TEST REPORT

APPLICANT	:	Shenzhen Hohem Technology Co., Ltd.
PRODUCT NAME	:	Touchscreen remote controller
MODEL NAME	:	HRT-05
BRAND NAME	:	hohem
FCC ID	:	2AIB7HRT-05
STANDARD(S)	:	47 CFR Part 15 Subpart C
RECEIPT DATE	:	2025-04-18
TEST DATE	:	2025-04-29 to 2025-05-24
ISSUE DATE	:	2025-07-11

Edited by: Peng Mi (Rapporteur)

Approved by: Shen Junsheng (Supervisor)

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DIRECTORY

1. Summary of Test Result ····· 4
1.1. Testing Applied Standards ····· 4
1.2. Test Equipment List ····· 5
1.3. Measurement Uncertainty ····· 7
1.4. Testing Laboratory ····· 7
2. General Description ····· 8
2.1. Information of Applicant and Manufacturer ····· 8
2.2. Information of EUT ····· 8
2.3. Channel List of EUT ····· 9
2.4. Test Configuration of EUT ····· 10
2.5. Test Conditions ····· 11
2.6. Test Setup Layout Diagram ····· 12
3. Test Results ····· 15
3.1. Antenna Requirement ····· 15
3.2. Duty Cycle of Test Signal ····· 16
3.3. Maximum Peak and Average Conducted Output Power ····· 17
3.4. 6 dB Bandwidth ····· 18
3.5. Conducted Spurious Emissions and Band Edge ····· 19
3.6. Power Spectral Density ····· 20
3.7. Conducted Emission ····· 21
3.8. Restricted Frequency Bands ····· 22
3.9. Radiated Emission ····· 23
Annex A Test Data and Result ····· 25

Change History		
Version	**Date**	**Reason for change**
1.0	2025-07-02	First edition
2.0	2025-07-11	Modified the Antenna Requirement and replaced the report version 1.0

1. Summary of Test Result

No.	Section	Description	Test Date	Test Engineer	Result	Remark
1	15.203	Antenna Requirement	N/A	N/A	PASS	/
2	N/A	Duty Cycle of Test Signal	May 01, 2025	Li Zikai	PASS	/
3	15.247(b)	Maximum Peak Conducted Output Power	May 01, 2025	Li Zikai	PASS	/
4	15.247(b)	Maximum Average Conducted Output Power	May 01, 2025	Li Zikai	PASS	/
5	15.247(a)	Bandwidth	May 01, 2025	Li Zikai	PASS	/
6	15.247(d)	Conducted Spurious Emission and Band Edge	May 01, 2025	Li Zikai	PASS	/
7	15.247(e)	Power Spectral Density	May 01, 2025	Li Zikai	PASS	/
8	15.207	Conducted Emission	Apr. 30, 2025	Fan Shengquan	PASS	/
9	15.247(d)	Restricted Frequency Bands	Apr. 30, 2025 to May 24, 2025	Gao Jianrou	PASS	/
10	15.209, 15.247(d)	Radiated Emission	Apr. 30, 2025 to May 24, 2025	Gao Jianrou	PASS	/

Note 1: The tests were performed according to the method of measurements prescribed in ANSI C63.10-2013 and KDB 558074 D01 v05r02.

Note 2: Any additions, deviation, or exclusions from the method shall be noted in the “Remark”.

1.1. Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

• 47 CFR Part 15 Subpart C Radio Frequency Devices

1.2. Test Equipment List

1.2.1 Conducted Test Equipment

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
EXA Signal Analyzer	MY53470836	N9010A	Agilent	2025.01.15	2026.01.14
Power Sensor	MY54180008	U2021XA	Agilent	2024.09.11	2025.09.10
Attenuator	MTJ6004-20	VAT-10+	MTJ Cooperation	N/A	N/A
RF Cable (30MHz-26GHz)	CB01	RF01	Morlab	N/A	N/A
SMA Connector	CN01	RF03	HUBER-SUHNER	N/A	N/A

1.2.2 Conducted Emission Test Equipment

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	MY56400093	N9038A	KEYSIGHT	2025.01.06	2026.01.05
LISN	8127449	NSLK 8127	Schwarzbeck	2025.01.09	2026.01.08
Pulse Limiter (10dB)	VTSD 9561 F-B #206	VTSD 9561-F	Schwarzbeck	2024.05.30	2025.05.29
RF Coaxial Cable (DC-100MHz)	BNC	MRE04	Qualwave	2024.07.02	2025.07.01

1.2.3 List of Software Used

Description	Manufacturer	Software Version
Test System	MaiWei	2.0.0.0
JS32-RE	Tonscend	5.0.0
TS+ -[JS32-CE]	Tonscend	2.5.0.0

1.2.4 Radiated Test Equipment

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Signal Analyzer	MY56060145	N9020A	Agilent	2024.05.30	2025.05.29
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2024.06.22	2025.06.21
Test Antenna - Loop	1519-022	FMZB1519	Schwarzbeck	2024.06.03	2025.06.02
Test Antenna – Horn	01774	BBHA 9120D	Schwarzbeck	2024.06.22	2025.06.21
Test Antenna – Horn	BBHA9170 #773	BBHA9170	Schwarzbeck	2024.06.22	2025.06.21
Preamplifier (10MHz-6GHz)	46732	S10M100L3802	LUCIX CORP.	2024.05.30	2025.05.29
Preamplifier (2GHz-18GHz)	61171/61172	S020180L3203	LUCIX CORP.	2024.05.30	2025.05.29
Preamplifier (18GHz-40GHz)	DS77209	DCLNA0118-40C-S	Decentest	2024.05.30	2025.05.29
RF Coaxial Cable (DC-18GHz)	MRE001	PE330	Pasternack	2024.05.30	2025.05.29
RF Coaxial Cable (DC-18GHz)	MRE002	CLU18	Pasternack	2024.05.30	2025.05.29
RF Coaxial Cable (DC-18GHz)	MRE003	CLU18	Pasternack	2024.05.30	2025.05.29
RF Coaxial Cable (DC-40GHz)	22290045	QA360-40-KK-0.5	Qualwave	2024.07.03	2025.07.02
RF Coaxial Cable (DC-40GHz)	22290046	QA360-40-KKF-2	Qualwave	2024.07.03	2025.07.02
RF Coaxial Cable (DC-18GHz)	22120181	QA500-18-NN-5	Qualwave	2024.07.03	2025.07.02
Notch Filter	N/A	WRCG-2400-2483.5-60SS	Wainwright	N/A	N/A
Anechoic Chamber	N/A	9m*6m*6m	CRT	2025.04.19	2028.04.18
Anechoic Chamber	N/A	9m*6m*6m	CRT	2022.11.30	2025.11.29

1.3. Measurement Uncertainty

Test Items	Uncertainty	Remark
Peak Output Power	±2.22dB	Confidence levels of 95%
Power Spectral Density	±2.22dB	Confidence levels of 95%
Bandwidth	±5%	Confidence levels of 95%
Conducted Spurious Emission	±2.77dB	Confidence levels of 95%
Restricted Frequency Bands	±5%	Confidence levels of 95%
Radiated Emission	±2.95dB	Confidence levels of 95%
Conducted Emission	±2.44dB	Confidence levels of 95%

1.4. Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
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FCC Designation Number:	CN1192
FCC Test Firm Registration Number:	226174

2. General Description

2.1. Information of Applicant and Manufacturer

Applicant:	Shenzhen Hohem Technology Co., Ltd.
Applicant Address:	B106,Building 2, jiuxianglin industrial park,4227 Xili lake road, Xili street,Nanshan,Shenzhen city.
Manufacturer:	Shenzhen Hohem Technology Co., Ltd.
Manufacturer Address:	B106,Building 2, jiuxianglin industrial park,4227 Xili lake road, Xili street,Nanshan,Shenzhen city.

2.2. Information of EUT

Product Name:	Touchscreen remote controller	
Sample No.:	1#, 3#, 5#	
Hardware Version:	V1.4	
Software Version:	1.001.006	
Modulation Technology:	DSSS, OFDM, OFDMA	
Modulation Type:	Refer to section 2.4.1	
Wireless Technology:	802.11b, 802.11g, 802.11n (HT20), 802.11ax (HEW20)	
Operating Frequency Range:	2412MHz–2472MHz	
Antenna Type:	Chip Antenna	
Antenna Gain:	1.5dBi	
Accessory Information:	Battery	
	Brand Name:	N/A
	Model No.:	401818
	Serial No.:	N/A
	Capacity:	140mAh
	Rated Voltage:	3.85V
	Charge Limit:	4.4V
	Manufacturer:	Zhuhai Kyan Electronic Technology Co.,Ltd

Note 1: The EUT description presented in the report are provided by applicant and/or manufacturer, and the test laboratory is not responsible for the accuracy of the information. For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

2.3. Channel List of EUT

Nominal Channel Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	**1**	**2412**	8	2447
	2	2417	9	2452
	3	2422	10	2457
	4	2427	11	2462
	5	2432	12	2467
	6	2437	**13**	**2472**
	7	**2442**		

Note 1: The black bold channels were selected for test.

2.4. Test Configuration of EUT

2.4.1.Modulation Type and Data Rate of EUT

Mode	Bandwidth (MHz)	Modulation Technology	Modulation Type	Data Rate	RU Size
802.11b	20	DSSS	**DBPSK**	**1**/2/5.5/11Mbps	N/A
			DQPSK		
			CCK		
802.11g	20	OFDM	**BPSK**	**6**/9/12/18/24/36/48/54 Mbps	N/A
			QPSK		
			16QAM		
			64QAM		
802.11n	20 (HT20/40)	OFDM	**BPSK**	**MCS0**~MCS7	N/A
			QPSK		
			16QAM		
			64QAM		
802.11ax	20 (HEW20)	OFDM/ OFDMA	**BPSK**	**MSC0**~MCS11	26/52/106
			QPSK		
			16QAM		
			64QAM		
			256QAM		
			1024QAM		

Note1: The worst-case mode (bold face) in all data rates has been determined during the pre-scan, only the test data of the worst-case were recorded in this report.

Note2: The RF signal transmission of EUT is controlled by the build-in engineering mode which is provided by the manufacturer. The recorded power setting value is the maximum that the engineering mode has configuration during testing.

2.4.2.802.11ax RU Allocation

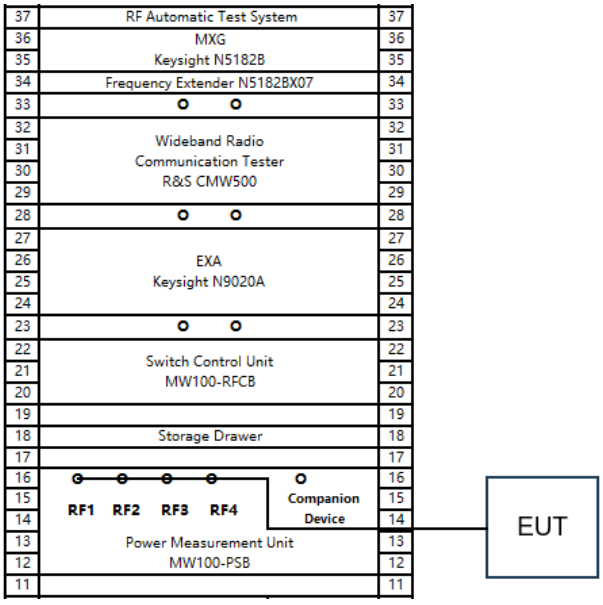
BW (MHz)	RU Size			User	RU Offset
	Full (Tone)	Partial			
		(Tone)	BW (MHz)		
20	242	26	2	9	@0/1/2/3/4/5/6/7/8
		52	4	4	@37/38/39/40
		106	8	2	@53/54

2.5. Test Conditions

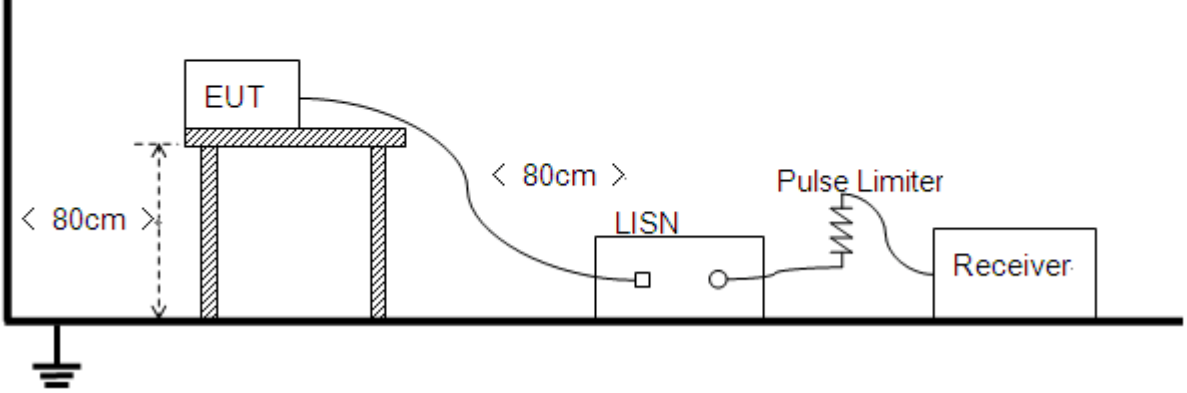
Temperature (°C):	15-35
Relative Humidity (%):	30-60
Atmospheric Pressure (kPa):	86-106

2.6. Test Setup Layout Diagram

2.6.1.Conducted Measurement

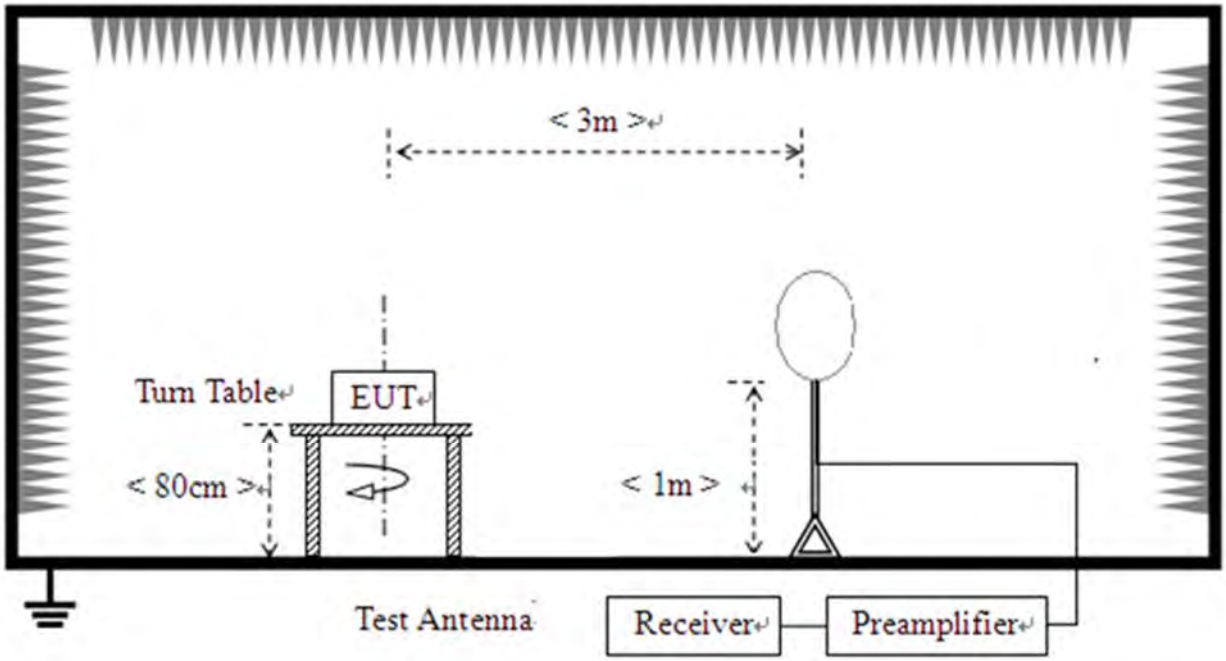


2.6.2.Conducted Emission Measurement

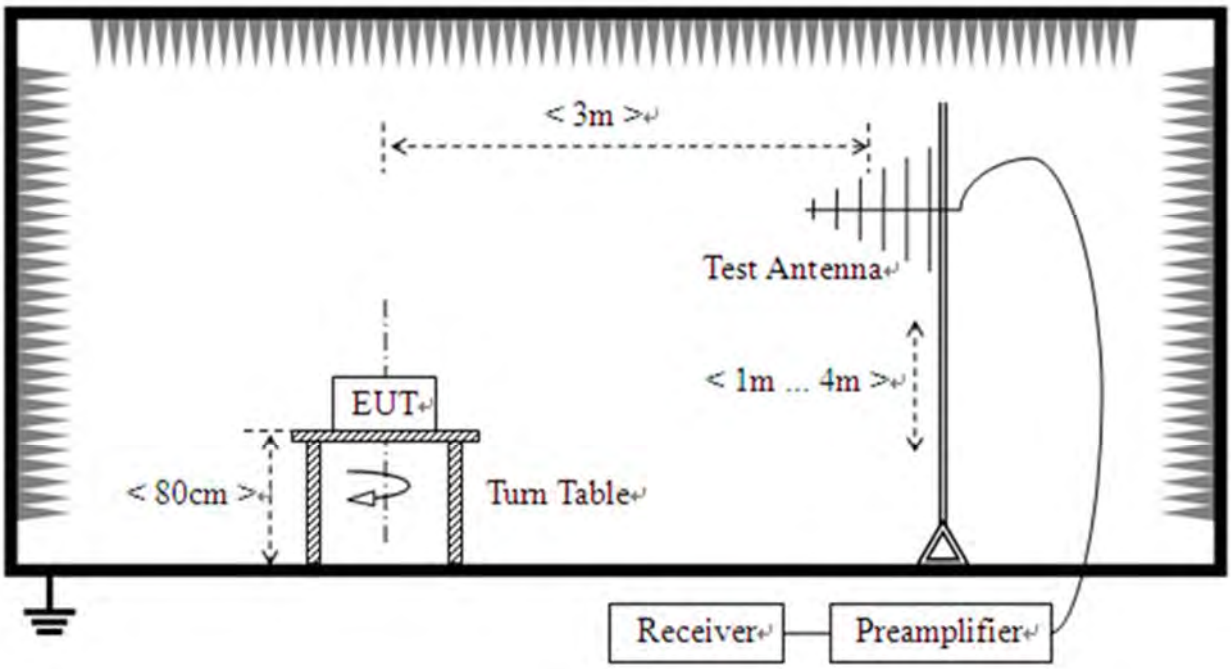


2.6.3.Radiation Measurement

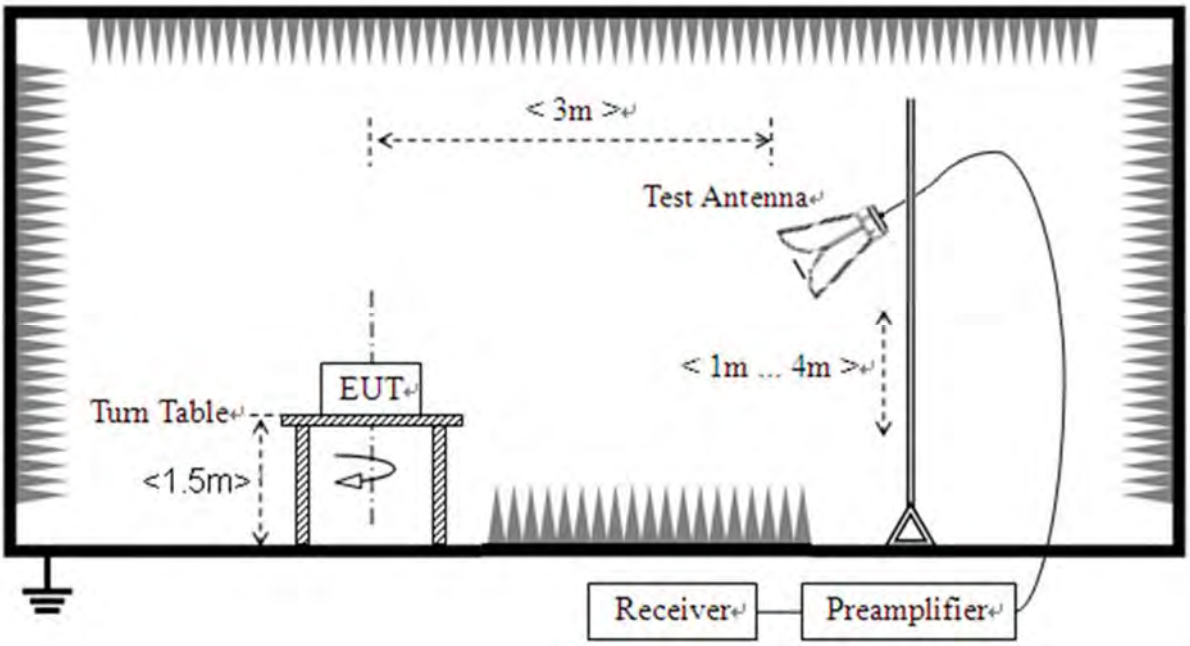
1) For radiated emissions from 9kHz to 30MHz



2) For radiated emissions from 30MHz to1GHz



3) For radiated emissions above 1GHz



3. Test Results

3.1. Antenna Requirement

3.1.1. Requirement

According to FCC 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

3.1.2. Test Result

Antenna location	Antenna Type	Coupling Method
☒Internal ☐External	☐FPC Antenna ☐Spring Antenna ☐Ceramic Antenna ☐Integrated Antenna ☐Dipole Antenna ☐PCB Antenna ☐PIFA Antenna ☒Chip Antenna	☐I-PEX Connector ☐SMA Connector ☐RP-SMA Connector ☐Metal Shrapnel ☒Layout

3.2. Duty Cycle of Test Signal

3.2.1.Requirement

Preferably, all measurements of maximum conducted (average) output power will be performed with the EUT transmitting continuously (i.e., with a duty cycle of greater than or equal to 98%).When continuous operation cannot be realized, then the use of sweep triggering/signal gating techniques can be used to ensure that measurements are made only during transmissions at the maximum power control level. Such sweep triggering/signal gating techniques will require knowledge of the minimum transmission duration(T) over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation. Sweep triggering/signal gating techniques can then be used if the measurement/sweep time of the analyzer can be set such that it does not exceed T at any time that data are being acquired (i.e.,no transmitter OFF-time is to be considered).
When continuous transmission cannot be achieved and sweep triggering/signal gating cannot be implemented, alternative procedures are provided that can be used to measure the average power; however, they will require an additional measurement of the transmitter duty cycle (D). Within this sub clause, the duty cycle refers to the fraction of time over which the transmitter is ON and is transmitting at its maximum power control level. The duty cycle is considered to be constant if variations are less than ±2%; otherwise, the duty cycle is considered to be non constant.

3.2.2.Test Result

Refer to Annex A.1 in this report.

3.3. Maximum Peak and Average Conducted Output Power

3.3.1. Requirement

According to FCC section 15.247(b)(3), For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: The maximum conducted output power of the intentional radiator shall not exceed 1 Watt.

3.3.2. Test Procedures

The EUT (Equipment under the test) which is coupled to the USB Wideband Power Sensor; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading.

3.3.3. Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.3.4. Test Result

Refer to Annex A.2 and A.3 in this report.

3.4.6 dB Bandwidth

3.4.1.Requirement

According to FCC section 15.247(a) (2), systems using digital modulation techniques may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725 - 5850 MHz bands. The minimum 6dB bandwidth shall be at least 500 kHz.

3.4.1.Test Procedures

KDB 558074 Section 8.2 was used in order to prove compliance.

3.4.2.Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.4.3.Test Result

Refer to Annex A.4 in this report.

3.5. Conducted Spurious Emissions and Band Edge

3.5.1. Requirement

According to FCC section 15.247(d), in any 100kHz 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 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

3.5.2. Test Procedures

KDB 558074 Section 8.5 and 8.7 was used in order to prove compliance.

3.5.3. Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.5.4. Test Result

Refer to Annex A.5 and A.6 in this report.

3.6. Power Spectral Density

3.6.1.Requirement

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

3.6.2.Test Procedures

The measured power spectral density was calculated by the reading of the spectrum analyzer and calibration. Following is the test procedure for PSD test:
a) Set analyzer center frequency to channel center frequency
b) Set span to1.5 times DTS
c) Set RBW to 30kHz
d) Set VBW to 100kHz
e) Detector = peak
f) Sweep time = auto couple
g) Trace mode = max hold
h) Allow trace to fully stabilize
i) Use the peak marker function to determine the maximum amplitude level and recorded as PD
j) Use below formula to calculate the Conducted PSD value that at specified RBW:
Conducted PSD=PD-10lg(30k/3k)

3.6.3.Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.6.4.Test Result

Refer to Annex A.7 in this report.

3.7. Conducted Emission

3.7.1.Requirement

According to FCC section 15.207, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50μH/50Ω line impedance stabilization network (LISN).

Frequency Range (MHz)	Conducted Limit (dBμV)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

Note:

(a) The lower limit shall apply at the band edges.

(b) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

3.7.2.Test Procedures

The Table-top EUT was placed upon a non-metallic table 0.8m above the horizontal metal reference ground plane. EUT was connected to LISN and LISN was connected to reference Ground Plane. EUT was 80cm from LISN. The set-up and test methods were according to ANSI C63.10: 2013.

3.7.3.Test Setup Layout

Refer to chapter 2.6.2 in this report.

3.7.4.Test Result

Refer to Annex A.8 in this report.

3.8. Restricted Frequency Bands

3.8.1.Requirement

According to FCC section 15.247(d), in any 100kHz 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 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, 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).

3.8.2.Test Procedures

The EUT is located in a 3m Semi-Anechoic Chamber; the antenna factors, cable loss and so on of the site as factors are calculated to correct the reading.
For the Test Antenna:
Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength.
Span = wide enough to fully capture the emission being measured
RBW = 1 MHz for f ≥ 1GHz, 100 kHz for f < 1GHz
VBW = 3 MHz
Sweep = auto
Detector function = peak/average
Trace = max hold
Allow the trace to stabilize

3.8.3.Test Setup Layout

Refer to chapter 2.6.3 in this report.

3.8.4.Test Result

Refer to Annex A.9 in this report.

3.9. Radiated Emission

3.9.1.Requirement

According to FCC section 15.247(d), radiated emission outside the frequency band attenuation below the general limits specified in FCC section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in FCC section 15.205(a), must also comply with the radiated emission limits specified in FCC section 15.209(a).

According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
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

Note1: For above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.
Note2: For above 1000MHz, limit field strength of harmonics: 54dBuV/m@3m (AV) and 74dBuV/m@3m (PK).In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table).

3.9.2.Test Procedures

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz.The antenna to EUT distance is 3meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 30MHz, the emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9kHz-90 kHz, 110kHz-490 kHz. Radiated emission limits in these two bands are based on measurements employing an average detector.

For measurements below 1GHz the resolution bandwidth is set to 100kHz for peak detection measurements or 120kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1GHz the resolution bandwidth is set to 1MHz, the video band width is set to 3MHz for peak measurements and as applicable for average measurements.

The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions. For measurements above 1 GHz, keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response.

3.9.3.Test Setup Layout

Refer to chapter 2.6.3 in this report.

3.9.4.Test Result

Refer to Annex A.10 in this report.

