REPORT No.: SZ24060281W02

TEST REPORT

APPLICANT	:	Anker Innovations Limited
PRODUCT NAME	:	eufy Smart Lock C34
MODEL NAME	:	T85D2
BRAND NAME	:	eufy
FCC ID	:	2AOKB-T85D2
STANDARD(S)	:	47 CFR Part 15 Subpart C
RECEIPT DATE	:	2024-06-27
TEST DATE	:	2024-07-04 to 2024-08-01
ISSUE DATE	:	2024-08-19

Edited by: Peng Mi (Rapporteur)

Approved by: Shen Junsheng (Supervisor)

MORLAB

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DIRECTORY

Change History		
Version	**Date**	**Reason for change**
1.0	2024-08-19	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. 30, 2024	Su Xiaoxian	PASS	No deviation
3	15.247(b)	Maximum Peak Conducted Output Power	Jul. 30, 2024	Su Xiaoxian	PASS	No deviation
4	15.247(b)	Maximum Average Conducted Output Power	Jul. 30, 2024	Su Xiaoxian	PASS	No deviation
5	15.247(a)	Bandwidth	Jul. 30, 2024	Su Xiaoxian	PASS	No deviation
6	15.247(d)	Conducted Spurious Emission and Band Edge	Jul. 30, 2024	Su Xiaoxian	PASS	No deviation
7	15.247(e)	Power Spectral Density	Jul. 30, 2024	Su Xiaoxian	PASS	No deviation
8	15.207	Conducted Emission	Jul. 12, 2024	Wang Deyong	PASS	No deviation
9	15.247(d)	Restricted Frequency Bands	Aug. 01, 2024	Yang Lian	PASS	No deviation
10	15.209, 15.247(d)	Radiated Emission	Aug. 01, 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	2024.07.02	2025.07.01

1.2.3 List of Software Used

Description	Manufacturer	Software Version
Test System	MaiWei	2.0.0.0
TS+ -[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	Anker Innovations Limited
Applicant Address	Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong
Manufacturer	Anker Innovations Limited
Manufacturer Address	Unit 56, 8th Floor, Tower 2, Admiralty Centre, 18 Harcourt Road, Hong Kong

2.2. Information of EUT

Product Name:	eufy Smart Lock C34
Sample No.:	1#; 2#
Hardware Version:	V1
Software Version:	V1.0.0.0
Modulation Technology:	DSSS, OFDM
Modulation Type:	Refer to section 1.3
Operating Frequency Range:	802.11b/g/n (HT20): 2412MHz–2462MHz
Antenna Type:	PIFA Antenna
Antenna Gain:	3.5dBi

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

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.

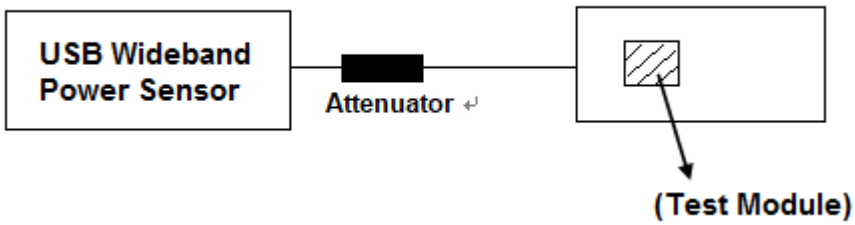
2.5. Test Conditions

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

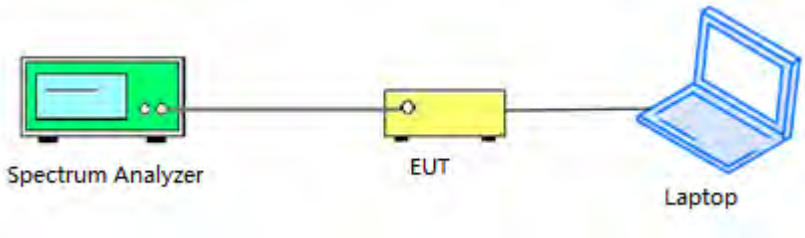
2.6. Test Setup Layout Diagram

2.6.1.Conducted Measurement

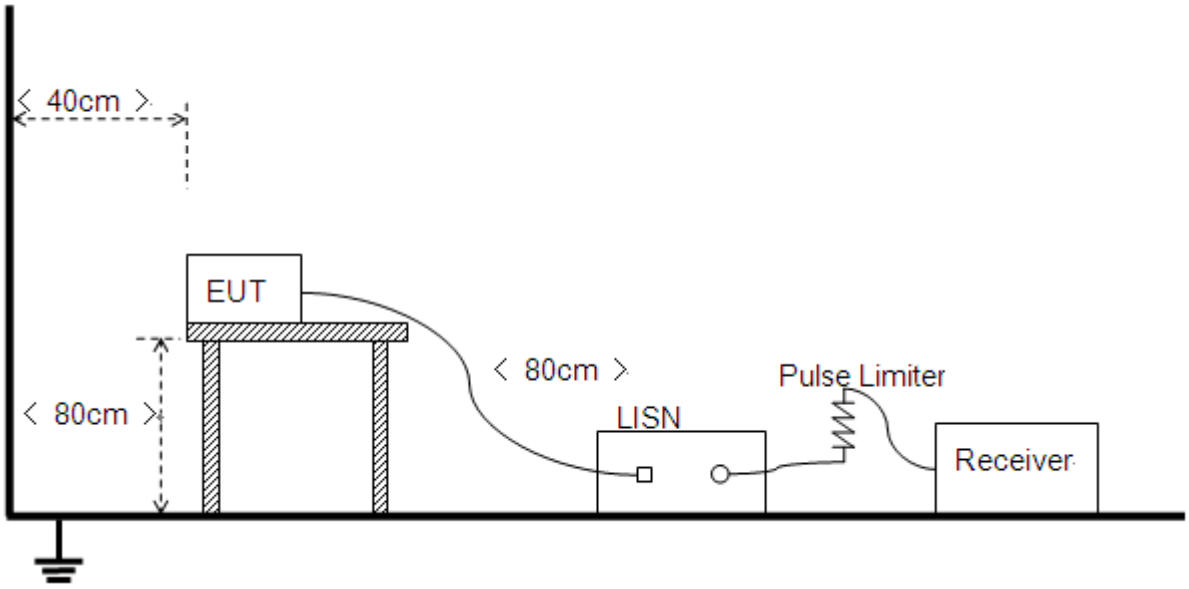
Power item



Other items

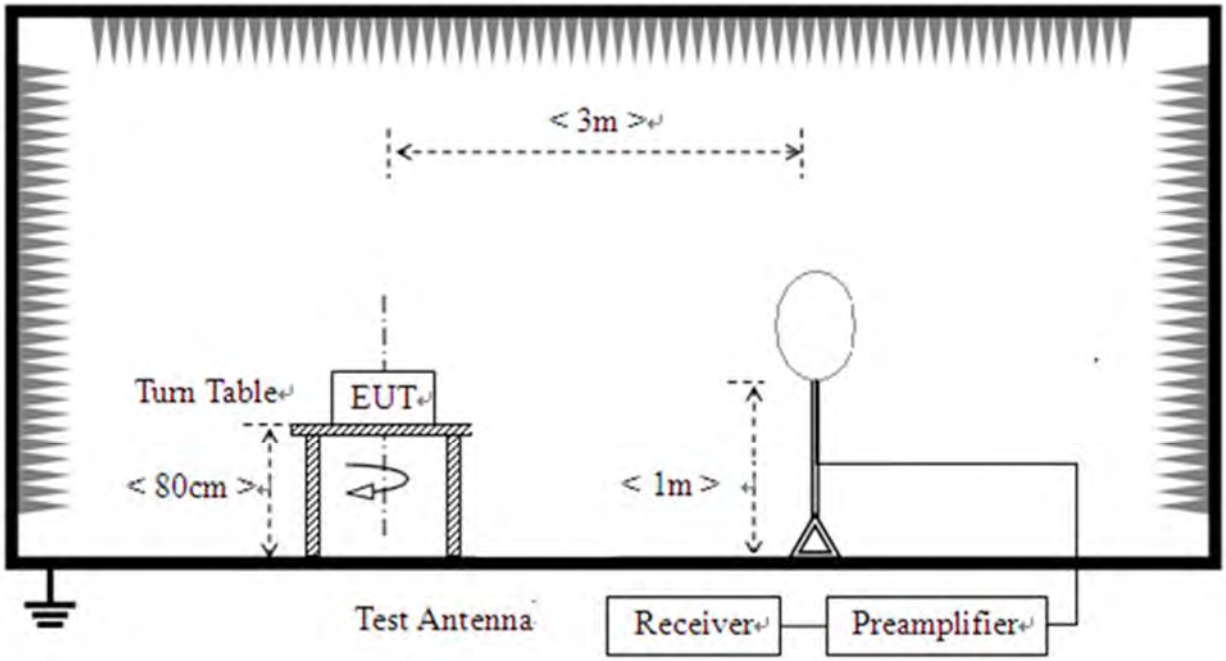


2.6.2.Conducted Emission Measurement

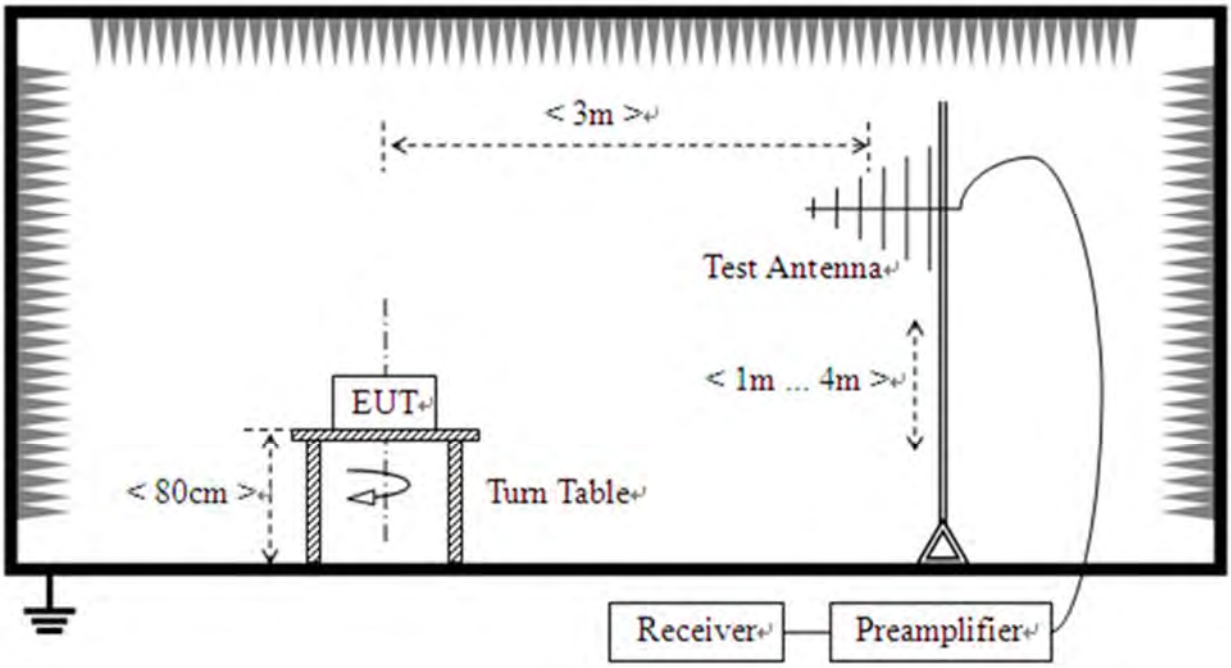


2.6.3.Radiation Measurement

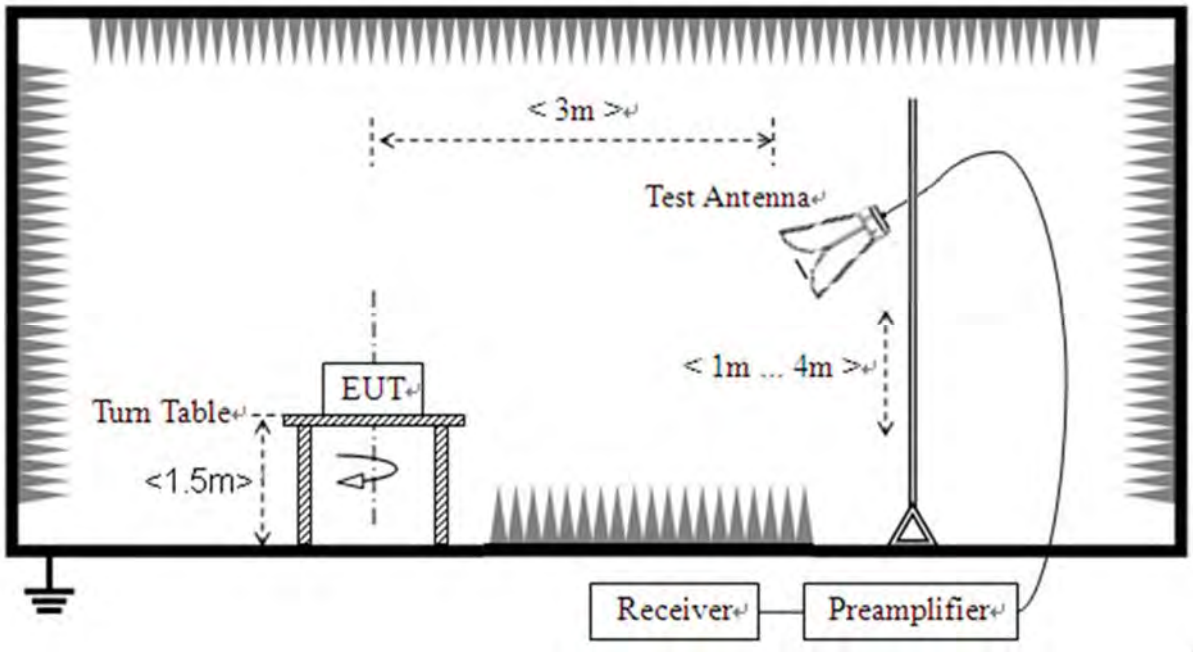
1) For radiated emissions from 9kHz to 30MHz



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

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

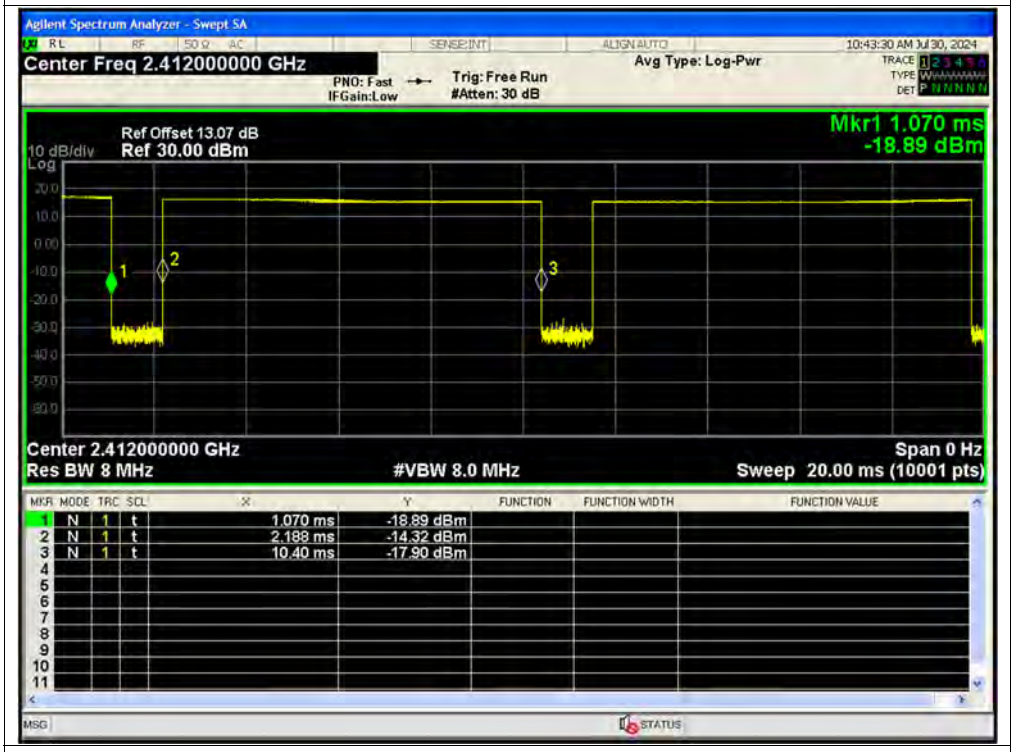
Refer to Annex A.10 in this report.

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	88.02	0.55	0.12
NVNT	b	2437	Ant1	88.05	0.55	0.12
NVNT	b	2462	Ant1	88.07	0.55	0.12
NVNT	g	2412	Ant1	55.05	2.59	0.73
NVNT	g	2437	Ant1	54.93	2.6	0.74
NVNT	g	2462	Ant1	54.93	2.6	0.74
NVNT	n20	2412	Ant1	53.2	2.74	0.79
NVNT	n20	2437	Ant1	53.15	2.74	0.79
NVNT	n20	2462	Ant1	53.24	2.74	0.79

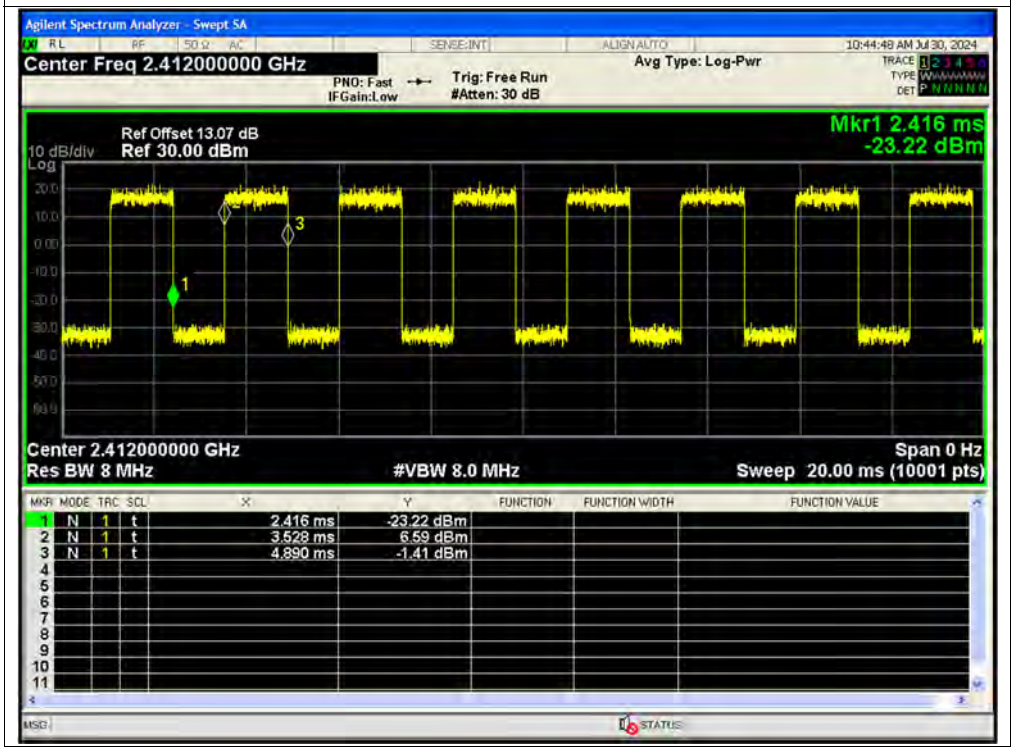
Test Graphs
Duty Cycle NVNT b 2412MHz Ant1



