



REPORT No.: SZ24040308W06

TEST REPORT

APPLICANT : POCKETALK CORPORATION

PRODUCT NAME : POCKETALK S2

MODEL NAME : PTS2

BRAND NAME : POCKETALK

FCC ID : 2BGXA-PTS2

STANDARD(S) : 47 CFR Part 15 Subpart C

RECEIPT DATE : 2024-06-07

TEST DATE : 2024-06-18 to 2024-07-04

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Edited by:

Peng Mi

Peng Mi (Rapporteur)

Approved by:

Shen Junsheng

Shen Junsheng (Supervisor)

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MORLAB

Shenzhen Morlab Communications Technology Co., Ltd.
FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen, Guangdong Province, P. R. China

Tel: 86-755-36698555

Http://www.morlab.cn

Fax: 86-755-36698525

E-mail: service@morlab.cn





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Change History		
Version	Date	Reason for change
1.0	2024-08-15	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	Jun. 19, 2024	Su Xiaoxian	PASS	No deviation
3	15.247(b)	Maximum Peak Conducted Output Power	Jun. 19, 2024	Su Xiaoxian	PASS	No deviation
4	15.247(b)	Maximum Average Conducted Output Power	Jun. 19, 2024	Su Xiaoxian	PASS	No deviation
5	15.247(a)	Bandwidth	Jun. 19, 2024	Su Xiaoxian	PASS	No deviation
6	15.247(d)	Conducted Spurious Emission and Band Edge	Jun. 19, 2024	Su Xiaoxian	PASS	No deviation
7	15.247(e)	Power Spectral Density	Jun. 19, 2024	Su Xiaoxian	PASS	No deviation
8	15.207	Conducted Emission	Jun. 18&19, 2024	Wen Zhe	PASS	No deviation
9	15.247(d)	Restricted Frequency Bands	Jun. 19, 2024 to Jul. 04, 2024	Li Hanbin	PASS	No deviation
10	15.209, 15.247(d)	Radiated Emission	Jun. 22 to 27, 2024	Li Hanbin	PASS	No deviation

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: 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 3: 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 Name	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	2023.10.17	2024.10.16
Attenuator	MTJ6004-20	VAT-10+	MTJ Cooperation	N/A	N/A
RF Cable (30MHz-26GHz)	CB01	RF01	Morlab	N/A	N/A
Coaxial Cable	CB02	RF02	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	N/A	N/A

1.2.3 List of Software Used

Description	Manufacturer	Software Version
Test System	MaiWei	2.0.0.0
Morlab EMCR	Morlab	V1.2
TS+ -[JS32-CE]	Tonscend	V2.5.0.0

**1.2.4 Radiated Test Equipment**

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	MY56060145	N9020A	Agilent	2024.05.30	2025.05.29
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2023.07.01	2024.06.30
				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	2023.07.01	2024.06.30
				2024.06.22	2025.06.21
Test Antenna – Horn	BBHA9170 #773	BBHA9170	Schwarzbeck	2023.07.01	2024.06.30
				2024.06.22	2025.06.21
Preamplifier (10MHz-6GHz)	46732	S10M100L38 02	LUCIX CORP.	2024.05.30	2025.05.29
Preamplifier (2GHz-18GHz)	61171/61172	S020180L32 03	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-K K-0.5	Qualwave	N/A	N/A
RF Coaxial Cable (DC-40GHz)	22290046	QA360-40-K KF-2	Qualwave	N/A	N/A
RF Coaxial Cable (DC-18GHz)	22120181	QA500-18-N N-5	Qualwave	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	$\pm 2.22\text{dB}$	Confidence levels of 95%
Power Spectral Density	$\pm 2.22\text{dB}$	Confidence levels of 95%
Bandwidth	$\pm 5\%$	Confidence levels of 95%
Conducted Spurious Emission	$\pm 2.77\text{dB}$	Confidence levels of 95%
Restricted Frequency Bands	$\pm 5\%$	Confidence levels of 95%
Radiated Emission	$\pm 2.95\text{dB}$	Confidence levels of 95%
Conducted Emission	$\pm 2.44\text{dB}$	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	POCKETALK CORPORATION
Applicant Address	4F Hamamatsucho PREX, 2-2-12 Shiba, Minato-ku, Tokyo 105-0014, Japan
Manufacturer	JENESIS (SHEN ZHEN) CO., LTD.
Manufacturer Address	6th Floor, Building A, No.2 Luozhu Industrial Avenue, Luozhu Community, Shiyan Street, Bao'an District, Shenzhen City, Guangdong Province.

2.2. Information of EUT

Product Name:	POCKETALK S2	
Sample No.:	1#	
Hardware Version:	V1.0	
Software Version:	V1.0.2	
Modulation Technology:	DSSS, OFDM	
Modulation Type:	Refer to section1.3	
Wireless Technology:	802.11b, 802.11g, 802.11n (HT20), 802.11n (HT40)	
Operating Frequency Range:	2412MHz–2462MHz	
Antenna Type:	PIFA Antenna	
Antenna Gain:	2.17dBi	
Accessory Information:	Battery	
	Brand Name:	N/A
	Model No.:	PT393952
	Serial No.:	N/A
	Capacity:	1200mAh
	Rated Voltage:	3.8V
	Charge Limit:	4.35V
	Manufacturer:	Guangdong Pow-Tech New Power Co., Ltd.



Accessory Information:	AC Adapter 1	
	Brand Name:	FLYPOWER
	Model No.:	PS06CA050K1000UU
	Serial No.:	N/A
	Rated Output:	5V $\equiv$ 1A
	Rated Input:	100-240V $\sim$ 50/60Hz, 0.25A
	Manufacturer:	Shenzhen Flypower Technology Co., Ltd.
	AC Adapter 2	
	Brand Name:	FLYPOWER
	Model No.:	PS06CA050K1000JU
	Serial No.:	N/A
	Rated Output:	5V $\equiv$ 1A
	Rated Input:	100-240V $\sim$ 50/60Hz, 0.25A
	Manufacturer:	Shenzhen Flypower Technology Co., Ltd.
	USB Cable	
	Model No.:	N/A
	Manufacturer:	DONG GUAN KOMAK ELECTRONICSCO.,LTD

Note 1: We use the dedicated software to control the EUT continuous transmission.

Note 2: 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

Test Mode	Channel	Frequency (MHz)	Channel	Frequency (MHz)
802.11b/g/n (HT20)	1	2412	8	2447
	2	2417	9	2452
	3	2422	10	2457
	4	2427	11	2462
	5	2432		
	6	2437		
	7	2442		
Test Mode	Channel	Frequency (MHz)	Channel	Frequency (MHz)
802.11n (HT40)	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	6/9/12/18/24/36/48/54 Mbps	N/A
			QPSK		
			16QAM		
			64QAM		
802.11n	20/40 (HT20/40)	OFDM	BPSK	MCS0~MCS7	N/A
			QPSK		
			16QAM		
			64QAM		

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.

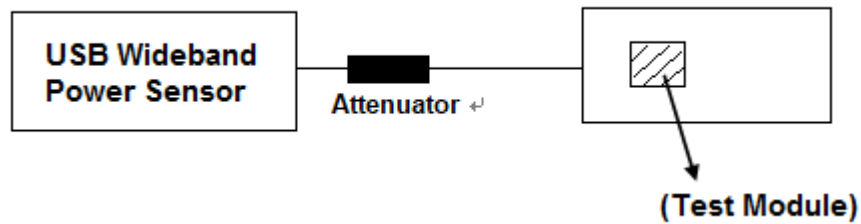
2.5. Test Conditions

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

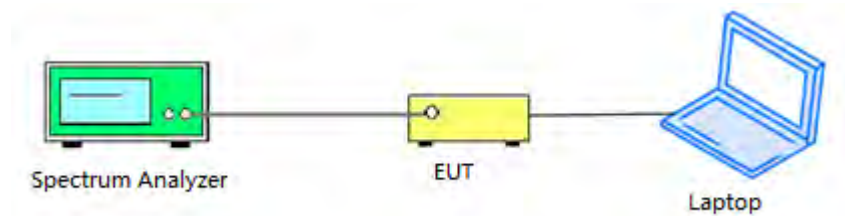
2.6. Test Setup Layout Diagram

2.6.1. Conducted Measurement

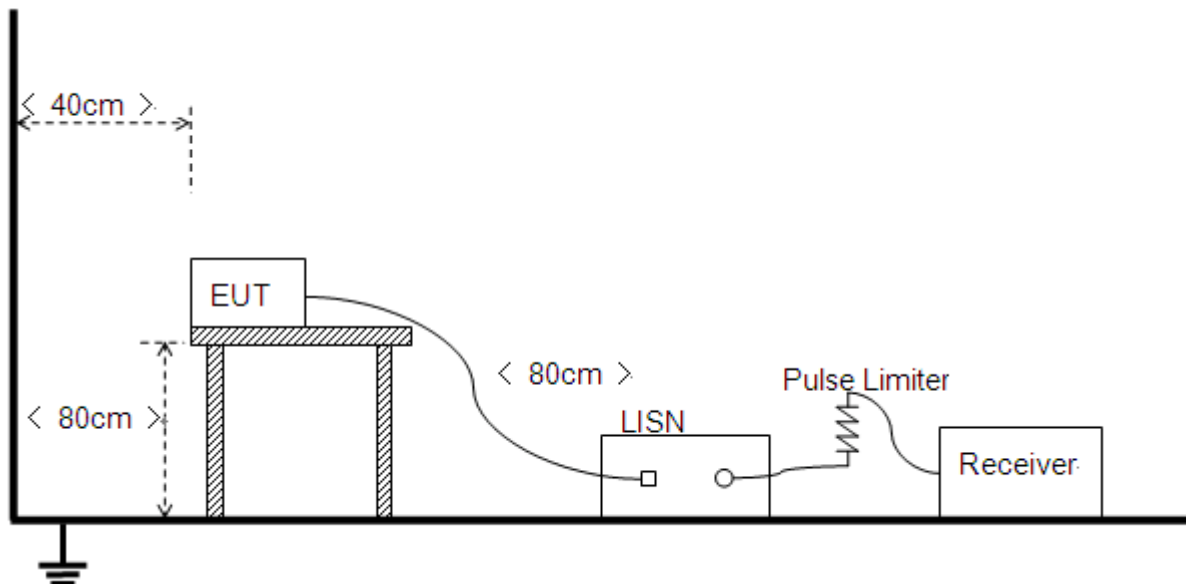
Power item



Other items

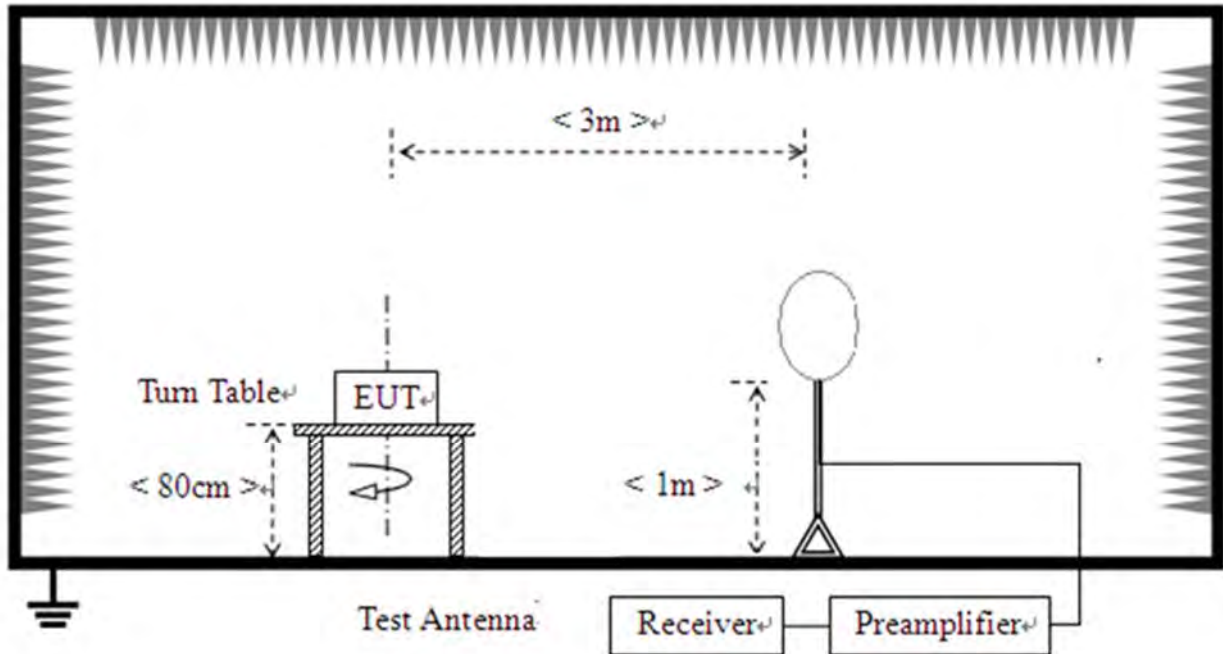


2.6.2. Conducted Emission Measurement

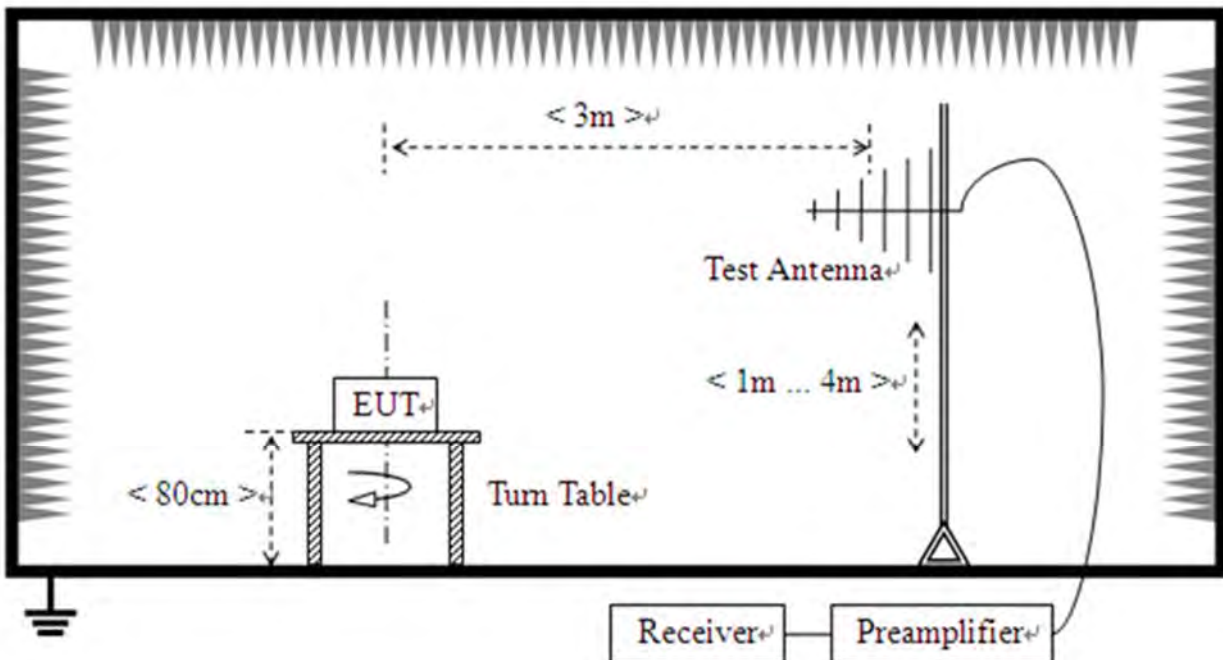


2.6.3.Radiation Measurement

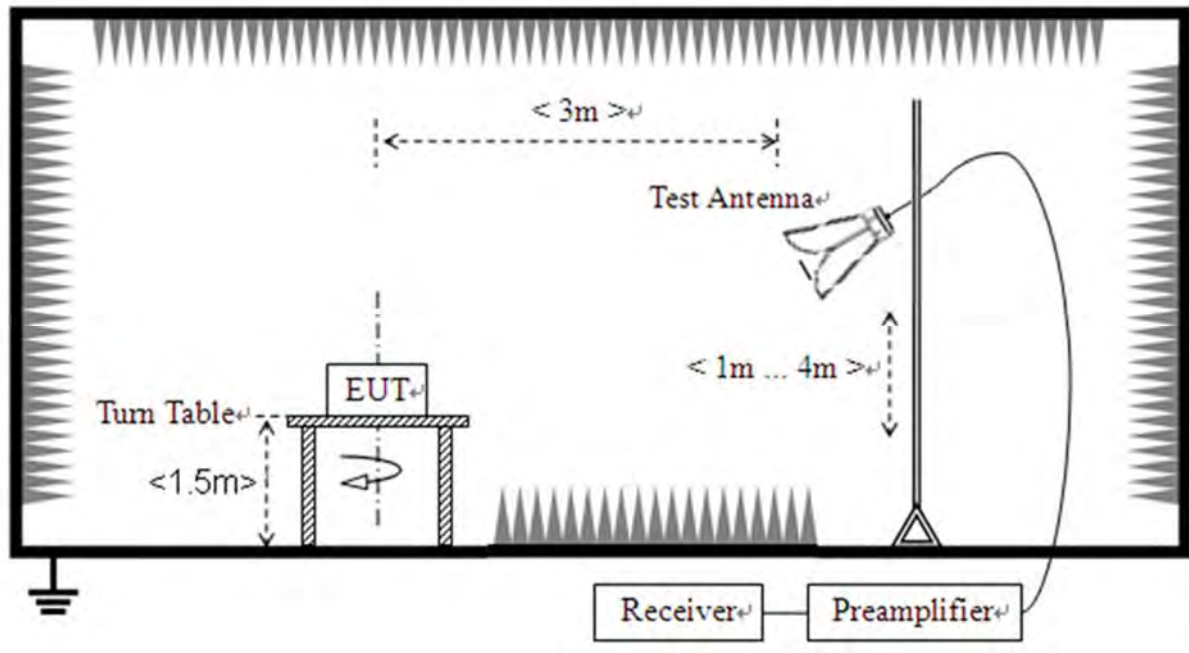
1) For radiated emissions from 9kHz to 30MHz



2) For radiated emissions from 30MHz to 1GHz



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	☒ I-PEX Connector ☐ SMA Connector ☐ RP-SMA Connector ☐ Metal Shrapnel

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 $\pm 2\%$; 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 to 1.5 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 50 μ H/50 Ω line impedance stabilization network (LISN).

Frequency Range (MHz)	Conducted Limit (dB μ V)	
	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 $f \geq 1\text{GHz}$, 100 kHz for $f < 1\text{GHz}$

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 ($\mu\text{V/m}$)	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 3 meters. 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

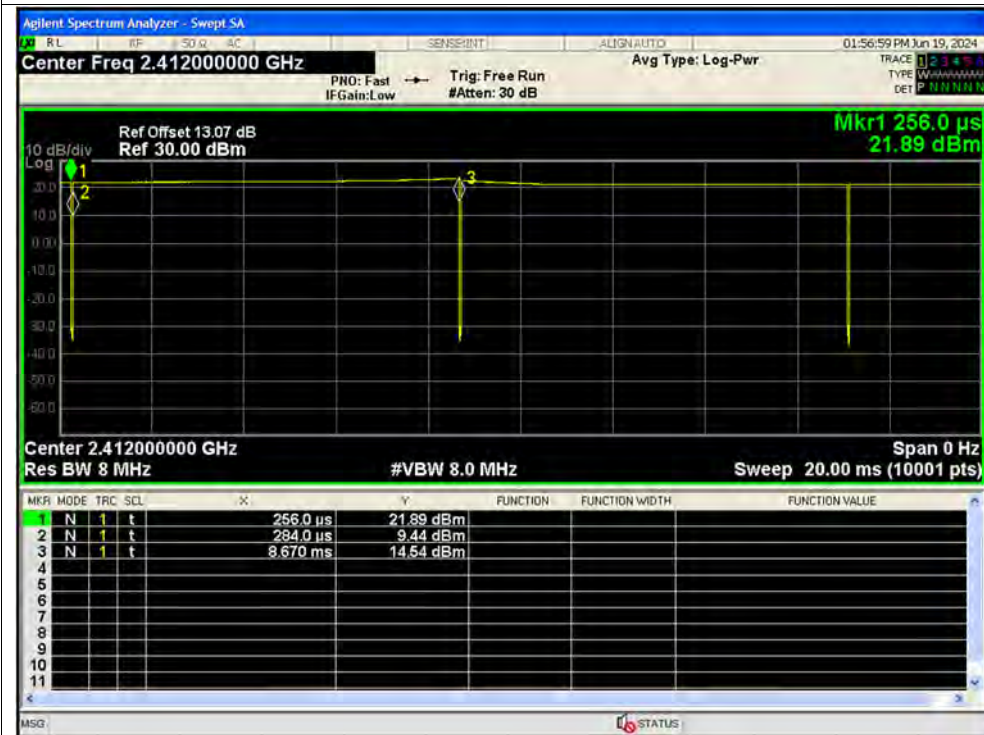
A.1. Duty Cycle of Test Signal

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	99.67	0.01	0.12
NVNT	b	2437	Ant1	99.67	0.01	0.12
NVNT	b	2462	Ant1	99.67	0.01	0.12
NVNT	g	2412	Ant1	97.62	0.1	0.72
NVNT	g	2437	Ant1	97.62	0.1	0.72
NVNT	g	2462	Ant1	97.48	0.11	0.72
NVNT	n20	2412	Ant1	97.45	0.11	0.77
NVNT	n20	2437	Ant1	97.31	0.12	0.77
NVNT	n20	2462	Ant1	97.31	0.12	0.77
NVNT	n40	2422	Ant1	95.01	0.22	1.54
NVNT	n40	2437	Ant1	95.01	0.22	1.54
NVNT	n40	2452	Ant1	95.01	0.22	1.54

