



REPORT No.: SZ23080092W03

TEST REPORT

APPLICANT : Nice North America LLC

PRODUCT NAME : System Controller

MODEL NAME : EL-SC-150

BRAND NAME : Nice

FCC ID : EF400240

STANDARD(S) : 47 CFR Part 15 Subpart C

RECEIPT DATE : 2023-08-09

TEST DATE : 2023-08-21 to 2023-11-10

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REPORT No.: SZ23080092W03

Change History		
Version	Date	Reason for change
1.0	2023-11-21	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	Aug. 25, 2023	He Yuyang	PASS	No deviation
3	15.247(b)	Maximum Peak Conducted Output Power	Aug. 25, 2023	He Yuyang	PASS	No deviation
4	15.247(b)	Maximum Average Conducted Output Power	Aug. 25, 2023	He Yuyang	PASS	No deviation
5	15.247(a)	Bandwidth	Aug. 25, 2023	He Yuyang	PASS	No deviation
6	15.247(d)	Conducted Spurious Emission and Band Edge	Aug. 25, 2023	He Yuyang	PASS	No deviation
7	15.247(e)	Power Spectral Density	Aug. 25, 2023	He Yuyang	PASS	No deviation
8	15.207	Conducted Emission	Oct. 20&Nov. 06, 2023	Wang Deyong	PASS	No deviation
9	15.247(d)	Restricted Frequency Bands	Nov 10, 2023	Gao Jianrou	PASS	No deviation
10	15.209, 15.247(d)	Radiated Emission	Sep. 15, 2023	Lin Jianyong	PASS	No deviation

Note 1: The tests were performed according to the method of measurements prescribed in ANSI C63.10-2013 and KDB558074 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 Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
EXA Signal Analyzer	MY53470836	N9010A	Agilent	2023.02.27	2024.02.26
Power Sensor	MY54180008	U2021XA	Agilent	2022.10.11	2023.10.10
				2023.09.19	2024.09.18
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 Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	MY56400093	N9038A	KEYSIGHT	2023.02.09	2024.02.08
LISN	8127449	NSLK 8127	Schwarzbeck	2023.02.21	2024.02.20
Pulse Limiter (10dB)	VTSD 9561 F-B #206	VTSD 9561-F	Schwarzbeck	2023.06.27	2024.06.26
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+ -[JS32-RE]	Tonscend	V2.5.0.6
TS+ -[JS32-CE]	Tonscend	V2.5.0.0

**1.2.4 Radiated Test Equipments**

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	MY54130016	N9038A	Agilent	2023.06.21	2024.06.20
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2022.05.25	2025.05.24
Test Antenna - Loop	1519-022	FMZB1519	Schwarzbeck	2022.02.11	2025.02.10
Test Antenna – Horn	01774	BBHA 9120D	Schwarzbeck	2022.07.13	2025.07.12
Test Antenna – Horn	BBHA9170 #773	BBHA9170	Schwarzbeck	2022.07.14	2025.07.13
Preamplifier (10MHz-6GHz)	46732	S10M100L38 02	LUCIX CORP.	2023.06.27	2024.06.26
Preamplifier (2GHz-18GHz)	61171/61172	S020180L32 03	LUCIX CORP.	2023.06.27	2024.06.26
Preamplifier (18GHz-40GHz)	DS77209	DCLNA0118-40C-S	Decentest	2023.07.04	2024.07.03
RF Coaxial Cable (DC-18GHz)	MRE001	PE330	Pasternack	2023.06.27	2024.06.26
RF Coaxial Cable (DC-18GHz)	MRE002	CLU18	Pasternack	2023.06.27	2024.06.26
RF Coaxial Cable (DC-18GHz)	MRE003	CLU18	Pasternack	2023.06.27	2024.06.26
RF Coaxial Cable (DC-40GHz)	22290045	QA360-40-K K-0.5	Qualwave	2023.06.27	2024.06.26
RF Coaxial Cable (DC-40GHz)	22290046	QA360-40-K KF-2	Qualwave	2023.06.27	2024.06.26
RF Coaxial Cable (DC-18GHz)	22120181	QA500-18-N N-5	Qualwave	2023.06.27	2024.06.26
Notch Filter	N/A	WRCG-2400-2483.5-60SS	Wainwright	2023.06.27	2024.06.26
Anechoic Chamber	N/A	9m*6m*6m	CRT	2022.05.10	2025.05.09



1.3. Measurement Uncertainty

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

1.4. Testing Laboratory

Laboratory Name	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
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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	Nice North America LLC
Applicant Address	5919 Sea Otter Place, Suite 100, Carlsbad, CA 92010 USA
Manufacturer	Nice North America LLC
Manufacturer Address	5919 Sea Otter Place, Suite 100, Carlsbad, CA 92010 USA

2.2. Information of EUT

Product Name:	System Controller
Sample No.:	2#
Hardware Version:	X1
Software Version:	X1
Modulation Technology:	DSSS, OFDM
Modulation Type:	Refer to section1.3
Operating Frequency Range:	802.11b/g/n (HT20): 2412MHz–2462MHz
Antenna Type:	PCB Antenna
Antenna Gain:	3.3dBi

Note 1: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.



2.3.Channel List of EUT

Test Mode	Channel	Frequency (MHz)	Channel	Frequency (MHz)
802.11b/g/n (HT20)	1	2412	8	2447
	2	2417	9	2452
	3	2422	10	2457
	4	2427	11	2462
	5	2432		
	6	2437		
	7	2442		

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

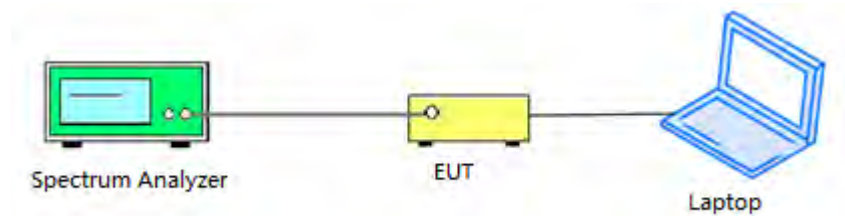
2.6. Test Setup Layout Diagram

2.6.1. Conducted Measurement

Power item



Other items

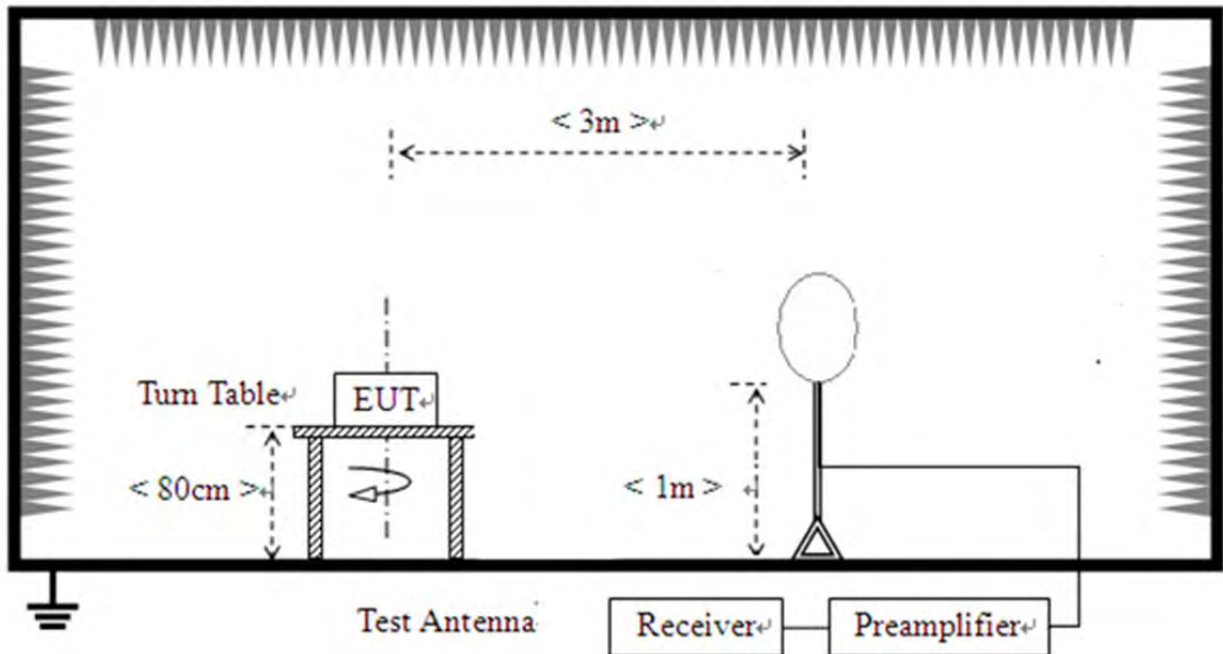


2.6.2. Conducted Emission Measurement

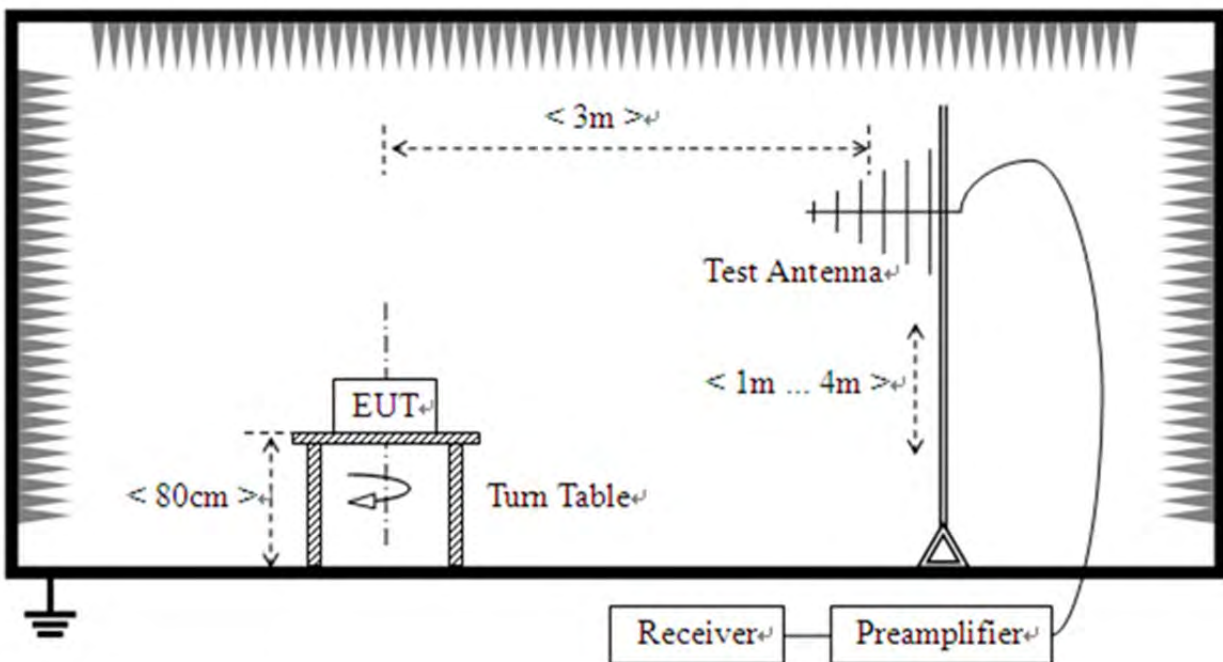


2.6.3.Radiation Measurement

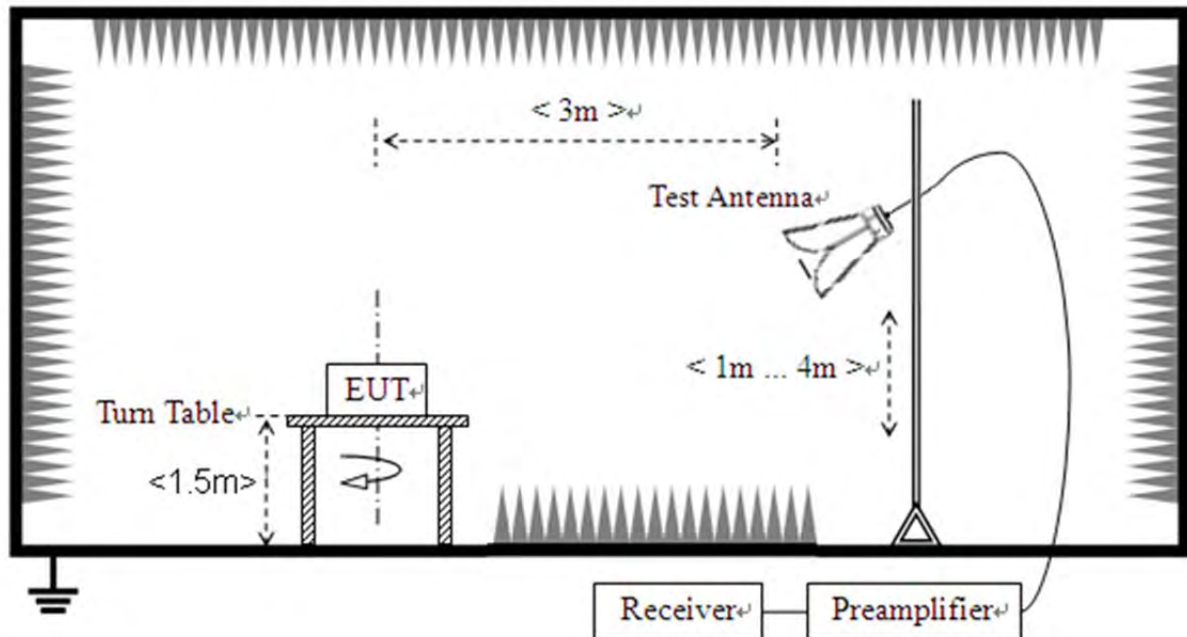
1) For radiated emissions from 9kHz to 30MHz



2) For radiated emissions from 30MHz to 1GHz



3) For radiated emissions above 1GHz





3. Test Results

3.1. Antenna Requirement

3.1.1. Requirement

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

3.1.2. Test Result

The EUT has a PCB antenna coupled with the I-PEX connector. Please refer to the EUT photos.

3.2. Duty Cycle of Test Signal

3.2.1. Requirement

Preferably, all measurements of maximum conducted (average) output power will be performed with the EUT transmitting continuously (i.e., with a duty cycle of greater than or equal to 98%). When continuous operation cannot be realized, then the use of sweep triggering/signal gating techniques can be used to ensure that measurements are made only during transmissions at the maximum power control level. Such sweep triggering/signal gating techniques will require knowledge of the minimum transmission duration (T) over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation. Sweep triggering/signal gating techniques can then be used if the measurement/sweep time of the analyzer can be set such that it does not exceed T at any time that data are being acquired (i.e., no transmitter OFF-time is to be considered).

When continuous transmission cannot be achieved and sweep triggering/signal gating cannot be implemented, alternative procedures are provided that can be used to measure the average power; however, they will require an additional measurement of the transmitter duty cycle (D). Within this sub clause, the duty cycle refers to the fraction of time over which the transmitter is ON and is transmitting at its maximum power control level. The duty cycle is considered to be constant if variations are less than $\pm 2\%$; otherwise, the duty cycle is considered to be non constant.

3.2.2. Test Result

Refer to Annex A.1 in this report.



3.3. Maximum Peak and Average Conducted Output Power

3.3.1. Requirement

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

3.3.2. Test Procedures

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

3.3.3. Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.3.4. Test Result

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



3.4.6 dB Bandwidth and 99% OBW

3.4.1.Requirement

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

3.4.1.Test Procedures

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

3.4.2.Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.4.3.Test Result

Refer to Annex A.4 in this report.



3.5. Conducted Spurious Emissions and Band Edge

3.5.1. Requirement

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

3.5.2. Test Procedures

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

3.5.3. Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.5.4. Test Result

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



3.6. Power Spectral Density

3.6.1. Requirement

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

3.6.2. Test Procedures

The measured power spectral density was calculated by the reading of the spectrum analyzer and calibration. Following is the test procedure for PSD test:

- a) Set analyzer center frequency to channel center frequency
- b) Set span to 1.5 times DTS
- c) Set RBW to 30kHz
- d) Set VBW to 100kHz
- e) Detector = peak
- f) Sweep time = auto couple
- g) Trace mode = max hold
- h) Allow trace to fully stabilize
- i) Use the peak marker function to determine the maximum amplitude level and recorded as PD
- j) Use below formula to calculate the Conducted PSD value that at specified RBW:

Conducted PSD = PD - 10lg(30k/3k)

3.6.3. Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.6.4. Test Result

Refer to Annex A.7 in this report.

3.7. Conducted Emission

3.7.1. Requirement

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

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

Note:

- (a) The lower limit shall apply at the band edges.
- (b) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

3.7.2. Test Procedures

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

3.7.3. Test Setup Layout

Refer to chapter 2.6.2 in this report.

3.7.4. Test Result

Refer to Annex A.8 in this report.



3.8. Restricted Frequency Bands

3.8.1. Requirement

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

3.8.2. Test Procedures

The EUT is located in a 3m Semi-Anechoic Chamber; the antenna factors, cable loss and so on of the site as factors are calculated to correct the reading.

For the Test Antenna:

Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength.

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz for $f \geq 1\text{GHz}$, 100 kHz for $f < 1\text{GHz}$

VBW = 3 MHz

Sweep = auto

Detector function = peak/average

Trace = max hold

Allow the trace to stabilize

3.8.3. Test Setup Layout

Refer to chapter 2.6.3 in this report.

3.8.4. Test Result

Refer to Annex A.9 in this report.

3.9. Radiated Emission

3.9.1. Requirement

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

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

Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

Note1: For above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.

Note2: For above 1000MHz, limit field strength of harmonics: 54dBuV/m@3m (AV) and 74dBuV/m@3m (PK). In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table).



3.9.2.Test Procedures

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 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

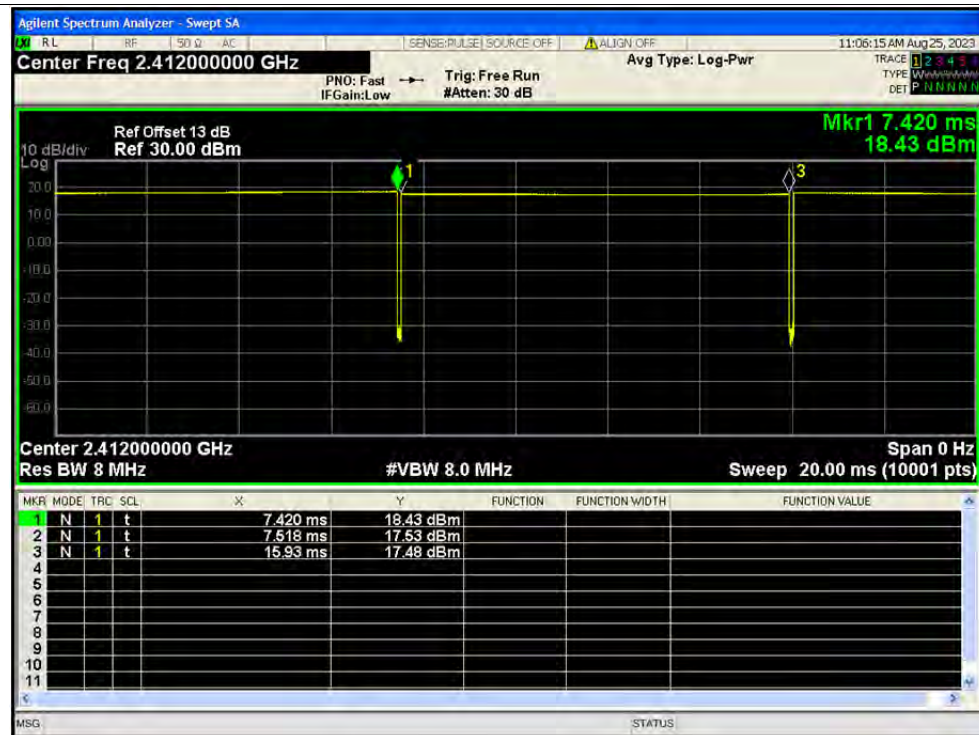
A.1. Duty Cycle of Test Signal

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	98.85	0.05	0.12
NVNT	b	2437	Ant1	98.87	0.05	0.12
NVNT	b	2462	Ant1	98.9	0.05	0.12
NVNT	g	2412	Ant1	93.32	0.3	0.72
NVNT	g	2437	Ant1	93.32	0.3	0.72
NVNT	g	2462	Ant1	93.32	0.3	0.72
NVNT	n20	2412	Ant1	92.77	0.33	0.76
NVNT	n20	2437	Ant1	92.9	0.32	0.76
NVNT	n20	2462	Ant1	92.91	0.32	0.76

