

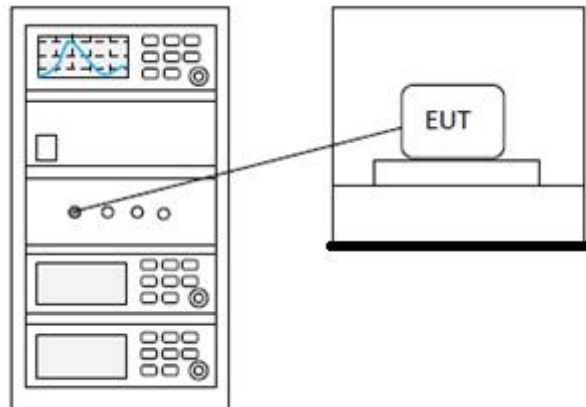
## 19 HOPPING CHANNEL NUMBER

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

### 19.1 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

### 19.2 BLOCK DIAGRAM OF TEST SETUP



### 19.3 TEST DATA

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

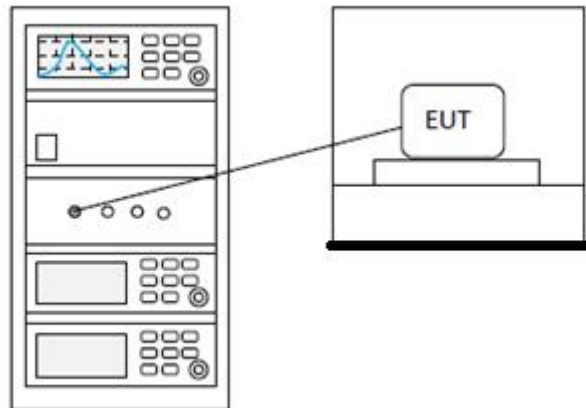
## 20 CARRIER FREQUENCIES SEPARATION

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

### 20.1 LIMITS

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

### 20.2 BLOCK DIAGRAM OF TEST SETUP



### 20.3 TEST DATA

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

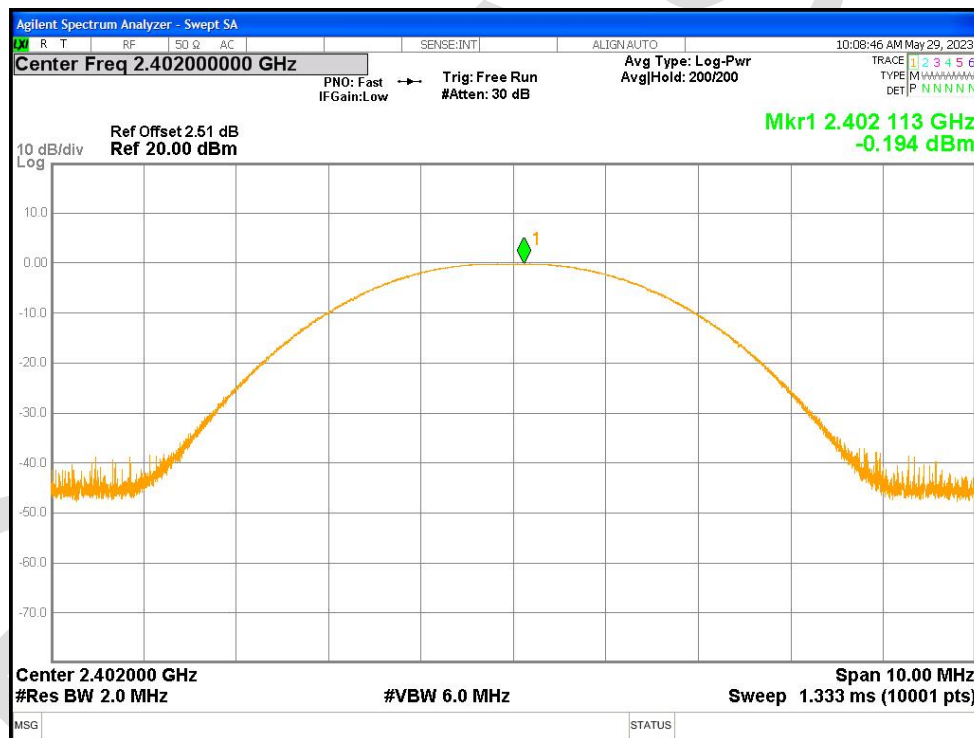
## 21 APPENDIX

### Appendix1

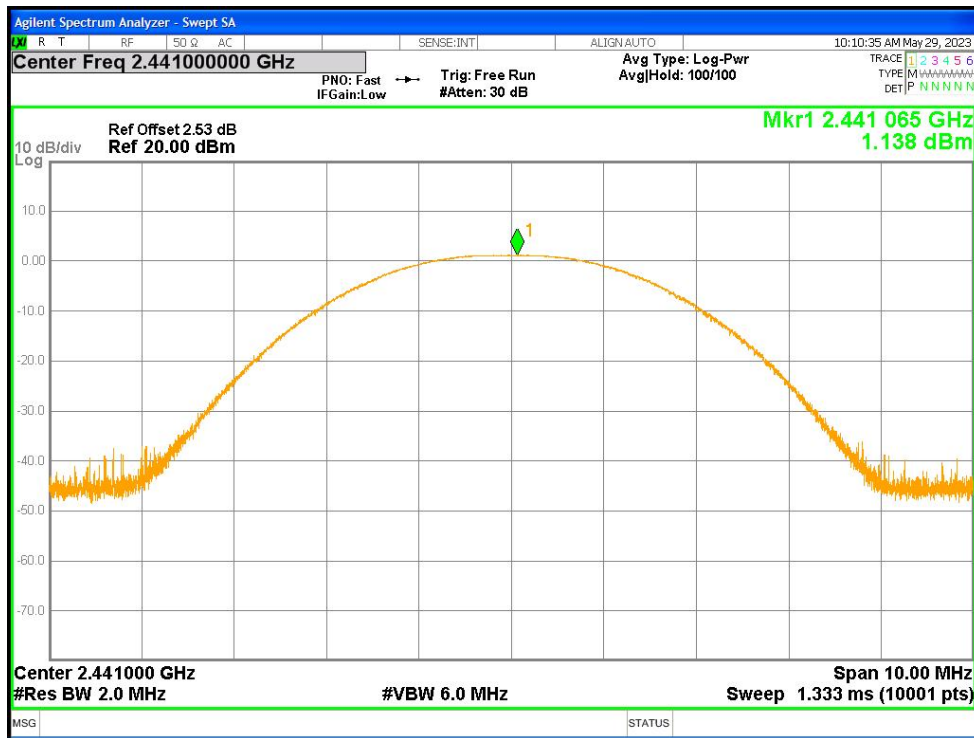
#### Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	-0.194	21	Pass
NVNT	1-DH1	2441	Ant1	1.138	21	Pass
NVNT	1-DH1	2480	Ant1	0.86	21	Pass
NVNT	2-DH1	2402	Ant1	0.731	21	Pass
NVNT	2-DH1	2441	Ant1	1.991	21	Pass
NVNT	2-DH1	2480	Ant1	1.568	21	Pass

