Appendix B for 5.2GWIFI Test Data

Product Name: PCBA

Test Model: Optimus-C-8000

Environmental Conditions

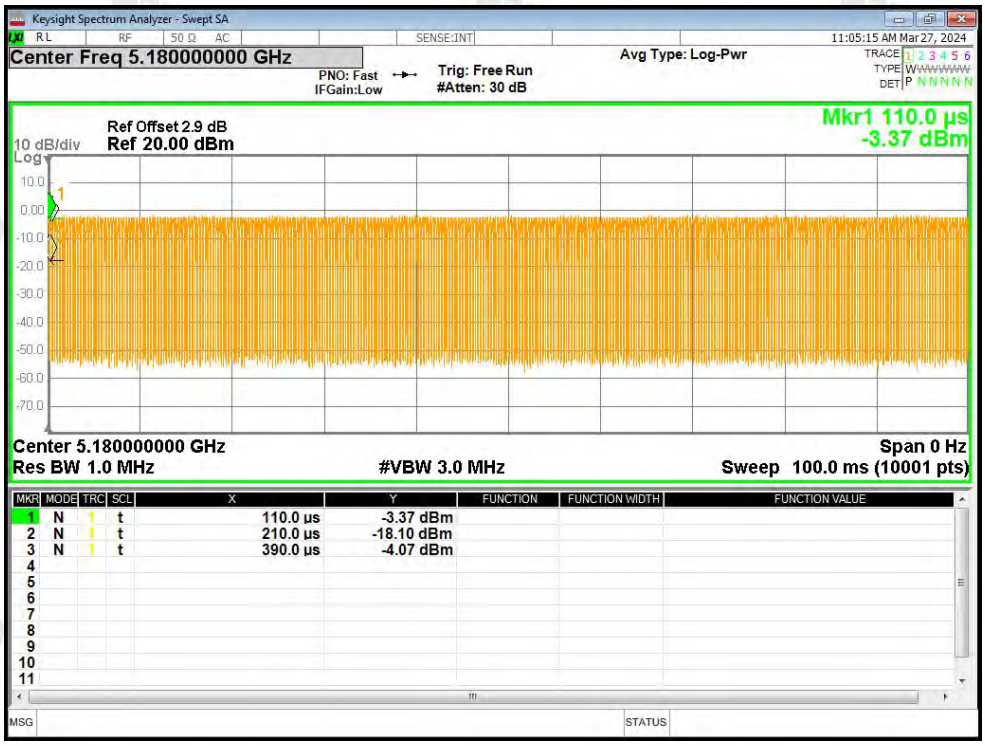
Temperature:	23.8℃
Relative Humidity:	52%
ATM Pressure:	101.0 kPa
Test Engineer:	Leon Li
Supervised by:	Baret Wu

A1. Duty Cycle

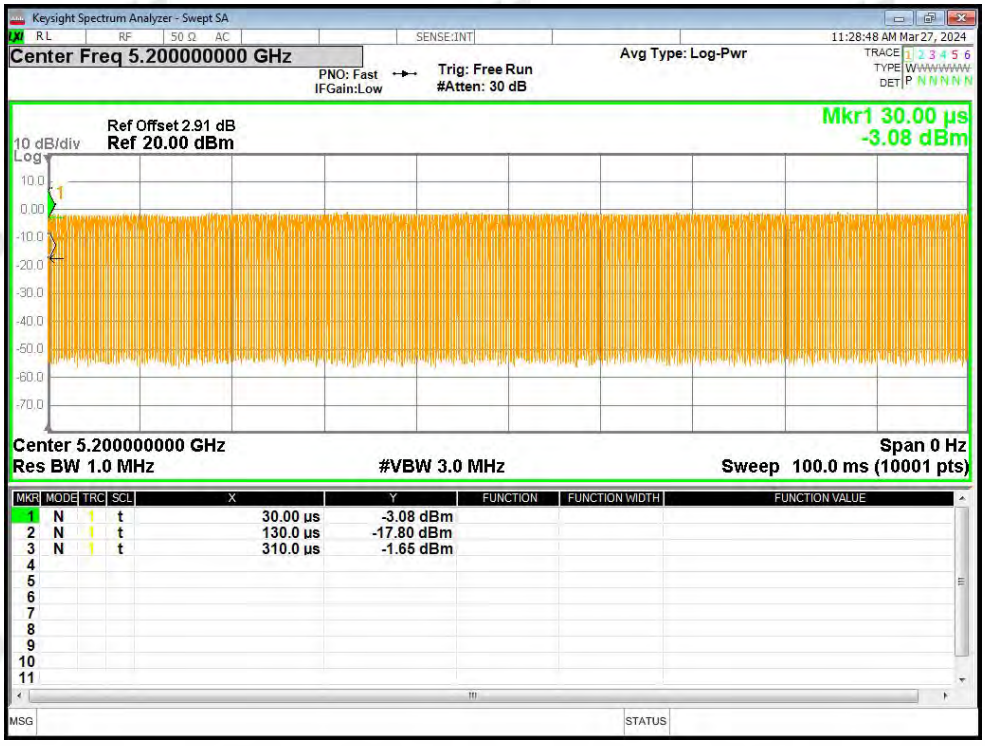
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	64.29	1.92	5.56
NVNT	a	5200	Ant1	64.29	1.92	5.56
NVNT	a	5240	Ant1	62.07	2.07	5.56
NVNT	n20	5180	Ant1	66.67	1.76	4.55
NVNT	n20	5200	Ant1	69.7	1.57	4.35
NVNT	n20	5240	Ant1	69.7	1.57	4.35
NVNT	n40	5190	Ant1	52.17	2.83	8.33
NVNT	n40	5230	Ant1	52.17	2.83	8.33
NVNT	ac20	5180	Ant1	61.54	2.11	6.25
NVNT	ac20	5200	Ant1	61.54	2.11	6.25
NVNT	ac20	5240	Ant1	60	2.22	6.67
NVNT	ac40	5190	Ant1	77.78	1.09	14.29
NVNT	ac40	5230	Ant1	0	0	鋩?
NVNT	ac80	5210	Ant1	25	6.02	25

