

RF Test Data for 2.4G (Conducted Measurements)

General Description of EUT	
Product Name:	2.4GHz Digital Wireless Video Baby Camera
FCC ID Test Model:	HB6099
IC Test Model:	HB6099TX
Sample ID:	20211008-13_01-2#
Environmental Conditions	
Temperature:	25°C
Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz
Test Engineer:	HEJINGCHANG
Note: For a more detailed features description, please refer to the report TB-FCC185112&TB-IC186025	

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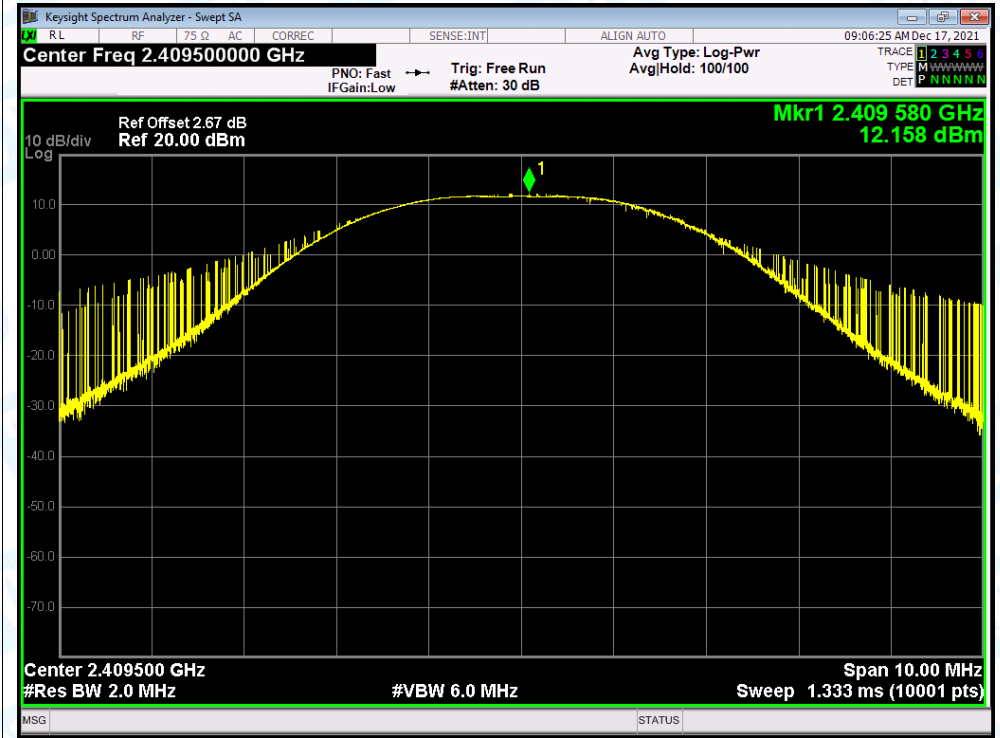
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1. Maximum Conducted Output Power

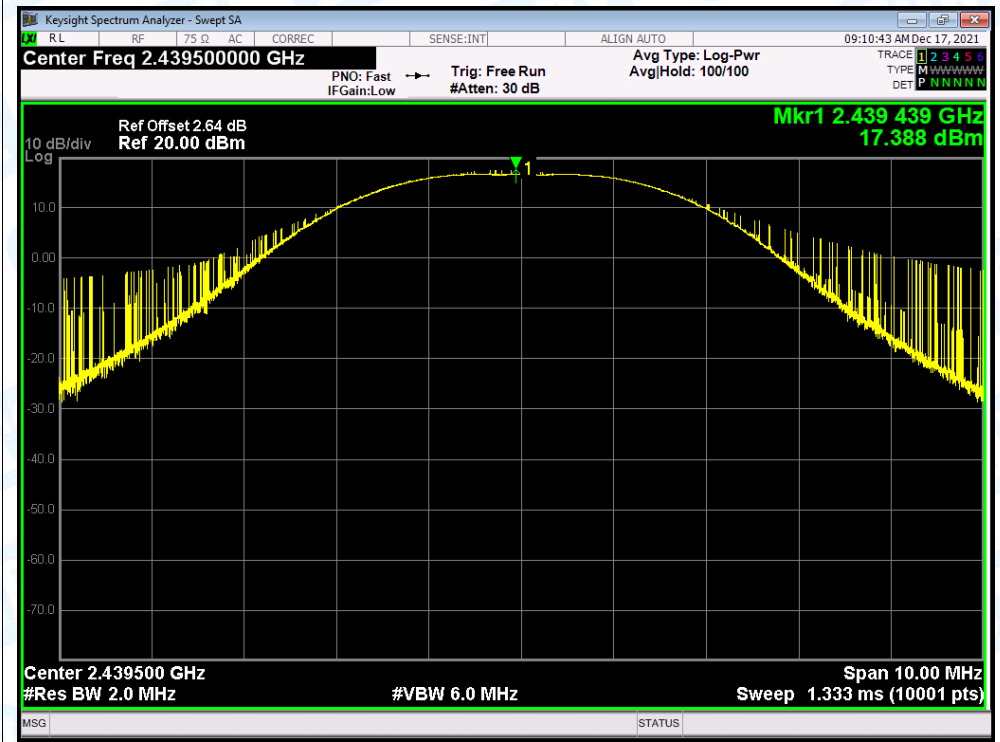
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	user	2409.5	Ant1	12.158	0	12.158	21	Pass
NVNT	user	2439.5	Ant1	17.388	0	17.388	21	Pass
NVNT	user	2468	Ant1	9.8	0	9.8	21	Pass

