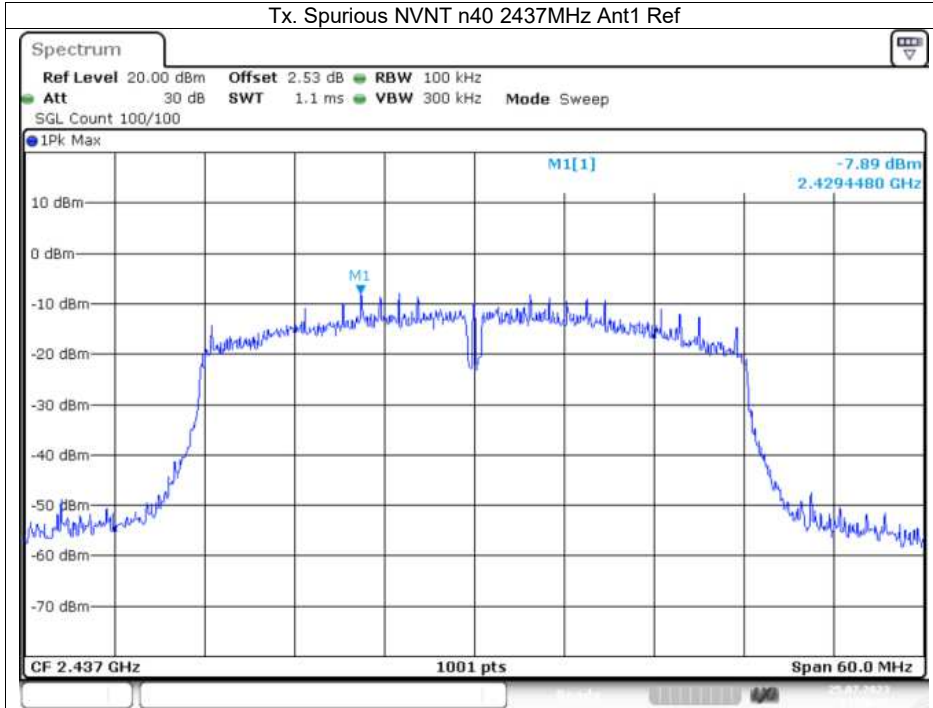
Date: 25.JUL.2023 13:24:55



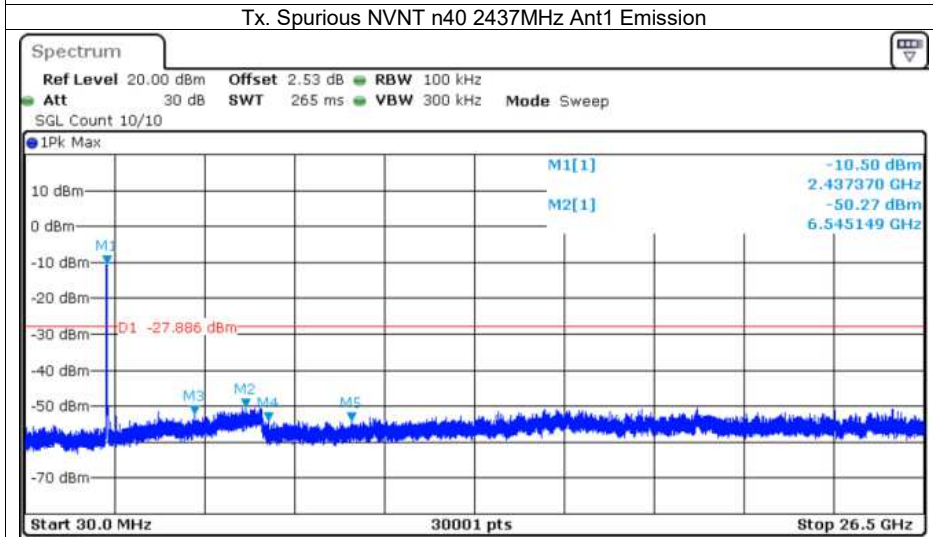
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.42237 GHz	-10.65 dBm		
M2		1	16.354049 GHz	-49.94 dBm		
M3		1	4.758424 GHz	-53.34 dBm		
M4		1	7.068373 GHz	-54.27 dBm		
M5		1	9.598905 GHz	-54.75 dBm		

Date: 25.JUL.2023 13:25:11



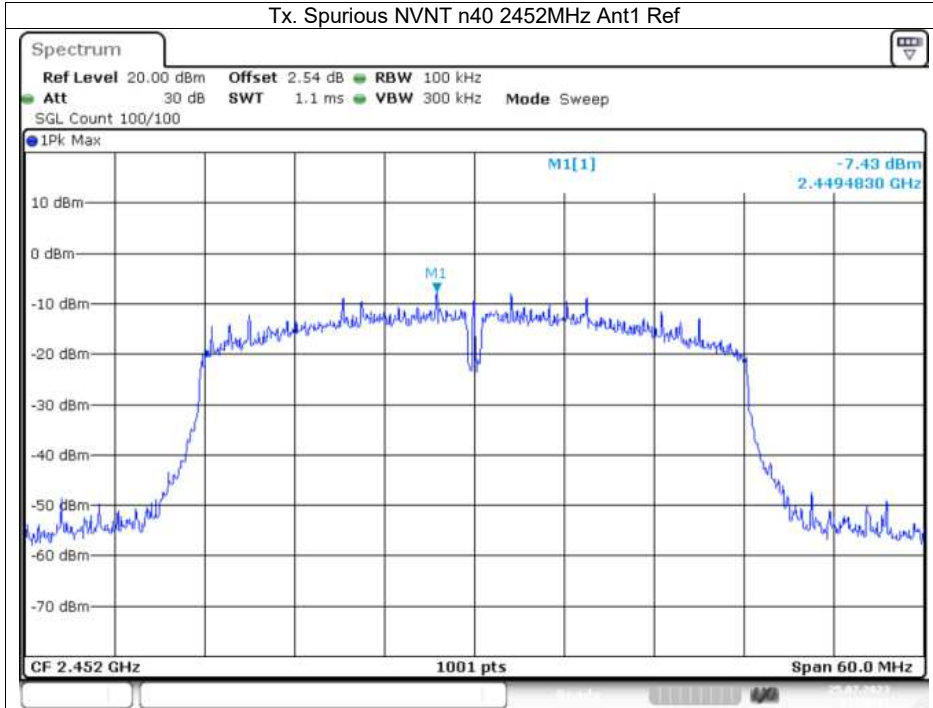
Date: 25.JUL.2023 13:26:25



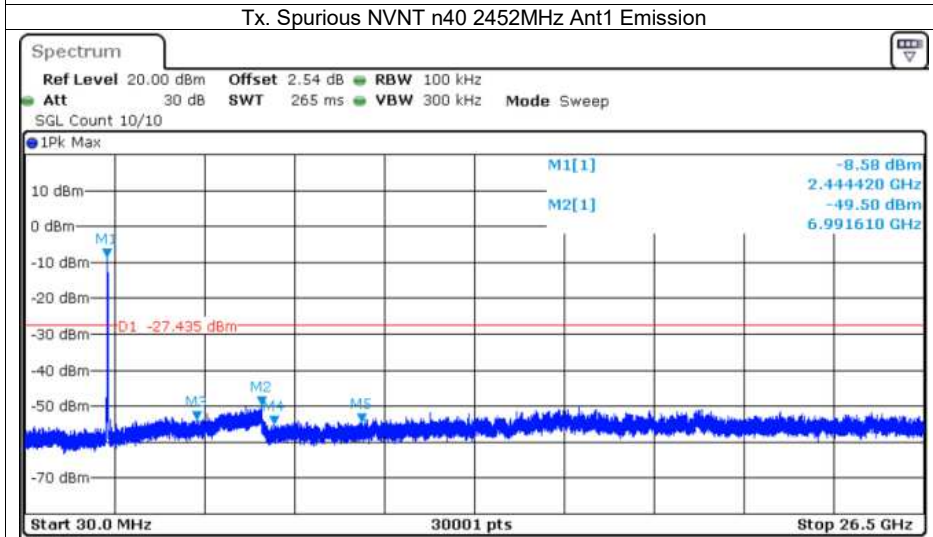
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.43737 GHz	-10.50 dBm		
M2		1	6.545149 GHz	-50.27 dBm		
M3		1	5.00636 GHz	-52.20 dBm		
M4		1	7.210429 GHz	-54.07 dBm		
M5		1	9.648316 GHz	-54.14 dBm		

