REPORT No.: SZ24060118W03

TEST REPORT

APPLICANT	:	Shenzhen Digitizing Fluid Technology Co., Ltd.
PRODUCT NAME	:	DiFluid Omix
MODEL NAME	:	CB101, CB101 Plus
BRAND NAME	:	DiFluid
FCC ID	:	2A26IDFT-CB101
STANDARD(S)	:	47 CFR Part 15 Subpart C
RECEIPT DATE	:	2024-06-25
TEST DATE	:	2024-07-08 to 2024-08-02
ISSUE DATE	:	2024-08-13

Edited by: Peng Mi (Rapporteur)

Approved by: Shen Junsheng (Supervisor)

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 Fax: 86-755-36698525
Http://www.morlab.cn E-mail: service@morlab.cn

DIRECTORY

Change History		
Version	**Date**	**Reason for change**
1.0	2024-08-13	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	Jul. 11, 2024	Li Zikai	PASS	No deviation
3	15.247(b)	Maximum Peak Conducted Output Power	Jul. 11, 2024	Li Zikai	PASS	No deviation
4	15.247(b)	Maximum Average Conducted Output Power	Jul. 11, 2024	Li Zikai	PASS	No deviation
5	15.247(a)	Bandwidth	Jul. 11, 2024	Li Zikai	PASS	No deviation
6	15.247(d)	Conducted Spurious Emission and Band Edge	Jul. 11, 2024	Li Zikai	PASS	No deviation
7	15.247(e)	Power Spectral Density	Jul. 11, 2024	Li Zikai	PASS	No deviation
8	15.207	Conducted Emission	Jul. 16, 2024	Wang Deyong	PASS	No deviation
9	15.247(d)	Restricted Frequency Bands	Aug. 02, 2024	Yang Lian	PASS	No deviation
10	15.209, 15.247(d)	Radiated Emission	Aug. 02, 2024	Yang Lian	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	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
TS+ -[JS36-RSE]	Tonscend	V3.0.0.0
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	N/A	N/A
RF Coaxial Cable (DC-40GHz)	22290046	QA360-40-KKF-2	Qualwave	N/A	N/A
RF Coaxial Cable (DC-18GHz)	22120181	QA500-18-NN-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	±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	Shenzhen Digitizing Fluid Technology Co., Ltd.
Applicant Address	Room 1602, Jinhua building, Taoxia Village, Taoyuan Community, Dalang Street, Longhua District, Shenzhen, 518109, China
Manufacturer	Shenzhen Digitizing Fluid Technology Co., Ltd.
Manufacturer Address	Room 1602, Jinhua building, Taoxia Village, Taoyuan Community, Dalang Street, Longhua District, Shenzhen, 518109, China

2.2. Information of EUT

Product Name:	DiFluid Omix	
Sample No.:	4#	
Hardware Version:	CB101_MB_P002	
Software Version:	V007006	
Modulation Technology:	DSSS, OFDM	
Modulation Type:	Refer to section 1.3	
Operating Frequency Range:	802.11b/g/n (HT20): 2412MHz–2462MHz	
Antenna Type:	FPC Antenna	
Antenna Gain:	3.16dBi	
Accessory Information:	Battery 1	
	Brand Name:	DPT
	Model No.:	DTP104065
	Serial No.:	N/A
	Capacity:	3000mAh
	Rated Voltage:	3.7V
	Charge Limit:	4.2V
	Manufacturer:	Dongguan Data Power Co., Ltd.

Accessory Information:	Battery 2	
	Brand Name:	YLY
	Model No.:	102050
	Serial No.:	N/A
	Capacity:	1000mAh
	Rated Voltage:	3.7V
	Charge Limit:	4.2V
	Manufacturer:	SHENZHEN YOULONGYUAN TECHNOLOGY CO., LTD.
	Battery 3	
	Brand Name:	OMNIERGY
	Model No.:	CR2032
	Serial No.:	N/A
	Capacity:	245mAh
	Rated Voltage:	3V
	Charge Limit:	N/A
	Manufacturer:	Yichang Power Glory Technology Co., LTD

Note 1: According to the certificate holder, they declared that the models CB101 and CB101 Plus only the model numbers are different, everything else is the same. The main measuring model is CB101, only the results for CB101 were recorded in this report.

Note 2: We use the dedicated software to control the EUT continuous transmission.

Note 3: 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		

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

Modulation technology	Modulation Type	Data Rate (Mbps) Note1
DSSS (802.11b)	DBPSK	**1**
	DQPSK	2
	CCK	5.5/ 11
OFDM (802.11g)	BPSK	**6** / 9
	QPSK	12 / 18
	16QAM	24 / 36
	64QAM	48 / 54
OFDM (802.11n (HT20))	BPSK	**6.5**
	QPSK	13/19.5
	16QAM	26/39
	64QAM	52/58.5/65

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.

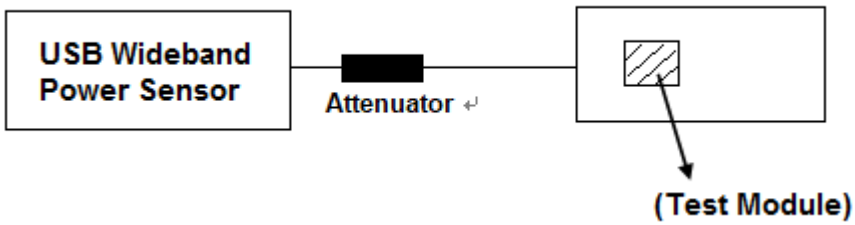
2.5. Test Conditions

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

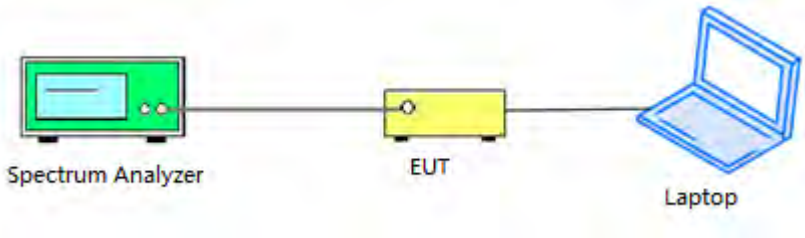
2.6. Test Setup Layout Diagram

2.6.1.Conducted Measurement

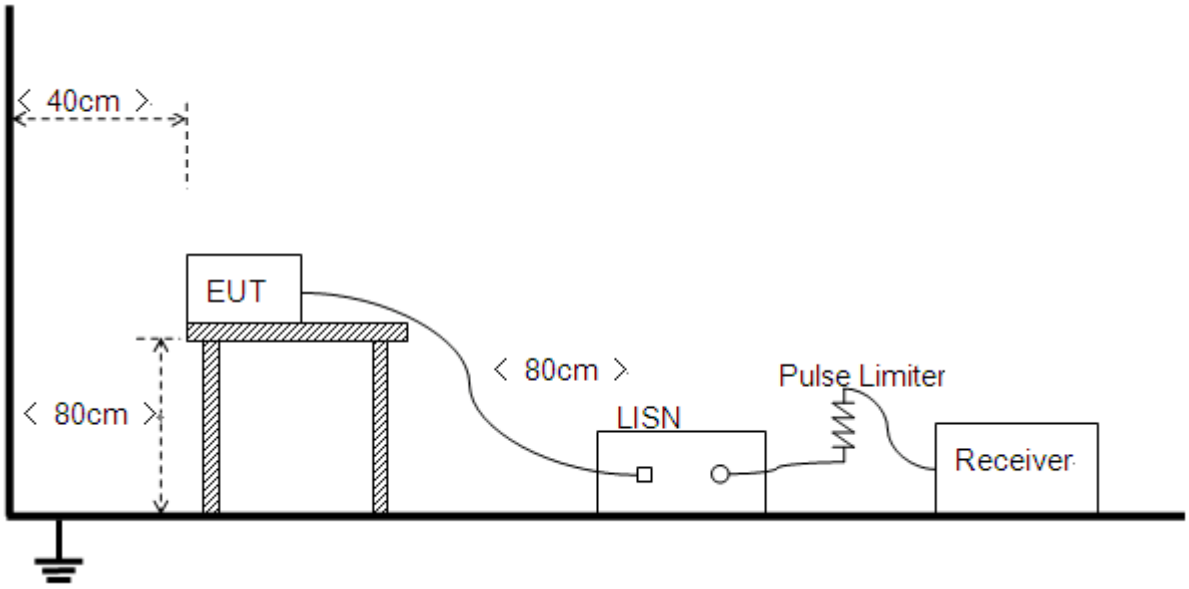
Power item



Other items

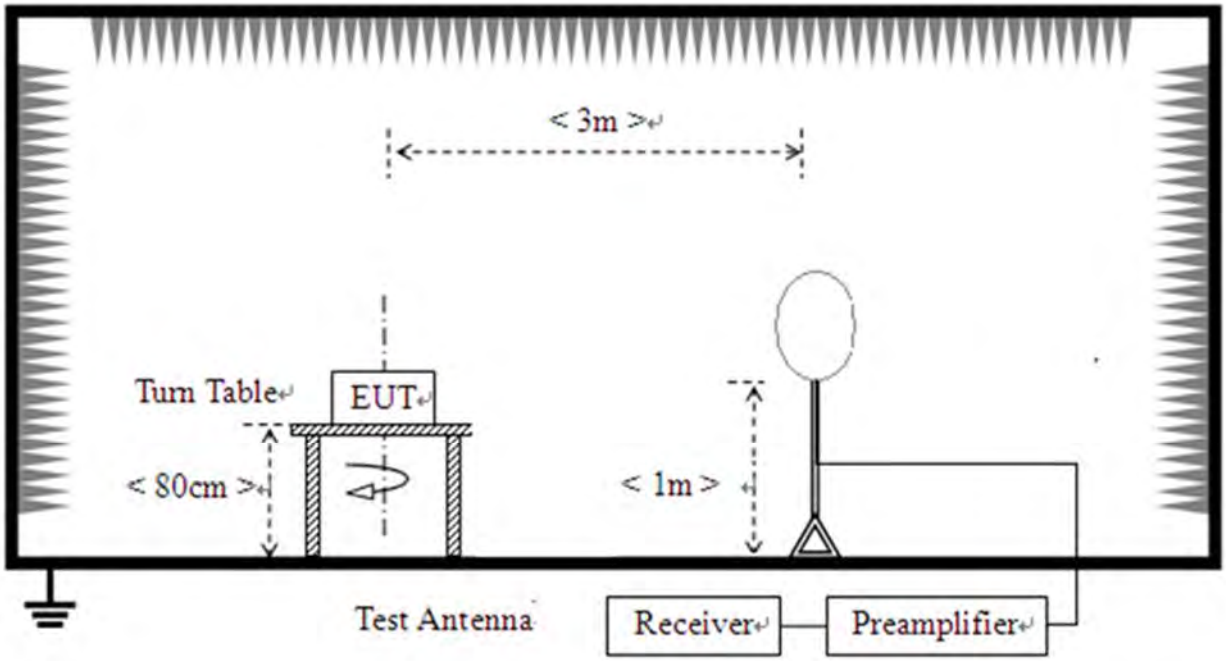


2.6.2.Conducted Emission Measurement

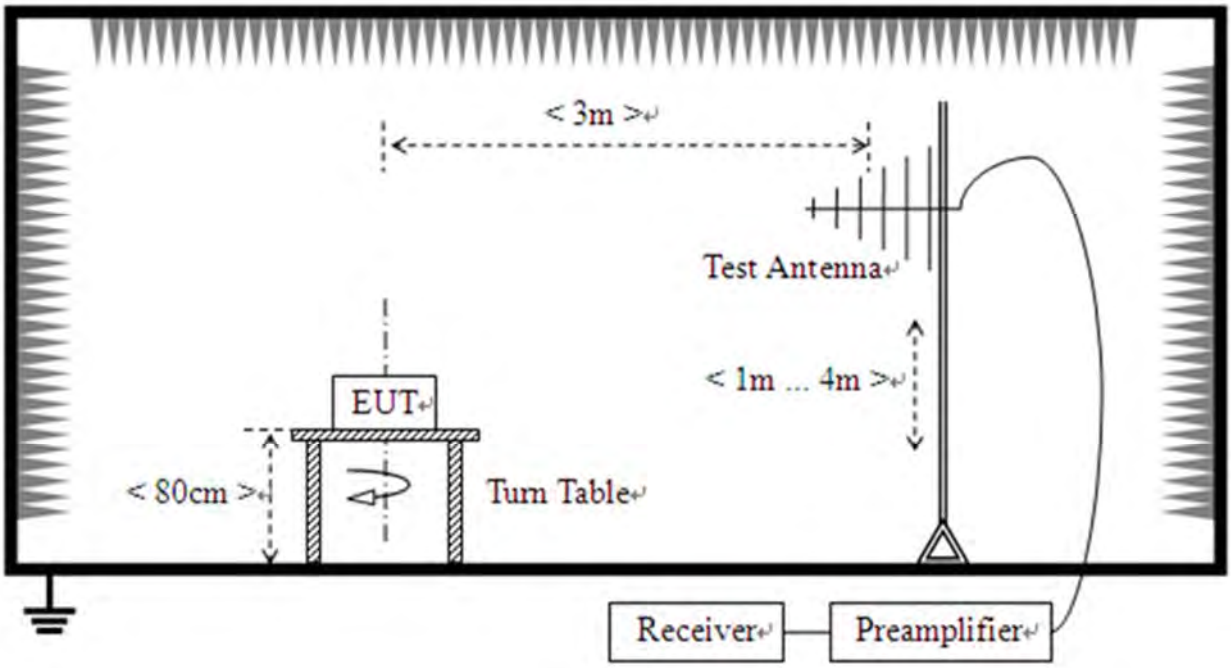


2.6.3.Radiation Measurement

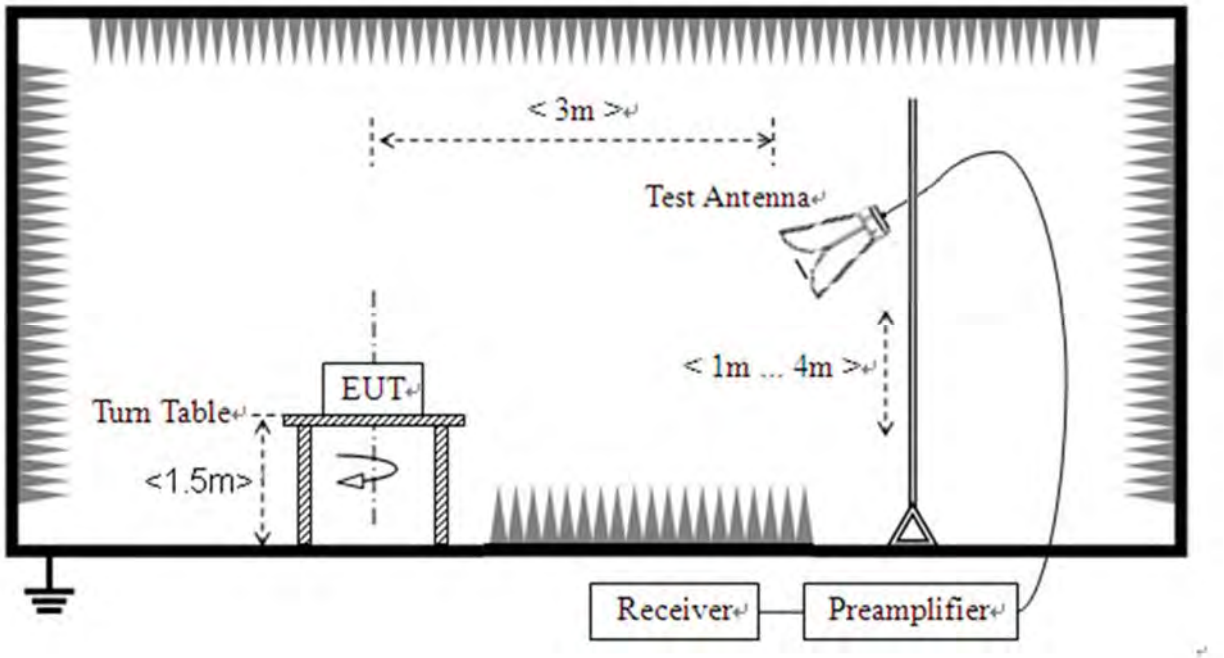
1) For radiated emissions from 9kHz to 30MHz



2) For radiated emissions from 30MHz to1GHz



3) For radiated emissions above 1GHz



3. Test Results

3.1. Antenna Requirement

3.1.1.Requirement

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

3.1.2.Test Result

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

3.2. Duty Cycle of Test Signal

3.2.1.Requirement

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

3.2.2.Test Result

Refer to Annex A.1 in this report.

3.3. Maximum Peak and Average Conducted Output Power

3.3.1.Requirement

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

3.3.2.Test Procedures

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

3.3.3.Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.3.4.Test Result

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

3.4.6 dB Bandwidth

3.4.1.Requirement

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

3.4.1.Test Procedures

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

3.4.2.Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.4.3.Test Result

Refer to Annex A.4 in this report.

3.5. Conducted Spurious Emissions and Band Edge

3.5.1.Requirement

According to FCC section 15.247(d), in any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

3.5.2.Test Procedures

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

3.5.3.Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.5.4.Test Result

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

3.6. Power Spectral Density

3.6.1.Requirement

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

3.6.2.Test Procedures

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

3.6.3.Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.6.4.Test Result

Refer to Annex A.7 in this report.

3.7. Conducted Emission

3.7.1.Requirement

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

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

Note:

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

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

3.7.2.Test Procedures

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

3.7.3.Test Setup Layout

Refer to chapter 2.6.2 in this report.

3.7.4.Test Result

Refer to Annex A.8 in this report.

3.8. Restricted Frequency Bands

3.8.1.Requirement

According to FCC section 15.247(d), in any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in 15.205(a), must also comply with the radiated emission limits specified in 15.209(a).

3.8.2.Test Procedures

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

3.8.3.Test Setup Layout

Refer to chapter 2.6.3 in this report.

3.8.4.Test Result

Refer to Annex A.9 in this report.

3.9. Radiated Emission

3.9.1.Requirement

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

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

Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

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

3.9.2.Test Procedures

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

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

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

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

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

3.9.3.Test Setup Layout

Refer to chapter 2.6.3 in this report.

3.9.4.Test Result

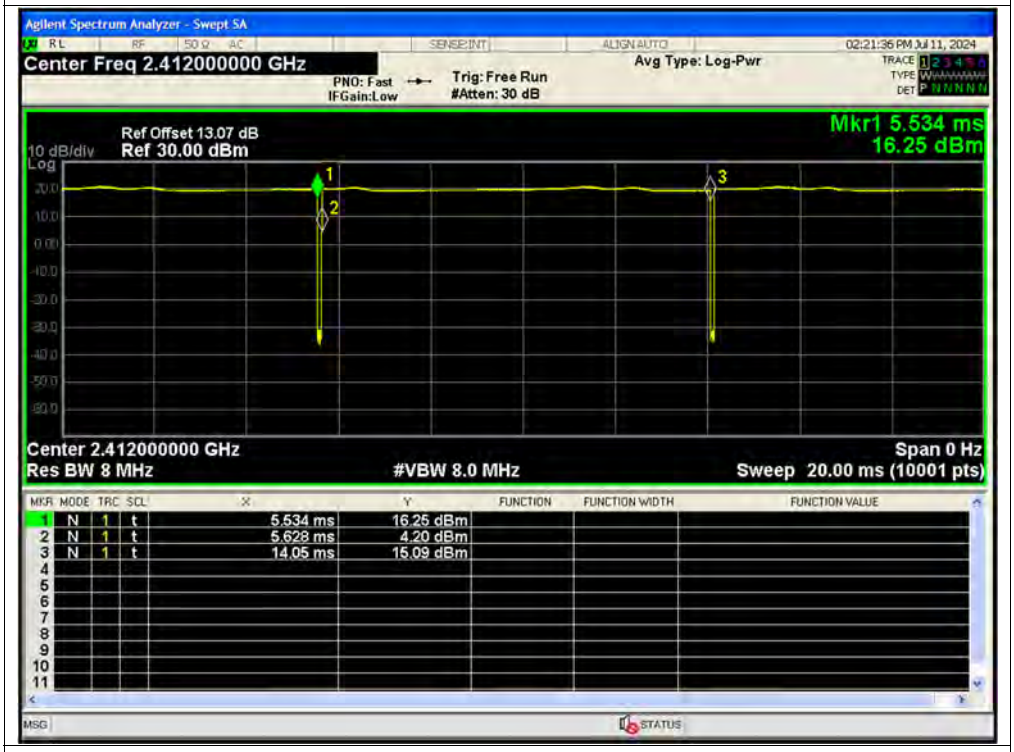
Refer to Annex A.10 in this report.

Annex A Test Data and Result

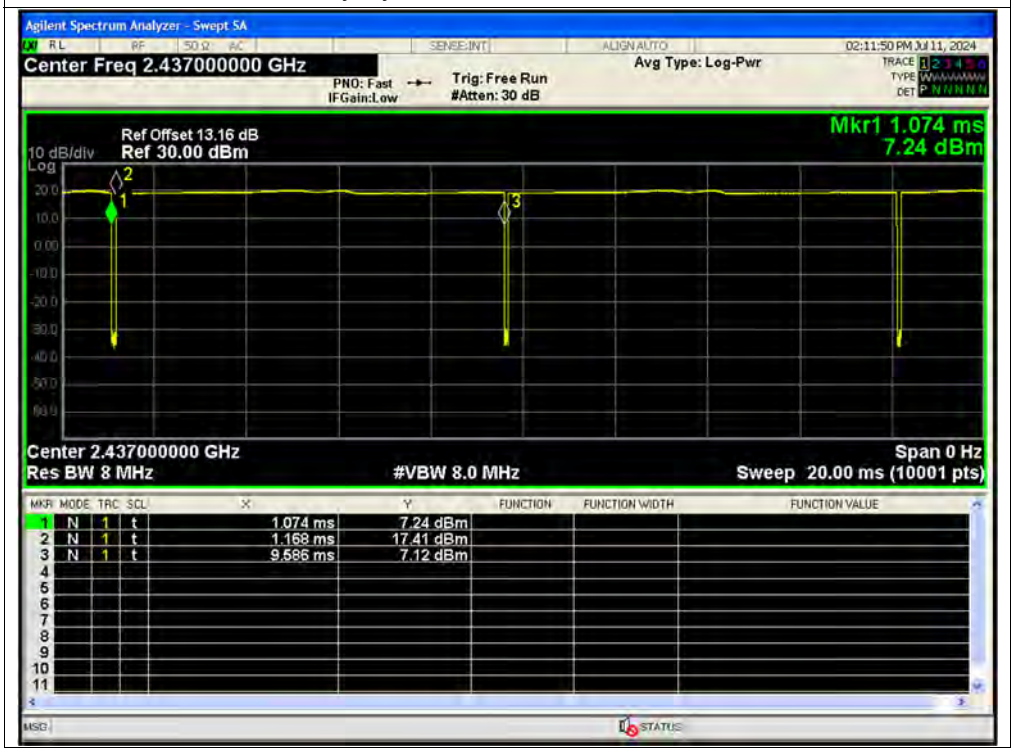
A.1. Duty Cycle of Test Signal

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	98.9	0.05	0.12
NVNT	b	2437	Ant1	98.9	0.05	0.12
NVNT	b	2462	Ant1	98.87	0.05	0.12
NVNT	g	2412	Ant1	93.19	0.31	0.72
NVNT	g	2437	Ant1	93.19	0.31	0.72
NVNT	g	2462	Ant1	93.19	0.31	0.72
NVNT	n20	2412	Ant1	92.63	0.33	0.76
NVNT	n20	2437	Ant1	92.77	0.33	0.76
NVNT	n20	2462	Ant1	92.91	0.32	0.76

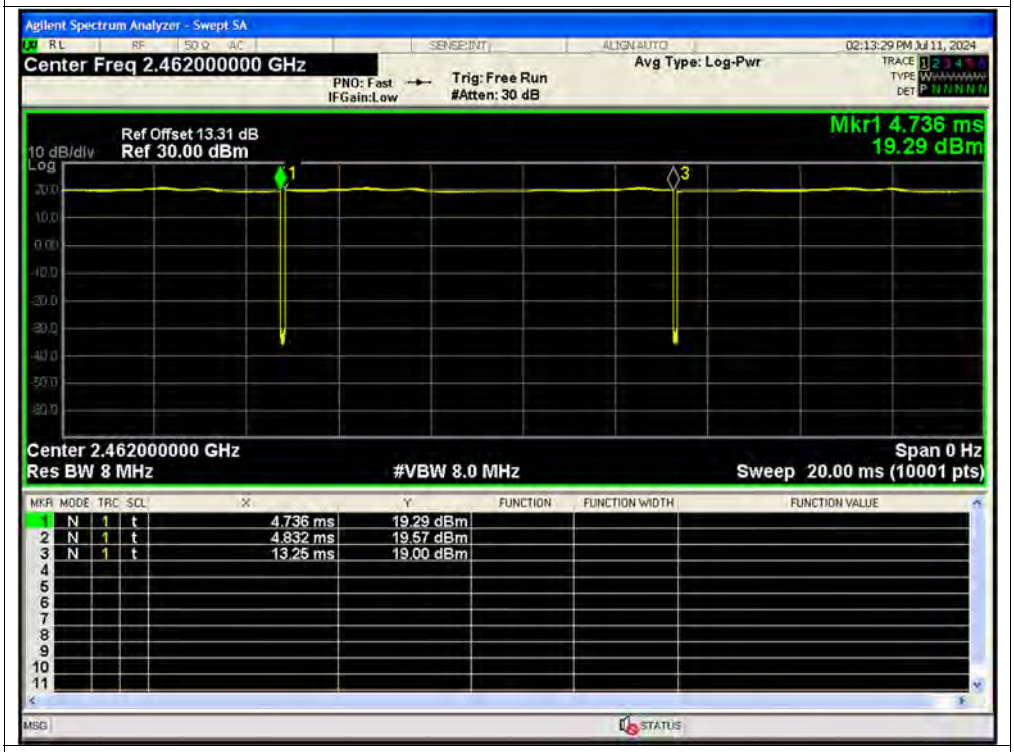
Test Graphs
Duty Cycle NVNT b 2412MHz Ant1



