

# RF Test Data for Bluetooth(BDR+EDR) (Conducted Measurements)

General Description of EUT	
<b>Product Name:</b>	Audio Amplifier
<b>Test Model:</b>	XT-160AMP
Environmental Conditions	
<b>Temperature:</b>	25°C
<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	AC 230V
<b>Test Engineer:</b>	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202308-0123-6 The report only show the worst case data.	



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## 1. Occupied Channel Bandwidth

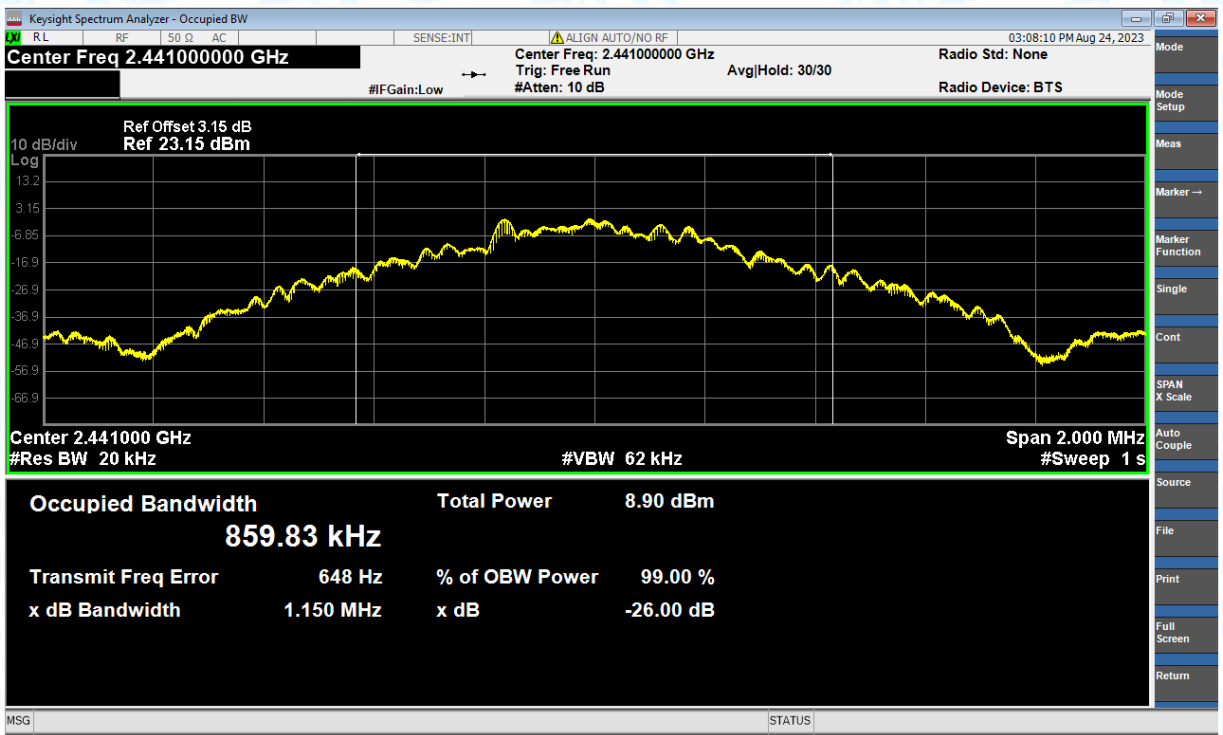
Condition	Mode	Frequency (MHz)	Antenna	Center Frequency (MHz)	OBW (MHz)	Lower Edge (MHz)	Upper Edge (MHz)	Limit OBW (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	2402.001	0.86	2401.571	2402.431	2400 - 2483.5MHz	Pass
NVNT	1-DH1	2441	Ant1	2441.001	0.86	2440.571	2441.431	2400 - 2483.5MHz	Pass
NVNT	1-DH1	2480	Ant1	2480.001	0.858	2479.572	2480.43	2400 - 2483.5MHz	Pass
NVNT	2-DH1	2402	Ant1	2401.987	1.17	2401.402	2402.572	2400 - 2483.5MHz	Pass
NVNT	2-DH1	2441	Ant1	2440.986	1.17	2440.401	2441.571	2400 - 2483.5MHz	Pass
NVNT	2-DH1	2480	Ant1	2479.985	1.171	2479.4	2480.571	2400 - 2483.5MHz	Pass
NVNT	3-DH1	2402	Ant1	2402.012	1.164	2401.43	2402.593	2400 - 2483.5MHz	Pass
NVNT	3-DH1	2441	Ant1	2441.011	1.164	2440.429	2441.593	2400 - 2483.5MHz	Pass
NVNT	3-DH1	2480	Ant1	2480.011	1.164	2479.429	2480.593	2400 - 2483.5MHz	Pass