Test Graphs

Duty Cycle NVNT a 5180MHz Ant1

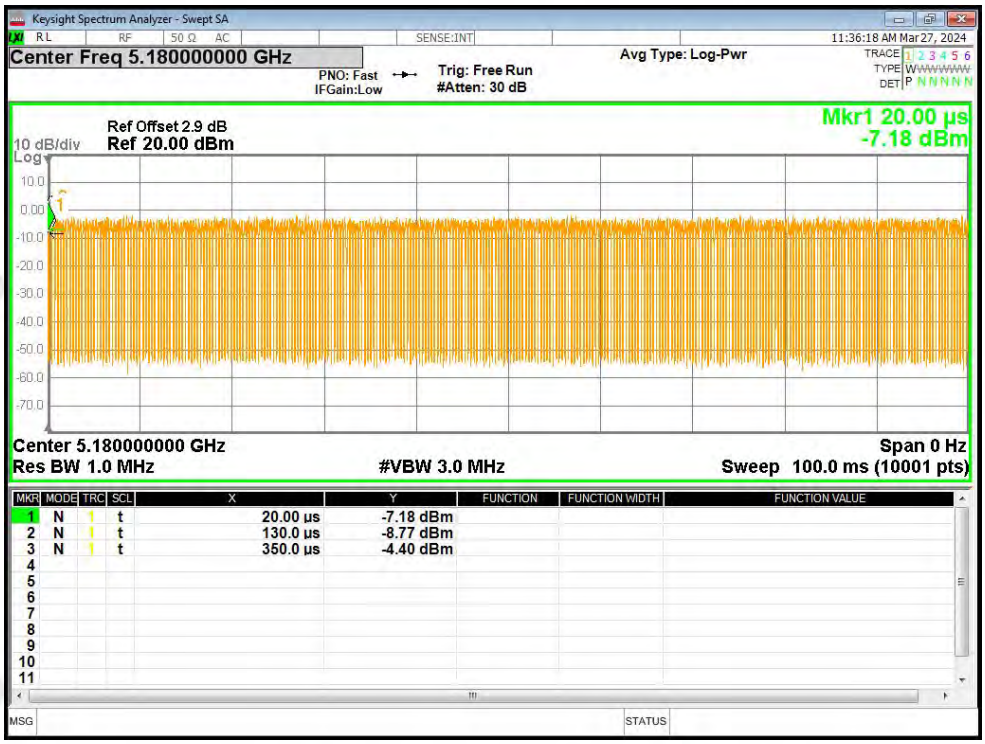


Duty Cycle NVNT a 5200MHz Ant1

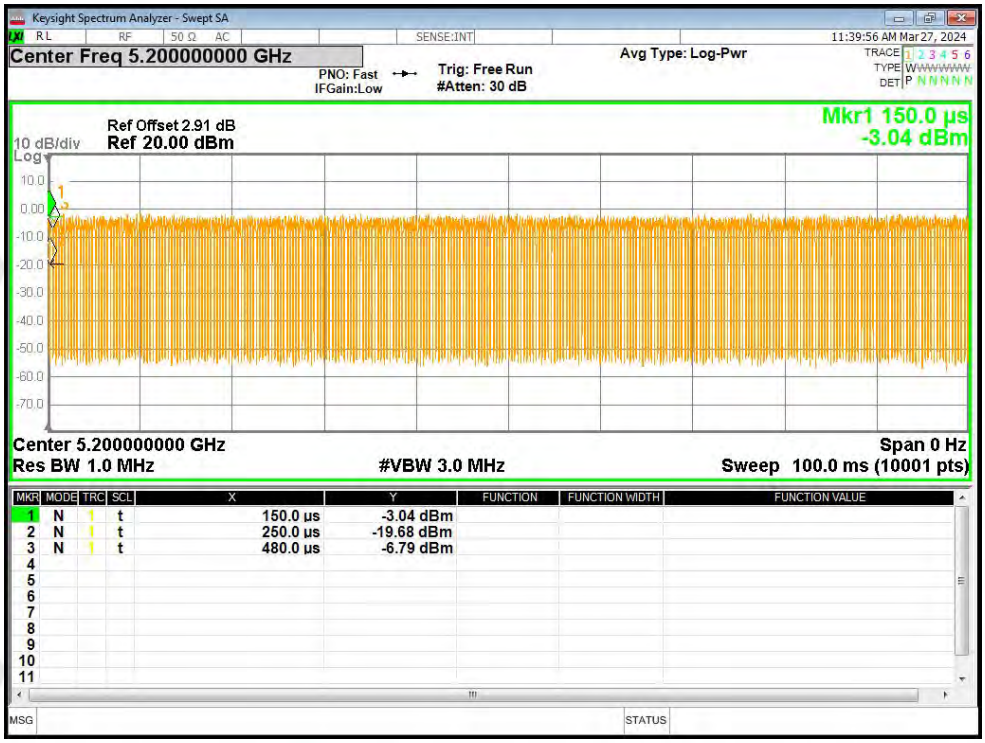


Duty Cycle NVNT a 5240MHz Ant1

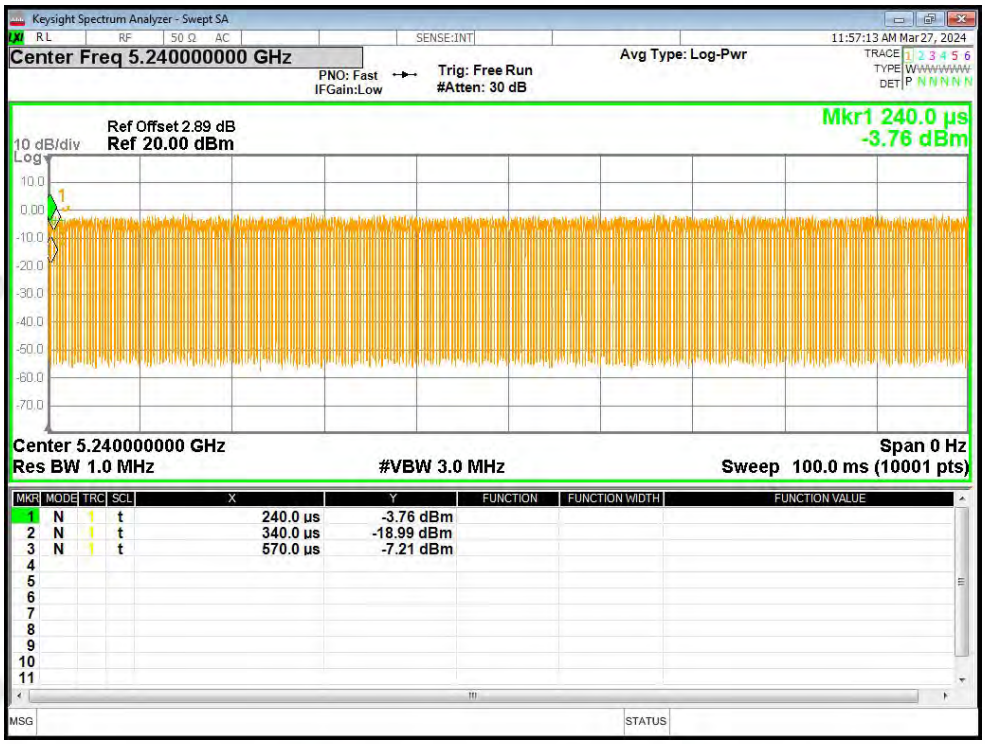
Duty Cycle NVNT n20 5180MHz Ant1



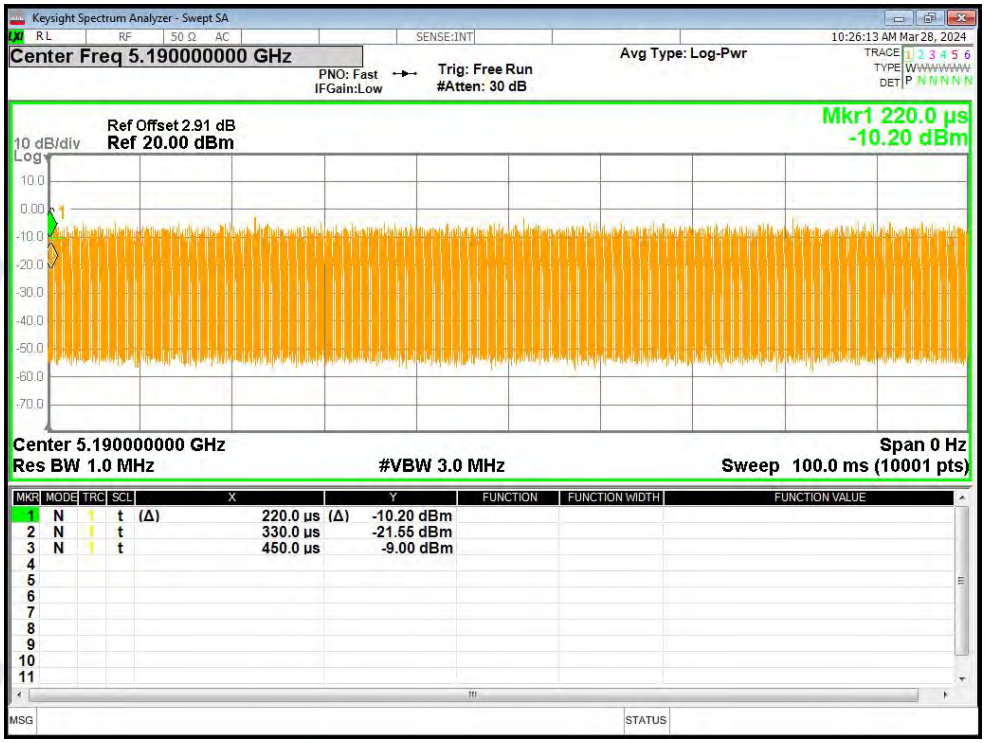
Duty Cycle NVNT n20 5200MHz Ant1



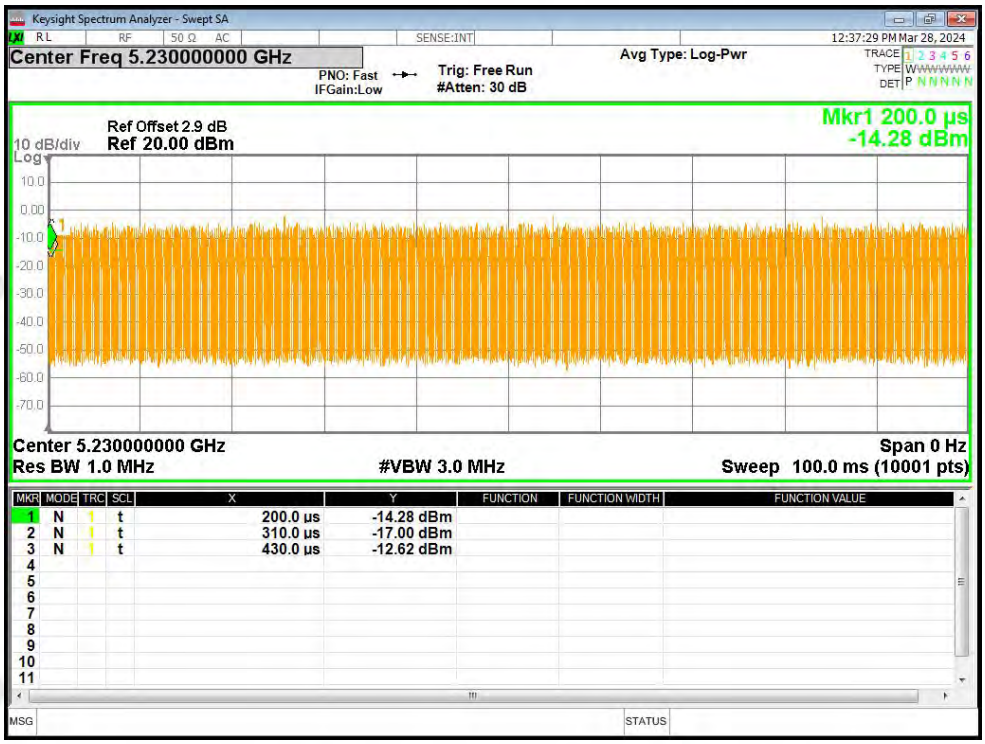
Duty Cycle NVNT n20 5240MHz Ant1



Duty Cycle NVNT n40 5190MHz Ant1



Duty Cycle NVNT n40 5230MHz Ant1

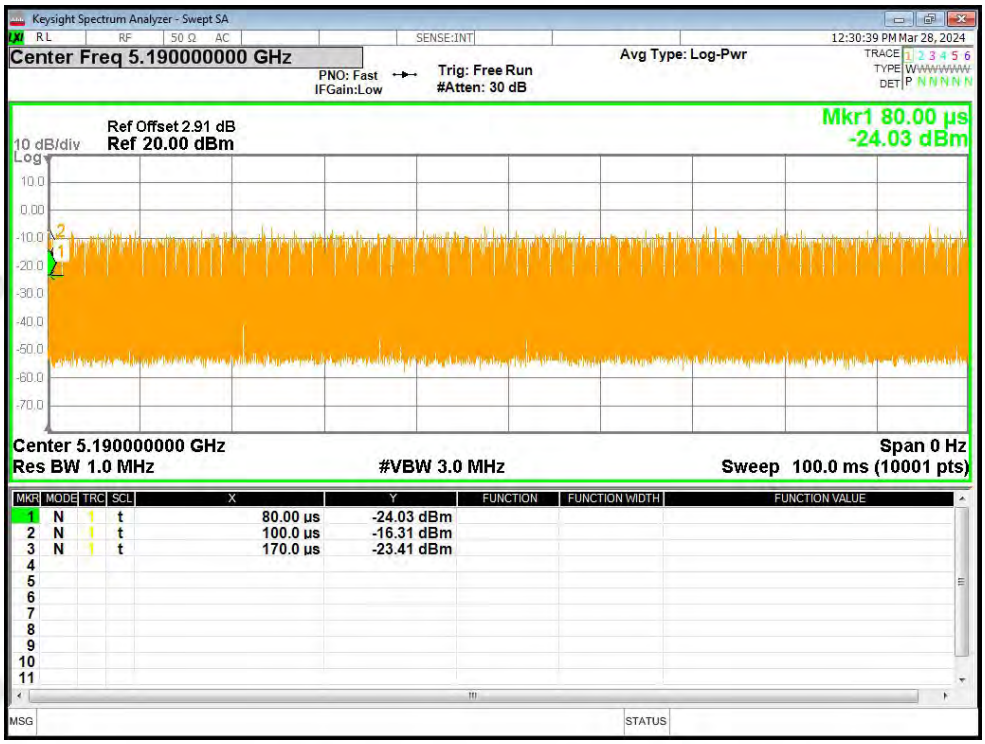


Duty Cycle NVNT ac20 5180MHz Ant1

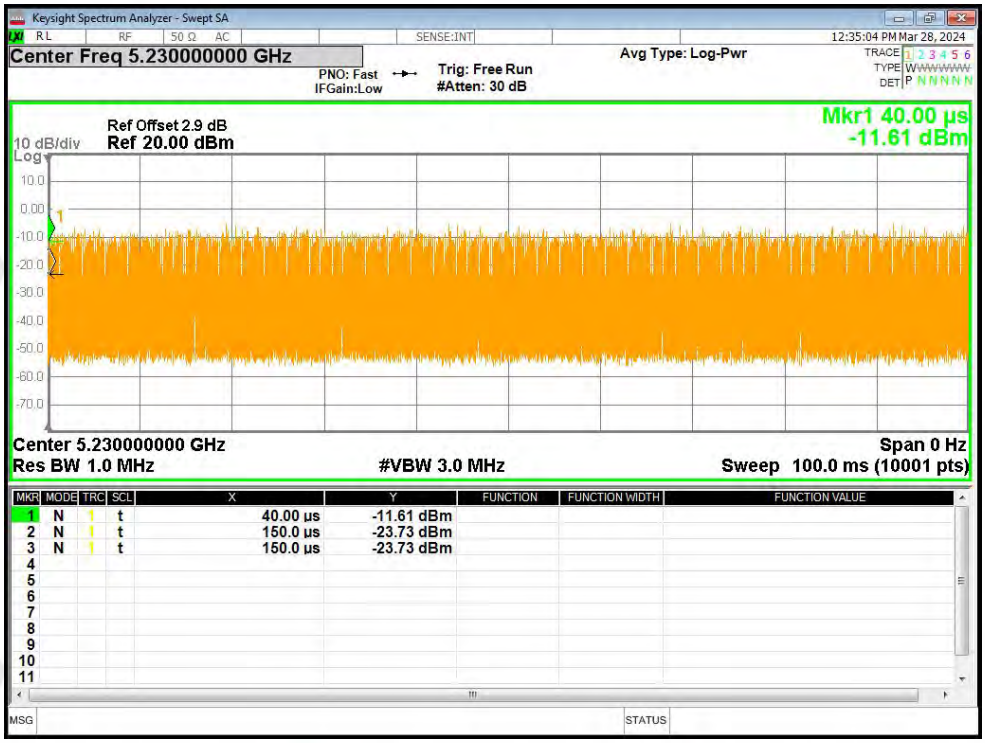
Duty Cycle NVNT ac20 5200MHz Ant1

Duty Cycle NVNT ac20 5240MHz Ant1

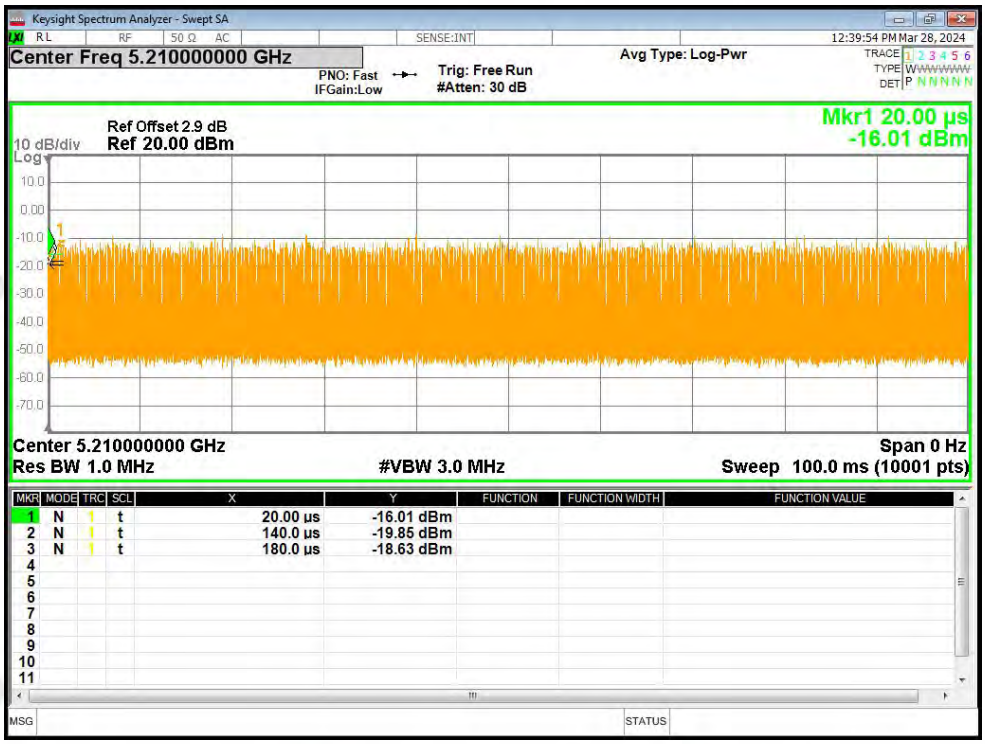
Duty Cycle NVNT ac40 5190MHz Ant1



Duty Cycle NVNT ac40 5230MHz Ant1



Duty Cycle NVNT ac80 5210MHz Ant1

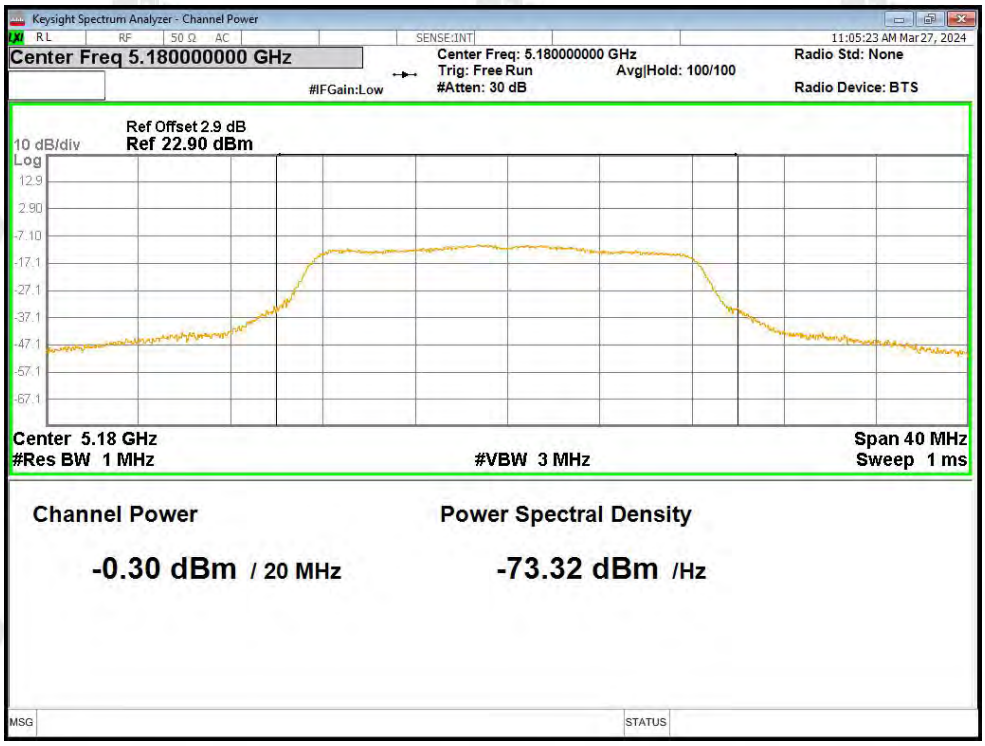


A2. Maximum Conducted Output Power

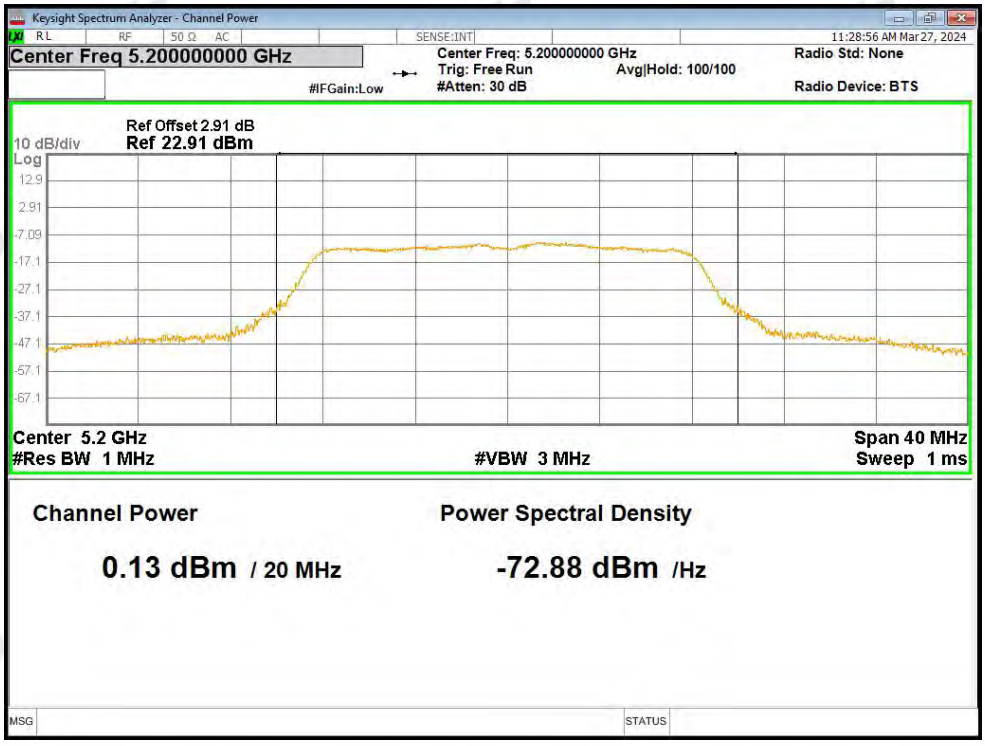
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	-0.3	1.92	1.62	24	Pass
NVNT	a	5200	Ant1	0.13	1.92	2.05	24	Pass
NVNT	a	5240	Ant1	-0.09	2.07	1.98	24	Pass
NVNT	n20	5180	Ant1	-1.08	1.76	0.68	24	Pass
NVNT	n20	5200	Ant1	-0.78	1.57	0.79	24	Pass
NVNT	n20	5240	Ant1	-0.65	1.57	0.92	24	Pass
NVNT	n40	5190	Ant1	0.37	2.83	3.2	24	Pass
NVNT	n40	5230	Ant1	1.02	2.83	3.85	24	Pass
NVNT	ac20	5180	Ant1	-2.57	2.11	-0.46	24	Pass
NVNT	ac20	5200	Ant1	-2.12	2.11	-0.01	24	Pass
NVNT	ac20	5240	Ant1	-2.26	2.22	-0.04	24	Pass
NVNT	ac40	5190	Ant1	-2.72	1.09	-1.63	24	Pass
NVNT	ac40	5230	Ant1	-2.25	0	-2.25	24	Pass
NVNT	ac80	5210	Ant1	-3.67	6.02	2.35	24	Pass

