Appendix A for 2.4GWIFI Test Data

Product Name: Laptop computer

Test Model: N16

Environmental Conditions

Temperature:	23.8℃
Relative Humidity:	52%
ATM Pressure:	101.0 kPa
Test Engineer:	Leon Li
Supervised by:	Baret Wu

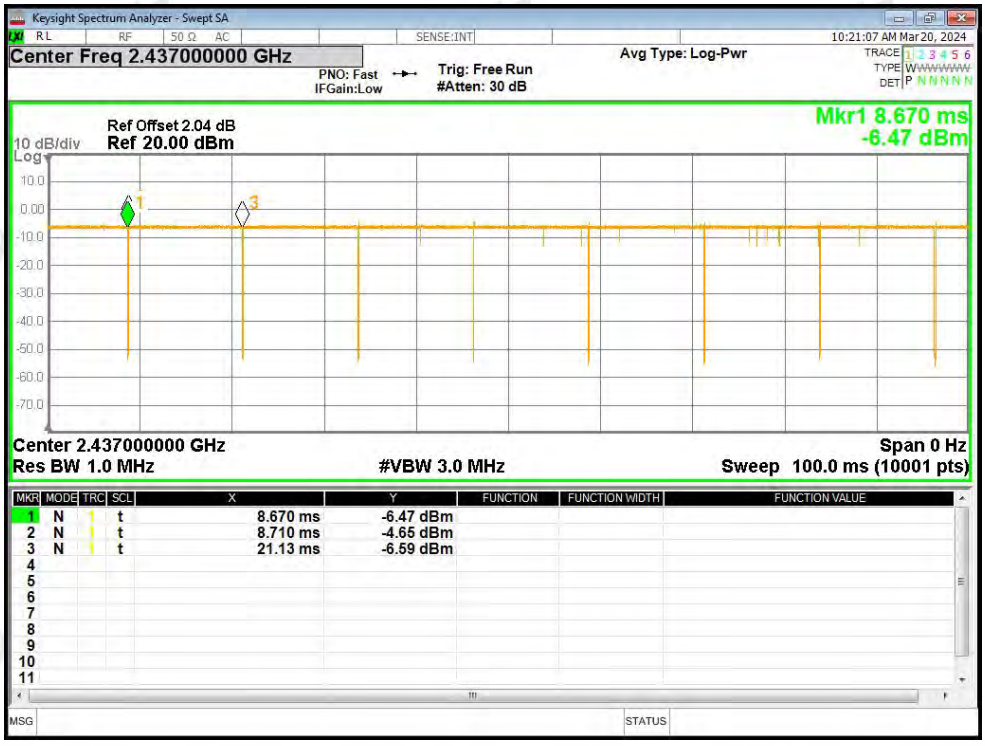
A1. Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)
NVNT	b	2412	Ant1	99.04	0
NVNT	b	2437	Ant1	99.68	0
NVNT	b	2462	Ant1	98.96	0
NVNT	b	2412	Ant2	99.12	0
NVNT	b	2437	Ant2	99.28	0
NVNT	b	2462	Ant2	99.44	0
NVNT	g	2412	Ant1	91.96	0.36
NVNT	g	2437	Ant1	96.7	0.15
NVNT	g	2462	Ant1	94.09	0.26
NVNT	g	2412	Ant2	97.63	0.1
NVNT	g	2437	Ant2	94.06	0.27
NVNT	g	2462	Ant2	96.28	0.16
NVNT	n20	2412	Ant1	97.96	0.09
NVNT	n20	2437	Ant1	91.83	0.37
NVNT	n20	2462	Ant1	92.27	0.35
NVNT	n20	2412	Ant2	95.98	0.18
NVNT	n20	2437	Ant2	97.95	0.09
NVNT	n20	2462	Ant2	92.31	0.35
NVNT	n40	2422	Ant1	83.49	0.78
NVNT	n40	2437	Ant1	91	0.41
NVNT	n40	2452	Ant1	85.05	0.7
NVNT	n40	2422	Ant2	85.05	0.7
NVNT	n40	2437	Ant2	91.92	0.37
NVNT	n40	2452	Ant2	91.92	0.37
NVNT	ax20	2412	Ant1	95.54	0.2
NVNT	ax20	2437	Ant1	95.54	0.2
NVNT	ax20	2462	Ant1	91.94	0.36
NVNT	ax20	2412	Ant2	96.5	0.15
NVNT	ax20	2437	Ant2	91.9	0.37
NVNT	ax20	2462	Ant2	94.63	0.24
NVNT	ax40	2422	Ant1	87.96	0.56
NVNT	ax40	2437	Ant1	87.27	0.59
NVNT	ax40	2452	Ant1	95.96	0.18
NVNT	ax40	2422	Ant2	93.14	0.31
NVNT	ax40	2437	Ant2	90.48	0.43
NVNT	ax40	2452	Ant2	95	0.22