Date: 25.JUL.2023 13:26:41



Date: 25.JUL.2023 13:28:31



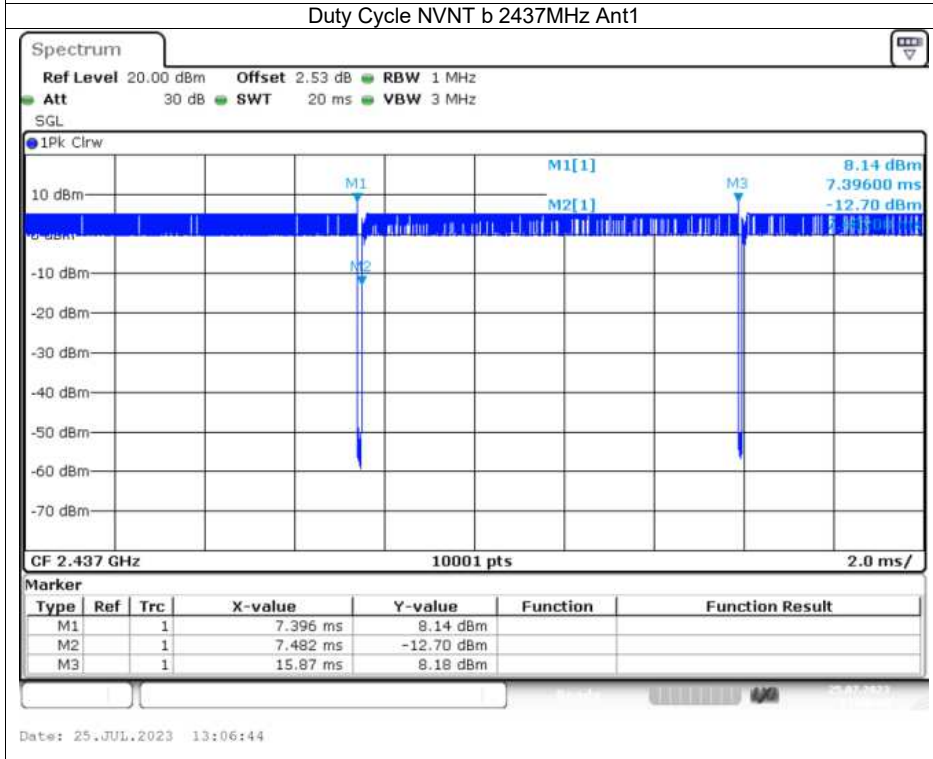
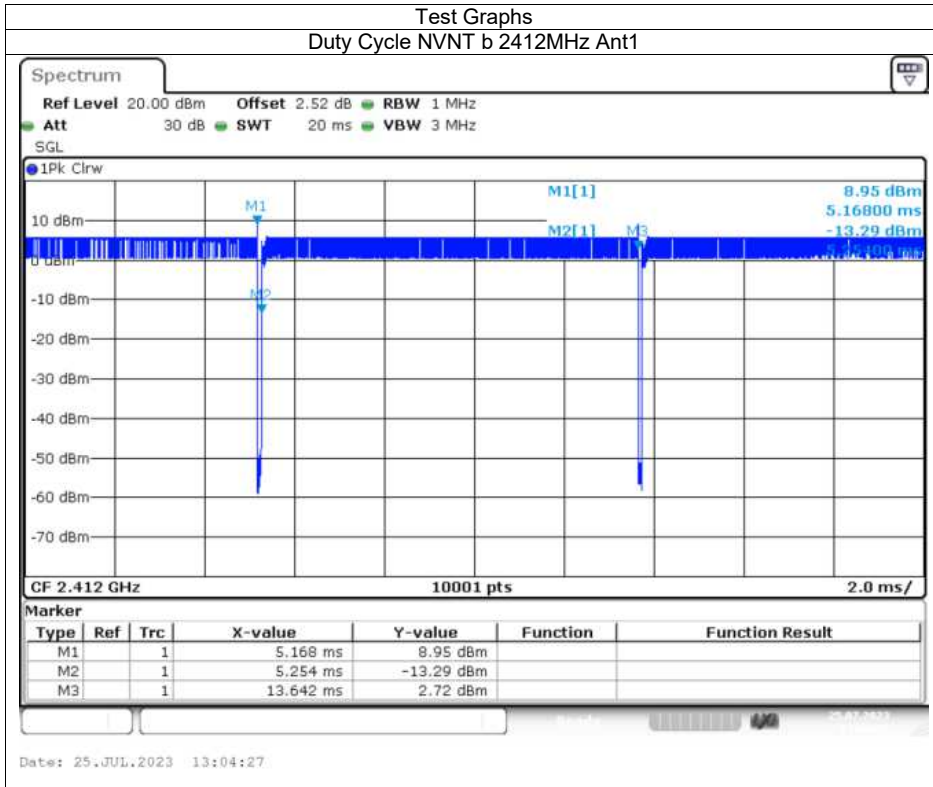
Marker

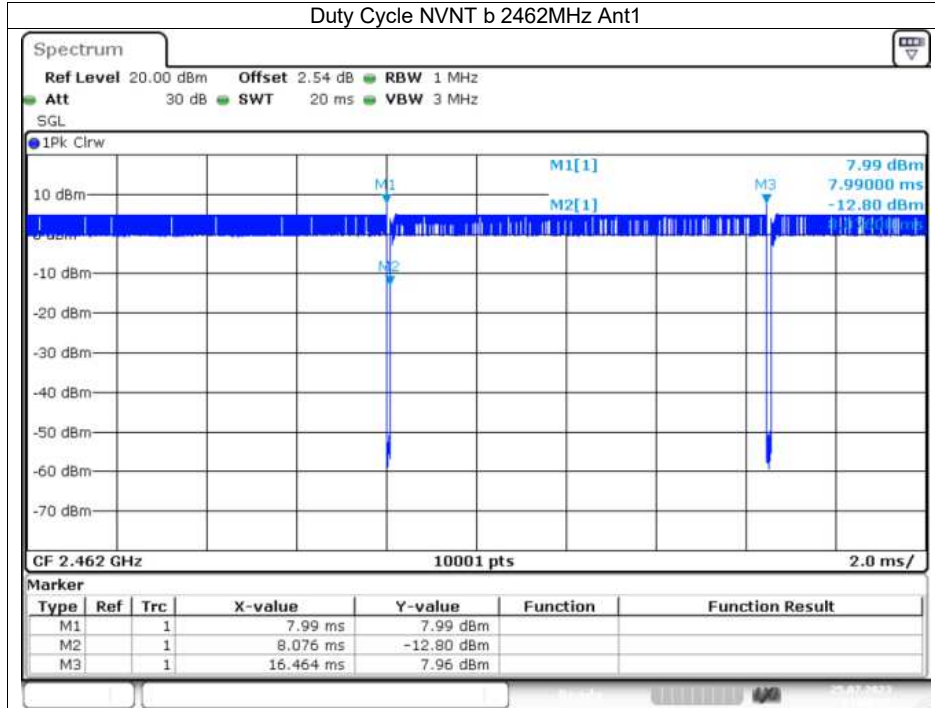
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.44442 GHz	-8.58 dBm		
M2		1	6.99161 GHz	-49.50 dBm		
M3		1	5.076947 GHz	-53.85 dBm		
M4		1	7.355131 GHz	-54.87 dBm		
M5		1	9.964191 GHz	-54.52 dBm		