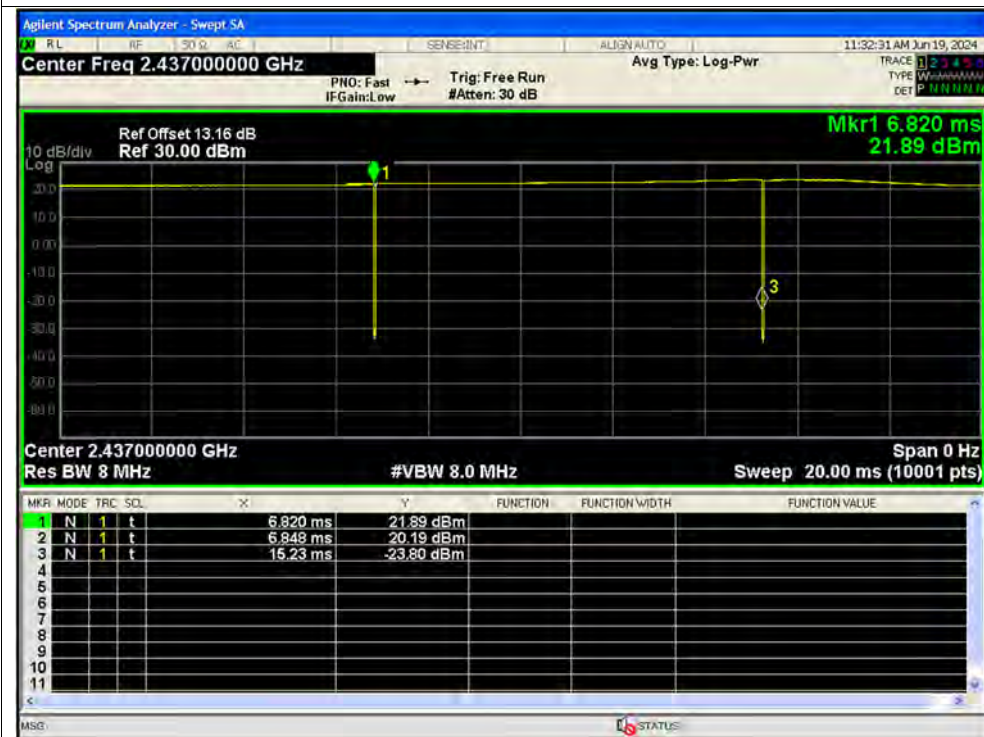


Test Graphs

Duty Cycle NVNT b 2412MHz Ant1

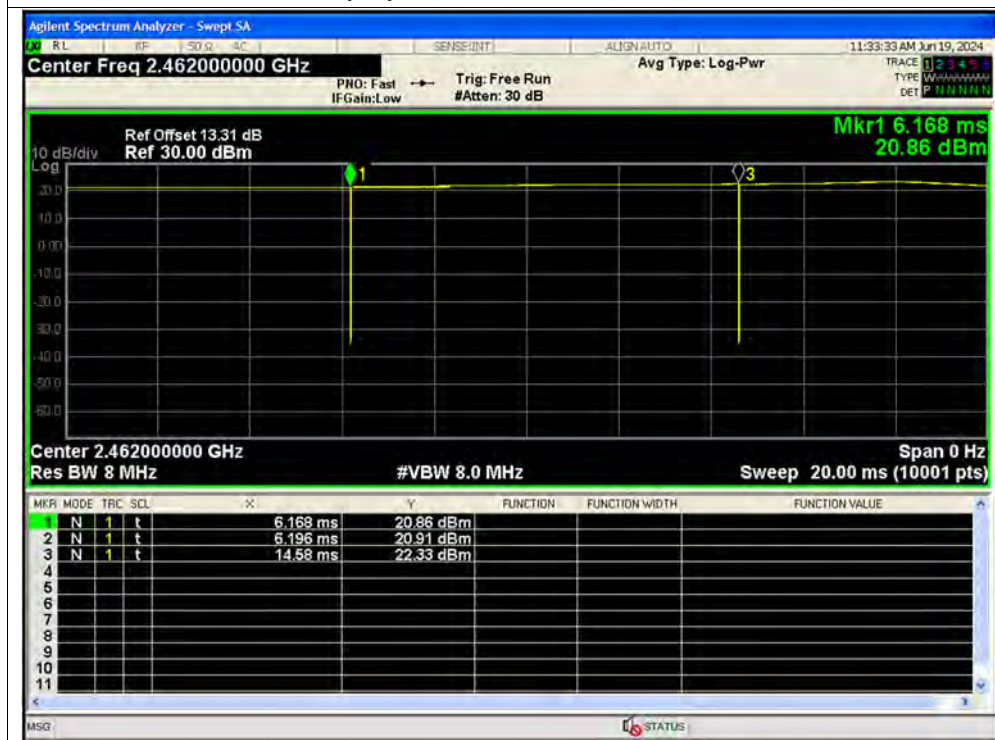


Duty Cycle NVNT b 2437MHz Ant1

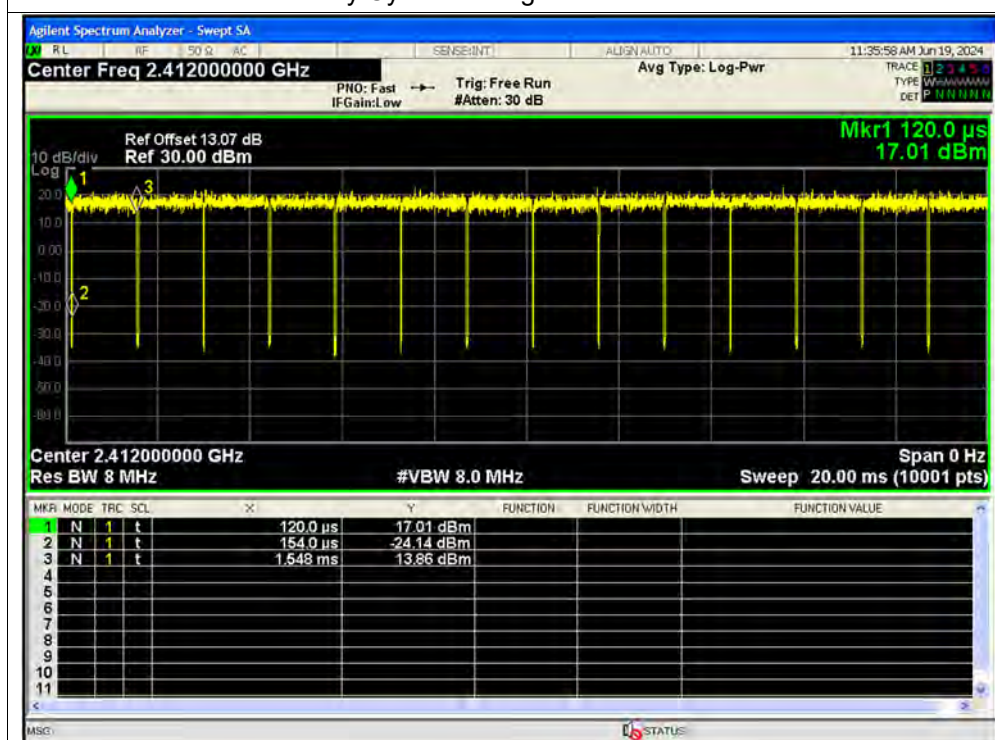




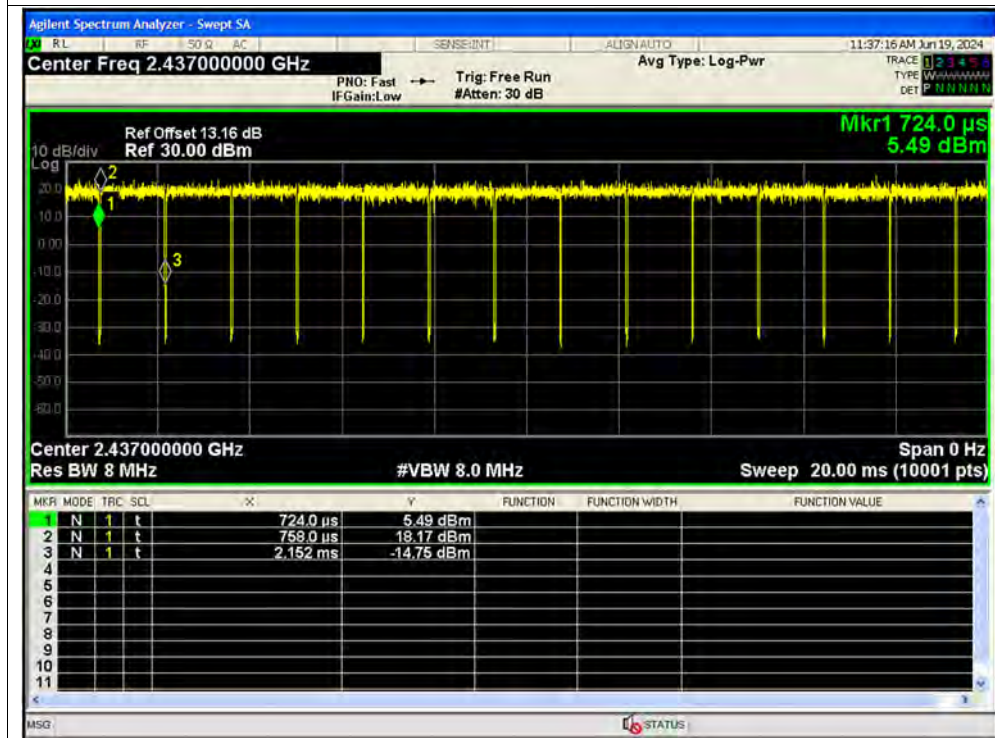
Duty Cycle NVNT b 2462MHz Ant1



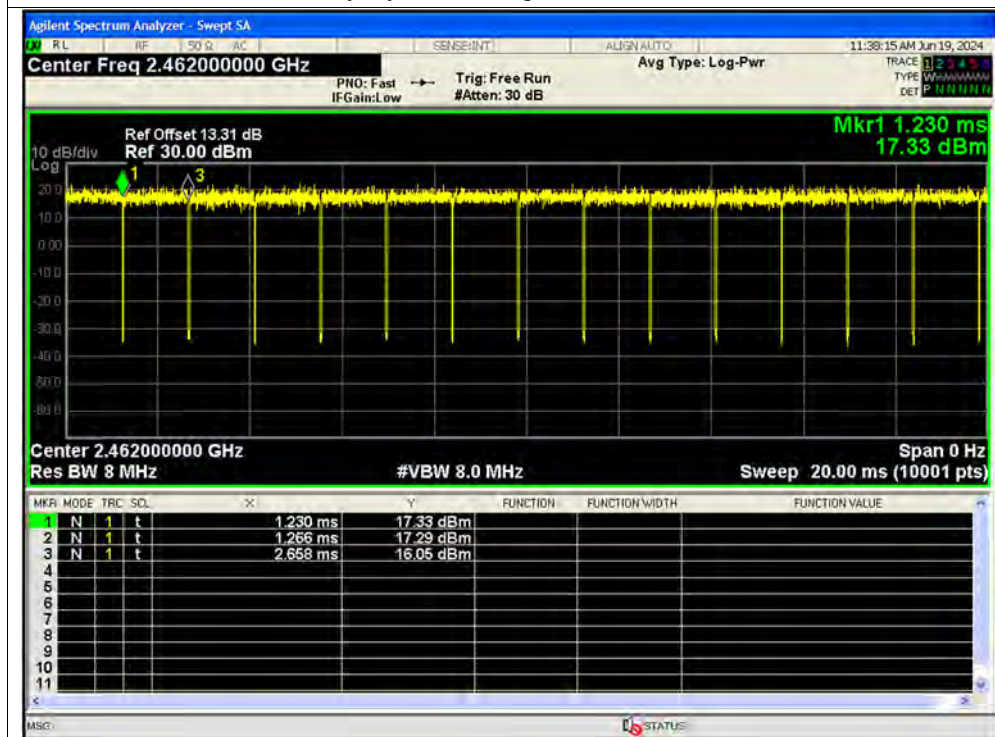
Duty Cycle NVNT g 2412MHz Ant1

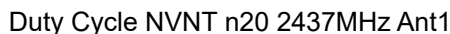


Duty Cycle NVNT g 2437MHz Ant1



Duty Cycle NVNT g 2462MHz Ant1

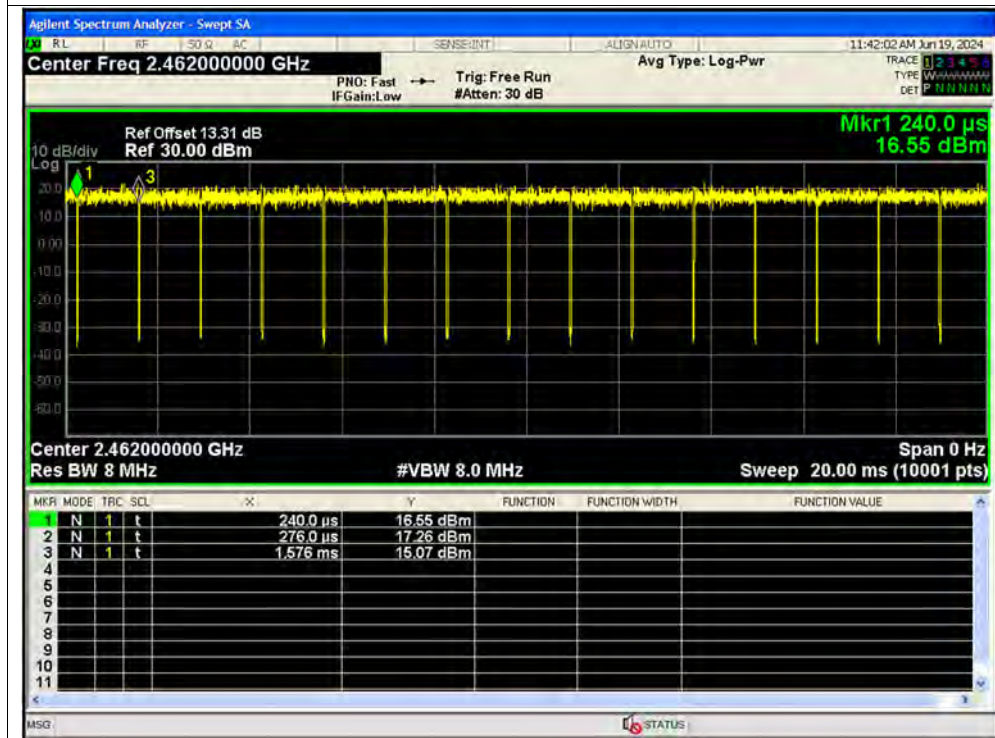




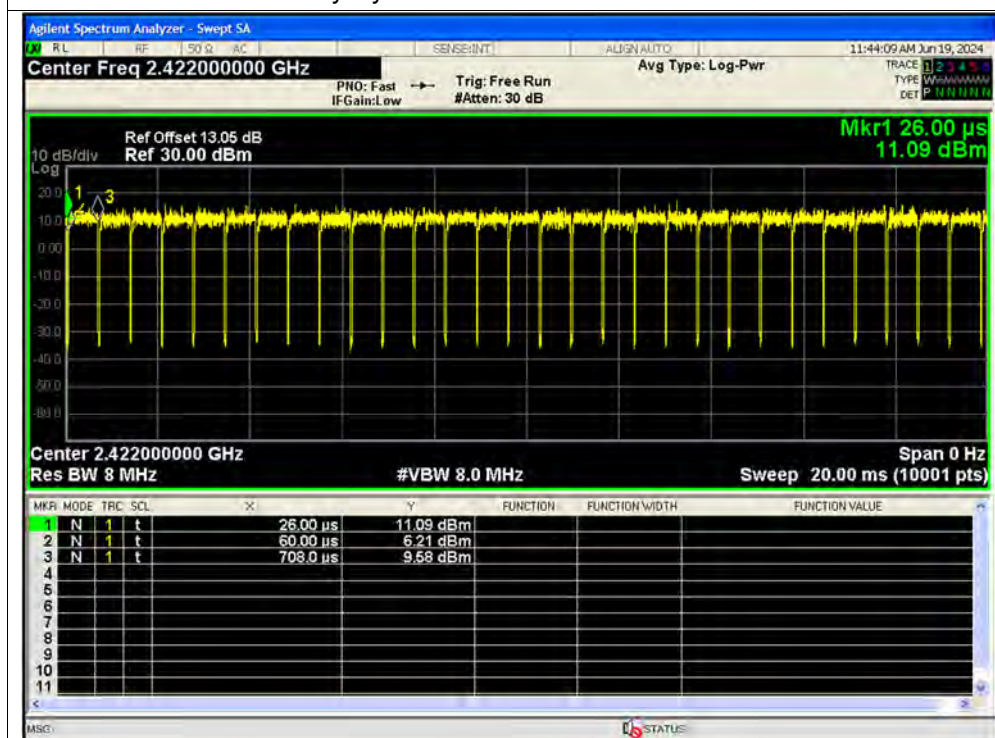
E-mail: service@morlab.cn



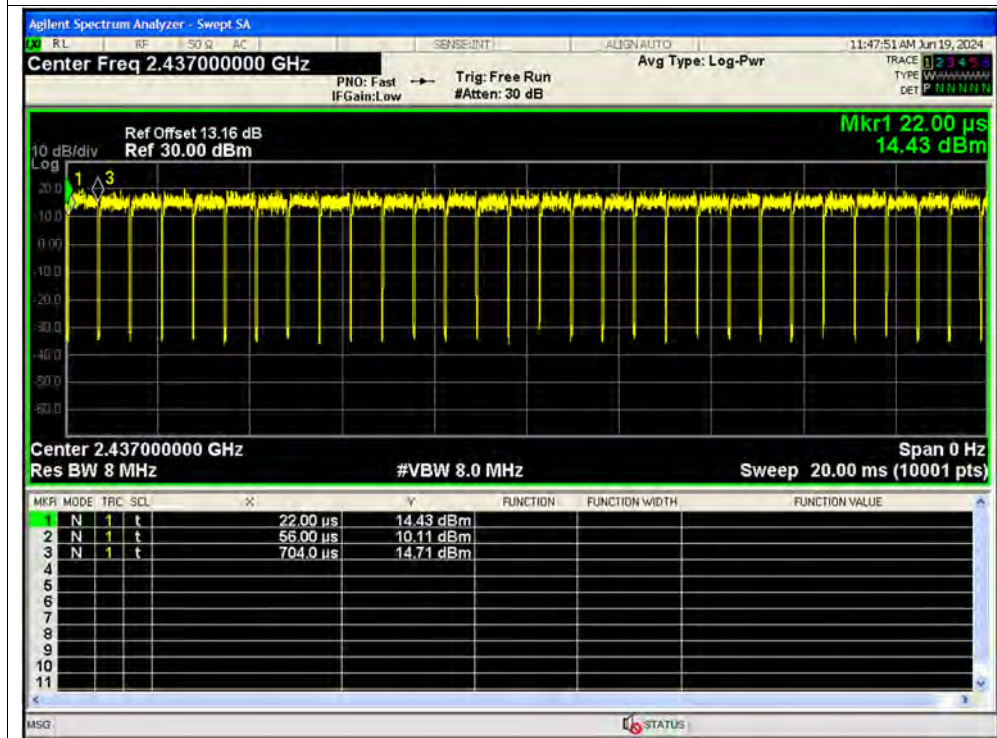
Duty Cycle NVNT n20 2462MHz Ant1



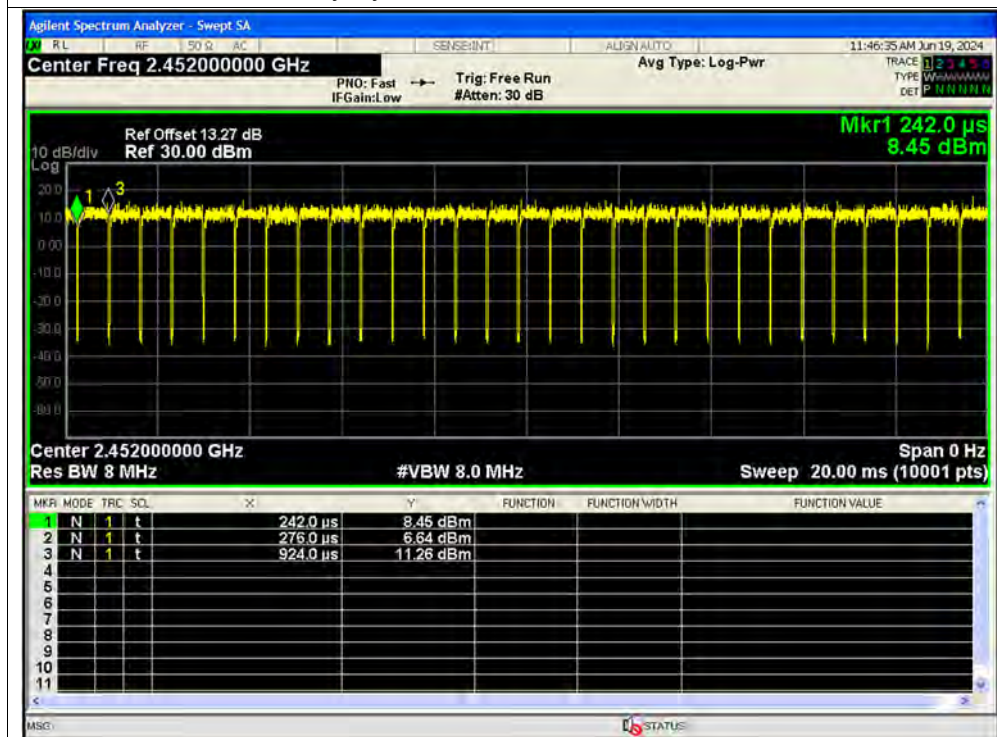
Duty Cycle NVNT n40 2422MHz Ant1



Duty Cycle NVNT n40 2437MHz Ant1



Duty Cycle NVNT n40 2452MHz Ant1

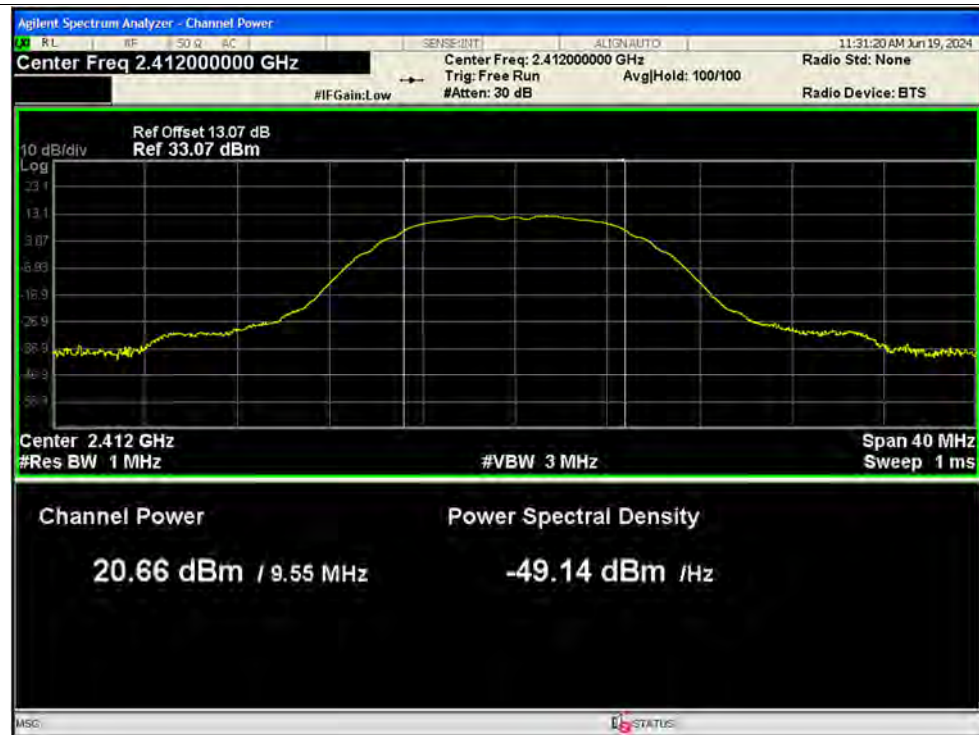


**A.2. Maximum Peak Conducted Output Power**

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	20.66	0	20.66	0.11641	30	Pass
NVNT	b	2437	Ant1	20.91	0	20.91	0.12331	30	Pass
NVNT	b	2462	Ant1	20.87	0	20.87	0.12218	30	Pass
NVNT	g	2412	Ant1	21.05	0	21.05	0.12735	30	Pass
NVNT	g	2437	Ant1	22.99	0	22.99	0.19907	30	Pass
NVNT	g	2462	Ant1	21.47	0	21.47	0.14028	30	Pass
NVNT	n20	2412	Ant1	21.07	0	21.07	0.12794	30	Pass
NVNT	n20	2437	Ant1	22.86	0	22.86	0.1932	30	Pass
NVNT	n20	2462	Ant1	21.18	0	21.18	0.13122	30	Pass
NVNT	n40	2422	Ant1	19.4	0	19.4	0.0871	30	Pass
NVNT	n40	2437	Ant1	23.26	0	23.26	0.21184	30	Pass
NVNT	n40	2452	Ant1	19.99	0	19.99	0.09977	30	Pass