Test Graphs

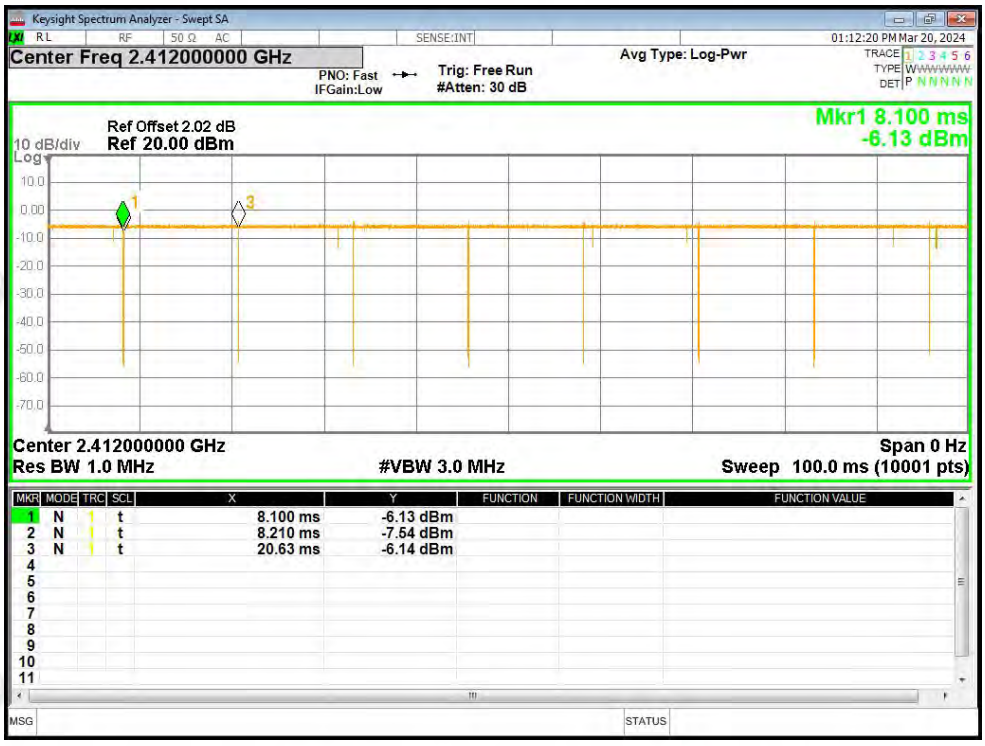
Duty Cycle NVNT b 2412MHz Ant1

Duty Cycle NVNT b 2437MHz Ant1



Duty Cycle NVNT b 2462MHz Ant1

Duty Cycle NVNT b 2412MHz Ant2

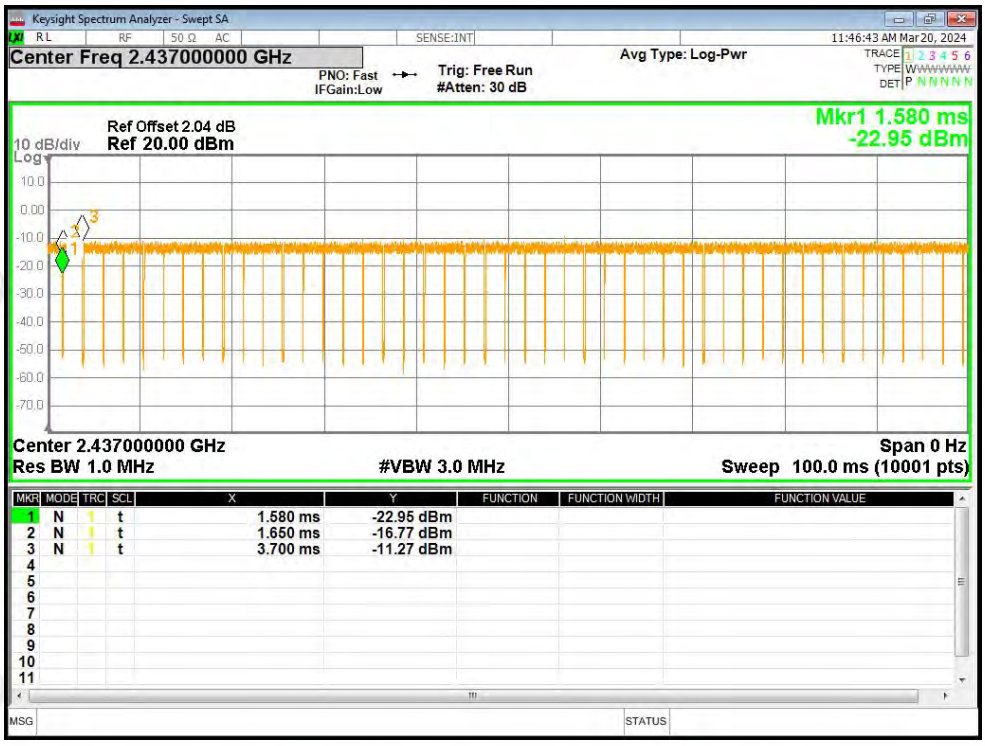


Duty Cycle NVNT b 2437MHz Ant2

Duty Cycle NVNT b 2462MHz Ant2

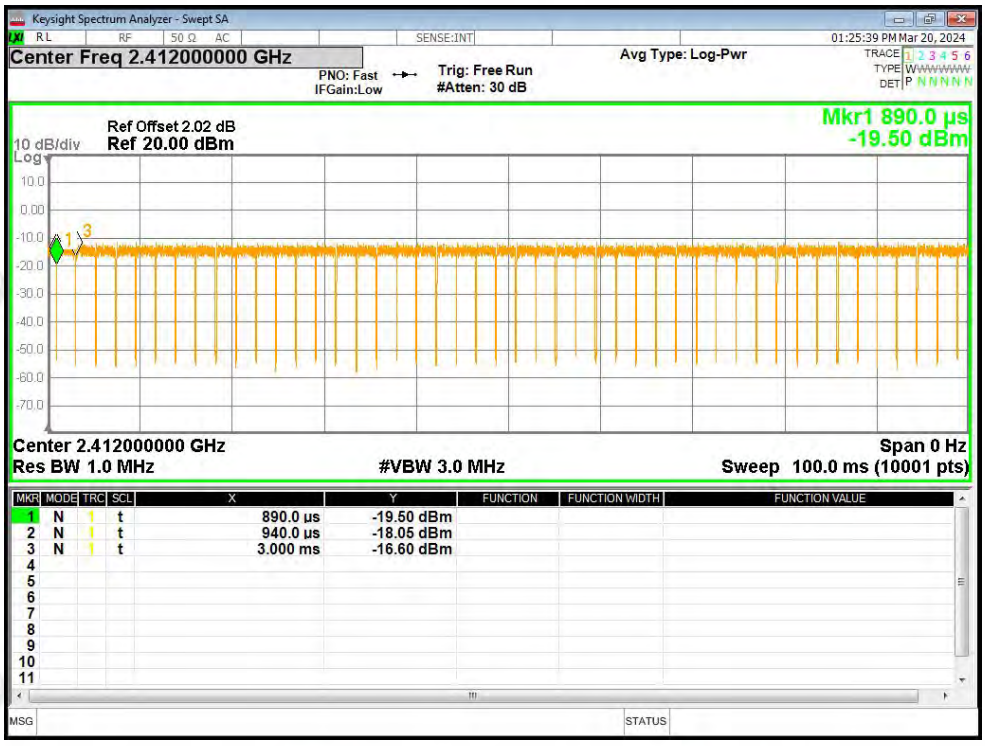
Duty Cycle NVNT g 2412MHz Ant1

Duty Cycle NVNT g 2437MHz Ant1



Duty Cycle NVNT g 2462MHz Ant1

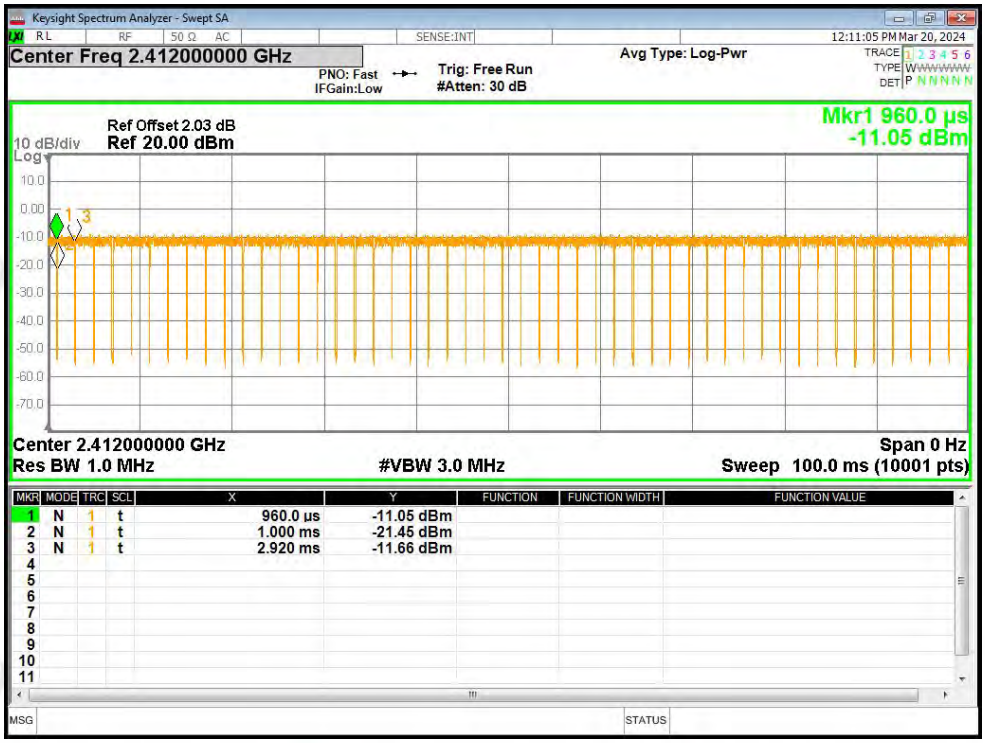
Duty Cycle NVNT g 2412MHz Ant2



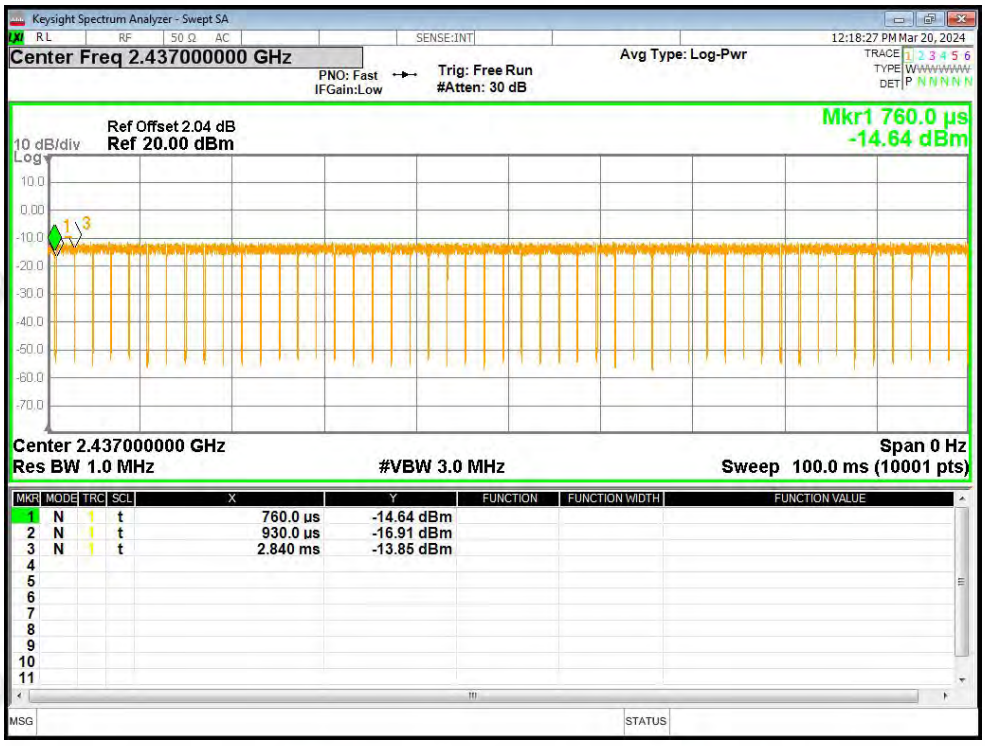
Duty Cycle NVNT g 2437MHz Ant2

Duty Cycle NVNT g 2462MHz Ant2

Duty Cycle NVNT n20 2412MHz Ant1



Duty Cycle NVNT n20 2437MHz Ant1



Duty Cycle NVNT n20 2462MHz Ant1

Duty Cycle NVNT n20 2412MHz Ant2

Duty Cycle NVNT n20 2437MHz Ant2

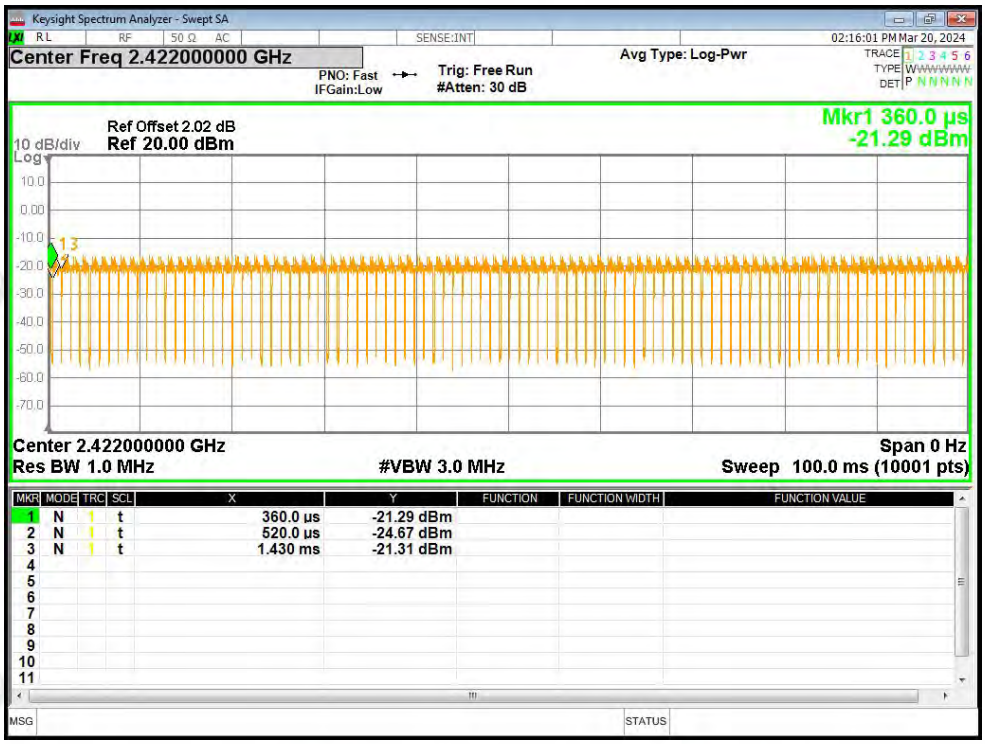
Duty Cycle NVNT n20 2462MHz Ant2

Duty Cycle NVNT n40 2422MHz Ant1

Duty Cycle NVNT n40 2437MHz Ant1

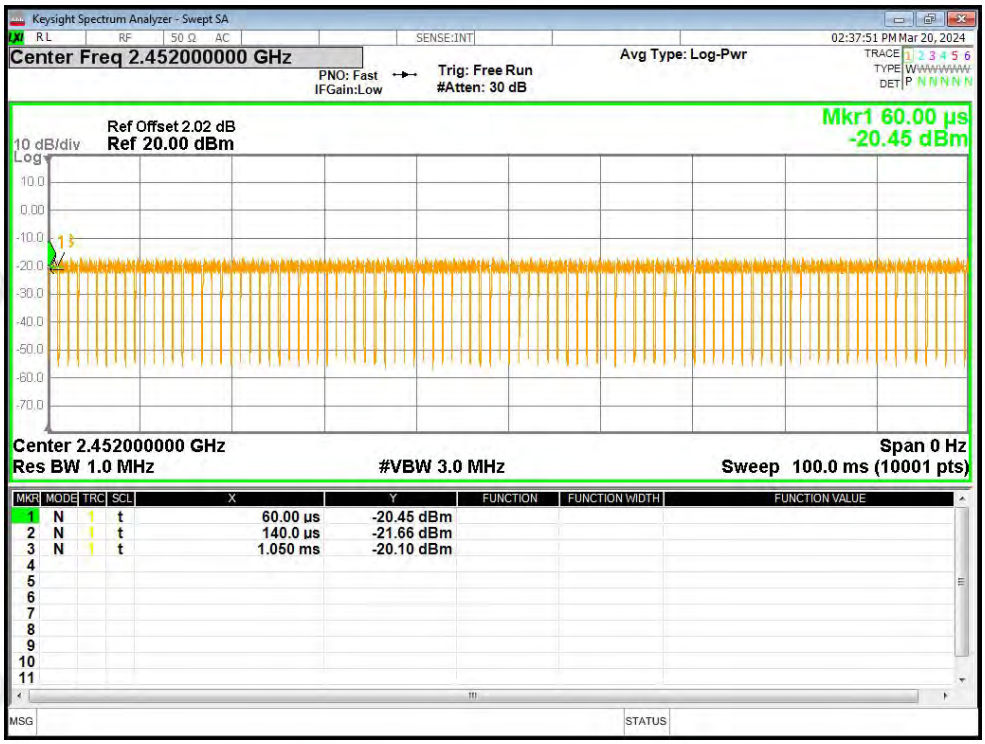
Duty Cycle NVNT n40 2452MHz Ant1

Duty Cycle NVNT n40 2422MHz Ant2

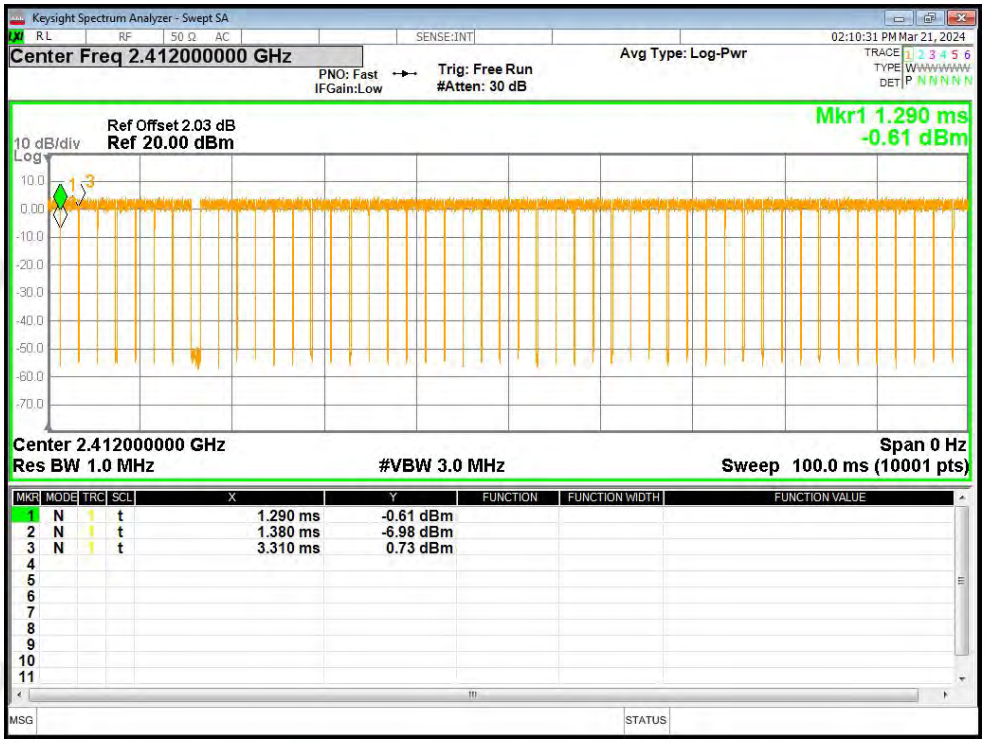


Duty Cycle NVNT n40 2437MHz Ant2

Duty Cycle NVNT n40 2452MHz Ant2



Duty Cycle NVNT ax20 2412MHz Ant1



Duty Cycle NVNT ax20 2437MHz Ant1

Duty Cycle NVNT ax20 2462MHz Ant1

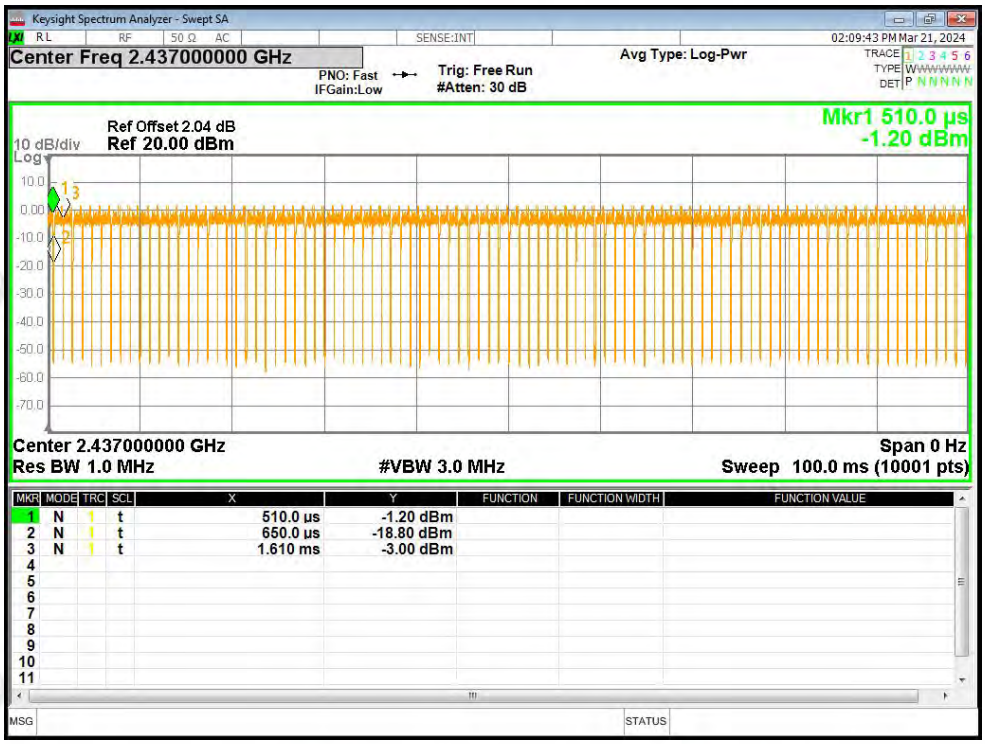
Duty Cycle NVNT ax20 2412MHz Ant2

Duty Cycle NVNT ax20 2437MHz Ant2

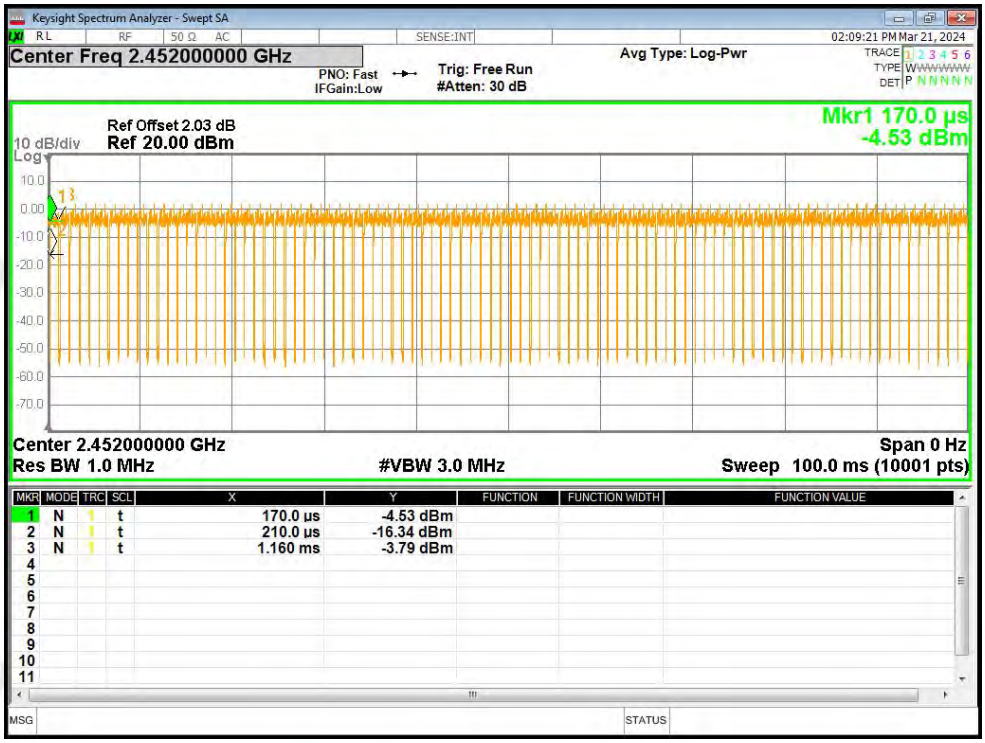
Duty Cycle NVNT ax20 2462MHz Ant2

Duty Cycle NVNT ax40 2422MHz Ant1

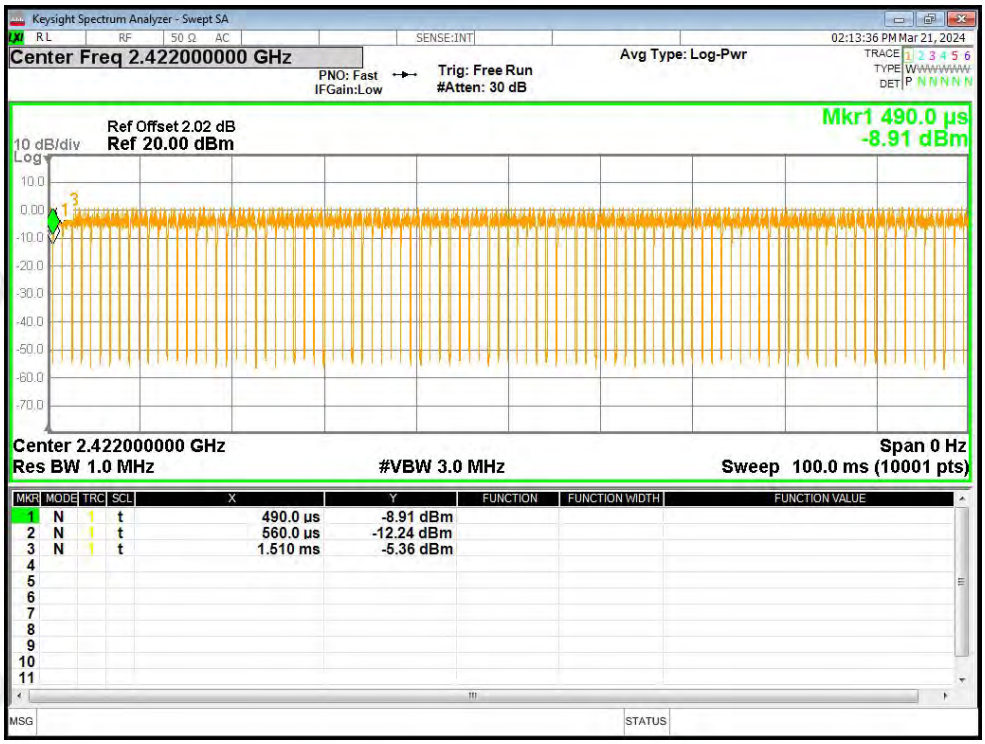
Duty Cycle NVNT ax40 2437MHz Ant1



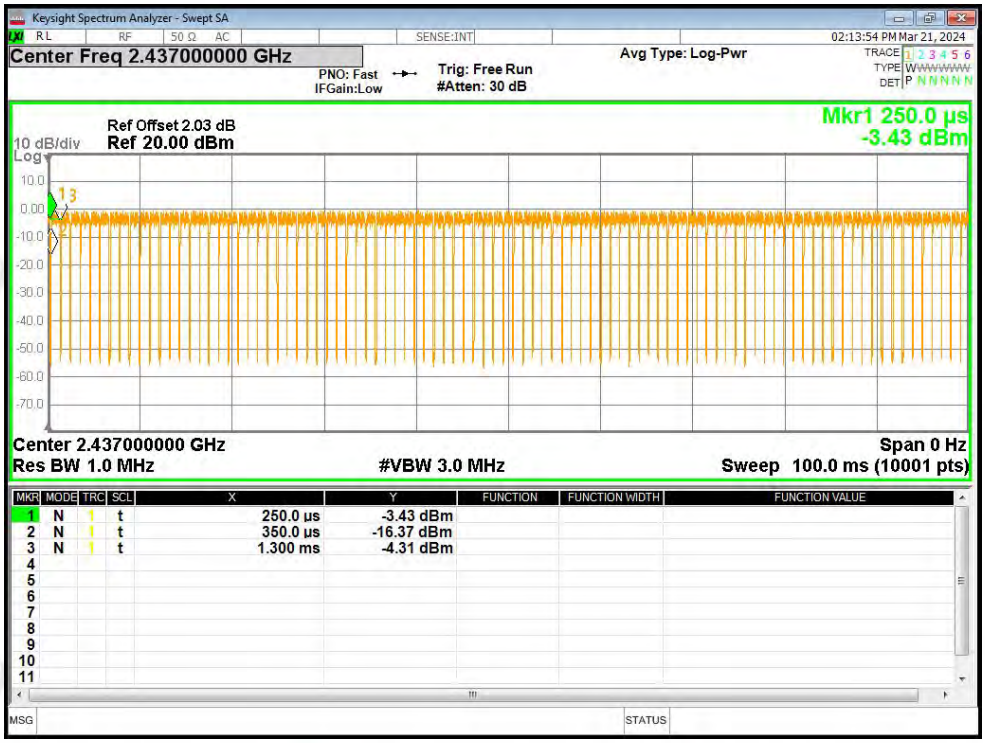
Duty Cycle NVNT ax40 2452MHz Ant1



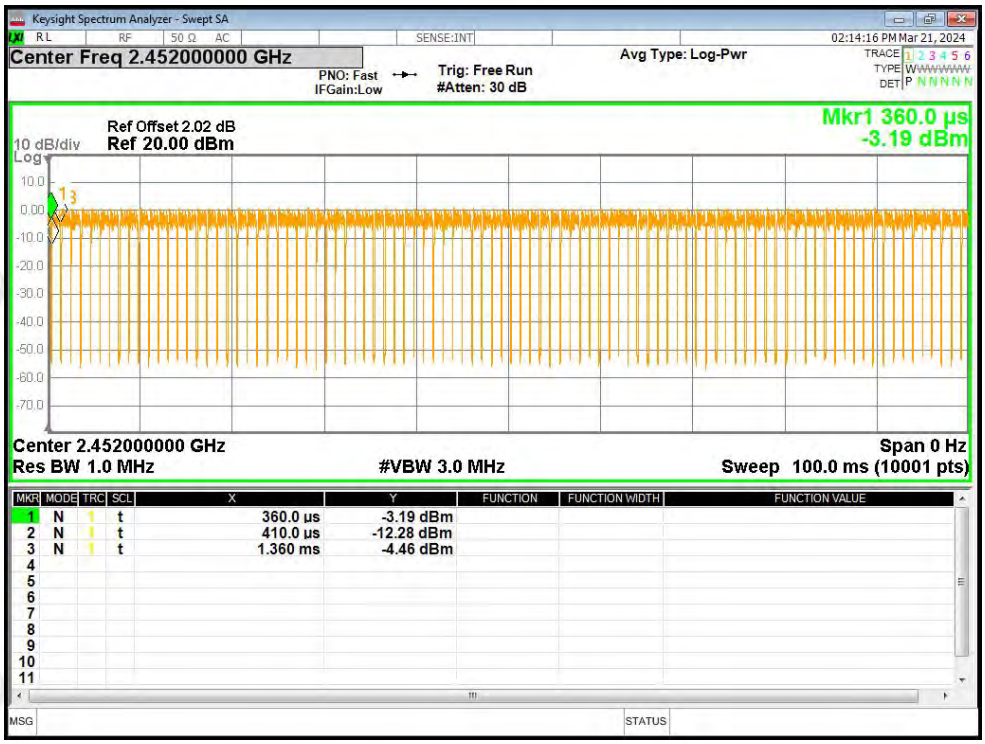
Duty Cycle NVNT ax40 2422MHz Ant2



Duty Cycle NVNT ax40 2437MHz Ant2



Duty Cycle NVNT ax40 2452MHz Ant2



A2. Maximum Average Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	-0.94	0	-0.94	30	Pass
NVNT	b	2437	Ant1	-0.64	0	-0.64	30	Pass
NVNT	b	2462	Ant1	-0.86	0	-0.86	30	Pass
NVNT	b	2412	Ant2	-0.19	0	-0.19	30	Pass
NVNT	b	2437	Ant2	-0.76	0	-0.76	30	Pass
NVNT	b	2462	Ant2	-1.18	0	-1.18	30	Pass
NVNT	g	2412	Ant1	-5.71	0.36	-5.35	30	Pass
NVNT	g	2437	Ant1	-5.77	0.15	-5.62	30	Pass
NVNT	g	2462	Ant1	-5.74	0.26	-5.48	30	Pass
NVNT	g	2412	Ant2	-6.59	0.1	-6.49	30	Pass
NVNT	g	2437	Ant2	-5.59	0.27	-5.32	30	Pass
NVNT	g	2462	Ant2	-5.46	0.16	-5.3	30	Pass
NVNT	n20	2412	Ant1	-3.3	0.09	-3.21	30	Pass
NVNT	n20	2437	Ant1	-5.87	0.37	-5.5	30	Pass
NVNT	n20	2462	Ant1	-7.22	0.35	-6.87	30	Pass
NVNT	n20	2412	Ant2	-7.37	0.18	-7.19	30	Pass
NVNT	n20	2437	Ant2	-7.12	0.09	-7.03	30	Pass
NVNT	n20	2462	Ant2	-7.37	0.35	-7.02	30	Pass
NVNT	n40	2422	Ant1	-7.04	0.78	-6.26	30	Pass
NVNT	n40	2437	Ant1	-7.09	0.41	-6.68	30	Pass
NVNT	n40	2452	Ant1	-7.24	0.7	-6.54	30	Pass
NVNT	n40	2422	Ant2	-7.45	0.7	-6.75	30	Pass
NVNT	n40	2437	Ant2	-7.27	0.37	-6.9	30	Pass
NVNT	n40	2452	Ant2	-7.43	0.37	-7.06	30	Pass
NVNT	ax20	2412	Ant1	-5.15	0.2	-4.95	30	Pass
NVNT	ax20	2437	Ant1	-10.5	0.2	-10.3	30	Pass
NVNT	ax20	2462	Ant1	-5.75	0.36	-5.39	30	Pass
NVNT	ax20	2412	Ant2	-5.19	0.15	-5.04	30	Pass
NVNT	ax20	2437	Ant2	-5.5	0.37	-5.13	30	Pass
NVNT	ax20	2462	Ant2	-5.76	0.24	-5.52	30	Pass
NVNT	ax40	2422	Ant1	-5.12	0.56	-4.56	30	Pass
NVNT	ax40	2437	Ant1	-5.3	0.59	-4.71	30	Pass
NVNT	ax40	2452	Ant1	-5.76	0.18	-5.58	30	Pass
NVNT	ax40	2422	Ant2	-5.07	0.31	-4.76	30	Pass
NVNT	ax40	2437	Ant2	-5.54	0.43	-5.11	30	Pass
