FCC Test Report

ANNEX 1 2.4G WIFI

FCC ID: 2ADGH-6311

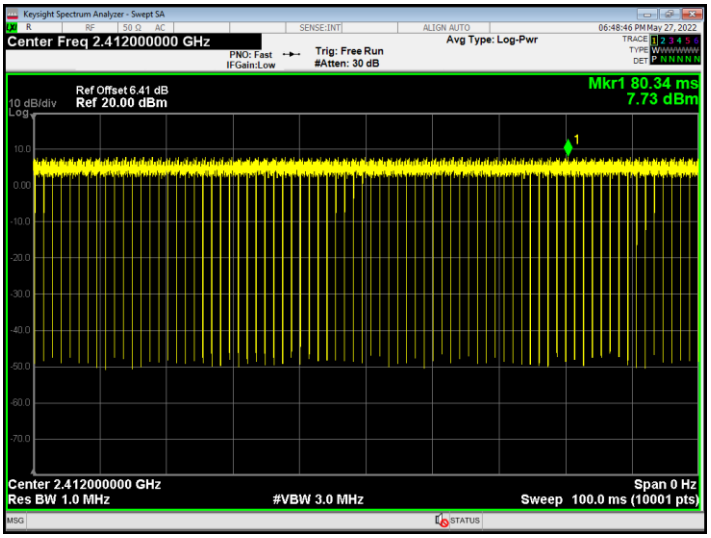
Applicant:	Ralinwi Nanjing Electronic Technology Co., Ltd.
Address:	3rd Floor,Building B,R&D Block 3, Xuzhuang Software Park, Nanjing City, China.
Manufacturer:	Ralinwi Nanjing Electronic Technology Co., Ltd.
Address:	3rd Floor,Building B,R&D Block 3, Xuzhuang Software Park, Nanjing City, China.
EUT:	M.2 WIFI Network Card
Trade Mark:	N/A
Model Number:	Hicon6310, Nic3552e, Nic3562e
Date of Receipt:	May. 05, 2022
Test Date:	May. 05, 2022 – May. 29, 2022
Date of Report:	May. 29, 2022
Prepared By:	Shenzhen DL Testing Technology Co., Ltd.
Address:	101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone, Baolong Street, Longgang District, Shenzhen, Guangdong, China
Applicable Standards:	FCC PART 15 C 15.247 ANSI C63.10:2013
Test Result:	Pass

Duty Cycle

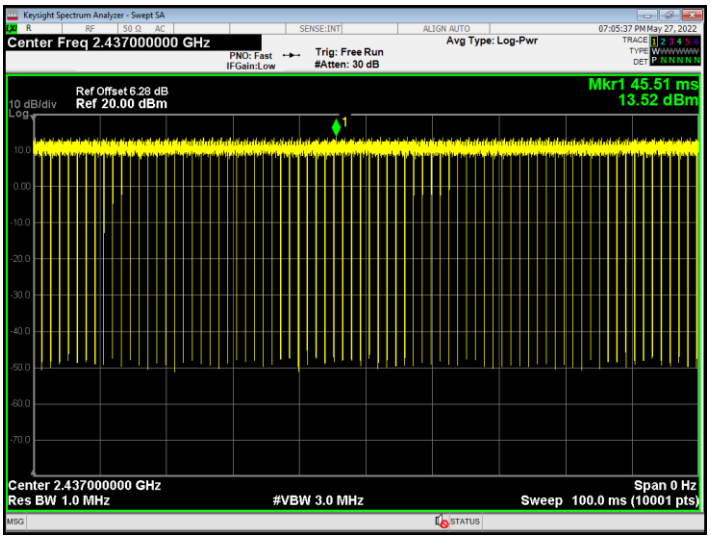
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)
NVNT	ax20	2412	Ant1	96.9	0.14
NVNT	ax20	2437	Ant1	96.94	0.13
NVNT	ax20	2462	Ant1	96.92	0.14
NVNT	ax40	2422	Ant1	94.06	0.27
NVNT	ax40	2437	Ant1	94.08	0.26
NVNT	ax40	2452	Ant1	94.06	0.27
NVNT	b	2412	Ant1	100	0
NVNT	b	2437	Ant1	100	0
NVNT	b	2462	Ant1	100	0
NVNT	g	2412	Ant1	99.9	0
NVNT	g	2437	Ant1	99.92	0
NVNT	g	2462	Ant1	99.9	0
NVNT	n20	2412	Ant1	99.9	0
NVNT	n20	2437	Ant1	99.91	0
NVNT	n20	2462	Ant1	99.91	0
NVNT	n40	2422	Ant1	99.91	0
NVNT	n40	2437	Ant1	99.91	0
NVNT	n40	2452	Ant1	99.9	0

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)
NVNT	ax20	2412	Ant2	96.92	0.14
NVNT	ax20	2437	Ant2	96.94	0.13
NVNT	ax20	2462	Ant2	96.93	0.14
NVNT	ax40	2422	Ant2	94.04	0.27
NVNT	ax40	2437	Ant2	94.08	0.26
NVNT	ax40	2452	Ant2	94.03	0.27
NVHT	b	2412	Ant2	100	0
NVHT	b	2437	Ant2	100	0
NVHT	b	2462	Ant2	100	0
NVHT	g	2412	Ant2	72.02	1.43
NVHT	g	2437	Ant2	71.43	1.46
NVHT	g	2462	Ant2	71.65	1.45
NVHT	n20	2412	Ant2	99.92	0
NVHT	n20	2437	Ant2	99.9	0
NVHT	n20	2462	Ant2	99.9	0
NVHT	n40	2422	Ant2	99.91	0
NVHT	n40	2437	Ant2	99.93	0
NVHT	n40	2452	Ant2	99.9	0