Test Graphs

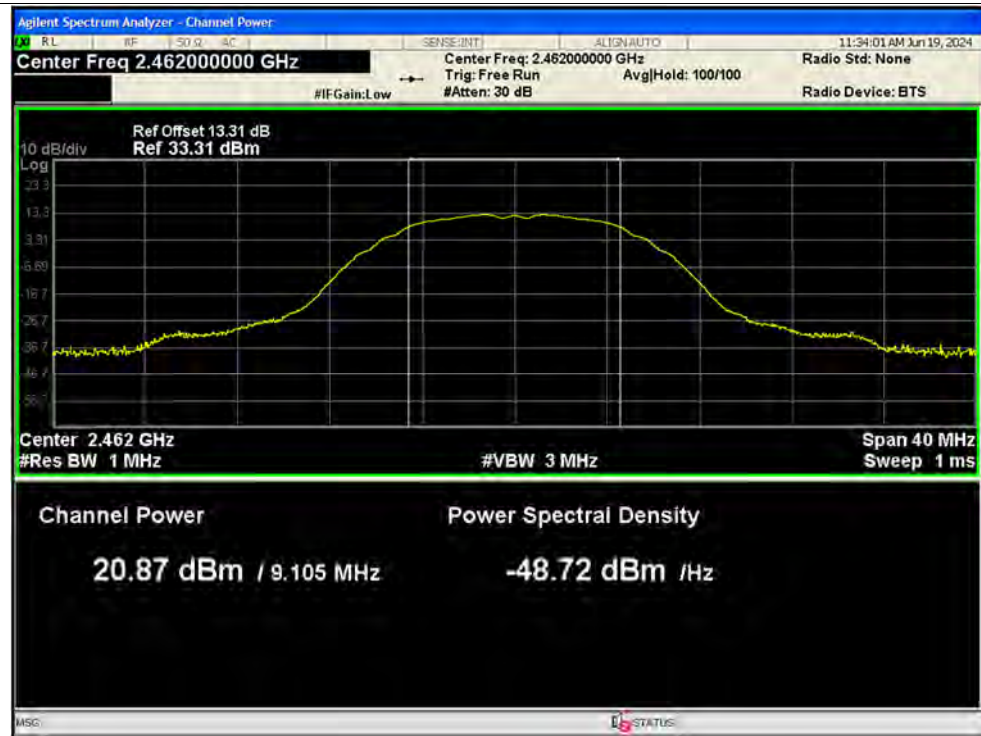
Peak Power NVNT b 2412MHz Ant1



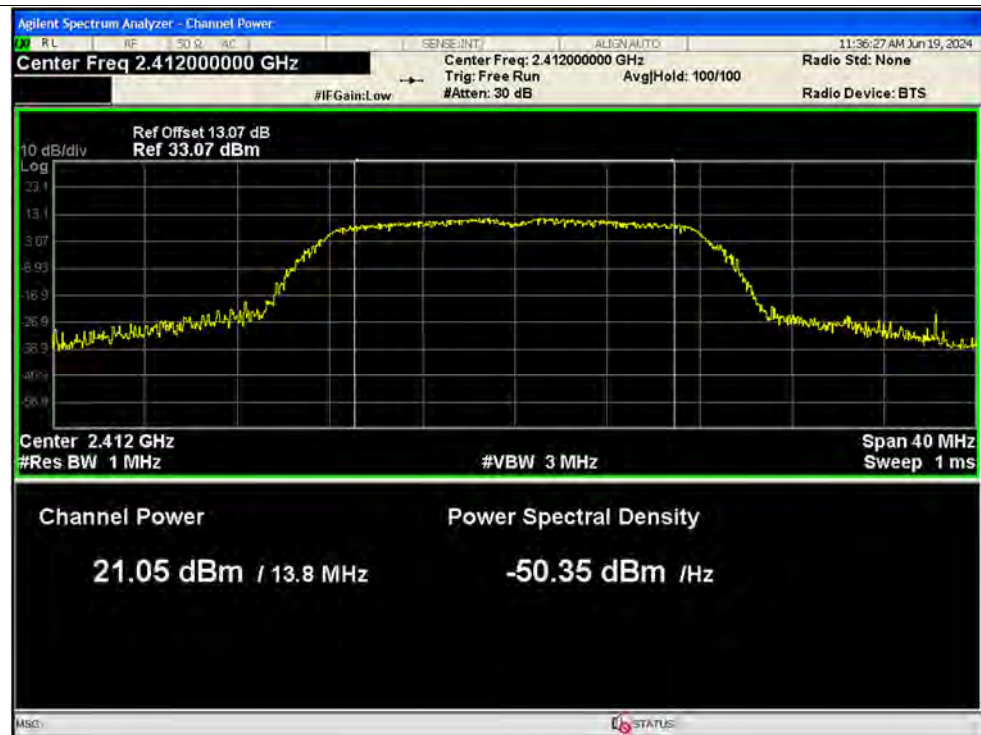
Peak Power NVNT b 2437MHz Ant1



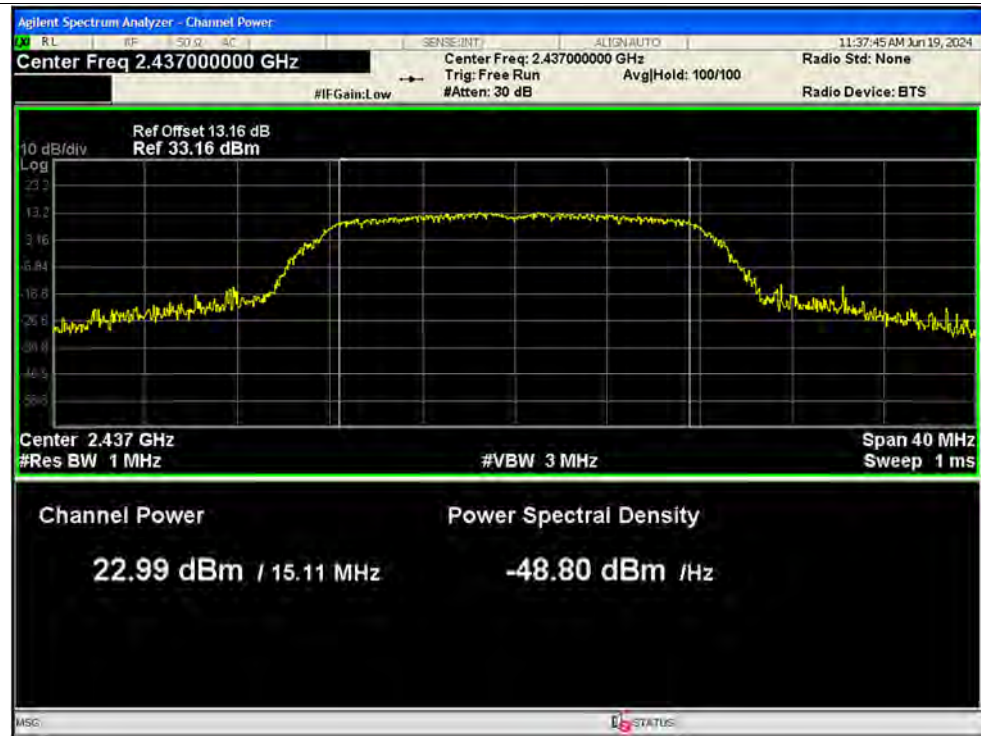
Peak Power NVNT b 2462MHz Ant1



Peak Power NVNT g 2412MHz Ant1



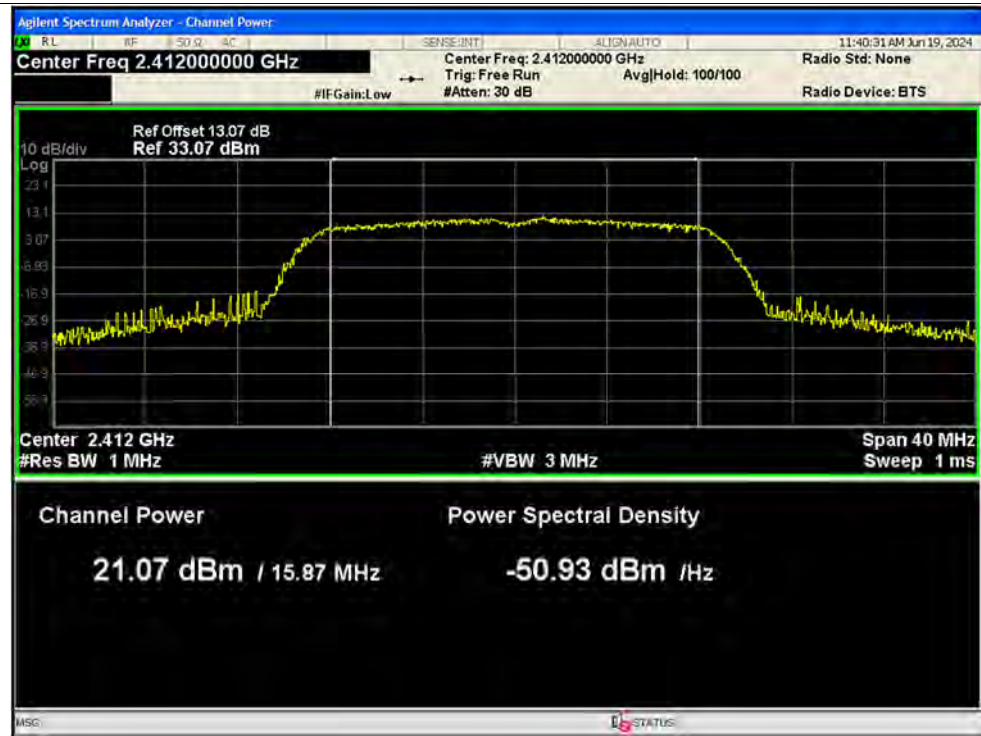
Peak Power NVNT g 2437MHz Ant1



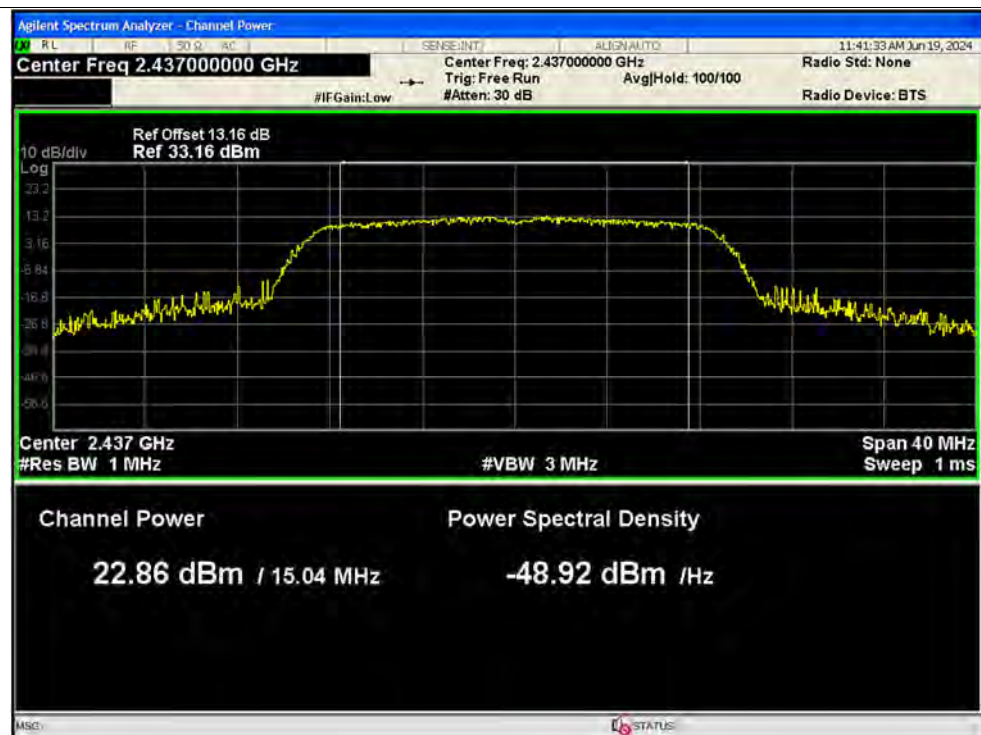
Peak Power NVNT g 2462MHz Ant1



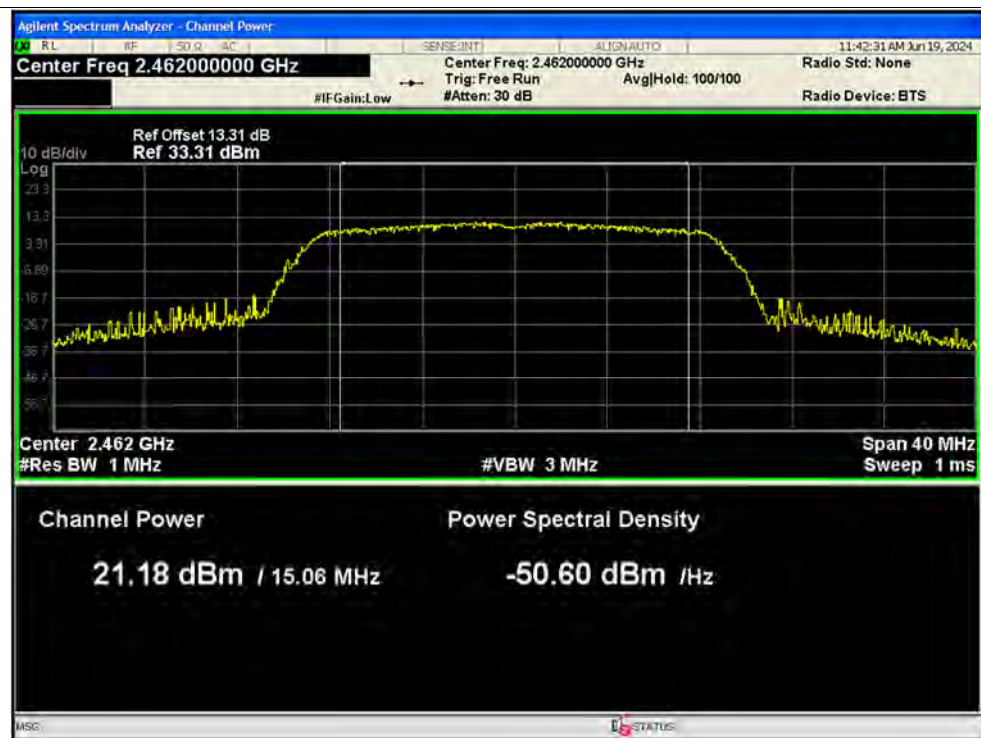
Peak Power NVNT n20 2412MHz Ant1



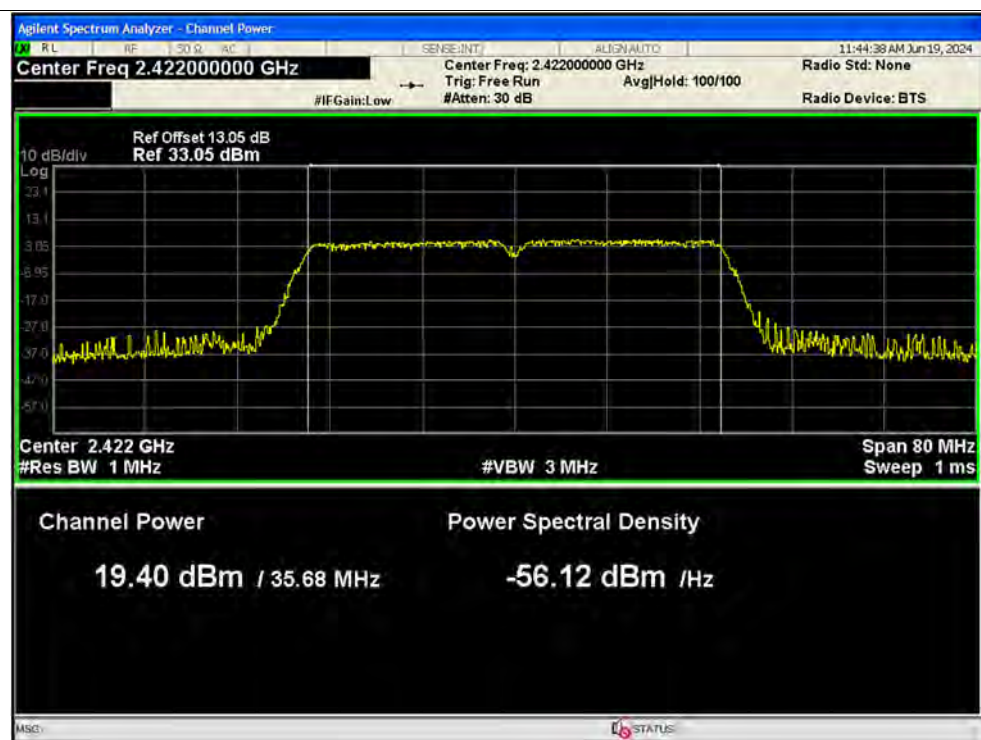
Peak Power NVNT n20 2437MHz Ant1



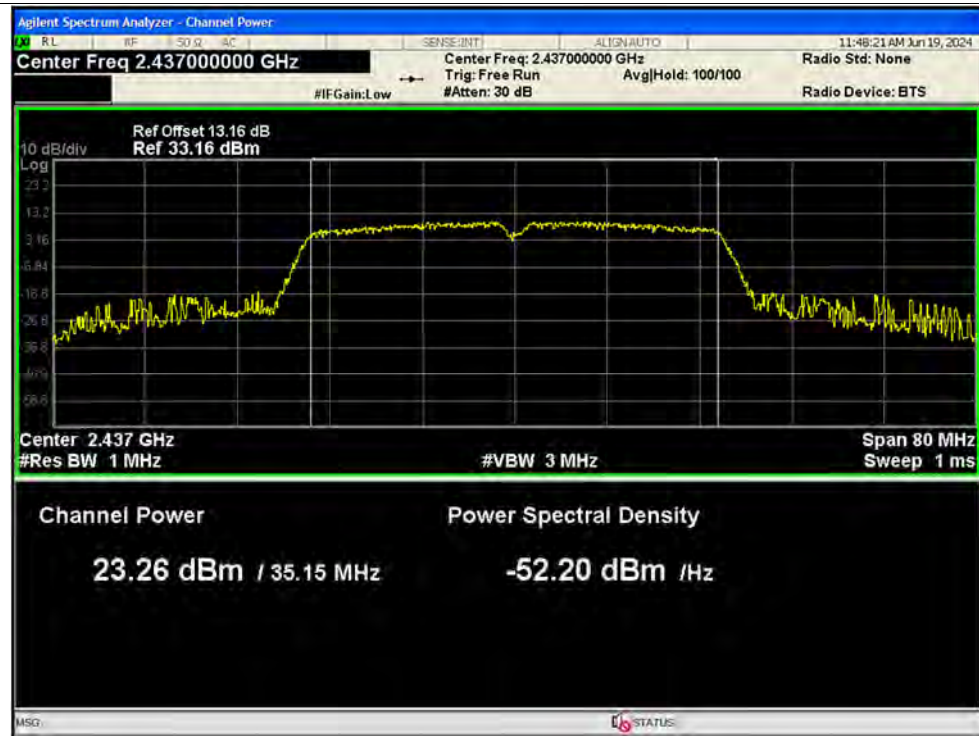
Peak Power NVNT n20 2462MHz Ant1



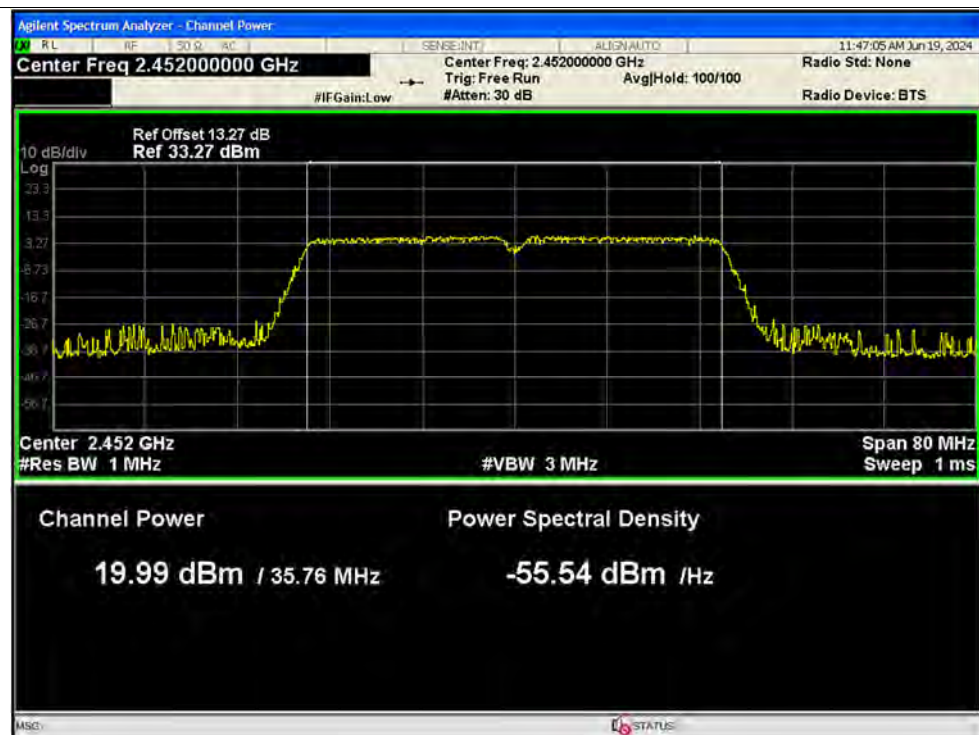
Peak Power NVNT n40 2422MHz Ant1



Peak Power NVNT n40 2437MHz Ant1



Peak Power NVNT n40 2452MHz Ant1

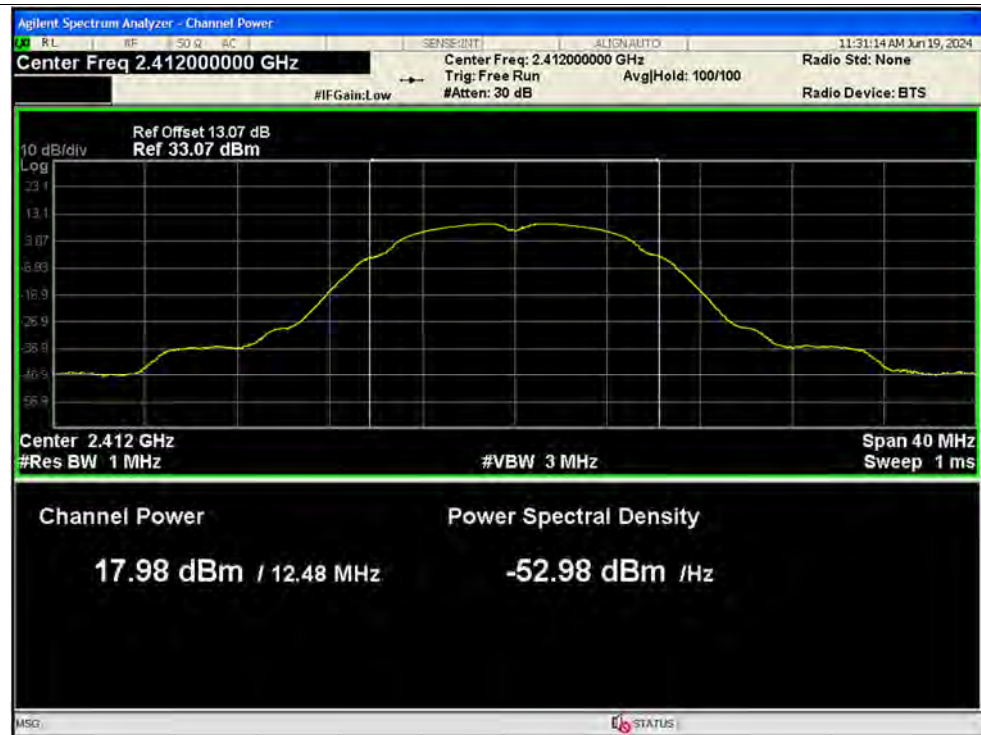


**A.3. Maximum Average Conducted Output Power**

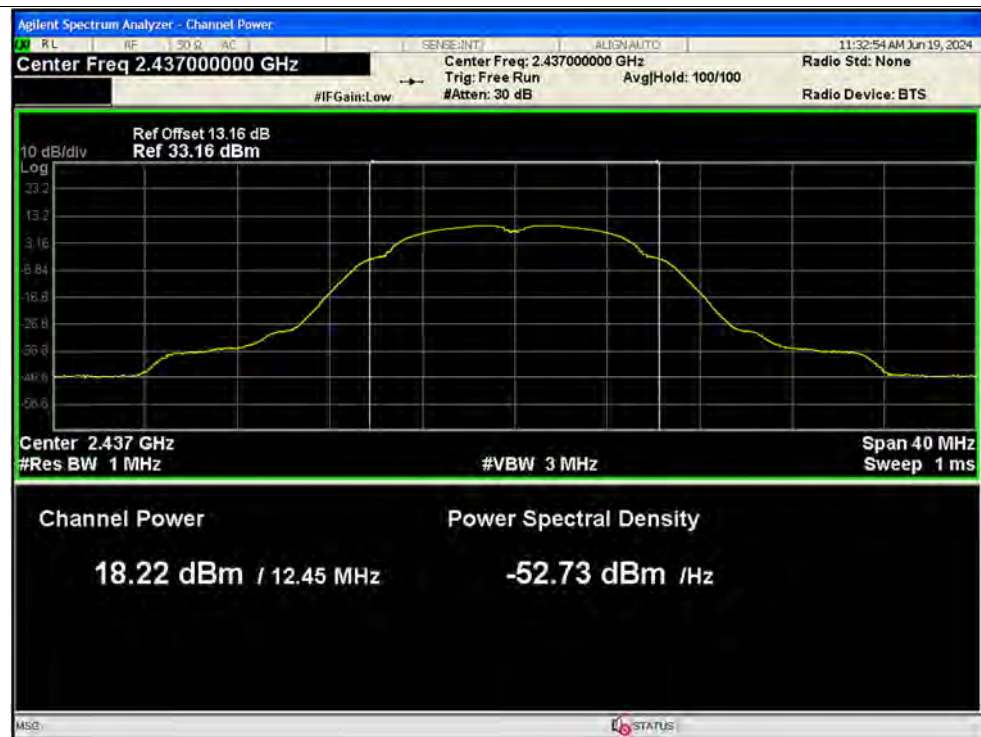
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Conducted Power (dBm)	Total Conducted Power (W)	Limit Conducted (dBm)	Verdict
NVNT	b	2412	Ant1	17.98	0	17.98	0.06281	30	Pass
NVNT	b	2437	Ant1	18.22	0.01	18.23	0.06653	30	Pass
NVNT	b	2462	Ant1	18.32	0.01	18.33	0.06808	30	Pass
NVNT	g	2412	Ant1	14.19	0.1	14.29	0.02685	30	Pass
NVNT	g	2437	Ant1	16	0.1	16.1	0.04074	30	Pass
NVNT	g	2462	Ant1	14.32	0.11	14.43	0.02773	30	Pass
NVNT	n20	2412	Ant1	14.02	0.11	14.13	0.02588	30	Pass
NVNT	n20	2437	Ant1	15.97	0.12	16.09	0.04064	30	Pass
NVNT	n20	2462	Ant1	14.23	0.12	14.35	0.02723	30	Pass
NVNT	n40	2422	Ant1	11.99	0.22	12.21	0.01663	30	Pass
NVNT	n40	2437	Ant1	15.92	0.22	16.14	0.04111	30	Pass
NVNT	n40	2452	Ant1	12.5	0.22	12.72	0.01871	30	Pass

Test Graphs

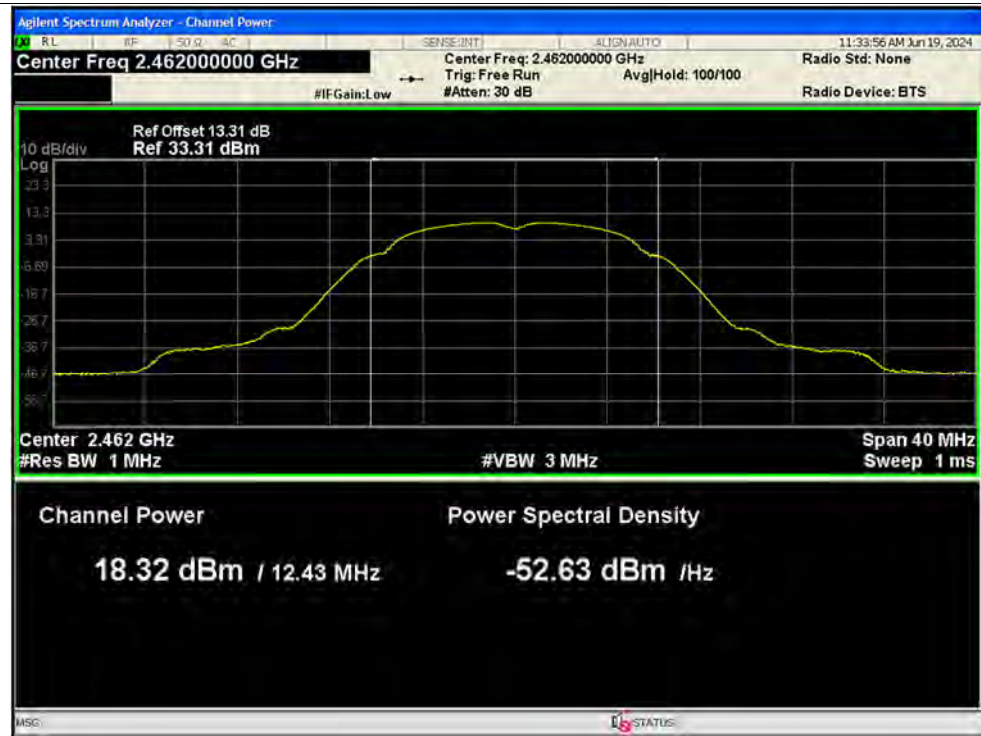
Average Power NVNT b 2412MHz Ant1



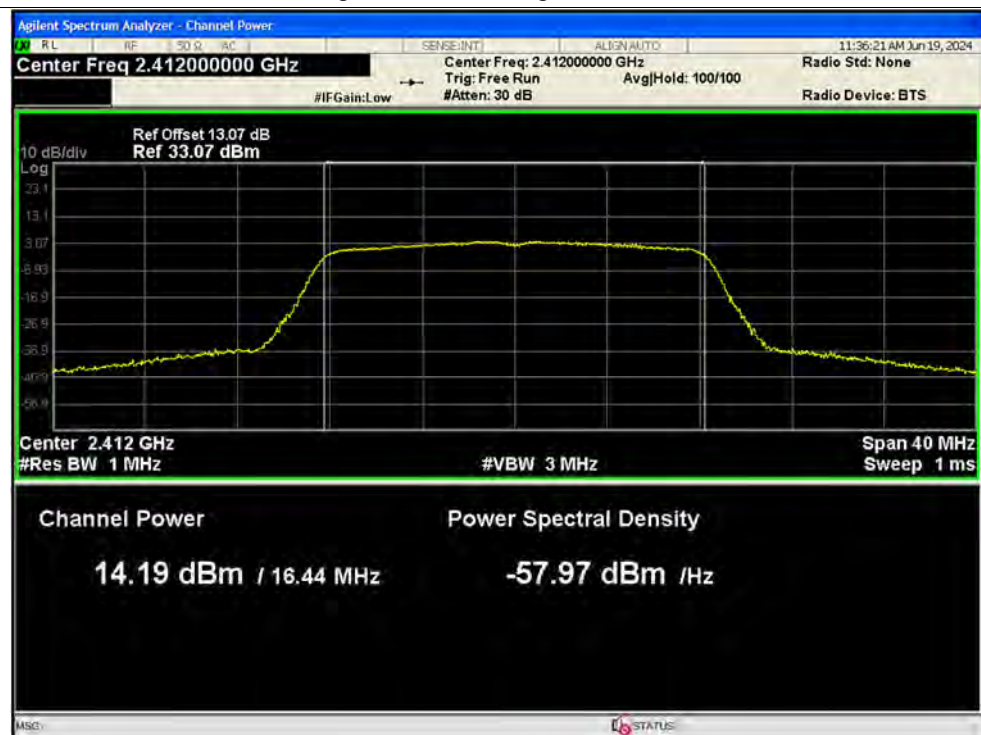
Average Power NVNT b 2437MHz Ant1



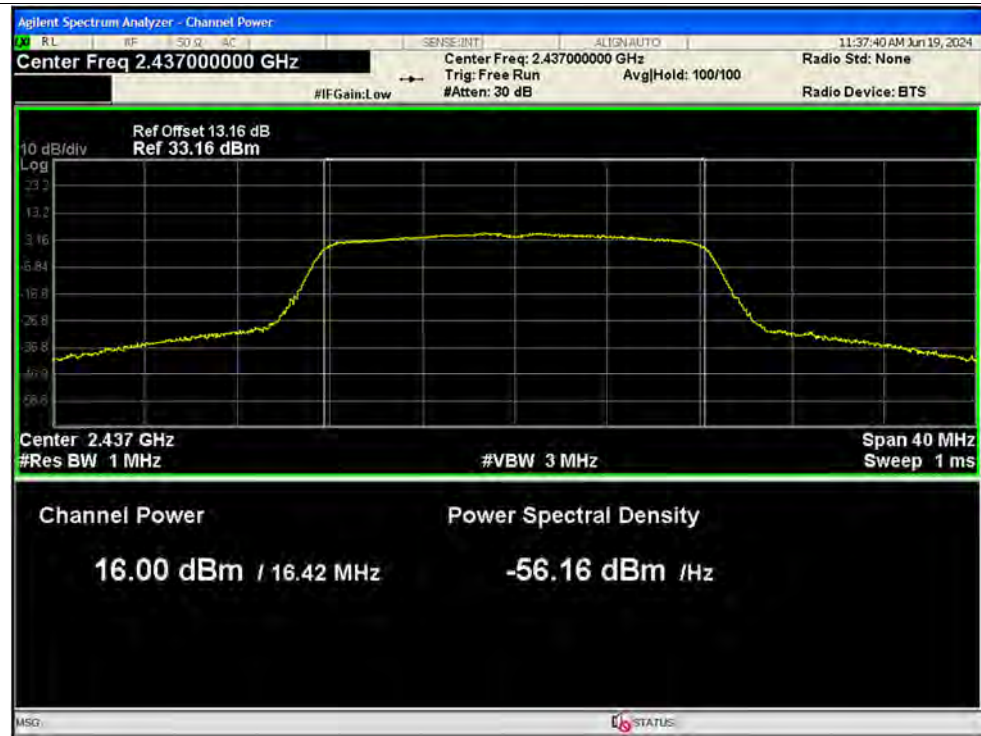
Average Power NVNT b 2462MHz Ant1



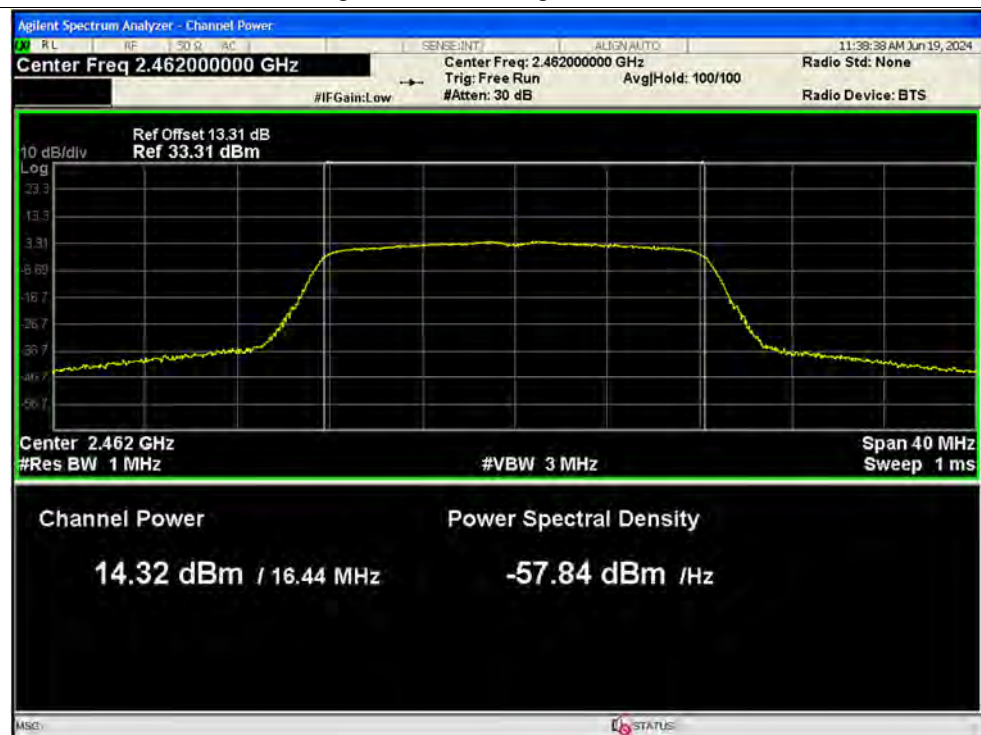
Average Power NVNT g 2412MHz Ant1



Average Power NVNT g 2437MHz Ant1

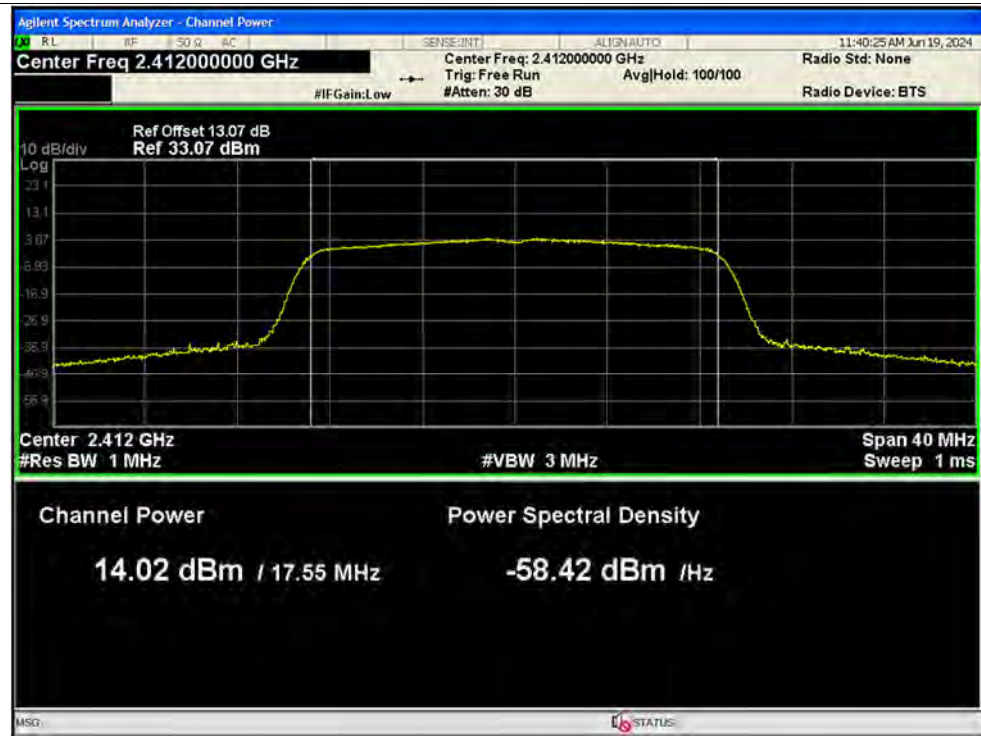


Average Power NVNT g 2462MHz Ant1

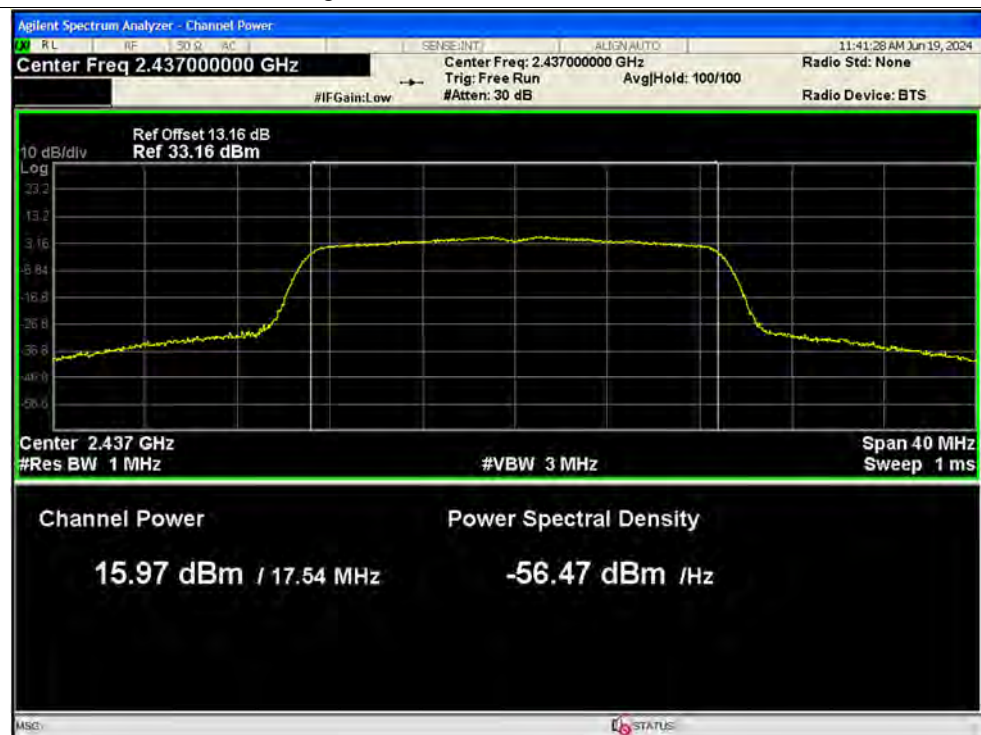




Average Power NVNT n20 2412MHz Ant1

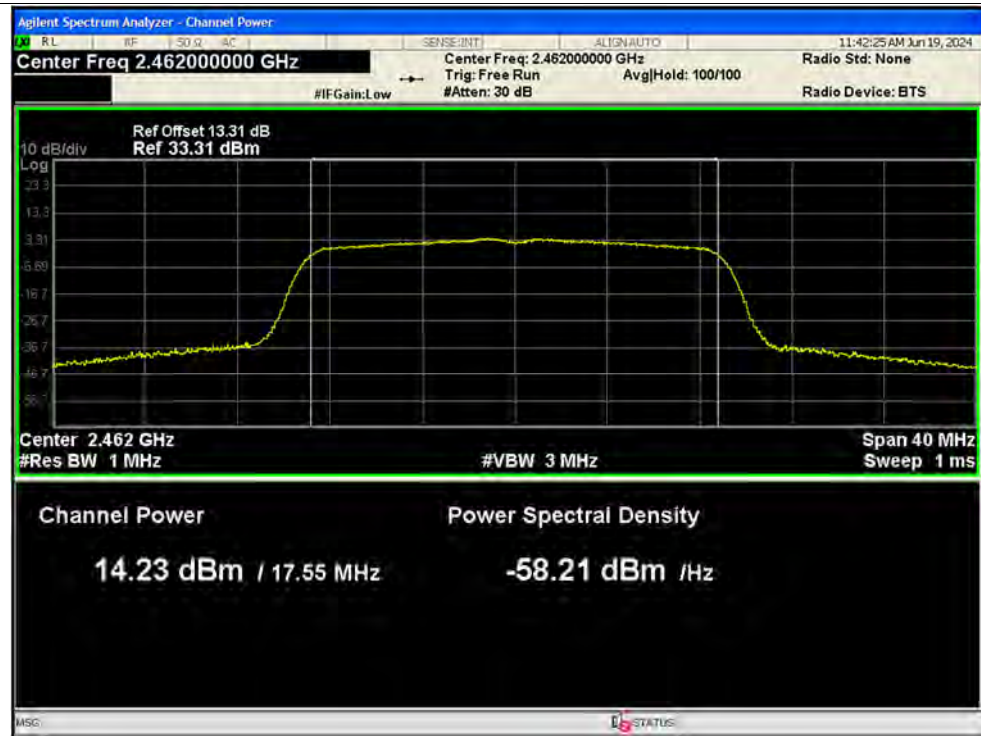


Average Power NVNT n20 2437MHz Ant1

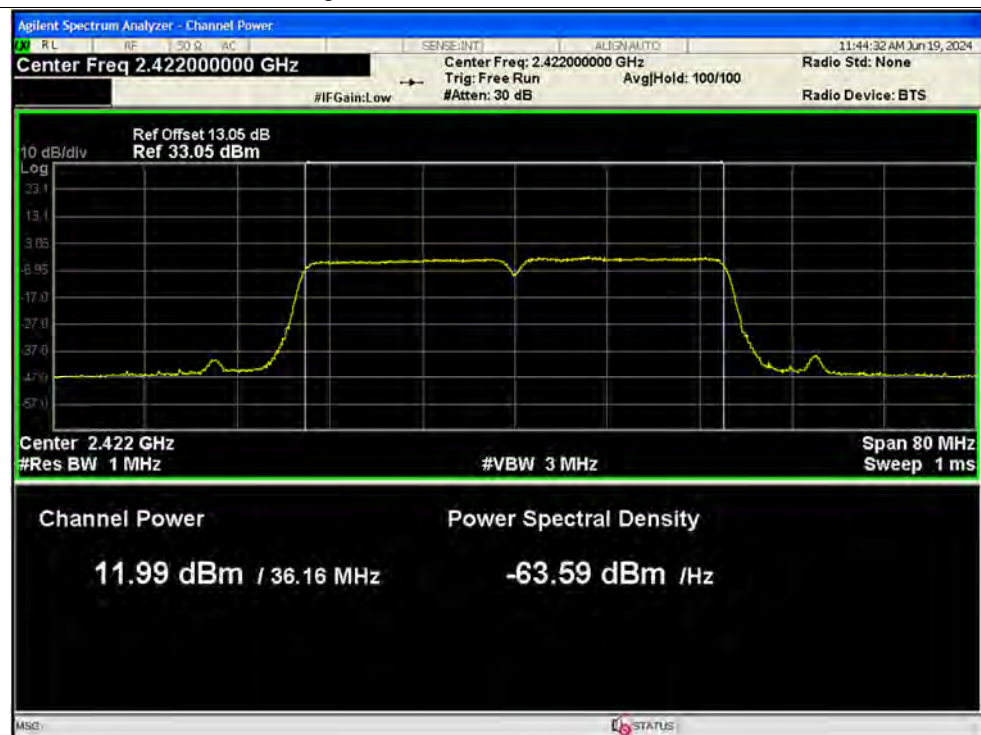




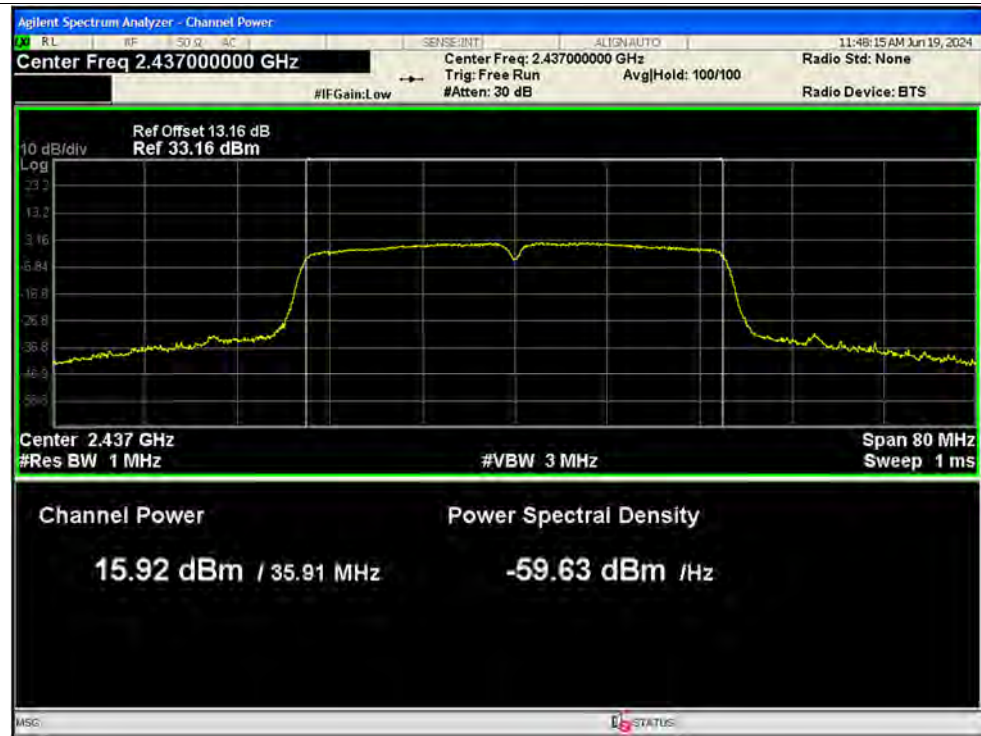
Average Power NVNT n20 2462MHz Ant1



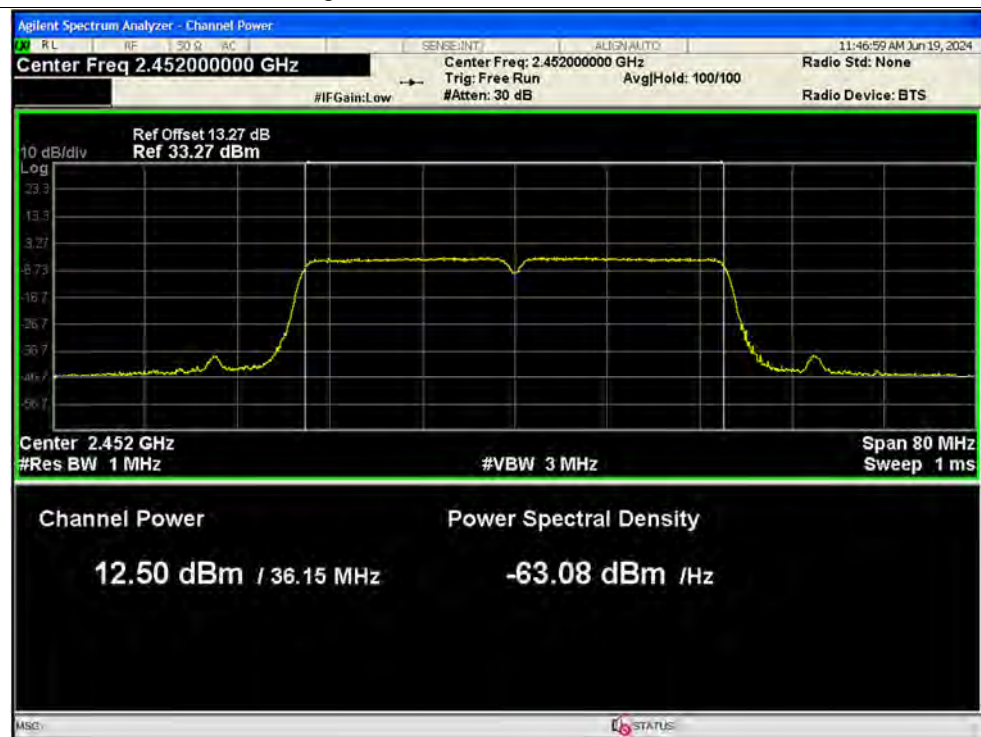
Average Power NVNT n40 2422MHz Ant1



Average Power NVNT n40 2437MHz Ant1



Average Power NVNT n40 2452MHz 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	9.55	0.5	Pass
NVNT	b	2437	Ant1	9.592	0.5	Pass
NVNT	b	2462	Ant1	9.105	0.5	Pass
NVNT	g	2412	Ant1	13.803	0.5	Pass
NVNT	g	2437	Ant1	15.112	0.5	Pass
NVNT	g	2462	Ant1	15.704	0.5	Pass
NVNT	n20	2412	Ant1	15.867	0.5	Pass
NVNT	n20	2437	Ant1	15.041	0.5	Pass
NVNT	n20	2462	Ant1	15.061	0.5	Pass
NVNT	n40	2422	Ant1	35.682	0.5	Pass
NVNT	n40	2437	Ant1	35.151	0.5	Pass
NVNT	n40	2452	Ant1	35.755	0.5	Pass