Test Graphs

OBW NVNT 1-DH1 2402MHz Ant1

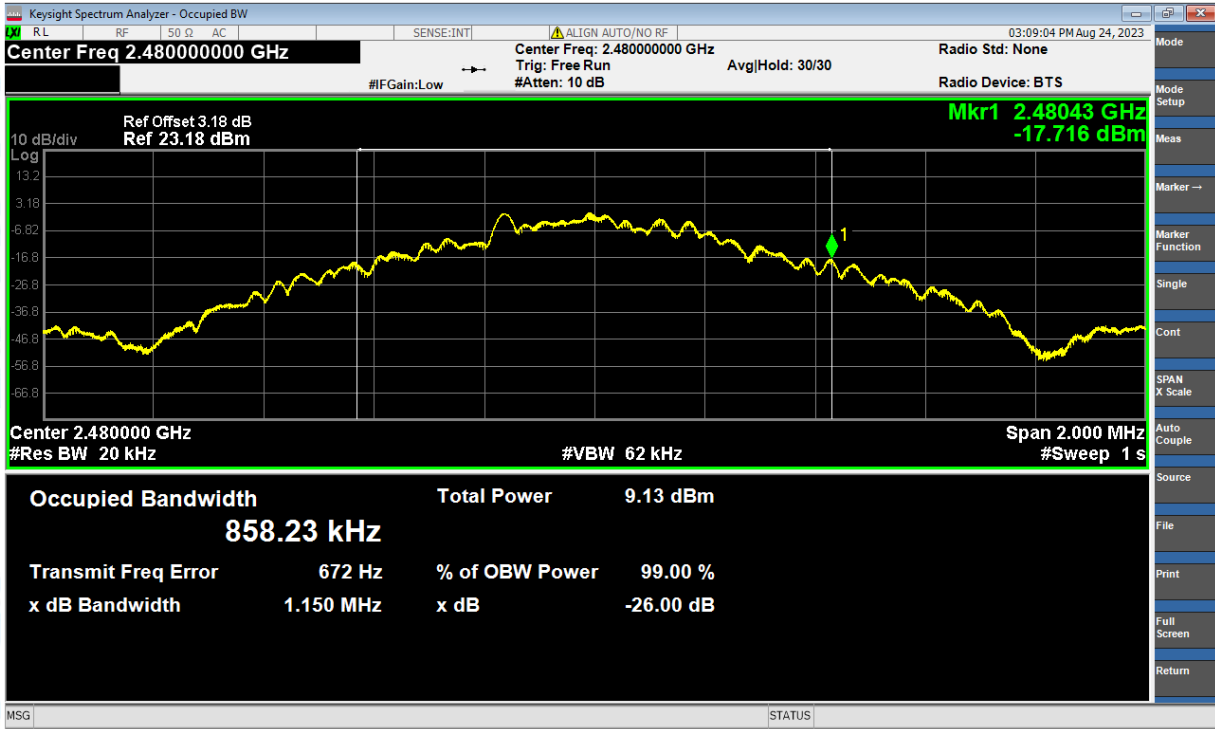


OBW NVNT 1-DH1 2441MHz Ant1

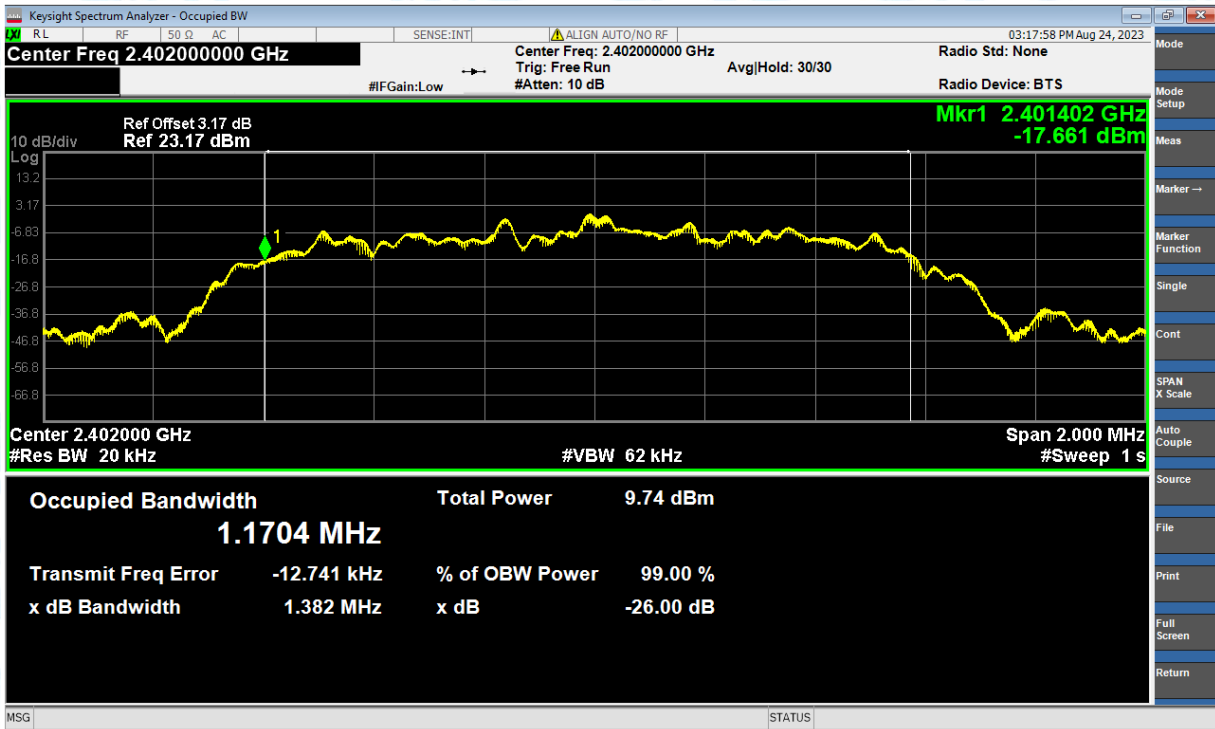




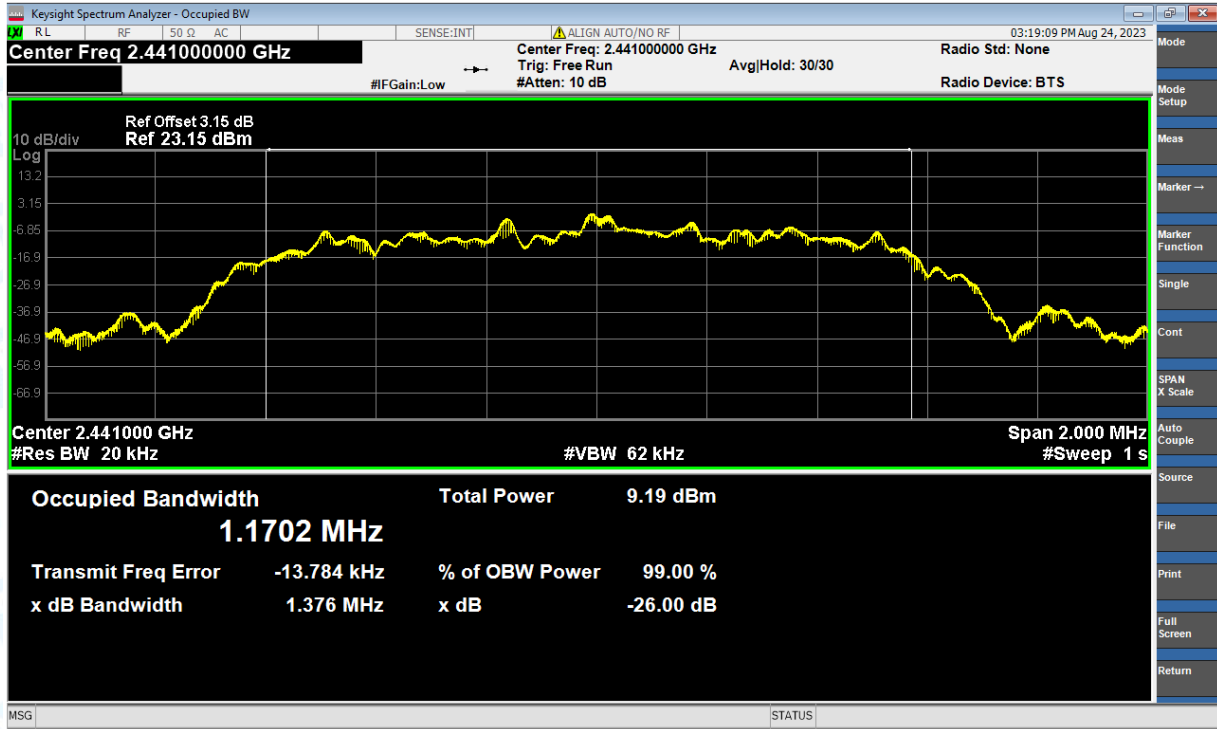
OBW NVNT 1-DH1 2480MHz Ant1



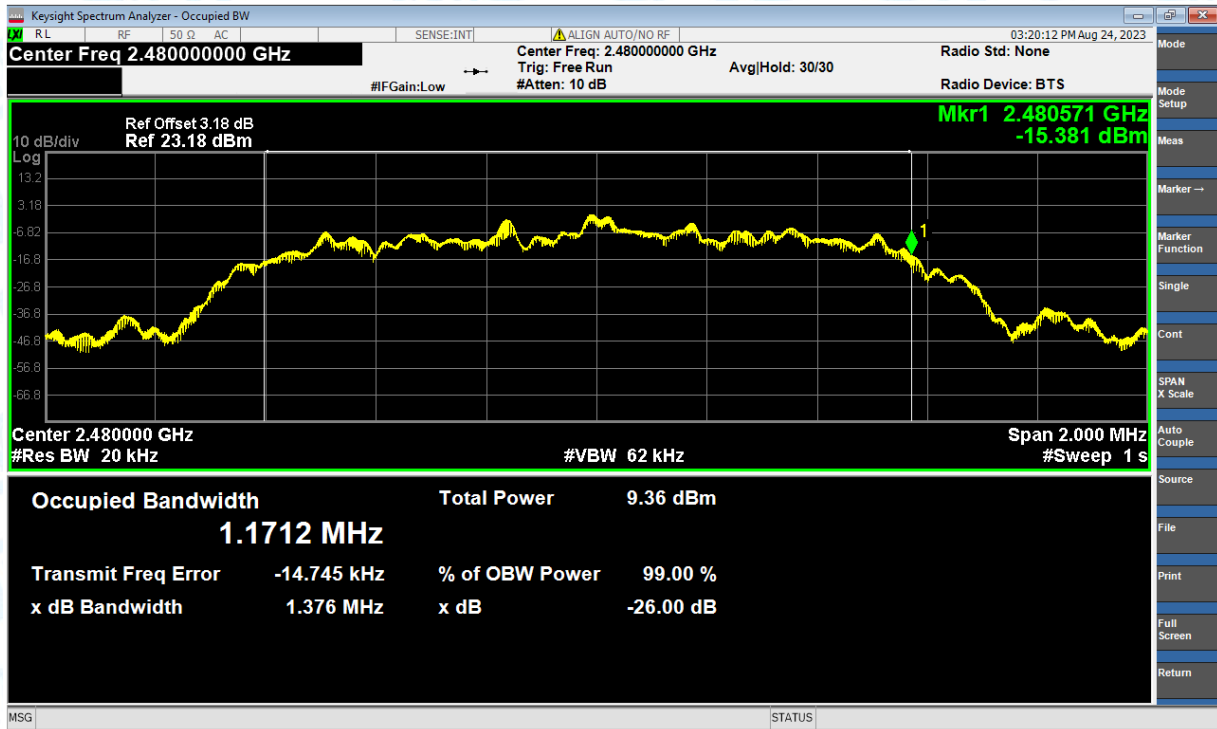
OBW NVNT 2-DH1 2402MHz Ant1



OBW NVNT 2-DH1 2441MHz Ant1

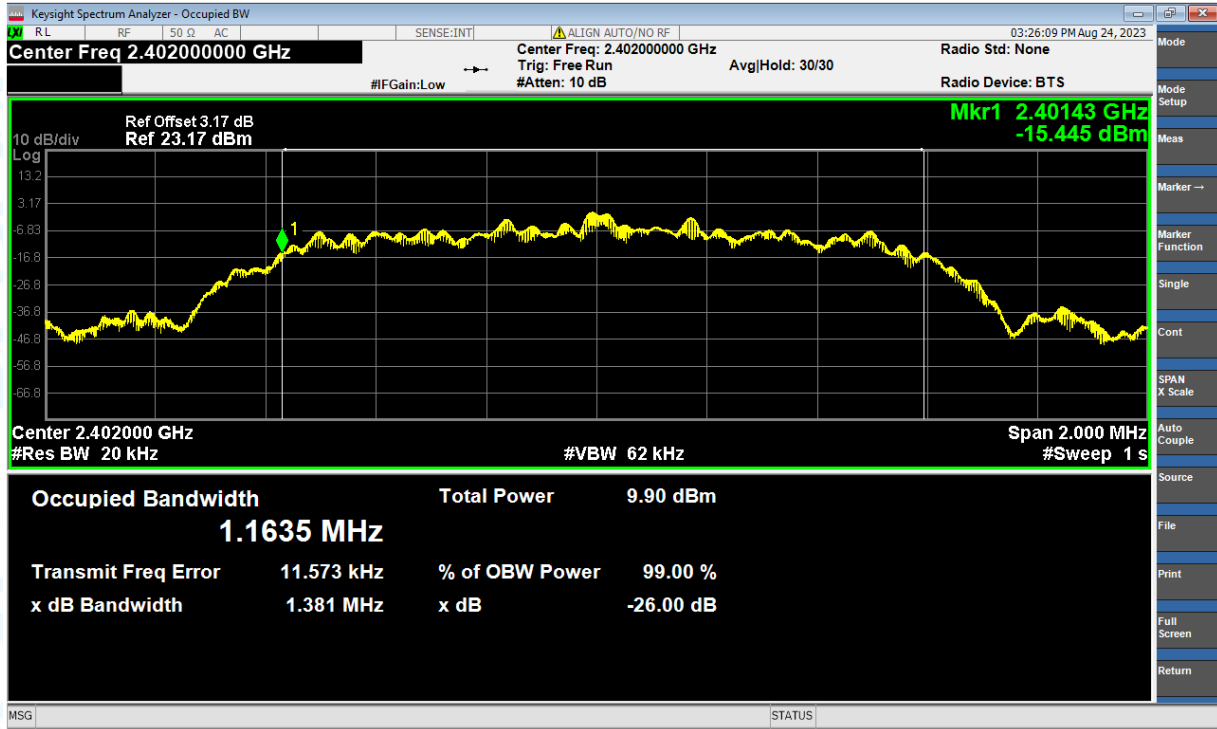


OBW NVNT 2-DH1 2480MHz Ant1

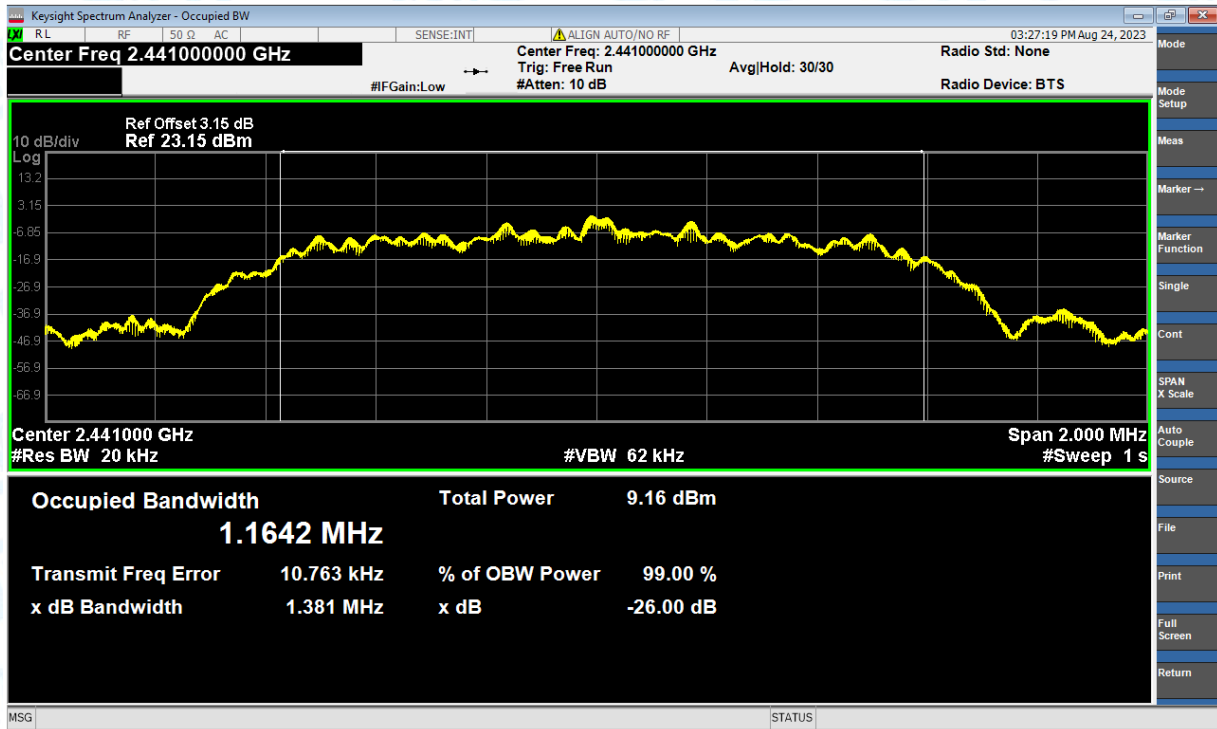


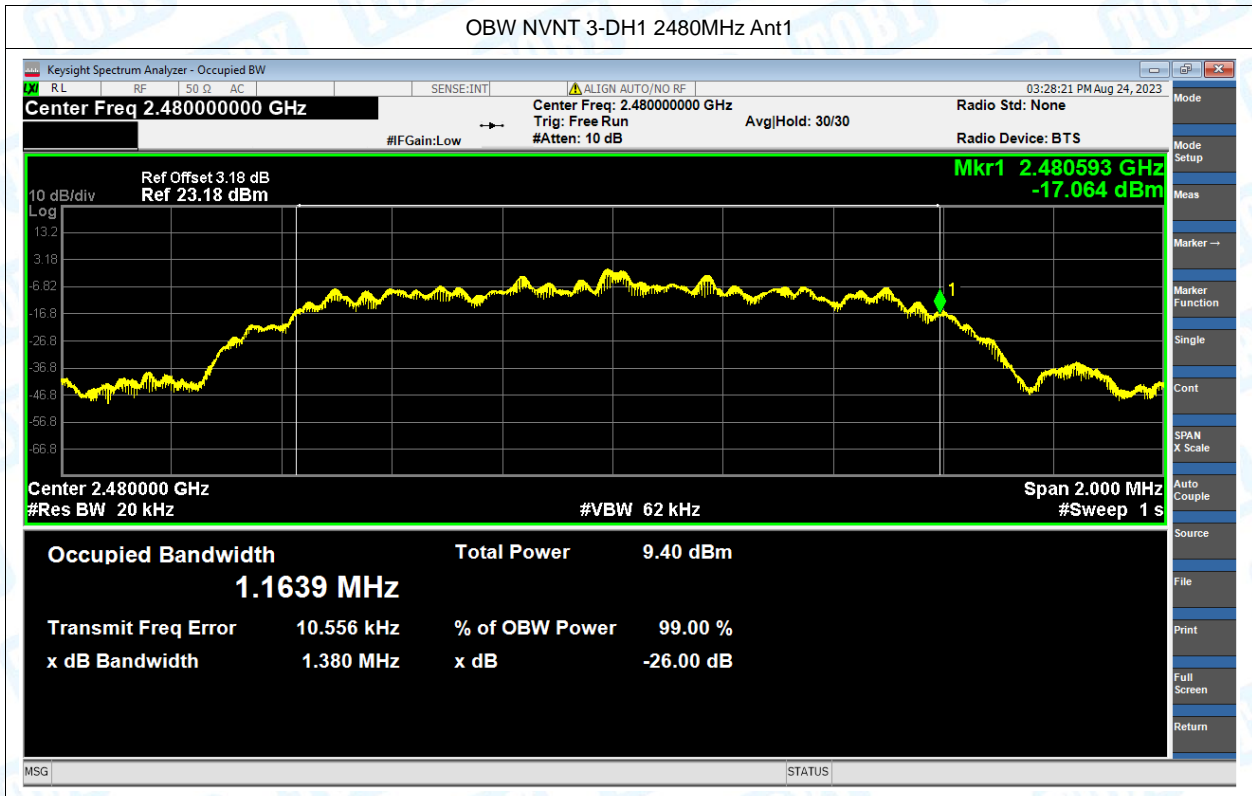


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1





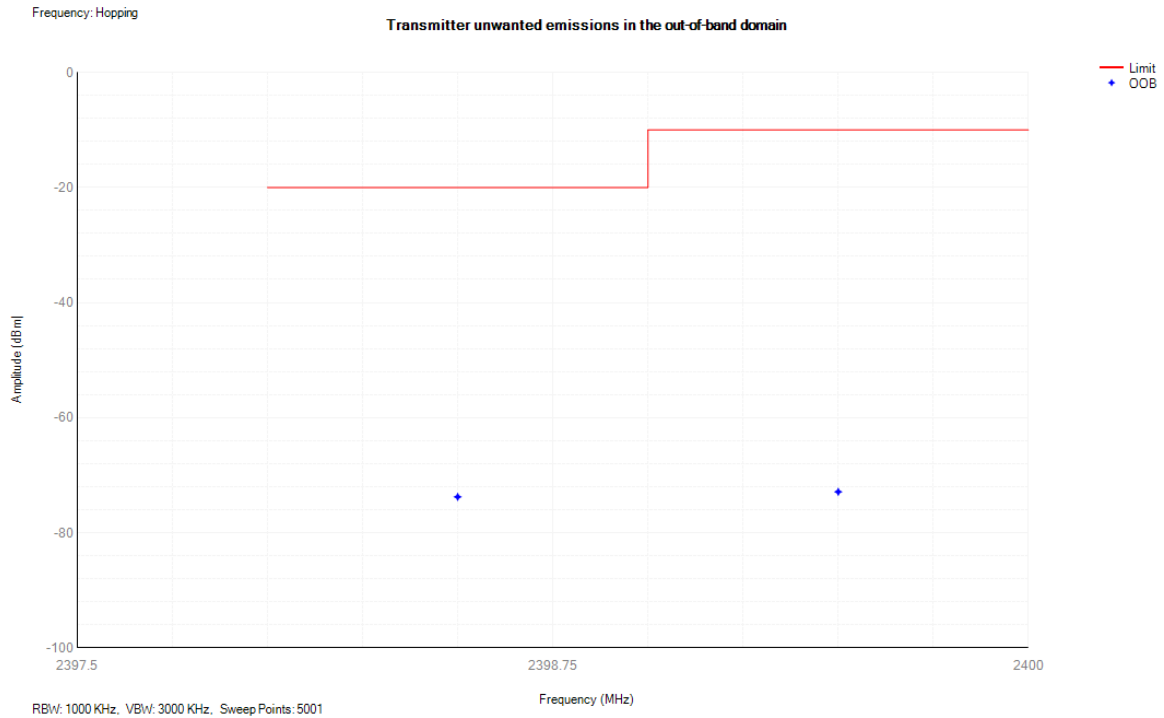


## 2. Transmitter unwanted emissions in the out-of-band domain

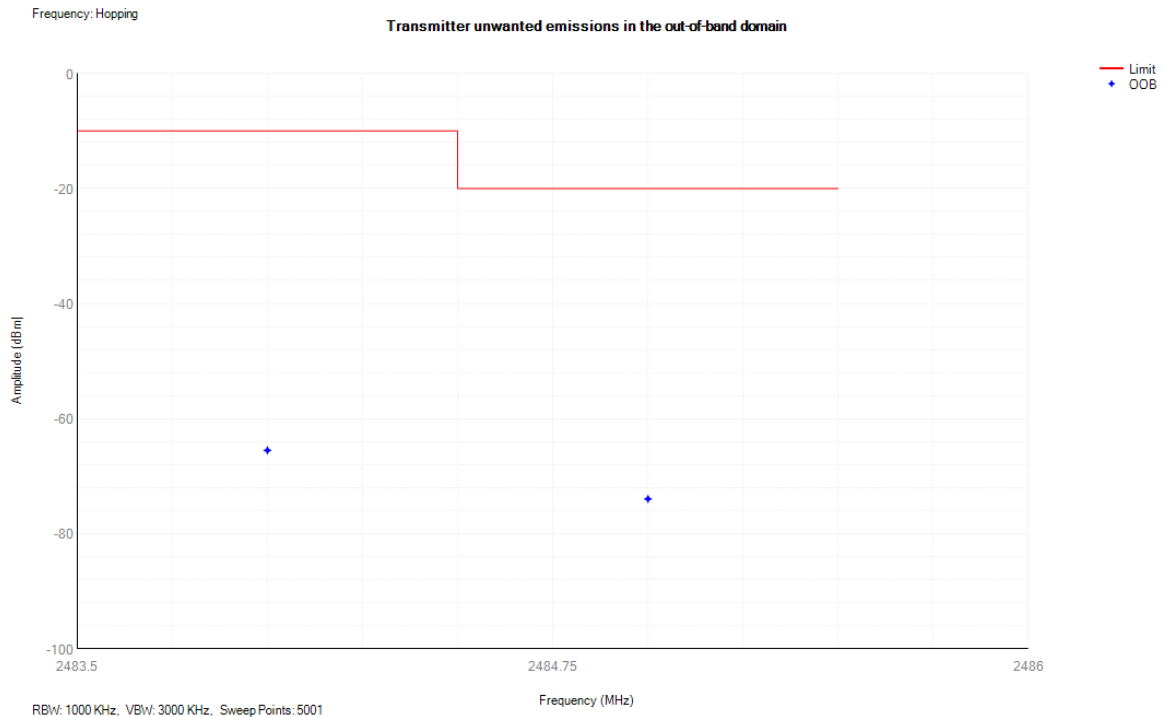
Condition	Mode	Frequency (MHz)	Antenna	OOB Frequency (MHz)	Level (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	1-DH1	Hopping	Ant1	2399.5	-72.89	-10	Pass
NVNT	1-DH1	Hopping	Ant1	2398.5	-73.77	-20	Pass
NVNT	1-DH1	Hopping	Ant1	2484	-65.51	-10	Pass
NVNT	1-DH1	Hopping	Ant1	2485	-73.95	-20	Pass
NVNT	2-DH1	Hopping	Ant1	2399.5	-72.7	-10	Pass
NVNT	2-DH1	Hopping	Ant1	2399.33	-74.11	-10	Pass
NVNT	2-DH1	Hopping	Ant1	2398.33	-69.87	-20	Pass
NVNT	2-DH1	Hopping	Ant1	2398.16	-71.73	-20	Pass
NVNT	2-DH1	Hopping	Ant1	2484	-73.36	-10	Pass
NVNT	2-DH1	Hopping	Ant1	2484.171	-63.04	-10	Pass
NVNT	2-DH1	Hopping	Ant1	2485.171	-73.92	-20	Pass
NVNT	2-DH1	Hopping	Ant1	2485.342	-73.13	-20	Pass
NVNT	3-DH1	Hopping	Ant1	2399.5	-61.25	-10	Pass
NVNT	3-DH1	Hopping	Ant1	2399.336	-73.23	-10	Pass
NVNT	3-DH1	Hopping	Ant1	2398.336	-74.03	-20	Pass
NVNT	3-DH1	Hopping	Ant1	2398.172	-72.01	-20	Pass
NVNT	3-DH1	Hopping	Ant1	2484	-73.83	-10	Pass
NVNT	3-DH1	Hopping	Ant1	2484.164	-73.55	-10	Pass
NVNT	3-DH1	Hopping	Ant1	2485.164	-72.51	-20	Pass
NVNT	3-DH1	Hopping	Ant1	2485.328	-68.7	-20	Pass

Test Graphs

Tx. Emissions OOB NVNT 1-DH1 2402MHz Ant1

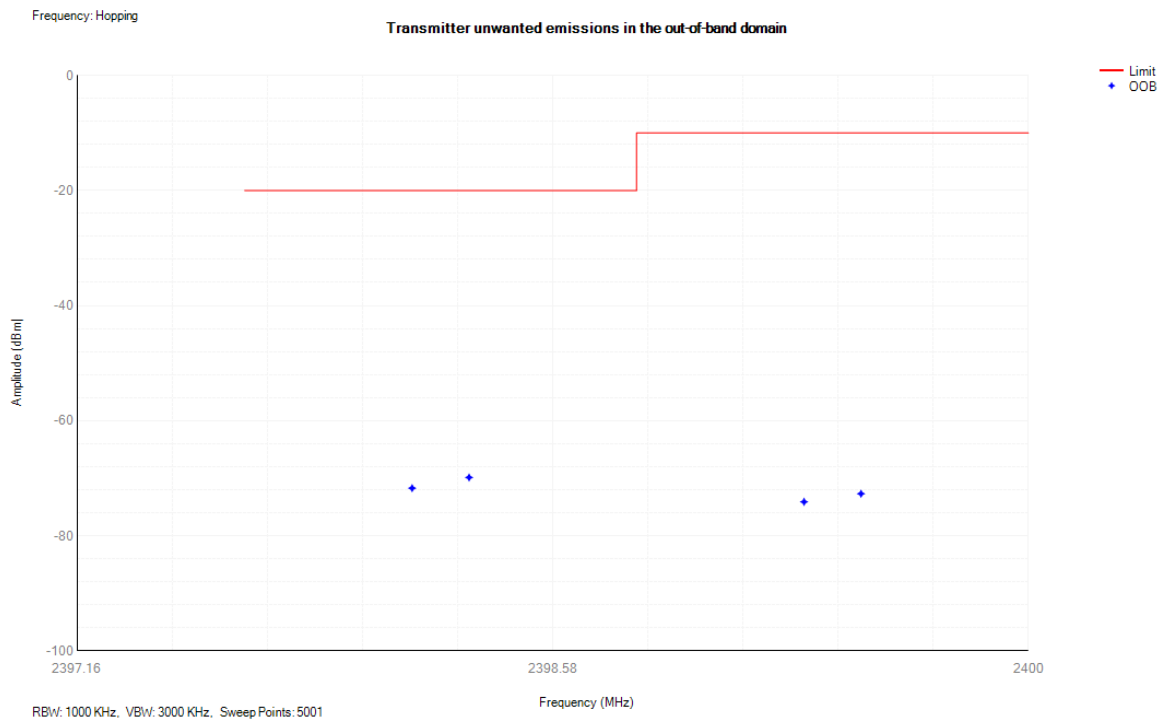


Tx. Emissions OOB NVNT 1-DH1 2480MHz Ant1

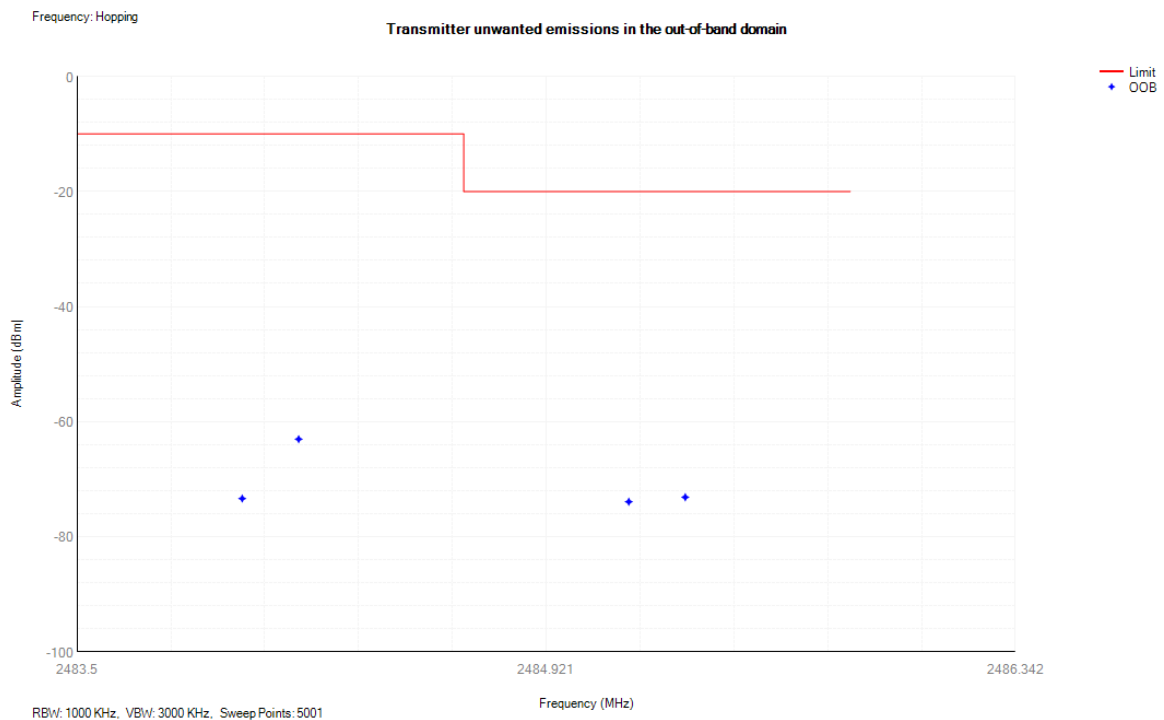




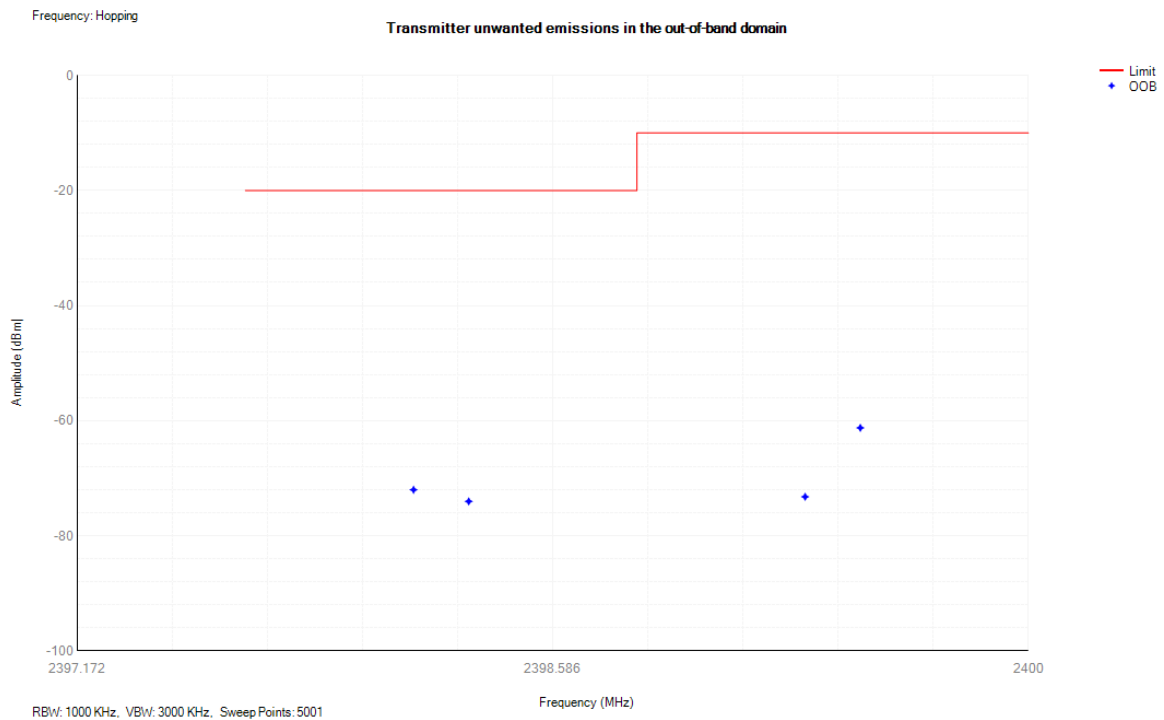
Tx. Emissions OOB NVNT 2-DH1 2402MHz Ant1