Test Graphs

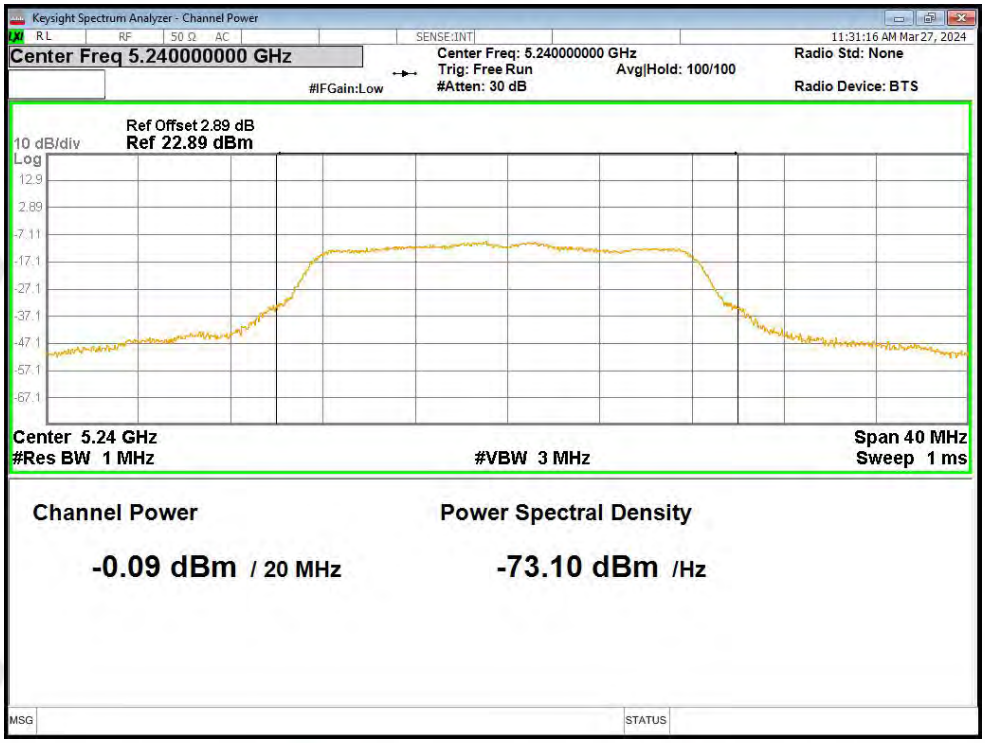
Power NVNT a 5180MHz Ant1



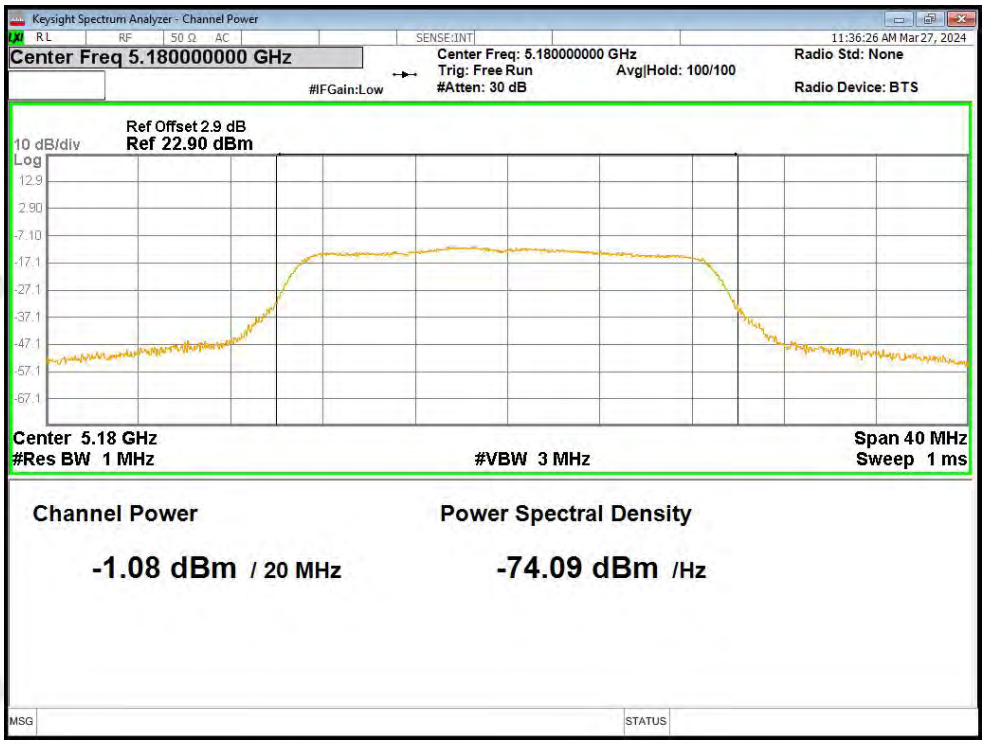
Power NVNT a 5200MHz Ant1



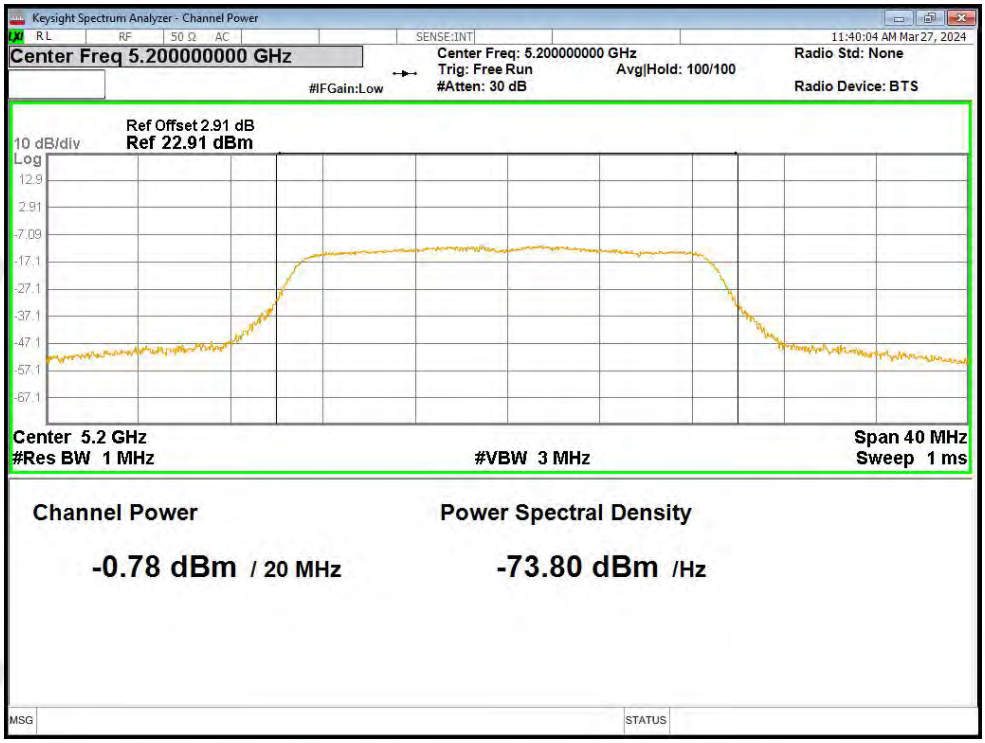
Power NVNT a 5240MHz Ant1



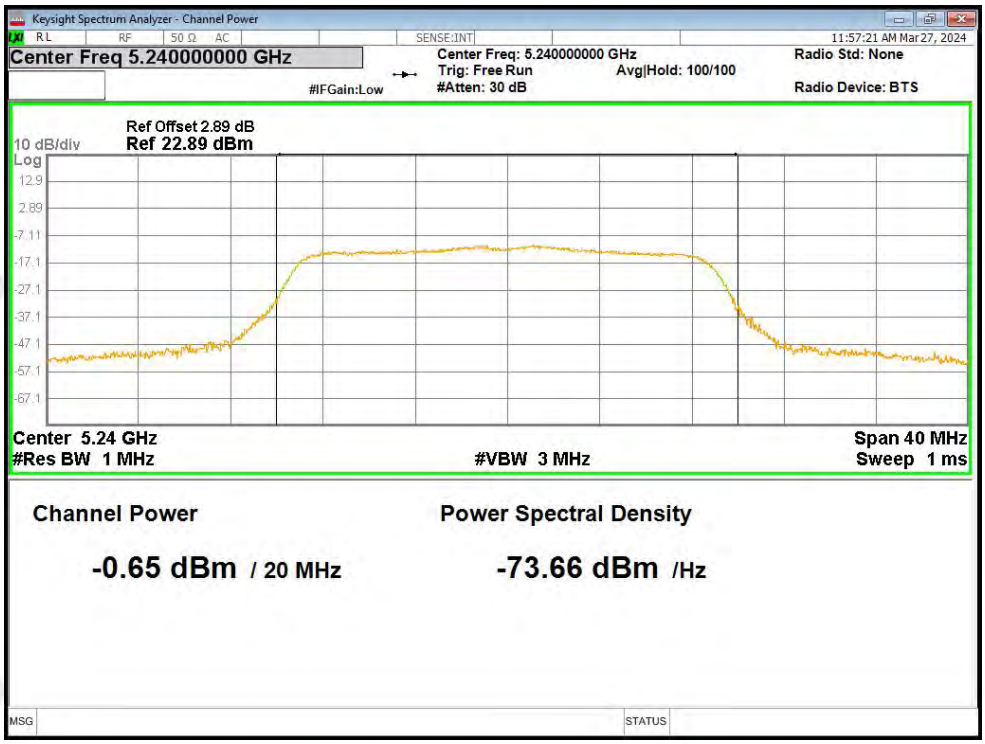
Power NVNT n20 5180MHz Ant1



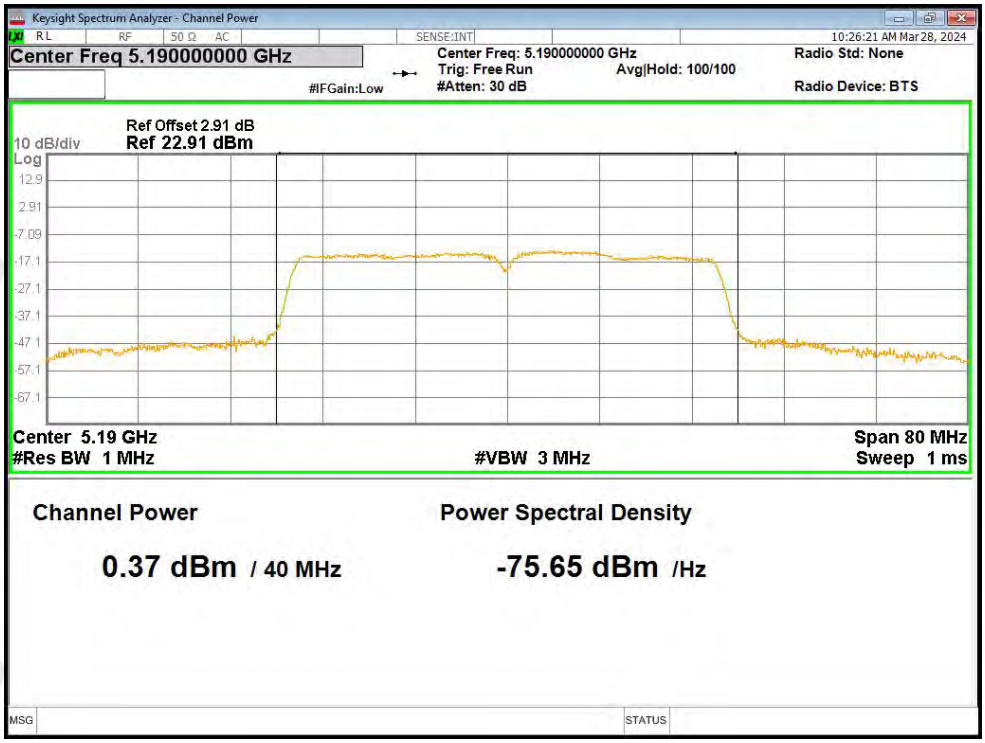
Power NVNT n20 5200MHz Ant1



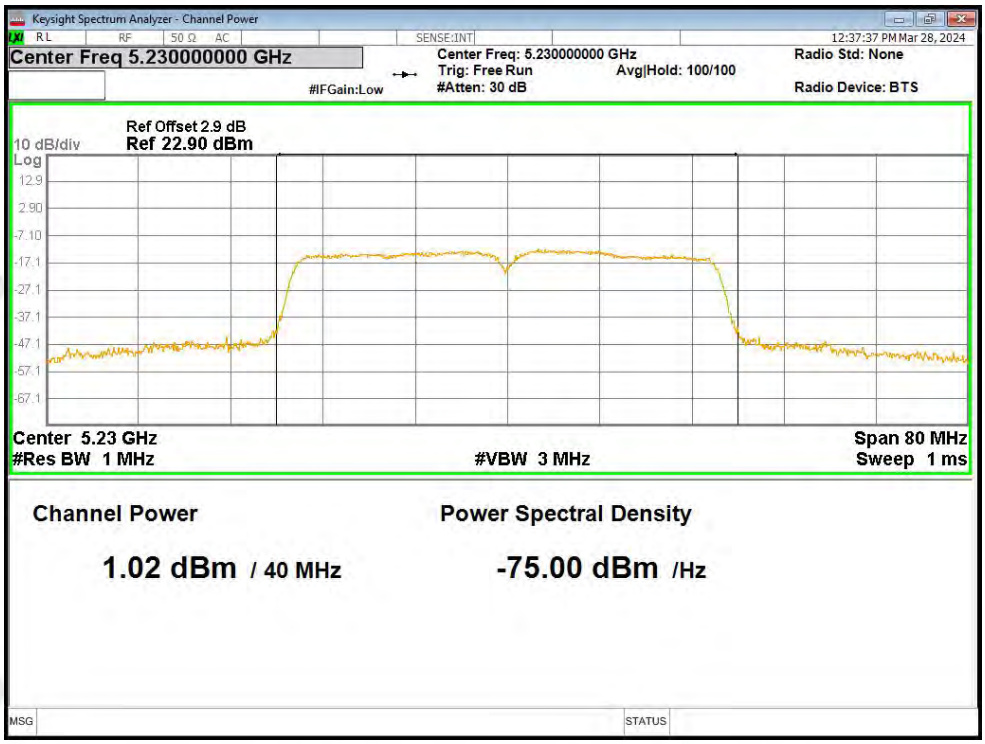
Power NVNT n20 5240MHz Ant1



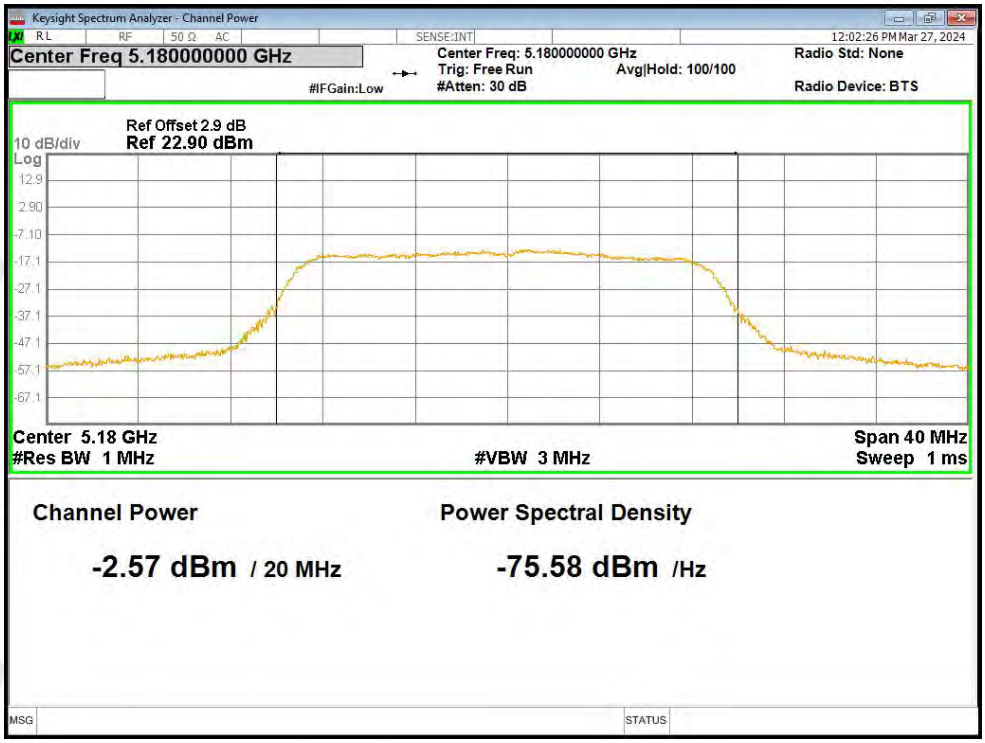
Power NVNT n40 5190MHz Ant1



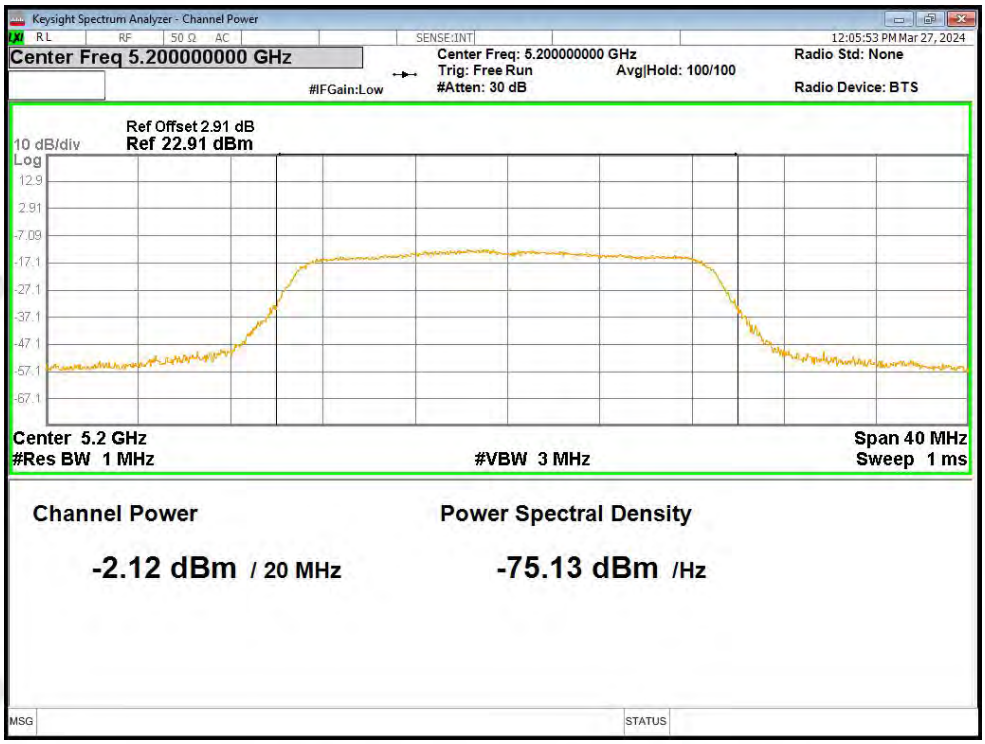
Power NVNT n40 5230MHz Ant1



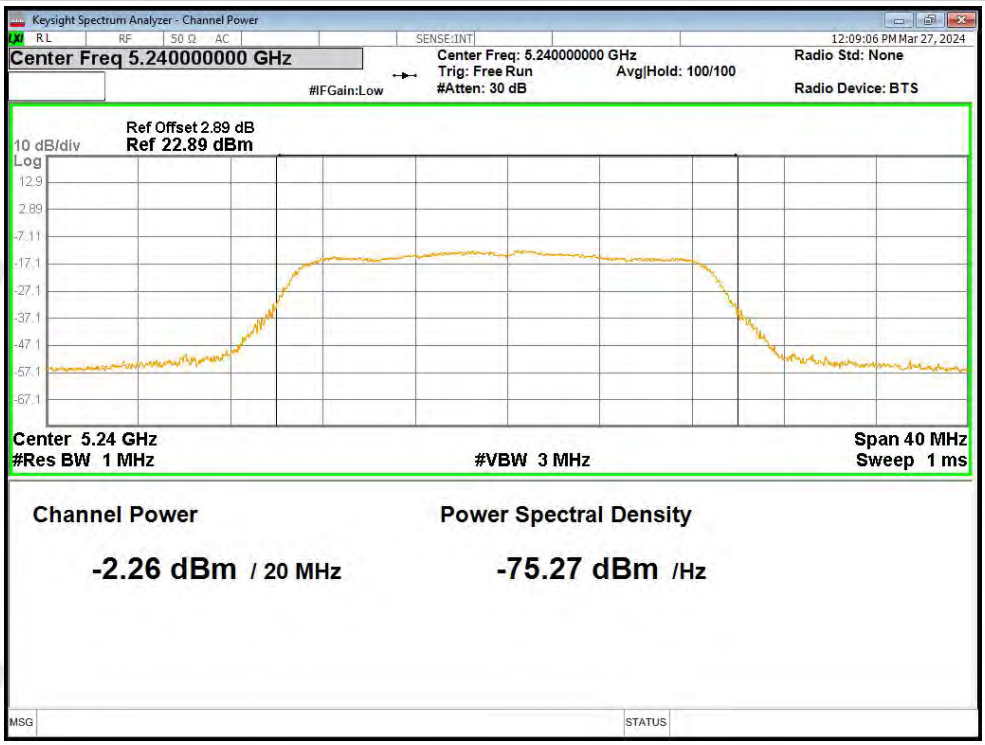
Power NVNT ac20 5180MHz Ant1



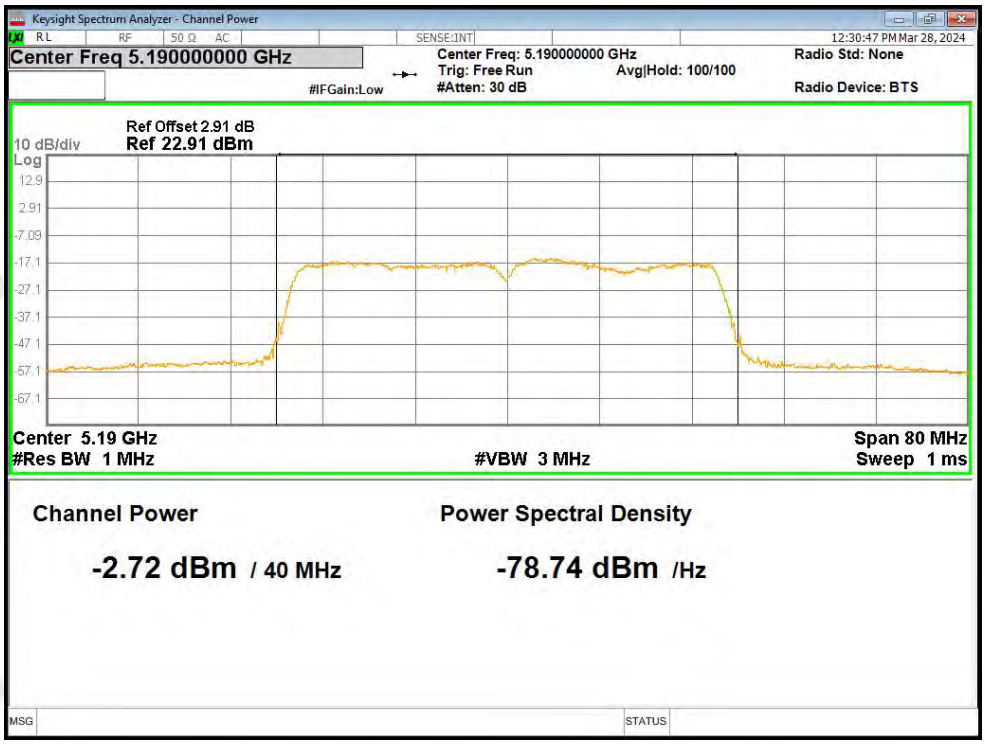
Power NVNT ac20 5200MHz Ant1



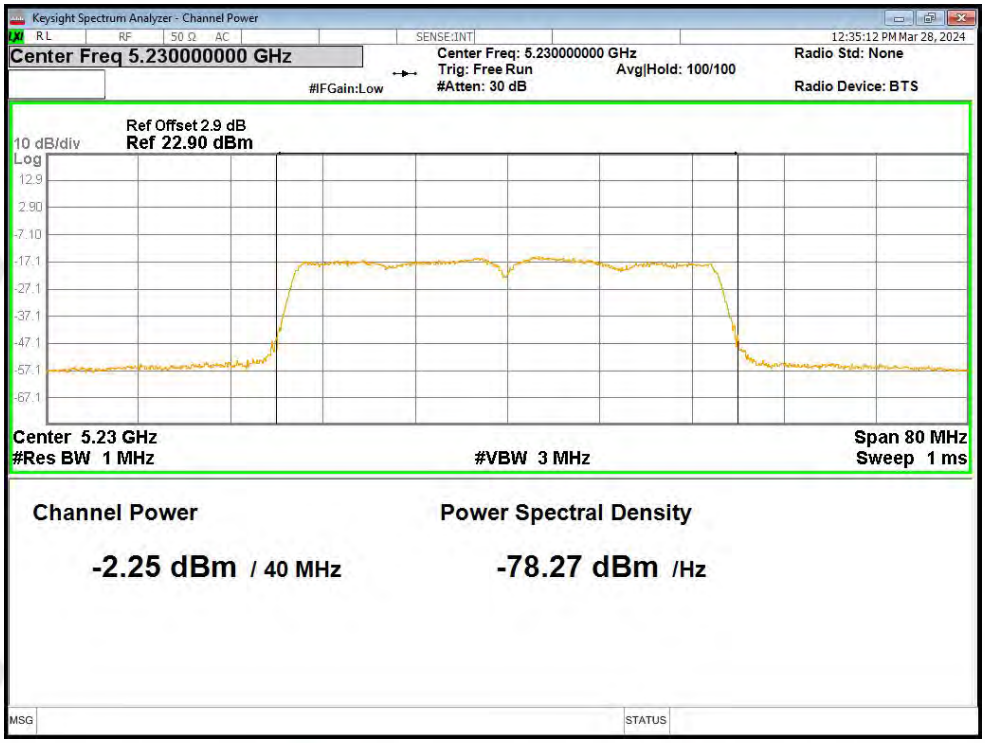
