

FCC TEST REPORT

FCC ID: 2BOY8-SMARTWATCH

On Behalf of

Shenzhen MyRyDer Technology Co., Ltd.

Smart Watch

Model No.: Smart Watch, M5, M6, M7, M8, M9, M10, M11, M12, C1Plus, C2Plus, C3Plus, C4Plus, C5Plus, C6Plus, C7Pro, C8Pro, C9Pro, C10Pro, C11Pro, C12Pro, C13Pro, C14Pro, C15Pro, C16Pro, C17Pro, C18Pro, C19Pro, C20Pro, C21Pro, C22Pro, C28Pro, C29Pro, C30Pro, C31Pro, C32Pro, C38Pro, C39Pro, C40Pro, C41Pro, C42Pro, C48Pro, C49Pro, C50Pro, C51Pro, C52Pro, C58Pro, C59Pro, C60Pro, C61Pro, C62Pro, C68Pro, C69Pro, C70Pro, C71Pro, C72Pro, C78Pro, C79Pro, C80Pro, C81Pro, C82Pro, C88Pro, C89Pro, C90Pro, C91Pro, C92Pro, C100Pro, C200Pro, C300Pro, C400Pro, C500Pro, C600Pro, C700Pro, C800Pro, C900ProMax, C1000ProMax, C919, 115Plus, D20, 116Plus, 119Plus, D18, D19, Y68, Y56, Fd68, X6, X7, X8, X9, X10, X11, X12, X13, X14, i7, i8, i9, i10, i11, i12, i13, T10, T20, T30, T40, T500, T55, T60, T100, T200, T300, T400, T500, T600, T700, T800, T900, T1000, S8, S9, S10, S11, S12, S13, Watch8, Watch9, Watch10, Watch11, Watch12, Watch13, Watch14, WatchUltra, Ultra2, Ultra3, Ultra4, Ultra5, C9Ultra, C800Ultra, C900Ultra, C1000Ultra, T500Ultra, GT4, GT5, GT6, GT7, GT8, GTS4, GTS5, A1, DZ09, D700, D800, D900, D1000, HiWear, Hiwear, Plus, HryFine, Fitpro, MAILAIDE, H9, H13, H15, H16, H18, H19, H20, Y13, Y15, Y16, QX11, QX12, KT71, Watch Smart, Watch

Prepared for : Shenzhen MyRyDer Technology Co., Ltd.

Address : Dalang Street, Tongsheng Industrial Park Road Puhua Science Park,
Building 1,4/F, Shenzhen City, Longhua District

Prepared By : Shenzhen PSI Testing Co., Ltd.

Address : 1-2/F., Building 5, Yudafu Industrial Park, No.10, Xingye West Road,
Shajing Subdistrict, Bao'an District, Shenzhen, Guangdong, China

Report Number : psi2504170-C01-R02

Date of Receipt : April 9, 2025

Date of Test : April 9, 2025-April 22, 2025

Date of Report : April 27, 2025

Version Number : V0

TABLE OF CONTENTS

Description	Page
1. Summary Of Standards And Results	6
1.1. Description of Standards and Results	6
2. General Information	7
2.1. Description of Device (EUT)	7
2.2. Model list	8
2.3. Accessories of Device (EUT)	8
2.4. Tested Supporting System Details	8
2.5. Block Diagram of connection between EUT and simulators	8
2.6. Test Mode Description	9
2.7. Software test version and power setting information	9
2.8. Test Conditions	10
2.9. Test Facility	10
2.10. Measurement Uncertainty	10
2.11. Test Equipment List	11
3. Maximum Peak Output Power	12
3.1. Limit	12
3.2. Test Procedure	12
3.3. Test Setup	12
3.4. Test Result	12
4. Bandwidth	13
4.1. Limit	13
4.2. Test Procedure	13
4.3. Test Result	13
5. Carrier Frequency Separation	25
5.1. Limit	25
5.2. Test Procedure	25
5.3. Test Result	25
6. Number Of Hopping Channel	31
6.1. Limit	31
6.2. Test Procedure	31
6.3. Test Result	31
7. Dwell Time	34
7.1. Test limit	34
7.2. Test Procedure	34
7.3. Test Result	34
8. Out-of-band Emissions	44
8.1. Test Limits	44
8.2. Test Procedure	44
8.3. Test Setup	44
8.4. Test Results	44
Band Edge(Hopping)	52
9. Radiated Emissions	69

9.1. Limit	69
9.2. Block Diagram of Test setup	72
9.3. Test Procedure	73
9.4. Test Results	73
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.	73
10. Band Edge Test	81
10.1. Block Diagram of Test Setup	81
10.2. Test Limit	81
10.3. Test Procedure	81
10.4. Test Results	82
11. Power Line Conducted Emissions	85
11.1. Block Diagram of Test Setup	85
11.2. Limit	85
11.3. Test Procedure	85
11.4. Test Results	86
12. Frequency stability	89
12.1. Test limit	89
12.2. Test Procedure	89
12.3. Test Setup	89
12.4. Test Results	89
13. Antenna Requirements	90
13.1. Limit	90
13.2. Result	90
14. Photos of test setup	91
15. Photos of EUT	91

TEST REPORT DECLARATION

Applicant : Shenzhen MyRyDer Technology Co., Ltd.
Address : Dalang Street, Tongsheng Industrial Park Road Puhua Science Park, Building
1,4/F, Shenzhen City, Longhua District
Manufacturer : Shenzhen MyRyDer Technology Co., Ltd.
Address : Dalang Street, Tongsheng Industrial Park Road Puhua Science Park, Building
1,4/F, Shenzhen City, Longhua District
EUT Description : Smart Watch
(A) Model No. : For detailed information, please refer to the model
list in Chapter 2.2
(B) Trademark : /

Measurement Standard Used:

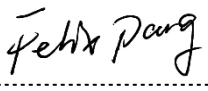
FCC Rules and Regulations Part 15 Subpart C Section 15.247

ANSI C63.10:2013

Test Result: PASS

The device described above is tested by Shenzhen PSI Testing Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The test results are contained in this test report and Shenzhen PSI Testing Co., Ltd. is assumed full responsibility for the accuracy and completeness of test. Also, this report shows that the EUT is technically compliant with the FCC Part 15C requirements.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen PSI Testing Co., Ltd.

Tested by (name + signature).....: Felix Pang
Test Engineer 
Approved by (name + signature).....: Simple Guan
Project Manager 
Date of issue.....: April 27, 2025

Revision History

Revision	Issue Date	Revisions	Revised By
V0	April 27, 2025	Initial released Issue	Felix Pang



1. Summary Of Standards And Results

1.1. Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below:

Test Item	Standards Paragraph	Result
Maximum Peak Output Power	FCC Part 15: 15.247(b)(1), RSS-247(5.4 b), ANSI C63.10 :2013	P
Bandwidth	FCC Part 15: 15.215, RSS-247(5.1 a), ANSI C63.10 :2013	P
Carrier Frequency Separation	FCC Part 15: 15.247(a)(1), RSS-247(5.1 b), ANSI C63.10 :2013	P
Number Of Hopping Channel	FCC Part 15: 15.247(a)(1), RSS-247(5.1 d),ANSI C63.10 :2013	P
Dwell Time	FCC Part 15: 15.247(a)(1), RSS-247(5.1 d),ANSI C63.10 :2013	P
Radiated Spurious Emission	FCC Part 15: 15.209, FCC Part 15: 15.247(d), RSS-Gen(8.9), RSS-247(5.5), ANSI C63.10 :2013	P
Out-of-band Emissions	FCC Part 15: 15.247(d), RSS-Gen(8.9), RSS-247(5.5), ANSI C63.10 :2013	P
Radiated Band Edge Emission	FCC Part 15: 15.247(d), RSS-Gen(6.13), RSS-247(5.5), ANSI C63.10 :2013	P
Power Line Conducted Emissions	FCC Part 15: 15.207, RSS-GEN(8.8),ANSI C63.10 :2013	P
Frequency stability	RSS-GEN(6.11)	N/A
Antenna requirement	FCC Part 15: 15.203, RSS-GEN(6.8)	P
Note: 1. P is an abbreviation for Pass. 2. F is an abbreviation for Fail. 3. N/A is an abbreviation for Not Applicable. 4. Conclusion determination rules of this report: Unless there are clear provisions on measurement uncertainty in the standard or customer requirements, decision by actual test data without considering measurement uncertainty. 5. Measurement method usage KDB 558074 D01 15.247 Meas Guidance v05r02.		

2. General Information

2.1. Description of Device (EUT)

Product Name : Smart Watch

Model No. : Smart Watch

Diff : Smart Watch is the test model, while other models are derivative models. These models are the same on the circuit, with only different model names and colors. Therefore, the test data of Smart Watch can represent the remaining models.

Power supply : Input: DC 5 V or DC 3.7 V powered by battery

Radio Technology : Bluetooth BR&EDR

Operation frequency : 2402-2480MHz

Channel No. : 79 channels

Channel Separation : 1MHz

Modulation : GFSK, $\pi/4$ -DQPSK, 8DPSK

Antenna Type : Wire antenna, maximum gain is 0dBi.

PMN : N/A

HVIN : N/A

Software version : V1.0

Hardware version/FVIN : V1.0

Note : Antenna information is provided by applicant.
Testing lab is not responsible for the accuracy of the information.

2.2. Model list

Smart Watch, M5, M6, M7, M8, M9, M10, M11, M12, C1Plus, C2Plus, C3Plus, C4Plus, C5Plus, C6Plus, C7Pro, C8Pro, C9Pro, C10Pro, C11Pro, C12Pro, C13Pro, C14Pro, C15Pro, C16Pro, C17Pro, C18Pro, C19Pro, C20Pro, C21Pro, C22Pro, C28Pro, C29Pro, C30Pro, C31Pro, C32Pro, C38Pro, C39Pro, C40Pro, C41Pro, C42Pro, C48Pro, C49Pro, C50Pro, C51Pro, C52Pro, C58Pro, C59Pro, C60Pro, C61Pro, C62Pro, C68Pro, C69Pro, C70Pro, C71Pro, C72Pro, C78Pro, C79Pro, C80Pro, C81Pro, C82Pro, C88Pro, C89Pro, C90Pro, C91Pro, C92Pro, C100Pro, C200Pro, C300Pro, C400Pro, C500Pro, C600Pro, C700Pro, C800Pro, C900ProMax, C1000ProMax, C919, 115Plus, D20, 116Plus, 119Plus, D18, D19, Y68, Y56, Fd68, X6, X7, X8, X9, X10, X11, X12, X13, X14, i7, i8, i9, i10, i11, i12, i13, T10, T20, T30, T40, T500, T55, T60, T100, T200, T300, T400, T500, T600, T700, T800, T900, T1000, S8, S9, S10, S11, S12, S13, Watch8, Watch9, Watch10, Watch11, Watch12, Watch13, Watch14, WatchUltra, Ultra2, Ultra3, Ultra4, Ultra5, C9Ultra, C800Ultra, C900Ultra, C1000Ultra, T500Ultra, GT4, GT5, GT6, GT7, GT8, GTS4, GTS5, A1, DZ09, D700, D800, D900, D1000, HiWear, Hiwear, Plus, HryFine, Fitpro, MAILAIDE, H9, H13, H15, H16, H18, H19, H20, Y13, Y15, Y16, QX11, QX12, KT71, Watch Smart, Watch

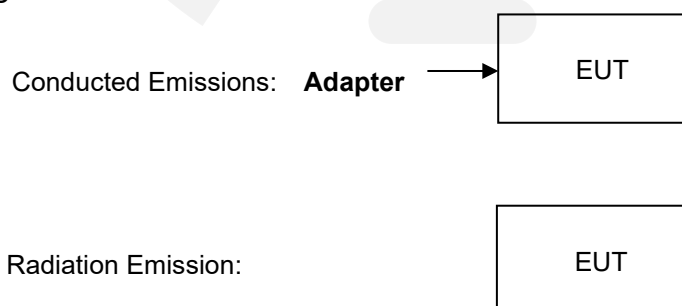
2.3. Accessories of Device (EUT)

Accessories 1 : N/A
 Manufacturer : N/A
 Model : N/A
 Rating : N/A

2.4. Tested Supporting System Details

No.	Description	Manufacturer	Model	Serial Number
1	Adapter	HUAWEI	HW-059200CHQ	/
2	N/A	N/A	N/A	N/A

2.5. Block Diagram of connection between EUT and simulators



2.6. Test Mode Description

The test software used to control EUT work in Continuous TX mode, and select test channel, wireless mode

Tested mode, channel, and data rate information		
Mode	Channel	Frequency (MHz)
GFSK / Pi/4-DQPSK / 8DPSK Carrier Tx Mode	CH0	2402
	CH39	2441
	CH78	2480
GFSK / Pi/4-DQPSK / 8DPSK hopping on Tx Mode	CH0 to CH78	2402 to 2480
GFSK / Pi/4-DQPSK / 8DPSK hopping off Tx Mode	CH0	2402
	CH39	2441
	CH78	2480

2.7. Software test version and power setting information

Software testing version	bt_tool_v1.1.2		
Mode	The client 's preset testing software is used to control the operation of EUT in continuous transmission mode and select the testing channel, wireless mode:		
Power level setup by client			
Mode	Channel	Frequency (MHz)	Soft Set
GFSK, Pi/4-DQPSK, 8DPSK	CH0	2402	TX level is set as defaults value.
	CH39	2441	TX level is set as defaults value.
	CH78	2480	TX level is set as defaults value.

2.8. Test Conditions

Items	Required	Actual
Temperature range:	15-35℃	26℃
Humidity range:	25-75%	54%
Pressure range:	86-106kPa	101kPa

2.9. Test Facility

Shenzhen PSI Testing Co., Ltd.

