REPORT No.: SZ24050224W01

TEST REPORT

APPLICANT	:	Horizon Powered USA Inc.
PRODUCT NAME	:	5G Wi-Fi6 AX5400 CPE
MODEL NAME	:	HZ51
BRAND NAME	:	Horizon
FCC ID	:	2BE94HZ51
STANDARD(S)	:	47 CFR Part 15 Subpart C
RECEIPT DATE	:	2024-06-28
TEST DATE	:	2024-09-18 to 2024-10-25
ISSUE DATE	:	2024-11-01

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MORLAB

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DIRECTORY

Change History		
Version	**Date**	**Reason for change**
1.0	2024-11-01	First edition

1. Summary of Test Result

No.	Section	Description	Test Date	Test Engineer	Result	Method Determination /Remark
1	15.203	Antenna Requirement	N/A	N/A	PASS	No deviation
2	N/A	Duty Cycle of Test Signal	Sep. 10&27, 2024	Lin Haoyang	PASS	No deviation
3	15.247(b)	Maximum Peak Conducted Output Power	Sep. 10&27, 2024	Lin Haoyang	PASS	No deviation
4	15.247(b)	Maximum Average Conducted Output Power	Sep. 10&27, 2024	Lin Haoyang	PASS	No deviation
5	15.247(a)	Bandwidth	Sep. 10&27, 2024	Lin Haoyang	PASS	No deviation
6	15.247(d)	Conducted Spurious Emission and Band Edge	Oct. 22&23, 2024	Lin Haoyang	PASS	No deviation
7	15.247(e)	Power Spectral Density	Sep. 27, 2024 Oct. 22, 2024	Lin Haoyang	PASS	No deviation
8	15.207	Conducted Emission	Sep. 10, 2024	Fan Shengquan	PASS	No deviation
9	15.247(d)	Restricted Frequency Bands	Aug. 27, 2024 Oct. 17, 2024	Gao Jianrou	PASS	No deviation
10	15.209, 15.247(d)	Radiated Emission	Aug. 27, 2024	Gao Jianrou	PASS	No deviation

Note 1: All test items are tested and evaluated in the worse mode with reference to output power results.

Note 2: The tests were performed according to the method of measurements prescribed in ANSI C63.10-2013 and KDB 558074 D01 v05r02.

Note 3: Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table.

Note 4: When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.

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	2024.02.19	2025.02.18
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	2024.01.25	2025.01.24
LISN	8127449	NSLK 8127	Schwarzbeck	2024.02.02	2025.02.01
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
TS+ -[JS32-RE]	Tonscend	2.5.0.6
TS+ -[JS32-CE]	Tonscend	V2.5.0.0

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	2022.05.10	2025.05.09

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
Telephone	+86 755 36698555
Facsimile	+86 755 36698525
FCC Designation Number	CN1192
FCC Test Firm Registration Number	226174

2. General Description

2.1. Information of Applicant and Manufacturer

Applicant	Horizon Powered USA Inc.
Applicant Address	8350 NW 52nd Terrace, Suite 301 Miami, Florida 33166 United States
Manufacturer	Horizon Powered USA Inc.
Manufacturer Address	8350 NW 52nd Terrace, Suite 301 Miami, Florida 33166 United States

2.2. Information of EUT

Product Name:	5G Wi-Fi6 AX5400 CPE	
Sample No.:	1#	
Hardware Version:	V10C	
Software Version:	V1.0.1	
Modulation Technology:	DSSS, OFDM, OFDMA	
Modulation Type:	Refer to section 2.3	
Wireless Technology:	802.11b, 802.11g, 802.11n (HT20), 802.11n (HT40), 802.11ax (HEW20), 802.11ax (HEW40)	
Operating Frequency Range:	2412MHz–2462MHz	
Antenna Type:	PCB Antenna	
Antenna Gain:	ANT 1: 2.48dBi ANT 2: 2.48dBi	
Directional Gain:	5.49dBi$_{\text{Note 2}}$	
Accessory Information:	AC Adapter	
	Brand Name:	N/A
	Model No.:	KA36B-1203000US
	Serial No.:	N/A
	Rated Output:	12V⎓3A
	Rated Input:	100-240V~50/60Hz, 1A
	Manufacturer:	Shenzhen Keyu Power Supply Technology Co., Ltd.

Note 1: The EUT supports a MIMO function. Physically, the EUT provides two completed transmitters and two receivers for 802.11n, 802.11 ax modulation mode.

Modulation Mode:	**TX Function**

802.11b/g	1TX
802.11n	2TX
802.11ax	2TX

Note 2: According to KDB 662911 D01, the directional gain = $10\log[(10^{G1/20}+10^{G2/20})^2/2$.

Note 3: All radiation test items for 802.11n modulation mode operate at MIMO mode during the test. Other modulation mode operate at SISO mode, both of the two antennas were tested separately, we only recorded the worst test result(ANT 1) in this report.

Note 4: 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		
	6	**2437**		
	7	2442		
Nominal Channel Bandwidth	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
40MHz	**3**	**2422**	8	2447
	4	2427	**9**	**2452**
	5	2432		
	6	**2437**		
	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**/9/12/18/24/36/48/54Mbps	N/A
			QPSK		
			16QAM		
			64QAM		
802.11n	20 (HT20)	OFDM	**BPSK**	**MCS0**~MCS7	N/A
			QPSK		
			16QAM		
			64QAM		
802.11ax	20/40 (HEW20/40)	OFDM/ OFDMA	**BPSK**	**MSC0**~MCS11	26/52/106/242
			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/be RU Allocation

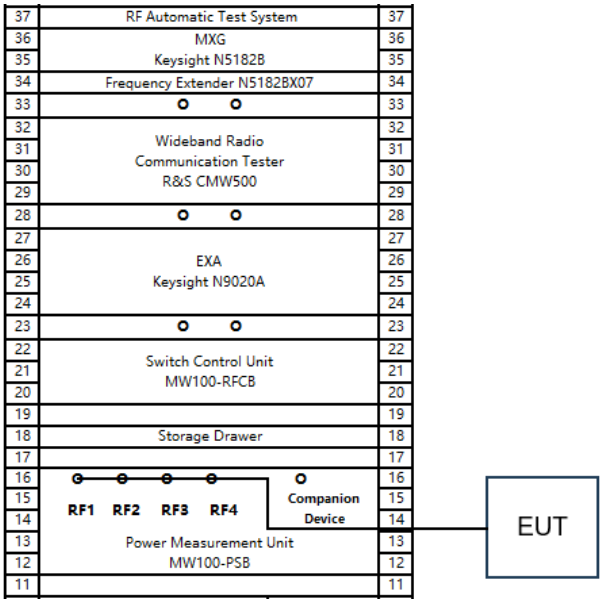
BW (MHz)	RU Size			User	RU Offset
	Full (Tone)	Partial			
		(Tone)	BW (MHz)		
20	242	26	2	9	@0/1/2/3/4/5/6/7/8
		52	4	4	@37/38/39/40
		106	8	2	@53/54
40	484	26	2	18	@0/1/2……15/16/17
		52	4	8	@37/38/39/40/41/42/43/44
		106	8	4	@53/54/55/56
		242	20	2	@61/62

2.5. Test Conditions

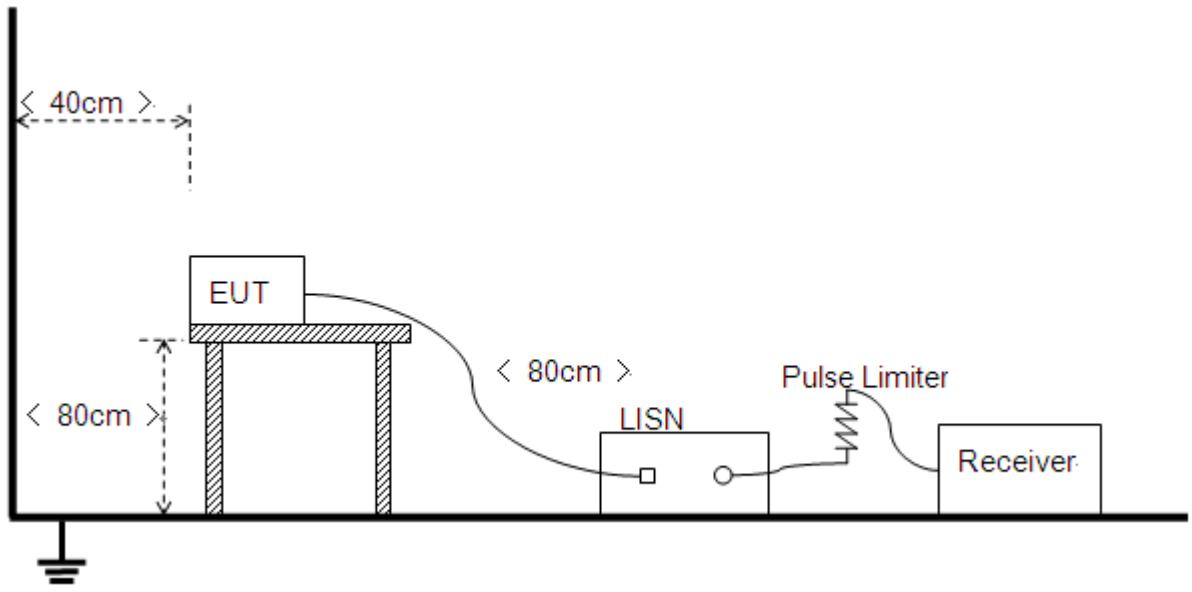
Temperature (°C)	15-35
Relative Humidity (%)	30-60
Atmospheric Pressure (kPa)	86-106

2.6. Test Setup Layout Diagram

2.6.1.Conducted Measurement

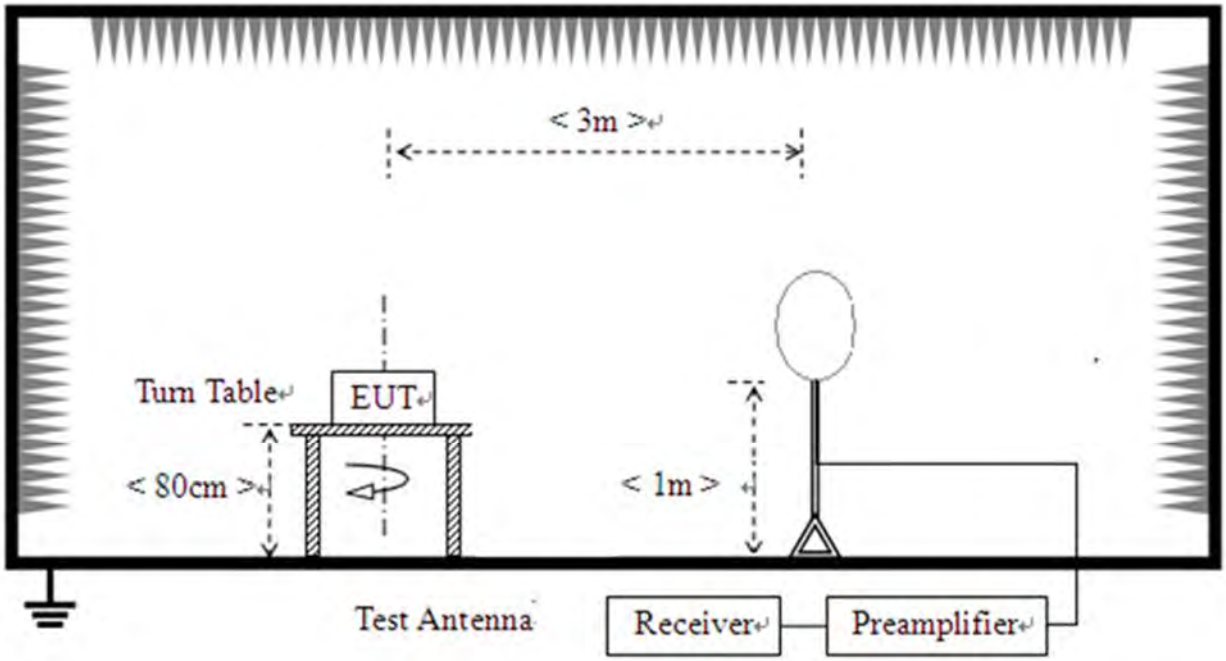


2.6.2.Conducted Emission Measurement

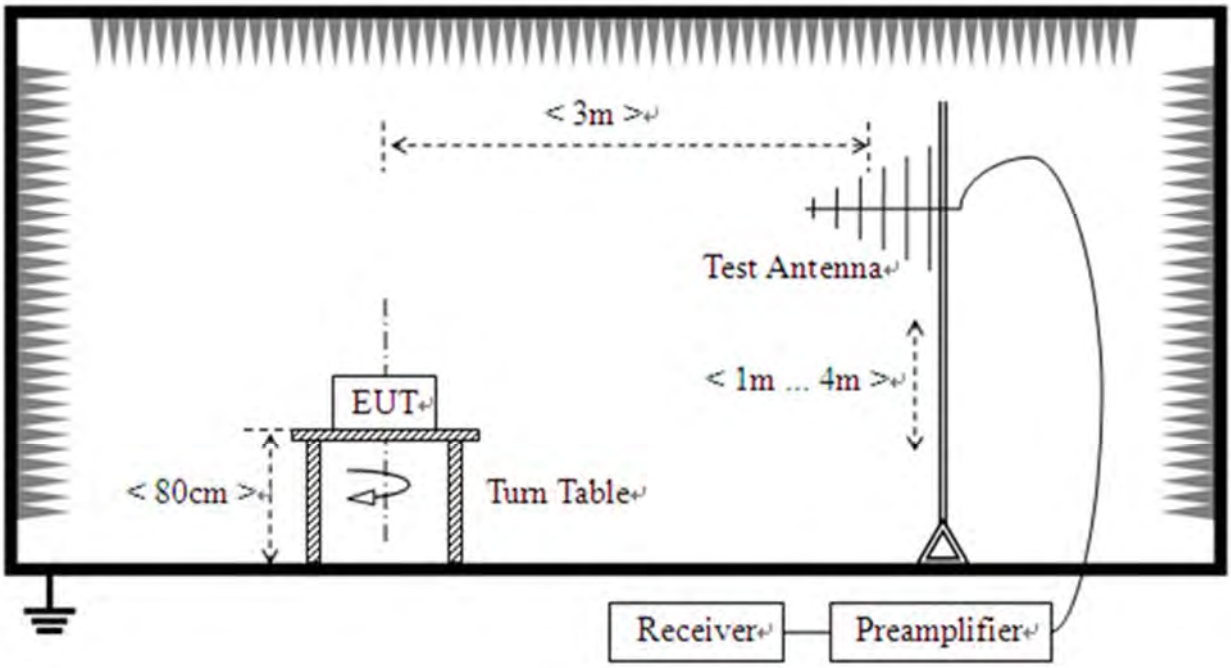


2.6.3.Radiation Measurement

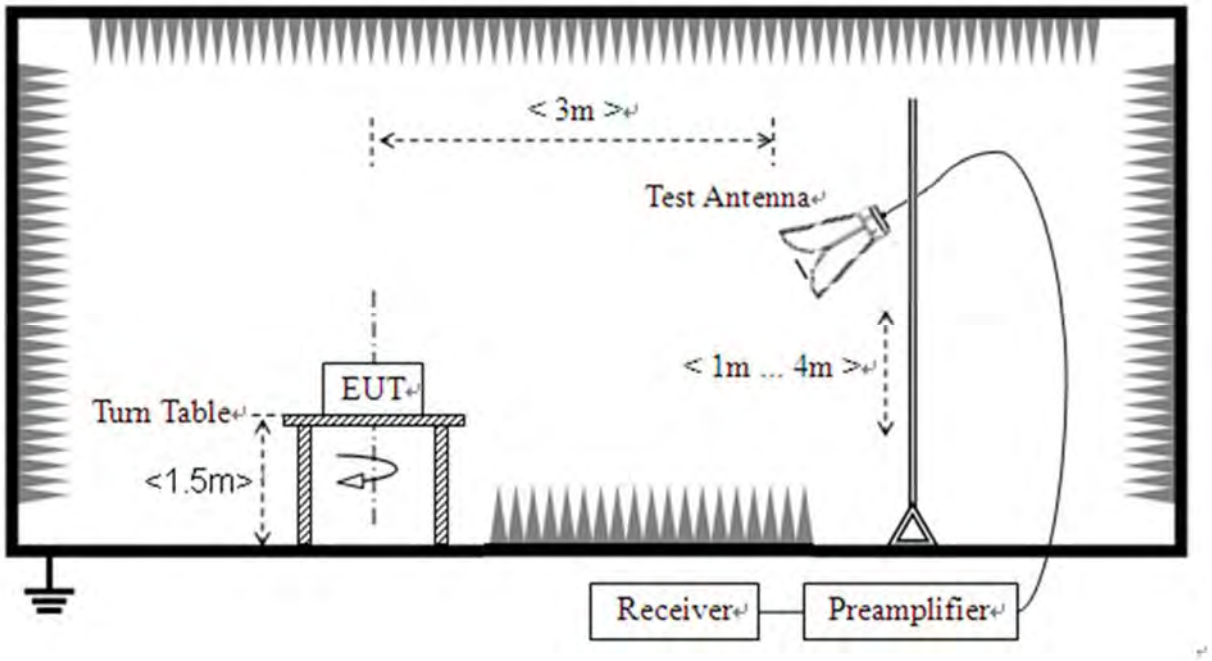
1) For radiated emissions from 9kHz to 30MHz



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 ☐Fixed Internal 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. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in above of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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.

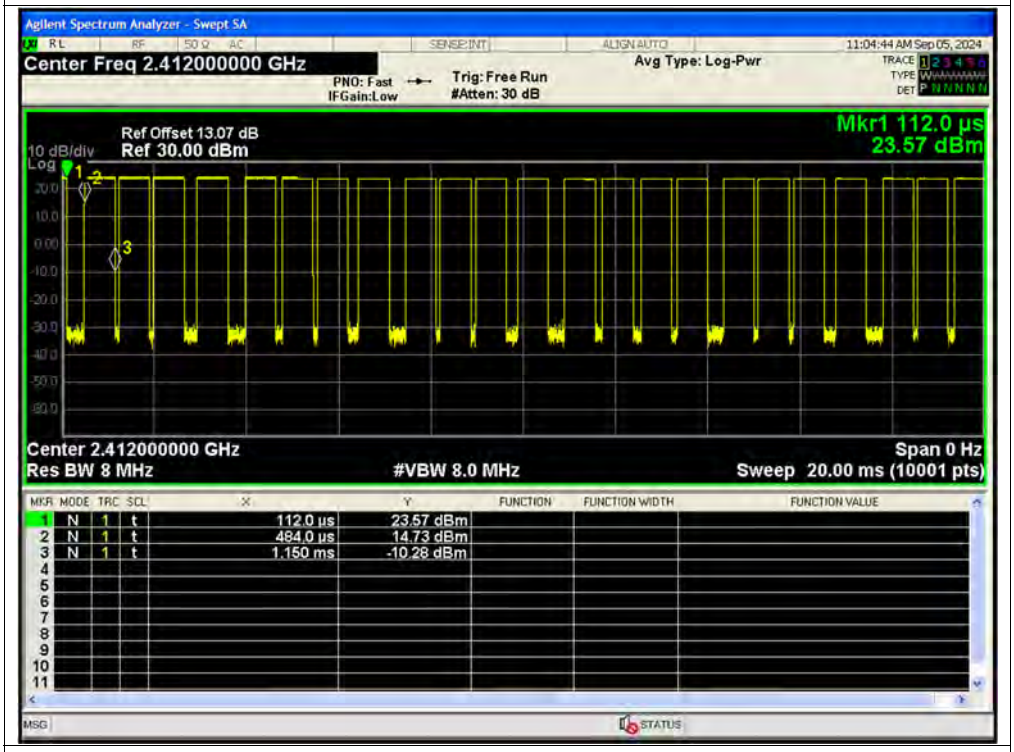
Annex A Test Data and Result

A.1. Duty Cycle of Test Signal

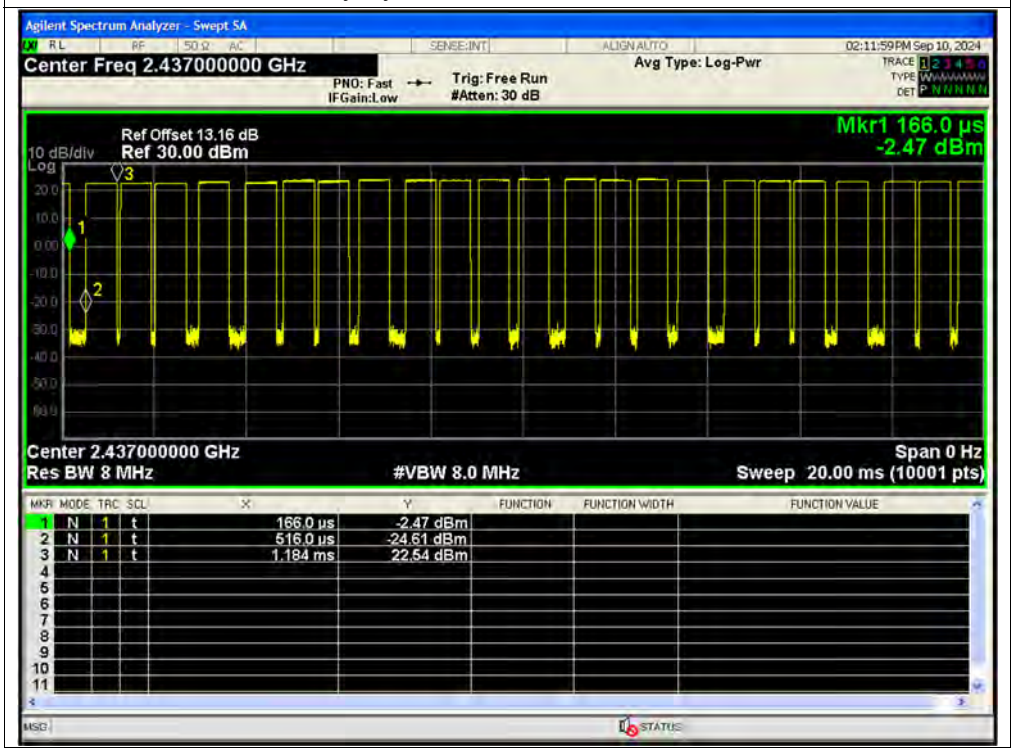
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	64.16	1.93	1.5
NVNT	b	2437	Ant1	65.62	1.83	1.5
NVNT	b	2462	Ant1	84.95	0.71	1.5
NVNT	b	2412	Ant2	83.04	0.81	1.5
NVNT	b	2437	Ant2	88.77	0.52	1.51
NVNT	b	2462	Ant2	80.24	0.96	1.5
NVNT	g	2412	Ant1	92.95	0.32	0.51
NVNT	g	2437	Ant1	95.28	0.21	0.51
NVNT	g	2462	Ant1	94.46	0.25	0.51
NVNT	g	2412	Ant2	92.51	0.34	0.51
NVNT	g	2437	Ant2	92.08	0.36	0.51
NVNT	g	2462	Ant2	94.91	0.23	0.51
NVNT	n20	2412	Ant1	98.22	0.08	0.19
NVNT	n20	2437	Ant1	98.25	0.08	0.19
NVNT	n20	2462	Ant1	98.36	0.07	0.19
NVNT	n20	2412	Ant2	97.12	0.13	0.19
NVNT	n20	2437	Ant2	98.32	0.07	0.19
NVNT	n20	2462	Ant2	98.22	0.08	0.19
NVNT	n20	2412	Sum	98.22	0.08	0.19
NVNT	n20	2437	Sum	98.22	0.08	0.19
NVNT	n20	2462	Sum	97.9	0.09	0.19
NVNT	n40	2422	Ant1	97.18	0.12	0.2
NVNT	n40	2437	Ant1	98.08	0.08	0.2
NVNT	n40	2452	Ant1	98.08	0.08	0.2
NVNT	n40	2422	Ant2	97.71	0.1	0.26
NVNT	n40	2437	Ant2	97.51	0.11	0.26
NVNT	n40	2452	Ant2	97.51	0.11	0.26
NVNT	n40	2422	Sum	98.08	0.08	0.2
NVNT	n40	2437	Sum	98.08	0.08	0.2
NVNT	n40	2452	Sum	98.23	0.08	0.2
NVNT	ax20	2412	Ant1	97.27	0.12	0.18
NVNT	ax20	2437	Ant1	98.22	0.08	0.18

NVNT	ax20	2462	Ant1	98.37	0.07	0.18
NVNT	ax20	2412	Ant2	97.27	0.12	0.18
NVNT	ax20	2437	Ant2	97.27	0.12	0.18
NVNT	ax20	2462	Ant2	98.08	0.08	0.18
NVNT	ax20	2412	Sum	97.76	0.1	0.18
NVNT	ax20	2437	Sum	96.96	0.13	0.18
NVNT	ax20	2462	Sum	98.33	0.07	0.18
NVNT	ax40	2422	Ant1	97.58	0.11	0.26
NVNT	ax40	2437	Ant1	97.78	0.1	0.26
NVNT	ax40	2452	Ant1	97.58	0.11	0.26
NVNT	ax40	2422	Ant2	95.78	0.19	0.33
NVNT	ax40	2437	Ant2	96.32	0.16	0.33
NVNT	ax40	2452	Ant2	94.7	0.24	0.33
NVNT	ax40	2422	Sum	96.08	0.17	0.26
NVNT	ax40	2437	Sum	96.46	0.16	0.26
NVNT	ax40	2452	Sum	97.73	0.1	0.26
NVNT	ax20 52@37	2412	Sum	91.69	0.38	0.3
NVNT	ax20 52@37	2437	Sum	94.24	0.26	0.2
NVNT	ax20 52@37	2462	Sum	91.44	0.39	0.3
NVNT	ax20 106@53	2412	Sum	93.15	0.31	0.2
NVNT	ax20 106@53	2437	Sum	92.93	0.32	0.2
NVNT	ax20 106@53	2462	Sum	60.68	2.17	1.76
NVNT	ax40 52@37	2422	Sum	91.44	0.39	0.3
NVNT	ax40 52@37	2437	Sum	94.06	0.27	0.2
NVNT	ax40 52@37	2452	Sum	91.25	0.4	0.3
NVNT	ax40 106@53	2422	Sum	93.11	0.31	0.2
NVNT	ax40 106@53	2437	Sum	93.11	0.31	0.2
NVNT	ax40 106@53	2452	Sum	92.97	0.32	0.2
NVNT	ax40 242@61	2422	Sum	93.4	0.3	0.2
NVNT	ax40 242@61	2437	Sum	93.58	0.29	0.2
NVNT	ax40 242@61	2452	Sum	93.4	0.3	0.2

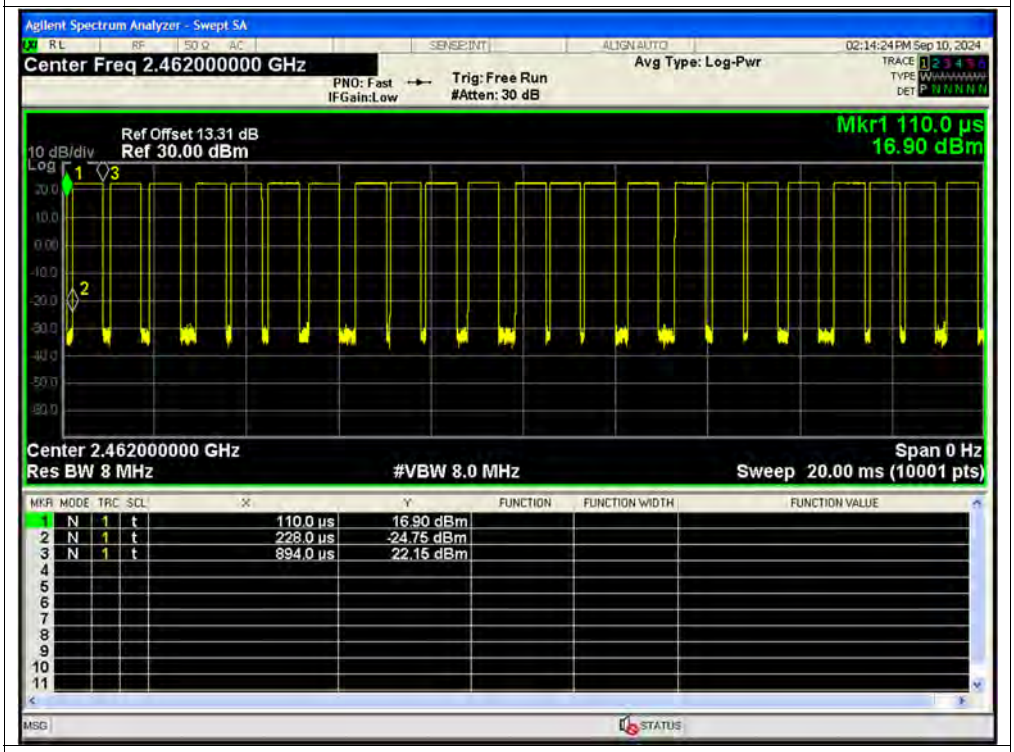
Test Graphs
Duty Cycle NVNT b 2412MHz Ant1