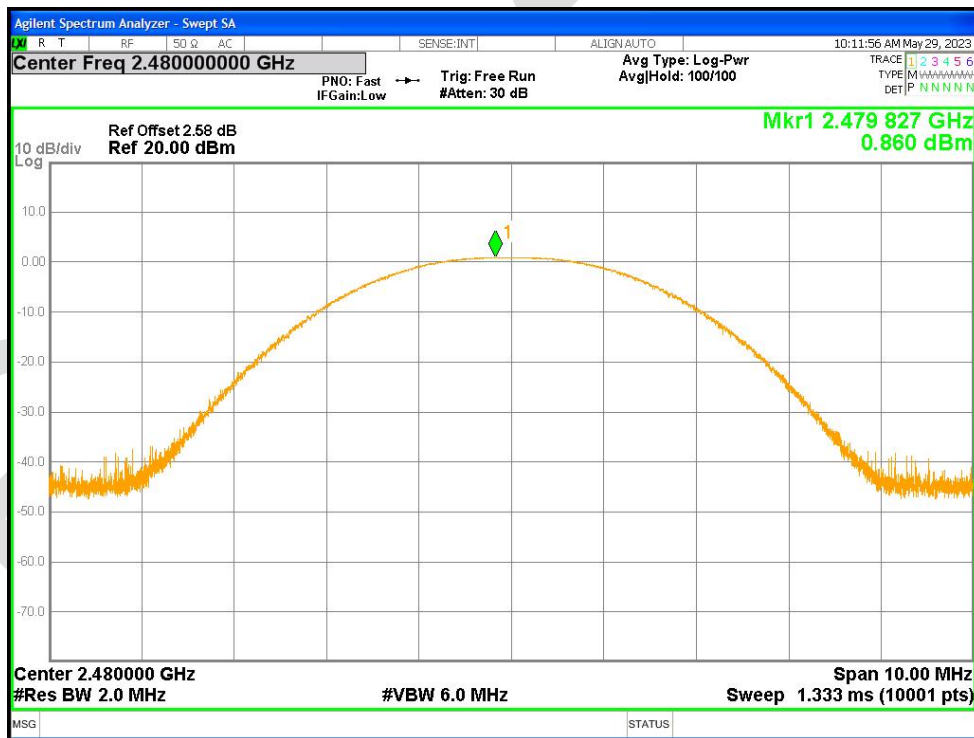
Power NVNT 1-DH1 2402MHz Ant1



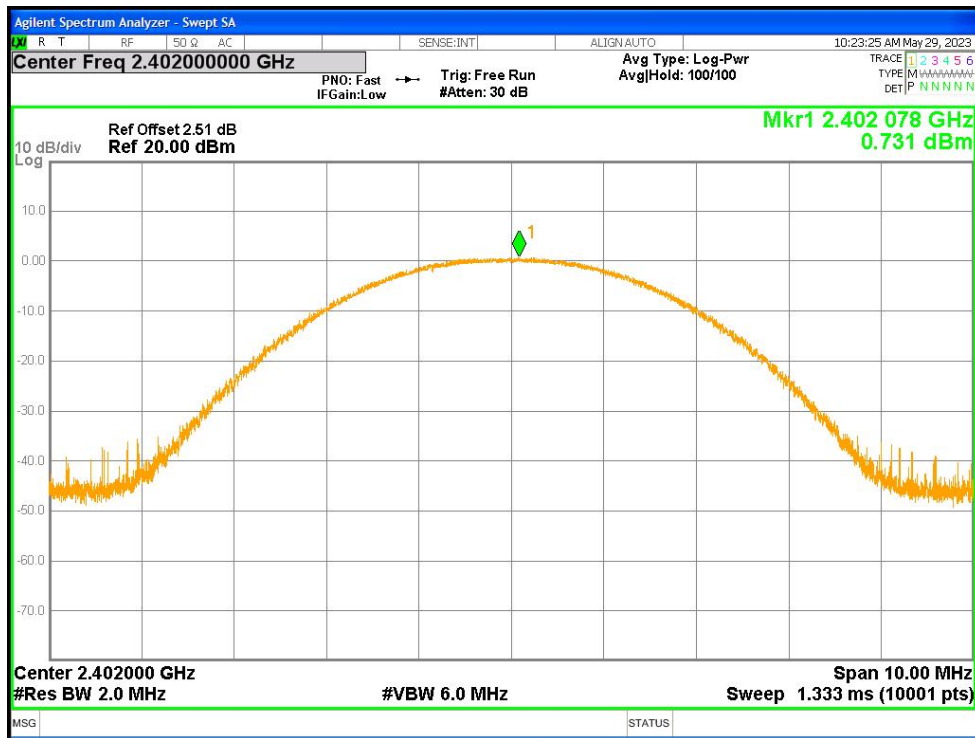
Power NVNT 1-DH1 2441MHz Ant1



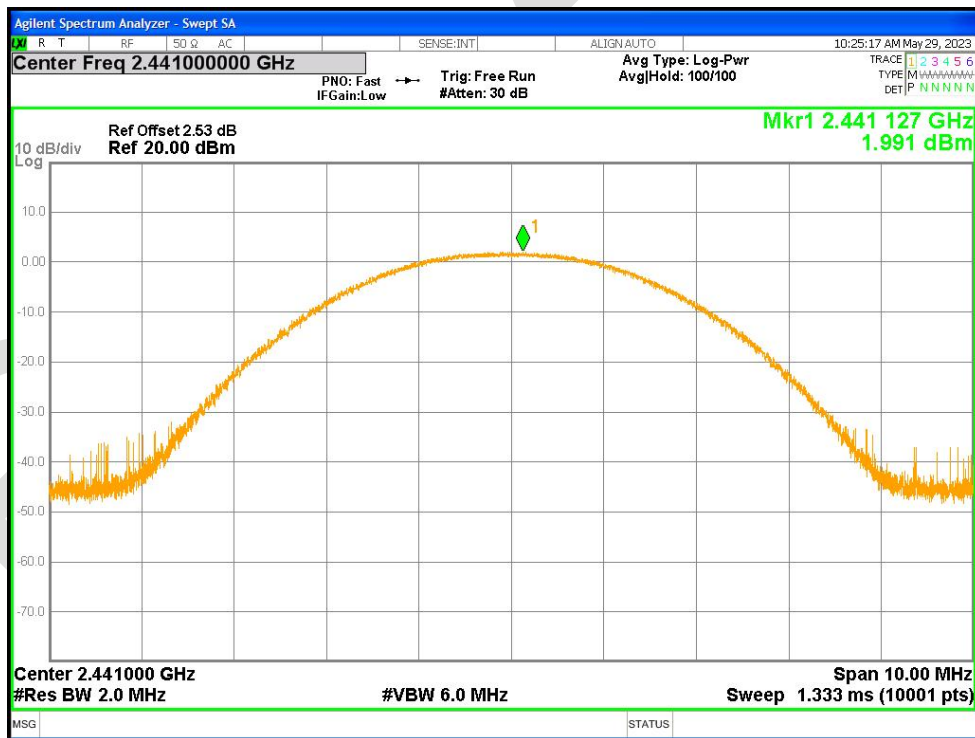
Power NVNT 1-DH1 2480MHz Ant1



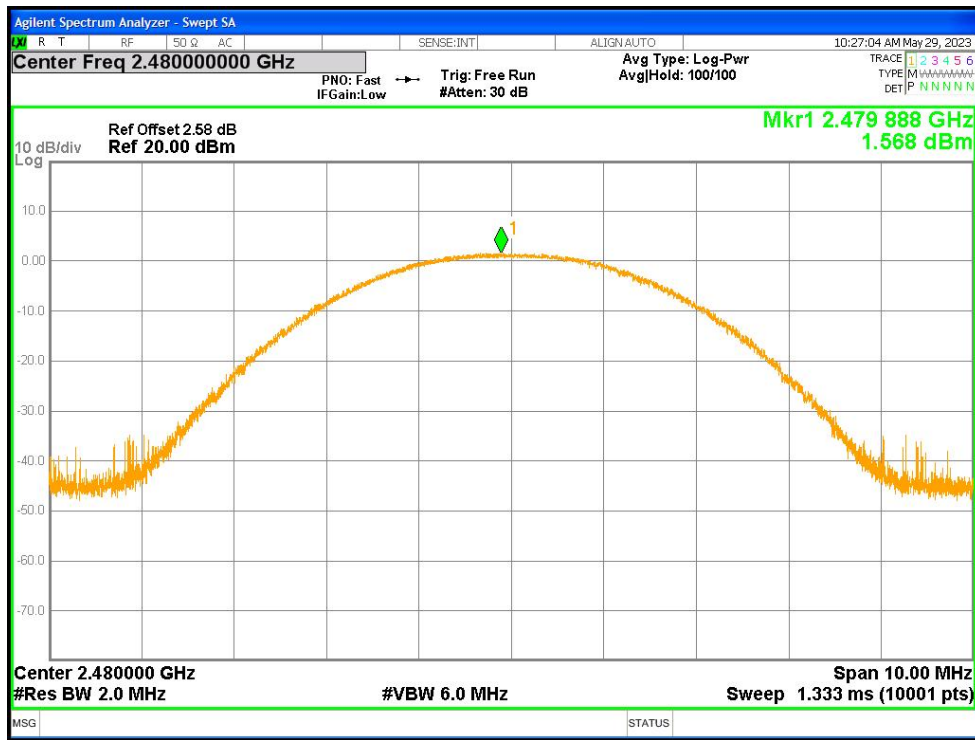
Power NVNT 2-DH1 2402MHz Ant1



Power NVNT 2-DH1 2441MHz Ant1

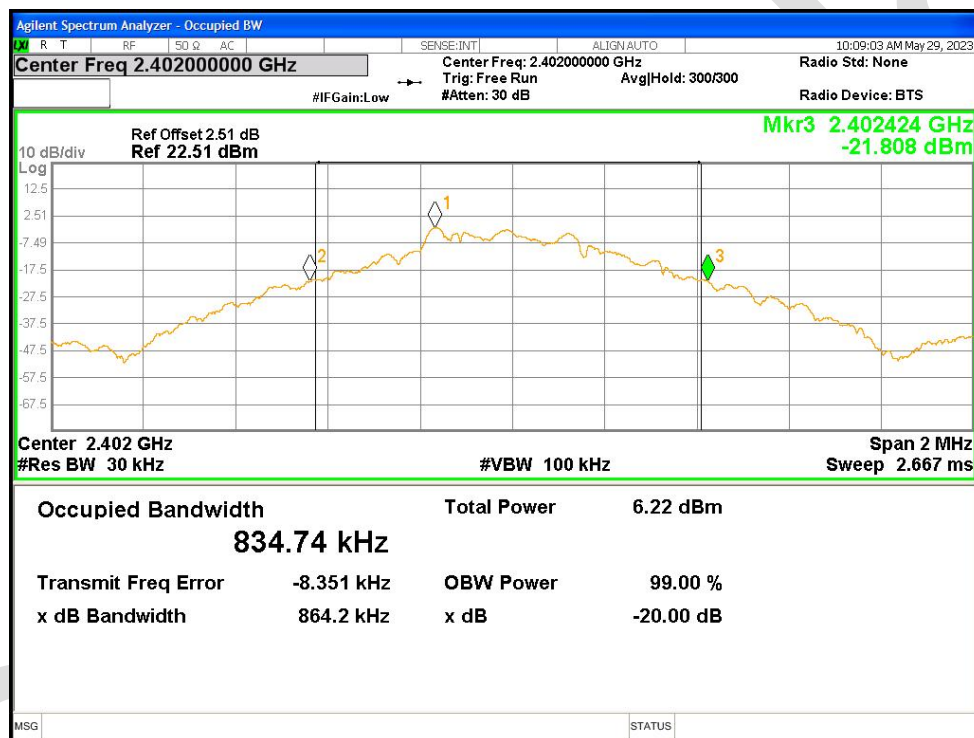


