

ANNEX 2-1

FCC Part 15C Test Report

FCC ID: 2BCCG-DELTA

Applicant: Shenzhen Algo Technologies Co., Ltd.

Address: 5th Floor, Building E5, Juyin Technology Industrial Park, Ganli Road, Longgang District, Shenzhen 518116, China

Manufacturer: Shenzhen Algo Technologies Co., Ltd.

Address: 5th Floor, Building E5, Juyin Technology Industrial Park, Ganli Road, Longgang District, Shenzhen 518116, China

EUT: Laser Engraver

Trade Mark: N/A

Model Number: Delta
Delta MK2, Alpha, Alpha MK2, Gamma, Epsilon, Zeta, DIY KIT, DIY KIT Plus, DIY KIT Pro, DIY KIT Plus Pro, DIY KIT MK2, DIY KIT Plus MK2, DIY KIT Pro MK2, DIY KIT Plus Pro MK2, Laser Master 1 MK2, Laser Master 2 MK2

Date of Receipt: Jul. 08, 2023

Test Date: Jul. 08, 2023 - Jul. 22, 2023

Date of Report: Jul. 22, 2023

Prepared By: BTF Testing Lab (Shenzhen) Co., Ltd.

Address: F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China

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

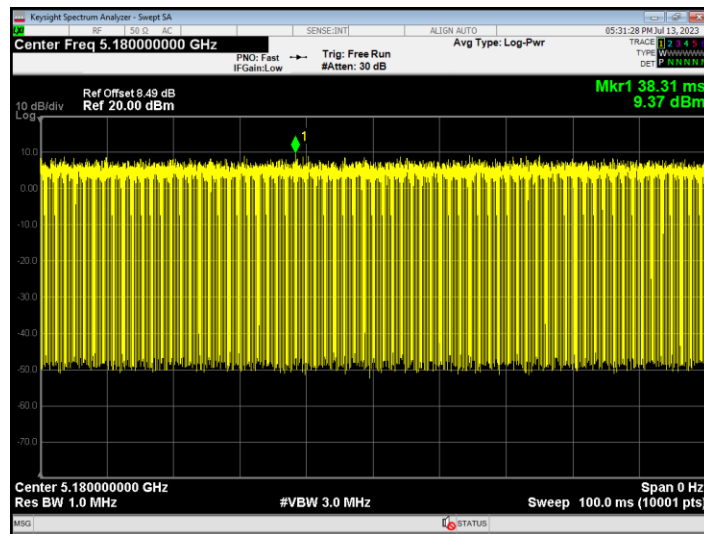
Test Result: Pass

Report Number: BTF230718R01702

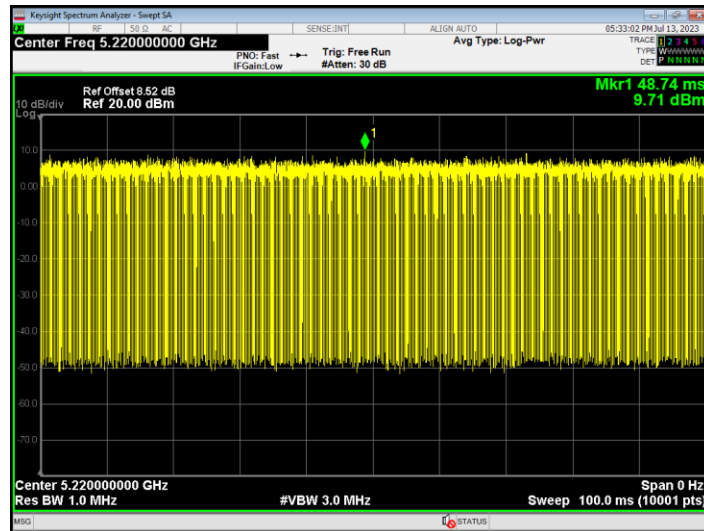
Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)
NVNT	a	5180	Ant1	85.04	0.7
NVNT	a	5220	Ant1	85.03	0.7
NVNT	a	5240	Ant1	85.38	0.69
NVNT	n20	5180	Ant1	97.57	0.11
NVNT	n20	5220	Ant1	97.52	0.11
NVNT	n20	5240	Ant1	97.61	0.11
NVNT	n40	5190	Ant1	95.34	0.21
NVNT	n40	5230	Ant1	95.33	0.21