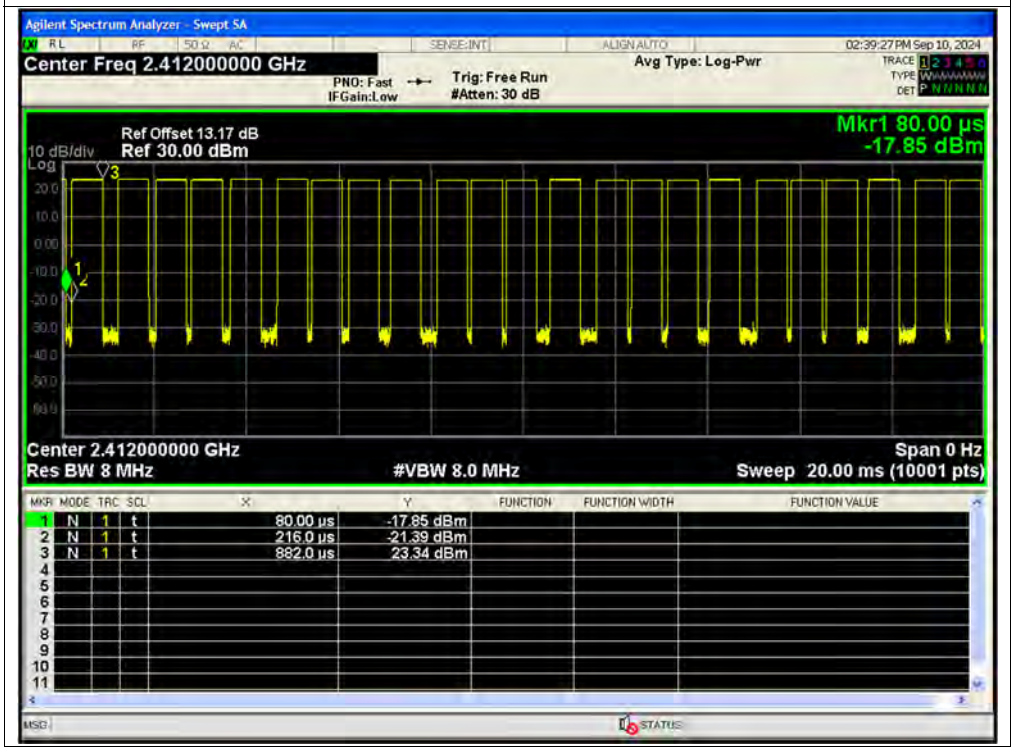
Duty Cycle NVNT b 2437MHz Ant1



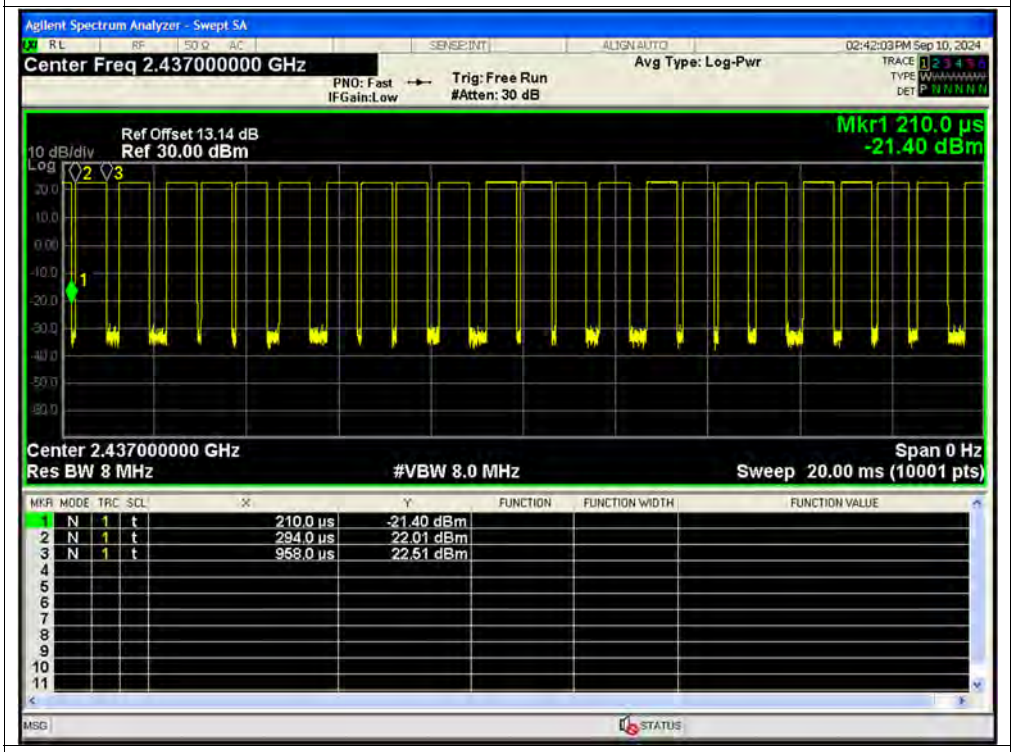
Duty Cycle NVNT b 2462MHz Ant1



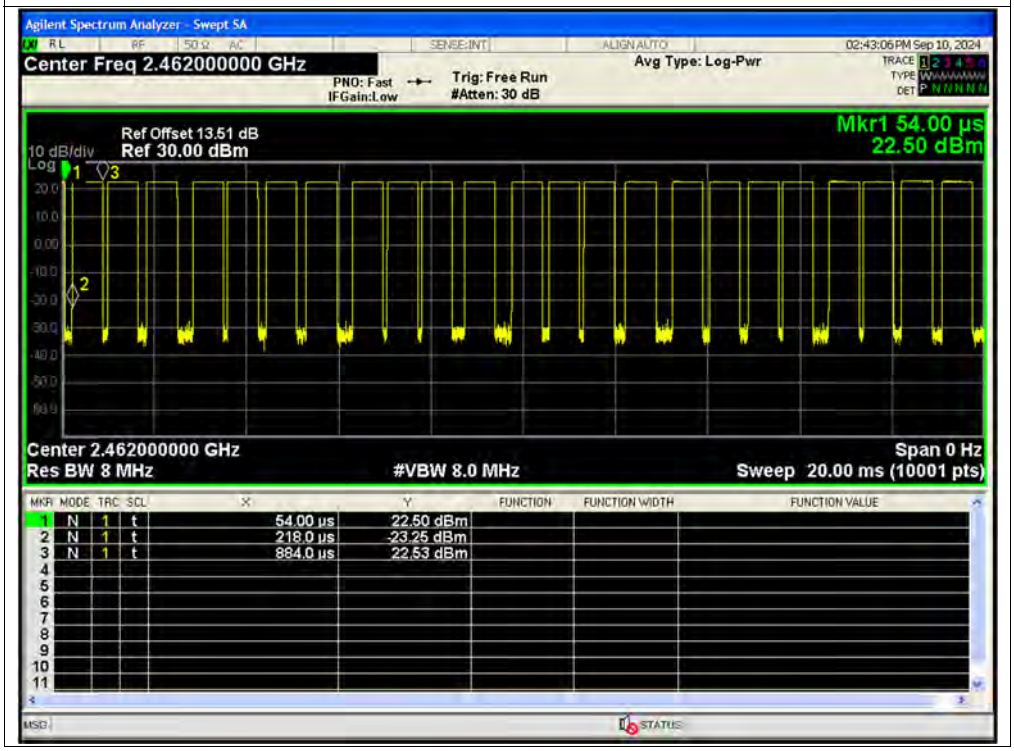
Duty Cycle NVNT b 2412MHz Ant2



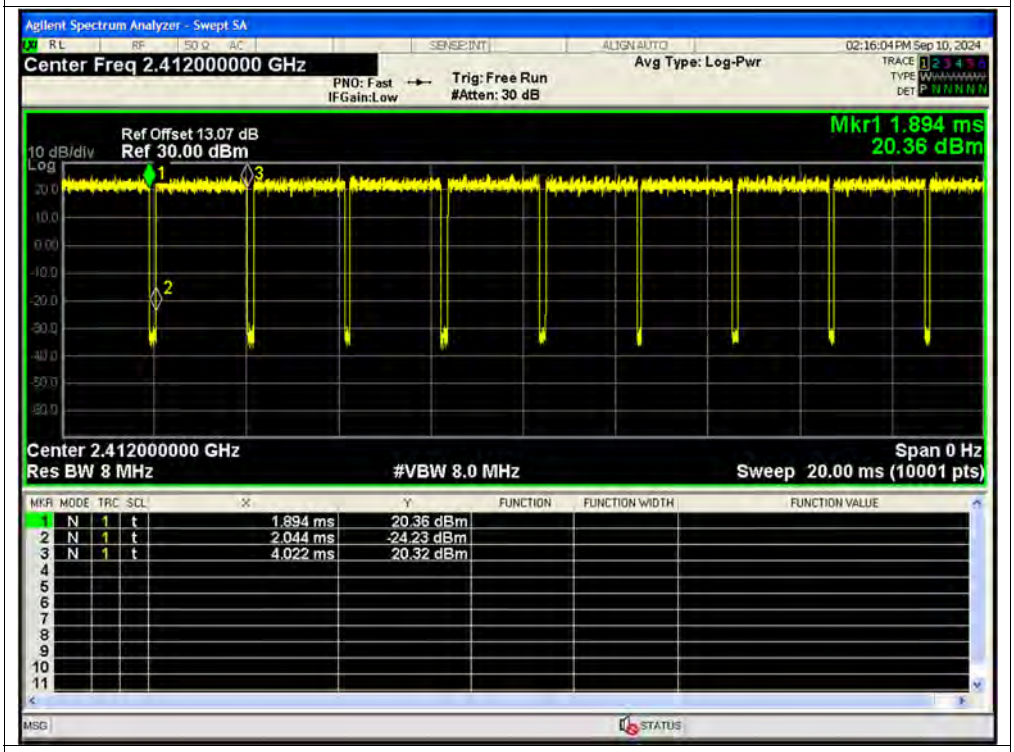
Duty Cycle NVNT b 2437MHz Ant2



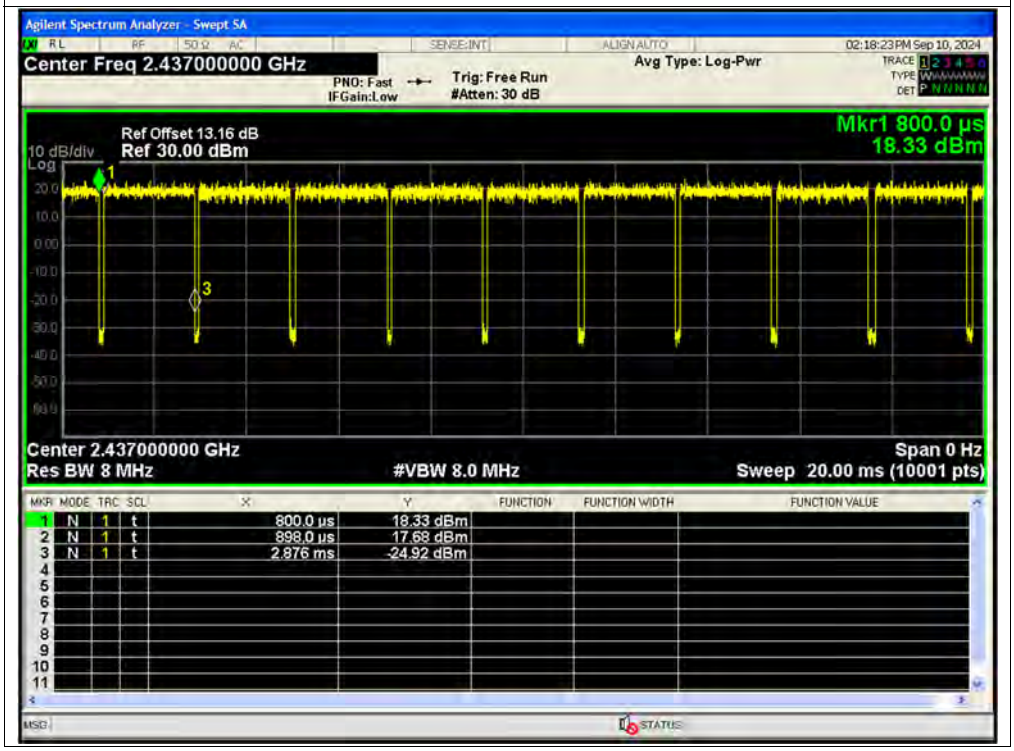
Duty Cycle NVNT b 2462MHz Ant2



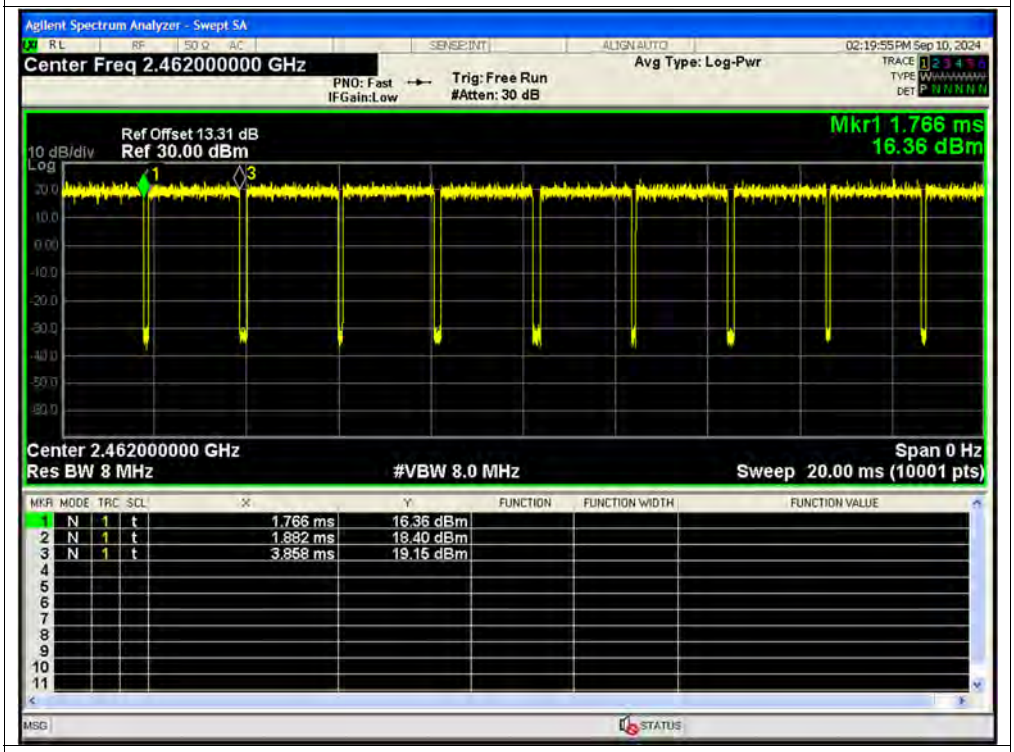
Duty Cycle NVNT g 2412MHz Ant1



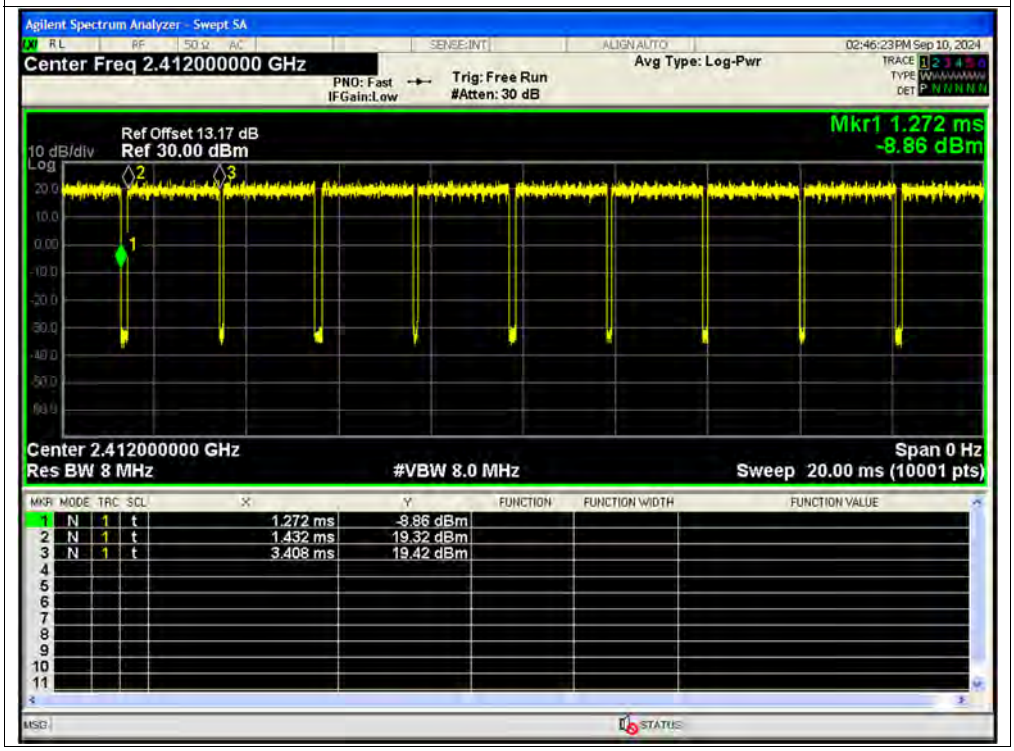
Duty Cycle NVNT g 2437MHz Ant1



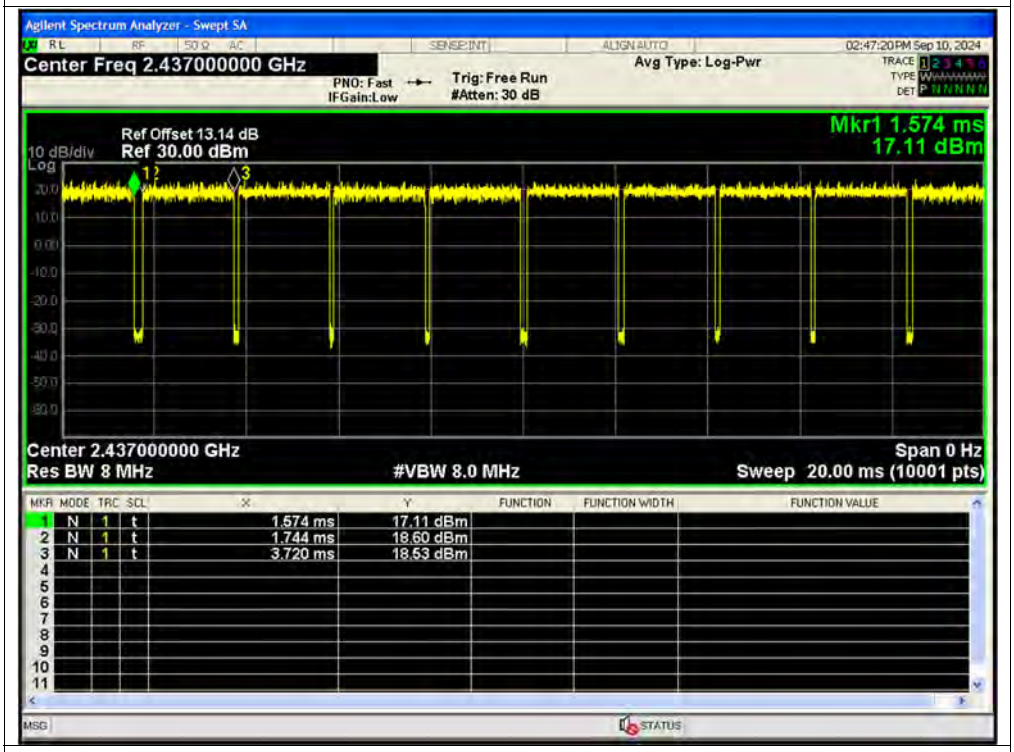
Duty Cycle NVNT g 2462MHz Ant1



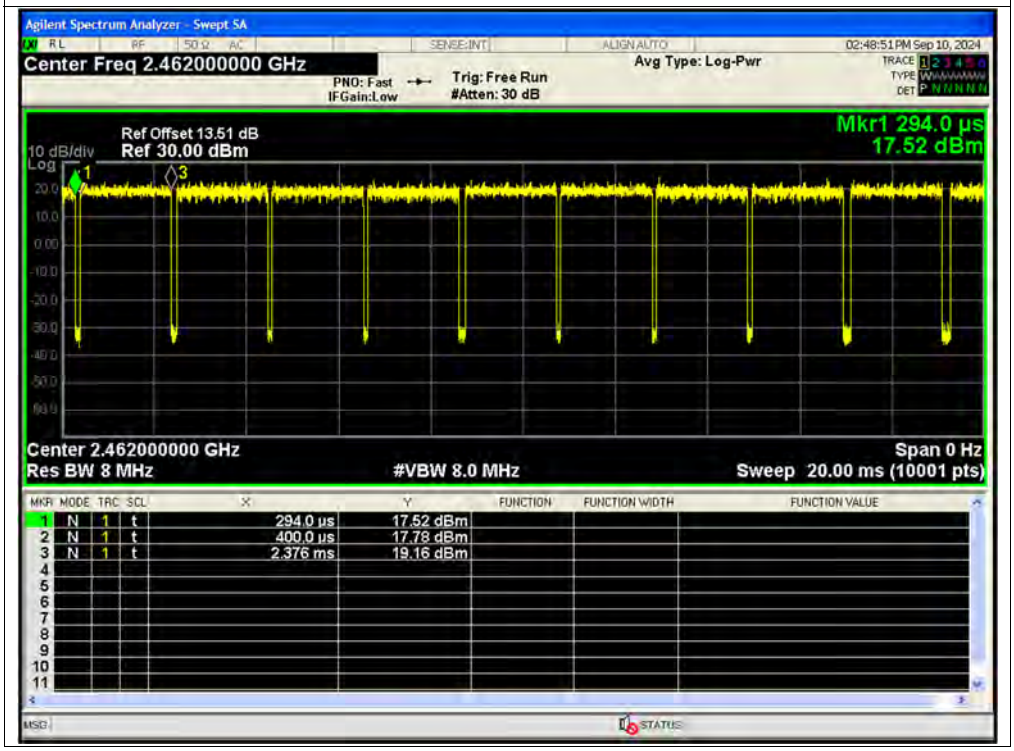
Duty Cycle NVNT g 2412MHz Ant2



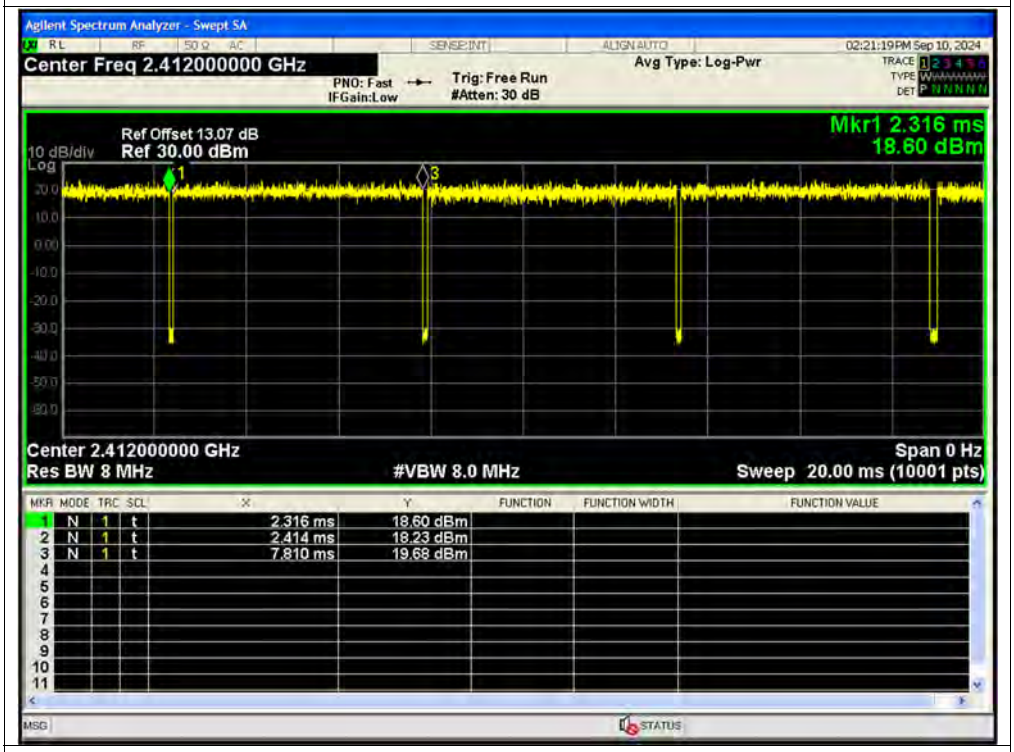
Duty Cycle NVNT g 2437MHz Ant2



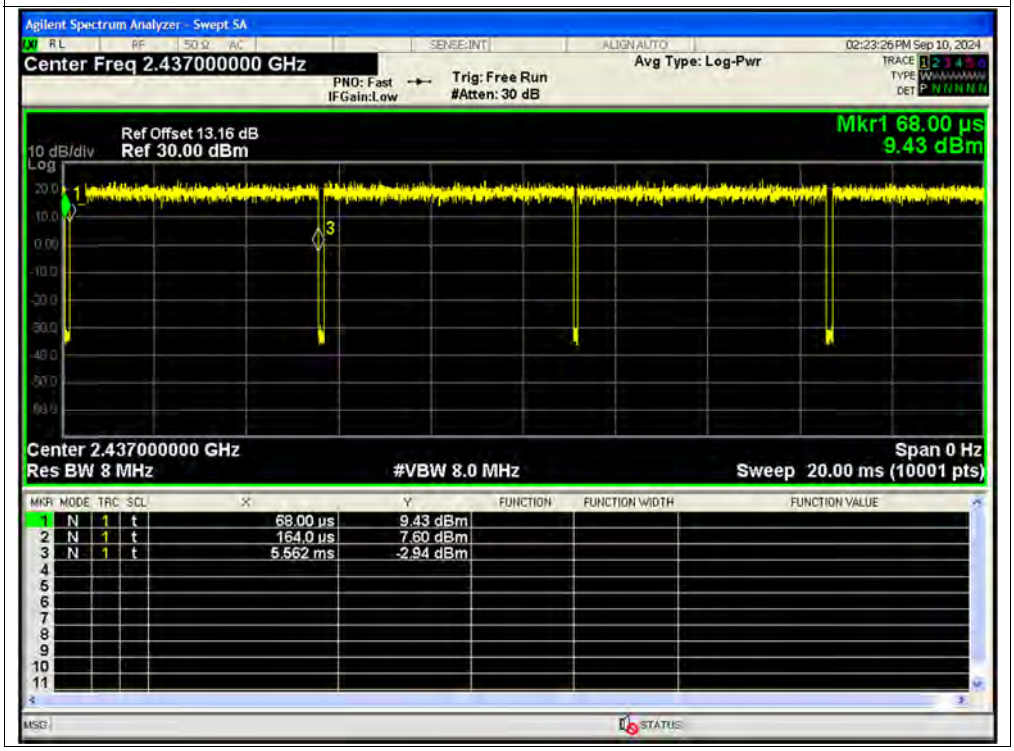
Duty Cycle NVNT g 2462MHz Ant2



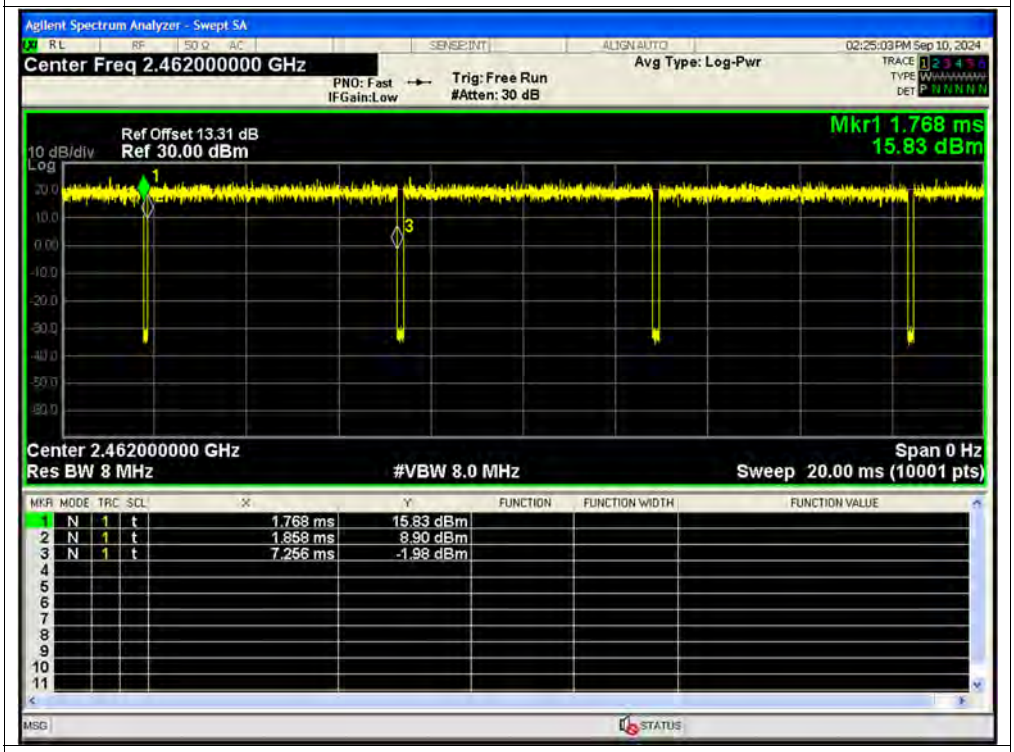
Duty Cycle NVNT n20 2412MHz Ant1



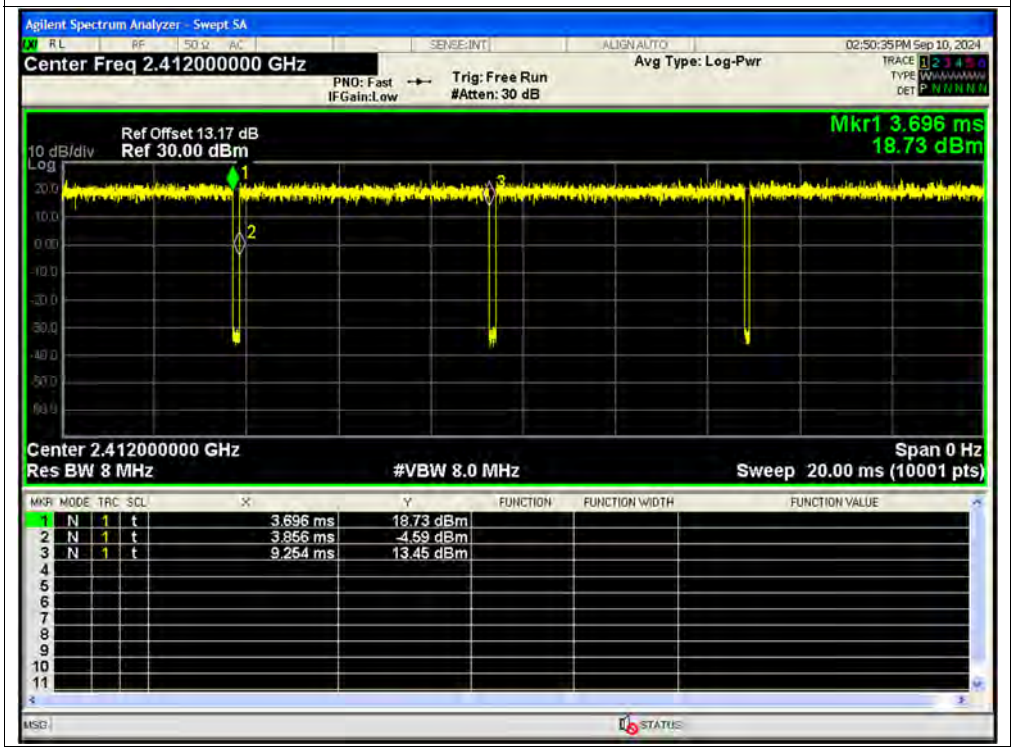
Duty Cycle NVNT n20 2437MHz Ant1



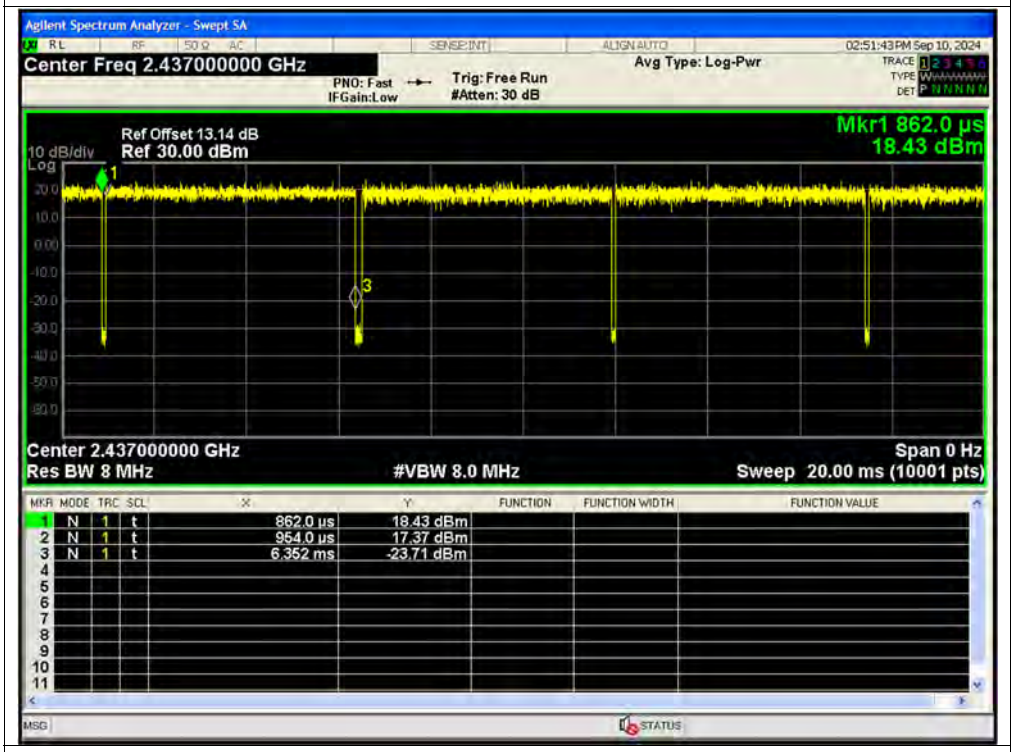
Duty Cycle NVNT n20 2462MHz Ant1



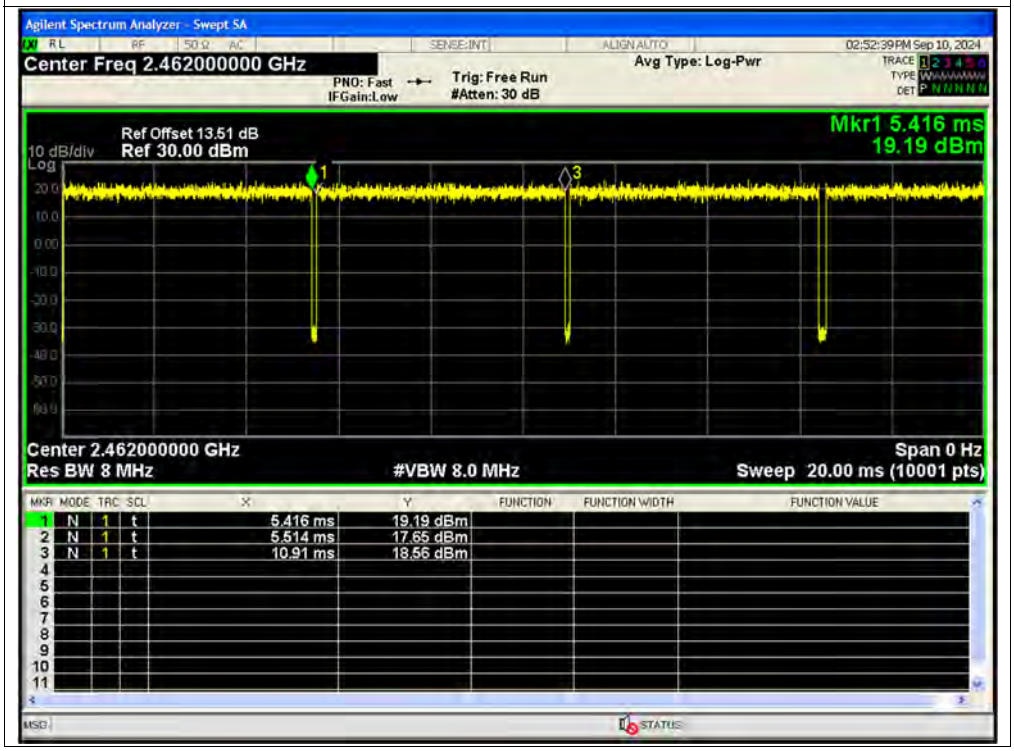
Duty Cycle NVNT n20 2412MHz Ant2



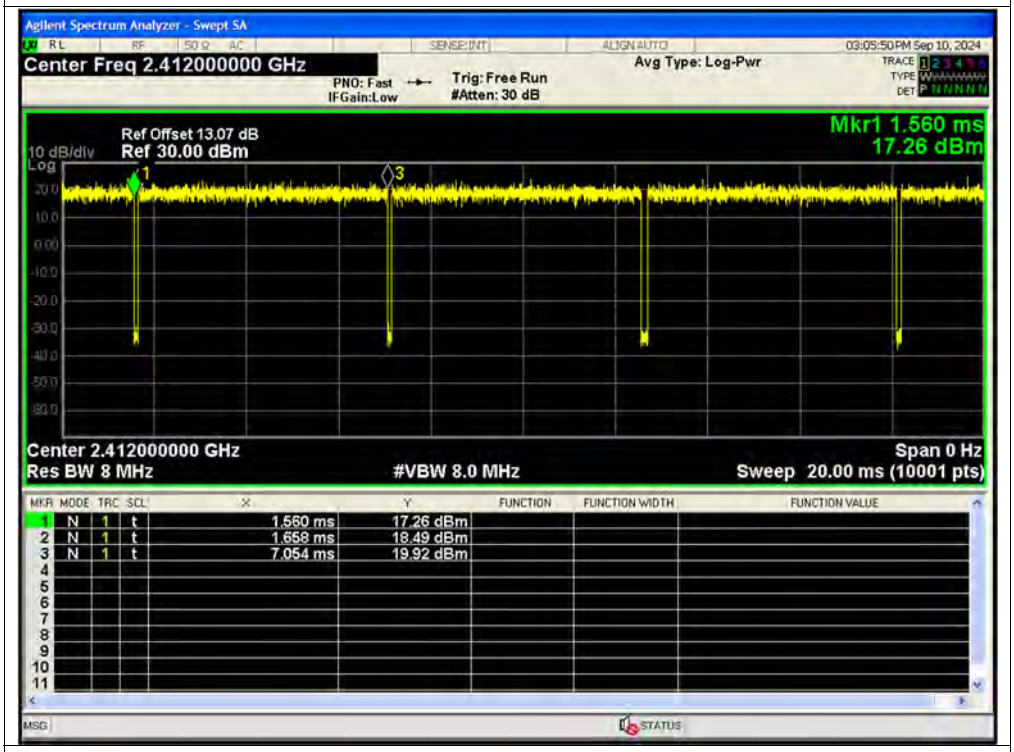
Duty Cycle NVNT n20 2437MHz Ant2



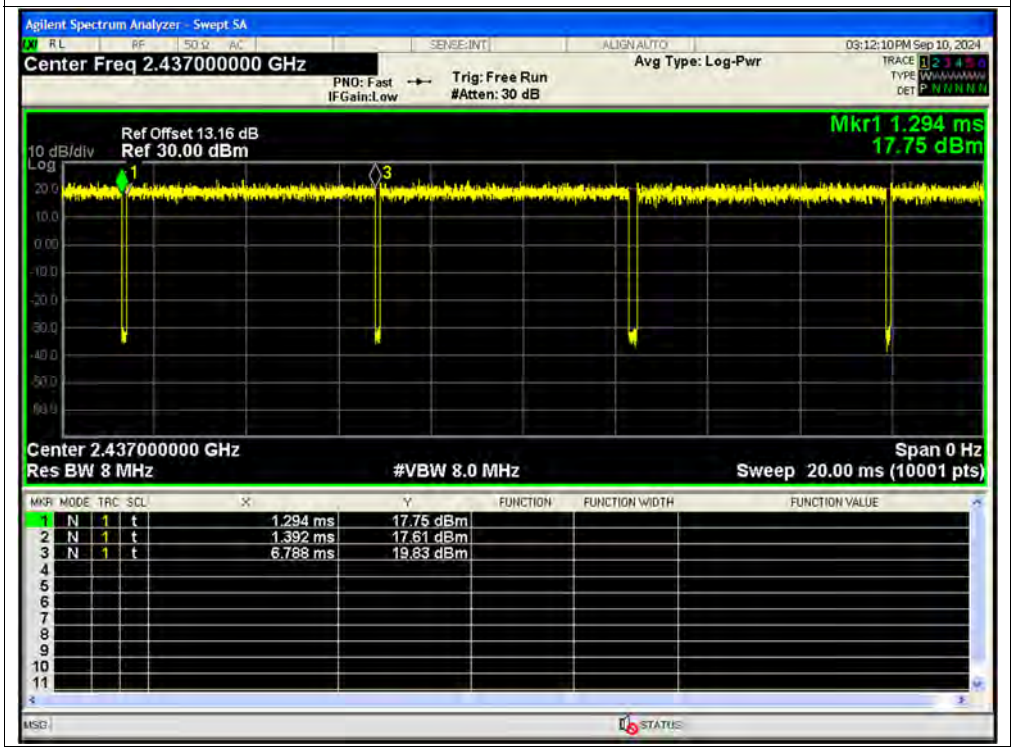
Duty Cycle NVNT n20 2462MHz Ant2



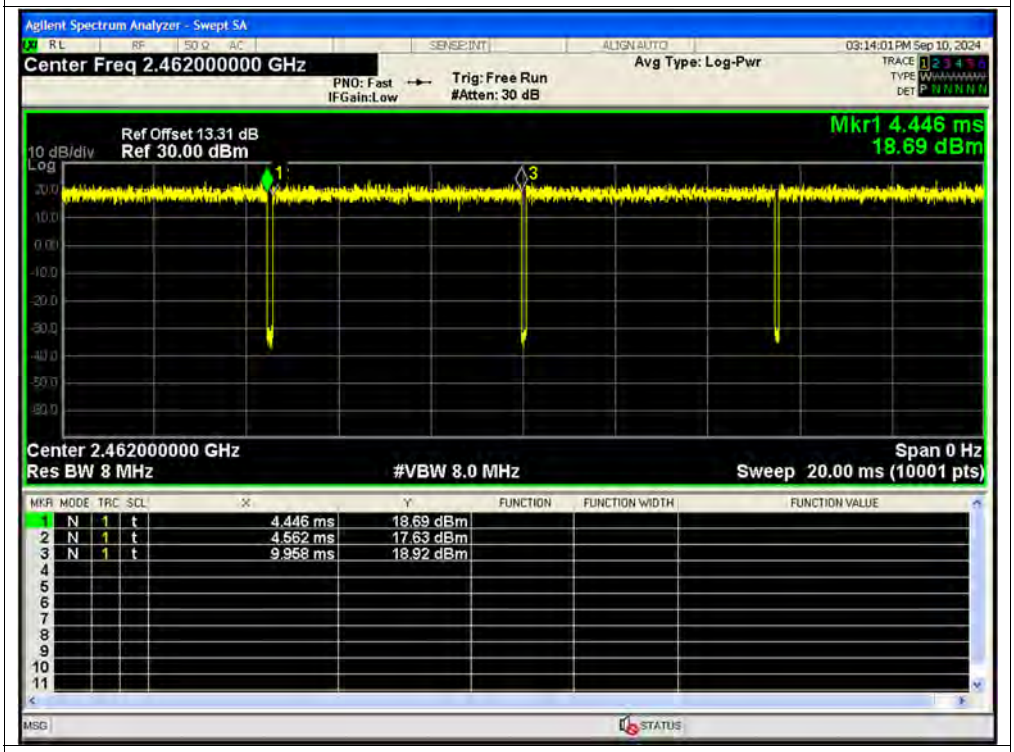
Duty Cycle NVNT n20 2412MHz Sum



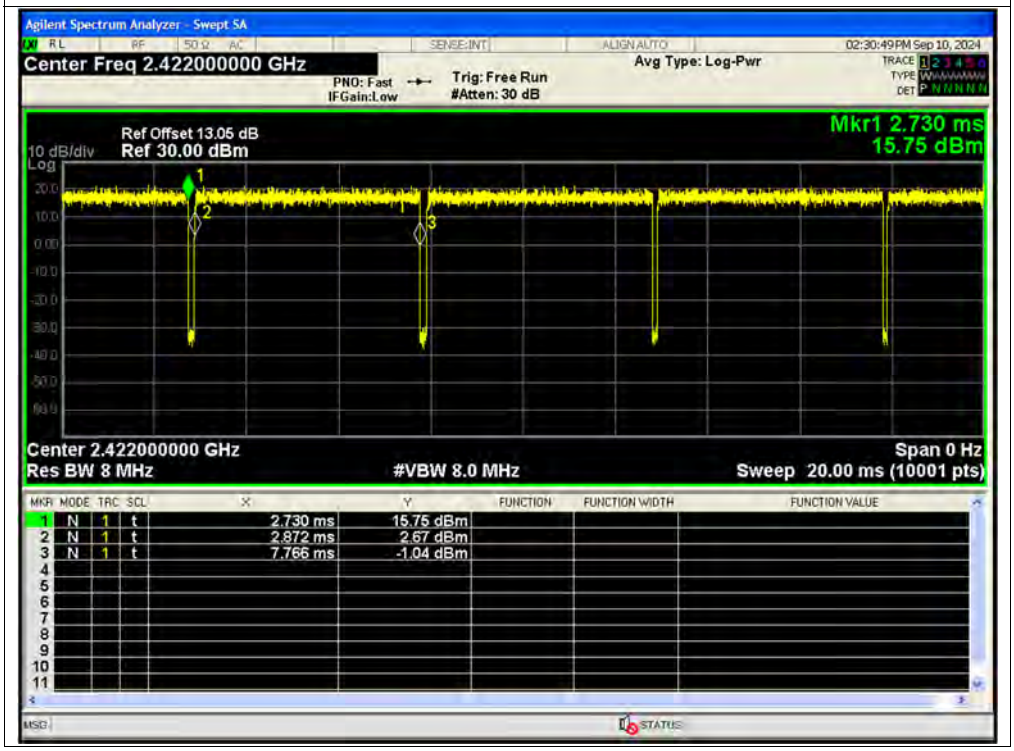
Duty Cycle NVNT n20 2437MHz Sum



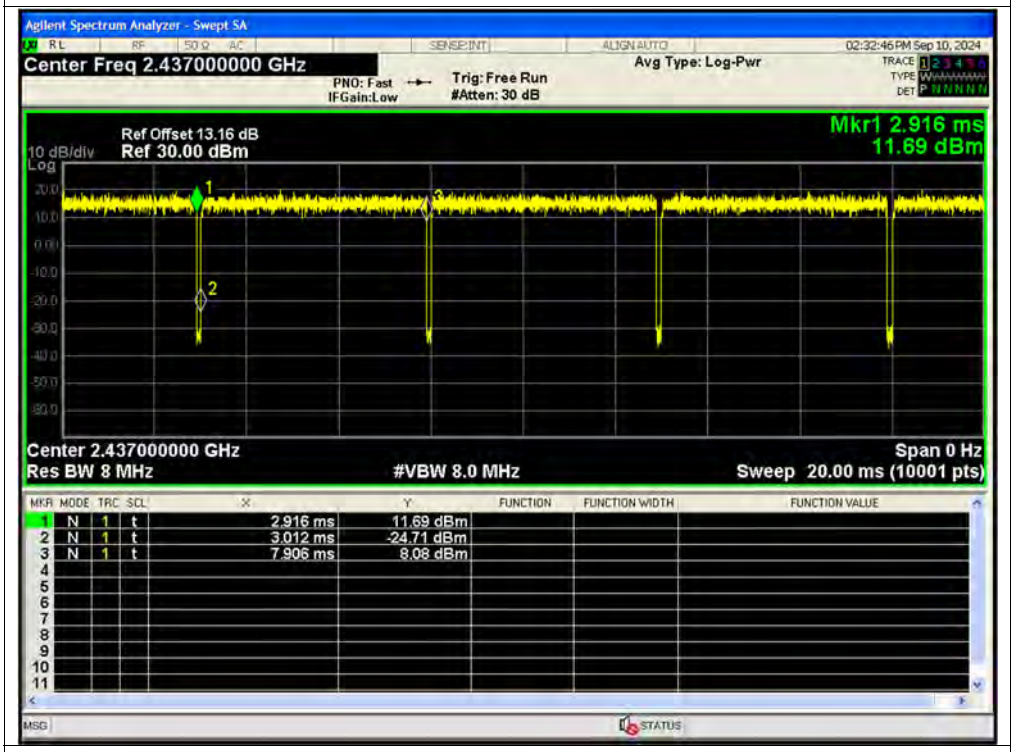
Duty Cycle NVNT n20 2462MHz Sum



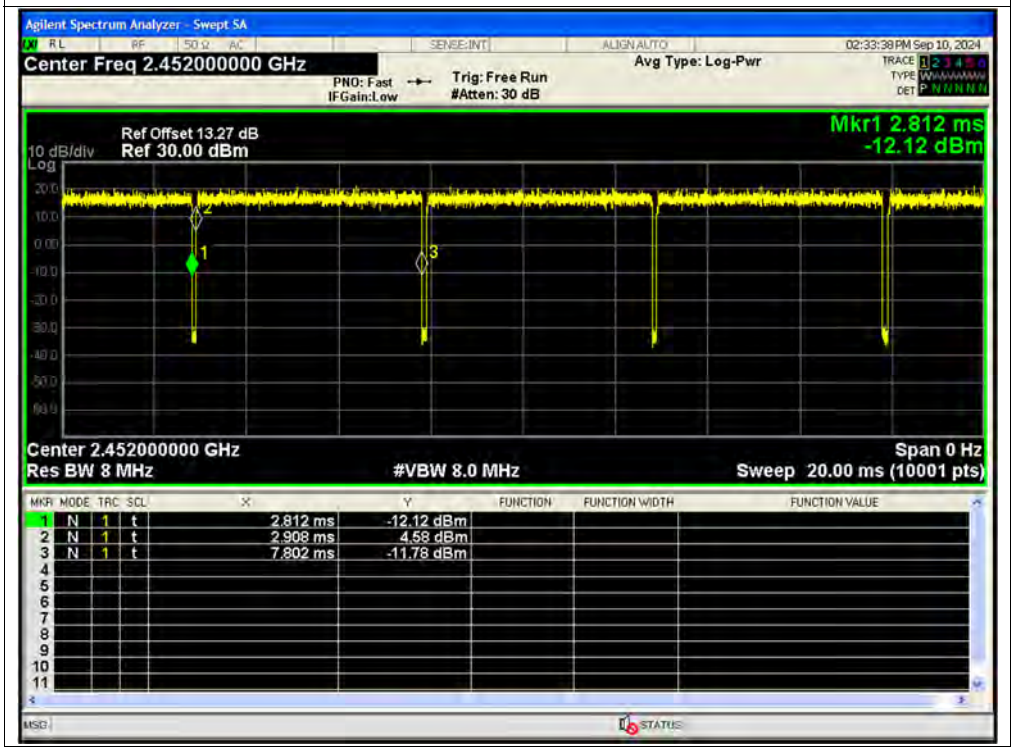
Duty Cycle NVNT n40 2422MHz Ant1



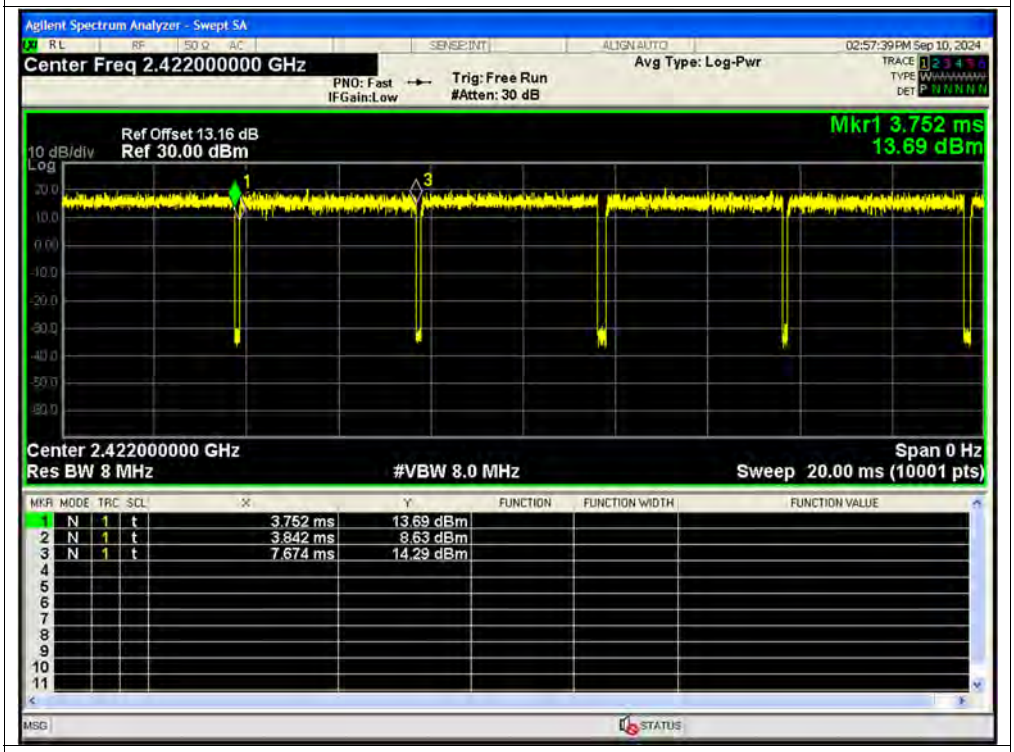
Duty Cycle NVNT n40 2437MHz Ant1



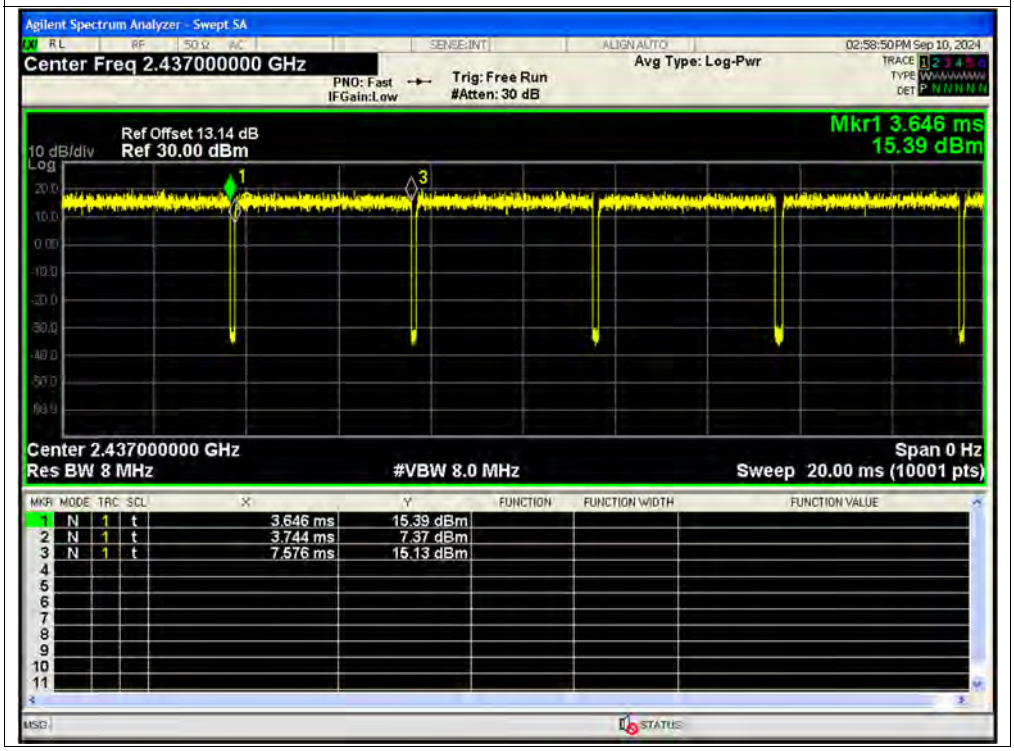
Duty Cycle NVNT n40 2452MHz Ant1



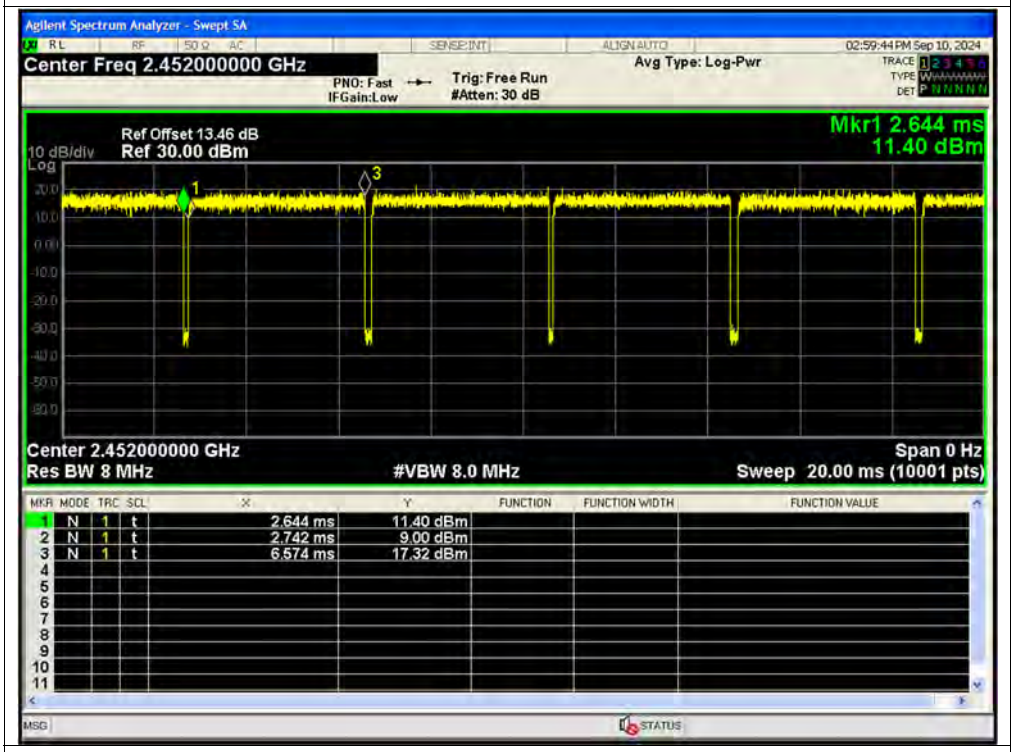
Duty Cycle NVNT n40 2422MHz Ant2



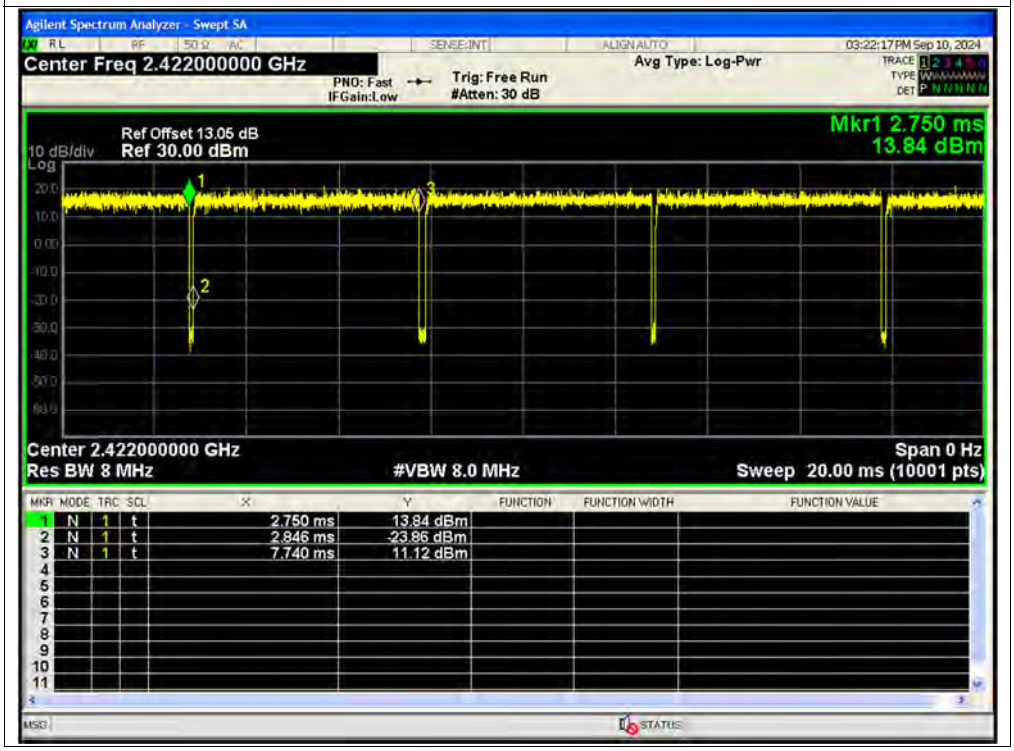
Duty Cycle NVNT n40 2437MHz Ant2



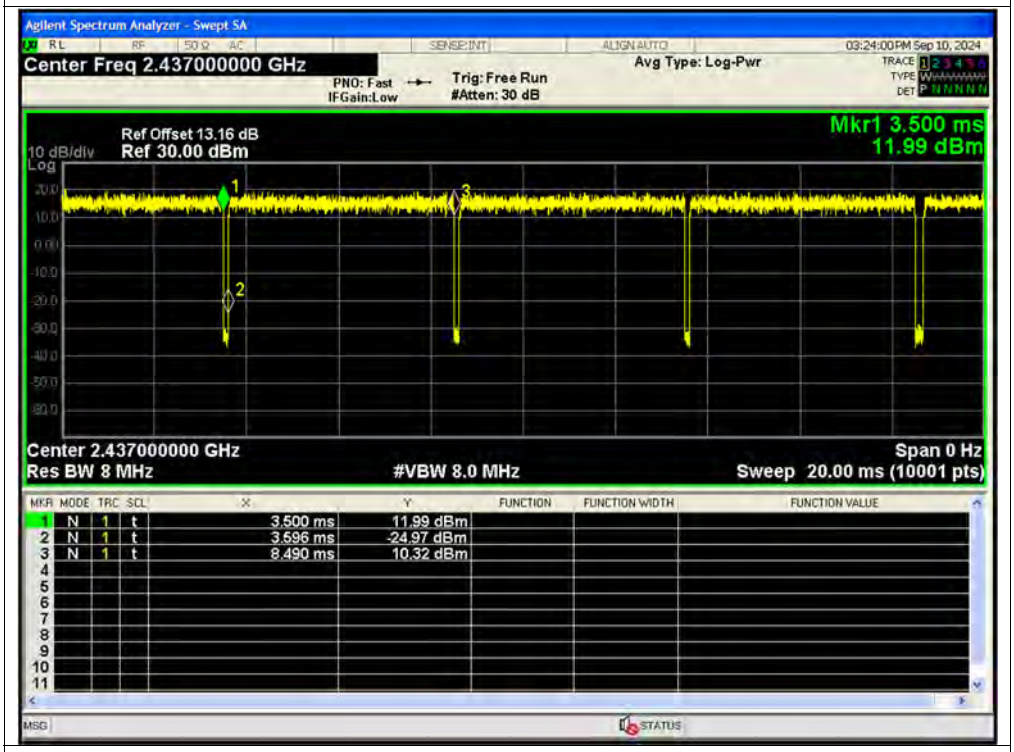
Duty Cycle NVNT n40 2452MHz Ant2



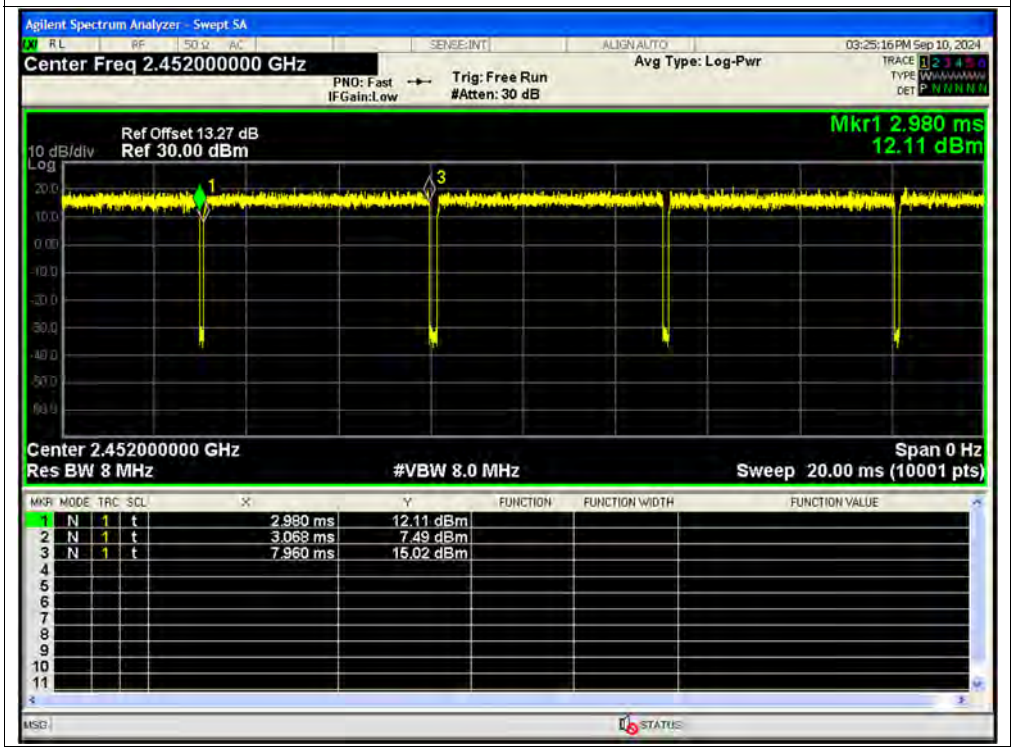
Duty Cycle NVNT n40 2422MHz Sum



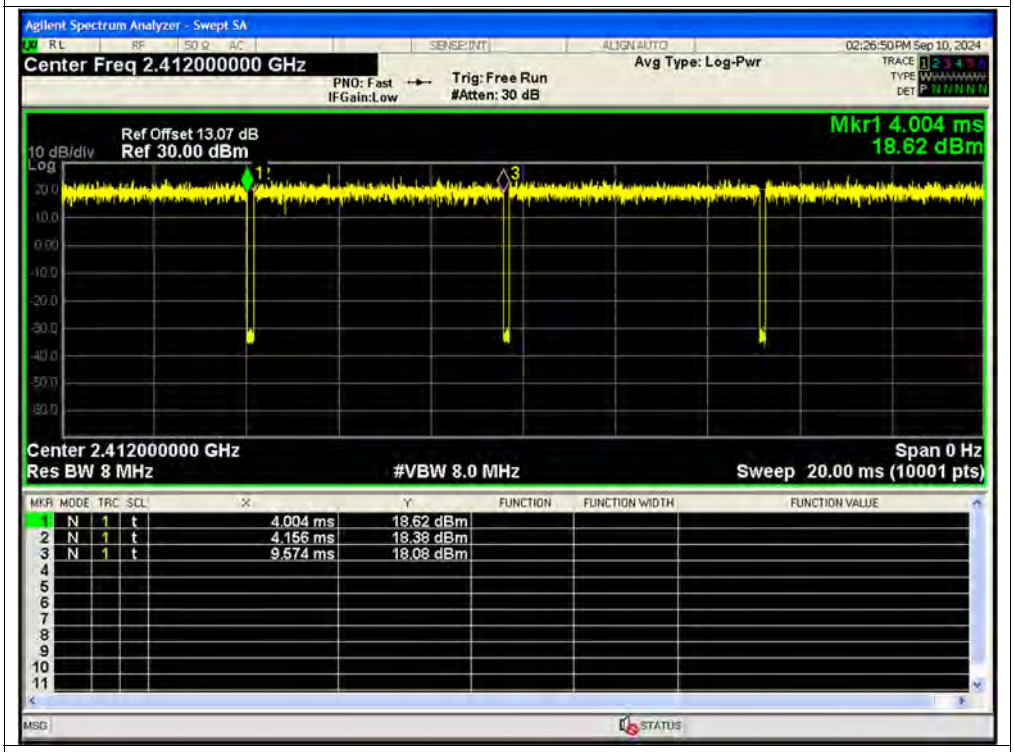
Duty Cycle NVNT n40 2437MHz Sum



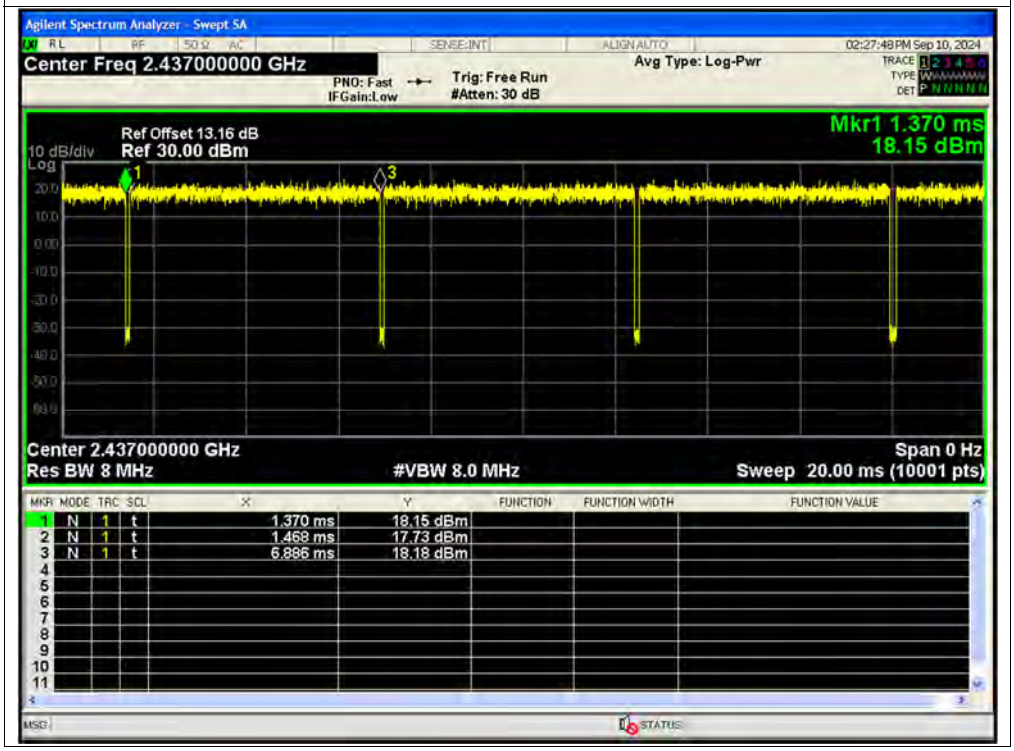
Duty Cycle NVNT n40 2452MHz Sum



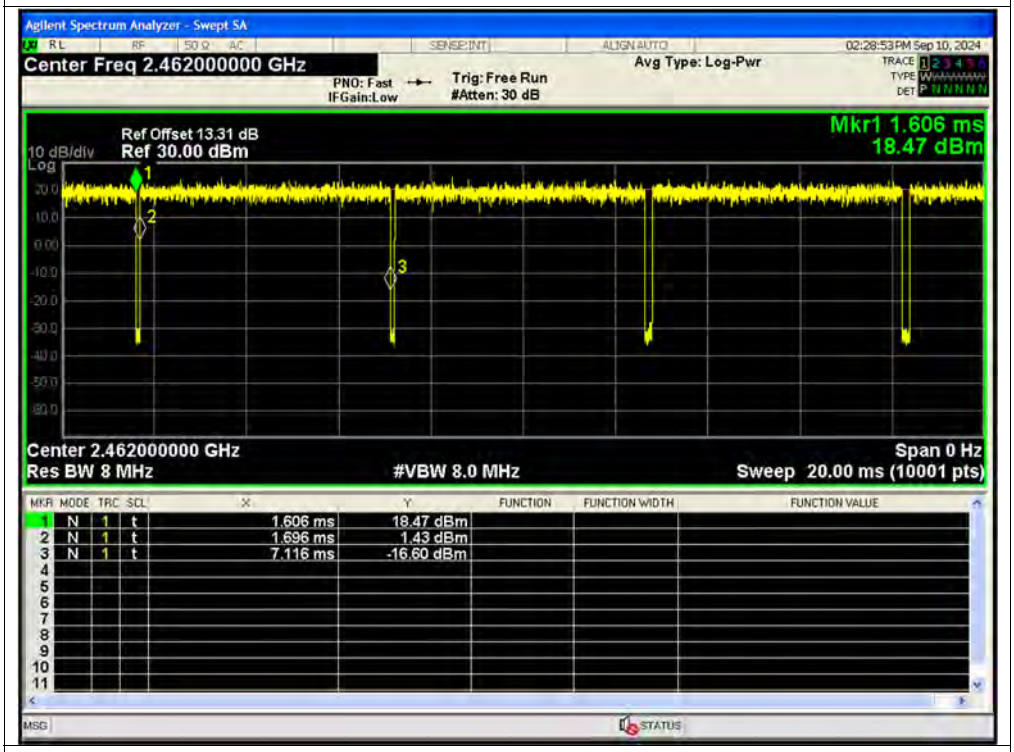
Duty Cycle NVNT ax20 2412MHz Ant1



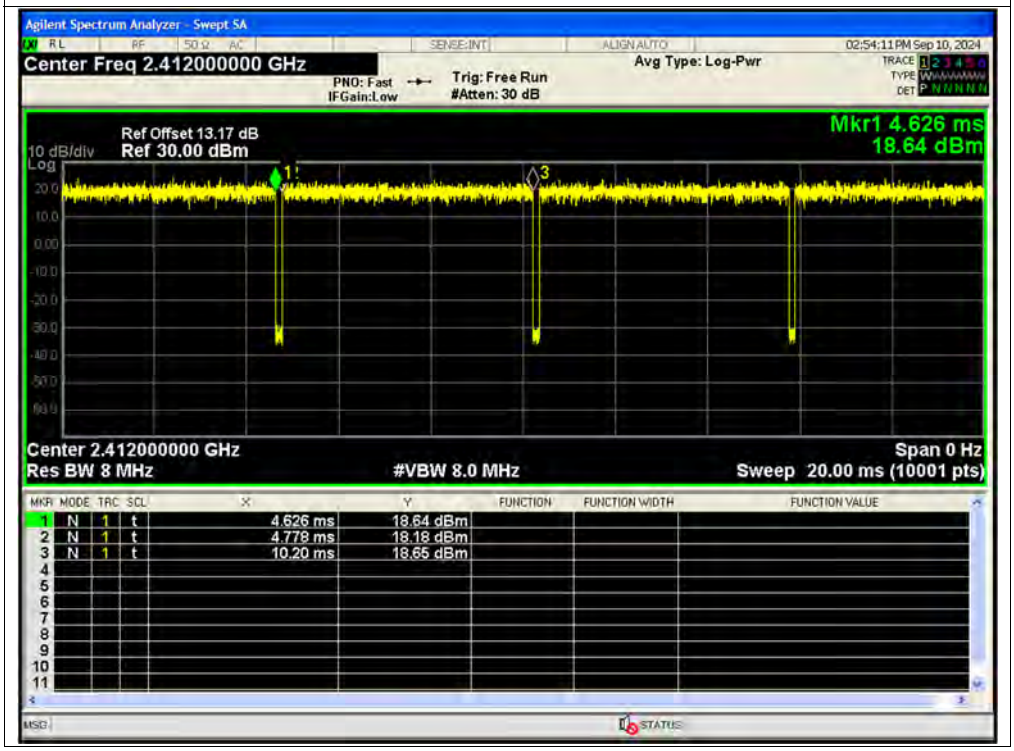
Duty Cycle NVNT ax20 2437MHz Ant1



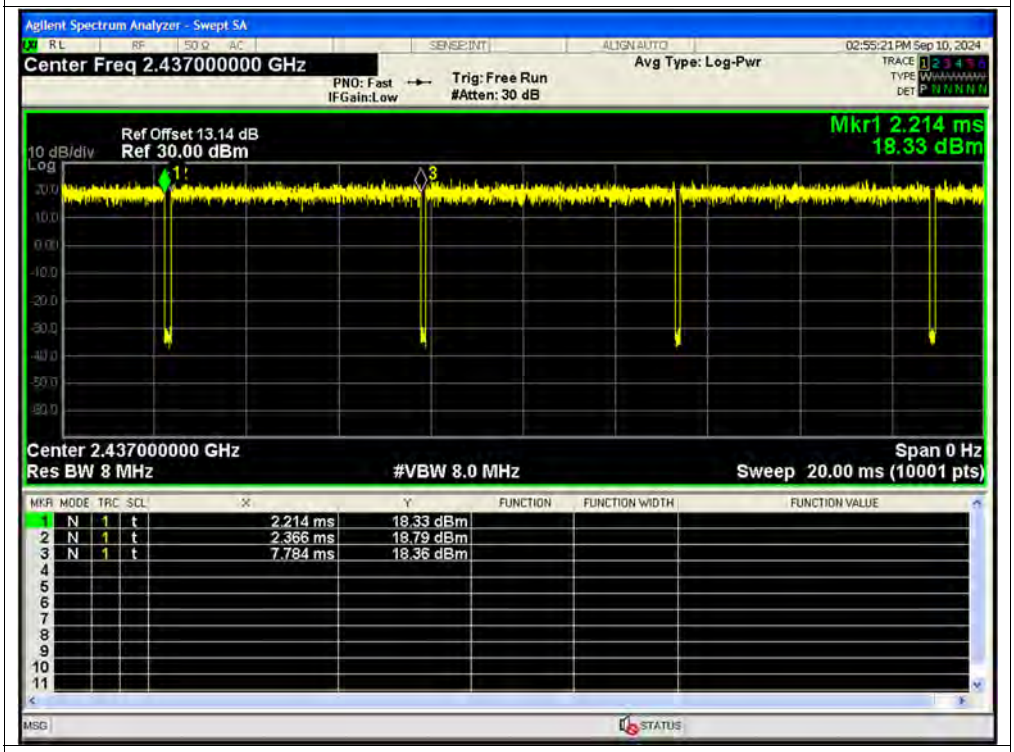
Duty Cycle NVNT ax20 2462MHz Ant1



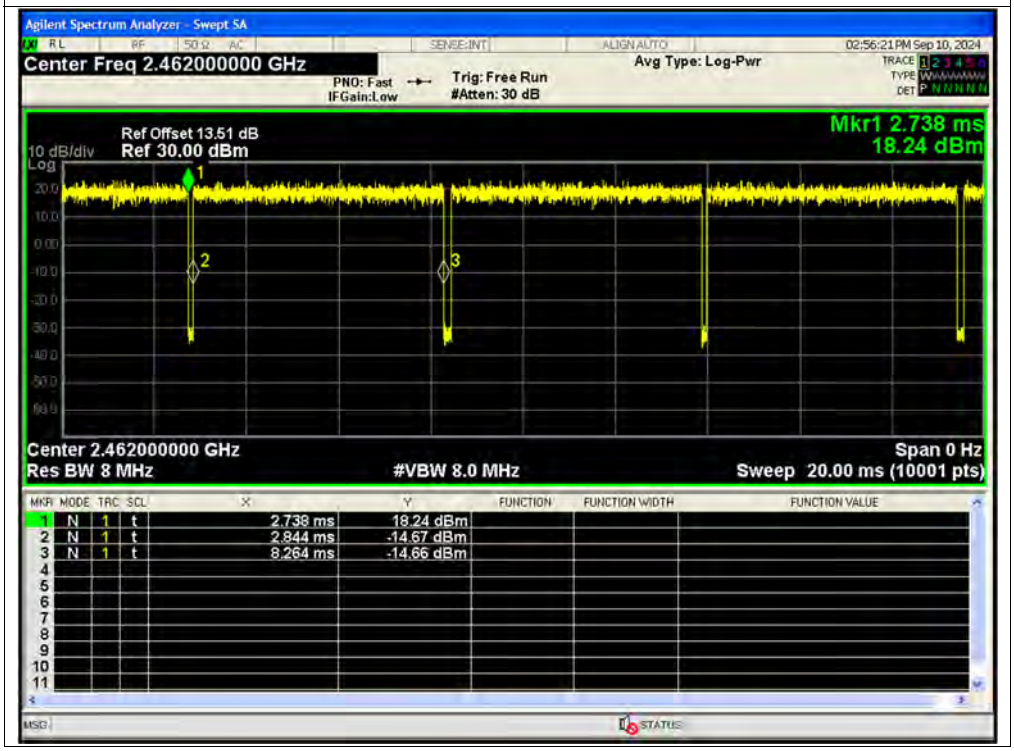
Duty Cycle NVNT ax20 2412MHz Ant2



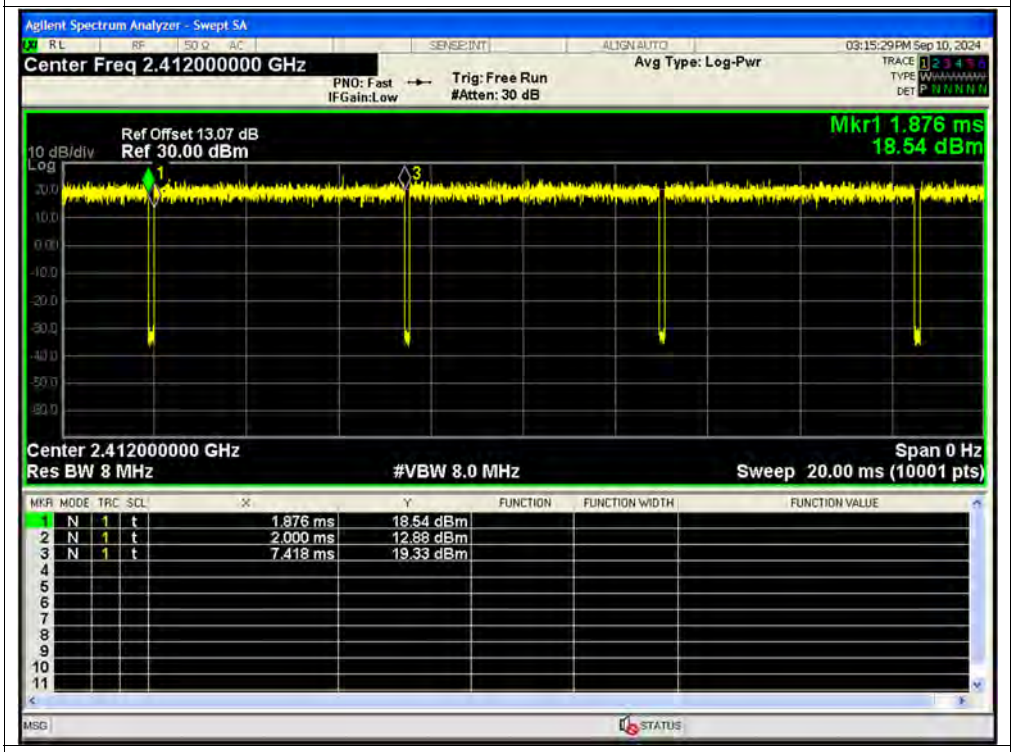
Duty Cycle NVNT ax20 2437MHz Ant2



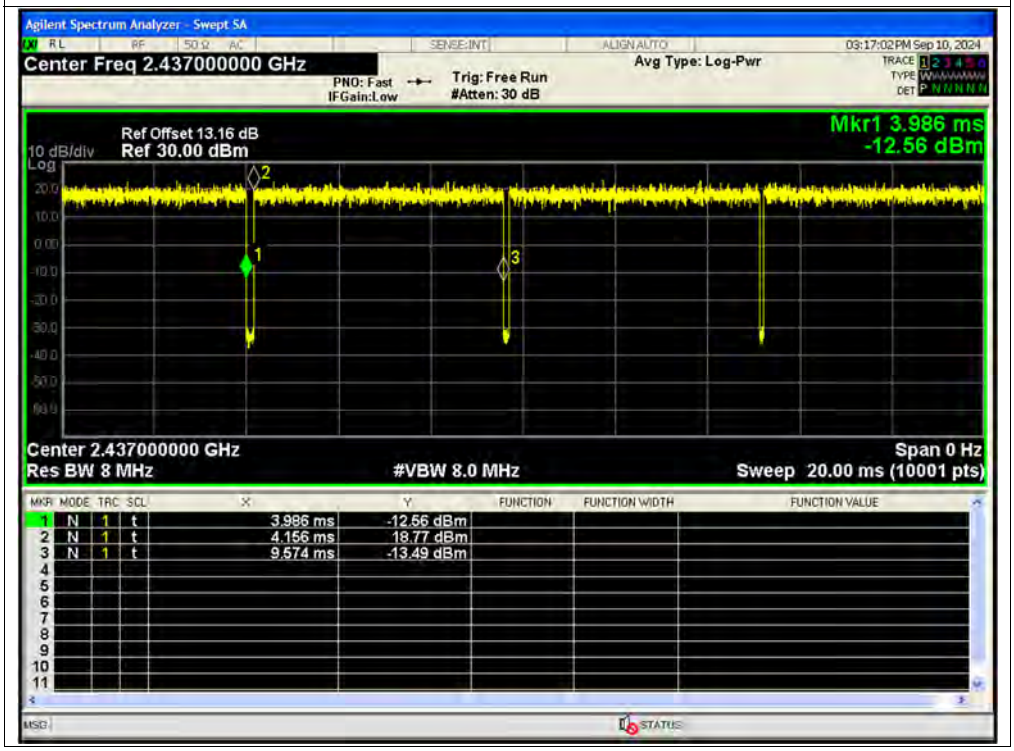
Duty Cycle NVNT ax20 2462MHz Ant2



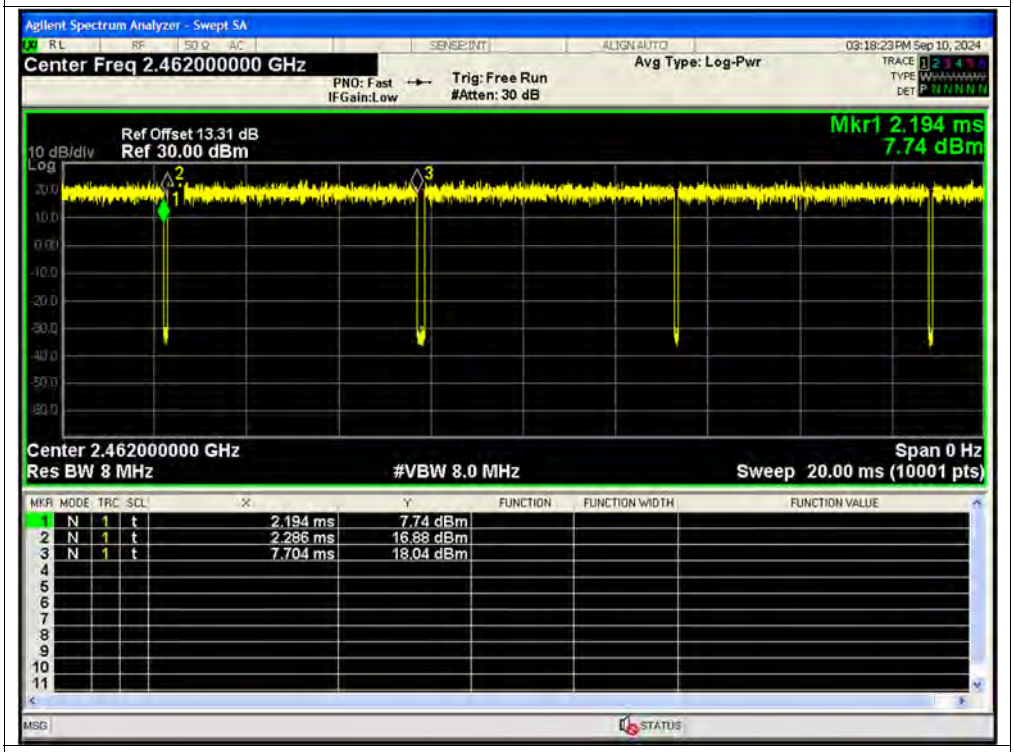
Duty Cycle NVNT ax20 2412MHz Sum



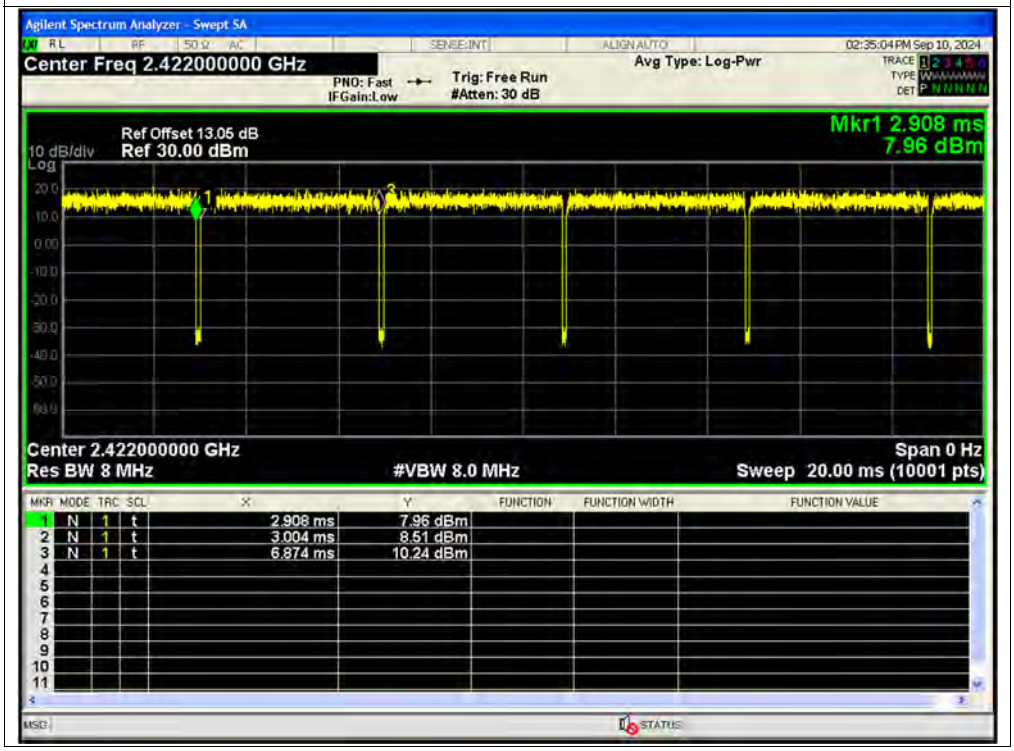
Duty Cycle NVNT ax20 2437MHz Sum



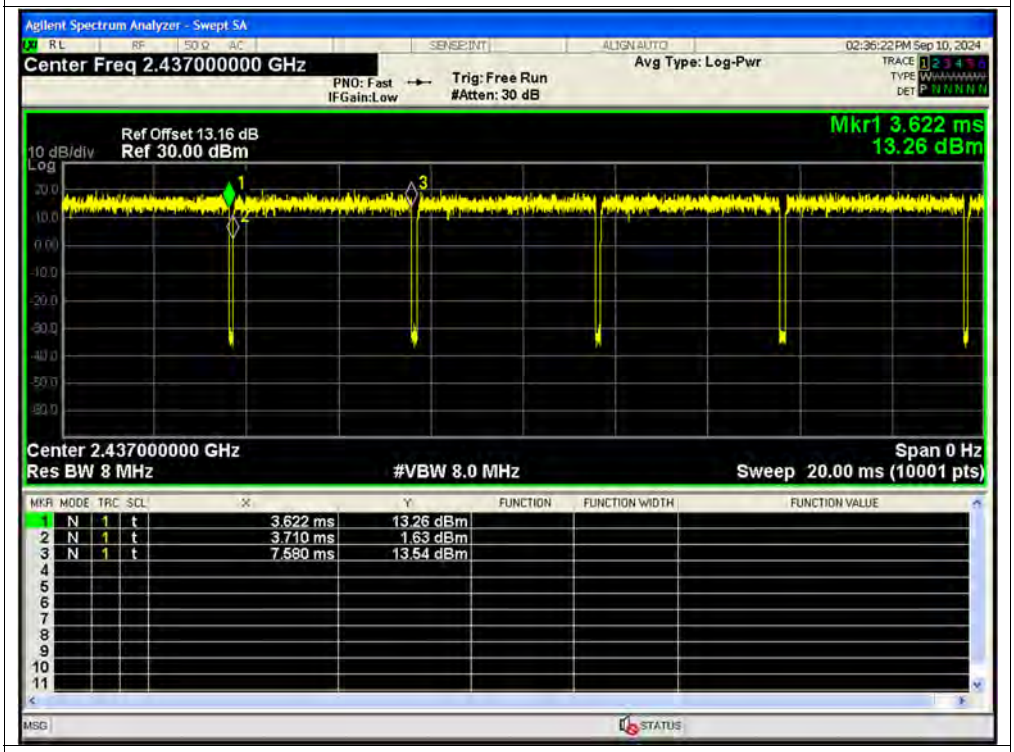
Duty Cycle NVNT ax20 2462MHz Sum



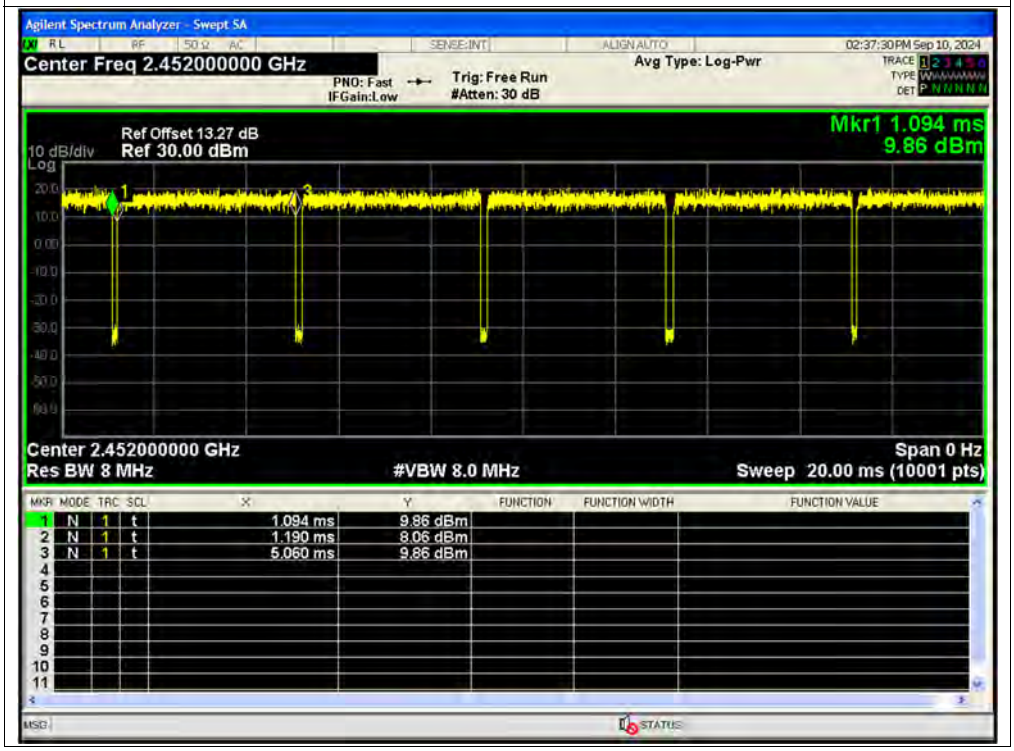
Duty Cycle NVNT ax40 2422MHz Ant1



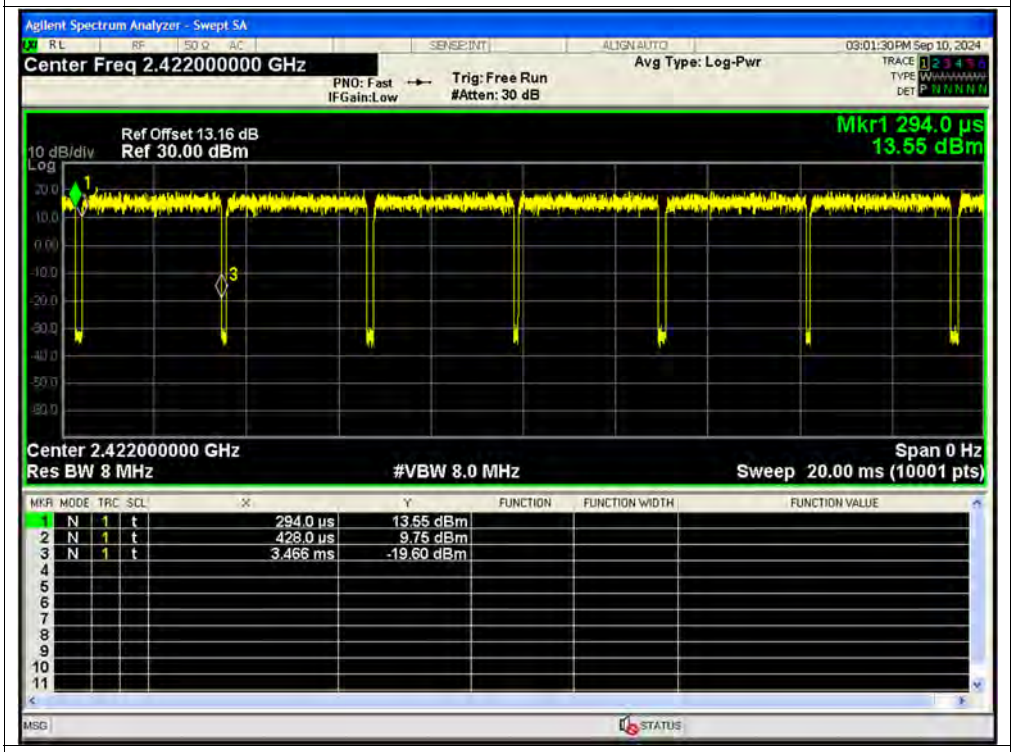
Duty Cycle NVNT ax40 2437MHz Ant1



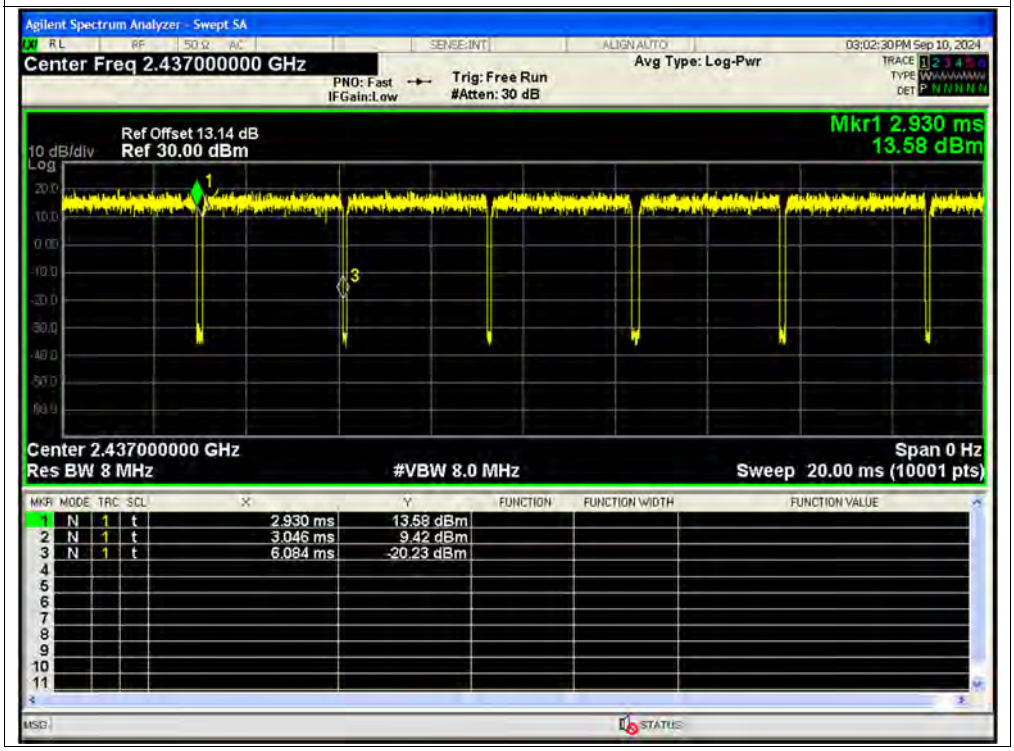
Duty Cycle NVNT ax40 2452MHz Ant1



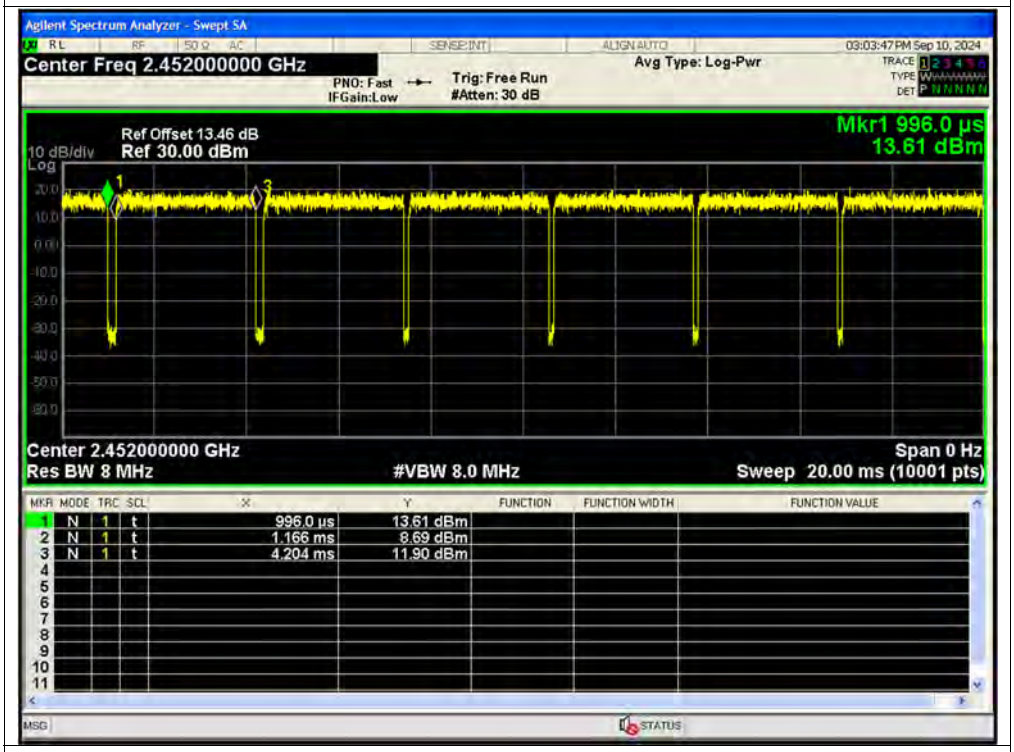