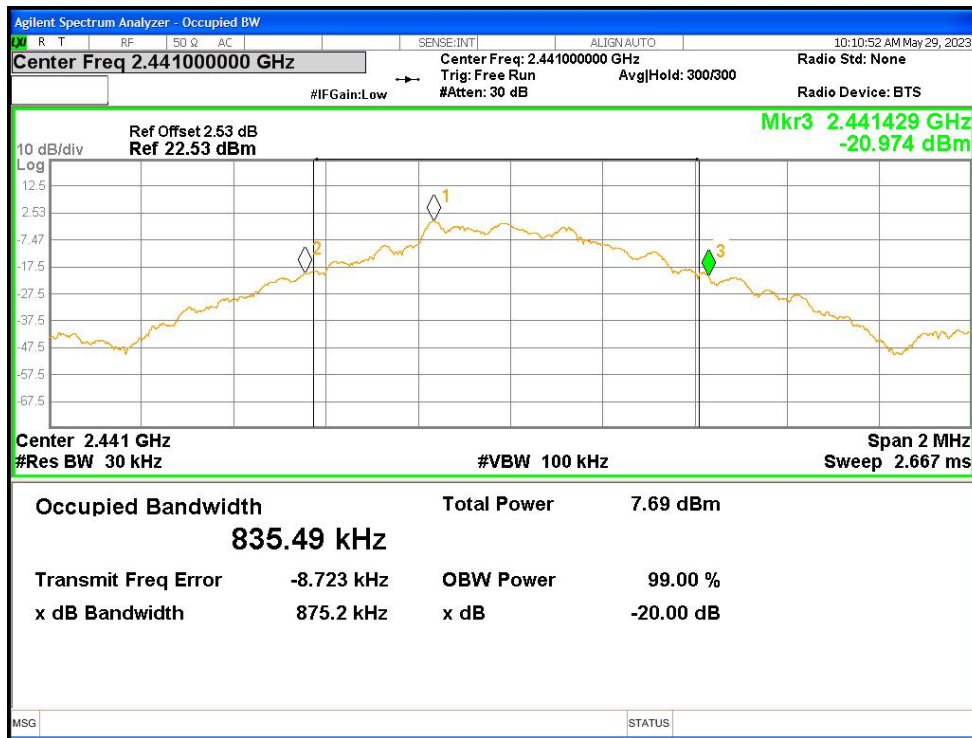
Power NVNT 2-DH1 2480MHz Ant1



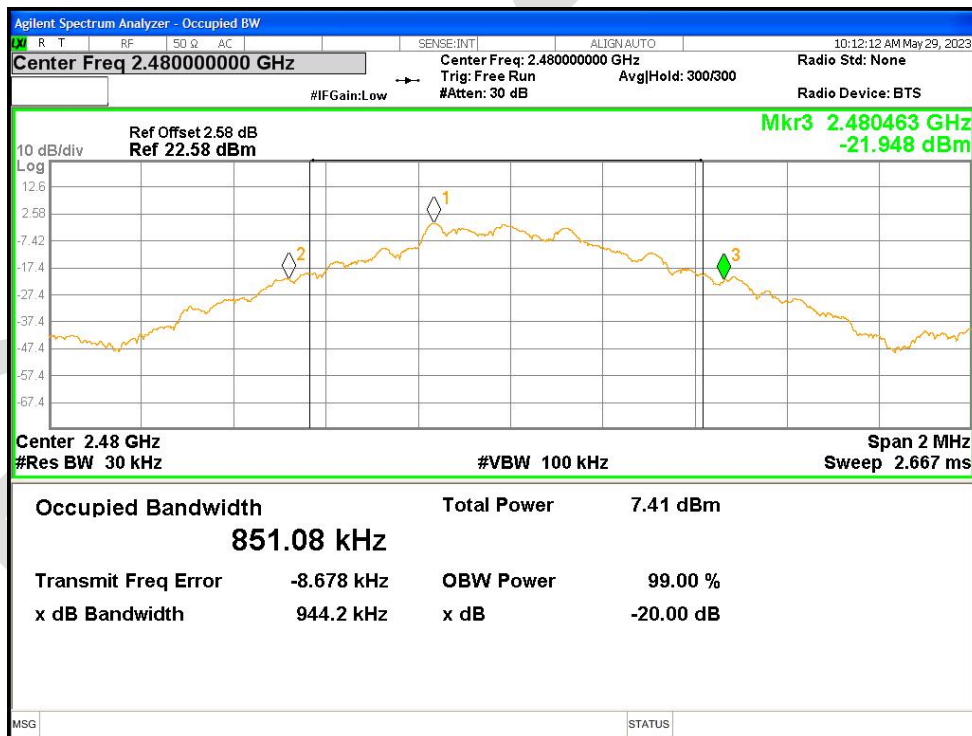
**-20dB Bandwidth**

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.864	0	Pass
NVNT	1-DH1	2441	Ant1	0.875	0	Pass
NVNT	1-DH1	2480	Ant1	0.944	0	Pass
NVNT	2-DH1	2402	Ant1	1.236	0	Pass
NVNT	2-DH1	2441	Ant1	1.241	0	Pass
NVNT	2-DH1	2480	Ant1	1.235	0	Pass