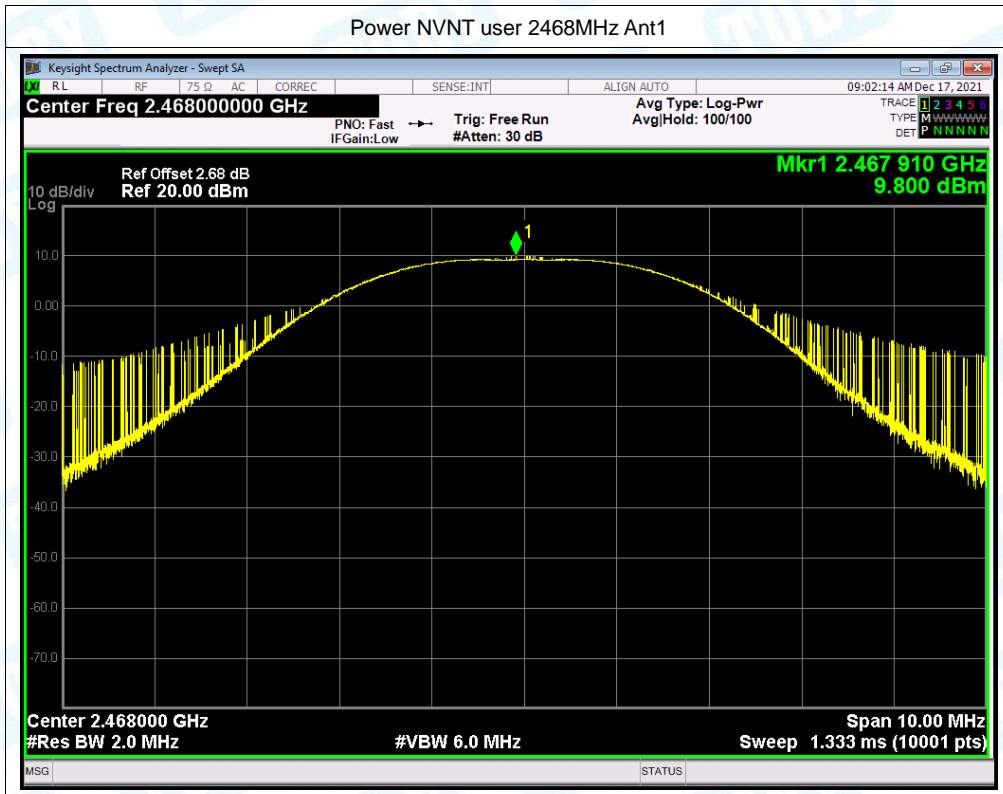
Test Graphs

Power NVNT user 2409.5MHz Ant1



Power NVNT user 2439.5MHz Ant1



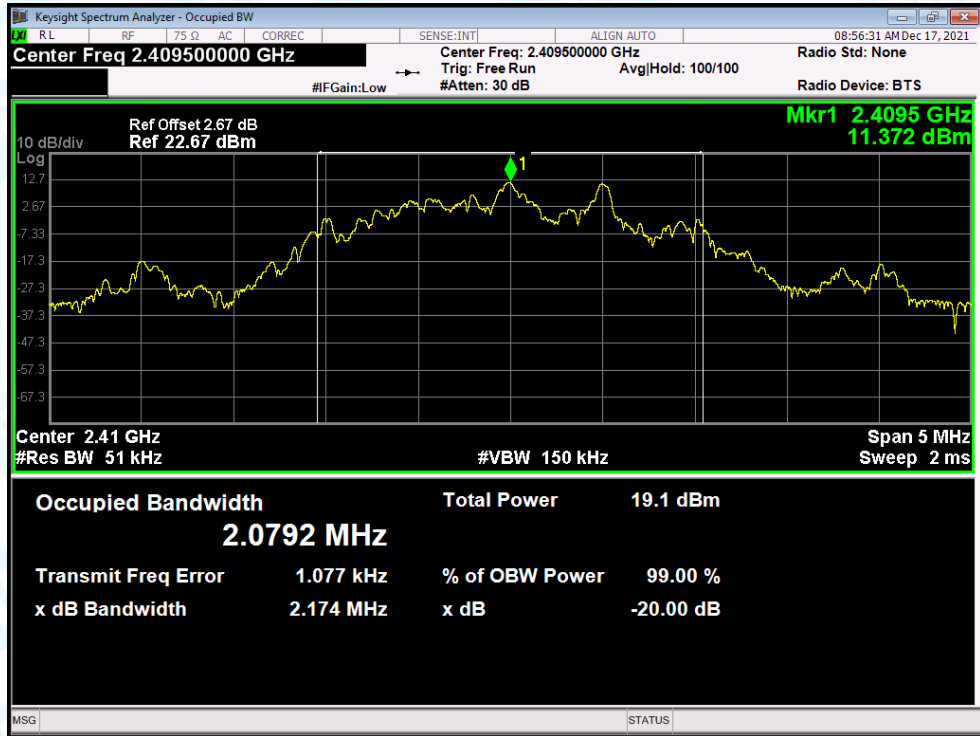


2.-20dB Bandwidth

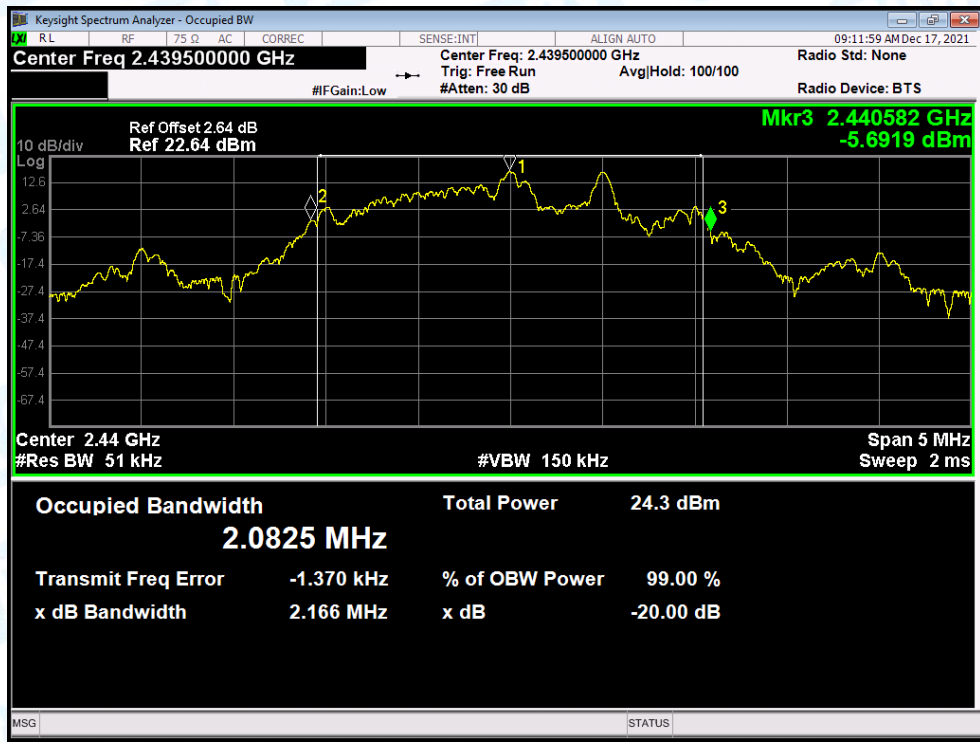
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	user	2409.5	Ant1	2.17	0	Pass
NVNT	user	2439.5	Ant1	2.17	0	Pass
NVNT	user	2468	Ant1	2.17	0	Pass