Duty Cycle NVNT ax40 2422MHz Ant2



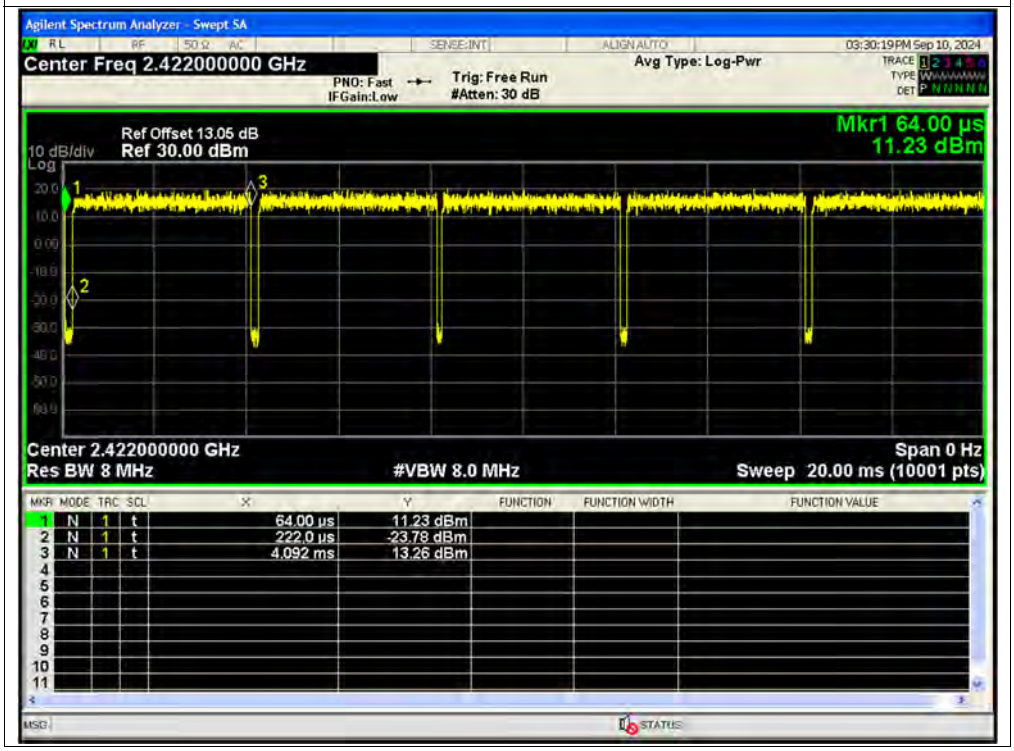
Duty Cycle NVNT ax40 2437MHz Ant2



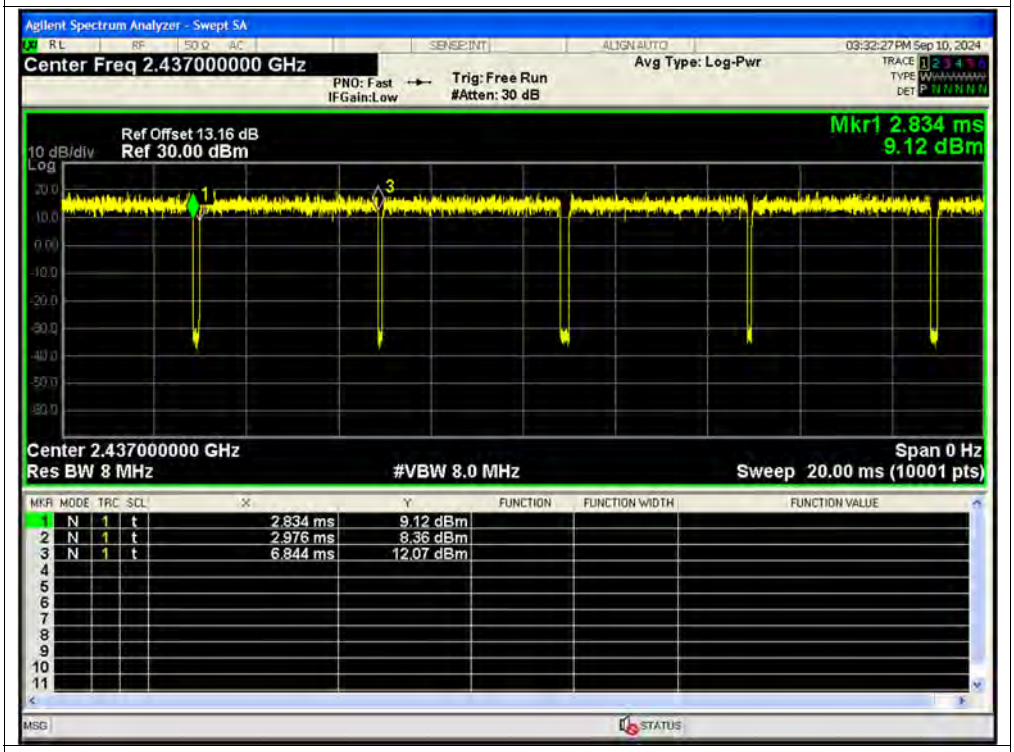
Duty Cycle NVNT ax40 2452MHz Ant2



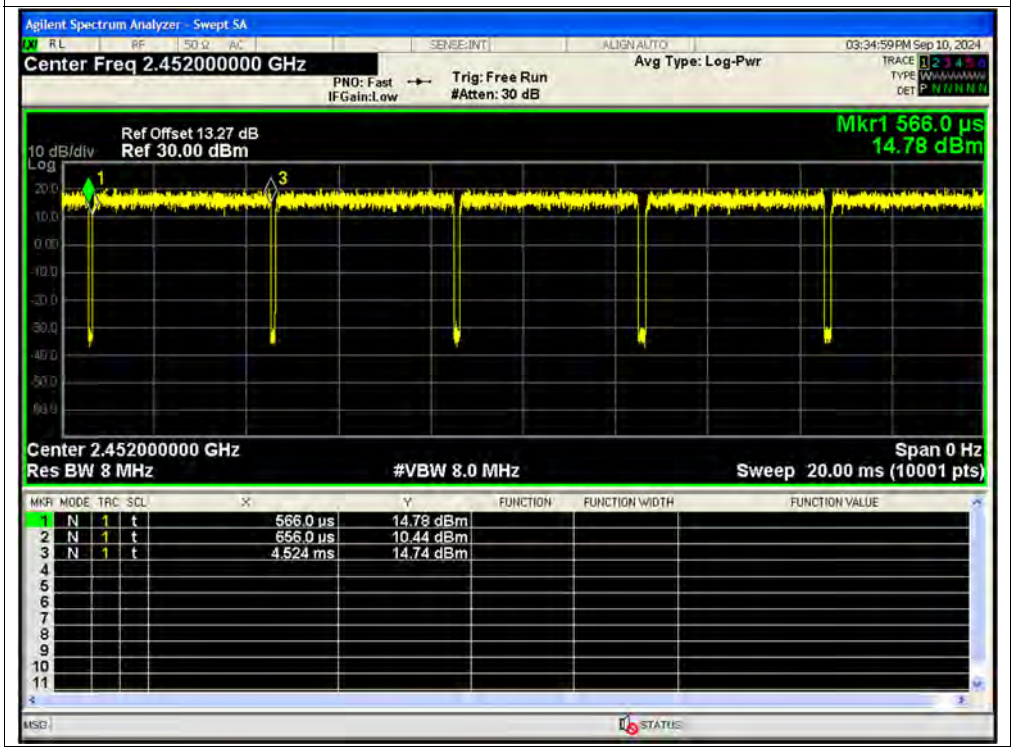
Duty Cycle NVNT ax40 2422MHz Sum



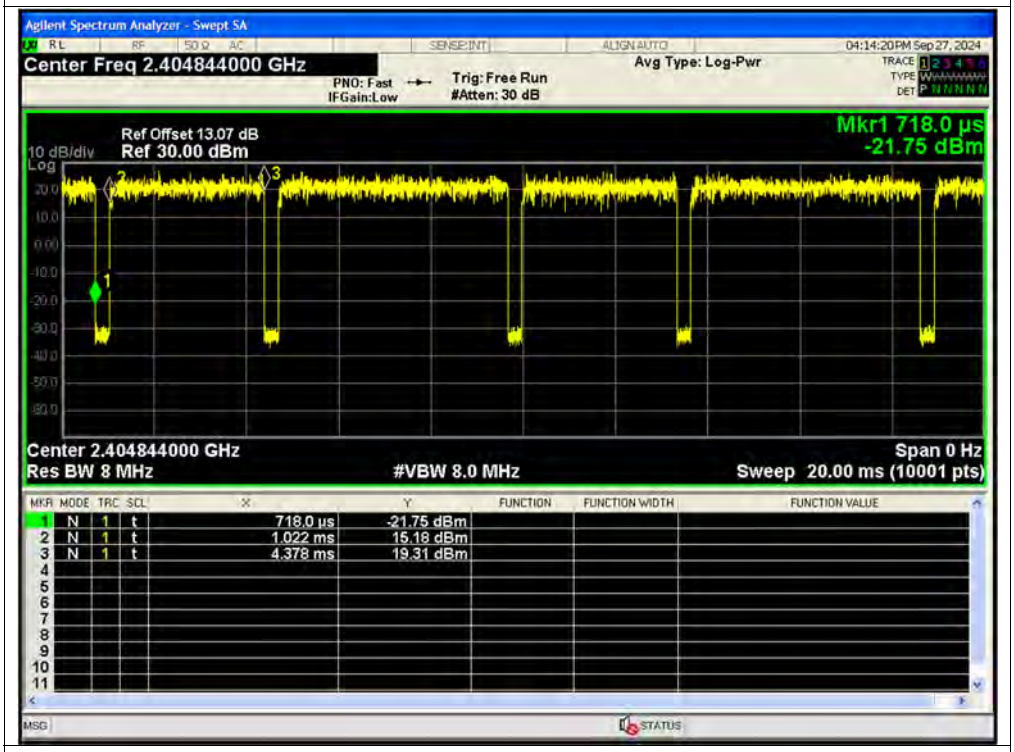
Duty Cycle NVNT ax40 2437MHz Sum



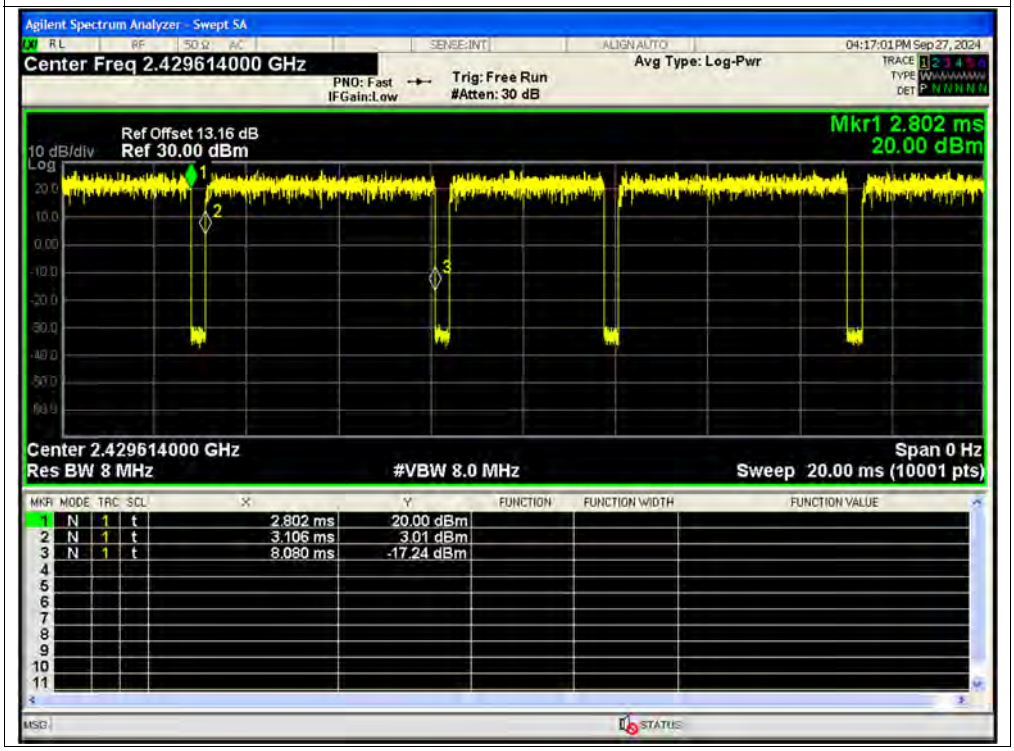
Duty Cycle NVNT ax40 2452MHz Sum



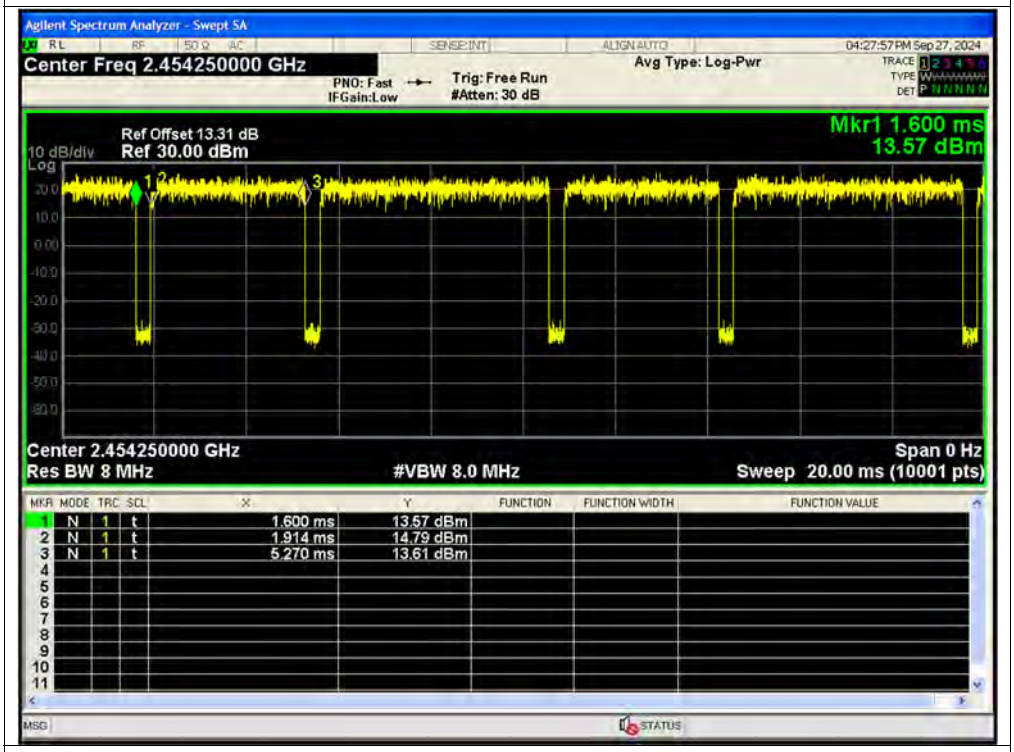
Duty Cycle NVNT ax20 52@37 2412MHz Sum



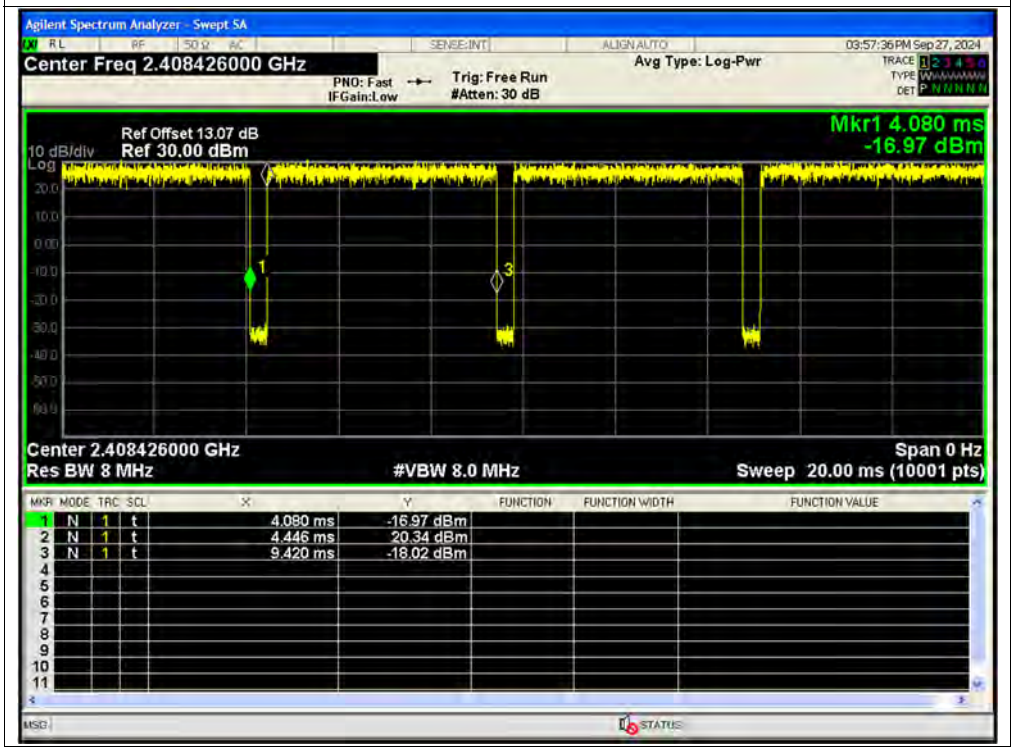
Duty Cycle NVNT ax20 52@37 2437MHz Sum



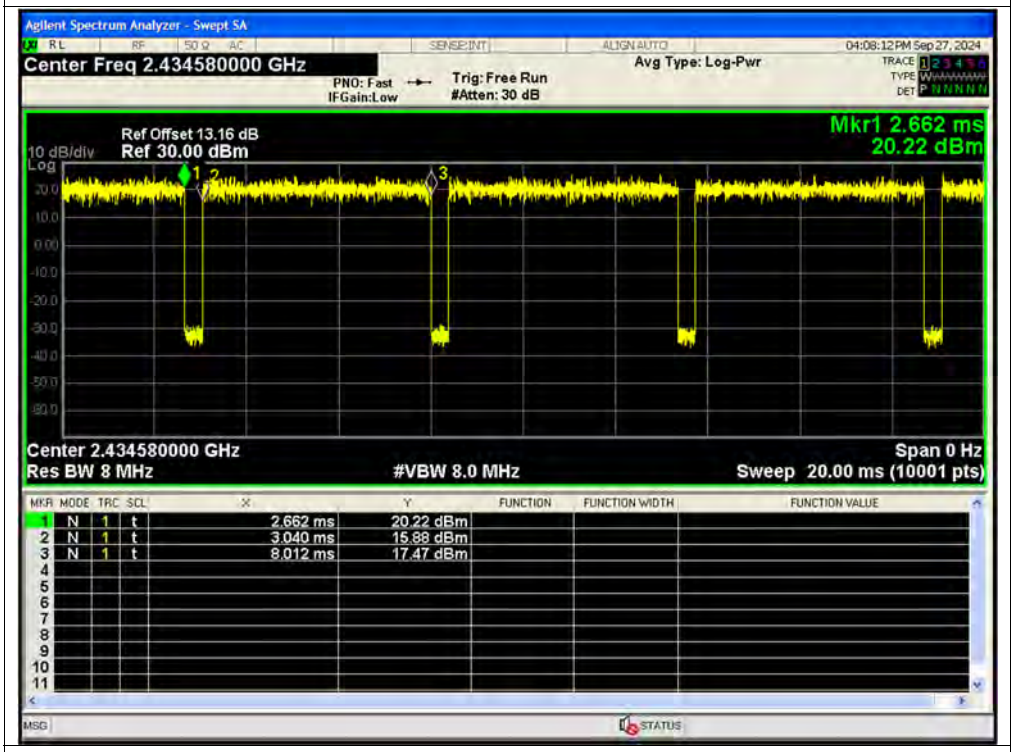
Duty Cycle NVNT ax20 52@37 2462MHz Sum



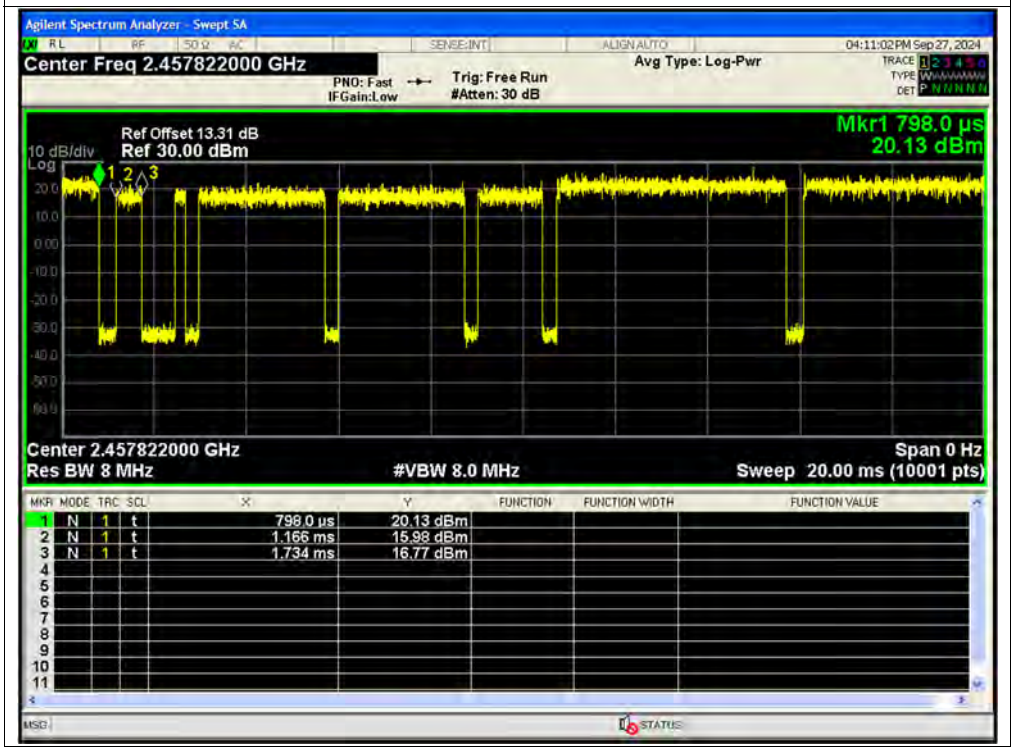
Duty Cycle NVNT ax20 106@53 2412MHz Sum



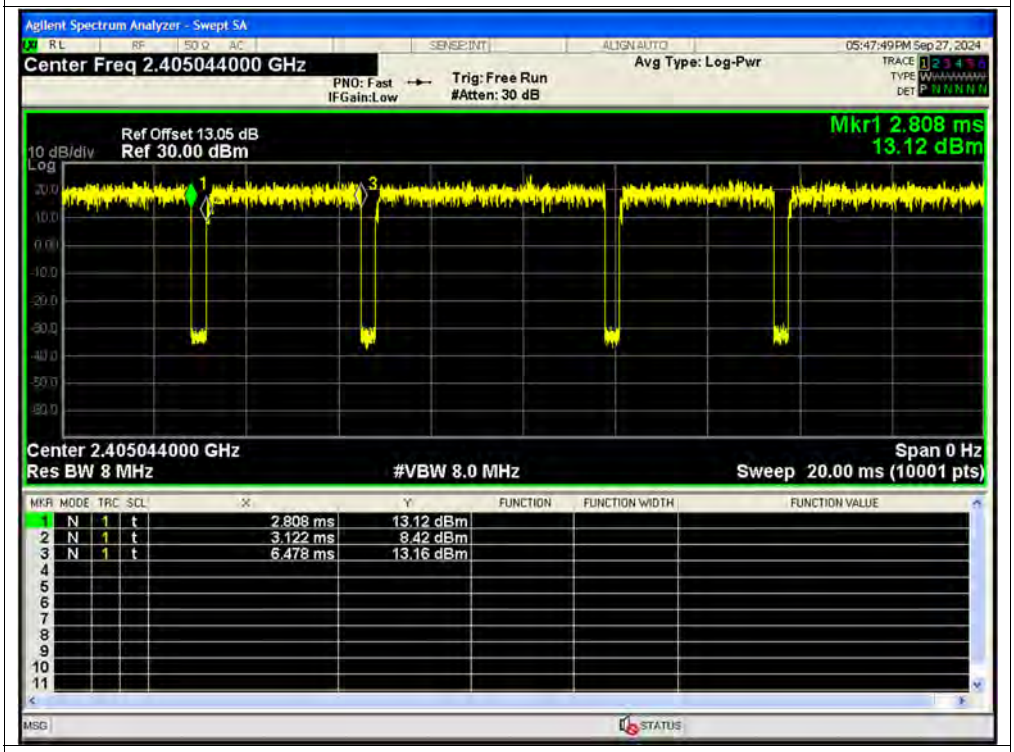
Duty Cycle NVNT ax20 106@53 2437MHz Sum



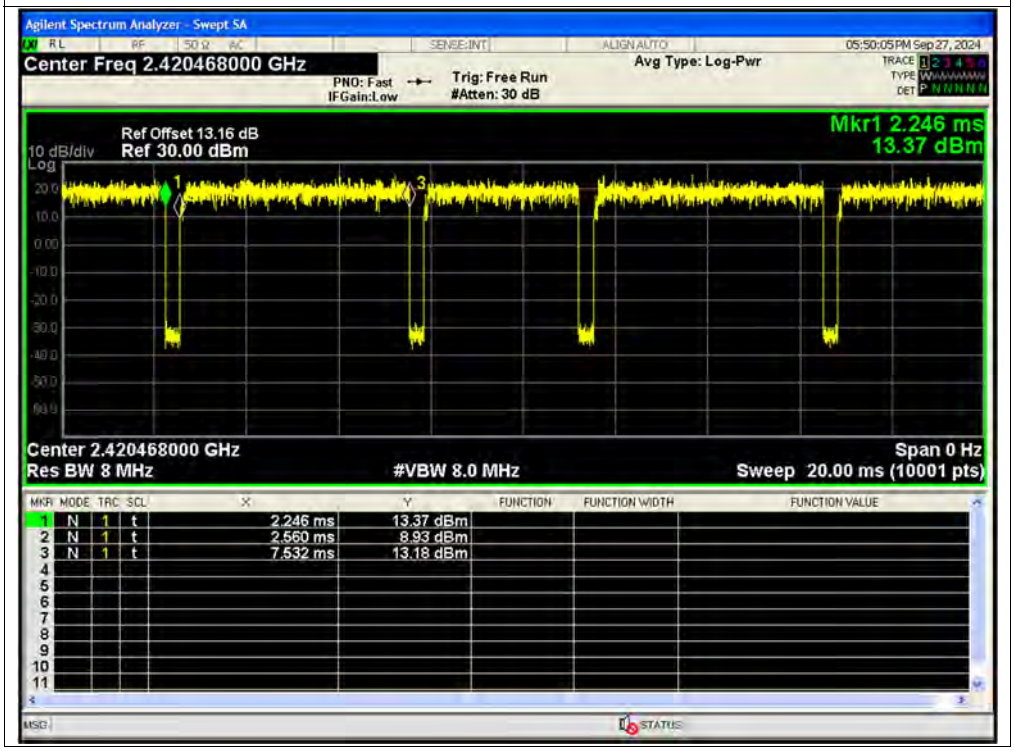
Duty Cycle NVNT ax20 106@53 2462MHz Sum



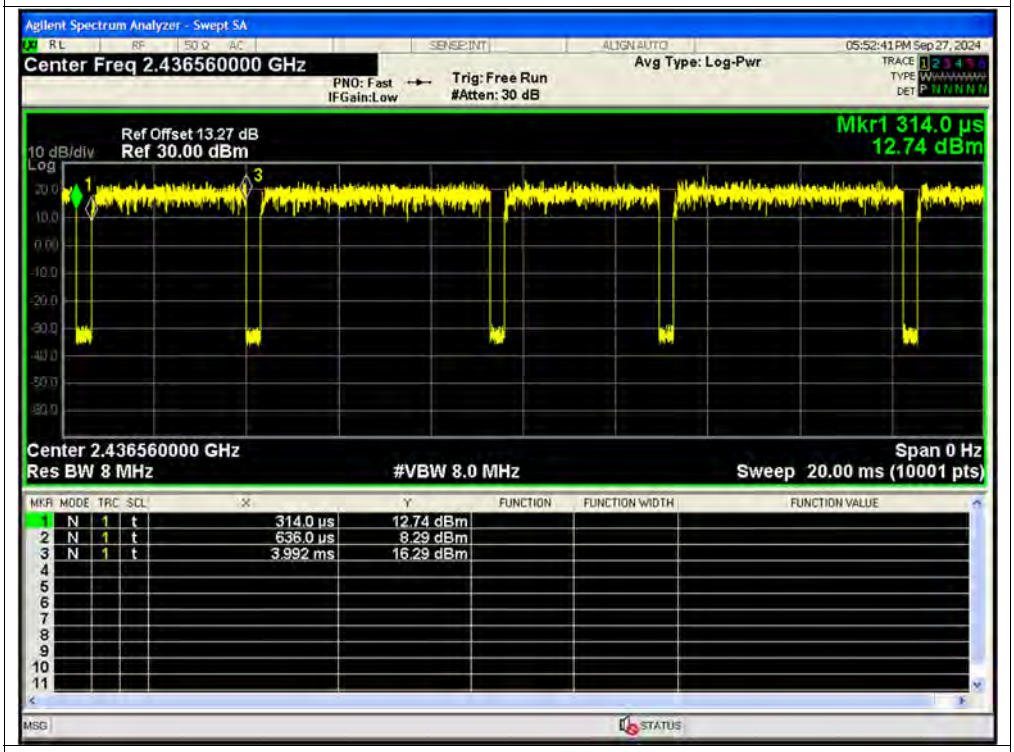
Duty Cycle NVNT ax40 52@37 2422MHz Sum



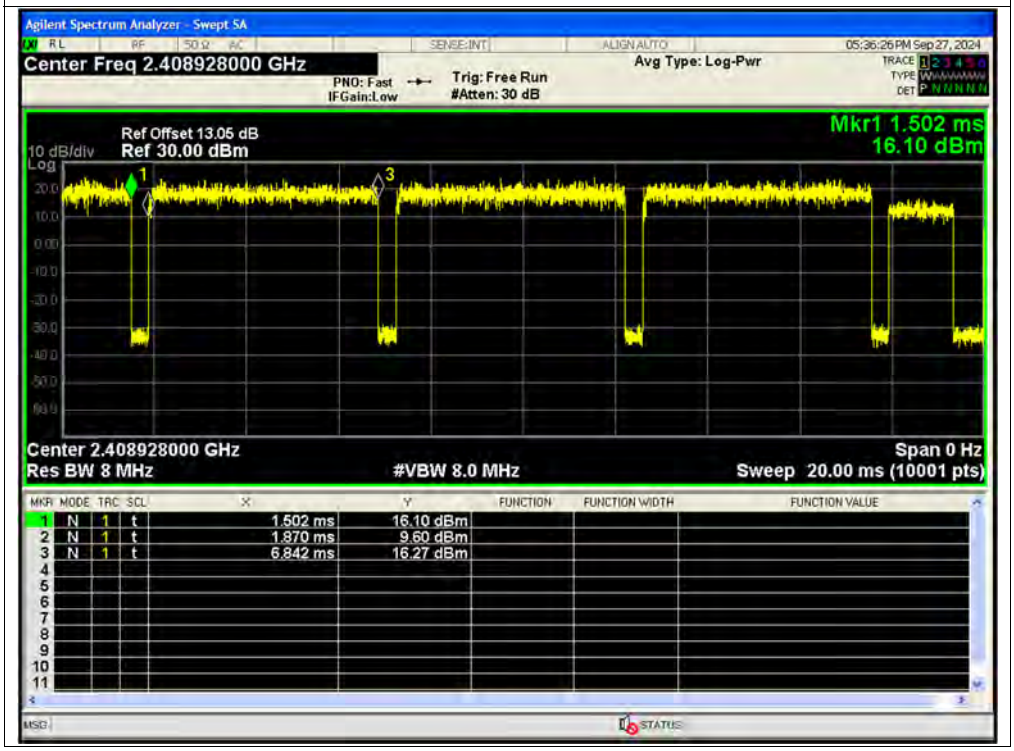
Duty Cycle NVNT ax40 52@37 2437MHz Sum



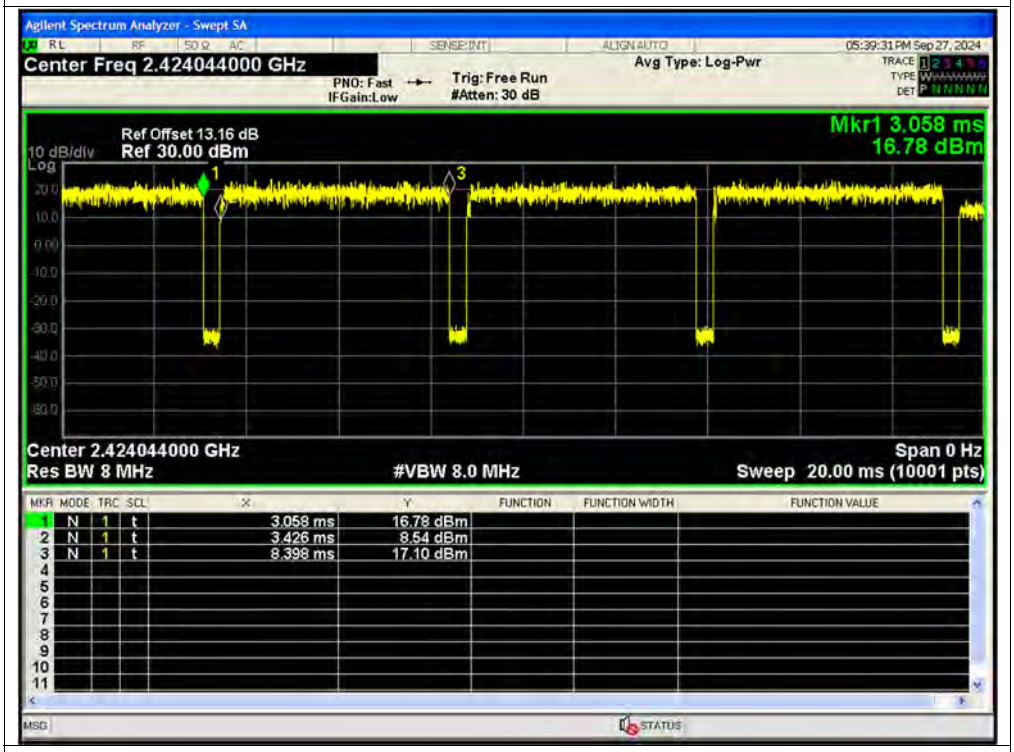
Duty Cycle NVNT ax40 52@37 2452MHz Sum



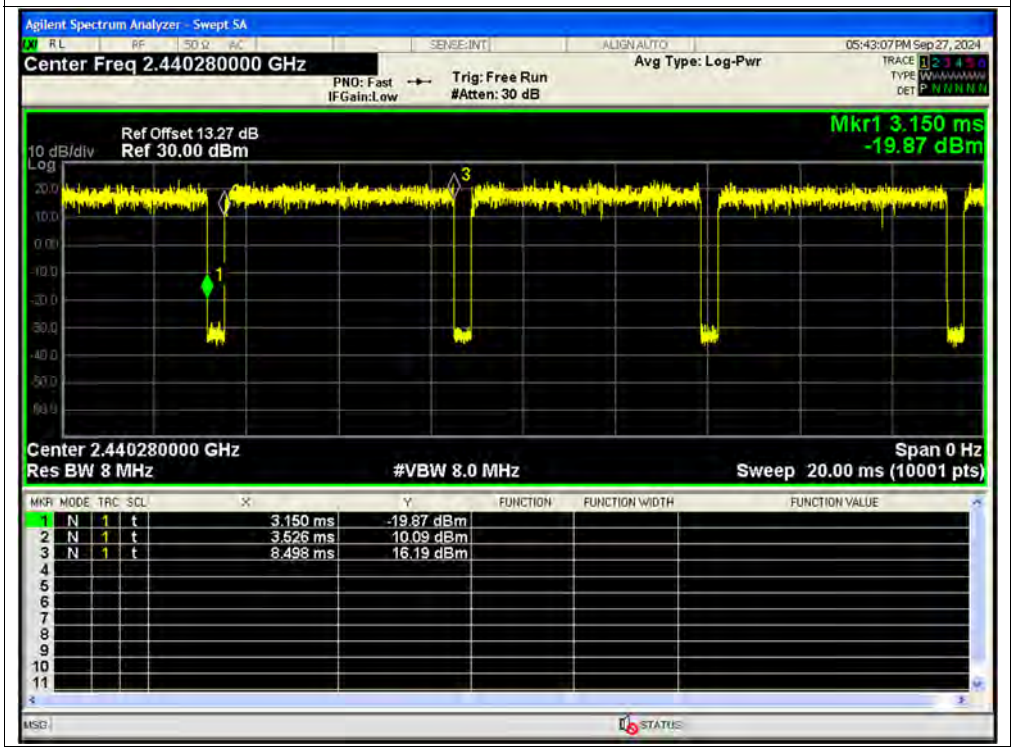
Duty Cycle NVNT ax40 106@53 2422MHz Sum



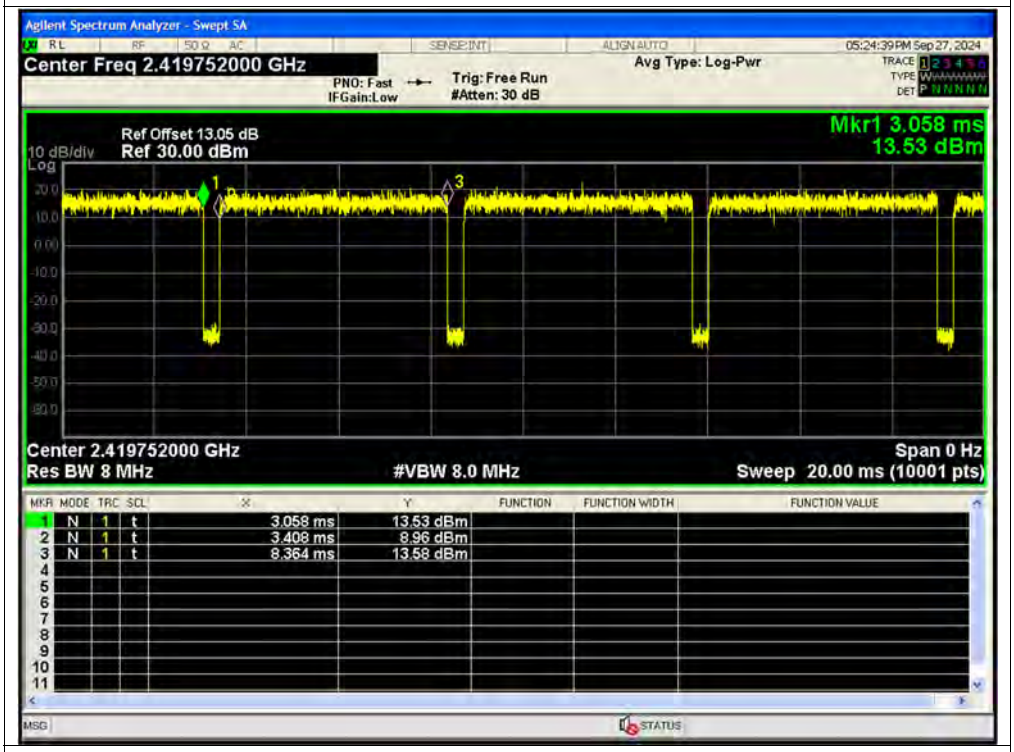
Duty Cycle NVNT ax40 106@53 2437MHz Sum



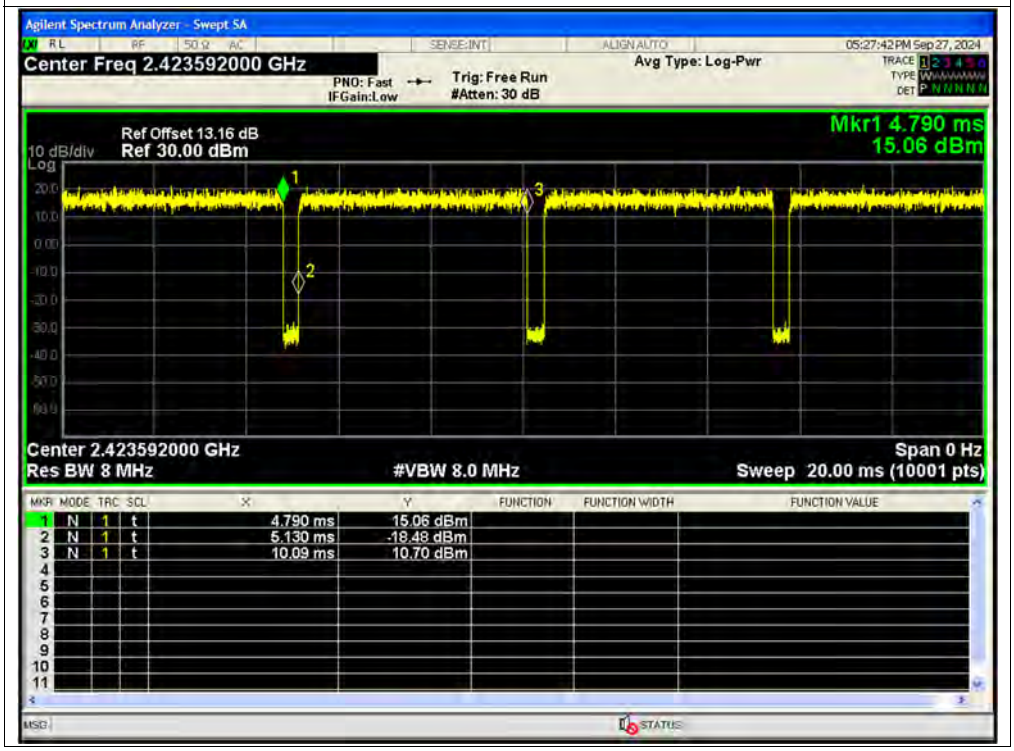
Duty Cycle NVNT ax40 106@53 2452MHz Sum

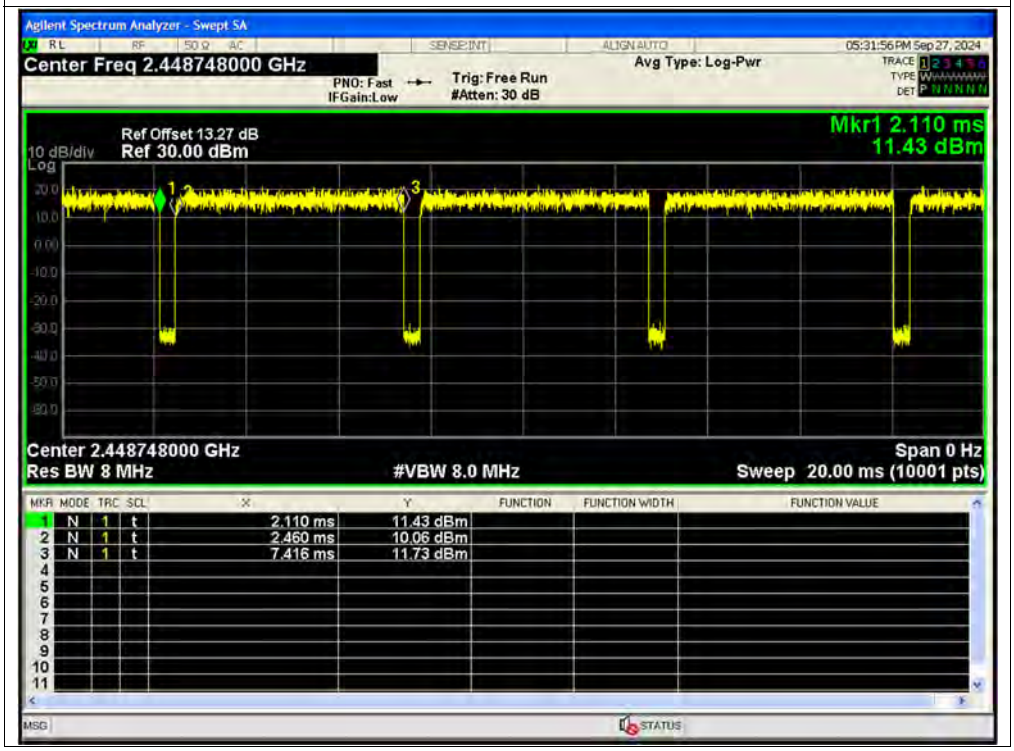


Duty Cycle NVNT ax40 242@61 2422MHz Sum



Duty Cycle NVNT ax40 242@61 2437MHz Sum



Duty Cycle NVNT ax40 242@61 2452MHz Sum


A.2. Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Total Conducted Power (dBm)	Total Conducted Power (W)	Limit Conducted (dBm)	Verdict
NVNT	b	2412	Ant1	21.48	0.1406	30	Pass
NVNT	b	2437	Ant1	21.32	0.13552	30	Pass
NVNT	b	2462	Ant1	21.5	0.14125	30	Pass
NVNT	b	2412	Ant2	21.36	0.13677	30	Pass
NVNT	b	2437	Ant2	21.68	0.14723	30	Pass
NVNT	b	2462	Ant2	21.7	0.14791	30	Pass
NVNT	g	2412	Ant1	24.28	0.26792	30	Pass
NVNT	g	2437	Ant1	23.86	0.24322	30	Pass
NVNT	g	2462	Ant1	24.24	0.26546	30	Pass
NVNT	g	2412	Ant2	24.12	0.25823	30	Pass
NVNT	g	2437	Ant2	23.82	0.24099	30	Pass
NVNT	g	2462	Ant2	24.04	0.25351	30	Pass
NVNT	n20	2412	Ant1	24.15	0.26002	30	Pass
NVNT	n20	2437	Ant1	23.78	0.23878	30	Pass
NVNT	n20	2462	Ant1	24.23	0.26485	30	Pass
NVNT	n20	2412	Ant2	24.16	0.26062	30	Pass
NVNT	n20	2437	Ant2	23.5	0.22387	30	Pass
NVNT	n20	2462	Ant2	23.69	0.23388	30	Pass
NVNT	n20	2412	Ant1	24.05	0.2541	30	Pass
NVNT	n20	2412	Ant2	23.7	0.23442	30	Pass
NVNT	n20	2412	Sum	26.89	0.48852	30	Pass
NVNT	n20	2437	Ant1	23.75	0.23714	30	Pass
NVNT	n20	2437	Ant2	23.2	0.20893	30	Pass
NVNT	n20	2437	Sum	26.49	0.44607	30	Pass
NVNT	n20	2462	Ant1	23.91	0.24604	30	Pass
NVNT	n20	2462	Ant2	23.47	0.22233	30	Pass
NVNT	n20	2462	Sum	26.71	0.46837	30	Pass
NVNT	n40	2422	Ant1	24.71	0.2958	30	Pass
NVNT	n40	2437	Ant1	23.76	0.23768	30	Pass
NVNT	n40	2452	Ant1	24.82	0.30339	30	Pass
NVNT	n40	2422	Ant2	24.13	0.25882	30	Pass
NVNT	n40	2437	Ant2	24.1	0.25704	30	Pass
NVNT	n40	2452	Ant2	24.45	0.27861	30	Pass

NVNT	n40	2422	Ant1	24.83	0.30409	30	Pass
NVNT	n40	2422	Ant2	23.65	0.23174	30	Pass
