

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	Zircon
Test Model:	RS-09
Sample ID:	HC-C-202507-0162-01-3#
Environmental Conditions	
Temperature:	23.9℃
Relative Humidity:	48%
Test Voltage:	DC 5V
Test Engineer:	Gold Zhang
Note: For a more detailed features description, please refer to the report TBR-C-202507-0162-21 The report only show the worst case data.	

Contents

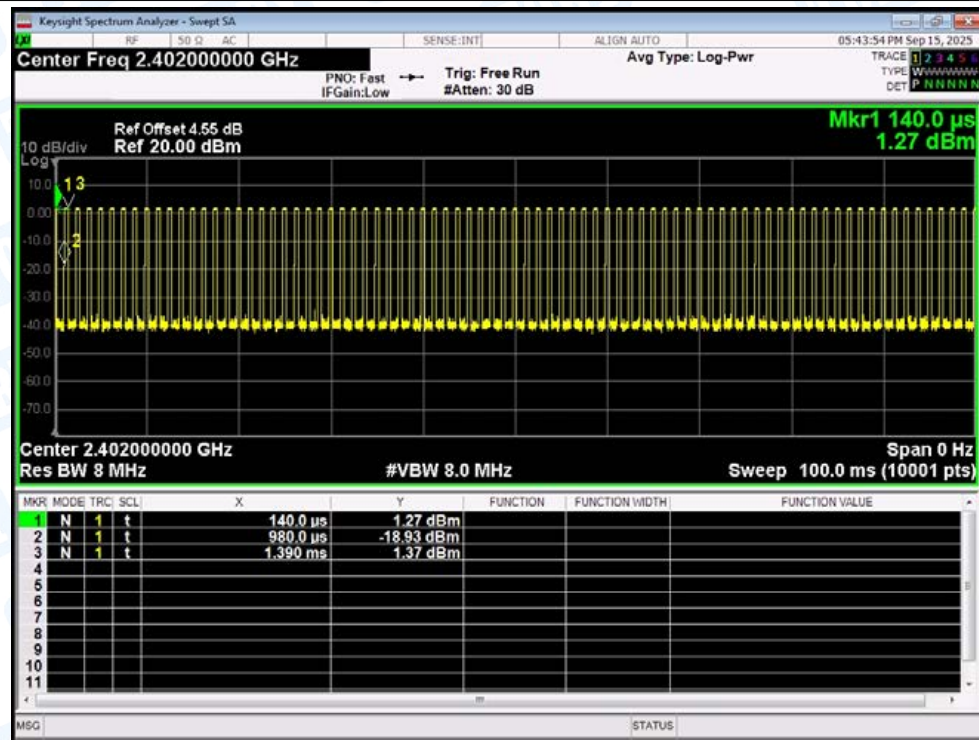
1. Duty Cycle	3
2. Maximum Conducted Output Power	9
3. -20dB Bandwidth	18
4. Occupied Channel Bandwidth	24
5. Band Edge	30
6. Band Edge(Hopping)	37
7. Conducted RF Spurious Emission	44
8. Restrict Band	54
9. Carrier Frequencies Separation	61
10. Number of Hopping Channel	64
11. Dwell Time	67

1. Duty Cycle

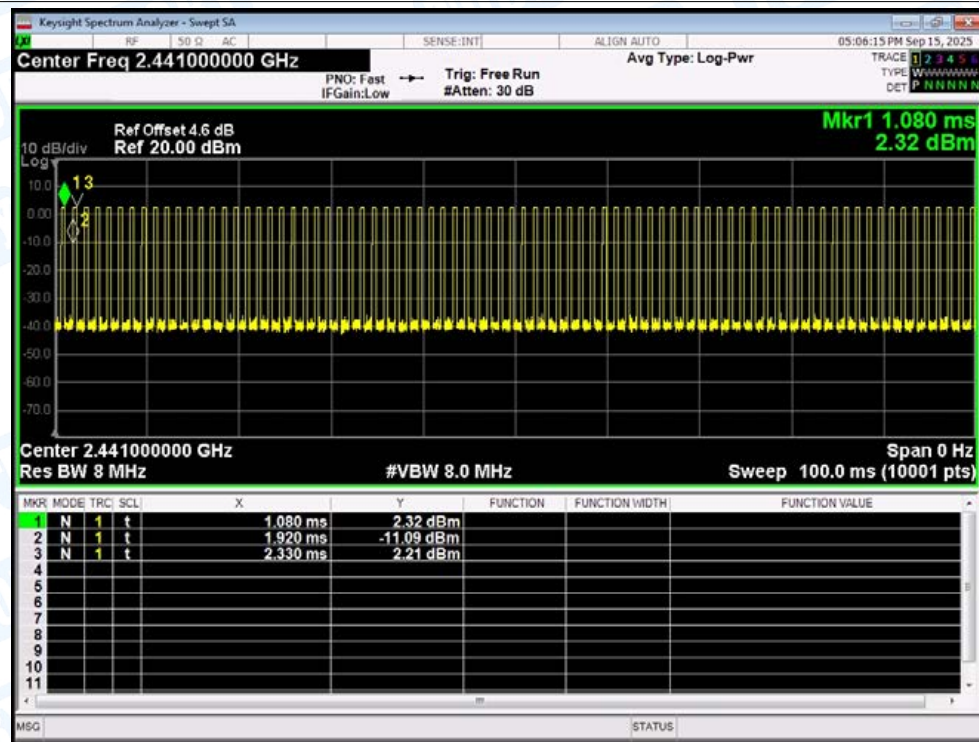
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	32.8	4.84	2.44
NVNT	1-DH1	2441	Ant1	32.8	4.84	2.44
NVNT	1-DH1	2480	Ant1	32.8	4.84	2.44
NVNT	2-DH1	2402	Ant1	32.8	4.84	2.44
NVNT	2-DH1	2441	Ant1	33.6	4.74	2.38
NVNT	2-DH1	2480	Ant1	33.6	4.74	2.38
NVNT	3-DH1	2402	Ant1	33.6	4.74	2.38
NVNT	3-DH1	2441	Ant1	33.6	4.74	2.38
NVNT	3-DH1	2480	Ant1	33.6	4.74	2.38

