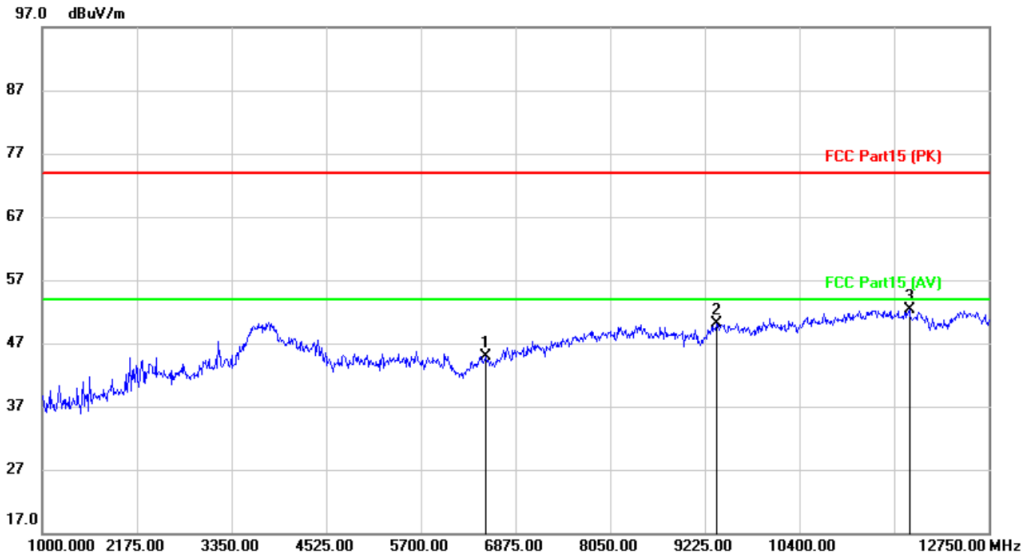


[TestMode: TX Low channel]; [Polarity: Vertical]

Radiated Emission Measurement

File :2 Data :#36 Date: 2021/3/31 星期 Time: 下午 5:16:57



Site Polarization: **Vertical** Temperature:
 Limit: FCC Part15 (PK) Power: Humidity: %
 EUT: True Wireless Earbuds Distance: 3m
 M/N: 6222D-UUC
 Mode: 802.11b-2412-ant2
 Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree	Comment
1		6499.000	40.87	4.11	44.98	74.00	-29.02	peak			
2		9366.000	41.36	8.78	50.14	74.00	-23.86	peak			
3	*	11763.000	40.59	11.63	52.22	74.00	-21.78	peak			

*:Maximum data x:Over limit !:over margin

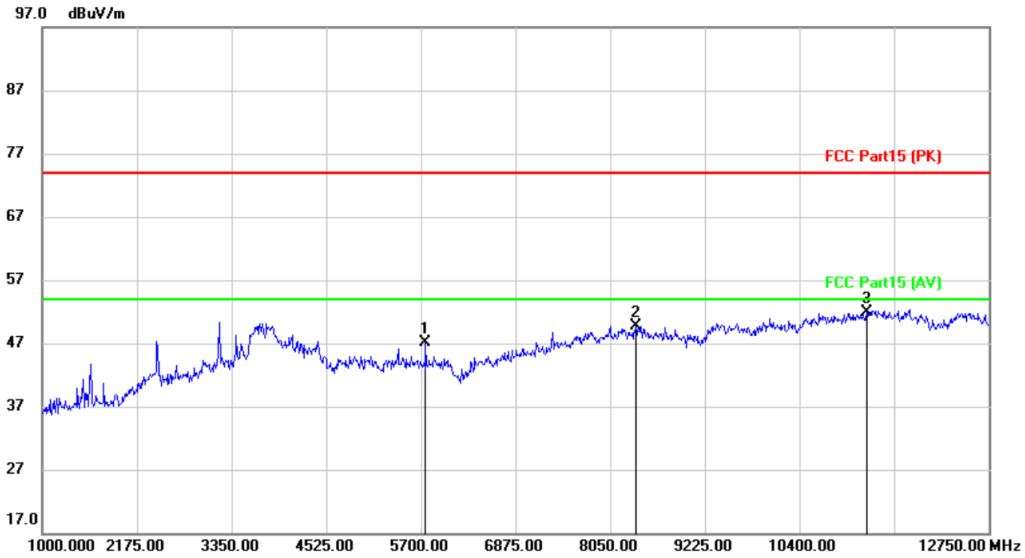
<Reference Only

Test Result: Pass

[TestMode: TX middle channel]; [Polarity: Horizontal]

Radiated Emission Measurement

File :2 Data :#34 Date: 2021/3/31 星期 Time: 下午 5:10:55



Site Polarization: **Horizontal** Temperature:
 Limit: FCC Part15 (PK) Power: Humidity: %
 EUT: True Wireless Earbuds Distance: 3m
 M/N: 6222D-UUC
 Mode: 802.11b-2437-ant2
 Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree	Comment
1		5758.750	43.21	3.92	47.13	74.00	-26.87	peak			
2		8367.250	41.51	8.27	49.78	74.00	-24.22	peak			
3	*	11234.250	39.97	12.00	51.97	74.00	-22.03	peak			

*:Maximum data x:Over limit !:over margin

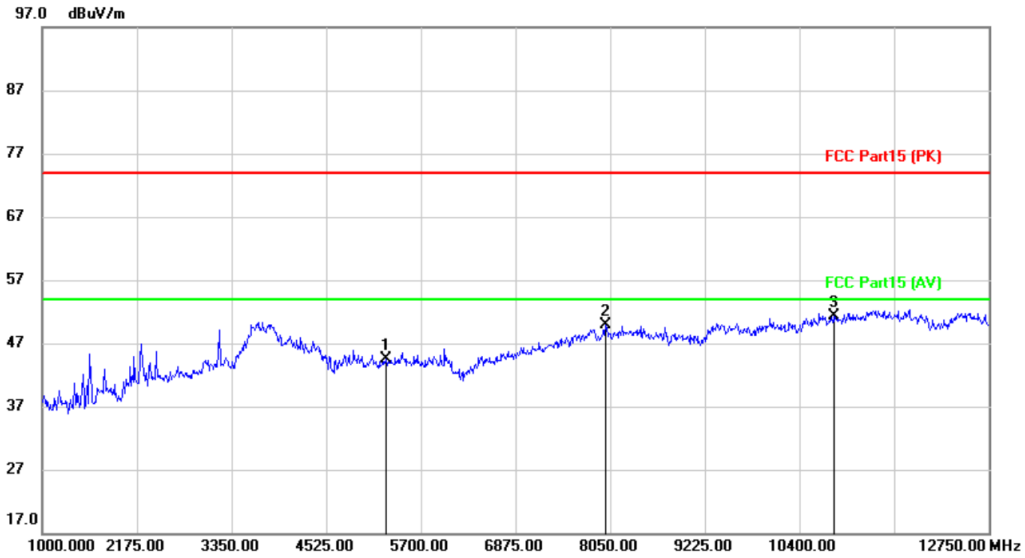
<Reference Only

Test Result: Pass

[TestMode: TX middle channel]; [Polarity: Vertical]

Radiated Emission Measurement

File :2 Data :#33 Date: 2021/3/31 星期 Time: 下午 5:09:05



Site Polarization: **Vertical** Temperature:
 Limit: FCC Part15 (PK) Power: Humidity: %
 EUT: True Wireless Earbuds Distance: 3m
 M/N: 6222D-UUC
 Mode: 802.11b-2437-ant2
 Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Comment
1		5265.250	41.01	3.54	44.55	74.00	-29.45	peak		
2		7991.250	42.00	7.93	49.93	74.00	-24.07	peak		
3	*	10823.000	39.48	11.80	51.28	74.00	-22.72	peak		

*:Maximum data x:Over limit !:over margin

<Reference Only

Test Result: Pass

5 ANTENNA REQUIREMENT

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	N/A

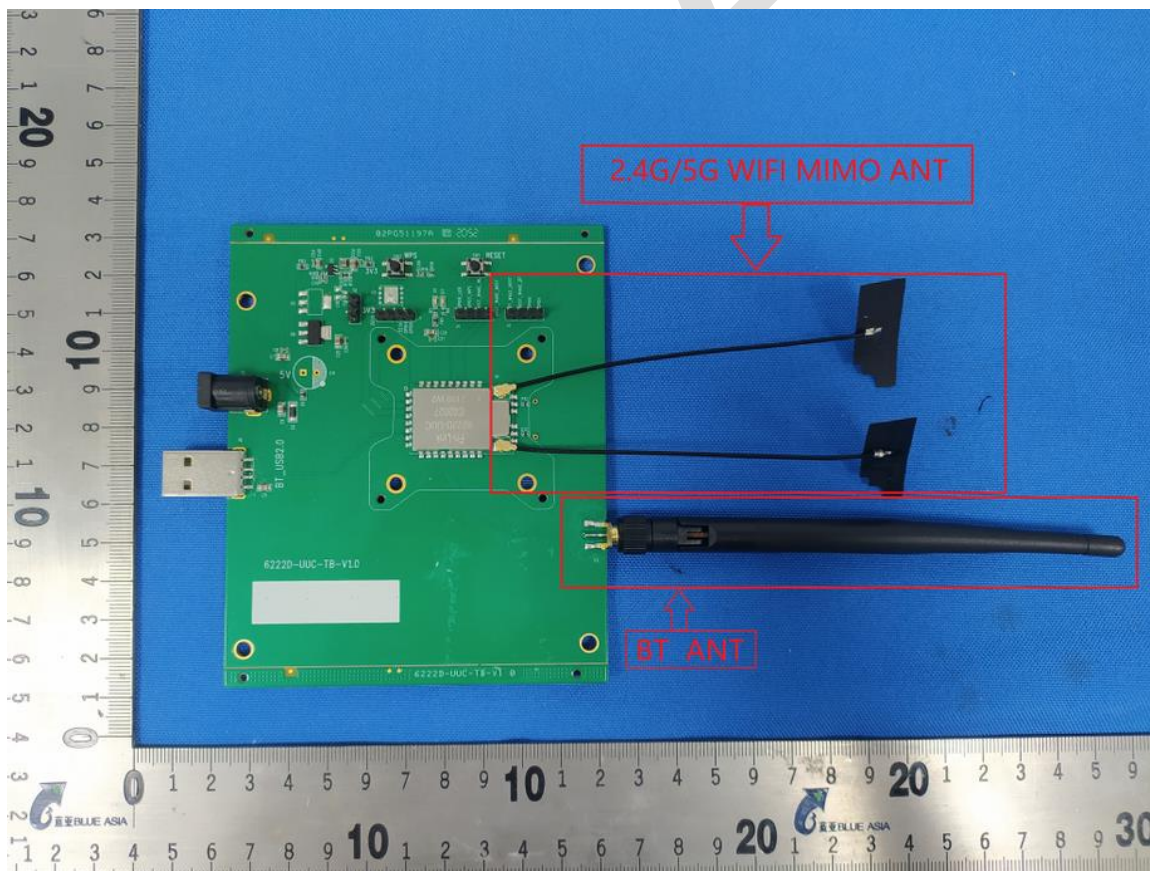
5.1 CONCLUSION

Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 2.5dBi.



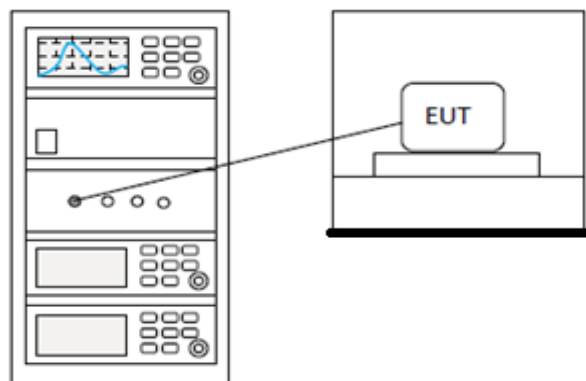
6 CONDUCTED SPURIOUS EMISSIONS

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 7.8.8
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Ben
Temperature	25°C
Humidity	60%

6.1 LIMITS

Limit:	<p>In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).</p>
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6.2 BLOCK DIAGRAM OF TEST SETUP



6.3 TEST DATA

Pass: Please Refer To Appendix: For Details

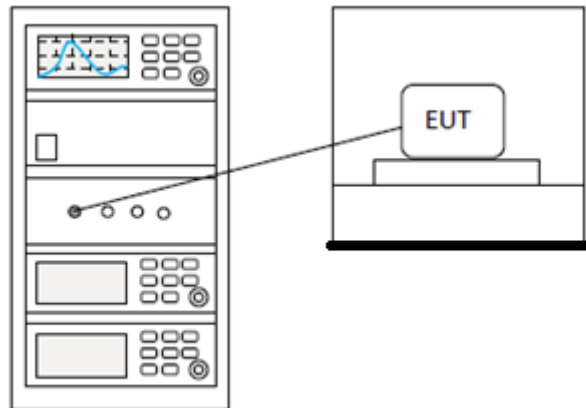
7 POWER SPECTRUM DENSITY

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 11.10.2
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX
Tester	Ben
Temperature	25°C
Humidity	60%

7.1 LIMITS

Limit: $\leq 8\text{dBm}$ in any 3 kHz band during any time interval of continuous transmission

7.2 BLOCK DIAGRAM OF TEST SETUP



7.3 TEST DATA

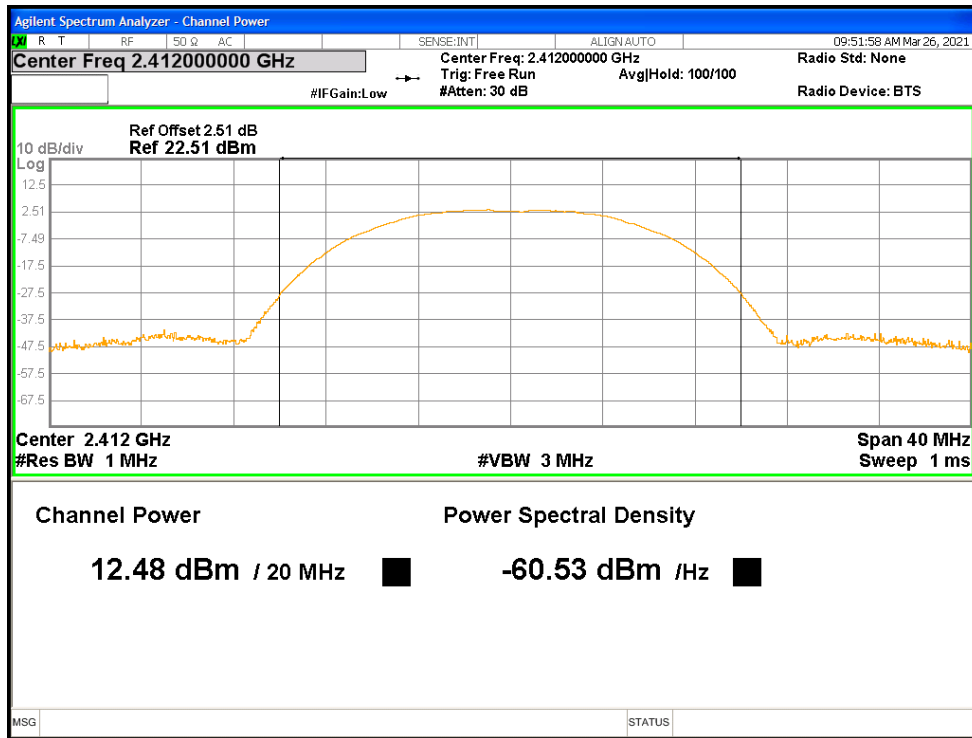
Pass: Please Refer To Appendix: For Details

8 APPENDIX

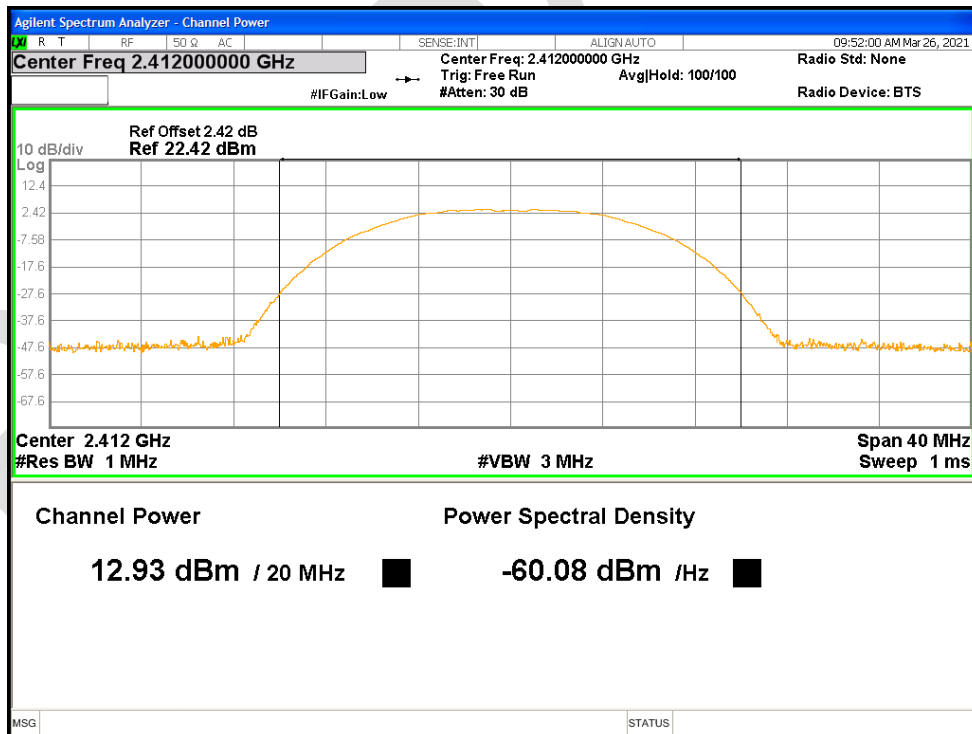
8.1 MAXIMUM CONDUCTED OUTPUT POWER

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	12.482	0	12.482	30	Pass
NVNT	b	2412	Ant2	12.931	0	12.931	30	Pass
NVNT	b	2437	Ant1	12.624	0	12.624	30	Pass
NVNT	b	2437	Ant2	11.863	0	11.863	30	Pass
NVNT	b	2462	Ant1	13.225	0	13.225	30	Pass
NVNT	b	2462	Ant2	12.861	0	12.861	30	Pass
NVNT	g	2412	Ant1	11.396	0	11.396	30	Pass
NVNT	g	2412	Ant2	13.134	0	13.134	30	Pass
NVNT	g	2437	Ant1	13.962	0	13.962	30	Pass
NVNT	g	2437	Ant2	14.529	0	14.529	30	Pass
NVNT	g	2462	Ant1	12.91	0	12.91	30	Pass
NVNT	g	2462	Ant2	13.37	0	13.37	30	Pass
NVNT	n20	2412	Ant1	10.898	0	10.898	30	Pass
NVNT	n20	2412	Ant2	12.201	0	12.201	30	Pass
NVNT	n20	2412	Sum	14.608	0	14.608	30	Pass
NVNT	n20	2437	Ant1	13.669	0	13.669	30	Pass
NVNT	n20	2437	Ant2	13.614	0	13.614	30	Pass
NVNT	n20	2437	Sum	16.652	0	16.652	30	Pass
NVNT	n20	2462	Ant1	12.444	0	12.444	30	Pass
NVNT	n20	2462	Ant2	12.738	0	12.738	30	Pass
NVNT	n20	2462	Sum	15.604	0	15.604	30	Pass
NVNT	n40	2422	Ant1	10.993	0	10.993	30	Pass
NVNT	n40	2422	Ant2	11.985	0	11.985	30	Pass
NVNT	n40	2422	Sum	14.528	0	14.528	30	Pass
NVNT	n40	2437	Ant1	13.477	0	13.477	30	Pass
NVNT	n40	2437	Ant2	13.585	0	13.585	30	Pass
NVNT	n40	2437	Sum	16.542	0	16.542	30	Pass
NVNT	n40	2452	Ant1	12.241	0	12.241	30	Pass
NVNT	n40	2452	Ant2	12.794	0	12.794	30	Pass
NVNT	n40	2452	Sum	15.537	0	15.537	30	Pass