Date: 25.JUL.2023 13:28:46

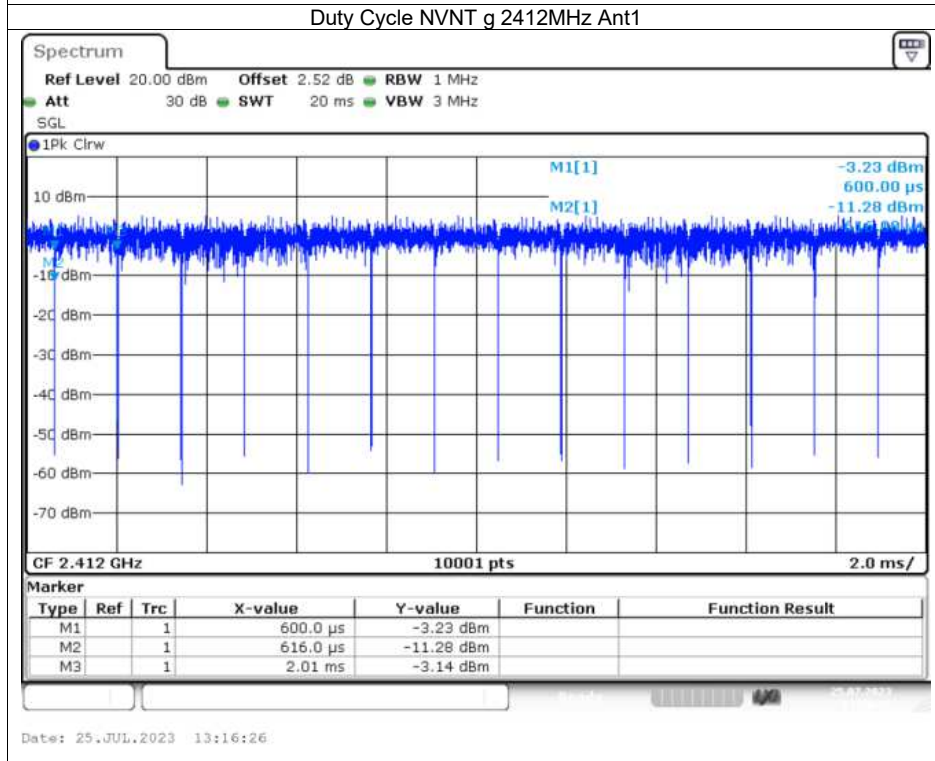
## Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	98.99	0	0.12
NVNT	b	2437	Ant1	98.99	0	0.12
NVNT	b	2462	Ant1	98.99	0	0.12
NVNT	g	2412	Ant1	98.87	0	0.72
NVNT	g	2437	Ant1	98.87	0	0.72
NVNT	g	2462	Ant1	98.87	0	0.72
NVNT	n20	2412	Ant1	98.94	0	0.77
NVNT	n20	2437	Ant1	98.94	0	0.77
NVNT	n20	2462	Ant1	98.94	0	0.77
NVNT	n40	2422	Ant1	99.09	0	1.53
NVNT	n40	2437	Ant1	98.78	0	1.54
NVNT	n40	2452	Ant1	99.09	0	1.53