Test Graphs

-6dB Bandwidth NVNT b 2412MHz Ant1



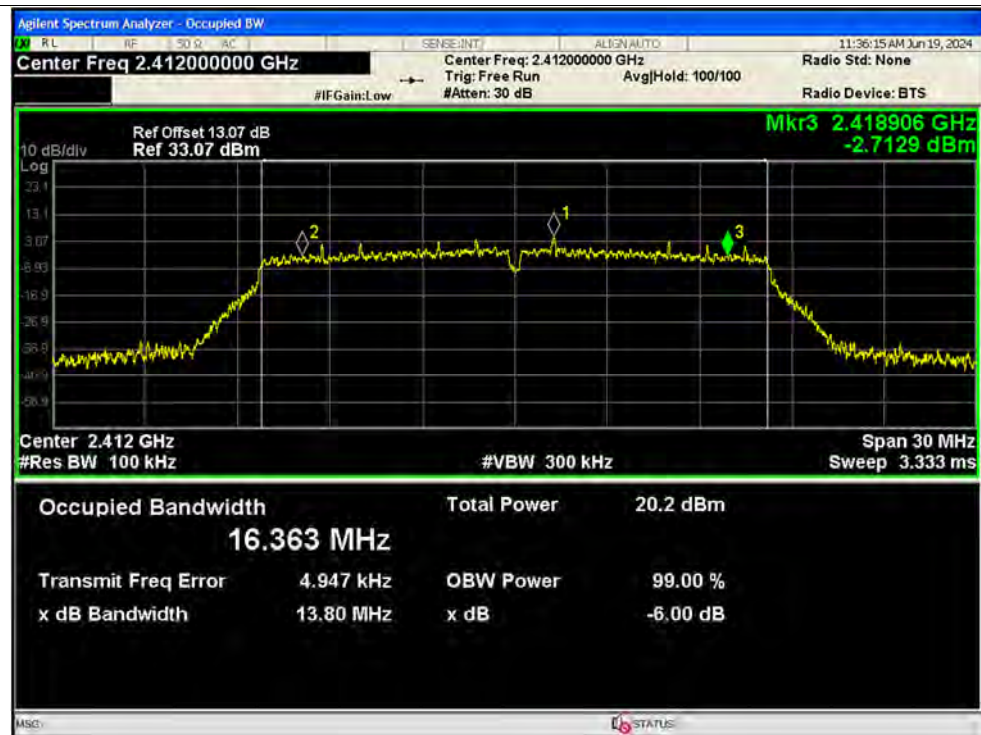
-6dB Bandwidth NVNT b 2437MHz Ant1



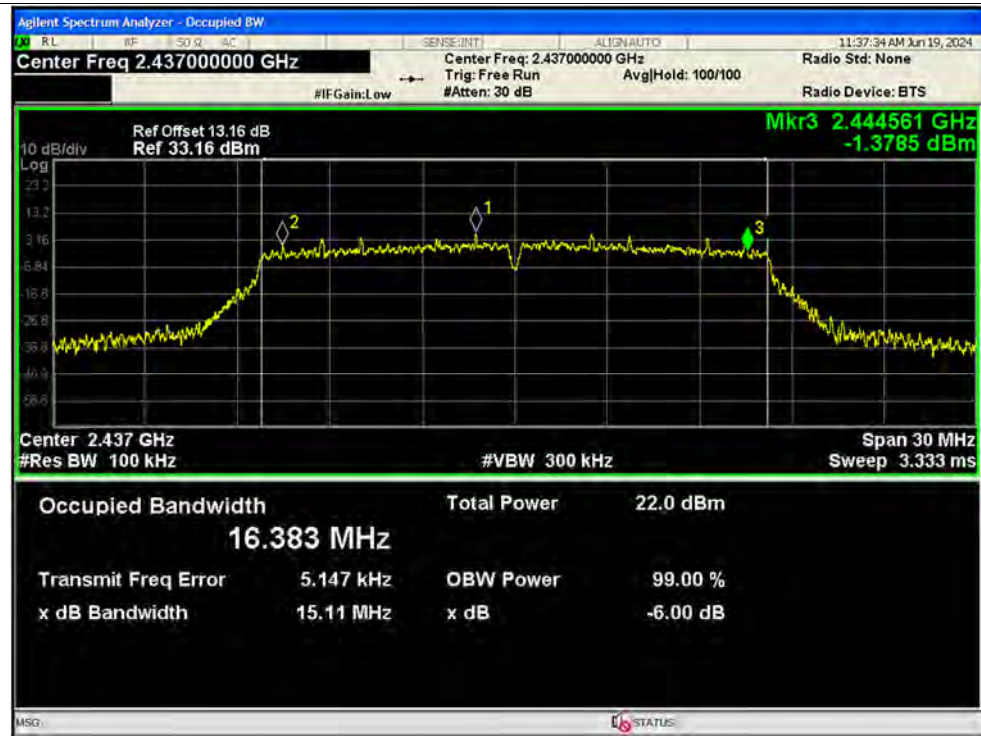
-6dB Bandwidth NVNT b 2462MHz Ant1



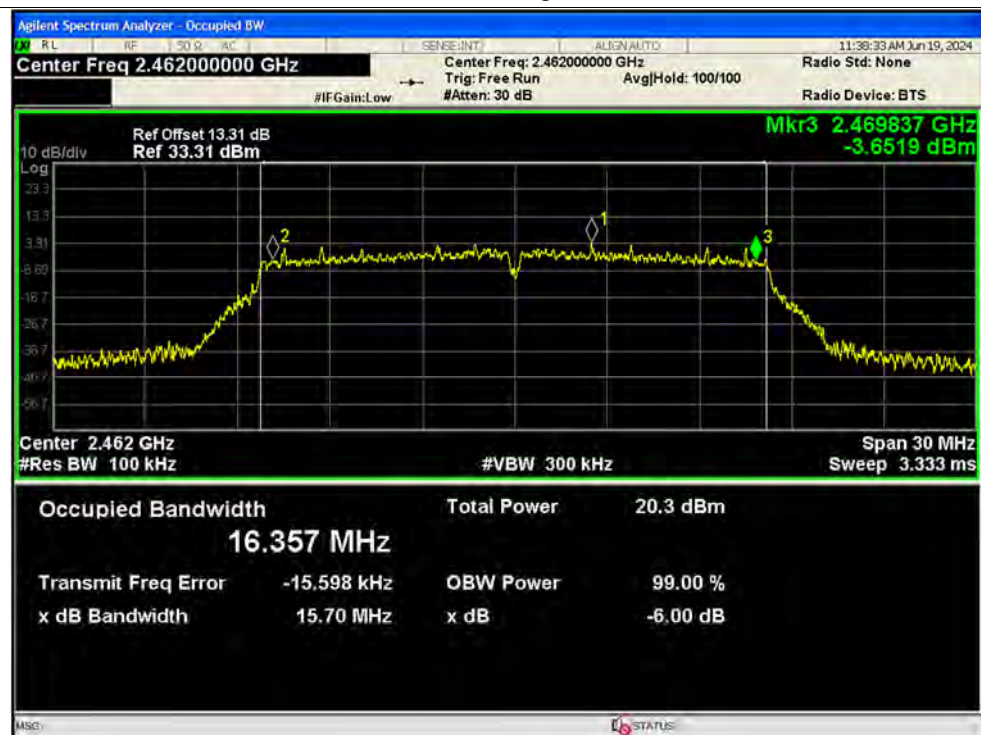
-6dB Bandwidth NVNT g 2412MHz Ant1



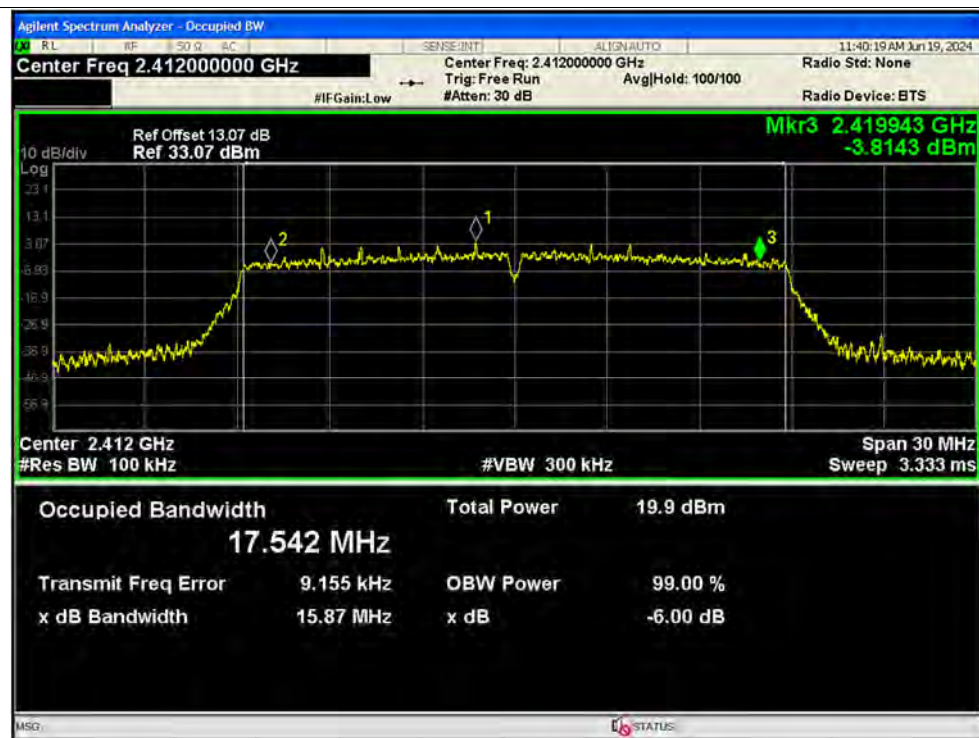
-6dB Bandwidth NVNT g 2437MHz Ant1



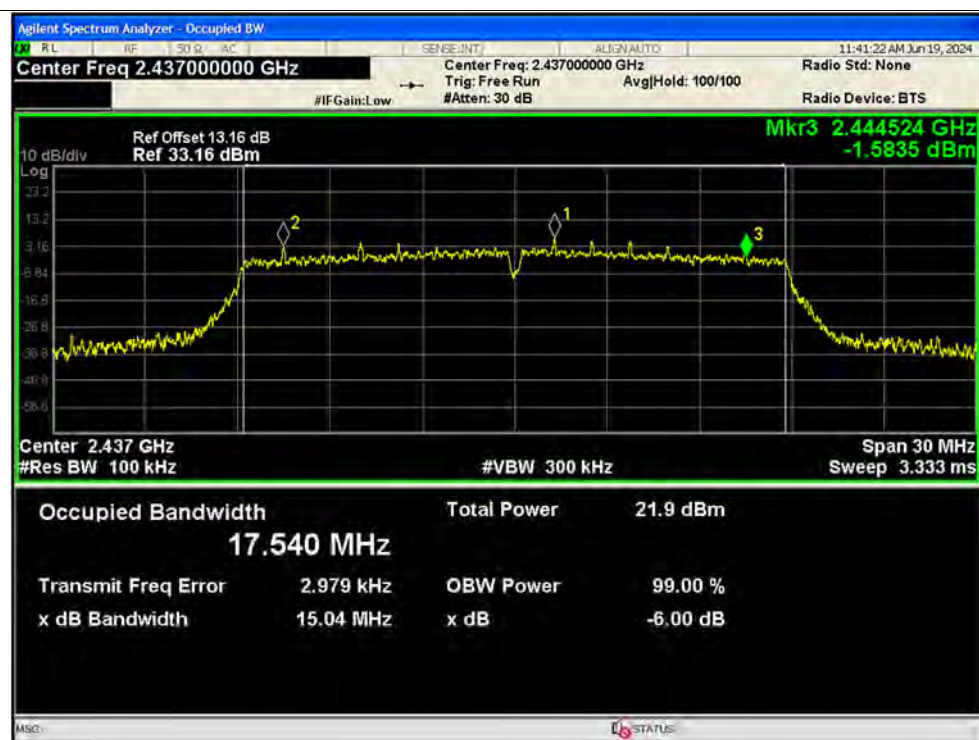
-6dB Bandwidth NVNT g 2462MHz Ant1



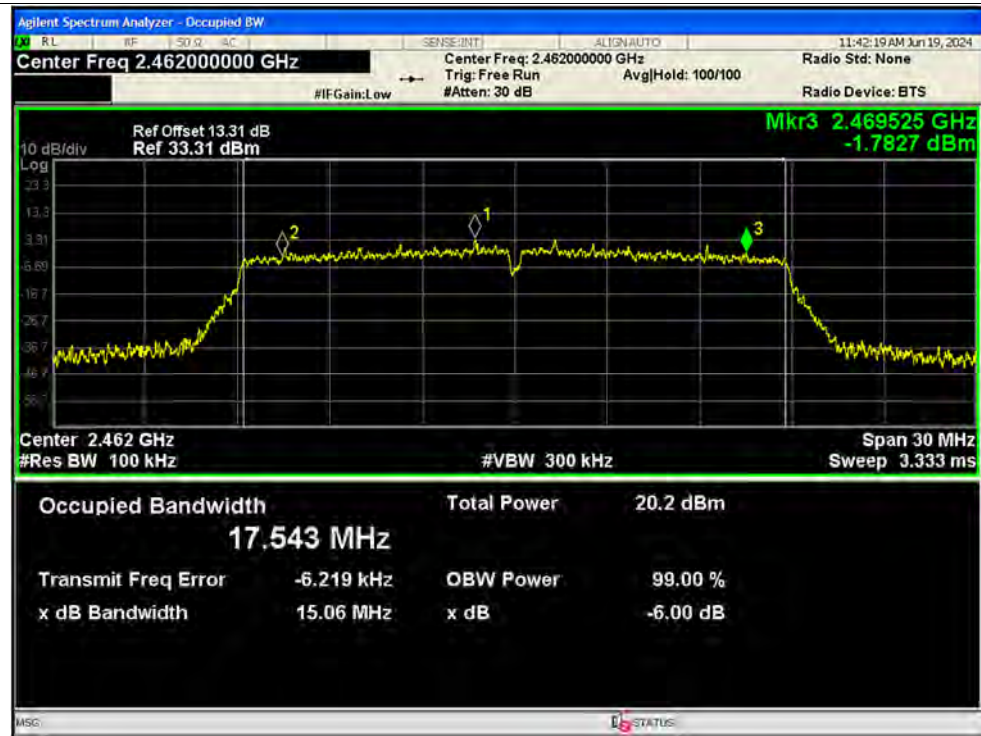
-6dB Bandwidth NVNT n20 2412MHz Ant1



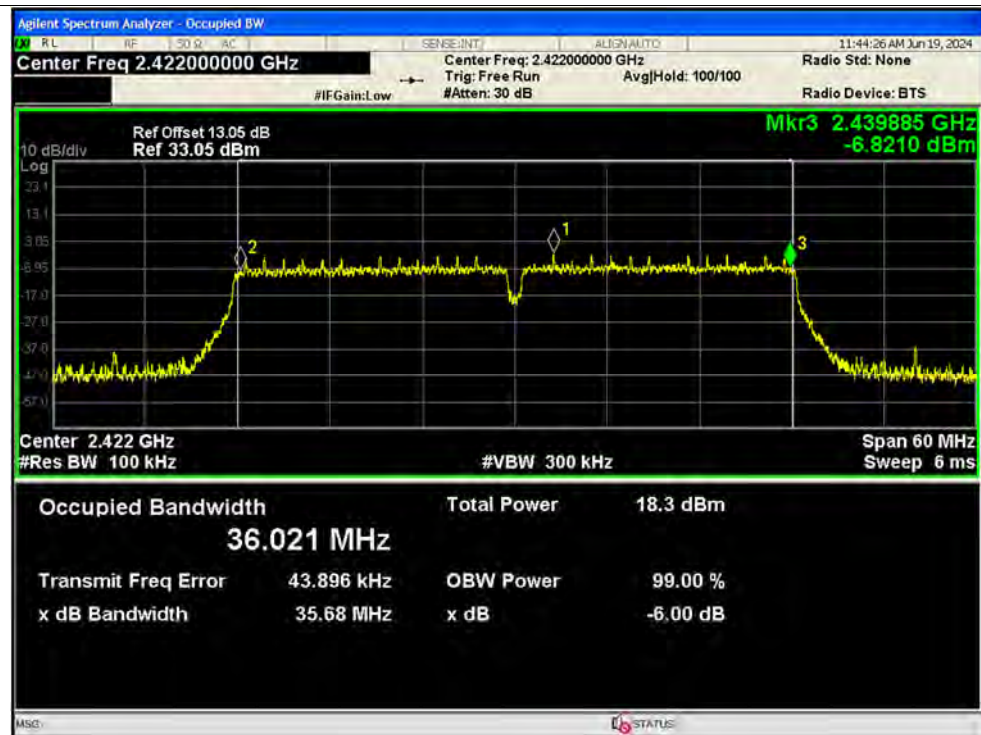
-6dB Bandwidth NVNT n20 2437MHz Ant1



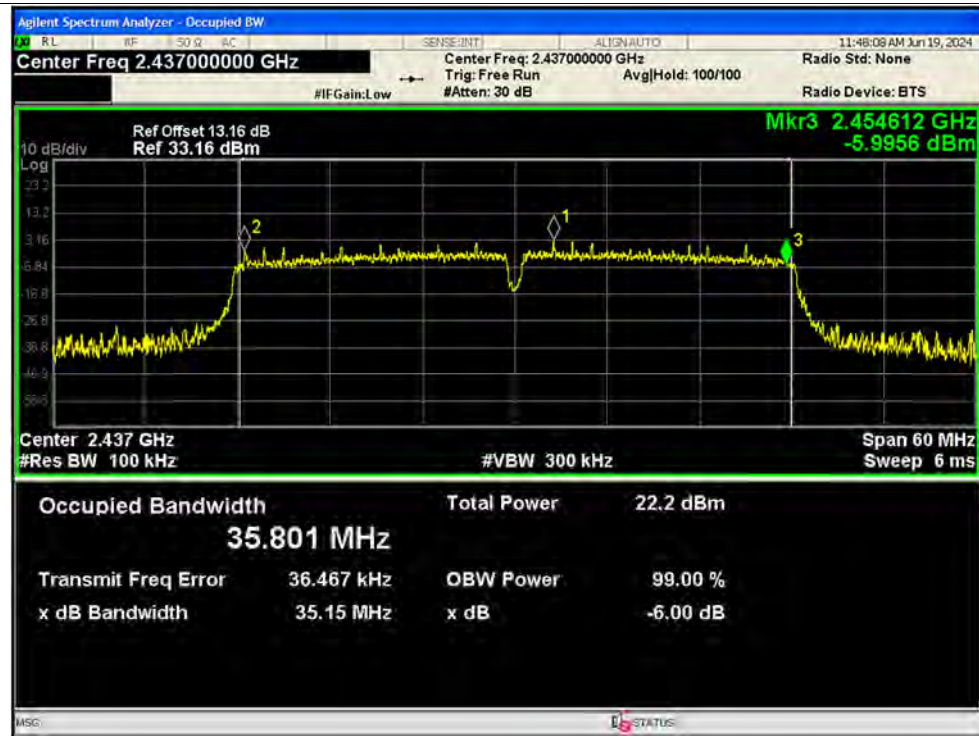
-6dB Bandwidth NVNT n20 2462MHz Ant1



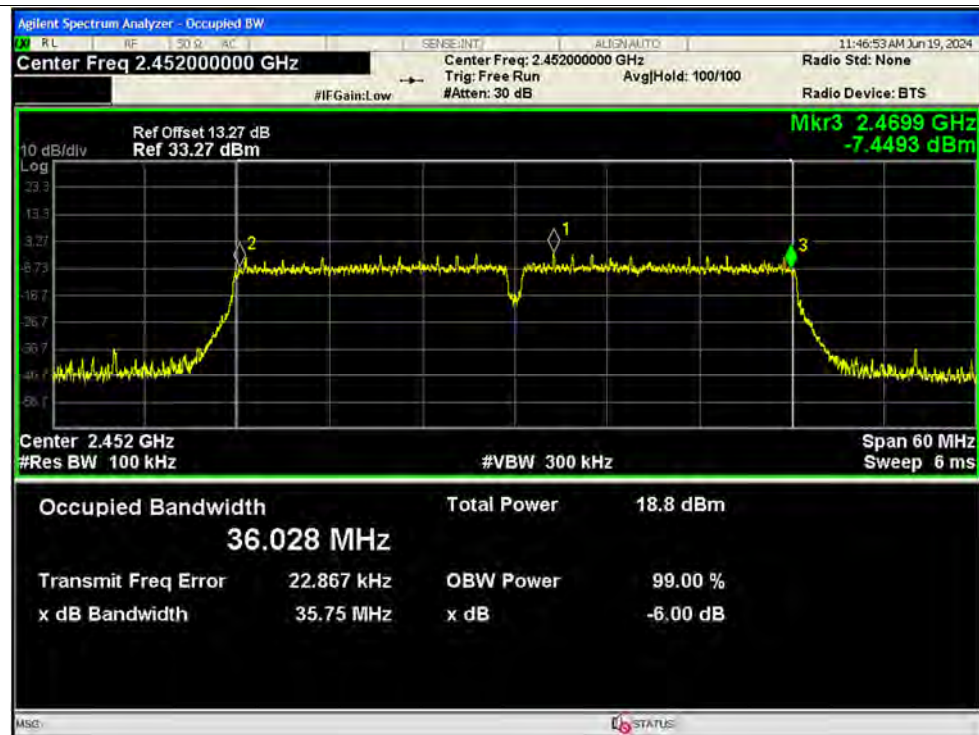
-6dB Bandwidth NVNT n40 2422MHz Ant1



-6dB Bandwidth NVNT n40 2437MHz Ant1



-6dB Bandwidth NVNT n40 2452MHz Ant1



**A.5. Conducted Spurious Emissions**

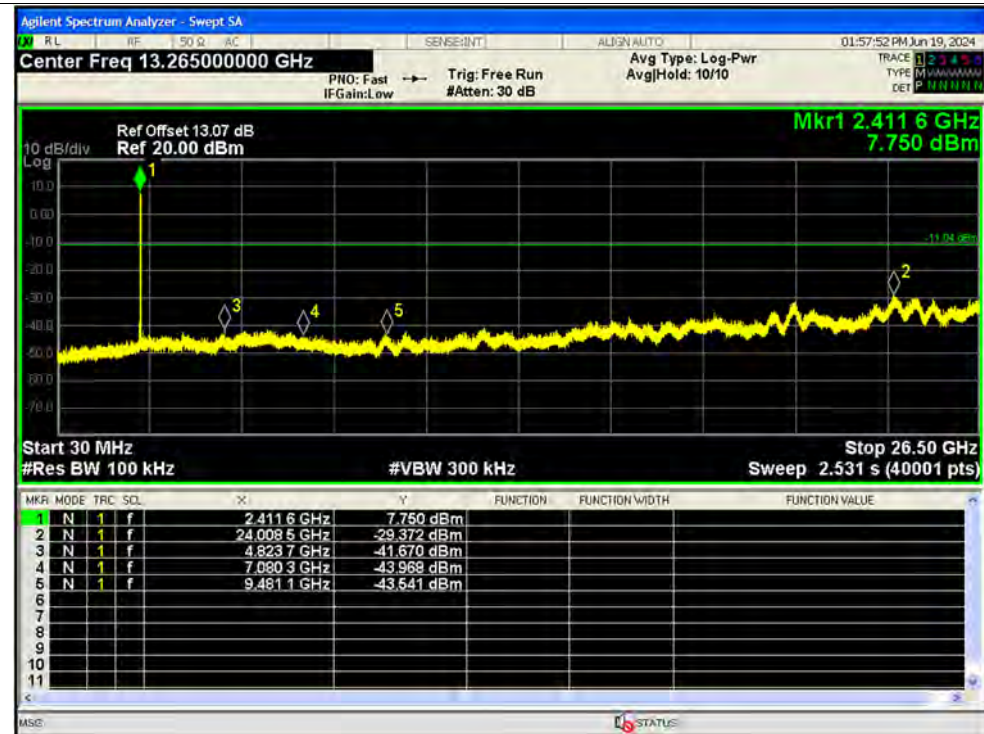
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-38.34	-20	Pass
NVNT	b	2437	Ant1	-36.79	-20	Pass
NVNT	b	2462	Ant1	-38.74	-20	Pass
NVNT	g	2412	Ant1	-32.68	-20	Pass
NVNT	g	2437	Ant1	-33.92	-20	Pass
NVNT	g	2462	Ant1	-32.25	-20	Pass
NVNT	n20	2412	Ant1	-32.88	-20	Pass
NVNT	n20	2437	Ant1	-34.52	-20	Pass
NVNT	n20	2462	Ant1	-32.14	-20	Pass
NVNT	n40	2422	Ant1	-26.75	-20	Pass
NVNT	n40	2437	Ant1	-30.95	-20	Pass
NVNT	n40	2452	Ant1	-27.08	-20	Pass

Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref



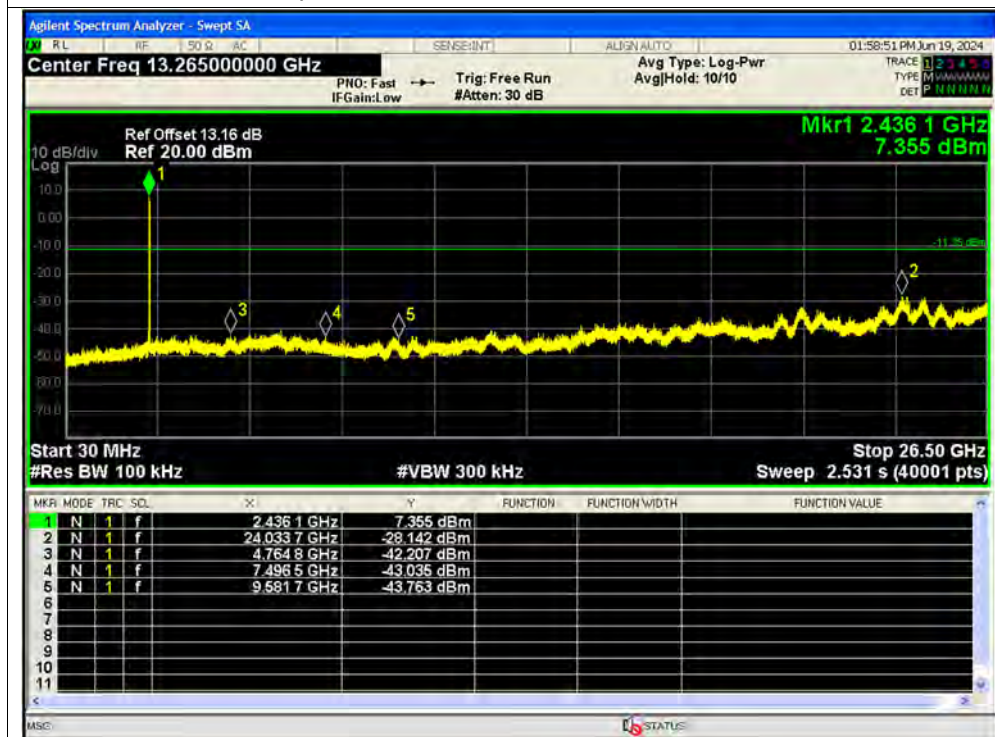
Tx. Spurious NVNT b 2412MHz Ant1 Emission



Tx. Spurious NVNT b 2437MHz Ant1 Ref



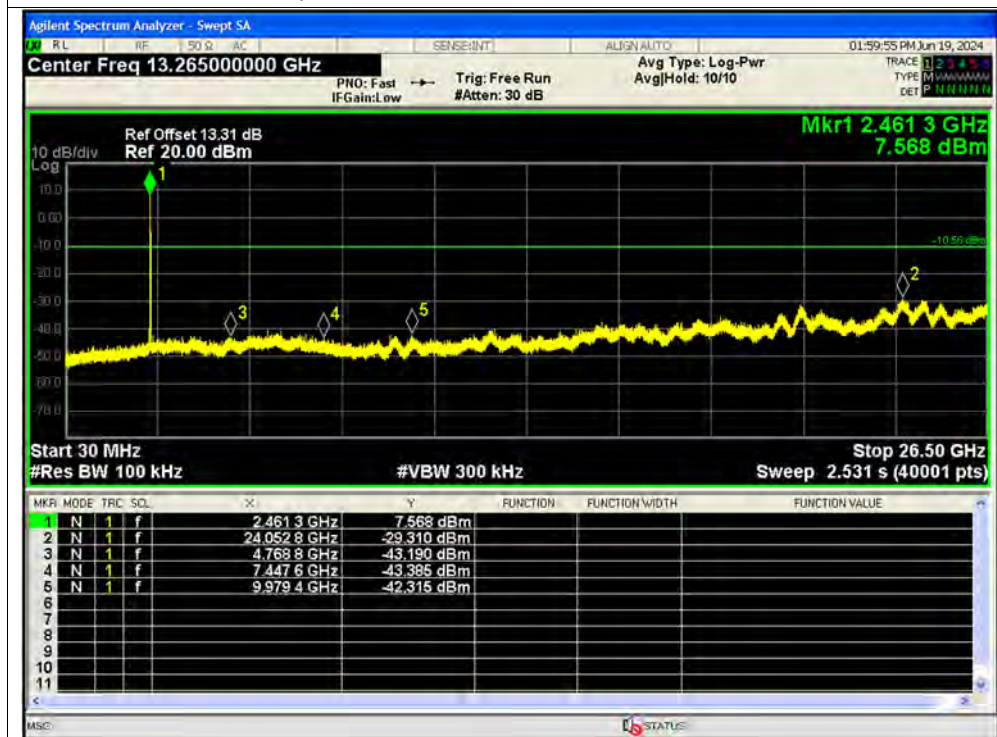
Tx. Spurious NVNT b 2437MHz Ant1 Emission