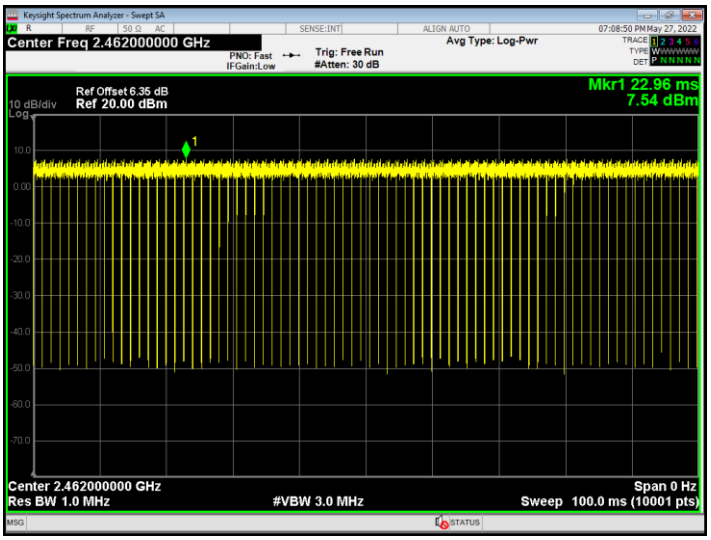
Duty Cycle NVNT ax20 2412MHz Ant1



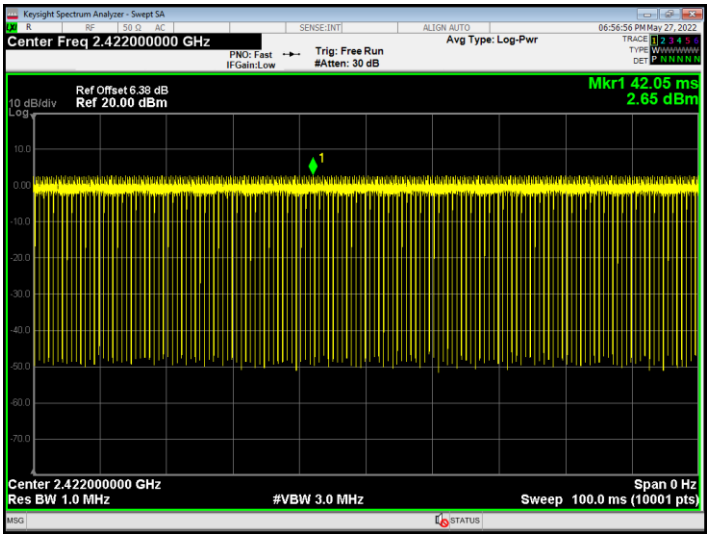
Duty Cycle NVNT ax20 2437MHz Ant1



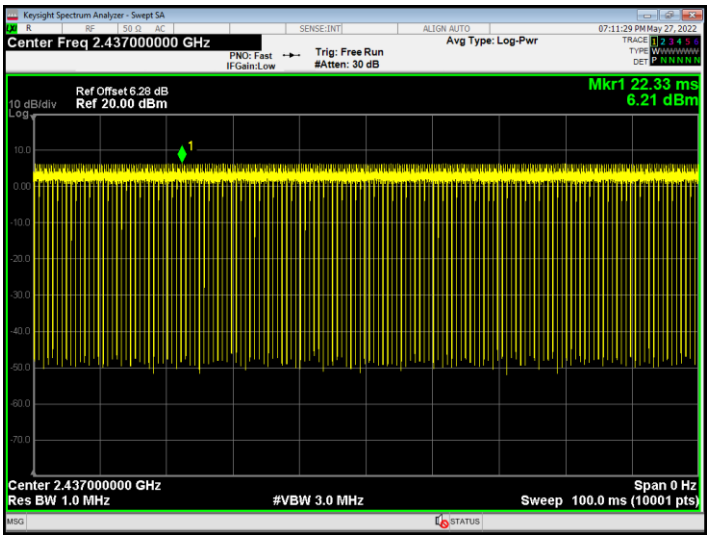
Duty Cycle NVNT ax20 2462MHz Ant1



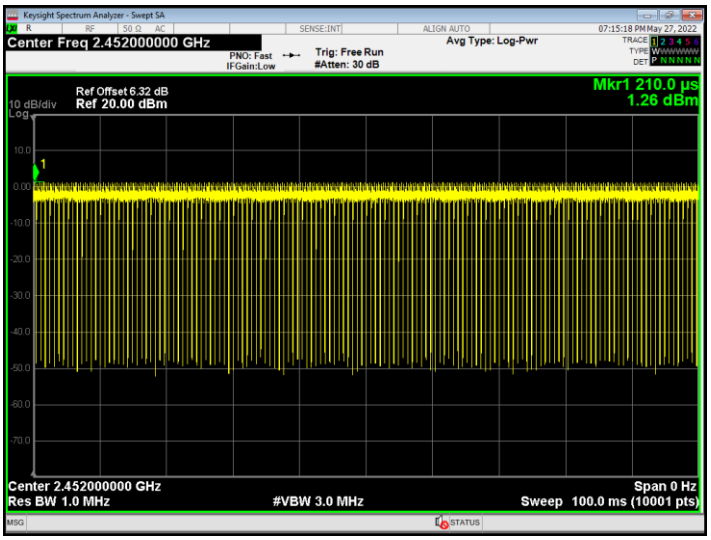
Duty Cycle NVNT ax40 2422MHz Ant1



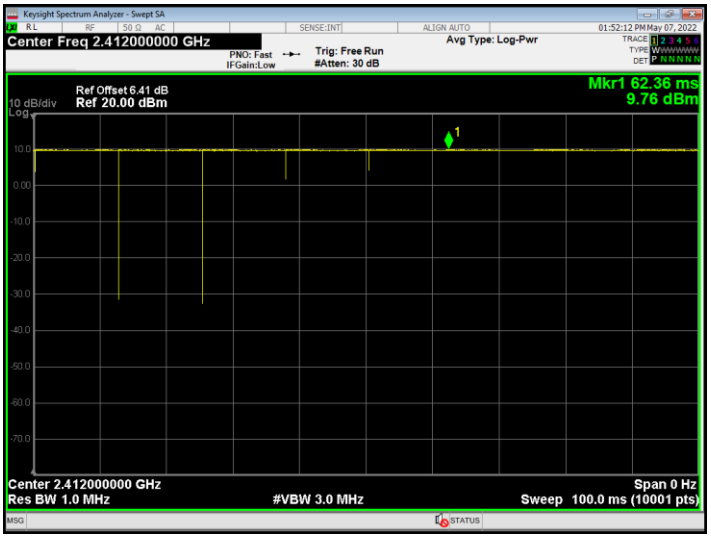
Duty Cycle NVNT ax40 2437MHz Ant1



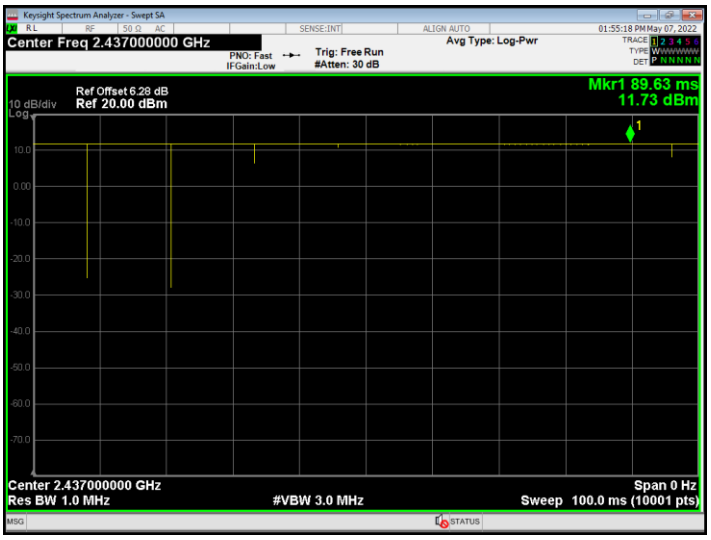
Duty Cycle NVNT ax40 2452MHz Ant1



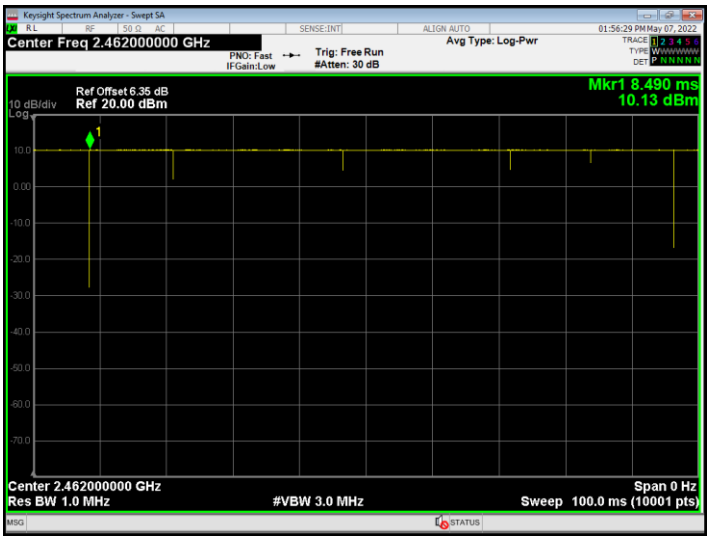
Duty Cycle NVNT b 2412MHz Ant1



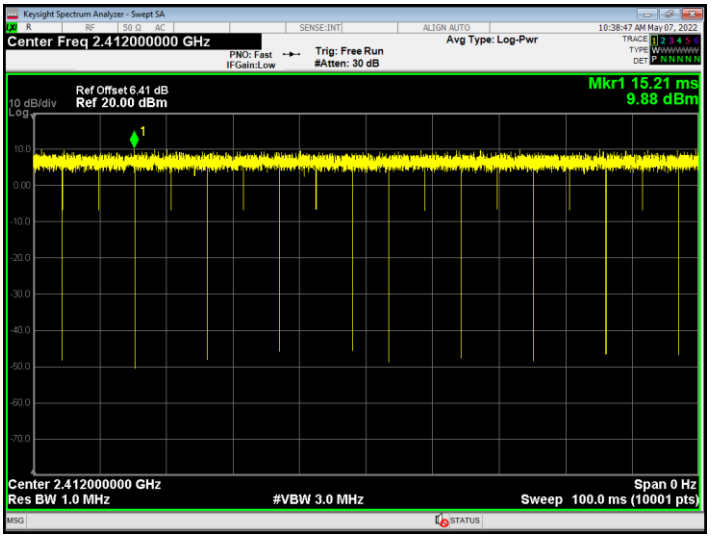
Duty Cycle NVNT b 2437MHz Ant1



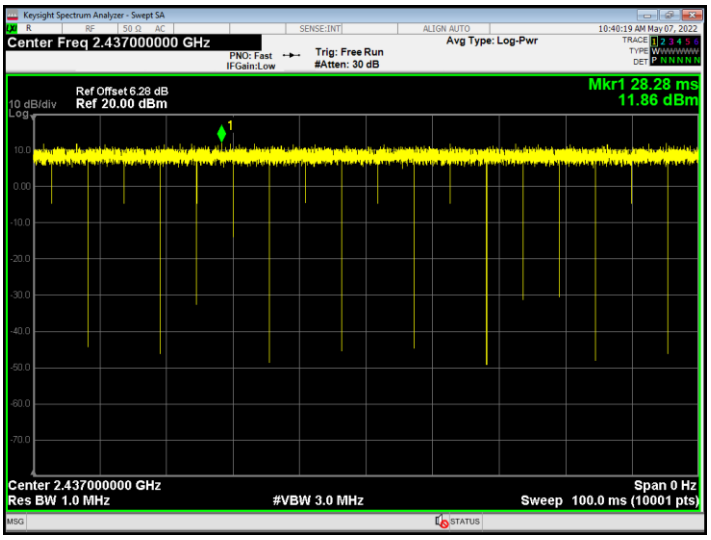
Duty Cycle NVNT b 2462MHz Ant1



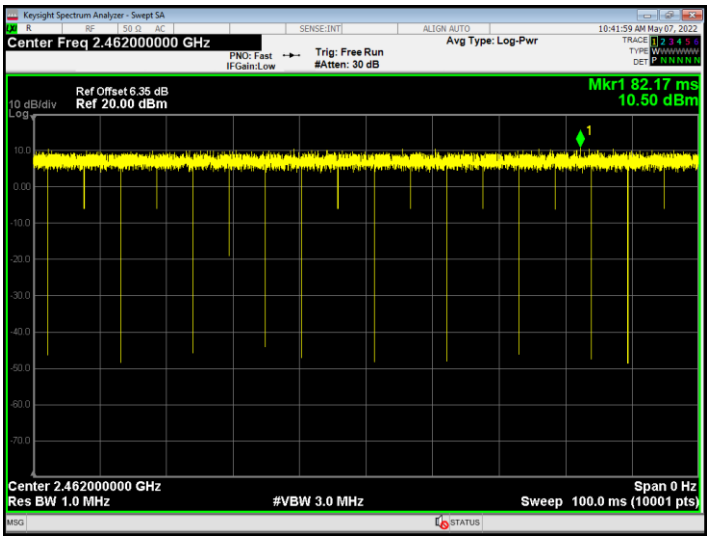
Duty Cycle NVNT g 2412MHz Ant1



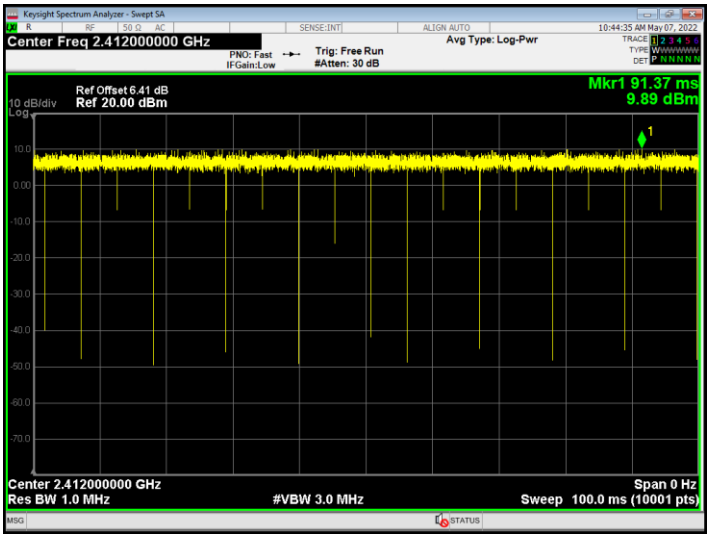
Duty Cycle NVNT g 2437MHz Ant1



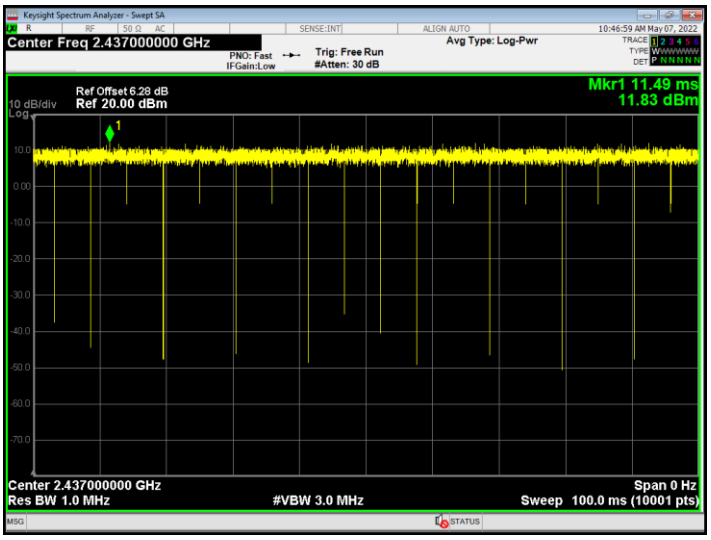
Duty Cycle NVNT g 2462MHz Ant1



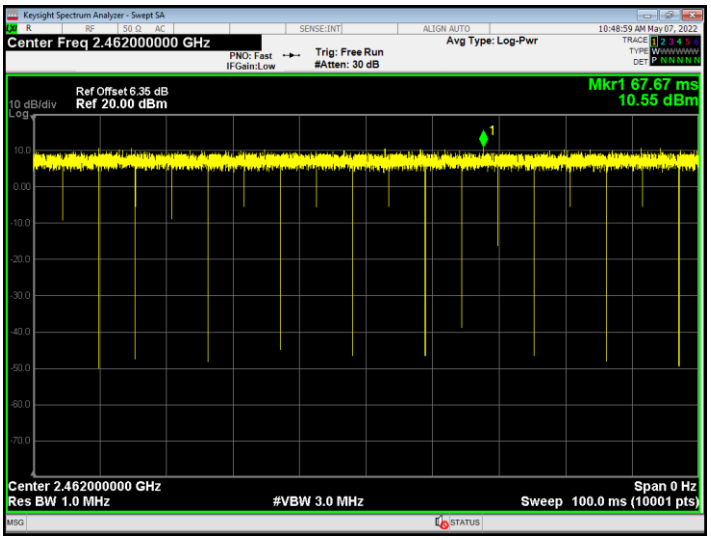
Duty Cycle NVNT n20 2412MHz Ant1



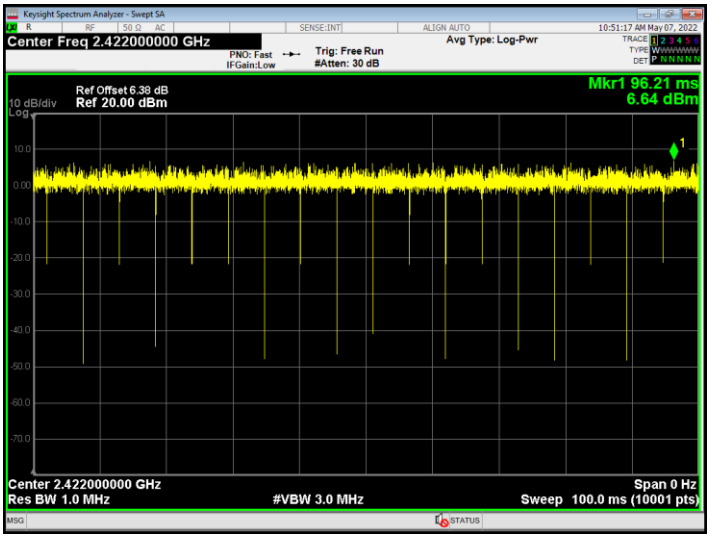
Duty Cycle NVNT n20 2437MHz Ant1



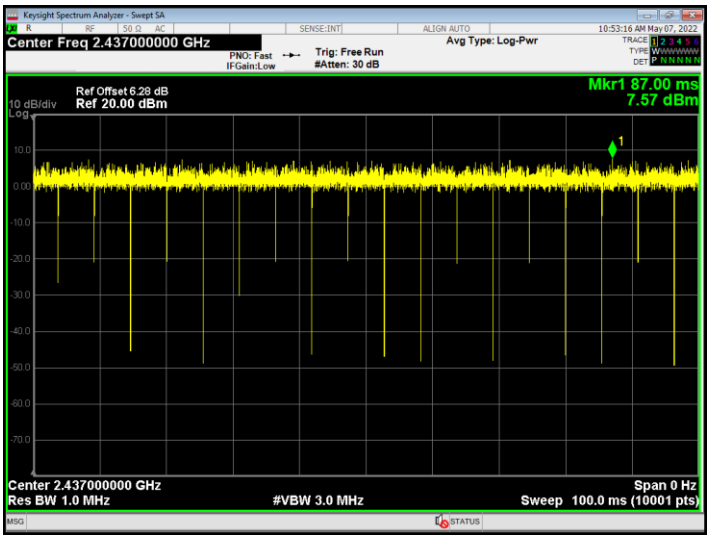
Duty Cycle NVNT n20 2462MHz Ant1



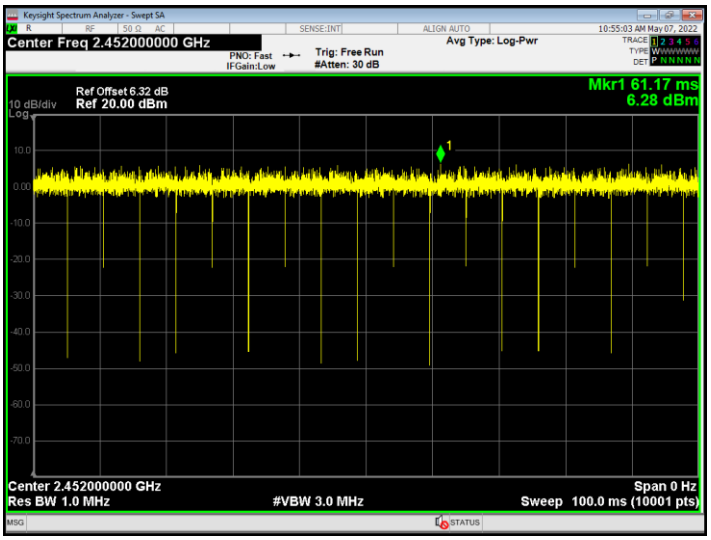
Duty Cycle NVNT n40 2422MHz Ant1



Duty Cycle NVNT n40 2437MHz Ant1

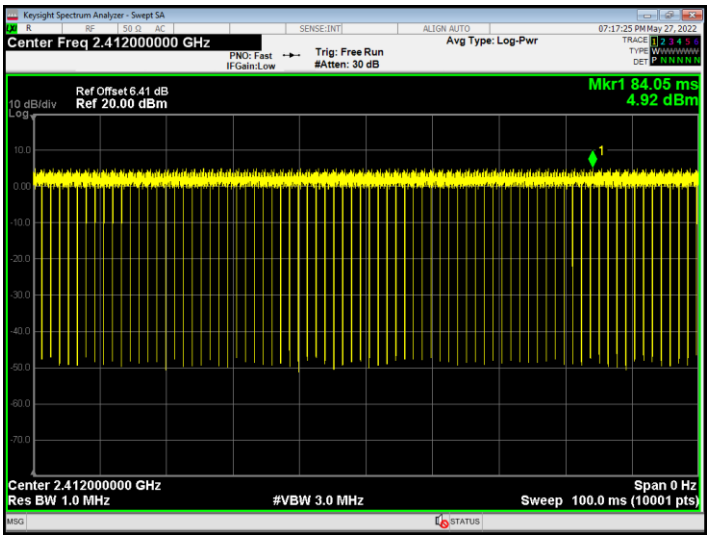


Duty Cycle NVNT n40 2452MHz Ant1

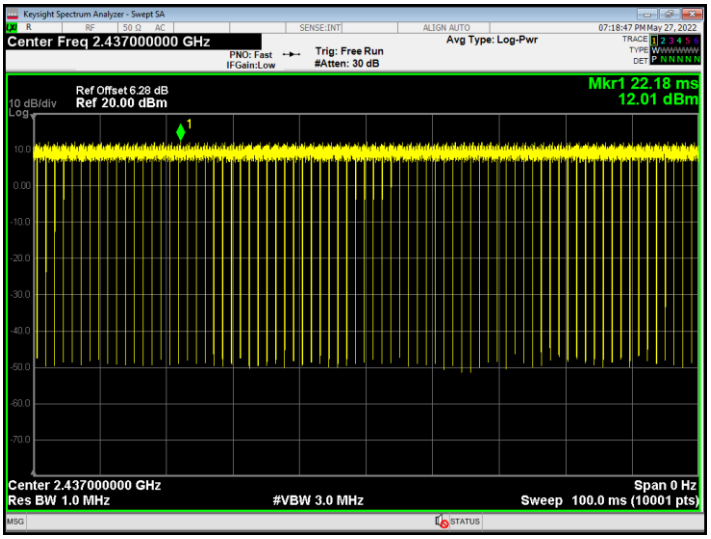


ANT2

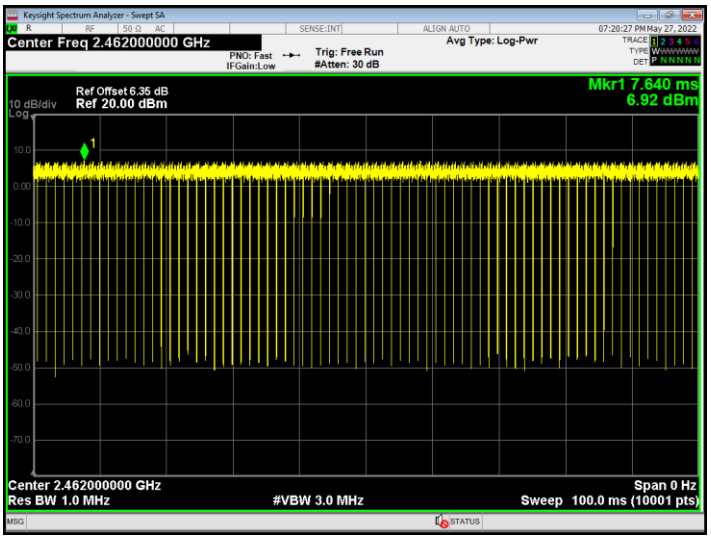
Duty Cycle NVNT ax20 2412MHz Ant2



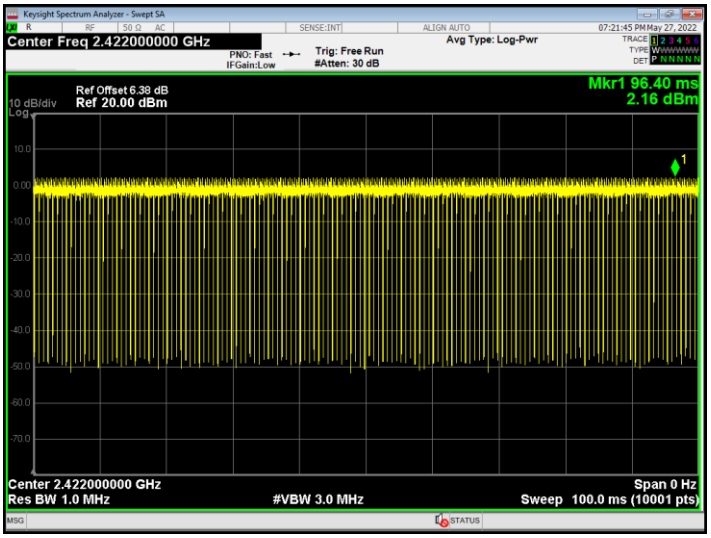
Duty Cycle NVNT ax20 2437MHz Ant2



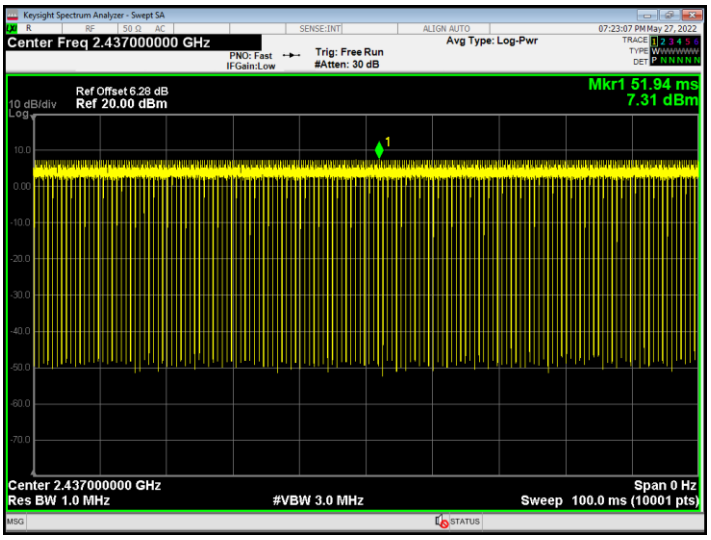
Duty Cycle NVNT ax20 2462MHz Ant2