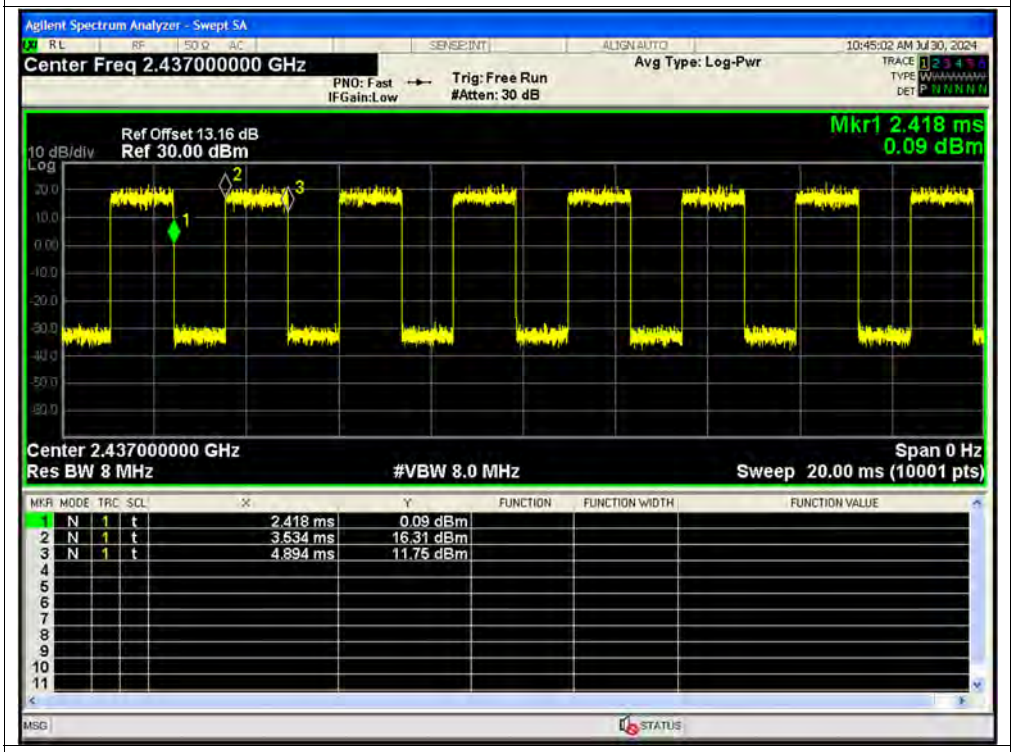
Duty Cycle NVNT b 2437MHz Ant1

Duty Cycle NVNT b 2462MHz Ant1

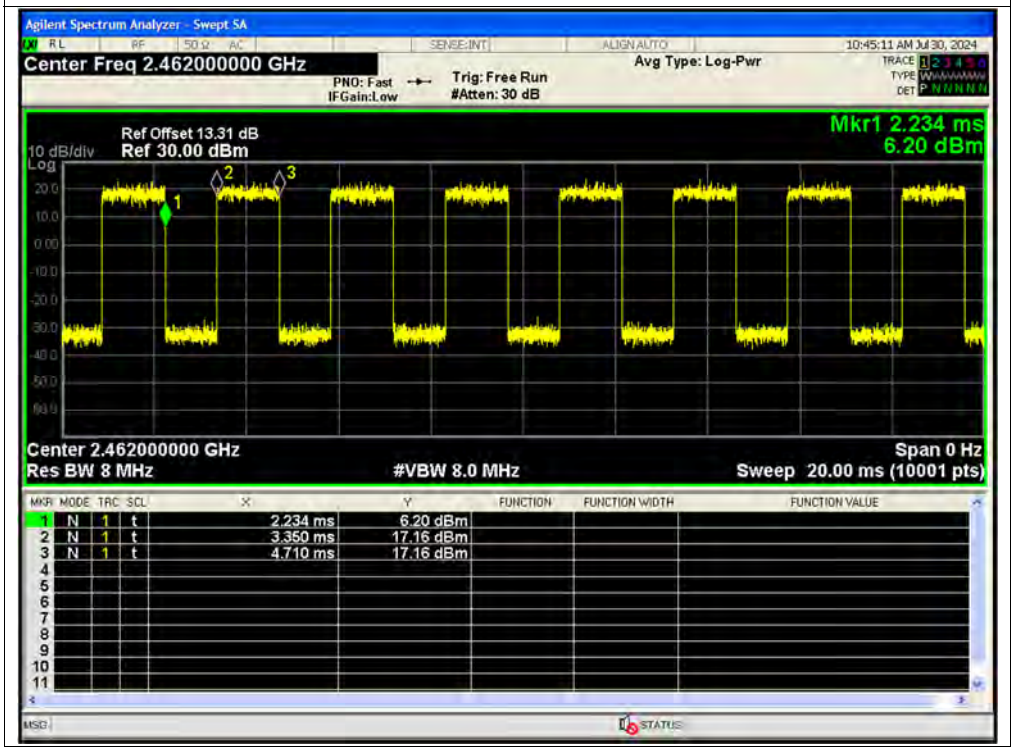
Duty Cycle NVNT g 2412MHz Ant1



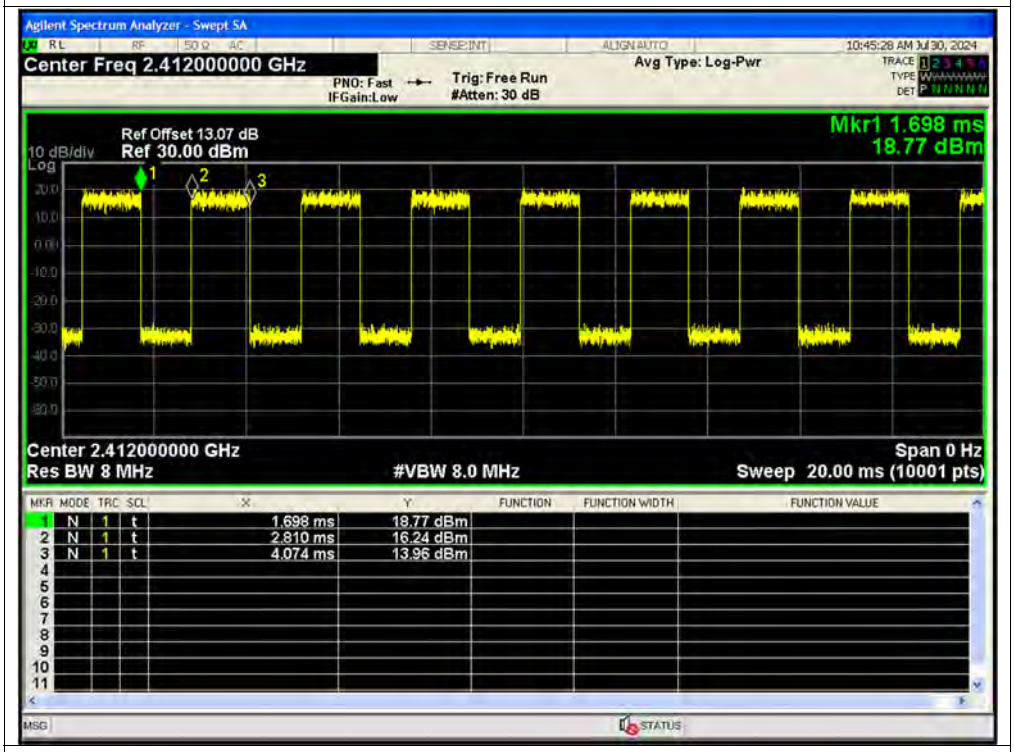
Duty Cycle NVNT g 2437MHz Ant1



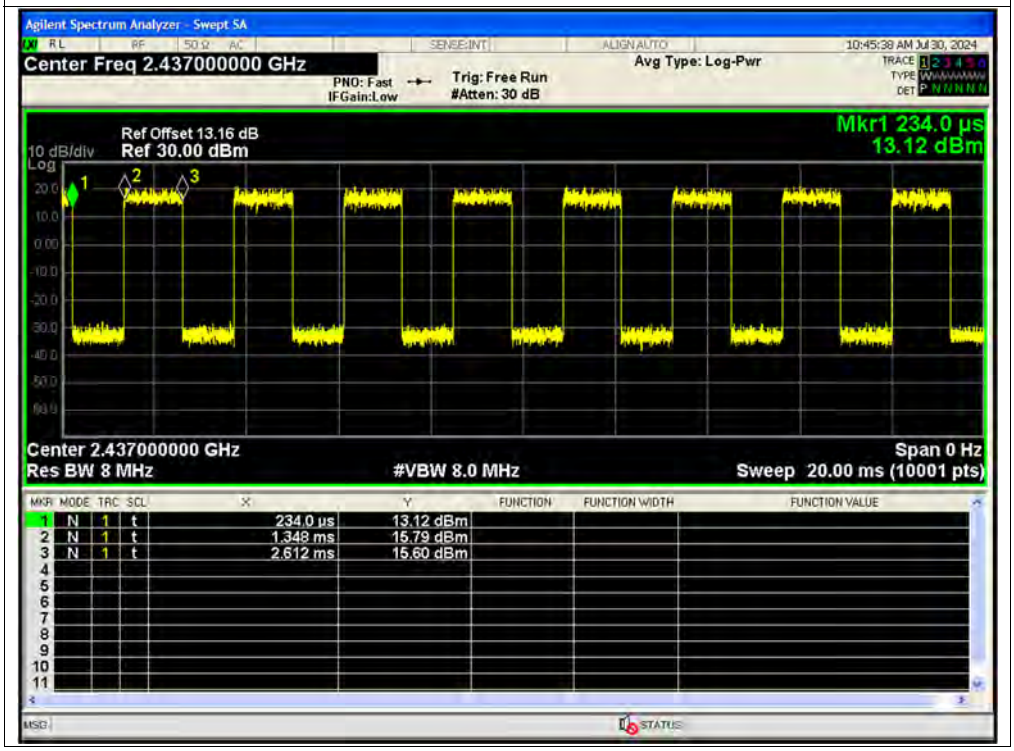
Duty Cycle NVNT g 2462MHz Ant1



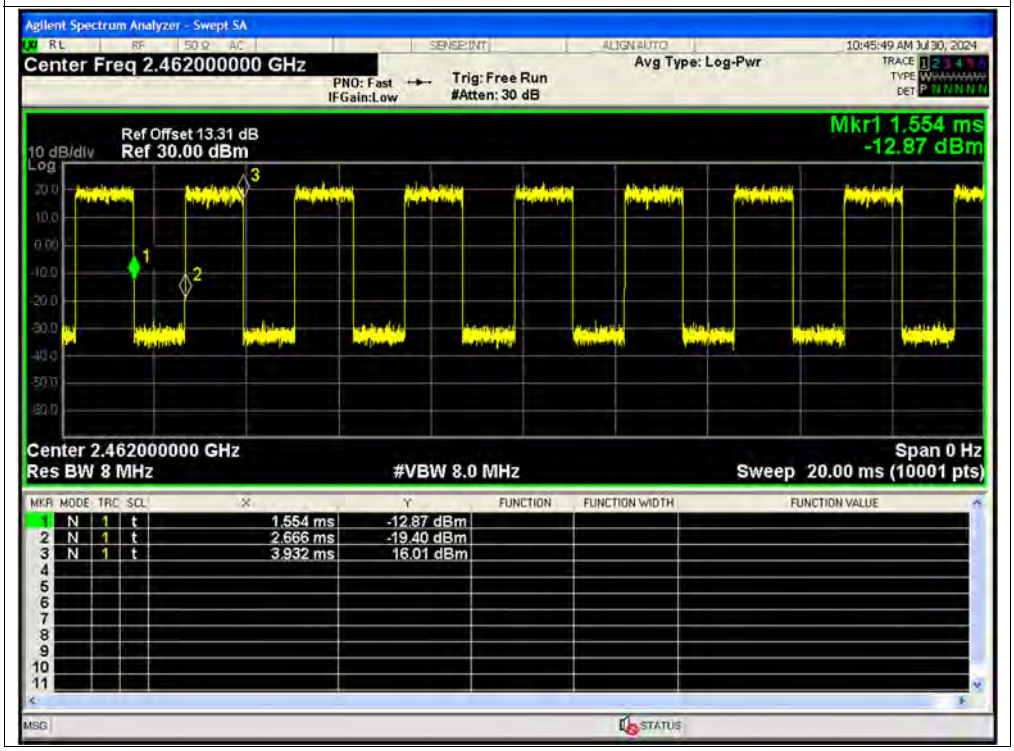
Duty Cycle NVNT n20 2412MHz Ant1



Duty Cycle NVNT n20 2437MHz Ant1



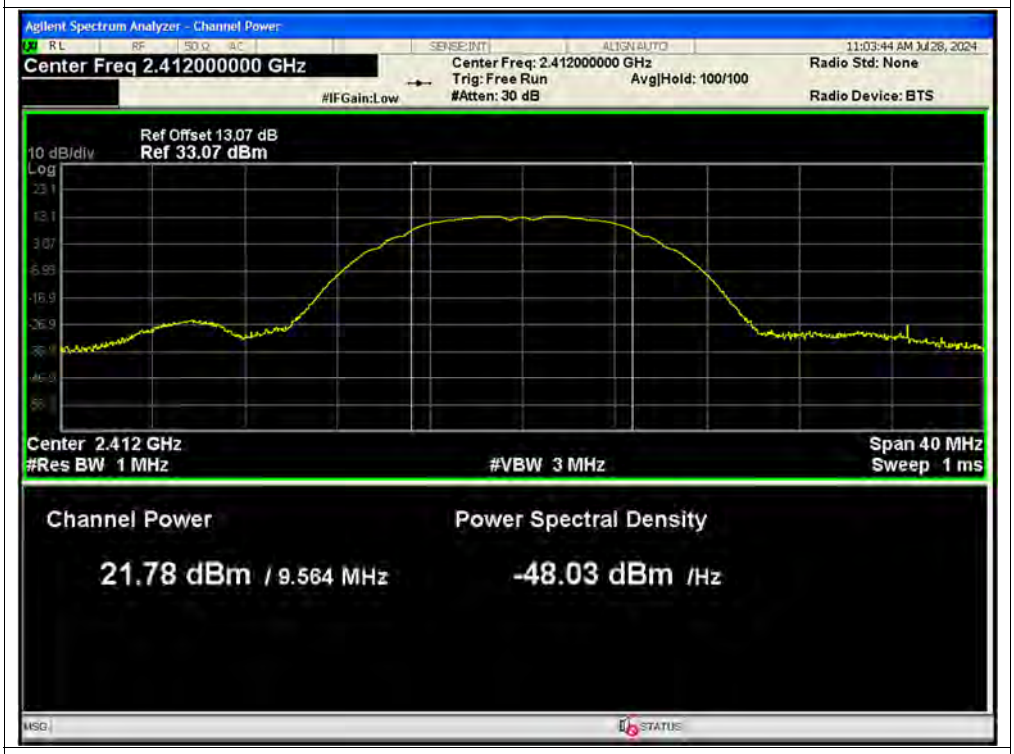
Duty Cycle NVNT n20 2462MHz Ant1



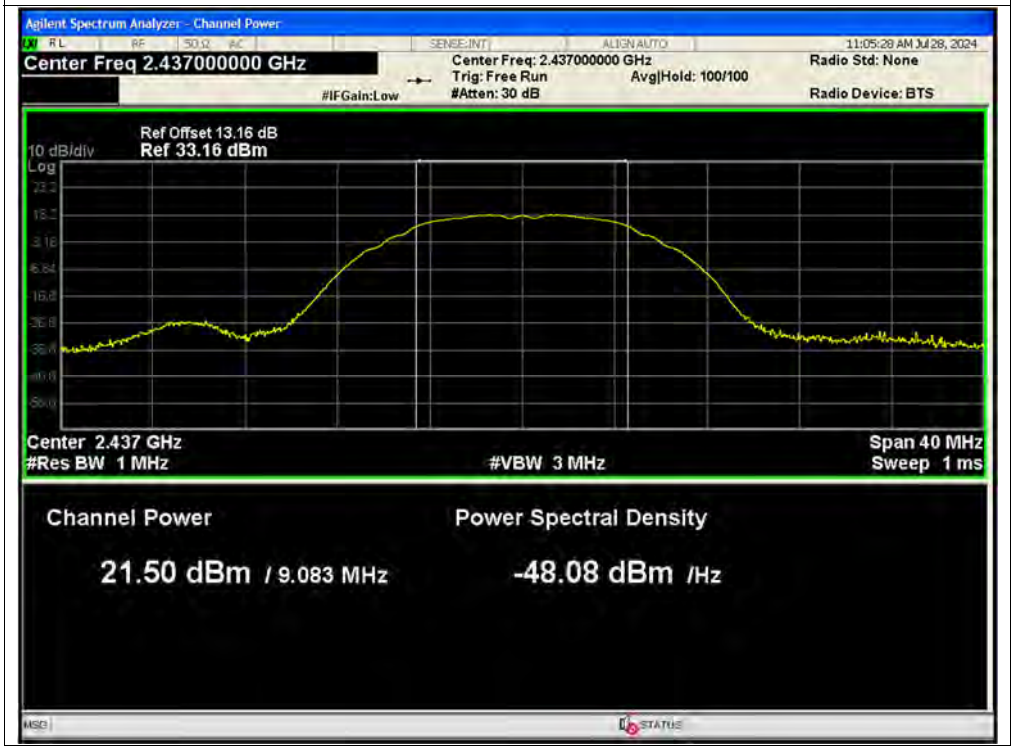
A.2. Maximum Peak Conducted Output Power

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	21.78	0	21.78	0.15066	30	Pass
NVNT	b	2437	Ant1	21.5	0	21.5	0.14125	30	Pass
NVNT	b	2462	Ant1	22.28	0	22.28	0.16904	30	Pass
NVNT	g	2412	Ant1	23.56	0	23.56	0.22699	30	Pass
NVNT	g	2437	Ant1	24.19	0	24.19	0.26242	30	Pass
NVNT	g	2462	Ant1	23.81	0	23.81	0.24044	30	Pass
NVNT	n20	2412	Ant1	23.32	0	23.32	0.21478	30	Pass
NVNT	n20	2437	Ant1	24.02	0	24.02	0.25235	30	Pass
NVNT	n20	2462	Ant1	24.4	0	24.4	0.27542	30	Pass

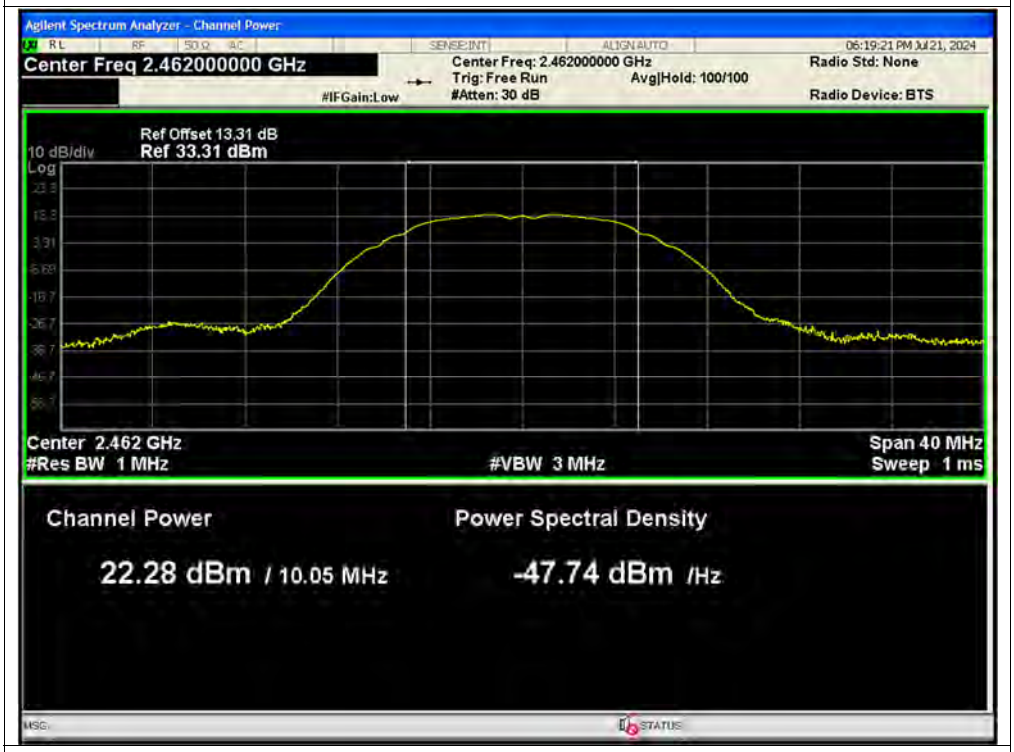
Test Graphs
Peak Power NVNT b 2412MHz Ant1