NVNT	n40	2422	Sum	27.29	0.53583	30	Pass
NVNT	n40	2437	Ant1	23.85	0.24266	30	Pass
NVNT	n40	2437	Ant2	23.63	0.23067	30	Pass
NVNT	n40	2437	Sum	26.75	0.47334	30	Pass
NVNT	n40	2452	Ant1	24.61	0.28907	30	Pass
NVNT	n40	2452	Ant2	23.94	0.24774	30	Pass
NVNT	n40	2452	Sum	27.3	0.53681	30	Pass
NVNT	ax20	2412	Ant1	24.86	0.3062	30	Pass
NVNT	ax20	2437	Ant1	24.34	0.27164	30	Pass
NVNT	ax20	2462	Ant1	24.77	0.29992	30	Pass
NVNT	ax20	2412	Ant2	24.38	0.27416	30	Pass
NVNT	ax20	2437	Ant2	24.39	0.27479	30	Pass
NVNT	ax20	2462	Ant2	24.29	0.26853	30	Pass
NVNT	ax20	2412	Ant1	24.81	0.30269	30	Pass
NVNT	ax20	2412	Ant2	24.27	0.2673	30	Pass
NVNT	ax20	2412	Sum	27.56	0.56999	30	Pass
NVNT	ax20	2437	Ant1	23.87	0.24378	30	Pass
NVNT	ax20	2437	Ant2	24.23	0.26485	30	Pass
NVNT	ax20	2437	Sum	27.06	0.50863	30	Pass
NVNT	ax20	2462	Ant1	24.54	0.28445	30	Pass
NVNT	ax20	2462	Ant2	23.34	0.21577	30	Pass
NVNT	ax20	2462	Sum	26.99	0.50022	30	Pass
NVNT	ax40	2422	Ant1	24.79	0.3013	30	Pass
NVNT	ax40	2437	Ant1	23.69	0.23388	30	Pass
NVNT	ax40	2452	Ant1	24.95	0.31261	30	Pass
NVNT	ax40	2422	Ant2	24.18	0.26182	30	Pass
NVNT	ax40	2437	Ant2	24.18	0.26182	30	Pass
NVNT	ax40	2452	Ant2	24.55	0.2851	30	Pass
NVNT	ax40	2422	Ant1	24.63	0.2904	30	Pass
NVNT	ax40	2422	Ant2	23.79	0.23933	30	Pass
NVNT	ax40	2422	Sum	27.24	0.52973	30	Pass
NVNT	ax40	2437	Ant1	23.6	0.22909	30	Pass
NVNT	ax40	2437	Ant2	23.81	0.24044	30	Pass
NVNT	ax40	2437	Sum	26.72	0.46952	30	Pass
NVNT	ax40	2452	Ant1	24.9	0.30903	30	Pass
NVNT	ax40	2452	Ant2	23.85	0.24266	30	Pass

NVNT	ax40	2452	Sum	27.42	0.55169	30	Pass
NVNT	ax20 52@37	2412	Ant1	22.91	0.19543	30	Pass
NVNT	ax20 52@37	2412	Ant2	24.3	0.26915	30	Pass
NVNT	ax20 52@37	2412	Sum	26.67	0.46459	30	Pass
NVNT	ax20 52@37	2437	Ant1	22.93	0.19634	30	Pass
NVNT	ax20 52@37	2437	Ant2	24.16	0.26062	30	Pass
NVNT	ax20 52@37	2437	Sum	26.6	0.45695	30	Pass
NVNT	ax20 52@37	2462	Ant1	23.01	0.19999	30	Pass
NVNT	ax20 52@37	2462	Ant2	24.74	0.29785	30	Pass
NVNT	ax20 52@37	2462	Sum	26.97	0.49784	30	Pass
NVNT	ax20 106@53	2412	Ant1	23.62	0.23014	30	Pass
NVNT	ax20 106@53	2412	Ant2	24.43	0.27733	30	Pass
NVNT	ax20 106@53	2412	Sum	27.05	0.50748	30	Pass
NVNT	ax20 106@53	2437	Ant1	23.68	0.23335	30	Pass
NVNT	ax20 106@53	2437	Ant2	23.61	0.22961	30	Pass
NVNT	ax20 106@53	2437	Sum	26.66	0.46296	30	Pass
NVNT	ax20 106@53	2462	Ant1	23.7	0.23442	30	Pass
NVNT	ax20 106@53	2462	Ant2	23.97	0.24946	30	Pass
NVNT	ax20 106@53	2462	Sum	26.85	0.48388	30	Pass
NVNT	ax40 52@37	2422	Ant1	21.53	0.14223	30	Pass
NVNT	ax40 52@37	2422	Ant2	22.91	0.19543	30	Pass
NVNT	ax40 52@37	2422	Sum	25.28	0.33767	30	Pass
NVNT	ax40 52@37	2437	Ant1	22.48	0.17701	30	Pass
NVNT	ax40 52@37	2437	Ant2	23.35	0.21627	30	Pass
NVNT	ax40 52@37	2437	Sum	25.95	0.39328	30	Pass
NVNT	ax40 52@37	2452	Ant1	21.58	0.14388	30	Pass
NVNT	ax40 52@37	2452	Ant2	23.41	0.21928	30	Pass
NVNT	ax40 52@37	2452	Sum	25.6	0.36316	30	Pass
NVNT	ax40 106@53	2422	Ant1	23.38	0.21777	30	Pass
NVNT	ax40 106@53	2422	Ant2	24.44	0.27797	30	Pass
NVNT	ax40 106@53	2422	Sum	26.95	0.49574	30	Pass
NVNT	ax40 106@53	2437	Ant1	23.92	0.2466	30	Pass
NVNT	ax40 106@53	2437	Ant2	23.98	0.25003	30	Pass
NVNT	ax40 106@53	2437	Sum	26.96	0.49664	30	Pass
NVNT	ax40 106@53	2452	Ant1	23.72	0.2355	30	Pass