NVNT	ax40	2452	Ant2	-5.9	0.22	-5.68	30	Pass
NVNT	n20	2412	MIMO	/	/	1.81	30	Pass
NVNT	n20	2437	MIMO	/	/	1.75	30	Pass
NVNT	n20	2462	MIMO	/	/	2.07	30	Pass

NVNT	n40	2422	MIMO	/	/	2.51	30	Pass
NVNT	n40	2437	MIMO	/	/	2.22	30	Pass
NVNT	n40	2452	MIMO	/	/	2.22	30	Pass
NVNT	ax20	2412	MIMO	/	/	2.02	30	Pass
NVNT	ax20	2437	MIMO	/	/	1.80	30	Pass
NVNT	ax20	2462	MIMO	/	/	1.56	30	Pass
NVNT	ax40	2422	MIMO	/	/	2.35	30	Pass
NVNT	ax40	2437	MIMO	/	/	2.10	30	Pass
NVNT	ax40	2452	MIMO	/	/	2.10	30	Pass

A3. Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	0.5	30	Pass
NVNT	b	2437	Ant1	0.82	30	Pass
NVNT	b	2462	Ant1	0.63	30	Pass
NVNT	b	2412	Ant2	1.3	30	Pass
NVNT	b	2437	Ant2	0.69	30	Pass
NVNT	b	2462	Ant2	0.29	30	Pass
NVNT	g	2412	Ant1	-1.08	30	Pass
NVNT	g	2437	Ant1	-1.08	30	Pass
NVNT	g	2462	Ant1	-1.08	30	Pass
NVNT	g	2412	Ant2	-1.9	30	Pass
NVNT	g	2437	Ant2	-1	30	Pass
NVNT	g	2462	Ant2	-0.77	30	Pass
NVNT	n20	2412	Ant1	0.44	30	Pass
NVNT	n20	2437	Ant1	-0.21	30	Pass
NVNT	n20	2462	Ant1	-0.53	30	Pass
NVNT	n20	2412	Ant2	-0.68	30	Pass
NVNT	n20	2437	Ant2	-0.42	30	Pass
NVNT	n20	2462	Ant2	-0.69	30	Pass
NVNT	n40	2422	Ant1	-0.16	30	Pass
NVNT	n40	2437	Ant1	-0.23	30	Pass
NVNT	n40	2452	Ant1	-0.48	30	Pass
NVNT	n40	2422	Ant2	-0.39	30	Pass
NVNT	n40	2437	Ant2	-0.45	30	Pass
NVNT	n40	2452	Ant2	-0.51	30	Pass
NVNT	ax20	2412	Ant1	0.78	30	Pass
NVNT	ax20	2437	Ant1	0.22	30	Pass
NVNT	ax20	2462	Ant1	0.35	30	Pass
NVNT	ax20	2412	Ant2	0.06	30	Pass
NVNT	ax20	2437	Ant2	-0.23	30	Pass
NVNT	ax20	2462	Ant2	-0.43	30	Pass
NVNT	ax40	2422	Ant1	0.13	30	Pass
NVNT	ax40	2437	Ant1	-0.07	30	Pass
NVNT	ax40	2452	Ant1	-0.45	30	Pass
NVNT	ax40	2422	Ant2	0.21	30	Pass
NVNT	ax40	2437	Ant2	-0.21	30	Pass
NVNT	ax40	2452	Ant2	-0.57	30	Pass
NVNT	n20	2412	MIMO	2.93	30	Pass
NVNT	n20	2437	MIMO	2.70	30	Pass
NVNT	n20	2462	MIMO	2.40	30	Pass
NVNT	n40	2422	MIMO	2.74	30	Pass
NVNT	n40	2437	MIMO	2.67	30	Pass

NVNT	ax20	2412	MIMO	2.52	30	Pass
NVNT	ax20	2437	MIMO	3.45	30	Pass
NVNT	ax20	2462	MIMO	3.01	30	Pass
NVNT	ax40	2422	MIMO	2.99	30	Pass
NVNT	ax40	2437	MIMO	3.18	30	Pass
NVNT	ax40	2452	MIMO	2.87	30	Pass

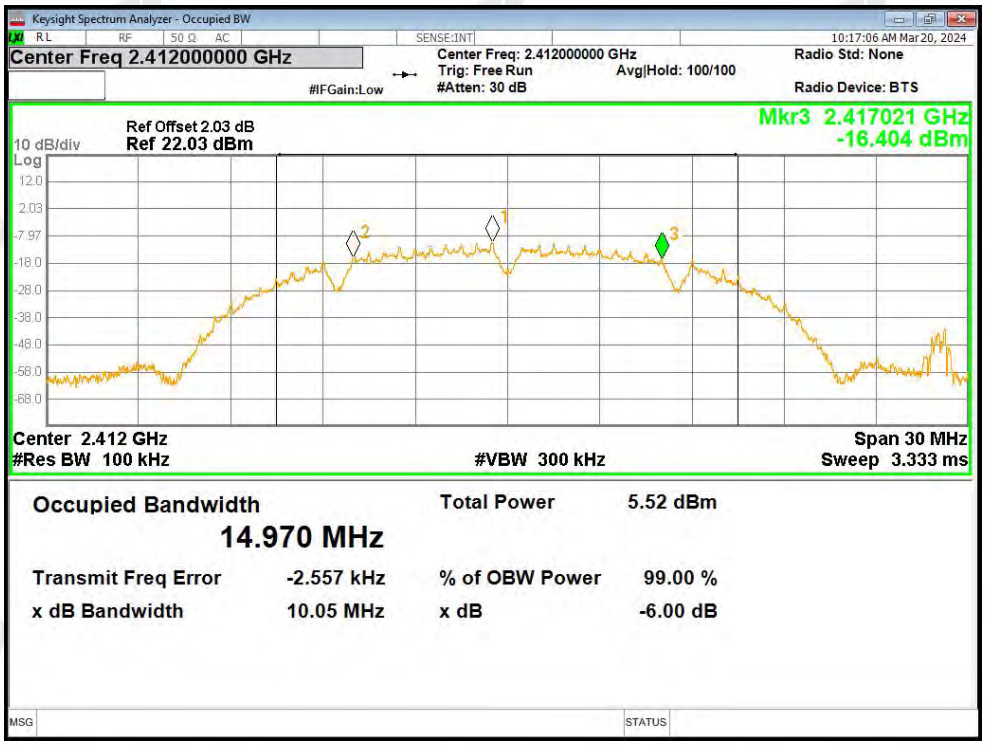
A4. -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	10.048	0.5	Pass
NVNT	b	2437	Ant1	10.067	0.5	Pass
NVNT	b	2462	Ant1	10.042	0.5	Pass
NVNT	b	2412	Ant2	10.038	0.5	Pass
NVNT	b	2437	Ant2	10.081	0.5	Pass
NVNT	b	2462	Ant2	10.03	0.5	Pass
NVNT	g	2412	Ant1	16.333	0.5	Pass
NVNT	g	2437	Ant1	16.353	0.5	Pass
NVNT	g	2462	Ant1	16.315	0.5	Pass
NVNT	g	2412	Ant2	16.334	0.5	Pass
NVNT	g	2437	Ant2	16.314	0.5	Pass
NVNT	g	2462	Ant2	16.345	0.5	Pass
NVNT	n20	2412	Ant1	17.302	0.5	Pass
NVNT	n20	2437	Ant1	17.163	0.5	Pass
NVNT	n20	2462	Ant1	17.247	0.5	Pass
NVNT	n20	2412	Ant2	17.304	0.5	Pass
NVNT	n20	2437	Ant2	16.594	0.5	Pass
NVNT	n20	2462	Ant2	17.556	0.5	Pass
NVNT	n40	2422	Ant1	35.312	0.5	Pass
NVNT	n40	2437	Ant1	35.47	0.5	Pass
NVNT	n40	2452	Ant1	35.659	0.5	Pass
NVNT	n40	2422	Ant2	35.444	0.5	Pass
NVNT	n40	2437	Ant2	35.27	0.5	Pass
NVNT	n40	2452	Ant2	35.357	0.5	Pass
NVNT	ax20	2412	Ant1	14.978	0.5	Pass
NVNT	ax20	2437	Ant1	19.01	0.5	Pass
NVNT	ax20	2462	Ant1	18.988	0.5	Pass
NVNT	ax20	2412	Ant2	18.907	0.5	Pass
NVNT	ax20	2437	Ant2	18.976	0.5	Pass
NVNT	ax20	2462	Ant2	19.001	0.5	Pass
NVNT	ax40	2422	Ant1	37.853	0.5	Pass
NVNT	ax40	2437	Ant1	37.886	0.5	Pass
NVNT	ax40	2452	Ant1	38.075	0.5	Pass
NVNT	ax40	2422	Ant2	38.102	0.5	Pass