1-2/F., Building 5, Yudafu Industrial Park, No.10, Xingye West Road, Shajing Subdistrict, Bao'an District, Shenzhen, Guangdong, China

September 13, 2023 File on Federal Communication Commission

Registration Number: 916281

2.10. Measurement Uncertainty

(95% confidence levels, k=2)

Item	Uncertainty
Uncertainty for Power point Conducted Emissions Test	2.17dB
Uncertainty for Radiation Emission test in 3m chamber (below 30MHz)	3.5dB
Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz)	2.74dB(Polarize: V)
	2.76dB(Polarize: H)
Uncertainty for Radiation Emission test in 3m chamber (1GHz to 18GHz)	4.29dB(Polarize: V)
	4.82dB(Polarize: H)
Uncertainty for Radiation Emission test in 3m chamber (18GHz to 40GHz)	4.31 dB(Polarize: V)
	4.30 dB(Polarize: H)
Uncertainty for radio frequency	48.24KHz
Uncertainty for conducted RF Power	0.41dB
Occupied-Bandwidth	968Hz

2.11. Test Equipment List

Item	Equipment	Manufacturer	Model No.	Serial No.	Firmware Version	Last Cal.	Cal. Interval
1.	9*6*6 anechoic chamber	SKET	9*6*6	N/A	/	2022.12.20	3 Year
2.	Test Receiver	Rohde&Schwarz	ESCI 7	101032/003	4.42 SP3	2024.12.18	1 Year
3.	L.I.S.N.#1	Rohde&Schwarz	ENV216	102282	/	2024.12.18	1 Year
4.	L.I.S.N.#2	RFT	NNB111	13835240	/	2024.12.18	1 Year
5.	Loop Antenna	Schwarz beck	FMZB 1519B	00128	/	2025.01.02	2 Year
6.	Bilog Antenna	Schwarz beck	VULB 9168	01448	/	2025.01.02	2 Year
7.	Spectrum Analyzer	Rohde&Schwarz	FSV-40N	101648	3.70	2024.12.18	1 Year
8.	Horn Antenna	Schwarz beck	BBHA 9120 D	02706	/	2025.01.02	2 Year
9.	Amplifier	SKET	LAPA_01G18 G-45dB	SK202203290 1	/	2024.12.18	1 Year
10.	Horn Antenna	Schwarz beck	BBHA 9170	00946	/	2024.12.31	2 Year
11.	Amplifier	SKET	LNPA_0118G -45	SK202001080 1	/	2024.12.18	1 Year
12.	RF Power Probe	Rohde&Schwarz	NRP-Z11	1138.3004.02- 1111533-Fz	/	2024.12.18	1 Year
13.	RF Sensor Unit	Tachoy	TR1029-2	20220428P00 8	/	2024.12.18	1 Year
14.	Spectrum Analyzer	Agilent	N9020A	MY51281067	A.14.03	2024.12.18	1 Year
15.	Temp. & Humid Chamber	Auchno	9606	/	/	2024.12.18	1 Year
16.	Regulated DC Power Supply	Xinouhua	ADC120V10 A	202211251638	/	2024.12.18	1 Year
17.	Cable	SKET	Cable-RE-1	#02/#03	/	2024.12.18	1 Year
18.	Cable	SKET	Cable-RE-2	#01	/	2024.12.18	1 Year
19.	Cable	SKET	Cable-RE-3	#04	/	2024.12.18	1 Year
20.	Cable	SKET	Cable-CE-1	A-E-24	/	2024.12.18	1 Year
21.	6dB Attenuator	Schwarzbeck	DGA 9552N 6dB	CK4186	/	2024.12.18	1 Year
22.	Power meter	Agilent	E4419B	GB40202121	/	2024.12.18	1 Year
For Test Software Information							
Item	Software Name	Manufacturer		Version			
RE	EZ EMC	Farad		PSI-3A1			
CE	EZ EMC	Farad		PSI-3A1			
RF	RTS	TACHOY		V1.0.0			

3. Maximum Peak Output Power

3.1. Limit

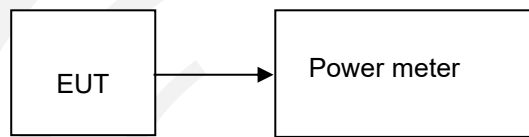
Please refer FCC part 15.247 & RSS-247.

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts, the e.i.r.p shall not exceed 4W

3.2. Test Procedure

The transmitter output is connected to the RF Power meter. The Power meter is set to the peak power detection.

3.3. Test Setup



3.4. Test Result

Mode	Test channel	Peak Output Power (dBm)	Peak Output Power Limit (dBm)	Result
GFSK	Lowest	-0.38	30.00	Pass
	Middle	0.38		
	Highest	1.45		
$\pi/4$ DQPSK	Lowest	0.58	21.00	Pass
	Middle	1.41		
	Highest	2.6		
8DPSK	Lowest	1.36	21.00	Pass
	Middle	2.14		
	Highest	3.29		

4. Bandwidth

4.1. Limit

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in RSS-GEN, FCC Section 15.247(a)(1), must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

4.2. Test Procedure

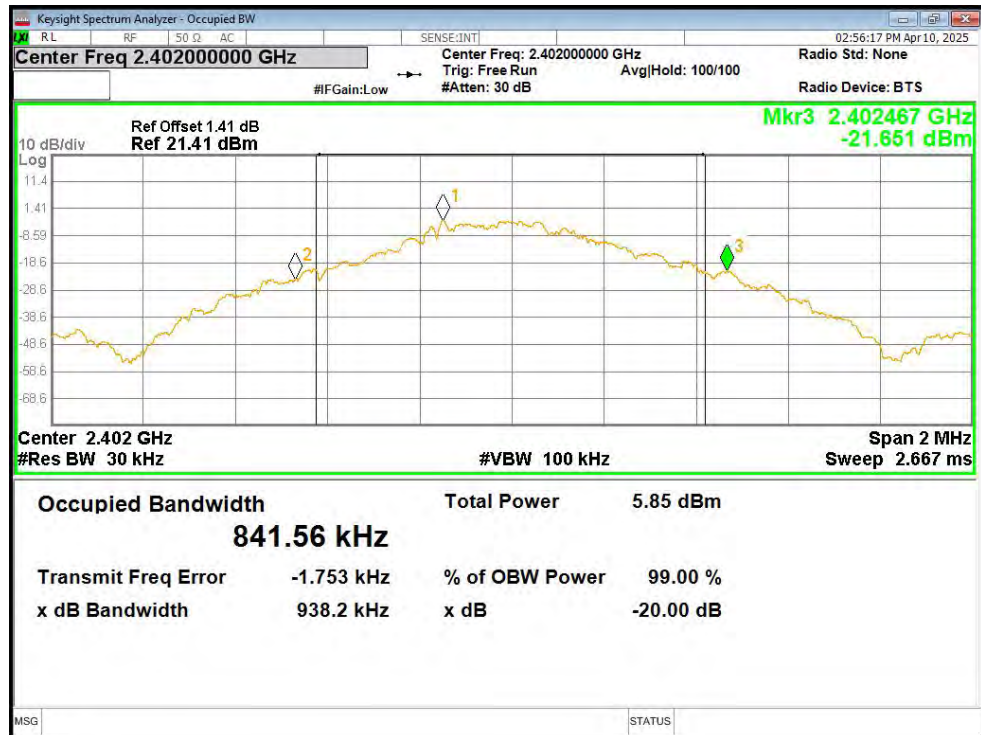
The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 30kHz RBW and 100kHz VBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

4.3. Test Result

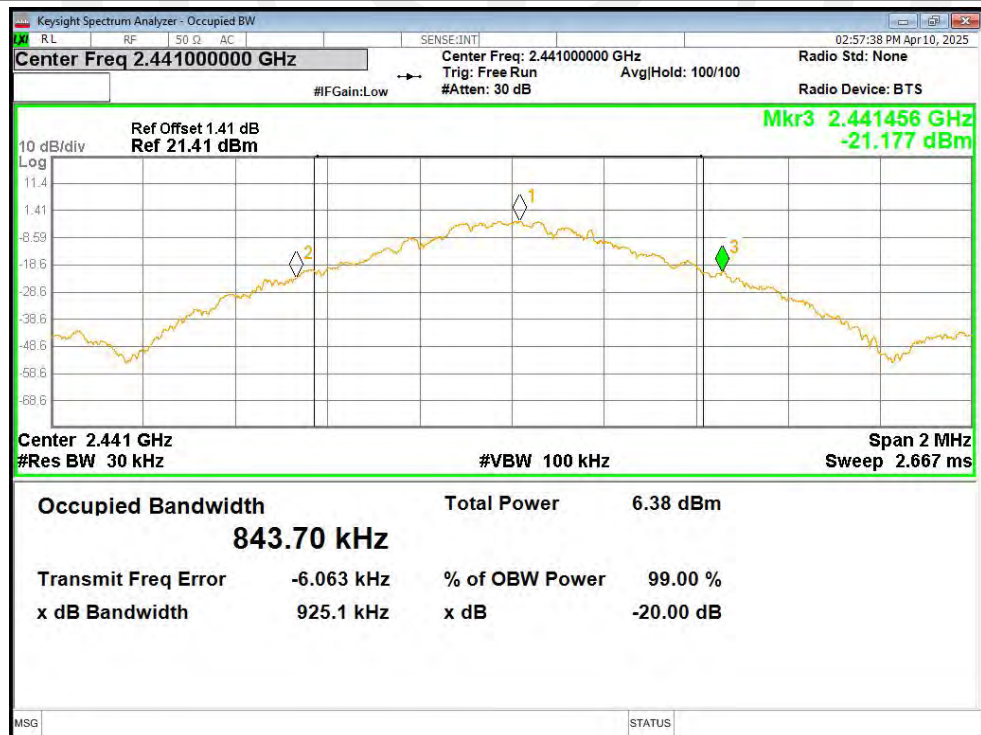
Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Verdict
1-DH5	2402	Ant1	0.938	Pass
1-DH5	2441	Ant1	0.925	Pass
1-DH5	2480	Ant1	0.913	Pass
2-DH5	2402	Ant1	1.277	Pass
2-DH5	2441	Ant1	1.277	Pass
2-DH5	2480	Ant1	1.281	Pass
3-DH5	2402	Ant1	1.252	Pass
3-DH5	2441	Ant1	1.239	Pass
3-DH5	2480	Ant1	1.284	Pass

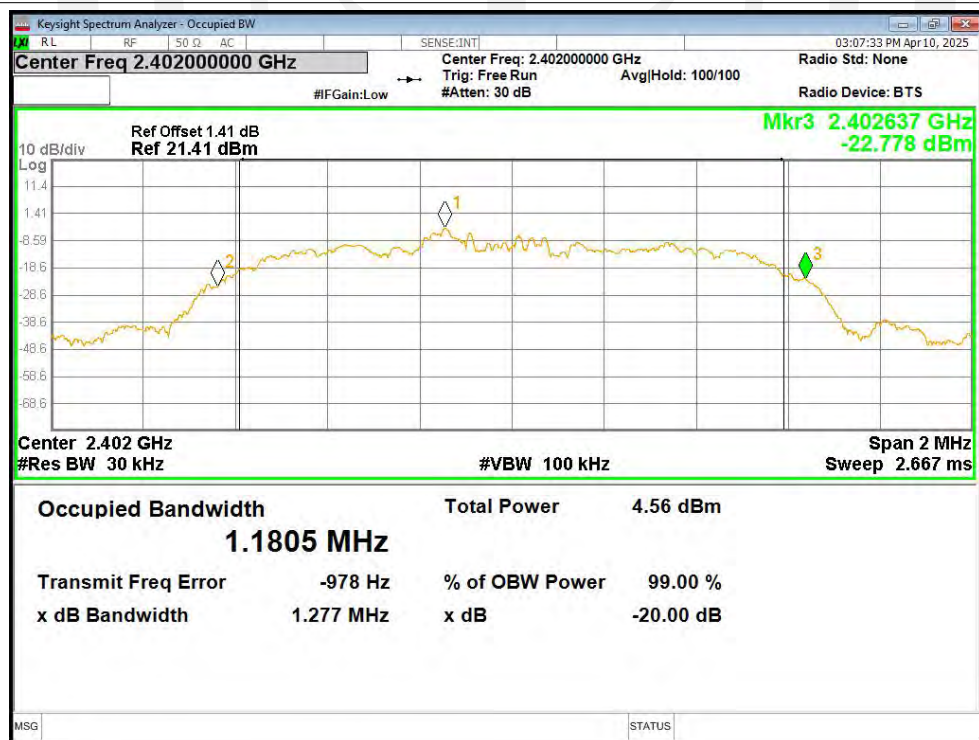
Test Graphs

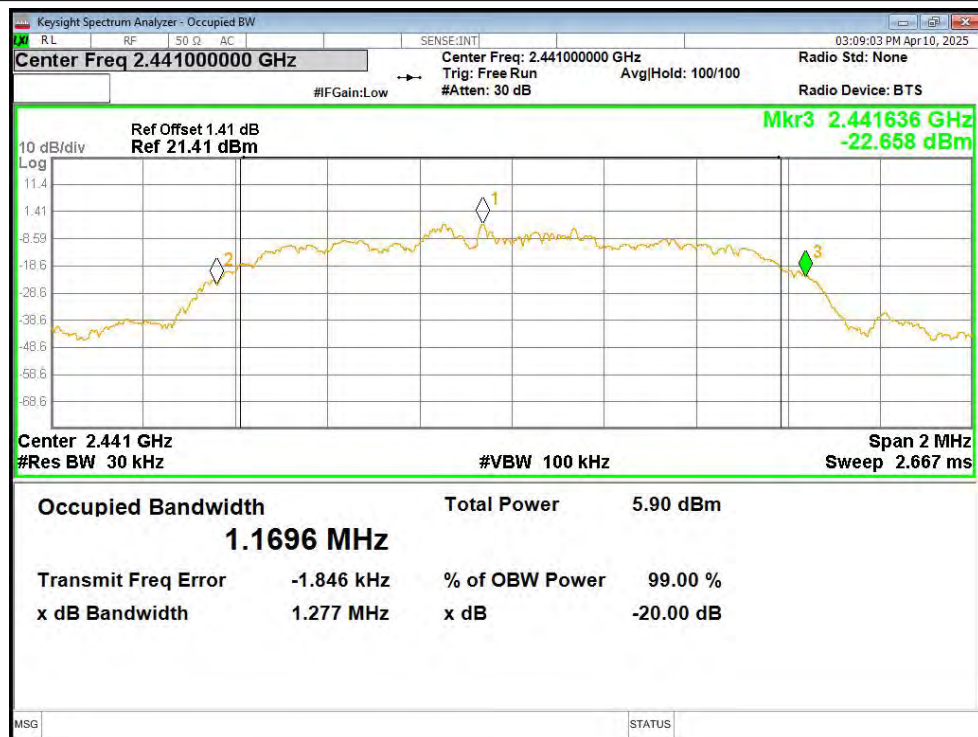
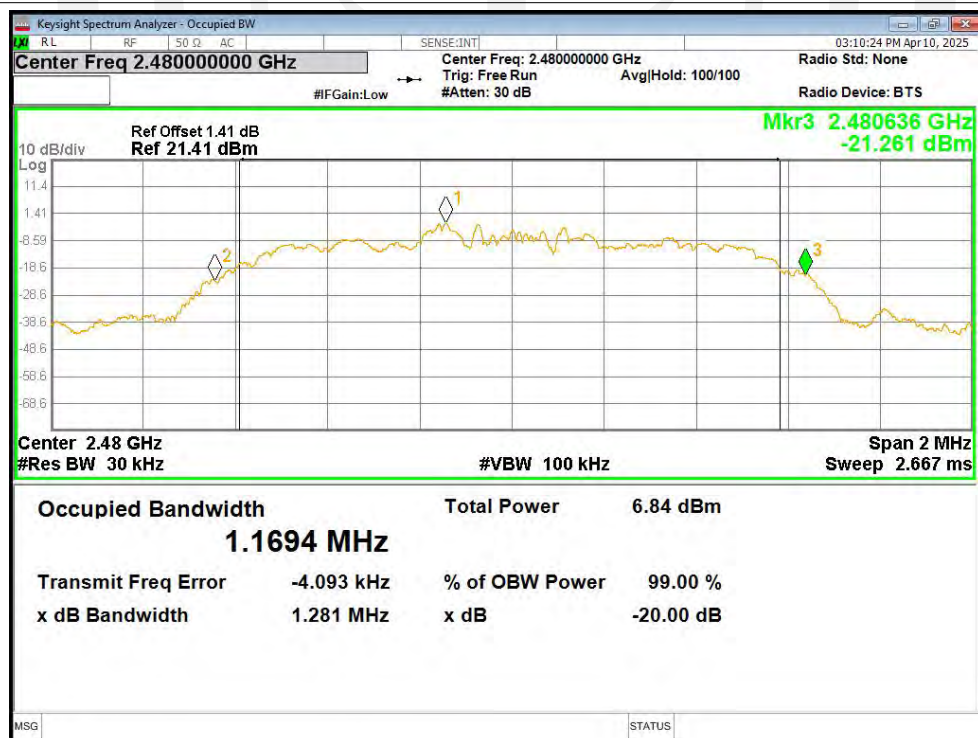
-20dB Bandwidth NVNT 1-DH5 2402MHz Ant1