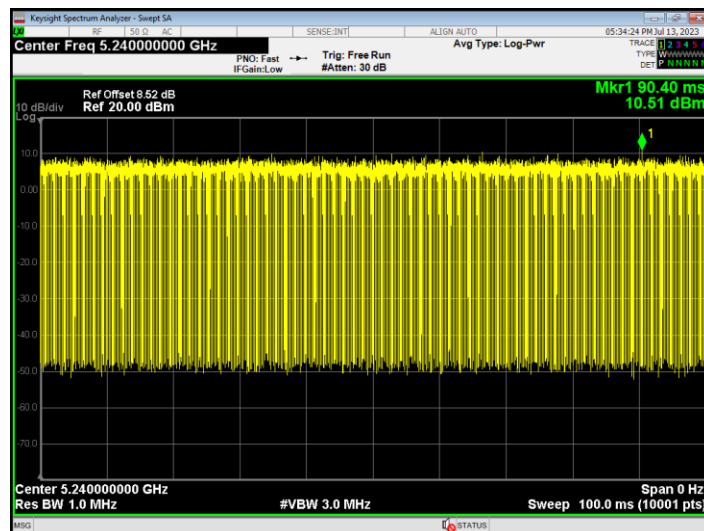
Duty Cycle NVNT a 5180MHz Ant1



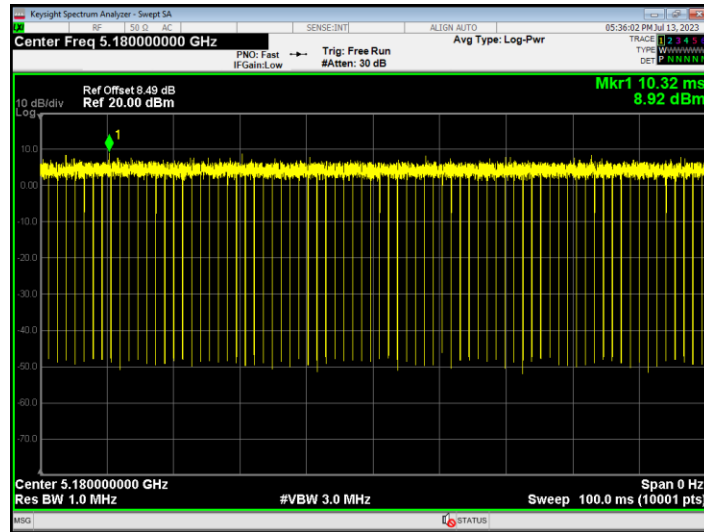
Duty Cycle NVNT a 5220MHz Ant1



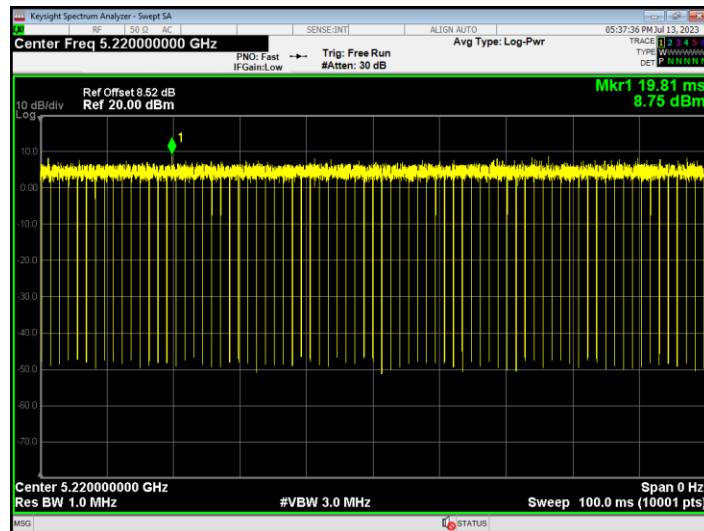
Duty Cycle NVNT a 5240MHz Ant1



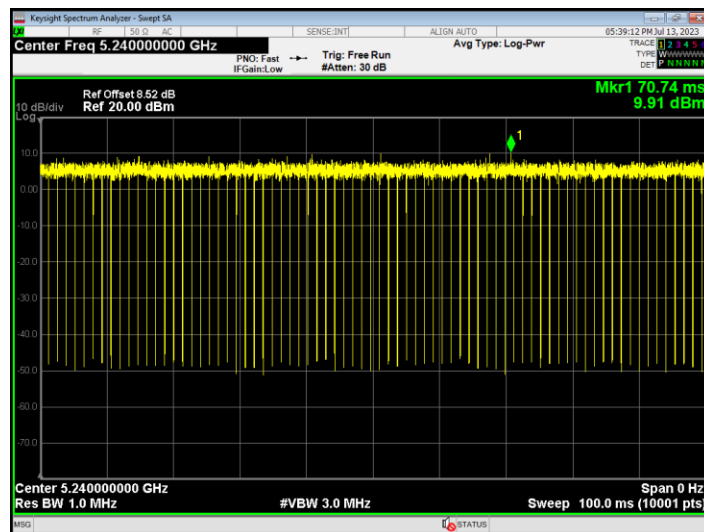
Duty Cycle NVNT n20 5180MHz Ant1



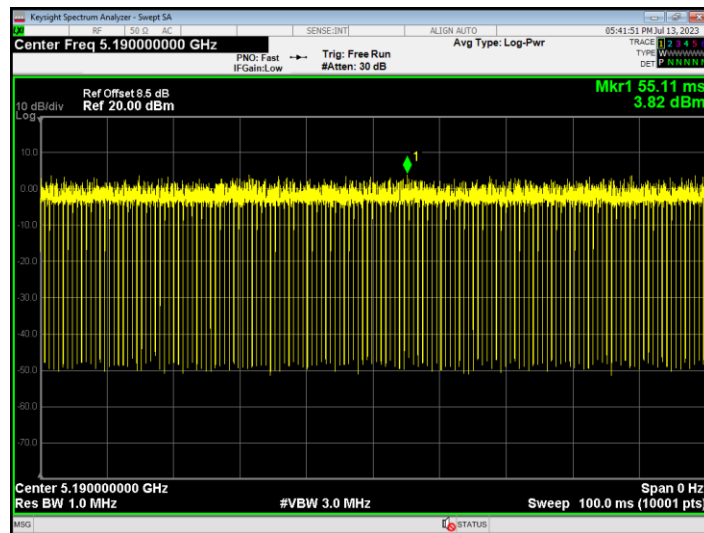
Duty Cycle NVNT n20 5220MHz Ant1



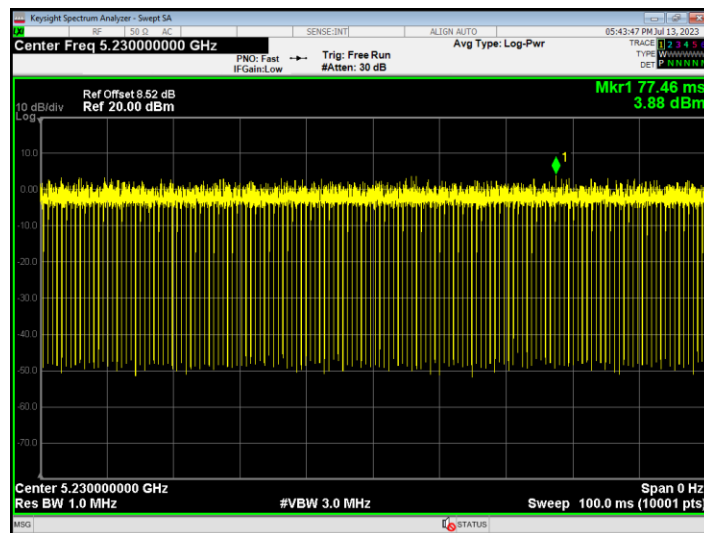
Duty Cycle NVNT n20 5240MHz Ant1



Duty Cycle NVNT n40 5190MHz Ant1