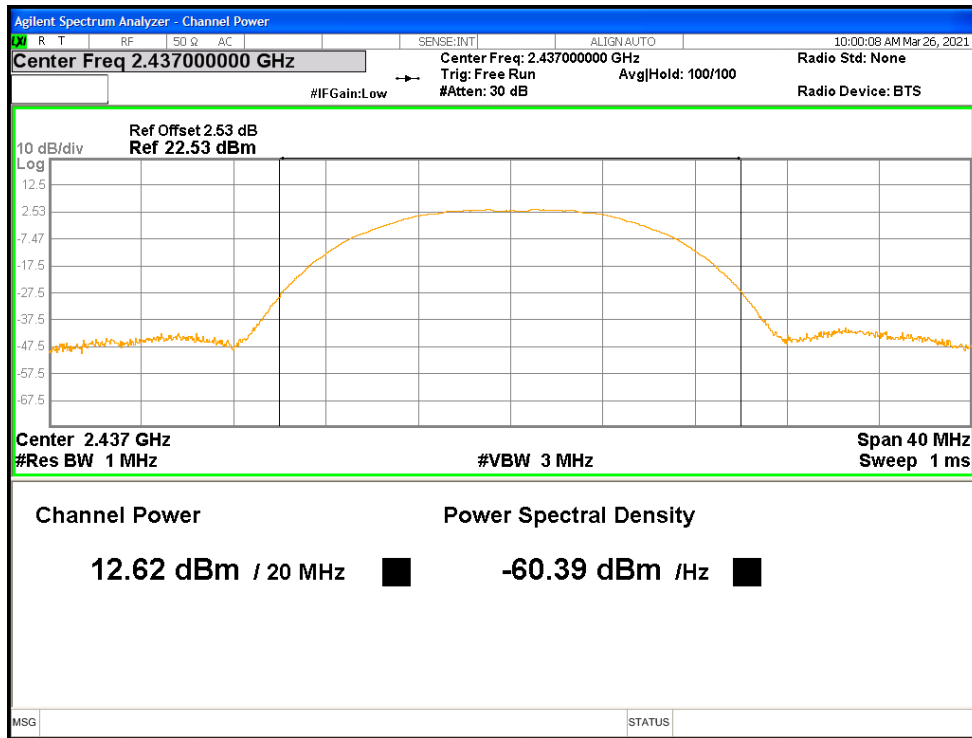
Power NVNT b 2412MHz Ant1



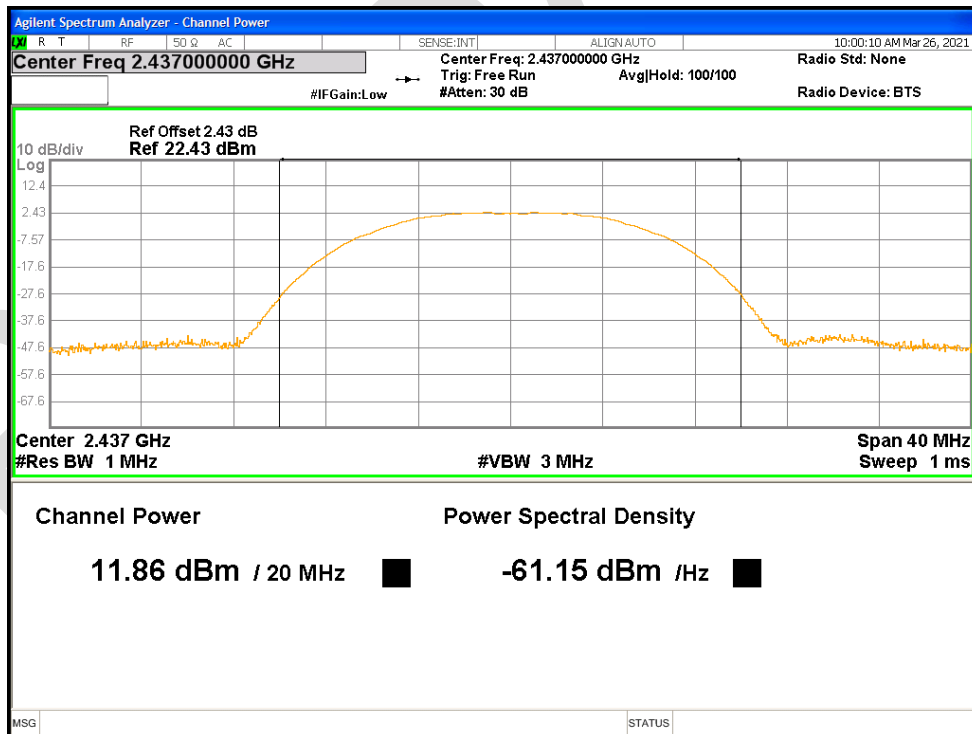
Power NVNT b 2412MHz Ant2



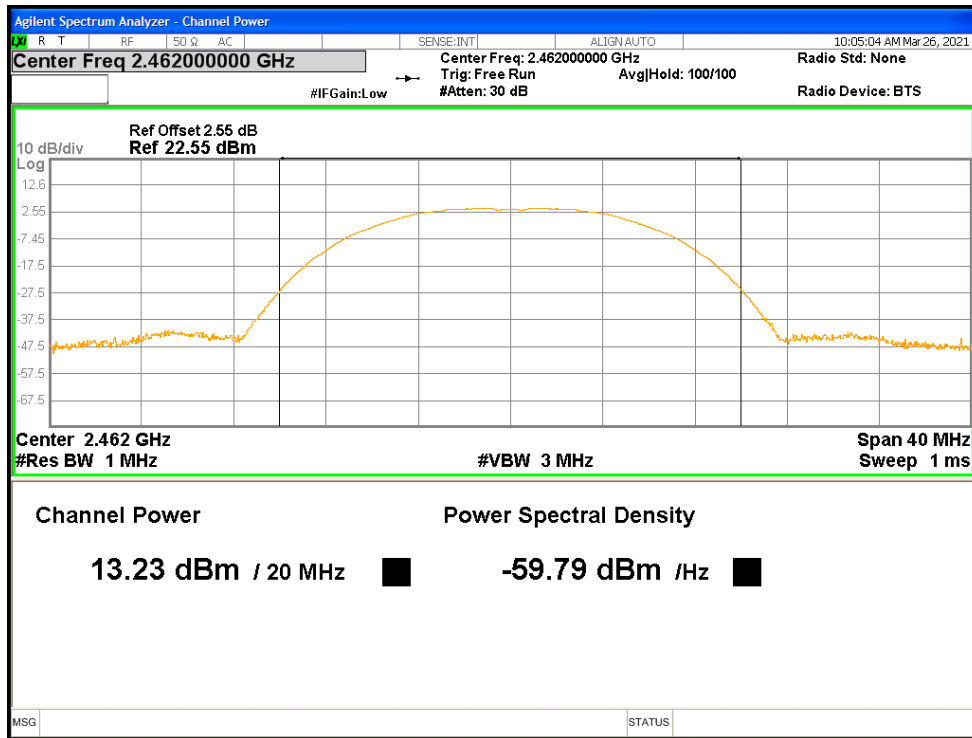
Power NVNT b 2437MHz Ant1



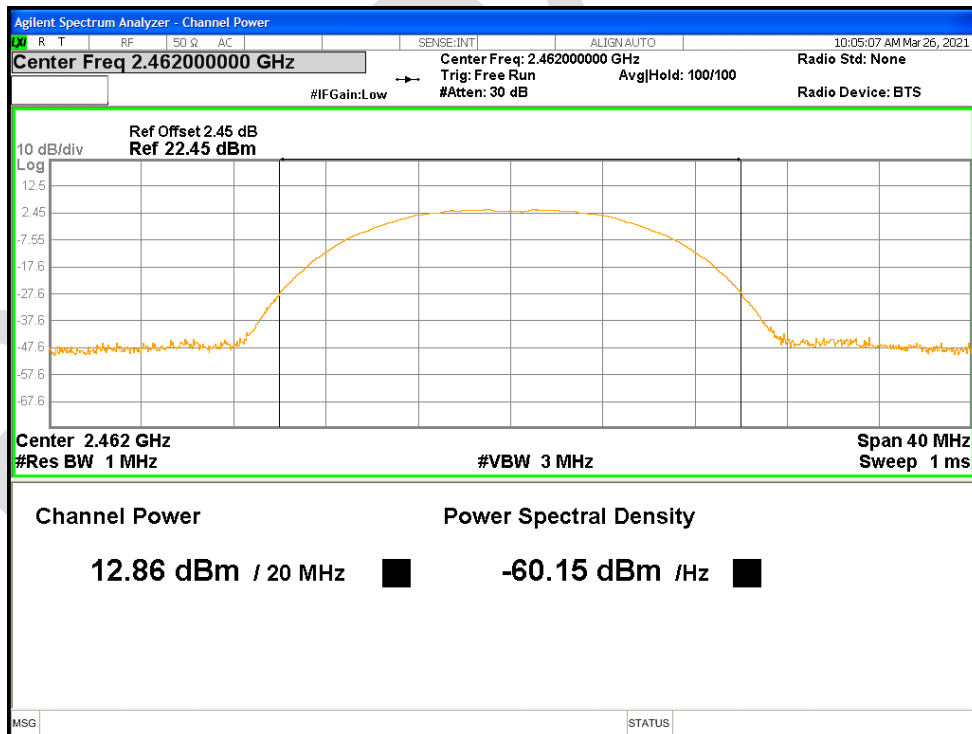
Power NVNT b 2437MHz Ant2



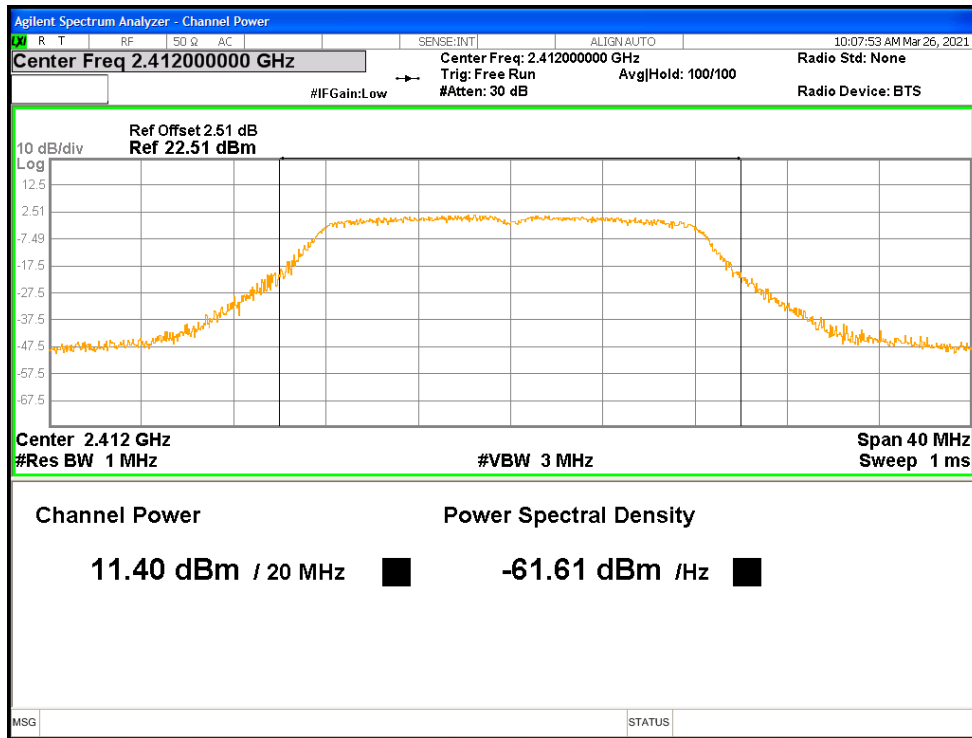
Power NVNT b 2462MHz Ant1



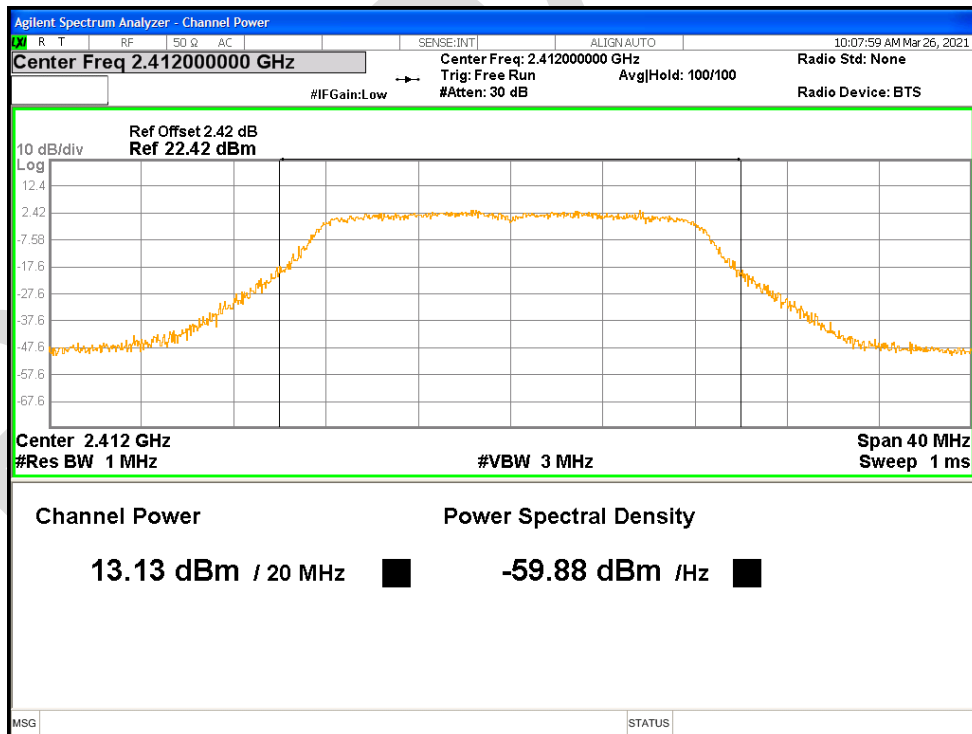
Power NVNT b 2462MHz Ant2



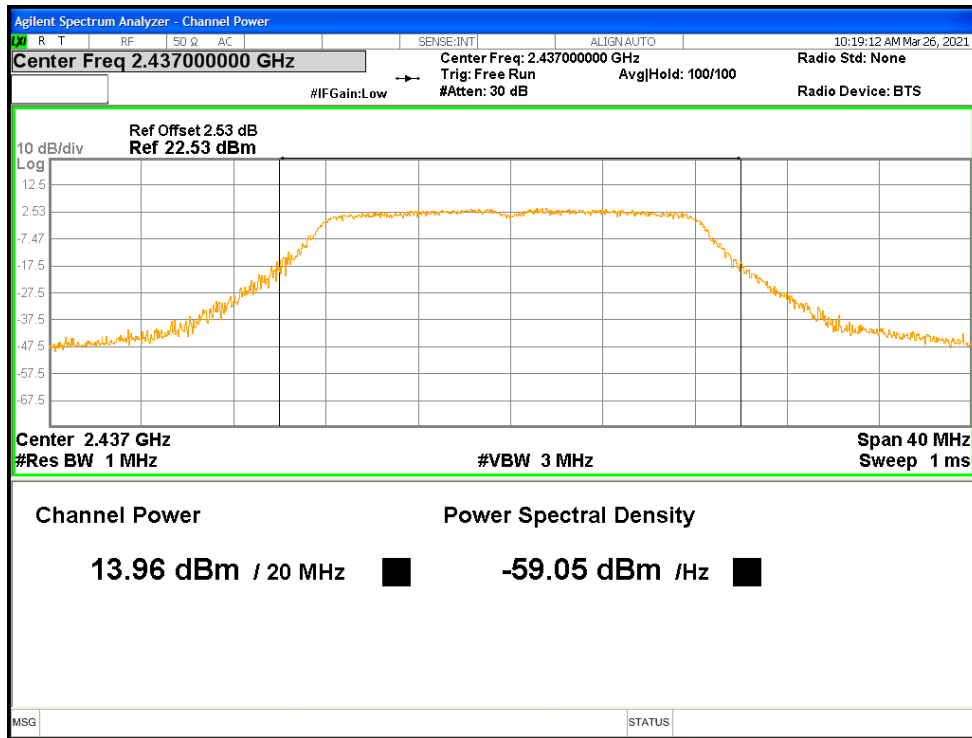
Power NVNT g 2412MHz Ant1



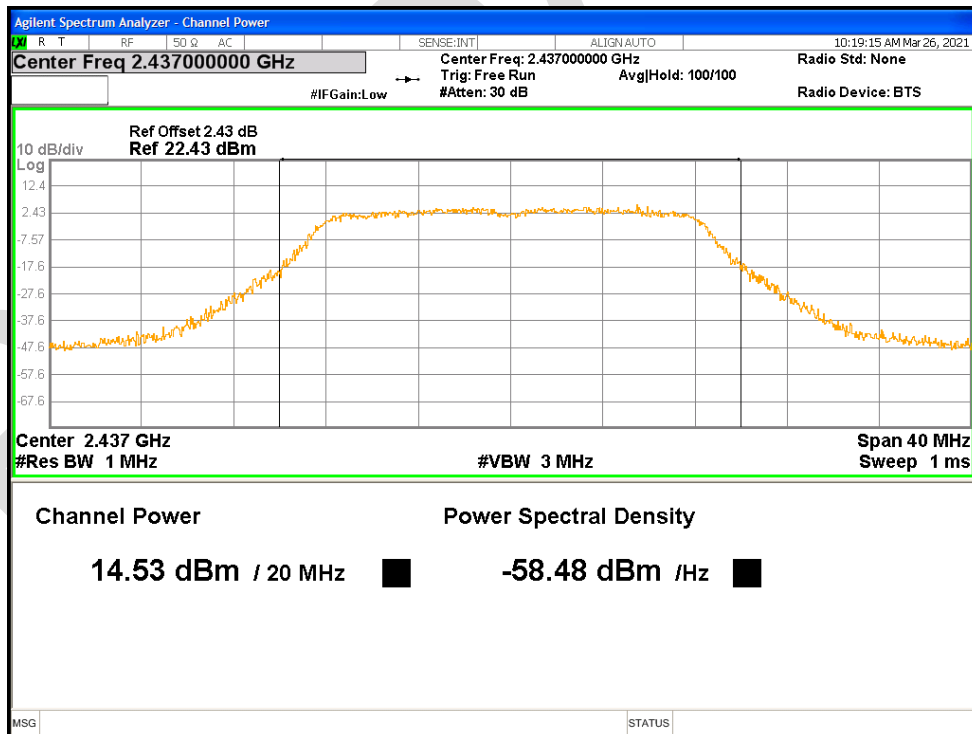
Power NVNT g 2412MHz Ant2



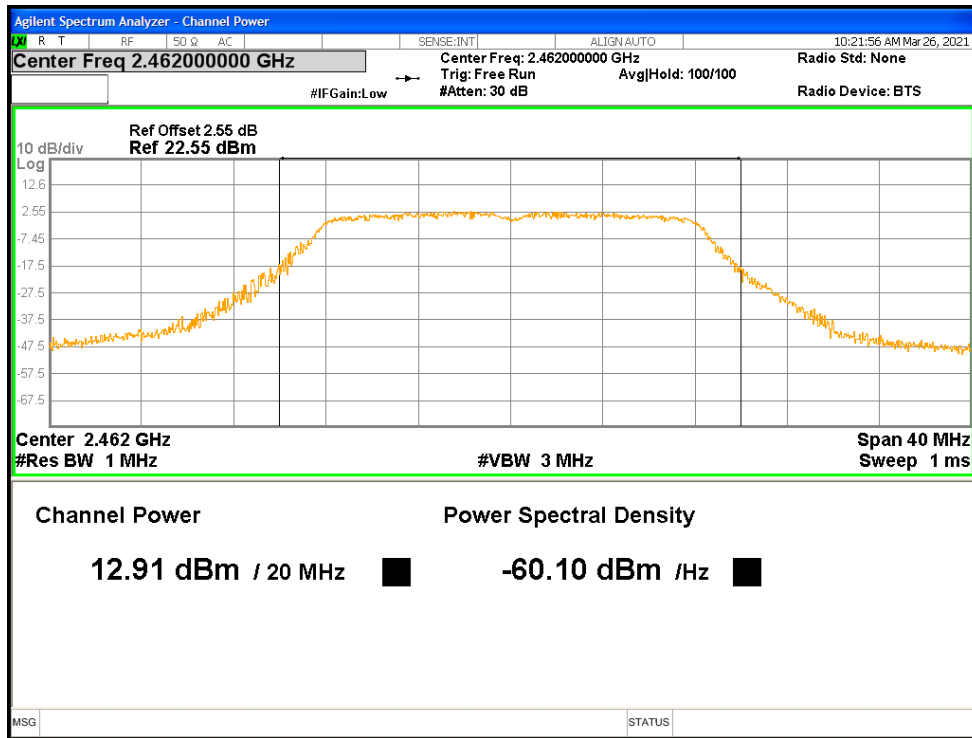
Power NVNT g 2437MHz Ant1



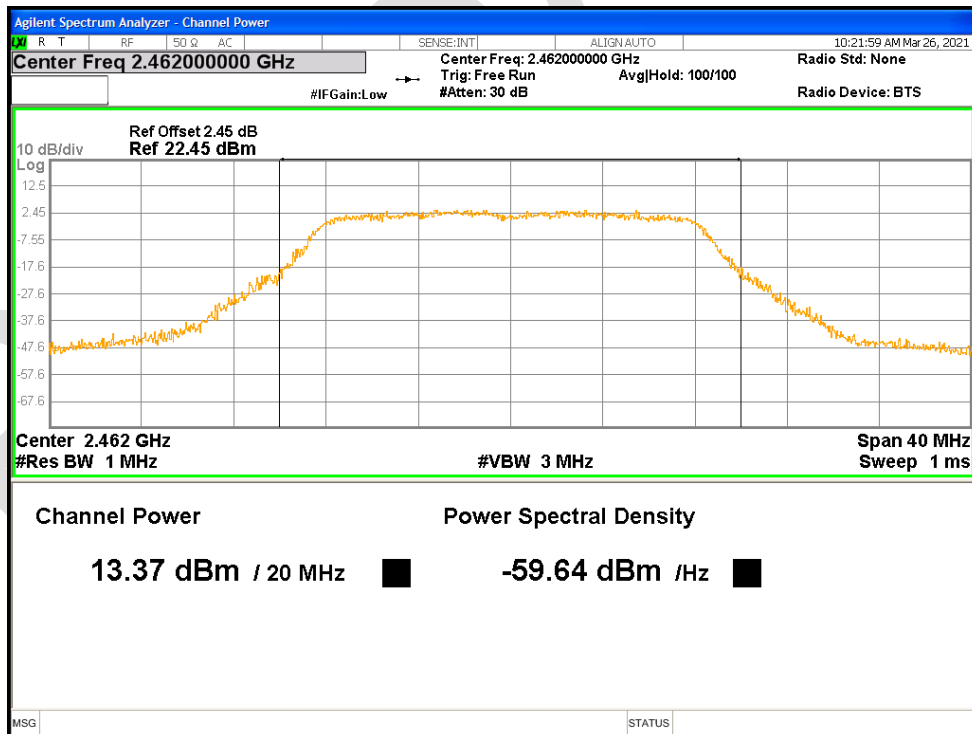
Power NVNT g 2437MHz Ant2



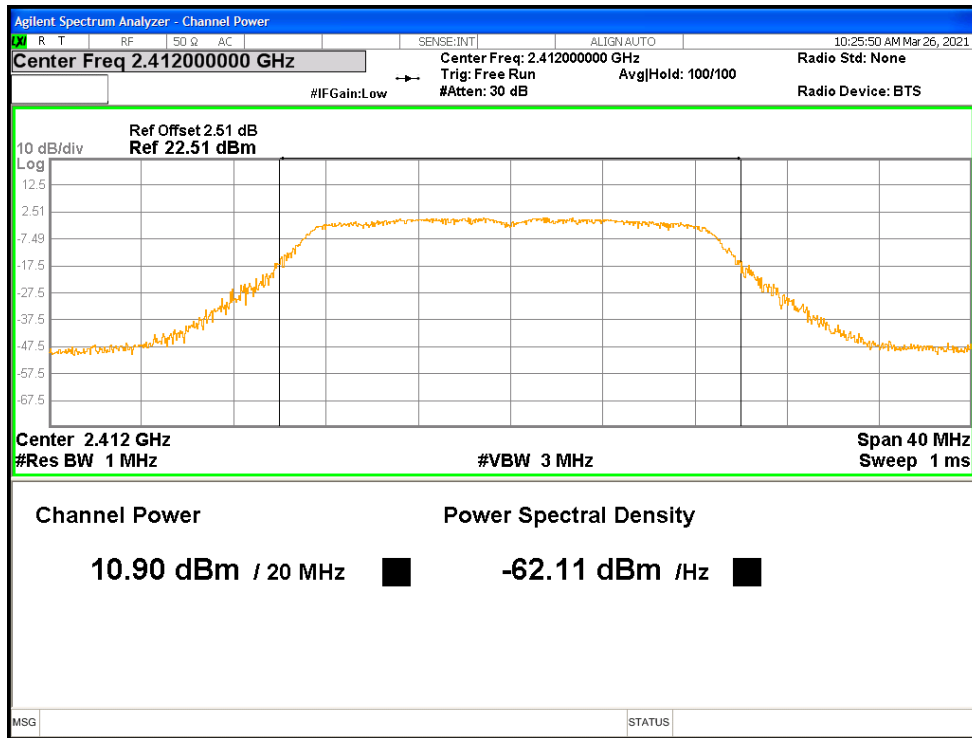
Power NVNT g 2462MHz Ant1



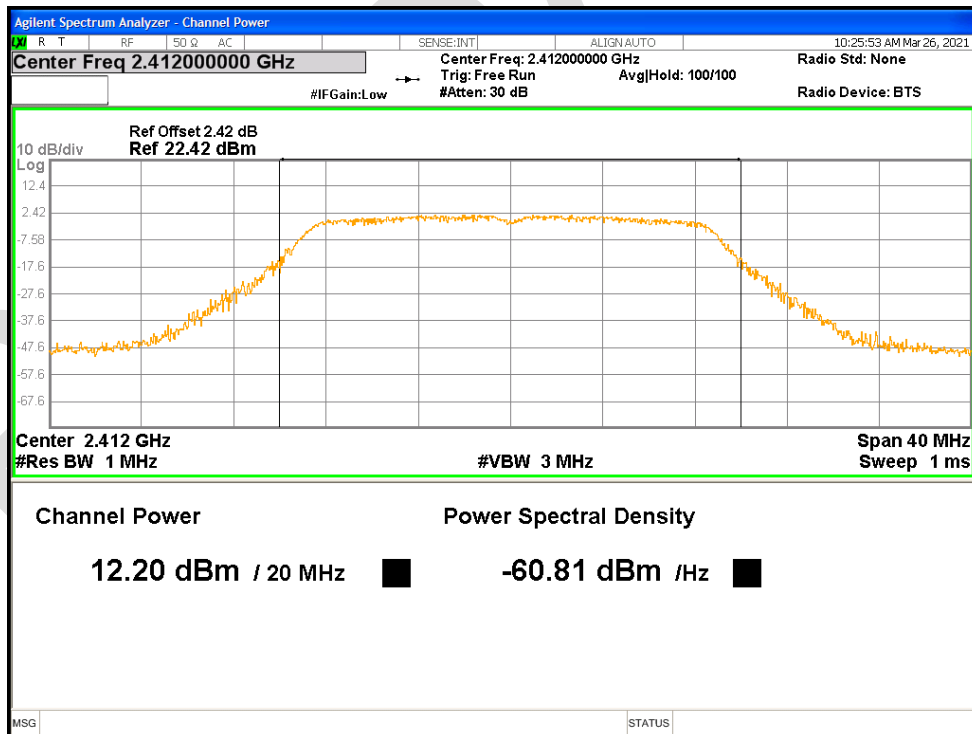
Power NVNT g 2462MHz Ant2



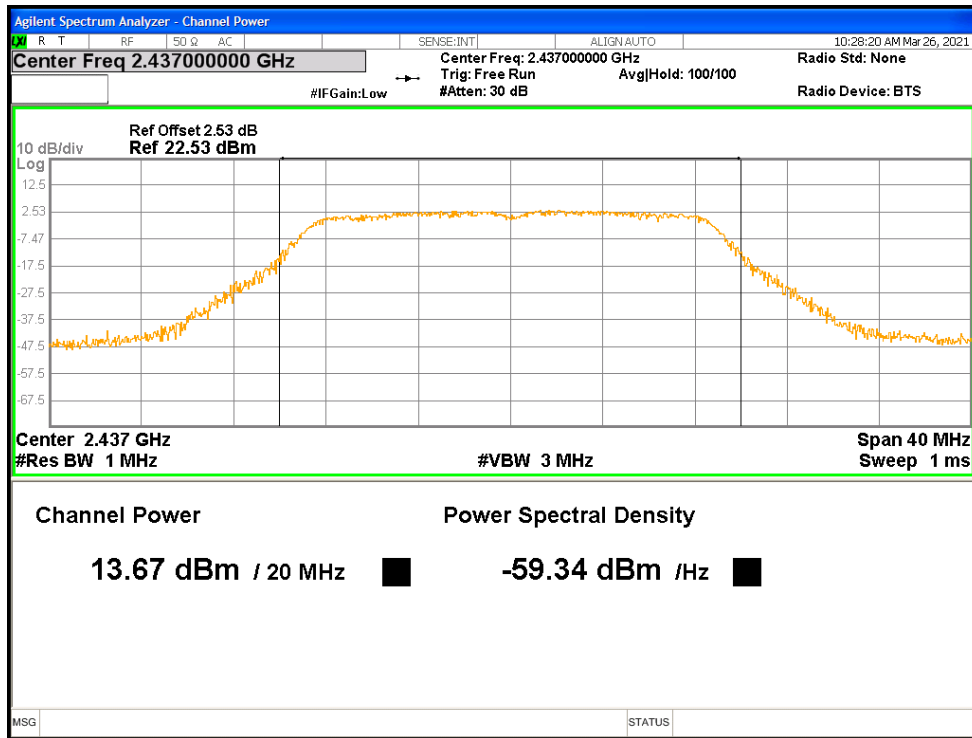
Power NVNT n20 2412MHz Ant1



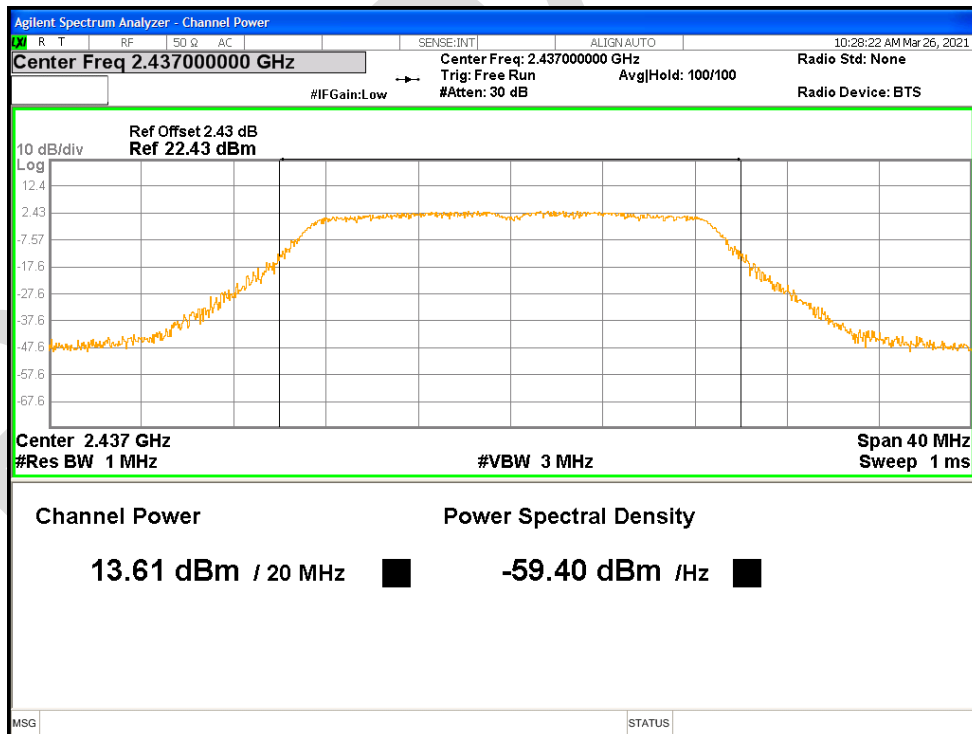
Power NVNT n20 2412MHz Ant2



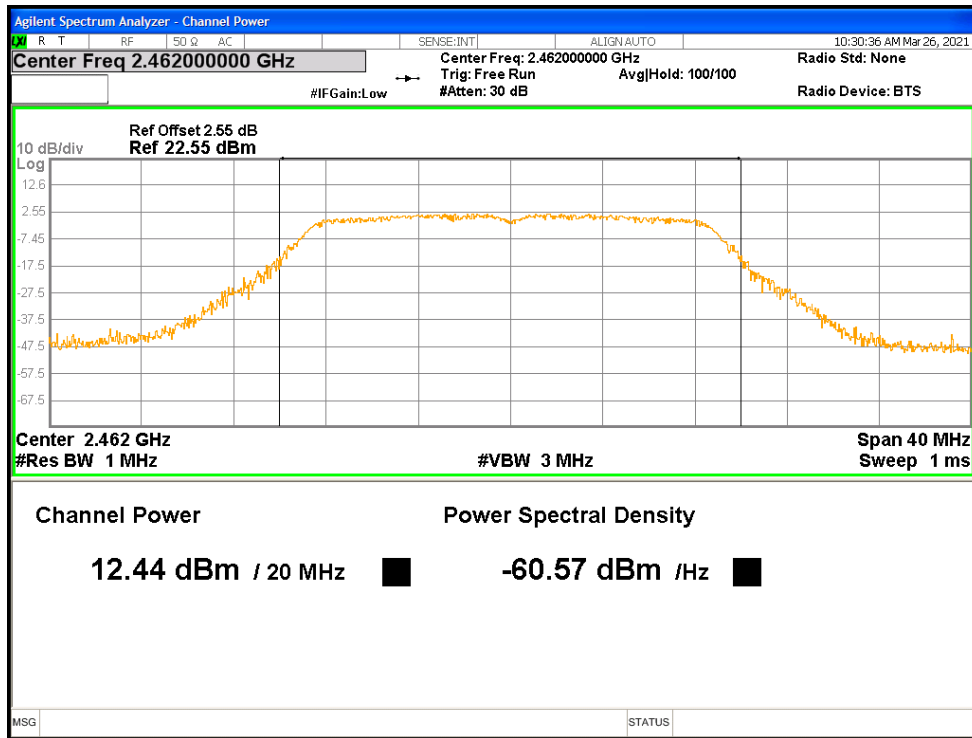
Power NVNT n20 2437MHz Ant1



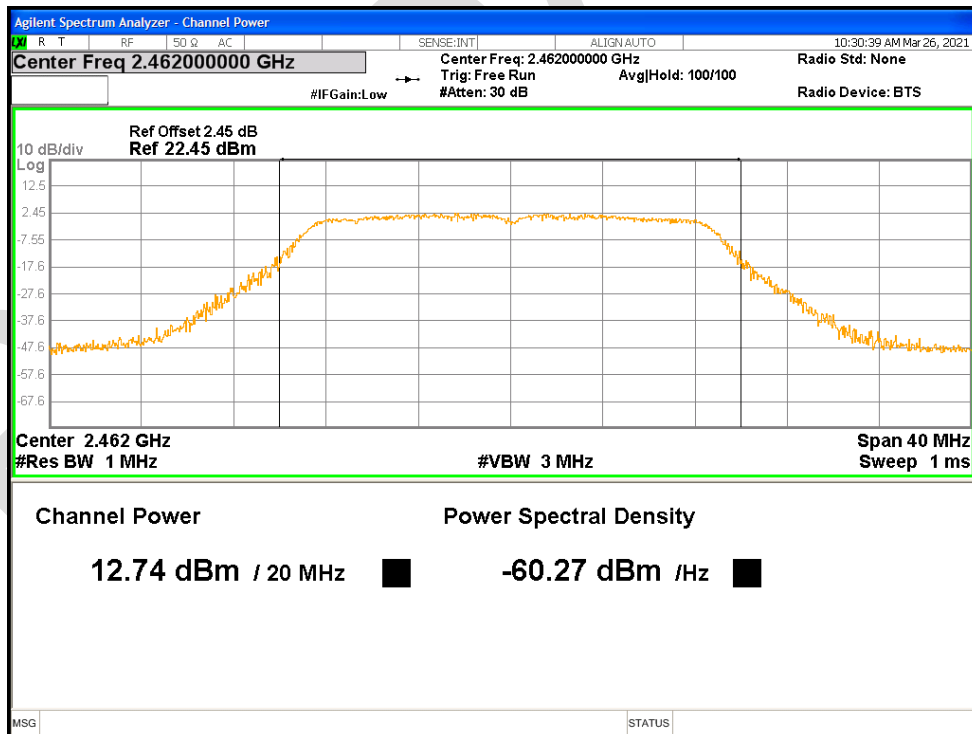
Power NVNT n20 2437MHz Ant2



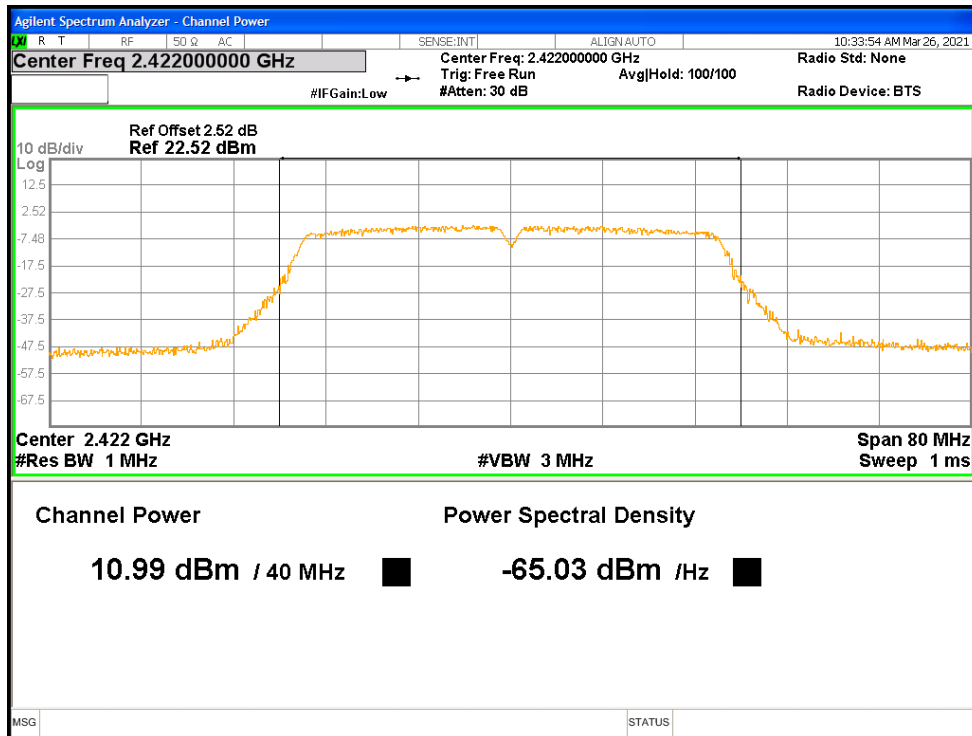
Power NVNT n20 2462MHz Ant1



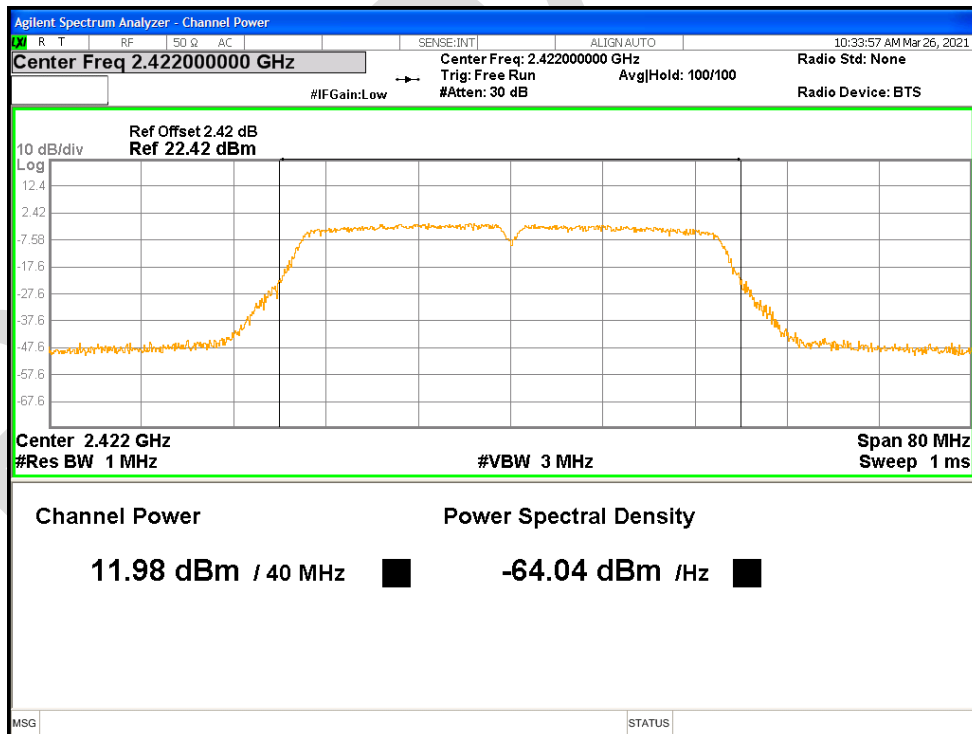
Power NVNT n20 2462MHz Ant2