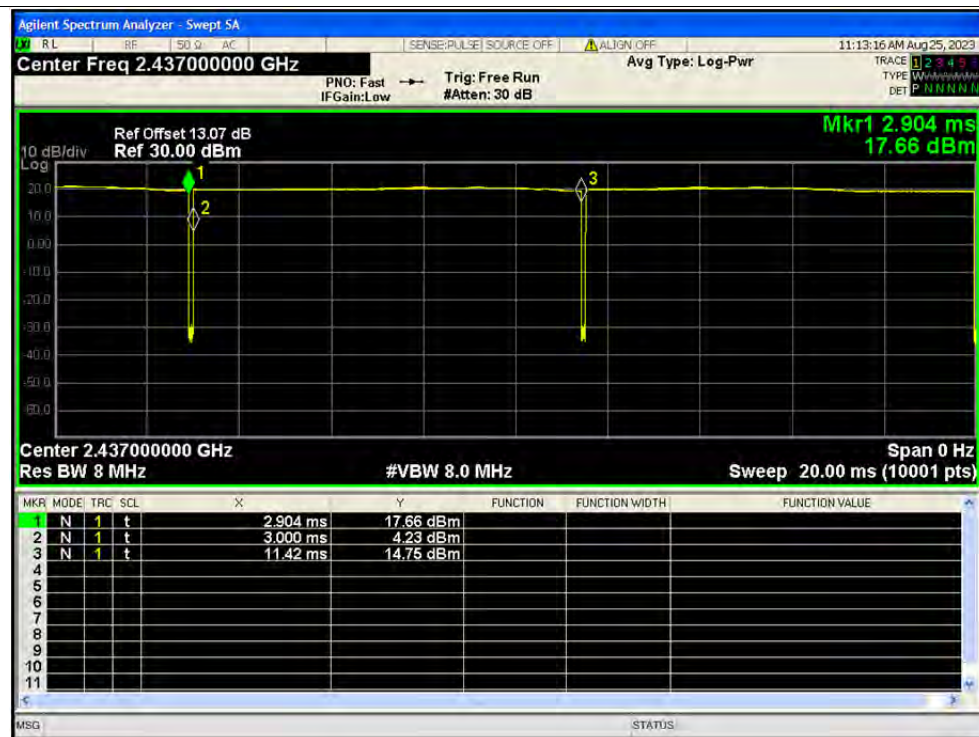


Test Graphs

Duty Cycle NVNT b 2412MHz Ant1

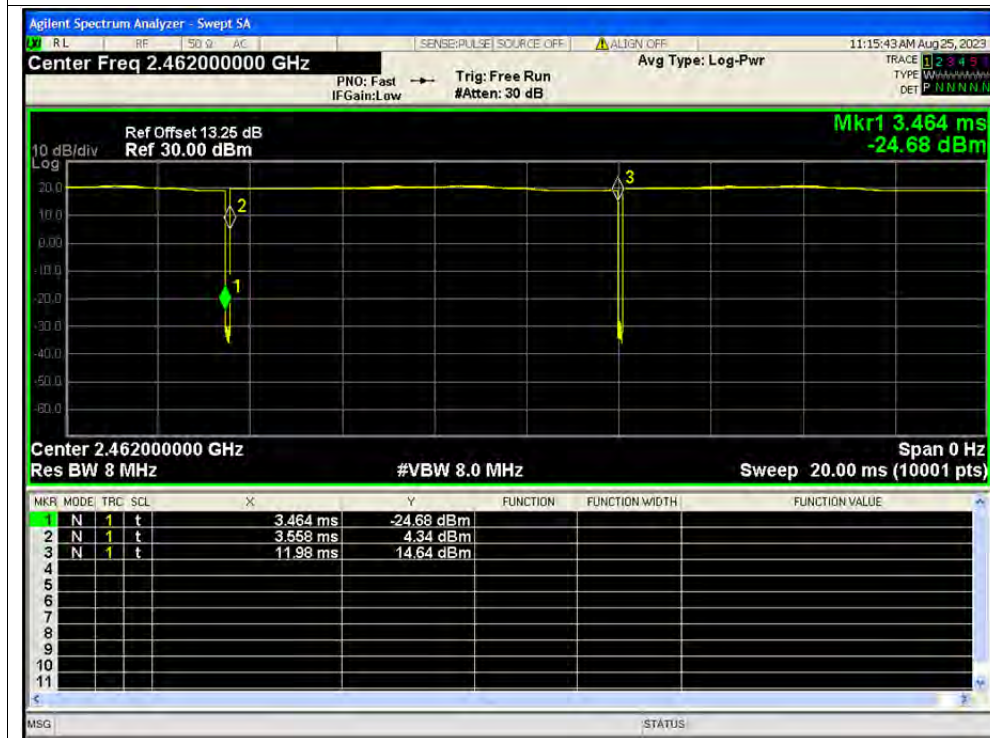


Duty Cycle NVNT b 2437MHz Ant1

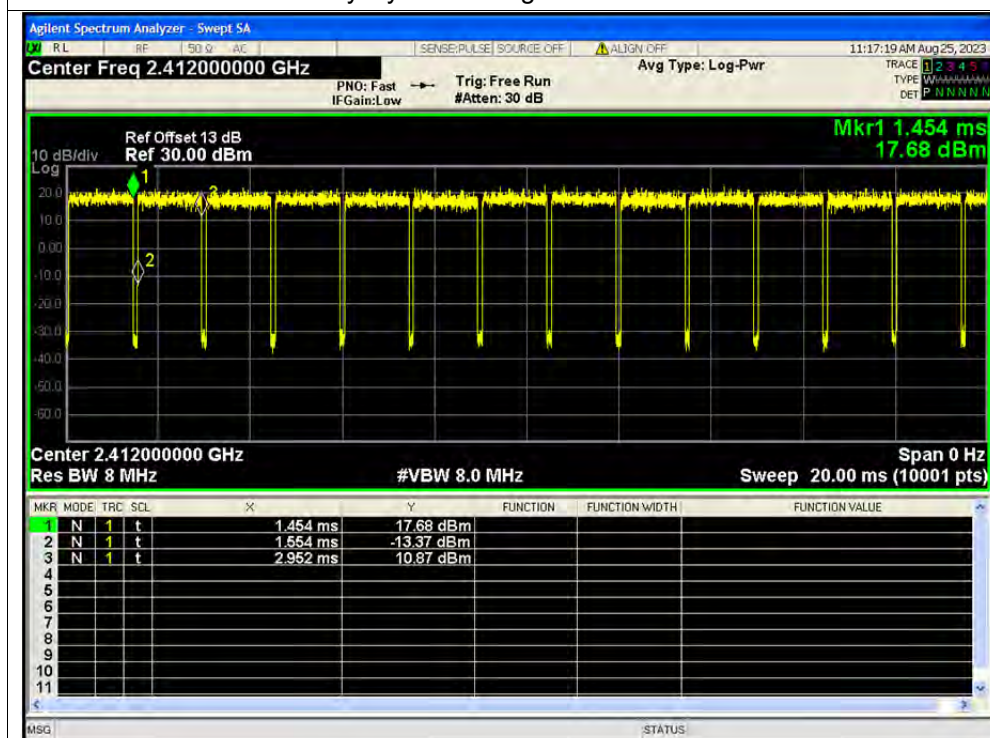




Duty Cycle NVNT b 2462MHz Ant1

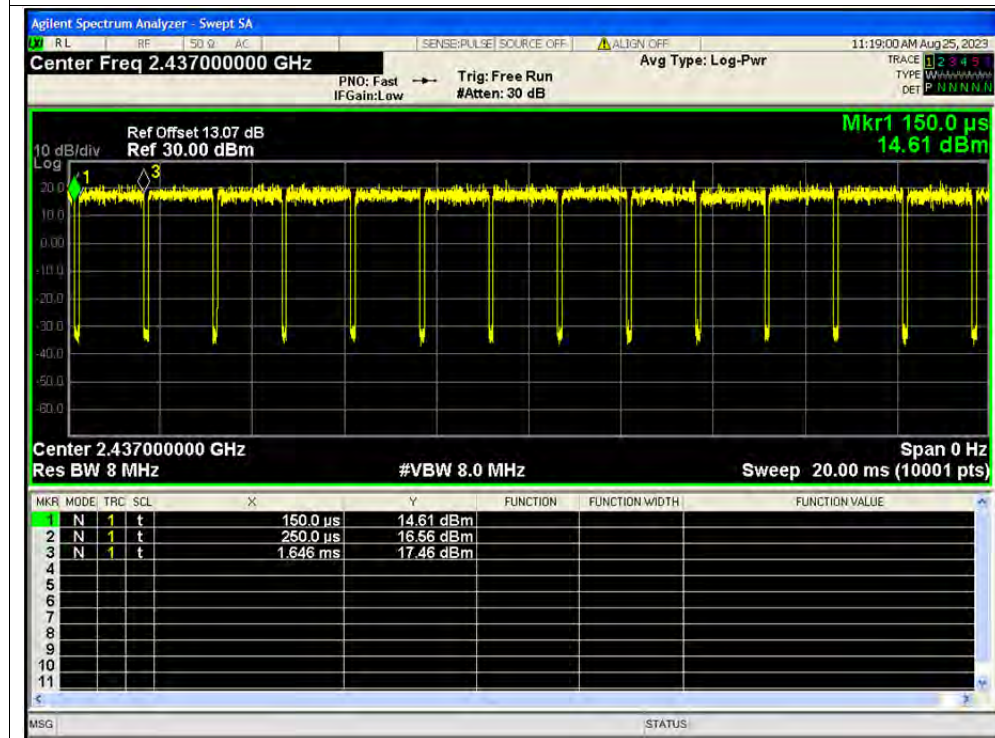


Duty Cycle NVNT g 2412MHz Ant1

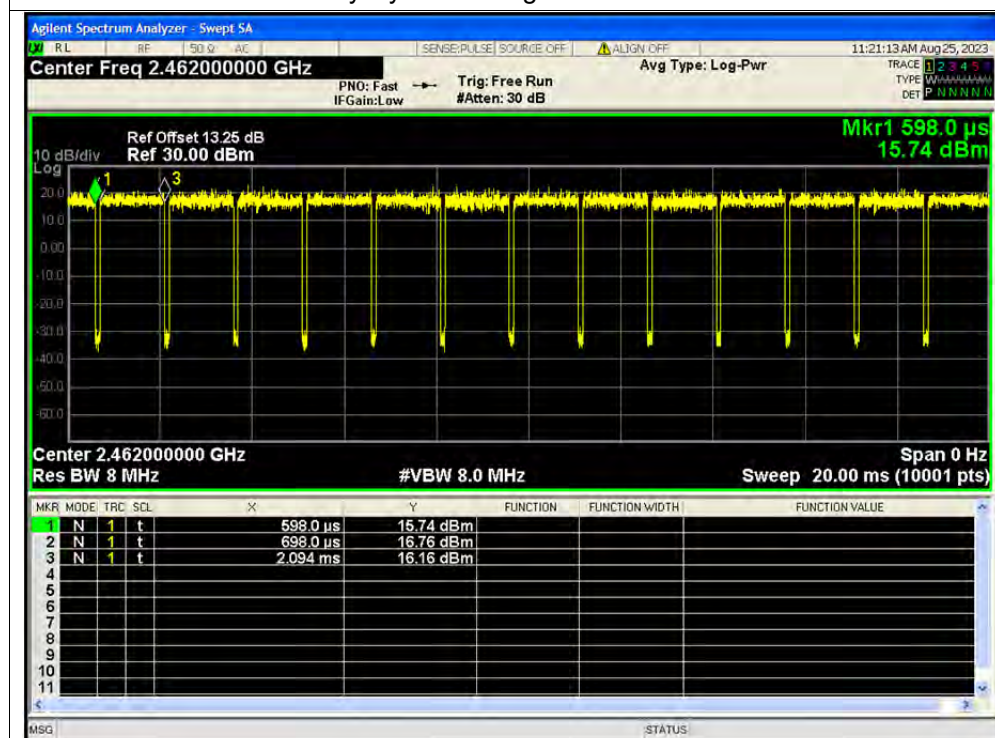




Duty Cycle NVNT g 2437MHz Ant1

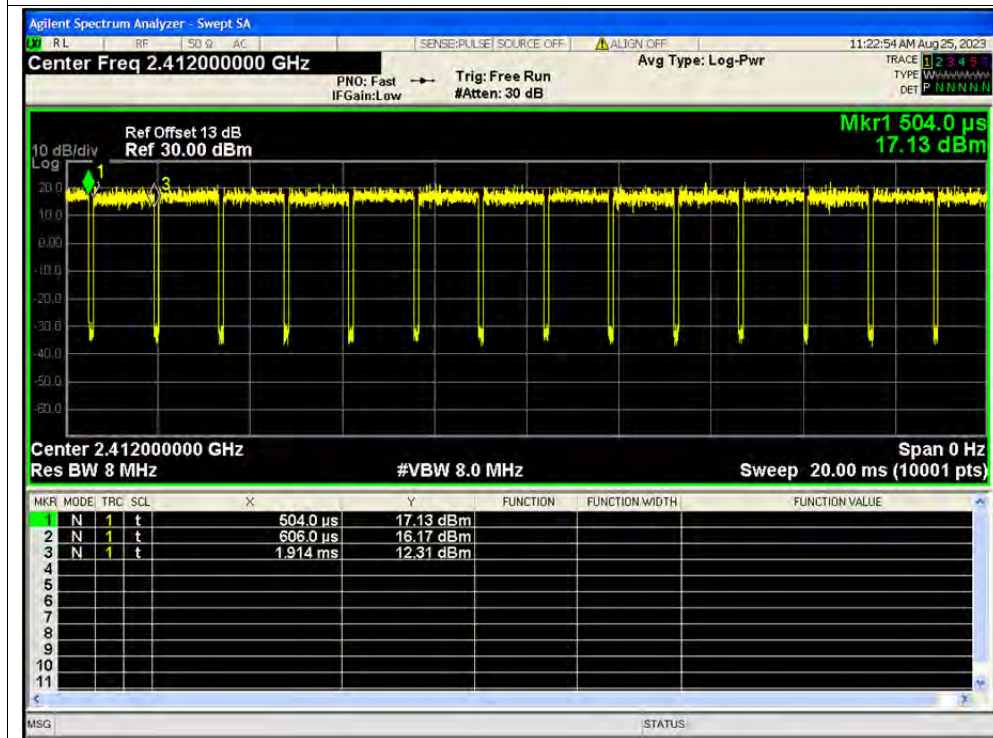


Duty Cycle NVNT g 2462MHz Ant1

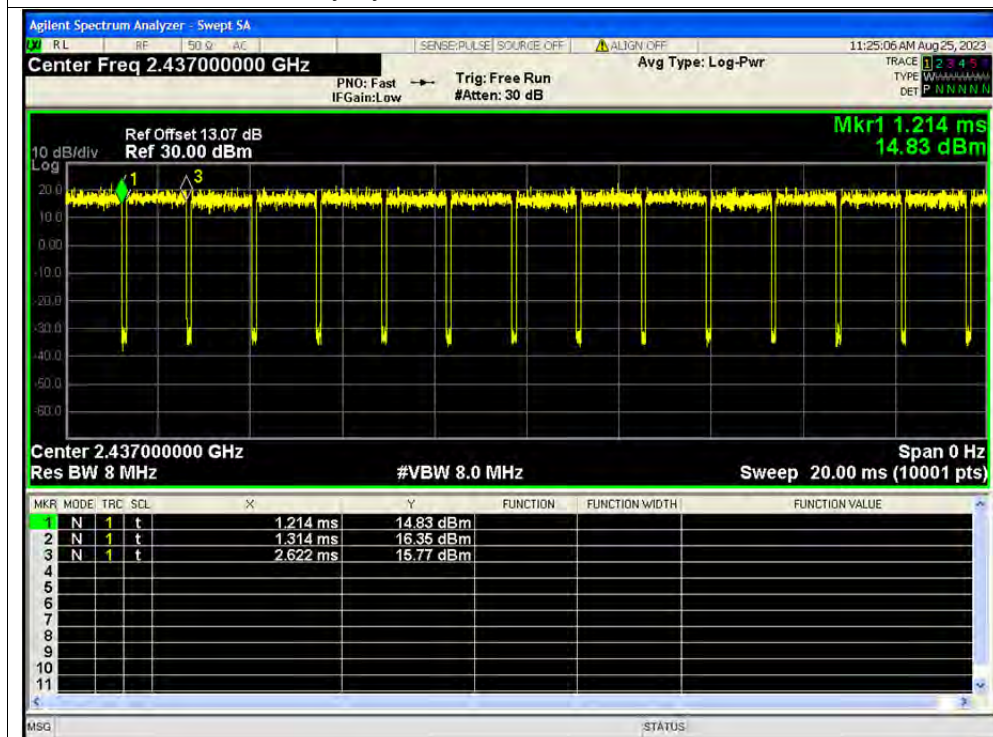




Duty Cycle NVNT n20 2412MHz Ant1

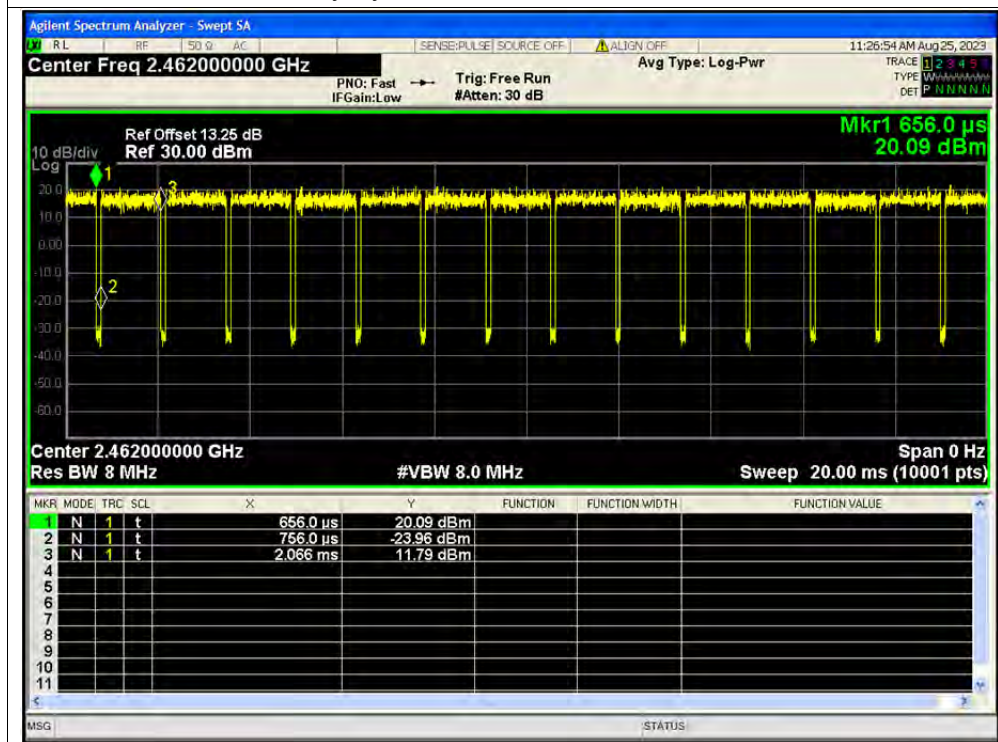


Duty Cycle NVNT n20 2437MHz Ant1





Duty Cycle NVNT n20 2462MHz Ant1



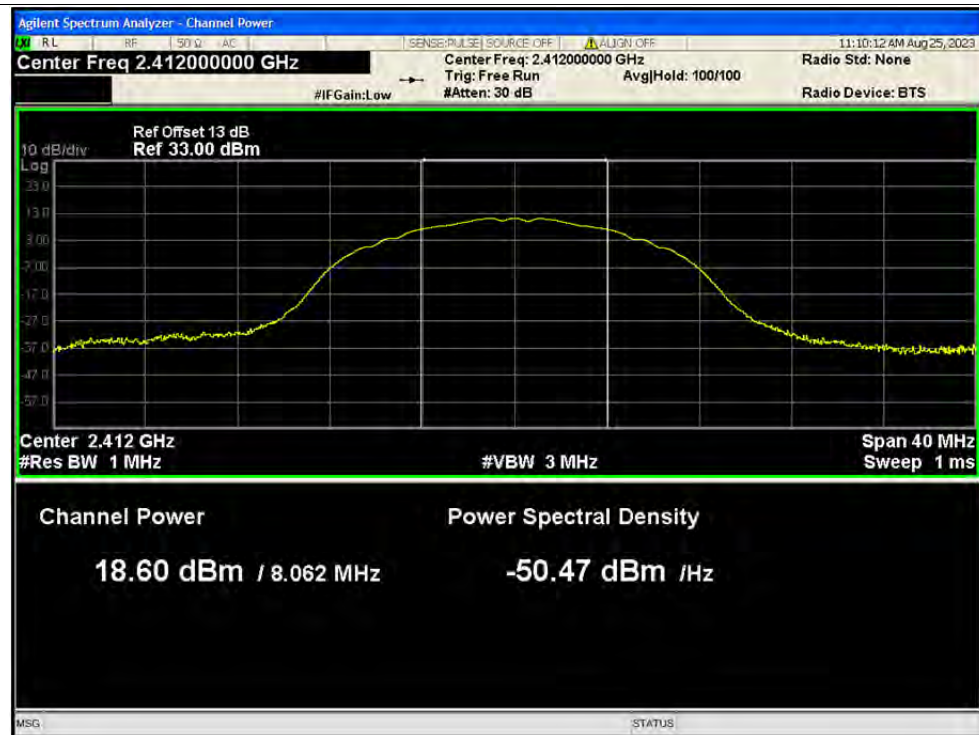
**A.2. Maximum Peak Conducted Output Power**

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	18.6	0	18.6	0.07244	30	Pass
NVNT	b	2437	Ant1	18.54	0	18.54	0.07145	30	Pass
NVNT	b	2462	Ant1	18.33	0	18.33	0.06808	30	Pass
NVNT	g	2412	Ant1	21.48	0	21.48	0.1406	30	Pass
NVNT	g	2437	Ant1	21.09	0	21.09	0.12853	30	Pass
NVNT	g	2462	Ant1	21.22	0	21.22	0.13243	30	Pass
NVNT	n20	2412	Ant1	20.68	0	20.68	0.11695	30	Pass
NVNT	n20	2437	Ant1	20.33	0	20.33	0.10789	30	Pass
NVNT	n20	2462	Ant1	20.61	0	20.61	0.11508	30	Pass

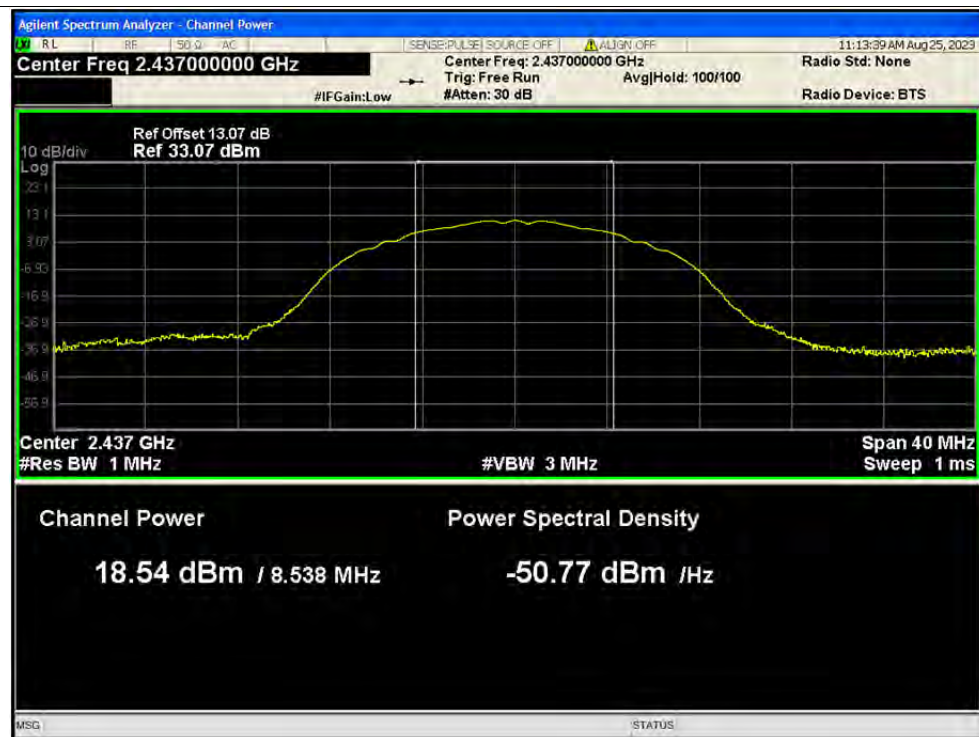


Test Graphs

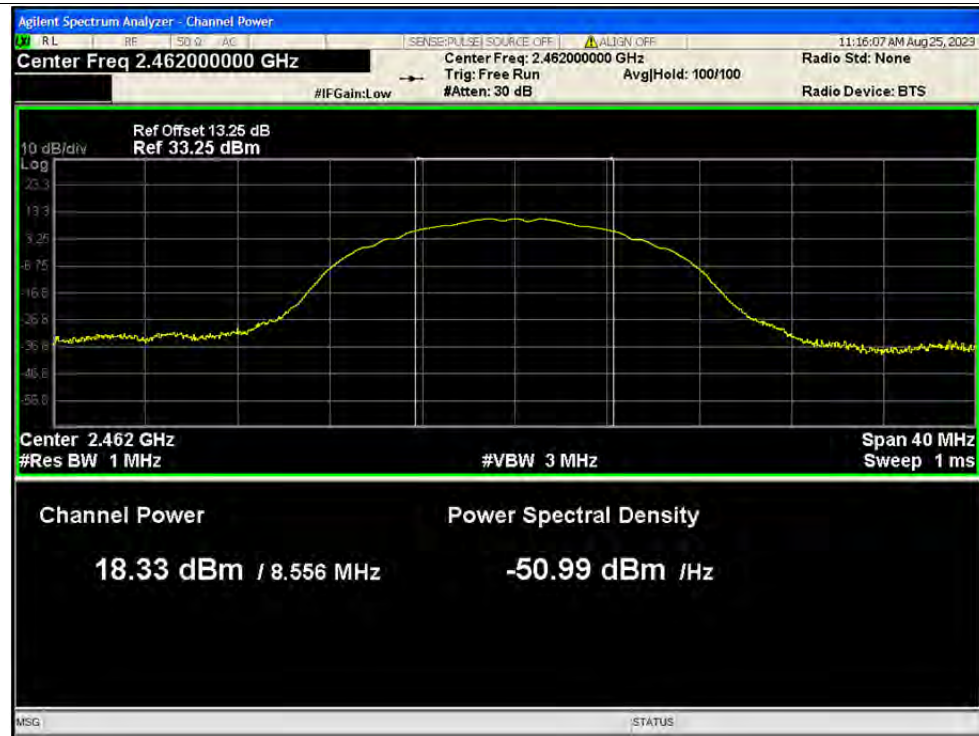
Peak Power NVNT b 2412MHz Ant1



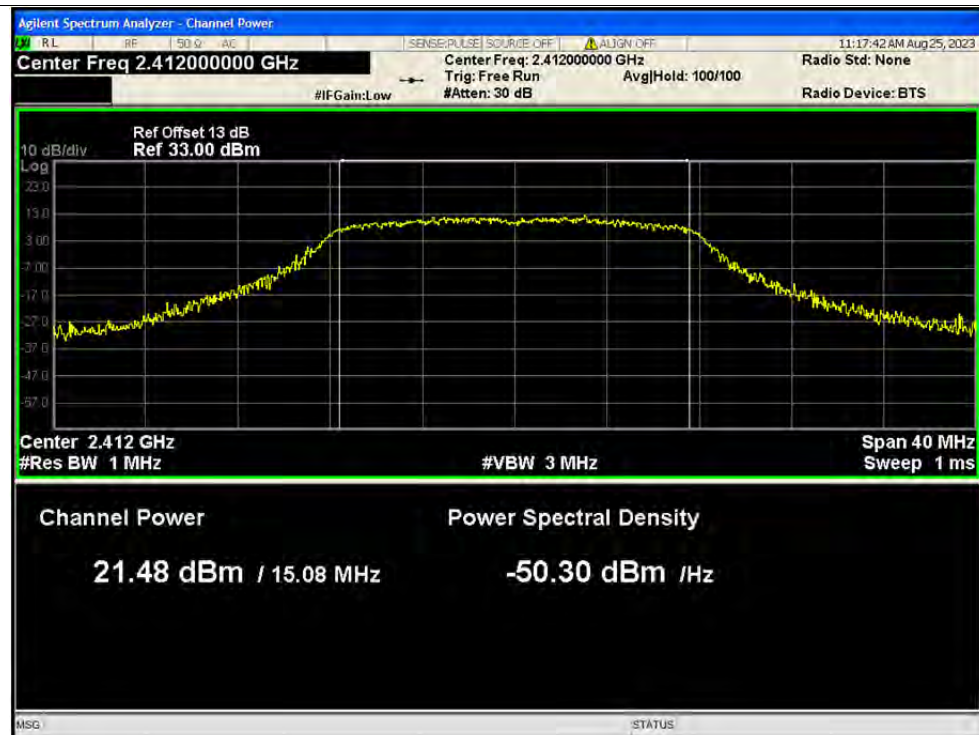
Peak Power NVNT b 2437MHz Ant1



Peak Power NVNT b 2462MHz Ant1

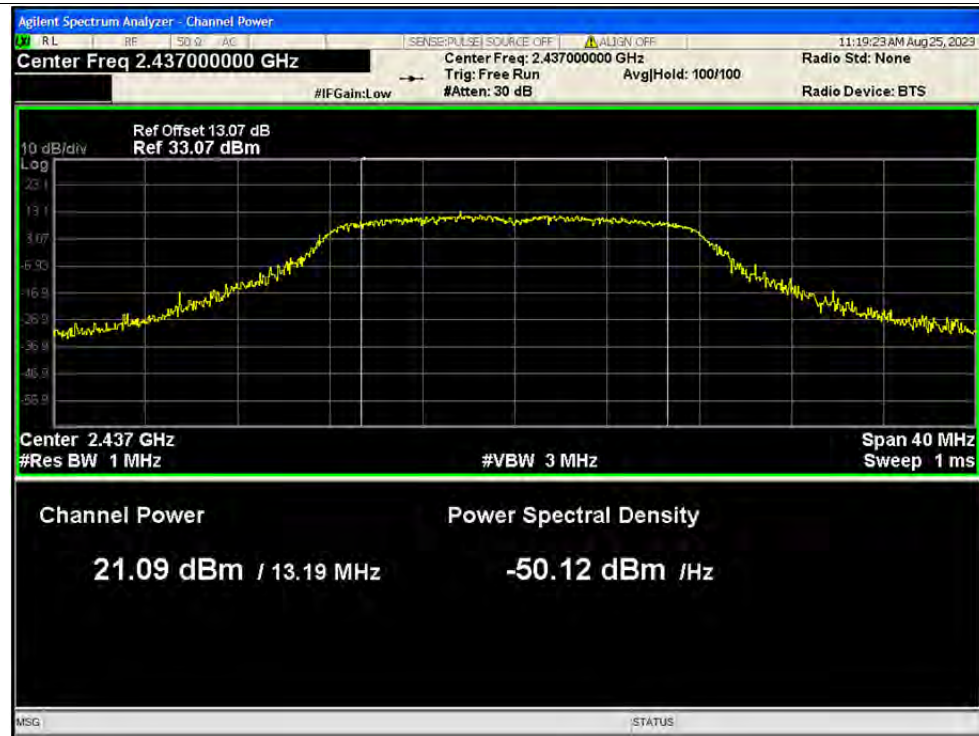


Peak Power NVNT g 2412MHz Ant1

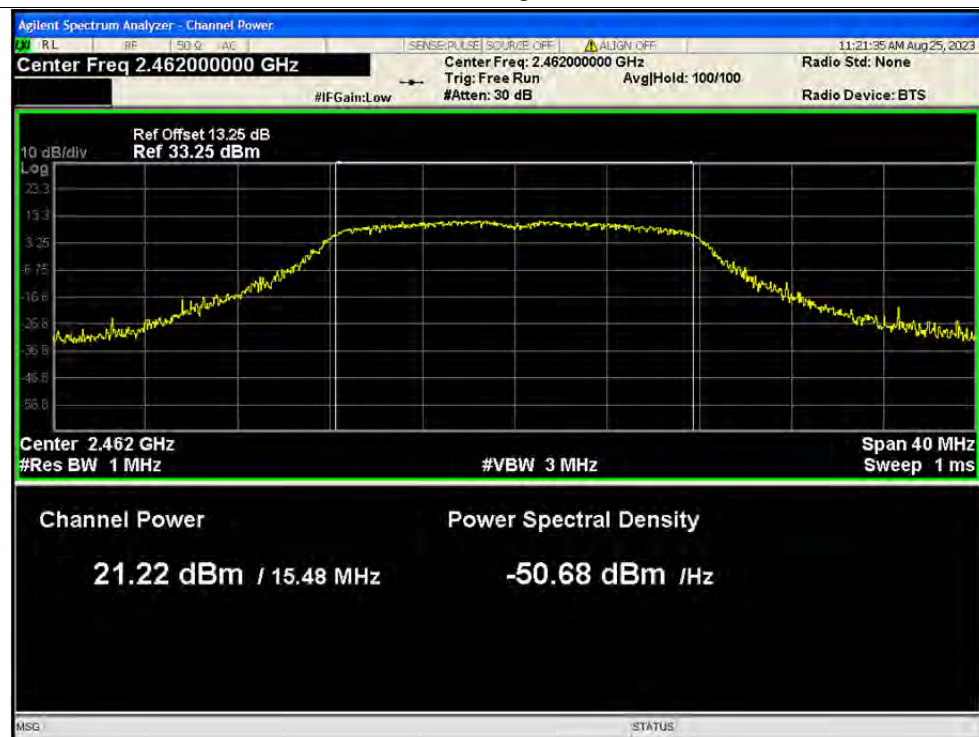




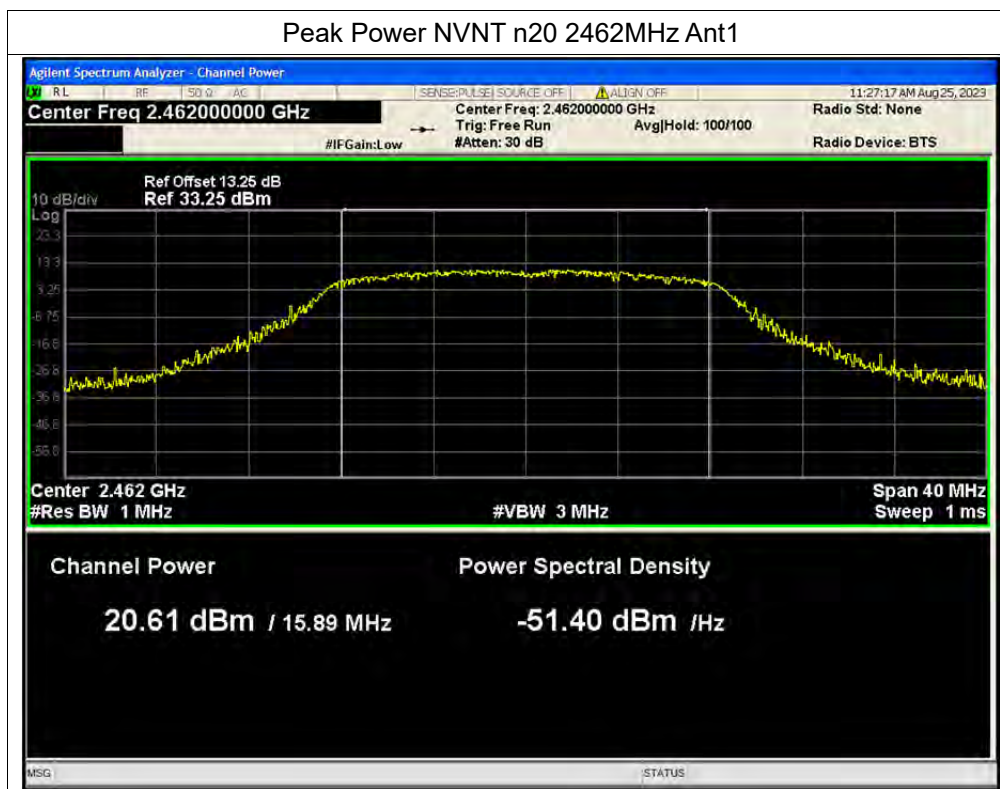
Peak Power NVNT g 2437MHz Ant1



Peak Power NVNT g 2462MHz Ant1







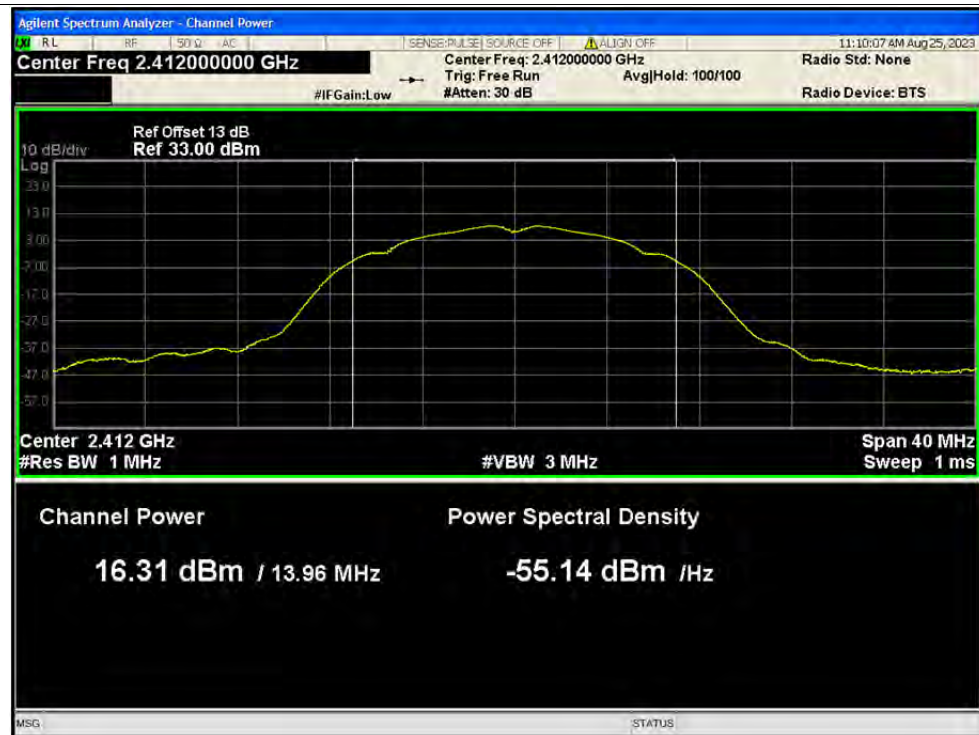
**A.3. Maximum Average Conducted Output Power**

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	16.31	0.05	16.36	0.04325	30	Pass
NVNT	b	2437	Ant1	16.01	0.05	16.06	0.04036	30	Pass
NVNT	b	2462	Ant1	15.84	0.05	15.89	0.03882	30	Pass
NVNT	g	2412	Ant1	14.08	0.3	14.38	0.02742	30	Pass
NVNT	g	2437	Ant1	14.13	0.3	14.43	0.02773	30	Pass
NVNT	g	2462	Ant1	13.85	0.3	14.15	0.026	30	Pass
NVNT	n20	2412	Ant1	13.5	0.33	13.83	0.02415	30	Pass
NVNT	n20	2437	Ant1	13.34	0.32	13.66	0.02323	30	Pass
NVNT	n20	2462	Ant1	13.25	0.32	13.57	0.02275	30	Pass