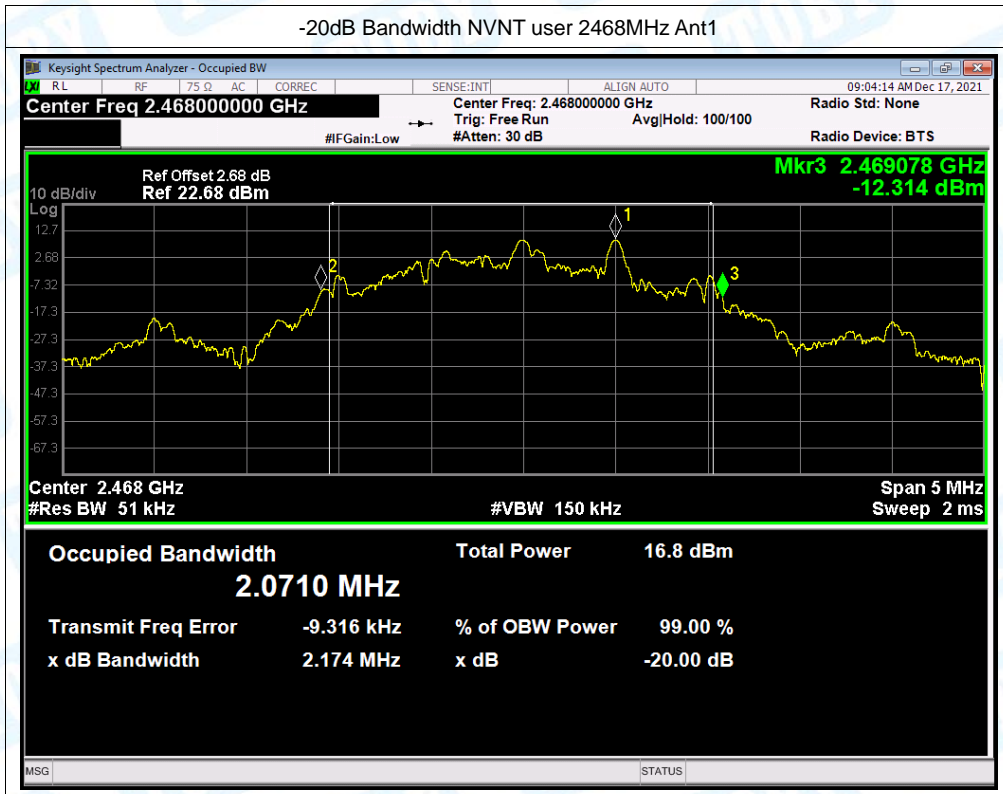
Test Graphs

-20dB Bandwidth NVNT user 2409.5MHz Ant1



-20dB Bandwidth NVNT user 2439.5MHz Ant1



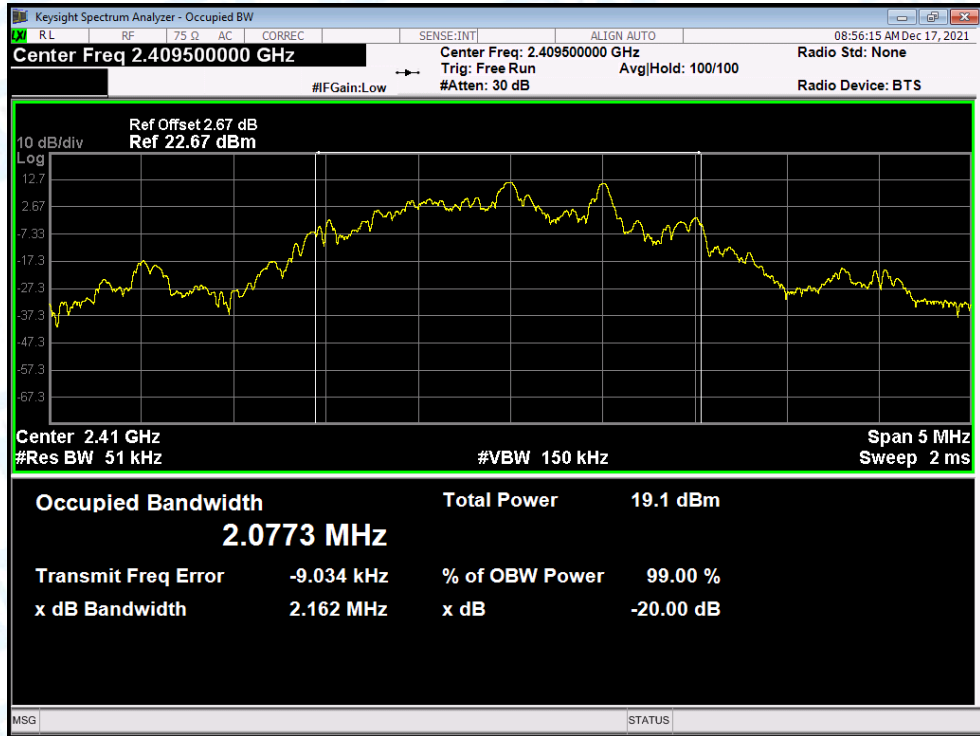


3.Occupied Channel Bandwidth

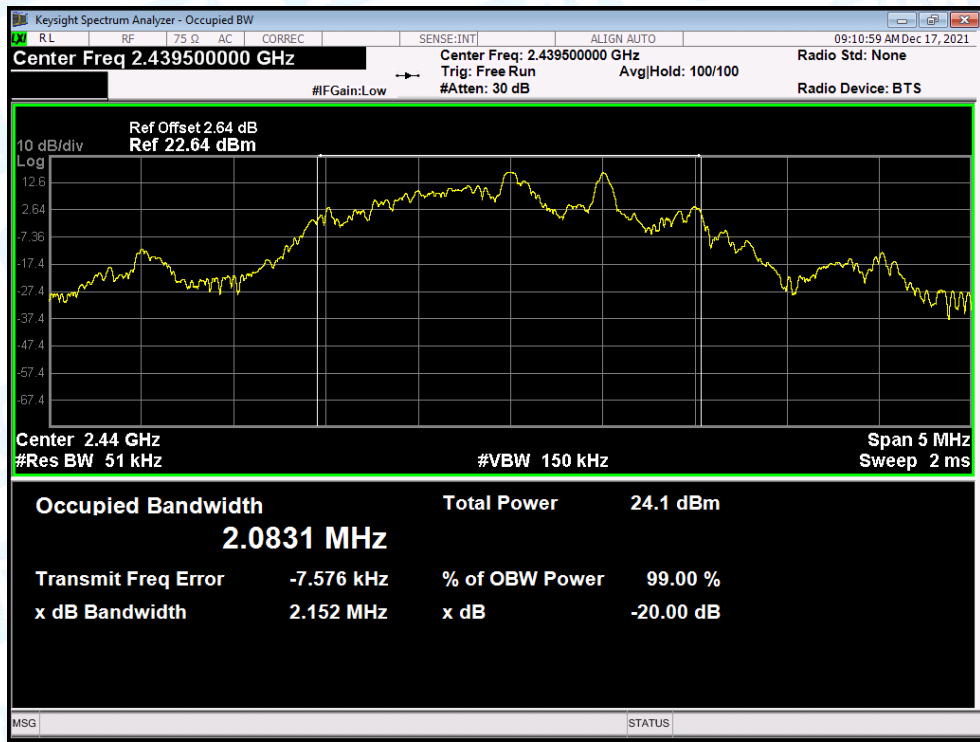
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	user	2409.5	Ant1	2.077
NVNT	user	2439.5	Ant1	2.083
NVNT	user	2468	Ant1	2.072