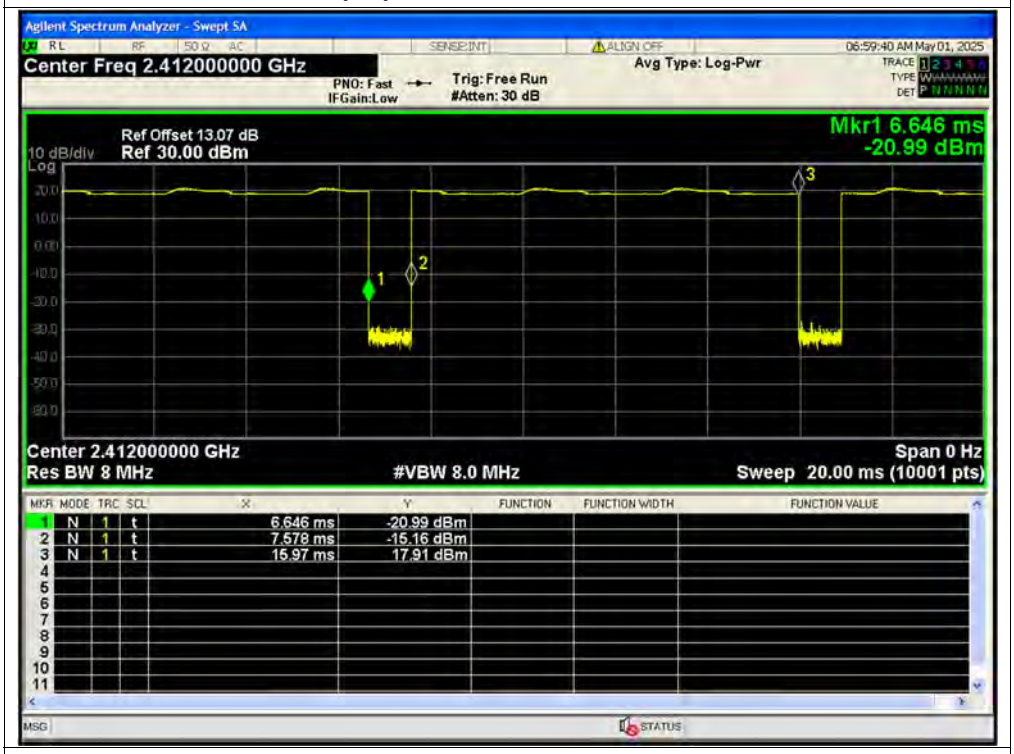
Annex A Test Data and Result

A.1. Duty Cycle of Test Signal

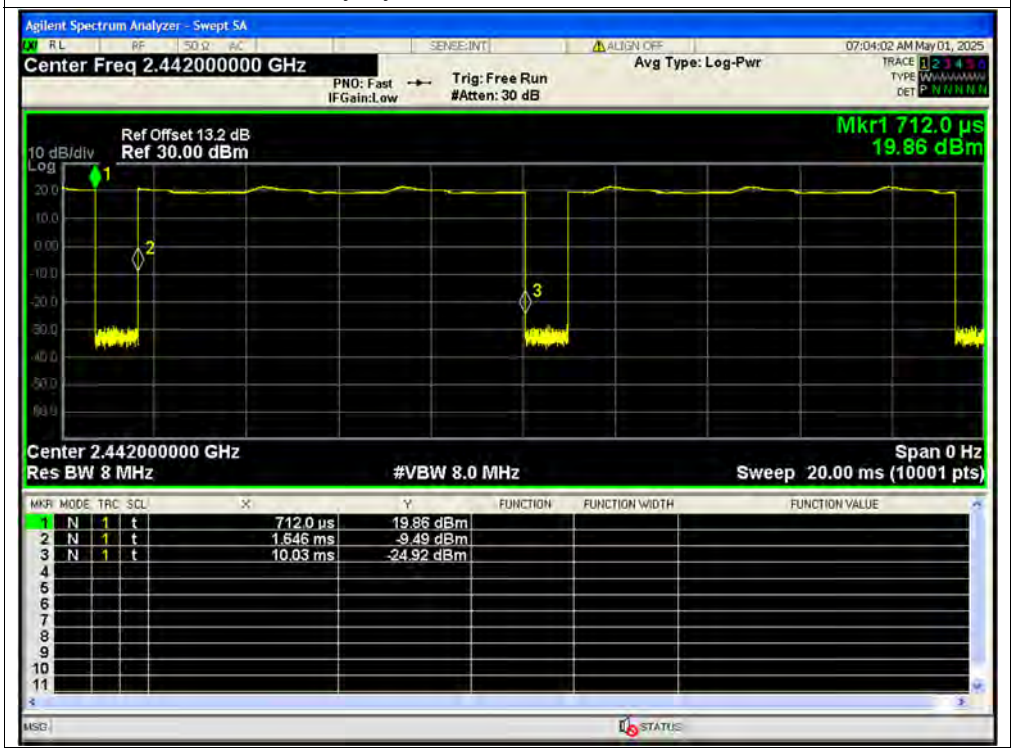
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	90	0.46	0.12
NVNT	b	2442	Ant1	89.98	0.46	0.12
NVNT	b	2472	Ant1	89.98	0.46	0.12
NVNT	g	2412	Ant1	89.94	0.46	0.72
NVNT	g	2442	Ant1	89.94	0.46	0.72
NVNT	g	2472	Ant1	89.94	0.46	0.72
NVNT	n20	2412	Ant1	97.65	0.1	6.02
NVNT	n20	2442	Ant1	97.65	0.1	6.02
NVNT	n20	2472	Ant1	89.25	0.49	6.02
NVNT	ax20	2412	Ant1	95.29	0.21	6.17
NVNT	ax20	2442	Ant1	95.29	0.21	6.17
NVNT	ax20	2472	Ant1	68.14	1.67	3.6
NVNT	ax20 26@0	2412	Ant1	17.68	7.53	1.14
NVNT	ax20 26@0	2442	Ant1	17.71	7.52	1.14
NVNT	ax20 26@0	2472	Ant1	17.68	7.53	1.14
NVNT	ax20 52@37	2412	Ant1	99.56	0.02	0.44
NVNT	ax20 52@37	2442	Ant1	99.56	0.02	0.44
NVNT	ax20 52@37	2472	Ant1	22.44	6.49	0.44
NVNT	ax20 106@53	2412	Ant1	99.59	0.02	0.21
NVNT	ax20 106@53	2442	Ant1	99.63	0.02	0.21
NVNT	ax20 106@53	2472	Ant1	9.14	10.39	1.14