Tx. Spurious NVNT b 2462MHz Ant1 Ref



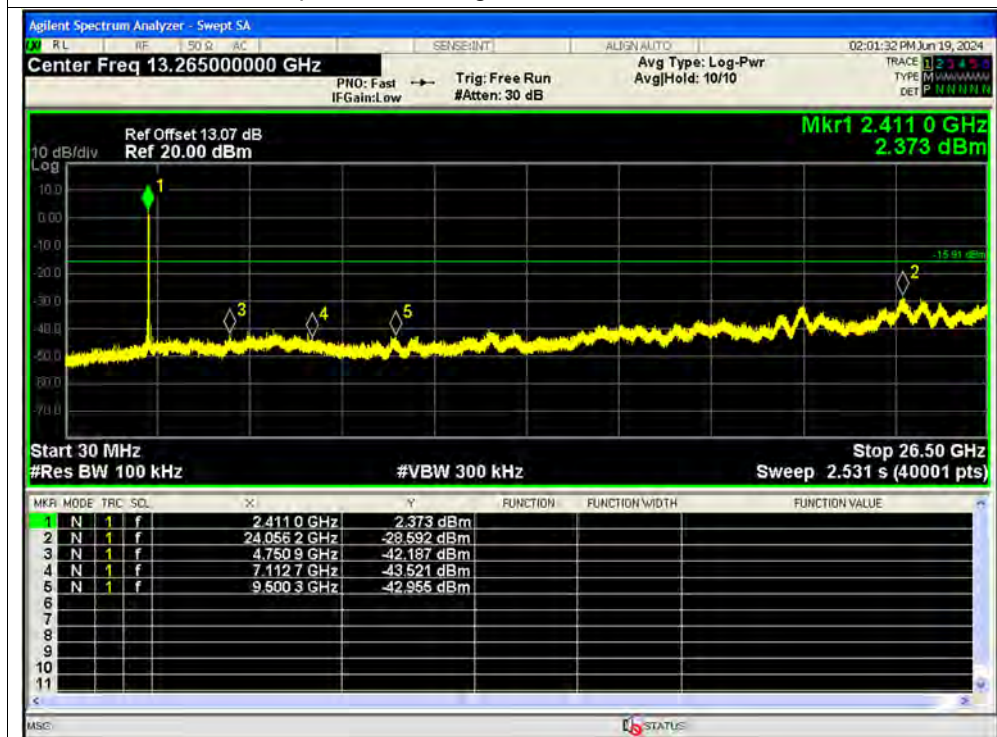
Tx. Spurious NVNT b 2462MHz Ant1 Emission



Tx. Spurious NVNT g 2412MHz Ant1 Ref



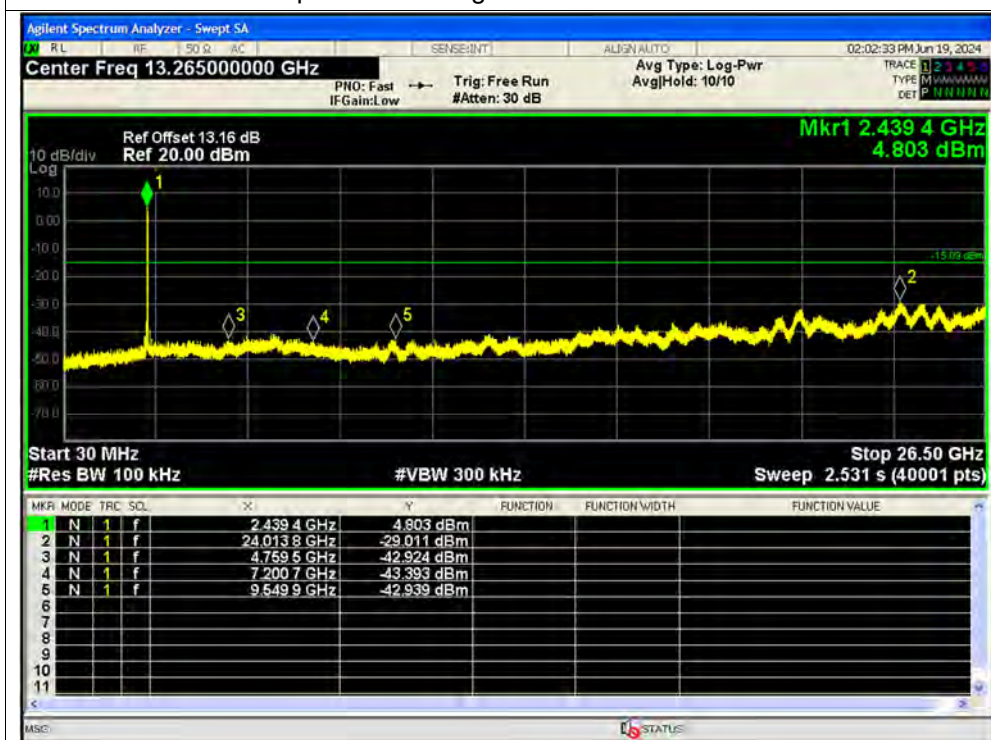
Tx. Spurious NVNT g 2412MHz Ant1 Emission



Tx. Spurious NVNT g 2437MHz Ant1 Ref



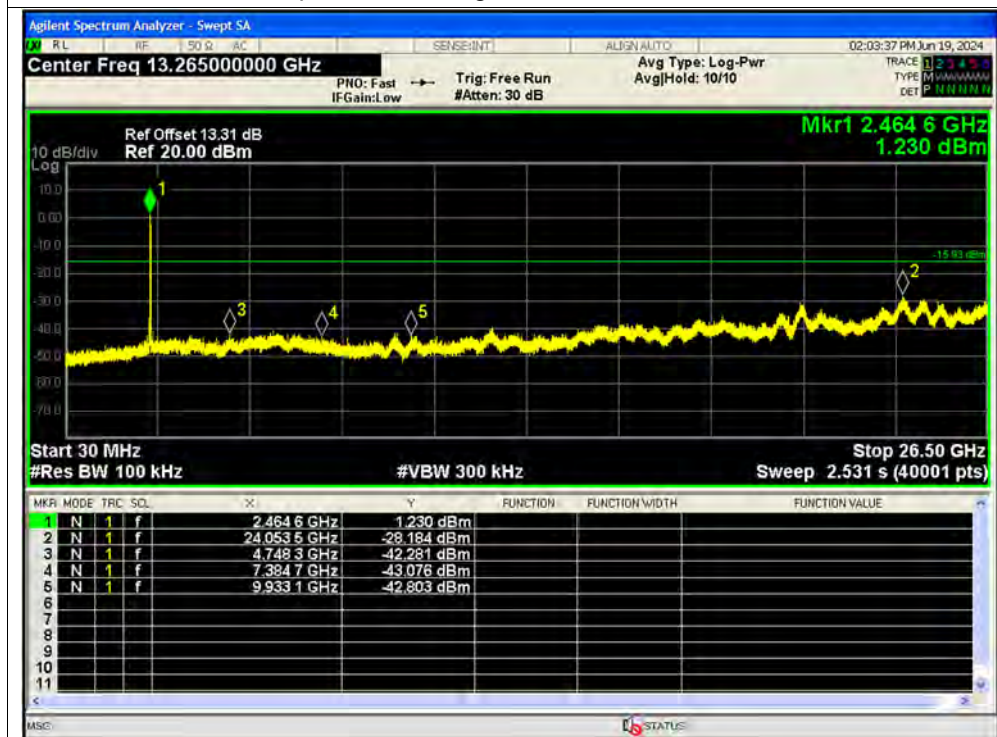
Tx. Spurious NVNT g 2437MHz Ant1 Emission



Tx. Spurious NVNT g 2462MHz Ant1 Ref



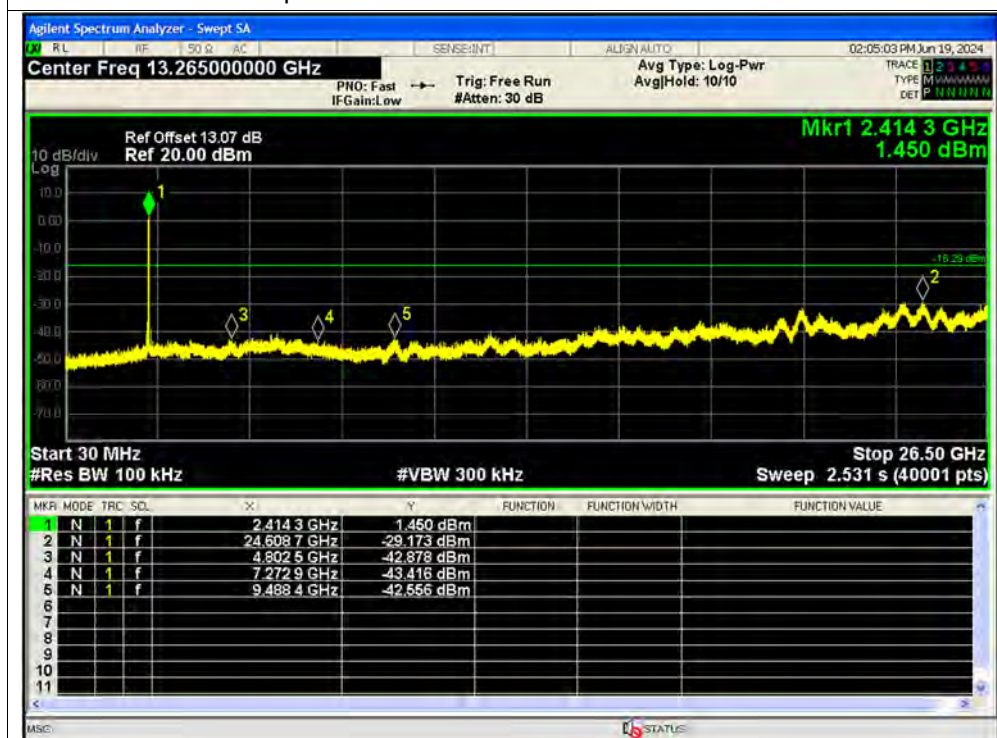
Tx. Spurious NVNT g 2462MHz Ant1 Emission



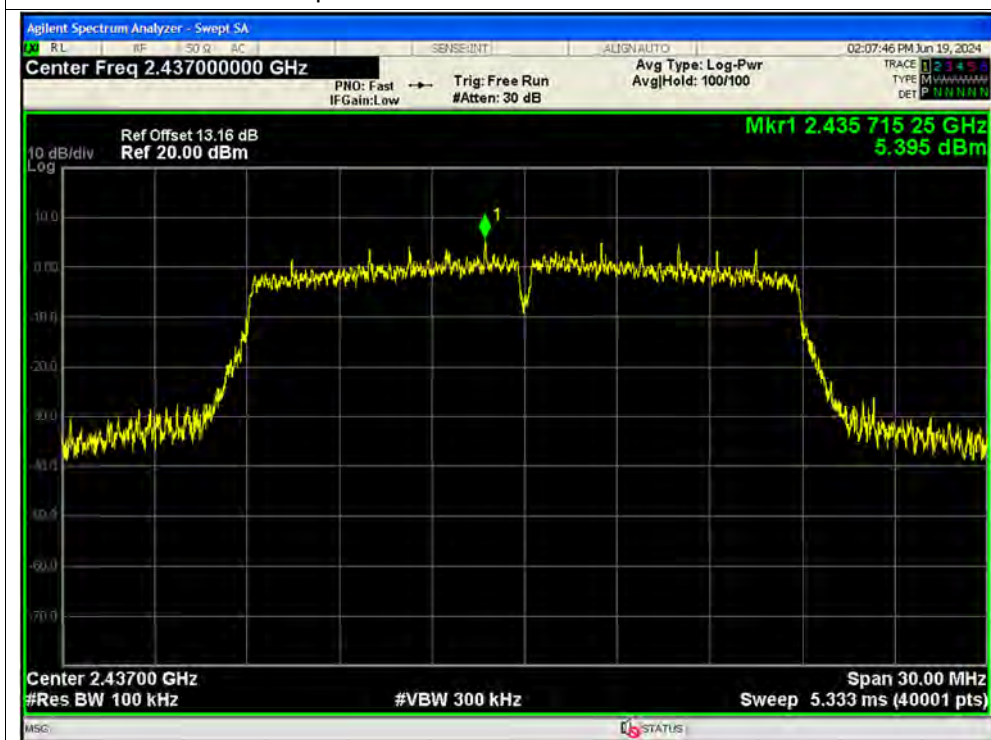
Tx. Spurious NVNT n20 2412MHz Ant1 Ref



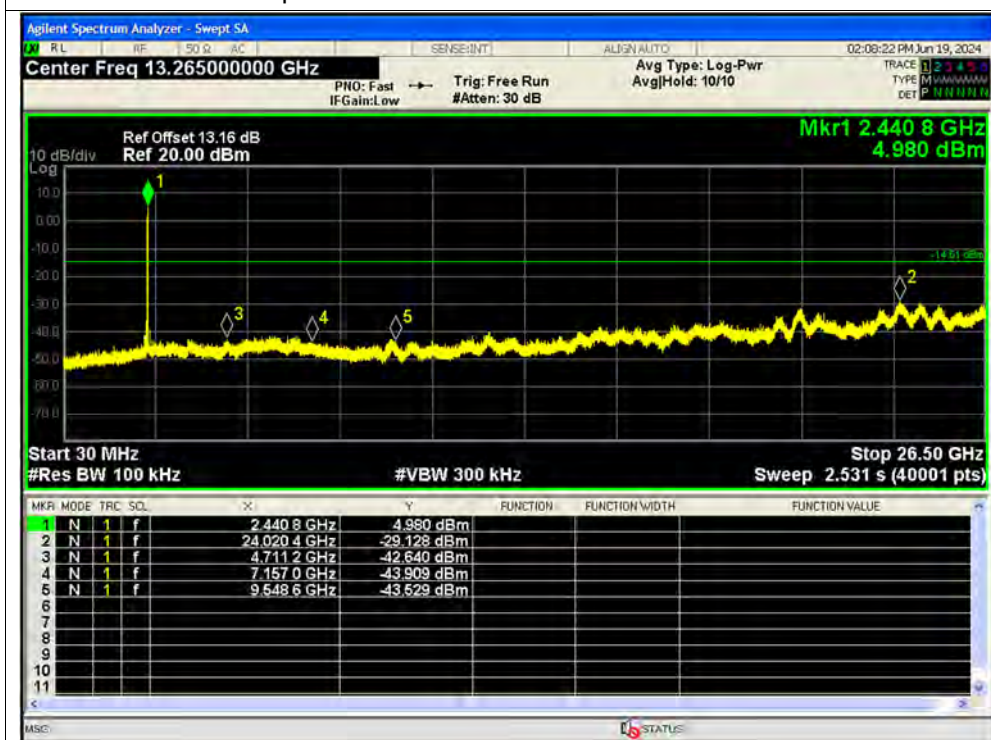
Tx. Spurious NVNT n20 2412MHz Ant1 Emission



Tx. Spurious NVNT n20 2437MHz Ant1 Ref



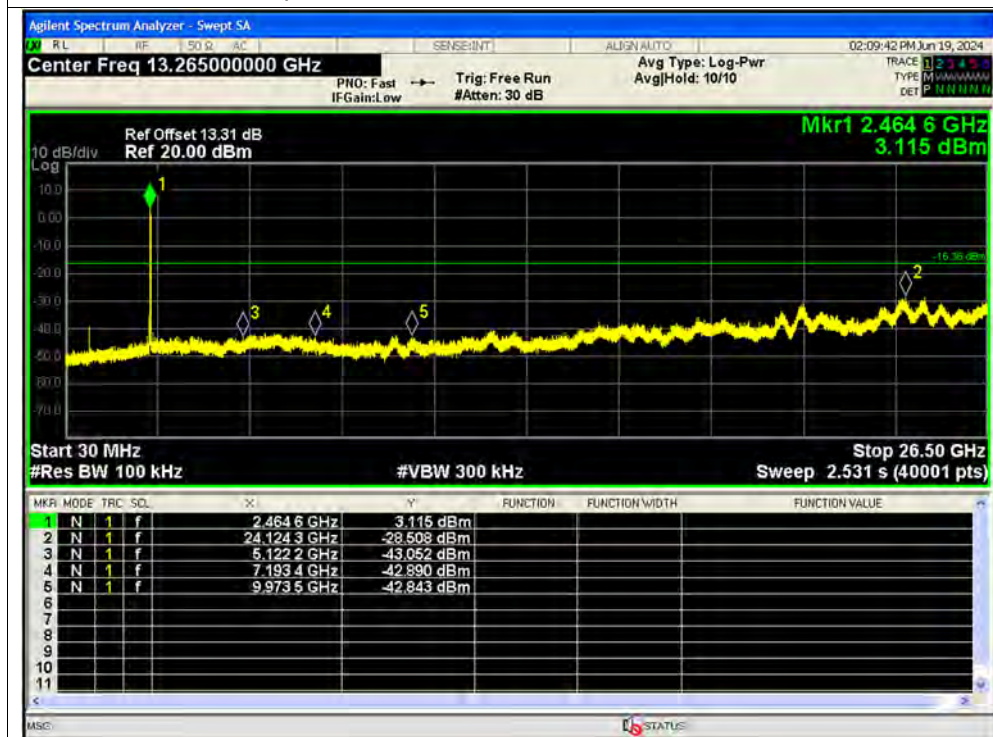
Tx. Spurious NVNT n20 2437MHz Ant1 Emission



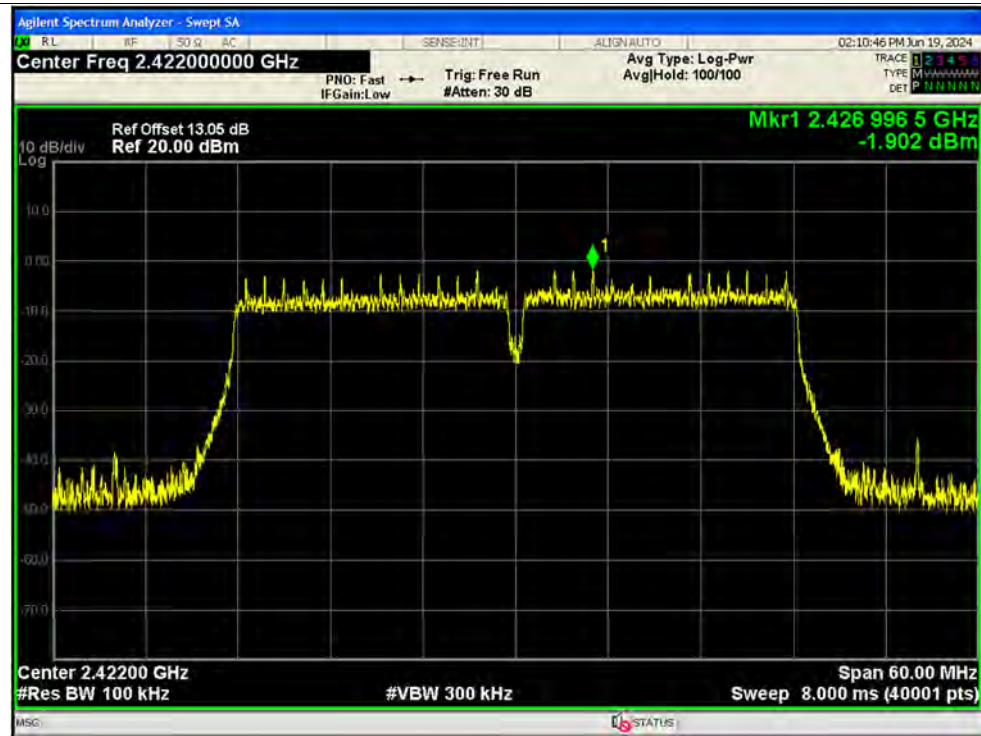
Tx. Spurious NVNT n20 2462MHz Ant1 Ref



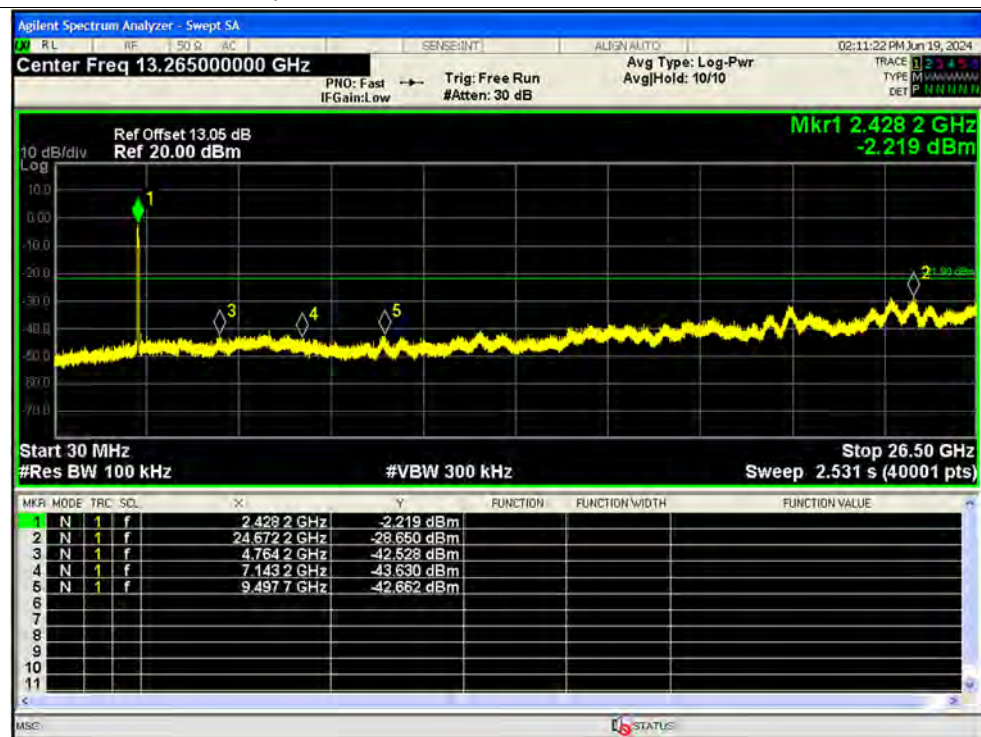
Tx. Spurious NVNT n20 2462MHz Ant1 Emission



Tx. Spurious NVNT n40 2422MHz Ant1 Ref



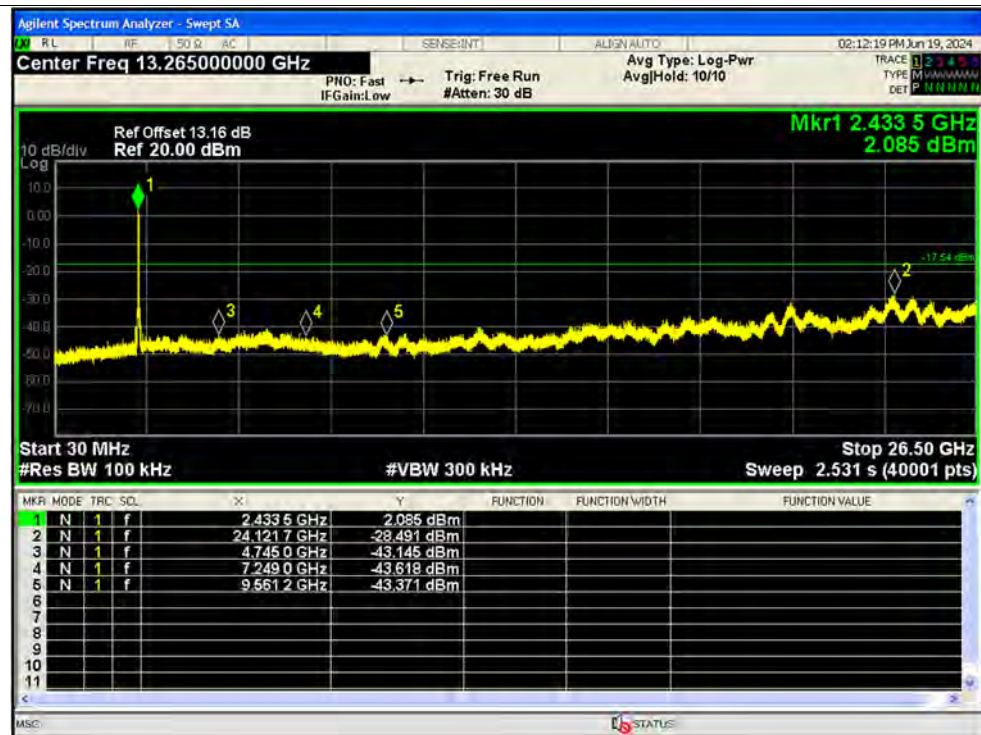
Tx. Spurious NVNT n40 2422MHz Ant1 Emission



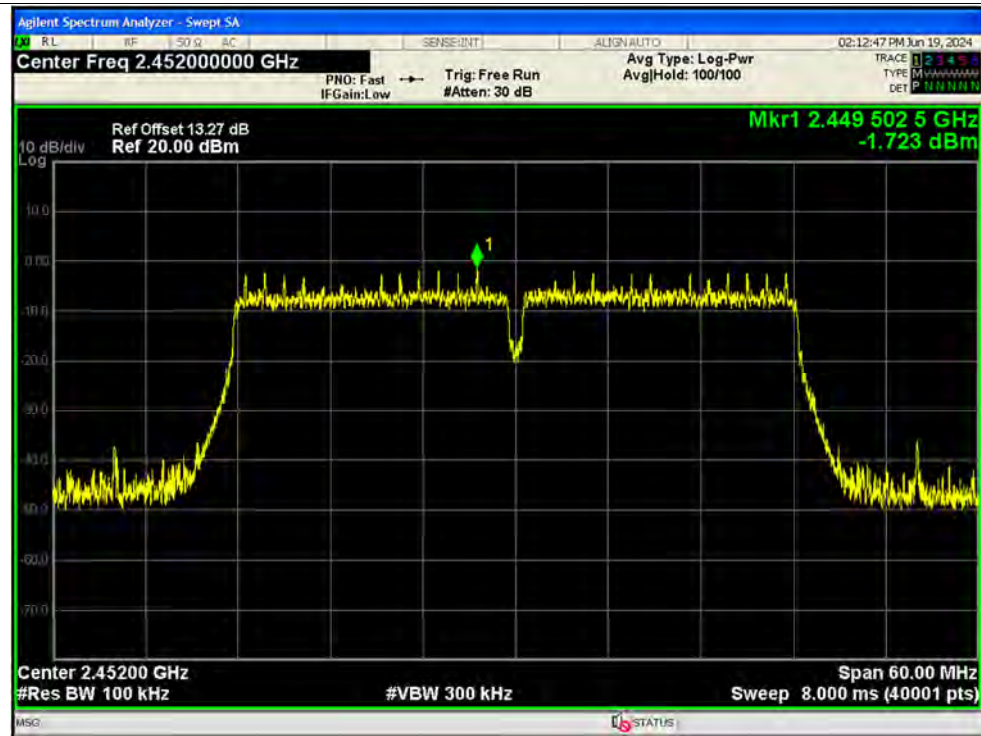
Tx. Spurious NVNT n40 2437MHz Ant1 Ref



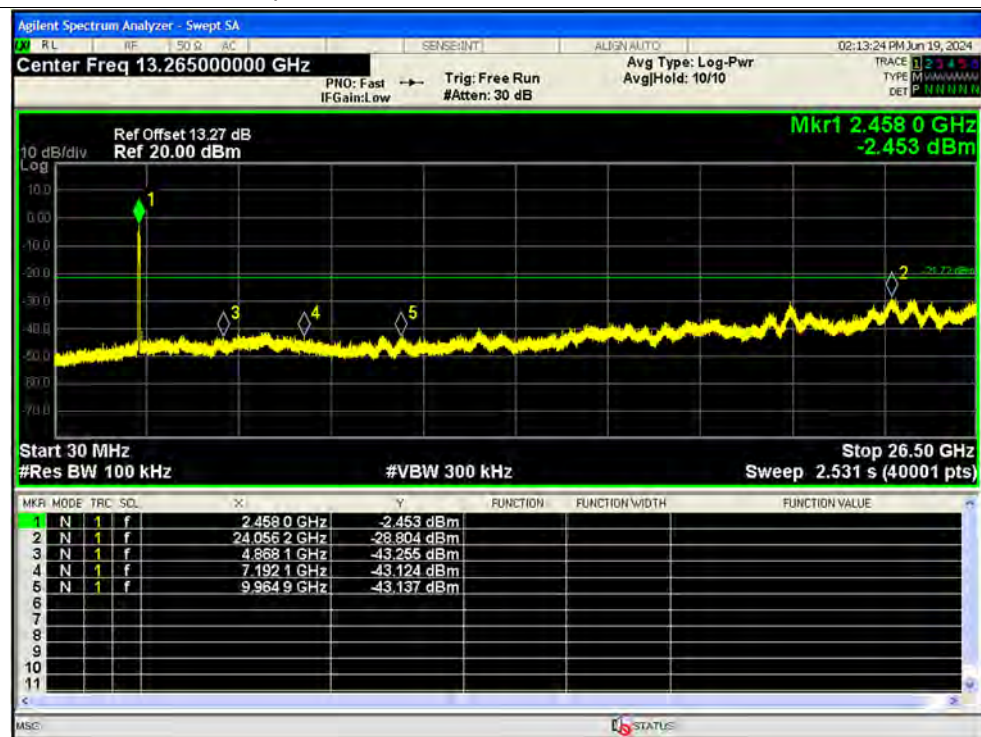
Tx. Spurious NVNT n40 2437MHz Ant1 Emission



Tx. Spurious NVNT n40 2452MHz Ant1 Ref



Tx. Spurious NVNT n40 2452MHz Ant1 Emission



**A.6. Band Edge**

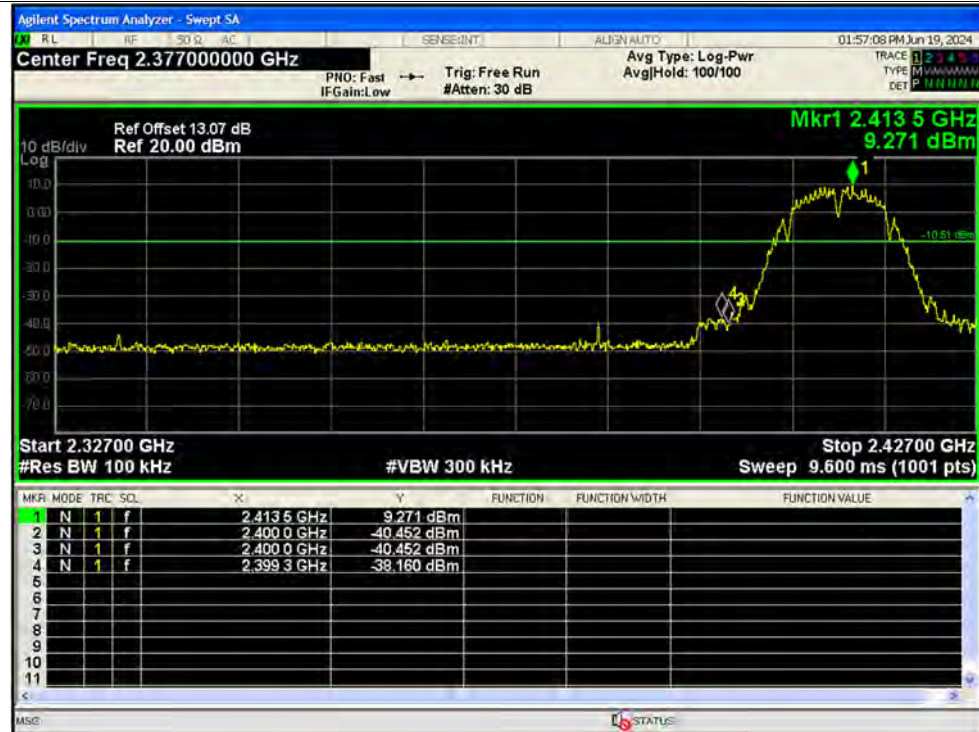
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-47.65	-20	Pass
NVNT	b	2462	Ant1	-47.61	-20	Pass
NVNT	g	2412	Ant1	-38.76	-20	Pass
NVNT	g	2462	Ant1	-39.23	-20	Pass
NVNT	n20	2412	Ant1	-37.9	-20	Pass
NVNT	n20	2462	Ant1	-39.46	-20	Pass
NVNT	n40	2422	Ant1	-36.16	-20	Pass
NVNT	n40	2452	Ant1	-40.71	-20	Pass

Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref



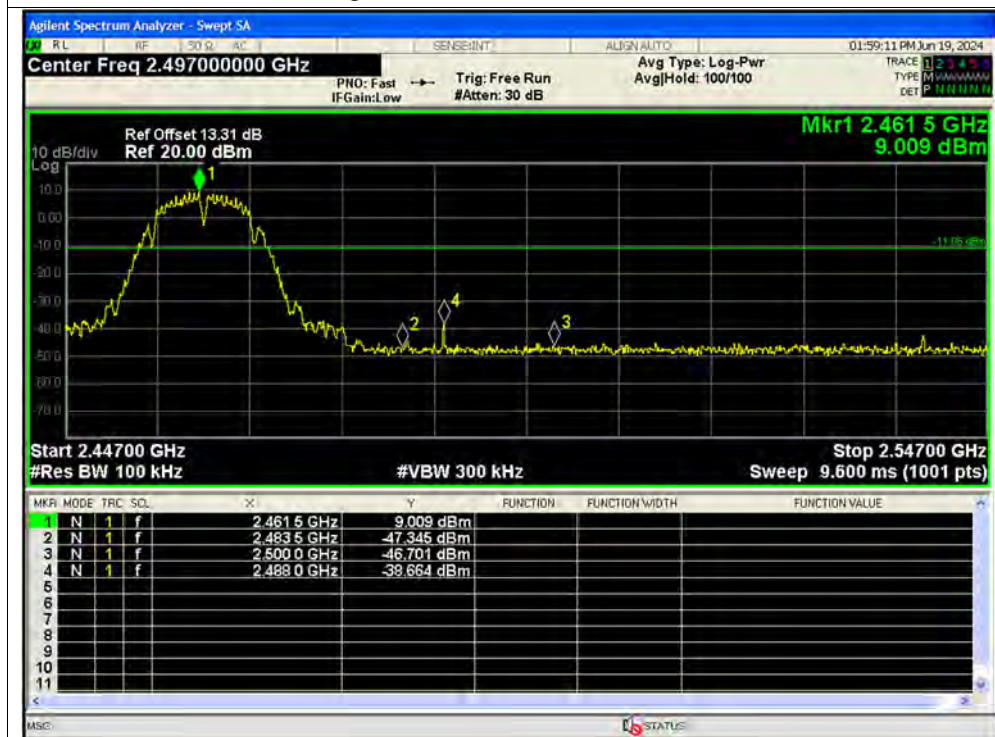
Band Edge NVNT b 2412MHz Ant1 Emission



Band Edge NVNT b 2462MHz Ant1 Ref



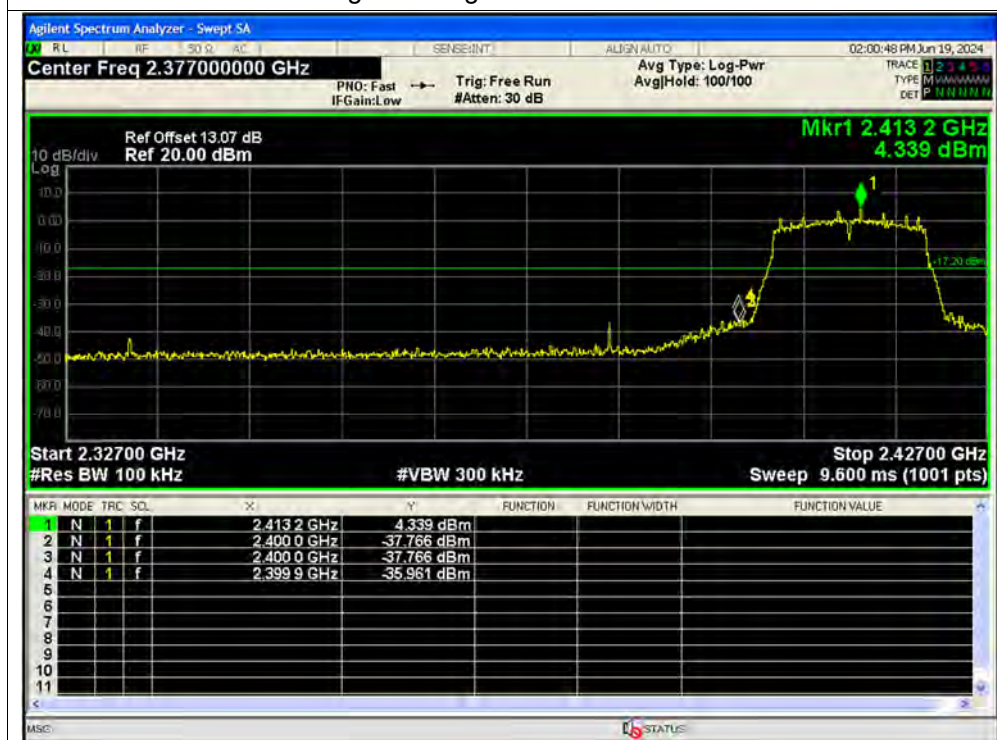
Band Edge NVNT b 2462MHz Ant1 Emission



Band Edge NVNT g 2412MHz Ant1 Ref



Band Edge NVNT g 2412MHz Ant1 Emission



Band Edge NVNT g 2462MHz Ant1 Ref



Band Edge NVNT g 2462MHz Ant1 Emission



Band Edge NVNT n20 2412MHz Ant1 Ref



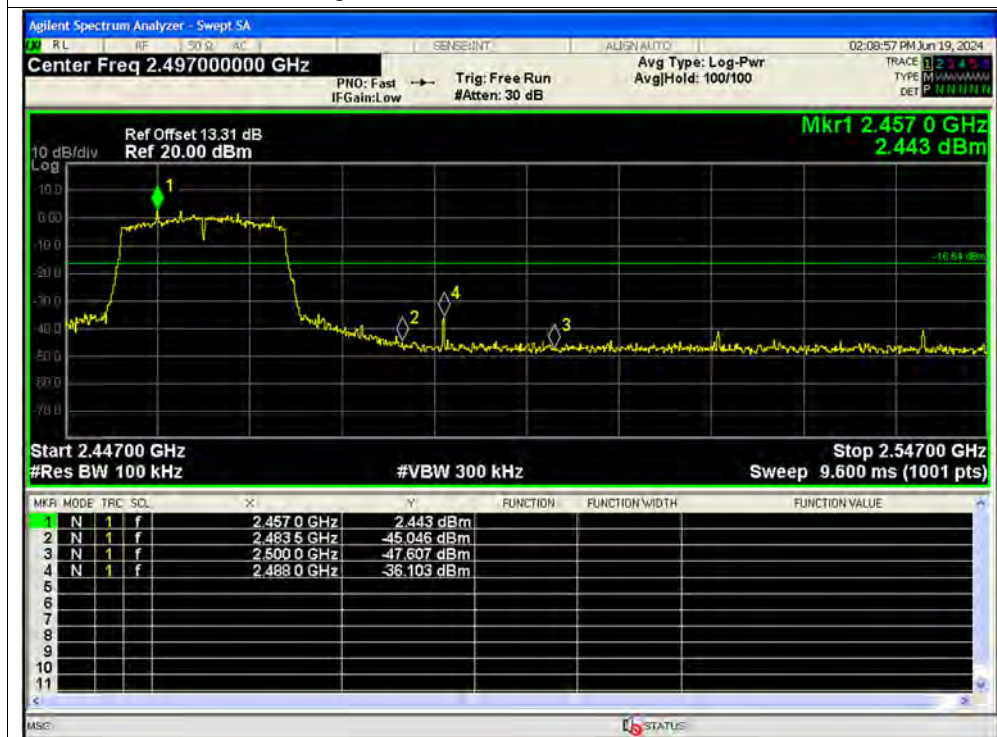
Band Edge NVNT n20 2412MHz Ant1 Emission



Band Edge NVNT n20 2462MHz Ant1 Ref



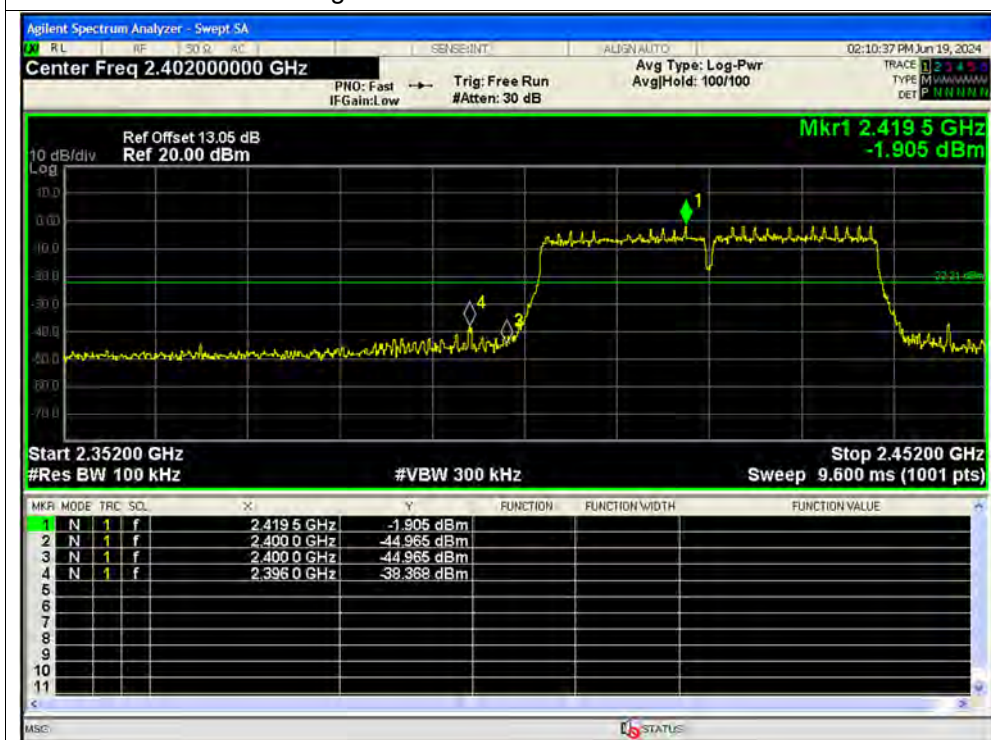
Band Edge NVNT n20 2462MHz Ant1 Emission



Band Edge NVNT n40 2422MHz Ant1 Ref



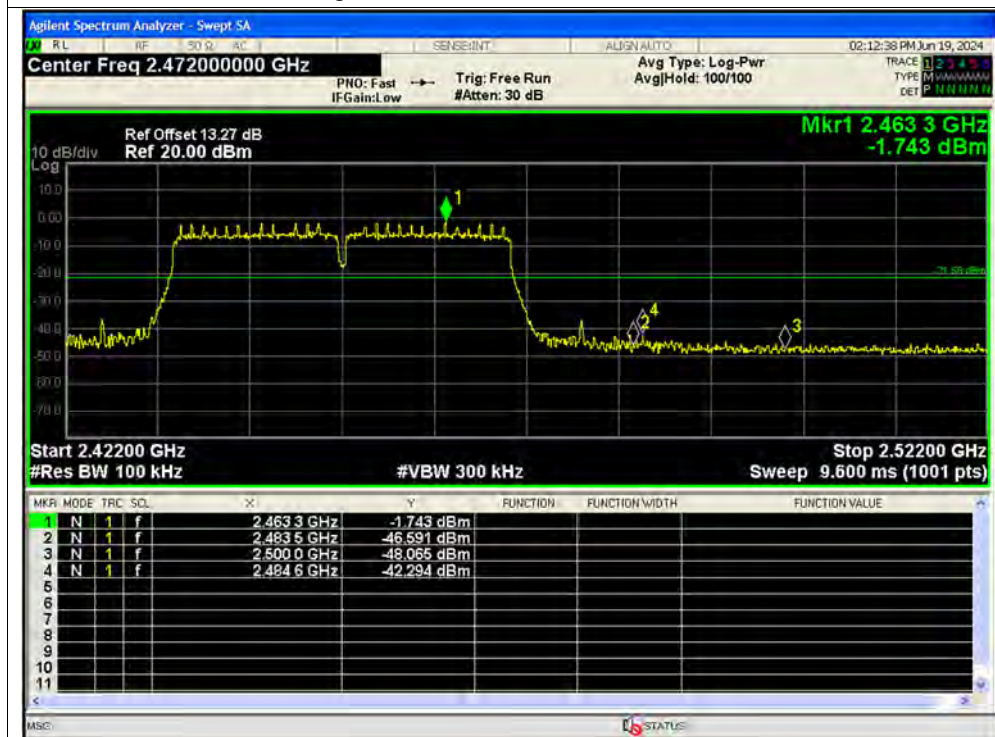
Band Edge NVNT n40 2422MHz Ant1 Emission



Band Edge NVNT n40 2452MHz Ant1 Ref



Band Edge NVNT n40 2452MHz Ant1 Emission



**A.7. Power Spectral Density**

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-4.01	0	-4.01	8	Pass
NVNT	b	2437	Ant1	-3.44	0	-3.44	8	Pass
NVNT	b	2462	Ant1	-1.64	0	-1.64	8	Pass
NVNT	g	2412	Ant1	-11.4	0	-11.4	8	Pass
NVNT	g	2437	Ant1	-9.16	0	-9.16	8	Pass
NVNT	g	2462	Ant1	-10.53	0	-10.53	8	Pass
NVNT	n20	2412	Ant1	-10.22	0	-10.22	8	Pass
NVNT	n20	2437	Ant1	-8.19	0	-8.19	8	Pass
NVNT	n20	2462	Ant1	-9.99	0	-9.99	8	Pass
NVNT	n40	2422	Ant1	-16.59	0	-16.59	8	Pass
NVNT	n40	2437	Ant1	-12.72	0	-12.72	8	Pass
NVNT	n40	2452	Ant1	-16.36	0	-16.36	8	Pass

Test Graphs

PSD NVNT b 2412MHz Ant1



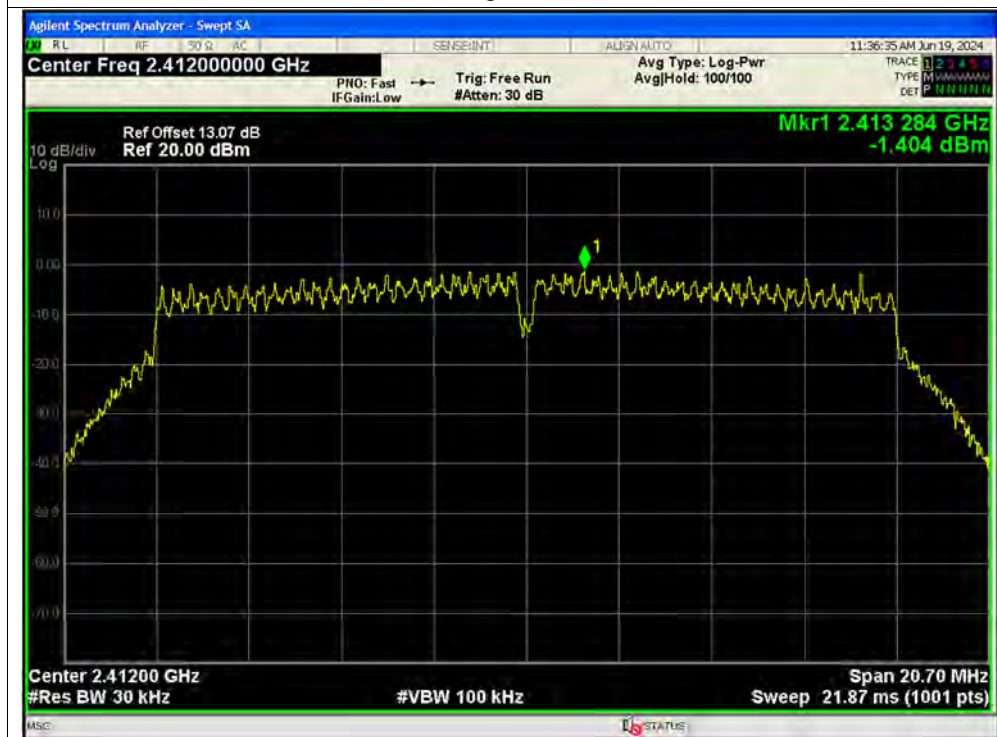
PSD NVNT b 2437MHz Ant1



PSD NVNT b 2462MHz Ant1



PSD NVNT g 2412MHz Ant1





PSD NVNT g 2437MHz Ant1



PSD NVNT g 2462MHz Ant1



PSD NVNT n20 2412MHz Ant1



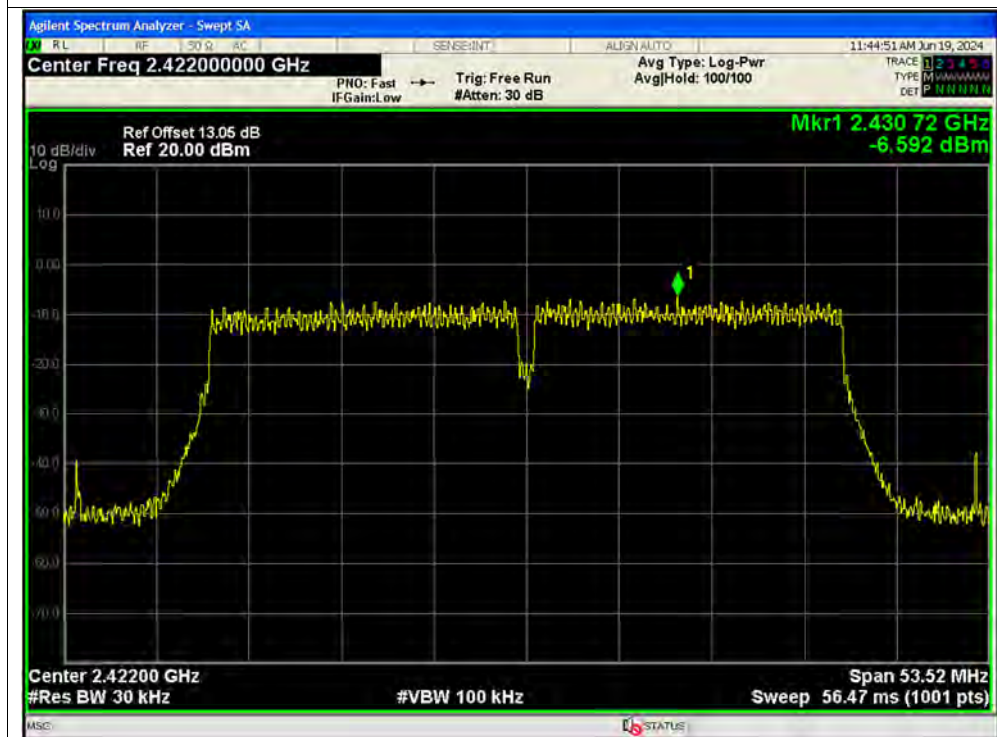
PSD NVNT n20 2437MHz Ant1



PSD NVNT n20 2462MHz Ant1



PSD NVNT n40 2422MHz Ant1

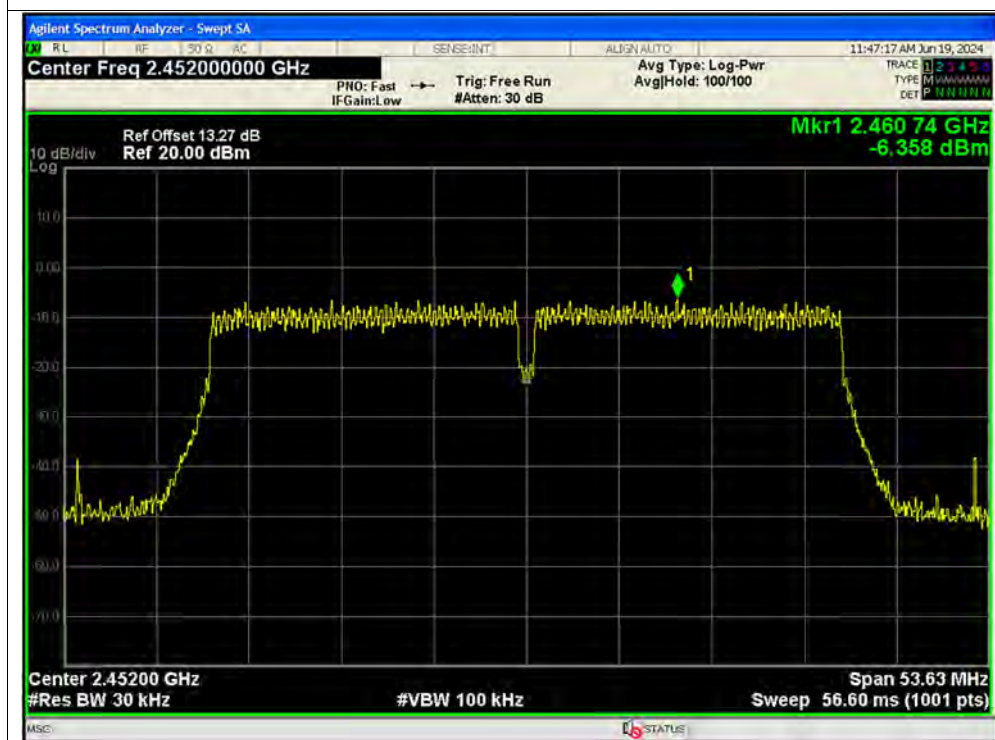




PSD NVNT n40 2437MHz Ant1



PSD NVNT n40 2452MHz Ant1





A.8. Conducted Emission

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Set RBW=9kHz, VBW=30kHz. Refer to recorded points and plots below.

Note: Both of the test voltage AC 120V/60Hz and AC 230V/50Hz were considered and tested respectively, only the results of the worst case AC 120V/60Hz were recorded in this report.

A. Test Setup:

Test Mode: EUT + Adapter + USB cable +WIFI TX

Test voltage: AC 120V/60Hz

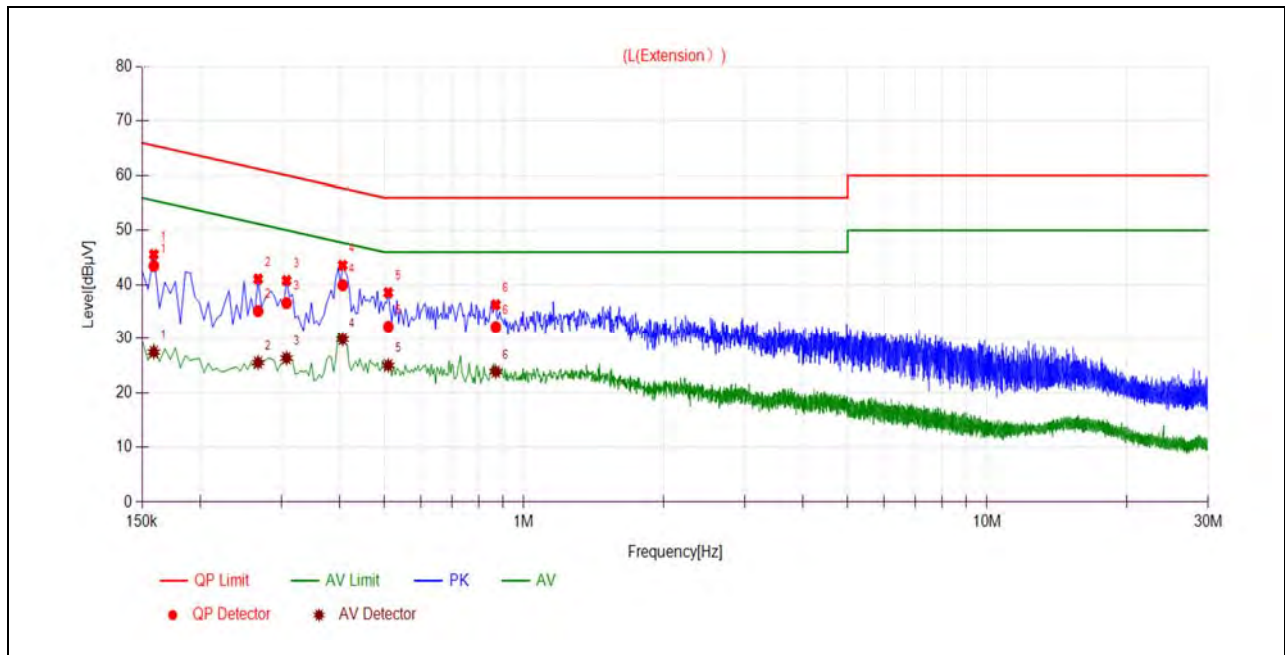
The measurement results are obtained as below:

$$E \text{ [dB}\mu\text{V]} = U_R + L_{\text{Cable loss}} \text{ [dB]} + A_{\text{Factor}}$$

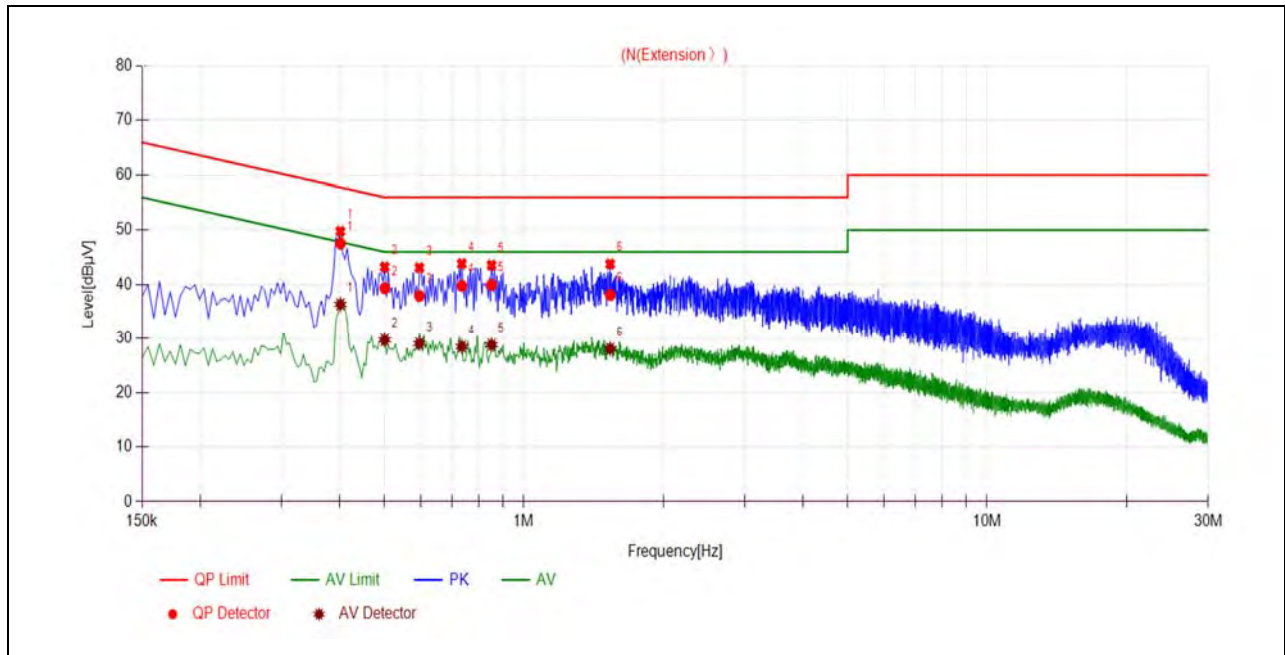
U_R : Receiver Reading

A_{Factor} : Voltage division factor of LISN

B. Test Plot:



No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1590	43.46	27.44	65.52	55.52	Line	PASS
2	0.2670	35.13	25.50	61.21	51.21		PASS
3	0.3075	36.62	26.34	60.04	50.04		PASS
4	0.4065	39.93	29.84	57.72	47.72		PASS
5	0.5100	32.23	25.00	56.00	46.00		PASS
6	0.8700	32.19	23.83	56.00	46.00		PASS



(N Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.4020	47.56	36.36	57.81	47.81	Neutral	PASS
2	0.5010	39.34	29.72	56.00	46.00		PASS
3	0.5955	37.93	29.06	56.00	46.00		PASS
4	0.7350	39.77	28.47	56.00	46.00		PASS
5	0.8521	39.96	28.81	56.00	46.00		PASS
6	1.5360	38.11	28.07	56.00	46.00		PASS



A.9. Restricted Frequency Bands

The lowest and highest channels are tested to verify the Restricted Frequency Bands.

The measurement results are obtained as below:

$$E [\text{dB}\mu\text{V/m}] = U_R + A_T + A_{\text{Factor}} [\text{dB}]; A_T = L_{\text{Cable loss}} [\text{dB}] - G_{\text{preamp}} [\text{dB}]$$

A_T : Total correction Factor except Antenna

U_R : Receiver Reading

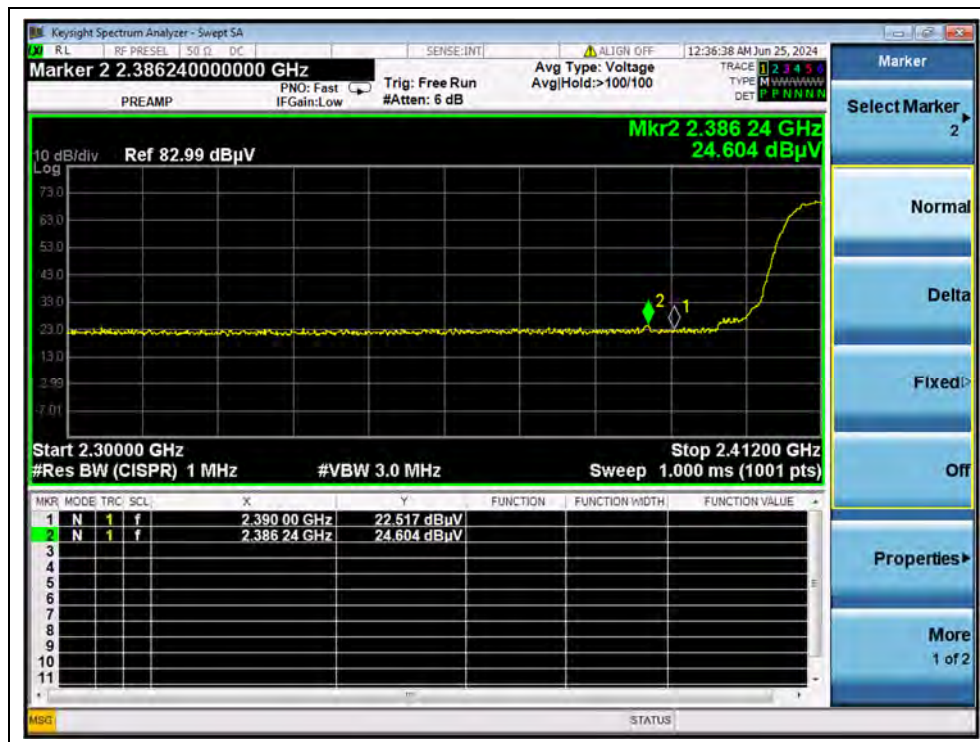
G_{preamp} : Preamplifier Gain

A_{Factor} : Antenna Factor at 3m

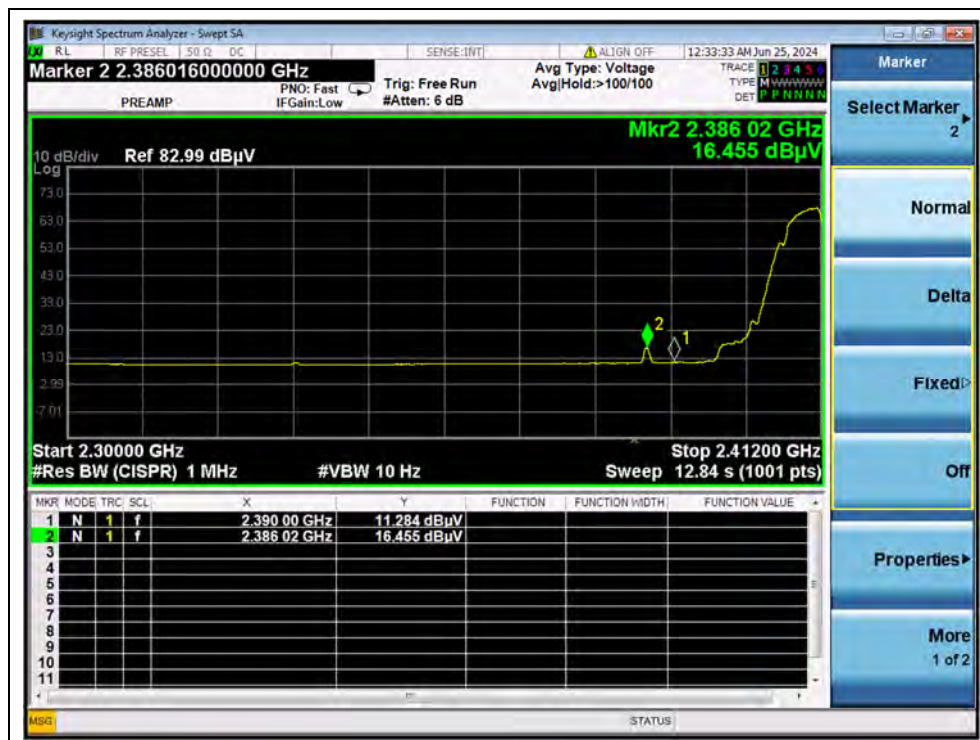
Note: Restricted Frequency Bands were performed when antenna was at vertical and horizontal polarity, and only the worse test condition (vertical) was recorded in this test report.