Test Graphs

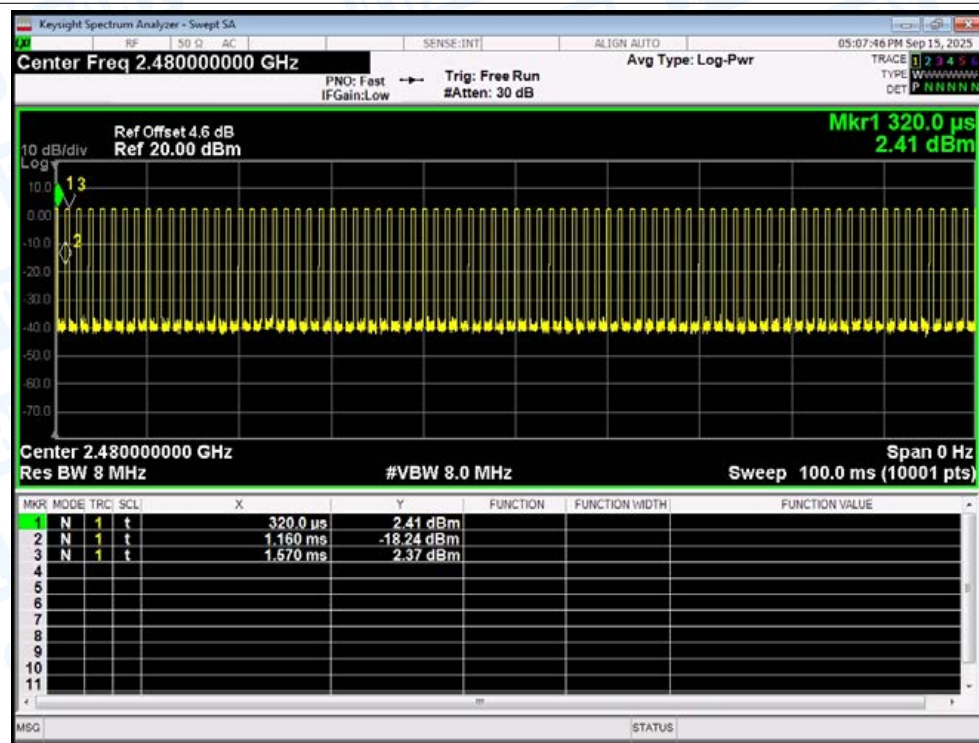
Duty Cycle NVNT 1-DH1 2402MHz Ant1



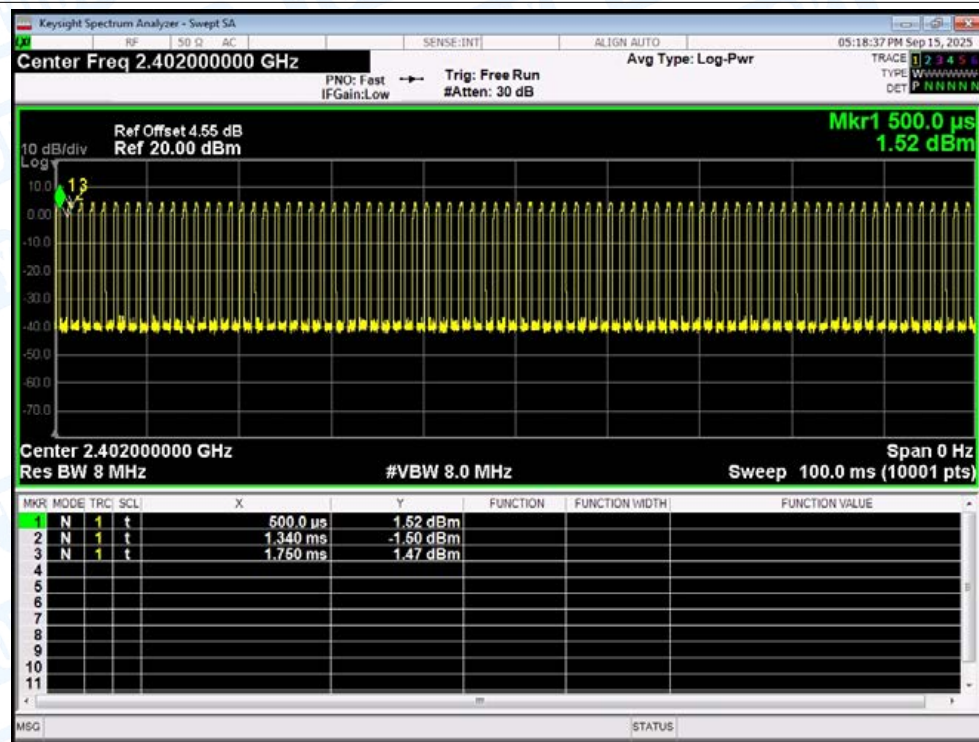
Duty Cycle NVNT 1-DH1 2441MHz Ant1



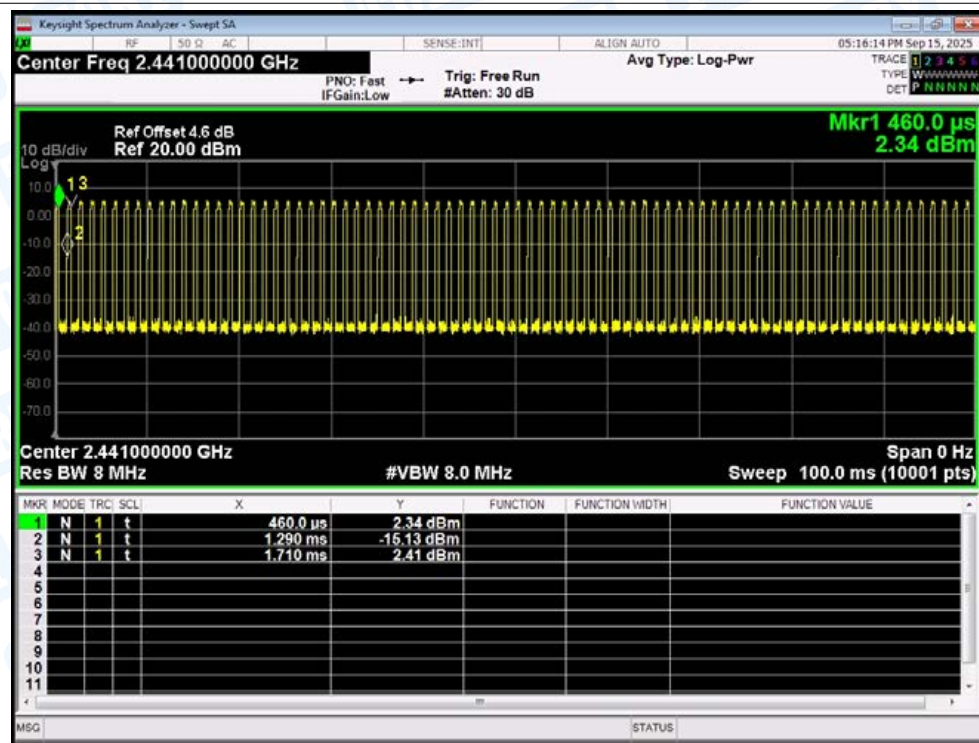
Duty Cycle NVNT 1-DH1 2480MHz Ant1



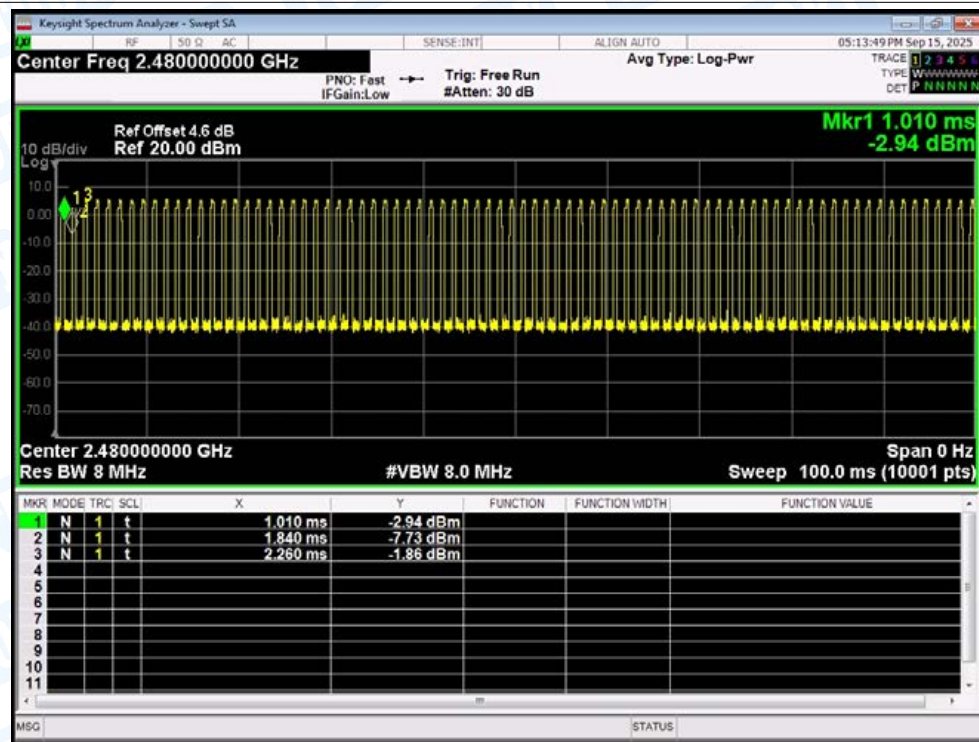
Duty Cycle NVNT 2-DH1 2402MHz Ant1



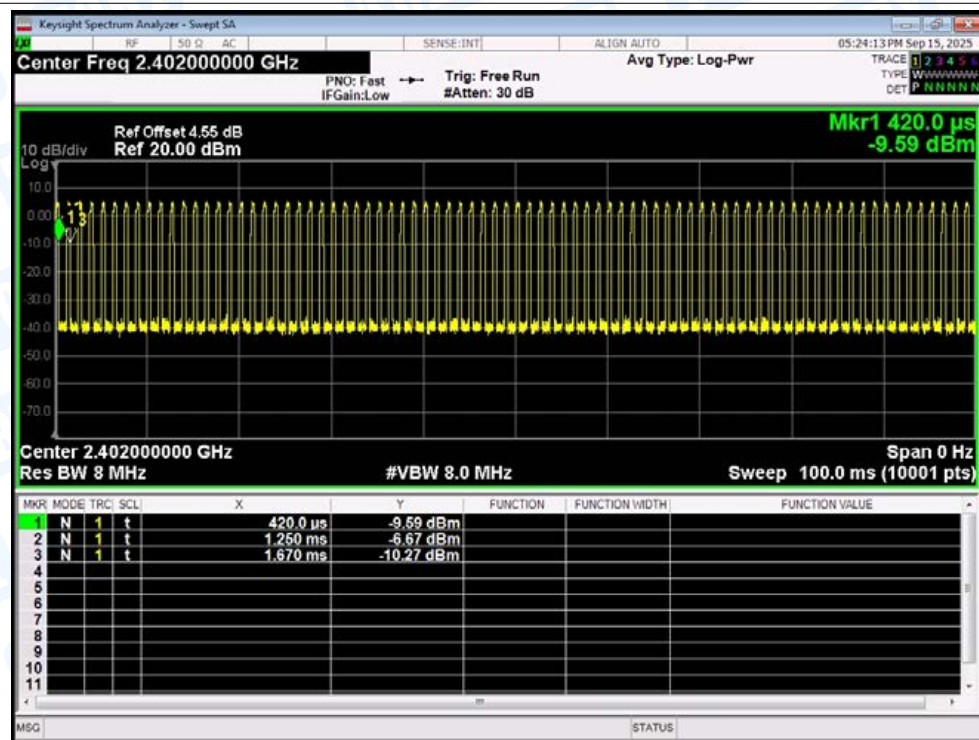
Duty Cycle NVNT 2-DH1 2441MHz Ant1



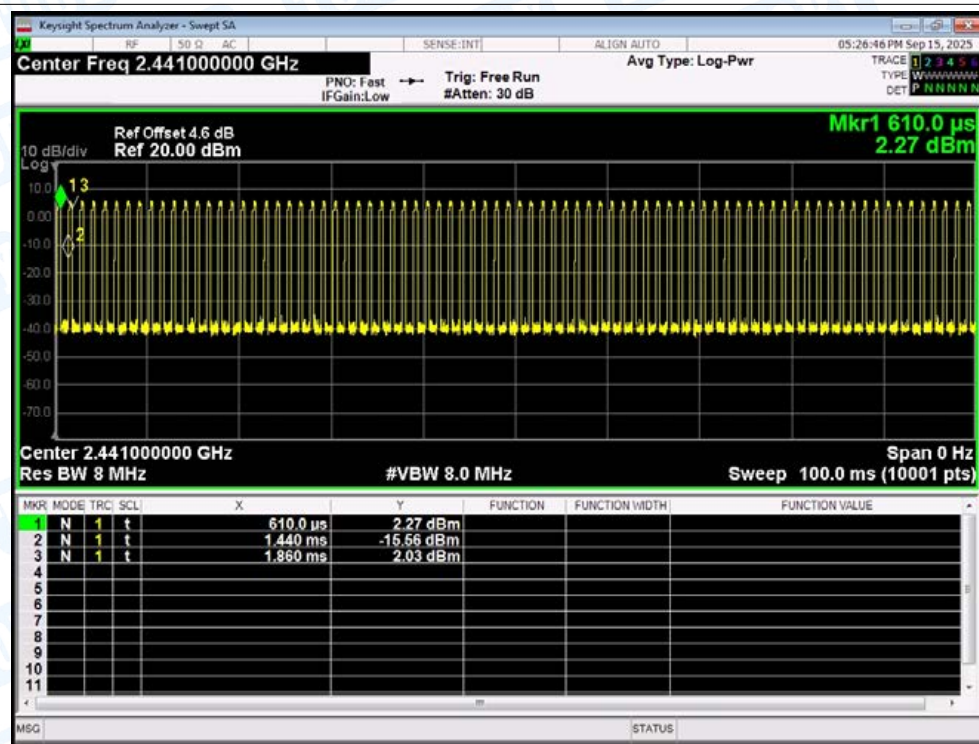
Duty Cycle NVNT 2-DH1 2480MHz Ant1

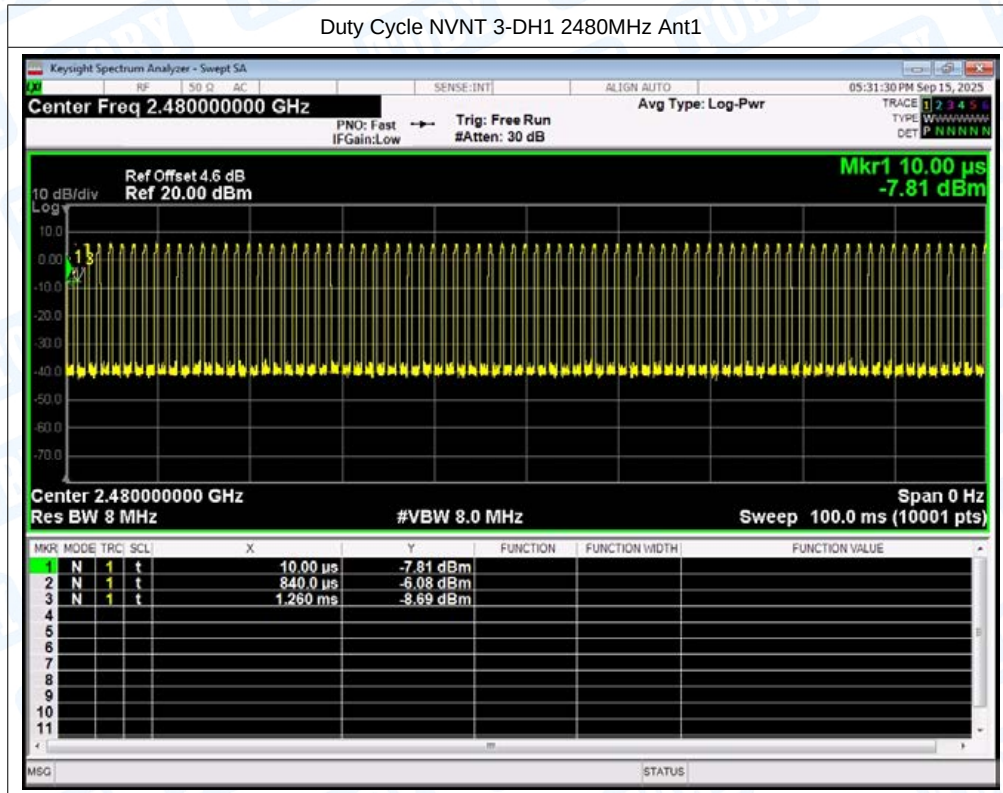


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



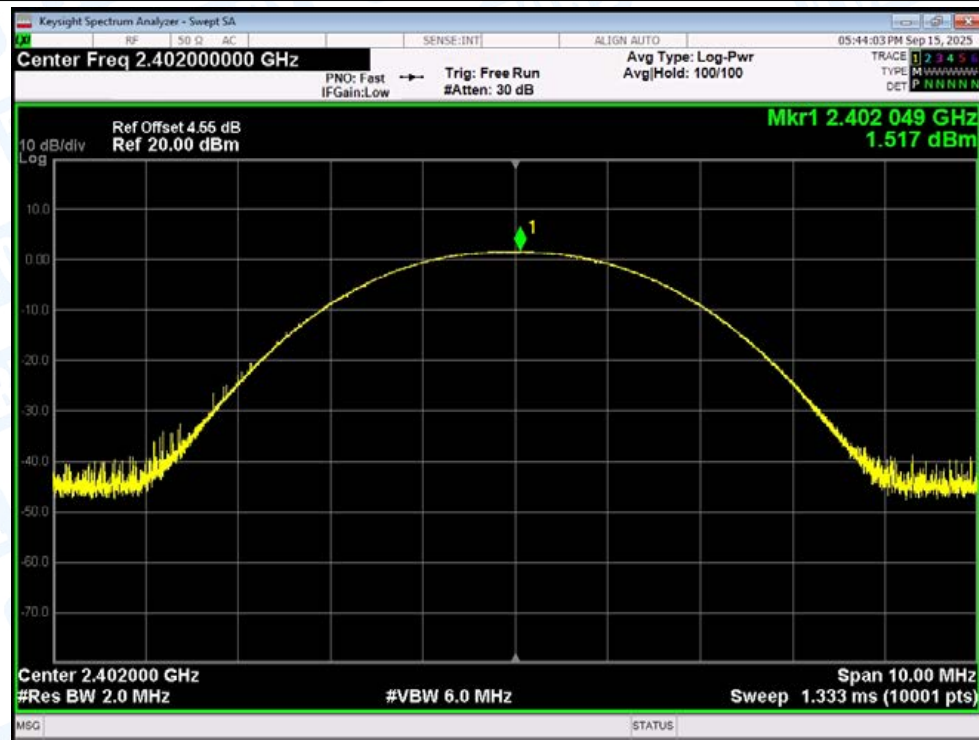