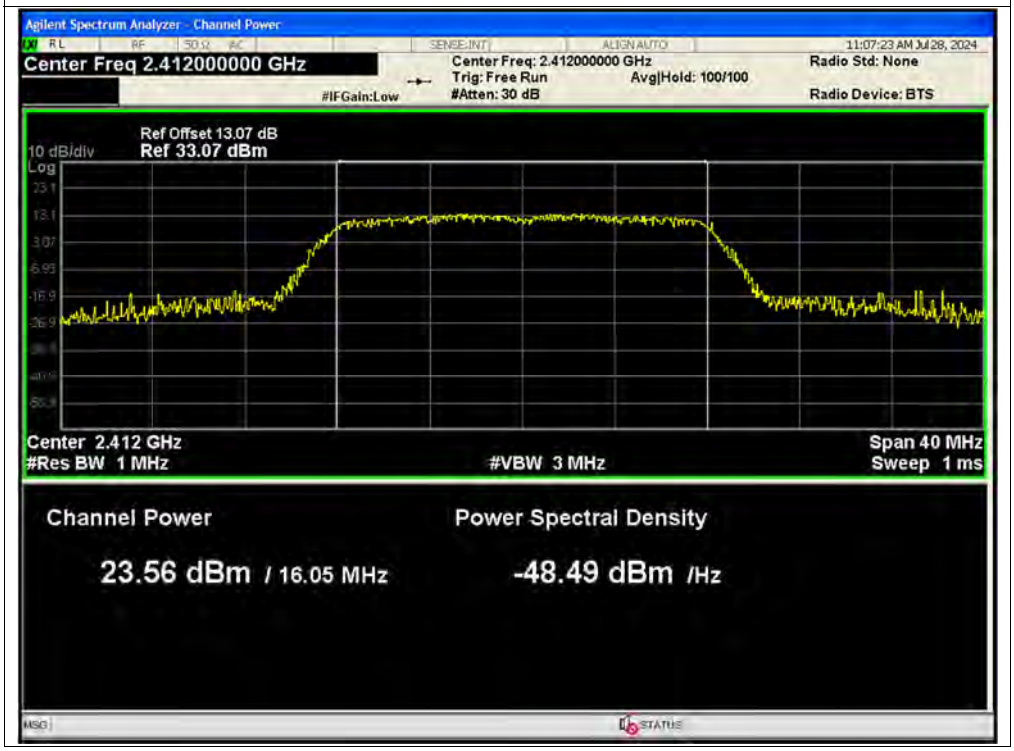
Peak Power NVNT b 2437MHz Ant1



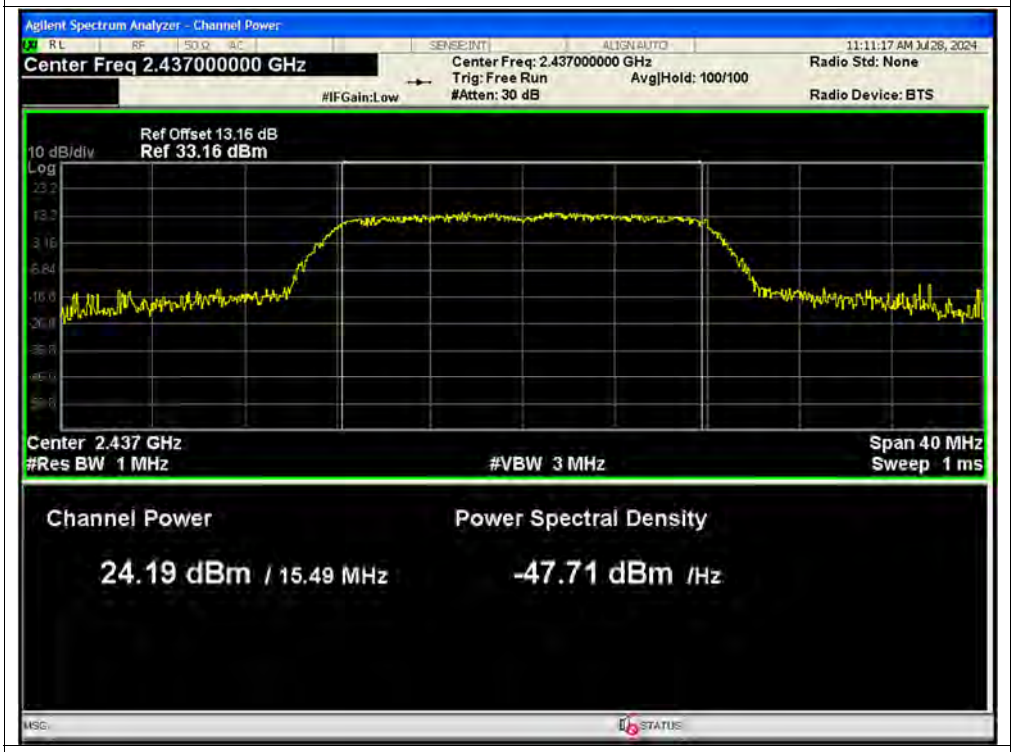
Peak Power NVNT b 2462MHz Ant1



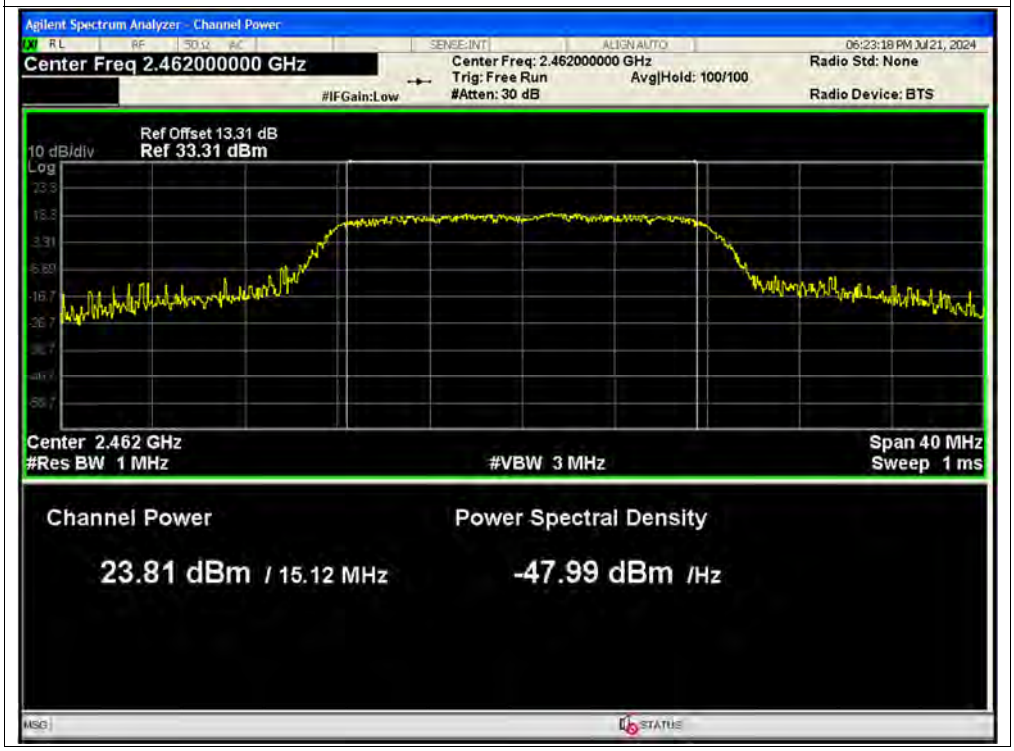
Peak Power NVNT g 2412MHz Ant1



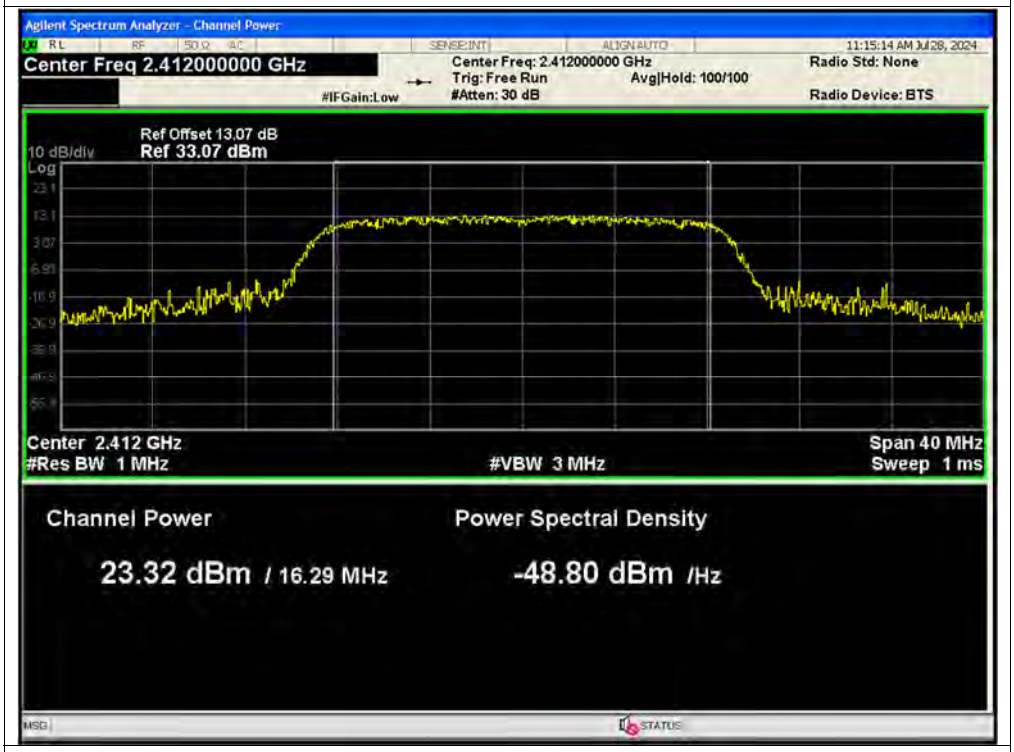
Peak Power NVNT g 2437MHz Ant1



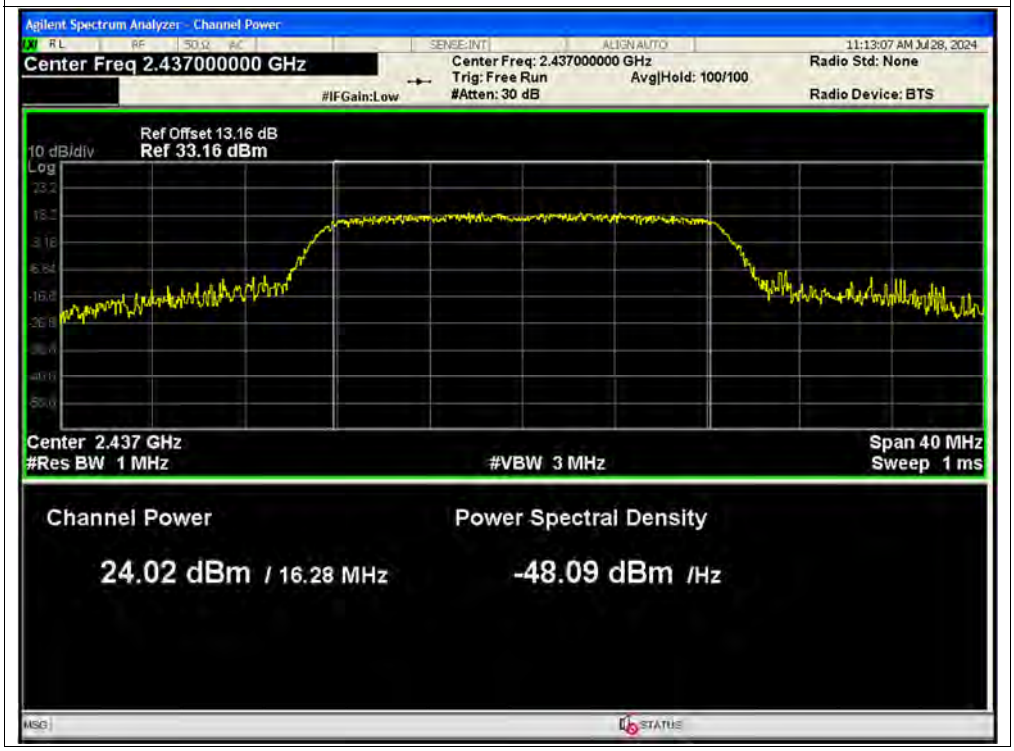
Peak Power NVNT g 2462MHz Ant1

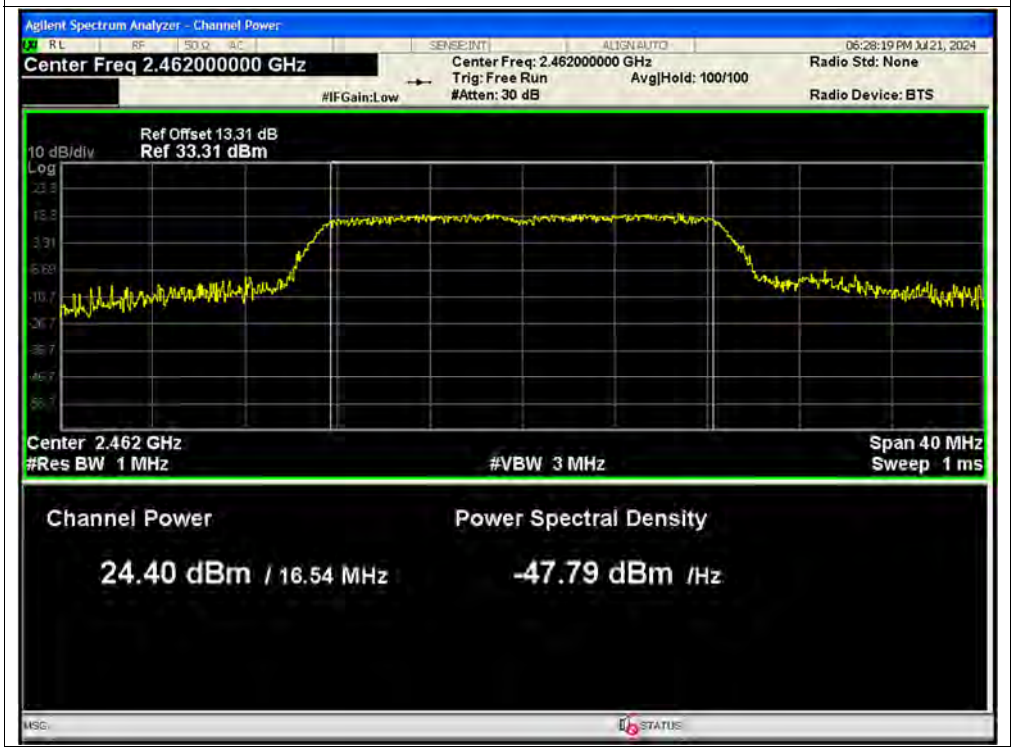


Peak Power NVNT n20 2412MHz Ant1



Peak Power NVNT n20 2437MHz Ant1

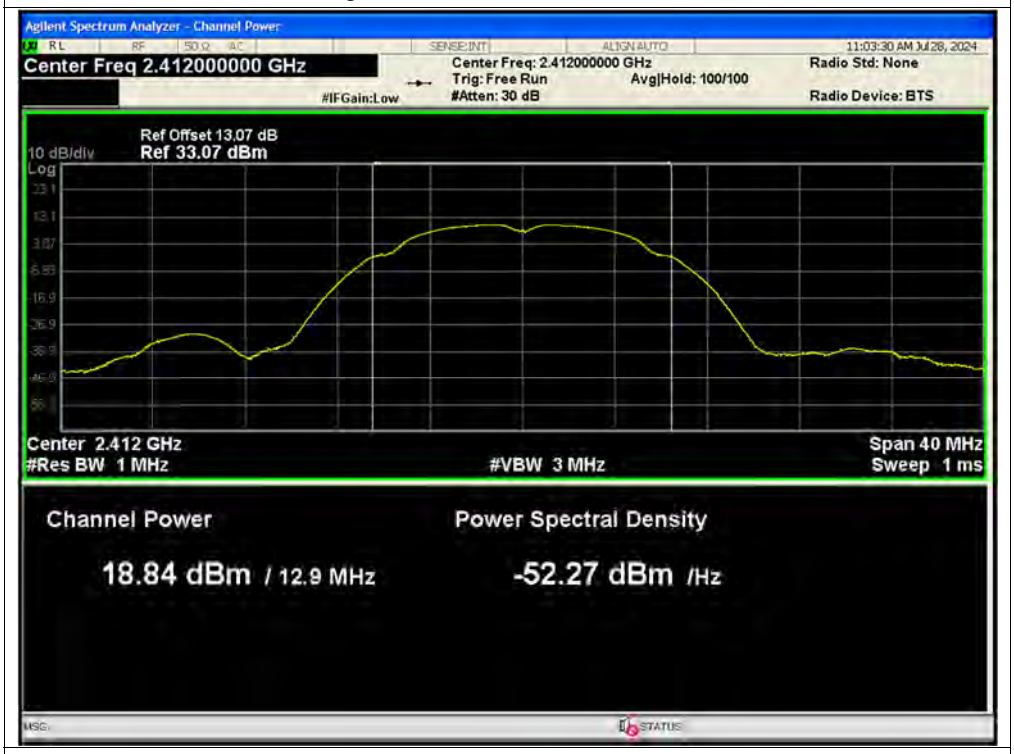


Peak Power NVNT n20 2462MHz Ant1


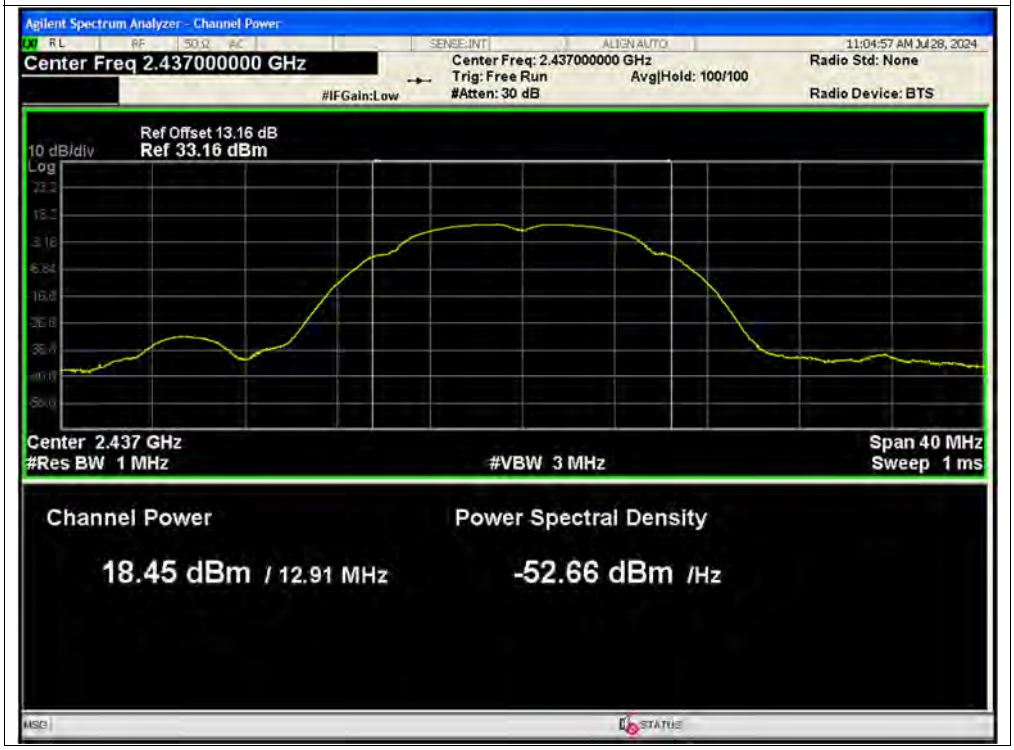
A.3. Maximum Average Conducted Output Power

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	18.84	0.55	19.39	0.08690	30	Pass
NVNT	b	2437	Ant1	18.45	0.55	19	0.07943	30	Pass
NVNT	b	2462	Ant1	18.95	0.55	19.5	0.08913	30	Pass
NVNT	g	2412	Ant1	14.91	2.59	17.5	0.05623	30	Pass
NVNT	g	2437	Ant1	14.46	2.6	17.06	0.05082	30	Pass
NVNT	g	2462	Ant1	14.71	2.6	17.31	0.05383	30	Pass
NVNT	n20	2412	Ant1	14.75	2.74	17.49	0.05610	30	Pass
NVNT	n20	2437	Ant1	14.61	2.74	17.35	0.05433	30	Pass
NVNT	n20	2462	Ant1	14.68	2.74	17.42	0.05521	30	Pass

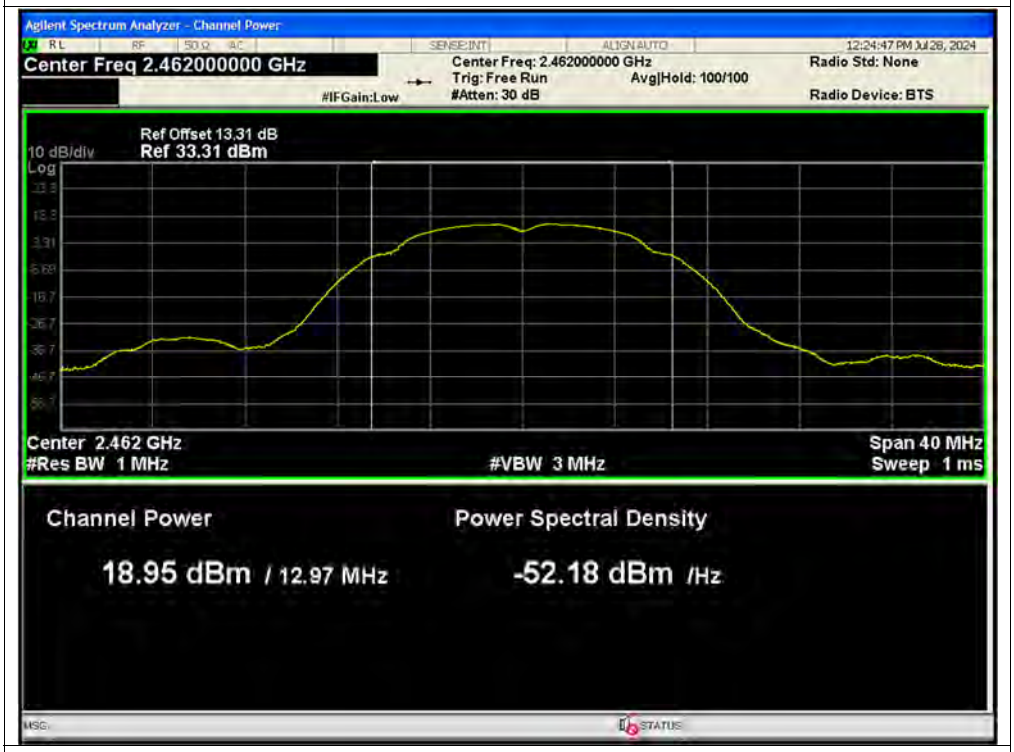
Test Graphs
Average Power NVNT b 2412MHz Ant1