Test Graphs

Duty Cycle NVNT b 2412MHz Ant1

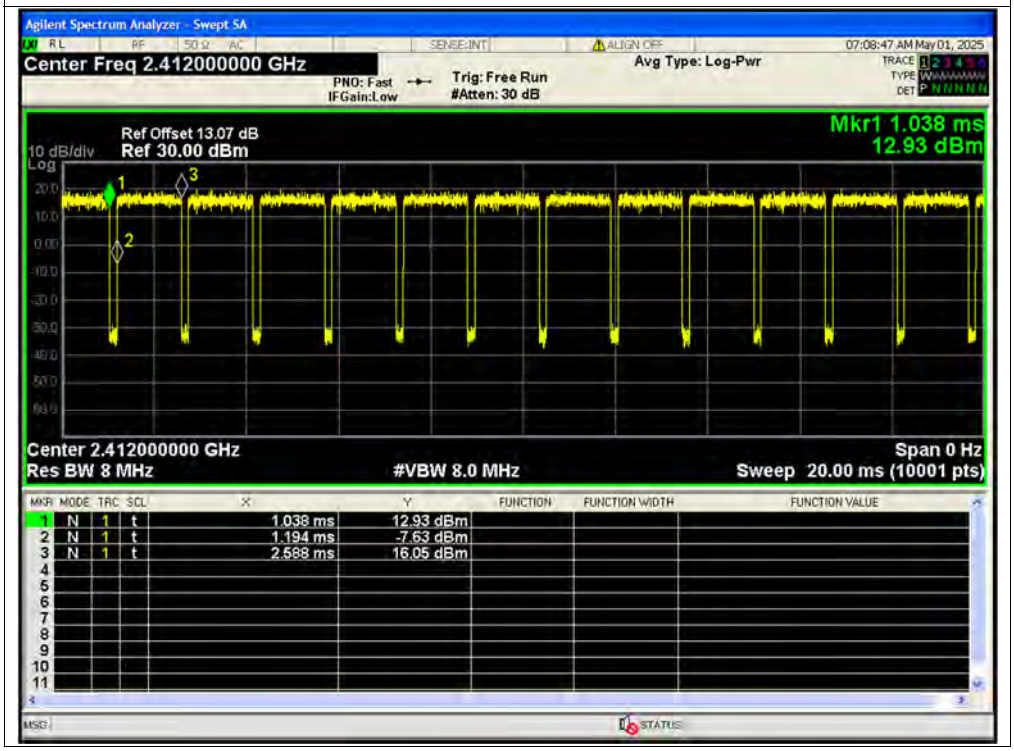


Duty Cycle NVNT b 2442MHz Ant1

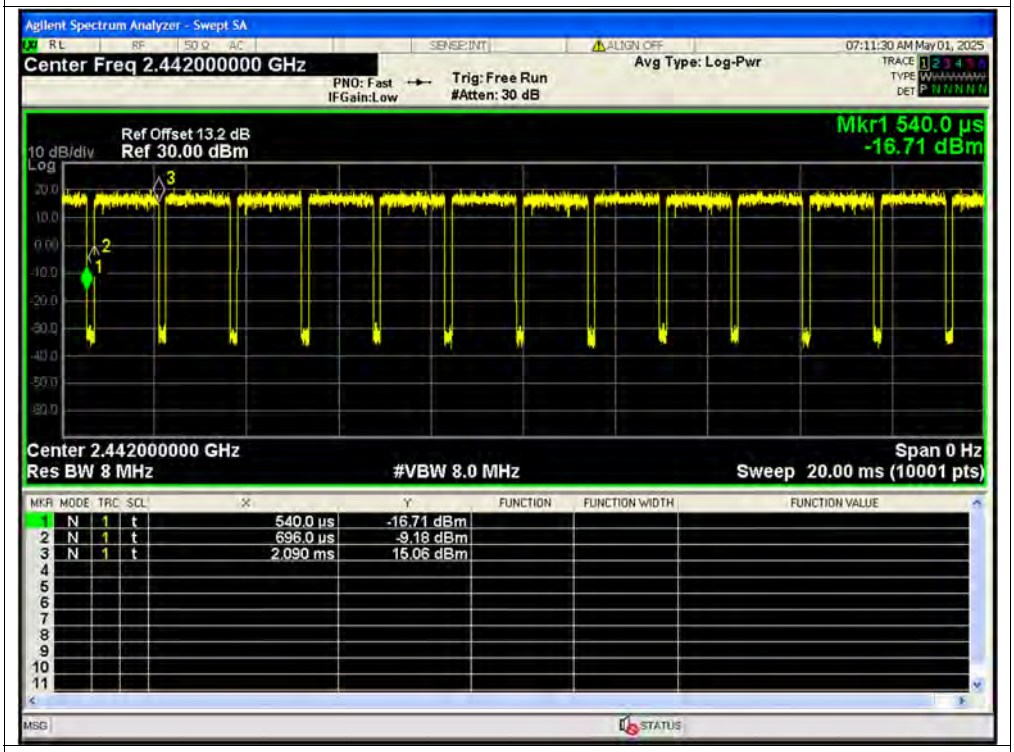


Duty Cycle NVNT b 2472MHz Ant1

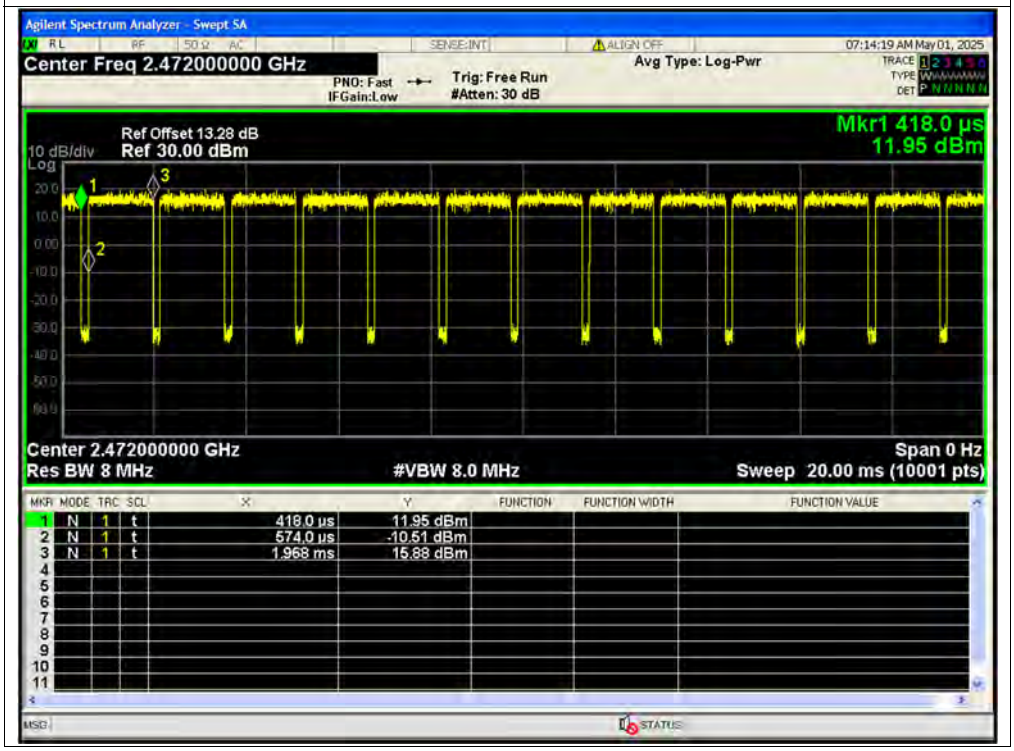
Duty Cycle NVNT g 2412MHz Ant1



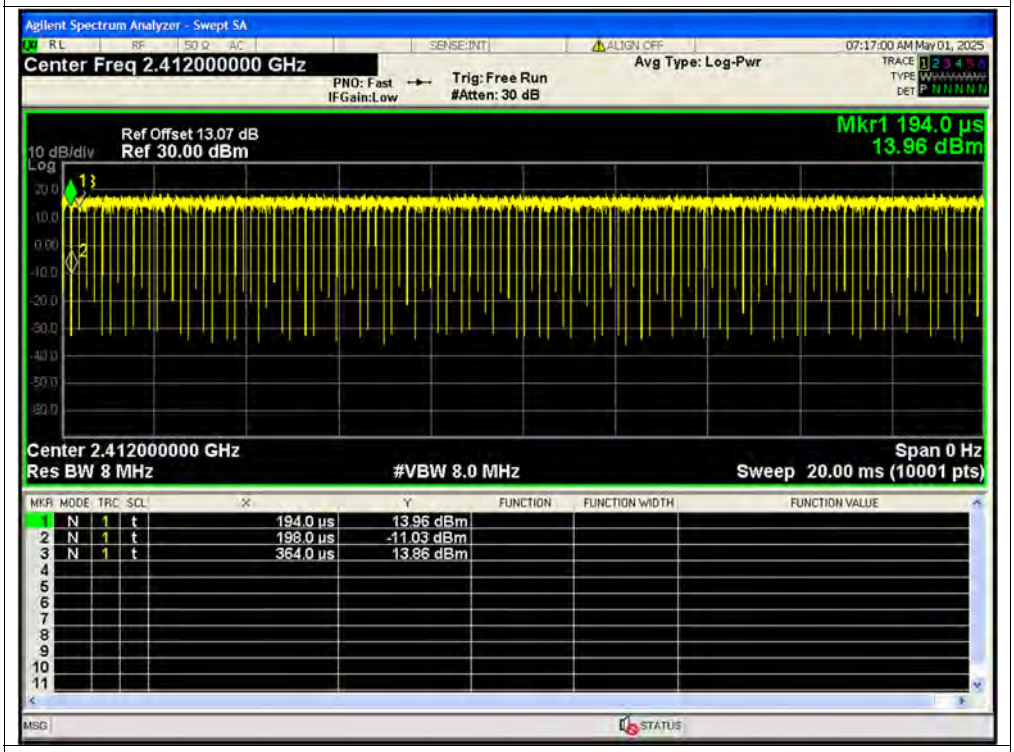
Duty Cycle NVNT g 2442MHz Ant1



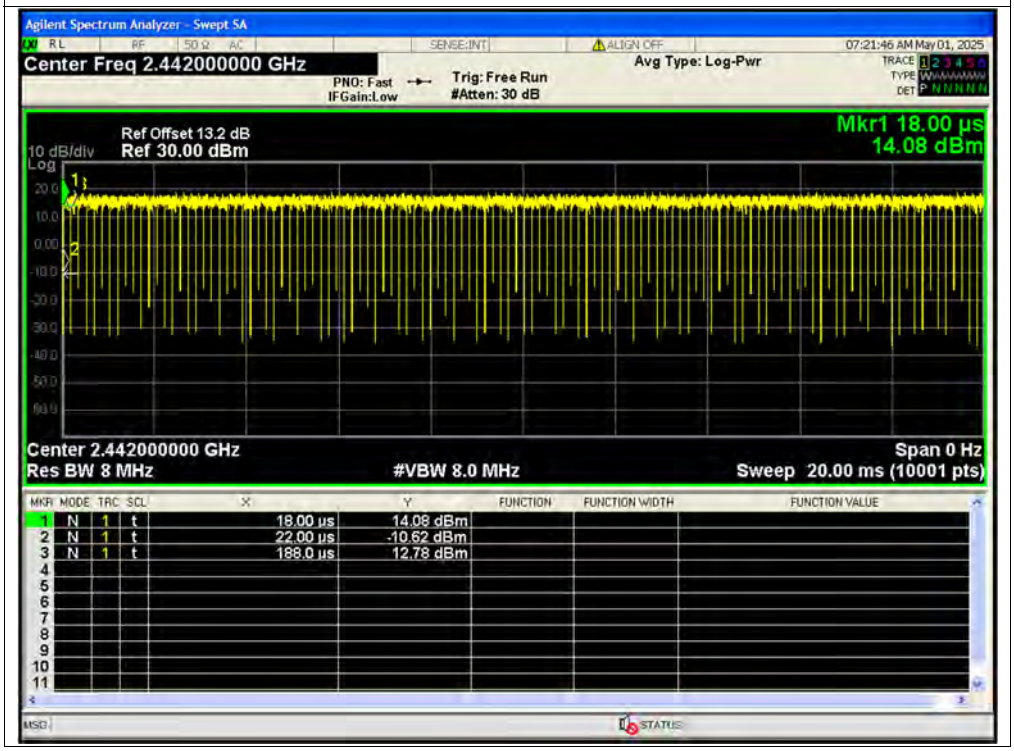
Duty Cycle NVNT g 2472MHz Ant1



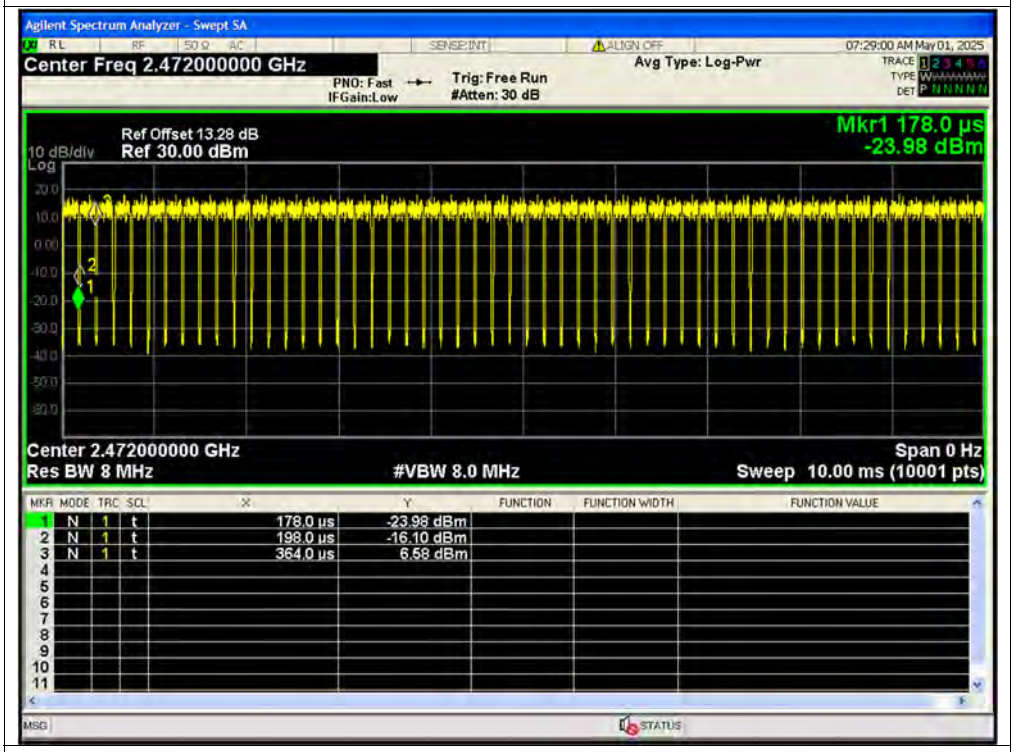
Duty Cycle NVNT n20 2412MHz Ant1



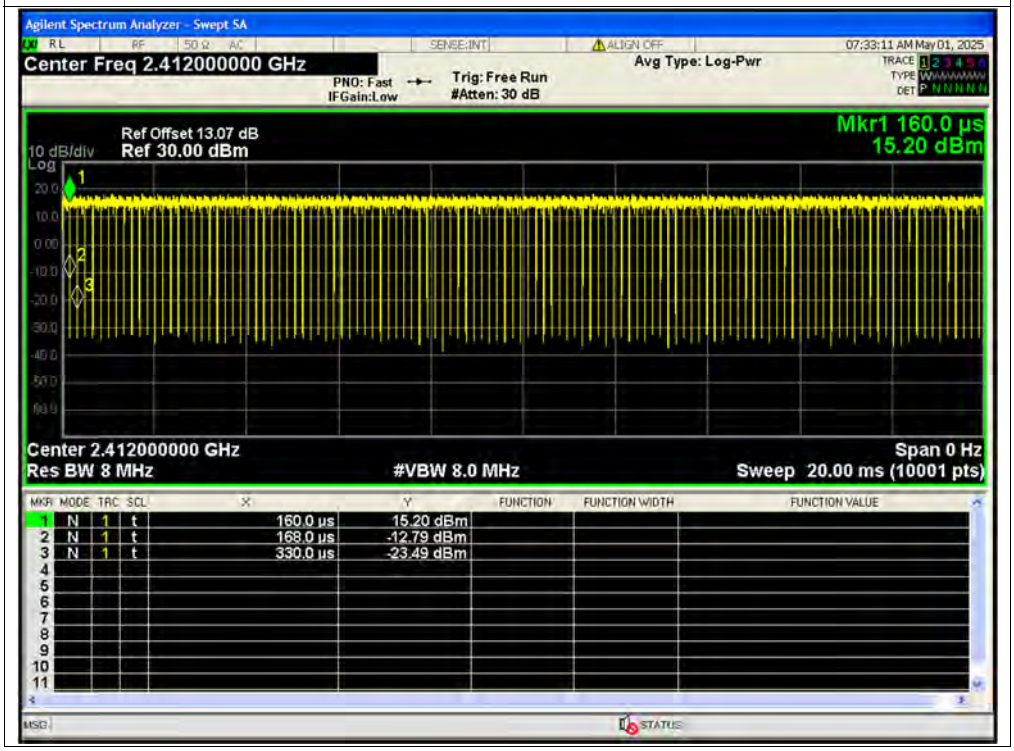
Duty Cycle NVNT n20 2442MHz Ant1



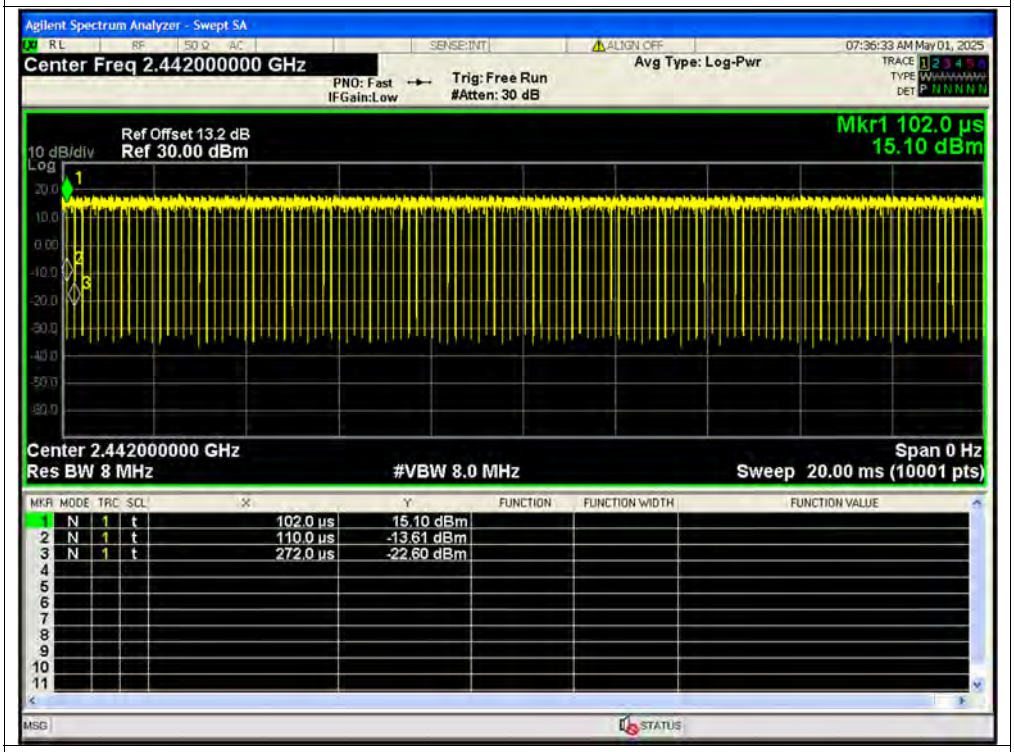
Duty Cycle NVNT n20 2472MHz Ant1



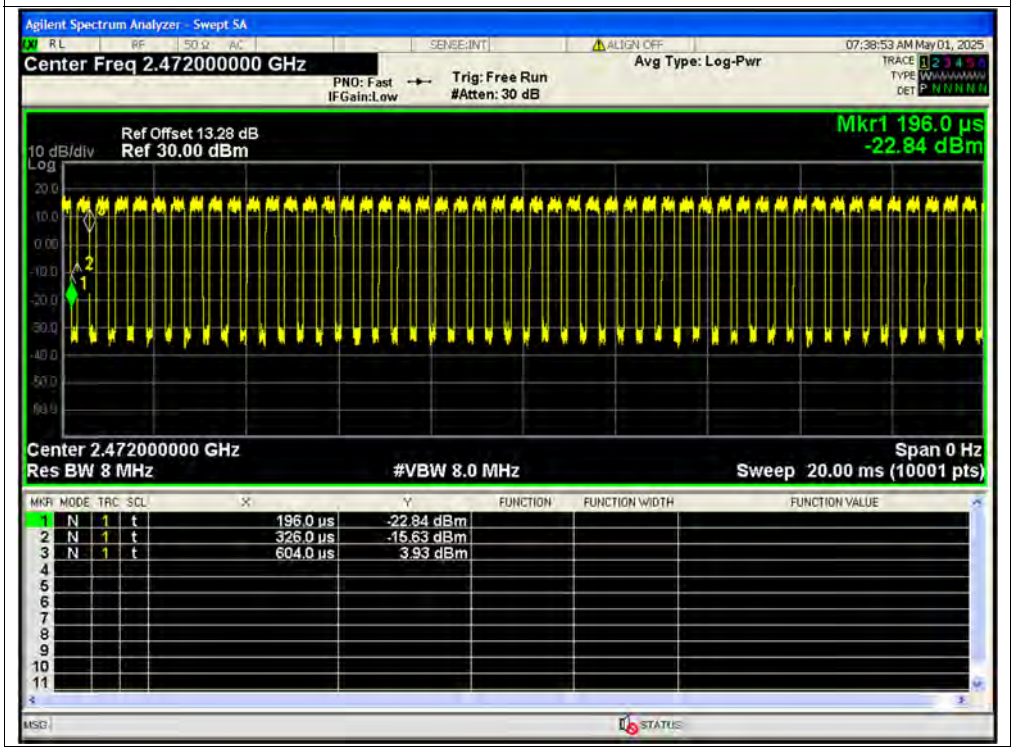
Duty Cycle NVNT ax20 2412MHz Ant1



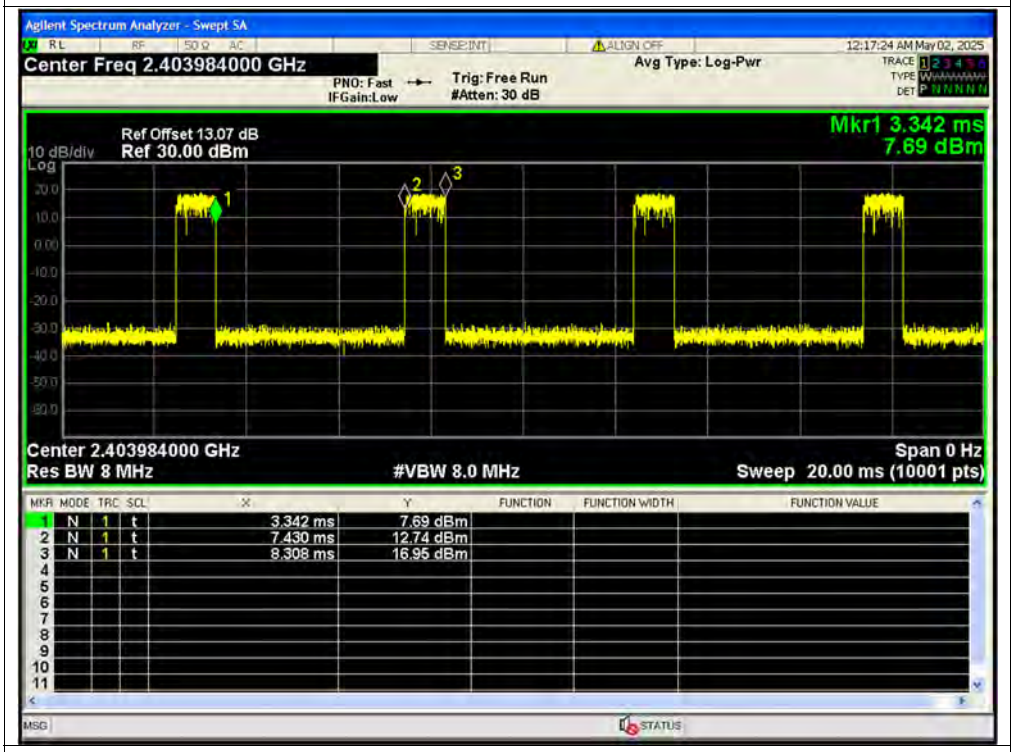
Duty Cycle NVNT ax20 2442MHz Ant1



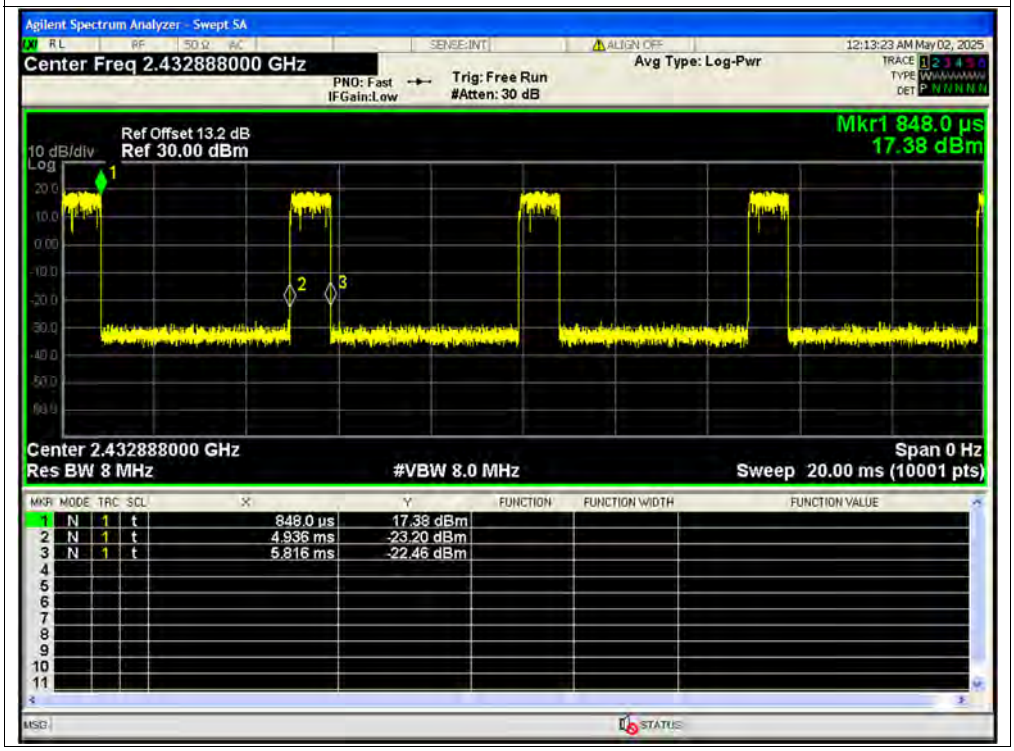
Duty Cycle NVNT ax20 2472MHz Ant1



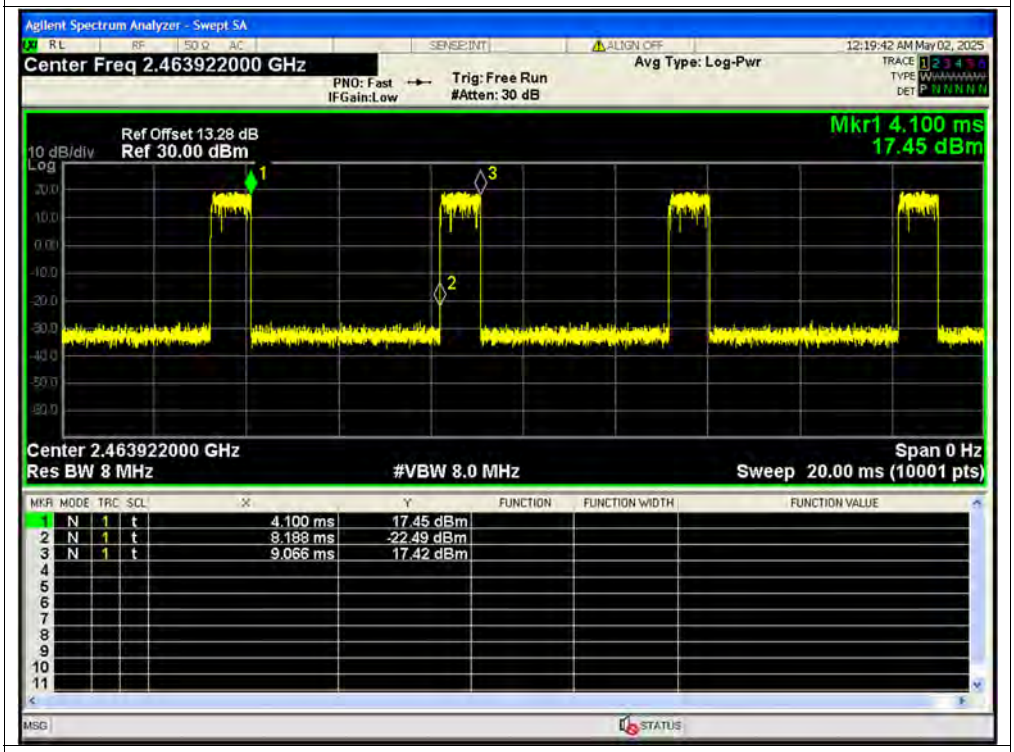
Duty Cycle NVNT ax20 26@0 2412MHz Ant1



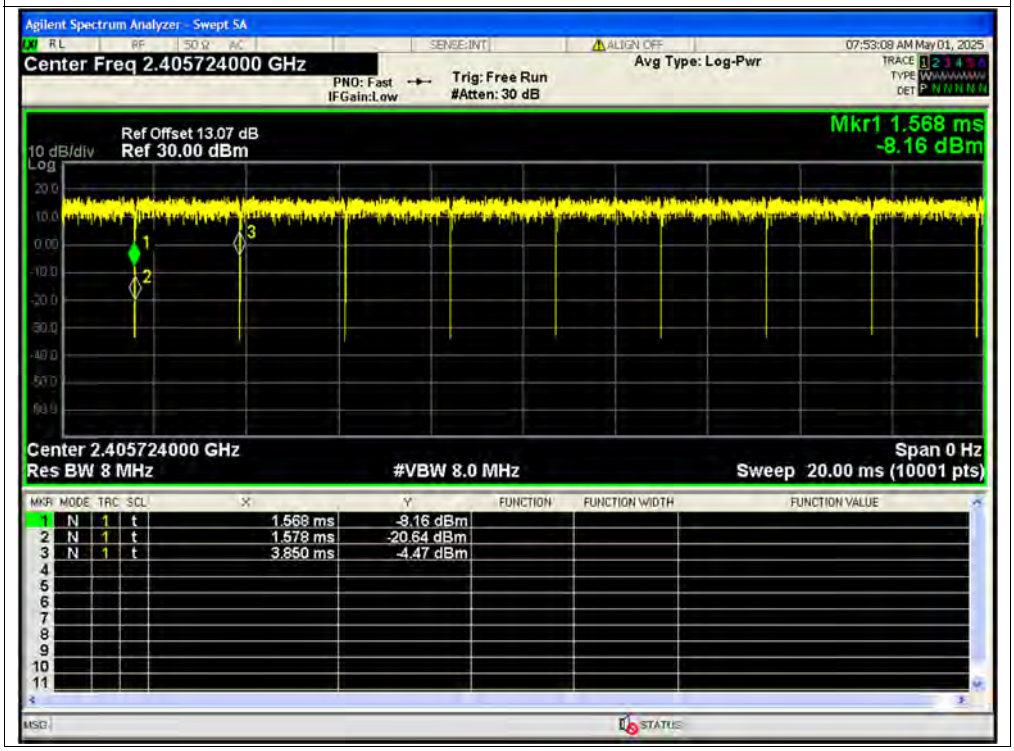
Duty Cycle NVNT ax20 26@0 2442MHz Ant1



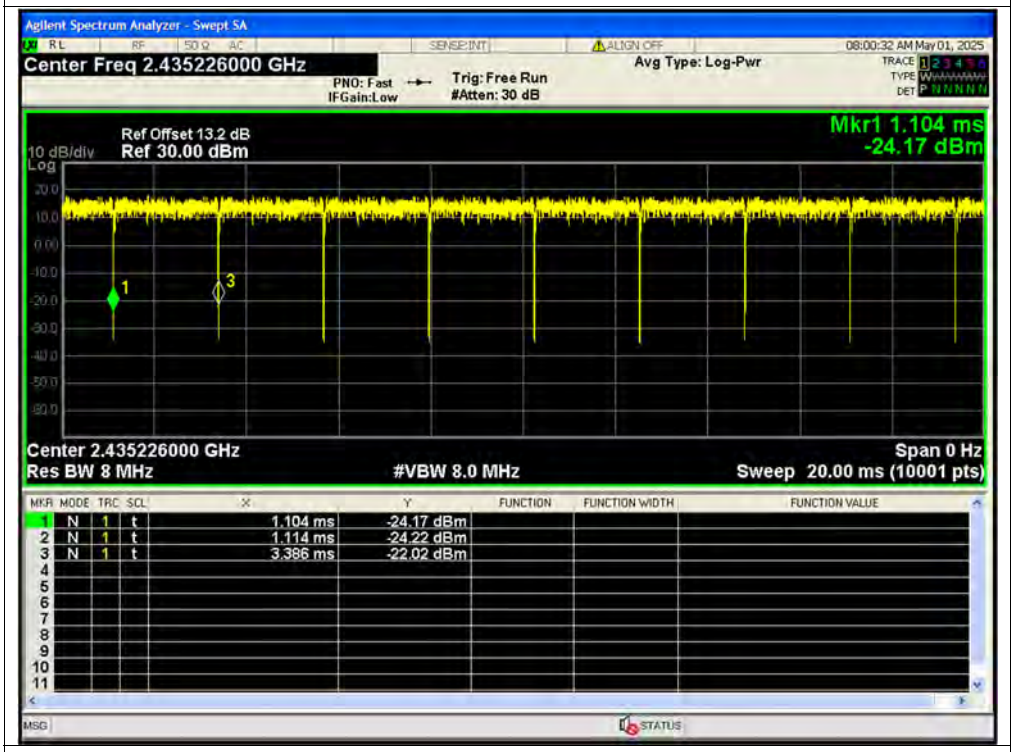
Duty Cycle NVNT ax20 26@0 2472MHz Ant1



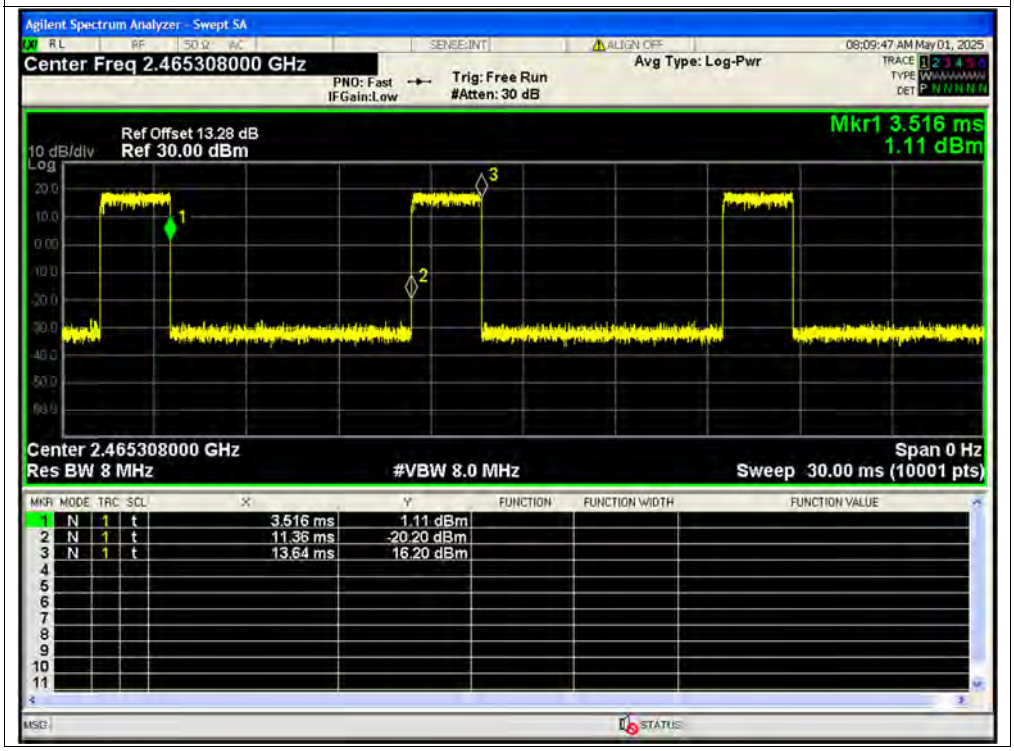
Duty Cycle NVNT ax20 52@37 2412MHz Ant1



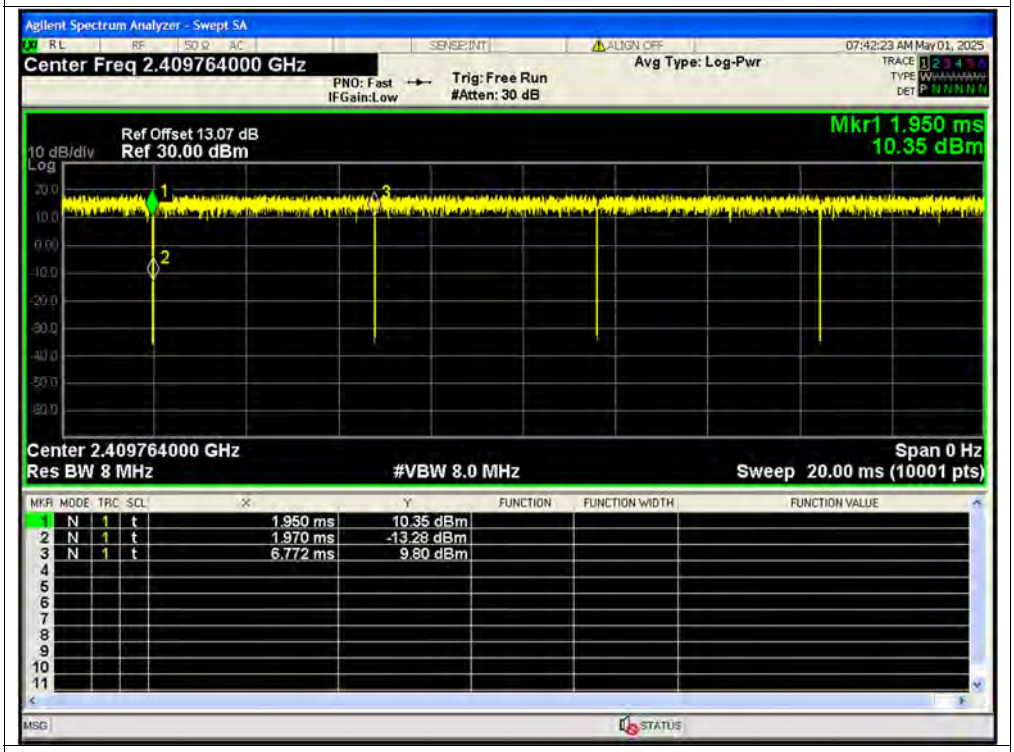
Duty Cycle NVNT ax20 52@37 2442MHz Ant1



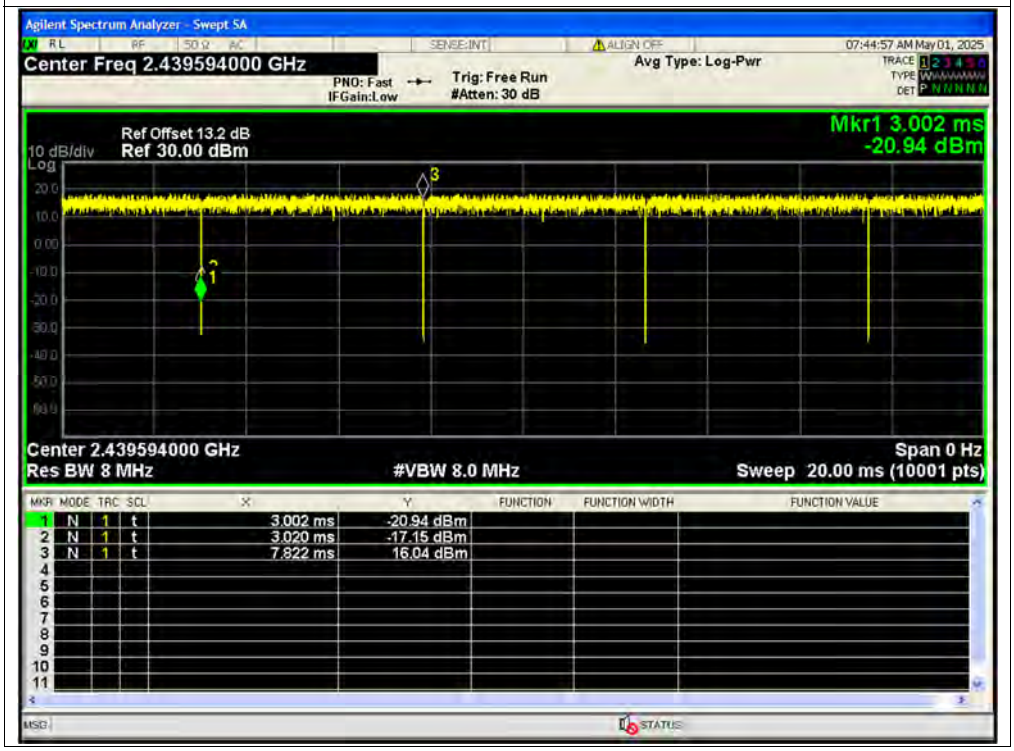
Duty Cycle NVNT ax20 52@37 2472MHz Ant1



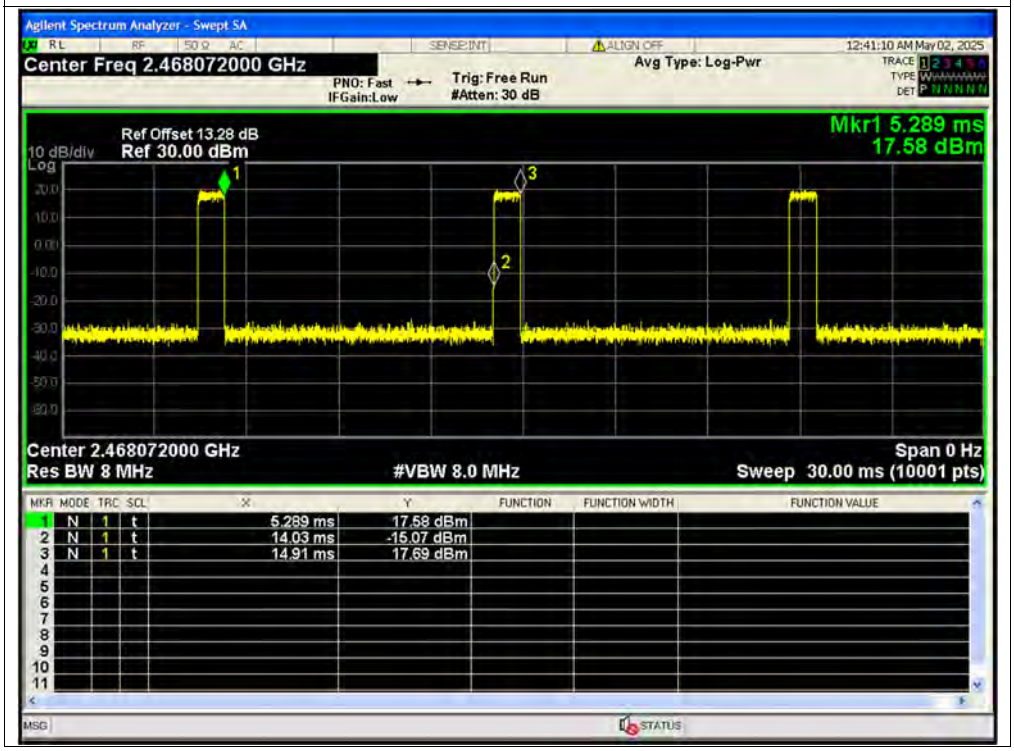