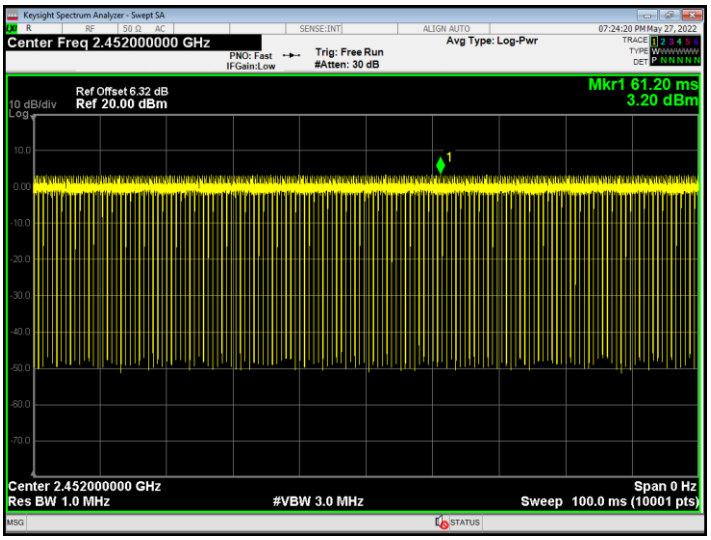
Duty Cycle NVNT ax40 2422MHz Ant2



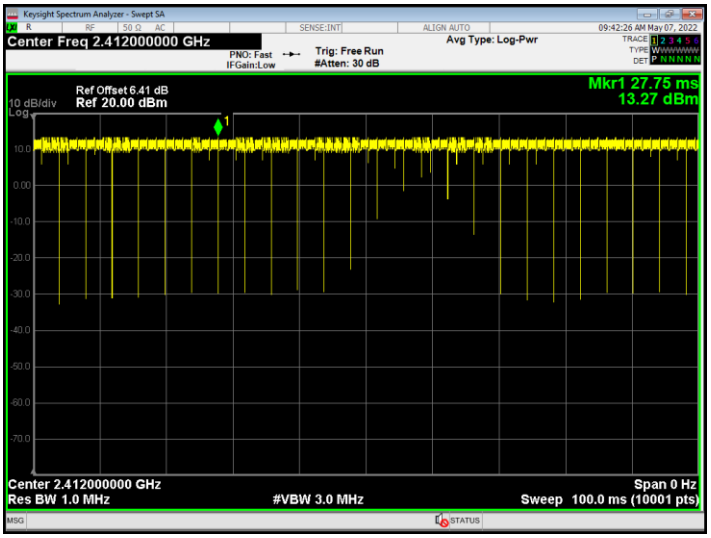
Duty Cycle NVNT ax40 2437MHz Ant2



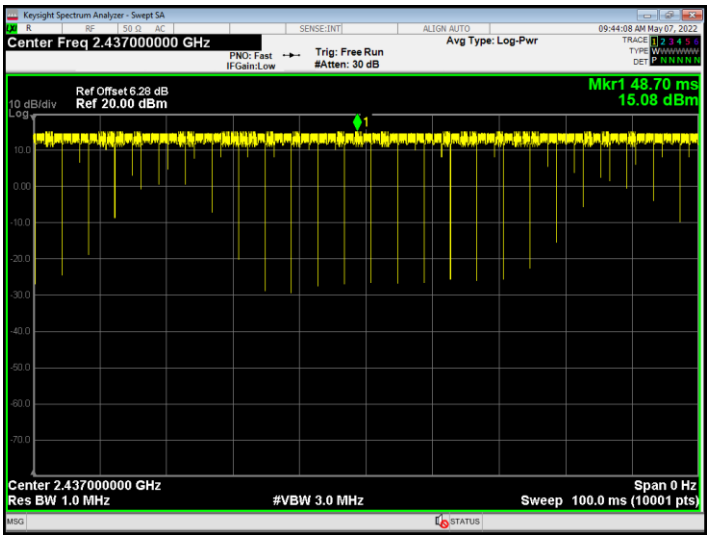
Duty Cycle NVNT ax40 2452MHz Ant2



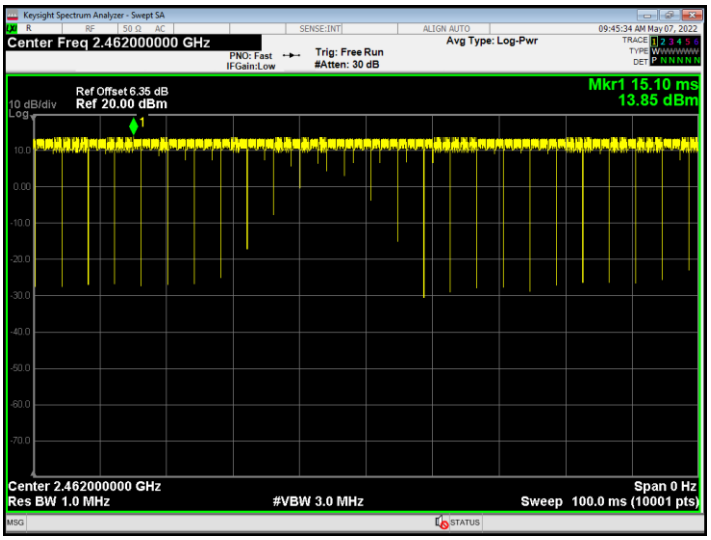
Duty Cycle NVHT b 2412MHz Ant2



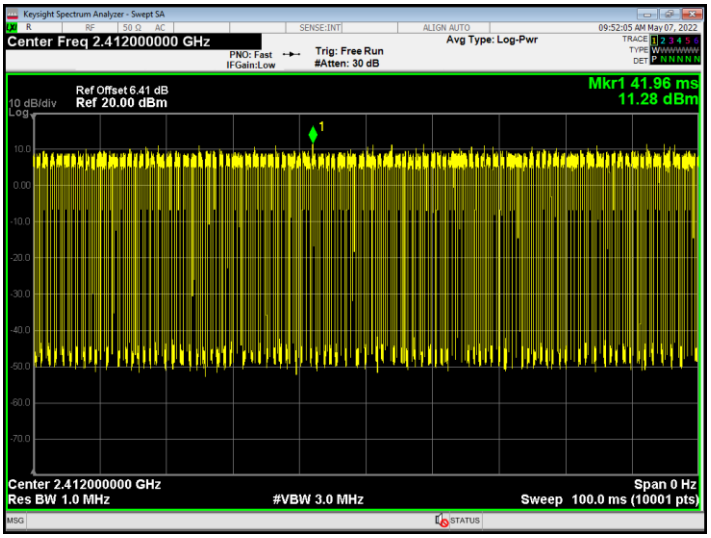
Duty Cycle NVHT b 2437MHz Ant2



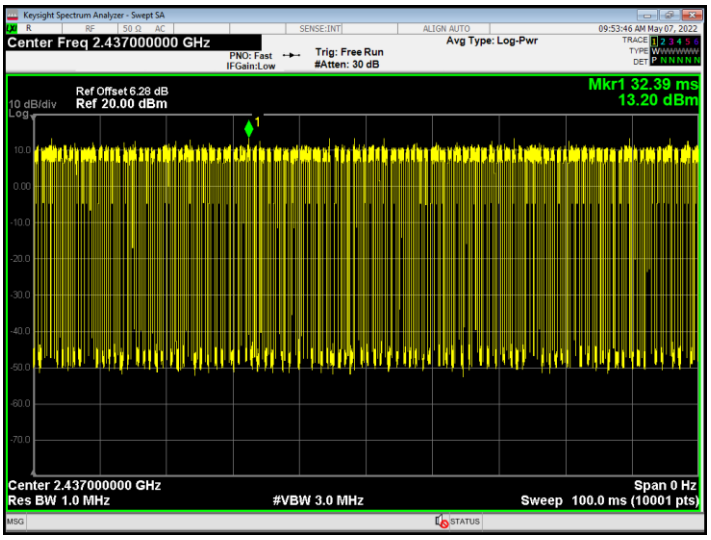
Duty Cycle NVHT b 2462MHz Ant2



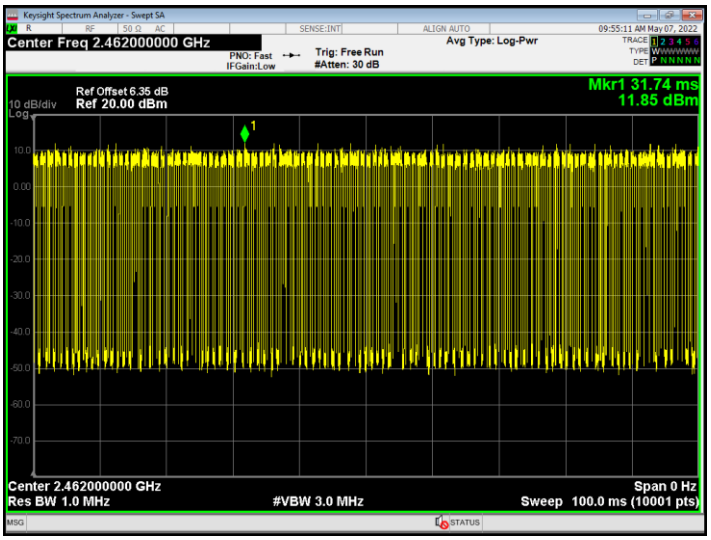
Duty Cycle NVHT g 2412MHz Ant2



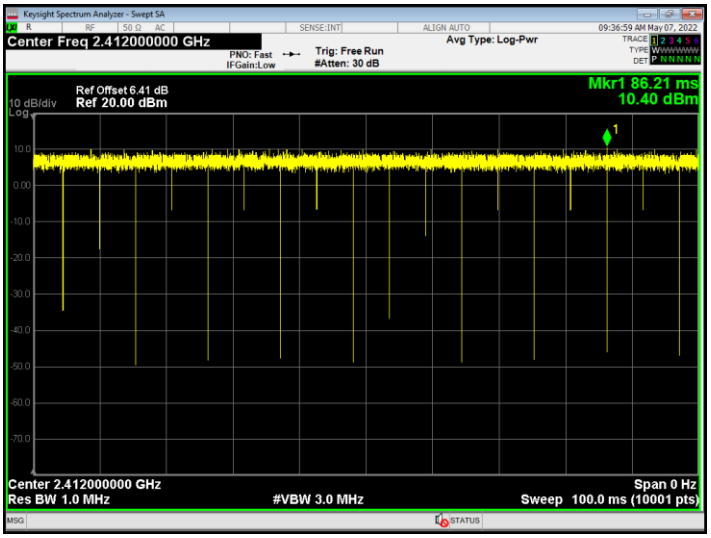
Duty Cycle NVHT g 2437MHz Ant2



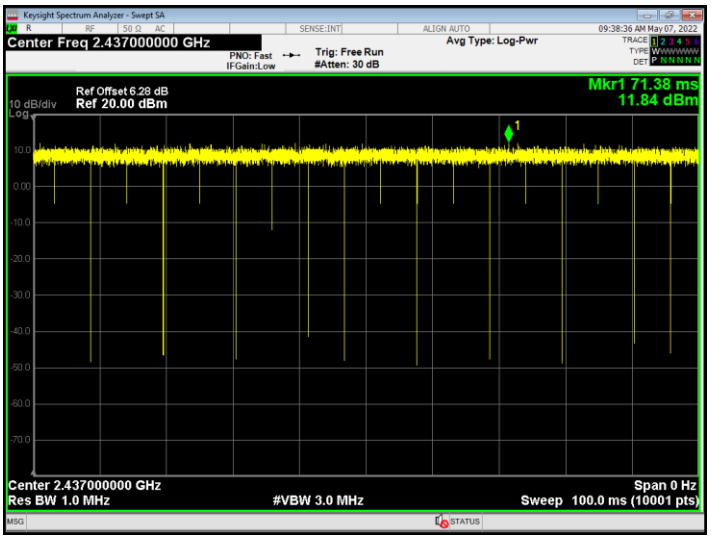
Duty Cycle NVHT g 2462MHz Ant2



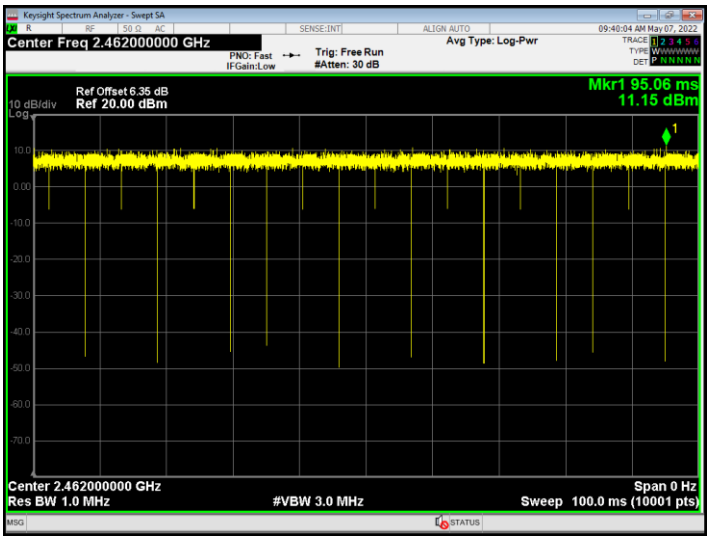
Duty Cycle NVHT n20 2412MHz Ant2



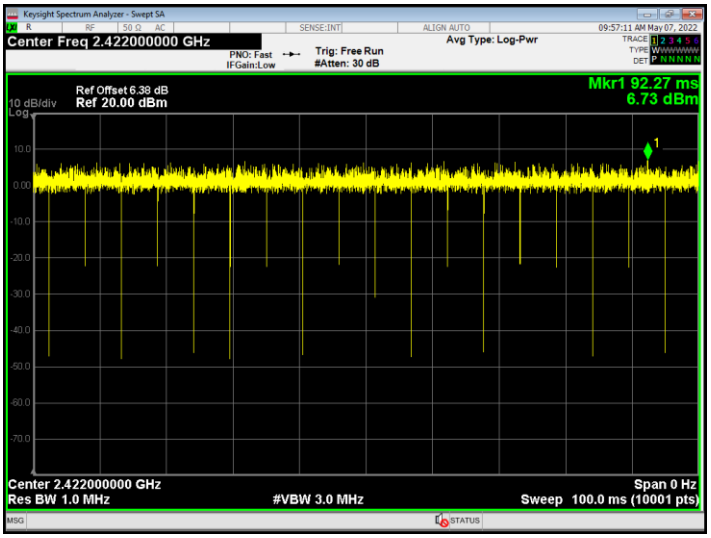
Duty Cycle NVHT n20 2437MHz Ant2



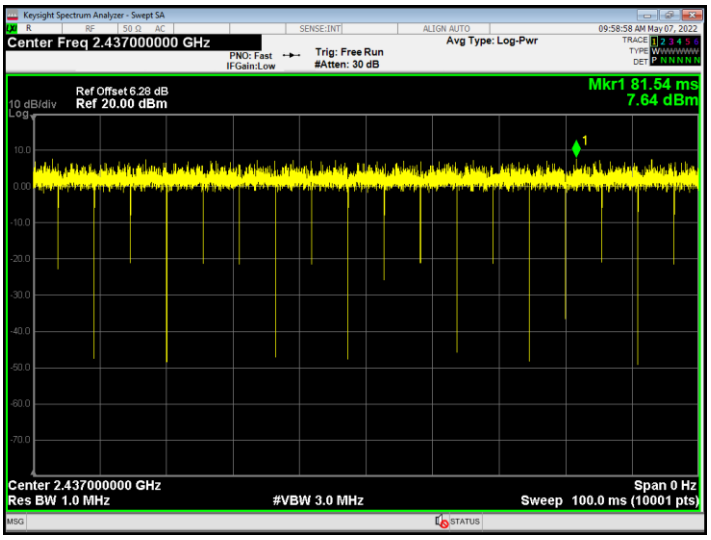
Duty Cycle NVHT n20 2462MHz Ant2



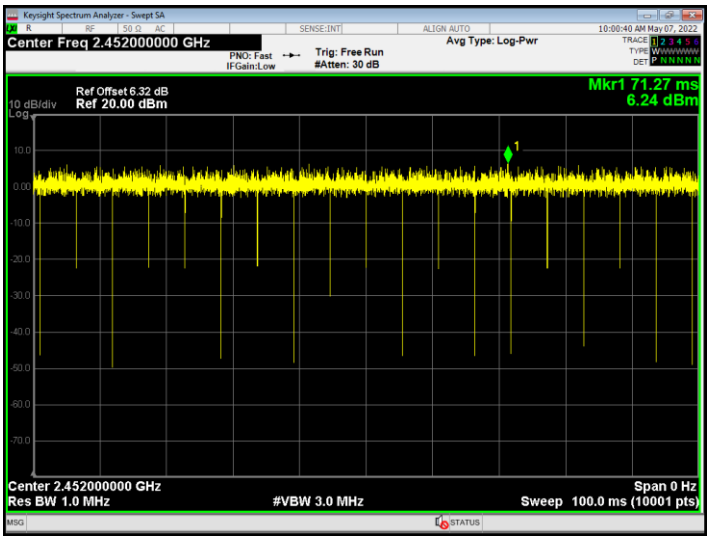
Duty Cycle NVHT n40 2422MHz Ant2



Duty Cycle NVHT n40 2437MHz Ant2



Duty Cycle NVHT n40 2452MHz Ant2



Maximum Conducted Output Power

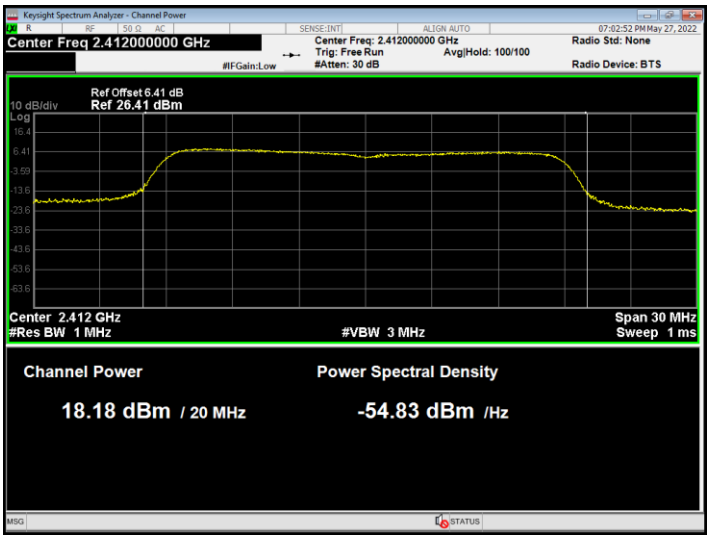
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	ax20	2412	Ant1	18.18	0.14	18.32	30	Pass
NVNT	ax20	2437	Ant1	18.48	0.13	18.61	30	Pass
NVNT	ax20	2462	Ant1	18.29	0.14	18.43	30	Pass
NVNT	ax40	2422	Ant1	18.24	0.27	18.51	30	Pass
NVNT	ax40	2437	Ant1	17.81	0.26	18.07	30	Pass
NVNT	ax40	2452	Ant1	17.81	0.27	18.08	30	Pass
NVNT	b	2412	Ant1	18.14	0	18.14	30	Pass
NVNT	b	2437	Ant1	17.97	0	17.97	30	Pass
NVNT	b	2462	Ant1	17.99	0	17.99	30	Pass
NVNT	g	2412	Ant1	18.10	0	18.10	30	Pass