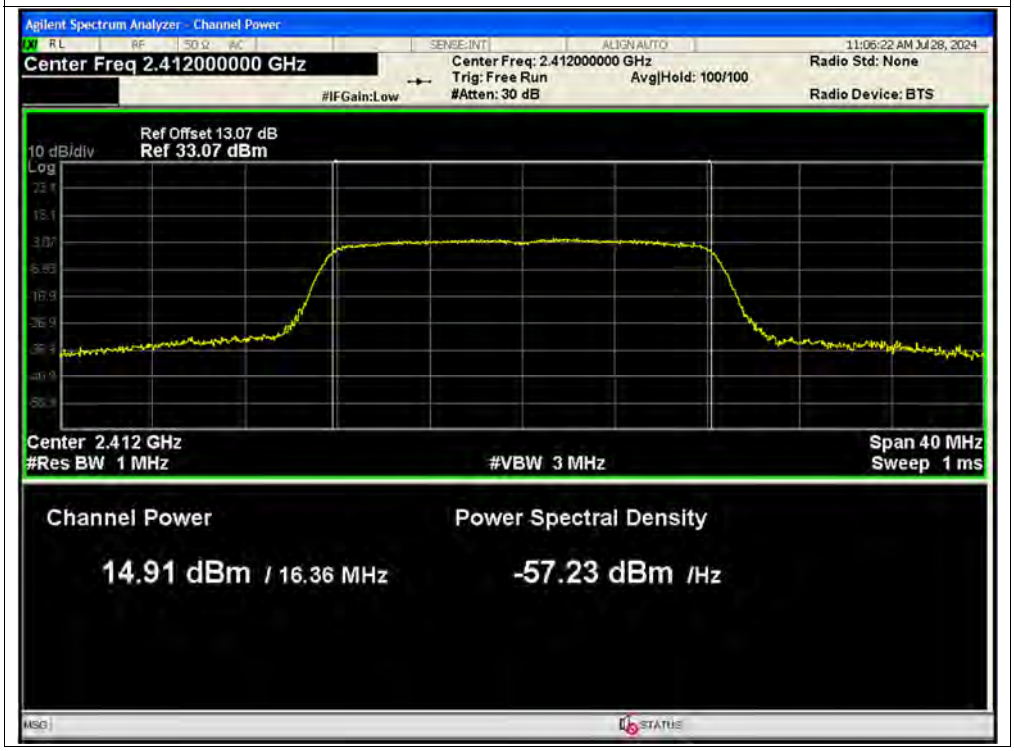
Average Power NVNT b 2437MHz Ant1



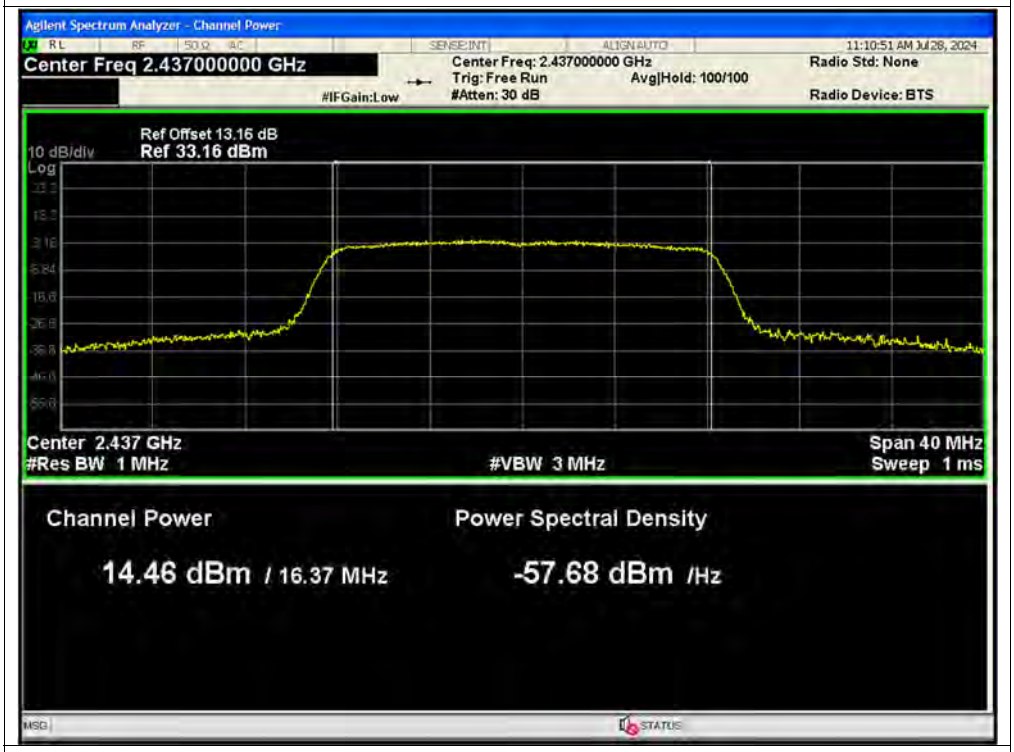
Average Power NVNT b 2462MHz Ant1



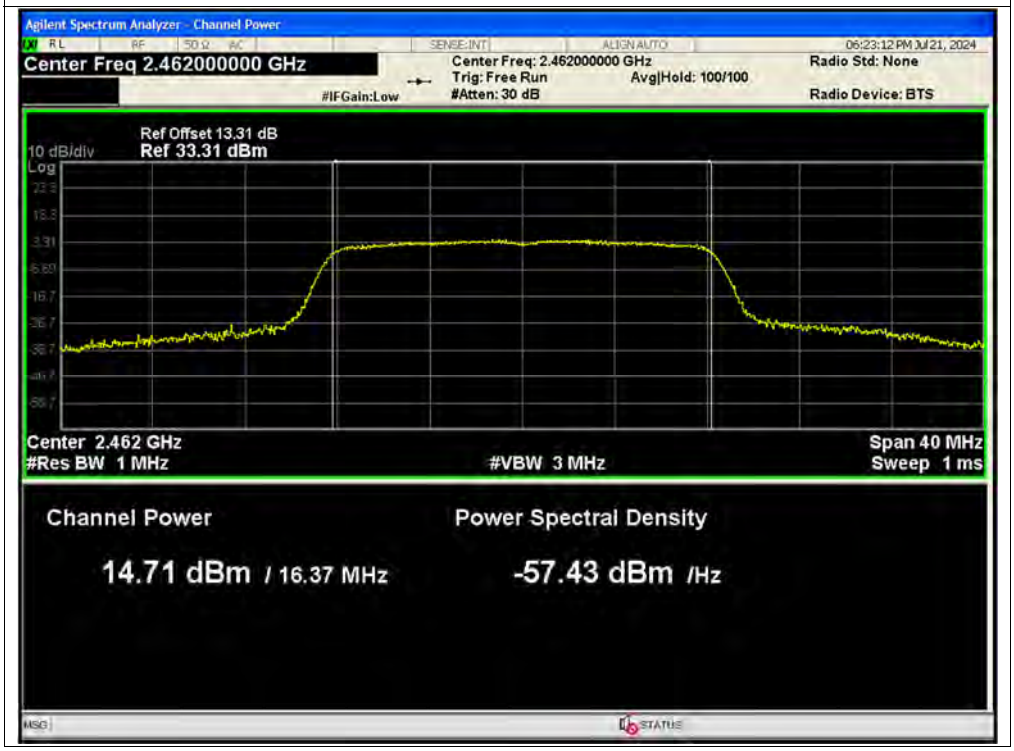
Average Power NVNT g 2412MHz Ant1



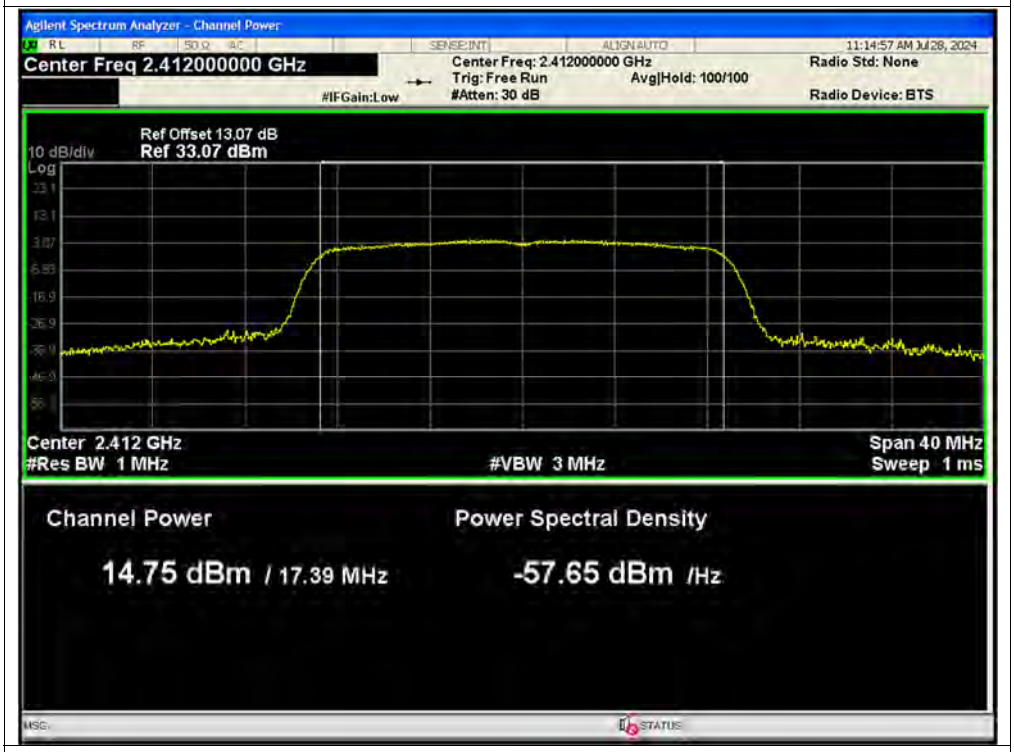
Average Power NVNT g 2437MHz Ant1



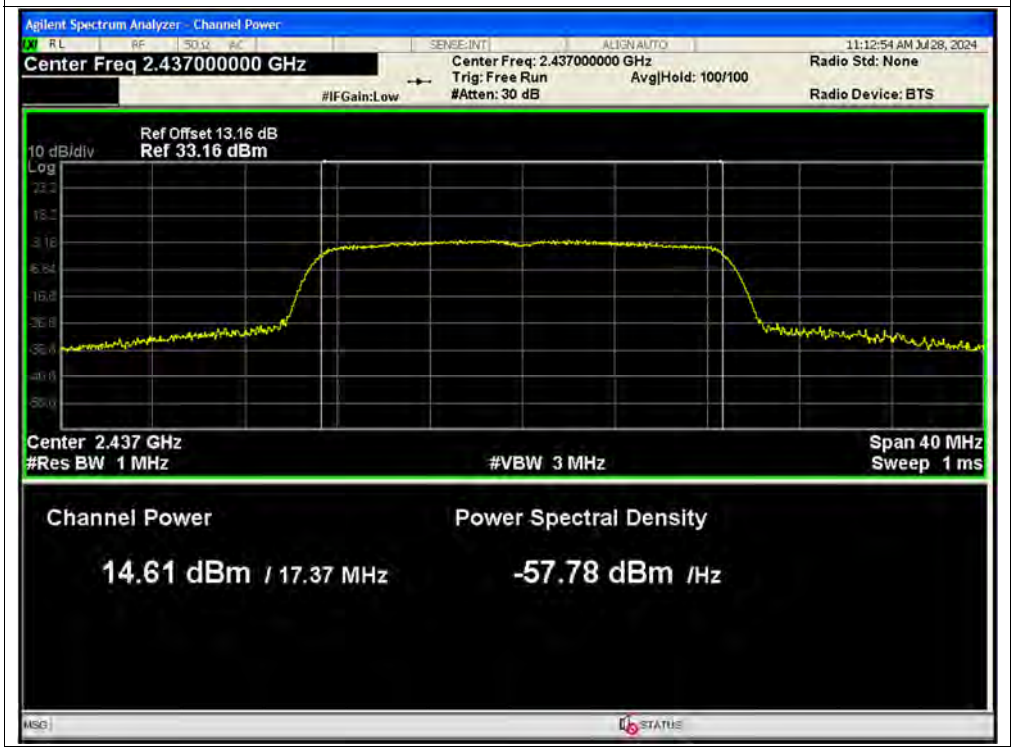
Average Power NVNT g 2462MHz Ant1

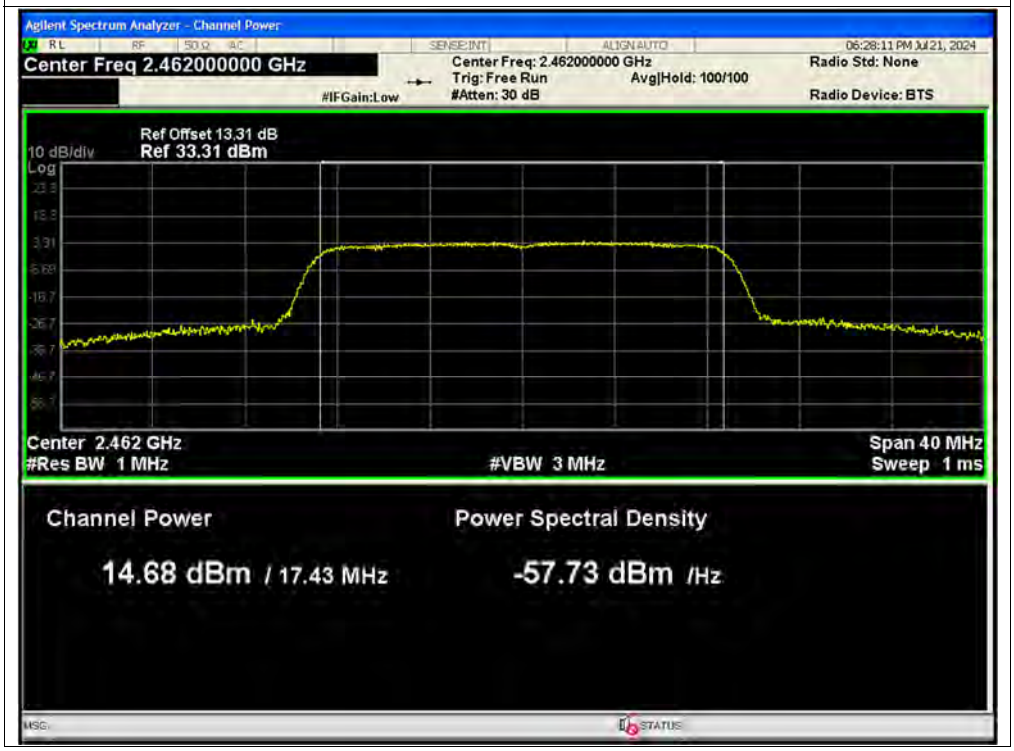


Average Power NVNT n20 2412MHz Ant1



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	9.564	0.5	Pass
NVNT	b	2437	Ant1	9.083	0.5	Pass
NVNT	b	2462	Ant1	10.053	0.5	Pass
NVNT	g	2412	Ant1	16.047	0.5	Pass
NVNT	g	2437	Ant1	15.492	0.5	Pass
NVNT	g	2462	Ant1	15.122	0.5	Pass
NVNT	n20	2412	Ant1	16.288	0.5	Pass
NVNT	n20	2437	Ant1	16.279	0.5	Pass
NVNT	n20	2462	Ant1	16.538	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

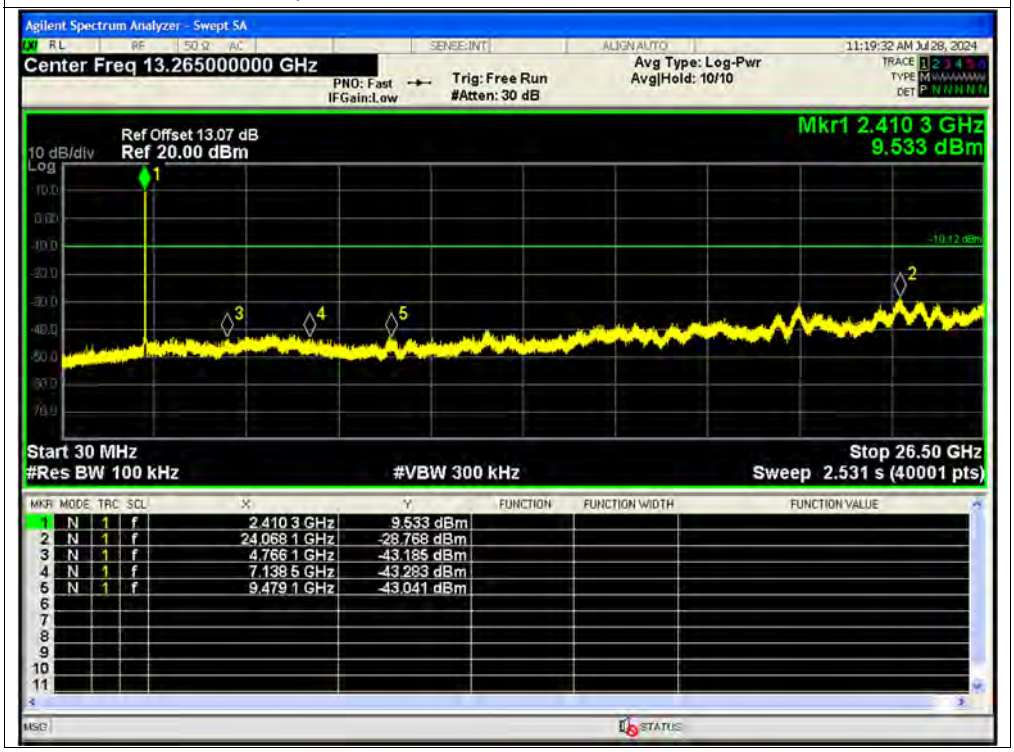
-6dB Bandwidth NVNT n20 2462MHz Ant1

A.5. Conducted Spurious Emissions

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-38.64	-20	Pass
NVNT	b	2437	Ant1	-38.69	-20	Pass
NVNT	b	2462	Ant1	-38.98	-20	Pass
NVNT	g	2412	Ant1	-34.24	-20	Pass
NVNT	g	2437	Ant1	-34.85	-20	Pass
NVNT	g	2462	Ant1	-33.88	-20	Pass
NVNT	n20	2412	Ant1	-35.51	-20	Pass
NVNT	n20	2437	Ant1	-34.64	-20	Pass
NVNT	n20	2462	Ant1	-33.81	-20	Pass

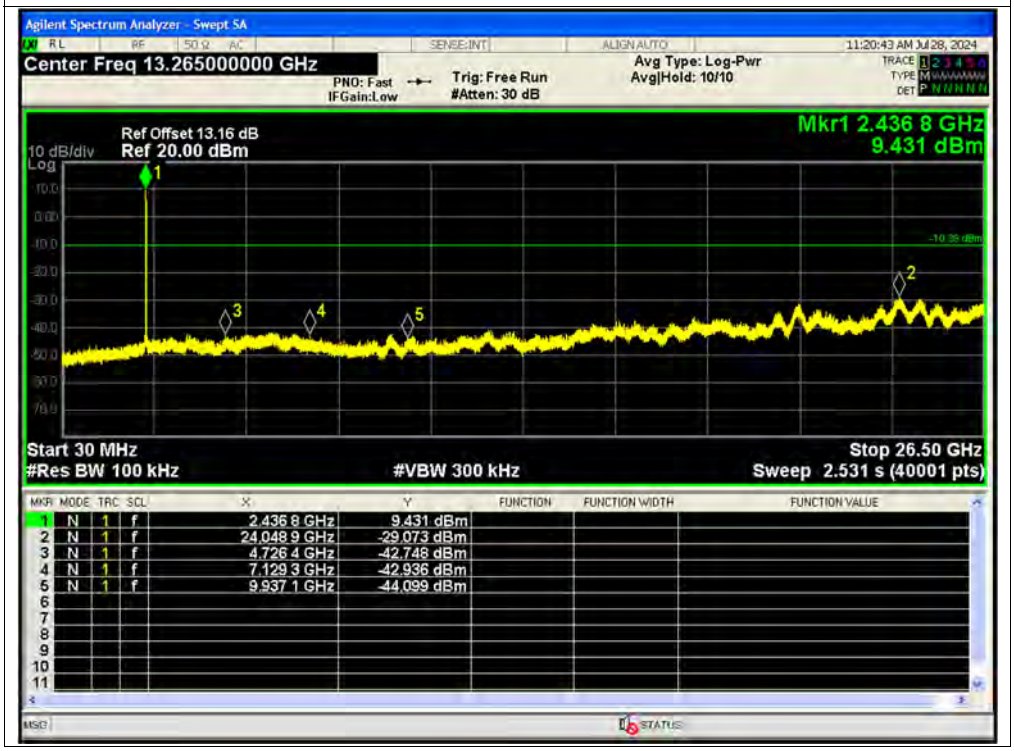
Test Graphs
Tx. Spurious NVNT b 2412MHz Ant1 Ref