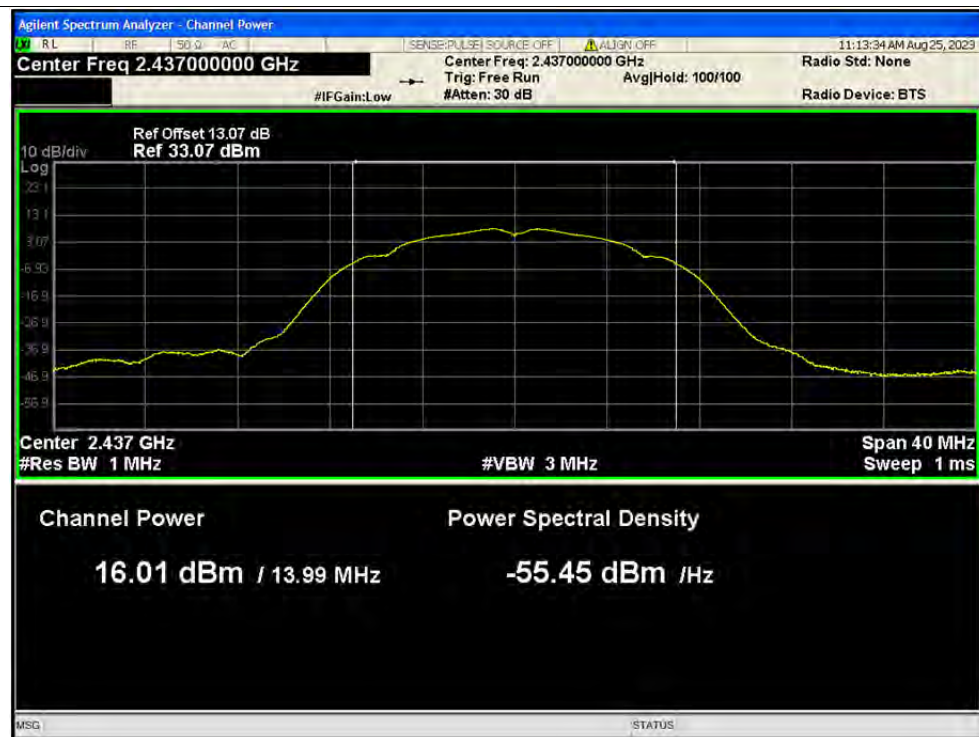


Test Graphs

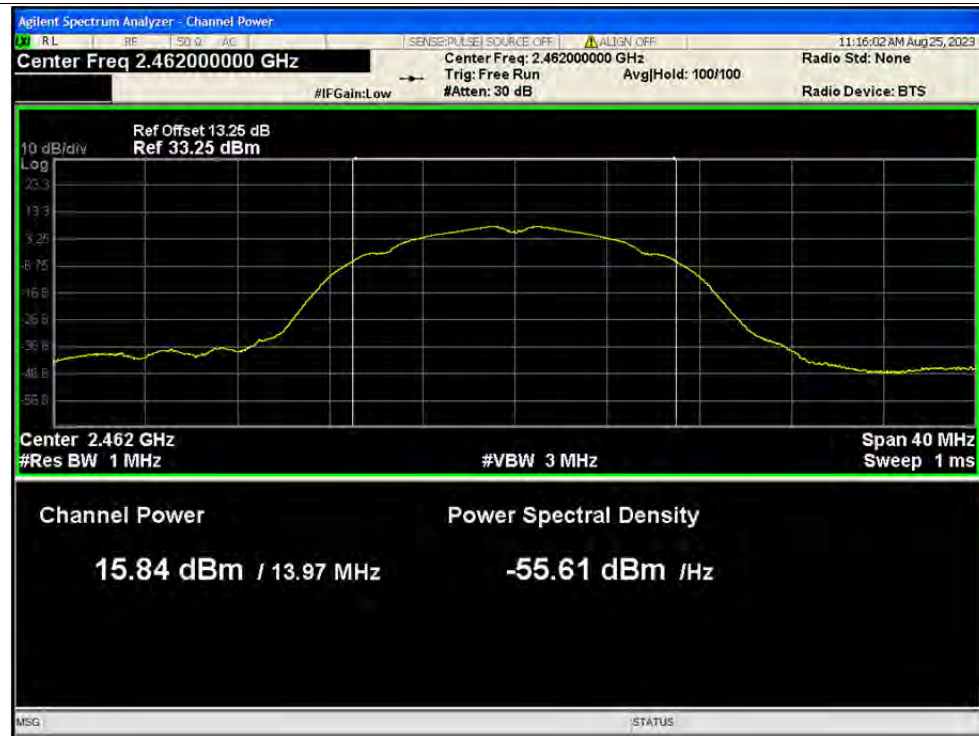
Average Power NVNT b 2412MHz Ant1



Average Power NVNT b 2437MHz Ant1



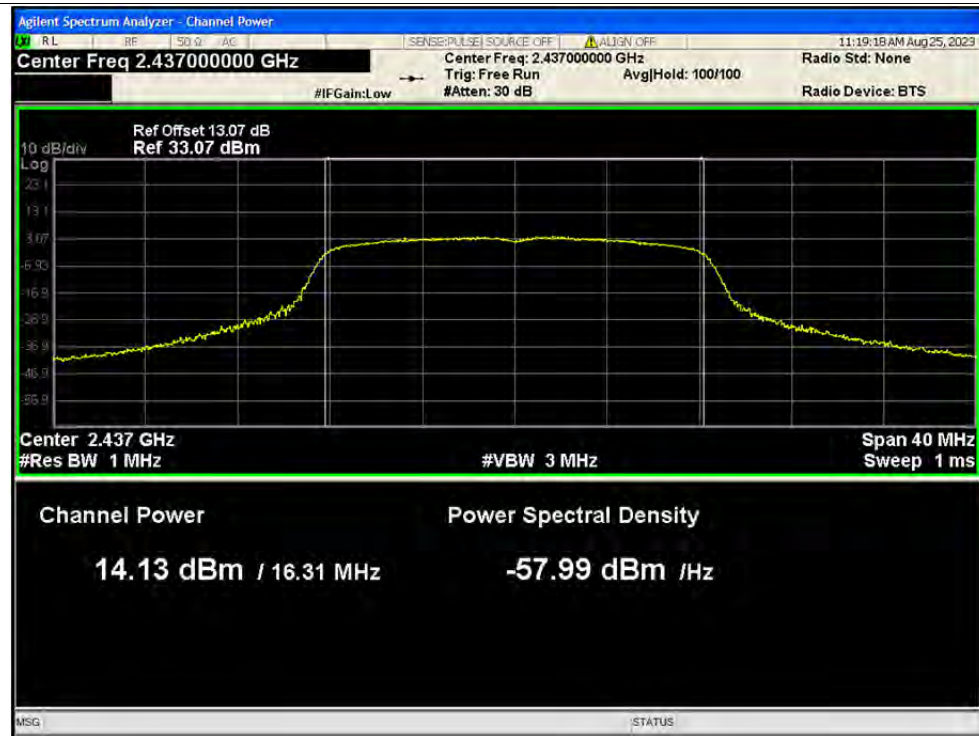
Average Power NVNT b 2462MHz Ant1



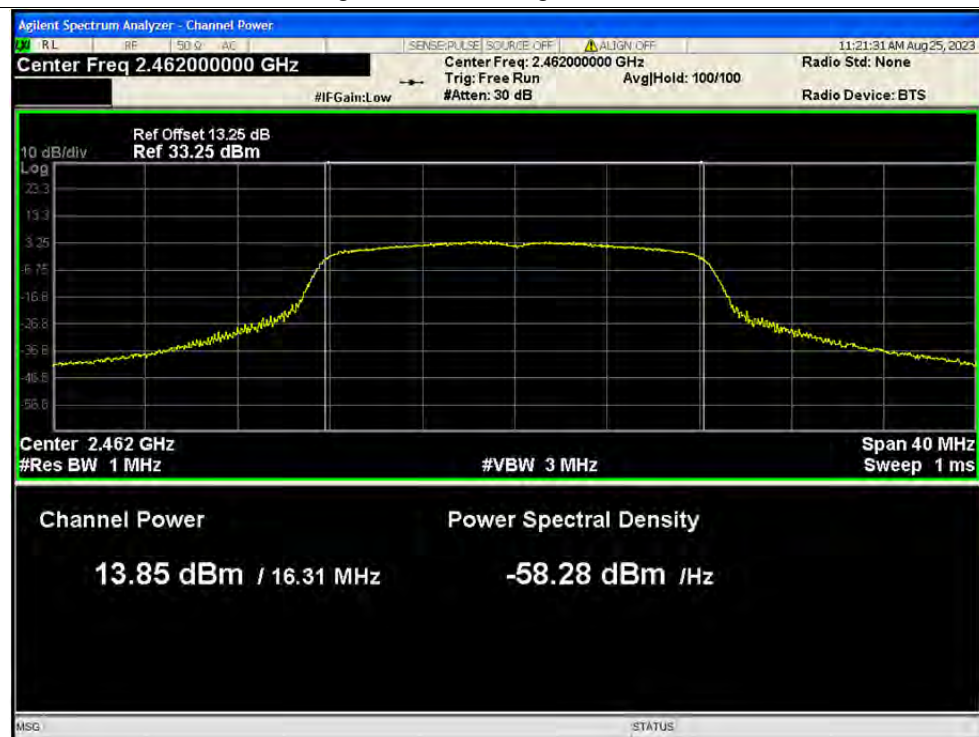
Average Power NVNT g 2412MHz Ant1



Average Power NVNT g 2437MHz Ant1

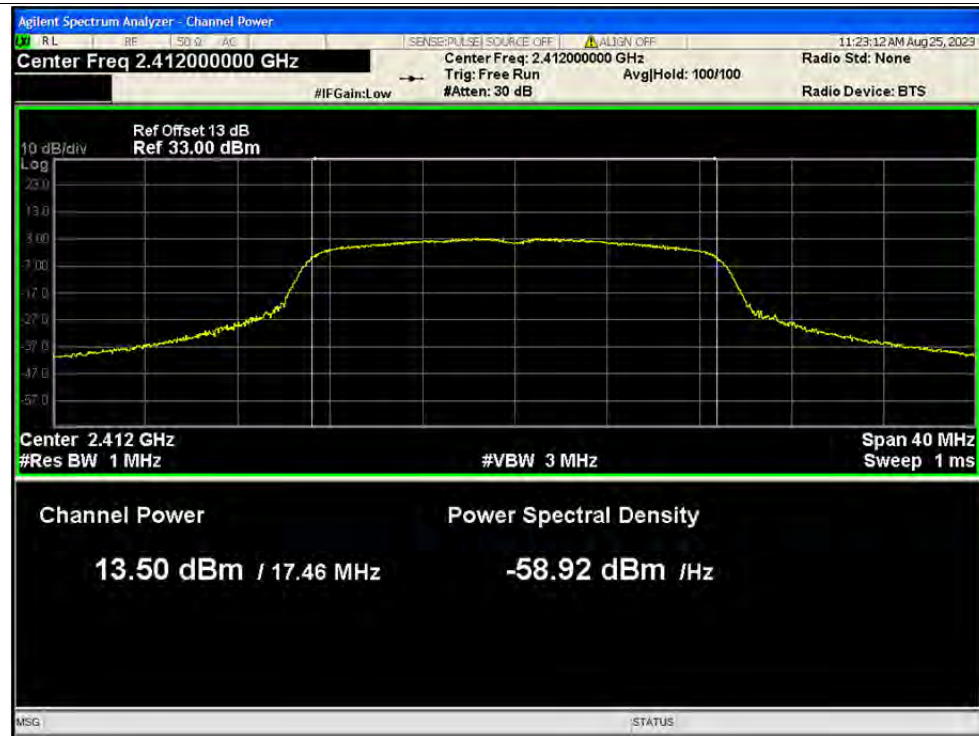


Average Power NVNT g 2462MHz Ant1

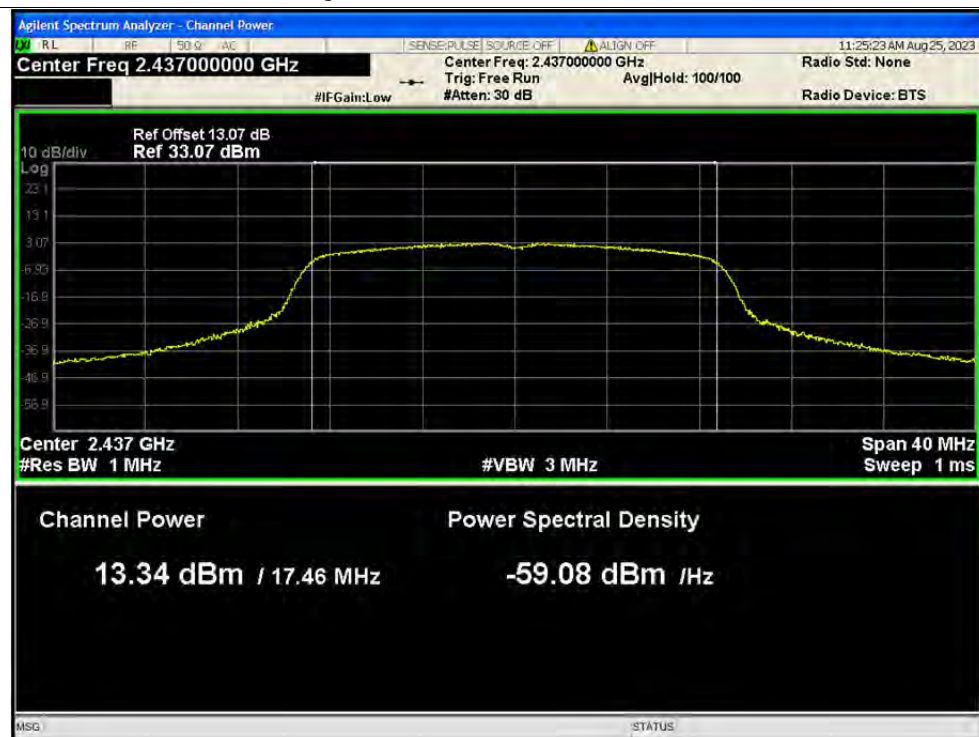




Average Power NVNT n20 2412MHz Ant1

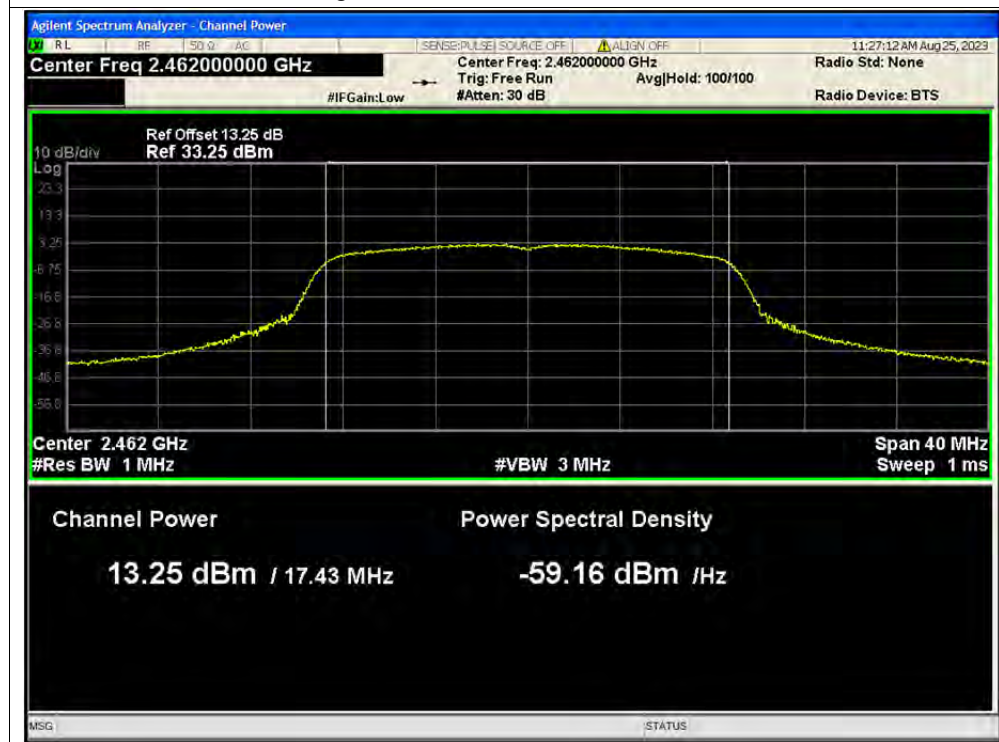


Average Power NVNT n20 2437MHz Ant1





Average Power NVNT n20 2462MHz Ant1



**A.4. 6 dB Bandwidth and 99% OBW**

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	8.062	0.5	Pass
NVNT	b	2437	Ant1	8.538	0.5	Pass
NVNT	b	2462	Ant1	8.556	0.5	Pass
NVNT	g	2412	Ant1	15.08	0.5	Pass
NVNT	g	2437	Ant1	13.194	0.5	Pass
NVNT	g	2462	Ant1	15.482	0.5	Pass
NVNT	n20	2412	Ant1	14.632	0.5	Pass
NVNT	n20	2437	Ant1	13.792	0.5	Pass
NVNT	n20	2462	Ant1	15.887	0.5	Pass

Test Graphs

-6dB Bandwidth NVNT b 2412MHz Ant1



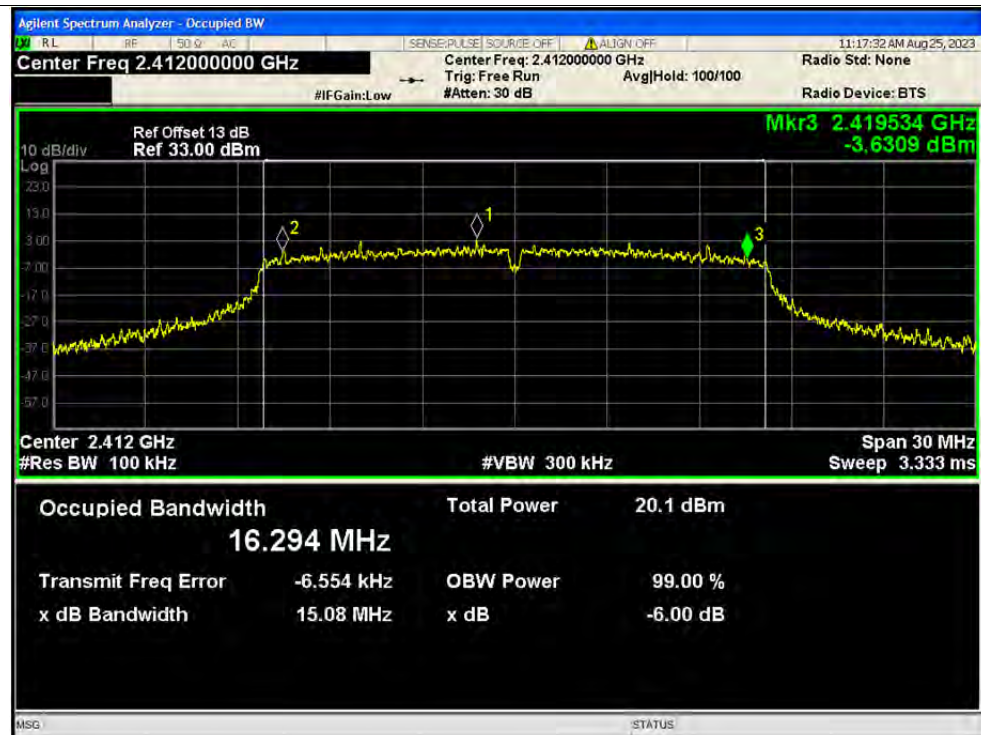
-6dB Bandwidth NVNT b 2437MHz Ant1



-6dB Bandwidth NVNT b 2462MHz Ant1

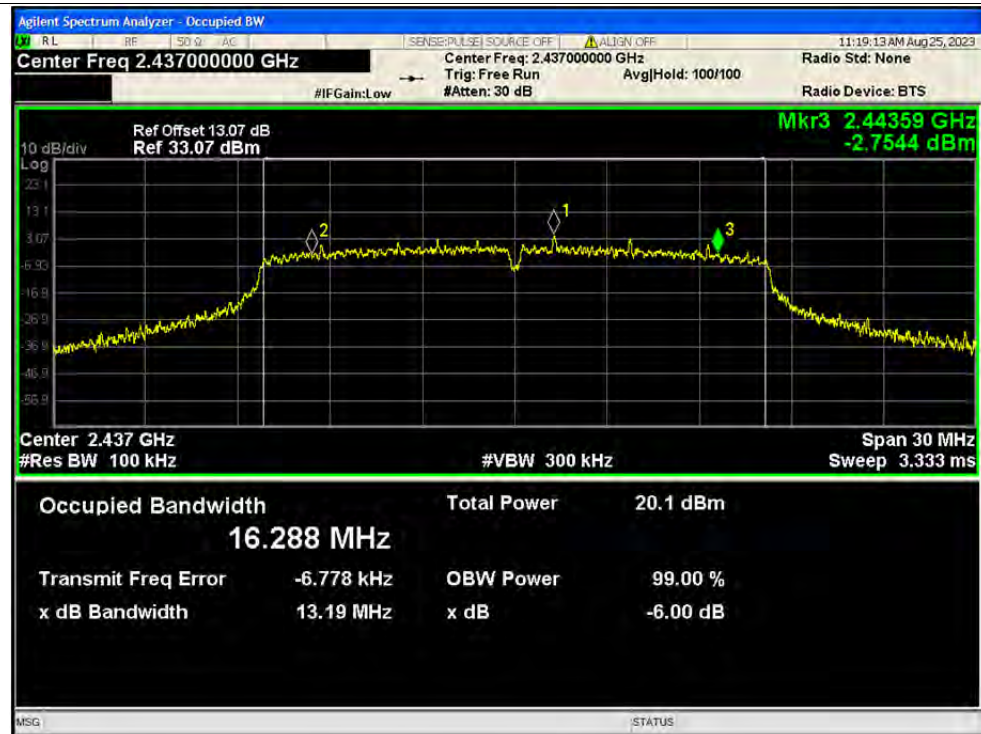


-6dB Bandwidth NVNT g 2412MHz Ant1

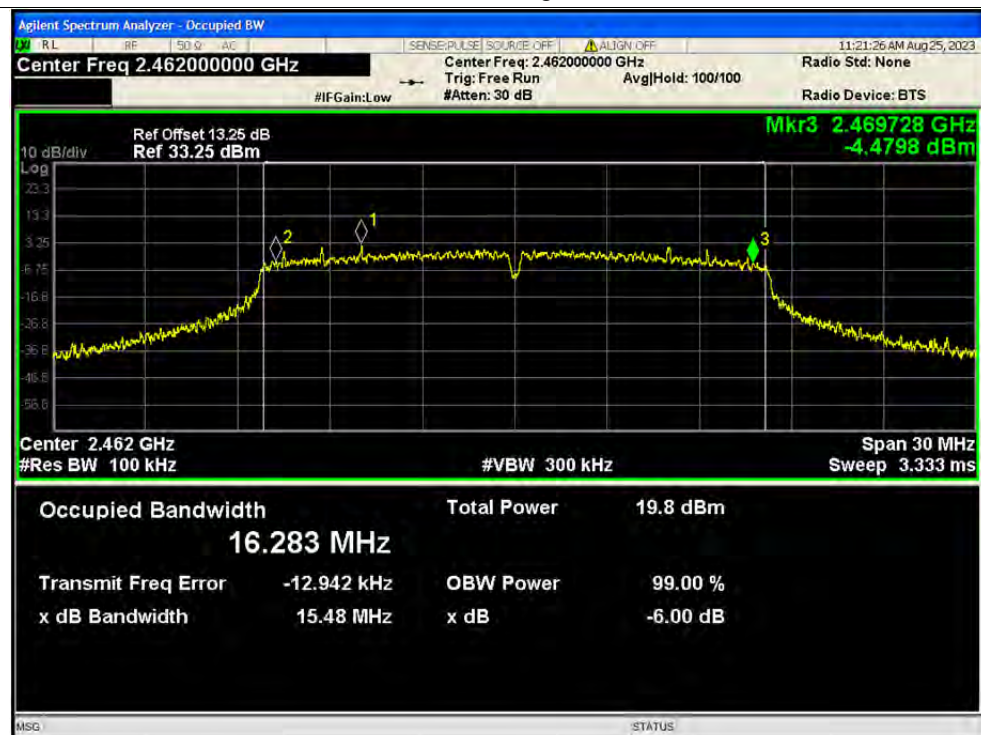




-6dB Bandwidth NVNT g 2437MHz Ant1

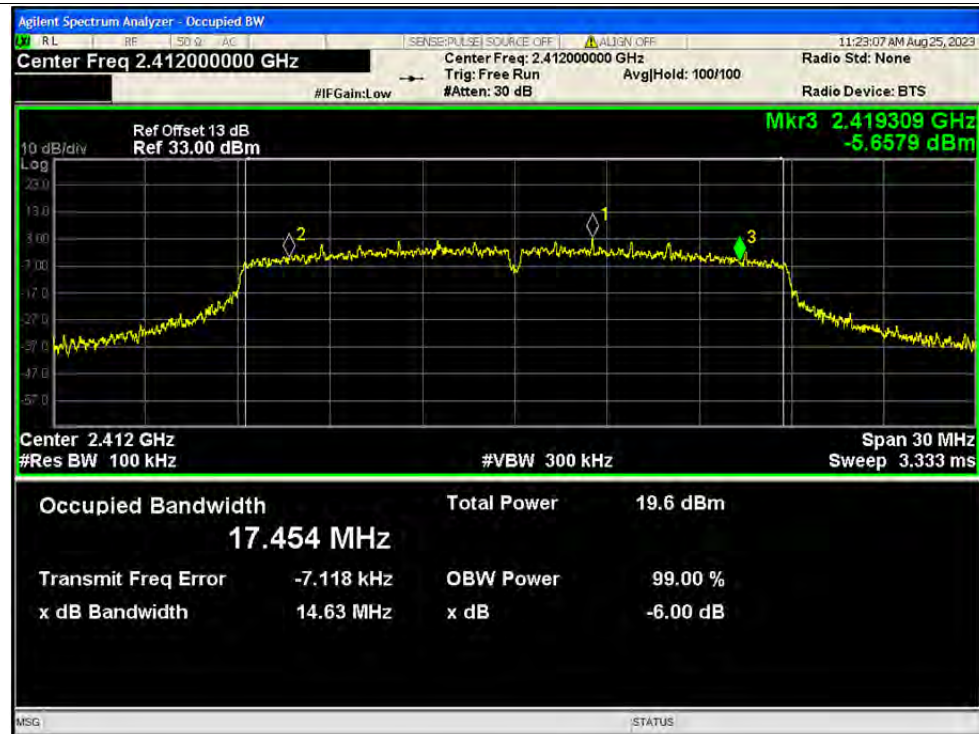


-6dB Bandwidth NVNT g 2462MHz Ant1

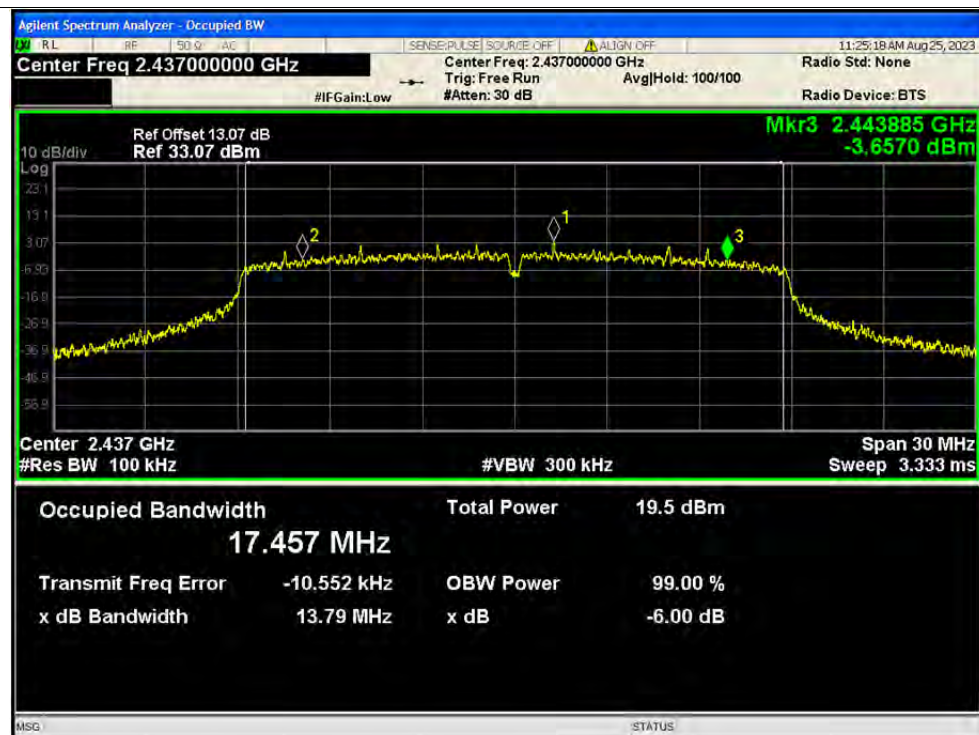




-6dB Bandwidth NVNT n20 2412MHz Ant1

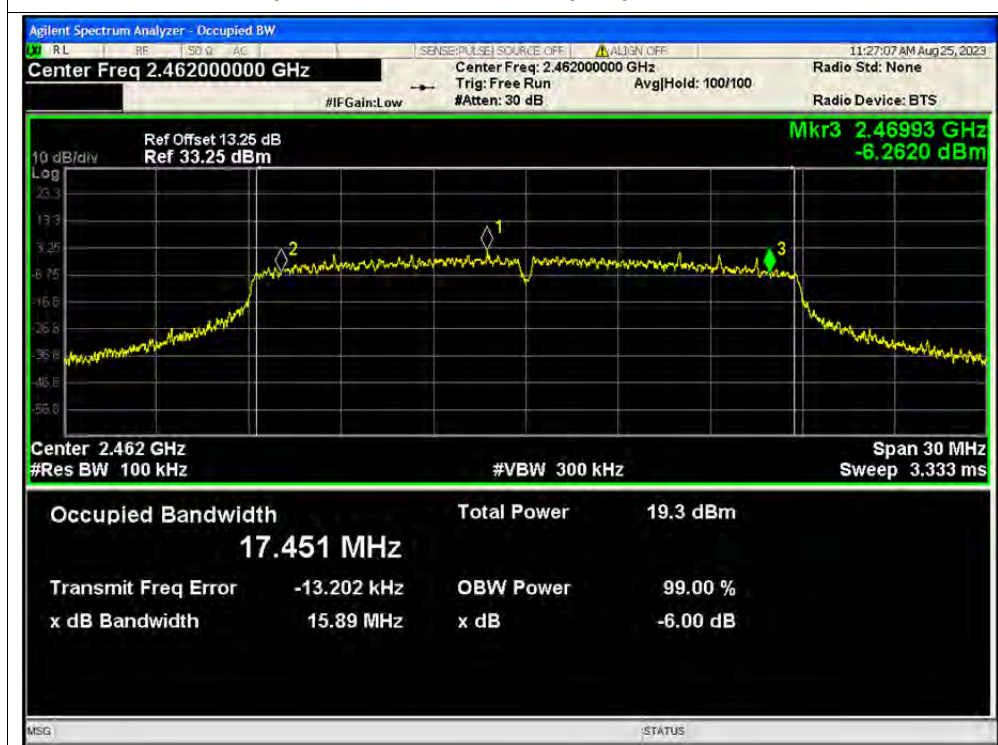


-6dB Bandwidth NVNT n20 2437MHz Ant1





-6dB Bandwidth NVNT n20 2462MHz Ant1





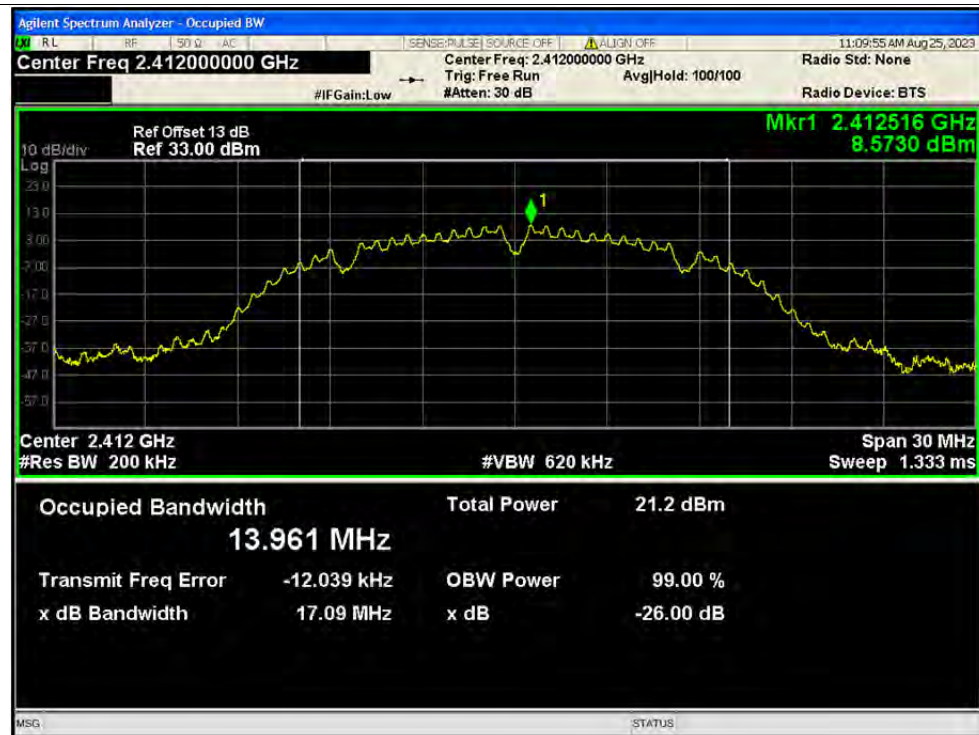
REPORT No.: SZ23080092W03

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	13.9609
NVNT	b	2437	Ant1	13.9938
NVNT	b	2462	Ant1	13.97
NVNT	g	2412	Ant1	16.3101
NVNT	g	2437	Ant1	16.3129
NVNT	g	2462	Ant1	16.3075
NVNT	n20	2412	Ant1	17.4631
NVNT	n20	2437	Ant1	17.4586
NVNT	n20	2462	Ant1	17.4261