Power NVNT ac20 5240MHz Ant1



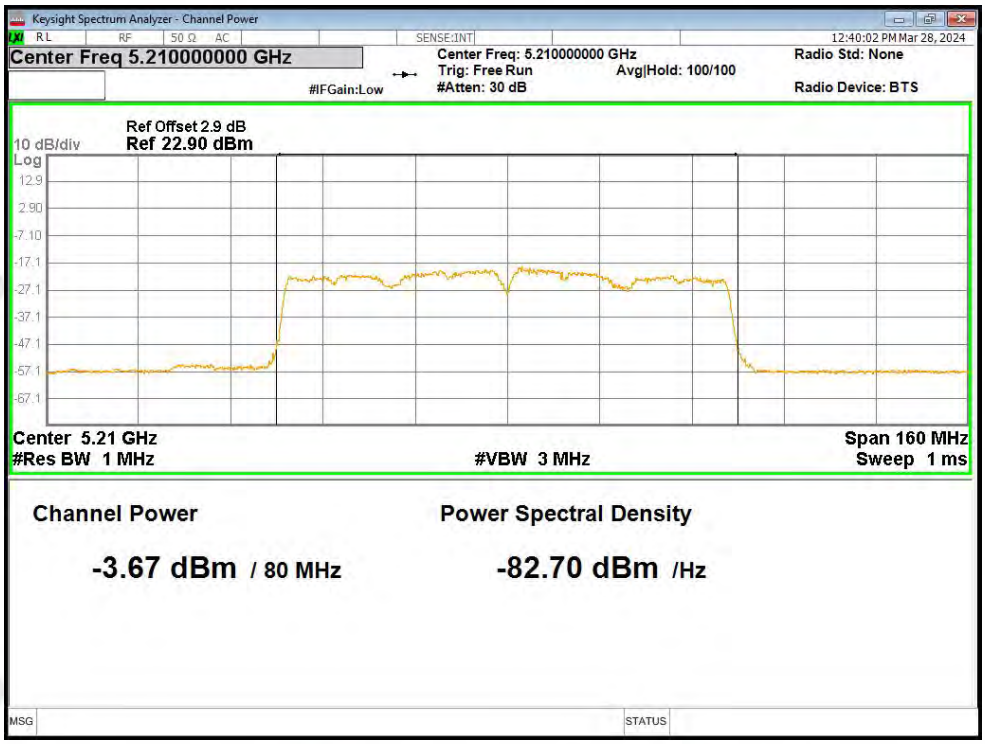
Power NVNT ac40 5190MHz Ant1



Power NVNT ac40 5230MHz Ant1



Power NVNT ac80 5210MHz Ant1

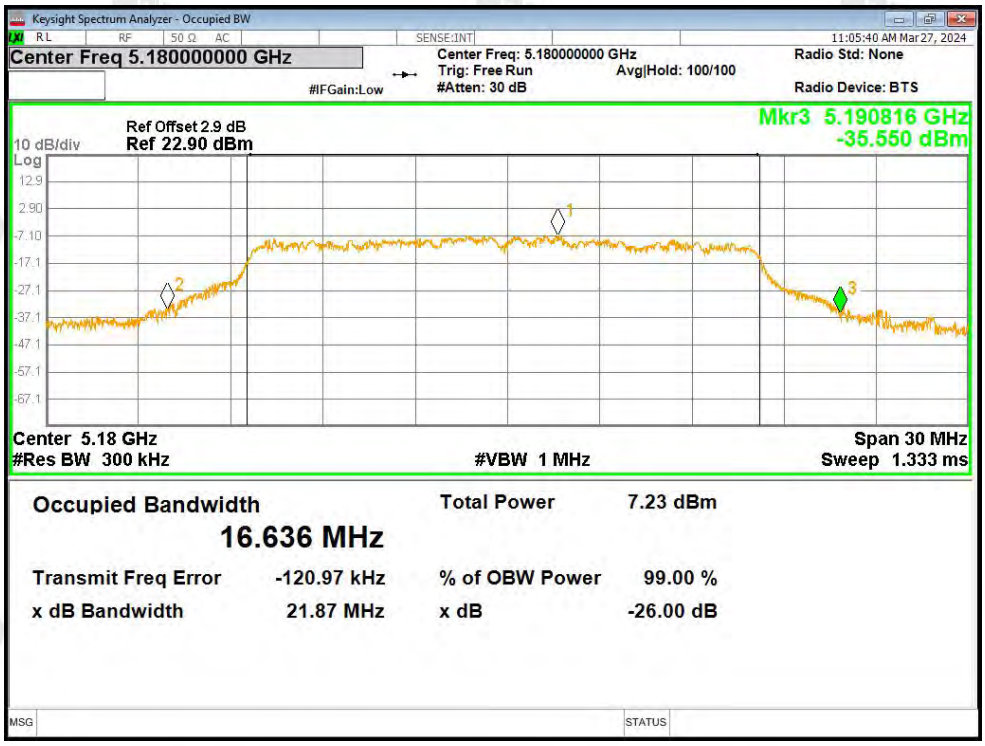


A3. -26dB Bandwidth

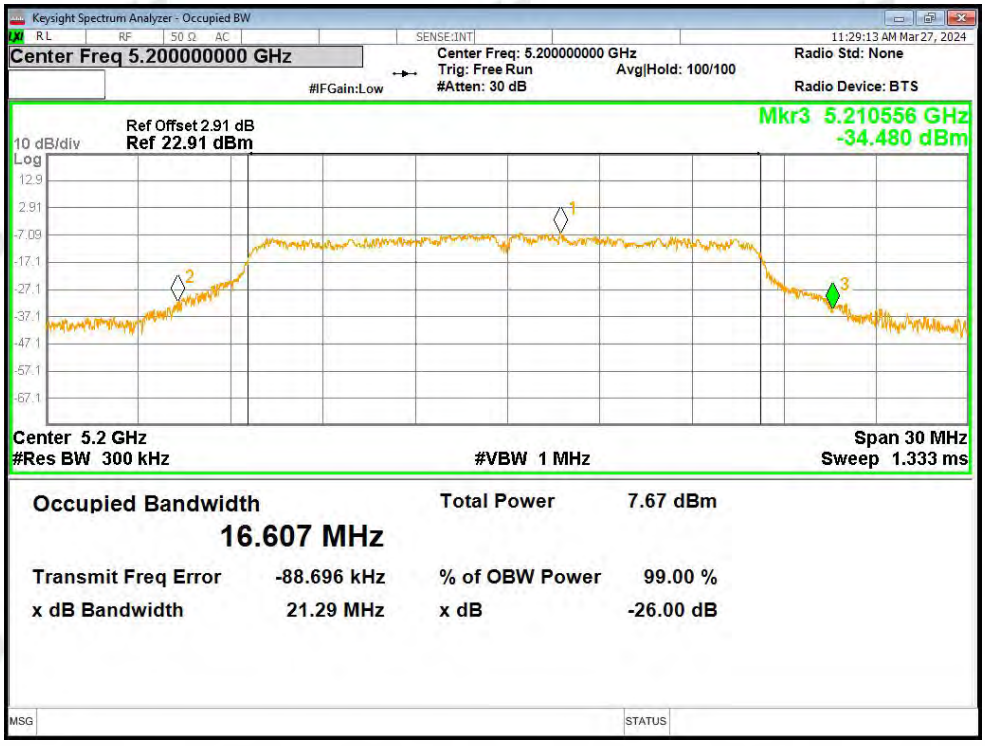
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	21.874	Pass
NVNT	a	5200	Ant1	21.29	Pass
NVNT	a	5240	Ant1	21.332	Pass
NVNT	n20	5180	Ant1	21.294	Pass
NVNT	n20	5200	Ant1	21.074	Pass
NVNT	n20	5240	Ant1	21.235	Pass
NVNT	n40	5190	Ant1	43.51	Pass
NVNT	n40	5230	Ant1	39.186	Pass
NVNT	ac20	5180	Ant1	21.051	Pass
NVNT	ac20	5200	Ant1	21.301	Pass
NVNT	ac20	5240	Ant1	21.322	Pass
NVNT	ac40	5190	Ant1	39.576	Pass
NVNT	ac40	5230	Ant1	39.719	Pass
NVNT	ac80	5210	Ant1	78.994	Pass

