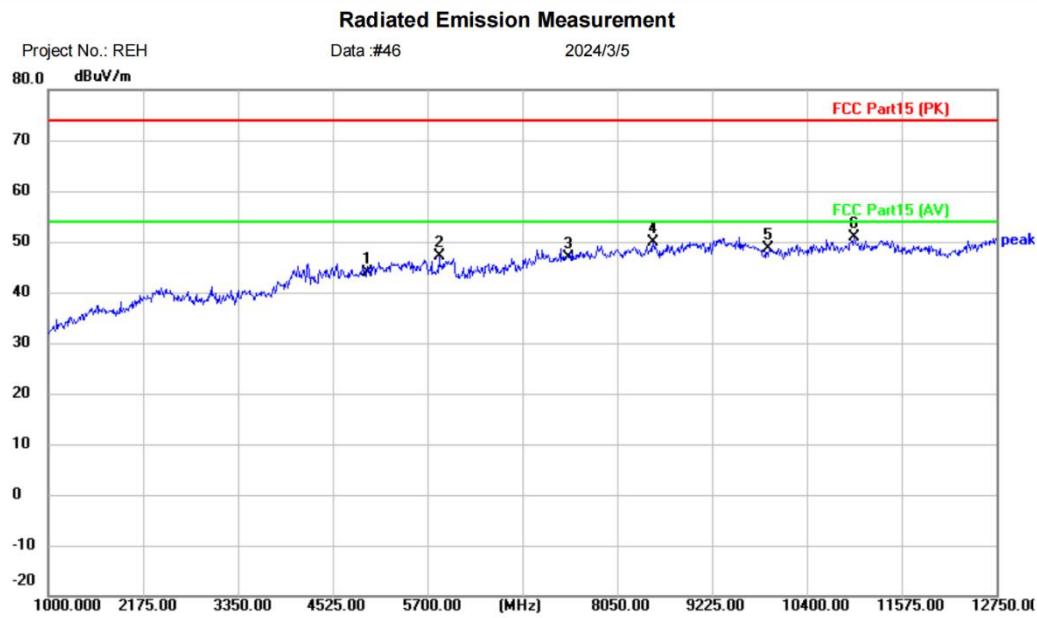


[TestMode: TX high channel]; [Polarity: Vertical]



Site

Polarization: **Vertical**

Temperature: (C)

Limit: FCC Part15 (PK)

Power:

Humidity: %RH

EUT: LED TV

M/N: TC-LE50K-GO2401

Mode: TX-2480

Note:

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		4960.000	37.31	6.60	43.91	74.00	-30.09	peak	
2		5841.000	38.78	8.31	47.09	74.00	-26.91	peak	
3		7440.000	37.31	9.64	46.95	74.00	-27.05	peak	
4		8496.500	38.90	10.90	49.80	74.00	-24.20	peak	
5		9920.000	36.59	12.14	48.73	74.00	-25.27	peak	
6	*	10987.50	37.32	13.44	50.76	74.00	-23.24	peak	

\*:Maximum data    x:Over limit    !:over margin

⟨Reference Only⟩

Receiver: ESR\_1

Spectrum Analyzer: FSP40

Antenna: EZ 9120D 1G-18G

Engineer Signature:

**Test Result: Pass**

Remark:

1. Final Level = Receiver Read level + Correct factor
2. Correct factor = Antenna Factor + Cable Loss – Preamplifier Factor
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

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## 17 RADIATED EMISSIONS WHICH FALL IN THE RESTRICTED BANDS

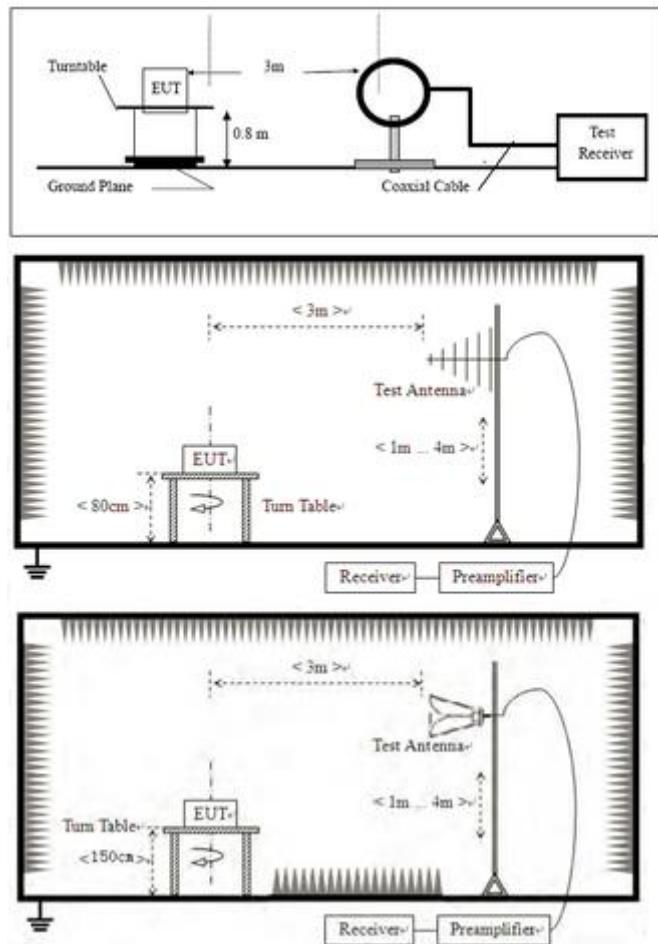
<b>Test Standard</b>	47 CFR Part 15, Subpart C 15.247
<b>Test Method</b>	ANSI C63.10 (2013) Section 6.10.5
<b>Test Mode (Pre-Scan)</b>	TX
<b>Test Mode (Final Test)</b>	TX
<b>Tester</b>	Jozu
<b>Temperature</b>	25 °C
<b>Humidity</b>	60%

### 17.1 LIMITS

<b>Frequency(MHz)</b>	<b>Field strength(microvolts/meter)</b>	<b>Measurement distance(meters)</b>
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

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

## 17.2 BLOCK DIAGRAM OF TEST SETUP



## 17.3 PROCEDURE

- For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

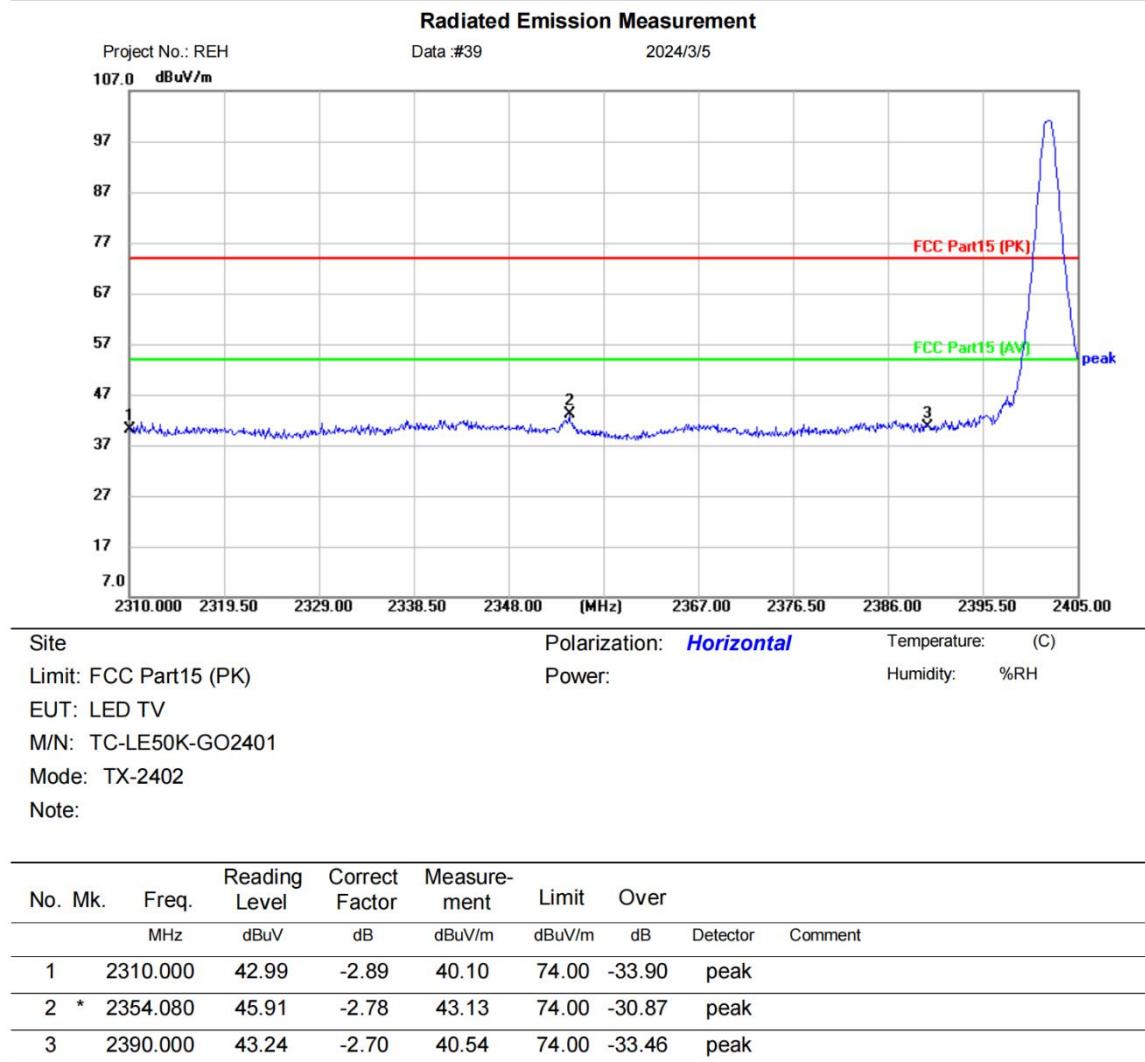
Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Remark 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

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## 17.4 TEST DATA

[TestMode: TX low channel]; [Polarity: Horizontal]



\*:Maximum data    x:Over limit    !:over margin

⟨Reference Only⟩

Receiver: ESR\_1

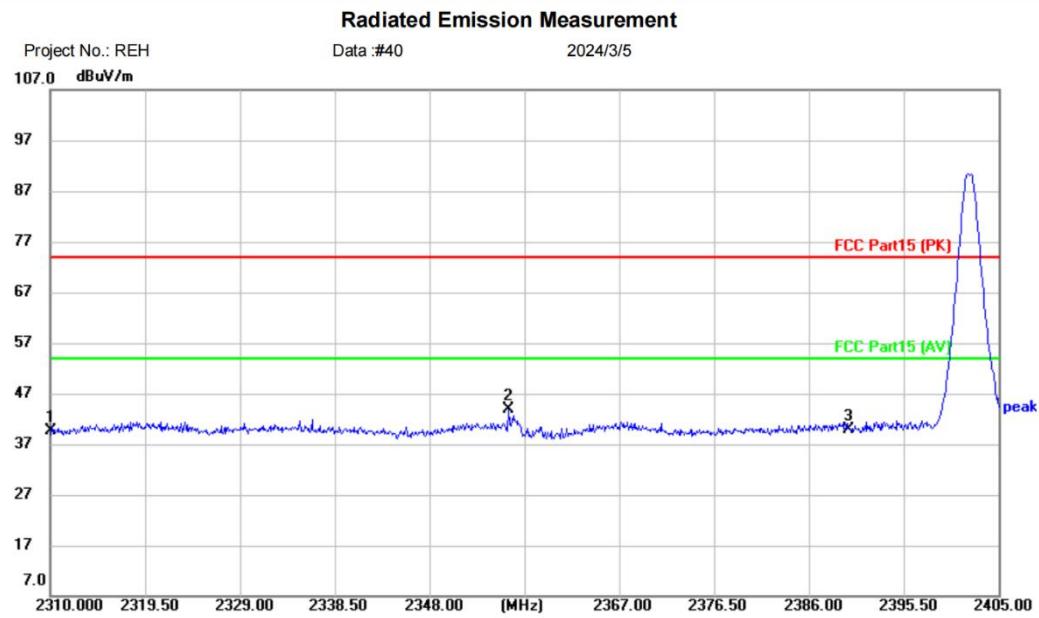
Spectrum Analyzer: FSP40

Antenna: EZ 9120D 1G-18G

Engineer Signature:

**Test Result: Pass**

[TestMode: TX low channel]; [Polarity: Vertical]



Site

Polarization: **Vertical**

Temperature: (C)

Limit: FCC Part15 (PK)

Power:

Humidity: %RH

EUT: LED TV

M/N: TC-LE50K-GO2401

Mode: TX-2402

Note:

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dB			
1	2310.000	42.42	-2.89	39.53	74.00	-34.47	peak		
2 *	2355.885	46.60	-2.77	43.83	74.00	-30.17	peak		
3	2390.000	42.63	-2.70	39.93	74.00	-34.07	peak		

\*:Maximum data x:Over limit !:over margin

⟨Reference Only⟩

Receiver: ESR\_1

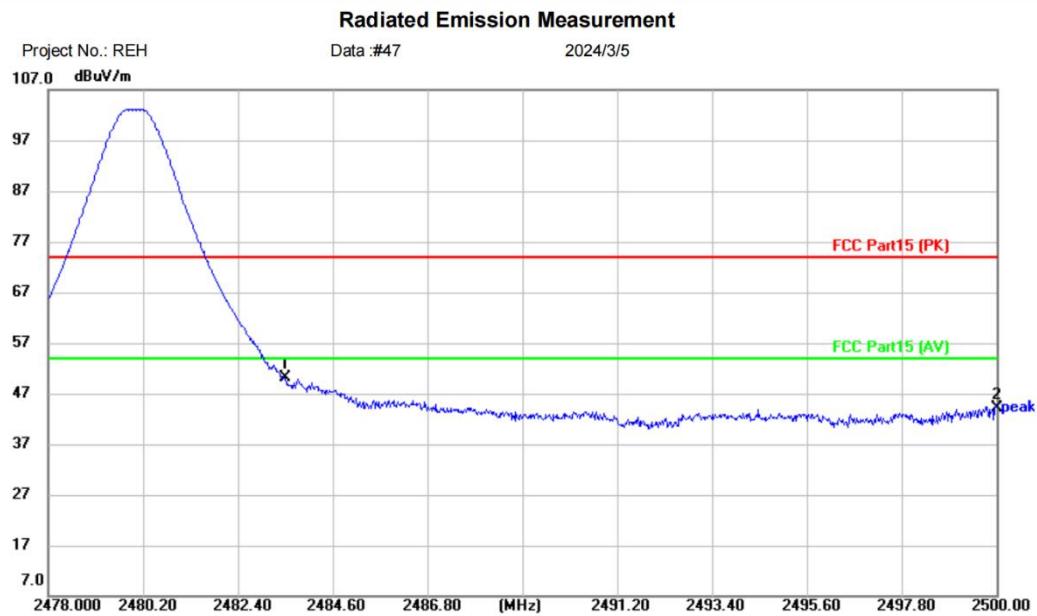
Spectrum Analyzer: FSP40

Antenna: EZ 9120D 1G-18G

Engineer Signature:

**Test Result: Pass**

[TestMode: TX high channel]; [Polarity: Horizontal]



Site

Polarization: **Horizontal**

Temperature: (C)

Limit: FCC Part15 (PK)

Power:

Humidity: %RH

EUT: LED TV

M/N: TC-LE50K-GO2401

Mode: TX-2480

Note:

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Detector	Comment
			Level	Factor	ment				
		MHz	dBuV	dB	dBuV/m	dB			
1	*	2483.500	51.13	-1.03	50.10	74.00	-23.90	peak	
2		2500.000	45.39	-1.26	44.13	74.00	-29.87	peak	

\*:Maximum data    x:Over limit    !:over margin

⟨Reference Only⟩

Receiver: ESR\_1

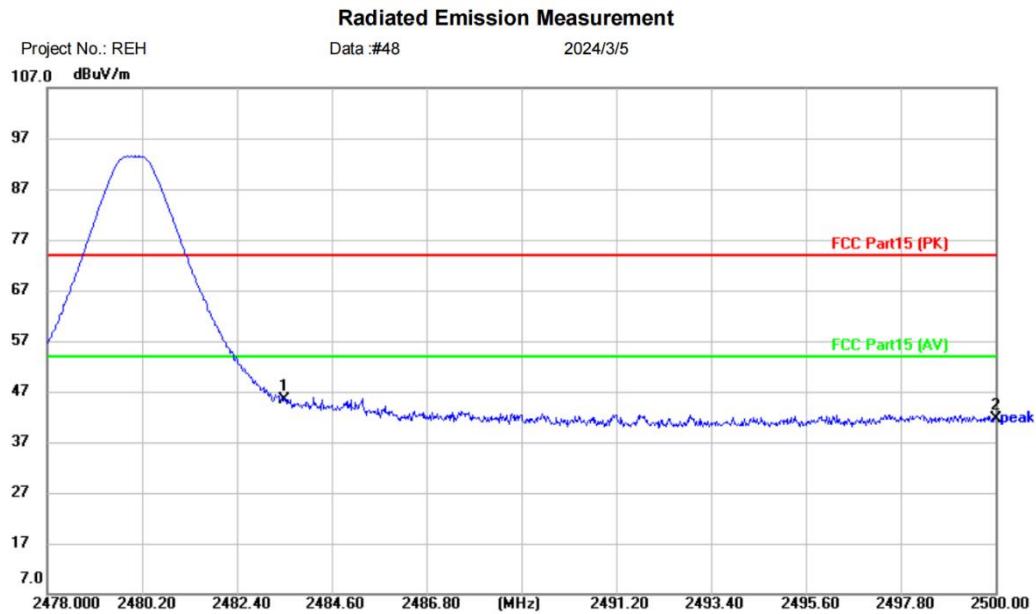
Spectrum Analyzer: FSP40

Antenna: EZ 9120D 1G-18G

Engineer Signature:

**Test Result: Pass**

[TestMode: TX high channel]; [Polarity: Vertical]



## Site

Polarization: **Vertical**

Temperature: (C)

Limit: FCC Part15 (PK)

## Power:

Humidity: %RH

EUT: LED TV

M/N: TC-LE50K-GO2401

Mode: TX-2480

**Note:**

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	
			Level	Factor	ment		Detector	Comment
1	*	2483.500	46.38	-1.03	45.35	74.00	-28.65	peak
2		2500.000	42.96	-1.26	41.70	74.00	-32.30	peak

\*:Maximum data    x:Over limit    !:over margin

⟨Reference Only

Receiver: ESR\_1

Spectrum Analyzer: FSP40

Antenna: EZ 9120D 1G-18G

Engineer Signature:

## Test Result: Pass

Remark:

1. Final Level = Receiver Read level + Correct factor
2. Correct factor = Antenna Factor + Cable Loss – Preamplifier Factor
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

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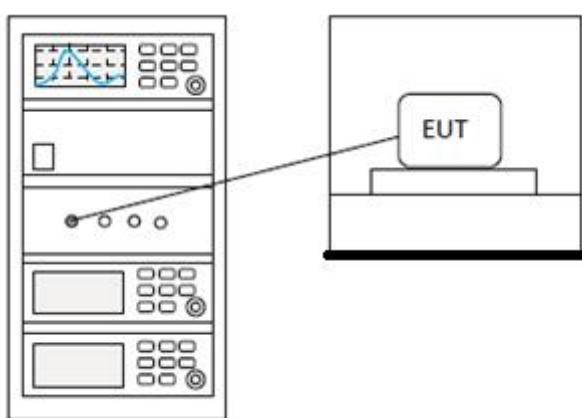
## 18 CONDUCTED BAND EDGES MEASUREMENT

<b>Test Standard</b>	47 CFR Part 15, Subpart C 15.247
<b>Test Method</b>	ANSI C63.10 (2013) Section 7.8.8 & Section 11.13.3.2
<b>Test Mode (Pre-Scan)</b>	TX
<b>Test Mode (Final Test)</b>	TX
<b>Tester</b>	Jozu
<b>Temperature</b>	25 °C
<b>Humidity</b>	60%

### 18.1 LIMITS

<b>Limit:</b>	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 §15.209(a) is not required. 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) (see §15.205(c)).
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### 18.2 BLOCK DIAGRAM OF TEST SETUP



### 18.3 TEST DATA

**Pass: Please Refer To Appendix: Appendix1 For Details**

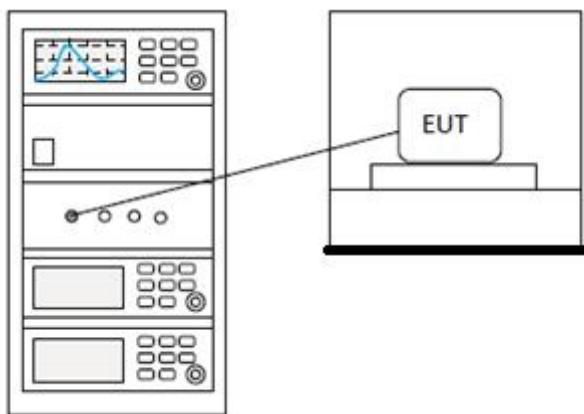
## 19 DWELL TIME

<b>Test Standard</b>	47 CFR Part 15, Subpart C 15.247
<b>Test Method</b>	ANSI C63.10 (2013) Section 7.8.4
<b>Test Mode (Pre-Scan)</b>	TX
<b>Test Mode (Final Test)</b>	TX
<b>Tester</b>	Jozu
<b>Temperature</b>	25°C
<b>Humidity</b>	60%

### 19.1 LIMITS

Frequency(MHz)	Limit
902-928	0.4S within a 20S period(20dB bandwidth<250kHz)
	0.4S within a 10S period(20dB bandwidth≥250kHz)
2400-2483.5	0.4S within a period of 0.4S multiplied by the number of hopping channels
5725-5850	0.4S within a 30S period

### 19.2 BLOCK DIAGRAM OF TEST SETUP



### 19.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

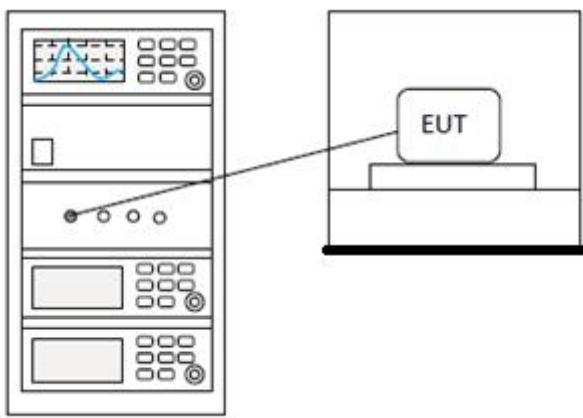
## 20 HOPPING CHANNEL NUMBER

<b>Test Standard</b>	47 CFR Part 15, Subpart C 15.247
<b>Test Method</b>	ANSI C63.10 (2013) Section 7.8.3
<b>Test Mode (Pre-Scan)</b>	TX
<b>Test Mode (Final Test)</b>	TX
<b>Tester</b>	Jozu
<b>Temperature</b>	25 °C
<b>Humidity</b>	60%