NVNT	g	2437	Ant1	18.17	0	18.17	30	Pass
NVNT	g	2462	Ant1	17.96	0	17.96	30	Pass
NVNT	n20	2412	Ant1	17.64	0	17.64	30	Pass
NVNT	n20	2437	Ant1	17.56	0	17.56	30	Pass
NVNT	n20	2462	Ant1	17.52	0	17.52	30	Pass
NVNT	n40	2422	Ant1	17.11	0	17.11	30	Pass
NVNT	n40	2437	Ant1	17.06	0	17.06	30	Pass
NVNT	n40	2452	Ant1	17.07	0	17.07	30	Pass

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	ax20	2412	Ant2	18.06	0.14	18.20	30	Pass
NVNT	ax20	2437	Ant2	18.00	0.13	18.13	30	Pass
NVNT	ax20	2462	Ant2	17.92	0.14	18.06	30	Pass
NVNT	ax40	2422	Ant2	18.12	0.27	18.39	30	Pass
NVNT	ax40	2437	Ant2	18.22	0.26	18.48	30	Pass
NVNT	ax40	2452	Ant2	18.51	0.27	18.78	30	Pass
NVNT	b	2412	Ant2	17.98	0	17.98	30	Pass
NVNT	b	2437	Ant2	18.19	0	18.19	30	Pass
NVNT	b	2462	Ant2	18.08	0	18.08	30	Pass
NVNT	g	2412	Ant2	18.15	1.43	19.58	30	Pass
NVNT	g	2437	Ant2	18.12	1.46	19.58	30	Pass
NVNT	g	2462	Ant2	17.94	1.45	19.39	30	Pass
NVNT	n20	2412	Ant2	17.68	0	17.68	30	Pass
NVNT	n20	2437	Ant2	17.63	0	17.63	30	Pass
NVNT	n20	2462	Ant2	17.65	0	17.65	30	Pass
NVNT	n40	2422	Ant2	17.03	0	17.03	30	Pass
NVNT	n40	2437	Ant2	17.11	0	17.11	30	Pass
NVNT	n40	2452	Ant2	17.12	0	17.12	30	Pass

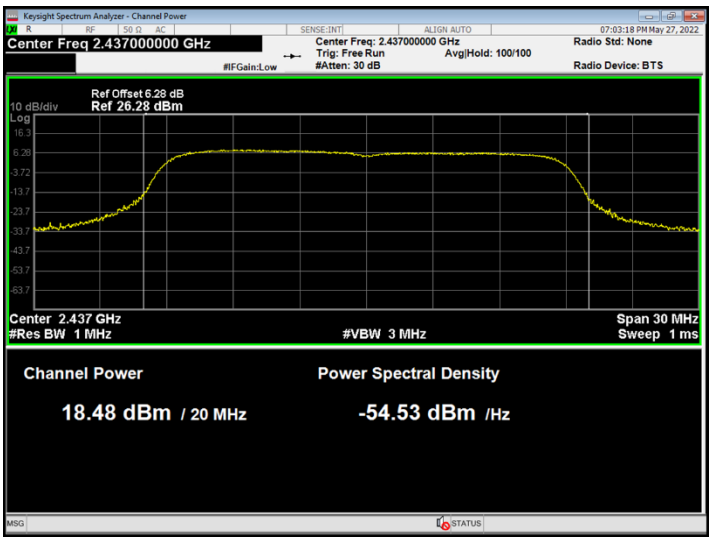
For MIMO Mode

Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
ax20	2412	Ant1+2	21.27	30	Pass
ax20	2437	Ant1+2	21.39	30	Pass
ax20	2462	Ant1+2	21.26	30	Pass
ax40	2422	Ant1+2	21.46	30	Pass
ax40	2437	Ant1+2	21.29	30	Pass
ax40	2452	Ant1+2	21.45	30	Pass
n20	2412	Ant1+2	20.67	30	Pass
n20	2437	Ant1+2	20.61	30	Pass
n20	2462	Ant1+2	20.60	30	Pass
n40	2422	Ant1+2	20.08	30	Pass
n40	2437	Ant1+2	20.10	30	Pass
n40	2452	Ant1+2	20.11	30	Pass