Test Graphs

OBW NVNT b 2412MHz Ant1



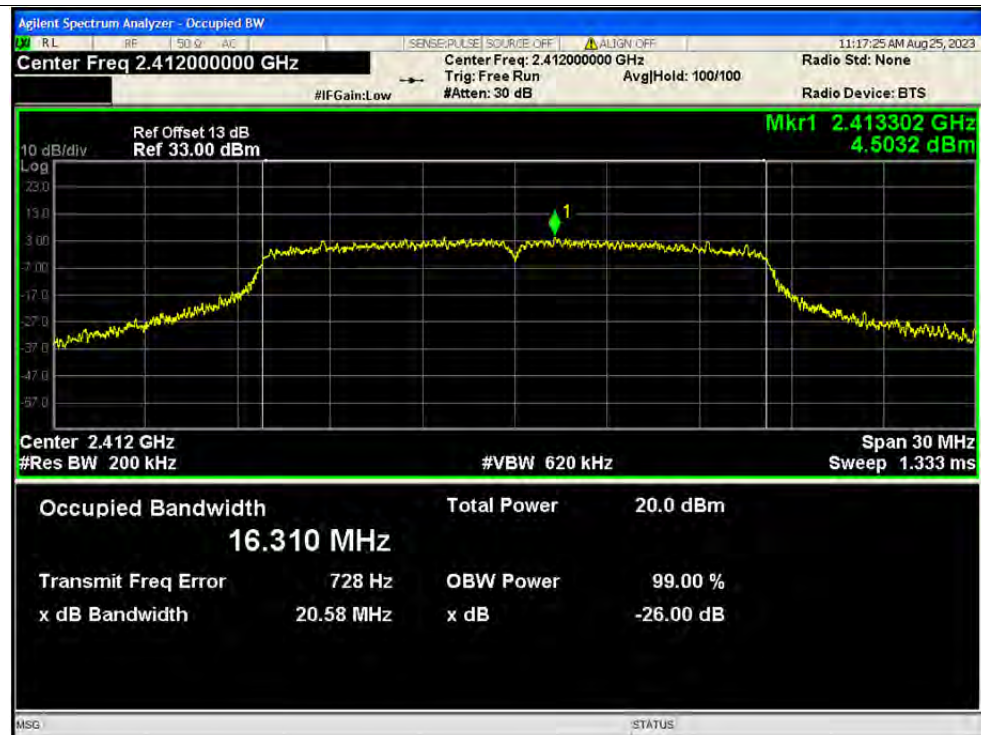
OBW NVNT b 2437MHz Ant1



OBW NVNT b 2462MHz Ant1

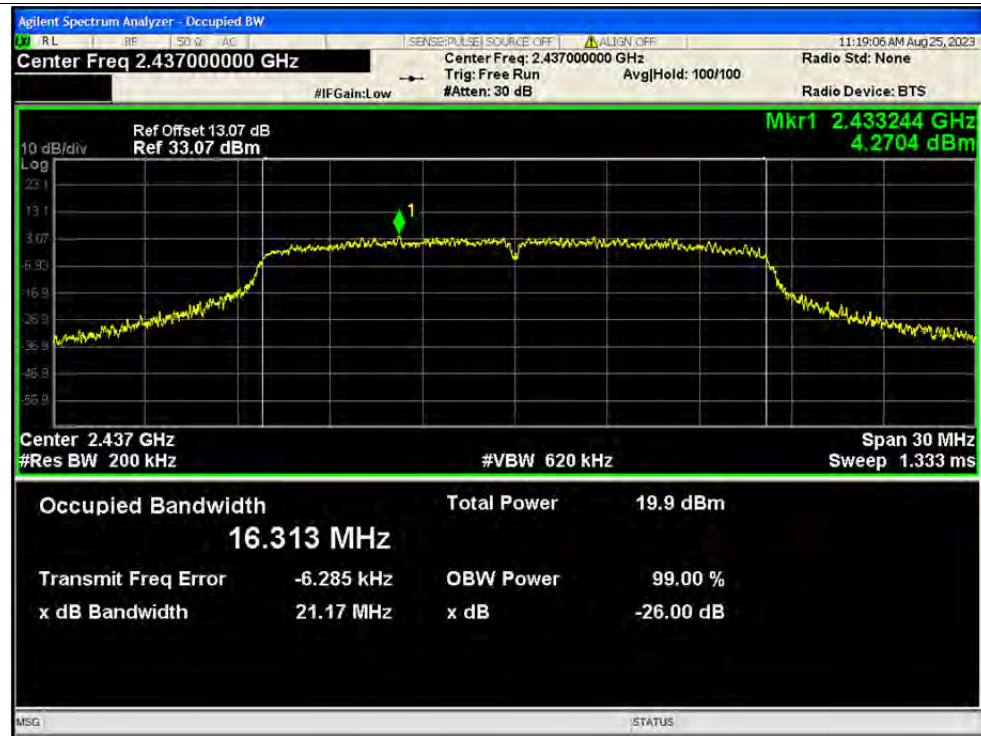


OBW NVNT g 2412MHz Ant1

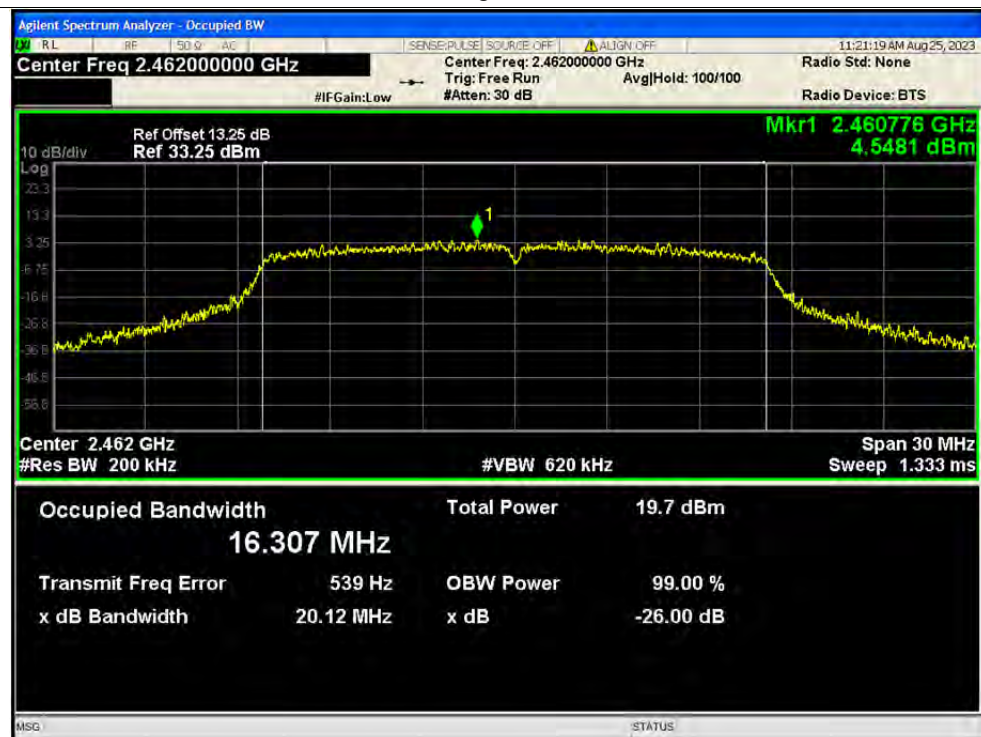




OBW NVNT g 2437MHz Ant1

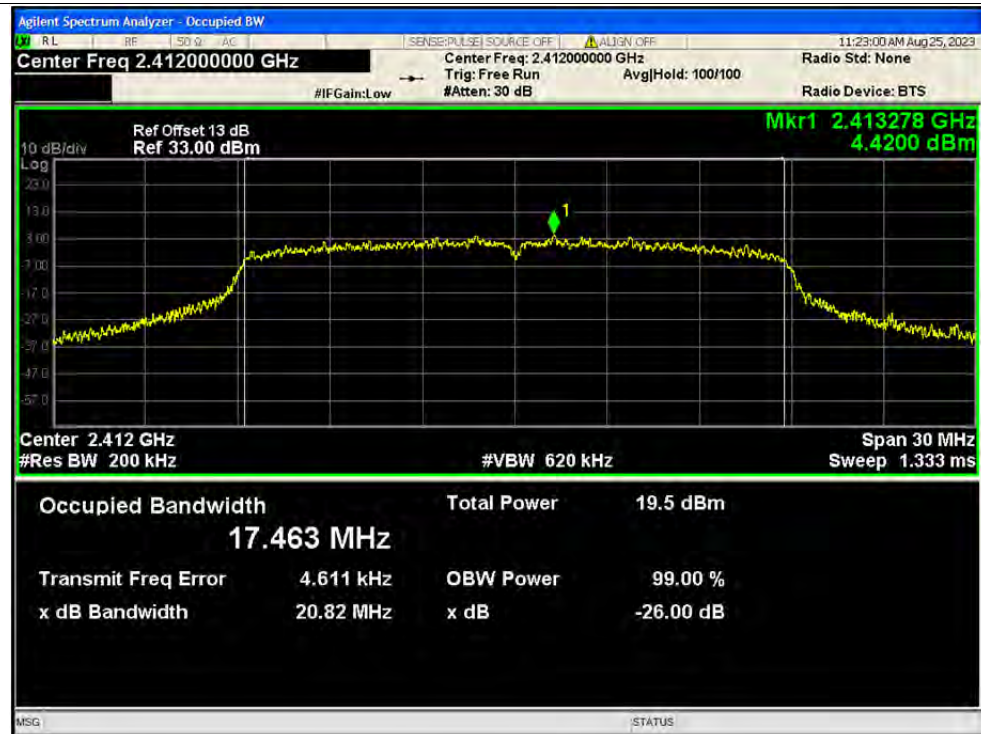


OBW NVNT g 2462MHz Ant1





OBW NVNT n20 2412MHz Ant1

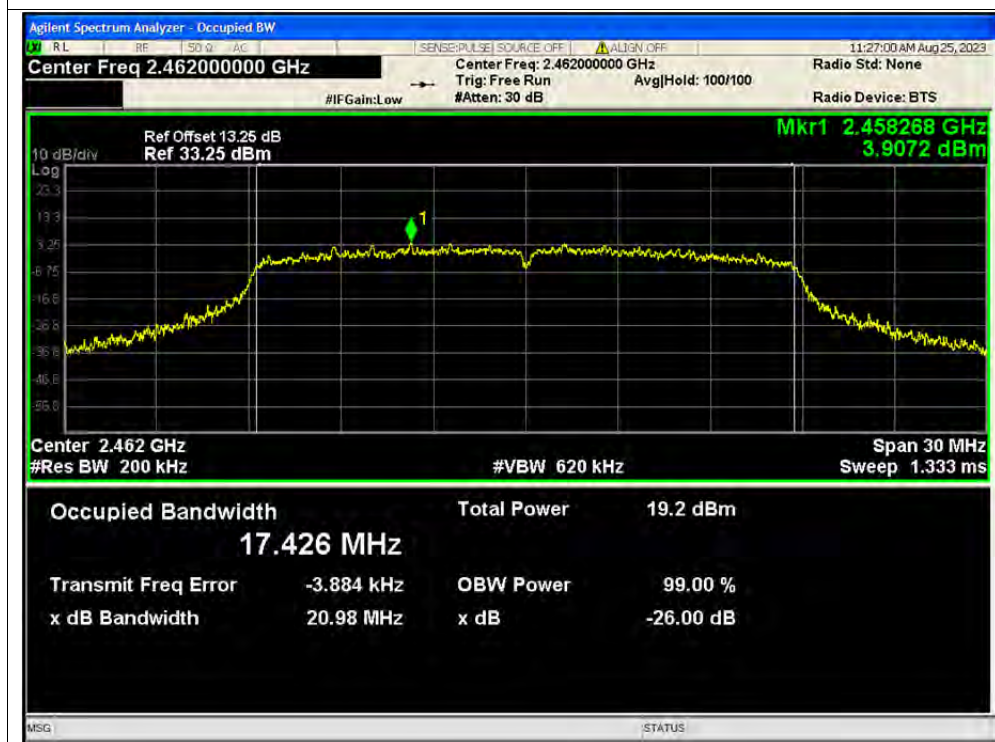


OBW NVNT n20 2437MHz Ant1





OBW NVNT n20 2462MHz Ant1



**A.5. Conducted Spurious Emissions**

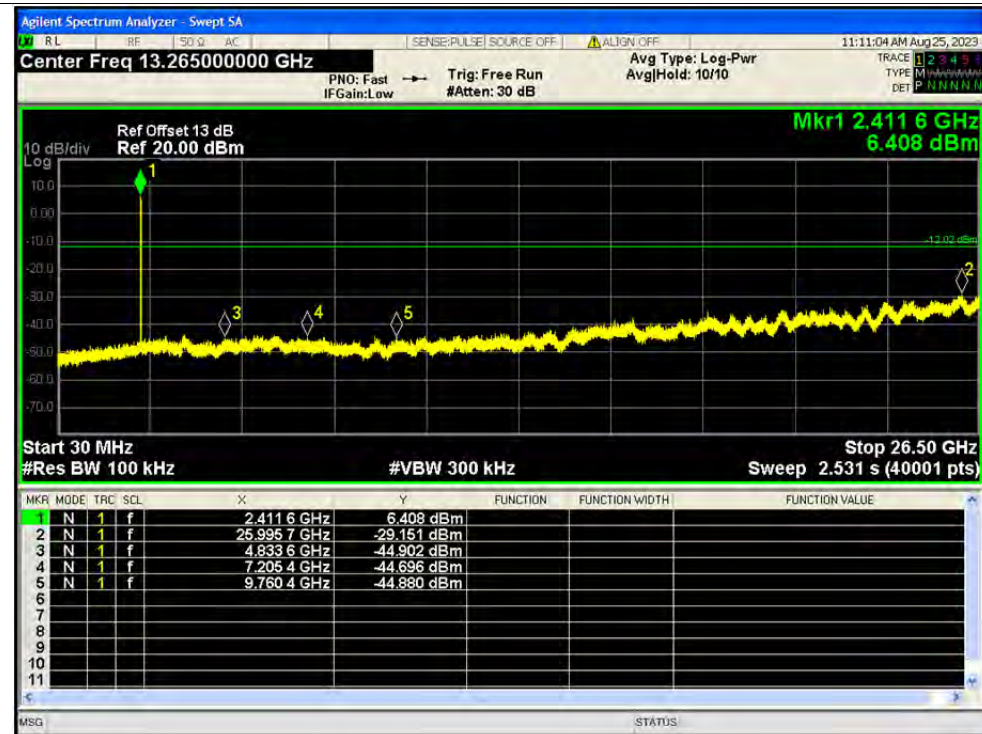
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-37.14	-20	Pass
NVNT	b	2437	Ant1	-37.15	-20	Pass
NVNT	b	2462	Ant1	-36.09	-20	Pass
NVNT	g	2412	Ant1	-31.49	-20	Pass
NVNT	g	2437	Ant1	-30.89	-20	Pass
NVNT	g	2462	Ant1	-32.19	-20	Pass
NVNT	n20	2412	Ant1	-30.48	-20	Pass
NVNT	n20	2437	Ant1	-32.02	-20	Pass
NVNT	n20	2462	Ant1	-31.65	-20	Pass

Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref



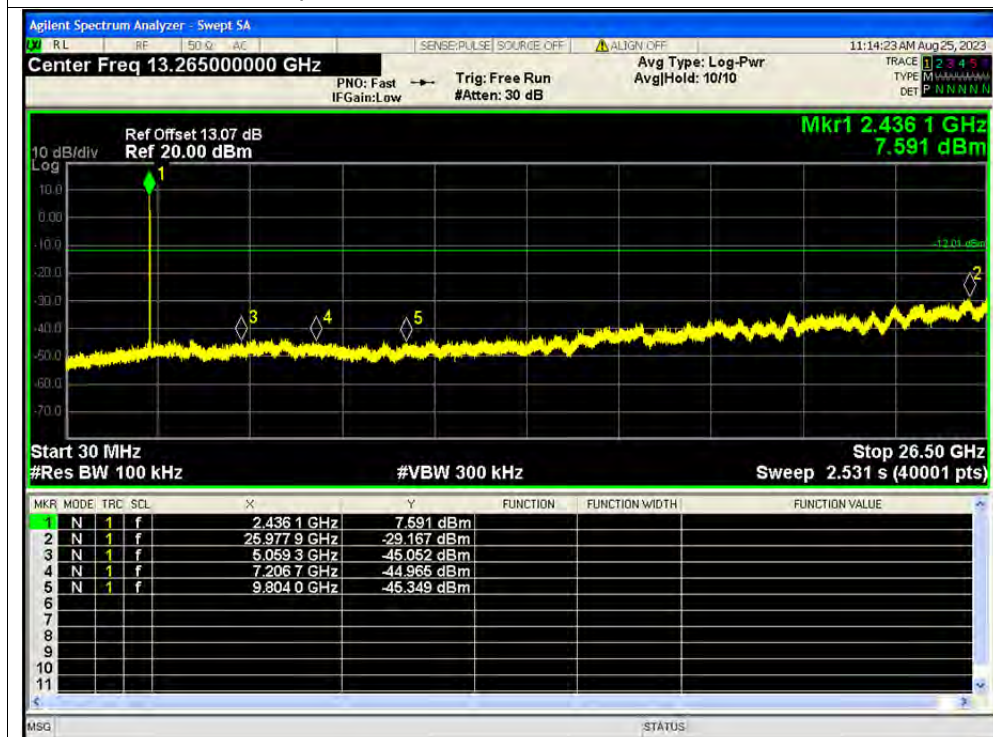
Tx. Spurious NVNT b 2412MHz Ant1 Emission



Tx. Spurious NVNT b 2437MHz Ant1 Ref



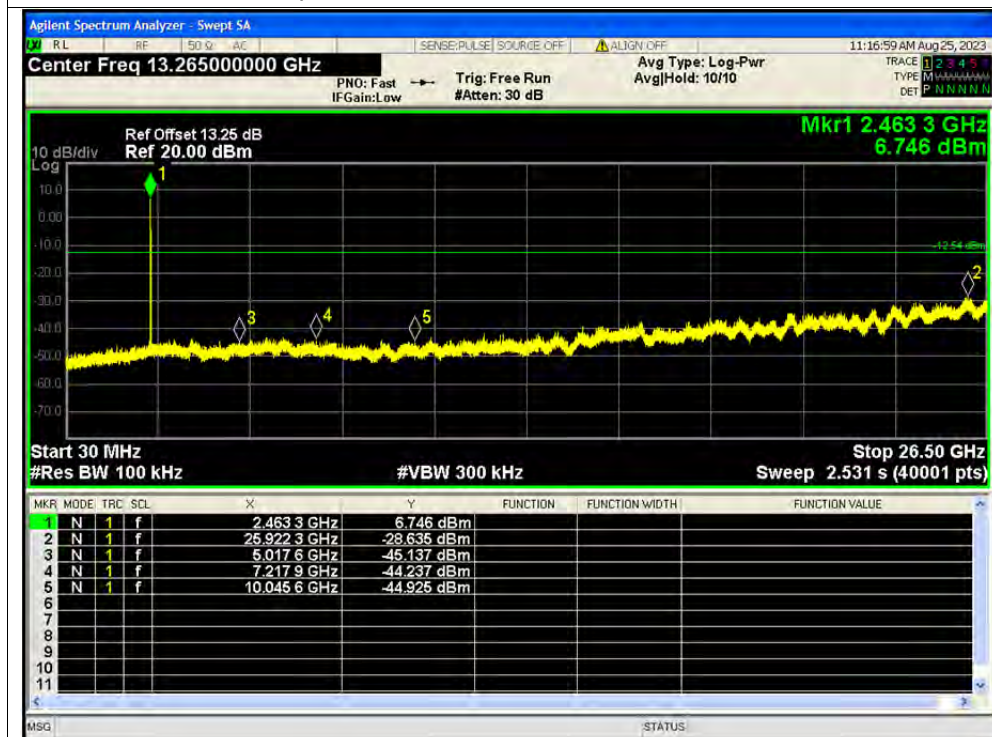
Tx. Spurious NVNT b 2437MHz Ant1 Emission



Tx. Spurious NVNT b 2462MHz Ant1 Ref



Tx. Spurious NVNT b 2462MHz Ant1 Emission

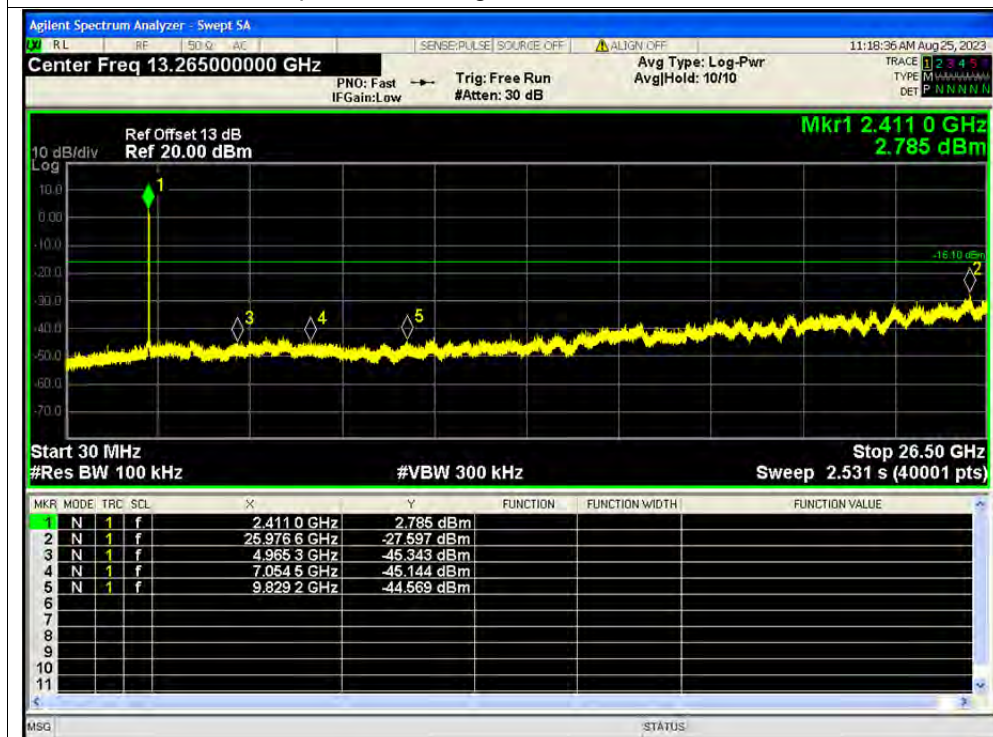




Tx. Spurious NVNT g 2412MHz Ant1 Ref



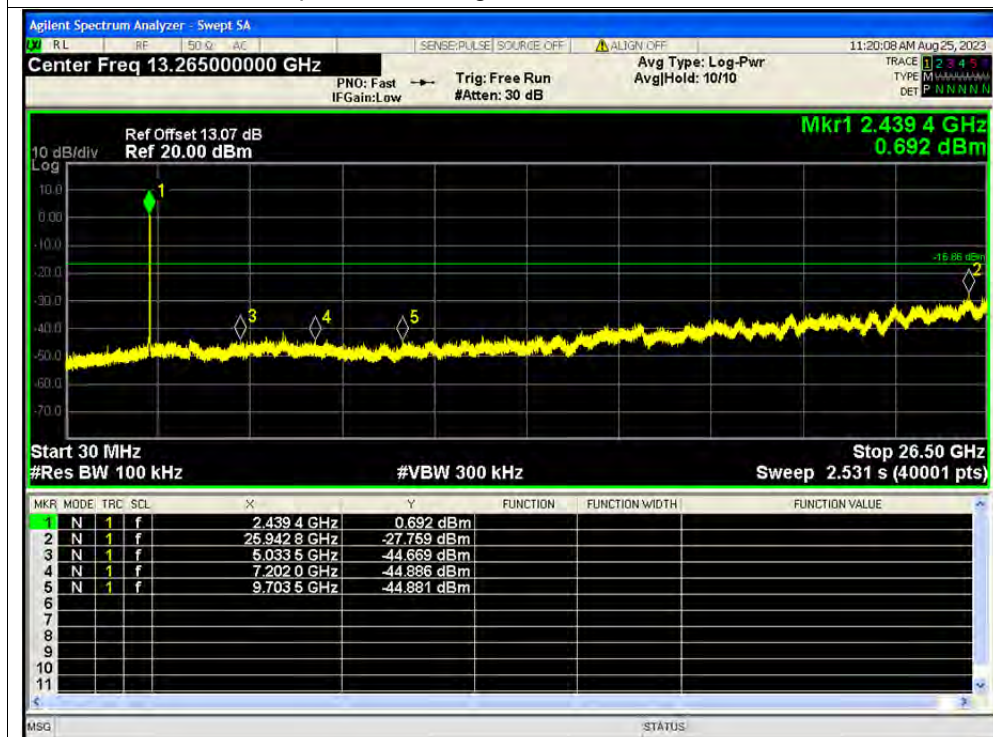
Tx. Spurious NVNT g 2412MHz Ant1 Emission



Tx. Spurious NVNT g 2437MHz Ant1 Ref



Tx. Spurious NVNT g 2437MHz Ant1 Emission

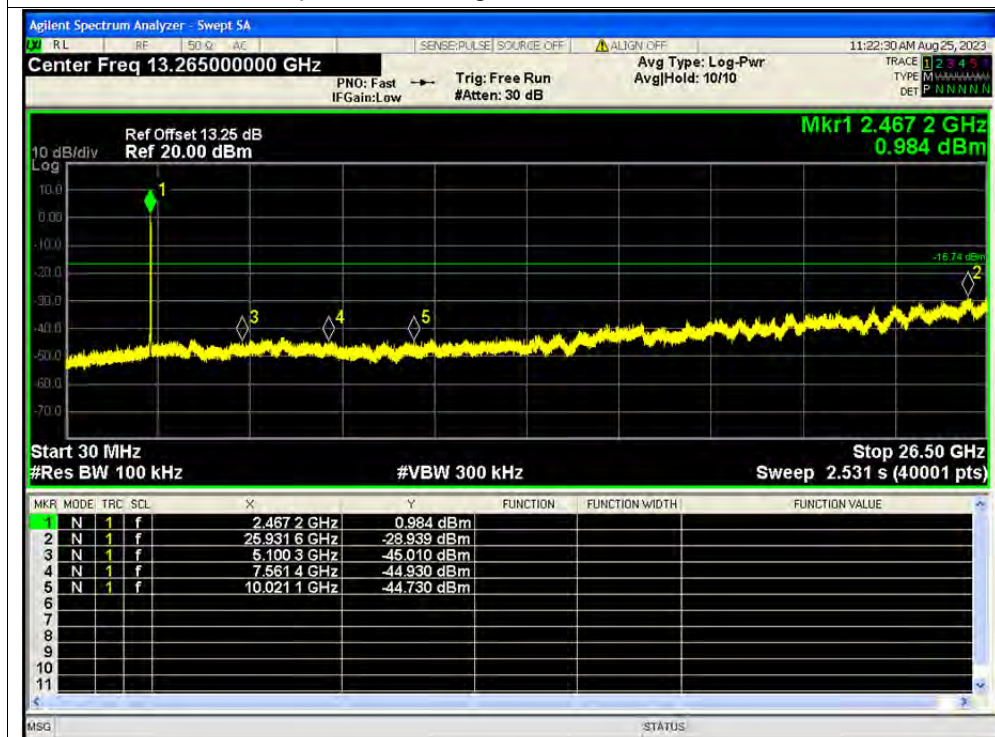




Tx. Spurious NVNT g 2462MHz Ant1 Ref



Tx. Spurious NVNT g 2462MHz Ant1 Emission

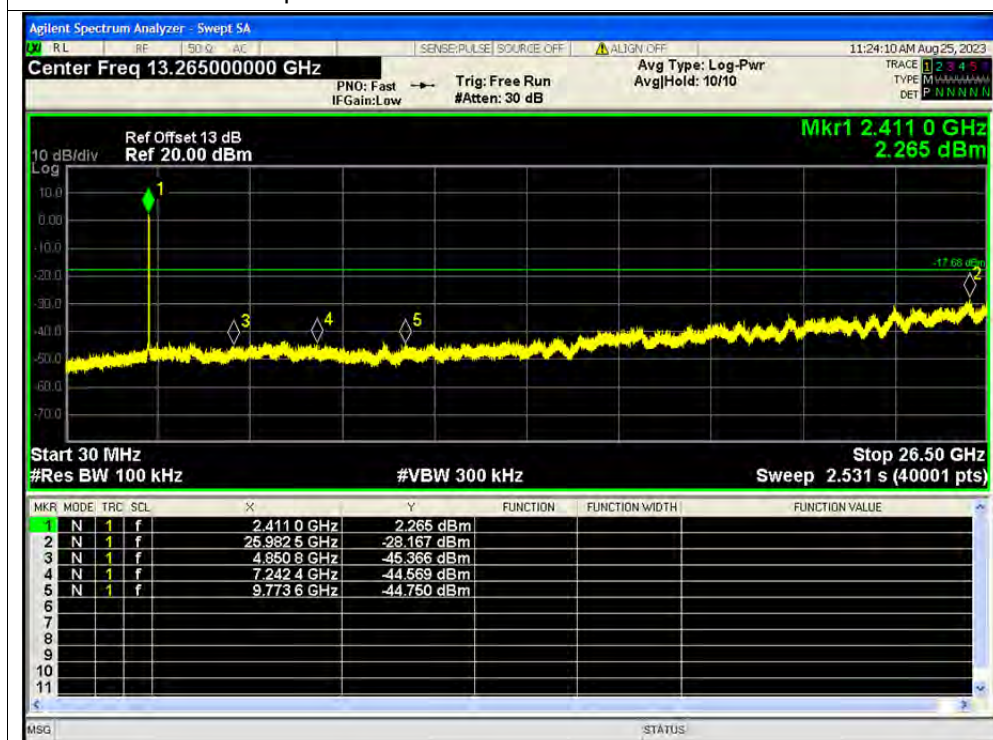




Tx. Spurious NVNT n20 2412MHz Ant1 Ref



Tx. Spurious NVNT n20 2412MHz Ant1 Emission

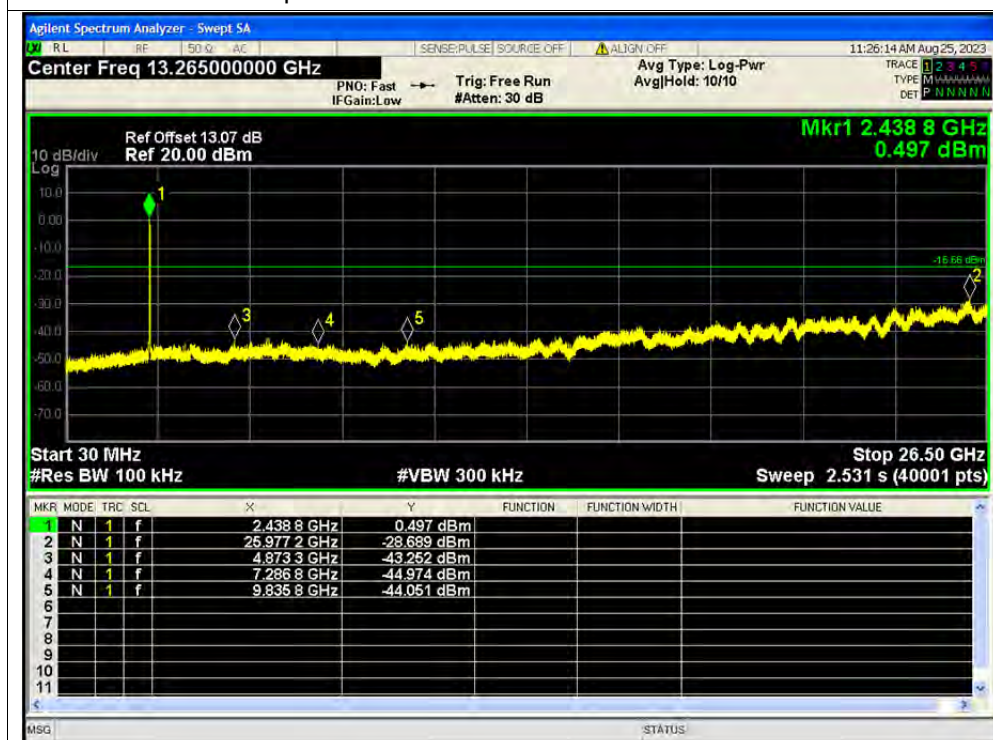




Tx. Spurious NVNT n20 2437MHz Ant1 Ref



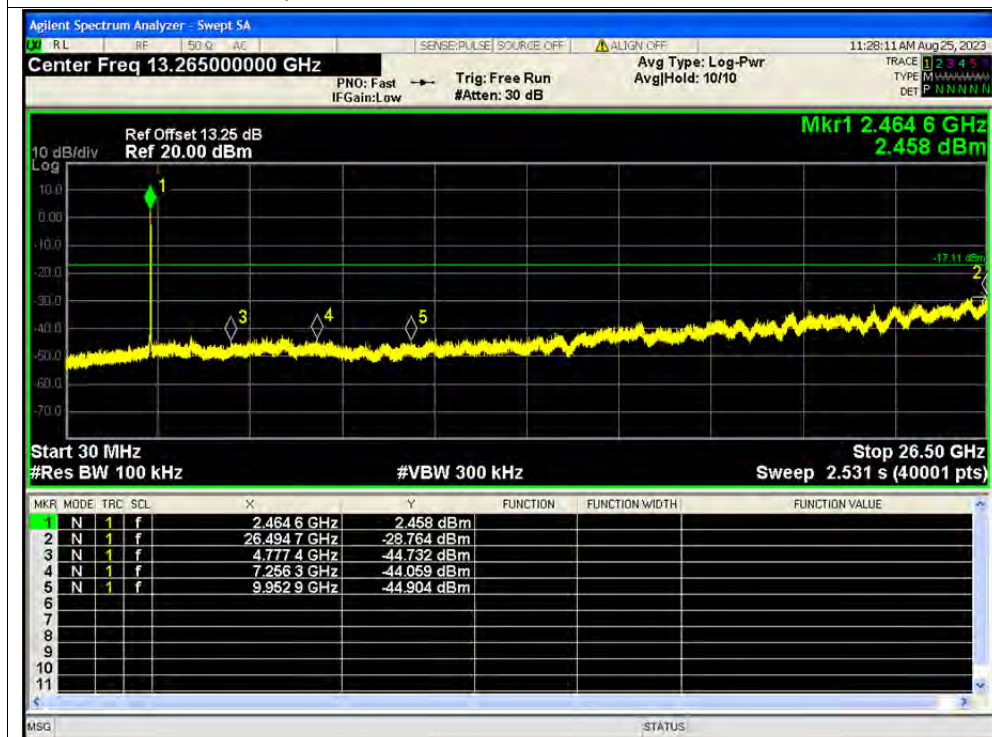
Tx. Spurious NVNT n20 2437MHz Ant1 Emission