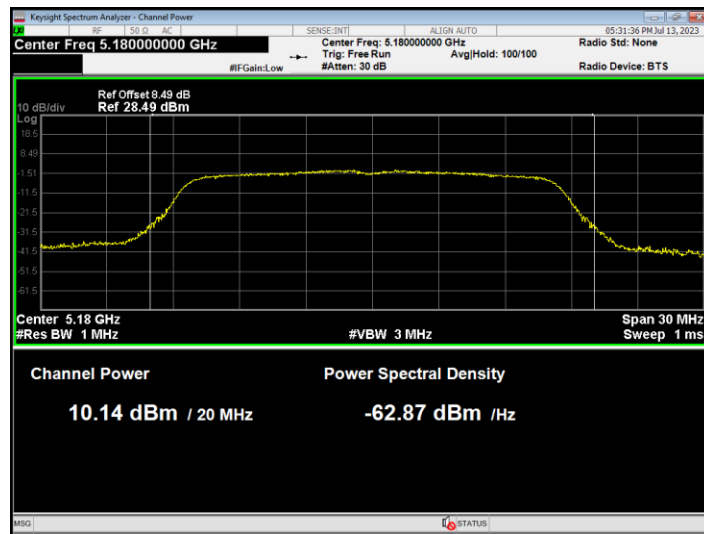
Duty Cycle NVNT n40 5230MHz Ant1



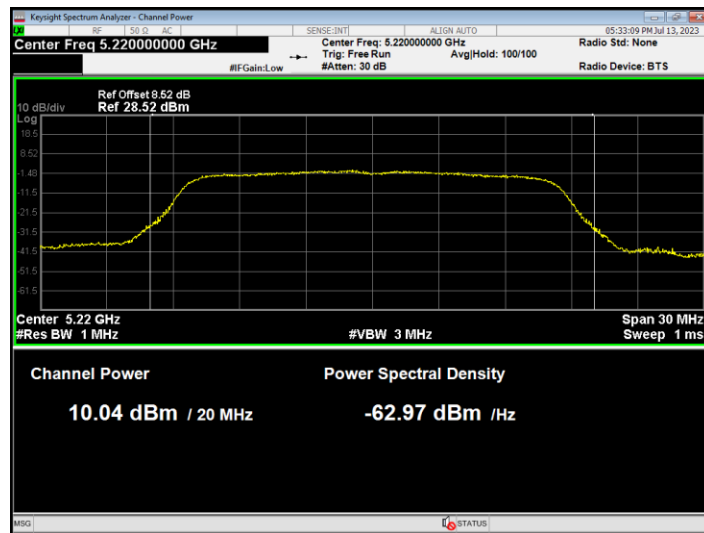
Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	10.138	0.7	10.838	24	Pass
NVNT	a	5220	Ant1	10.04	0.7	10.74	24	Pass
NVNT	a	5240	Ant1	11.058	0.69	11.748	24	Pass
NVNT	n20	5180	Ant1	10.953	0.11	11.063	24	Pass
NVNT	n20	5220	Ant1	10.844	0.11	10.954	24	Pass
NVNT	n20	5240	Ant1	11.688	0.11	11.798	24	Pass
NVNT	n40	5190	Ant1	11.033	0.21	11.243	24	Pass
NVNT	n40	5230	Ant1	11.035	0.21	11.245	24	Pass

