

ANNEX 1 TEST DATA

FCC ID: 2A5SN-XD852

Applicant: Hangzhou Sanford Technology Co., Ltd

Address: 2853 Yuhangtang Rd., Building 1 Room 1203, Hangzhou, 311121, China

Manufacturer: Zhejiang Sanford Intelligent Gate Control System Co., Ltd.

Address: 889 Huanchengbei Rd., Building 40, Deqing County, Huzhou, 313205, China

EUT: Smart Swing Gate

Trade Mark: TOPENS

Model Number: XD852
XD551, XD552, XD551S, XD552S , XD851, XD851S, XD852S, EK365WIFI, EKD365WIFI,
EK700WIFI, EKD700WIFI, EN365WIFI, EDN365WIFI, EN700WIFI, EDN700WIFI

Date of Receipt: Apr. 15, 2025

Test Date: Apr. 15, 2025 - Apr. 29, 2025

Date of Report: Apr. 29, 2025

Prepared By: Shenzhen DL Testing Technology Co., Ltd.

Address: 101-201, Comprehensive Building, Tongzhou Electronics Longgang Factory Area, No.1
Baolong Fifth Road, Baolong Community, Baolong Street, Longgang District, Shenzhen,
China

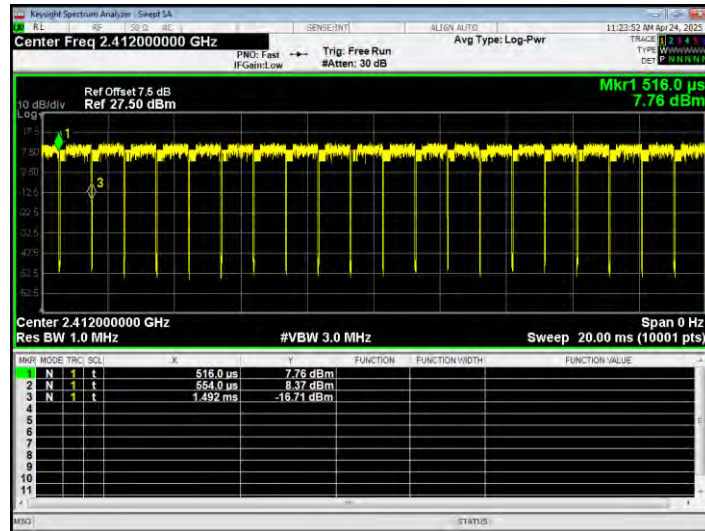
Applicable Standards: FCC PART 15 C 15.247
ANSI C63.10:2013

Test Result: Pass

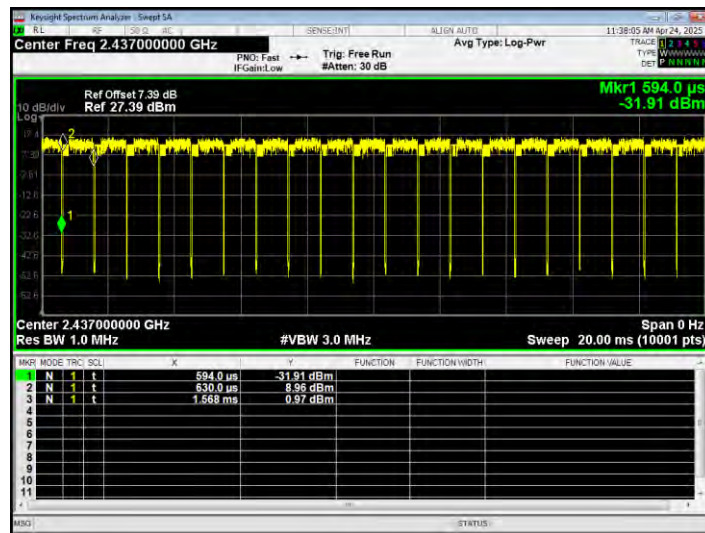
Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)
NVNT	b	2412	Ant1	96.11	0.17
NVNT	b	2437	Ant1	96.3	0.16
NVNT	b	2462	Ant1	96.31	0.16
NVNT	g	2412	Ant1	80.91	0.92
NVNT	g	2437	Ant1	80.91	0.92
NVNT	g	2462	Ant1	80.91	0.92
NVNT	n20	2412	Ant1	96.88	0.14
NVNT	n20	2437	Ant1	96.88	0.14
NVNT	n20	2462	Ant1	96.73	0.14
NVNT	n40	2422	Ant1	93.93	0.27
NVNT	n40	2437	Ant1	93.93	0.27
NVNT	n40	2452	Ant1	93.93	0.27