Test Graphs

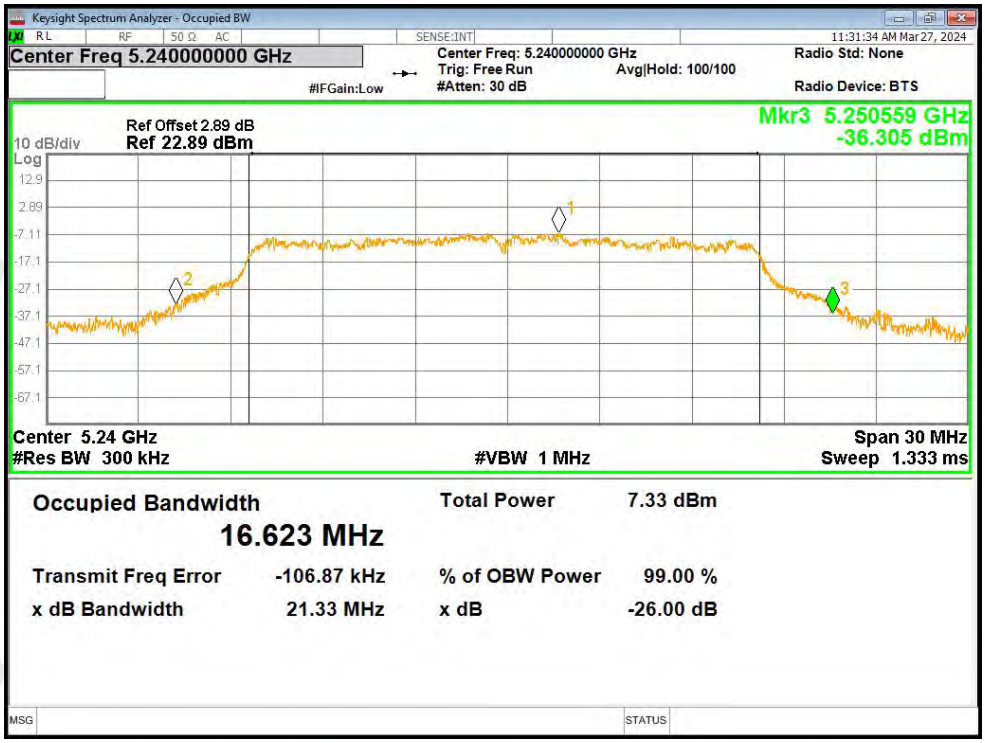
-26dB Bandwidth NVNT a 5180MHz Ant1



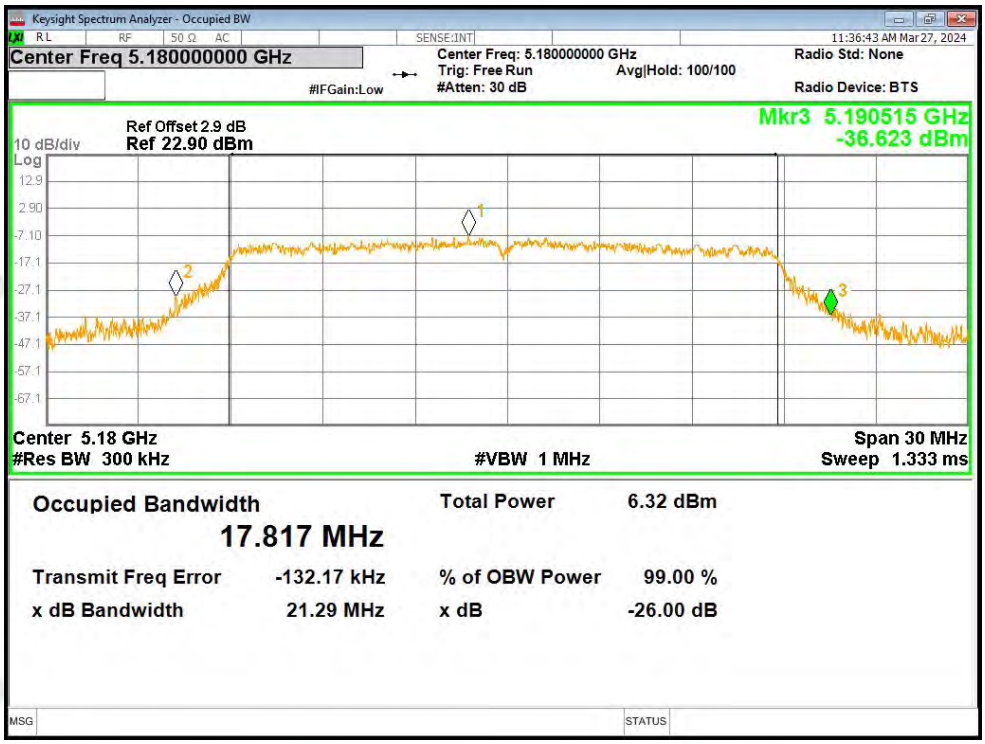
-26dB Bandwidth NVNT a 5200MHz Ant1



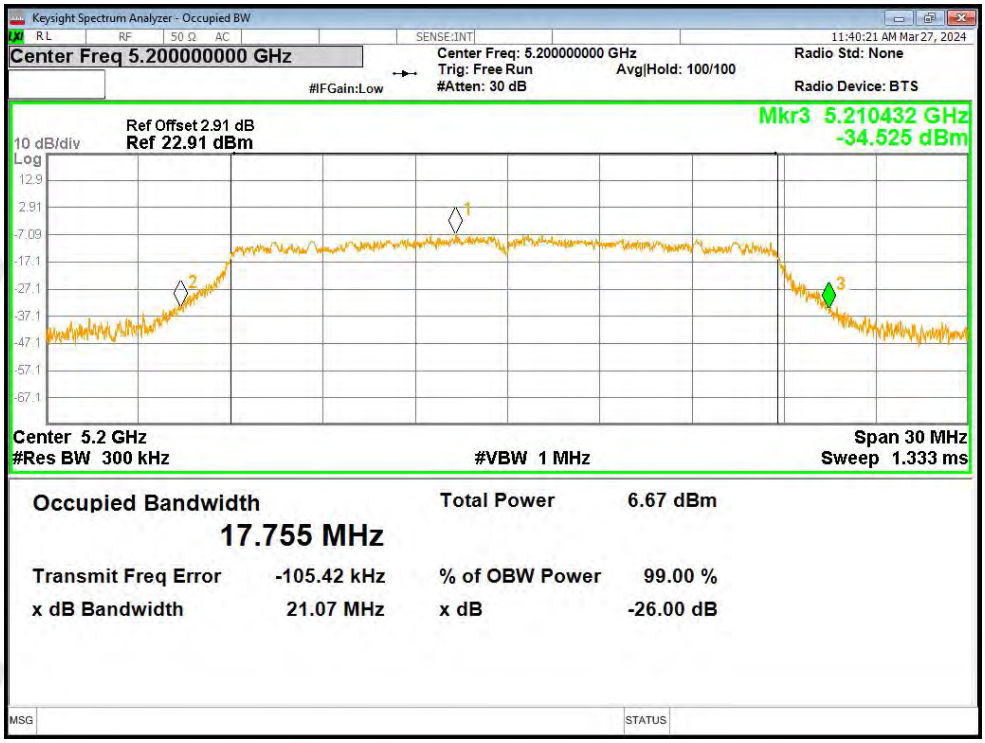
-26dB Bandwidth NVNT a 5240MHz Ant1



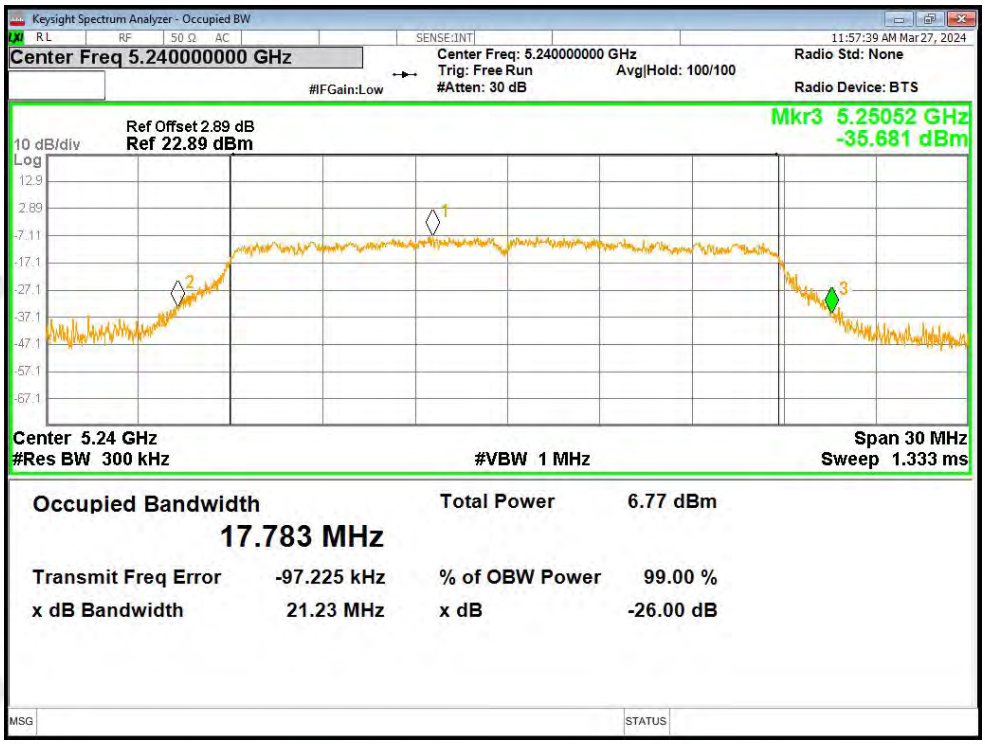
-26dB Bandwidth NVNT n20 5180MHz Ant1



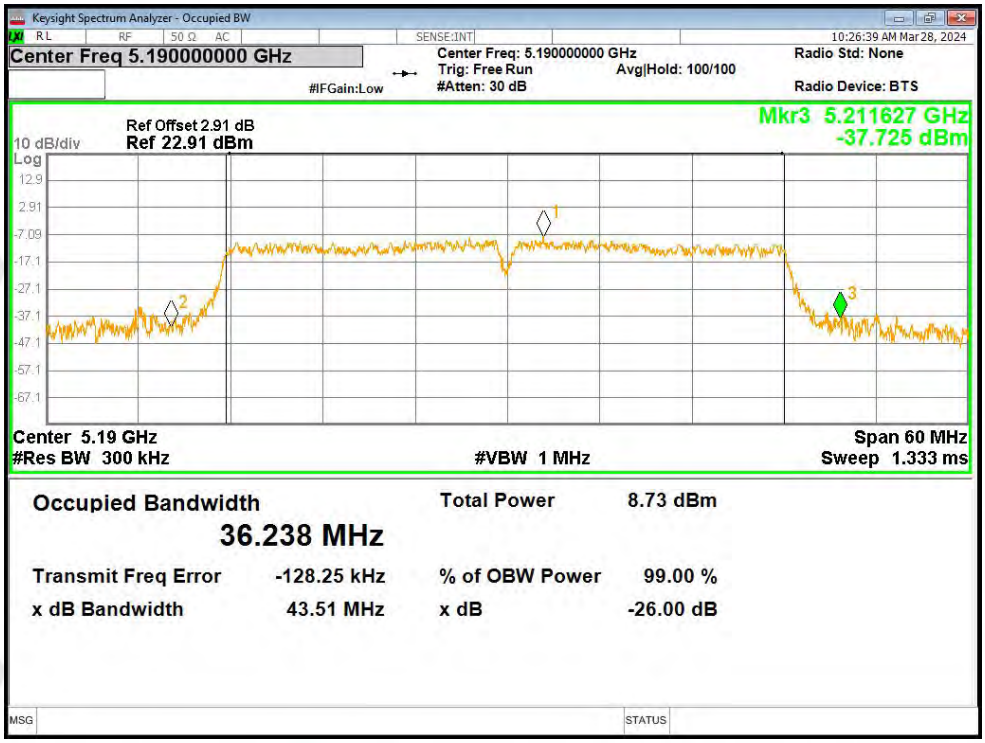
-26dB Bandwidth NVNT n20 5200MHz Ant1



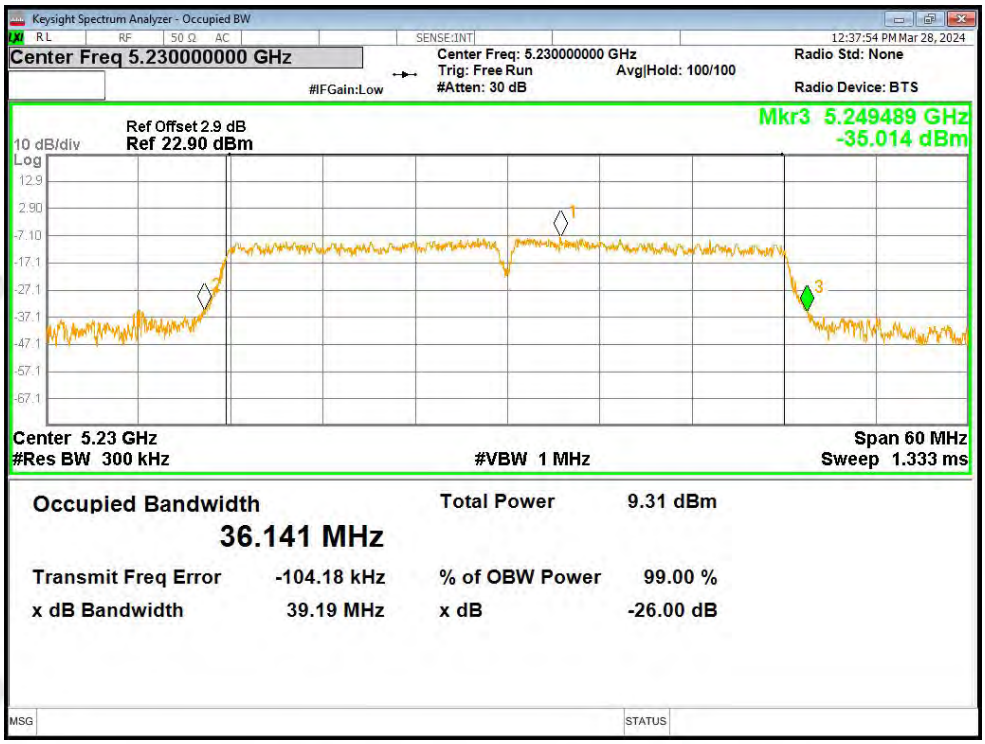
-26dB Bandwidth NVNT n20 5240MHz Ant1



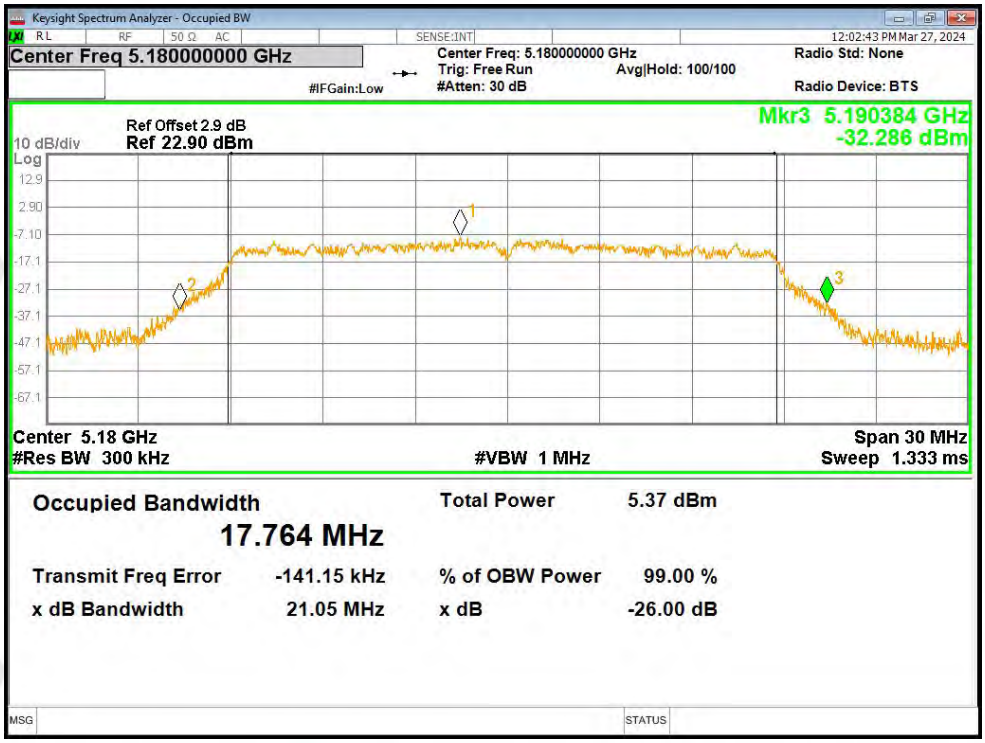
-26dB Bandwidth NVNT n40 5190MHz Ant1



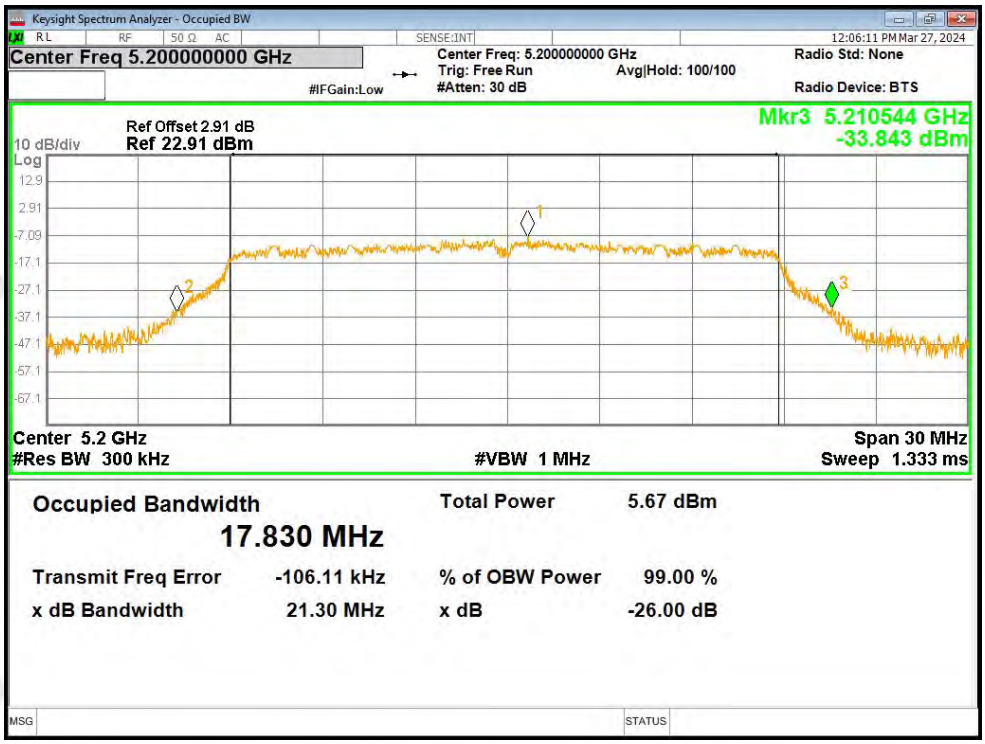
-26dB Bandwidth NVNT n40 5230MHz Ant1



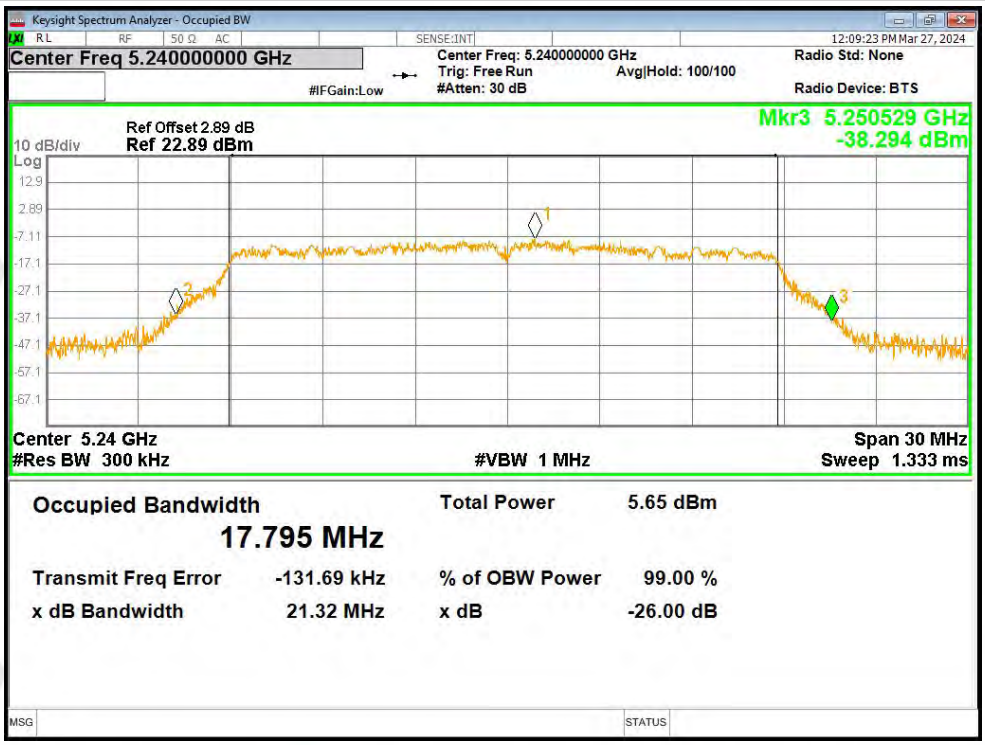
-26dB Bandwidth NVNT ac20 5180MHz Ant1



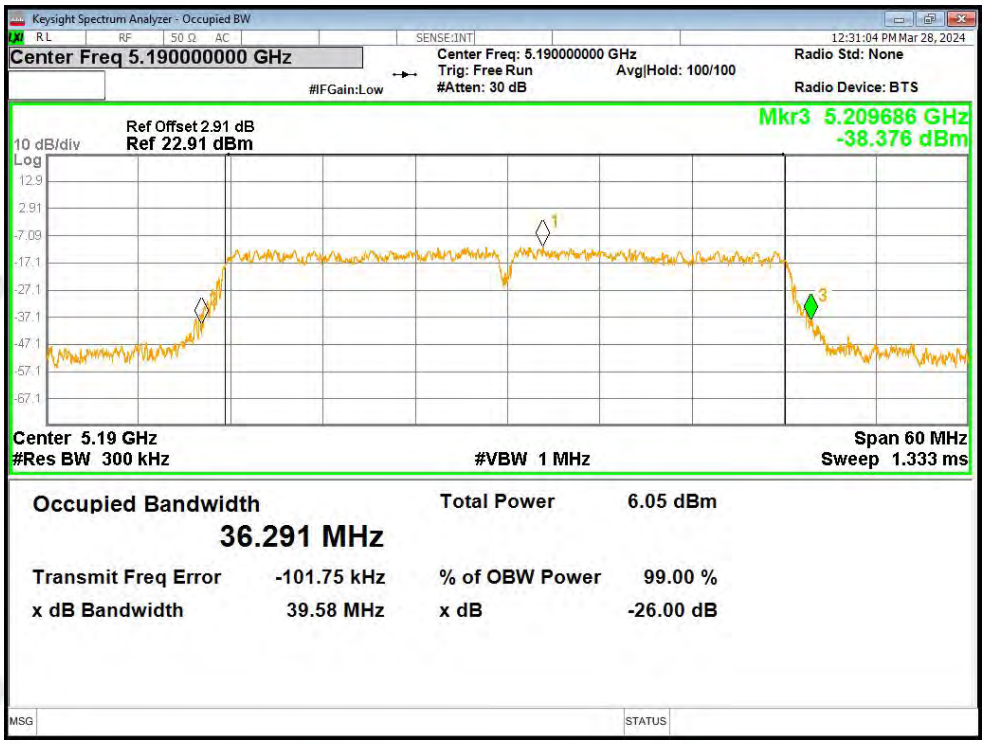