NVNT	ax40 106@53	2452	Ant2	24.56	0.28576	30	Pass
NVNT	ax40 106@53	2452	Sum	27.17	0.52126	30	Pass
NVNT	ax40 242@61	2422	Ant1	23.51	0.22439	30	Pass

NVNT	ax40 242@61	2422	Ant2	24.47	0.2799	30	Pass
NVNT	ax40 242@61	2422	Sum	27.03	0.50429	30	Pass
NVNT	ax40 242@61	2437	Ant1	23.56	0.22699	30	Pass
NVNT	ax40 242@61	2437	Ant2	23.71	0.23496	30	Pass
NVNT	ax40 242@61	2437	Sum	26.65	0.46195	30	Pass
NVNT	ax40 242@61	2452	Ant1	23.71	0.23496	30	Pass
NVNT	ax40 242@61	2452	Ant2	24.96	0.31333	30	Pass
NVNT	ax40 242@61	2452	Sum	27.39	0.54829	30	Pass

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	17.92	1.93	19.85	0.09661	30	Pass
NVNT	b	2437	Ant1	17.91	1.83	19.74	0.09419	30	Pass
NVNT	b	2462	Ant1	17.77	0.71	18.48	0.07047	30	Pass
NVNT	b	2412	Ant2	17.95	0.81	18.76	0.07516	30	Pass
NVNT	b	2437	Ant2	17.88	0.52	18.4	0.06918	30	Pass
NVNT	b	2462	Ant2	18.4	0.96	19.36	0.0863	30	Pass
NVNT	g	2412	Ant1	16.99	0.32	17.31	0.05383	30	Pass
NVNT	g	2437	Ant1	16.58	0.21	16.79	0.04775	30	Pass
NVNT	g	2462	Ant1	16.89	0.25	17.14	0.05176	30	Pass
NVNT	g	2412	Ant2	16.8	0.34	17.14	0.05176	30	Pass
NVNT	g	2437	Ant2	16.54	0.36	16.9	0.04898	30	Pass
NVNT	g	2462	Ant2	16.58	0.23	16.81	0.04797	30	Pass
NVNT	n20	2412	Ant1	16.79	0.08	16.87	0.04864	30	Pass
NVNT	n20	2437	Ant1	16.34	0.08	16.42	0.04385	30	Pass
NVNT	n20	2462	Ant1	16.76	0.07	16.83	0.04819	30	Pass
NVNT	n20	2412	Ant2	16.65	0.13	16.78	0.04764	30	Pass
NVNT	n20	2437	Ant2	16.42	0.07	16.49	0.04457	30	Pass
NVNT	n20	2462	Ant2	16.48	0.08	16.56	0.04529	30	Pass
NVNT	n20	2412	Ant1	16.48	0.08	16.56	0.04529	30	Pass
NVNT	n20	2412	Ant2	16.35	0.08	16.43	0.04395	30	Pass
NVNT	n20	2412	Sum	NaN	NaN	19.51	0.08924	30	Pass
NVNT	n20	2437	Ant1	16.29	0.08	16.37	0.04335	30	Pass
NVNT	n20	2437	Ant2	15.83	0.08	15.91	0.03899	30	Pass
NVNT	n20	2437	Sum	NaN	NaN	19.16	0.08235	30	Pass
NVNT	n20	2462	Ant1	16.3	0.09	16.39	0.04355	30	Pass
NVNT	n20	2462	Ant2	16.1	0.09	16.19	0.04159	30	Pass
NVNT	n20	2462	Sum	NaN	NaN	19.3	0.08514	30	Pass
NVNT	n40	2422	Ant1	17.21	0.12	17.33	0.05408	30	Pass
NVNT	n40	2437	Ant1	16.36	0.08	16.44	0.04406	30	Pass
NVNT	n40	2452	Ant1	17.45	0.08	17.53	0.05662	30	Pass
NVNT	n40	2422	Ant2	16.53	0.1	16.63	0.04603	30	Pass
NVNT	n40	2437	Ant2	16.59	0.11	16.7	0.04677	30	Pass
NVNT	n40	2452	Ant2	17.08	0.11	17.19	0.05236	30	Pass

NVNT	n40	2422	Ant1	17.45	0.08	17.53	0.05662	30	Pass
NVNT	n40	2422	Ant2	16.21	0.08	16.29	0.04256	30	Pass
NVNT	n40	2422	Sum	NaN	NaN	19.96	0.09918	30	Pass
NVNT	n40	2437	Ant1	16.26	0.08	16.34	0.04305	30	Pass
NVNT	n40	2437	Ant2	16.18	0.08	16.26	0.04227	30	Pass
NVNT	n40	2437	Sum	NaN	NaN	19.31	0.08532	30	Pass
NVNT	n40	2452	Ant1	17.2	0.08	17.28	0.05346	30	Pass
NVNT	n40	2452	Ant2	16.48	0.08	16.56	0.04529	30	Pass
NVNT	n40	2452	Sum	NaN	NaN	19.95	0.09875	30	Pass
NVNT	ax20	2412	Ant1	16.84	0.12	16.96	0.04966	30	Pass
NVNT	ax20	2437	Ant1	16.49	0.08	16.57	0.04539	30	Pass
NVNT	ax20	2462	Ant1	16.85	0.07	16.92	0.0492	30	Pass
NVNT	ax20	2412	Ant2	16.74	0.12	16.86	0.04853	30	Pass
NVNT	ax20	2437	Ant2	16.53	0.12	16.65	0.04624	30	Pass
NVNT	ax20	2462	Ant2	16.53	0.08	16.61	0.04581	30	Pass
NVNT	ax20	2412	Ant1	16.91	0.1	17.01	0.05023	30	Pass
NVNT	ax20	2412	Ant2	16.39	0.1	16.49	0.04457	30	Pass
NVNT	ax20	2412	Sum	NaN	NaN	19.77	0.0948	30	Pass
