

# RF Test Data for 2.4G WiFi (Conducted Measurements)

General Description of EUT	
Product Name:	Wi-Fi HaLow Router
Test Model:	HT-H7608
Sample ID:	RW-C-202502-0171-2-2#
Environmental Conditions	
Temperature:	23.8℃
Relative Humidity:	48%
Test Voltage:	DC 5V
Test Engineer:	Rick. chen
Note: For a more detailed features description, please refer to the report TBR-C-202502-0171-3 The report only show the worst case data.	

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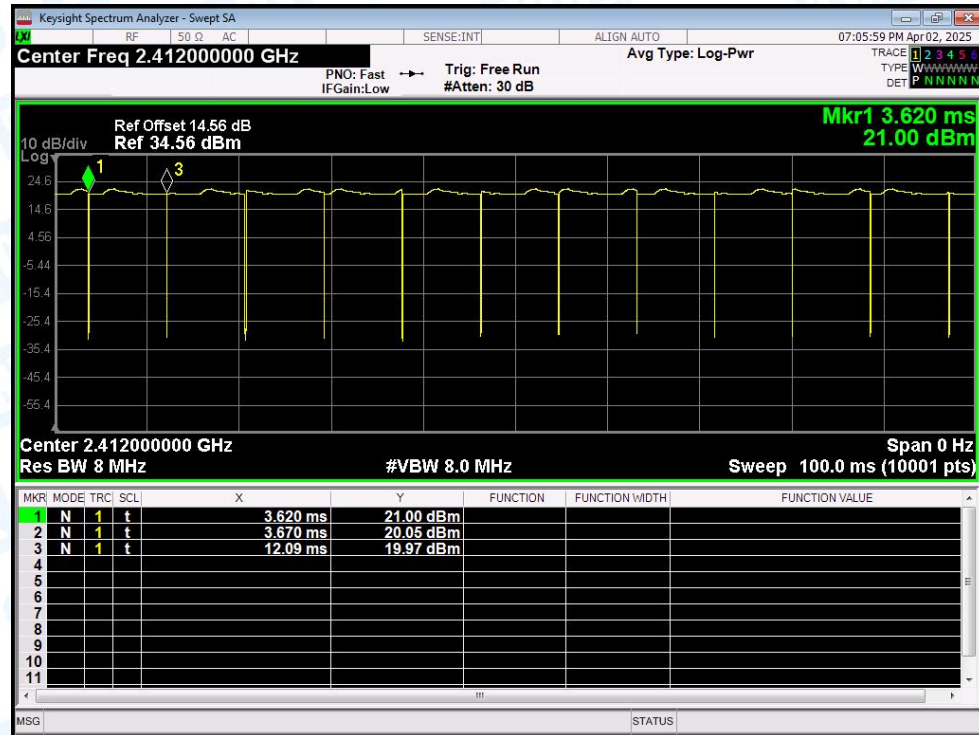


## 1. Duty Cycle

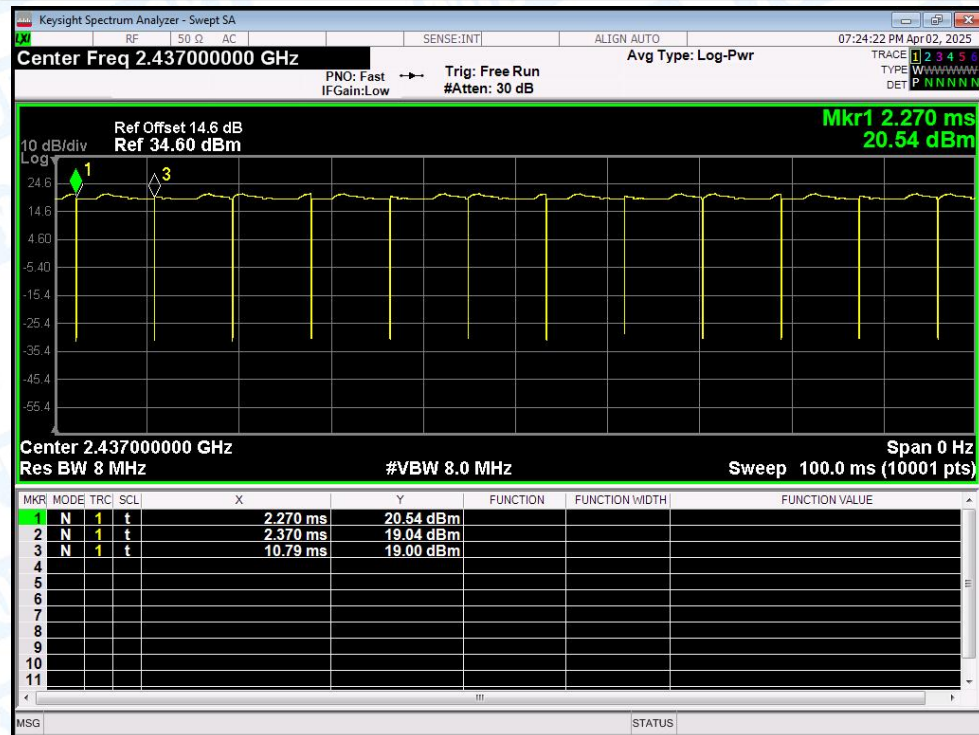
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	99.41	0.03	0.12
NVNT	b	2437	Ant1	98.83	0.05	0.12
NVNT	b	2462	Ant1	99.17	0.04	0.12
NVNT	g	2412	Ant1	97.9	0.09	0.71
NVNT	g	2437	Ant1	94.56	0.24	0.72
NVNT	g	2462	Ant1	97.9	0.09	0.71
NVNT	n(HT20)	2412	Ant1	89.73	0.47	0.76
NVNT	n(HT20)	2437	Ant1	90.34	0.44	0.76
NVNT	n(HT20)	2462	Ant1	95.59	0.2	0.77
NVNT	n(HT40)	2422	Ant1	97.01	0.13	1.54
NVNT	n(HT40)	2437	Ant1	95.59	0.2	1.54
NVNT	n(HT40)	2452	Ant1	91.55	0.38	1.54

### Test Graphs

#### Duty Cycle NVNT b 2412MHz Ant1

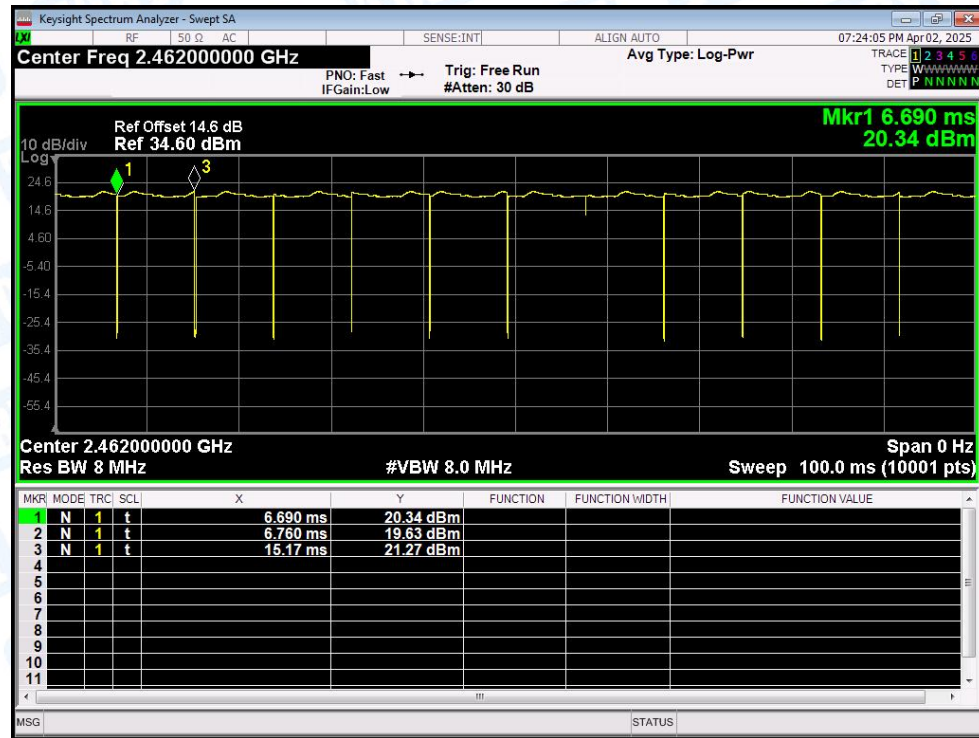


#### Duty Cycle NVNT b 2437MHz Ant1

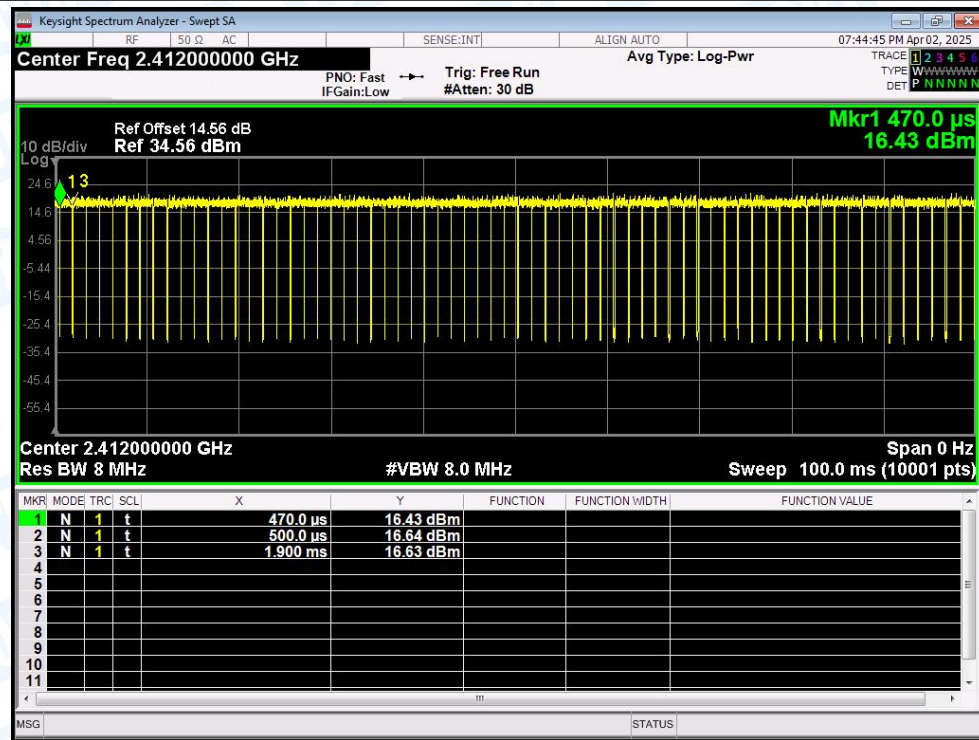




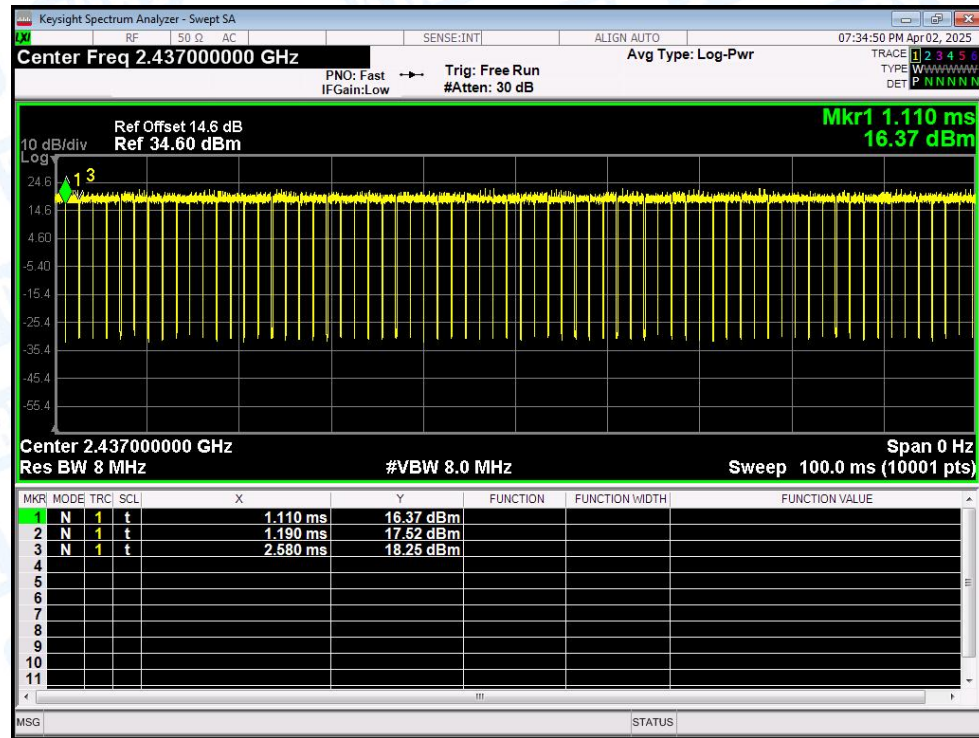
### Duty Cycle NVNT b 2462MHz Ant1



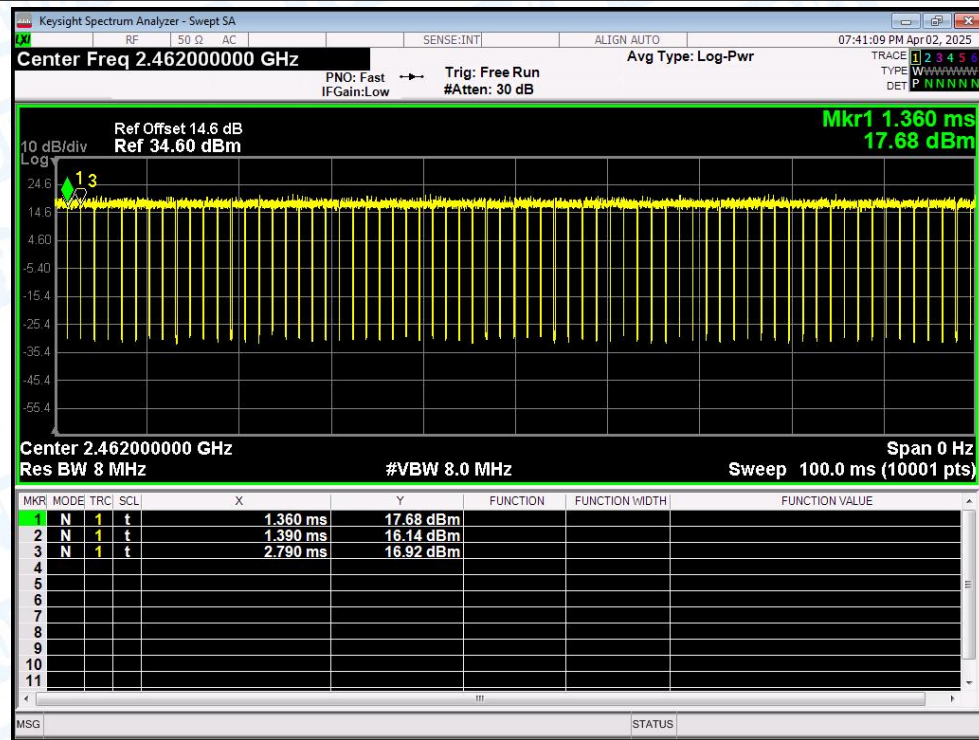
### Duty Cycle NVNT g 2412MHz Ant1



### Duty Cycle NVNT g 2437MHz Ant1

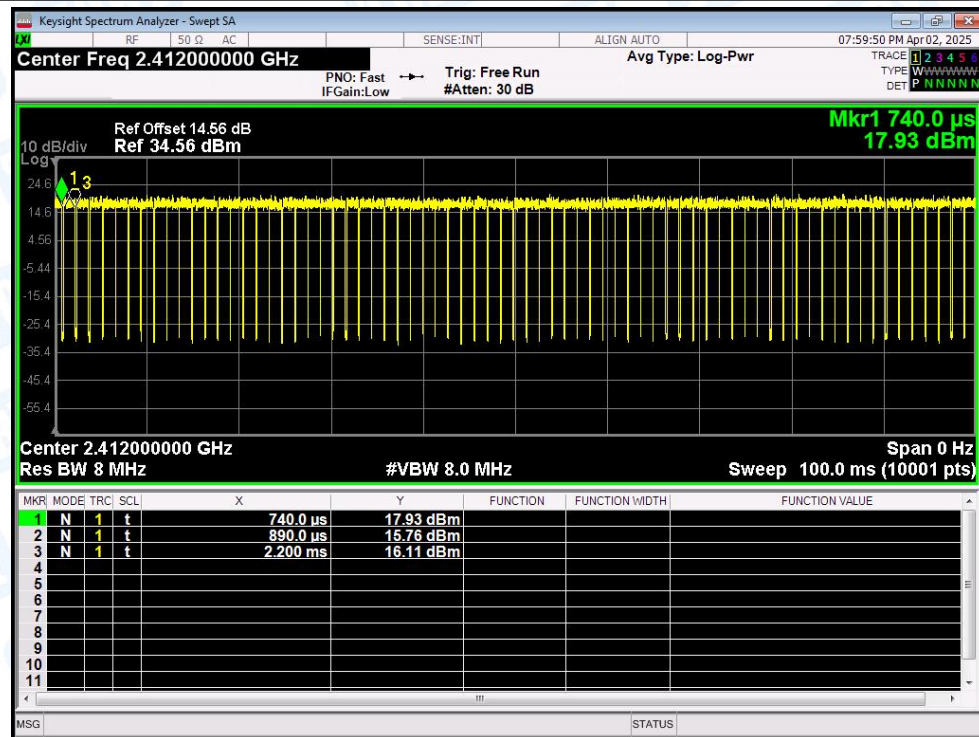


### Duty Cycle NVNT g 2462MHz Ant1

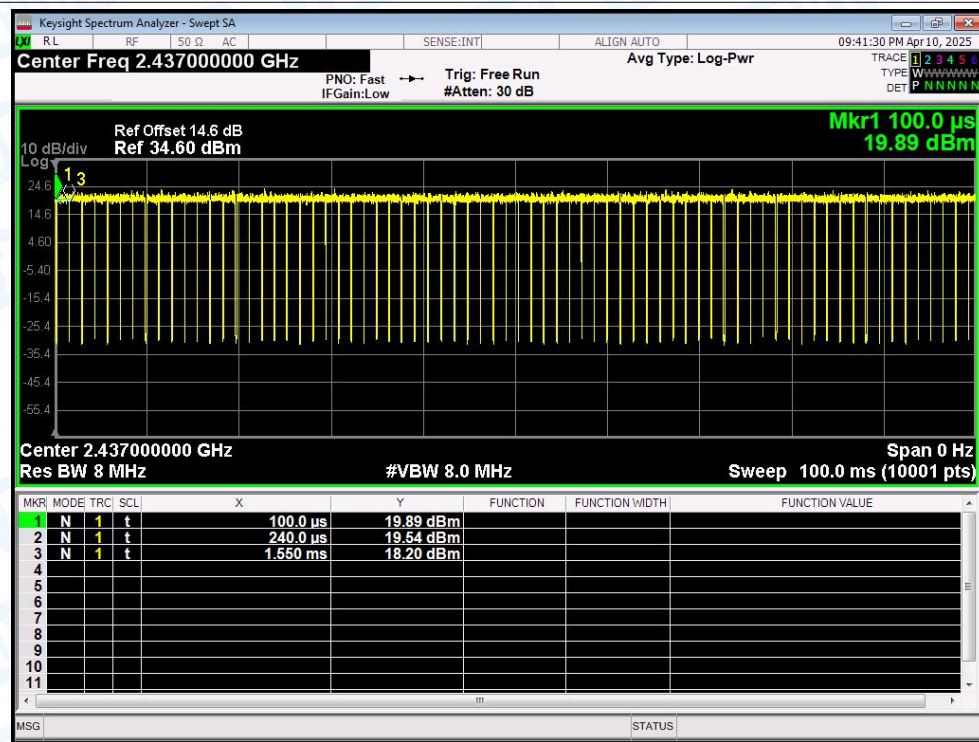




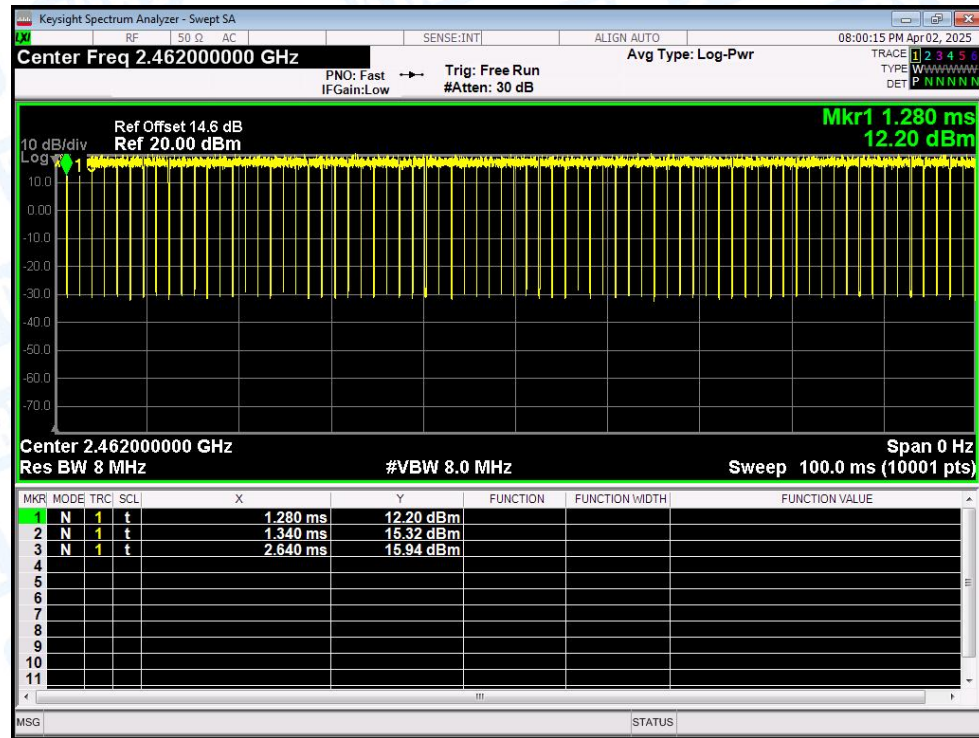
Duty Cycle NVNT n(HT20) 2412MHz Ant1



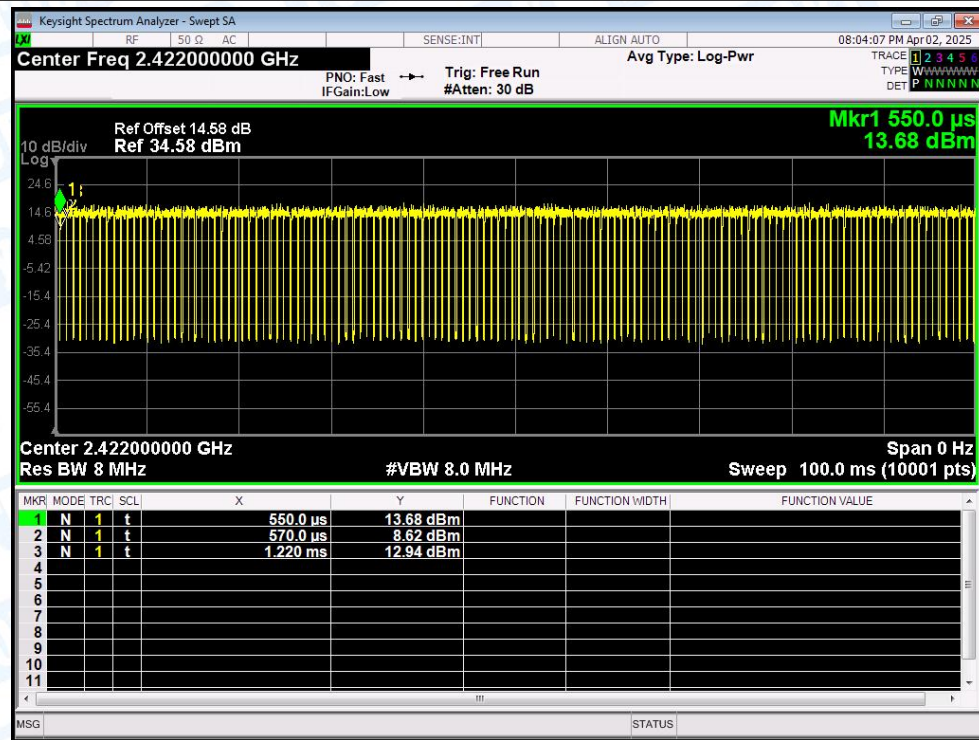
Duty Cycle NVNT n(HT20) 2437MHz Ant1



Duty Cycle NVNT n(HT20) 2462MHz Ant1

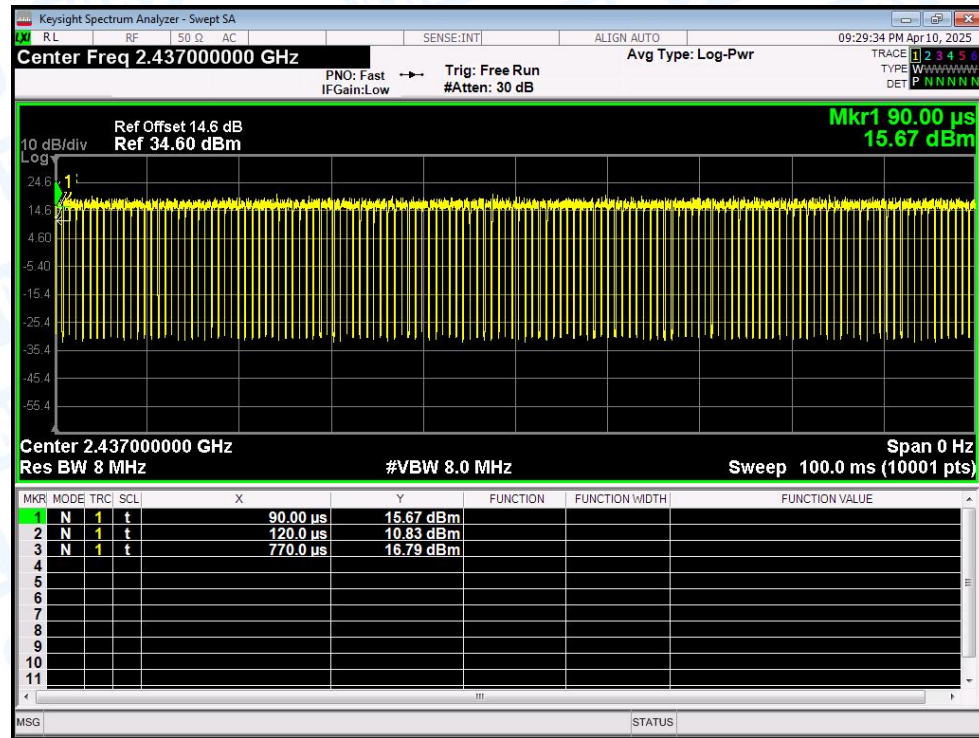


Duty Cycle NVNT n(HT40) 2422MHz Ant1

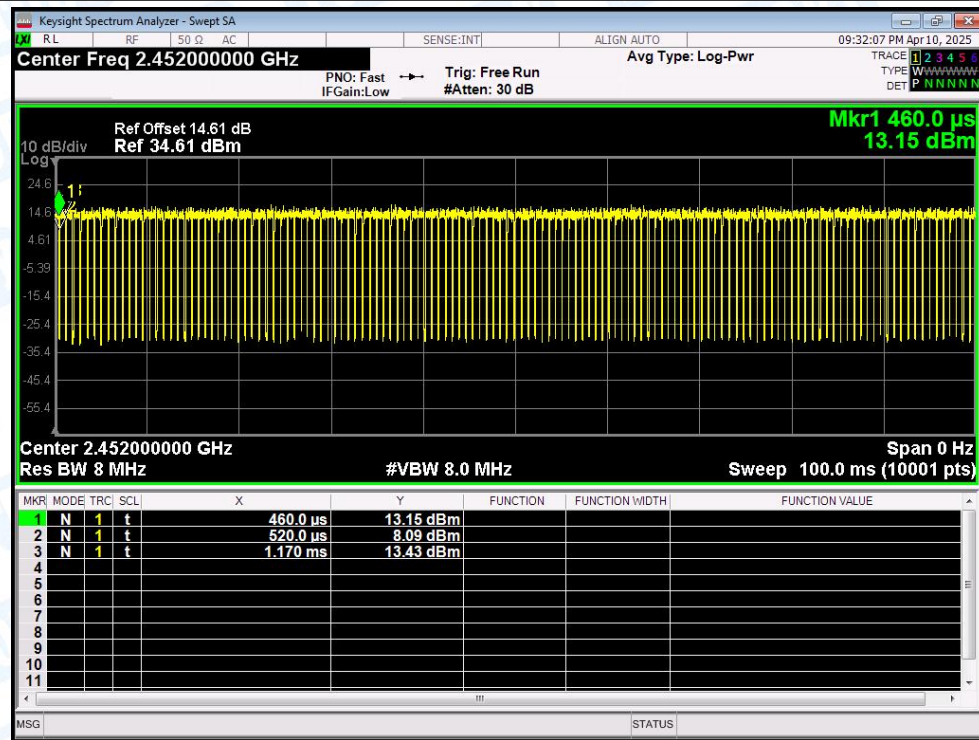




Duty Cycle NVNT n(HT40) 2437MHz Ant1



Duty Cycle NVNT n(HT40) 2452MHz Ant1



## 2. Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	16.81	30	Pass
NVNT	b	2437	Ant1	15.62	30	Pass
NVNT	b	2462	Ant1	16.15	30	Pass
NVNT	g	2412	Ant1	13.23	30	Pass
NVNT	g	2437	Ant1	14.29	30	Pass
NVNT	g	2462	Ant1	12.74	30	Pass
NVNT	n(HT20)	2412	Ant1	12.68	30	Pass
NVNT	n(HT20)	2437	Ant1	14.37	30	Pass
NVNT	n(HT20)	2462	Ant1	12.37	30	Pass
NVNT	n(HT40)	2422	Ant1	12.24	30	Pass
NVNT	n(HT40)	2437	Ant1	14.70	30	Pass
NVNT	n(HT40)	2452	Ant1	10.14	30	Pass

Note: The Duty Cycle Factor is compensated in the graph.