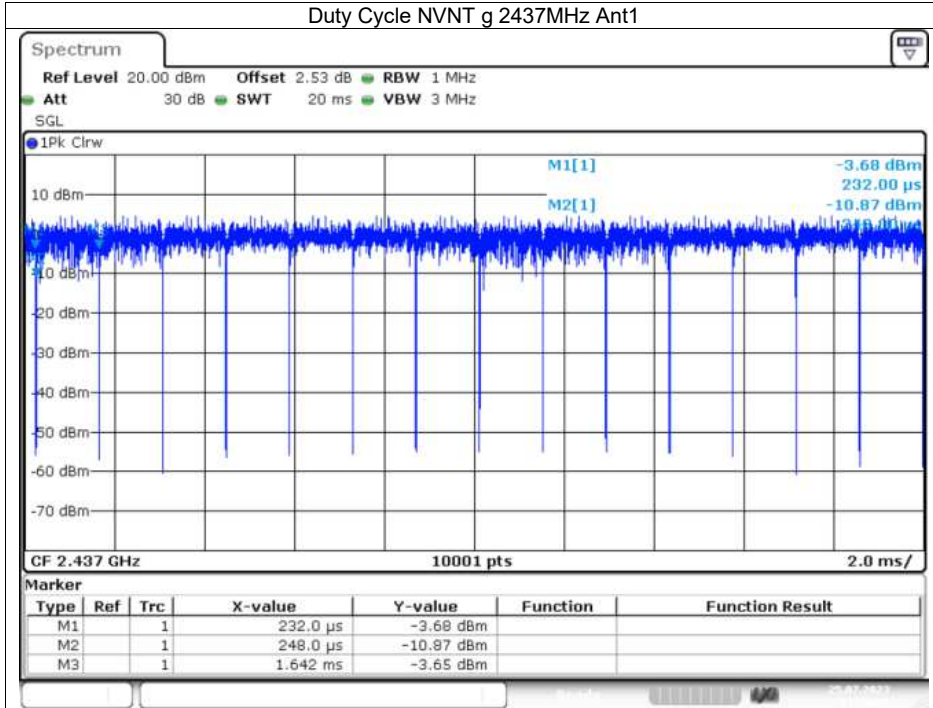




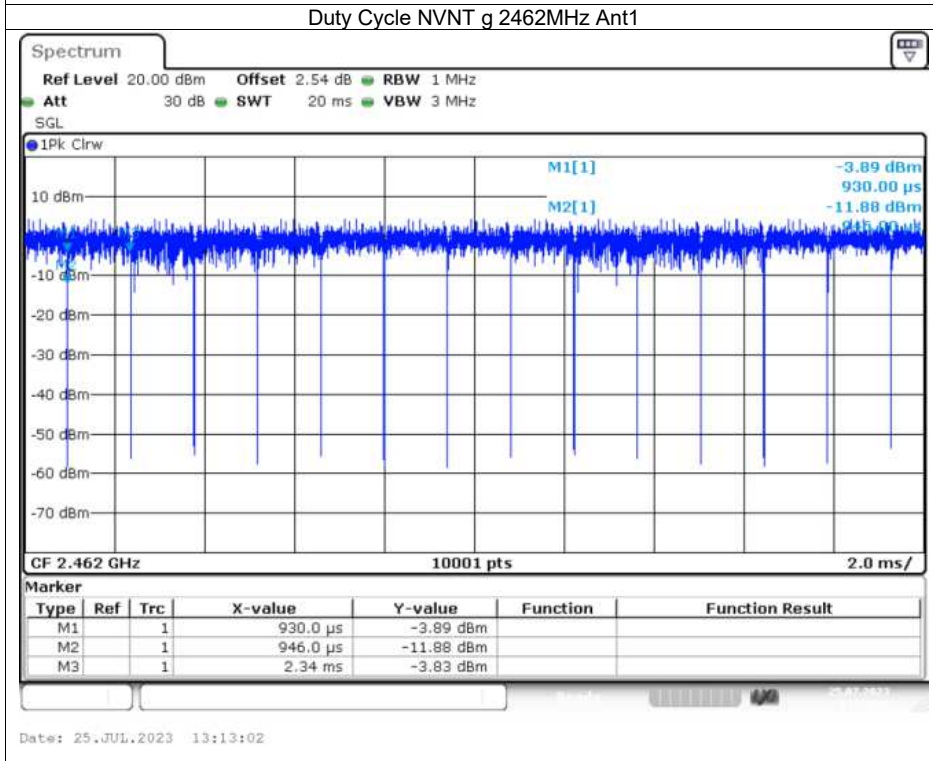
Date: 25.JUL.2023 13:08:27



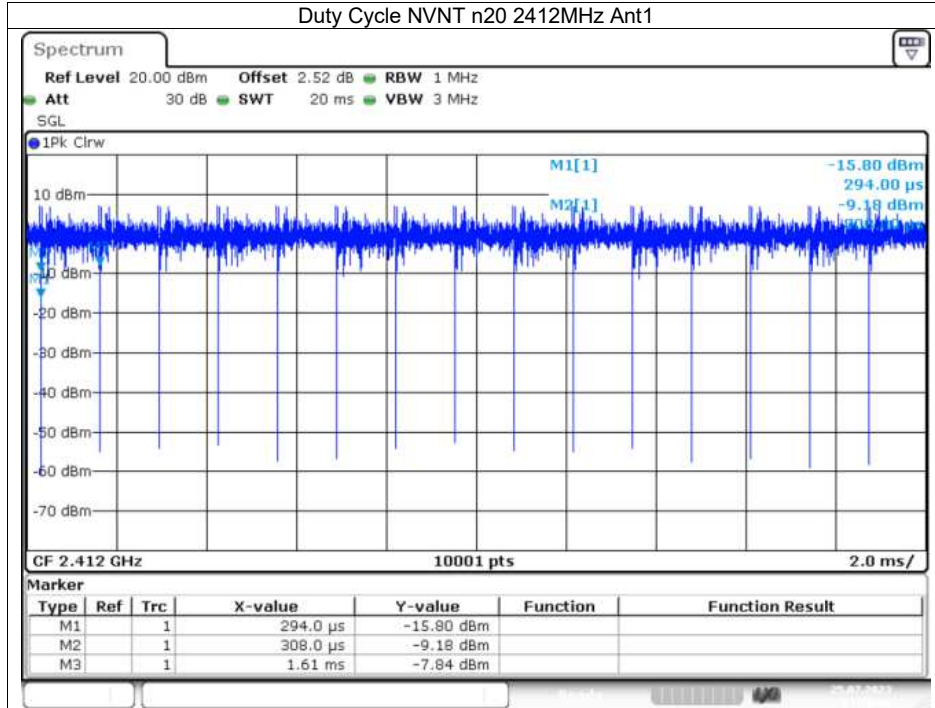
Date: 25.JUL.2023 13:16:26



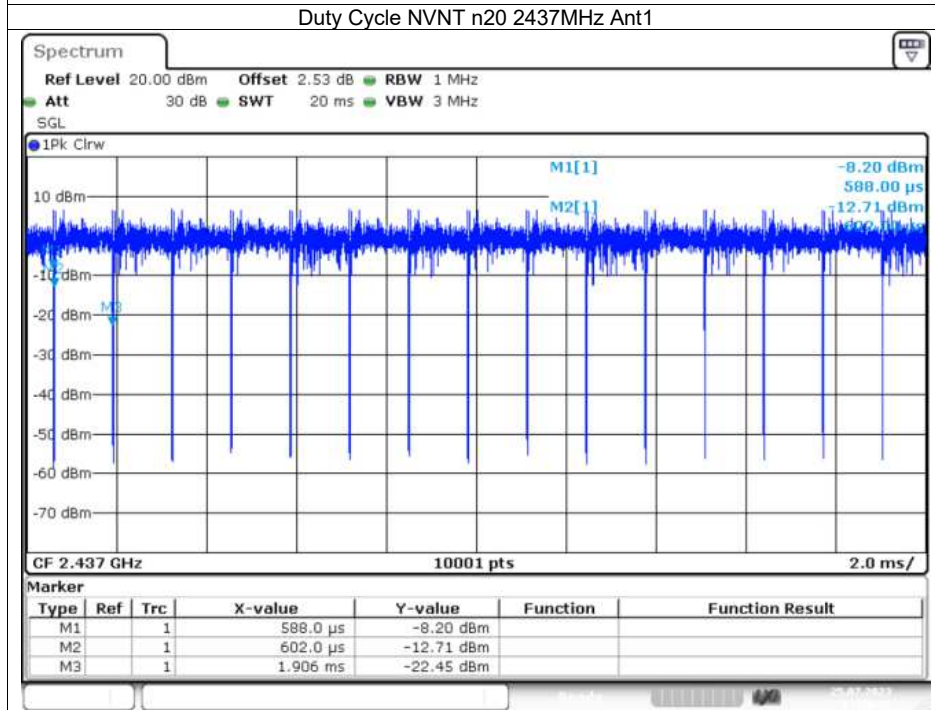
Date: 25.JUL.2023 13:14:47



Date: 25.JUL.2023 13:13:02

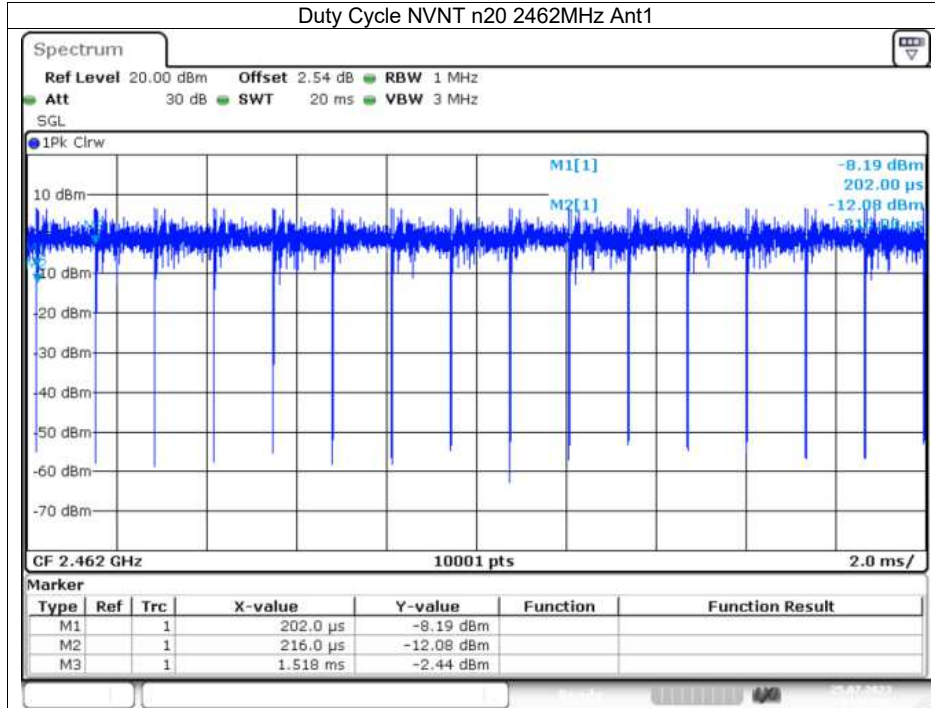