802.11b Mode

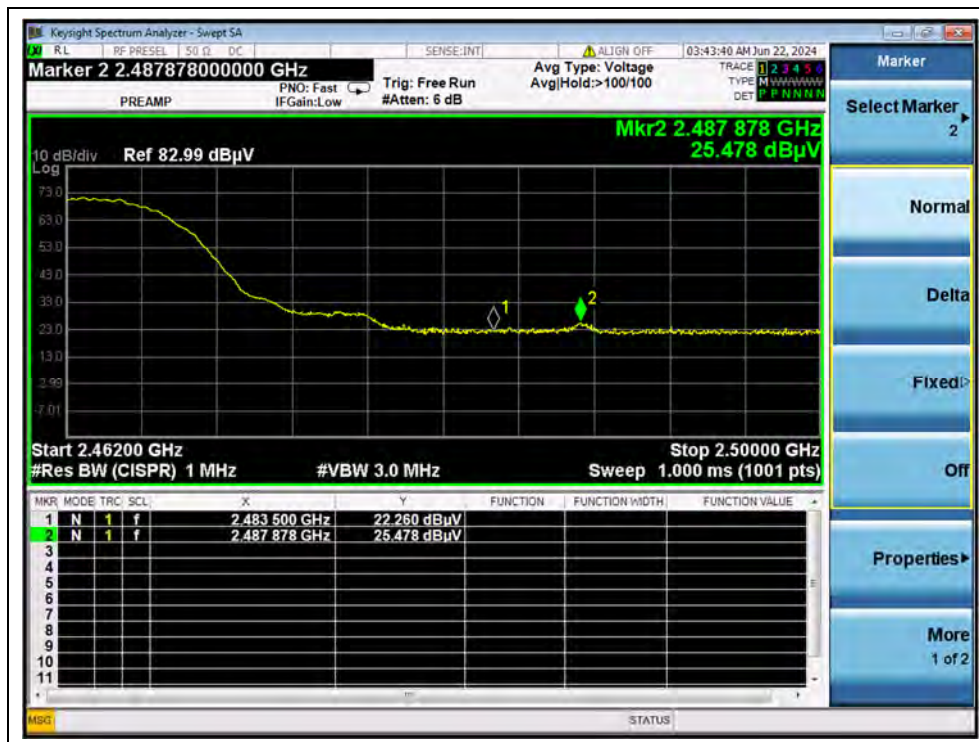
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
1	2386.24	PK	24.60	6.74	27.20	58.54	74	PASS
1	2386.02	AV	16.46	6.74	27.20	50.40	54	PASS
11	2487.88	PK	25.48	6.74	27.20	59.42	74	PASS
11	2487.99	AV	16.85	6.74	27.20	50.79	54	PASS



(PEAK, Channel 1, 802.11b)



(AVERAGE, Channel 1, 802.11b)



(PEAK, Channel 11, 802.11b)

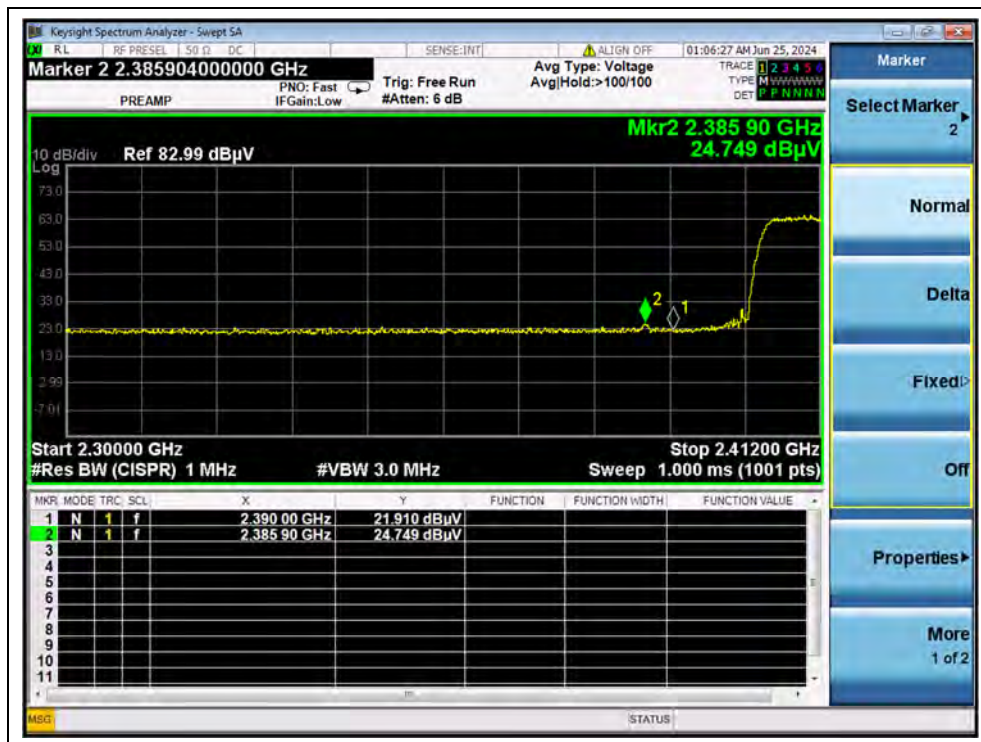


(AVERAGE, Channel 11, 802.11b)

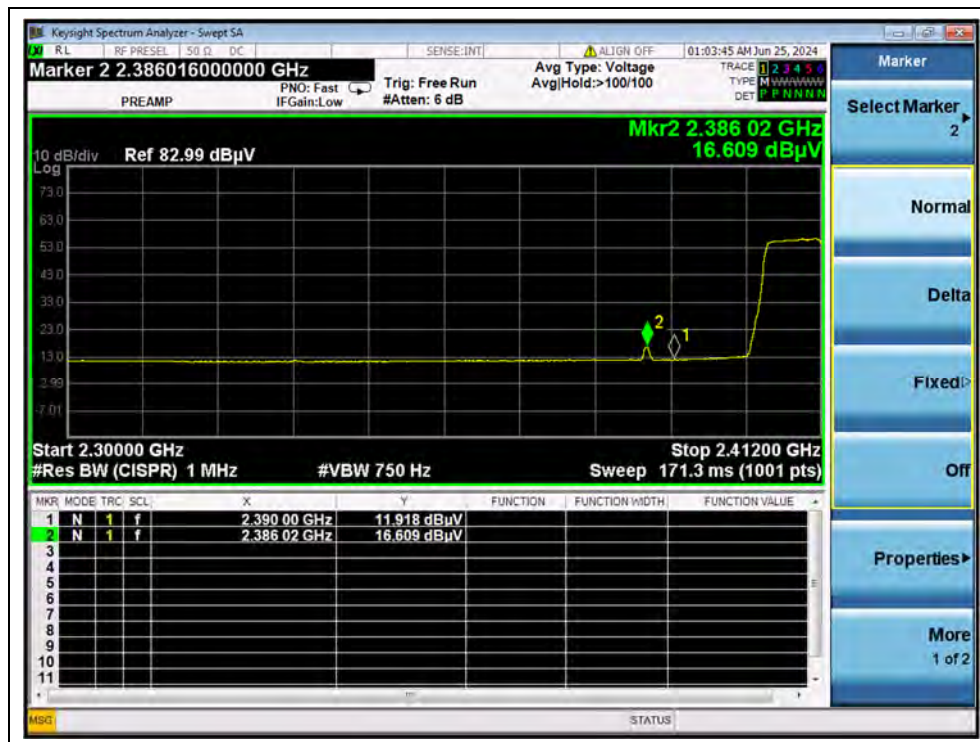


802.11g Mode

Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
1	2385.90	PK	24.75	6.74	27.20	58.69	74	PASS
1	2386.02	AV	16.61	6.74	27.20	50.55	54	PASS
11	2487.84	PK	24.62	6.74	27.20	58.56	74	PASS
11	2487.99	AV	15.92	6.74	27.20	49.86	54	PASS



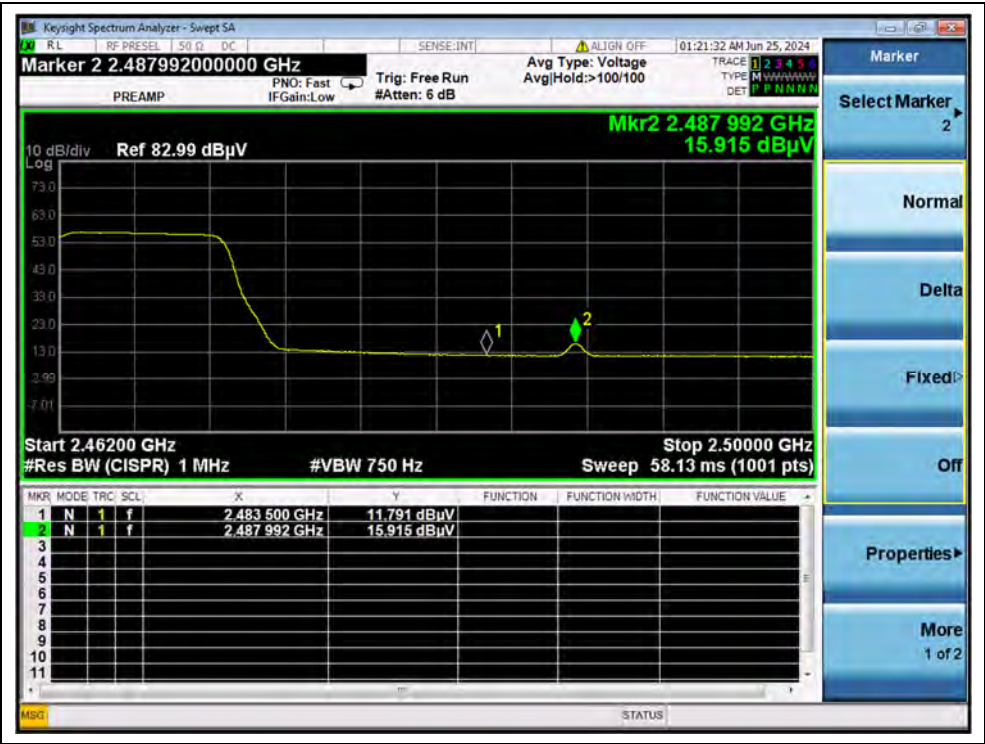
(PEAK, Channel 1, 802.11g)



(AVERAGE, Channel 1, 802.11g)



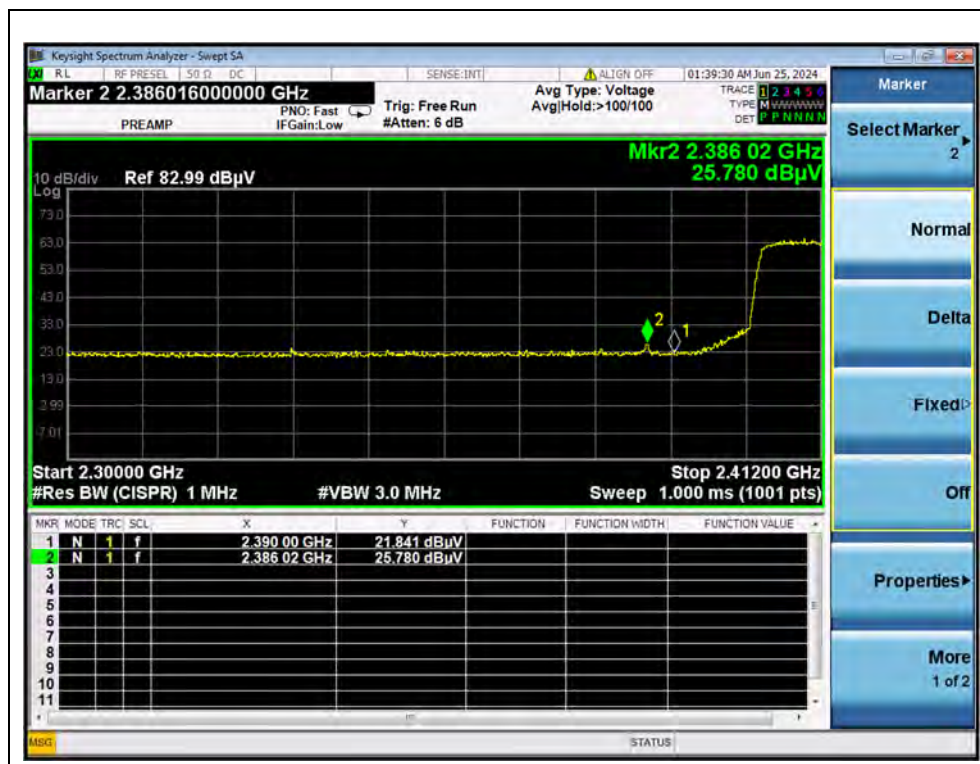
(PEAK, Channel 11, 802.11g)



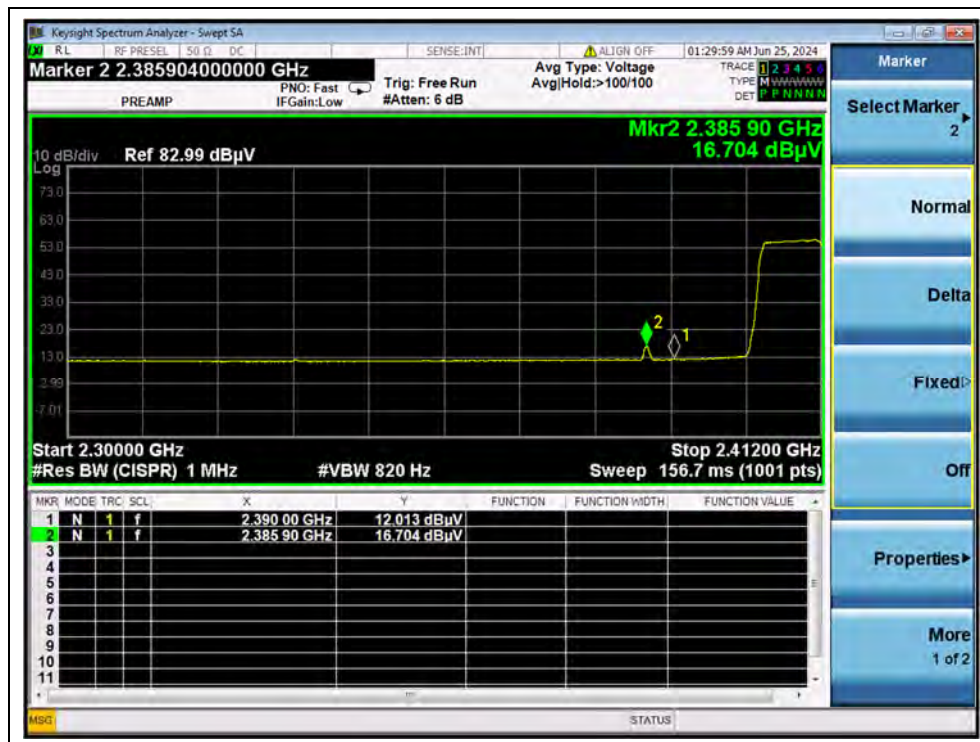
(AVERAGE, Channel 11, 802.11g)

**802.11n (HT20) Mode**

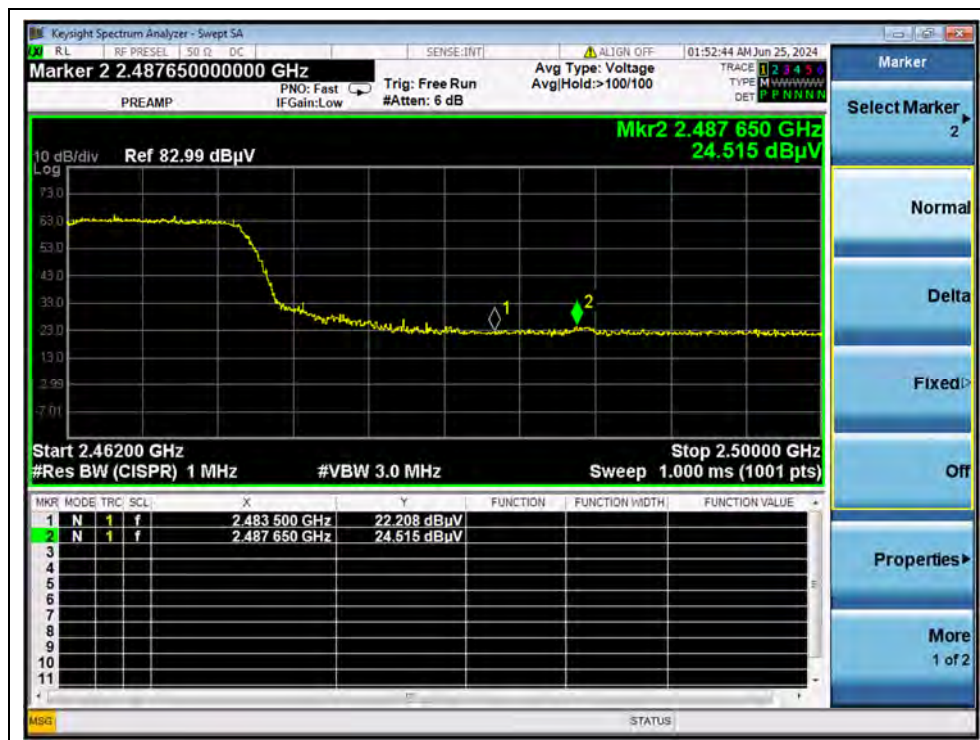
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
1	2386.02	PK	25.78	6.74	27.20	59.72	74	PASS
1	2385.90	AV	16.70	6.74	27.20	50.64	54	PASS
11	2487.65	PK	24.52	6.74	27.20	58.46	74	PASS
11	2488.03	AV	16.23	6.74	27.20	50.17	54	PASS



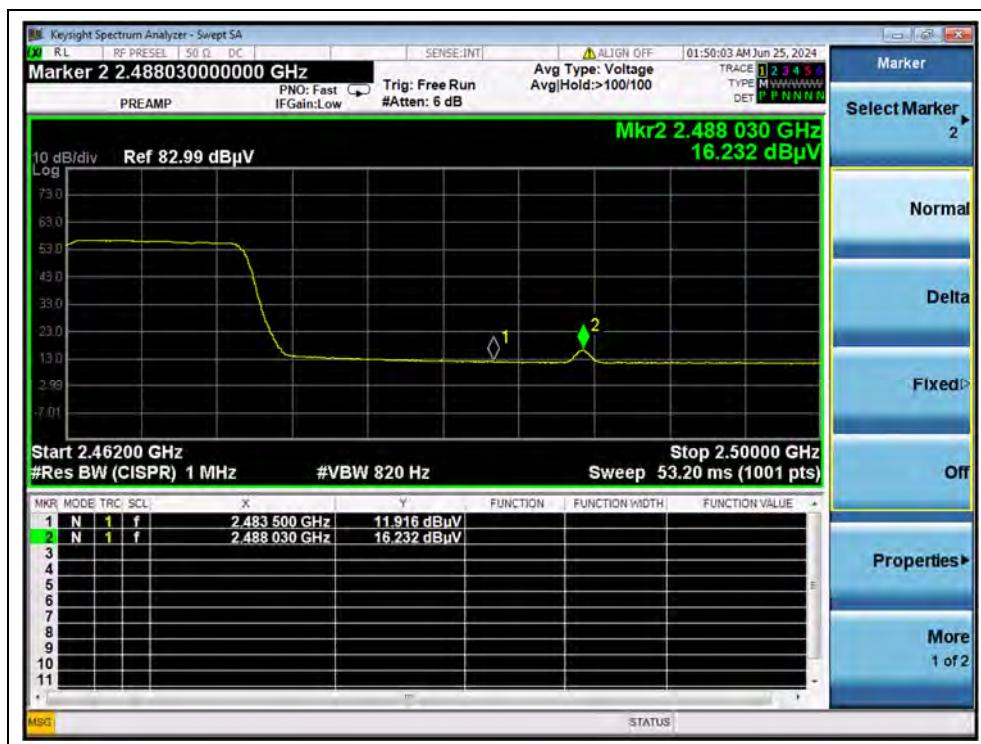
(PEAK, Channel 1, 802.11n (HT20))



(AVERAGE, Channel 1, 802.11n (HT20))



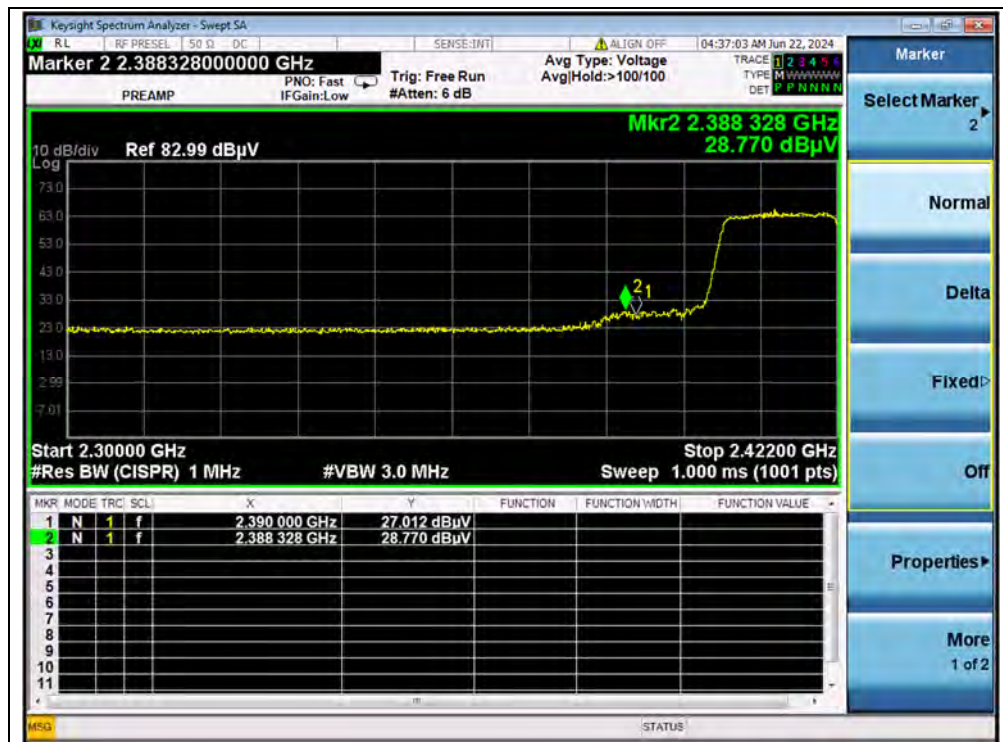
(PEAK, Channel 11, 802.11n (HT20))



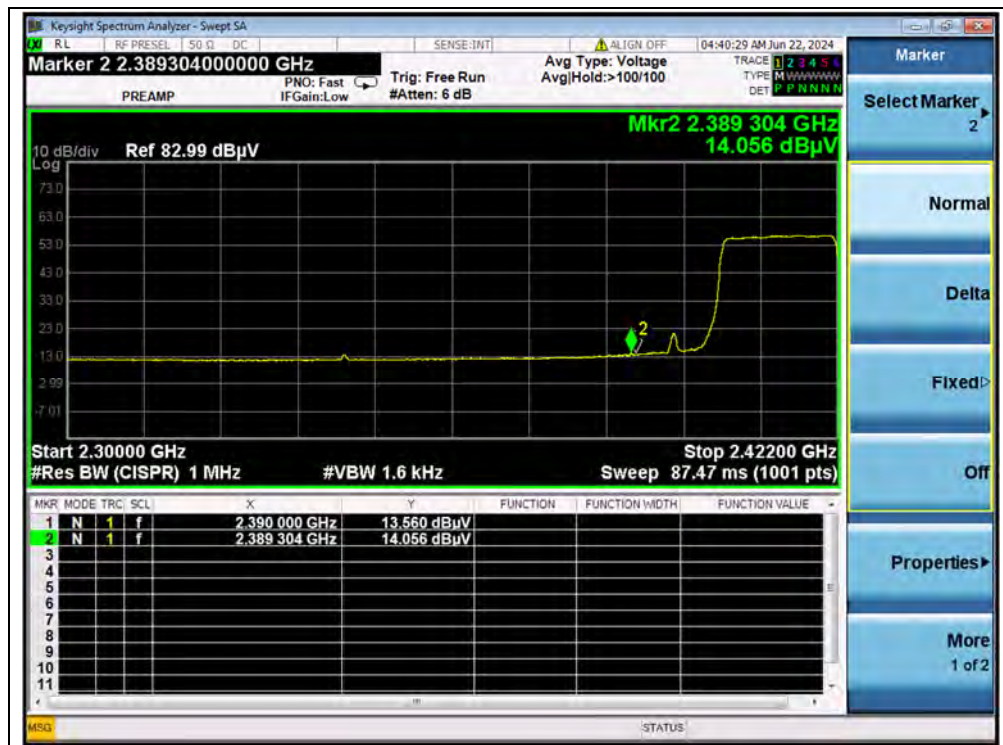
(AVERAGE, Channel 11, 802.11n (HT20))

**802.11n (HT40) Mode**

Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
3	2388.33	PK	28.77	6.74	27.20	62.71	74	PASS
3	2389.30	AV	14.06	6.74	27.20	48.00	54	PASS
9	2486.85	PK	28.15	6.74	27.20	62.09	74	PASS
9	2484.02	AV	13.74	6.74	27.20	47.68	54	PASS



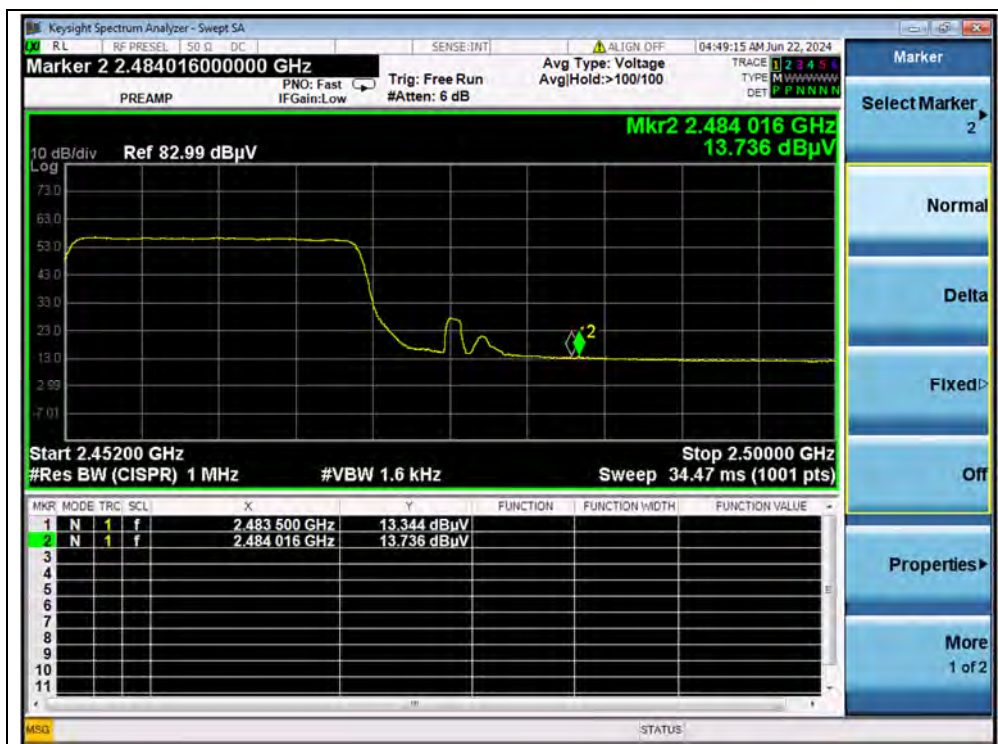
(PEAK, Channel 3, 802.11n (HT40))



(AVERAGE, Channel 3, 802.11n (HT40))



(PEAK, Channel 9, 802.11n (HT40))



(AVERAGE, Channel 9, 802.11n (HT40))



A.10. Radiated Emission

According to ANSI C63.10, because of peak detection will yield amplitudes equal to or greater than amplitudes measured with the quasi-peak (or average) detector, the measurement data from a spectrum analyzer peak detector will represent the worst-case results, if the peak measured value complies with the quasi-peak (or average) limit, it is unnecessary to perform an quasi-peak measurement (or average).

The measurement results are obtained as below:

$$E \text{ [dB}\mu\text{V/m]} = U_R + A_T + A_{\text{Factor}} \text{ [dB]}; A_T = L_{\text{Cable loss}} \text{ [dB]} - G_{\text{preamp}} \text{ [dB]}$$

A_T : Total correction Factor except Antenna

U_R : Receiver Reading

G_{preamp} : Preamplifier Gain

A_{Factor} : Antenna Factor at 3m

During the test, the total correction Factor A_T and A_{Factor} were built in test software.

Note1: All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Note2: For the frequency, which started from 9kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

Note3: For the frequency, which started from 18GHz to 10th harmonic of the highest frequency, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

Field strength of fundamental:

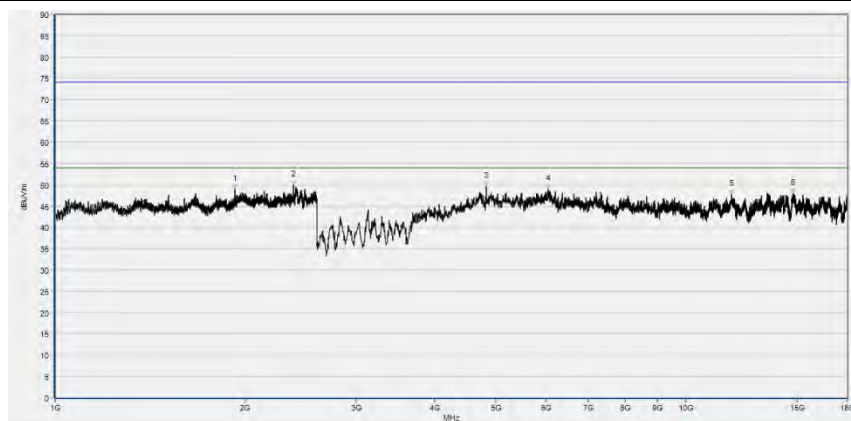
Frequency (MHz)	Reading_Peak (dB μ V/m)	Antenna Factor (dB)	Path Loss (dB)	Final_Peak (dB μ V/m)	Antenna Polarity
2428.10	64.72	27.20	6.74	98.66	Horizontal
2411.80	60.03	27.20	6.74	93.97	Vertical

The field strength (the lowest) of fundamenta is more than 20dB higher than the unwanted emissions, in accordance with FCC part 15.215(b).