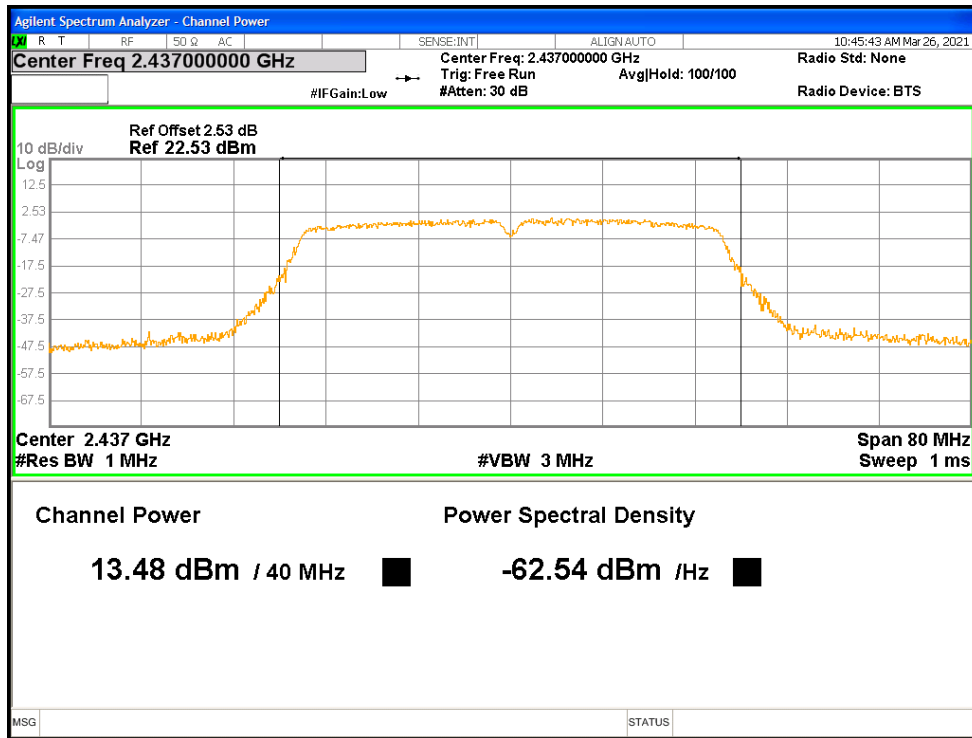
Power NVNT n40 2422MHz Ant1



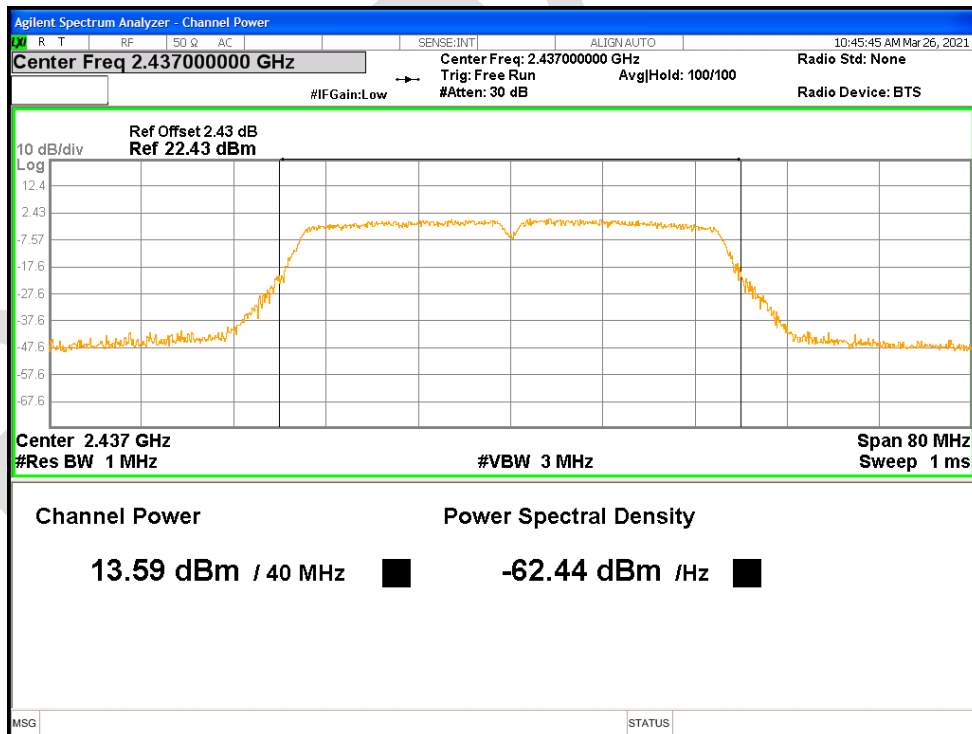
Power NVNT n40 2422MHz Ant2



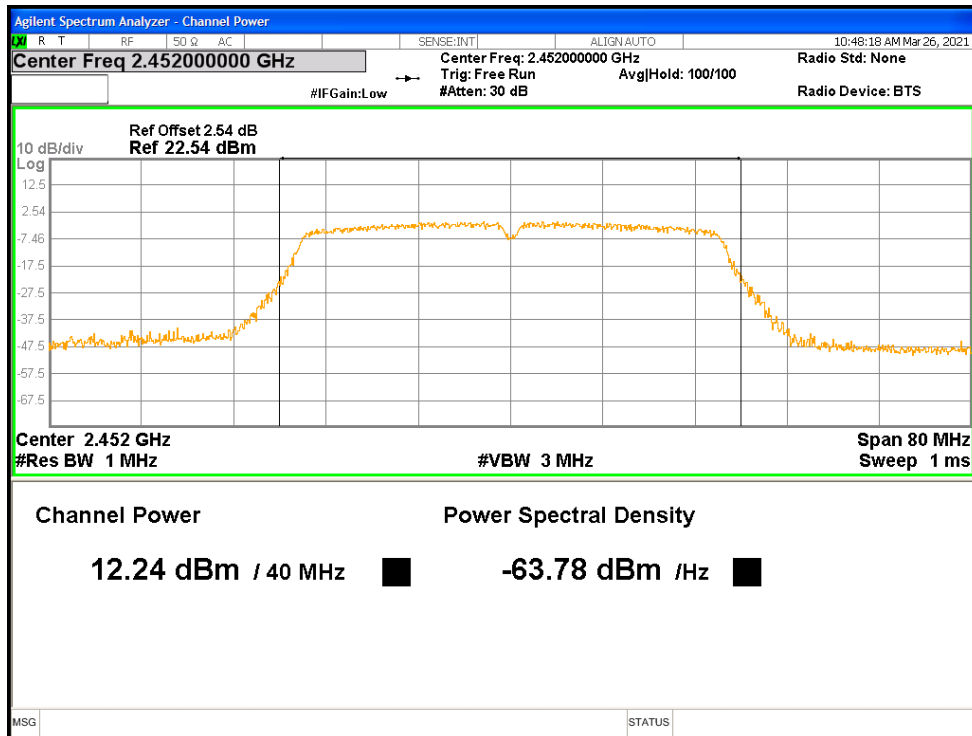
Power NVNT n40 2437MHz Ant1



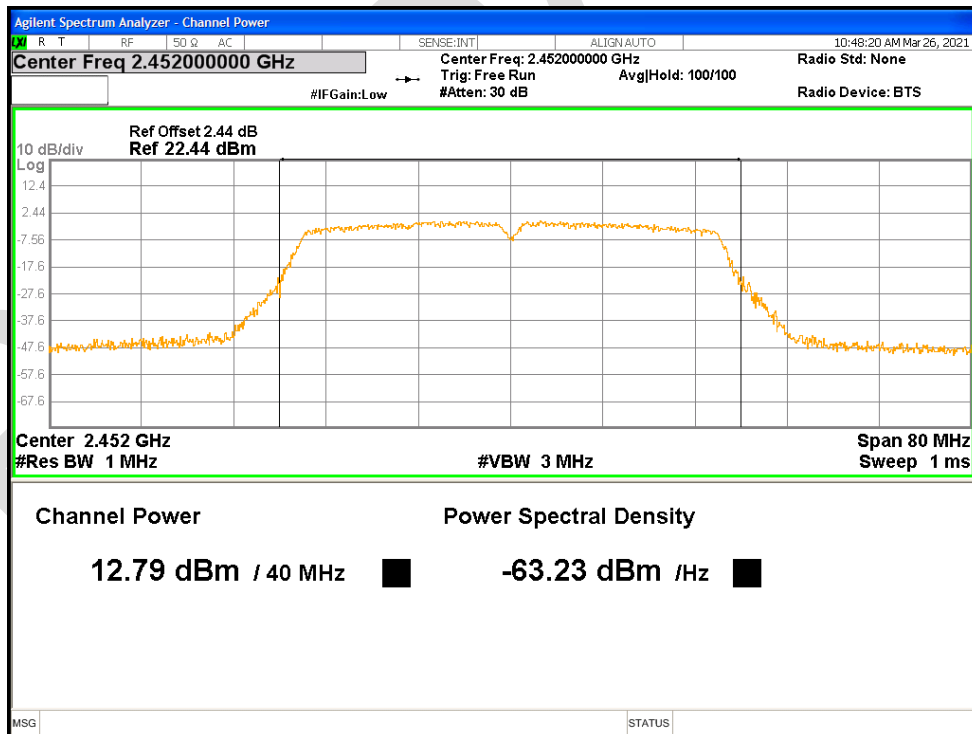
Power NVNT n40 2437MHz Ant2



Power NVNT n40 2452MHz Ant1



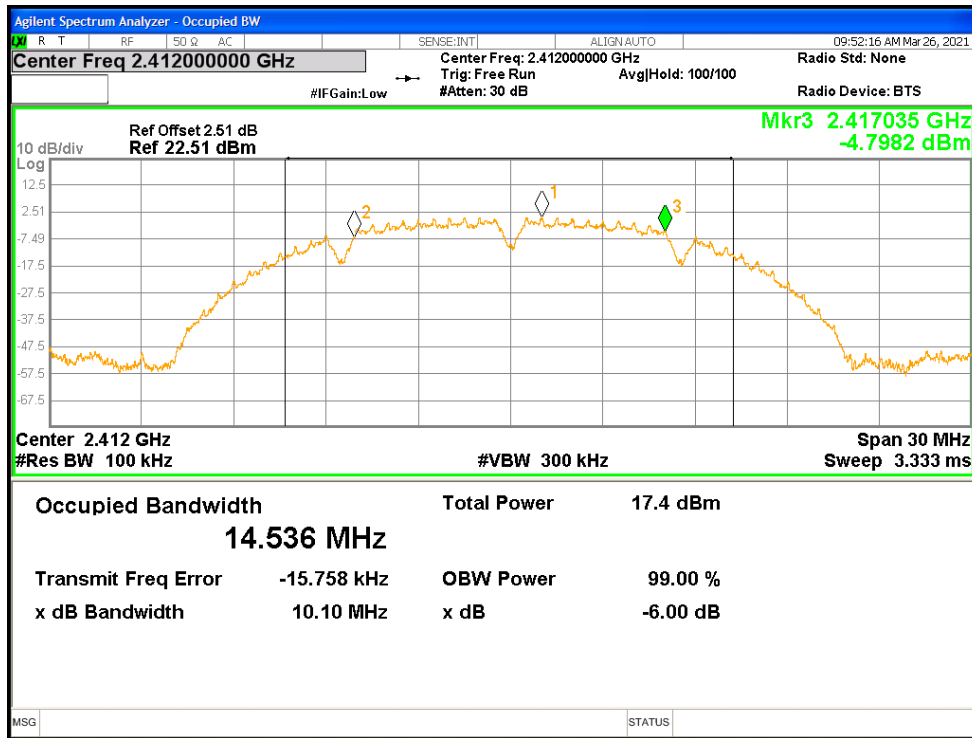
Power NVNT n40 2452MHz Ant2



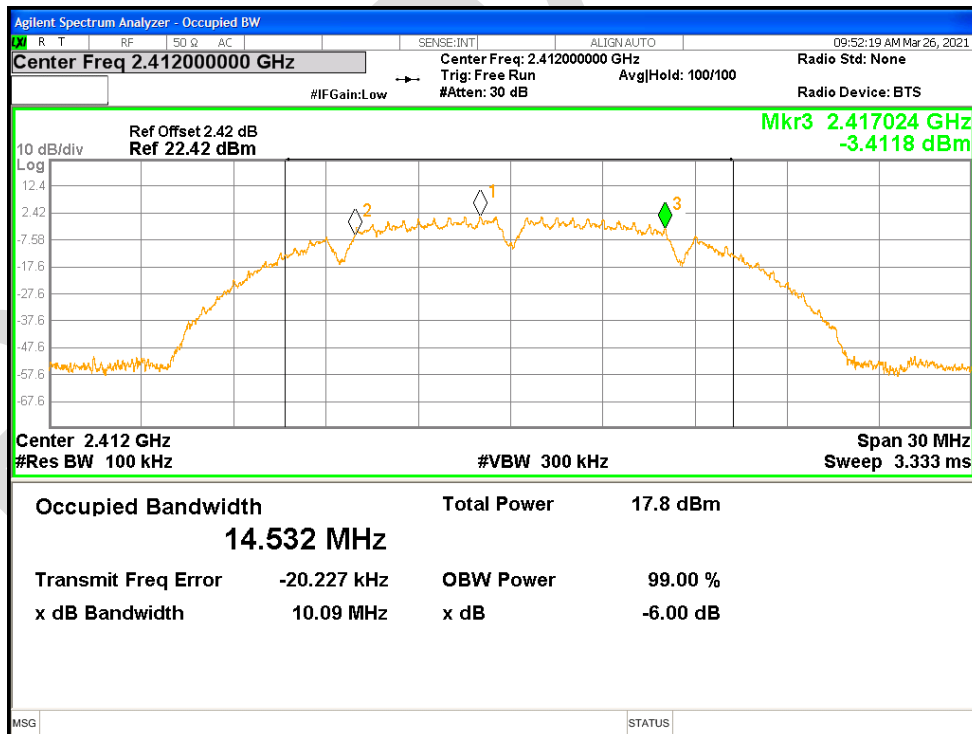
8.2 -6DB BANDWIDTH

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	10.102	0.5	Pass
NVNT	b	2412	Ant2	10.088	0.5	Pass
NVNT	b	2437	Ant1	10.088	0.5	Pass
NVNT	b	2437	Ant2	10.118	0.5	Pass
NVNT	b	2462	Ant1	10.119	0.5	Pass
NVNT	b	2462	Ant2	10.124	0.5	Pass
NVNT	g	2412	Ant1	16.418	0.5	Pass
NVNT	g	2412	Ant2	16.38	0.5	Pass
NVNT	g	2437	Ant1	16.404	0.5	Pass
NVNT	g	2437	Ant2	16.395	0.5	Pass
NVNT	g	2462	Ant1	16.411	0.5	Pass
NVNT	g	2462	Ant2	16.4	0.5	Pass
NVNT	n20	2412	Ant1	17.594	0.5	Pass
NVNT	n20	2412	Ant2	17.616	0.5	Pass
NVNT	n20	2437	Ant1	17.616	0.5	Pass
NVNT	n20	2437	Ant2	17.614	0.5	Pass
NVNT	n20	2462	Ant1	17.619	0.5	Pass
NVNT	n20	2462	Ant2	17.595	0.5	Pass
NVNT	n40	2422	Ant1	36.399	0.5	Pass
NVNT	n40	2422	Ant2	36.369	0.5	Pass
NVNT	n40	2437	Ant1	36.388	0.5	Pass
NVNT	n40	2437	Ant2	36.379	0.5	Pass
NVNT	n40	2452	Ant1	36.337	0.5	Pass
NVNT	n40	2452	Ant2	36.345	0.5	Pass