Duty Cycle NVNT ax20 106@53 2412MHz Ant1



Duty Cycle NVNT ax20 106@53 2442MHz Ant1



Duty Cycle NVNT ax20 106@53 2472MHz Ant1

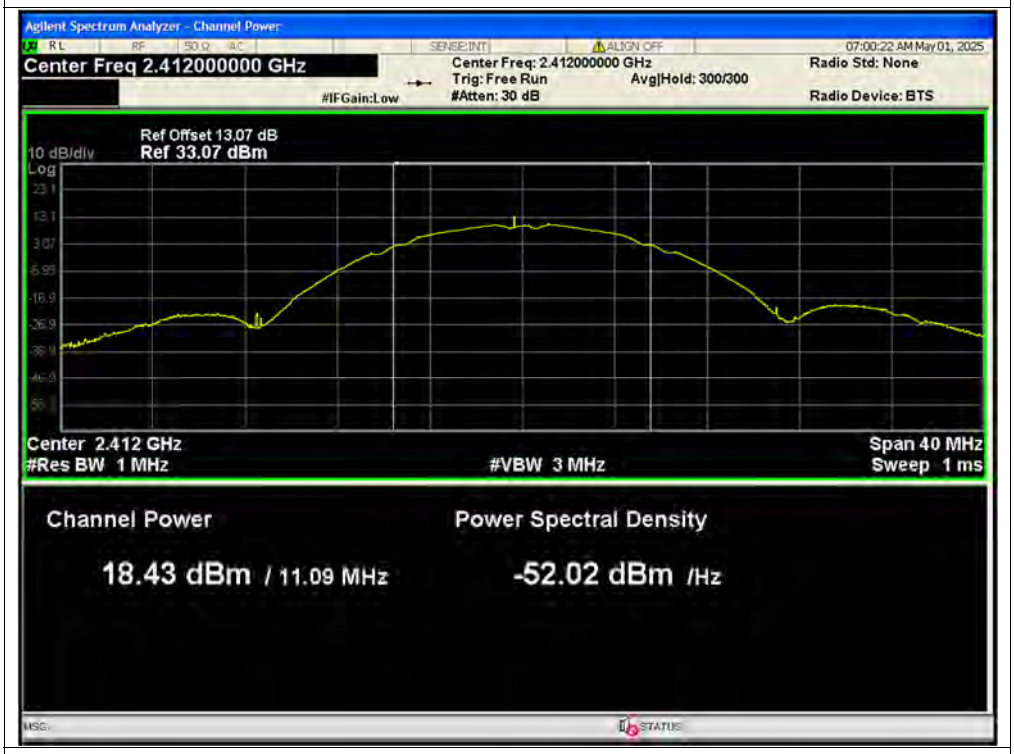


A.2. Maximum Peak Conducted Output Power

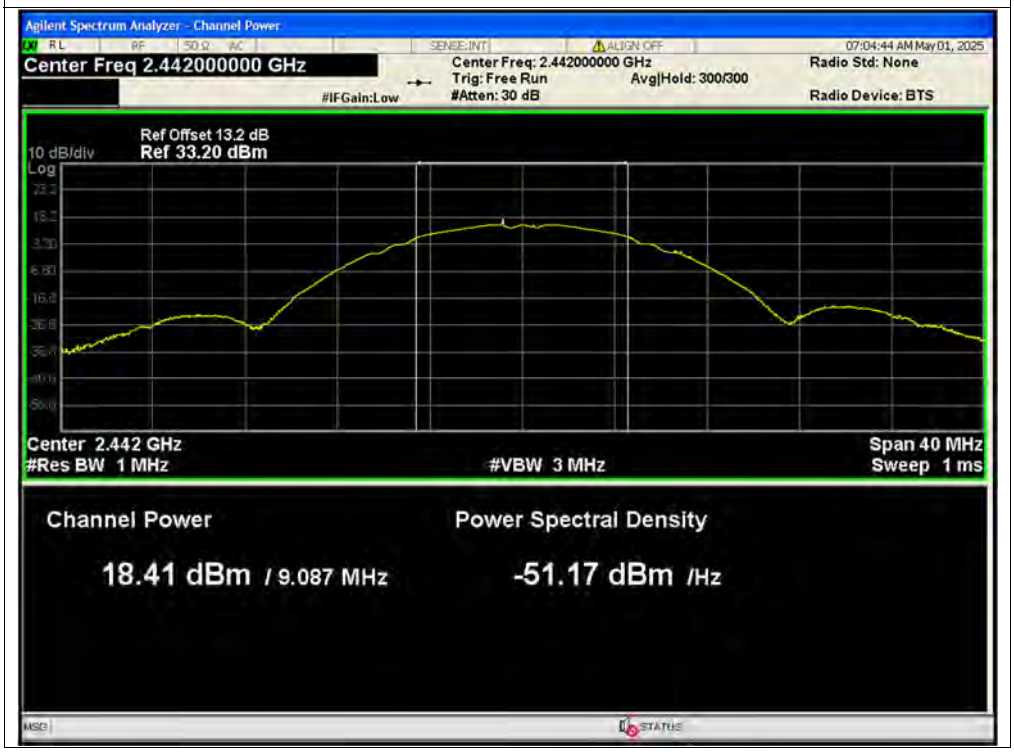
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Conducted Power (dBm)	Total Conducted Power (W)	Limit Conducted (dBm)	Verdict
NVNT	b	2412	Ant1	18.43	0	18.43	0.06966	30	Pass
NVNT	b	2442	Ant1	18.41	0	18.41	0.06934	30	Pass
NVNT	b	2472	Ant1	18.2	0	18.2	0.06607	30	Pass
NVNT	g	2412	Ant1	20.44	0	20.44	0.11066	30	Pass
NVNT	g	2442	Ant1	20.86	0	20.86	0.1219	30	Pass
NVNT	g	2472	Ant1	20.46	0	20.46	0.11117	30	Pass
NVNT	n20	2412	Ant1	19.08	0	19.08	0.08091	30	Pass
NVNT	n20	2442	Ant1	19.46	0	19.46	0.08831	30	Pass
NVNT	n20	2472	Ant1	18.29	0	18.29	0.06745	30	Pass
NVNT	ax20	2412	Ant1	19.29	0	19.29	0.08492	30	Pass
NVNT	ax20	2442	Ant1	19.45	0	19.45	0.0881	30	Pass
NVNT	ax20	2472	Ant1	19.34	0	19.34	0.0859	30	Pass
NVNT	ax20 26@0	2412	Ant1	19.91	0	19.91	0.09795	30	Pass
NVNT	ax20 26@0	2442	Ant1	20.46	0	20.46	0.11117	30	Pass
NVNT	ax20 26@0	2472	Ant1	20.32	0	20.32	0.10765	30	Pass
NVNT	ax20 52@37	2412	Ant1	18.12	0	18.12	0.06486	30	Pass
NVNT	ax20 52@37	2442	Ant1	18.08	0	18.08	0.06427	30	Pass
NVNT	ax20 52@37	2472	Ant1	19.24	0	19.24	0.08395	30	Pass
NVNT	ax20 106@53	2412	Ant1	19.52	0	19.52	0.08954	30	Pass
NVNT	ax20 106@53	2442	Ant1	19.86	0	19.86	0.09683	30	Pass
NVNT	ax20 106@53	2472	Ant1	20.45	0	20.45	0.11092	30	Pass