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

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

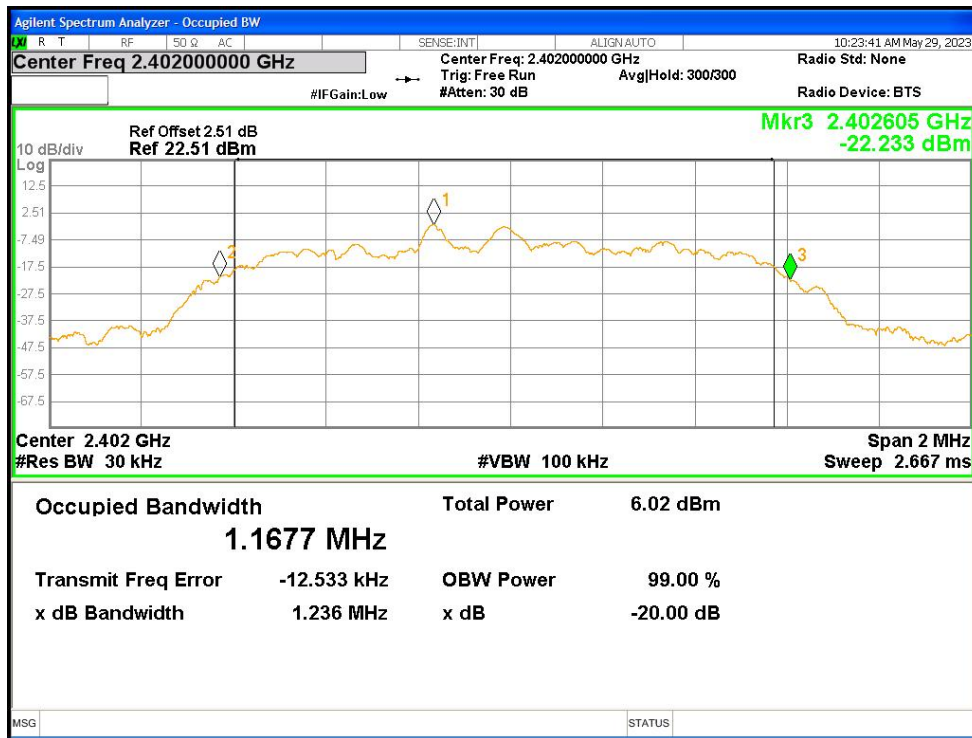


-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1

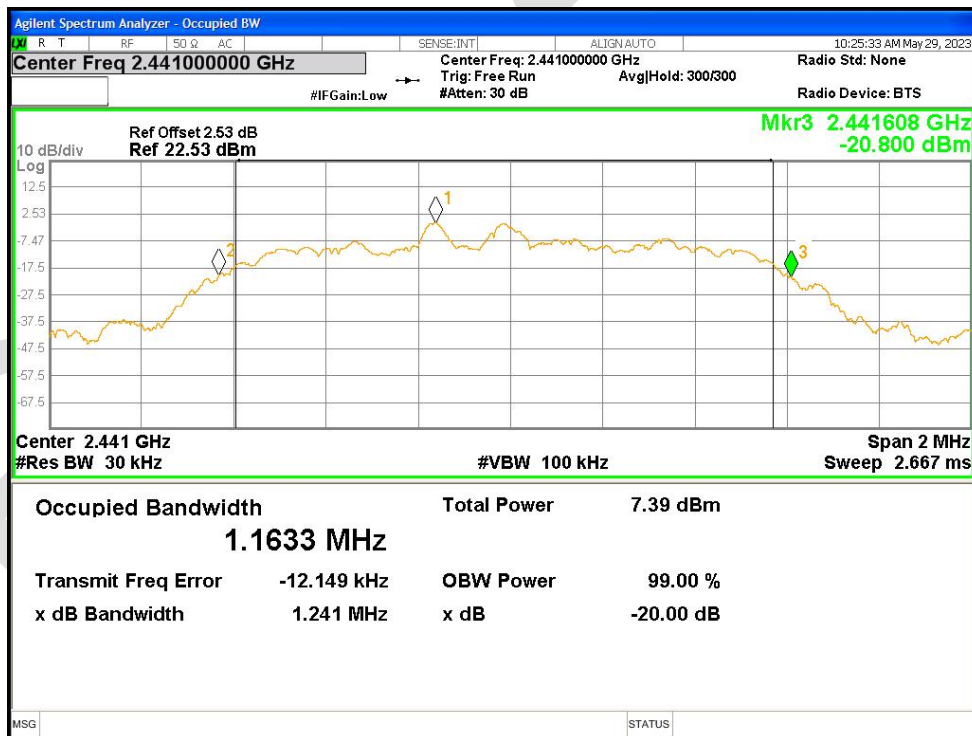


-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1

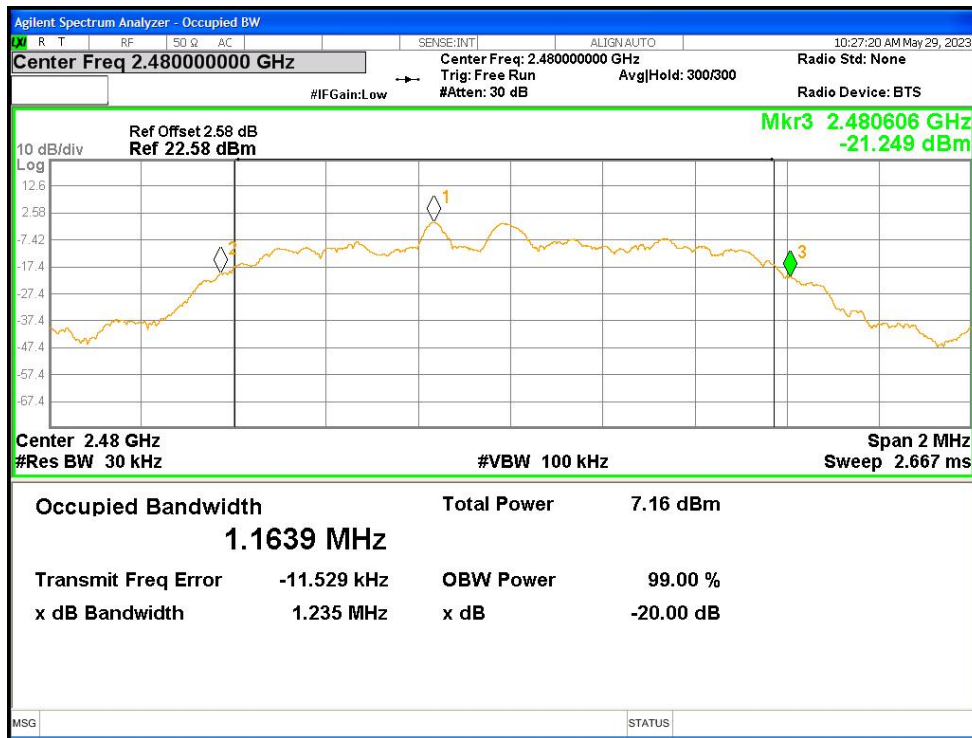




-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



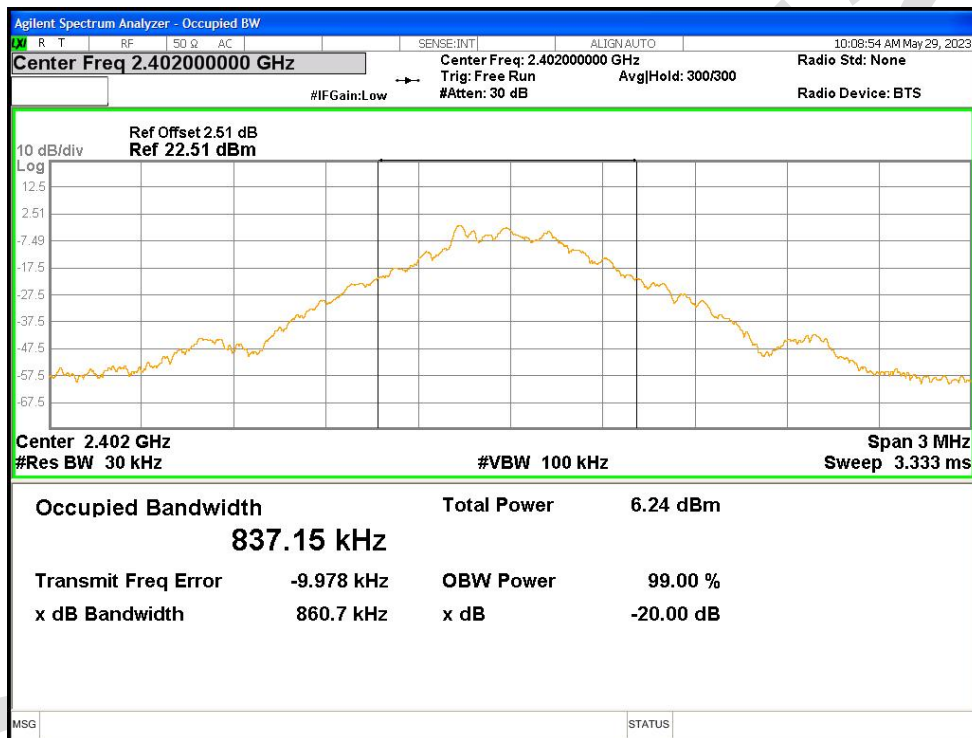
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1



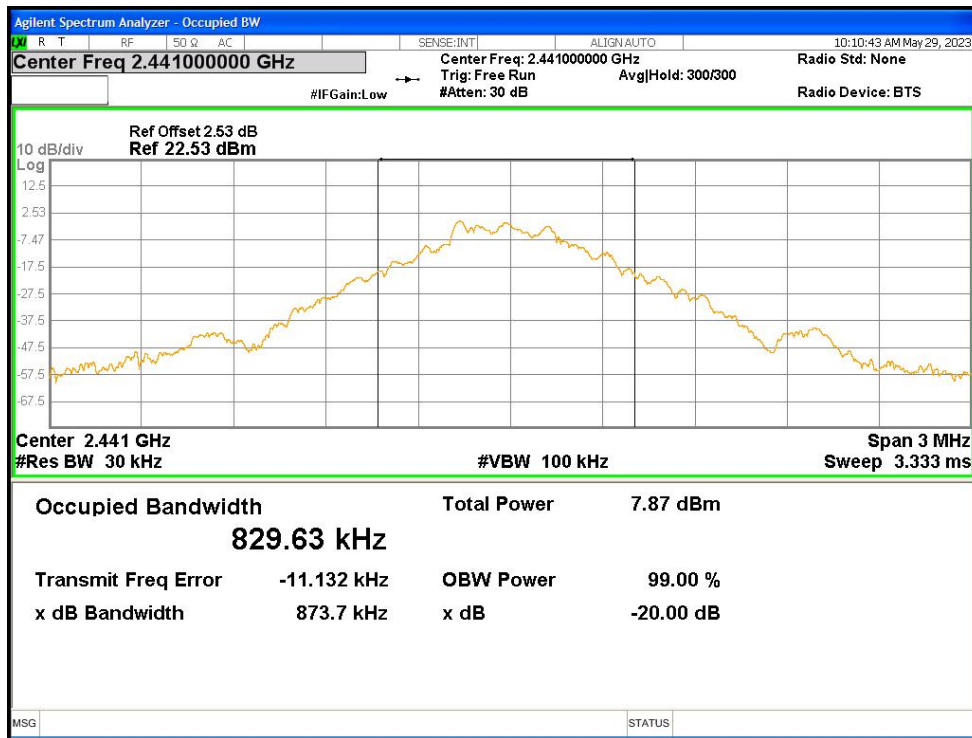
**Occupied Channel Bandwidth**

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.83715
NVNT	1-DH1	2441	Ant1	0.82962
NVNT	1-DH1	2480	Ant1	0.84998
NVNT	2-DH1	2402	Ant1	1.1664
NVNT	2-DH1	2441	Ant1	1.1674
NVNT	2-DH1	2480	Ant1	1.1636