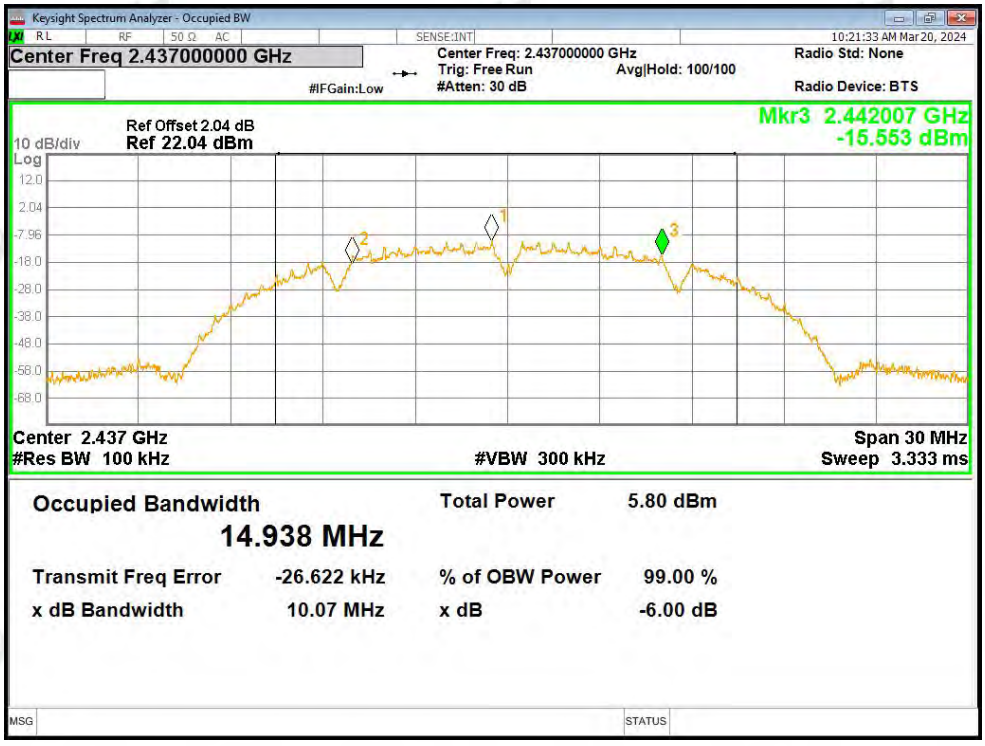
NVNT	ax40	2437	Ant2	37.549	0.5	Pass
NVNT	ax40	2452	Ant2	38.079	0.5	Pass