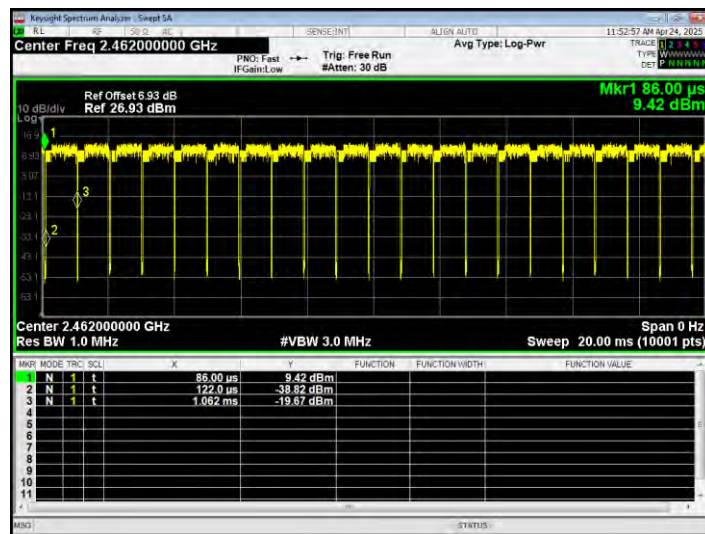
Duty Cycle NVNT b 2412MHz Ant1



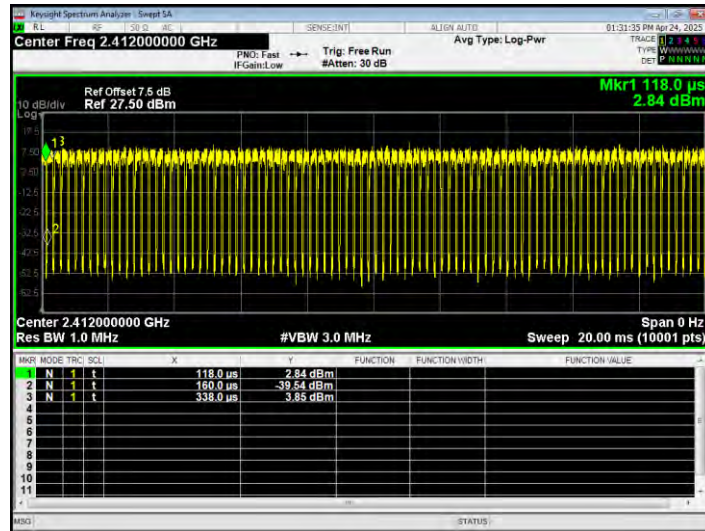
Duty Cycle NVNT b 2437MHz Ant1



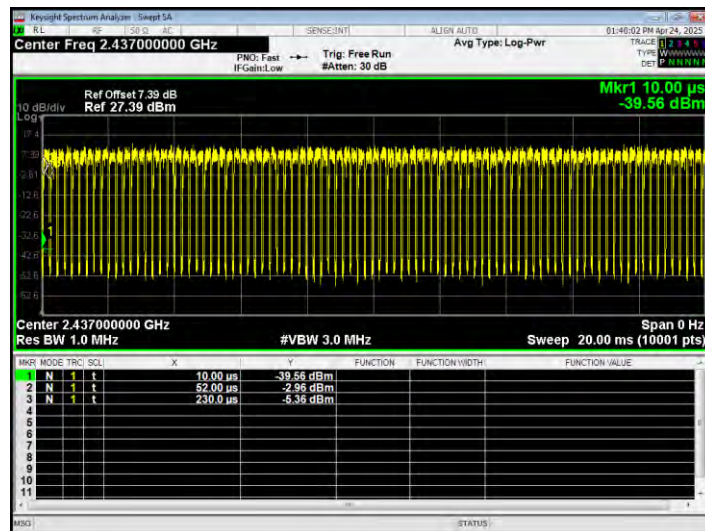
Duty Cycle NVNT b 2462MHz Ant1



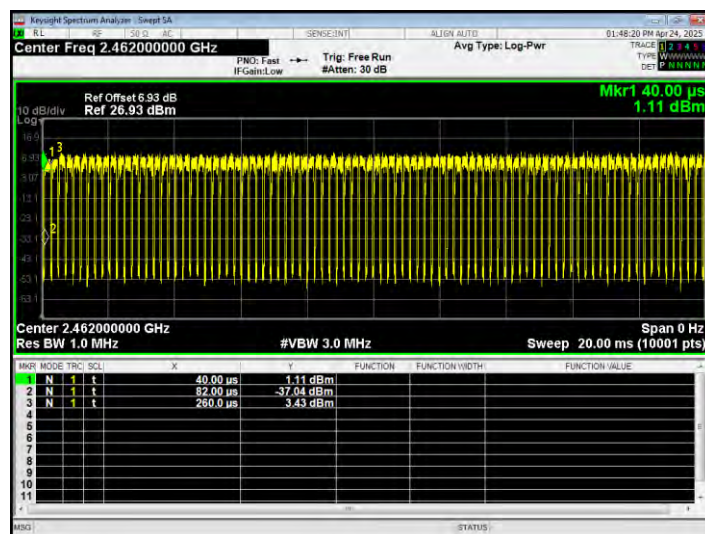
Duty Cycle NVNT g 2412MHz Ant1



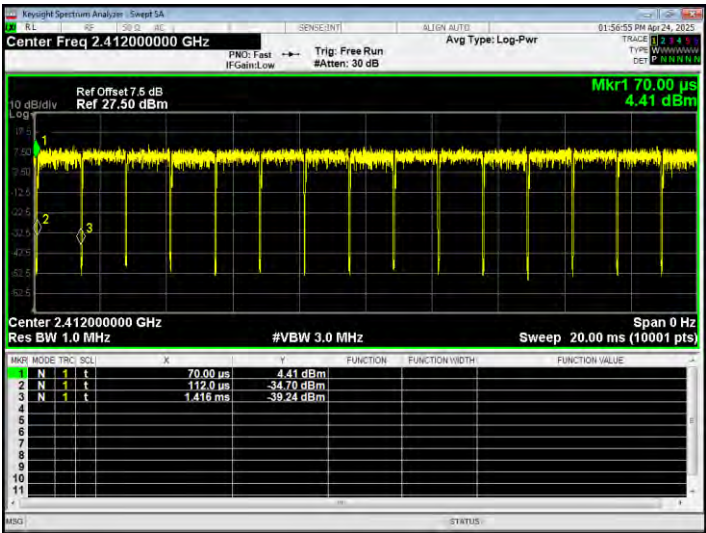
Duty Cycle NVNT g 2437MHz Ant1



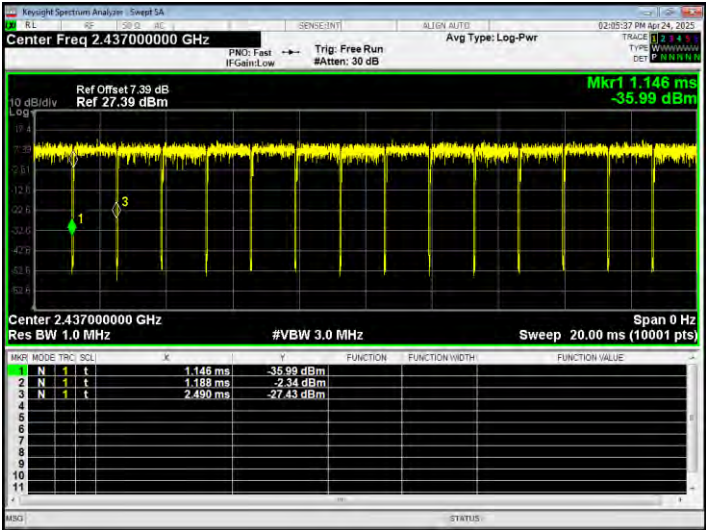
Duty Cycle NVNT g 2462MHz Ant1



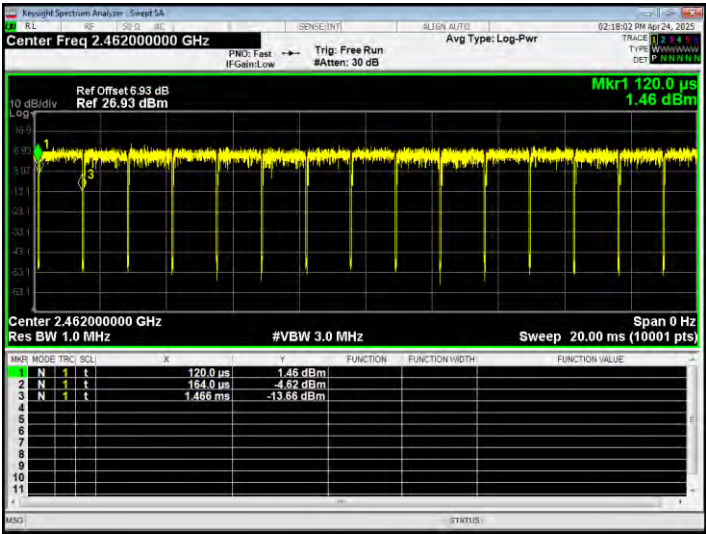
Duty Cycle NVNT n20 2412MHz Ant1



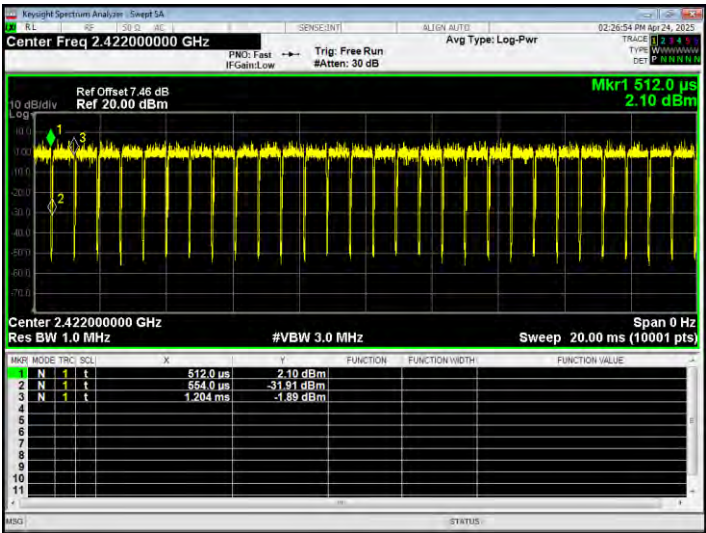
Duty Cycle NVNT n20 2437MHz Ant1



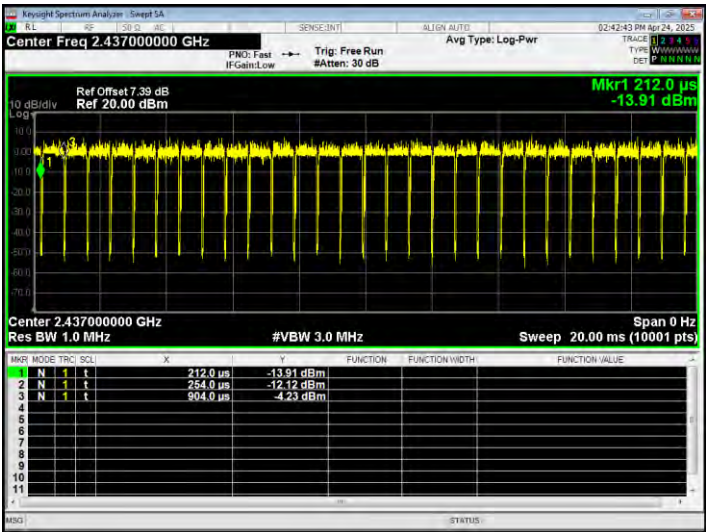
Duty Cycle NVNT n20 2462MHz Ant1



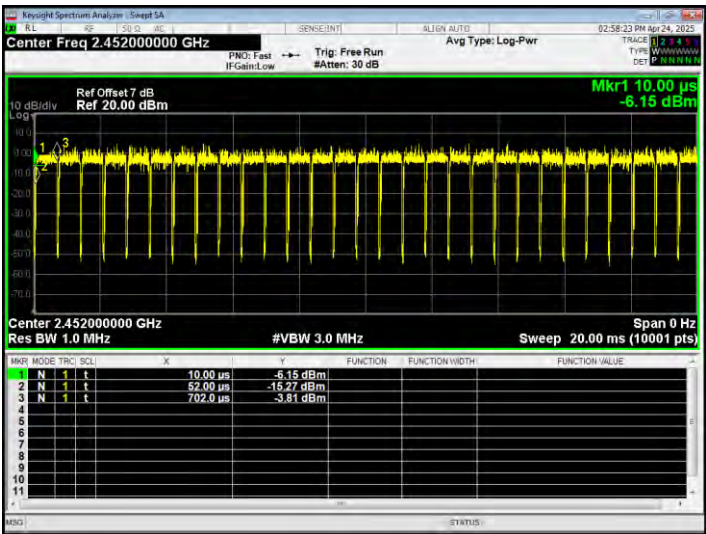
Duty Cycle NVNT n40 2422MHz Ant1



Duty Cycle NVNT n40 2437MHz Ant1



Duty Cycle NVNT n40 2452MHz Ant1



Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	14.078	0.17	14.248	30	Pass
NVNT	b	2437	Ant1	14.632	0.16	14.792	30	Pass
NVNT	b	2462	Ant1	14.967	0.16	15.127	30	Pass
NVNT	g	2412	Ant1	13.176	0.92	14.096	30	Pass
NVNT	g	2437	Ant1	13.975	0.92	14.895	30	Pass
NVNT	g	2462	Ant1	11.817	0.92	12.737	30	Pass
NVNT	n20	2412	Ant1	14.301	0.14	14.441	30	Pass
NVNT	n20	2437	Ant1	15.021	0.14	15.161	30	Pass
NVNT	n20	2462	Ant1	12.694	0.14	12.834	30	Pass
NVNT	n40	2422	Ant1	13.837	0.27	14.107	30	Pass
NVNT	n40	2437	Ant1	14.217	0.27	14.487	30	Pass
NVNT	n40	2452	Ant1	12.708	0.27	12.978	30	Pass