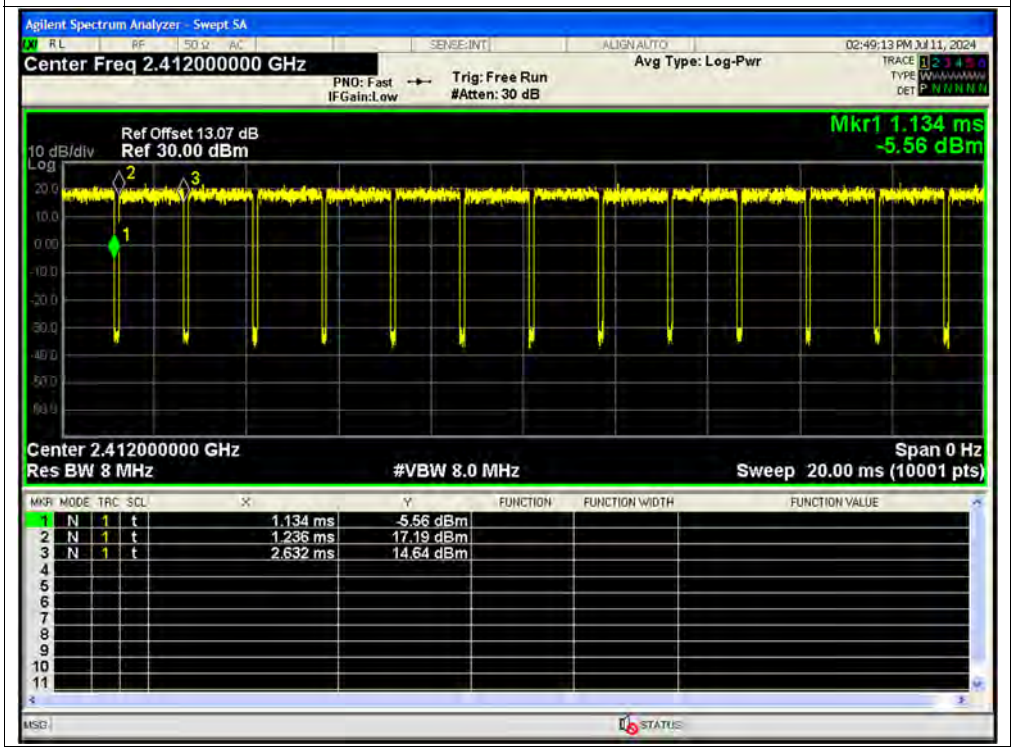
Duty Cycle NVNT b 2437MHz Ant1



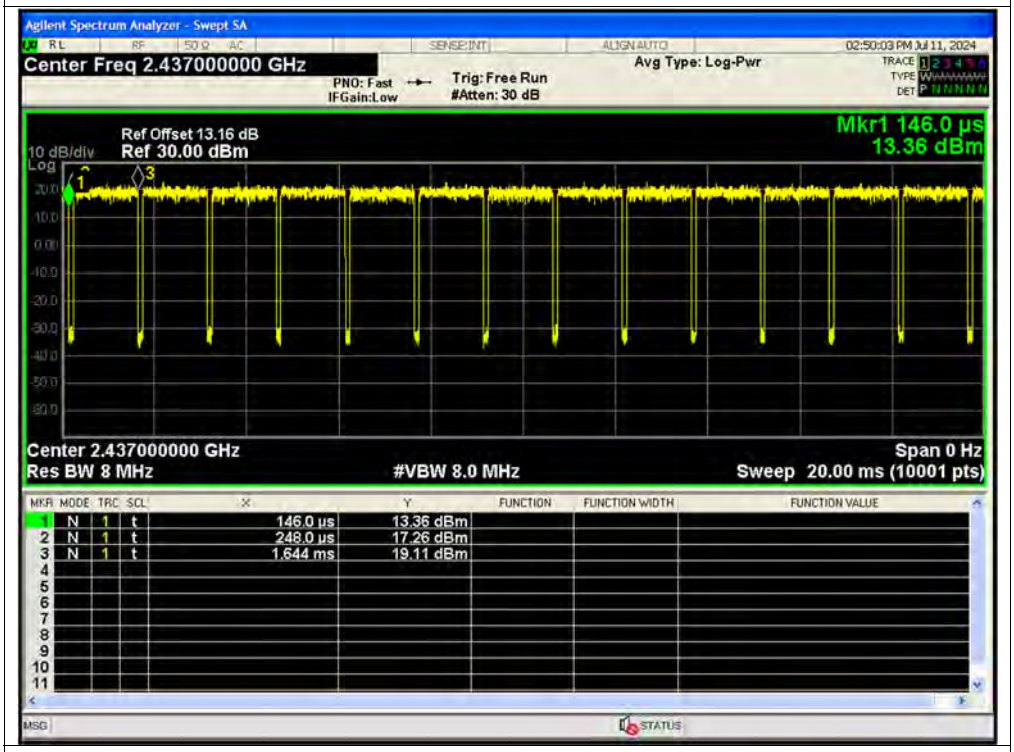
Duty Cycle NVNT b 2462MHz Ant1



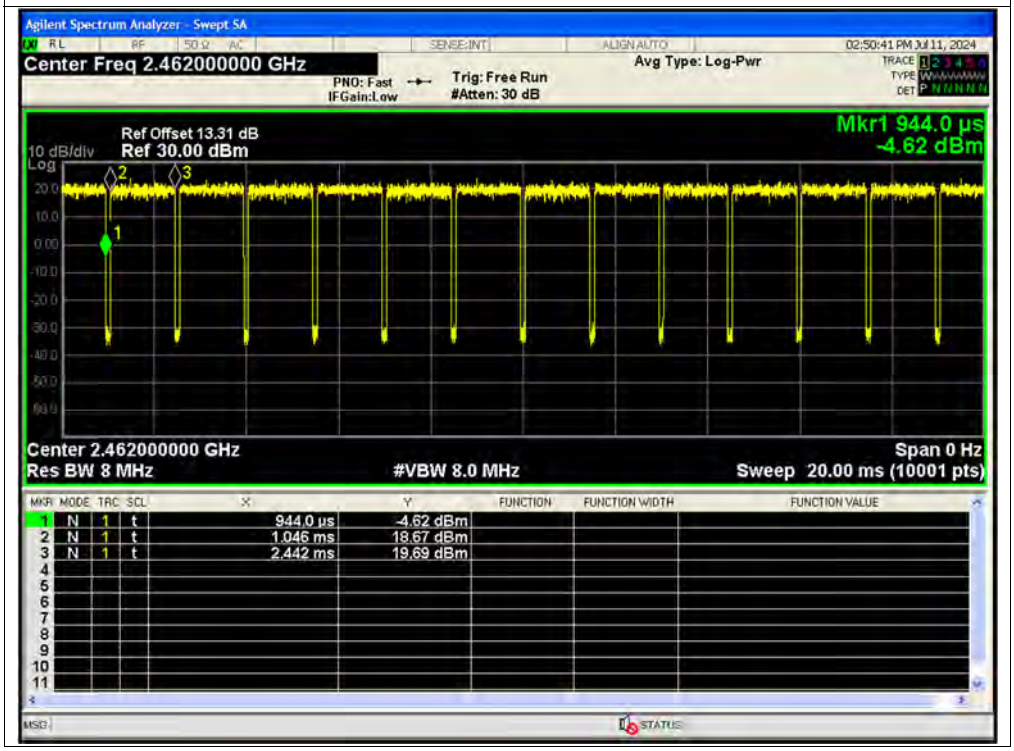
Duty Cycle NVNT g 2412MHz Ant1



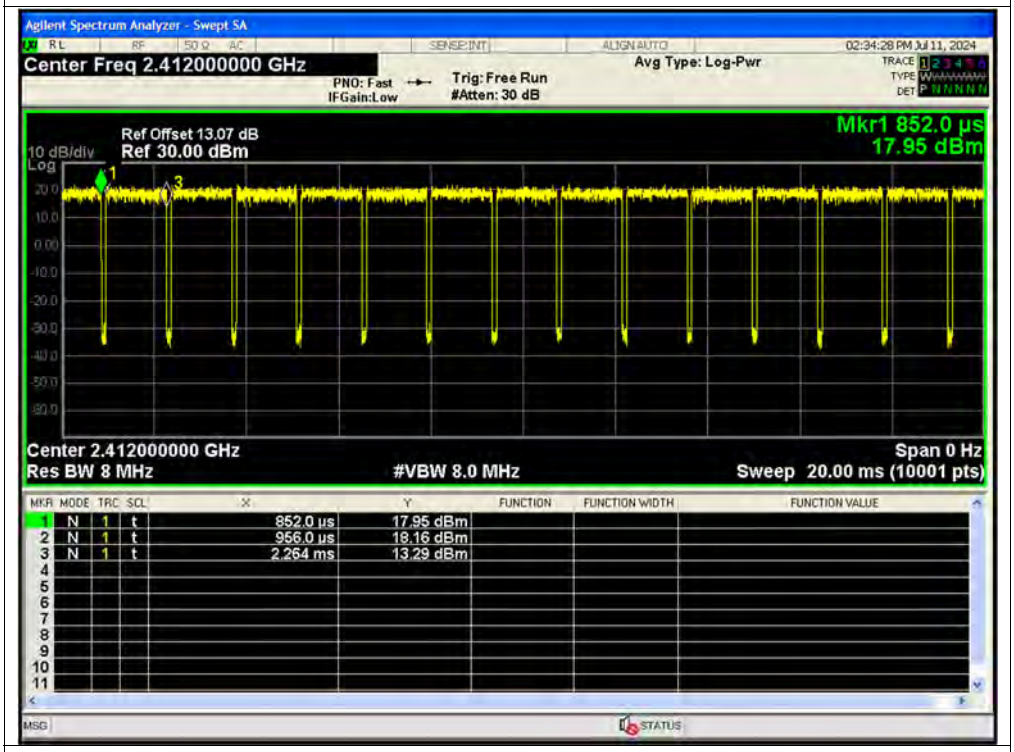
Duty Cycle NVNT g 2437MHz Ant1



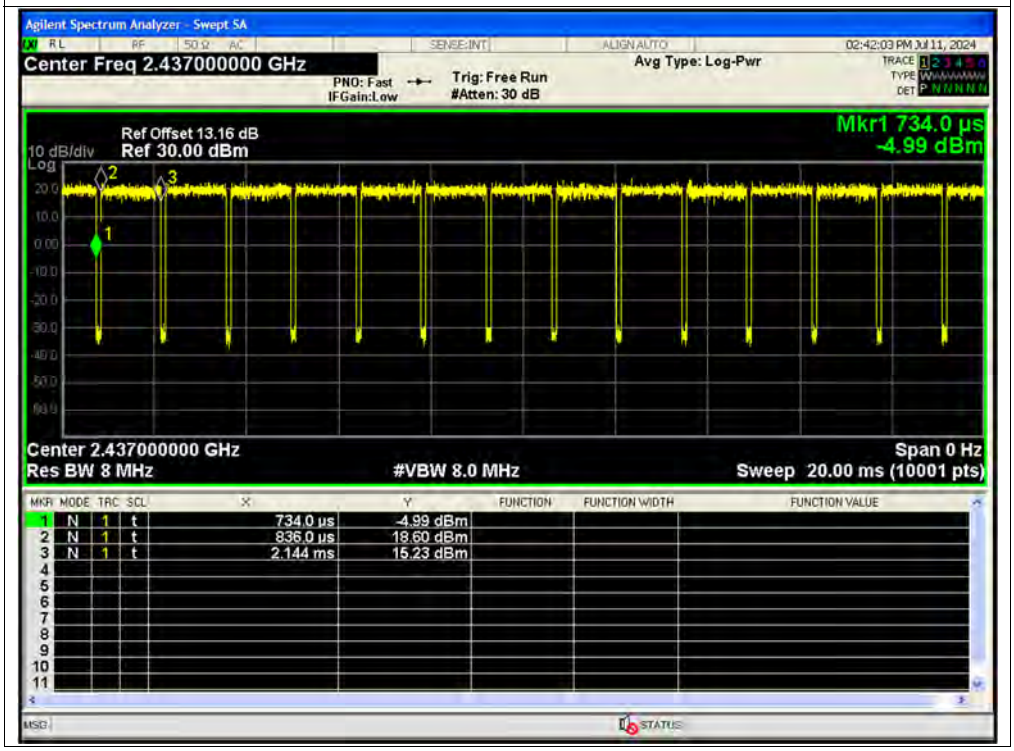
Duty Cycle NVNT g 2462MHz Ant1



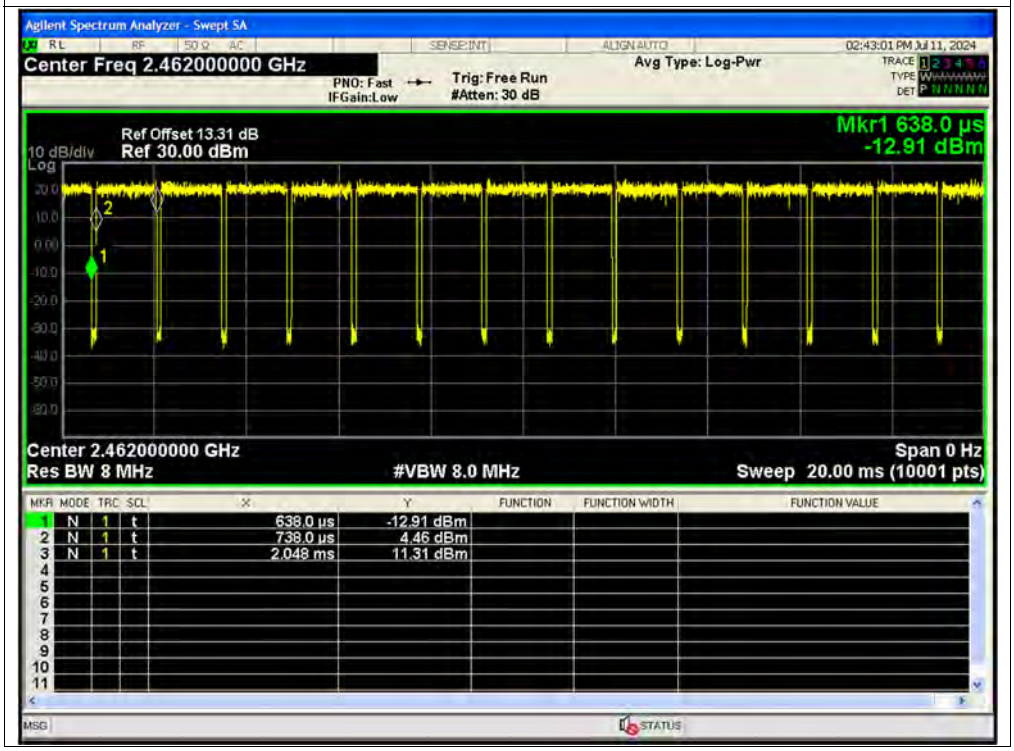
Duty Cycle NVNT n20 2412MHz Ant1



Duty Cycle NVNT n20 2437MHz Ant1



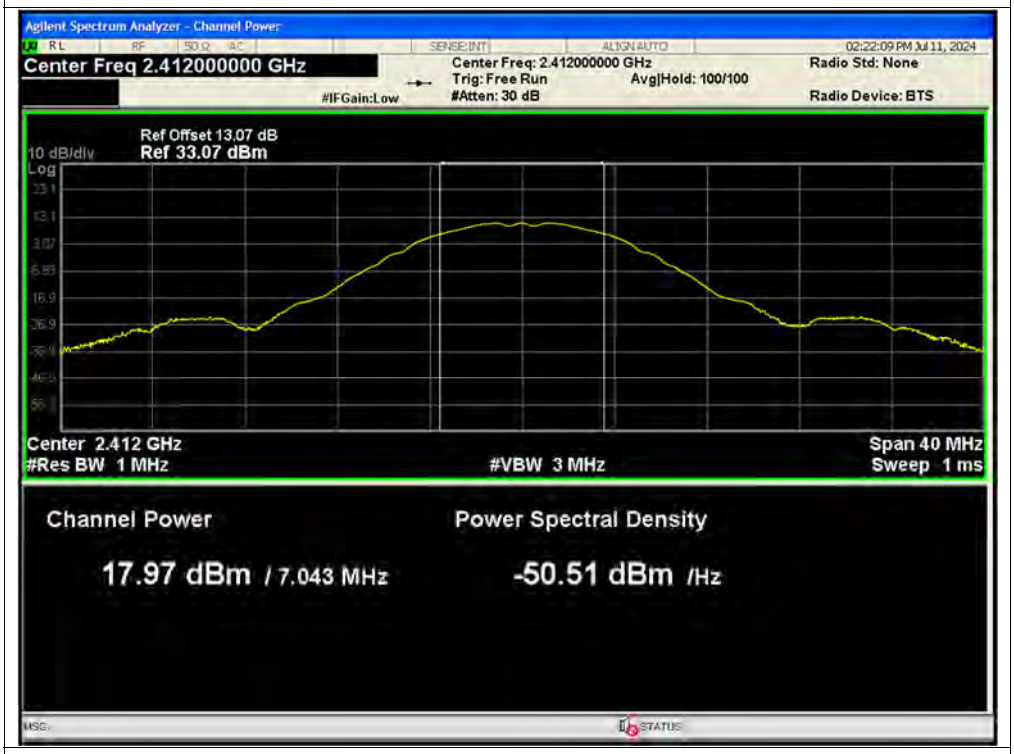
Duty Cycle NVNT n20 2462MHz Ant1



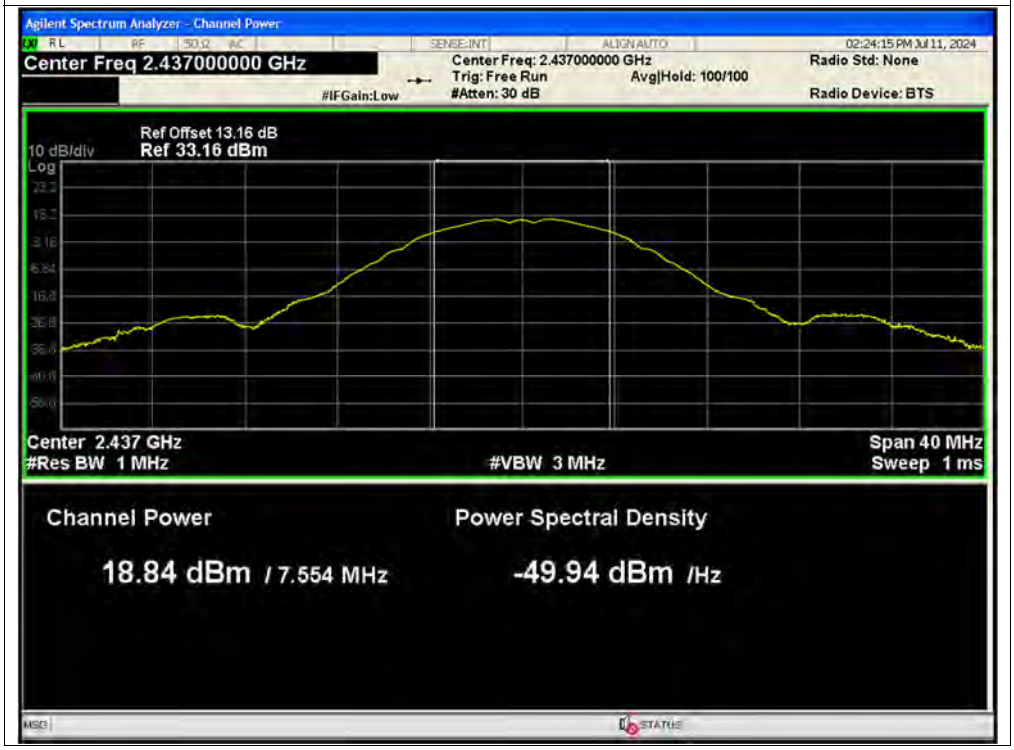
A.2. Maximum Peak Conducted Output Power

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	17.97	0	17.97	0.06266	30	Pass
NVNT	b	2437	Ant1	18.84	0	18.84	0.07656	30	Pass
NVNT	b	2462	Ant1	19.2	0	19.2	0.08318	30	Pass
NVNT	g	2412	Ant1	22.05	0	22.05	0.16032	30	Pass
NVNT	g	2437	Ant1	22.93	0	22.93	0.19634	30	Pass
NVNT	g	2462	Ant1	23.54	0	23.54	0.22594	30	Pass
NVNT	n20	2412	Ant1	22.67	0	22.67	0.18493	30	Pass
NVNT	n20	2437	Ant1	23.12	0	23.12	0.20512	30	Pass
NVNT	n20	2462	Ant1	24.04	0	24.04	0.25351	30	Pass

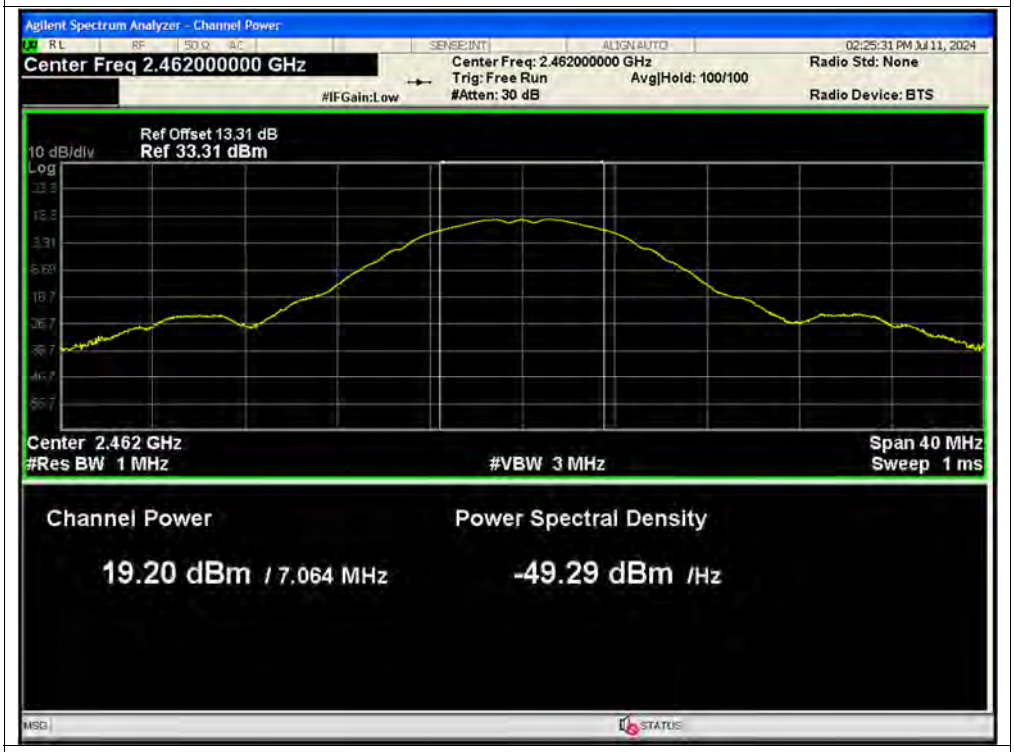
Test Graphs
Peak Power NVNT b 2412MHz Ant1