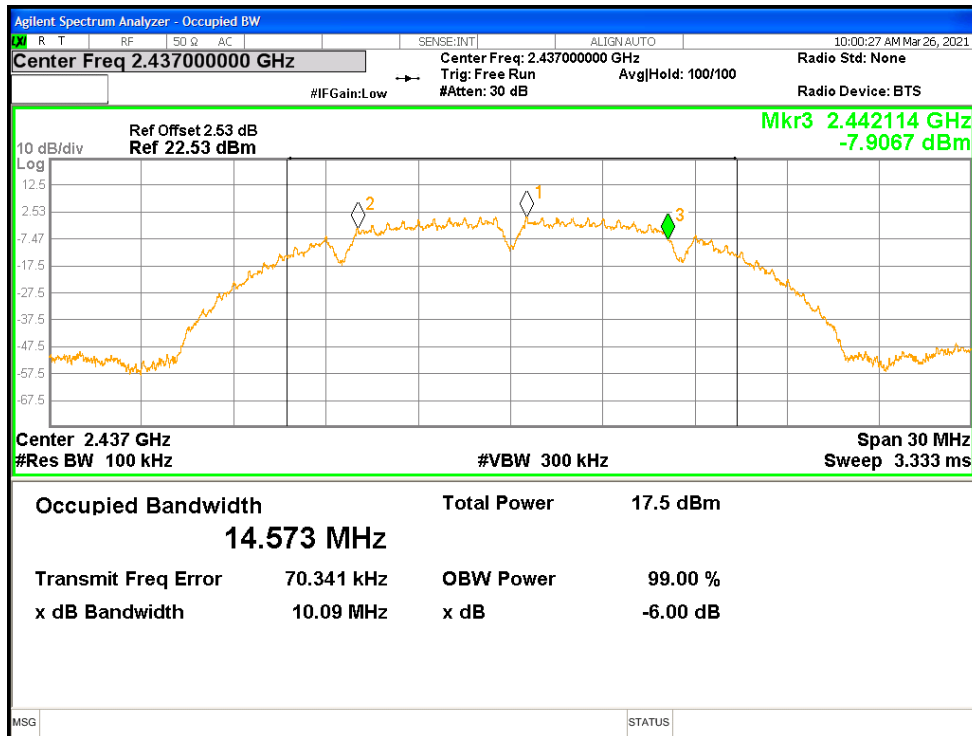
-6dB Bandwidth NVNT b 2412MHz Ant1



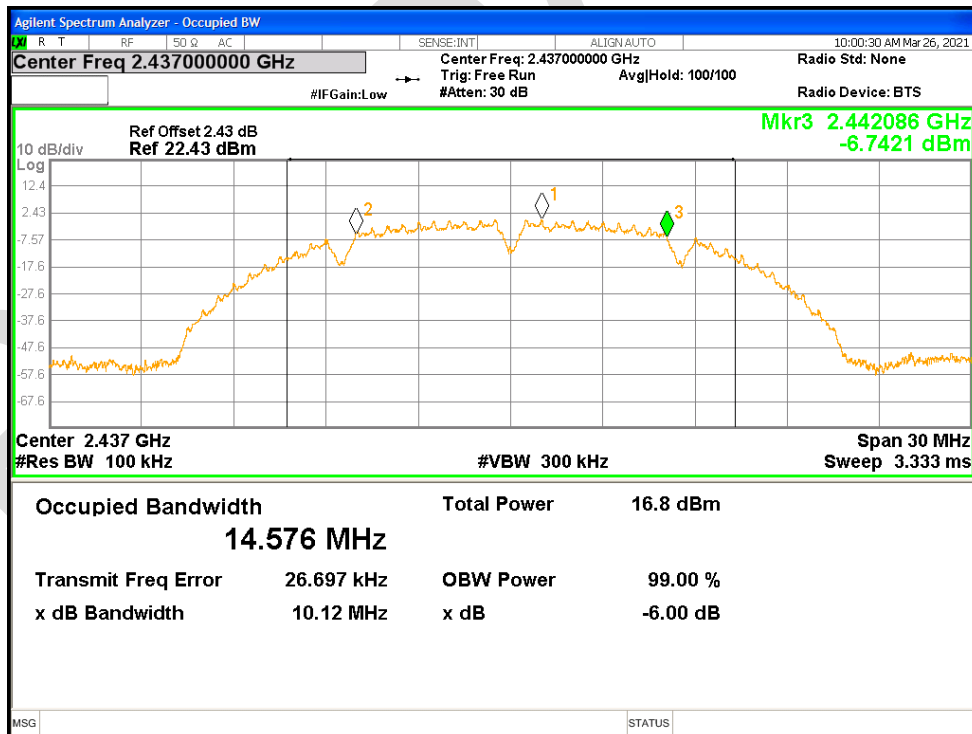
-6dB Bandwidth NVNT b 2412MHz Ant2



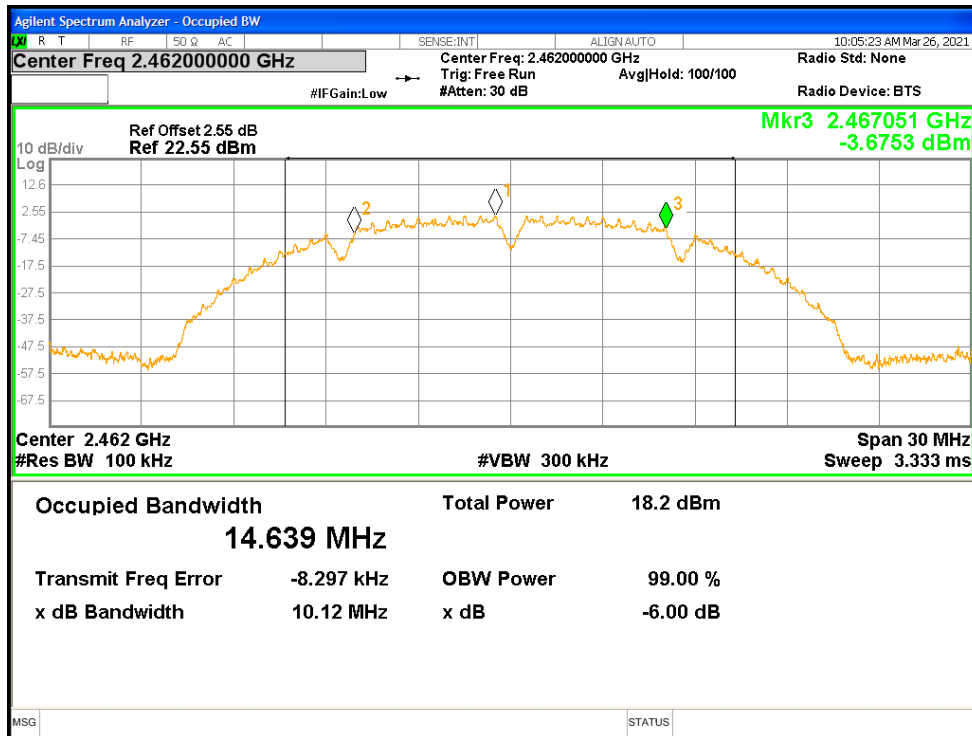
-6dB Bandwidth NVNT b 2437MHz Ant1



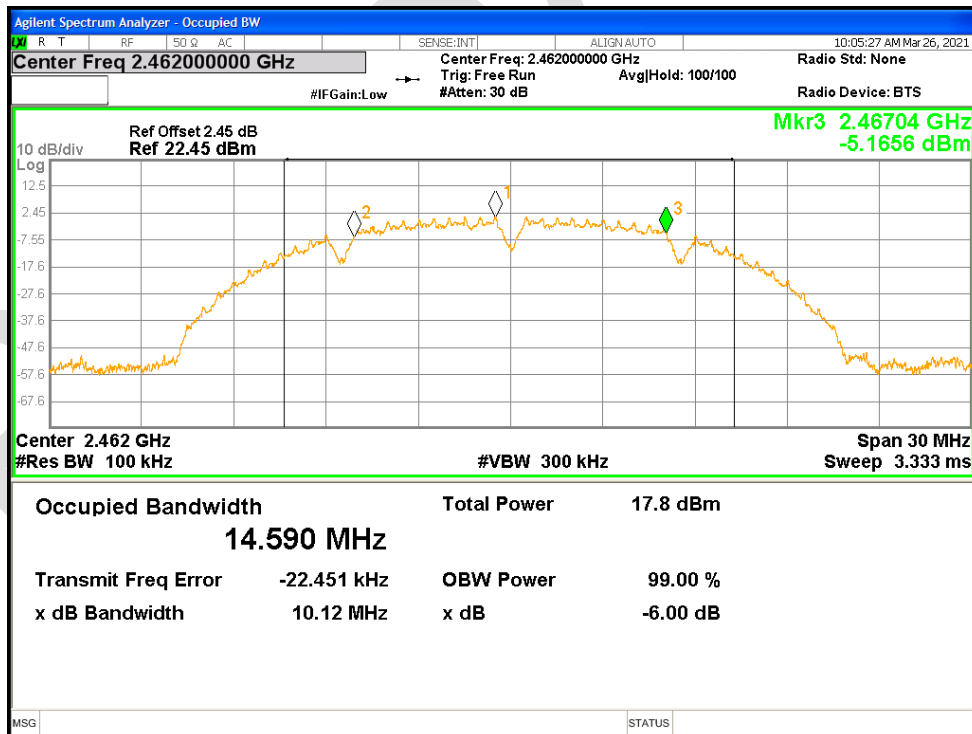
-6dB Bandwidth NVNT b 2437MHz Ant2



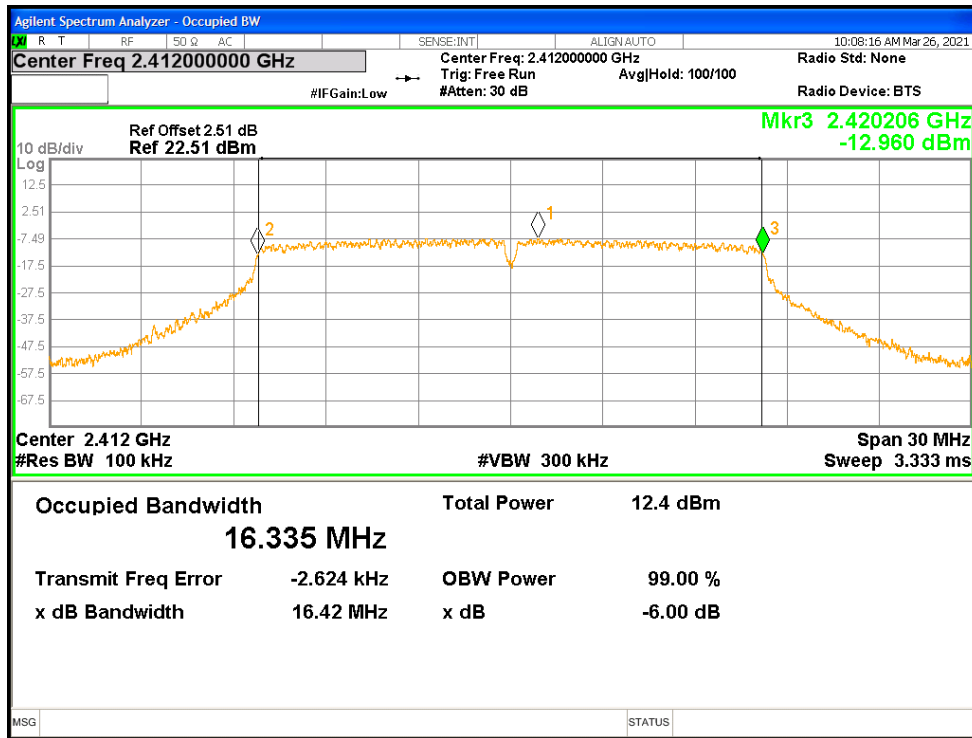
-6dB Bandwidth NVNT b 2462MHz Ant1



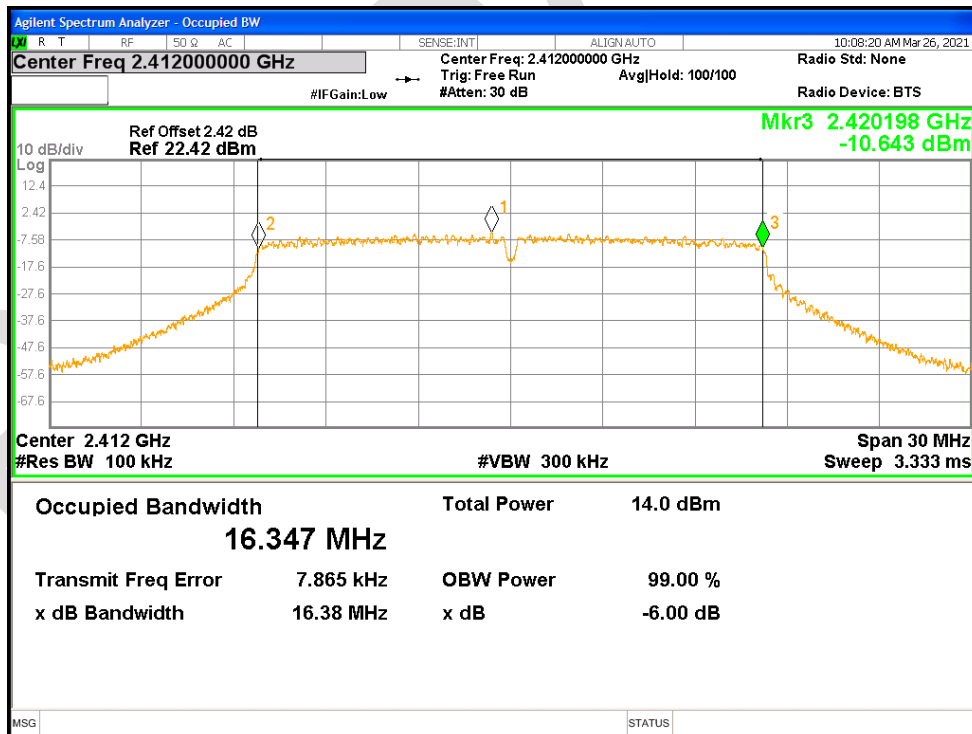
-6dB Bandwidth NVNT b 2462MHz Ant2



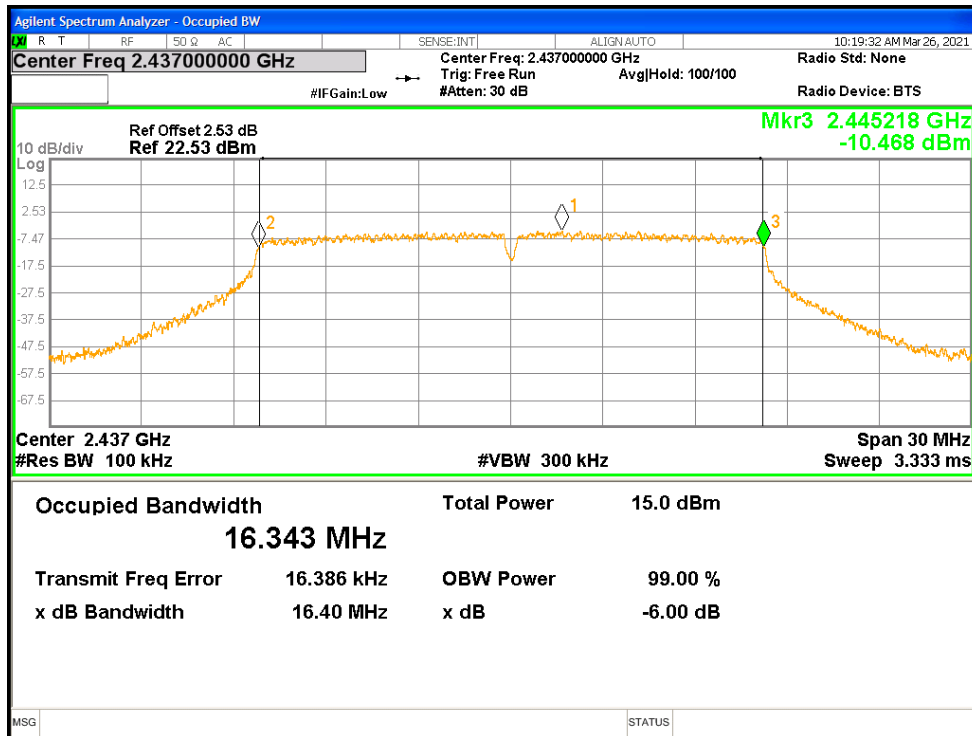
-6dB Bandwidth NVNT g 2412MHz Ant1



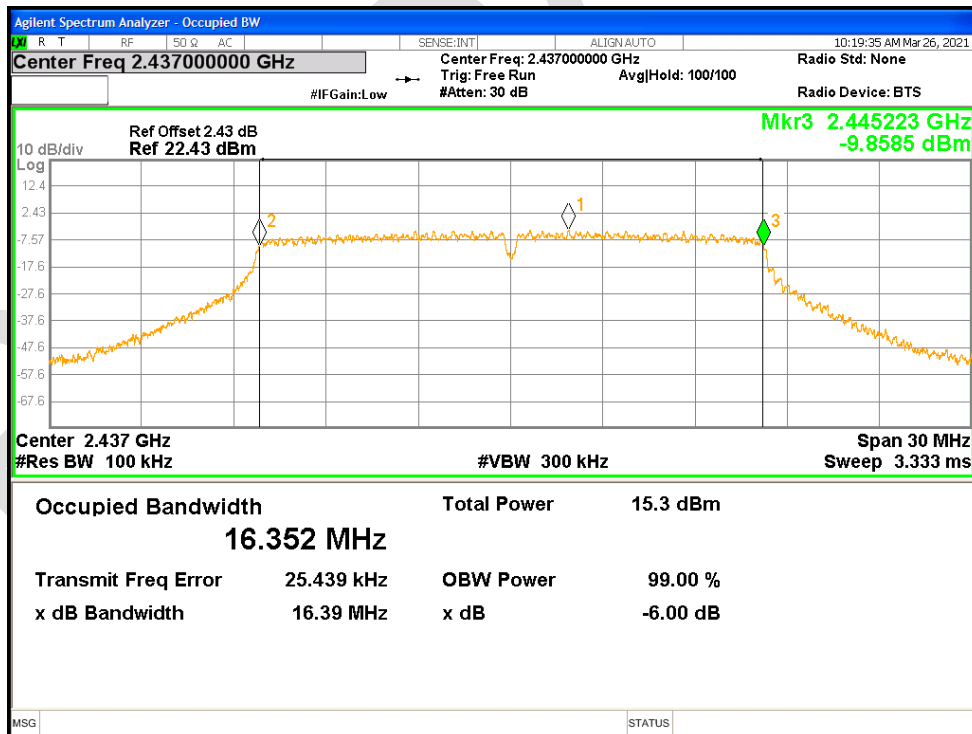
-6dB Bandwidth NVNT g 2412MHz Ant2



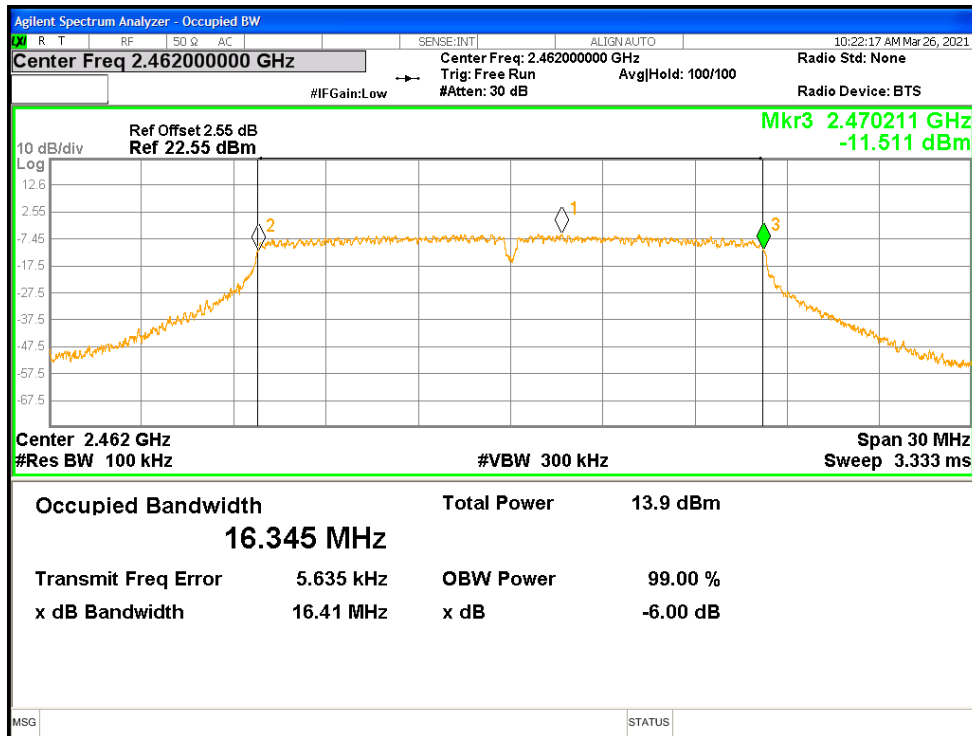
-6dB Bandwidth NVNT g 2437MHz Ant1



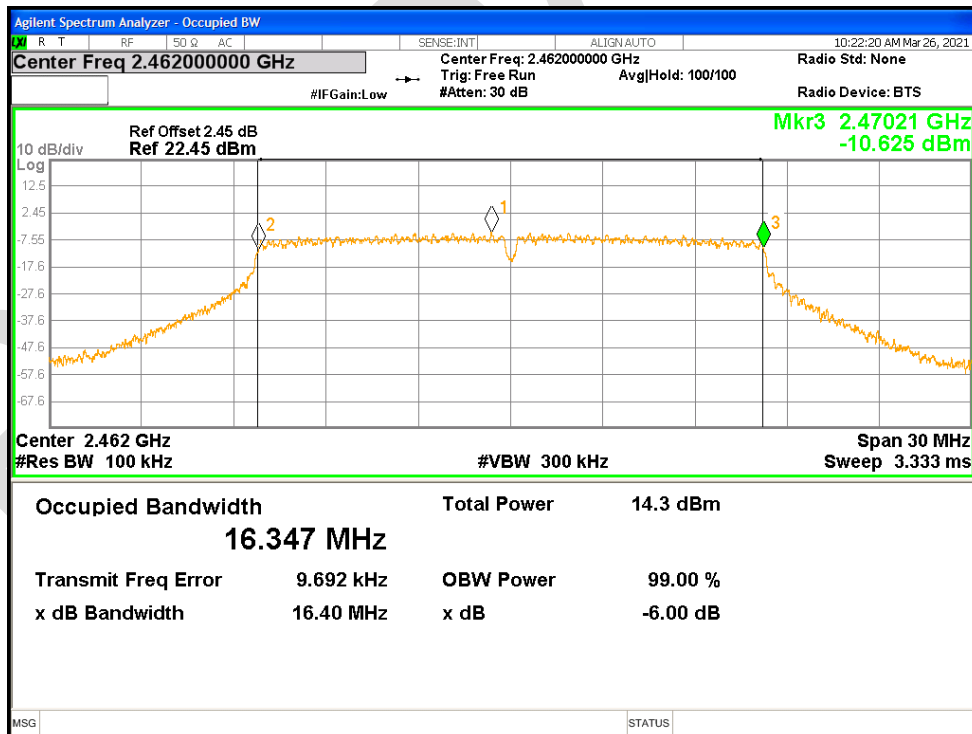
-6dB Bandwidth NVNT g 2437MHz Ant2



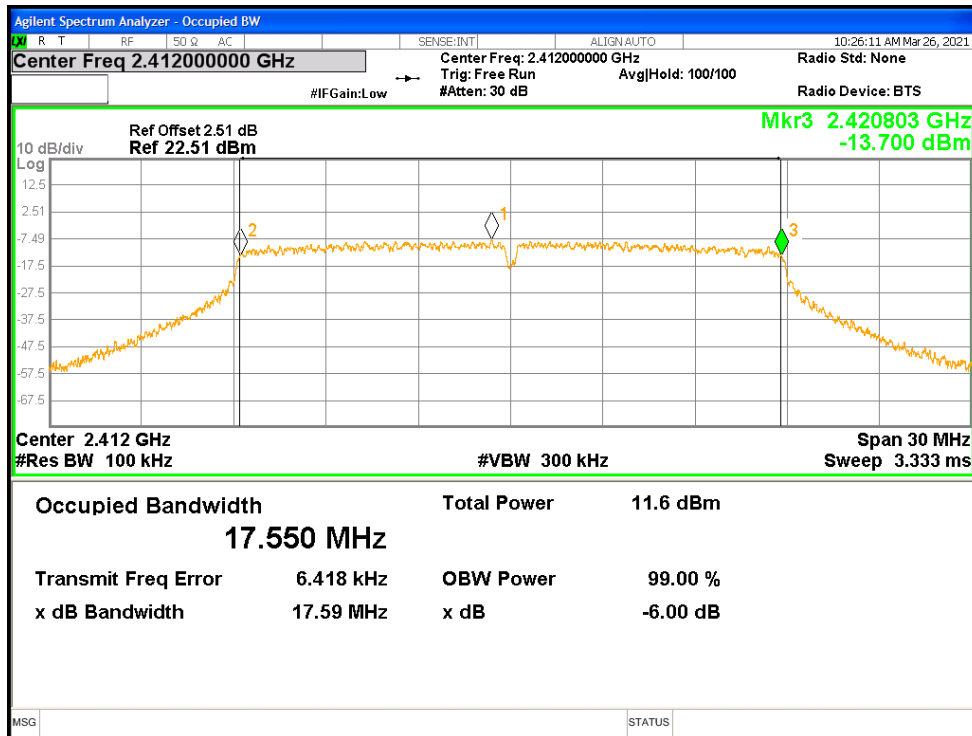
-6dB Bandwidth NVNT g 2462MHz Ant1



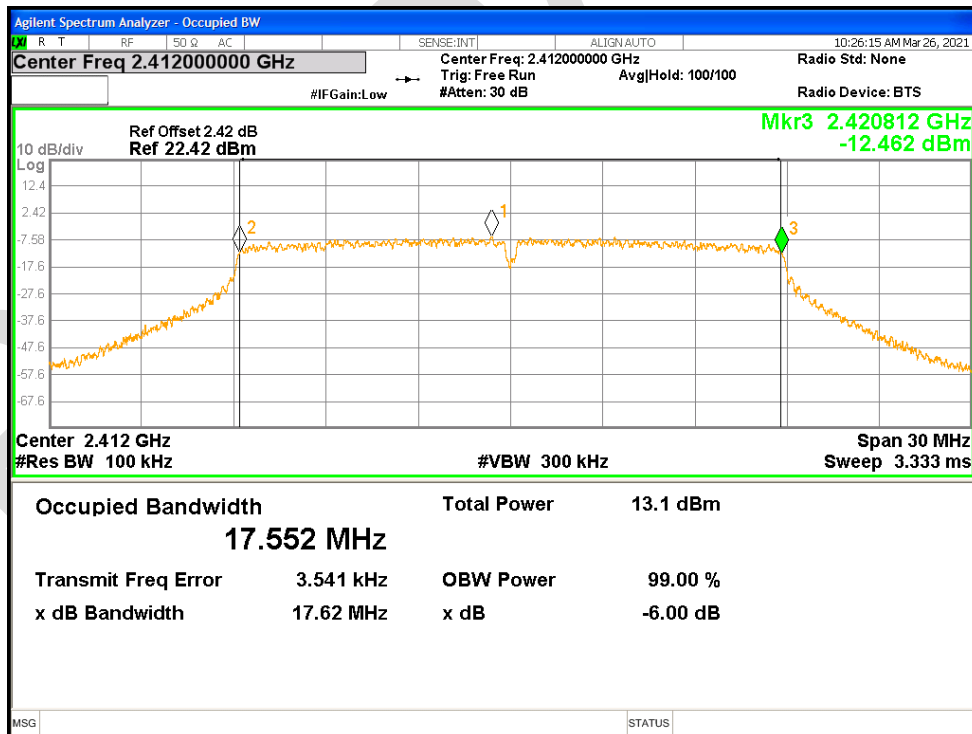
-6dB Bandwidth NVNT g 2462MHz Ant2



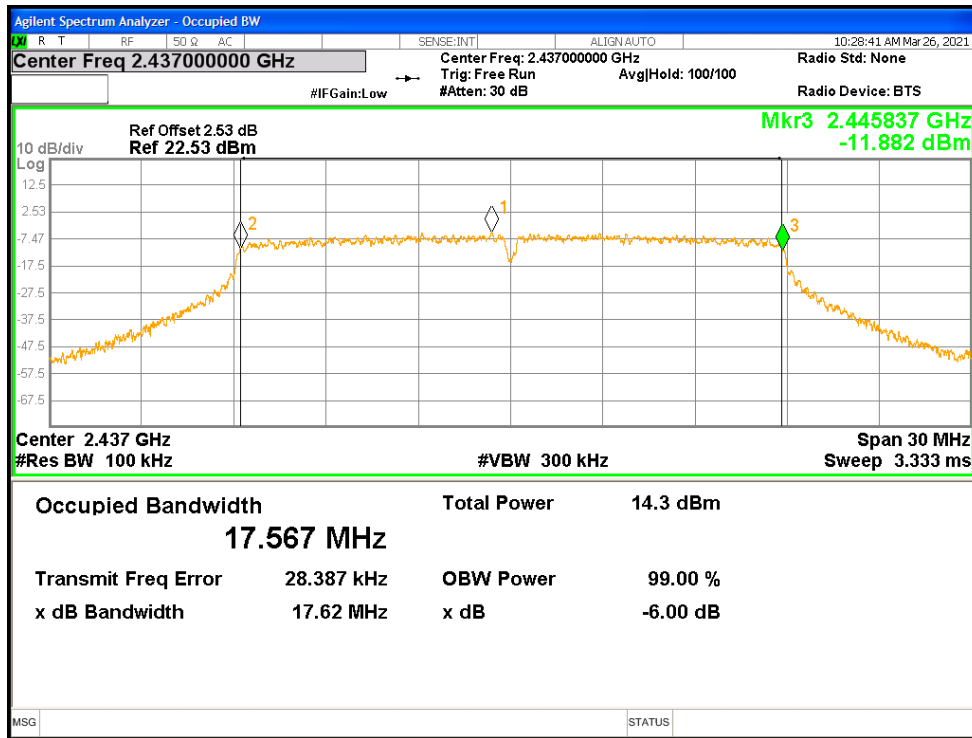
-6dB Bandwidth NVNT n20 2412MHz Ant1



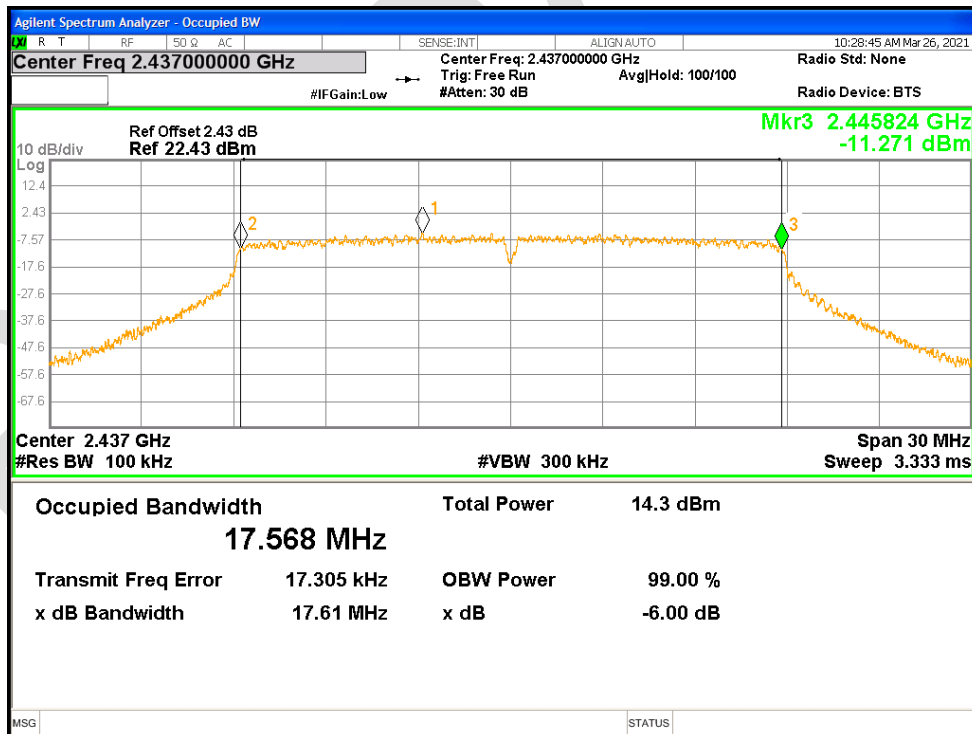
-6dB Bandwidth NVNT n20 2412MHz Ant2



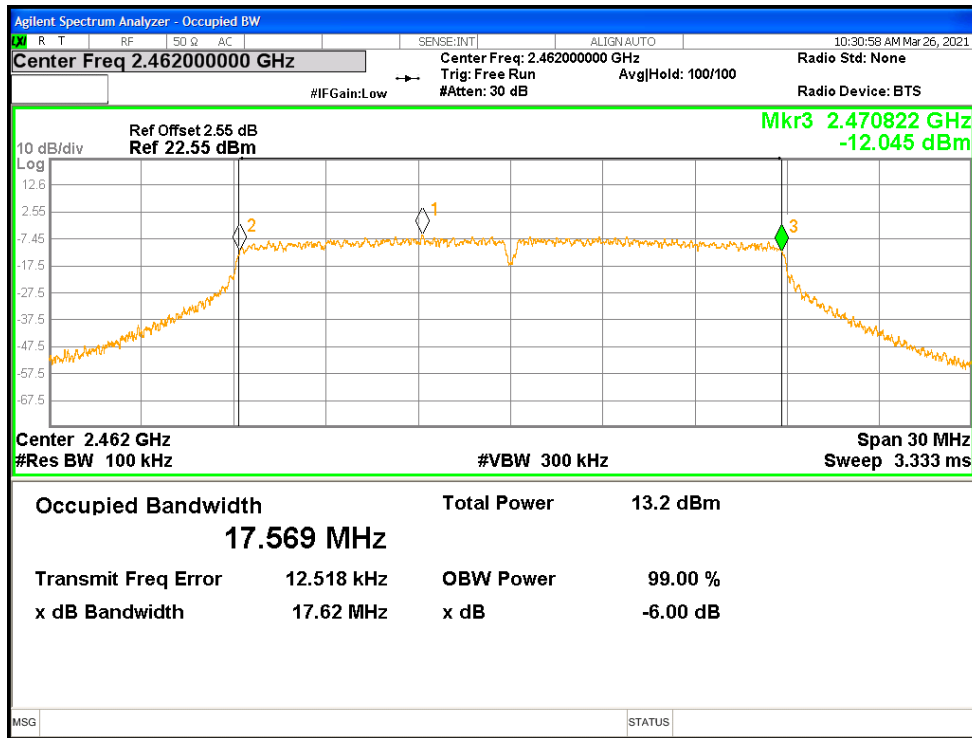
-6dB Bandwidth NVNT n20 2437MHz Ant1



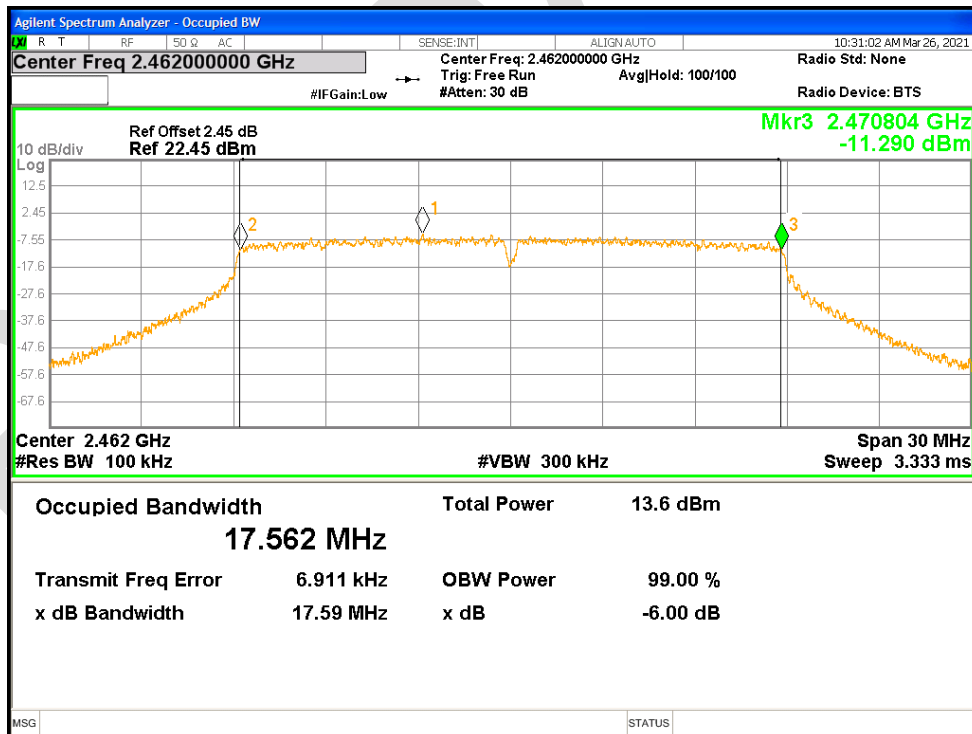
-6dB Bandwidth NVNT n20 2437MHz Ant2



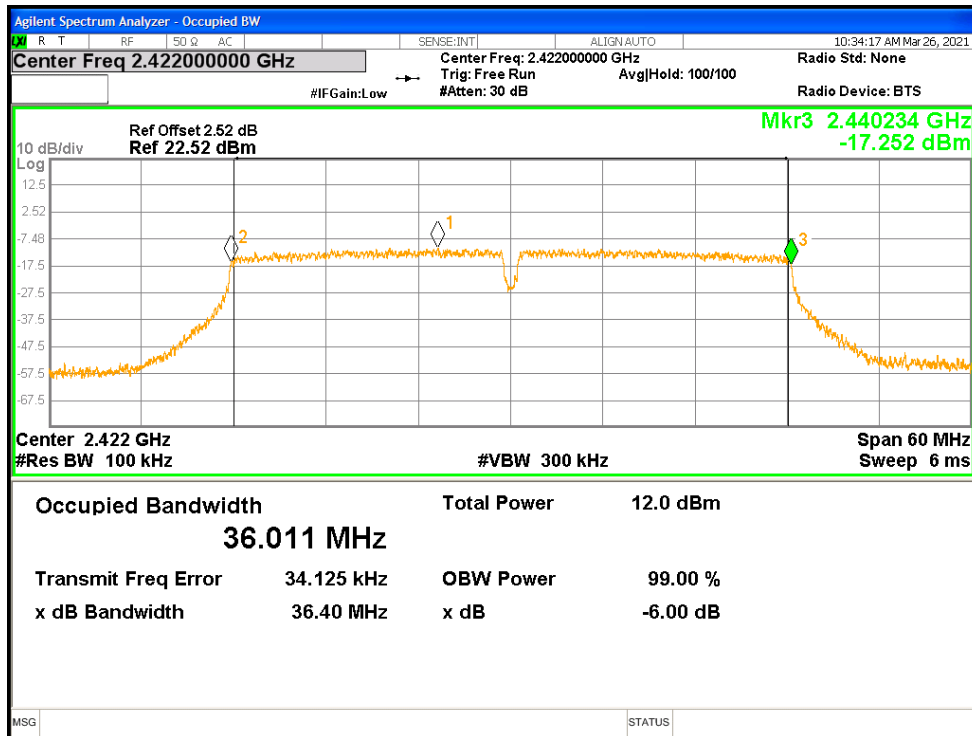
-6dB Bandwidth NVNT n20 2462MHz Ant1



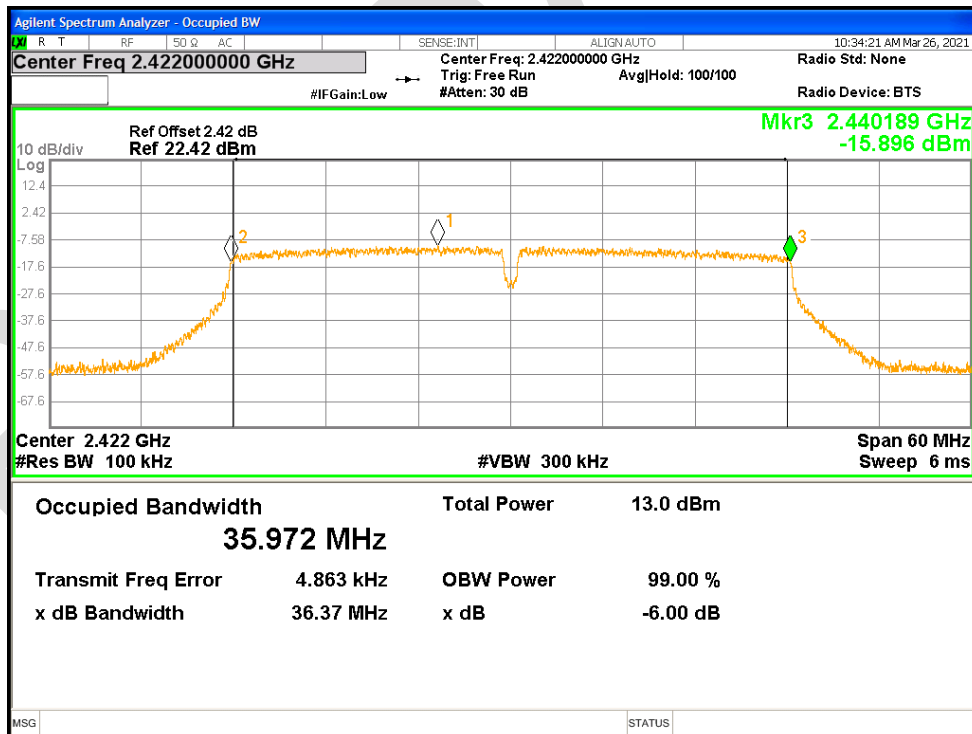
-6dB Bandwidth NVNT n20 2462MHz Ant2



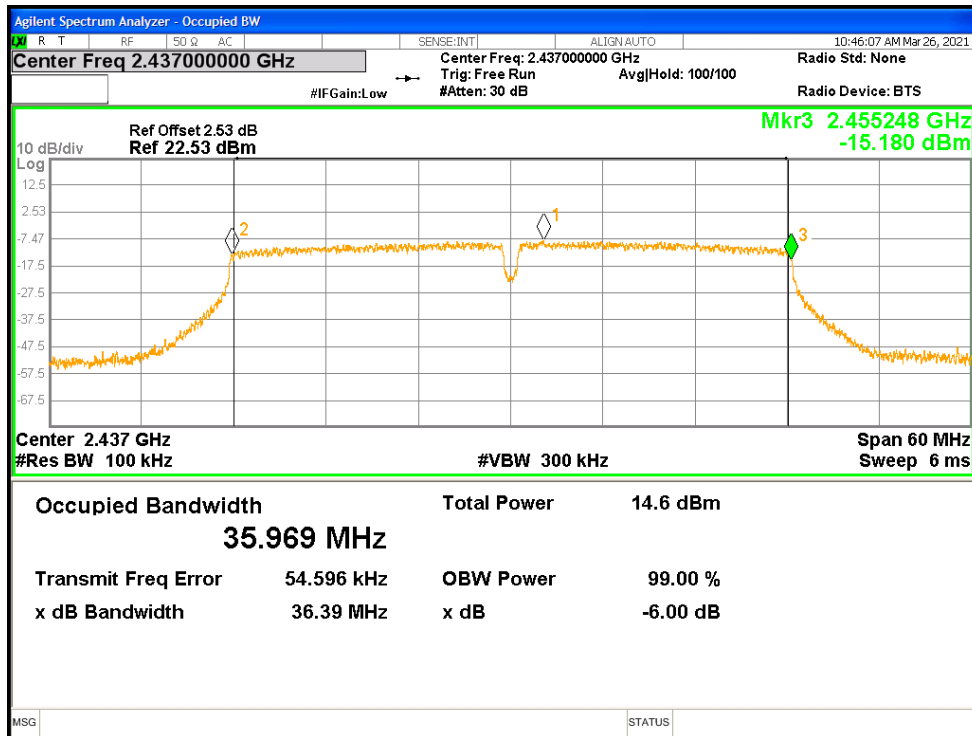