Test Graphs

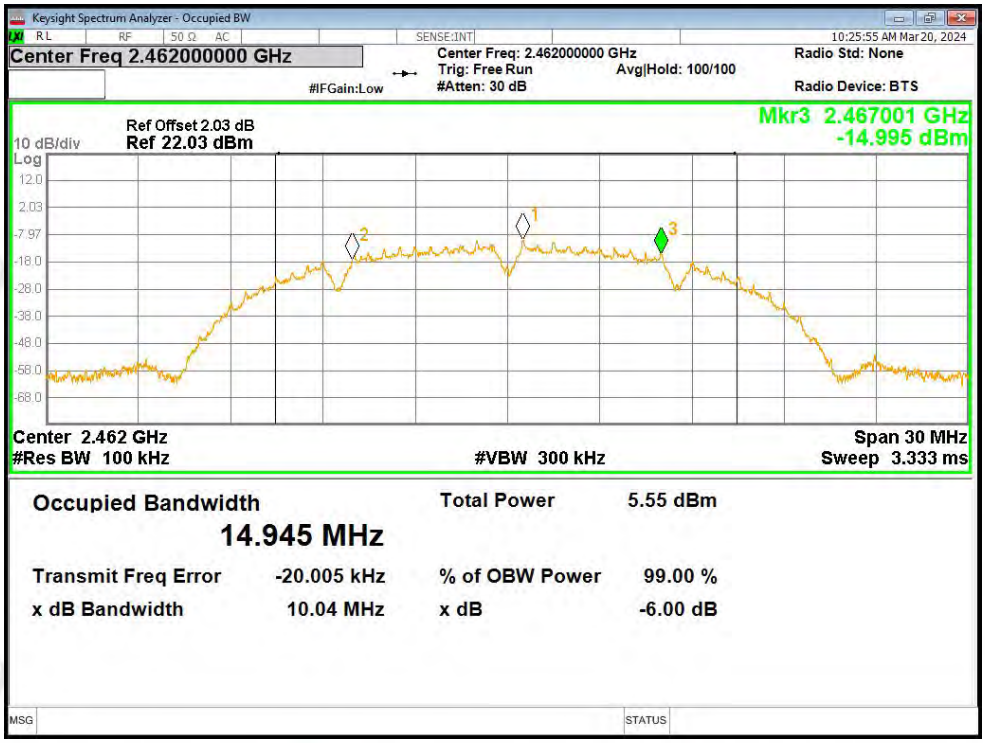
-6dB Bandwidth NVNT b 2412MHz Ant1



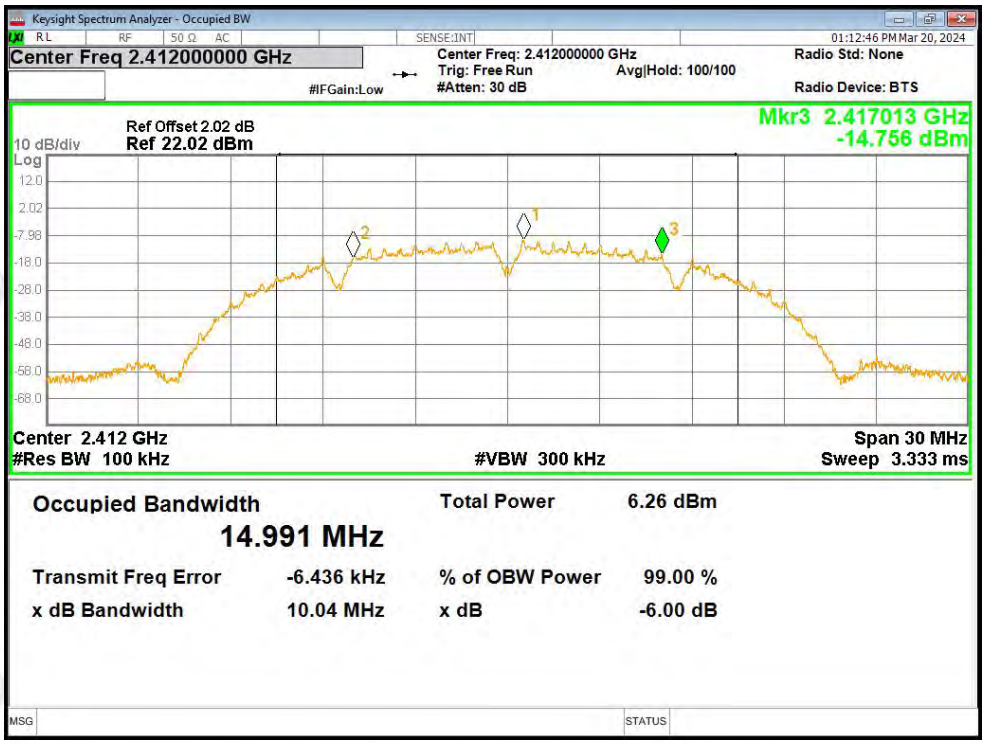
-6dB Bandwidth NVNT b 2437MHz Ant1



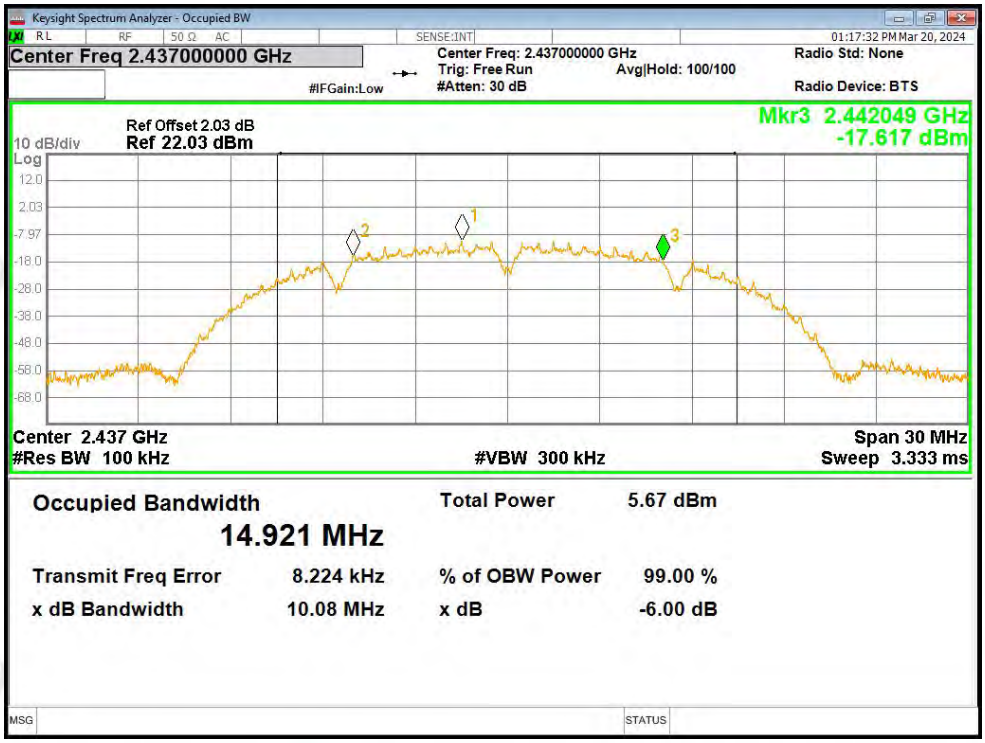
-6dB Bandwidth NVNT b 2462MHz Ant1



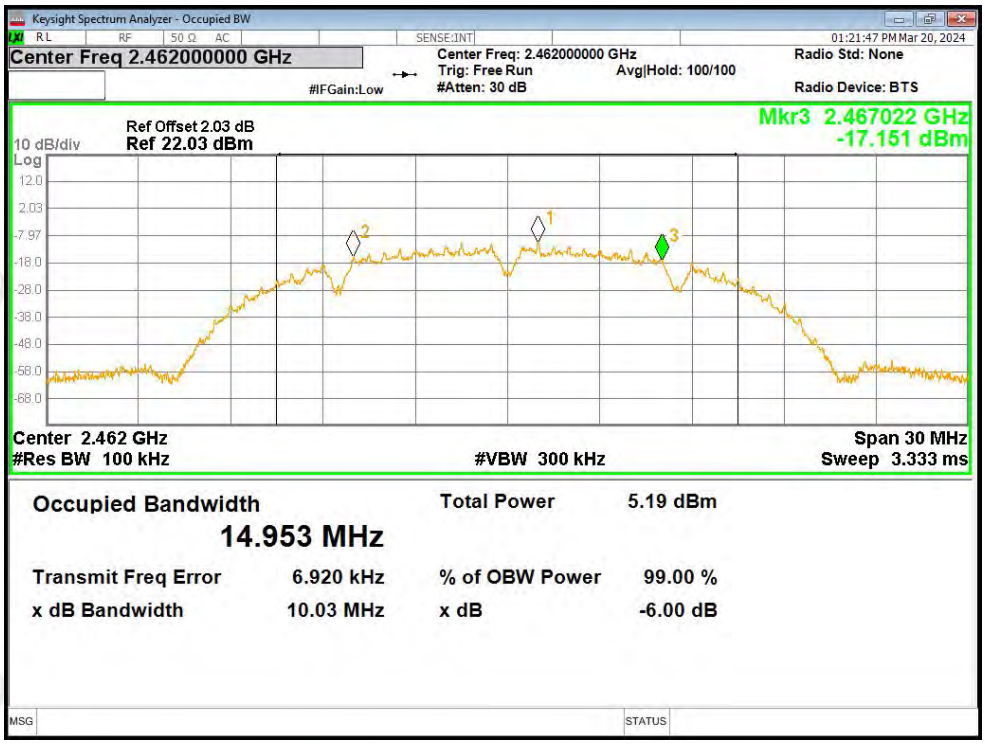
-6dB Bandwidth NVNT b 2412MHz Ant2



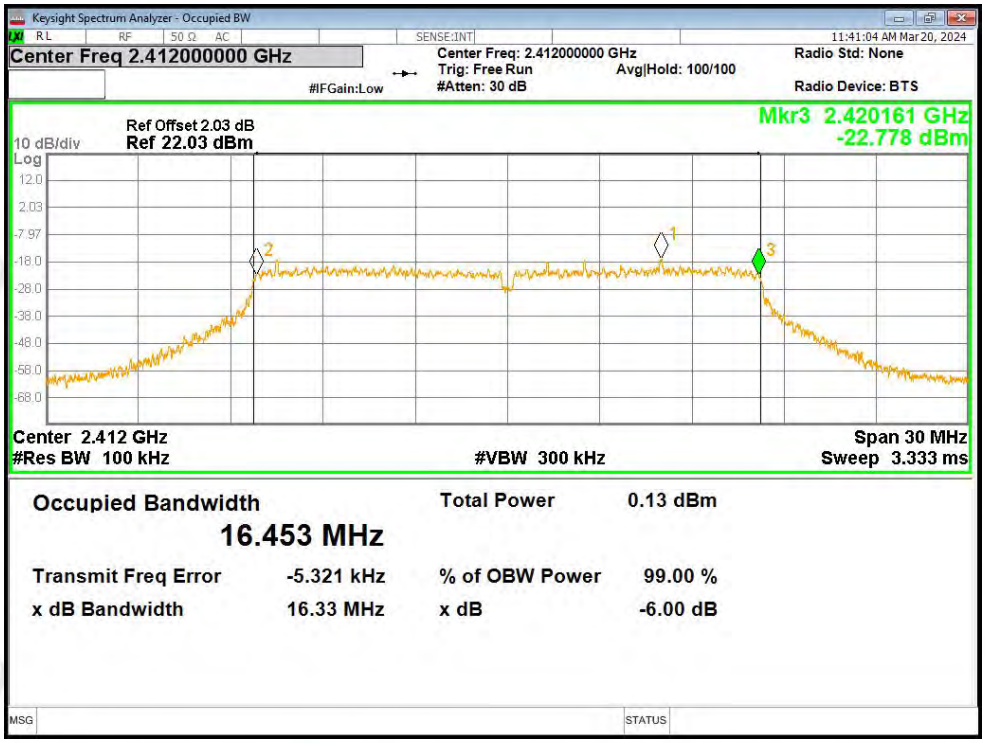
-6dB Bandwidth NVNT b 2437MHz Ant2



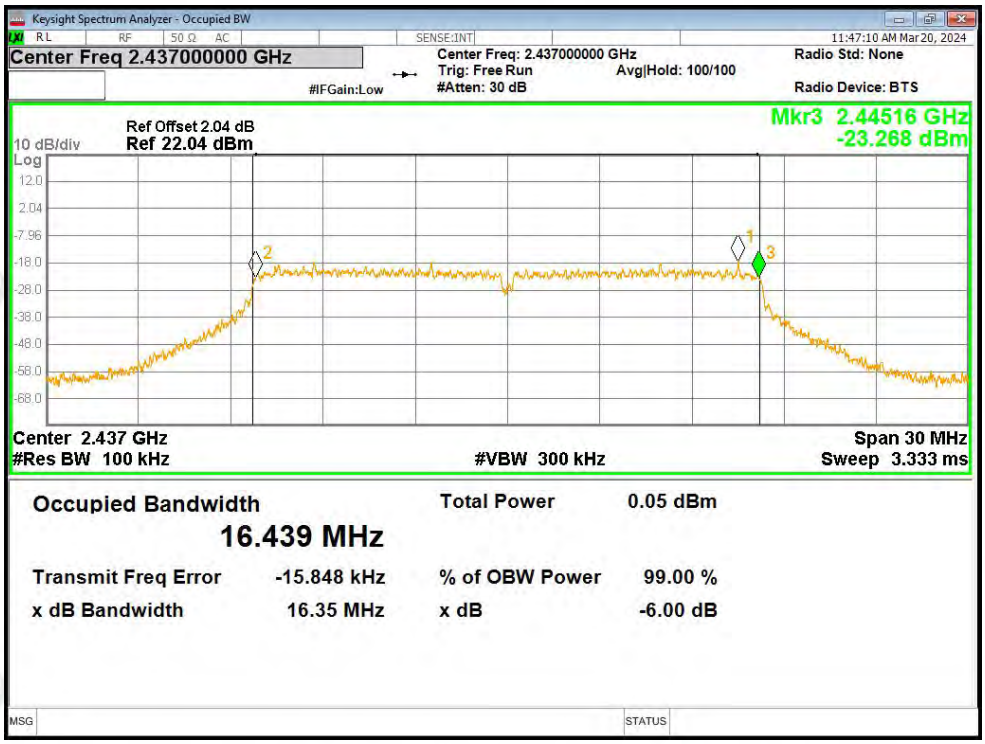
-6dB Bandwidth NVNT b 2462MHz Ant2



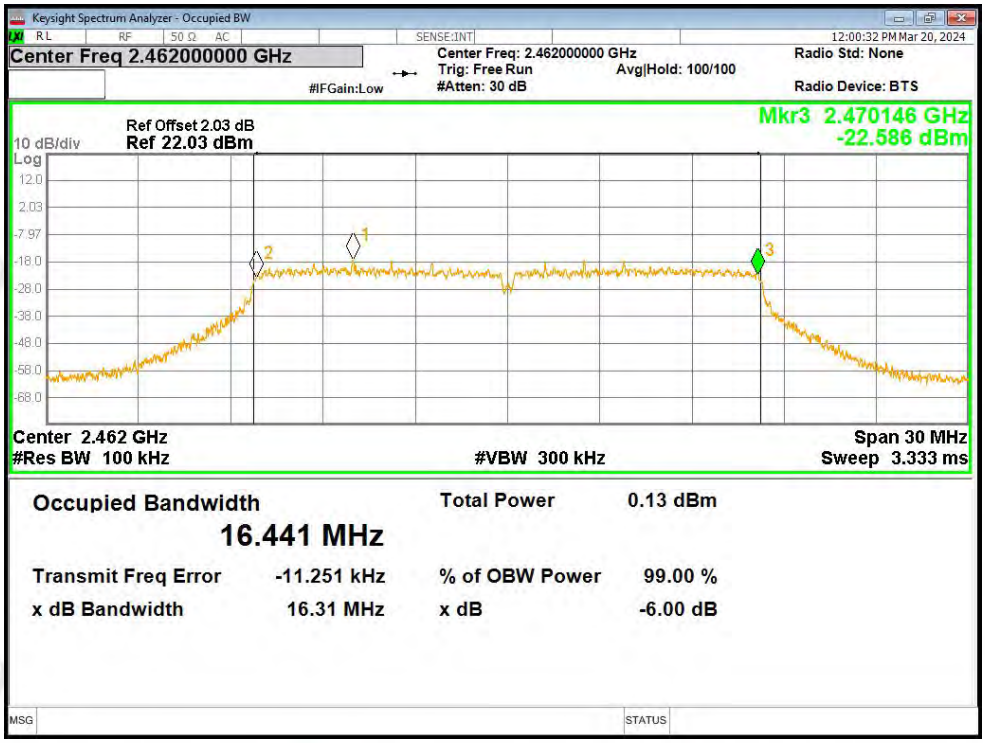
-6dB Bandwidth NVNT g 2412MHz Ant1



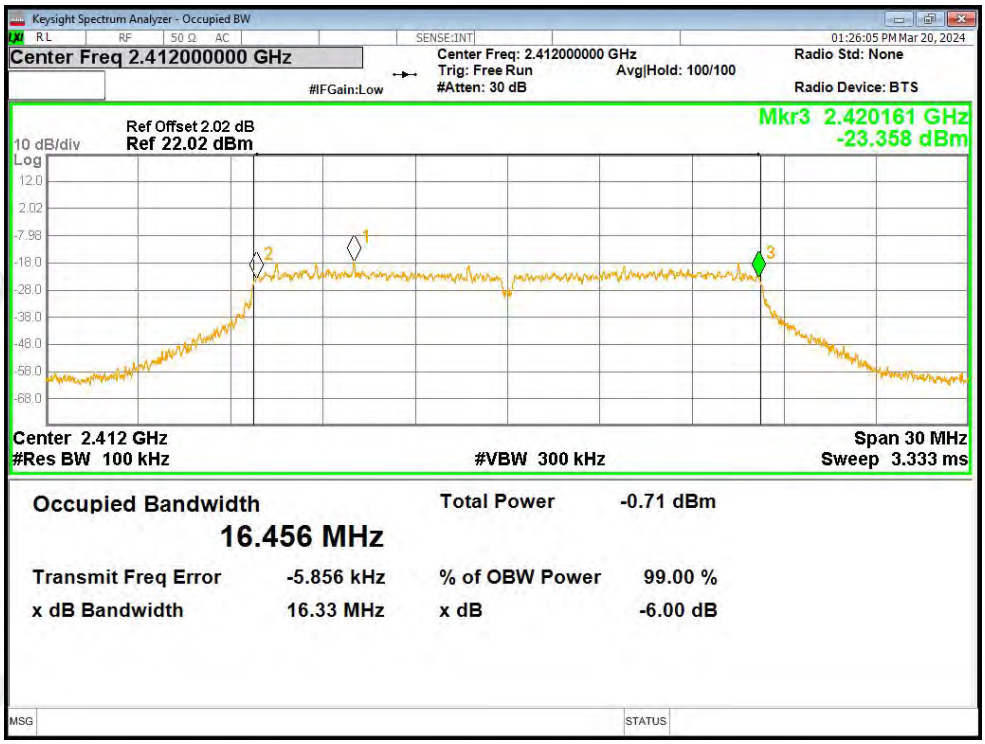
-6dB Bandwidth NVNT g 2437MHz Ant1



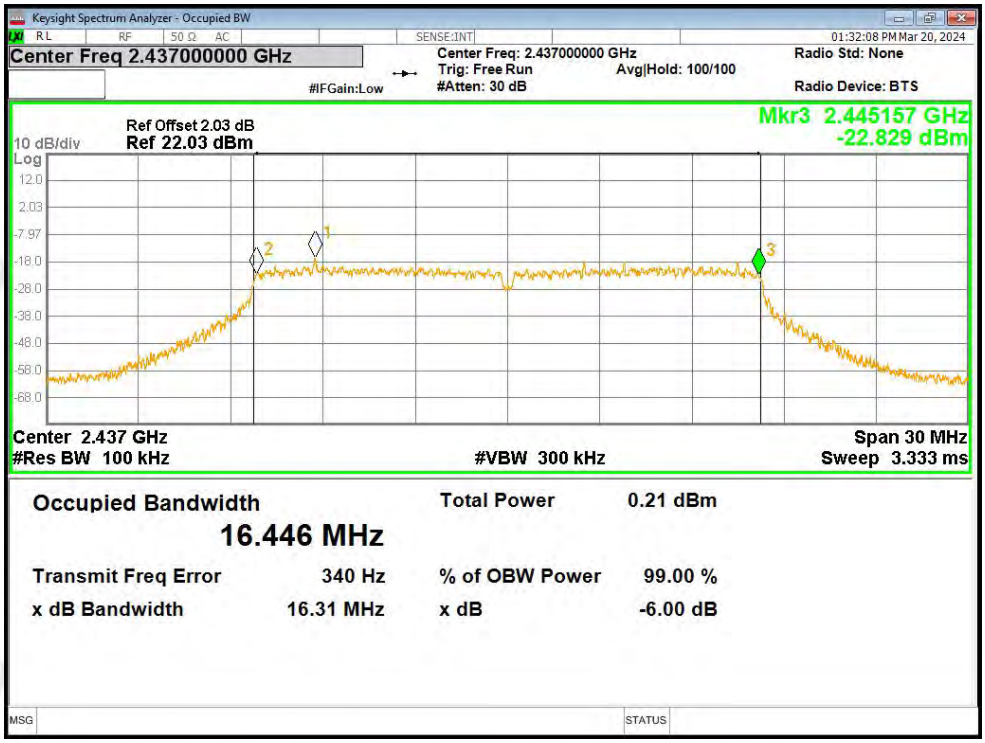