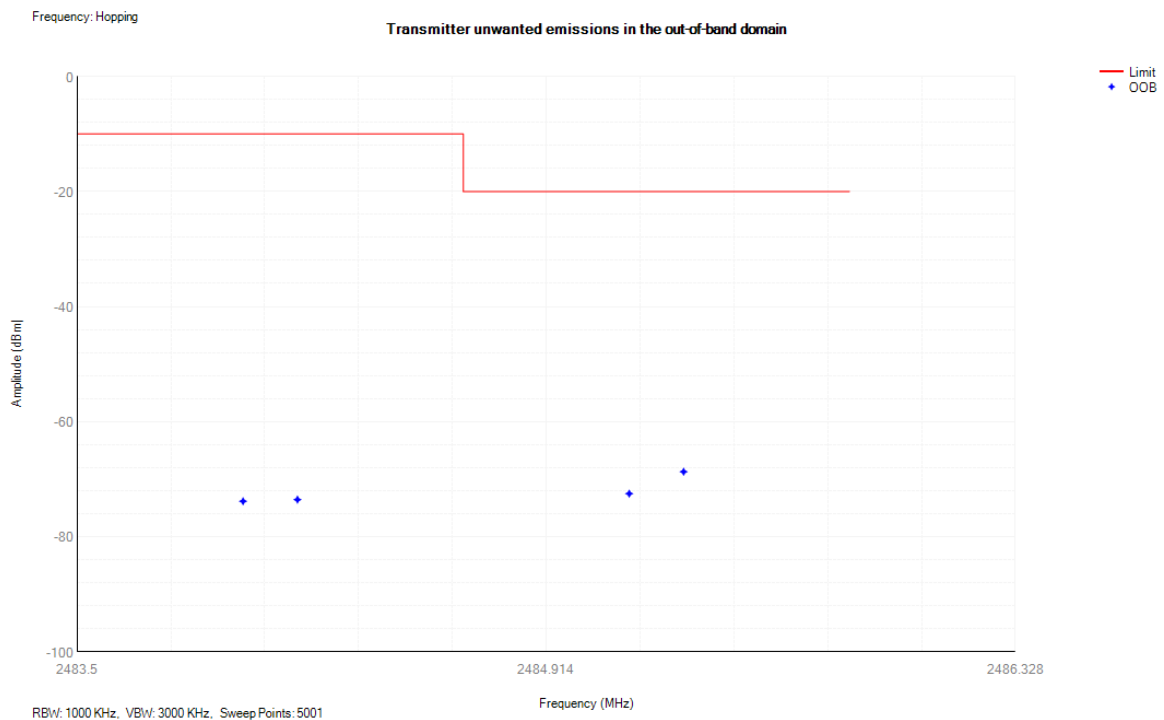
Tx. Emissions OOB NVNT 2-DH1 2480MHz Ant1



Tx. Emissions OOB NVNT 3-DH1 2402MHz Ant1



Tx. Emissions OOB NVNT 3-DH1 2480MHz Ant1



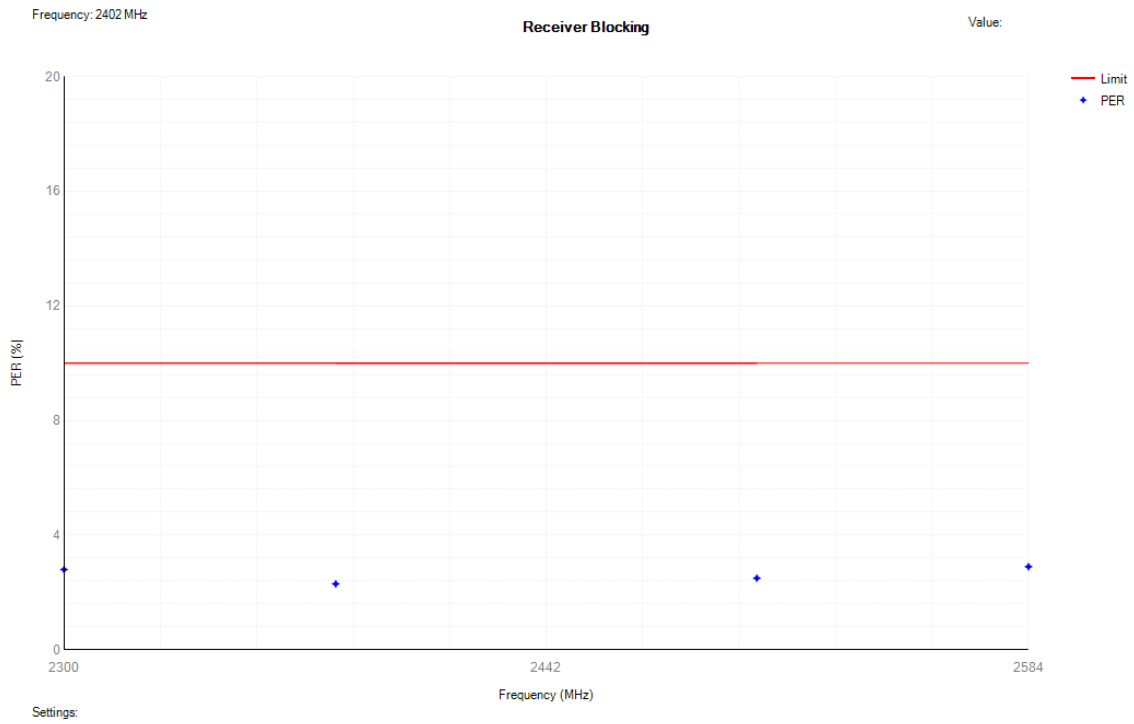


### 3. Receiver Blocking

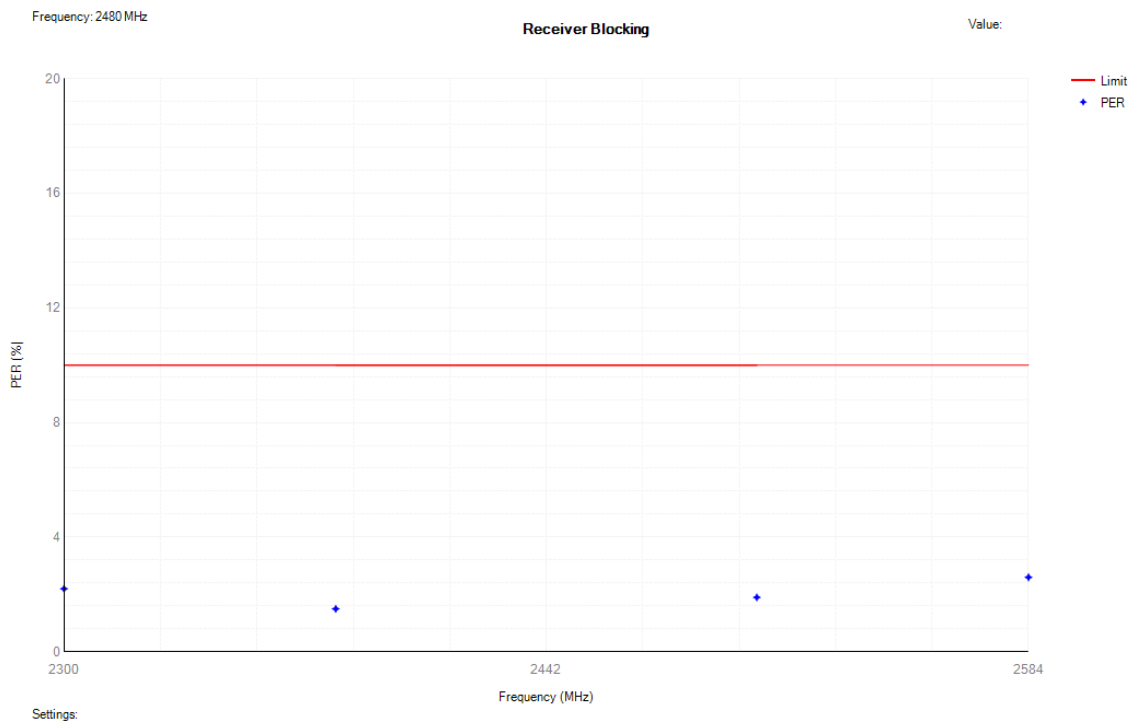
Condition	Mode	Frequency (MHz)	Antenna	Wanted Power (dBm)	Blocking Frequency (MHz)	Blocking Power (dBm)	PER (%)	Limit (%)	Verdict
NVNT	1-DH1	2402	Ant1	-69.66	2380	-31	2.3	10	Pass
NVNT	1-DH1	2402	Ant1	-69.66	2504	-31	2.5	10	Pass
NVNT	1-DH1	2402	Ant1	-69.66	2300	-31	2.8	10	Pass
NVNT	1-DH1	2402	Ant1	-69.66	2584	-31	2.9	10	Pass
NVNT	1-DH1	2480	Ant1	-69.67	2380	-31	1.5	10	Pass
NVNT	1-DH1	2480	Ant1	-69.67	2504	-31	1.9	10	Pass
NVNT	1-DH1	2480	Ant1	-69.67	2300	-31	2.2	10	Pass
NVNT	1-DH1	2480	Ant1	-69.67	2584	-31	2.6	10	Pass
NVNT	2-DH1	2402	Ant1	-68.32	2380	-31	2.1	10	Pass
NVNT	2-DH1	2402	Ant1	-68.32	2504	-31	2.3	10	Pass
NVNT	2-DH1	2402	Ant1	-68.32	2300	-31	2.4	10	Pass
NVNT	2-DH1	2402	Ant1	-68.32	2584	-31	2.7	10	Pass
NVNT	2-DH1	2480	Ant1	-68.31	2380	-31	1.8	10	Pass
NVNT	2-DH1	2480	Ant1	-68.31	2504	-31	2.4	10	Pass
NVNT	2-DH1	2480	Ant1	-68.31	2300	-31	2.6	10	Pass
NVNT	2-DH1	2480	Ant1	-68.31	2584	-31	2.9	10	Pass
NVNT	3-DH1	2402	Ant1	-68.34	2380	-31	1.7	10	Pass
NVNT	3-DH1	2402	Ant1	-68.34	2504	-31	2.1	10	Pass
NVNT	3-DH1	2402	Ant1	-68.34	2300	-31	2.4	10	Pass
NVNT	3-DH1	2402	Ant1	-68.34	2584	-31	2.7	10	Pass
NVNT	3-DH1	2480	Ant1	-68.34	2380	-31	1.6	10	Pass
NVNT	3-DH1	2480	Ant1	-68.34	2504	-31	1.7	10	Pass
NVNT	3-DH1	2480	Ant1	-68.34	2300	-31	2.5	10	Pass
NVNT	3-DH1	2480	Ant1	-68.34	2584	-31	2.8	10	Pass