Test Graphs

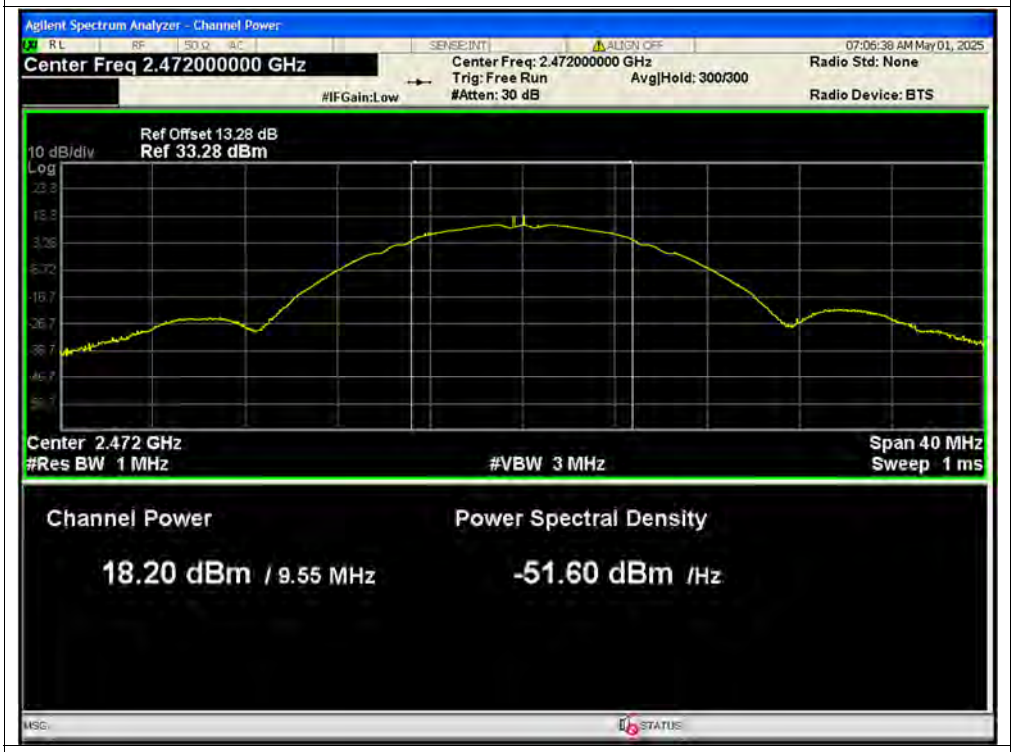
Peak Power NVNT b 2412MHz Ant1



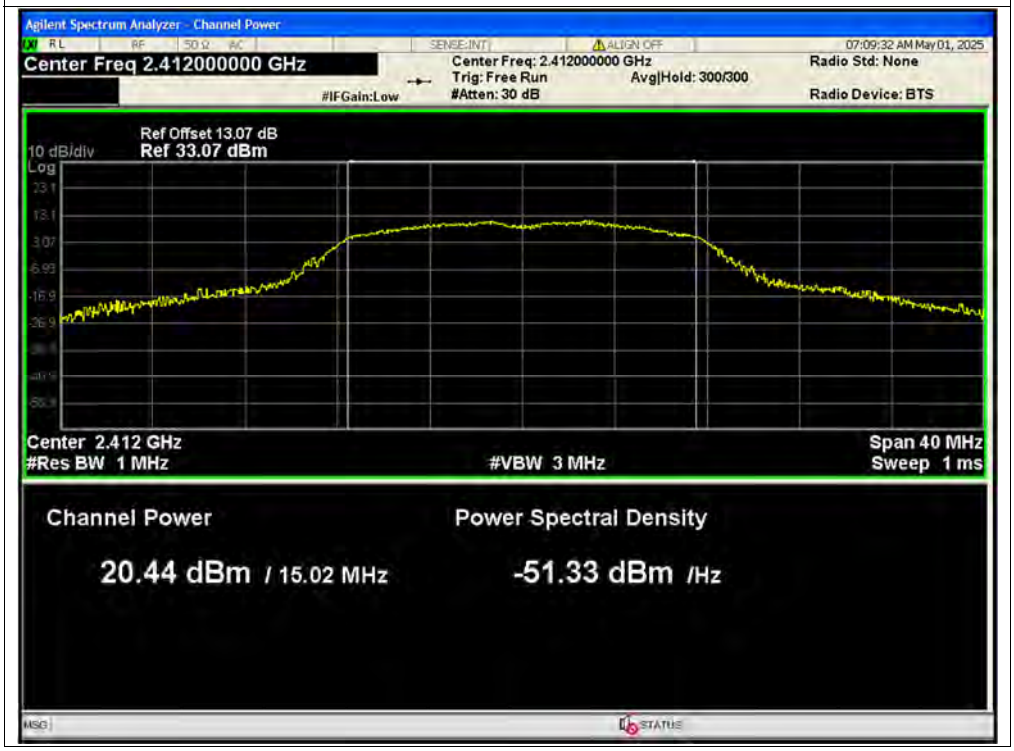
Peak Power NVNT b 2442MHz Ant1



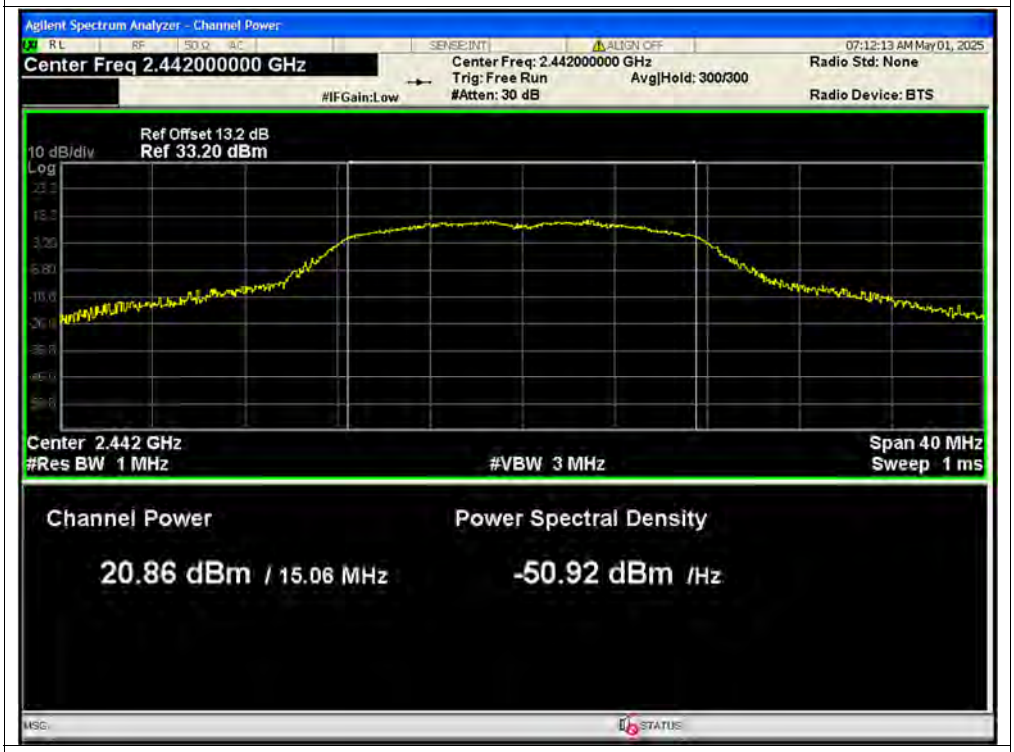
Peak Power NVNT b 2472MHz Ant1



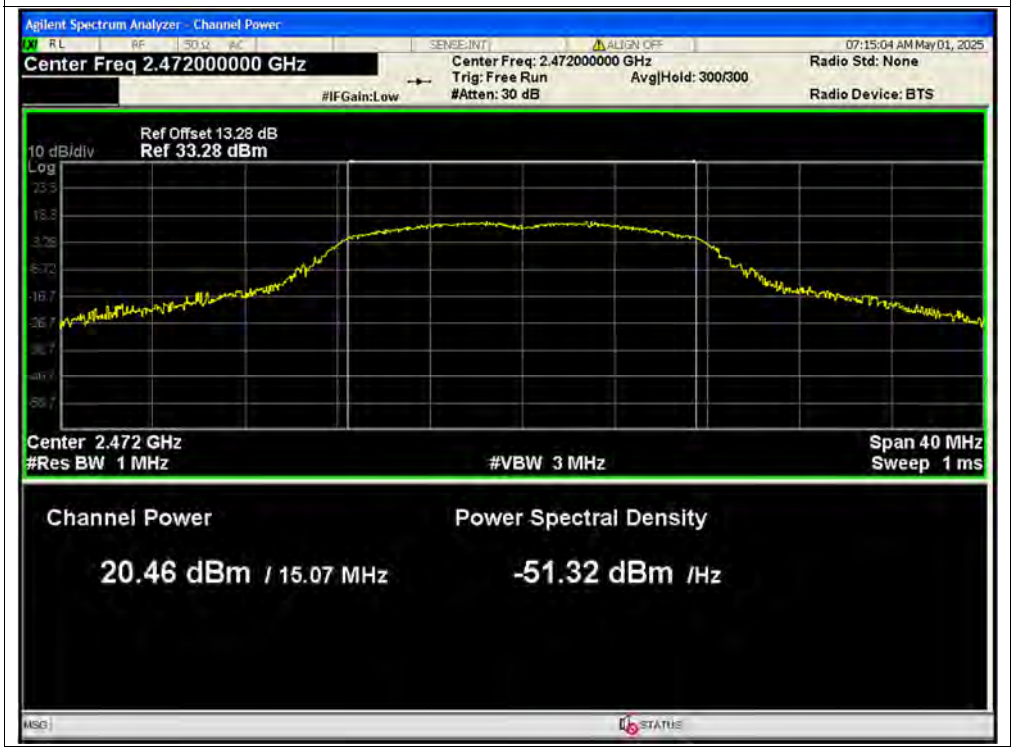
Peak Power NVNT g 2412MHz Ant1



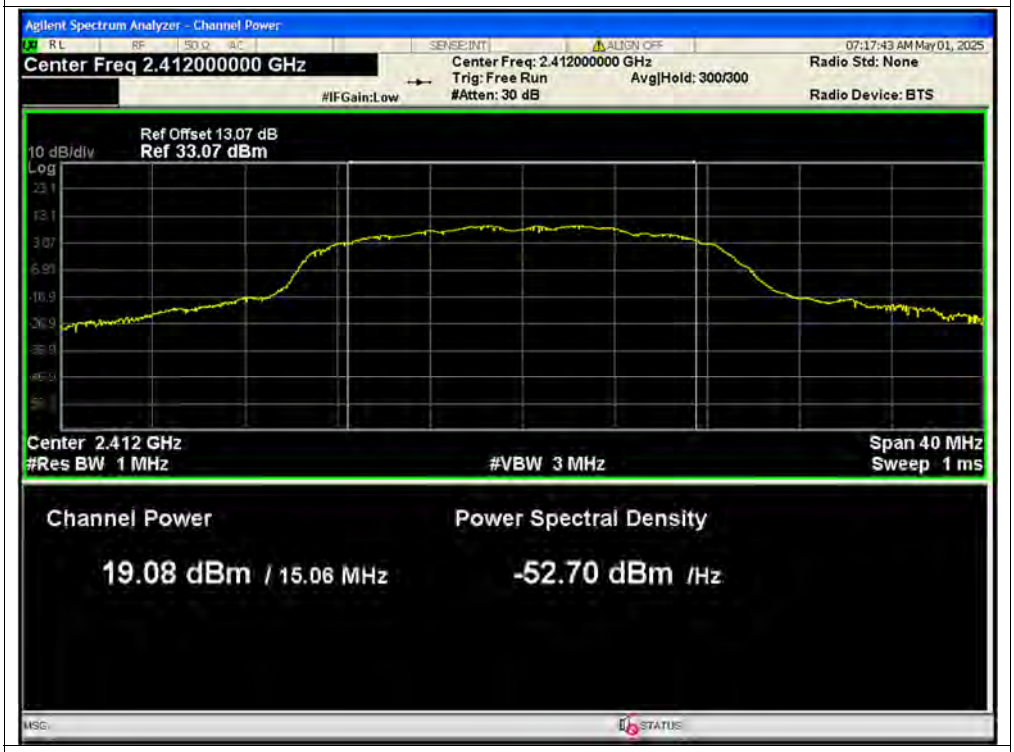
Peak Power NVNT g 2442MHz Ant1



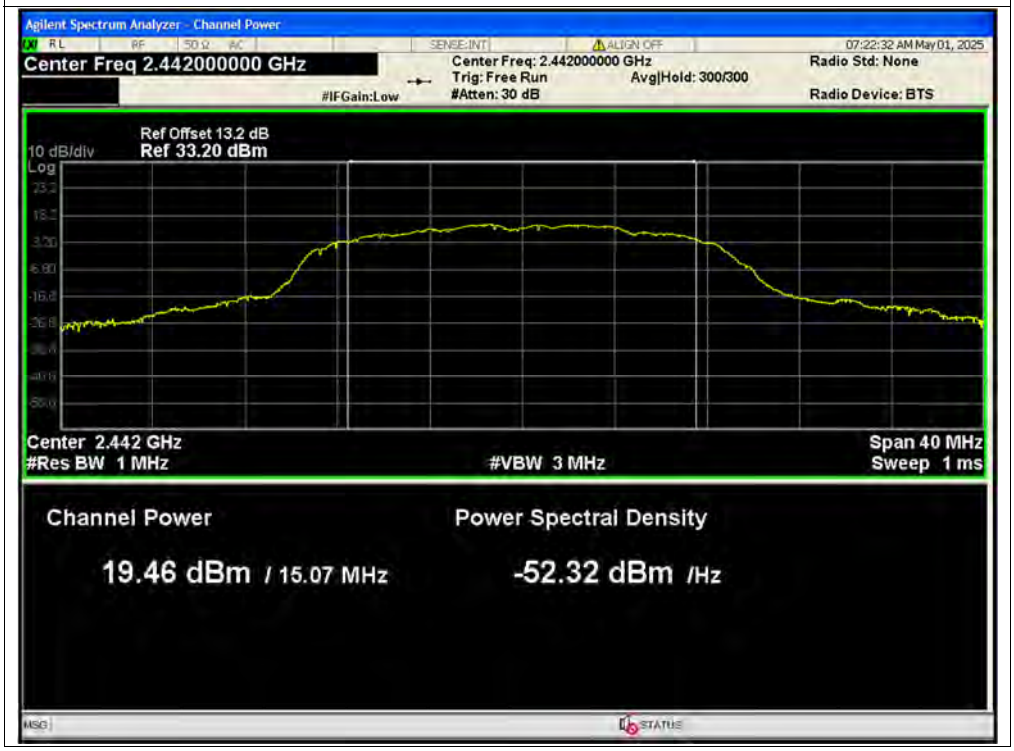
Peak Power NVNT g 2472MHz Ant1



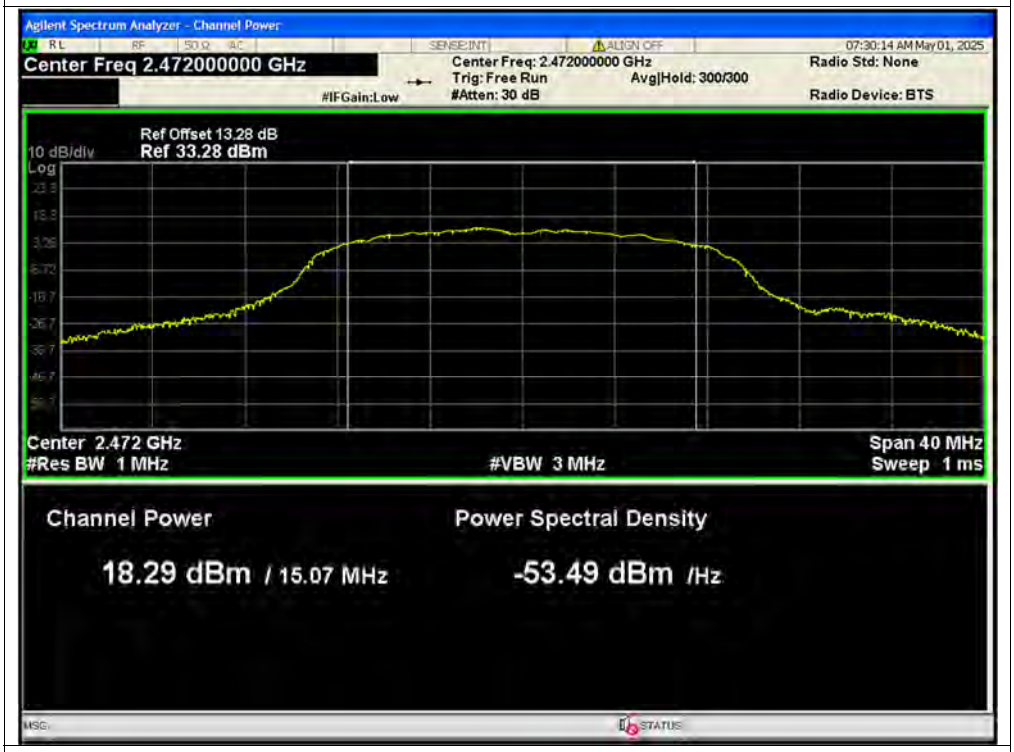
Peak Power NVNT n20 2412MHz Ant1



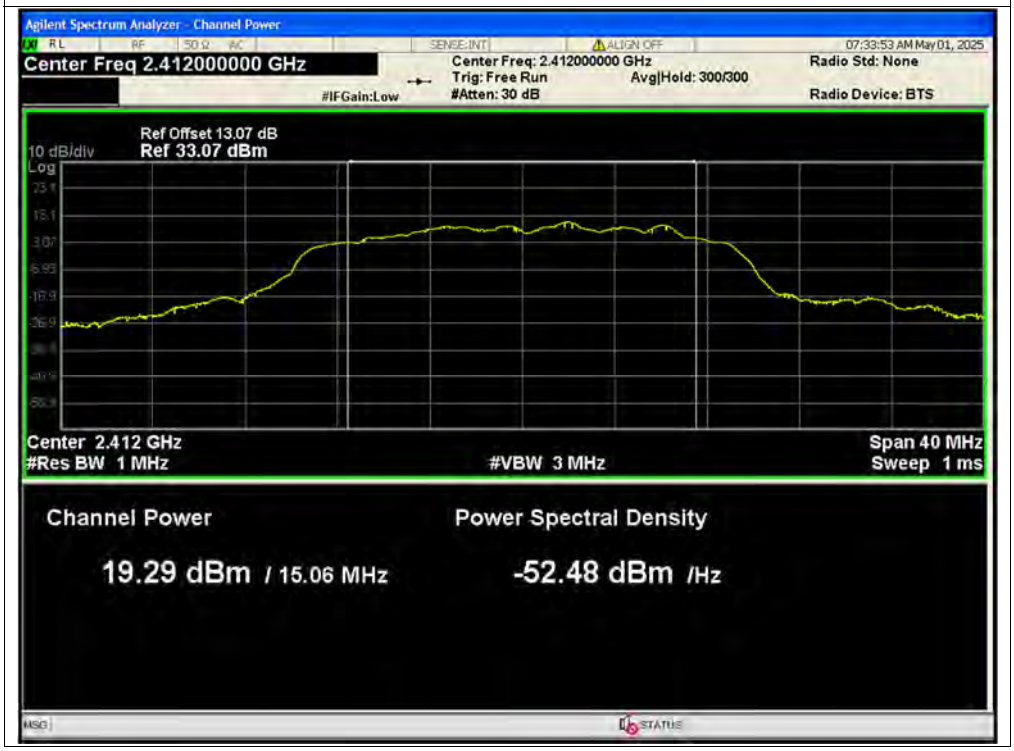
Peak Power NVNT n20 2442MHz Ant1



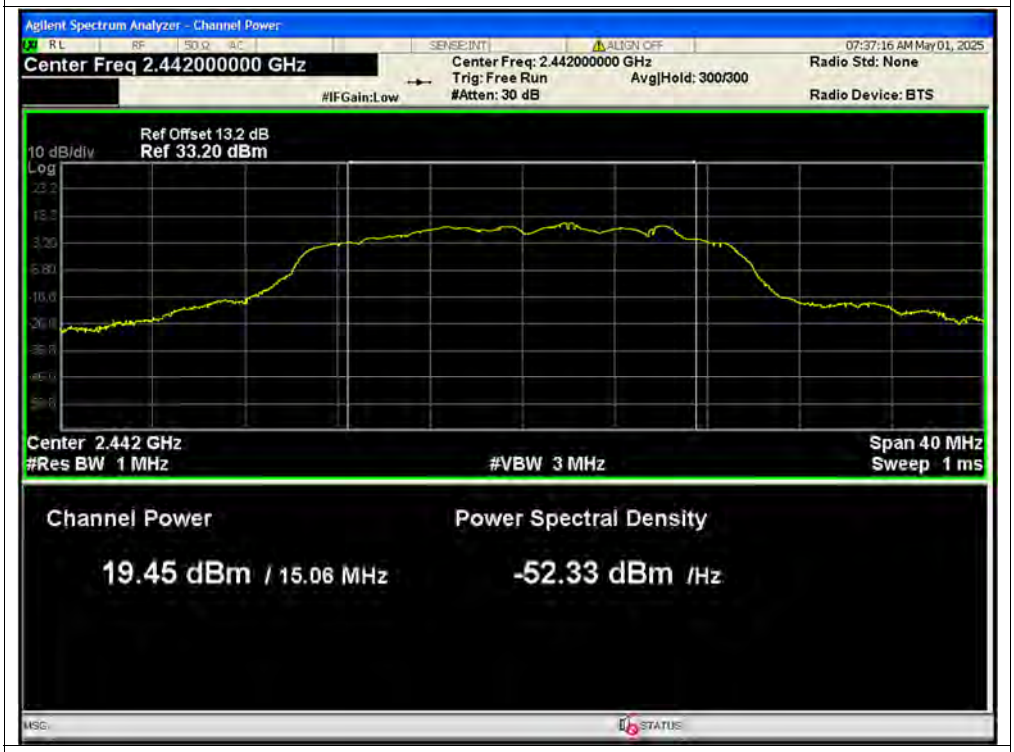
Peak Power NVNT n20 2472MHz Ant1



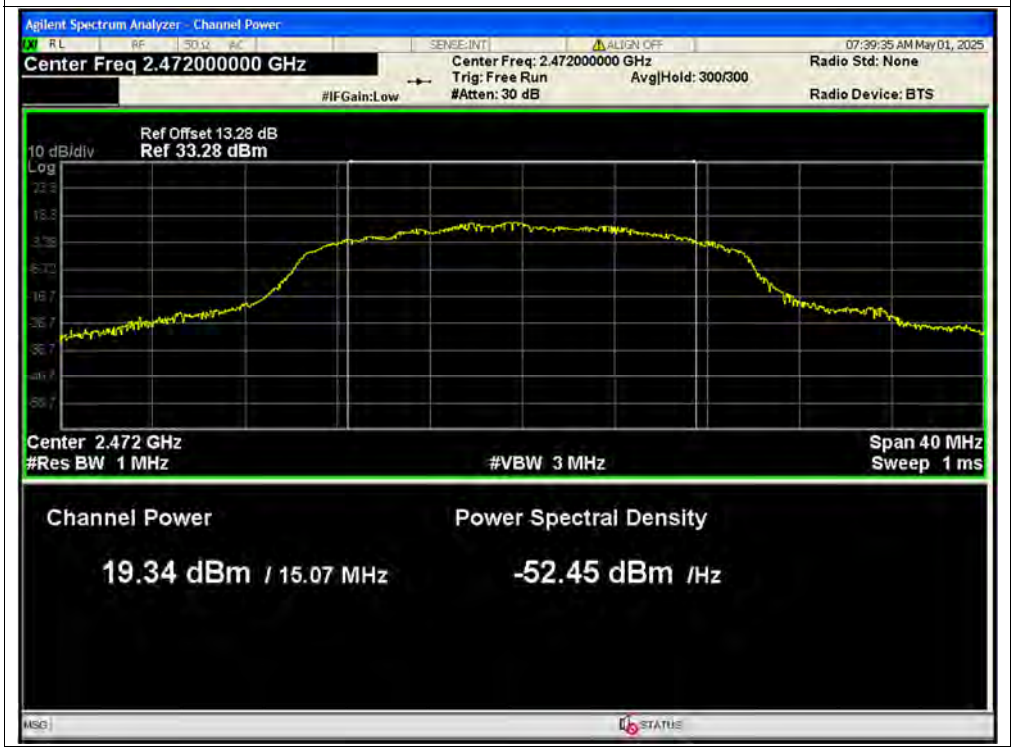
Peak Power NVNT ax20 2412MHz Ant1



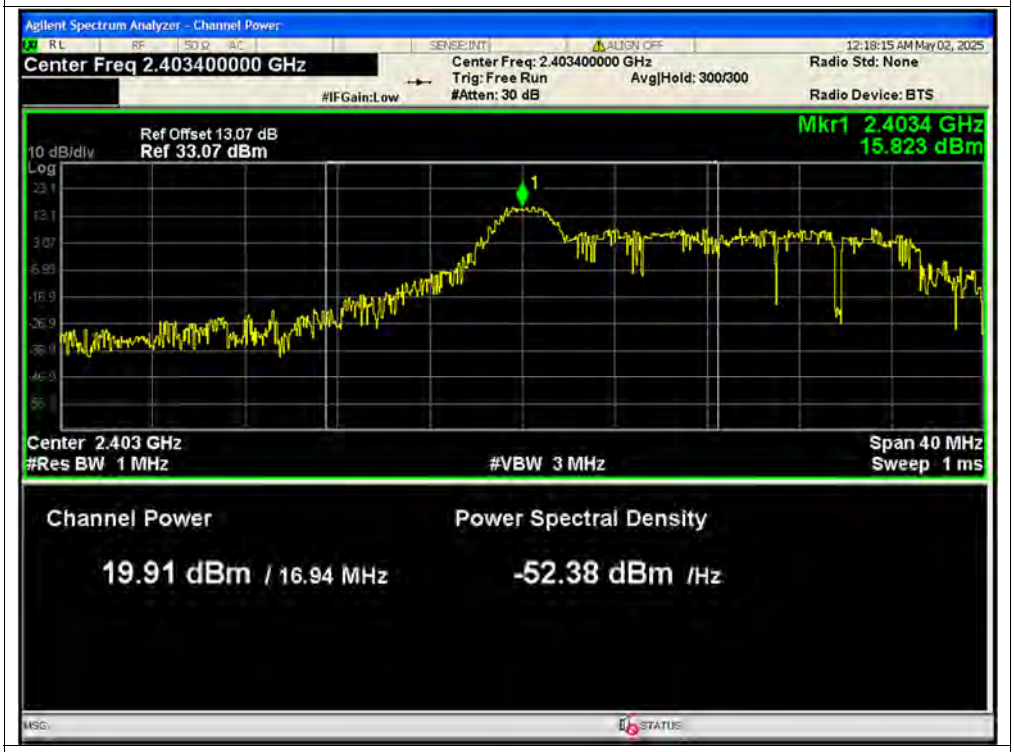
Peak Power NVNT ax20 2442MHz Ant1



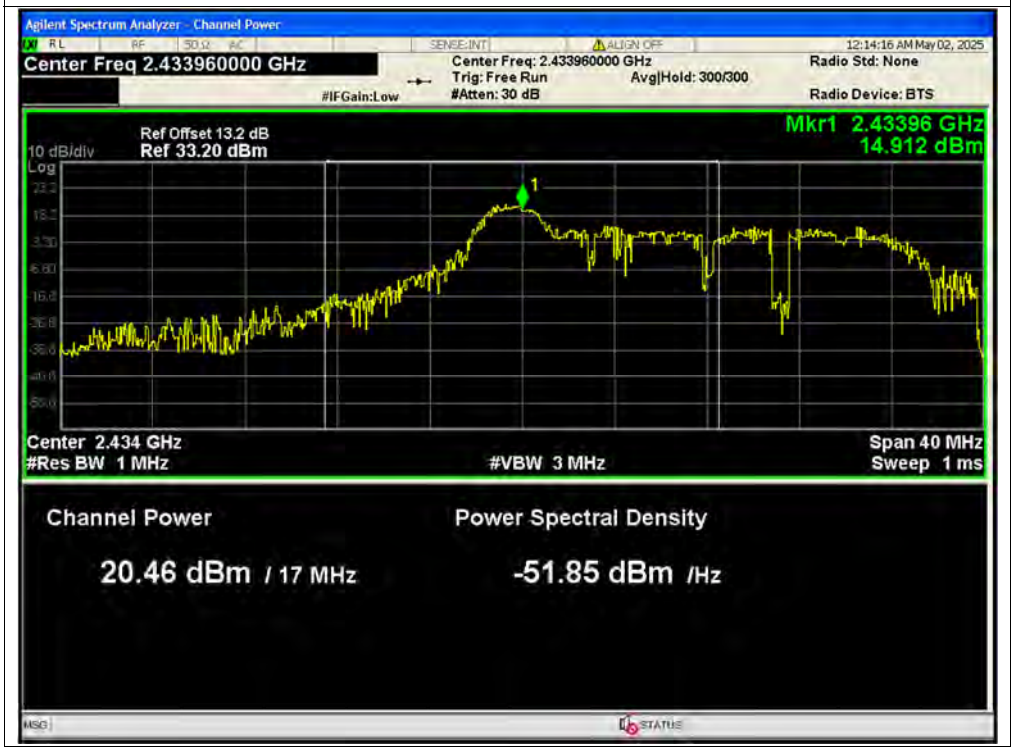
Peak Power NVNT ax20 2472MHz Ant1



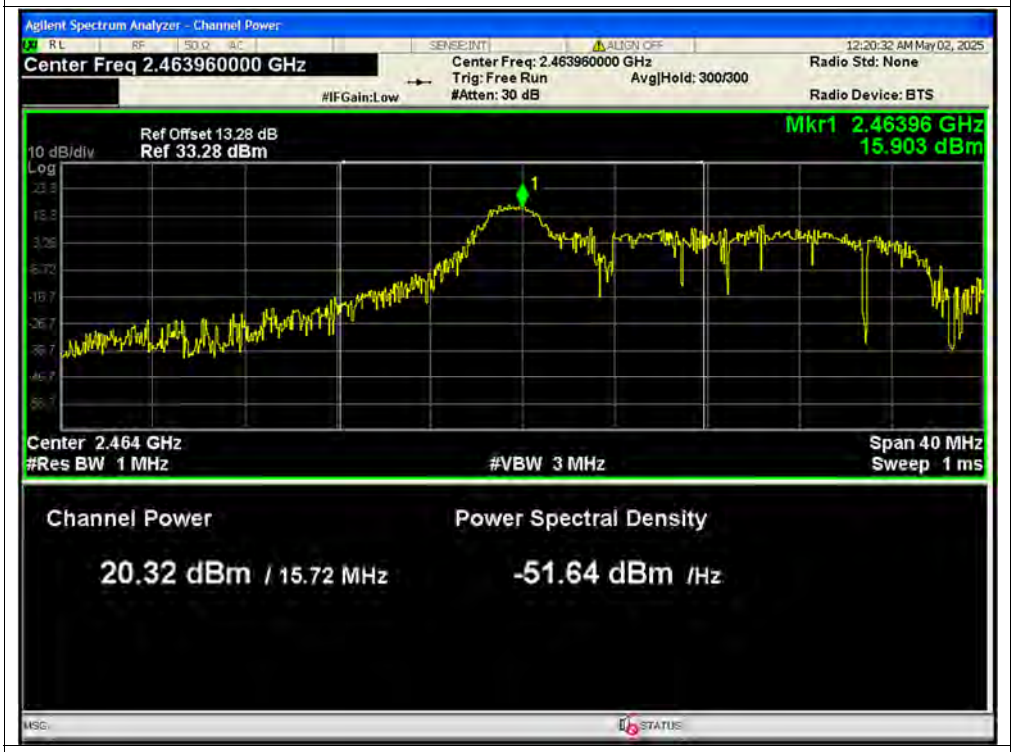
Peak Power NVNT ax20 26@0 2412MHz Ant1



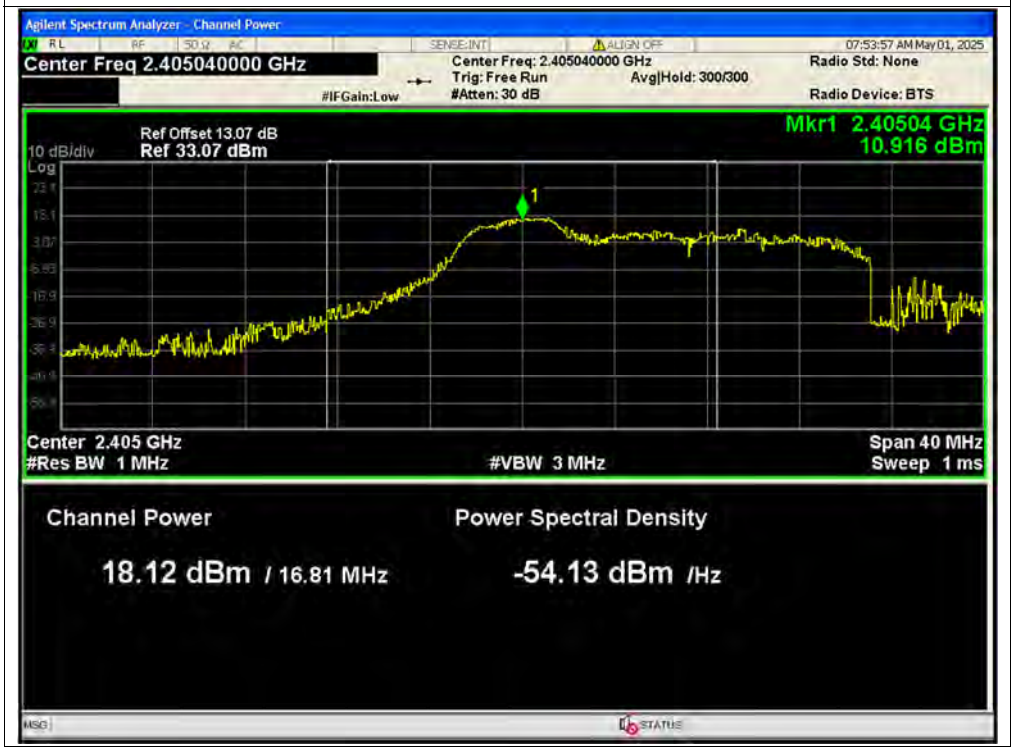
Peak Power NVNT ax20 26@0 2442MHz Ant1



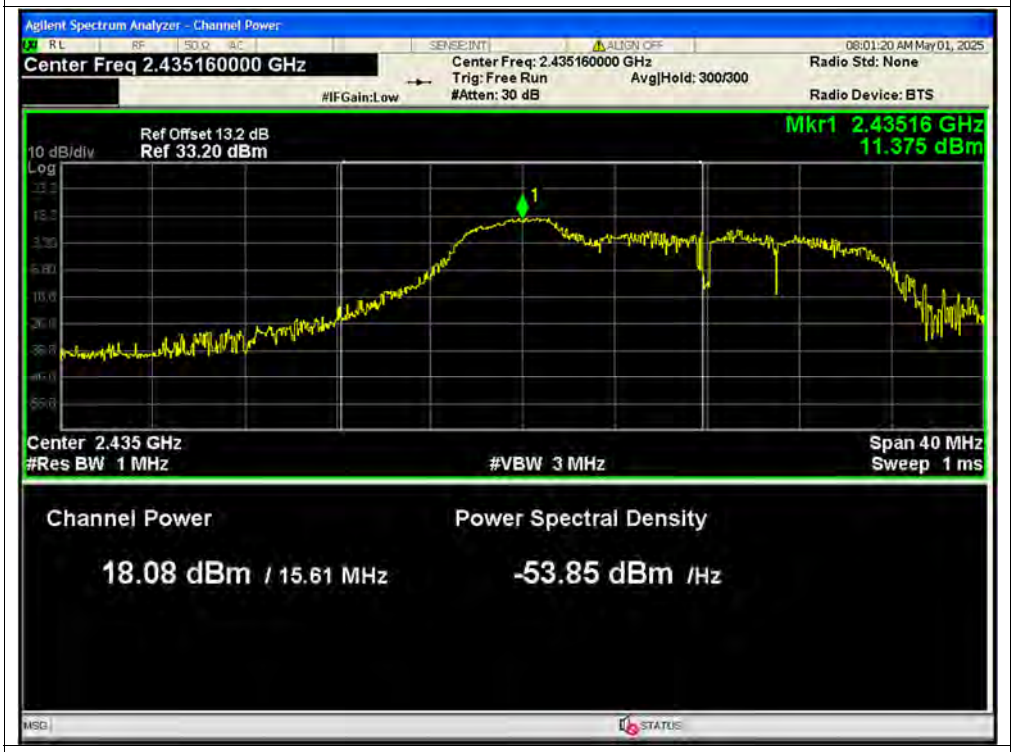
Peak Power NVNT ax20 26@0 2472MHz Ant1



Peak Power NVNT ax20 52@37 2412MHz Ant1



Peak Power NVNT ax20 52@37 2442MHz Ant1



Peak Power NVNT ax20 52@37 2472MHz Ant1

Peak Power NVNT ax20 106@53 2412MHz Ant1

Peak Power NVNT ax20 106@53 2442MHz Ant1

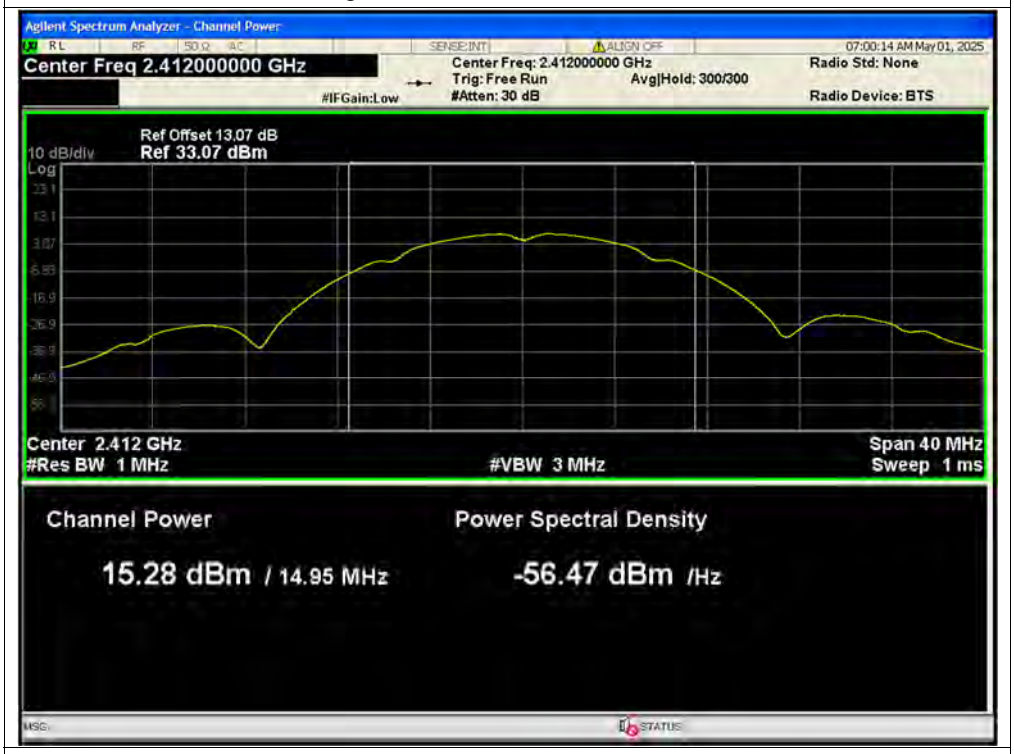
Peak Power NVNT ax20 106@53 2472MHz Ant1

A.3. Maximum Average Conducted Output Power

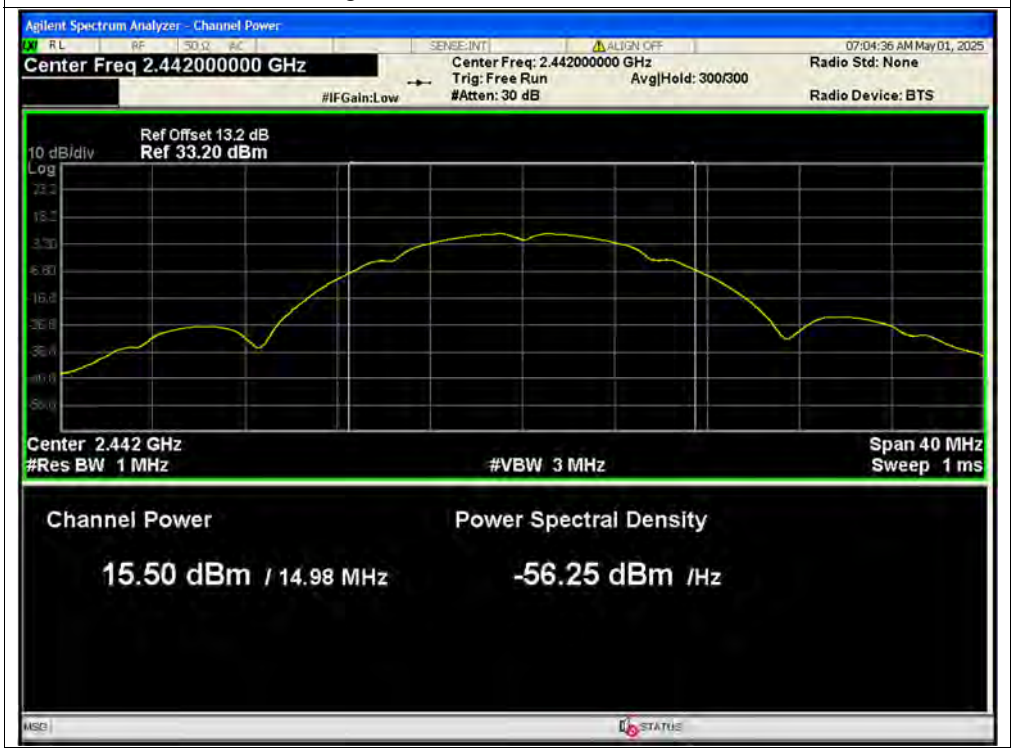
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Conducted Power (dBm)	Total Conducted Power (W)	Limit Conducted (dBm)	Verdict
NVNT	b	2412	Ant1	15.28	0.46	15.74	0.0375	30	Pass
NVNT	b	2442	Ant1	15.5	0.46	15.96	0.03945	30	Pass
NVNT	b	2472	Ant1	15.11	0.46	15.57	0.03606	30	Pass
NVNT	g	2412	Ant1	12.52	0.46	12.98	0.01986	30	Pass
NVNT	g	2442	Ant1	12.93	0.46	13.39	0.02183	30	Pass
NVNT	g	2472	Ant1	12.56	0.46	13.02	0.02004	30	Pass
NVNT	n20	2412	Ant1	11.84	0.1	11.94	0.01563	30	Pass
NVNT	n20	2442	Ant1	12.22	0.1	12.32	0.01706	30	Pass
NVNT	n20	2472	Ant1	10.62	0.49	11.11	0.01291	30	Pass
NVNT	ax20	2412	Ant1	11.79	0.21	12	0.01585	30	Pass
NVNT	ax20	2442	Ant1	11.94	0.21	12.15	0.01641	30	Pass
NVNT	ax20	2472	Ant1	9.6	1.67	11.27	0.0134	30	Pass
NVNT	ax20 26@0	2412	Ant1	4.12	7.53	11.65	0.01462	30	Pass
NVNT	ax20 26@0	2442	Ant1	4.4	7.52	11.92	0.01556	30	Pass
NVNT	ax20 26@0	2472	Ant1	5.09	7.53	12.62	0.01828	30	Pass
NVNT	ax20 52@37	2412	Ant1	8.39	0.02	8.41	0.00693	30	Pass
NVNT	ax20 52@37	2442	Ant1	8.75	0.02	8.77	0.00753	30	Pass
NVNT	ax20 52@37	2472	Ant1	5.19	6.49	11.68	0.01472	30	Pass
NVNT	ax20 106@53	2412	Ant1	10.63	0.02	10.65	0.01161	30	Pass
NVNT	ax20 106@53	2442	Ant1	11.07	0.02	11.09	0.01285	30	Pass
NVNT	ax20 106@53	2472	Ant1	3.73	10.39	14.12	0.02582	30	Pass