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	-46.24	-20	Pass
NVNT	b	2462	Ant1	-50.91	-20	Pass
NVNT	g	2412	Ant1	-32.52	-20	Pass
NVNT	g	2462	Ant1	-46.54	-20	Pass
NVNT	n20	2412	Ant1	-31.12	-20	Pass
NVNT	n20	2462	Ant1	-43.91	-20	Pass

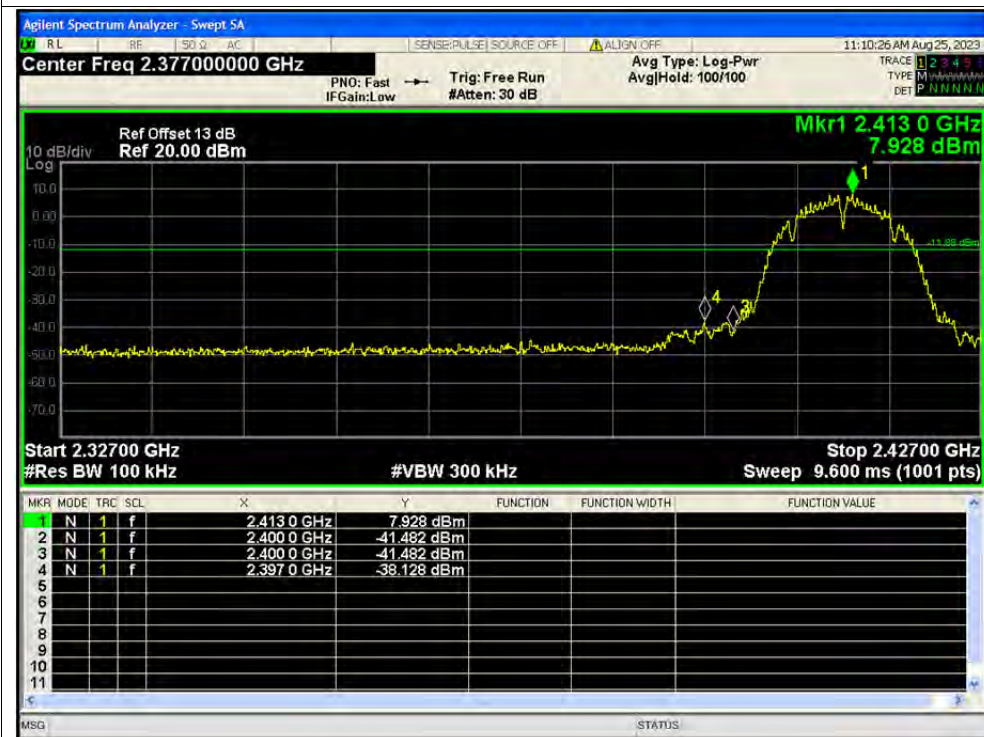


Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref



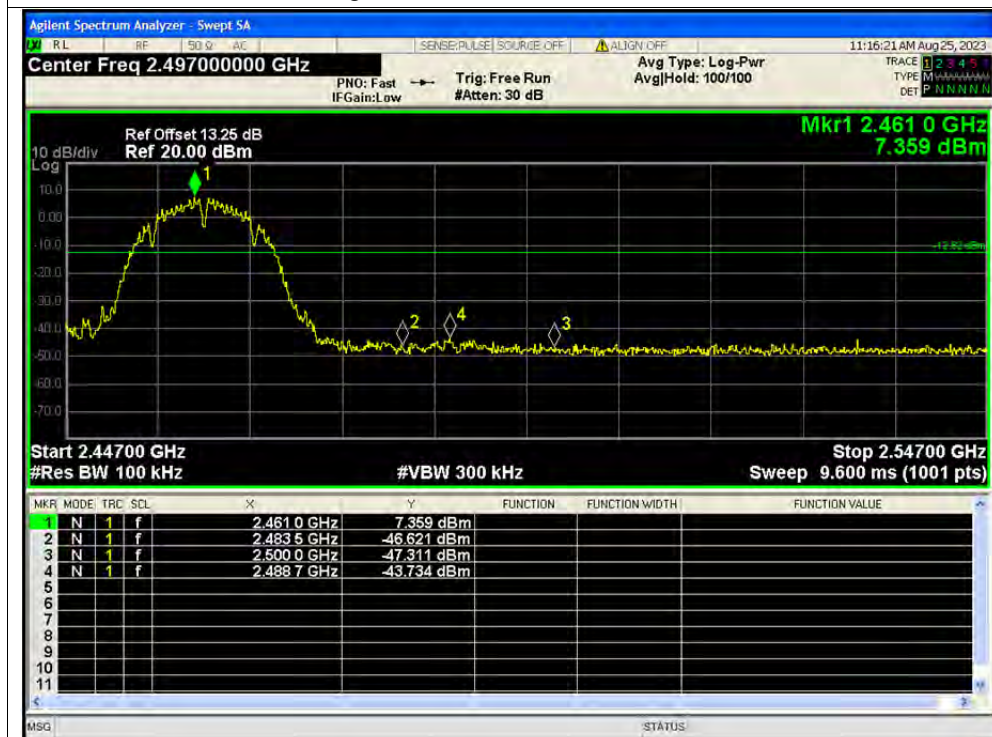
Band Edge NVNT b 2412MHz Ant1 Emission



Band Edge NVNT b 2462MHz Ant1 Ref



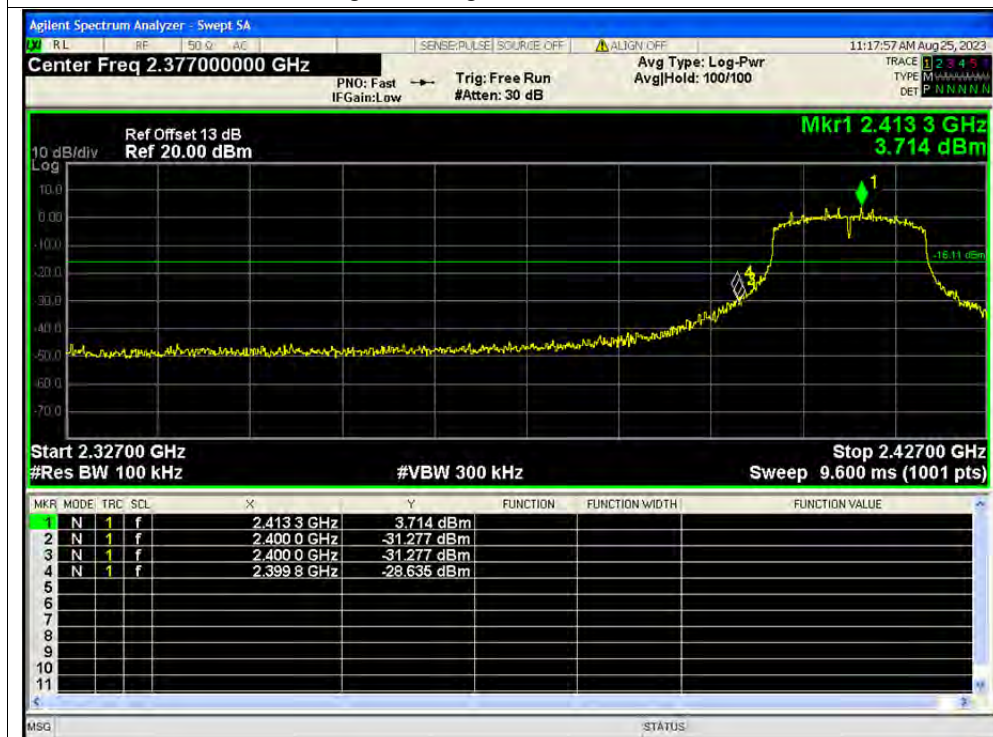
Band Edge NVNT b 2462MHz Ant1 Emission



Band Edge NVNT g 2412MHz Ant1 Ref



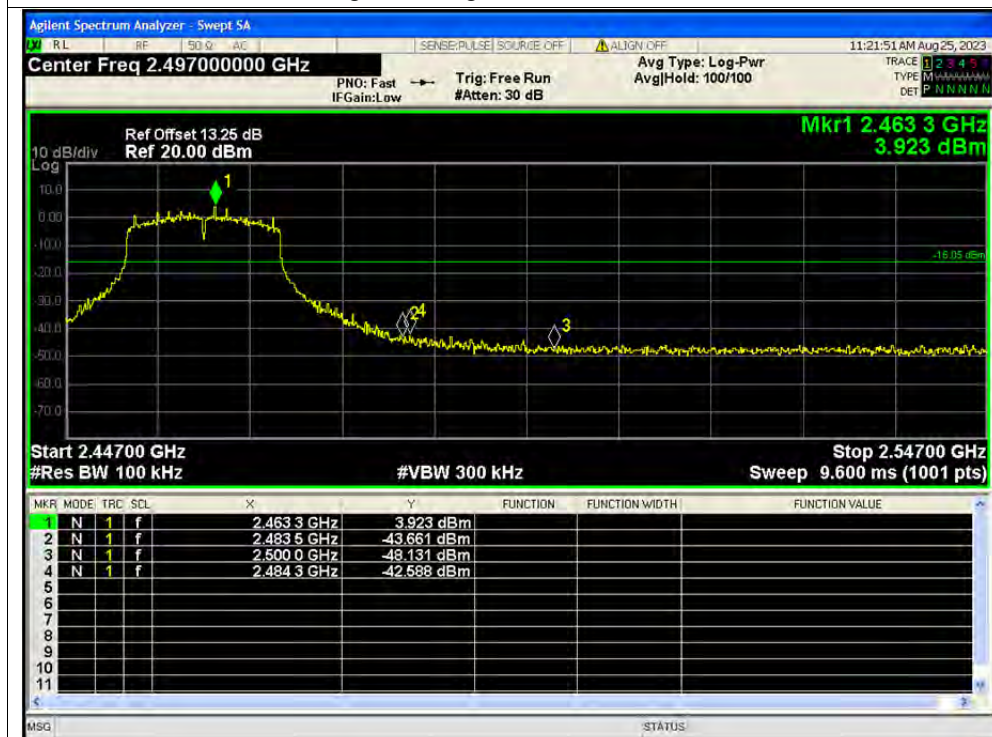
Band Edge NVNT g 2412MHz Ant1 Emission



Band Edge NVNT g 2462MHz Ant1 Ref



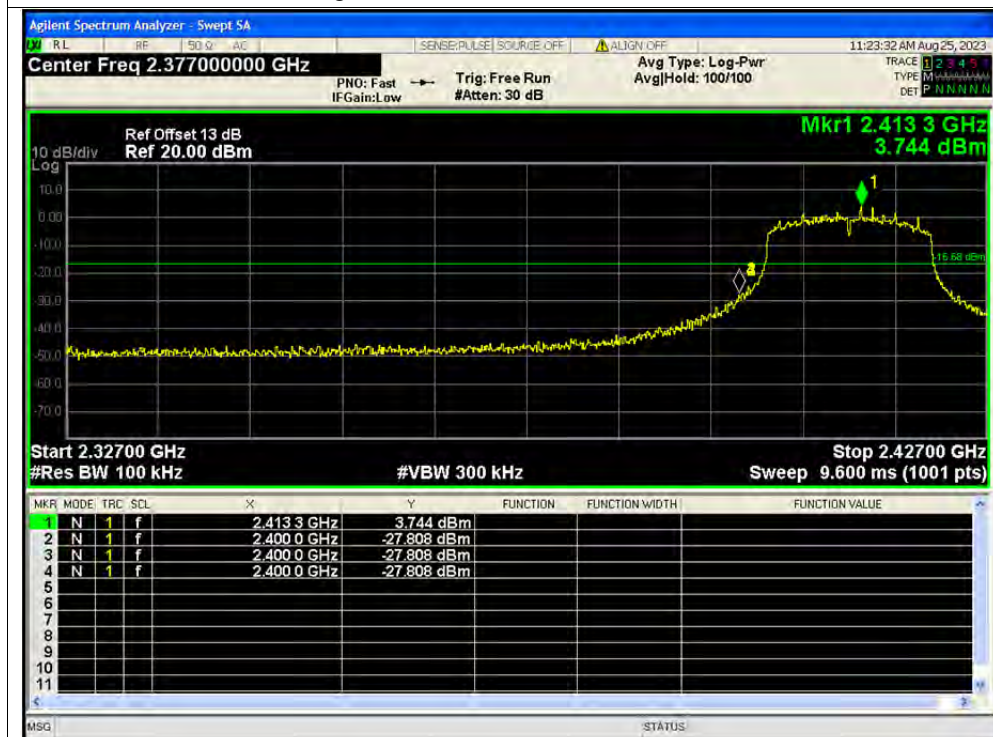
Band Edge NVNT g 2462MHz Ant1 Emission



Band Edge NVNT n20 2412MHz Ant1 Ref



Band Edge NVNT n20 2412MHz Ant1 Emission

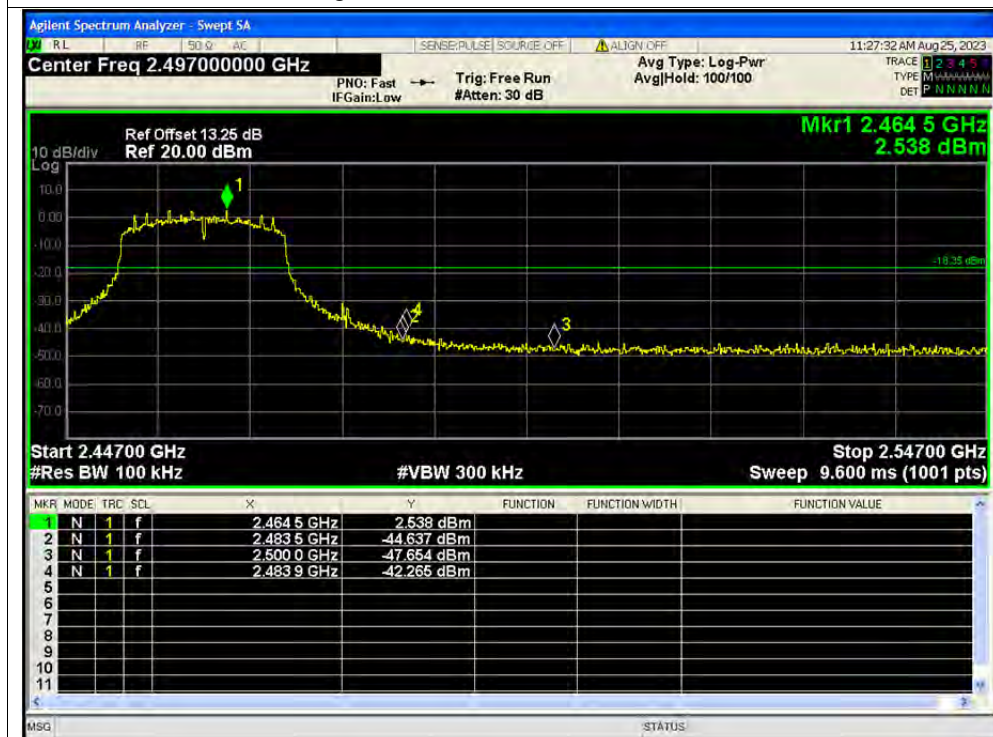




Band Edge NVNT n20 2462MHz Ant1 Ref



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	-6.34	0	-6.34	8	Pass
NVNT	b	2437	Ant1	-5.78	0	-5.78	8	Pass
NVNT	b	2462	Ant1	-6.64	0	-6.64	8	Pass
NVNT	g	2412	Ant1	-11.18	0	-11.18	8	Pass
NVNT	g	2437	Ant1	-10.75	0	-10.75	8	Pass
NVNT	g	2462	Ant1	-11.07	0	-11.07	8	Pass
NVNT	n20	2412	Ant1	-10.59	0	-10.59	8	Pass
NVNT	n20	2437	Ant1	-10.85	0	-10.85	8	Pass
NVNT	n20	2462	Ant1	-11.85	0	-11.85	8	Pass



Test Graphs

PSD NVNT b 2412MHz Ant1



PSD NVNT b 2437MHz Ant1



PSD NVNT b 2462MHz Ant1

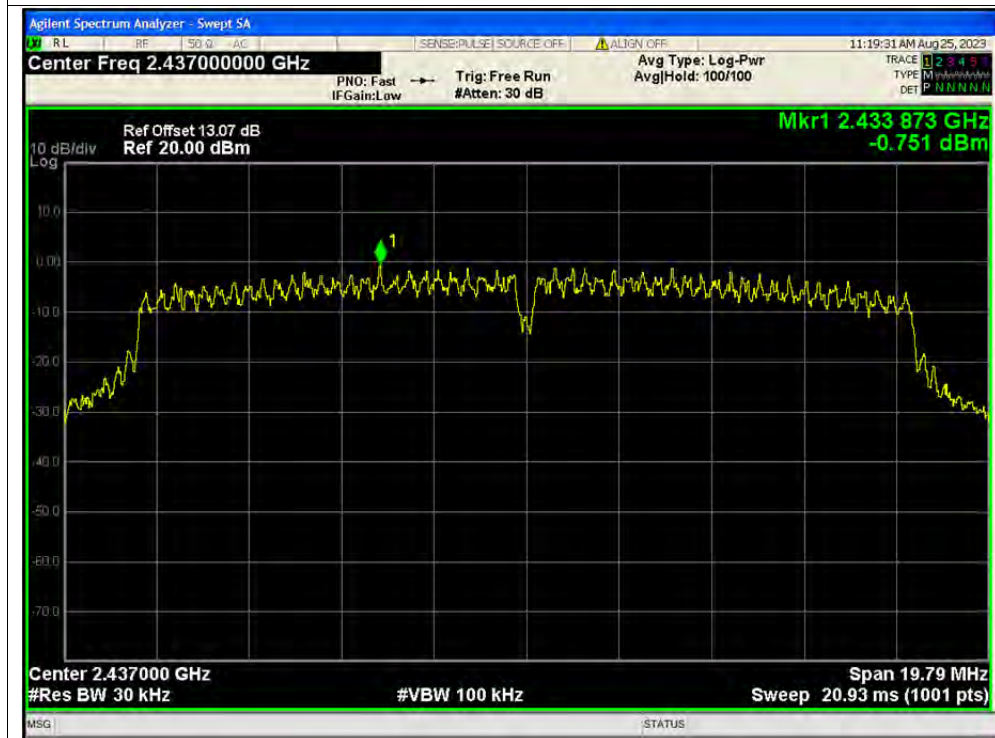


PSD NVNT g 2412MHz Ant1





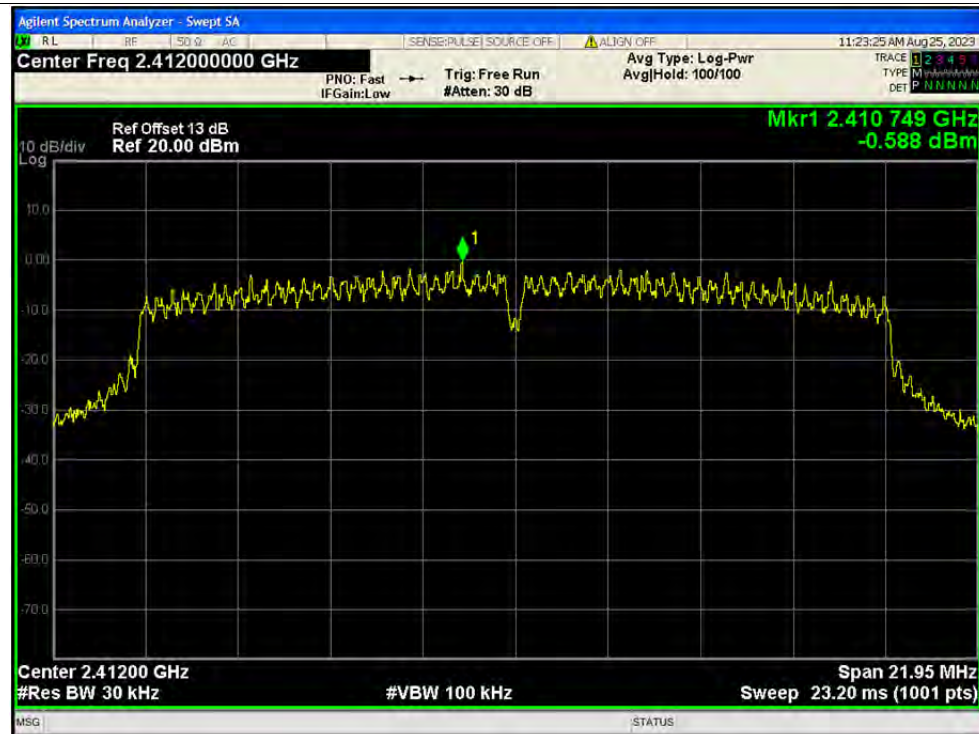
PSD NVNT g 2437MHz Ant1



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+PC+PC Adapter+WIFI TX

Test voltage: AC 120V/60Hz

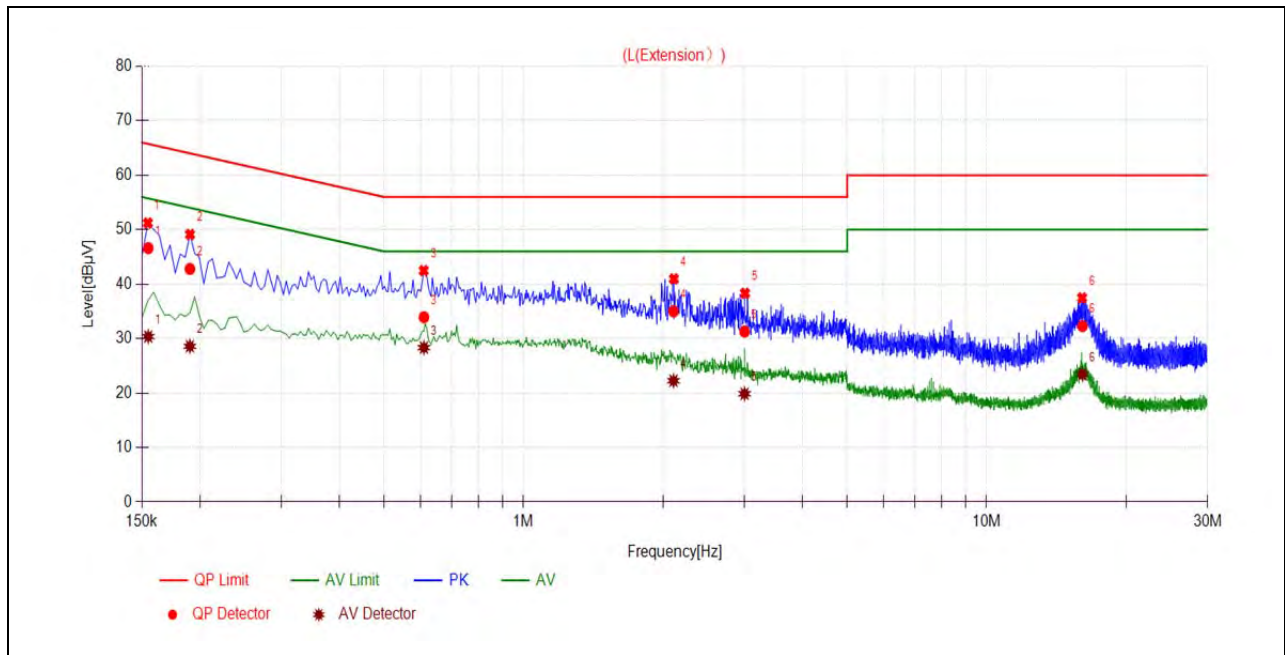
The measurement results are obtained as below:

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

U_R : Receiver Reading

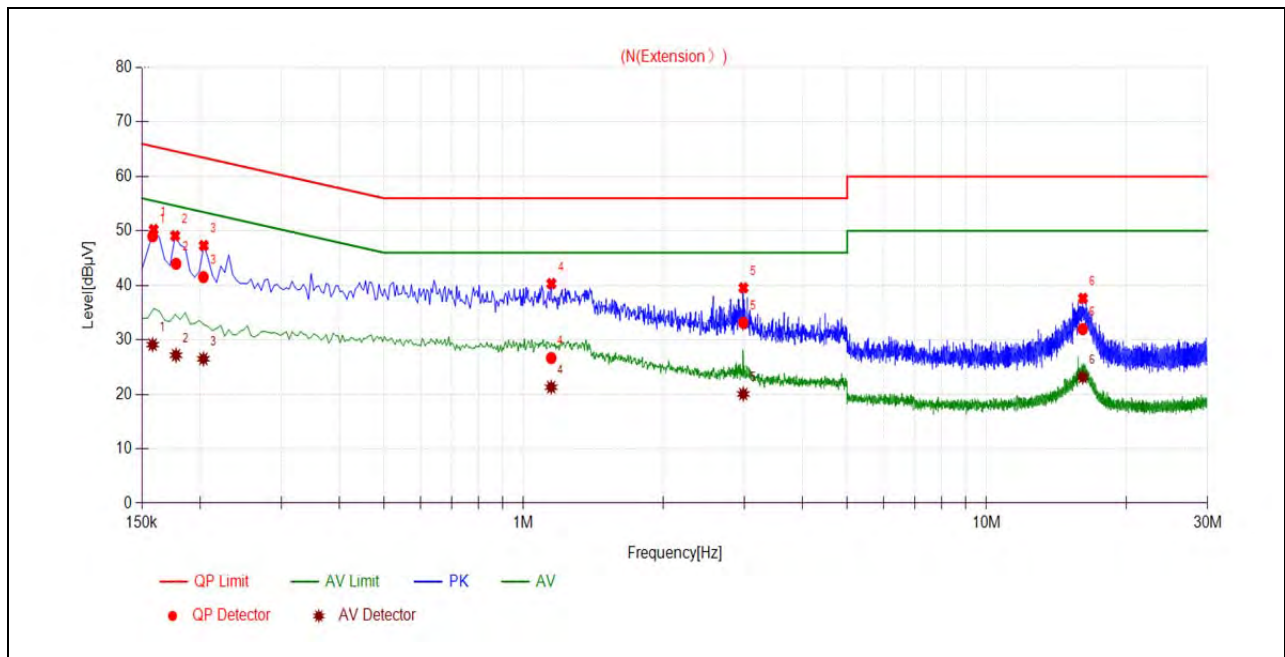
A_{Factor} : Voltage division factor of LISN

B. Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1548	46.61	30.37	65.74	55.74	Line	PASS
2	0.1904	42.79	28.59	64.02	54.02		PASS
3	0.6096	33.93	28.34	56.00	46.00		PASS
4	2.1079	35.02	22.26	56.00	46.00		PASS
5	3.0014	31.30	19.87	56.00	46.00		PASS
6	16.0996	32.31	23.44	60.00	50.00		PASS



(N Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1582	49.01	29.12	65.56	55.56	Neutral	PASS
2	0.1777	43.97	27.18	64.59	54.59		PASS
3	0.2036	41.52	26.51	63.46	53.46		PASS
4	1.1476	26.67	21.31	56.00	46.00		PASS
5	2.9826	33.11	20.05	56.00	46.00		PASS
6	16.1181	31.98	23.15	60.00	50.00		PASS



A.9. Restricted Frequency Bands

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

The measurement results are obtained as below:

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

A_T : Total correction Factor except Antenna

U_R : Receiver Reading

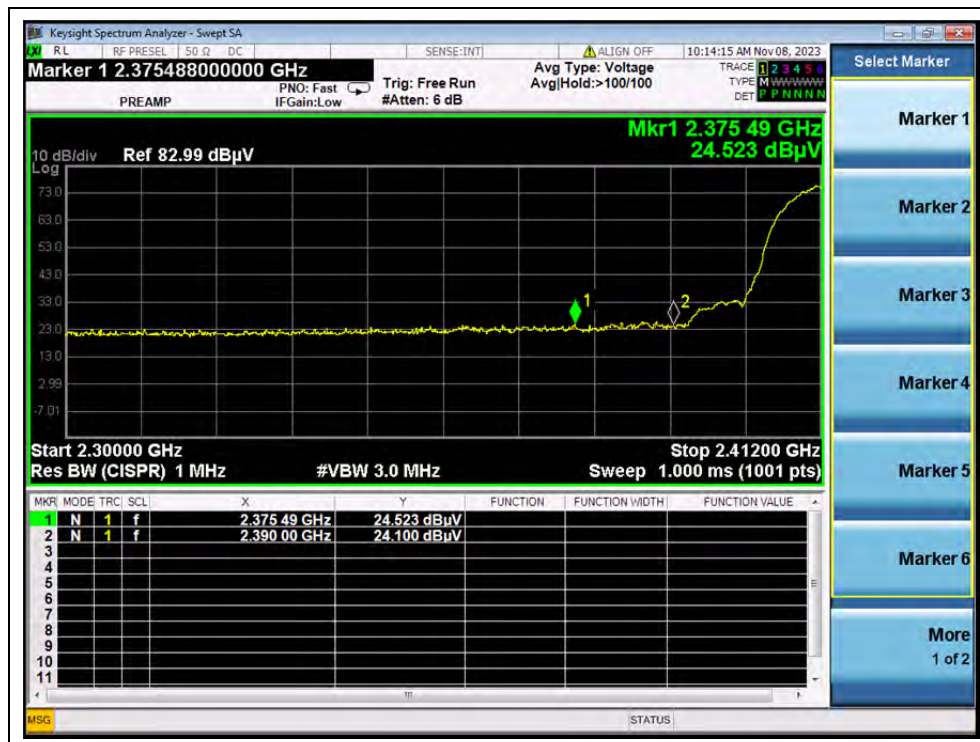
G_{preamp} : Preamplifier Gain

A_{Factor} : Antenna Factor at 3m

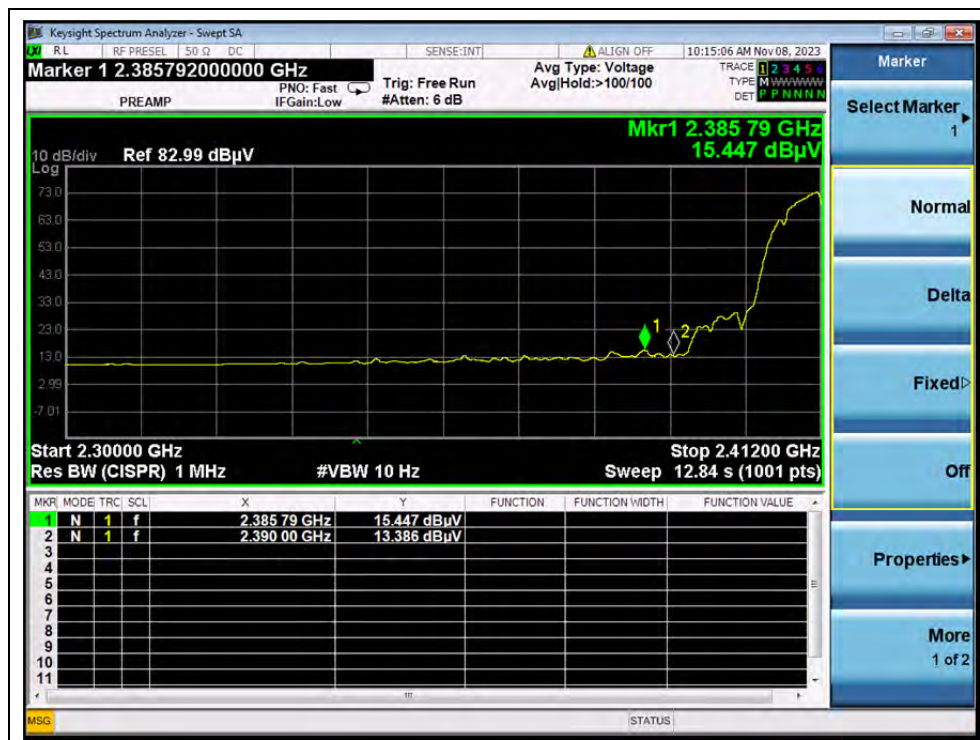
Note: Restricted Frequency Bands were performed when antenna was at vertical and horizontal polarity, and only the worse test condition (vertical) was recorded in this test report.