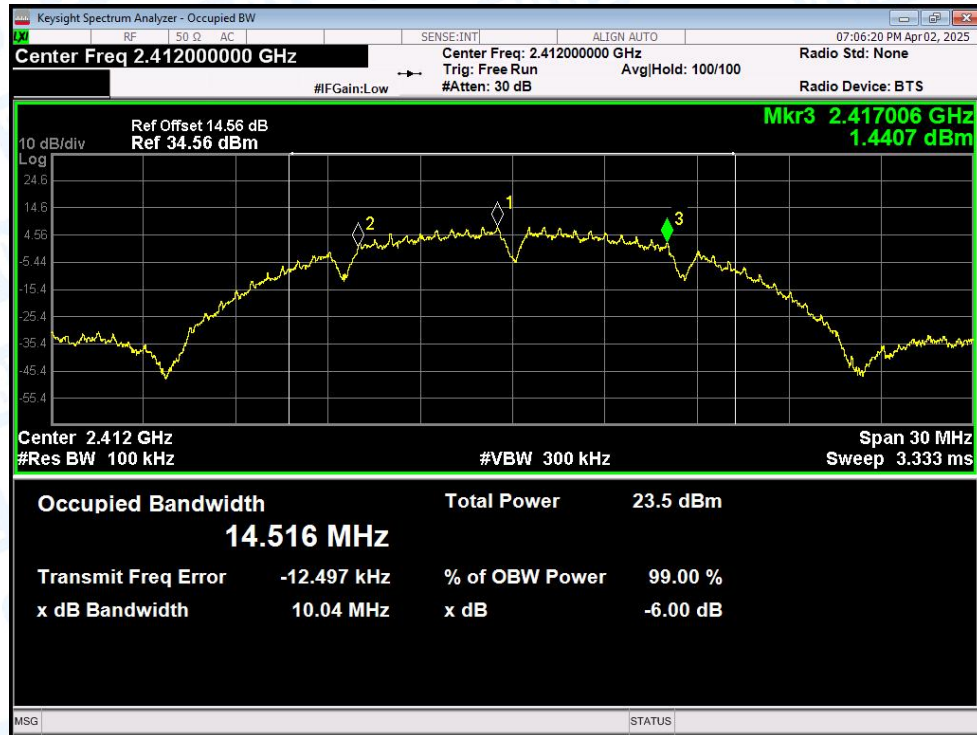


### 3. -6dB Bandwidth

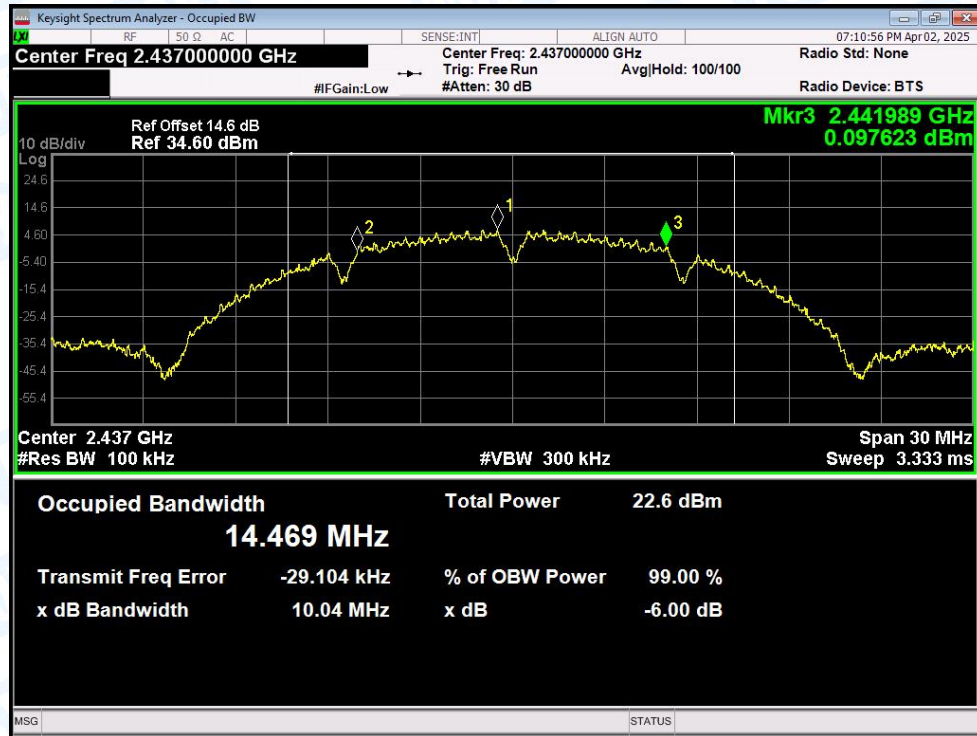
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	10.04	0.5	Pass
NVNT	b	2437	Ant1	10.04	0.5	Pass
NVNT	b	2462	Ant1	10.03	0.5	Pass
NVNT	g	2412	Ant1	12.60	0.5	Pass
NVNT	g	2437	Ant1	15.01	0.5	Pass
NVNT	g	2462	Ant1	12.92	0.5	Pass
NVNT	n(HT20)	2412	Ant1	15.04	0.5	Pass
NVNT	n(HT20)	2437	Ant1	15.03	0.5	Pass
NVNT	n(HT20)	2462	Ant1	15.03	0.5	Pass
NVNT	n(HT40)	2422	Ant1	35.07	0.5	Pass
NVNT	n(HT40)	2437	Ant1	35.06	0.5	Pass
NVNT	n(HT40)	2452	Ant1	33.75	0.5	Pass

### Test Graphs

#### -6dB Bandwidth NVNT b 2412MHz Ant1

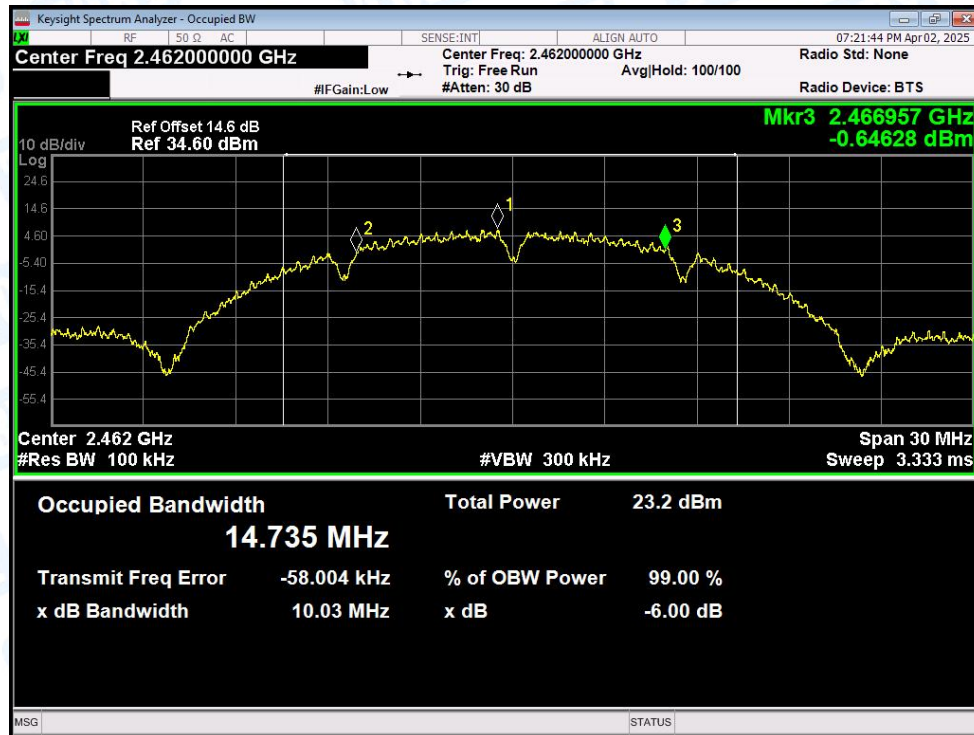


#### -6dB Bandwidth NVNT b 2437MHz Ant1

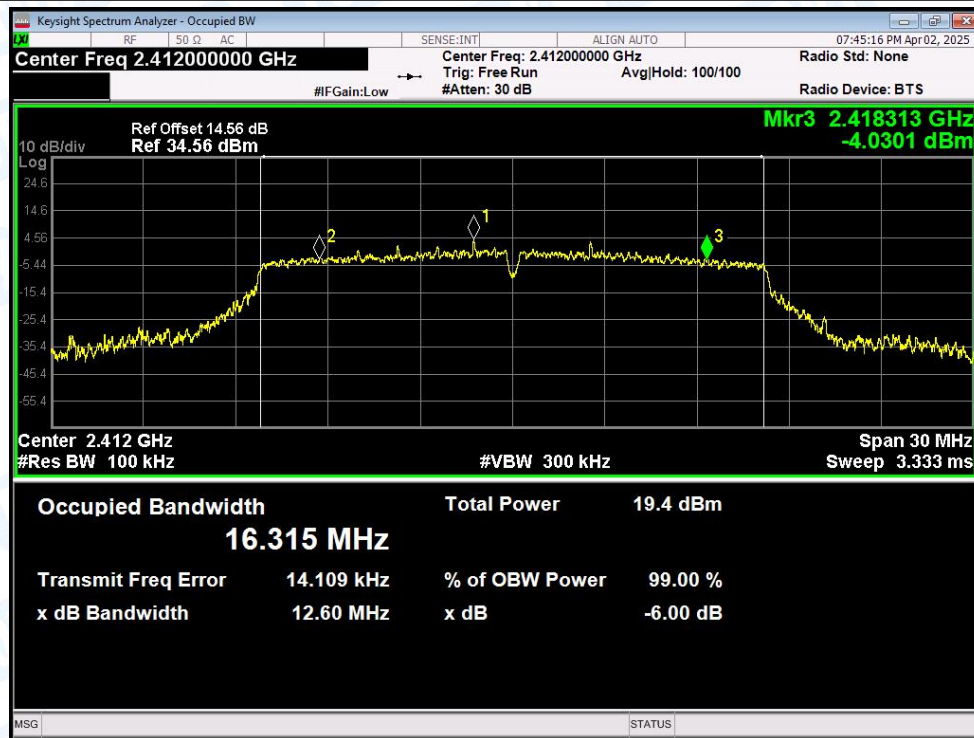




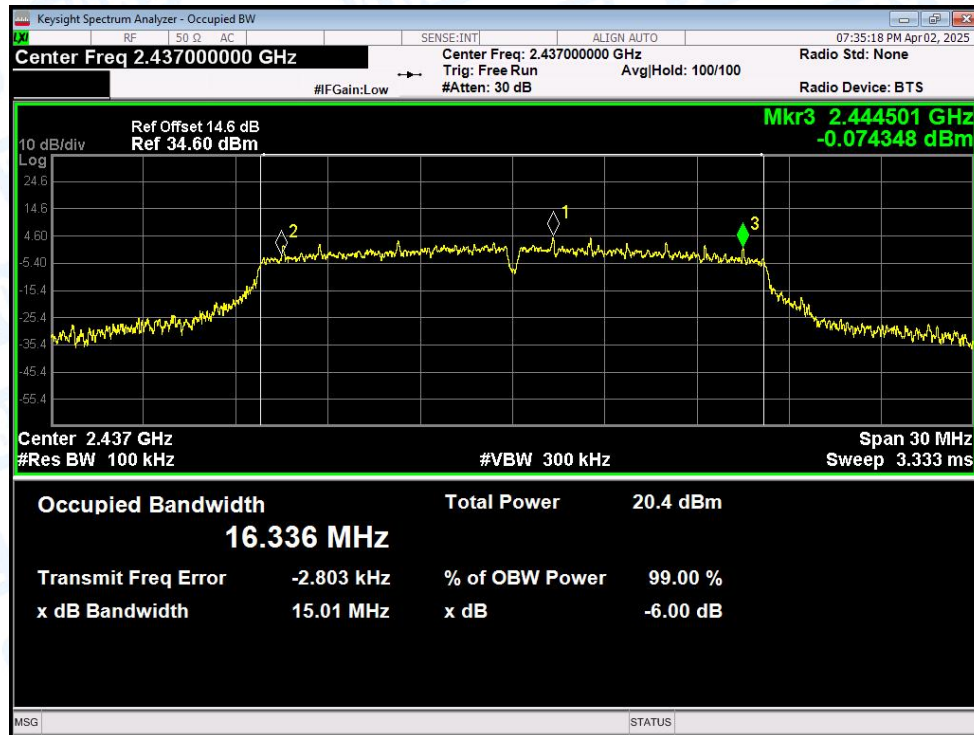
-6dB Bandwidth NVNT b 2462MHz Ant1



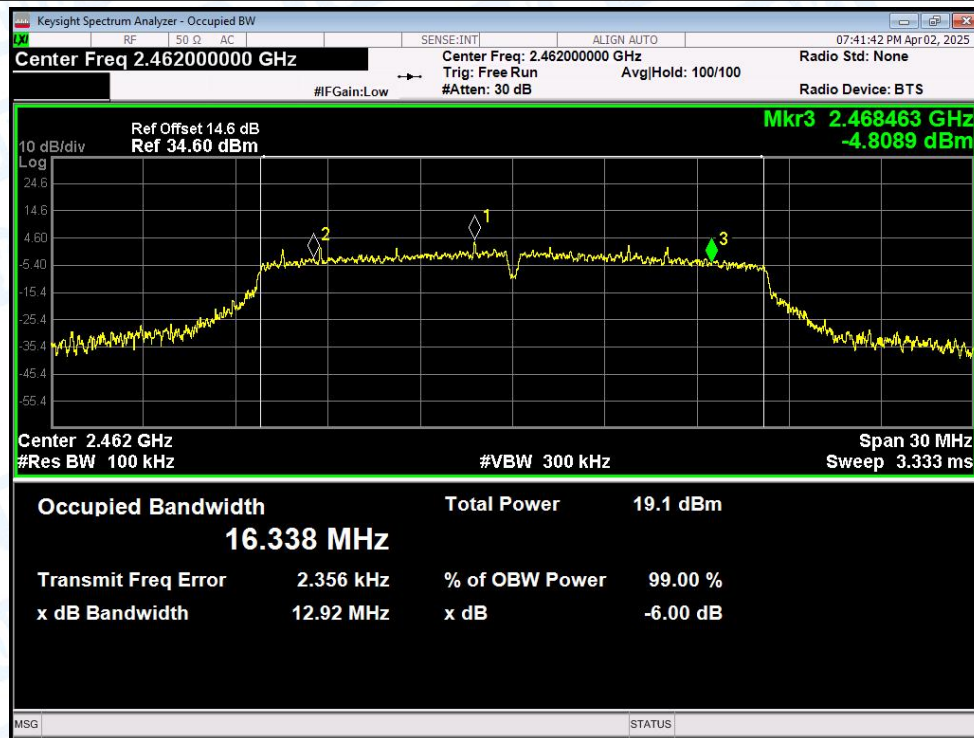
-6dB Bandwidth NVNT g 2412MHz Ant1



-6dB Bandwidth NVNT g 2437MHz Ant1

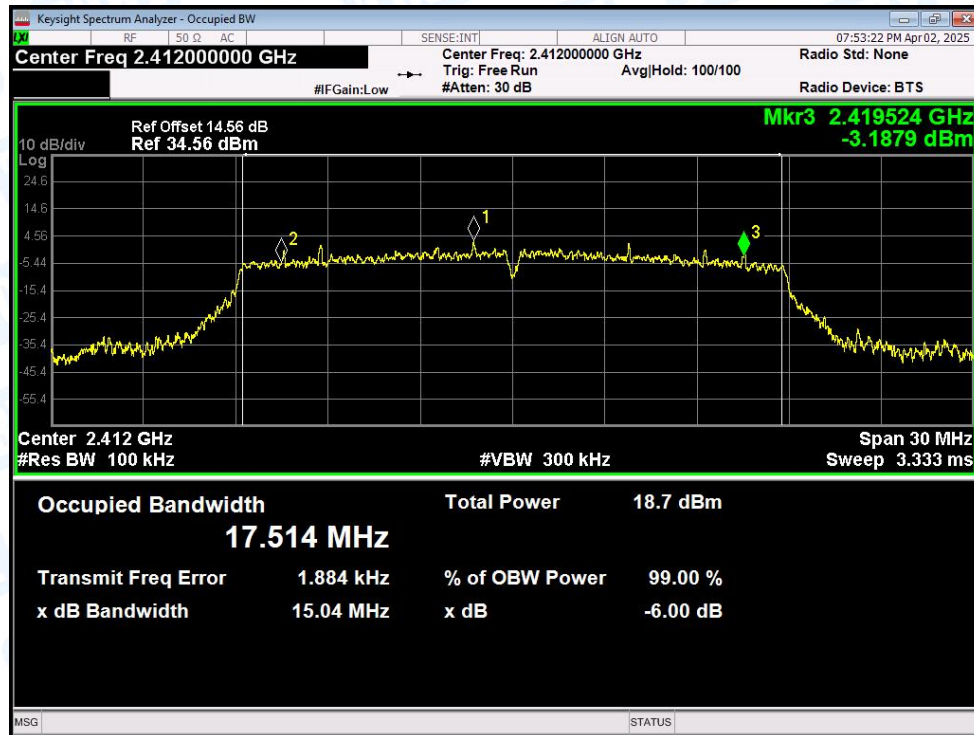


-6dB Bandwidth NVNT g 2462MHz Ant1

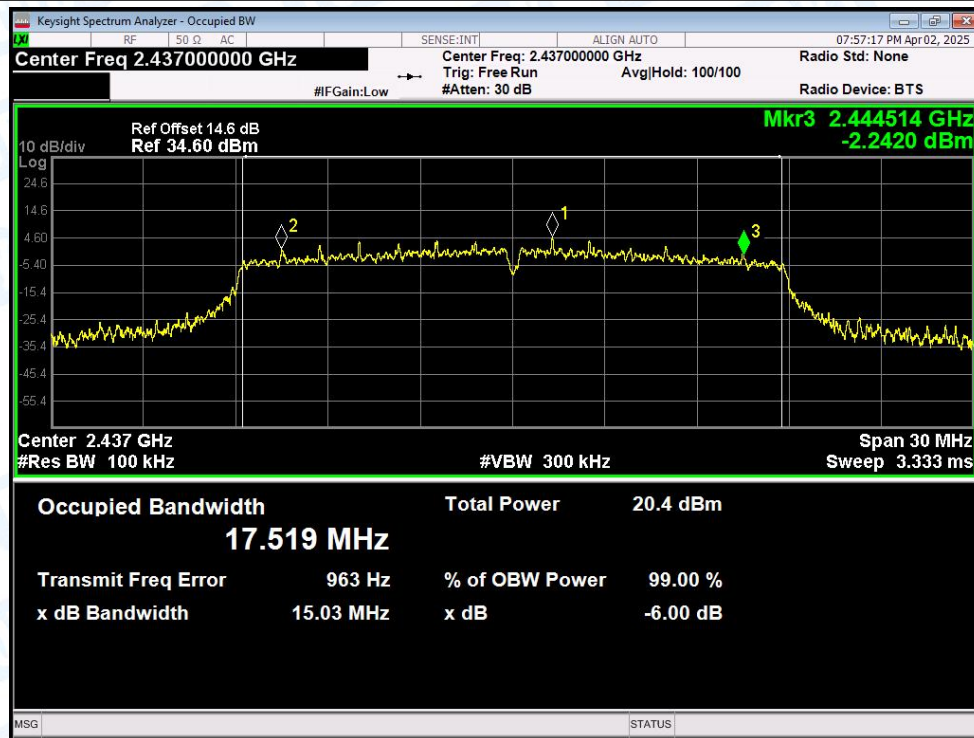




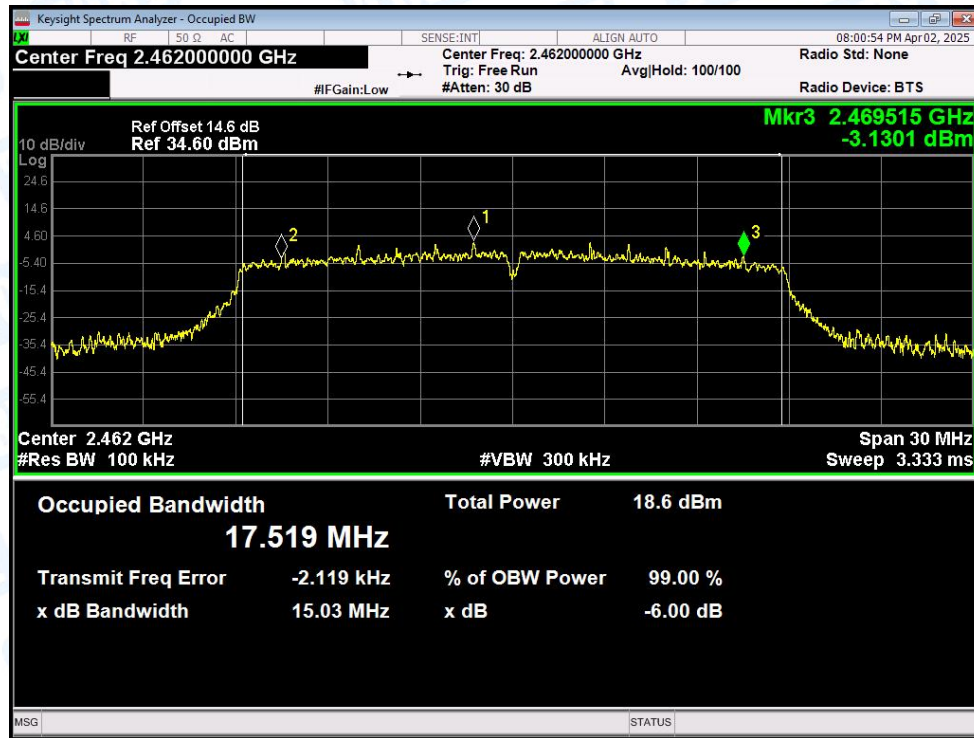
-6dB Bandwidth NVNT n(HT20) 2412MHz Ant1



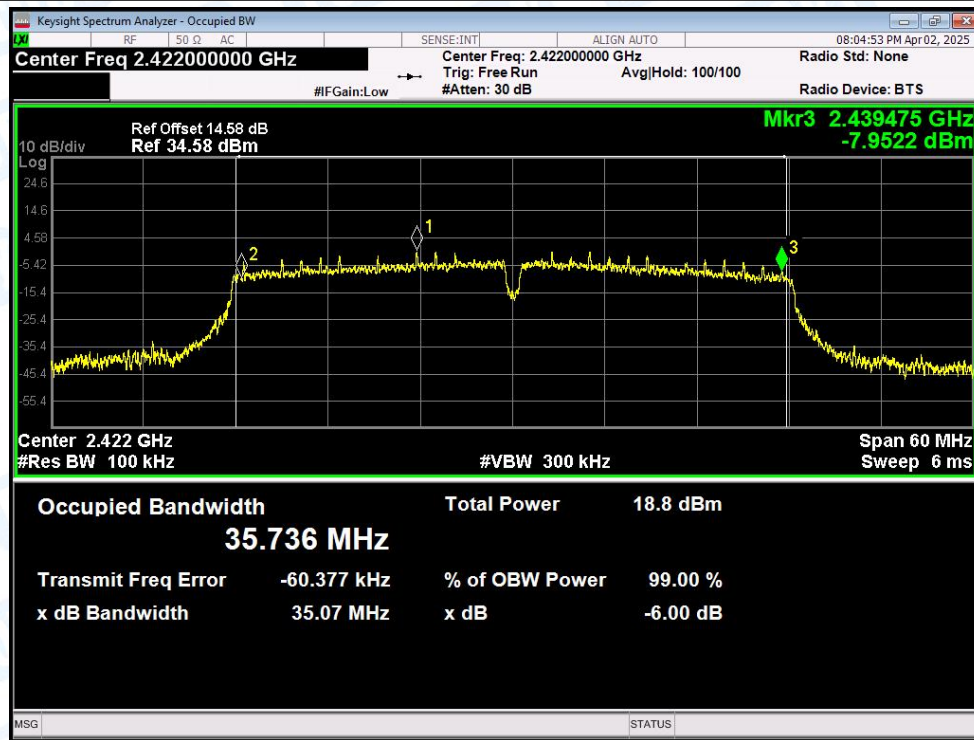
-6dB Bandwidth NVNT n(HT20) 2437MHz Ant1



-6dB Bandwidth NVNT n(HT20) 2462MHz Ant1

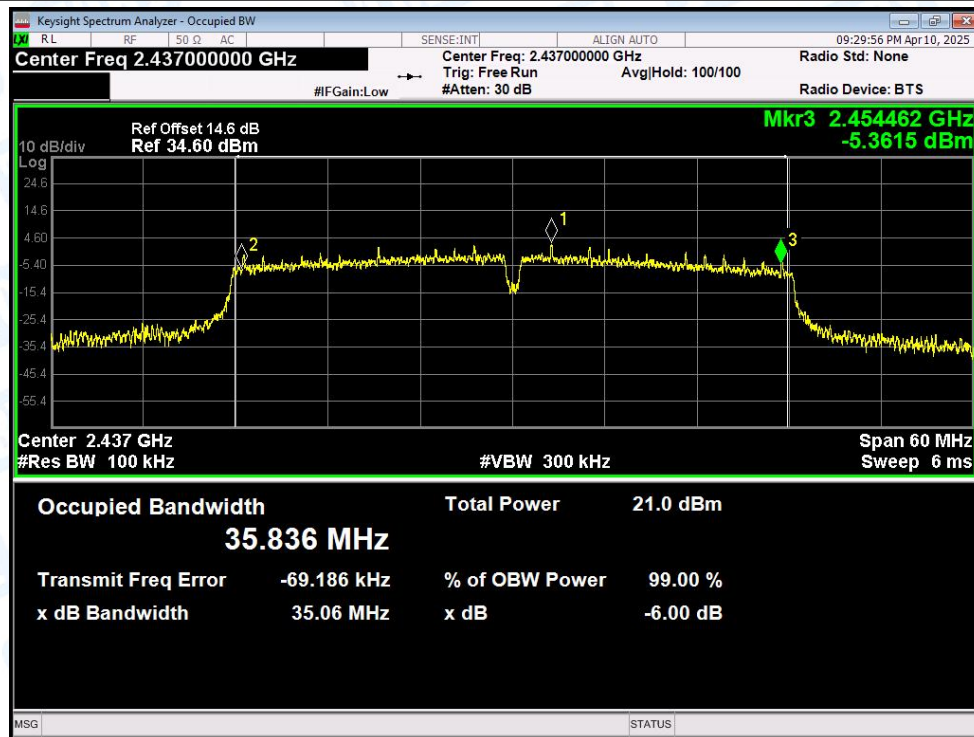


-6dB Bandwidth NVNT n(HT40) 2422MHz Ant1

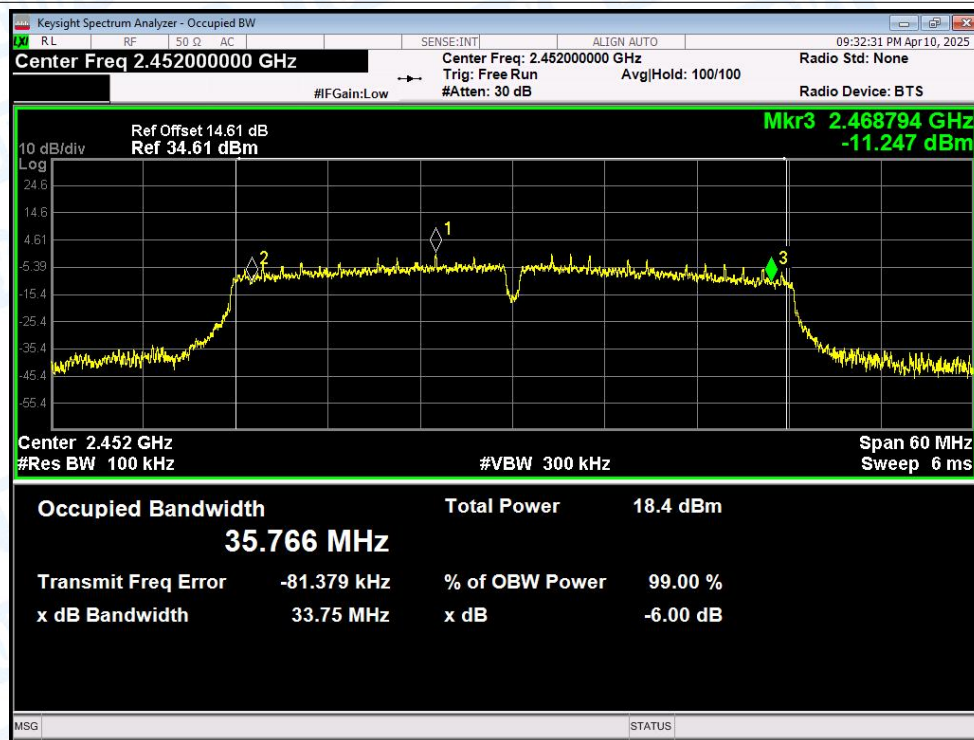




-6dB Bandwidth NVNT n(HT40) 2437MHz Ant1



-6dB Bandwidth NVNT n(HT40) 2452MHz Ant1



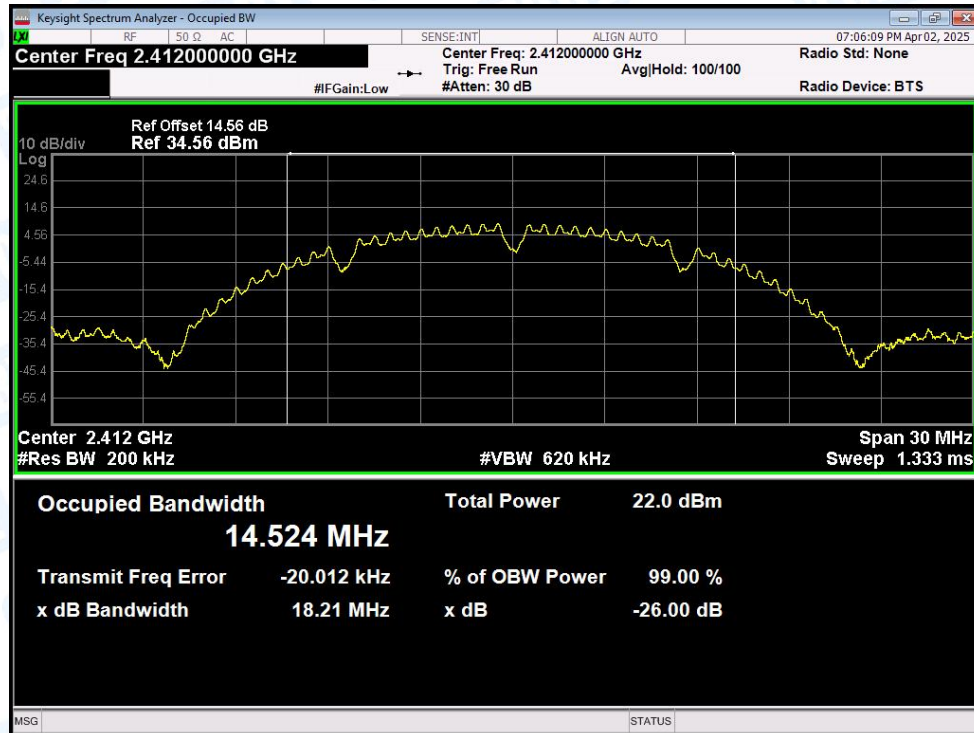
## 4. Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	14.524
NVNT	b	2437	Ant1	14.446
NVNT	b	2462	Ant1	14.719
NVNT	g	2412	Ant1	16.435
NVNT	g	2437	Ant1	16.415
NVNT	g	2462	Ant1	16.401
NVNT	n(HT20)	2412	Ant1	17.509
NVNT	n(HT20)	2437	Ant1	17.566
NVNT	n(HT20)	2462	Ant1	17.53
NVNT	n(HT40)	2422	Ant1	35.849
NVNT	n(HT40)	2437	Ant1	35.913
NVNT	n(HT40)	2452	Ant1	35.873