Tx. Spurious NVNT b 2412MHz Ant1 Emission



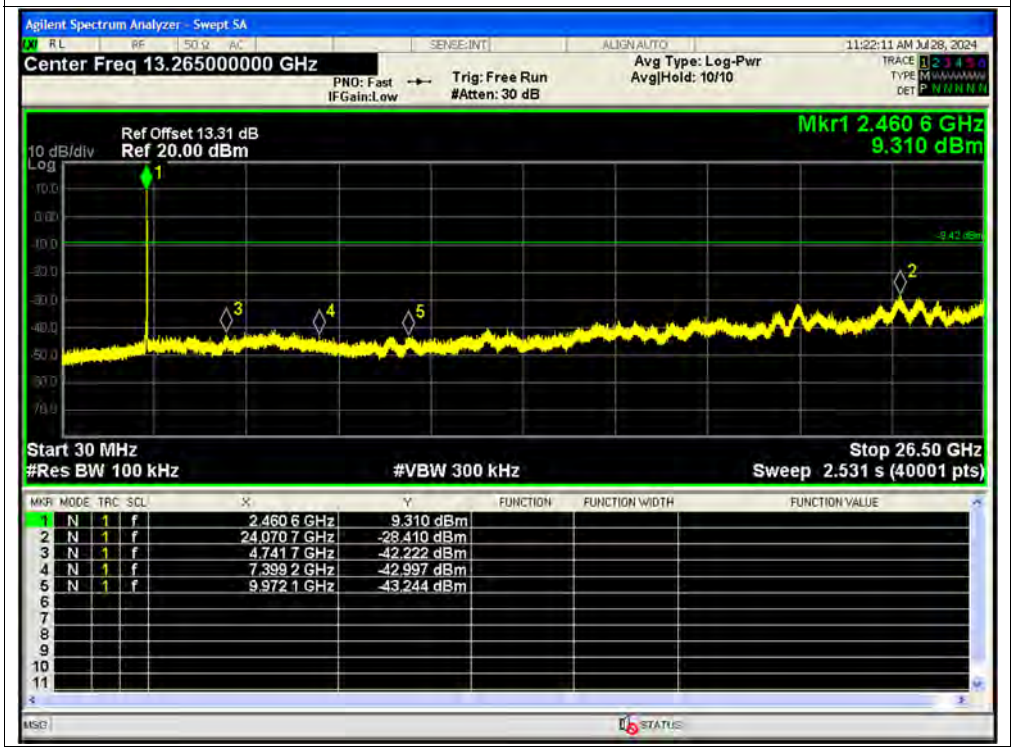
Tx. Spurious NVNT b 2437MHz Ant1 Ref

Tx. Spurious NVNT b 2437MHz Ant1 Emission



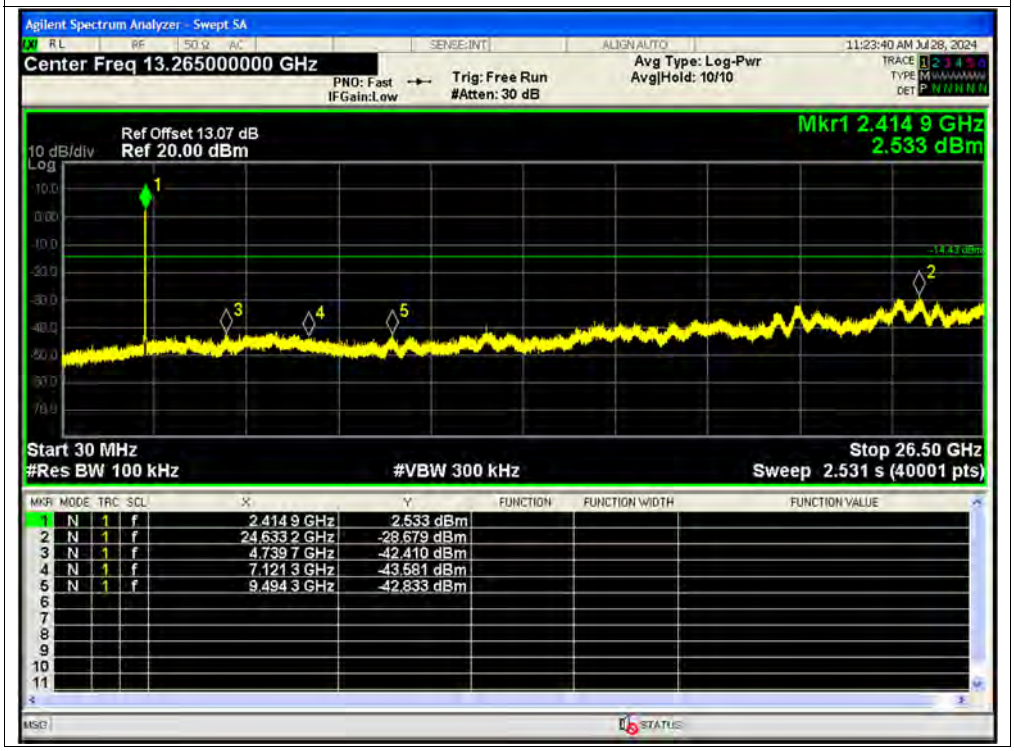
Tx. Spurious NVNT b 2462MHz Ant1 Ref

Tx. Spurious NVNT b 2462MHz Ant1 Emission



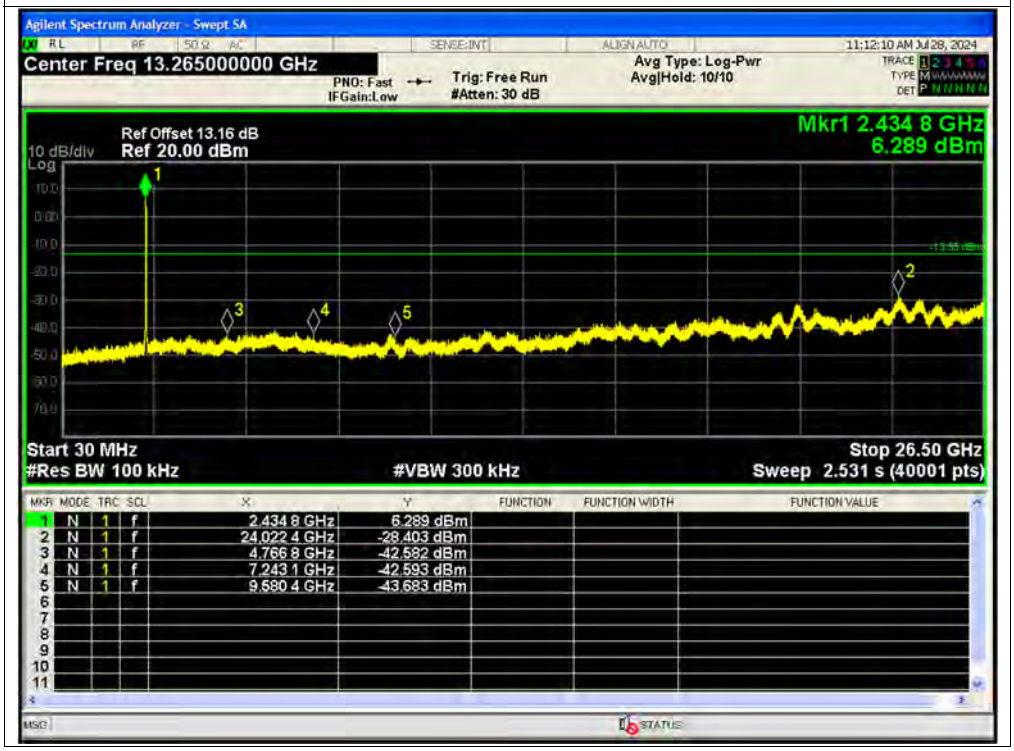
Tx. Spurious NVNT g 2412MHz Ant1 Ref

Tx. Spurious NVNT g 2412MHz Ant1 Emission



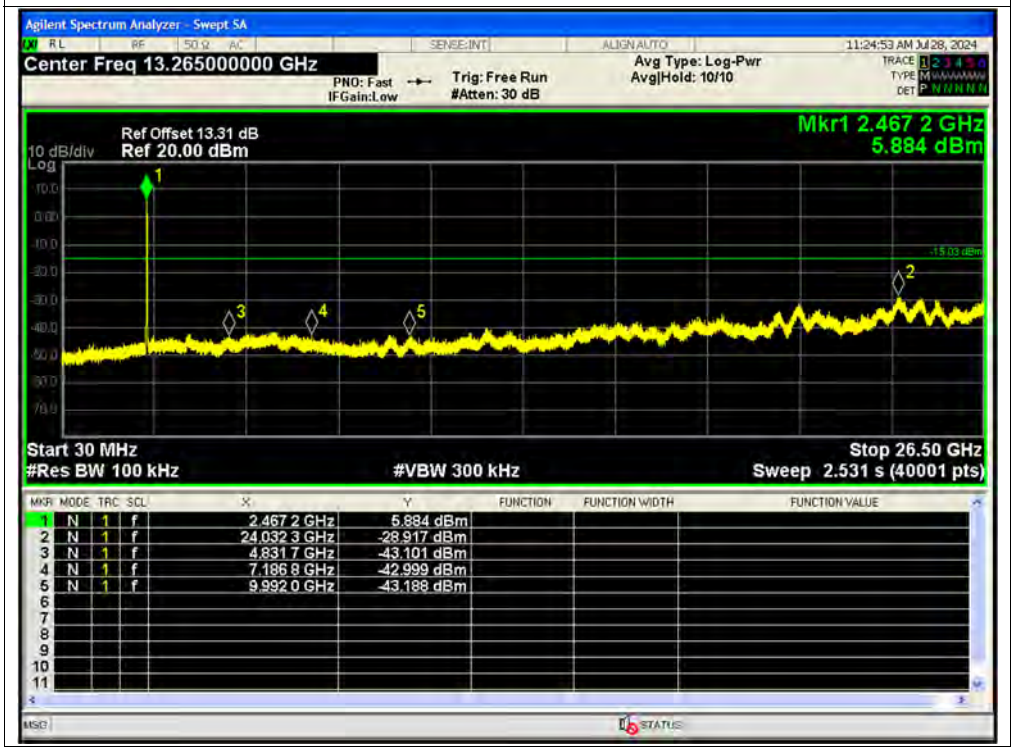
Tx. Spurious NVNT g 2437MHz Ant1 Ref

Tx. Spurious NVNT g 2437MHz Ant1 Emission



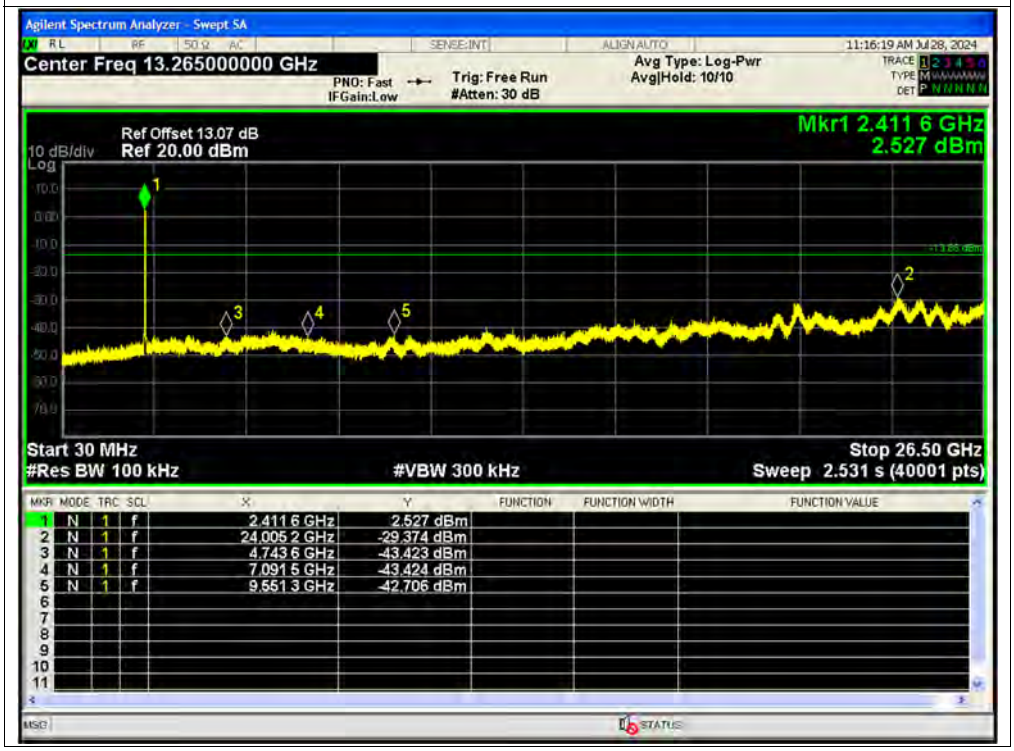
Tx. Spurious NVNT g 2462MHz Ant1 Ref

Tx. Spurious NVNT g 2462MHz Ant1 Emission



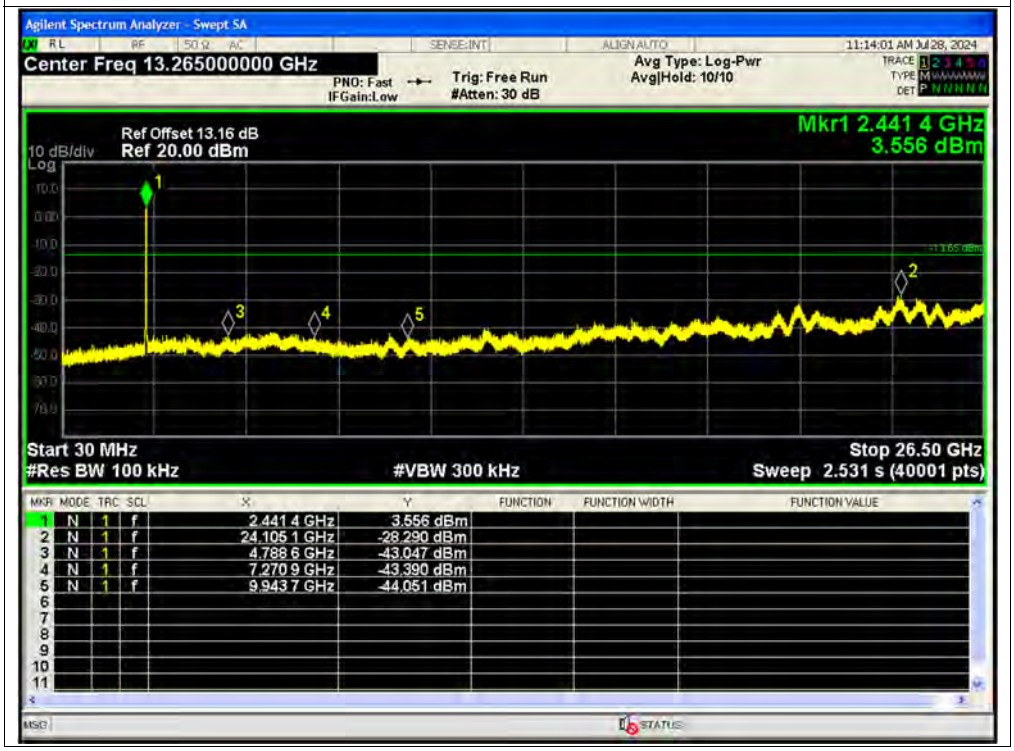
Tx. Spurious NVNT n20 2412MHz Ant1 Ref

Tx. Spurious NVNT n20 2412MHz Ant1 Emission



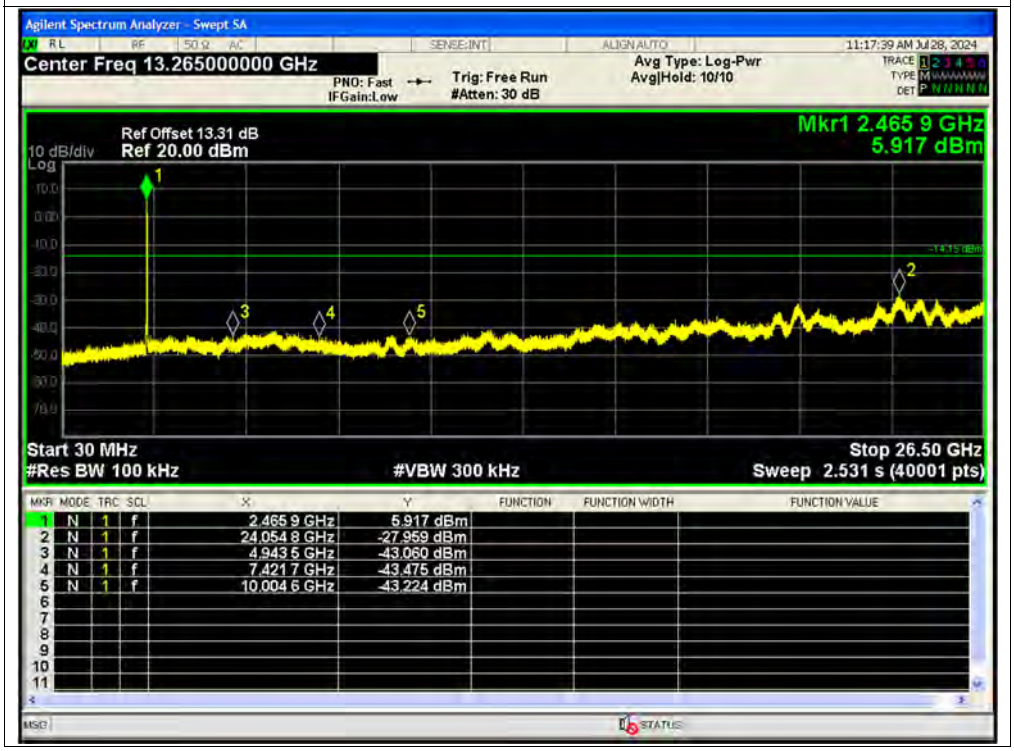
Tx. Spurious NVNT n20 2437MHz Ant1 Ref

Tx. Spurious NVNT n20 2437MHz Ant1 Emission



Tx. Spurious NVNT n20 2462MHz Ant1 Ref

Tx. Spurious NVNT n20 2462MHz Ant1 Emission

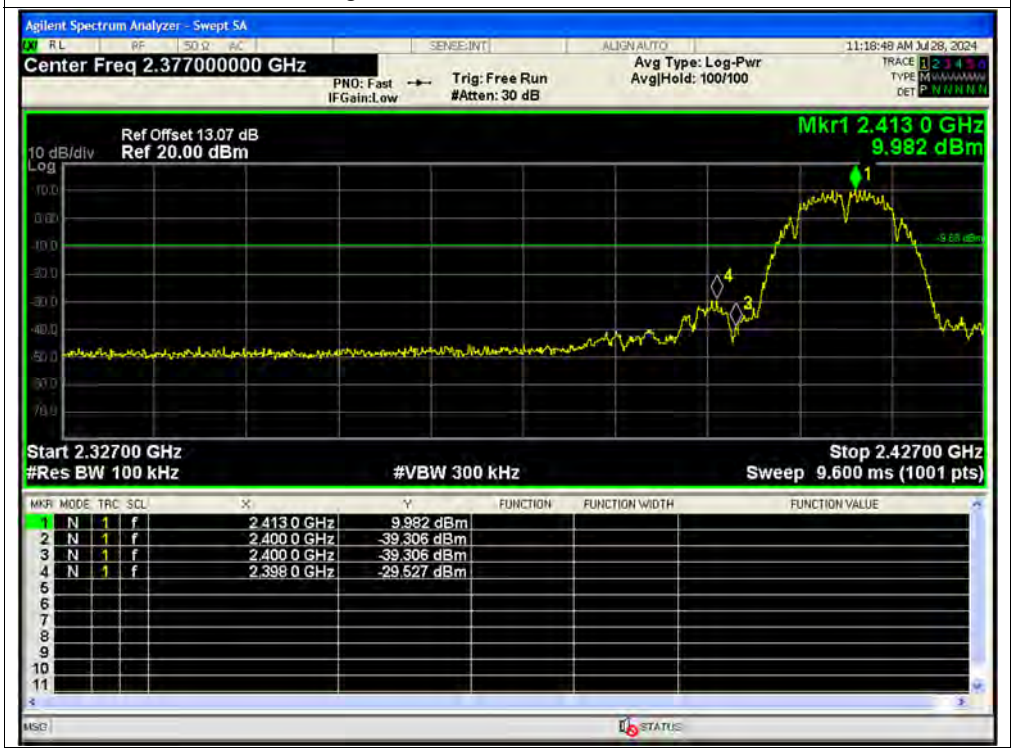


A.6. Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-39.84	-20	Pass
NVNT	b	2462	Ant1	-49.26	-20	Pass
NVNT	g	2412	Ant1	-33.61	-20	Pass
NVNT	g	2462	Ant1	-41.89	-20	Pass
NVNT	n20	2412	Ant1	-33.77	-20	Pass
NVNT	n20	2462	Ant1	-42.49	-20	Pass

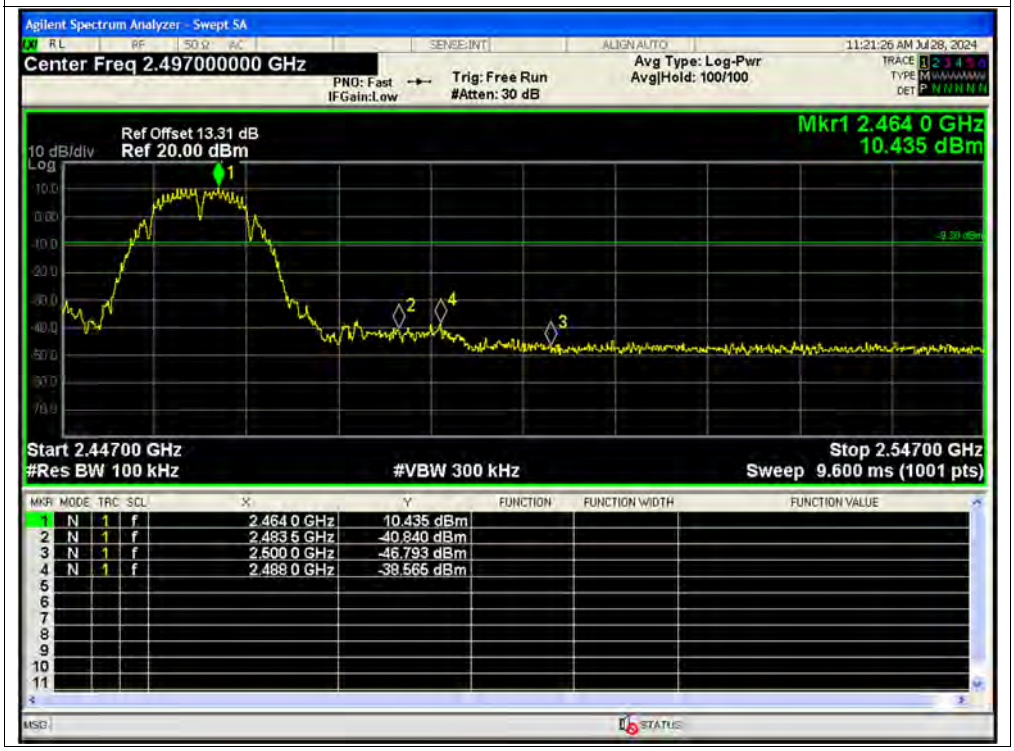
Test Graphs
Band Edge NVNT b 2412MHz Ant1 Ref

Band Edge NVNT b 2412MHz Ant1 Emission



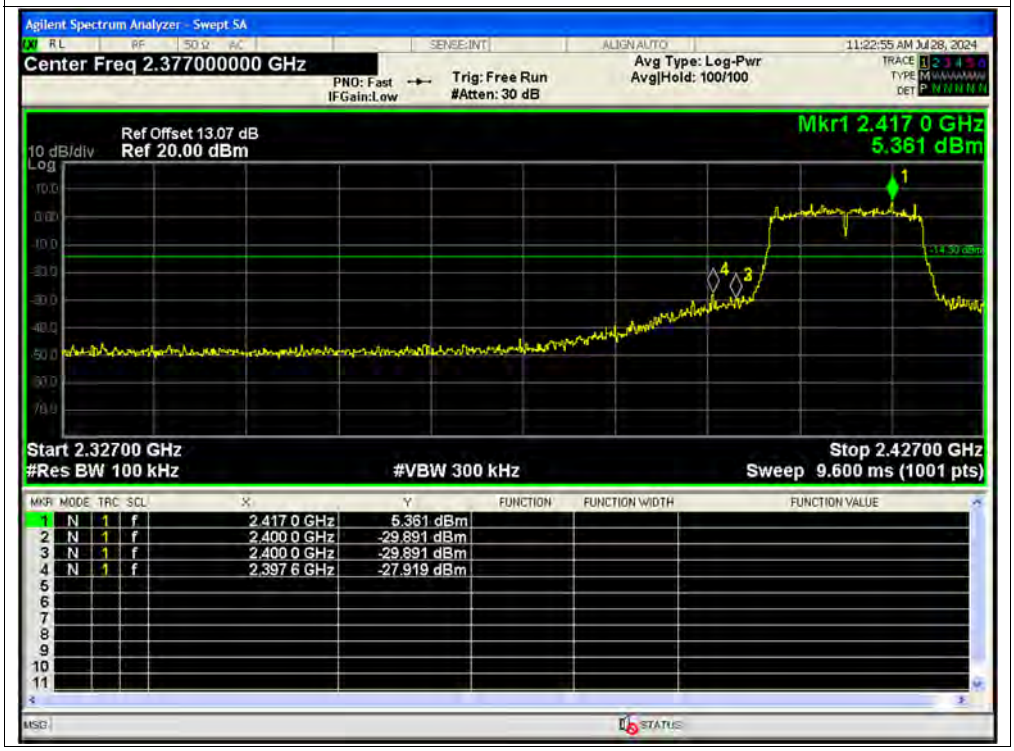
Band Edge NVNT b 2462MHz Ant1 Ref

Band Edge NVNT b 2462MHz Ant1 Emission



Band Edge NVNT g 2412MHz Ant1 Ref

Band Edge NVNT g 2412MHz Ant1 Emission

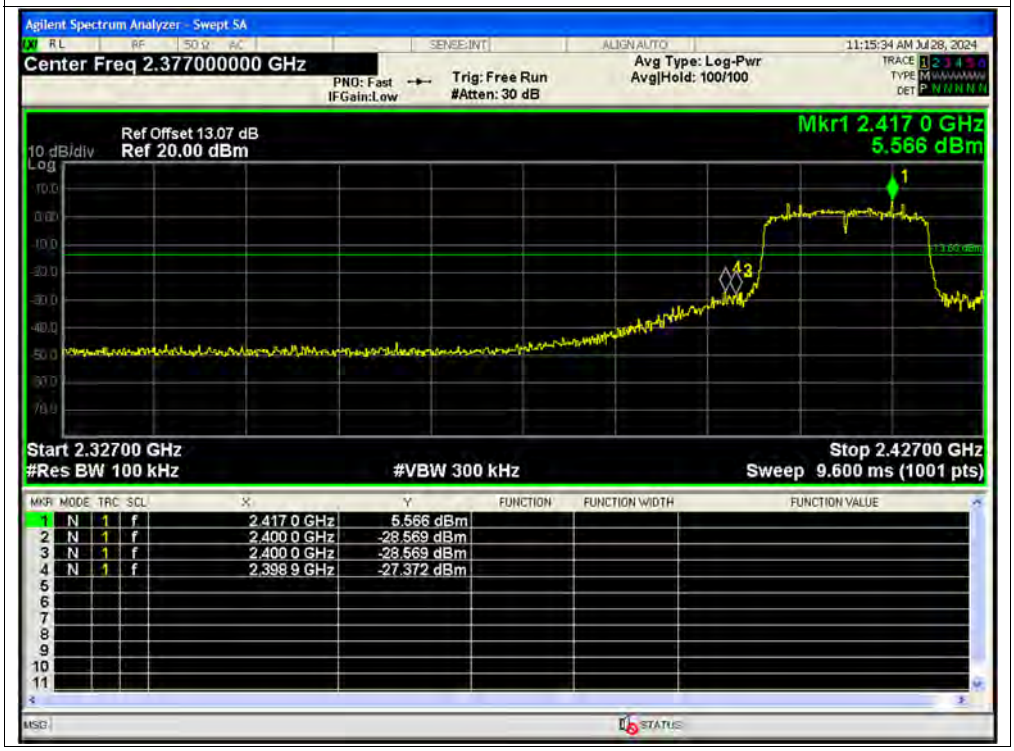


Band Edge NVNT g 2462MHz Ant1 Ref

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

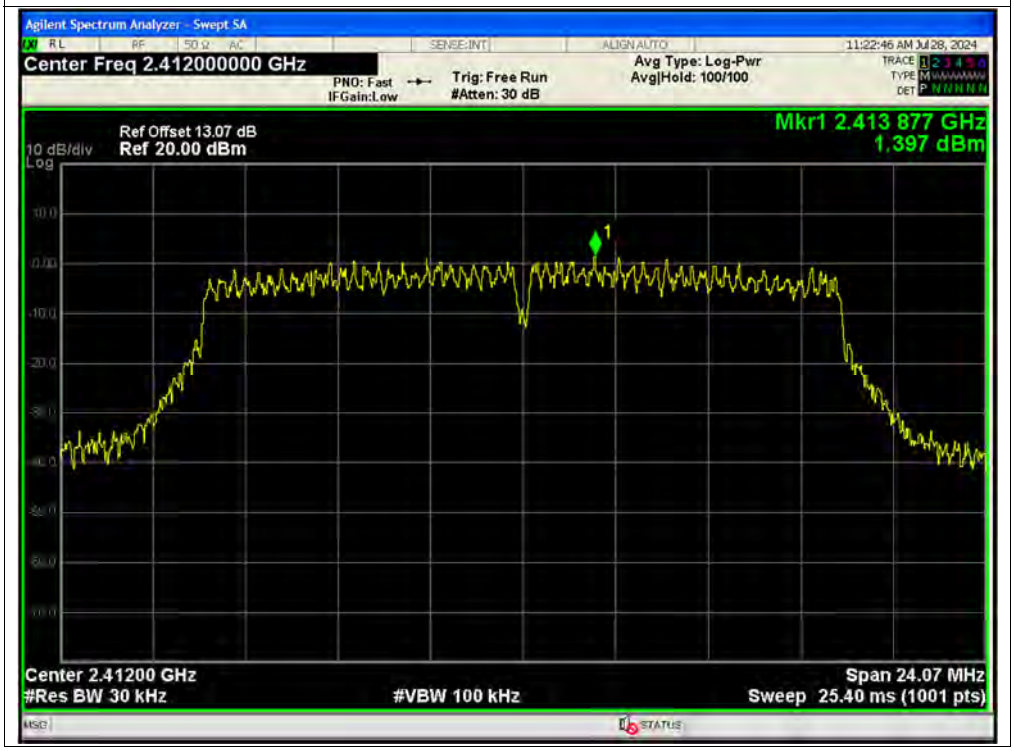
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-2.96	0	-2.96	8	Pass
NVNT	b	2437	Ant1	-2.98	0	-2.98	8	Pass
NVNT	b	2462	Ant1	-3.41	0	-3.41	8	Pass
NVNT	g	2412	Ant1	-8.6	0	-8.6	8	Pass
NVNT	g	2437	Ant1	-8.6	0	-8.6	8	Pass
NVNT	g	2462	Ant1	-8.38	0	-8.38	8	Pass
NVNT	n20	2412	Ant1	-8.94	0	-8.94	8	Pass
NVNT	n20	2437	Ant1	-8.56	0	-8.56	8	Pass
NVNT	n20	2462	Ant1	-8.47	0	-8.47	8	Pass