-6dB Bandwidth NVNT n40 2422MHz Ant1



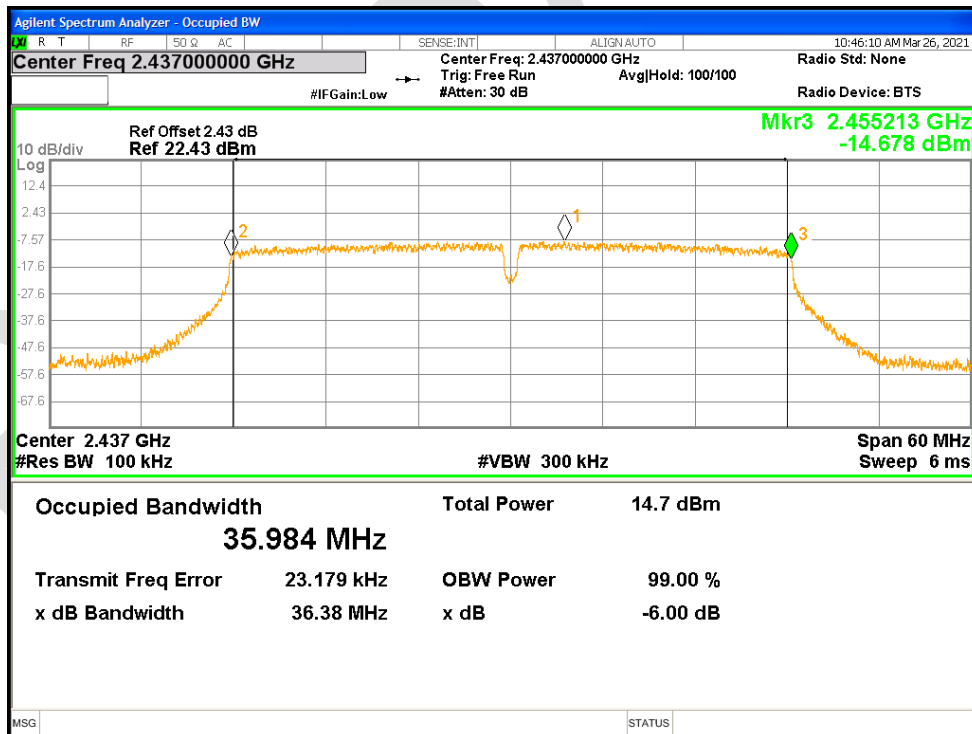
-6dB Bandwidth NVNT n40 2422MHz Ant2



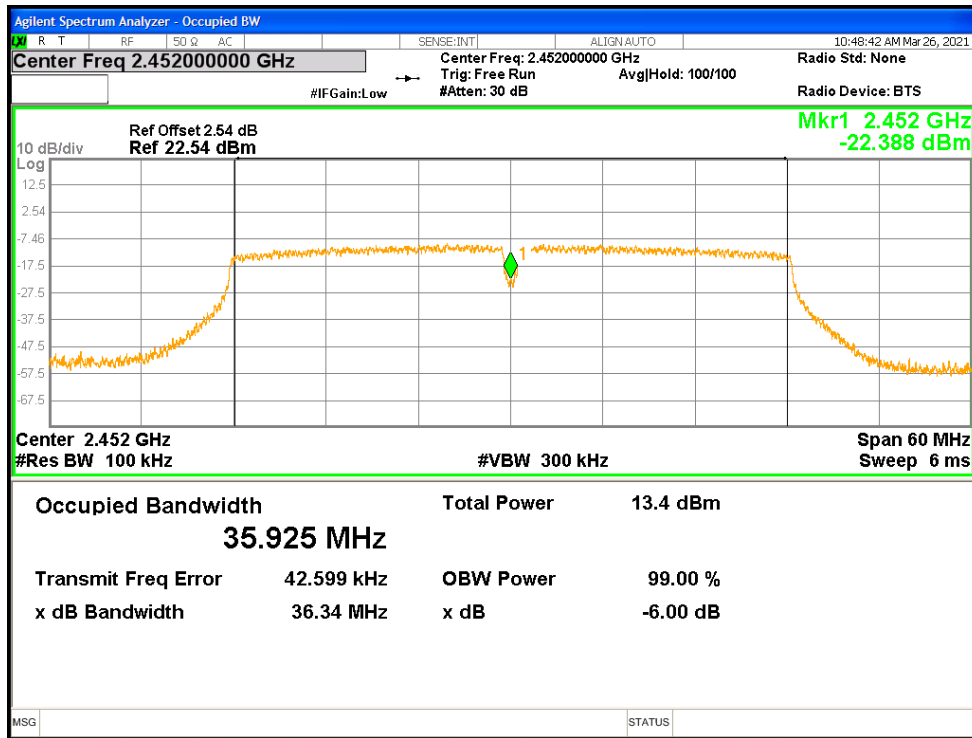
-6dB Bandwidth NVNT n40 2437MHz Ant1



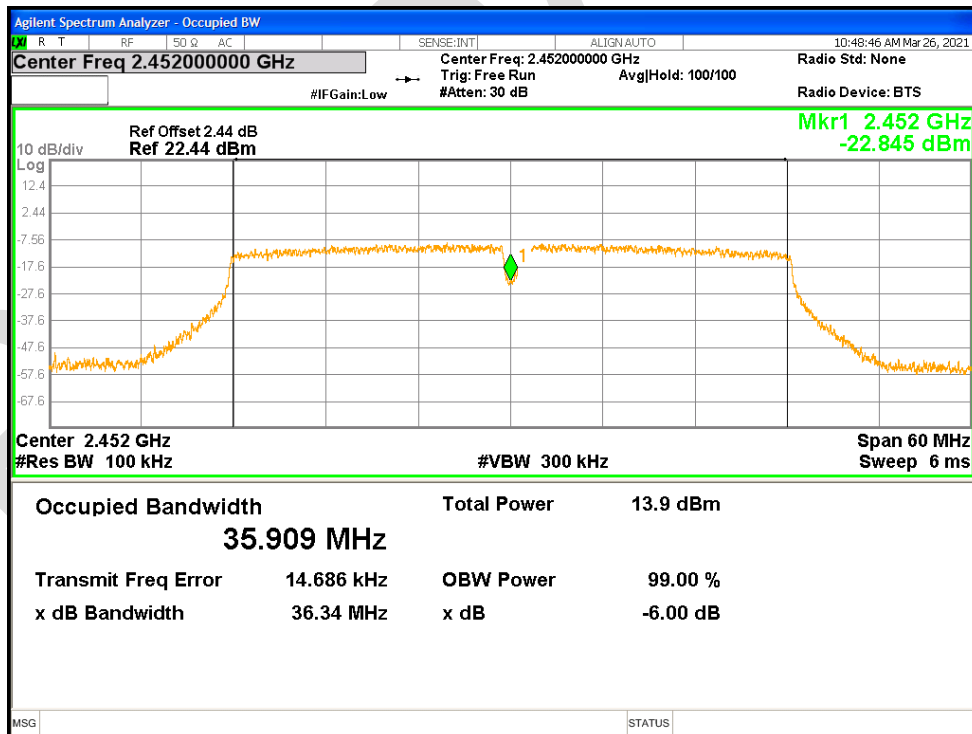
-6dB Bandwidth NVNT n40 2437MHz Ant2



-6dB Bandwidth NVNT n40 2452MHz Ant1



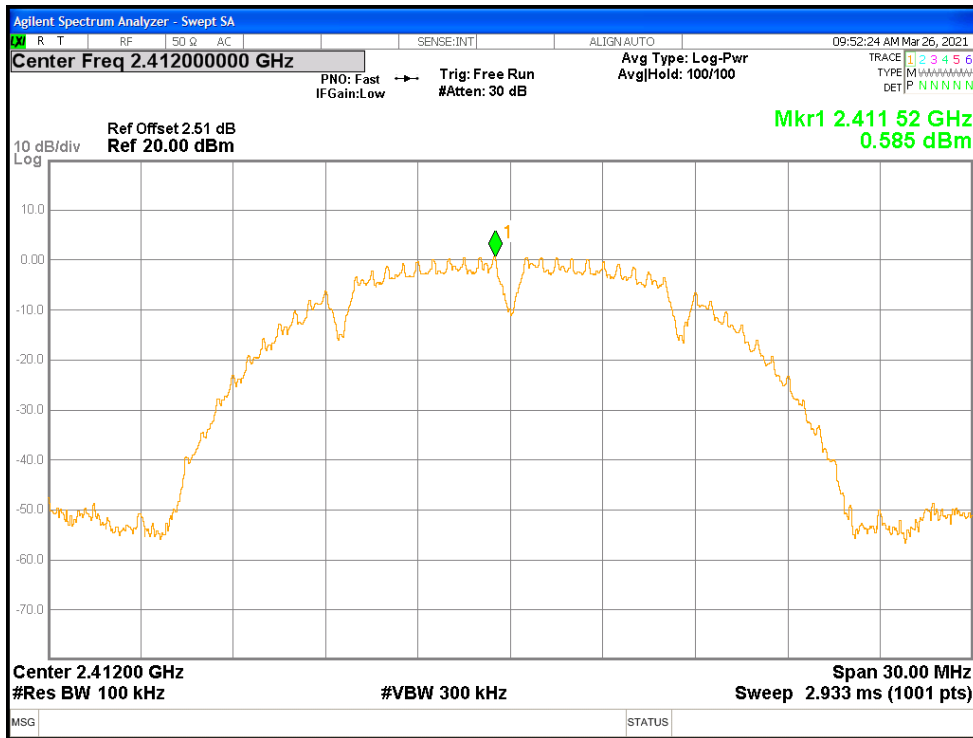
-6dB Bandwidth NVNT n40 2452MHz Ant2



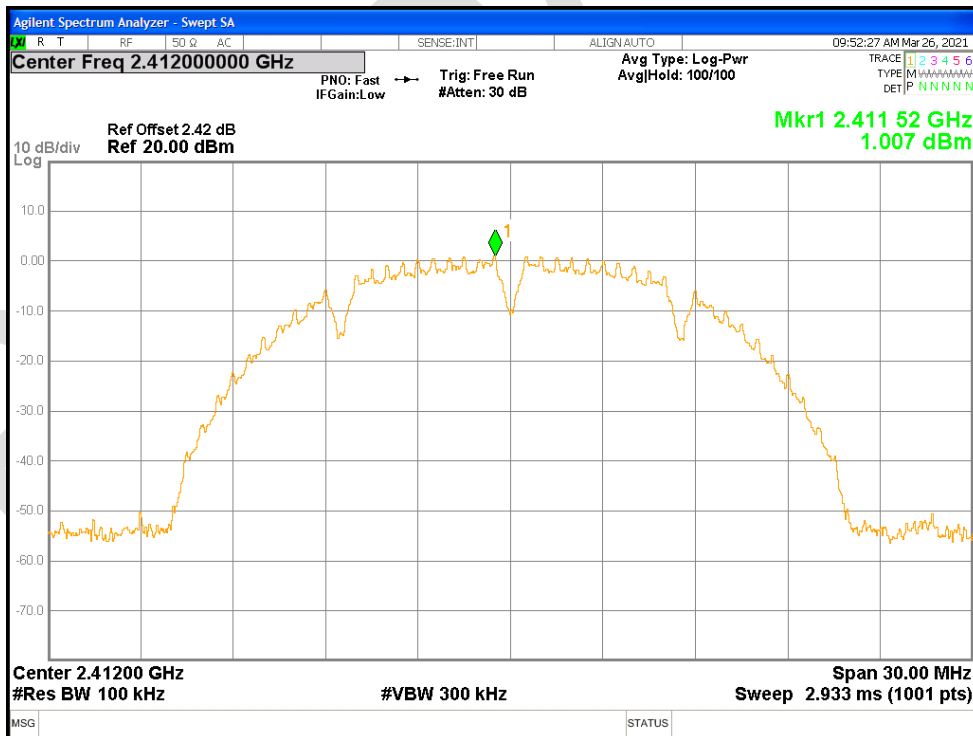
8.3 MAXIMUM POWER SPECTRAL DENSITY LEVEL

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	0.585	8	Pass
NVNT	b	2412	Ant2	1.007	8	Pass
NVNT	b	2437	Ant1	0.779	8	Pass
NVNT	b	2437	Ant2	-0.088	8	Pass
NVNT	b	2462	Ant1	1.231	8	Pass
NVNT	b	2462	Ant2	0.922	8	Pass
NVNT	g	2412	Ant1	-7.235	8	Pass
NVNT	g	2412	Ant2	-4.784	8	Pass
NVNT	g	2437	Ant1	-4.554	8	Pass
NVNT	g	2437	Ant2	-3.785	8	Pass
NVNT	g	2462	Ant1	-5.585	8	Pass
NVNT	g	2462	Ant2	-4.828	8	Pass
NVNT	n20	2412	Ant1	-7.715	8	Pass
NVNT	n20	2412	Ant2	-6.567	8	Pass
NVNT	n20	2412	Sum	-4.093	8	Pass
NVNT	n20	2437	Ant1	-5.032	8	Pass
NVNT	n20	2437	Ant2	-4.878	8	Pass
NVNT	n20	2437	Sum	-1.944	8	Pass
NVNT	n20	2462	Ant1	-5.907	8	Pass
NVNT	n20	2462	Ant2	-6.187	8	Pass
NVNT	n20	2462	Sum	-3.034	8	Pass
NVNT	n40	2422	Ant1	-10.681	8	Pass
NVNT	n40	2422	Ant2	-9.759	8	Pass
NVNT	n40	2422	Sum	-7.185	8	Pass
NVNT	n40	2437	Ant1	-7.99	8	Pass
NVNT	n40	2437	Ant2	-8.146	8	Pass
NVNT	n40	2437	Sum	-5.057	8	Pass
NVNT	n40	2452	Ant1	-9.248	8	Pass
NVNT	n40	2452	Ant2	-8.599	8	Pass
NVNT	n40	2452	Sum	-5.901	8	Pass