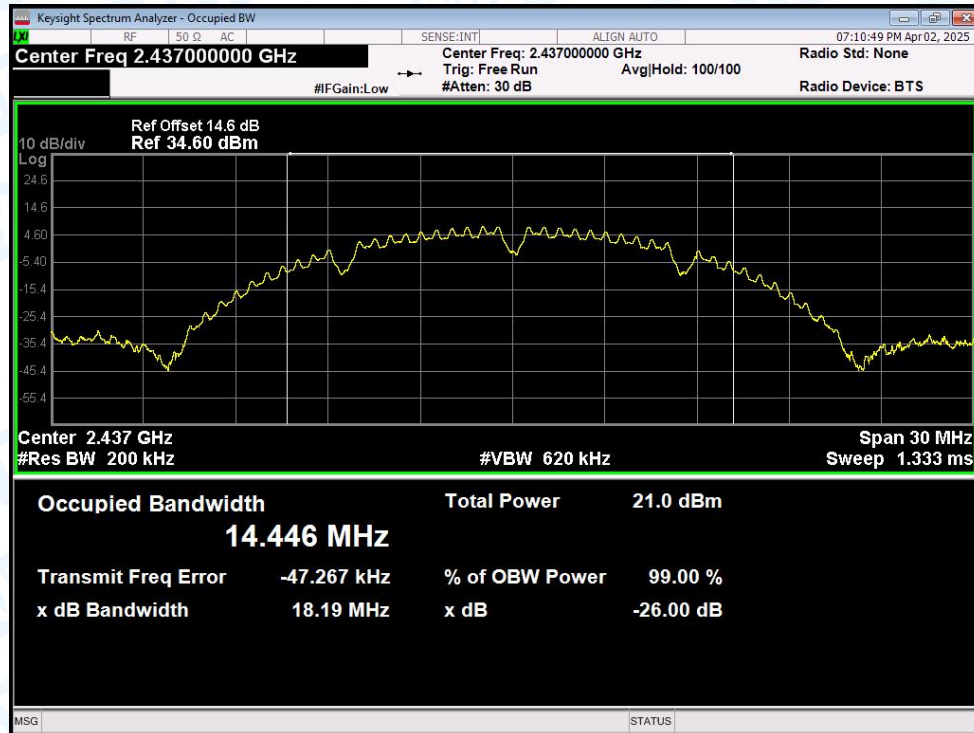


### Test Graphs

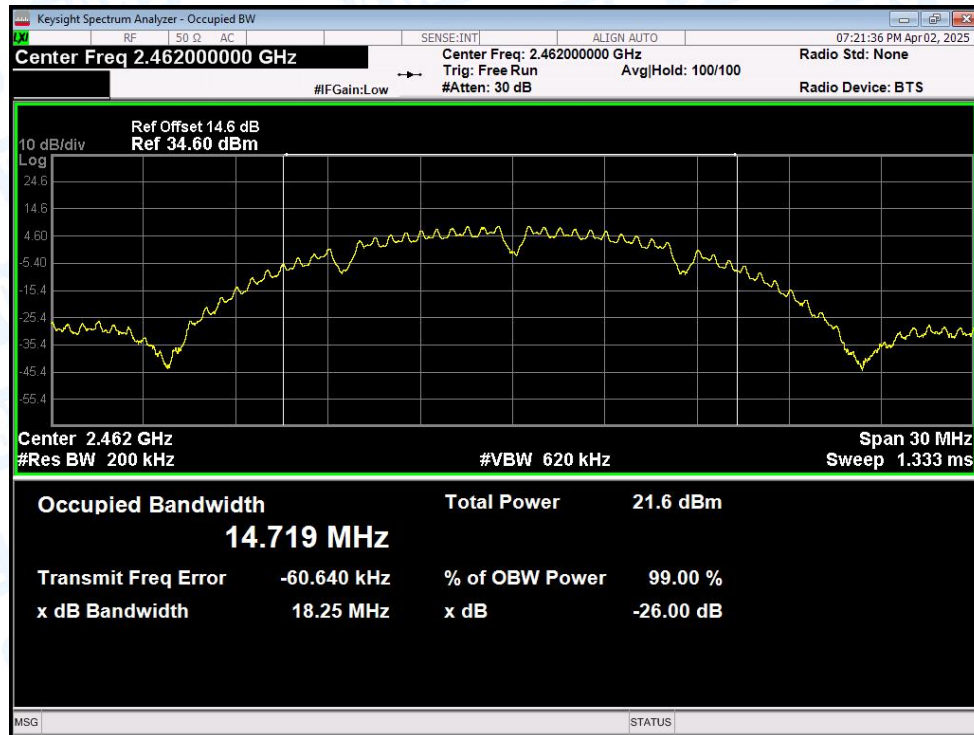
#### OBW NVNT b 2412MHz Ant1



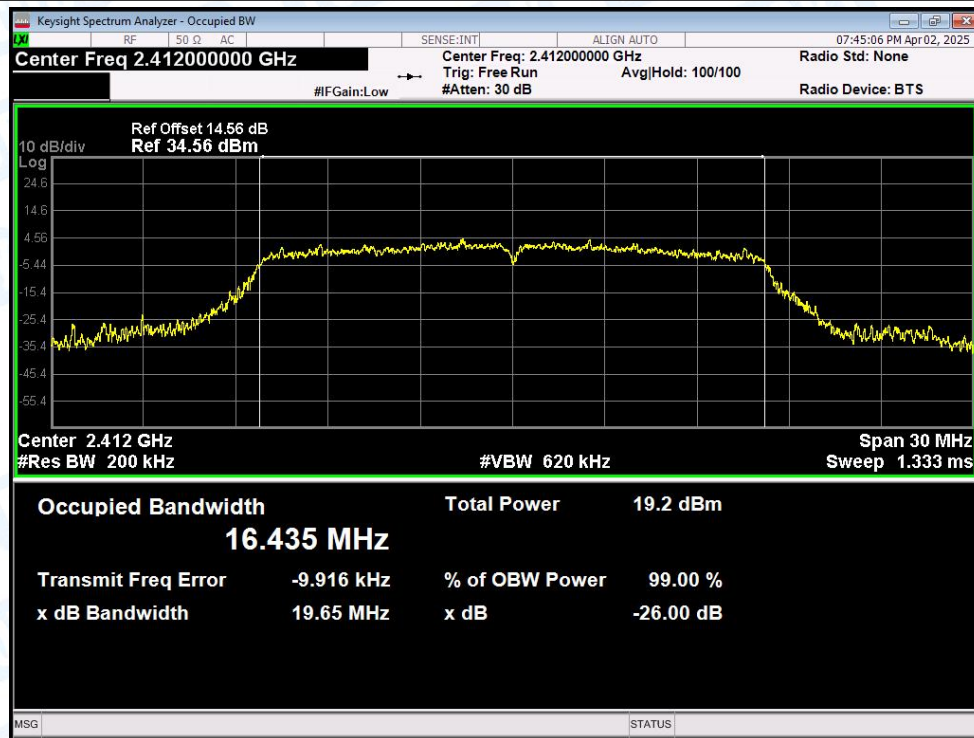
#### OBW NVNT b 2437MHz Ant1



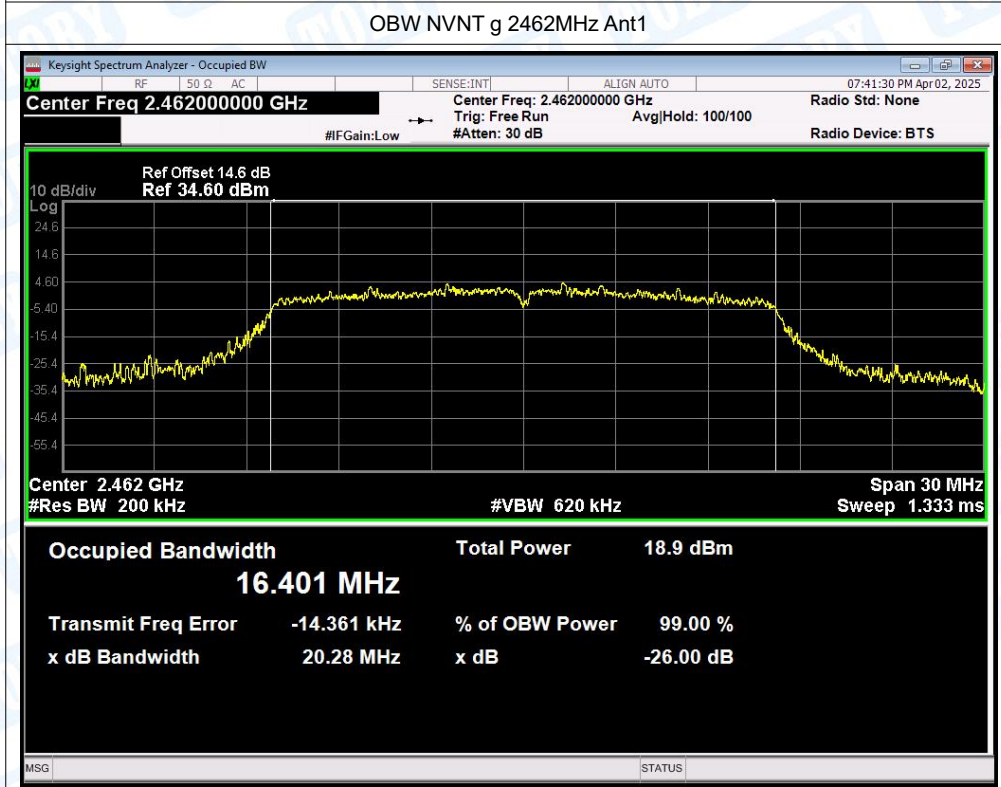
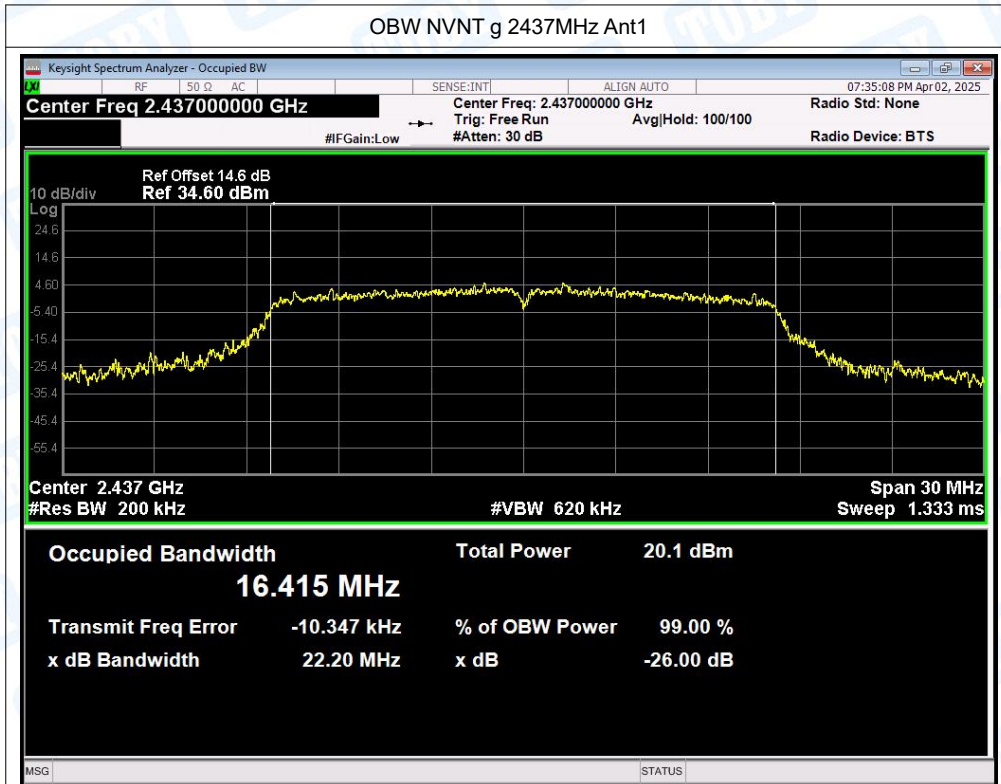
OBW NVNT b 2462MHz Ant1



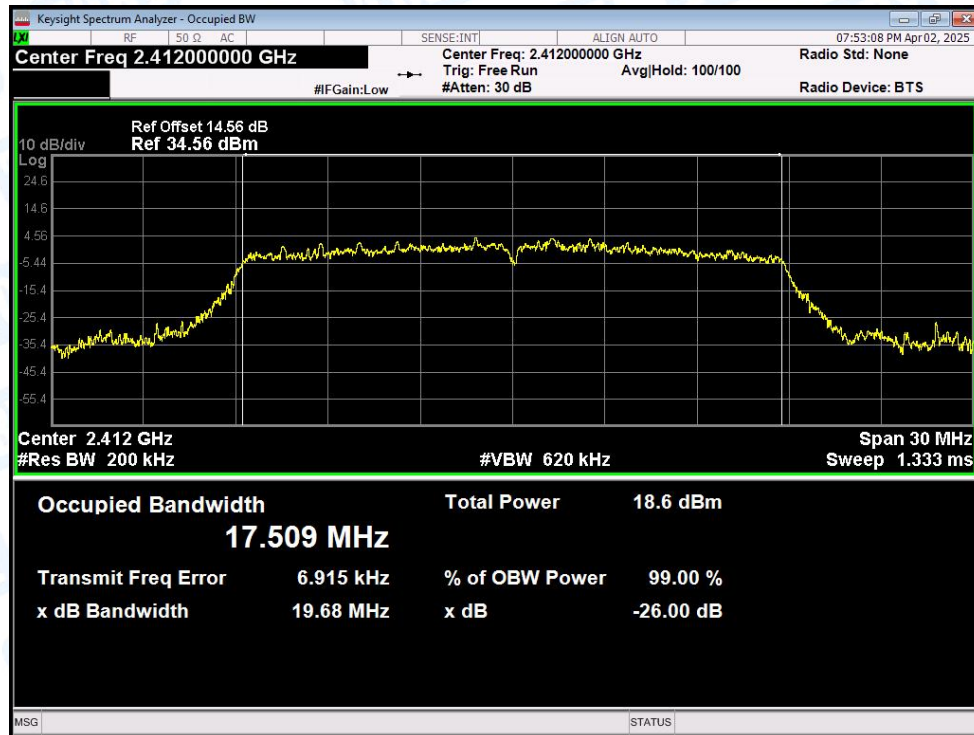
OBW NVNT g 2412MHz Ant1



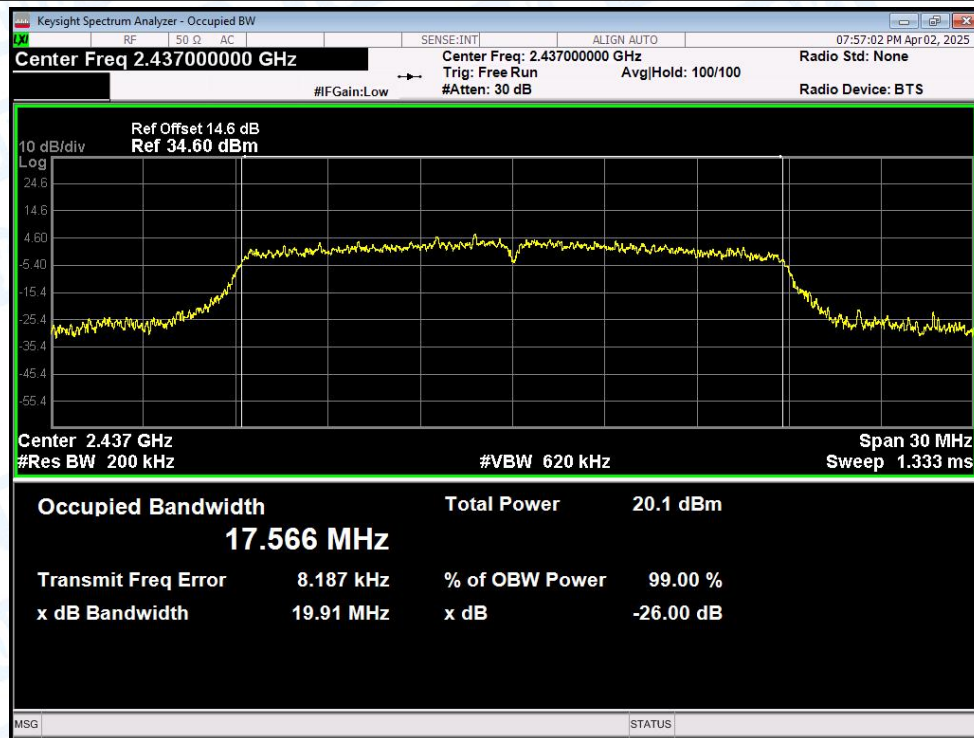




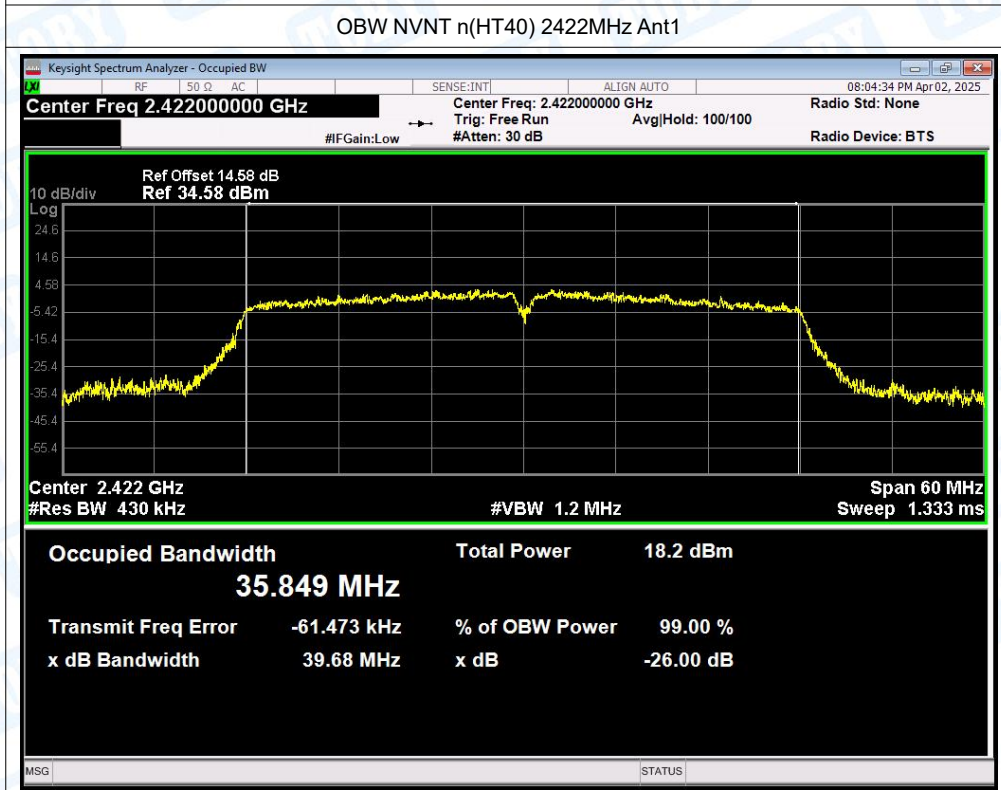
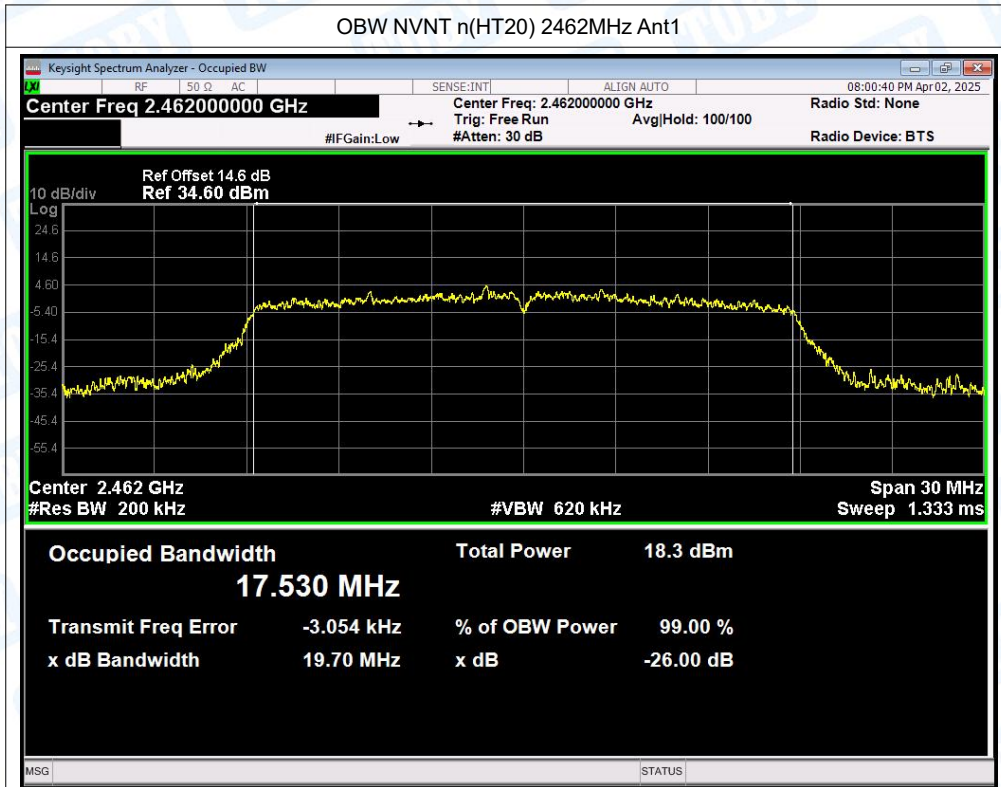
OBW NVNT n(HT20) 2412MHz Ant1



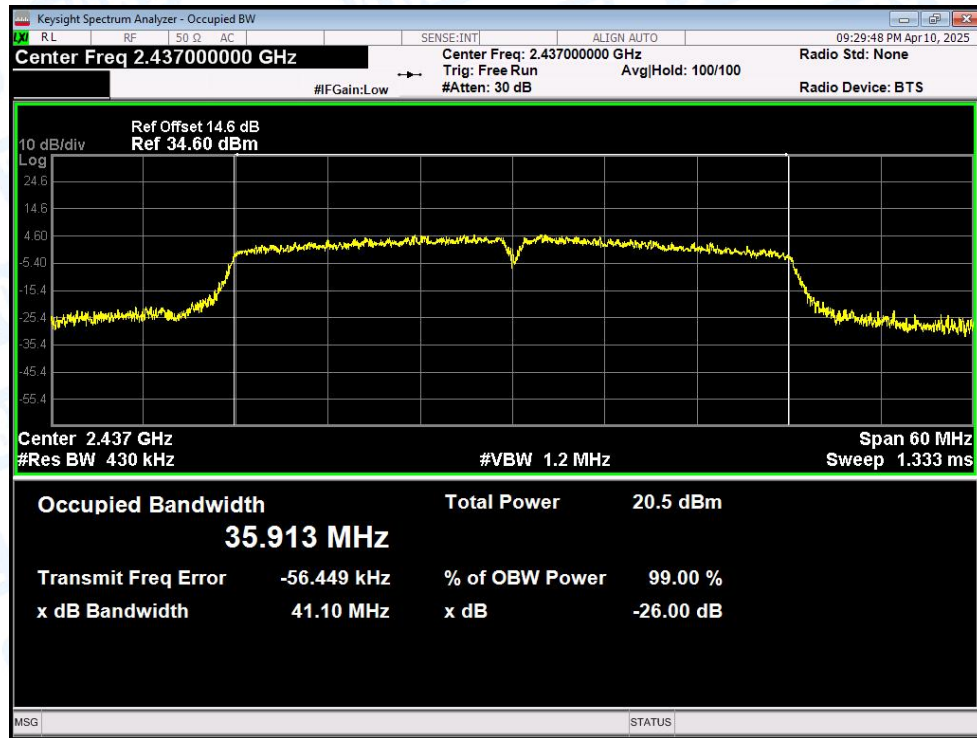
OBW NVNT n(HT20) 2437MHz Ant1



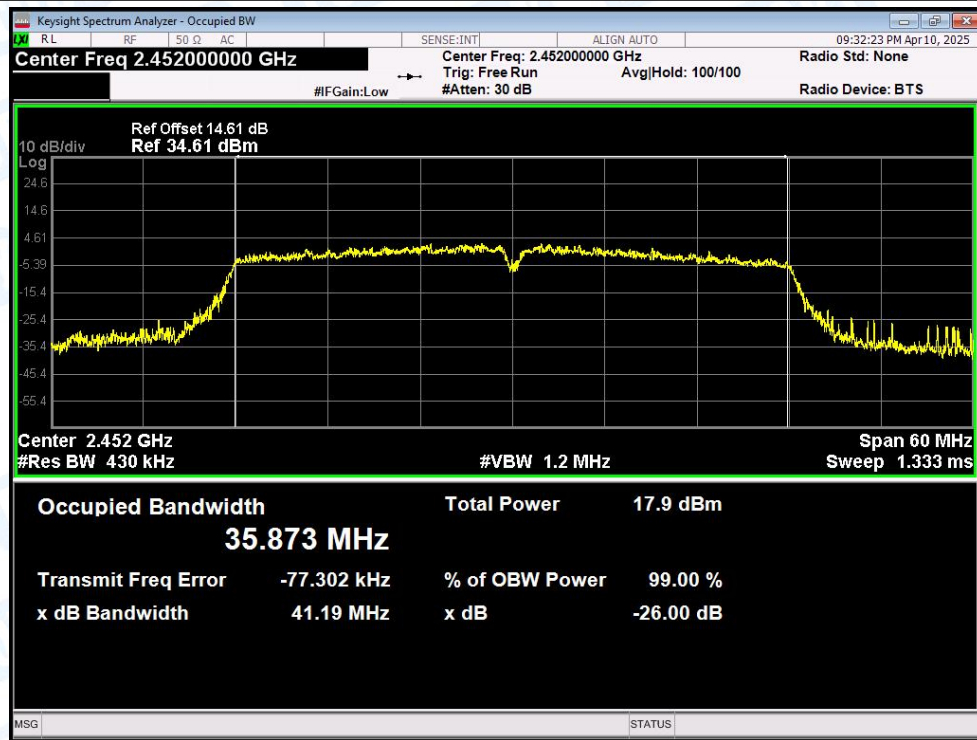




OBW NVNT n(HT40) 2437MHz Ant1



OBW NVNT n(HT40) 2452MHz Ant1





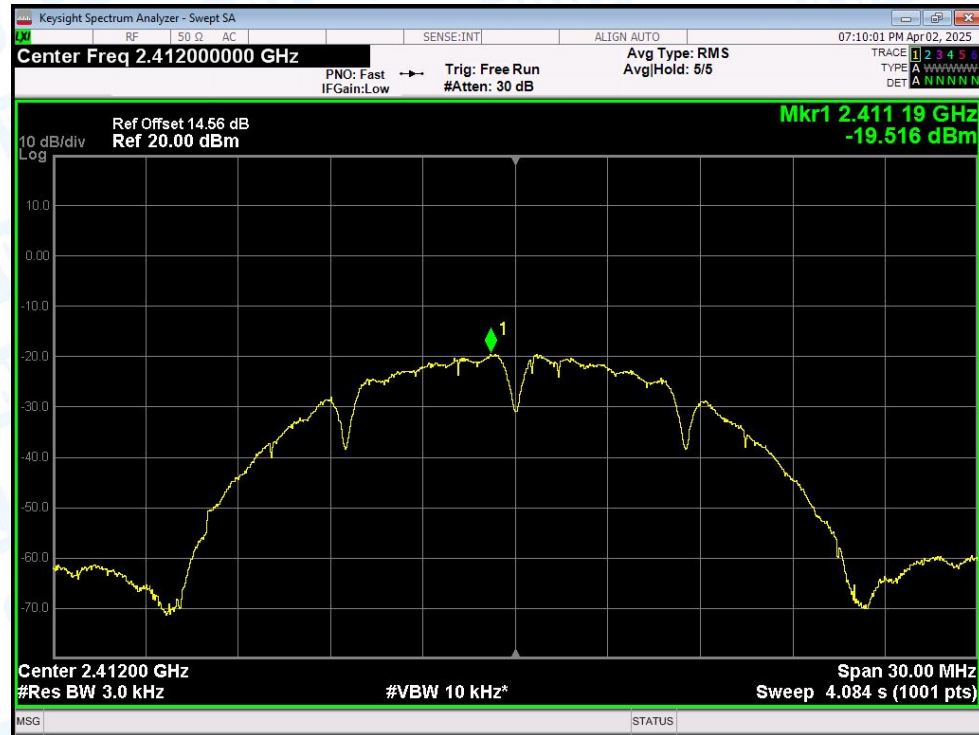
## 5. Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-19.516	7.9	Pass
NVNT	b	2437	Ant1	-16.368	7.9	Pass
NVNT	b	2462	Ant1	-11.399	7.9	Pass
NVNT	g	2412	Ant1	-19.927	7.9	Pass
NVNT	g	2437	Ant1	-18.528	7.9	Pass
NVNT	g	2462	Ant1	-19.793	7.9	Pass
NVNT	n(HT20)	2412	Ant1	-20.861	7.9	Pass
NVNT	n(HT20)	2437	Ant1	-19.308	7.9	Pass
NVNT	n(HT20)	2462	Ant1	-20.931	7.9	Pass
NVNT	n(HT40)	2422	Ant1	-24.259	7.9	Pass
NVNT	n(HT40)	2437	Ant1	-22.042	7.9	Pass
NVNT	n(HT40)	2452	Ant1	-24.339	7.9	Pass

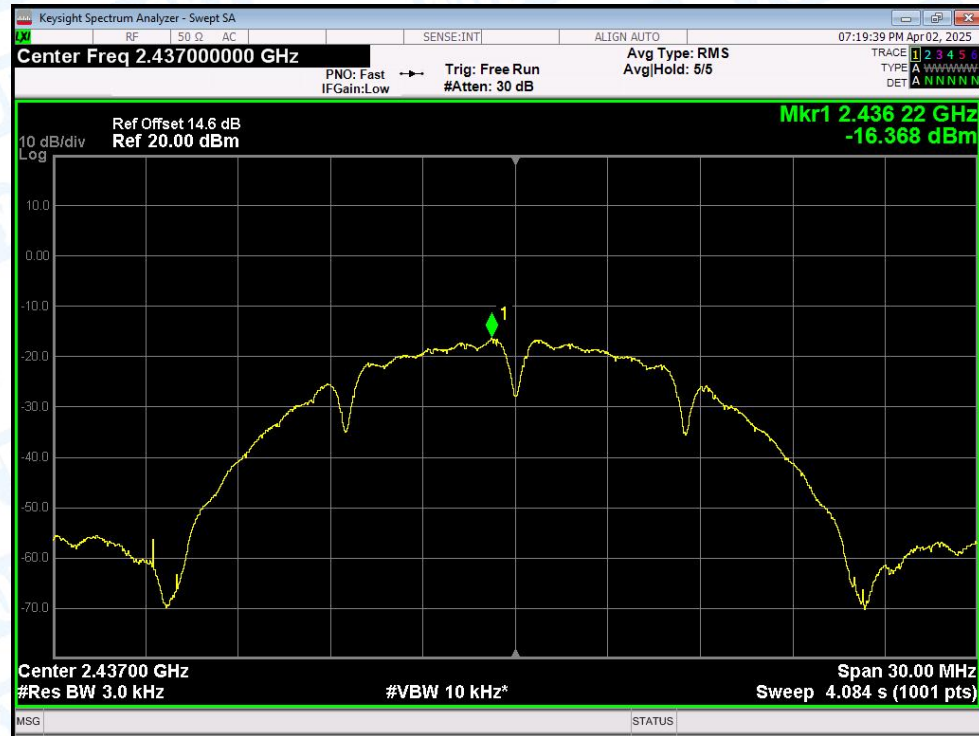
Note: The Duty Cycle Factor is compensated in the graph.