2. Maximum Conducted Output Power

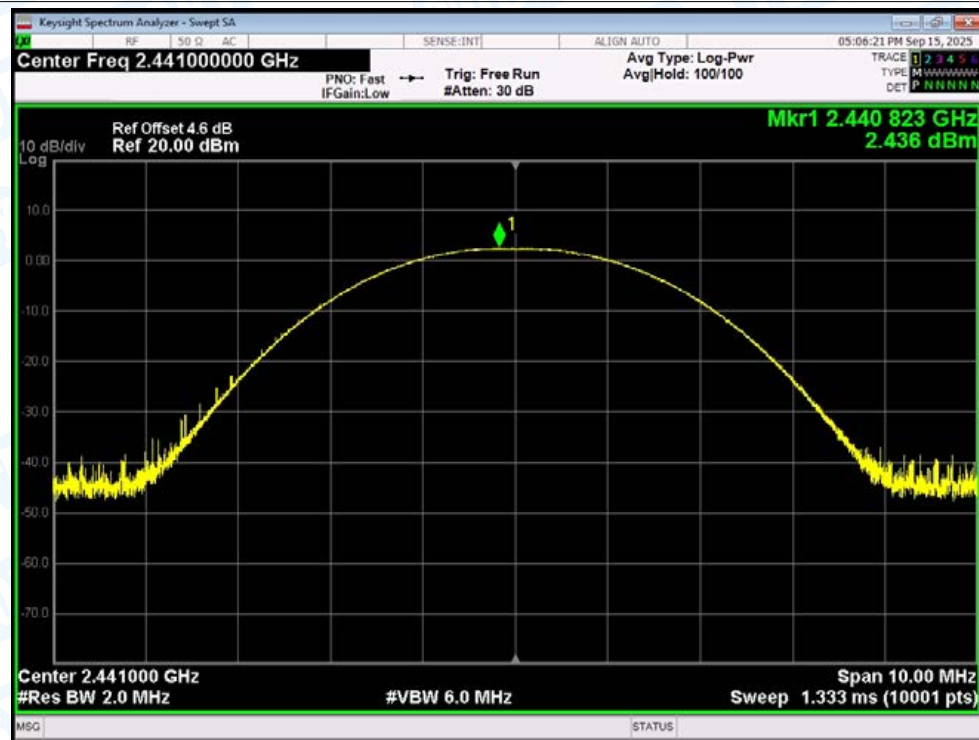
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	1.517	21	Pass
NVNT	1-DH1	2441	Ant1	2.436	21	Pass
NVNT	1-DH1	2480	Ant1	2.545	21	Pass
NVNT	1-DH3	2441	Ant1	2.386	21	Pass
NVNT	1-DH5	2441	Ant1	2.356	21	Pass
NVNT	2-DH1	2402	Ant1	4.09	21	Pass
NVNT	2-DH1	2441	Ant1	4.955	21	Pass
NVNT	2-DH1	2480	Ant1	5.071	21	Pass
NVNT	2-DH3	2441	Ant1	4.943	21	Pass
NVNT	2-DH5	2441	Ant1	5.015	21	Pass
NVNT	3-DH1	2402	Ant1	4.909	21	Pass
NVNT	3-DH1	2441	Ant1	5.534	21	Pass
NVNT	3-DH1	2480	Ant1	5.842	21	Pass
NVNT	3-DH3	2441	Ant1	5.396	21	Pass
NVNT	3-DH5	2441	Ant1	5.621	21	Pass