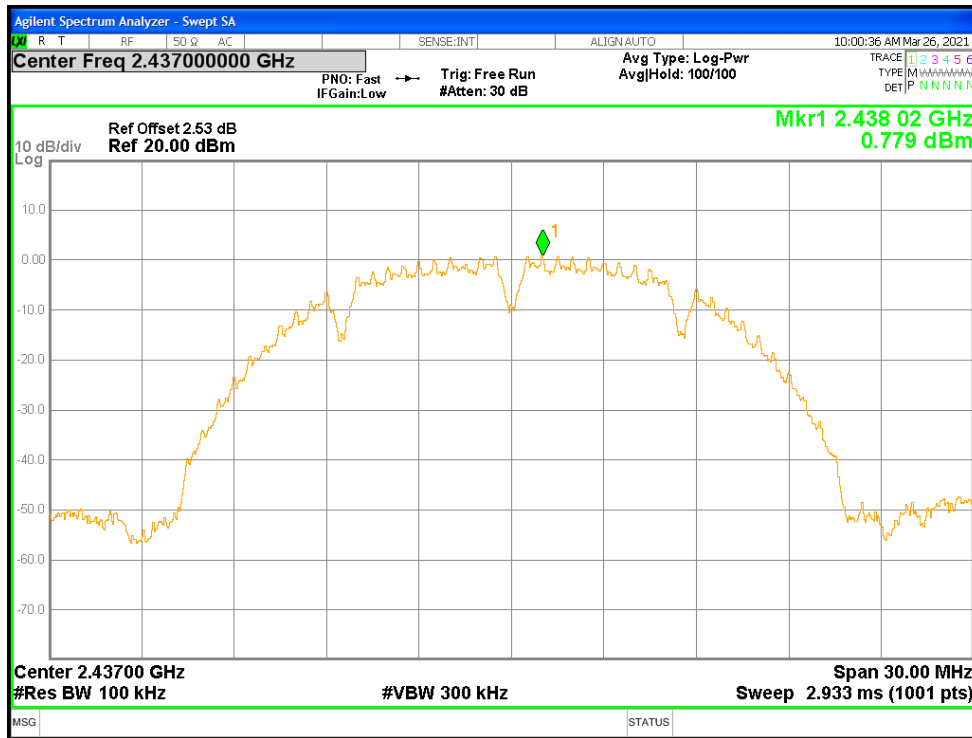
PSD NVNT b 2412MHz Ant1



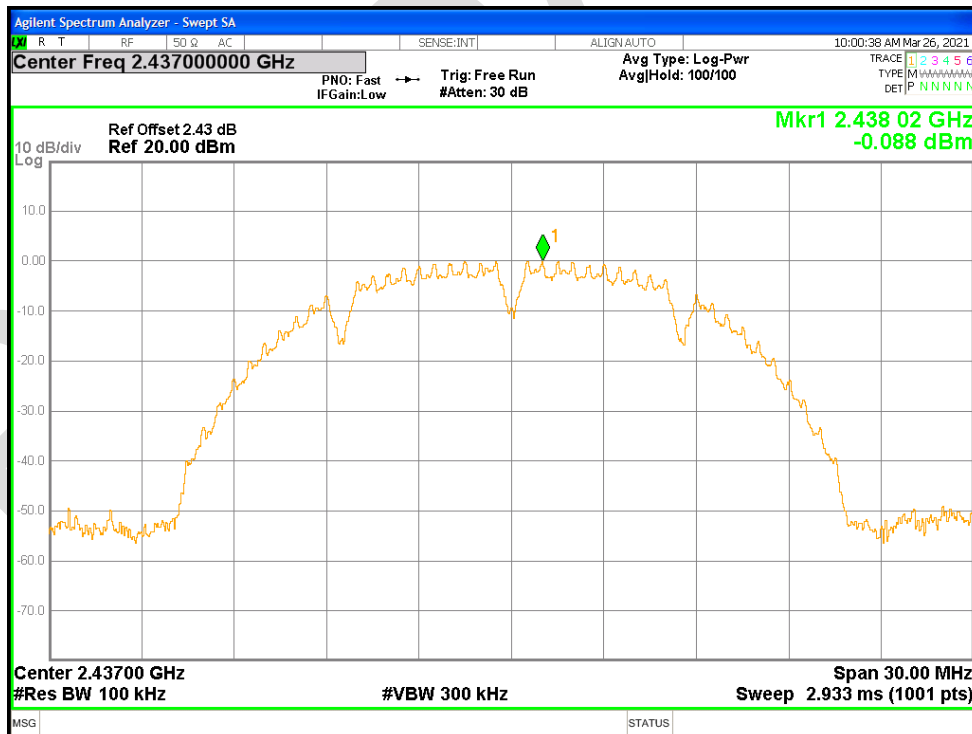
PSD NVNT b 2412MHz Ant2



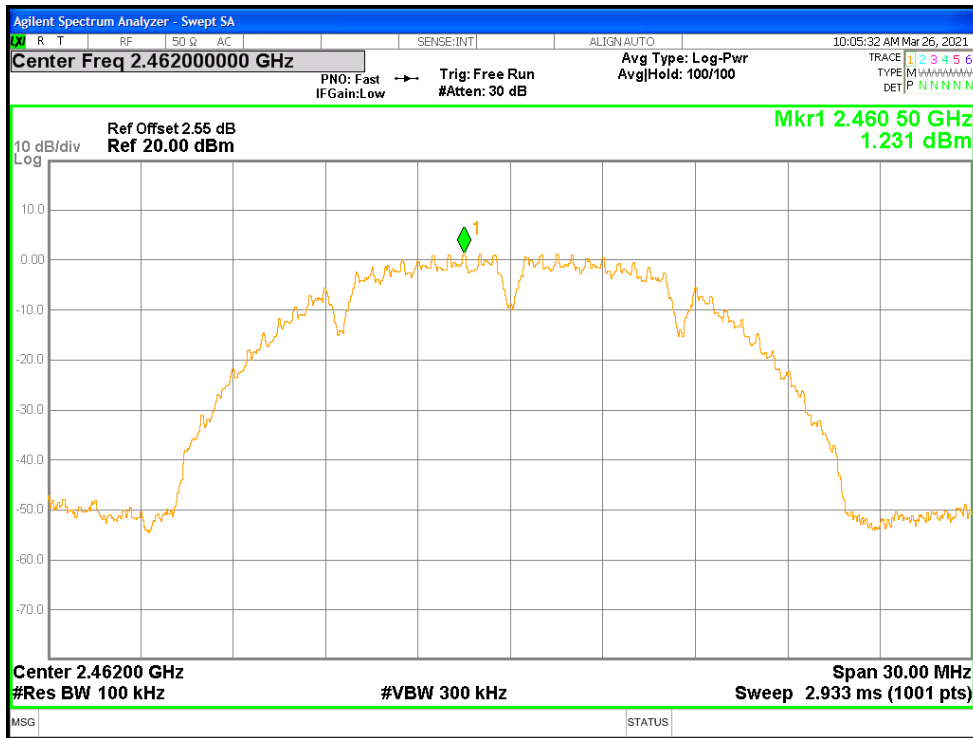
PSD NVNT b 2437MHz Ant1



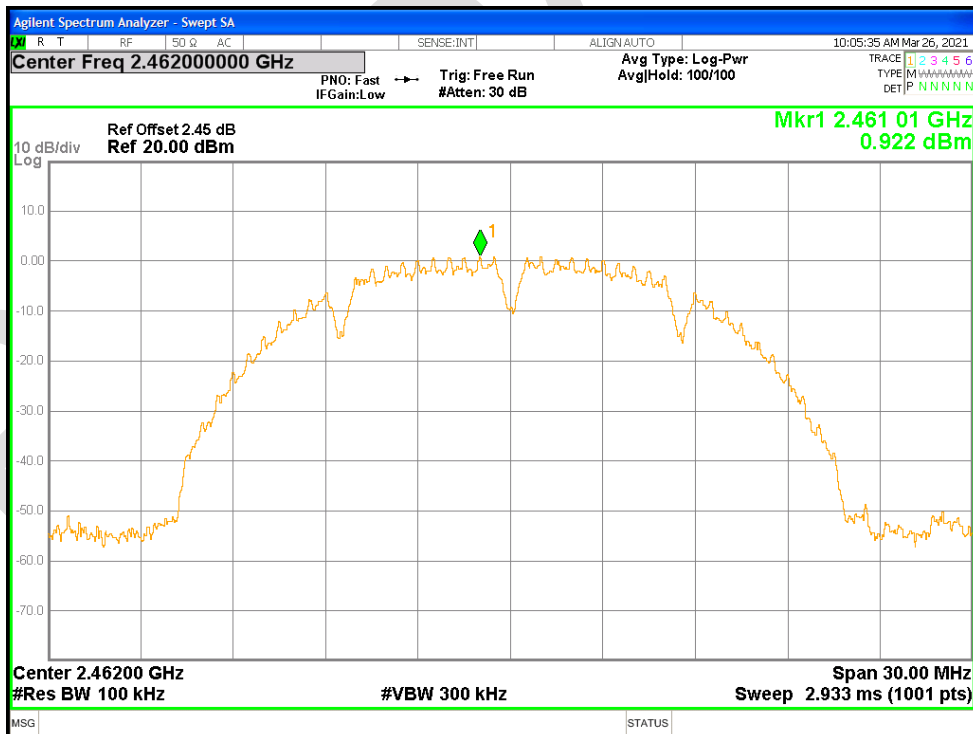
PSD NVNT b 2437MHz Ant2



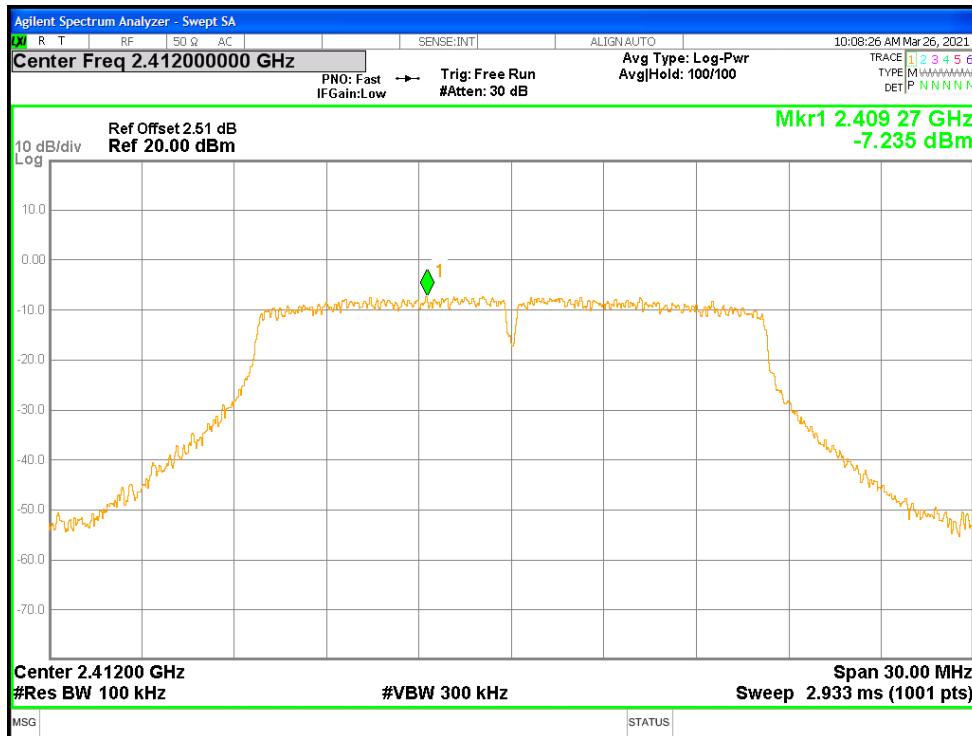
PSD NVNT b 2462MHz Ant1



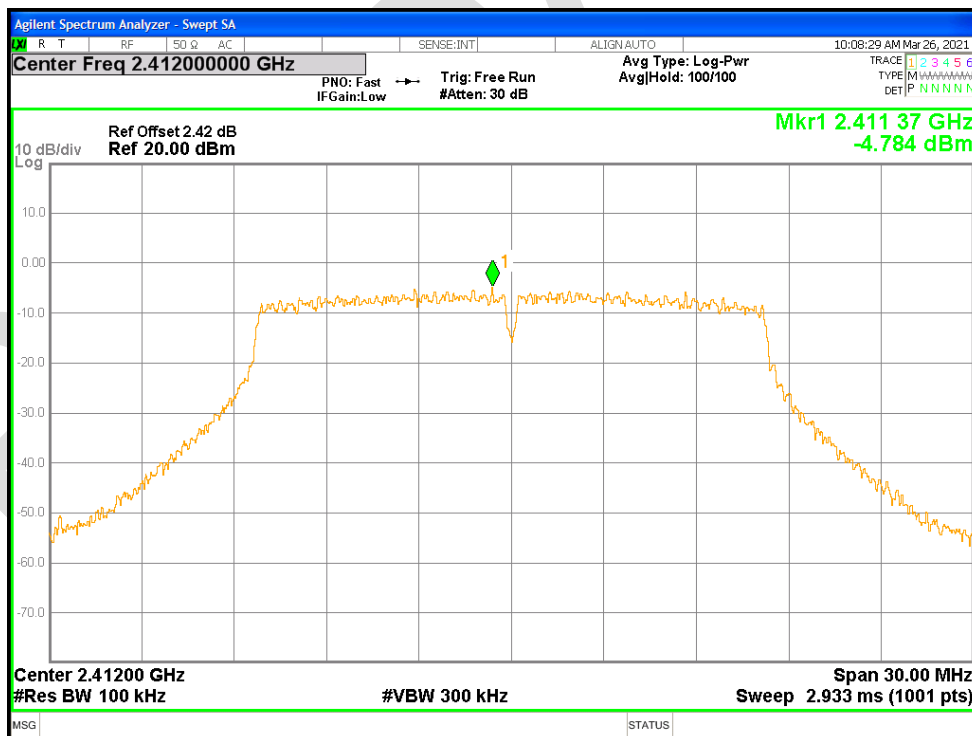
PSD NVNT b 2462MHz Ant2



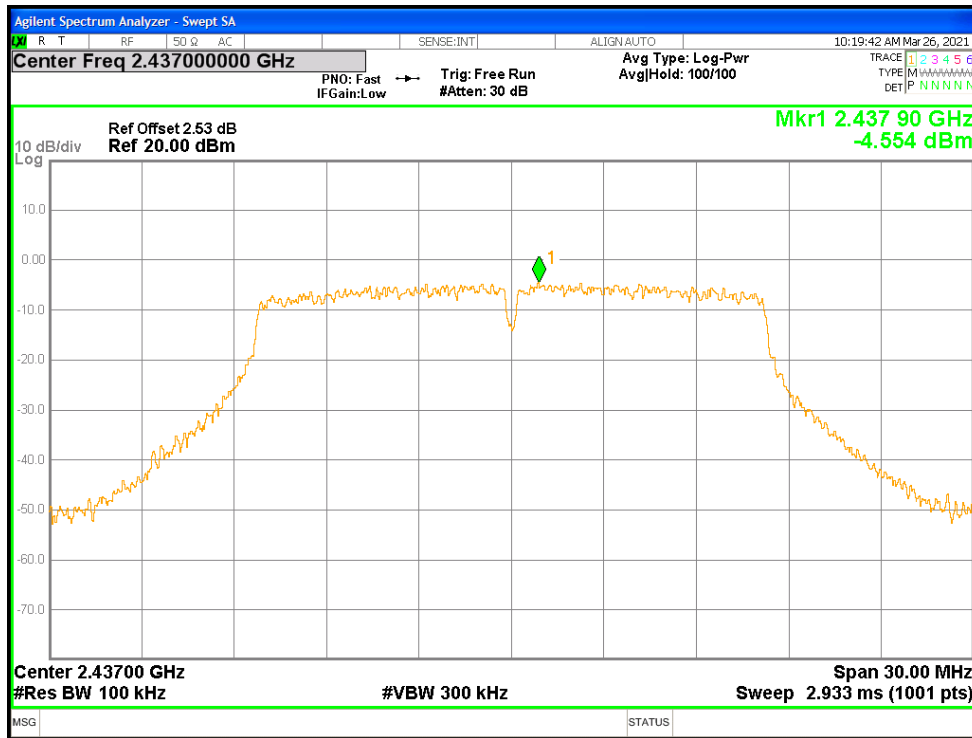
PSD NVNT g 2412MHz Ant1



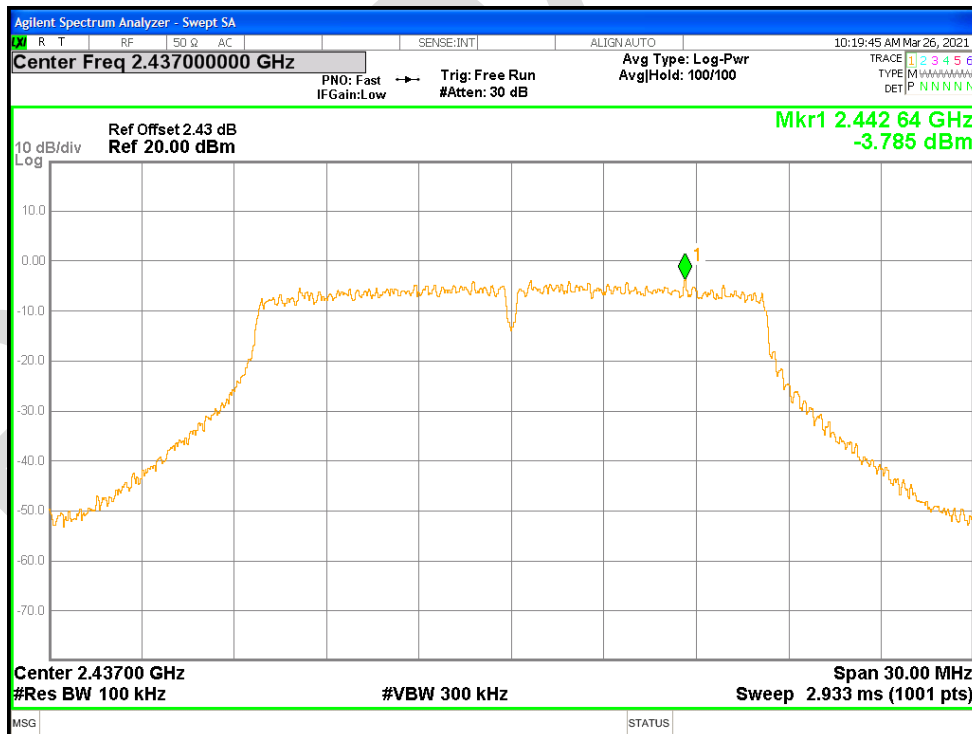
PSD NVNT g 2412MHz Ant2



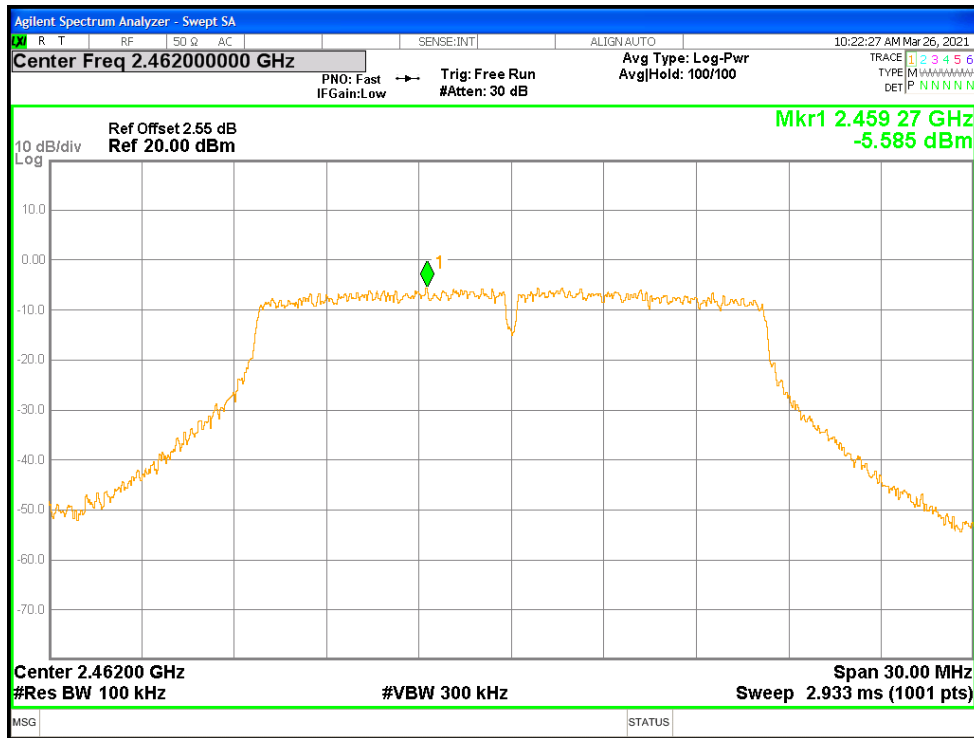
PSD NVNT g 2437MHz Ant1



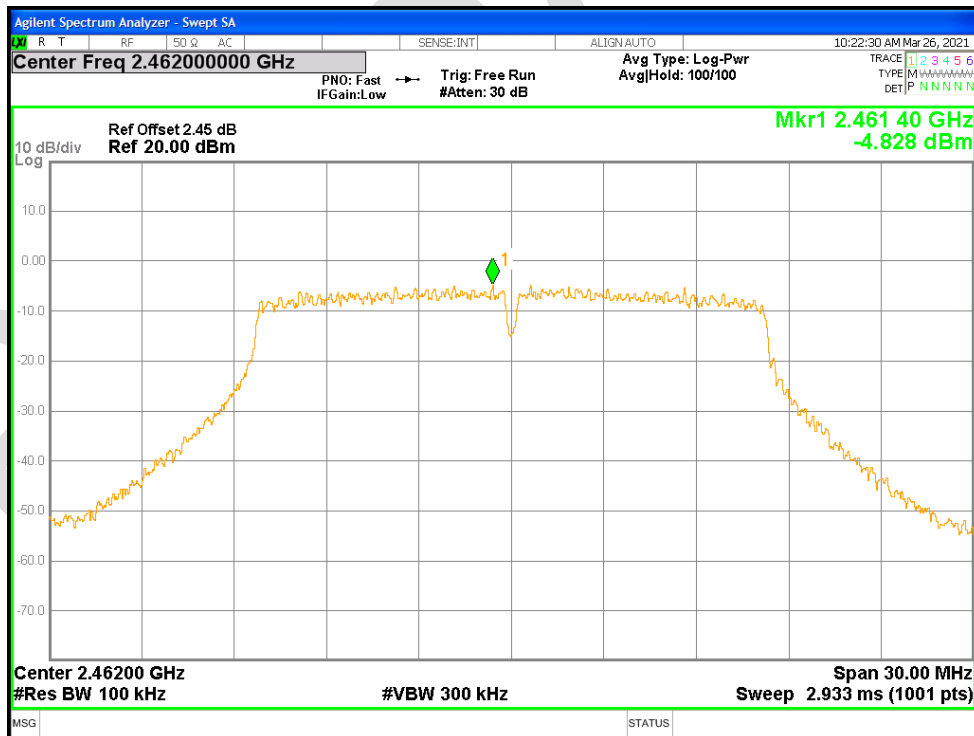
PSD NVNT g 2437MHz Ant2



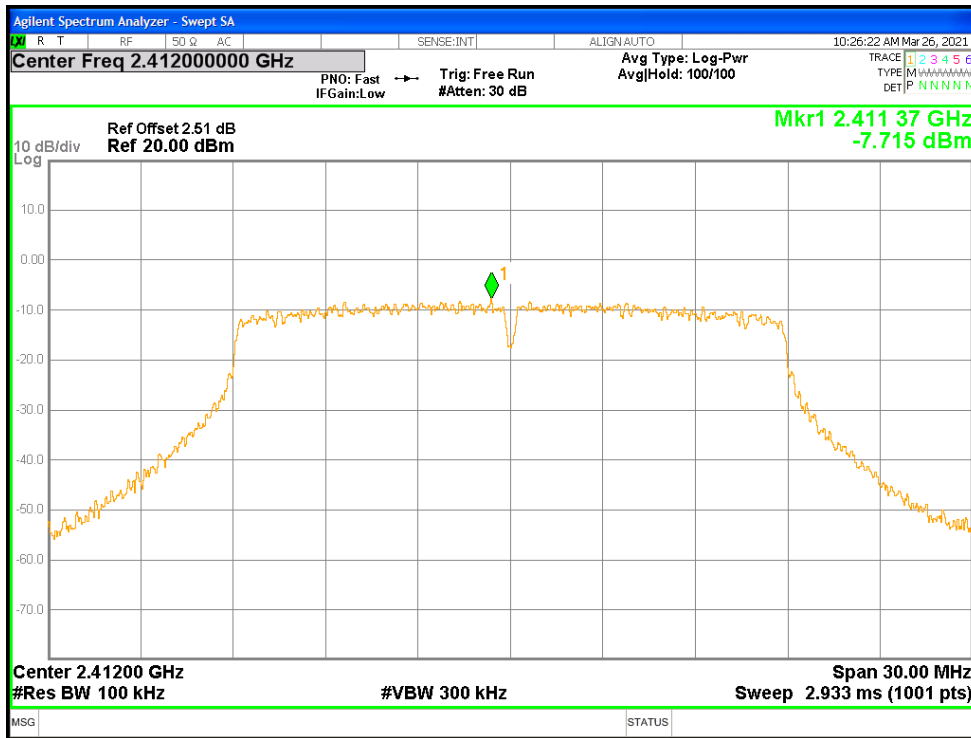
PSD NVNT g 2462MHz Ant1



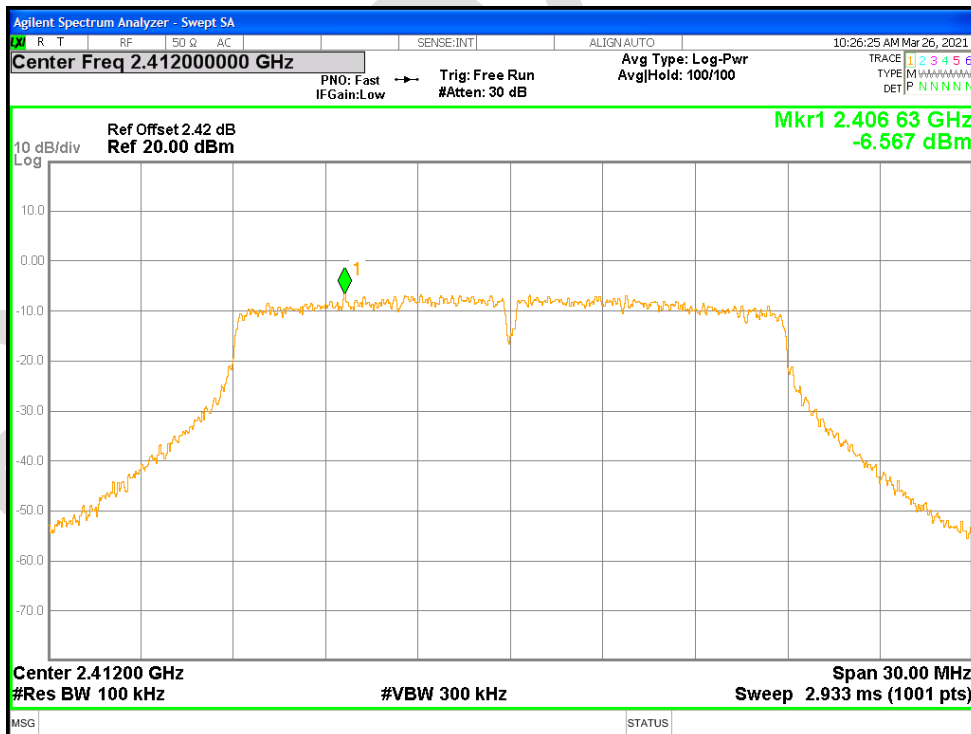
PSD NVNT g 2462MHz Ant2



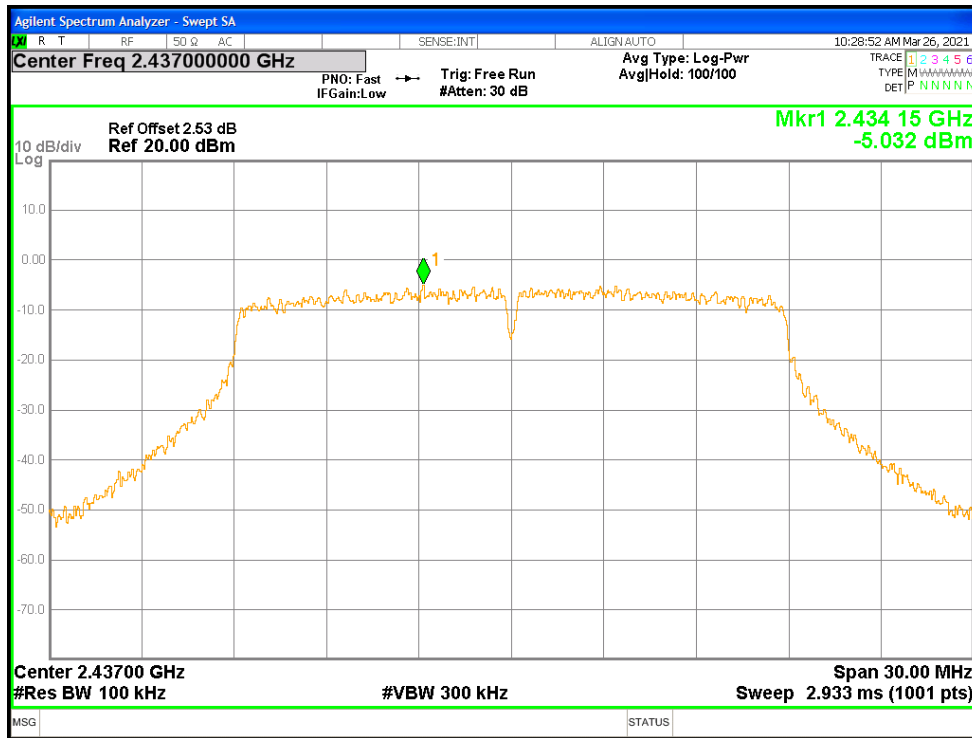
PSD NVNT n20 2412MHz Ant1



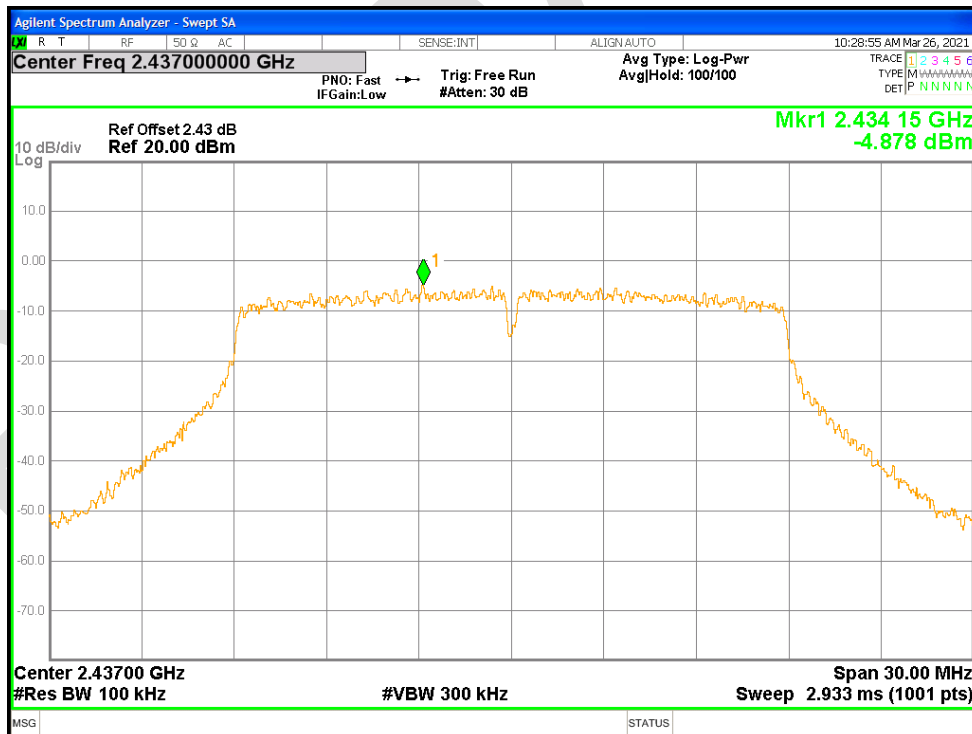
PSD NVNT n20 2412MHz Ant2



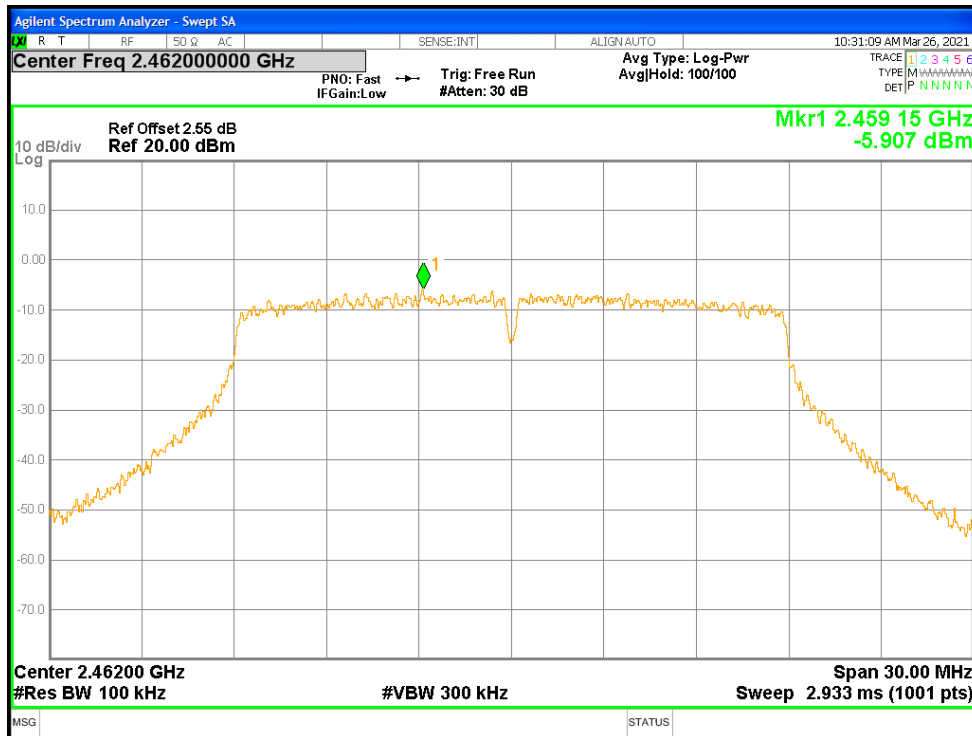
PSD NVNT n20 2437MHz Ant1



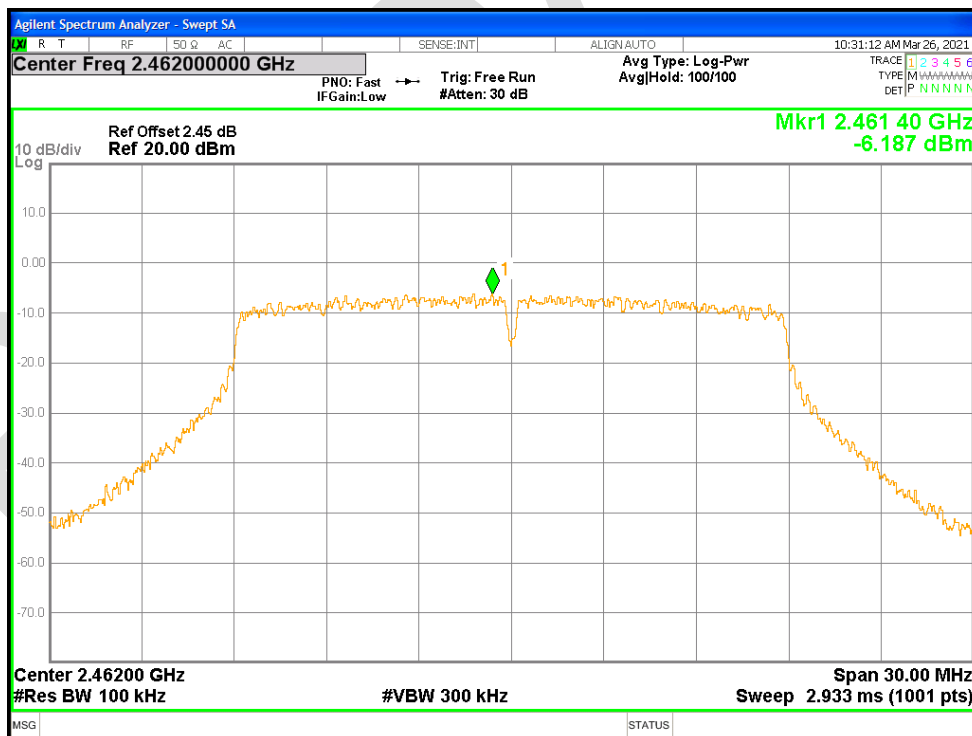
PSD NVNT n20 2437MHz Ant2



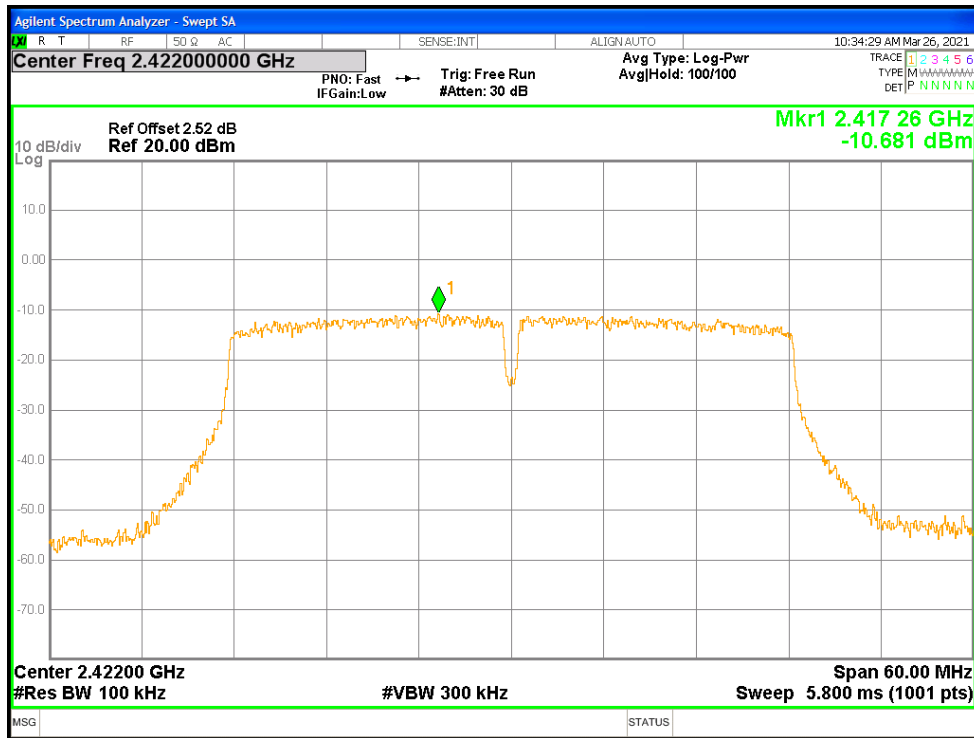
