

APPENDIX 5.2G WIFI RF Test Data

Product Name: Automotive AI

Test Model: DGOK105

Environmental Conditions

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

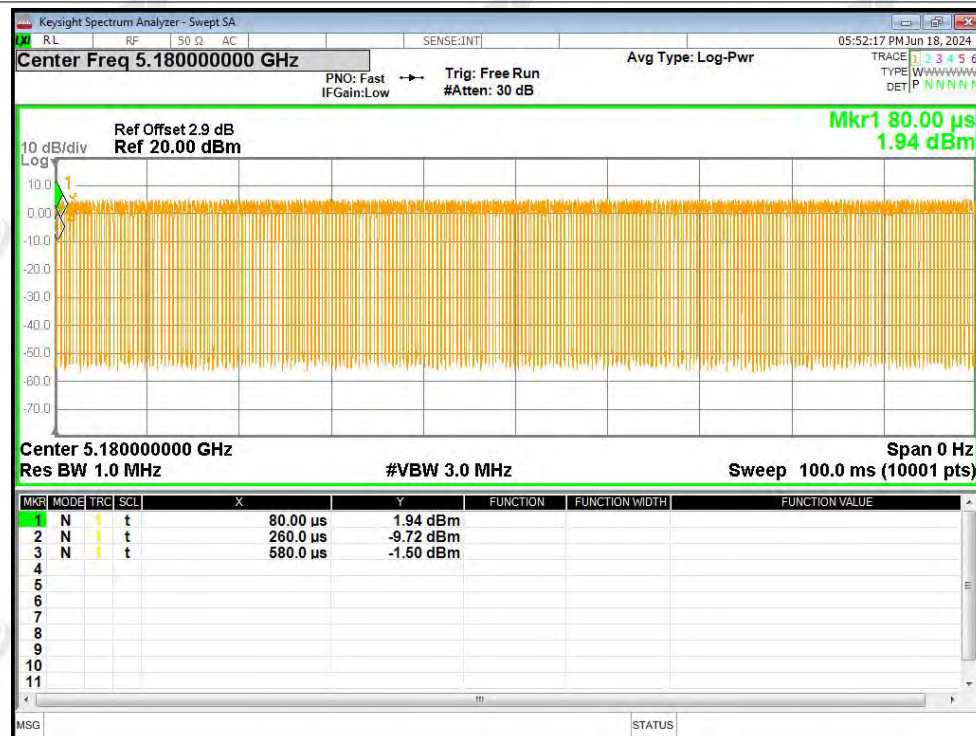
Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	64	1.94	3.13
NVNT	a	5200	Ant1	72.73	1.38	3.13
NVNT	a	5240	Ant1	71.11	1.48	3.12
NVNT	n20	5180	Ant1	93.56	0.29	0.53
NVNT	n20	5200	Ant1	93.1	0.31	0.53
NVNT	n20	5240	Ant1	0	0	0
NVNT	n40	5190	Ant1	90.38	0.44	1.06
NVNT	n40	5230	Ant1	84.55	0.73	1.08
NVNT	ac20	5180	Ant1	95	0.22	0.53
NVNT	ac20	5200	Ant1	97.44	0.11	0.53
NVNT	ac20	5240	Ant1	97.44	0.11	0.53
NVNT	ac40	5190	Ant1	91.26	0.4	1.06
NVNT	ac40	5230	Ant1	87.74	0.57	1.08
NVNT	ax20	5180	Ant1	89.57	0.48	0.68
NVNT	ax20	5200	Ant1	92.99	0.32	0.68
NVNT	ax20	5240	Ant1	94.81	0.23	0.68
NVNT	ax40	5190	Ant1	82.42	0.84	1.33
NVNT	ax40	5230	Ant1	92.5	0.34	1.35

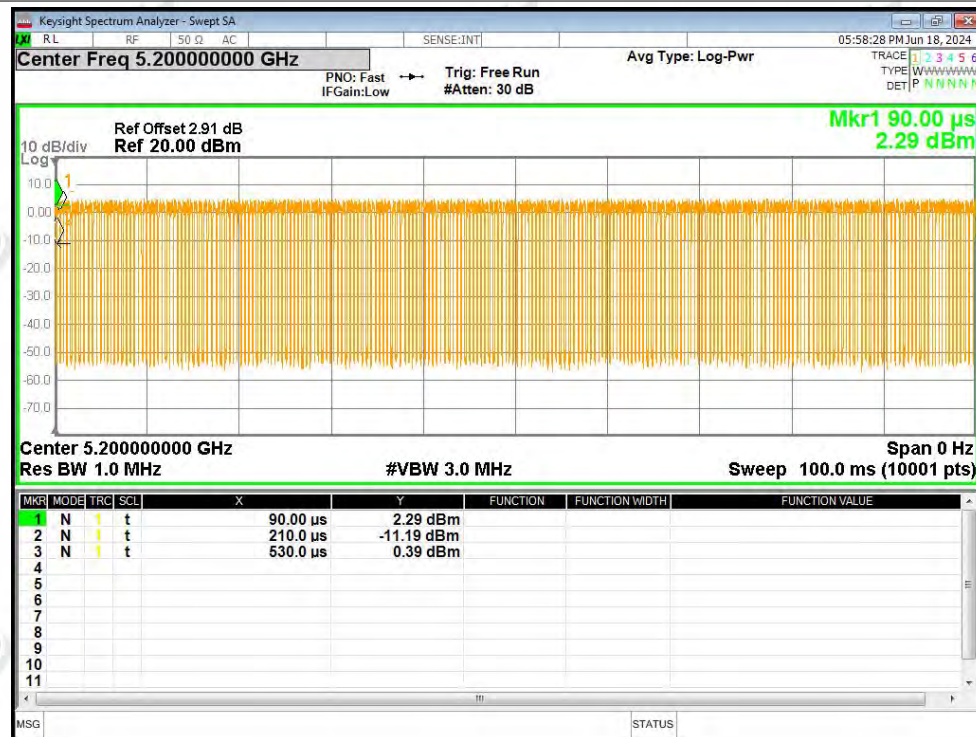


Test Graphs

Duty Cycle NVNT a 5180MHz Ant1

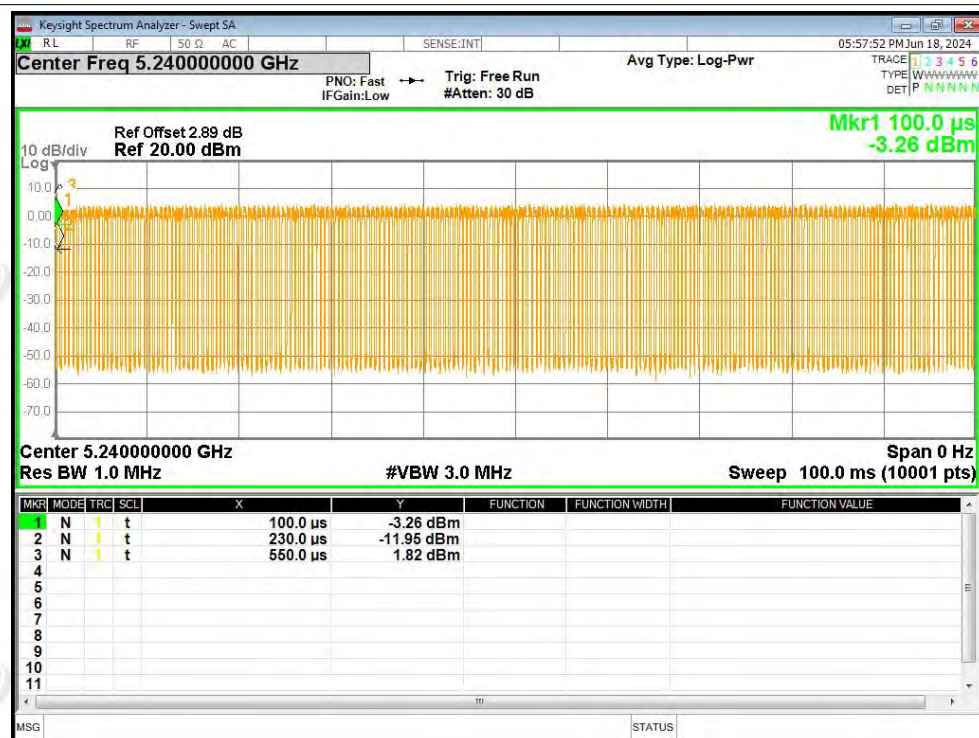


Duty Cycle NVNT a 5200MHz Ant1

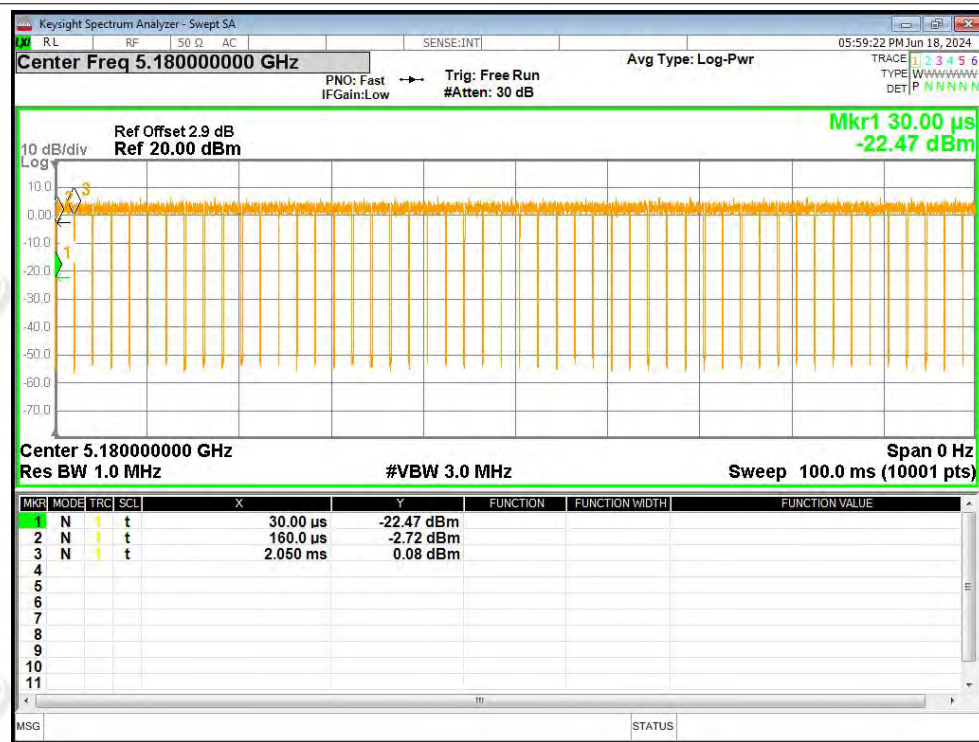




Duty Cycle NVNT a 5240MHz Ant1

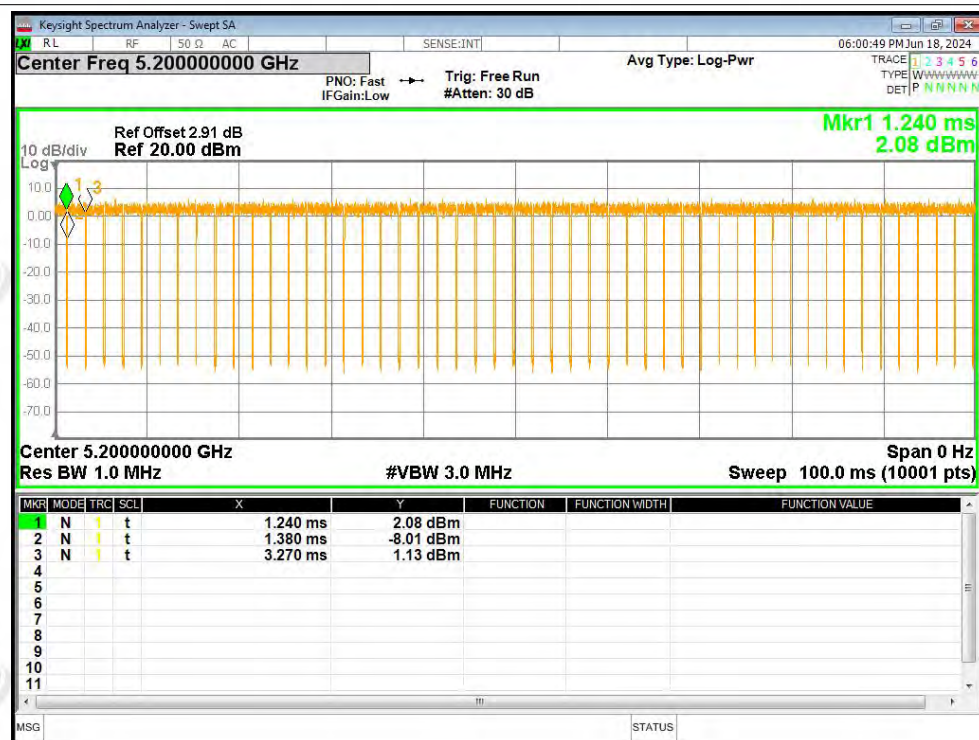


Duty Cycle NVNT n20 5180MHz Ant1

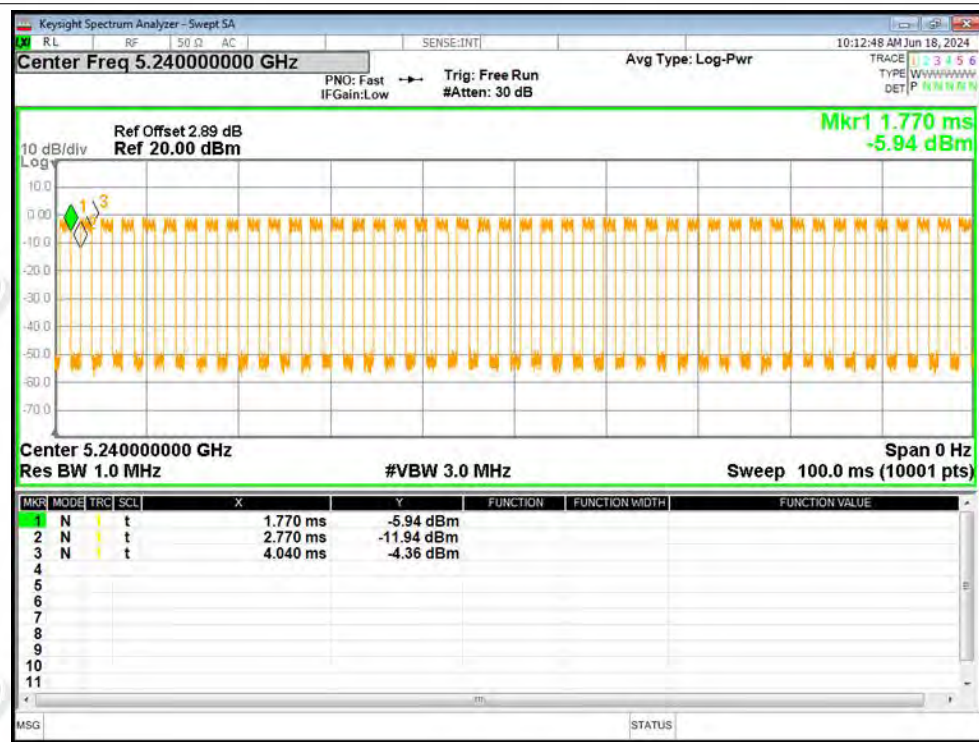




Duty Cycle NVNT n20 5200MHz Ant1

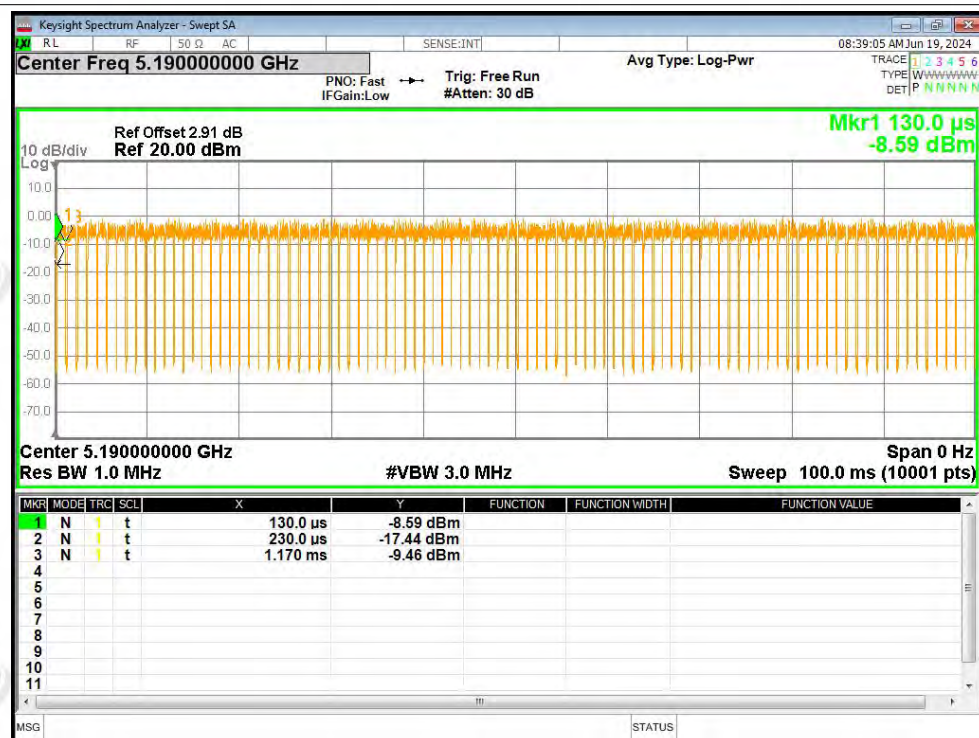


Duty Cycle NVNT n20 5240MHz Ant1

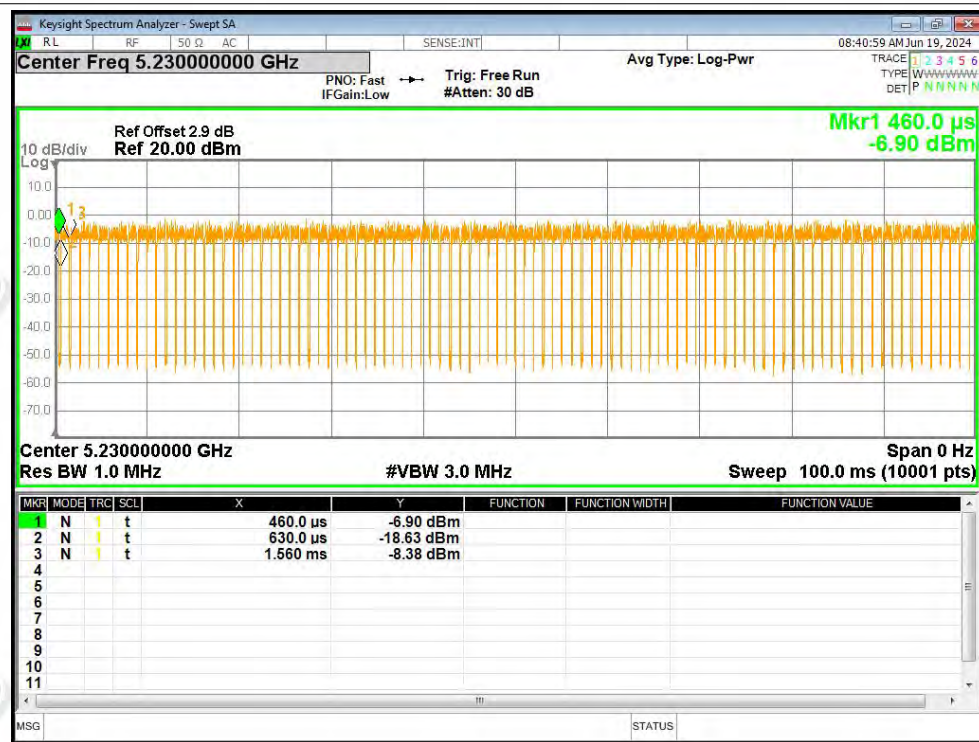




Duty Cycle NVNT n40 5190MHz Ant1

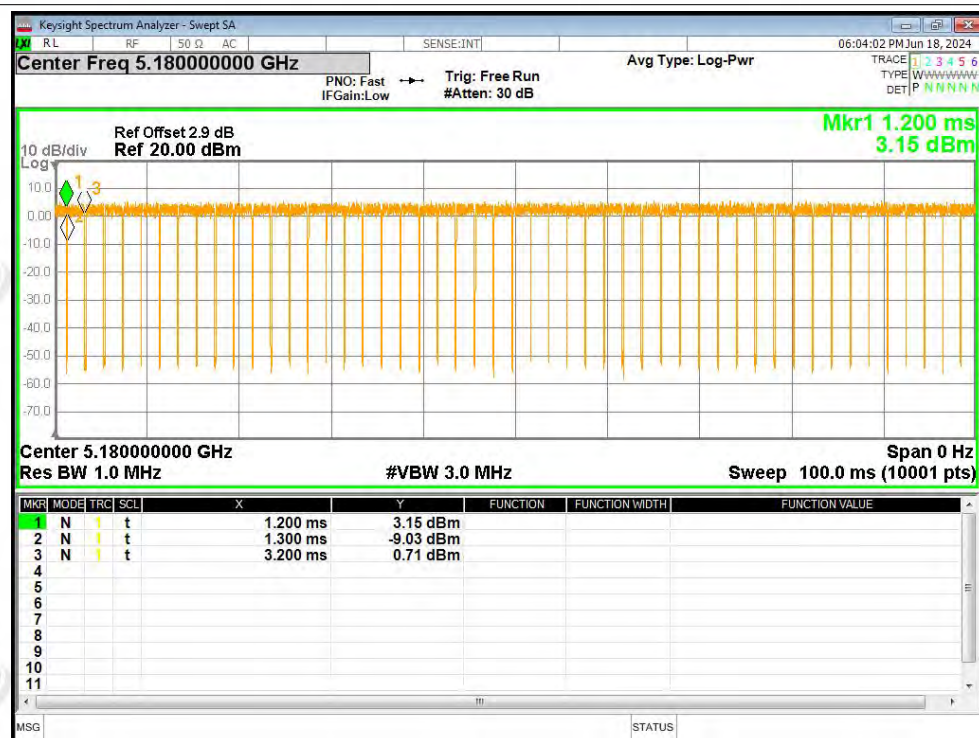


Duty Cycle NVNT n40 5230MHz Ant1

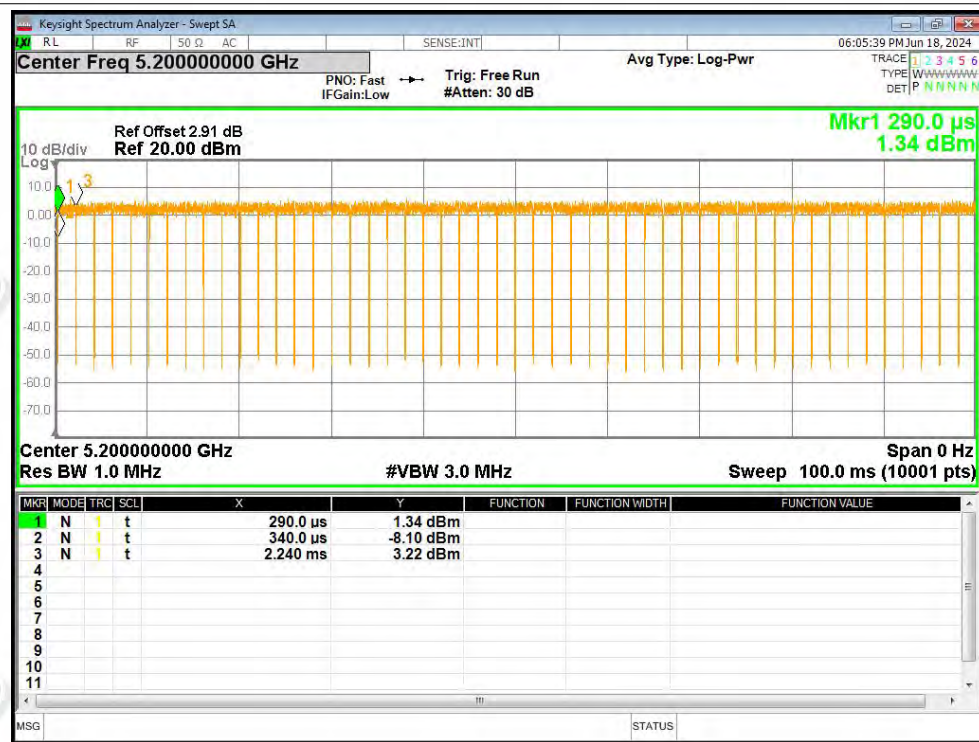




Duty Cycle NVNT ac20 5180MHz Ant1

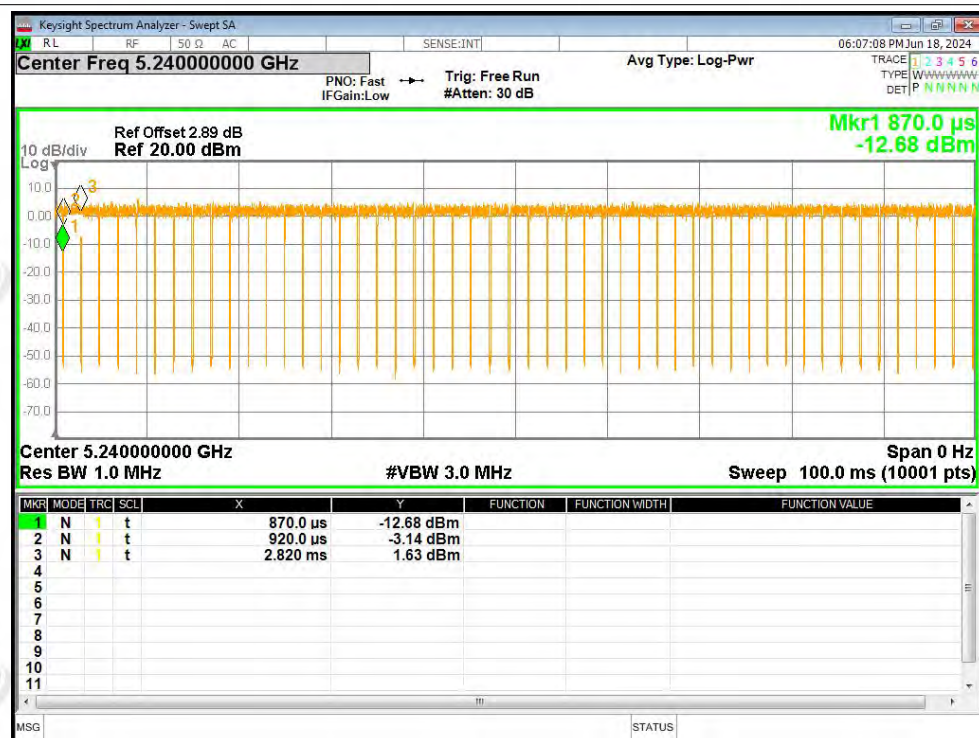


Duty Cycle NVNT ac20 5200MHz Ant1





Duty Cycle NVNT ac20 5240MHz Ant1

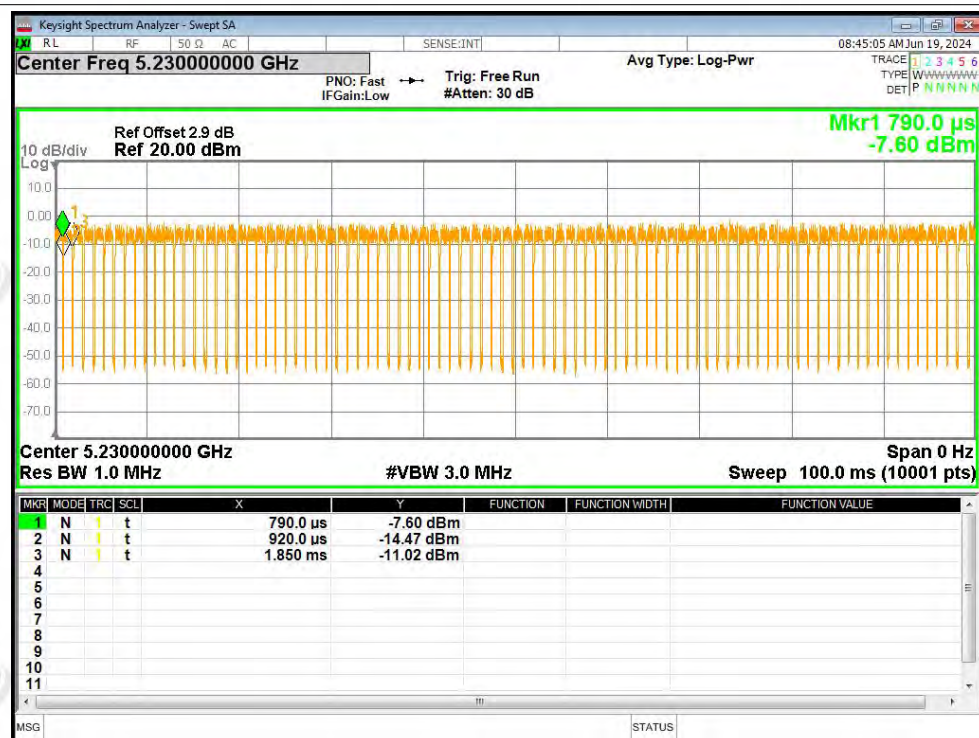


Duty Cycle NVNT ac40 5190MHz Ant1

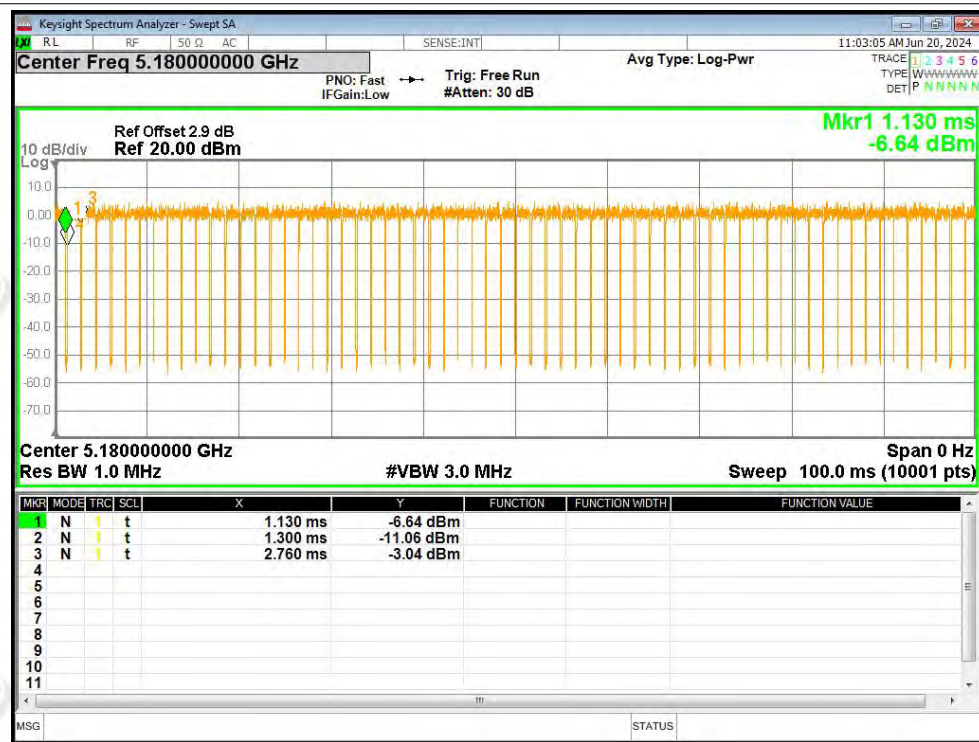




Duty Cycle NVNT ac40 5230MHz Ant1

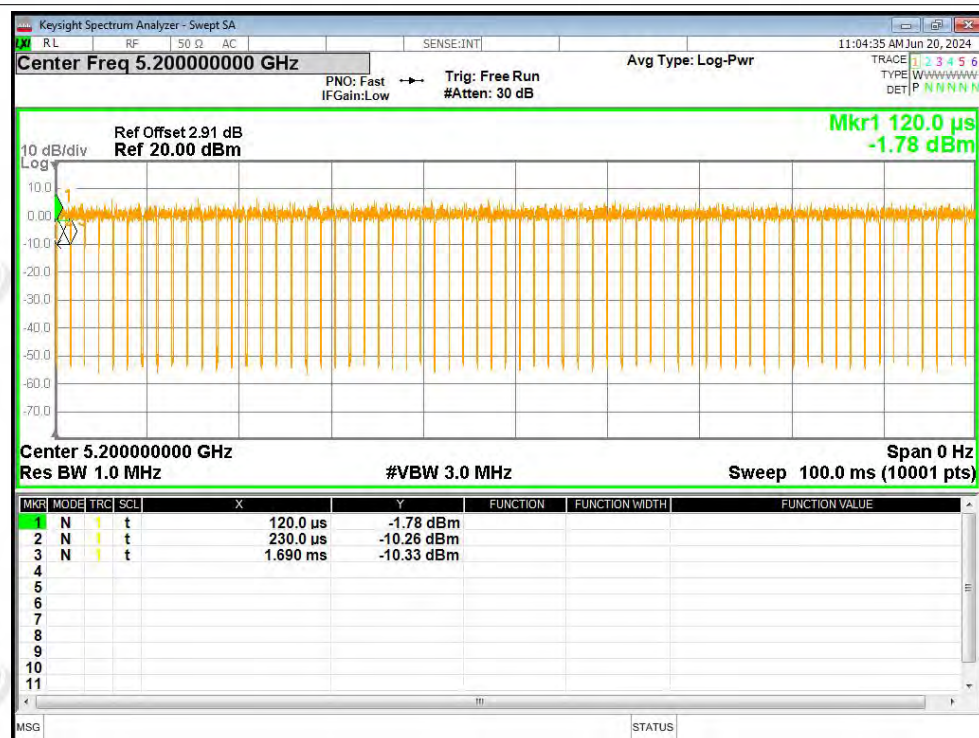


Duty Cycle NVNT ax20 5180MHz Ant1

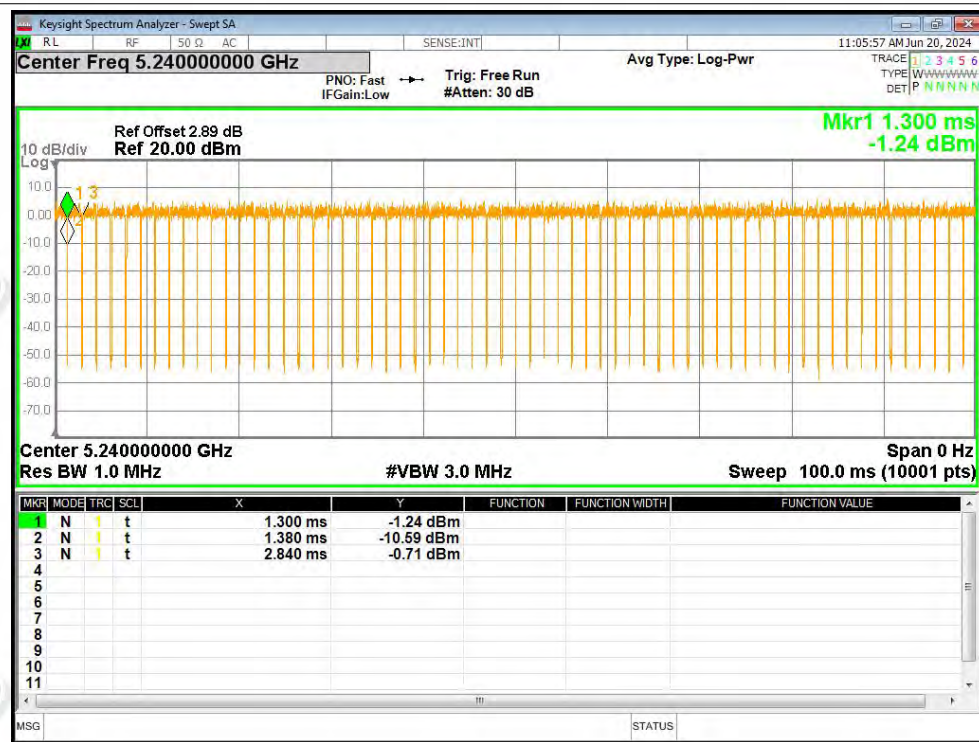




Duty Cycle NVNT ax20 5200MHz Ant1

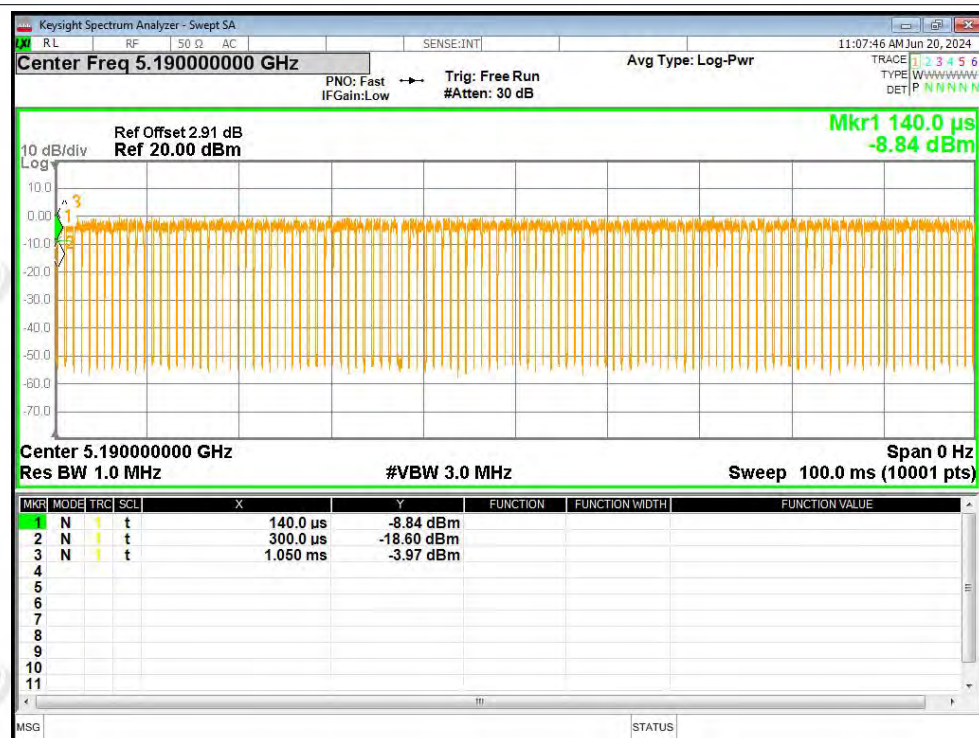


Duty Cycle NVNT ax20 5240MHz Ant1

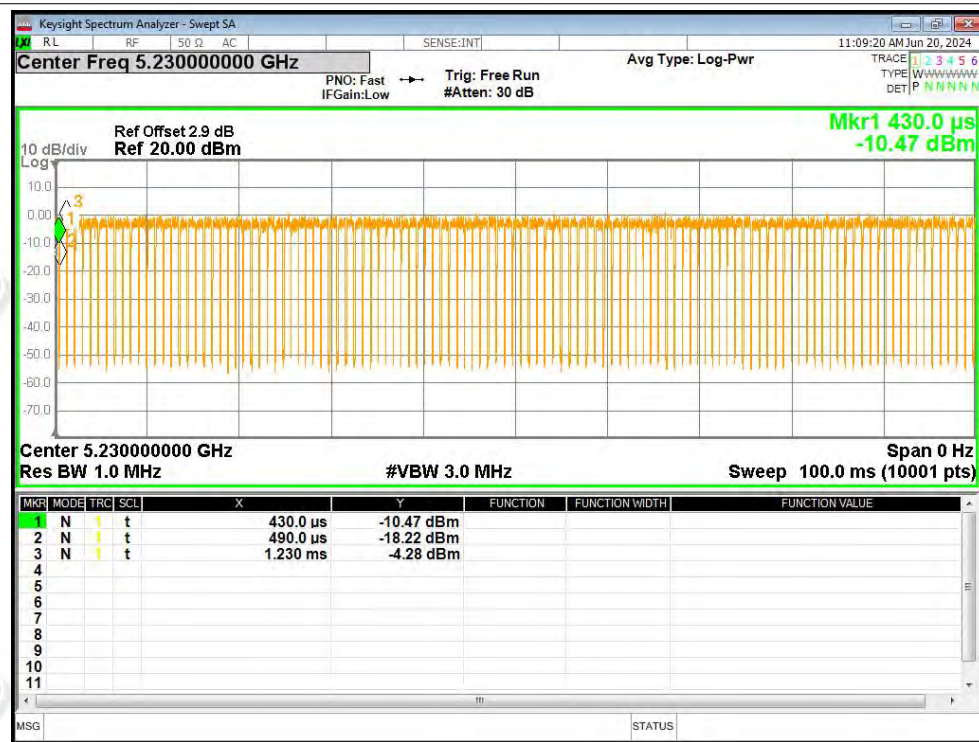




Duty Cycle NVNT ax40 5190MHz Ant1



Duty Cycle NVNT ax40 5230MHz Ant1





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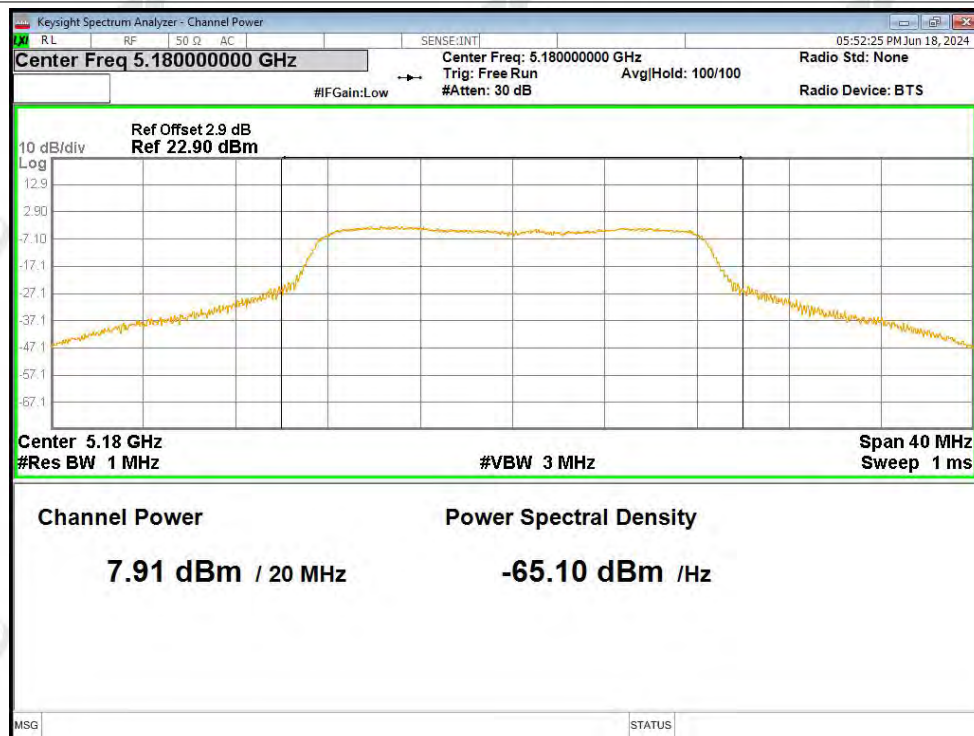
Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	7.91	1.94	9.85	24	Pass
NVNT	a	5200	Ant1	7.75	0.97	8.72	24	Pass
NVNT	a	5240	Ant1	7.15	0	7.15	24	Pass
NVNT	n20	5180	Ant1	9.78	0.29	10.07	24	Pass
NVNT	n20	5200	Ant1	9.7	0.31	10.01	24	Pass
NVNT	n20	5240	Ant1	9.19	0	9.19	24	Pass
NVNT	n40	5190	Ant1	7.9	0.44	8.34	24	Pass
NVNT	n40	5230	Ant1	6.82	0.73	7.55	24	Pass
NVNT	ac20	5180	Ant1	9.45	0.22	9.67	24	Pass
NVNT	ac20	5200	Ant1	9.58	0.11	9.69	24	Pass
NVNT	ac20	5240	Ant1	9.05	0.11	9.16	24	Pass
NVNT	ac40	5190	Ant1	7.29	0.4	7.69	24	Pass
NVNT	ac40	5230	Ant1	6.44	0.57	7.01	24	Pass
NVNT	ax20	5180	Ant1	7.47	0.48	7.95	24	Pass
NVNT	ax20	5200	Ant1	7.53	0.32	7.85	24	Pass
NVNT	ax20	5240	Ant1	7.91	0.23	8.14	24	Pass
NVNT	ax40	5190	Ant1	7.16	0.84	8	24	Pass
NVNT	ax40	5230	Ant1	7.43	0.34	7.77	24	Pass

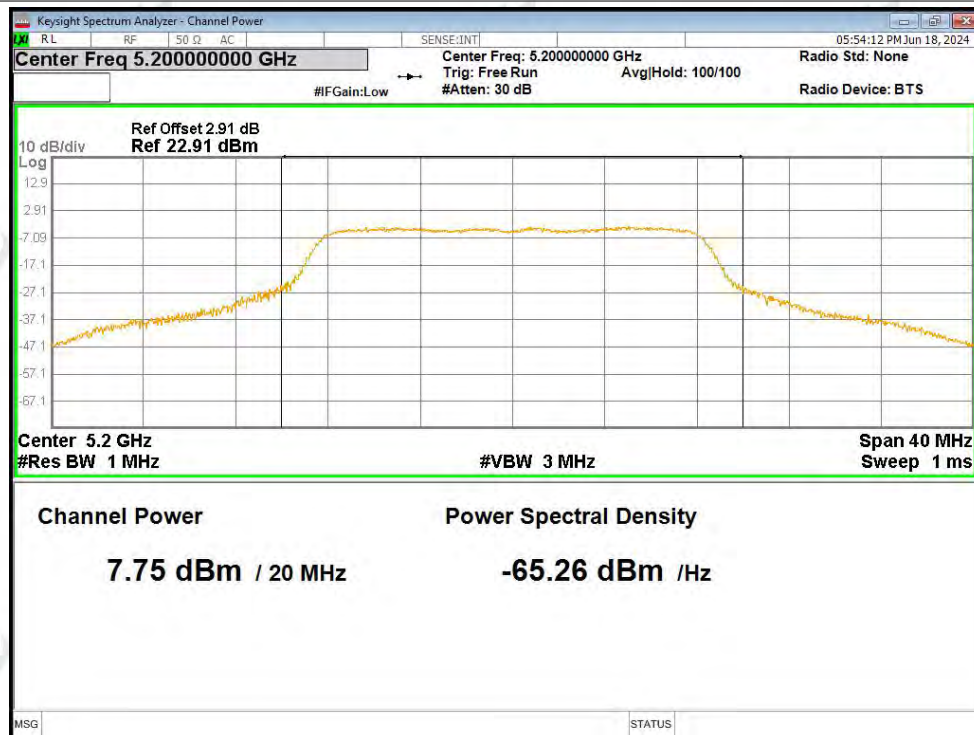


Test Graphs

Power NVNT a 5180MHz Ant1

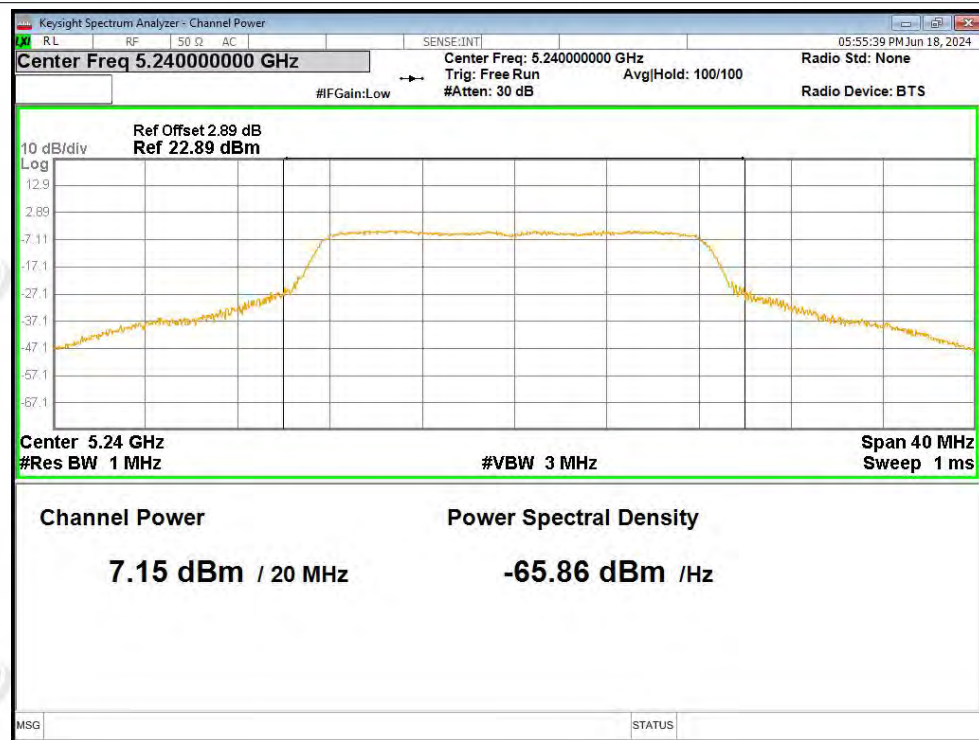


Power NVNT a 5200MHz Ant1

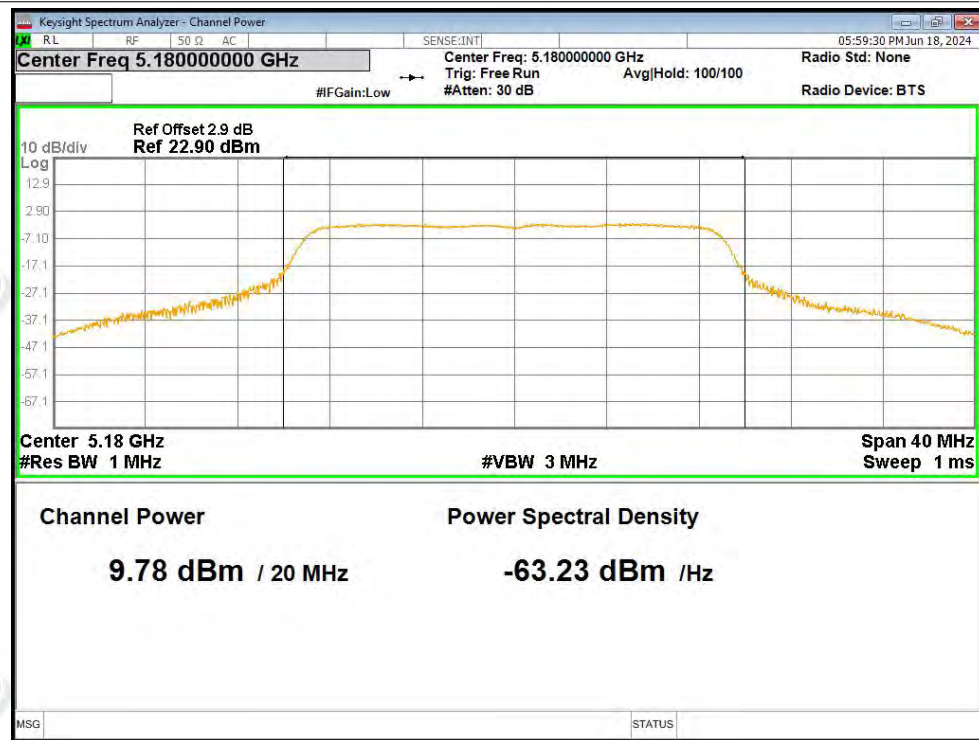




Power NVNT a 5240MHz Ant1



Power NVNT n20 5180MHz Ant1

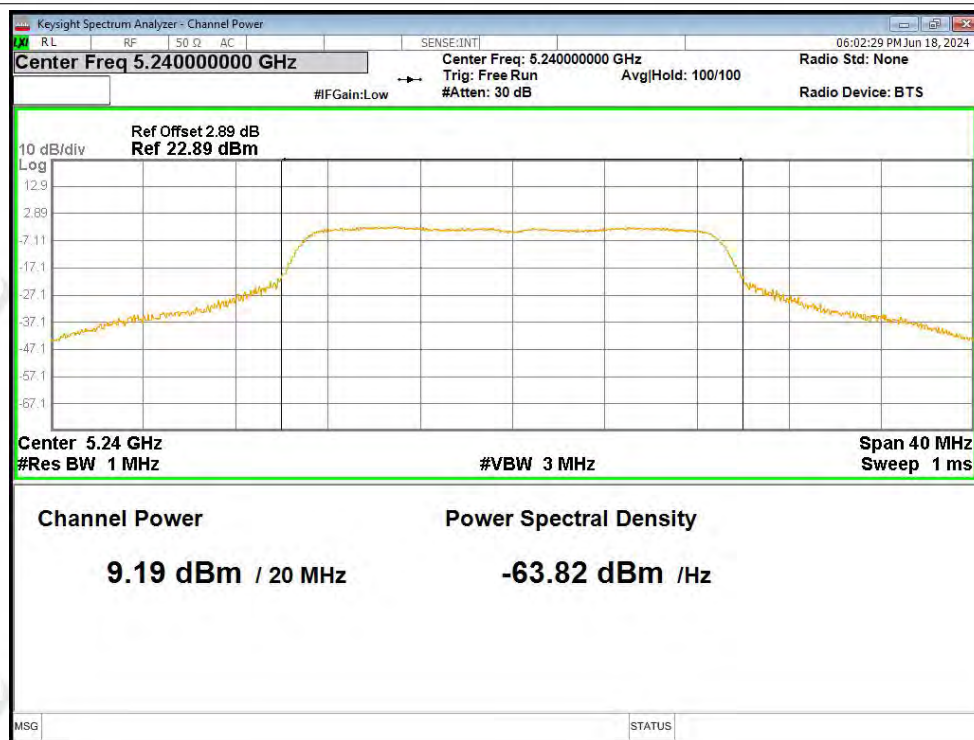




Power NVNT n20 5200MHz Ant1

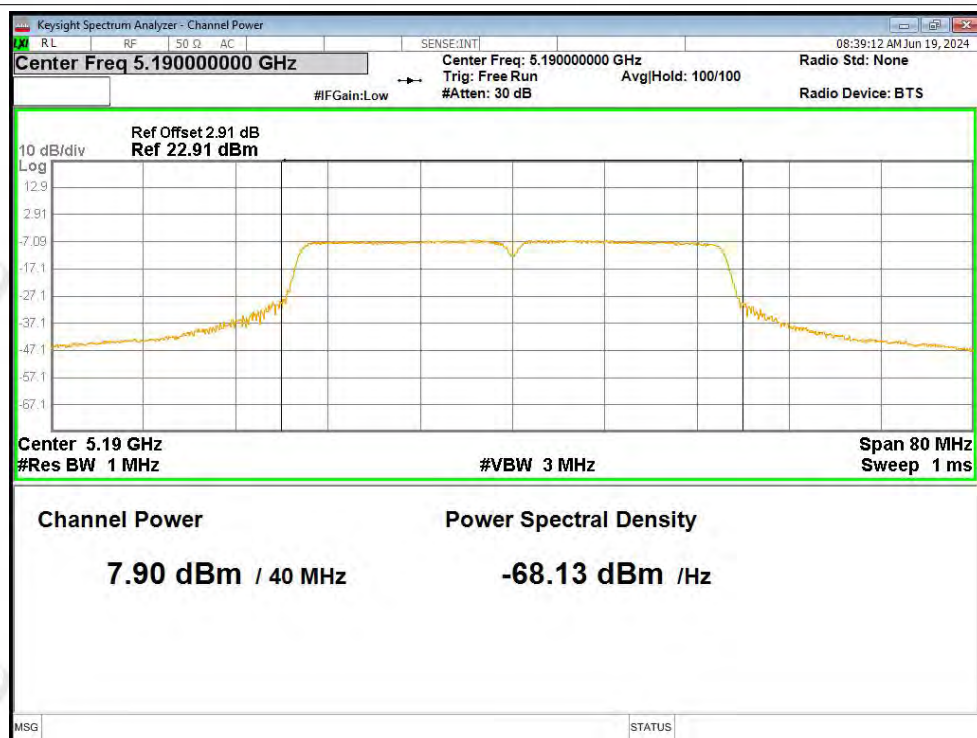


Power NVNT n20 5240MHz Ant1

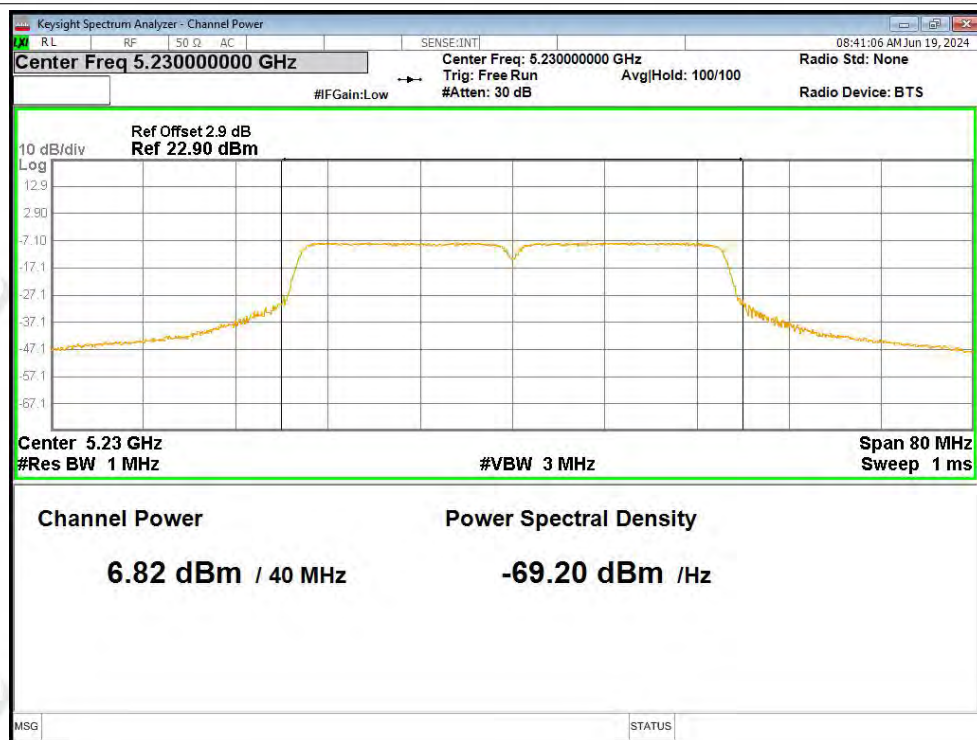




Power NVNT n40 5190MHz Ant1

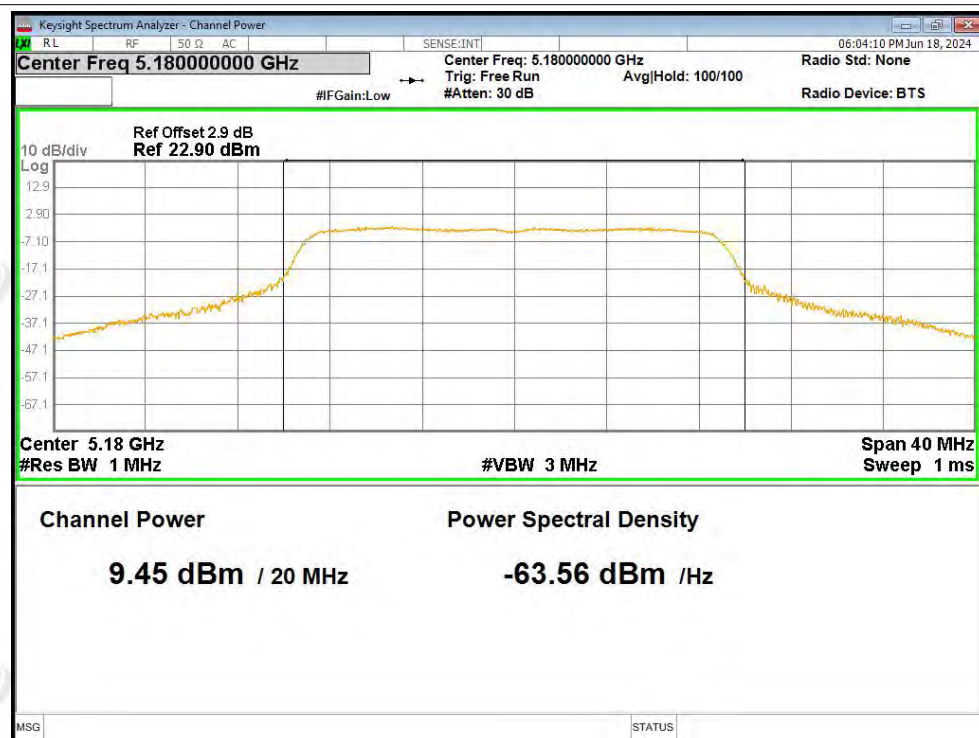


Power NVNT n40 5230MHz Ant1

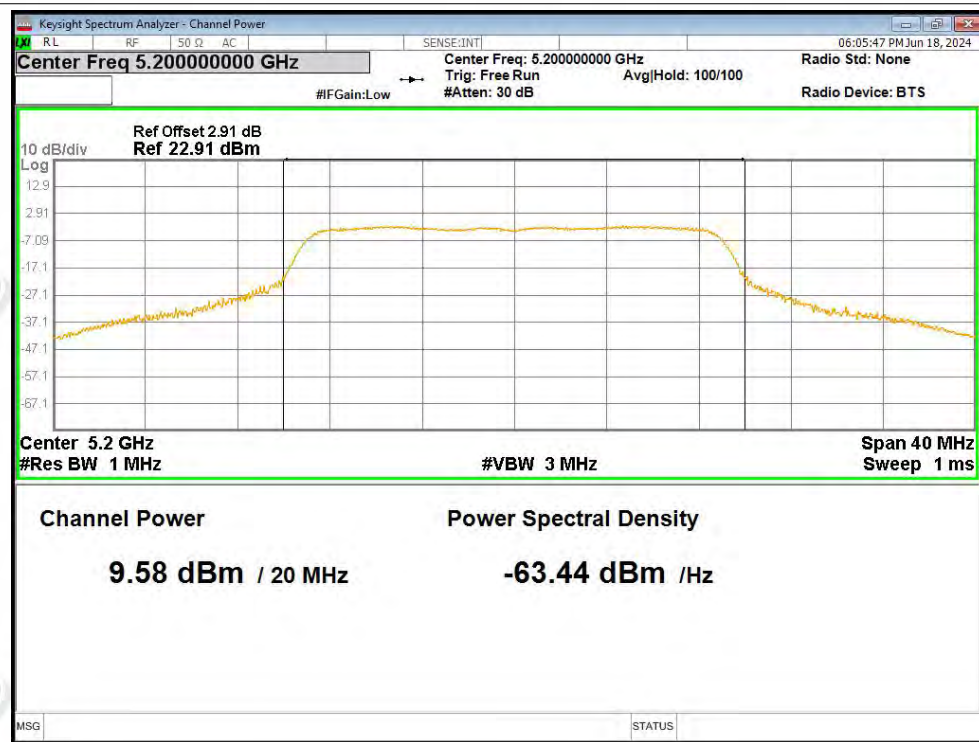




Power NVNT ac20 5180MHz Ant1

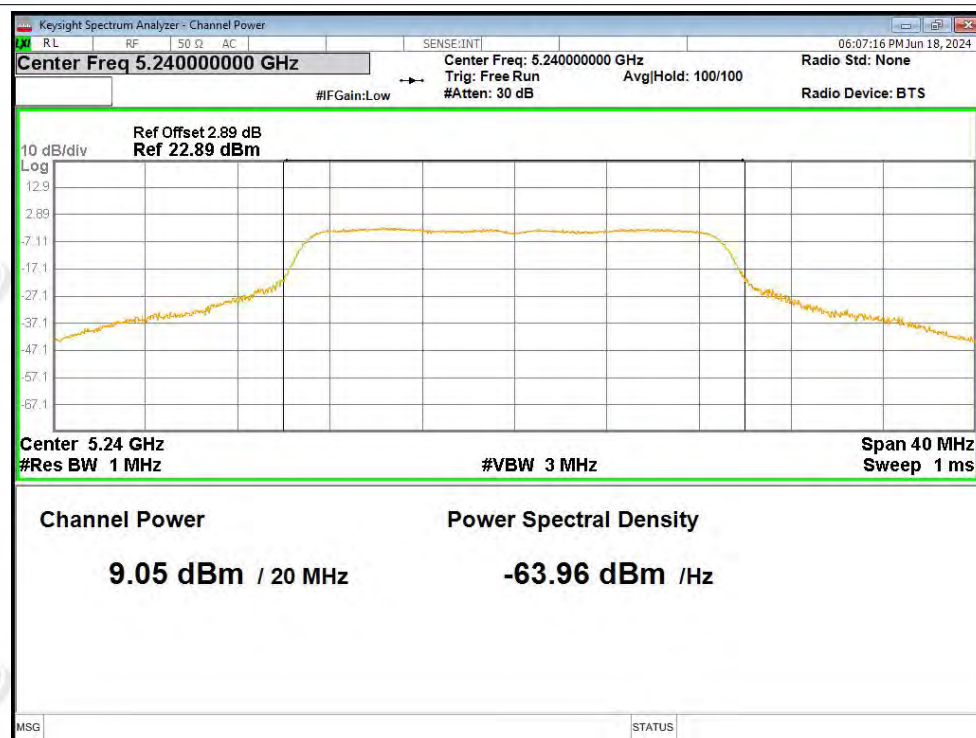


Power NVNT ac20 5200MHz Ant1

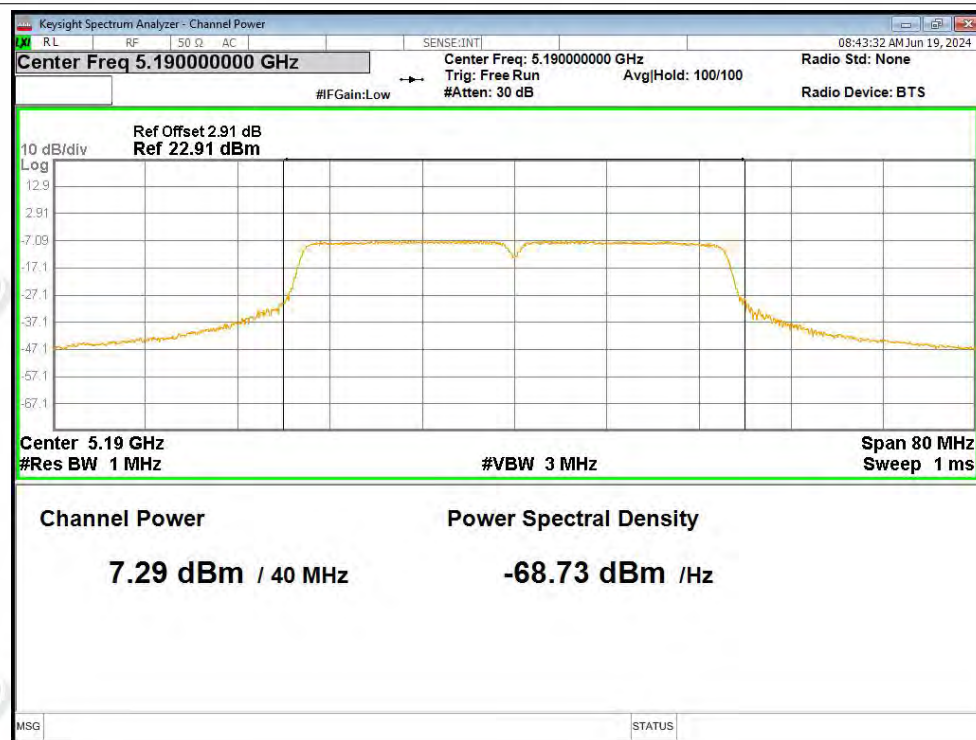




Power NVNT ac20 5240MHz Ant1



Power NVNT ac40 5190MHz Ant1

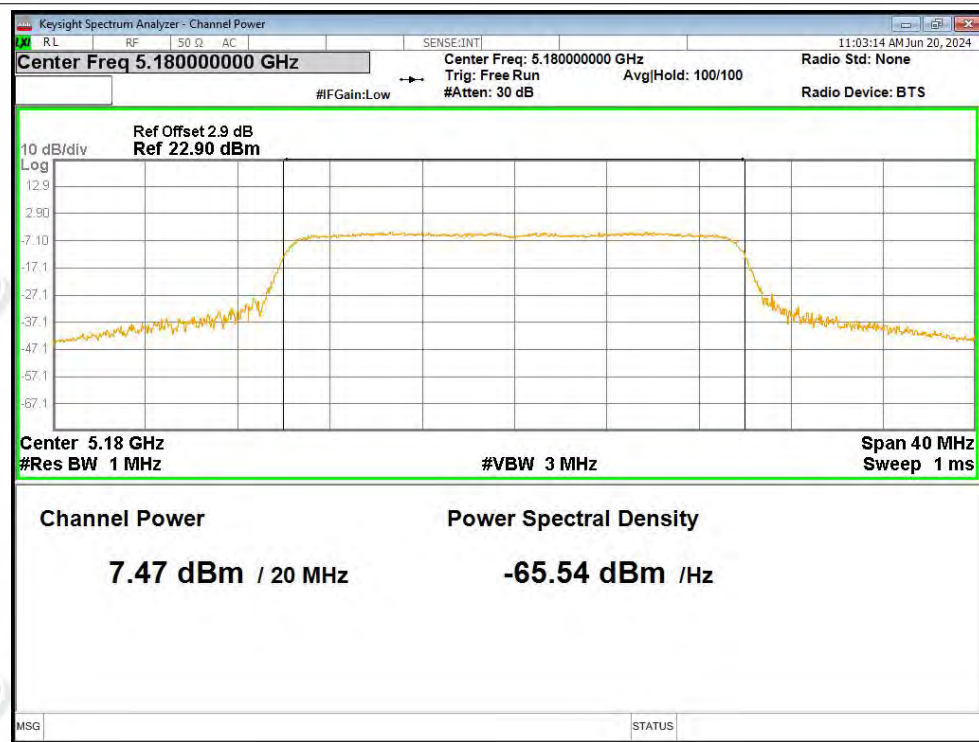




Power NVNT ac40 5230MHz Ant1



Power NVNT ax20 5180MHz Ant1

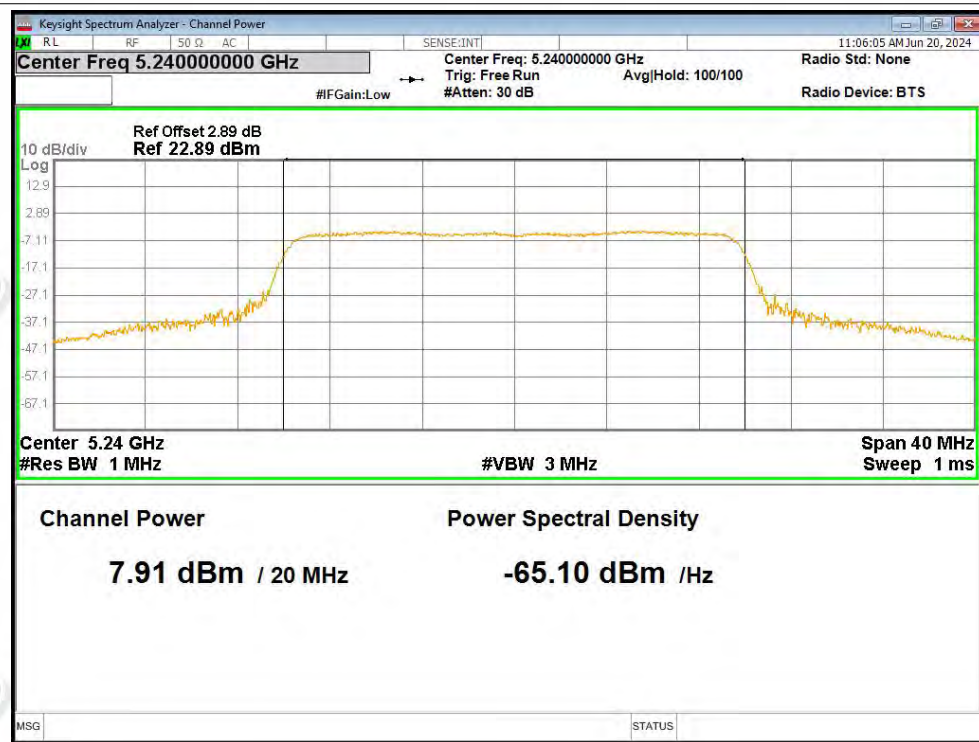




Power NVNT ax20 5200MHz Ant1

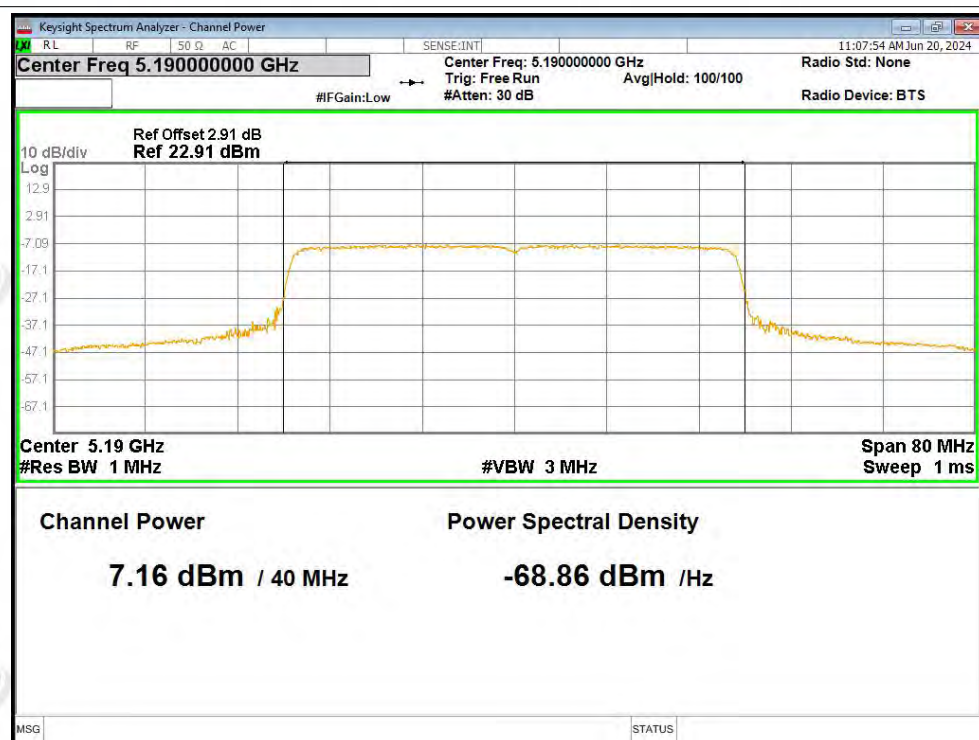


Power NVNT ax20 5240MHz Ant1

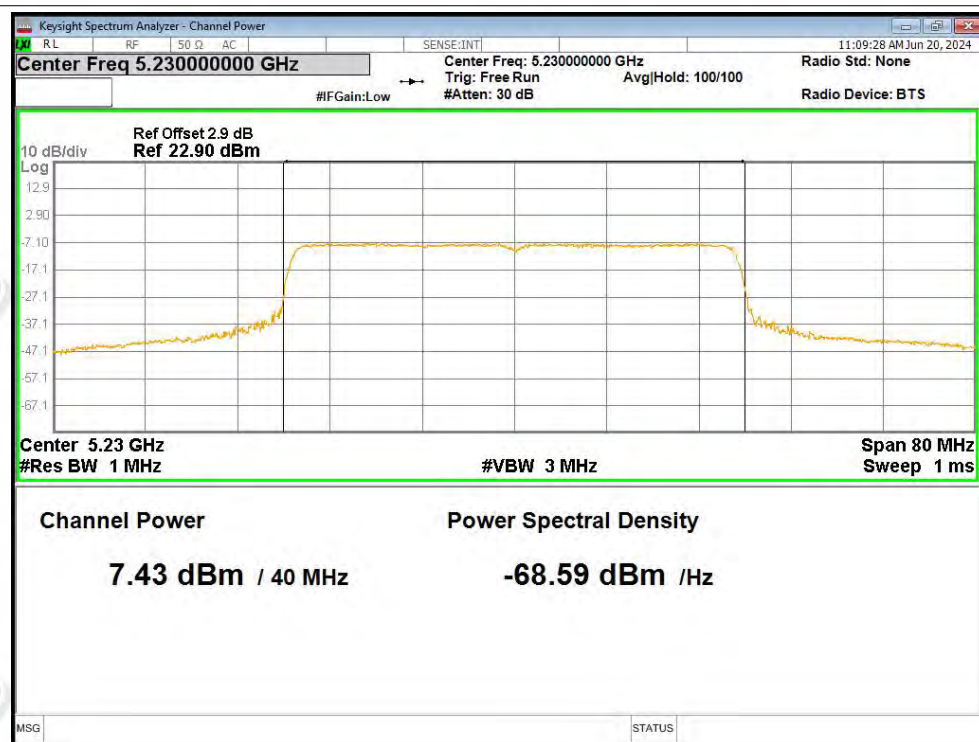




Power NVNT ax40 5190MHz Ant1



Power NVNT ax40 5230MHz Ant1



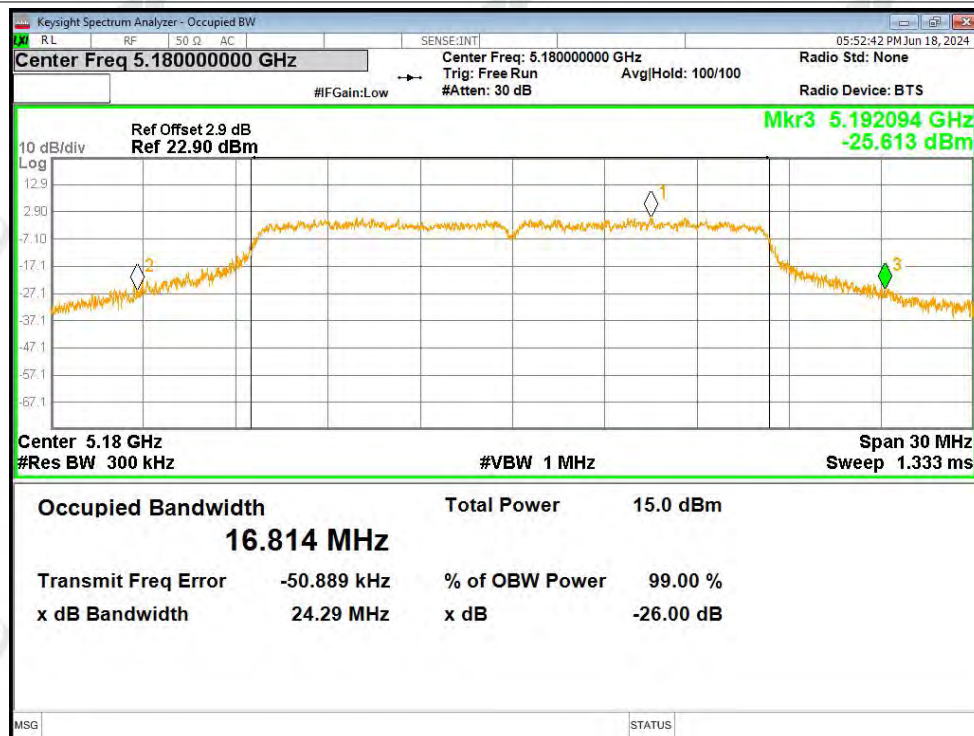
**-26dB Bandwidth**

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	24.291	Pass
NVNT	a	5200	Ant1	24.056	Pass
NVNT	a	5240	Ant1	24.004	Pass
NVNT	n20	5180	Ant1	26.193	Pass
NVNT	n20	5200	Ant1	27.443	Pass
NVNT	n20	5240	Ant1	26.033	Pass
NVNT	n40	5190	Ant1	44.683	Pass
NVNT	n40	5230	Ant1	47.167	Pass
NVNT	ac20	5180	Ant1	26.409	Pass
NVNT	ac20	5200	Ant1	26.157	Pass
NVNT	ac20	5240	Ant1	26.042	Pass
NVNT	ac40	5190	Ant1	47.409	Pass
NVNT	ac40	5230	Ant1	47.277	Pass
NVNT	ax20	5180	Ant1	25.225	Pass
NVNT	ax20	5200	Ant1	24.989	Pass
NVNT	ax20	5240	Ant1	25.752	Pass
NVNT	ax40	5190	Ant1	45.72	Pass
NVNT	ax40	5230	Ant1	45.01	Pass

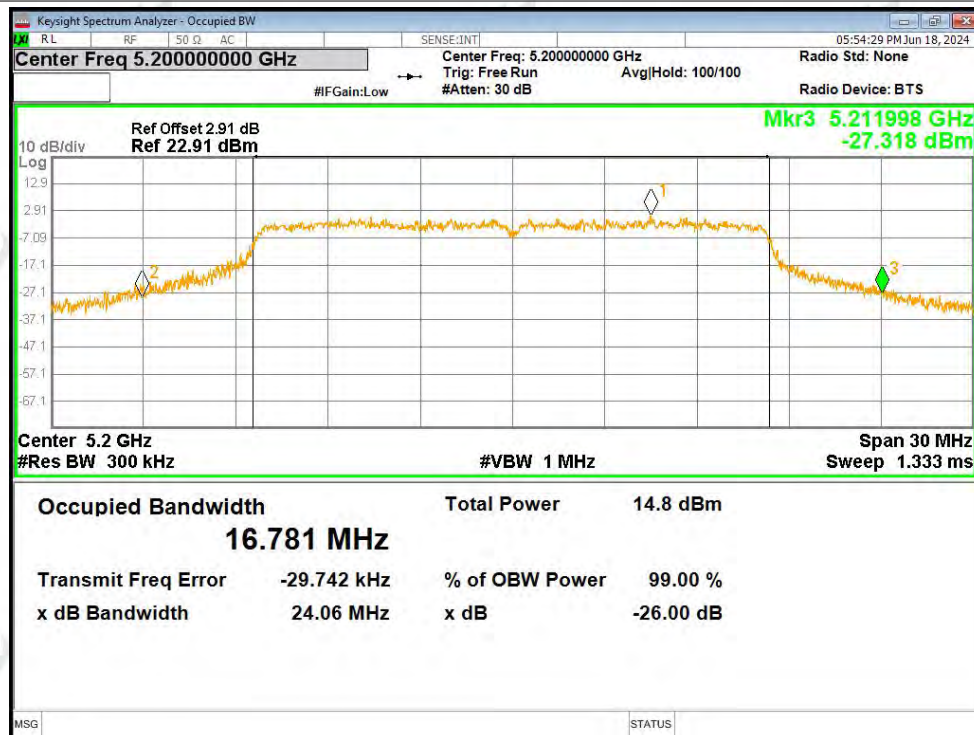


Test Graphs

-26dB Bandwidth NVNT a 5180MHz Ant1

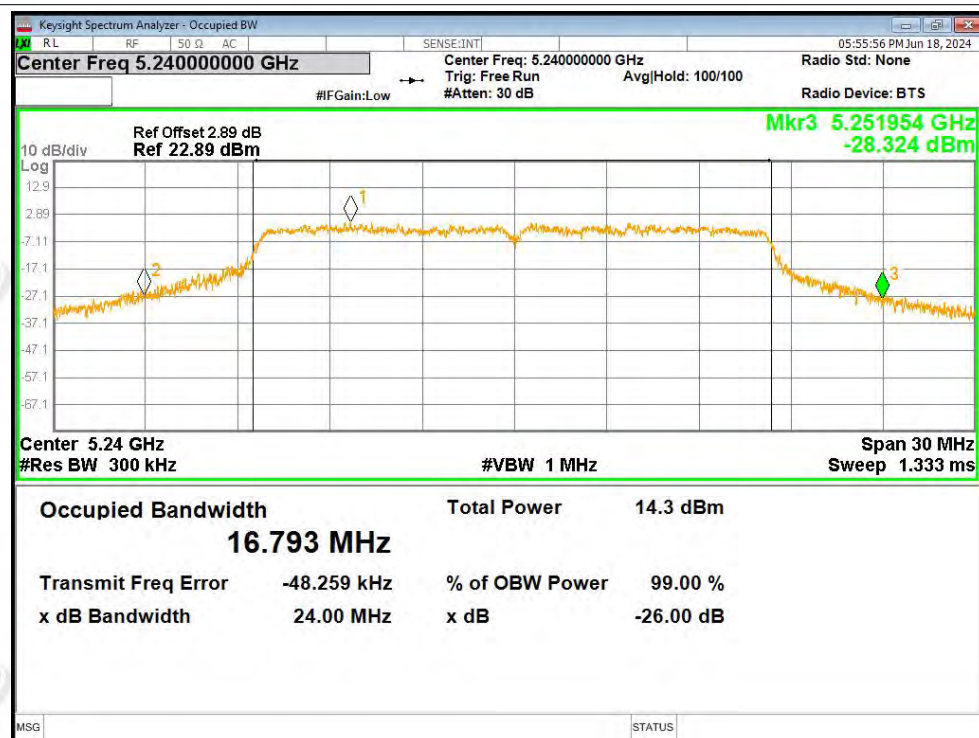


-26dB Bandwidth NVNT a 5200MHz Ant1

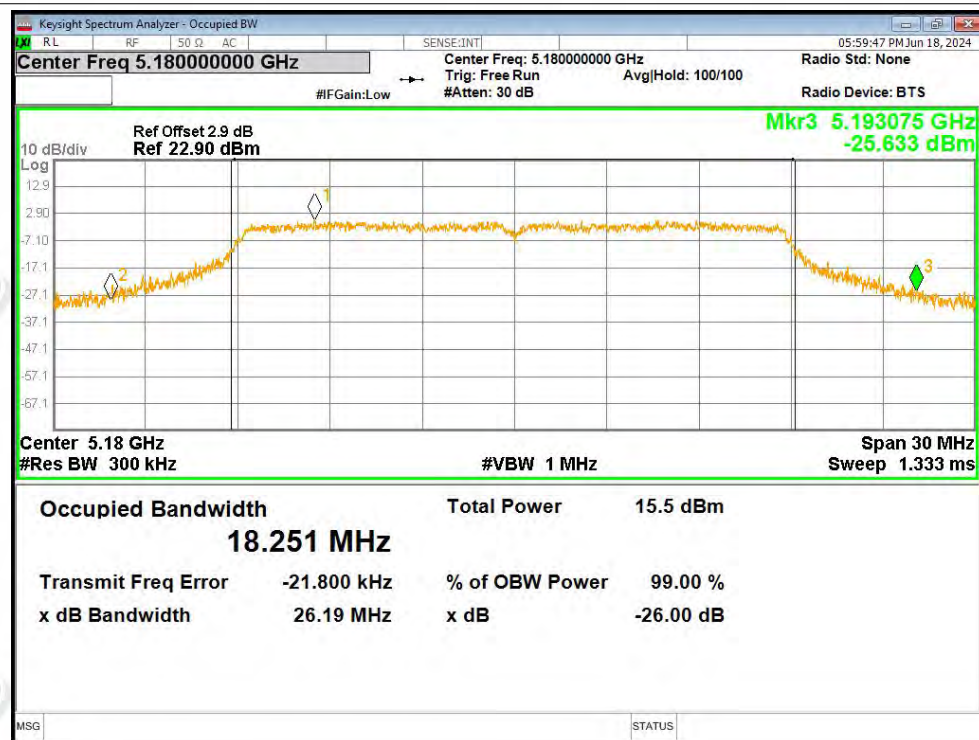




-26dB Bandwidth NVNT a 5240MHz Ant1

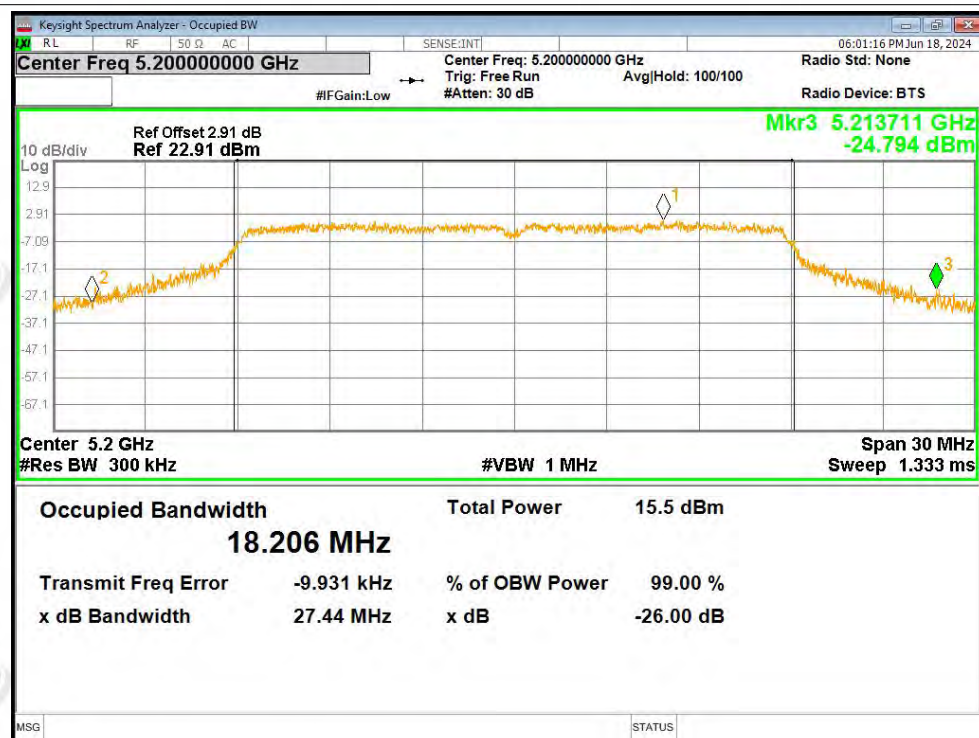


-26dB Bandwidth NVNT n20 5180MHz Ant1

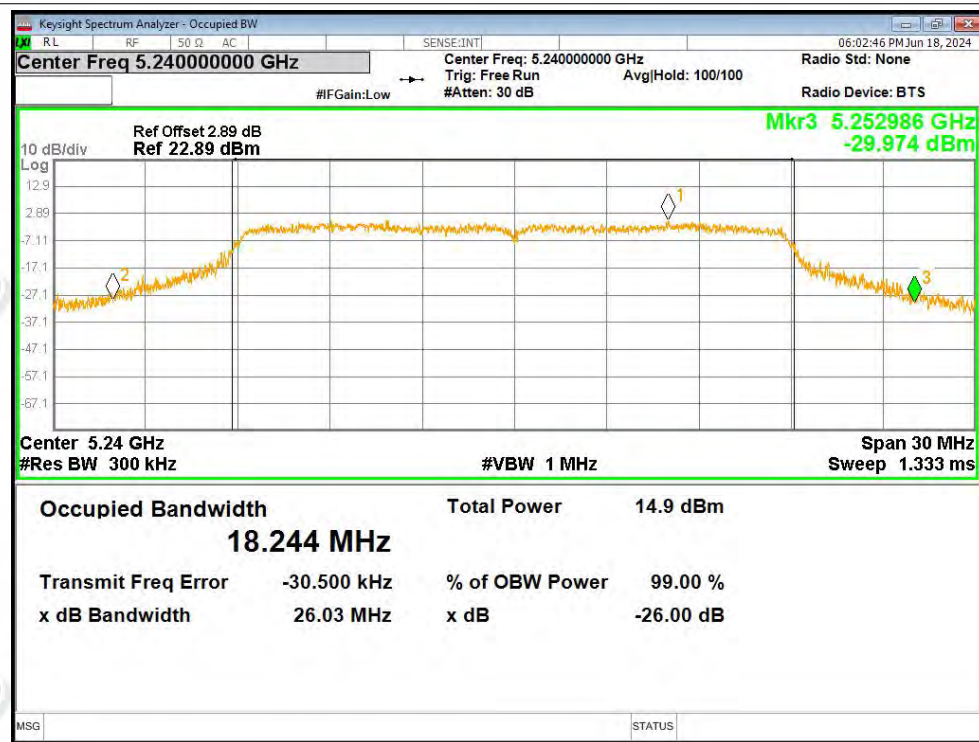




-26dB Bandwidth NVNT n20 5200MHz Ant1

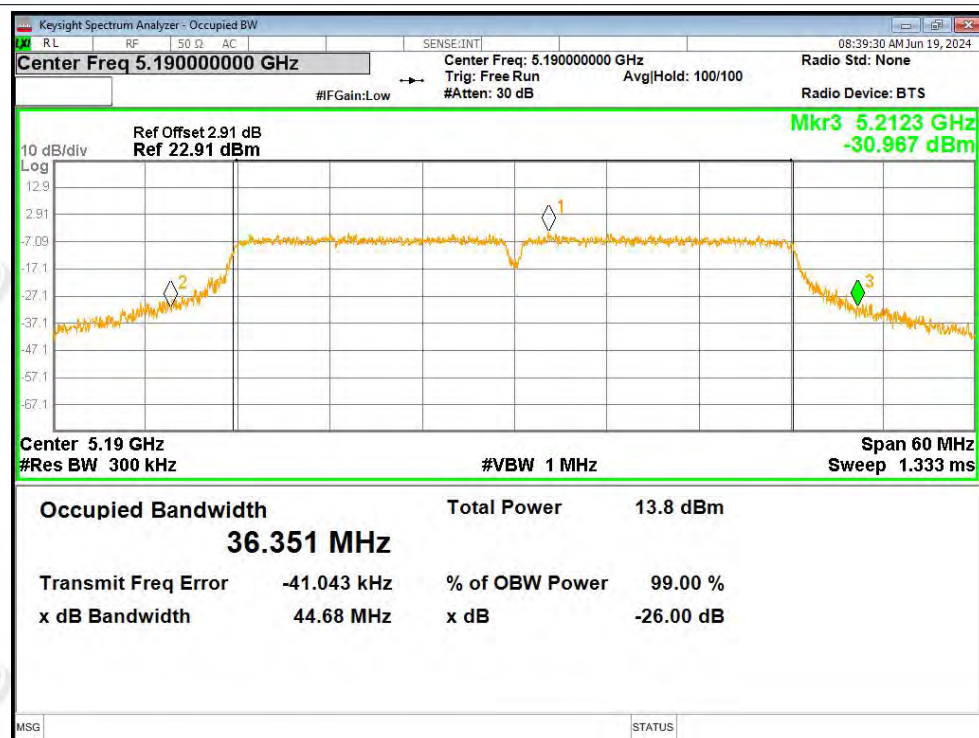


-26dB Bandwidth NVNT n20 5240MHz Ant1

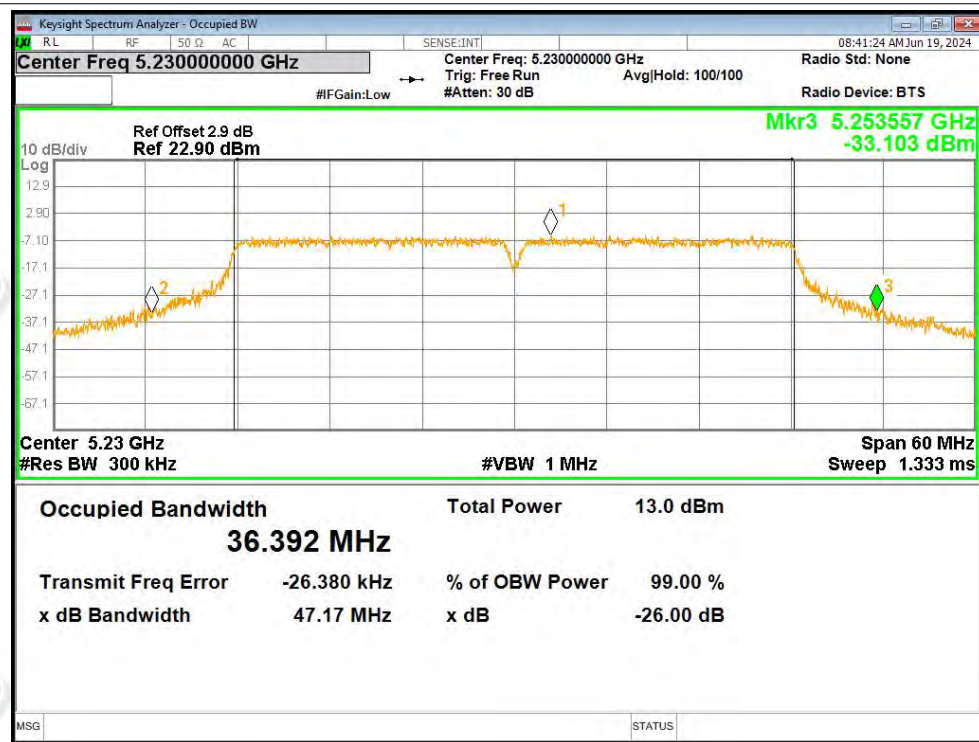




-26dB Bandwidth NVNT n40 5190MHz Ant1

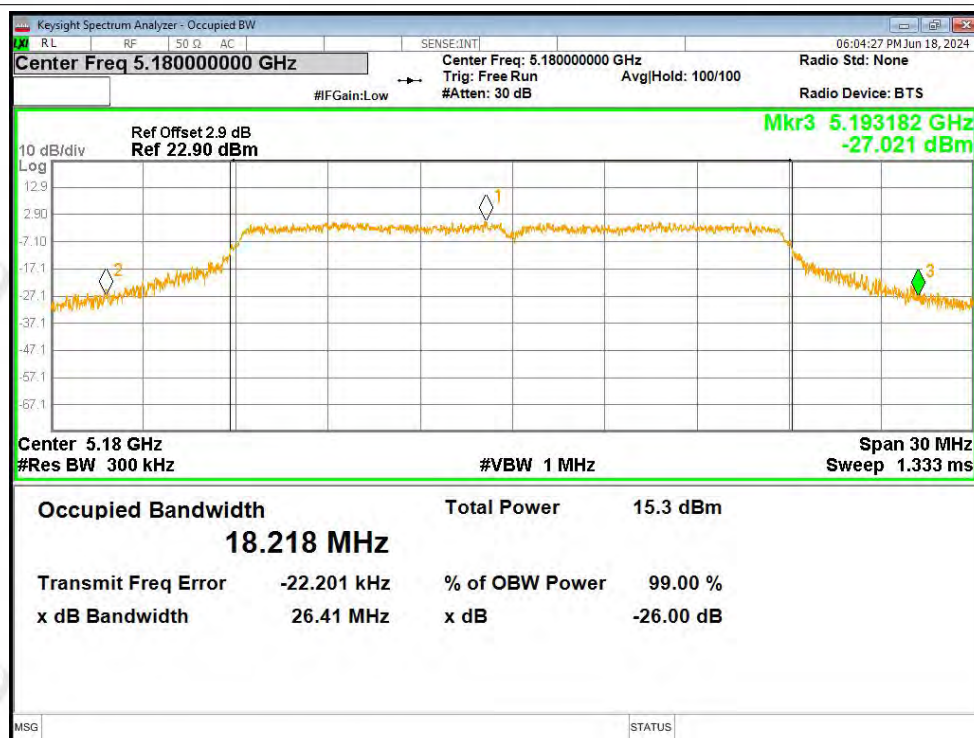


-26dB Bandwidth NVNT n40 5230MHz Ant1

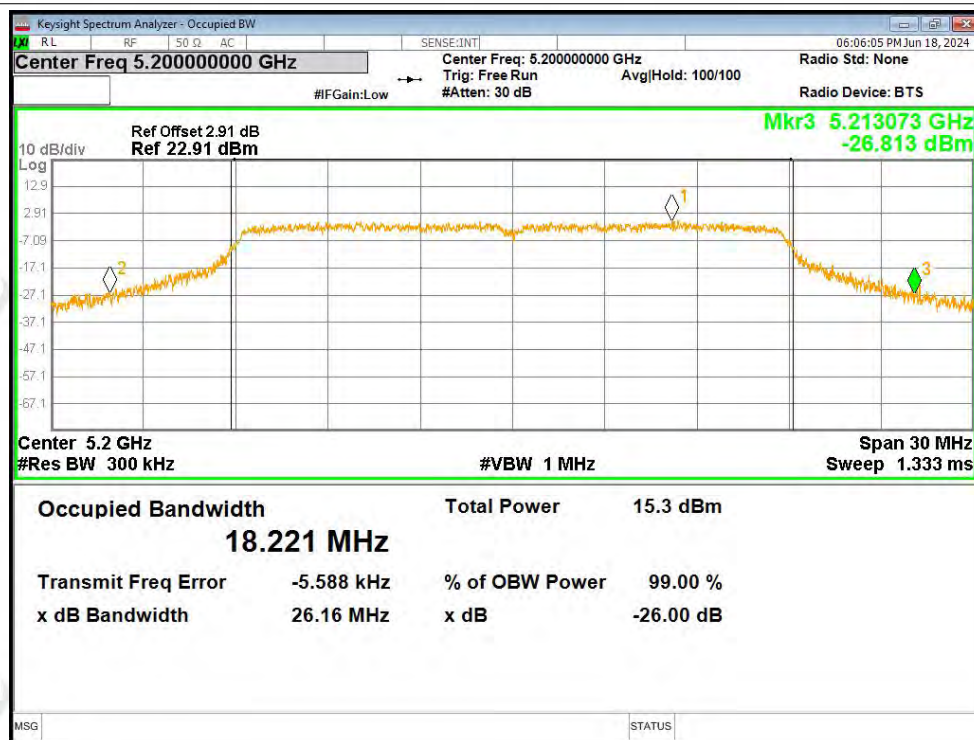




-26dB Bandwidth NVNT ac20 5180MHz Ant1

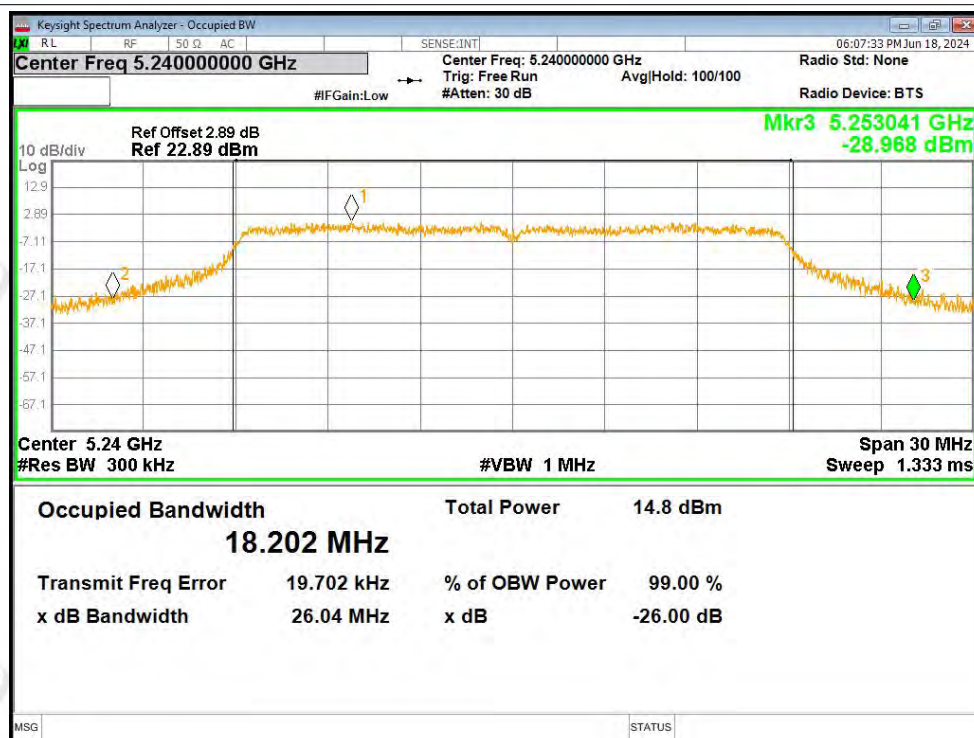


-26dB Bandwidth NVNT ac20 5200MHz Ant1

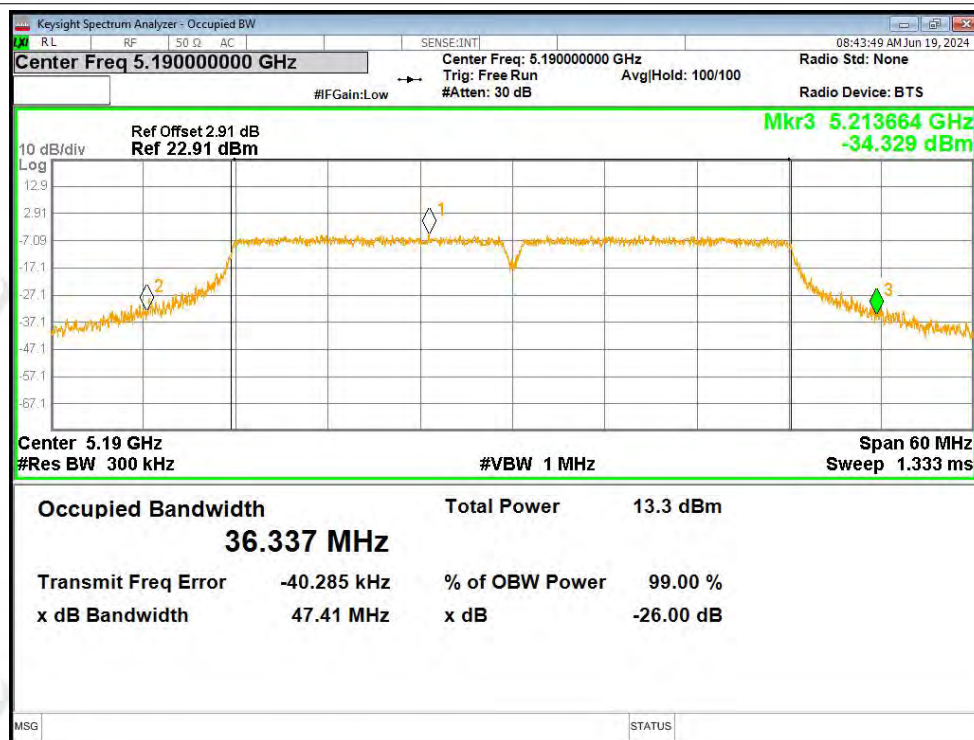




-26dB Bandwidth NVNT ac20 5240MHz Ant1

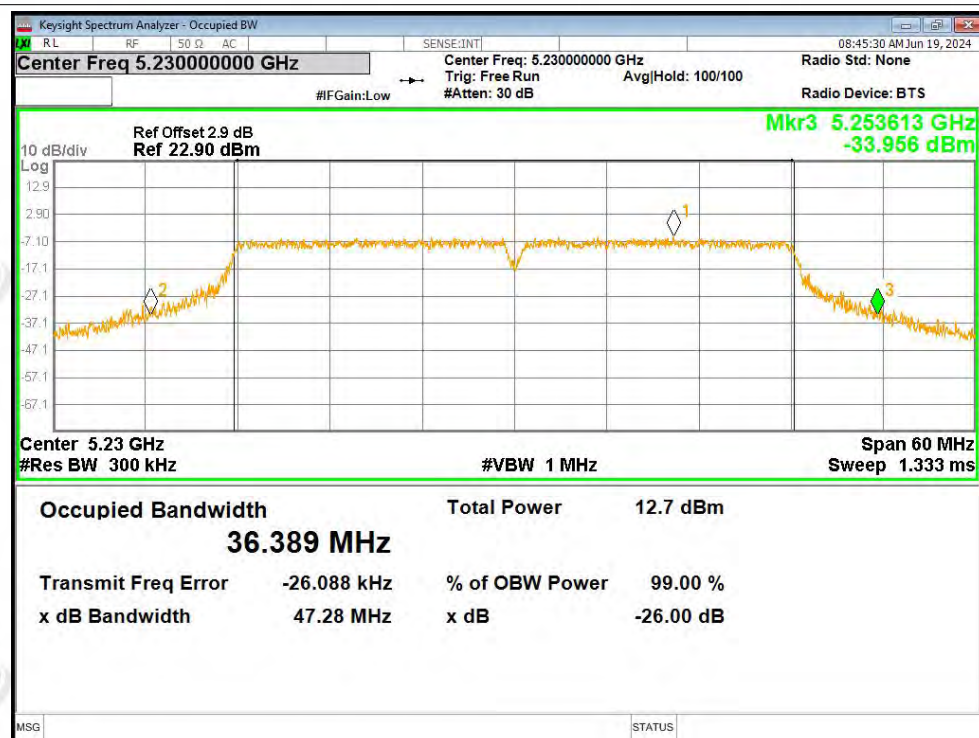


-26dB Bandwidth NVNT ac40 5190MHz Ant1

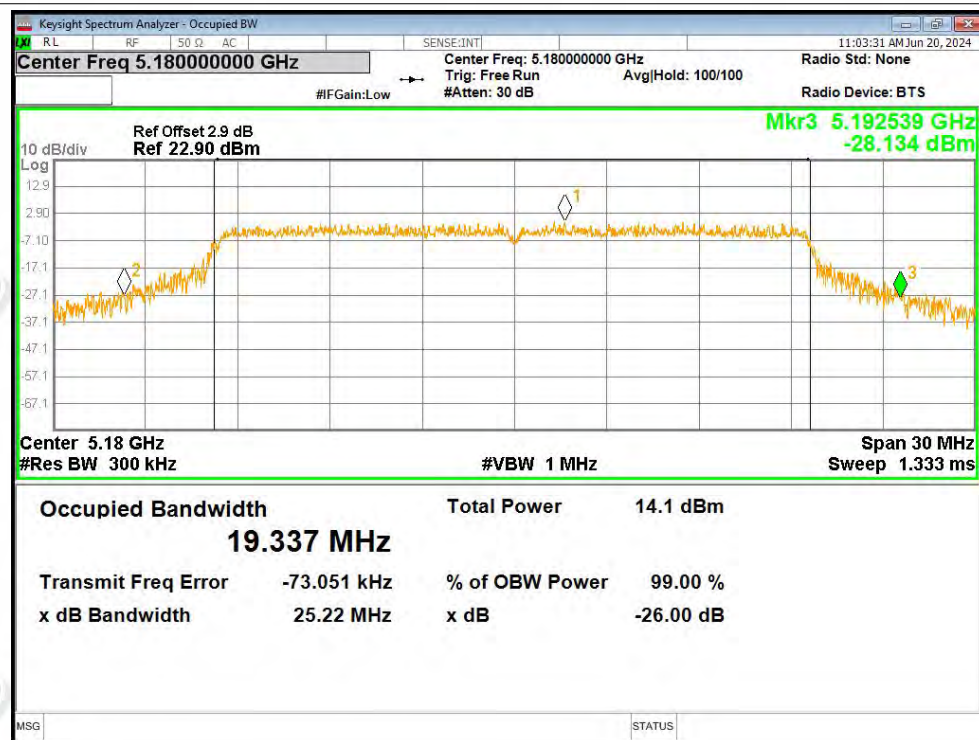




-26dB Bandwidth NVNT ac40 5230MHz Ant1

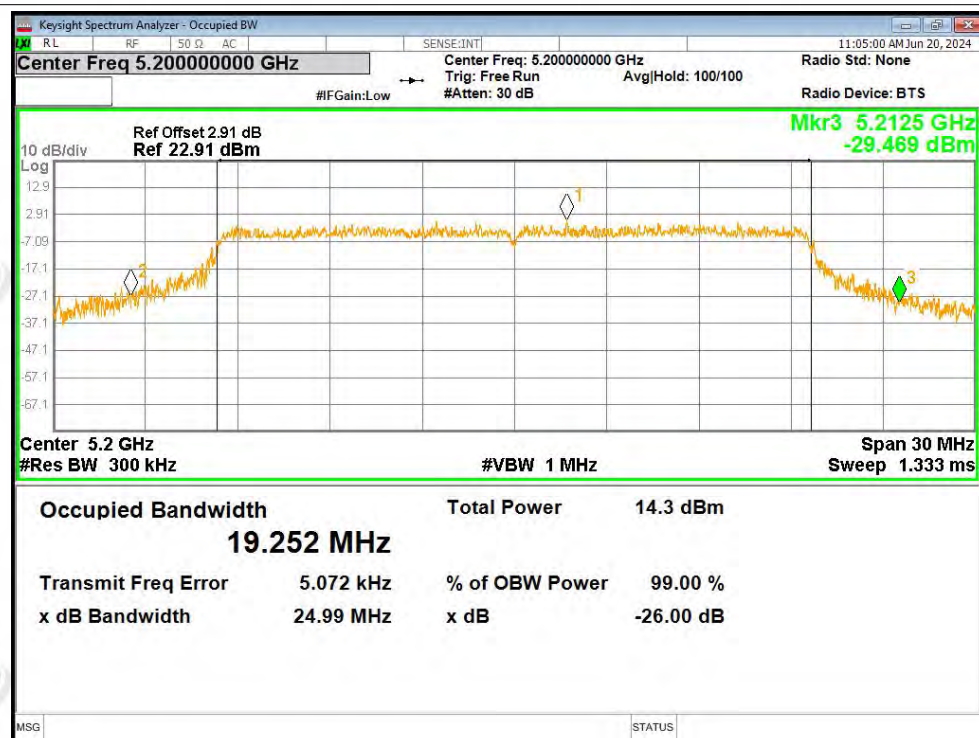


-26dB Bandwidth NVNT ax20 5180MHz Ant1

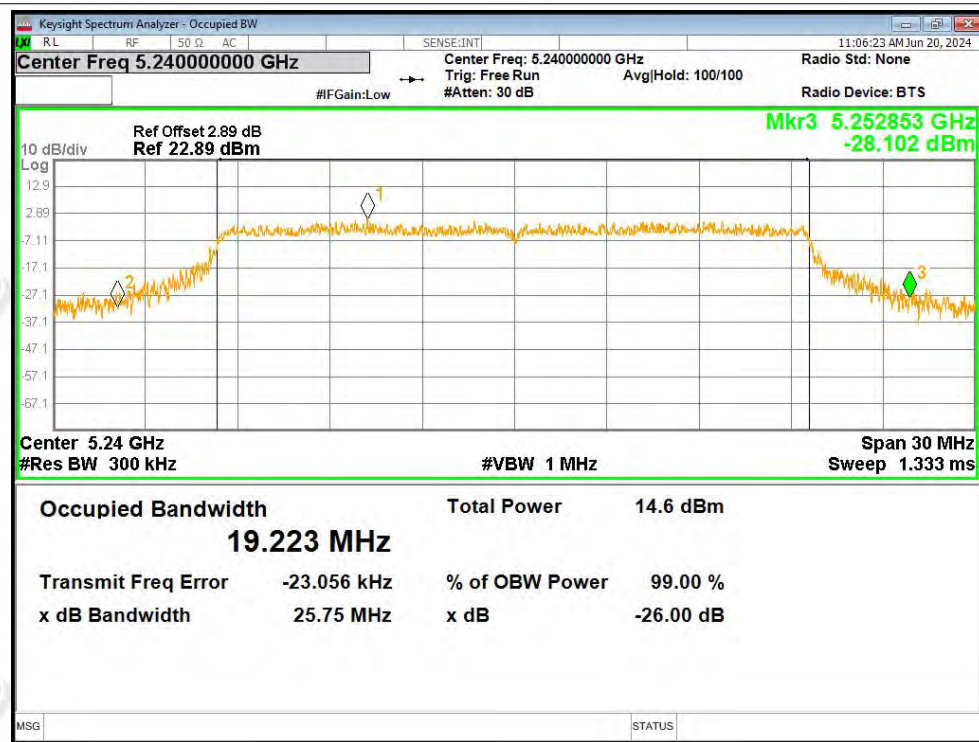




-26dB Bandwidth NVNT ax20 5200MHz Ant1

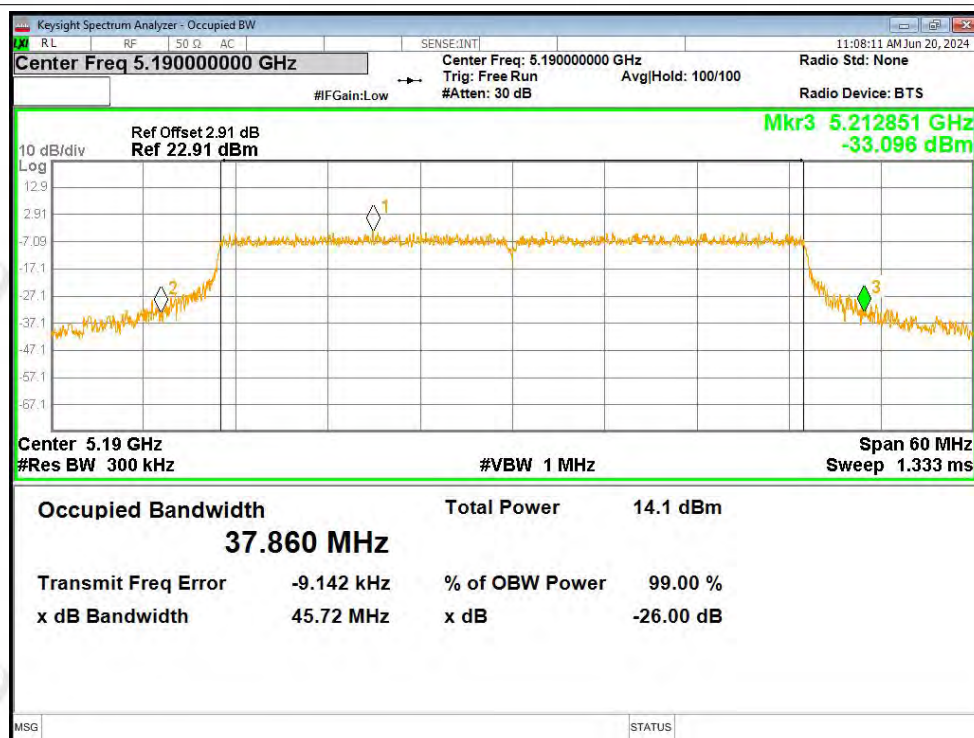


-26dB Bandwidth NVNT ax20 5240MHz Ant1

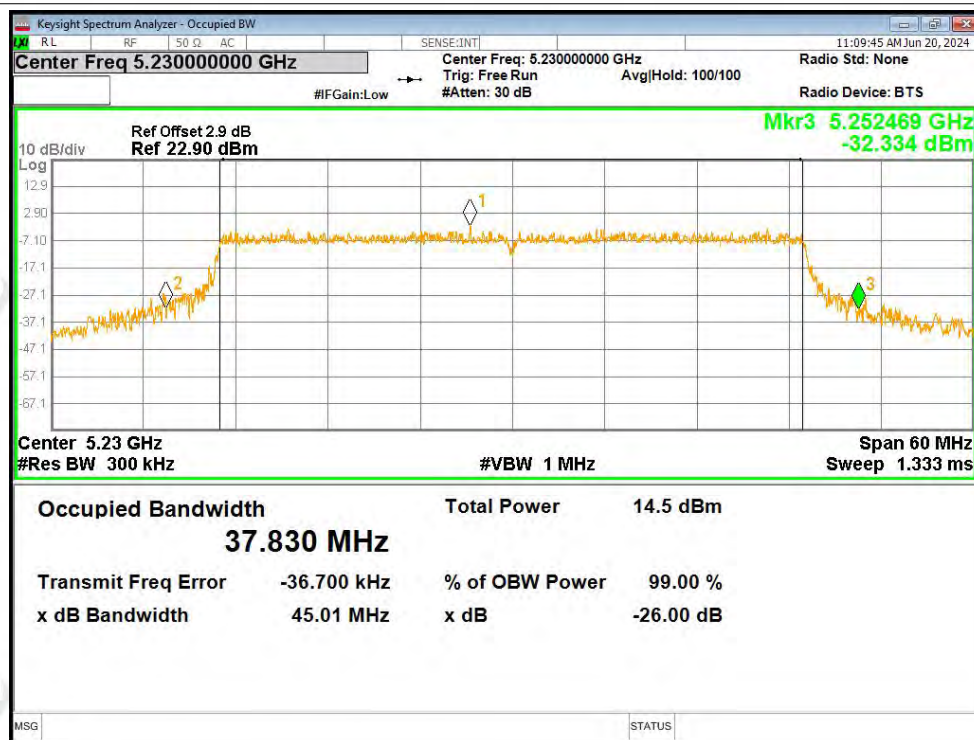




-26dB Bandwidth NVNT ax40 5190MHz Ant1



-26dB Bandwidth NVNT ax40 5230MHz Ant1





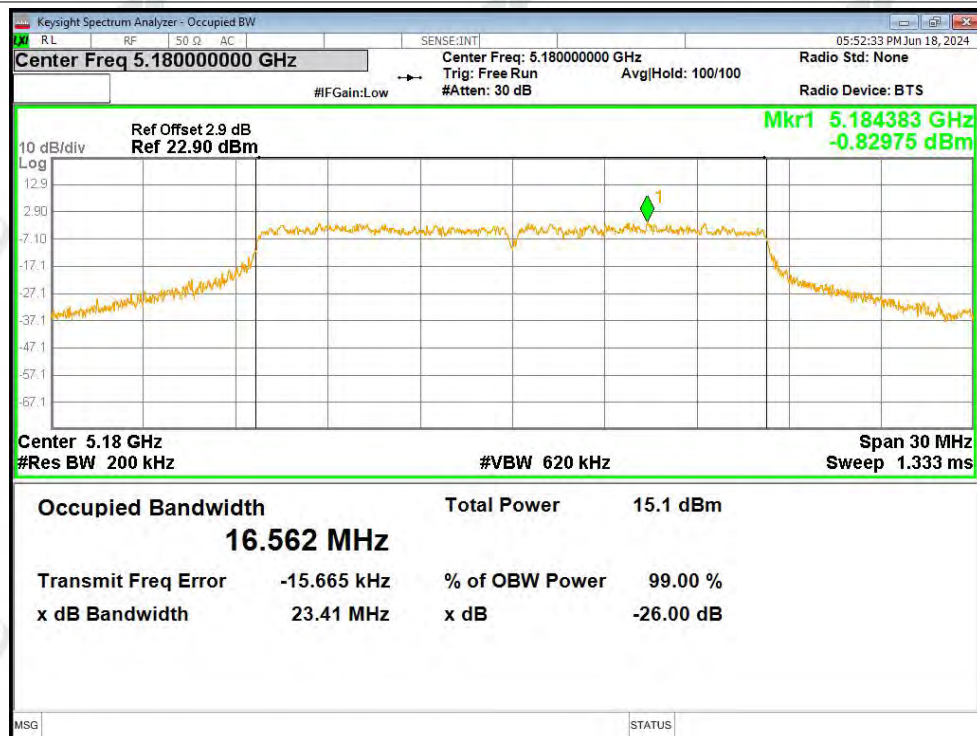
Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5180	Ant1	16.562
NVNT	a	5200	Ant1	16.569
NVNT	a	5240	Ant1	16.601
NVNT	n20	5180	Ant1	17.956
NVNT	n20	5200	Ant1	17.958
NVNT	n20	5240	Ant1	17.958
NVNT	n40	5190	Ant1	36.493
NVNT	n40	5230	Ant1	36.52
NVNT	ac20	5180	Ant1	17.927
NVNT	ac20	5200	Ant1	17.924
NVNT	ac20	5240	Ant1	17.934
NVNT	ac40	5190	Ant1	36.53
NVNT	ac40	5230	Ant1	36.564
NVNT	ax20	5180	Ant1	19.09
NVNT	ax20	5200	Ant1	19.157
NVNT	ax20	5240	Ant1	19.119
NVNT	ax40	5190	Ant1	37.916
NVNT	ax40	5230	Ant1	37.887

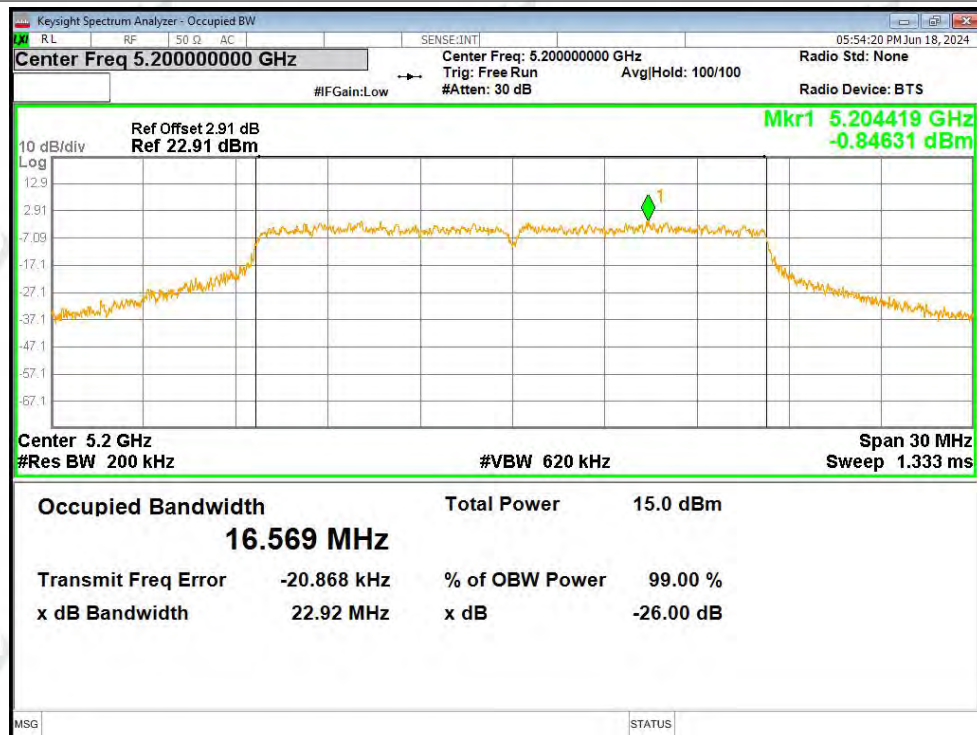


Test Graphs

OBW NVNT a 5180MHz Ant1

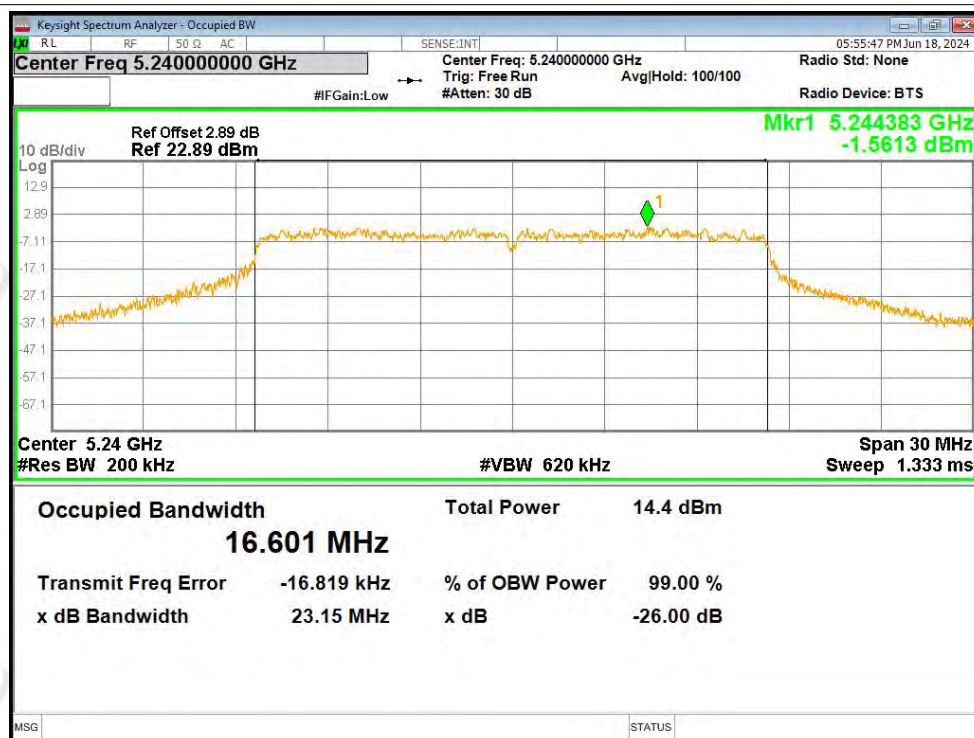


OBW NVNT a 5200MHz Ant1

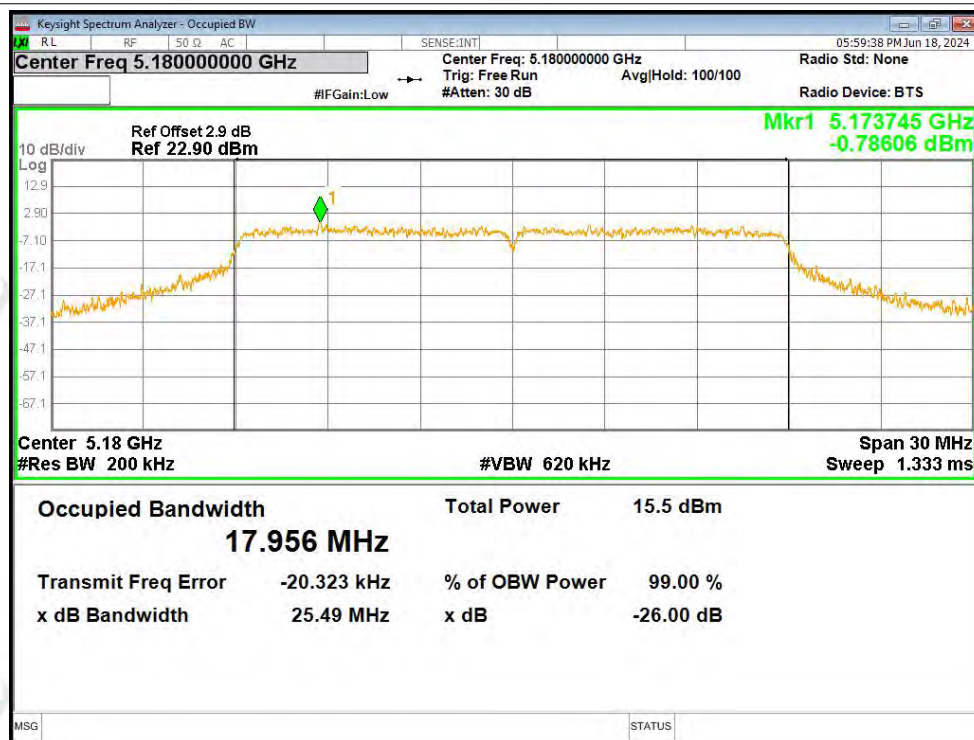




OBW NVNT a 5240MHz Ant1

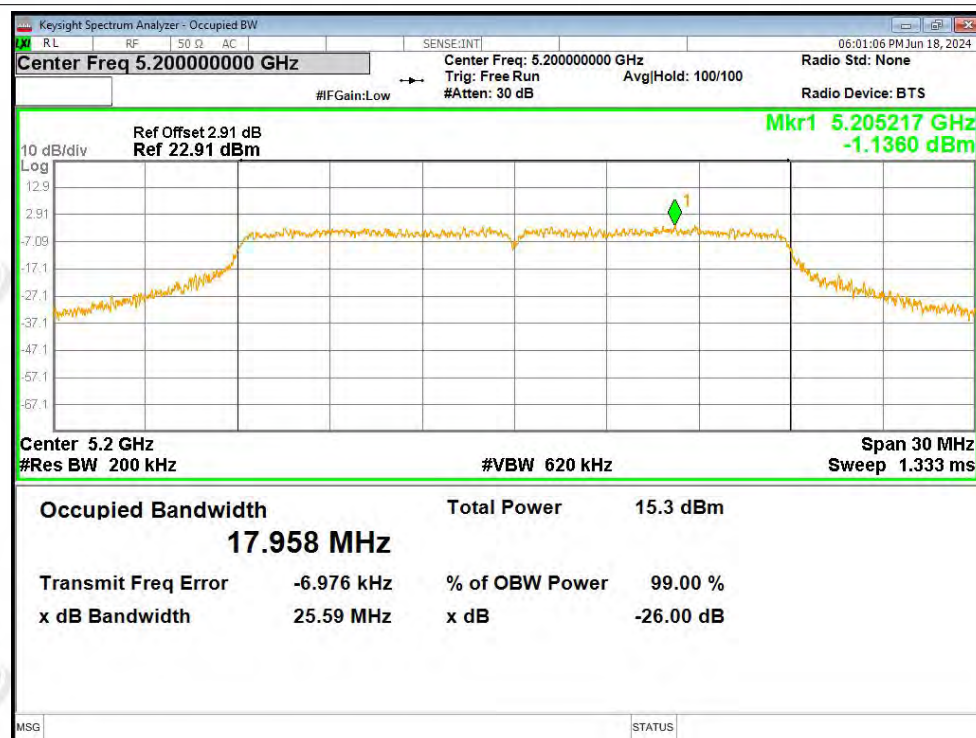


OBW NVNT n20 5180MHz Ant1

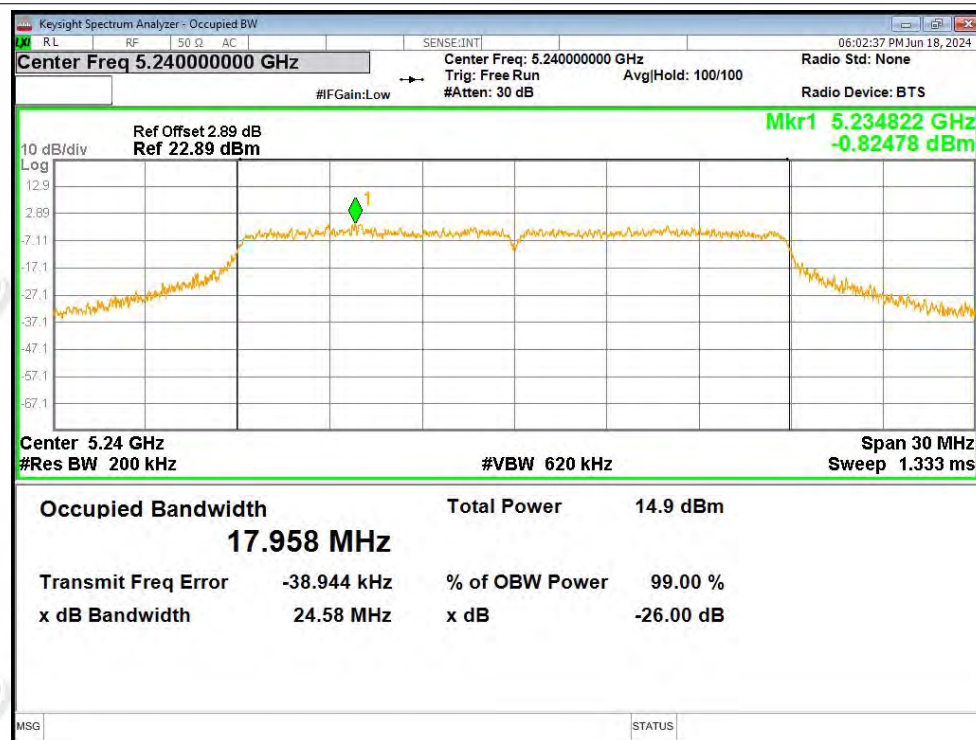




OBW NVNT n20 5200MHz Ant1

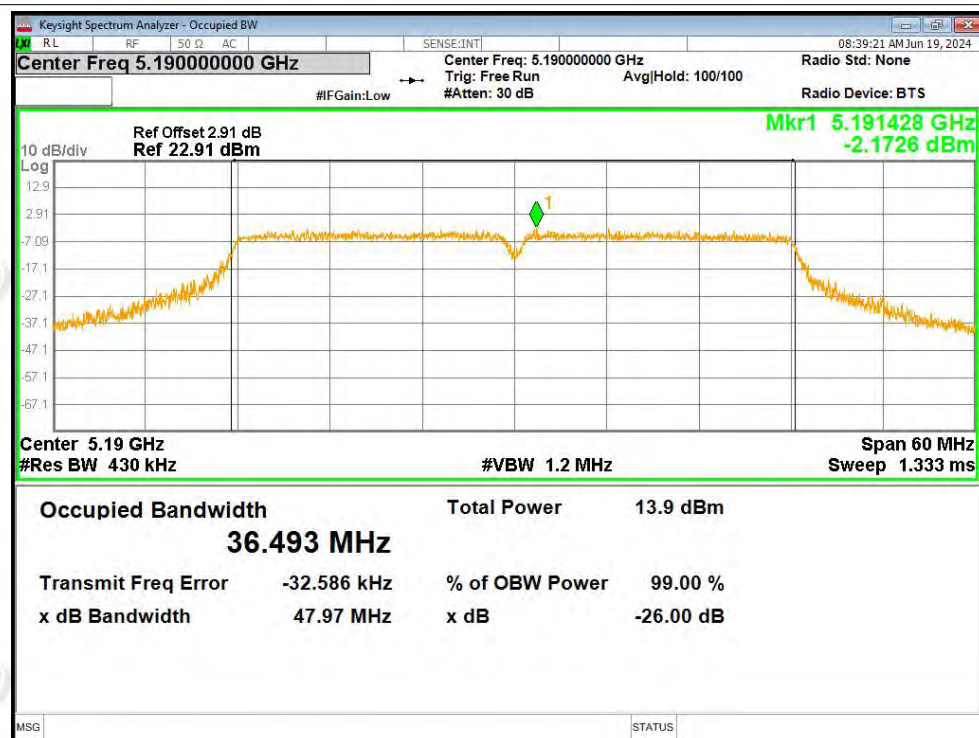


OBW NVNT n20 5240MHz Ant1

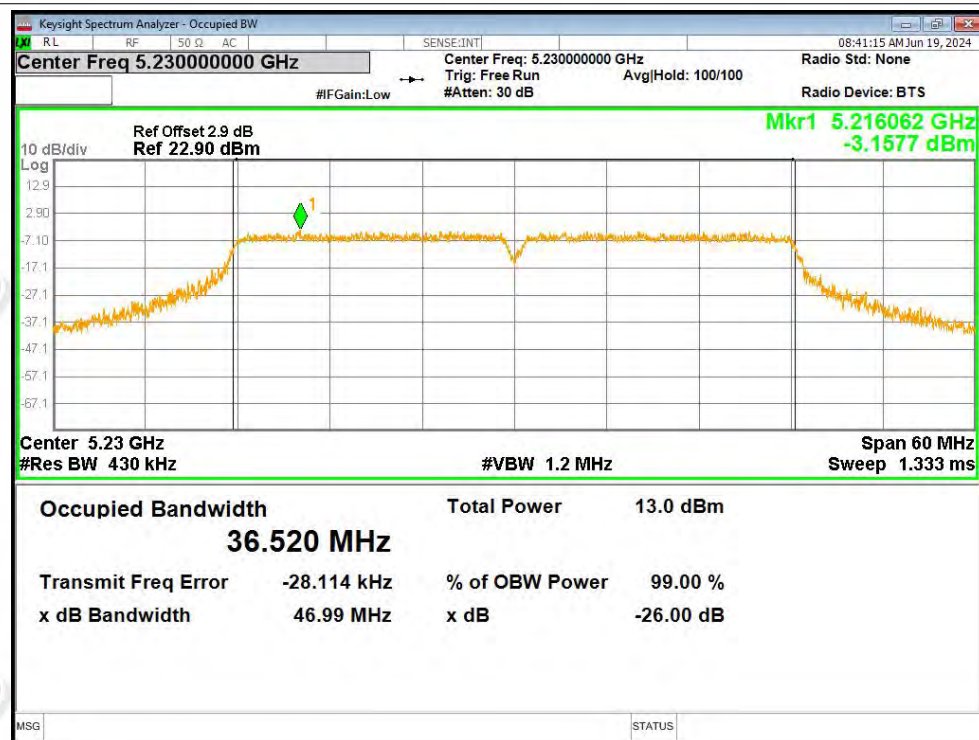




OBW NVNT n40 5190MHz Ant1

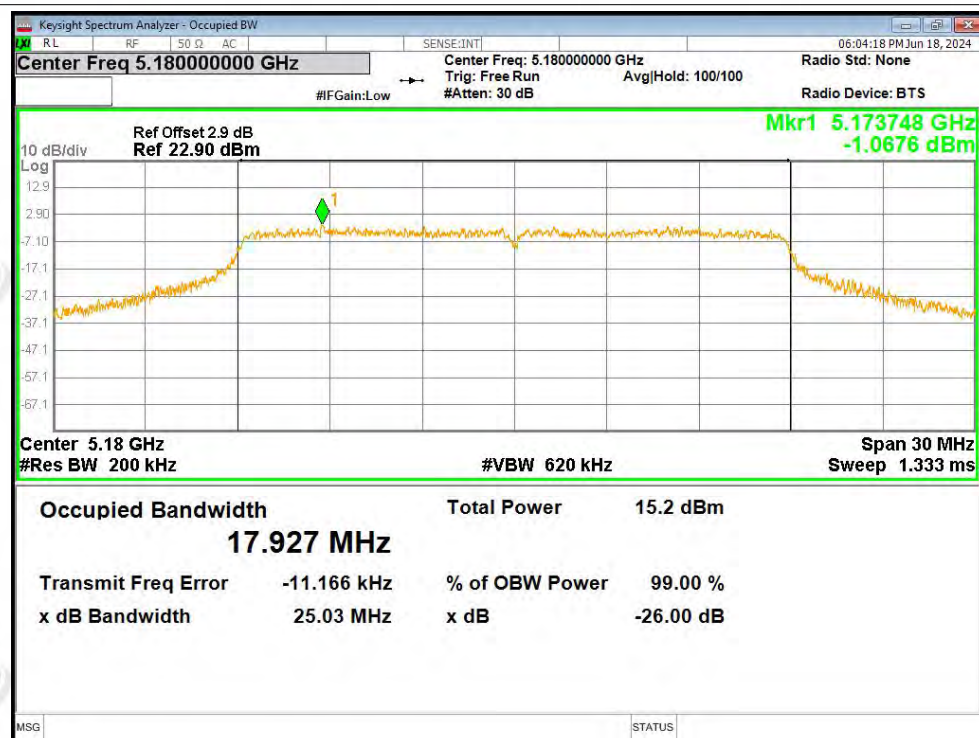


OBW NVNT n40 5230MHz Ant1

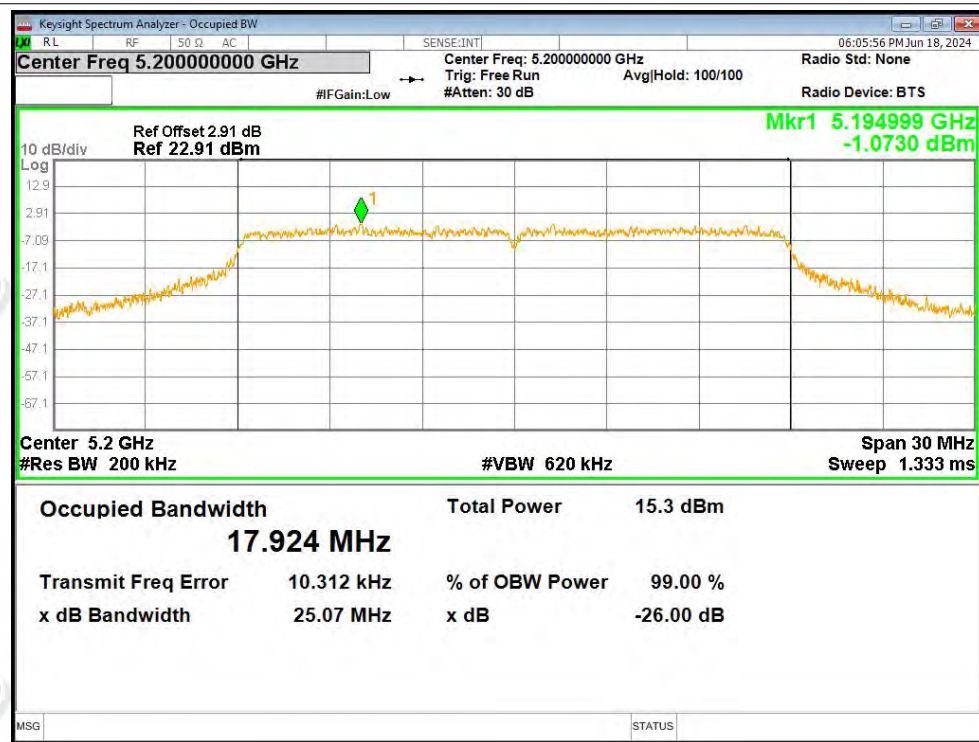




OBW NVNT ac20 5180MHz Ant1

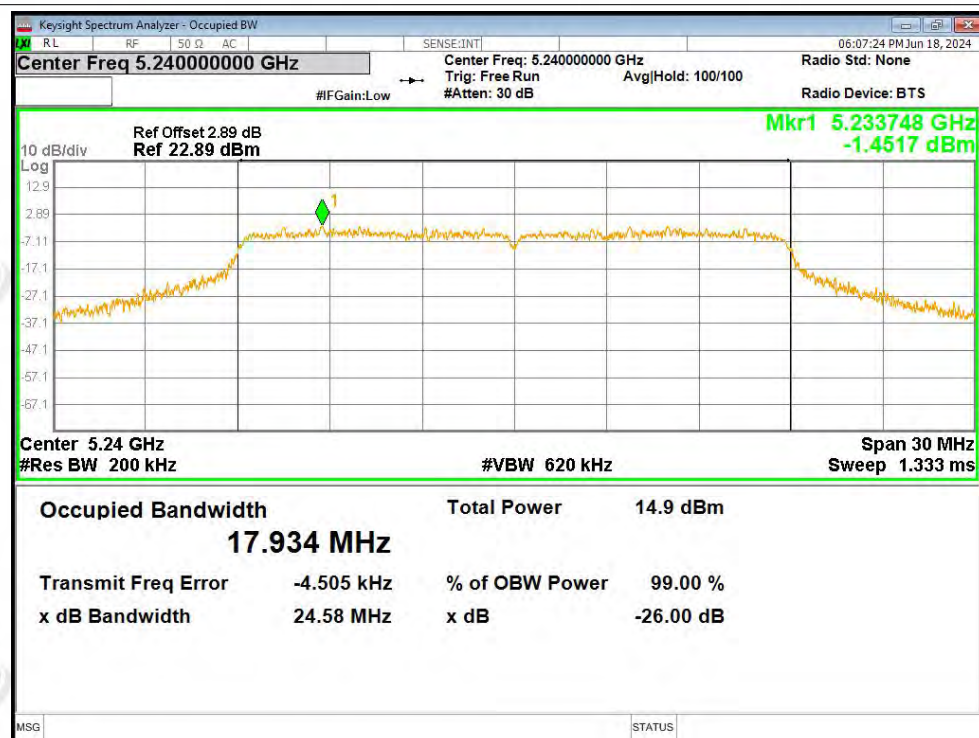


OBW NVNT ac20 5200MHz Ant1

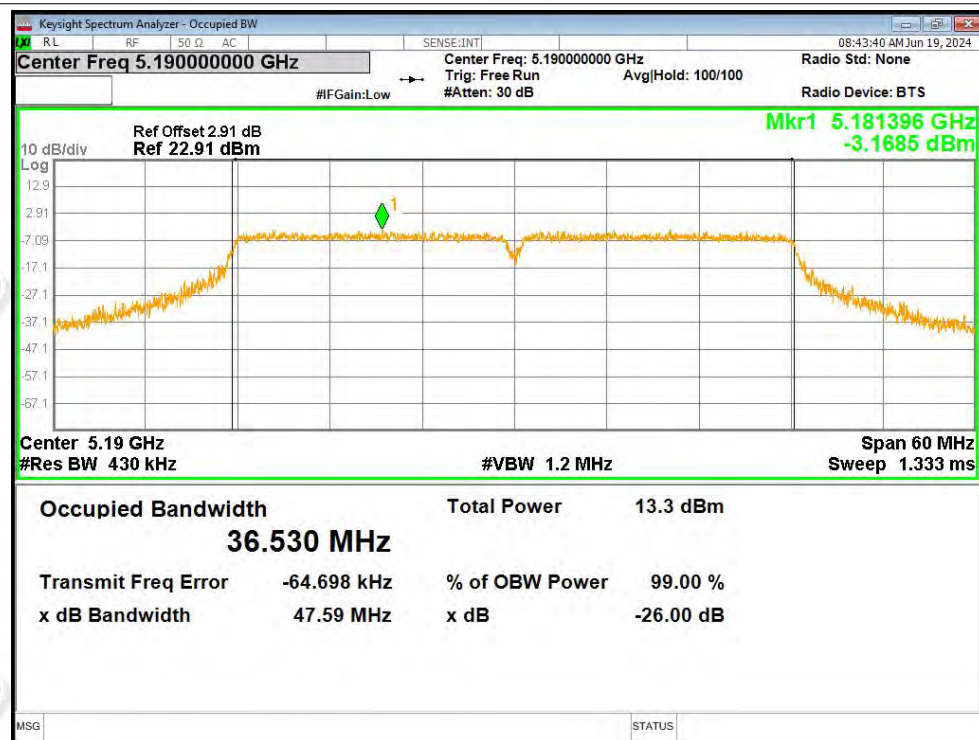




OBW NVNT ac20 5240MHz Ant1

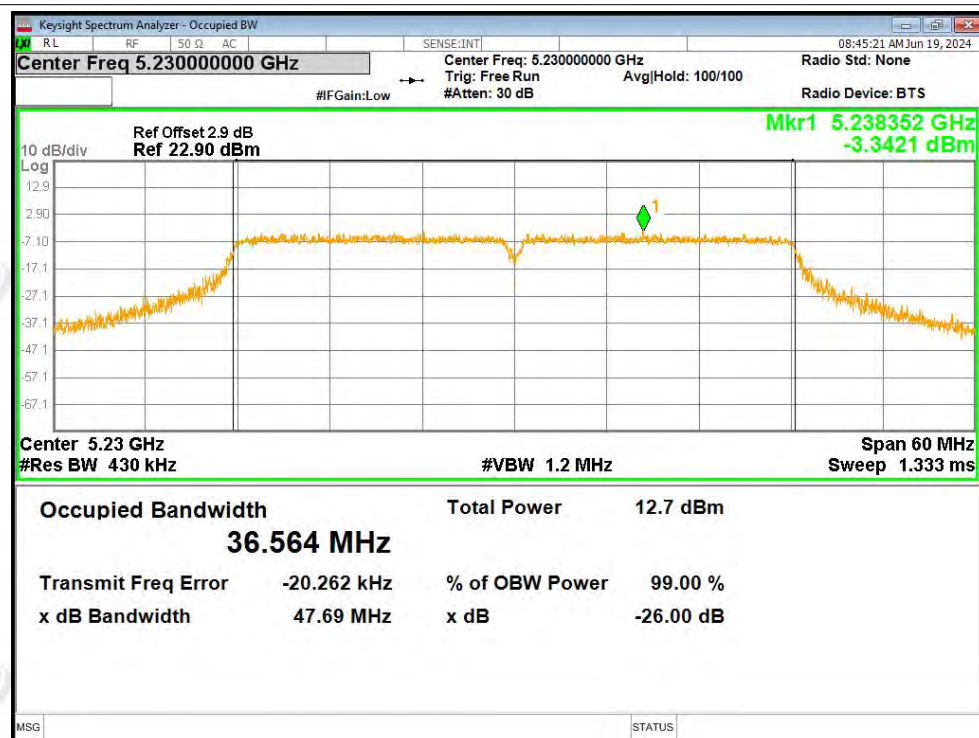


OBW NVNT ac40 5190MHz Ant1

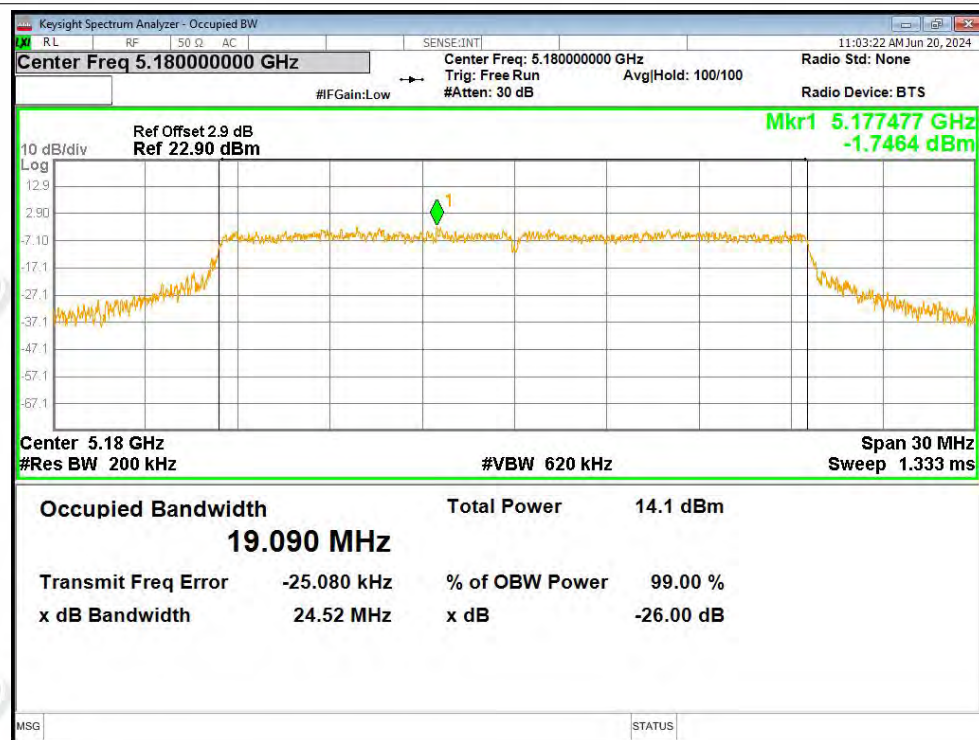




OBW NVNT ac40 5230MHz Ant1

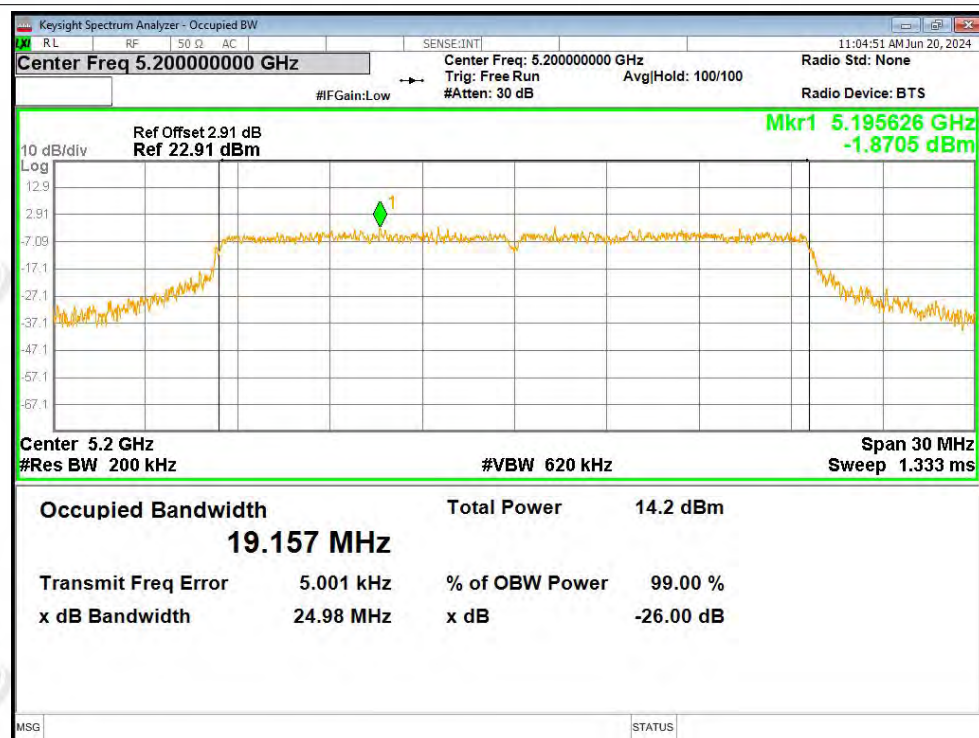


OBW NVNT ax20 5180MHz Ant1

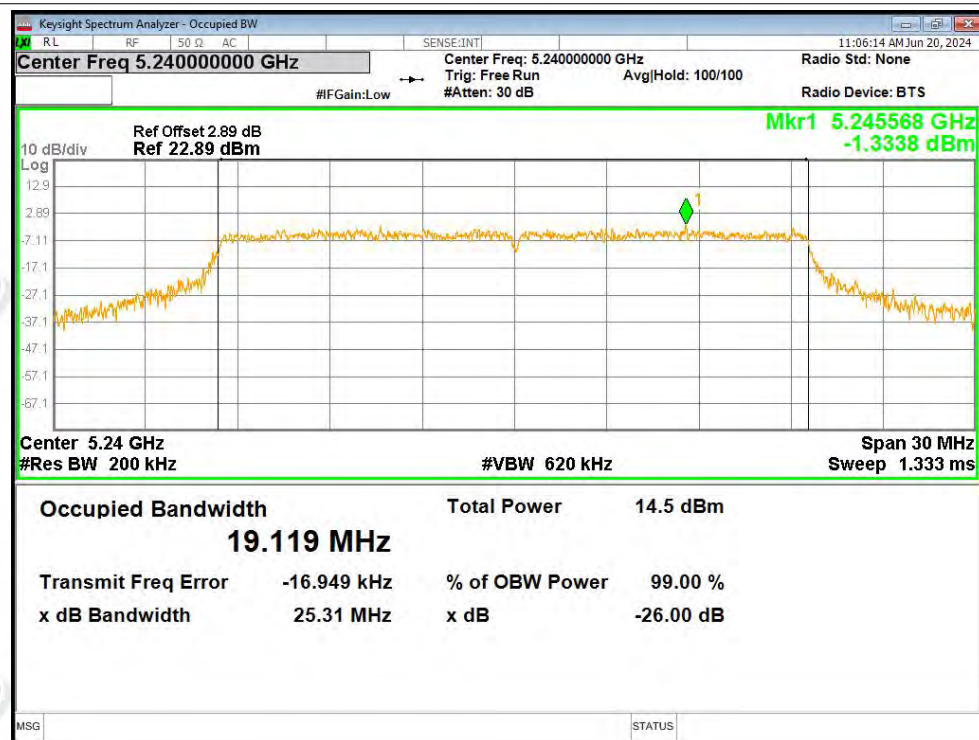




OBW NVNT ax20 5200MHz Ant1

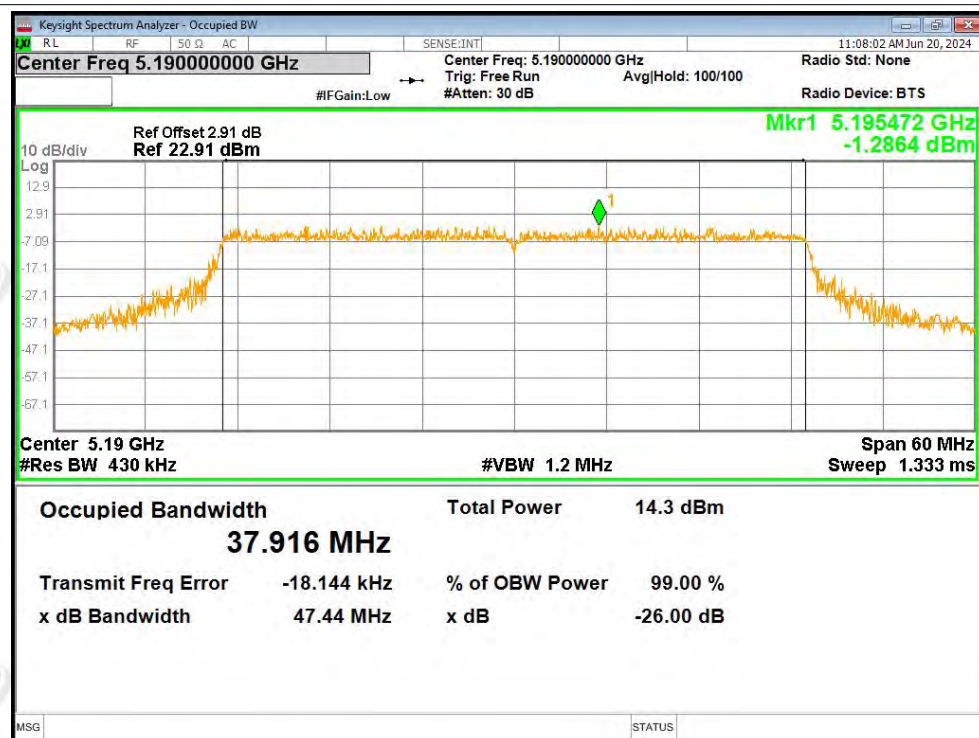


OBW NVNT ax20 5240MHz Ant1

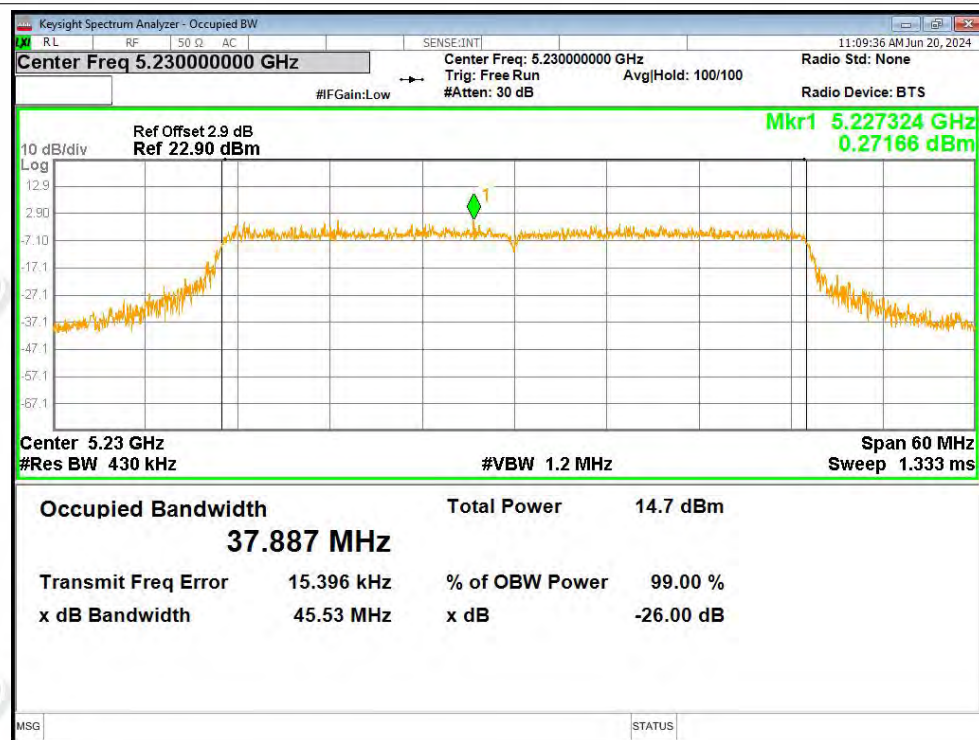




OBW NVNT ax40 5190MHz Ant1



OBW NVNT ax40 5230MHz Ant1





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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	-16.18	1.94	-14.24	11	Pass
NVNT	a	5200	Ant1	-14.16	0.97	-13.19	11	Pass
NVNT	a	5240	Ant1	-16.48	0	-16.48	11	Pass
NVNT	n20	5180	Ant1	-4.34	0.29	-4.05	11	Pass
NVNT	n20	5200	Ant1	-5.49	0.31	-5.18	11	Pass
NVNT	n20	5240	Ant1	-4.26	0	-4.26	11	Pass
NVNT	n40	5190	Ant1	-11.27	0.44	-10.83	11	Pass
NVNT	n40	5230	Ant1	-13.32	0.73	-12.59	11	Pass
NVNT	ac20	5180	Ant1	-4.62	0.22	-4.4	11	Pass
NVNT	ac20	5200	Ant1	-4.75	0.11	-4.64	11	Pass
NVNT	ac20	5240	Ant1	-4.8	0.11	-4.69	11	Pass
NVNT	ac40	5190	Ant1	-11.7	0.4	-11.3	11	Pass
NVNT	ac40	5230	Ant1	-11.92	0.57	-11.35	11	Pass
NVNT	ax20	5180	Ant1	-7.64	0.48	-7.16	11	Pass
NVNT	ax20	5200	Ant1	-8.03	0.32	-7.71	11	Pass
NVNT	ax20	5240	Ant1	-5.97	0.23	-5.74	11	Pass
NVNT	ax40	5190	Ant1	-14.24	0.84	-13.4	11	Pass
NVNT	ax40	5230	Ant1	-12.03	0.34	-11.69	11	Pass

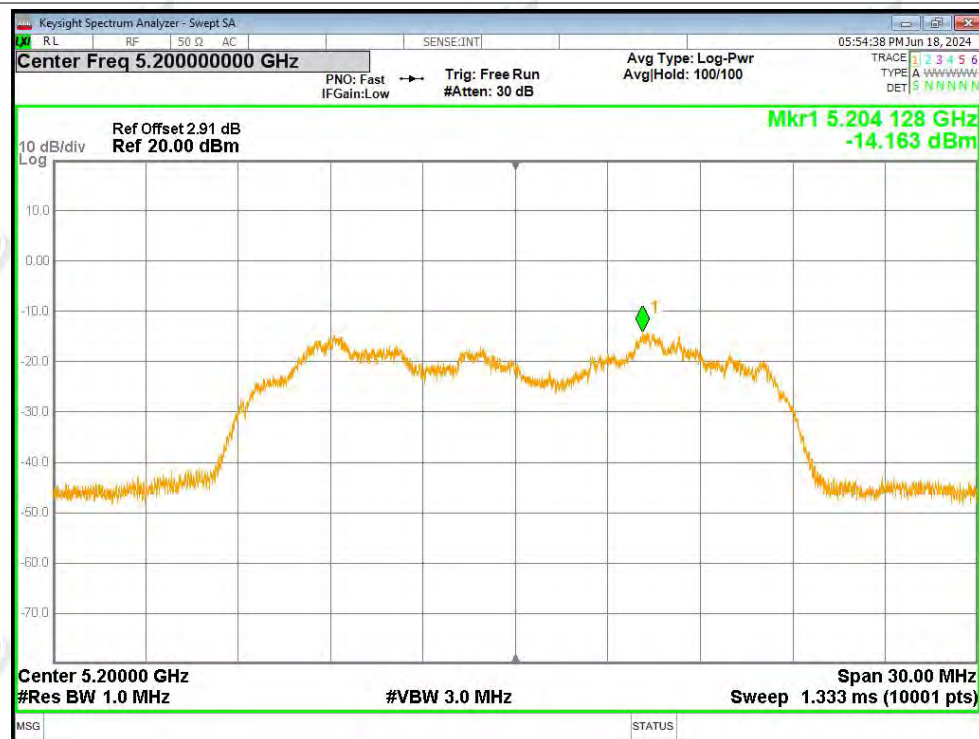


Test Graphs

PSD NVNT a 5180MHz Ant1



PSD NVNT a 5200MHz Ant1

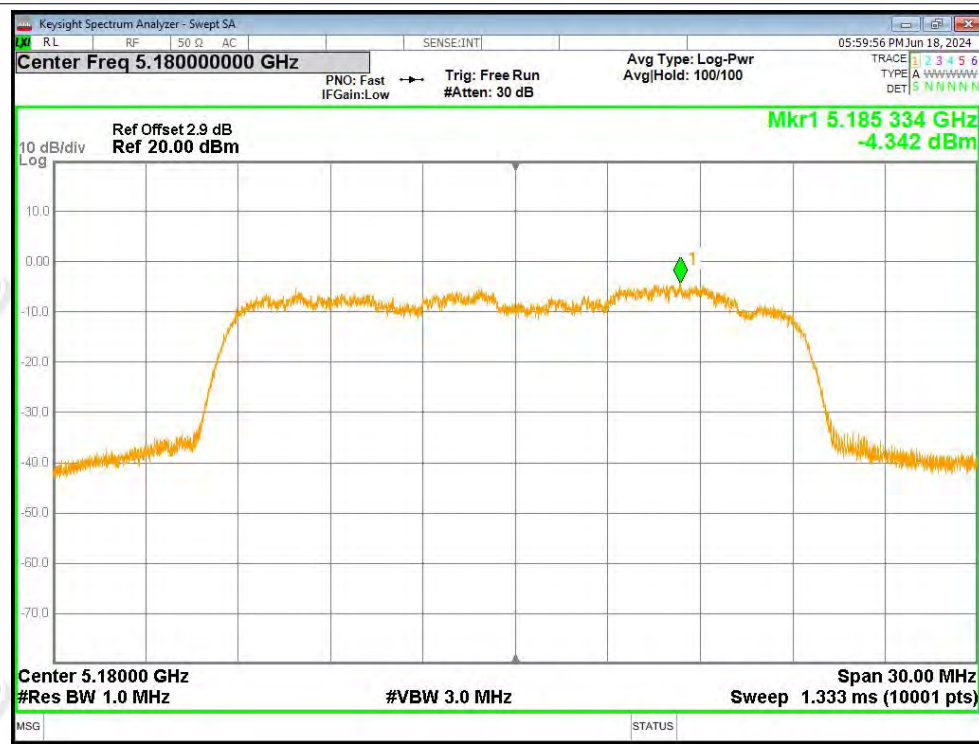


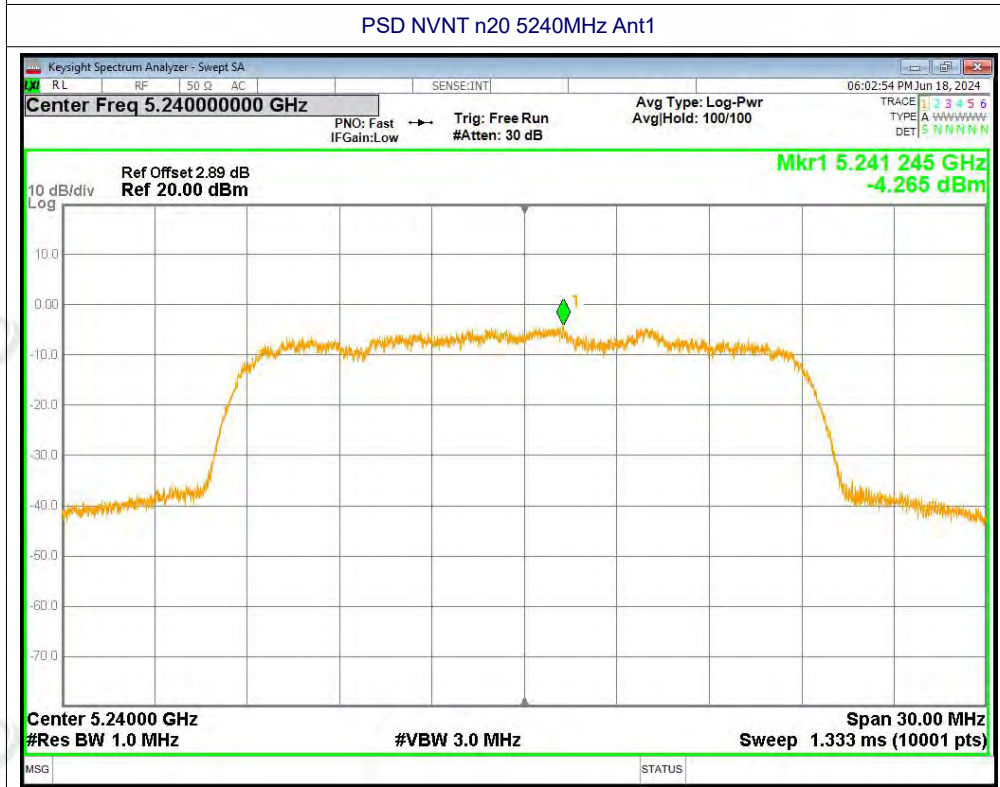
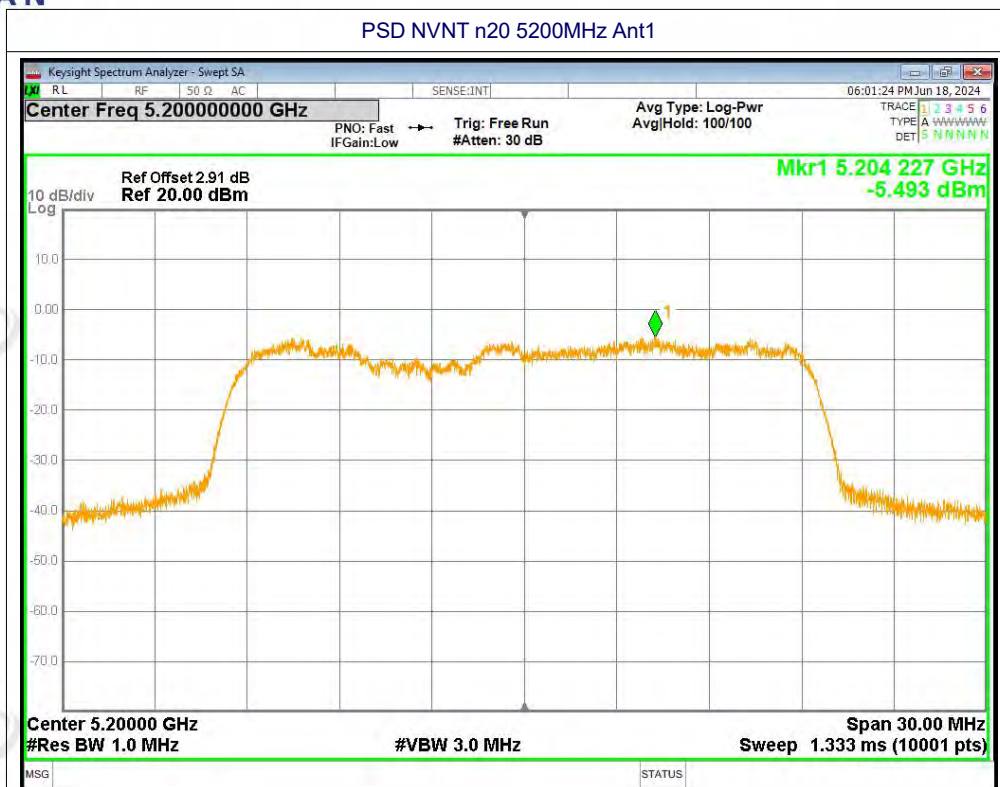


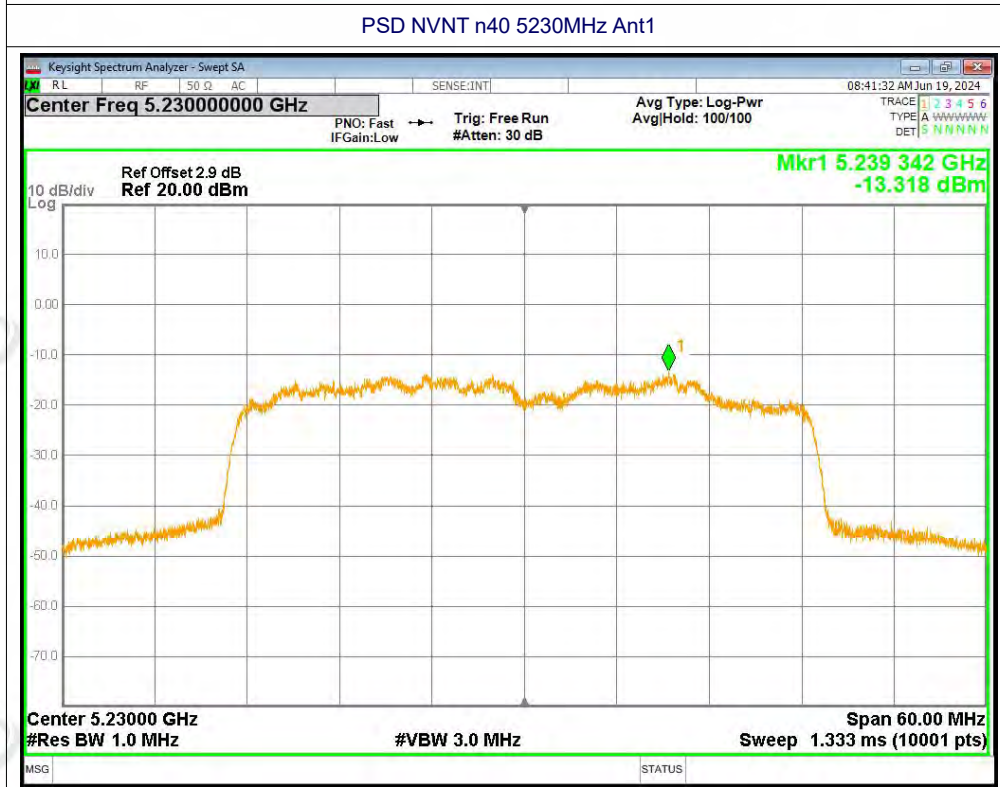
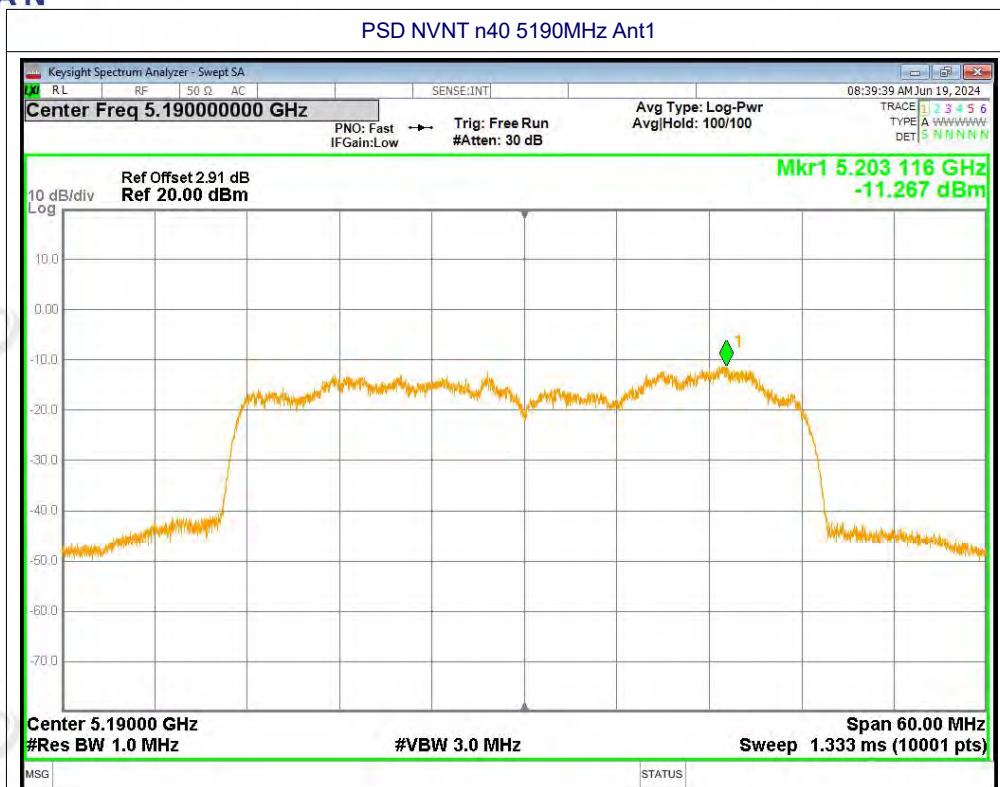
PSD NVNT a 5240MHz Ant1



PSD NVNT n20 5180MHz Ant1

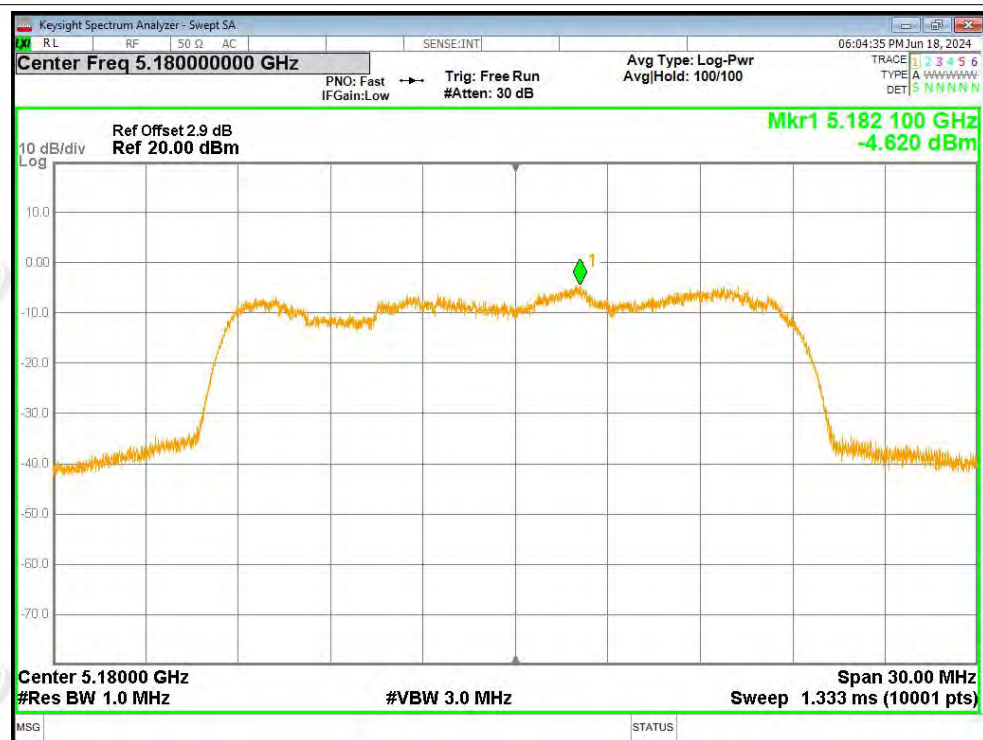








PSD NVNT ac20 5180MHz Ant1



PSD NVNT ac20 5200MHz Ant1

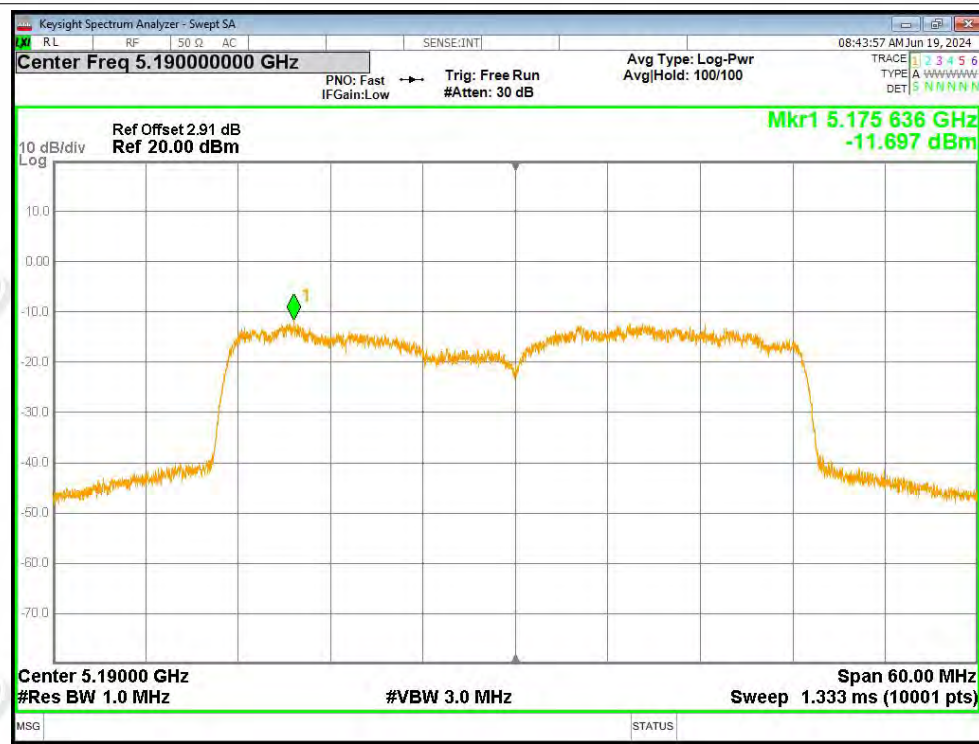




PSD NVNT ac20 5240MHz Ant1



PSD NVNT ac40 5190MHz Ant1





PSD NVNT ac40 5230MHz Ant1

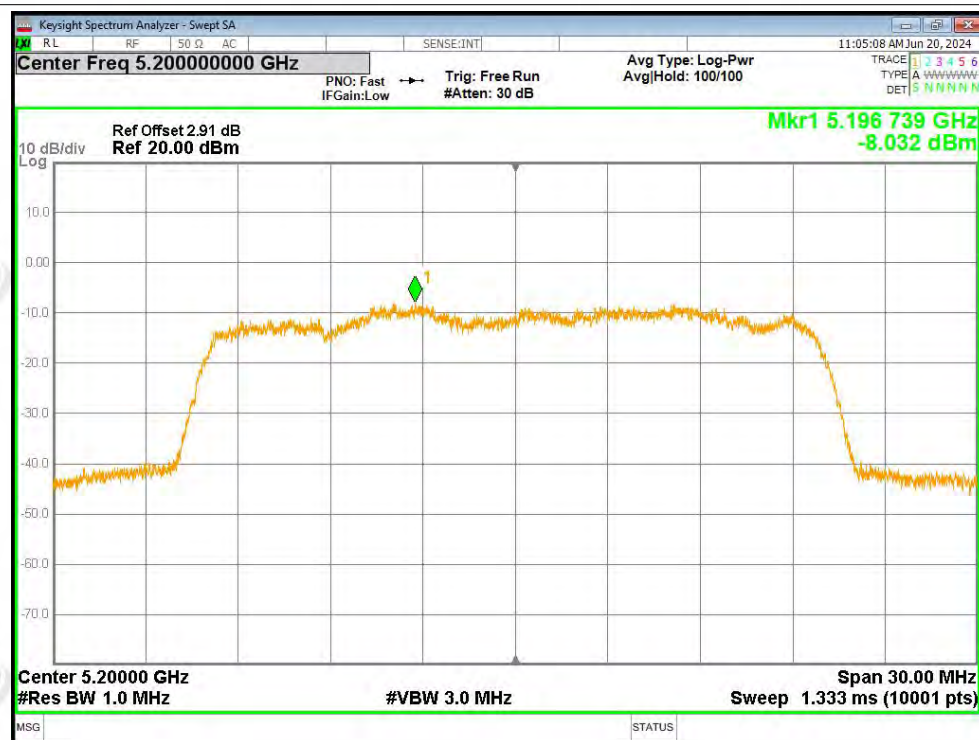


PSD NVNT ax20 5180MHz Ant1

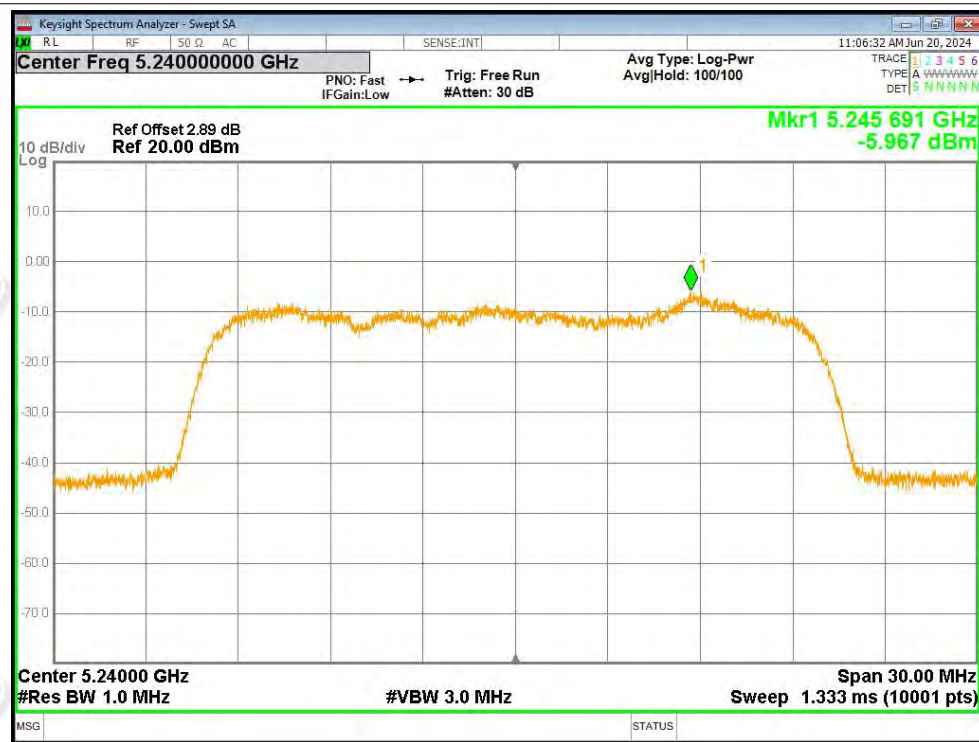




PSD NVNT ax20 5200MHz Ant1



PSD NVNT ax20 5240MHz Ant1

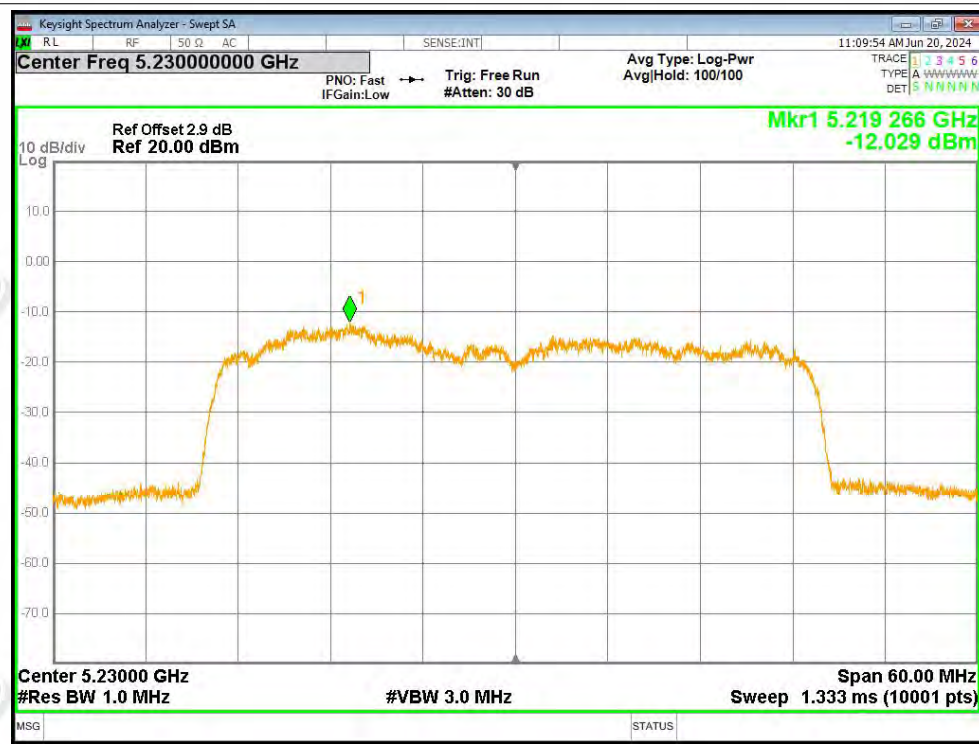




PSD NVNT ax40 5190MHz Ant1



PSD NVNT ax40 5230MHz Ant1





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Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	a	5180	Ant1	-40.57	-27	Pass
NVNT	a	5240	Ant1	-44.97	-27	Pass
NVNT	n20	5180	Ant1	-37.23	-27	Pass
NVNT	n20	5240	Ant1	-44.16	-27	Pass
NVNT	n40	5190	Ant1	-34.2	-27	Pass
NVNT	n40	5230	Ant1	-45.39	-27	Pass
NVNT	ac20	5180	Ant1	-39.36	-27	Pass
NVNT	ac20	5240	Ant1	-44.89	-27	Pass
NVNT	ac40	5190	Ant1	-32.69	-27	Pass
NVNT	ac40	5230	Ant1	-45.39	-27	Pass
NVNT	ax20	5180	Ant1	-38.8	-27	Pass
NVNT	ax20	5240	Ant1	-44.46	-27	Pass
NVNT	ax40	5190	Ant1	-34.14	-27	Pass
NVNT	ax40	5230	Ant1	-44.52	-27	Pass