Test Graphs

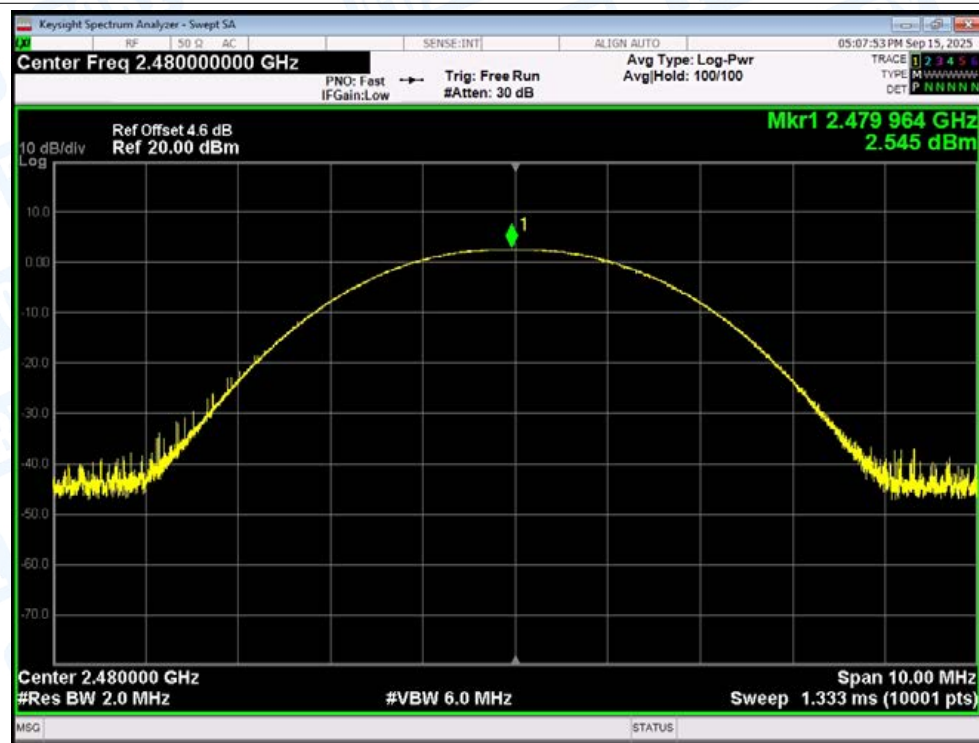
Power NVNT 1-DH1 2402MHz Ant1



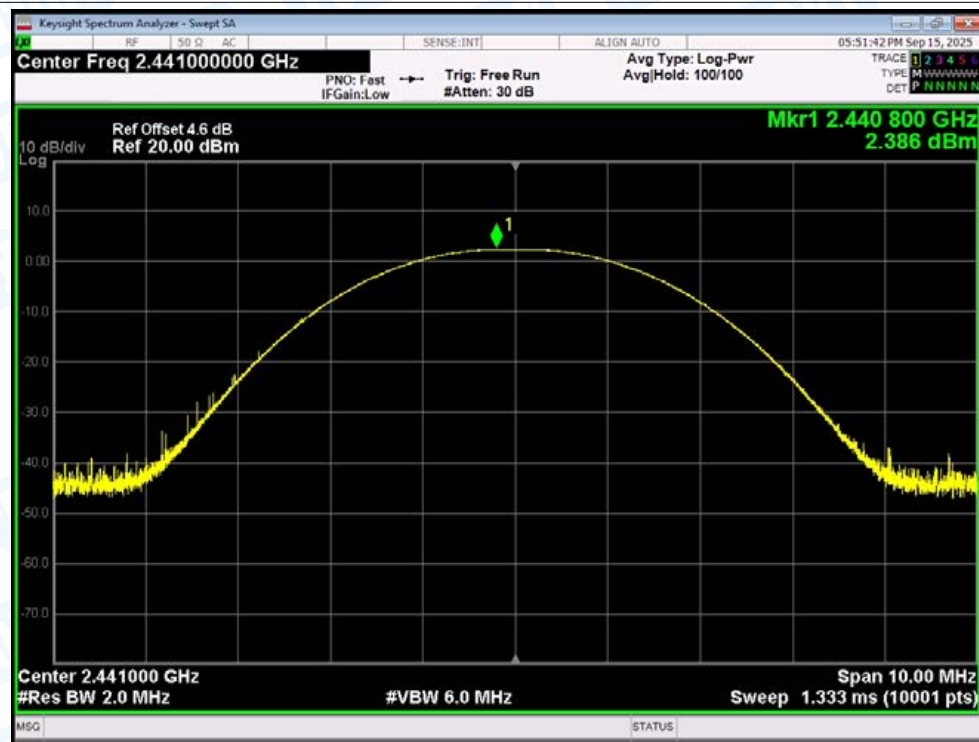
Power NVNT 1-DH1 2441MHz Ant1



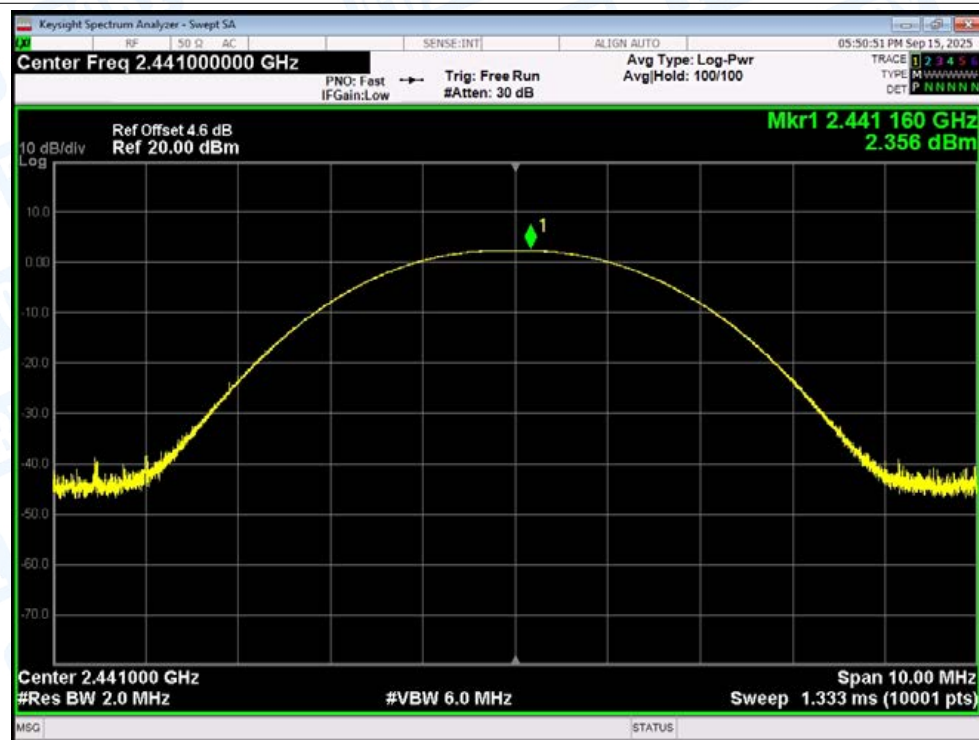
Power NVNT 1-DH1 2480MHz Ant1



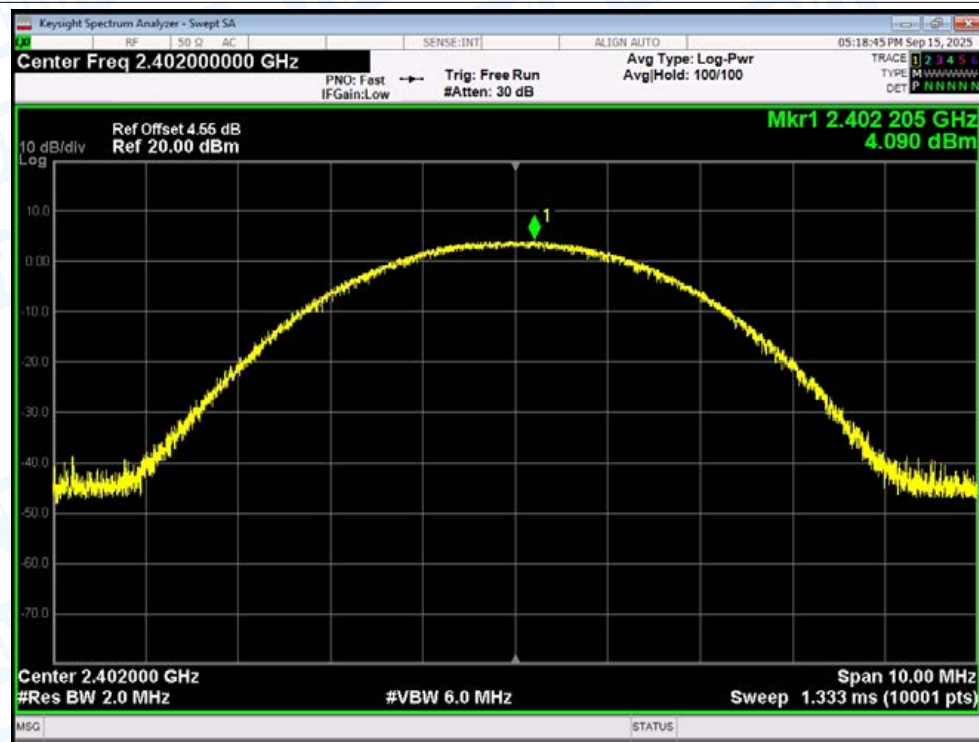
Power NVNT 1-DH3 2441MHz Ant1



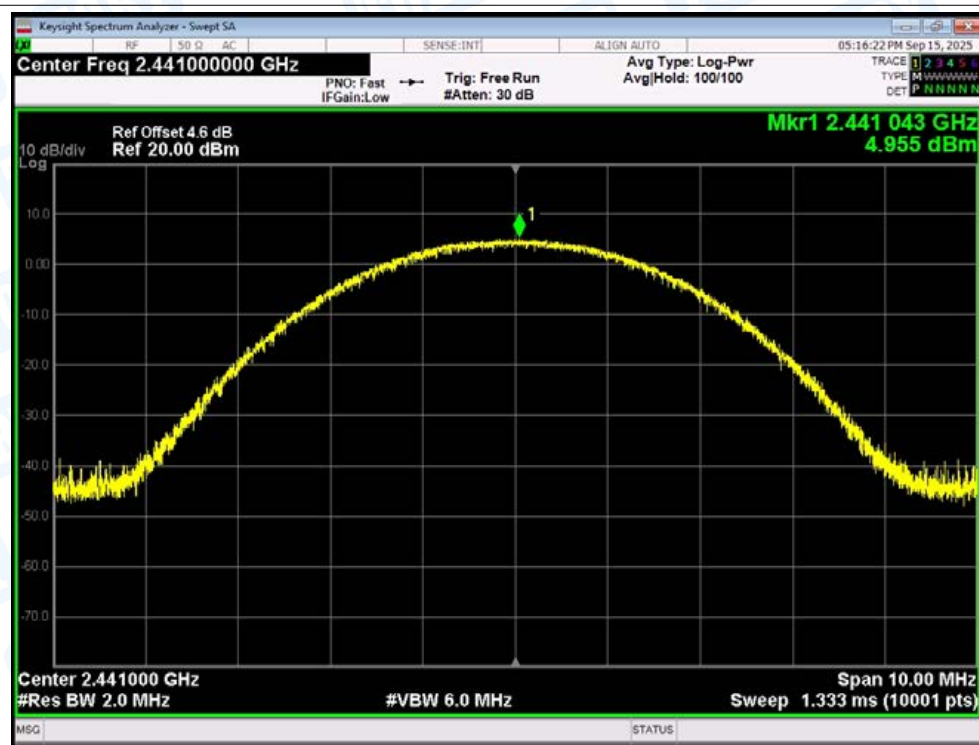
Power NVNT 1-DH5 2441MHz Ant1



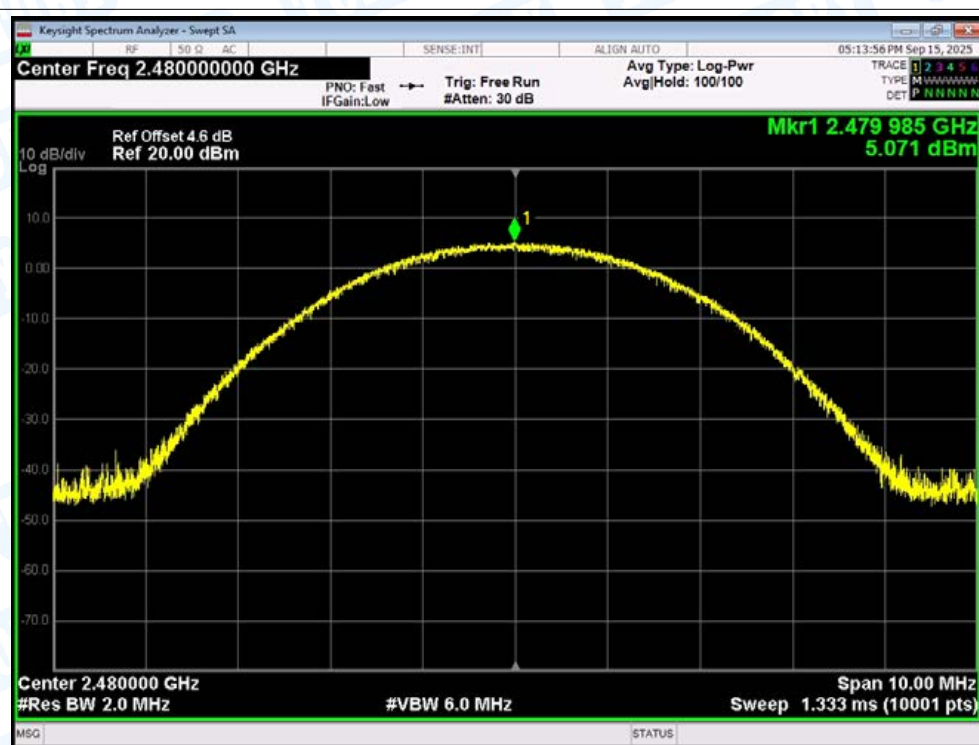
Power NVNT 2-DH1 2402MHz Ant1



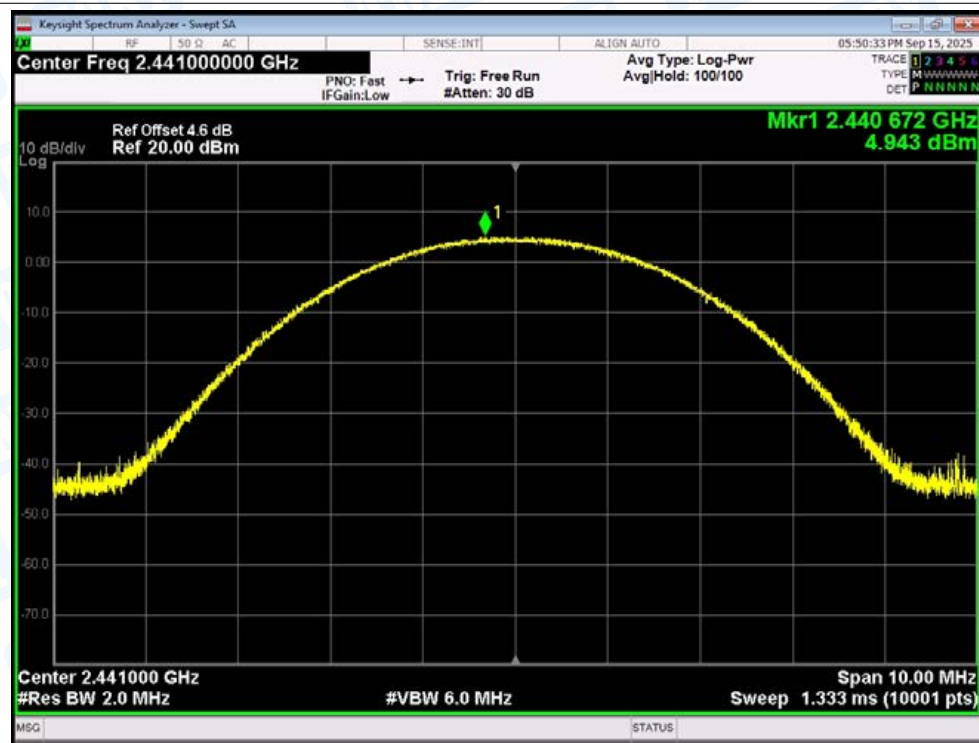
Power NVNT 2-DH1 2441MHz Ant1



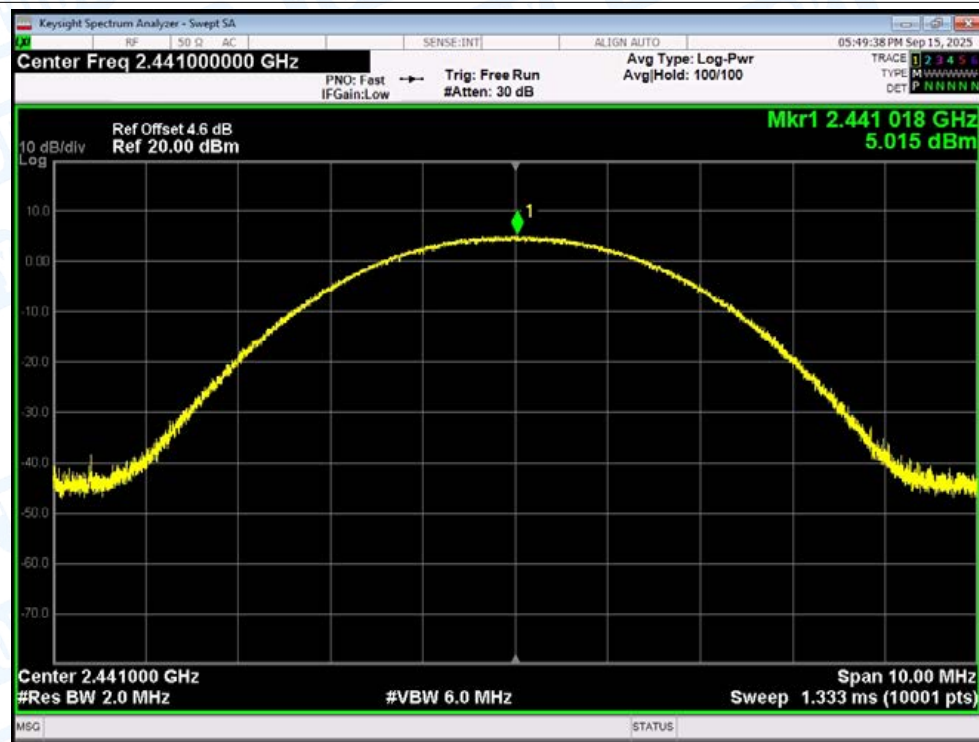
Power NVNT 2-DH1 2480MHz Ant1



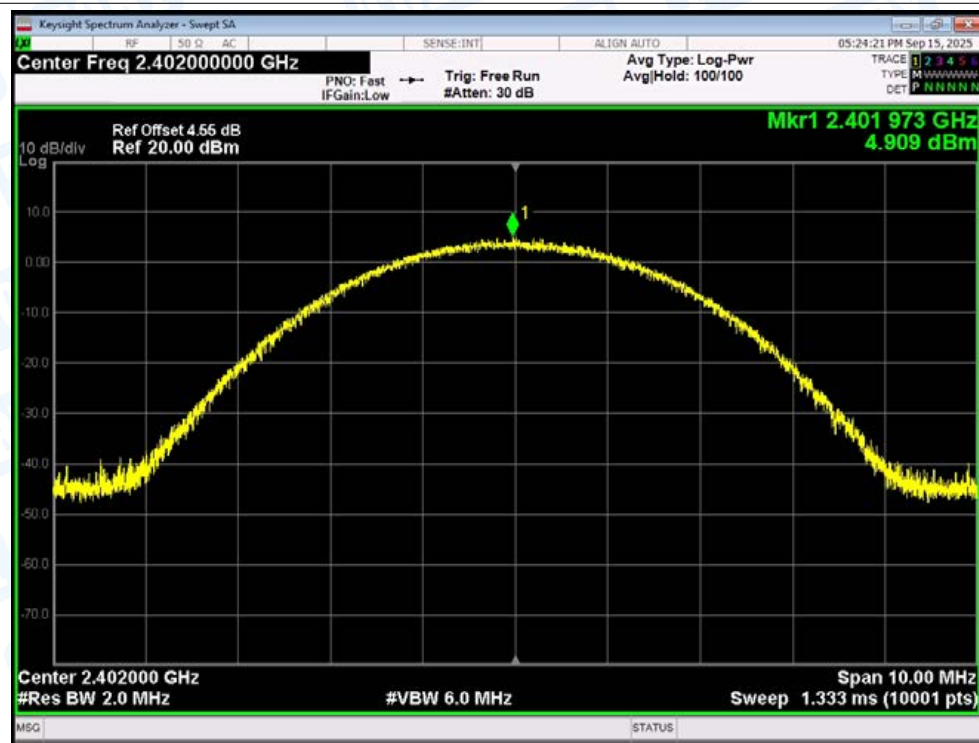
Power NVNT 2-DH3 2441MHz Ant1



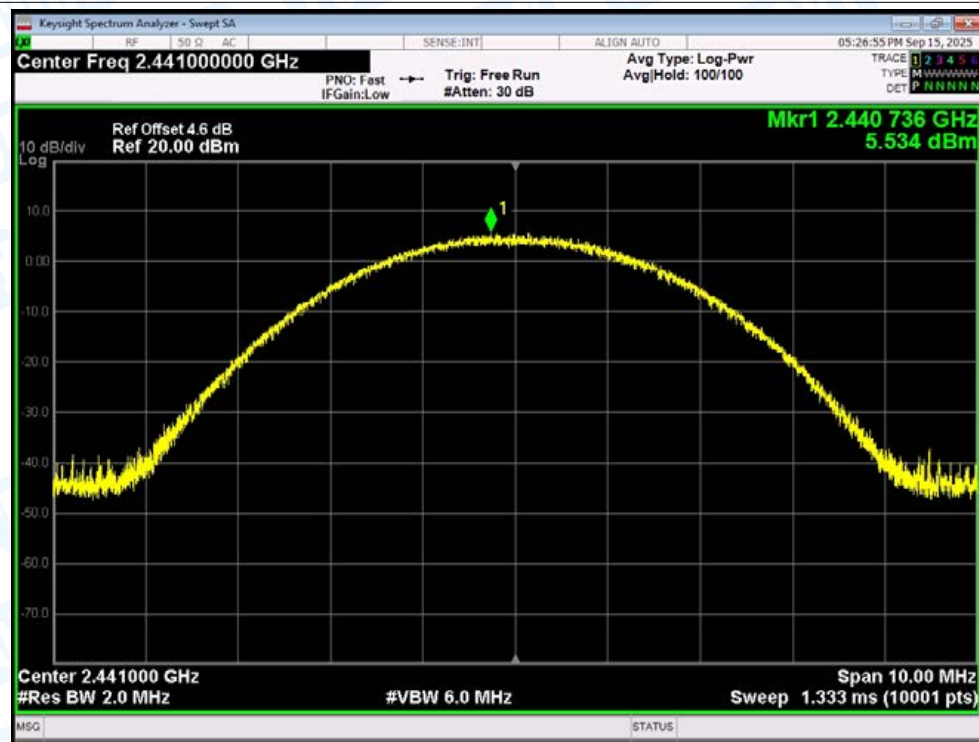
Power NVNT 2-DH5 2441MHz Ant1