-26dB Bandwidth NVNT ac20 5200MHz Ant1



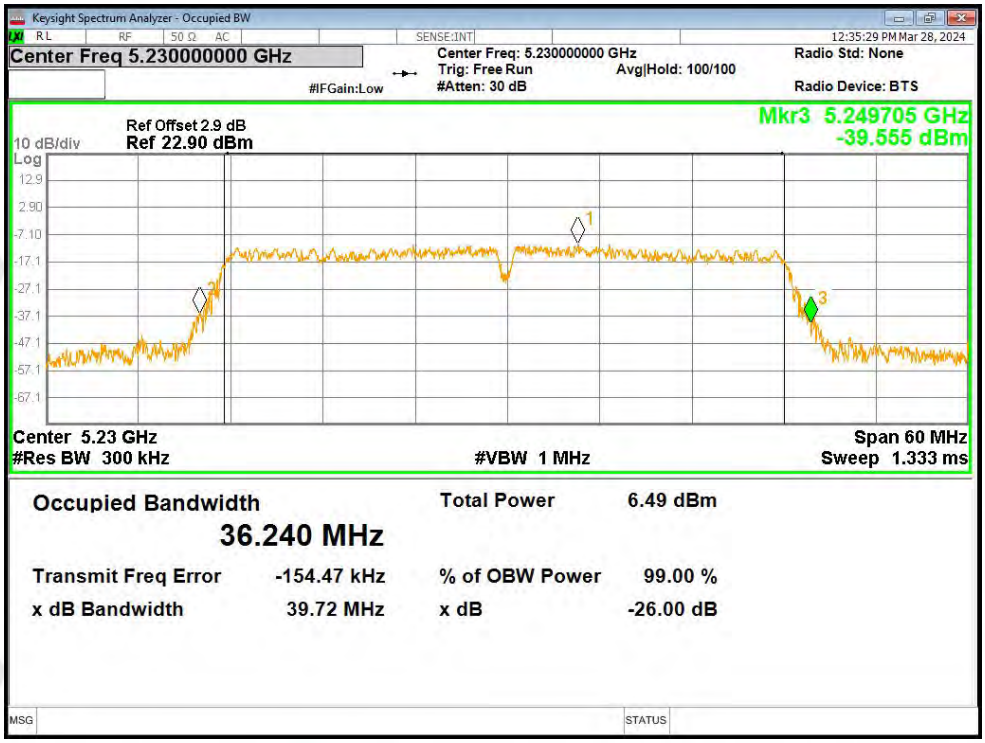
-26dB Bandwidth NVNT ac20 5240MHz Ant1



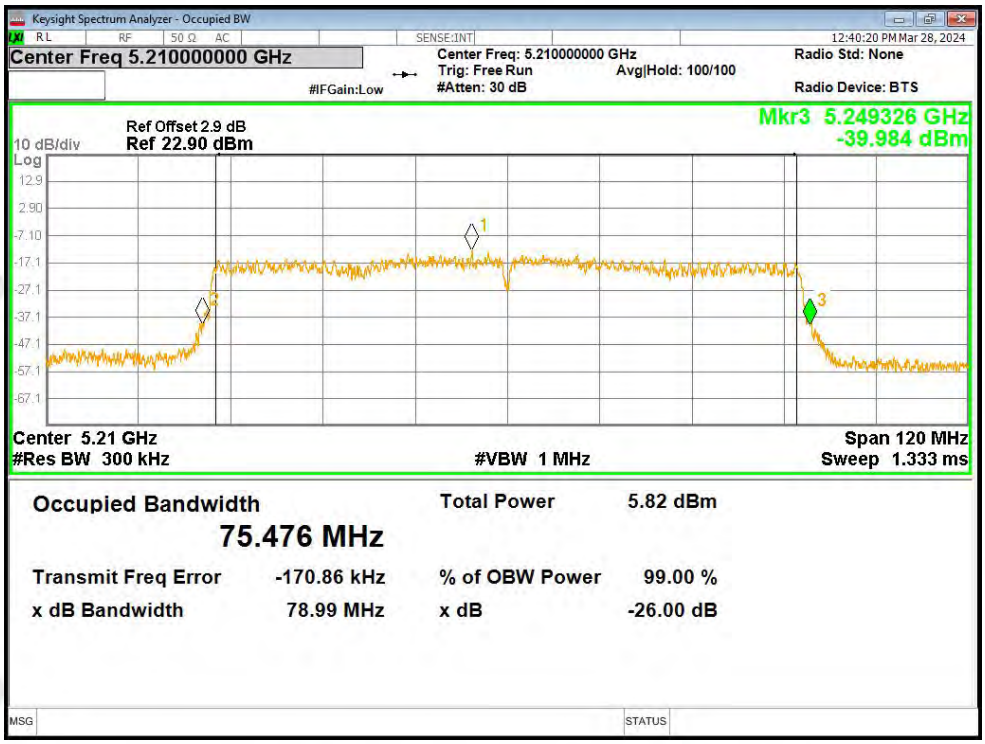
-26dB Bandwidth NVNT ac40 5190MHz Ant1



-26dB Bandwidth NVNT ac40 5230MHz Ant1



-26dB Bandwidth NVNT ac80 5210MHz Ant1

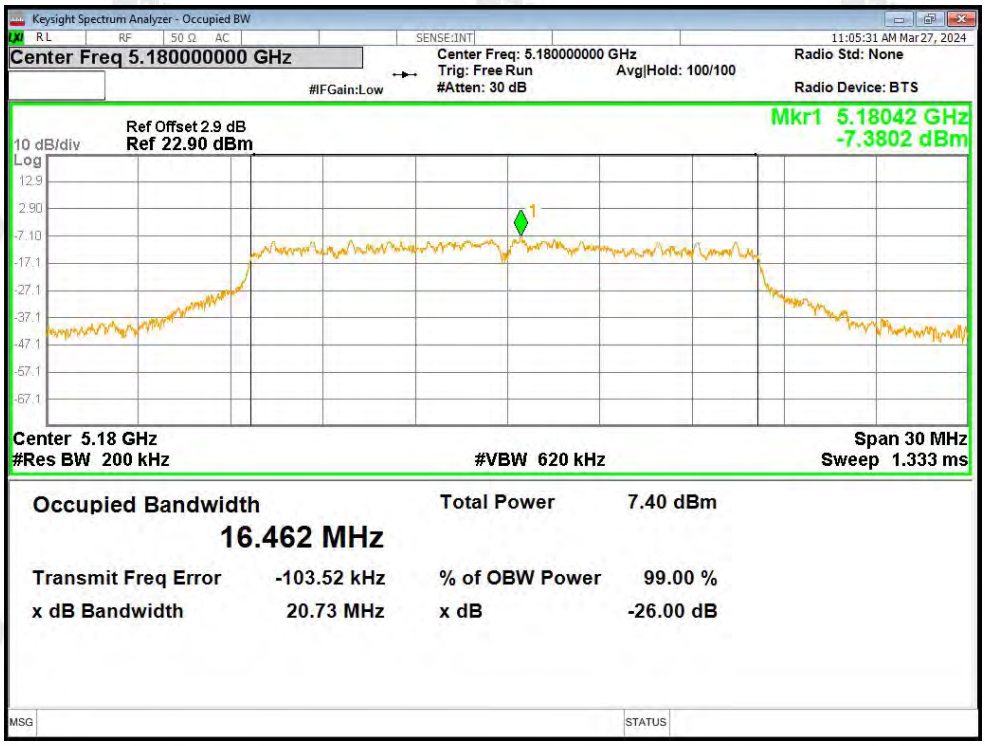


A4. Occupied Channel Bandwidth

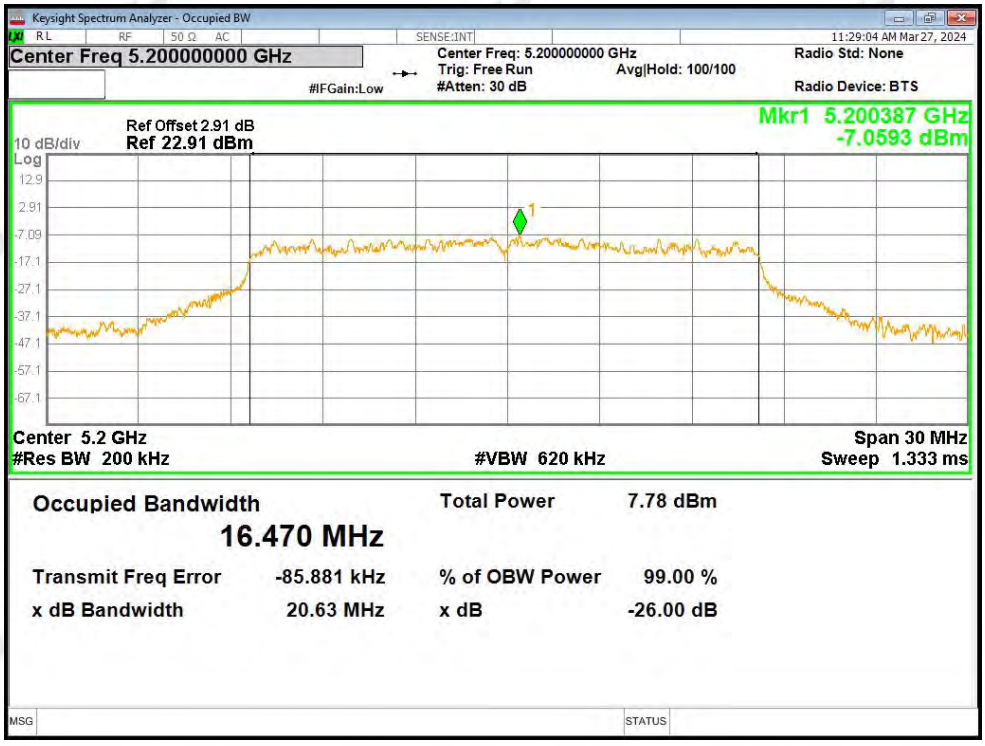
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5180	Ant1	16.462
NVNT	a	5200	Ant1	16.47
NVNT	a	5240	Ant1	16.451
NVNT	n20	5180	Ant1	17.7
NVNT	n20	5200	Ant1	17.657
NVNT	n20	5240	Ant1	17.686
NVNT	n40	5190	Ant1	36.219
NVNT	n40	5230	Ant1	36.21
NVNT	ac20	5180	Ant1	17.677
NVNT	ac20	5200	Ant1	17.686
NVNT	ac20	5240	Ant1	17.662
NVNT	ac40	5190	Ant1	36.467
NVNT	ac40	5230	Ant1	36.288
NVNT	ac80	5210	Ant1	75.612