### 20.1 LIMITS

Frequency range(MHz)	Number of hopping channels (minimum)
902-928	50 for 20dB bandwidth <250kHz
	25 for 20dB bandwidth ≥250kHz
2400-2483.5	15
5725-5850	75

### 20.2 BLOCK DIAGRAM OF TEST SETUP



### 20.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details

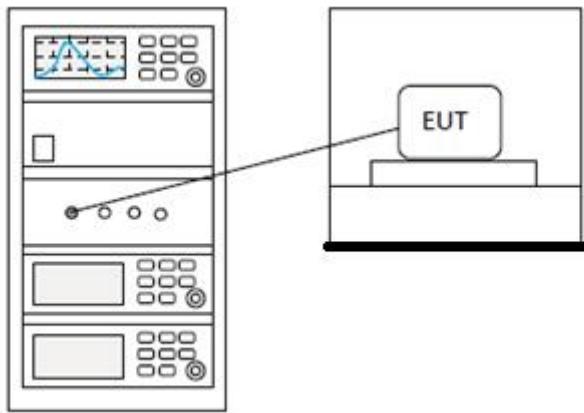
## 21 CARRIER FREQUENCIES SEPARATION

<b>Test Standard</b>	47 CFR Part 15, Subpart C 15.247
<b>Test Method</b>	ANSI C63.10 (2013) Section 7.8.2
<b>Test Mode (Pre-Scan)</b>	TX
<b>Test Mode (Final Test)</b>	TX
<b>Tester</b>	Jozu
<b>Temperature</b>	25 °C
<b>Humidity</b>	60%

### 21.1 LIMITS

**Limit:** 2/3 of the 20dB bandwidth base on the transmission power is less than 0.125W

### 21.2 BLOCK DIAGRAM OF TEST SETUP



### 21.3 TEST DATA

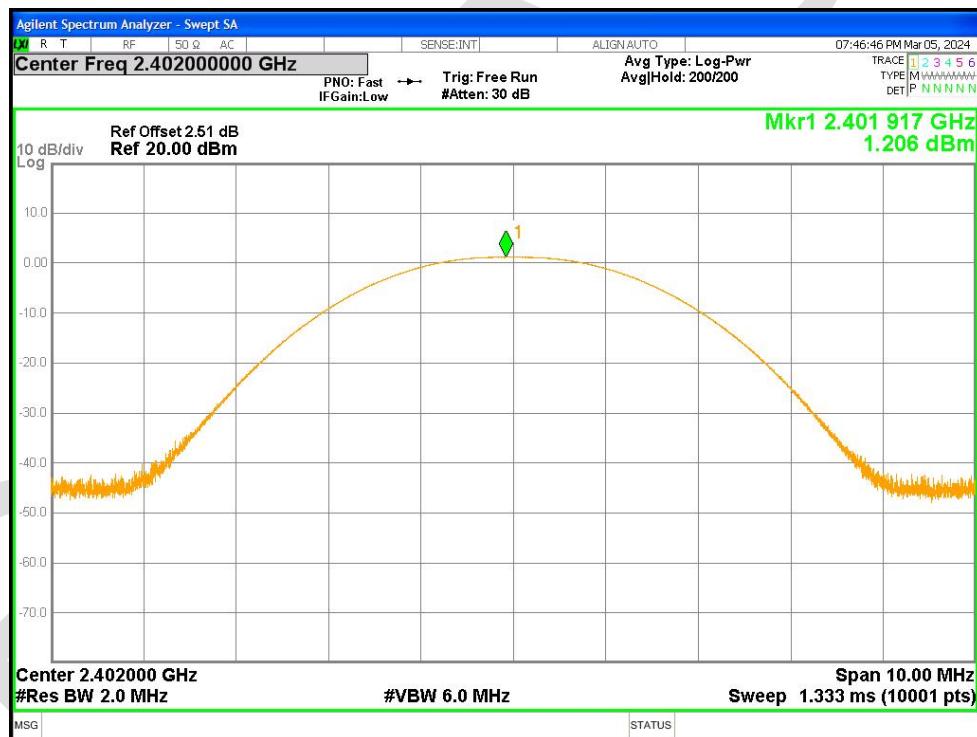
**Pass: Please Refer To Appendix: Appendix1 For Details**

## 22 APPENDIX1

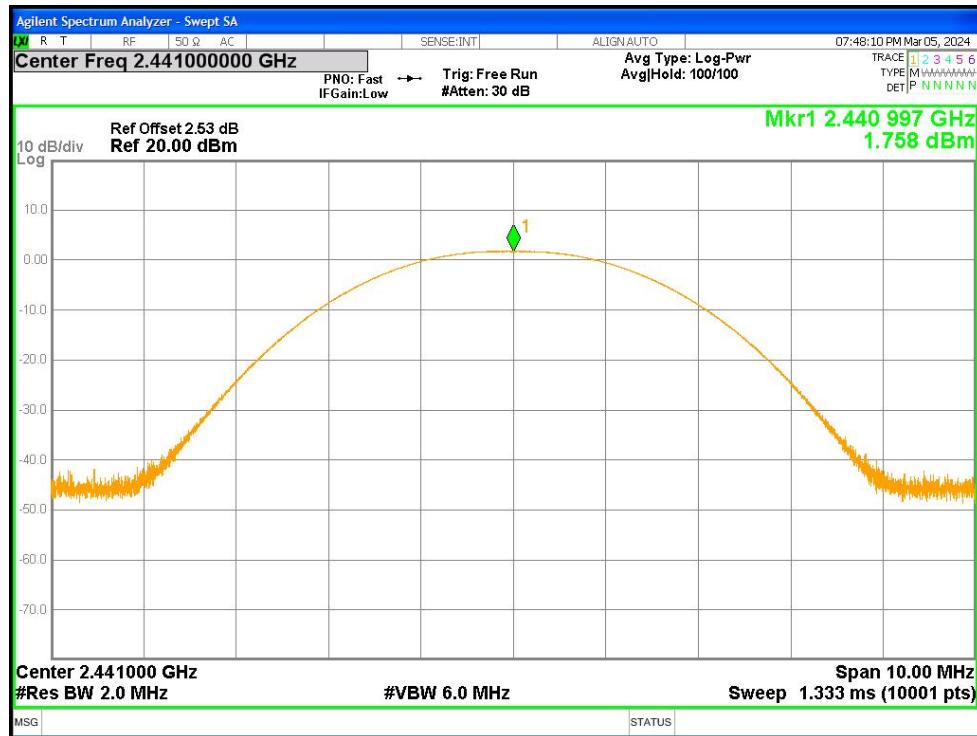
### Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	1.206	21	Pass
NVNT	1-DH1	2441	Ant1	1.758	21	Pass
NVNT	1-DH1	2480	Ant1	1.854	21	Pass
NVNT	2-DH1	2402	Ant1	2.024	21	Pass
NVNT	2-DH1	2441	Ant1	2.805	21	Pass
NVNT	2-DH1	2480	Ant1	2.905	21	Pass
NVNT	3-DH1	2402	Ant1	2.524	21	Pass
NVNT	3-DH1	2441	Ant1	2.869	21	Pass
NVNT	3-DH1	2480	Ant1	2.879	21	Pass