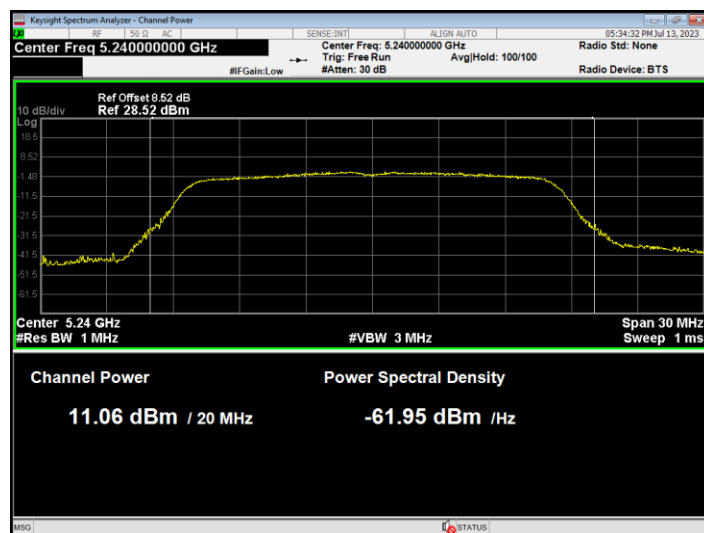
Power NVNT a 5180MHz Ant1



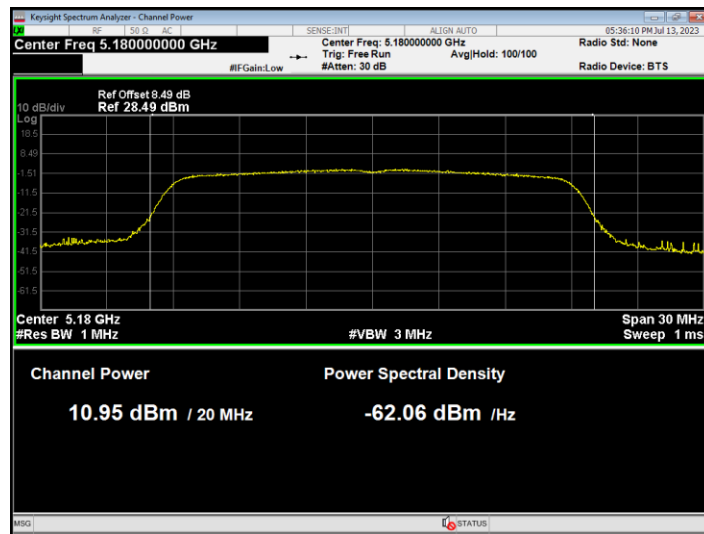
Power NVNT a 5220MHz Ant1



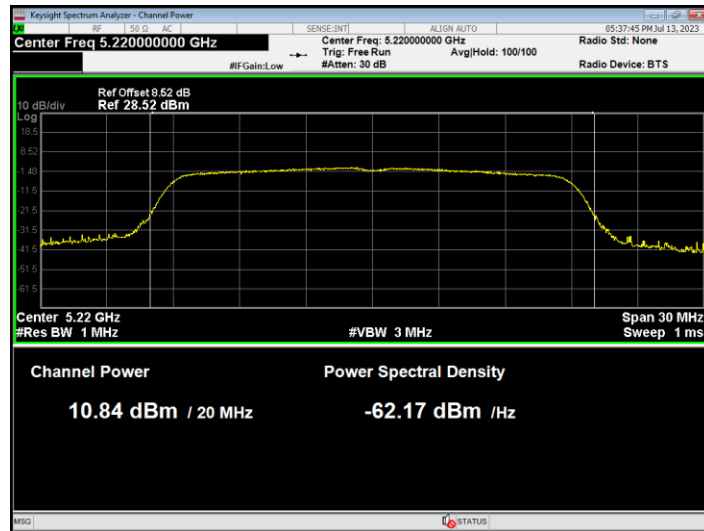
Power NVNT a 5240MHz Ant1



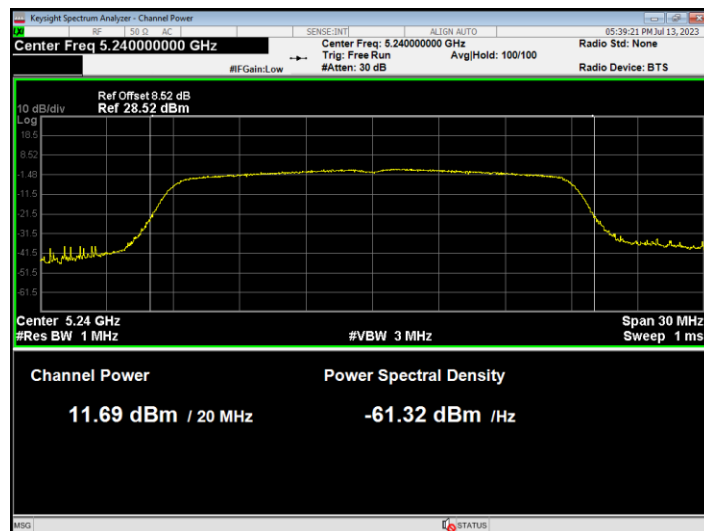
Power NVNT n20 5180MHz Ant1



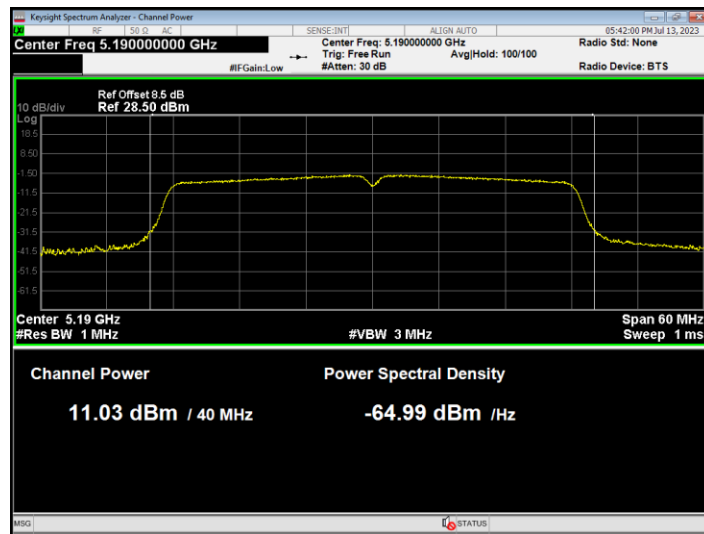
Power NVNT n20 5220MHz Ant1



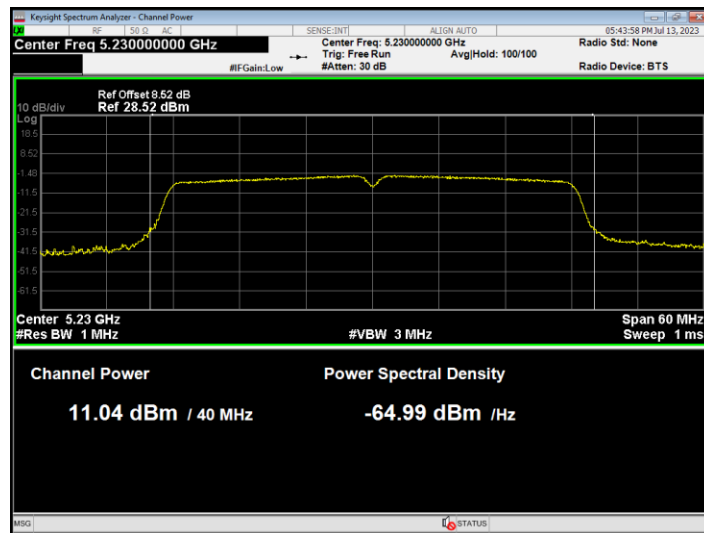
Power NVNT n20 5240MHz Ant1



Power NVNT n40 5190MHz Ant1



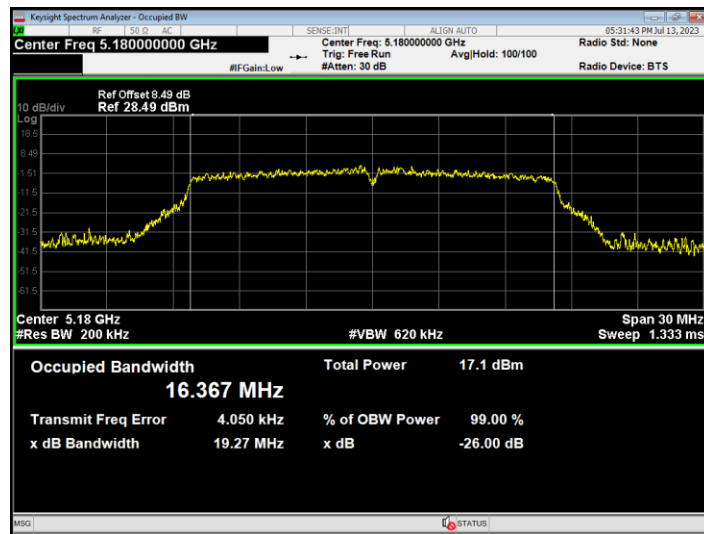
Power NVNT n40 5230MHz Ant1



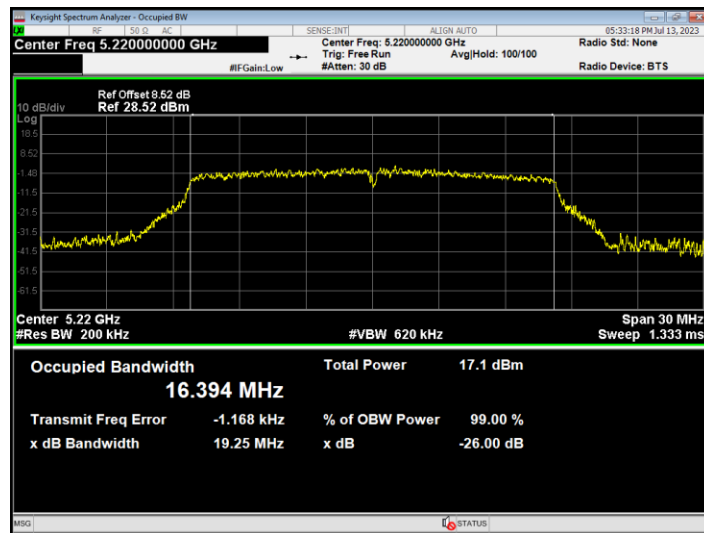
Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5180	Ant1	16.36692398
NVNT	a	5220	Ant1	16.39398753
NVNT	a	5240	Ant1	16.37131059
NVNT	n20	5180	Ant1	17.58351281
NVNT	n20	5220	Ant1	17.59757878
NVNT	n20	5240	Ant1	17.529833
NVNT	n40	5190	Ant1	36.03137315
NVNT	n40	5230	Ant1	36.11455984