Test Graphs

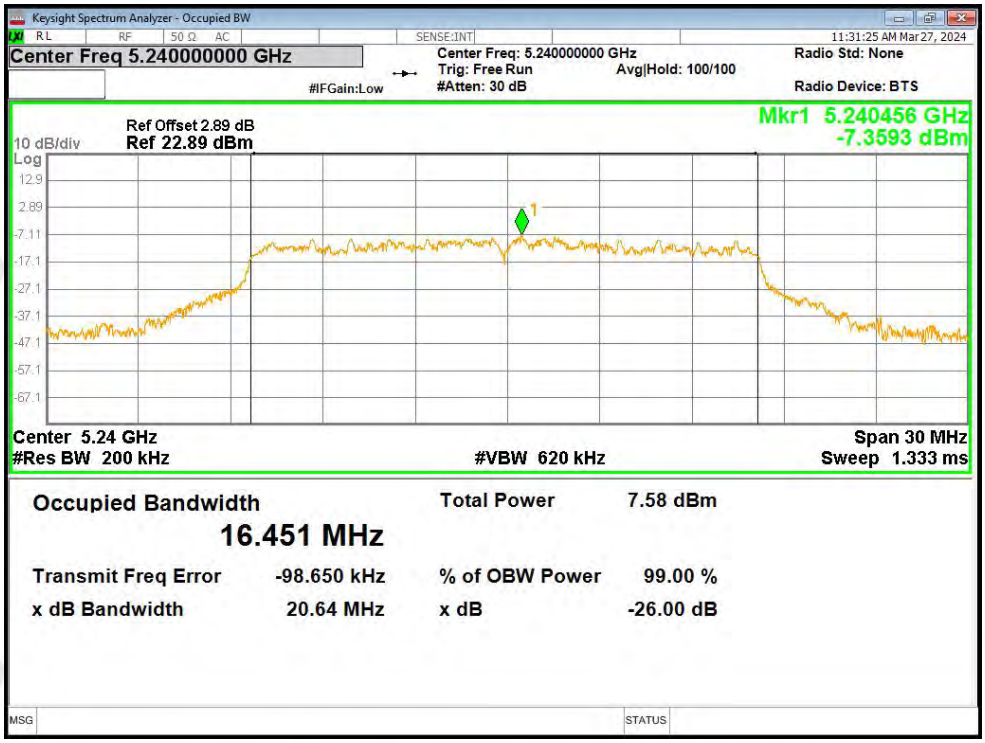
OBW NVNT a 5180MHz Ant1



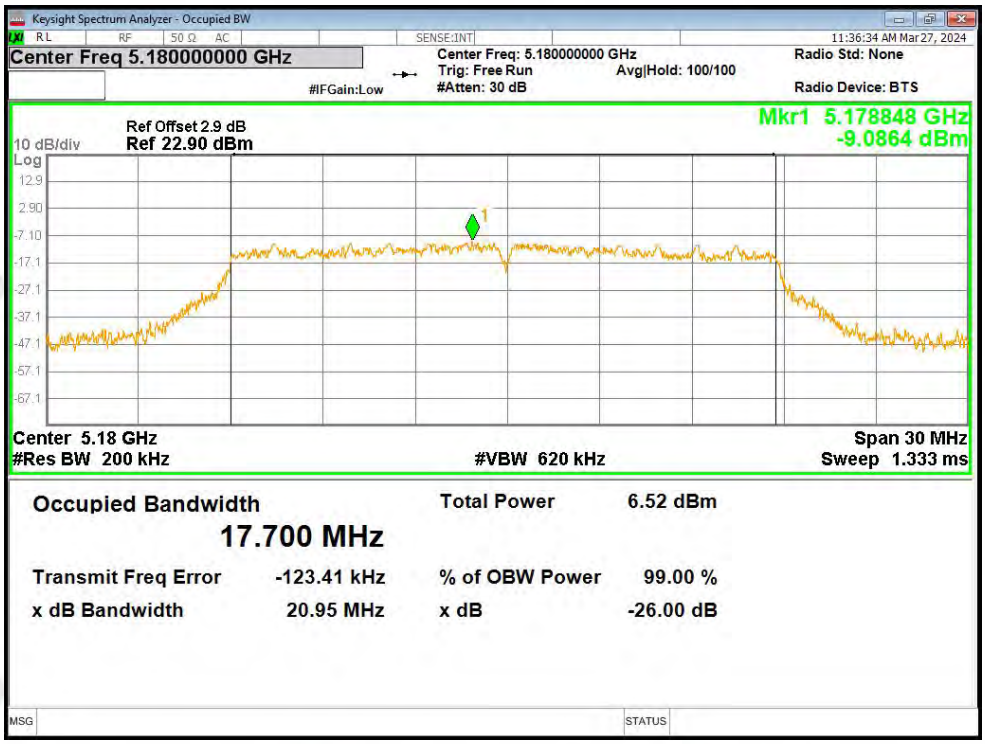
OBW NVNT a 5200MHz Ant1



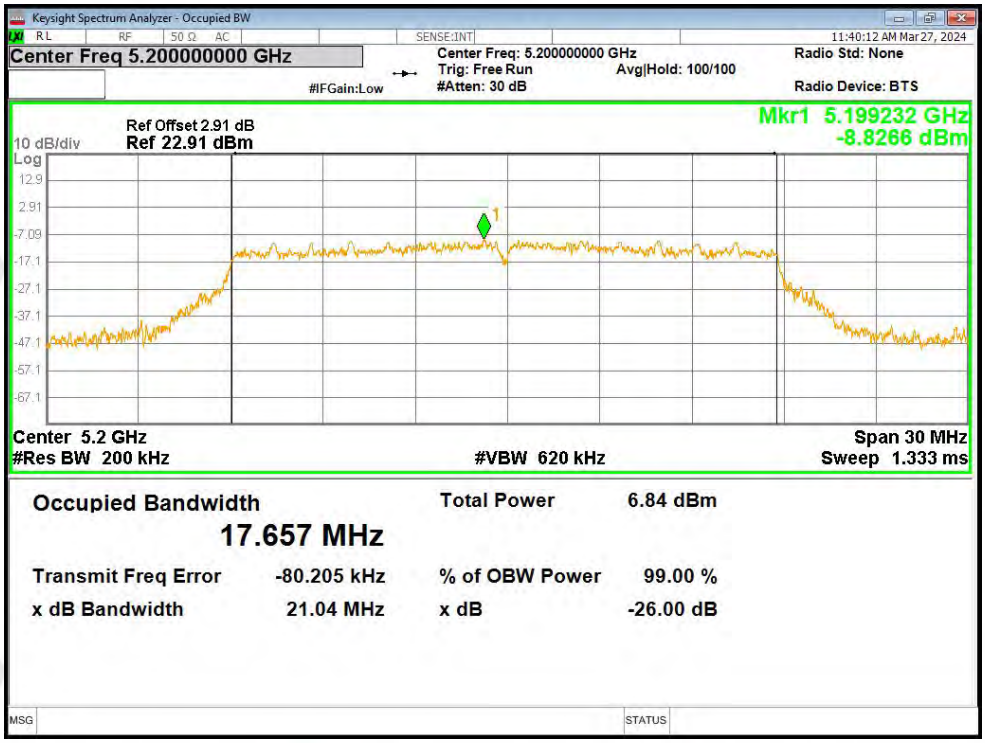
OBW NVNT a 5240MHz Ant1



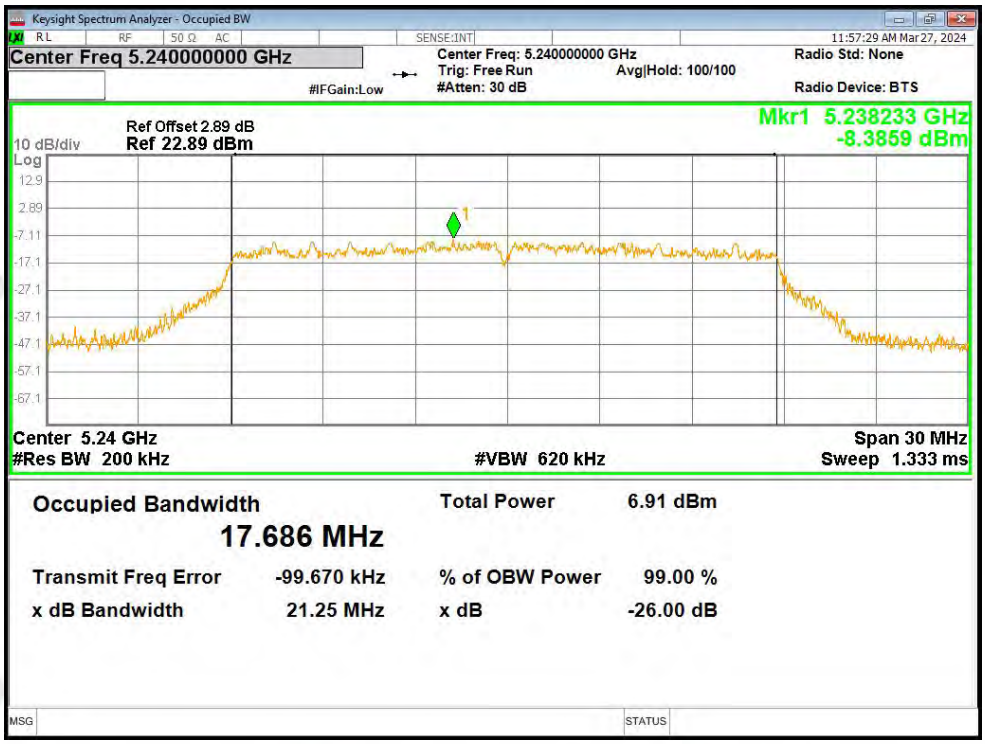
OBW NVNT n20 5180MHz Ant1



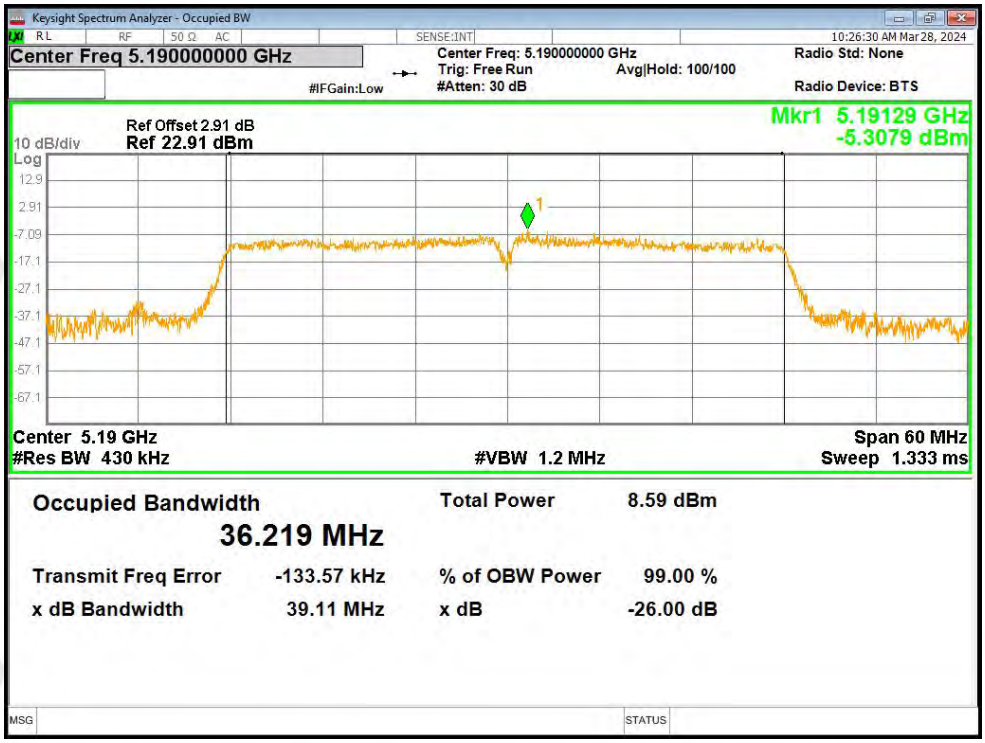
OBW NVNT n20 5200MHz Ant1



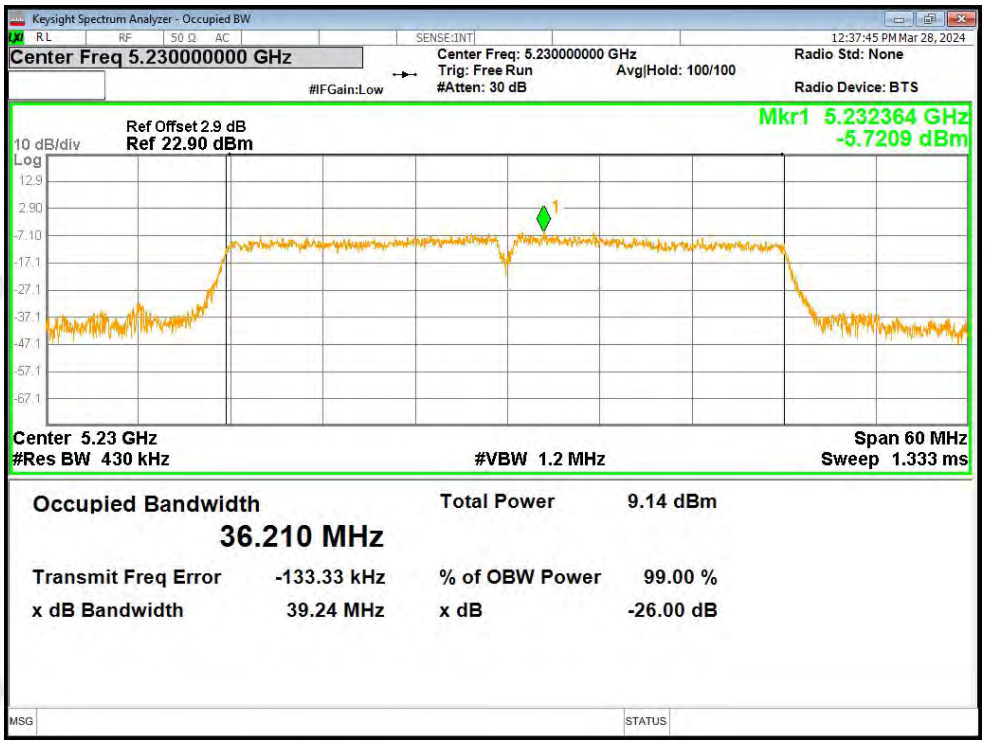
OBW NVNT n20 5240MHz Ant1



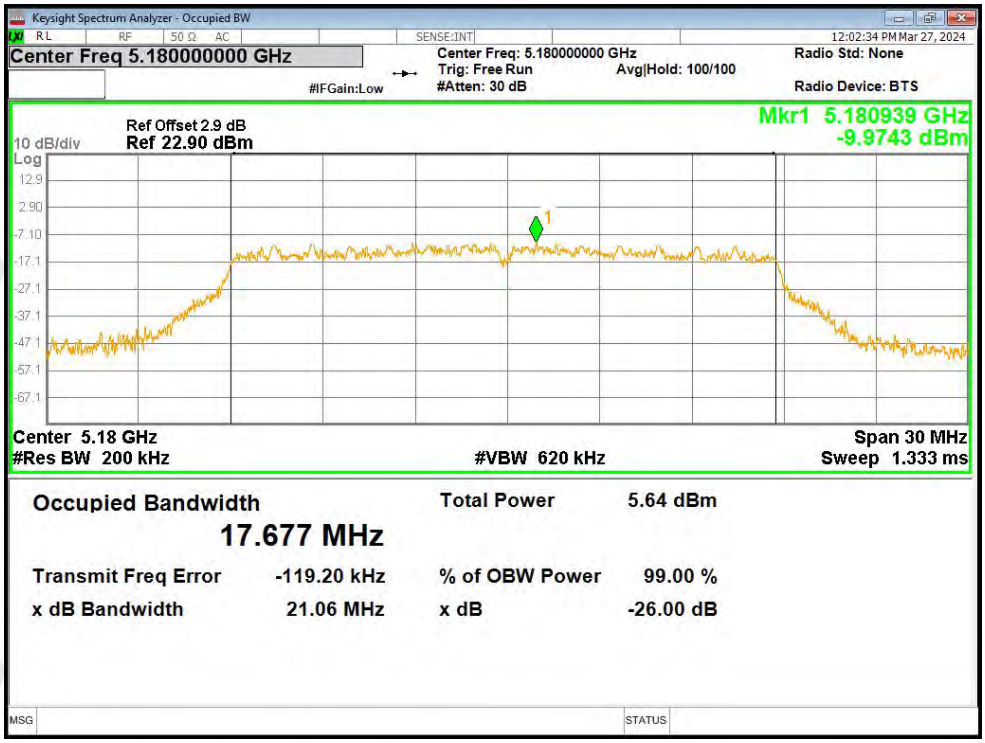
OBW NVNT n40 5190MHz Ant1



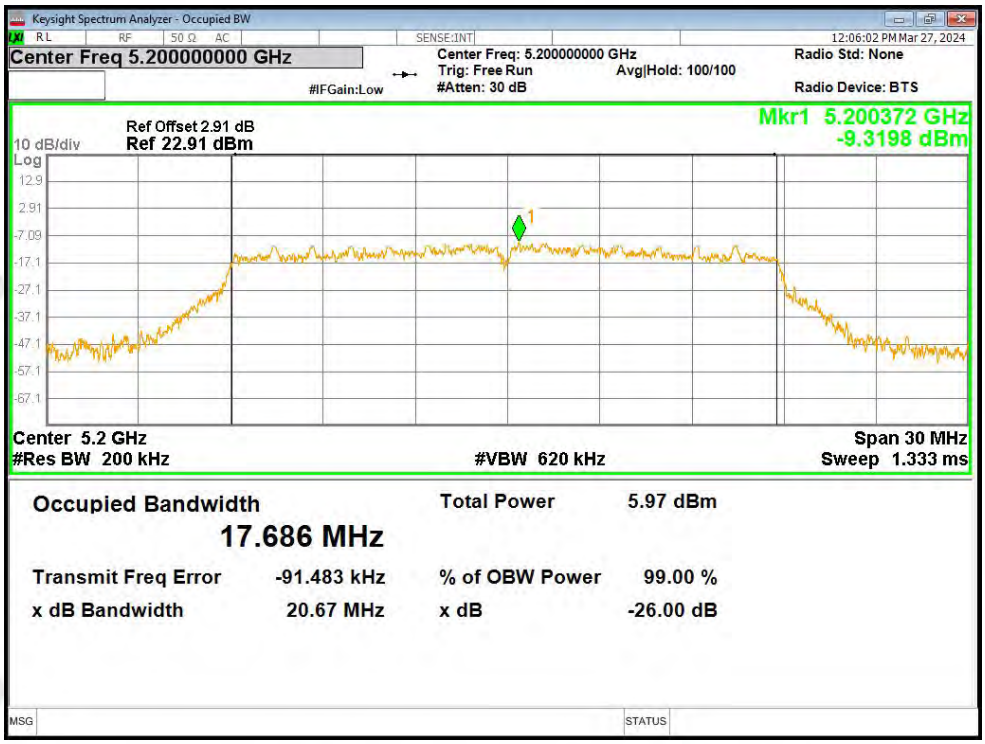
OBW NVNT n40 5230MHz Ant1



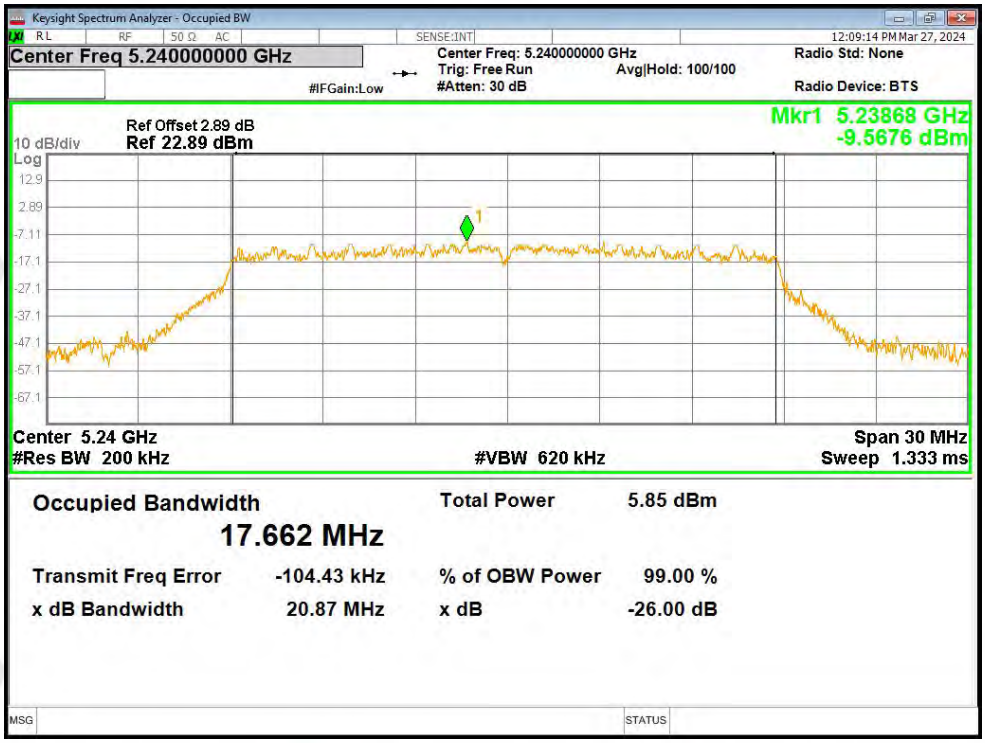
OBW NVNT ac20 5180MHz Ant1



OBW NVNT ac20 5200MHz Ant1



OBW NVNT ac20 5240MHz Ant1



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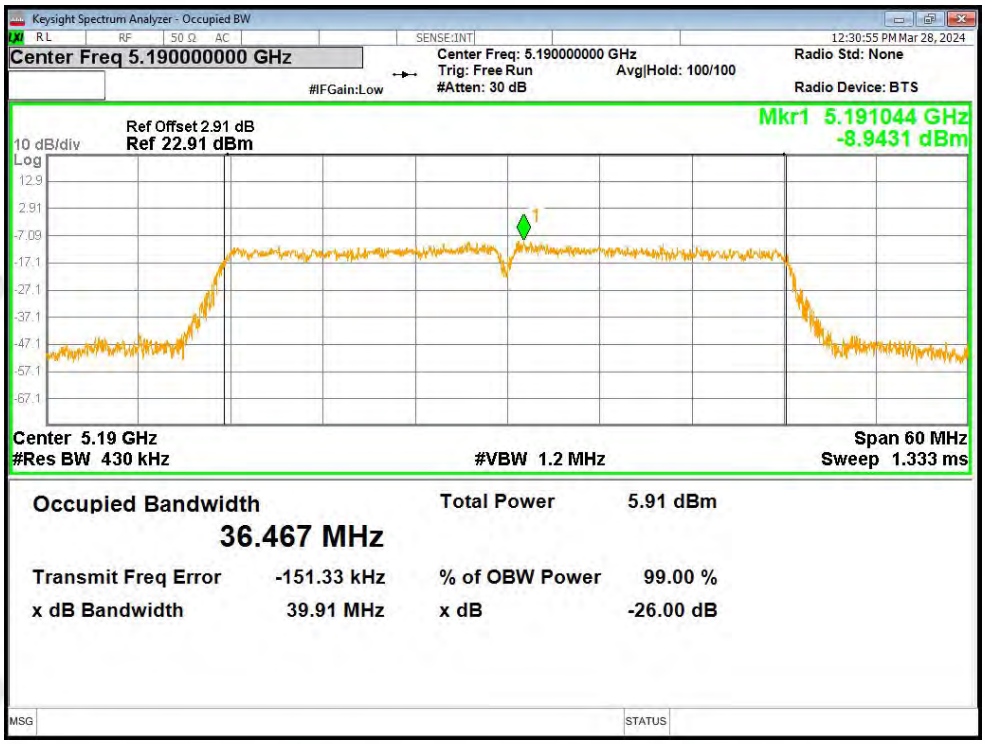
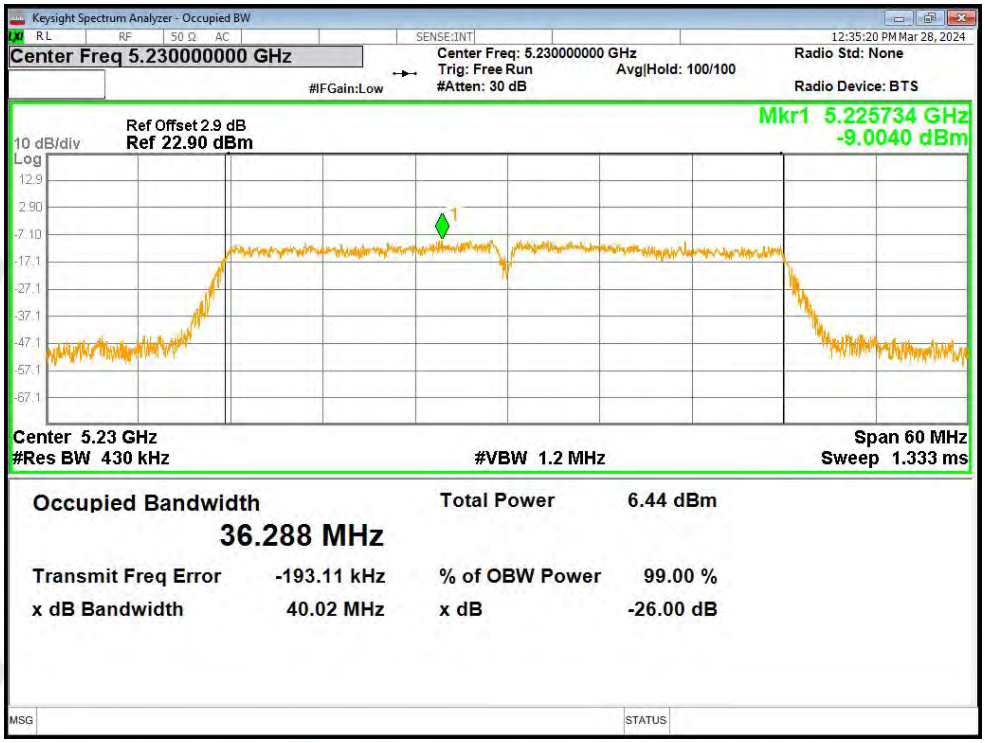
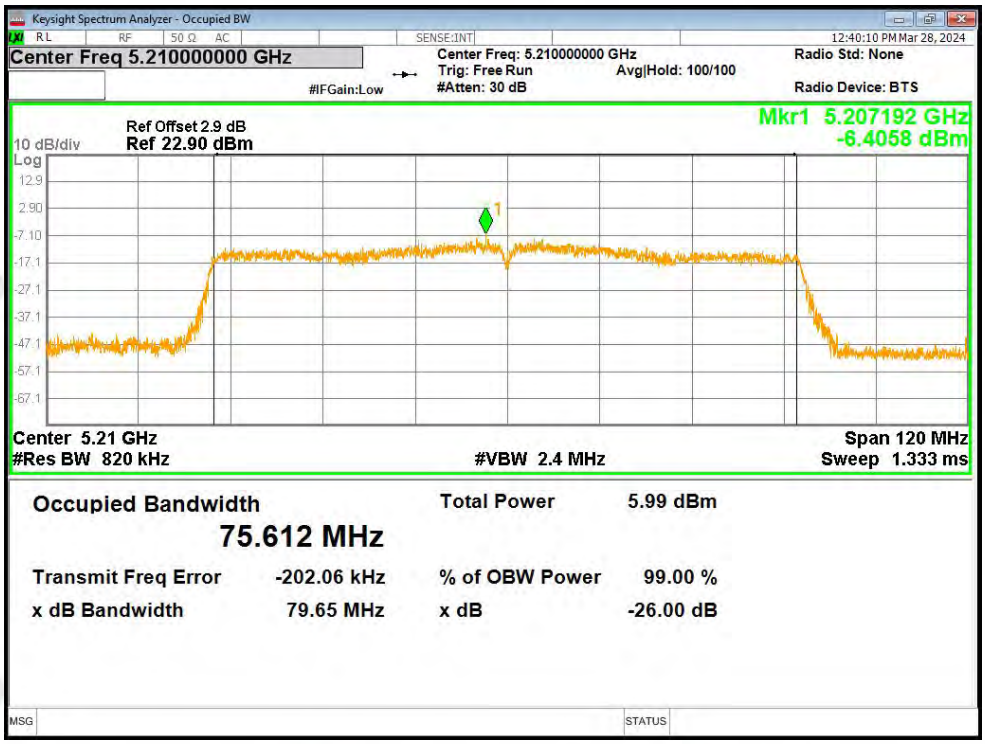


OBW NVNT ac40 5230MHz Ant1



OBW NVNT ac80 5210MHz Ant1