Date: 25.JUL.2023 13:18:46

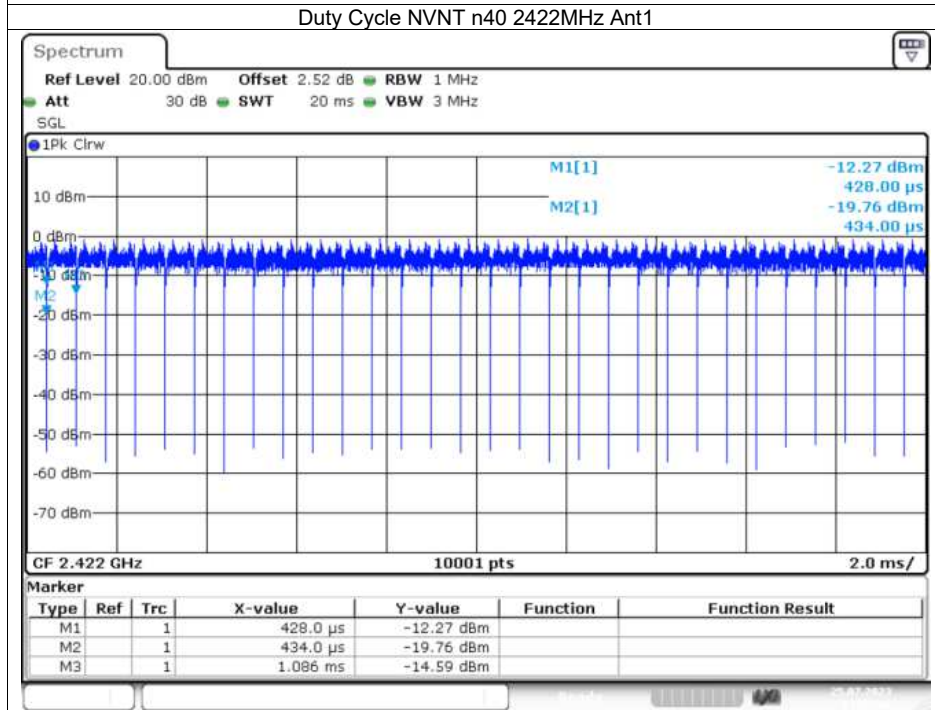


Date: 25.JUL.2023 13:20:30

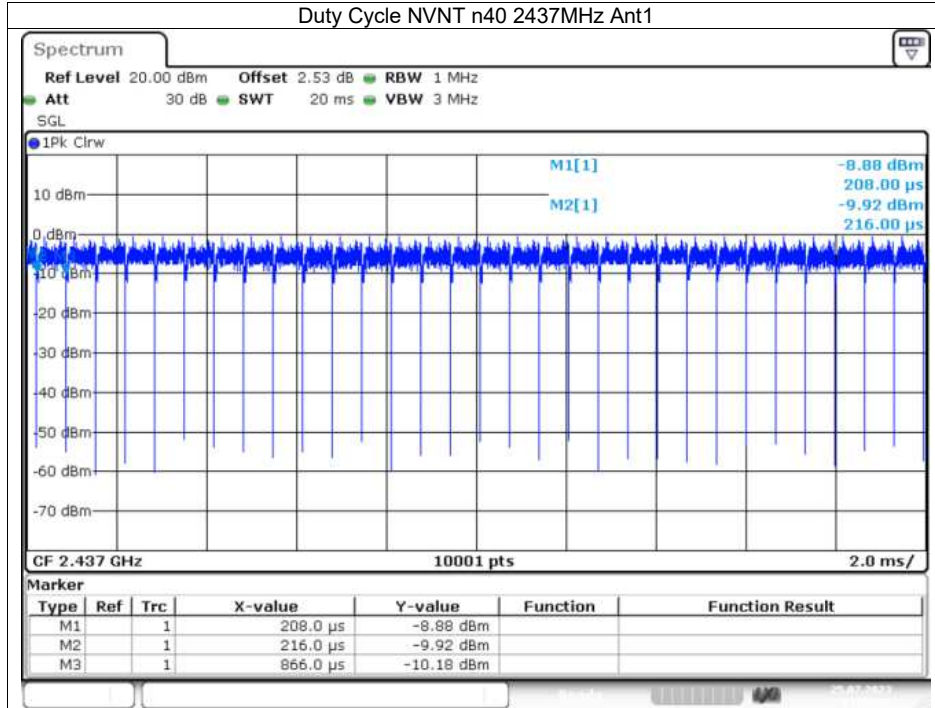




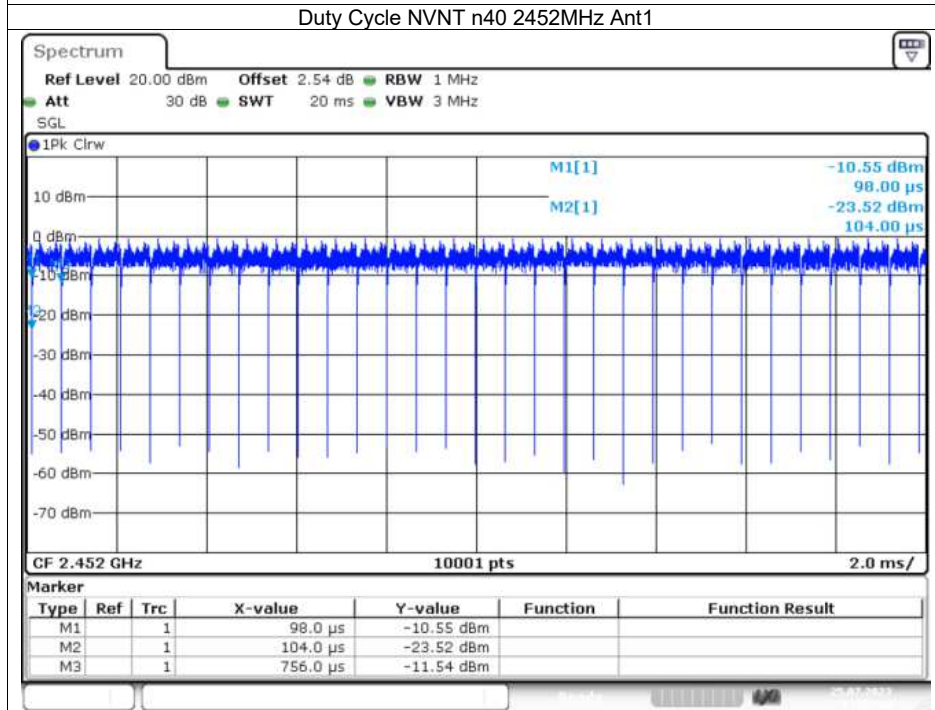
Date: 25.JUL.2023 13:22:00



Date: 25.JUL.2023 13:23:46



Date: 25.JUL.2023 13:25:46



Date: 25.JUL.2023 13:27:43