802.11b Mode

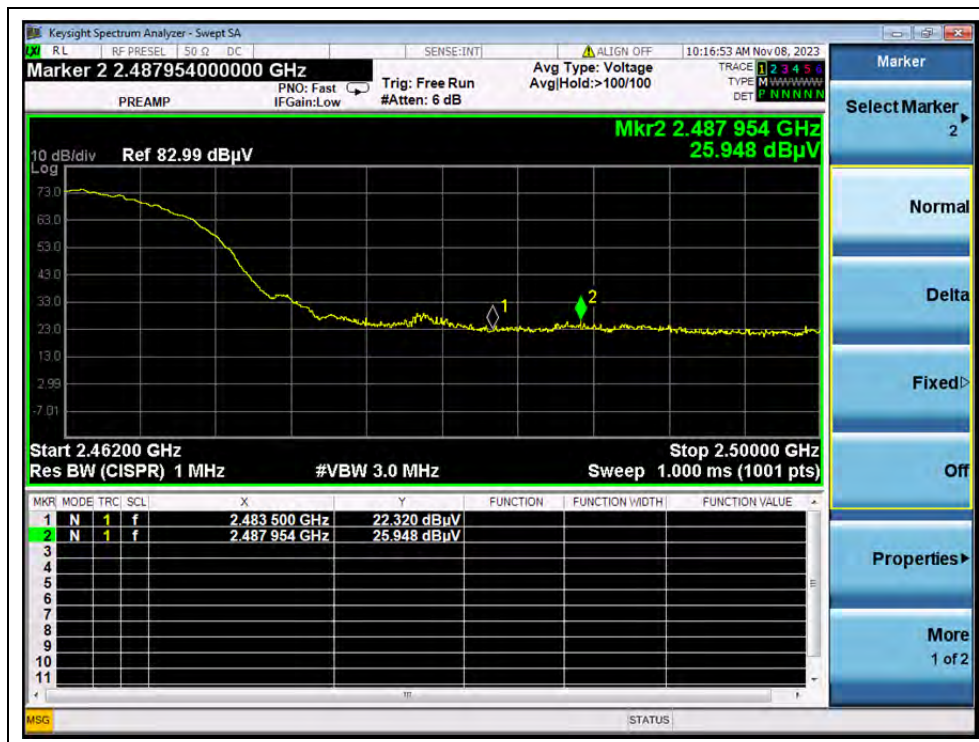
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
1	2390.00	PK	24.10	6.74	27.20	58.04	74	PASS
1	2385.79	AV	15.45	6.74	27.20	49.39	54	PASS
11	2487.95	PK	25.95	6.74	27.20	59.89	74	PASS
11	2487.46	AV	15.29	6.74	27.20	49.23	54	PASS



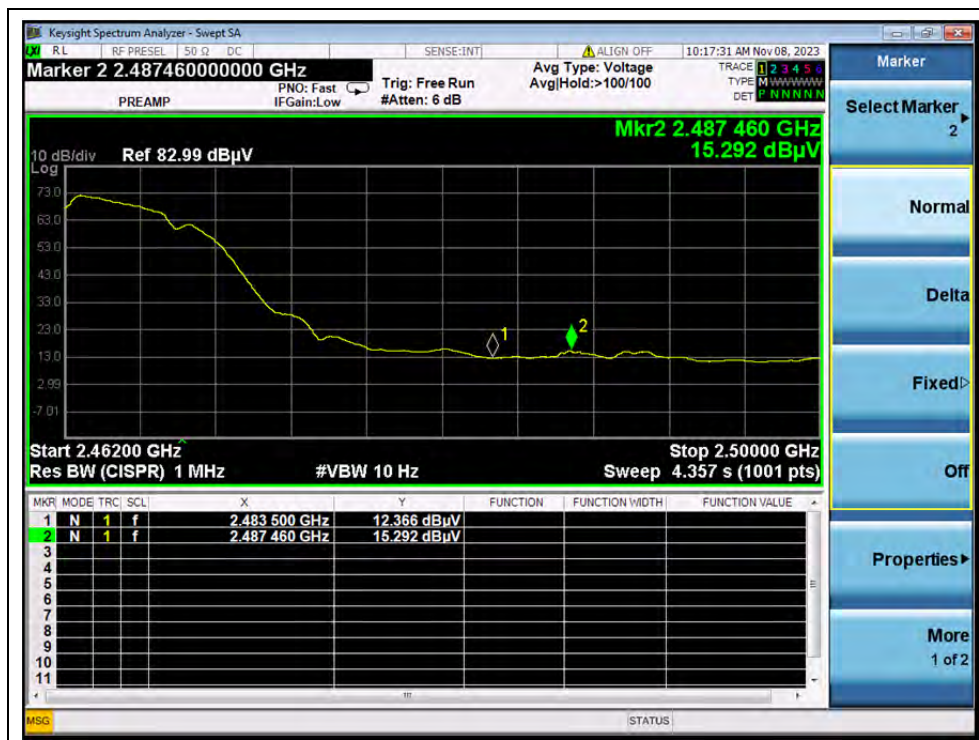
(PEAK, Channel 1, 802.11b)



(AVERAGE, Channel 1, 802.11b)



(PEAK, Channel 11, 802.11b)

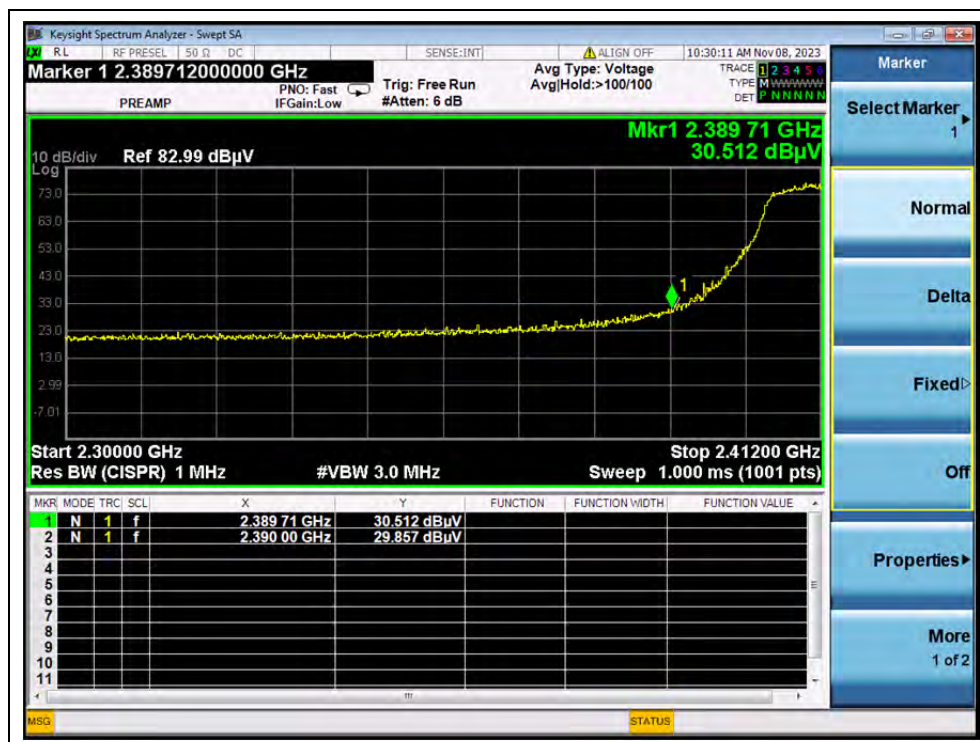


(AVERAGE, Channel 11, 802.11b)

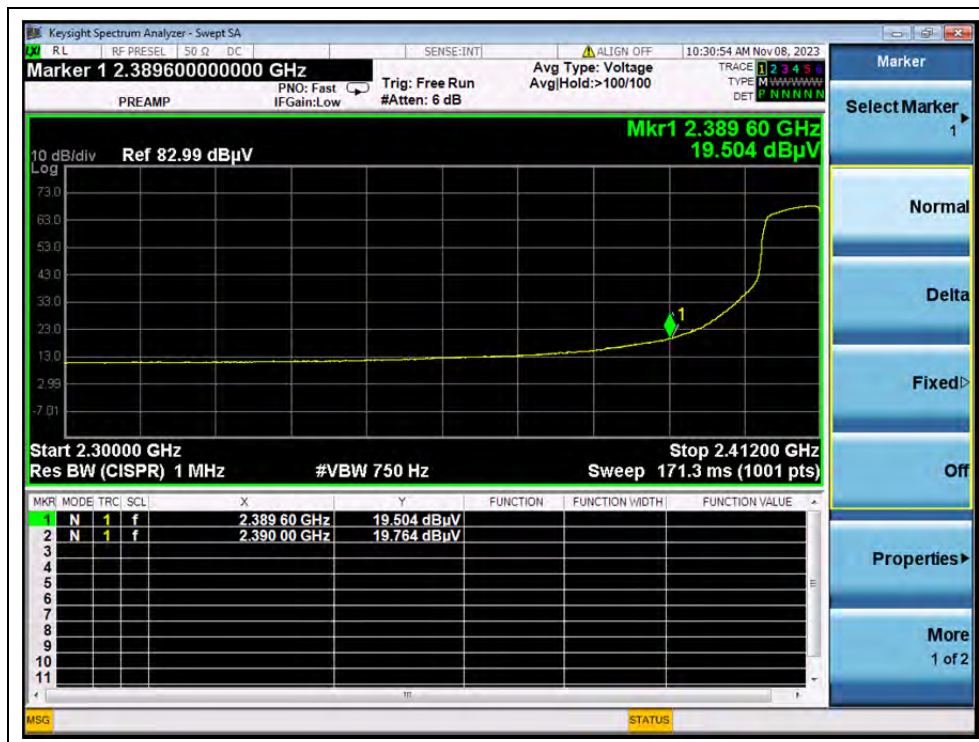


802.11g Mode

Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
1	2389.71	PK	30.51	6.74	27.20	64.45	74	PASS
1	2390.00	AV	17.76	6.74	27.20	51.70	54	PASS
11	2484.72	PK	33.47	6.74	27.20	67.41	74	PASS
11	2483.62	AV	19.20	6.74	27.20	53.14	54	PASS



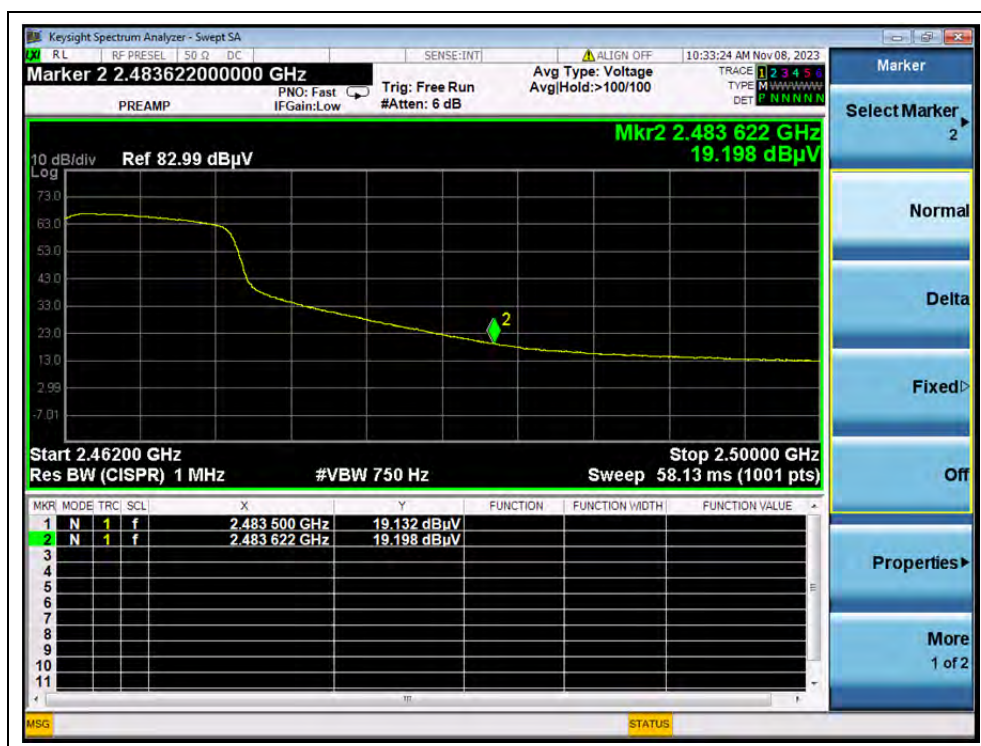
(PEAK, Channel 1, 802.11g)



(AVERAGE, Channel 1, 802.11g)



(PEAK, Channel 11, 802.11g)



(AVERAGE, Channel 11, 802.11g)

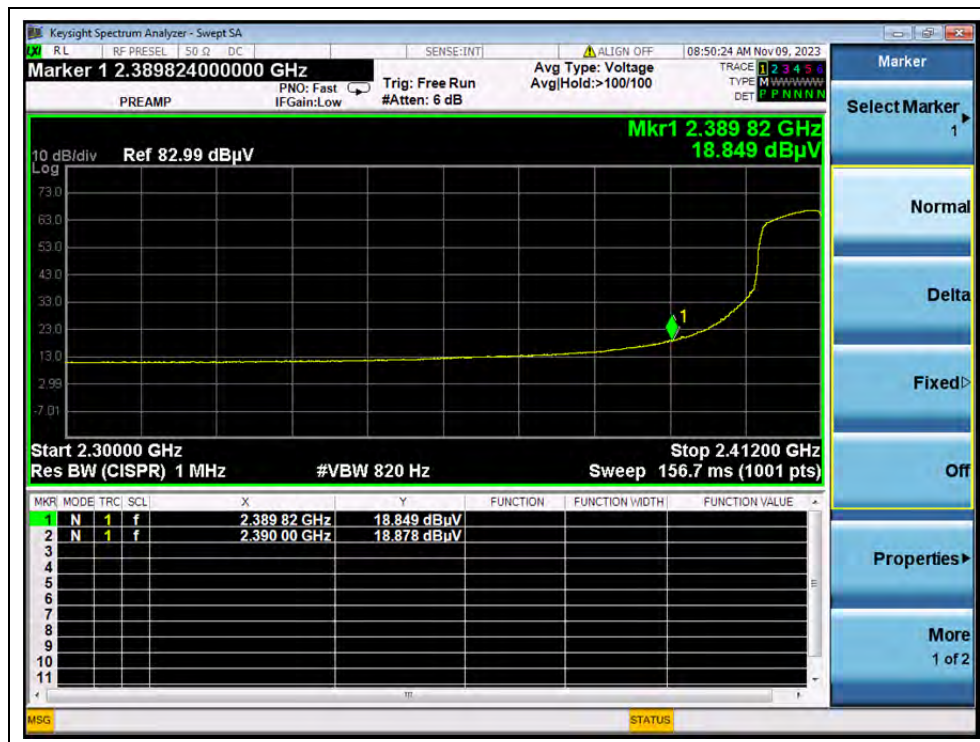


802.11n (HT20) Mode

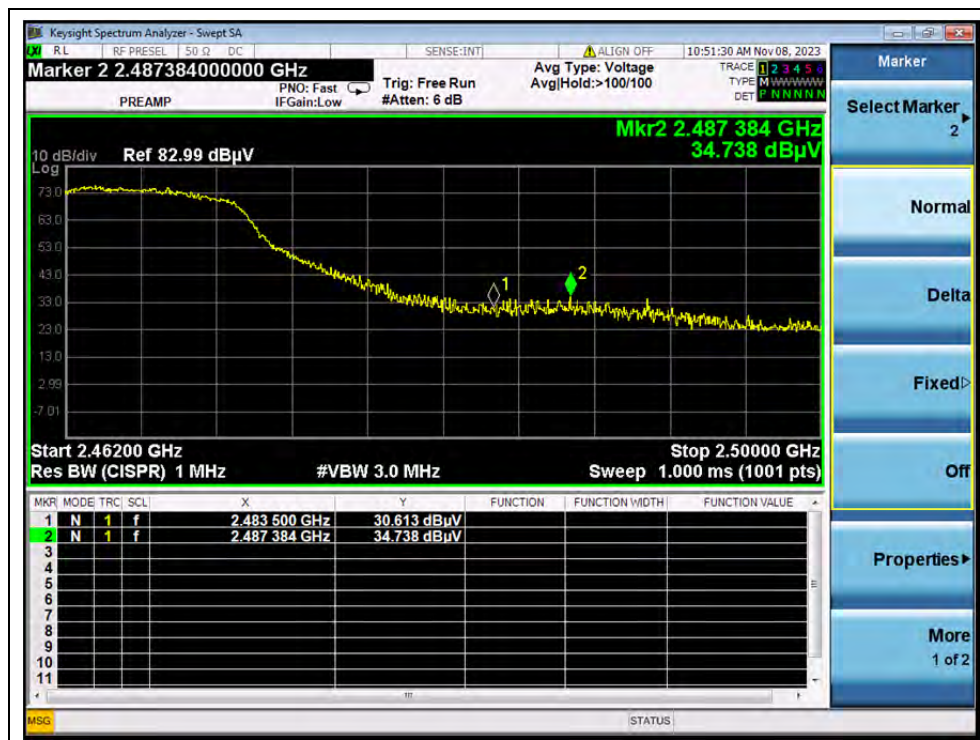
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV						
1	2390.00	PK	30.73	6.74	27.20	64.67	74	PASS
1	2390.00	AV	18.88	6.74	27.20	52.82	54	PASS
11	2487.38	PK	34.74	6.74	27.20	68.68	74	PASS
11	2483.50	AV	16.15	6.74	27.20	50.09	54	PASS



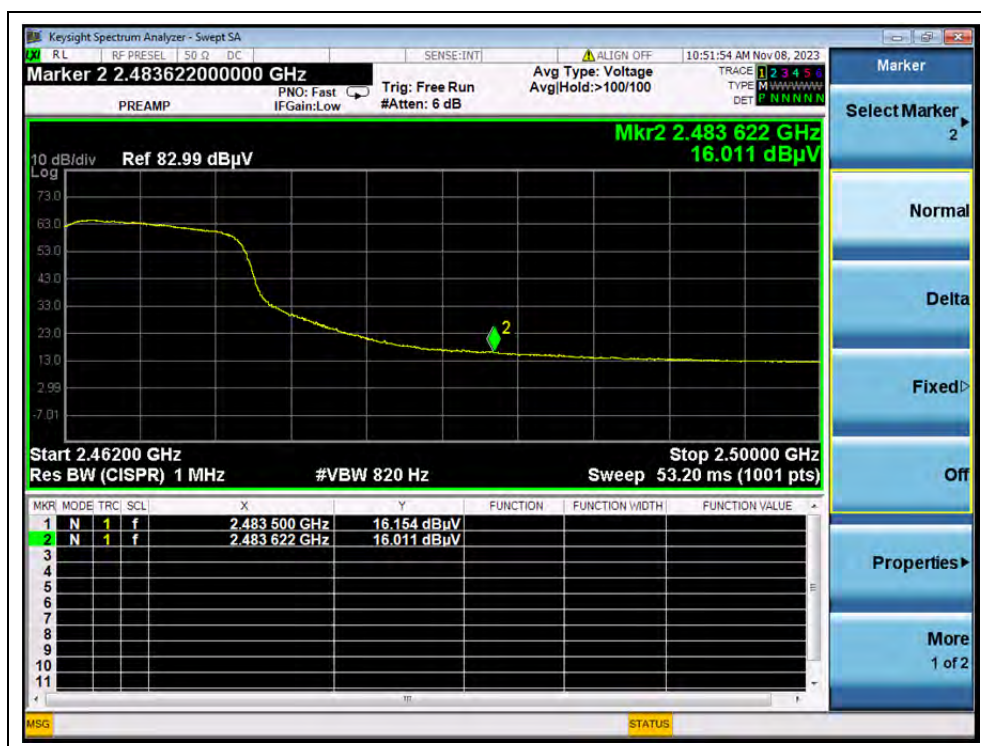
(PEAK, Channel 1, 802.11n (HT20))



(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:

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

A_T : Total correction Factor except Antenna

U_R : Receiver Reading

G_{preamp} : Preamplifier Gain

A_{Factor} : Antenna Factor at 3m

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

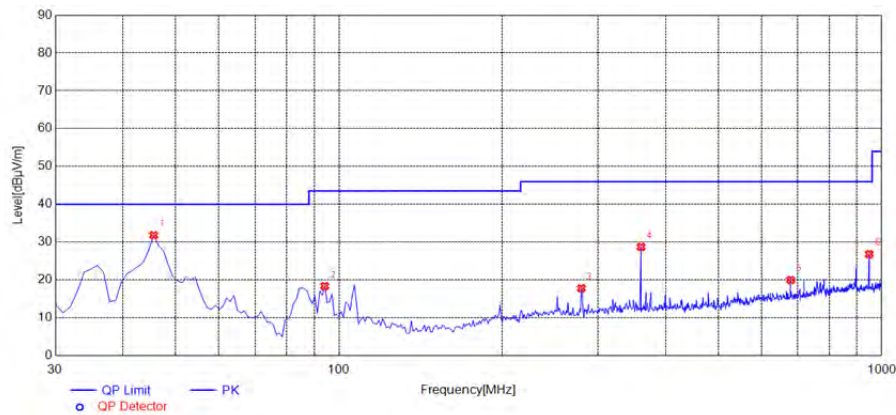
Note1: All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

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

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

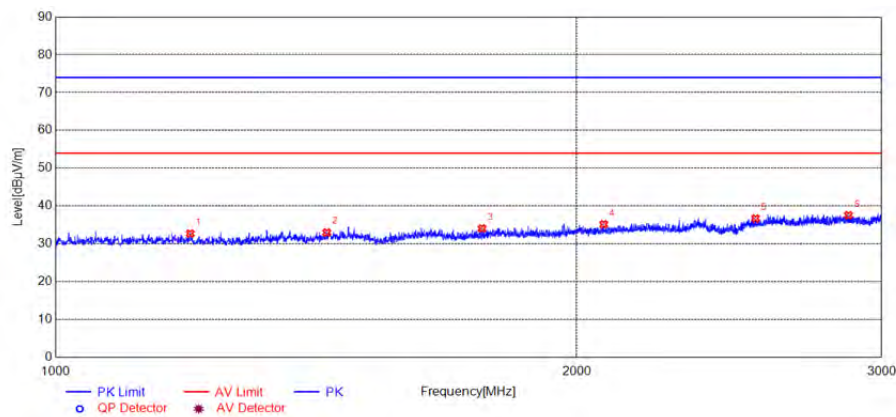
**802.11b Mode**

Plot for Channel 1



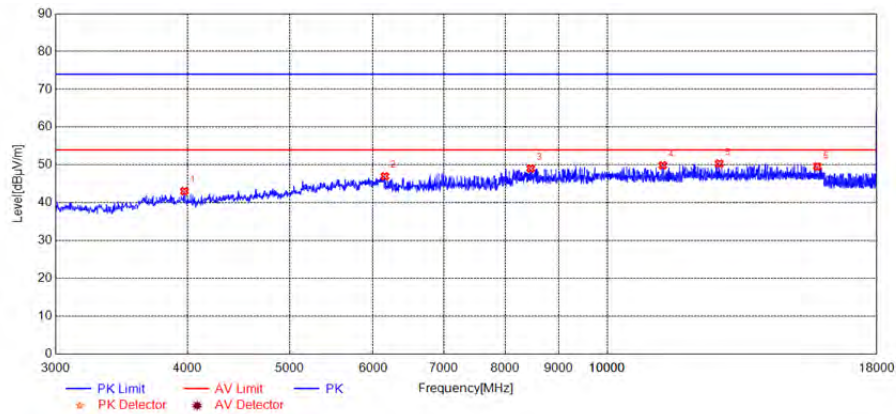
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
45.5355	31.84	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
94.0841	18.37	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
279.5395	17.79	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
360.1301	28.74	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
679.5796	20.02	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
948.5385	26.81	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



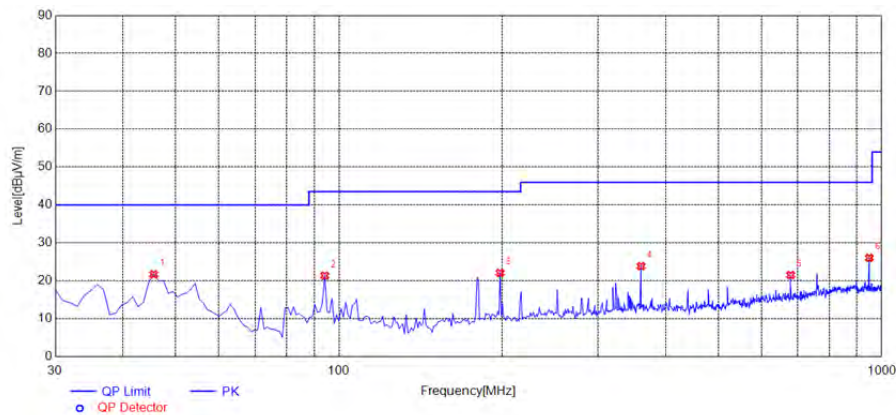
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1196.4393	32.73	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1434.4869	33.01	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1763.3527	34.10	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2073.0146	35.19	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2536.7073	36.72	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2870.3741	37.59	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 3GHz)



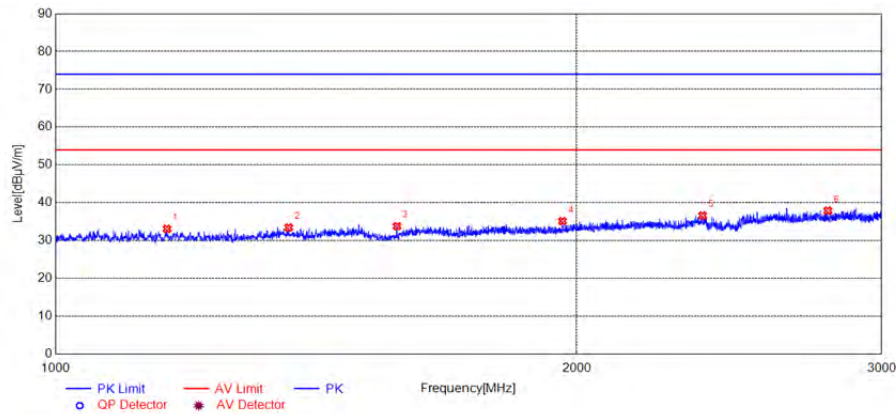
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
3975.1950	43.06	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6156.6313	47.02	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8461.0922	49.07	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11287.6575	49.91	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12766.9534	50.38	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
15815.5631	49.58	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 3GHz to 18GHz)



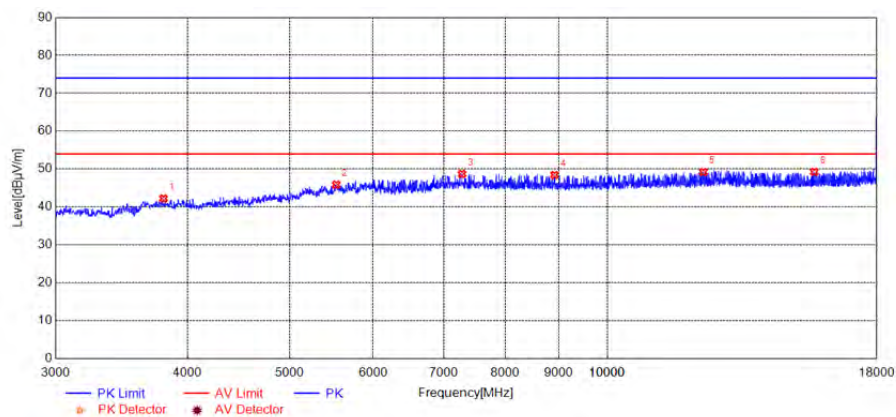
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
45.5355	21.71	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
94.0841	21.37	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
197.9780	22.11	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
360.1301	23.88	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
679.5796	21.54	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
948.5385	26.06	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1160.0320	33.11	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1363.6727	33.45	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1574.9150	33.81	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1962.5925	35.16	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2364.2729	36.63	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2792.7586	37.92	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 3GHz)

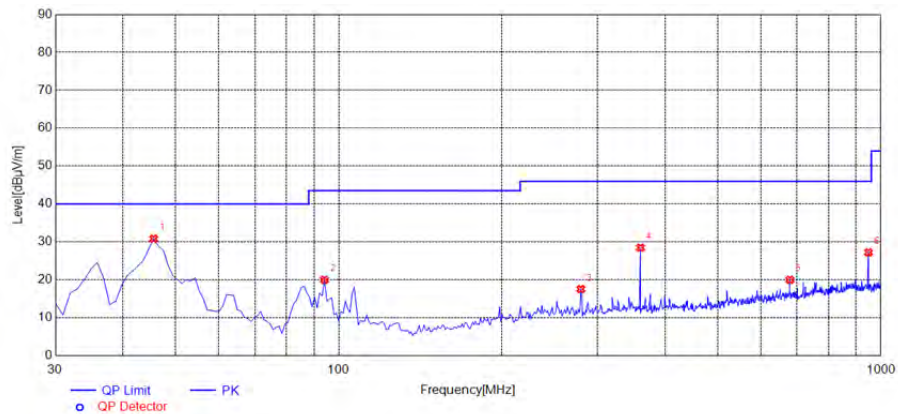


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
3798.1596	42.23	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5535.5071	45.92	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7284.8570	48.73	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8914.1828	48.45	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12334.8670	49.22	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
15707.5415	49.27	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 3GHz to 18GHz)