A5. Maximum Power Spectral Density Level

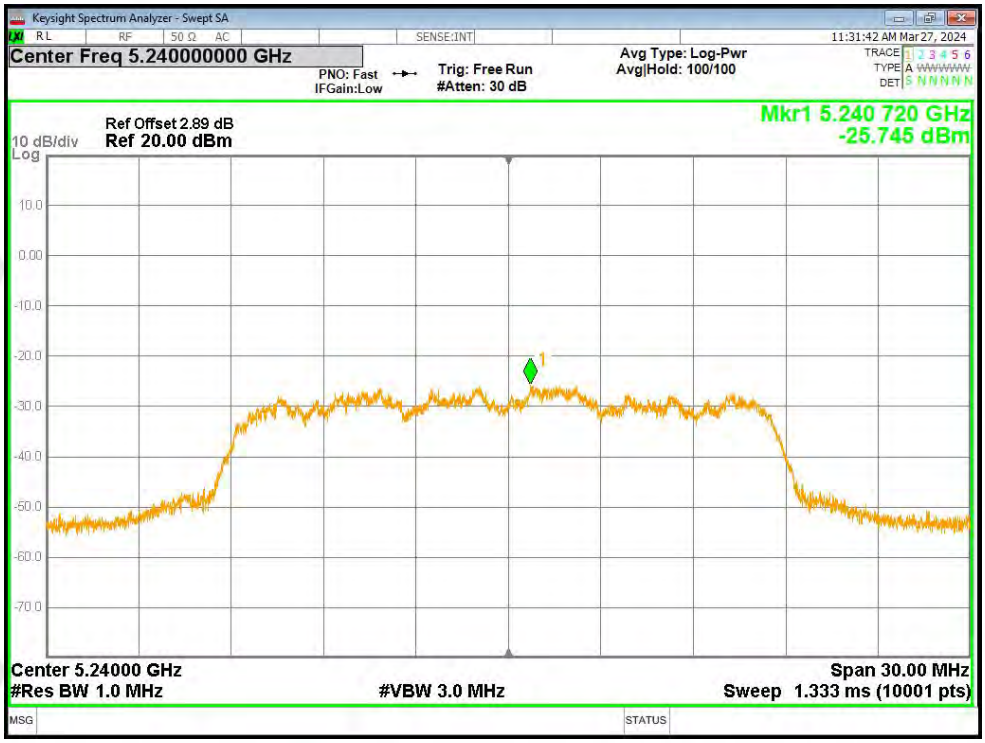
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	-22.54	1.92	-20.62	11	Pass
NVNT	a	5200	Ant1	-23.5	1.92	-21.58	11	Pass
NVNT	a	5240	Ant1	-25.75	2.07	-23.68	11	Pass
NVNT	n20	5180	Ant1	-24.14	1.76	-22.38	11	Pass
NVNT	n20	5200	Ant1	-23.97	1.57	-22.4	11	Pass
NVNT	n20	5240	Ant1	-18.13	1.57	-16.56	11	Pass
NVNT	n40	5190	Ant1	-26.38	2.83	-23.55	11	Pass
NVNT	n40	5230	Ant1	-26.44	2.83	-23.61	11	Pass
NVNT	ac20	5180	Ant1	-29.02	2.11	-26.91	11	Pass
NVNT	ac20	5200	Ant1	-28.62	2.11	-26.51	11	Pass
NVNT	ac20	5240	Ant1	-24.91	2.22	-22.69	11	Pass
NVNT	ac40	5190	Ant1	-33.29	1.09	-32.2	11	Pass
NVNT	ac40	5230	Ant1	-35.83	0	-35.83	11	Pass
NVNT	ac80	5210	Ant1	-40.5	6.02	-34.48	11	Pass

Test Graphs

PSD NVNT a 5180MHz Ant1

PSD NVNT a 5200MHz Ant1

PSD NVNT a 5240MHz Ant1



PSD NVNT n20 5180MHz Ant1

PSD NVNT n20 5200MHz Ant1

PSD NVNT n20 5240MHz Ant1