TEST REPORT

APPLICANT	:	REMO TECH Co., Ltd.
PRODUCT NAME	:	OBSBOT Wireless Multi-Cam Connector
MODEL NAME	:	OWB-2412-CC
BRAND NAME	:	OBSBOT
FCC ID	:	2ASMC-OWB2412
STANDARD(S)	:	47 CFR Part 15 Subpart C
RECEIPT DATE	:	2025-07-14
TEST DATE	:	2025-07-29 to 2025-10-30
ISSUE DATE	:	2025-11-21

Edited by: Peng Mi (Rapporteur)

Approved by: Shen Junsheng (Supervisor)

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MORLAB
Shenzhen Morlab Communications Technology Co., Ltd.
FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Tel: 86-755-36698555 Fax: 86-755-36698525
Http://www.morlab.cn E-mail: service@morlab.cn

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Change History		
Version	**Date**	**Reason for change**
1.0	2025-11-21	First edition

1. Summary of Test Result

No.	Section	Description	Test Date	Test Engineer	Result	Remark
1	15.203	Antenna Requirement	N/A	N/A	PASS	/
2	15.247(a) 15.247(h)	Hopping Mechanism	N/A	N/A	PASS	/
3	15.247(a)	Number of Hopping Frequency	Oct. 15, 2025	Li Yue	PASS	/
4	ANSI C63.10	Duty Cycle	Oct. 15, 2025	Li Yue	PASS	/
5	15.247(b)	Maximum Peak Conducted Output Power	Oct. 15, 2025	Li Yue	PASS	/
6	15.247(b)	Maximum Average Conducted Output Power	Oct. 15, 2025	Li Yue	PASS	/
7	15.247(a)	20dB Bandwidth	Oct. 15, 2025	Li Yue	PASS	/
8	15.247(a)	Carrier Frequency Separation	Oct. 15, 2025	Li Yue	PASS	/
9	15.247(a)	Time of Occupancy (Dwell time)	Oct. 15, 2025	Li Yue	PASS	/
10	15.247(d)	Conducted Spurious Emission and Band Edge	Oct. 15, 2025	Li Yue	PASS	/
11	15.207	Conducted Emission	Jul. 29, 2025	Wang Deyong Wang Yapeng	PASS	/
12	15.247(d)	Restricted Frequency Bands	Aug. 08, 2025	Tian Xin	PASS	/
13	15.209, 15.247(d)	Radiated Emission	Aug. 02, 2025	Wang Deyong	PASS	/

Note 1: The tests were performed according to the method of measurements prescribed in ANSI C63.10-2020, KDB 558074 D01 v05r02 and DA 00-075.

Note 2: Any additions, deviation, or exclusions from the method shall be noted in the “Remark”.

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 Analzyer	MY53470836	N9010A	Agilent	2025.01.15	2026.01.14
RF Cable (30MHz-26GHz)	CB01	RF01	Morlab	N/A	N/A
SMA Connector	CN01	RF03	HUBER-SUHNER	N/A	N/A

1.2.2 Conducted Emission Test Equipment

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	101052	ESPI	R&S	2025.05.15	2026.05.14
LISN	103131	ENV 216	R&S	2025.03.20	2026.03.19
RF Coaxial Cable (DC-100MHz)	EMC-CE-00514	N/A	N/A	2025.05.06	2026.05.05

1.2.3 List of Software Used

Description	Manufacturer	Software Version
Test System	MaiWei	2.0.0.0
JS32-RE	Tonscend	5.0.0
TS+ -[JS32-CE]	Tonscend	2.5.0.0

1.2.4 Radiated Test Equipment

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Signal Analyzer	MY56060145	N9020A	Agilent	2025.05.13	2026.05.12
Test Antenna - Bi-Log	9163-274	VULB 9163	Schwarzbeck	2025.06.28	2026.06.27
Test Antenna - Loop	1519-022	FMZB1519	Schwarzbeck	2025.05.16	2026.05.15
Test Antenna – Horn	01774	BBHA 9120D	Schwarzbeck	2025.06.20	2026.06.19
Test Antenna – Horn	BBHA9170 #773	BBHA9170	Schwarzbeck	2025.06.20	2026.06.19
Preamplifier (10MHz-6GHz)	46732	S10M100L3802	LUCIX CORP.	2025.05.13	2026.05.12
Preamplifier (2GHz-18GHz)	61171/61172	S020180L3203	LUCIX CORP.	2025.05.13	2026.05.12
Preamplifier (18GHz-40GHz)	DS77209	DCLNA0118-40C-S	Decentest	2025.05.13	2026.05.12
RF Coaxial Cable (DC-18GHz)	MRE001	PE330	Pasternack	2025.05.13	2026.05.12
RF Coaxial Cable (DC-18GHz)	MRE002	CLU18	Pasternack	2025.05.13	2026.05.12
RF Coaxial Cable (DC-18GHz)	MRE003	CLU18	Pasternack	2025.05.13	2026.05.12
RF Coaxial Cable (DC-40GHz)	22290045	QA360-40-KK-0.5	Qualwave	2024.09.11	2025.09.10
				2025.09.03	2026.09.02
RF Coaxial Cable (DC-40GHz)	22290046	QA360-40-KKF-2	Qualwave	2024.09.11	2025.09.10
				2025.09.03	2026.09.02
RF Coaxial Cable (DC-18GHz)	22120181	QA500-18-NN-5	Qualwave	2024.09.11	2025.09.10
				2025.09.03	2026.09.02
Notch Filter	N/A	WRCG-2400-2483.5-60SS	Wainwright	N/A	N/A
Anechoic Chamber	N/A	9m*6m*6m	CRT	2025.06.21	2028.06.20
Anechoic Chamber	N/A	9m*6m*6m	CRT	2022.11.30	2025.11.29

1.3. Measurement Uncertainty

Test Items	Uncertainty	Remark
Number of Hopping Frequency	±5%	Confidence levels of 95%
Peak Output Power	±2.22dB	Confidence levels of 95%
Bandwidth	±5%	Confidence levels of 95%
Carrier Frequency Separation	±5%	Confidence levels of 95%
Time of Occupancy (Dwell time)	±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:	REMO TECH Co., Ltd.
Applicant Address:	201, B13, North District, Qianhai Shenzhen-Hong Kong Youth Dream Factory, No. 5188 Menghai Avenue, Shenzhen, China
Manufacturer:	REMO TECH Co., Ltd.
Manufacturer Address:	201, B13, North District, Qianhai Shenzhen-Hong Kong Youth Dream Factory, No. 5188 Menghai Avenue, Shenzhen, China

2.2. Information of EUT

Product Name:	OBSBOT Wireless Multi-Cam Connector
Sample No.:	1#, 2#, 7#
Hardware Version:	CMA10_MA_V100_20250317
Software Version:	8.1.0.1
Equipment Type:	Bluetooth classic
Bluetooth Version:	5.4
Modulation Type:	FHSS (GFSK(1Mbps), π/4-DQPSK(EDR 2Mbps), 8-DPSK(EDR 3Mbps))
Operating Frequency Range:	2402MHz-2480MHz
Antenna Type:	PIFA Antenna
Antenna Gain:	3.52dBi

Note 1: The EUT description presented in the report are provided by applicant and/or manufacturer, and the test laboratory is not responsible for the accuracy of the information. 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

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	**2402**	20	2422	40	2442	60	2462
1	2403	21	2423	41	2443	61	2463
2	2404	22	2424	42	2444	62	2464
3	2405	23	2425	43	2445	63	2465
4	2406	24	2426	44	2446	64	2466
5	2407	25	2427	45	2447	65	2467
6	2408	26	2428	46	2448	66	2468
7	2409	27	2429	47	2449	67	2469
8	2410	28	2430	48	2450	68	2470
9	2411	29	2431	49	2451	69	2471
10	2412	30	2432	50	2452	70	2472
11	2413	31	2433	51	2453	71	2473
12	2414	32	2434	52	2454	72	2474
13	2415	33	2435	53	2455	73	2475
14	2416	34	2436	54	2456	74	2476
15	2417	35	2437	55	2457	75	2477
16	2418	36	2438	56	2458	76	2478
17	2419	37	2439	57	2459	77	2479
18	2420	38	2440	58	2460	**78**	**2480**
19	2421	**39**	**2441**	59	2461		

Note 1: The black bold channels were selected for test.

2.4. Test Configuration of EUT

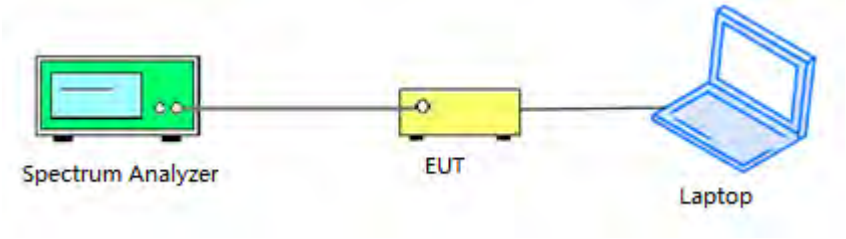
Test mode is used to control the EUT under the maximum power level during test.

2.5. Test Conditions

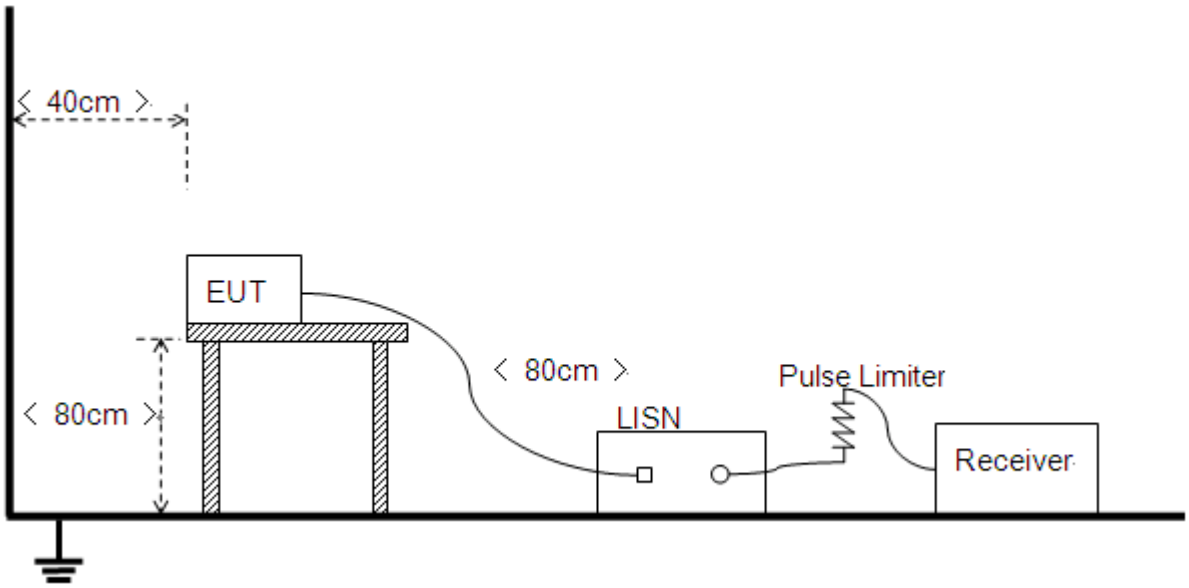
Temperature (°C):	15-35
Relative Humidity (%):	30-60
Atmospheric Pressure (kPa):	86-106

2.6. Test Setup Layout Diagram

2.6.1.Conducted Measurement

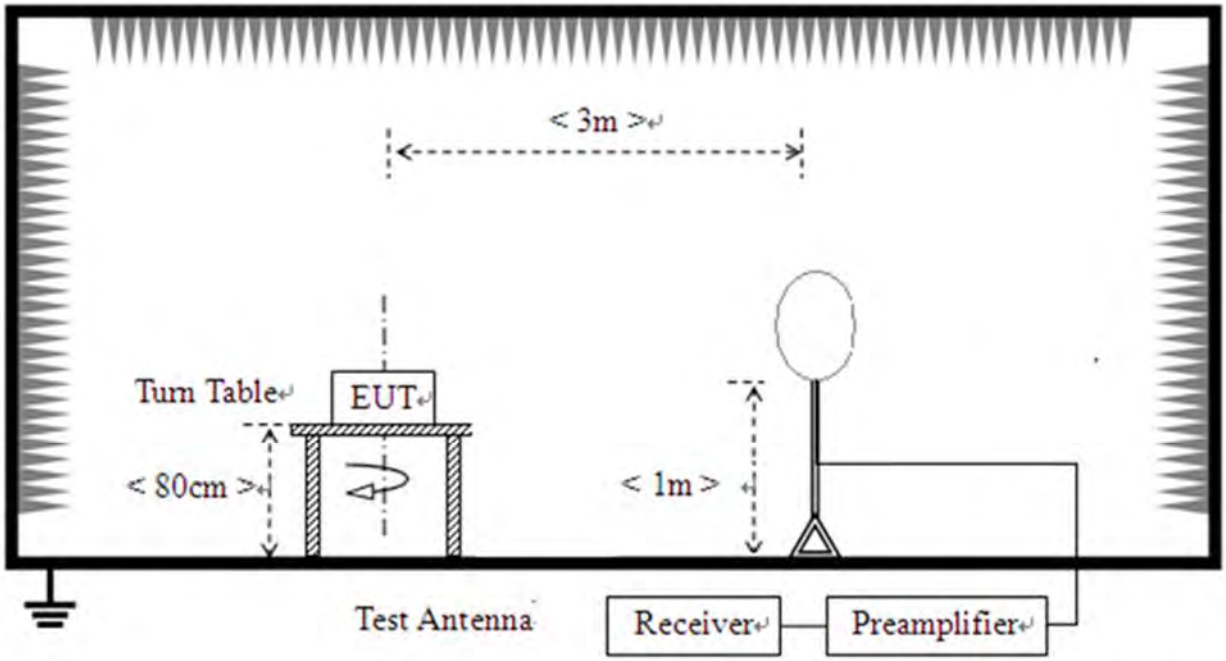


2.6.2.Conducted Emission Measurement

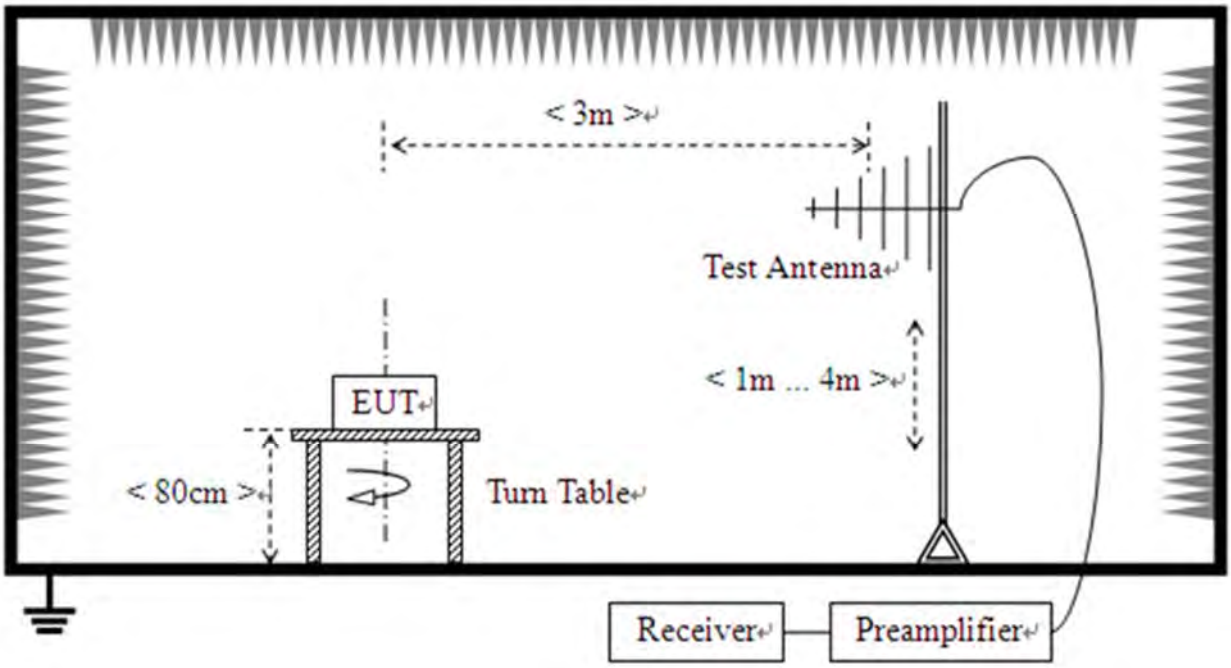


2.6.3.Radiation Measurement

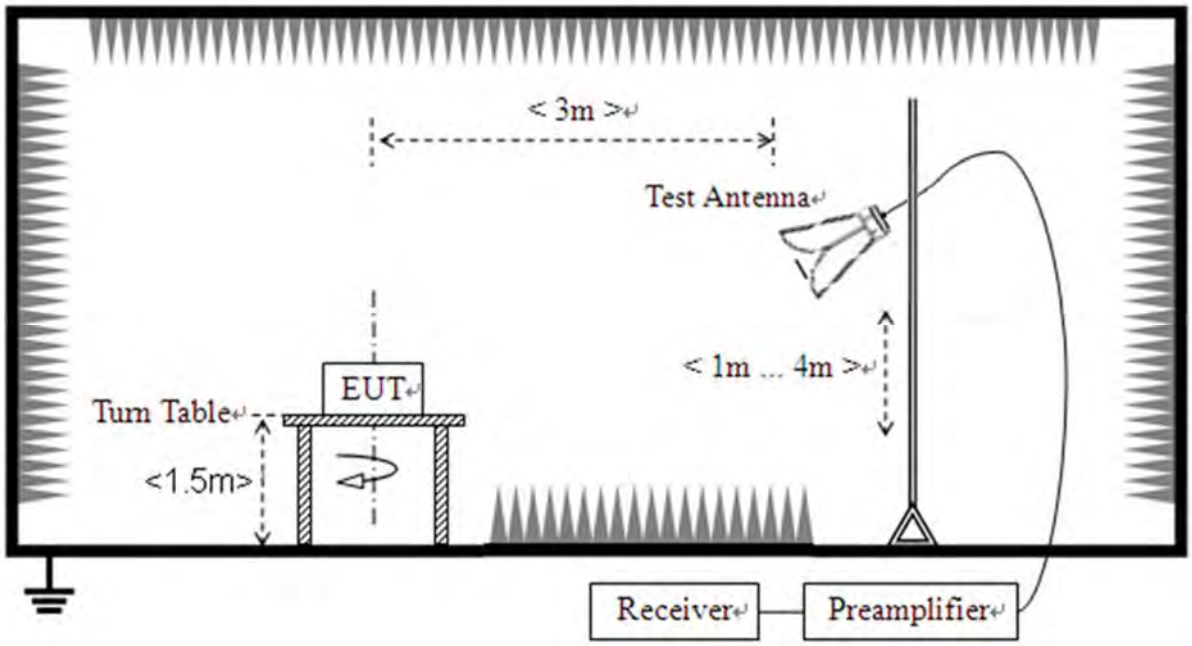
1) For radiated emissions from 9kHz to 30MHz



2) For radiated emissions from 30MHz to1GHz



3) For radiated emissions above 1GHz



3. Test Results

3.1. Antenna Requirement

3.1.1. Requirement

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

3.1.2. Test Result

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

3.2. Hopping Mechanism

3.2.1.Requirement

According to FCC section 15.247(a)(1), a frequency hopping spread spectrum system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

According to FCC section 15.247(h), the incorporation of intelligence within a frequency hopping spread spectrum system that permits the system to recognize other users within the spectrum band so that it individually and independently chooses and adapts its hop sets to avoid hopping on occupied channels is permitted. The coordination of frequency hopping systems in any other manner for the express purpose of avoiding the simultaneous occupancy of individual hopping frequencies by multiple transmitters is not permitted.

3.2.2.Test Result

The hopping mechanism of the EUT is in compliance with the document "***Bluetooth core specification v5.1***".

3.3. Number of Hopping Frequency

3.3.1.Requirement

According to FCC section 15.247(a)(1)(iii), frequency hopping systems operating in the 2400MHz to 2483.5MHz bands shall use at least 15 hopping frequencies.

3.3.2.Test Procedures

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:
Span = the frequency band of operation
RBW: To identify clearly the individual channels, set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller.
VBW ≥ RBW
Sweep = auto
Detector function = peak
Trace = max hold
Allow the trace to stabilize

3.3.3.Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.3.4.Test Result

Refer to Annex A.1 in this report.

3.4. Duty Cycle of Test Signal

3.4.1.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.

3.4.2.Test Result

Refer to Annex A.2 in this report.

3.5. Maximum Peak Conducted Output Power

3.5.1. Requirement

According to FCC section 15.247(b)(1), for frequency hopping systems that operates in the 2400MHz to 2483.5MHz band employing at least 75 hopping channels, the maximum peak output power of the intentional radiator shall not exceed 1Watt. For all other frequency hopping systems in the 2400MHz to 2483.5MHz band, it is 0.125Watts.

3.5.2. Test Procedures

KDB 558074 Section 8.3.1 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.3 in this report.

3.6. Maximum Average Conducted Output Power

3.6.1.Requirement

According to FCC section 15.247(b)(1), for frequency hopping systems that operates in the 2400MHz to 2483.5MHz band employing at least 75 hopping channels, the maximum peak output power of the intentional radiator shall not exceed 1Watt. For all other frequency hopping systems in the 2400MHz to 2483.5MHz band, it is 0.125Watts.

3.6.2.Test Procedures

KDB 558074 Section 8.3.2 was used in order to prove compliance.

3.6.3.Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.6.4.Test Result

Refer to Annex A.4 in this report.

3.7. 20 dB Bandwidth

3.7.1.Requirement

According to FCC section 15.247(a)(1), the 20 dB bandwidth is known as the 99% emission bandwidth, or 20 dB bandwidth (10*log1% = 20 dB) taking the total RF output power.

3.7.1.Test Procedures

Use the following spectrum analyzer settings:
Span = between 2 to 5 times the OBW, centered on the test channel
RBW= 1% to 5% of the OBW
VBW ≥ 3 x RBW
Sweep = auto
Detector function = peak
Trace = max hold

3.7.2.Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.7.3.Test Result

Refer to Annex A.5 in this report.

3.8. Carried Frequency Separation

3.8.1.Requirement

According to FCC section 15.247(a)(1), frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25kHz or two-thirds of the 20dB bandwidth of the hopping channel, whichever is greater.

3.8.2.Test Procedures

The EUT must have its hopping function enabled. According to DA 00-705, use the following spectrum analyzer settings:
Span = wide enough to capture the peaks of two adjacent channels
Resolution (or IF) Bandwidth (RBW) ≥ 1% of the span
Video (or Average) Bandwidth (VBW) ≥ RBW
Sweep = auto
Detector function = peak
Trace = max hold
Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channels.

3.8.3.Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.8.4.Test Result

Refer to Annex A.6 in this report.

3.9. Time of Occupancy (Dwell time)

3.9.1.Requirement

According to FCC section 15.247(a) (1) (iii), frequency hopping systems in the 2400 - 2483.5MHz band shall use at least 15 non-overlapping channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

3.9.2.Test Procedures

Normal Mode:
DH1: Dwell time equal to Pulse time (ms) *(1600 / 2 /79)*31.6 Millisecond DH3: Dwell time equal to Pulse time (ms) * (1600 /4 /79) *31.6 Millisecond DH5: Dwell time equal to Pulse Time (ms)* (1600 / 6 /79) *31.6 Millisecond
AFH Mode:
DH1: Dwell time equal to Pulse time (ms) *(800 / 2 /20)*(0.4*20) Millisecond DH3: Dwell time equal to Pulse time (ms) * (800 / 4 /20)*(0.4*20) Millisecond DH5: Dwell time equal to Pulse Time (ms)* (800 / 6 /20)*(0.4*20) Millisecond.

3.9.3.Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.9.4.Test Result

Refer to Annex A.7 in this report.

3.10. Conducted Spurious Emissions and Band Edge

3.10.1.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.

3.10.2.Test Procedures

Use the following spectrum analyzer settings:
Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic. Typically, several plots are required to cover this entire span.
RBW = 100 kHz
VBW ≥ RBW
Sweep = auto
Detector function = peak
Trace = max hold
Allow the trace to stabilize.

3.10.3.Test Setup Layout

Refer to chapter 2.6.1 in this report.

3.10.4.Test Result

Refer to Annex A.8 and A.9 in this report.

3.11. Conducted Emission

3.11.1.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.

3.11.2.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: 2020.

3.11.3.Test Setup Layout

Refer to chapter 2.6.2 in this report.

3.11.4.Test Result

Refer to Annex A.10 in this report.

3.12. Restricted Frequency Bands

3.12.1.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).

3.12.2.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

3.12.3.Test Setup Layout

Refer to chapter 2.6.3 in this report.

3.12.4.Test Result

Refer to Annex A.11 in this report.

3.13. Radiated Emission

3.13.1.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).

3.13.2.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.

3.13.3.Test Setup Layout

Refer to chapter 2.6.3 in this report.

3.13.4.Test Result

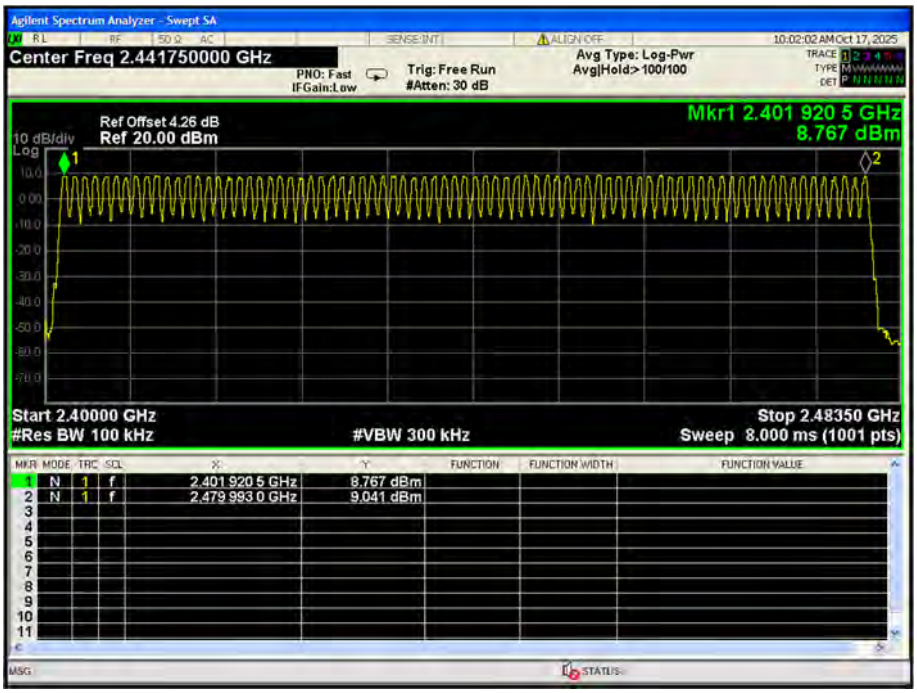
Refer to Annex A.12 in this report.