Test Graphs

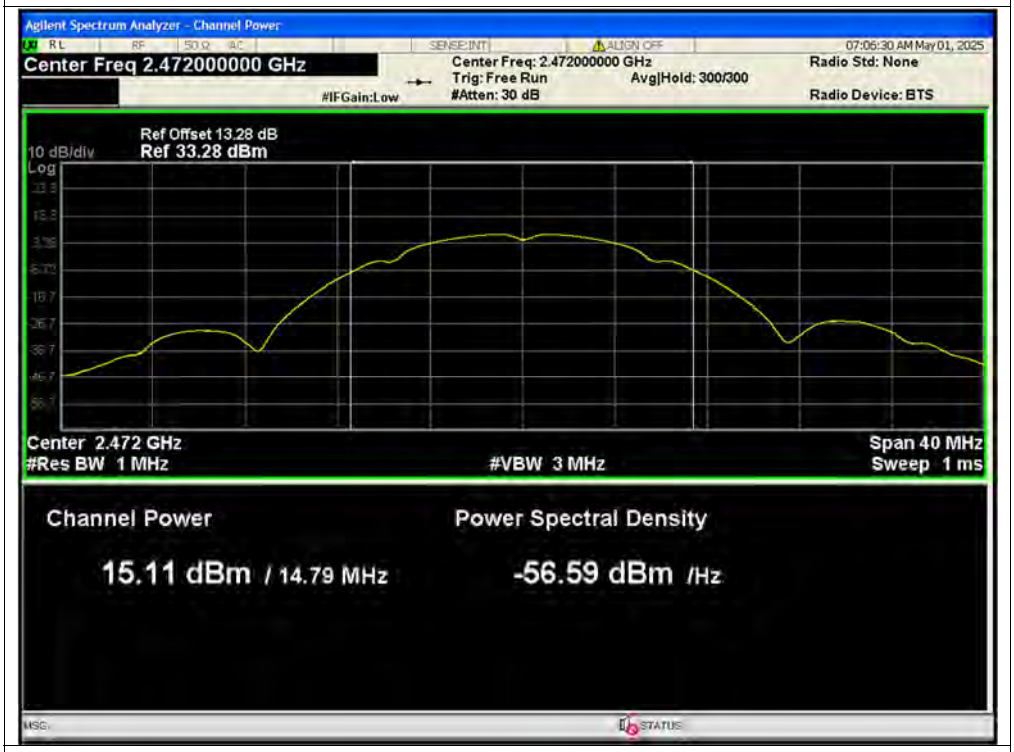
Average Power NVNT b 2412MHz Ant1



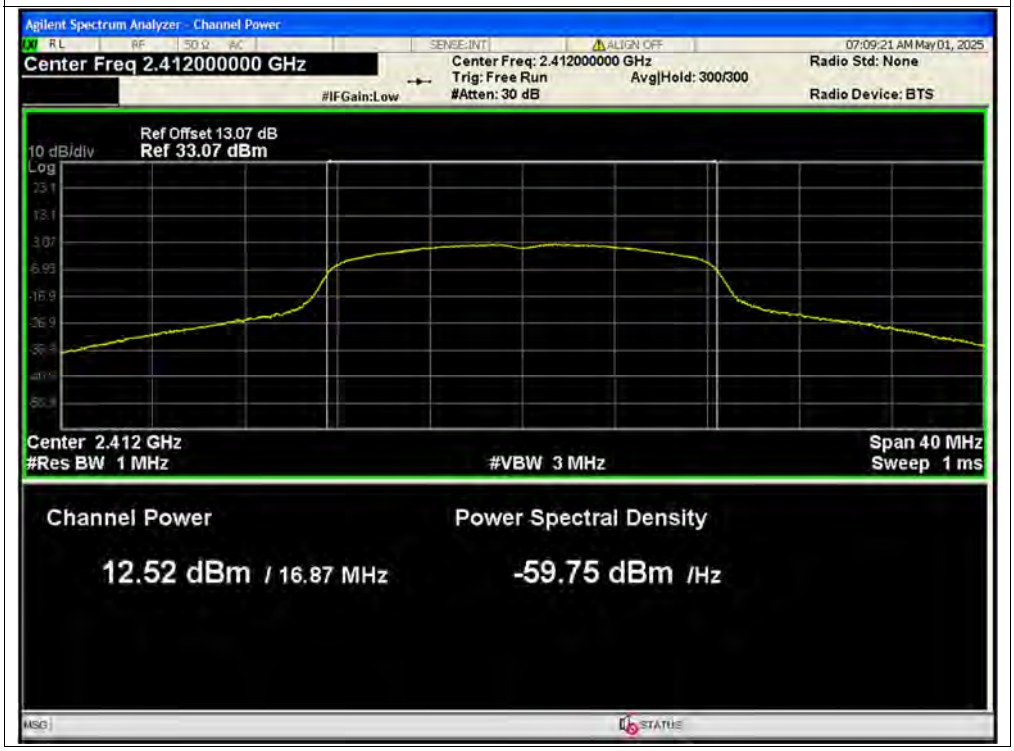
Average Power NVNT b 2442MHz Ant1



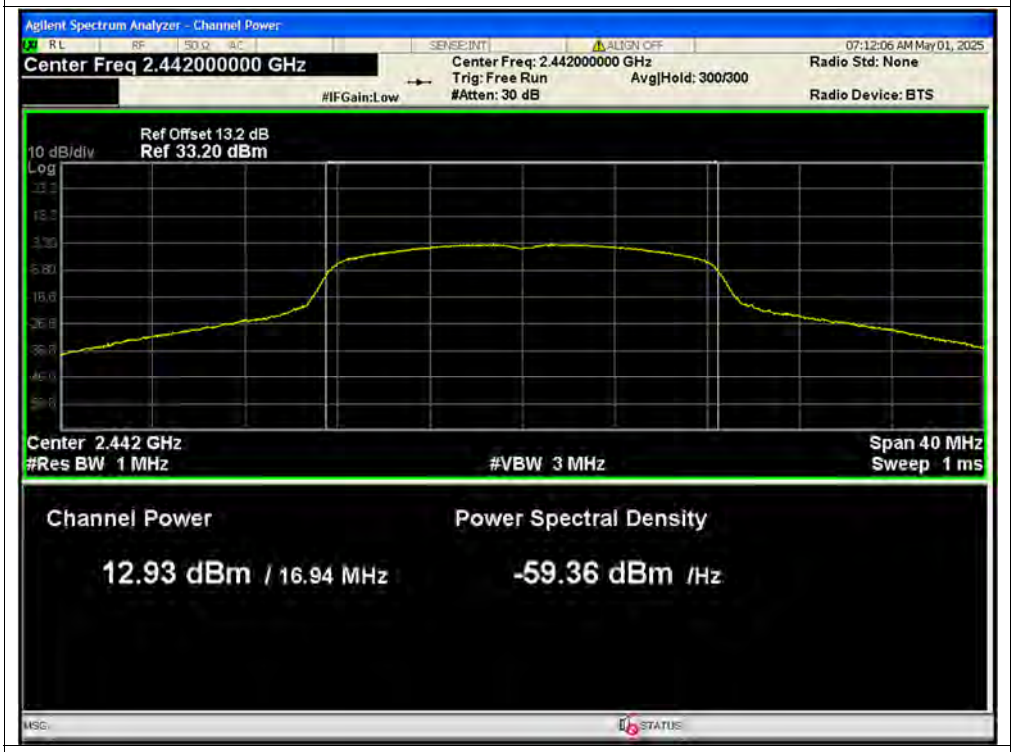
Average Power NVNT b 2472MHz Ant1



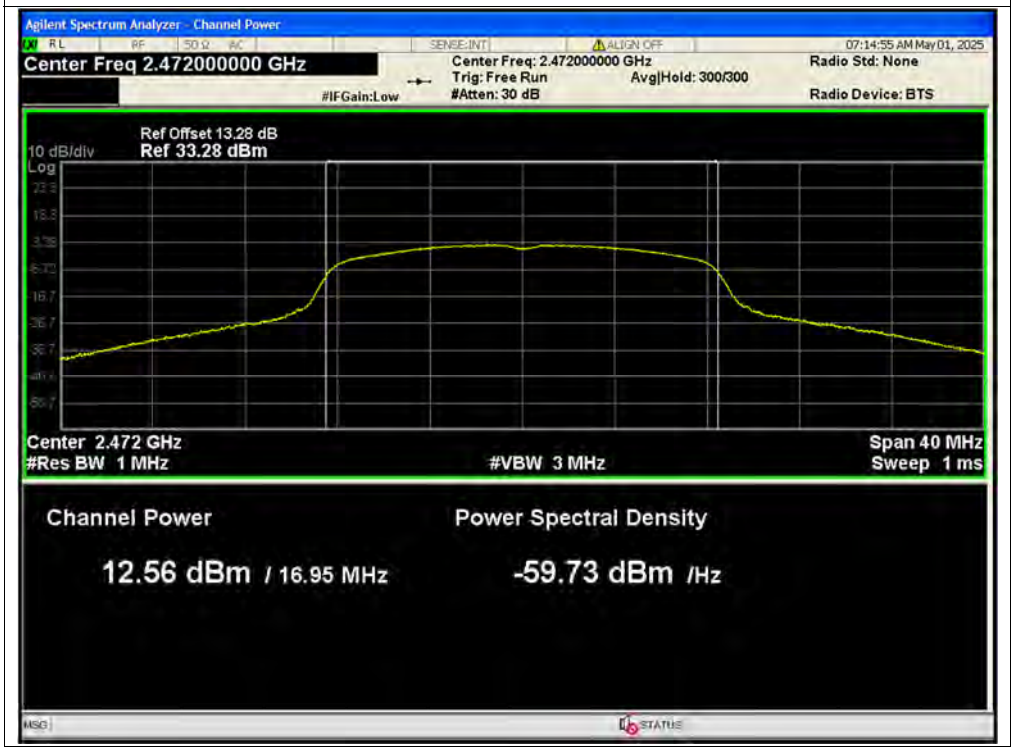
Average Power NVNT g 2412MHz Ant1



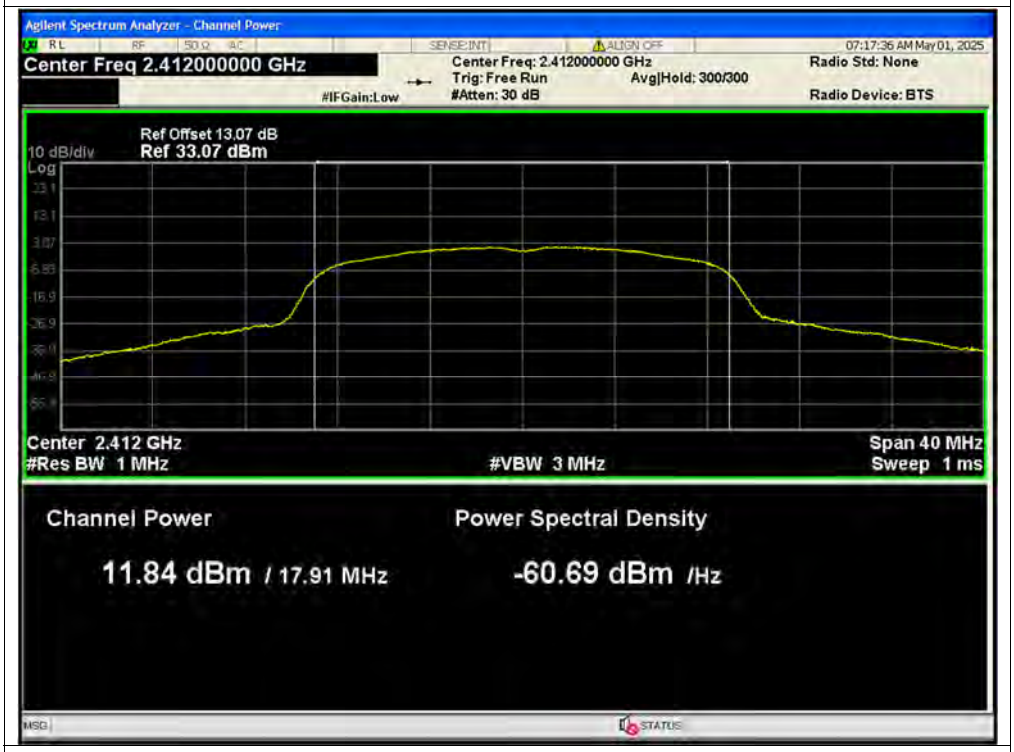
Average Power NVNT g 2442MHz Ant1



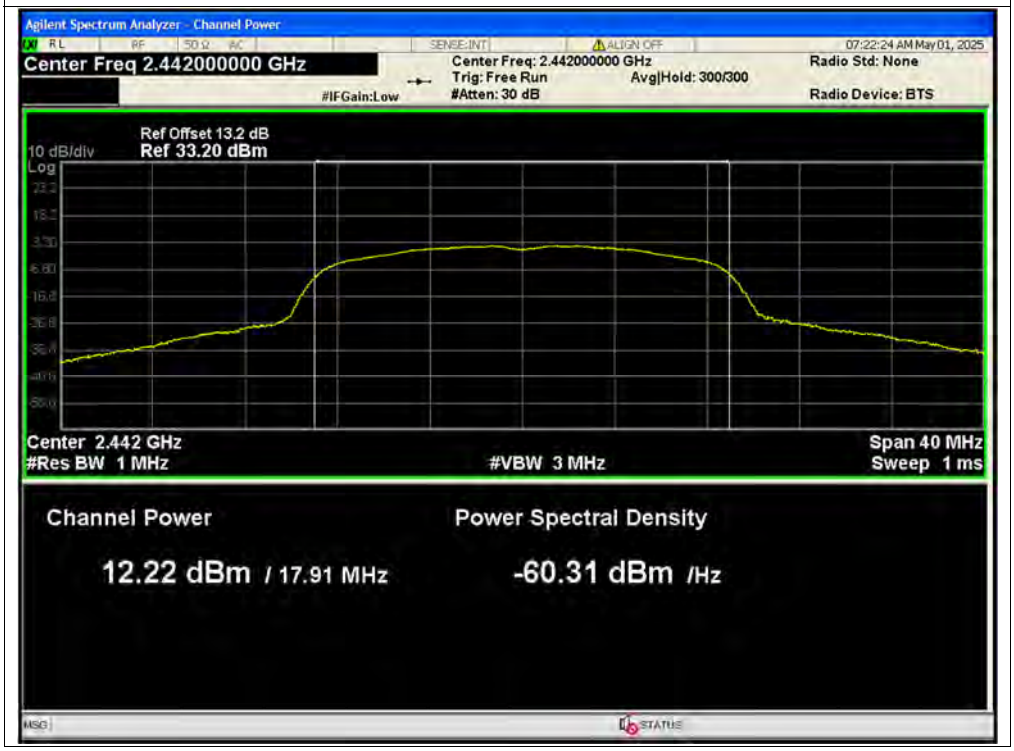
Average Power NVNT g 2472MHz Ant1



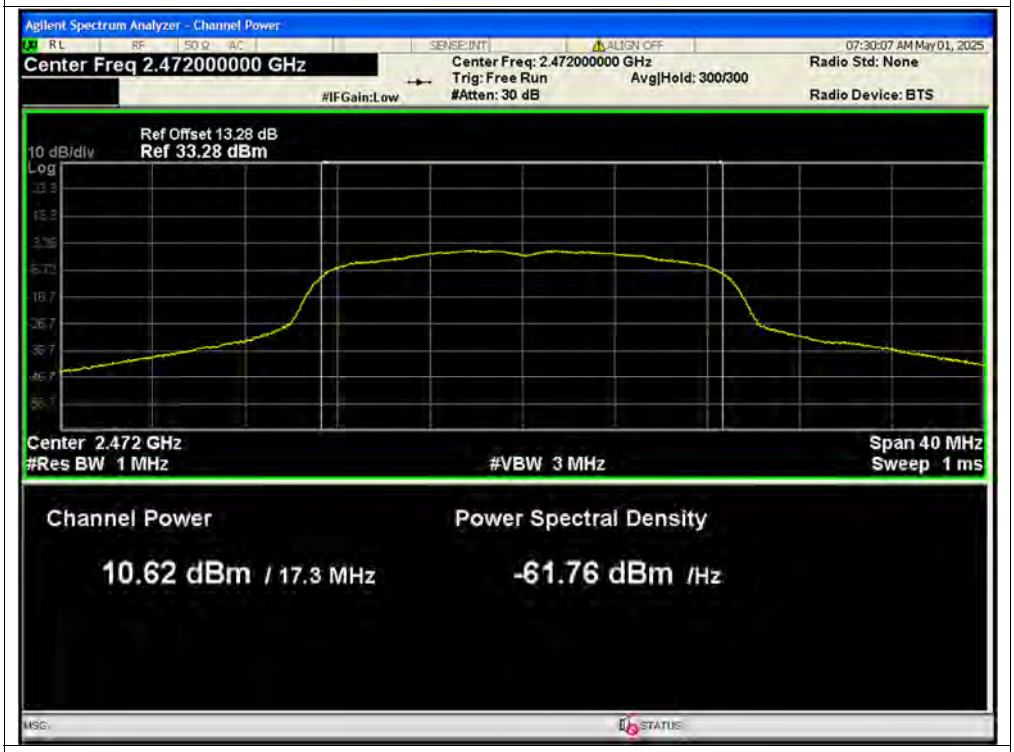
Average Power NVNT n20 2412MHz Ant1



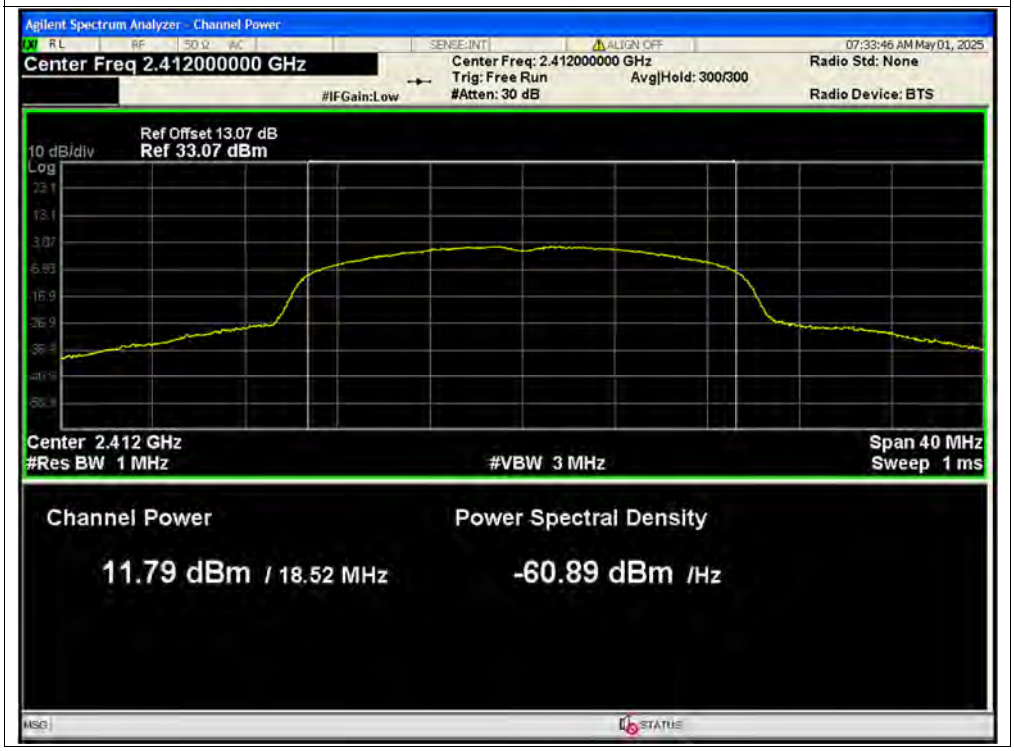
Average Power NVNT n20 2442MHz Ant1



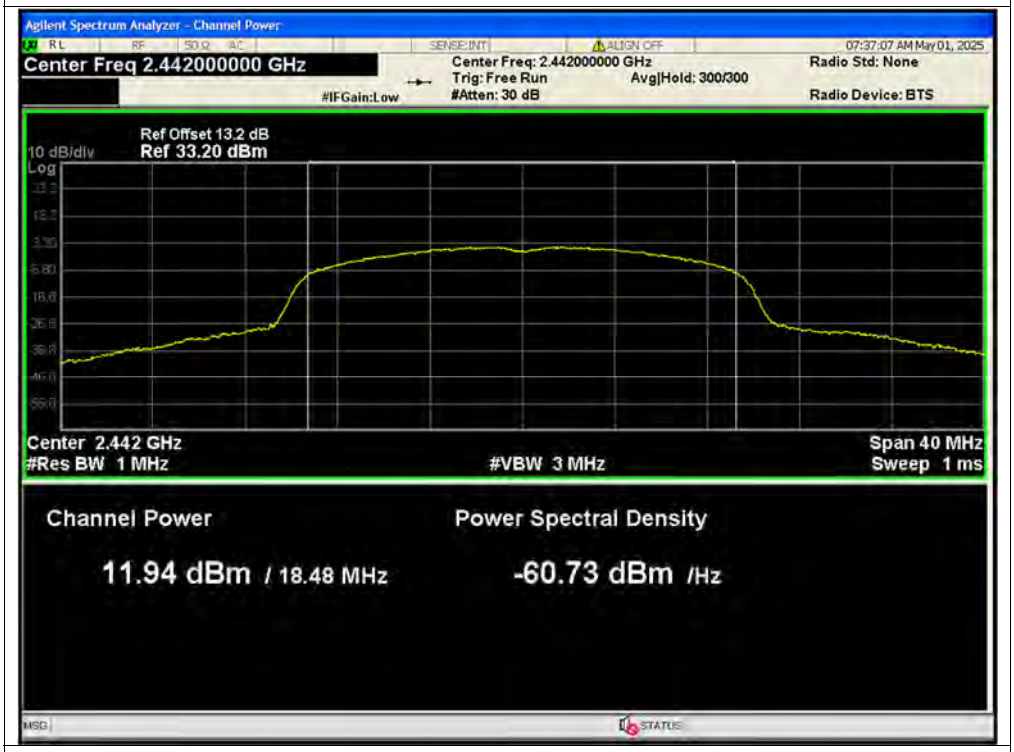
Average Power NVNT n20 2472MHz Ant1



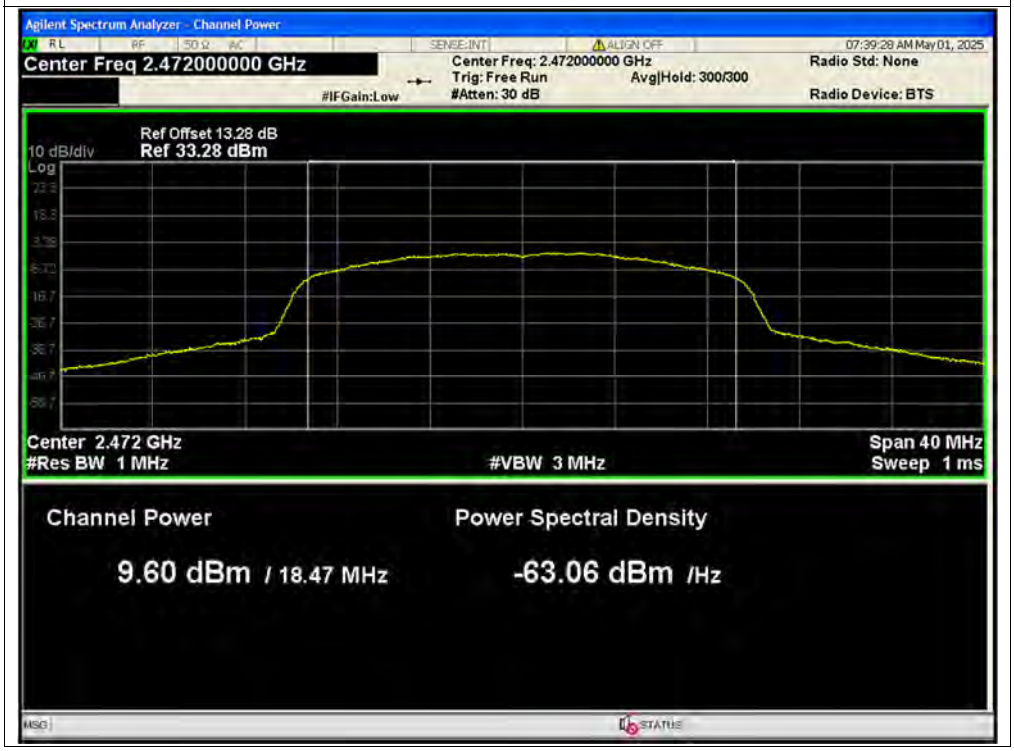
Average Power NVNT ax20 2412MHz Ant1



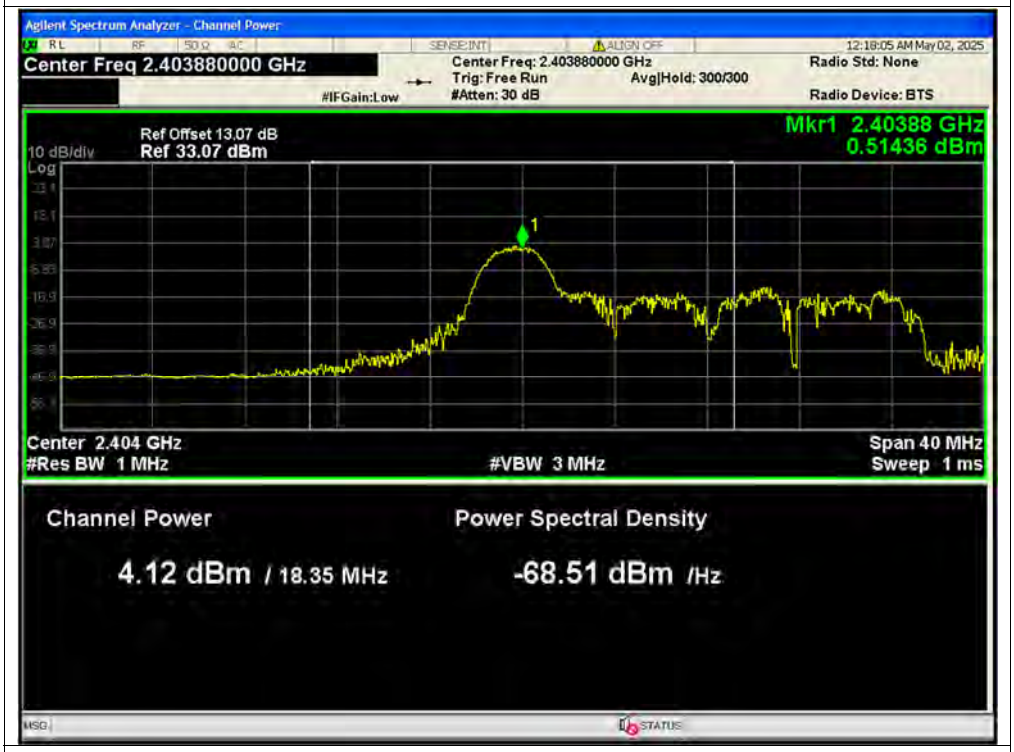
Average Power NVNT ax20 2442MHz Ant1



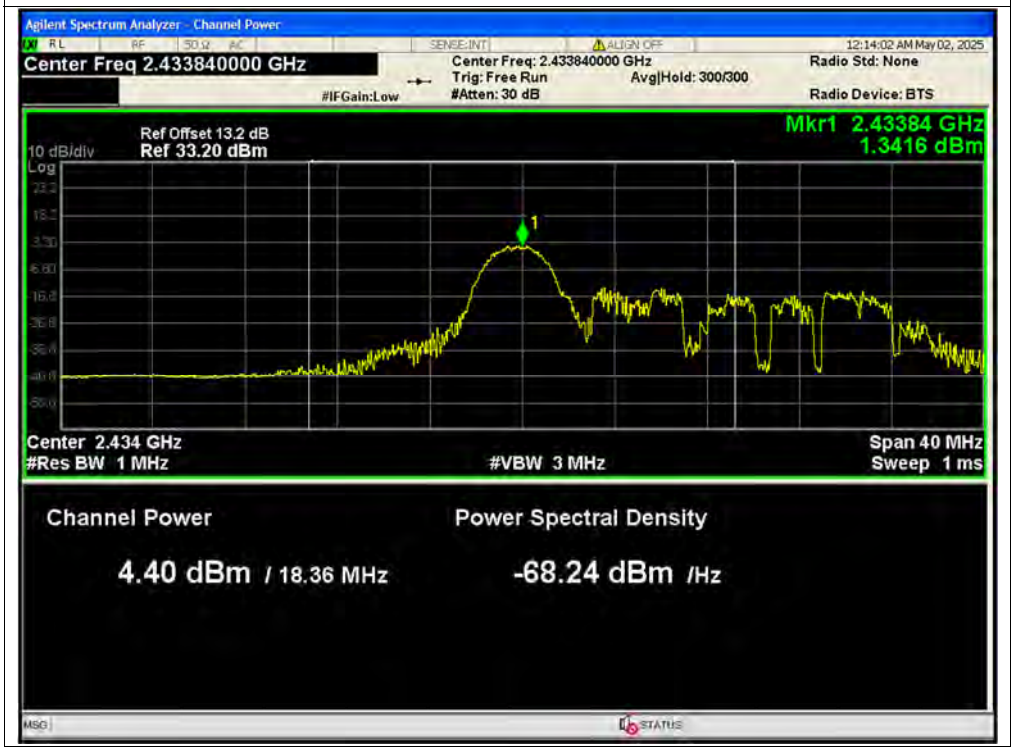
Average Power NVNT ax20 2472MHz Ant1



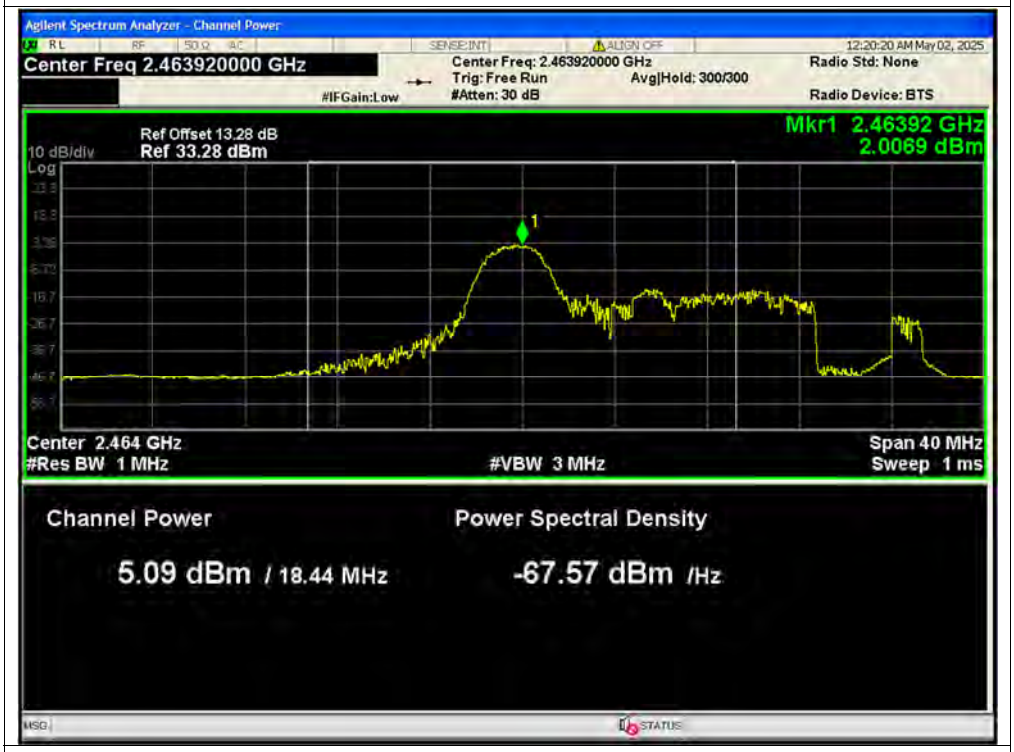
Average Power NVNT ax20 26@0 2412MHz Ant1