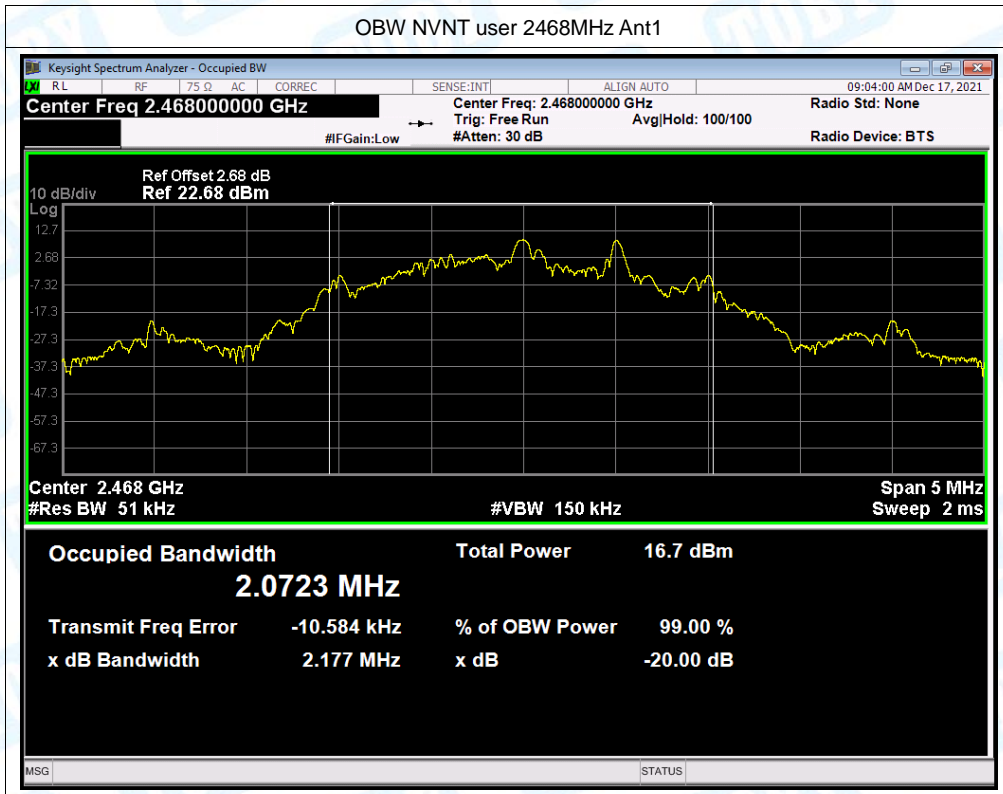
Test Graphs

OBW NVNT user 2409.5MHz Ant1



OBW NVNT user 2439.5MHz Ant1



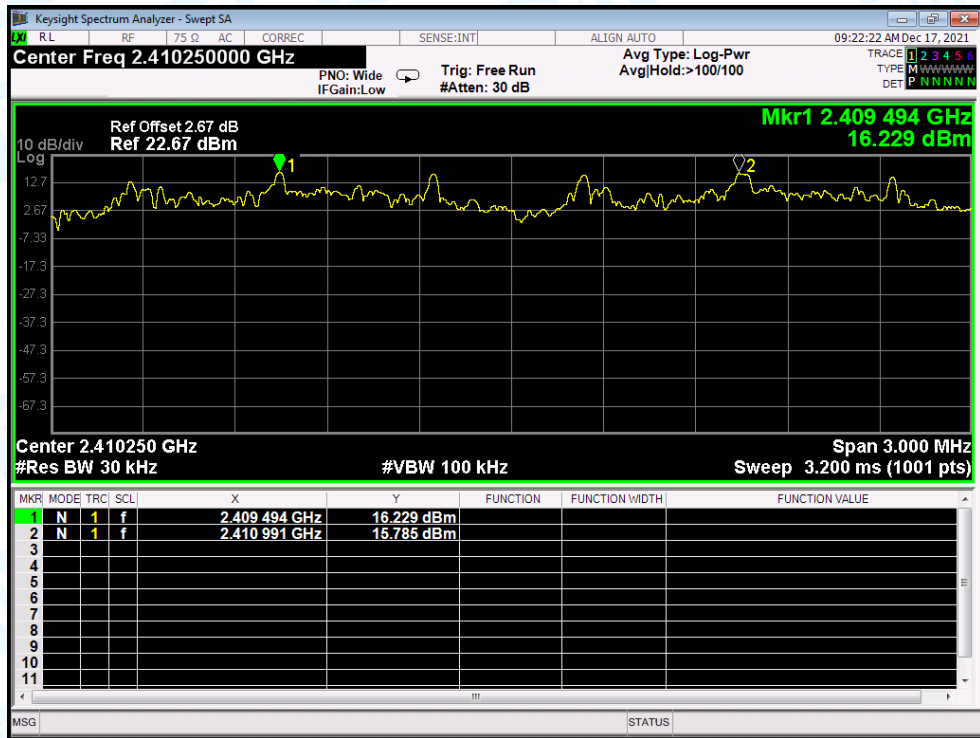


4. Carrier Frequencies Separation

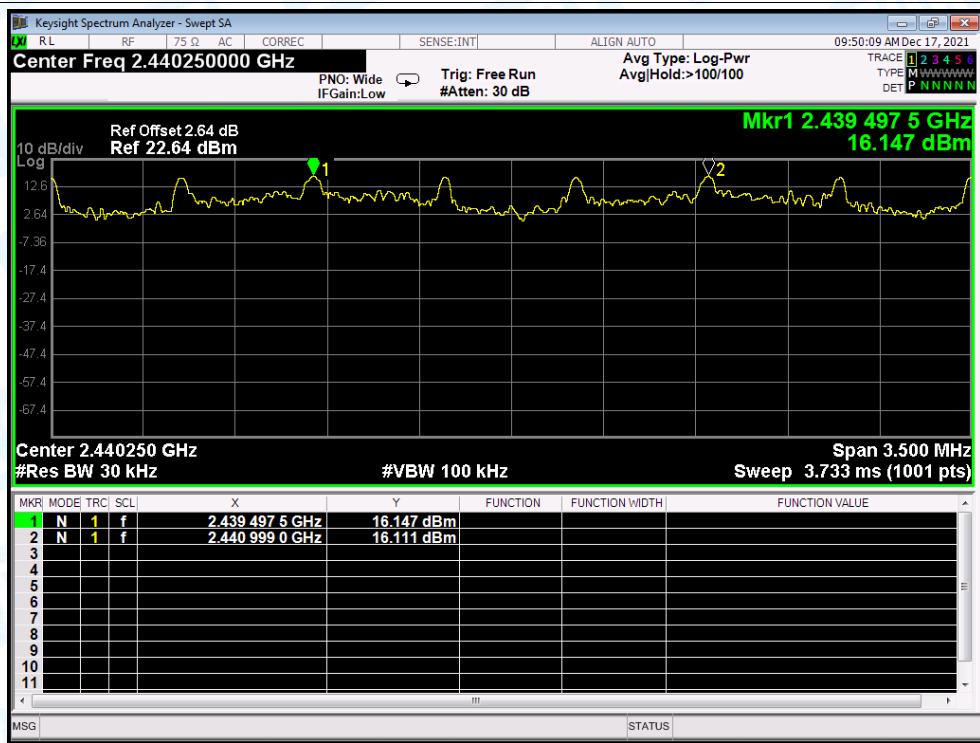
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	user	Ant1	2409.494	2410.991	1.497	1.447	Pass
NVNT	user	Ant1	2439.4975	2440.999	1.5015	1.447	Pass
NVNT	user	Ant1	2466.4905	2467.992	1.5015	1.447	Pass

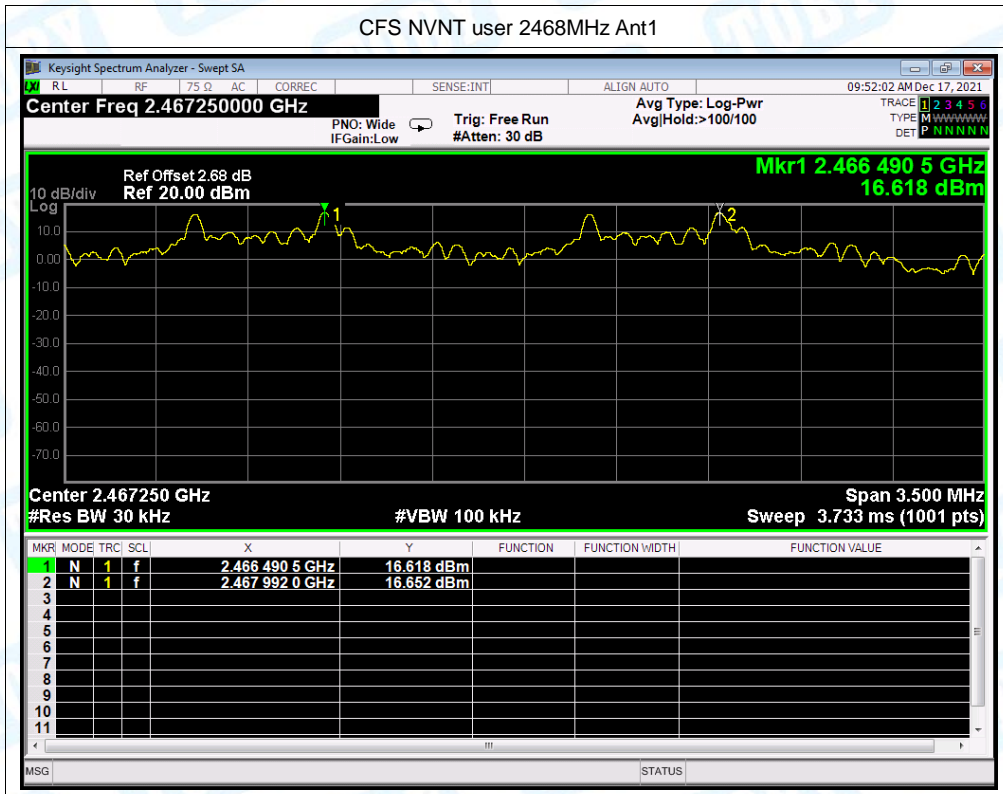
Test Graphs

CFS NVNT user 2409.5MHz Ant1



CFS NVNT user 2439.5MHz Ant1



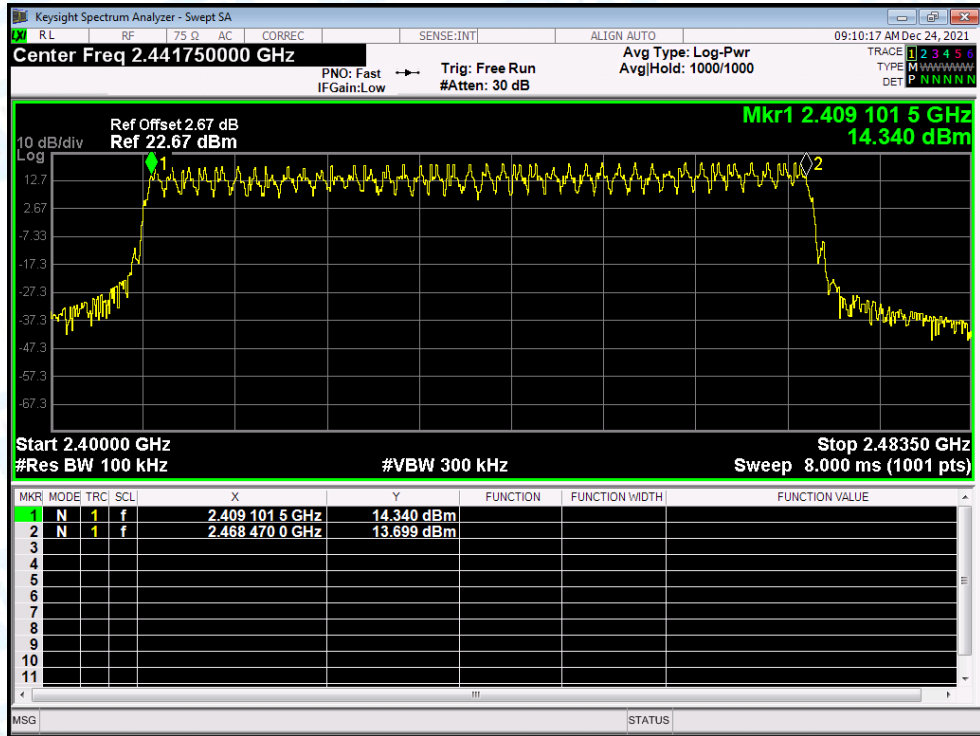


5.Number of Hopping Channel

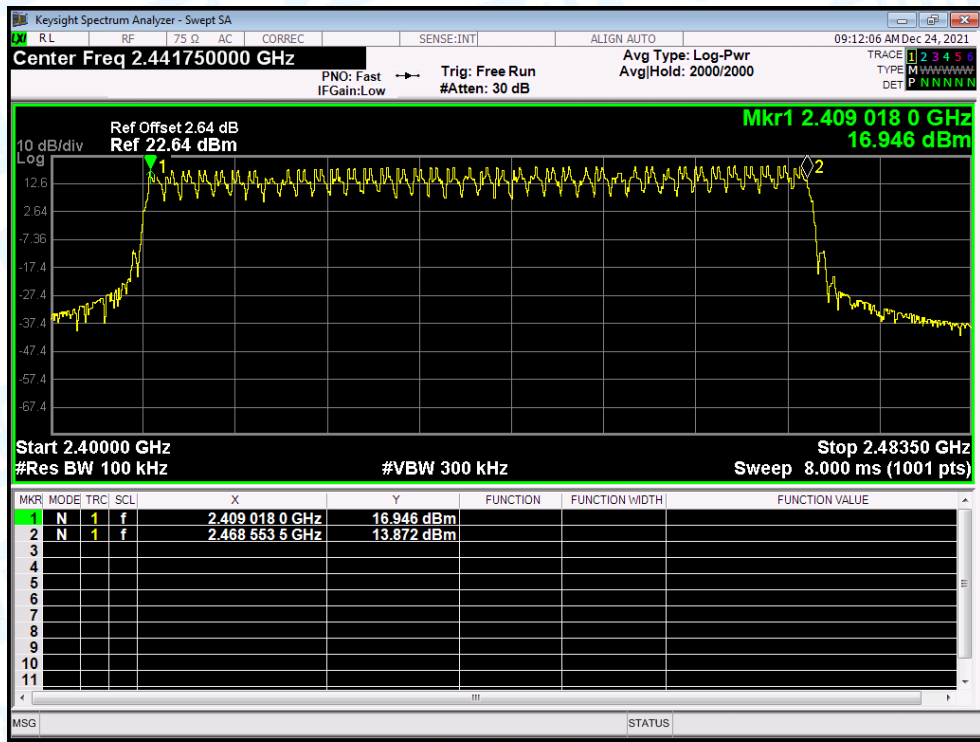
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	user	Ant1	40	15	Pass