### Test Graphs

#### PSD NVNT b 2412MHz Ant1

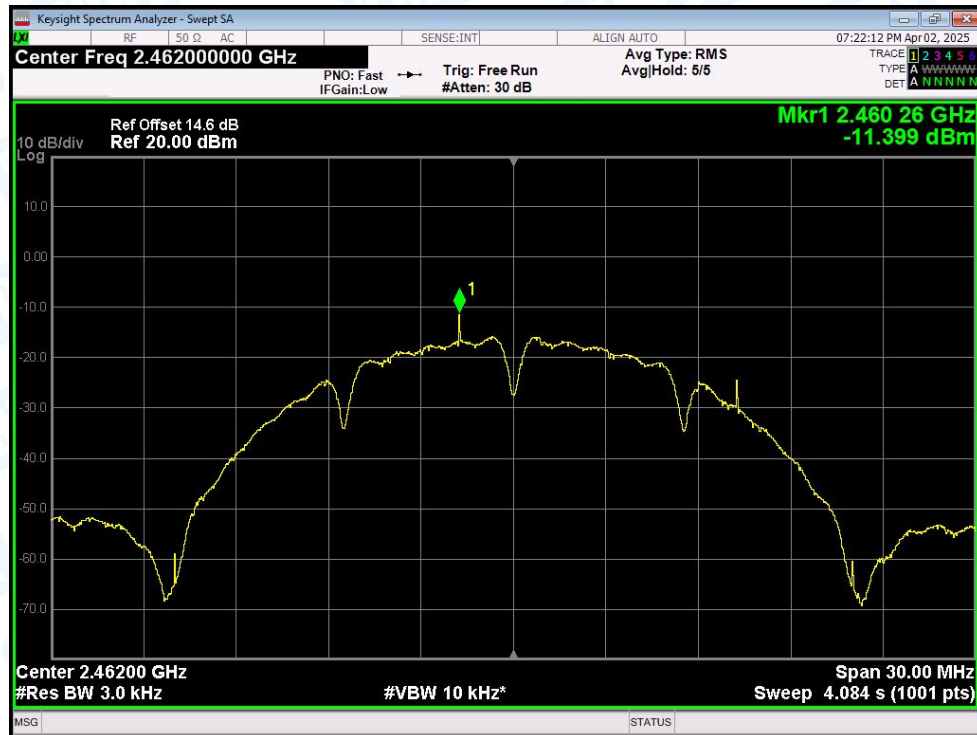


#### PSD NVNT b 2437MHz Ant1

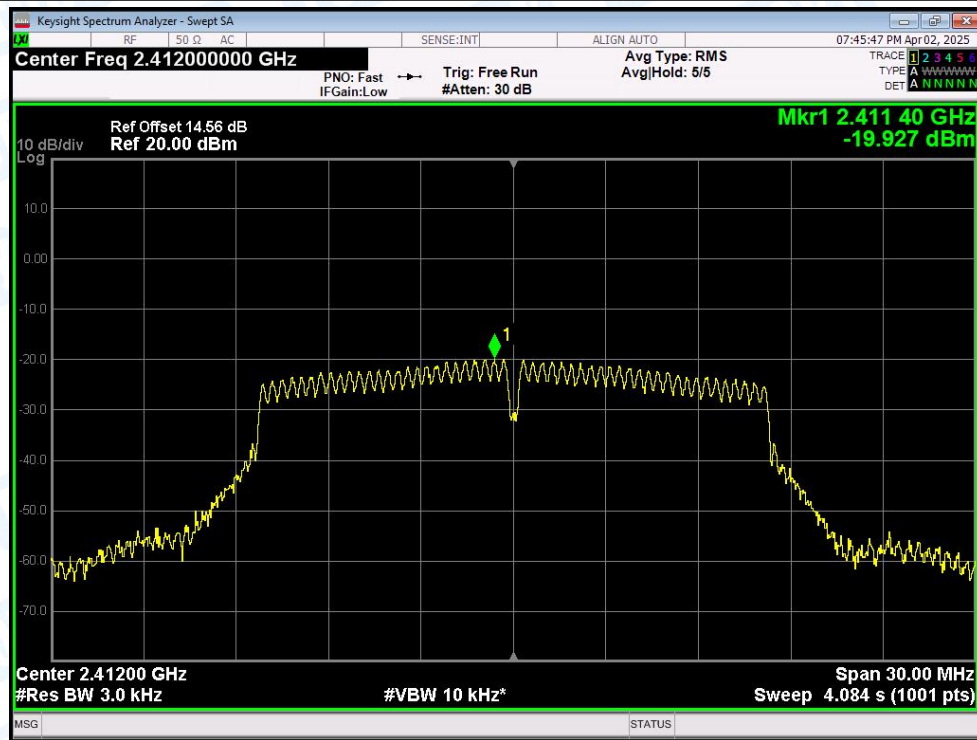




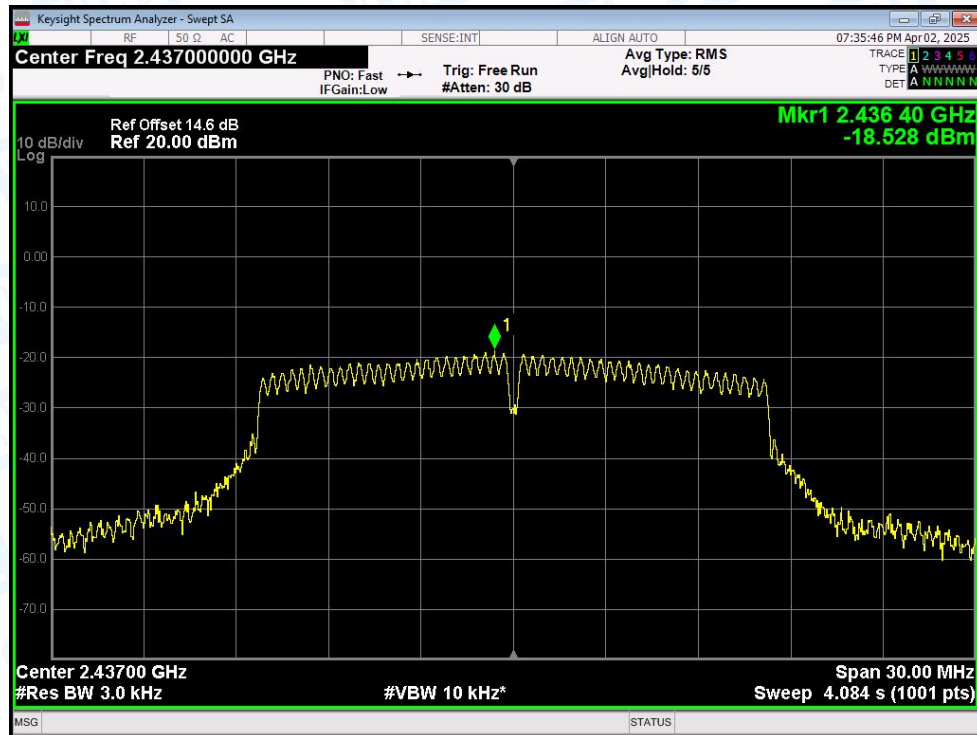
PSD NVNT b 2462MHz Ant1



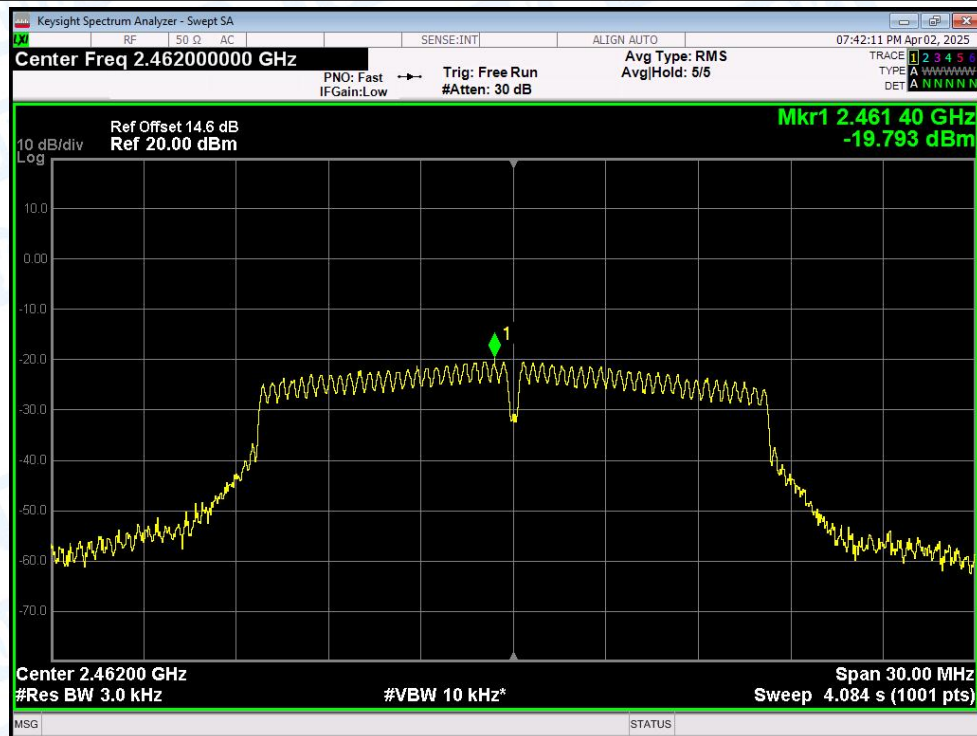
PSD NVNT g 2412MHz Ant1



PSD NVNT g 2437MHz Ant1

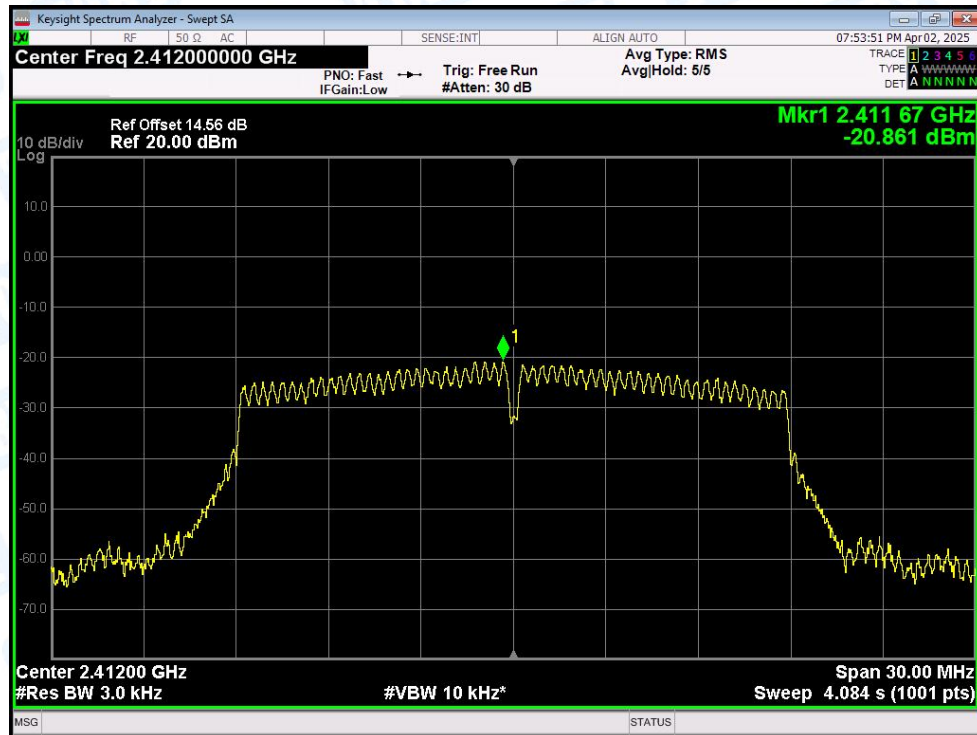


PSD NVNT g 2462MHz Ant1

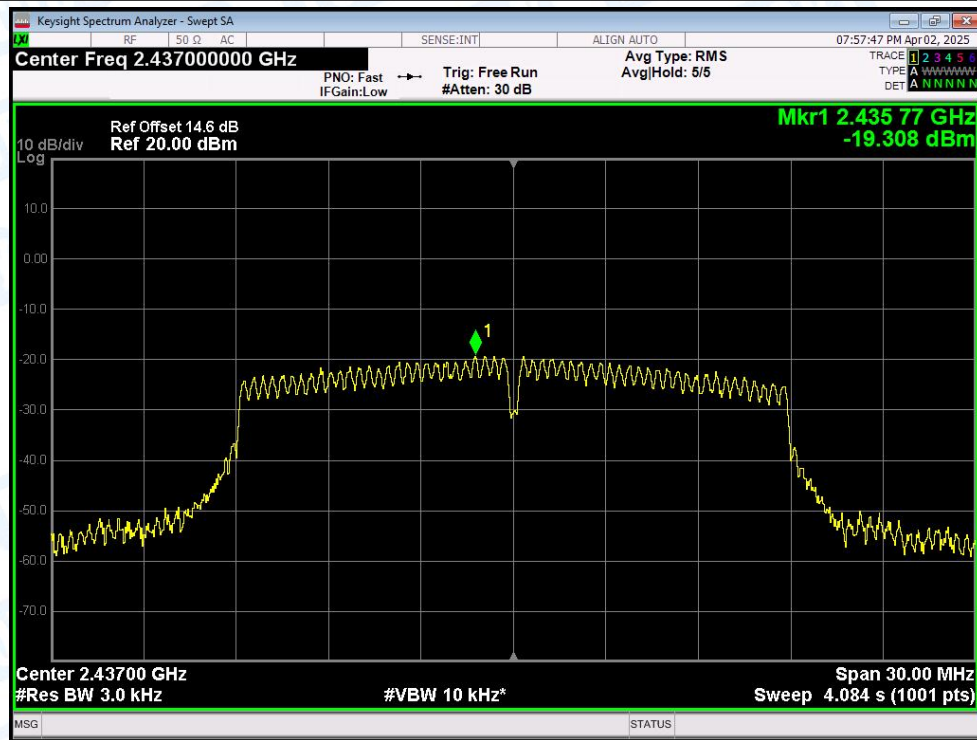




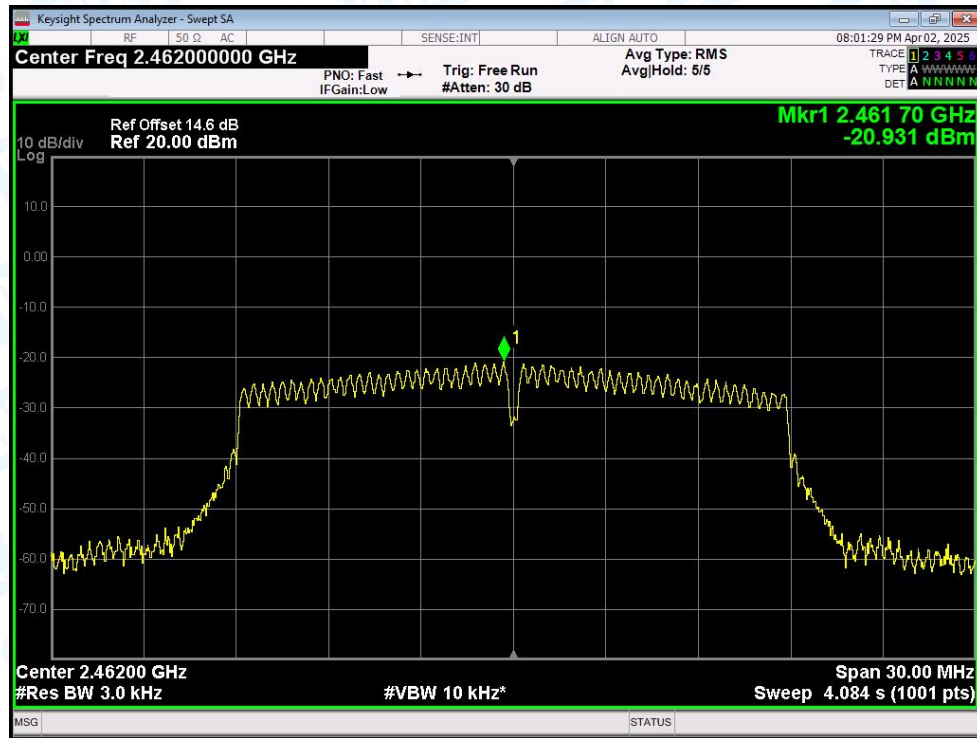
PSD NVNT n(HT20) 2412MHz Ant1



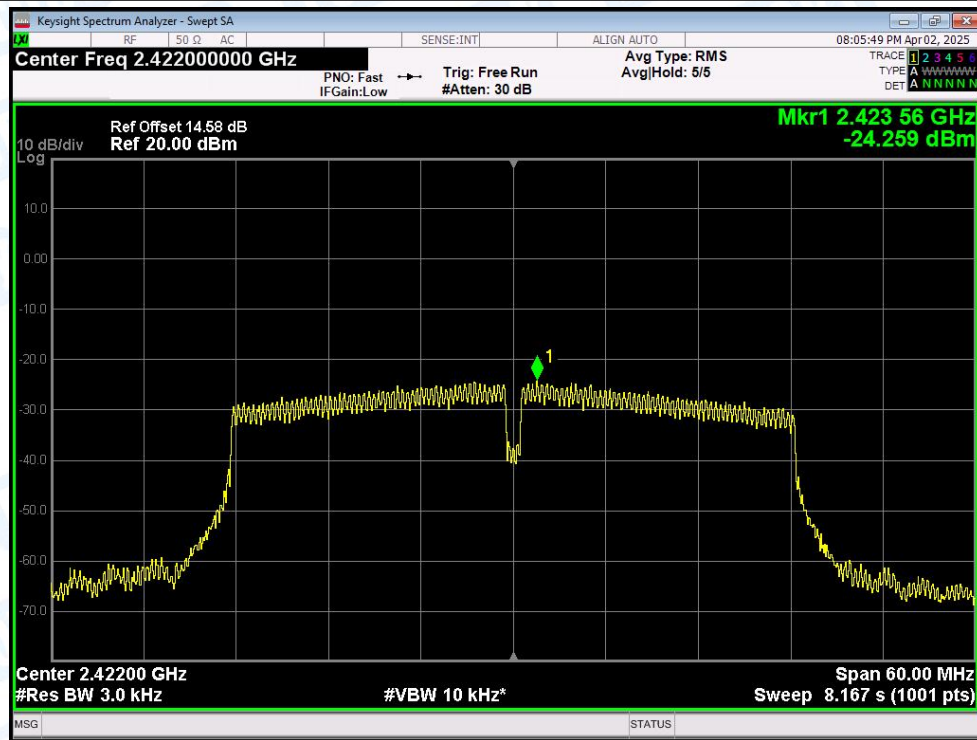
PSD NVNT n(HT20) 2437MHz Ant1



PSD NVNT n(HT20) 2462MHz Ant1

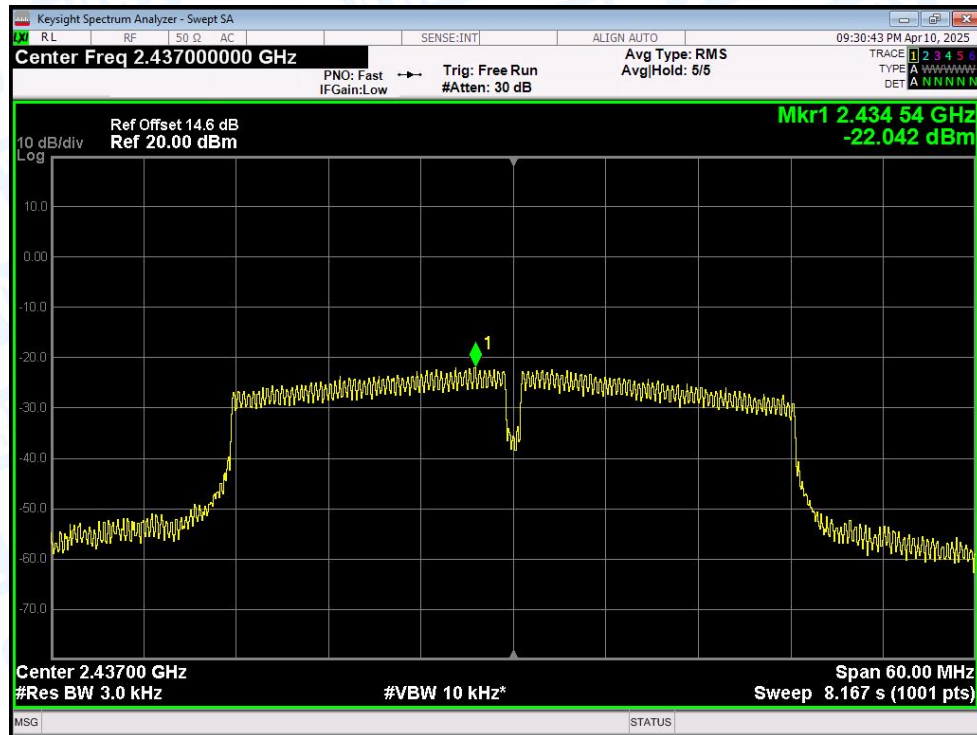


PSD NVNT n(HT40) 2422MHz Ant1

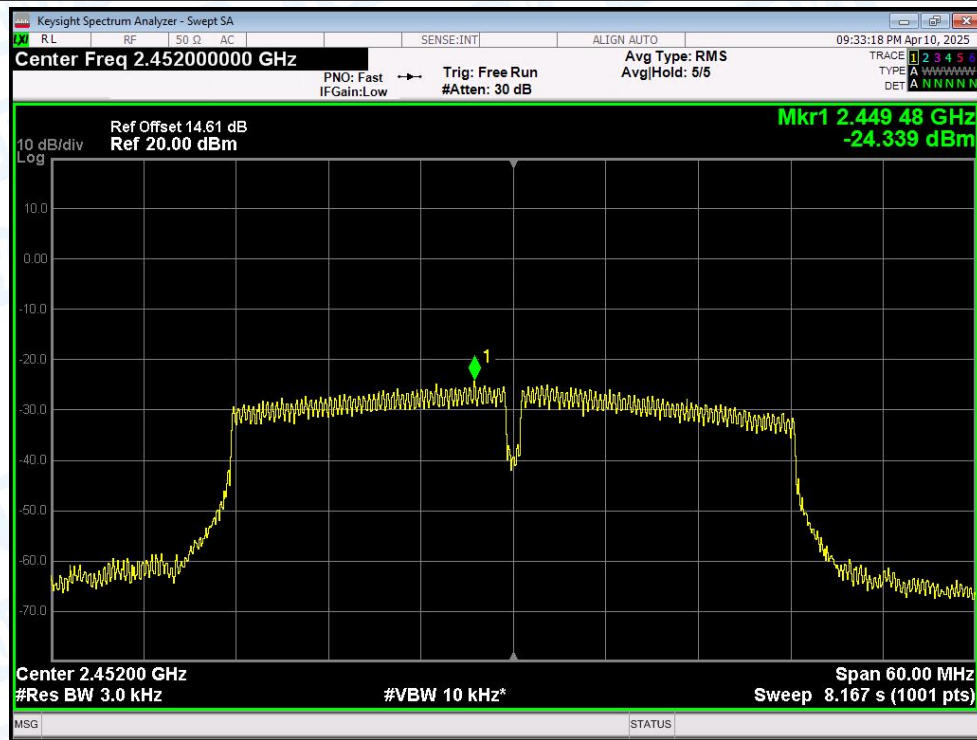




PSD NVNT n(HT40) 2437MHz Ant1



PSD NVNT n(HT40) 2452MHz Ant1



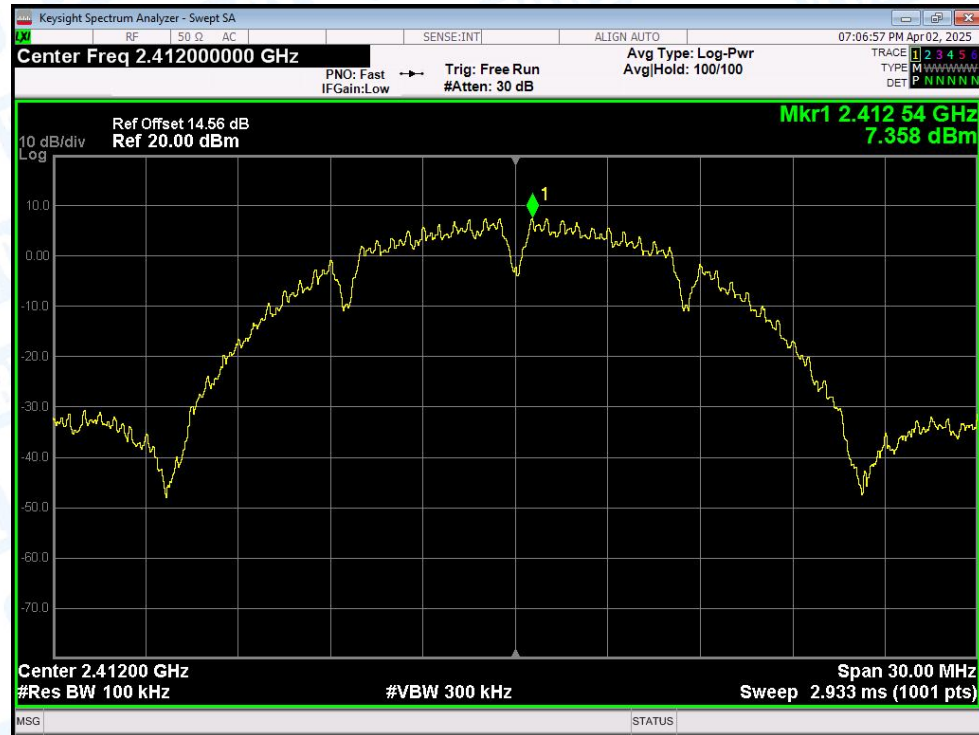
## 6. Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-50.8	-30	Pass
NVNT	b	2462	Ant1	-51.94	-30	Pass
NVNT	g	2412	Ant1	-46.57	-30	Pass
NVNT	g	2462	Ant1	-46.53	-30	Pass
NVNT	n(HT20)	2412	Ant1	-47.32	-30	Pass
NVNT	n(HT20)	2462	Ant1	-45.69	-30	Pass
NVNT	n(HT40)	2422	Ant1	-37.7	-30	Pass
NVNT	n(HT40)	2452	Ant1	-38.14	-30	Pass