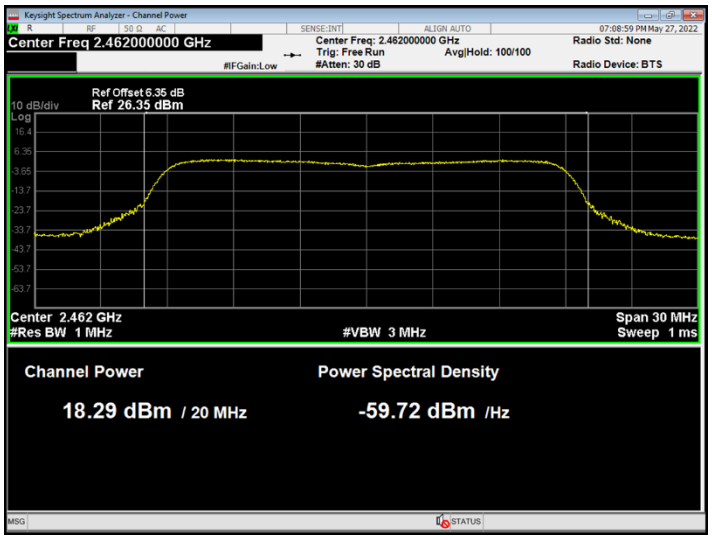
Power NVNT ax20 2412MHz Ant1



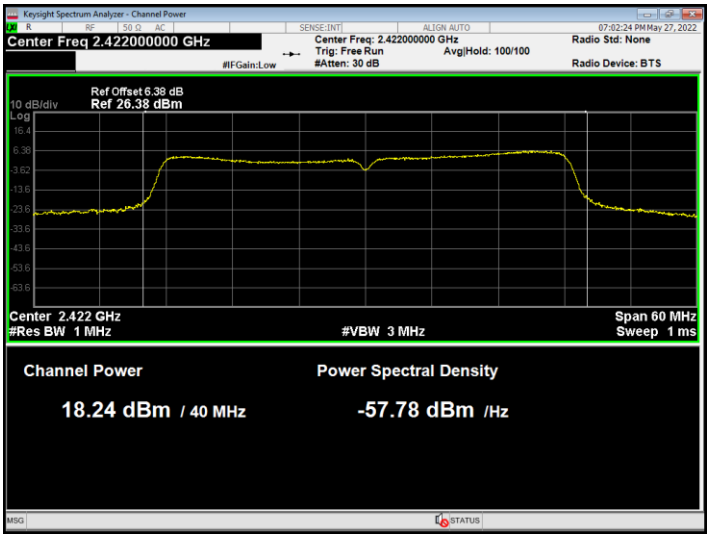
Power NVNT ax20 2437MHz Ant1



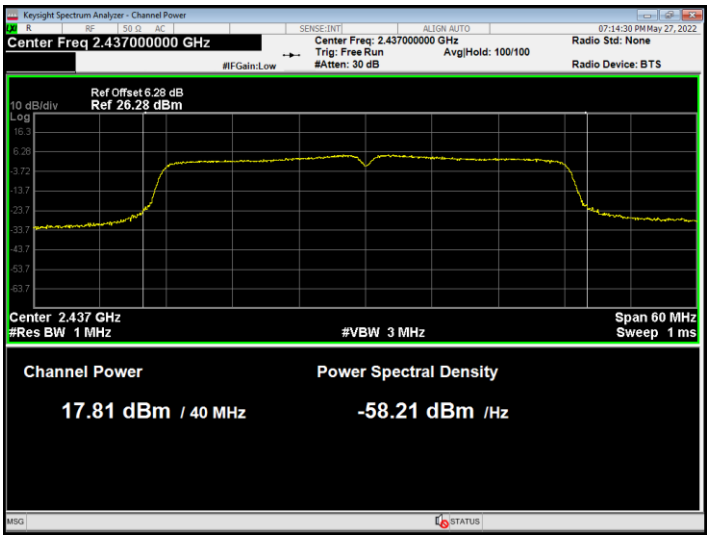
Power NVNT ax20 2462MHz Ant1



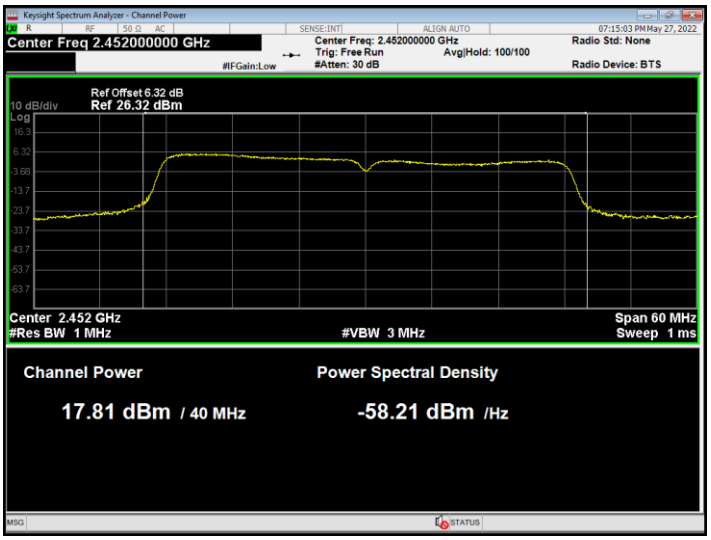
Power NVNT ax40 2422MHz Ant1



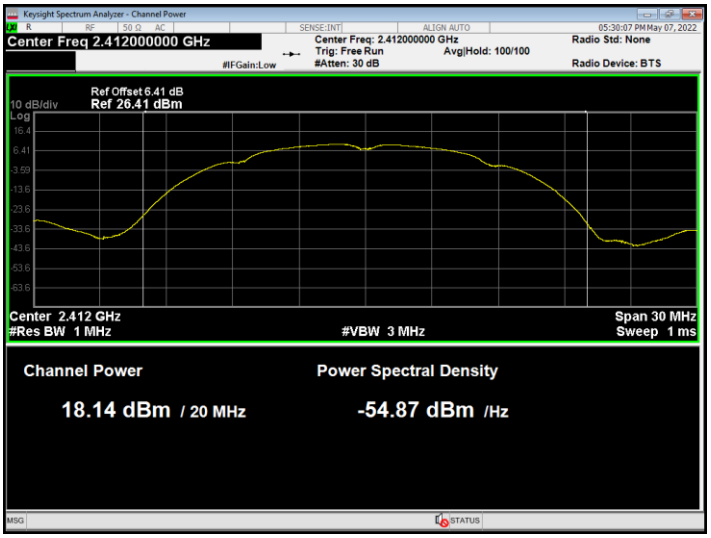
Power NVNT ax40 2437MHz Ant1



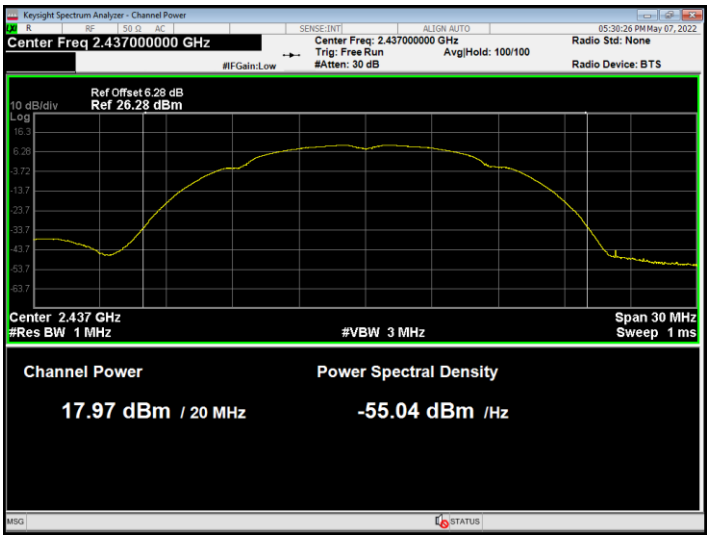
Power NVNT ax40 2452MHz Ant1



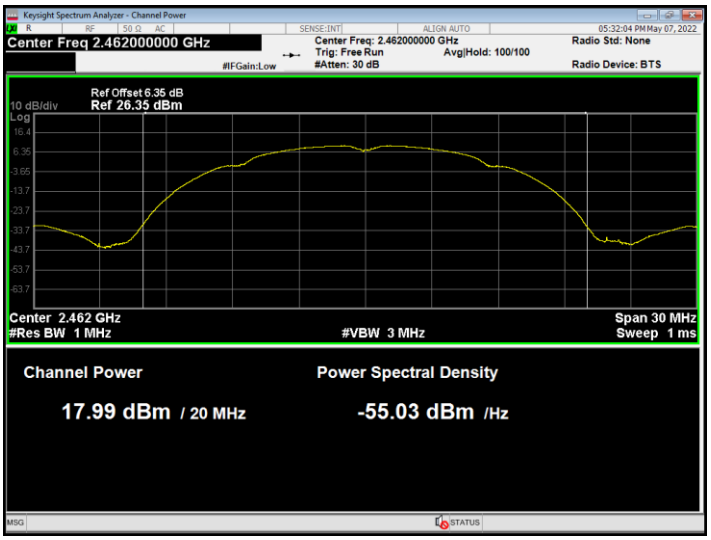
Power NVNT b 2412MHz Ant1



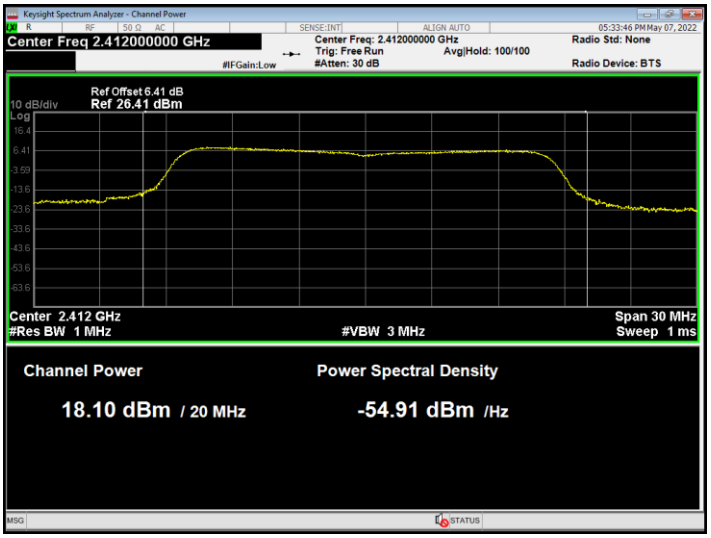
Power NVNT b 2437MHz Ant1



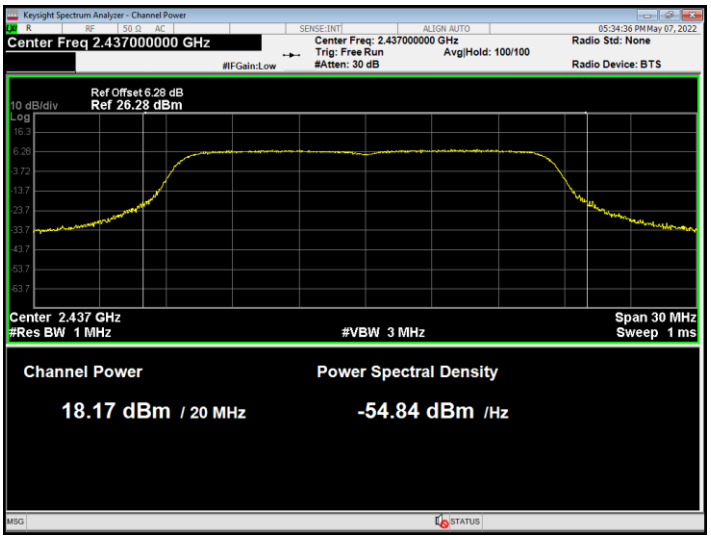
Power NVNT b 2462MHz Ant1



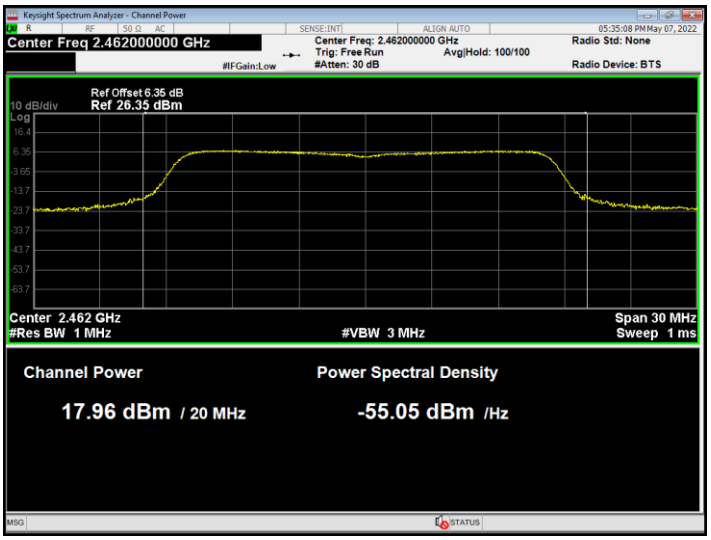
Power NVNT g 2412MHz Ant1



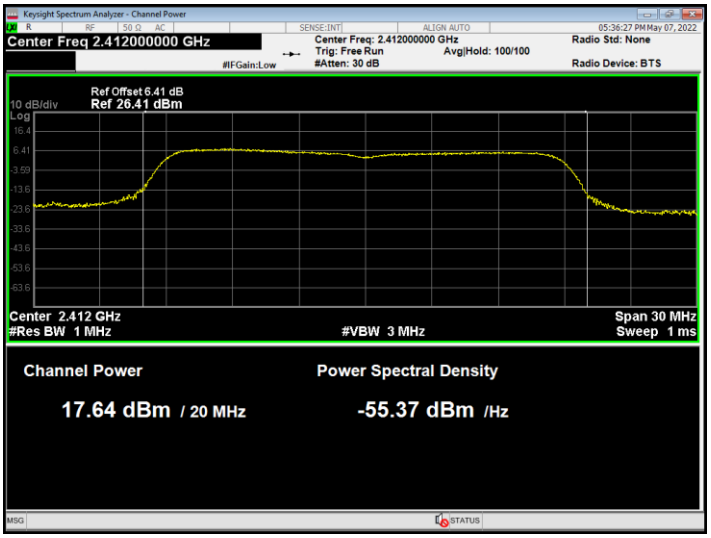
Power NVNT g 2437MHz Ant1



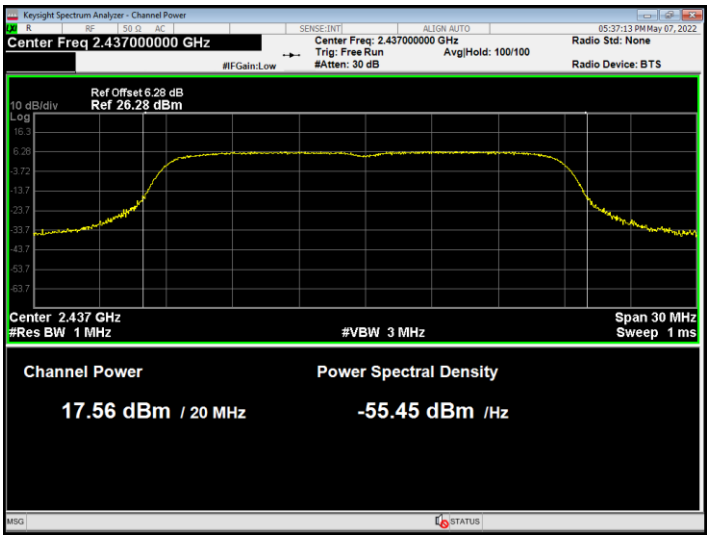
Power NVNT g 2462MHz Ant1



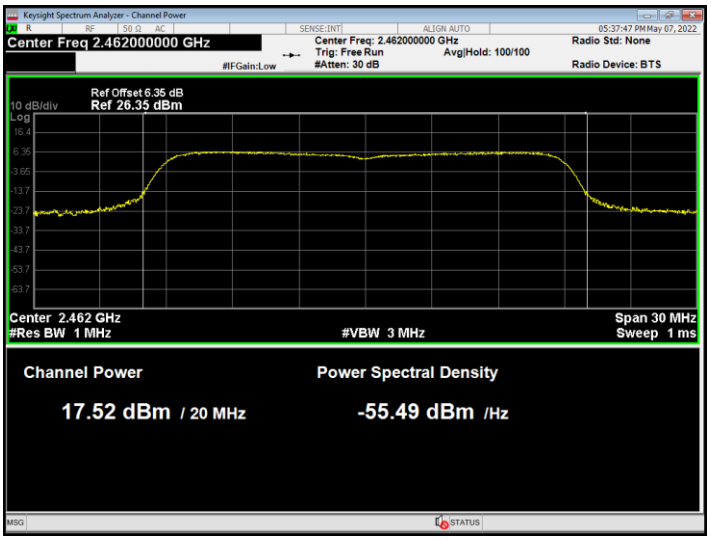
Power NVNT n20 2412MHz Ant1



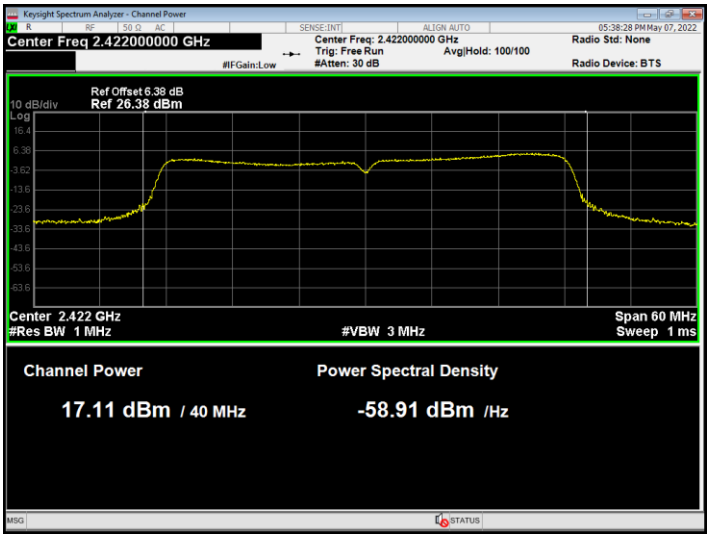
Power NVNT n20 2437MHz Ant1



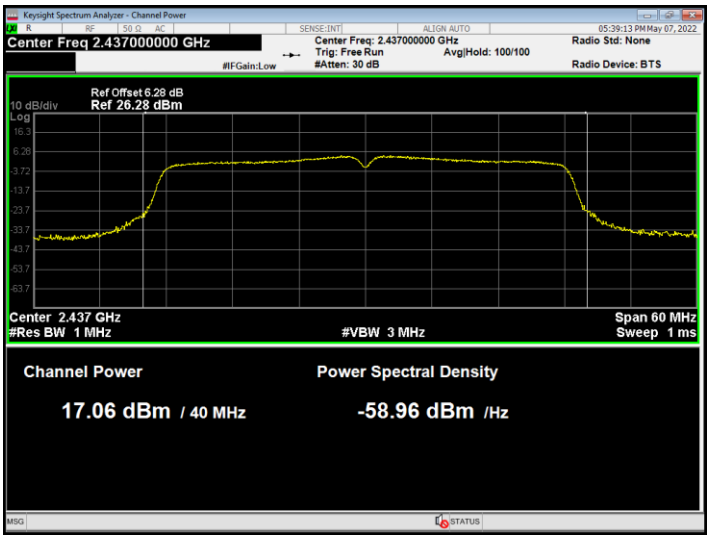
Power NVNT n20 2462MHz Ant1



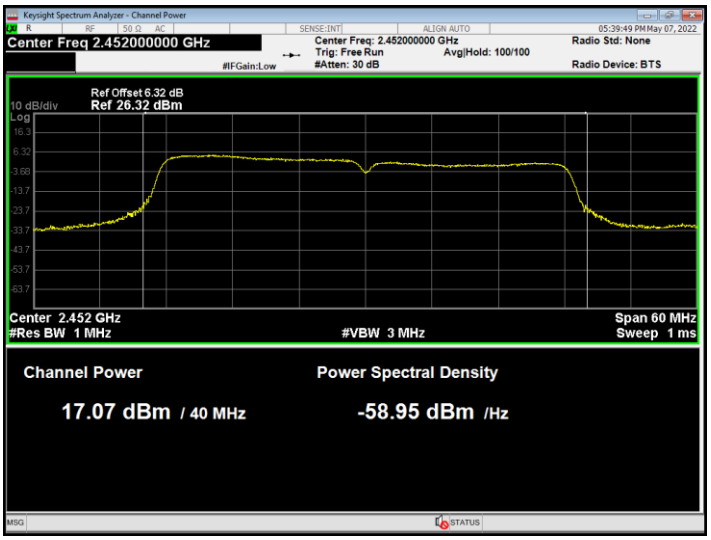
Power NVNT n40 2422MHz Ant1



Power NVNT n40 2437MHz Ant1

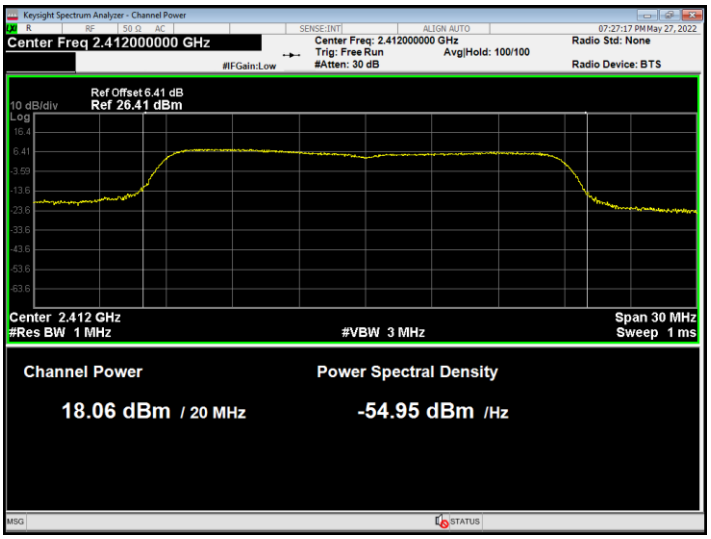


Power NVNT n40 2452MHz Ant1

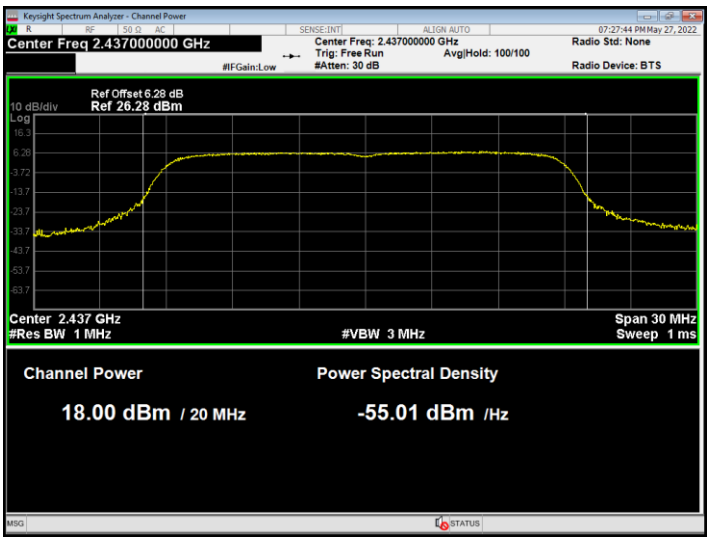


ANT2