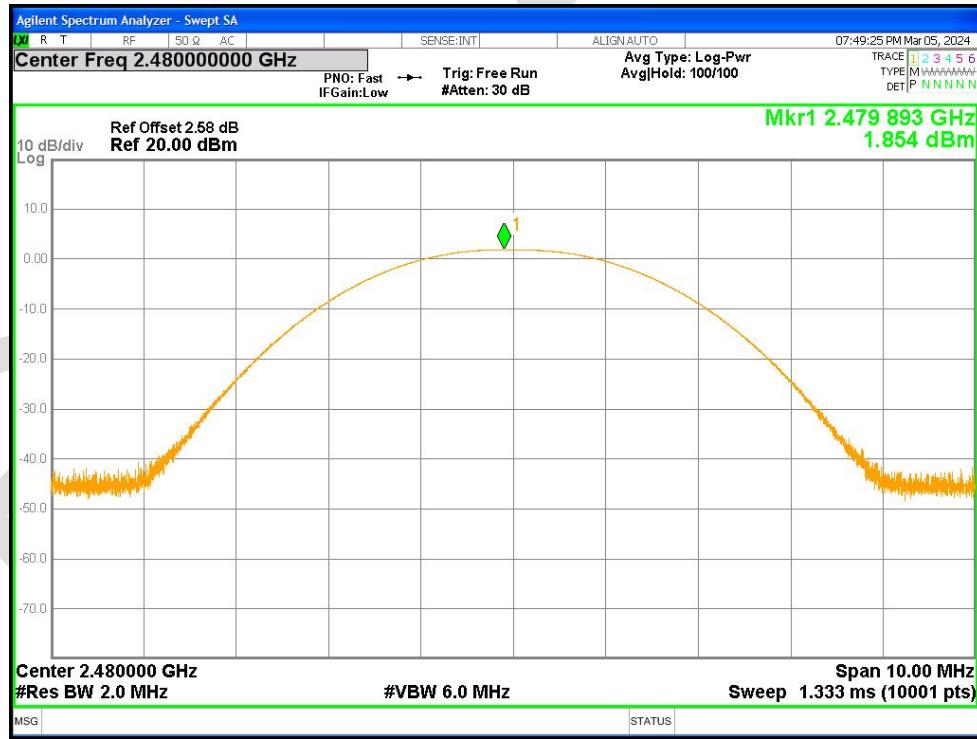
Power NVNT 1-DH1 2402MHz Ant1



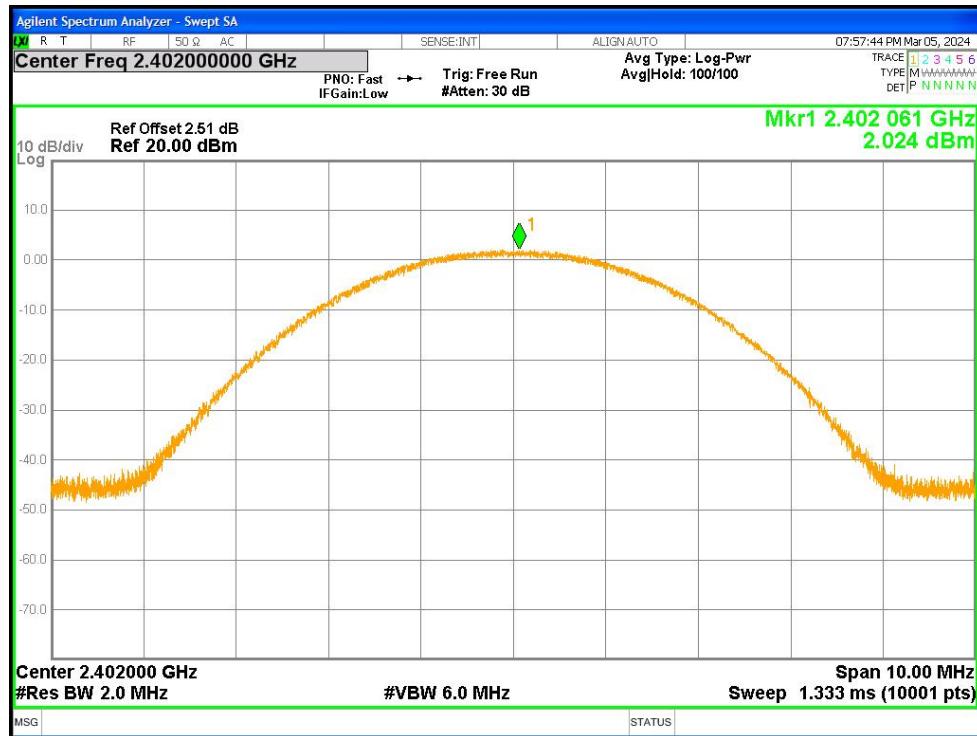
Power NVNT 1-DH1 2441MHz Ant1



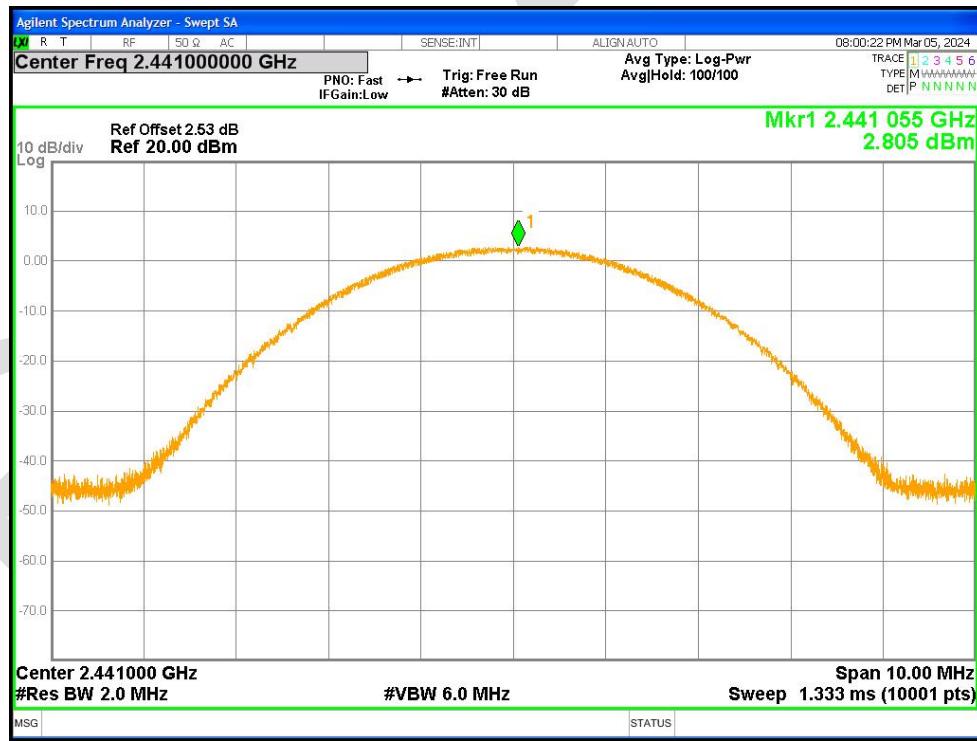
Power NVNT 1-DH1 2480MHz Ant1



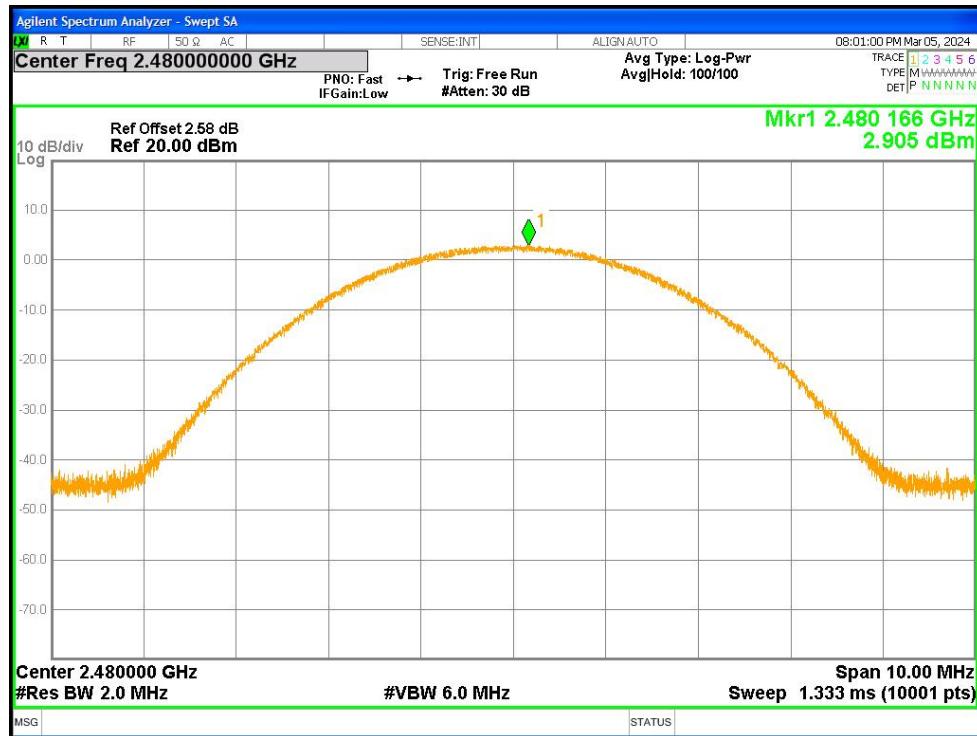
Power NVNT 2-DH1 2402MHz Ant1



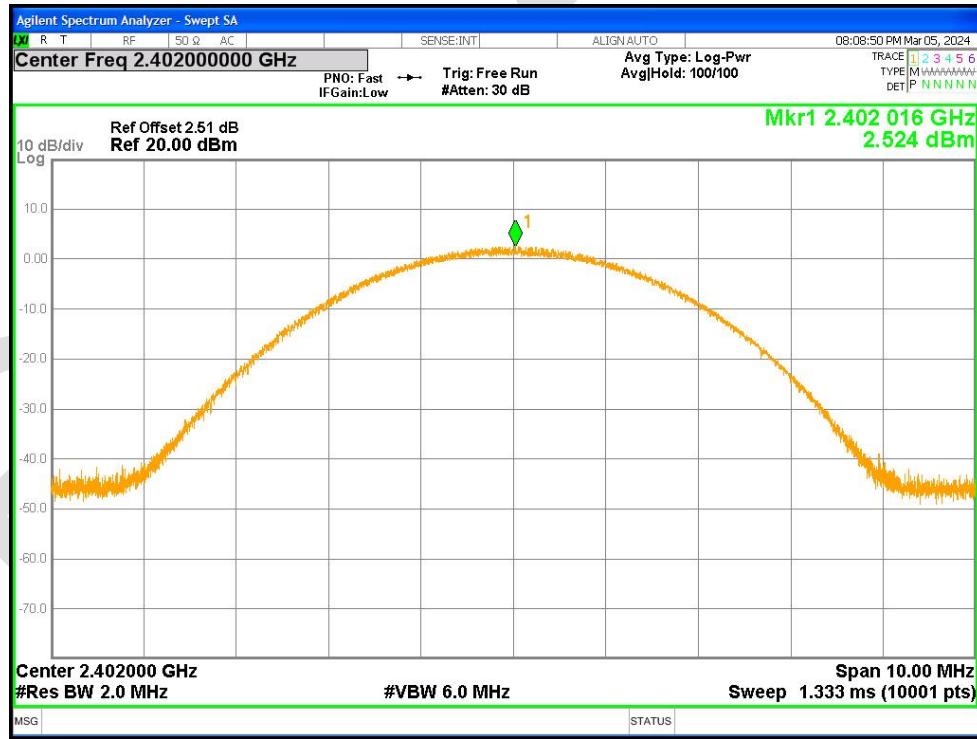
Power NVNT 2-DH1 2441MHz Ant1



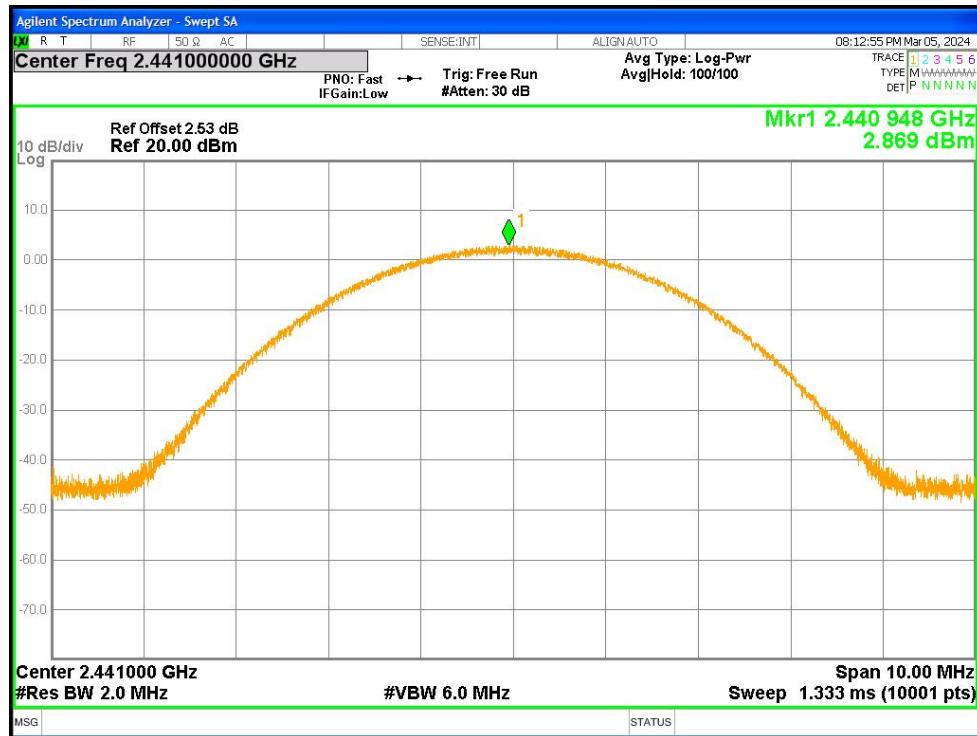
Power NVNT 2-DH1 2480MHz Ant1



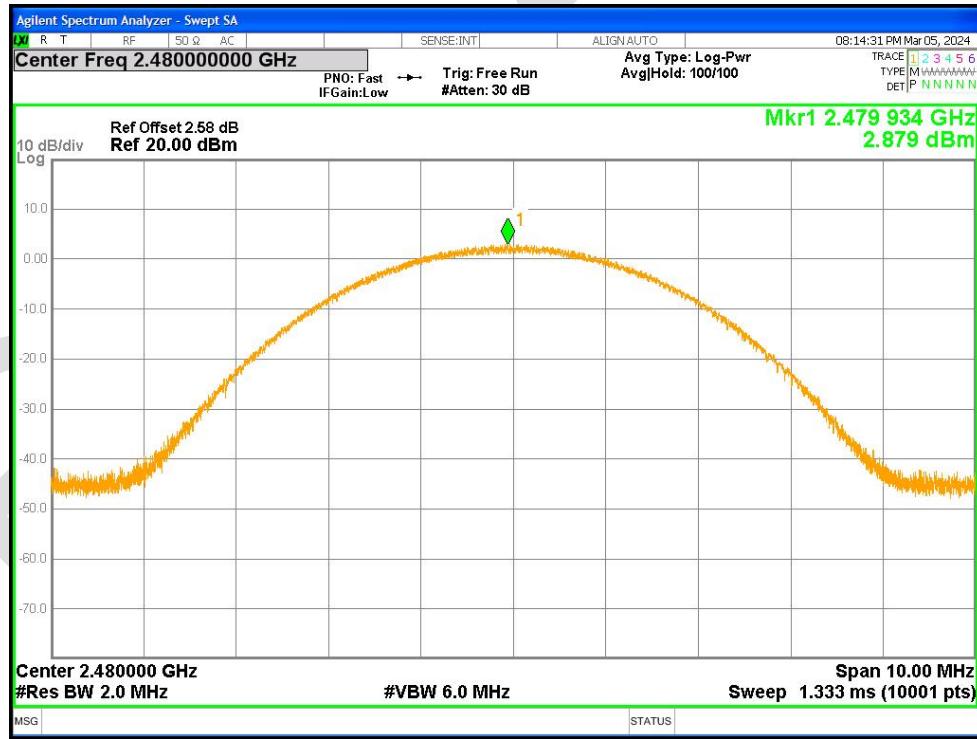
Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1