Annex A Test Data and Result

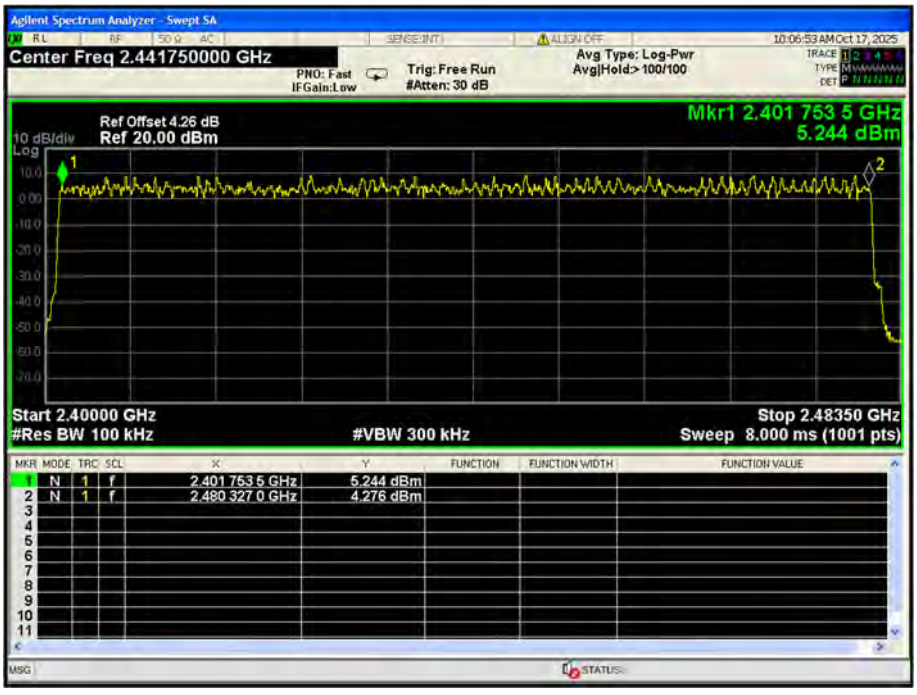
A.1. Number of Hopping Frequency

Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

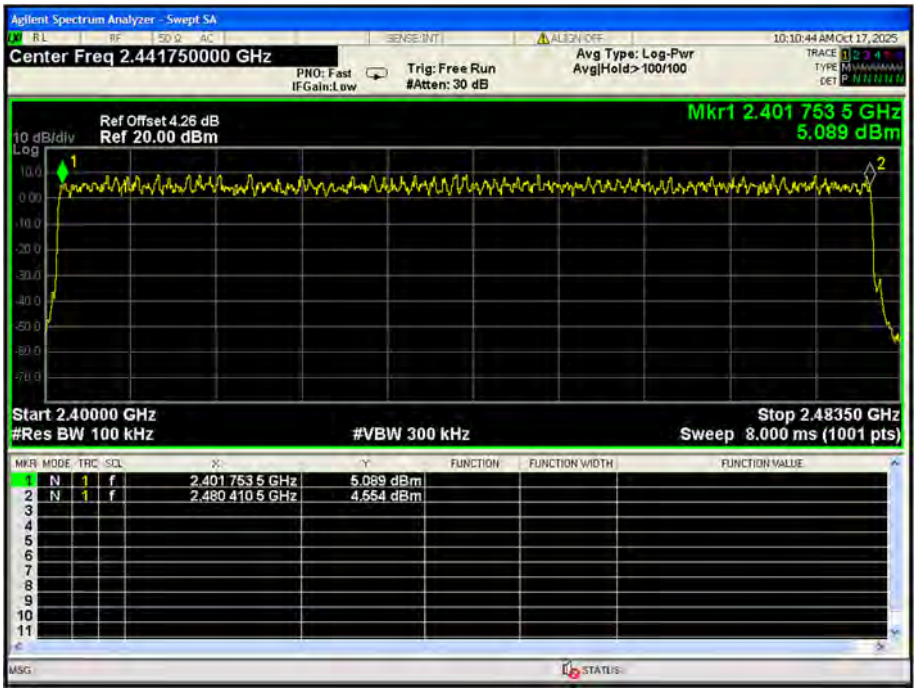
Test Graphs
Hopping No. NVNT 1-DH5 2441MHz Ant1



Hopping No. NVNT 2-DH5 2441MHz Ant1



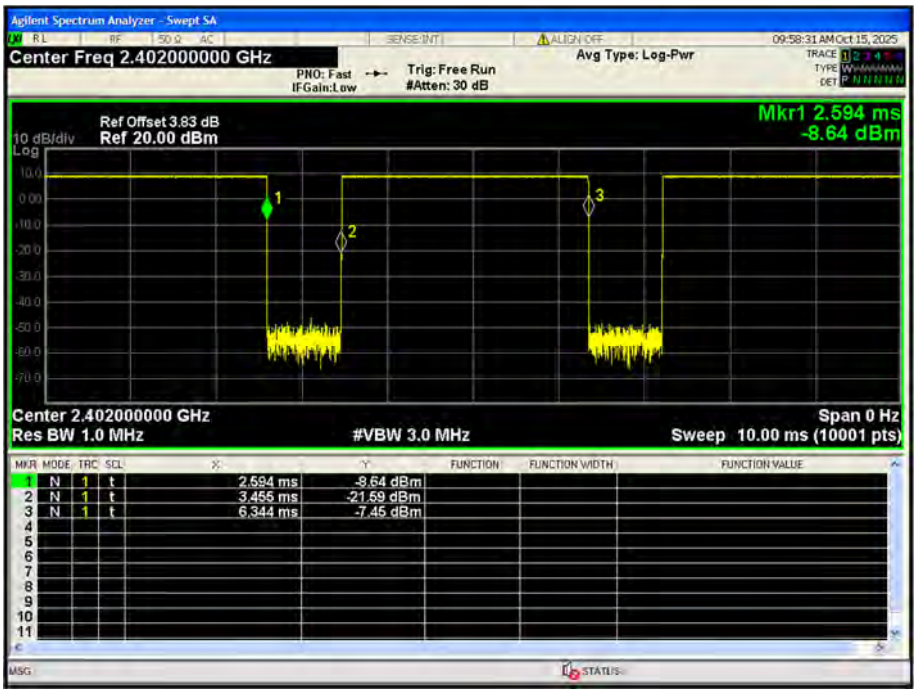
Hopping No. NVNT 3-DH5 2441MHz Ant1



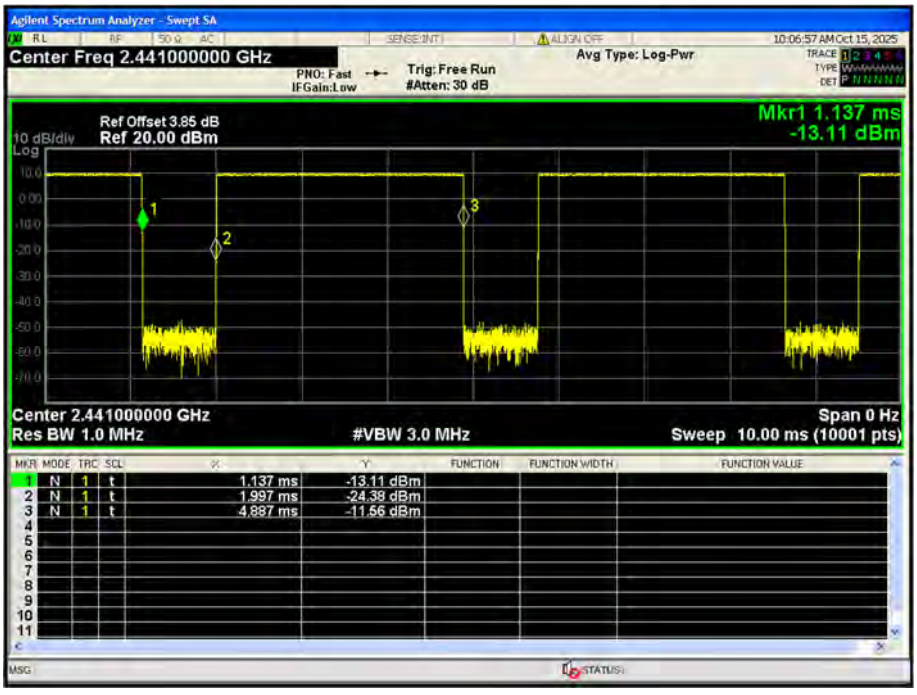
A.2. Duty Cycle of Test Signal

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH5	2402	Ant1	77.04	1.13	0.35
NVNT	1-DH5	2441	Ant1	77.07	1.13	0.35
NVNT	1-DH5	2480	Ant1	77.04	1.13	0.35
NVNT	2-DH5	2402	Ant1	77.2	1.12	0.35
NVNT	2-DH5	2441	Ant1	77.23	1.12	0.35
NVNT	2-DH5	2480	Ant1	77.2	1.12	0.35
NVNT	3-DH5	2402	Ant1	77.25	1.12	0.35
NVNT	3-DH5	2441	Ant1	77.23	1.12	0.35
NVNT	3-DH5	2480	Ant1	77.23	1.12	0.35

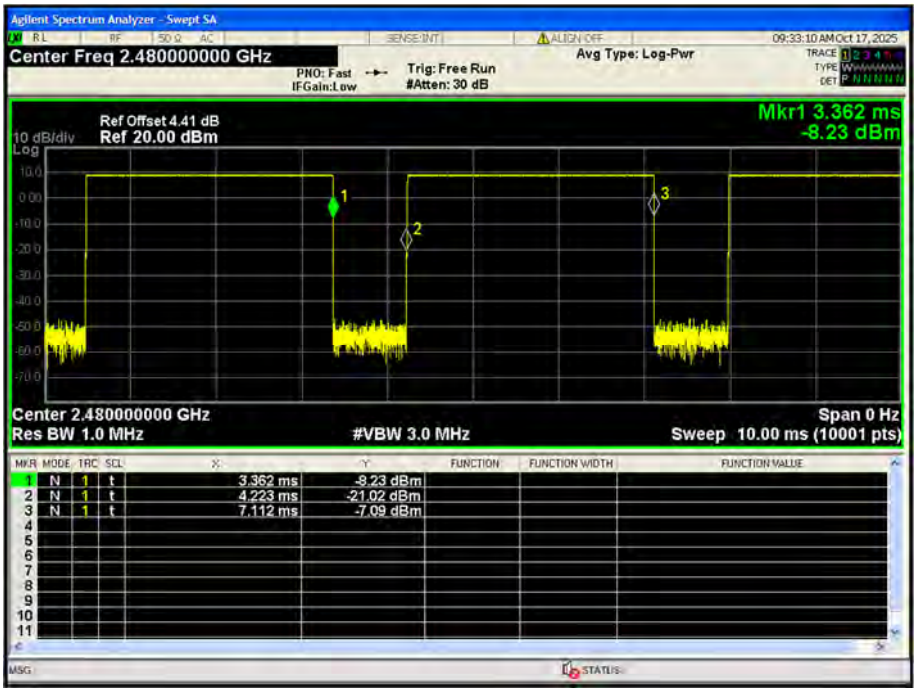
Test Graphs
Duty Cycle NVNT 1-DH5 2402MHz Ant1



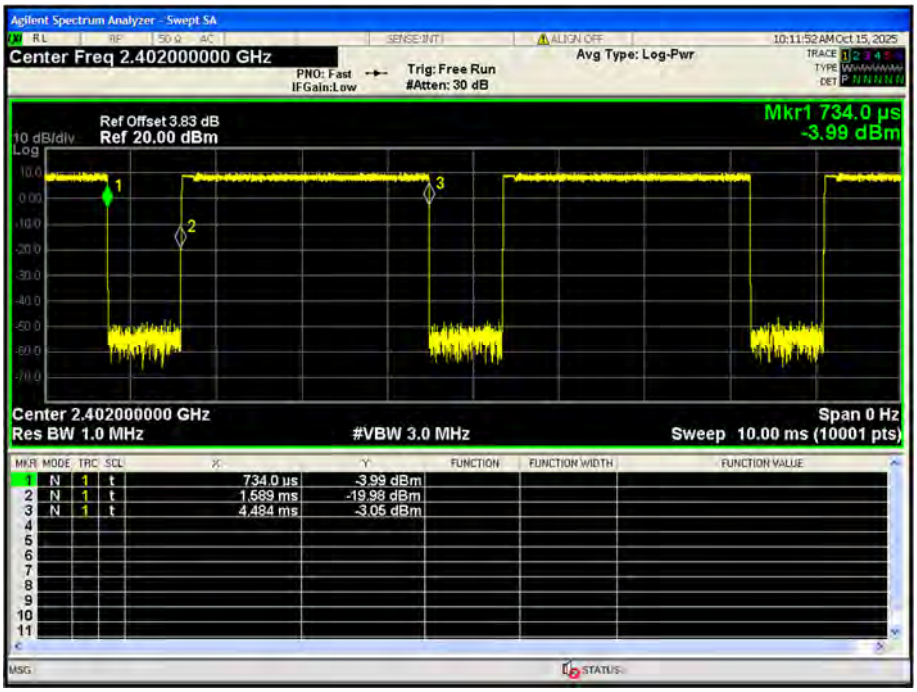
Duty Cycle NVNT 1-DH5 2441MHz Ant1



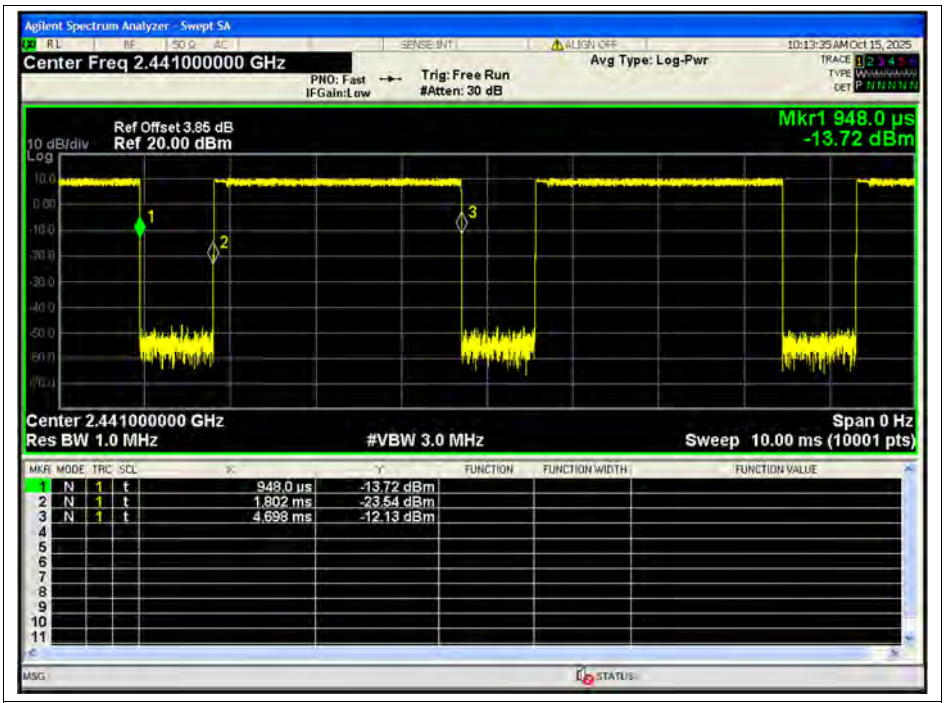
Duty Cycle NVNT 1-DH5 2480MHz Ant1



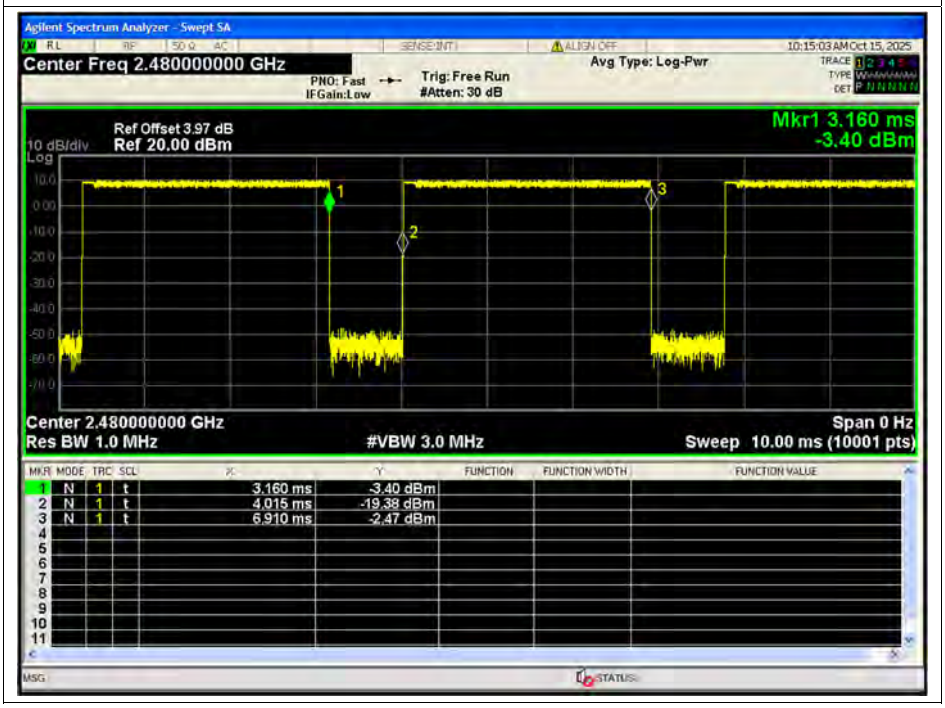
Duty Cycle NVNT 2-DH5 2402MHz Ant1



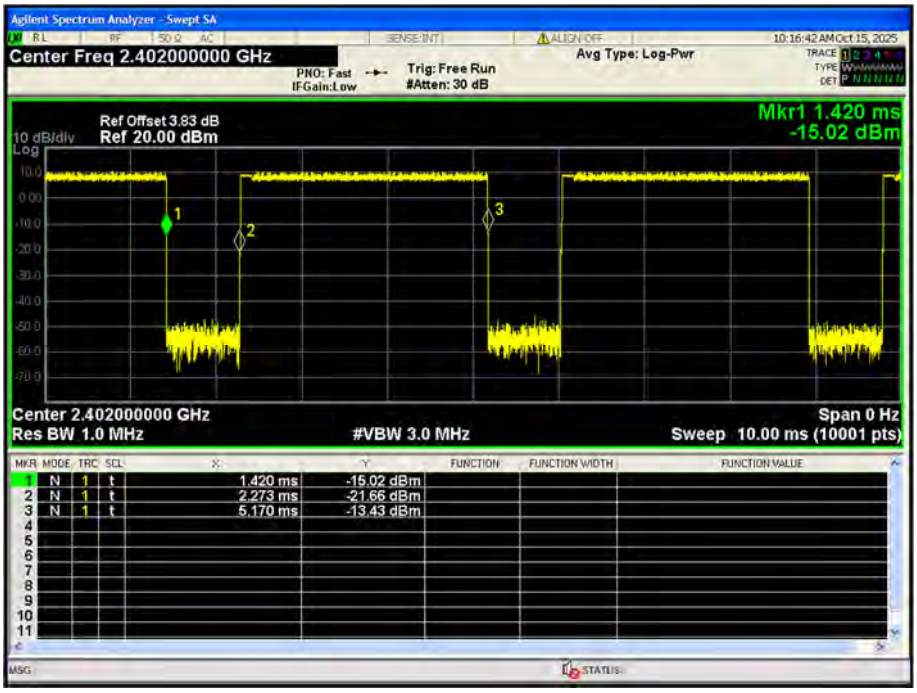
Duty Cycle NVNT 2-DH5 2441MHz Ant1



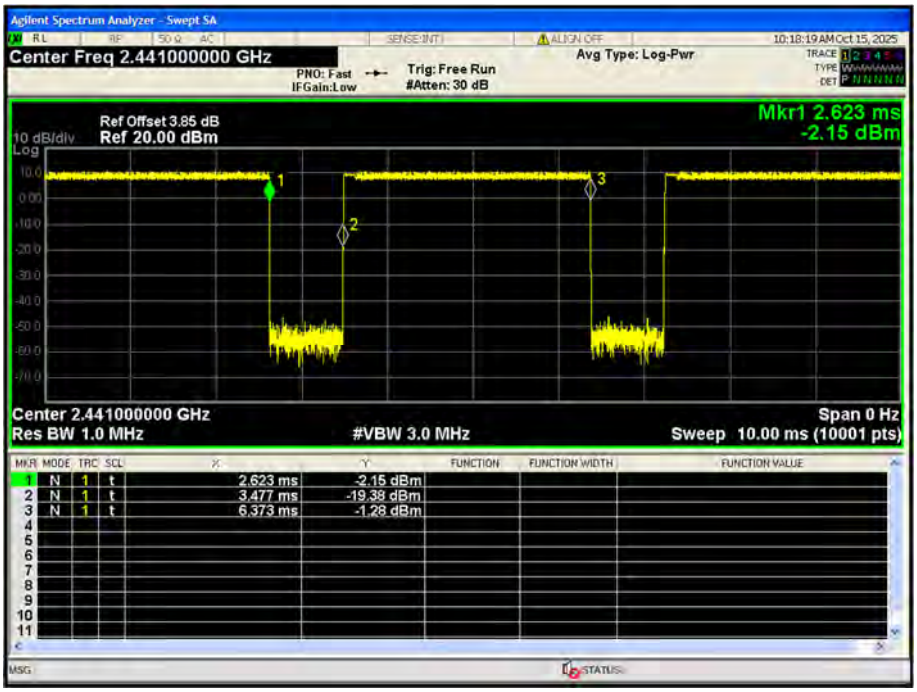
Duty Cycle NVNT 2-DH5 2480MHz Ant1



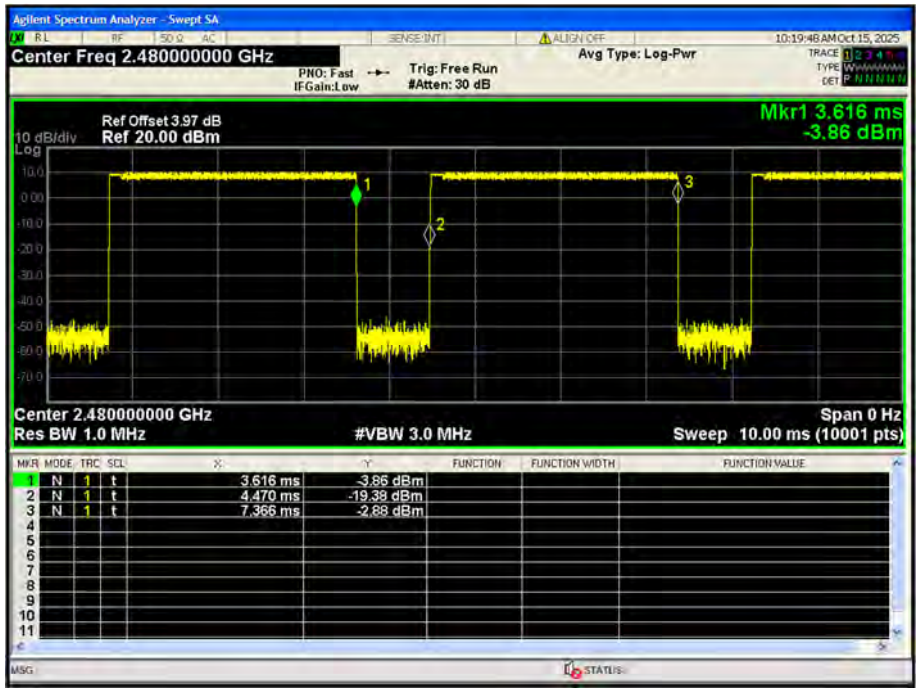
Duty Cycle NVNT 3-DH5 2402MHz Ant1



Duty Cycle NVNT 3-DH5 2441MHz Ant1



Duty Cycle NVNT 3-DH5 2480MHz Ant1



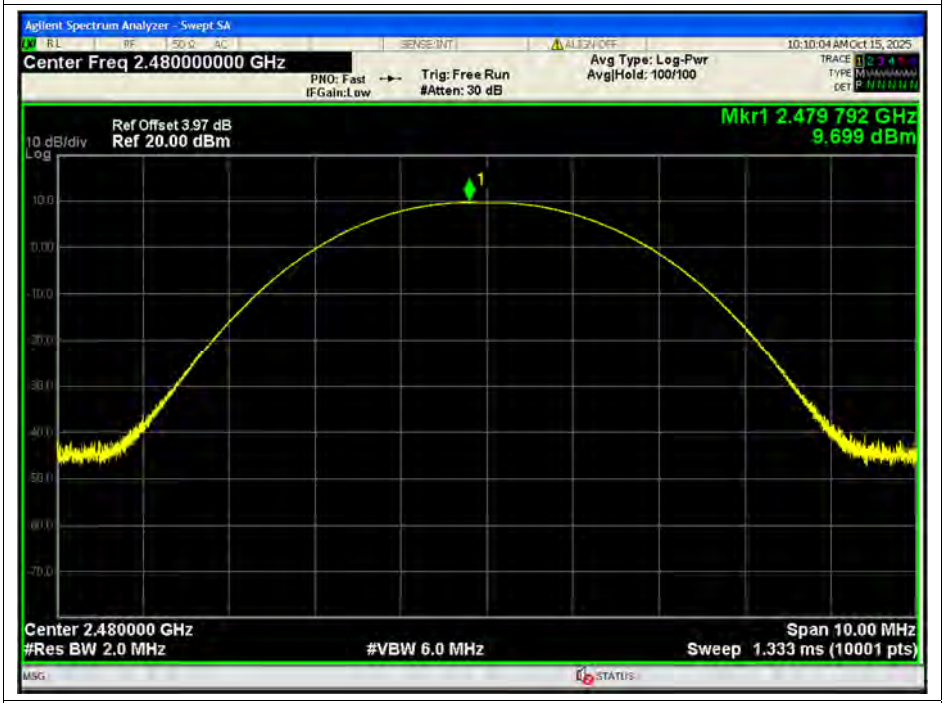
A.3. Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Conducted Power (dBm)	Total Conducted Power (W)	Limit Conducted (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	9.26	0	9.26	0.00843	30	Pass
NVNT	1-DH5	2441	Ant1	9.78	0	9.78	0.00951	30	Pass
NVNT	1-DH5	2480	Ant1	9.7	0	9.7	0.00933	30	Pass
NVNT	2-DH5	2402	Ant1	10.27	0	10.27	0.01064	30	Pass
NVNT	2-DH5	2441	Ant1	10.72	0	10.72	0.0118	30	Pass
NVNT	2-DH5	2480	Ant1	10.56	0	10.56	0.01138	30	Pass
NVNT	3-DH5	2402	Ant1	10.79	0	10.79	0.01199	30	Pass
NVNT	3-DH5	2441	Ant1	11.03	0	11.03	0.01268	30	Pass
NVNT	3-DH5	2480	Ant1	10.74	0	10.74	0.01186	30	Pass