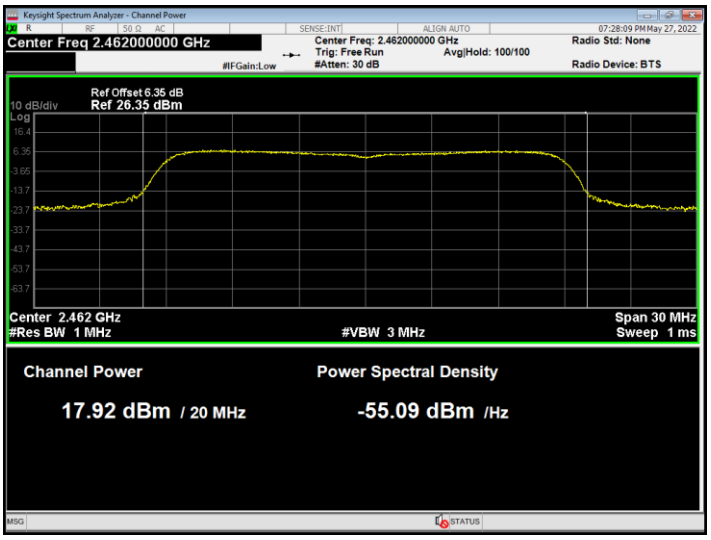
Power NVNT ax20 2412MHz Ant2



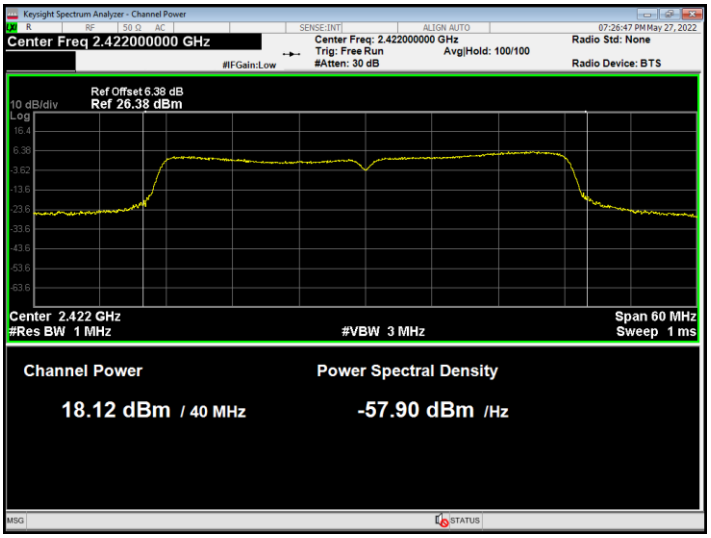
Power NVNT ax20 2437MHz Ant2



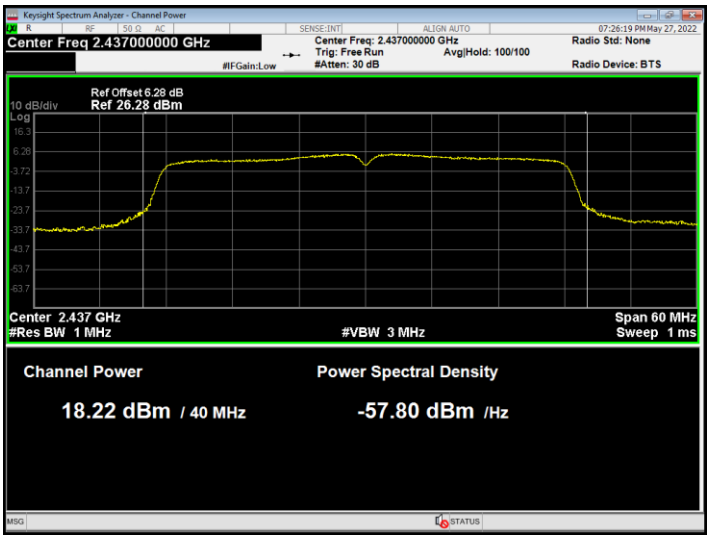
Power NVNT ax20 2462MHz Ant2



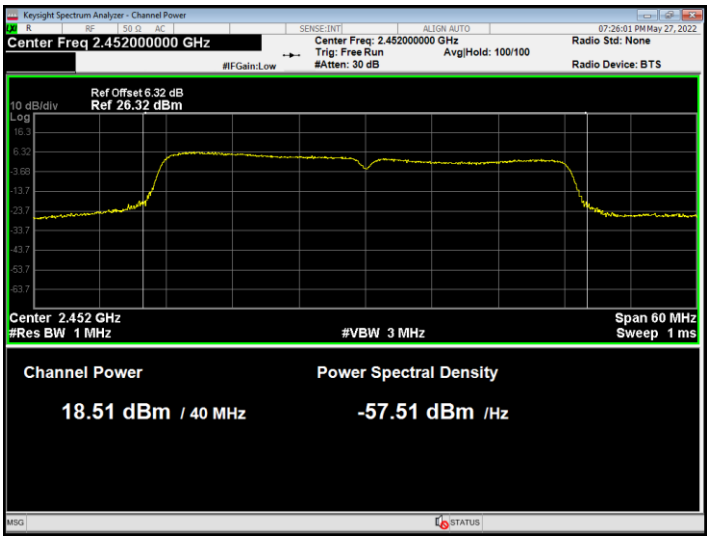
Power NVNT ax40 2422MHz Ant2



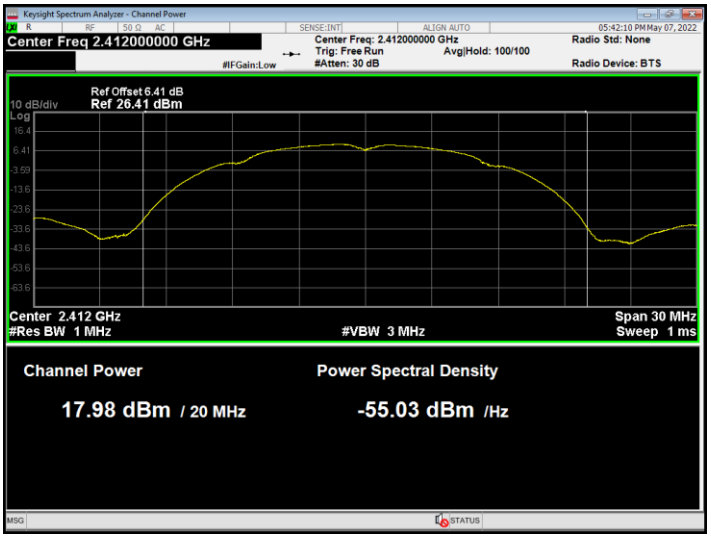
Power NVNT ax40 2437MHz Ant2



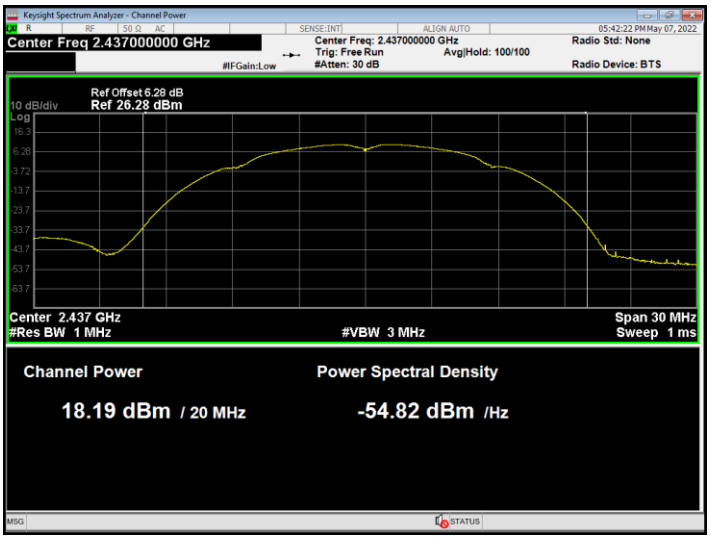
Power NVNT ax40 2452MHz Ant2



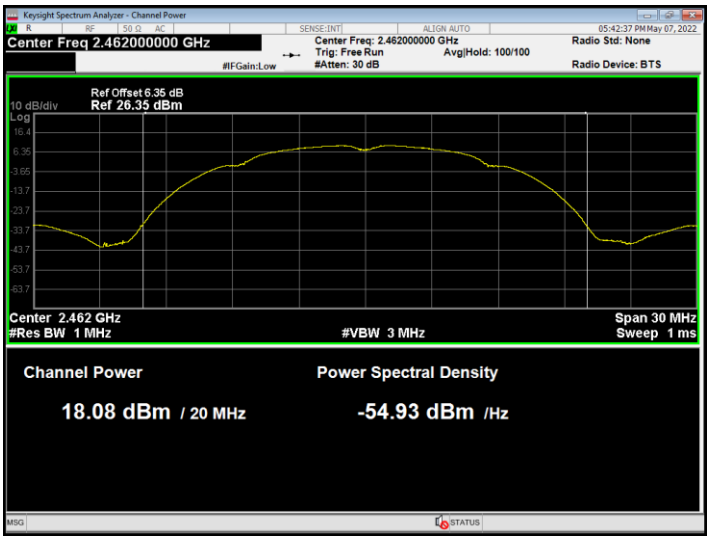
Power NVNT b 2412MHz Ant2



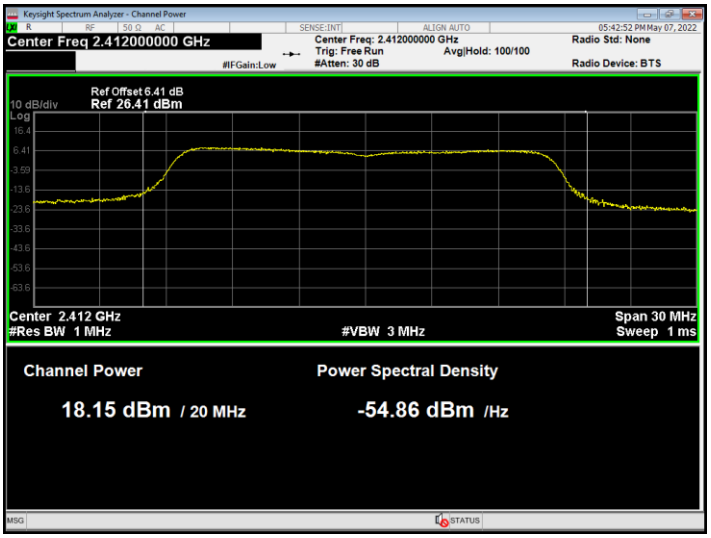
Power NVNT b 2437MHz Ant2



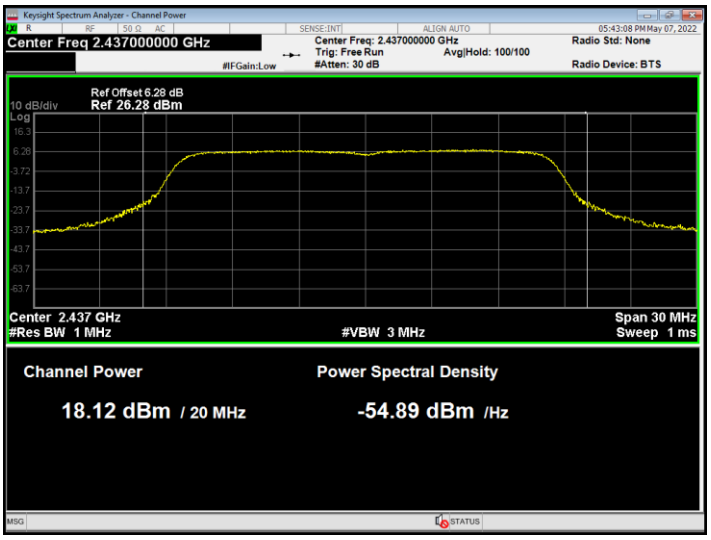
Power NVNT b 2462MHz Ant2



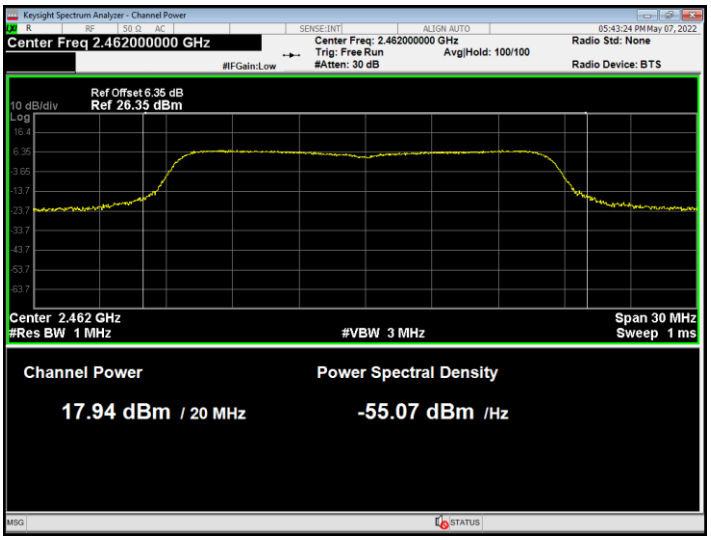
Power NVNT g 2412MHz Ant2



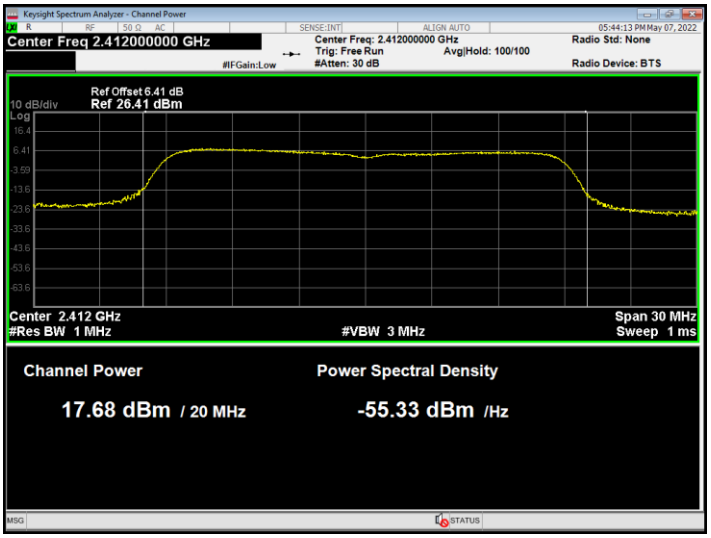
Power NVNT g 2437MHz Ant2



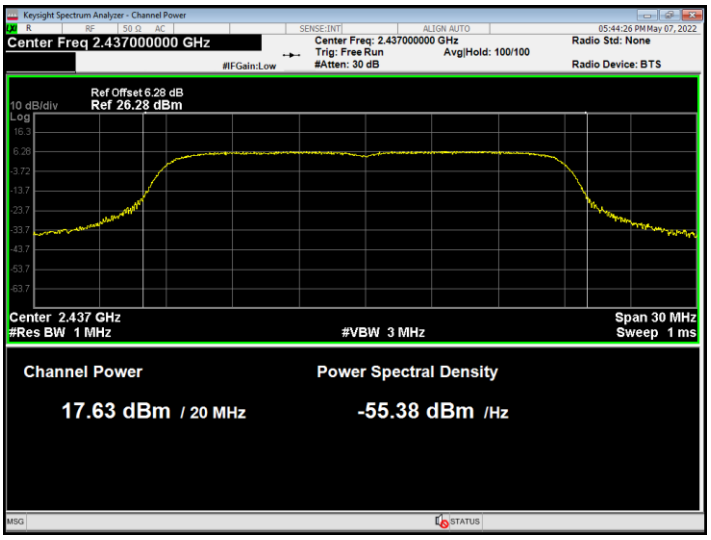
Power NVNT g 2462MHz Ant2



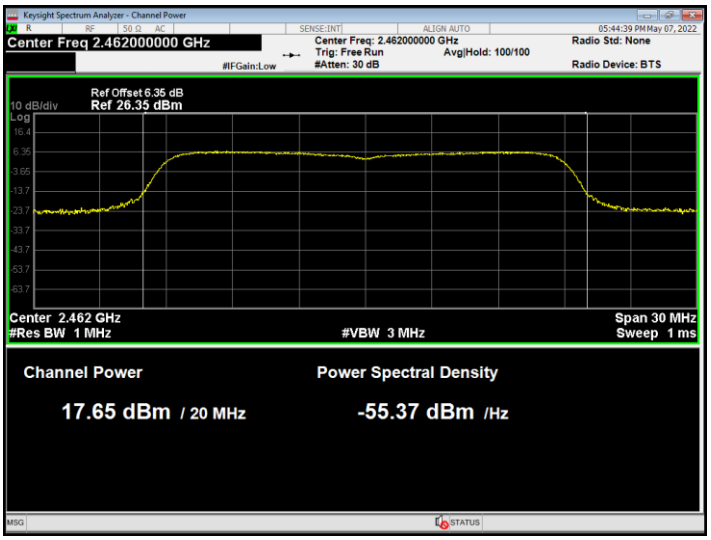
Power NVNT n20 2412MHz Ant2



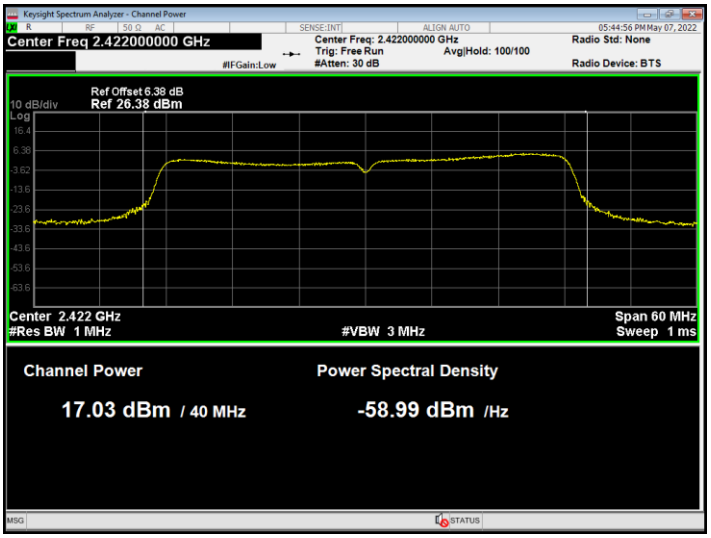
Power NVNT n20 2437MHz Ant2



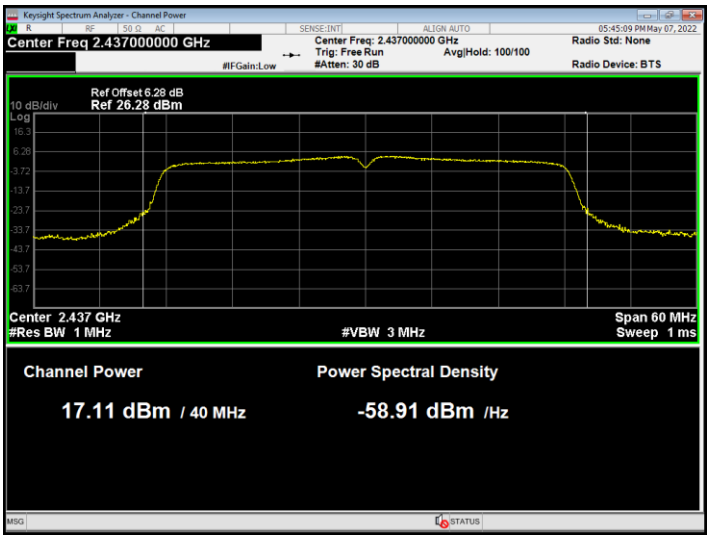
Power NVNT n20 2462MHz Ant2



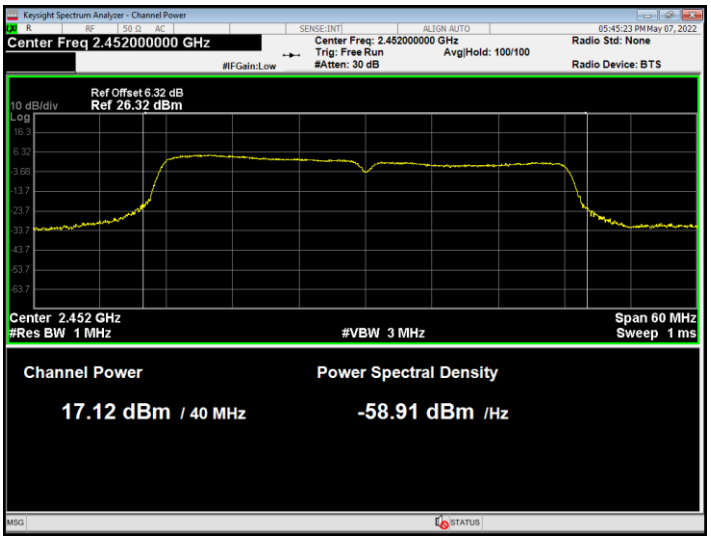
Power NVNT n40 2422MHz Ant2



Power NVNT n40 2437MHz Ant2



Power NVNT n40 2452MHz Ant2

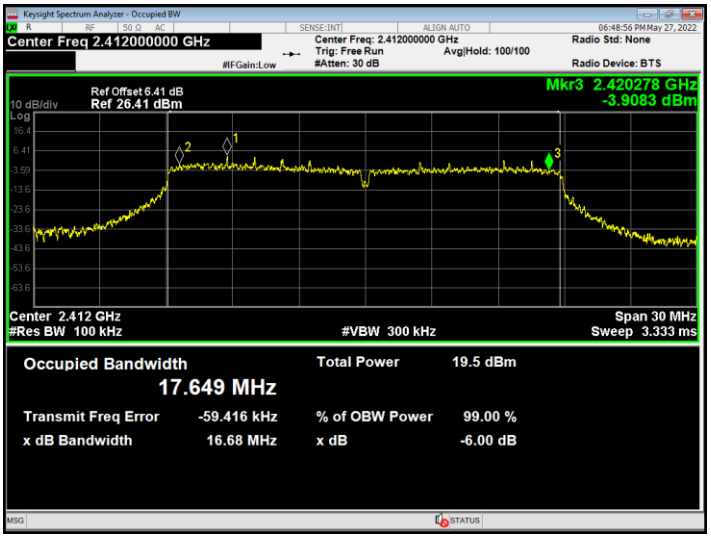


-6dB Bandwidth

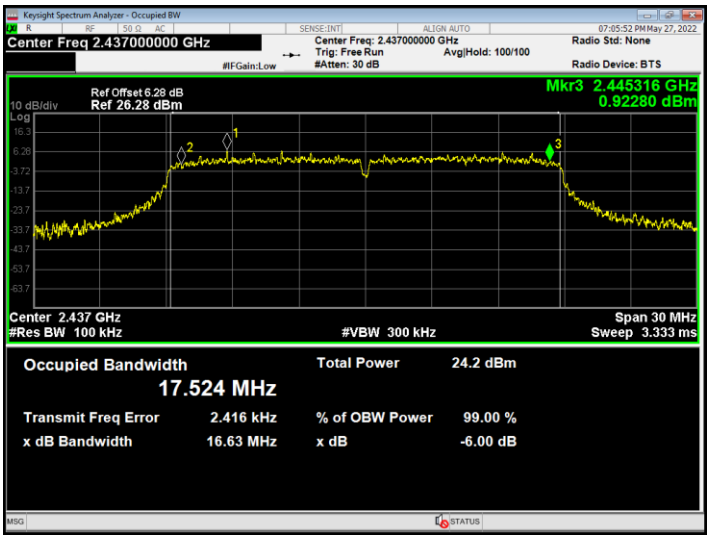