Test Graphs

Rx. Blockings NVNT 1-DH1 2402MHz Ant1

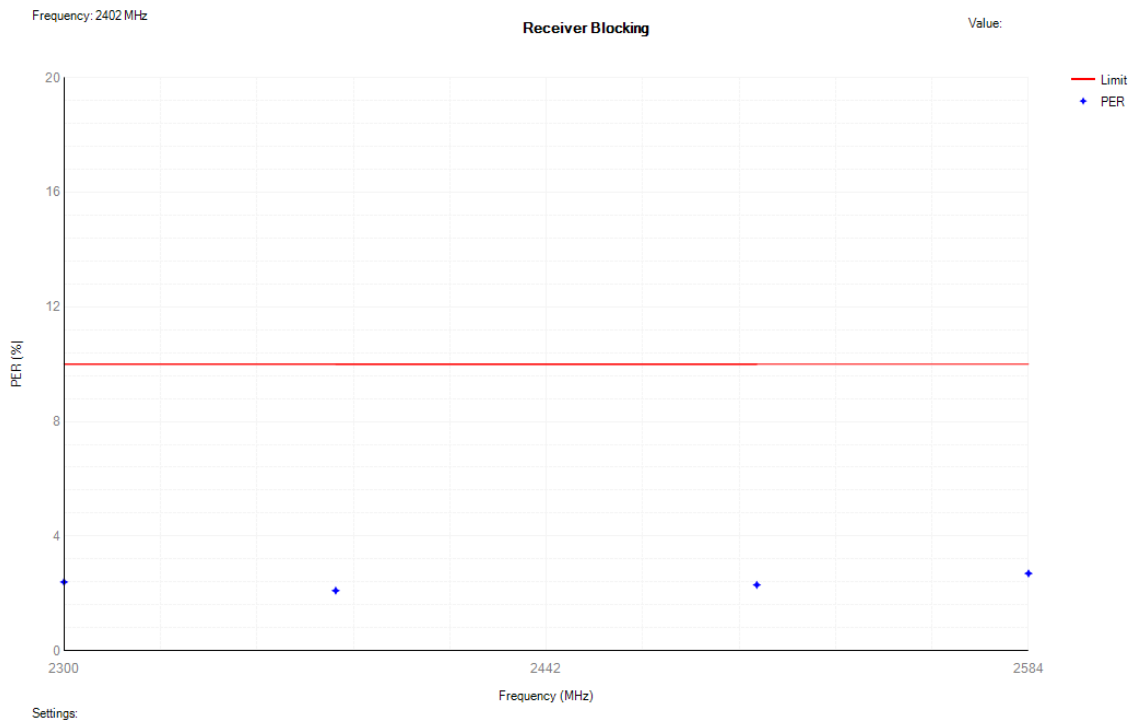


Rx. Blockings NVNT 1-DH1 2480MHz Ant1

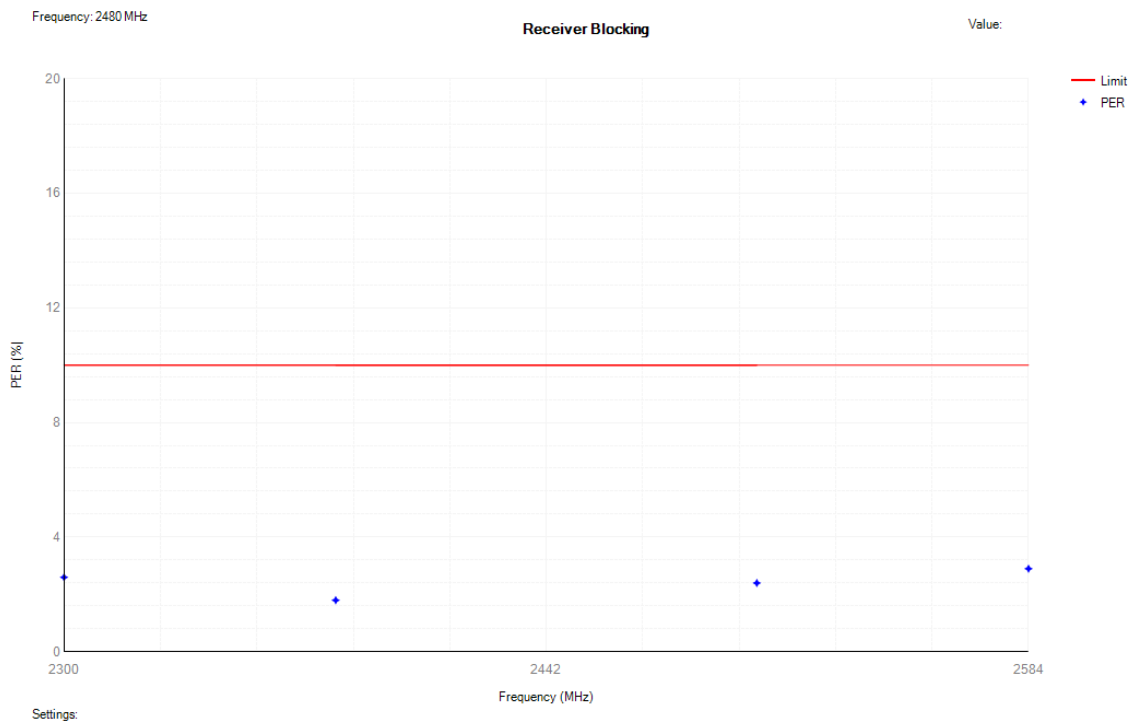




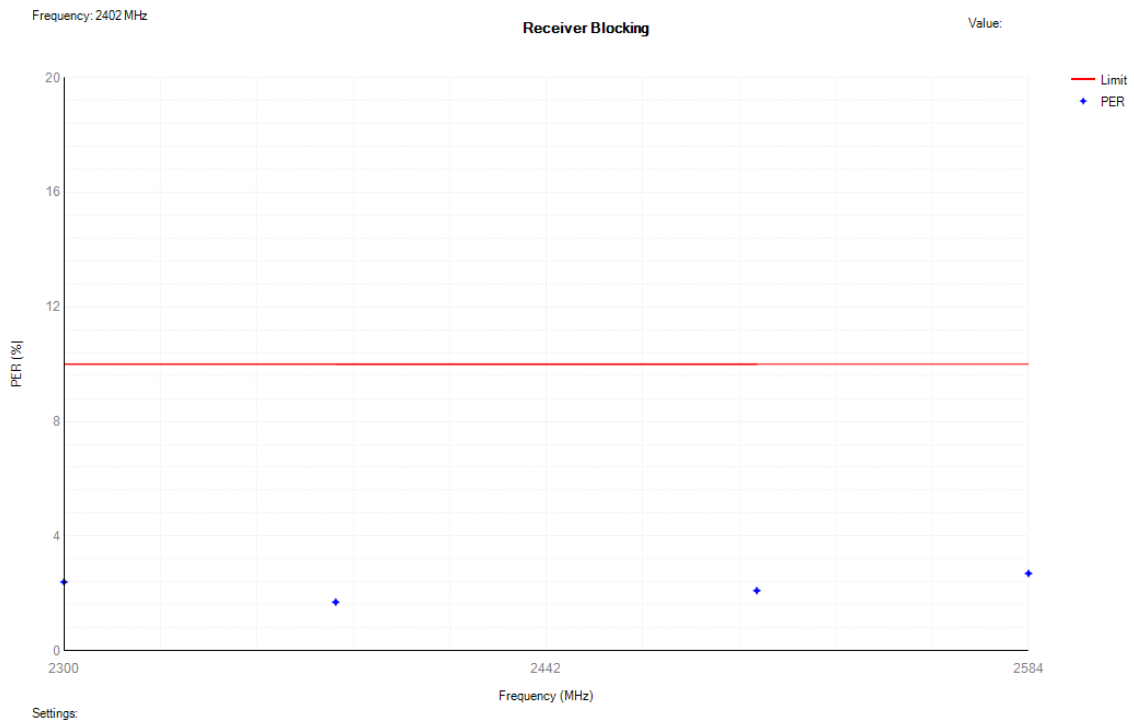
Rx. Blockings NVNT 2-DH1 2402MHz Ant1



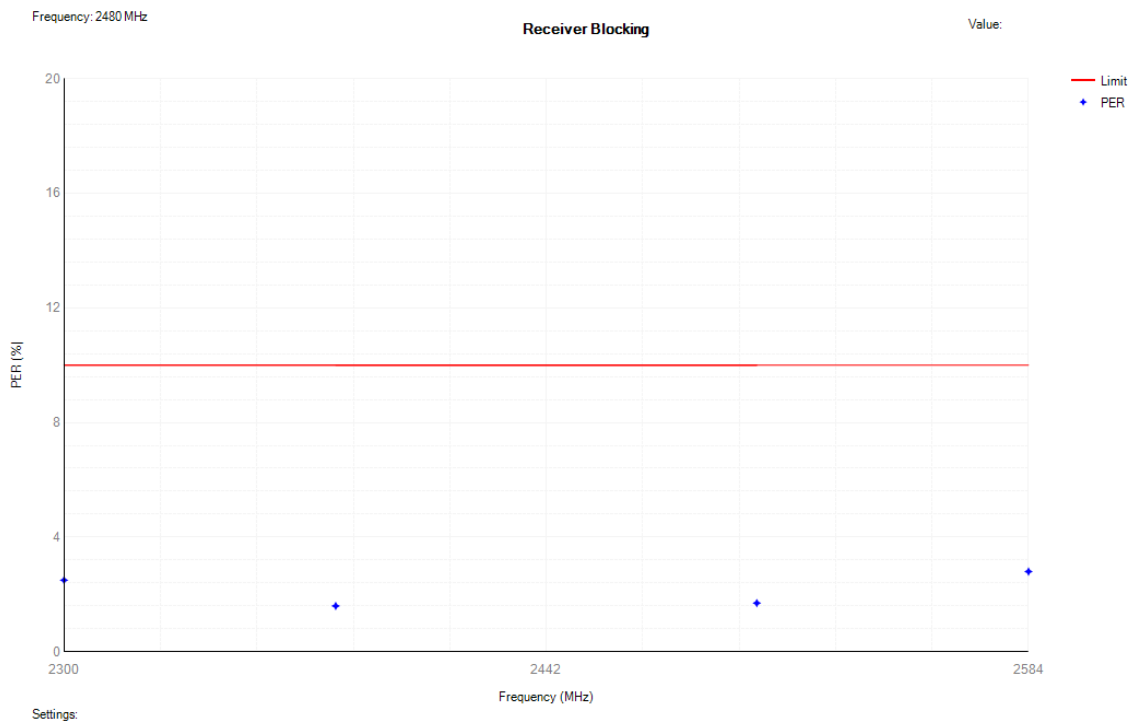
Rx. Blockings NVNT 2-DH1 2480MHz Ant1



Rx. Blockings NVNT 3-DH1 2402MHz Ant1



Rx. Blockings NVNT 3-DH1 2480MHz Ant1



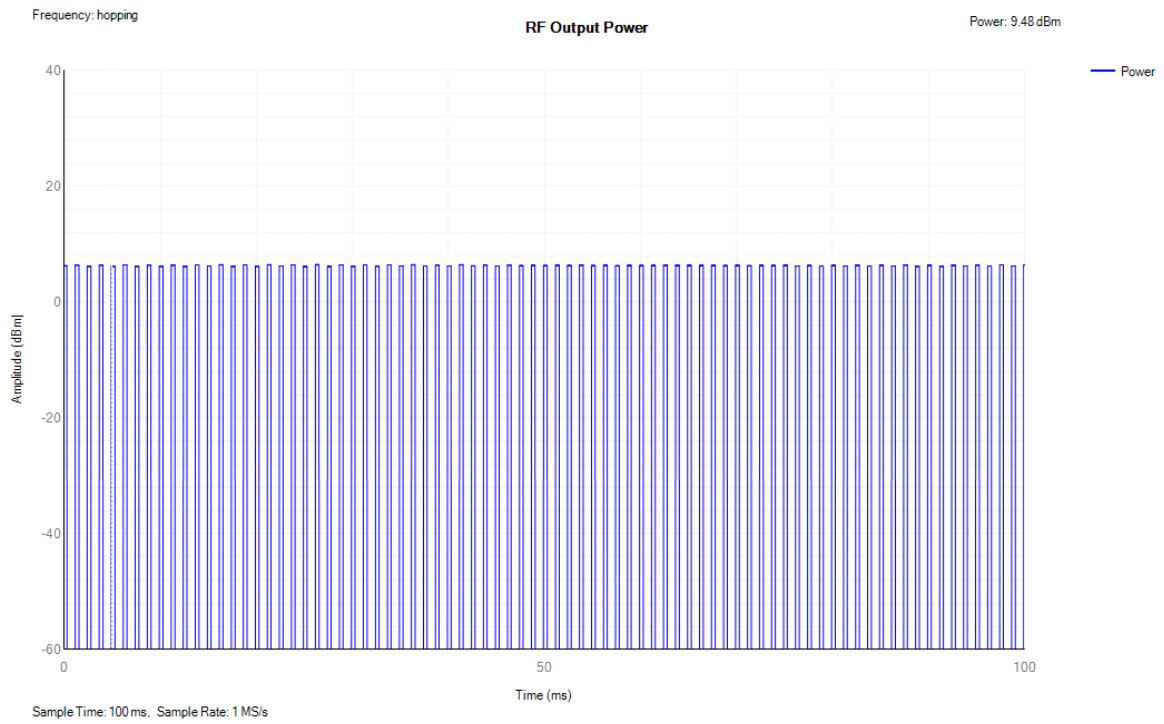


## 4. RF Output Power

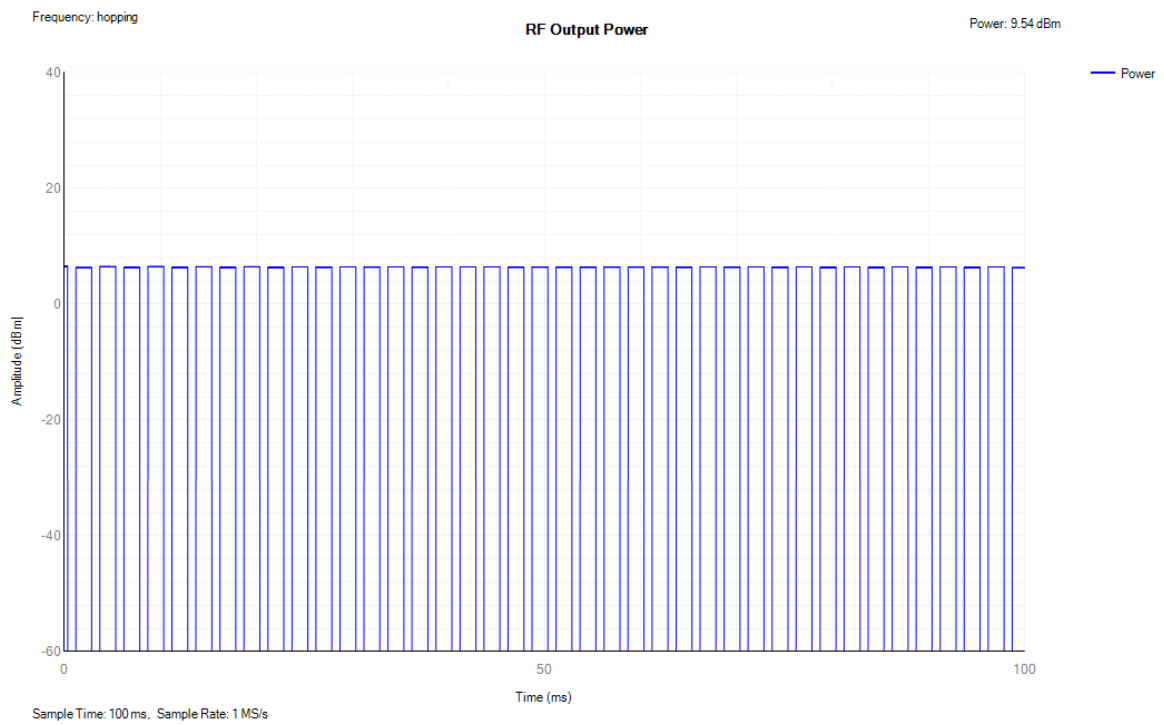
Condition	Mode	Frequency (MHz)	Antenna	Max Burst RMS Power (dBm)	Burst Number	Max EIRP (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	hopping	Ant1	6.48	81	9.48	20	Pass
NVNT	1-DH3	hopping	Ant1	6.54	41	9.54	20	Pass
NVNT	1-DH5	hopping	Ant1	6.51	27	9.51	20	Pass
NVNT	2-DH1	hopping	Ant1	6.71	80	9.71	20	Pass
NVNT	2-DH3	hopping	Ant1	6.83	41	9.83	20	Pass
NVNT	2-DH5	hopping	Ant1	6.81	28	9.81	20	Pass
NVNT	3-DH1	hopping	Ant1	6.7	80	9.7	20	Pass
NVNT	3-DH3	hopping	Ant1	6.82	41	9.82	20	Pass
NVNT	3-DH5	hopping	Ant1	6.84	28	9.84	20	Pass