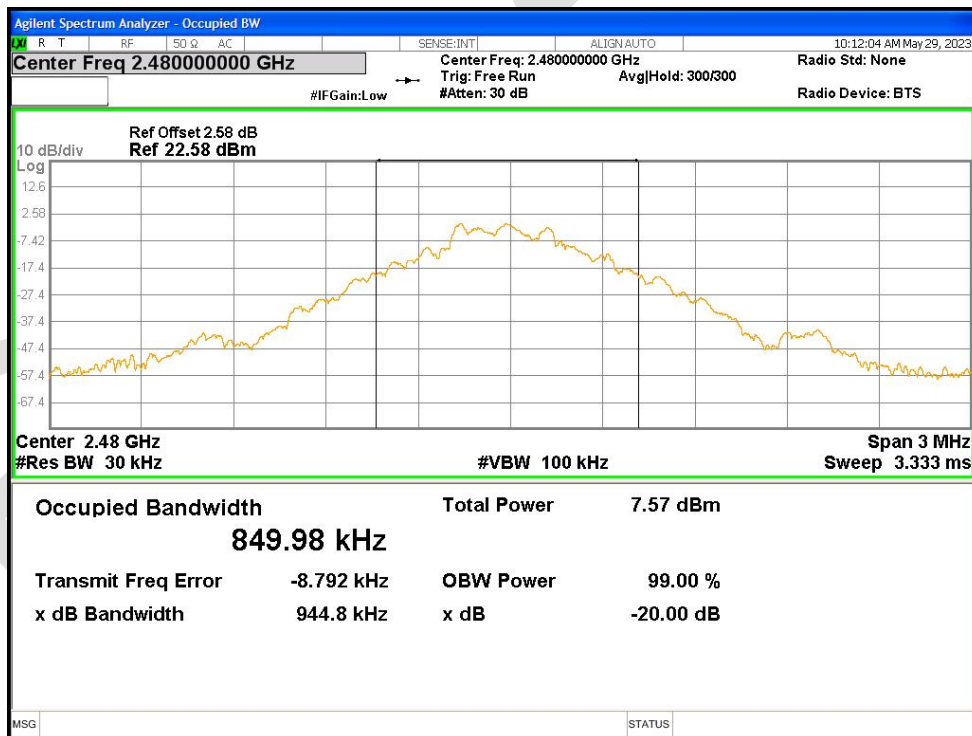
OBW NVNT 1-DH1 2402MHz Ant1



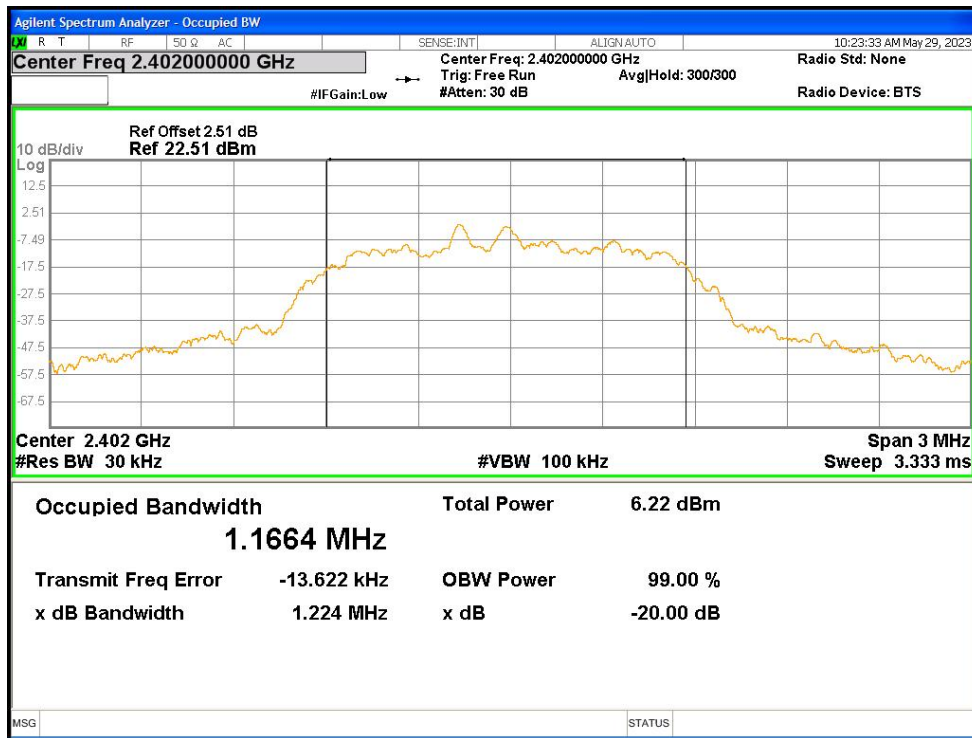
OBW NVNT 1-DH1 2441MHz Ant1



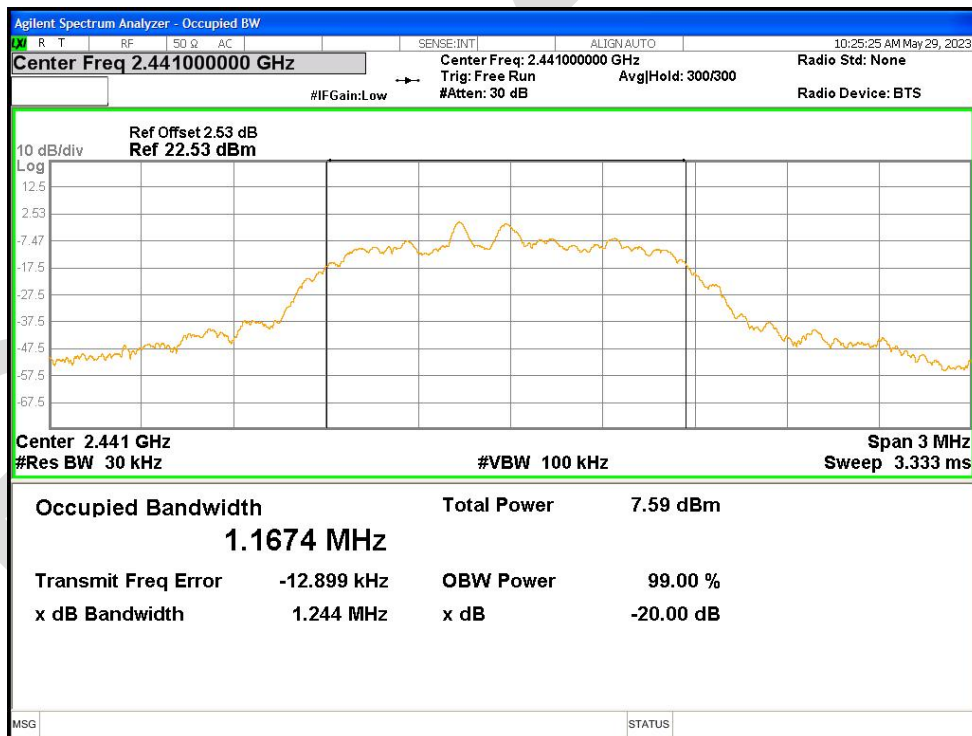
OBW NVNT 1-DH1 2480MHz Ant1



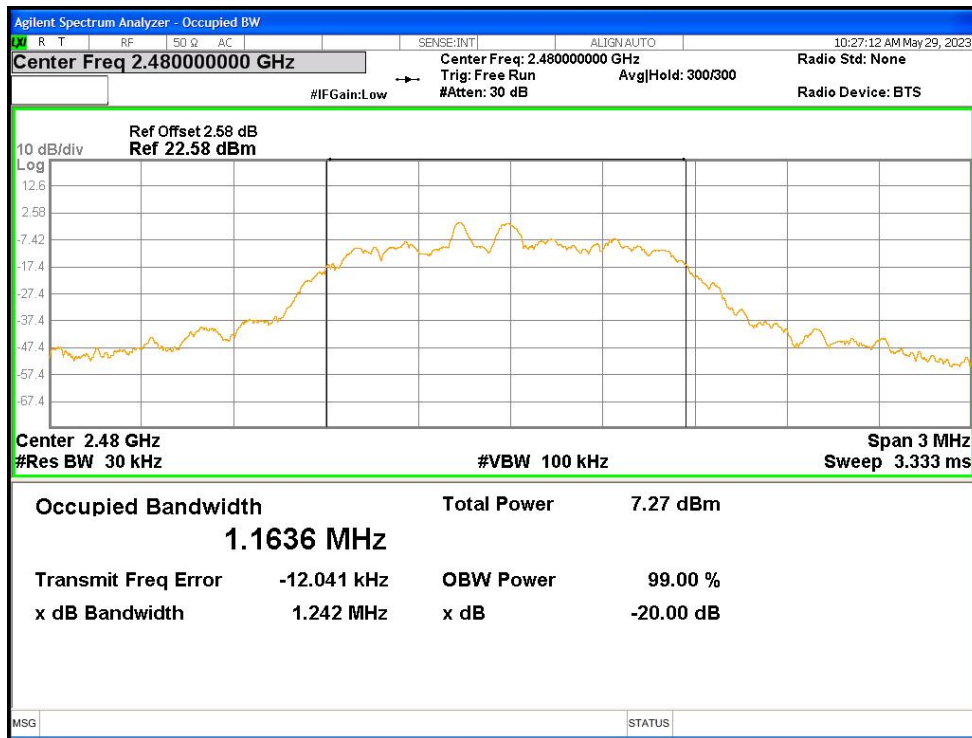
OBW NVNT 2-DH1 2402MHz Ant1



OBW NVNT 2-DH1 2441MHz Ant1



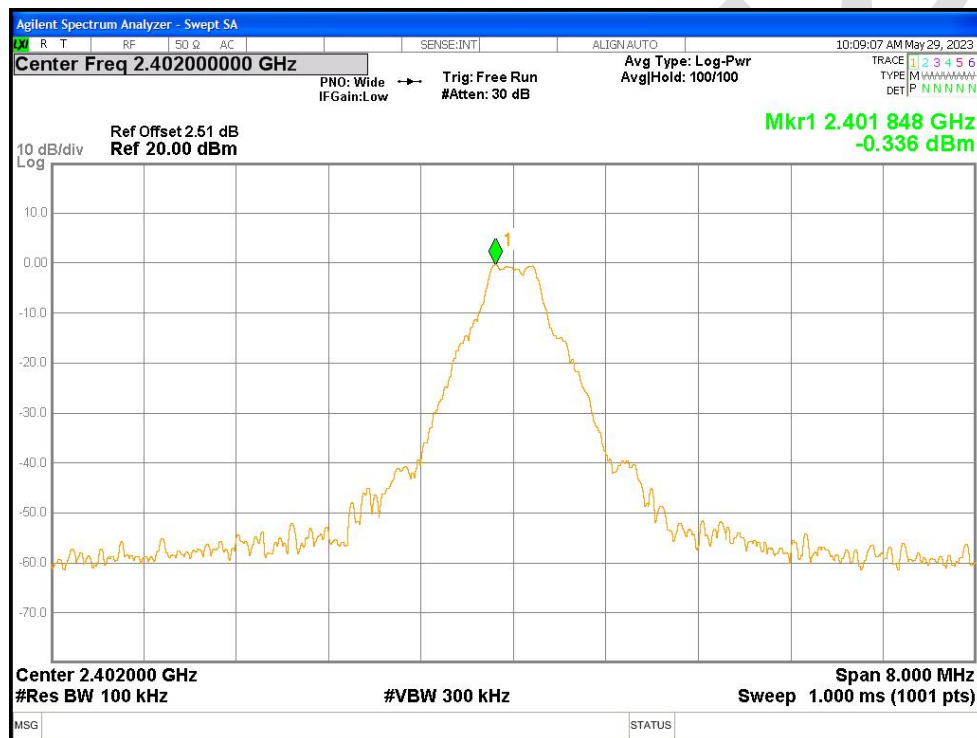
OBW NVNT 2-DH1 2480MHz Ant1