-6dB Bandwidth NVNT g 2462MHz Ant1



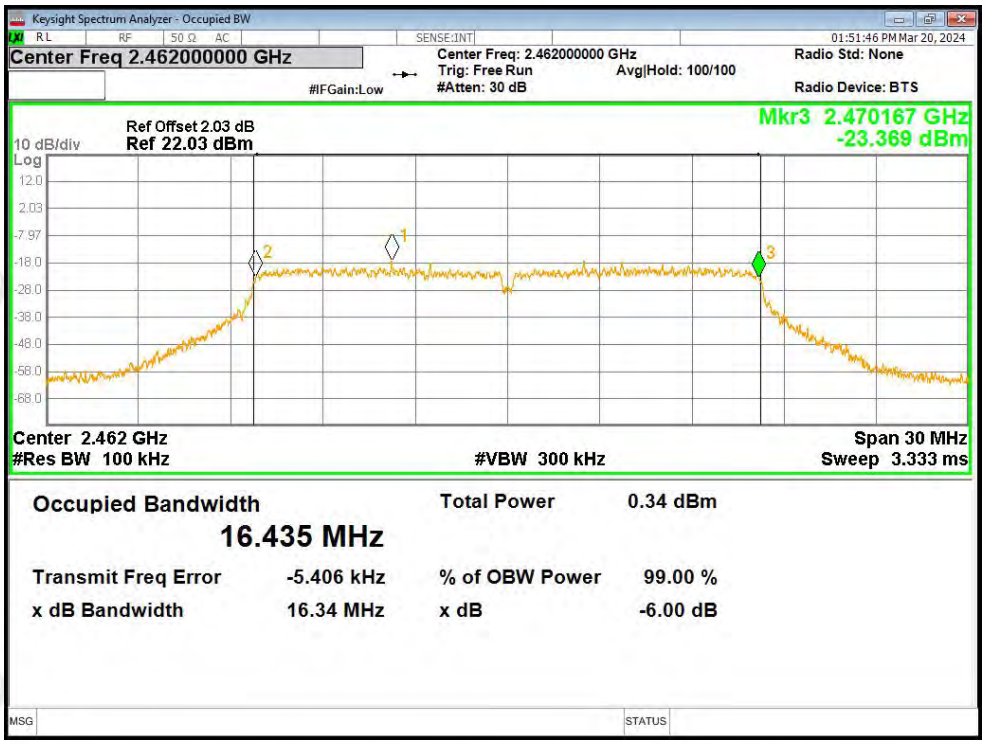
-6dB Bandwidth NVNT g 2412MHz Ant2



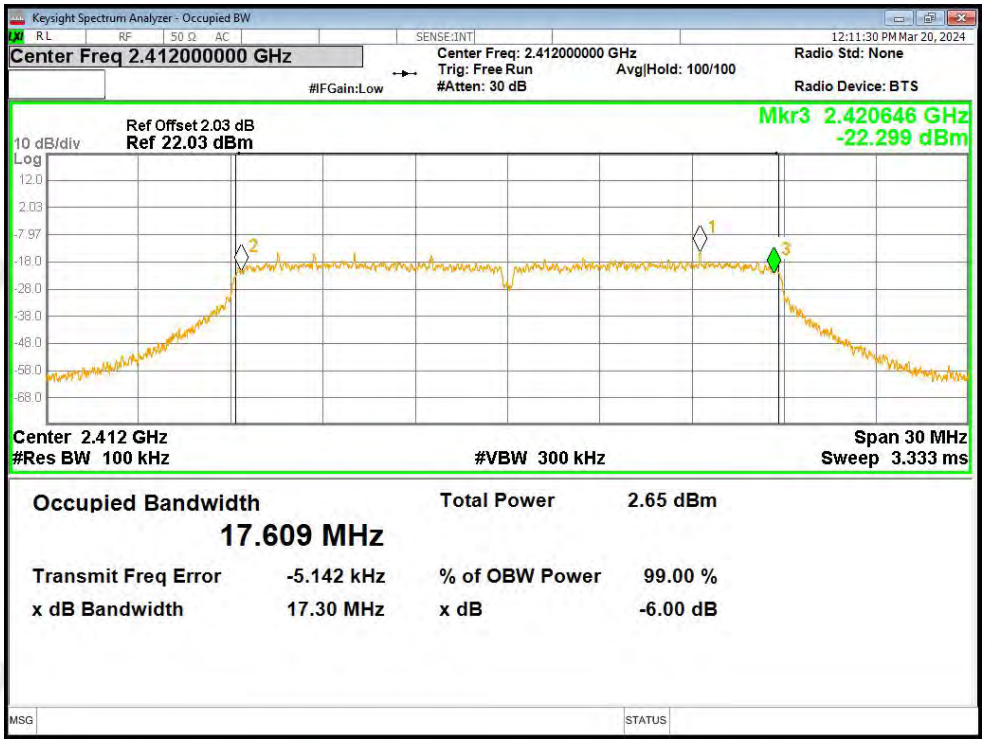
-6dB Bandwidth NVNT g 2437MHz Ant2



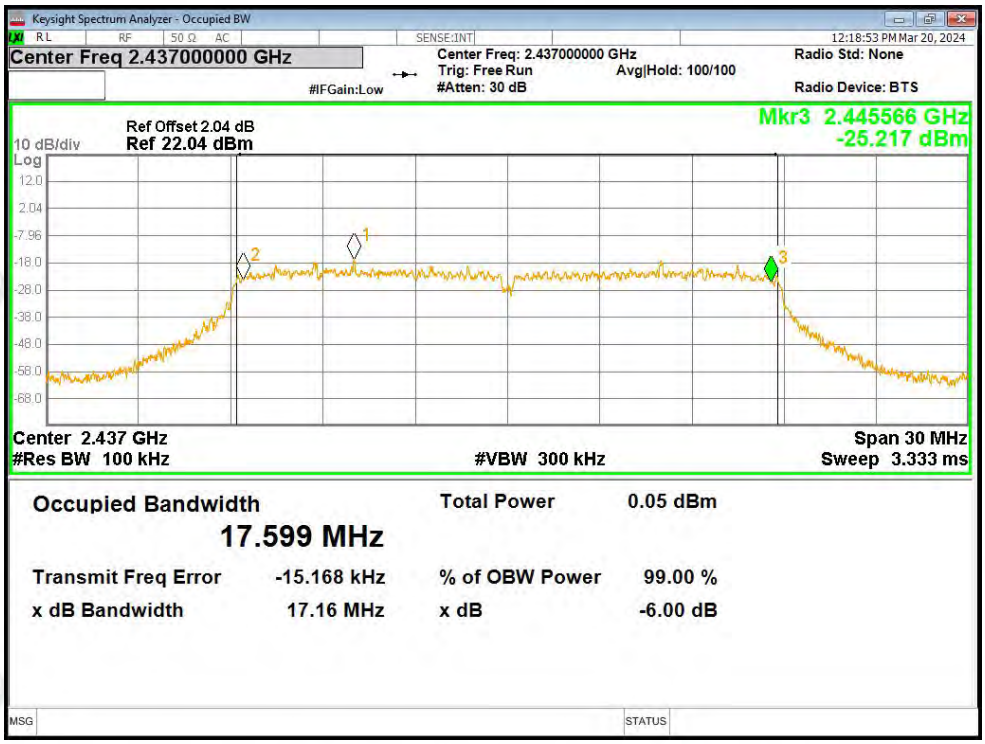
-6dB Bandwidth NVNT g 2462MHz Ant2



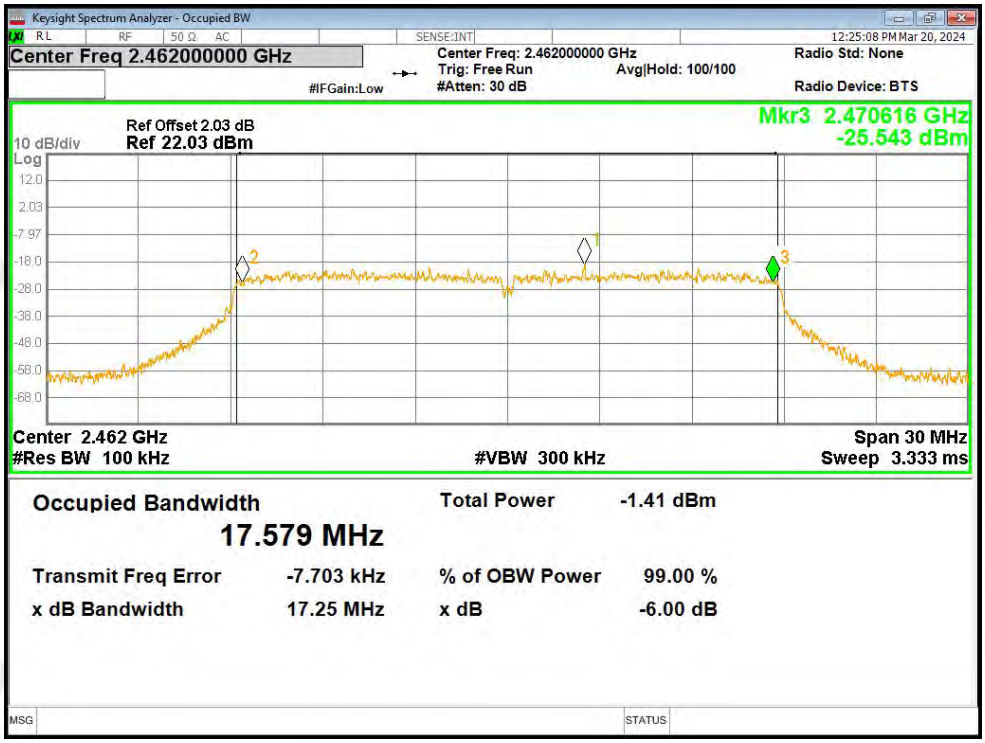
-6dB Bandwidth NVNT n20 2412MHz Ant1



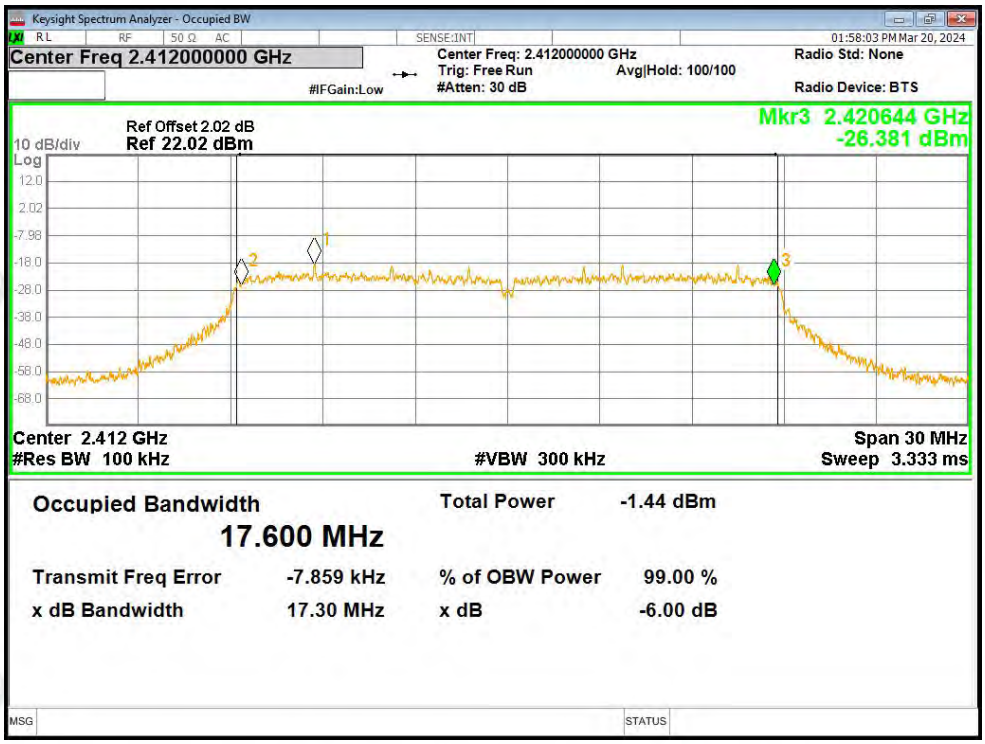
-6dB Bandwidth NVNT n20 2437MHz Ant1



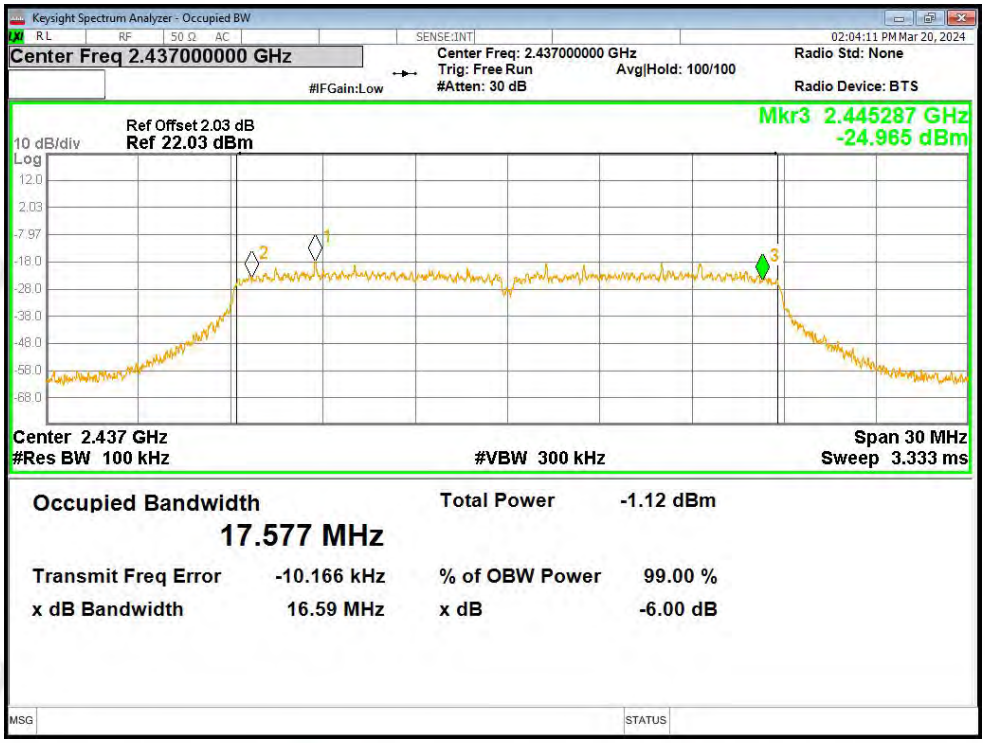
-6dB Bandwidth NVNT n20 2462MHz Ant1



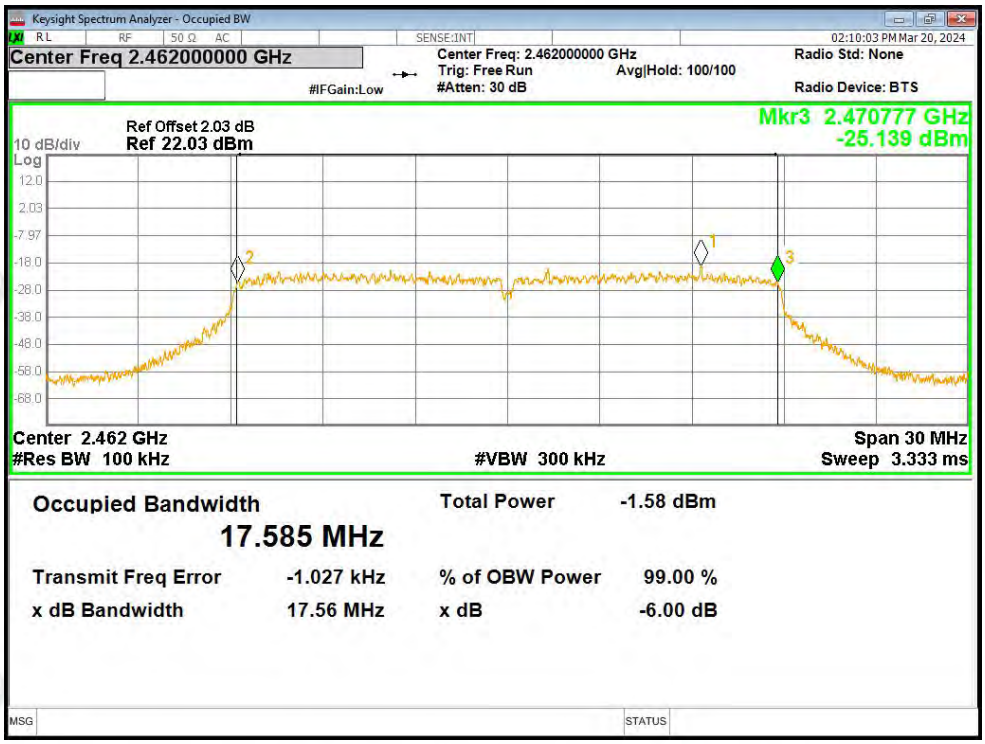
-6dB Bandwidth NVNT n20 2412MHz Ant2



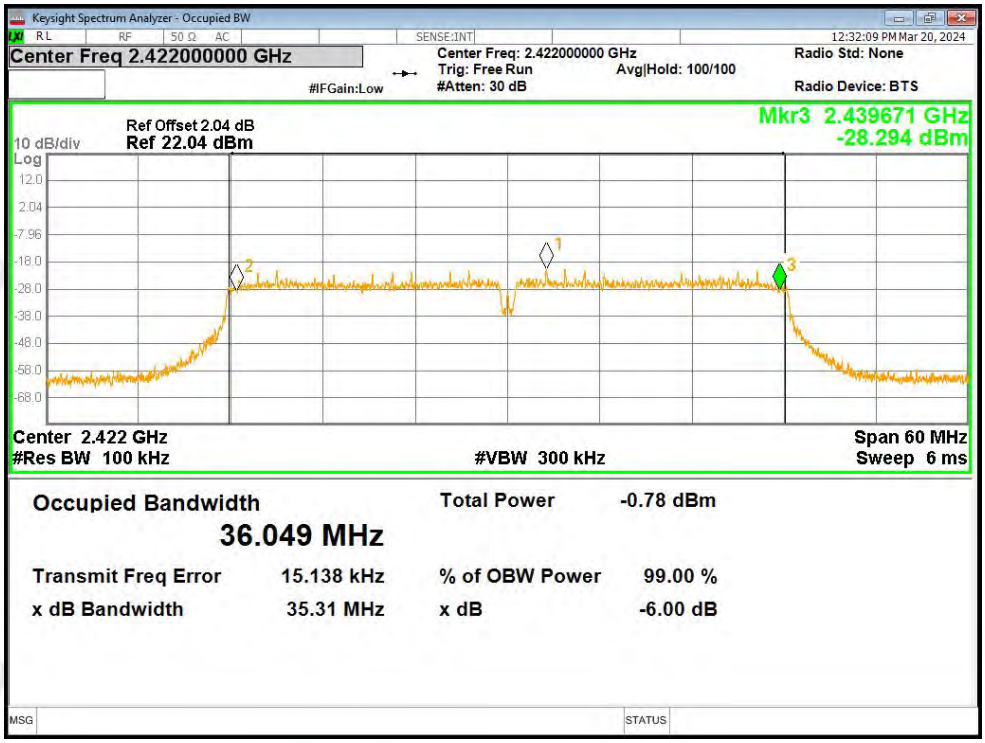
-6dB Bandwidth NVNT n20 2437MHz Ant2



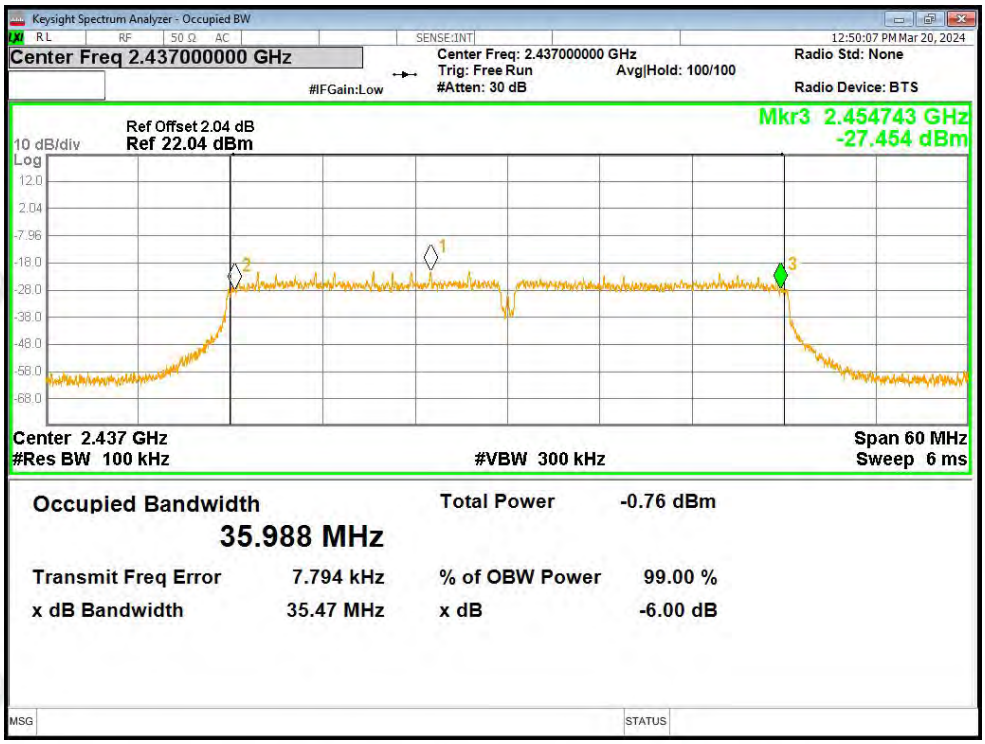