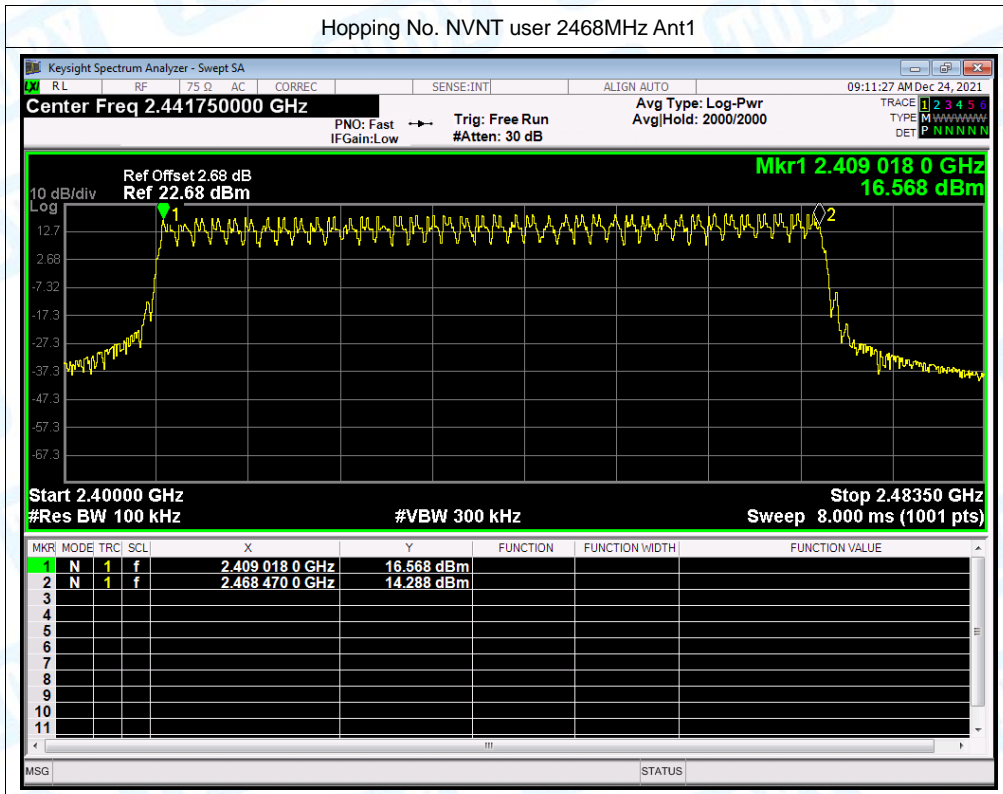
Test Graphs

Hopping No. NVNT user 2409.5MHz Ant1



Hopping No. NVNT user 2439.5MHz Ant1





6.Band Edge

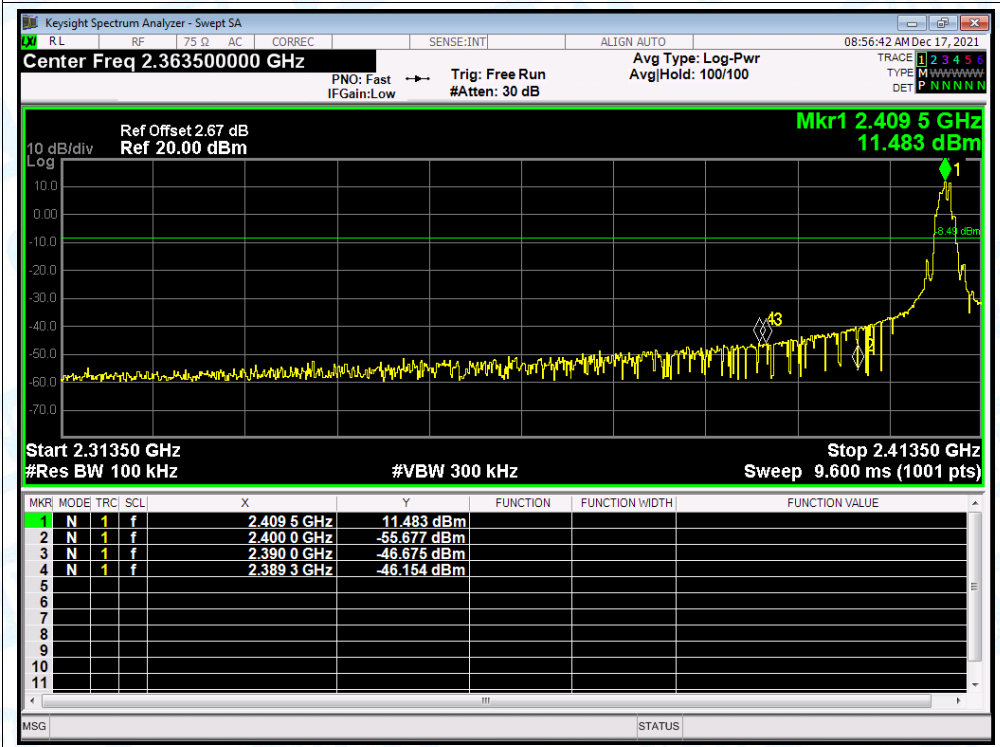
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	user	2409.5	Ant1	No-Hopping	-57.66	-20	Pass
NVNT	user	2468	Ant1	No-Hopping	-55.98	-20	Pass