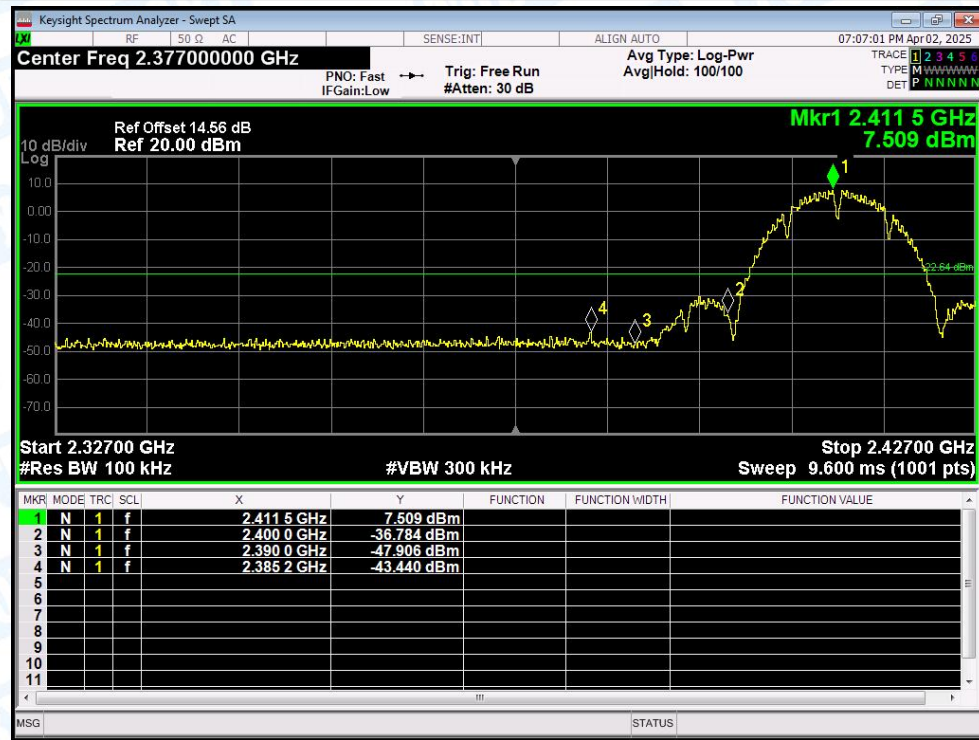


### Test Graphs

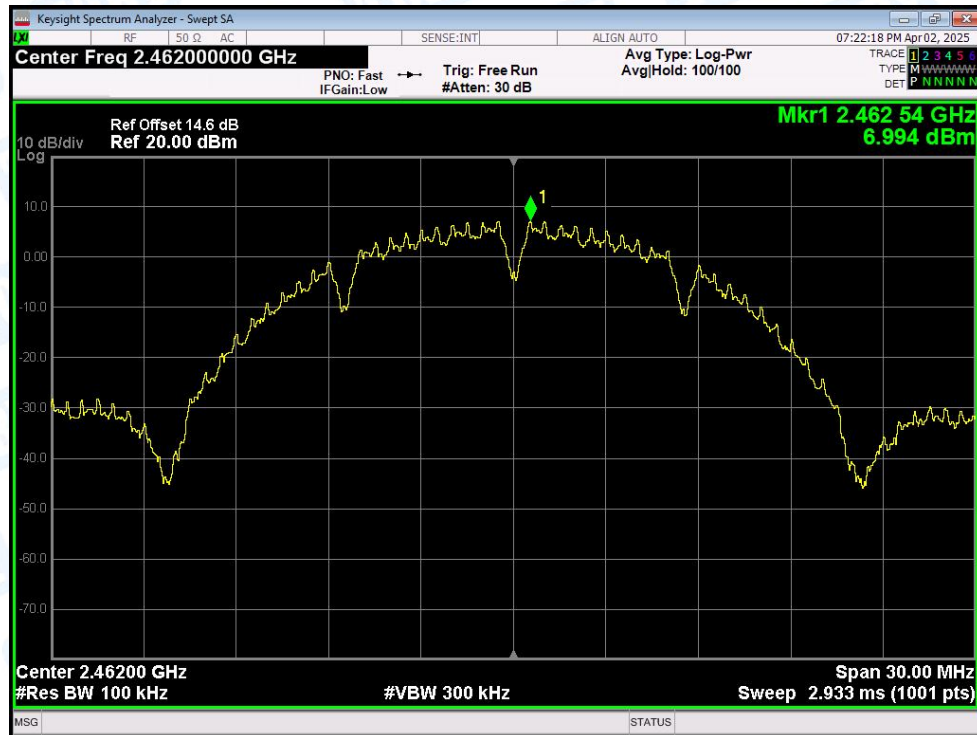
#### Band Edge NVNT b 2412MHz Ant1 Ref



#### Band Edge NVNT b 2412MHz Ant1 Emission



### Band Edge NVNT b 2462MHz Ant1 Ref

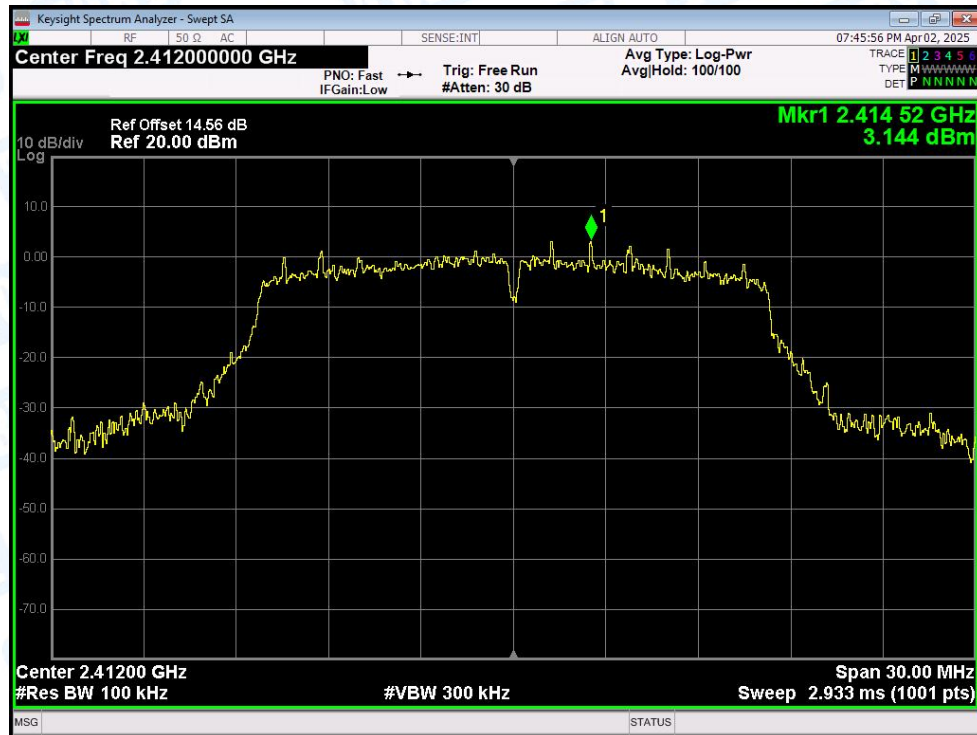


### Band Edge NVNT b 2462MHz Ant1 Emission

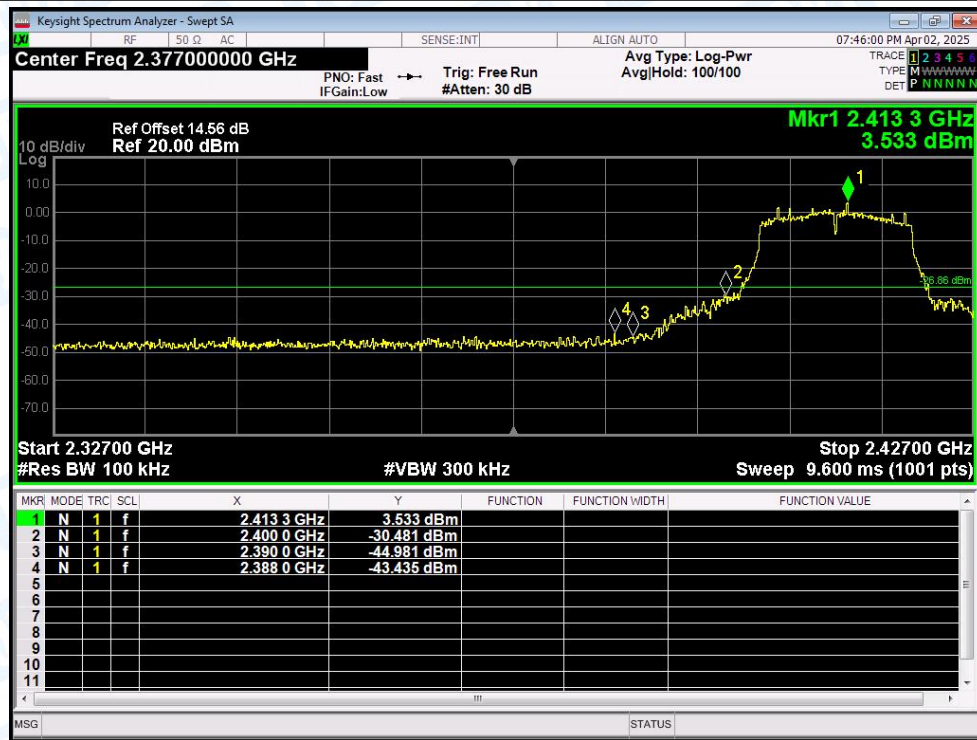




### Band Edge NVNT g 2412MHz Ant1 Ref



### Band Edge NVNT g 2412MHz Ant1 Emission



### Band Edge NVNT g 2462MHz Ant1 Ref

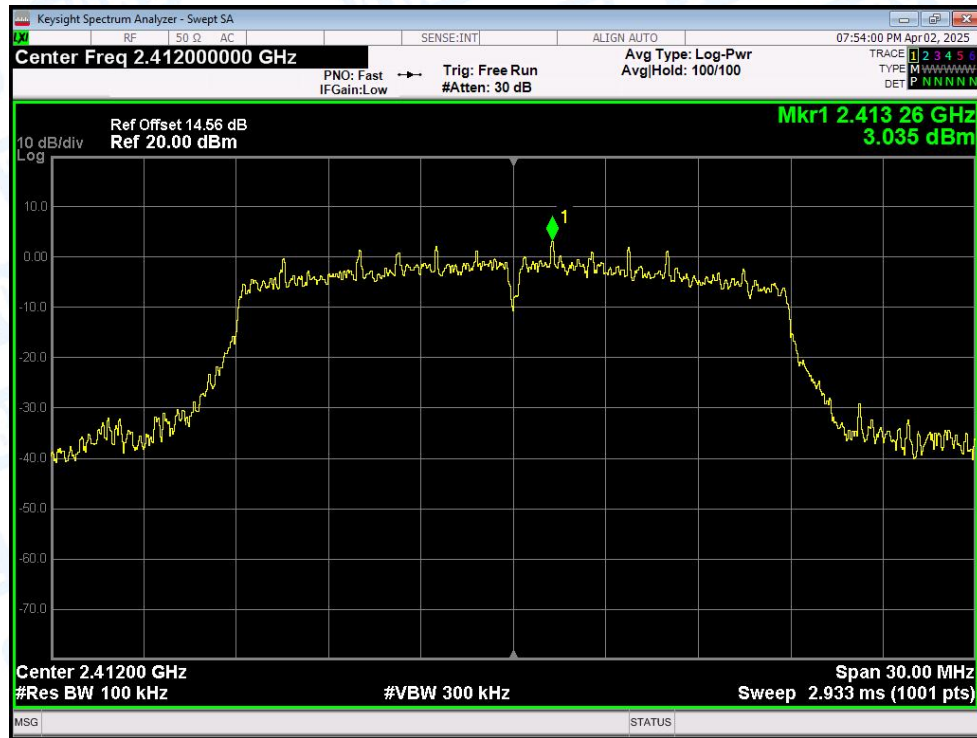


### Band Edge NVNT g 2462MHz Ant1 Emission

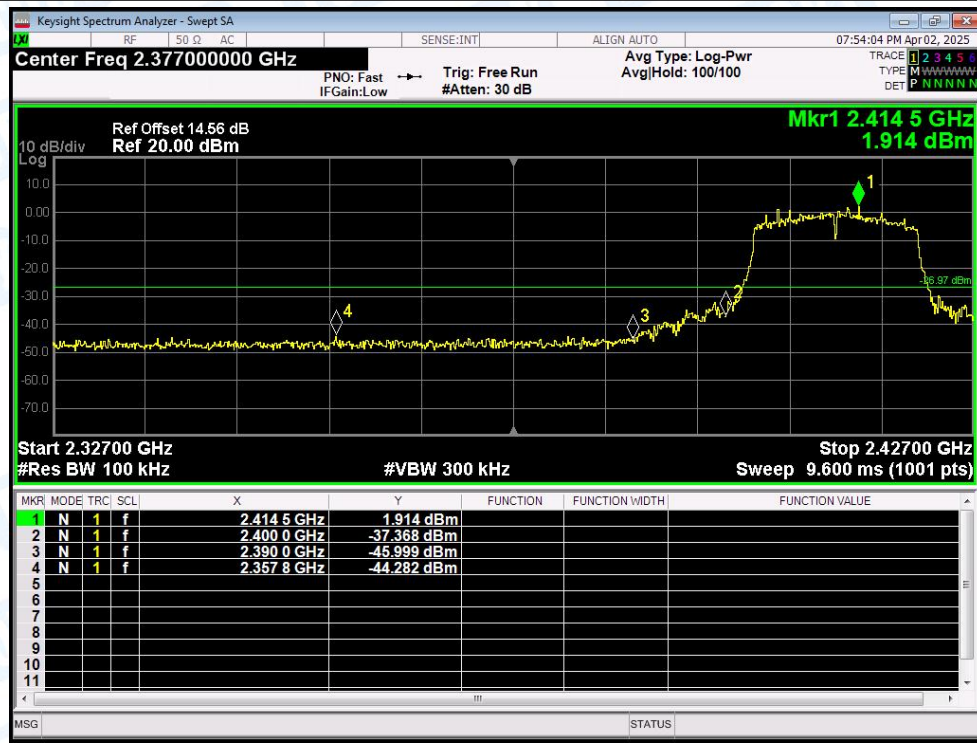




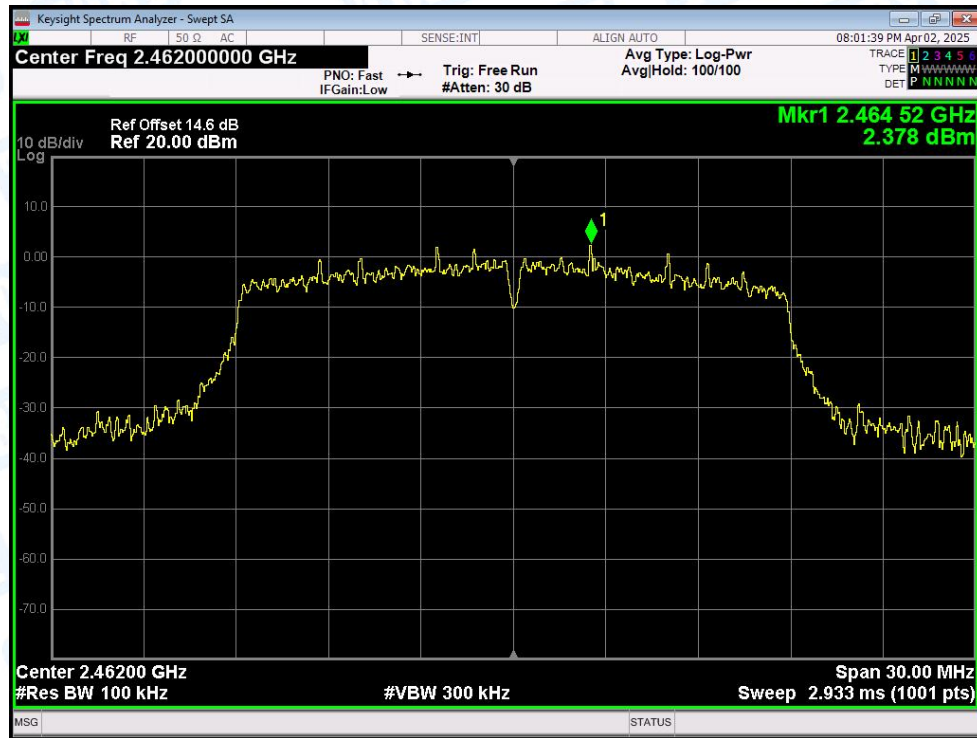
Band Edge NVNT n(HT20) 2412MHz Ant1 Ref



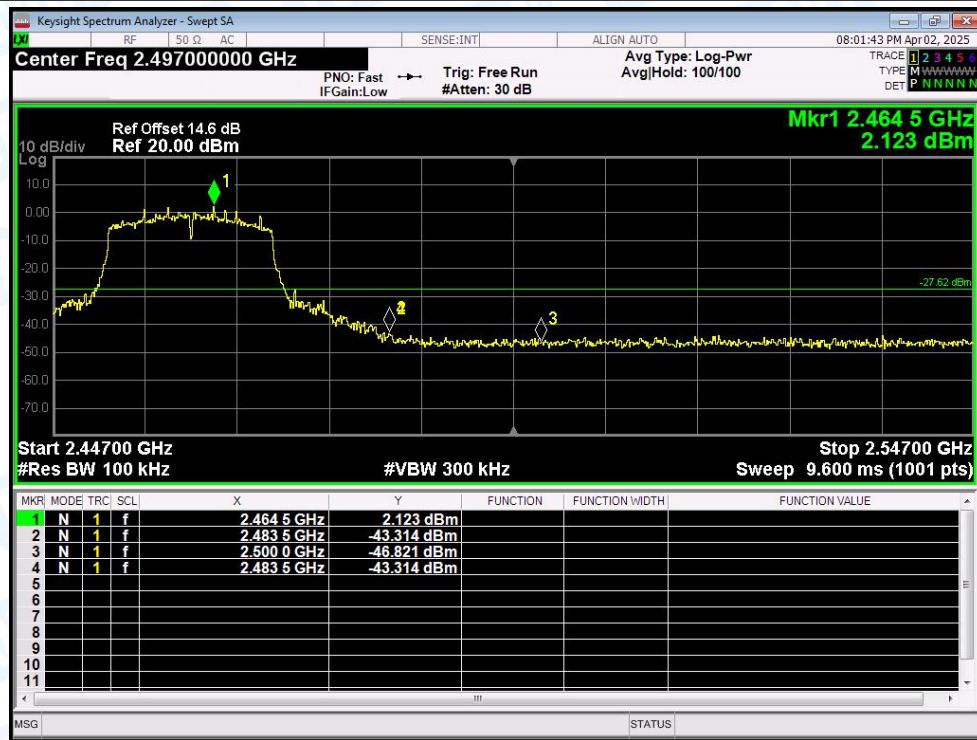
Band Edge NVNT n(HT20) 2412MHz Ant1 Emission



Band Edge NVNT n(HT20) 2462MHz Ant1 Ref

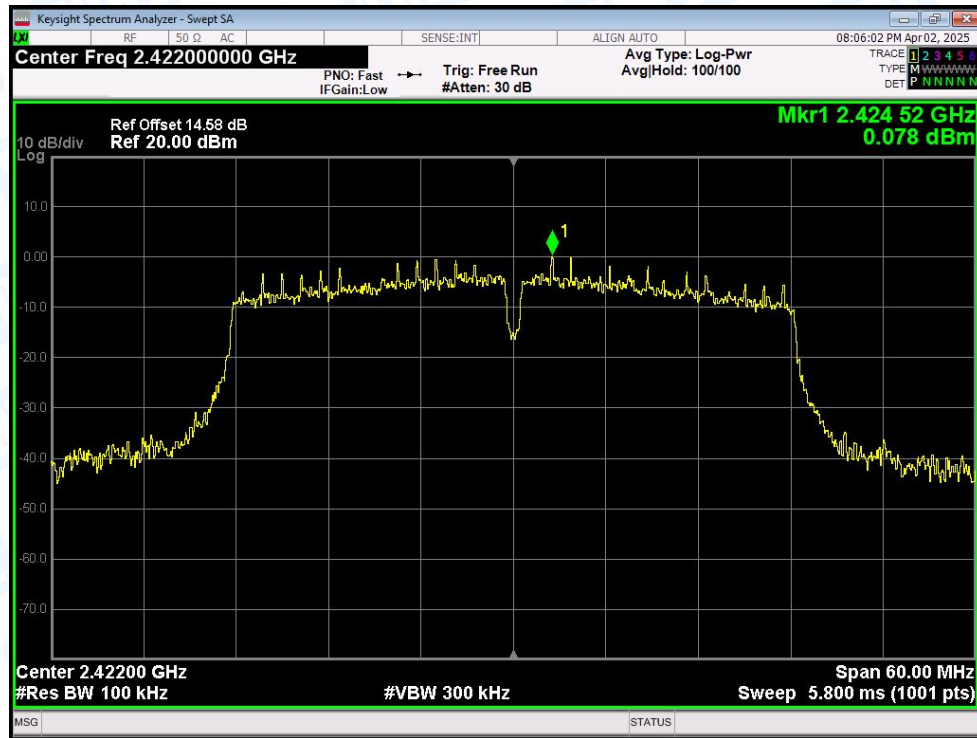


Band Edge NVNT n(HT20) 2462MHz Ant1 Emission

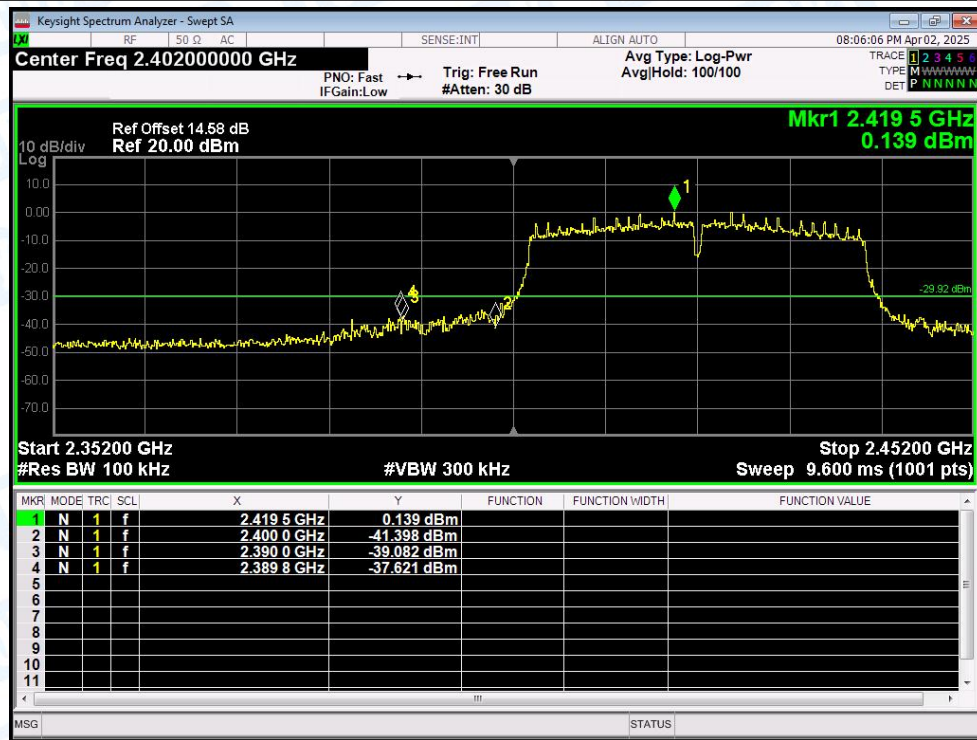




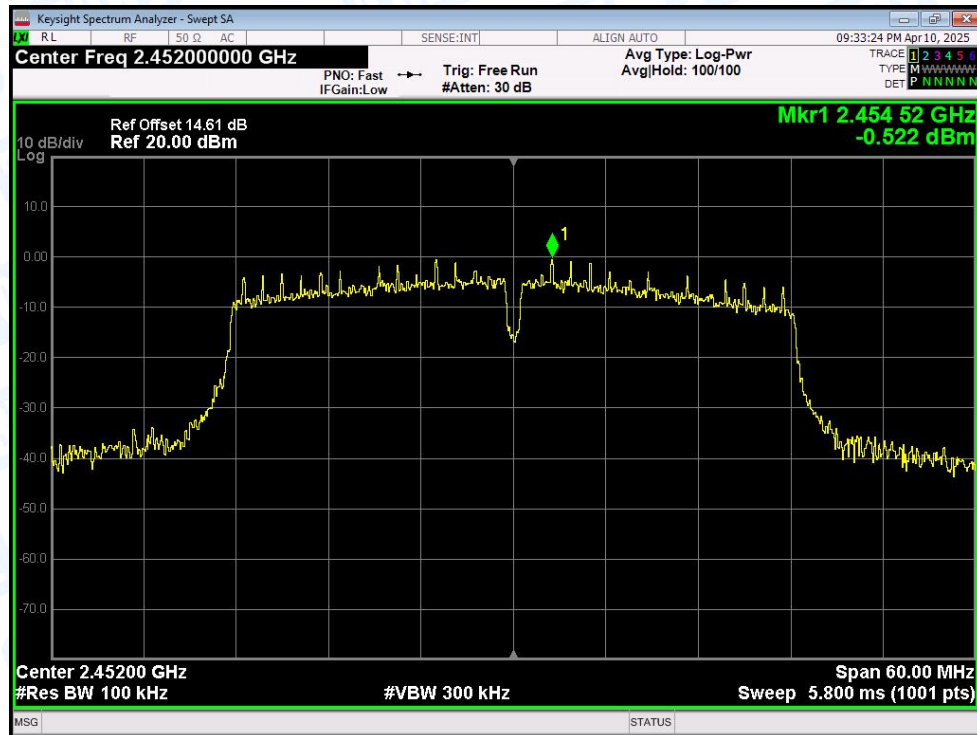
Band Edge NVNT n(HT40) 2422MHz Ant1 Ref



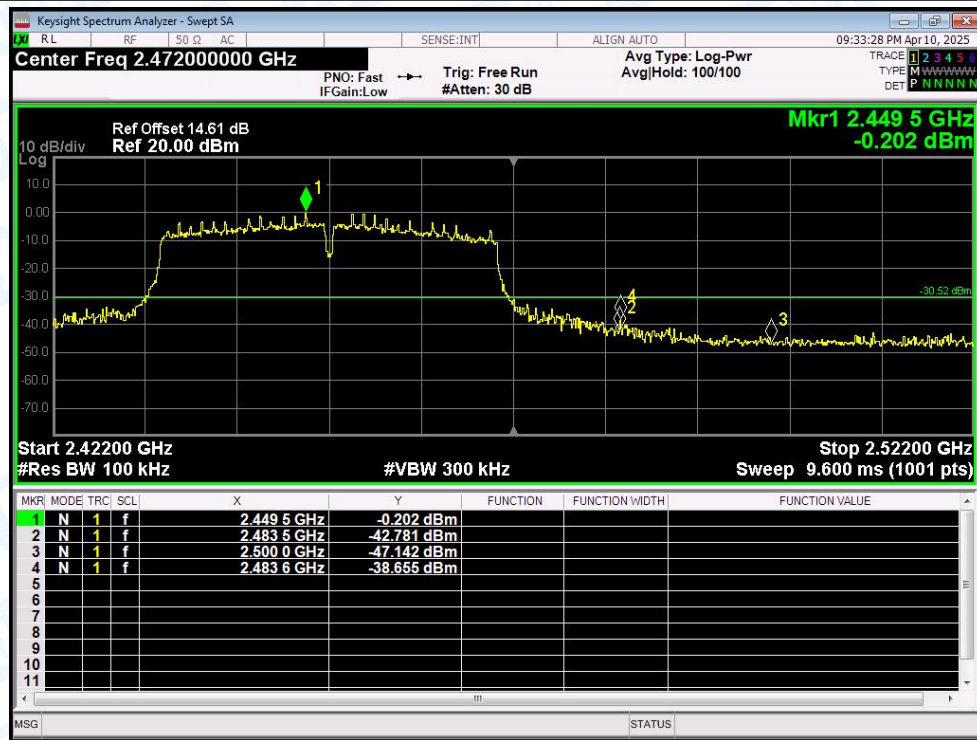
Band Edge NVNT n(HT40) 2422MHz Ant1 Emission