## APPENDIX: PHOTOGRAPHS OF TEST CONFIGURATION

Radiated emissions below 1GHz



Radiated emissions above 1GHz



**Conducted emissions**



## APPENDIX: PHOTOGRAPHS OF THE EUT

### External photos

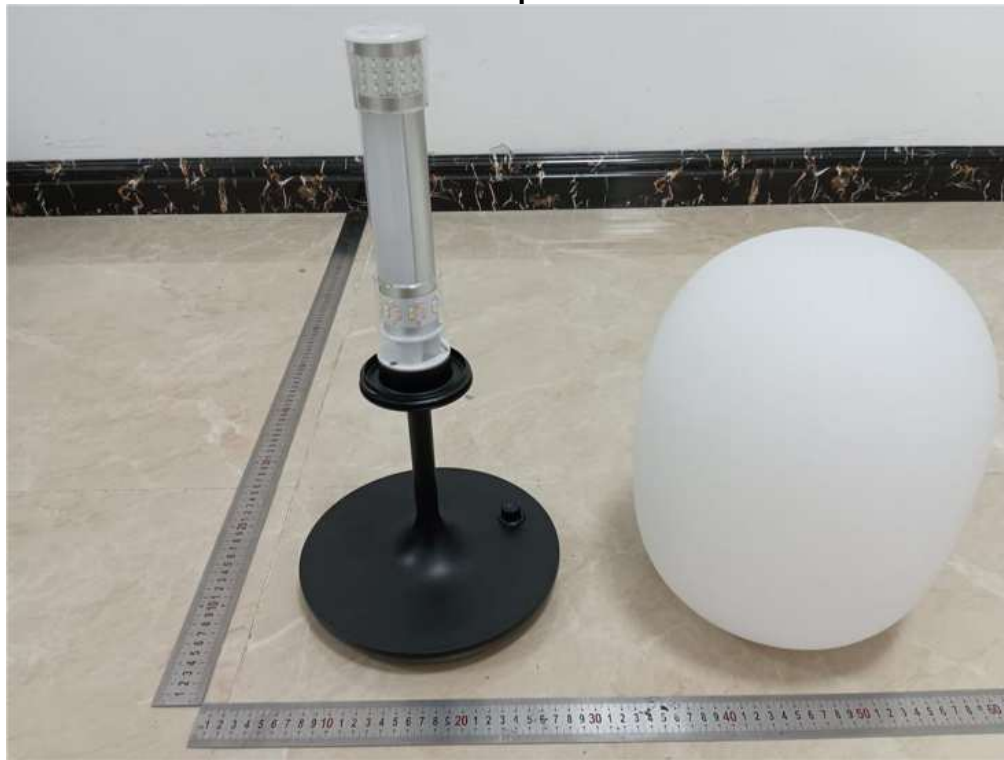






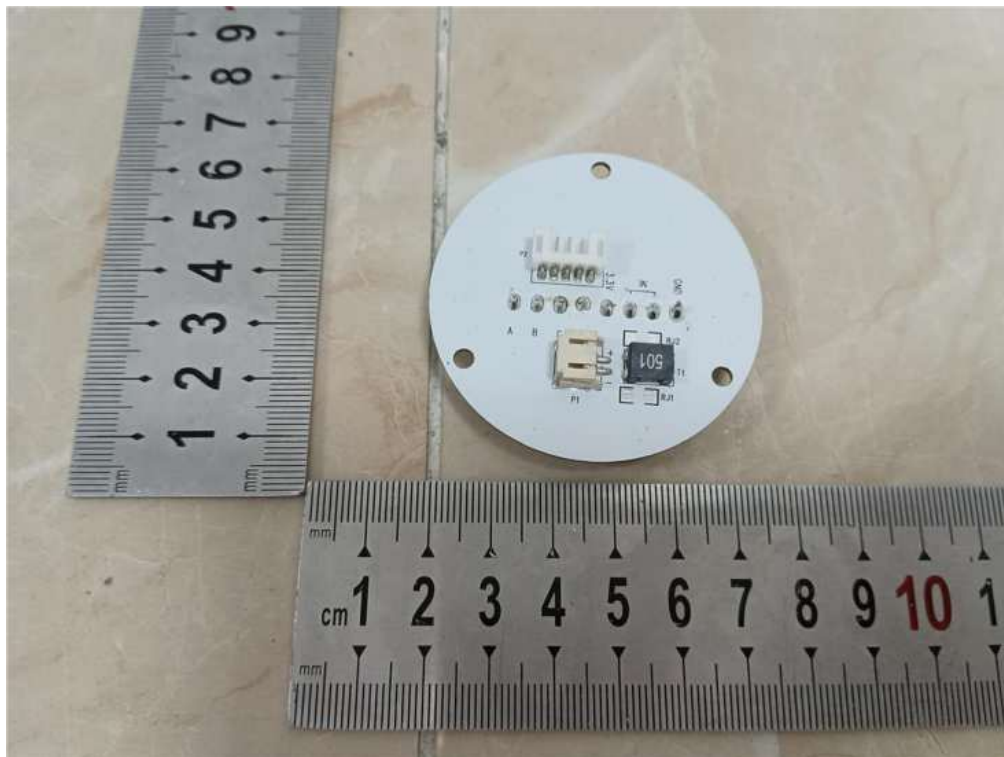
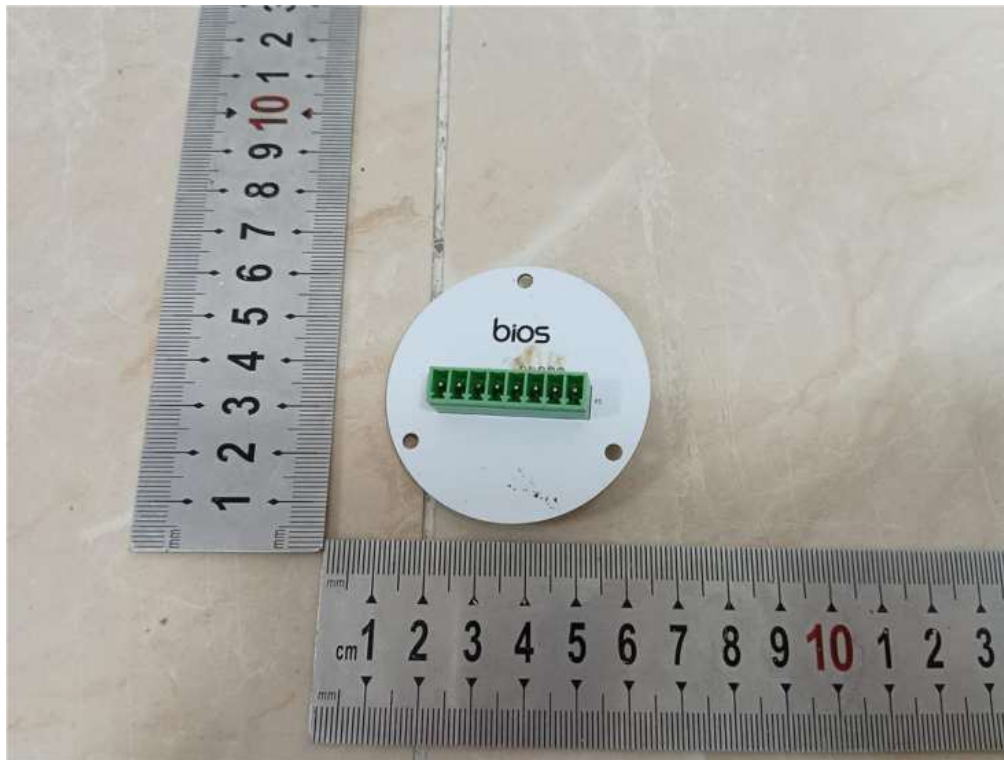