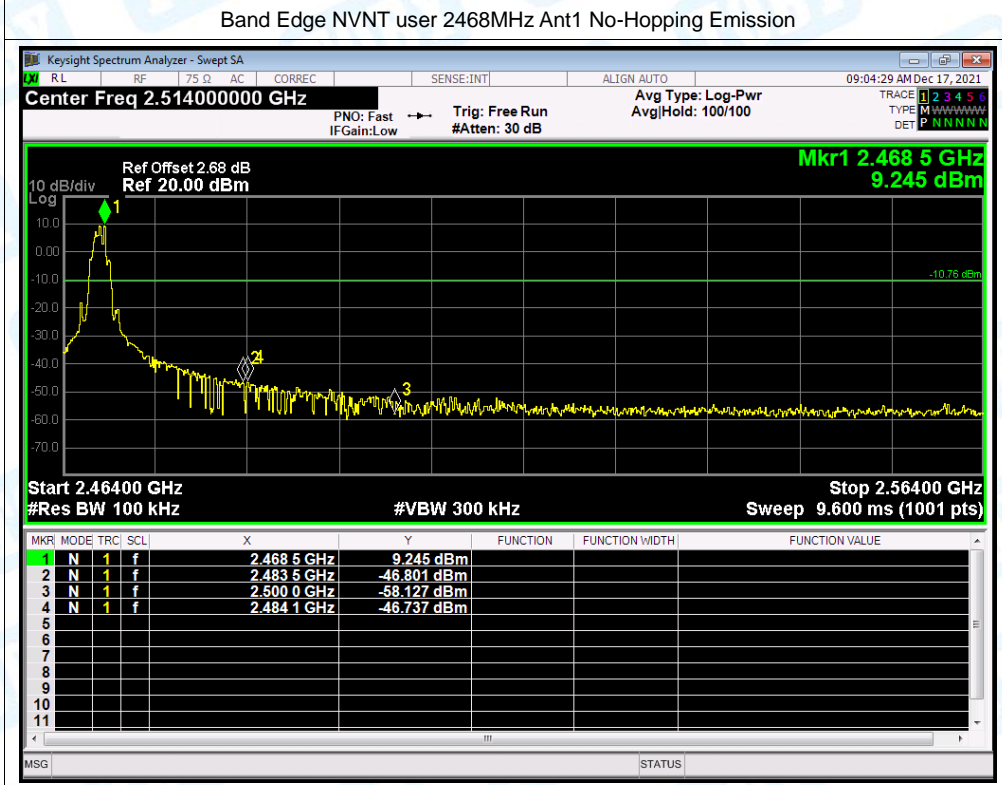
Test Graphs

Band Edge NVNT user 2409.5MHz Ant1 No-Hopping Ref



Band Edge NVNT user 2409.5MHz Ant1 No-Hopping Emission





7. Band Edge(Hopping)

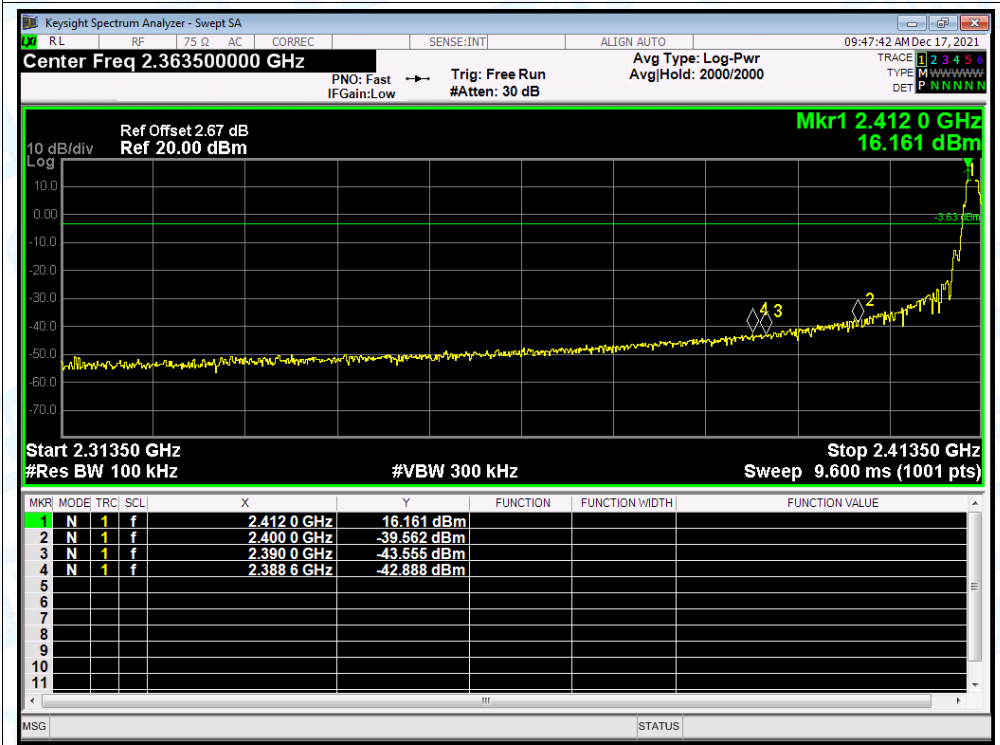
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	user	2409.5	Ant1	Hopping	-59.26	-20	Pass
NVNT	user	2468	Ant1	Hopping	-56.67	-20	Pass

Test Graphs

Band Edge(Hopping) NVNT user 2409.5MHz Ant1 Hopping Ref



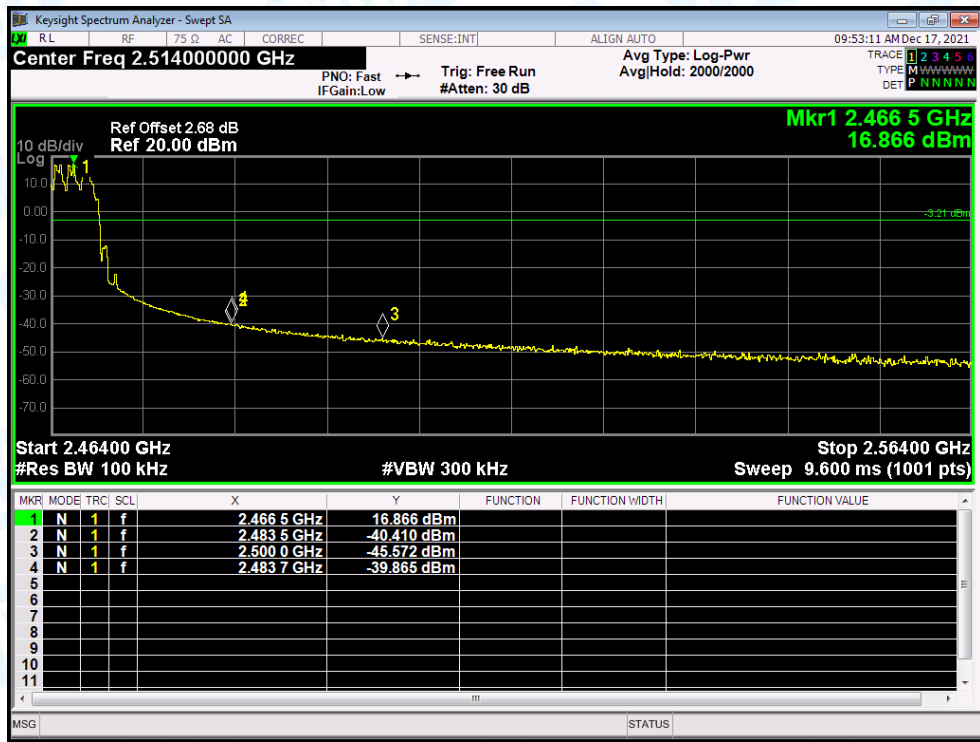
Band Edge(Hopping) NVNT user 2409.5MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT user 2468MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT user 2468MHz Ant1 Hopping Emission



8. Conducted RF Spurious Emission

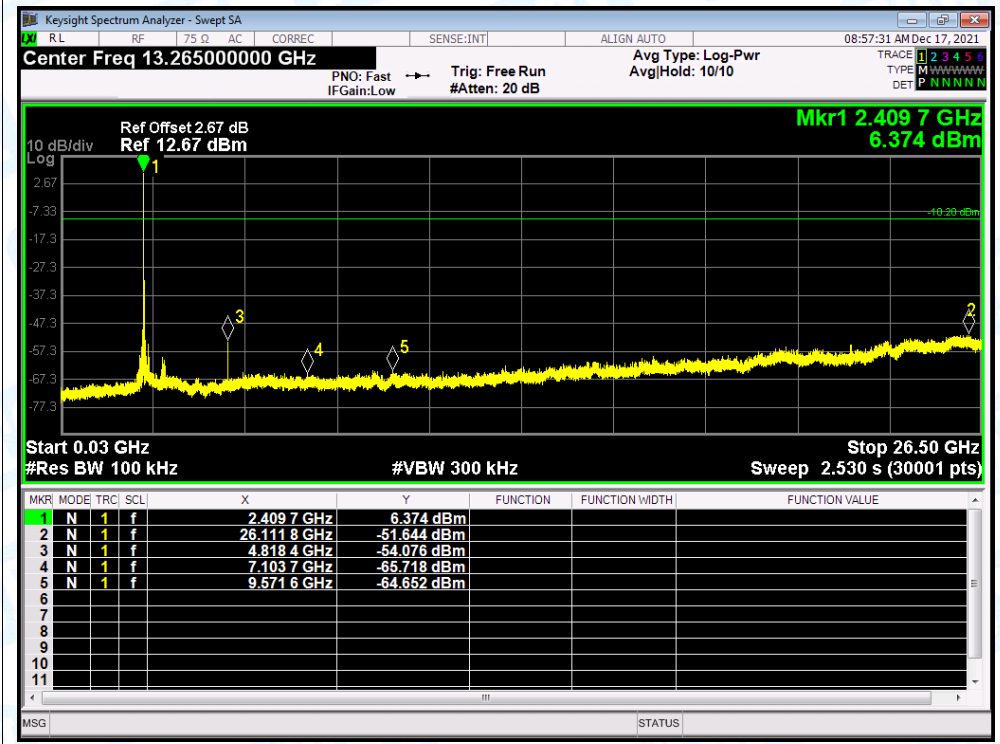
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	user	2409.5	Ant1	-61.44	-20	Pass
NVNT	user	2439.5	Ant1	-57.64	-20	Pass
NVNT	user	2468	Ant1	-55.55	-20	Pass