Test Graphs

Power NVNT 1-DH1 2441MHz Ant1

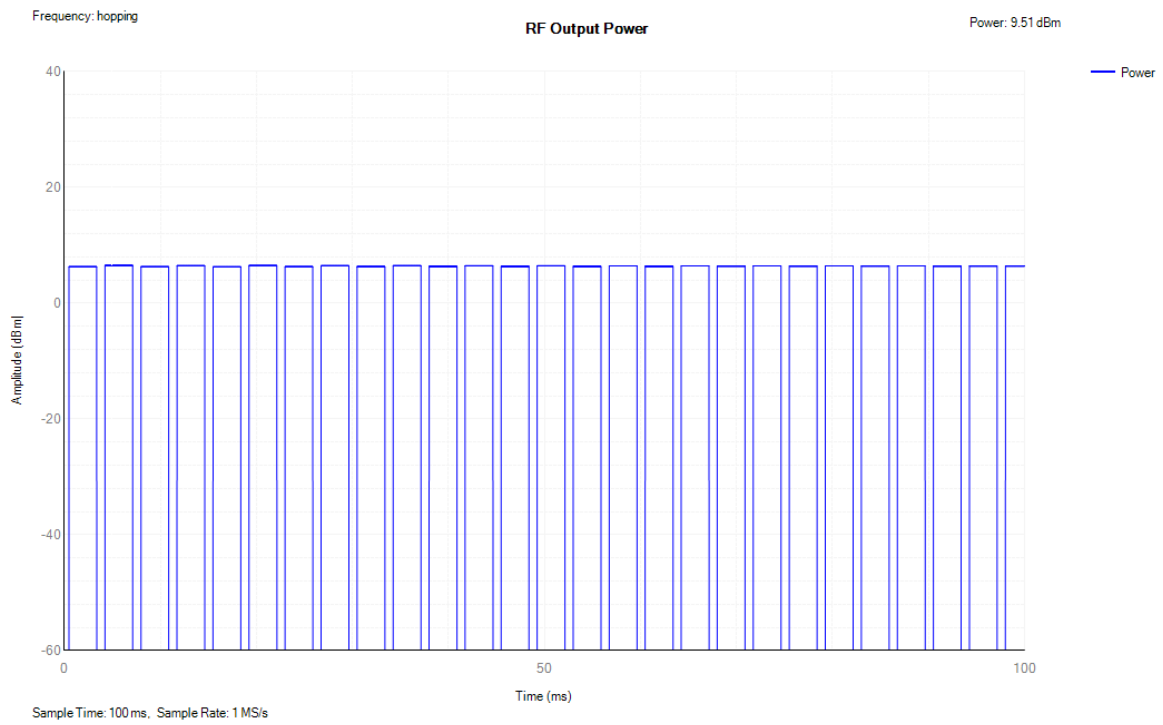


Power NVNT 1-DH3 2441MHz Ant1

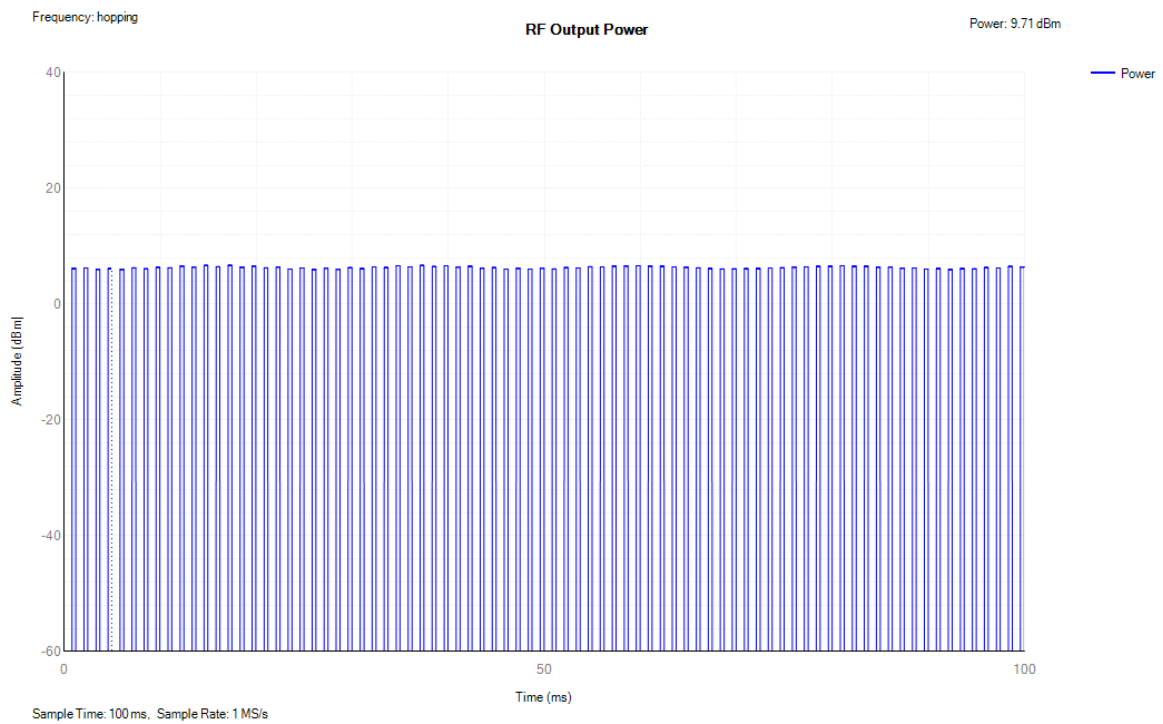




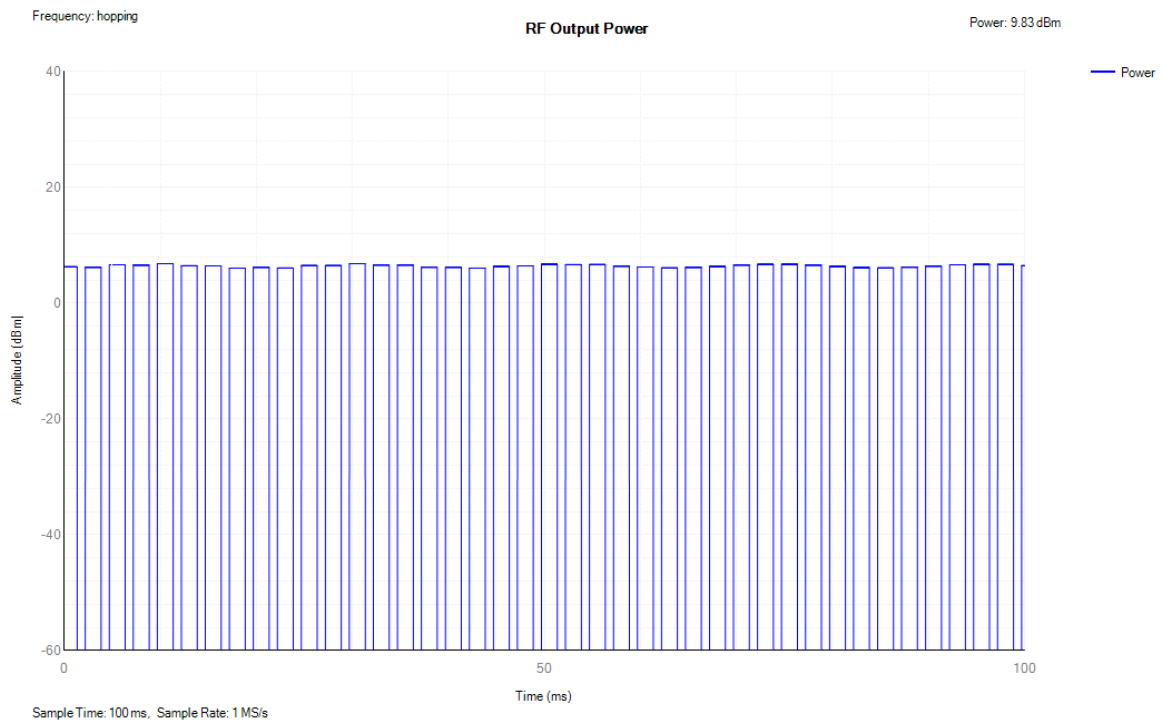
Power NVNT 1-DH5 2441MHz Ant1



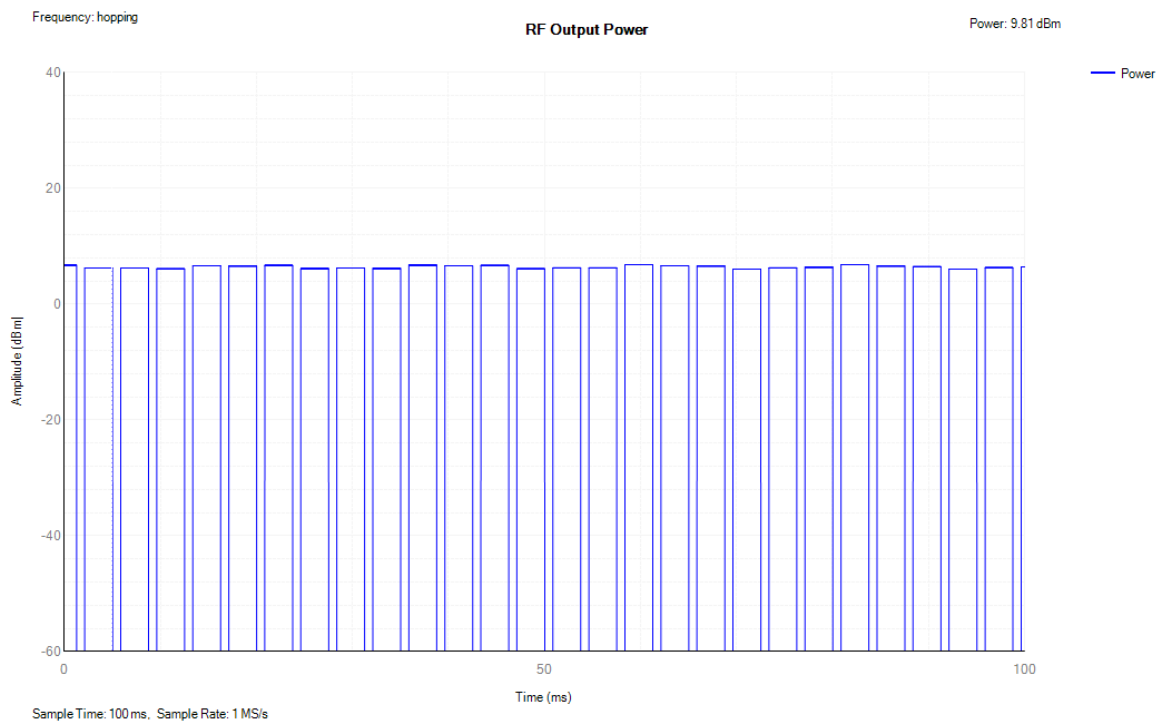
Power NVNT 2-DH1 2441MHz Ant1



Power NVNT 2-DH3 2441MHz Ant1

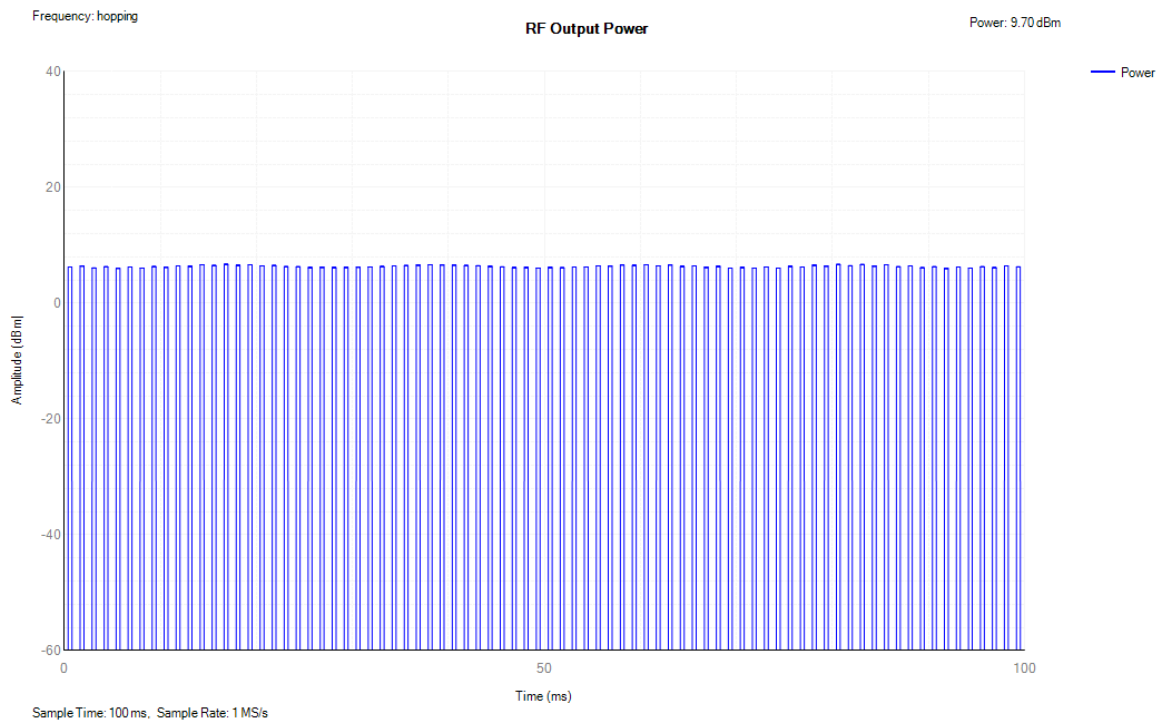


Power NVNT 2-DH5 2441MHz Ant1

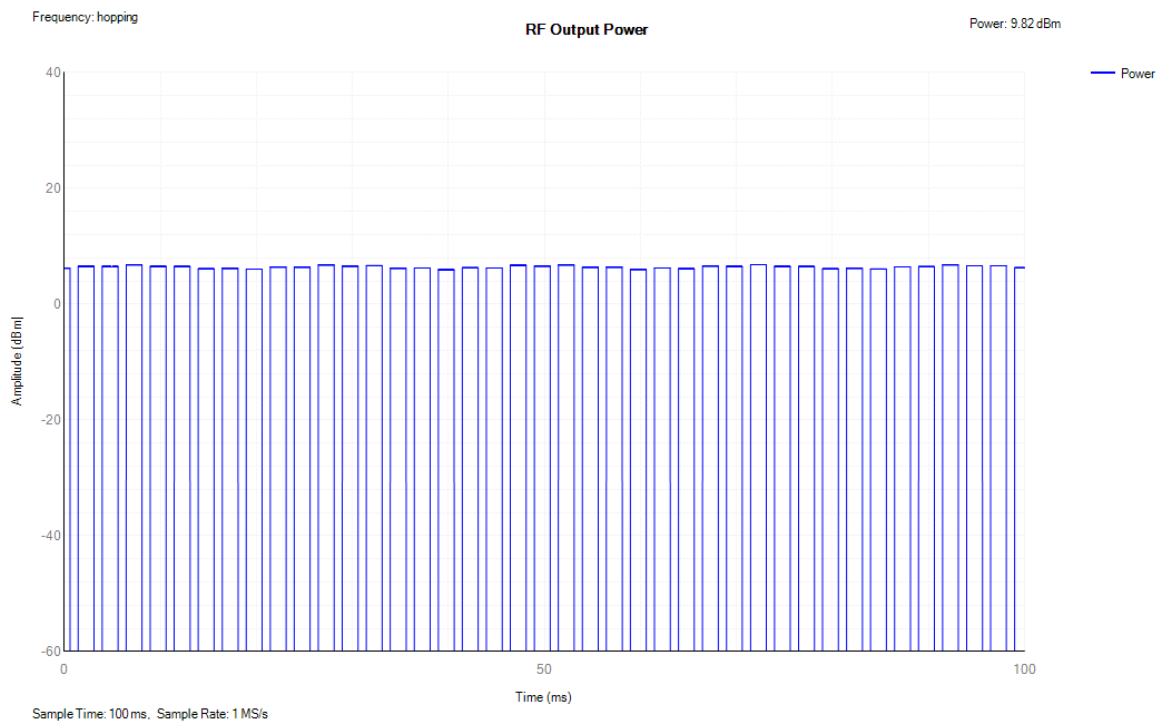


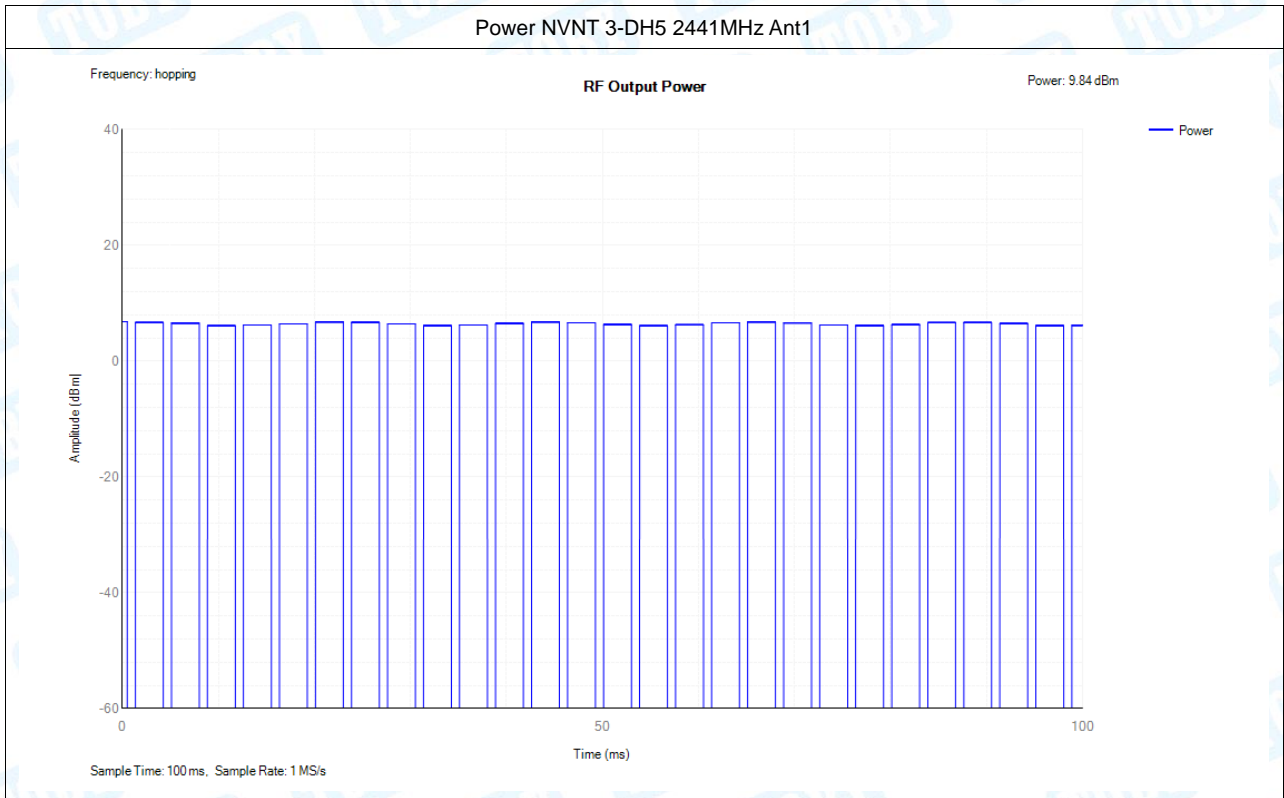


Power NVNT 3-DH1 2441MHz Ant1



Power NVNT 3-DH3 2441MHz Ant1





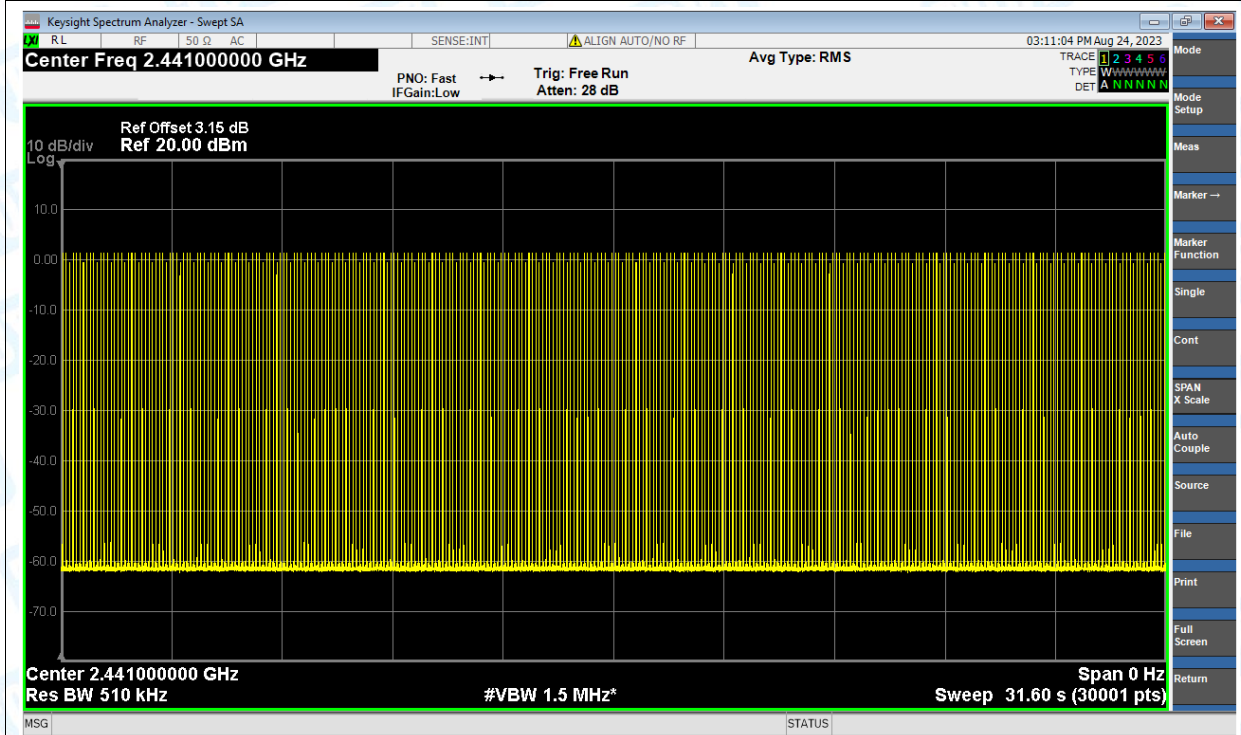


## 5. Accumulated Transmit Time

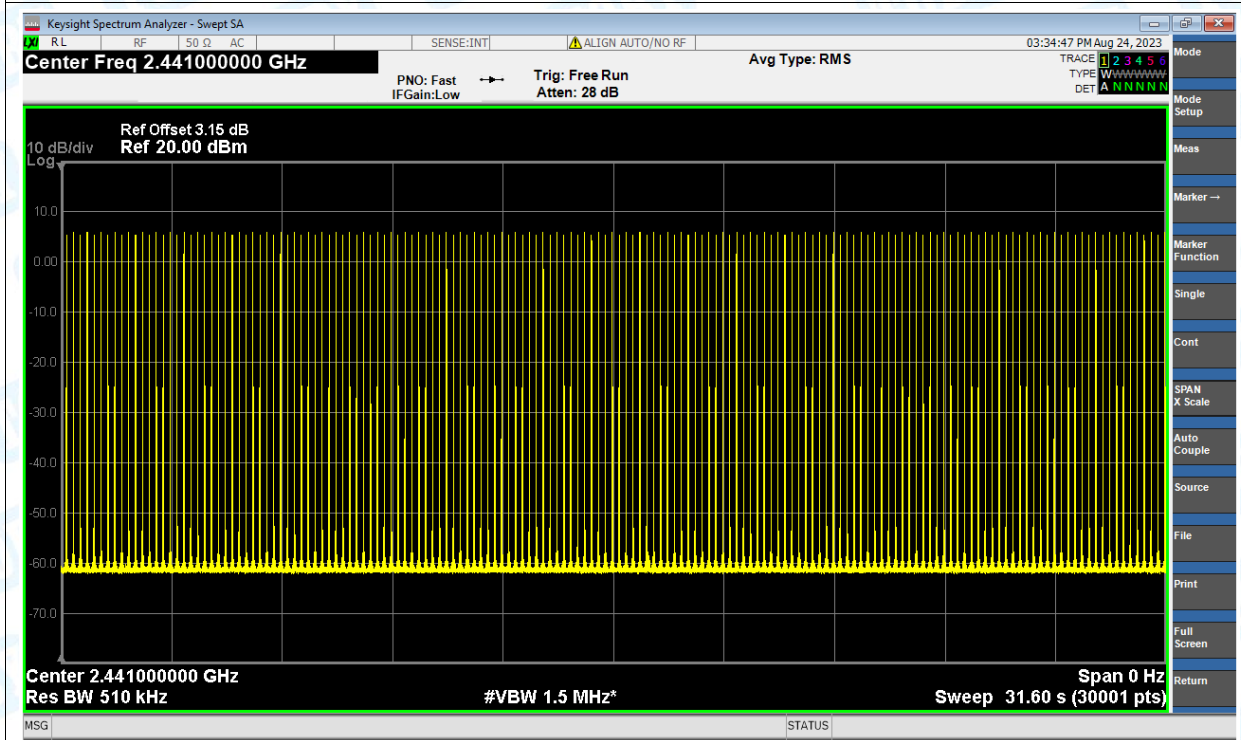
Condition	Mode	Frequency (MHz)	Antenna	Accumulated Transmit Time (ms)	Limit (ms)	Sweep Time (ms)	Burst Number	Verdict
NVNT	1-DH1	2441	Ant1	115.797	400	31600	319	Pass
NVNT	1-DH3	2441	Ant1	259.52	400	31600	160	Pass
NVNT	1-DH5	2441	Ant1	307.197	400	31600	107	Pass
NVNT	2-DH1	2441	Ant1	77.517	400	31600	319	Pass
NVNT	2-DH3	2441	Ant1	239.04	400	31600	160	Pass
NVNT	2-DH5	2441	Ant1	290.652	400	31600	106	Pass
NVNT	3-DH1	2441	Ant1	76.879	400	31600	319	Pass
NVNT	3-DH3	2441	Ant1	238.56	400	31600	160	Pass
NVNT	3-DH5	2441	Ant1	290.546	400	31600	106	Pass

Test Graphs

Dwell NVNT 1-DH1 2441MHz Ant1



Dwell NVNT 1-DH3 2441MHz Ant1















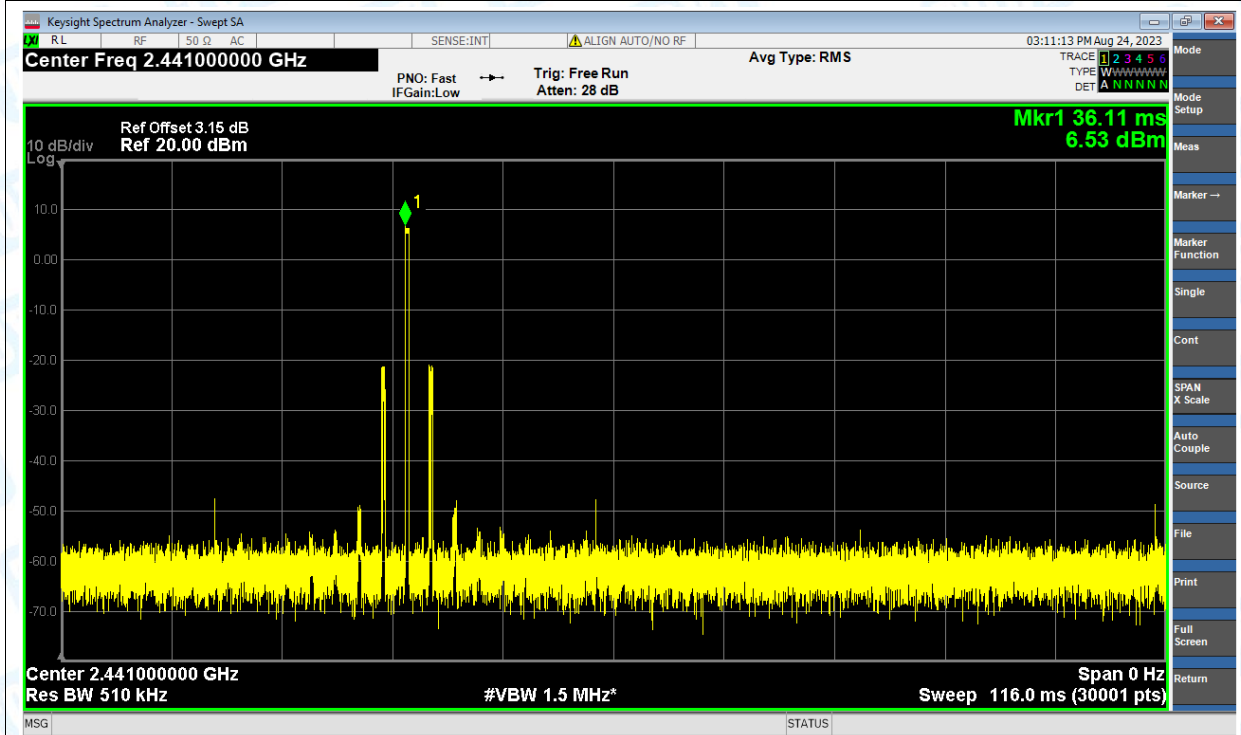


## 6. Frequency Occupation

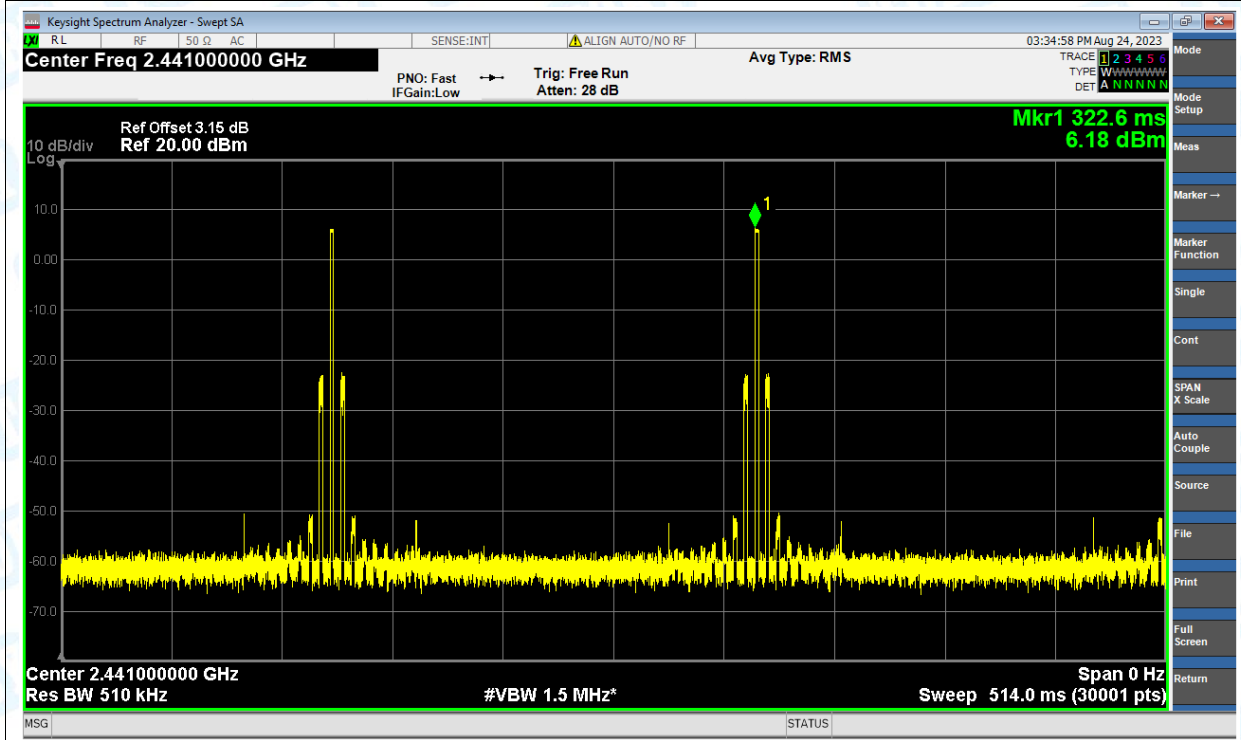
Condition	Mode	Frequency (MHz)	Antenna	Burst Number	Limit	Sweep Time (ms)	Verdict
NVNT	1-DH1	2441	Ant1	1	1	114.708	Pass
NVNT	1-DH3	2441	Ant1	2	1	512.552	Pass
NVNT	1-DH5	2441	Ant1	3	1	907.236	Pass
NVNT	2-DH1	2441	Ant1	1	1	76.788	Pass
NVNT	2-DH3	2441	Ant1	3	1	472.104	Pass
NVNT	2-DH5	2441	Ant1	3	1	866.472	Pass
NVNT	3-DH1	2441	Ant1	1	1	76.156	Pass
NVNT	3-DH3	2441	Ant1	2	1	471.156	Pass
NVNT	3-DH5	2441	Ant1	3	1	866.156	Pass