-6dB Bandwidth NVNT n20 2462MHz Ant2



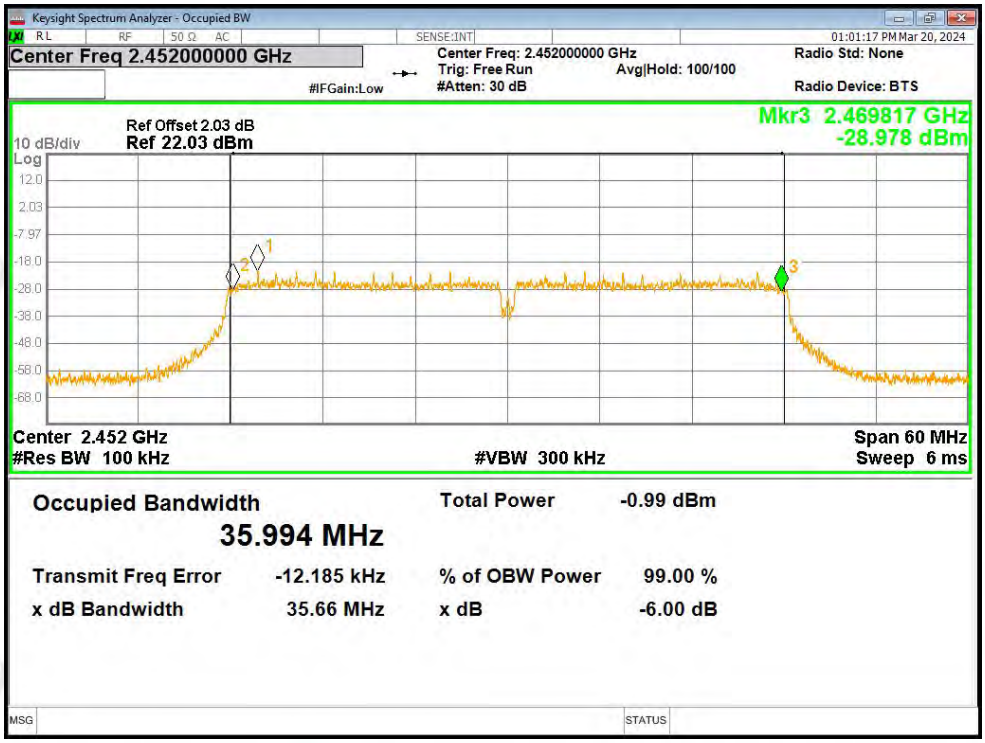
-6dB Bandwidth NVNT n40 2422MHz Ant1



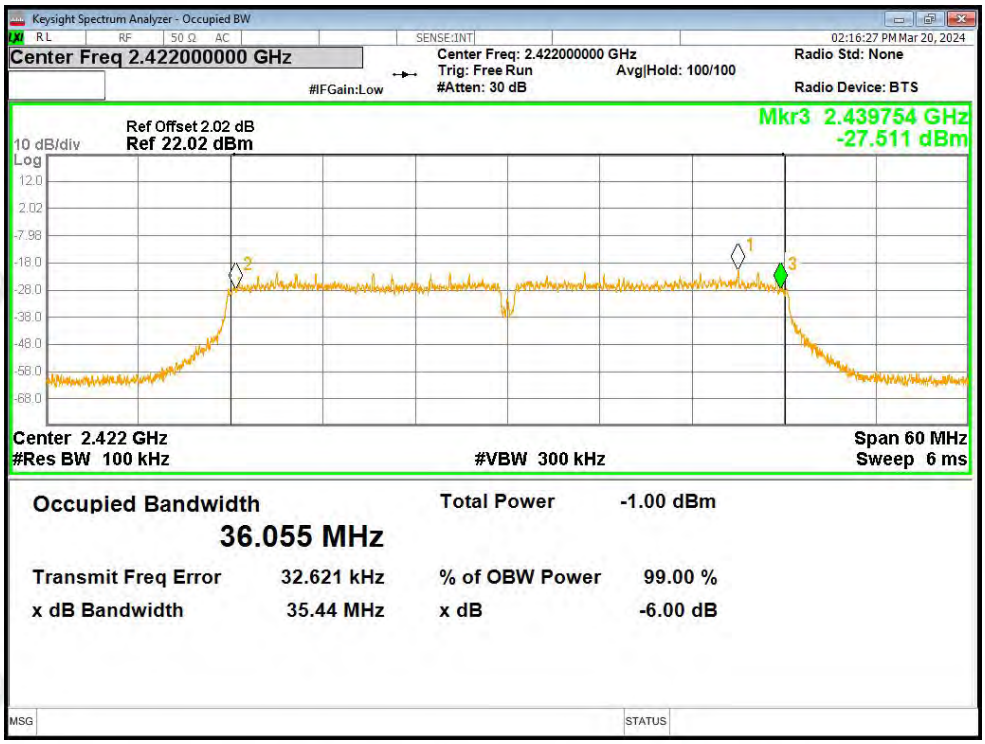
-6dB Bandwidth NVNT n40 2437MHz Ant1



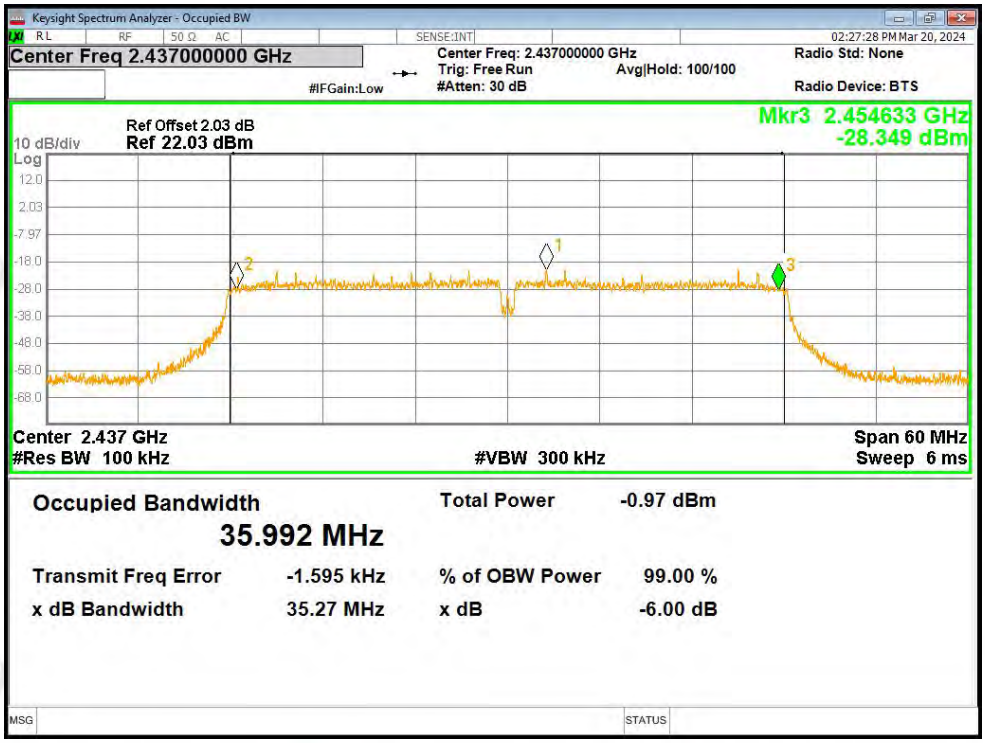
-6dB Bandwidth NVNT n40 2452MHz Ant1



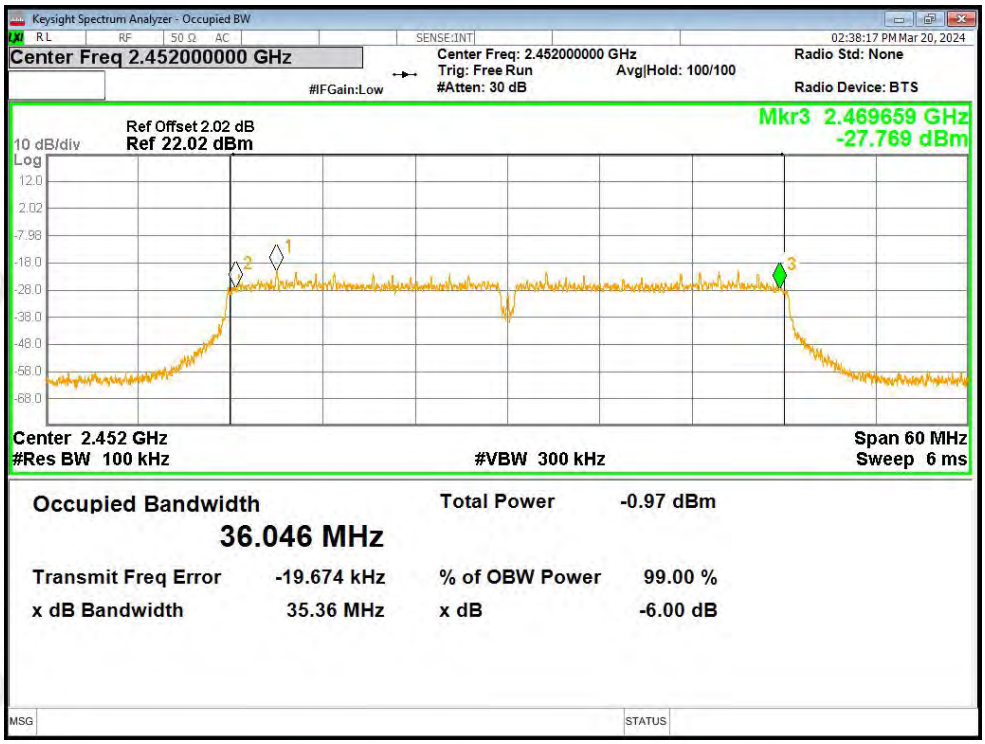
-6dB Bandwidth NVNT n40 2422MHz Ant2



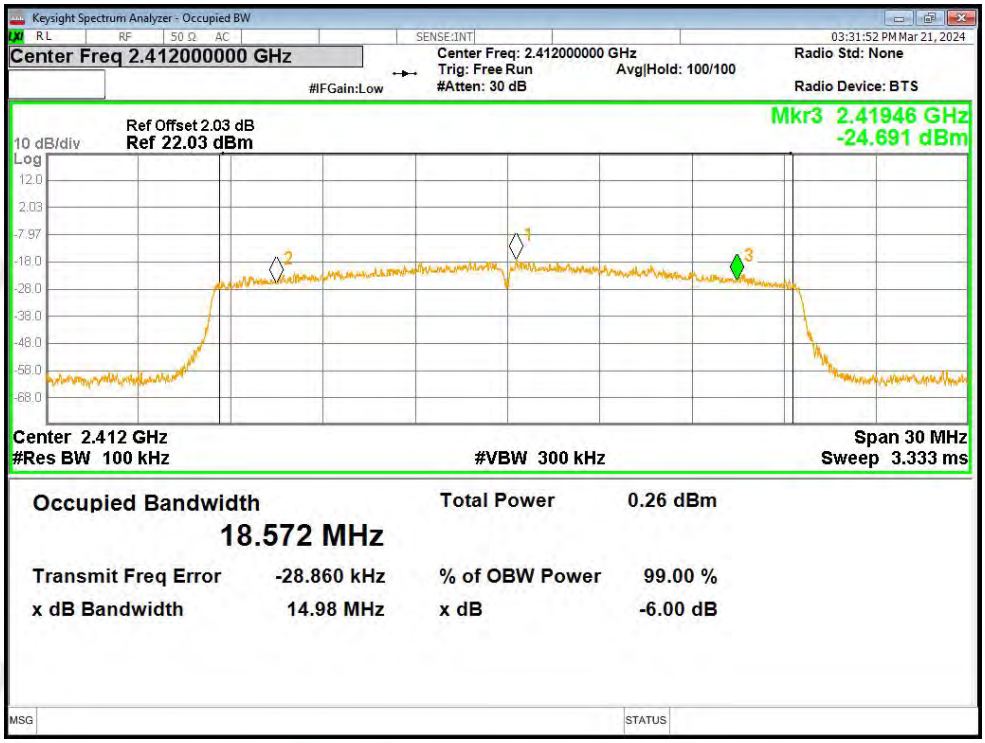
-6dB Bandwidth NVNT n40 2437MHz Ant2



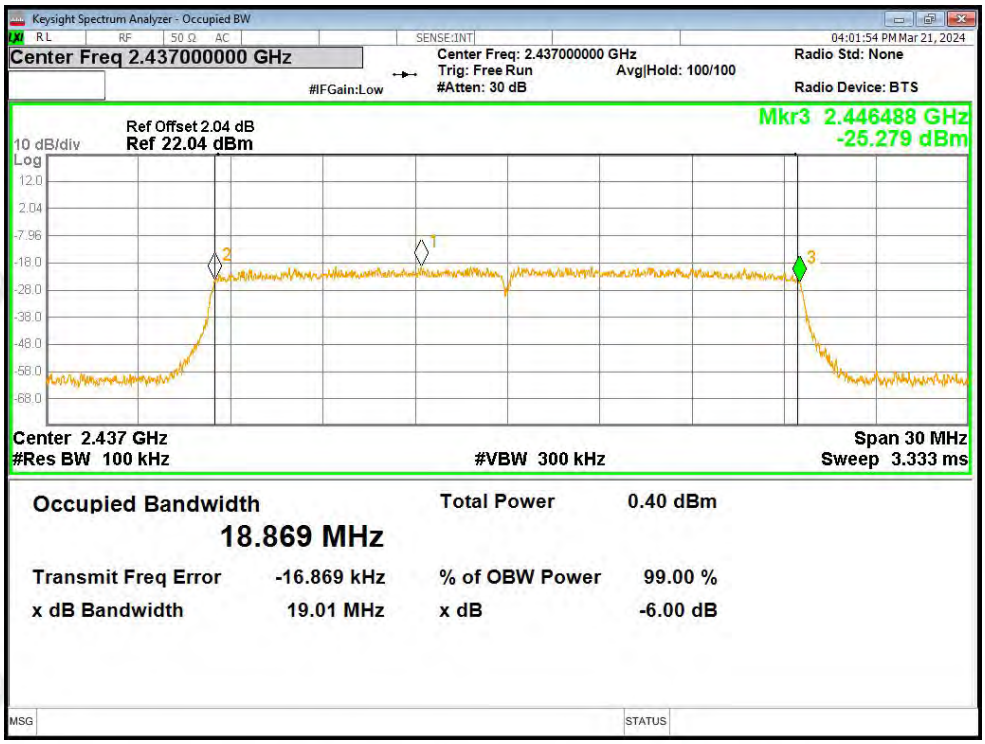
-6dB Bandwidth NVNT n40 2452MHz Ant2



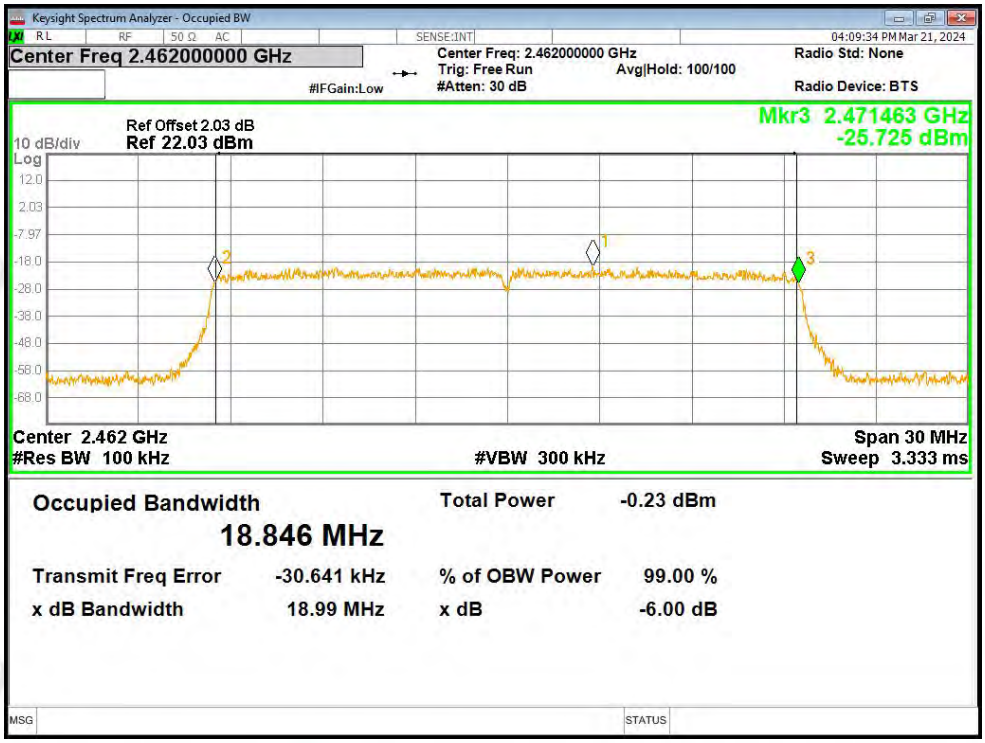
-6dB Bandwidth NVNT ax20 2412MHz Ant1



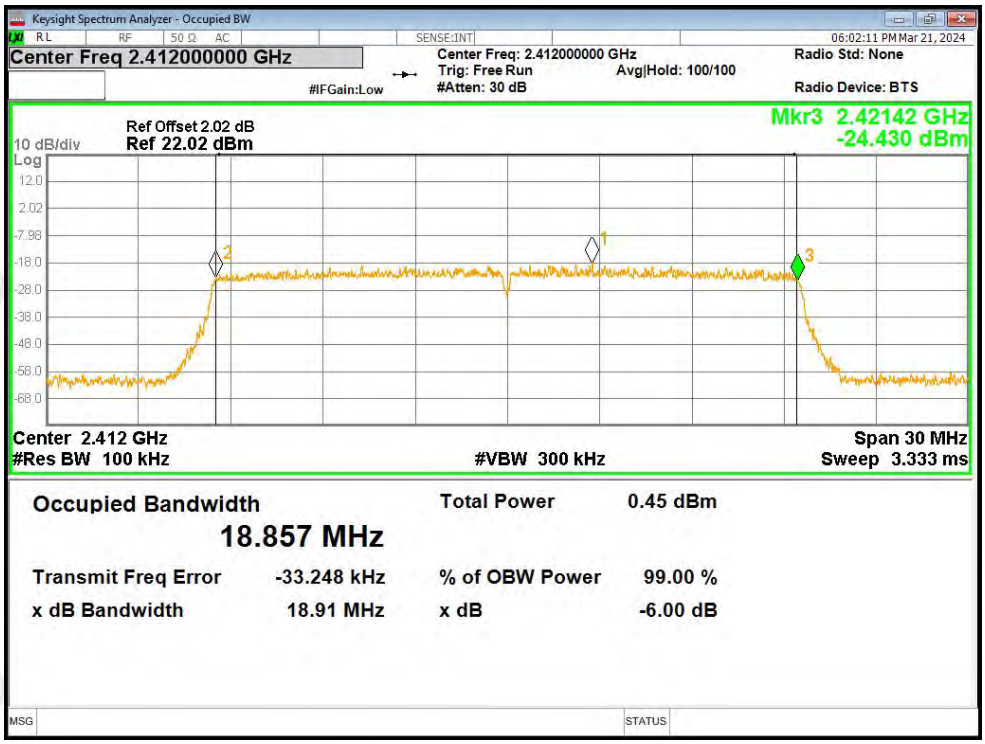
-6dB Bandwidth NVNT ax20 2437MHz Ant1