NVNT	ax20	2437	Ant1	15.97	0.13	16.1	0.04074	30	Pass
NVNT	ax20	2437	Ant2	16.29	0.13	16.42	0.04385	30	Pass
NVNT	ax20	2437	Sum	NaN	NaN	19.27	0.08459	30	Pass
NVNT	ax20	2462	Ant1	16.84	0.07	16.91	0.04909	30	Pass
NVNT	ax20	2462	Ant2	15.55	0.07	15.62	0.03648	30	Pass
NVNT	ax20	2462	Sum	NaN	NaN	19.32	0.08557	30	Pass
NVNT	ax40	2422	Ant1	16.86	0.11	16.97	0.04977	30	Pass
NVNT	ax40	2437	Ant1	15.86	0.1	15.96	0.03945	30	Pass
NVNT	ax40	2452	Ant1	16.98	0.11	17.09	0.05117	30	Pass
NVNT	ax40	2422	Ant2	16.15	0.19	16.34	0.04305	30	Pass
NVNT	ax40	2437	Ant2	16.22	0.16	16.38	0.04345	30	Pass
NVNT	ax40	2452	Ant2	16.62	0.24	16.86	0.04853	30	Pass
NVNT	ax40	2422	Ant1	16.64	0.17	16.81	0.04797	30	Pass
NVNT	ax40	2422	Ant2	15.76	0.17	15.93	0.03917	30	Pass
NVNT	ax40	2422	Sum	NaN	NaN	19.4	0.08715	30	Pass
NVNT	ax40	2437	Ant1	15.58	0.16	15.74	0.0375	30	Pass
NVNT	ax40	2437	Ant2	15.88	0.16	16.04	0.04018	30	Pass
NVNT	ax40	2437	Sum	NaN	NaN	18.9	0.07768	30	Pass
NVNT	ax40	2452	Ant1	17	0.1	17.1	0.05129	30	Pass
NVNT	ax40	2452	Ant2	15.91	0.1	16.01	0.0399	30	Pass

NVNT	ax40	2452	Sum	NaN	NaN	19.6	0.09119	30	Pass
NVNT	ax20 52@37	2412	Ant1	13.6	0.38	13.98	0.025	30	Pass
NVNT	ax20 52@37	2412	Ant2	14.86	0.38	15.24	0.03342	30	Pass
NVNT	ax20 52@37	2412	Sum	NaN	NaN	17.67	0.05842	30	Pass
NVNT	ax20 52@37	2437	Ant1	13.7	0.26	13.96	0.02489	30	Pass
NVNT	ax20 52@37	2437	Ant2	14.76	0.26	15.02	0.03177	30	Pass
NVNT	ax20 52@37	2437	Sum	NaN	NaN	17.53	0.05666	30	Pass
NVNT	ax20 52@37	2462	Ant1	13.47	0.39	13.86	0.02432	30	Pass
NVNT	ax20 52@37	2462	Ant2	15.33	0.39	15.72	0.03733	30	Pass
NVNT	ax20 52@37	2462	Sum	NaN	NaN	17.9	0.06165	30	Pass
NVNT	ax20 106@53	2412	Ant1	14.13	0.31	14.44	0.0278	30	Pass
NVNT	ax20 106@53	2412	Ant2	14.62	0.31	14.93	0.03112	30	Pass
NVNT	ax20 106@53	2412	Sum	NaN	NaN	17.7	0.05891	30	Pass
NVNT	ax20 106@53	2437	Ant1	14.05	0.32	14.37	0.02735	30	Pass
NVNT	ax20 106@53	2437	Ant2	13.96	0.32	14.28	0.02679	30	Pass
NVNT	ax20 106@53	2437	Sum	NaN	NaN	17.34	0.05414	30	Pass
NVNT	ax20 106@53	2462	Ant1	13.93	2.17	16.1	0.04074	30	Pass
NVNT	ax20 106@53	2462	Ant2	14.7	2.17	16.87	0.04864	30	Pass
NVNT	ax20 106@53	2462	Sum	NaN	NaN	19.51	0.08938	30	Pass
NVNT	ax40 52@37	2422	Ant1	13.12	0.39	13.51	0.02244	30	Pass

NVNT	ax40 52@37	2422	Ant2	14.93	0.39	15.32	0.03404	30	Pass
NVNT	ax40 52@37	2422	Sum	NaN	NaN	17.52	0.05648	30	Pass
NVNT	ax40 52@37	2437	Ant1	13.68	0.27	13.95	0.02483	30	Pass
NVNT	ax40 52@37	2437	Ant2	14.24	0.27	14.51	0.02825	30	Pass
NVNT	ax40 52@37	2437	Sum	NaN	NaN	17.25	0.05308	30	Pass
NVNT	ax40 52@37	2452	Ant1	13.52	0.4	13.92	0.02466	30	Pass
NVNT	ax40 52@37	2452	Ant2	15.03	0.4	15.43	0.03491	30	Pass
NVNT	ax40 52@37	2452	Sum	NaN	NaN	17.75	0.05957	30	Pass
NVNT	ax40 106@53	2422	Ant1	13.42	0.31	13.73	0.0236	30	Pass
NVNT	ax40 106@53	2422	Ant2	14.55	0.31	14.86	0.03062	30	Pass
NVNT	ax40 106@53	2422	Sum	NaN	NaN	17.34	0.05422	30	Pass
NVNT	ax40 106@53	2437	Ant1	13.77	0.31	14.08	0.02559	30	Pass
NVNT	ax40 106@53	2437	Ant2	13.75	0.31	14.06	0.02547	30	Pass
NVNT	ax40 106@53	2437	Sum	NaN	NaN	17.08	0.05105	30	Pass
NVNT	ax40 106@53	2452	Ant1	14.01	0.32	14.33	0.0271	30	Pass
NVNT	ax40 106@53	2452	Ant2	14.75	0.32	15.07	0.03214	30	Pass
NVNT	ax40 106@53	2452	Sum	NaN	NaN	17.73	0.05924	30	Pass