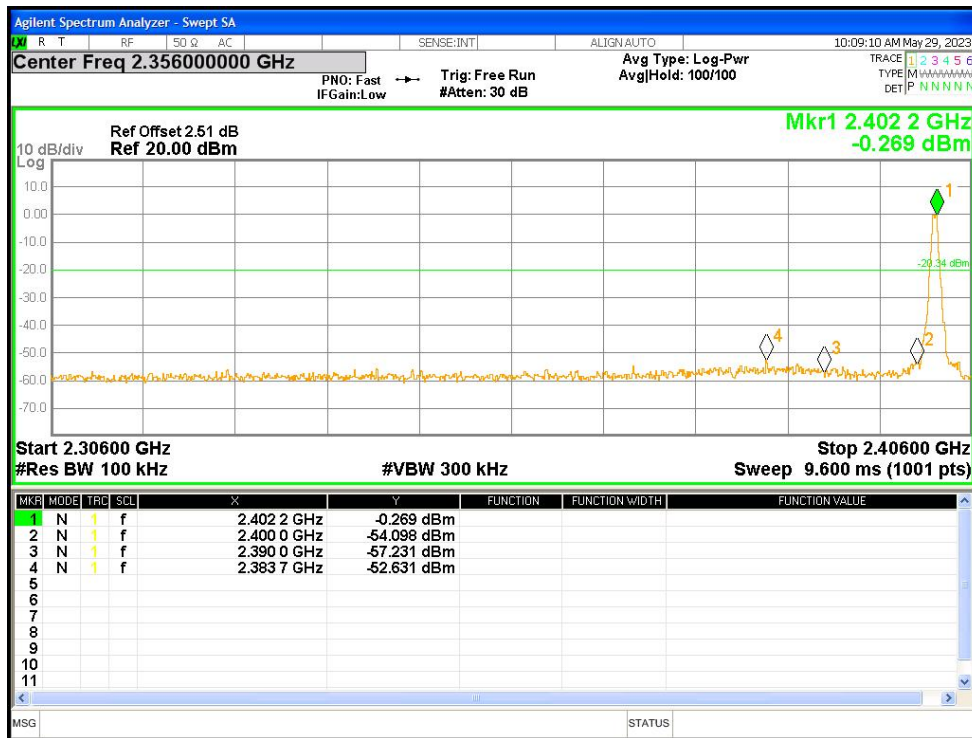
**Band Edge**

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-52.29	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-52.76	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-51.99	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-52.75	-20	Pass

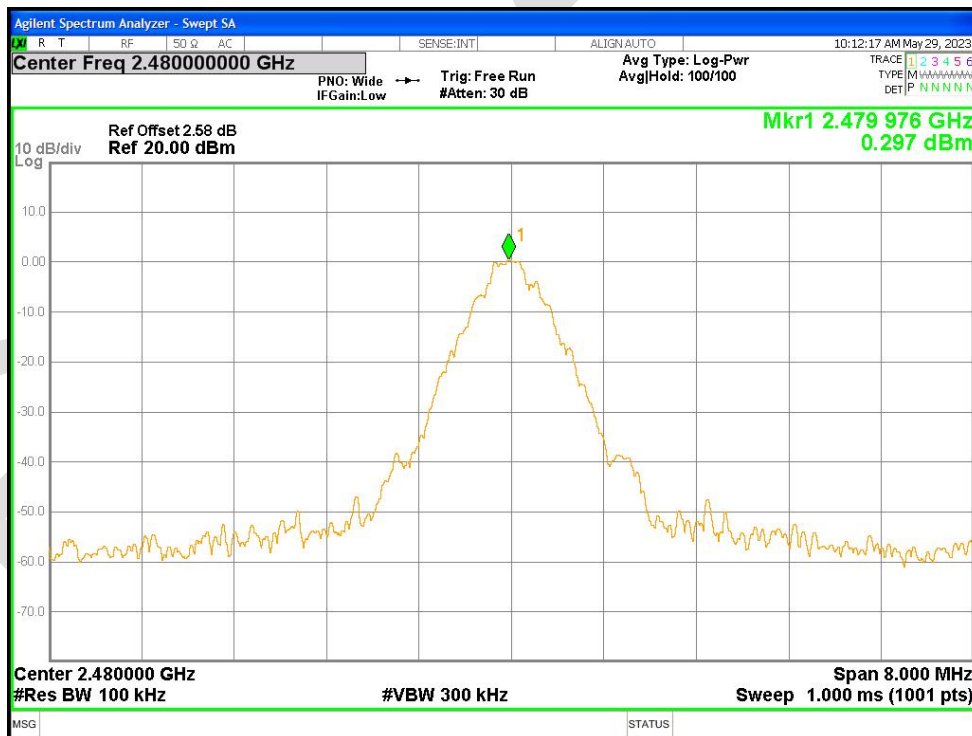
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