PSD NVNT n20 2462MHz Ant1



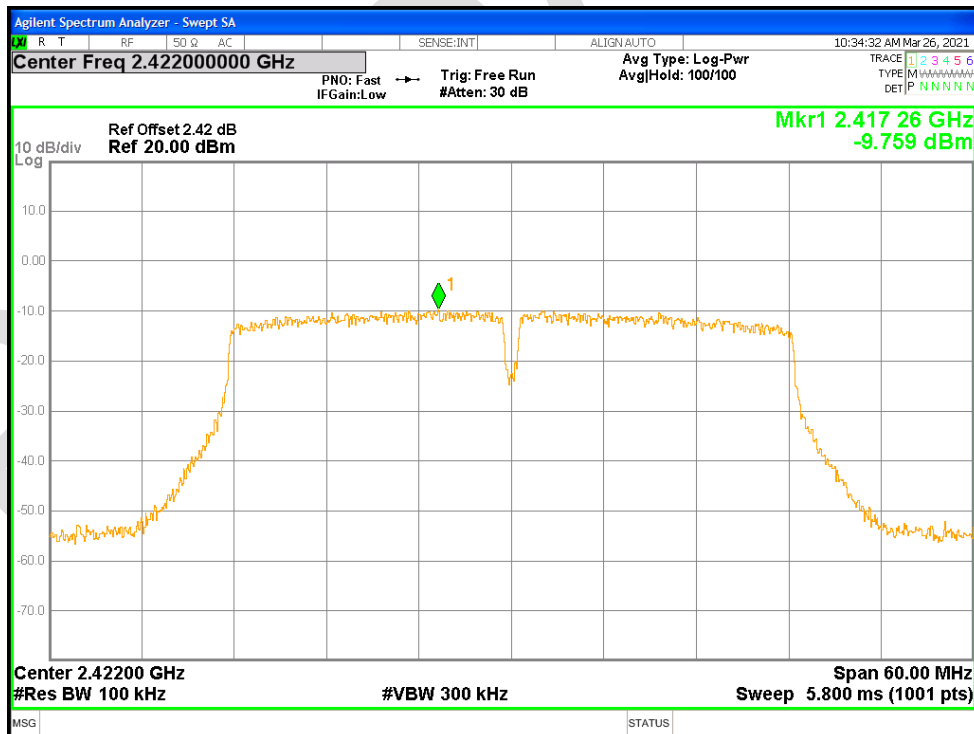
PSD NVNT n20 2462MHz Ant2



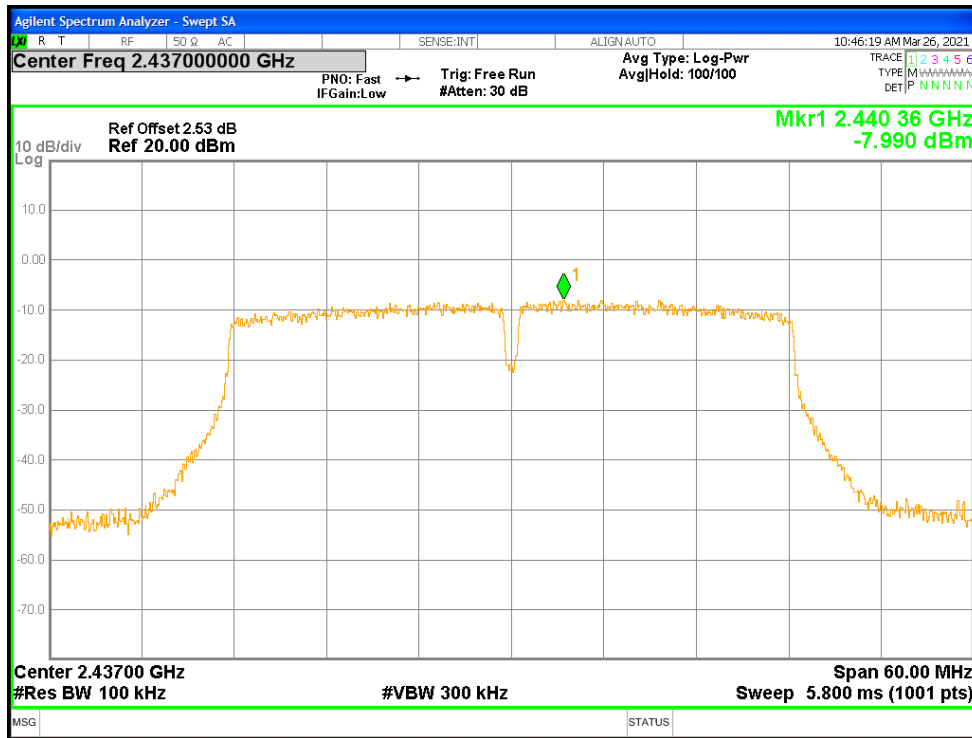
PSD NVNT n40 2422MHz Ant1



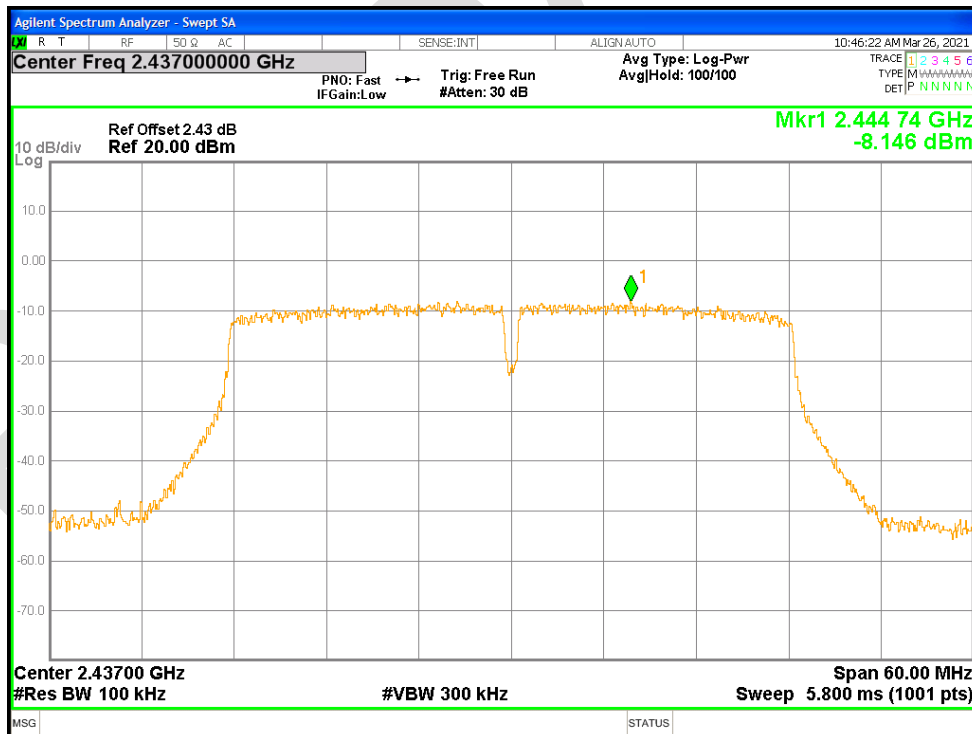
PSD NVNT n40 2422MHz Ant2



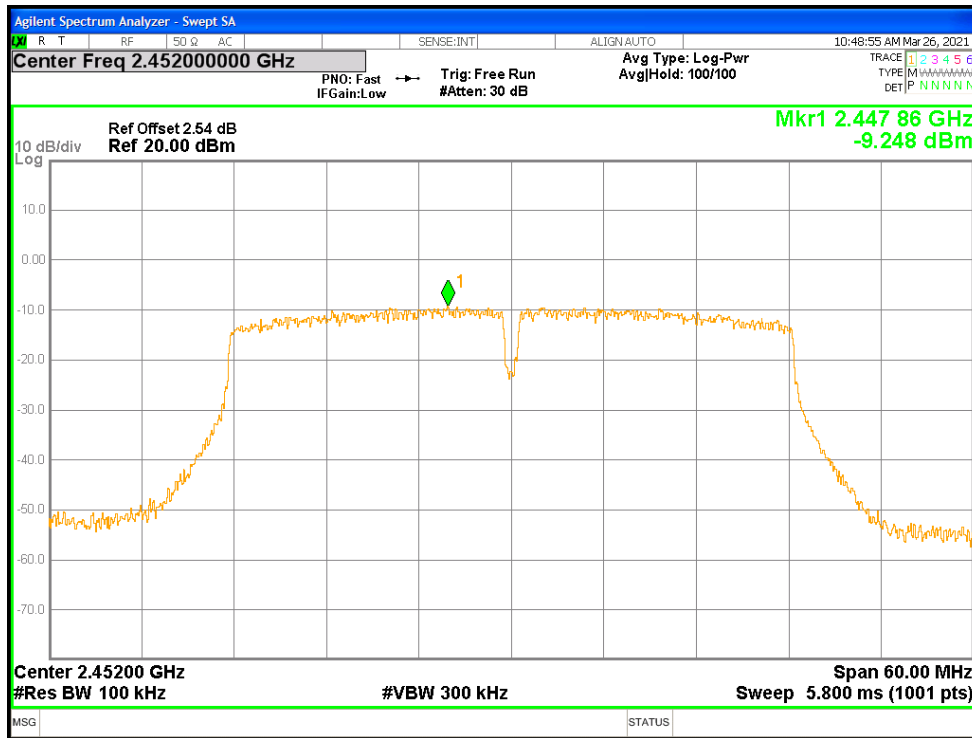
PSD NVNT n40 2437MHz Ant1



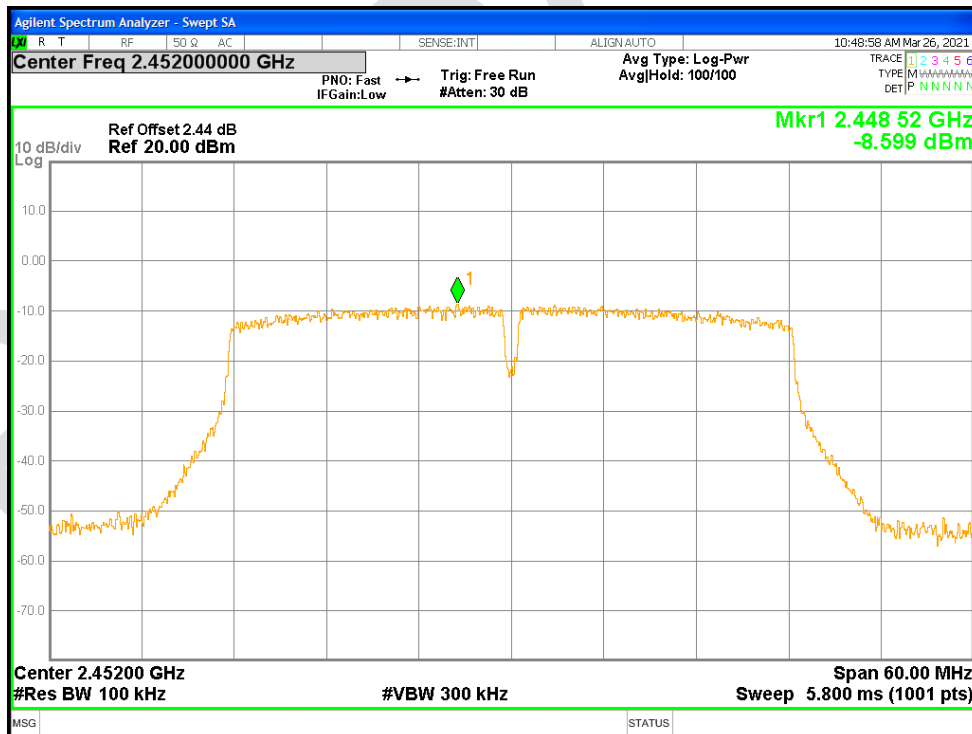
PSD NVNT n40 2437MHz Ant2



PSD NVNT n40 2452MHz Ant1



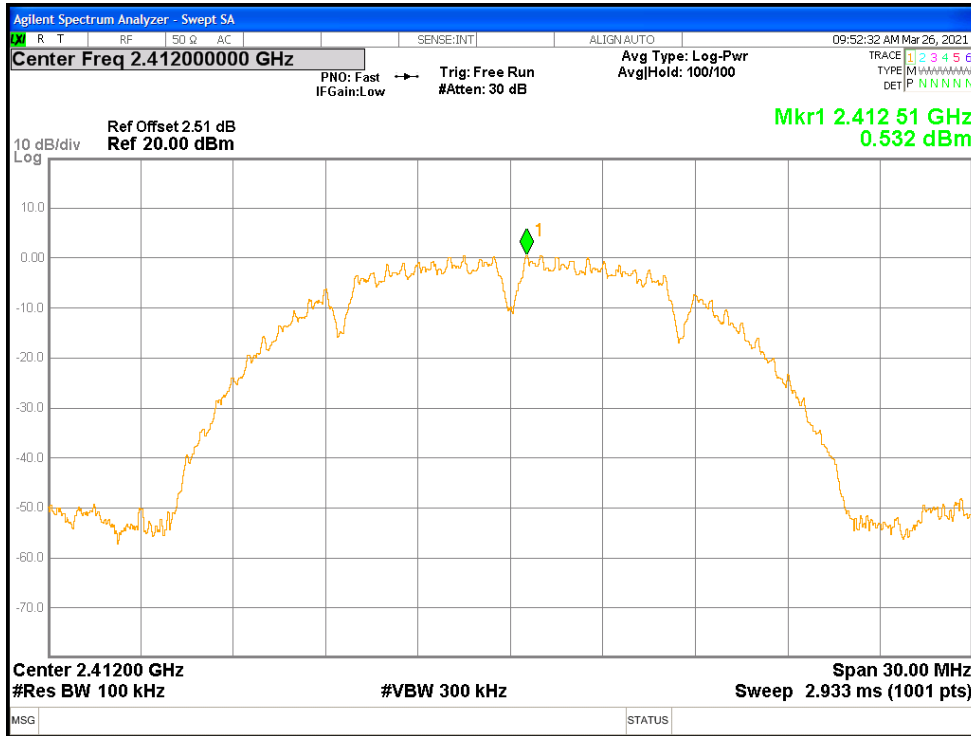
PSD NVNT n40 2452MHz Ant2



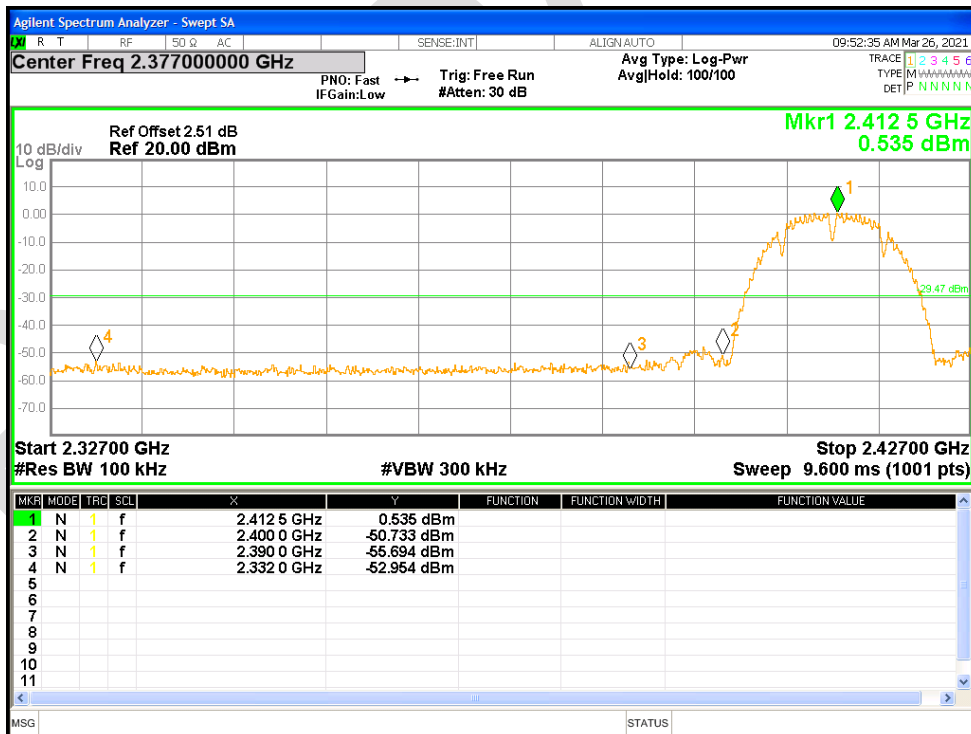
8.4 BAND EDGE

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-53.48	-30	Pass
NVNT	b	2412	Ant2	-54.35	-30	Pass
NVNT	b	2462	Ant1	-54.21	-30	Pass
NVNT	b	2462	Ant2	-54.24	-30	Pass
NVNT	g	2412	Ant1	-46.25	-30	Pass
NVNT	g	2412	Ant2	-49.33	-30	Pass
NVNT	g	2462	Ant1	-48.82	-30	Pass
NVNT	g	2462	Ant2	-48.54	-30	Pass
NVNT	n20	2412	Ant1	-46.63	-30	Pass
NVNT	n20	2412	Ant2	-47.5	-30	Pass
NVNT	n20	2462	Ant1	-46.5	-30	Pass
NVNT	n20	2462	Ant2	-49.2	-30	Pass
NVNT	n40	2422	Ant1	-43.61	-30	Pass
NVNT	n40	2422	Ant2	-43.26	-30	Pass
NVNT	n40	2452	Ant1	-44.95	-30	Pass
NVNT	n40	2452	Ant2	-44.2	-30	Pass