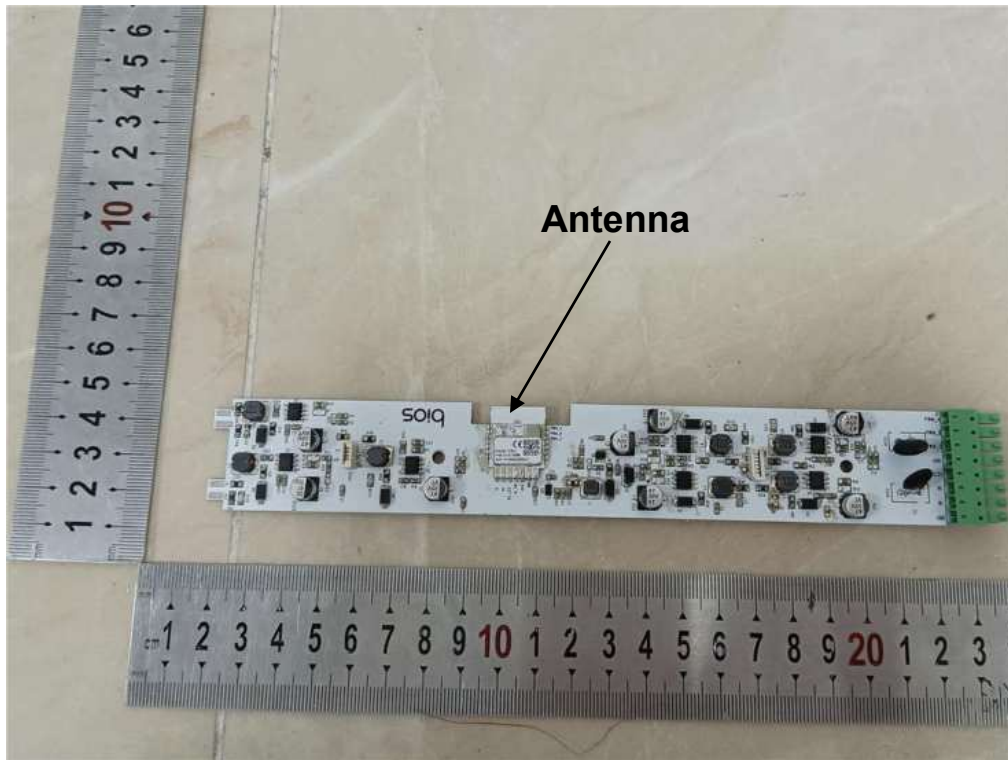
**Internal photos**

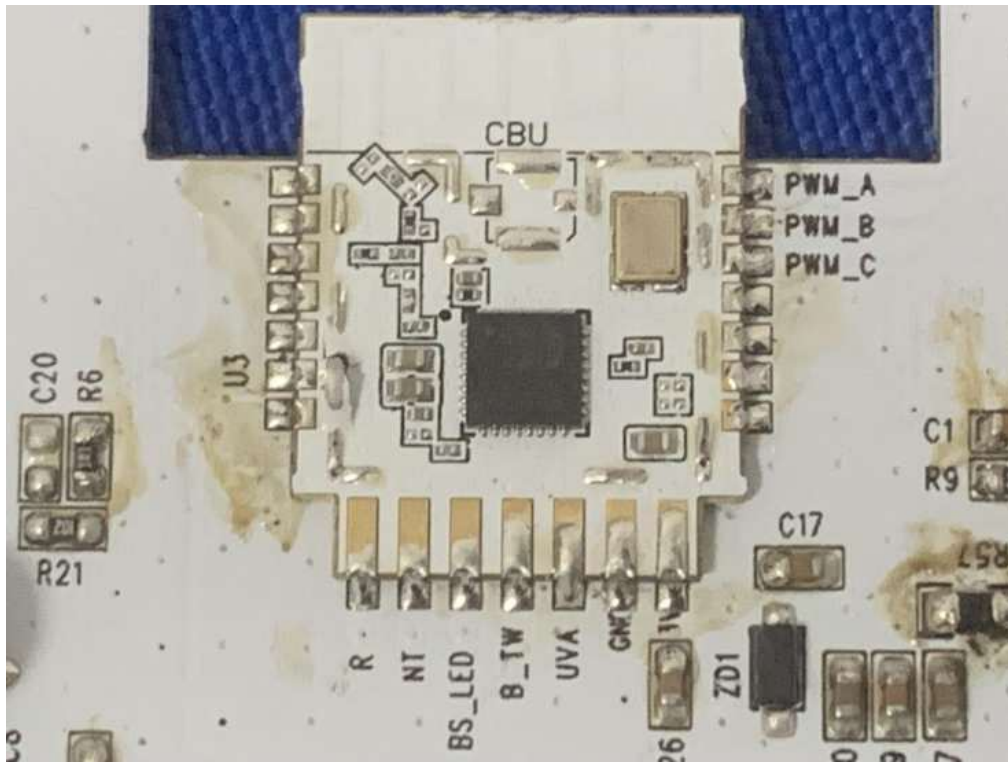


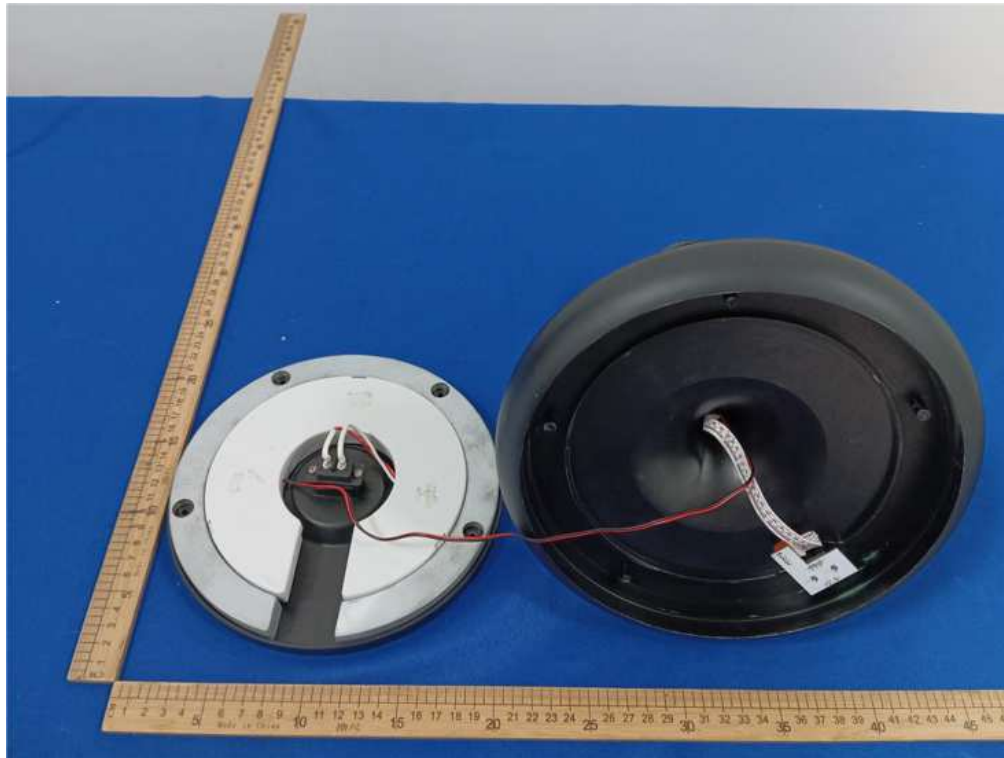


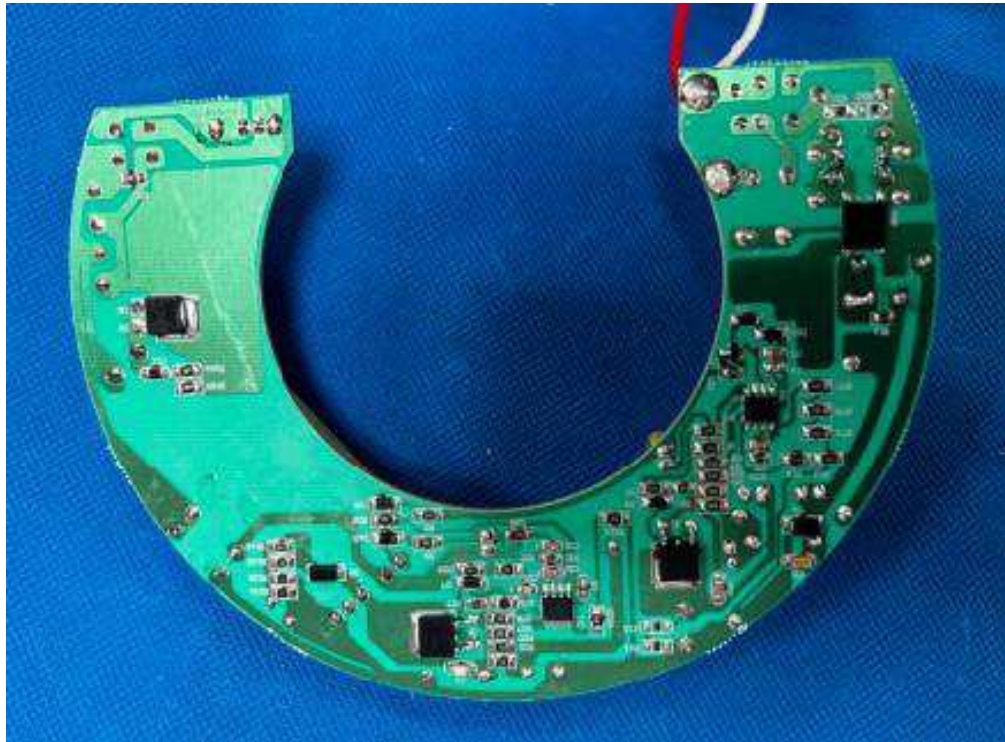