Test Graphs
Peak Power NVNT 1-DH5 2402MHz Ant1

Peak Power NVNT 1-DH5 2441MHz Ant1

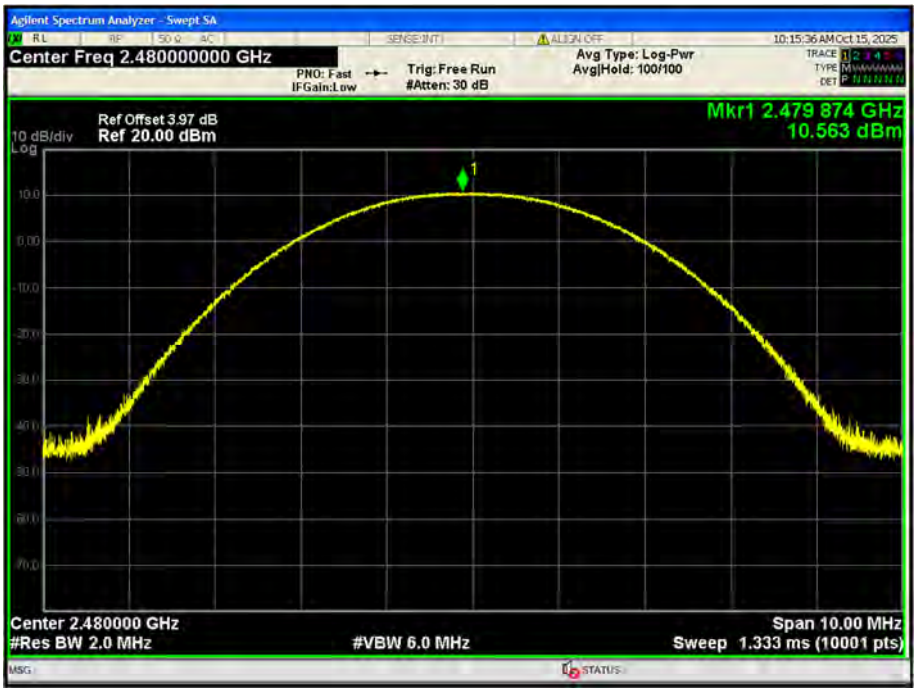
Peak Power NVNT 1-DH5 2480MHz Ant1



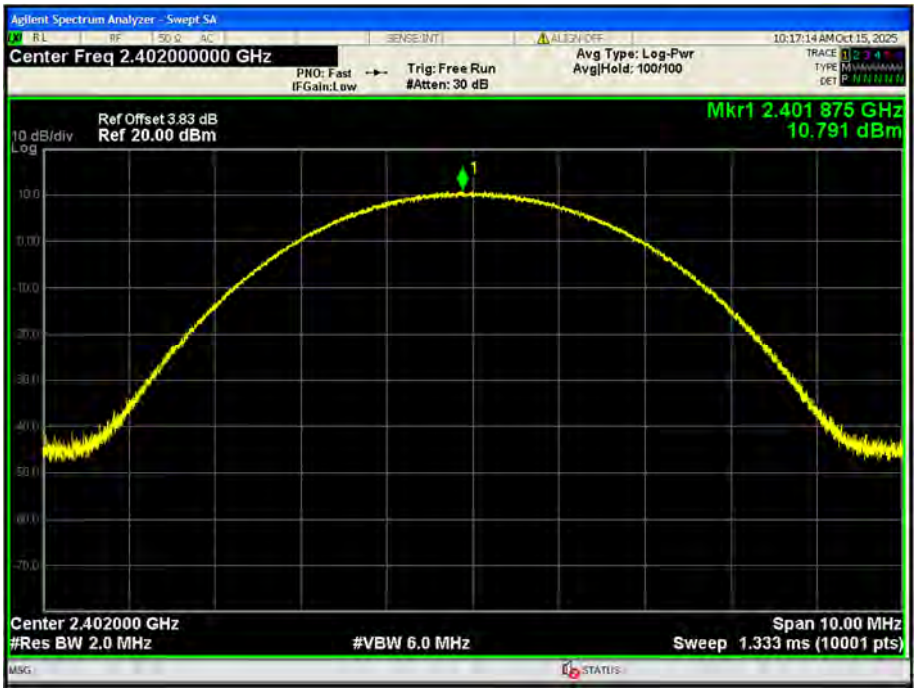
Peak Power NVNT 2-DH5 2402MHz Ant1

Peak Power NVNT 2-DH5 2441MHz Ant1

Peak Power NVNT 2-DH5 2480MHz Ant1



Peak Power NVNT 3-DH5 2402MHz Ant1



Peak Power NVNT 3-DH5 2441MHz Ant1

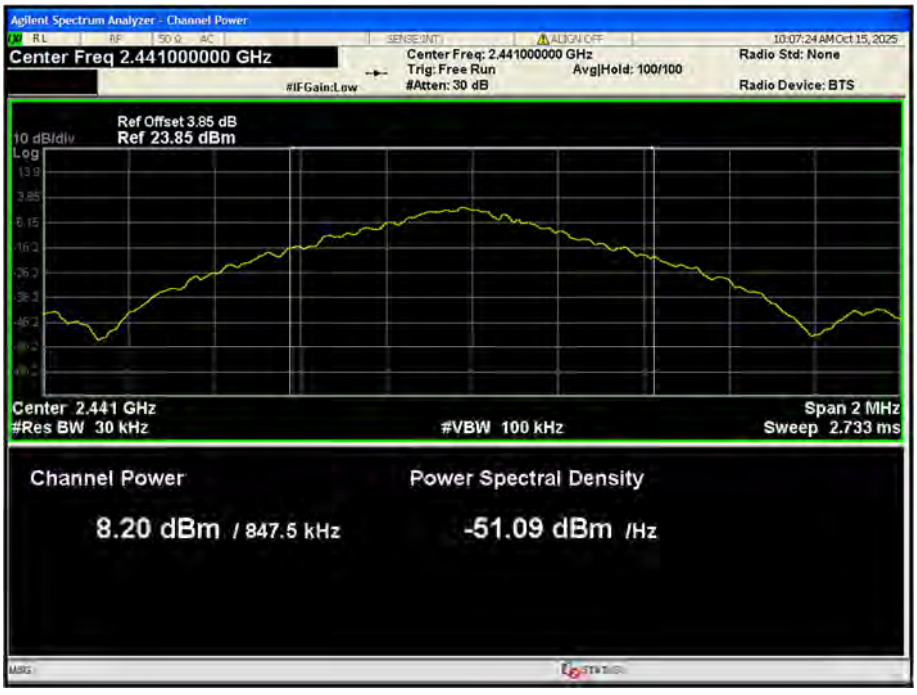
Peak Power NVNT 3-DH5 2480MHz Ant1

A.4. Maximum Average Conducted Output Power

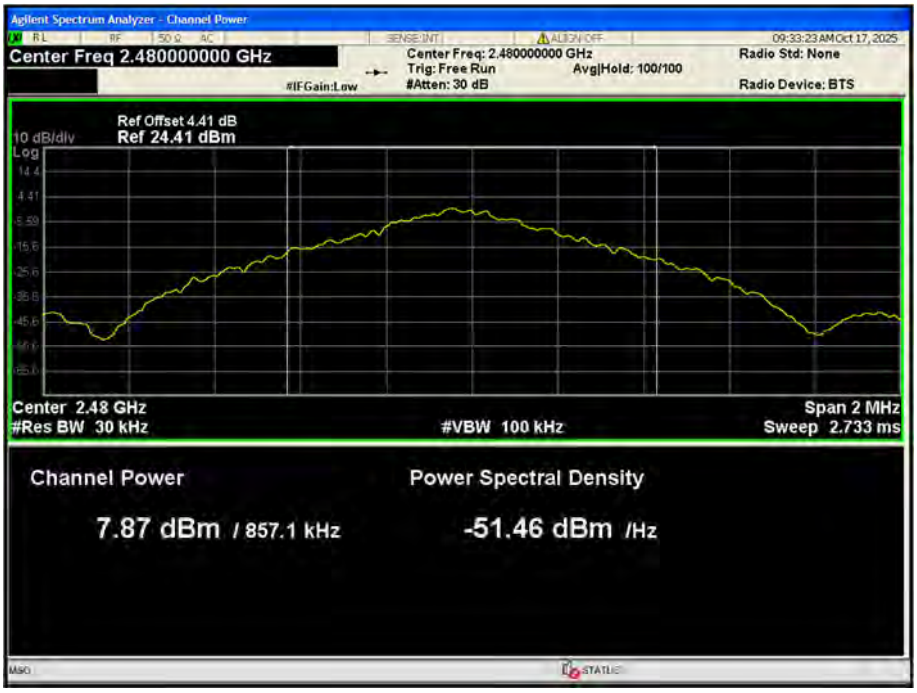
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Conducted Power (dBm)	Total Conducted Power (W)	Limit Conducted (dBm)	Verdict
NVNT	1-DH5	2402	Ant1	8.05	1.13	9.18	0.00828	30	Pass
NVNT	1-DH5	2441	Ant1	8.2	1.13	9.33	0.00857	30	Pass
NVNT	1-DH5	2480	Ant1	7.87	1.13	9	0.00794	30	Pass
NVNT	2-DH5	2402	Ant1	6.59	1.12	7.71	0.0059	30	Pass
NVNT	2-DH5	2441	Ant1	6.95	1.12	8.07	0.00641	30	Pass
NVNT	2-DH5	2480	Ant1	6.91	1.12	8.03	0.00635	30	Pass
NVNT	3-DH5	2402	Ant1	6.51	1.12	7.63	0.00579	30	Pass
NVNT	3-DH5	2441	Ant1	7.01	1.12	8.13	0.0065	30	Pass
NVNT	3-DH5	2480	Ant1	6.95	1.12	8.07	0.00641	30	Pass

Test Graphs
Average Power NVNT 1-DH5 2402MHz Ant1

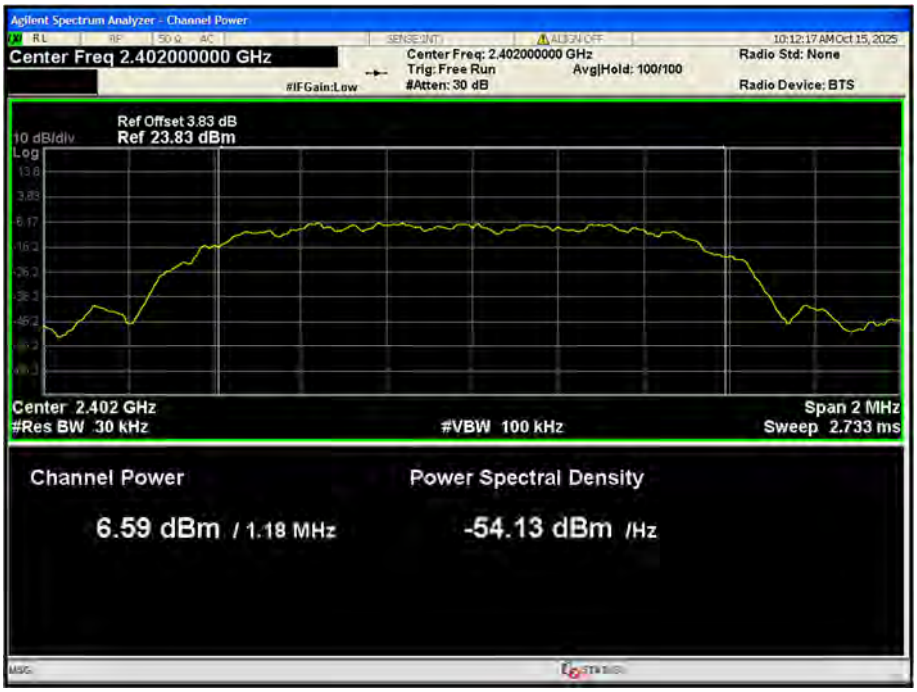
Average Power NVNT 1-DH5 2441MHz Ant1



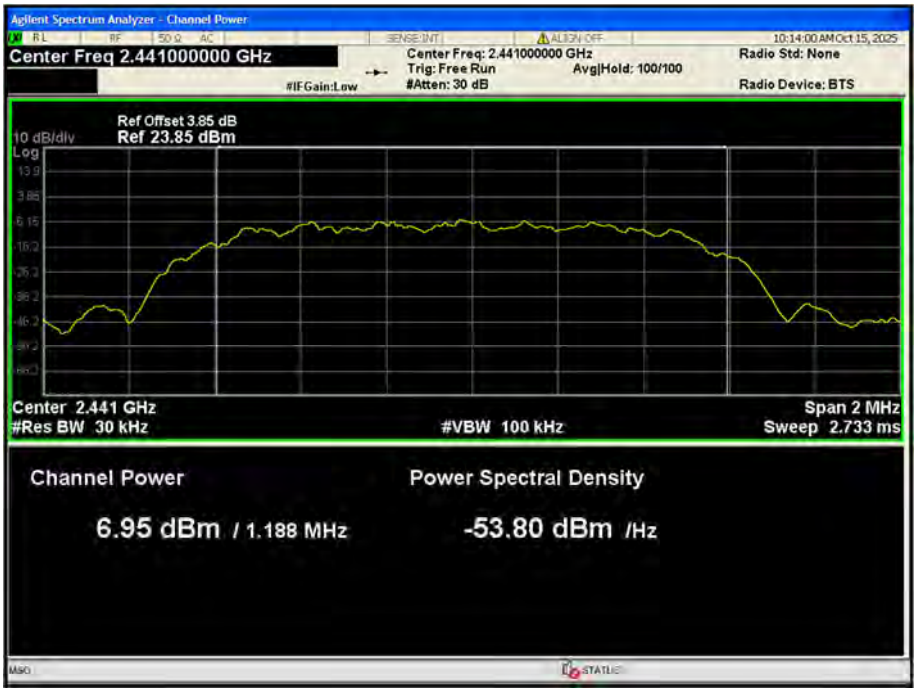
Average Power NVNT 1-DH5 2480MHz Ant1



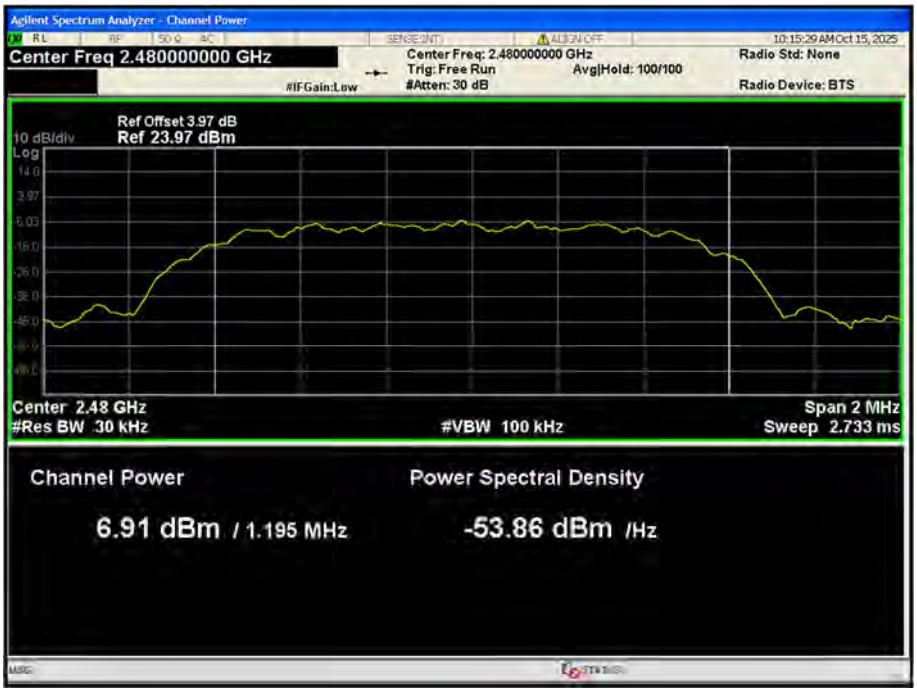
Average Power NVNT 2-DH5 2402MHz Ant1



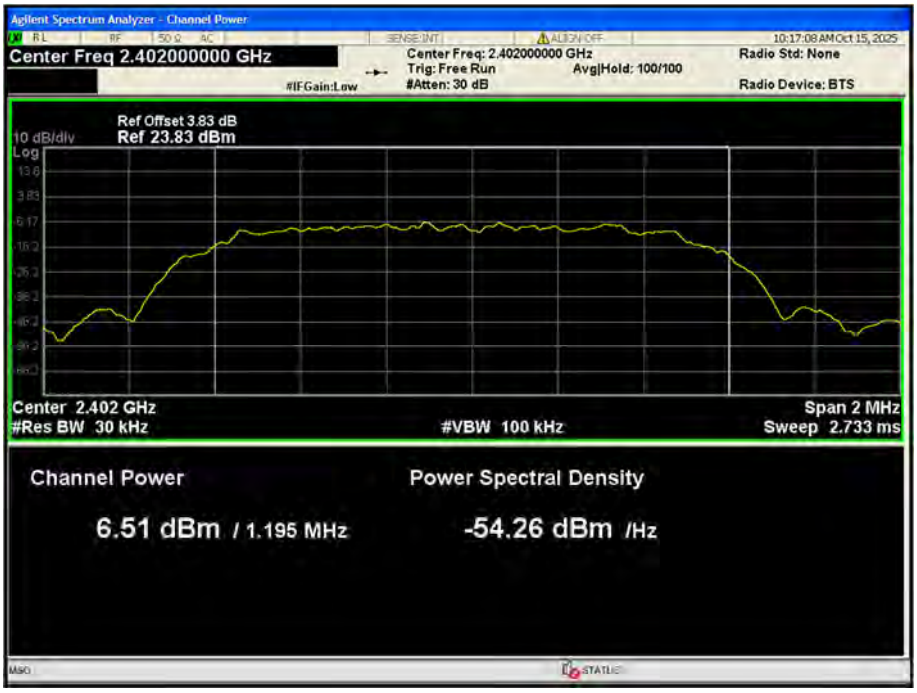
Average Power NVNT 2-DH5 2441MHz Ant1



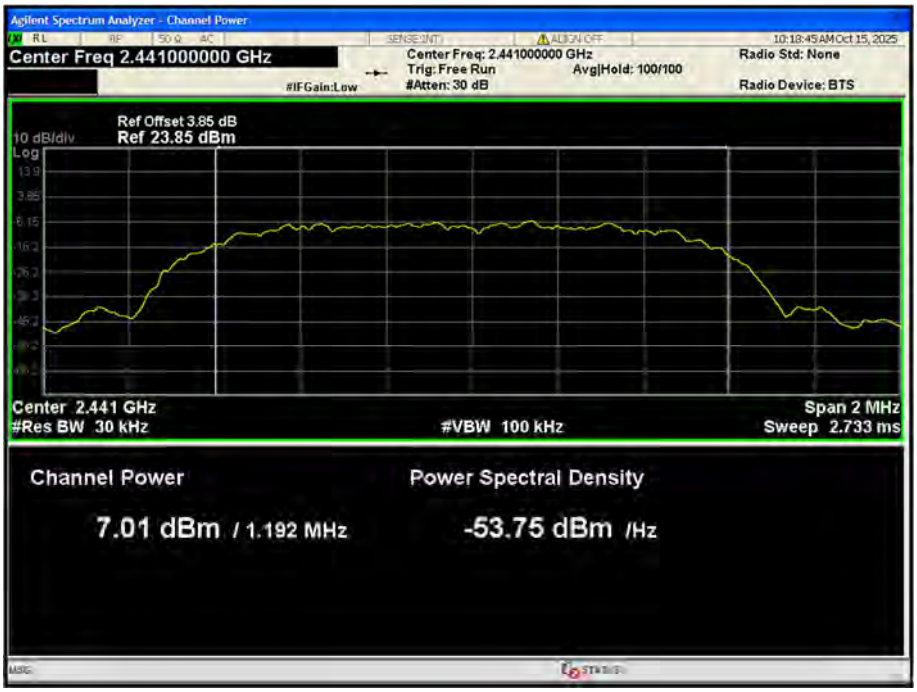
Average Power NVNT 2-DH5 2480MHz Ant1



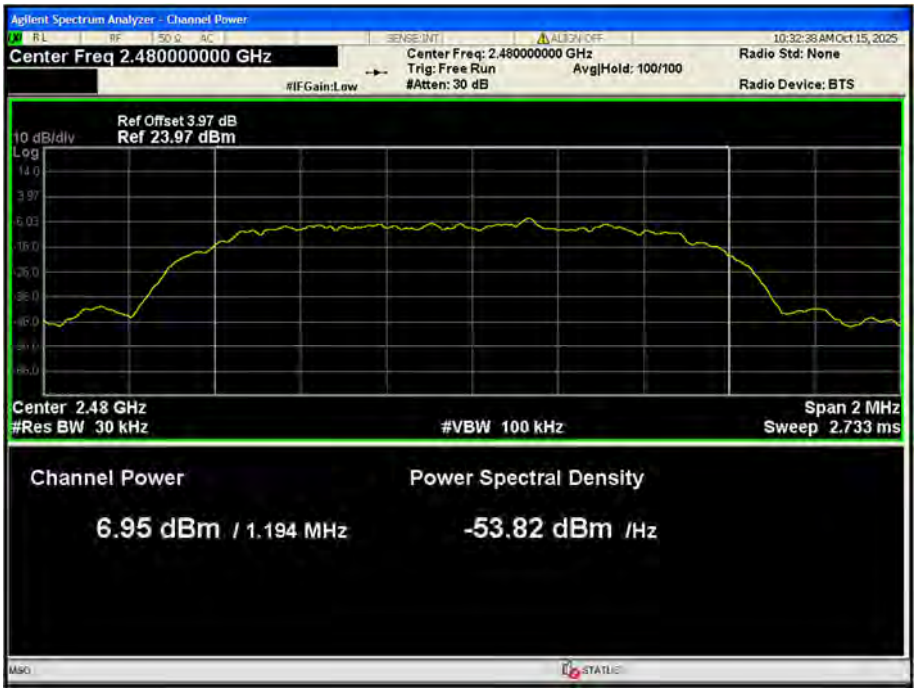
Average Power NVNT 3-DH5 2402MHz Ant1



Average Power NVNT 3-DH5 2441MHz Ant1



Average Power NVNT 3-DH5 2480MHz Ant1



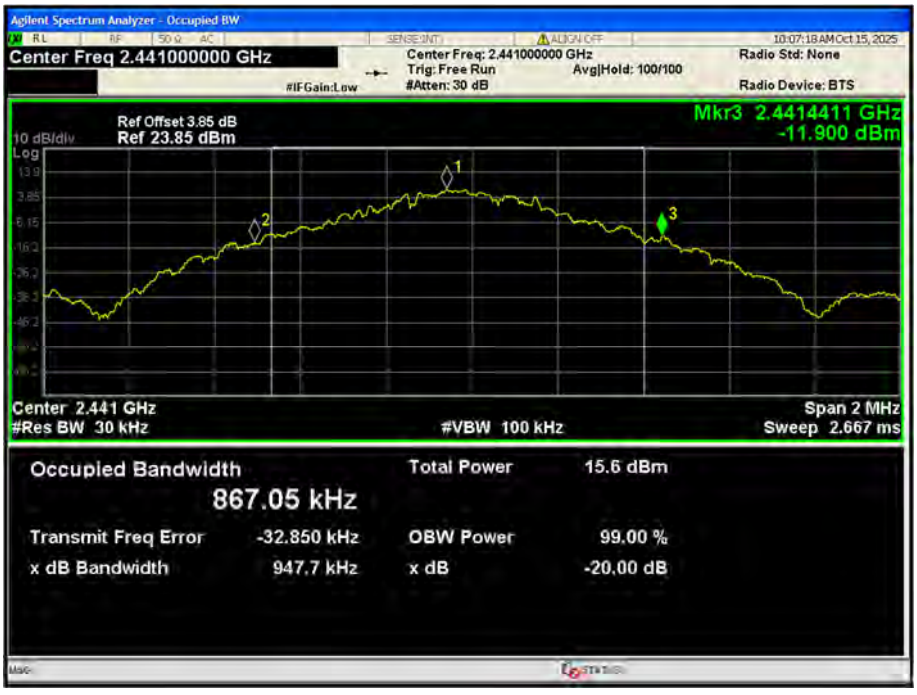
A.5. 20 dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)
NVNT	1-DH5	2402	Ant1	0.9503
NVNT	1-DH5	2441	Ant1	0.9477
NVNT	1-DH5	2480	Ant1	0.9451
NVNT	2-DH5	2402	Ant1	1.309
NVNT	2-DH5	2441	Ant1	1.324
NVNT	2-DH5	2480	Ant1	1.322
NVNT	3-DH5	2402	Ant1	1.29
NVNT	3-DH5	2441	Ant1	1.303
NVNT	3-DH5	2480	Ant1	1.313