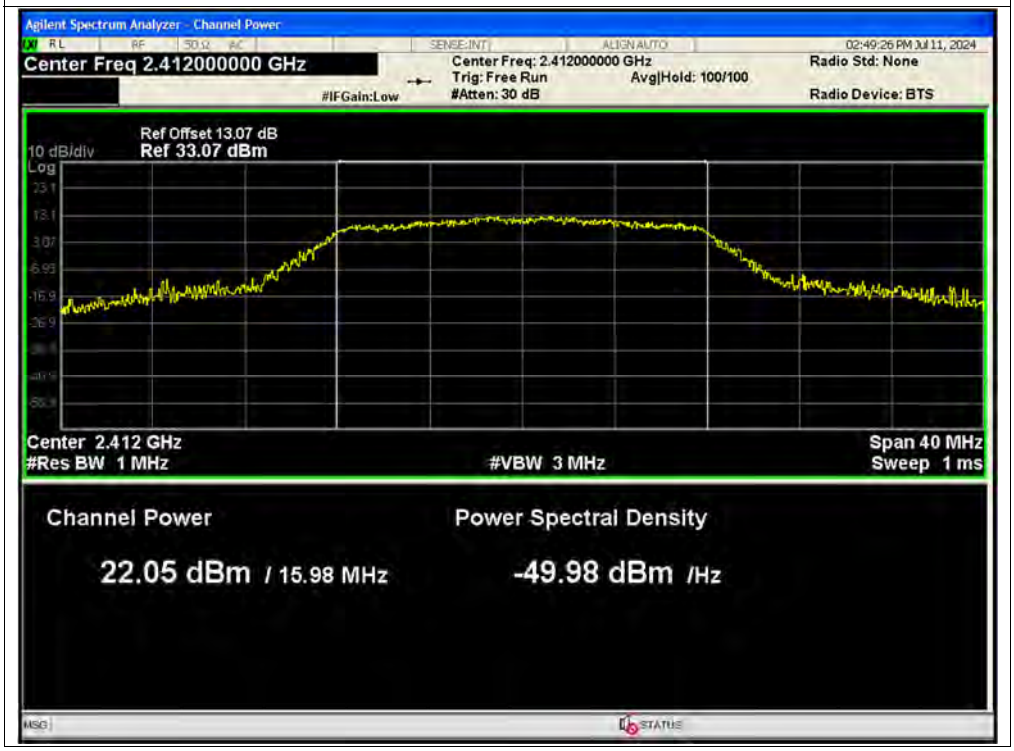
Peak Power NVNT b 2437MHz Ant1



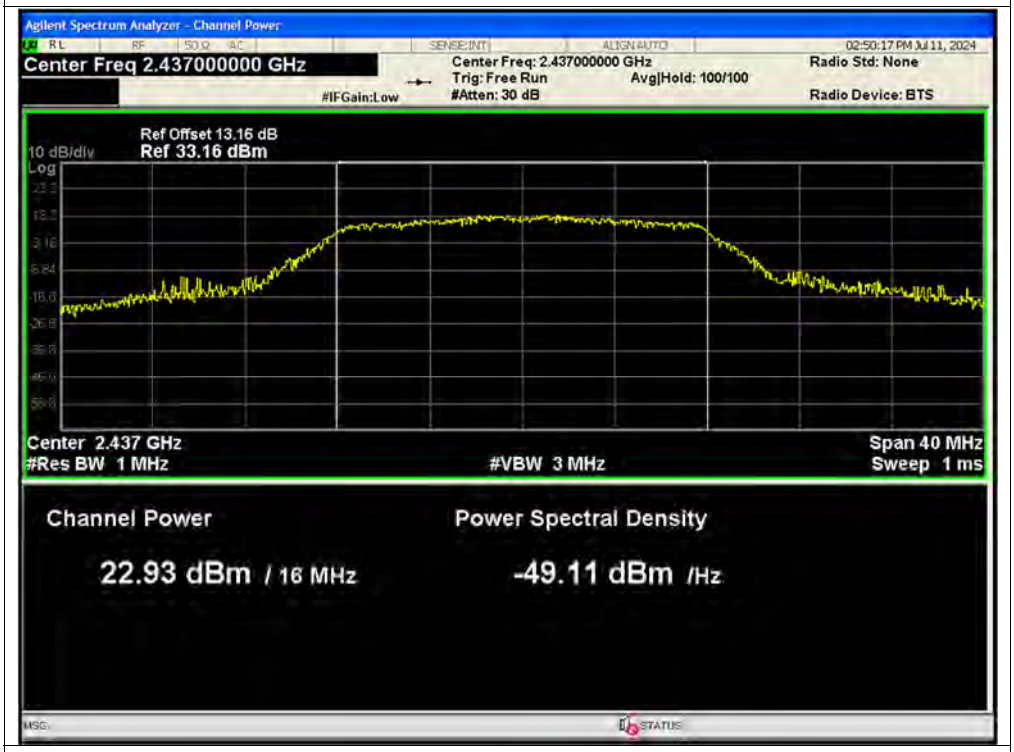
Peak Power NVNT b 2462MHz Ant1



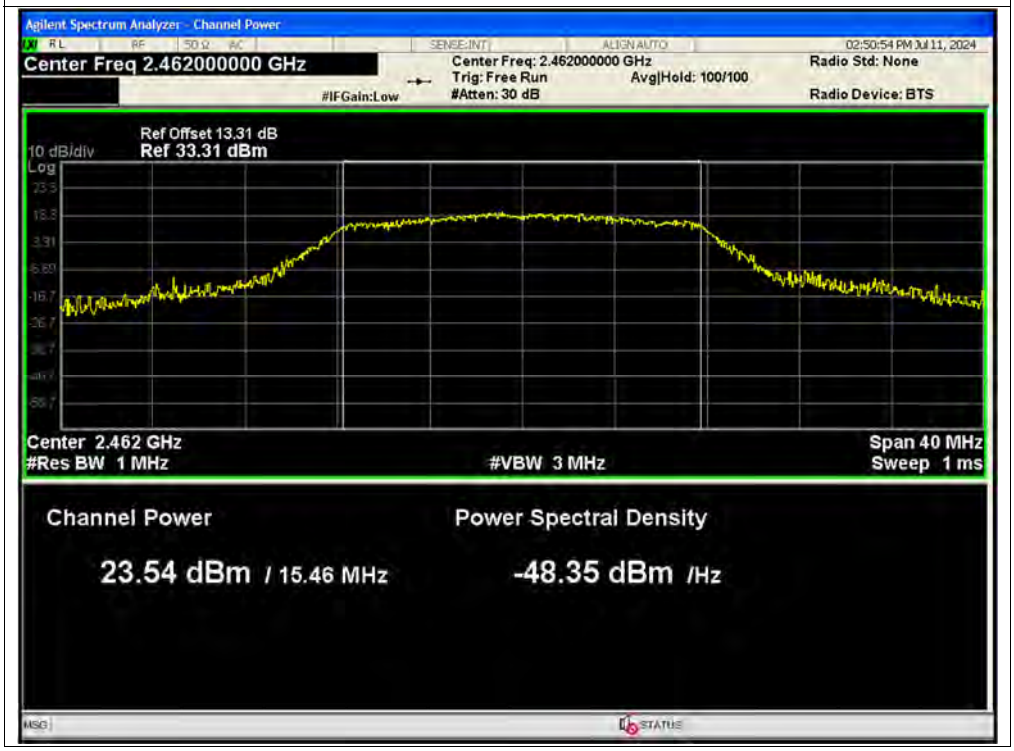
Peak Power NVNT g 2412MHz Ant1



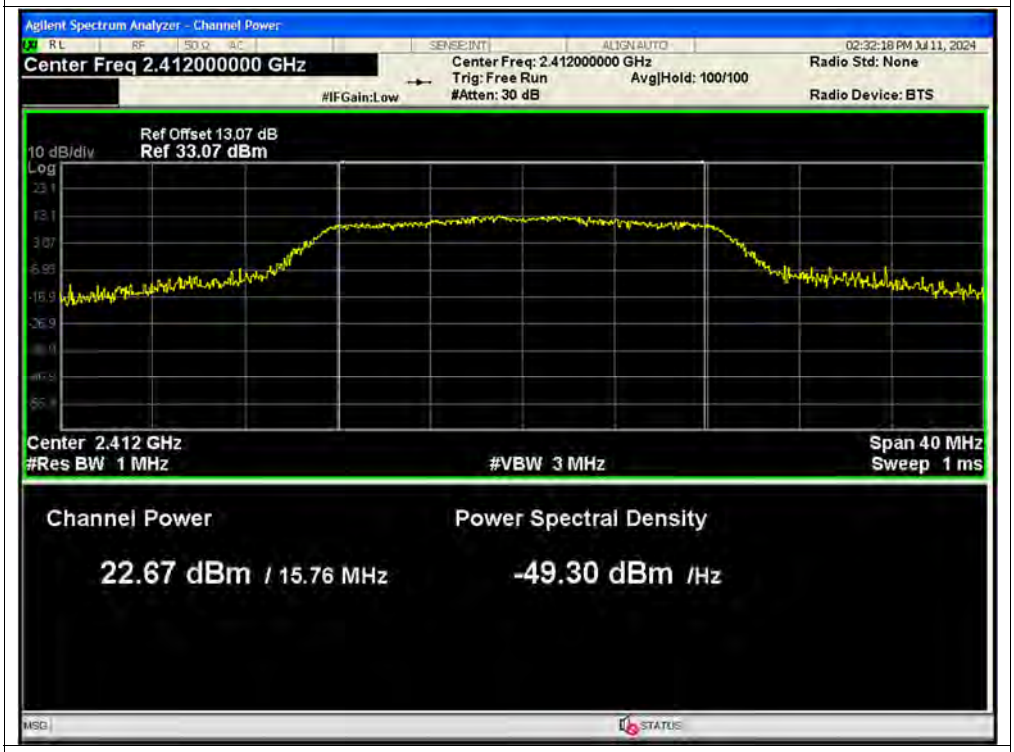
Peak Power NVNT g 2437MHz Ant1



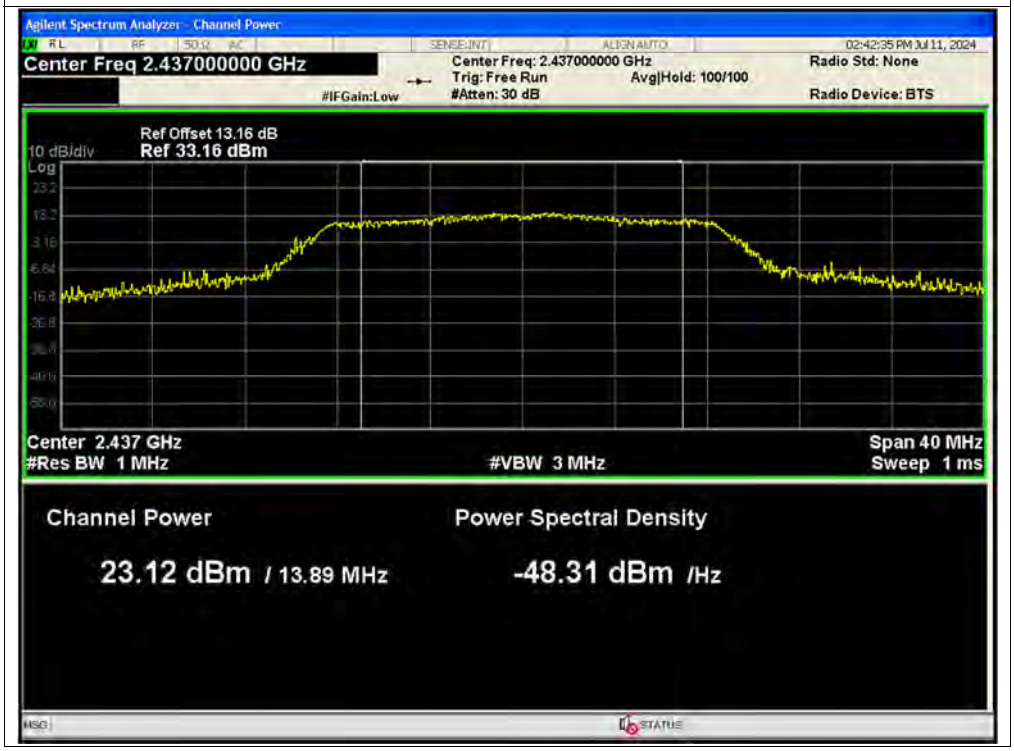
Peak Power NVNT g 2462MHz Ant1

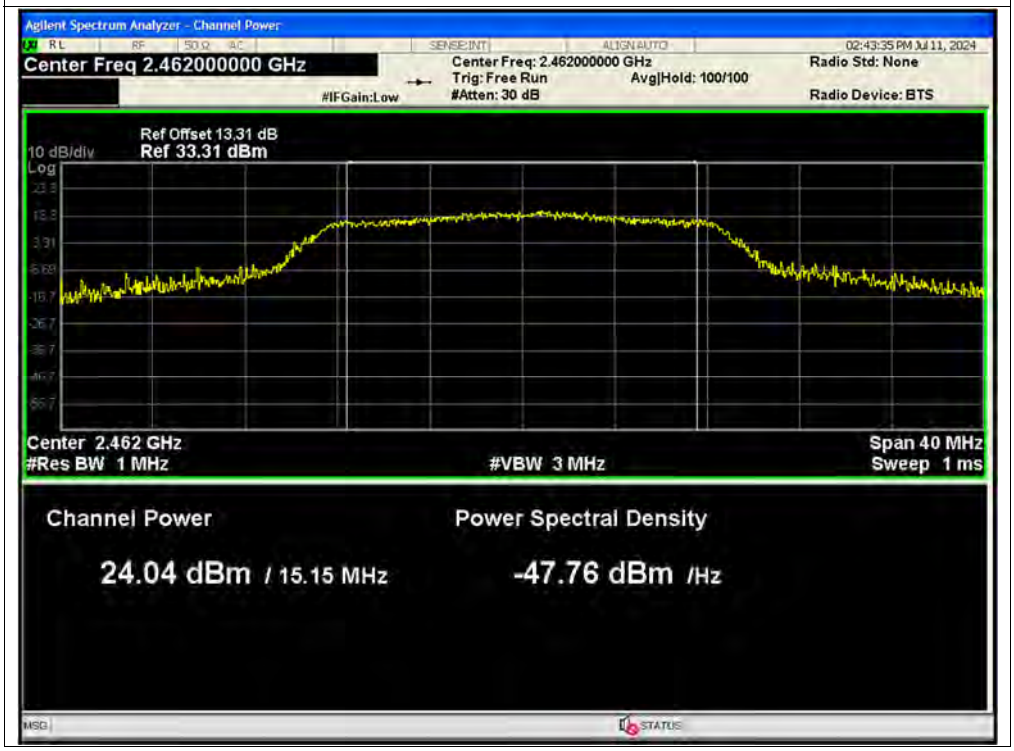


Peak Power NVNT n20 2412MHz Ant1



Peak Power NVNT n20 2437MHz Ant1

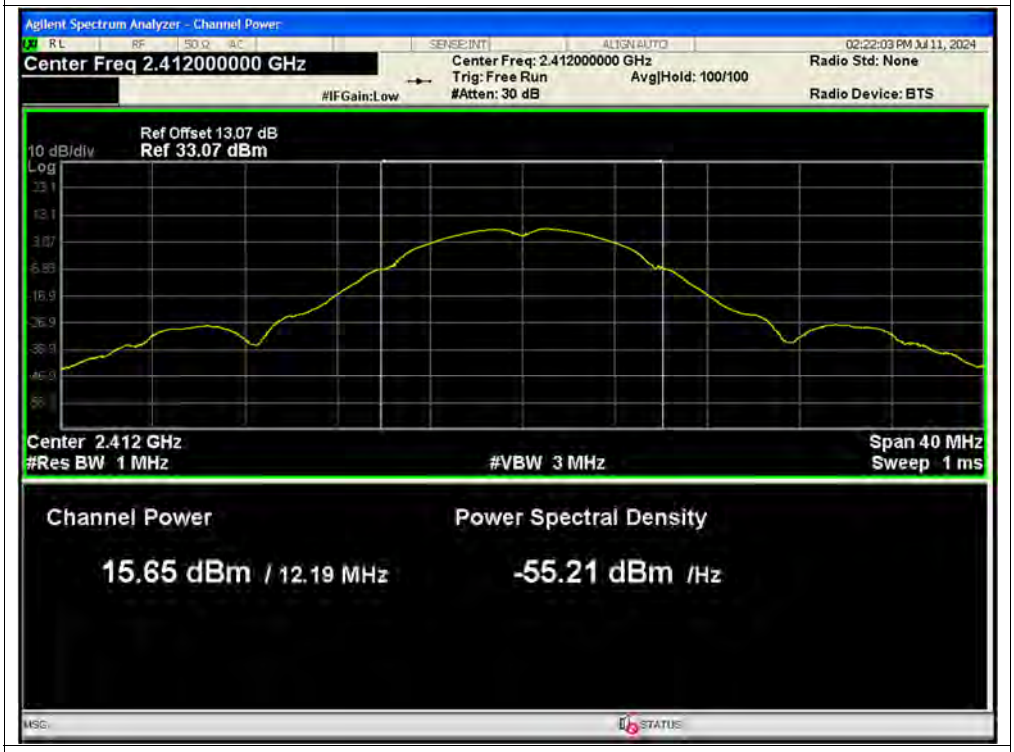


Peak Power NVNT n20 2462MHz Ant1


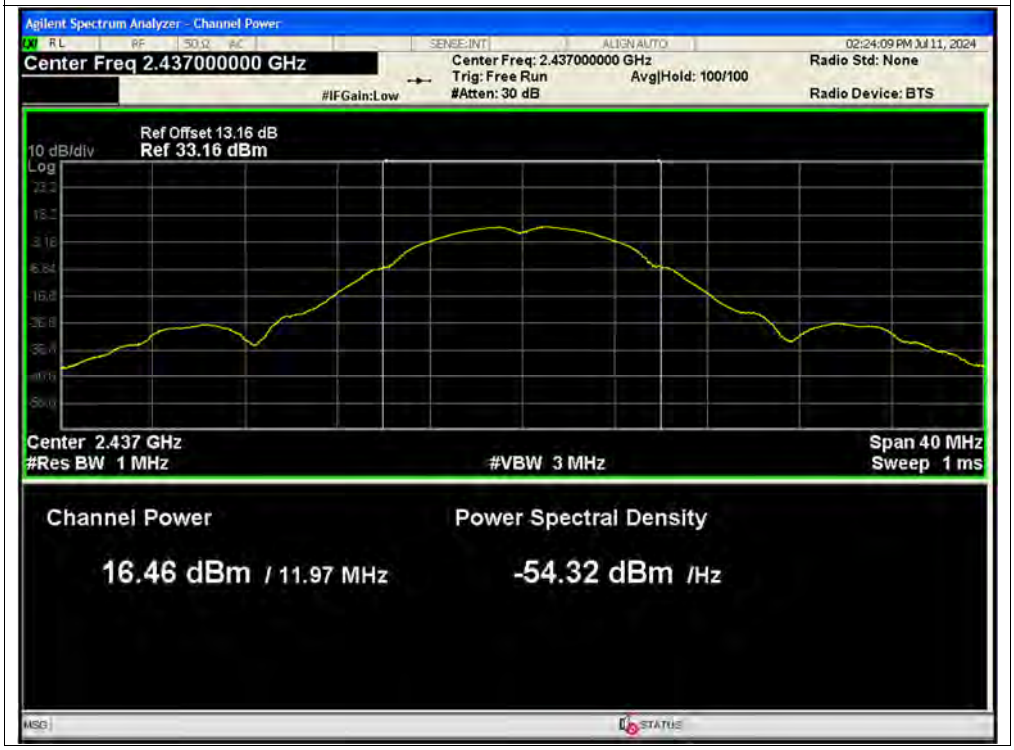
A.3. Maximum Average Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Conducted Power (dBm)	Total Conducted Power (W)	Limit Conducted (dBm)	Verdict
NVNT	b	2412	Ant1	15.65	0.05	15.7	0.03715	30	Pass
NVNT	b	2437	Ant1	16.46	0.05	16.51	0.04477	30	Pass
NVNT	b	2462	Ant1	16.94	0.05	16.99	0.05	30	Pass
NVNT	g	2412	Ant1	14.73	0.31	15.04	0.03192	30	Pass
NVNT	g	2437	Ant1	15.62	0.31	15.93	0.03917	30	Pass
NVNT	g	2462	Ant1	16.22	0.31	16.53	0.04498	30	Pass
NVNT	n20	2412	Ant1	15.28	0.33	15.61	0.03639	30	Pass
NVNT	n20	2437	Ant1	16.37	0.33	16.7	0.04677	30	Pass
NVNT	n20	2462	Ant1	17.02	0.32	17.34	0.0542	30	Pass

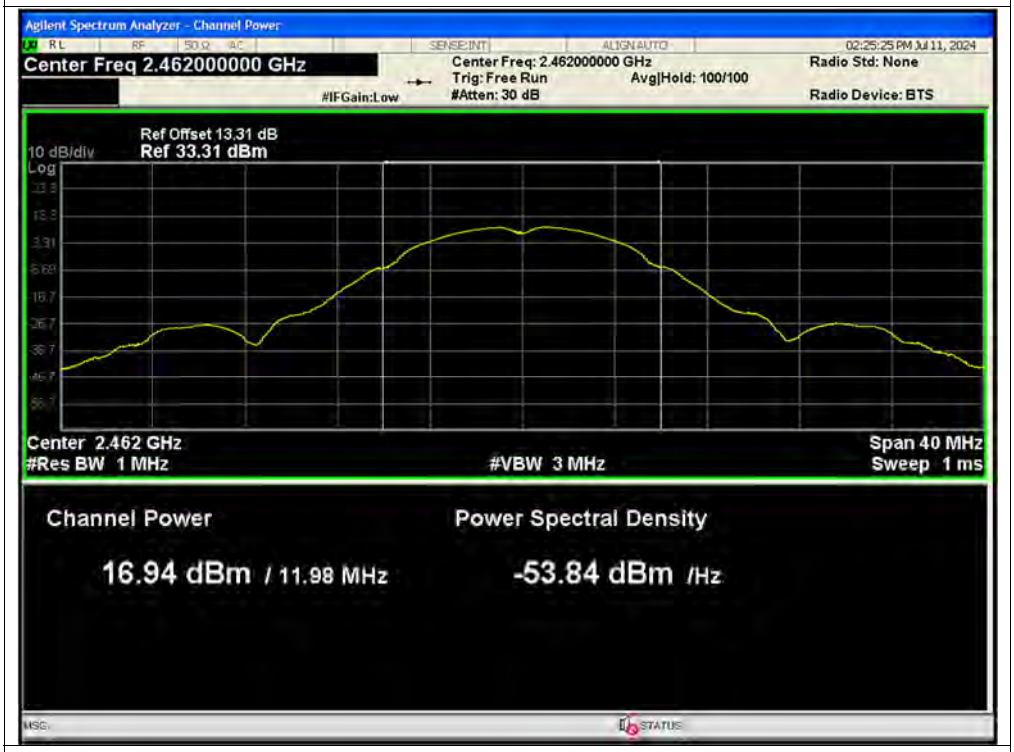
Test Graphs
Average Power NVNT b 2412MHz Ant1