NVNT	ax40 242@61	2422	Ant1	14.3	0.3	14.6	0.02884	30	Pass
NVNT	ax40 242@61	2422	Ant2	15.02	0.3	15.32	0.03404	30	Pass
NVNT	ax40	2422	Sum	NaN	NaN	17.99	0.06288	30	Pass

	242@61								
NVNT	ax40 242@61	2437	Ant1	14.28	0.29	14.57	0.02864	30	Pass
NVNT	ax40 242@61	2437	Ant2	14.43	0.29	14.72	0.02965	30	Pass
NVNT	ax40 242@61	2437	Sum	NaN	NaN	17.66	0.05829	30	Pass
NVNT	ax40 242@61	2452	Ant1	14.4	0.3	14.7	0.02951	30	Pass
NVNT	ax40 242@61	2452	Ant2	15.57	0.3	15.87	0.03864	30	Pass
NVNT	ax40 242@61	2452	Sum	NaN	NaN	18.33	0.06815	30	Pass

A.4. 6 dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	7.572	0.5	Pass
NVNT	b	2437	Ant1	7.14	0.5	Pass
NVNT	b	2462	Ant1	8.071	0.5	Pass
NVNT	b	2412	Ant2	7.095	0.5	Pass
NVNT	b	2437	Ant2	8.042	0.5	Pass
NVNT	b	2462	Ant2	8.038	0.5	Pass
NVNT	g	2412	Ant1	16.312	0.5	Pass
NVNT	g	2437	Ant1	16.284	0.5	Pass
NVNT	g	2462	Ant1	16.313	0.5	Pass
NVNT	g	2412	Ant2	15.732	0.5	Pass
NVNT	g	2437	Ant2	15.557	0.5	Pass
NVNT	g	2462	Ant2	16.313	0.5	Pass
NVNT	n20	2412	Ant1	16.899	0.5	Pass
NVNT	n20	2437	Ant1	17.555	0.5	Pass
NVNT	n20	2462	Ant1	17.582	0.5	Pass
NVNT	n20	2412	Ant2	17.584	0.5	Pass
NVNT	n20	2437	Ant2	15.665	0.5	Pass
NVNT	n20	2462	Ant2	16.868	0.5	Pass
NVNT	n20	2412	Ant1	17.577	0.5	Pass
NVNT	n20	2412	Ant2	16.63	0.5	Pass
NVNT	n20	2437	Ant1	17.578	0.5	Pass
NVNT	n20	2437	Ant2	16.303	0.5	Pass
NVNT	n20	2462	Ant1	17.599	0.5	Pass
NVNT	n20	2462	Ant2	17.553	0.5	Pass
NVNT	n40	2422	Ant1	35.92	0.5	Pass
NVNT	n40	2437	Ant1	36.304	0.5	Pass
NVNT	n40	2452	Ant1	36.32	0.5	Pass
NVNT	n40	2422	Ant2	36.314	0.5	Pass
NVNT	n40	2437	Ant2	36.308	0.5	Pass
NVNT	n40	2452	Ant2	35.667	0.5	Pass
NVNT	n40	2422	Ant1	36.313	0.5	Pass
NVNT	n40	2422	Ant2	36.333	0.5	Pass
NVNT	n40	2437	Ant1	36.035	0.5	Pass
NVNT	n40	2437	Ant2	36.313	0.5	Pass

NVNT	n40	2452	Ant1	35.327	0.5	Pass
NVNT	n40	2452	Ant2	35.439	0.5	Pass
NVNT	ax20	2412	Ant1	18.523	0.5	Pass
NVNT	ax20	2437	Ant1	18.541	0.5	Pass
NVNT	ax20	2462	Ant1	18.205	0.5	Pass
NVNT	ax20	2412	Ant2	17.296	0.5	Pass
NVNT	ax20	2437	Ant2	18.214	0.5	Pass
NVNT	ax20	2462	Ant2	18.074	0.5	Pass
NVNT	ax20	2412	Ant1	18.273	0.5	Pass
NVNT	ax20	2412	Ant2	16.83	0.5	Pass
NVNT	ax20	2437	Ant1	17.37	0.5	Pass
NVNT	ax20	2437	Ant2	18.897	0.5	Pass
NVNT	ax20	2462	Ant1	17.684	0.5	Pass
NVNT	ax20	2462	Ant2	17.991	0.5	Pass
NVNT	ax40	2422	Ant1	37.877	0.5	Pass
NVNT	ax40	2437	Ant1	37.841	0.5	Pass
NVNT	ax40	2452	Ant1	37.753	0.5	Pass
NVNT	ax40	2422	Ant2	36.159	0.5	Pass
NVNT	ax40	2437	Ant2	37.138	0.5	Pass
NVNT	ax40	2452	Ant2	36.799	0.5	Pass
NVNT	ax40	2422	Ant1	37.849	0.5	Pass
NVNT	ax40	2422	Ant2	37.36	0.5	Pass
NVNT	ax40	2437	Ant1	37.924	0.5	Pass
NVNT	ax40	2437	Ant2	37.893	0.5	Pass
NVNT	ax40	2452	Ant1	35.844	0.5	Pass
NVNT	ax40	2452	Ant2	37.274	0.5	Pass
NVNT	ax20 52@37	2412	Ant1	15.69	0.5	Pass
NVNT	ax20 52@37	2412	Ant2	17.017	0.5	Pass
NVNT	ax20 52@37	2437	Ant1	15.76	0.5	Pass
NVNT	ax20 52@37	2437	Ant2	15.772	0.5	Pass
NVNT	ax20 52@37	2462	Ant1	13.243	0.5	Pass
NVNT	ax20 52@37	2462	Ant2	15.727	0.5	Pass
NVNT	ax20 106@53	2412	Ant1	17.067	0.5	Pass
NVNT	ax20 106@53	2412	Ant2	16.918	0.5	Pass
NVNT	ax20 106@53	2437	Ant1	17.05	0.5	Pass
NVNT	ax20 106@53	2437	Ant2	18.02	0.5	Pass
NVNT	ax20 106@53	2462	Ant1	16.957	0.5	Pass
NVNT	ax20 106@53	2462	Ant2	17.061	0.5	Pass