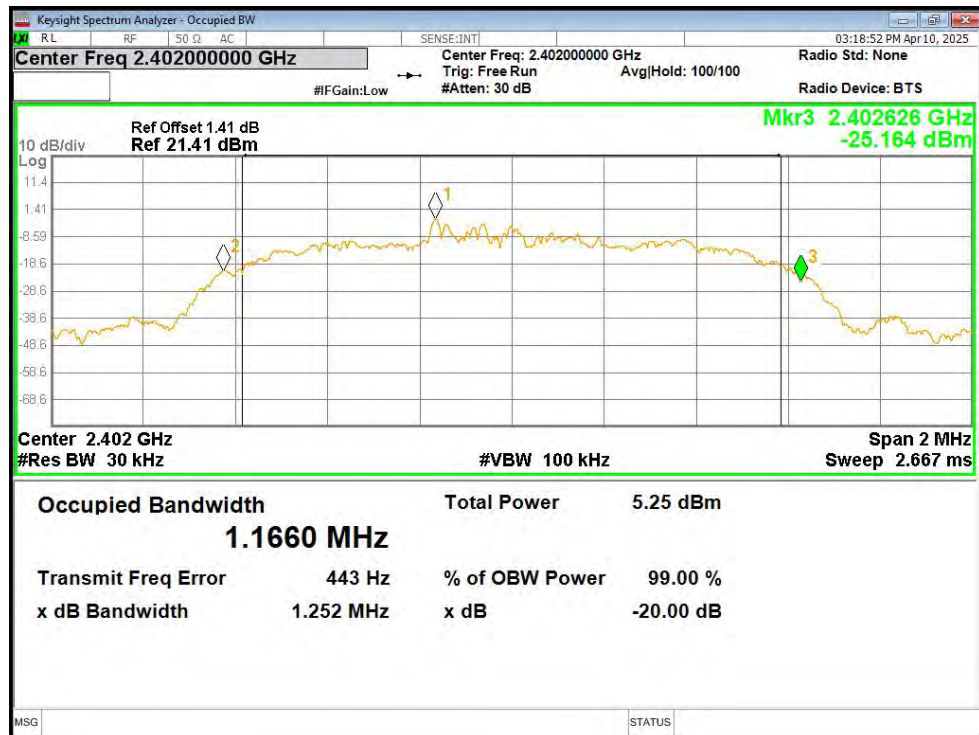
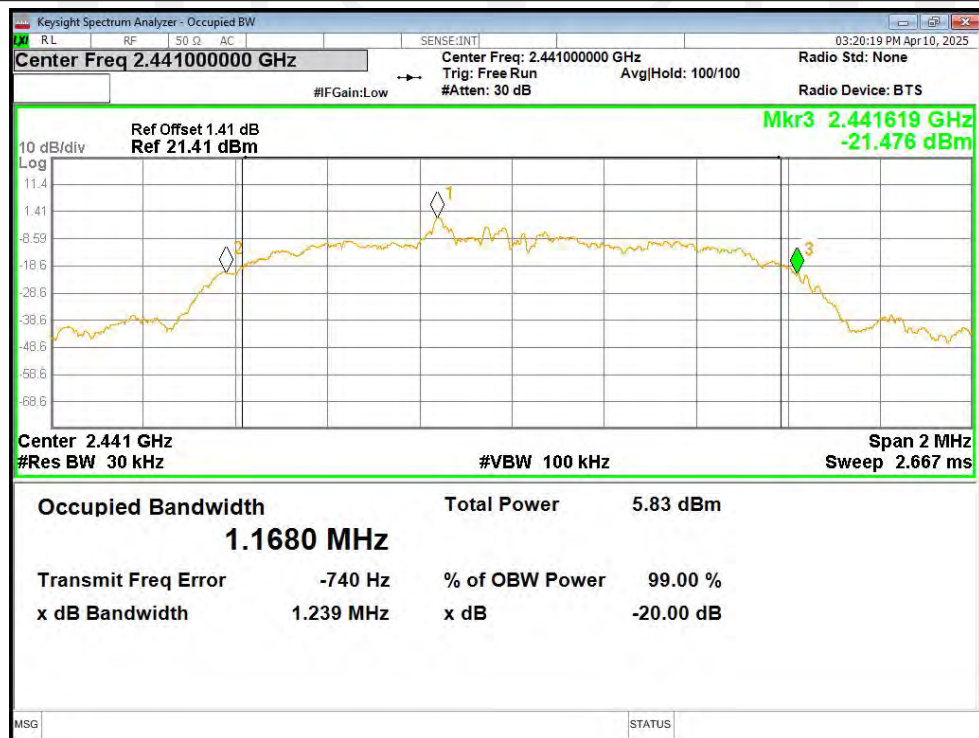


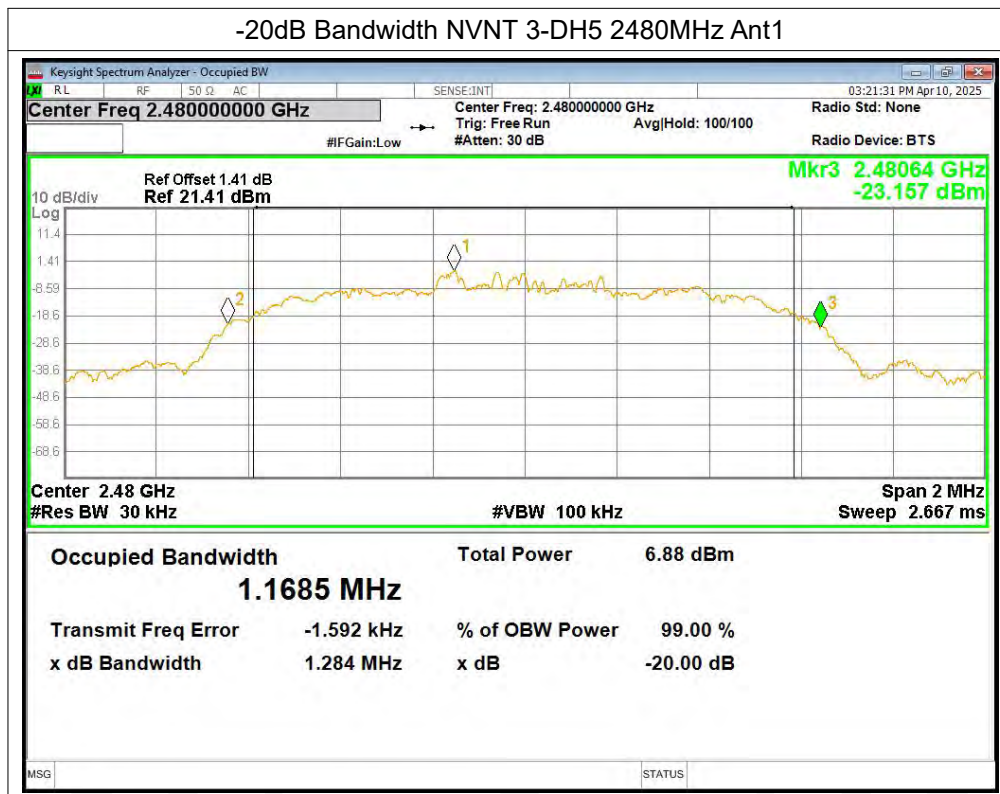
-20dB Bandwidth NVNT 1-DH5 2441MHz Ant1



-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**

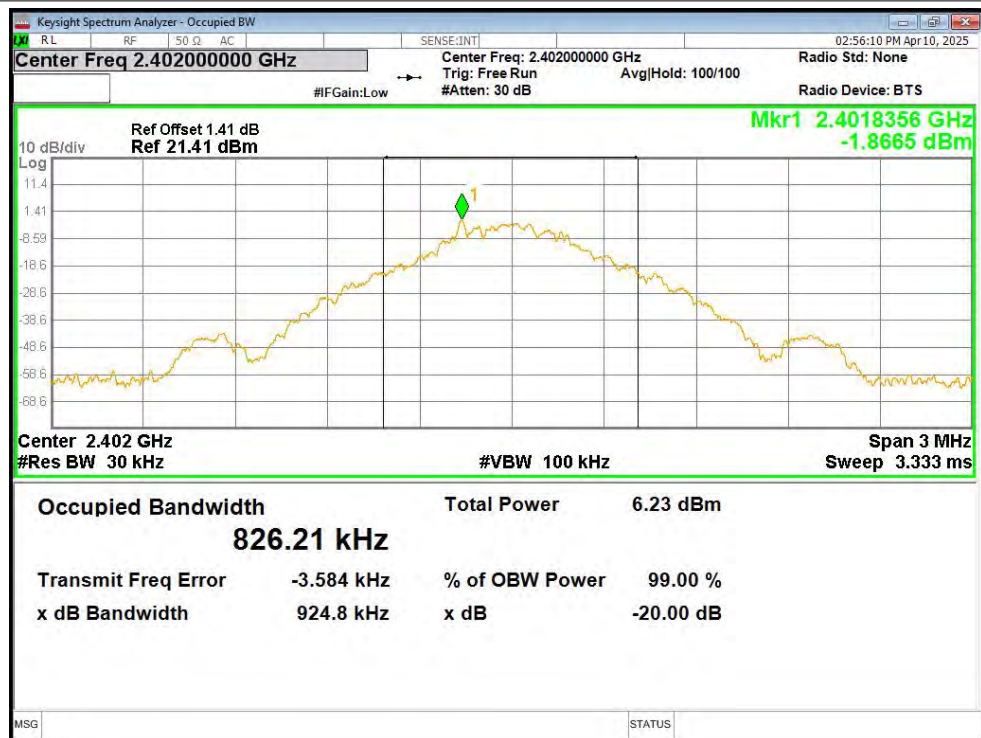


Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
1-DH5	2402	Ant1	0.826
1-DH5	2441	Ant1	0.851
1-DH5	2480	Ant1	0.836
2-DH5	2402	Ant1	1.177
2-DH5	2441	Ant1	1.169
2-DH5	2480	Ant1	1.18
3-DH5	2402	Ant1	1.173
3-DH5	2441	Ant1	1.168
3-DH5	2480	Ant1	1.17

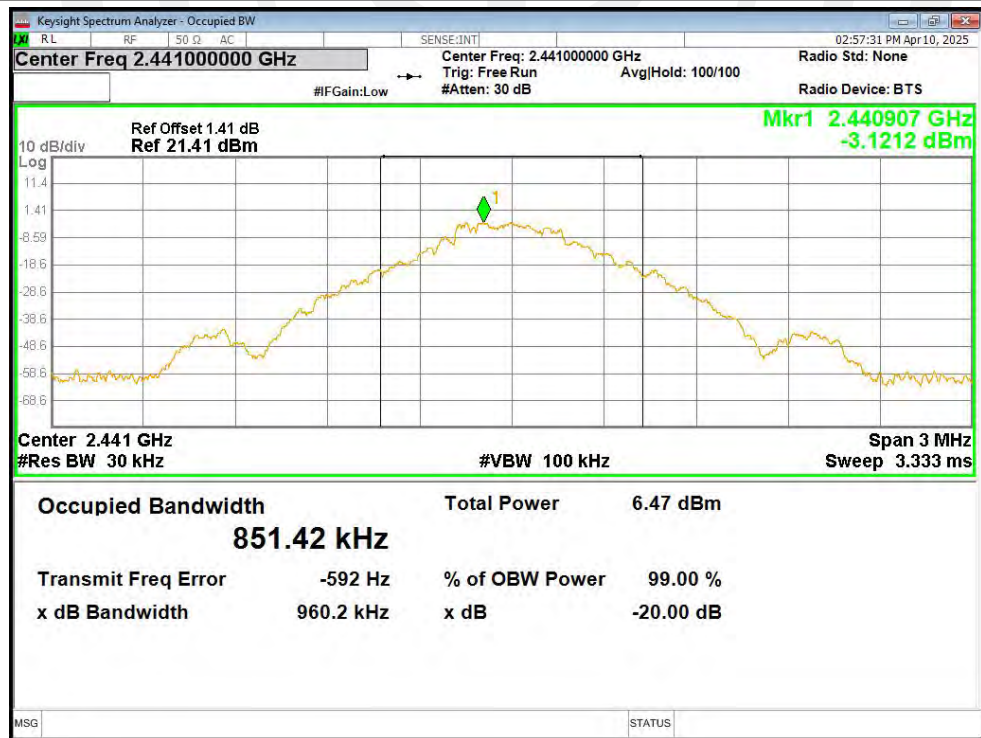


Test Graphs

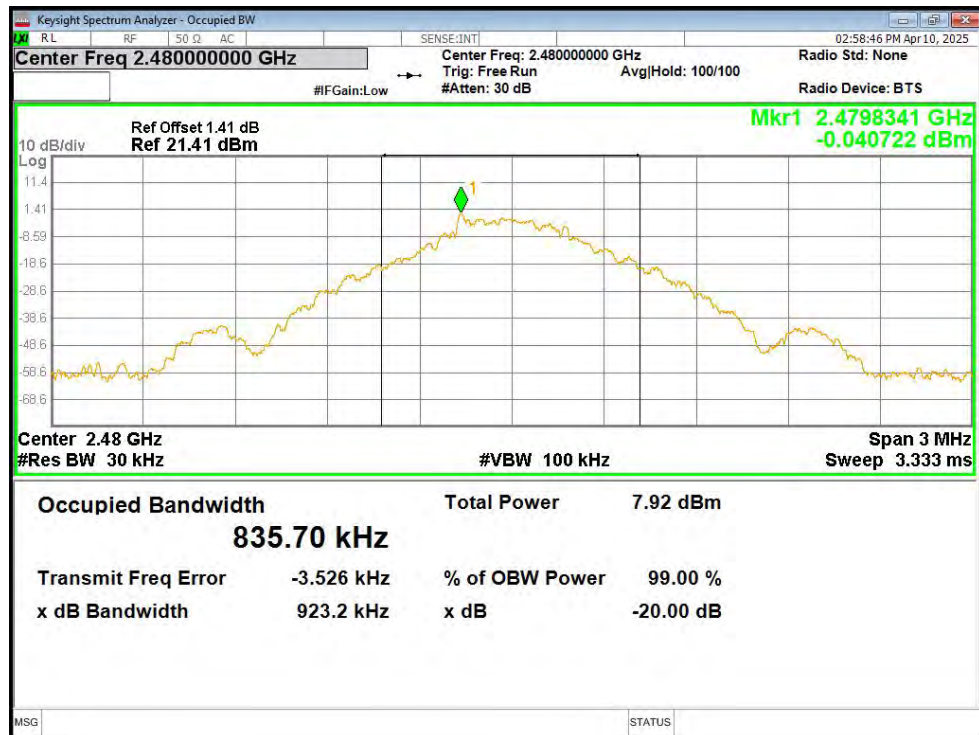
OBW NVNT 1-DH5 2402MHz Ant1



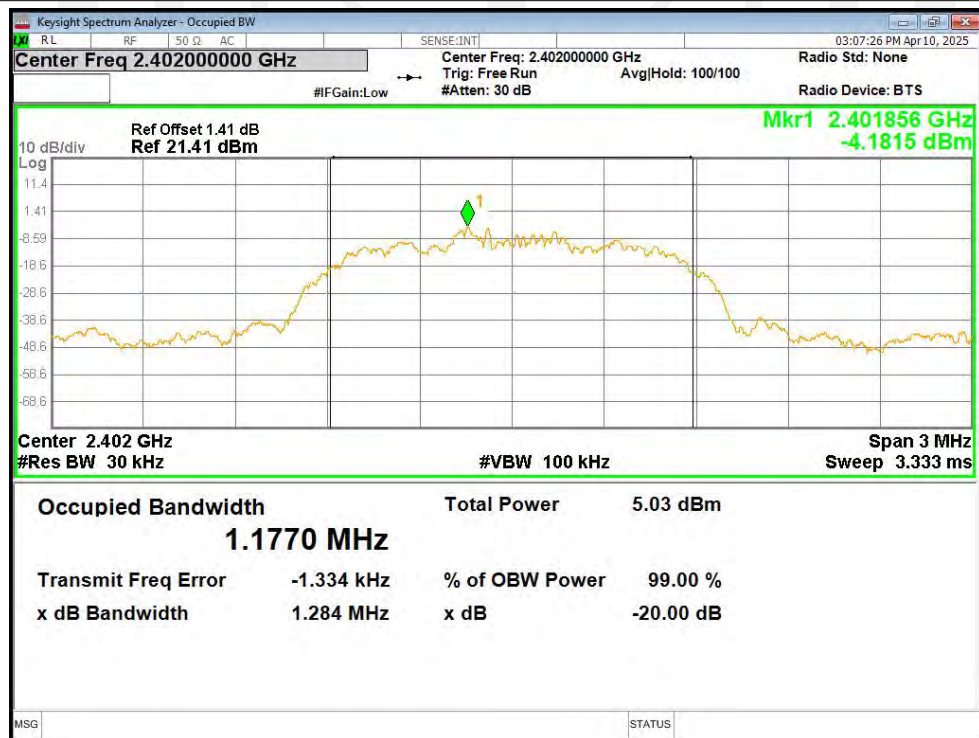
OBW NVNT 1-DH5 2441MHz Ant1



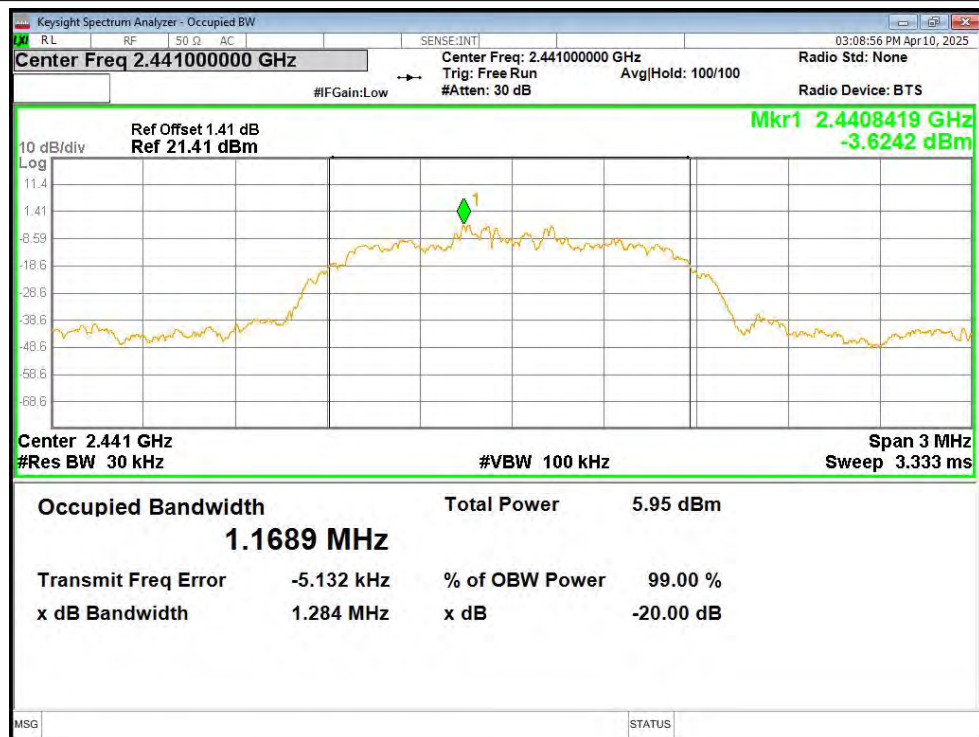
OBW NVNT 1-DH5 2480MHz Ant1



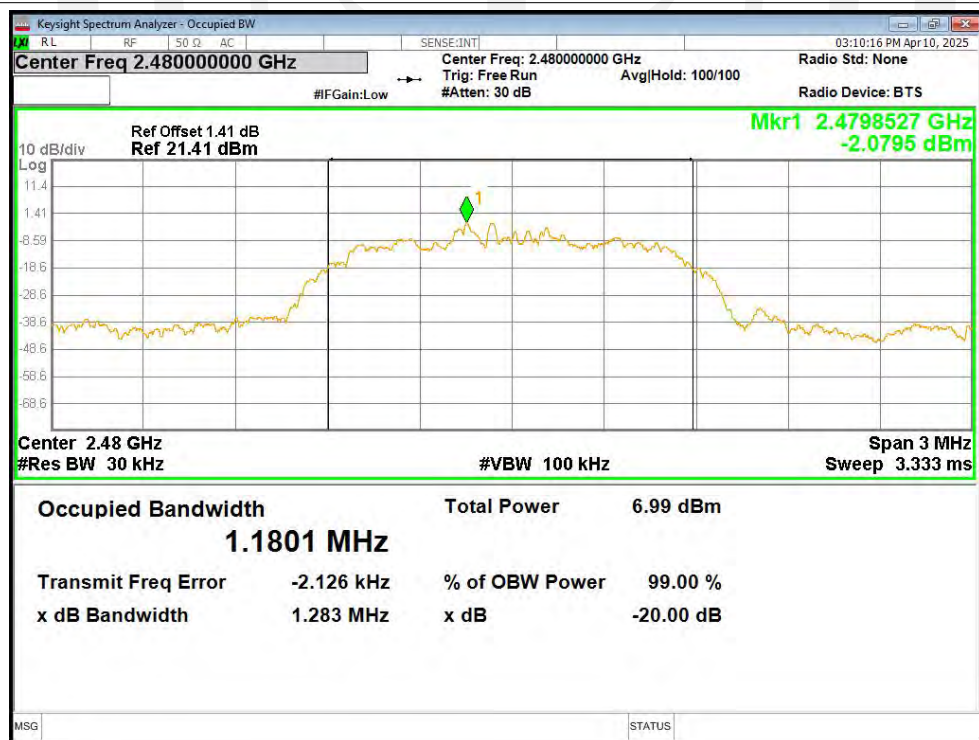
OBW NVNT 2-DH5 2402MHz Ant1



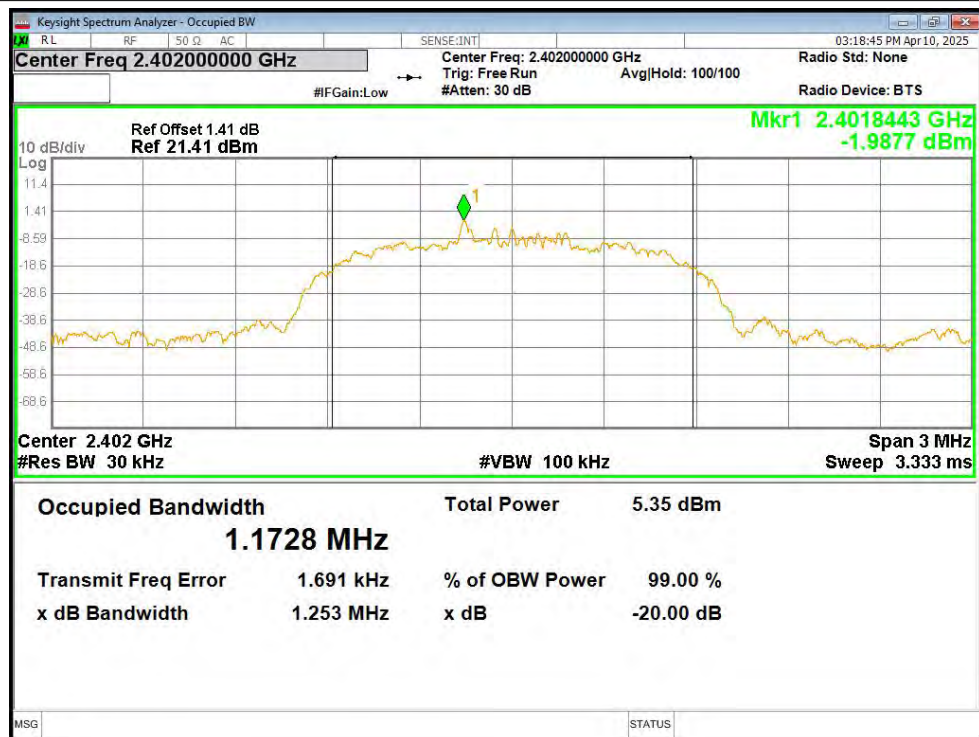
OBW NVNT 2-DH5 2441MHz Ant1



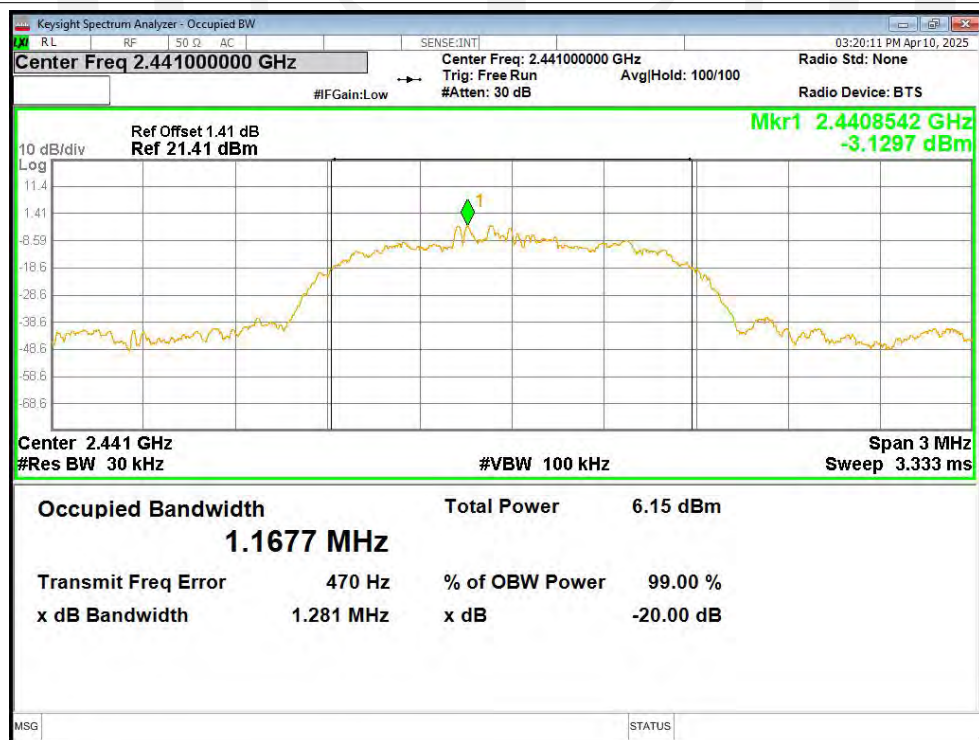
OBW NVNT 2-DH5 2480MHz Ant1

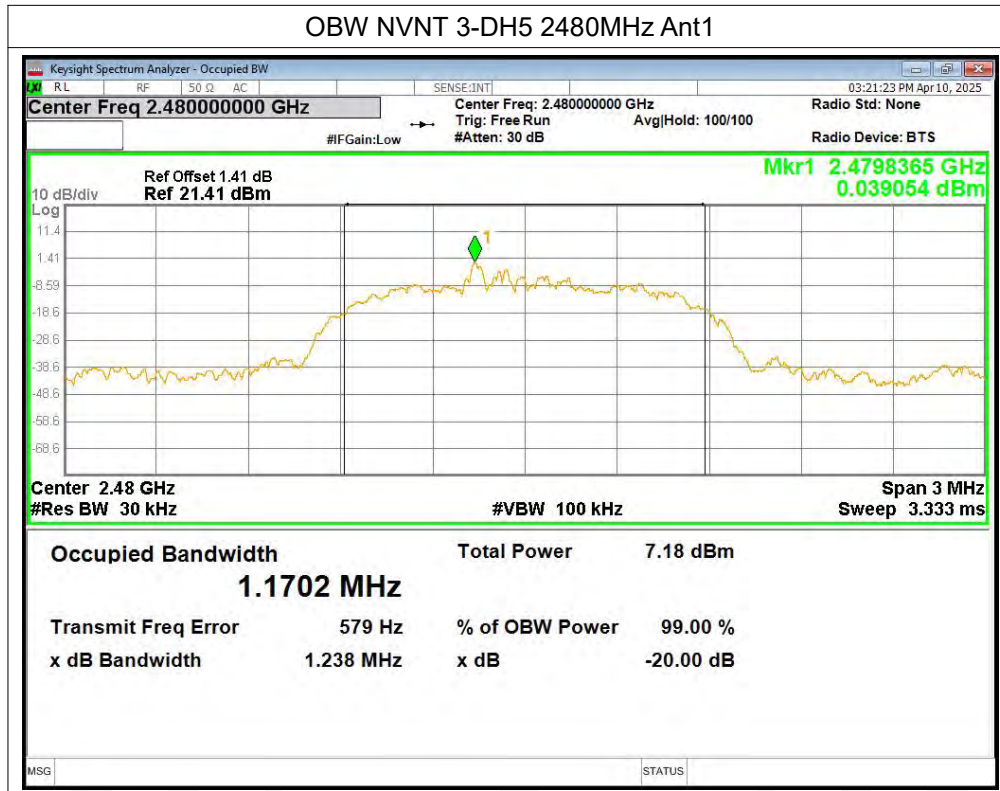


OBW NVNT 3-DH5 2402MHz Ant1



OBW NVNT 3-DH5 2441MHz Ant1





5. Carrier Frequency Separation

5.1. Limit

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW

Please refer FCC part 15.247 & RSS-247.

5.2. Test Procedure

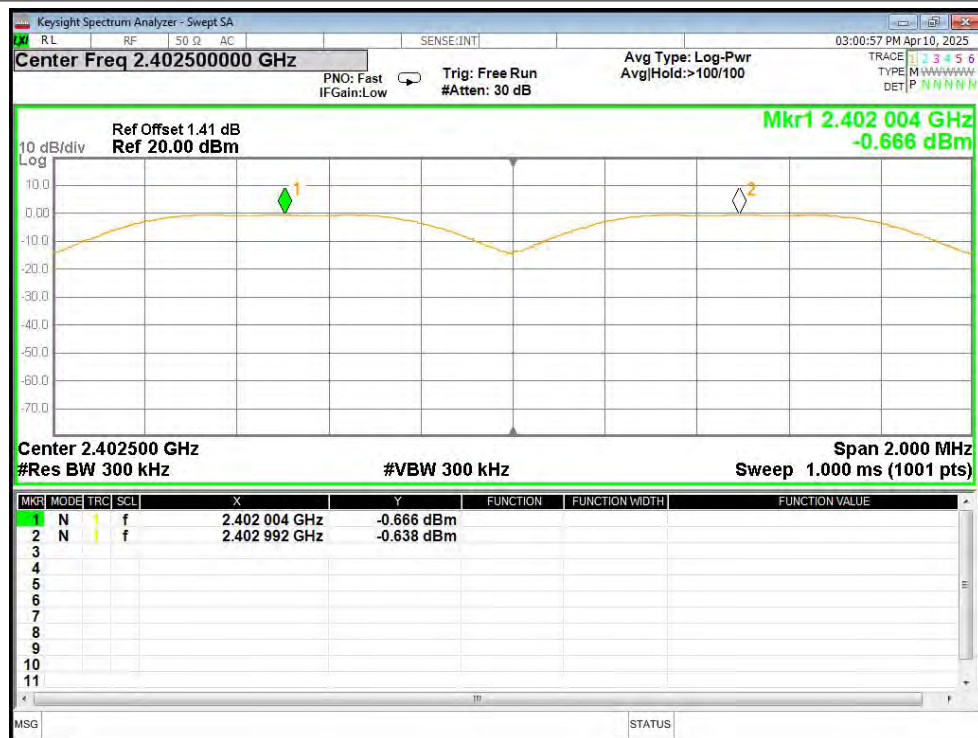
The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The carrier frequency was measured by spectrum analyzer with 300kHz RBW and 300kHz VBW.

5.3. Test Result

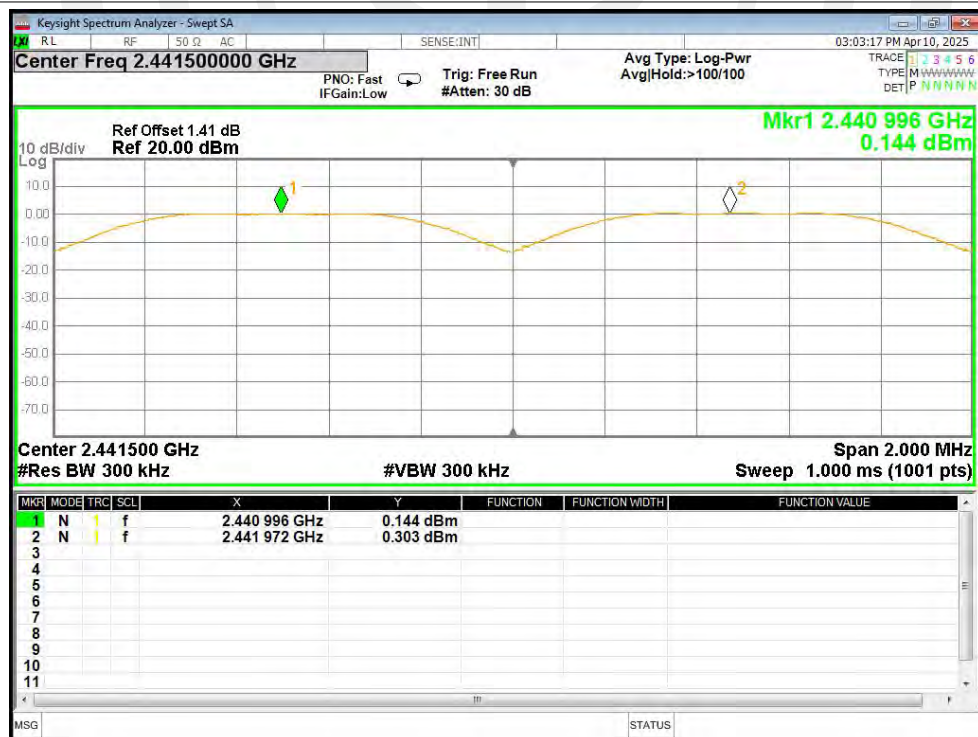
Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
1-DH5	Ant1	2402.004	2402.992	0.988	0.625	Pass
1-DH5	Ant1	2440.996	2441.972	0.976	0.617	Pass
1-DH5	Ant1	2479.004	2479.828	0.824	0.609	Pass
2-DH5	Ant1	2401.8188	2402.8536	1.0348	0.851	Pass
2-DH5	Ant1	2440.8344	2441.8458	1.0114	0.851	Pass
2-DH5	Ant1	2478.8292	2479.825	0.9958	0.854	Pass
3-DH5	Ant1	2402.1438	2403.1318	0.988	0.835	Pass
3-DH5	Ant1	2440.837	2441.838	1.001	0.826	Pass
3-DH5	Ant1	2478.8422	2479.8328	0.9906	0.856	Pass

Test Graphs

CFS NVNT 1-DH5 2402MHz Ant1



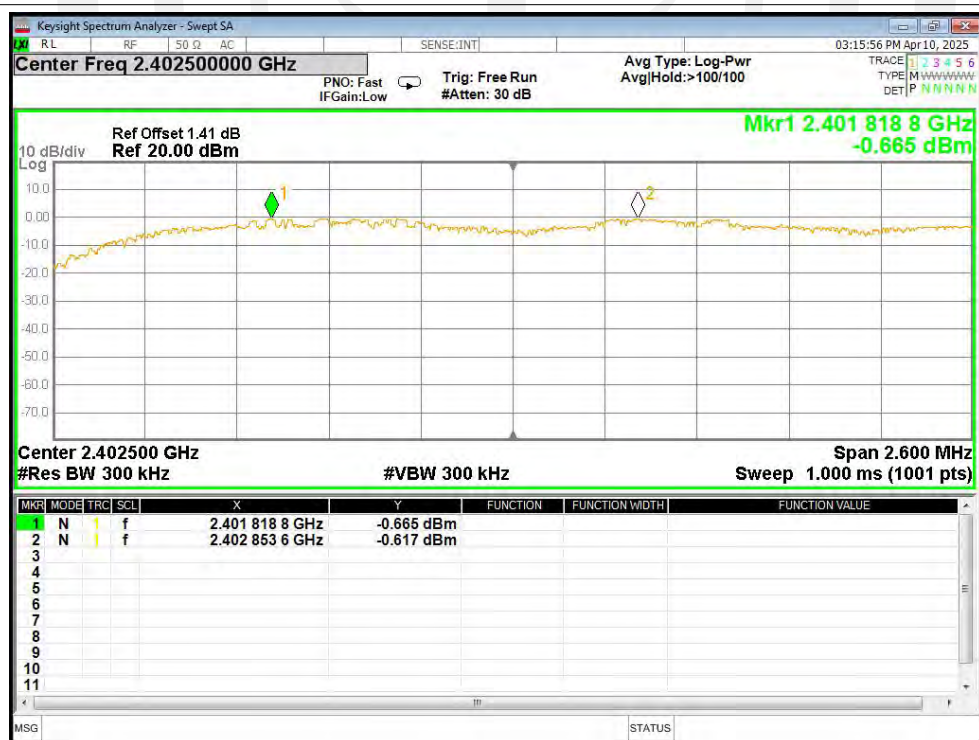
CFS NVNT 1-DH5 2441MHz Ant1



CFS NVNT 1-DH5 2480MHz Ant1



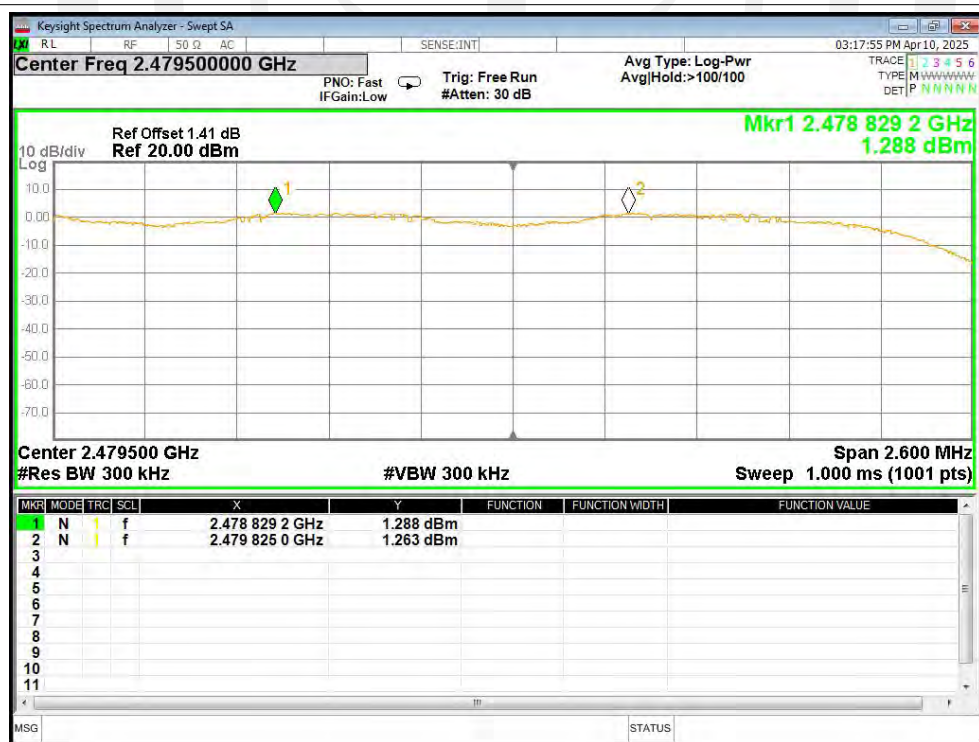
CFS NVNT 2-DH5 2402MHz Ant1



CFS NVNT 2-DH5 2441MHz Ant1



CFS NVNT 2-DH5 2480MHz Ant1

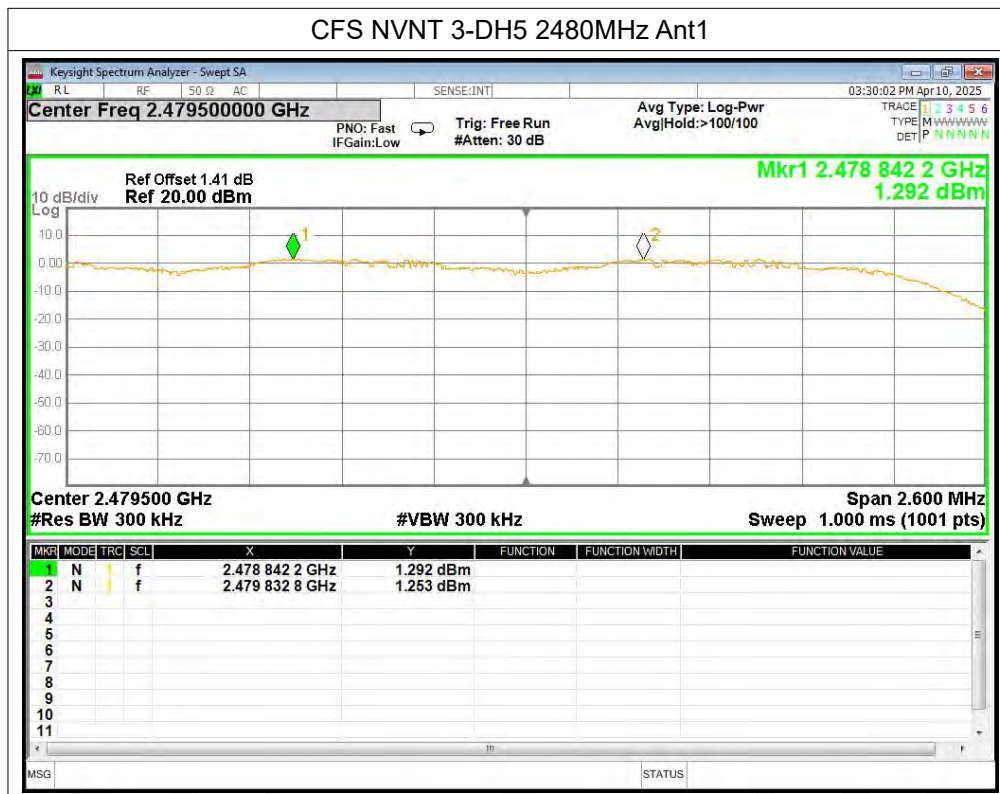


CFS NVNT 3-DH5 2402MHz Ant1



CFS NVNT 3-DH5 2441MHz Ant1





6. Number Of Hopping Channel

6.1. Limit

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

Please refer FCC part 15.247 & RSS-247.

6.2. Test Procedure

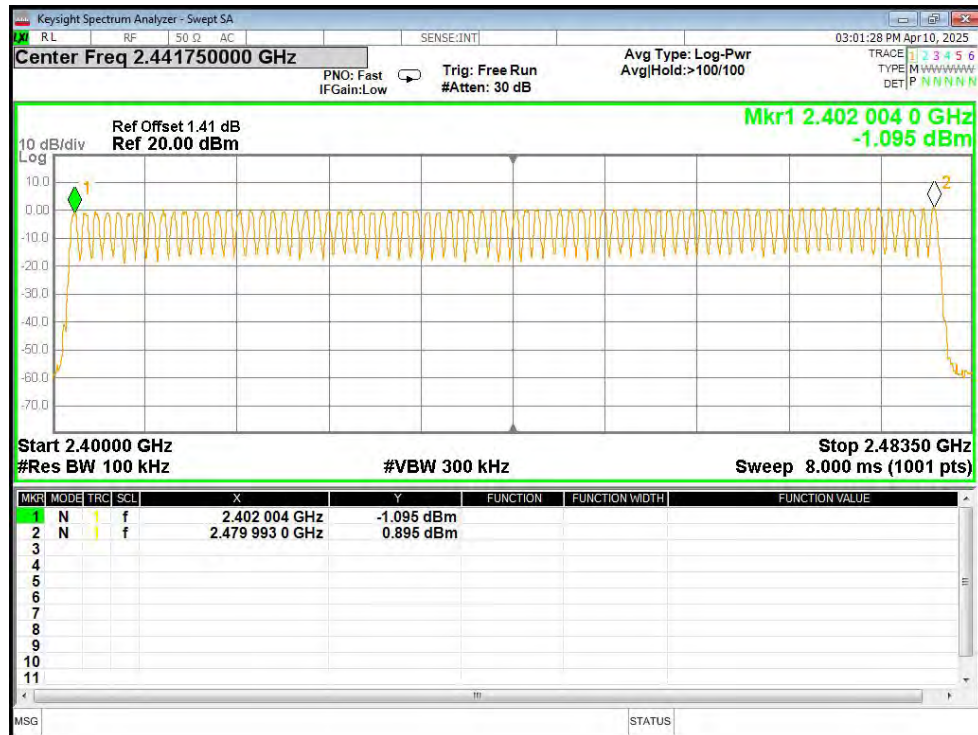
The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The number of hopping channel was measured by spectrum analyzer with 100kHz RBW and 300KHz VBW.

6.3. Test Result

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

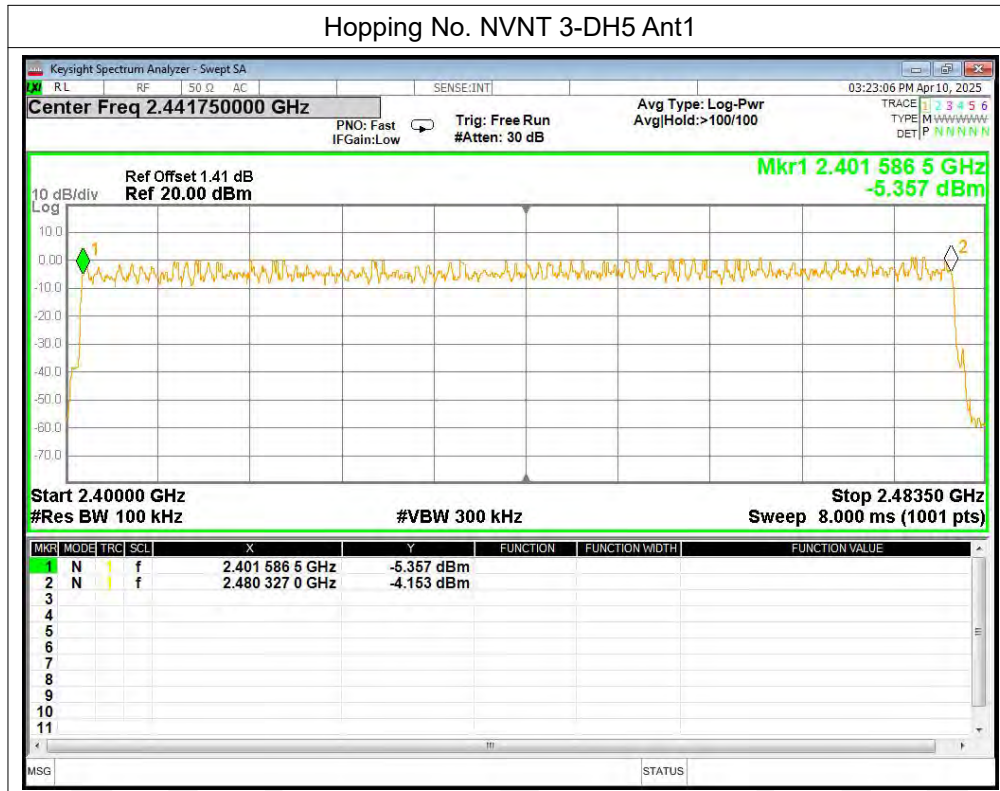
Test Graphs

Hopping No. NVNT 1-DH5 Ant1



Hopping No. NVNT 2-DH5 Ant1





7. Dwell Time

7.1. Test limit

Please refer FCC part 15.247 & RSS-247.

Frequency hopping systems operating in the 2400MHz-2483.5MHz. The average time of occupancy on any frequency shall not greater than 0.4 s within period of 0.4 sec- onds multiplied by the number of hopping channel employed.

7.2. Test Procedure

7.2.1. Place the EUT on the table and set it in transmitting mode.

7.2.2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.

7.2.3. Set center frequency of spectrum analyzer = operating frequency.

7.2.4. Set the spectrum analyzer as RBW=1MHz, VBW=3MHz, Span = 0Hz, Sweep = auto.

7.2.5. Repeat above procedures until all frequency measured were complete.

7.2.6. The test period: $T = 0.4 \text{ Second/Channel} \times 79 \text{ Channel} = 31.6 \text{ s}$

7.2.7. Dwell Time=Pulse Time* Hops Number

7.3. Test Result

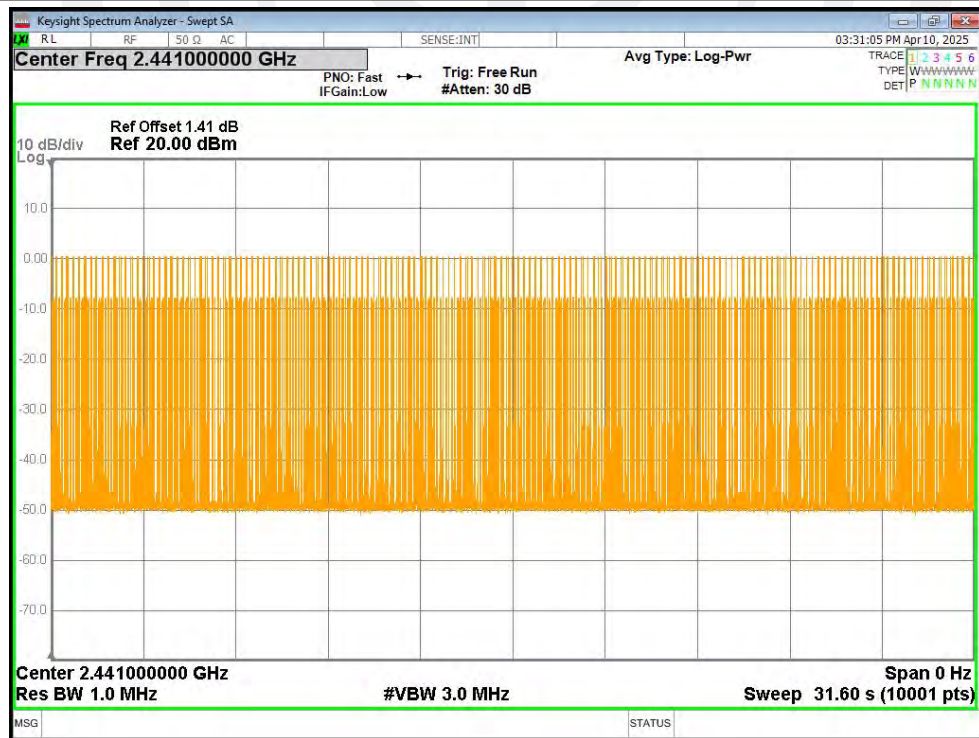
Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
1-DH1	2441	Ant1	0.39	124.41	319	31600	400	Pass
1-DH3	2441	Ant1	1.647	270.108	164	31600	400	Pass
1-DH5	2441	Ant1	2.896	318.56	110	31600	400	Pass
2-DH1	2441	Ant1	0.398	125.768	316	31600	400	Pass
2-DH3	2441	Ant1	1.653	262.827	159	31600	400	Pass
2-DH5	2441	Ant1	2.878	319.458	111	31600	400	Pass
3-DH1	2441	Ant1	0.401	128.32	320	31600	400	Pass
3-DH3	2441	Ant1	1.651	277.368	168	31600	400	Pass
3-DH5	2441	Ant1	2.9	316.1	109	31600	400	Pass

Test Graphs

Dwell NVNT 1-DH1 2441MHz Ant1 One Burst



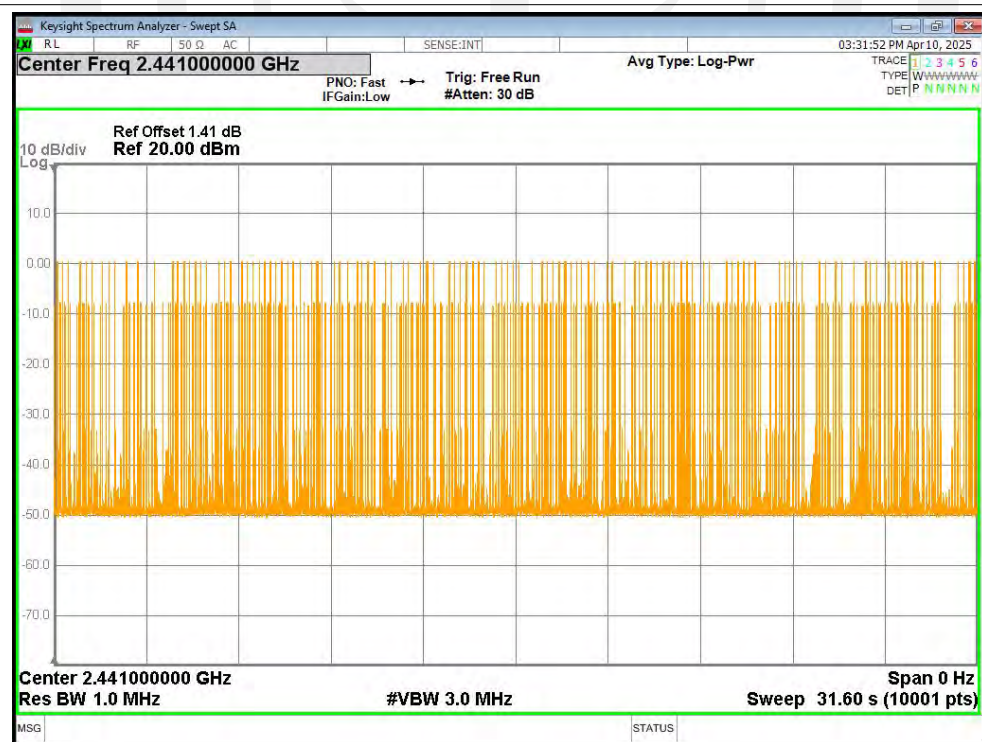
Dwell NVNT 1-DH1 2441MHz Ant1 Accumulated



Dwell NVNT 1-DH3 2441MHz Ant1 One Burst



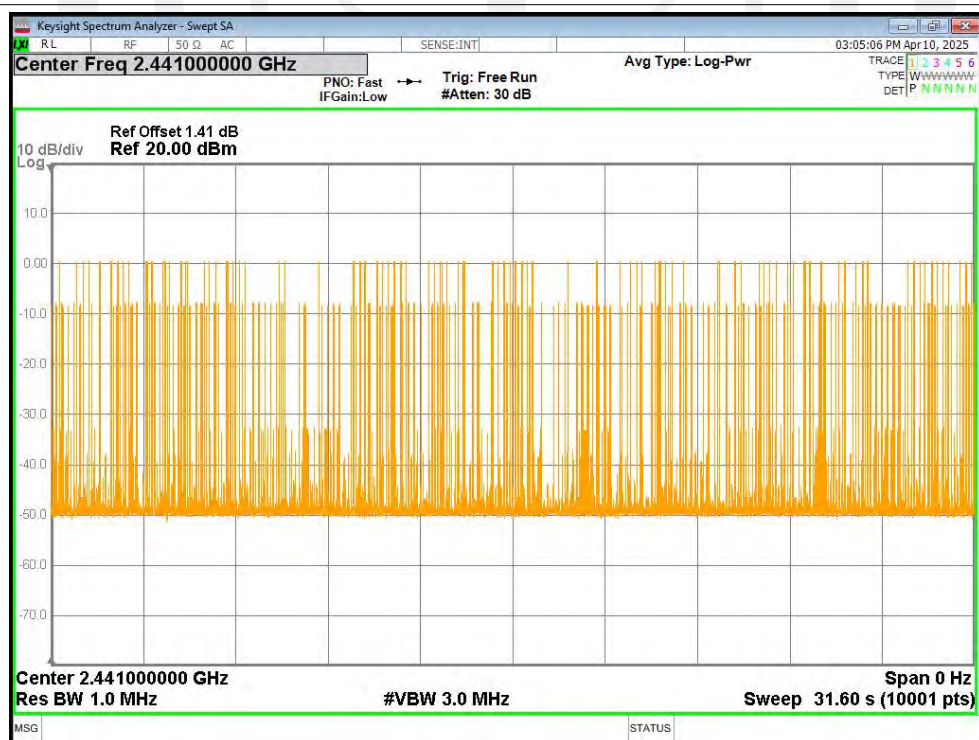
Dwell NVNT 1-DH3 2441MHz Ant1 Accumulated



Dwell NVNT 1-DH5 2441MHz Ant1 One Burst



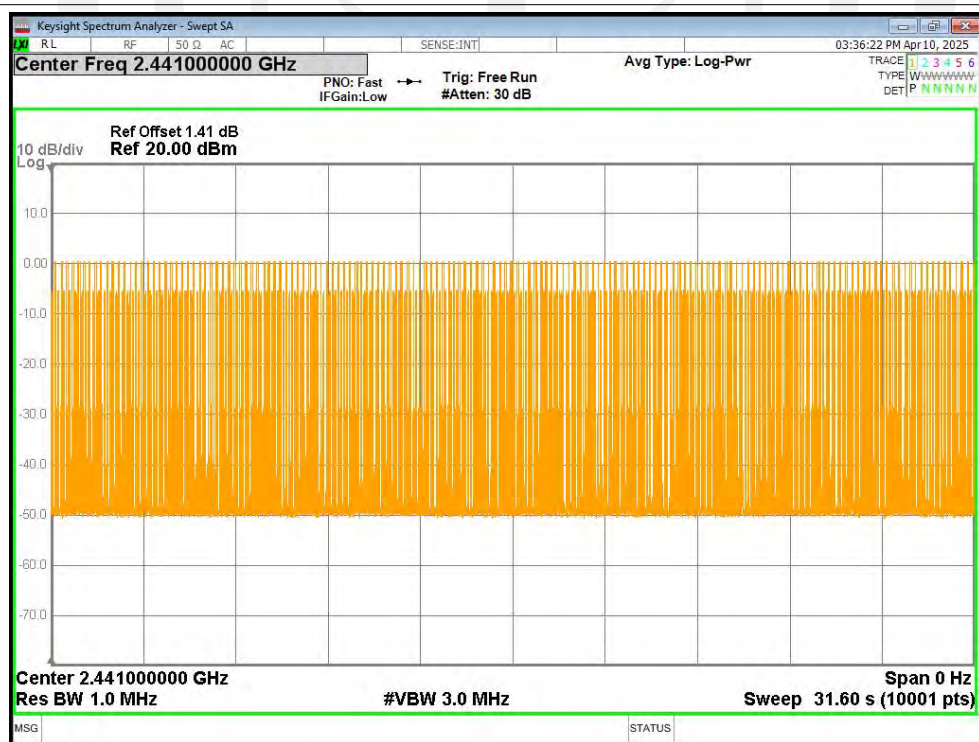
Dwell NVNT 1-DH5 2441MHz Ant1 Accumulated



Dwell NVNT 2-DH1 2441MHz Ant1 One Burst



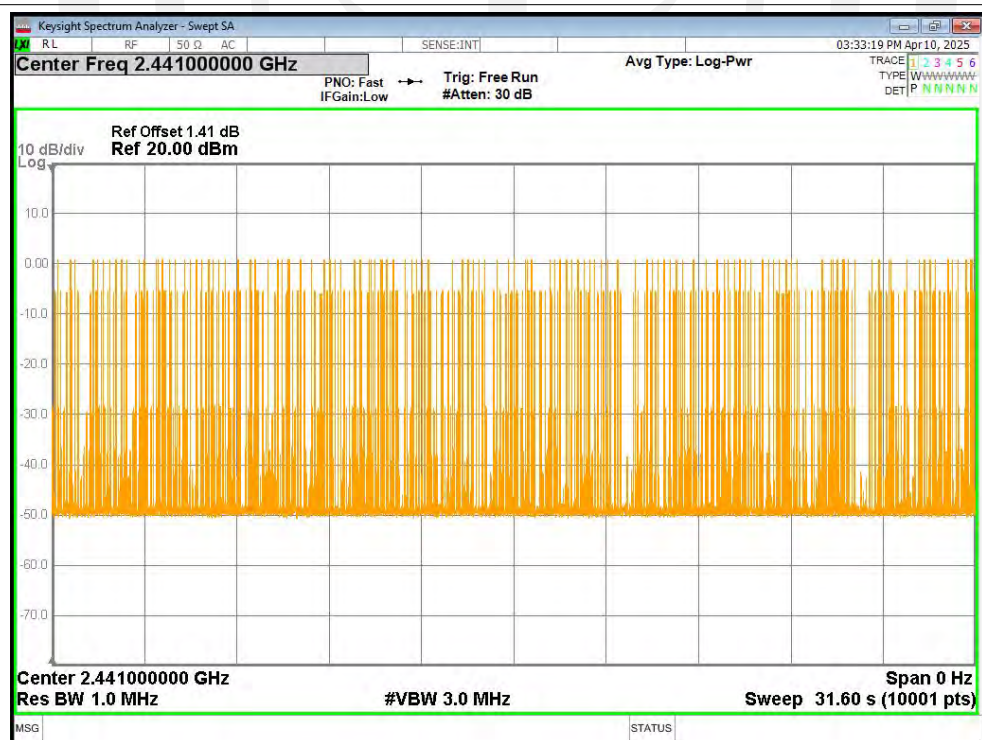
Dwell NVNT 2-DH1 2441MHz Ant1 Accumulated



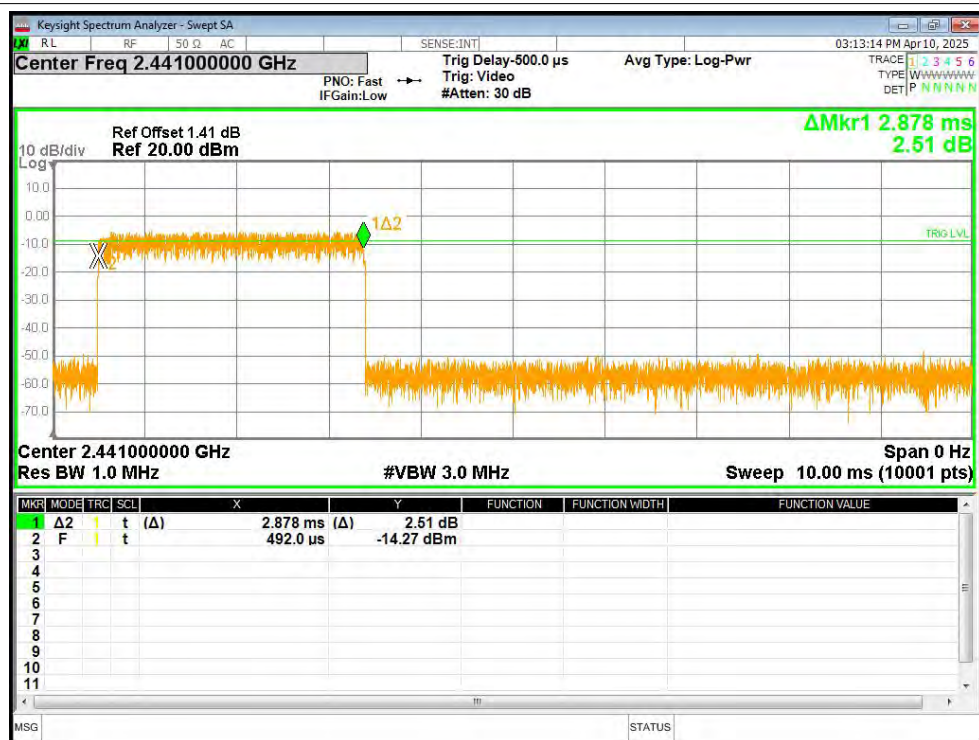
Dwell NVNT 2-DH3 2441MHz Ant1 One Burst



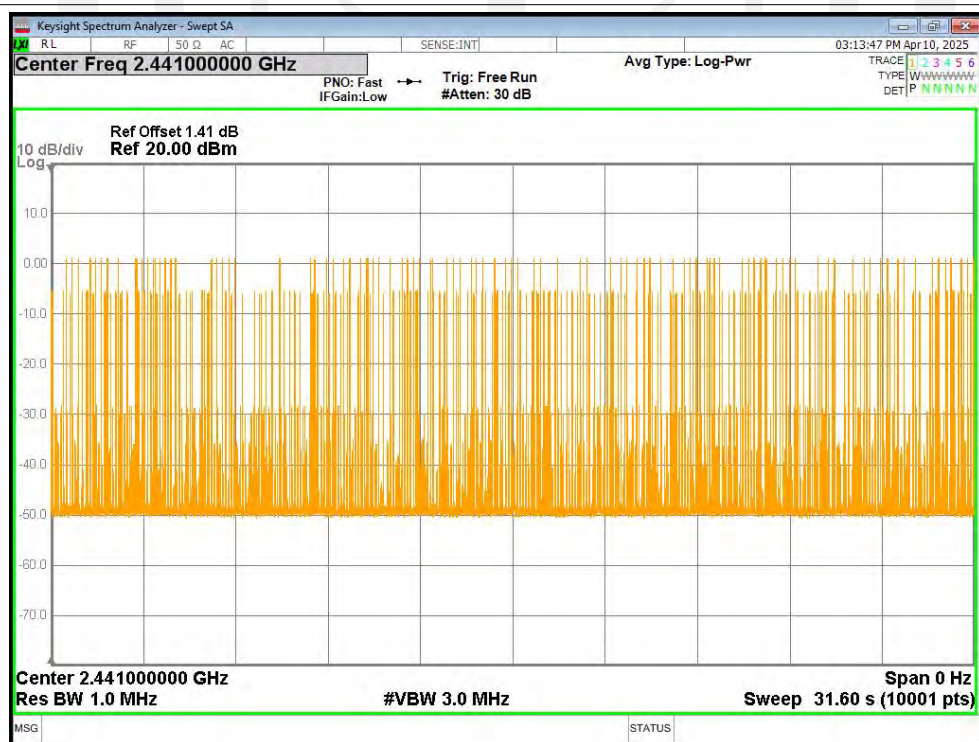
Dwell NVNT 2-DH3 2441MHz Ant1 Accumulated



Dwell NVNT 2-DH5 2441MHz Ant1 One Burst



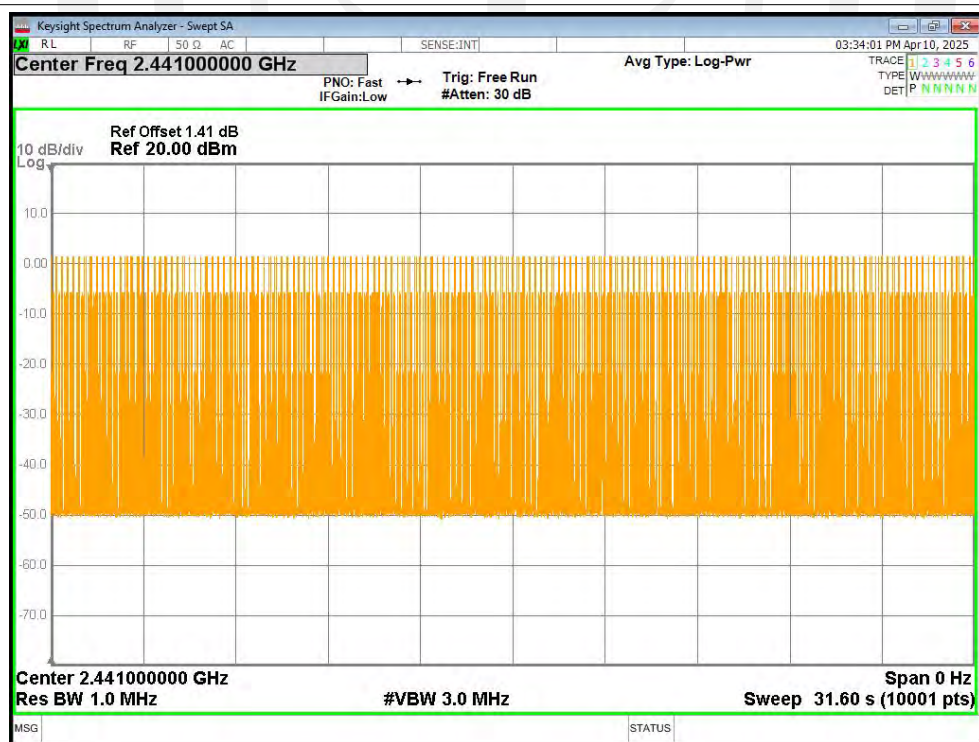
Dwell NVNT 2-DH5 2441MHz Ant1 Accumulated