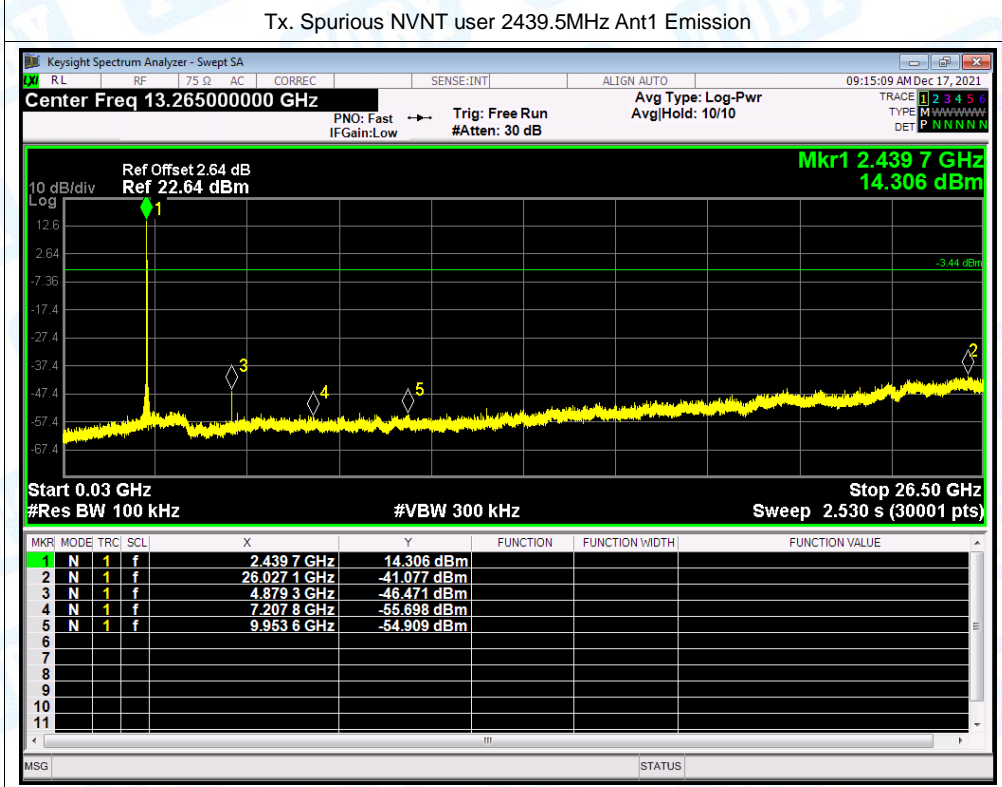
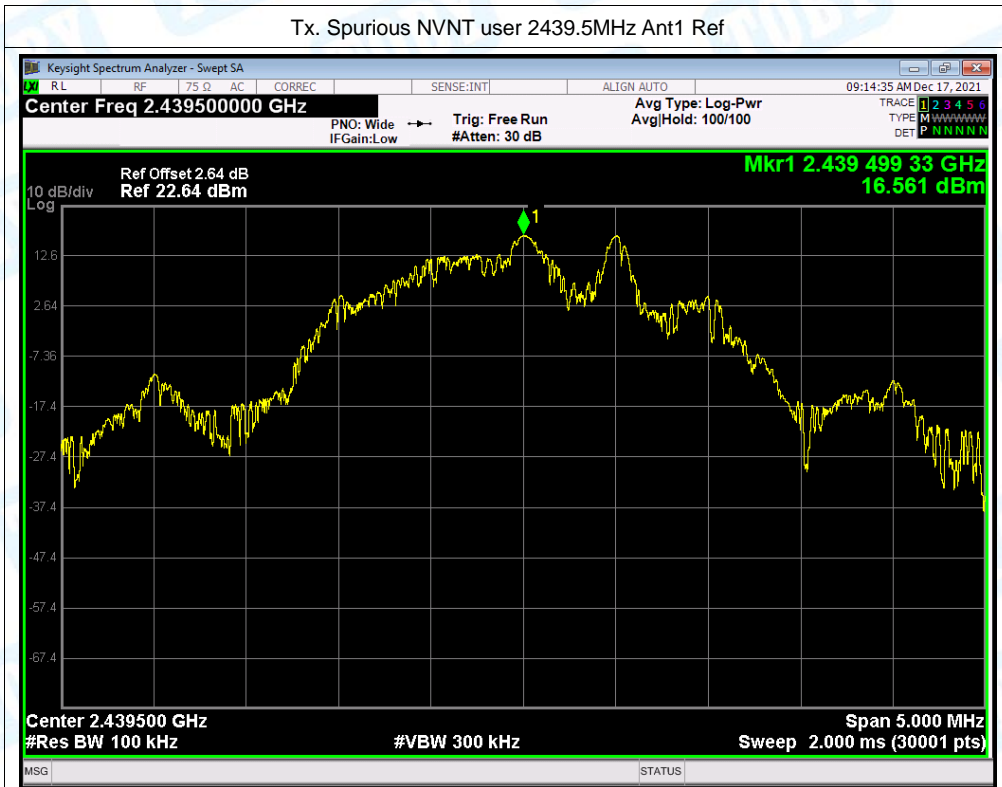
Test Graphs