Power NVNT b 2412MHz Ant1



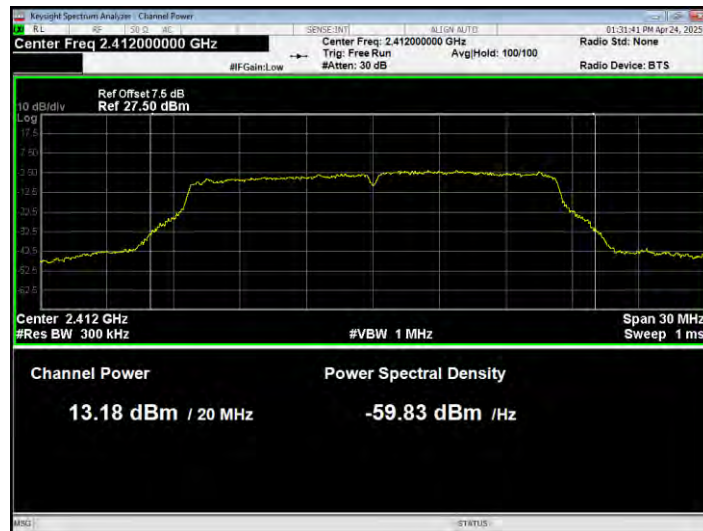
Power NVNT b 2437MHz Ant1



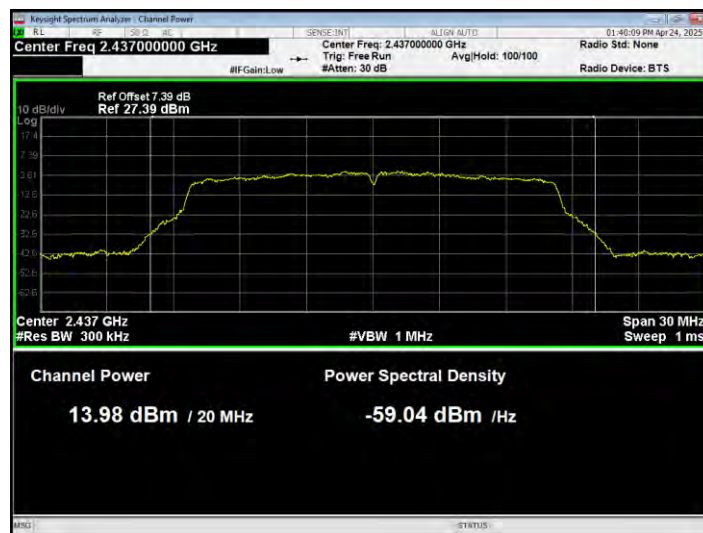
Power NVNT b 2462MHz Ant1



Power NVNT g 2412MHz Ant1



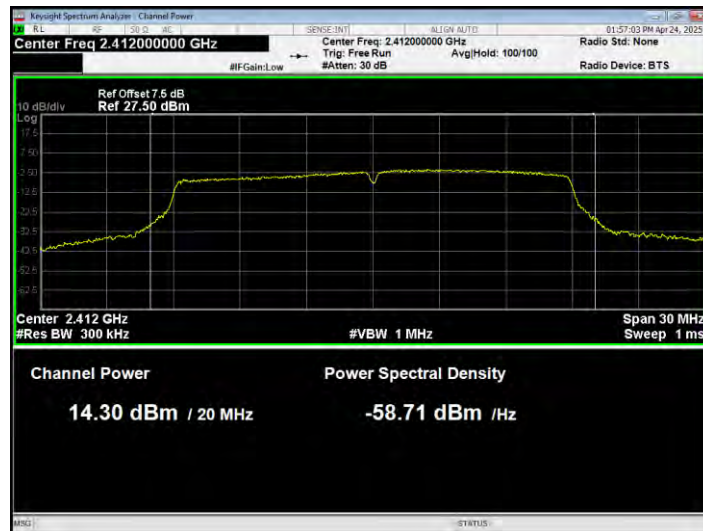
Power NVNT g 2437MHz Ant1



Power NVNT g 2462MHz Ant1



Power NVNT n20 2412MHz Ant1



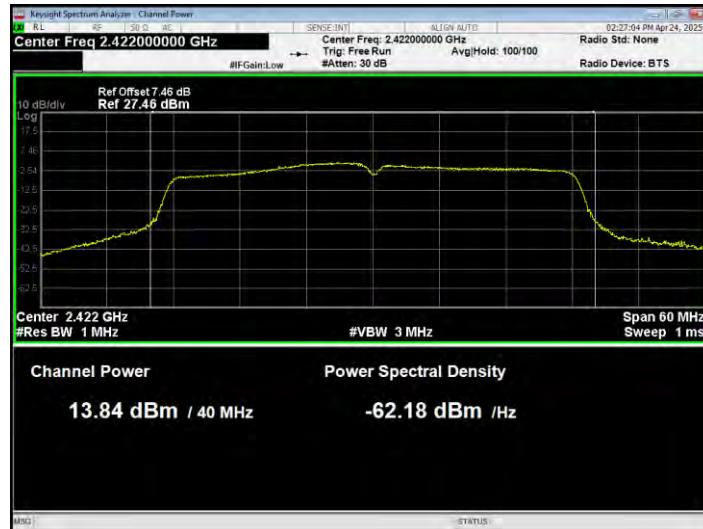
Power NVNT n20 2437MHz Ant1



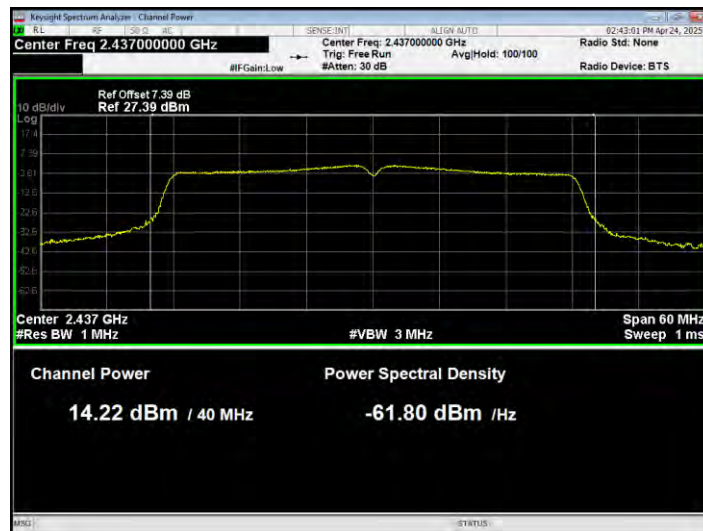
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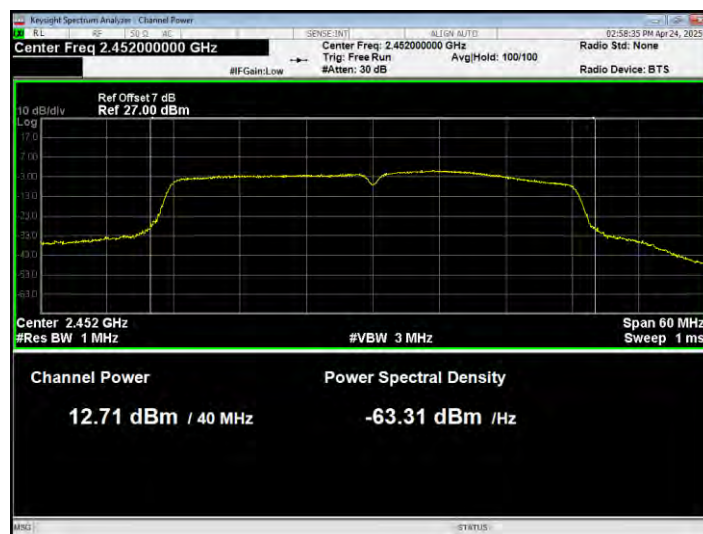
Power NVNT n40 2422MHz Ant1



Power NVNT n40 2437MHz Ant1



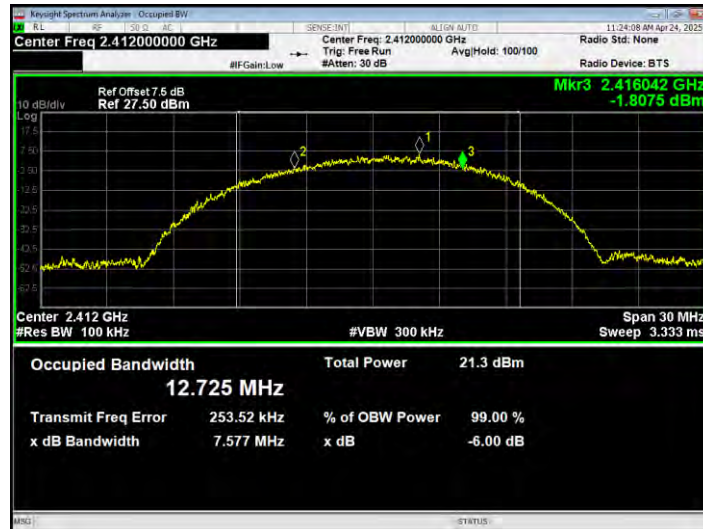
Power NVNT n40 2452MHz Ant1



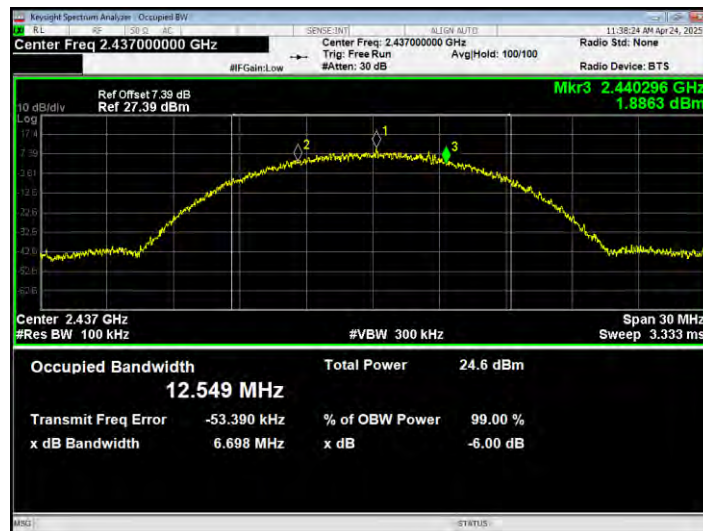
-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	7.577	0.5	Pass
NVNT	b	2437	Ant1	6.698	0.5	Pass
NVNT	b	2462	Ant1	6.353	0.5	Pass
NVNT	g	2412	Ant1	15.702	0.5	Pass
NVNT	g	2437	Ant1	15.098	0.5	Pass
NVNT	g	2462	Ant1	15.066	0.5	Pass
NVNT	n20	2412	Ant1	15.883	0.5	Pass
NVNT	n20	2437	Ant1	13.857	0.5	Pass
NVNT	n20	2462	Ant1	12.509	0.5	Pass
NVNT	n40	2422	Ant1	32.517	0.5	Pass
NVNT	n40	2437	Ant1	35.123	0.5	Pass
NVNT	n40	2452	Ant1	32.533	0.5	Pass