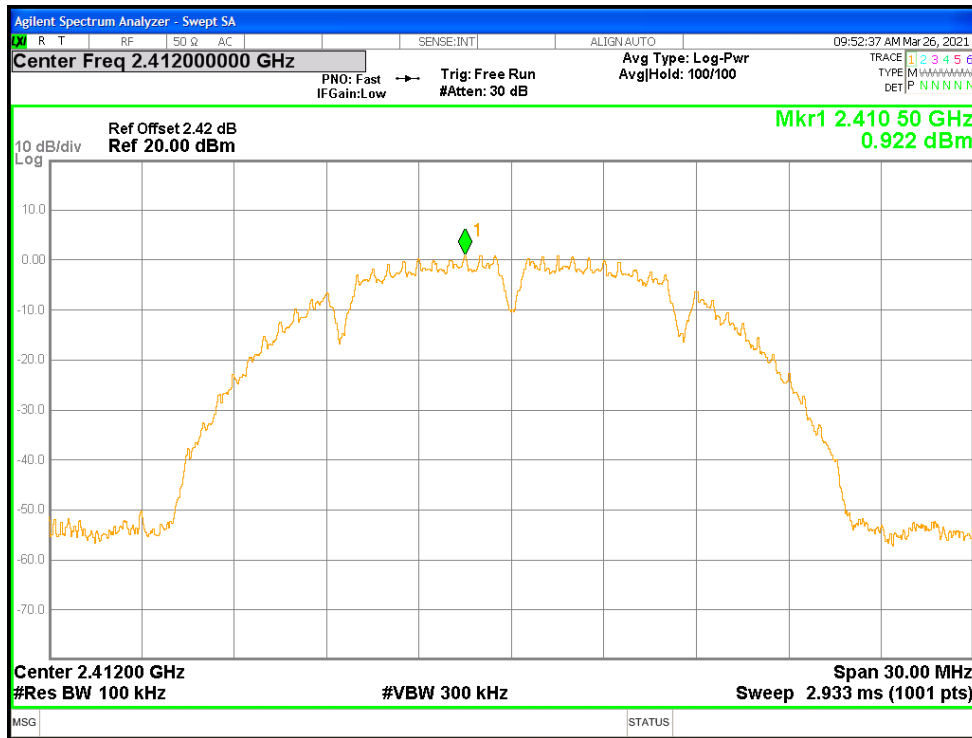
Band Edge NVNT b 2412MHz Ant1 Ref



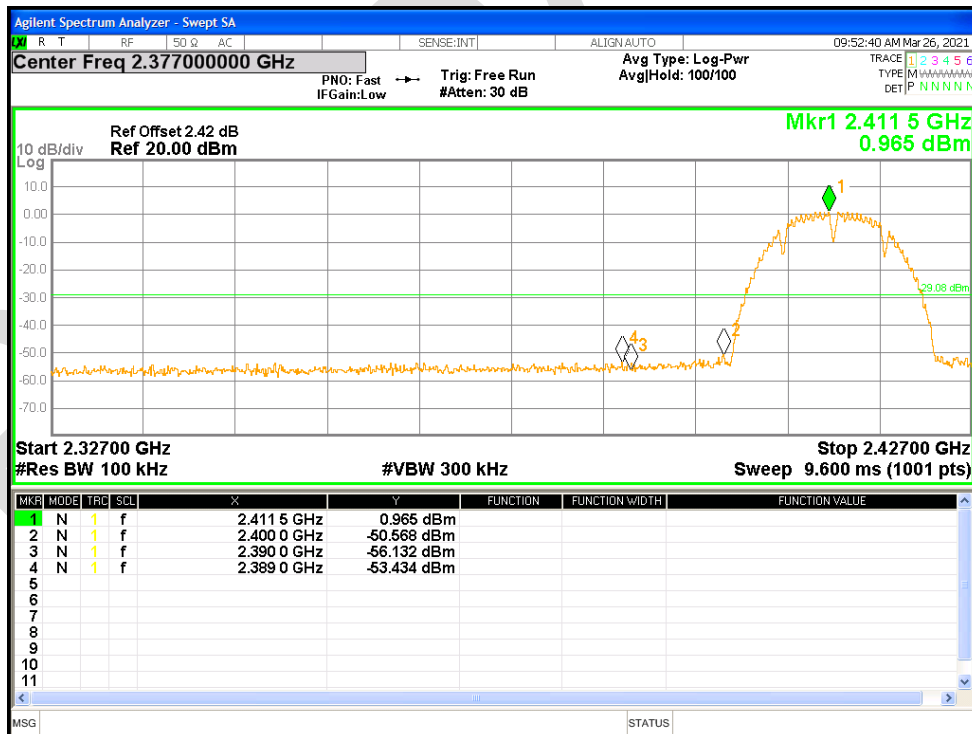
Band Edge NVNT b 2412MHz Ant1 Emission



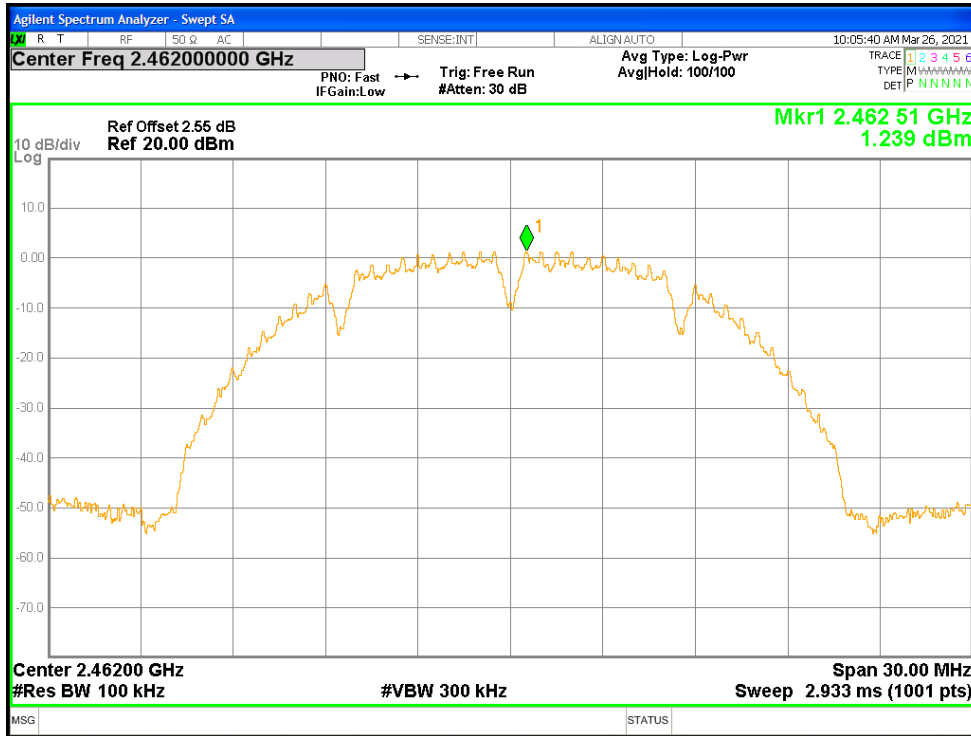
Band Edge NVNT b 2412MHz Ant2 Ref



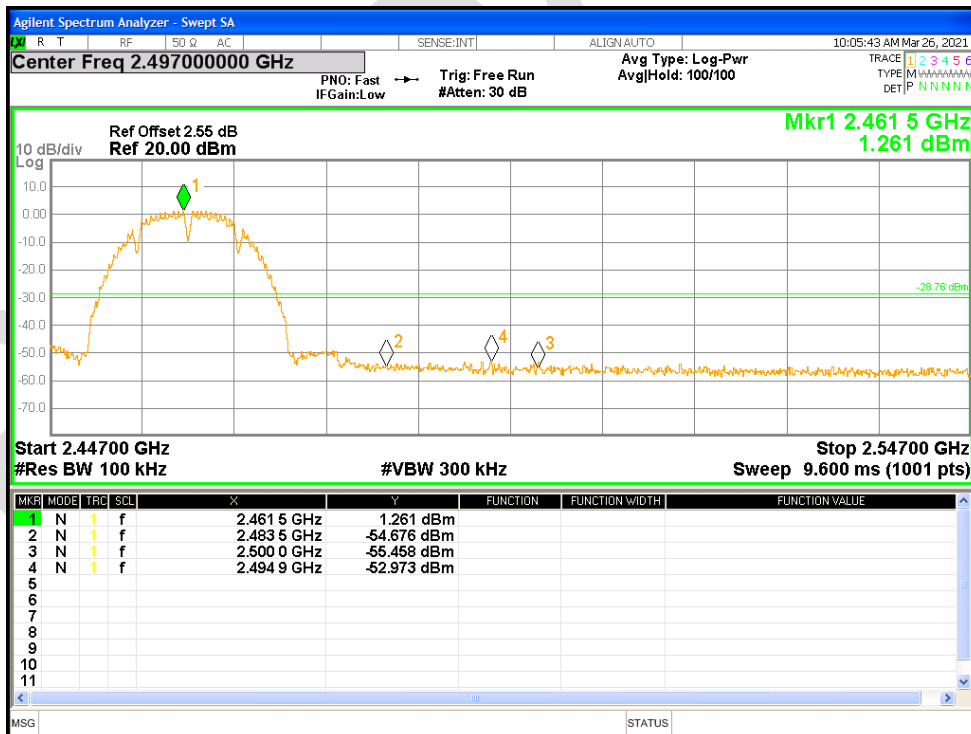
Band Edge NVNT b 2412MHz Ant2 Emission



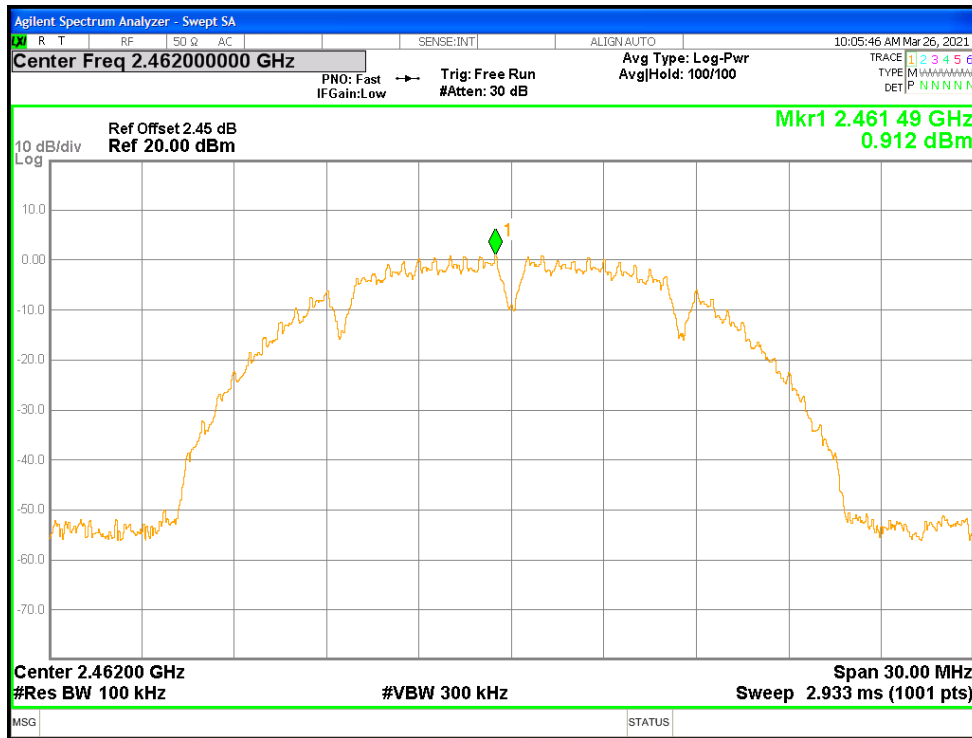
Band Edge NVNT b 2462MHz Ant1 Ref



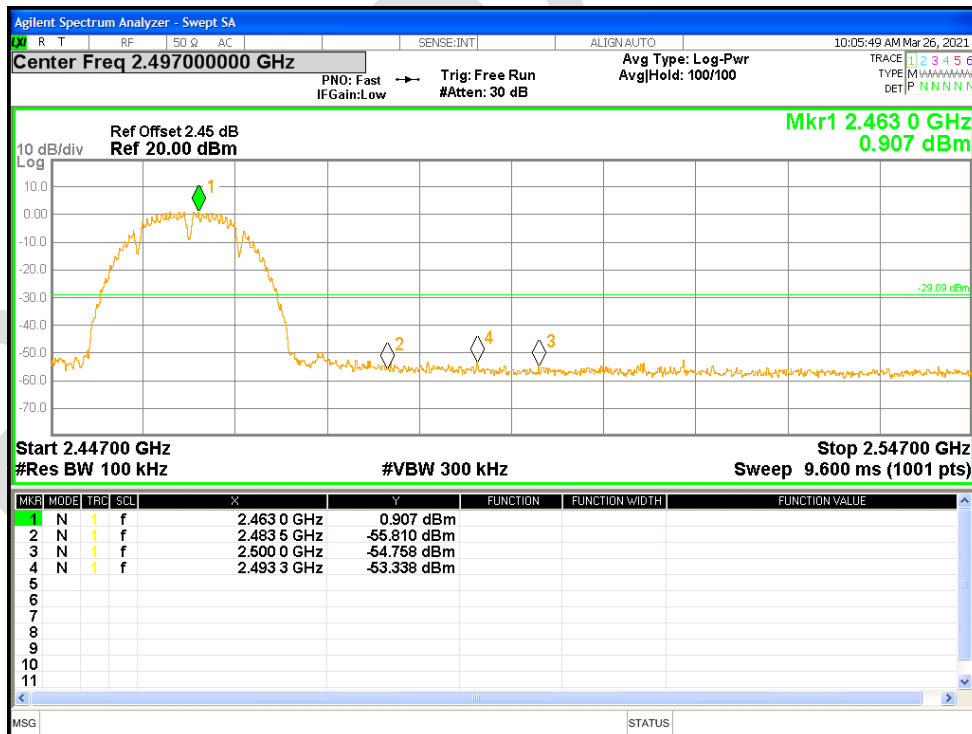
Band Edge NVNT b 2462MHz Ant1 Emission



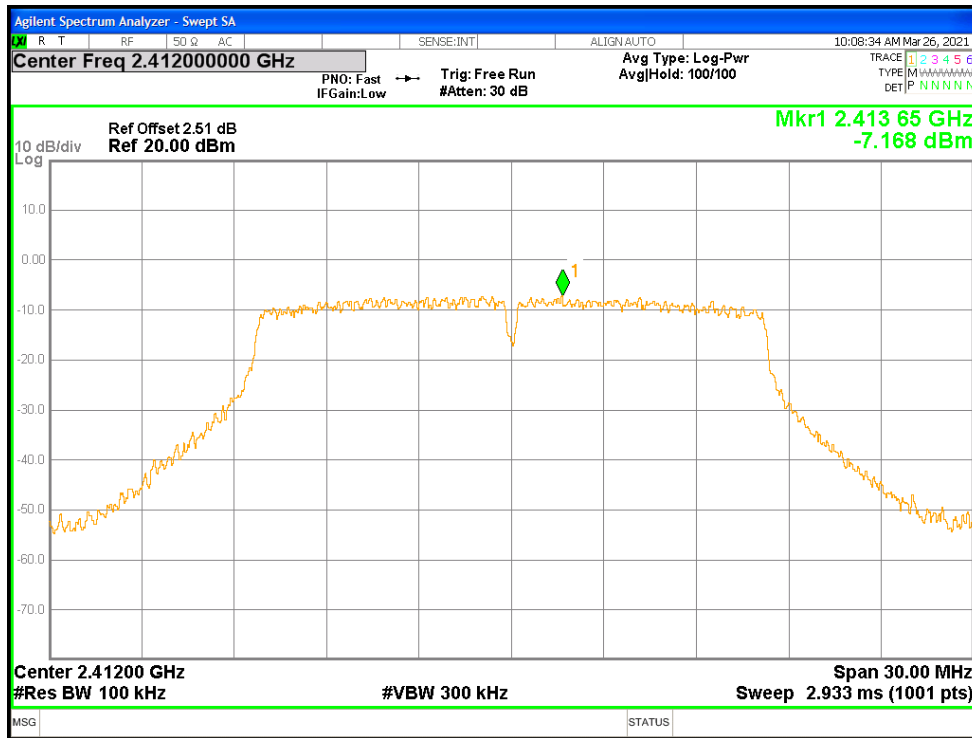
Band Edge NVNT b 2462MHz Ant2 Ref



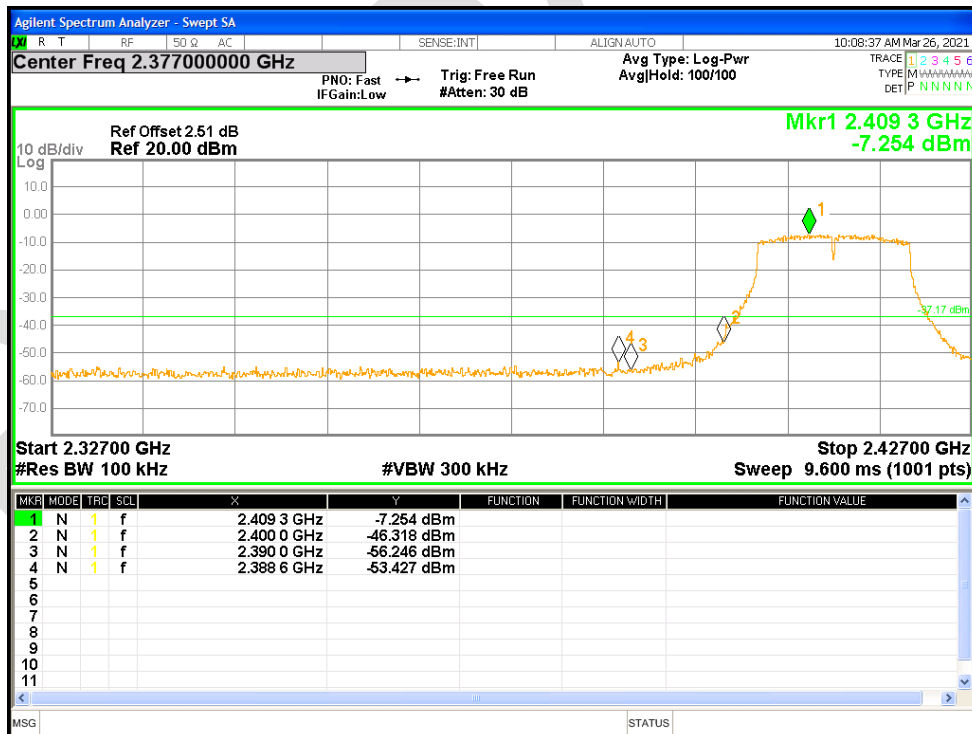
Band Edge NVNT b 2462MHz Ant2 Emission



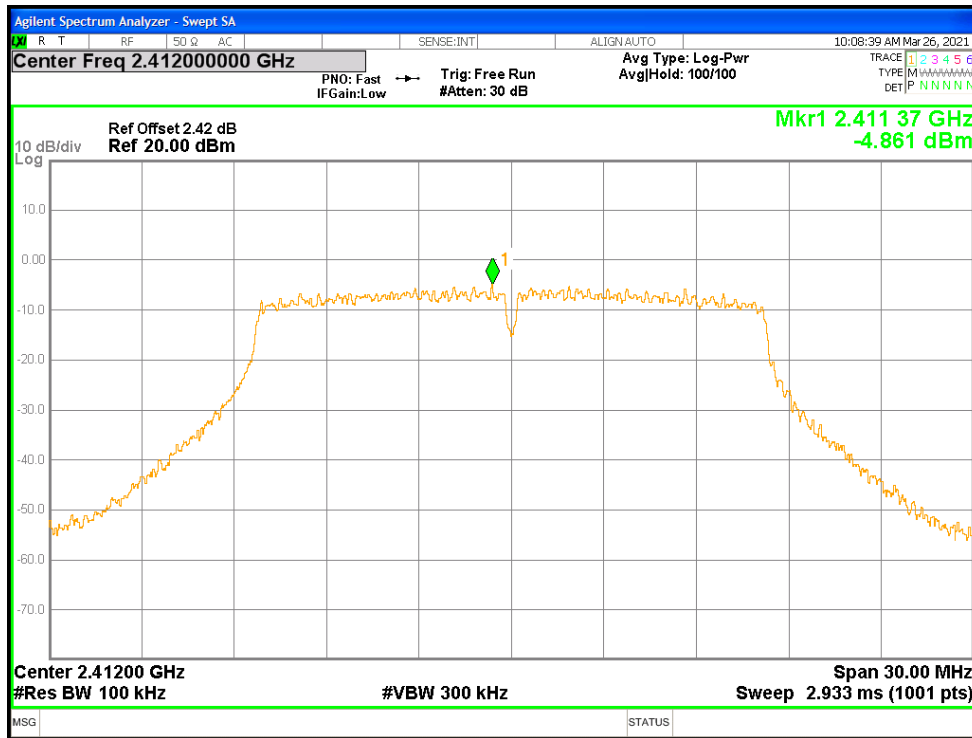
Band Edge NVNT g 2412MHz Ant1 Ref



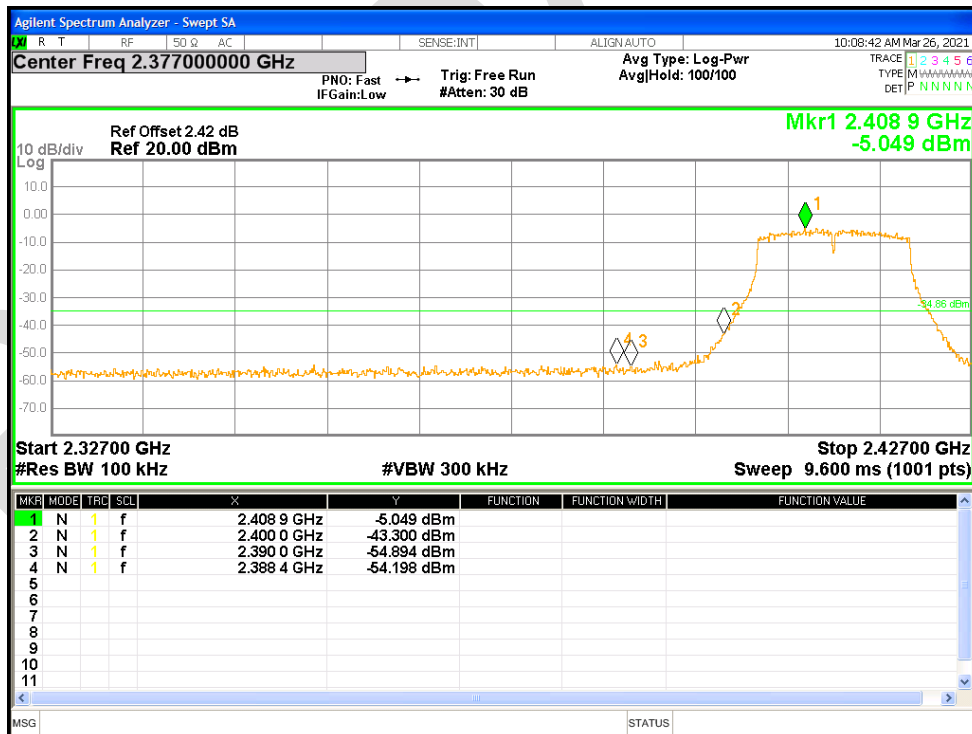
Band Edge NVNT g 2412MHz Ant1 Emission



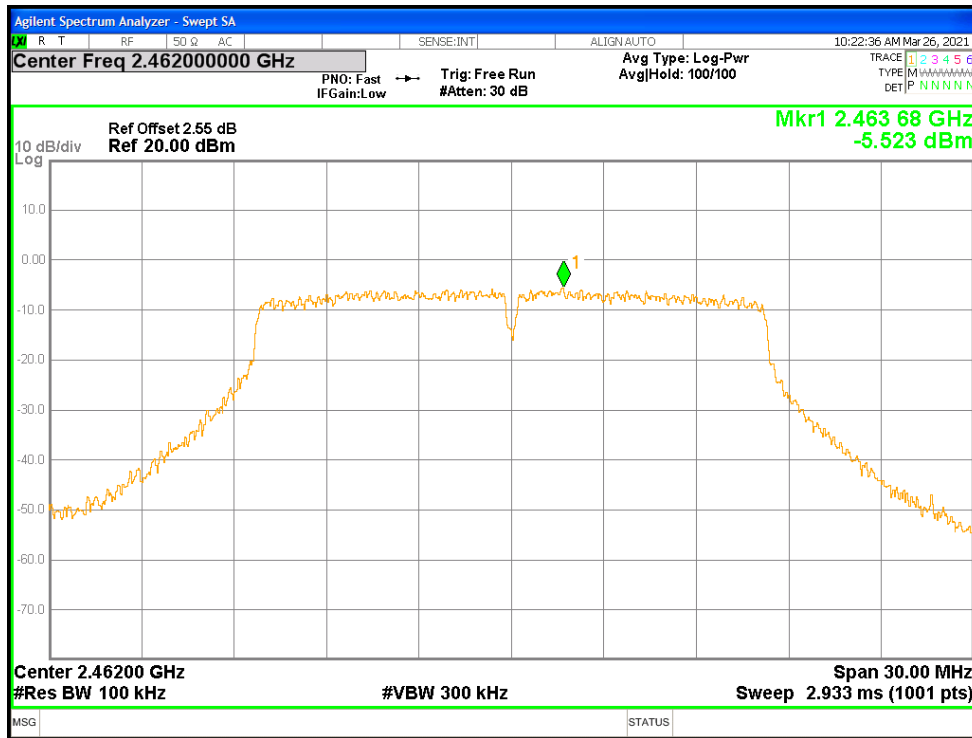
Band Edge NVNT g 2412MHz Ant2 Ref



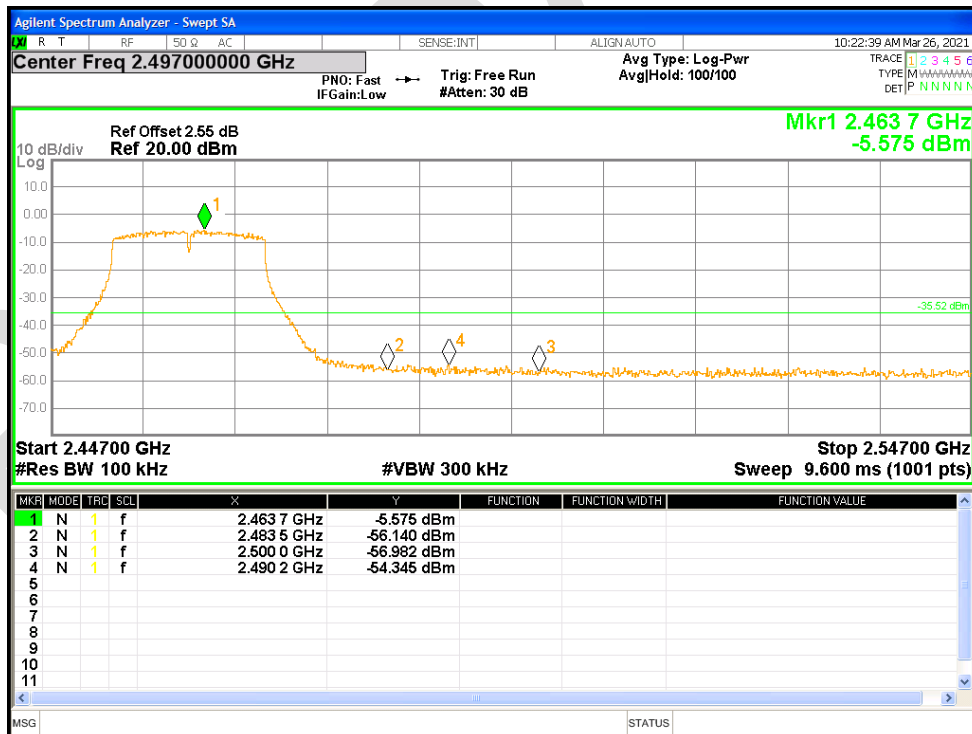
Band Edge NVNT g 2412MHz Ant2 Emission



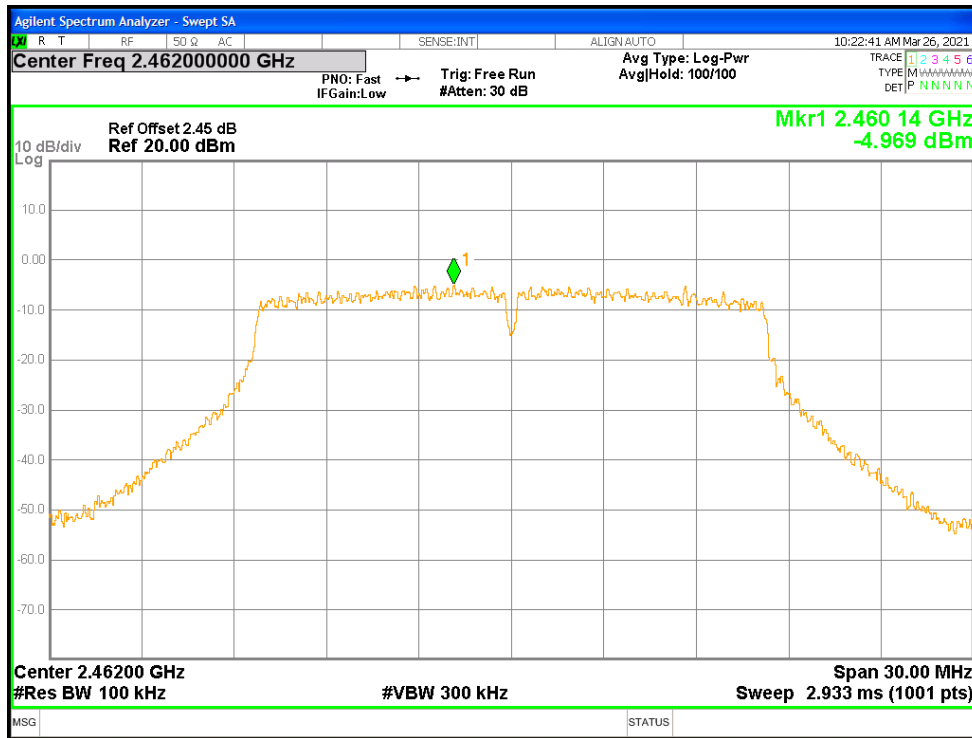
Band Edge NVNT g 2462MHz Ant1 Ref



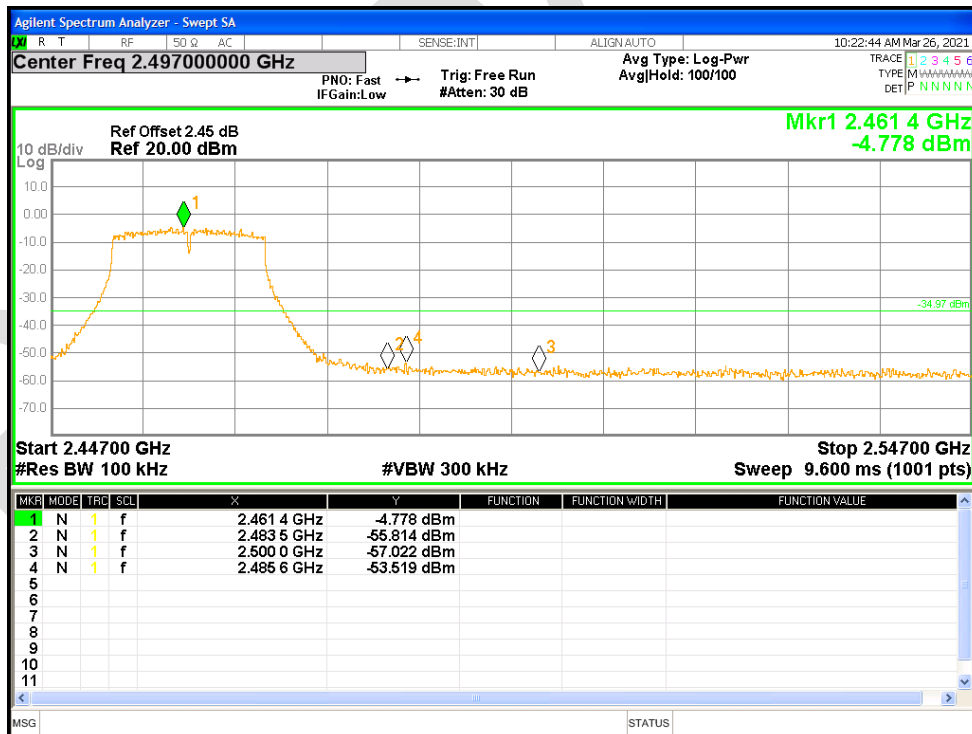
Band Edge NVNT g 2462MHz Ant1 Emission



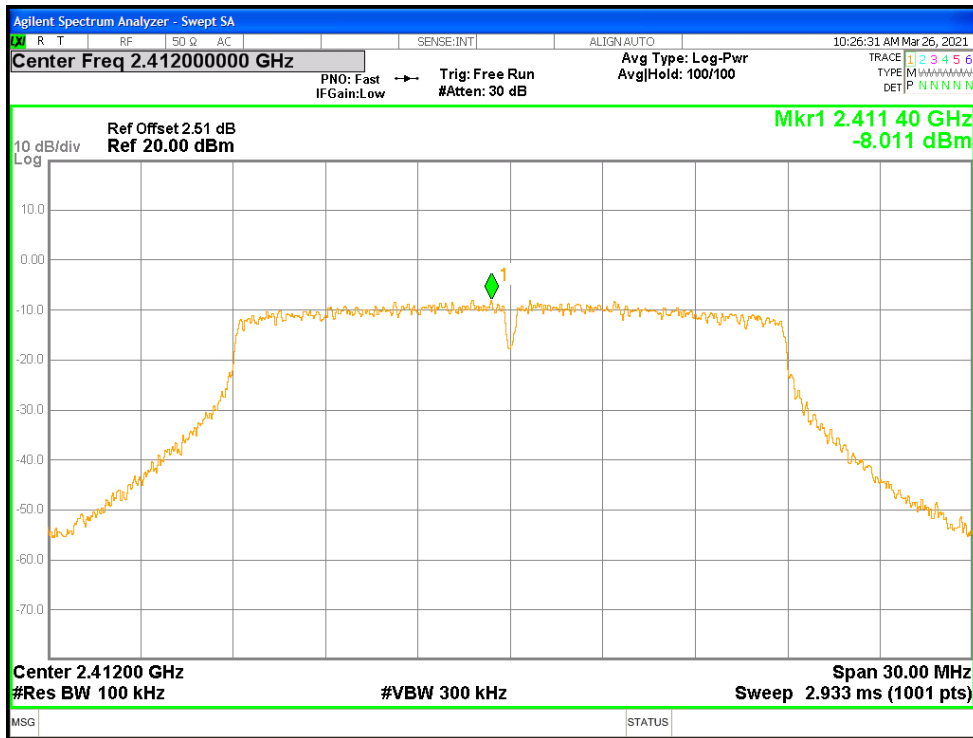
Band Edge NVNT g 2462MHz Ant2 Ref



Band Edge NVNT g 2462MHz Ant2 Emission



Band Edge NVNT n20 2412MHz Ant1 Ref



Band Edge NVNT n20 2412MHz Ant1 Emission