Test Graphs

Freq. Occup. NVNT 1-DH1 2441MHz Ant1

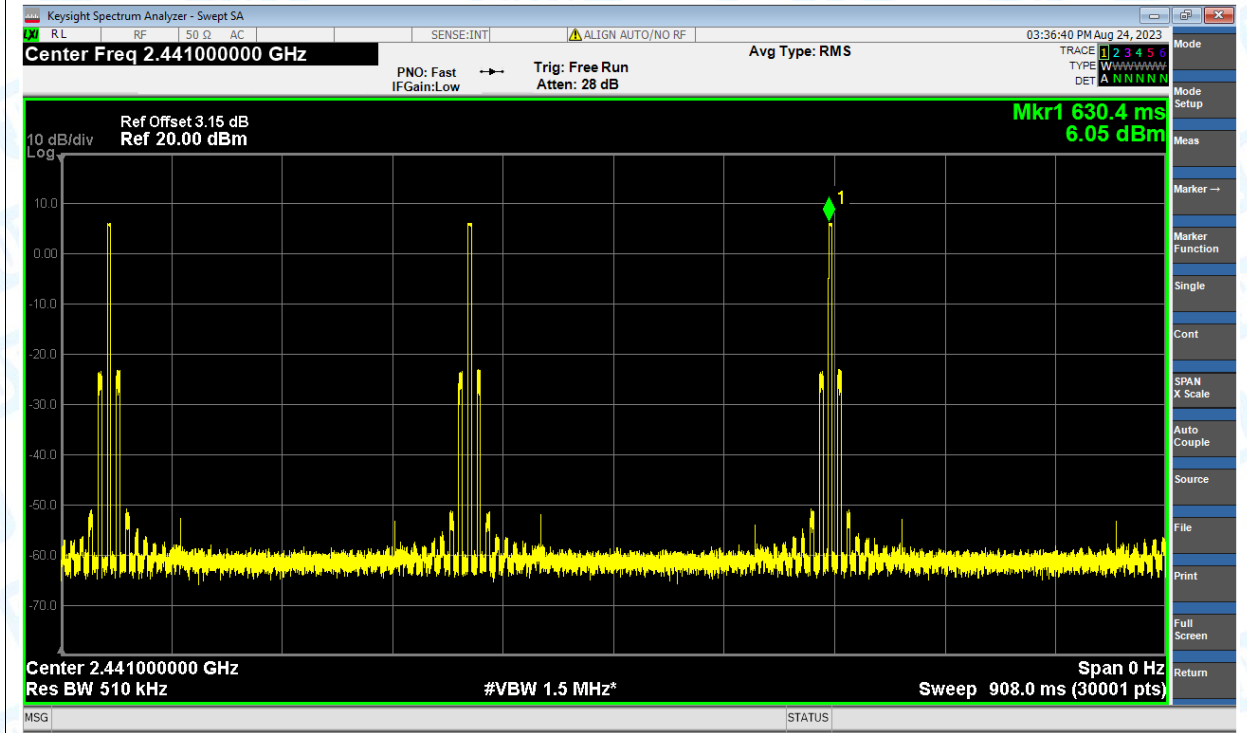


Freq. Occup. NVNT 1-DH3 2441MHz Ant1

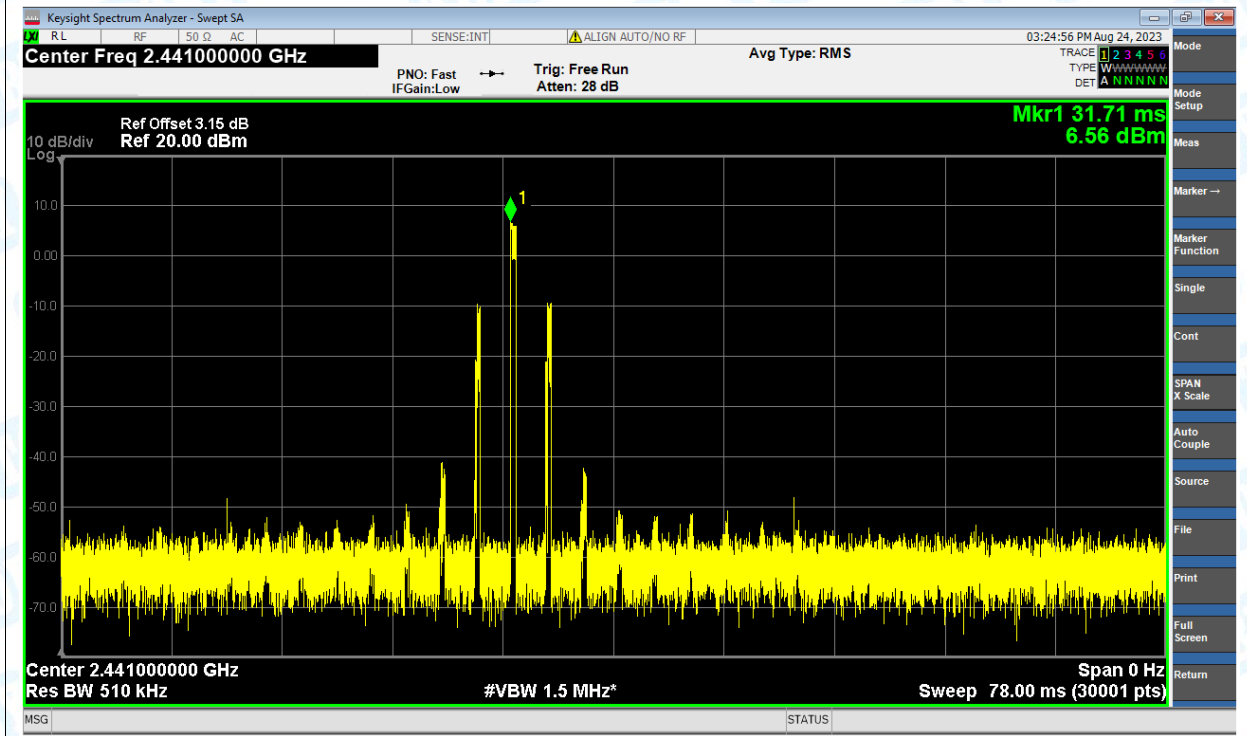




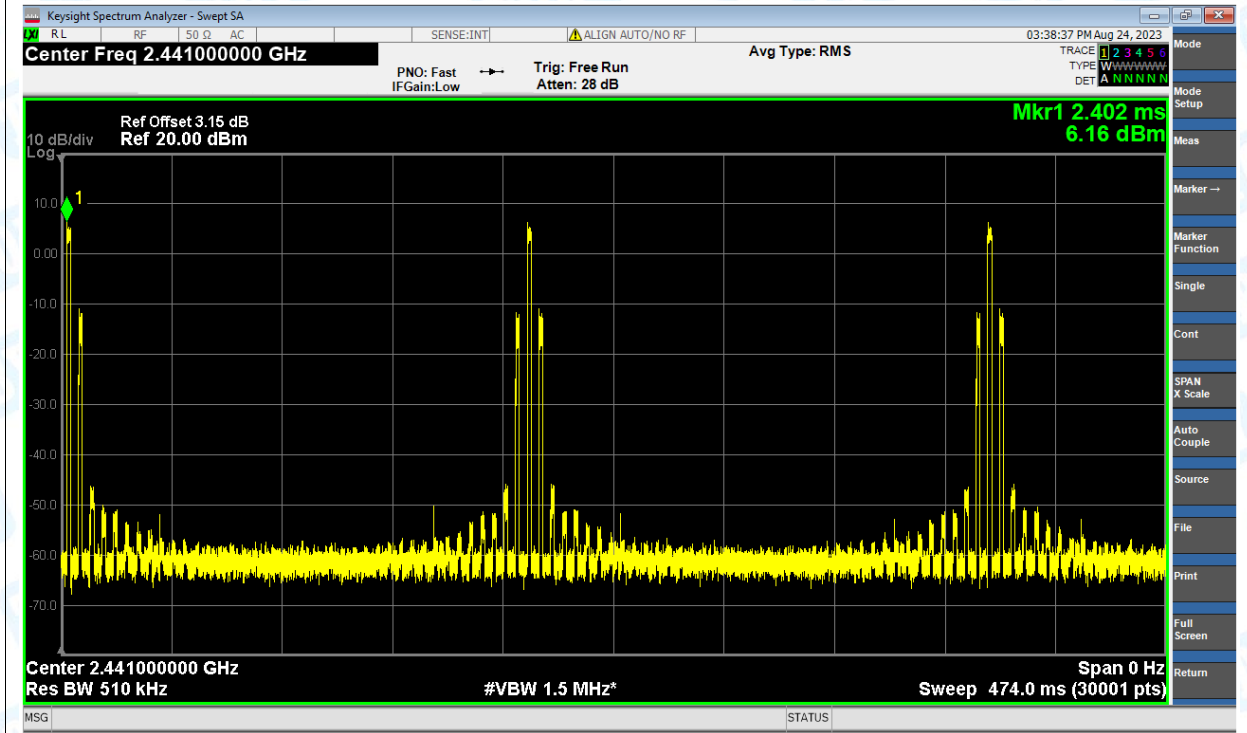
Freq. Occup. NVNT 1-DH5 2441MHz Ant1



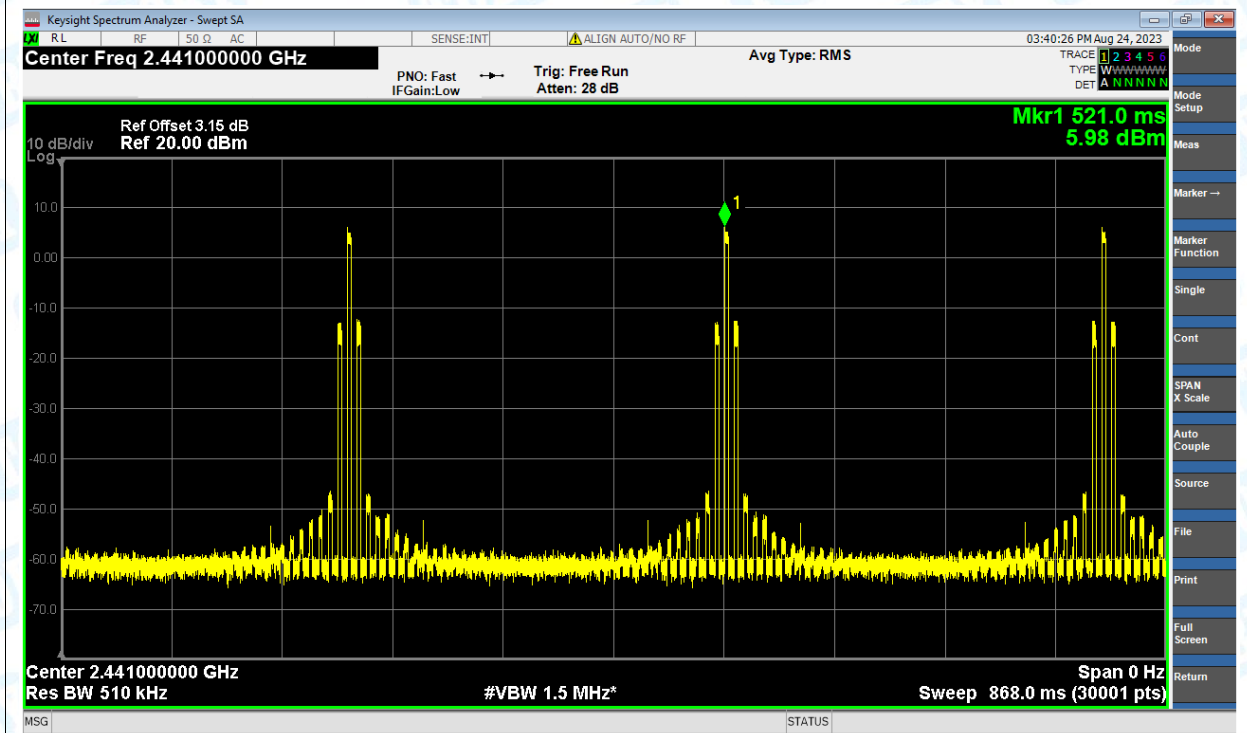
Freq. Occup. NVNT 2-DH1 2441MHz Ant1



Freq. Occup. NVNT 2-DH3 2441MHz Ant1

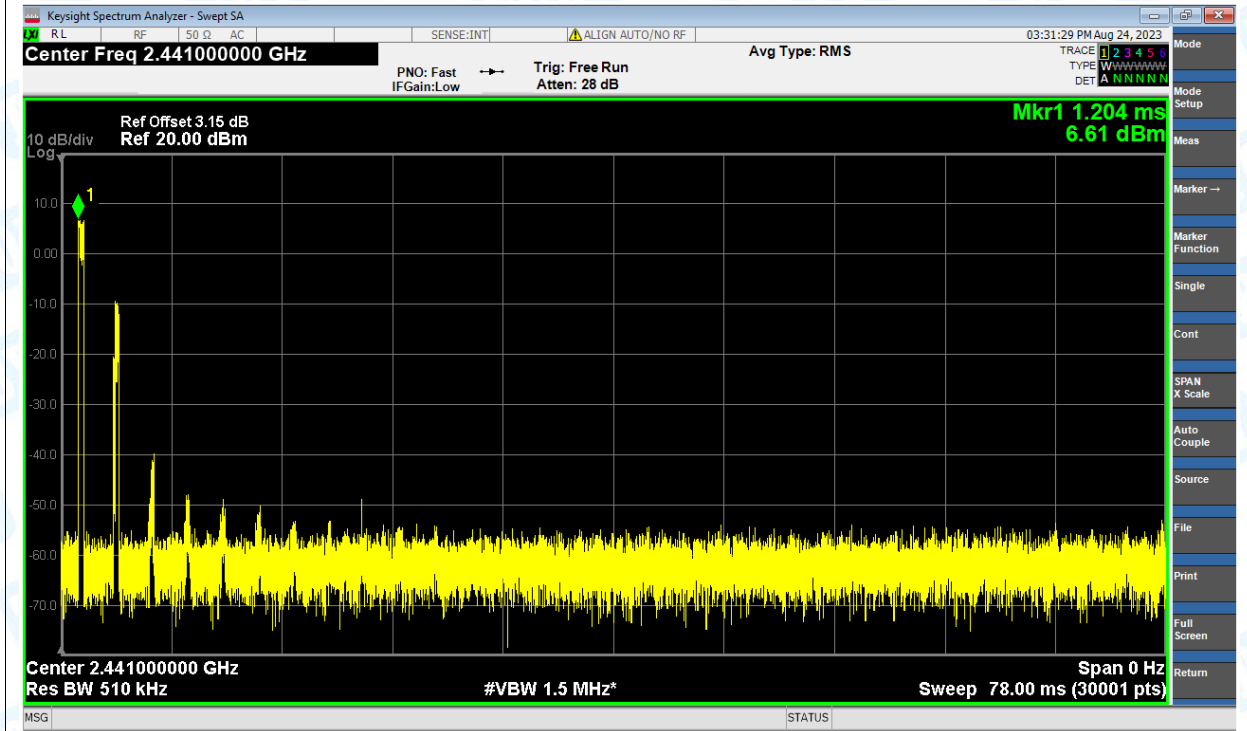


Freq. Occup. NVNT 2-DH5 2441MHz Ant1

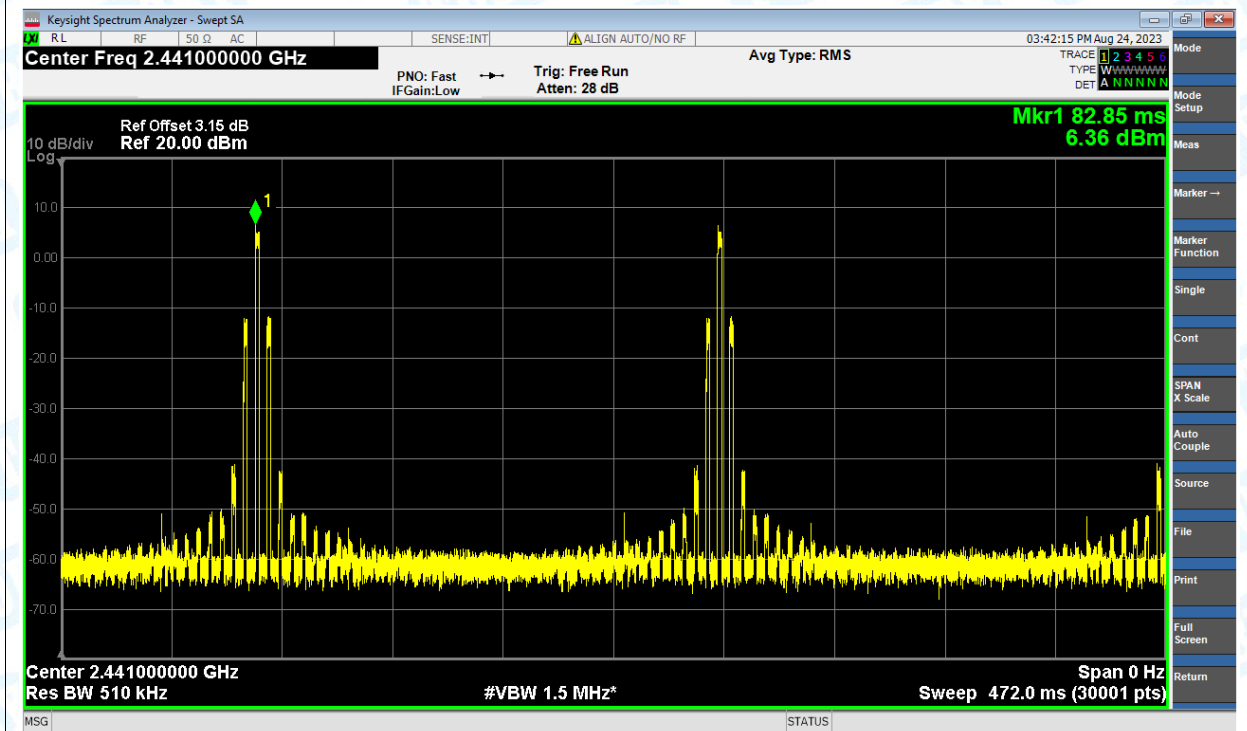


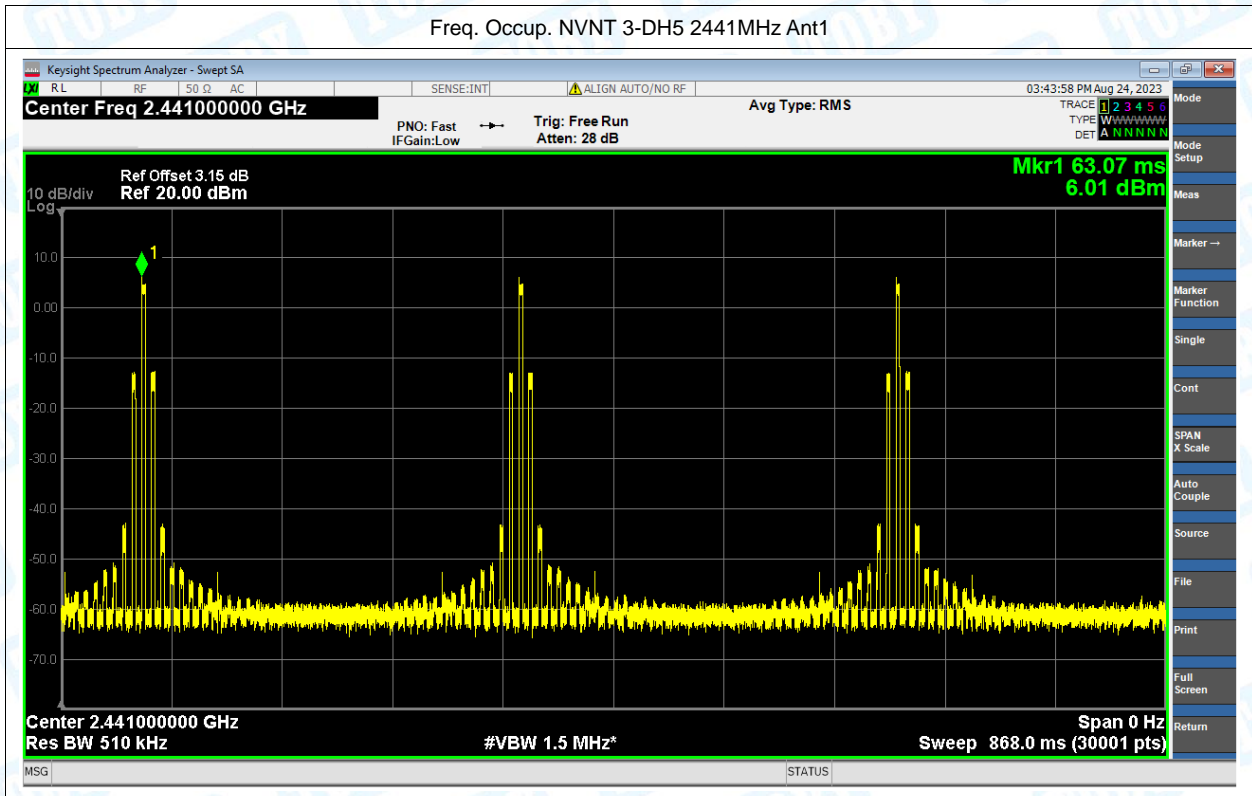


Freq. Occup. NVNT 3-DH1 2441MHz Ant1



Freq. Occup. NVNT 3-DH3 2441MHz Ant1





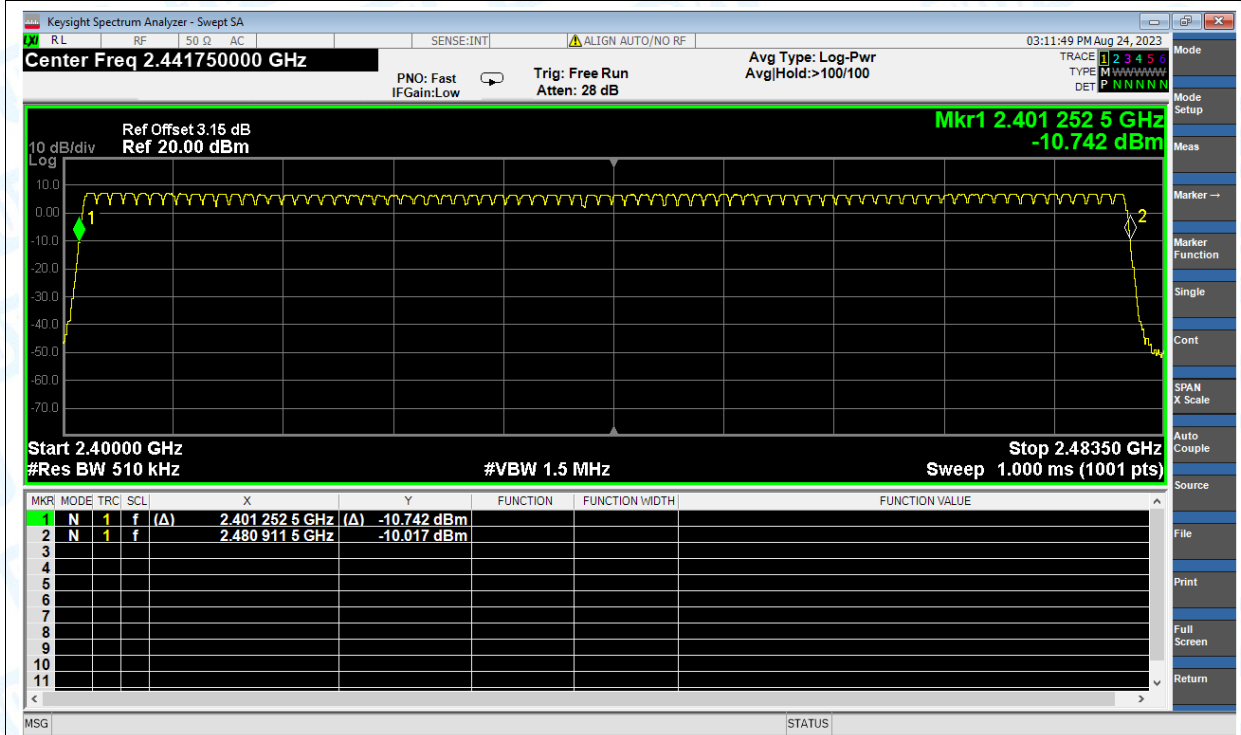


## 7. Hopping Sequence

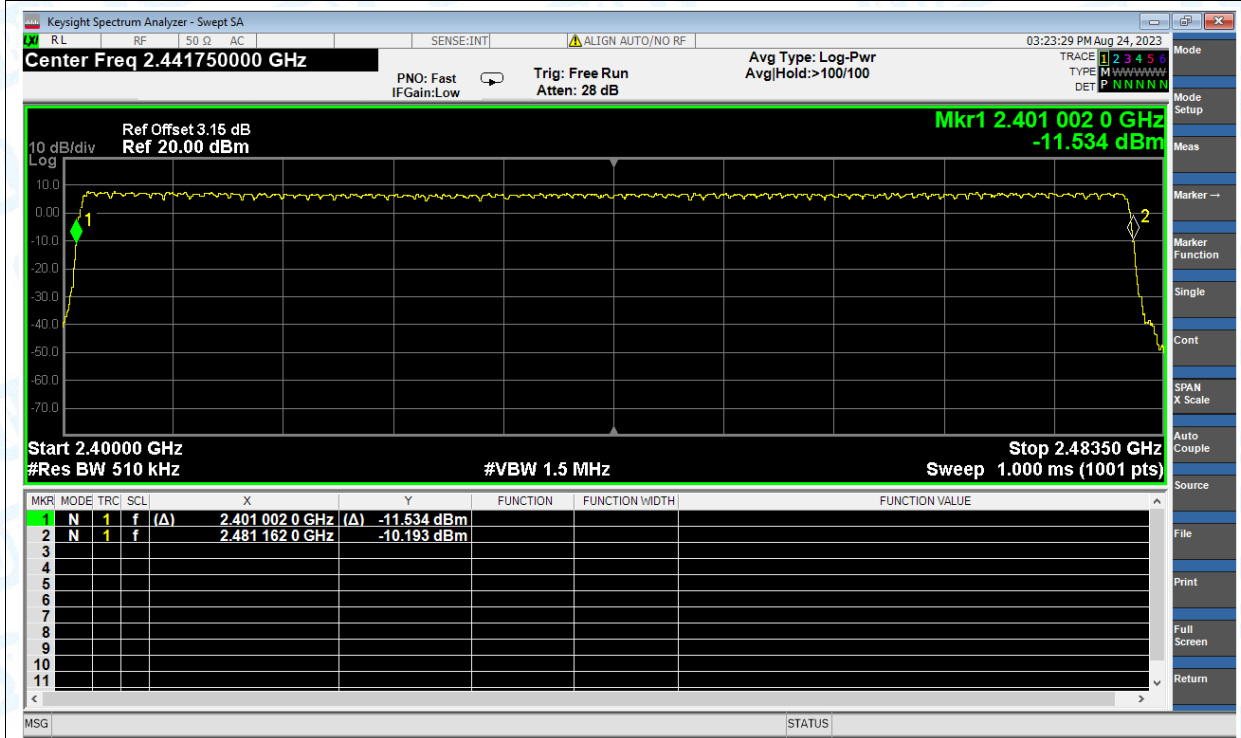
Condition	Mode	Antenna	Hopping Number	Limit	Band Allocation (%)	Limit Band Allocation (%)	Verdict