Average Power NVNT ax20 26@0 2442MHz Ant1

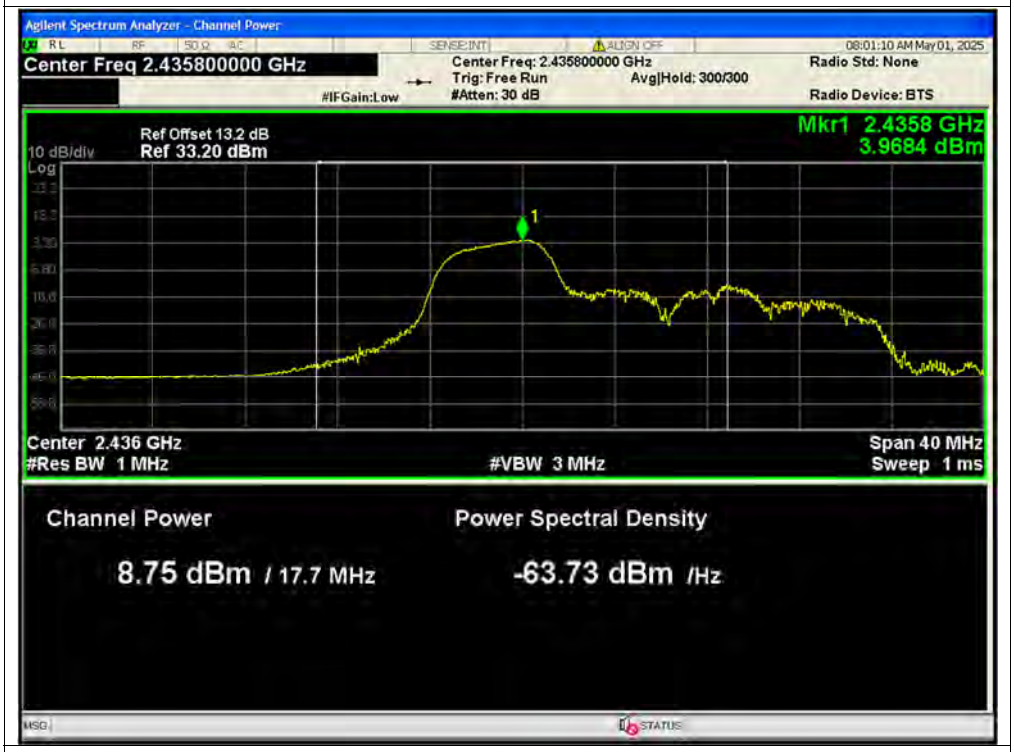


Average Power NVNT ax20 26@0 2472MHz Ant1

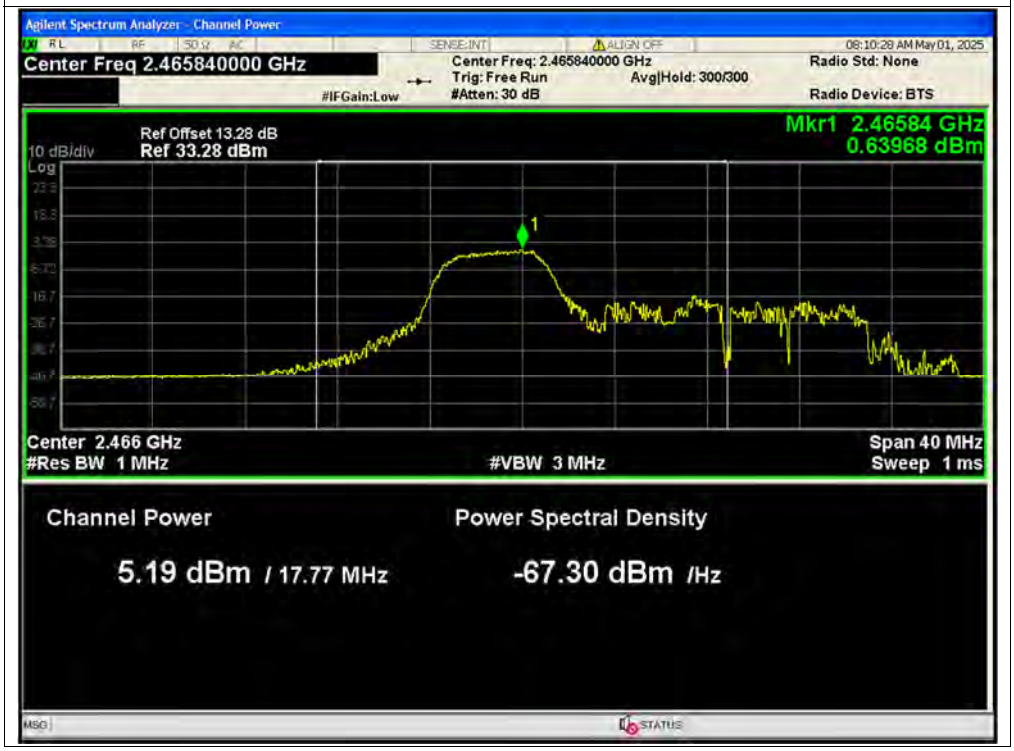


Average Power NVNT ax20 52@37 2412MHz Ant1

Average Power NVNT ax20 52@37 2442MHz Ant1



Average Power NVNT ax20 52@37 2472MHz Ant1



Average Power NVNT ax20 106@53 2412MHz Ant1

Average Power NVNT ax20 106@53 2442MHz Ant1

Average Power NVNT ax20 106@53 2472MHz Ant1

A.4. 6 dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	11.09	0.5	Pass
NVNT	b	2442	Ant1	9.087	0.5	Pass
NVNT	b	2472	Ant1	9.55	0.5	Pass
NVNT	g	2412	Ant1	15.02	0.5	Pass
NVNT	g	2442	Ant1	15.06	0.5	Pass
NVNT	g	2472	Ant1	15.07	0.5	Pass
NVNT	n20	2412	Ant1	15.06	0.5	Pass
NVNT	n20	2442	Ant1	15.07	0.5	Pass
NVNT	n20	2472	Ant1	15.07	0.5	Pass
NVNT	ax20	2412	Ant1	15.06	0.5	Pass
NVNT	ax20	2442	Ant1	15.06	0.5	Pass
NVNT	ax20	2472	Ant1	15.07	0.5	Pass
NVNT	ax20 26@0	2412	Ant1	16.94	0.5	Pass
NVNT	ax20 26@0	2442	Ant1	17	0.5	Pass
NVNT	ax20 26@0	2472	Ant1	15.72	0.5	Pass
NVNT	ax20 52@37	2412	Ant1	16.81	0.5	Pass
NVNT	ax20 52@37	2442	Ant1	15.61	0.5	Pass
NVNT	ax20 52@37	2472	Ant1	14.48	0.5	Pass
NVNT	ax20 106@53	2412	Ant1	13.86	0.5	Pass
NVNT	ax20 106@53	2442	Ant1	15.36	0.5	Pass
NVNT	ax20 106@53	2472	Ant1	14.2	0.5	Pass

Test Graphs

-6dB Bandwidth NVNT b 2412MHz Ant1

-6dB Bandwidth NVNT b 2442MHz Ant1

-6dB Bandwidth NVNT b 2472MHz Ant1

-6dB Bandwidth NVNT g 2412MHz Ant1

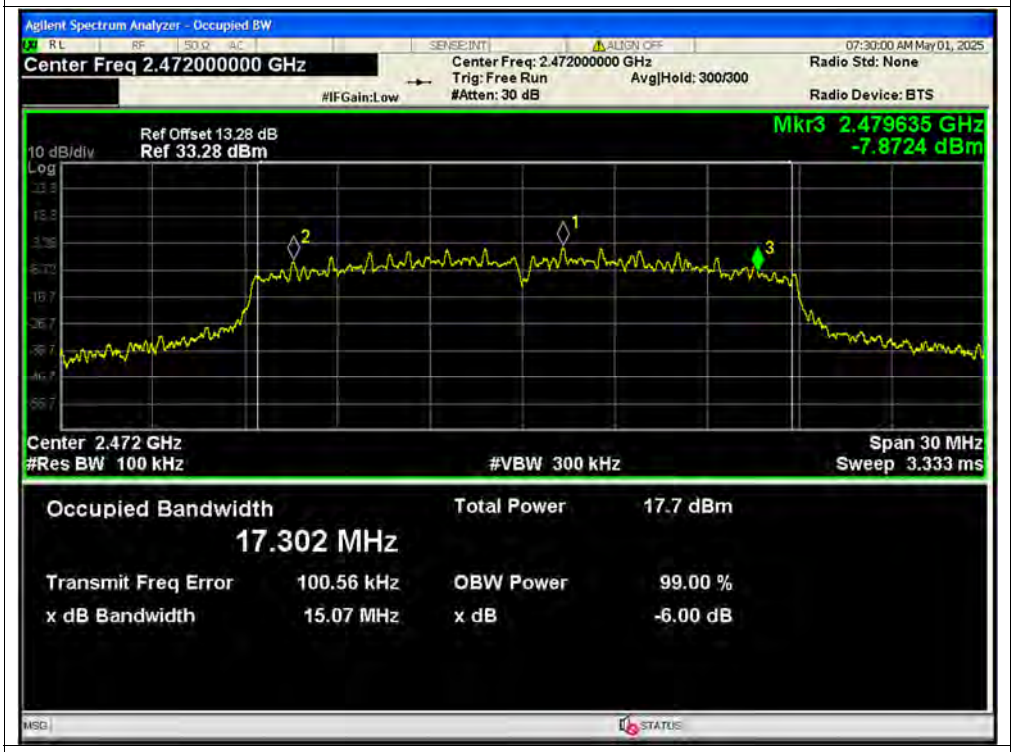
-6dB Bandwidth NVNT g 2442MHz Ant1

-6dB Bandwidth NVNT g 2472MHz Ant1

-6dB Bandwidth NVNT n20 2412MHz Ant1

-6dB Bandwidth NVNT n20 2442MHz Ant1

-6dB Bandwidth NVNT n20 2472MHz Ant1



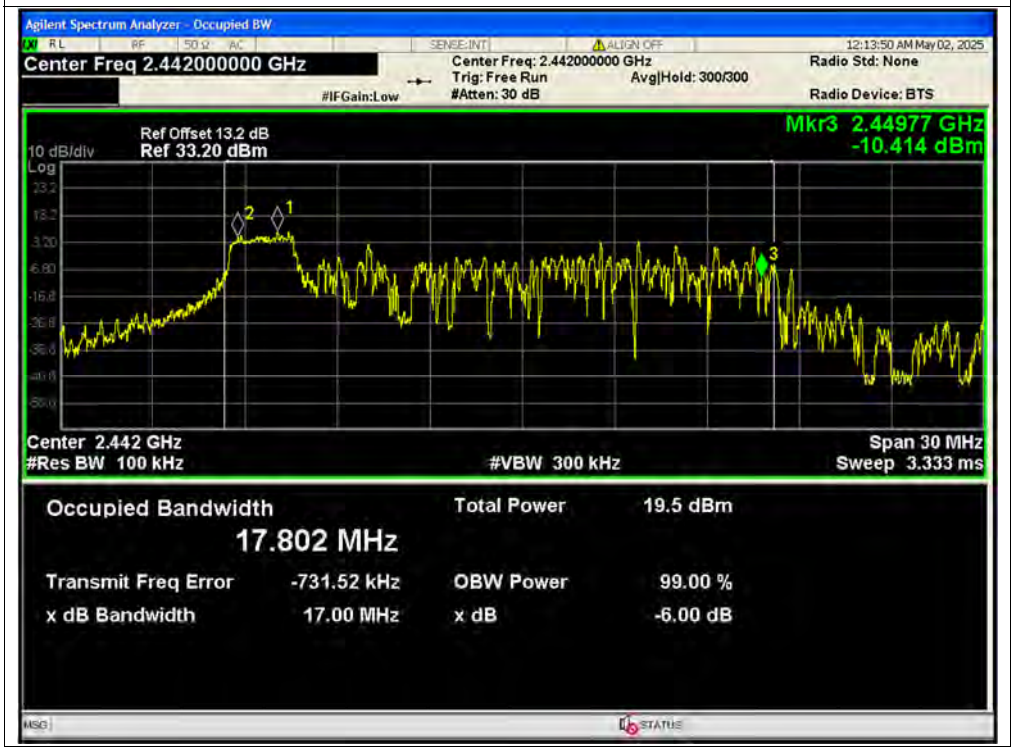
-6dB Bandwidth NVNT ax20 2412MHz Ant1

-6dB Bandwidth NVNT ax20 2442MHz Ant1

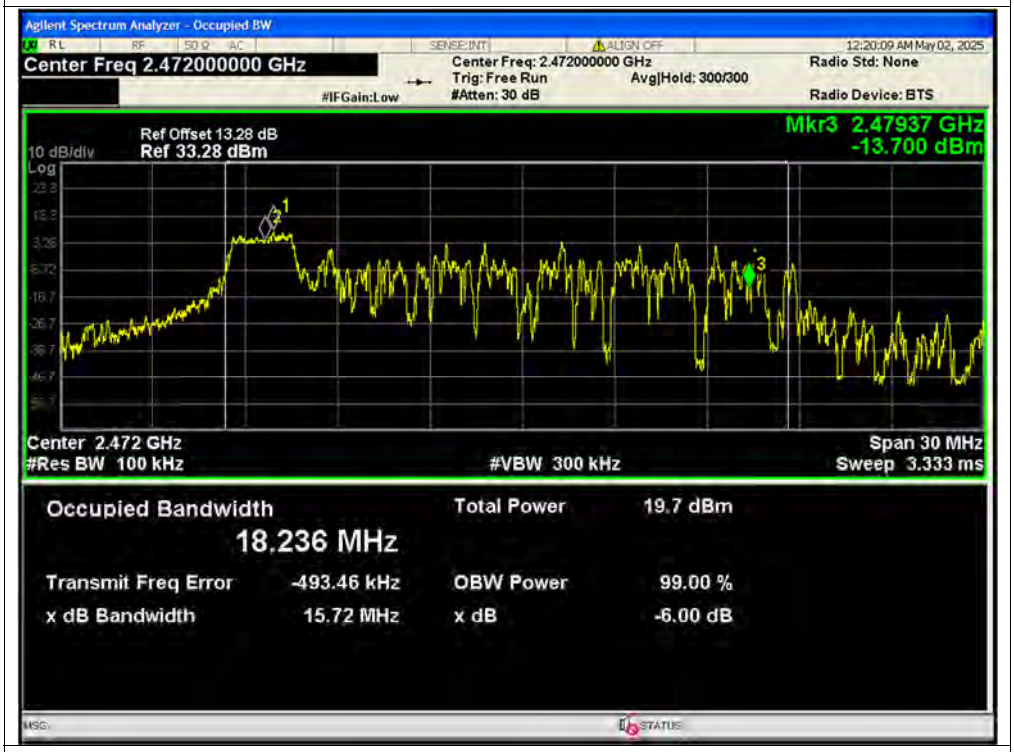
-6dB Bandwidth NVNT ax20 2472MHz Ant1

-6dB Bandwidth NVNT ax20 26@0 2412MHz Ant1

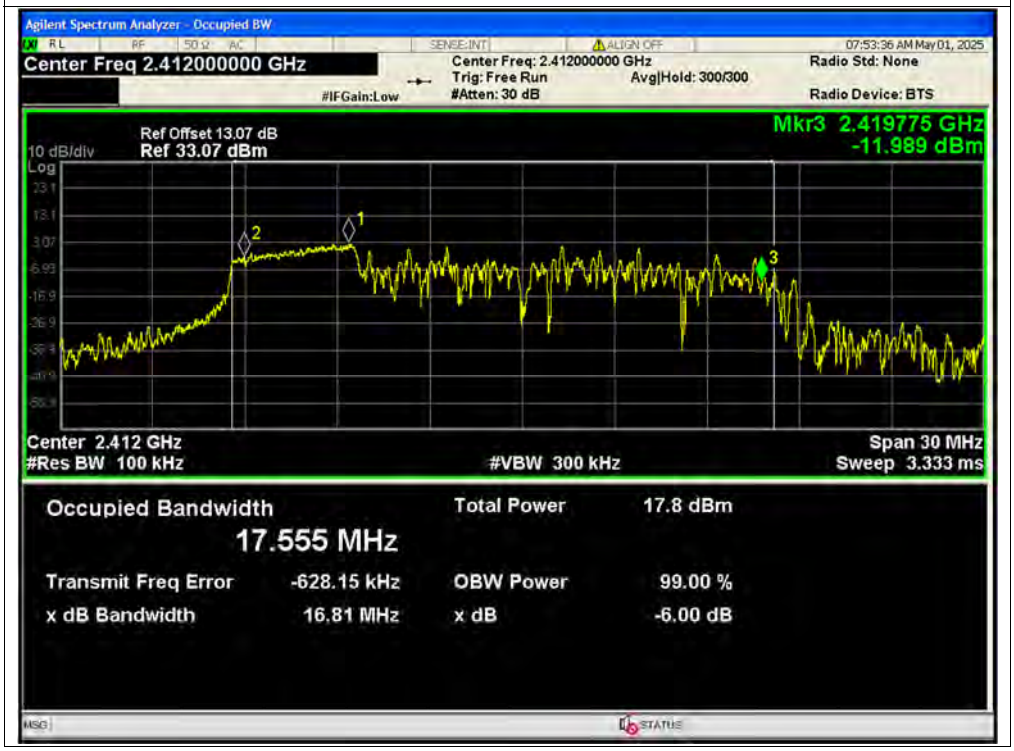
-6dB Bandwidth NVNT ax20 26@0 2442MHz Ant1



-6dB Bandwidth NVNT ax20 26@0 2472MHz Ant1



-6dB Bandwidth NVNT ax20 52@37 2412MHz Ant1



-6dB Bandwidth NVNT ax20 52@37 2442MHz Ant1

-6dB Bandwidth NVNT ax20 52@37 2472MHz Ant1

-6dB Bandwidth NVNT ax20 106@53 2412MHz Ant1

-6dB Bandwidth NVNT ax20 106@53 2442MHz Ant1

-6dB Bandwidth NVNT ax20 106@53 2472MHz Ant1

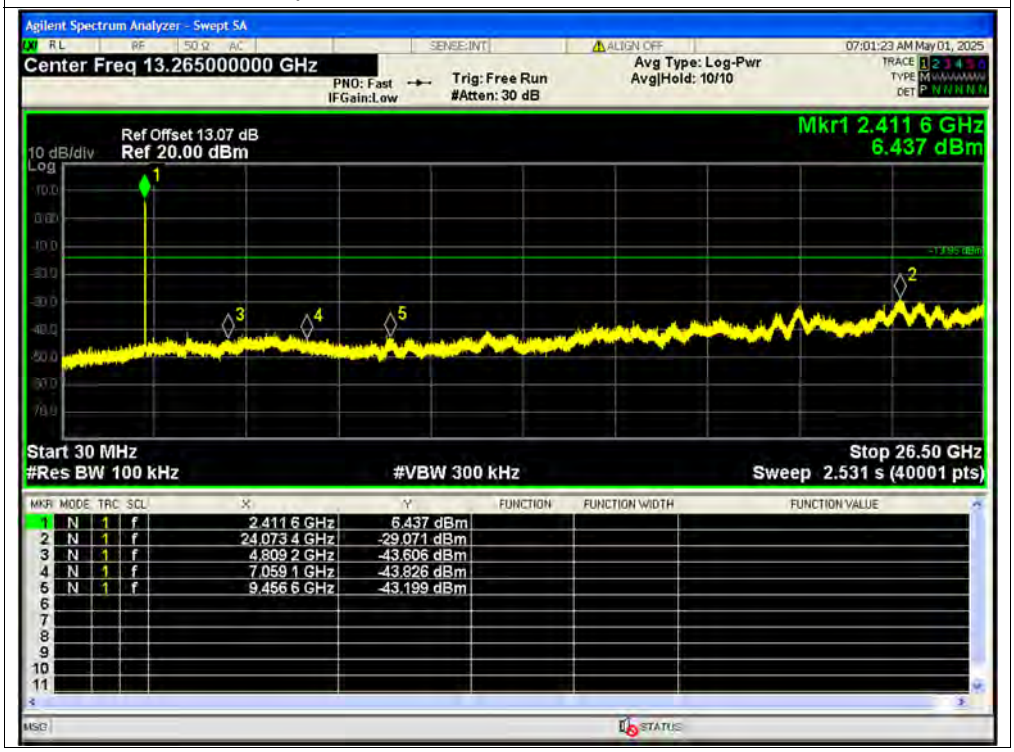
A.5. Conducted Spurious Emissions

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-35.12	-20	Pass
NVNT	b	2442	Ant1	-35.38	-20	Pass
NVNT	b	2472	Ant1	-35.1	-20	Pass
NVNT	g	2412	Ant1	-31.57	-20	Pass
NVNT	g	2442	Ant1	-31.96	-20	Pass
NVNT	g	2472	Ant1	-31.36	-20	Pass
NVNT	n20	2412	Ant1	-31.12	-20	Pass
NVNT	n20	2442	Ant1	-31.48	-20	Pass
NVNT	n20	2472	Ant1	-30.38	-20	Pass
NVNT	ax20	2412	Ant1	-30.15	-20	Pass
NVNT	ax20	2442	Ant1	-31.58	-20	Pass
NVNT	ax20	2472	Ant1	-29.93	-20	Pass
NVNT	ax20 26@0	2412	Ant1	-34.82	-20	Pass
NVNT	ax20 26@0	2442	Ant1	-34.51	-20	Pass
NVNT	ax20 26@0	2472	Ant1	-34.9	-20	Pass
NVNT	ax20 52@37	2412	Ant1	-31.44	-20	Pass
NVNT	ax20 52@37	2442	Ant1	-31.15	-20	Pass
NVNT	ax20 52@37	2472	Ant1	-33.56	-20	Pass
NVNT	ax20 106@53	2412	Ant1	-31.33	-20	Pass
NVNT	ax20 106@53	2442	Ant1	-30.11	-20	Pass
NVNT	ax20 106@53	2472	Ant1	-30.63	-20	Pass