Test Graphs
PSD NVNT b 2412MHz Ant1

PSD NVNT b 2437MHz Ant1

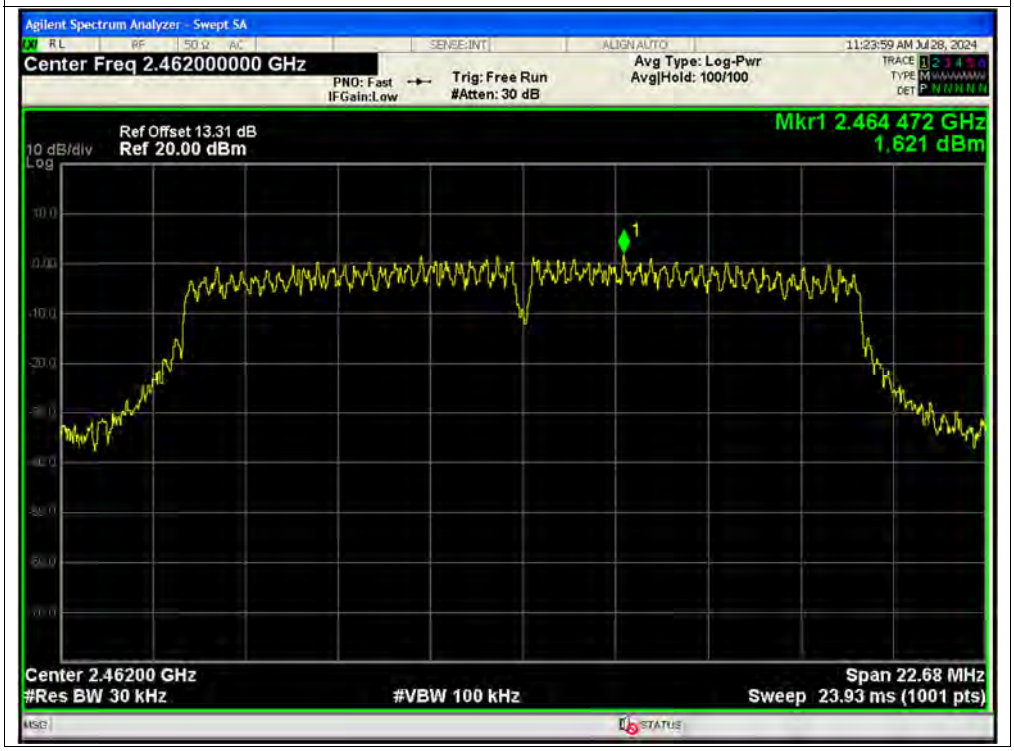
PSD NVNT b 2462MHz Ant1

PSD NVNT g 2412MHz Ant1

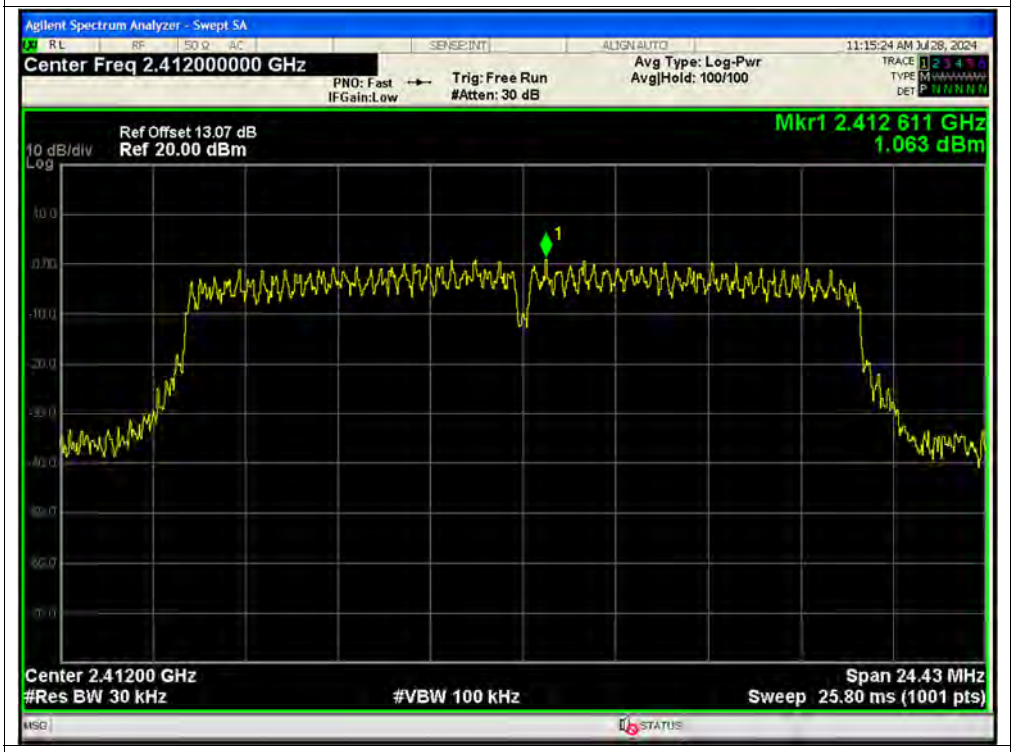


PSD NVNT g 2437MHz Ant1

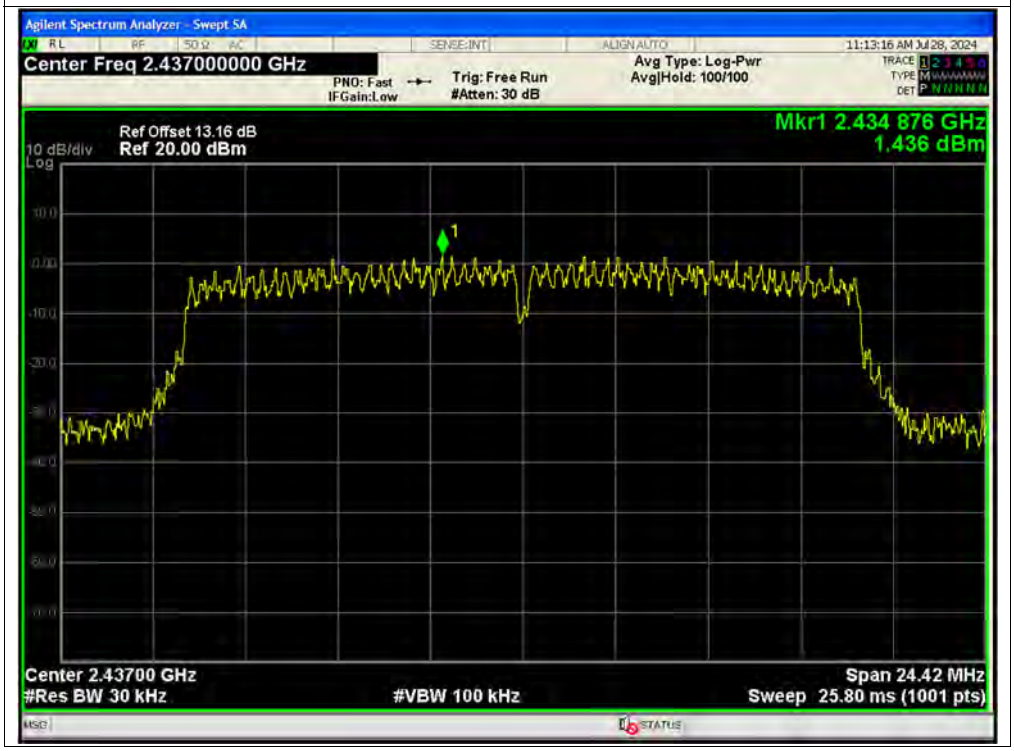
PSD NVNT g 2462MHz Ant1

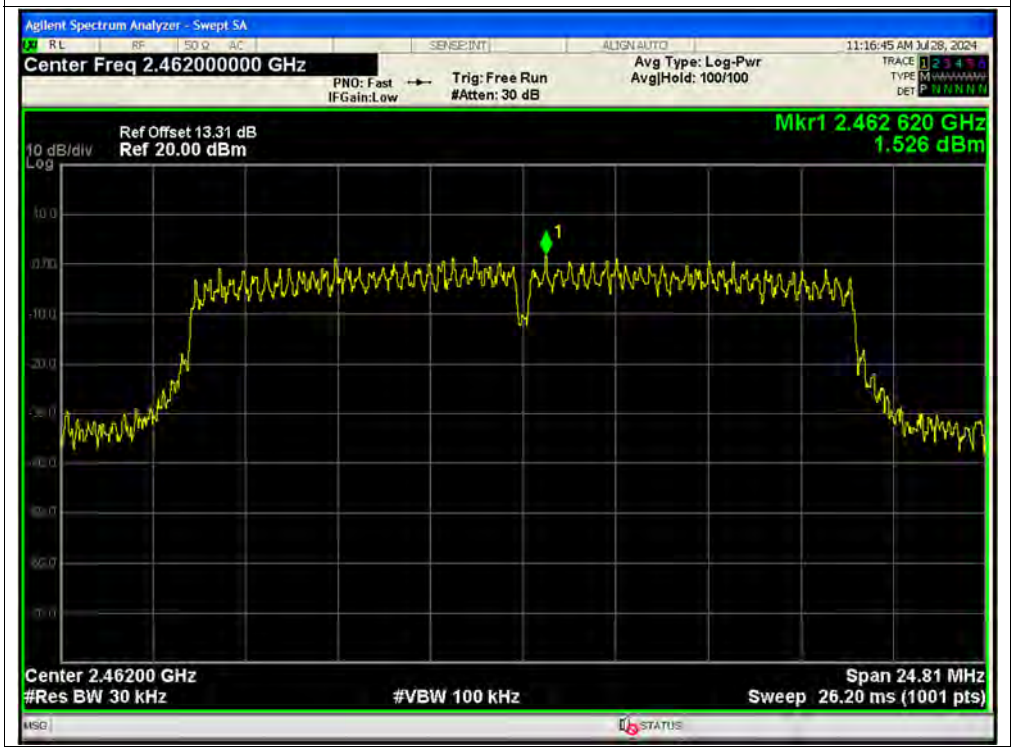


PSD NVNT n20 2412MHz Ant1



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 + PC + PC Adapter + WIFI TX

Test voltage: AC 120V/60Hz

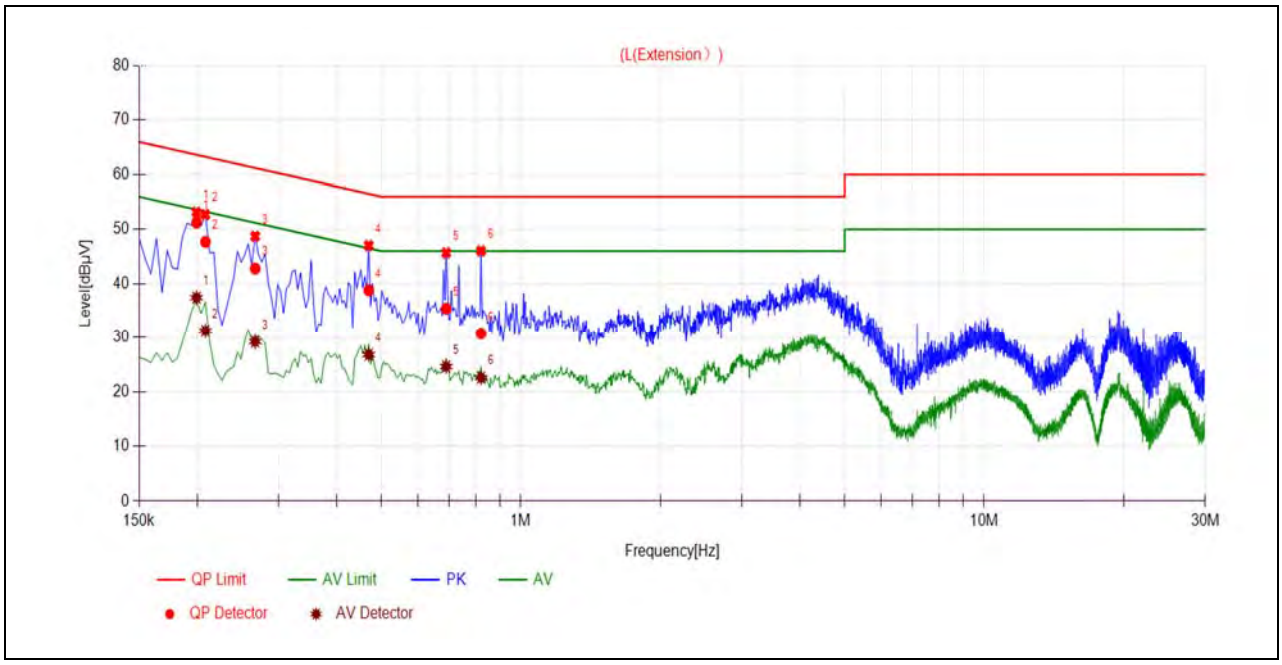
The measurement results are obtained as below:

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

U_R: Receiver Reading

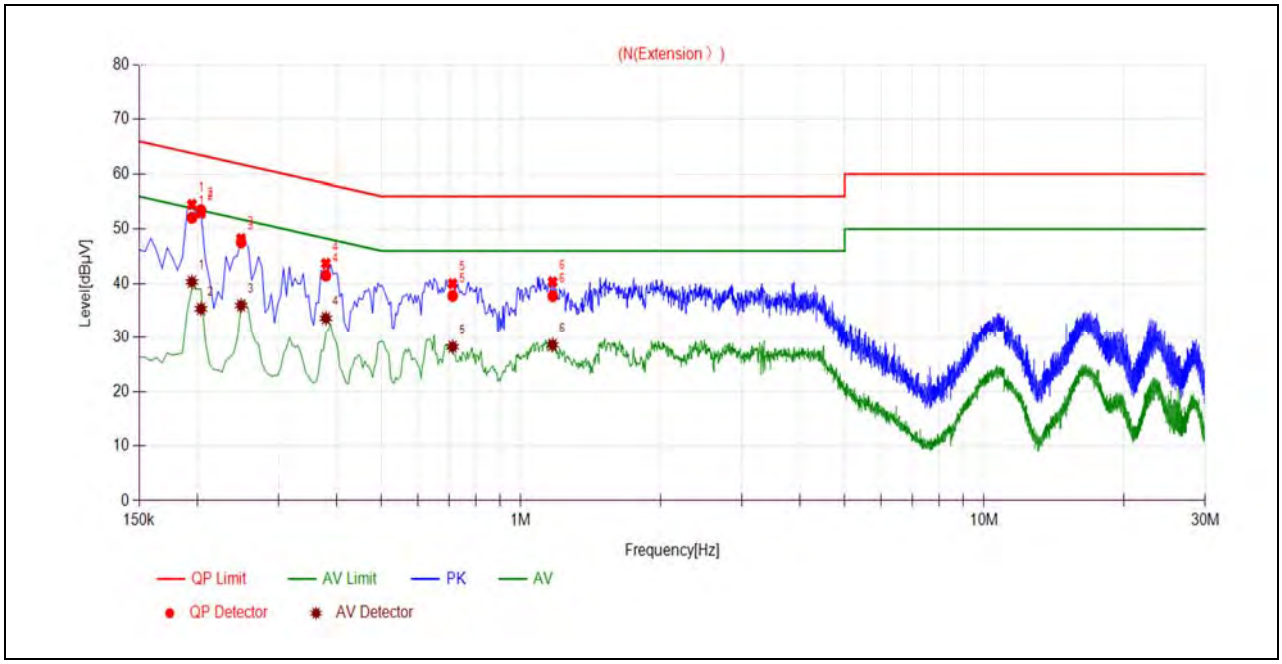
A_{Factor}: Voltage division factor of LISN

B. Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBµV)		Limit (dBµV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1995	51.26	37.43	63.63	53.63	Line	PASS
2	0.2085	47.71	31.26	63.27	53.27		PASS
3	0.2670	42.80	29.20	61.21	51.21		PASS
4	0.4695	38.79	26.80	56.52	46.52		PASS
5	0.6900	35.39	24.60	56.00	46.00		PASS
6	0.8205	30.75	22.56	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	0.1950	52.09	40.31	63.82	53.82	Neutral	PASS
2	0.2040	53.47	35.36	63.45	53.45		PASS
3	0.2490	47.58	35.98	61.79	51.79		PASS
4	0.3795	41.49	33.63	58.29	48.29		PASS
5	0.7126	37.75	28.24	56.00	46.00		PASS
6	1.1714	37.72	28.60	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:
$E\ [dB\mu V/m] = U_R + A_T + A_{Factor}\ [dB]$; $A_T = L_{Cable\ loss}\ [dB] - G_{preamp}\ [dB]$
A_T: Total correction Factor except Antenna
U_R: Receiver Reading
G_{preamp}: Preamplifier Gain
A_{Factor}: Antenna Factor at 3m

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	2386.35	PK	27.32	5.78	27.50	60.60	74	PASS
1	2387.14	AV	19.48	5.78	27.50	52.76	54	PASS
11	2483.89	PK	29.36	5.78	27.50	62.64	74	PASS
11	2483.66	AV	18.66	5.78	27.50	51.94	54	PASS

(PEAK, Channel 1, 802.11b)

(AVERAGE, Channel 1, 802.11b)

(PEAK, Channel 11, 802.11b)

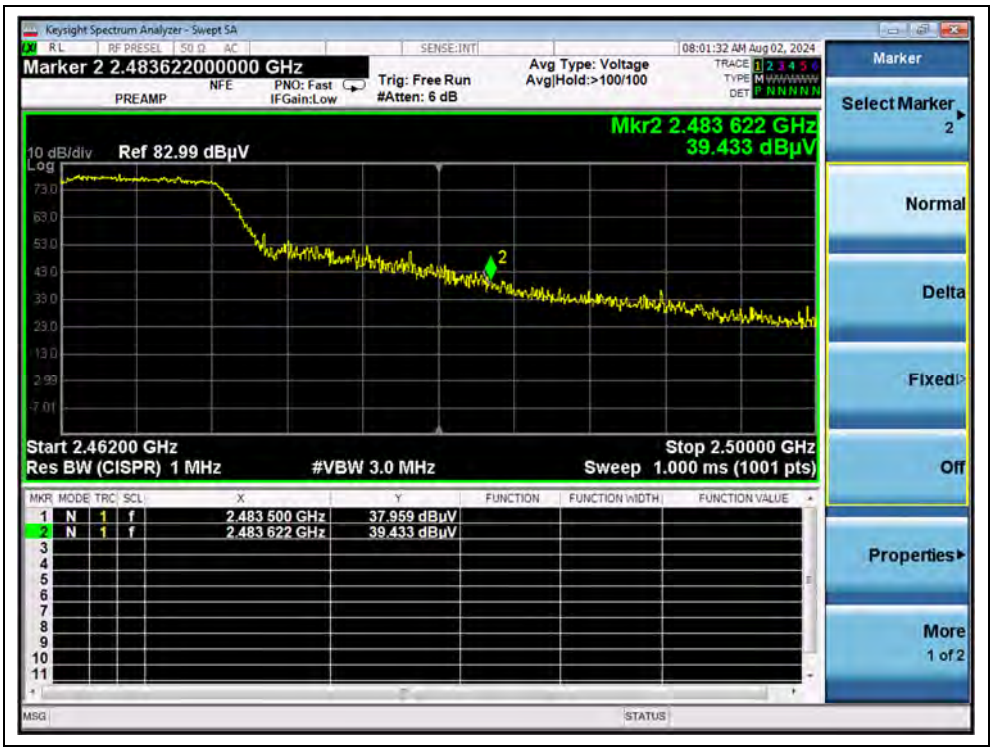
(AVERAGE, Channel 11, 802.11b)

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	2386.24	PK	37.53	5.78	27.50	70.81	74	PASS
1	2390.00	AV	18.69	5.78	27.50	51.97	54	PASS
11	2483.62	PK	39.43	5.78	27.50	72.71	74	PASS
11	2483.50	AV	18.84	5.78	27.50	52.12	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	2389.94	PK	35.43	5.78	27.50	68.71	74	PASS
1	2390.00	AV	18.75	5.78	27.50	52.03	54	PASS
11	2483.62	PK	38.63	5.78	27.50	71.91	74	PASS
11	2483.50	AV	18.93	5.78	27.50	52.21	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.

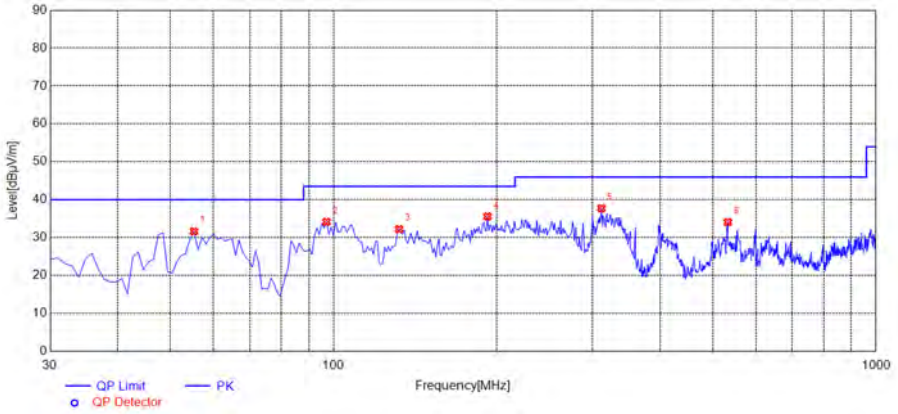
Note1: All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

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.

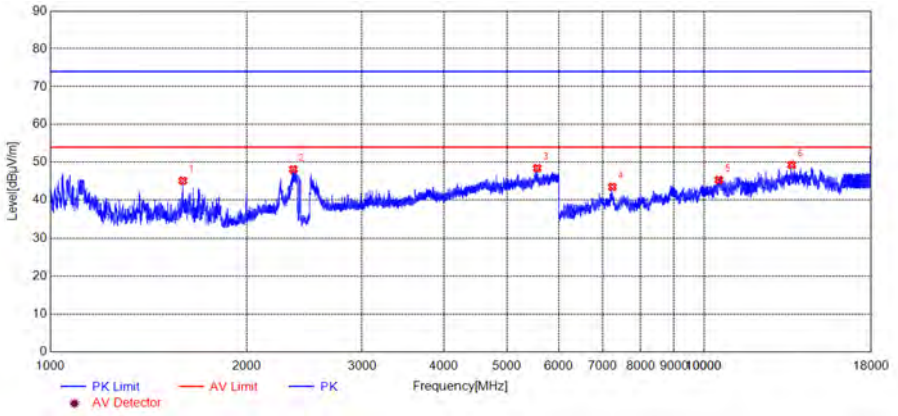
802.11b Mode

Plot for Channel 1



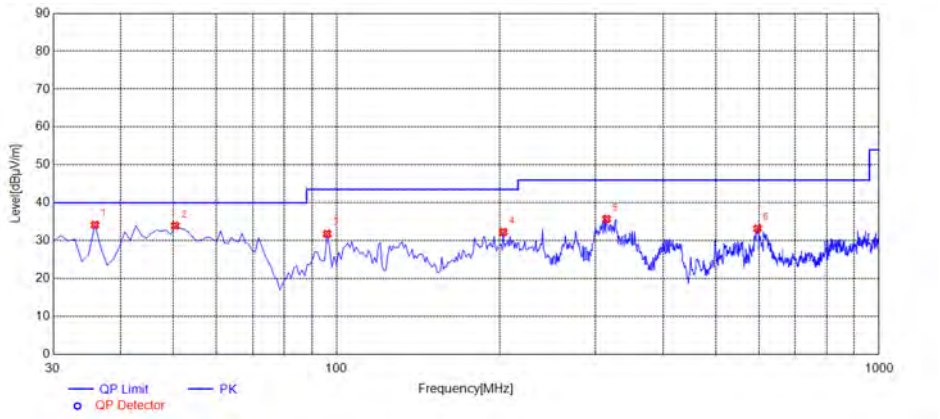
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
55.2452	31.67	-29.38	40.00	Horizontal	PASS
96.9970	34.17	-31.58	43.50	Horizontal	PASS
131.9520	32.24	-34.69	43.50	Horizontal	PASS
192.1522	35.59	-32.23	43.50	Horizontal	PASS
311.5816	37.74	-28.86	46.00	Horizontal	PASS
532.9630	34.08	-23.62	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



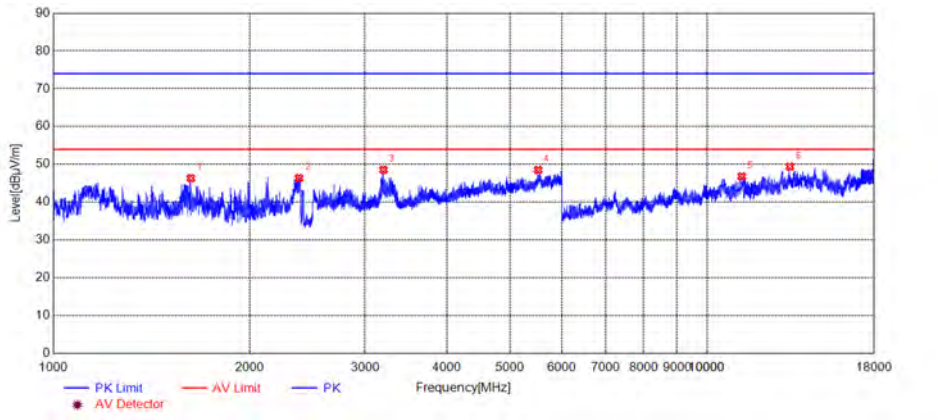
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1596.0596	45.14	-23.62	74.00	Horizontal	PASS
2353.6354	48.15	-20.70	74.00	Horizontal	PASS
5556.4556	48.43	-8.46	74.00	Horizontal	PASS
7238.5239	43.48	-3.14	74.00	Horizontal	PASS
10536.4536	45.34	2.71	74.00	Horizontal	PASS
13609.9610	49.31	7.09	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
35.8258	34.20	-38.14	40.00	Vertical	PASS
50.3904	33.97	-28.93	40.00	Vertical	PASS
96.0260	31.82	-31.77	43.50	Vertical	PASS
202.8328	32.30	-31.68	43.50	Vertical	PASS
314.4945	35.75	-28.82	46.00	Vertical	PASS
597.0470	33.22	-22.03	46.00	Vertical	PASS

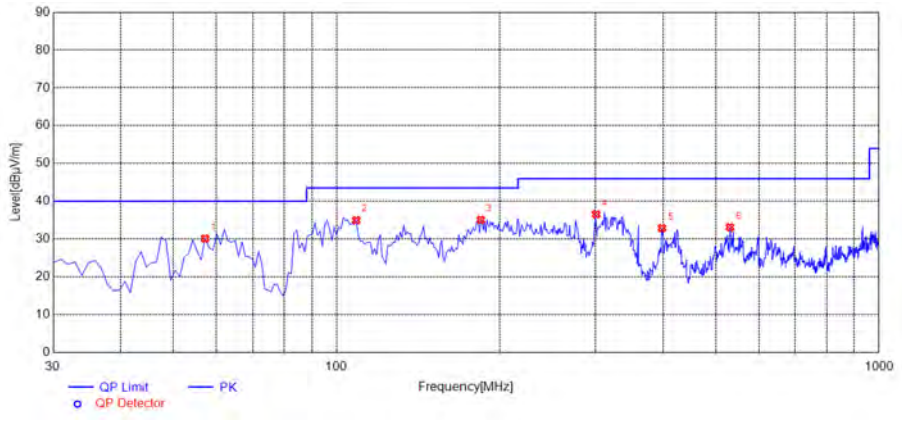
(Antenna Vertical, 30MHz to 1GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1624.0624	46.34	-23.60	74.00	Vertical	PASS
2376.6377	46.40	-20.86	74.00	Vertical	PASS
3199.7200	48.56	-17.28	74.00	Vertical	PASS
5515.9516	48.52	-9.18	74.00	Vertical	PASS
11299.7300	46.81	2.98	74.00	Vertical	PASS
13386.7387	49.38	6.37	74.00	Vertical	PASS

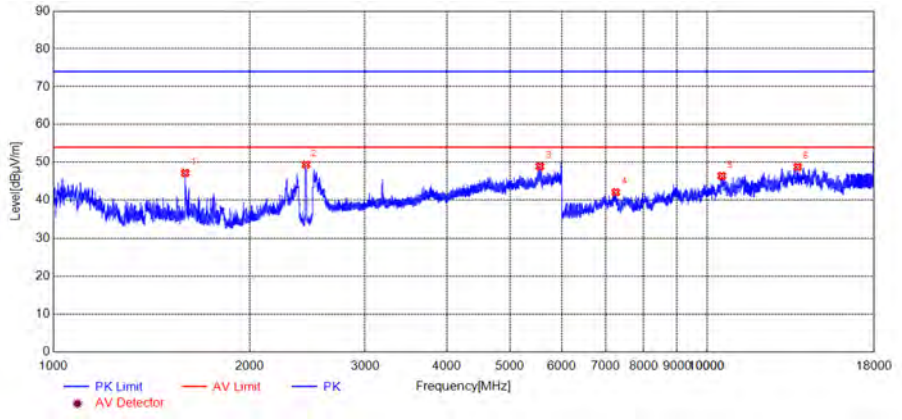
(Antenna Vertical, 1GHz to 18GHz)

Plot for Channel 6



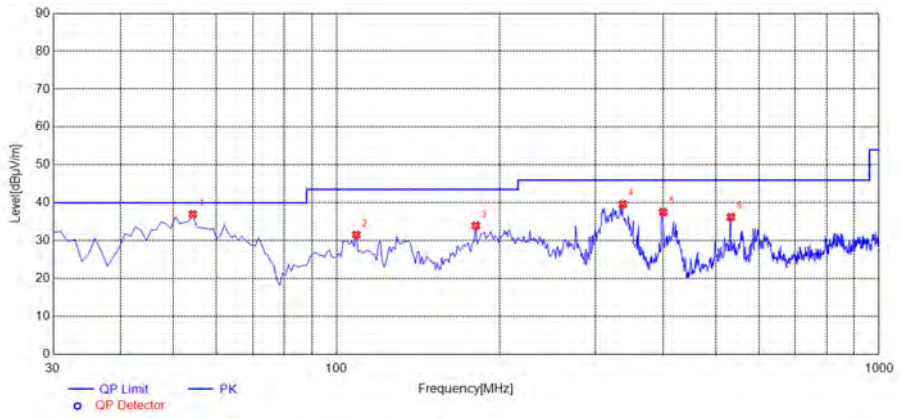
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
57.1872	30.17	-29.88	40.00	Horizontal	PASS
108.6486	35.01	-31.41	43.50	Horizontal	PASS
184.3844	35.10	-33.28	43.50	Horizontal	PASS
300.9009	36.55	-29.20	46.00	Horizontal	PASS
397.9980	32.92	-26.37	46.00	Horizontal	PASS
531.0210	33.15	-23.63	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