Band Edge NVNT n(HT40) 2452MHz Ant1 Ref



Band Edge NVNT n(HT40) 2452MHz Ant1 Emission



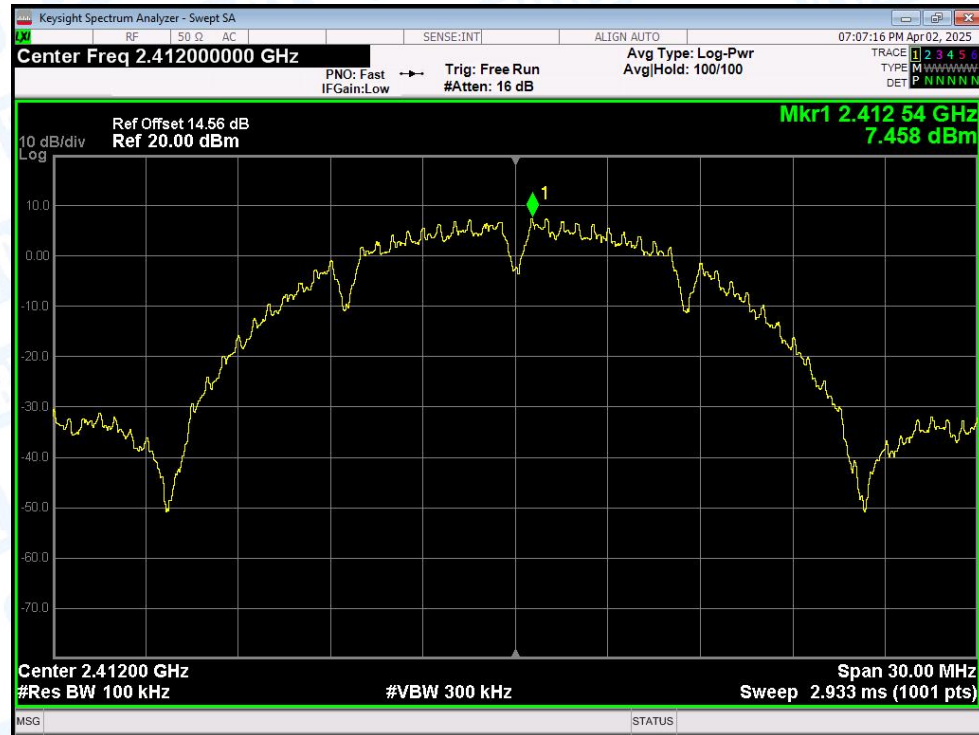


## 7. Conducted RF Spurious Emission

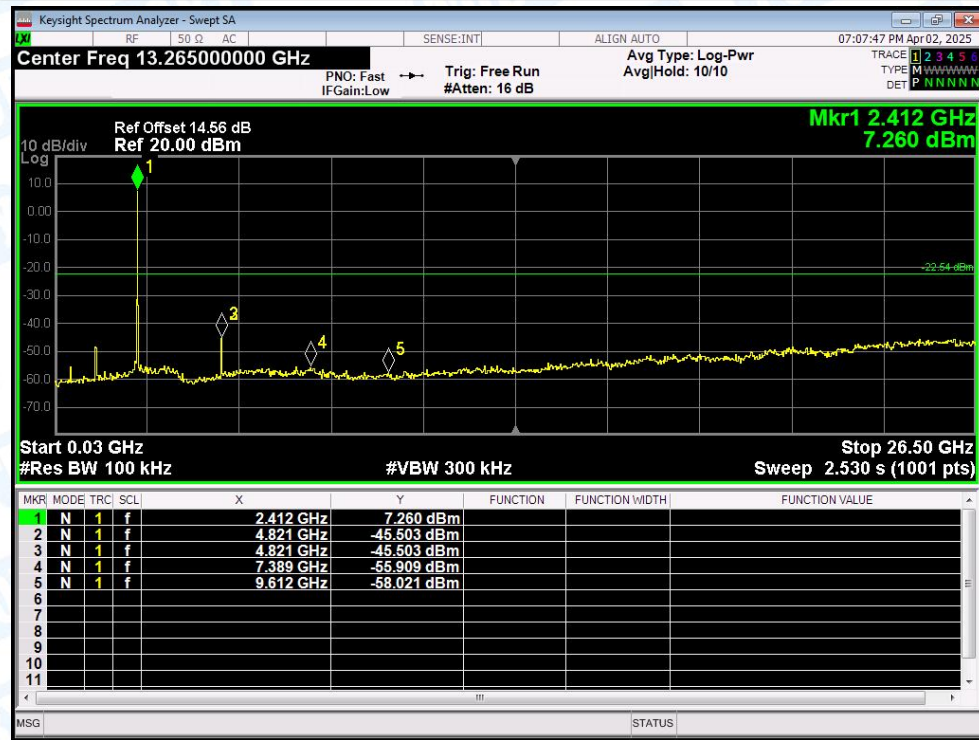
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-52.96	-30	Pass
NVNT	b	2437	Ant1	-52.15	-30	Pass
NVNT	b	2462	Ant1	-50.35	-30	Pass
NVNT	g	2412	Ant1	-48.92	-30	Pass
NVNT	g	2437	Ant1	-48.44	-30	Pass
NVNT	g	2462	Ant1	-47.96	-30	Pass
NVNT	n(HT20)	2412	Ant1	-49.25	-30	Pass
NVNT	n(HT20)	2437	Ant1	-50.45	-30	Pass
NVNT	n(HT20)	2462	Ant1	-47.3	-30	Pass
NVNT	n(HT40)	2422	Ant1	-32.13	-30	Pass
NVNT	n(HT40)	2437	Ant1	-38.78	-30	Pass
NVNT	n(HT40)	2452	Ant1	-44.89	-30	Pass

### Test Graphs

#### Tx. Spurious NVNT b 2412MHz Ant1 Ref



#### Tx. Spurious NVNT b 2412MHz Ant1 Emission

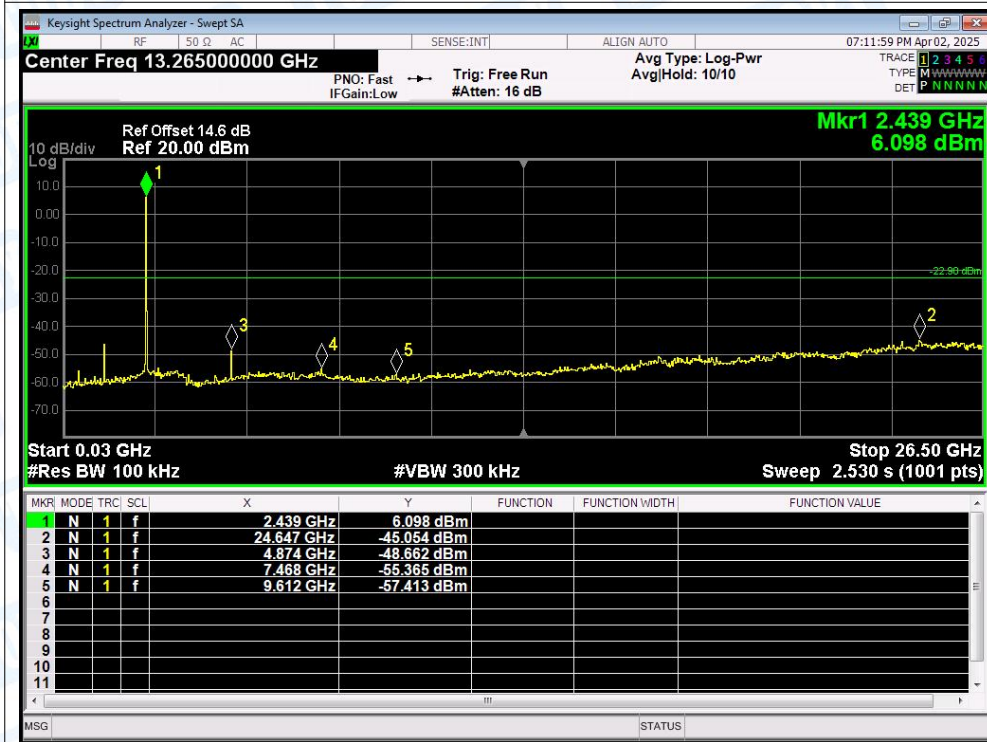




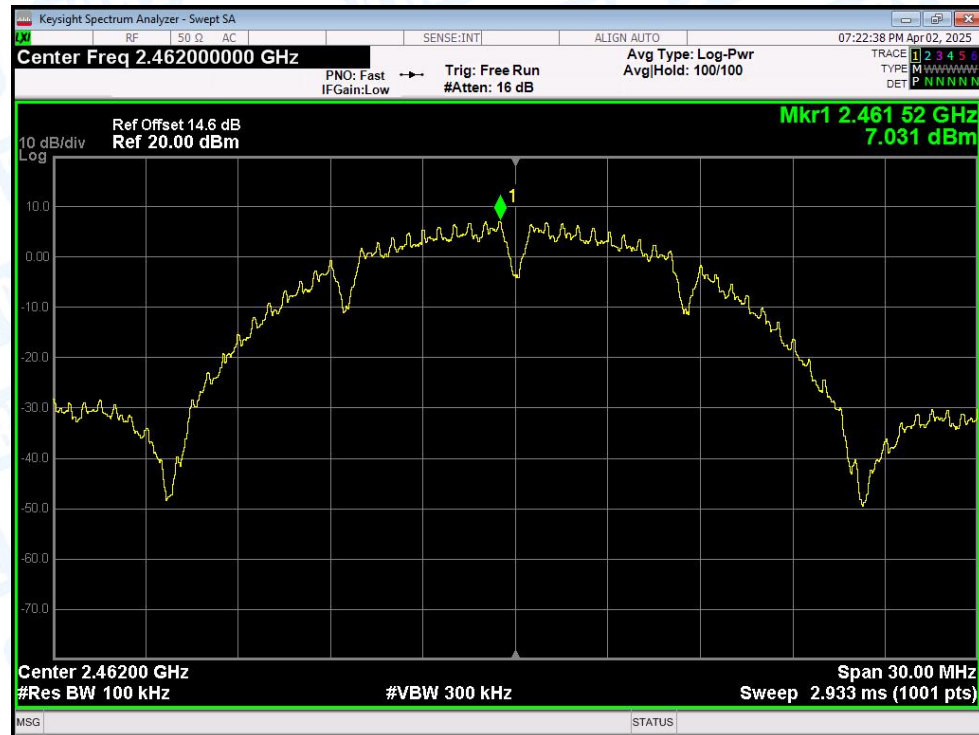
Tx. Spurious NVNT b 2437MHz Ant1 Ref



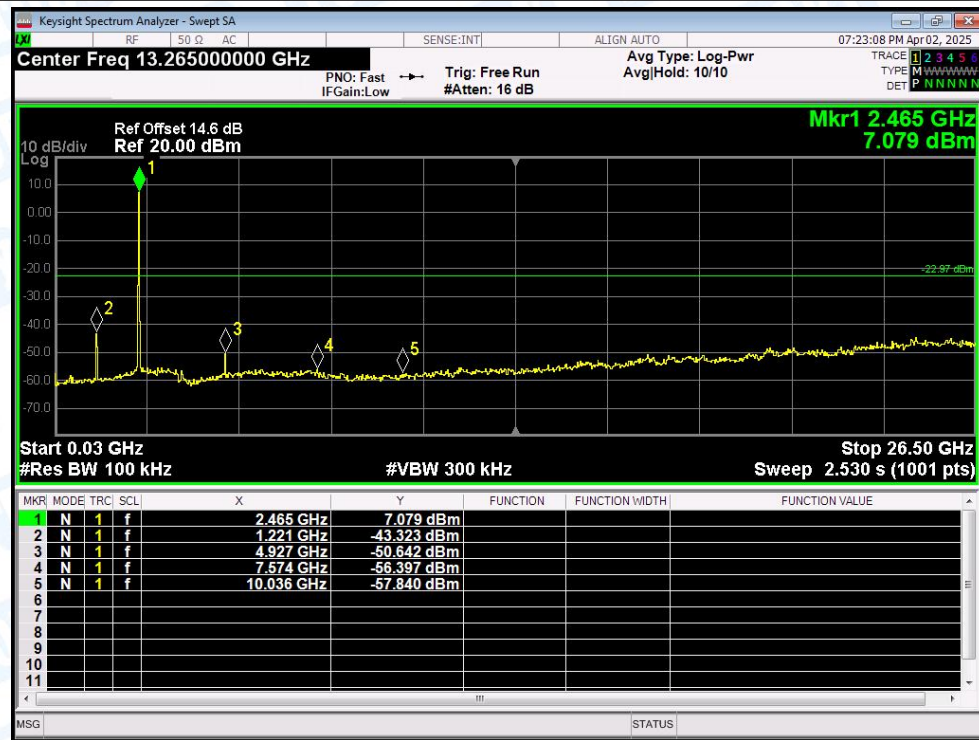
Tx. Spurious NVNT b 2437MHz Ant1 Emission



Tx. Spurious NVNT b 2462MHz Ant1 Ref

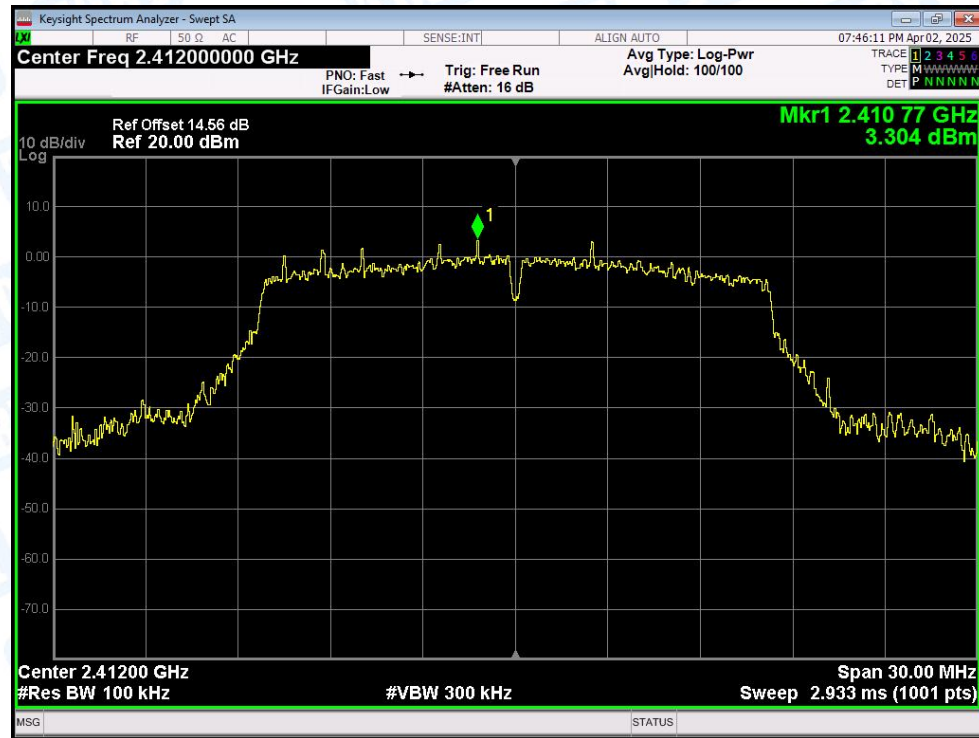


Tx. Spurious NVNT b 2462MHz Ant1 Emission

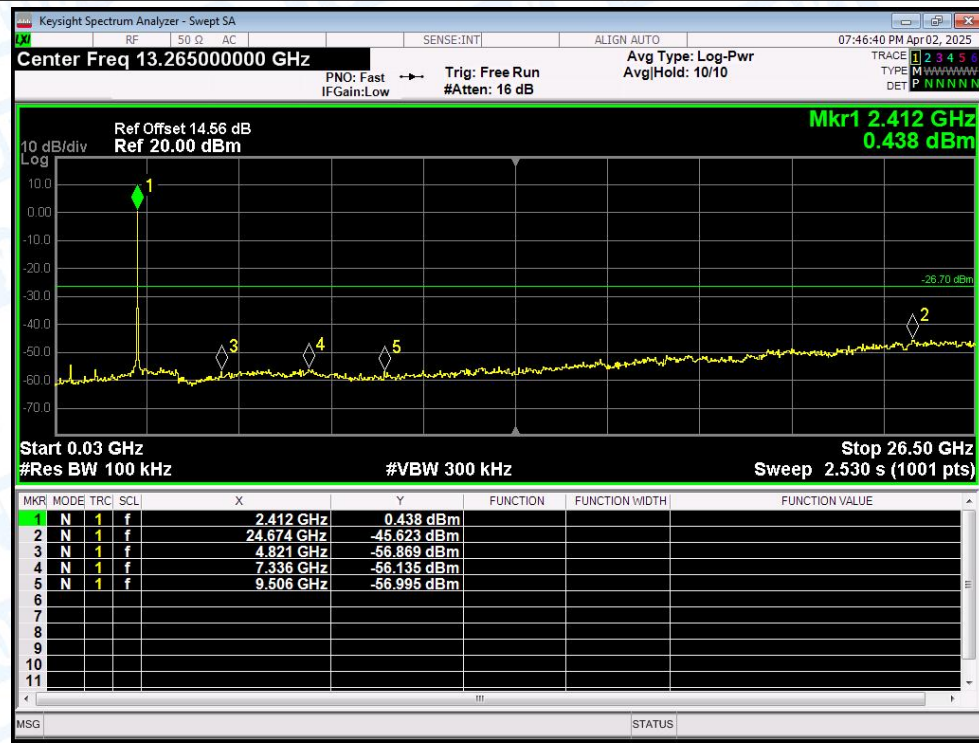




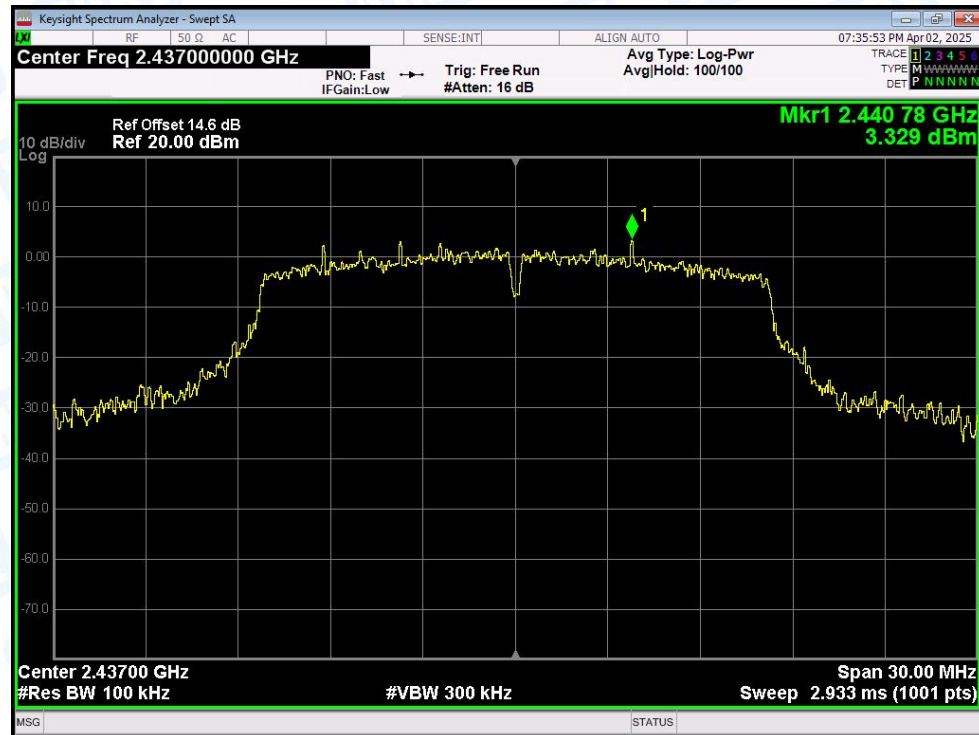
Tx. Spurious NVNT g 2412MHz Ant1 Ref



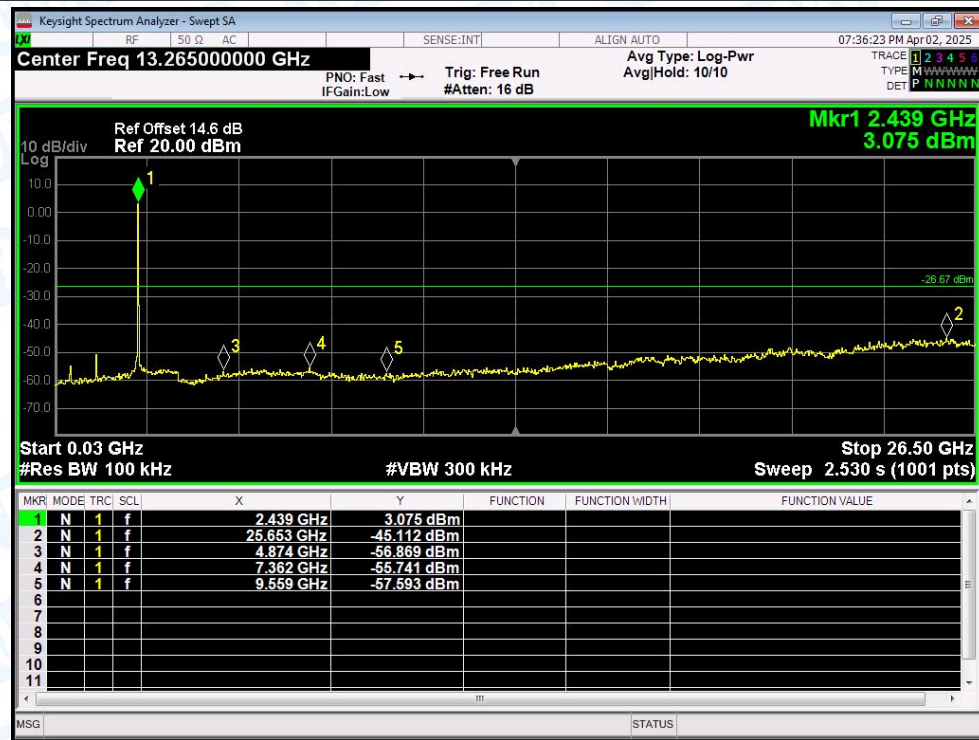
Tx. Spurious NVNT g 2412MHz Ant1 Emission



Tx. Spurious NVNT g 2437MHz Ant1 Ref



Tx. Spurious NVNT g 2437MHz Ant1 Emission

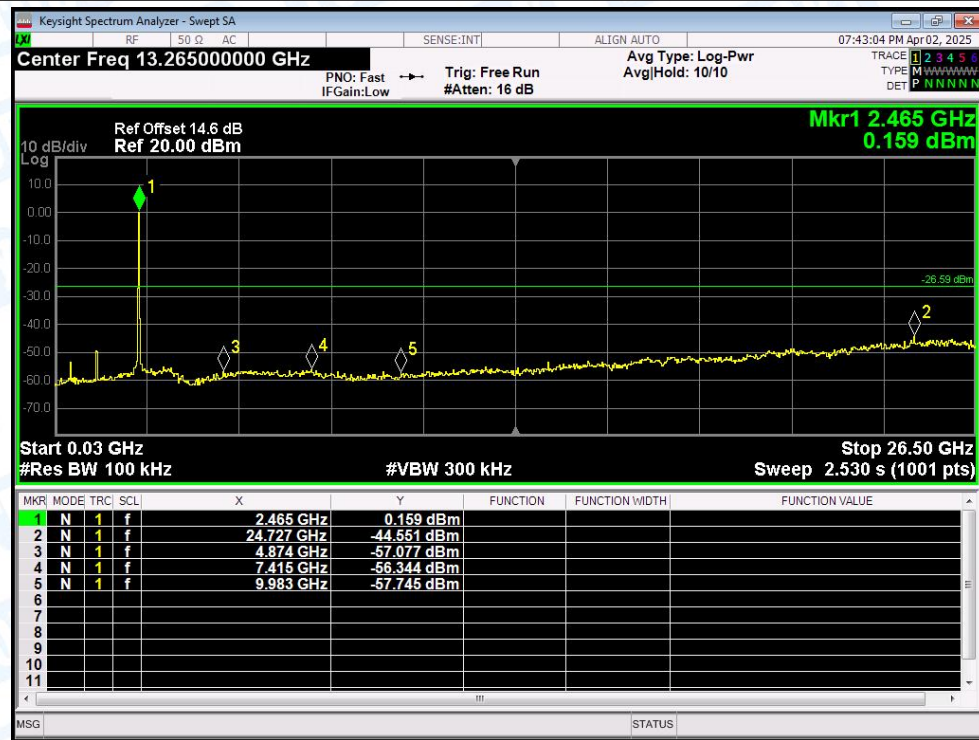




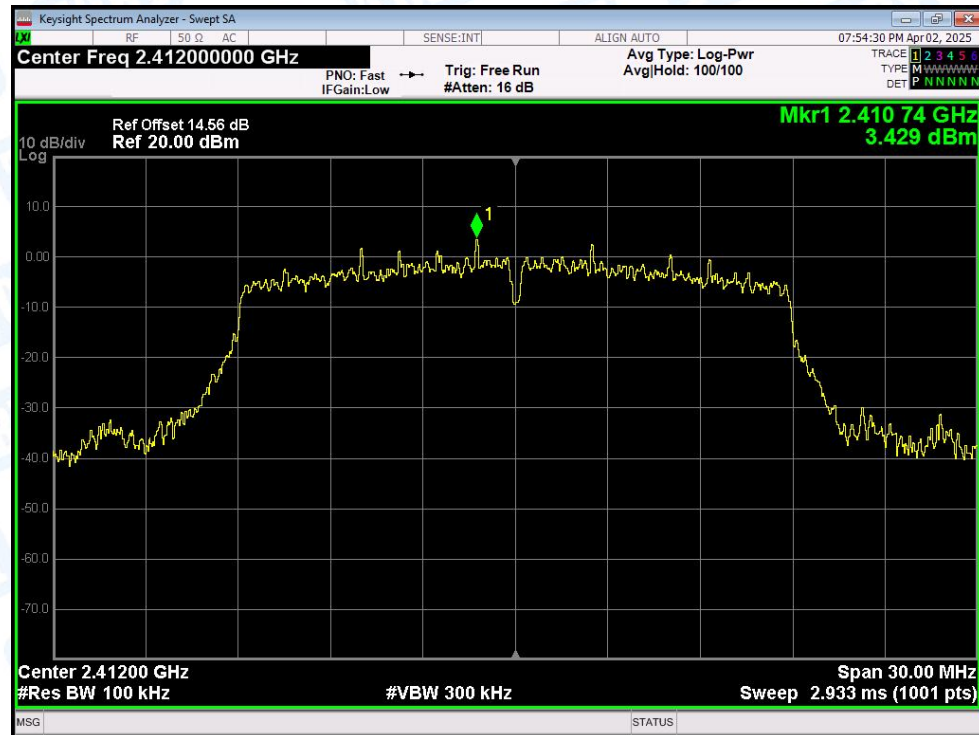
Tx. Spurious NVNT g 2462MHz Ant1 Ref



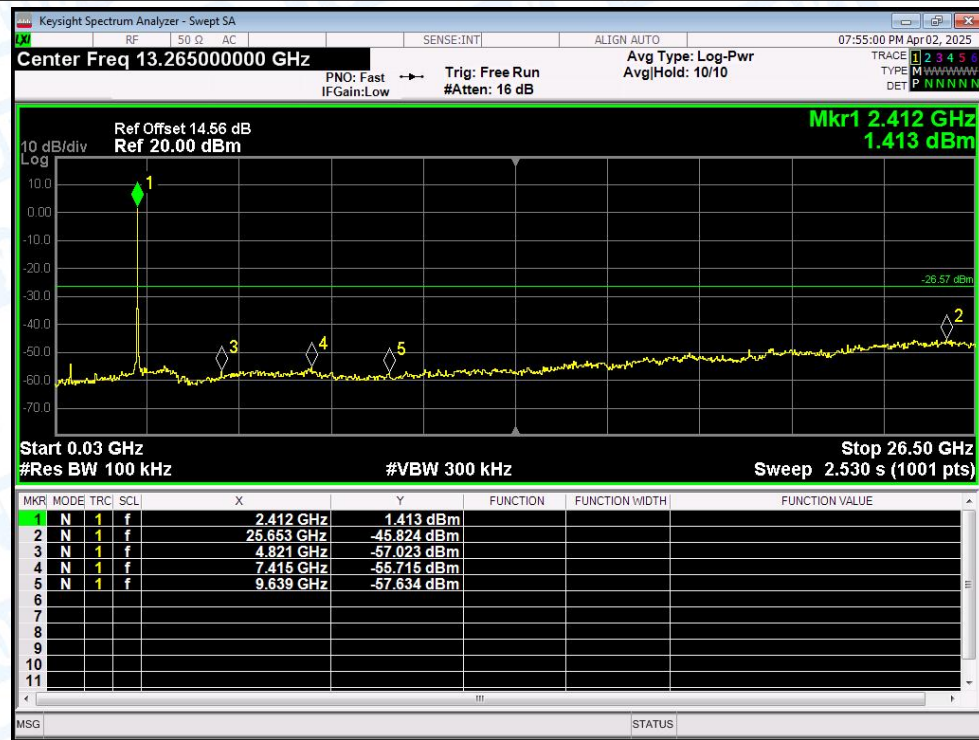
Tx. Spurious NVNT g 2462MHz Ant1 Emission