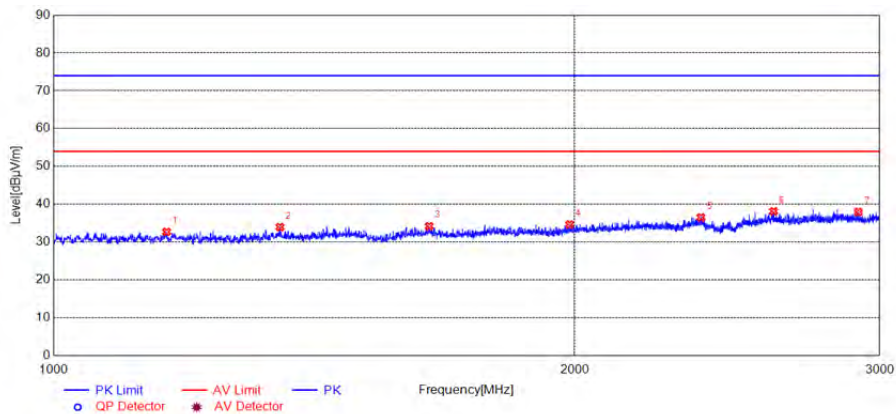


Plot for Channel 6



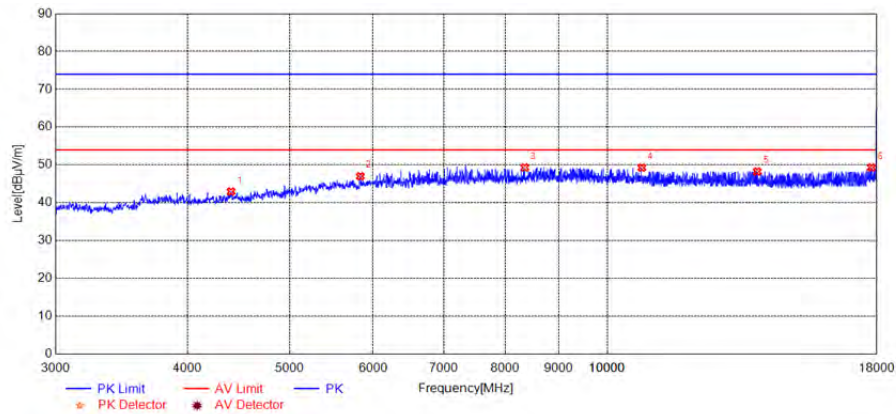
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
45.5355	30.85	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
94.0841	20.02	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
279.5395	17.57	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
360.1301	28.49	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
679.5796	20.02	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
948.5385	27.26	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



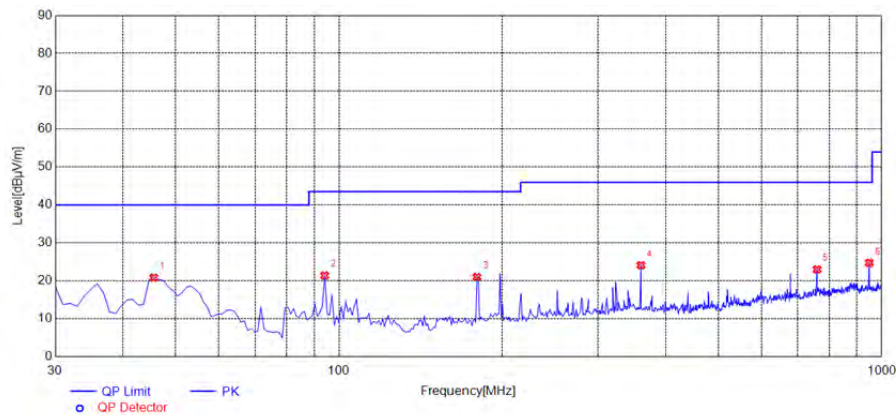
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1162.4325	32.72	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1351.6703	33.99	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1648.1296	34.21	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1986.5973	34.67	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2365.4731	36.54	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2605.1210	38.15	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2915.9832	37.98	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 3GHz)



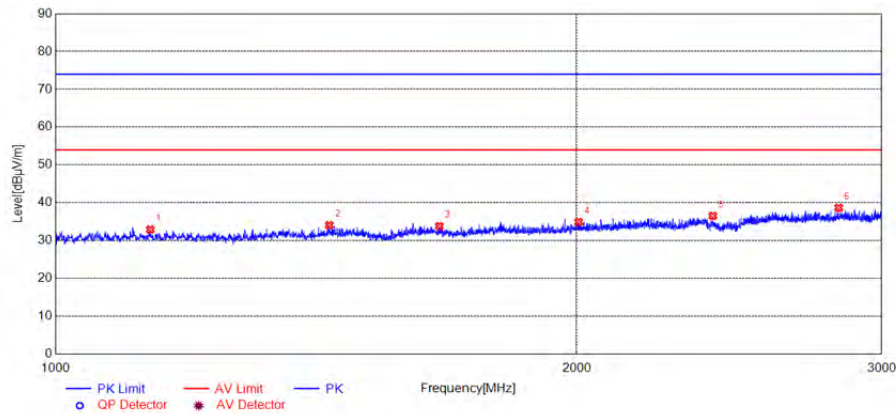
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
4401.2803	42.98	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5835.5671	47.02	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8353.0706	49.32	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10783.5567	49.29	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
13871.1742	48.28	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
17795.9592	49.34	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 3GHz to 18GHz)



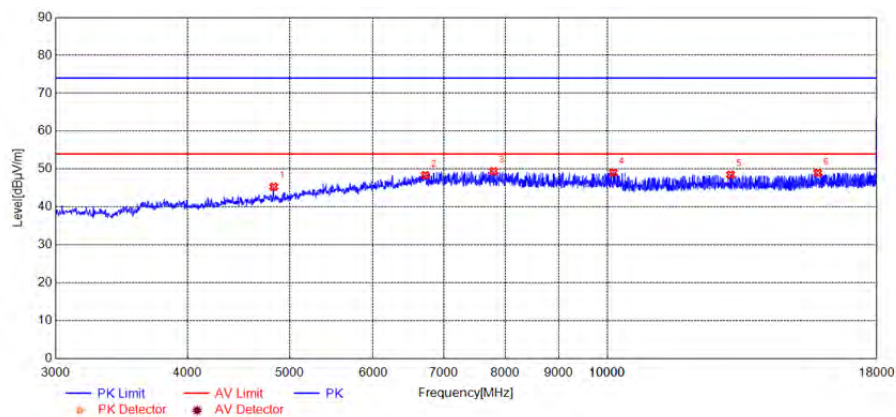
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
45.5355	20.84	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
94.0841	21.41	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
179.5295	21.00	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
360.1301	24.11	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
760.1702	23.00	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
948.5385	24.75	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1134.4269	32.93	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1439.2879	34.09	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1666.1332	33.83	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2005.0010	34.94	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2396.6793	36.55	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2833.1666	38.68	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 3GHz)

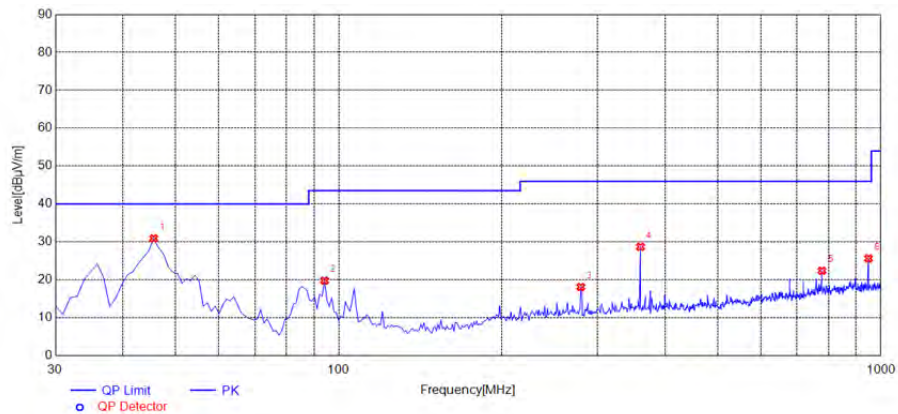


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
4830.3661	45.34	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6723.7447	48.37	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7803.9608	49.44	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10132.4265	49.05	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
13085.0170	48.52	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
15827.5655	48.98	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 3GHz to 18GHz)

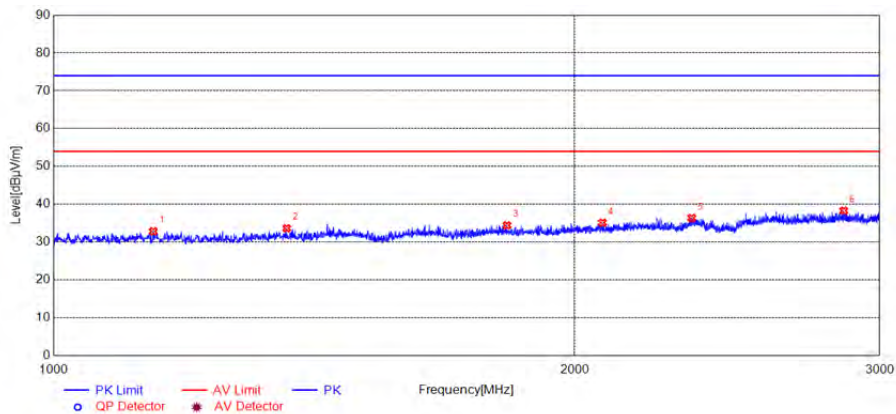


Plot for Channel 11



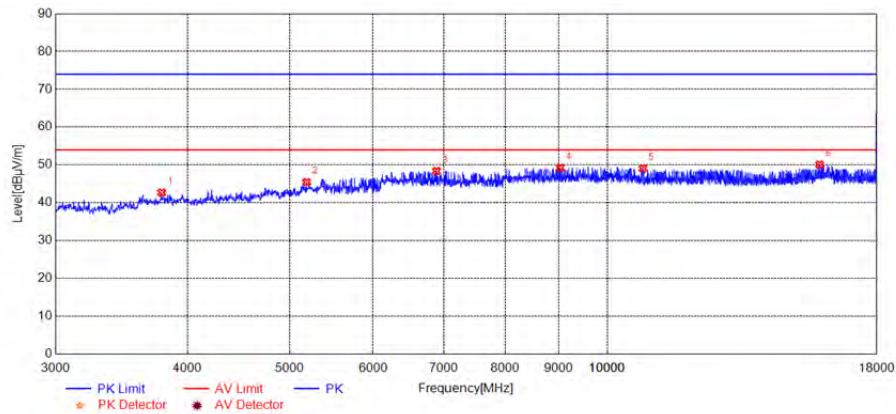
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
45.5355	30.93	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
94.0841	19.81	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
279.5395	18.14	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
360.1301	28.72	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
778.6186	22.40	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
948.5385	25.66	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



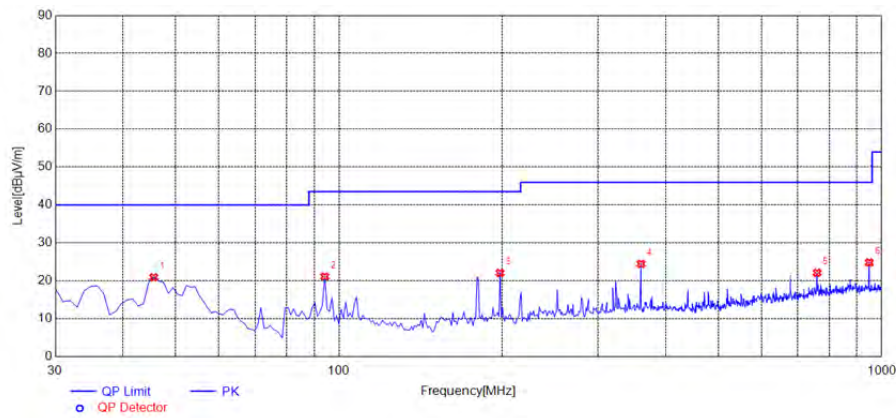
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1142.0284	32.85	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1363.6727	33.66	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1827.7656	34.43	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2075.0150	35.15	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2336.6673	36.38	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2859.9720	38.32	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 3GHz)



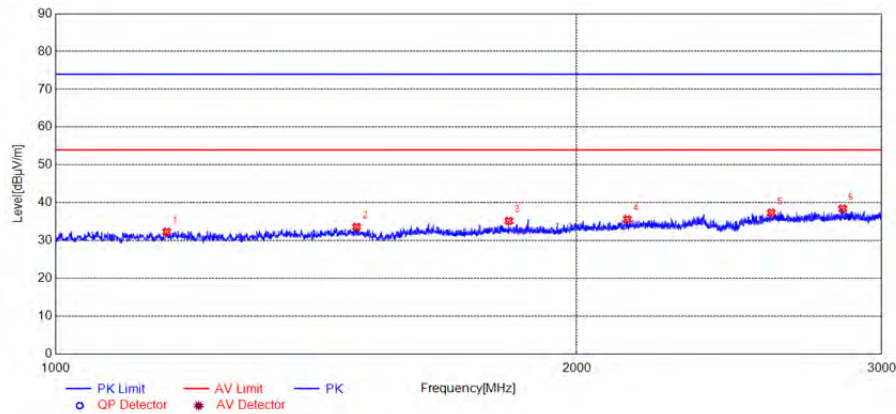
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
3783.1566	42.71	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5190.4381	45.46	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6888.7778	48.41	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
9025.2050	49.28	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10810.5621	49.07	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
15893.5787	50.10	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 3GHz to 18GHz)



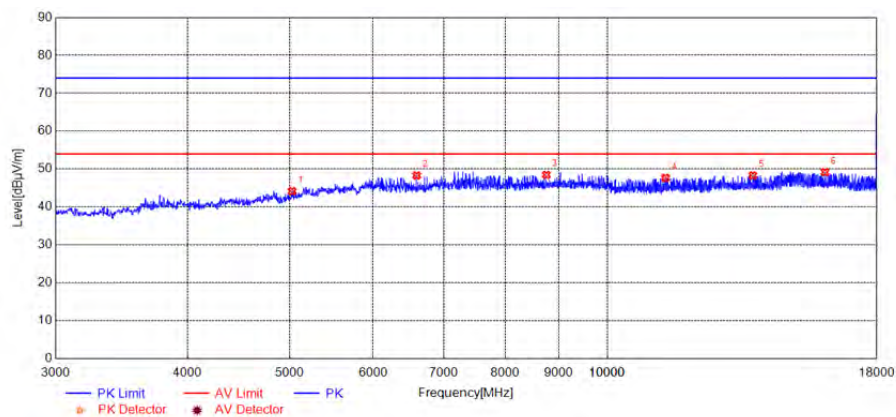
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
45.5355	20.94	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
94.0841	21.11	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
197.9780	22.10	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
360.1301	24.47	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
760.1702	22.13	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
948.5385	24.84	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1159.6319	32.35	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1492.4985	33.61	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1827.3655	35.21	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2139.0278	35.62	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2590.3181	37.36	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2847.9696	38.46	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 3GHz)

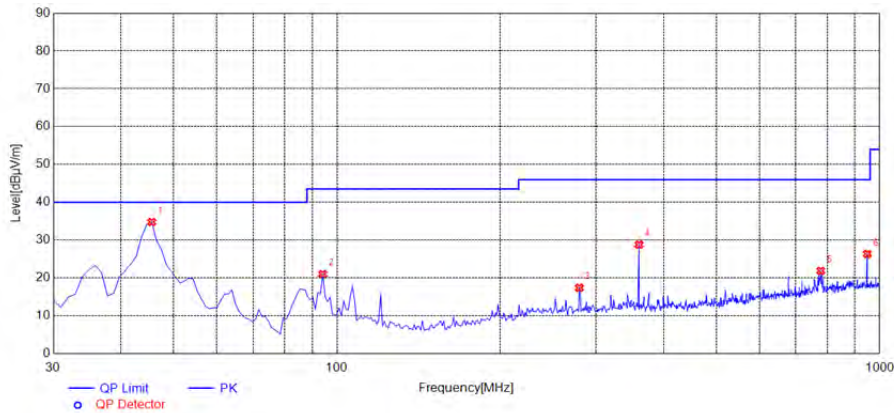


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
5028.4057	44.19	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6597.7195	48.30	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8755.1510	48.48	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11356.6713	47.68	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
13739.1478	48.33	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
16079.6159	49.20	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 3GHz to 18GHz)

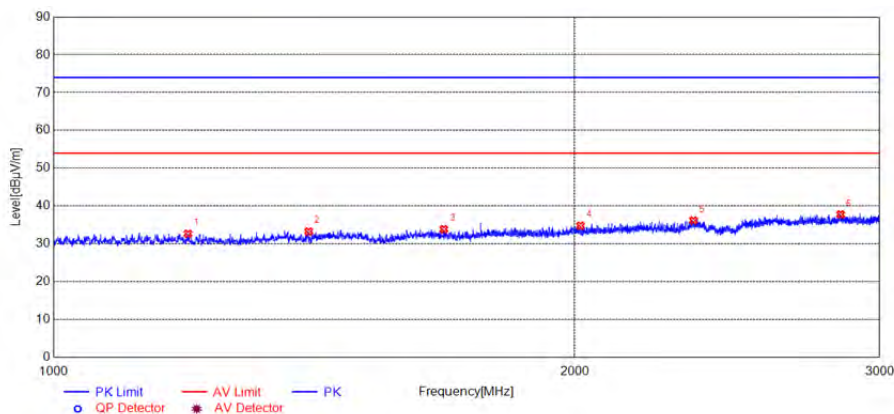
**802.11g Mode**

Plot for Channel 1



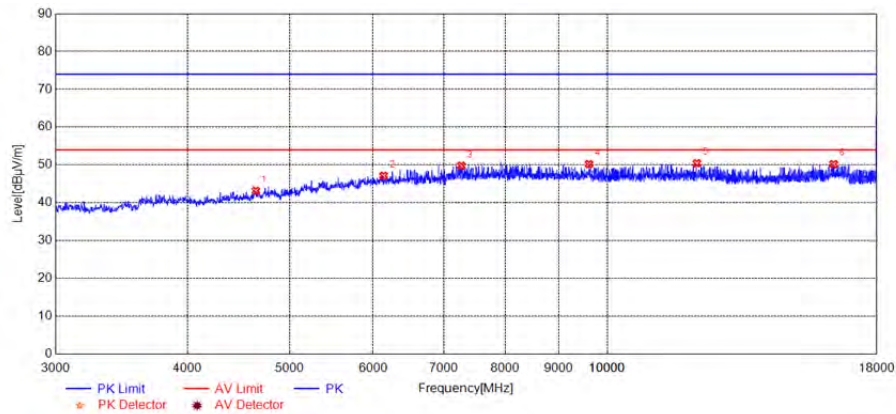
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
45.5355	34.80	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
94.0841	21.02	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
279.5395	17.41	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
360.1301	28.81	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
778.6186	21.88	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
948.5385	26.34	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



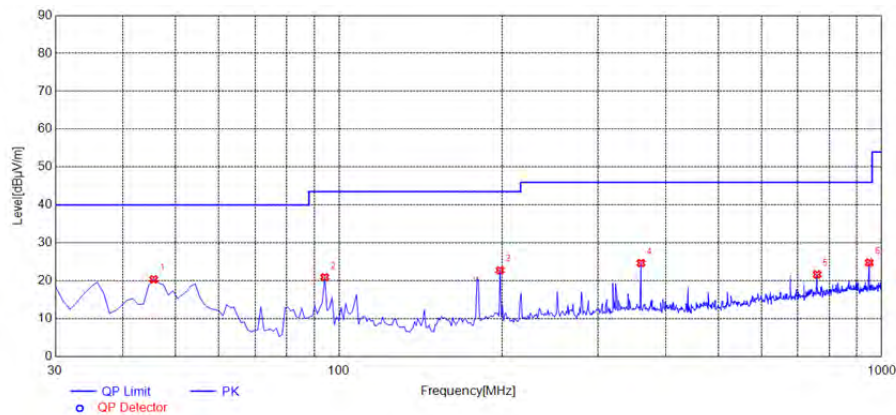
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1196.0392	32.68	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1404.0808	33.28	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1680.5361	33.88	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2015.4031	34.83	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2341.8684	36.19	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2847.9696	37.80	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 3GHz)



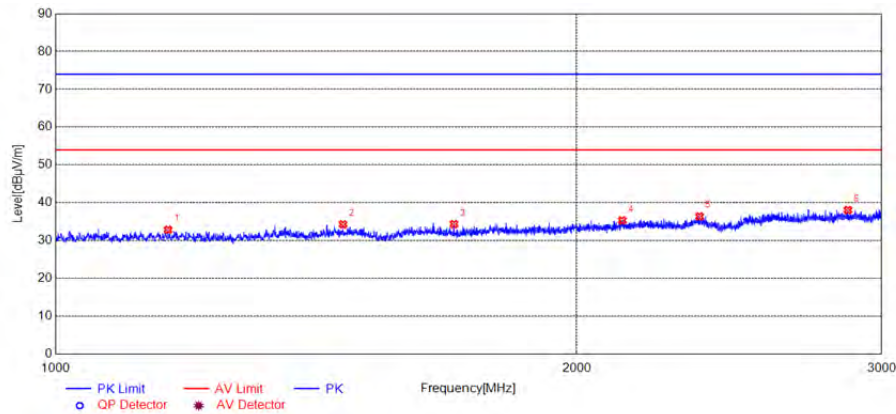
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
4644.3289	43.17	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6138.6277	47.18	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7272.8546	49.81	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
9610.3221	50.23	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12160.8322	50.47	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
16385.6771	50.22	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 3GHz to 18GHz)



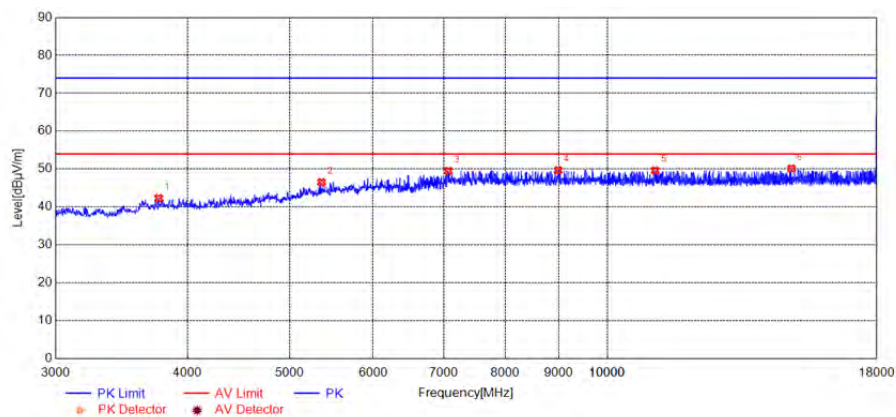
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
45.5355	20.41	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
94.0841	20.96	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
197.9780	22.79	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
360.1301	24.68	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
760.1702	21.70	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
948.5385	24.80	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1161.6323	32.87	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1465.6931	34.31	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1698.9398	34.36	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2125.0250	35.34	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2354.6709	36.42	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2868.3737	38.09	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 3GHz)

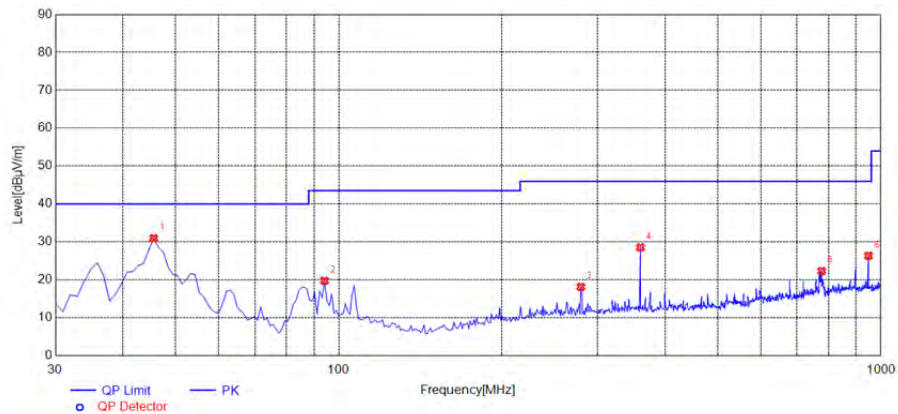


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
3759.1518	42.31	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5361.4723	46.52	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7068.8138	49.52	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8986.1972	49.70	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11101.6203	49.63	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14948.3897	50.14	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 3GHz to 18GHz)

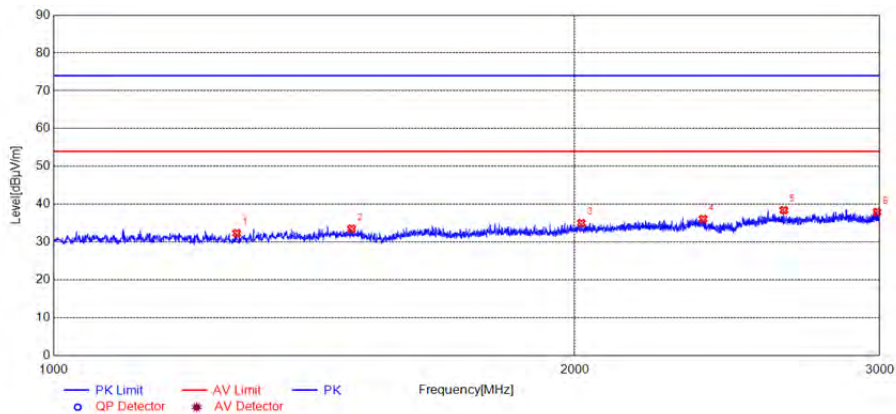


Plot for Channel 6



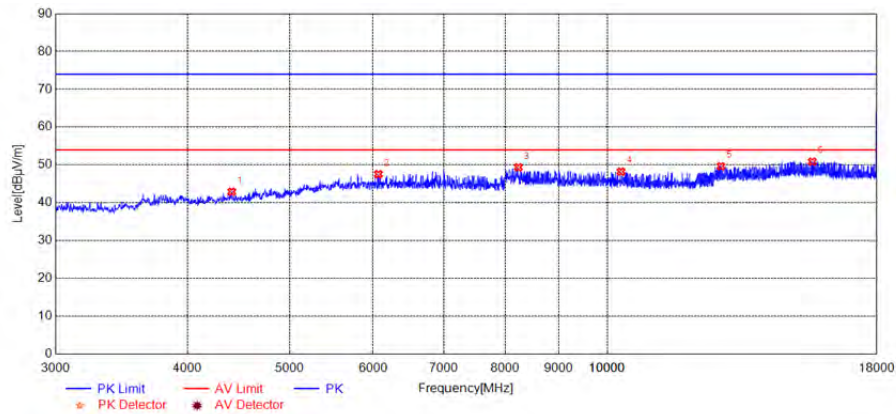
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
45.5355	30.98	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
94.0841	19.78	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
279.5395	18.17	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
360.1301	28.57	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
777.6476	22.32	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
948.5385	26.36	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



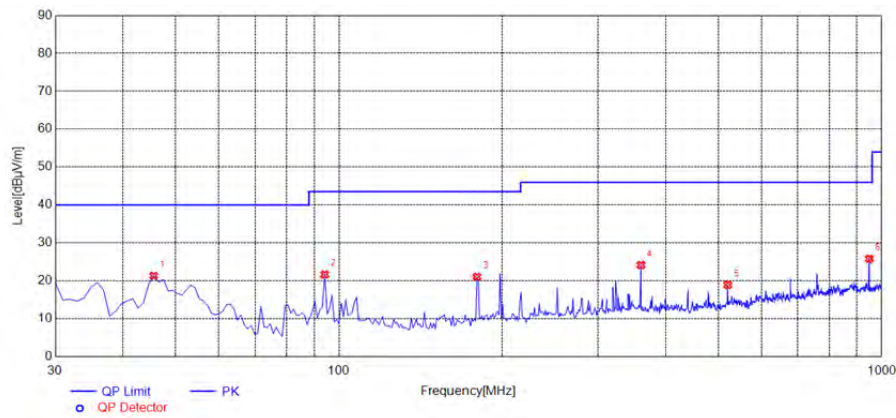
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1276.0552	32.36	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1486.4973	33.54	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2017.8036	35.07	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2372.2745	36.13	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2641.1282	38.46	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2989.1978	37.97	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 3GHz)



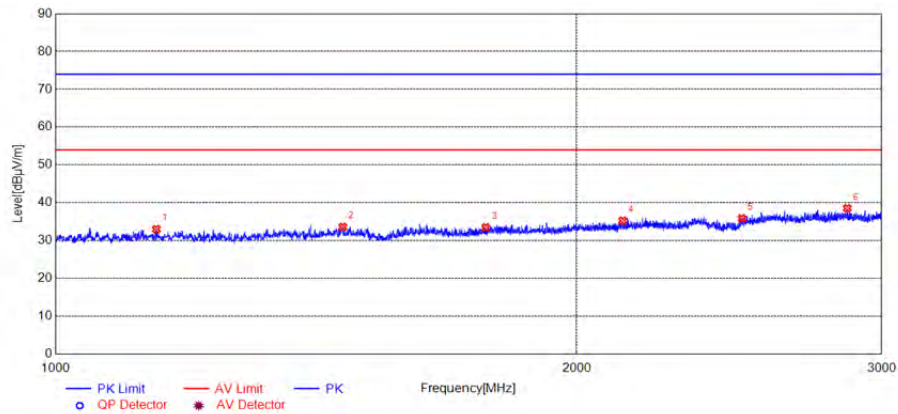
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
4407.2815	42.94	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6069.6139	47.58	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8236.0472	49.39	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10303.4607	48.25	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12814.9630	49.67	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
15641.5283	50.88	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 3GHz to 18GHz)



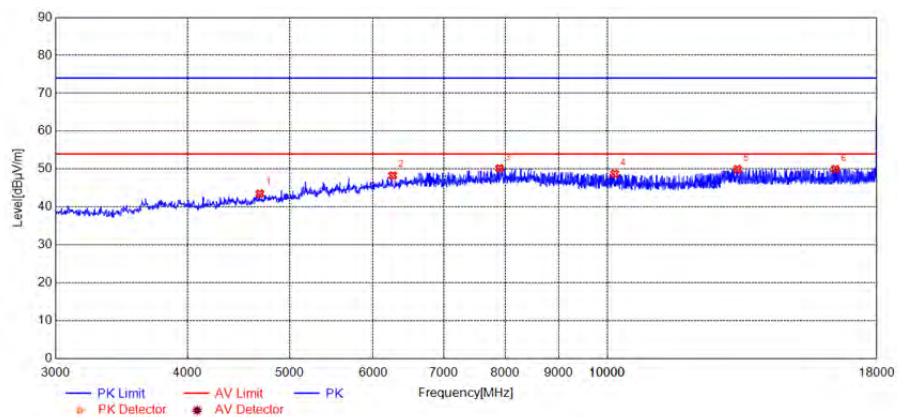
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
45.5355	21.33	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
94.0841	21.68	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
179.5295	21.06	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
360.1301	24.17	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
520.3403	18.92	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
948.5385	25.83	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1143.6287	33.01	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1465.2931	33.62	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1772.1544	33.49	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2125.8252	35.27	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2491.4983	35.89	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2865.5731	38.58	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 3GHz)

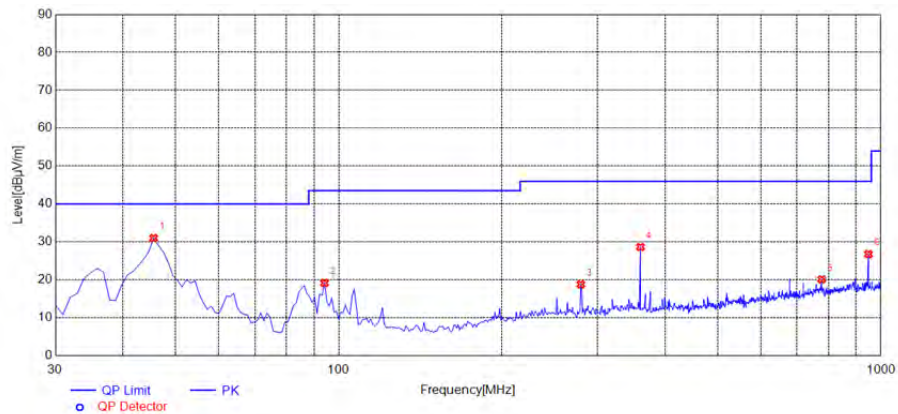


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
4686.3373	43.52	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6261.6523	48.31	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7905.9812	50.20	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10162.4325	48.78	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
13289.0578	49.98	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
16436.6873	49.99	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 3GHz to 18GHz)