NVNT	1-DH1	Ant1	79	15	95.4	70	Pass
NVNT	2-DH1	Ant1	79	15	96	70	Pass
NVNT	3-DH1	Ant1	79	15	95.9	70	Pass

Test Graphs

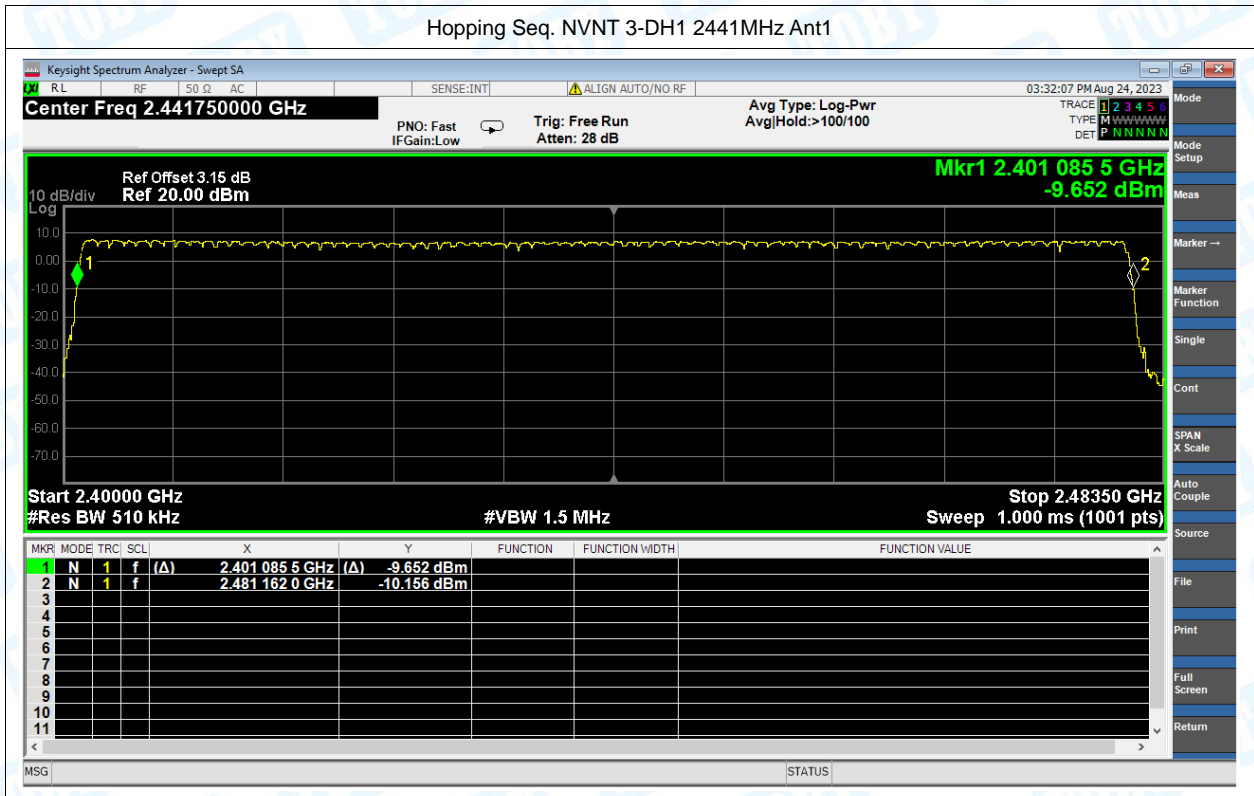
Hopping Seq. NVNT 1-DH1 2441MHz Ant1



Hopping Seq. NVNT 2-DH1 2441MHz Ant1







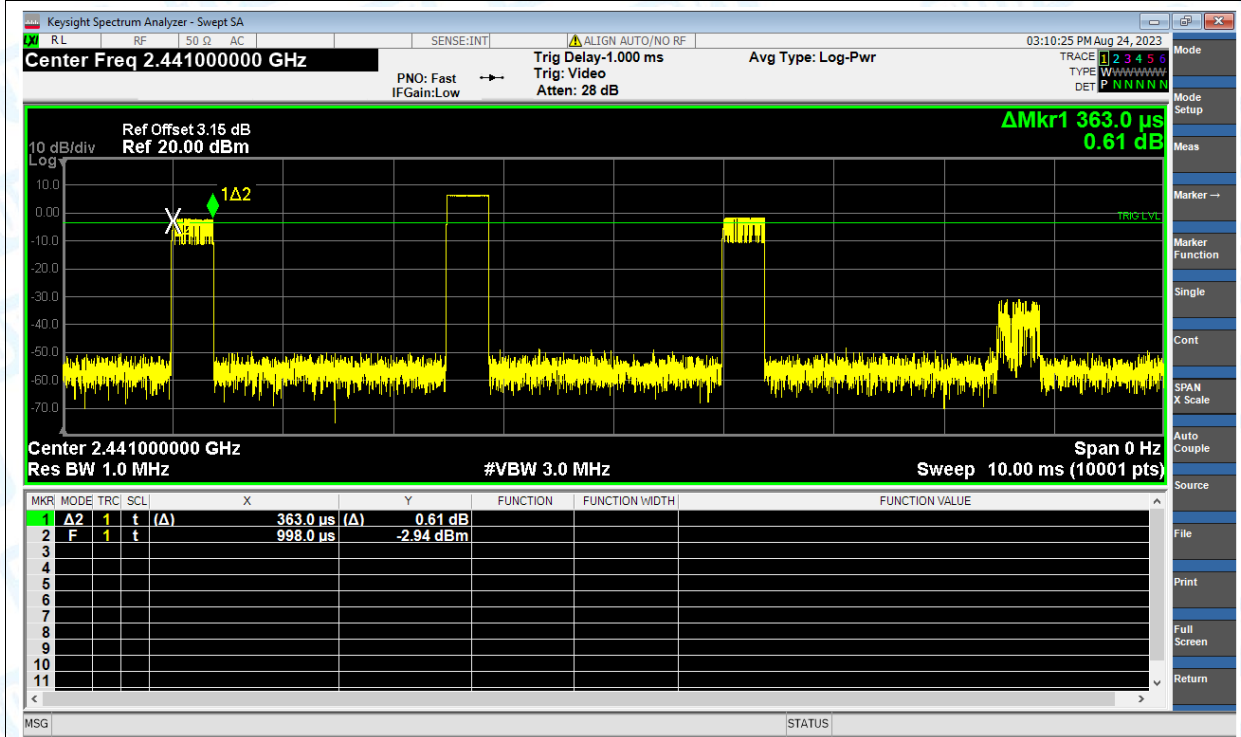
## 8. Dwell Time One Burst

Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)
NVNT	1-DH1	2441	Ant1	0.363
NVNT	1-DH3	2441	Ant1	1.622
NVNT	1-DH5	2441	Ant1	2.871
NVNT	2-DH1	2441	Ant1	0.243
NVNT	2-DH3	2441	Ant1	1.494
NVNT	2-DH5	2441	Ant1	2.742
NVNT	3-DH1	2441	Ant1	0.241
NVNT	3-DH3	2441	Ant1	1.491
NVNT	3-DH5	2441	Ant1	2.741

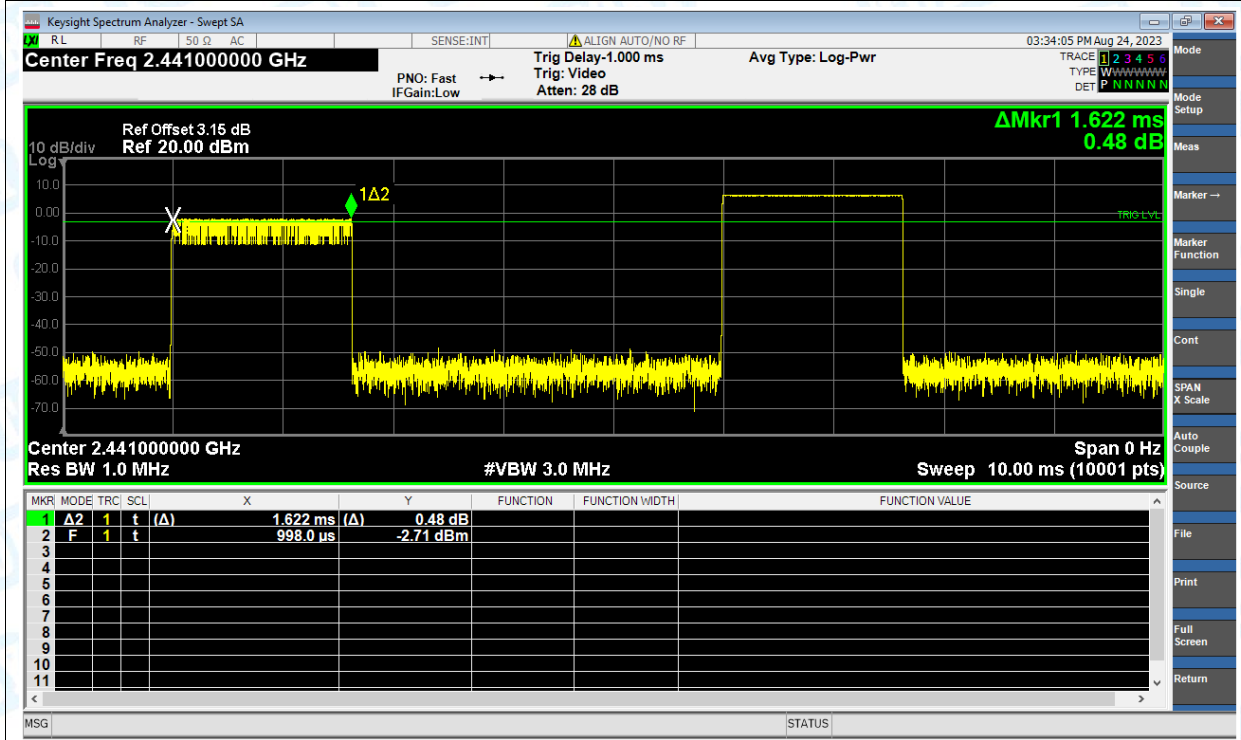


Test Graphs

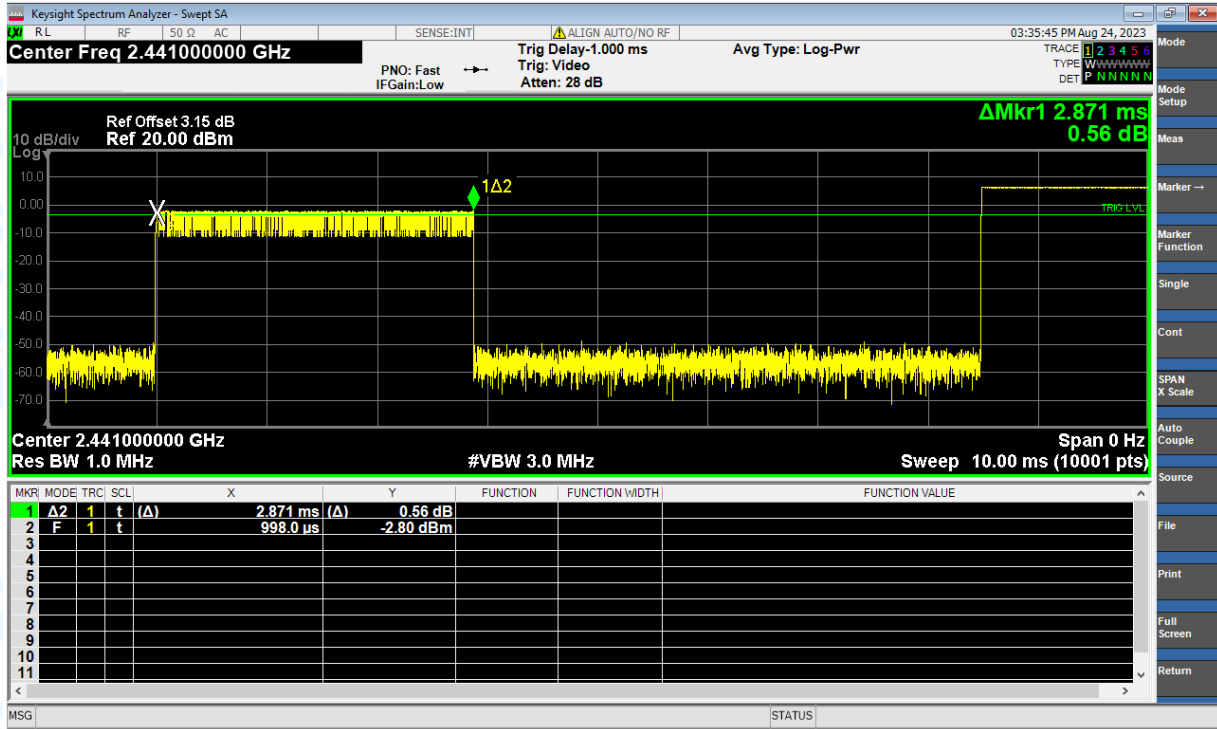
One Burst NVNT 1-DH1 2441MHz Ant1 One Burst



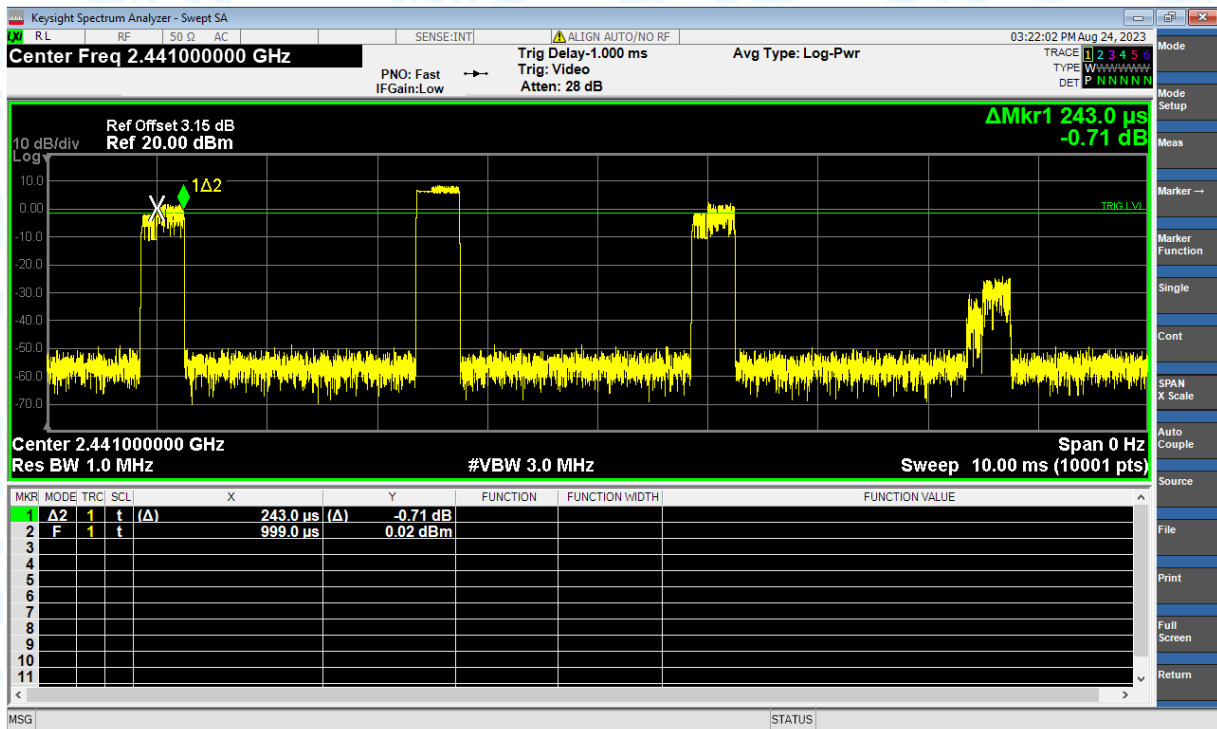
One Burst NVNT 1-DH3 2441MHz Ant1 One Burst