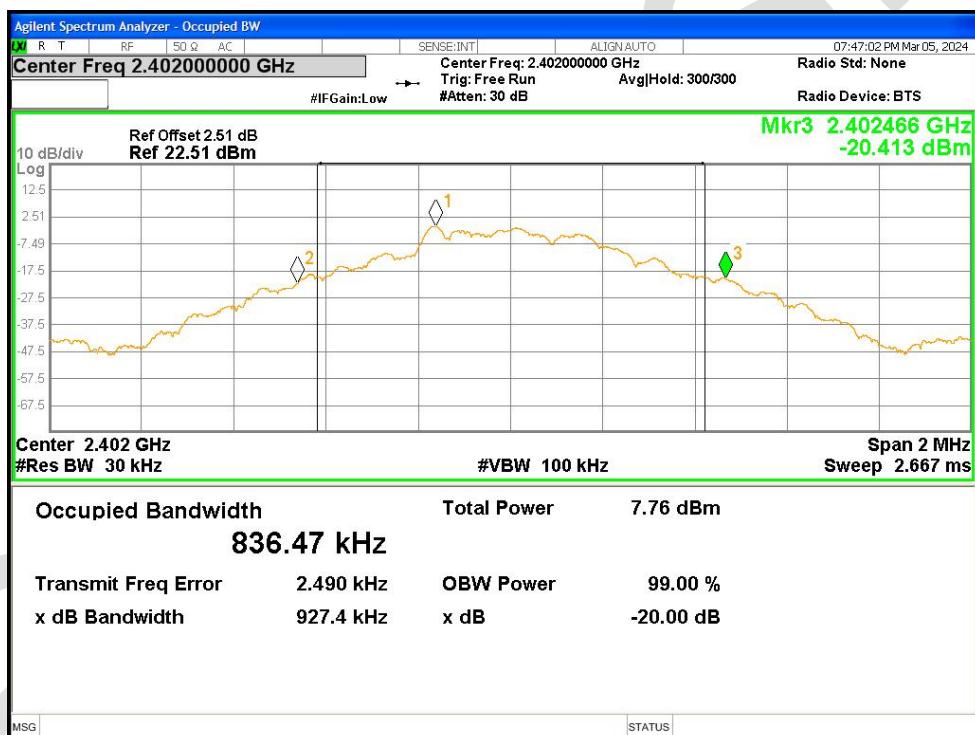


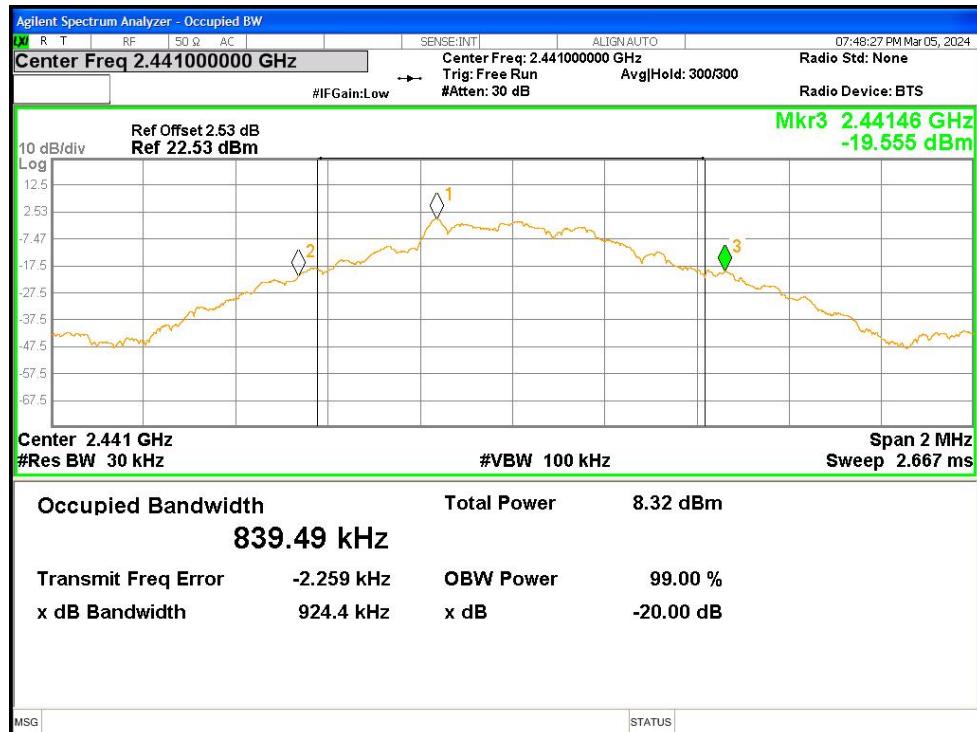
Power NVNT 3-DH1 2480MHz Ant1



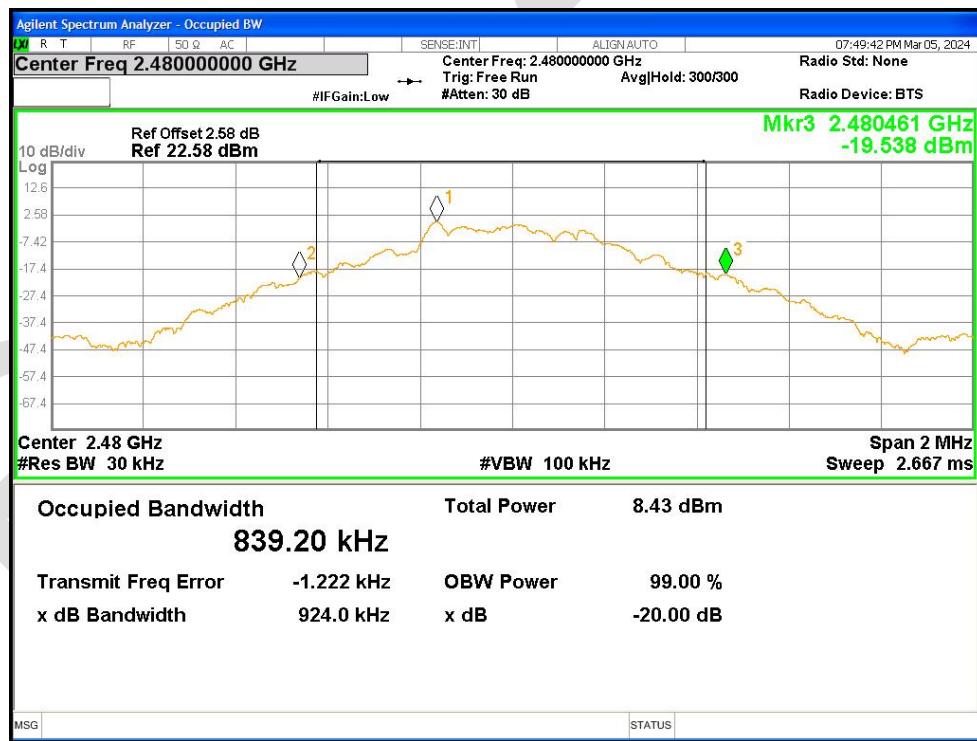
**-20dB Bandwidth**

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.927	N/A	Pass
NVNT	1-DH1	2441	Ant1	0.924	N/A	Pass
NVNT	1-DH1	2480	Ant1	0.924	N/A	Pass
NVNT	2-DH1	2402	Ant1	1.224	N/A	Pass
NVNT	2-DH1	2441	Ant1	1.224	N/A	Pass
NVNT	2-DH1	2480	Ant1	1.224	N/A	Pass
NVNT	3-DH1	2402	Ant1	1.212	N/A	Pass
NVNT	3-DH1	2441	Ant1	1.211	N/A	Pass
NVNT	3-DH1	2480	Ant1	1.206	N/A	Pass

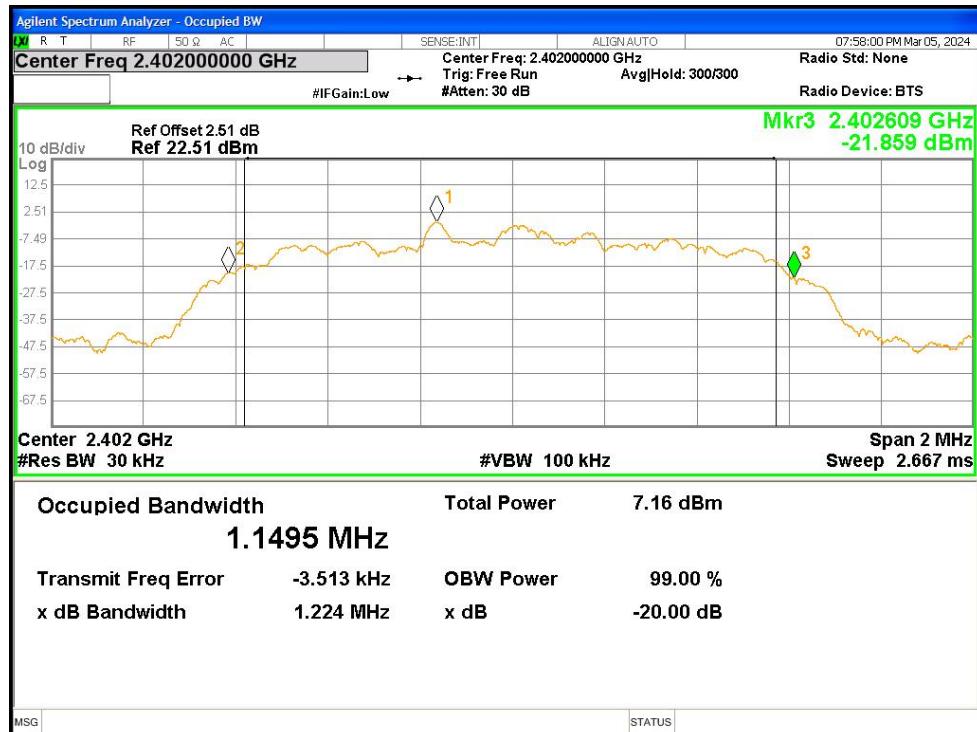
**-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1**

**-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1**



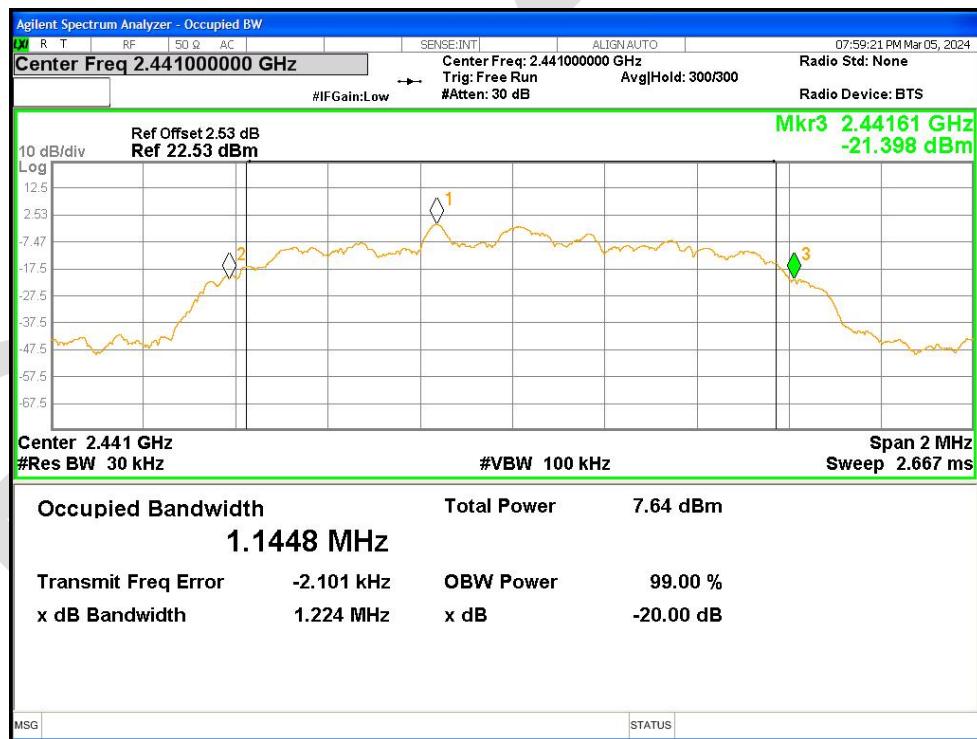
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