**802.11b Mode****Plot for Channel 1**

Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
42.610	29.91	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
113.420	33.11	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
225.940	29.94	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
449.040	33.96	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
667.290	36.08	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
912.700	38.85	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



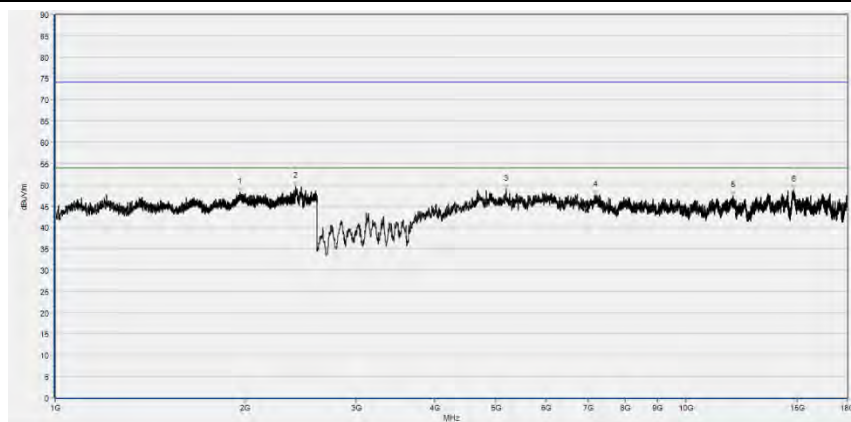
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1927.467	48.90	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2385.600	50.00	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4823.760	49.68	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6043.440	48.97	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11812.280	47.80	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14766.000	47.94	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
42.610	30.65	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
113.420	32.31	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
230.790	30.21	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
437.400	34.73	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
673.110	36.14	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
909.790	39.51	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1961.600	48.27	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2406.933	49.55	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5190.280	48.99	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7176.880	47.62	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11858.480	47.44	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14824.520	48.79	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 18GHz)

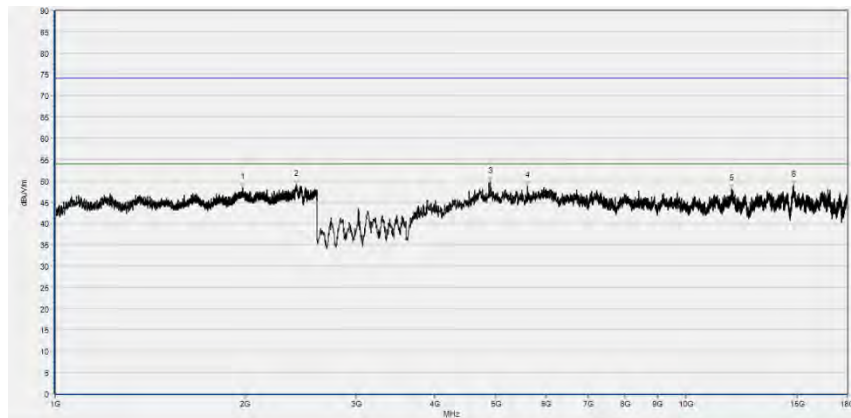


Plot for Channel 6



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
40.670	30.96	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
109.540	32.96	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
231.760	31.30	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
465.530	35.09	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
579.990	37.73	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
901.060	39.95	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



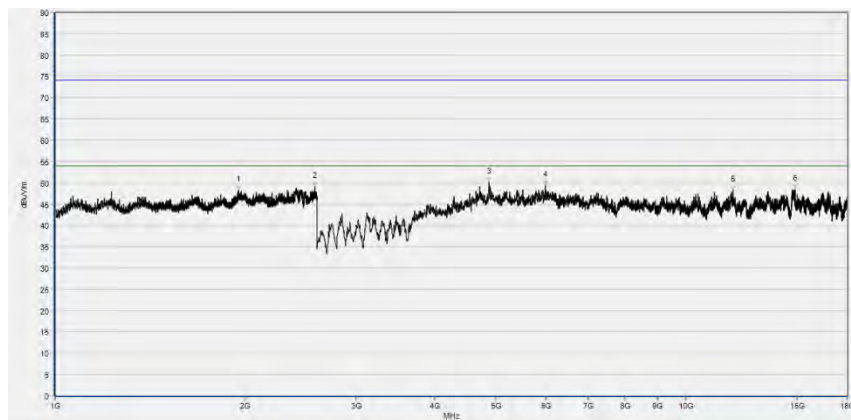
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1982.933	48.41	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2412.267	49.17	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4897.680	49.74	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5606.080	48.79	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11806.120	48.11	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14818.360	48.89	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
42.610	30.82	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
115.360	32.59	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
232.730	31.08	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
454.860	34.31	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
681.840	36.32	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
913.670	38.98	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1954.133	48.29	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2580.267	49.16	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4873.040	50.08	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5975.680	49.50	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11873.880	48.26	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14886.120	48.44	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

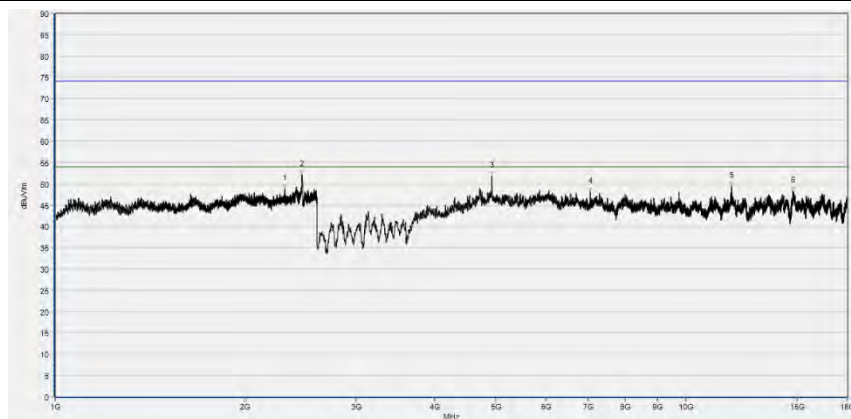
(Antenna Vertical, 1GHz to 18GHz)

Plot for Channel 11



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
41.640	29.88	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
105.660	33.19	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
237.580	30.75	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
444.190	34.93	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
676.990	36.78	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
929.190	39.48	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



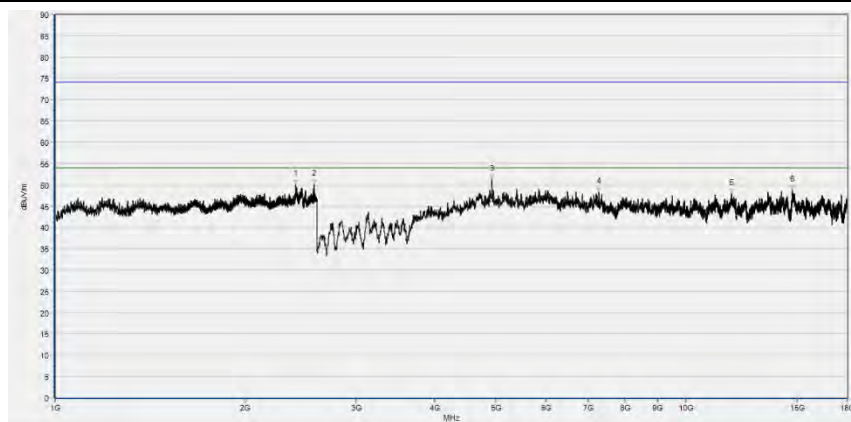
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
2313.067	48.80	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2462.400	52.11	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4922.320	51.75	N/A	50.11	74.00	N/A	54.00	Horizontal	PASS
7047.520	48.05	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11818.440	49.40	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14753.680	48.34	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
39.700	29.90	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
114.390	32.76	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
238.550	31.04	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
441.280	34.75	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
688.630	36.19	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
902.030	39.12	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



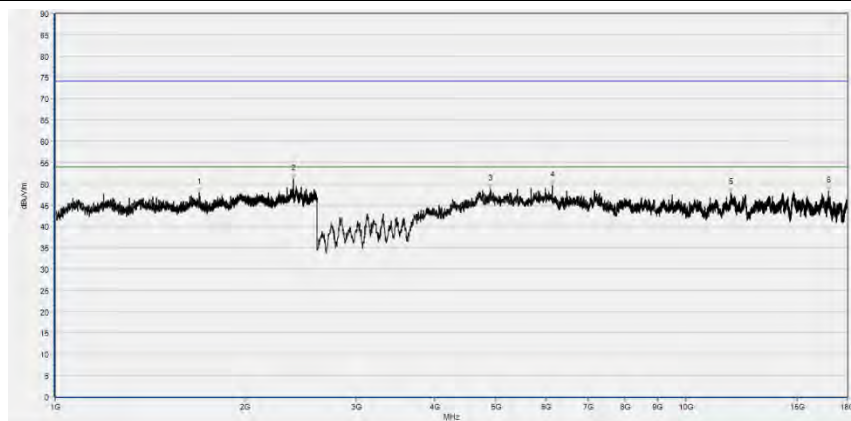
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
2407.467	50.20	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2572.267	50.12	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4922.320	51.24	N/A	47.62	74.00	N/A	54.00	Vertical	PASS
7281.600	48.30	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11809.200	47.88	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14744.440	48.81	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 18GHz)

**802.11g Mode****Plot for Channel 1**

Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
42.610	30.24	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
111.480	32.33	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
248.250	30.38	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
447.100	33.77	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
684.750	36.35	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
904.940	38.70	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



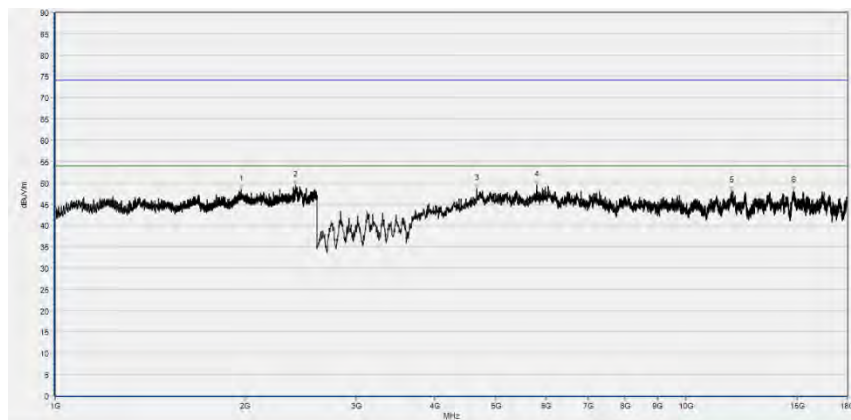
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1691.733	47.91	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2385.600	51.15	N/A	43.06	74.00	N/A	54.00	Horizontal	PASS
4897.680	48.76	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6132.760	49.57	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11769.160	47.94	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
16820.360	48.22	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
40.670	31.85	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
114.390	33.05	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
210.420	30.45	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
434.490	35.22	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
689.600	36.88	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
912.700	40.14	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1970.667	48.43	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2405.867	49.48	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4657.440	48.64	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5803.200	49.39	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11790.720	48.05	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14793.720	48.05	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 18GHz)

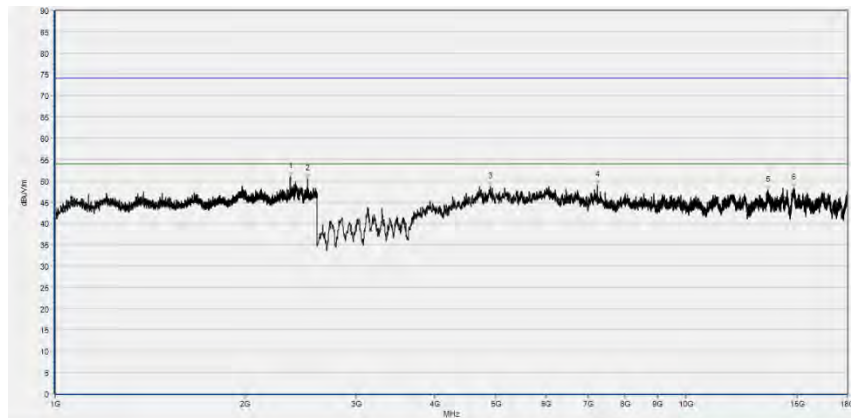


Plot for Channel 6



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
42.610	29.71	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
99.840	32.11	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
222.060	30.43	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
469.410	33.97	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
675.050	37.20	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
923.370	39.69	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



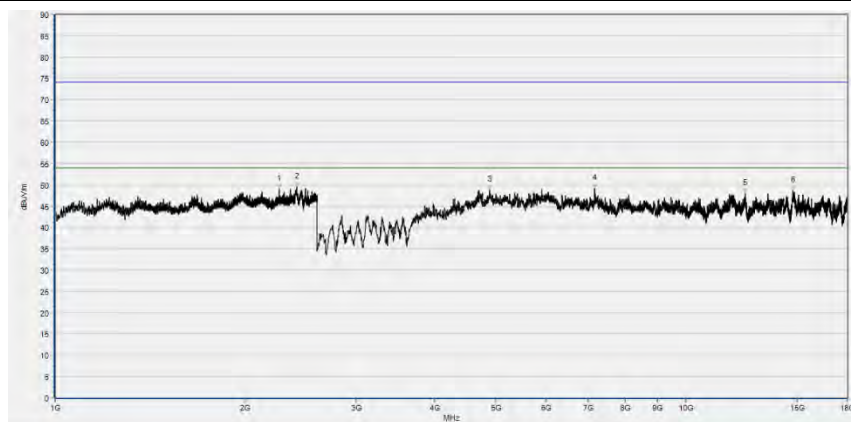
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
2358.933	51.02	N/A	46.25	74.00	N/A	54.00	Horizontal	PASS
2514.667	50.52	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4900.760	48.53	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7226.160	48.99	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
13497.040	47.85	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14799.880	48.21	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
44.550	29.59	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
108.570	33.56	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
243.400	30.71	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
452.920	34.50	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
695.420	36.74	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
908.820	38.90	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
2264.000	48.92	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2414.400	49.38	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4879.200	48.75	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7161.480	49.12	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12415.960	48.00	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14775.240	48.54	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 18GHz)

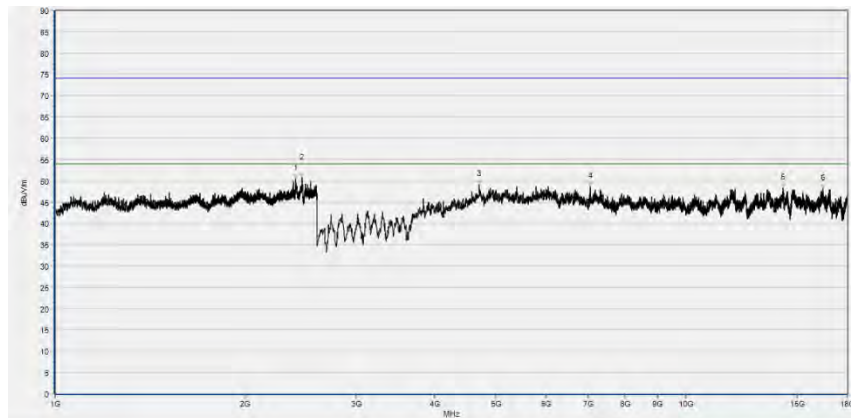


Plot for Channel 11



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
43.580	29.57	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
105.660	33.36	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
240.490	29.96	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
463.590	34.51	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
678.930	36.13	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
889.420	39.86	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



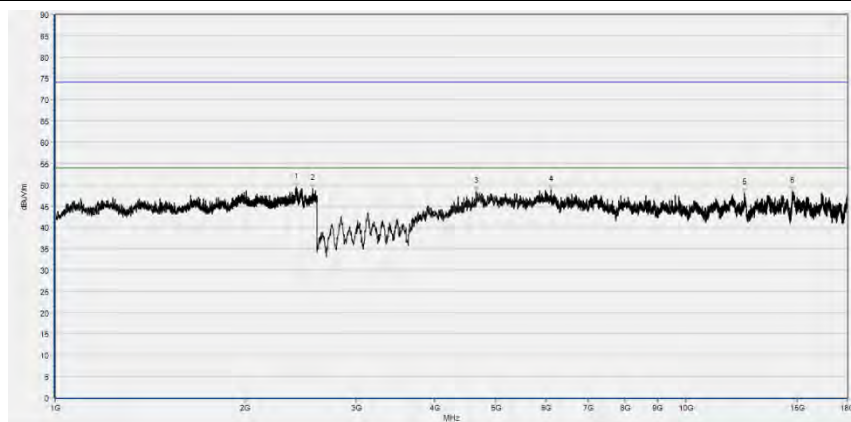
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
2407.467	50.39	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2463.467	50.79	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4700.560	49.06	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7053.680	48.65	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14257.800	48.19	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
16469.240	48.12	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
41.640	29.99	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
105.660	32.99	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
236.610	30.35	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
444.190	34.23	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
675.050	36.16	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
915.610	39.11	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
2412.800	49.46	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2563.200	49.05	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4648.200	48.39	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6111.200	48.81	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12382.080	48.11	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14741.360	48.38	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 18GHz)

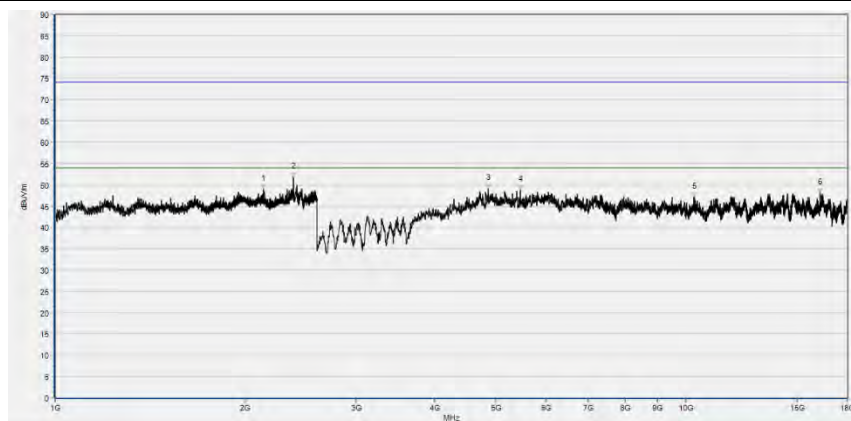
**802.11n (HT20) Mode**

Plot for Channel 1



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
45.520	29.64	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
110.510	32.80	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
232.730	29.81	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
456.800	34.12	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
688.630	36.34	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
889.420	38.76	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



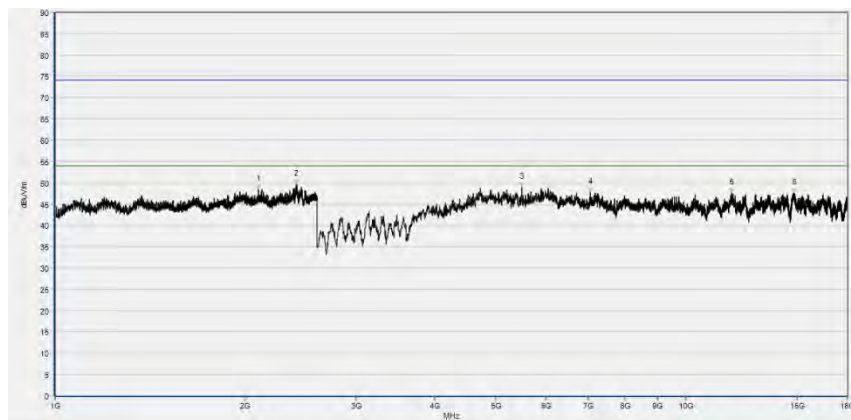
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
2137.600	48.94	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2385.600	51.86	N/A	43.35	74.00	N/A	54.00	Horizontal	PASS
4863.800	49.09	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5461.320	48.76	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10321.560	47.18	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
16315.240	48.10	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
42.610	29.97	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
109.540	32.96	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
226.910	30.10	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
459.710	34.04	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
679.900	35.89	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
905.910	38.96	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
2100.800	48.35	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2411.200	49.56	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5489.040	49.02	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7044.440	47.83	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11815.360	47.65	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14827.600	47.58	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

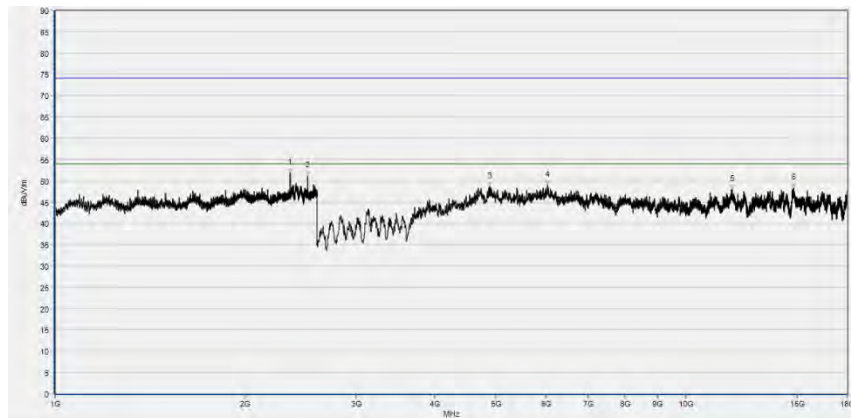
(Antenna Vertical, 1GHz to 18GHz)

Plot for Channel 6



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
44.550	29.88	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
108.570	33.06	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
244.370	31.20	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
470.380	34.15	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
693.480	36.31	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
919.490	39.10	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



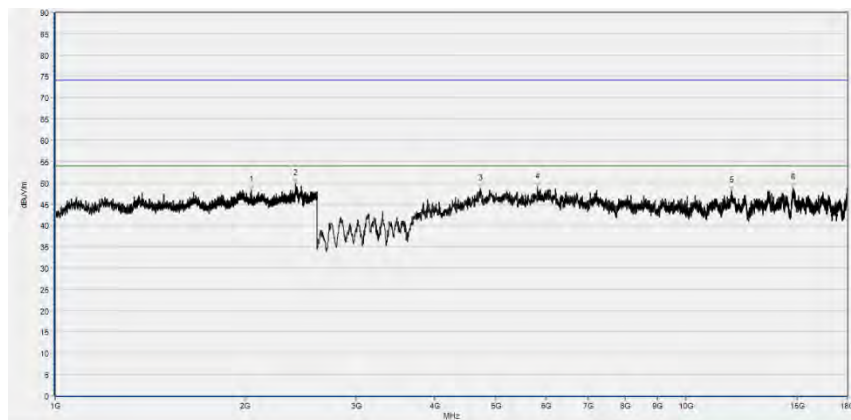
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
2358.400	51.87	N/A	39.34	74.00	N/A	54.00	Horizontal	PASS
2515.200	51.04	N/A	44.73	74.00	N/A	54.00	Horizontal	PASS
4888.440	48.66	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6037.280	48.88	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11821.520	47.98	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14790.640	48.22	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
40.670	30.39	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
111.480	32.83	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
249.220	29.85	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
446.130	35.18	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
704.150	35.98	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
910.760	38.33	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
2045.867	48.27	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2404.267	49.82	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4715.960	48.61	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5815.520	48.86	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11812.280	48.02	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14769.080	48.78	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 18GHz)

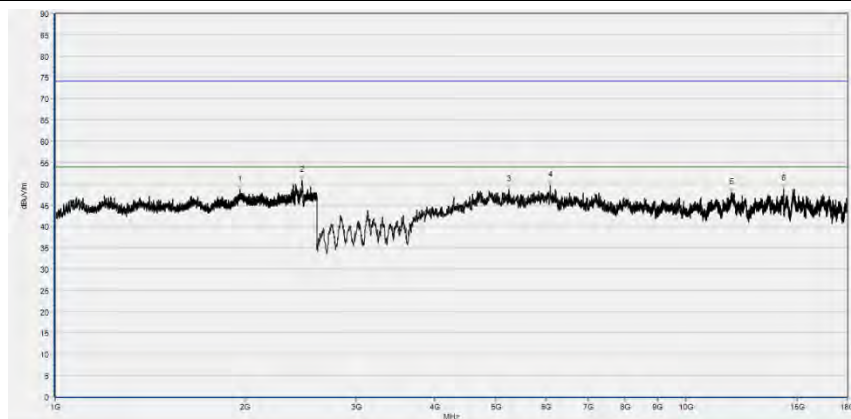


Plot for Channel 11



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
44.550	30.51	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
114.390	32.27	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
245.340	29.98	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
482.020	34.09	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
693.480	37.11	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
903.970	39.26	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



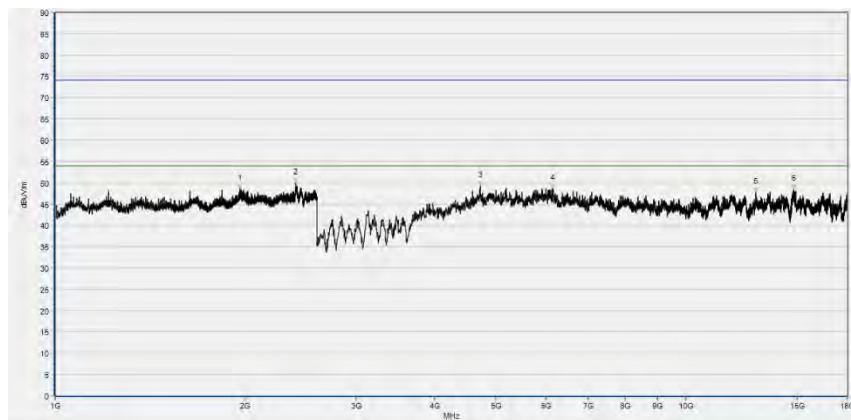
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1961.067	48.58	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2462.933	50.82	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5236.480	48.57	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6095.800	49.65	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11815.360	47.87	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14267.040	48.70	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
40.670	30.67	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
106.630	33.03	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
226.910	30.79	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
435.460	33.60	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
676.990	35.60	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
916.580	39.49	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1964.267	48.59	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2405.333	49.90	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4715.960	49.19	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6132.760	48.55	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12893.360	47.78	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14821.440	48.42	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 18GHz)

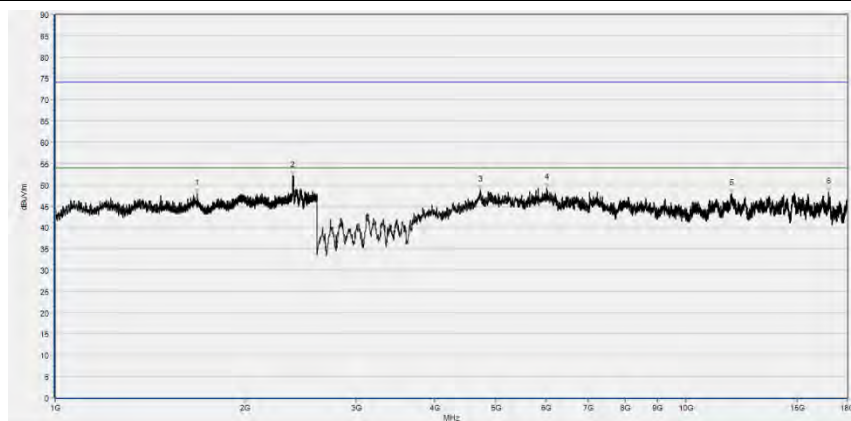
**802.11n (HT40) Mode**

Plot for Channel 3



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
43.580	29.35	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
113.420	33.65	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
230.790	31.10	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
451.950	34.42	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
693.480	36.15	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
896.210	39.16	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



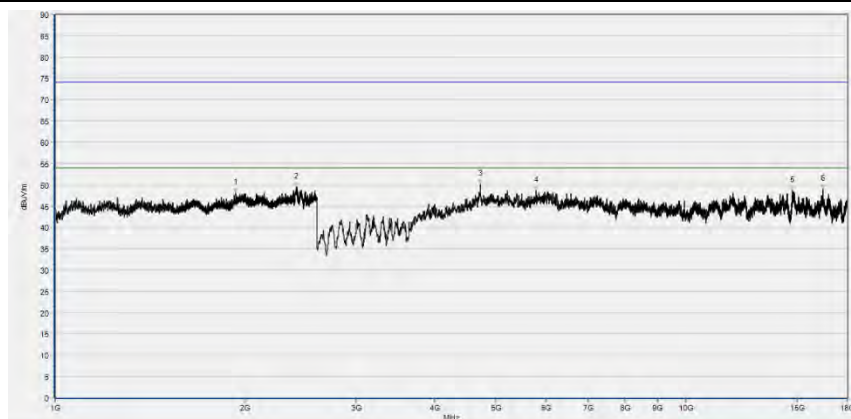
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1678.400	47.89	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2382.933	52.07	N/A	37.46	74.00	N/A	54.00	Horizontal	PASS
4715.960	48.83	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6006.480	49.20	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11793.800	47.87	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
16814.200	48.22	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
40.670	29.58	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
108.570	32.56	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
234.670	31.82	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
449.040	33.81	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
692.510	36.25	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
905.910	39.00	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1934.400	48.10	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2411.733	49.38	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4722.120	50.12	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5781.640	48.61	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14741.360	48.57	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
16456.920	48.99	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 18GHz)

Plot for Channel 6

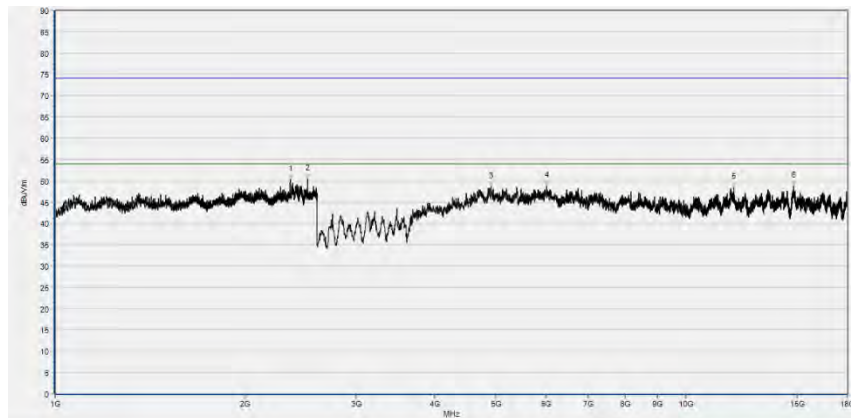


B.

Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
41.640	29.70	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
108.570	32.73	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
233.700	30.31	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
460.680	34.18	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
691.540	36.13	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
917.550	39.15	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

C.

(Antenna Horizontal, 30MHz to 1GHz)



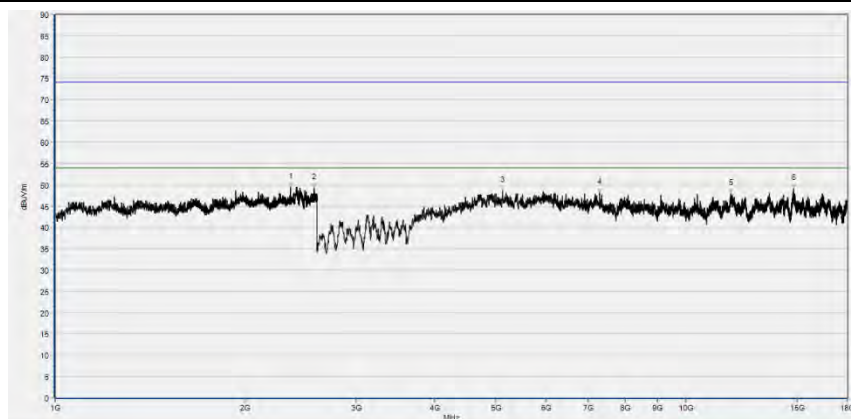
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
2358.933	50.33	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2514.667	50.46	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4910.000	48.65	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6006.480	48.75	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11889.280	48.39	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14799.880	48.79	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
38.730	30.50	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
114.390	32.35	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
229.820	30.61	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
454.860	34.51	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
691.540	36.29	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
889.420	39.30	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
2358.933	49.41	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2570.667	49.34	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5116.360	48.59	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7297.000	48.18	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11763.000	47.96	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14821.440	49.07	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 18GHz)

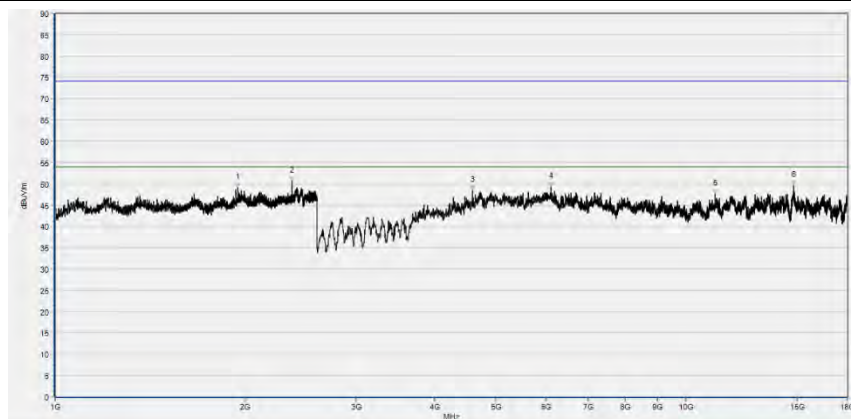


Plot for Channel 9



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
45.520	29.78	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
106.630	33.47	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
223.030	30.15	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
449.040	34.13	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
793.390	37.67	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
916.580	39.68	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



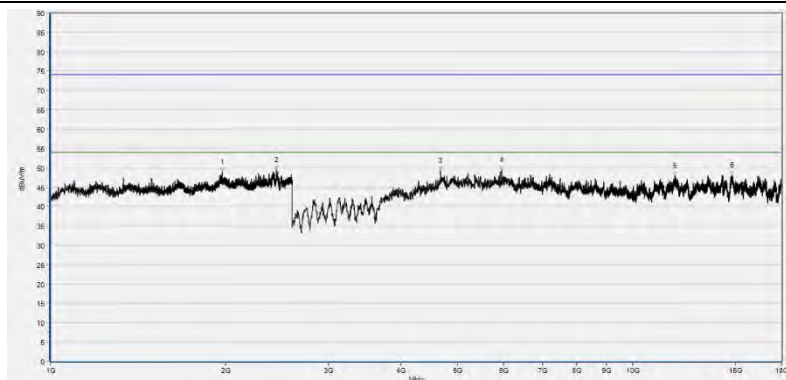
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1949.867	49.07	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2373.867	50.57	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4586.600	48.39	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6105.040	49.21	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11128.520	47.61	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14812.200	49.68	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
44.550	29.76	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
109.540	32.14	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
235.640	30.28	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
454.860	34.79	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
692.510	36.19	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
902.030	38.88	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1972.800	48.97	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2443.733	49.45	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4675.920	49.35	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5954.120	49.36	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11793.800	47.98	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14824.520	48.18	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 18GHz)

END OF REPORT