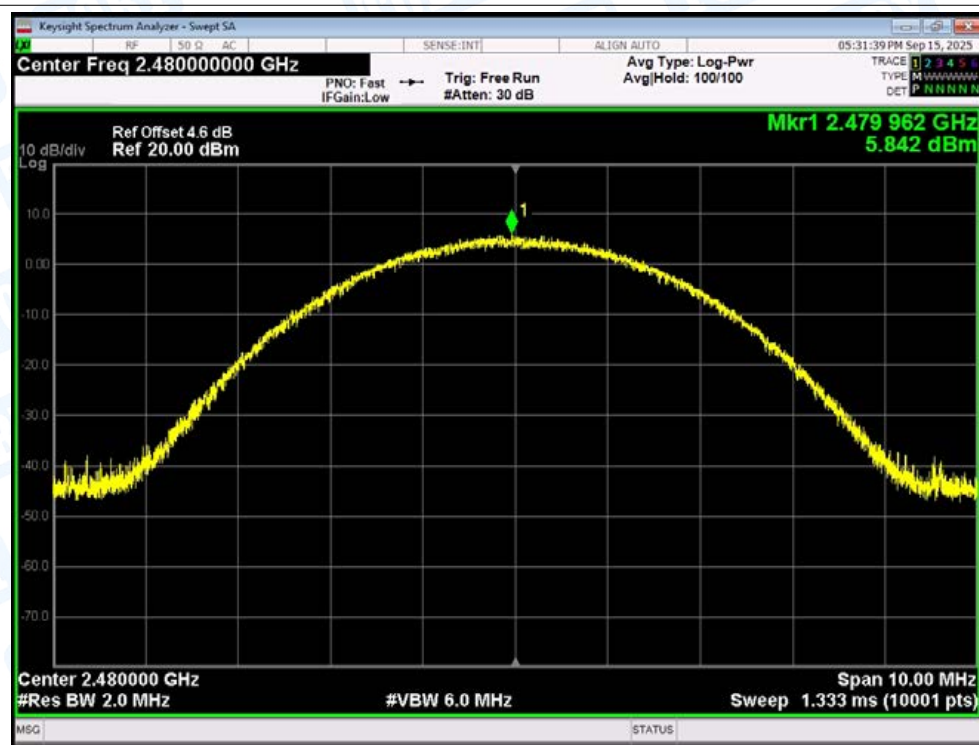
Power NVNT 3-DH1 2402MHz Ant1



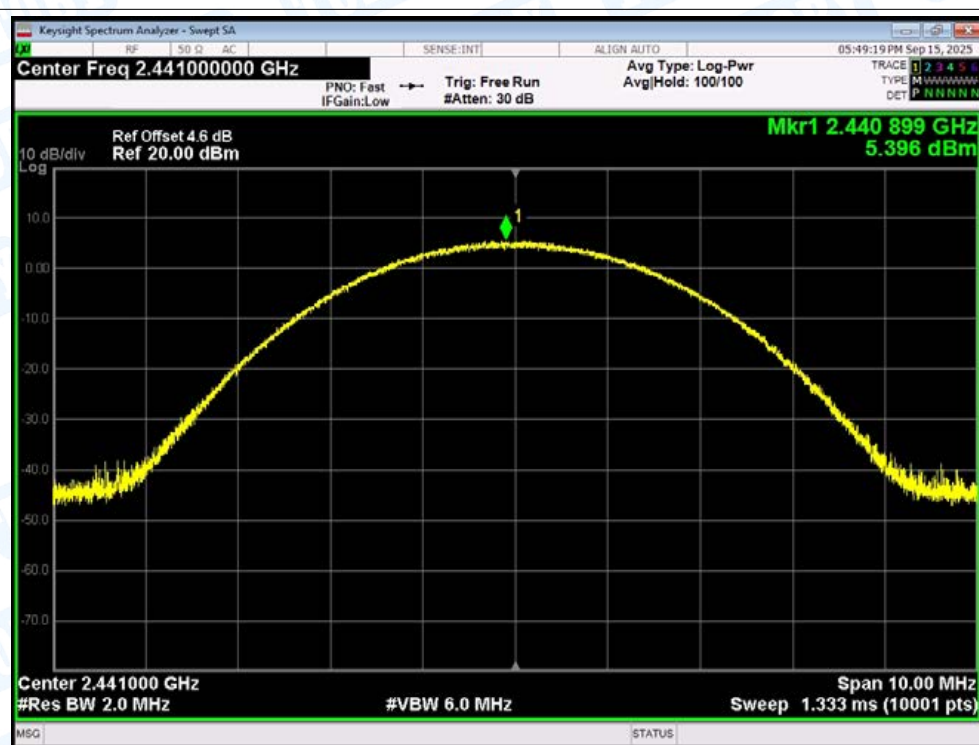
Power NVNT 3-DH1 2441MHz Ant1

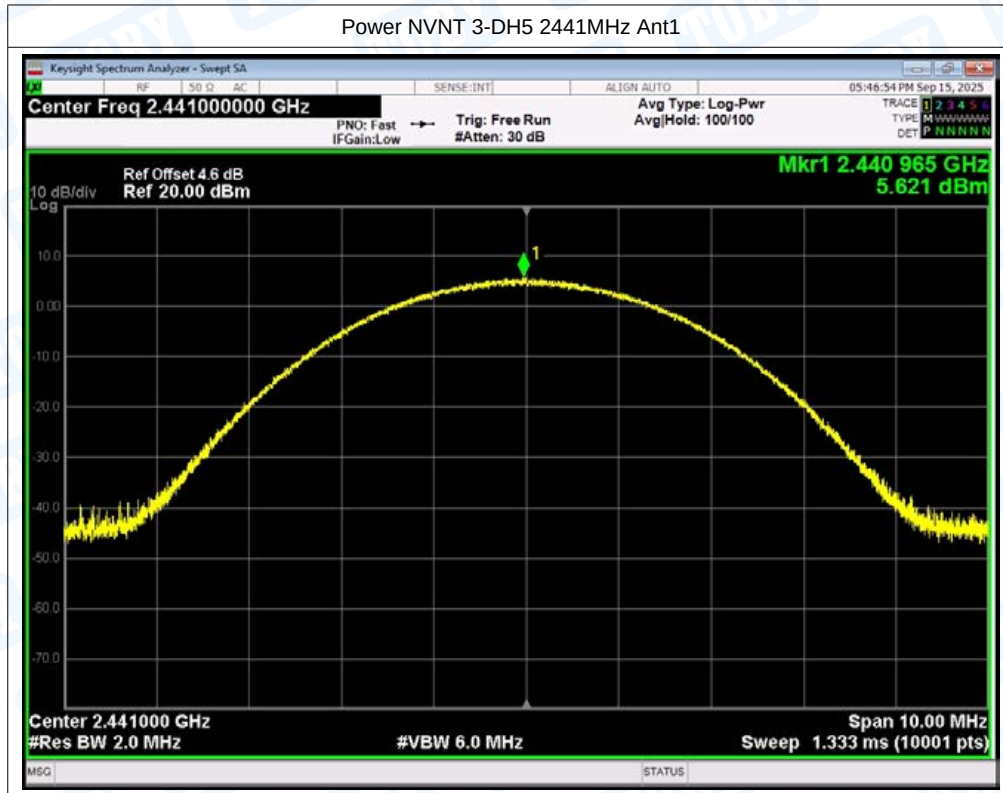


Power NVNT 3-DH1 2480MHz Ant1



Power NVNT 3-DH3 2441MHz Ant1





3. -20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.93	Pass
NVNT	1-DH1	2441	Ant1	0.88	Pass
NVNT	1-DH1	2480	Ant1	0.88	Pass
NVNT	2-DH1	2402	Ant1	1.3	Pass
NVNT	2-DH1	2441	Ant1	1.27	Pass
NVNT	2-DH1	2480	Ant1	1.3	Pass
NVNT	3-DH1	2402	Ant1	1.23	Pass
NVNT	3-DH1	2441	Ant1	1.23	Pass
NVNT	3-DH1	2480	Ant1	1.23	Pass

Test Graphs

-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



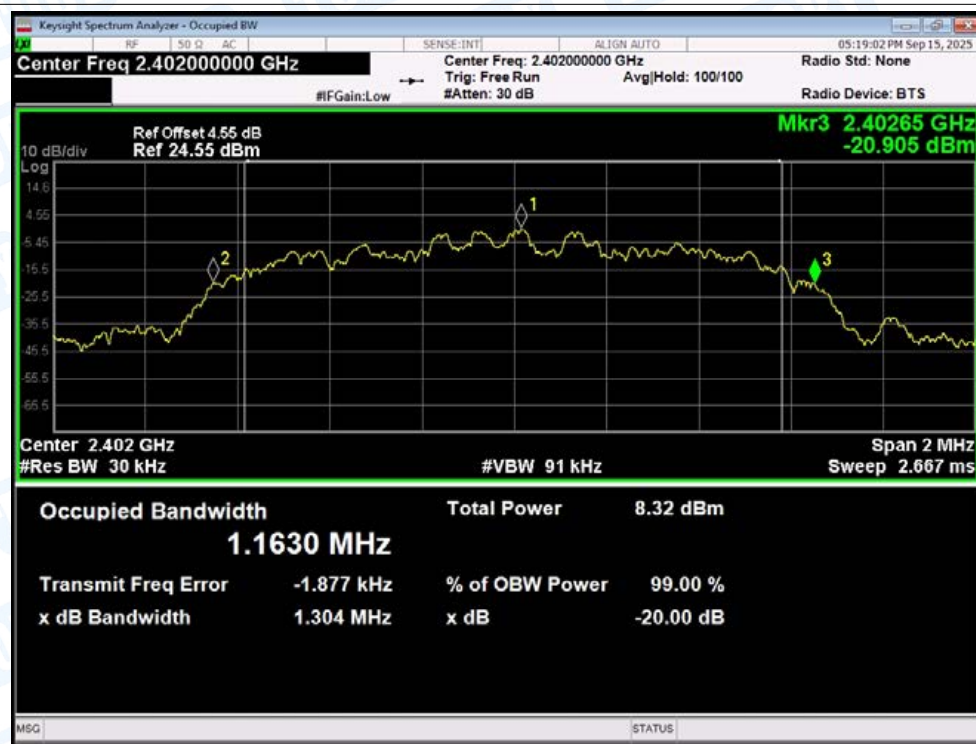
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