Tx. Spurious NVNT n(HT20) 2412MHz Ant1 Ref

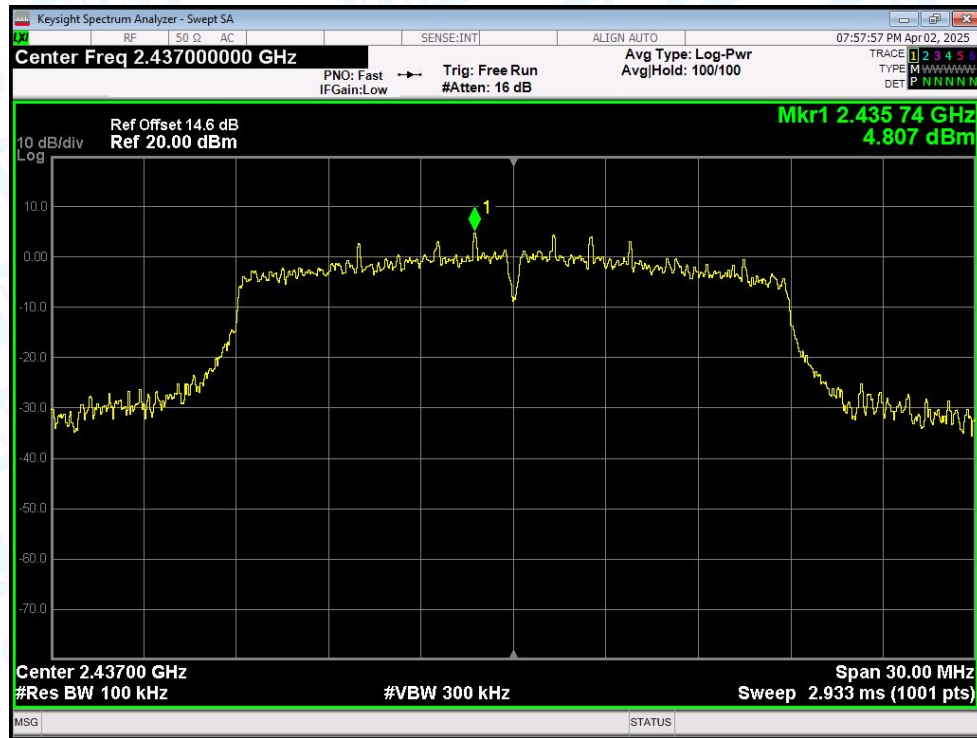


Tx. Spurious NVNT n(HT20) 2412MHz Ant1 Emission

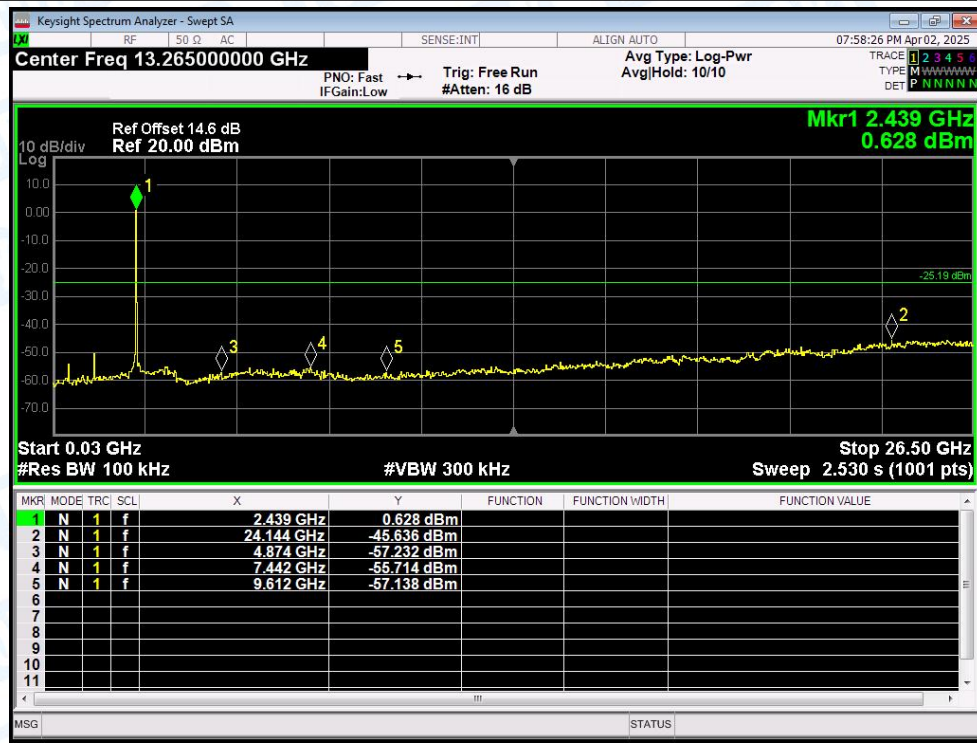




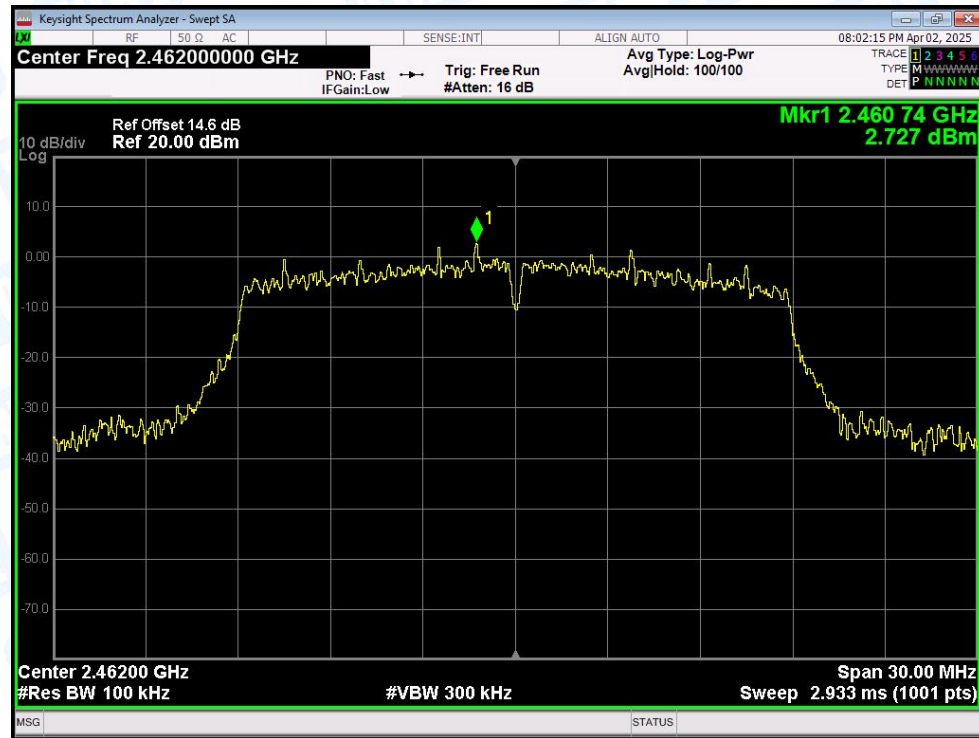
Tx. Spurious NVNT n(HT20) 2437MHz Ant1 Ref



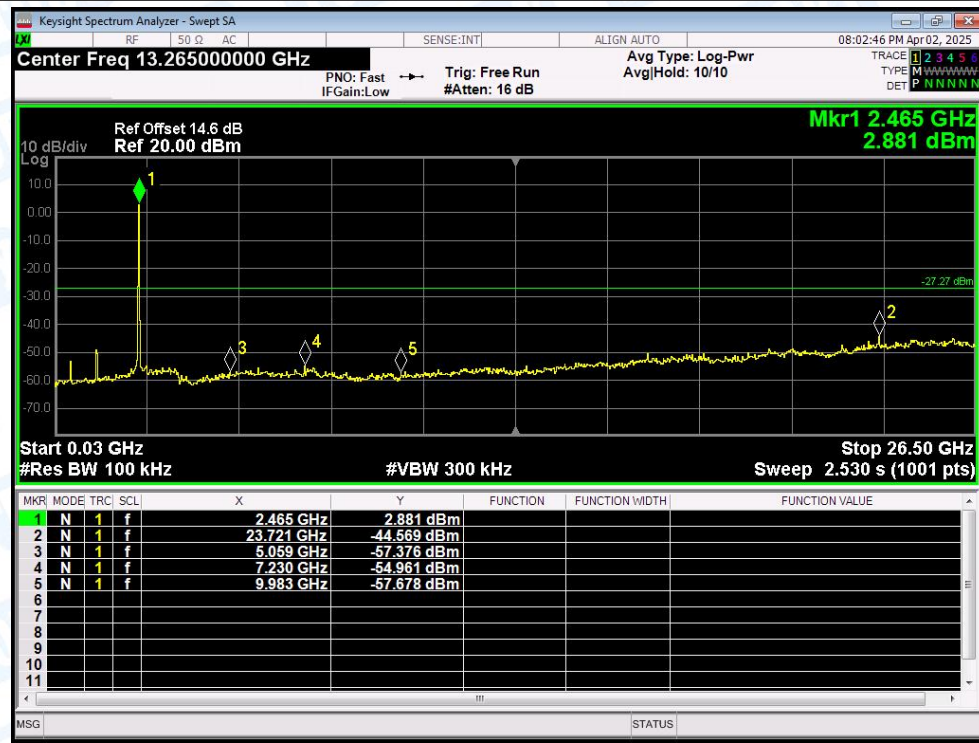
Tx. Spurious NVNT n(HT20) 2437MHz Ant1 Emission



Tx. Spurious NVNT n(HT20) 2462MHz Ant1 Ref

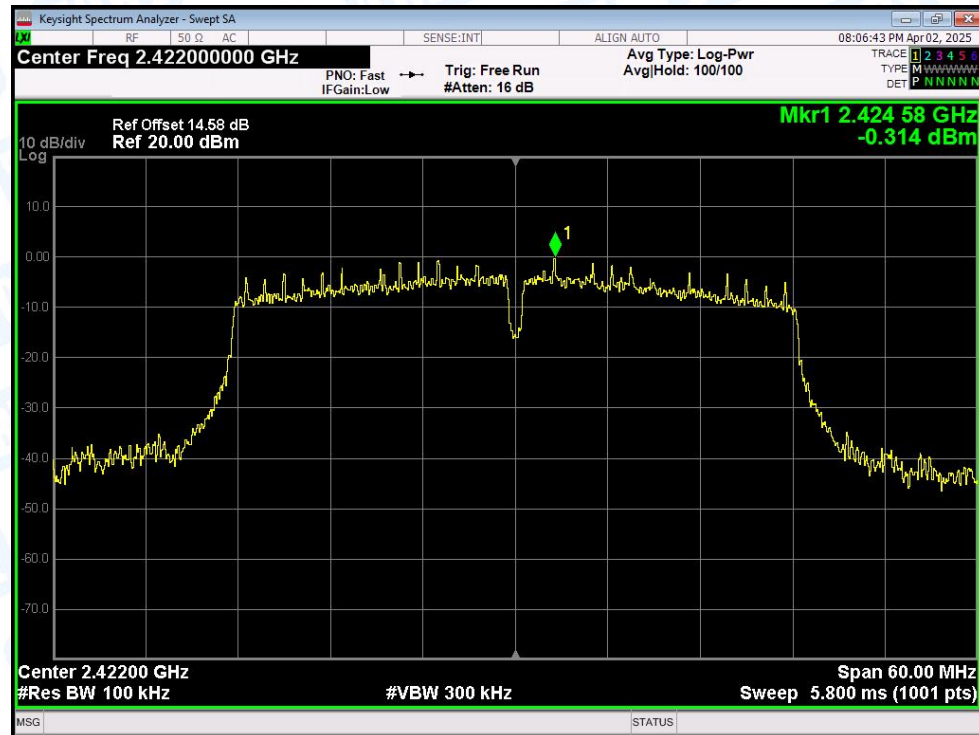


Tx. Spurious NVNT n(HT20) 2462MHz Ant1 Emission

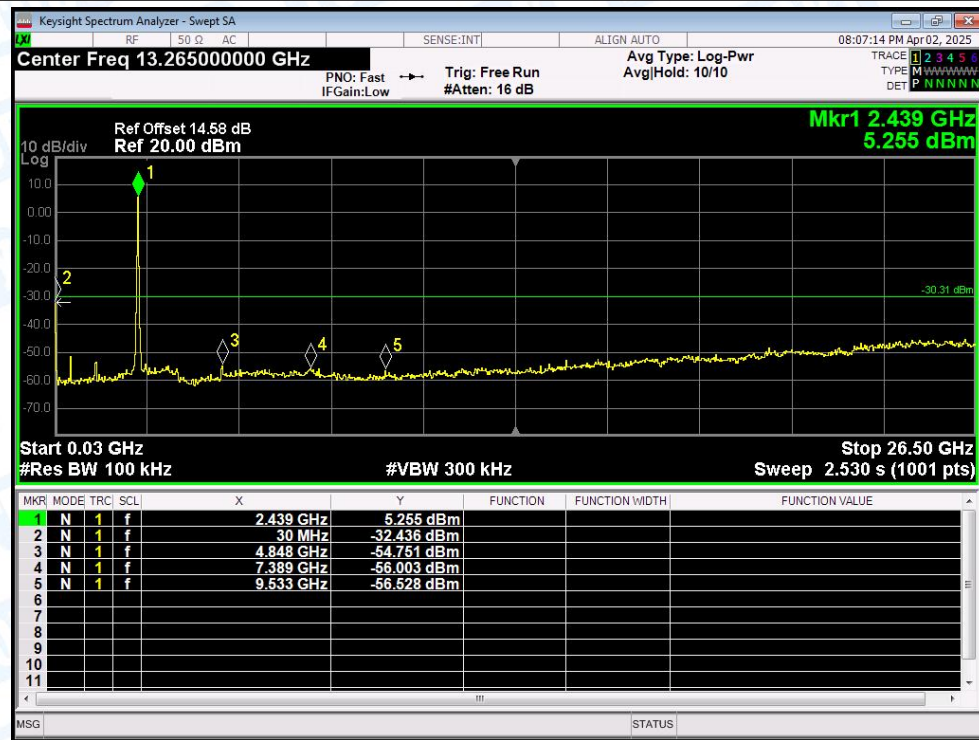




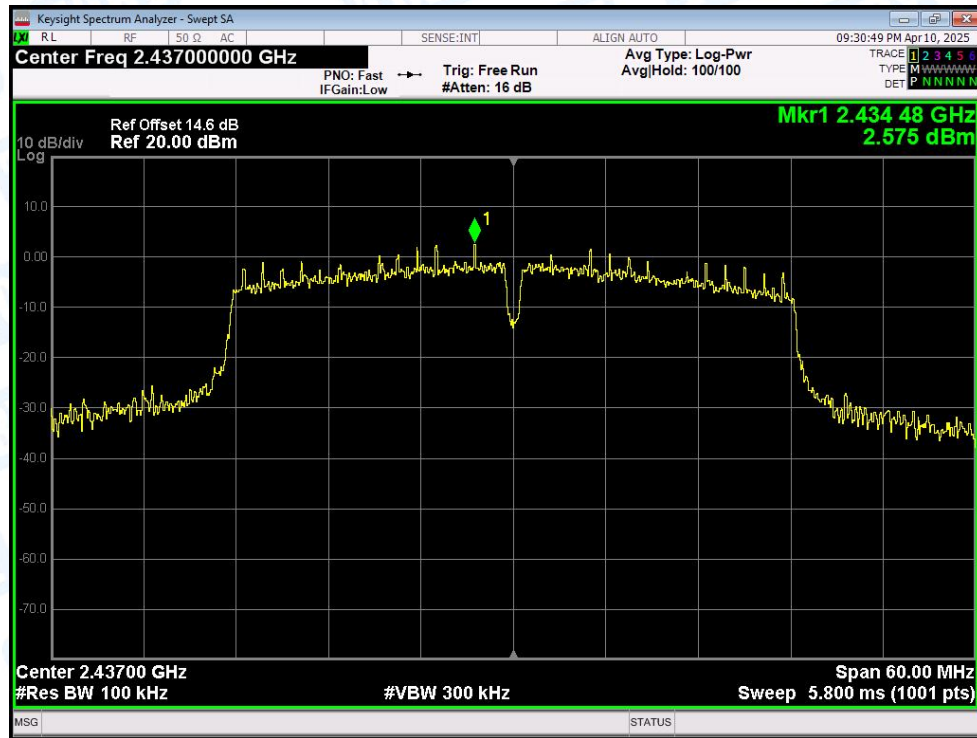
Tx. Spurious NVNT n(HT40) 2422MHz Ant1 Ref



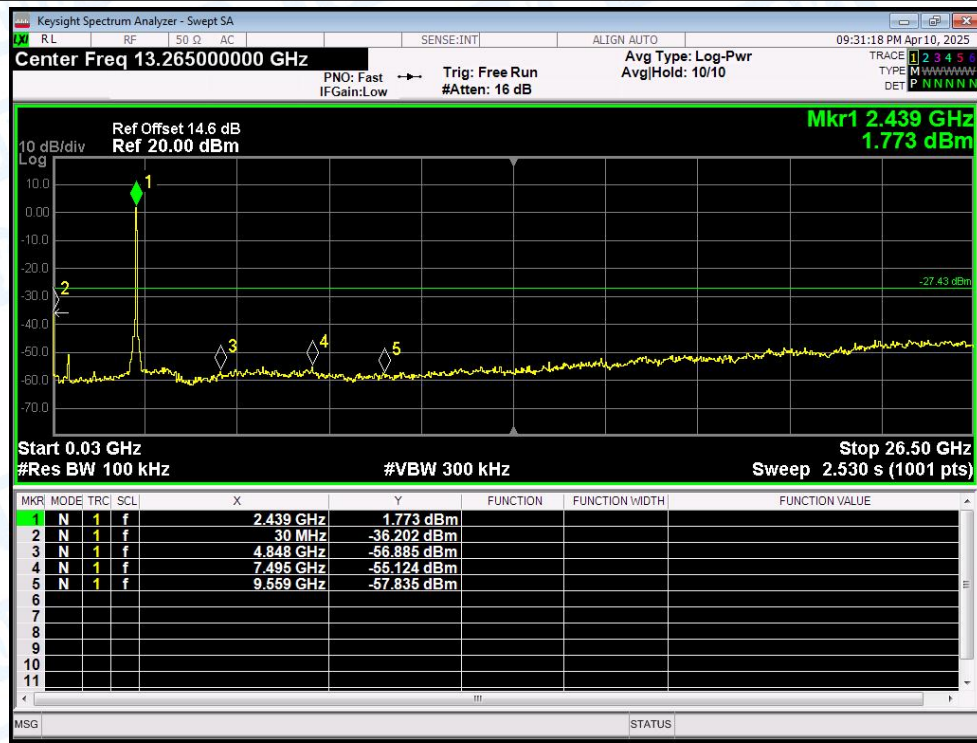
Tx. Spurious NVNT n(HT40) 2422MHz Ant1 Emission



Tx. Spurious NVNT n(HT40) 2437MHz Ant1 Ref



Tx. Spurious NVNT n(HT40) 2437MHz Ant1 Emission

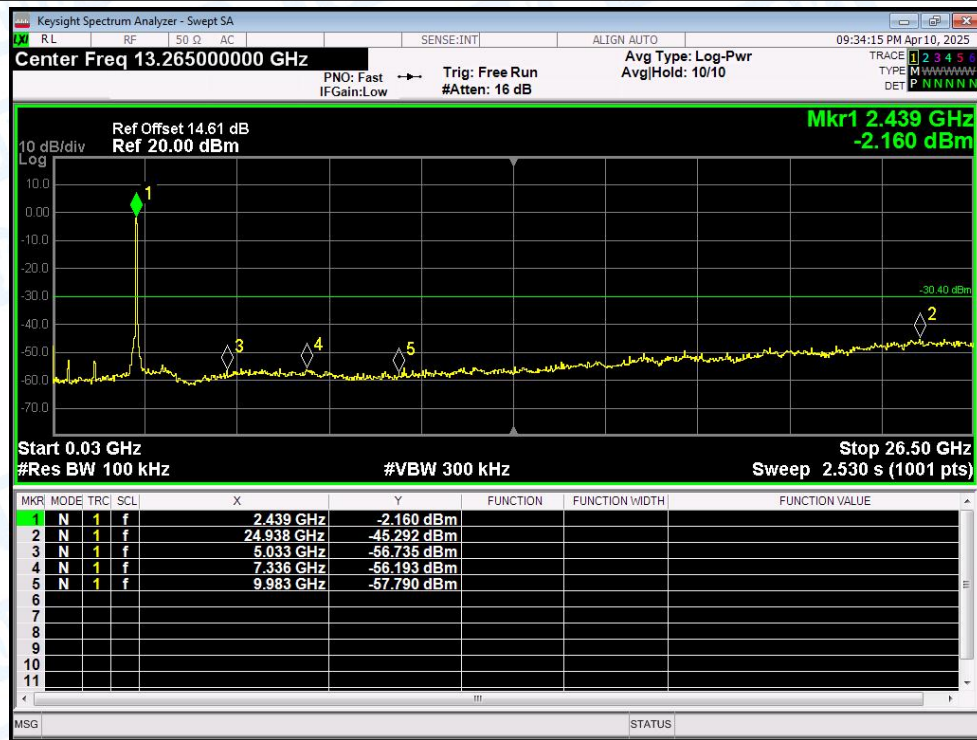




Tx. Spurious NVNT n(HT40) 2452MHz Ant1 Ref



Tx. Spurious NVNT n(HT40) 2452MHz Ant1 Emission





## 8. Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	b	2412	Ant1	2310	-50.8	6.1	-	50.56	Peak	74	Pass
NVNT	b	2412	Ant1	2310	-57.95	6.1	0.03	43.44	Average	54	Pass
NVNT	b	2412	Ant1	2383.242	-42.57	6.1	-	58.79	Peak	74	Pass
NVNT	b	2412	Ant1	2386.752	-52.17	6.1	0.03	49.22	Average	54	Pass
NVNT	b	2412	Ant1	2390	-46.22	6.1	-	55.14	Peak	74	Pass
NVNT	b	2412	Ant1	2390	-54.84	6.1	0.03	46.55	Average	54	Pass
NVNT	b	2462	Ant1	2483.5	-45.75	6.1	-	55.61	Peak	74	Pass
NVNT	b	2462	Ant1	2483.5	-53.9	6.1	0.02	47.48	Average	54	Pass
NVNT	b	2462	Ant1	2484.206	-44.06	6.1	-	57.3	Peak	74	Pass
NVNT	b	2462	Ant1	2491.202	-52.06	6.1	0.02	49.32	Average	54	Pass
NVNT	b	2462	Ant1	2500	-47.82	6.1	-	53.54	Peak	74	Pass
NVNT	b	2462	Ant1	2500	-56.5	6.1	0.02	44.88	Average	54	Pass
NVNT	g	2412	Ant1	2310	-48.53	6.1	-	52.83	Peak	74	Pass
NVNT	g	2412	Ant1	2310	-57.69	6.1	0.12	43.79	Average	54	Pass
NVNT	g	2412	Ant1	2389.092	-36.55	6.1	-	64.81	Peak	74	Pass
NVNT	g	2412	Ant1	2389.794	-47.79	6.1	0.12	53.69	Average	54	Pass
NVNT	g	2412	Ant1	2390	-37.4	6.1	-	63.96	Peak	74	Pass
NVNT	g	2412	Ant1	2390	-48.36	6.1	0.12	53.12	Average	54	Pass
NVNT	g	2462	Ant1	2483.5	-37.35	6.1	-	64.01	Peak	74	Pass
NVNT	g	2462	Ant1	2483.5	-48.76	6.1	0.45	53.05	Average	54	Pass
NVNT	g	2462	Ant1	2484.1	-34.89	6.1	-	66.47	Peak	74	Pass
NVNT	g	2462	Ant1	2483.623	-48.21	6.1	0.45	53.6	Average	54	Pass
NVNT	g	2462	Ant1	2500	-45.91	6.1	-	55.45	Peak	74	Pass
NVNT	g	2462	Ant1	2500	-54.32	6.1	0.45	47.49	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2310	-49.65	6.1	-	51.71	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2310	-57.87	6.1	0.1	43.59	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2389.911	-33.44	6.1	-	67.92	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2389.677	-48.36	6.1	0.1	53.1	Average	54	Pass
NVNT	n(HT20)	2412	Ant1	2390	-37.03	6.1	-	64.33	Peak	74	Pass
NVNT	n(HT20)	2412	Ant1	2390	-48.91	6.1	0.1	52.55	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2483.5	-33.66	6.1	-	67.7	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2483.5	-47.68	6.1	0.2	53.88	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2483.517	-33.66	6.1	-	67.7	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2483.57	-47.65	6.1	0.2	53.91	Average	54	Pass
NVNT	n(HT20)	2462	Ant1	2500	-45.16	6.1	-	56.2	Peak	74	Pass
NVNT	n(HT20)	2462	Ant1	2500	-54.79	6.1	0.2	46.77	Average	54	Pass
NVNT	n(HT40)	2422	Ant1	2310	-47.83	6.1	-	53.53	Peak	74	Pass
NVNT	n(HT40)	2422	Ant1	2310	-56.52	6.1	0.13	44.97	Average	54	Pass
NVNT	n(HT40)	2422	Ant1	2389.52	-9.38	6.1	-	91.98	Peak	74	Fail
NVNT	n(HT40)	2422	Ant1	2389.662	-20.1	6.1	0.13	81.39	Average	54	Fail
NVNT	n(HT40)	2422	Ant1	2390	-11.4	6.1	-	89.96	Peak	74	Fail

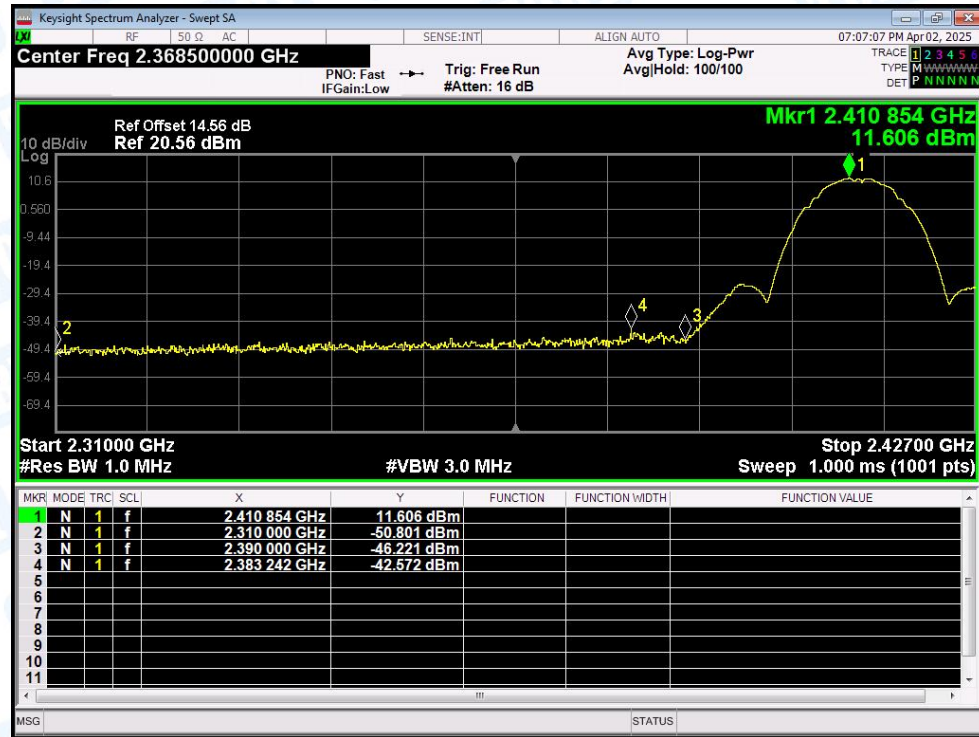


NVNT	n(HT40)	2422	Ant1	2390	-20.42	6.1	0.13	81.07	Average	54	Fail
NVNT	n(HT40)	2452	Ant1	2483.5	-34.97	6.1	-	66.39	Peak	74	Pass
NVNT	n(HT40)	2452	Ant1	2483.5	-56.76	6.1	0.38	44.98	Average	54	Pass
NVNT	n(HT40)	2452	Ant1	2484.244	-28.31	6.1	-	73.05	Peak	74	Pass
NVNT	n(HT40)	2452	Ant1	2485.648	-52.98	6.1	0.38	48.76	Average	54	Pass
NVNT	n(HT40)	2452	Ant1	2500	-52.1	6.1	-	49.26	Peak	74	Pass
NVNT	n(HT40)	2452	Ant1	2500	-59.29	6.1	0.38	42.45	Average	54	Pass

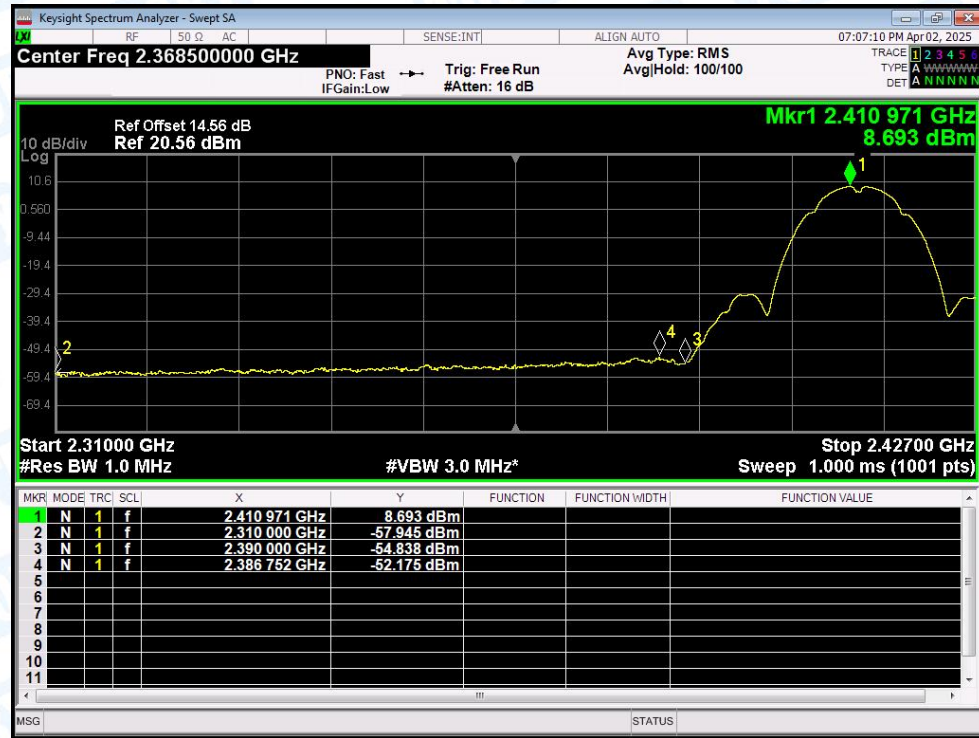
Note: The Duty Cycle Factor is compensated in the graph.