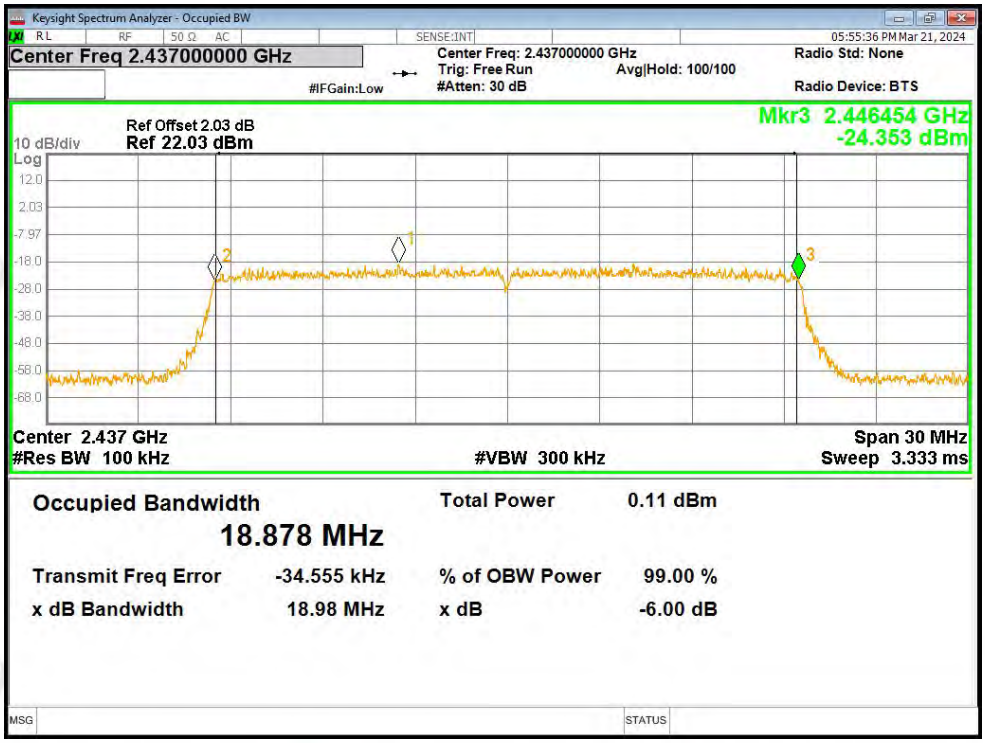
-6dB Bandwidth NVNT ax20 2462MHz Ant1



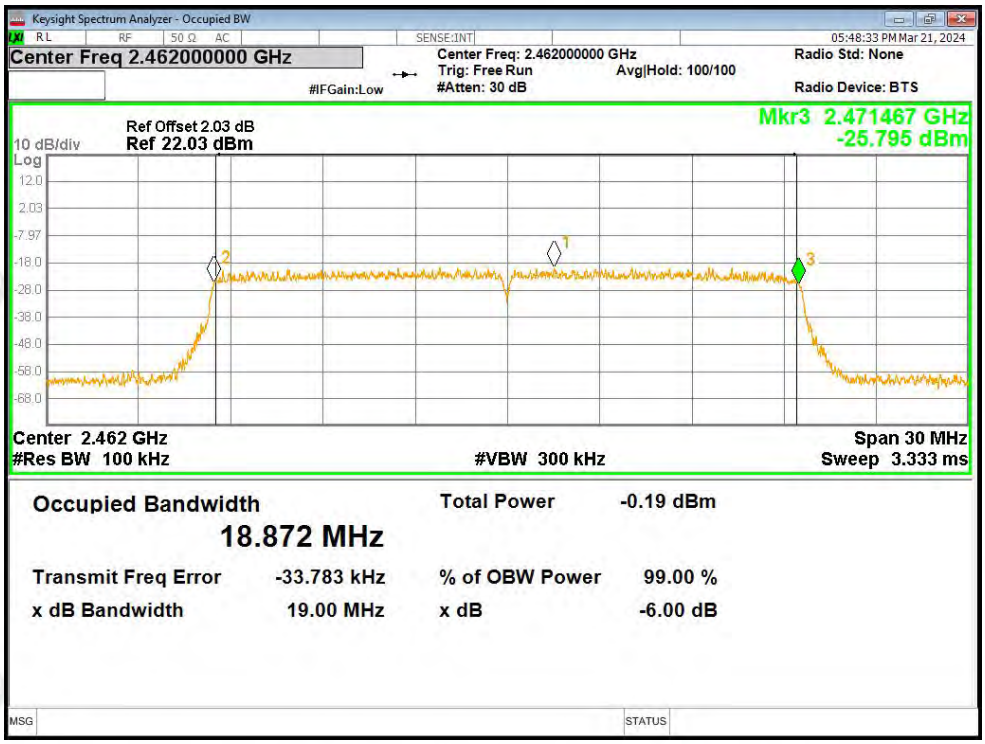
-6dB Bandwidth NVNT ax20 2412MHz Ant2



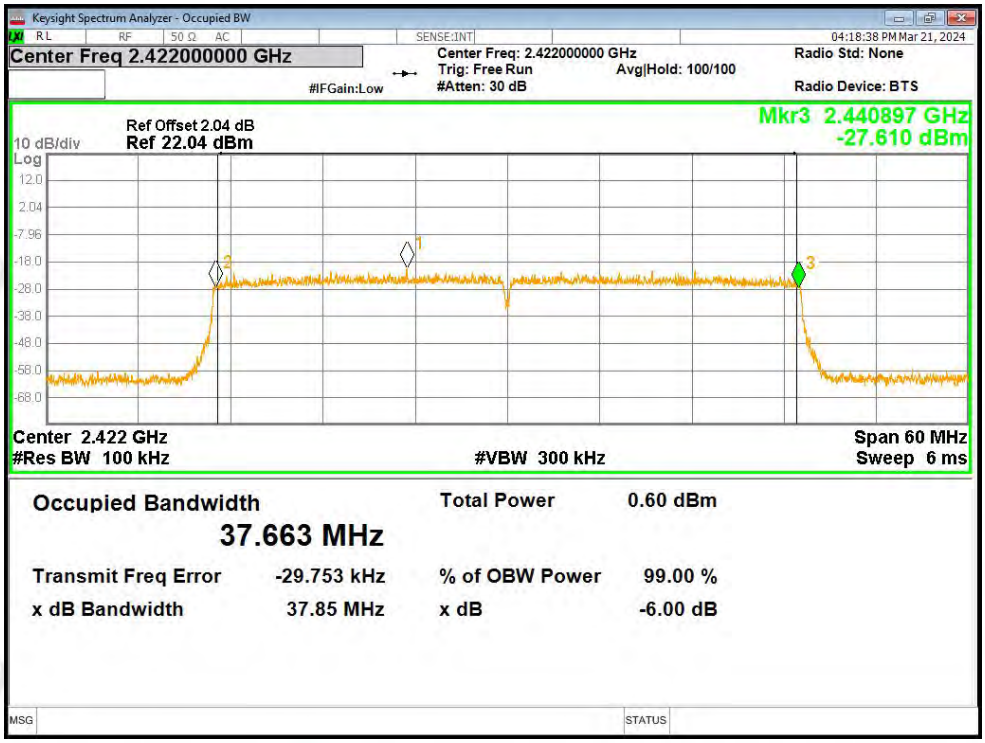
-6dB Bandwidth NVNT ax20 2437MHz Ant2



-6dB Bandwidth NVNT ax20 2462MHz Ant2

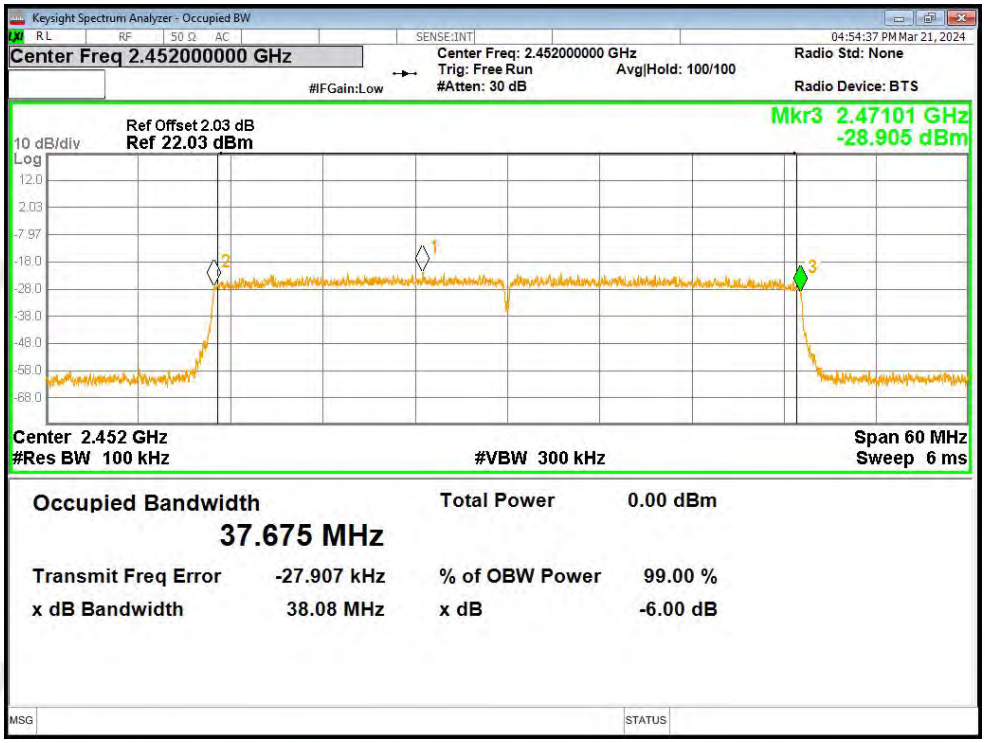


-6dB Bandwidth NVNT ax40 2422MHz Ant1

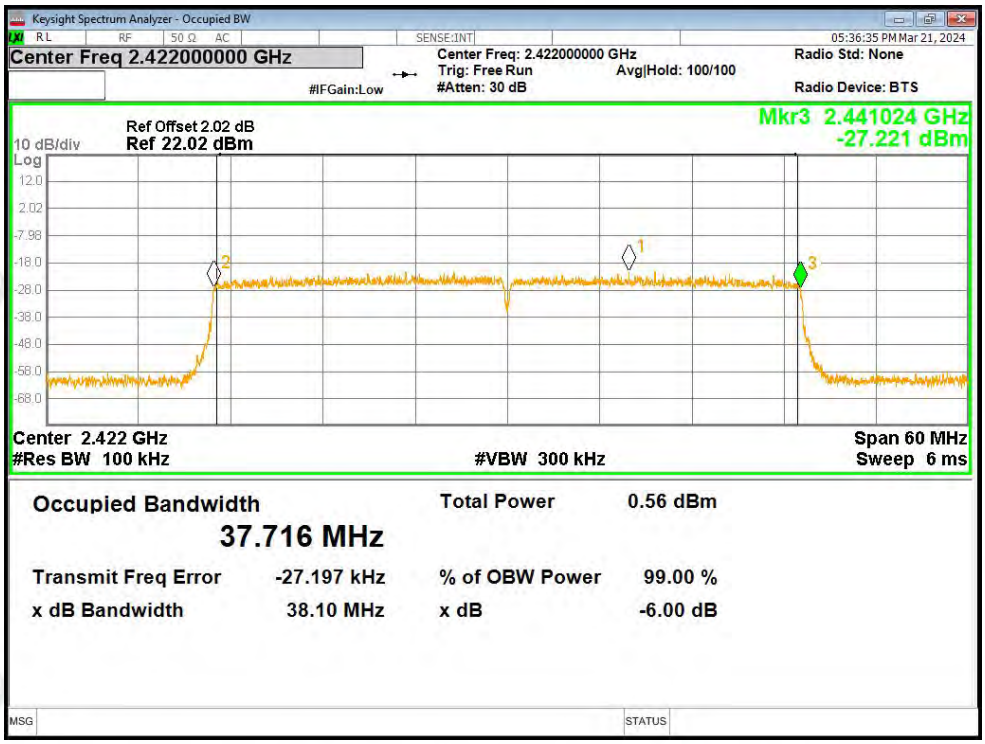


-6dB Bandwidth NVNT ax40 2437MHz Ant1

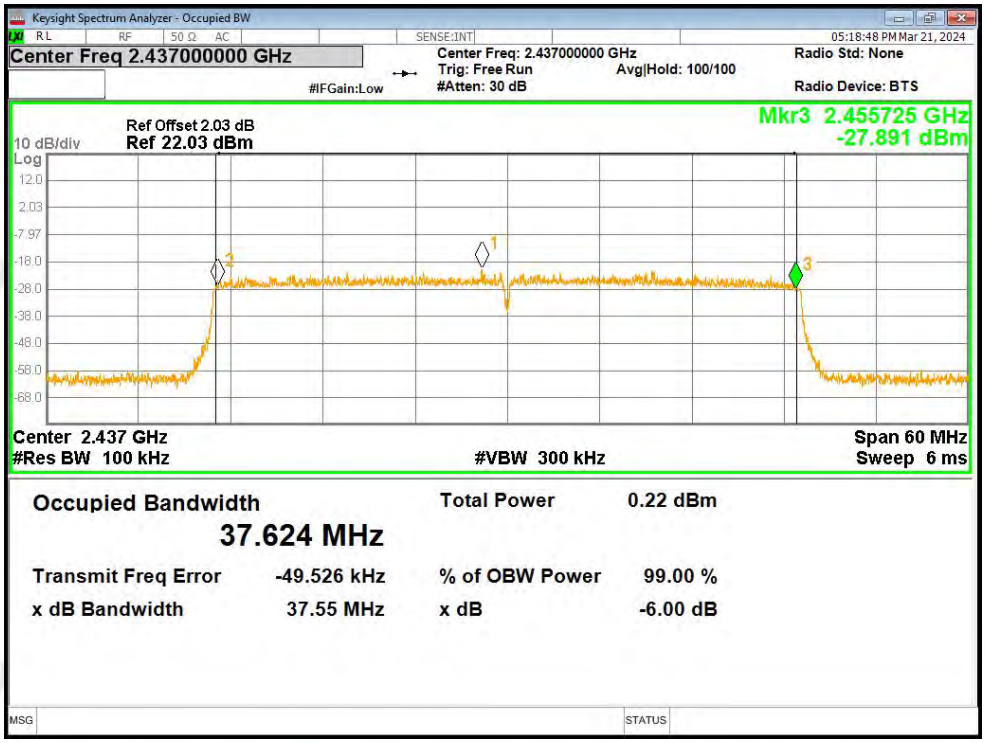
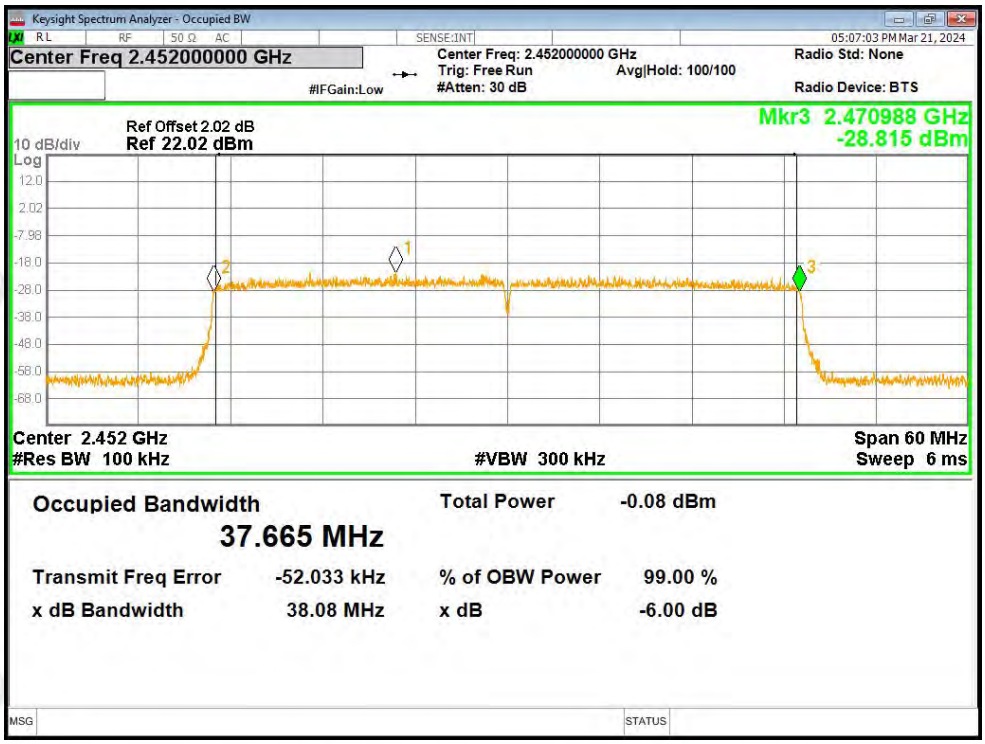
-6dB Bandwidth NVNT ax40 2452MHz Ant1



-6dB Bandwidth NVNT ax40 2422MHz Ant2



-6dB Bandwidth NVNT ax40 2437MHz Ant2



-6dB Bandwidth NVNT ax40 2452MHz Ant2