-6dB Bandwidth NVNT b 2412MHz Ant1



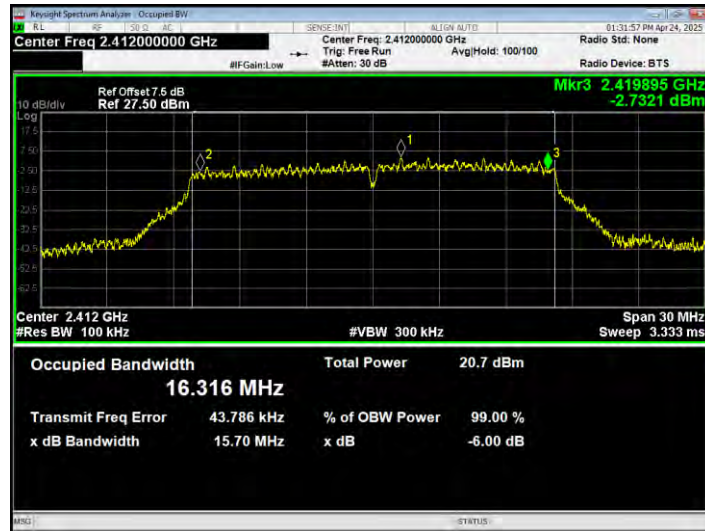
-6dB Bandwidth NVNT b 2437MHz Ant1



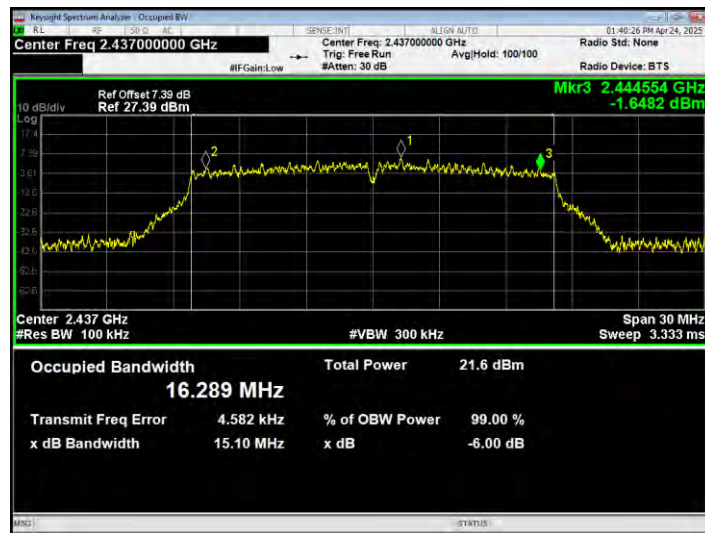
-6dB Bandwidth NVNT b 2462MHz Ant1



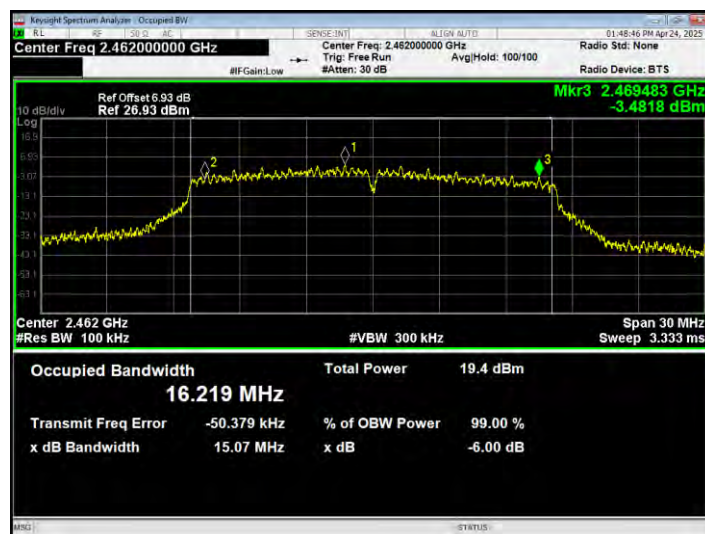
-6dB Bandwidth NVNT g 2412MHz Ant1



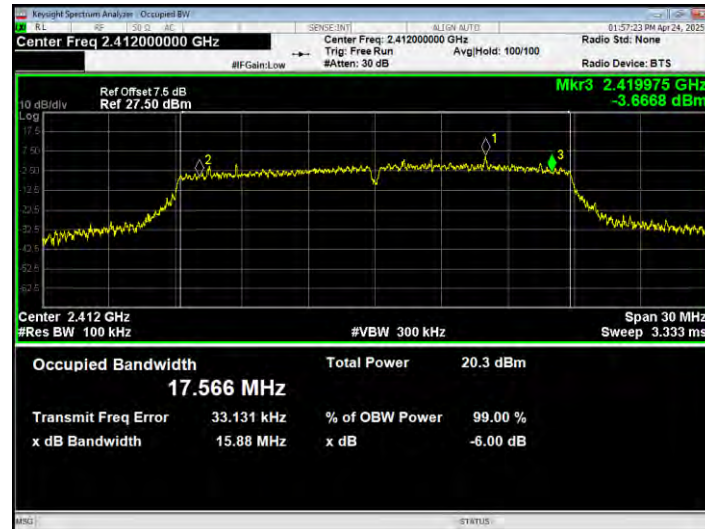
-6dB Bandwidth NVNT g 2437MHz Ant1



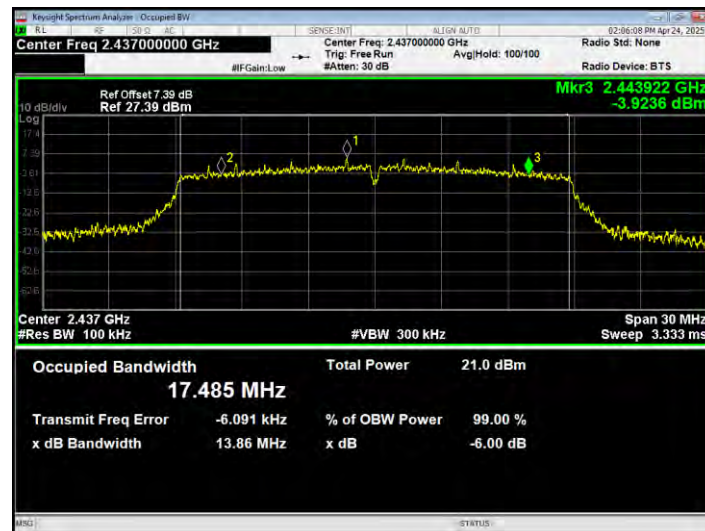
-6dB Bandwidth NVNT g 2462MHz Ant1



-6dB Bandwidth NVNT n20 2412MHz Ant1



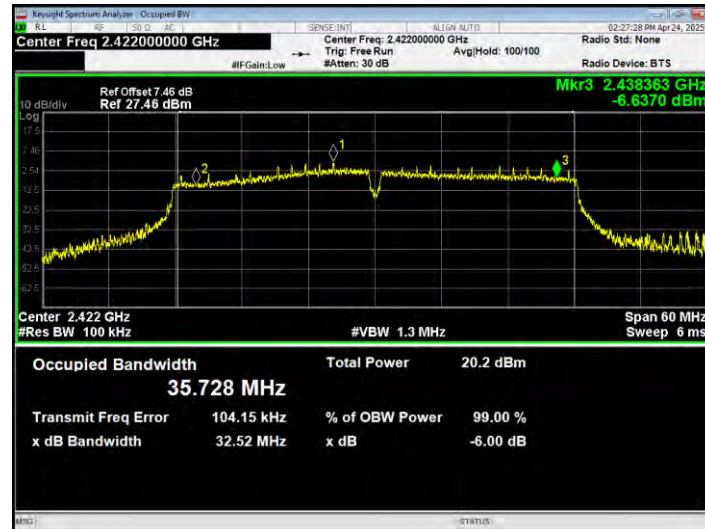
-6dB Bandwidth NVNT n20 2437MHz Ant1



-6dB Bandwidth NVNT n20 2462MHz Ant1



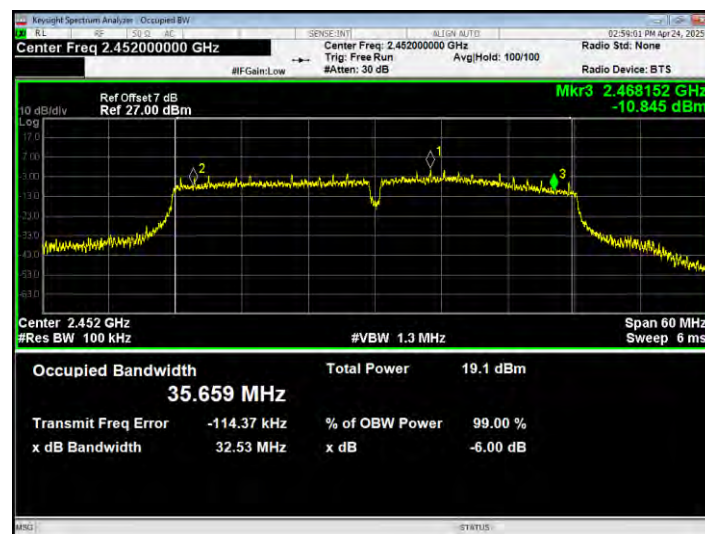
-6dB Bandwidth NVNT n40 2422MHz Ant1



-6dB Bandwidth NVNT n40 2437MHz Ant1



-6dB Bandwidth NVNT n40 2452MHz Ant1



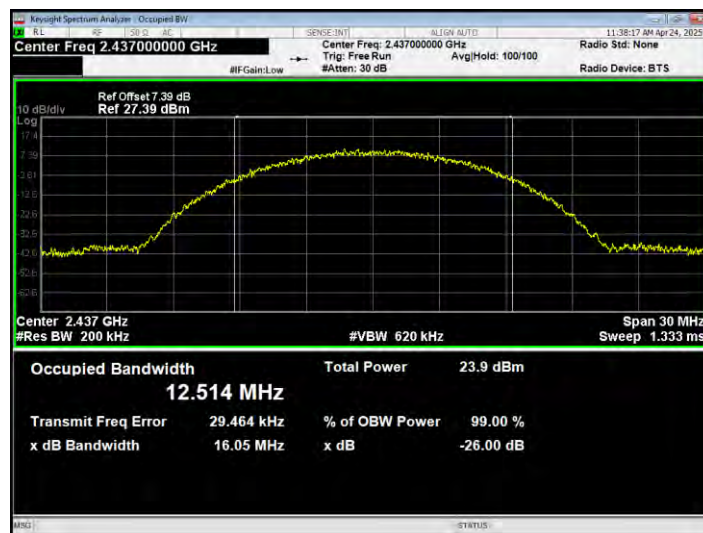
Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	12.68703741
NVNT	b	2437	Ant1	12.51359463
NVNT	b	2462	Ant1	12.49211596
NVNT	g	2412	Ant1	16.38457125
NVNT	g	2437	Ant1	16.31578751
NVNT	g	2462	Ant1	16.29960297
NVNT	n20	2412	Ant1	17.59439743
NVNT	n20	2437	Ant1	17.48559758
NVNT	n20	2462	Ant1	17.41389376
NVNT	n40	2422	Ant1	35.80639306
NVNT	n40	2437	Ant1	36.17614398
NVNT	n40	2452	Ant1	35.75806907