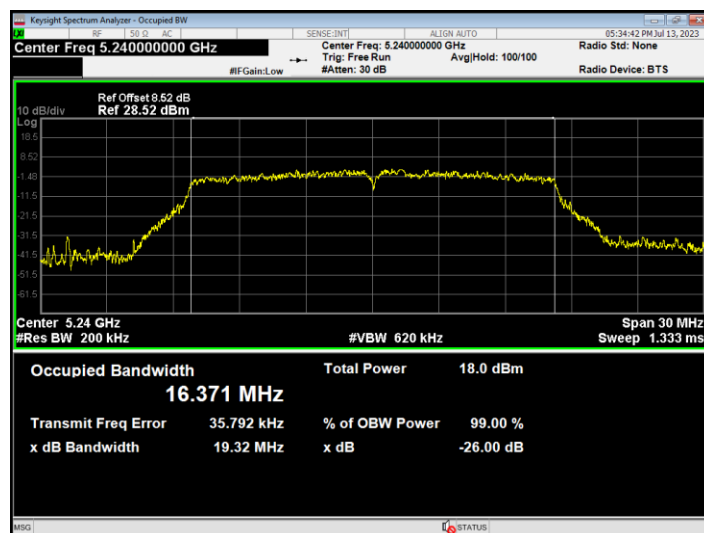
OBW NVNT a 5180MHz Ant1



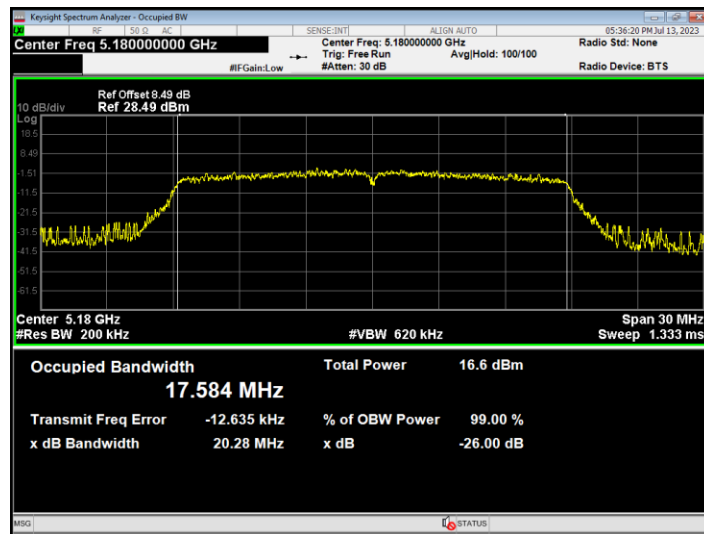
OBW NVNT a 5220MHz Ant1



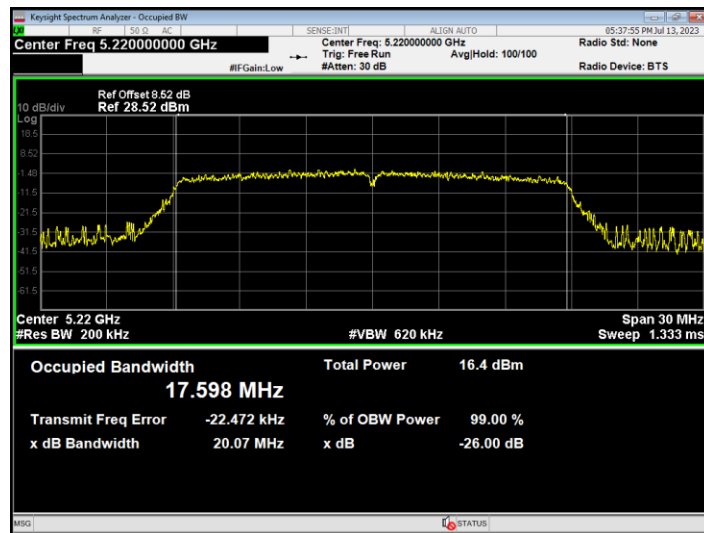
OBW NVNT a 5240MHz Ant1



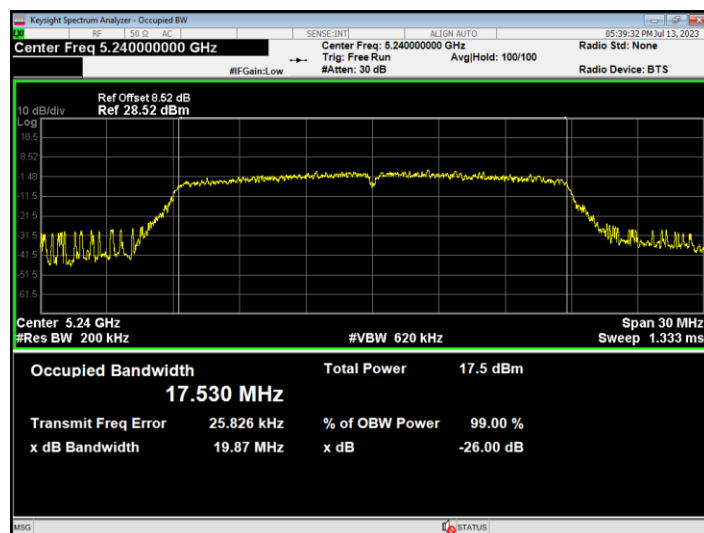
OBW NVNT n20 5180MHz Ant1



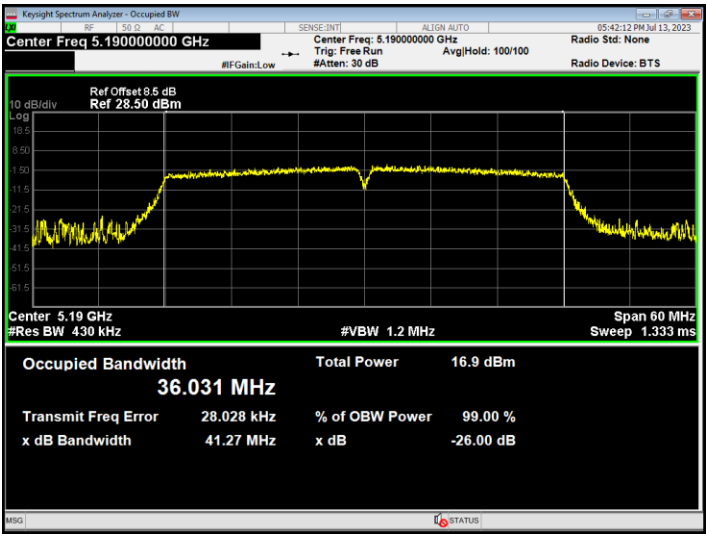
OBW NVNT n20 5220MHz Ant1



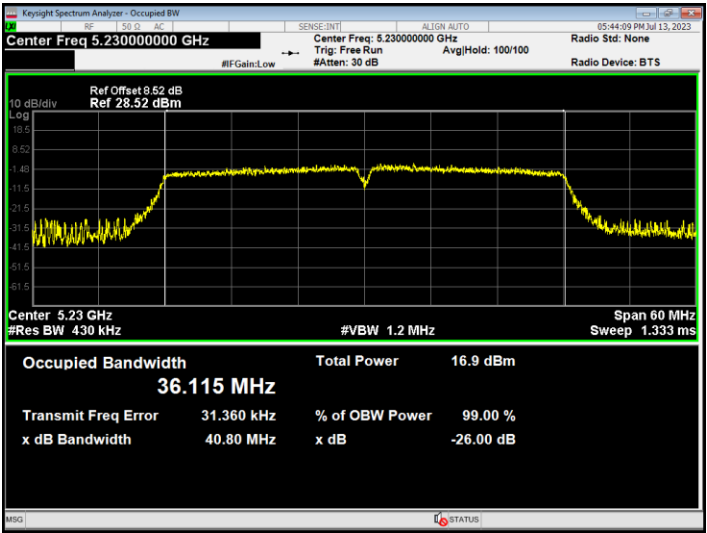
OBW NVNT n20 5240MHz Ant1



OBW NVNT n40 5190MHz Ant1



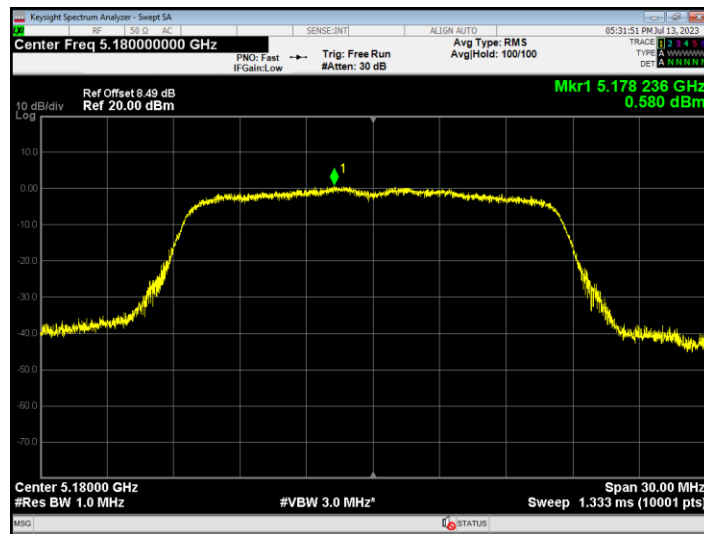
OBW NVNT n40 5230MHz Ant1