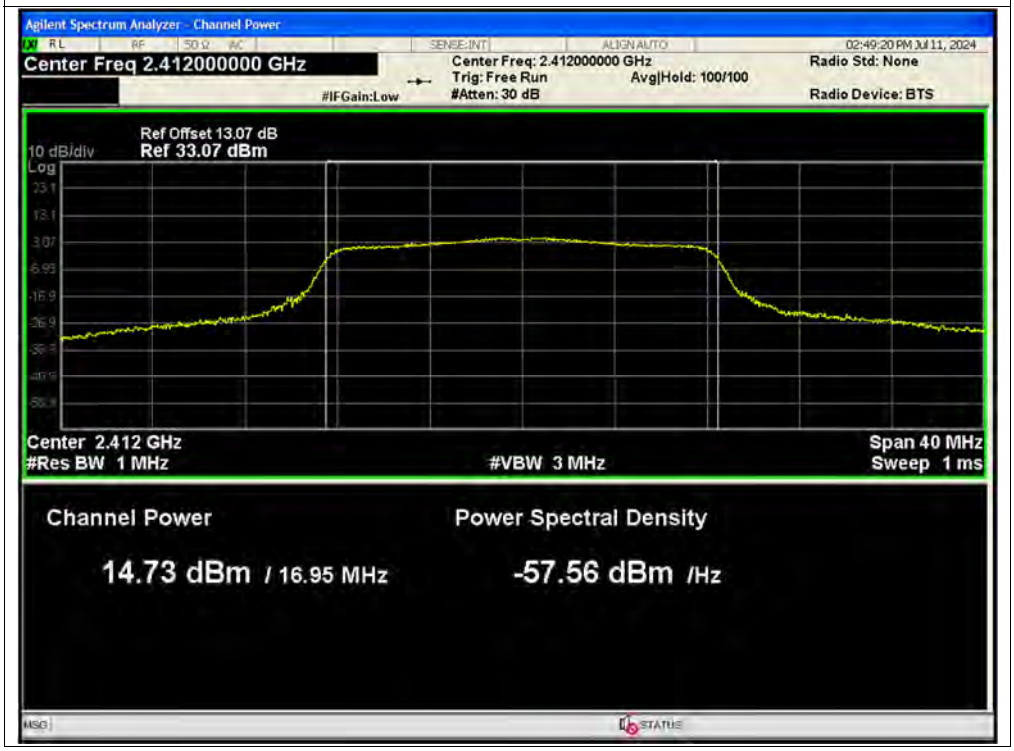
Average Power NVNT b 2437MHz Ant1



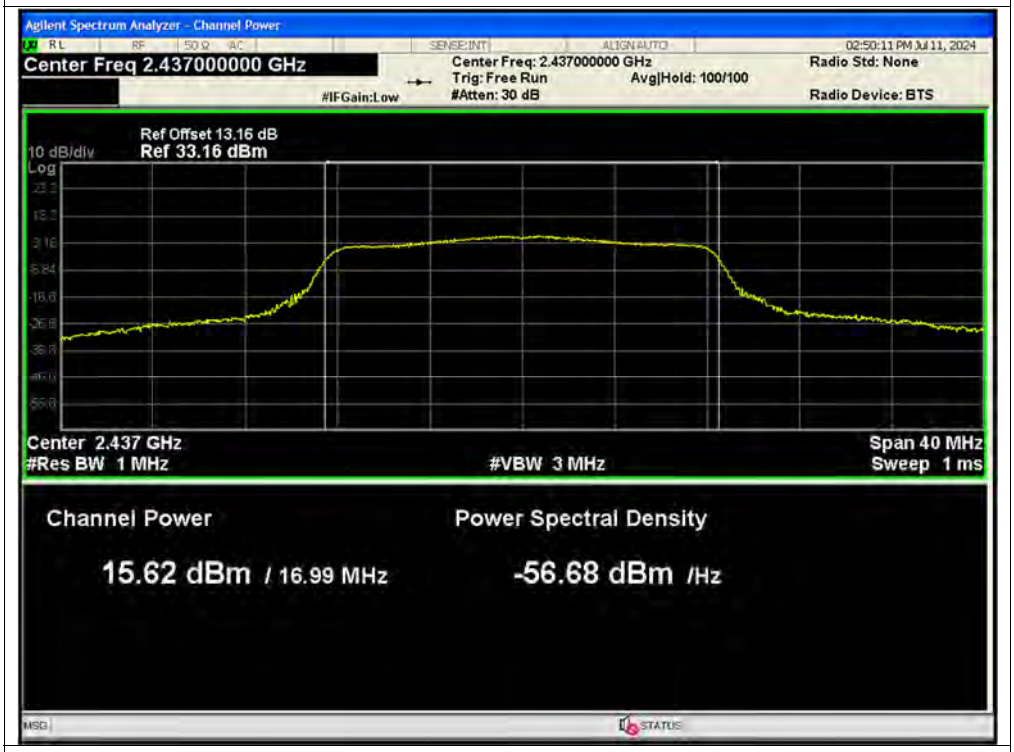
Average Power NVNT b 2462MHz Ant1



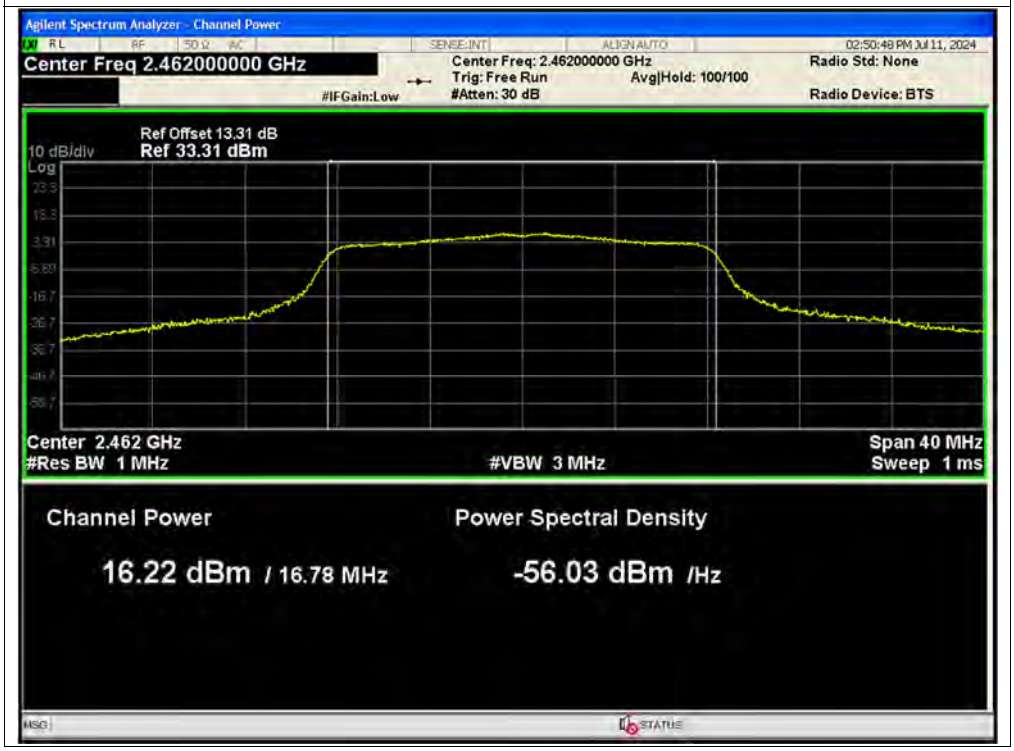
Average Power NVNT g 2412MHz Ant1



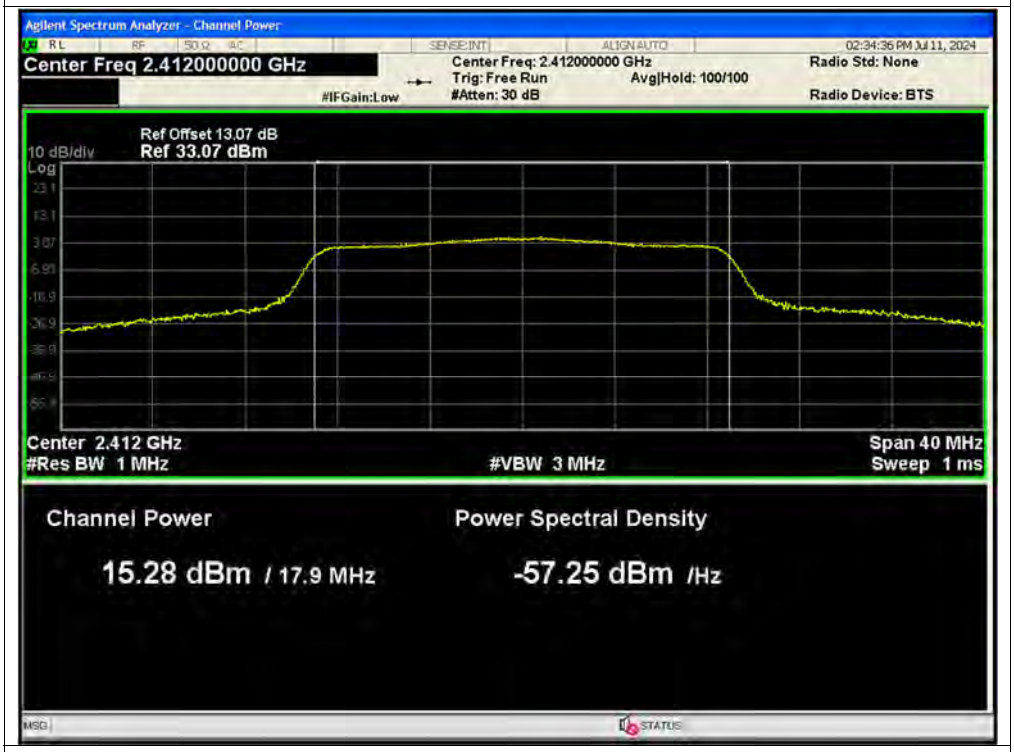
Average Power NVNT g 2437MHz Ant1



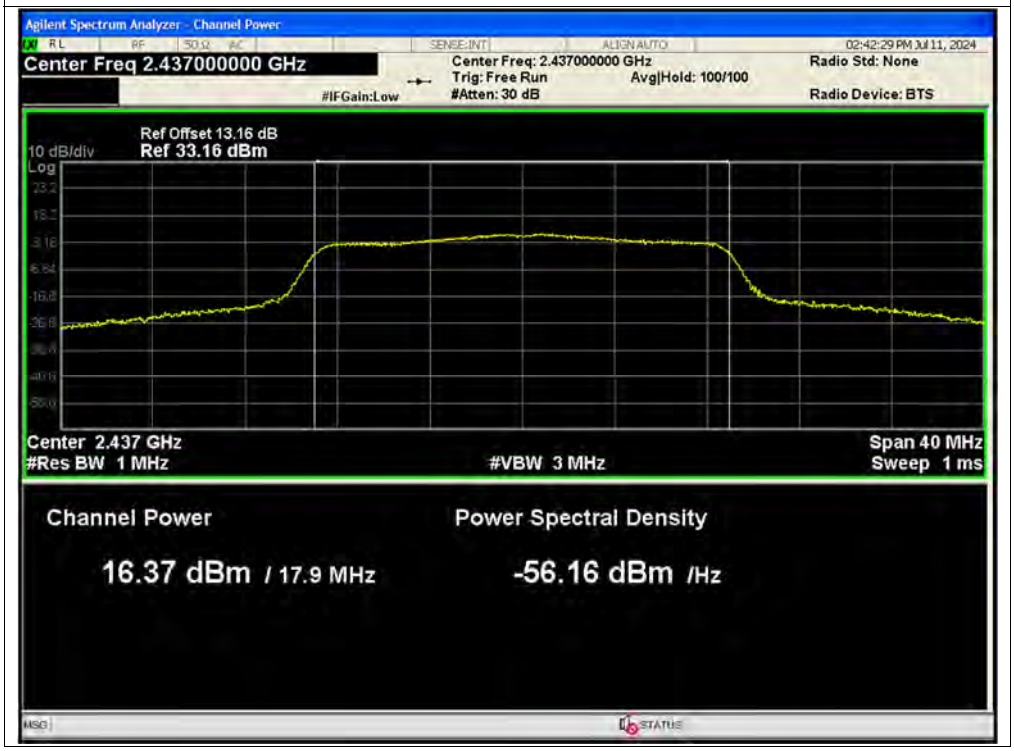
Average Power NVNT g 2462MHz Ant1

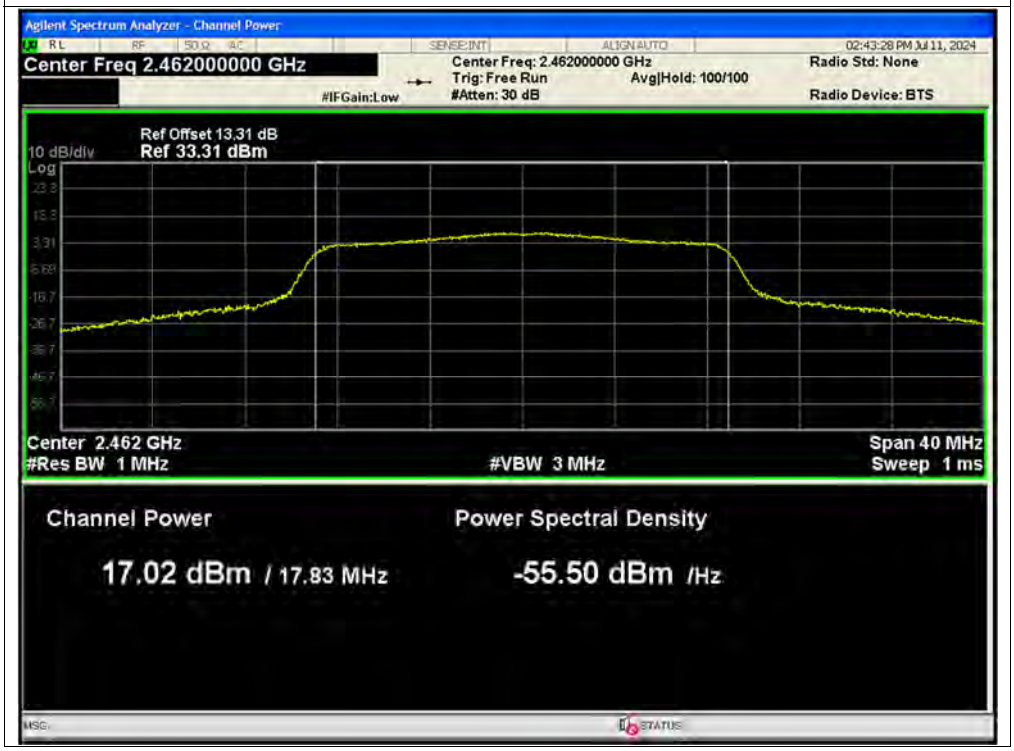


Average Power NVNT n20 2412MHz Ant1



Average Power NVNT n20 2437MHz Ant1



Average Power NVNT n20 2462MHz Ant1


A.4. 6 dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	7.043	0.5	Pass
NVNT	b	2437	Ant1	7.554	0.5	Pass
NVNT	b	2462	Ant1	7.064	0.5	Pass
NVNT	g	2412	Ant1	15.981	0.5	Pass
NVNT	g	2437	Ant1	15.996	0.5	Pass
NVNT	g	2462	Ant1	15.46	0.5	Pass
NVNT	n20	2412	Ant1	15.759	0.5	Pass
NVNT	n20	2437	Ant1	13.89	0.5	Pass
NVNT	n20	2462	Ant1	15.152	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

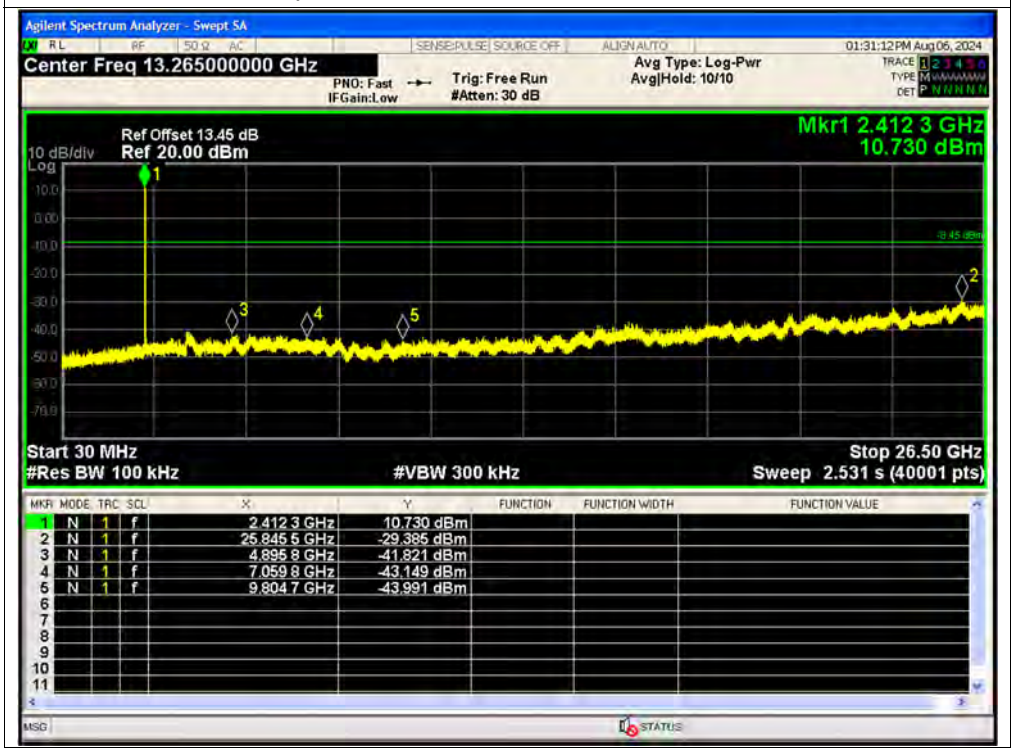
-6dB Bandwidth NVNT n20 2462MHz Ant1

A.5. Conducted Spurious Emissions

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-40.93	-20	Pass
NVNT	b	2437	Ant1	-39.3	-20	Pass
NVNT	b	2462	Ant1	-37.49	-20	Pass
NVNT	g	2412	Ant1	-35.92	-20	Pass
NVNT	g	2437	Ant1	-36.07	-20	Pass
NVNT	g	2462	Ant1	-35.25	-20	Pass
NVNT	n20	2412	Ant1	-35.7	-20	Pass
NVNT	n20	2437	Ant1	-36.1	-20	Pass
NVNT	n20	2462	Ant1	-35.7	-20	Pass

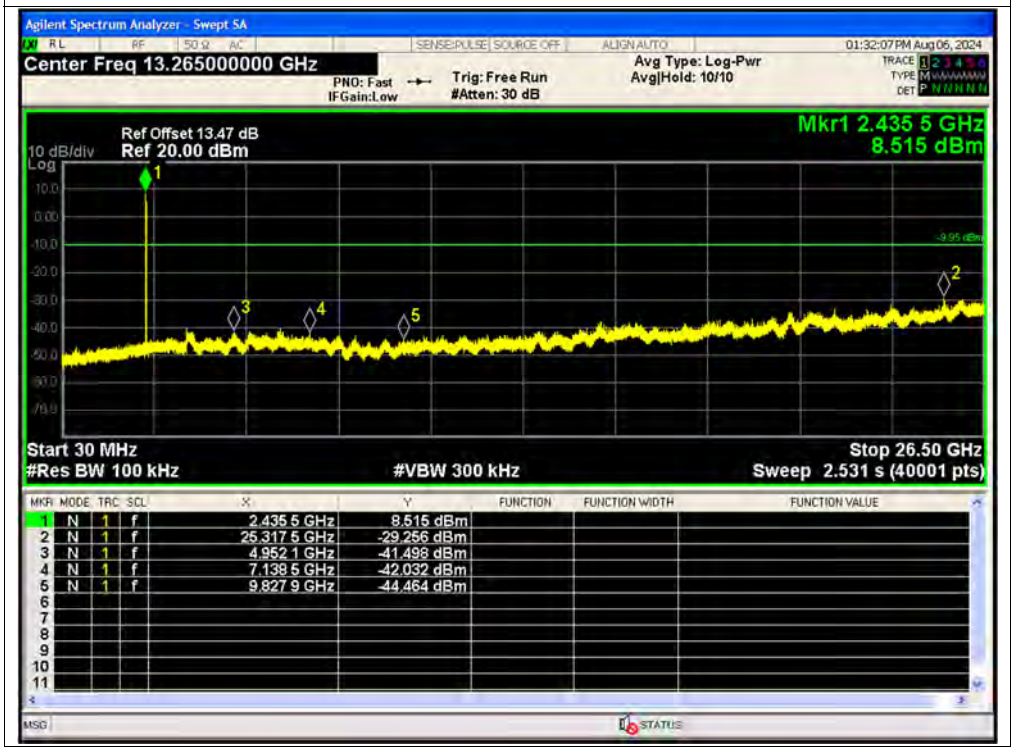
Test Graphs
Tx. Spurious NVNT b 2412MHz Ant1 Ref