OBW NVNT b 2412MHz Ant1



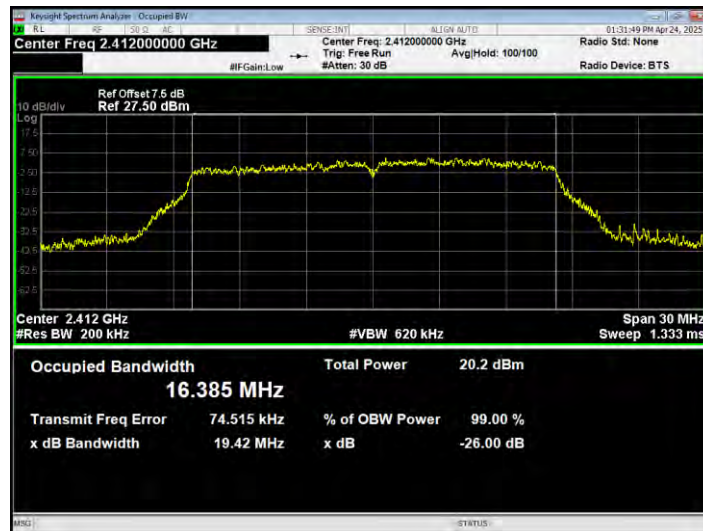
OBW NVNT b 2437MHz Ant1



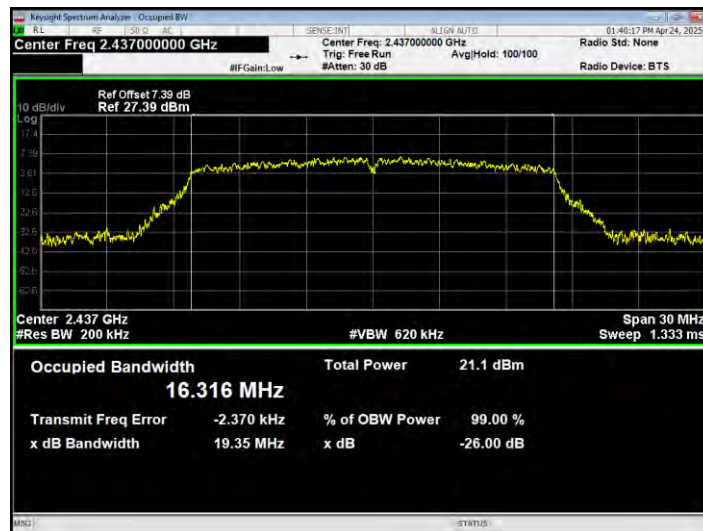
OBW NVNT b 2462MHz Ant1



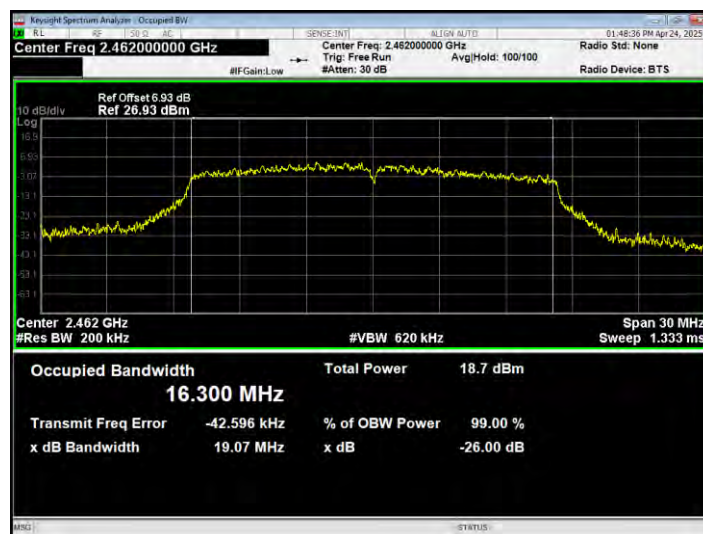
OBW NVNT g 2412MHz Ant1



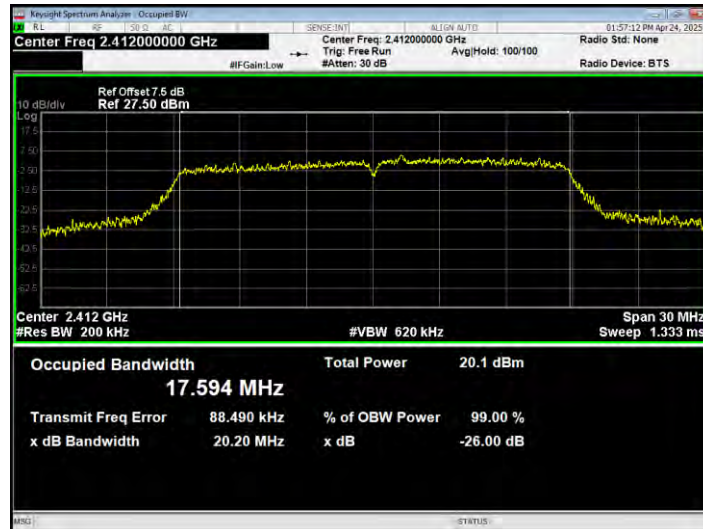
OBW NVNT g 2437MHz Ant1



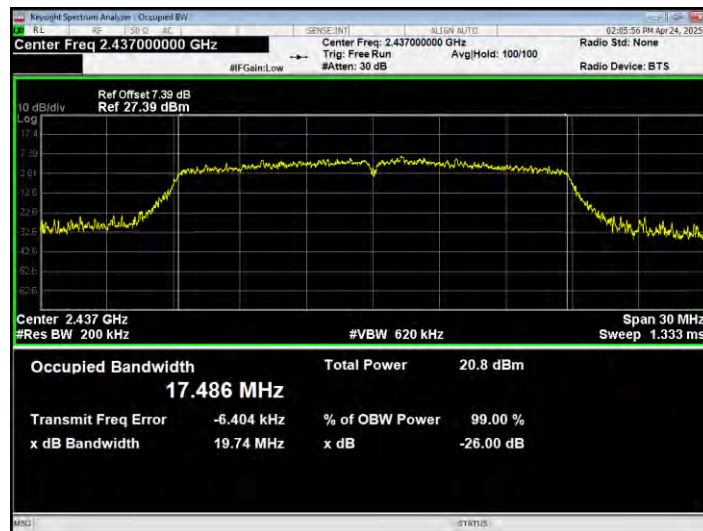
OBW NVNT g 2462MHz Ant1



OBW NVNT n20 2412MHz Ant1



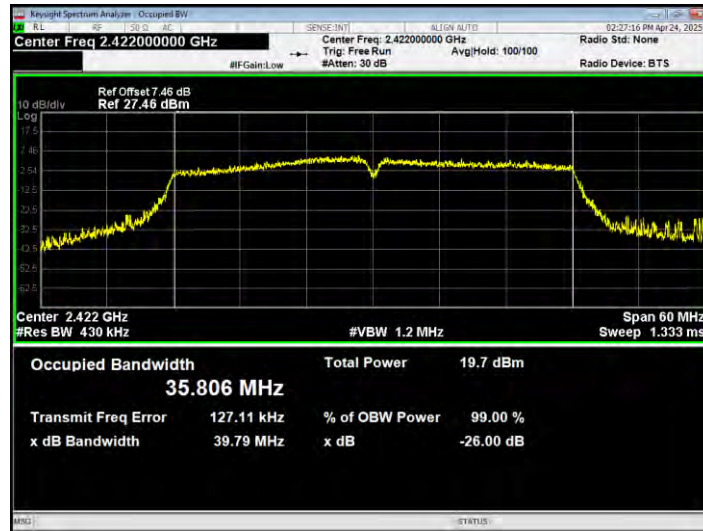
OBW NVNT n20 2437MHz Ant1



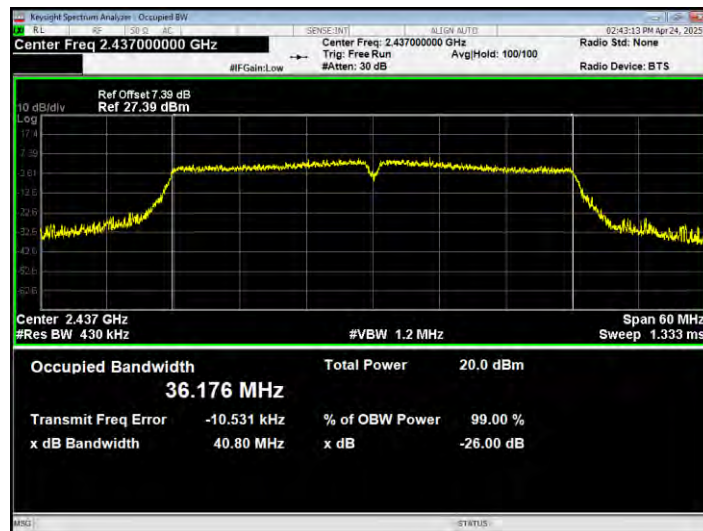
OBW NVNT n20 2462MHz Ant1



OBW NVNT n40 2422MHz Ant1



OBW NVNT n40 2437MHz Ant1



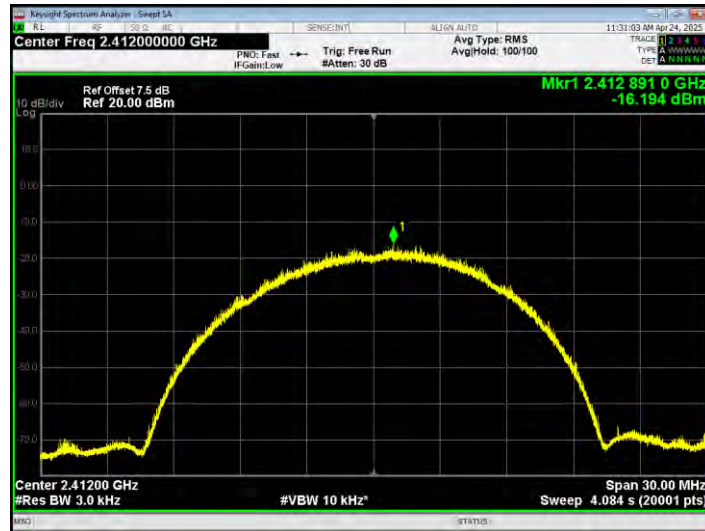
OBW NVNT n40 2452MHz Ant1



Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	-16.194	0.17	-16.024	8	Pass
NVNT	b	2437	Ant1	-12.401	0.16	-12.241	8	Pass
NVNT	b	2462	Ant1	-14.849	0.16	-14.689	8	Pass
NVNT	g	2412	Ant1	-16.564	0.92	-15.644	8	Pass
NVNT	g	2437	Ant1	-15.387	0.92	-14.467	8	Pass
NVNT	g	2462	Ant1	-17.065	0.92	-16.145	8	Pass
NVNT	n20	2412	Ant1	-18.493	0.14	-18.353	8	Pass
NVNT	n20	2437	Ant1	-17.594	0.14	-17.454	8	Pass
NVNT	n20	2462	Ant1	-19.51	0.14	-19.37	8	Pass
NVNT	n40	2422	Ant1	-19.754	0.27	-19.484	8	Pass
NVNT	n40	2437	Ant1	-20.164	0.27	-19.894	8	Pass
NVNT	n40	2452	Ant1	-21.191	0.27	-20.921	8	Pass