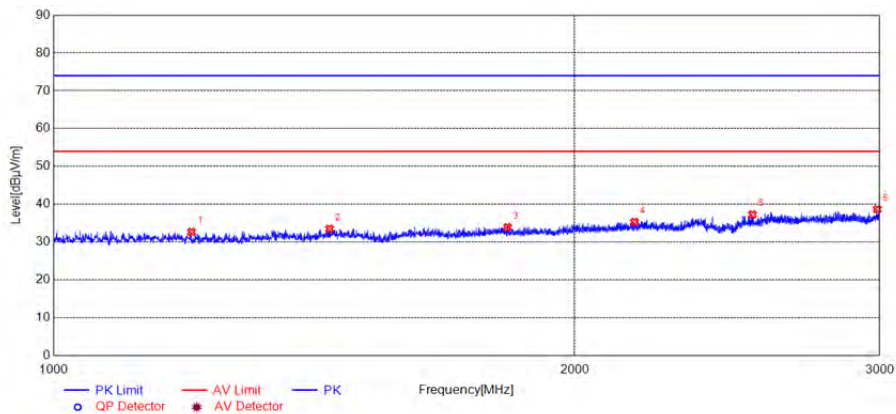


Plot for Channel 11



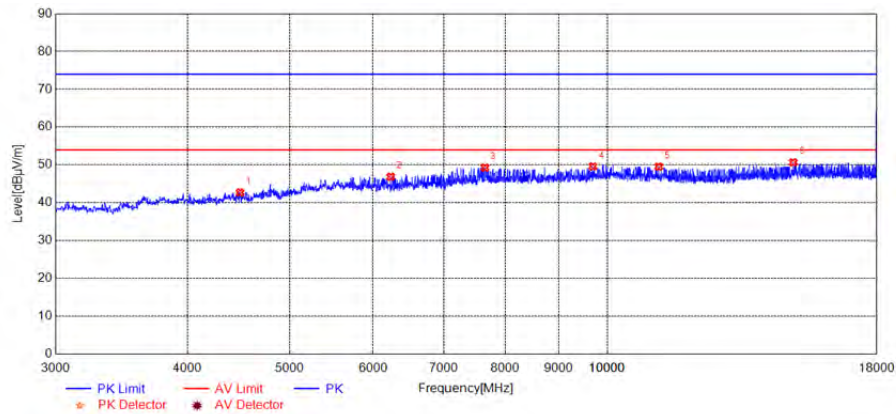
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
45.5355	31.01	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
94.0841	19.20	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
279.5395	18.82	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
360.1301	28.67	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
777.6476	20.14	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
948.5385	26.80	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



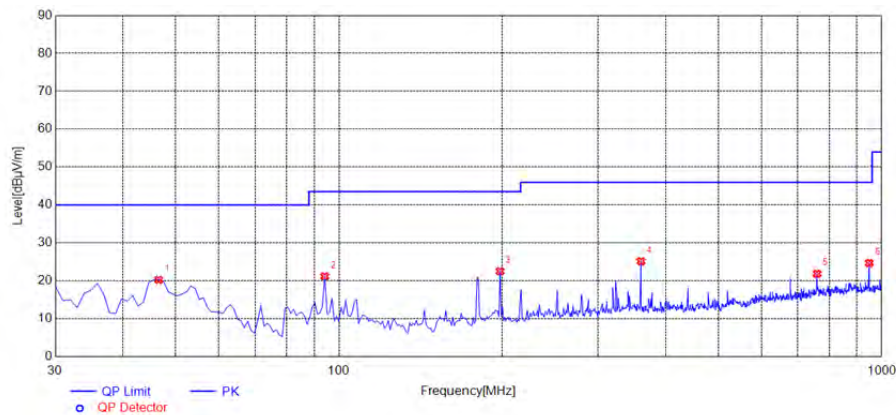
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1201.6403	32.70	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1443.6887	33.51	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1828.9658	33.94	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2165.0330	35.35	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2533.1066	37.32	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2990.3981	38.69	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 3GHz)



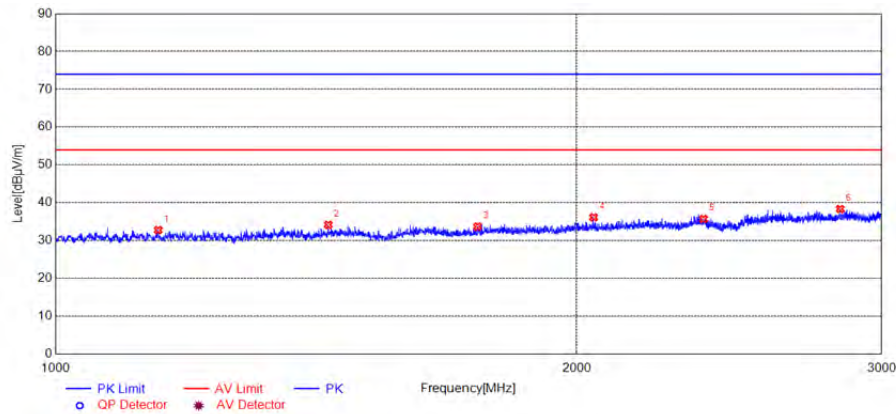
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
4488.2977	42.72	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6234.6469	46.90	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7656.9314	49.29	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
9691.3383	49.61	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11191.6383	49.57	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
15005.4011	50.70	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 3GHz to 18GHz)



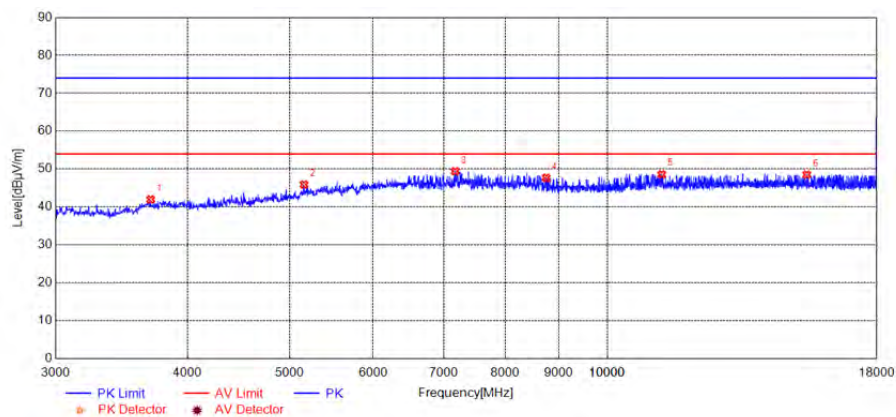
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
46.5065	20.27	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
94.0841	21.18	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
197.9780	22.53	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
360.1301	25.16	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
760.1702	21.86	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
948.5385	24.70	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1146.4293	32.79	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1437.2875	34.19	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1752.9506	33.72	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2045.4091	36.17	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2367.0734	35.73	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2839.1678	38.35	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 3GHz)

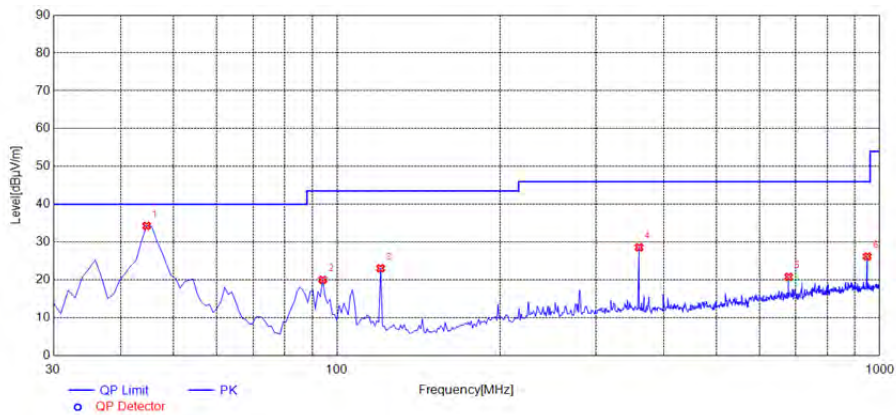


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
3693.1386	42.00	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5160.4321	45.92	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7176.8354	49.41	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8752.1504	47.70	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11260.6521	48.62	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
15455.4911	48.54	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 3GHz to 18GHz)

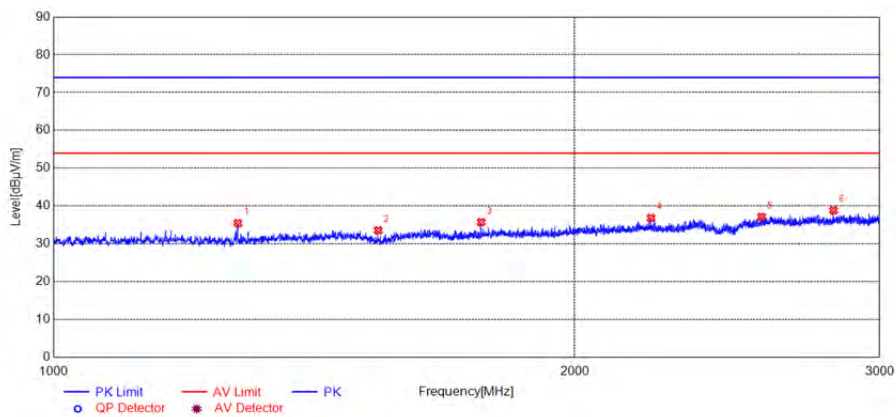
**802.11n (HT20)Mode**

Plot for Channel 1



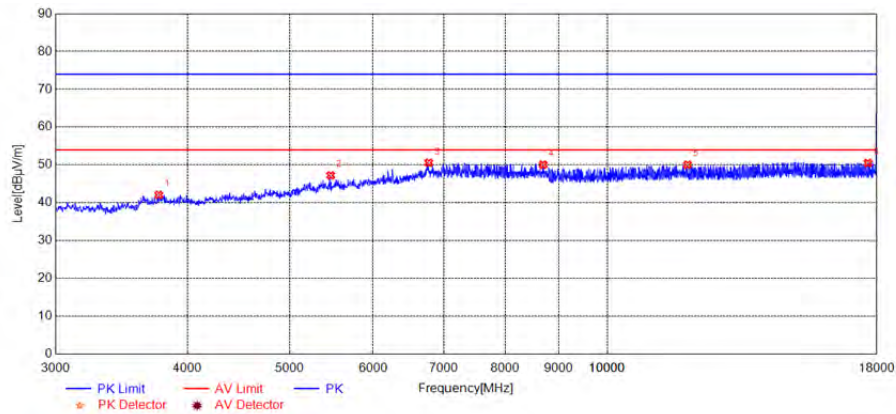
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
44.5646	34.31	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
94.0841	20.07	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
120.3003	23.09	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
360.1301	28.63	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
679.5796	20.81	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
948.5385	26.22	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



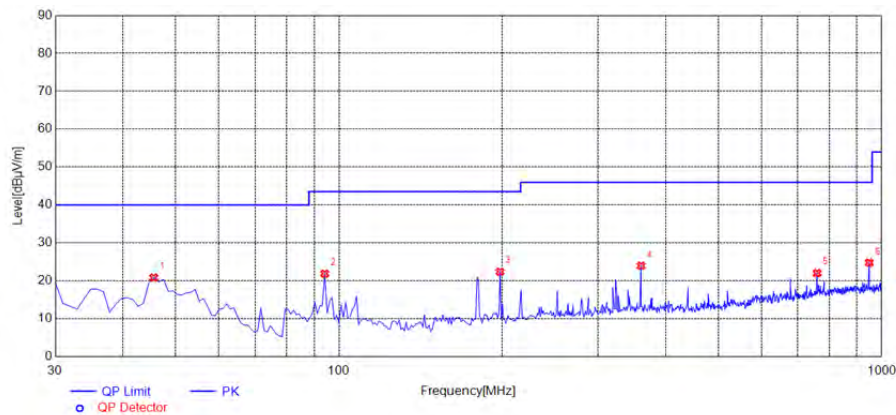
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1278.0556	35.48	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1540.1080	33.57	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1766.1532	35.74	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2213.4427	36.85	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2563.9128	37.16	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2821.1642	38.84	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 3GHz)



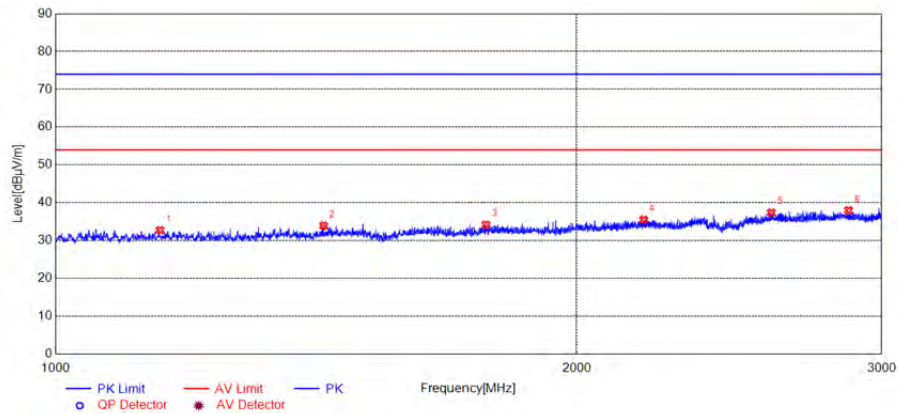
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
3759.1518	42.09	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5469.4939	47.26	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6774.7550	50.60	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8695.1390	50.09	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11914.7830	50.10	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
17660.9322	50.54	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 3GHz to 18GHz)



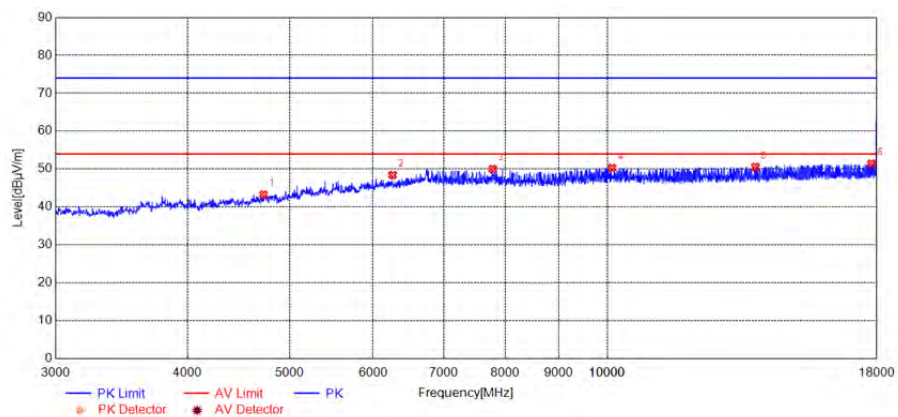
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
45.5355	20.86	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
94.0841	21.90	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
197.9780	22.40	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
360.1301	23.98	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
760.1702	22.04	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
948.5385	24.78	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1149.2298	32.76	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1428.4857	33.98	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1772.5545	34.21	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2186.2372	35.51	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2590.3181	37.42	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2870.3741	38.00	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 3GHz)

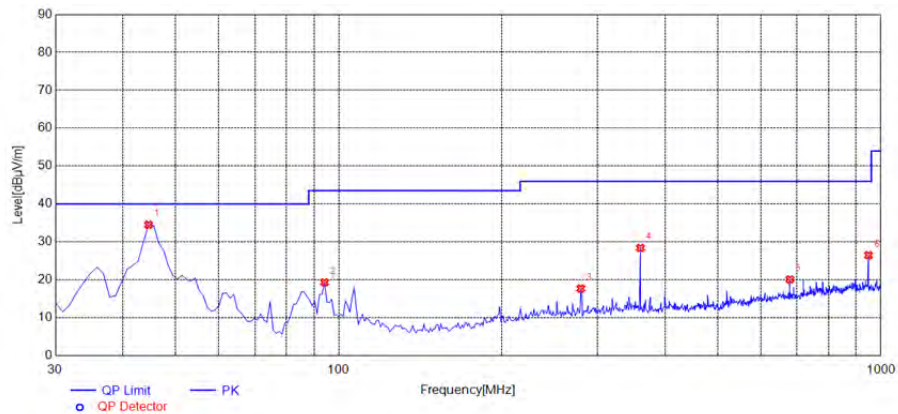


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
4725.3451	43.26	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6261.6523	48.44	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7788.9578	50.03	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10105.4211	50.30	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
13817.1634	50.55	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
17795.9592	51.47	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 3GHz to 18GHz)

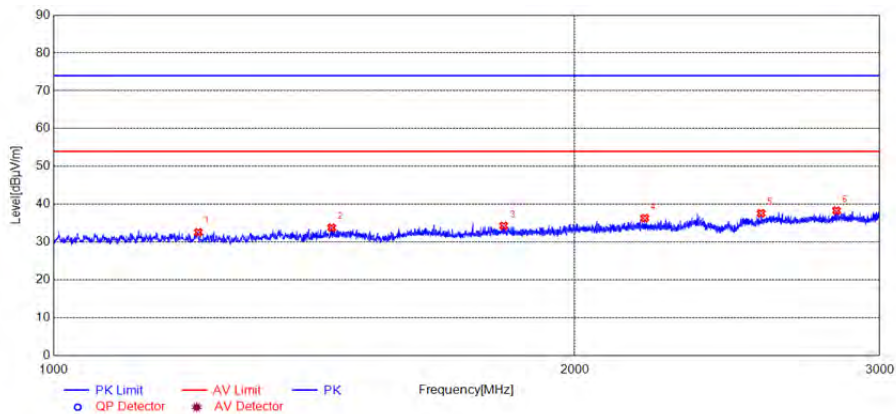


Plot for Channel 6



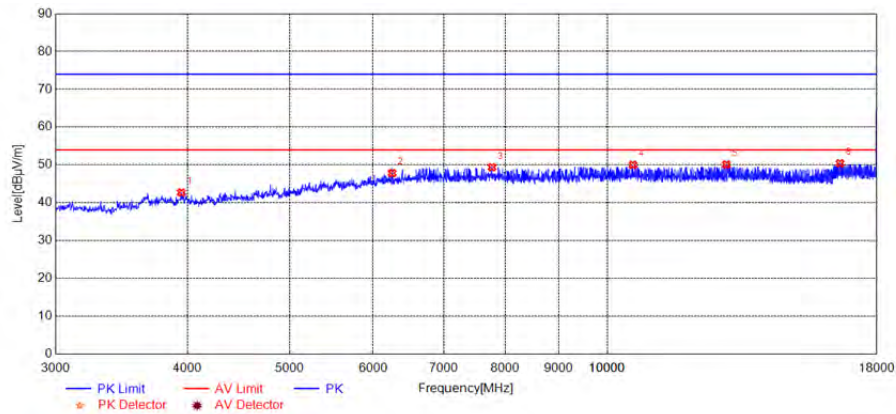
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
44.5646	34.53	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
94.0841	19.35	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
279.5395	17.71	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
360.1301	28.42	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
679.5796	20.11	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
948.5385	26.52	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



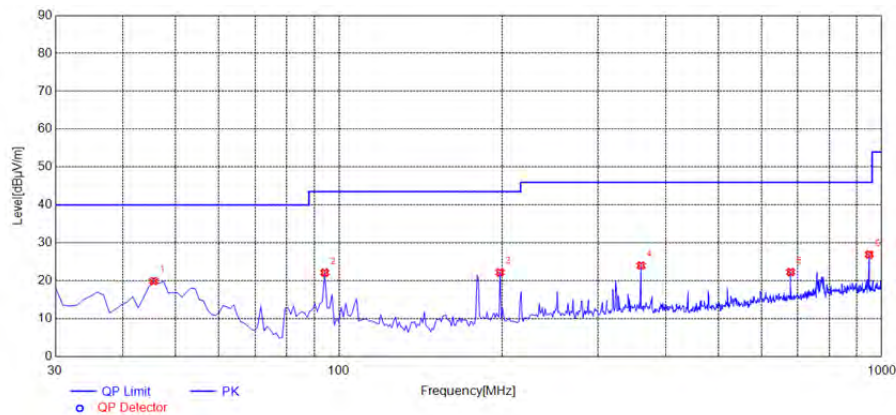
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1212.4425	32.60	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1447.6895	33.82	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1819.7640	34.32	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2195.0390	36.35	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2562.3125	37.62	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2832.7666	38.34	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 3GHz)



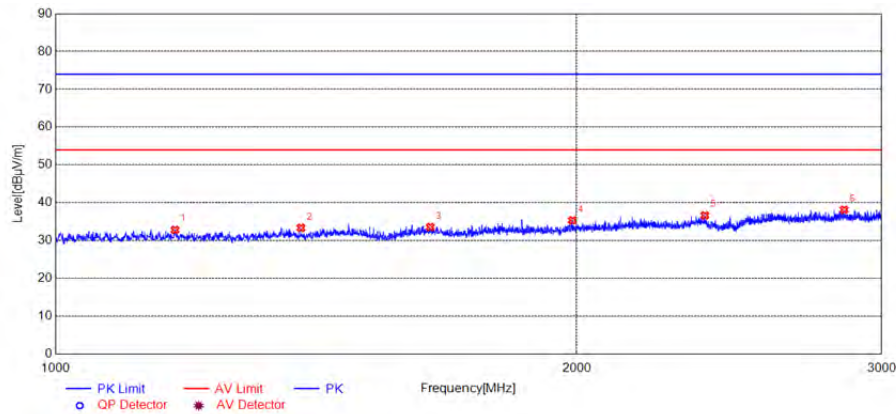
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
3948.1896	42.71	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6255.6511	47.85	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7776.9554	49.41	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10576.5153	50.06	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12967.9936	50.14	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
16616.7233	50.47	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 3GHz to 18GHz)



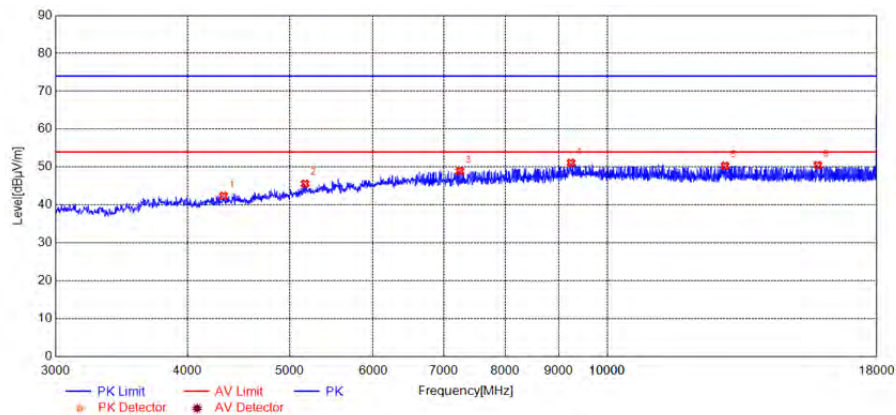
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
45.5355	19.95	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
94.0841	22.17	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
197.9780	22.24	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
360.1301	24.04	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
679.5796	22.33	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
948.5385	26.95	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1172.4345	32.84	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1386.0772	33.39	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1646.1292	33.59	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1988.1976	35.37	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2371.4743	36.67	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2853.5707	38.16	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 3GHz)

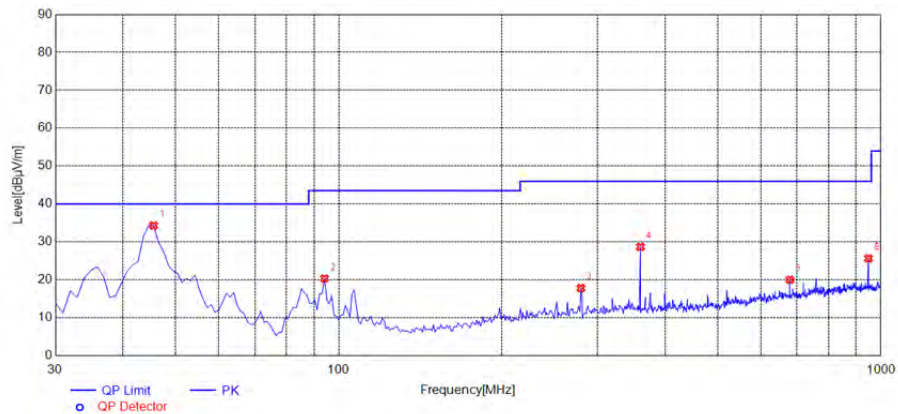


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
4329.2659	42.38	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5172.4345	45.62	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7251.8504	48.95	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
9241.2483	51.13	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12928.9858	50.34	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
15830.5661	50.51	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 3GHz to 18GHz)

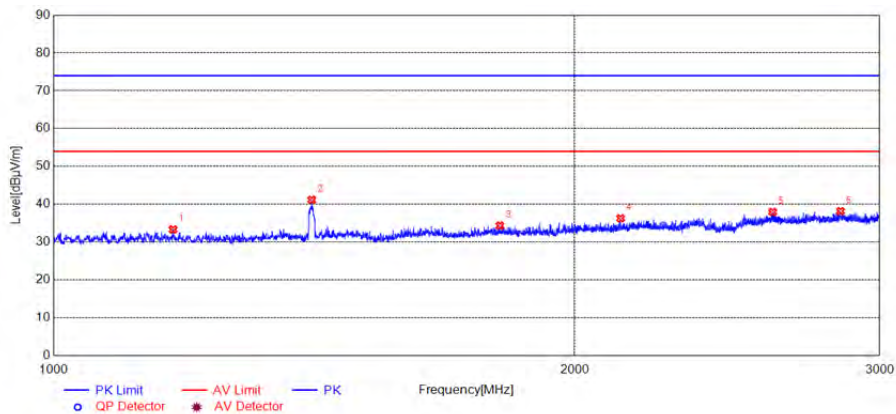


Plot for Channel 11



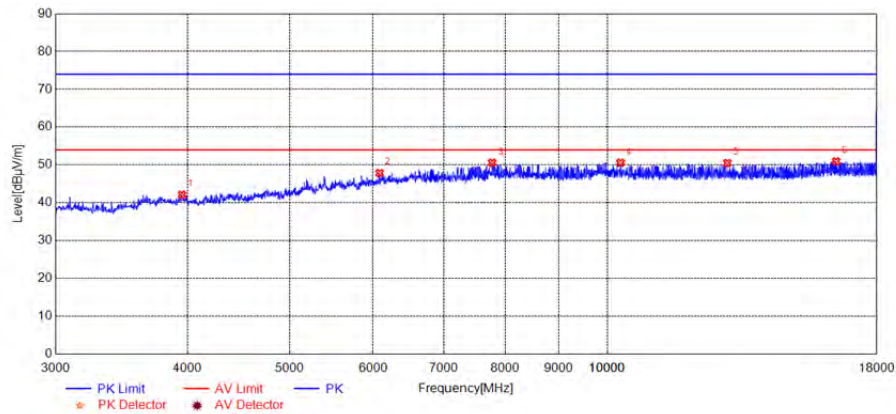
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
45.5355	34.34	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
94.0841	20.37	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
279.5395	17.83	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
360.1301	28.70	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
679.5796	20.05	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
948.5385	25.67	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



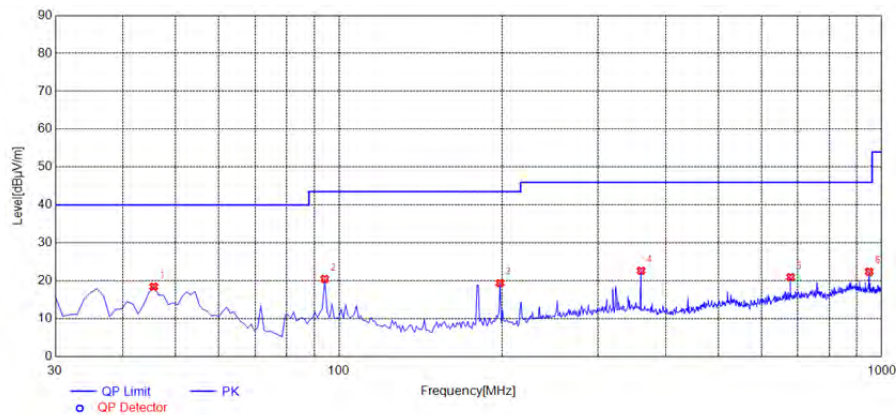
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1172.4345	33.35	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1409.6819	41.19	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1810.5621	34.35	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2125.8252	36.31	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2601.9204	37.98	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2847.5695	38.18	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 3GHz)



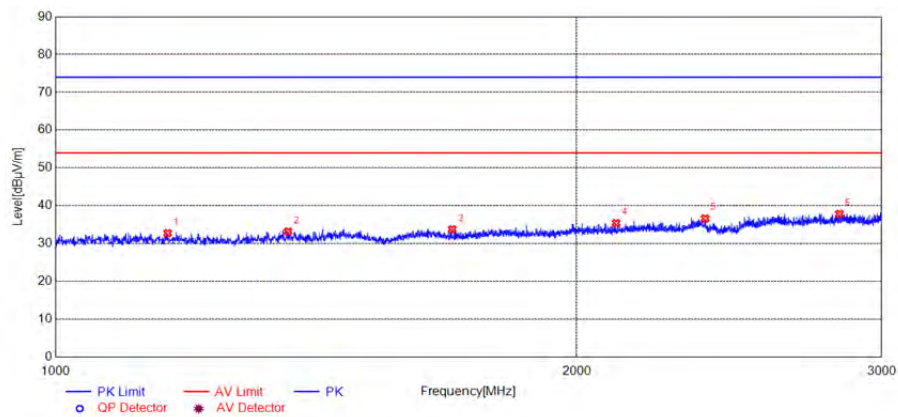
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
3954.1908	42.15	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6084.6169	47.89	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7779.9560	50.60	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10294.4589	50.60	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12994.9990	50.52	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
16475.6951	50.97	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 3GHz to 18GHz)



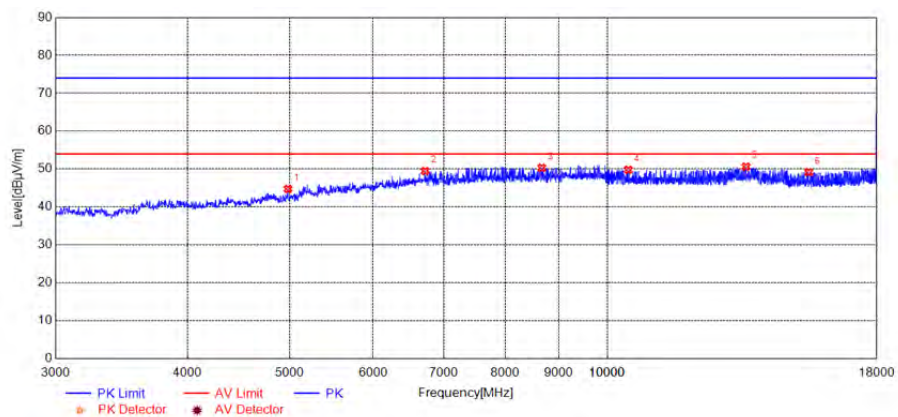
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
45.5355	18.47	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
94.0841	20.51	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
197.9780	19.43	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
360.1301	22.67	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
679.5796	20.98	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
948.5385	22.40	N/A	N/A	N/A	46.00	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1160.8322	32.77	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1362.4725	33.19	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1694.9390	33.78	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2107.4215	35.42	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2372.2745	36.64	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2835.9672	37.87	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 3GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
4983.3967	44.76	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6720.7441	49.49	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8668.1336	50.35	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10468.4937	49.81	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
13535.1070	50.64	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
15521.5043	49.17	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 3GHz to 18GHz)

END OF REPORT