NVNT	ax40 52@37	2422	Ant1	4.052	0.5	Pass
NVNT	ax40 52@37	2422	Ant2	4.091	0.5	Pass
NVNT	ax40 52@37	2437	Ant1	4.142	0.5	Pass
NVNT	ax40 52@37	2437	Ant2	10.319	0.5	Pass
NVNT	ax40 52@37	2452	Ant1	4.065	0.5	Pass
NVNT	ax40 52@37	2452	Ant2	4.114	0.5	Pass
NVNT	ax40 106@53	2422	Ant1	33.938	0.5	Pass
NVNT	ax40 106@53	2422	Ant2	31.461	0.5	Pass
NVNT	ax40 106@53	2437	Ant1	32.73	0.5	Pass
NVNT	ax40 106@53	2437	Ant2	36.536	0.5	Pass
NVNT	ax40 106@53	2452	Ant1	34.048	0.5	Pass
NVNT	ax40 106@53	2452	Ant2	36.483	0.5	Pass
NVNT	ax40 242@61	2422	Ant1	36.656	0.5	Pass
NVNT	ax40 242@61	2422	Ant2	36.513	0.5	Pass
NVNT	ax40 242@61	2437	Ant1	36.699	0.5	Pass
NVNT	ax40 242@61	2437	Ant2	36.514	0.5	Pass
NVNT	ax40 242@61	2452	Ant1	36.709	0.5	Pass
NVNT	ax40 242@61	2452	Ant2	36.485	0.5	Pass

Test Graphs
-6dB Bandwidth NVNT b 2412MHz Ant1

-6dB Bandwidth NVNT b 2437MHz Ant1

-6dB Bandwidth NVNT b 2462MHz Ant1

-6dB Bandwidth NVNT b 2412MHz Ant2

-6dB Bandwidth NVNT b 2437MHz Ant2

-6dB Bandwidth NVNT b 2462MHz Ant2

-6dB Bandwidth NVNT g 2412MHz Ant1

-6dB Bandwidth NVNT g 2437MHz Ant1

-6dB Bandwidth NVNT g 2462MHz Ant1

-6dB Bandwidth NVNT g 2412MHz Ant2

-6dB Bandwidth NVNT g 2437MHz Ant2

-6dB Bandwidth NVNT g 2462MHz Ant2

-6dB Bandwidth NVNT n20 2412MHz Ant1

-6dB Bandwidth NVNT n20 2437MHz Ant1

-6dB Bandwidth NVNT n20 2462MHz Ant1

-6dB Bandwidth NVNT n20 2412MHz Ant2

-6dB Bandwidth NVNT n20 2437MHz Ant2

-6dB Bandwidth NVNT n20 2462MHz Ant2

-6dB Bandwidth NVNT n20 2412MHz Ant1

-6dB Bandwidth NVNT n20 2412MHz Ant2

-6dB Bandwidth NVNT n20 2437MHz Ant1

-6dB Bandwidth NVNT n20 2437MHz Ant2

-6dB Bandwidth NVNT n20 2462MHz Ant1

-6dB Bandwidth NVNT n20 2462MHz Ant2

-6dB Bandwidth NVNT n40 2422MHz Ant1

-6dB Bandwidth NVNT n40 2437MHz Ant1

-6dB Bandwidth NVNT n40 2452MHz Ant1

-6dB Bandwidth NVNT n40 2422MHz Ant2

-6dB Bandwidth NVNT n40 2437MHz Ant2

-6dB Bandwidth NVNT n40 2452MHz Ant2

-6dB Bandwidth NVNT n40 2422MHz Ant1

-6dB Bandwidth NVNT n40 2422MHz Ant2

-6dB Bandwidth NVNT n40 2437MHz Ant1

-6dB Bandwidth NVNT n40 2437MHz Ant2

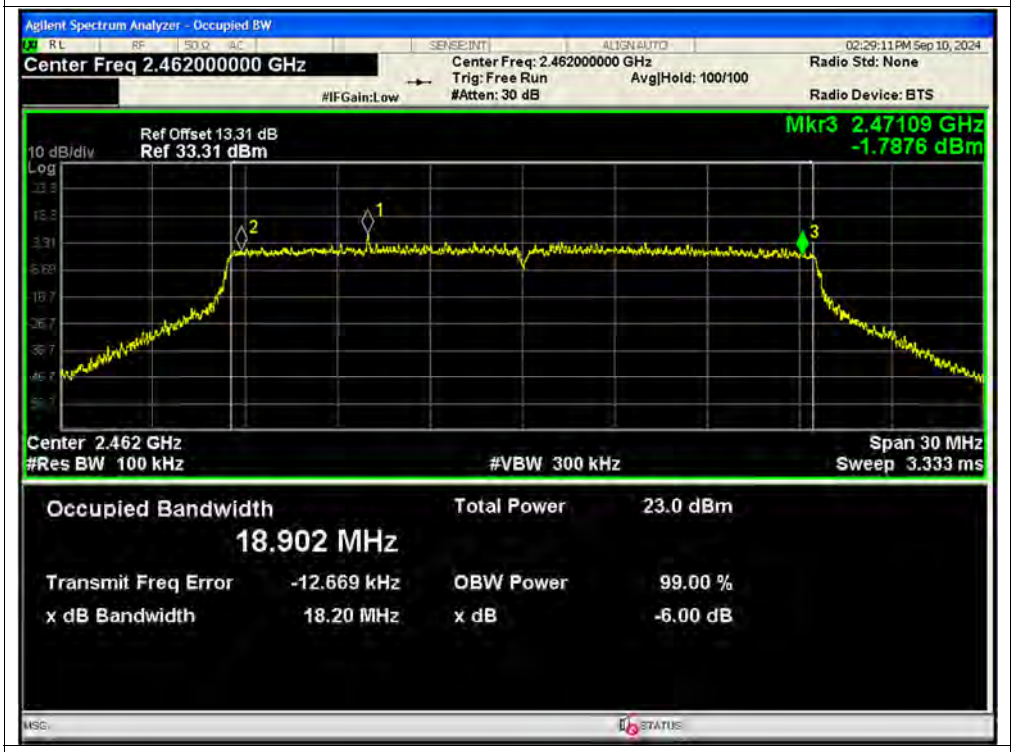
-6dB Bandwidth NVNT n40 2452MHz Ant1

-6dB Bandwidth NVNT n40 2452MHz Ant2

-6dB Bandwidth NVNT ax20 2412MHz Ant1

-6dB Bandwidth NVNT ax20 2437MHz Ant1

-6dB Bandwidth NVNT ax20 2462MHz Ant1



-6dB Bandwidth NVNT ax20 2412MHz Ant2

-6dB Bandwidth NVNT ax20 2437MHz Ant2

-6dB Bandwidth NVNT ax20 2462MHz Ant2

-6dB Bandwidth NVNT ax20 2412MHz Ant1

-6dB Bandwidth NVNT ax20 2412MHz Ant2

-6dB Bandwidth NVNT ax20 2437MHz Ant1

-6dB Bandwidth NVNT ax20 2437MHz Ant2

-6dB Bandwidth NVNT ax20 2462MHz Ant1

-6dB Bandwidth NVNT ax20 2462MHz Ant2

-6dB Bandwidth NVNT ax40 2422MHz Ant1

-6dB Bandwidth NVNT ax40 2437MHz Ant1

-6dB Bandwidth NVNT ax40 2452MHz Ant1

-6dB Bandwidth NVNT ax40 2422MHz Ant2

-6dB Bandwidth NVNT ax40 2437MHz Ant2

-6dB Bandwidth NVNT ax40 2452MHz Ant2

-6dB Bandwidth NVNT ax40 2422MHz Ant1

-6dB Bandwidth NVNT ax40 2422MHz Ant2

-6dB Bandwidth NVNT ax40 2437MHz Ant1

-6dB Bandwidth NVNT ax40 2437MHz Ant2

-6dB Bandwidth NVNT ax40 2452MHz Ant1

-6dB Bandwidth NVNT ax40 2452MHz Ant2

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

-6dB Bandwidth NVNT ax20 52@37 2412MHz Ant2

-6dB Bandwidth NVNT ax20 52@37 2437MHz Ant1

-6dB Bandwidth NVNT ax20 52@37 2437MHz Ant2

-6dB Bandwidth NVNT ax20 52@37 2462MHz Ant1

-6dB Bandwidth NVNT ax20 52@37 2462MHz Ant2

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

-6dB Bandwidth NVNT ax20 106@53 2412MHz Ant2

-6dB Bandwidth NVNT ax20 106@53 2437MHz Ant1

-6dB Bandwidth NVNT ax20 106@53 2437MHz Ant2

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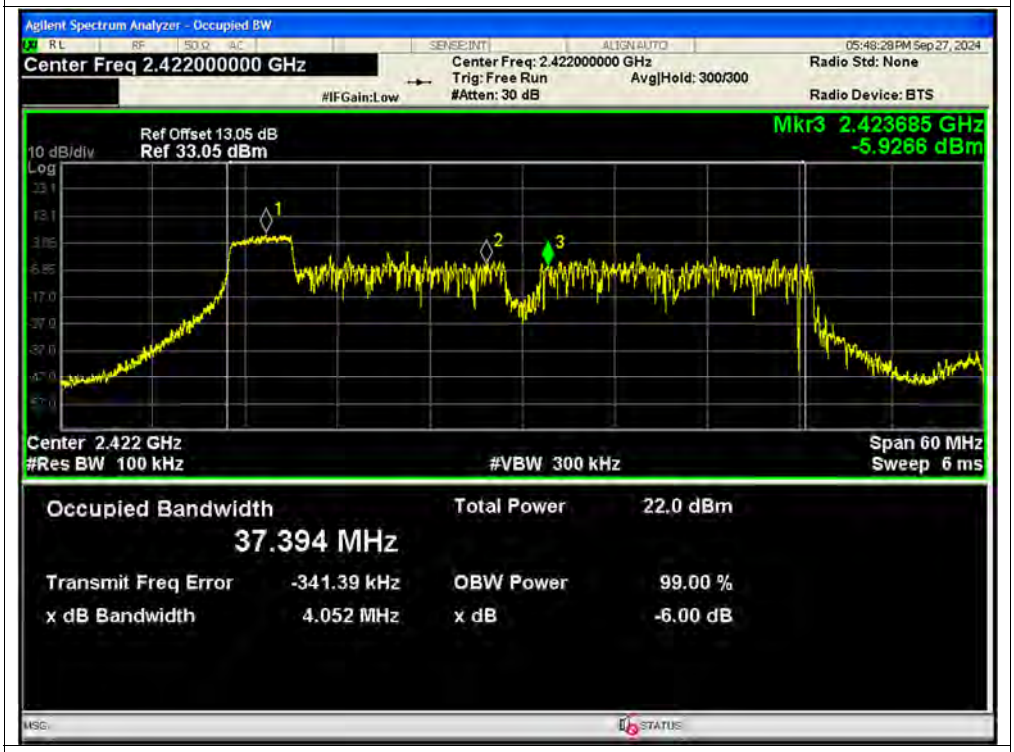
-6dB Bandwidth NVNT ax40 52@37 2422MHz Ant1



-6dB Bandwidth NVNT ax40 52@37 2422MHz Ant2

-6dB Bandwidth NVNT ax40 52@37 2437MHz Ant1

-6dB Bandwidth NVNT ax40 52@37 2437MHz Ant2

-6dB Bandwidth NVNT ax40 52@37 2452MHz Ant1

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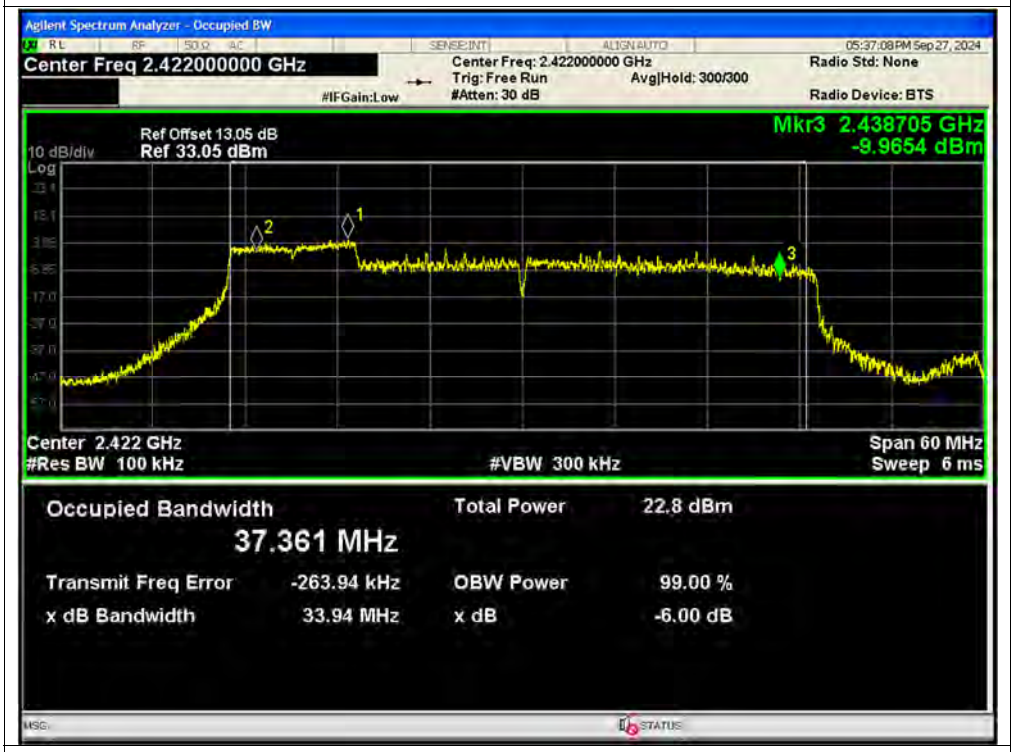
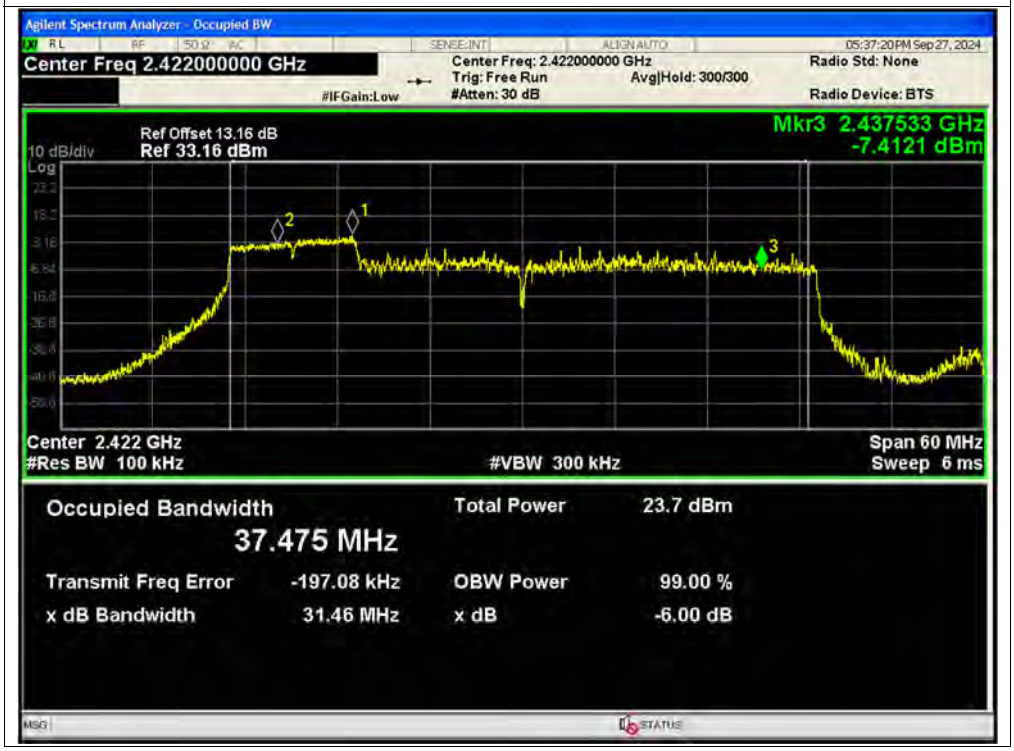
-6dB Bandwidth NVNT ax40 106@53 2422MHz Ant1



-6dB Bandwidth NVNT ax40 106@53 2422MHz Ant2



-6dB Bandwidth NVNT ax40 106@53 2437MHz Ant1

-6dB Bandwidth NVNT ax40 106@53 2437MHz Ant2

-6dB Bandwidth NVNT ax40 106@53 2452MHz Ant1

-6dB Bandwidth NVNT ax40 106@53 2452MHz Ant2

-6dB Bandwidth NVNT ax40 242@61 2422MHz Ant1

-6dB Bandwidth NVNT ax40 242@61 2422MHz Ant2

-6dB Bandwidth NVNT ax40 242@61 2437MHz Ant1

-6dB Bandwidth NVNT ax40 242@61 2437MHz Ant2

-6dB Bandwidth NVNT ax40 242@61 2452MHz Ant1

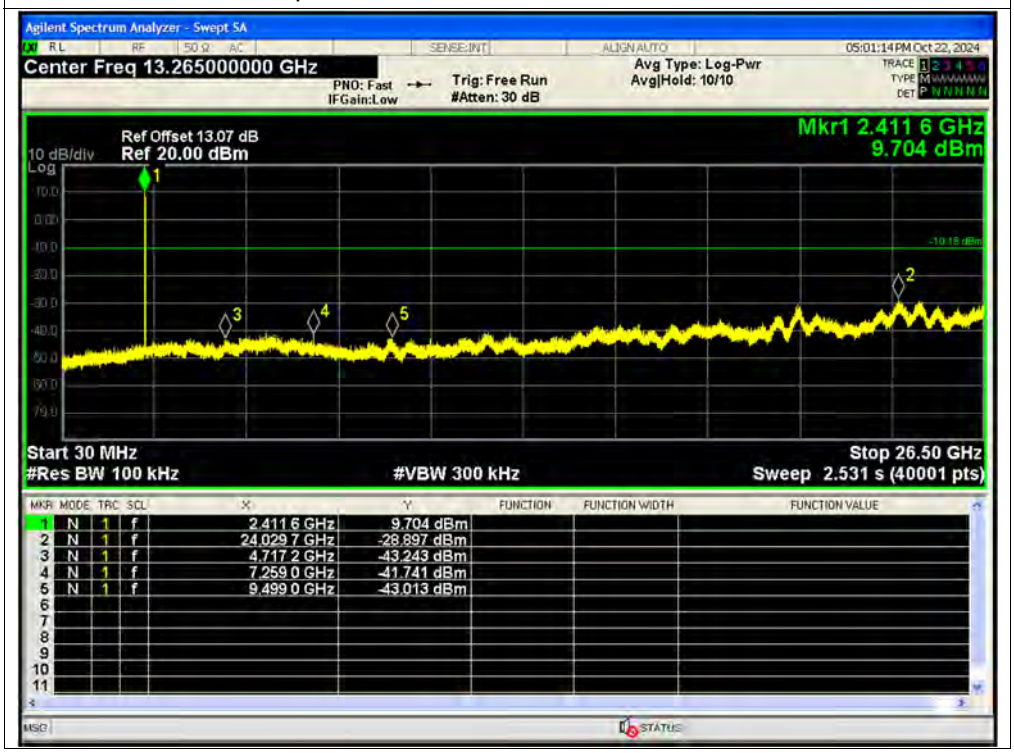
-6dB Bandwidth NVNT ax40 242@61 2452MHz Ant2

A.5. Conducted Spurious Emissions

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-38.71	-20	Pass
NVNT	b	2437	Ant1	-39.51	-20	Pass
NVNT	b	2462	Ant1	-37.78	-20	Pass
NVNT	b	2412	Ant2	-38.91	-20	Pass
NVNT	b	2437	Ant2	-38.9	-20	Pass
NVNT	b	2462	Ant2	-37.52	-20	Pass
NVNT	g	2412	Ant1	-34.16	-20	Pass
NVNT	g	2437	Ant1	-34.81	-20	Pass
NVNT	g	2462	Ant1	-35.2	-20	Pass
NVNT	g	2412	Ant2	-35.38	-20	Pass
NVNT	g	2437	Ant2	-33.76	-20	Pass
NVNT	g	2462	Ant2	-33.97	-20	Pass
NVNT	n20	2412	Ant1	-34.65	-20	Pass
NVNT	n20	2437	Ant1	-34.02	-20	Pass
NVNT	n20	2462	Ant1	-33.96	-20	Pass
NVNT	n20	2412	Ant2	-34.9	-20	Pass
NVNT	n20	2437	Ant2	-33.32	-20	Pass
NVNT	n20	2462	Ant2	-32.9	-20	Pass
NVNT	n40	2422	Ant1	-31.01	-20	Pass
NVNT	n40	2437	Ant1	-31.07	-20	Pass
NVNT	n40	2452	Ant1	-31.62	-20	Pass
NVNT	n40	2422	Ant2	-30.27	-20	Pass
NVNT	n40	2437	Ant2	-30.43	-20	Pass
NVNT	n40	2452	Ant2	-30.7	-20	Pass
NVNT	ax20	2412	Ant1	-34.7	-20	Pass
NVNT	ax20	2437	Ant1	-33.63	-20	Pass
NVNT	ax20	2462	Ant1	-33.52	-20	Pass
NVNT	ax20	2412	Ant2	-34.6	-20	Pass
NVNT	ax20	2437	Ant2	-34.83	-20	Pass
NVNT	ax20	2462	Ant2	-34.3	-20	Pass
NVNT	ax40	2422	Ant1	-30.83	-20	Pass
NVNT	ax40	2437	Ant1	-30.46	-20	Pass
NVNT	ax40	2452	Ant1	-31.47	-20	Pass
NVNT	ax40	2422	Ant2	-30.75	-20	Pass
NVNT	ax40	2437	Ant2	-29.66	-20	Pass
NVNT	ax40	2452	Ant2	-30.99	-20	Pass

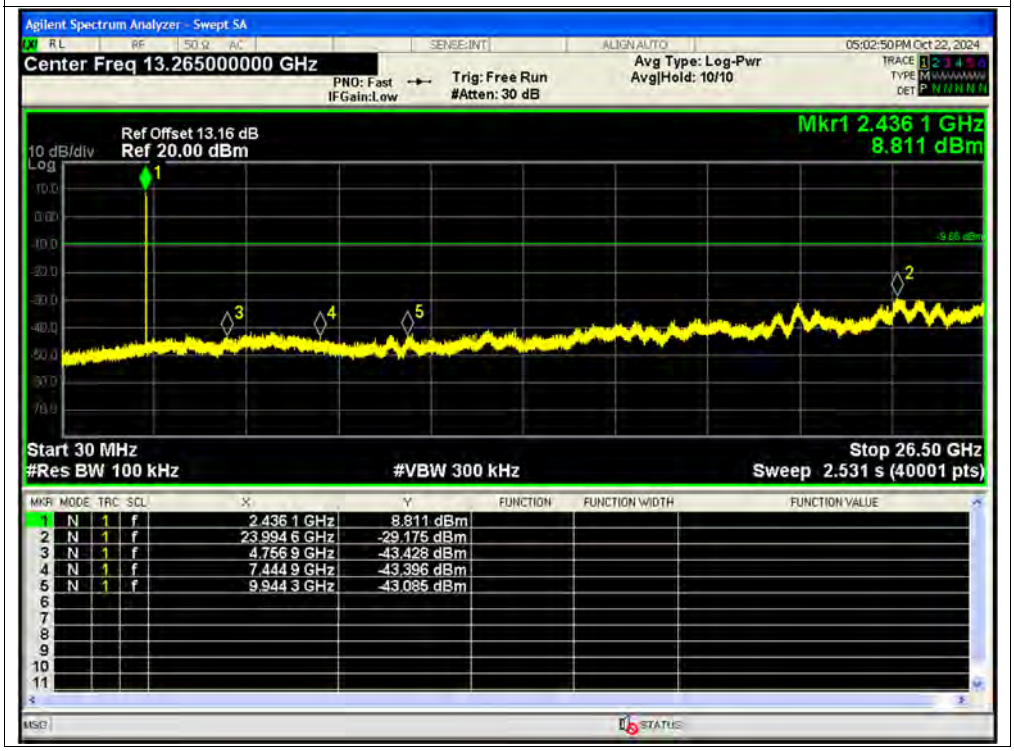
Test Graphs
Tx. Spurious NVNT b 2412MHz Ant1 Ref

Tx. Spurious NVNT b 2412MHz Ant1 Emission



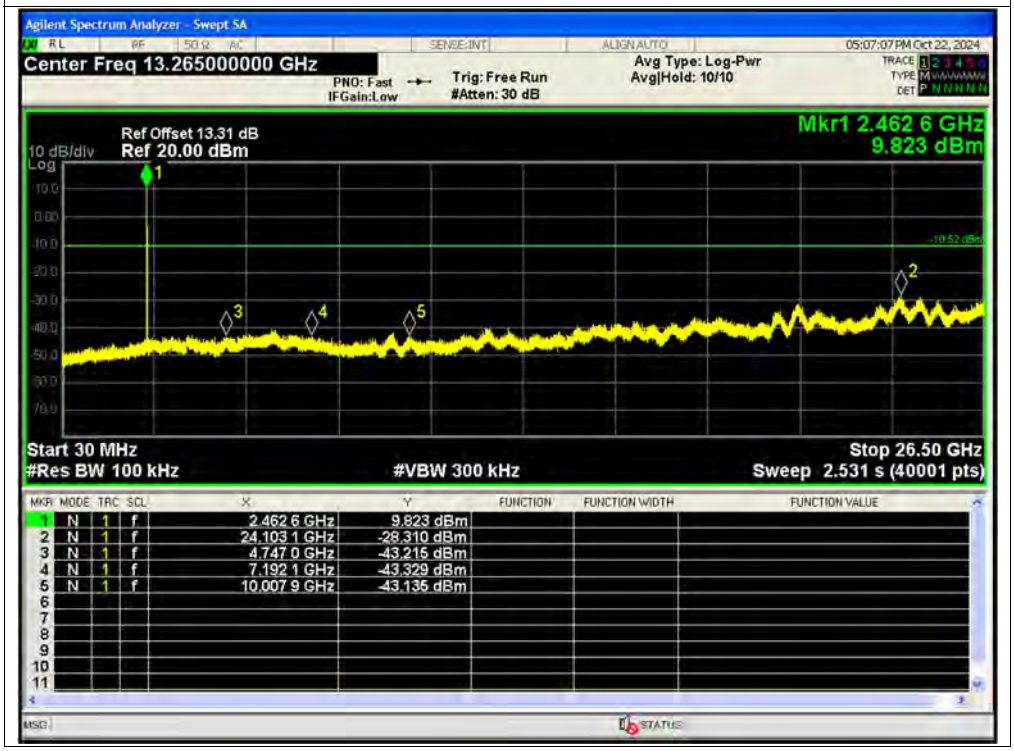
Tx. Spurious NVNT b 2437MHz Ant1 Ref

Tx. Spurious NVNT b 2437MHz Ant1 Emission



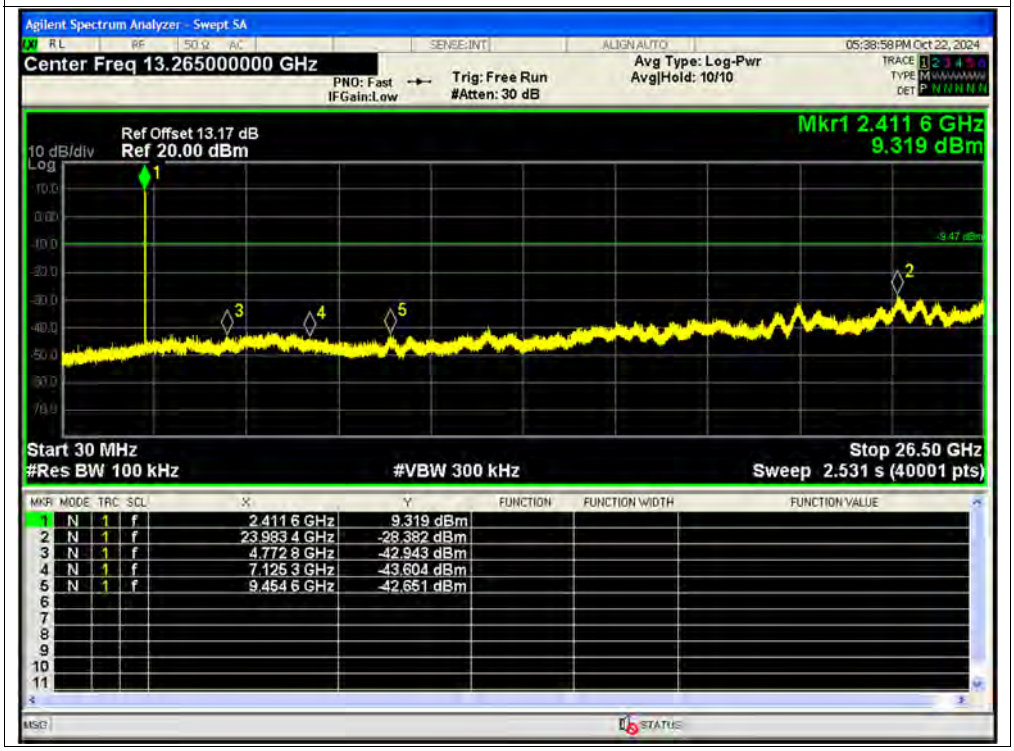
Tx. Spurious NVNT b 2462MHz Ant1 Ref

Tx. Spurious NVNT b 2462MHz Ant1 Emission



Tx. Spurious NVNT b 2412MHz Ant2 Ref

Tx. Spurious NVNT b 2412MHz Ant2 Emission



Tx. Spurious NVNT b 2437MHz Ant2 Ref

Tx. Spurious NVNT b 2437MHz Ant2 Emission