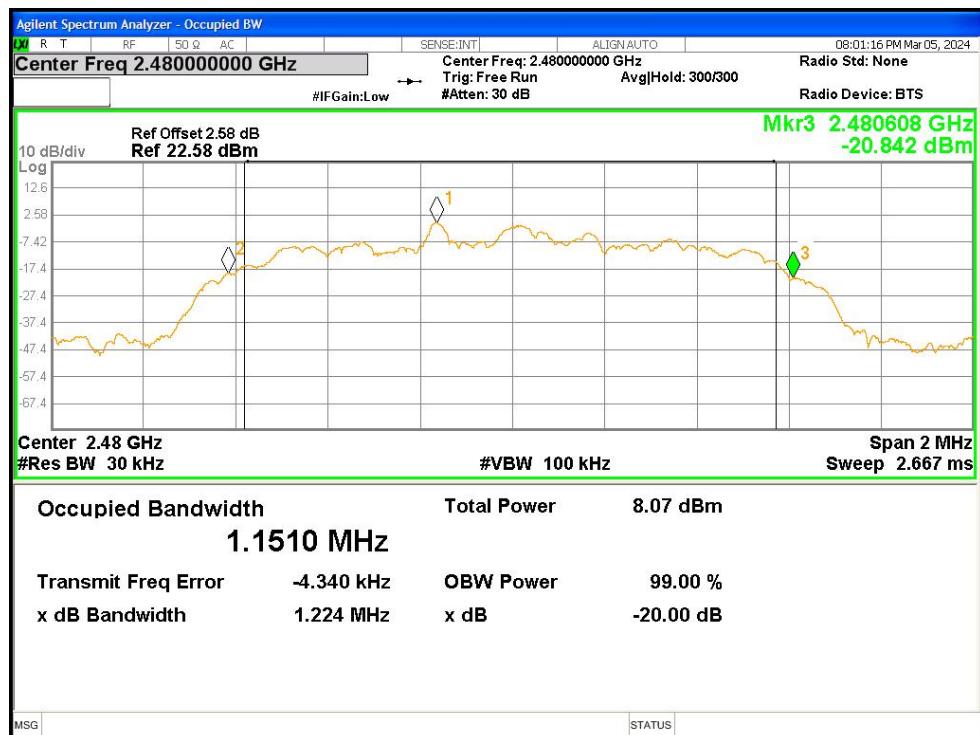
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



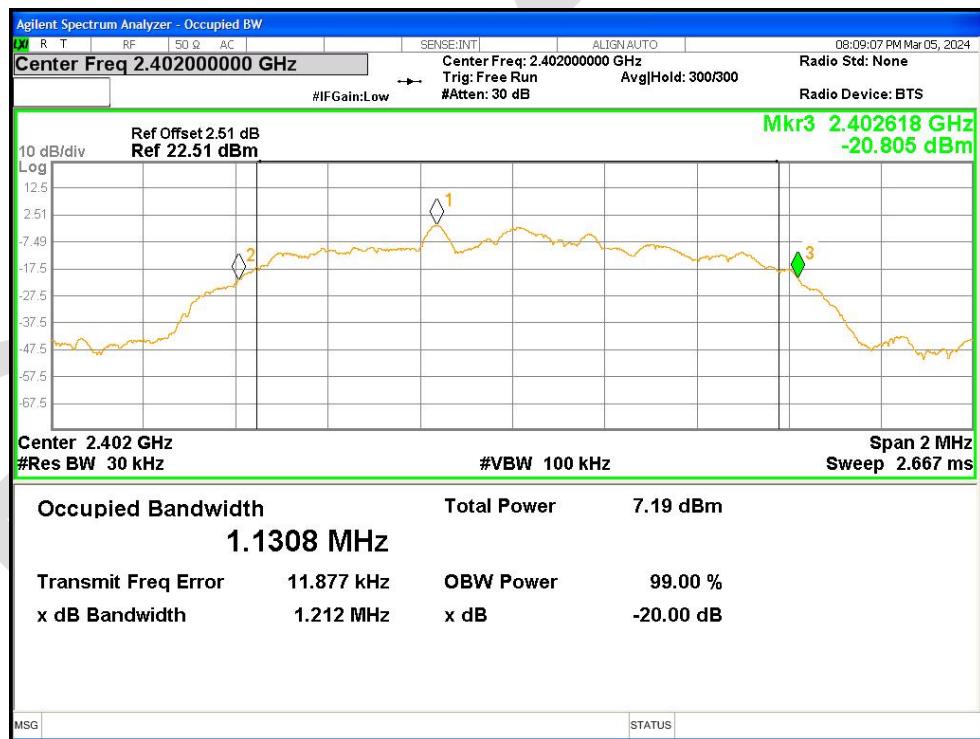
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



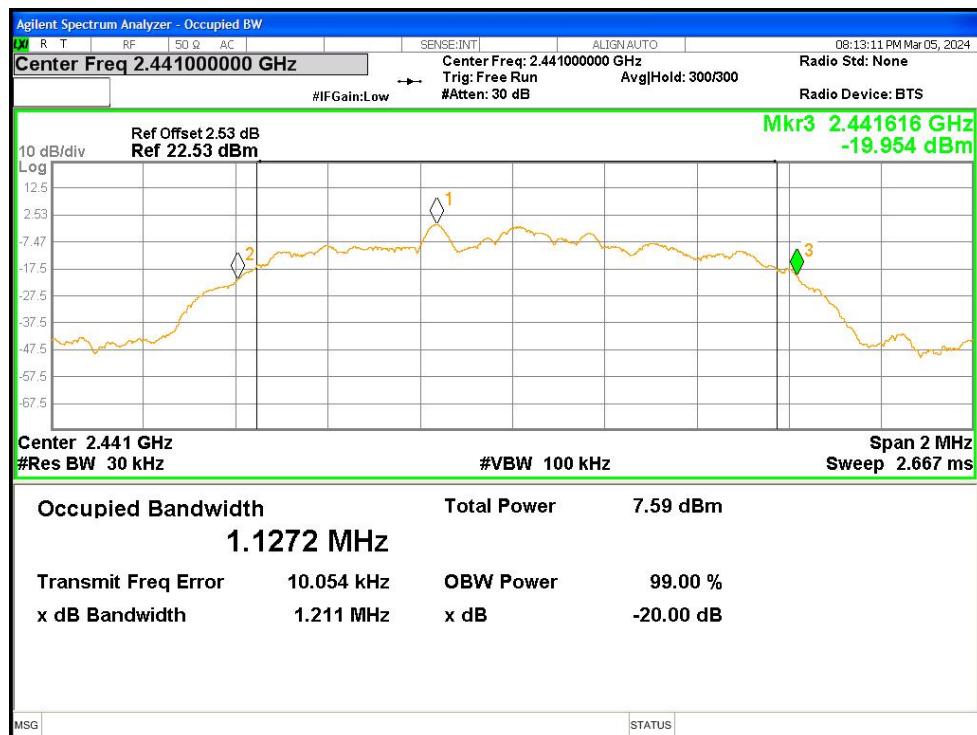
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1



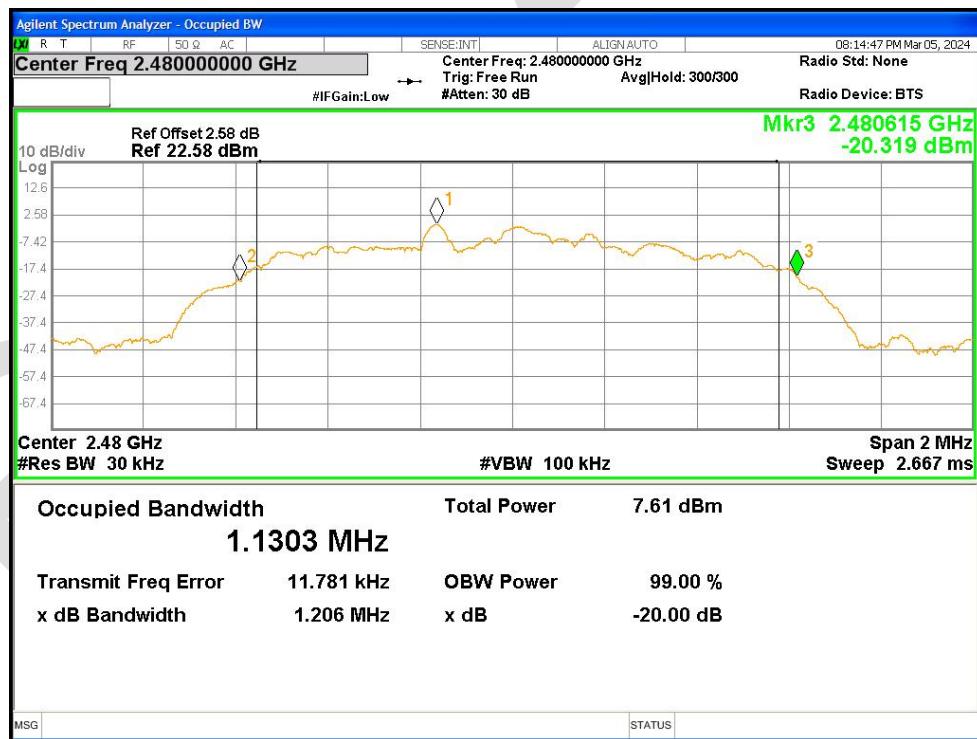
-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1