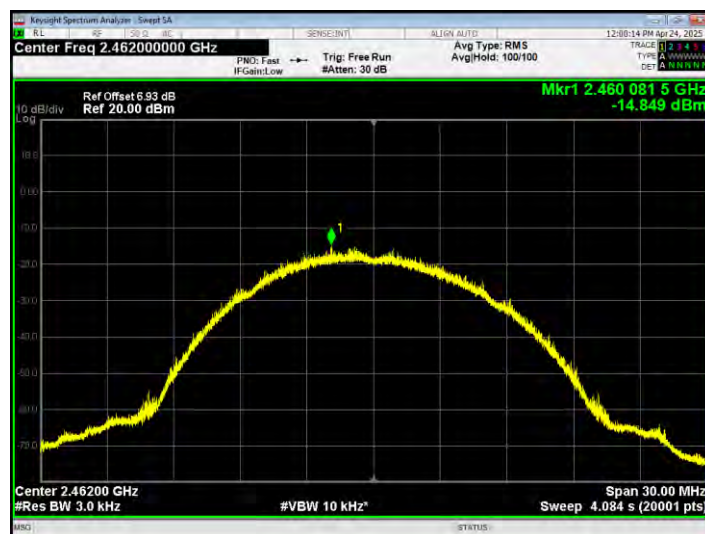
PSD NVNT b 2412MHz Ant1



PSD NVNT b 2437MHz Ant1



PSD NVNT b 2462MHz Ant1



PSD NVNT g 2412MHz Ant1



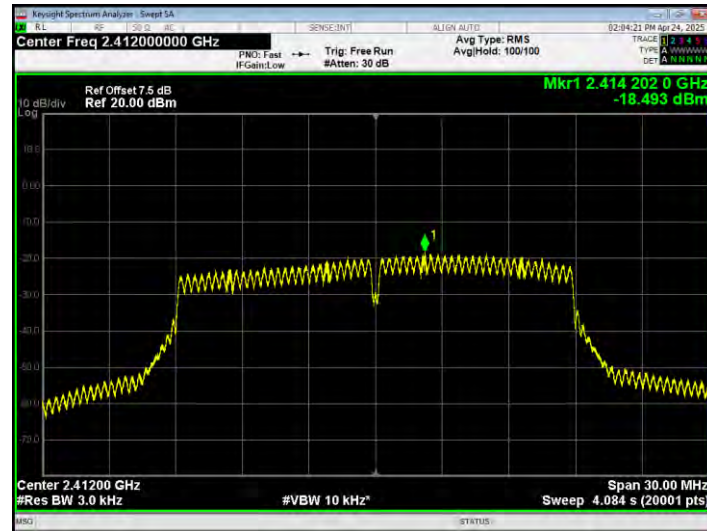
PSD NVNT g 2437MHz Ant1



PSD NVNT g 2462MHz Ant1



PSD NVNT n20 2412MHz Ant1



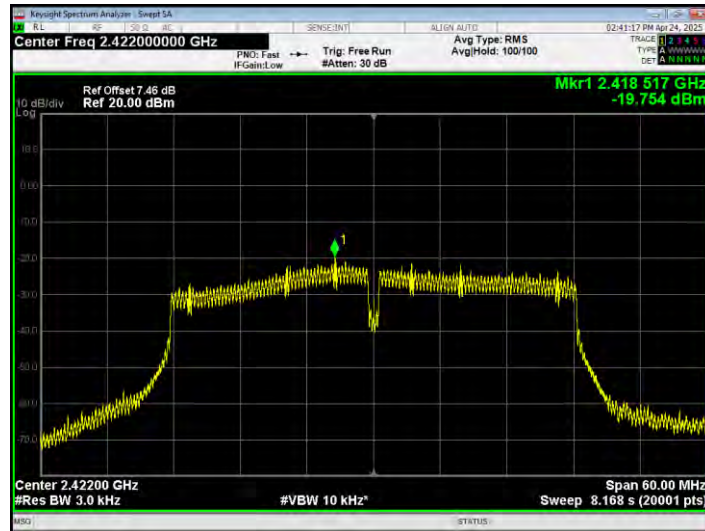
PSD NVNT n20 2437MHz Ant1



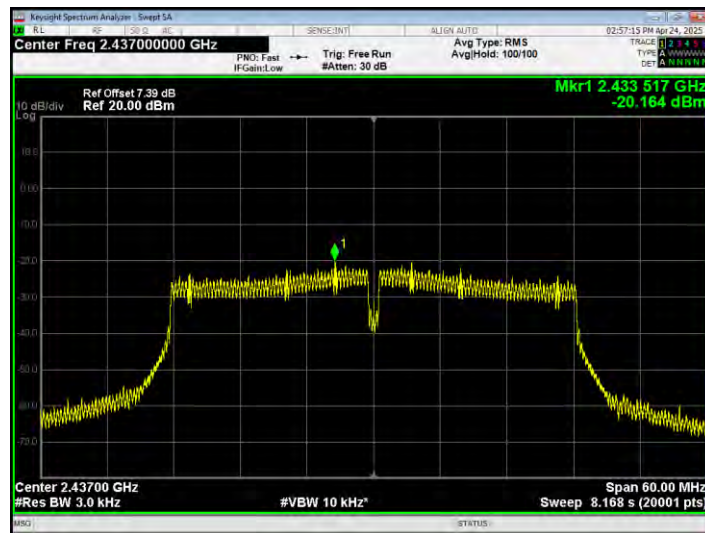
PSD NVNT n20 2462MHz Ant1



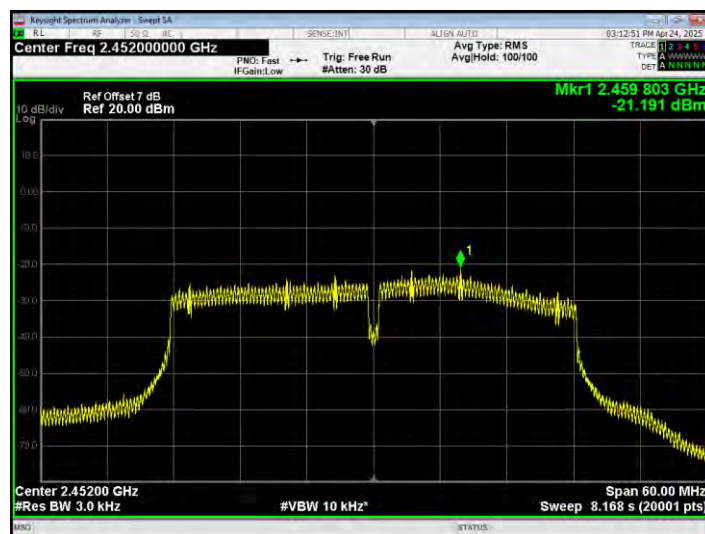
PSD NVNT n40 2422MHz Ant1



PSD NVNT n40 2437MHz Ant1



PSD NVNT n40 2452MHz Ant1



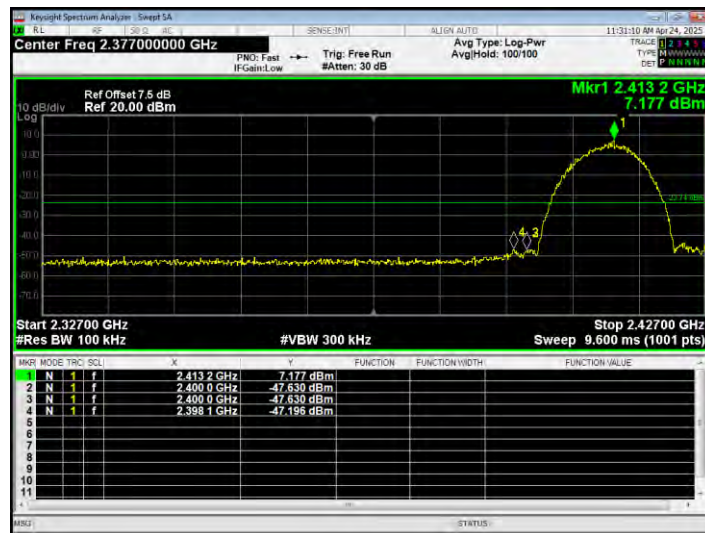
Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-53.45	-30	Pass
NVNT	b	2462	Ant1	-56.74	-30	Pass
NVNT	g	2412	Ant1	-40.61	-30	Pass
NVNT	g	2462	Ant1	-53.2	-30	Pass
NVNT	n20	2412	Ant1	-33.74	-30	Pass
NVNT	n20	2462	Ant1	-53.01	-30	Pass
NVNT	n40	2422	Ant1	-34.6	-30	Pass
NVNT	n40	2452	Ant1	-47.78	-30	Pass