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

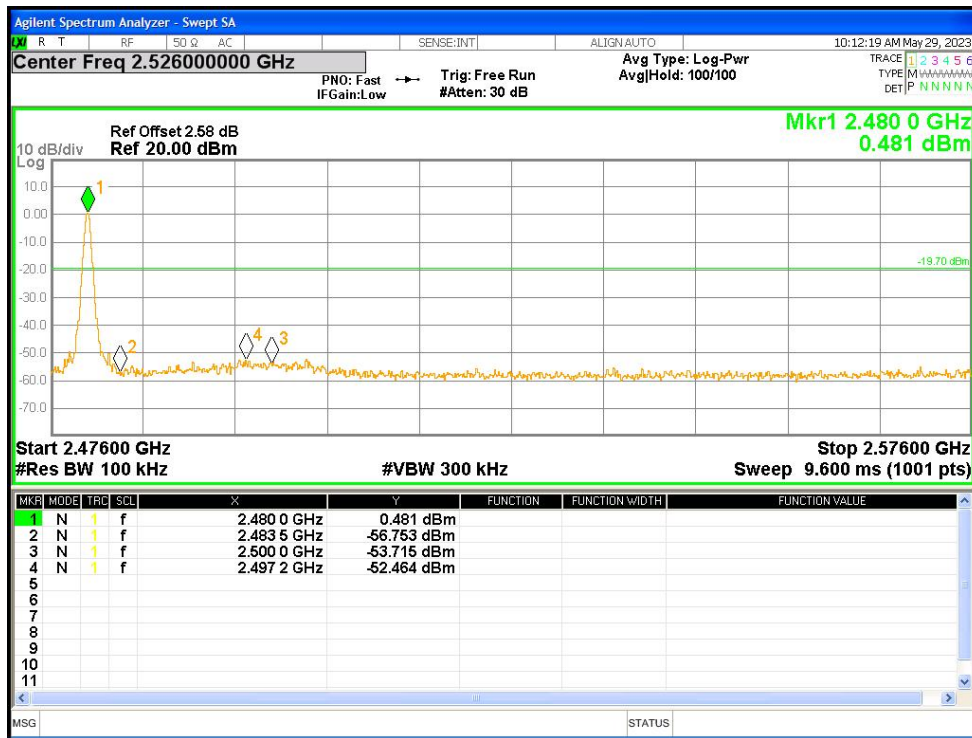


Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref

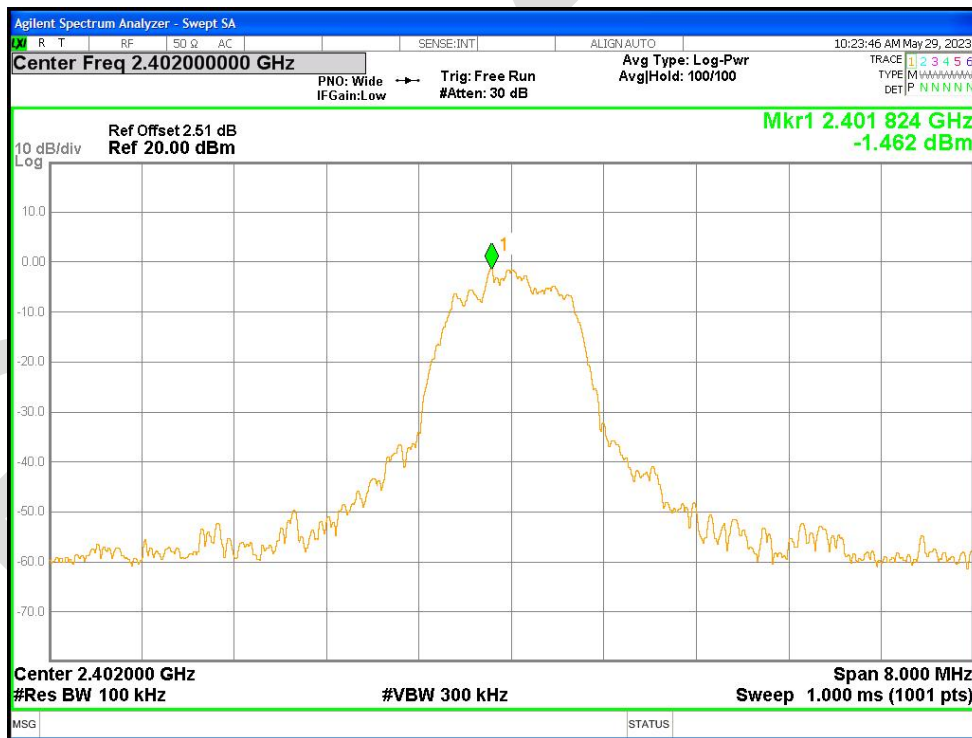


Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission

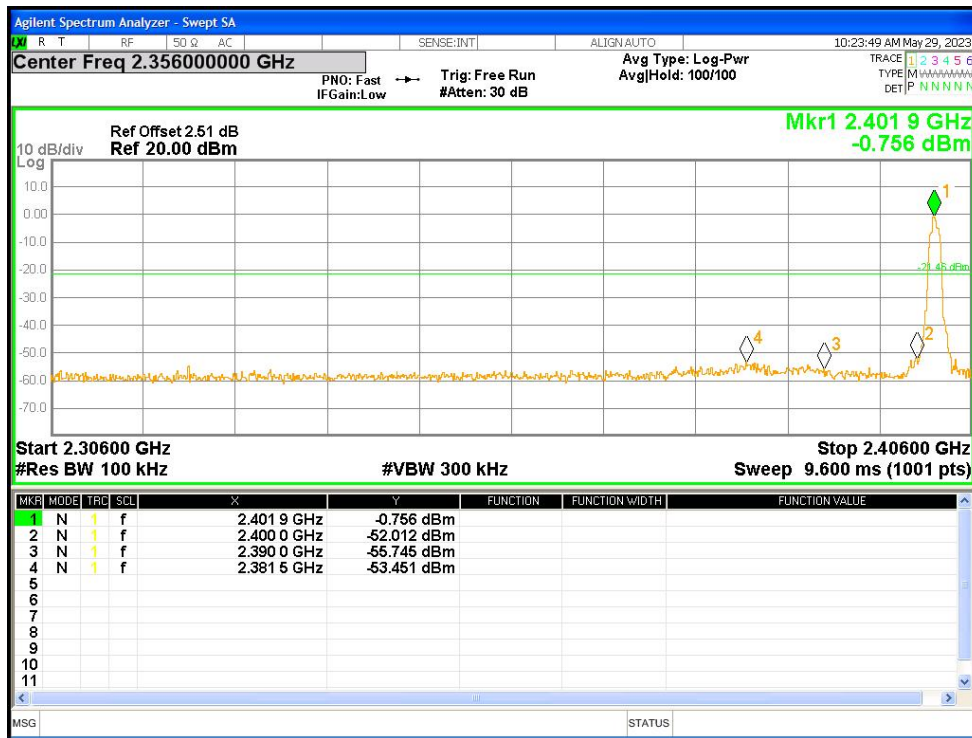




Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



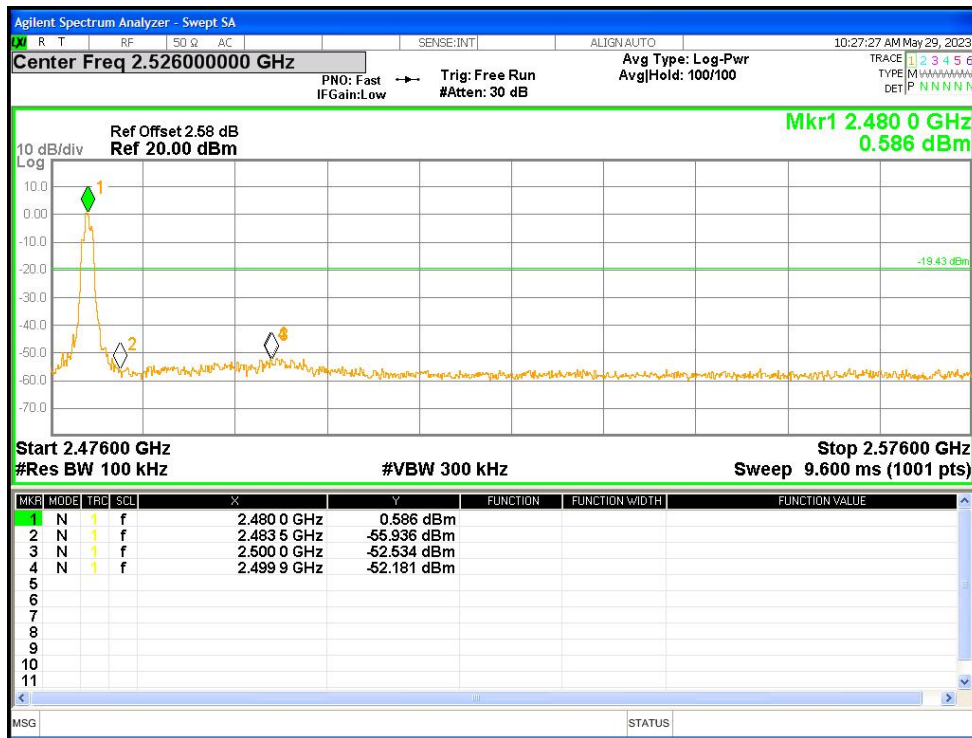
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