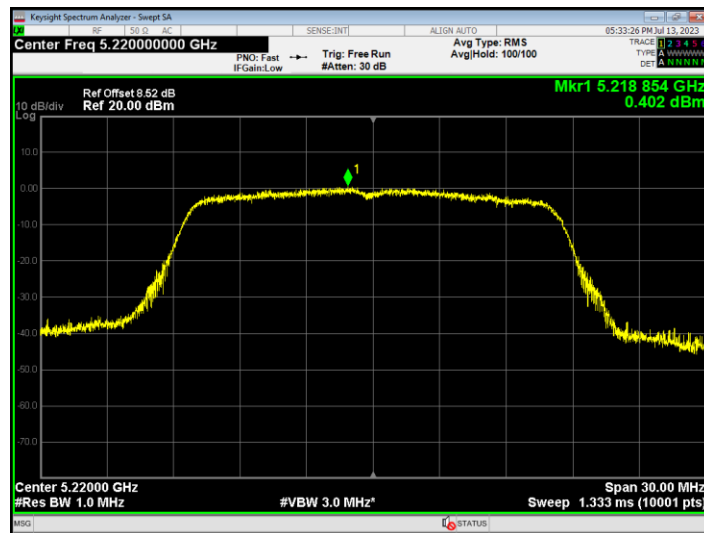
Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Reading (dBm)	Duty Factor (dB)	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	0.58	0.7	1.28	11	Pass
NVNT	a	5220	Ant1	0.402	0.7	1.10	11	Pass
NVNT	a	5240	Ant1	2.161	0.69	2.85	11	Pass
NVNT	n20	5180	Ant1	1.085	0.11	1.20	11	Pass
NVNT	n20	5220	Ant1	0.827	0.11	0.94	11	Pass
NVNT	n20	5240	Ant1	2.146	0.11	2.26	11	Pass
NVNT	n40	5190	Ant1	-1.492	0.21	-1.28	11	Pass
NVNT	n40	5230	Ant1	-1.858	0.21	-1.65	11	Pass

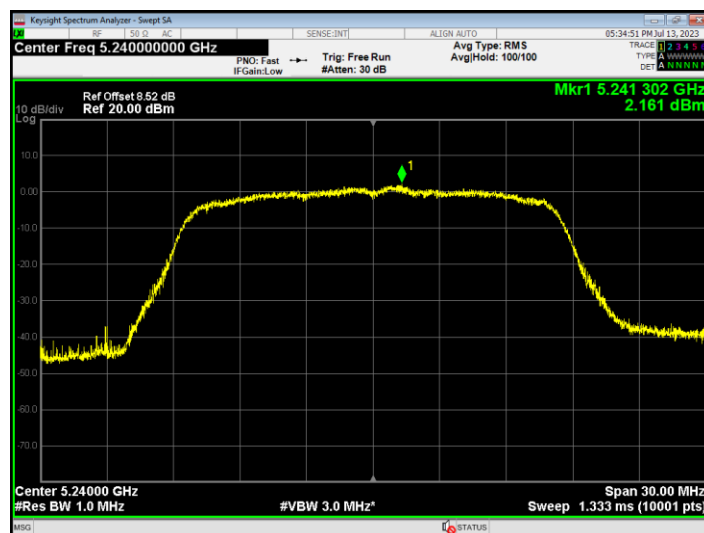
PSD NVNT a 5180MHz Ant1



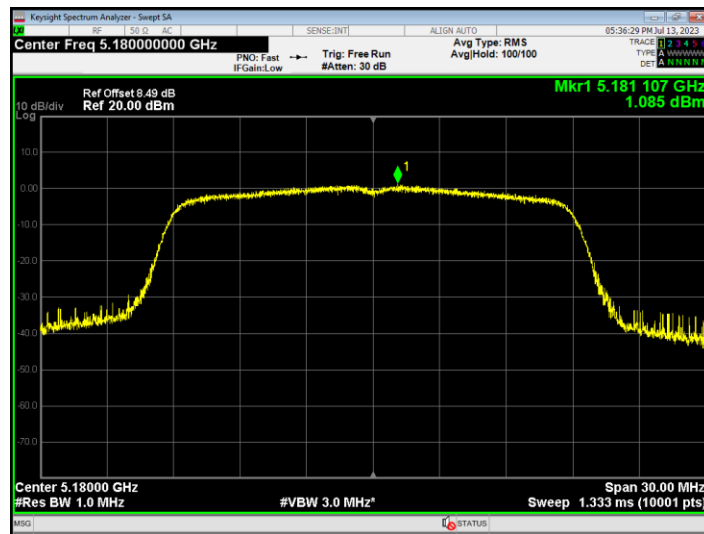
PSD NVNT a 5220MHz Ant1



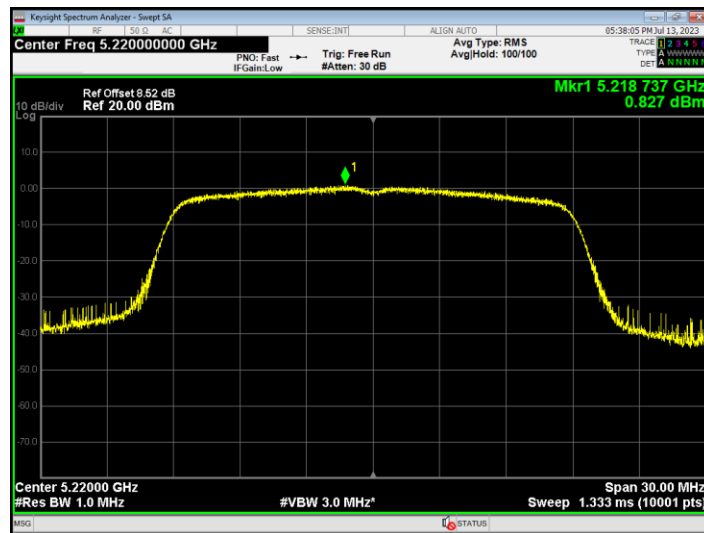
PSD NVNT a 5240MHz Ant1



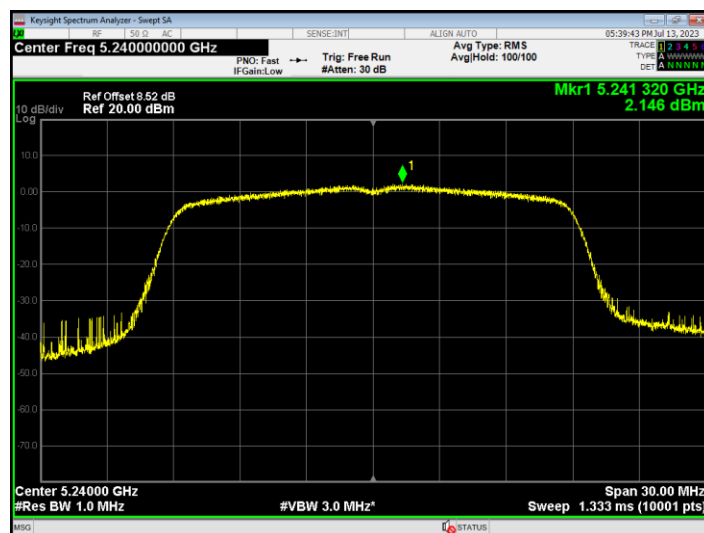
PSD NVNT n20 5180MHz Ant1



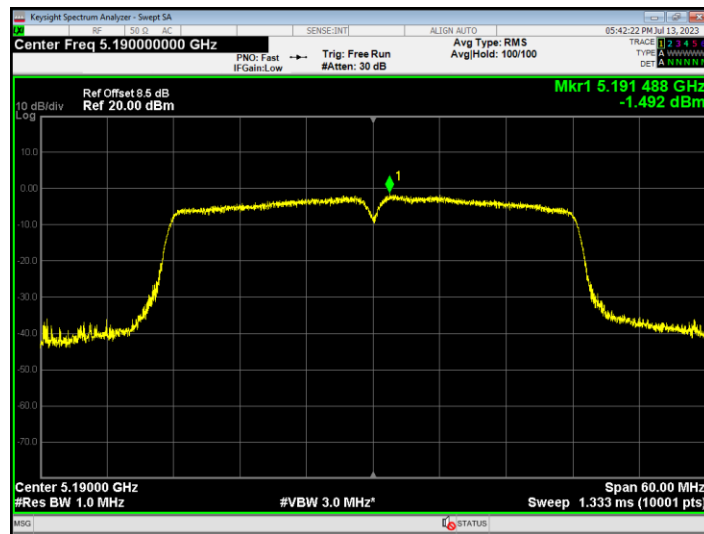
PSD NVNT n20 5220MHz Ant1



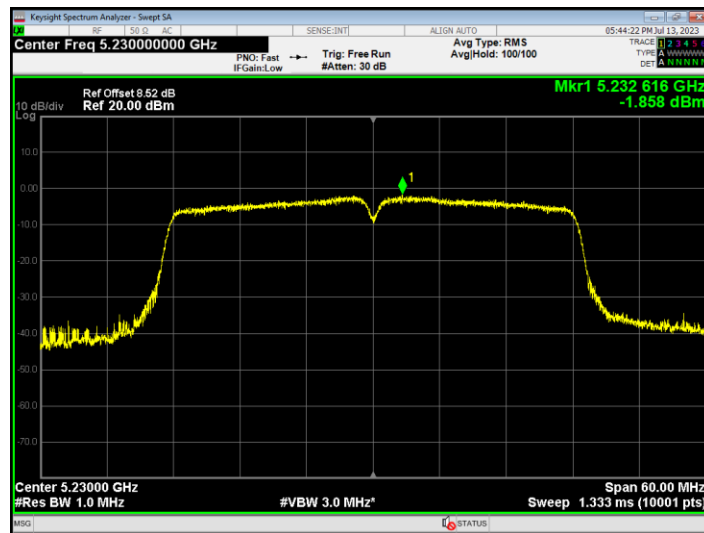
PSD NVNT n20 5240MHz Ant1



PSD NVNT n40 5190MHz Ant1



PSD NVNT n40 5230MHz Ant1

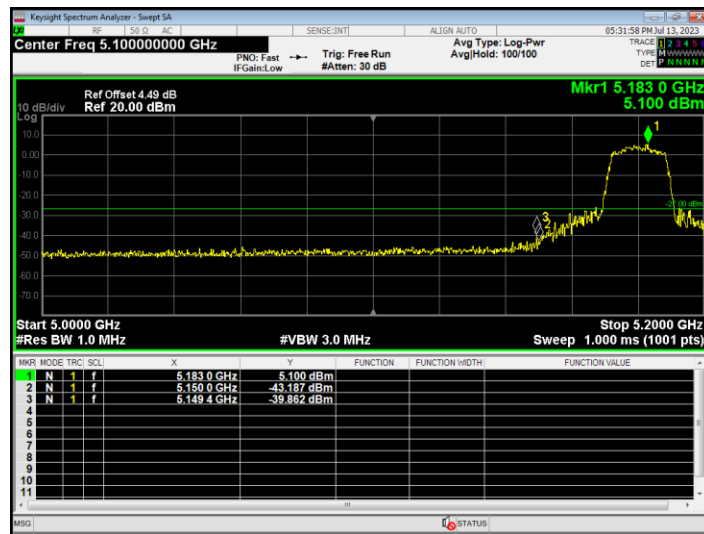


Band Edge

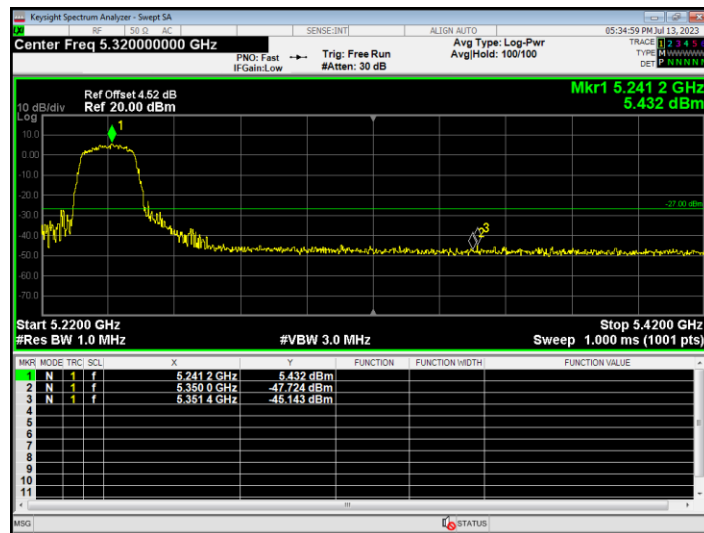
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	a	5180	Ant1	-39.86	-27	Pass
NVNT	a	5240	Ant1	-45.14	-27	Pass
NVNT	n20	5180	Ant1	-38.09	-27	Pass
NVNT	n20	5240	Ant1	-45.56	-27	Pass
NVNT	n40	5190	Ant1	-29.82	-27	Pass
NVNT	n40	5230	Ant1	-45.96	-27	Pass

In the test plot, ref offset=antenna gain + cable loss.

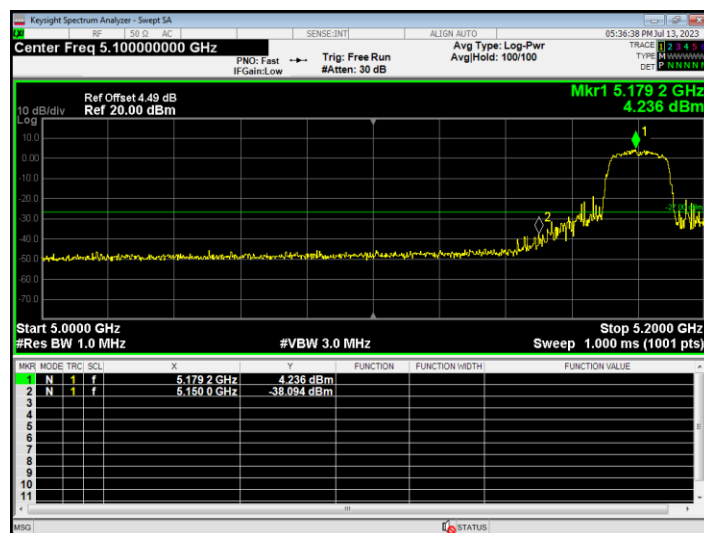
Band Edge NVNT a 5180MHz Low Ant1



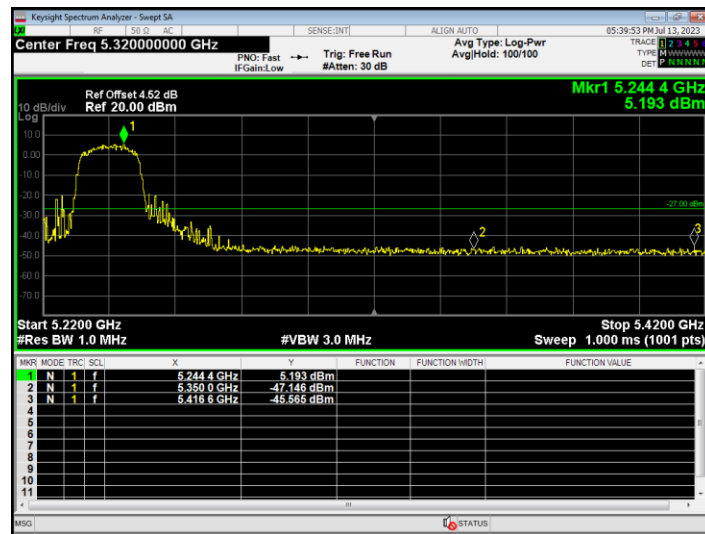
Band Edge NVNT a 5240MHz High Ant1



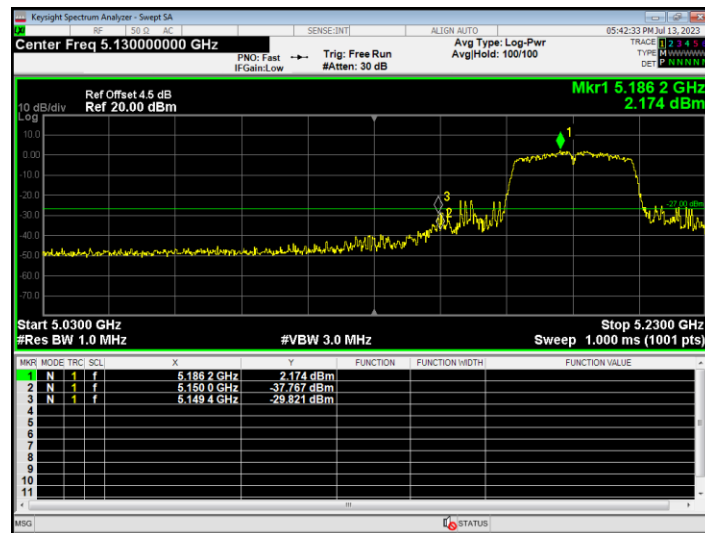
Band Edge NVNT n20 5180MHz Low Ant1



Band Edge NVNT n20 5240MHz High Ant1



Band Edge NVNT n40 5190MHz Low Ant1



Band Edge NVNT n40 5230MHz High Ant1