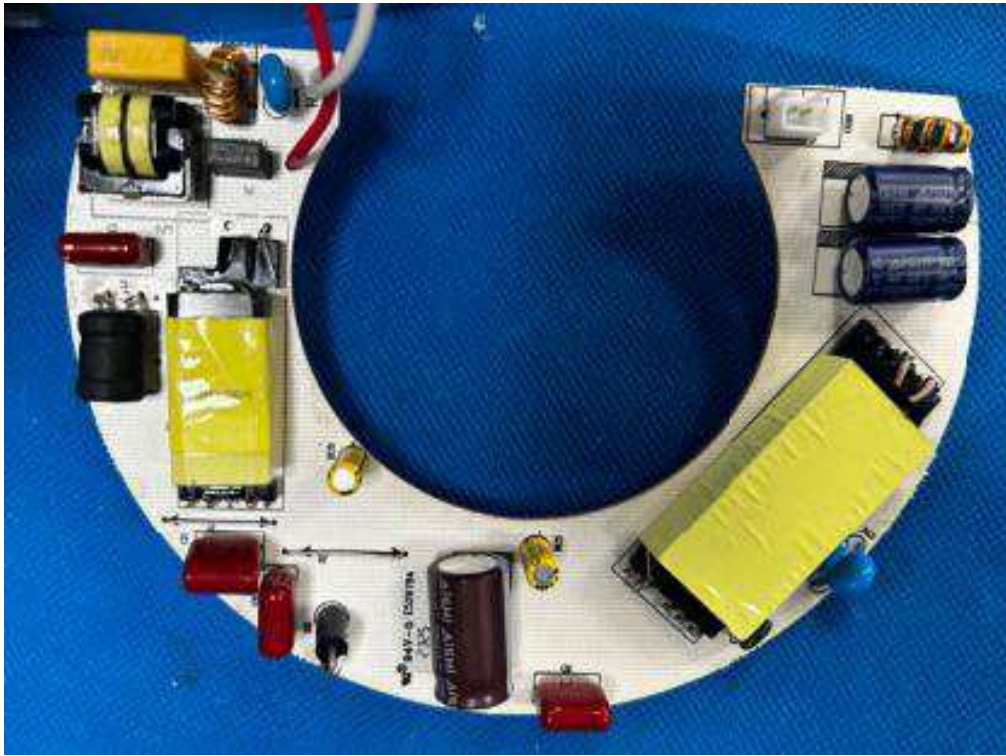


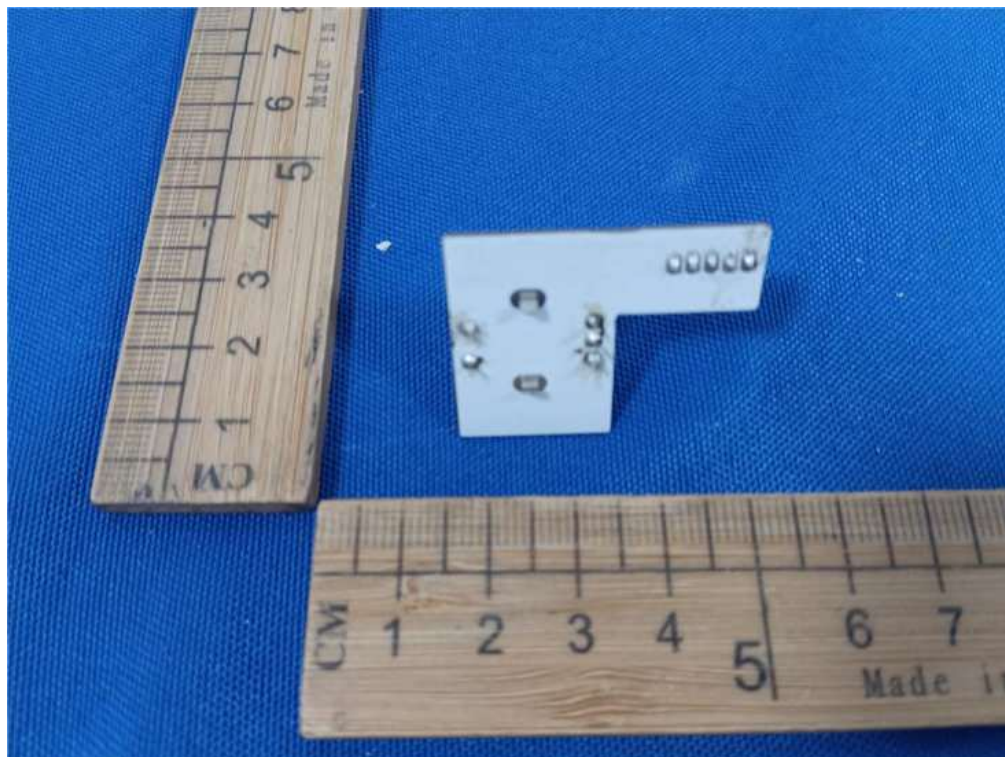
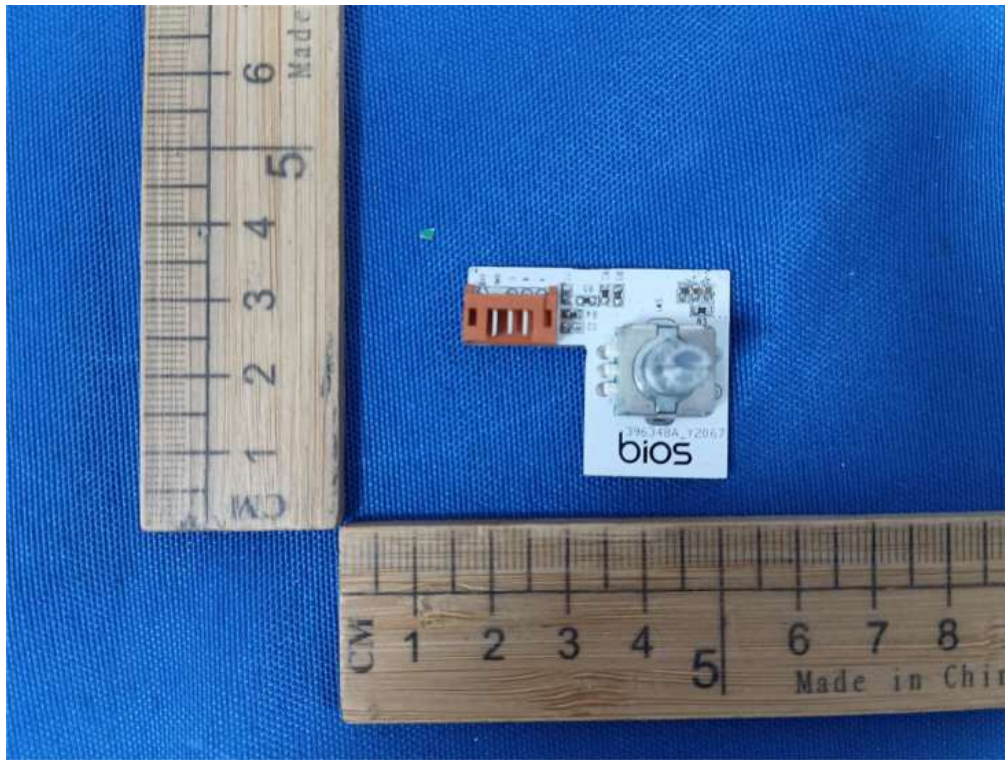












--- End of Report ---