Test Graphs

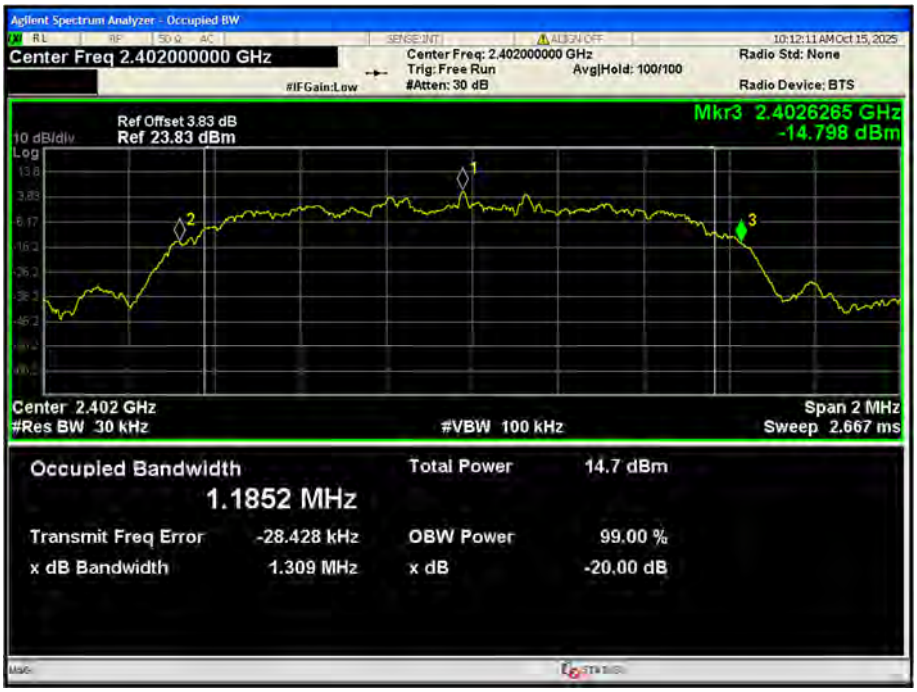
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1

-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1

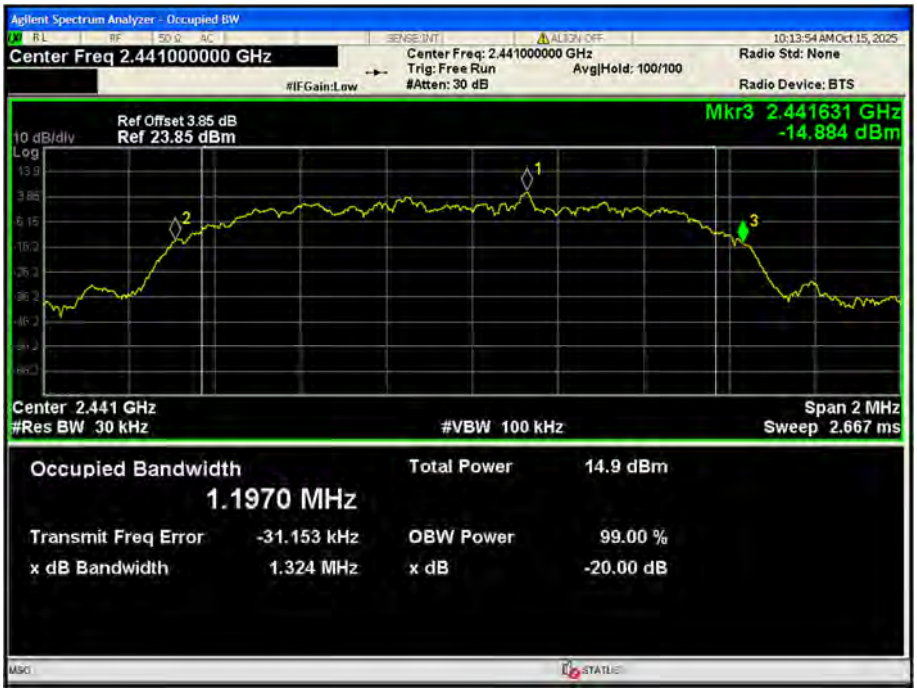


-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

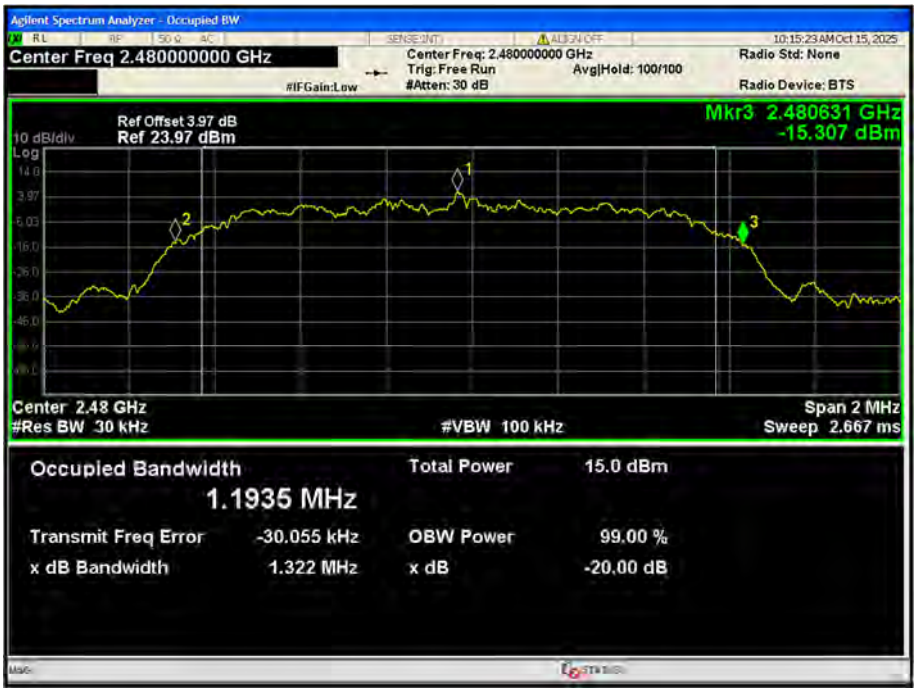
-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1



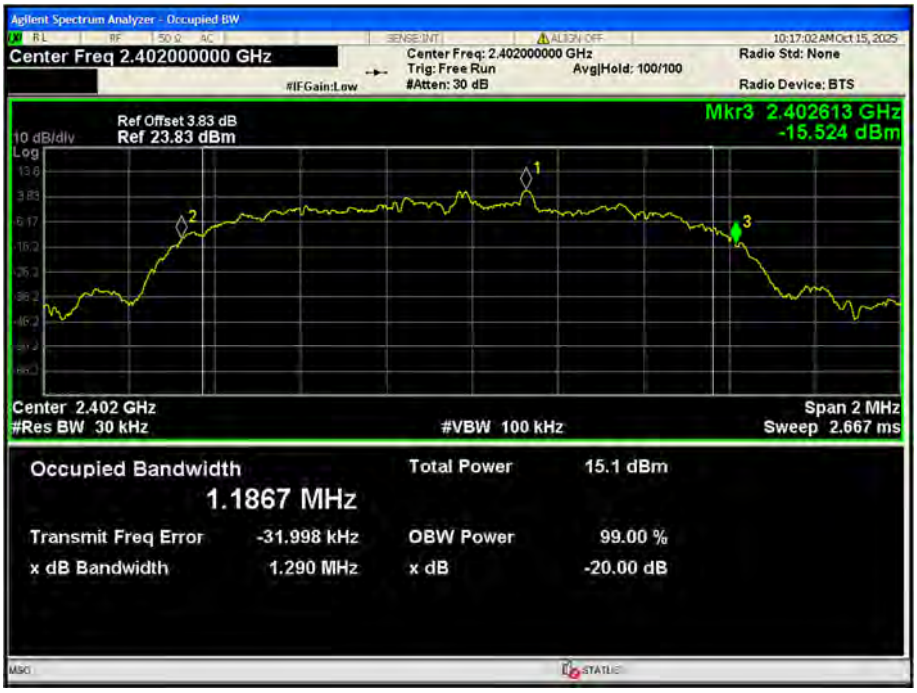
-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1



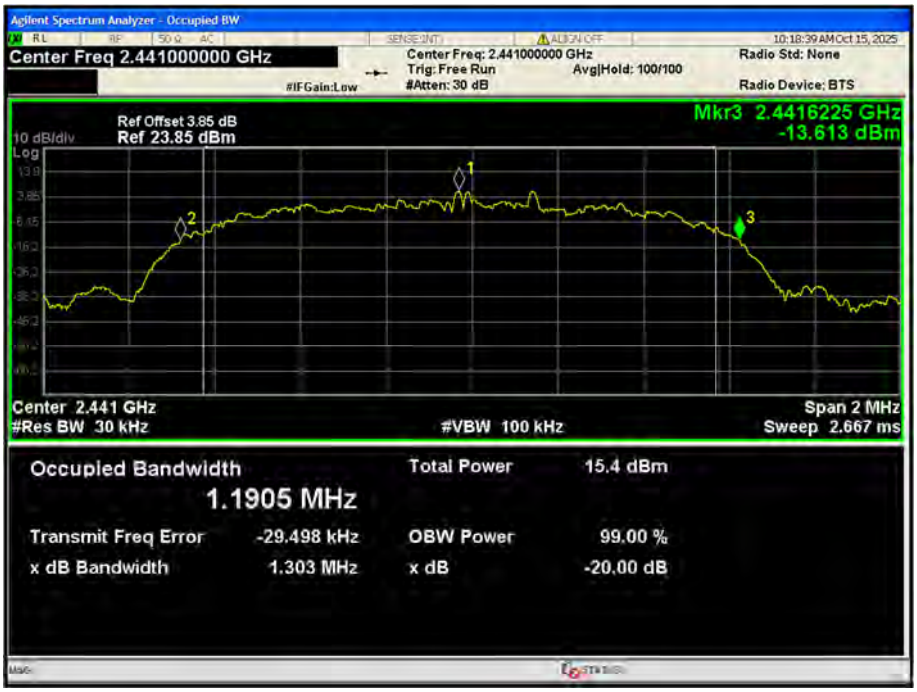
-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1



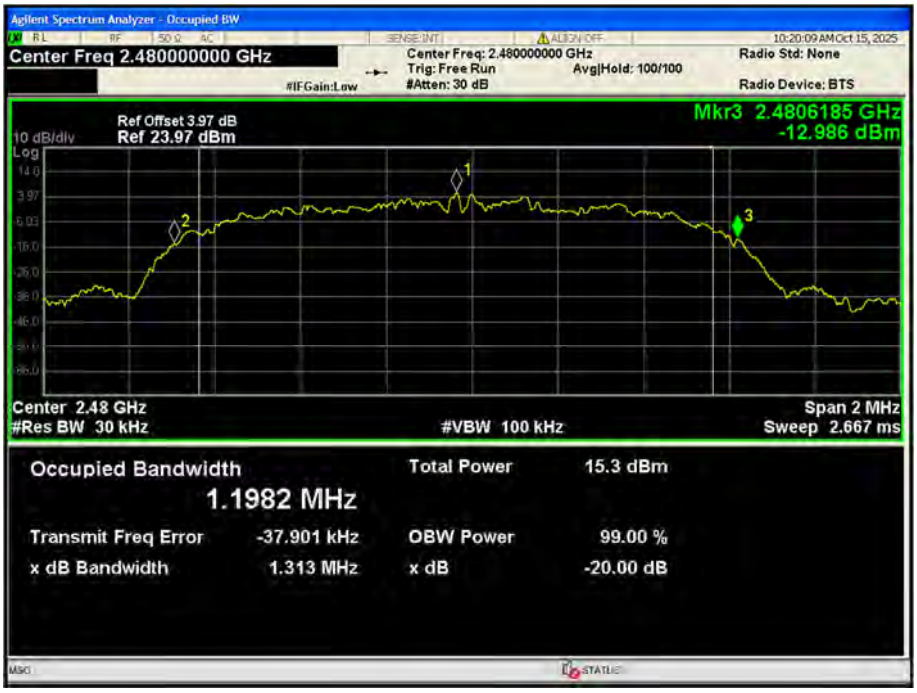
-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2480MHz Ant1



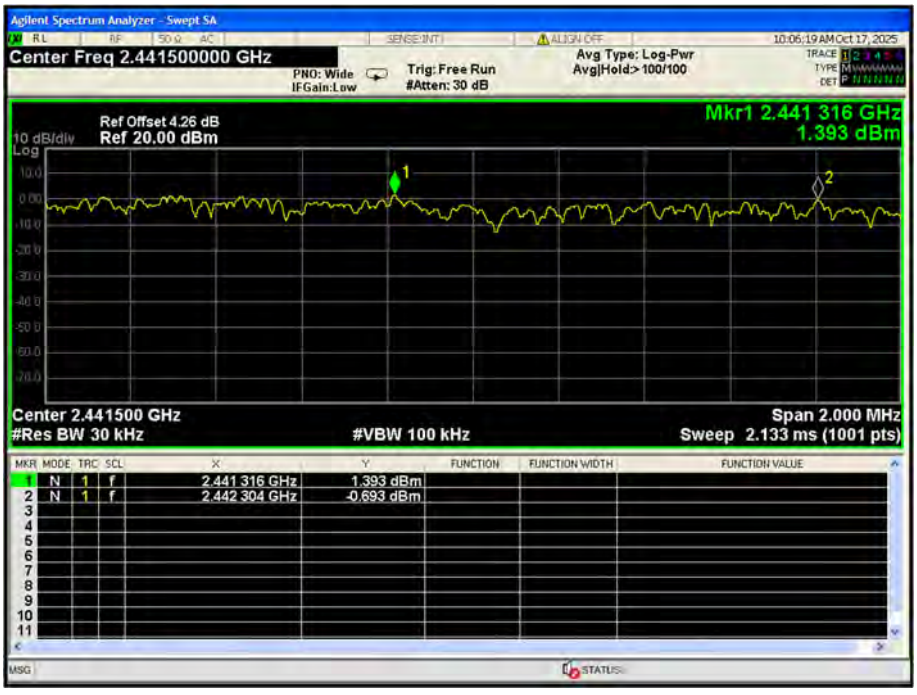
A.6. Carried Frequency Separation

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2440.946	2442.128	1.182	0.632	Pass
NVNT	2-DH5	Ant1	2441.316	2442.304	0.988	0.883	Pass
NVNT	3-DH5	Ant1	2440.608	2441.622	1.014	0.869	Pass

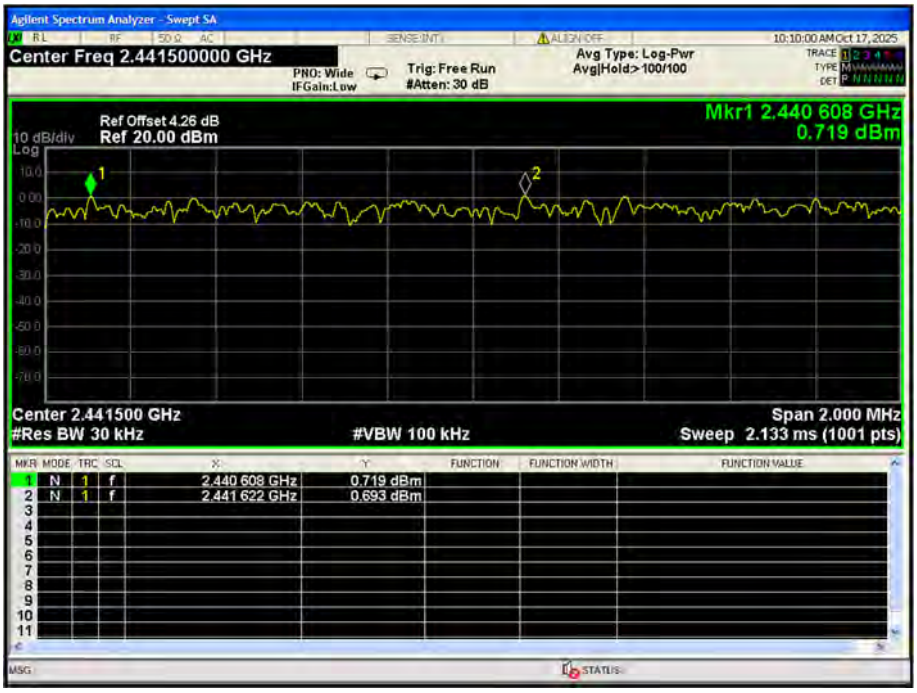
Test Graphs

CFS NVNT 1-DH5 2441MHz Ant1

CFS NVNT 2-DH5 2441MHz Ant1



CFS NVNT 3-DH5 2441MHz Ant1

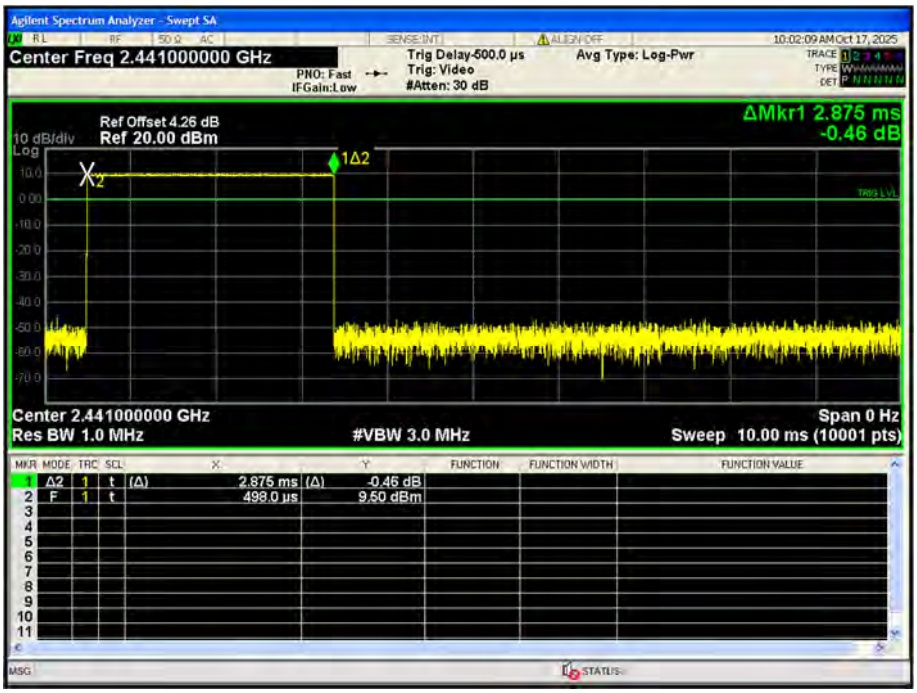


A.7. Time of Occupancy (Dwell time)

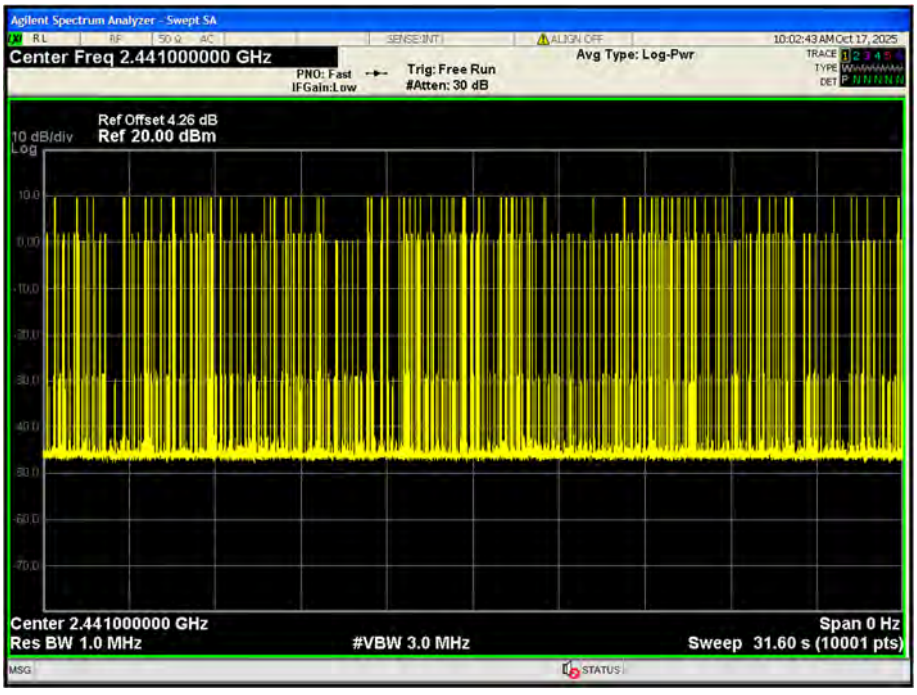
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2441	Ant1	2.875	299	104	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.878	328.092	114	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.705	286.73	106	31600	400	Pass

Test Graphs

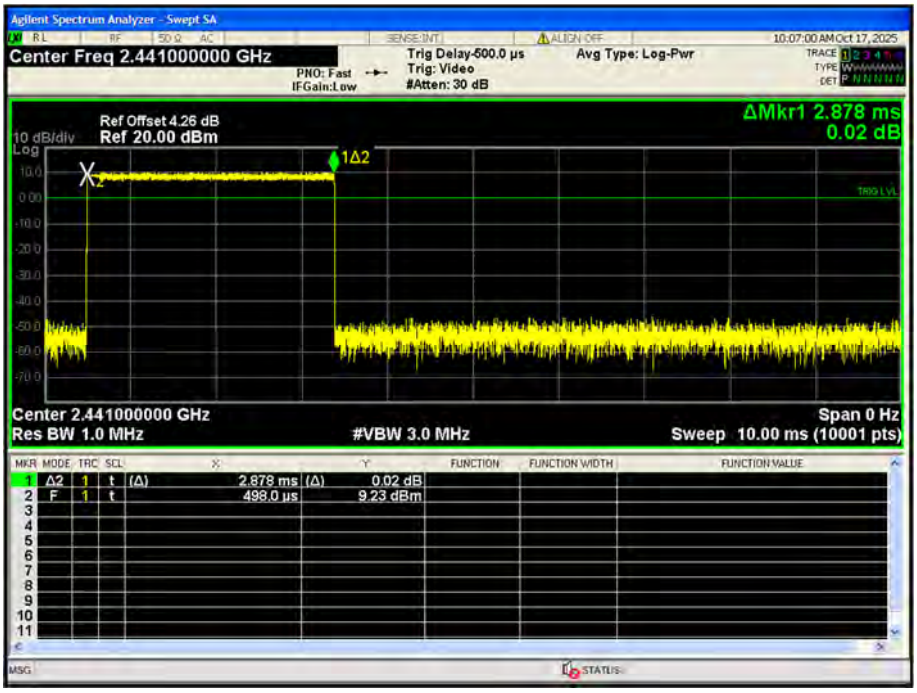
Dwell NVNT 1-DH5 2441MHz Ant1 One Burst



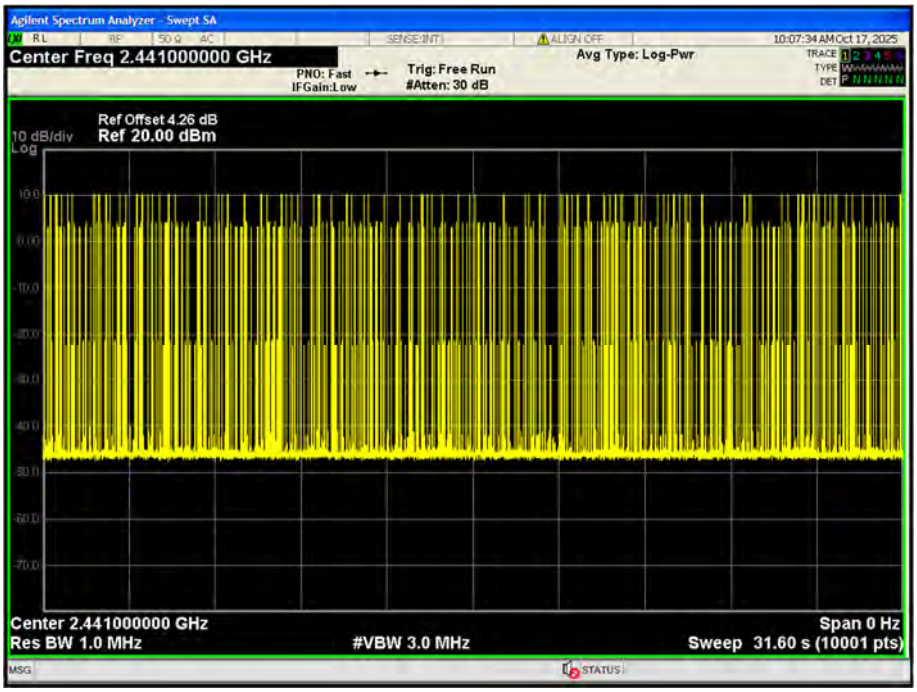
Dwell NVNT 1-DH5 2441MHz Ant1 Accumulated