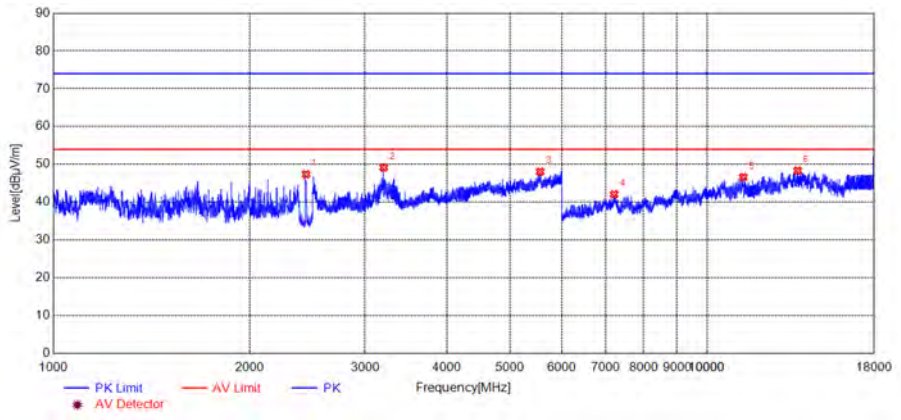
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1592.5593	47.19	-23.65	74.00	Horizontal	PASS
2436.1436	49.40	-20.72	74.00	Horizontal	PASS
5551.9552	48.90	-8.29	74.00	Horizontal	PASS
7251.7252	42.09	-2.94	74.00	Horizontal	PASS
10534.0534	46.40	2.61	74.00	Horizontal	PASS
13757.5758	48.76	7.06	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
54.2743	37.00	-29.36	40.00	Vertical	PASS
108.6486	31.56	-31.41	43.50	Vertical	PASS
180.5005	33.98	-33.61	43.50	Vertical	PASS
336.8268	39.61	-27.79	46.00	Vertical	PASS
399.9399	37.54	-26.29	46.00	Vertical	PASS
532.9630	36.23	-23.62	46.00	Vertical	PASS

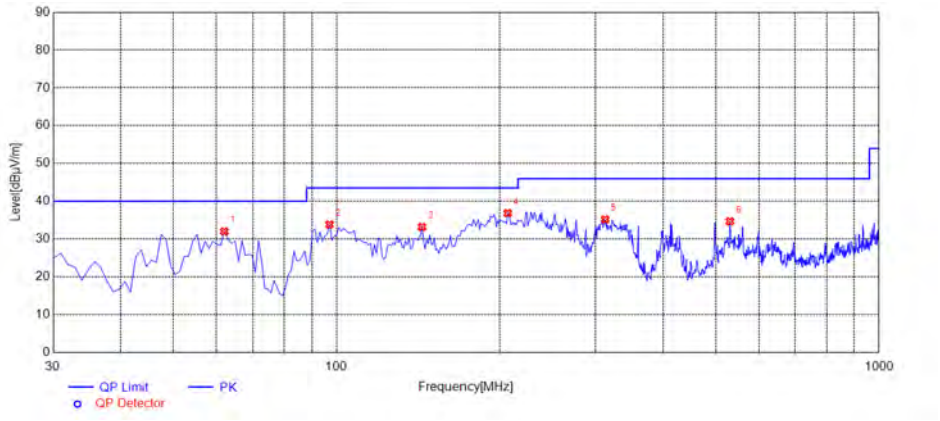
(Antenna Vertical, 30MHz to 1GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
2435.6436	47.39	-20.73	74.00	Vertical	PASS
3202.7203	49.18	-17.27	74.00	Vertical	PASS
5554.4554	48.06	-8.38	74.00	Vertical	PASS
7209.7210	42.08	-3.78	74.00	Vertical	PASS
11357.3357	46.60	3.78	74.00	Vertical	PASS
13752.7753	48.36	7.16	74.00	Vertical	PASS
2435.6436	47.39	-20.73	74.00	Vertical	PASS

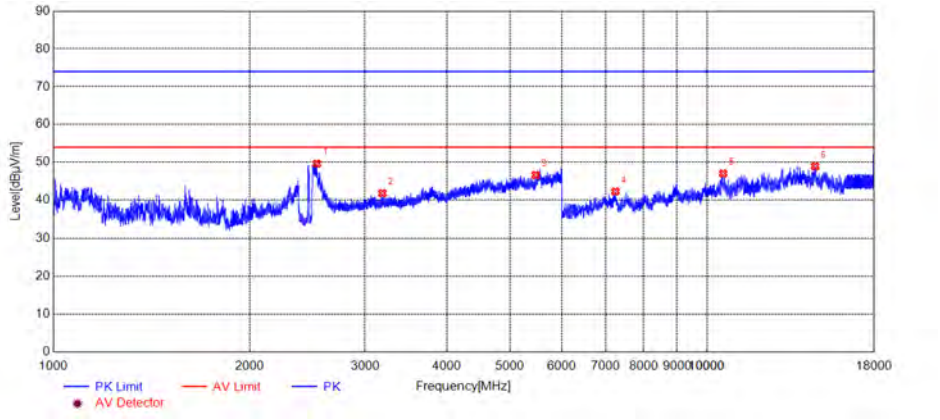
(Antenna Vertical, 1GHz to 18GHz)

Plot for Channel 11



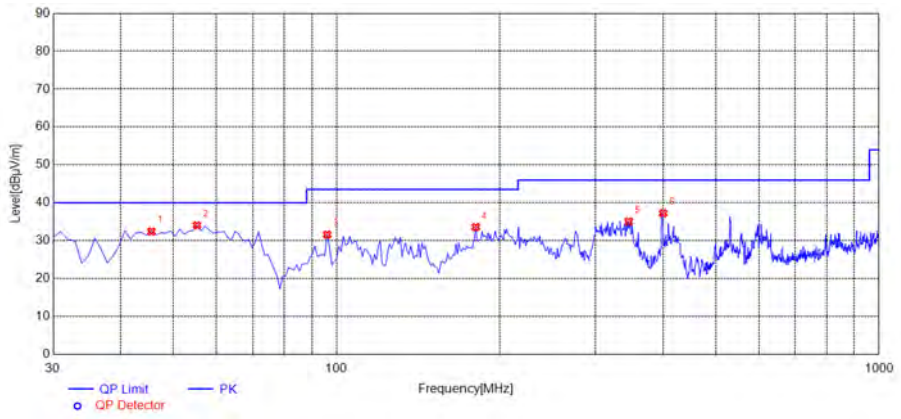
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
62.0420	32.02	-30.58	40.00	Horizontal	PASS
96.9970	33.86	-31.58	43.50	Horizontal	PASS
143.6036	33.23	-35.27	43.50	Horizontal	PASS
206.7167	36.89	-31.84	43.50	Horizontal	PASS
312.5526	35.22	-28.84	46.00	Horizontal	PASS
531.0210	34.69	-23.63	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



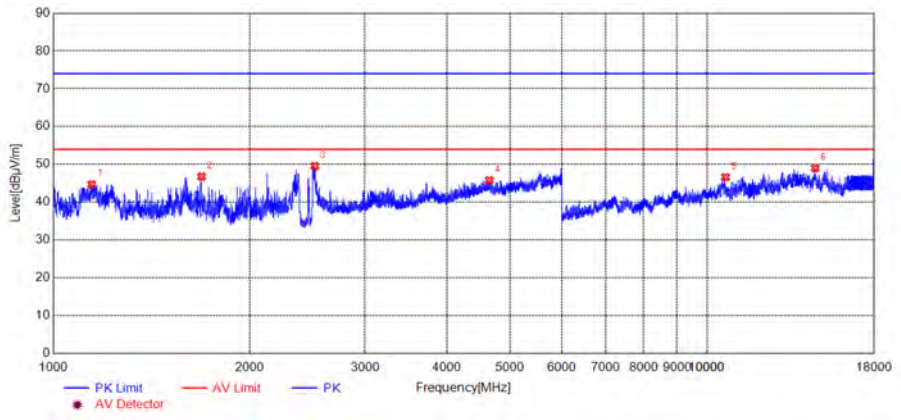
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
2531.1531	49.66	-20.23	74.00	Horizontal	PASS
3189.2189	41.84	-17.40	74.00	Horizontal	PASS
5469.4469	46.65	-10.28	74.00	Horizontal	PASS
7242.1242	42.30	-3.06	74.00	Horizontal	PASS
10582.0582	47.05	2.23	74.00	Horizontal	PASS
14627.6628	48.95	7.29	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
45.5355	32.43	-28.95	40.00	Vertical	PASS
55.2452	34.06	-29.38	40.00	Vertical	PASS
96.0260	31.62	-31.77	43.50	Vertical	PASS
180.5005	33.58	-33.61	43.50	Vertical	PASS
345.5656	35.10	-27.40	46.00	Vertical	PASS
399.9399	37.24	-26.29	46.00	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)

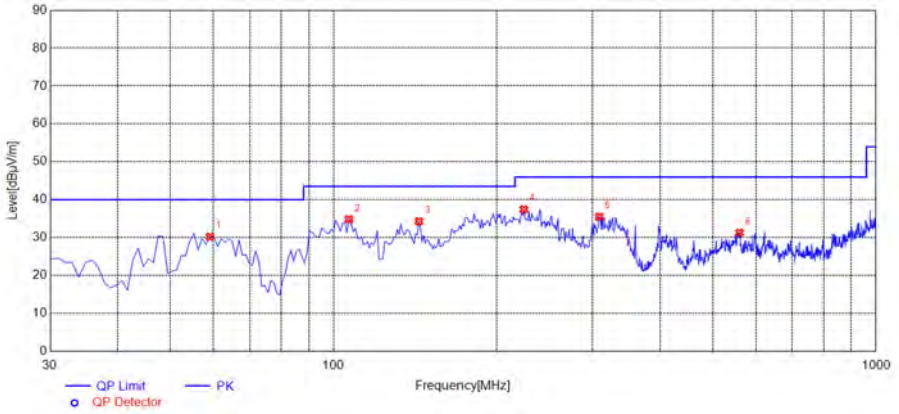


Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1145.5146	44.73	-23.64	74.00	Vertical	PASS
1686.0686	46.78	-23.68	74.00	Vertical	PASS
2512.6513	49.56	-20.28	74.00	Vertical	PASS
4643.8644	45.80	-11.29	74.00	Vertical	PASS
10669.6670	46.61	2.45	74.00	Vertical	PASS
14633.6634	49.01	7.44	74.00	Vertical	PASS

(Antenna Vertical, 1GHz to 18GHz)

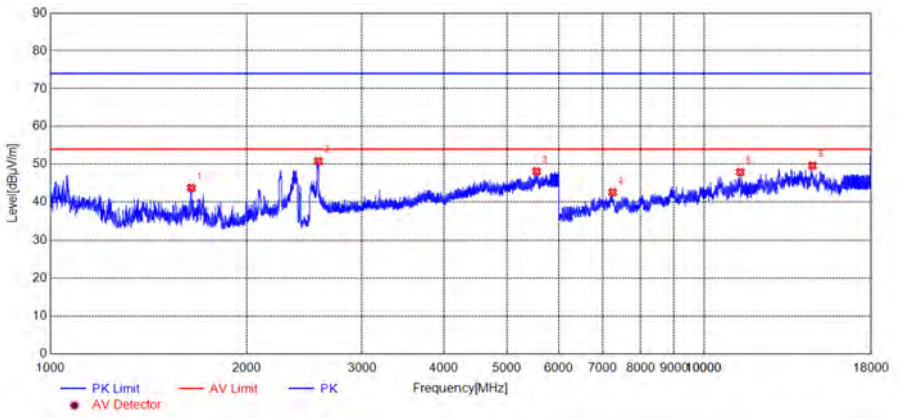
802.11g Mode

Plot for Channel 1



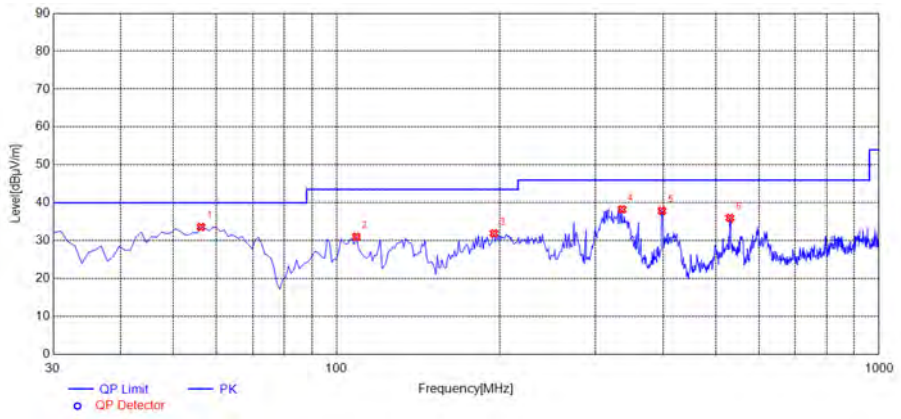
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
59.1291	30.25	-30.37	40.00	Horizontal	PASS
106.7067	34.80	-31.04	43.50	Horizontal	PASS
143.6036	34.28	-35.27	43.50	Horizontal	PASS
224.1942	37.44	-31.37	46.00	Horizontal	PASS
308.6687	35.49	-28.93	46.00	Horizontal	PASS
560.1502	31.29	-23.25	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



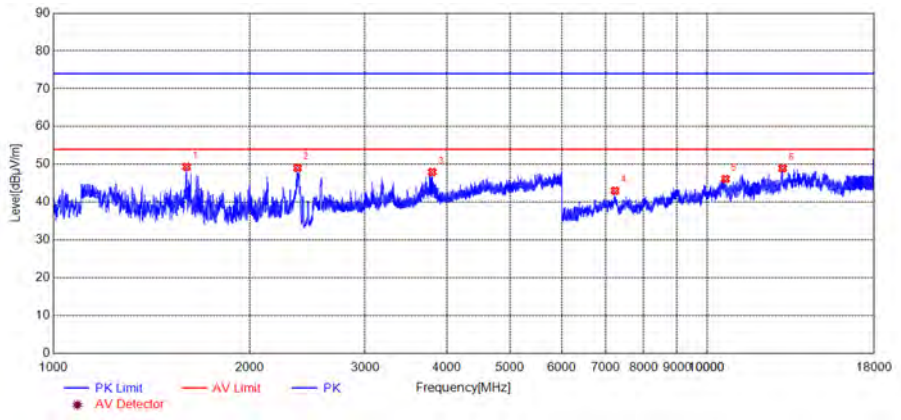
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1644.0644	43.77	-23.62	74.00	Horizontal	PASS
2570.6571	50.82	-19.86	74.00	Horizontal	PASS
5545.4545	48.12	-8.34	74.00	Horizontal	PASS
7248.1248	42.60	-2.92	74.00	Horizontal	PASS
11357.3357	47.93	3.78	74.00	Horizontal	PASS
14646.8647	49.64	7.76	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
56.2162	33.62	-29.66	40.00	Vertical	PASS
108.6486	31.05	-31.41	43.50	Vertical	PASS
195.0651	31.95	-31.97	43.50	Vertical	PASS
335.8559	38.27	-27.86	46.00	Vertical	PASS
397.9980	37.87	-26.37	46.00	Vertical	PASS
531.0210	36.03	-23.63	46.00	Vertical	PASS

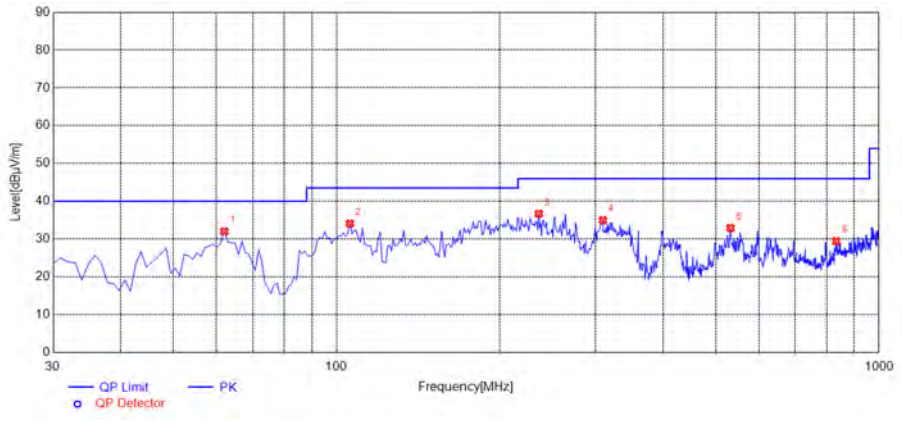
(Antenna Vertical, 30MHz to 1GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1600.0600	49.37	-23.59	74.00	Vertical	PASS
2364.1364	49.07	-20.78	74.00	Vertical	PASS
3799.7800	48.00	-14.91	74.00	Vertical	PASS
7231.3231	43.05	-3.30	74.00	Vertical	PASS
10666.0666	46.15	2.55	74.00	Vertical	PASS
13049.5050	48.95	6.98	74.00	Vertical	PASS

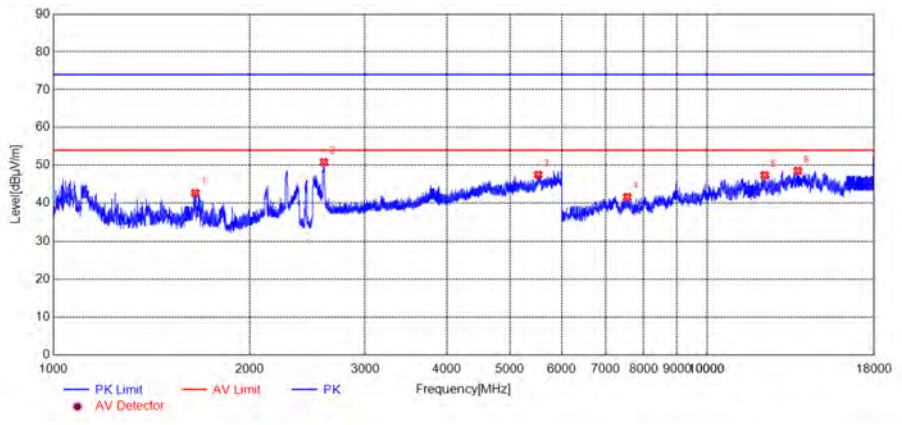
(Antenna Vertical, 1GHz to 18GHz)

Plot for Channel 6



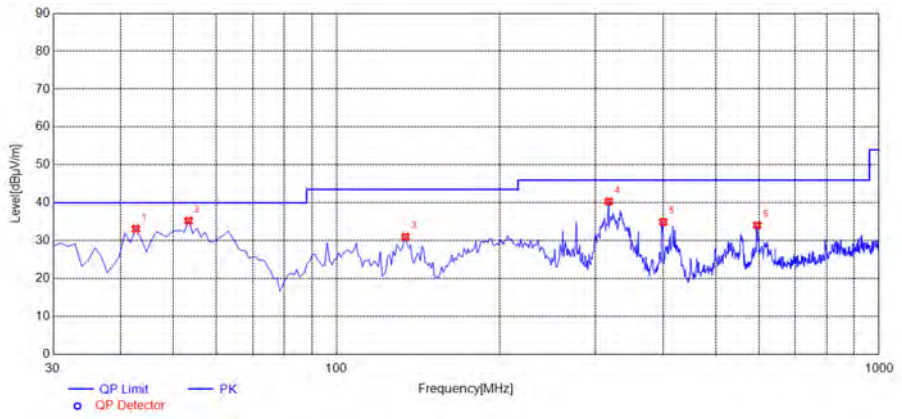
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
62.0420	32.02	-30.58	40.00	Horizontal	PASS
105.7357	34.09	-30.93	43.50	Horizontal	PASS
235.8458	36.72	-30.83	46.00	Horizontal	PASS
309.6396	35.02	-28.89	46.00	Horizontal	PASS
531.9920	32.95	-23.63	46.00	Horizontal	PASS
833.9640	29.44	-19.94	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



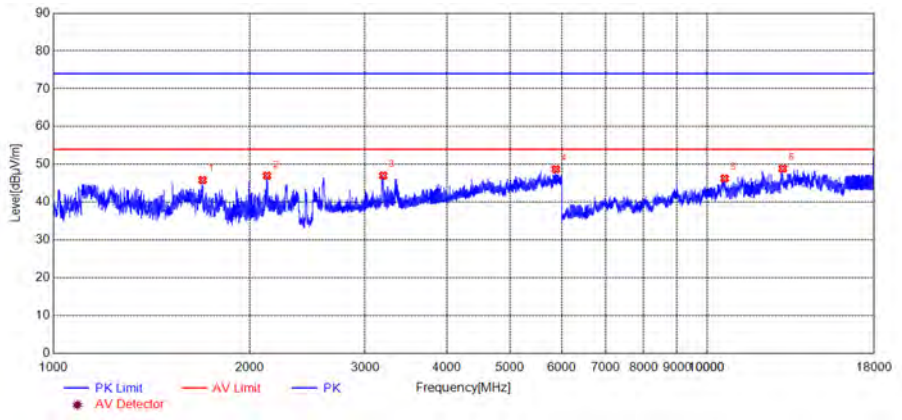
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1649.5650	42.68	-23.62	74.00	Horizontal	PASS
2595.1595	50.85	-19.48	74.00	Horizontal	PASS
5515.9516	47.50	-9.18	74.00	Horizontal	PASS
7546.9547	41.65	-4.28	74.00	Horizontal	PASS
12252.6253	47.39	5.01	74.00	Horizontal	PASS
13762.3762	48.56	6.97	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
42.6226	33.14	-29.25	40.00	Vertical	PASS
53.3033	35.26	-29.51	40.00	Vertical	PASS
133.8939	31.06	-34.86	43.50	Vertical	PASS
317.4074	40.36	-28.73	46.00	Vertical	PASS
399.9399	34.94	-26.29	46.00	Vertical	PASS
596.0761	34.07	-22.04	46.00	Vertical	PASS

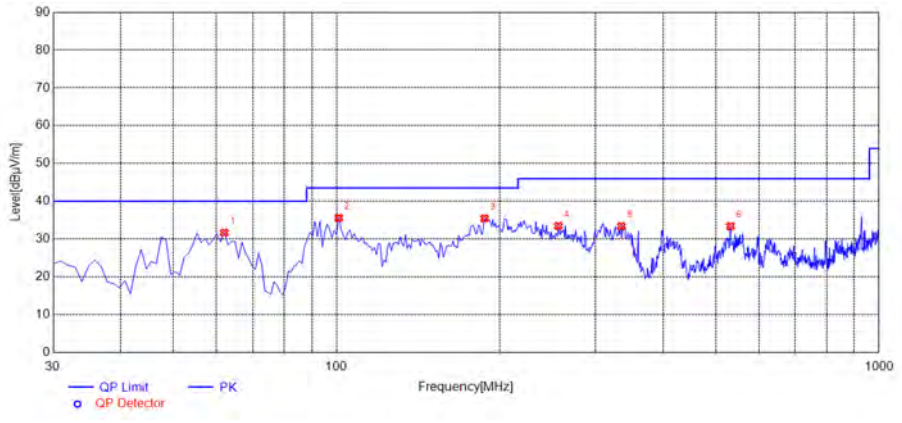
(Antenna Vertical, 30MHz to 1GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1692.0692	45.86	-23.70	74.00	Vertical	PASS
2123.6124	47.01	-21.63	74.00	Vertical	PASS
3198.2198	47.04	-17.30	74.00	Vertical	PASS
5870.9871	48.71	-8.05	74.00	Vertical	PASS
10636.0636	46.30	2.65	74.00	Vertical	PASS
13054.3054	48.88	6.80	74.00	Vertical	PASS

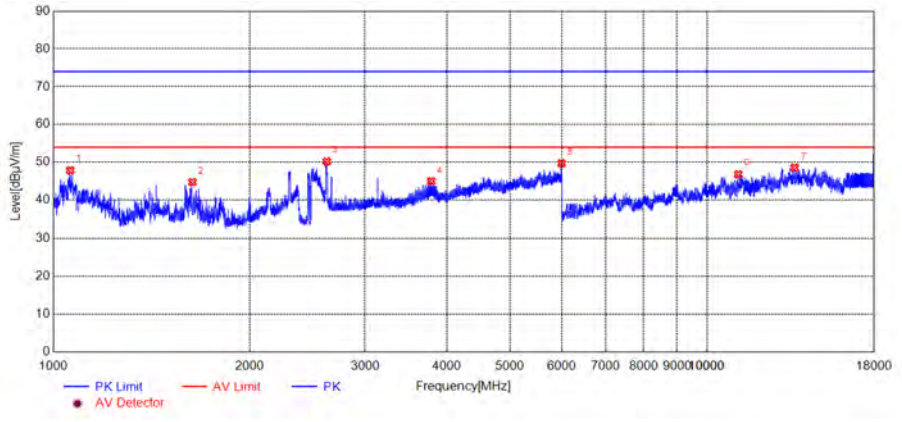
(Antenna Vertical, 1GHz to 18GHz)