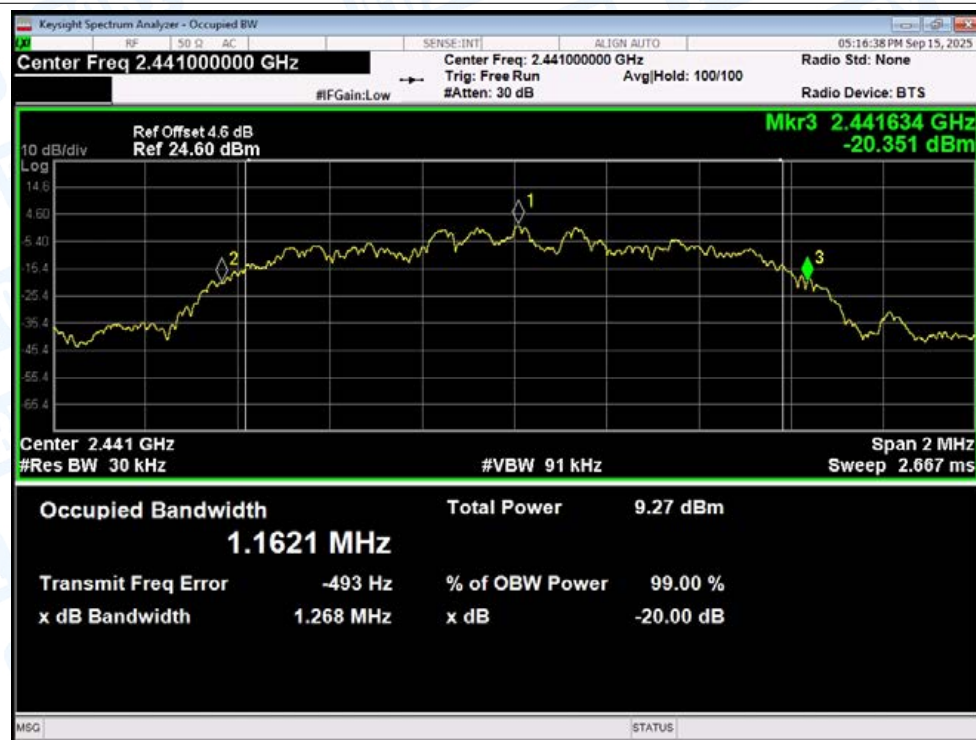
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



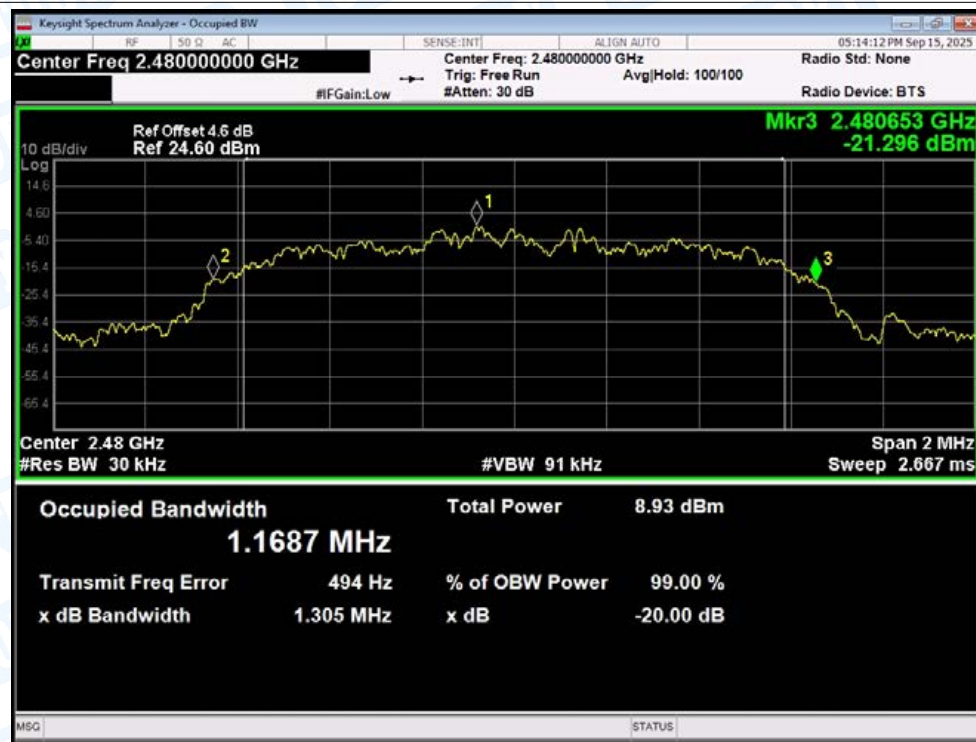
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



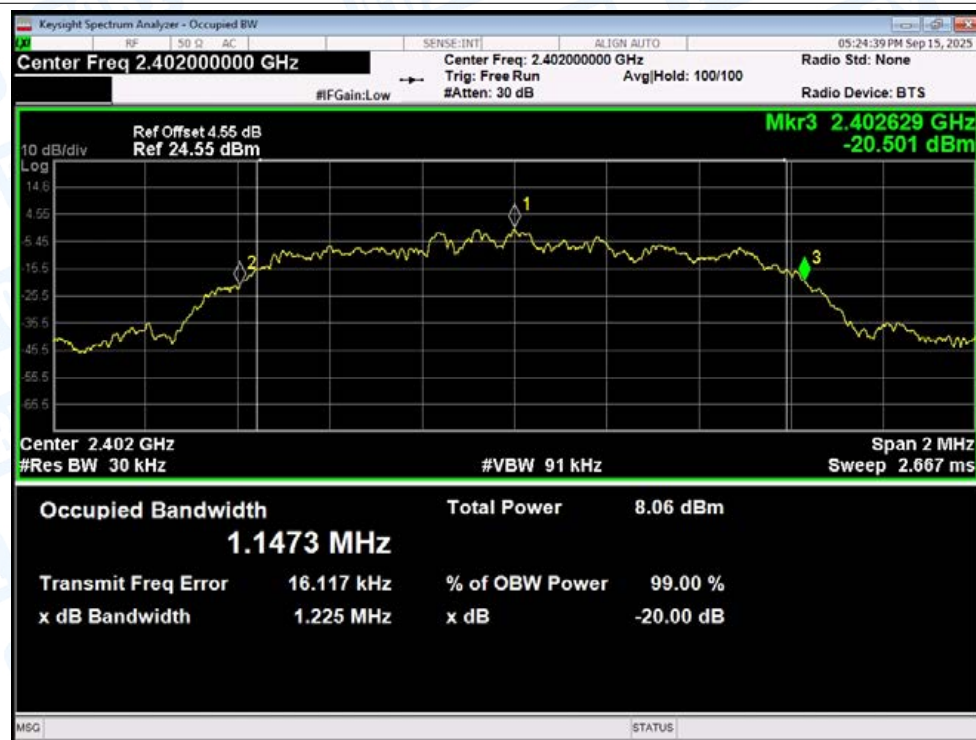
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



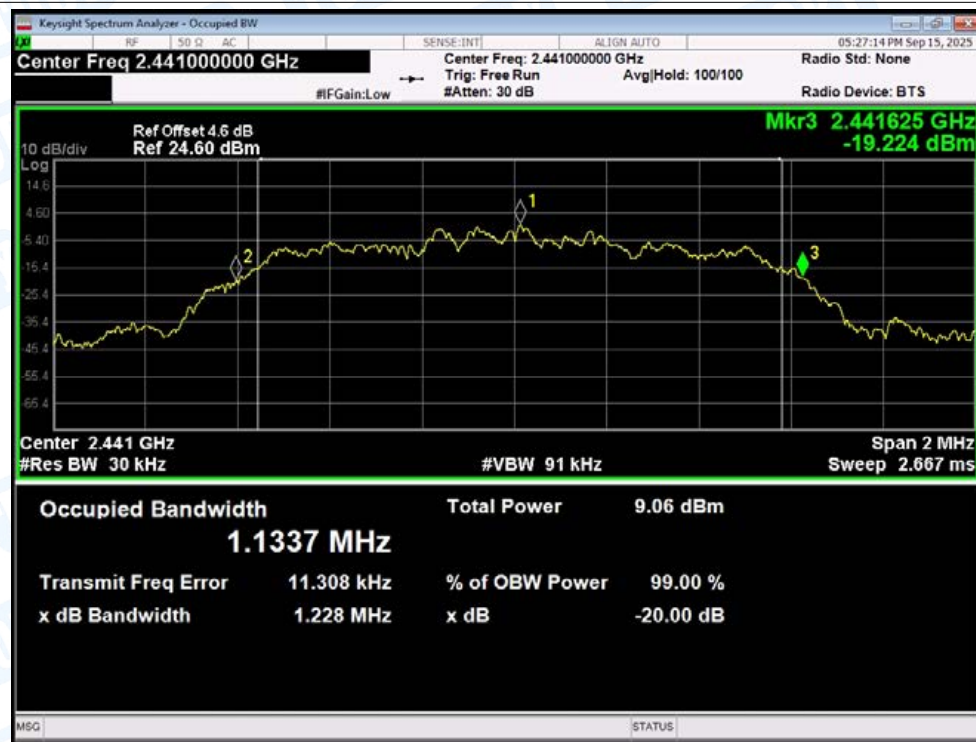
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2480MHz Ant1



4. Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.831
NVNT	1-DH1	2441	Ant1	0.834
NVNT	1-DH1	2480	Ant1	0.825
NVNT	2-DH1	2402	Ant1	1.171
NVNT	2-DH1	2441	Ant1	1.164
NVNT	2-DH1	2480	Ant1	1.166
NVNT	3-DH1	2402	Ant1	1.149
NVNT	3-DH1	2441	Ant1	1.154
NVNT	3-DH1	2480	Ant1	1.151