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	ax20	2412	Ant1	16.68	0.5	Pass
NVNT	ax20	2437	Ant1	16.63	0.5	Pass
NVNT	ax20	2462	Ant1	17.27	0.5	Pass
NVNT	ax40	2422	Ant1	35.65	0.5	Pass
NVNT	ax40	2437	Ant1	35.04	0.5	Pass
NVNT	ax40	2452	Ant1	35.41	0.5	Pass
NVNT	b	2412	Ant1	7.61	0.5	Pass
NVNT	b	2437	Ant1	8.02	0.5	Pass
NVNT	b	2462	Ant1	8.06	0.5	Pass
NVNT	g	2412	Ant1	17.67	0.5	Pass
NVNT	g	2437	Ant1	17.55	0.5	Pass
NVNT	g	2462	Ant1	17.62	0.5	Pass
NVNT	n20	2412	Ant1	17.74	0.5	Pass
NVNT	n20	2437	Ant1	17.64	0.5	Pass
NVNT	n20	2462	Ant1	17.69	0.5	Pass
NVNT	n40	2422	Ant1	36.31	0.5	Pass
NVNT	n40	2437	Ant1	36.32	0.5	Pass
NVNT	n40	2452	Ant1	36.38	0.5	Pass

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	ax20	2412	Ant2	16.32	0.5	Pass
NVNT	ax20	2437	Ant2	16.11	0.5	Pass
NVNT	ax20	2462	Ant2	17.55	0.5	Pass
NVNT	ax40	2422	Ant2	35.69	0.5	Pass
NVNT	ax40	2437	Ant2	35.09	0.5	Pass
NVNT	ax40	2452	Ant2	35.65	0.5	Pass
NVHT	b	2412	Ant2	8.00	0.5	Pass
NVHT	b	2437	Ant2	7.22	0.5	Pass
NVHT	b	2462	Ant2	7.21	0.5	Pass
NVHT	g	2412	Ant2	16.47	0.5	Pass
NVHT	g	2437	Ant2	16.41	0.5	Pass
NVHT	g	2462	Ant2	16.47	0.5	Pass
NVHT	g	2412	Ant2	17.66	0.5	Pass
NVHT	g	2437	Ant2	17.55	0.5	Pass
NVHT	g	2462	Ant2	17.58	0.5	Pass
NVHT	n40	2422	Ant2	36.33	0.5	Pass
NVHT	n40	2437	Ant2	35.66	0.5	Pass
NVHT	n40	2452	Ant2	36.41	0.5	Pass