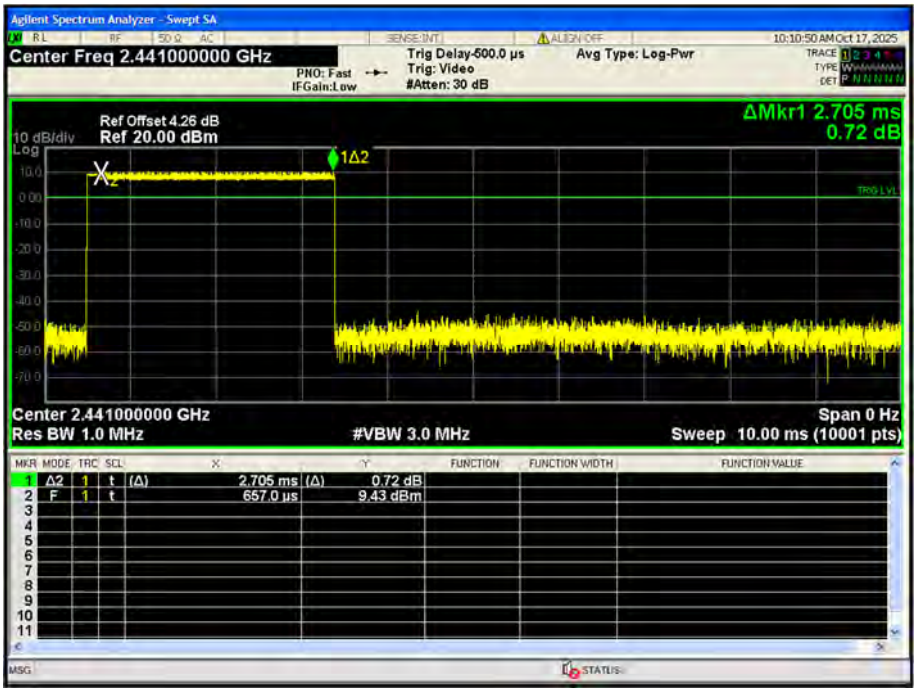
Dwell NVNT 2-DH5 2441MHz Ant1 One Burst



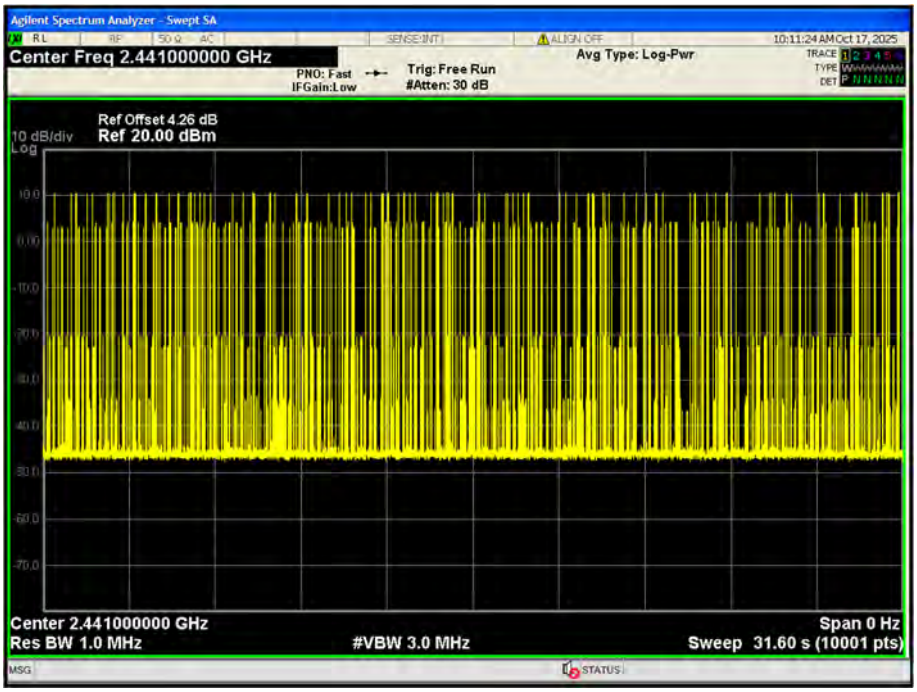
Dwell NVNT 2-DH5 2441MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2441MHz Ant1 One Burst



Dwell NVNT 3-DH5 2441MHz Ant1 Accumulated

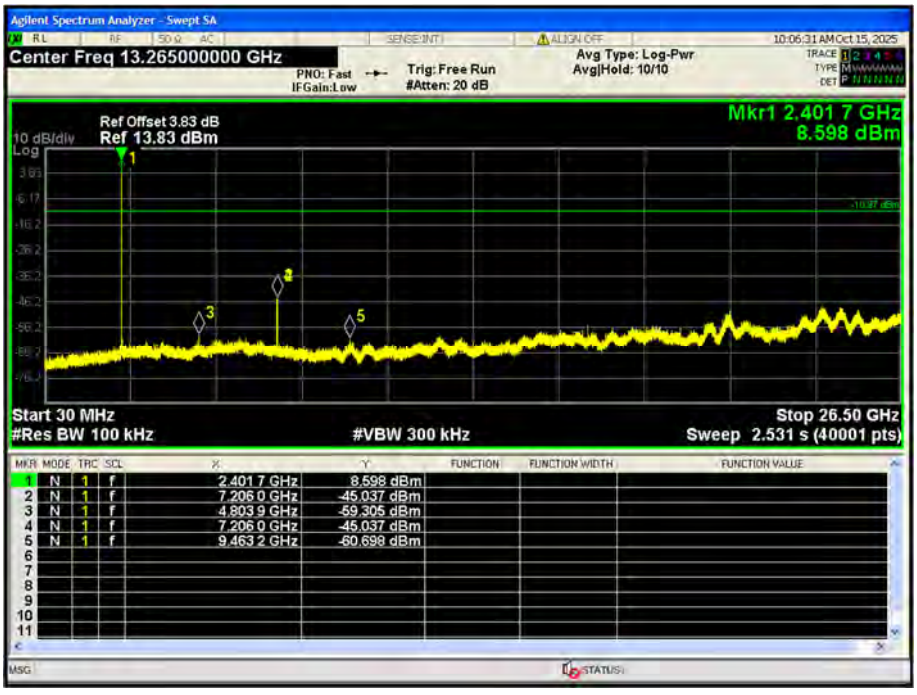


A.8. Conducted Spurious Emissions

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-54.06	-20	Pass
NVNT	1-DH5	2441	Ant1	-56.28	-20	Pass
NVNT	1-DH5	2480	Ant1	-57.14	-20	Pass
NVNT	2-DH5	2402	Ant1	-56.47	-20	Pass
NVNT	2-DH5	2441	Ant1	-57.23	-20	Pass
NVNT	2-DH5	2480	Ant1	-56.55	-20	Pass
NVNT	3-DH5	2402	Ant1	-54.56	-20	Pass
NVNT	3-DH5	2441	Ant1	-57.02	-20	Pass
NVNT	3-DH5	2480	Ant1	-57.04	-20	Pass

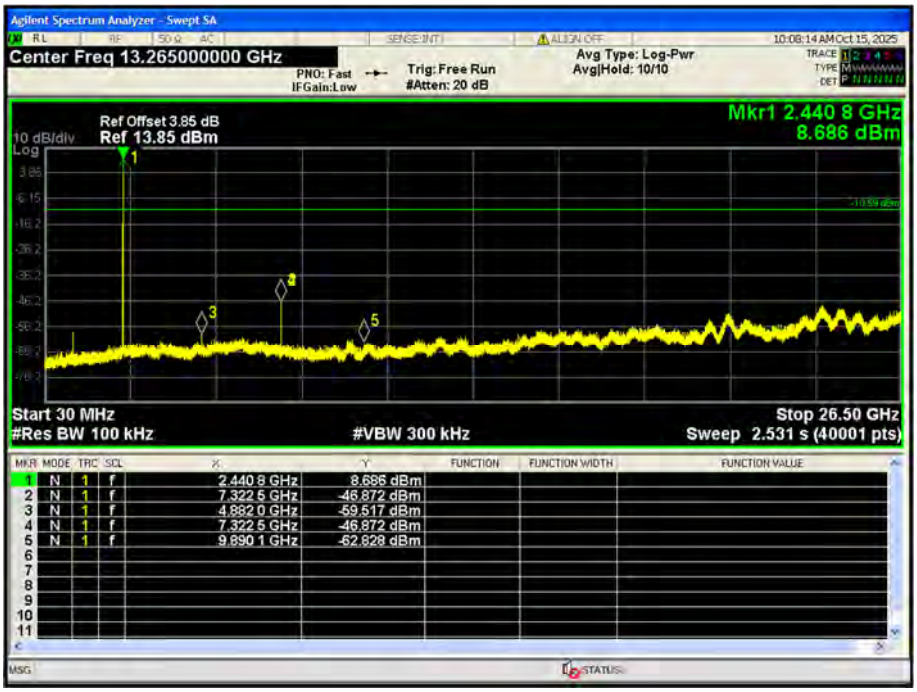
Test Graphs
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



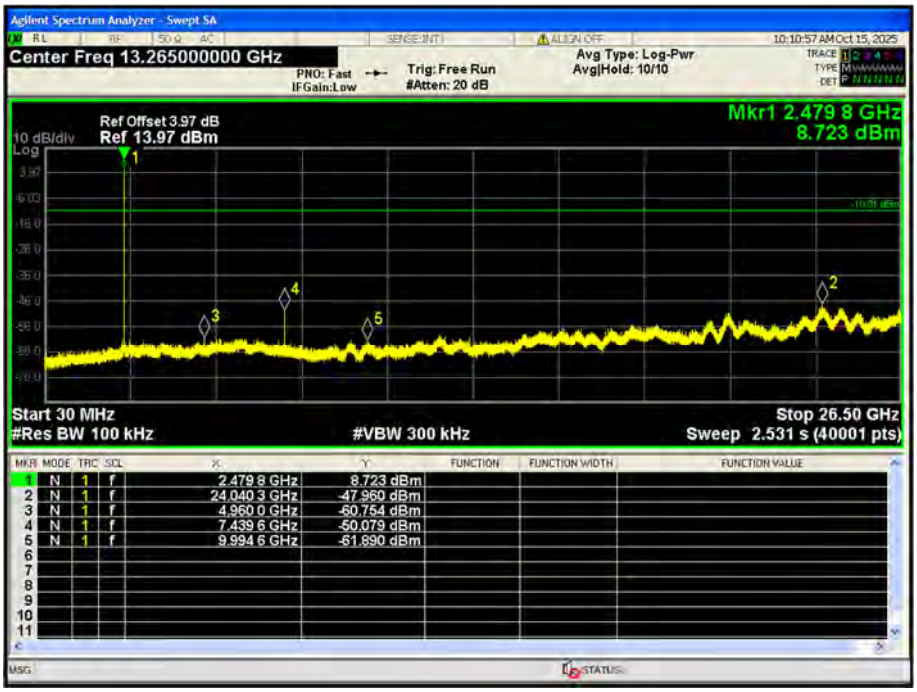
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref

Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



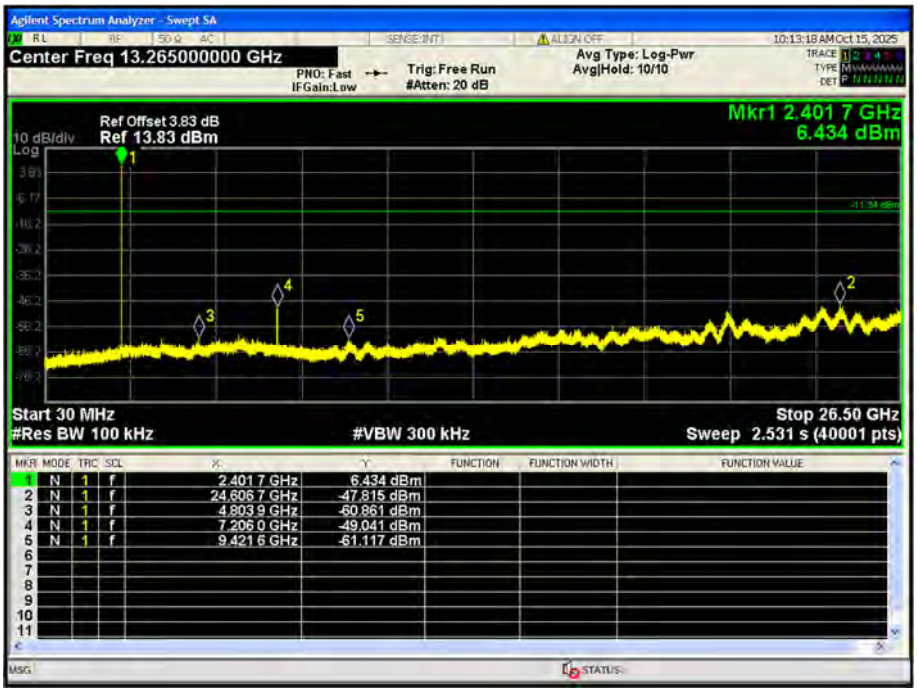
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref

Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



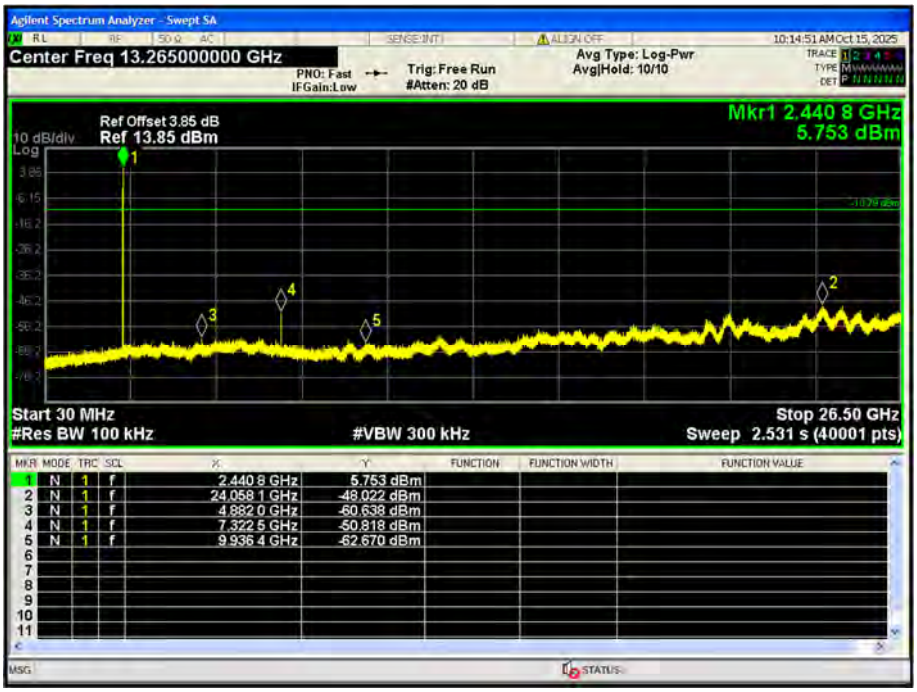
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref

Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



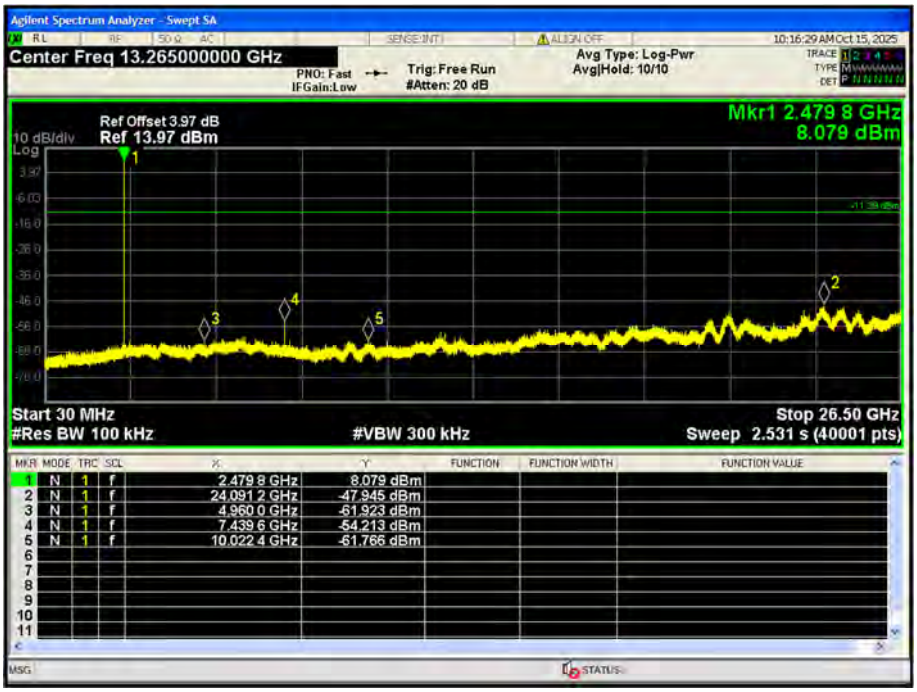
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref

Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission



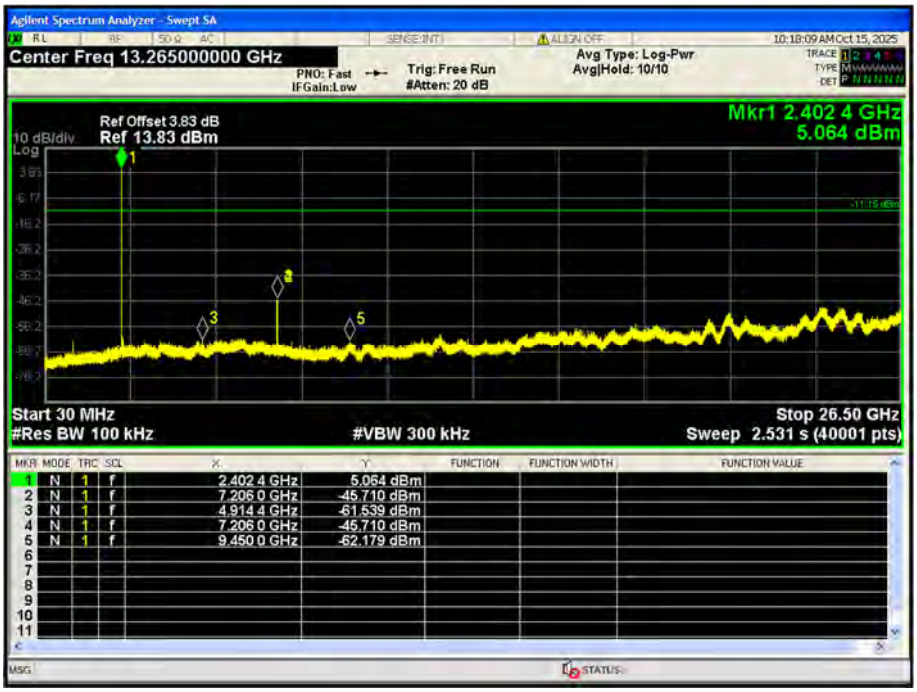
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref

Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



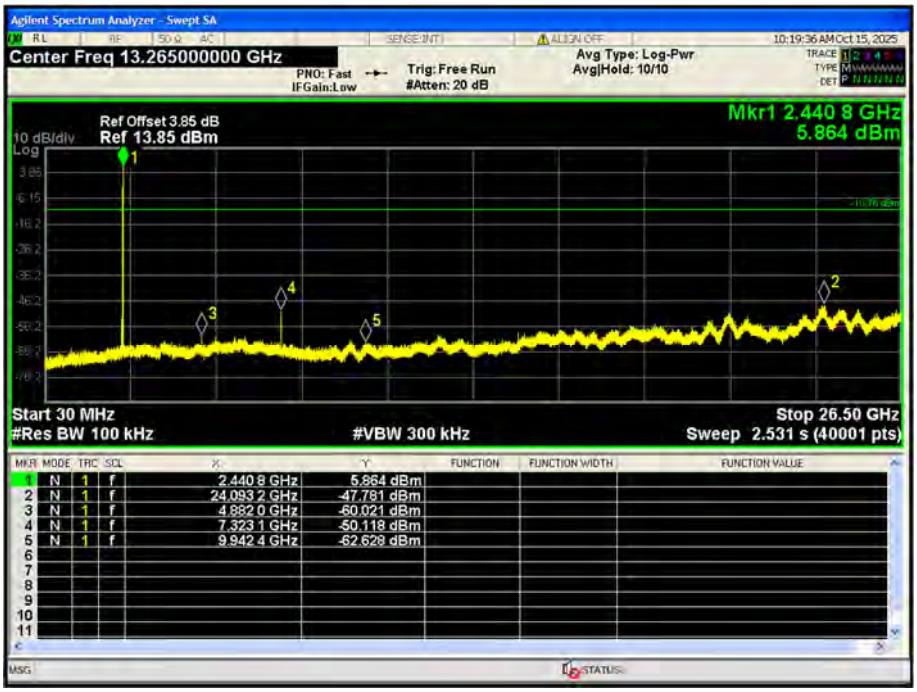
Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref

Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



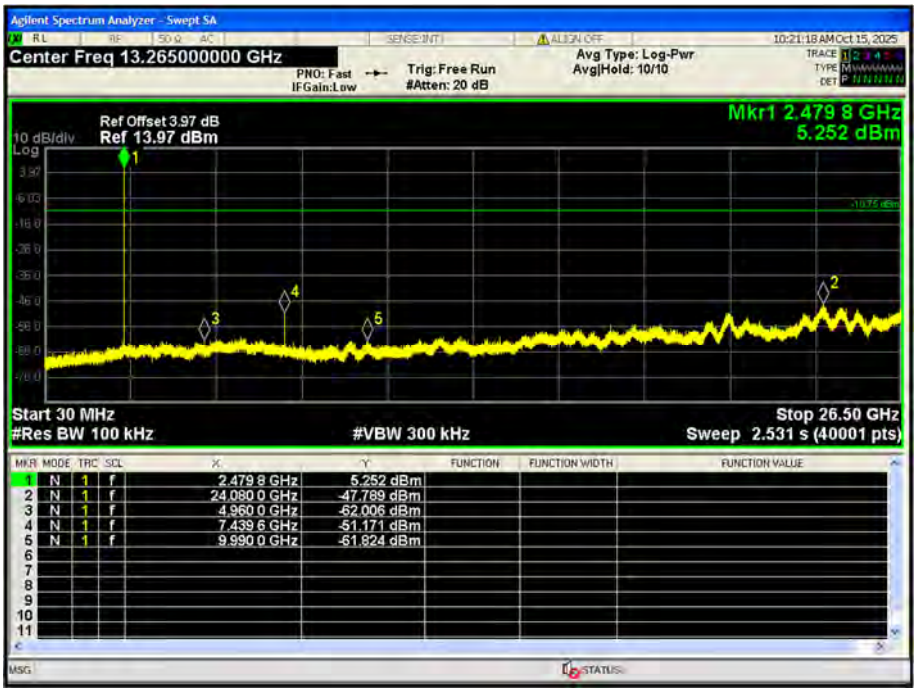
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref

Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref

Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission

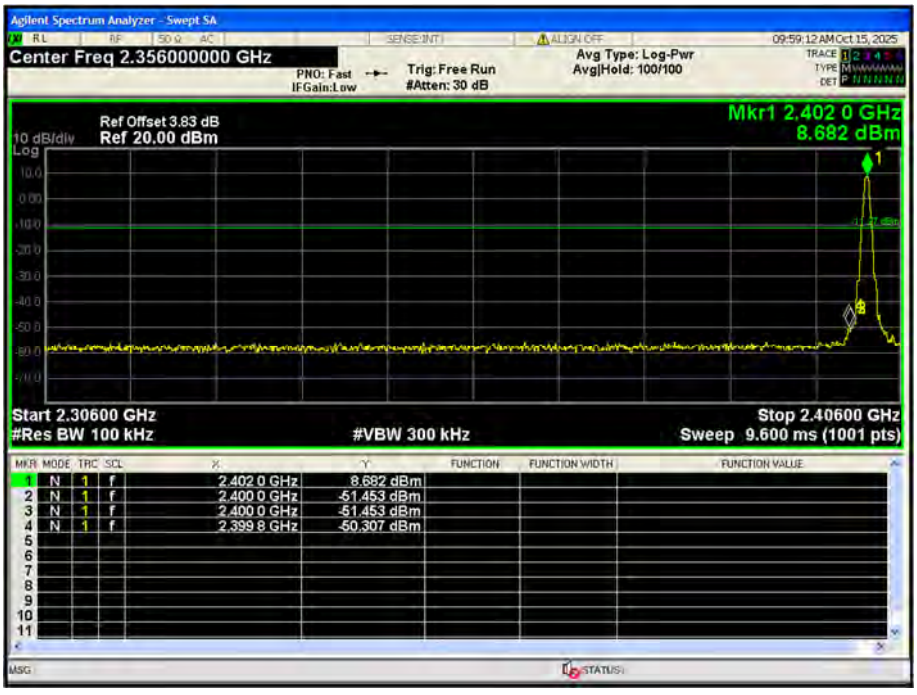


A.9. Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-59.03	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-63.15	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-59.31	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-63.39	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-58.99	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-58.92	-20	Pass
NVNT	1-DH5	2402	Ant1	Hopping	-62.33	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-62.95	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-62.32	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-61.83	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-62.83	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-62.48	-20	Pass

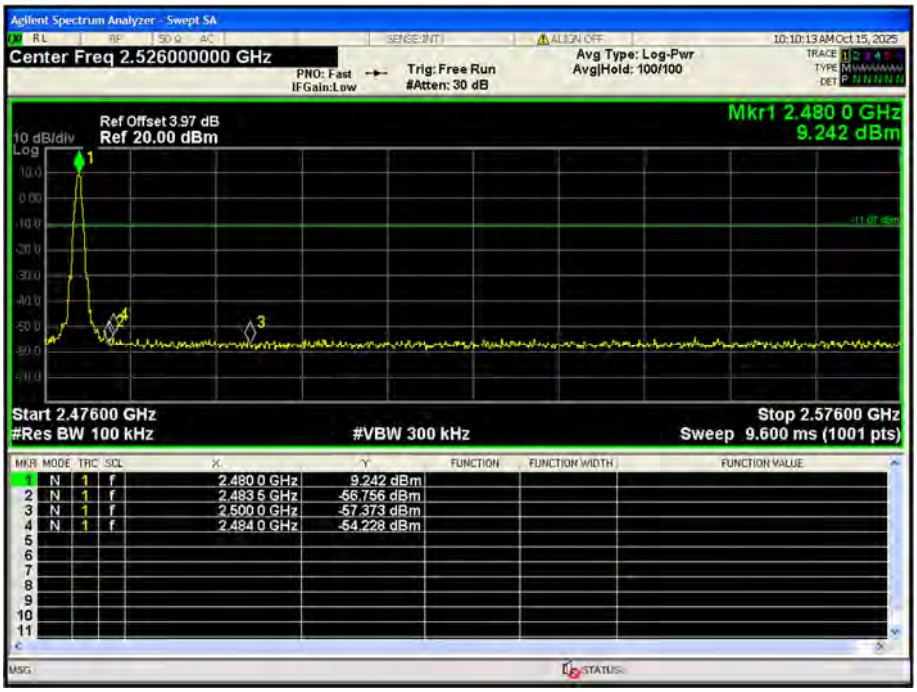
Test Graphs
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref

Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



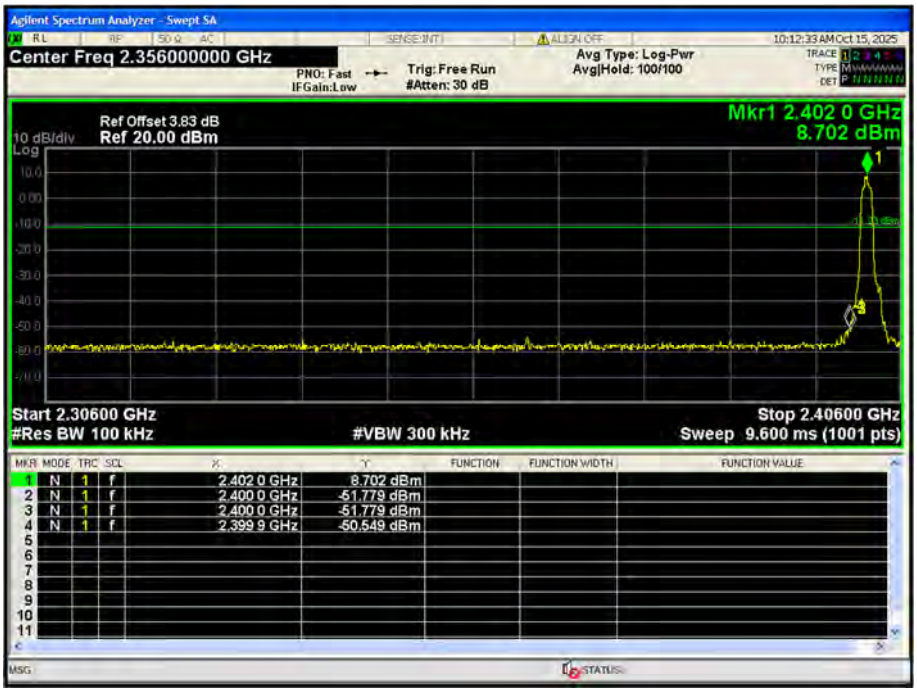
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



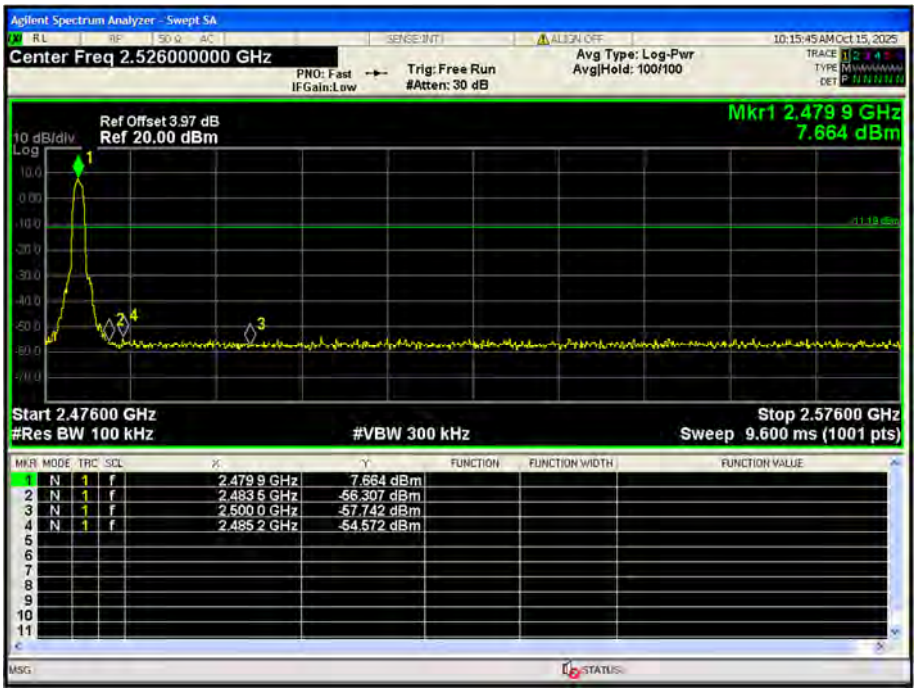
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



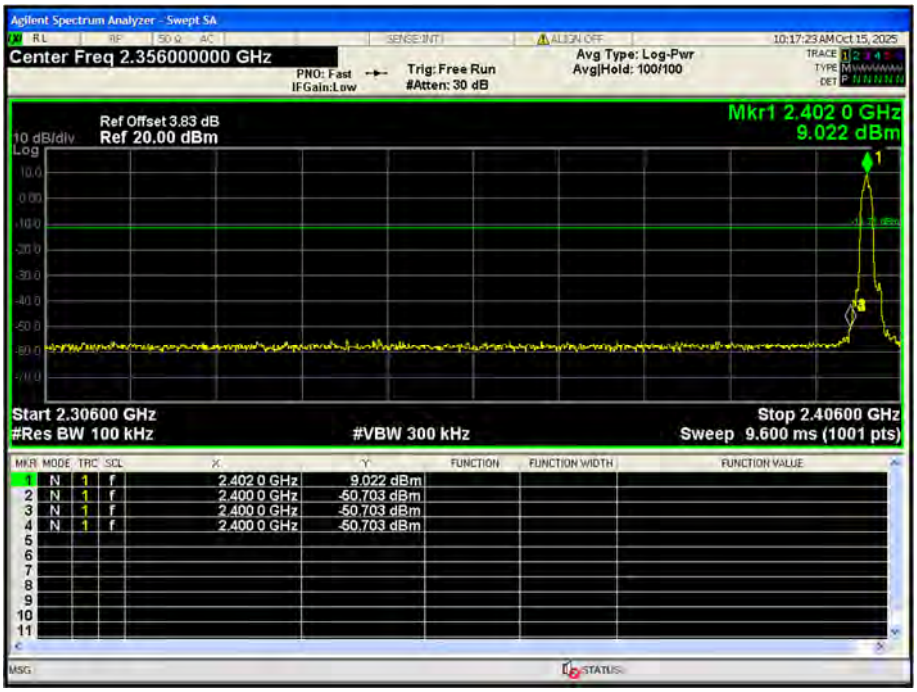
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref

Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



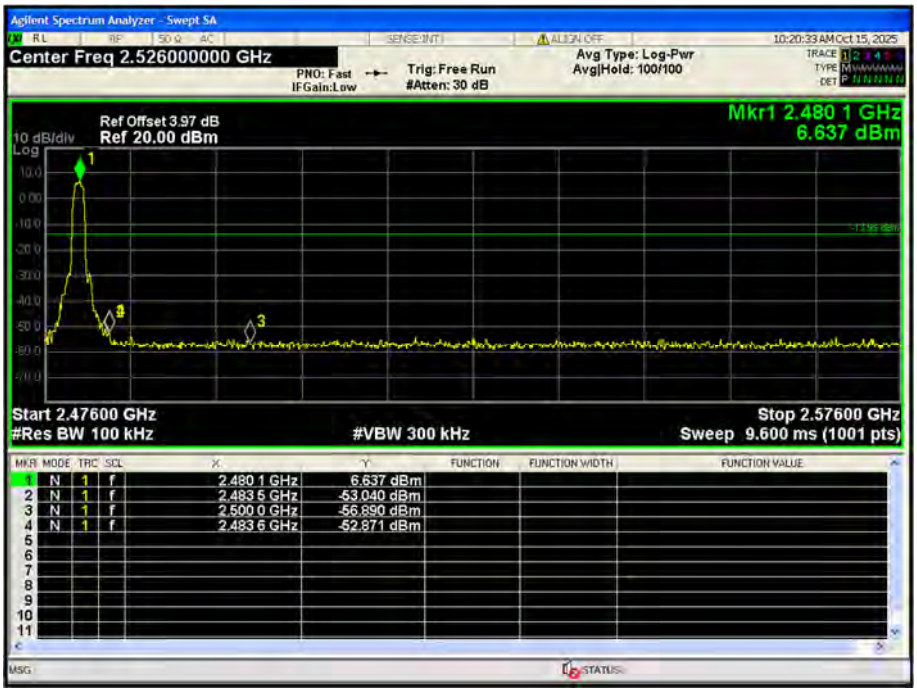
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref

Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



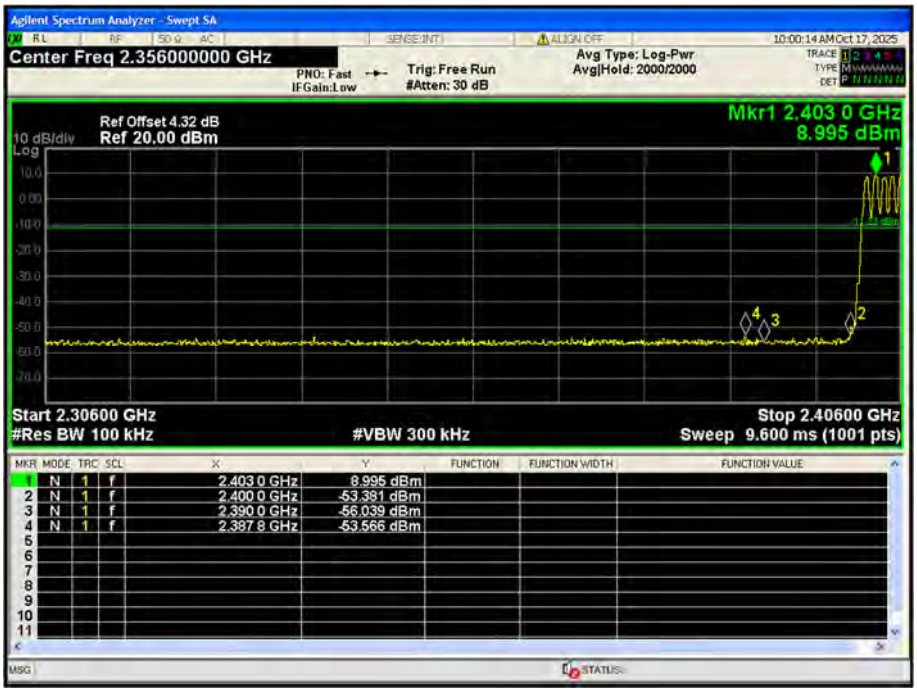
Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref

Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Emission



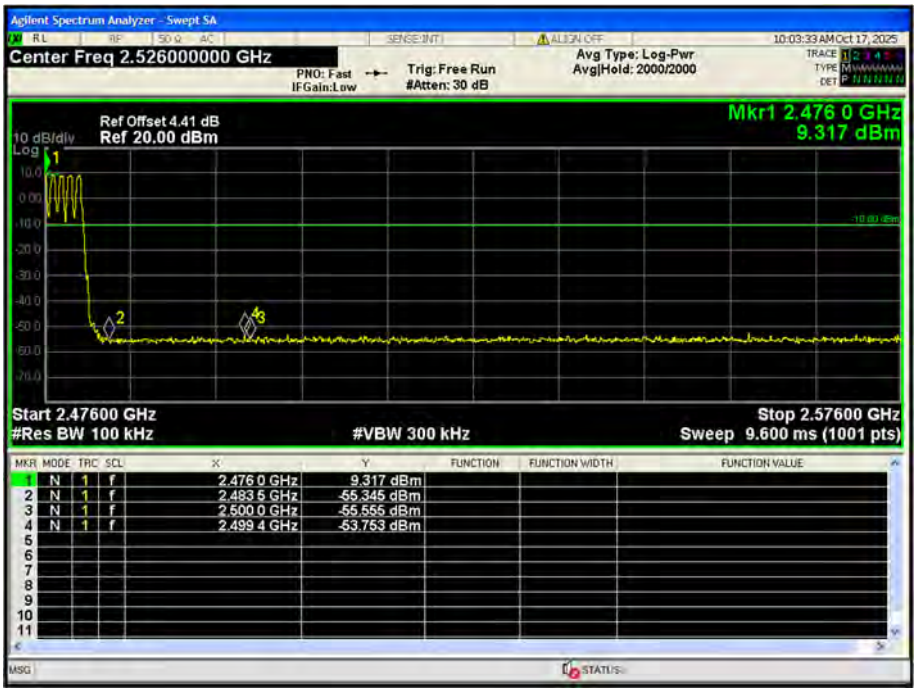
Test Graphs
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref

Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



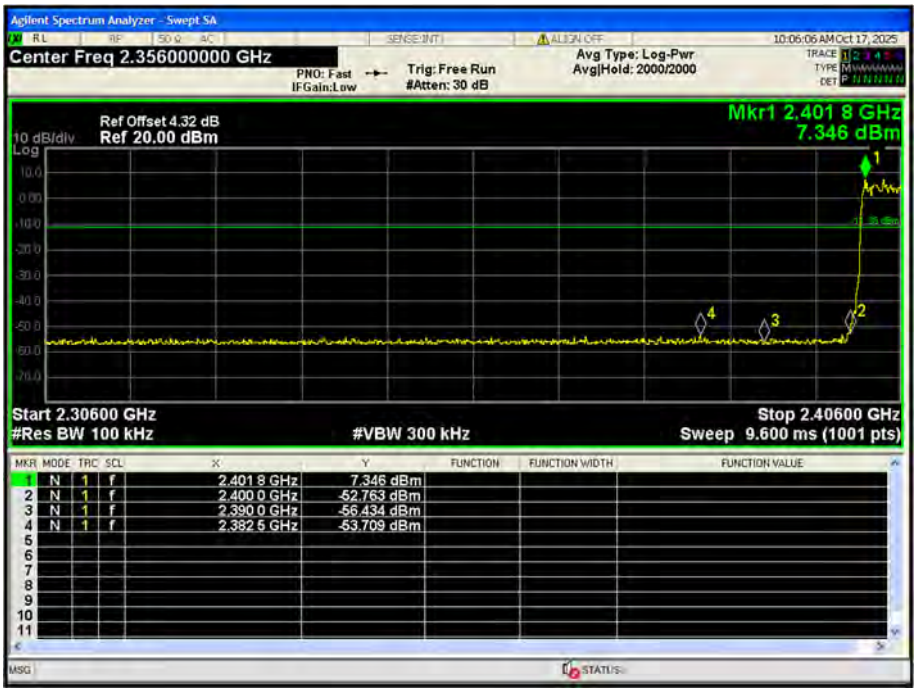
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref

Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



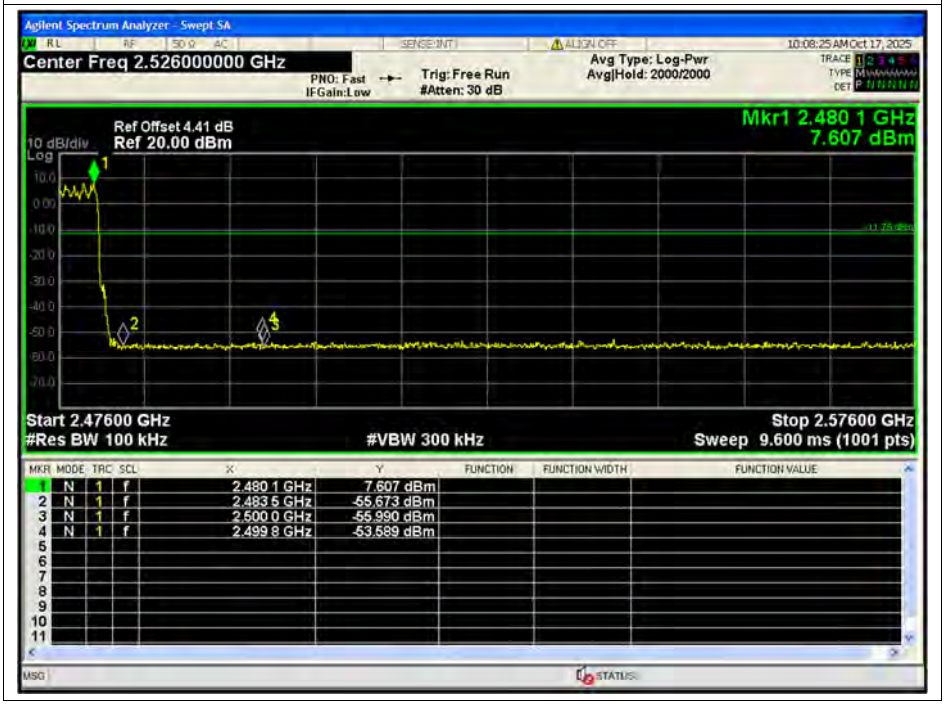
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref

Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



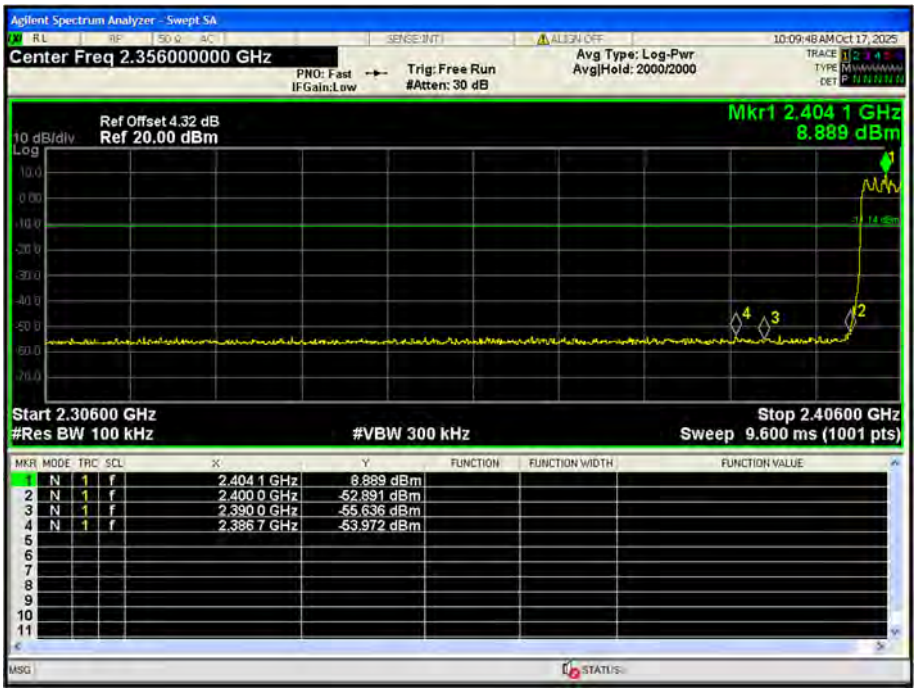
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref

Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



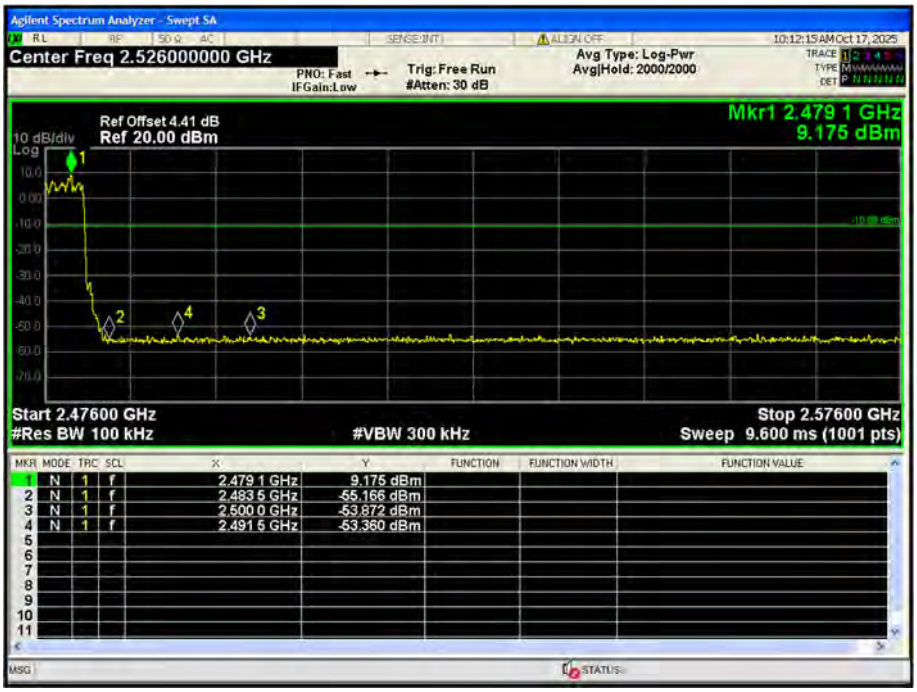
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref

Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref

Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Emission



A.10. Conducted Emission

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

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

A. Test Setup:

Test Mode: EUT+Adapter+Data cable+Mobile phone+APP link +BT TX

Test voltage: AC 120V/60Hz

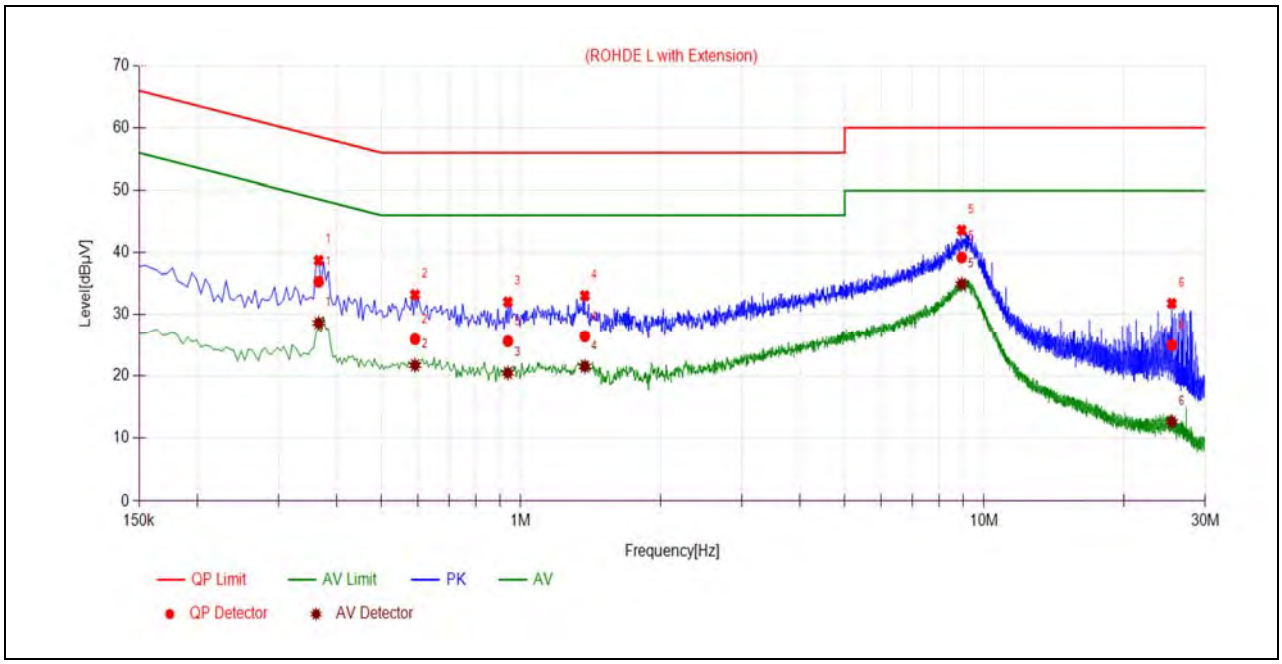
The measurement results are obtained as below:

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

U_R: Receiver Reading

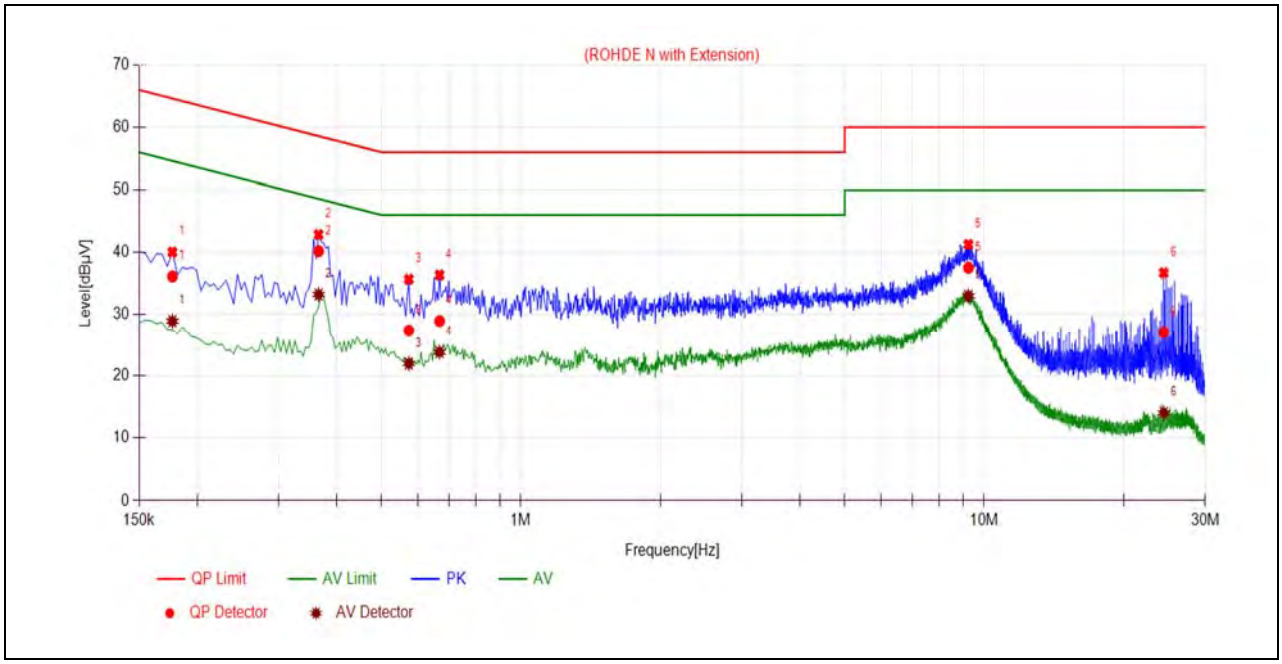
A_{Factor}: Voltage division factor of LISN

B. Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBµV)		Limit (dBµV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.3660	35.31	28.64	58.59	48.59	Line	PASS
2	0.5910	25.95	21.73	56.00	46.00		PASS
3	0.9375	25.63	20.49	56.00	46.00		PASS
4	1.3740	26.42	21.52	56.00	46.00		PASS
5	8.9429	39.25	34.95	60.00	50.00		PASS
6	25.4120	24.97	12.63	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	0.1770	36.16	28.97	64.63	54.63	Neutral	PASS
2	0.3660	40.21	33.25	58.59	48.59		PASS
3	0.5731	27.40	22.00	56.00	46.00		PASS
4	0.6675	28.96	23.85	56.00	46.00		PASS
5	9.2493	37.55	33.04	60.00	50.00		PASS
6	24.4072	27.11	14.05	60.00	50.00		PASS

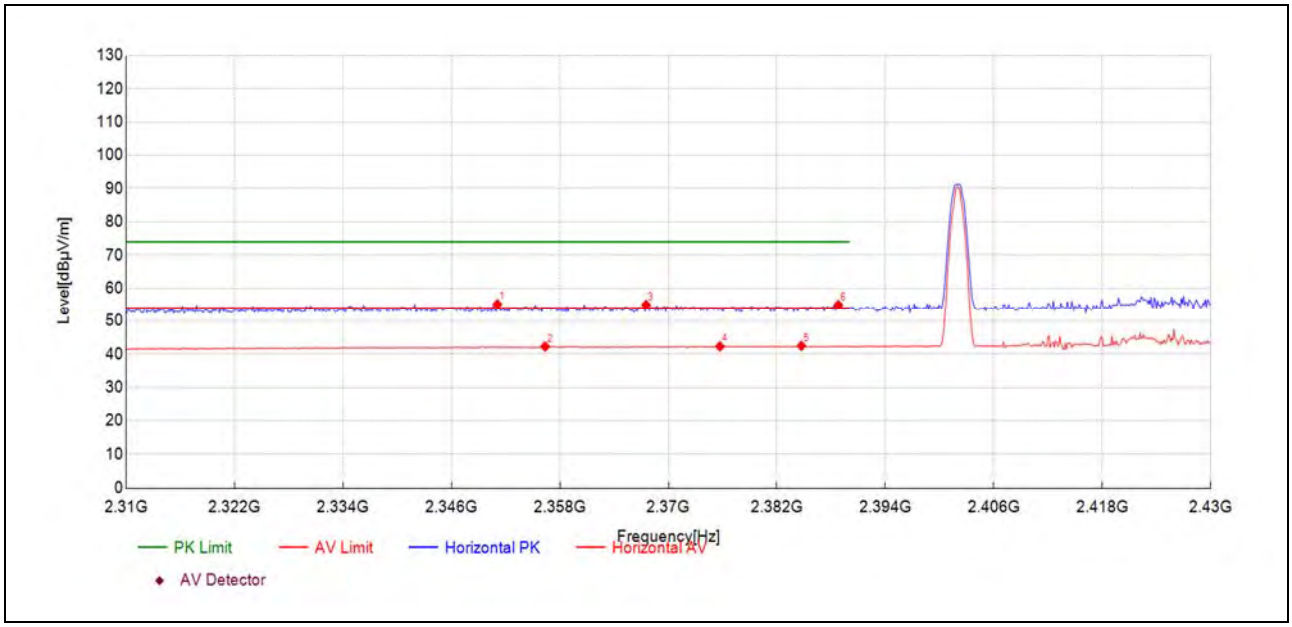
A.11. Restricted Frequency Bands

Note 1: Restricted Frequency Bands were performed when antenna was at vertical and horizontal polarity, and only the worse test condition (Horizontal) was recorded in this test report.