One Burst NVNT 1-DH5 2441MHz Ant1 One Burst

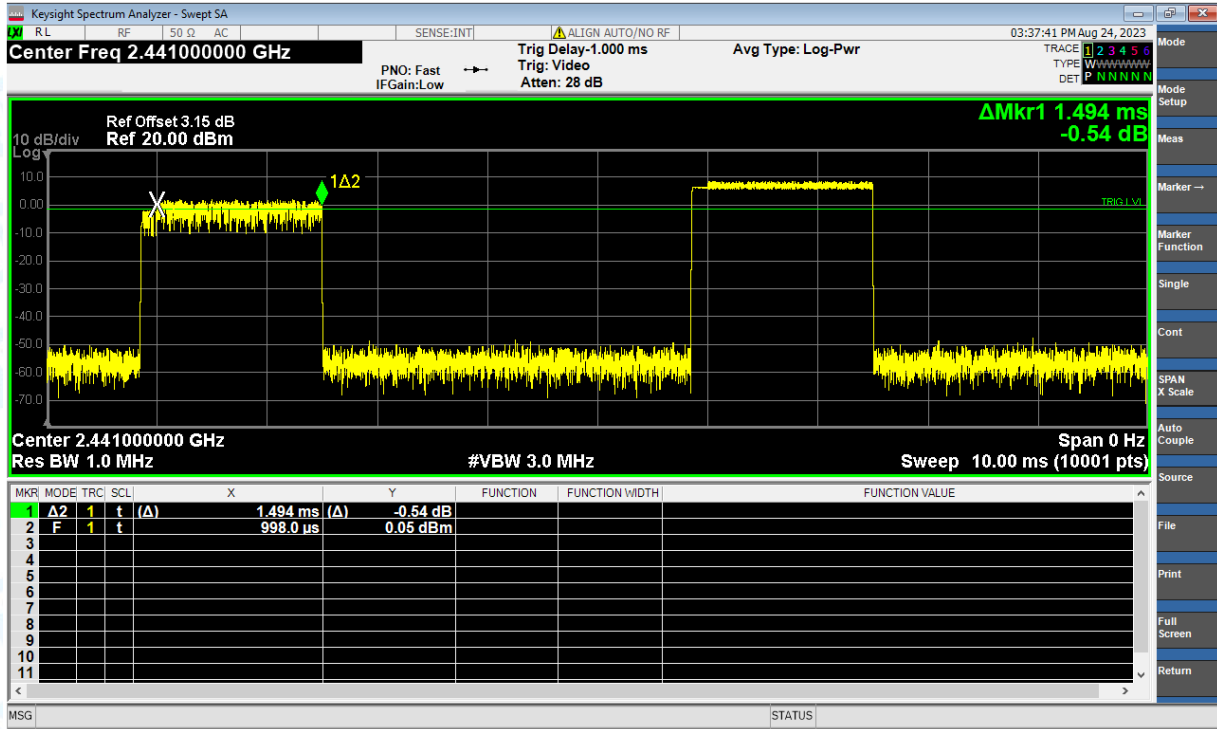


One Burst NVNT 2-DH1 2441MHz Ant1 One Burst

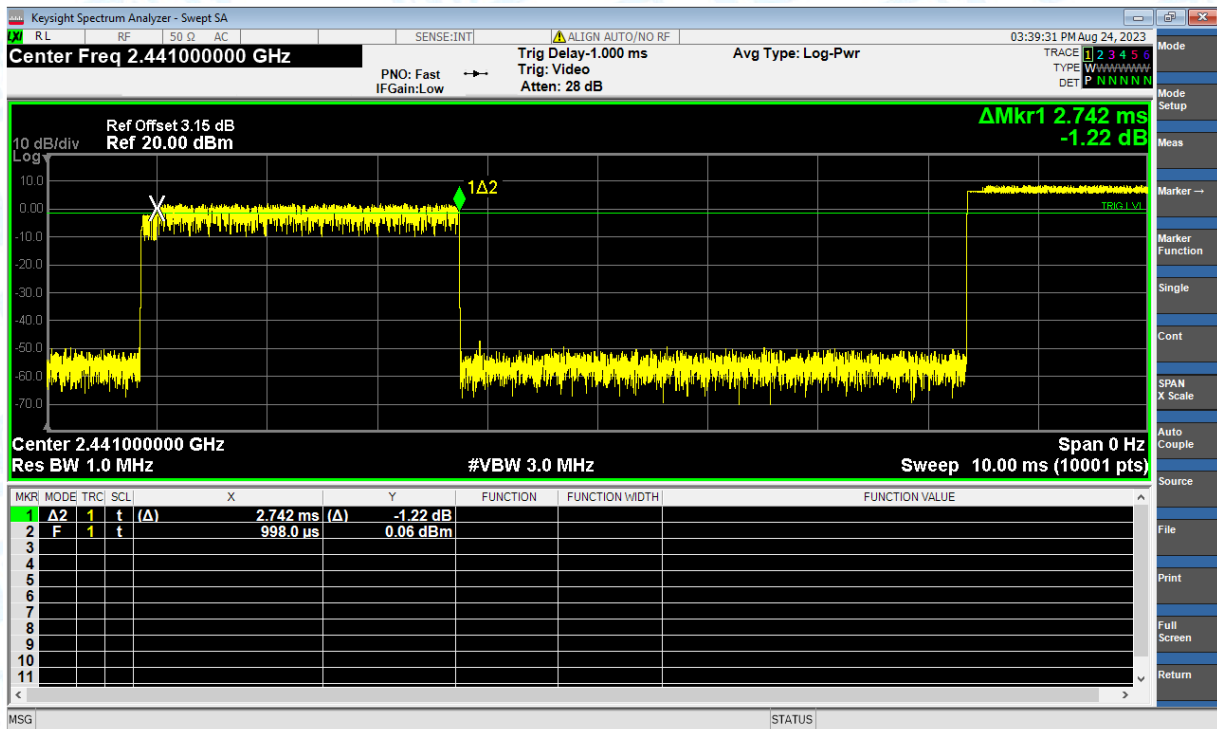




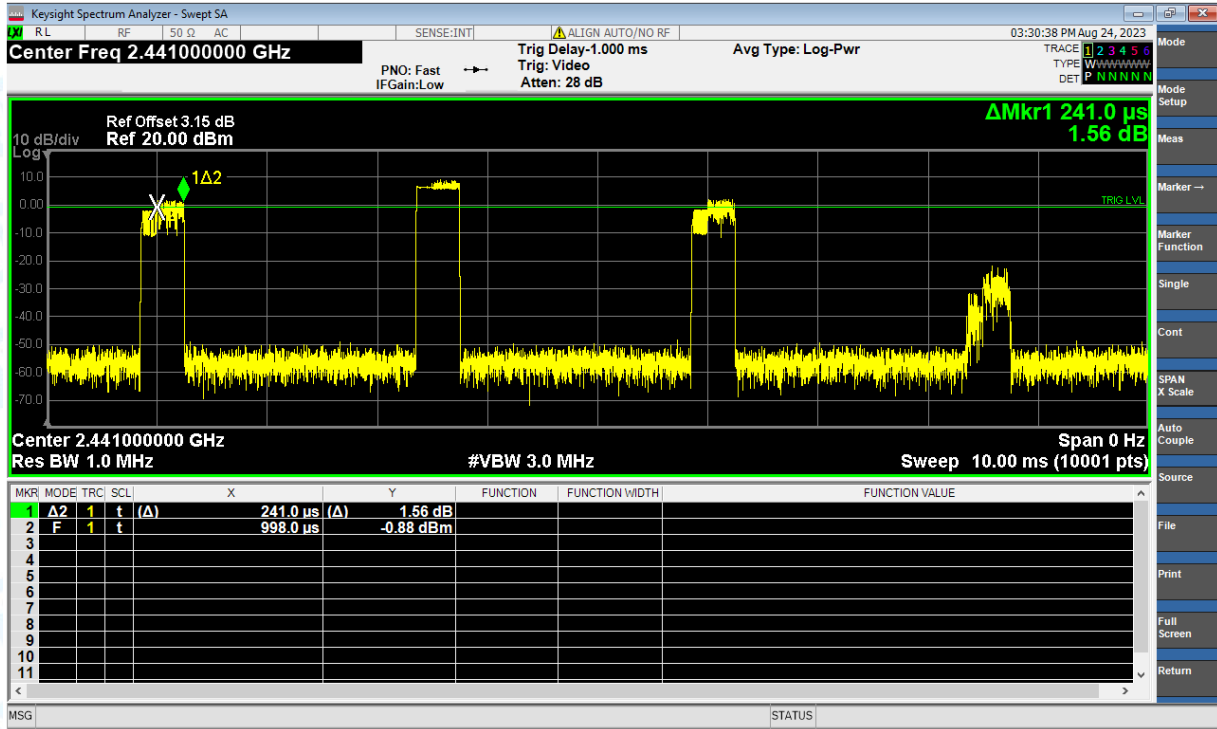
One Burst NVNT 2-DH3 2441MHz Ant1 One Burst



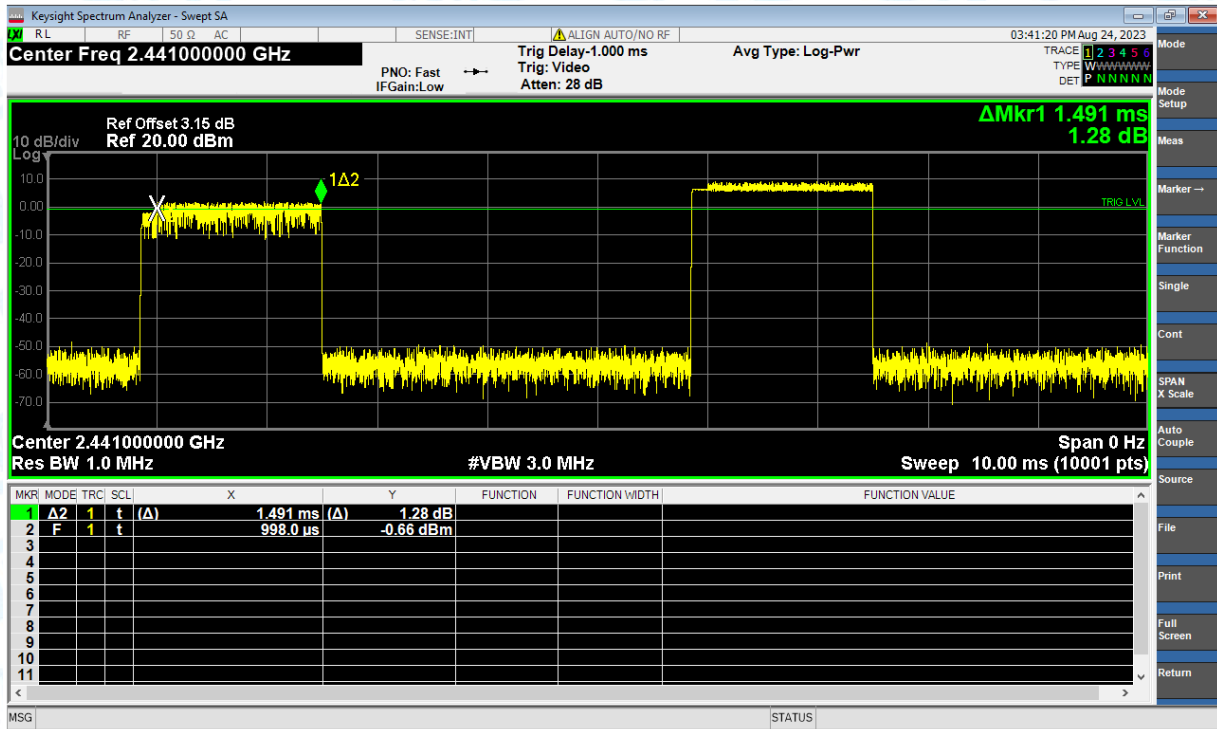
One Burst NVNT 2-DH5 2441MHz Ant1 One Burst



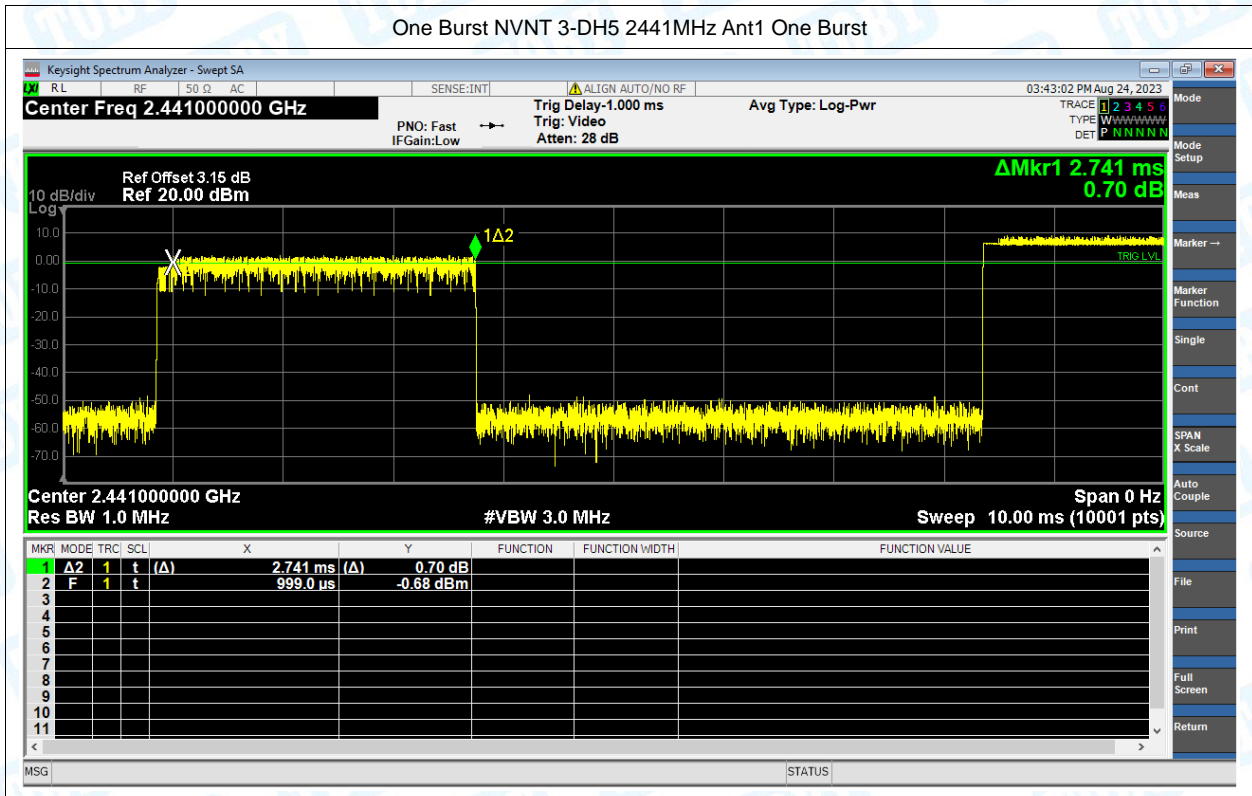
One Burst NVNT 3-DH1 2441MHz Ant1 One Burst



One Burst NVNT 3-DH3 2441MHz Ant1 One Burst







## 9. Hopping Frequency Separation

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.995	2441.854	0.859	0.1	Pass
NVNT	2-DH1	Ant1	2441.1	2442.148	1.048	0.1	Pass
NVNT	3-DH1	Ant1	2441.02	2442.066	1.046	0.1	Pass

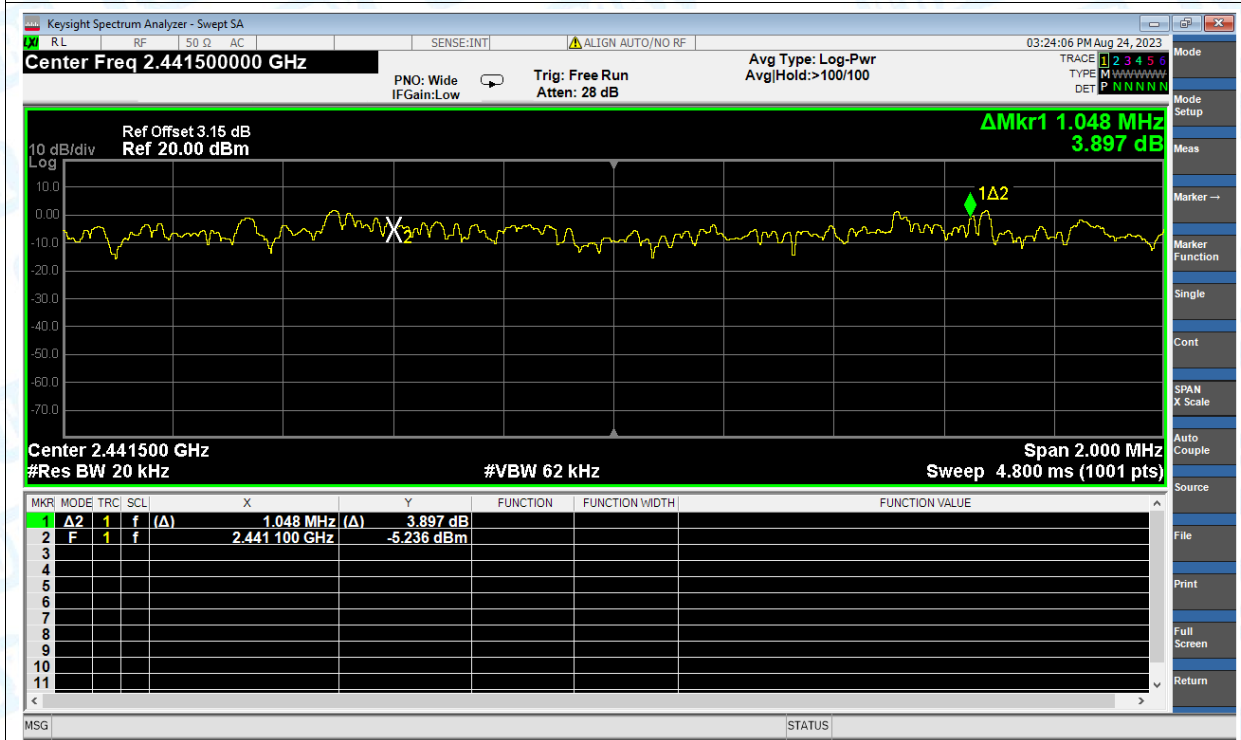


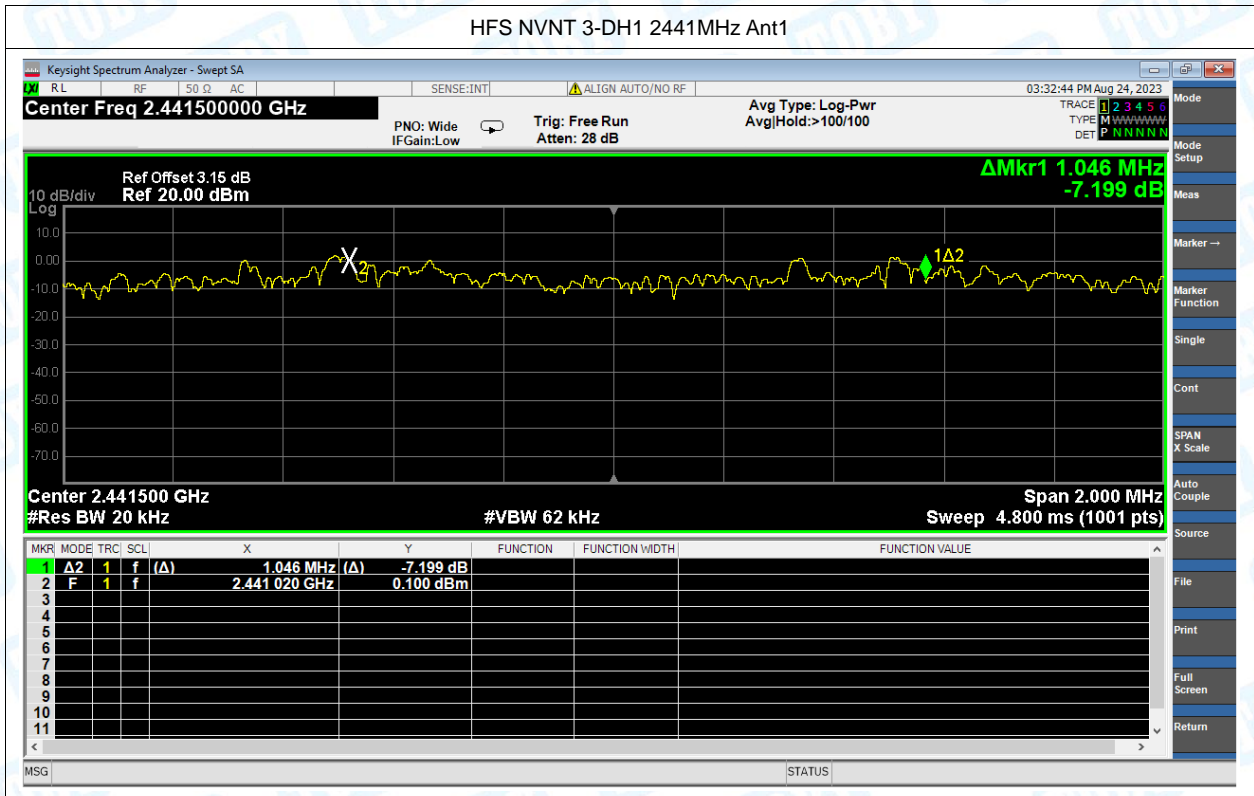
Test Graphs

HFS NVNT 1-DH1 2441MHz Ant1



HFS NVNT 2-DH1 2441MHz Ant1





-----END OF THE REPORT-----