Tx. Spurious NVNT b 2412MHz Ant1 Emission



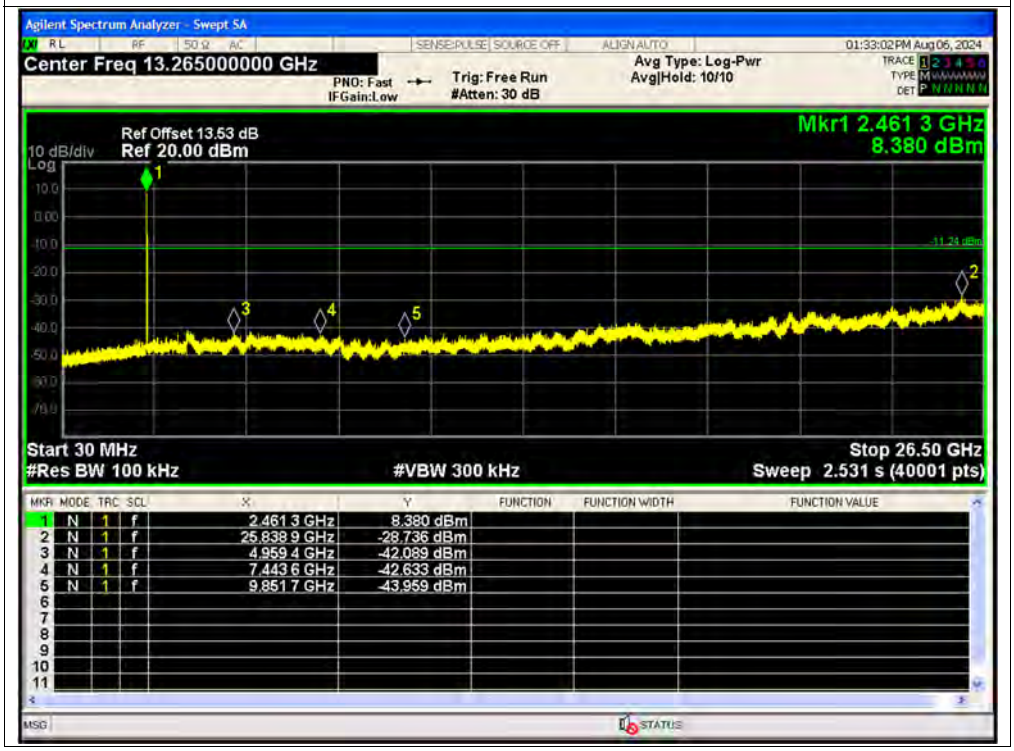
Tx. Spurious NVNT b 2437MHz Ant1 Ref

Tx. Spurious NVNT b 2437MHz Ant1 Emission



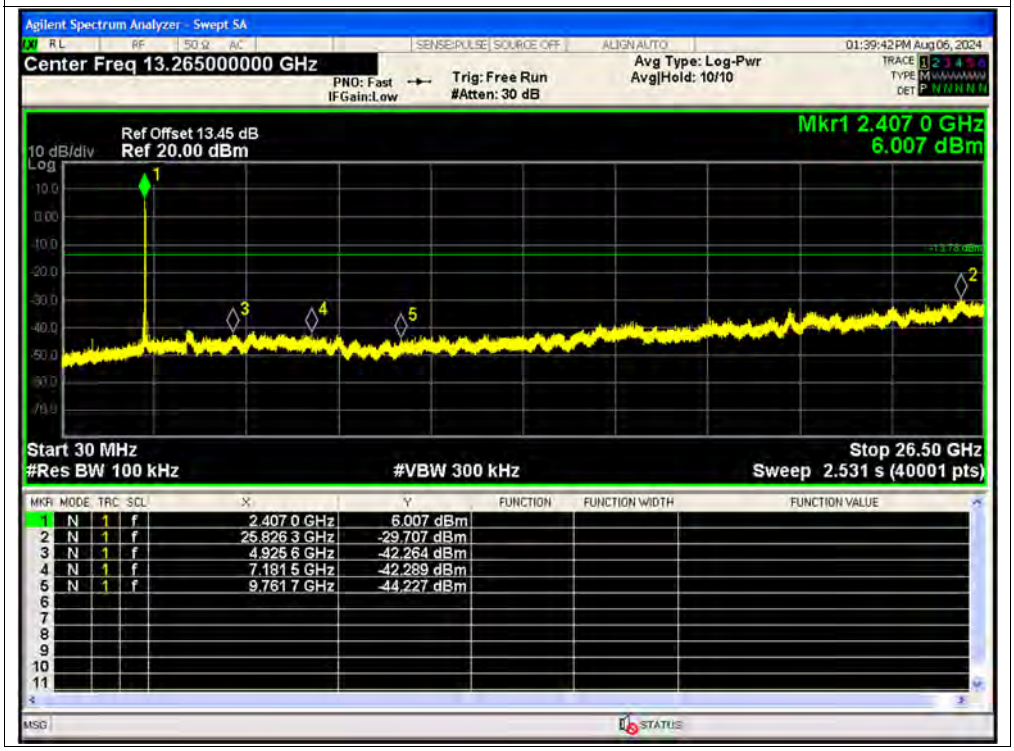
Tx. Spurious NVNT b 2462MHz Ant1 Ref

Tx. Spurious NVNT b 2462MHz Ant1 Emission



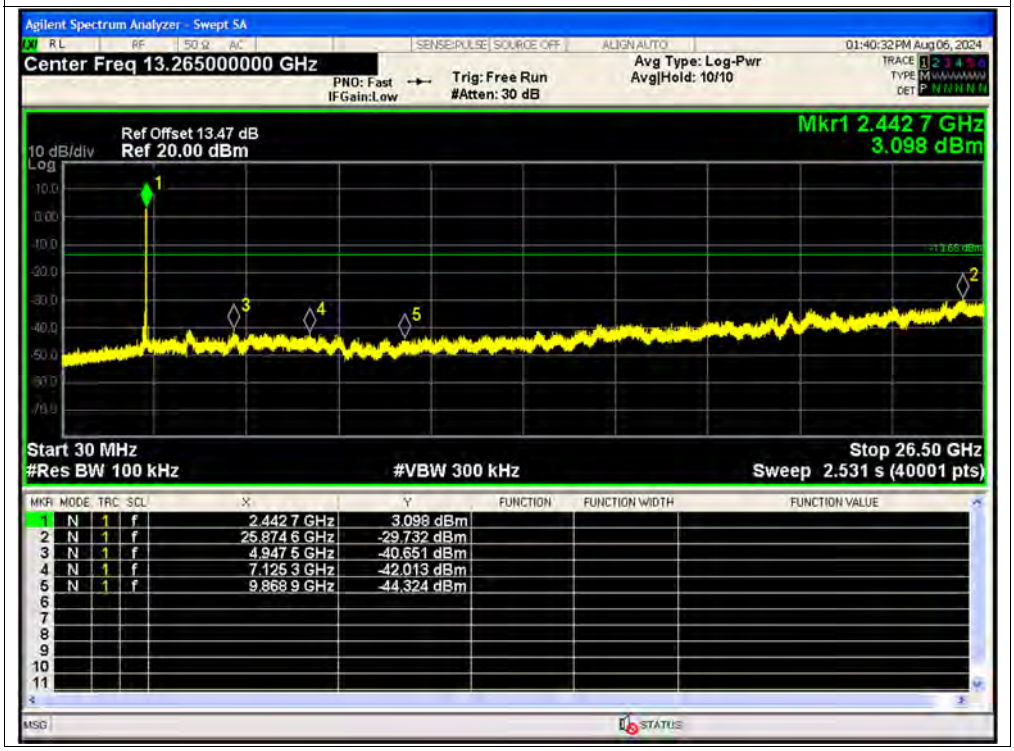
Tx. Spurious NVNT g 2412MHz Ant1 Ref

Tx. Spurious NVNT g 2412MHz Ant1 Emission



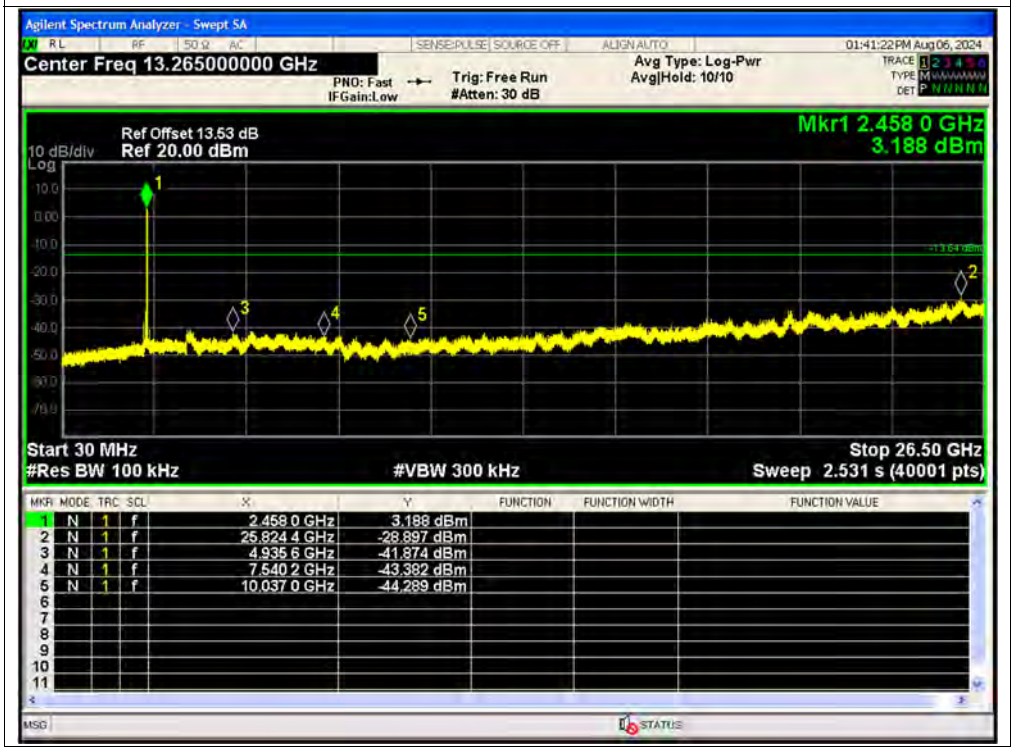
Tx. Spurious NVNT g 2437MHz Ant1 Ref

Tx. Spurious NVNT g 2437MHz Ant1 Emission



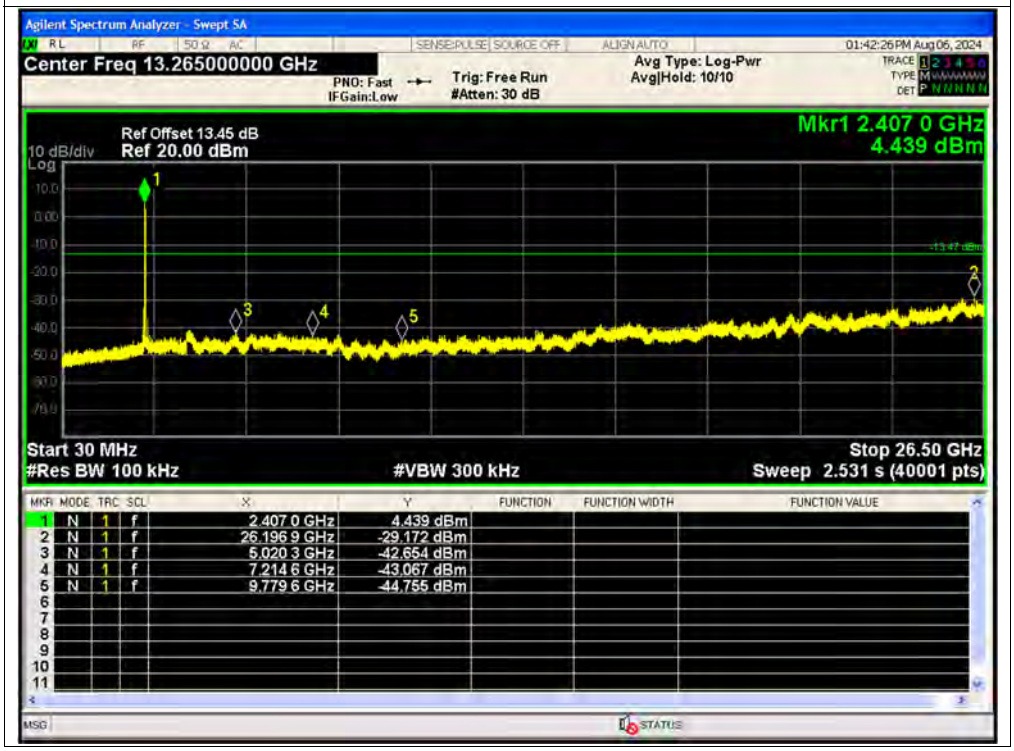
Tx. Spurious NVNT g 2462MHz Ant1 Ref

Tx. Spurious NVNT g 2462MHz Ant1 Emission



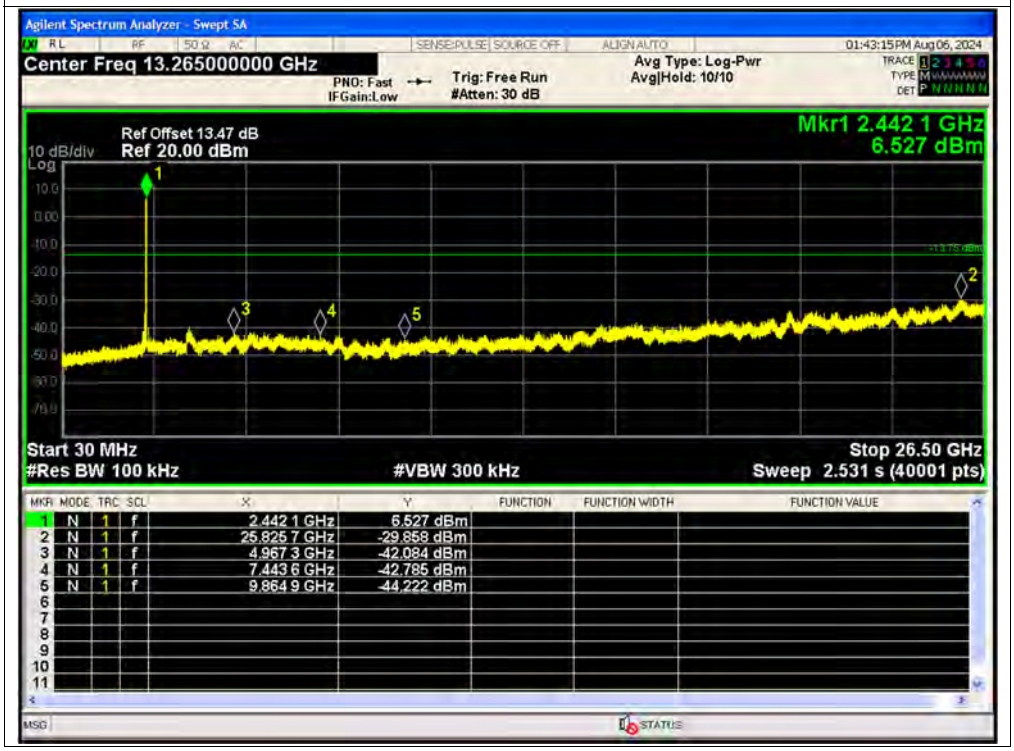
Tx. Spurious NVNT n20 2412MHz Ant1 Ref

Tx. Spurious NVNT n20 2412MHz Ant1 Emission



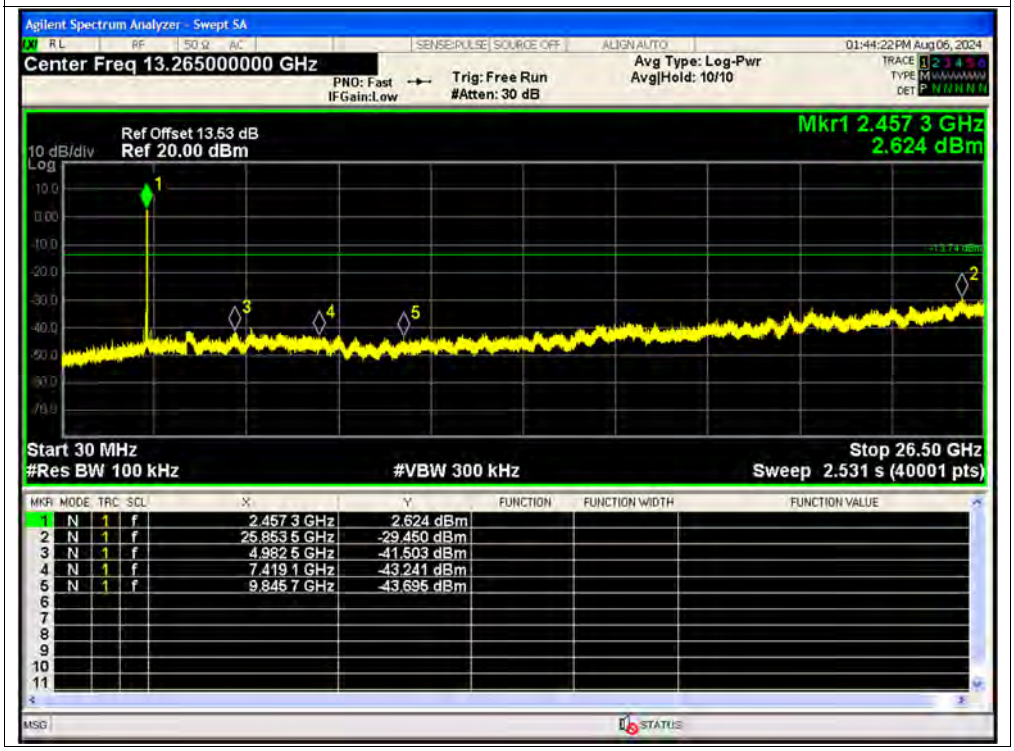
Tx. Spurious NVNT n20 2437MHz Ant1 Ref

Tx. Spurious NVNT n20 2437MHz Ant1 Emission



Tx. Spurious NVNT n20 2462MHz Ant1 Ref

Tx. Spurious NVNT n20 2462MHz Ant1 Emission

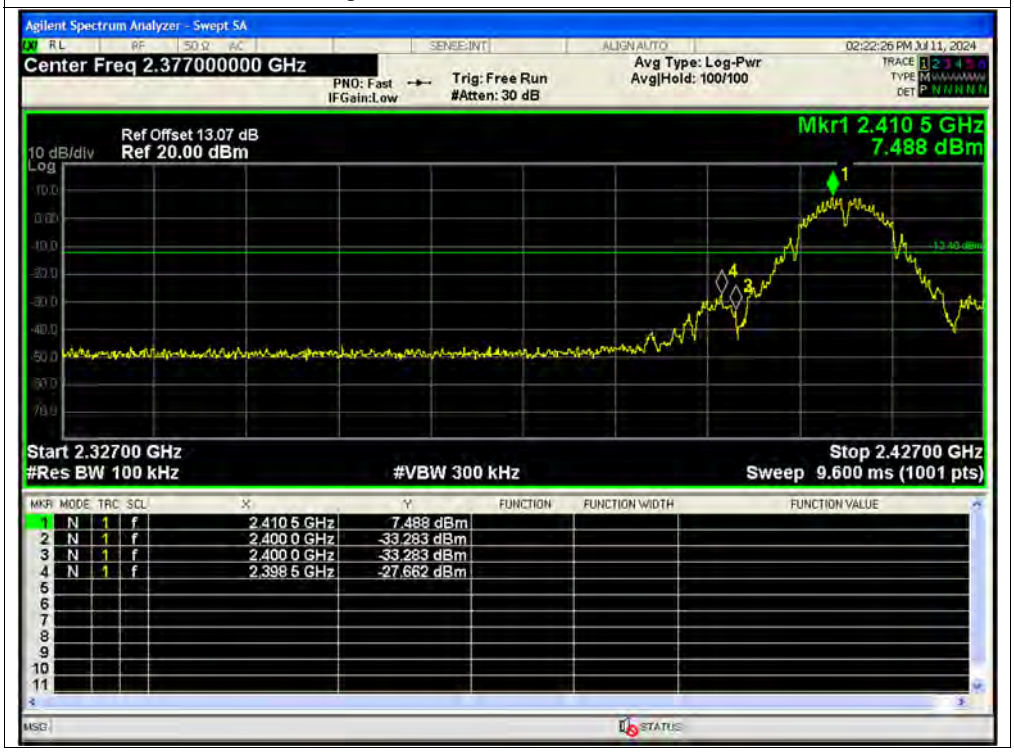


A.6. Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-35.26	-20	Pass
NVNT	b	2462	Ant1	-49.9	-20	Pass
NVNT	g	2412	Ant1	-25.44	-20	Pass
NVNT	g	2462	Ant1	-35.55	-20	Pass
NVNT	n20	2412	Ant1	-24.94	-20	Pass
NVNT	n20	2462	Ant1	-33.57	-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

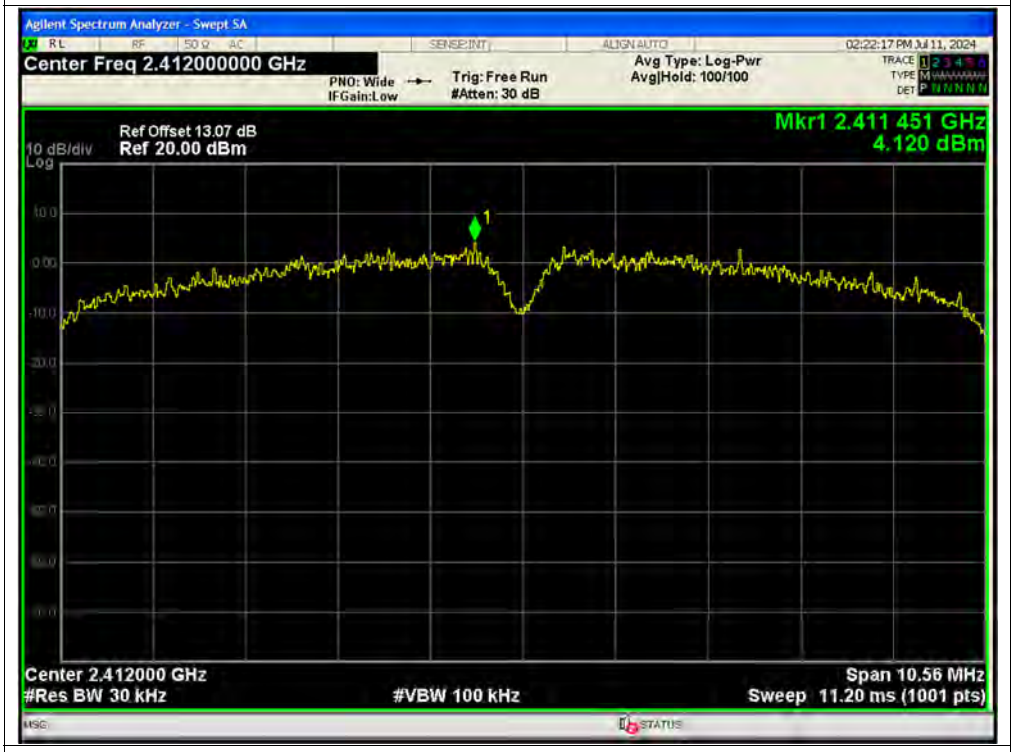
Band Edge NVNT n20 2462MHz Ant1 Ref

Band Edge NVNT n20 2462MHz Ant1 Emission

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	-5.88	0	-5.88	8	Pass
NVNT	b	2437	Ant1	-5.54	0	-5.54	8	Pass
NVNT	b	2462	Ant1	-5.34	0	-5.34	8	Pass
NVNT	g	2412	Ant1	-10.44	0	-10.44	8	Pass
NVNT	g	2437	Ant1	-9.48	0	-9.48	8	Pass
NVNT	g	2462	Ant1	-8.54	0	-8.54	8	Pass
NVNT	n20	2412	Ant1	-7.97	0	-7.97	8	Pass
NVNT	n20	2437	Ant1	-8.29	0	-8.29	8	Pass
NVNT	n20	2462	Ant1	-6.8	0	-6.8	8	Pass

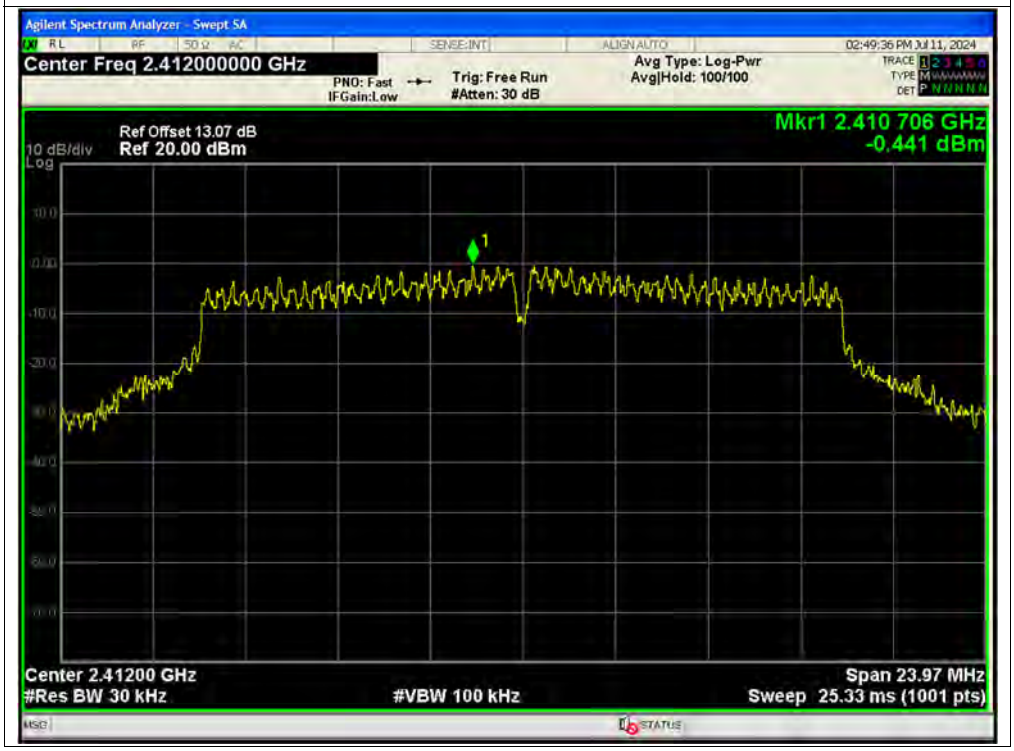
Test Graphs
PSD NVNT b 2412MHz Ant1



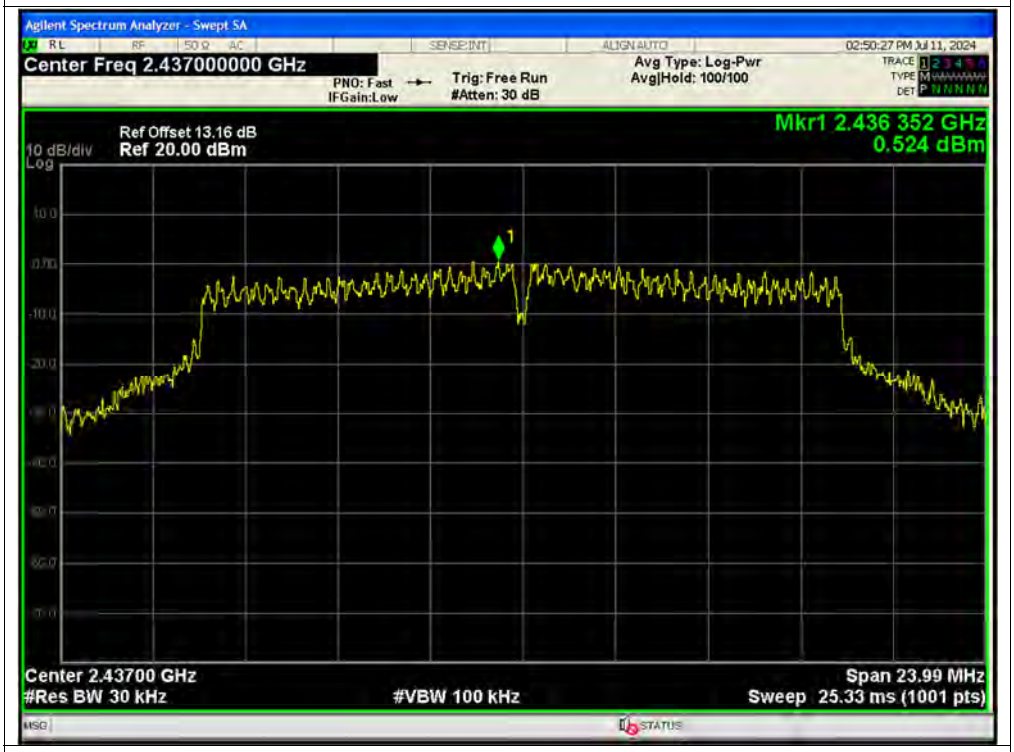
PSD NVNT b 2437MHz Ant1

PSD NVNT b 2462MHz Ant1

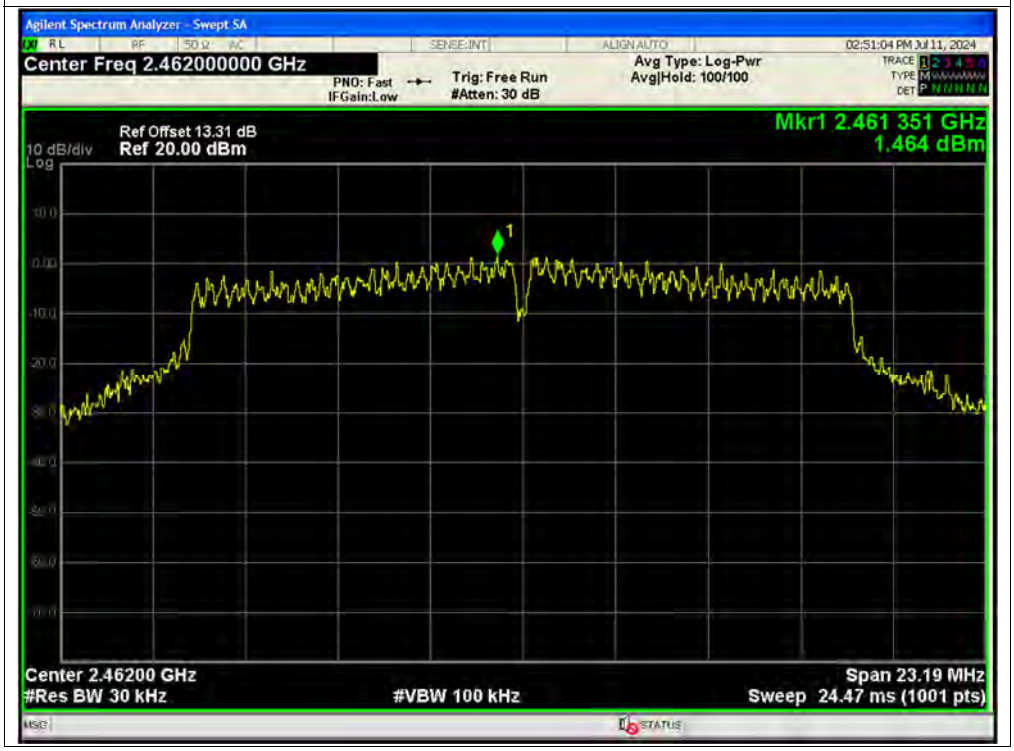
PSD NVNT g 2412MHz Ant1



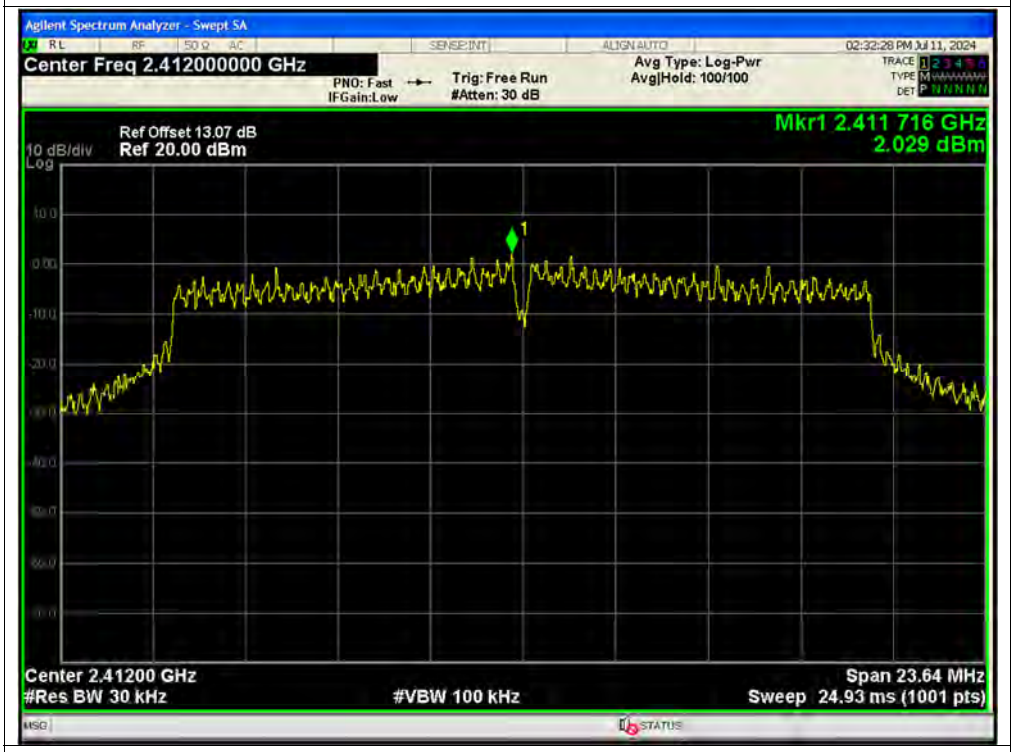
PSD NVNT g 2437MHz Ant1



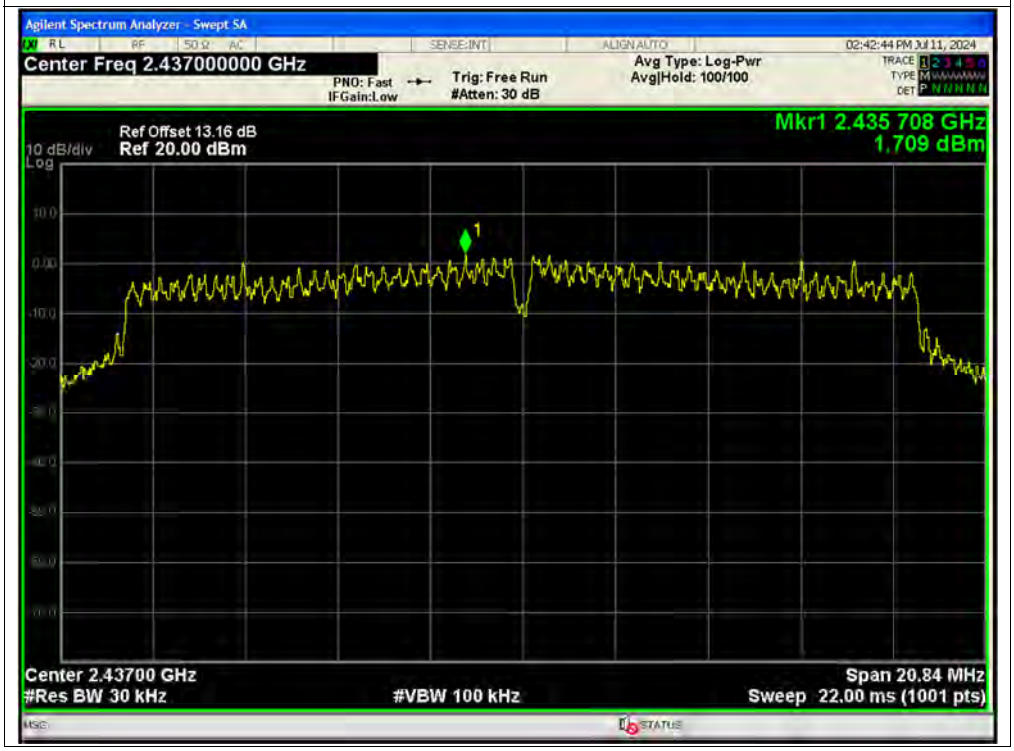
PSD NVNT g 2462MHz Ant1

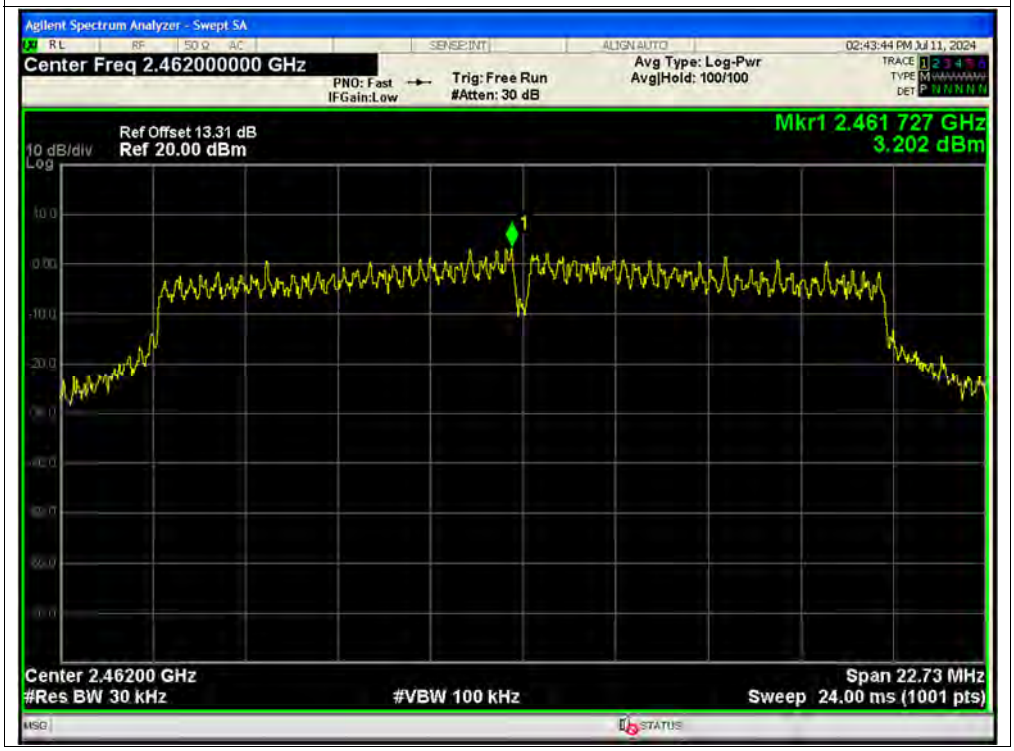


PSD NVNT n20 2412MHz Ant1



PSD NVNT n20 2437MHz Ant1



PSD NVNT n20 2462MHz Ant1


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 + Data line + PC + WIFI TX

Test voltage: AC 120V/60Hz

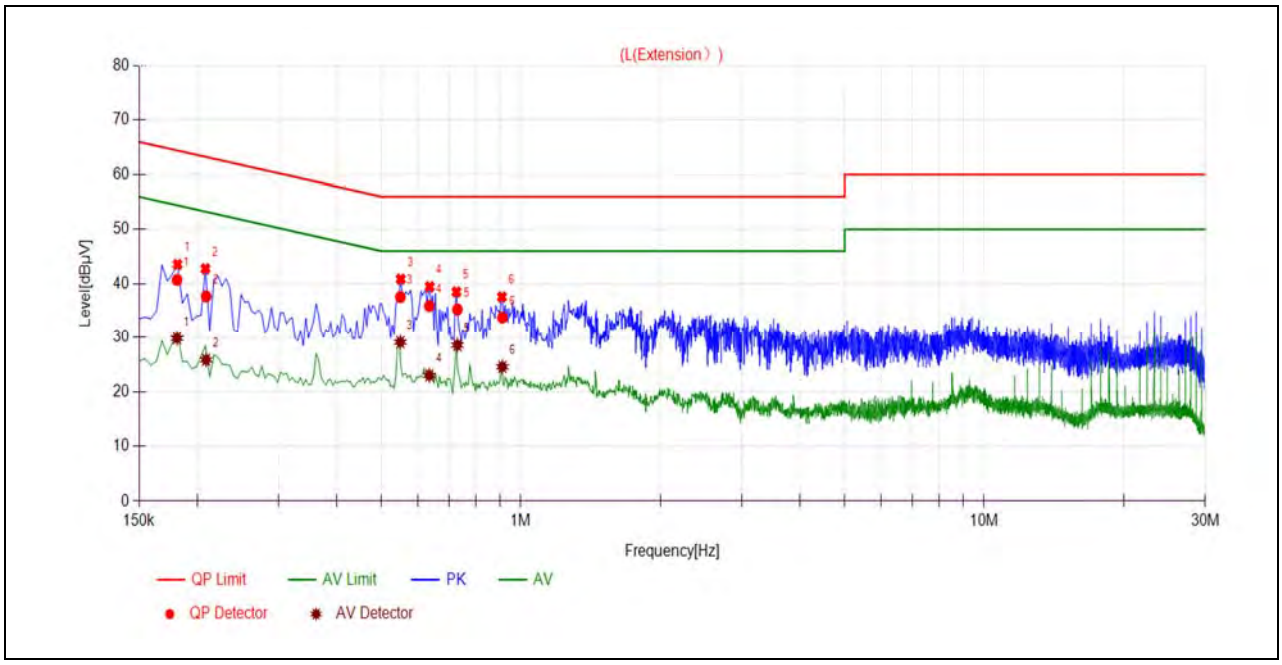
The measurement results are obtained as below:

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

U_R: Receiver Reading

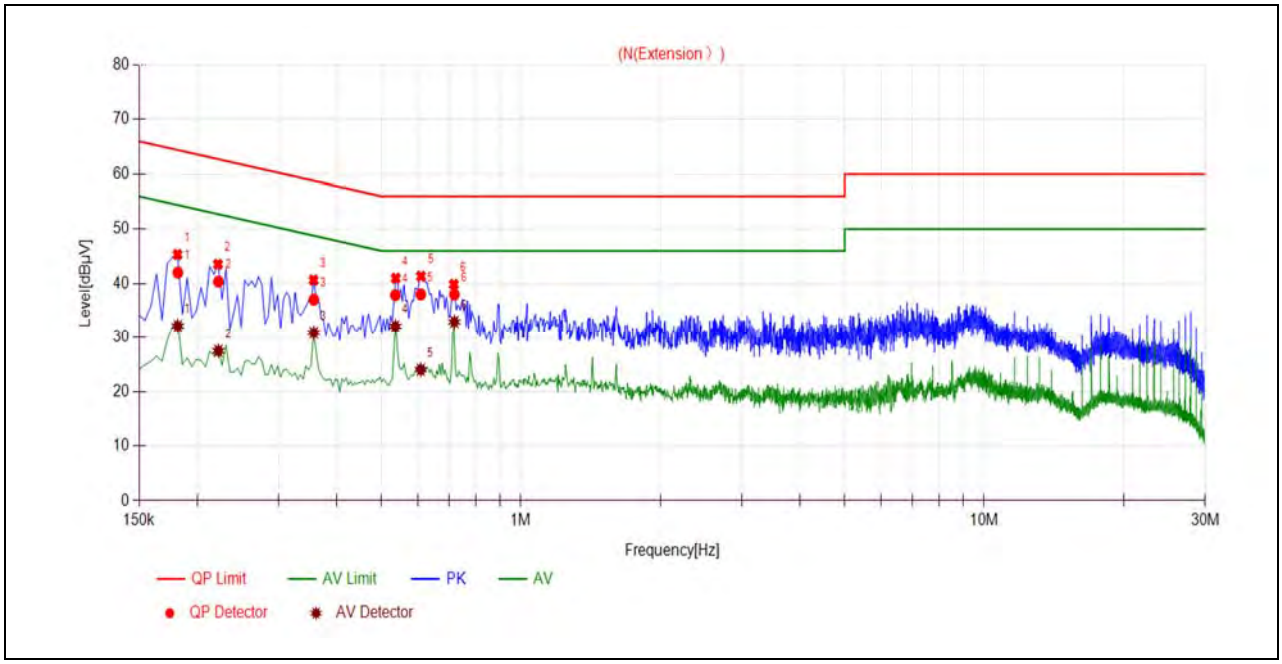
A_{Factor}: Voltage division factor of LISN

B. Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBµV)		Limit (dBµV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1811	40.71	29.83	64.44	54.44	Line	PASS
2	0.2092	37.66	25.84	63.24	53.24		PASS
3	0.5494	37.54	29.10	56.00	46.00		PASS
4	0.6346	35.90	22.98	56.00	46.00		PASS
5	0.7296	35.25	28.54	56.00	46.00		PASS
6	0.9123	33.77	24.55	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	0.1818	42.03	32.17	64.40	54.40	Neutral	PASS
2	0.2224	40.38	27.50	62.73	52.73		PASS
3	0.3574	37.05	30.89	58.79	48.79		PASS
4	0.5358	37.88	32.12	56.00	46.00		PASS
5	0.6081	38.02	24.01	56.00	46.00		PASS
6	0.7187	38.01	32.95	56.00	46.00		PASS

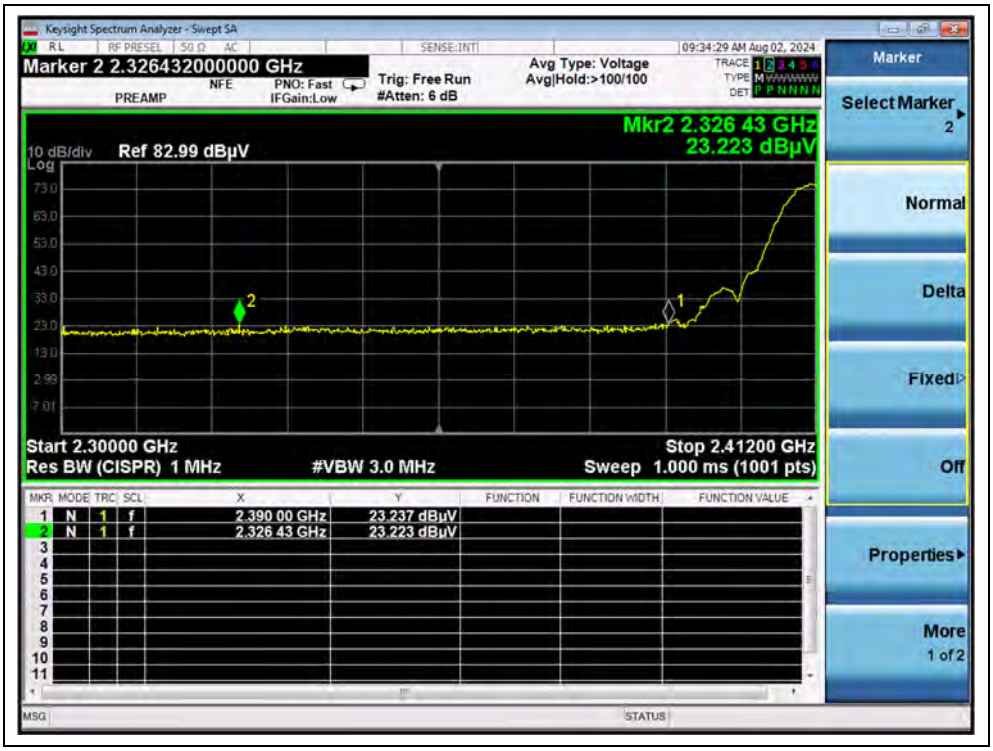
A.9. Restricted Frequency Bands

The lowest and highest channels are tested to verify the Restricted Frequency Bands.
The measurement results are obtained as below:
E [dBμV/m] =U_R + A_T + A_{Factor} [dB]; A_T =$L_{Cable\ loss}$ [dB]-G_{preamp} [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 (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV						
1	2390.00	PK	23.24	6.74	27.20	57.18	74	PASS
1	2390.00	AV	10.53	6.74	27.20	44.47	54	PASS
11	2483.55	PK	25.65	6.74	27.20	59.59	74	PASS
11	2483.50	AV	17.69	6.74	27.20	51.63	54	PASS



(PEAK, Channel 1, 802.11b)

(AVERAGE, Channel 1, 802.11b)

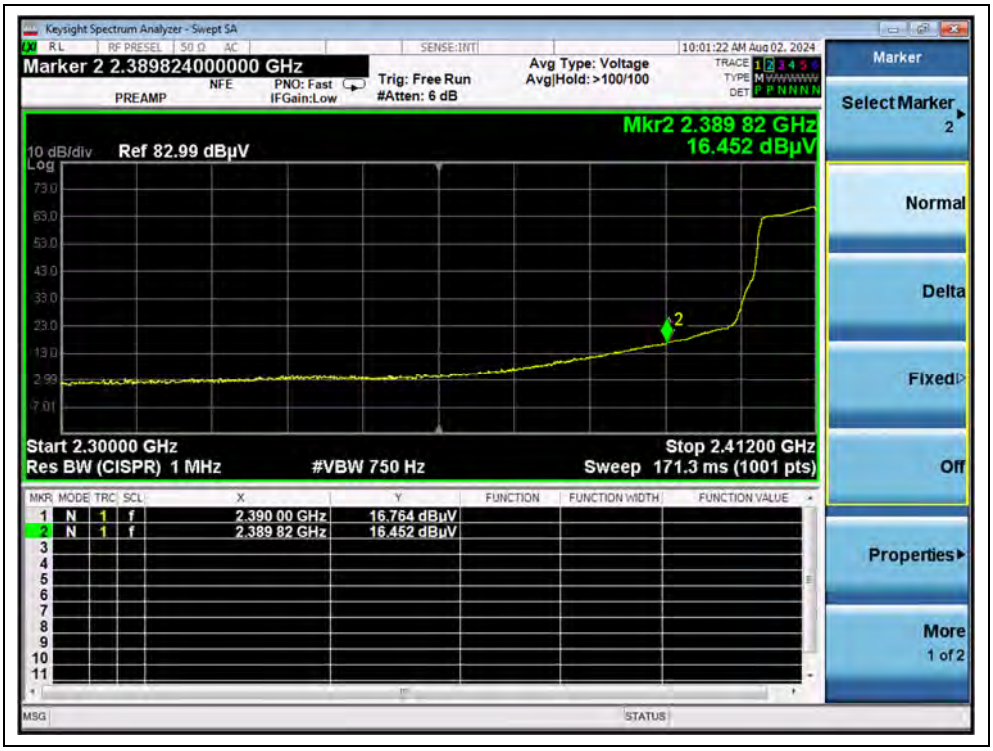
(PEAK, Channel 11, 802.11b)

(AVERAGE, Channel 11, 802.11b)

802.11g Mode

Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV						
1	2389.38	PK	34.17	6.74	27.20	68.11	74	PASS
1	2390.00	AV	16.76	6.74	27.20	50.70	54	PASS
11	2483.62	PK	34.31	6.74	27.20	68.25	74	PASS
11	2483.62	AV	16.56	6.74	27.20	50.50	54	PASS

(PEAK, Channel 1, 802.11g)



(AVERAGE, Channel 1, 802.11g)

(PEAK, Channel 11, 802.11g)

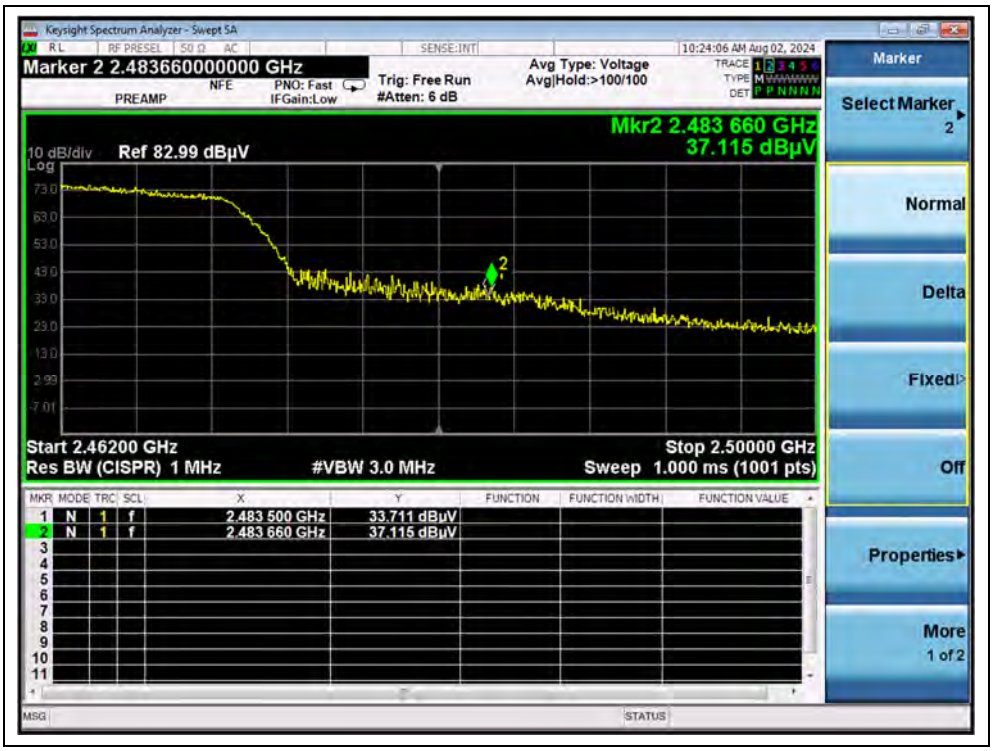
(AVERAGE, Channel 11, 802.11g)

802.11n (HT20) Mode

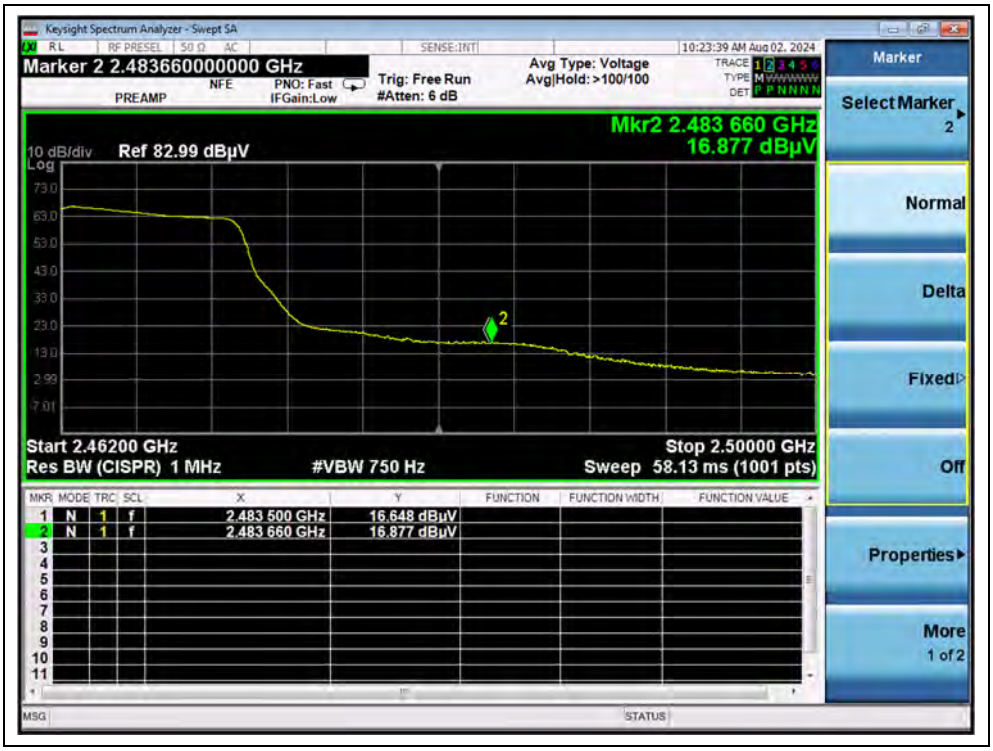
Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
1	2390.00	PK	35.68	6.74	27.20	69.62	74	PASS
1	2390.00	AV	18.05	6.74	27.20	51.99	54	PASS
11	2483.66	PK	37.12	6.74	27.20	71.06	74	PASS
11	2483.66	AV	16.88	6.74	27.20	50.82	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))

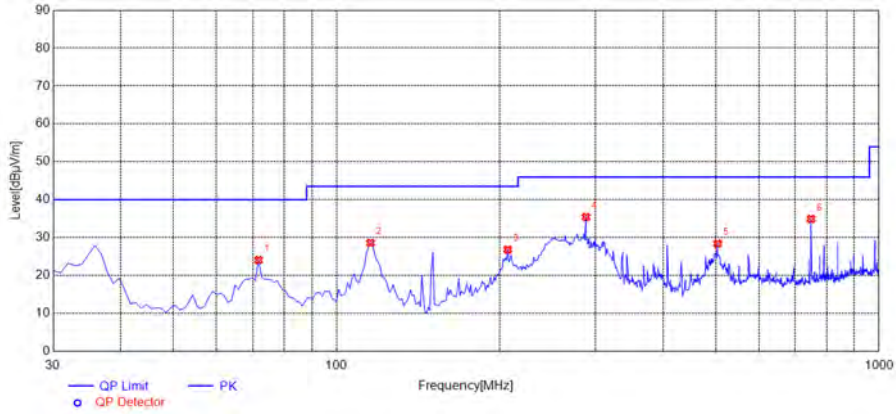
A.10. Radiated Emission

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

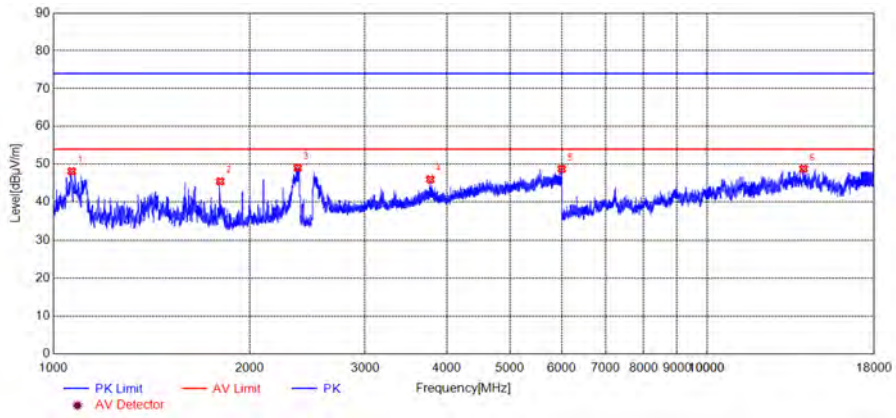
802.11b Mode

Plot for Channel 1



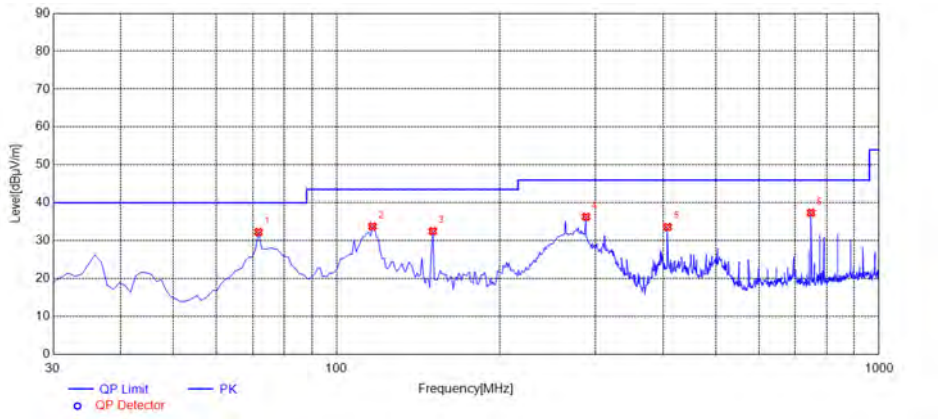
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
71.7518	24.11	-33.75	40.00	Horizontal	PASS
115.4454	28.62	-32.43	43.50	Horizontal	PASS
206.7167	26.82	-31.84	43.50	Horizontal	PASS
288.2783	35.43	-29.45	46.00	Horizontal	PASS
503.8338	28.42	-24.27	46.00	Horizontal	PASS
749.4895	34.92	-20.71	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



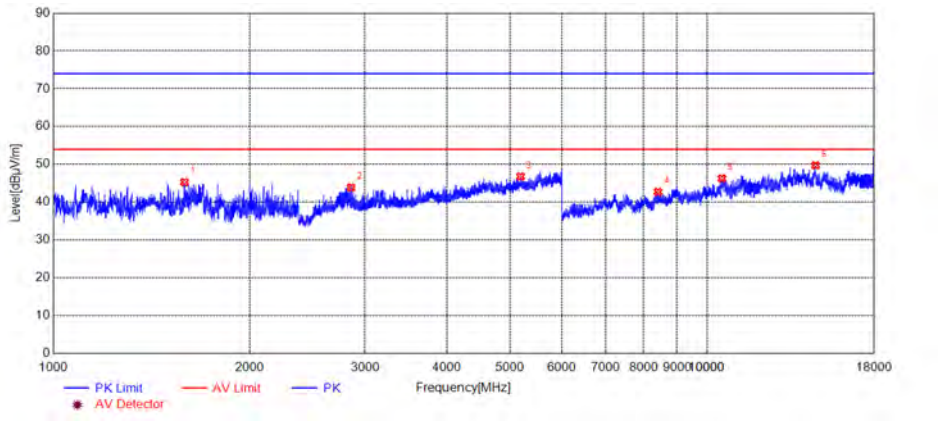
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1067.5068	48.13	-24.20	74.00	Horizontal	PASS
1800.5801	45.48	-22.76	74.00	Horizontal	PASS
2365.6366	49.09	-20.79	74.00	Horizontal	PASS
3772.7773	45.98	-15.39	74.00	Horizontal	PASS
5993.9994	48.77	-8.58	74.00	Horizontal	PASS
14046.8047	48.81	7.02	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
71.7518	32.31	-33.75	40.00	Vertical	PASS
116.4164	33.76	-32.49	43.50	Vertical	PASS
150.4004	32.52	-35.18	43.50	Vertical	PASS
288.2783	36.32	-29.45	46.00	Vertical	PASS
407.7077	33.61	-26.06	46.00	Vertical	PASS
749.4895	37.40	-20.71	46.00	Vertical	PASS

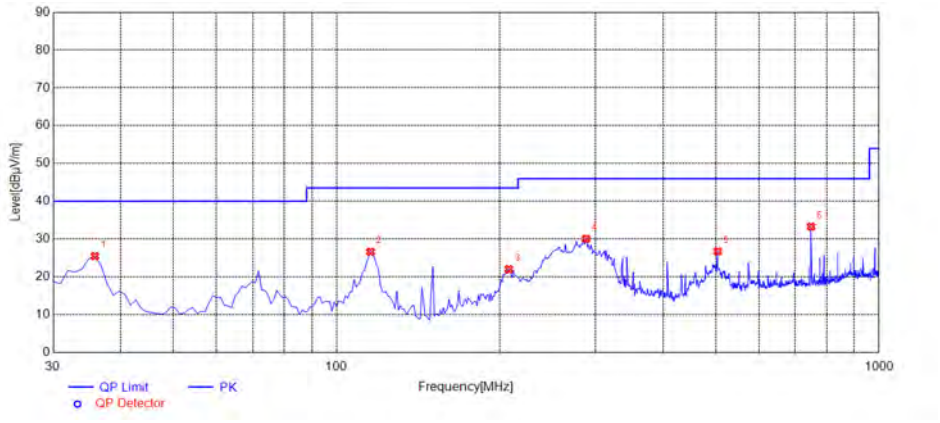
(Antenna Vertical, 30MHz to 1GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1587.5588	45.30	-23.69	74.00	Vertical	PASS
2854.1854	43.90	-18.31	74.00	Vertical	PASS
5185.4185	46.79	-10.16	74.00	Vertical	PASS
8414.6415	42.72	-2.93	74.00	Vertical	PASS
10535.2535	46.28	2.66	74.00	Vertical	PASS
14651.6652	49.76	7.78	74.00	Vertical	PASS

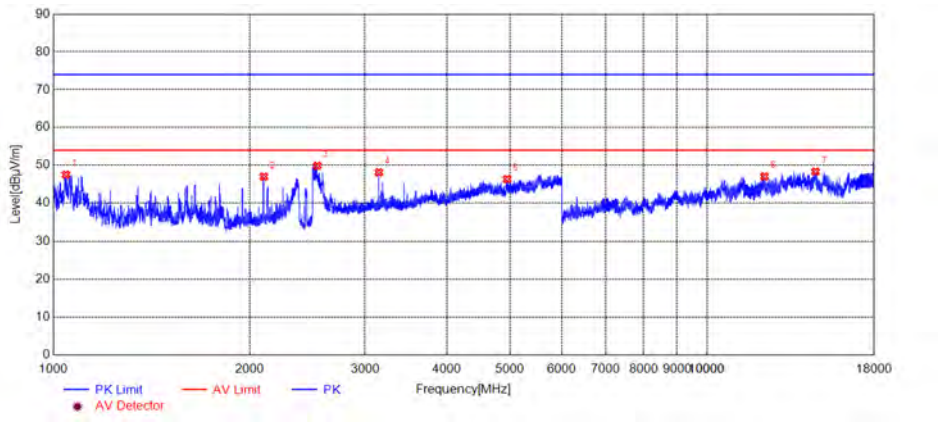
(Antenna Vertical, 1GHz to 18GHz)

Plot for Channel 6



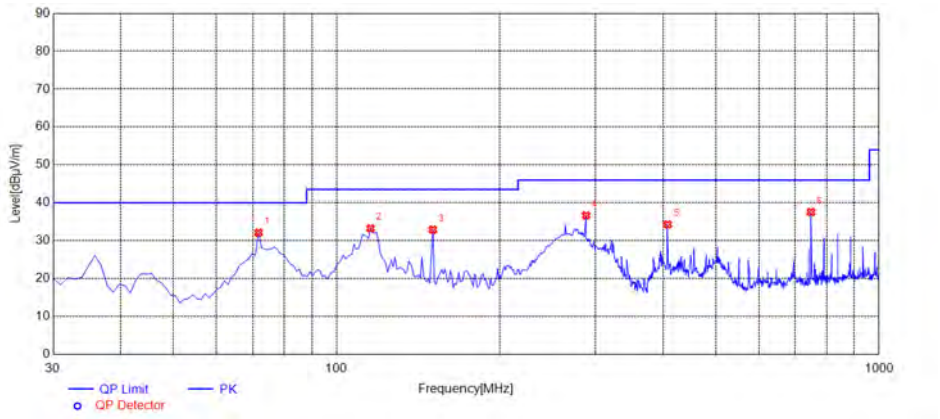
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
35.8258	25.52	-38.14	40.00	Horizontal	PASS
115.4454	26.64	-32.43	43.50	Horizontal	PASS
207.6877	22.05	-31.92	43.50	Horizontal	PASS
288.2783	30.07	-29.45	46.00	Horizontal	PASS
503.8338	26.76	-24.27	46.00	Horizontal	PASS
749.4895	33.32	-20.71	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



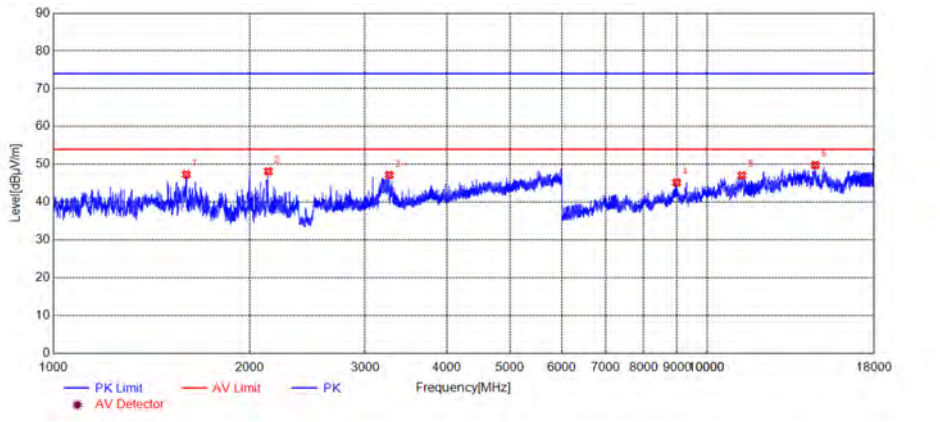
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1046.0046	47.53	-24.12	74.00	Horizontal	PASS
2099.6100	47.01	-21.76	74.00	Horizontal	PASS
2533.6534	49.88	-20.22	74.00	Horizontal	PASS
3148.2148	48.16	-17.81	74.00	Horizontal	PASS
4944.8945	46.36	-10.91	74.00	Horizontal	PASS
12243.0243	47.07	4.93	74.00	Horizontal	PASS
14645.6646	48.35	7.73	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
71.7518	32.12	-33.75	40.00	Vertical	PASS
115.4454	33.28	-32.43	43.50	Vertical	PASS
150.4004	32.91	-35.18	43.50	Vertical	PASS
288.2783	36.68	-29.45	46.00	Vertical	PASS
407.7077	34.30	-26.06	46.00	Vertical	PASS
749.4895	37.57	-20.71	46.00	Vertical	PASS

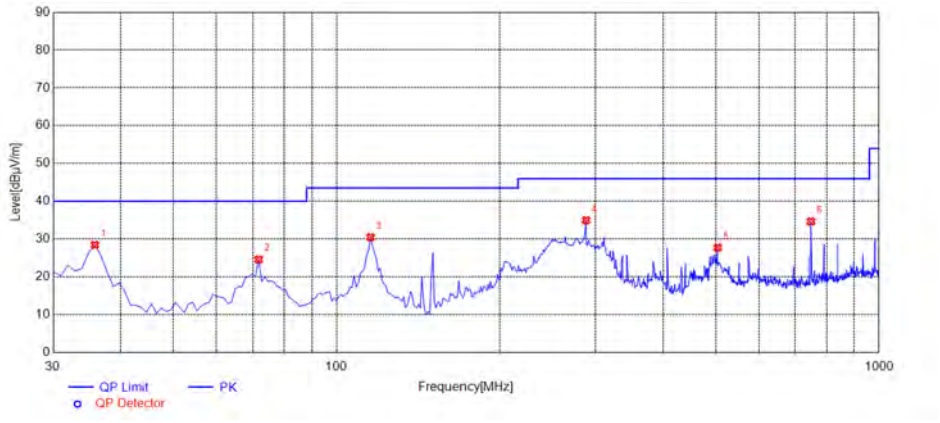
(Antenna Vertical, 30MHz to 1GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1598.5599	47.32	-23.60	74.00	Vertical	PASS
2133.6134	48.16	-21.57	74.00	Vertical	PASS
3265.2265	47.20	-16.94	74.00	Vertical	PASS
8984.6985	45.21	-0.95	74.00	Vertical	PASS
11305.7306	47.08	3.10	74.00	Vertical	PASS
14640.8641	49.82	7.62	74.00	Vertical	PASS

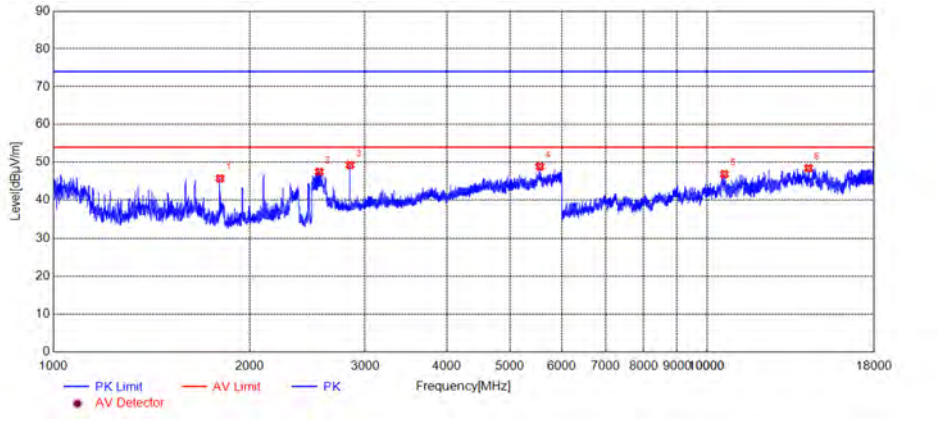
(Antenna Vertical, 1GHz to 18GHz)

Plot for Channel 11



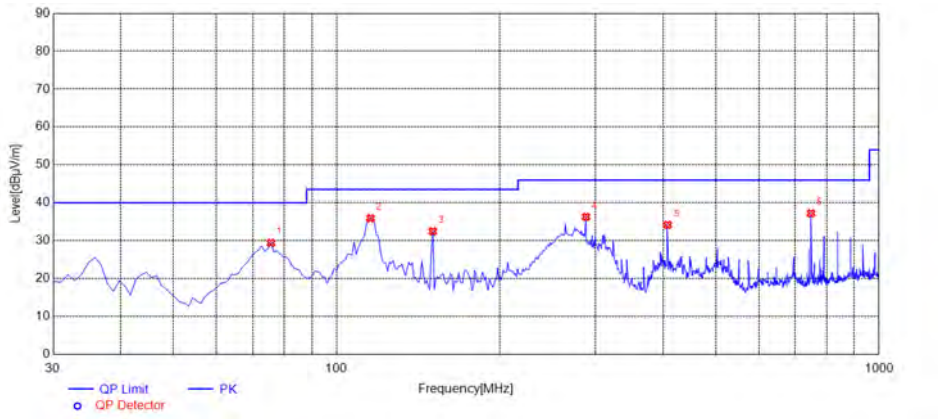
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
35.8258	28.47	-38.14	40.00	Horizontal	PASS
71.7518	24.59	-33.75	40.00	Horizontal	PASS
115.4454	30.50	-32.43	43.50	Horizontal	PASS
288.2783	34.98	-29.45	46.00	Horizontal	PASS
503.8338	27.76	-24.27	46.00	Horizontal	PASS
749.4895	34.69	-20.71	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



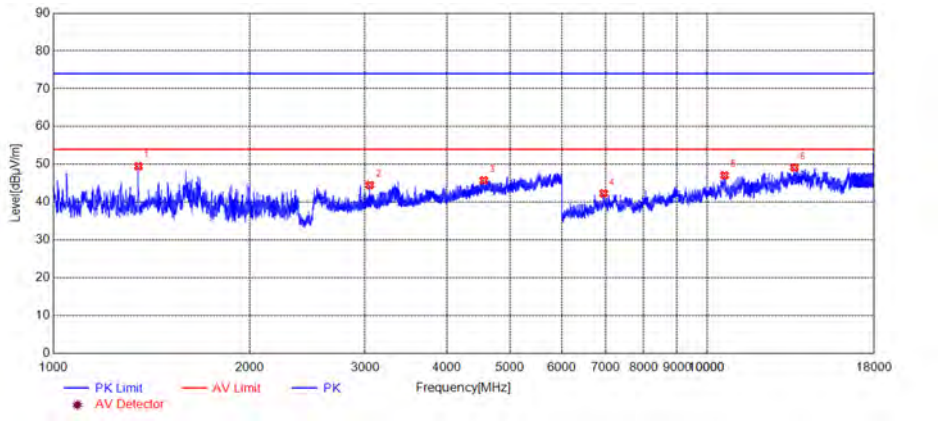
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1799.5800	45.75	-22.76	74.00	Horizontal	PASS
2553.1553	47.50	-20.13	74.00	Horizontal	PASS
2845.1845	49.30	-18.39	74.00	Horizontal	PASS
5550.4550	48.88	-8.23	74.00	Horizontal	PASS
10627.6628	46.89	2.41	74.00	Horizontal	PASS
14298.8299	48.45	7.24	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
75.6356	29.42	-35.00	40.00	Vertical	PASS
115.4454	35.93	-32.43	43.50	Vertical	PASS
150.4004	32.47	-35.18	43.50	Vertical	PASS
288.2783	36.31	-29.45	46.00	Vertical	PASS
407.7077	34.19	-26.06	46.00	Vertical	PASS
749.4895	37.23	-20.71	46.00	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)

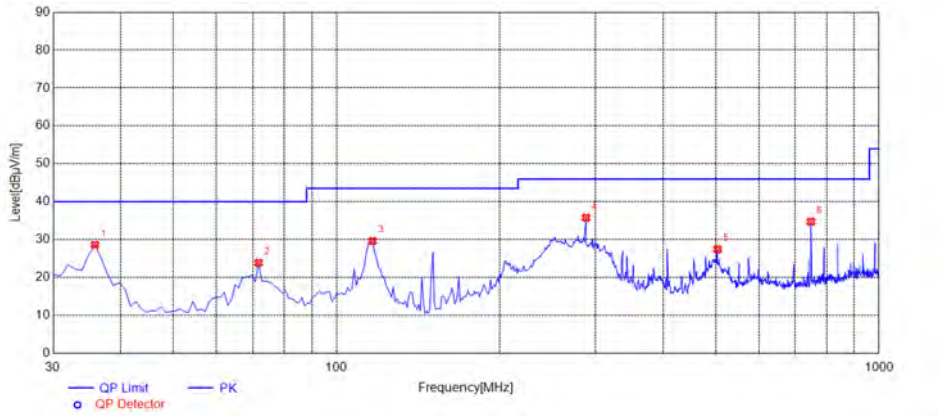


Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1350.0350	49.49	-23.47	74.00	Vertical	PASS
3051.2051	44.53	-17.42	74.00	Vertical	PASS
4555.8556	45.81	-11.98	74.00	Vertical	PASS
6948.0948	42.35	-4.67	74.00	Vertical	PASS
10632.4632	47.11	2.55	74.00	Vertical	PASS
13596.7597	49.20	7.49	74.00	Vertical	PASS

(Antenna Vertical, 1GHz to 18GHz)

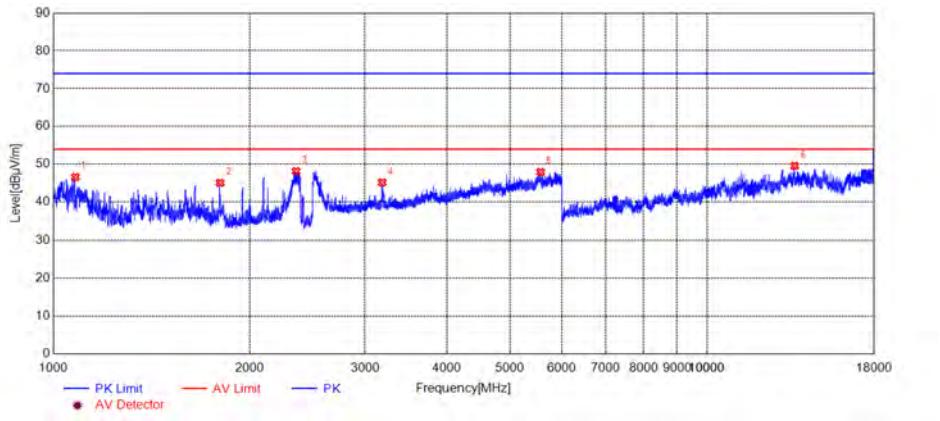
802.11g Mode

Plot for Channel 1



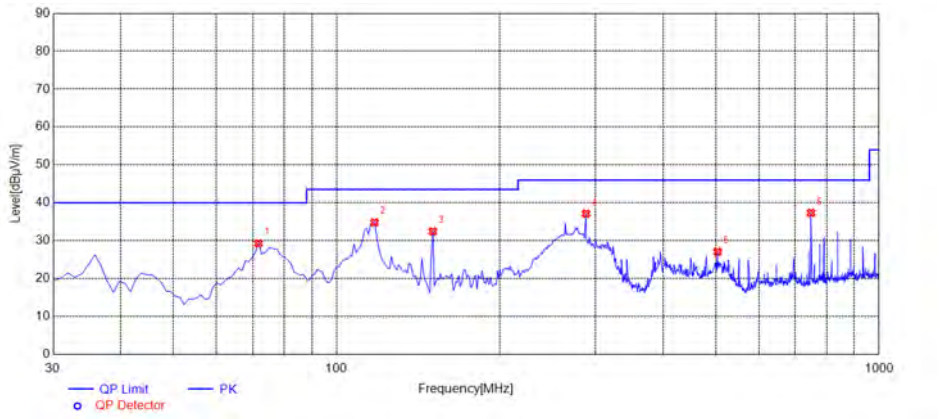
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
35.8258	28.59	-38.14	40.00	Horizontal	PASS
71.7518	23.88	-33.75	40.00	Horizontal	PASS
116.4164	29.63	-32.49	43.50	Horizontal	PASS
288.2783	35.80	-29.45	46.00	Horizontal	PASS
503.8338	27.49	-24.27	46.00	Horizontal	PASS
749.4895	34.75	-20.71	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



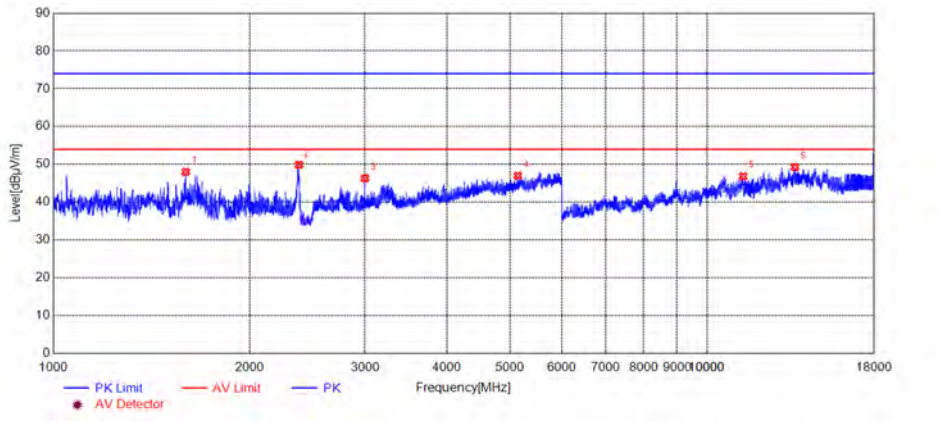
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1081.5082	46.64	-24.29	74.00	Horizontal	PASS
1800.0800	45.12	-22.75	74.00	Horizontal	PASS
2351.6352	48.16	-20.69	74.00	Horizontal	PASS
3185.2185	45.20	-17.44	74.00	Horizontal	PASS
5563.9564	47.95	-8.75	74.00	Horizontal	PASS
13607.5608	49.56	7.23	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
71.7518	29.29	-33.75	40.00	Vertical	PASS
117.3874	34.83	-32.46	43.50	Vertical	PASS
150.4004	32.45	-35.18	43.50	Vertical	PASS
288.2783	37.14	-29.45	46.00	Vertical	PASS
503.8338	27.06	-24.27	46.00	Vertical	PASS
749.4895	37.38	-20.71	46.00	Vertical	PASS

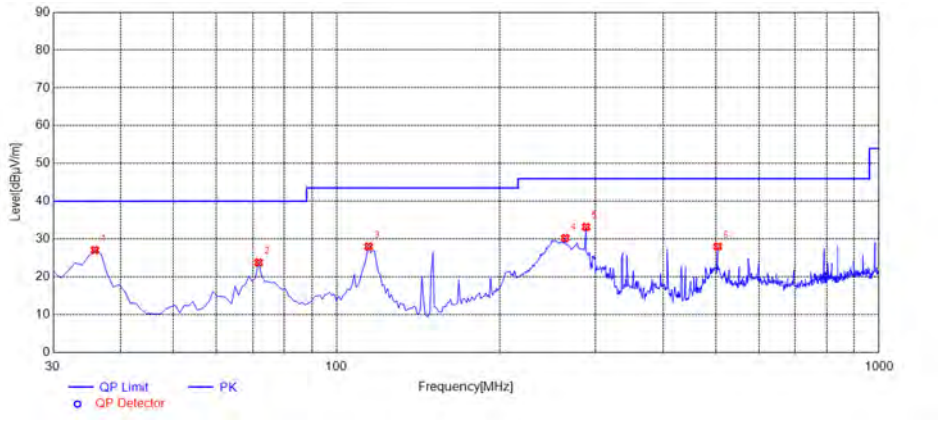
(Antenna Vertical, 30MHz to 1GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1595.5596	48.04	-23.63	74.00	Vertical	PASS
2375.6376	49.91	-20.85	74.00	Vertical	PASS
2997.6998	46.33	-18.25	74.00	Vertical	PASS
5135.9136	46.99	-10.94	74.00	Vertical	PASS
11352.5353	46.84	3.94	74.00	Vertical	PASS
13615.9616	49.29	6.74	74.00	Vertical	PASS

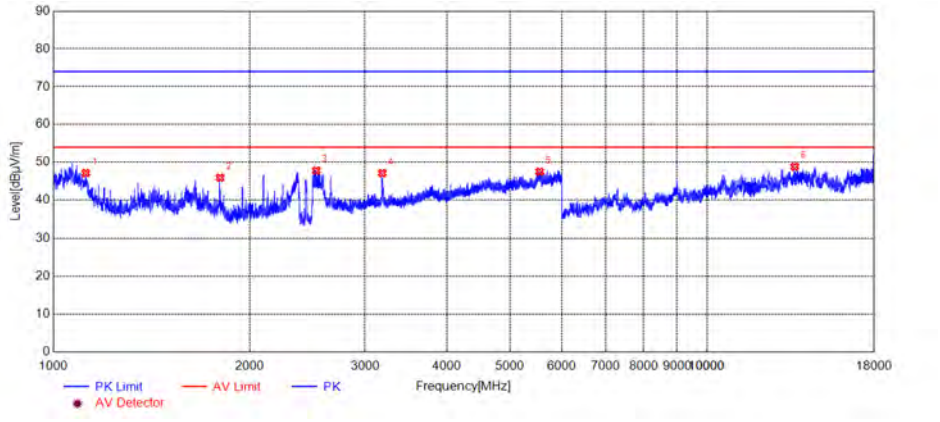
(Antenna Vertical, 1GHz to 18GHz)

Plot for Channel 6



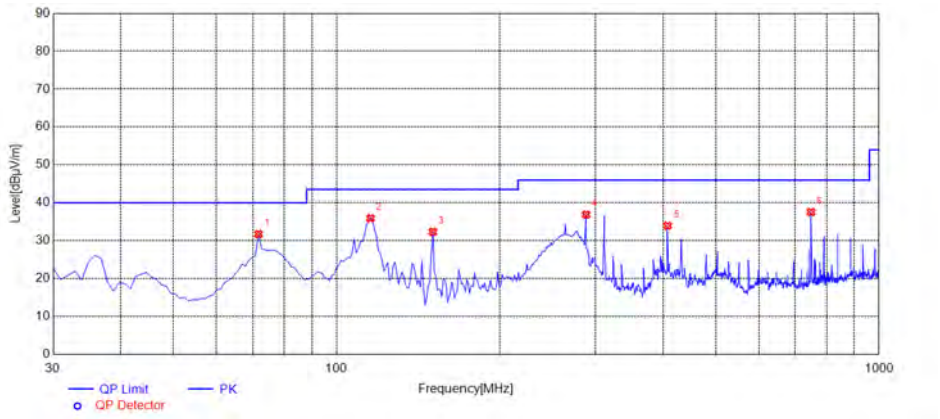
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
35.8258	27.11	-38.14	40.00	Horizontal	PASS
71.7518	23.83	-33.75	40.00	Horizontal	PASS
114.4745	28.03	-32.19	43.50	Horizontal	PASS
264.0040	30.28	-30.12	46.00	Horizontal	PASS
288.2783	33.21	-29.45	46.00	Horizontal	PASS
503.8338	28.04	-24.27	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



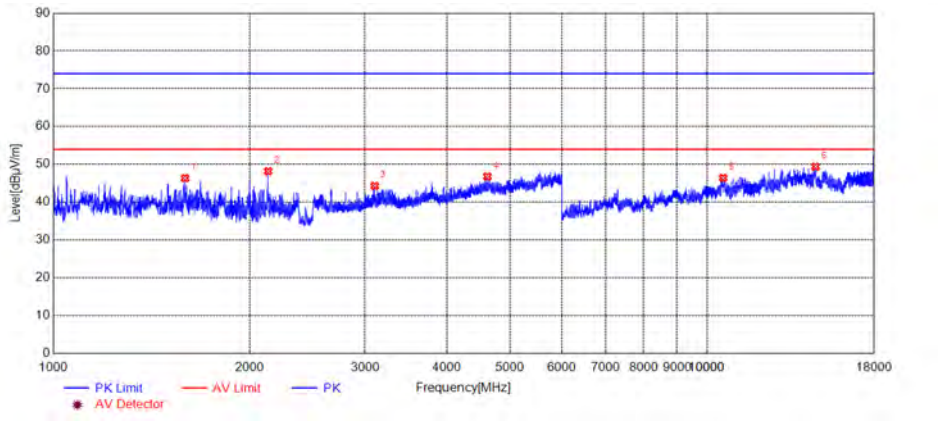
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1122.0122	47.20	-24.03	74.00	Horizontal	PASS
1800.0800	45.93	-22.75	74.00	Horizontal	PASS
2525.6526	47.87	-20.24	74.00	Horizontal	PASS
3186.2186	47.15	-17.43	74.00	Horizontal	PASS
5547.9548	47.53	-8.27	74.00	Horizontal	PASS
13611.1611	48.84	7.02	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
71.7518	31.77	-33.75	40.00	Vertical	PASS
115.4454	35.92	-32.43	43.50	Vertical	PASS
150.4004	32.35	-35.18	43.50	Vertical	PASS
288.2783	36.90	-29.45	46.00	Vertical	PASS
407.7077	33.96	-26.06	46.00	Vertical	PASS
749.4895	37.58	-20.71	46.00	Vertical	PASS

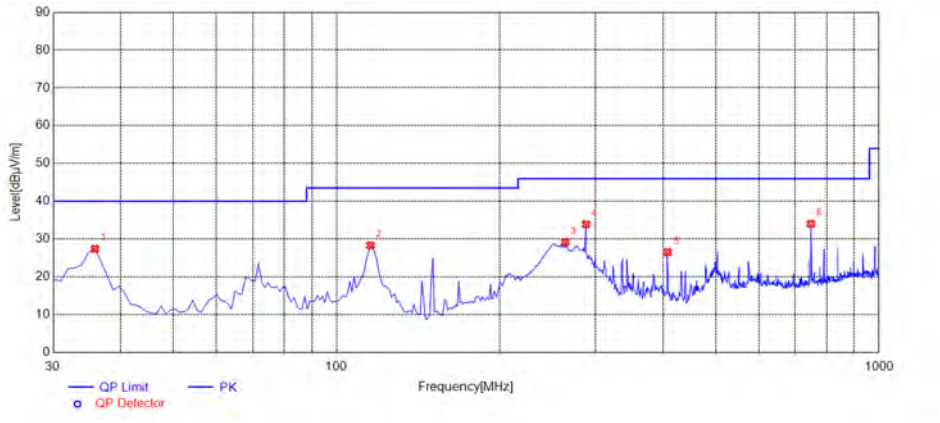
(Antenna Vertical, 30MHz to 1GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1592.0592	46.35	-23.66	74.00	Vertical	PASS
2132.6133	48.19	-21.58	74.00	Vertical	PASS
3102.7103	44.32	-17.50	74.00	Vertical	PASS
4613.3613	46.78	-11.87	74.00	Vertical	PASS
10580.8581	46.41	2.27	74.00	Vertical	PASS
14651.6652	49.37	7.78	74.00	Vertical	PASS