Note 2: All test modes were considered and evaluated respectively by performing full test, only the worst data were recorded.

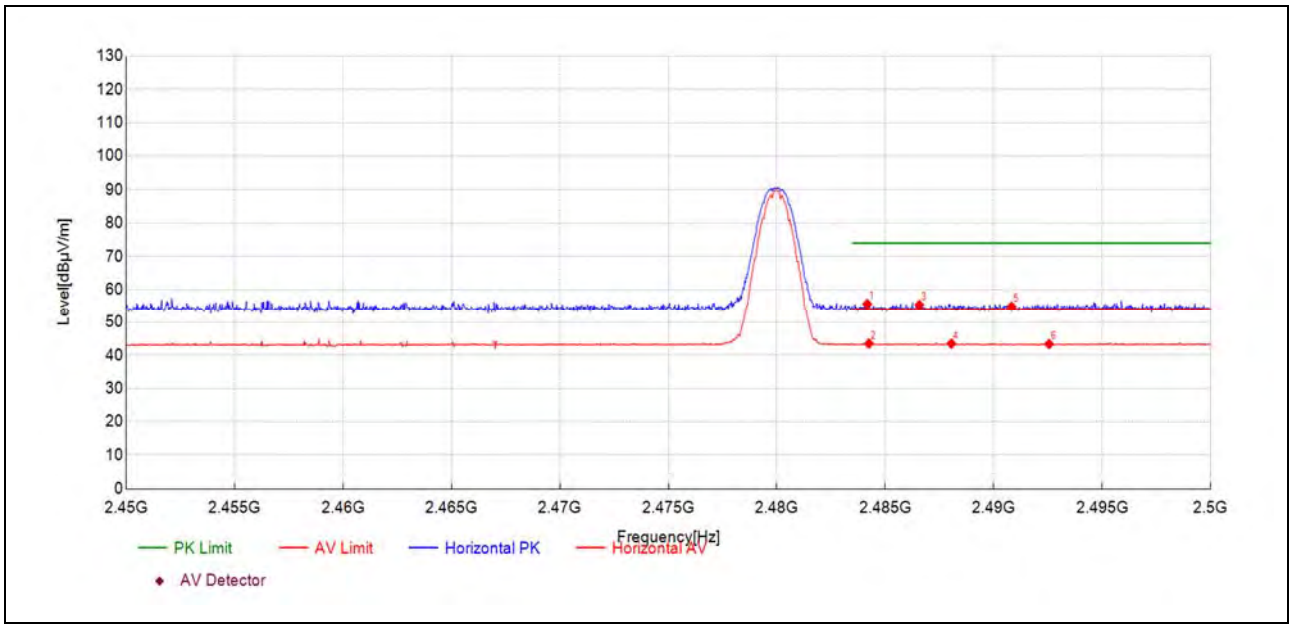
GFSK Mode

Plot for Channel 0



Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
2351.08	22.8	55.15	32.400	74.00	18.85	150	264	PK	PASS
2356.37	9.9	42.28	32.420	54.00	11.72	150	226	AV	PASS
2367.54	22.5	54.97	32.470	74.00	19.03	150	69	PK	PASS
2375.71	9.8	42.31	32.490	54.00	11.69	150	360	AV	PASS
2384.71	10.0	42.48	32.530	54.00	11.52	150	69	AV	PASS
2388.80	22.4	54.95	32.540	74.00	19.05	150	11	PK	PASS

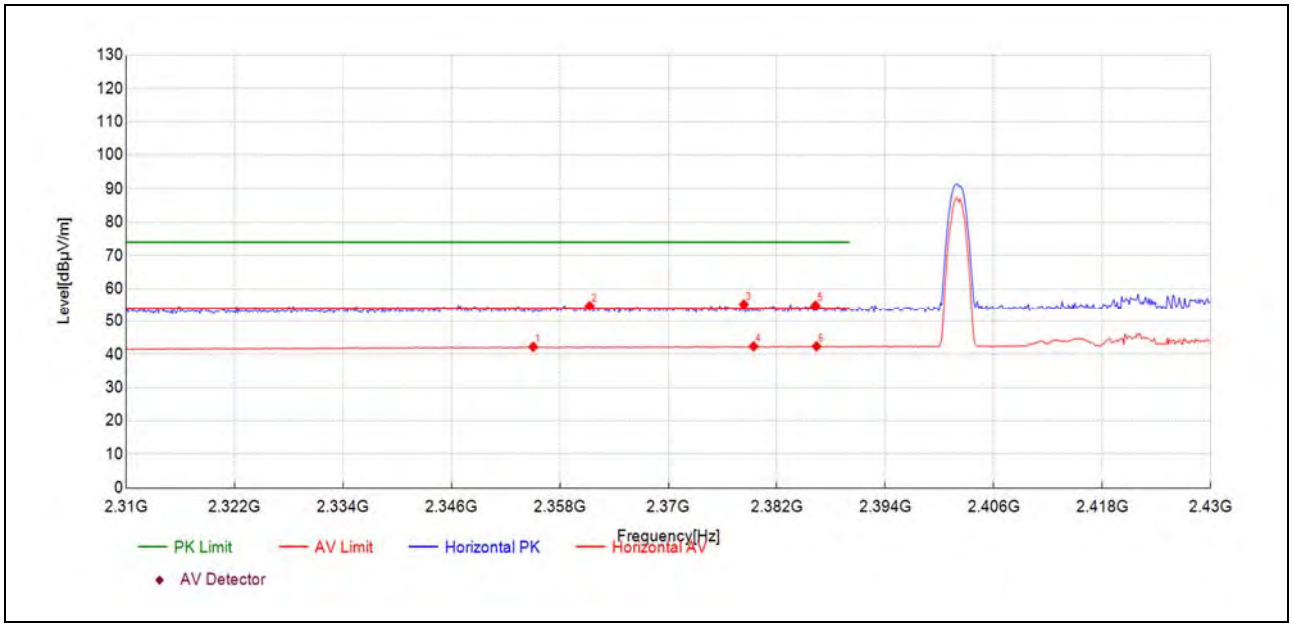
Plot for Channel 78



Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
2484.17	22.6	55.63	33.030	74.00	18.37	150	163	PK	PASS
2484.24	10.5	43.51	33.030	54.00	10.49	150	351	AV	PASS
2486.57	22.3	55.35	33.030	74.00	18.65	150	132	PK	PASS
2488.04	10.5	43.49	33.020	54.00	10.51	150	10	AV	PASS
2490.82	21.9	54.87	33.020	74.00	19.13	150	41	PK	PASS
2492.55	10.4	43.38	33.010	54.00	10.62	150	10	AV	PASS

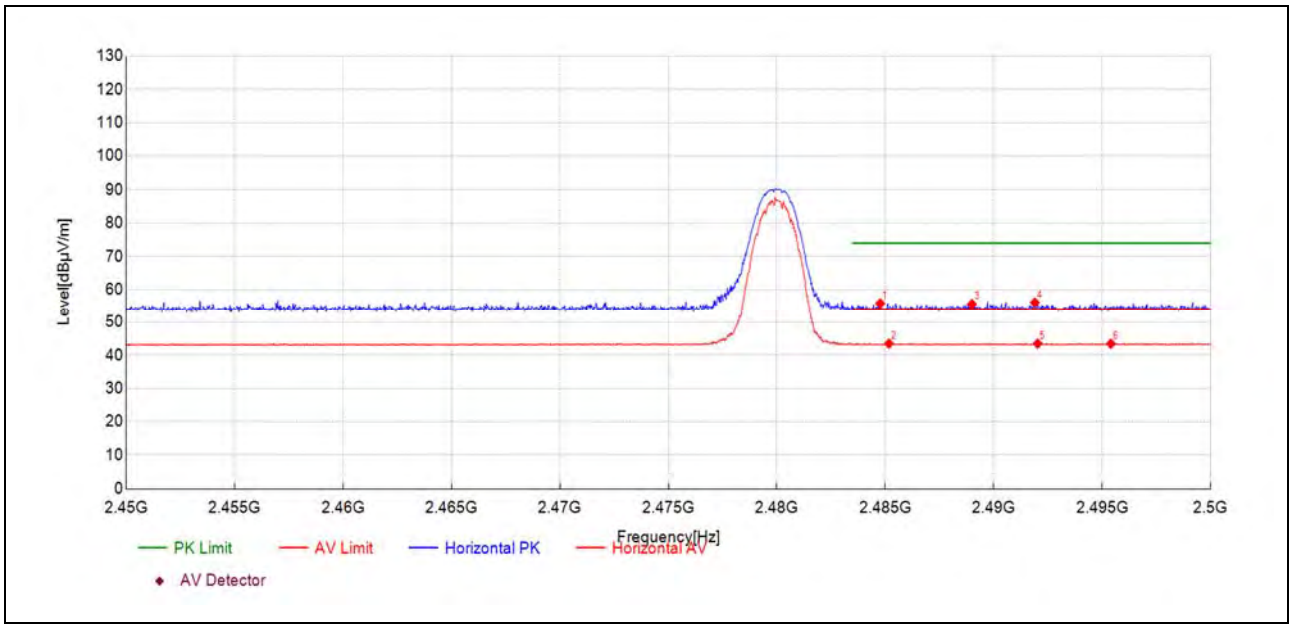
8-DPSK Mode

Plot for Channel 0



Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
2355.05	9.8	42.23	32.420	54.00	11.77	150	124	AV	PASS
2361.29	22.3	54.72	32.440	74.00	19.28	150	154	PK	PASS
2378.35	22.7	55.25	32.510	74.00	18.75	150	349	PK	PASS
2379.43	9.9	42.38	32.510	54.00	11.62	150	96	AV	PASS
2386.28	22.4	54.90	32.530	74.00	19.10	150	224	PK	PASS
2386.40	9.9	42.39	32.530	54.00	11.61	150	340	AV	PASS

Plot for Channel 78



Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
2484.77	22.8	55.81	33.030	74.00	18.19	150	298	PK	PASS
2485.17	10.5	43.50	33.030	54.00	10.50	150	112	AV	PASS
2488.99	22.6	55.62	33.020	74.00	18.38	150	359	PK	PASS
2491.90	23.1	56.10	33.020	74.00	17.90	150	92	PK	PASS
2492.02	10.5	43.50	33.020	54.00	10.50	150	298	AV	PASS
2495.40	10.5	43.47	33.010	54.00	10.53	150	72	AV	PASS

A.12. 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 [dBμV/m] $=U_R + A_T + A_{Factor}$ [dB]; $A_T = L_{Cable\ loss}$ [dB]$-G_{preamp}$ [dB]

A_T: Total correction Factor except Antenna

U_R: Receiver Reading

G_{preamp}: Preamplifier Gain

A_{Factor}: Antenna Factor at 3m

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.

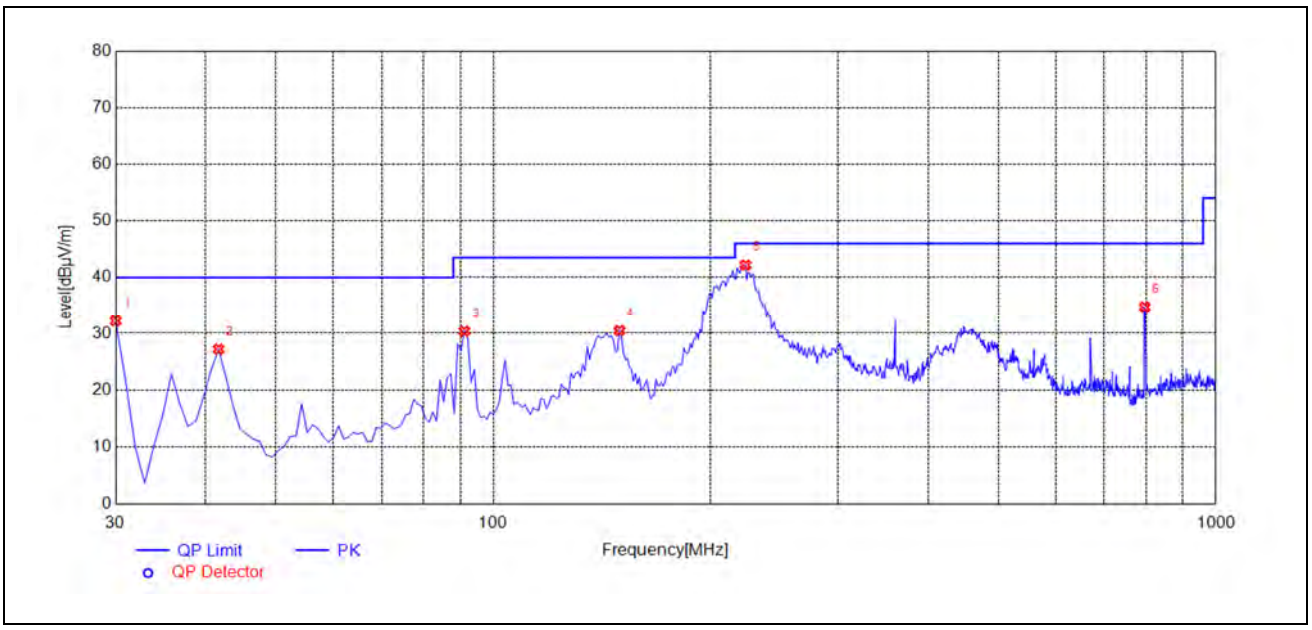
Note2: For the frequency, which started from 9kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

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.

Note4: All test modes were considered and evaluated respectively by performing full test, only the worst data were recorded.

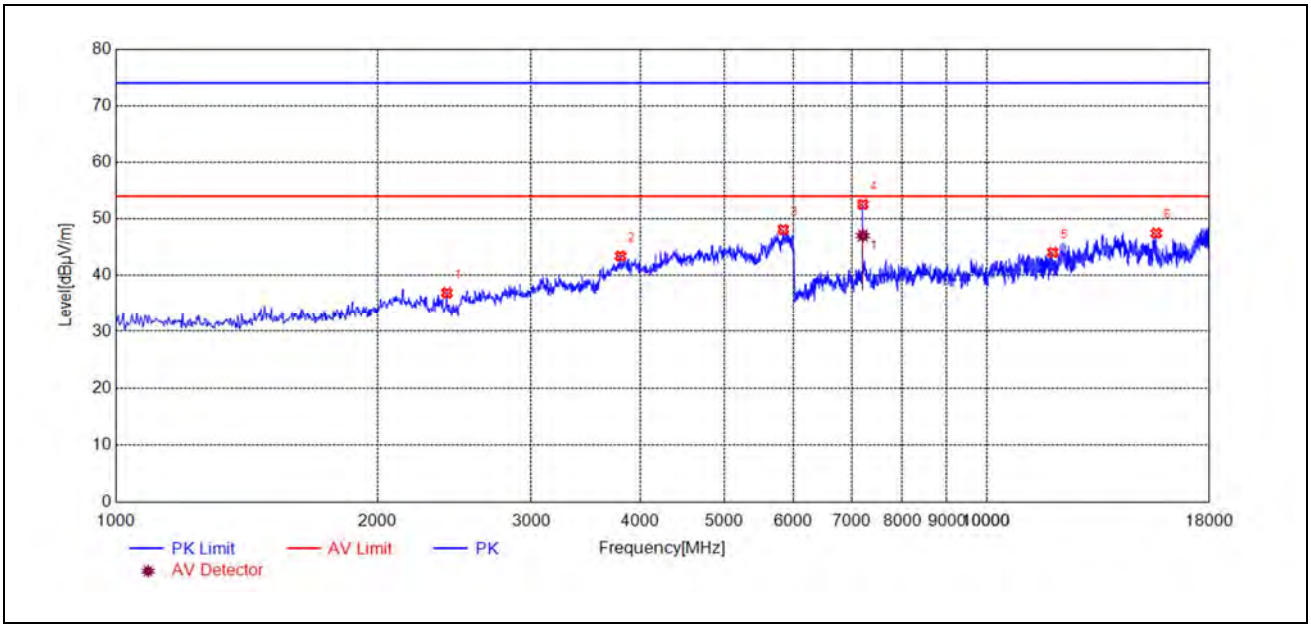
GFSK Mode

Plot for Channel 0



(Antenna Horizontal, 30MHz to 1GHz)

Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
30.0000	32.22	-31.67	40.00	7.78	150	72	Horizontal	PASS
41.6517	27.17	-29.90	40.00	12.83	150	29	Horizontal	PASS
91.1712	30.34	-33.95	43.50	13.16	150	267	Horizontal	PASS
149.4294	30.47	-34.57	43.50	13.03	150	251	Horizontal	PASS
223.2232	42.19	-31.70	46.00	3.81	150	233	Horizontal	PASS
797.0671	34.76	-20.48	46.00	11.24	150	267	Horizontal	PASS

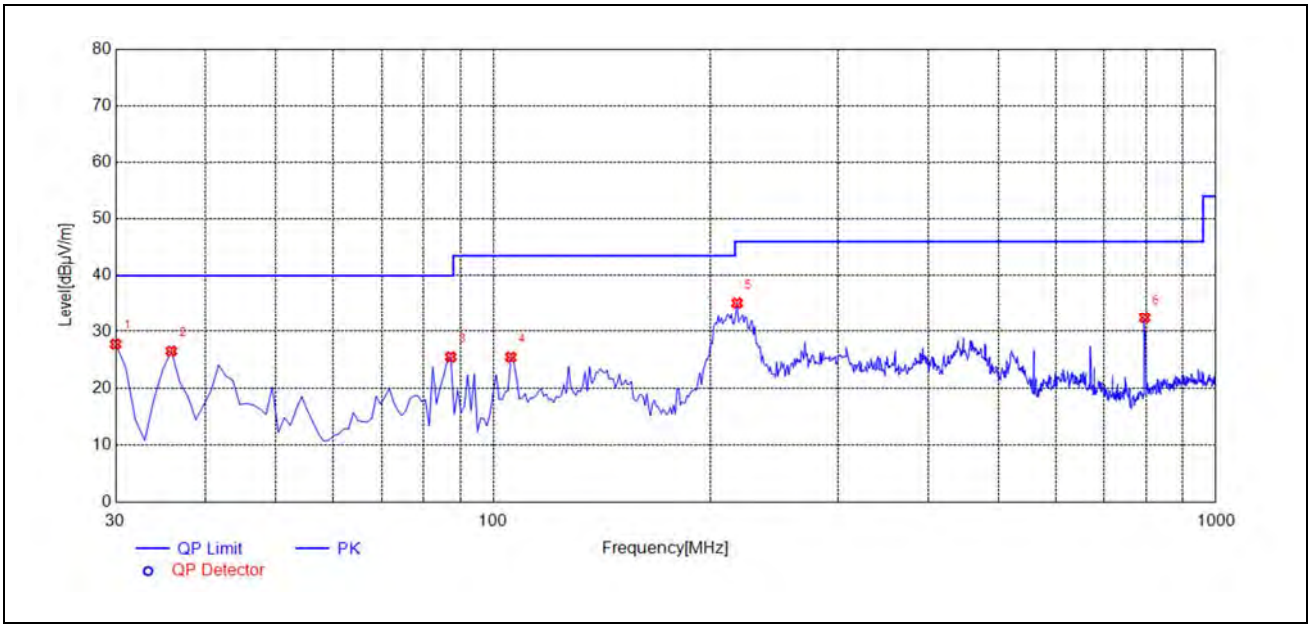


(Antenna Horizontal, 1GHz to 18GHz)

Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
2401.0802	36.92	-20.14	74.00	37.08	150	98	Horizontal	PASS
3798.7598	43.45	-14.43	74.00	30.55	150	172	Horizontal	PASS
5839.1678	48.13	-7.23	74.00	25.87	150	172	Horizontal	PASS
7206.2412	52.58	-2.95	74.00	21.42	150	114	Horizontal	PASS
11905.9812	44.08	3.19	74.00	29.92	150	123	Horizontal	PASS
15650.1300	47.48	6.59	74.00	26.52	150	114	Horizontal	PASS

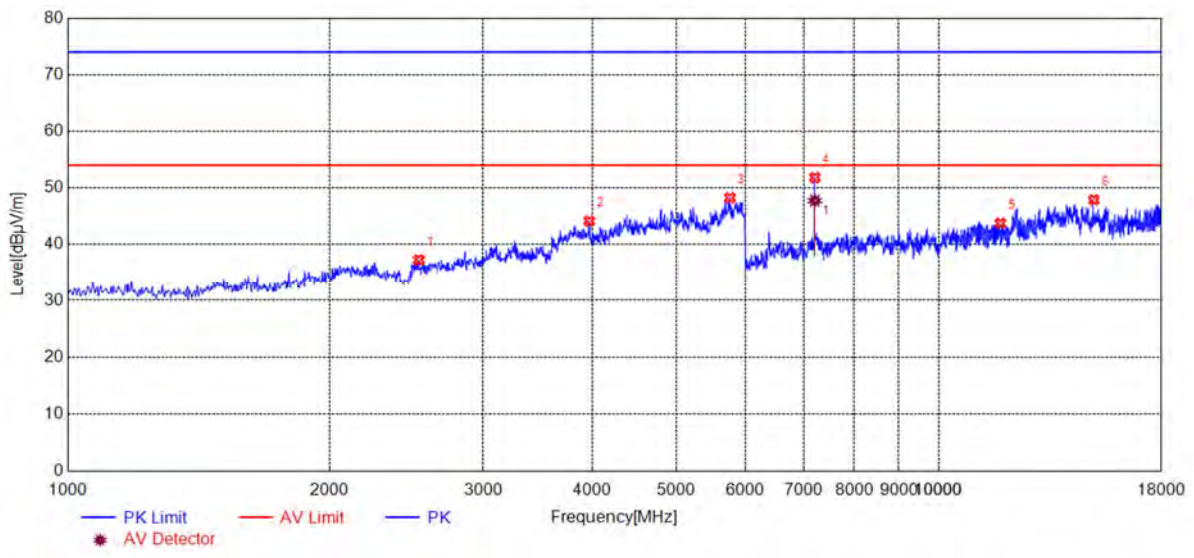
Freq. [MHz]	Factor [dB]	Height [cm]	Angle [°]	Polarity
7205.9169	-2.95	150	103	Horizontal

Freq. [MHz]	Factor [dB]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
7205.916	-2.95	47.06	54.00	6.94	150	103	Horizontal



(Antenna Vertical, 30MHz to 1GHz)

Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
30.0000	27.73	-31.67	40.00	12.27	150	289	Vertical	PASS
35.8258	26.51	-36.91	40.00	13.49	150	178	Vertical	PASS
87.2873	25.48	-33.84	40.00	14.52	150	212	Vertical	PASS
105.7357	25.44	-30.76	43.50	18.06	150	340	Vertical	PASS
217.3974	35.15	-31.66	46.00	10.85	150	297	Vertical	PASS
797.0671	32.42	-20.48	46.00	13.58	150	246	Vertical	PASS