### Test Graphs

#### Restrict Band NVNT b 2412MHz Ant1 Peak

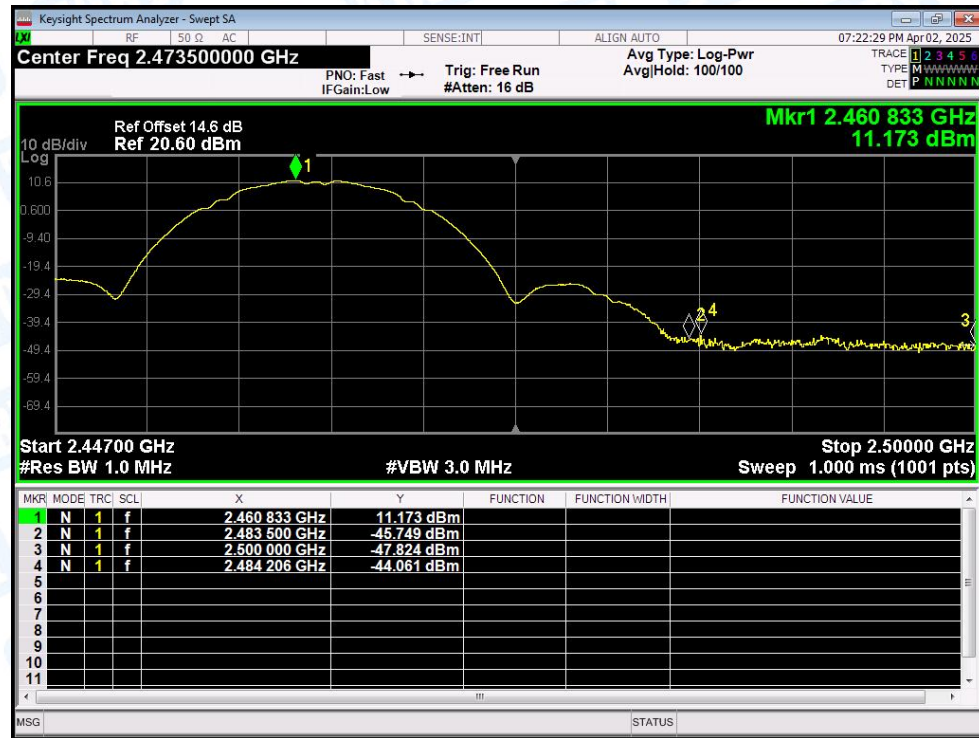


#### Restrict Band NVNT b 2412MHz Ant1 Average

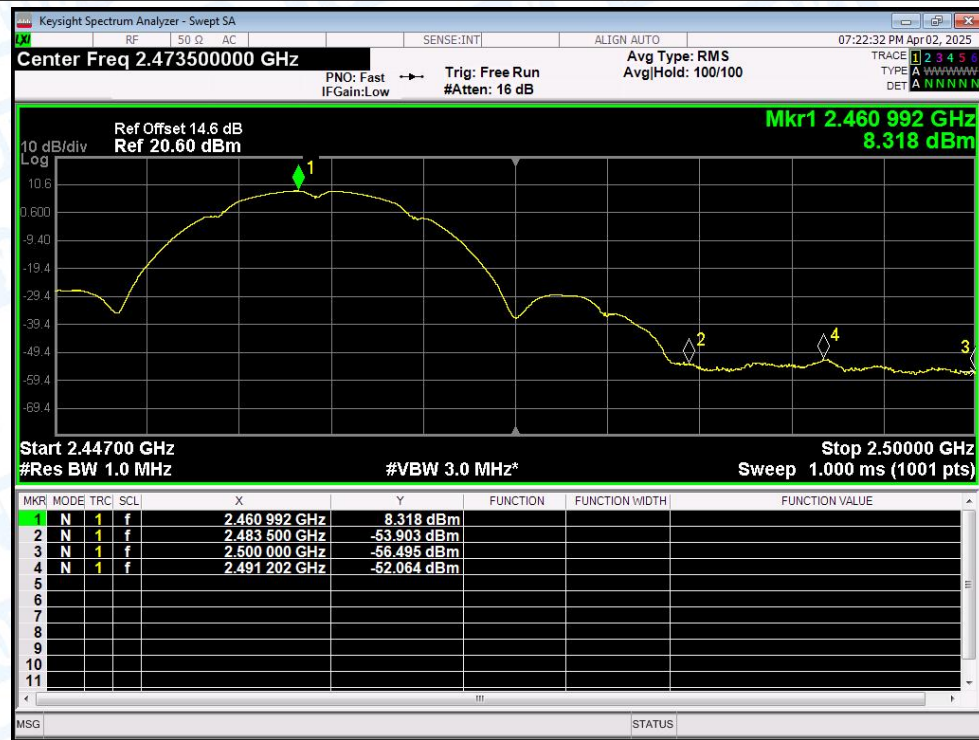




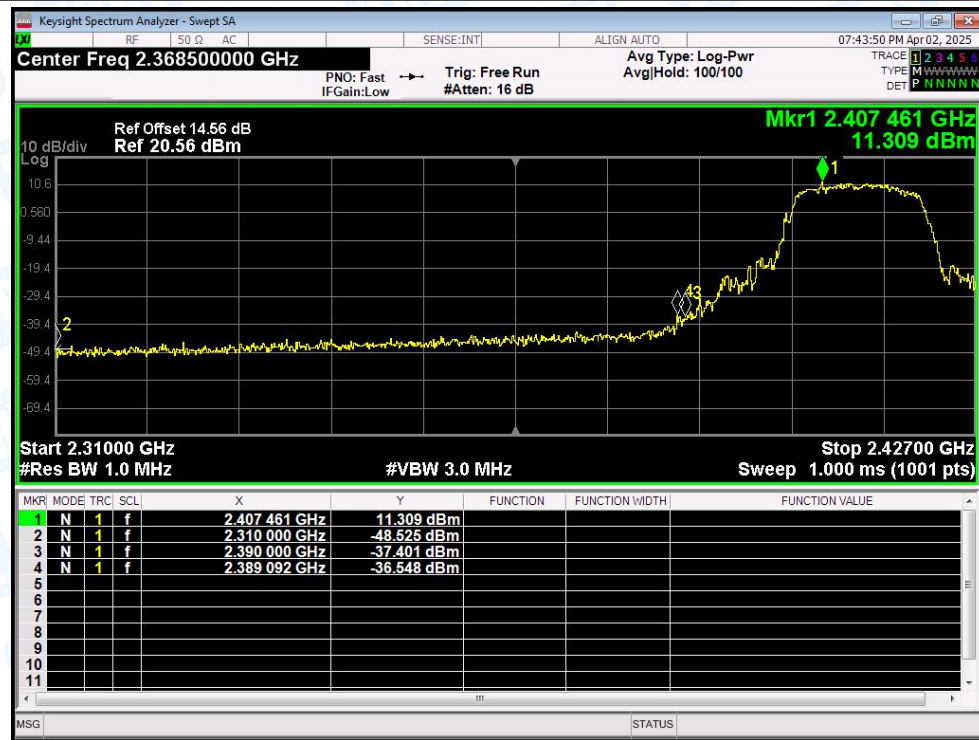
### Restrict Band NVNT b 2462MHz Ant1 Peak



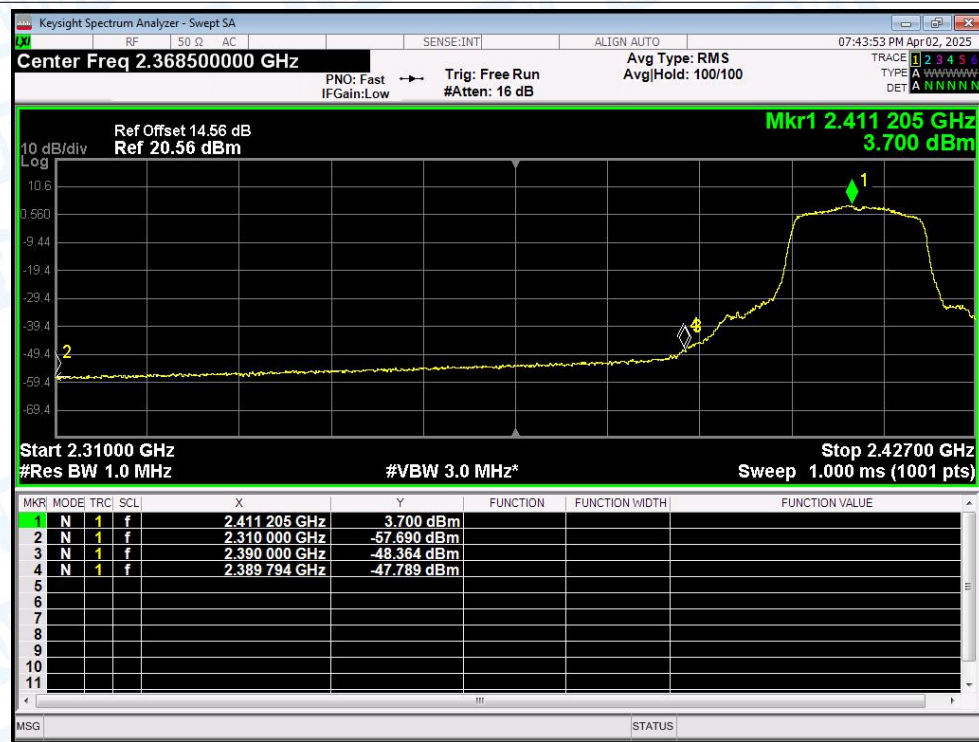
### Restrict Band NVNT b 2462MHz Ant1 Average



### Restrict Band NVNT g 2412MHz Ant1 Peak



### Restrict Band NVNT g 2412MHz Ant1 Average

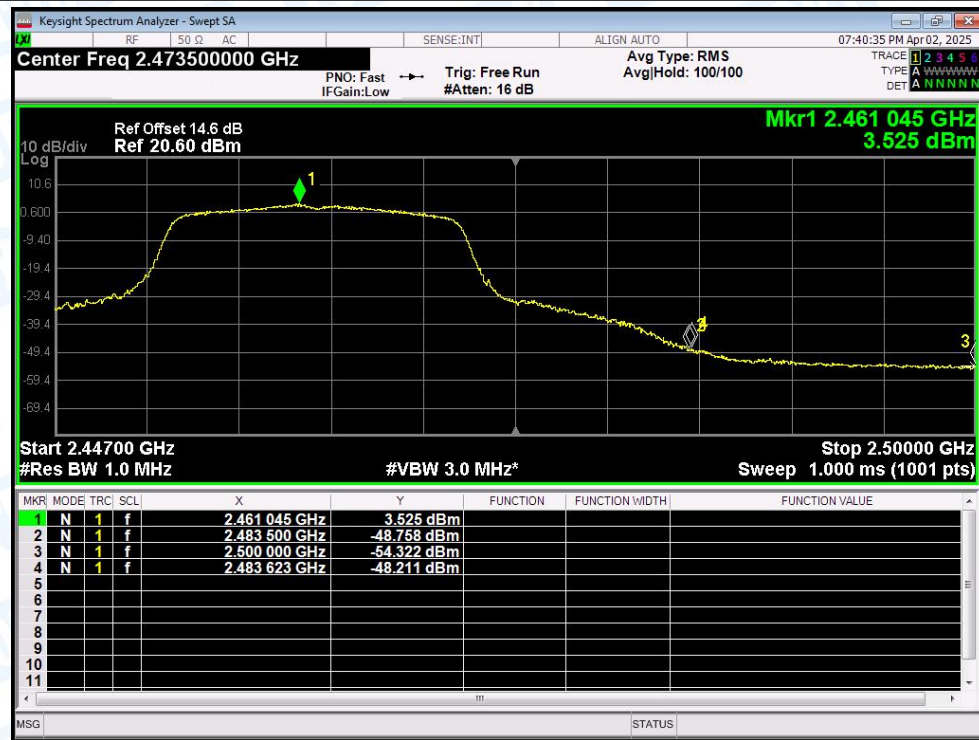




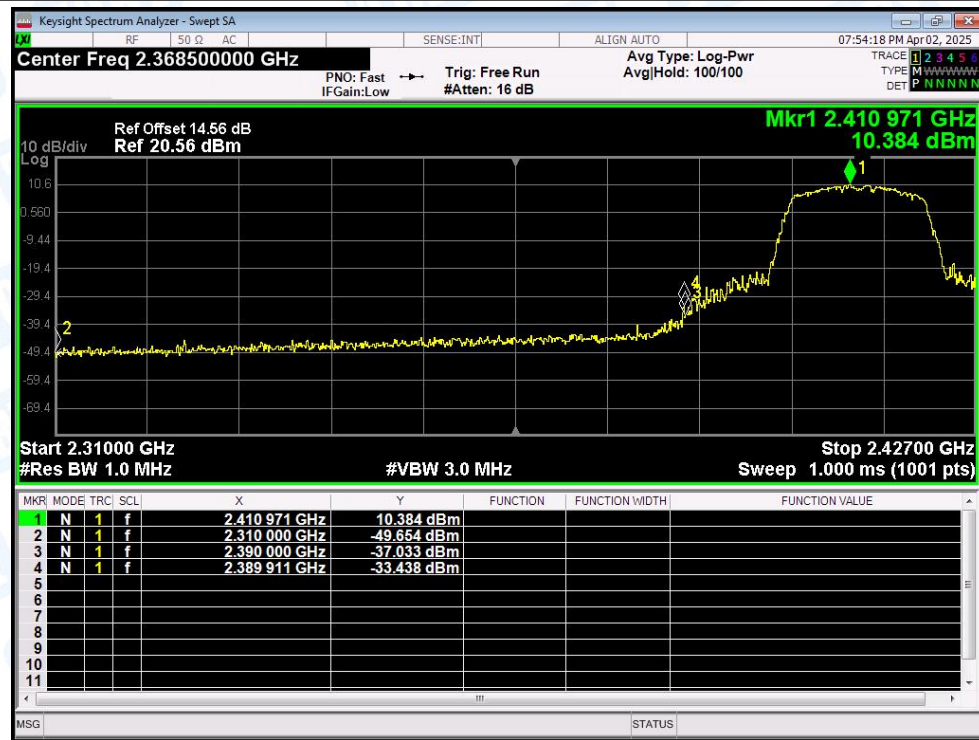
### Restrict Band NVNT g 2462MHz Ant1 Peak



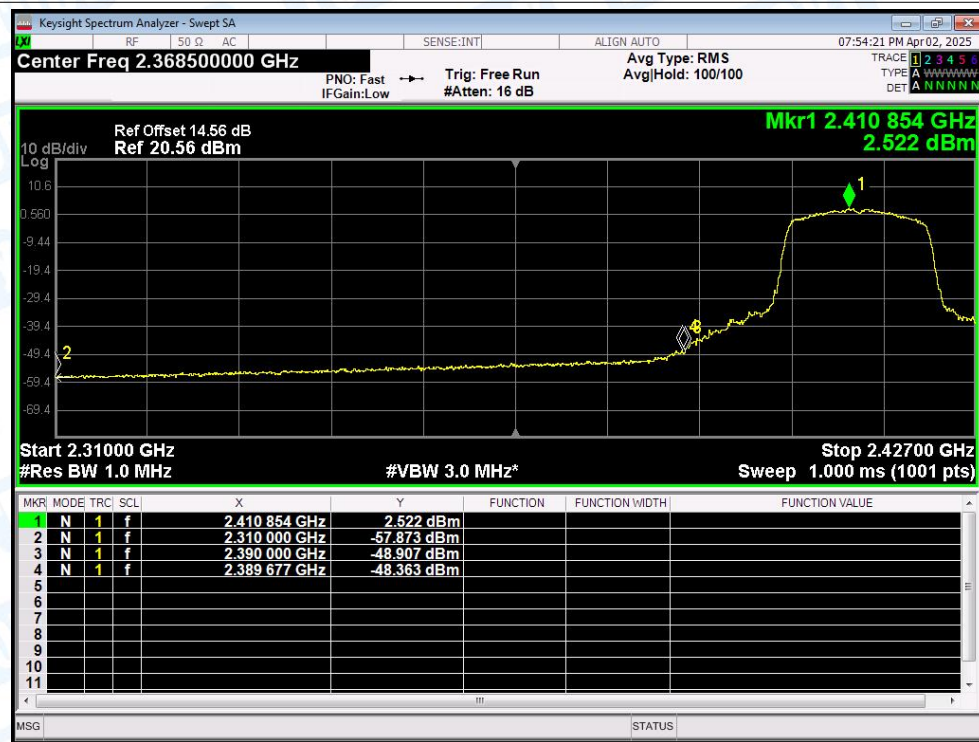
### Restrict Band NVNT g 2462MHz Ant1 Average



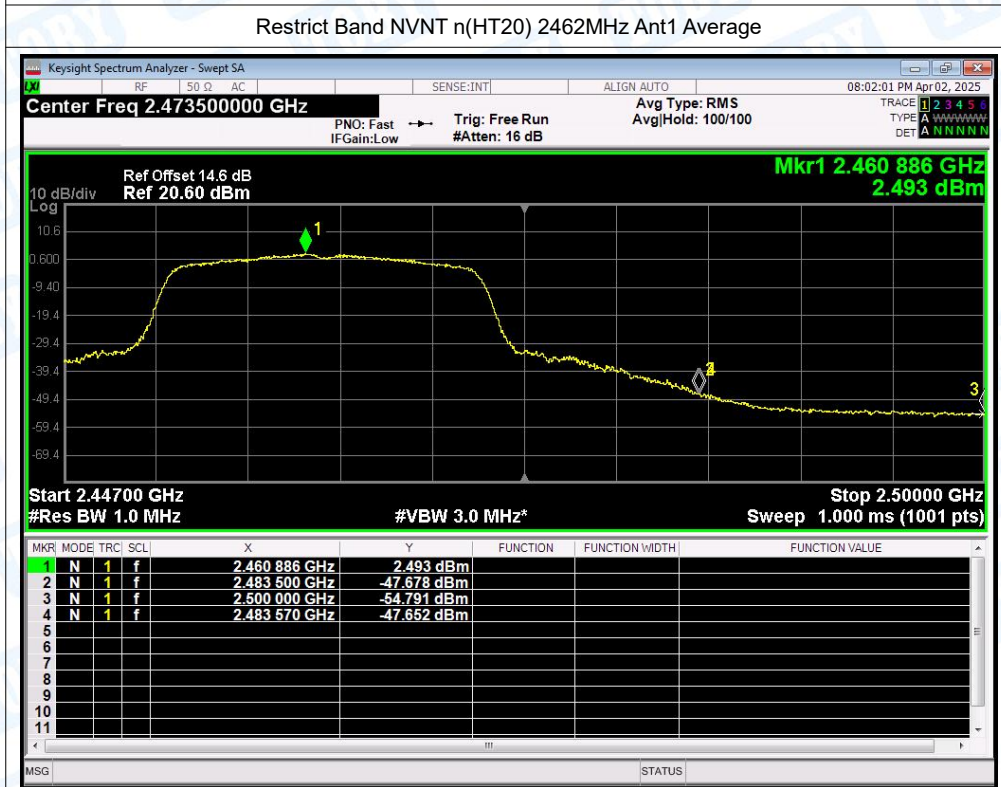
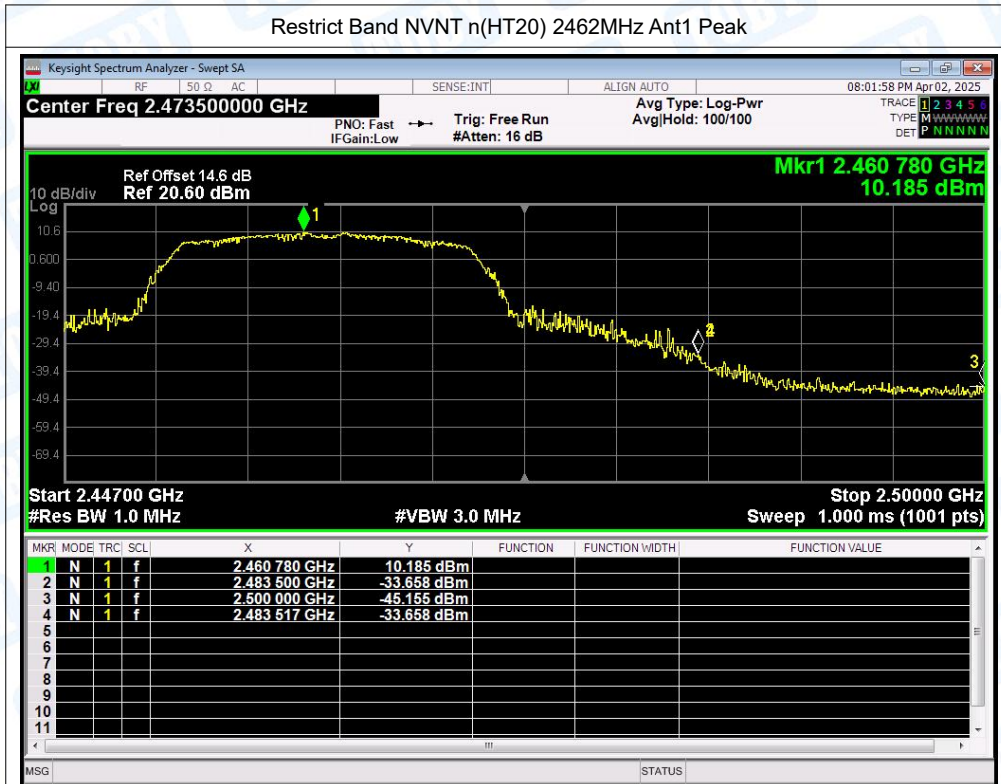
Restrict Band NVNT n(HT20) 2412MHz Ant1 Peak



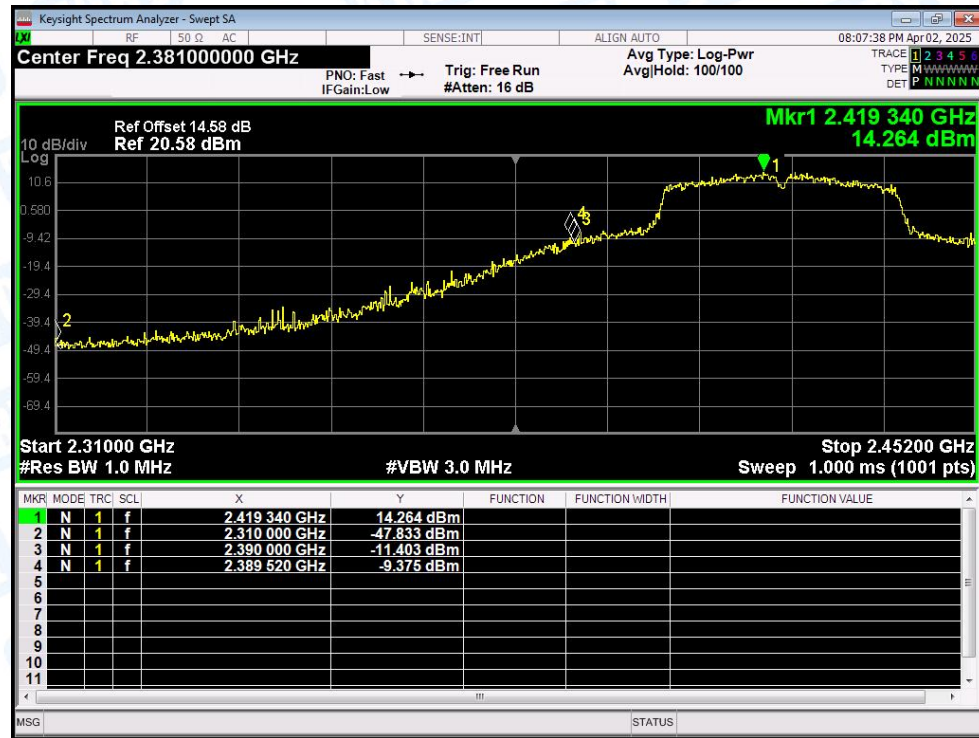
Restrict Band NVNT n(HT20) 2412MHz Ant1 Average



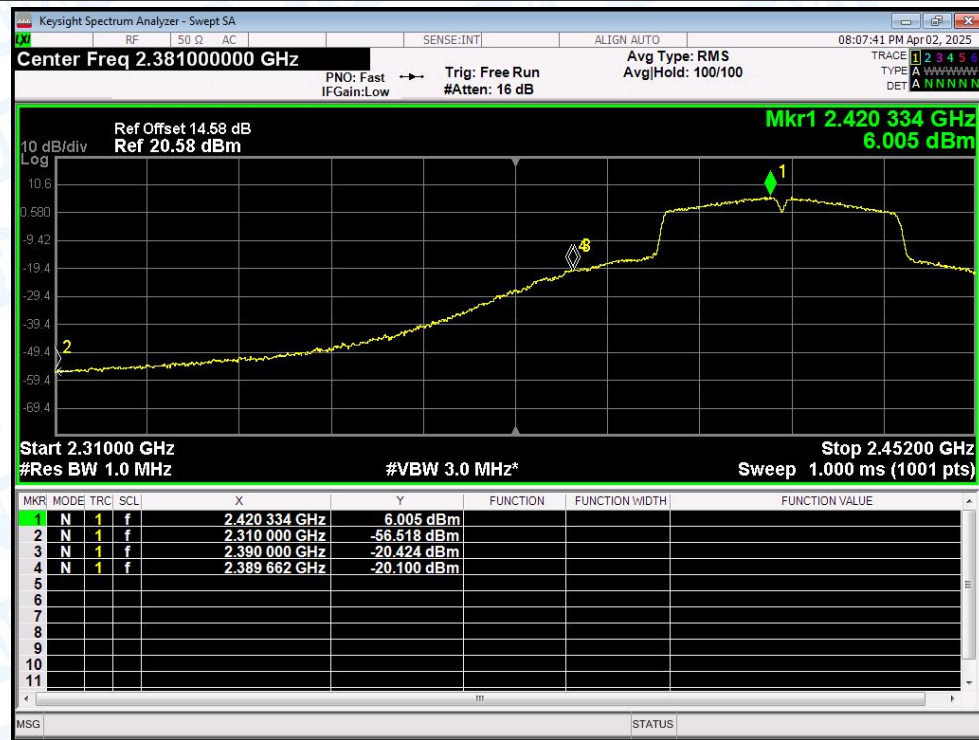




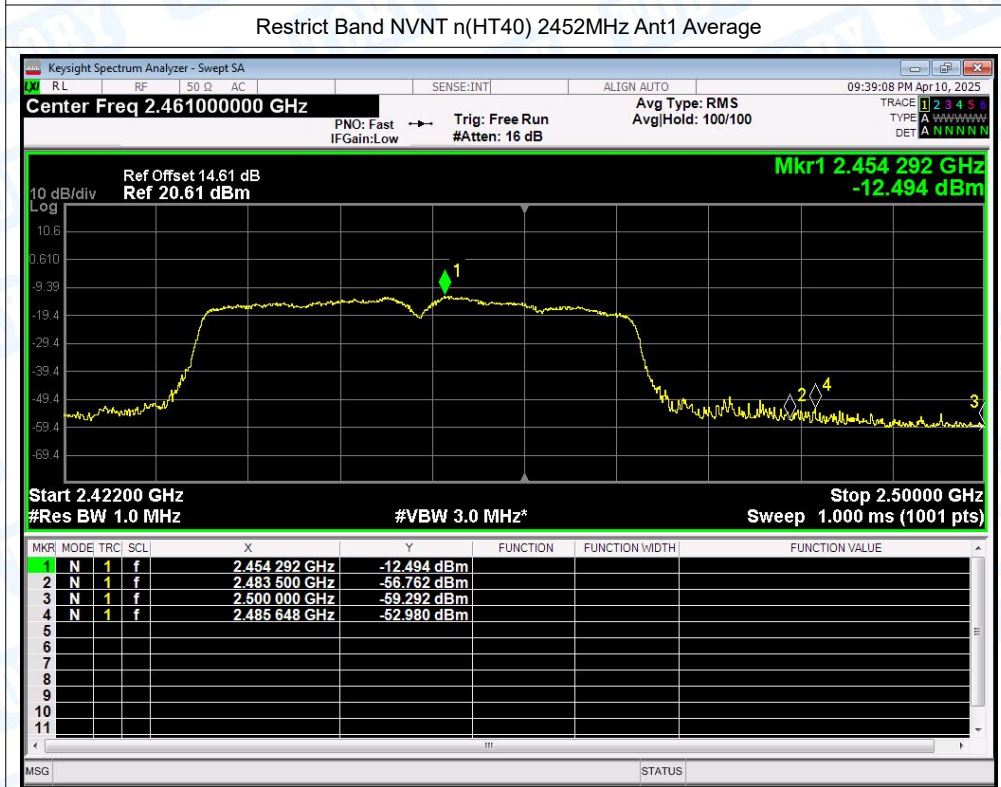
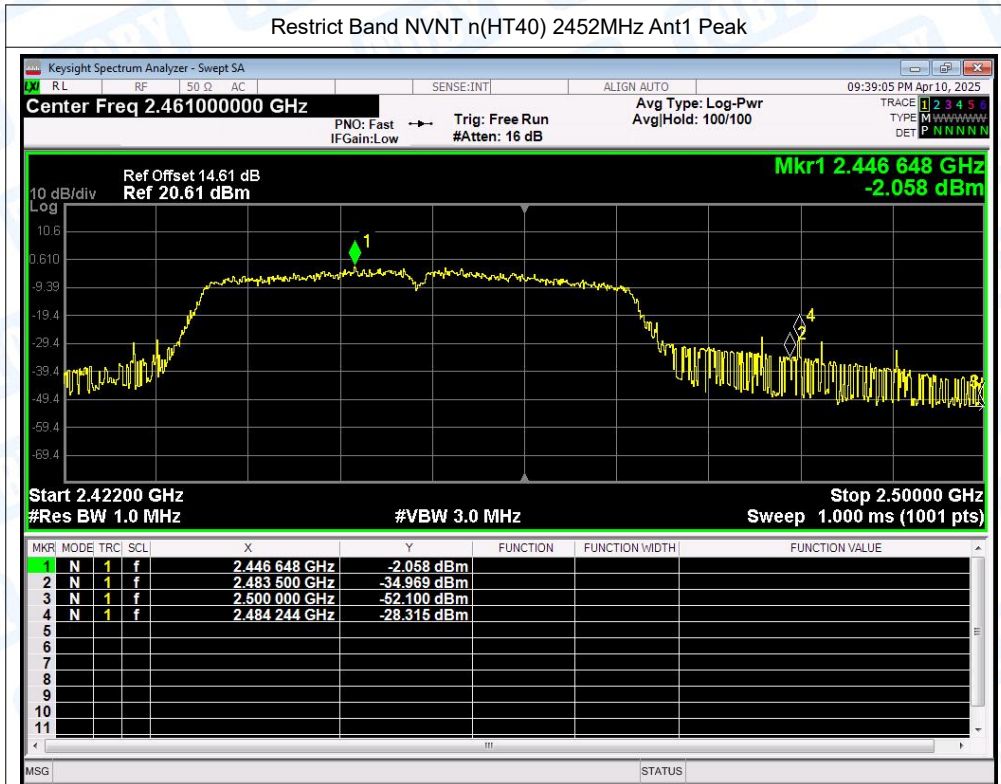
Restrict Band NVNT n(HT40) 2422MHz Ant1 Peak



Restrict Band NVNT n(HT40) 2422MHz Ant1 Average







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