Plot for Channel 11



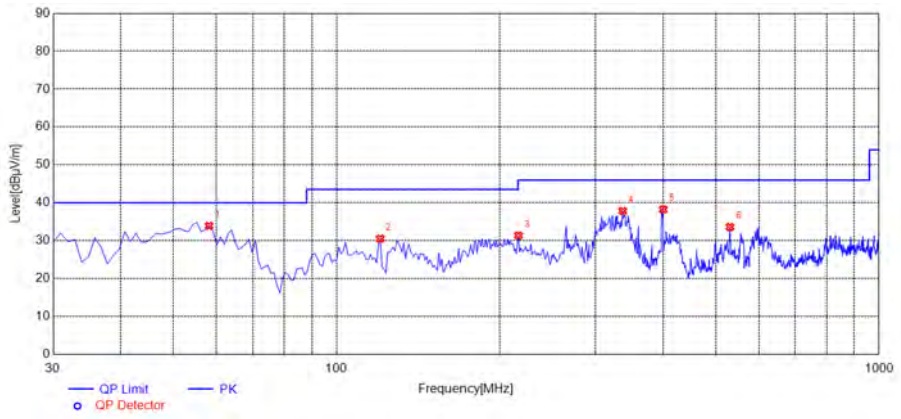
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
62.0420	31.74	-30.58	40.00	Horizontal	PASS
100.8809	35.61	-31.29	43.50	Horizontal	PASS
187.2973	35.46	-32.88	43.50	Horizontal	PASS
256.2362	33.48	-30.24	46.00	Horizontal	PASS
334.8849	33.41	-27.94	46.00	Horizontal	PASS
531.9920	33.40	-23.63	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



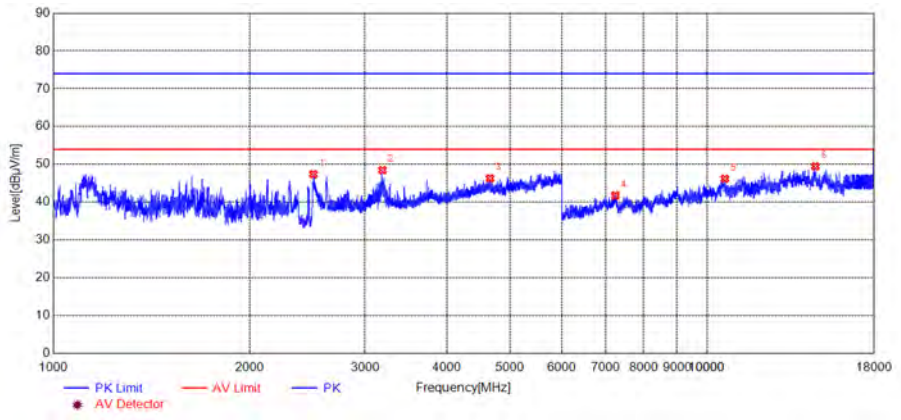
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1062.0062	47.88	-24.16	74.00	Horizontal	PASS
1632.5633	44.77	-23.61	74.00	Horizontal	PASS
2621.1621	50.22	-19.32	74.00	Horizontal	PASS
3787.7788	45.00	-15.13	74.00	Horizontal	PASS
5991.9992	49.73	-8.55	74.00	Horizontal	PASS
11158.1158	46.84	2.81	74.00	Horizontal	PASS
13606.3606	48.60	7.29	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
58.1582	33.93	-30.16	40.00	Vertical	PASS
120.3003	30.55	-33.18	43.50	Vertical	PASS
216.4264	31.37	-31.89	46.00	Vertical	PASS
336.8268	37.84	-27.79	46.00	Vertical	PASS
399.9399	38.24	-26.29	46.00	Vertical	PASS
531.0210	33.64	-23.63	46.00	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)

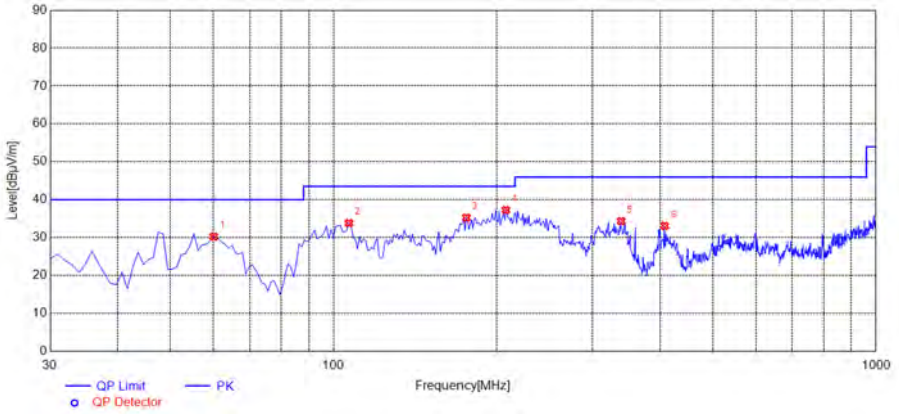


Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
2501.1501	47.41	-20.31	74.00	Vertical	PASS
3188.7189	48.49	-17.40	74.00	Vertical	PASS
4657.8658	46.30	-11.31	74.00	Vertical	PASS
7240.9241	41.80	-3.08	74.00	Vertical	PASS
10645.6646	46.21	2.91	74.00	Vertical	PASS
14639.6640	49.47	7.59	74.00	Vertical	PASS

(Antenna Vertical, 1GHz to 18GHz)

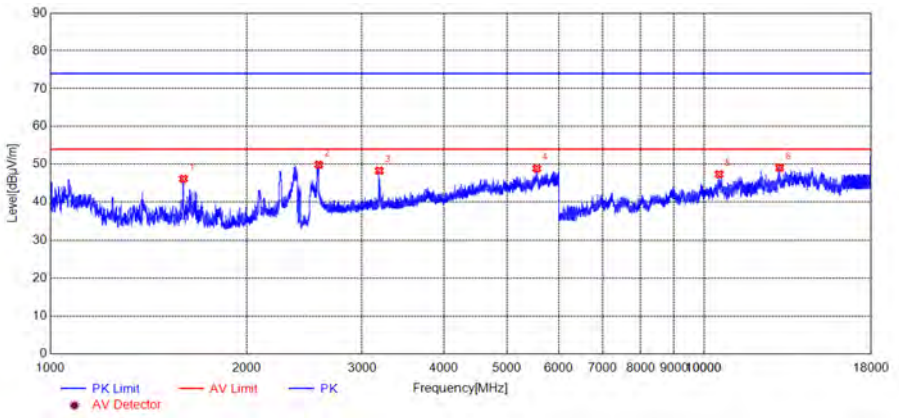
802.11n (HT20) Mode

Plot for Channel 1



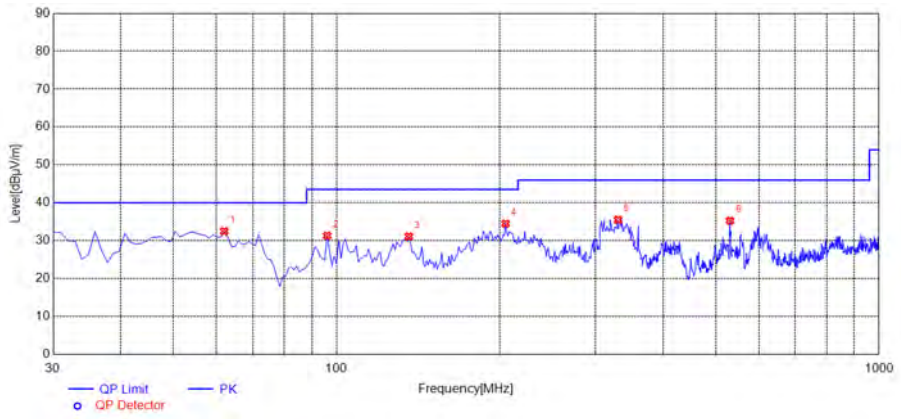
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
60.1001	30.29	-30.55	40.00	Horizontal	PASS
106.7067	33.84	-31.04	43.50	Horizontal	PASS
175.6456	35.28	-33.86	43.50	Horizontal	PASS
207.6877	37.27	-31.92	43.50	Horizontal	PASS
338.7688	34.37	-27.64	46.00	Horizontal	PASS
407.7077	33.10	-26.06	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



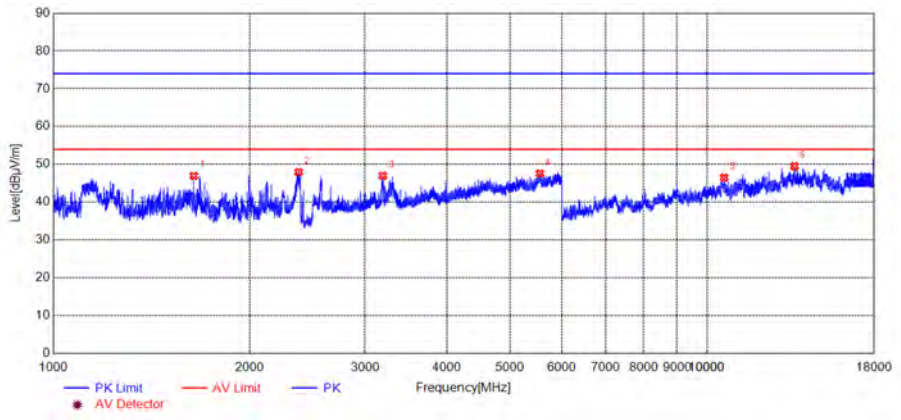
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1599.0599	46.15	-23.60	74.00	Horizontal	PASS
2576.1576	49.90	-19.78	74.00	Horizontal	PASS
3187.7188	48.31	-17.41	74.00	Horizontal	PASS
5548.4548	48.87	-8.25	74.00	Horizontal	PASS
10543.6544	47.37	3.01	74.00	Horizontal	PASS
13055.5056	49.10	6.75	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
62.0420	32.49	-30.58	40.00	Vertical	PASS
96.0260	31.32	-31.77	43.50	Vertical	PASS
135.8358	31.14	-34.90	43.50	Vertical	PASS
204.7748	34.51	-31.71	43.50	Vertical	PASS
330.0300	35.53	-28.15	46.00	Vertical	PASS
531.0210	35.28	-23.63	46.00	Vertical	PASS

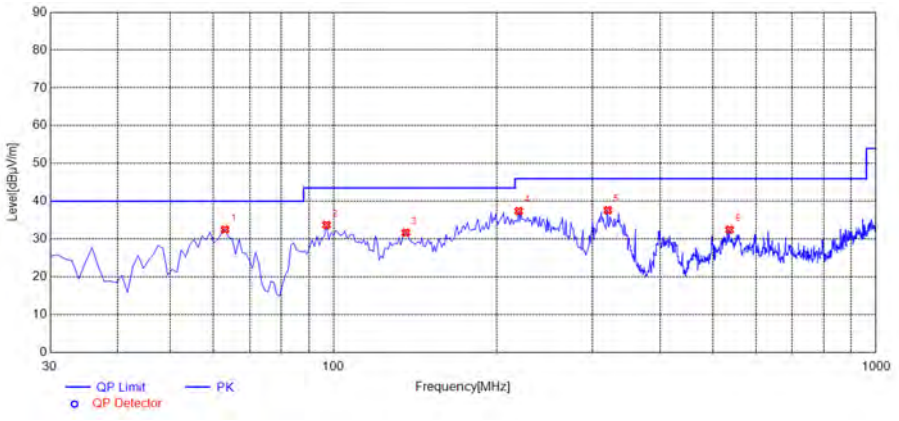
(Antenna Vertical, 30MHz to 1GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1641.0641	46.95	-23.61	74.00	Vertical	PASS
2374.1374	47.94	-20.84	74.00	Vertical	PASS
3193.2193	46.97	-17.35	74.00	Vertical	PASS
5549.4549	47.57	-8.23	74.00	Vertical	PASS
10621.6622	46.52	2.25	74.00	Vertical	PASS
13603.9604	49.51	7.43	74.00	Vertical	PASS

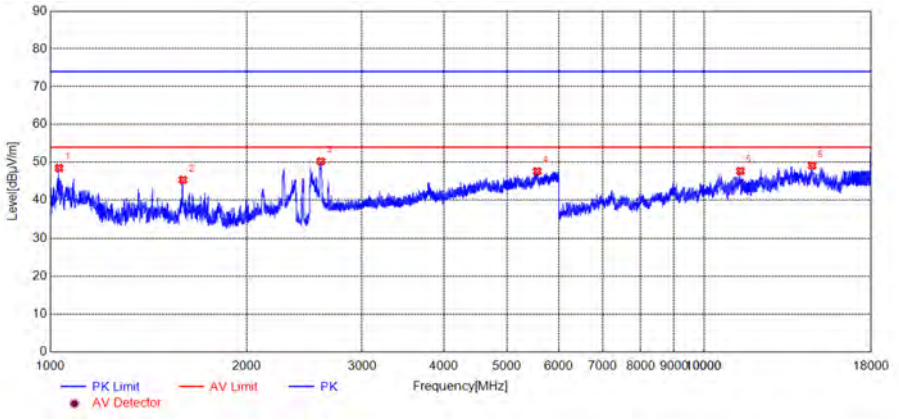
(Antenna Vertical, 1GHz to 18GHz)

Plot for Channel 6



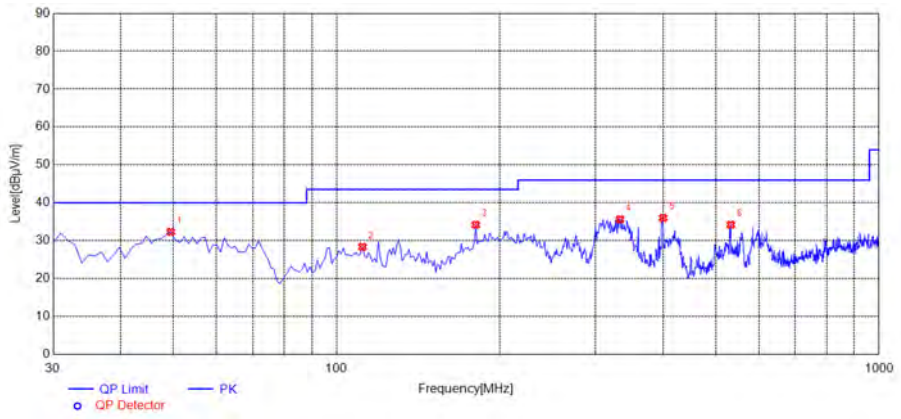
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
63.0130	32.52	-30.73	40.00	Horizontal	PASS
96.9970	33.74	-31.58	43.50	Horizontal	PASS
135.8358	31.70	-34.90	43.50	Horizontal	PASS
219.3393	37.41	-31.78	46.00	Horizontal	PASS
320.3203	37.65	-28.63	46.00	Horizontal	PASS
536.8468	32.48	-23.52	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



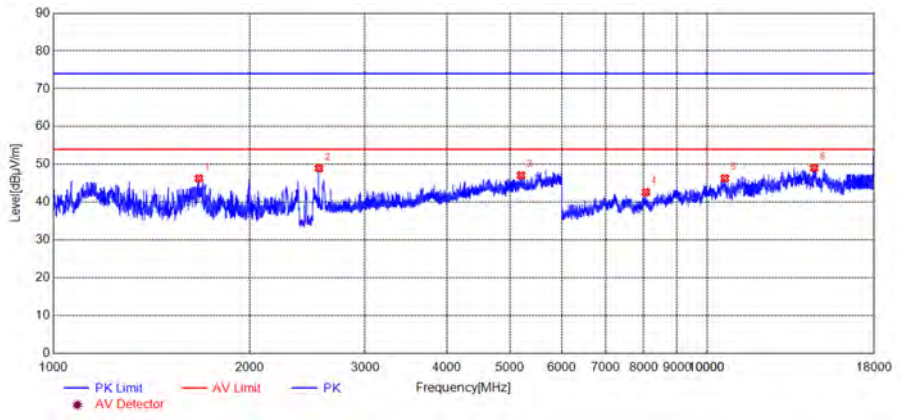
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1032.0032	48.50	-24.24	74.00	Horizontal	PASS
1596.5597	45.36	-23.62	74.00	Horizontal	PASS
2594.6595	50.26	-19.49	74.00	Horizontal	PASS
5556.4556	47.63	-8.46	74.00	Horizontal	PASS
11364.5365	47.68	3.54	74.00	Horizontal	PASS
14632.4632	49.14	7.41	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
49.4194	32.35	-28.89	40.00	Vertical	PASS
111.5616	28.39	-31.67	43.50	Vertical	PASS
180.5005	34.22	-33.61	43.50	Vertical	PASS
332.9429	35.66	-28.02	46.00	Vertical	PASS
399.9399	36.02	-26.29	46.00	Vertical	PASS
532.9630	34.23	-23.62	46.00	Vertical	PASS

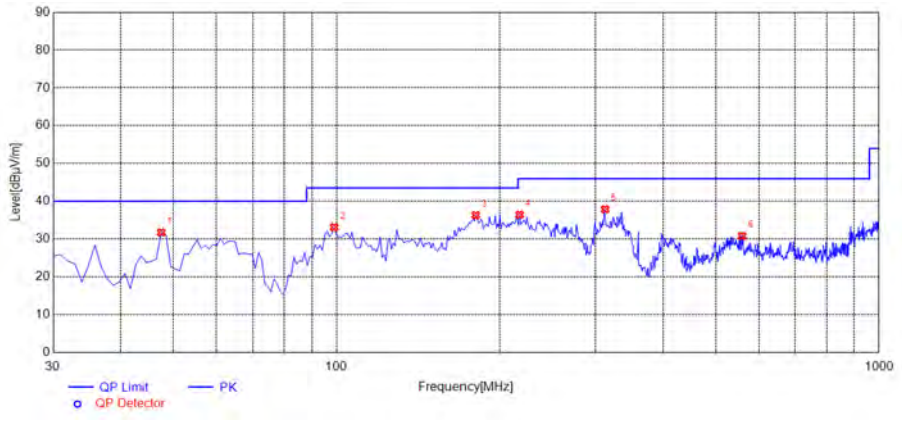
(Antenna Vertical, 30MHz to 1GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1671.0671	46.28	-23.66	74.00	Vertical	PASS
2550.1550	48.96	-20.18	74.00	Vertical	PASS
5194.9195	47.09	-9.96	74.00	Vertical	PASS
8063.0063	42.64	-3.15	74.00	Vertical	PASS
10643.2643	46.33	2.84	74.00	Vertical	PASS
14582.0582	49.05	6.32	74.00	Vertical	PASS

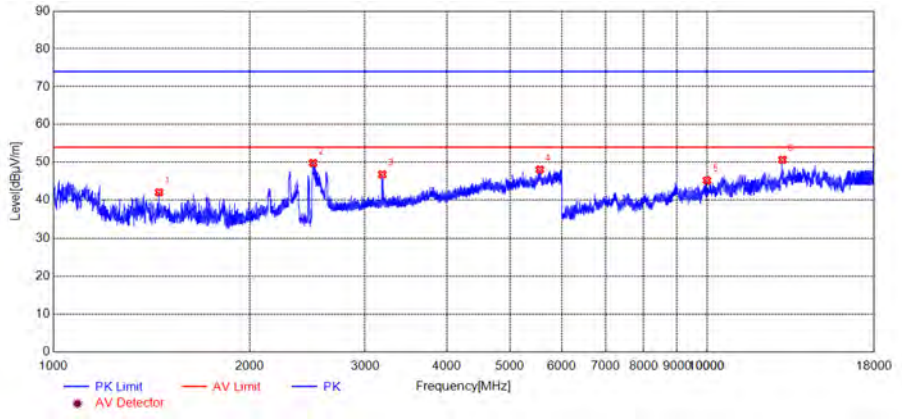
(Antenna Vertical, 1GHz to 18GHz)

Plot for Channel 11



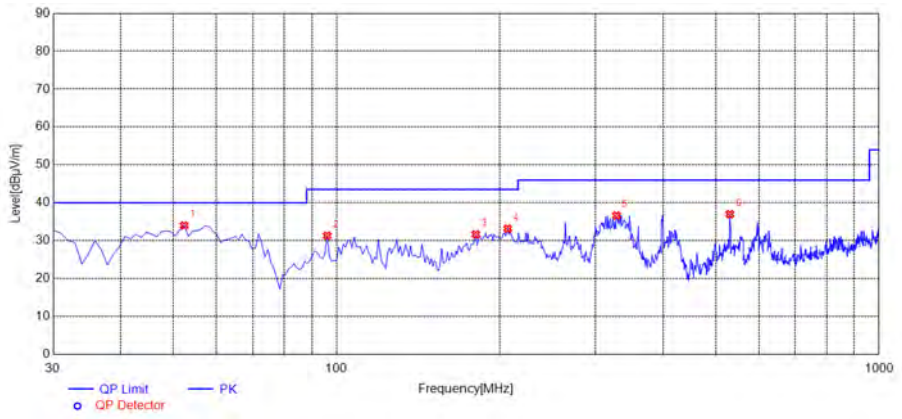
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
47.4775	31.76	-29.00	40.00	Horizontal	PASS
98.9389	33.14	-31.10	43.50	Horizontal	PASS
180.5005	36.32	-33.61	43.50	Horizontal	PASS
217.3974	36.46	-31.85	46.00	Horizontal	PASS
312.5526	37.87	-28.84	46.00	Horizontal	PASS
559.1792	30.81	-23.26	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



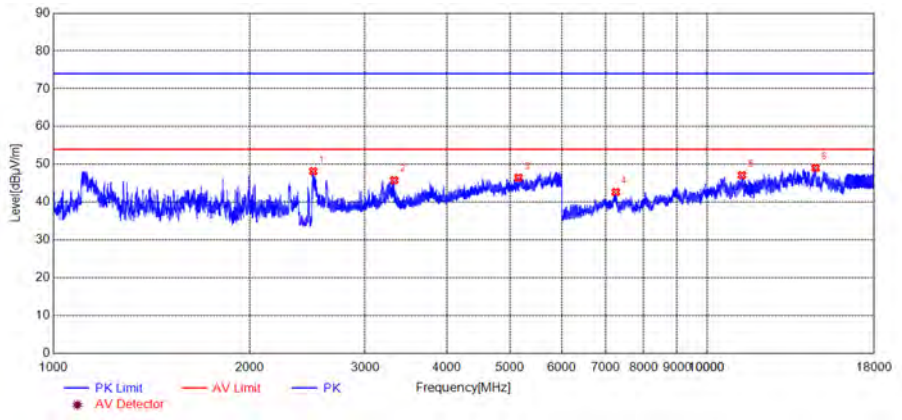
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
1452.0452	42.07	-23.40	74.00	Horizontal	PASS
2497.6498	49.83	-20.32	74.00	Horizontal	PASS
3186.2186	46.82	-17.43	74.00	Horizontal	PASS
5549.4549	48.09	-8.23	74.00	Horizontal	PASS
9992.7993	45.25	-0.03	74.00	Horizontal	PASS
13043.5044	50.68	6.87	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
52.3323	34.02	-29.42	40.00	Vertical	PASS
96.0260	31.33	-31.77	43.50	Vertical	PASS
180.5005	31.68	-33.61	43.50	Vertical	PASS
206.7167	33.19	-31.84	43.50	Vertical	PASS
328.0881	36.66	-28.27	46.00	Vertical	PASS
531.0210	37.00	-23.63	46.00	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Antenna	Verdict
2499.1499	48.20	-20.32	74.00	Vertical	PASS
3323.7324	45.83	-16.52	74.00	Vertical	PASS
5147.9148	46.52	-10.90	74.00	Vertical	PASS
7249.3249	42.68	-2.90	74.00	Vertical	PASS
11303.3303	47.15	3.05	74.00	Vertical	PASS
14650.4650	49.07	7.82	74.00	Vertical	PASS

(Antenna Vertical, 1GHz to 18GHz)

END OF REPORT