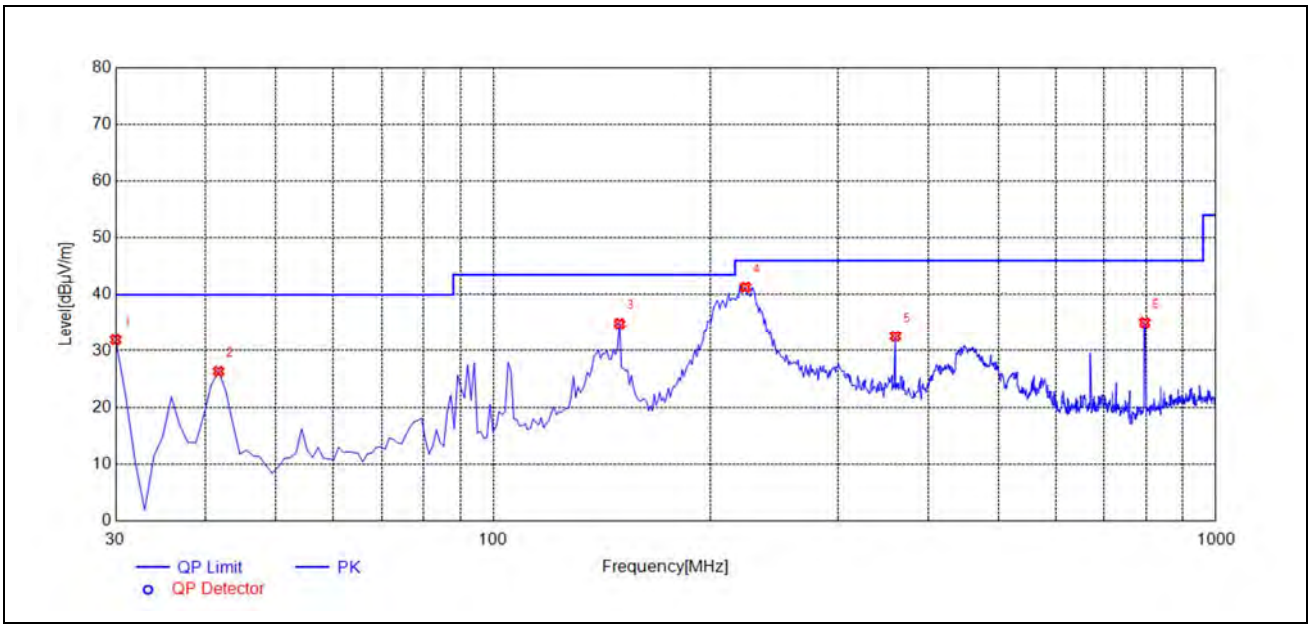
(Antenna Vertical, 1GHz to 18GHz)

Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
2530.3061	37.29	-19.79	74.00	36.71	150	252	Vertical	PASS
3968.7938	44.15	-14.03	74.00	29.85	150	252	Vertical	PASS
5757.5515	48.26	-6.97	74.00	25.74	150	303	Vertical	PASS
7206.2412	51.82	-2.95	74.00	22.18	150	44	Vertical	PASS
11766.5533	43.76	3.11	74.00	30.24	150	210	Vertical	PASS
15061.8124	47.91	6.52	74.00	26.09	150	69	Vertical	PASS

Freq. [MHz]	Factor [dB]	Height [cm]	Angle [°]	Polarity
7206.1331	-2.94	150	46	Vertical

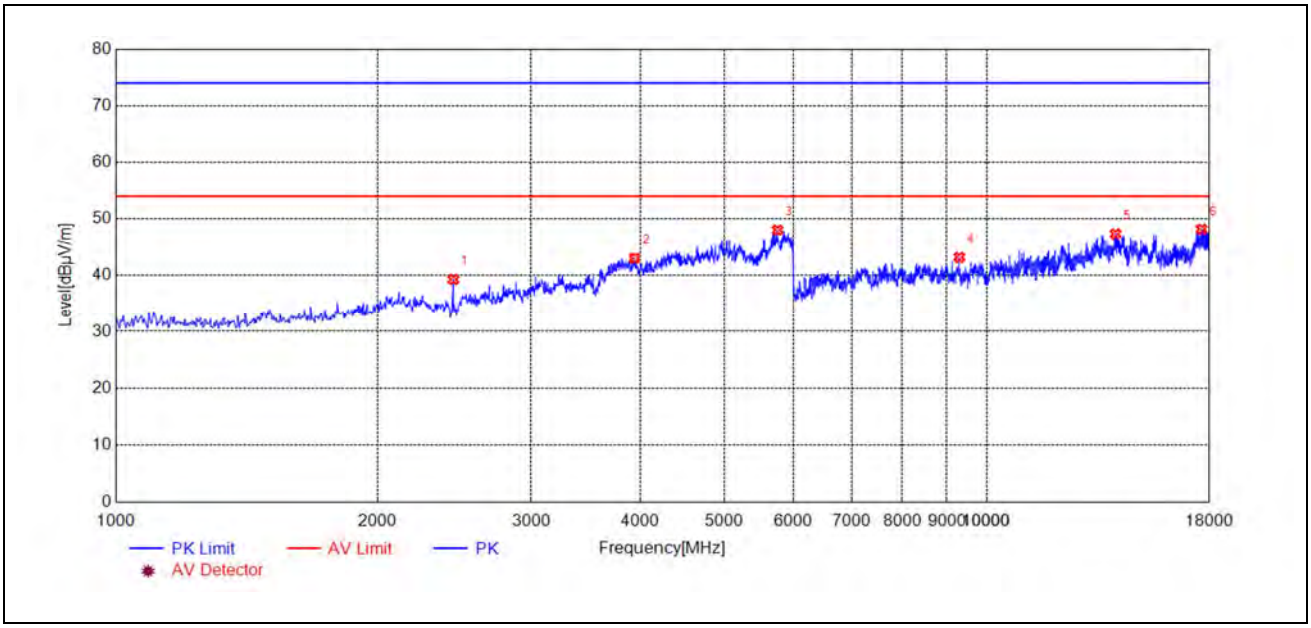
Freq. [MHz]	Factor [dB]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
7206.133	-2.94	47.76	54.00	6.24	150	46	Vertical

Plot for Channel 39



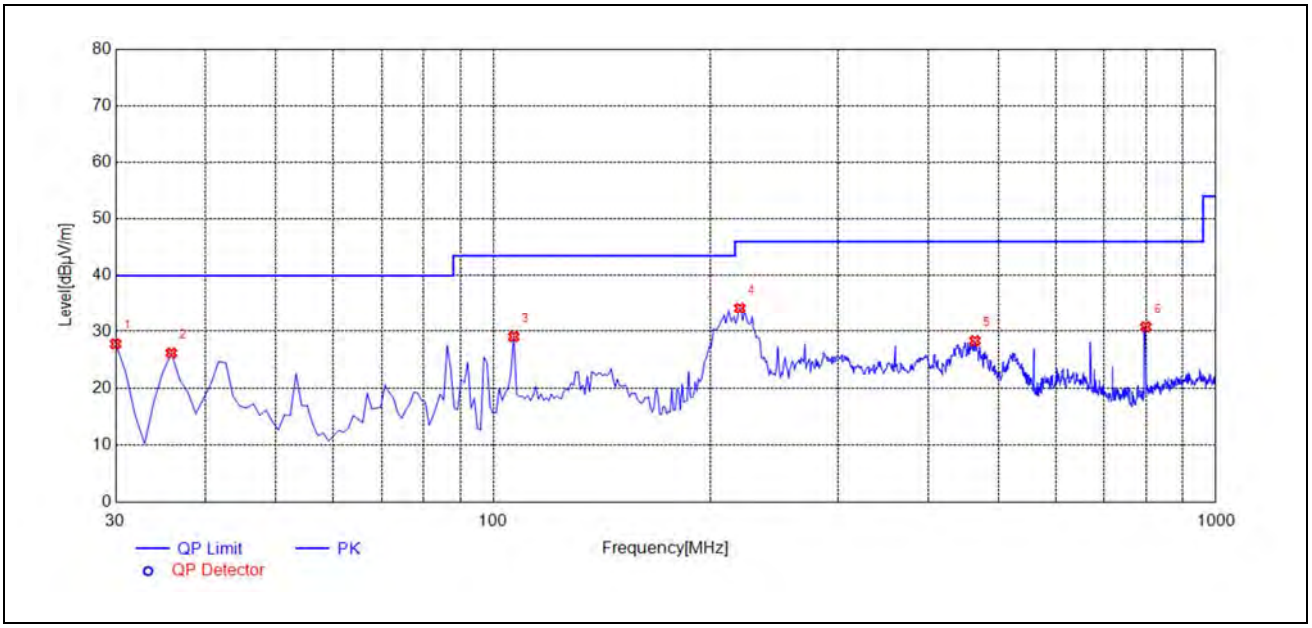
(Antenna Horizontal, 30MHz to 1GHz)

Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
30.0000	31.93	-31.67	40.00	8.07	150	329	Horizontal	PASS
41.6517	26.32	-29.90	40.00	13.68	150	72	Horizontal	PASS
149.4294	34.87	-34.57	43.50	8.63	150	270	Horizontal	PASS
223.2232	41.33	-31.70	46.00	4.67	150	252	Horizontal	PASS
360.1301	32.55	-26.34	46.00	13.45	150	132	Horizontal	PASS
797.0671	35.09	-20.48	46.00	10.91	150	270	Horizontal	PASS



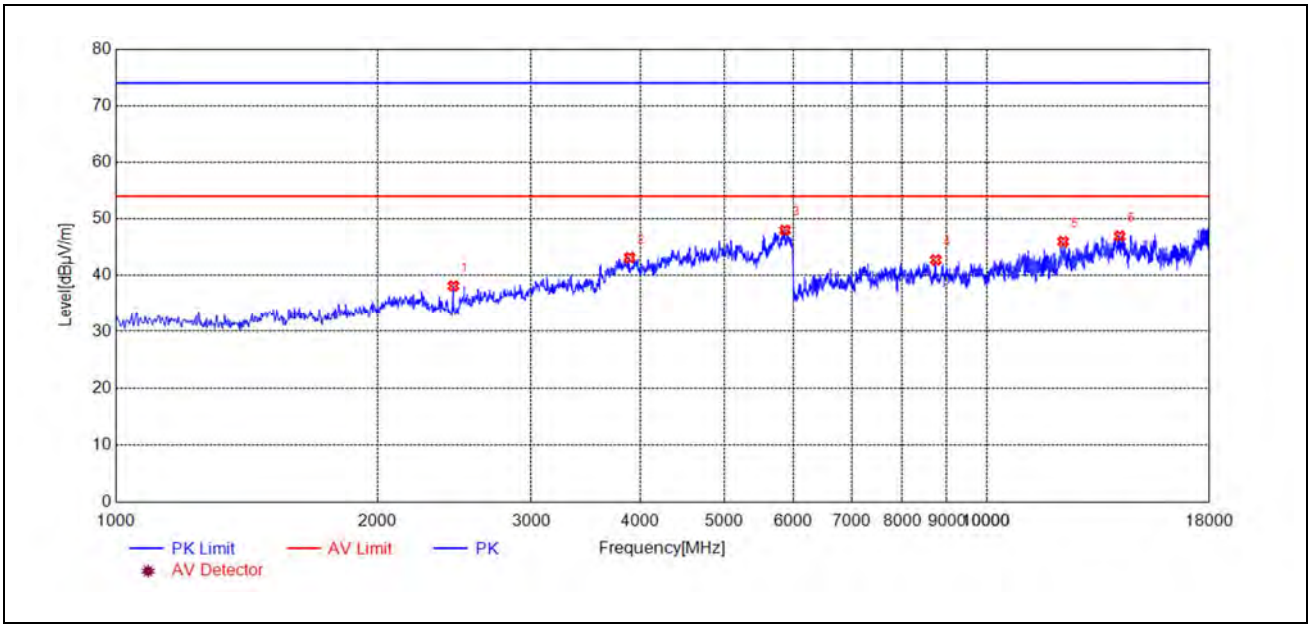
(Antenna Horizontal, 1GHz to 18GHz)

Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
2441.8884	39.32	-20.95	74.00	34.68	150	32	Horizontal	PASS
3941.5883	43.09	-13.92	74.00	30.91	150	273	Horizontal	PASS
5750.7502	48.04	-6.75	74.00	25.96	150	123	Horizontal	PASS
9301.0602	43.22	1.40	74.00	30.78	150	232	Horizontal	PASS
14055.2110	47.34	7.34	74.00	26.66	150	98	Horizontal	PASS
17642.9286	48.17	9.20	74.00	25.83	150	348	Horizontal	PASS



(Antenna Vertical, 30MHz to 1GHz)

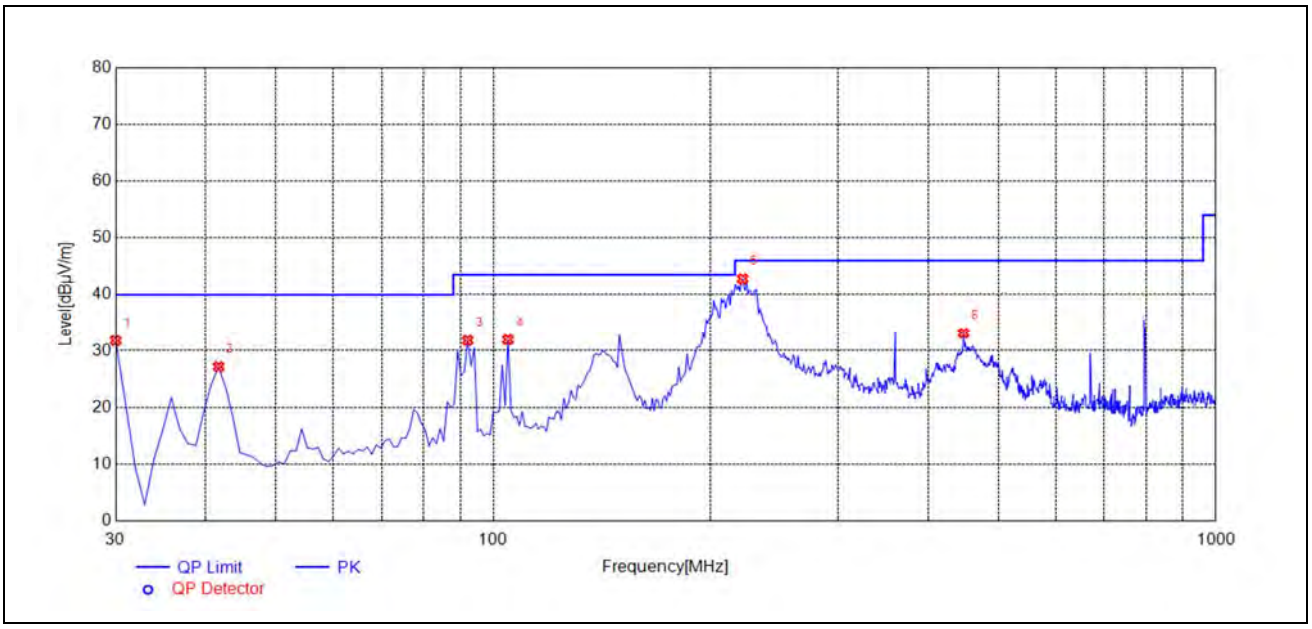
Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
30.0000	27.79	-31.67	40.00	12.21	150	71	Vertical	PASS
35.8258	26.16	-36.91	40.00	13.84	150	235	Vertical	PASS
106.7067	29.06	-30.84	43.50	14.44	150	261	Vertical	PASS
219.3393	34.21	-31.44	46.00	11.79	150	305	Vertical	PASS
464.0240	28.33	-23.97	46.00	17.67	150	243	Vertical	PASS
799.9800	30.76	-20.18	46.00	15.24	150	252	Vertical	PASS



(Antenna Vertical, 1GHz to 18GHz)

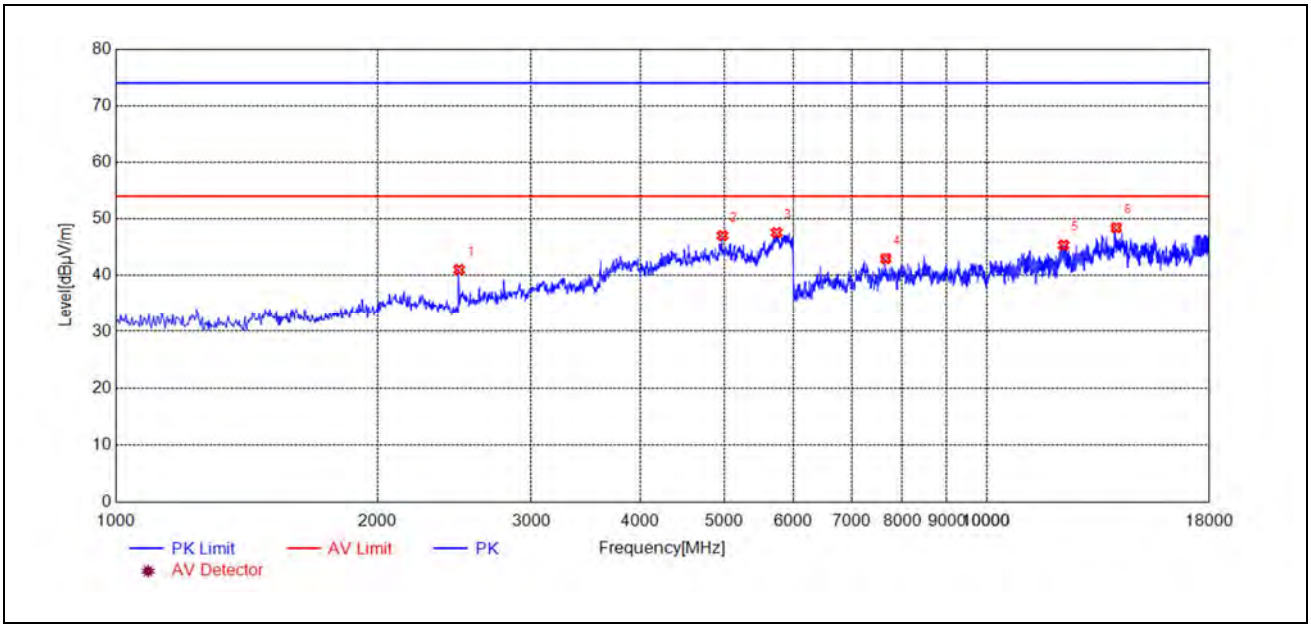
Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
2441.8884	38.16	-20.95	74.00	35.84	150	345	Vertical	PASS
3890.5781	43.18	-14.88	74.00	30.82	150	217	Vertical	PASS
5866.3733	48.02	-6.95	74.00	25.98	150	59	Vertical	PASS
8739.9480	42.76	-0.99	74.00	31.24	150	217	Vertical	PASS
12235.8472	46.00	5.00	74.00	28.00	150	251	Vertical	PASS
14208.2416	46.99	6.12	74.00	27.01	150	0	Vertical	PASS

Plot for Channel 78



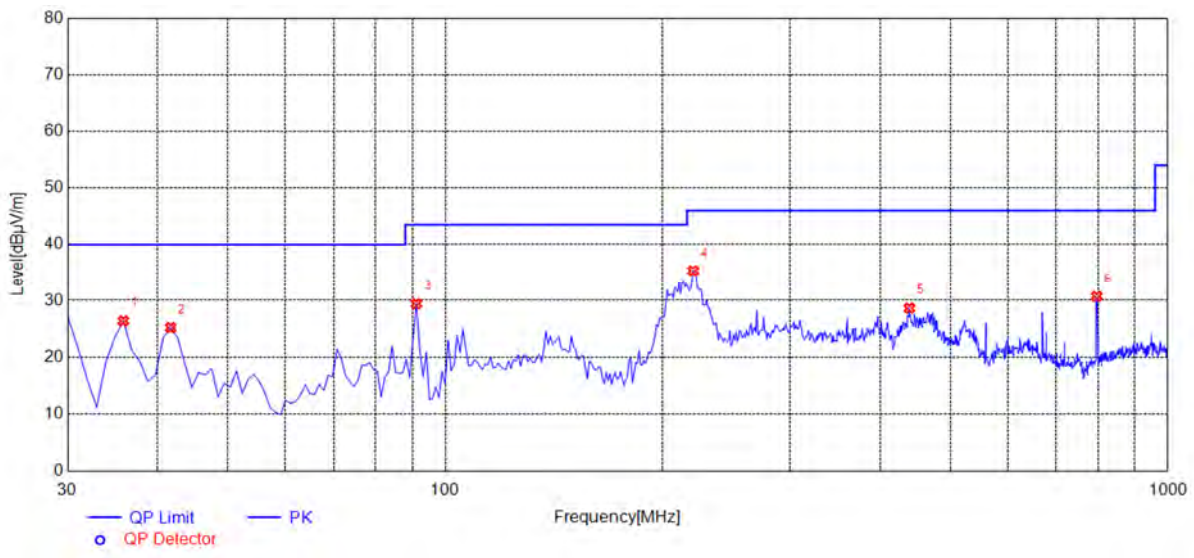
(Antenna Horizontal, 30MHz to 1GHz)

Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
30.0000	31.77	-31.67	40.00	8.23	150	264	Horizontal	PASS
41.6517	27.15	-29.90	40.00	12.85	150	332	Horizontal	PASS
92.1421	31.81	-33.74	43.50	11.69	150	324	Horizontal	PASS
104.7648	31.96	-30.84	43.50	11.54	150	281	Horizontal	PASS
221.2813	42.79	-31.50	46.00	3.21	150	35	Horizontal	PASS
447.5175	33.13	-24.71	46.00	12.87	150	221	Horizontal	PASS



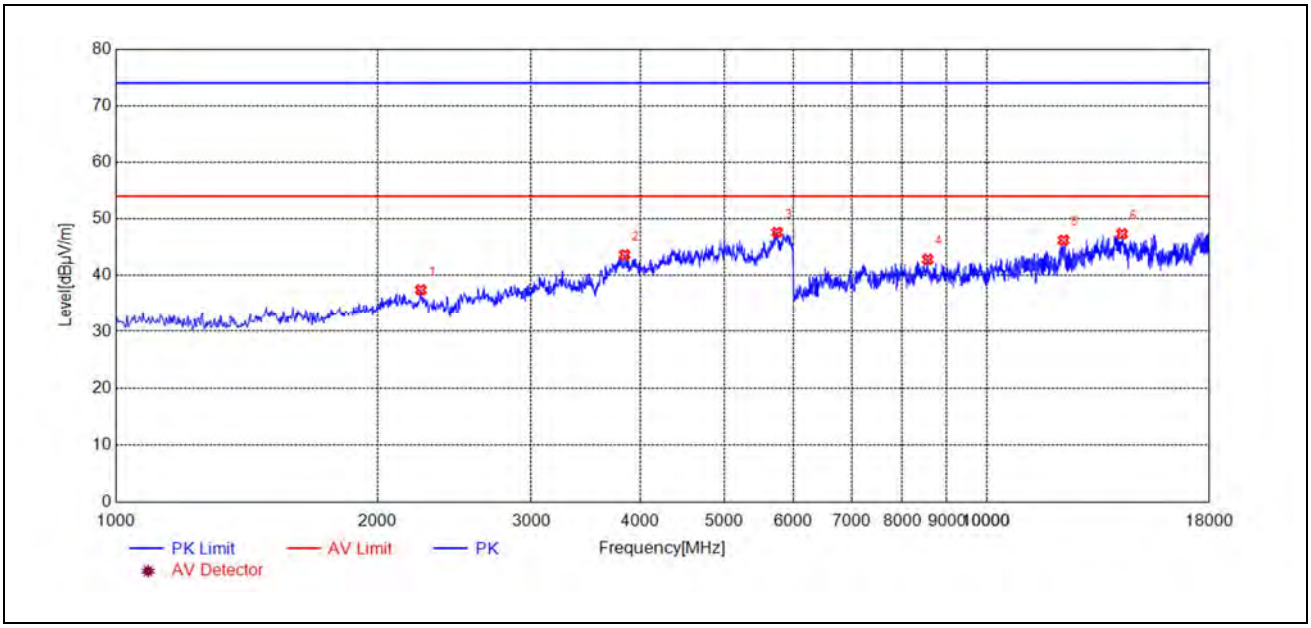
(Antenna Horizontal, 1GHz to 18GHz)

Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
2479.2959	41.04	-20.17	74.00	32.96	150	11	Horizontal	PASS
4971.9944	47.06	-9.83	74.00	26.94	150	253	Horizontal	PASS
5737.1474	47.59	-6.94	74.00	26.41	150	86	Horizontal	PASS
7655.1310	42.98	-2.28	74.00	31.02	150	170	Horizontal	PASS
12249.4499	45.39	5.31	74.00	28.61	150	345	Horizontal	PASS
14075.6151	48.45	6.96	74.00	25.55	150	287	Horizontal	PASS



(Antenna Vertical, 30MHz to 1GHz)

Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
35.8258	26.37	-36.91	40.00	13.63	150	224	Vertical	PASS
41.6517	25.18	-29.90	40.00	14.82	150	249	Vertical	PASS
91.1712	29.38	-33.95	43.50	14.12	150	249	Vertical	PASS
220.3103	35.35	-31.39	46.00	10.65	150	319	Vertical	PASS
438.7788	28.62	-24.95	46.00	17.38	150	249	Vertical	PASS
797.0671	30.71	-20.48	46.00	15.29	150	267	Vertical	PASS



(Antenna Vertical, 1GHz to 18GHz)

Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
2241.2483	37.48	-20.21	74.00	36.52	150	207	Vertical	PASS
3839.5679	43.65	-14.42	74.00	30.35	150	123	Vertical	PASS
5747.3495	47.63	-6.77	74.00	26.37	150	107	Vertical	PASS
8552.9106	42.87	-1.32	74.00	31.13	150	356	Vertical	PASS
12246.0492	46.25	5.23	74.00	27.75	150	140	Vertical	PASS
14296.6593	47.40	7.62	74.00	26.60	150	40	Vertical	PASS

END OF REPORT