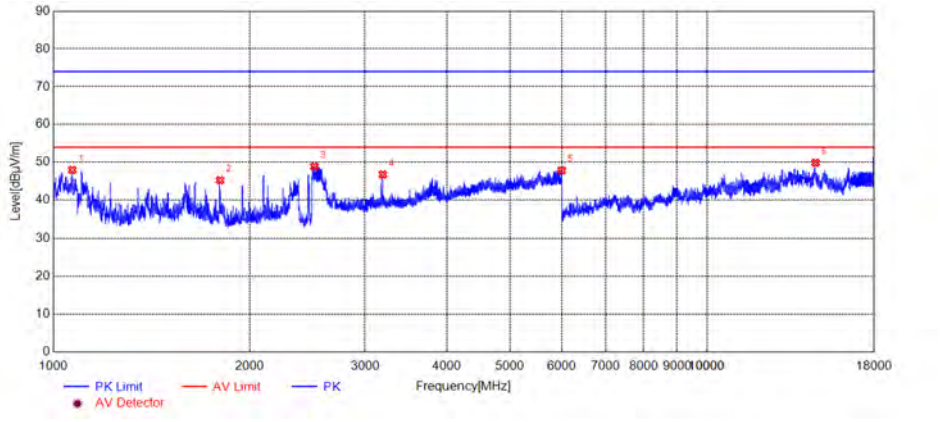
(Antenna Vertical, 1GHz to 18GHz)

Plot for Channel 11



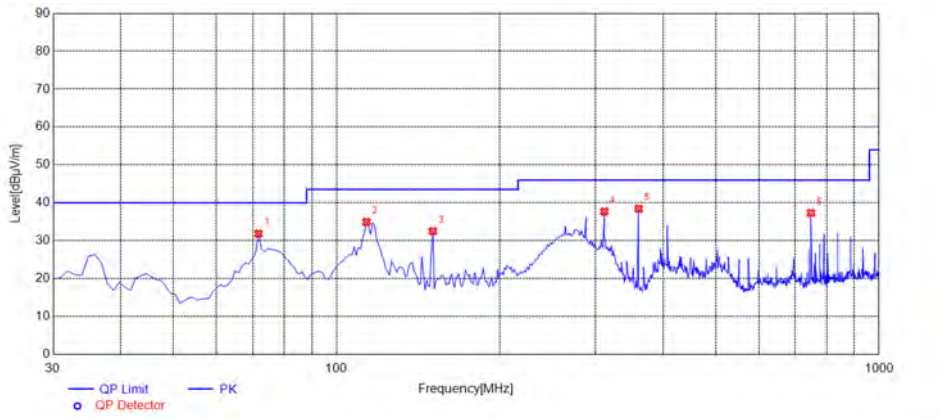
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
35.8258	27.42	-38.14	40.00	Horizontal	PASS
115.4454	28.33	-32.43	43.50	Horizontal	PASS
264.0040	29.19	-30.12	46.00	Horizontal	PASS
288.2783	33.92	-29.45	46.00	Horizontal	PASS
407.7077	26.54	-26.06	46.00	Horizontal	PASS
749.4895	34.05	-20.71	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



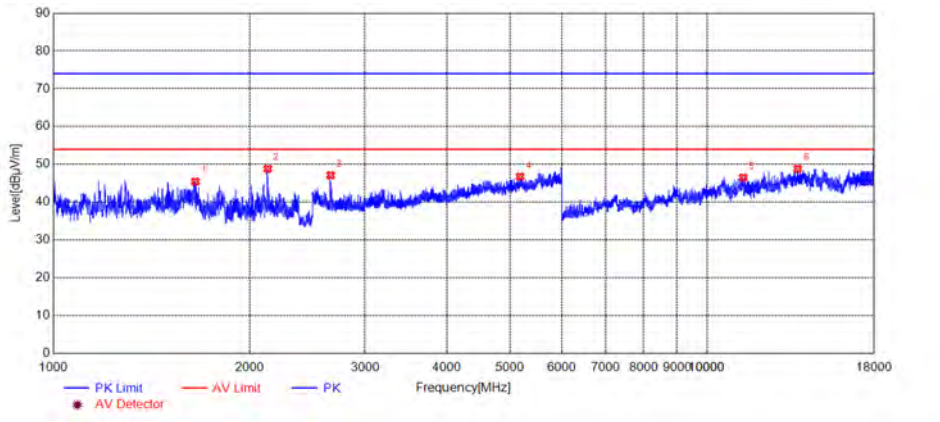
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1070.0070	47.99	-24.21	74.00	Horizontal	PASS
1799.5800	45.27	-22.76	74.00	Horizontal	PASS
2509.1509	48.86	-20.29	74.00	Horizontal	PASS
3193.2193	46.80	-17.35	74.00	Horizontal	PASS
5993.4994	47.90	-8.57	74.00	Horizontal	PASS
14652.8653	49.90	7.74	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
71.7518	31.88	-33.75	40.00	Vertical	PASS
113.5035	34.95	-31.97	43.50	Vertical	PASS
150.4004	32.55	-35.18	43.50	Vertical	PASS
311.5816	37.70	-28.86	46.00	Vertical	PASS
360.1301	38.46	-27.24	46.00	Vertical	PASS
749.4895	37.31	-20.71	46.00	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)

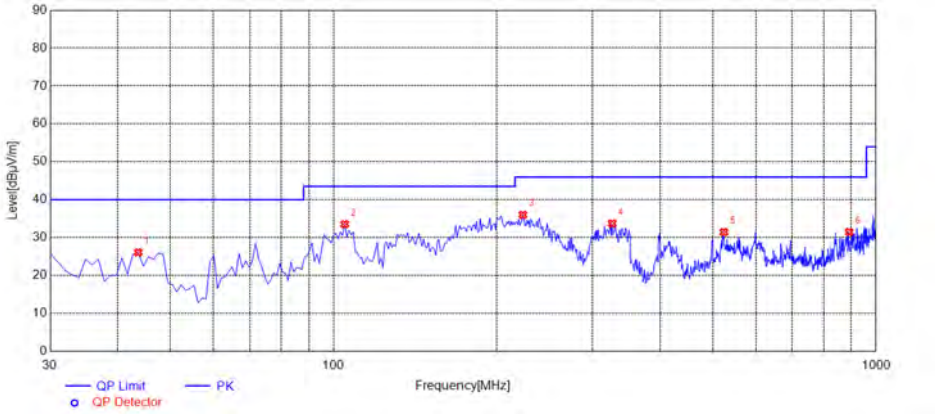


Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1651.0651	45.45	-23.62	74.00	Vertical	PASS
2129.1129	48.83	-21.60	74.00	Vertical	PASS
2656.6657	47.13	-19.19	74.00	Vertical	PASS
5175.9176	46.77	-10.36	74.00	Vertical	PASS
11354.9355	46.55	3.86	74.00	Vertical	PASS
13761.1761	48.85	6.99	74.00	Vertical	PASS

(Antenna Vertical, 1GHz to 18GHz)

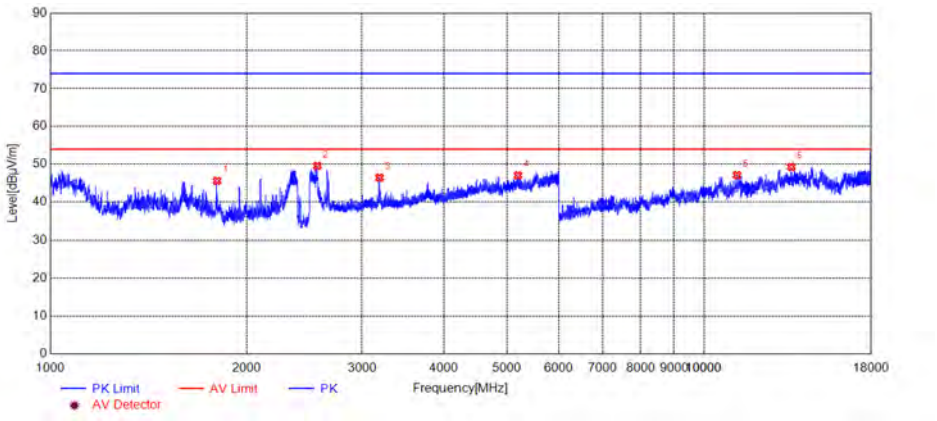
802.11n (HT20) Mode

Plot for Channel 1



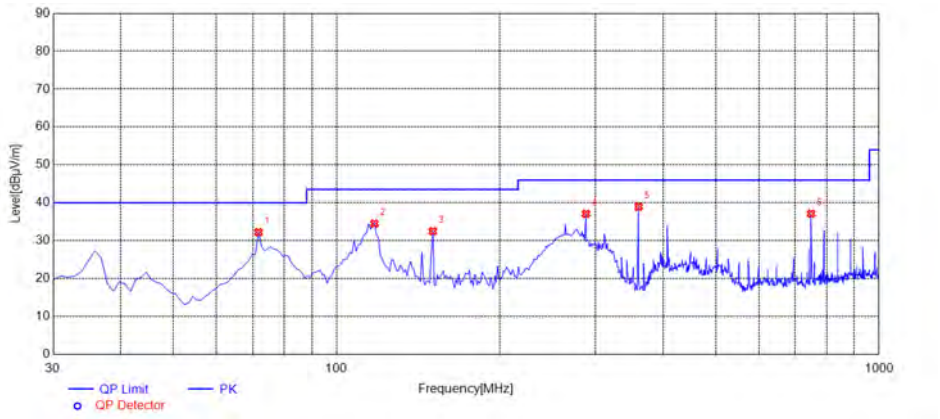
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
43.5936	26.09	-29.09	40.00	Horizontal	PASS
104.7648	33.54	-31.03	43.50	Horizontal	PASS
223.2232	36.01	-31.46	46.00	Horizontal	PASS
326.1461	33.74	-28.39	46.00	Horizontal	PASS
524.2242	31.45	-23.76	46.00	Horizontal	PASS
892.2222	31.45	-19.12	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



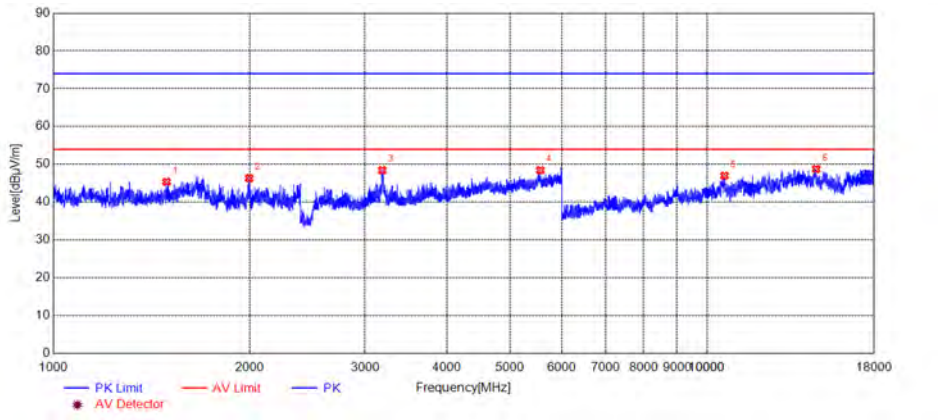
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1799.5800	45.60	-22.76	74.00	Horizontal	PASS
2561.1561	49.59	-20.01	74.00	Horizontal	PASS
3190.2190	46.49	-17.39	74.00	Horizontal	PASS
5192.9193	47.07	-10.01	74.00	Horizontal	PASS
11230.1230	47.14	3.48	74.00	Horizontal	PASS
13596.7597	49.29	7.49	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
71.7518	32.26	-33.75	40.00	Vertical	PASS
117.3874	34.54	-32.46	43.50	Vertical	PASS
150.4004	32.50	-35.18	43.50	Vertical	PASS
288.2783	37.11	-29.45	46.00	Vertical	PASS
360.1301	38.98	-27.24	46.00	Vertical	PASS
749.4895	37.14	-20.71	46.00	Vertical	PASS

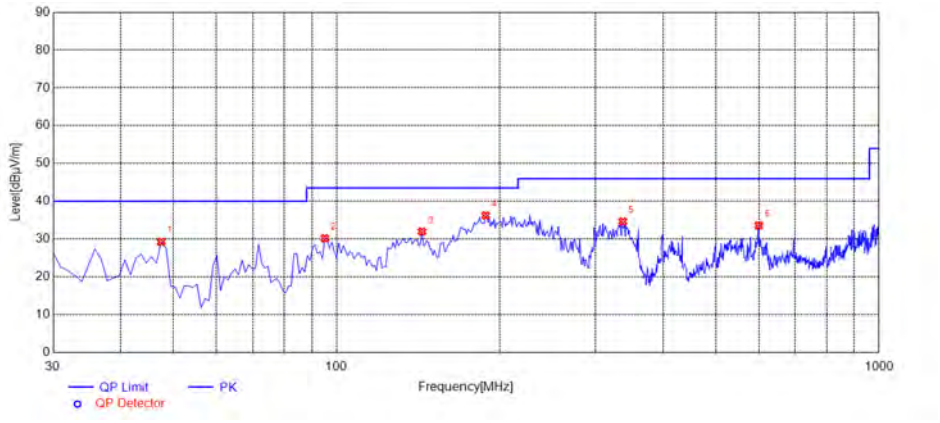
(Antenna Vertical, 30MHz to 1GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1490.5491	45.38	-23.38	74.00	Vertical	PASS
1994.5995	46.34	-22.00	74.00	Vertical	PASS
3186.7187	48.46	-17.42	74.00	Vertical	PASS
5559.4559	48.45	-8.57	74.00	Vertical	PASS
10630.0630	47.01	2.48	74.00	Vertical	PASS
14685.2685	48.77	6.60	74.00	Vertical	PASS

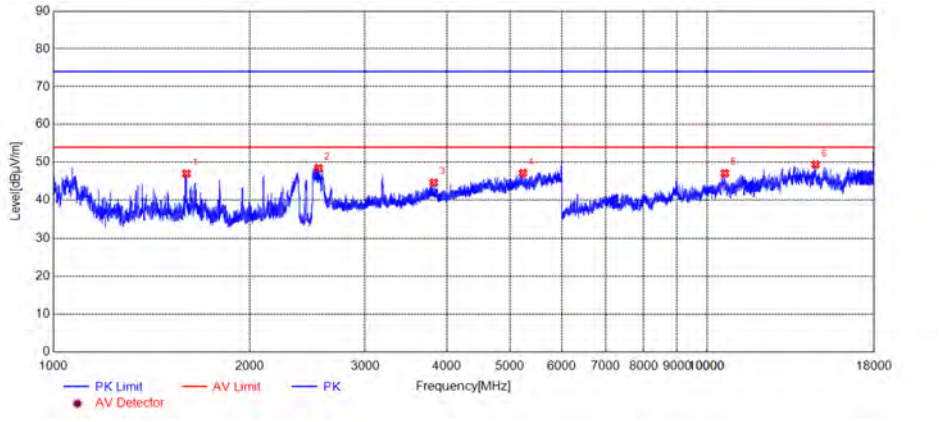
(Antenna Vertical, 1GHz to 18GHz)

Plot for Channel 6



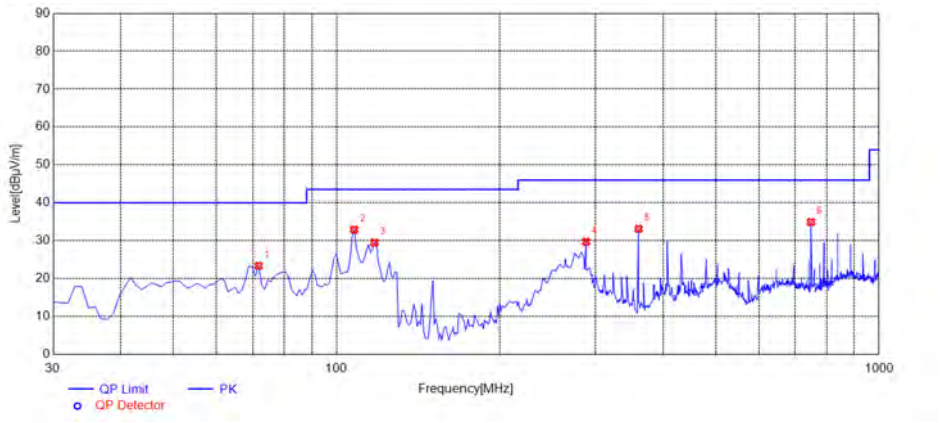
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
47.4775	29.28	-29.00	40.00	Horizontal	PASS
95.0551	30.22	-31.96	43.50	Horizontal	PASS
143.6036	31.99	-35.27	43.50	Horizontal	PASS
188.2683	36.24	-32.80	43.50	Horizontal	PASS
336.8268	34.65	-27.79	46.00	Horizontal	PASS
599.9600	33.61	-21.99	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



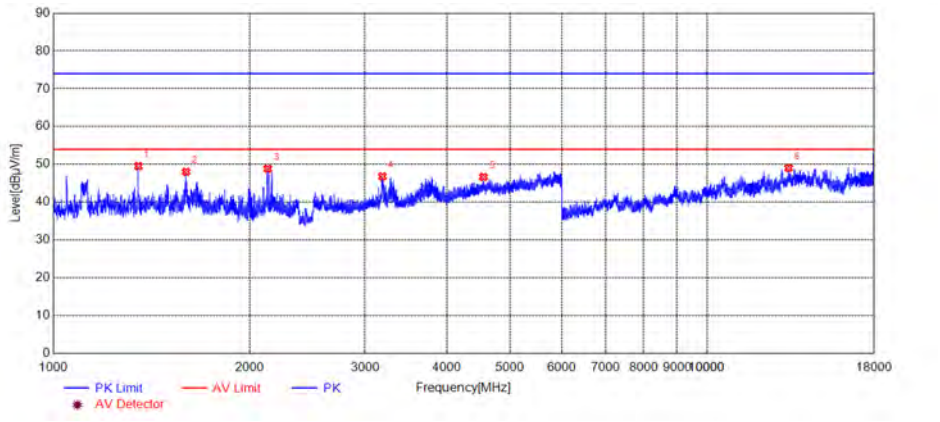
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1599.0599	47.01	-23.60	74.00	Horizontal	PASS
2546.6547	48.46	-20.19	74.00	Horizontal	PASS
3820.2820	44.66	-15.08	74.00	Horizontal	PASS
5229.4229	47.19	-10.09	74.00	Horizontal	PASS
10645.6646	47.10	2.91	74.00	Horizontal	PASS
14652.8653	49.41	7.74	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
71.7518	23.38	-33.75	40.00	Vertical	PASS
107.6777	32.94	-31.22	43.50	Vertical	PASS
117.3874	29.52	-32.46	43.50	Vertical	PASS
288.2783	29.74	-29.45	46.00	Vertical	PASS
360.1301	33.16	-27.24	46.00	Vertical	PASS
749.4895	34.91	-20.71	46.00	Vertical	PASS

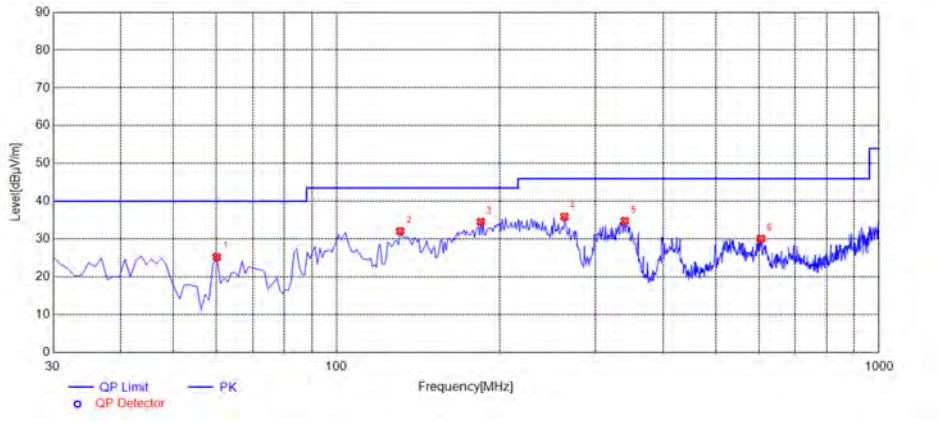
(Antenna Vertical, 30MHz to 1GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1350.0350	49.56	-23.47	74.00	Vertical	PASS
1597.0597	48.04	-23.61	74.00	Vertical	PASS
2129.6130	48.85	-21.59	74.00	Vertical	PASS
3188.2188	46.83	-17.41	74.00	Vertical	PASS
4549.3549	46.68	-11.97	74.00	Vertical	PASS
13324.3324	49.03	5.38	74.00	Vertical	PASS

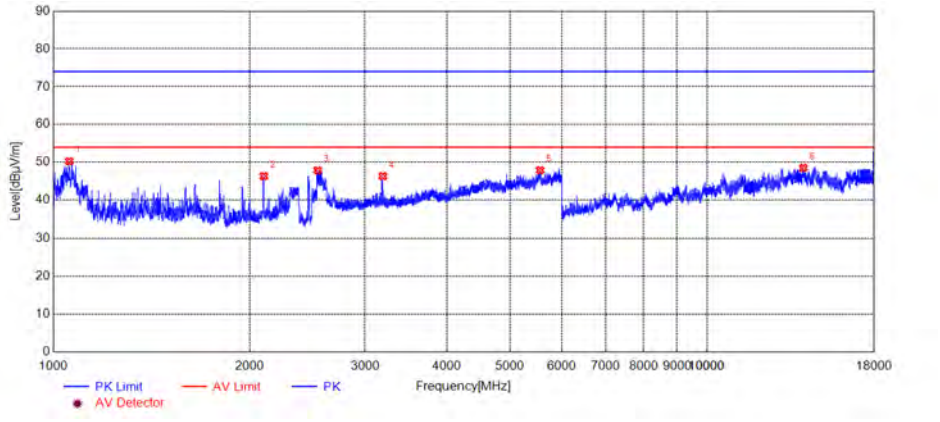
(Antenna Vertical, 1GHz to 18GHz)

Plot for Channel 11



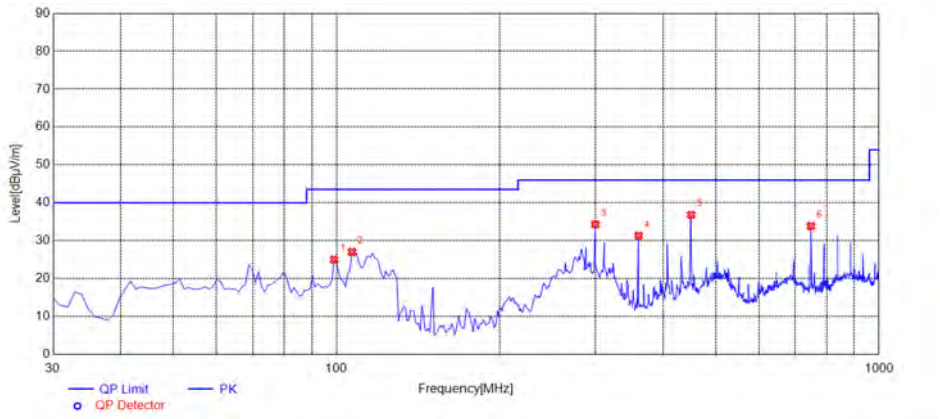
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
60.1001	25.26	-30.55	40.00	Horizontal	PASS
130.9810	32.10	-34.52	43.50	Horizontal	PASS
184.3844	34.58	-33.28	43.50	Horizontal	PASS
263.0330	35.94	-30.12	46.00	Horizontal	PASS
339.7397	34.79	-27.56	46.00	Horizontal	PASS
605.7858	30.13	-22.06	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



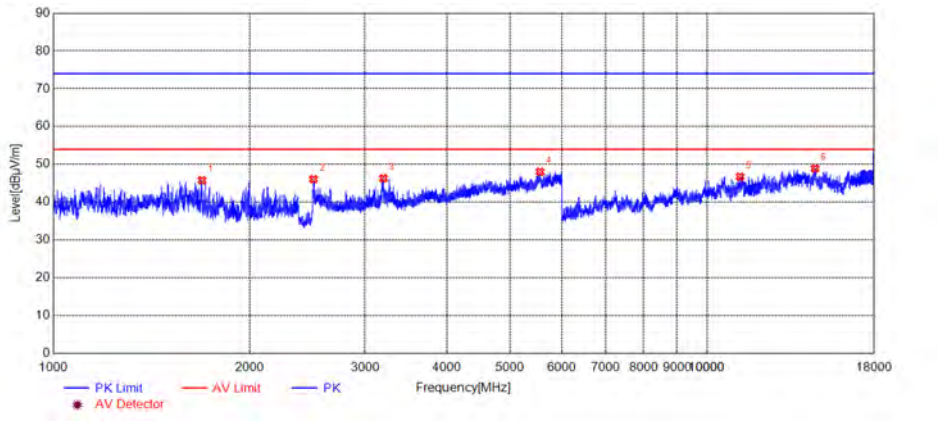
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1058.0058	50.30	-24.14	74.00	Horizontal	PASS
2099.6100	46.35	-21.76	74.00	Horizontal	PASS
2537.6538	47.90	-20.21	74.00	Horizontal	PASS
3193.7194	46.35	-17.35	74.00	Horizontal	PASS
5554.4554	47.93	-8.38	74.00	Horizontal	PASS
14039.6040	48.56	6.77	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
98.9389	25.01	-31.10	43.50	Vertical	PASS
106.7067	27.02	-31.04	43.50	Vertical	PASS
299.9299	34.33	-29.23	46.00	Vertical	PASS
360.1301	31.33	-27.24	46.00	Vertical	PASS
450.4304	36.82	-25.35	46.00	Vertical	PASS
749.4895	33.87	-20.71	46.00	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1689.0689	45.81	-23.69	74.00	Vertical	PASS
2501.6502	46.08	-20.31	74.00	Vertical	PASS
3199.7200	46.31	-17.28	74.00	Vertical	PASS
5553.4553	48.03	-8.34	74.00	Vertical	PASS
11232.5233	46.77	3.48	74.00	Vertical	PASS
14627.6628	48.89	7.29	74.00	Vertical	PASS

(Antenna Vertical, 1GHz to 18GHz)

END OF REPORT