Test Graphs

OBW NVNT 1-DH1 2402MHz Ant1



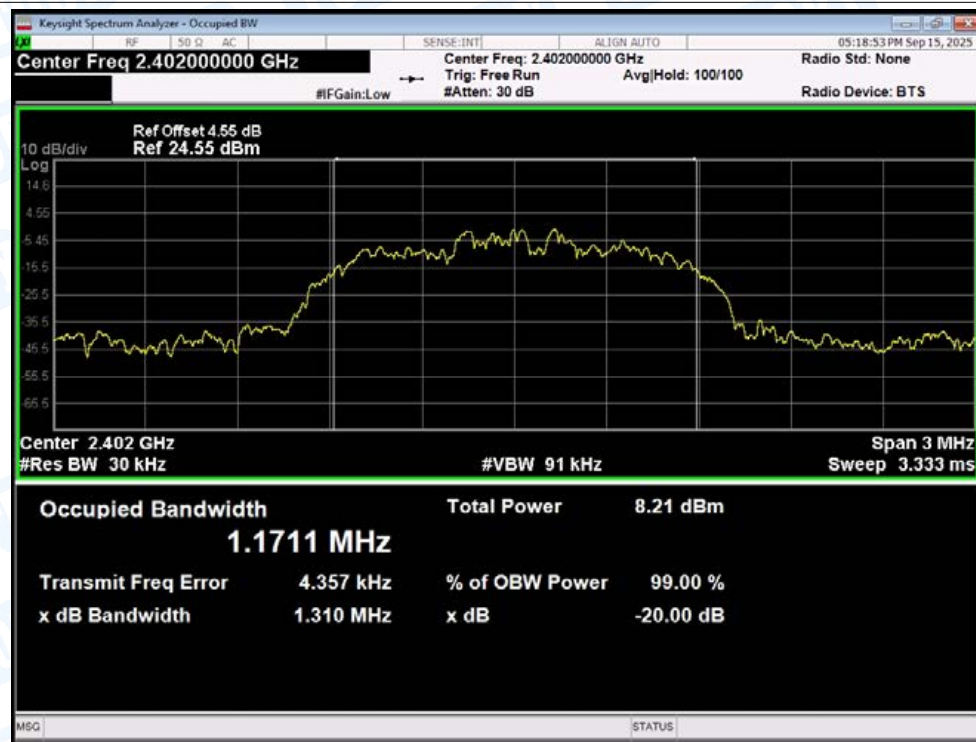
OBW NVNT 1-DH1 2441MHz Ant1



OBW NVNT 1-DH1 2480MHz Ant1



OBW NVNT 2-DH1 2402MHz Ant1



OBW NVNT 2-DH1 2441MHz Ant1



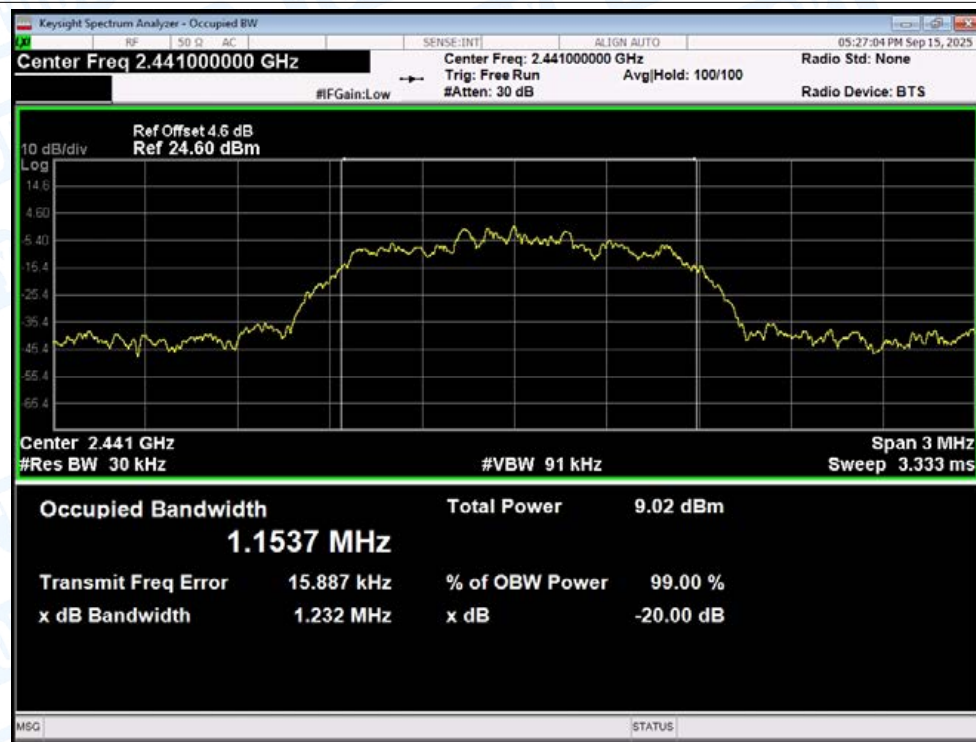
OBW NVNT 2-DH1 2480MHz Ant1

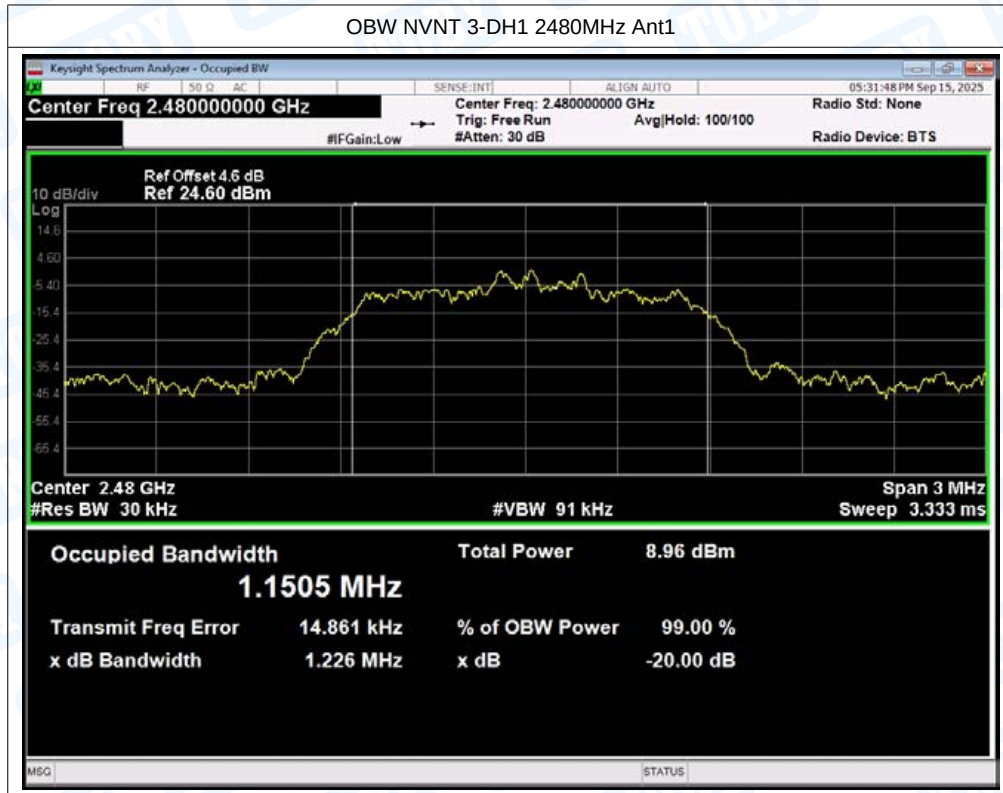


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



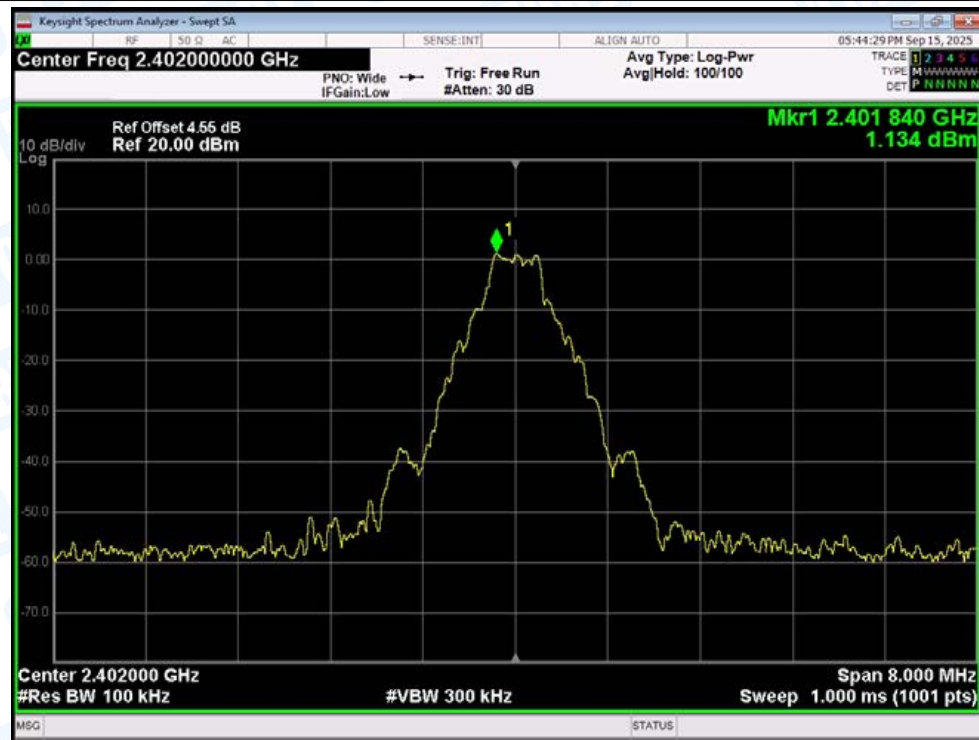


5. Band Edge

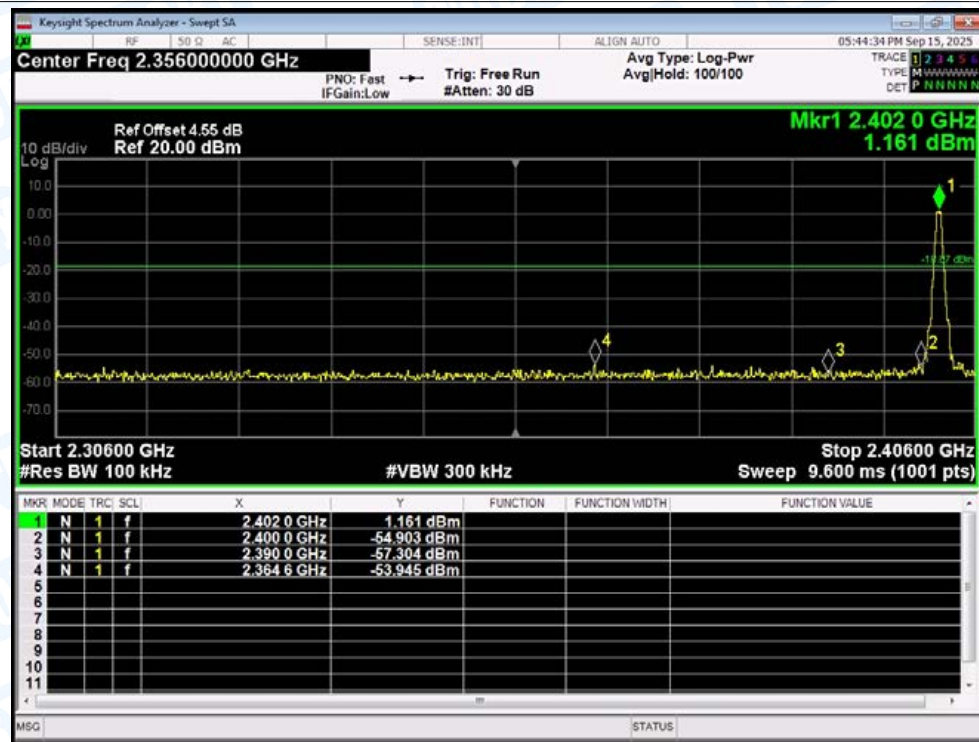
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-55.08	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-50.09	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-55.78	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-51.55	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-55.29	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-53.61	-20	Pass

Test Graphs

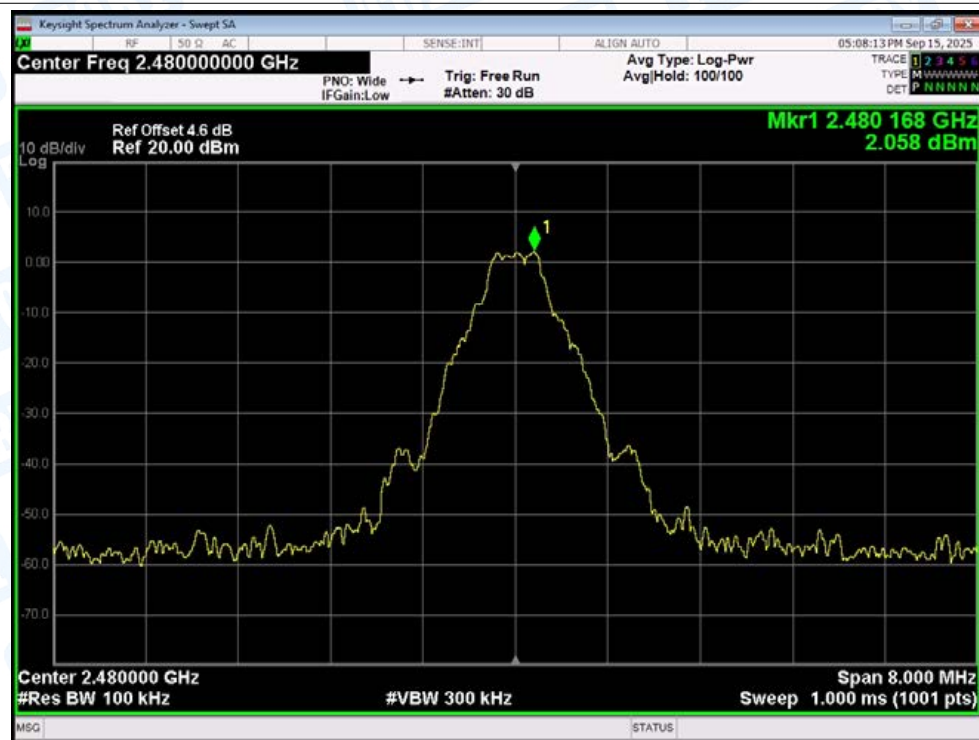
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