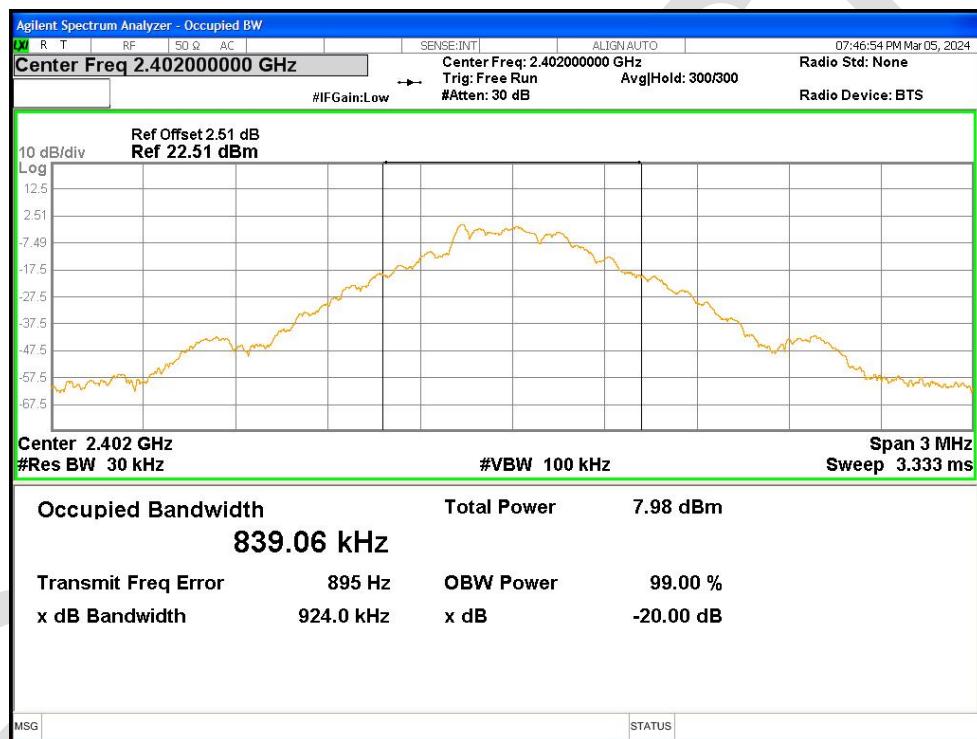


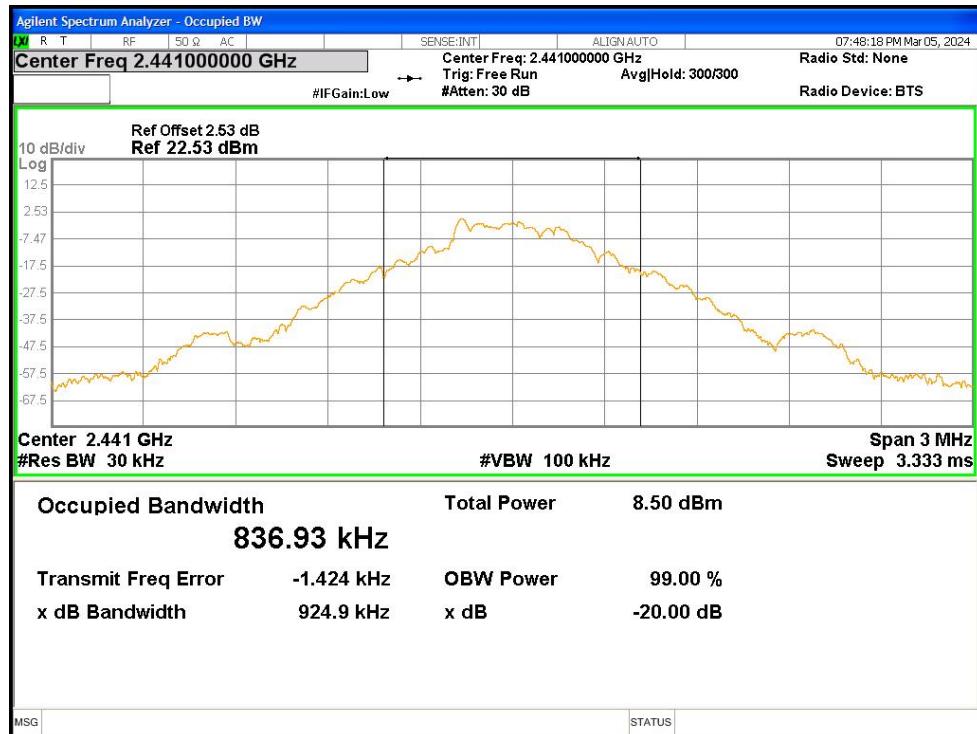
-20dB Bandwidth NVNT 3-DH1 2480MHz Ant1



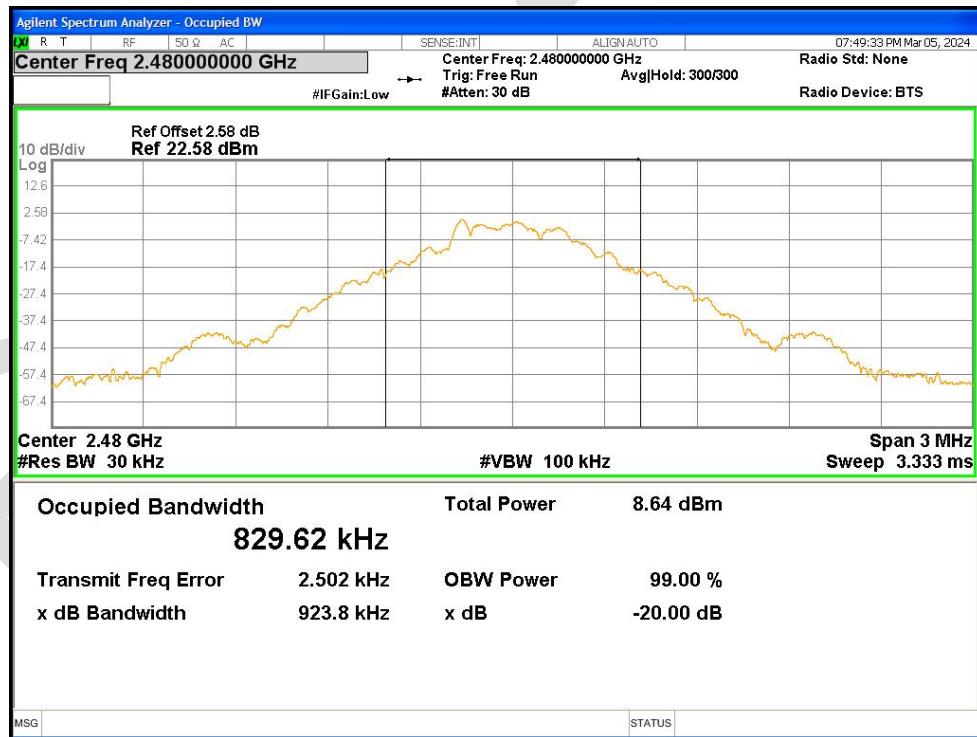
**Occupied Channel Bandwidth**

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.83906
NVNT	1-DH1	2441	Ant1	0.83693
NVNT	1-DH1	2480	Ant1	0.82962
NVNT	2-DH1	2402	Ant1	1.1499
NVNT	2-DH1	2441	Ant1	1.1478
NVNT	2-DH1	2480	Ant1	1.1485
NVNT	3-DH1	2402	Ant1	1.1252
NVNT	3-DH1	2441	Ant1	1.1339
NVNT	3-DH1	2480	Ant1	1.1324