Band Edge NVNT b 2412MHz Ant1 Ref



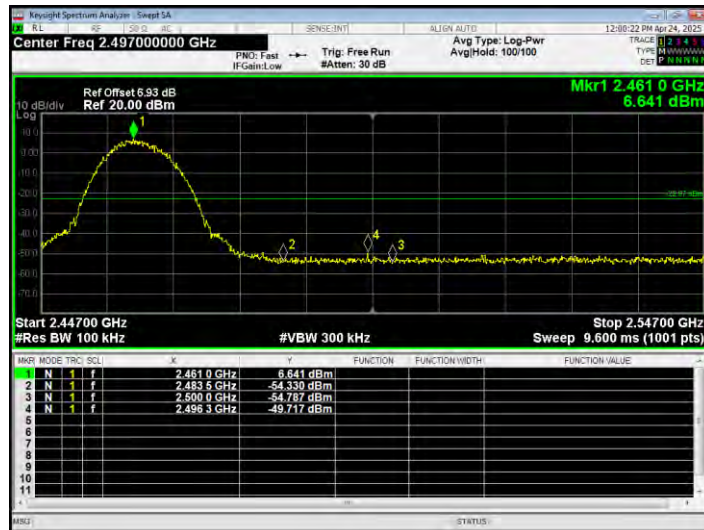
Band Edge NVNT b 2412MHz Ant1 Emission



Band Edge NVNT b 2462MHz Ant1 Ref



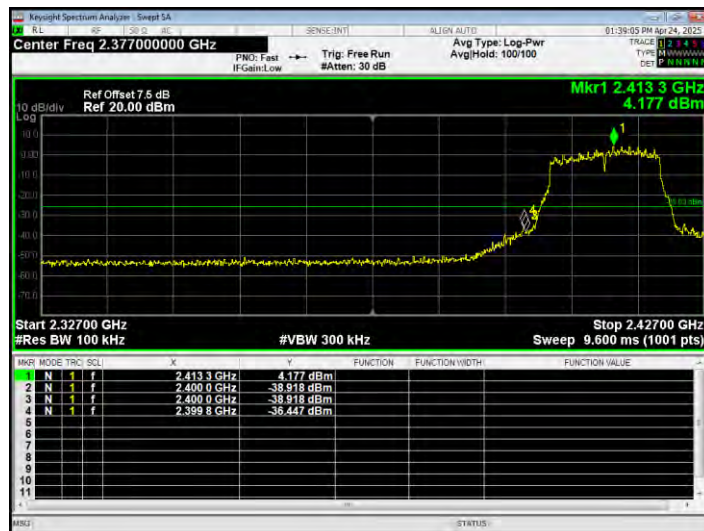
Band Edge NVNT b 2462MHz Ant1 Emission



Band Edge NVNT g 2412MHz Ant1 Ref



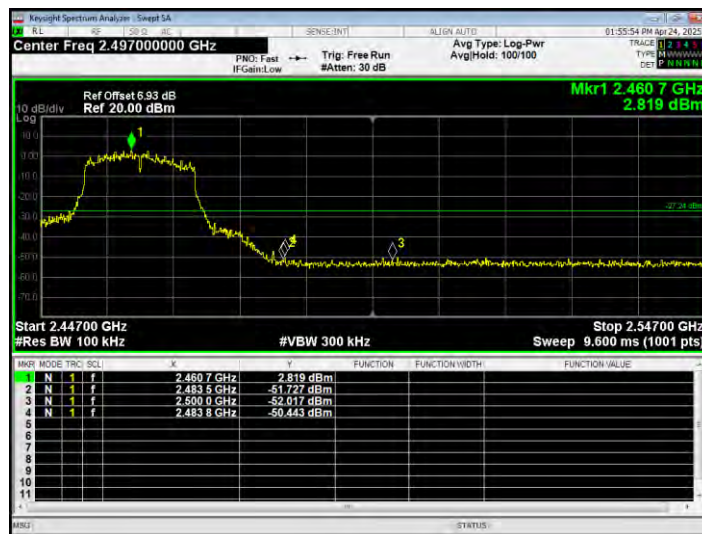
Band Edge NVNT g 2412MHz Ant1 Emission



Band Edge NVNT g 2462MHz Ant1 Ref



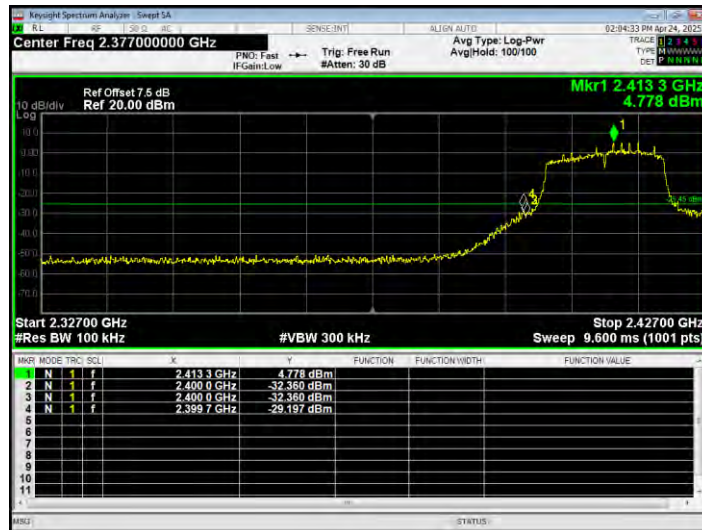
Band Edge NVNT g 2462MHz Ant1 Emission



Band Edge NVNT n20 2412MHz Ant1 Ref



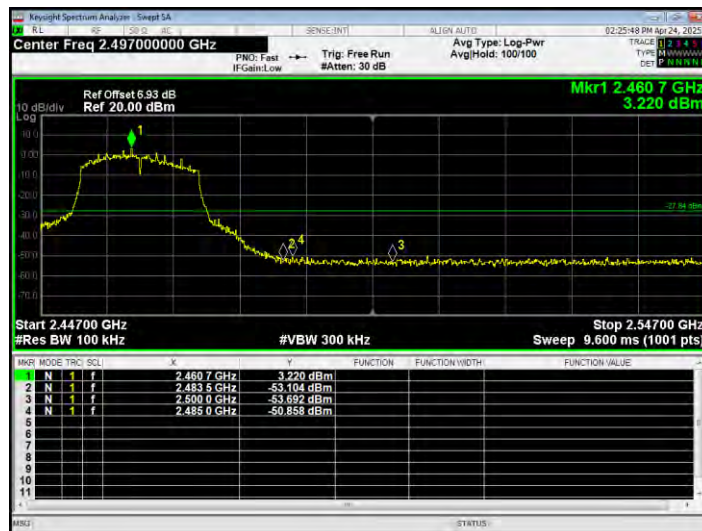
Band Edge NVNT n20 2412MHz Ant1 Emission



Band Edge NVNT n20 2462MHz Ant1 Ref



Band Edge NVNT n20 2462MHz Ant1 Emission



Band Edge NVNT n40 2422MHz Ant1 Ref



Band Edge NVNT n40 2422MHz Ant1 Emission



Band Edge NVNT n40 2452MHz Ant1 Ref



Band Edge NVNT n40 2452MHz Ant1 Emission



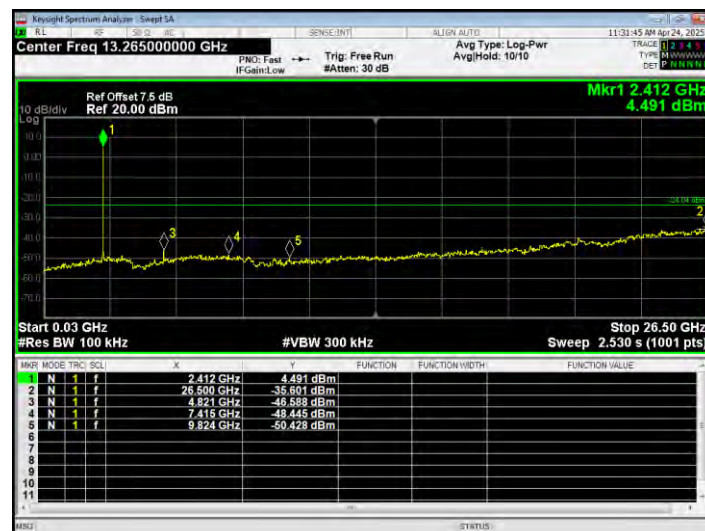
Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-41.57	-30	Pass
NVNT	b	2437	Ant1	-44.63	-30	Pass
NVNT	b	2462	Ant1	-43.32	-30	Pass
NVNT	g	2412	Ant1	-39.72	-30	Pass
NVNT	g	2437	Ant1	-40.9	-30	Pass
NVNT	g	2462	Ant1	-38.76	-30	Pass
NVNT	n20	2412	Ant1	-40.54	-30	Pass
NVNT	n20	2437	Ant1	-40.49	-30	Pass
NVNT	n20	2462	Ant1	-39.64	-30	Pass
NVNT	n40	2422	Ant1	-37.1	-30	Pass
NVNT	n40	2437	Ant1	-37.89	-30	Pass
NVNT	n40	2452	Ant1	-36.22	-30	Pass

Tx. Spurious NVNT b 2412MHz Ant1 Ref



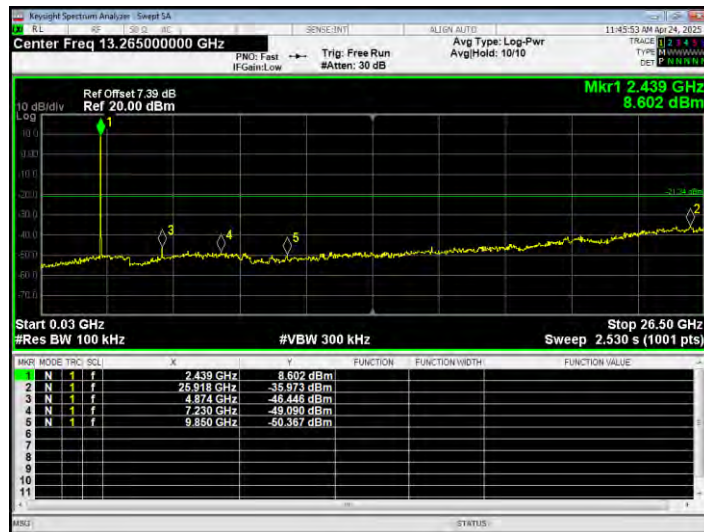
Tx. Spurious NVNT b 2412MHz Ant1 Emission



Tx. Spurious NVNT b 2437MHz Ant1 Ref



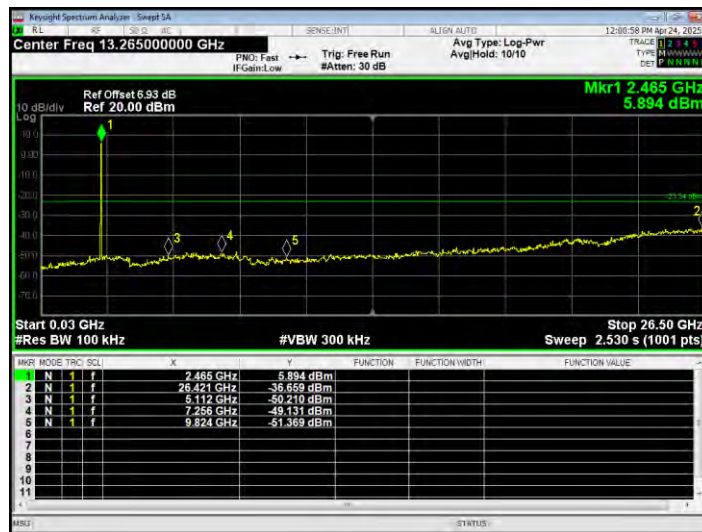
Tx. Spurious NVNT b 2437MHz Ant1 Emission



Tx. Spurious NVNT b 2462MHz Ant1 Ref



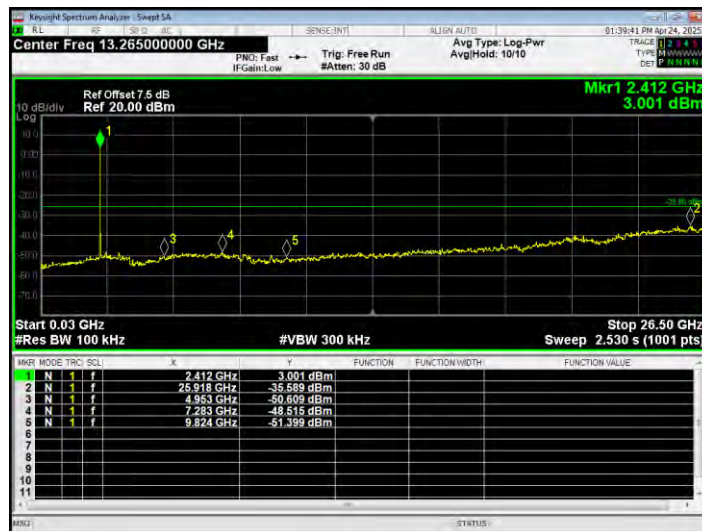
Tx. Spurious NVNT b 2462MHz Ant1 Emission