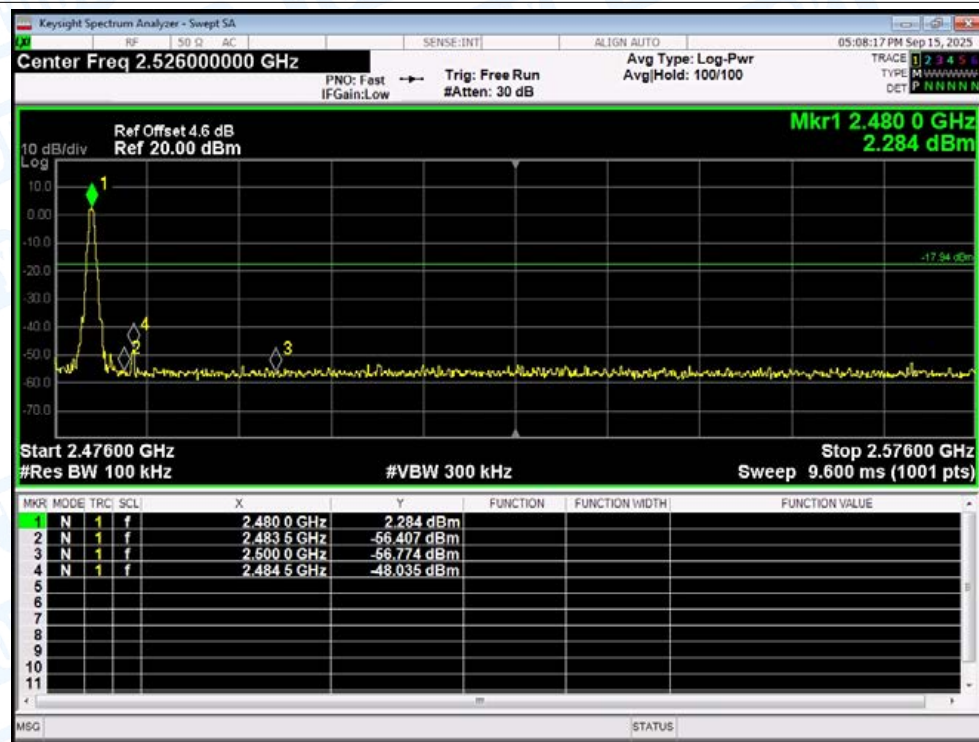
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



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



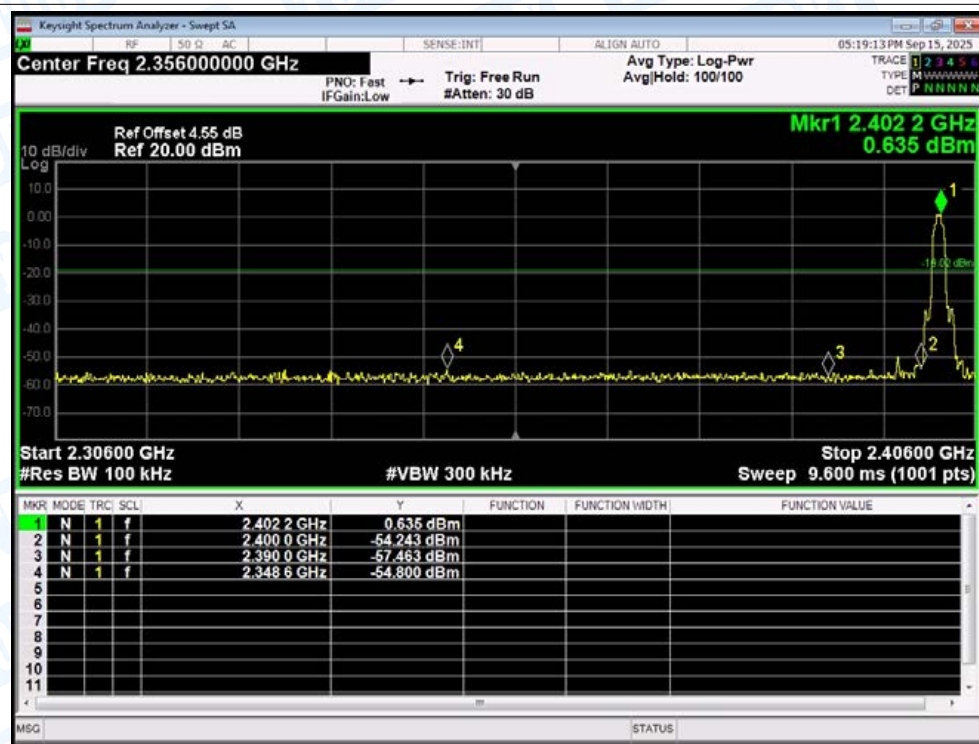
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



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



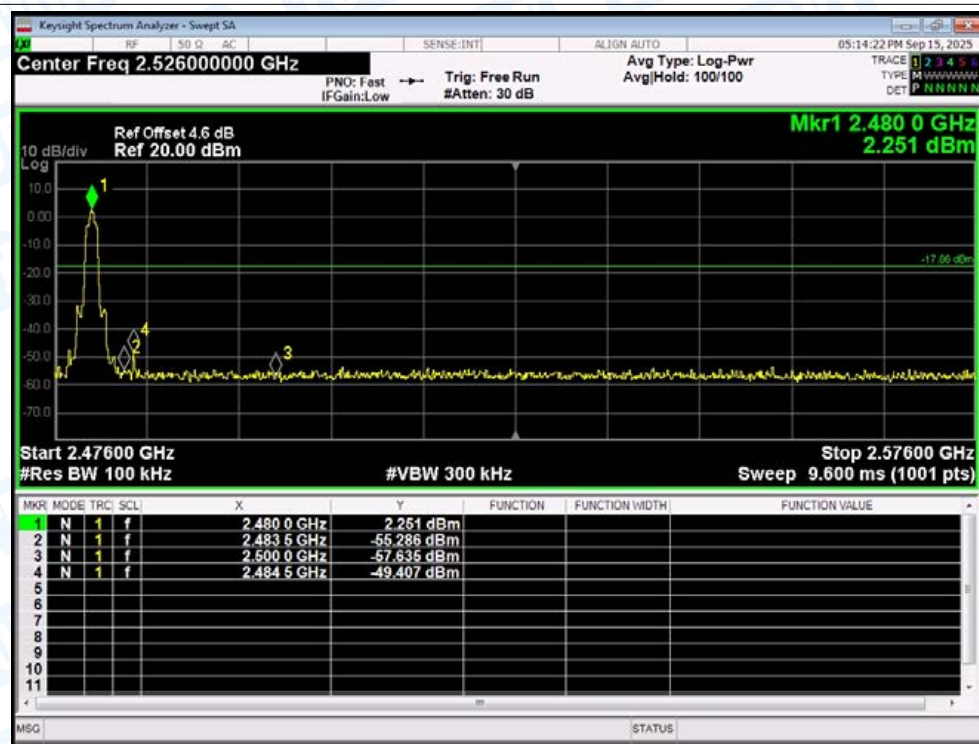
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



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



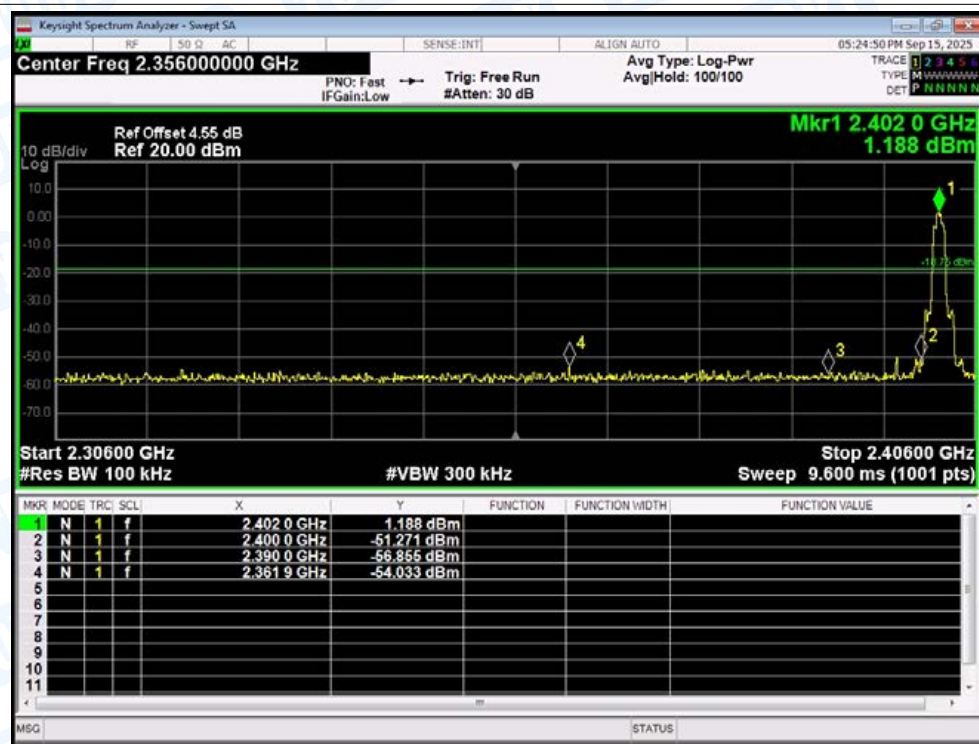
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



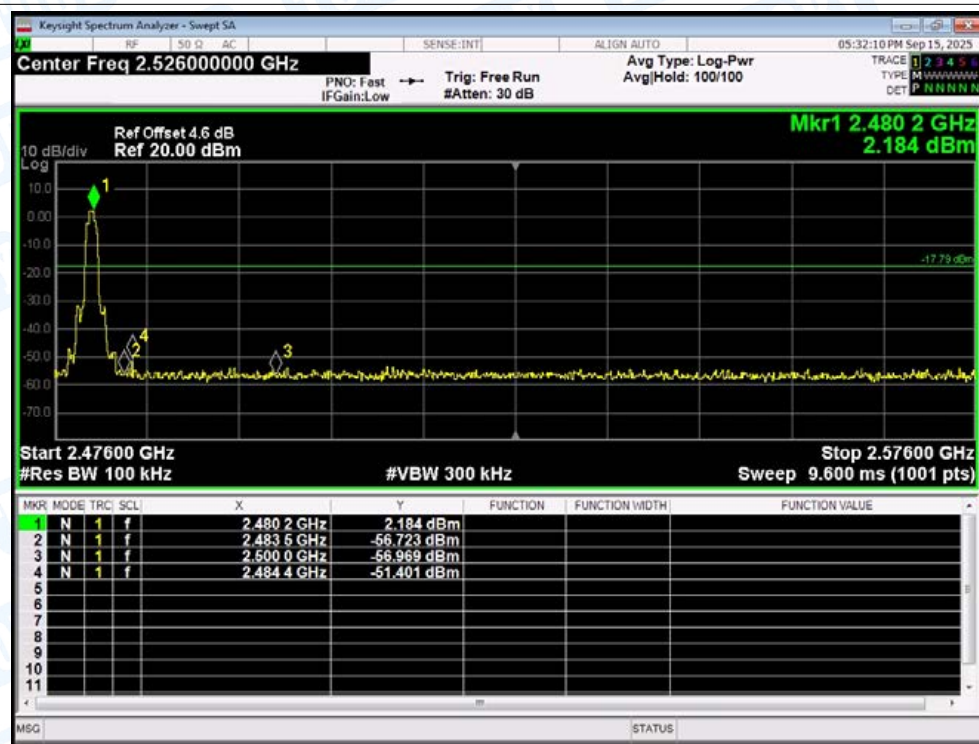
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Ref



Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Emission



6. Band Edge(Hopping)

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-55.18	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-55.63	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-54.44	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-55.58	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-54.21	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-50.03	-20	Pass

Test Graphs

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



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