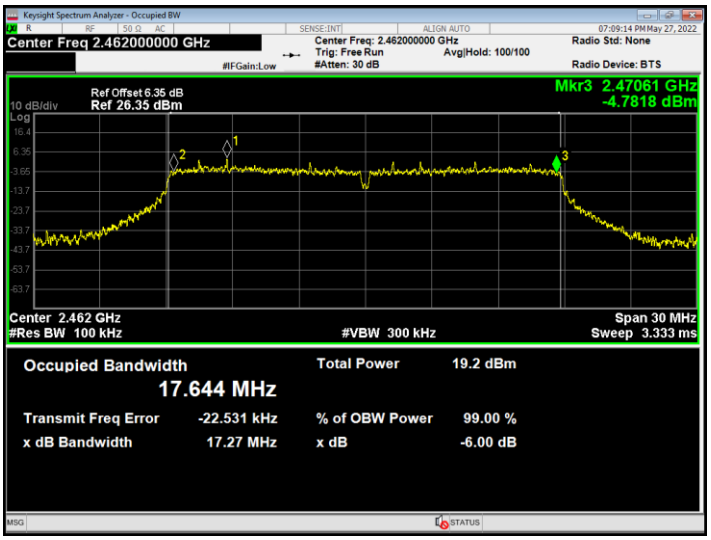
-6dB Bandwidth NVNT ax20 2412MHz Ant1



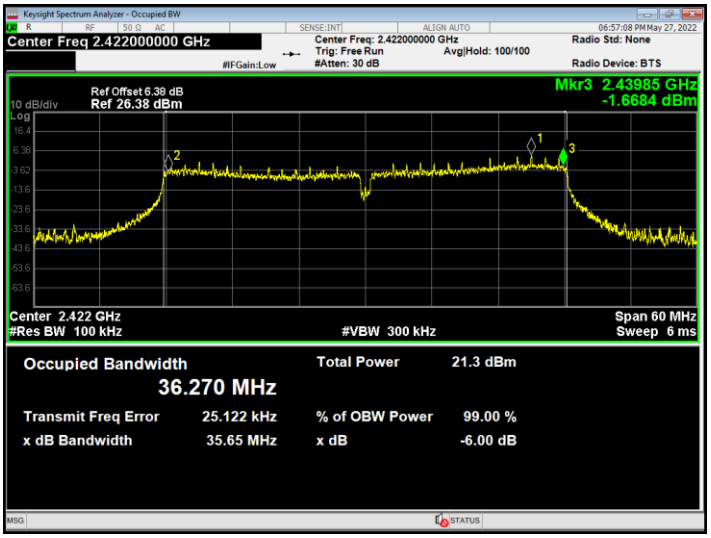
-6dB Bandwidth NVNT ax20 2437MHz Ant1



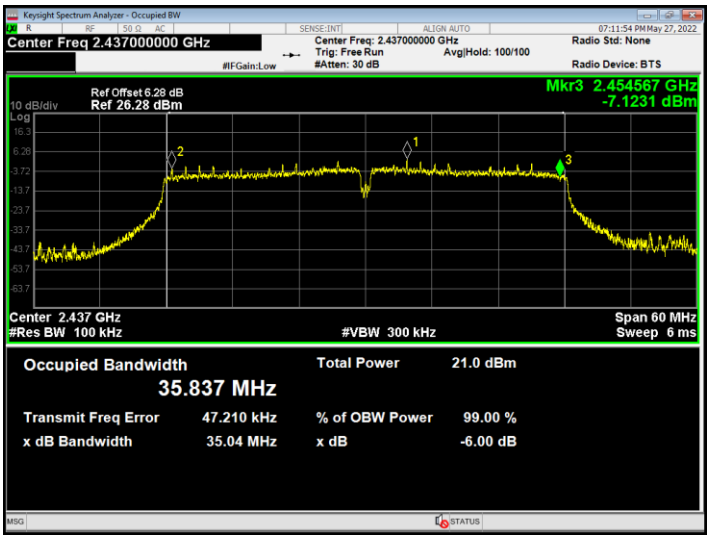
-6dB Bandwidth NVNT ax20 2462MHz Ant1



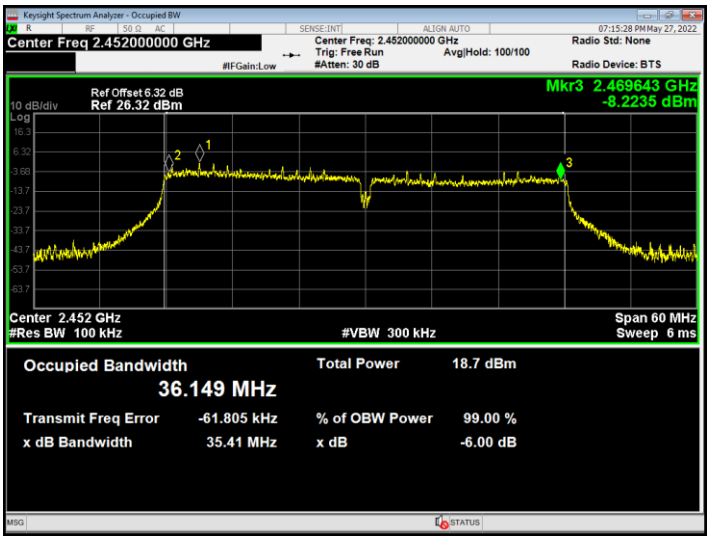
-6dB Bandwidth NVNT ax40 2422MHz Ant1



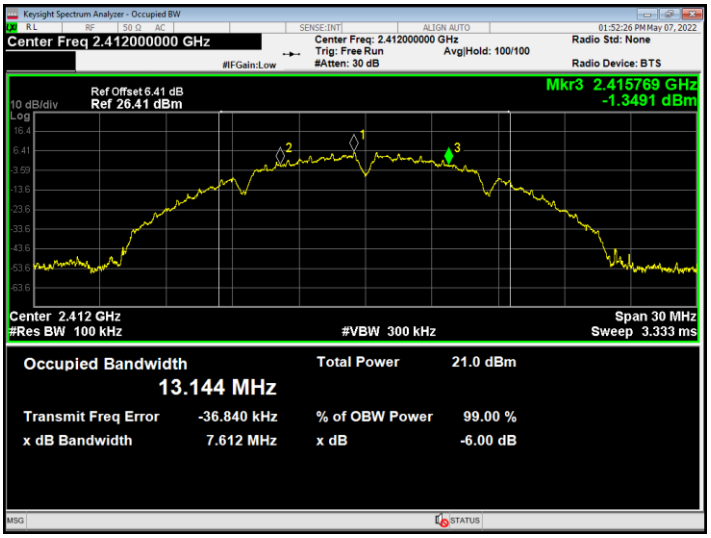
-6dB Bandwidth NVNT ax40 2437MHz Ant1



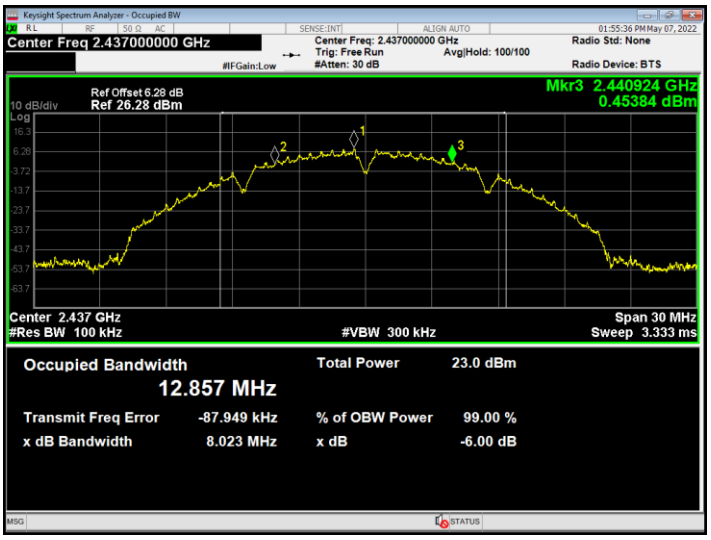
-6dB Bandwidth NVNT ax40 2452MHz Ant1



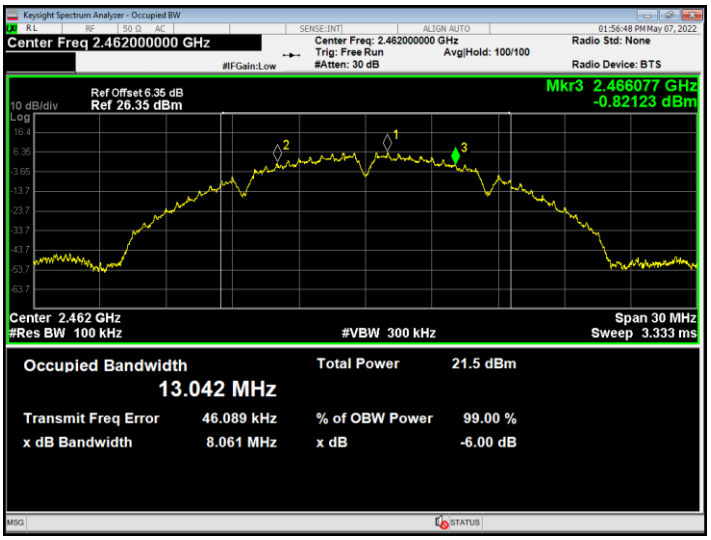
-6dB Bandwidth NVNT b 2412MHz Ant1



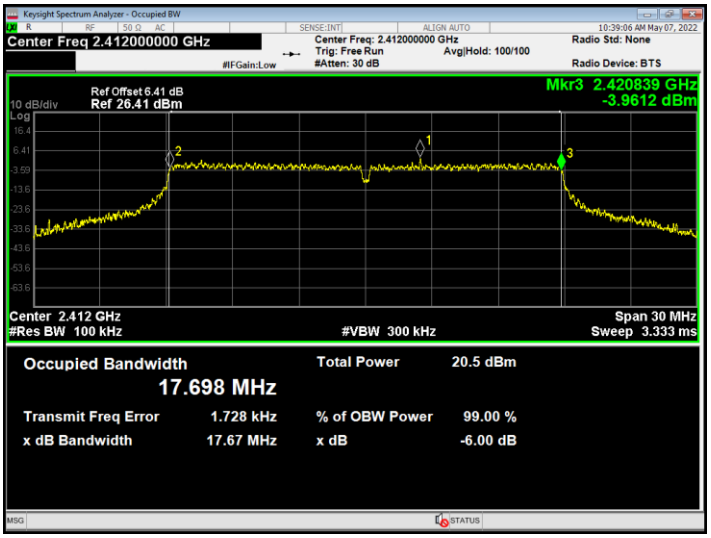
-6dB Bandwidth NVNT b 2437MHz Ant1



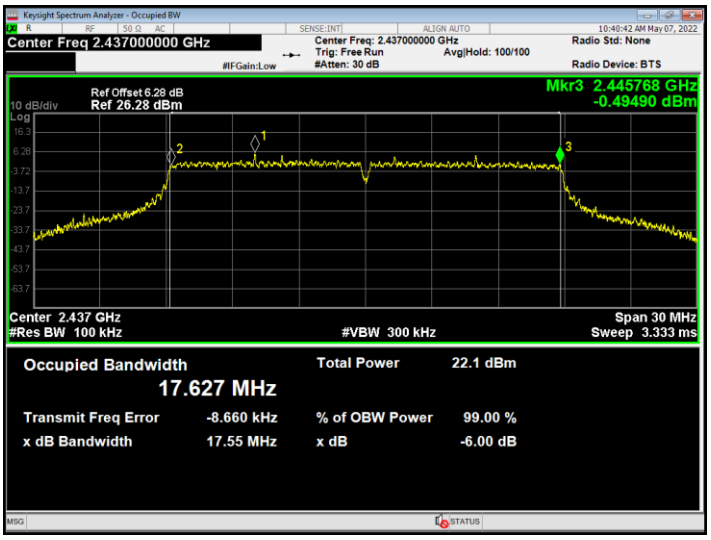
-6dB Bandwidth NVNT b 2462MHz Ant1



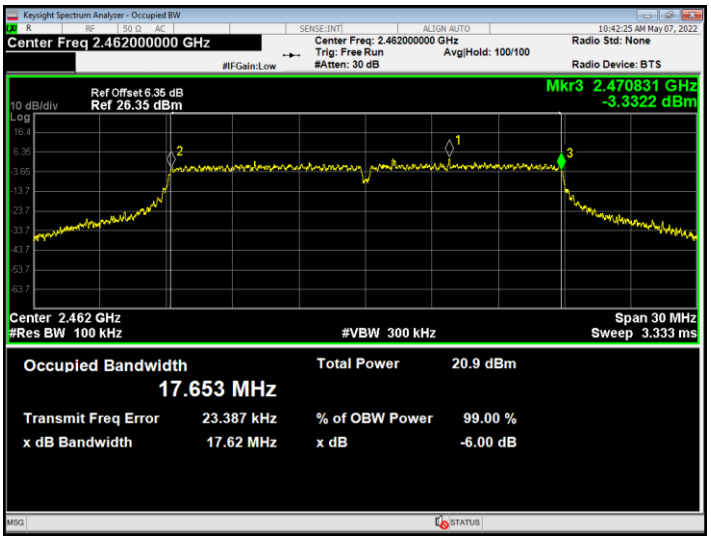
-6dB Bandwidth NVNT g 2412MHz Ant1



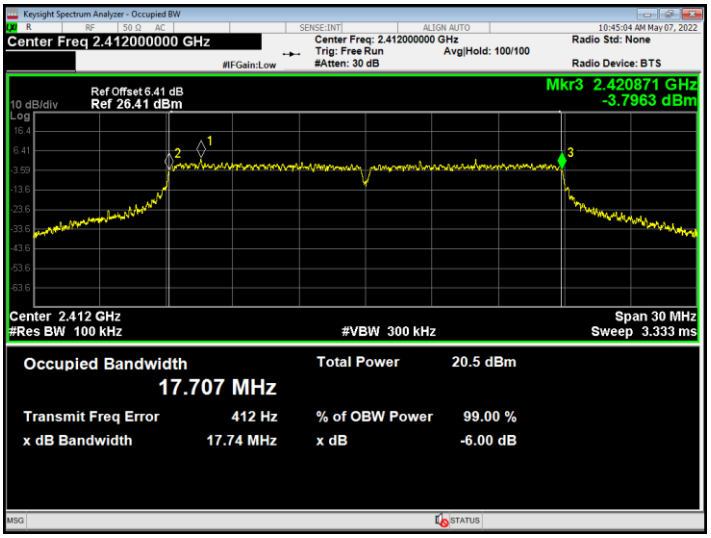
-6dB Bandwidth NVNT g 2437MHz Ant1



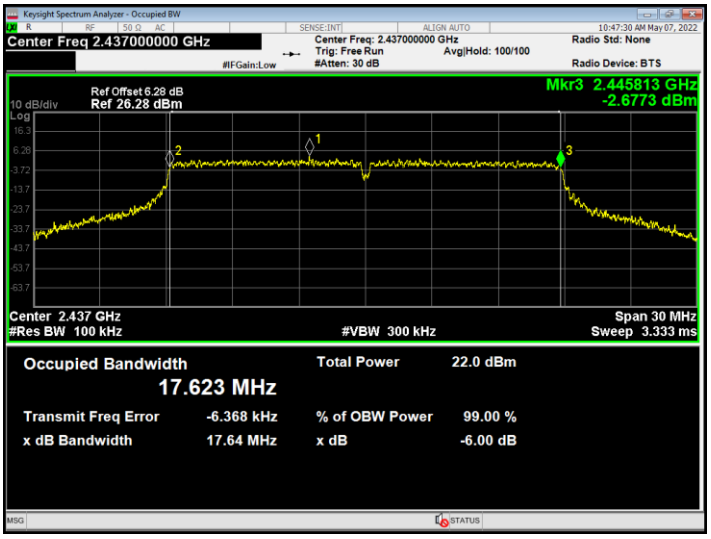
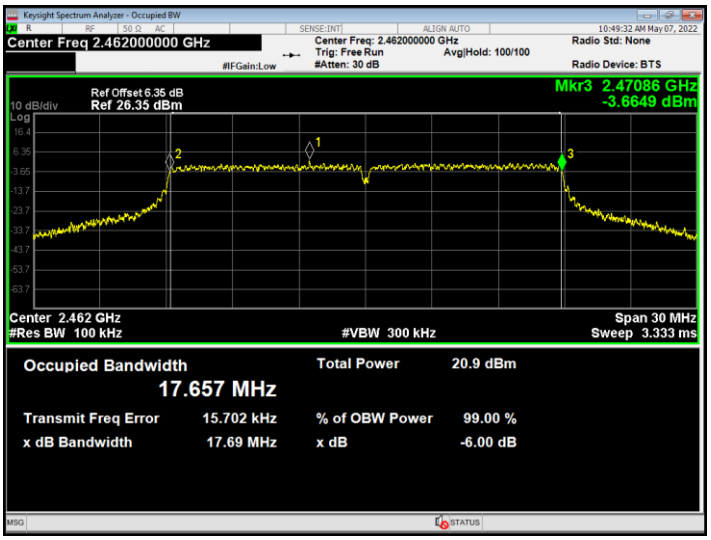
-6dB Bandwidth NVNT g 2462MHz Ant1



-6dB Bandwidth NVNT n20 2412MHz Ant1



-6dB Bandwidth NVNT n20 2437MHz Ant1



-6dB Bandwidth NVNT n20 2462MHz Ant1