Tx. Spurious NVNT g 2412MHz Ant1 Ref



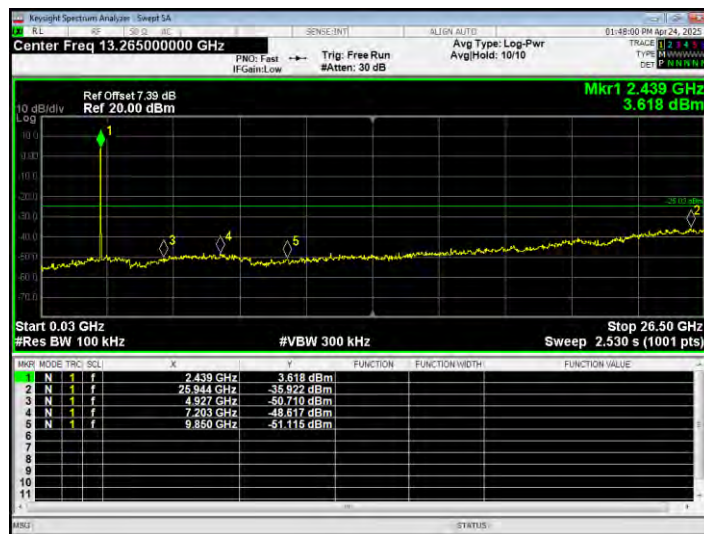
Tx. Spurious NVNT g 2412MHz Ant1 Emission



Tx. Spurious NVNT g 2437MHz Ant1 Ref



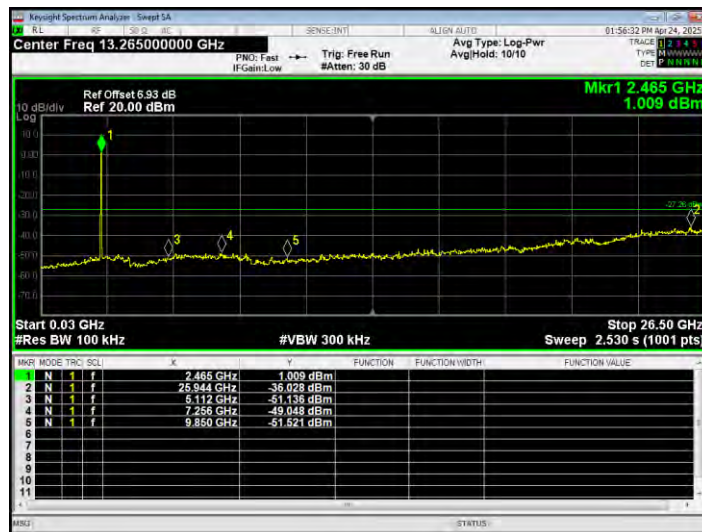
Tx. Spurious NVNT g 2437MHz Ant1 Emission



Tx. Spurious NVNT g 2462MHz Ant1 Ref



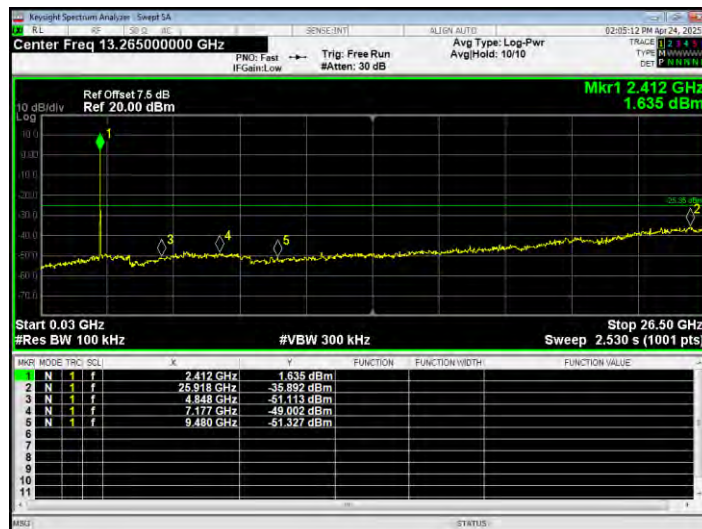
Tx. Spurious NVNT g 2462MHz Ant1 Emission



Tx. Spurious NVNT n20 2412MHz Ant1 Ref



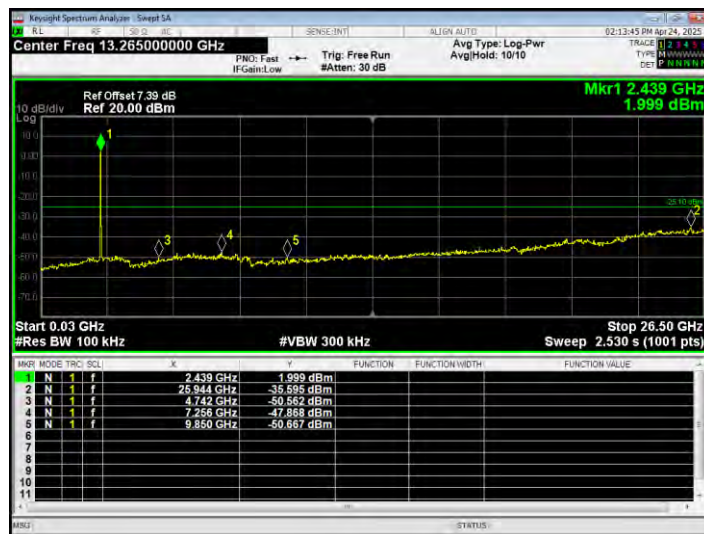
Tx. Spurious NVNT n20 2412MHz Ant1 Emission



Tx. Spurious NVNT n20 2437MHz Ant1 Ref



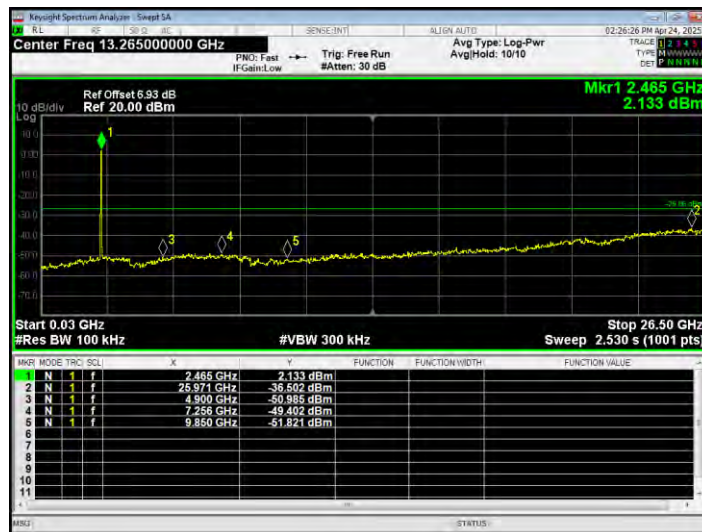
Tx. Spurious NVNT n20 2437MHz Ant1 Emission



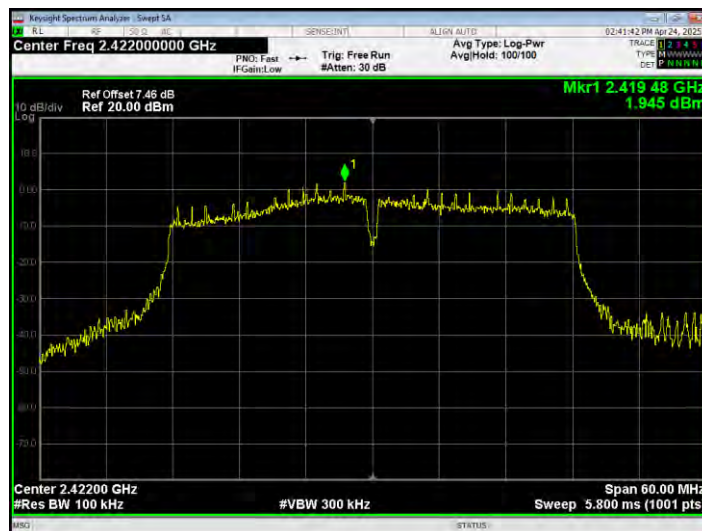
Tx. Spurious NVNT n20 2462MHz Ant1 Ref



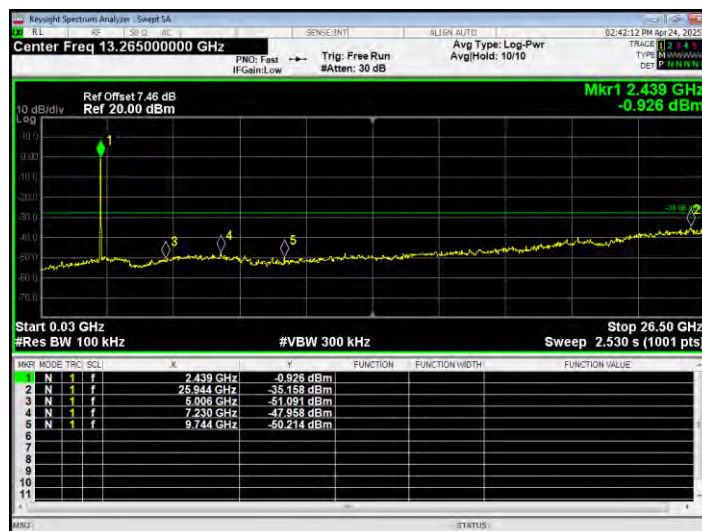
Tx. Spurious NVNT n20 2462MHz Ant1 Emission



Tx. Spurious NVNT n40 2422MHz Ant1 Ref



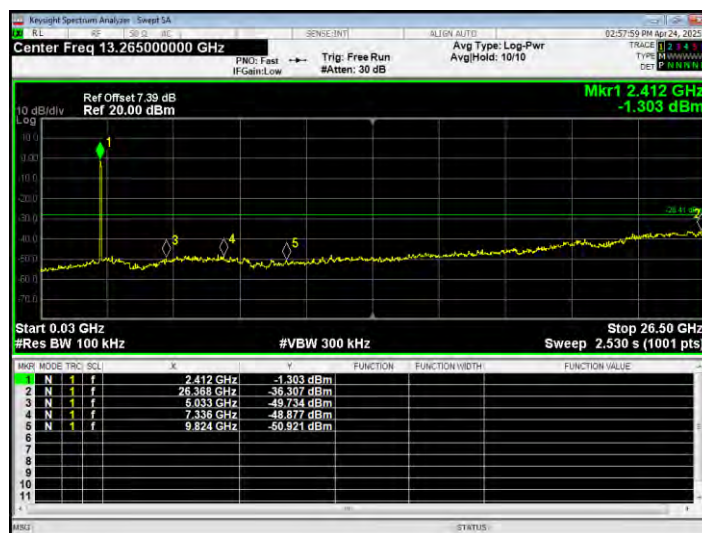
Tx. Spurious NVNT n40 2422MHz Ant1 Emission



Tx. Spurious NVNT n40 2437MHz Ant1 Ref



Tx. Spurious NVNT n40 2437MHz Ant1 Emission



Tx. Spurious NVNT n40 2452MHz Ant1 Ref



Tx. Spurious NVNT n40 2452MHz Ant1 Emission