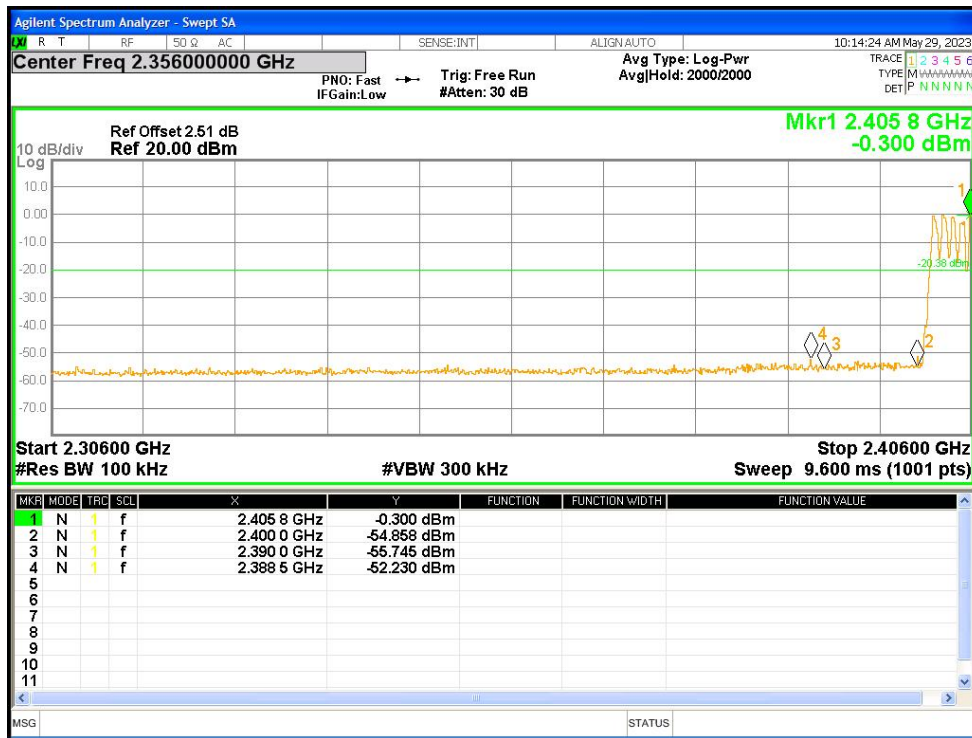
**Band Edge(Hopping)**

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-51.84	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-51.73	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-52.31	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-52.77	-20	Pass

Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref



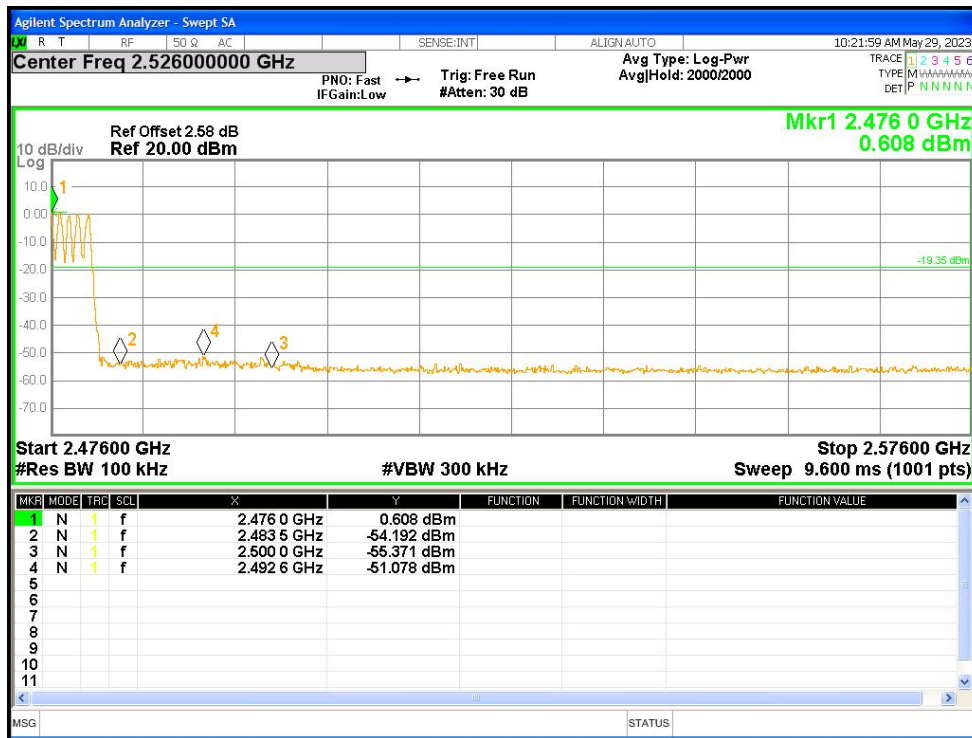
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



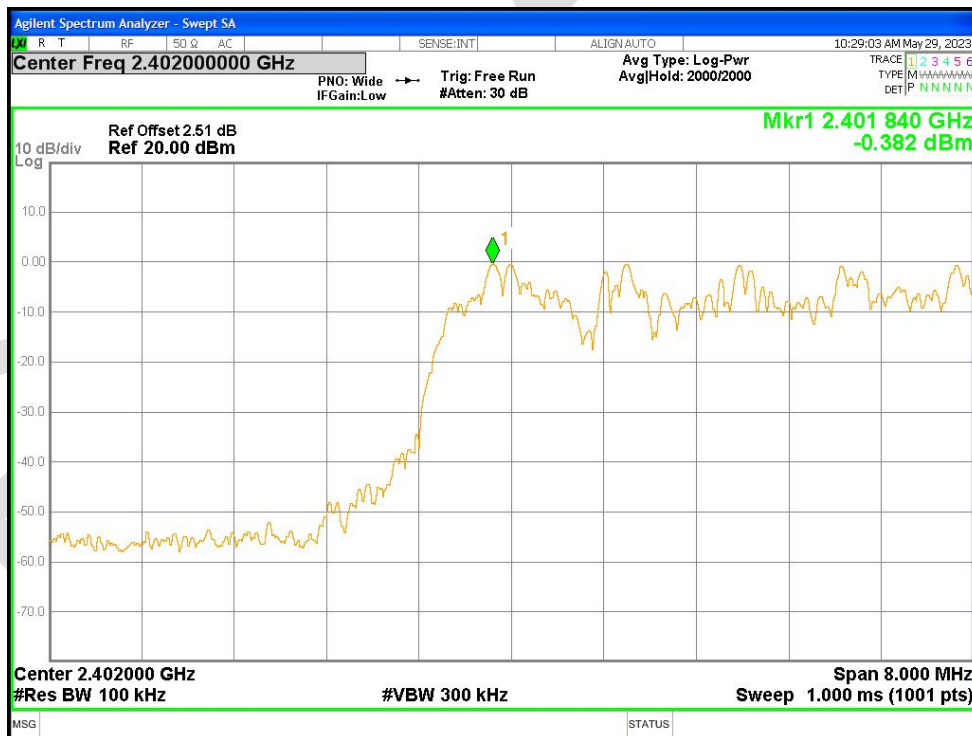
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref



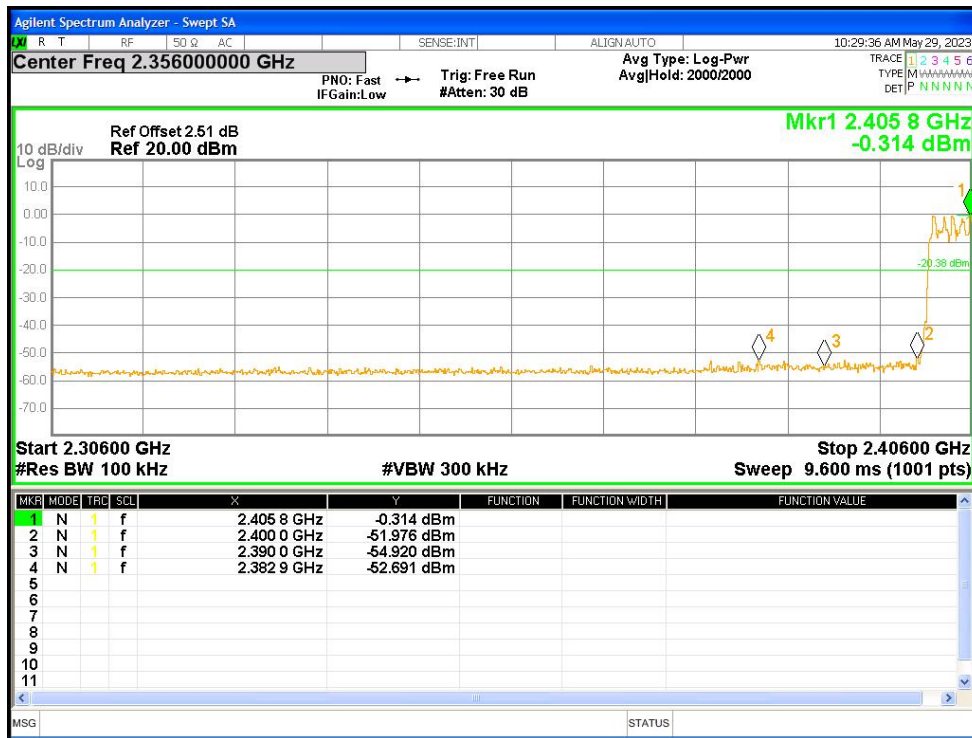
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref



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