Dwell NVNT 3-DH1 2441MHz Ant1 One Burst



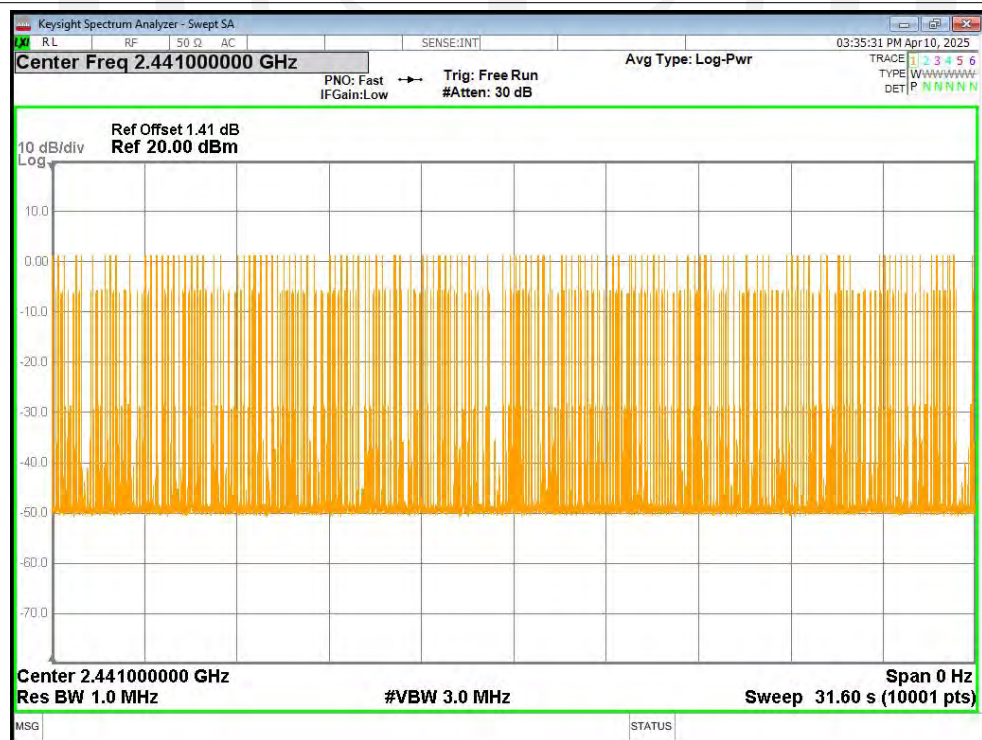
Dwell NVNT 3-DH1 2441MHz Ant1 Accumulated



Dwell NVNT 3-DH3 2441MHz Ant1 One Burst



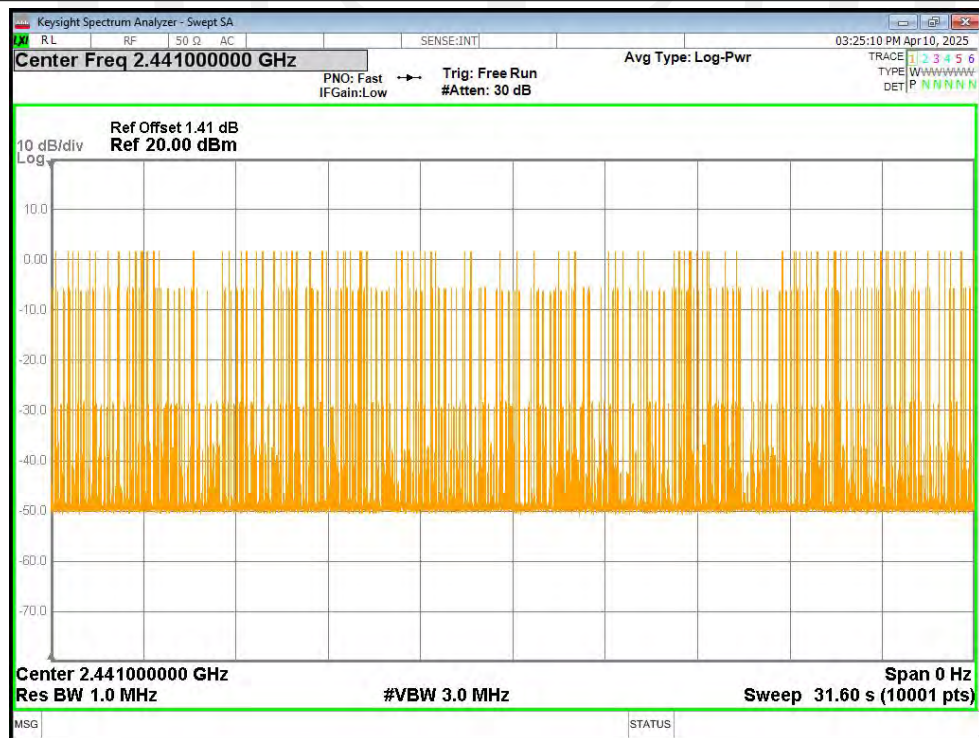
Dwell NVNT 3-DH3 2441MHz Ant1 Accumulated



Dwell NVNT 3-DH5 2441MHz Ant1 One Burst



Dwell NVNT 3-DH5 2441MHz Ant1 Accumulated



8. Out-of-band Emissions

8.1. Test Limits

In any 100 kHz 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 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in FCC Part 15.209(a) is not required. Please refer section 15.247.

8.2. Test Procedure

Connect the transmitter output to spectrum analyzer using a low loss RF cable, and set the spectrum analyzer to RBW=100 kHz, VBW= 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, band edge and out-of-band emissions.

8.3. Test Setup



8.4. Test Results

PASS.

The test results are listed in next pages.

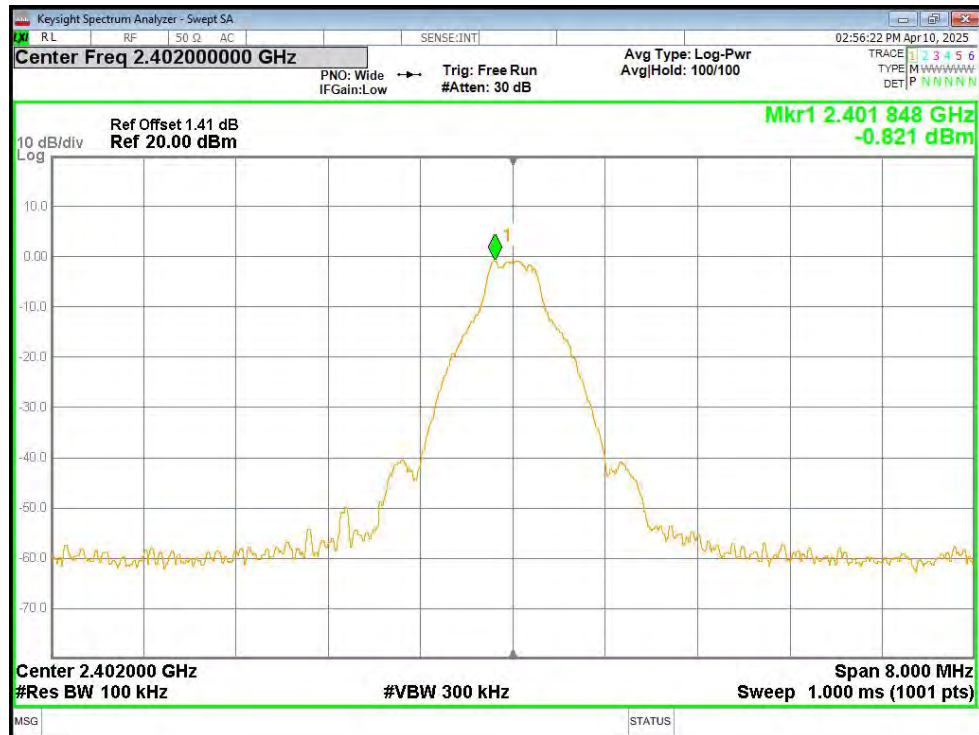
Band Edge: Pass

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-54.58	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-56.2	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-52.94	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-54.3	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-54.04	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-56.26	-20	Pass

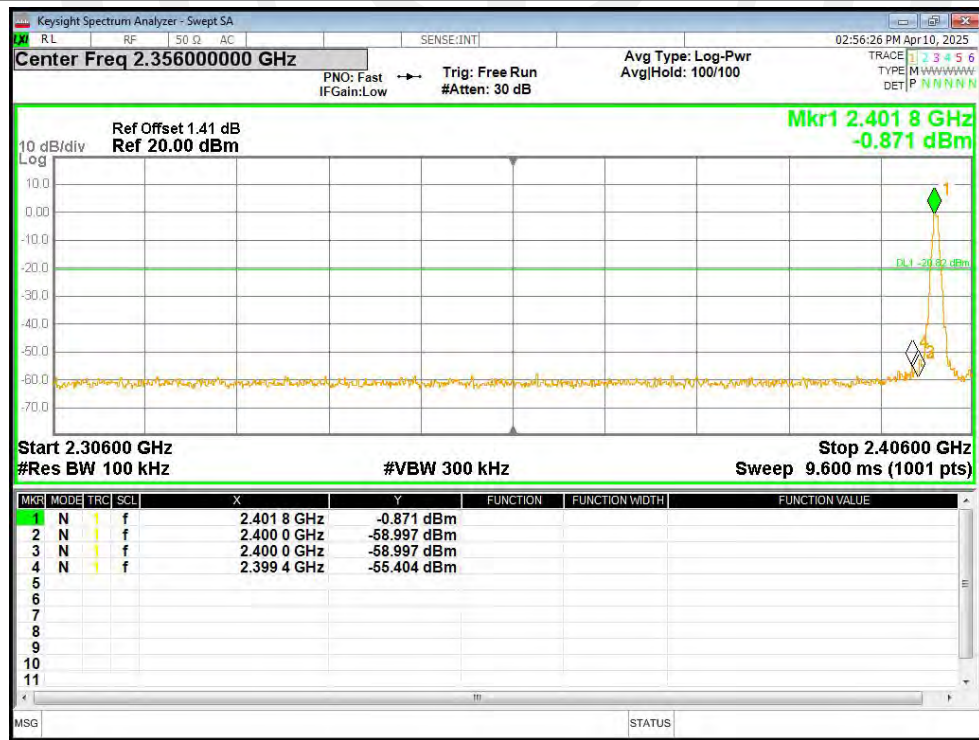


Test Graphs

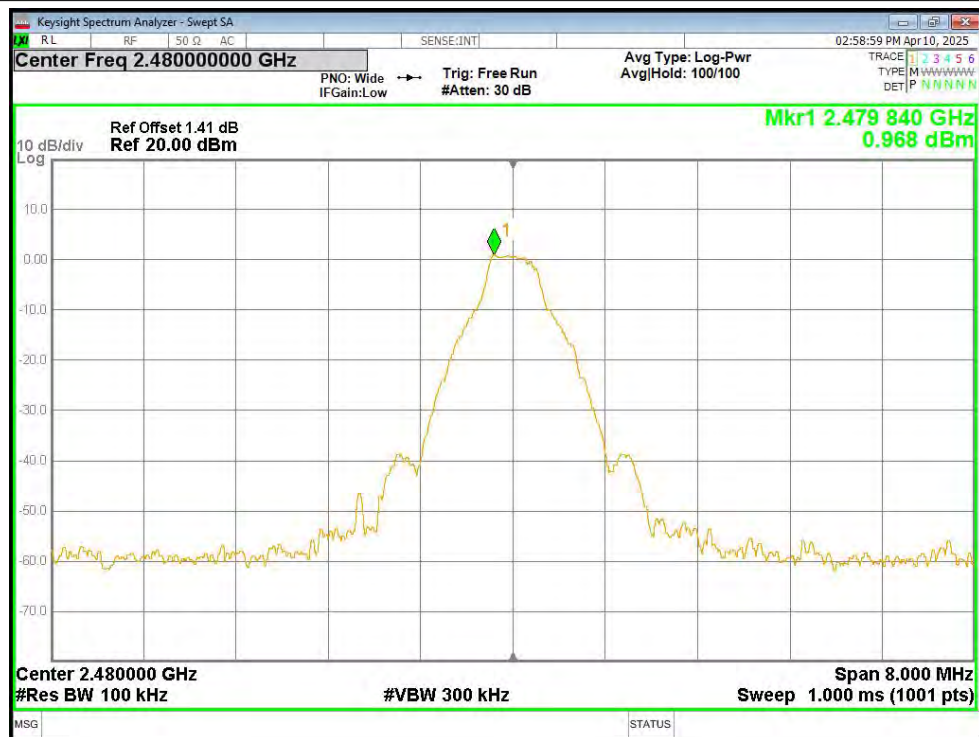
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref



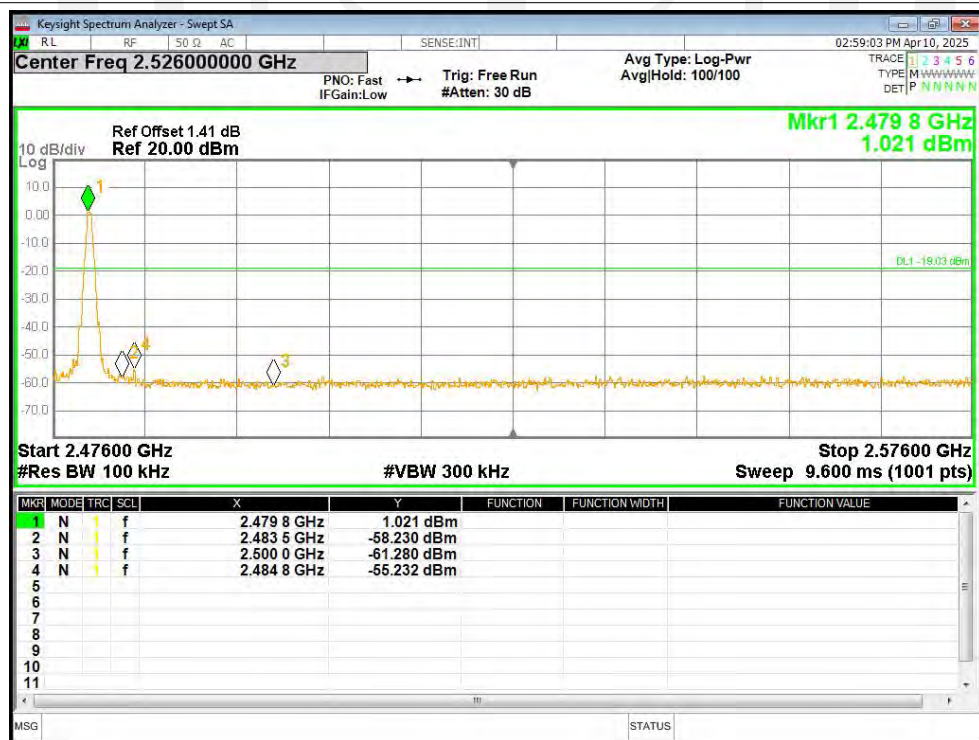
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



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