Test Graphs

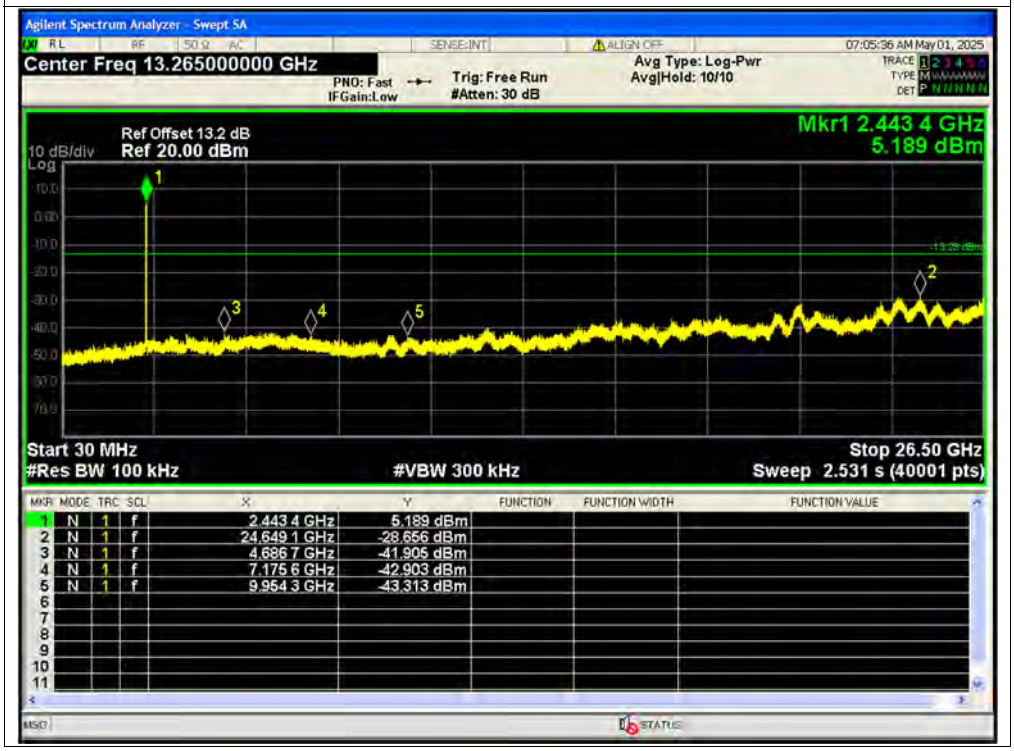
Tx. Spurious NVNT b 2412MHz Ant1 Ref

Tx. Spurious NVNT b 2412MHz Ant1 Emission



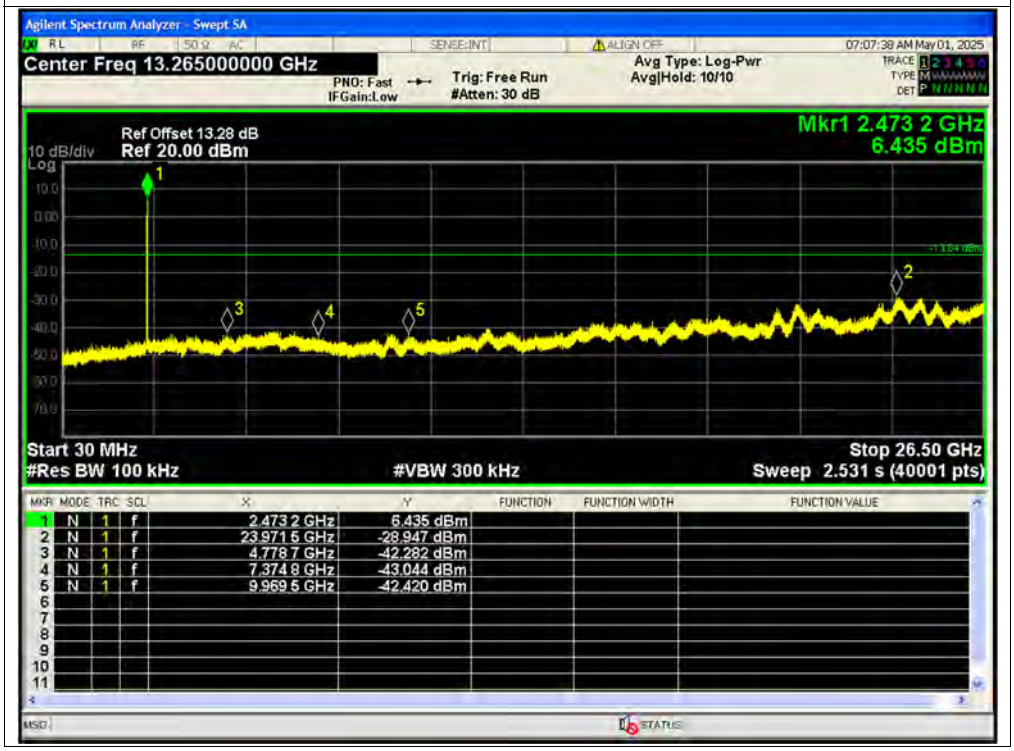
Tx. Spurious NVNT b 2442MHz Ant1 Ref

Tx. Spurious NVNT b 2442MHz Ant1 Emission



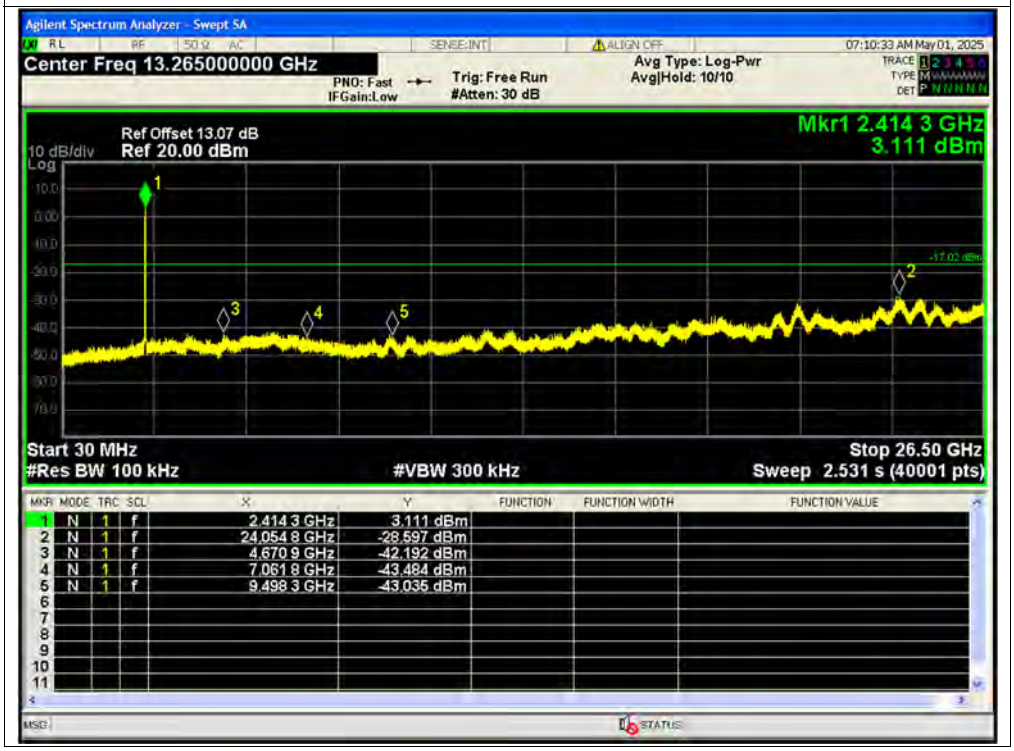
Tx. Spurious NVNT b 2472MHz Ant1 Ref

Tx. Spurious NVNT b 2472MHz Ant1 Emission



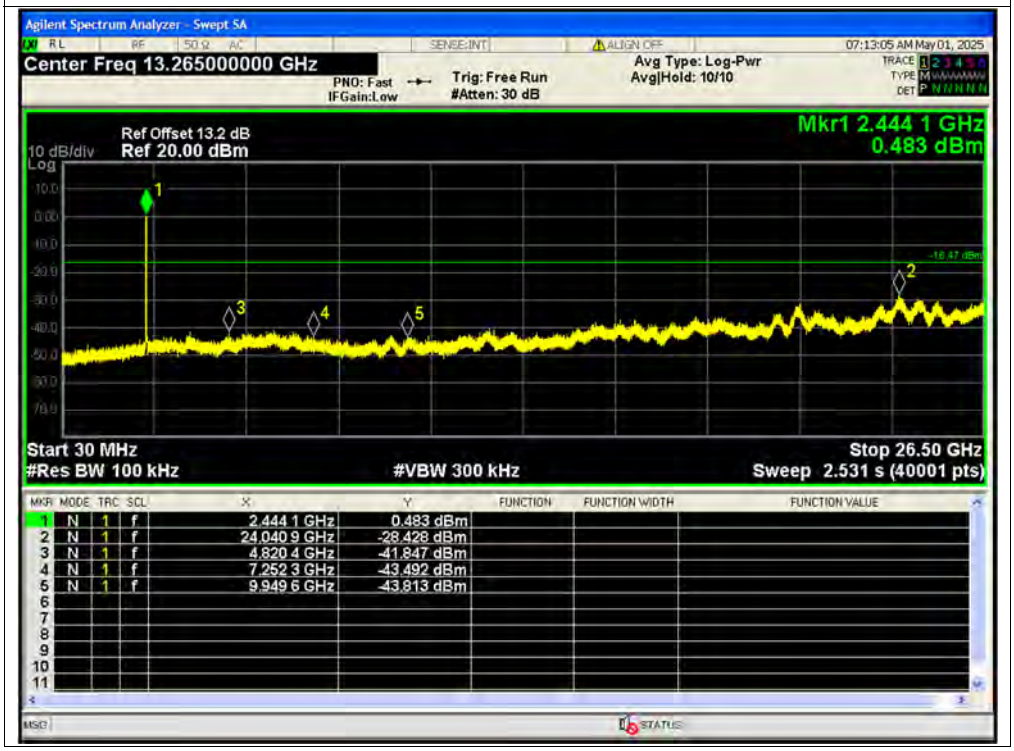
Tx. Spurious NVNT g 2412MHz Ant1 Ref

Tx. Spurious NVNT g 2412MHz Ant1 Emission



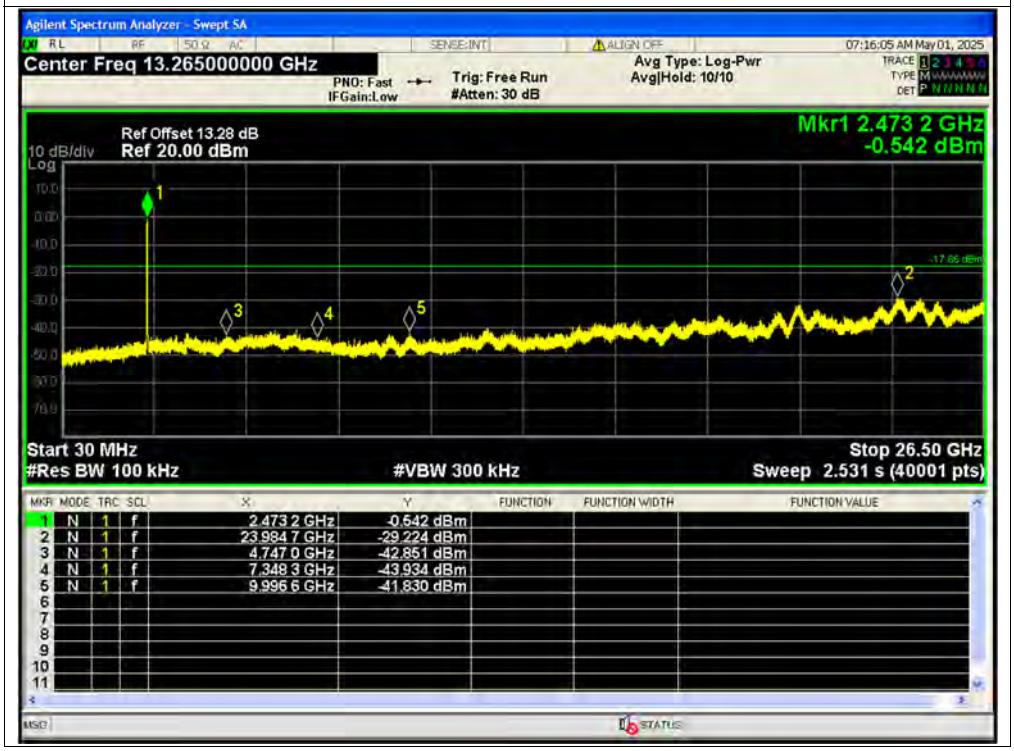
Tx. Spurious NVNT g 2442MHz Ant1 Ref

Tx. Spurious NVNT g 2442MHz Ant1 Emission



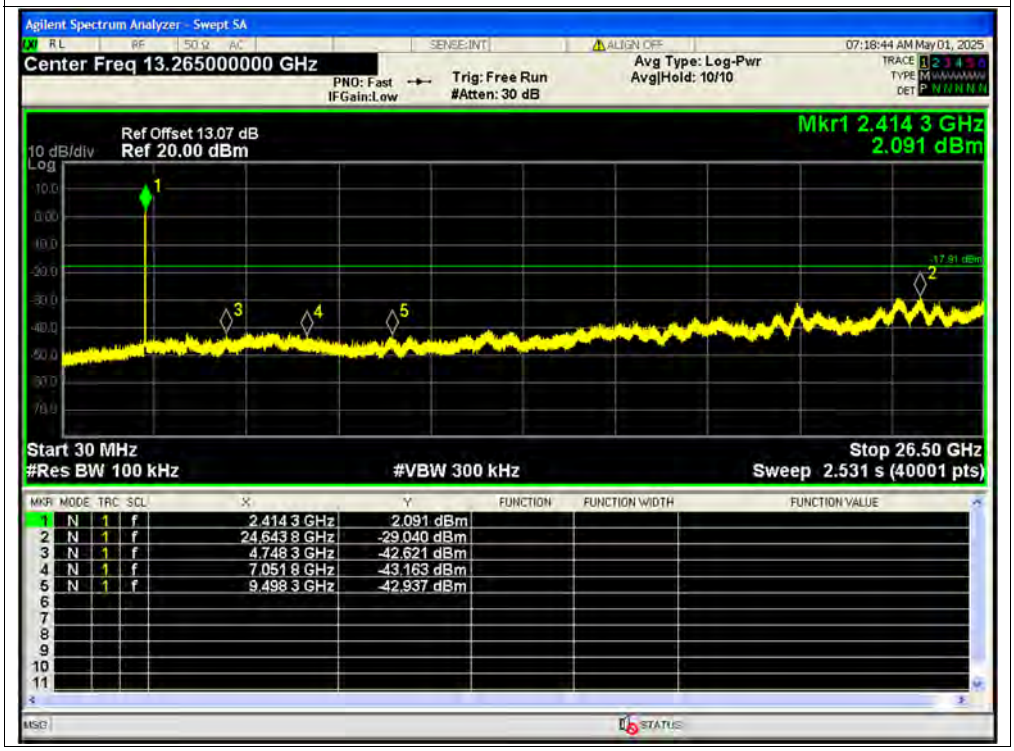
Tx. Spurious NVNT g 2472MHz Ant1 Ref

Tx. Spurious NVNT g 2472MHz Ant1 Emission



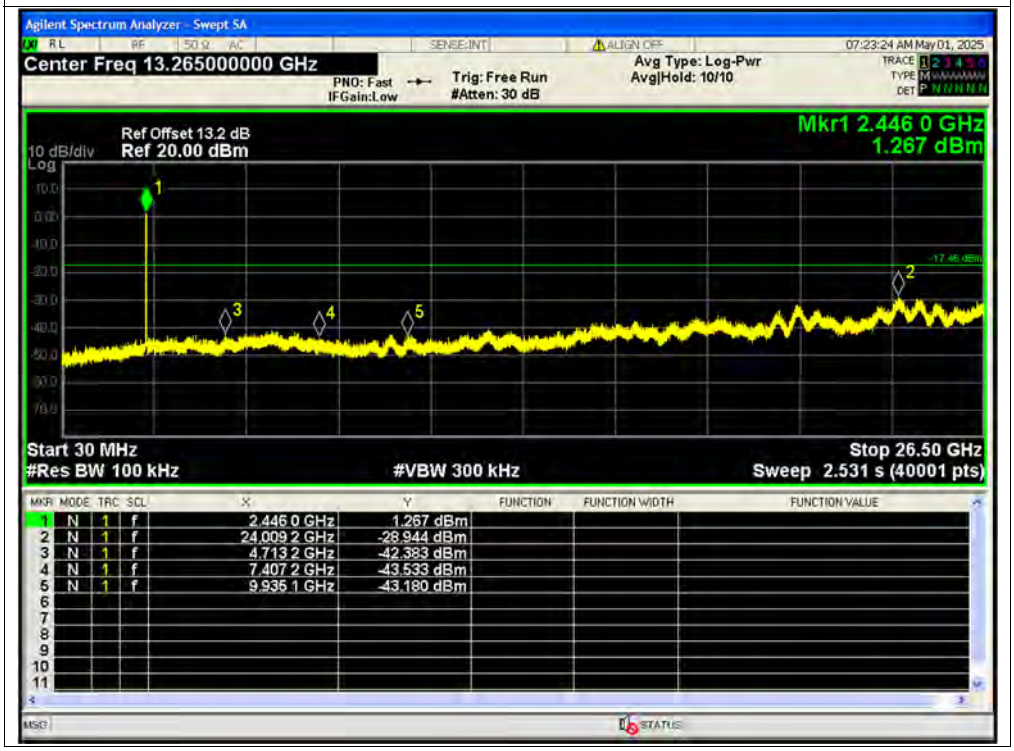
Tx. Spurious NVNT n20 2412MHz Ant1 Ref

Tx. Spurious NVNT n20 2412MHz Ant1 Emission



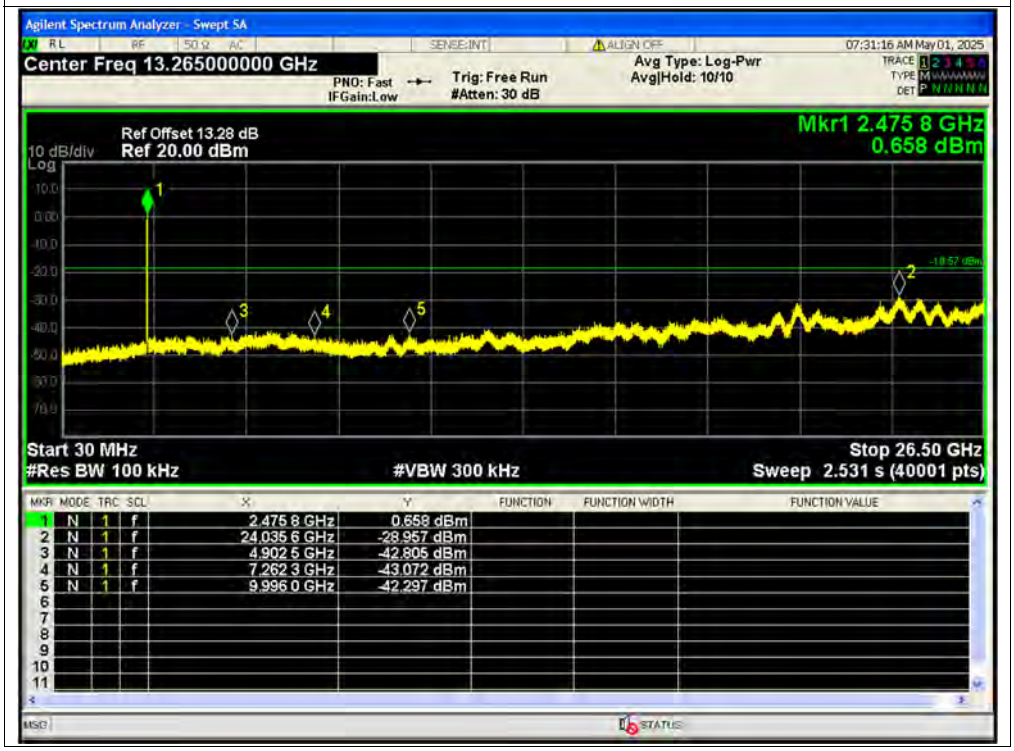
Tx. Spurious NVNT n20 2442MHz Ant1 Ref

Tx. Spurious NVNT n20 2442MHz Ant1 Emission



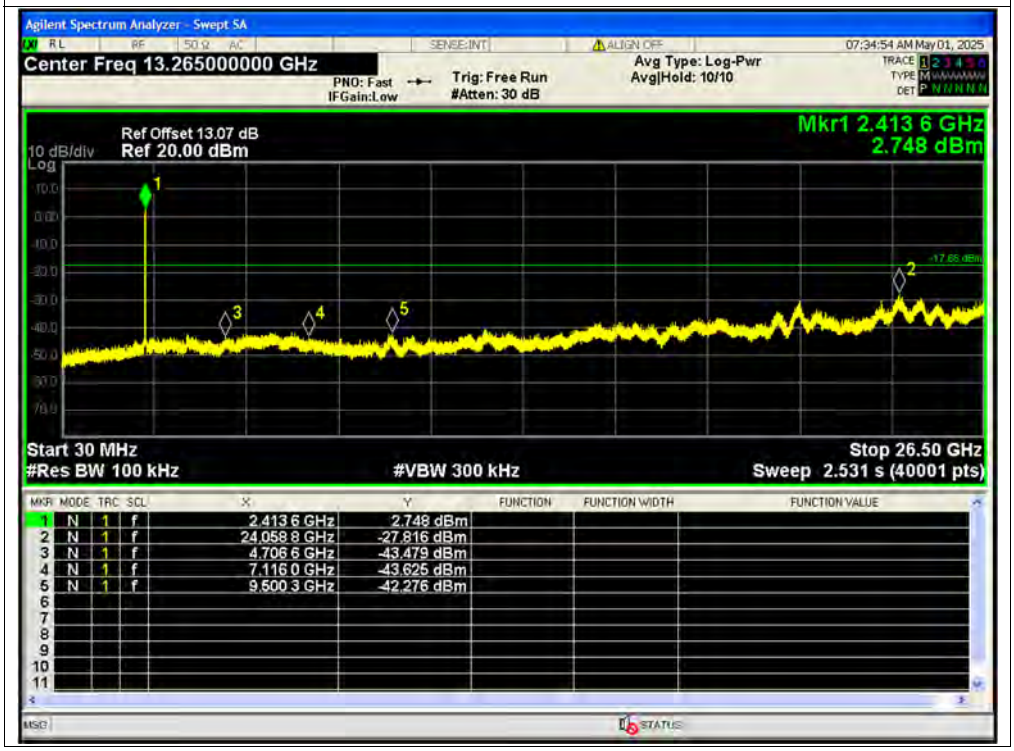
Tx. Spurious NVNT n20 2472MHz Ant1 Ref

Tx. Spurious NVNT n20 2472MHz Ant1 Emission



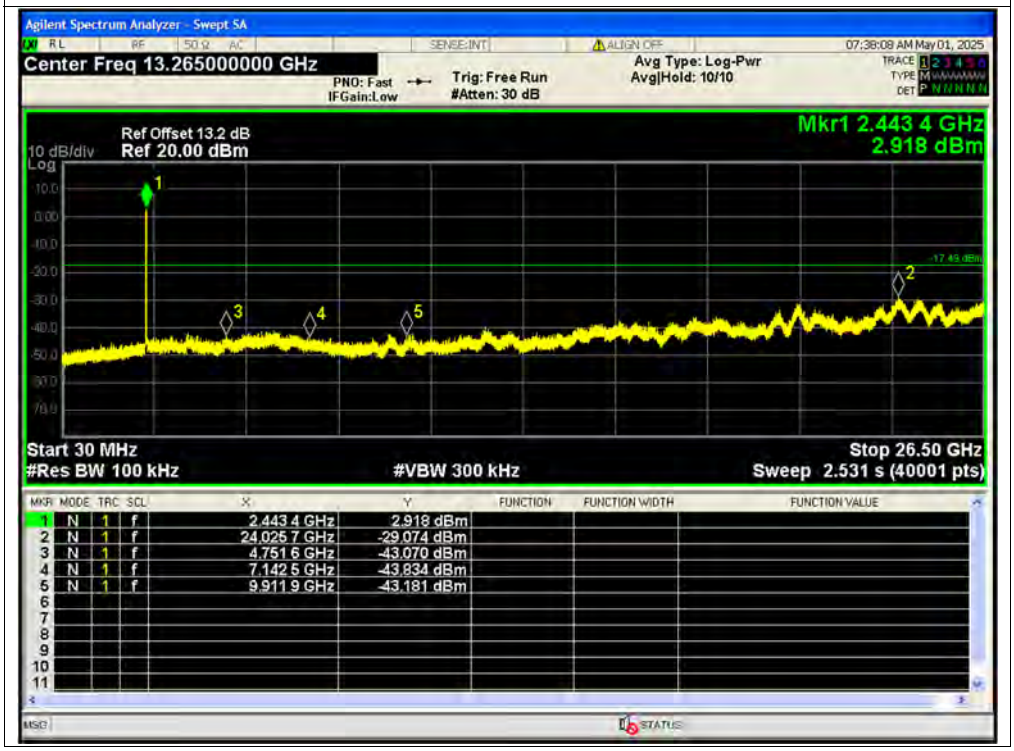
Tx. Spurious NVNT ax20 2412MHz Ant1 Ref

Tx. Spurious NVNT ax20 2412MHz Ant1 Emission



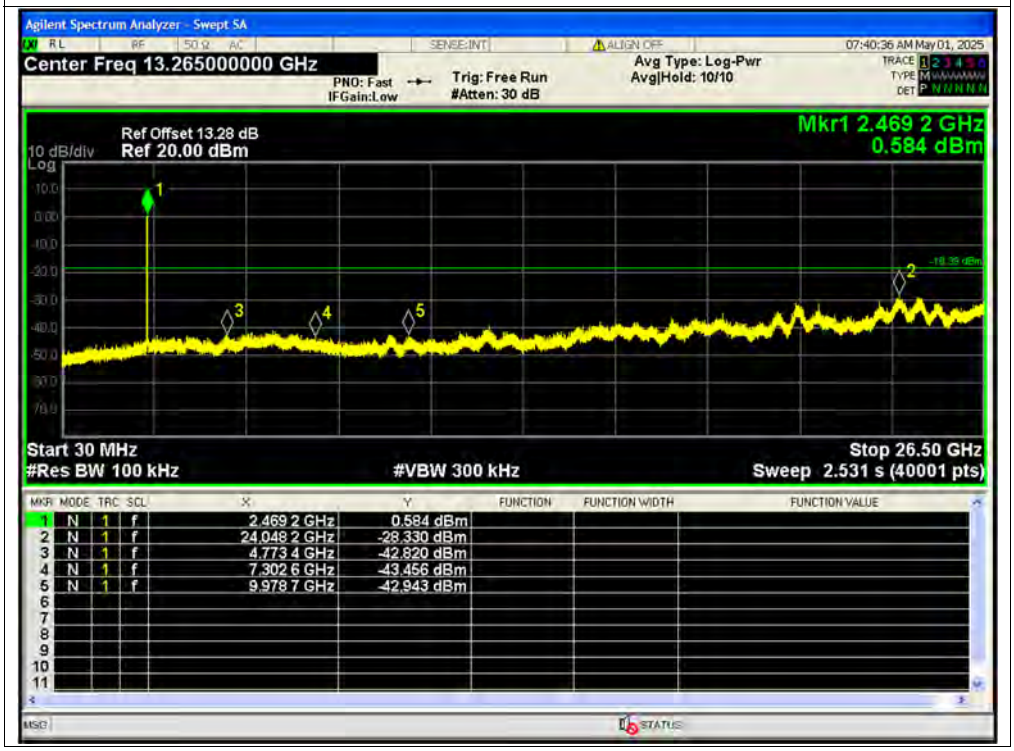
Tx. Spurious NVNT ax20 2442MHz Ant1 Ref

Tx. Spurious NVNT ax20 2442MHz Ant1 Emission



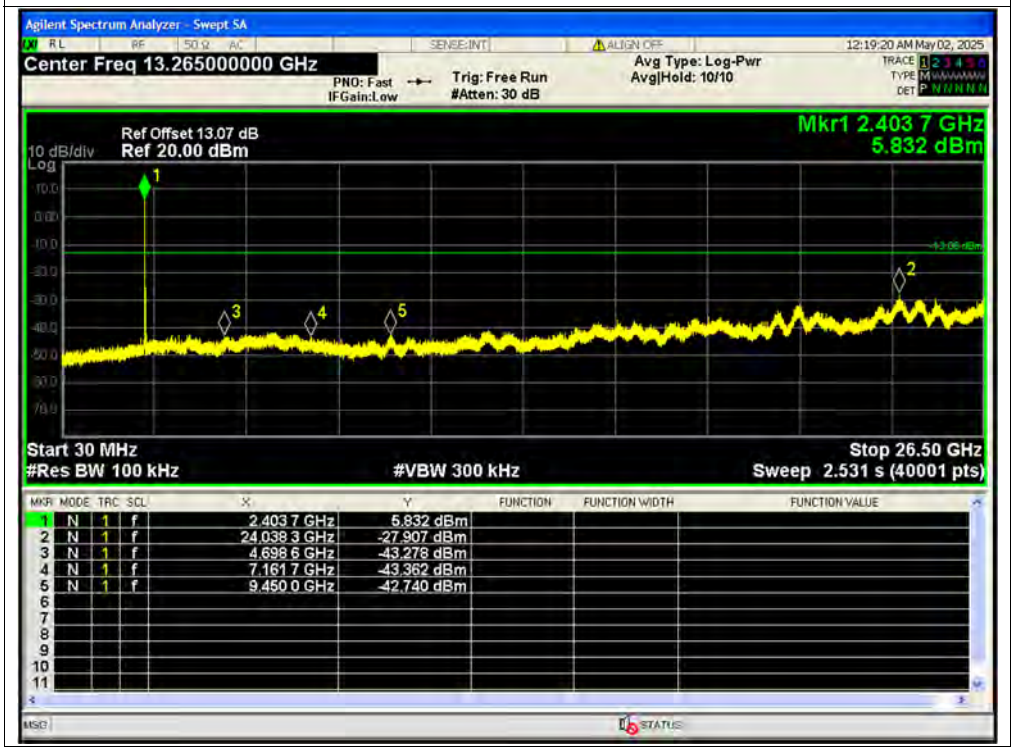
Tx. Spurious NVNT ax20 2472MHz Ant1 Ref

Tx. Spurious NVNT ax20 2472MHz Ant1 Emission



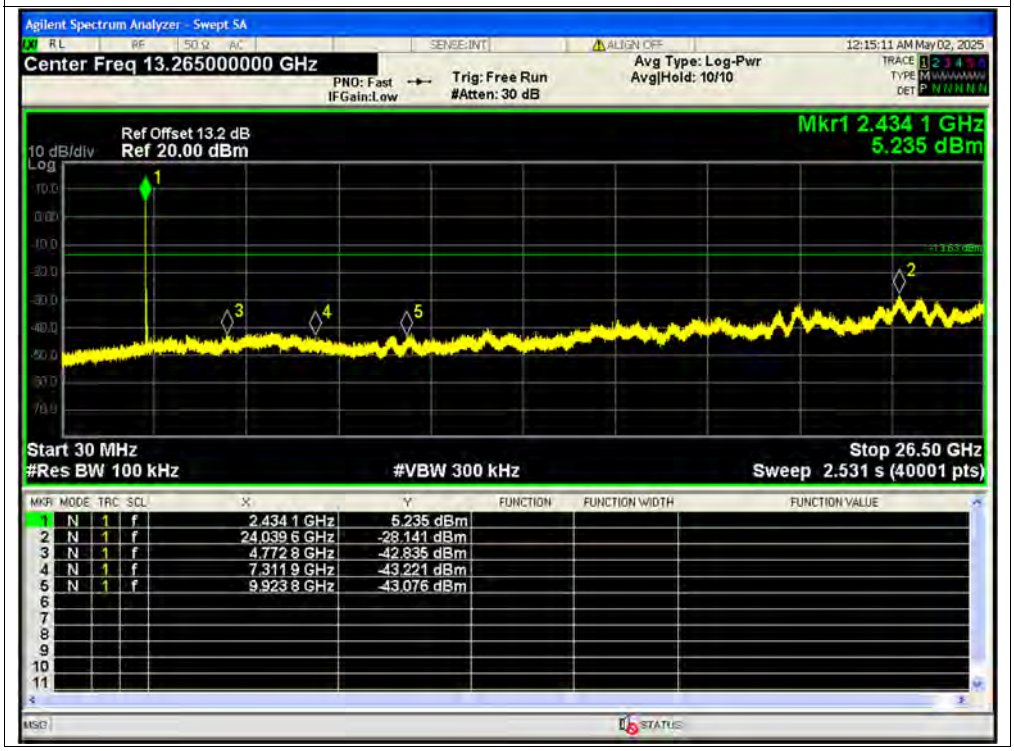
Tx. Spurious NVNT ax20 26@0 2412MHz Ant1 Ref

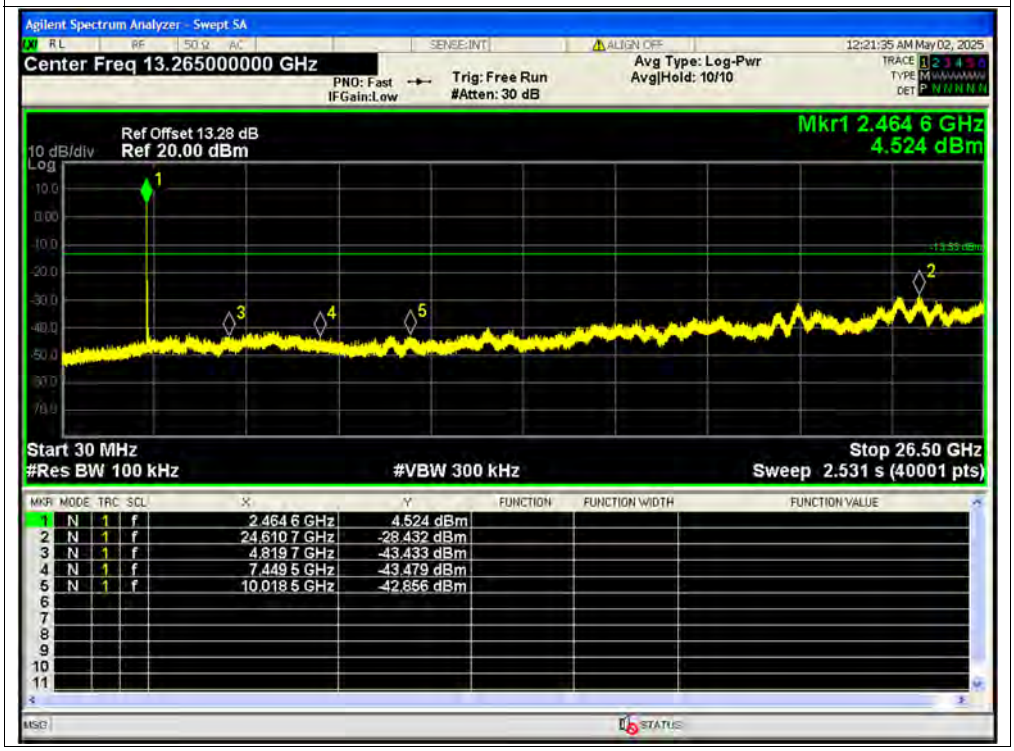
Tx. Spurious NVNT ax20 26@0 2412MHz Ant1 Emission



Tx. Spurious NVNT ax20 26@0 2442MHz Ant1 Ref

Tx. Spurious NVNT ax20 26@0 2442MHz Ant1 Emission



Tx. Spurious NVNT ax20 26@0 2472MHz Ant1 Ref

Tx. Spurious NVNT ax20 26@0 2472MHz Ant1 Emission