Tx. Spurious NVNT user 2409.5MHz Ant1 Ref



Tx. Spurious NVNT user 2409.5MHz Ant1 Emission

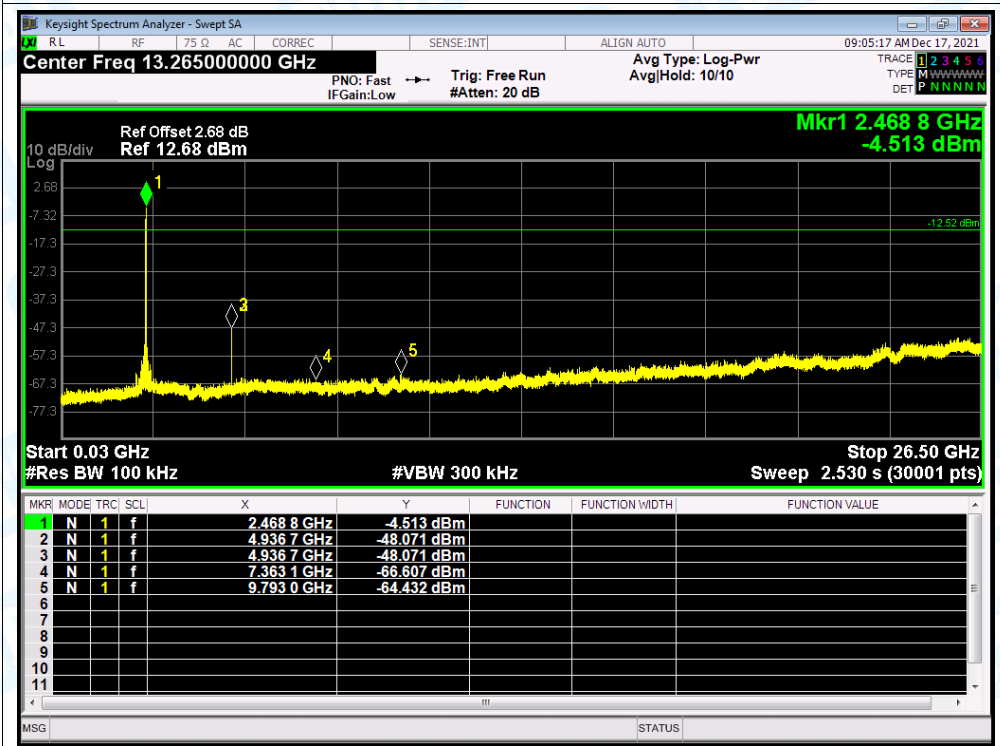




Tx. Spurious NVNT user 2468MHz Ant1 Ref



Tx. Spurious NVNT user 2468MHz Ant1 Emission

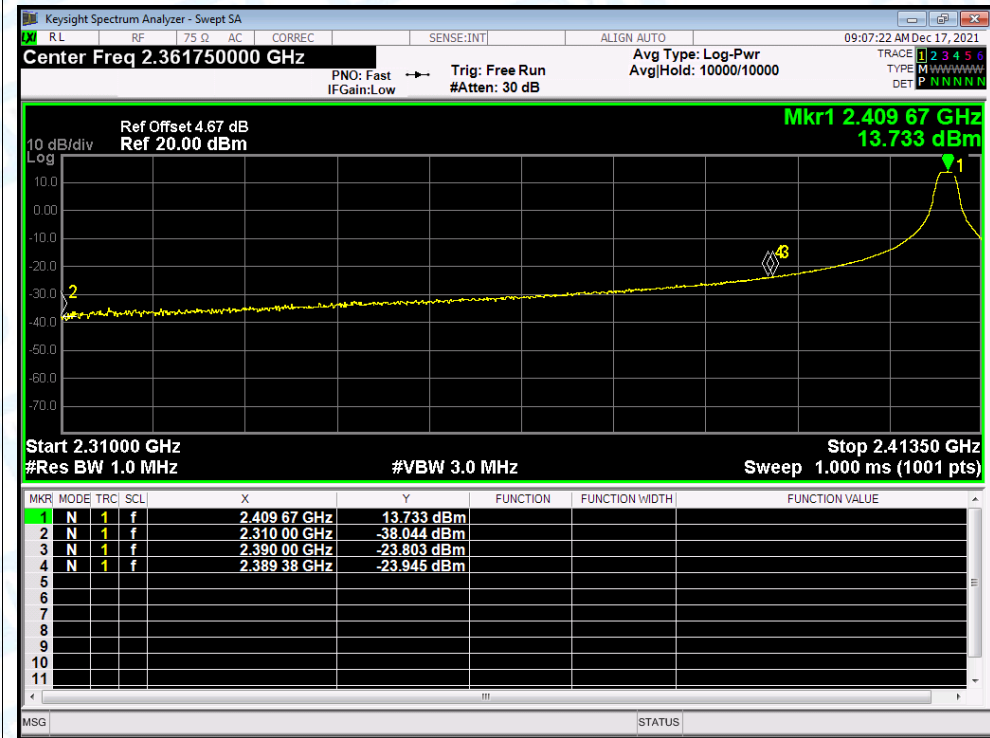


9.Restrict Band

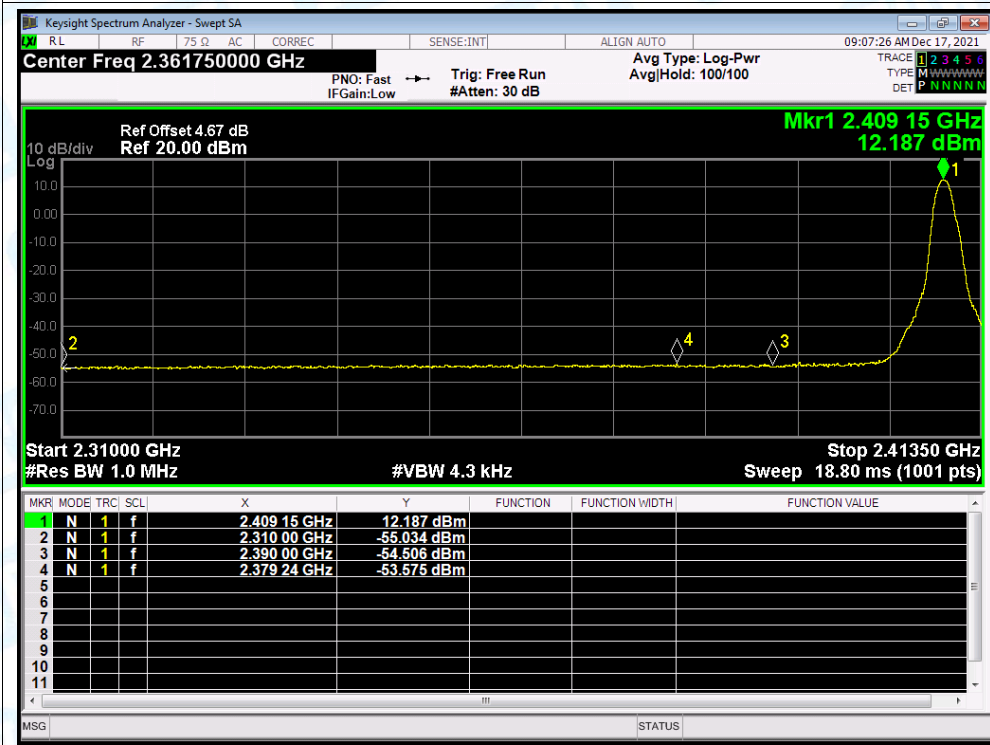
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	user	2409.5	Ant1	No-Hopping	2310	-38.04	2	59.22	Peak	74	Pass
NVNT	user	2409.5	Ant1	No-Hopping	2310	-55.03	2	42.23	Average	54	Pass
NVNT	user	2409.5	Ant1	No-Hopping	2389.3845	-23.95	2	73.31	Peak	74	Pass
NVNT	user	2409.5	Ant1	No-Hopping	2379.2415	-53.57	2	43.69	Average	54	Pass
NVNT	user	2409.5	Ant1	No-Hopping	2390	-23.8	2	73.46	Peak	74	Pass
NVNT	user	2409.5	Ant1	No-Hopping	2390	-54.51	2	42.75	Average	54	Pass
NVNT	user	2468	Ant1	No-Hopping	2483.5	-25.39	2	71.87	Peak	74	Pass
NVNT	user	2468	Ant1	No-Hopping	2483.5	-55.03	2	42.23	Average	54	Pass
NVNT	user	2468	Ant1	No-Hopping	2483.728	-25.04	2	72.22	Peak	74	Pass
NVNT	user	2468	Ant1	No-Hopping	2489.632	-54.65	2	42.61	Average	54	Pass
NVNT	user	2468	Ant1	No-Hopping	2500	-31.05	2	66.21	Peak	74	Pass
NVNT	user	2468	Ant1	No-Hopping	2500	-54.87	2	42.39	Average	54	Pass

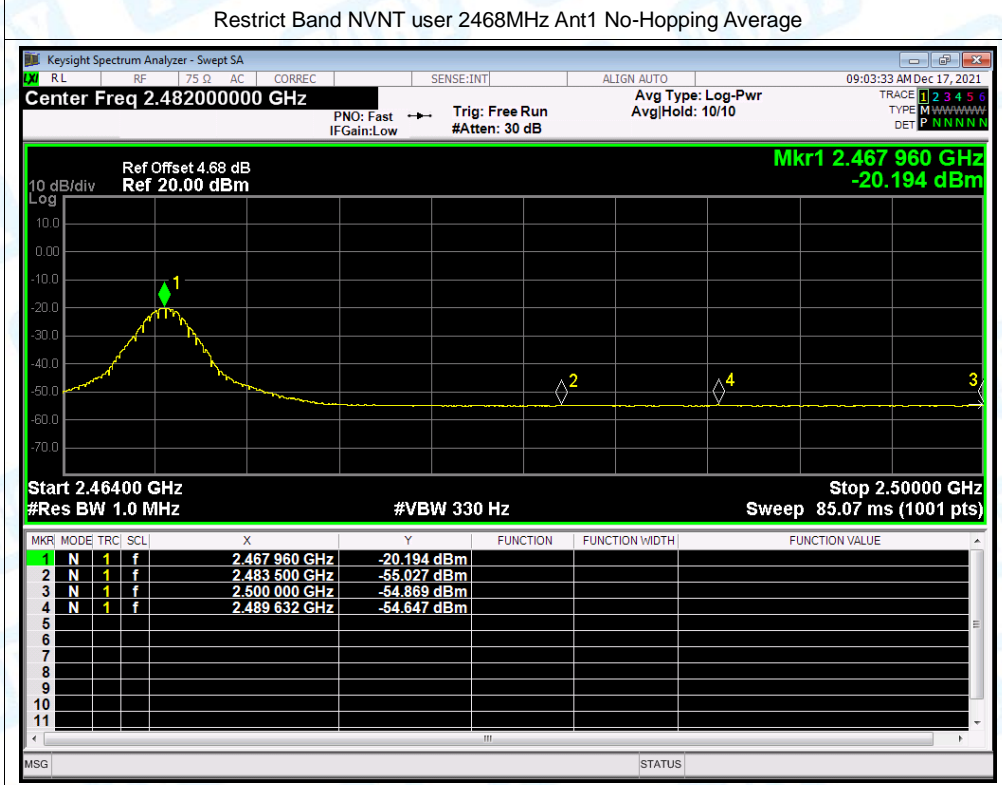
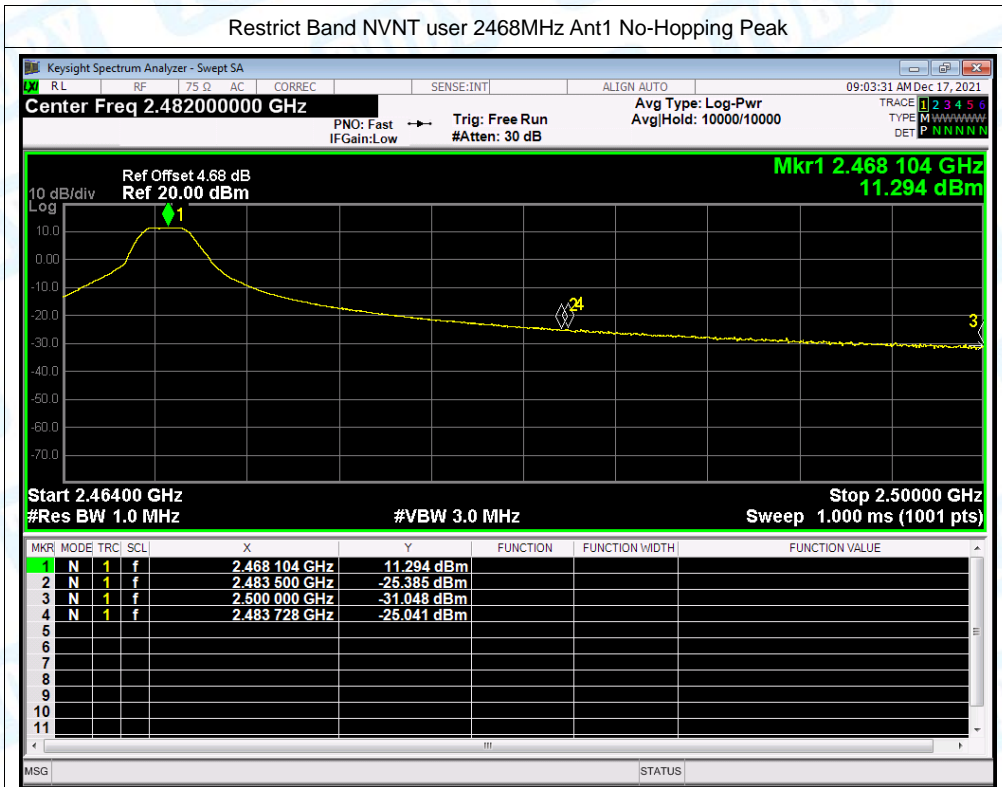
Test Graphs

Restrict Band NVNT user 2409.5MHz Ant1 No-Hopping Peak



Restrict Band NVNT user 2409.5MHz Ant1 No-Hopping Average





10.Dwell Time

Test Mode	Channel (MHz)	Reading Time (ms)	Total hops (N)	Test Result (ms)	Limit (ms)	Result
GFSK	2439.5	0.915	40	36.6	400	PASS

The Dwell Time = Burst Width * Total Hops. The detailed calculations are showed as follows:

The duration for dwell time calculation: $0.4 \text{ [s]} * \text{hopping number} = 0.4 \text{ [s]} * 40 \text{ [ch]} = 16 \text{ [s*ch]}$;

The burst width, which is directly measured, refers to the duration on one channel hop.

The maximum number of hopping channels in 16s is 40.

Reading Time= $0.915 \text{ ms} * 40 = 36.6$

Test Graphs

Dwell NVNT user 2439.5MHz Ant1