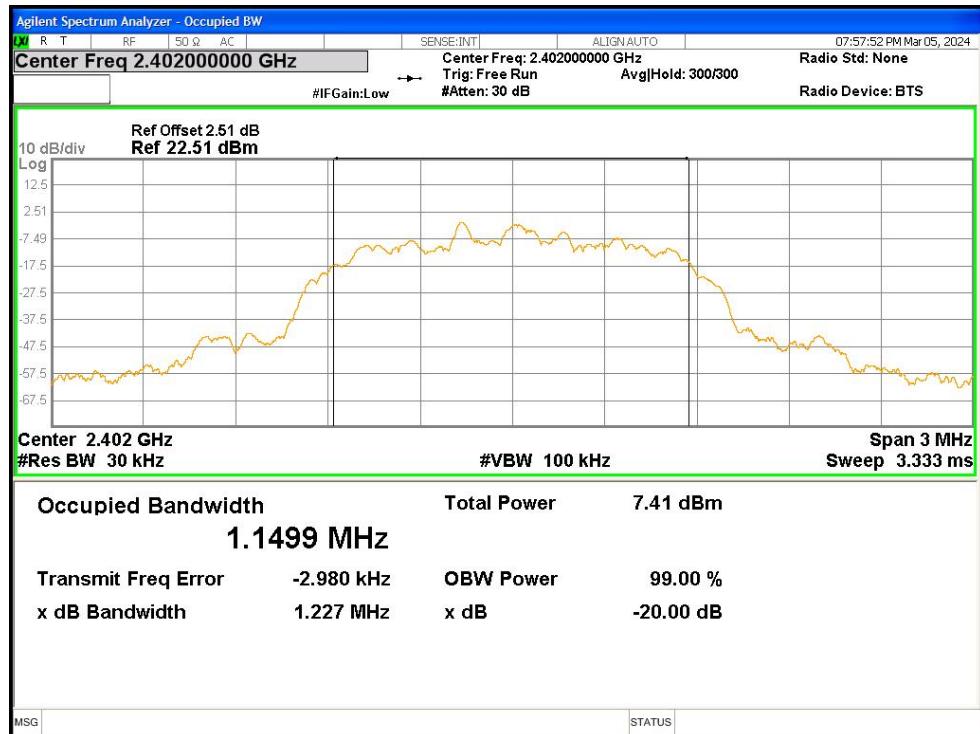
**OBW NVNT 1-DH1 2402MHz Ant1**

**OBW NVNT 1-DH1 2441MHz Ant1**



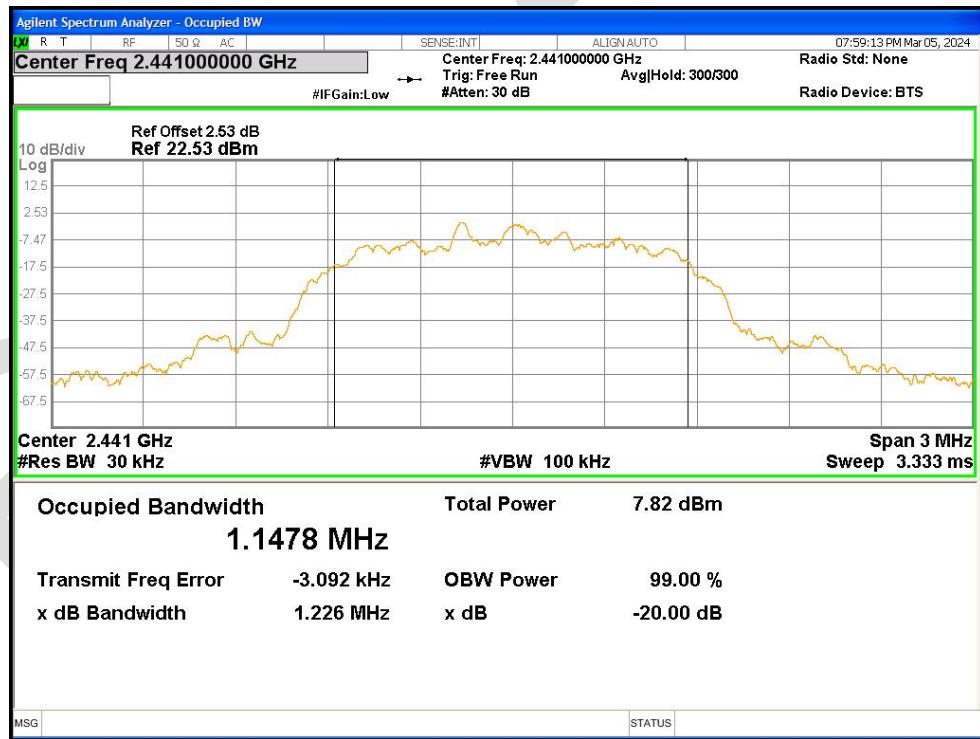
### OBW NVNT 1-DH1 2480MHz Ant1



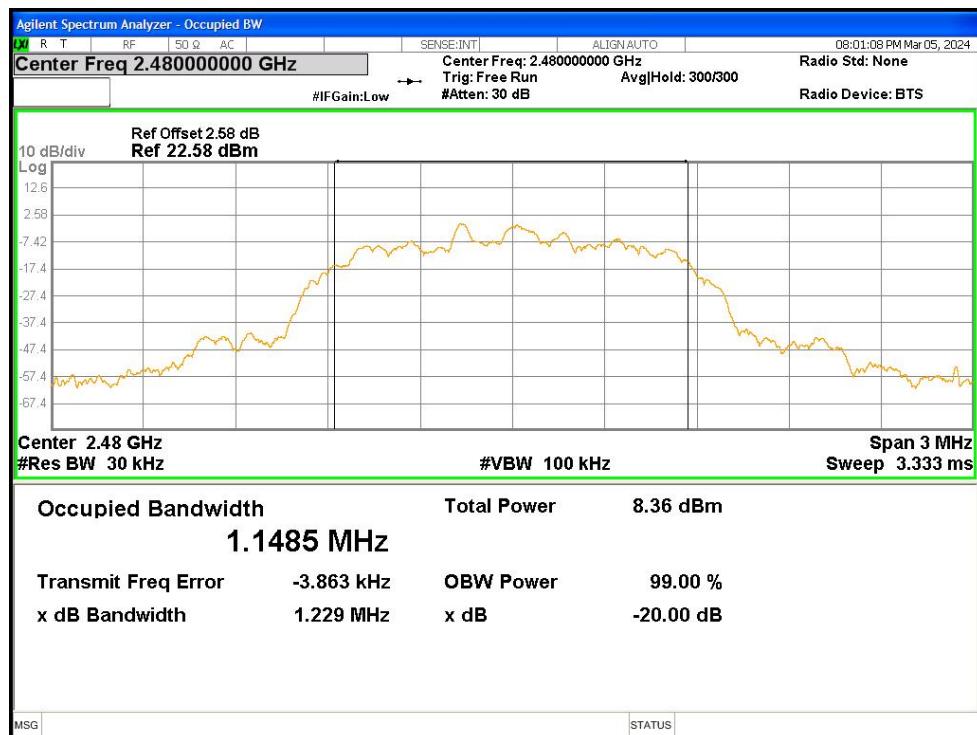
### OBW NVNT 2-DH1 2402MHz Ant1



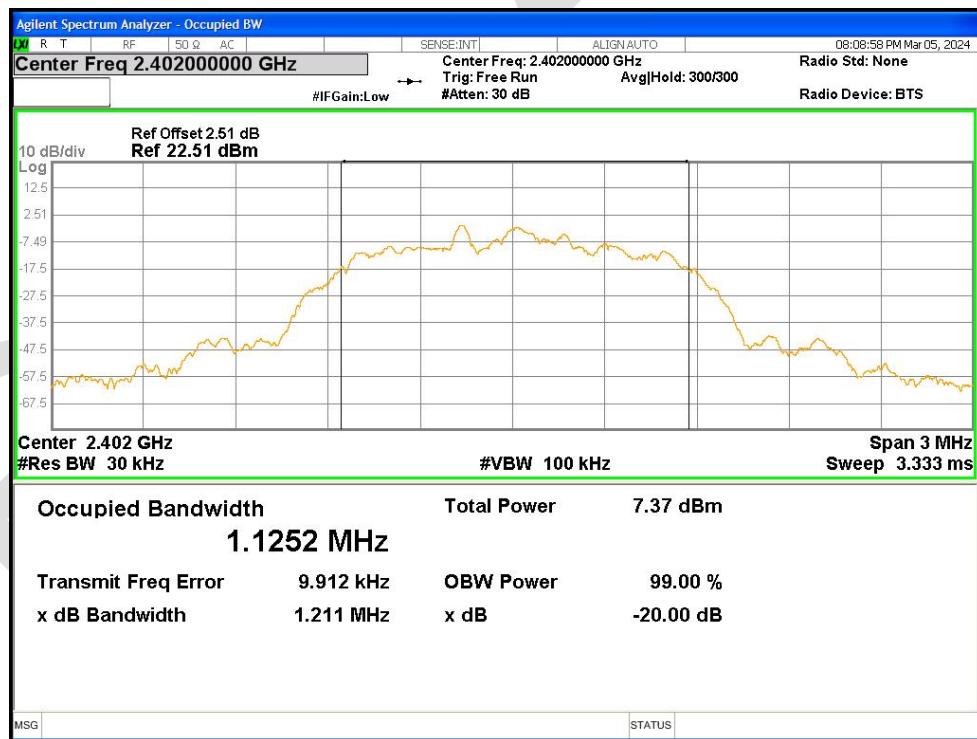
### OBW NVNT 2-DH1 2441MHz Ant1



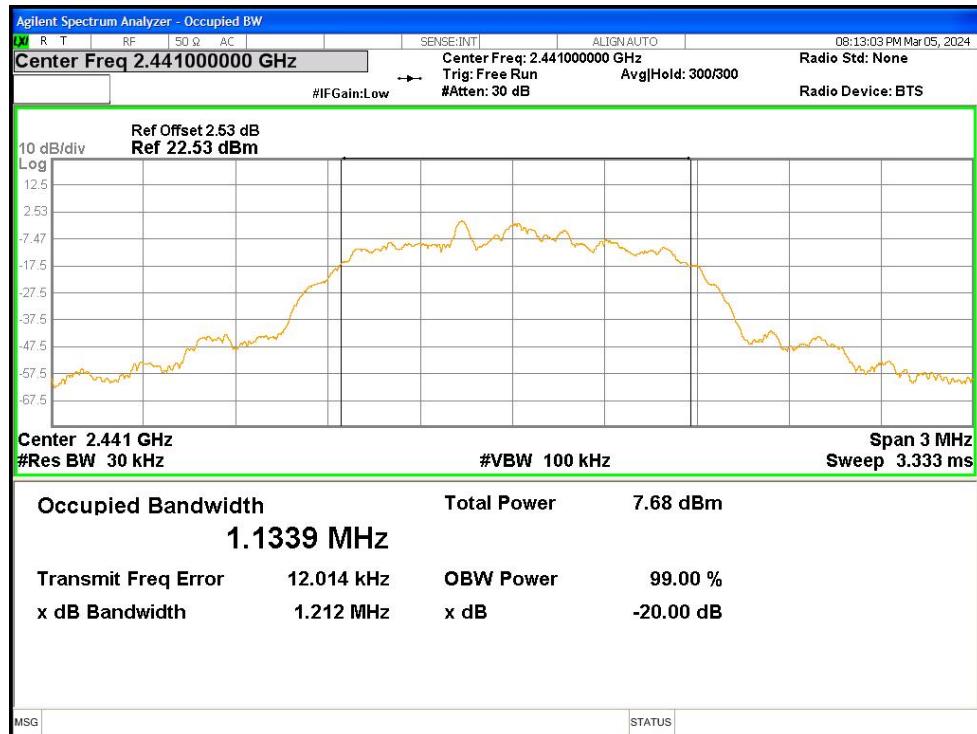
### OBW NVNT 2-DH1 2480MHz Ant1



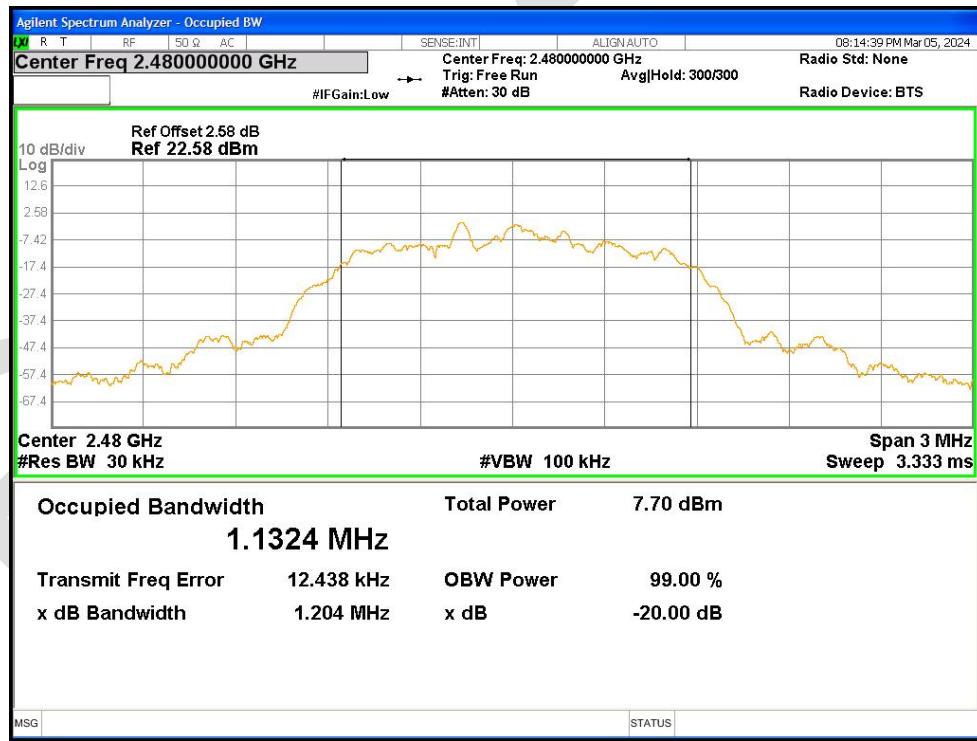
### OBW NVNT 3-DH1 2402MHz Ant1



### OBW NVNT 3-DH1 2441MHz Ant1



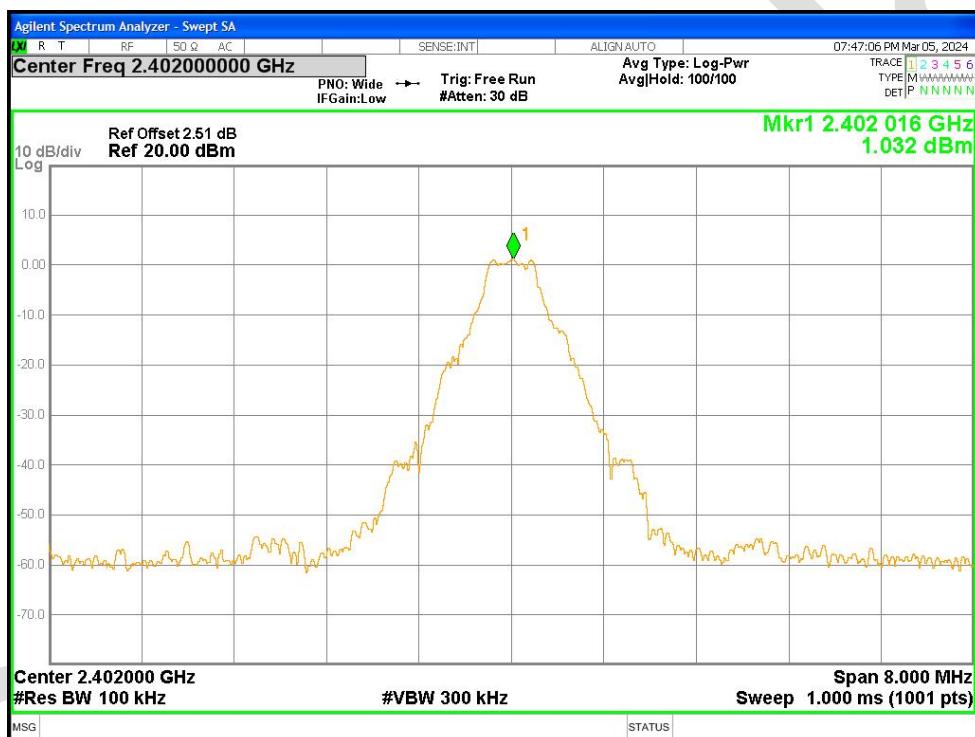
### OBW NVNT 3-DH1 2480MHz Ant1



### Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-56.95	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-54.98	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-55.73	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-54.58	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-55.43	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-55.29	-20	Pass

### Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



### Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission