Appendix B for 5GWIFI Test Data

Product Name: Notebook

Test Model: L156U

Environmental Conditions

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

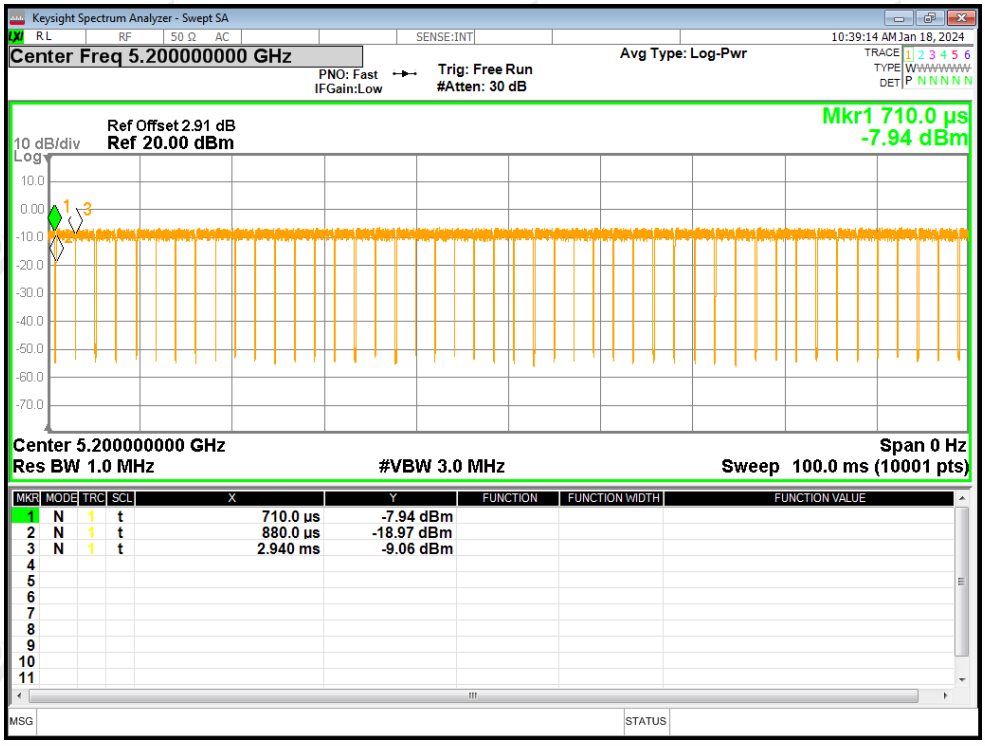
B1. Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)
NVNT	a	5180	Ant1	92.41	0.34
NVNT	a	5200	Ant1	92.38	0.34
NVNT	a	5240	Ant1	92.38	0.34
NVNT	a	5180	Ant2	94.09	0.26
NVNT	a	5200	Ant2	97.63	0.1
NVNT	a	5240	Ant2	95.81	0.19
NVNT	n20	5180	Ant1	92.75	0.33
NVNT	n20	5200	Ant1	95.52	0.2
NVNT	n20	5240	Ant1	92.31	0.35
NVNT	n20	5180	Ant2	93.2	0.31
NVNT	n20	5200	Ant2	97.46	0.11
NVNT	n20	5240	Ant2	91.87	0.37
NVNT	n40	5190	Ant1	84.55	0.73
NVNT	n40	5230	Ant1	96	0.18
NVNT	n40	5190	Ant2	93.66	0.28
NVNT	n40	5230	Ant2	87.62	0.57
NVNT	ac20	5180	Ant1	96.02	0.18
NVNT	ac20	5200	Ant1	97.97	0.09
NVNT	ac20	5240	Ant1	96.5	0.15
NVNT	ac20	5180	Ant2	94.15	0.26
NVNT	ac20	5200	Ant2	92.38	0.34
NVNT	ac20	5240	Ant2	95.54	0.2
NVNT	ac40	5190	Ant1	91.18	0.4
NVNT	ac40	5230	Ant1	91.26	0.4
NVNT	ac40	5190	Ant2	94	0.27
NVNT	ac40	5230	Ant2	89.42	0.49
NVNT	ac80	5210	Ant1	92.86	0.32
NVNT	ac80	5210	Ant2	80.77	0.93

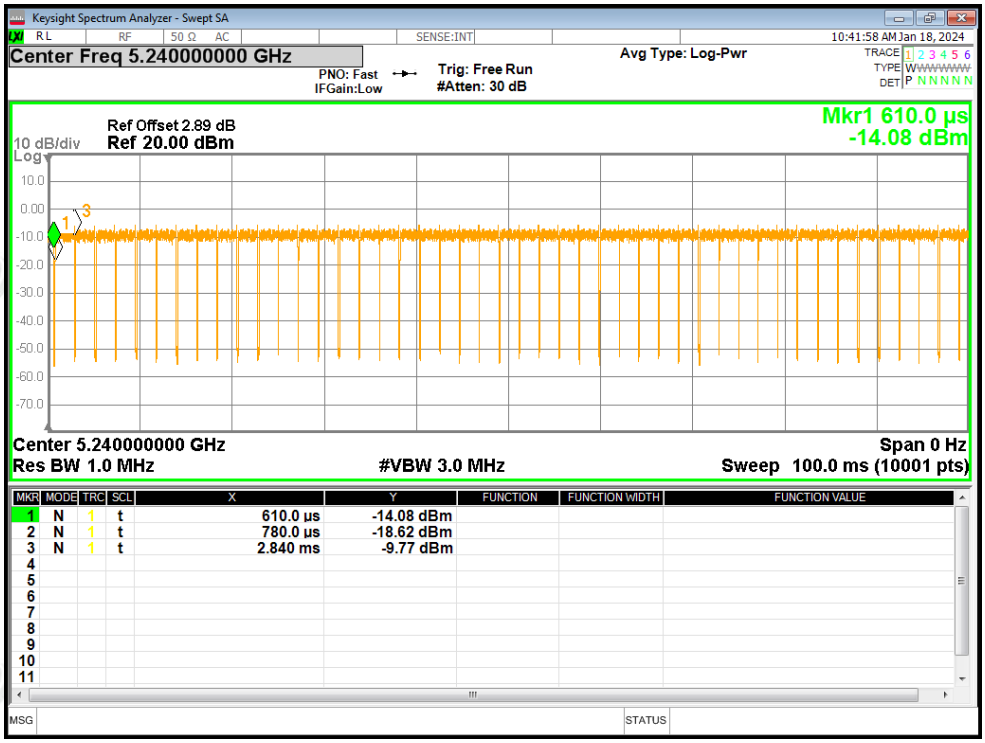
Test Graphs

Duty Cycle NVNT a 5180MHz Ant1

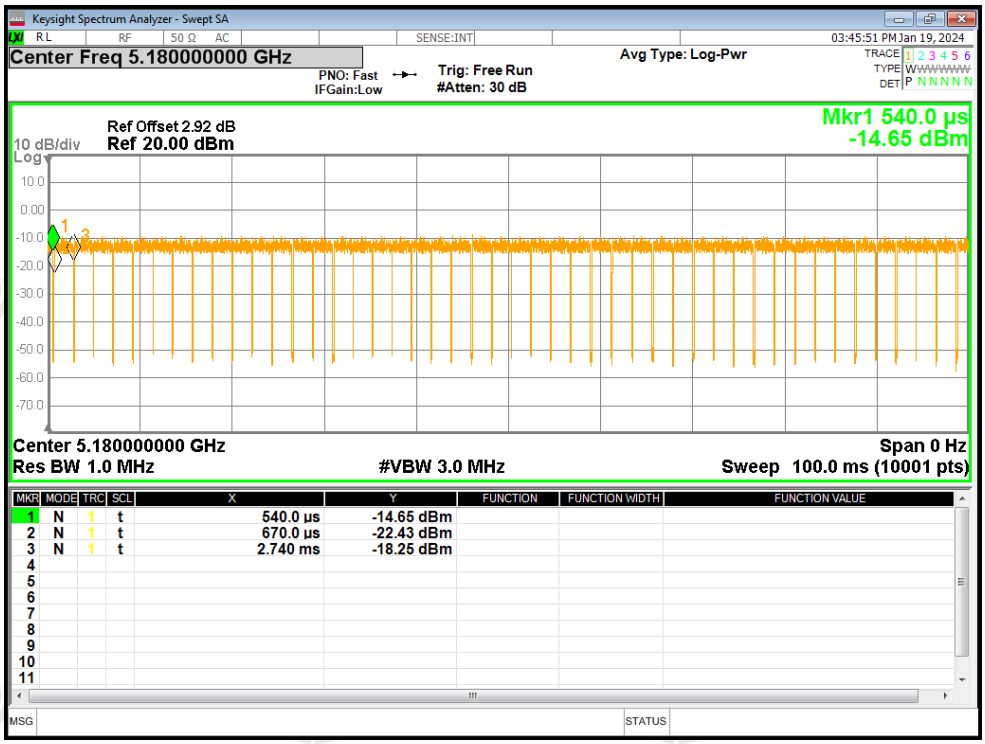
Duty Cycle NVNT a 5200MHz Ant1



Duty Cycle NVNT a 5240MHz Ant1

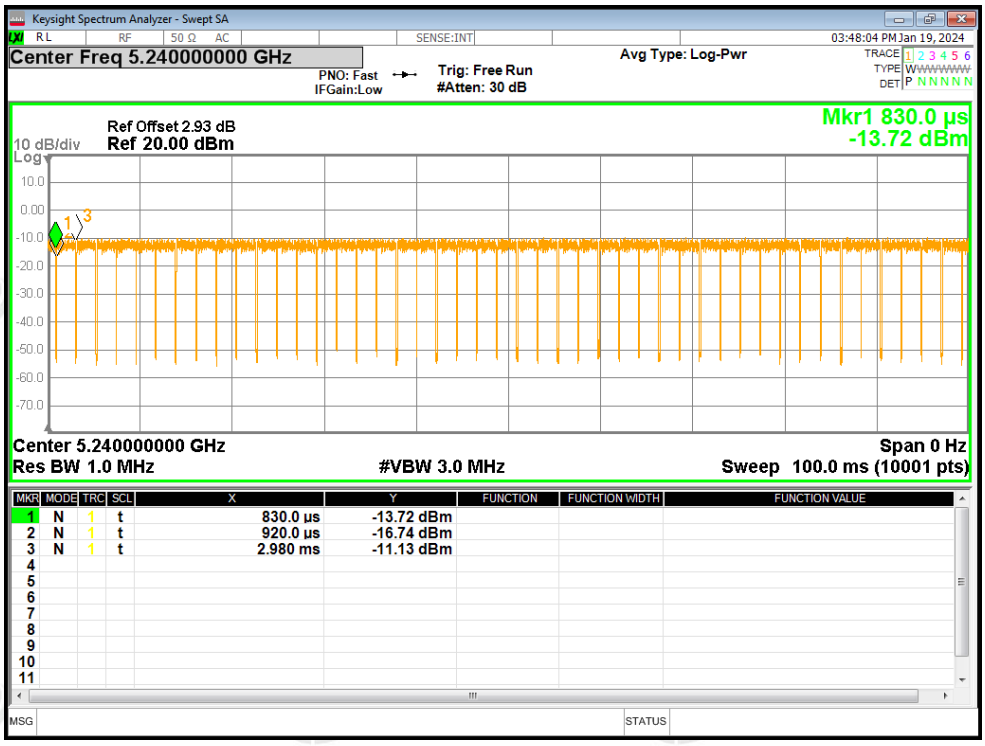


Duty Cycle NVNT a 5180MHz Ant2

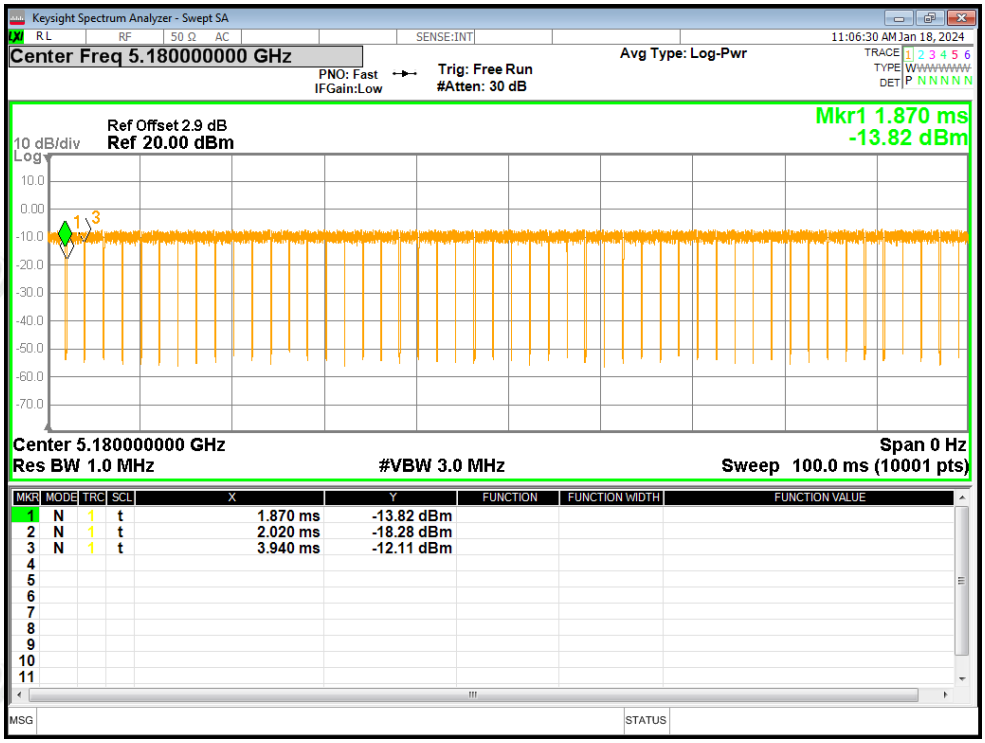


Duty Cycle NVNT a 5200MHz Ant2

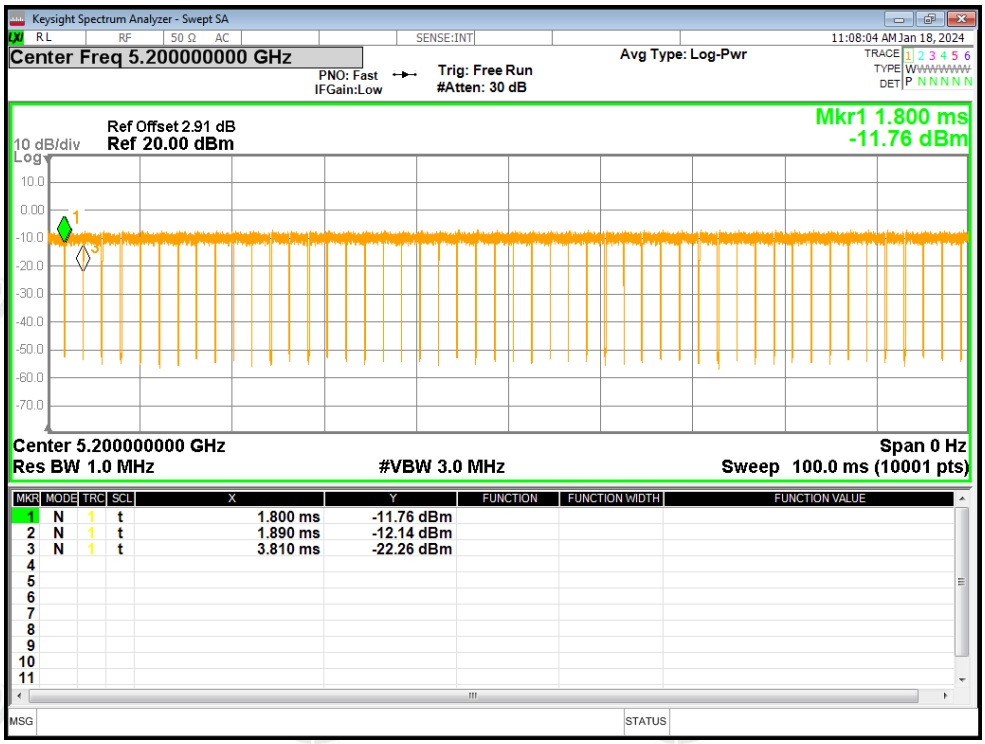
Duty Cycle NVNT a 5240MHz Ant2



Duty Cycle NVNT n20 5180MHz Ant1

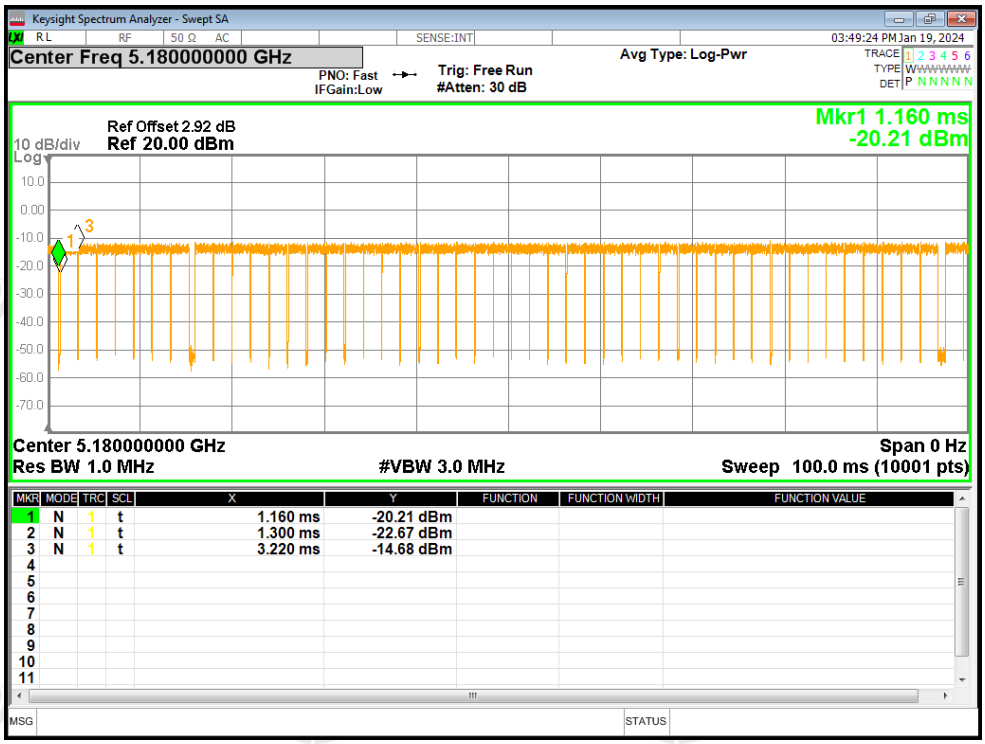


Duty Cycle NVNT n20 5200MHz Ant1



Duty Cycle NVNT n20 5240MHz Ant1

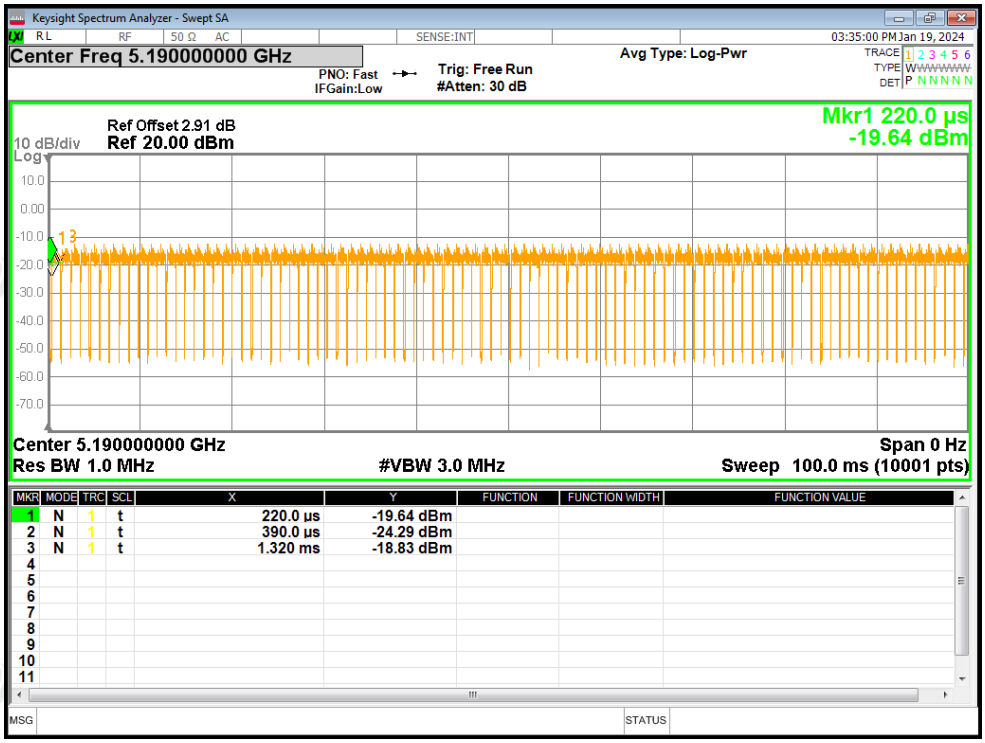
Duty Cycle NVNT n20 5180MHz Ant2



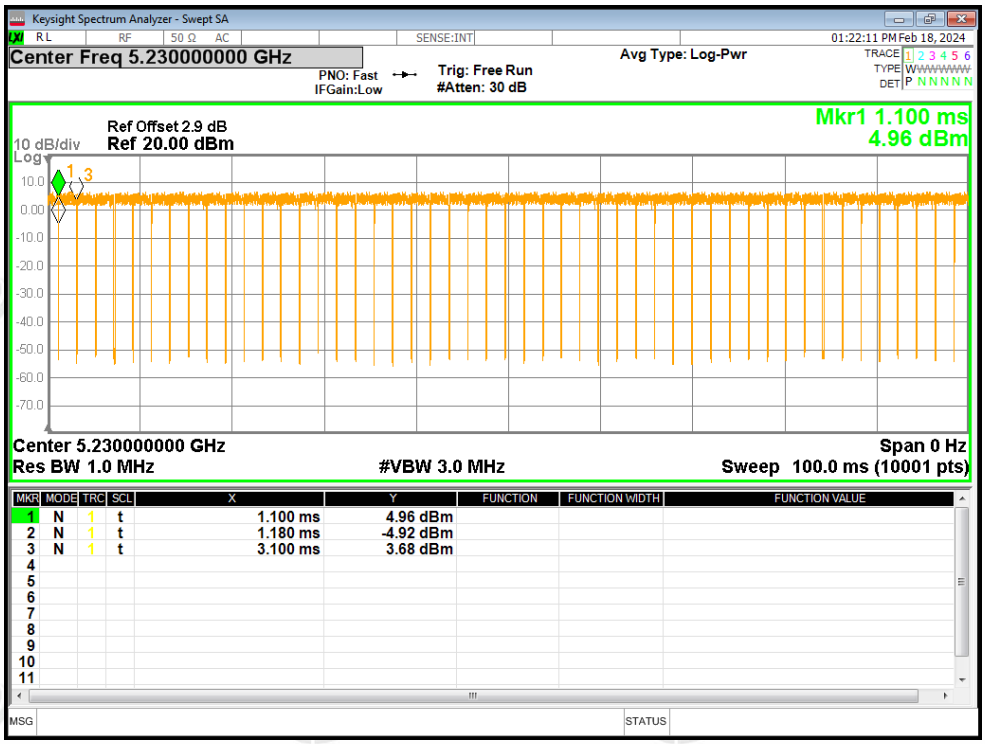
Duty Cycle NVNT n20 5200MHz Ant2

Duty Cycle NVNT n20 5240MHz Ant2

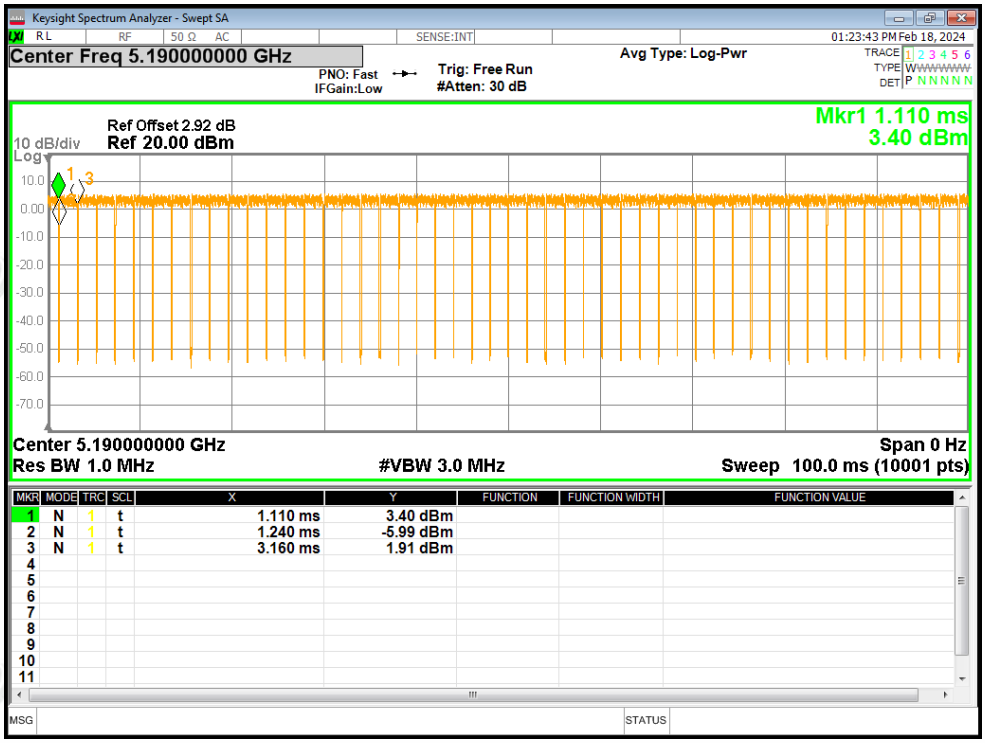
Duty Cycle NVNT n40 5190MHz Ant1



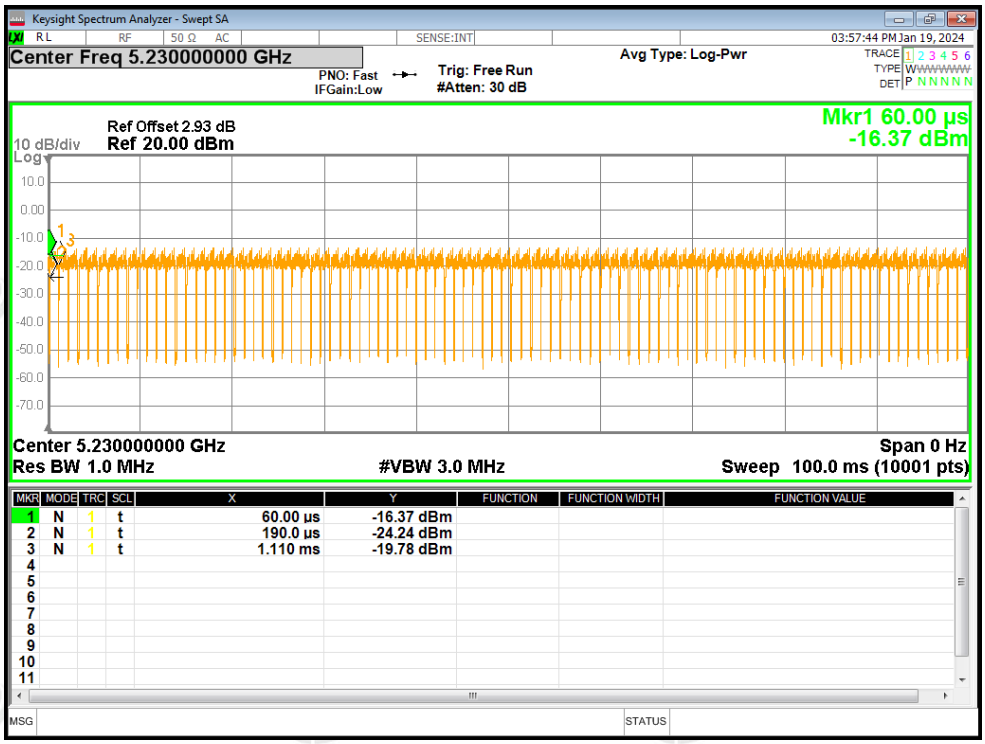
Duty Cycle NVNT n40 5230MHz Ant1



Duty Cycle NVNT n40 5190MHz Ant2



Duty Cycle NVNT n40 5230MHz Ant2

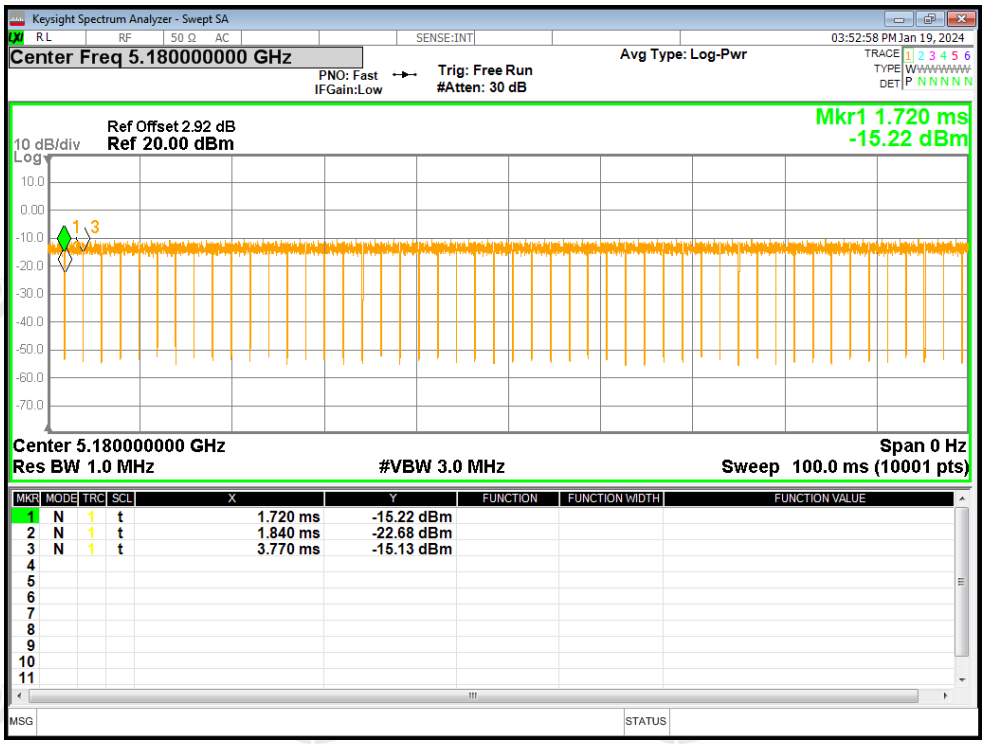


Duty Cycle NVNT ac20 5180MHz Ant1

Duty Cycle NVNT ac20 5200MHz Ant1

Duty Cycle NVNT ac20 5240MHz Ant1

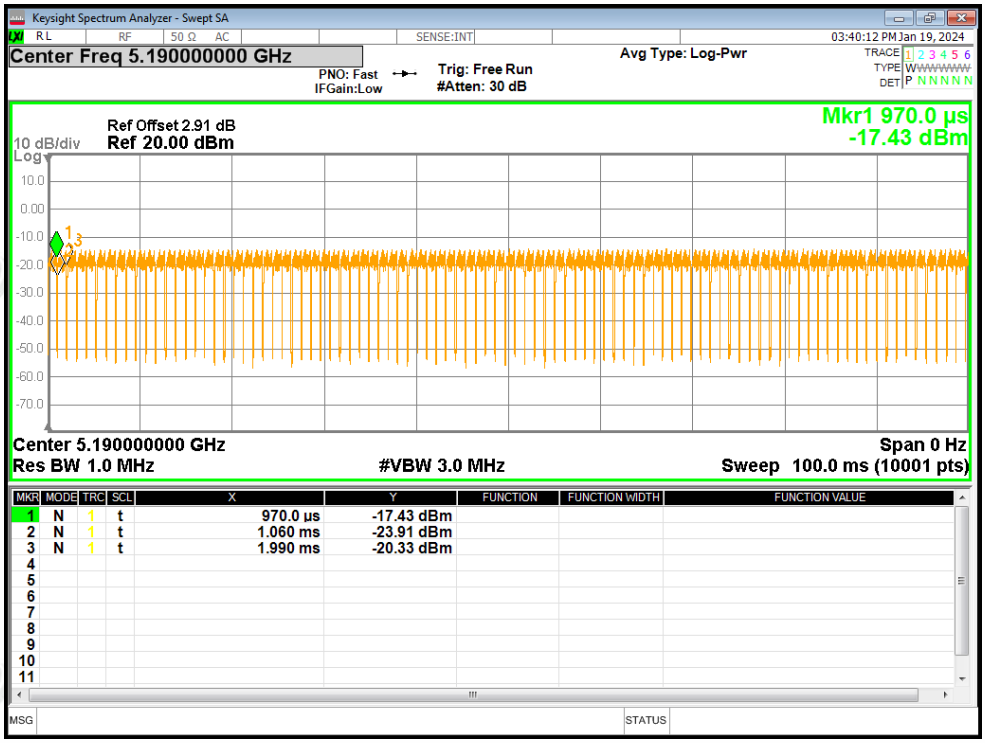
Duty Cycle NVNT ac20 5180MHz Ant2



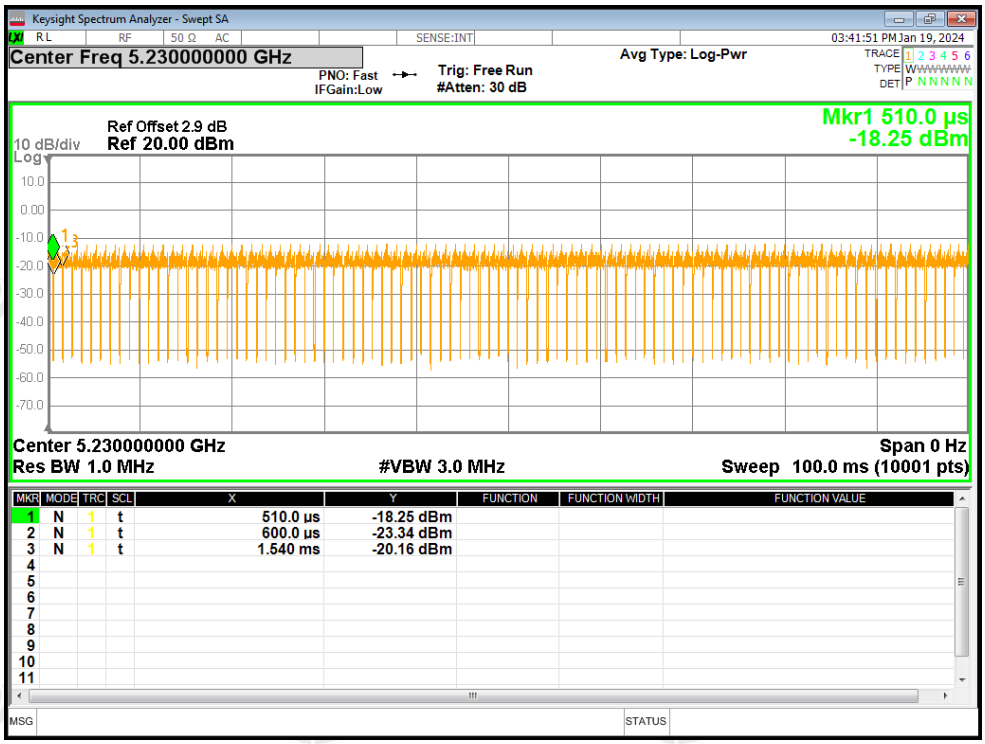
Duty Cycle NVNT ac20 5200MHz Ant2

Duty Cycle NVNT ac20 5240MHz Ant2

Duty Cycle NVNT ac40 5190MHz Ant1

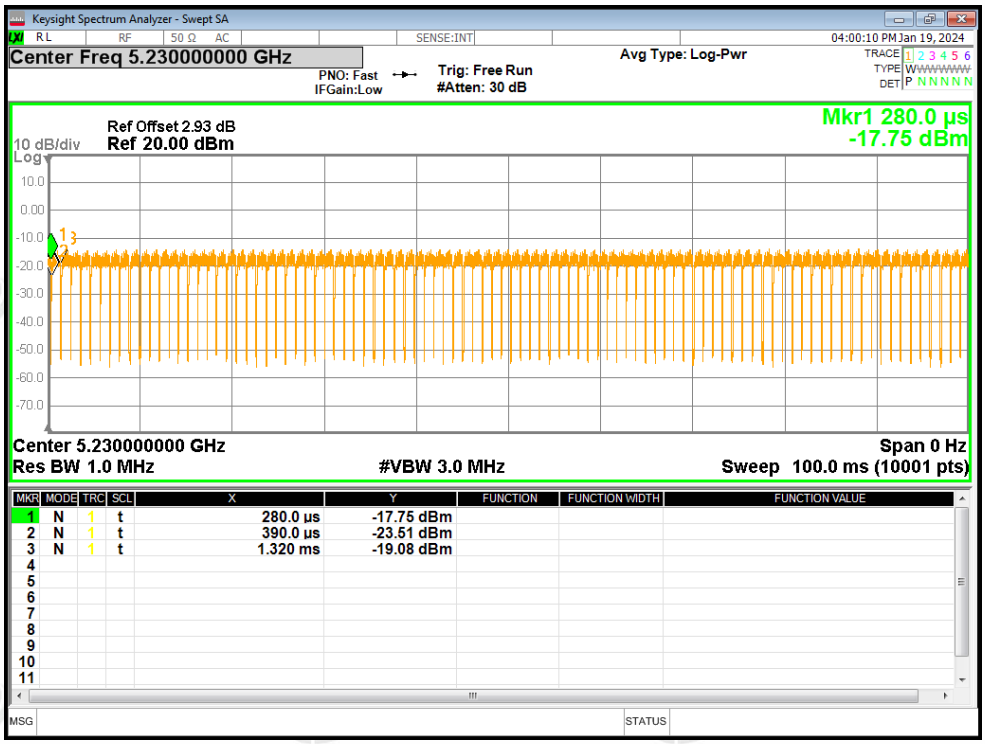


Duty Cycle NVNT ac40 5230MHz Ant1



Duty Cycle NVNT ac40 5190MHz Ant2

Duty Cycle NVNT ac40 5230MHz Ant2



Duty Cycle NVNT ac80 5210MHz Ant1

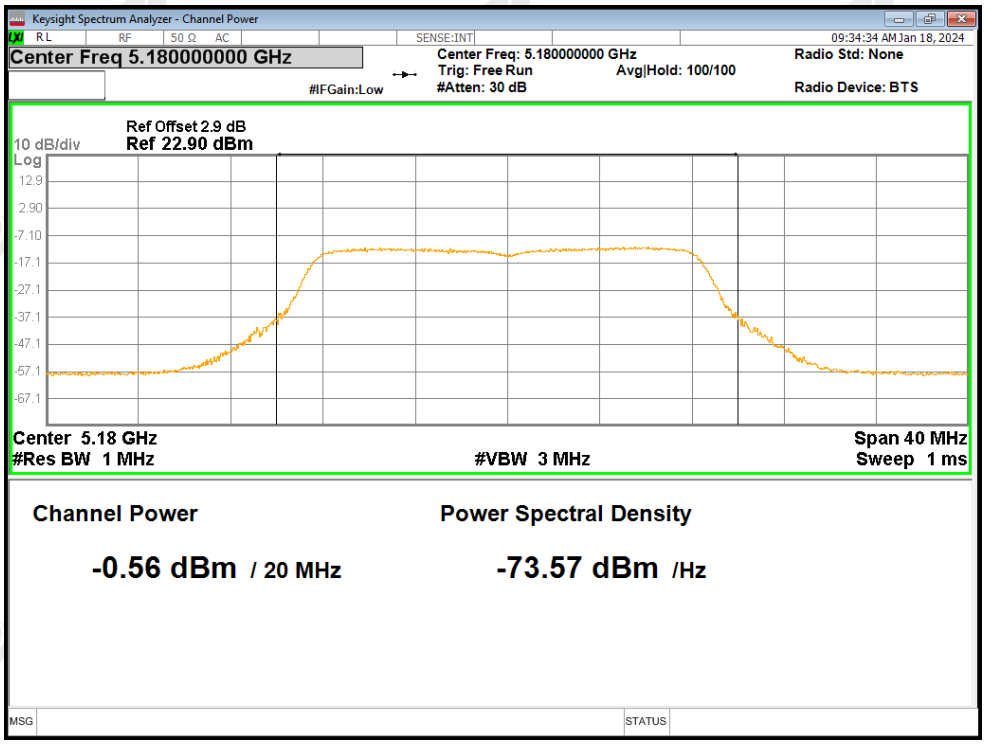
Duty Cycle NVNT ac80 5210MHz Ant2

B2. Maximum Conducted Output Power

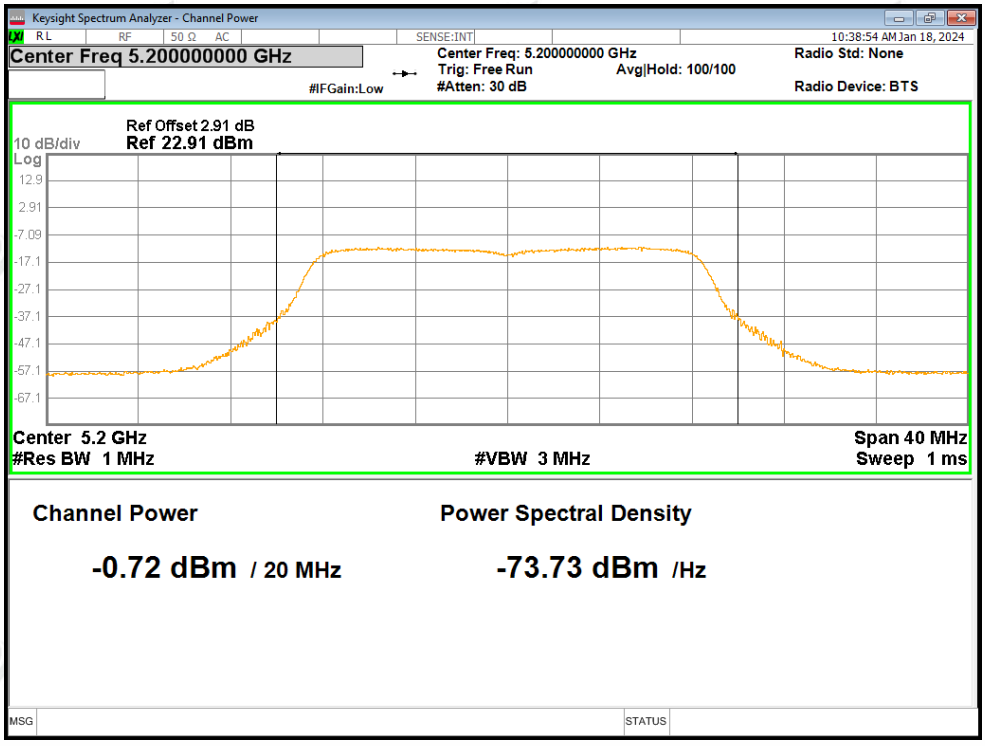
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	-0.56	0.34	-0.22	24	Pass
NVNT	a	5200	Ant1	-0.72	0.34	-0.38	24	Pass
NVNT	a	5240	Ant1	-1.34	0.34	-1	24	Pass
NVNT	a	5180	Ant2	-0.64	0.26	-0.38	24	Pass
NVNT	a	5200	Ant2	-0.58	0.1	-0.48	24	Pass
NVNT	a	5240	Ant2	-0.1	0.19	0.09	24	Pass
NVNT	n20	5180	Ant1	-1.71	0.33	-1.38	24	Pass
NVNT	n20	5200	Ant1	-1.95	0.2	-1.75	24	Pass
NVNT	n20	5240	Ant1	-1.72	0.35	-1.37	24	Pass
NVNT	n20	5180	Ant2	-1.97	0.31	-1.66	24	Pass
NVNT	n20	5200	Ant2	-1.73	0.11	-1.62	24	Pass
NVNT	n20	5240	Ant2	-1.32	0.37	-0.95	24	Pass
NVNT	n40	5190	Ant1	-3.23	0.73	-2.5	24	Pass
NVNT	n40	5230	Ant1	-3.27	0.18	-3.09	24	Pass
NVNT	n40	5190	Ant2	-3.17	0.28	-2.89	24	Pass
NVNT	n40	5230	Ant2	-3.84	0.57	-3.27	24	Pass
NVNT	ac20	5180	Ant1	-2.98	0.18	-2.8	24	Pass
NVNT	ac20	5200	Ant1	-2.56	0.09	-2.47	24	Pass
NVNT	ac20	5240	Ant1	-2.6	0.15	-2.45	24	Pass
NVNT	ac20	5180	Ant2	-2.98	0.26	-2.72	24	Pass
NVNT	ac20	5200	Ant2	-2.75	0.34	-2.41	24	Pass
NVNT	ac20	5240	Ant2	-2.25	0.2	-2.05	24	Pass
NVNT	ac40	5190	Ant1	-4.34	0.4	-3.94	24	Pass
NVNT	ac40	5230	Ant1	-4.18	0.4	-3.78	24	Pass
NVNT	ac40	5190	Ant2	-5.01	0.27	-4.74	24	Pass
NVNT	ac40	5230	Ant2	-4.44	0.49	-3.95	24	Pass
NVNT	ac80	5210	Ant1	-5.4	0.32	-5.08	24	Pass
NVNT	ac80	5210	Ant2	-5.6	0.93	-4.67	24	Pass
NVNT	n20	5180	MIMO	/	/	1.49	24	Pass
NVNT	n20	5200	MIMO	/	/	1.33	24	Pass
NVNT	n20	5240	MIMO	/	/	1.86	24	Pass
NVNT	n40	5190	MIMO	/	/	0.32	24	Pass
NVNT	n40	5230	MIMO	/	/	-0.17	24	Pass
NVNT	ac20	5180	MIMO	/	/	0.25	24	Pass
NVNT	ac20	5200	MIMO	/	/	0.57	24	Pass
NVNT	ac20	5240	MIMO	/	/	0.76	24	Pass
NVNT	ac40	5190	MIMO	/	/	0.76	24	Pass
NVNT	ac40	5230	MIMO	/	/	-0.85	24	Pass
NVNT	ac80	5210	MIMO	/	/	-1.86	24	Pass

Test Graphs

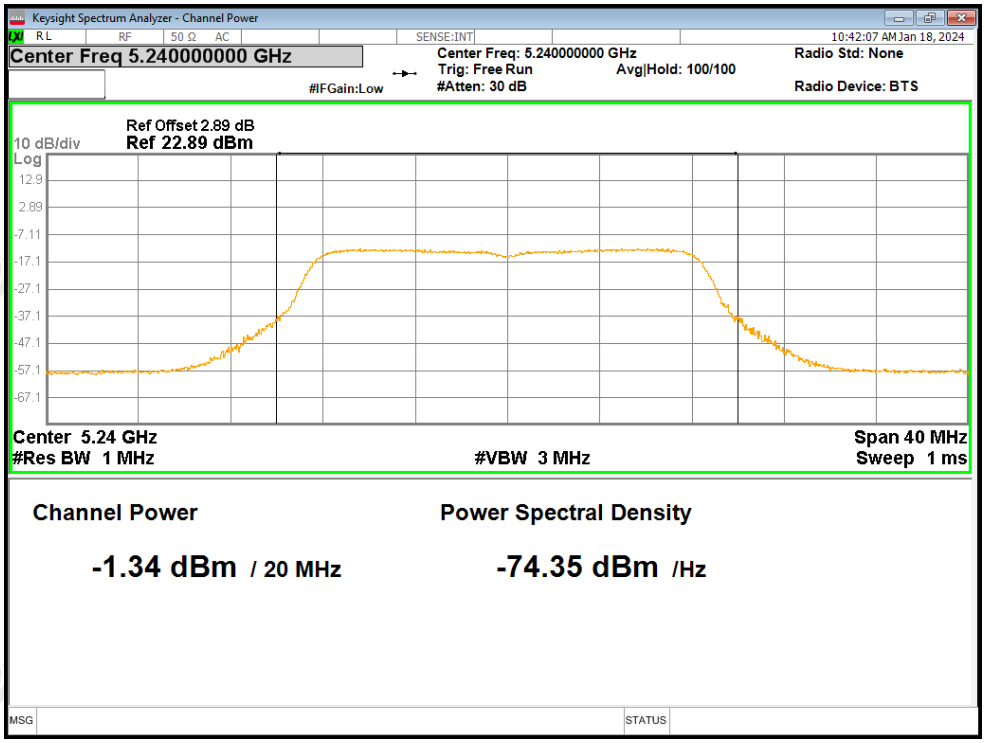
Power NVNT a 5180MHz Ant1



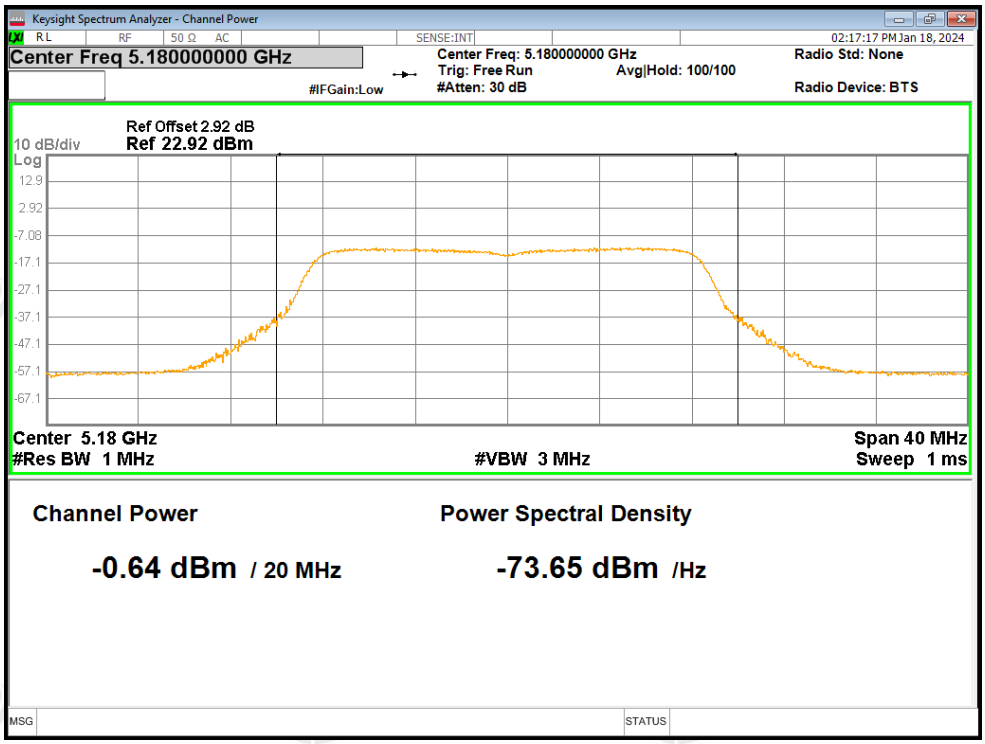
Power NVNT a 5200MHz Ant1



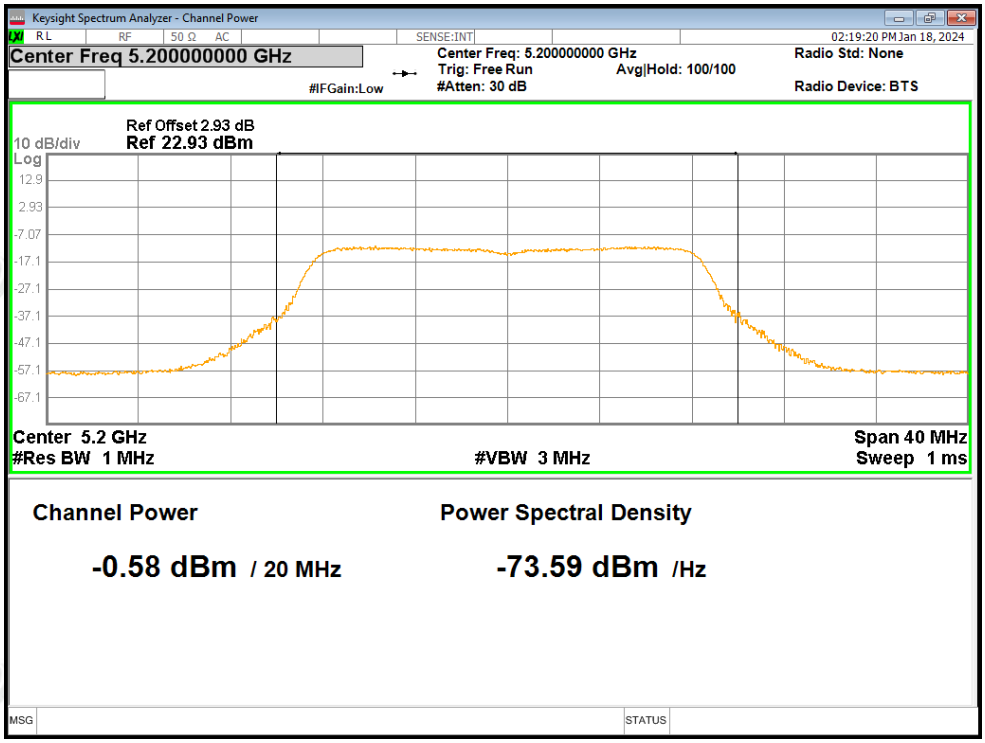
Power NVNT a 5240MHz Ant1



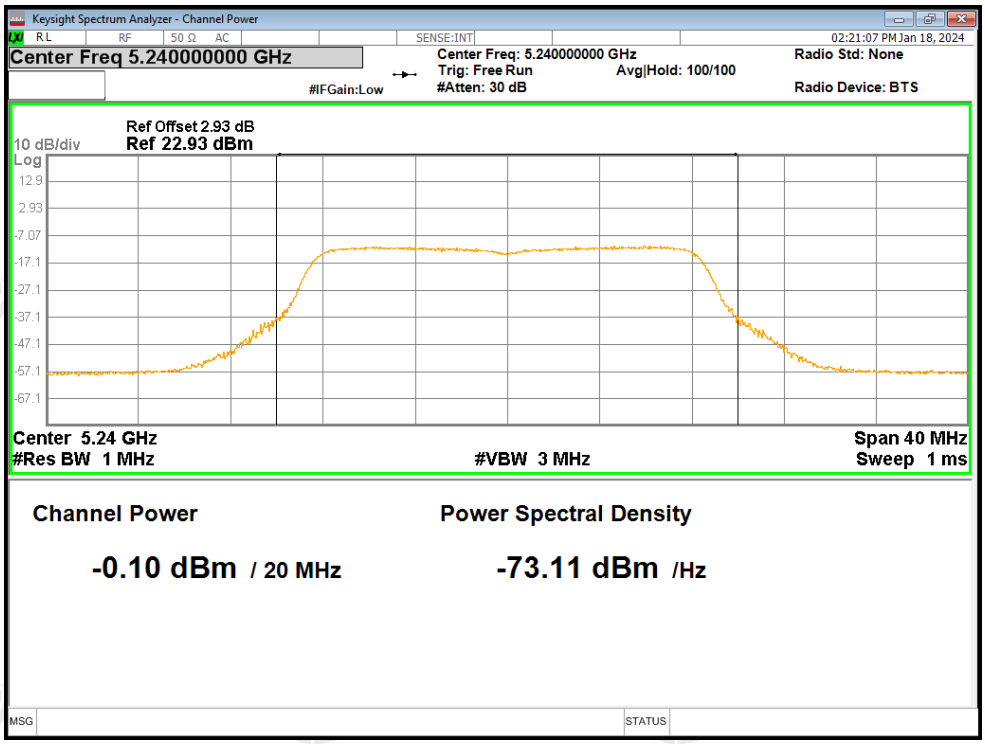
Power NVNT a 5180MHz Ant2



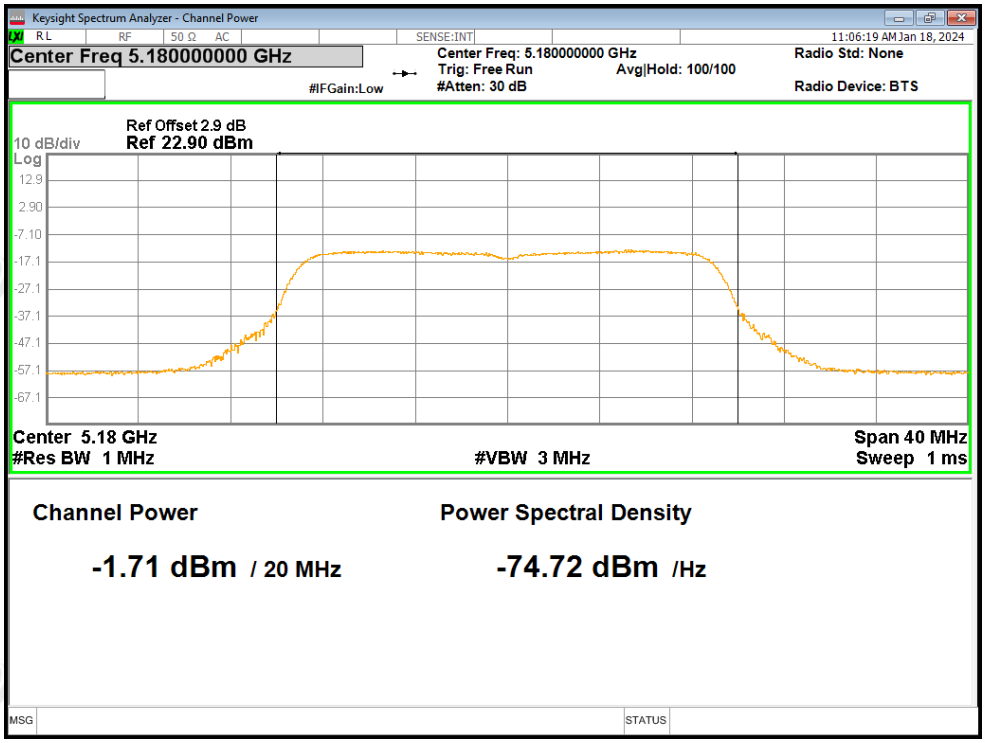
Power NVNT a 5200MHz Ant2



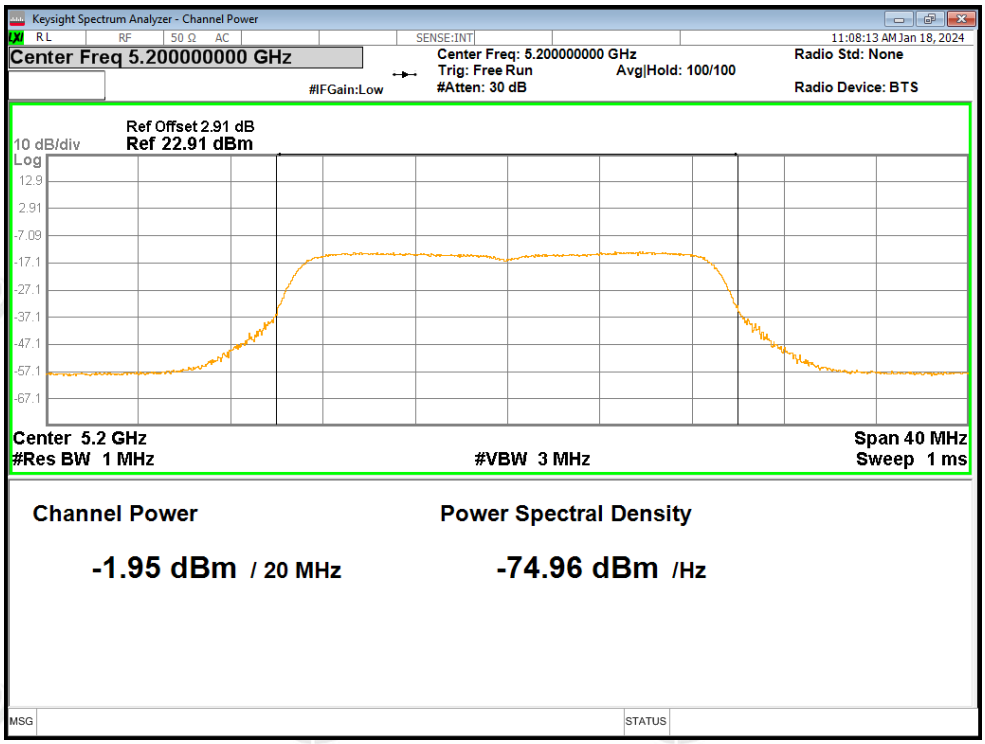
Power NVNT a 5240MHz Ant2



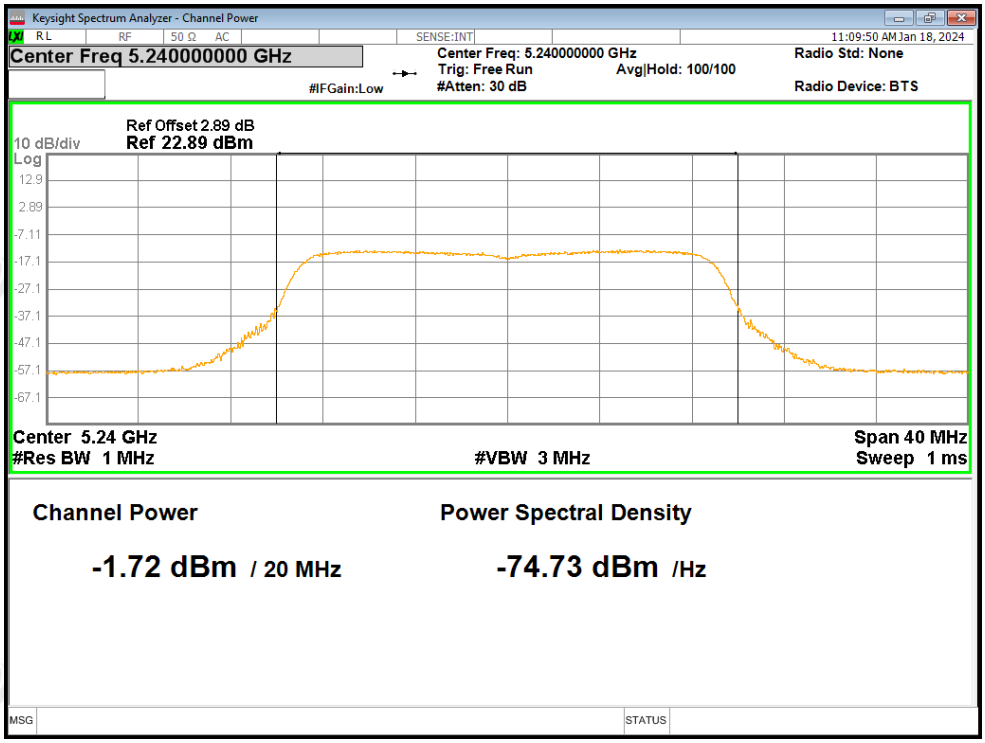
Power NVNT n20 5180MHz Ant1



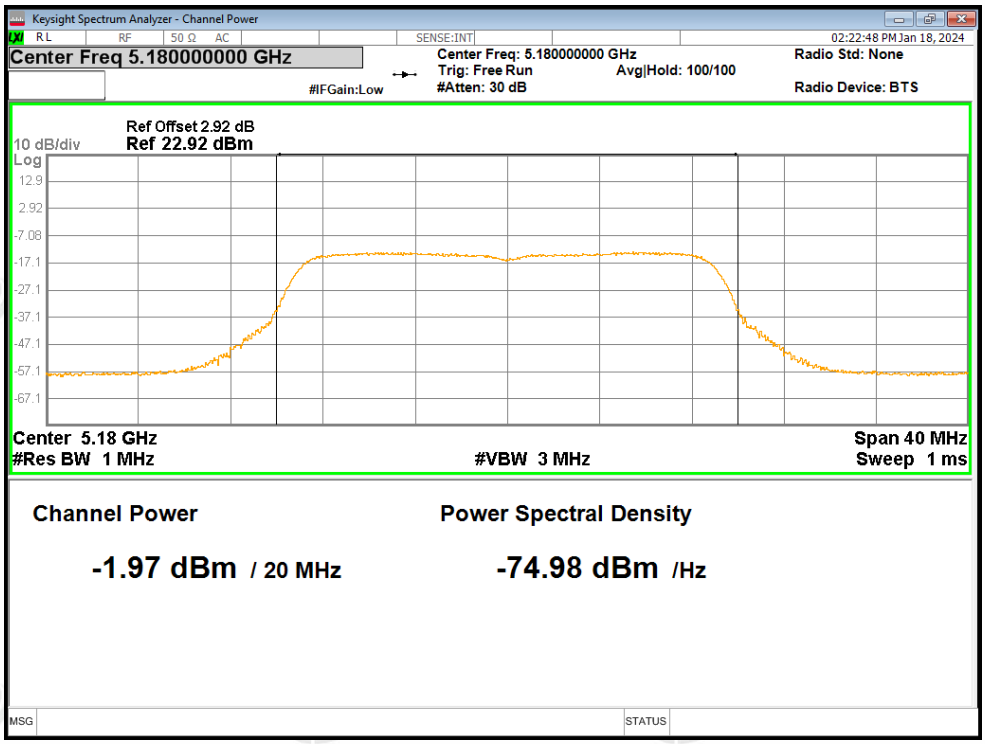
Power NVNT n20 5200MHz Ant1



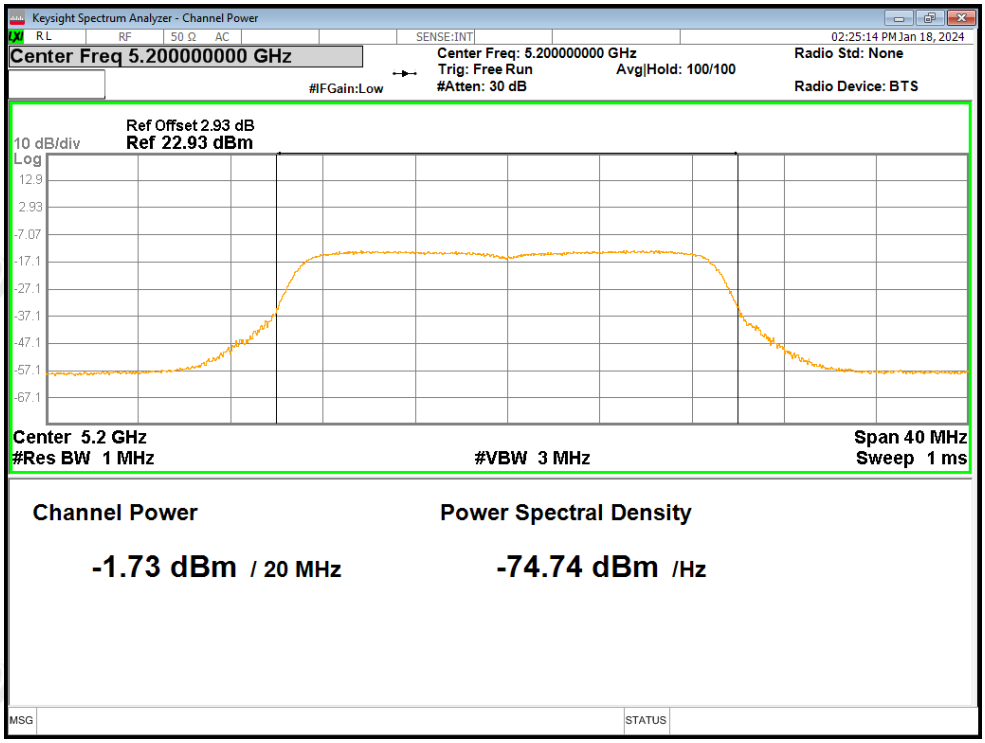
Power NVNT n20 5240MHz Ant1



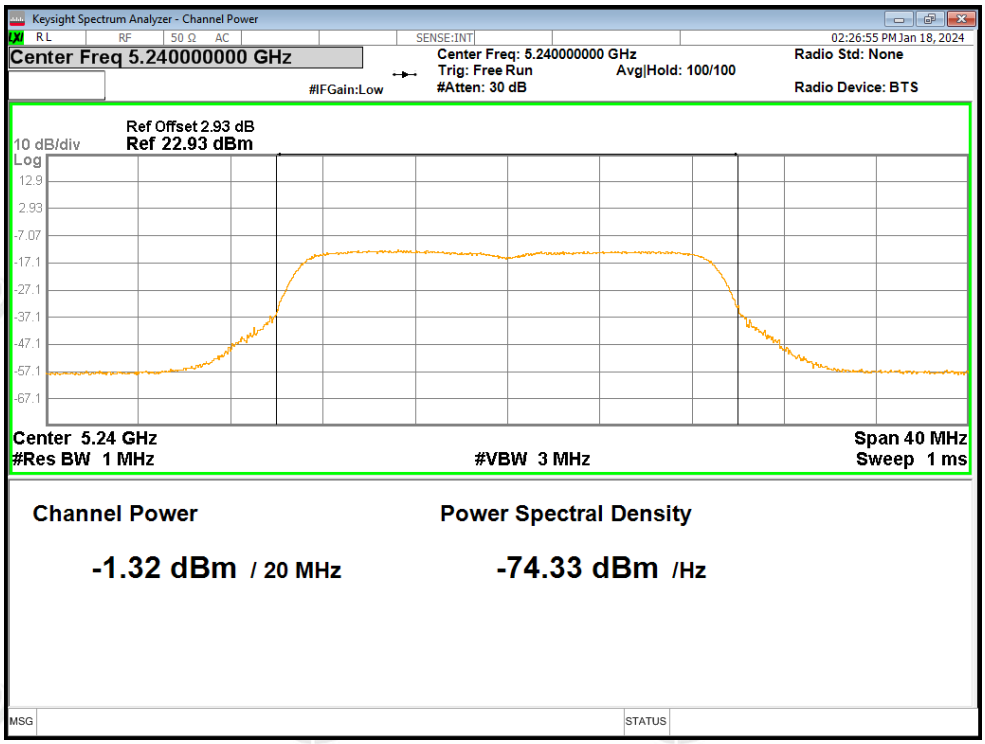
Power NVNT n20 5180MHz Ant2



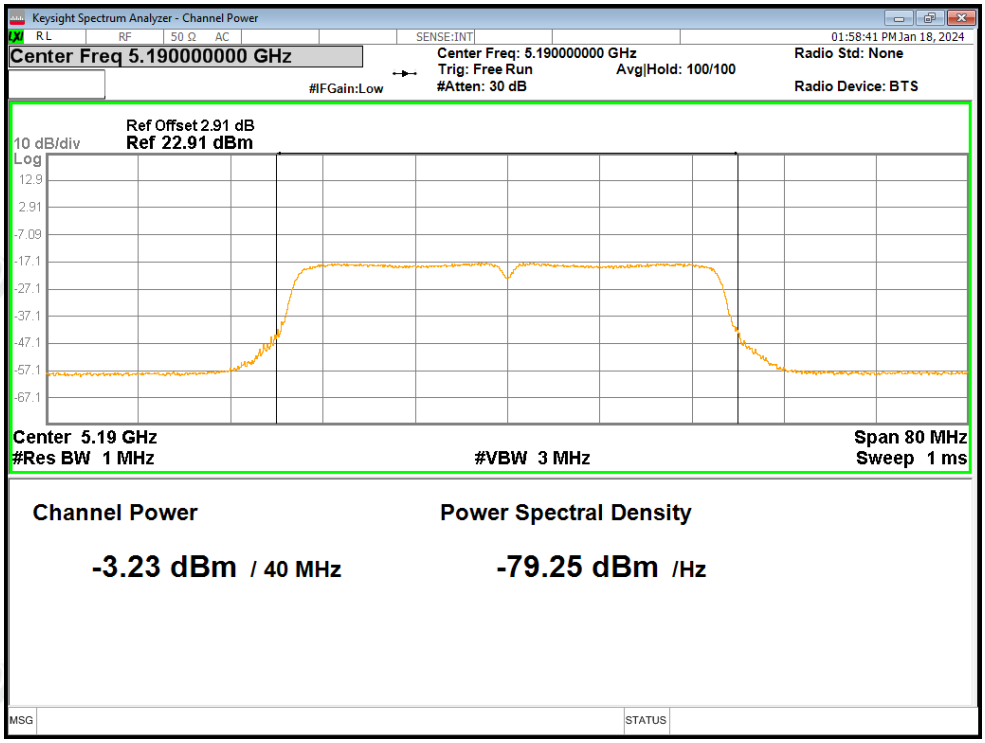
Power NVNT n20 5200MHz Ant2



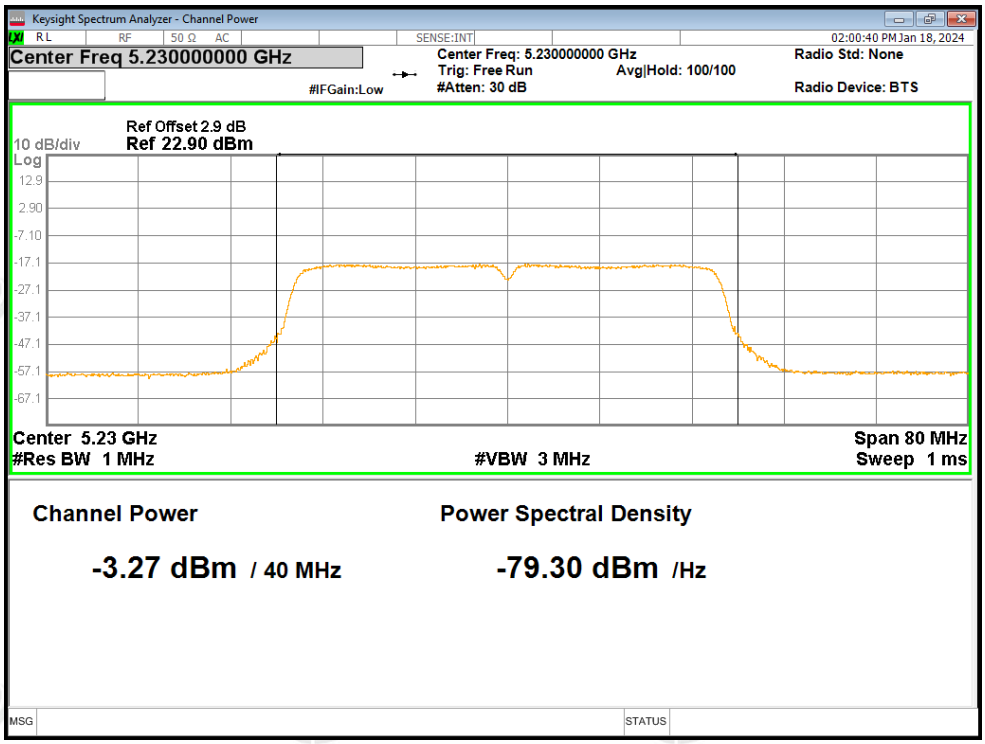
Power NVNT n20 5240MHz Ant2



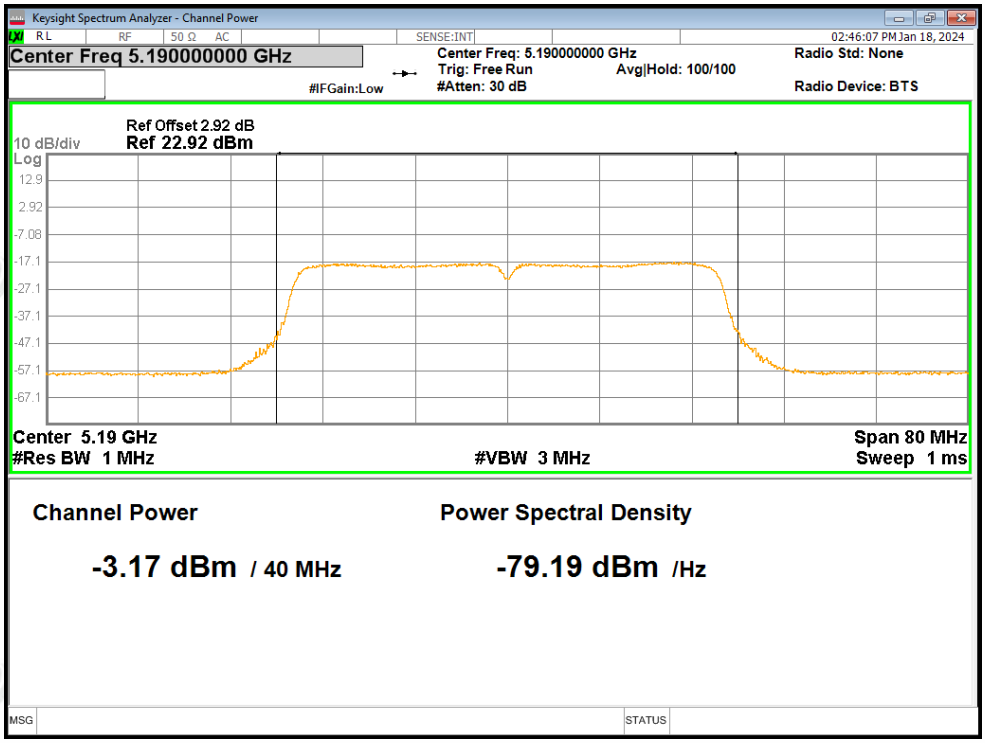
Power NVNT n40 5190MHz Ant1



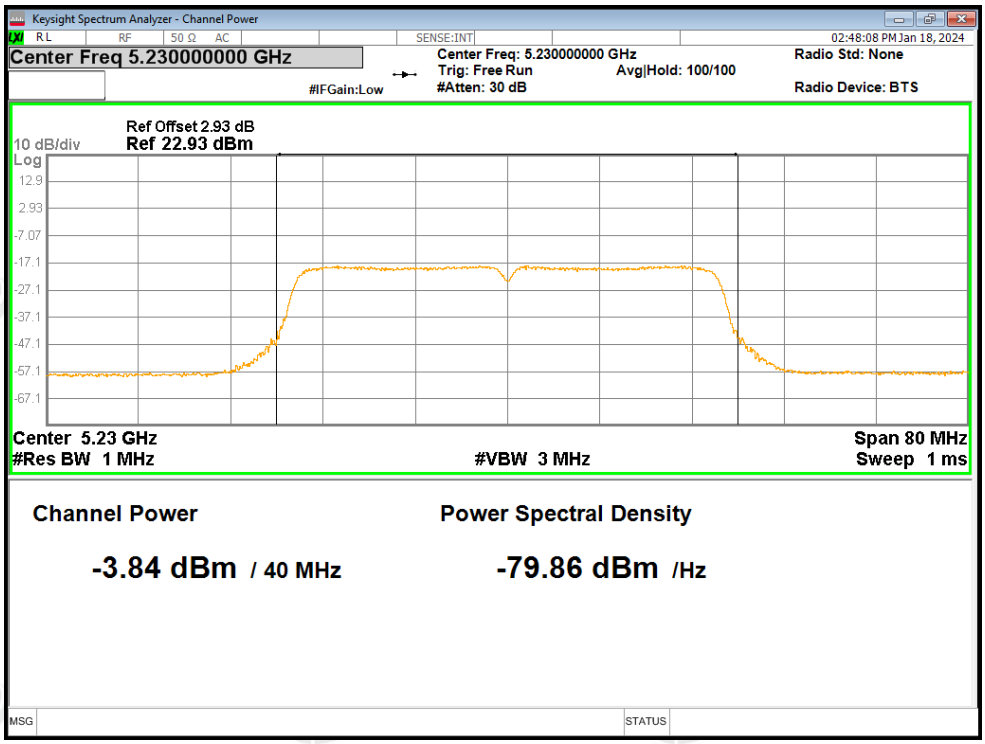
Power NVNT n40 5230MHz Ant1



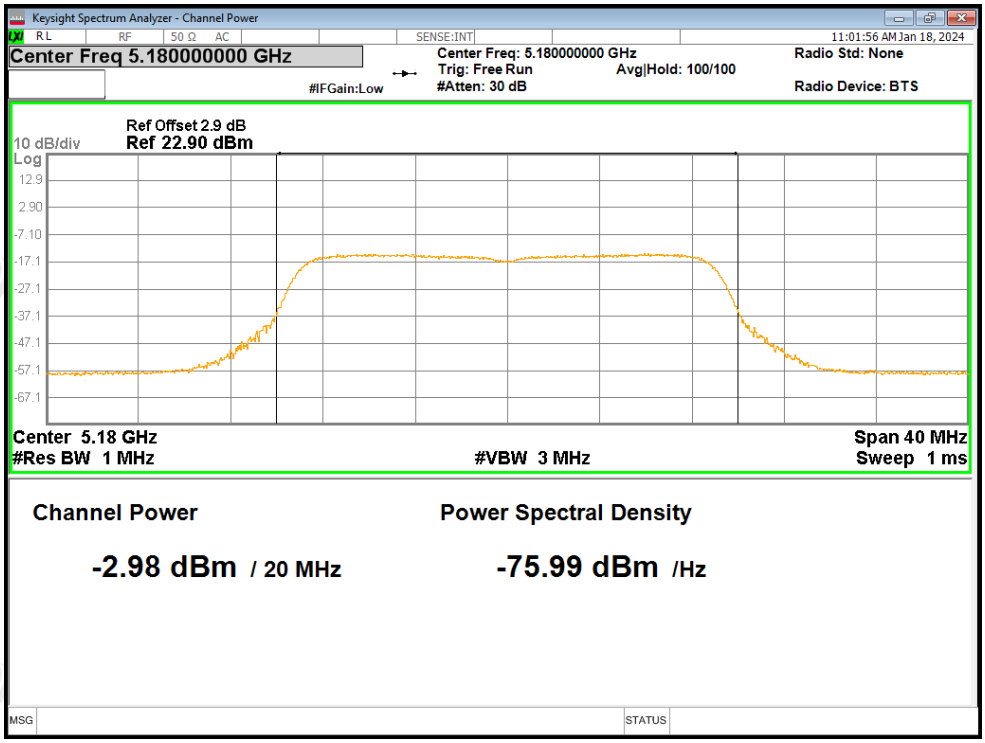
Power NVNT n40 5190MHz Ant2



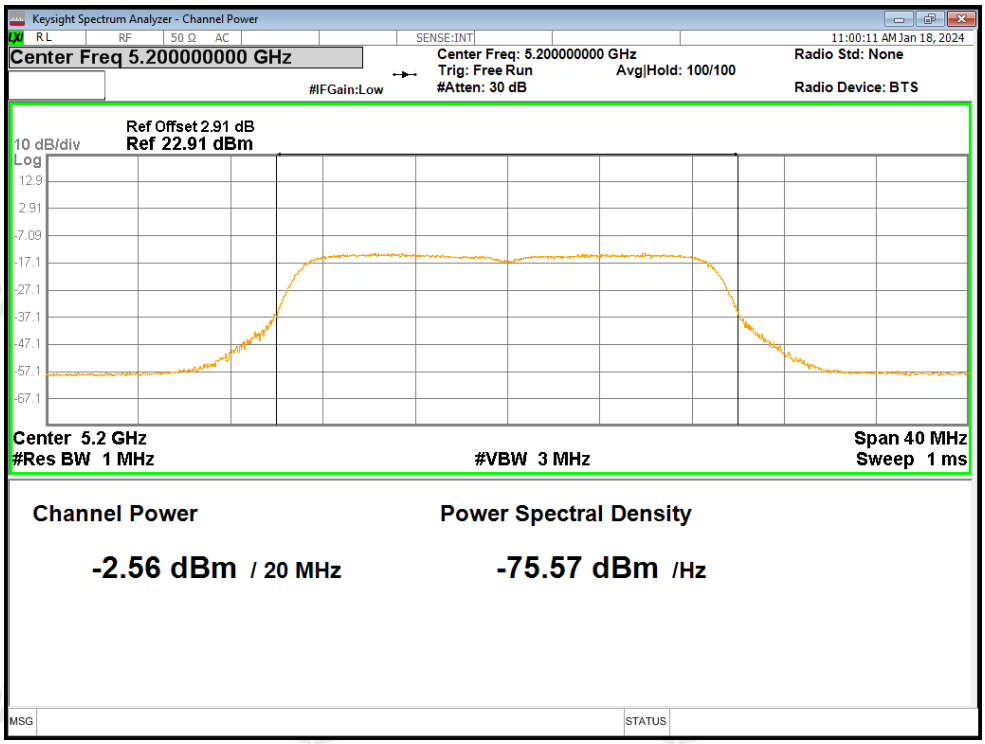
Power NVNT n40 5230MHz Ant2



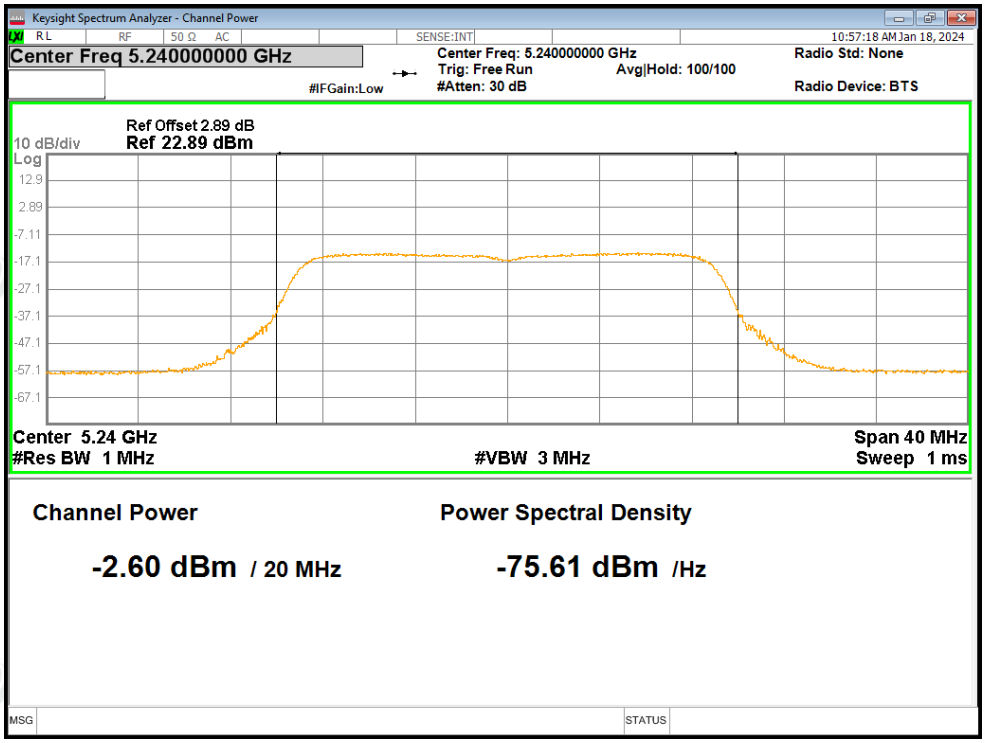
Power NVNT ac20 5180MHz Ant1



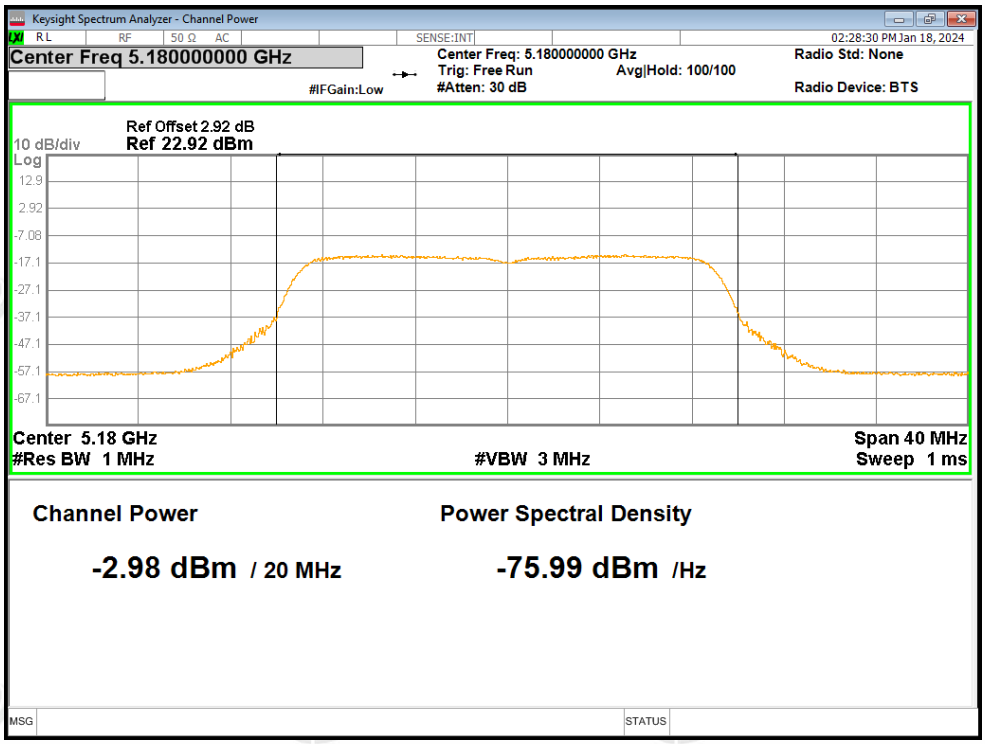
Power NVNT ac20 5200MHz Ant1



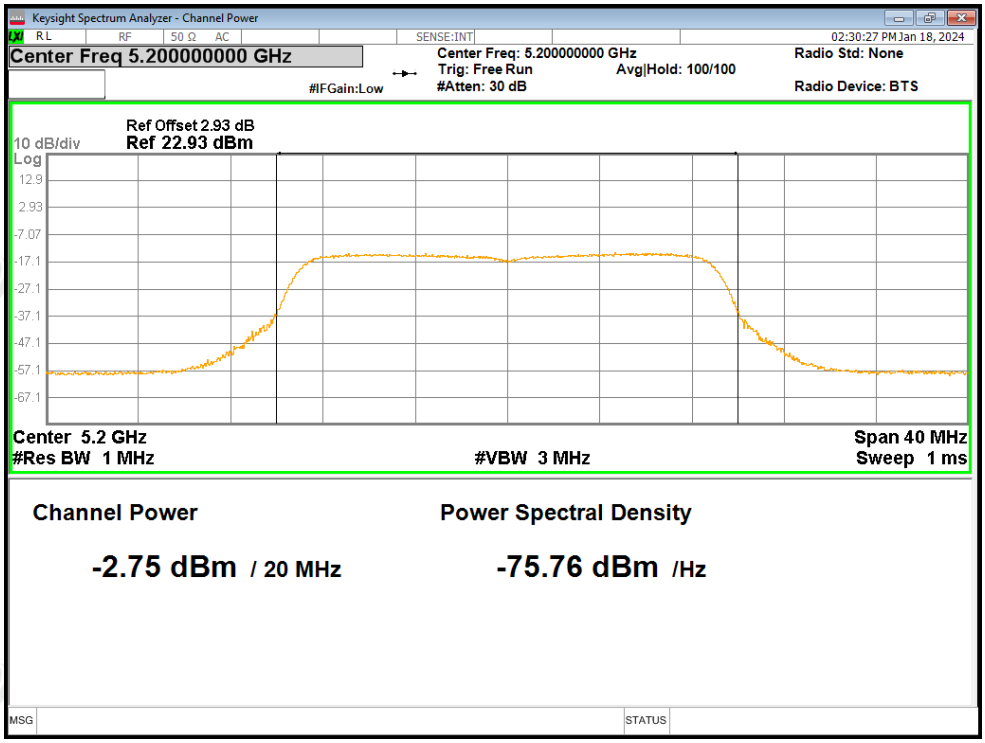
Power NVNT ac20 5240MHz Ant1



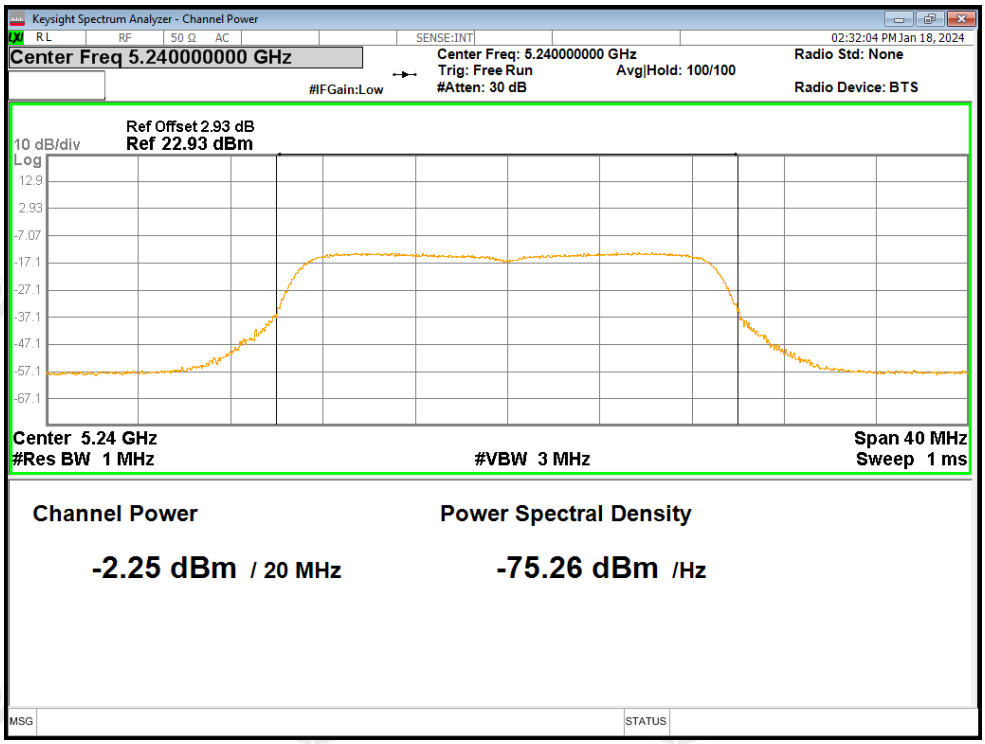
Power NVNT ac20 5180MHz Ant2



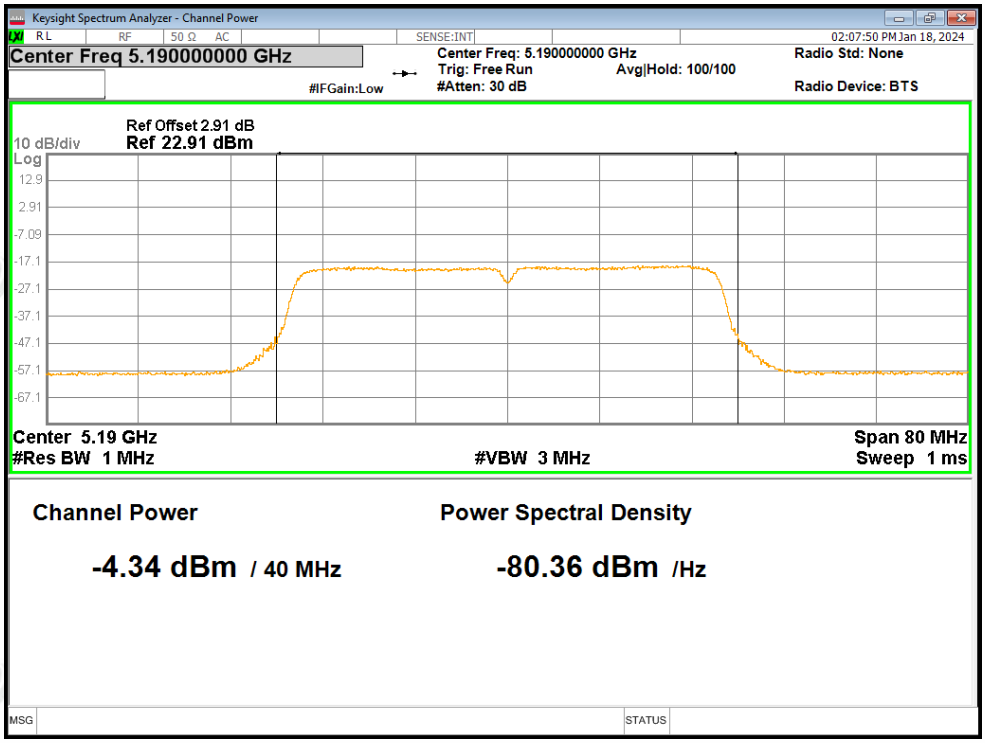
Power NVNT ac20 5200MHz Ant2



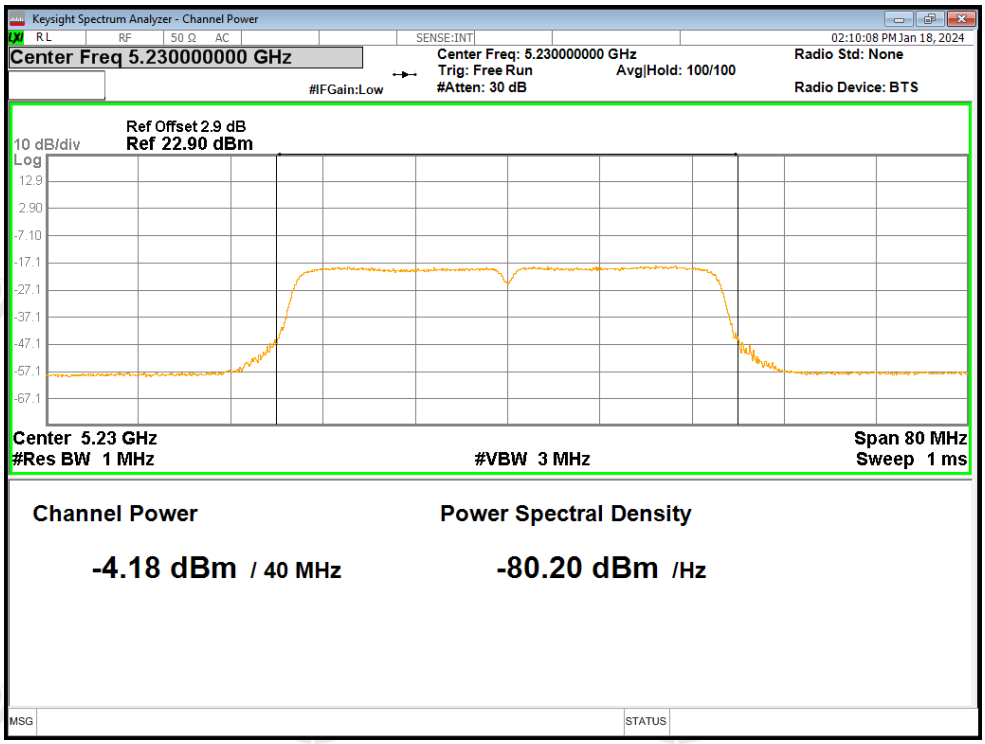
Power NVNT ac20 5240MHz Ant2



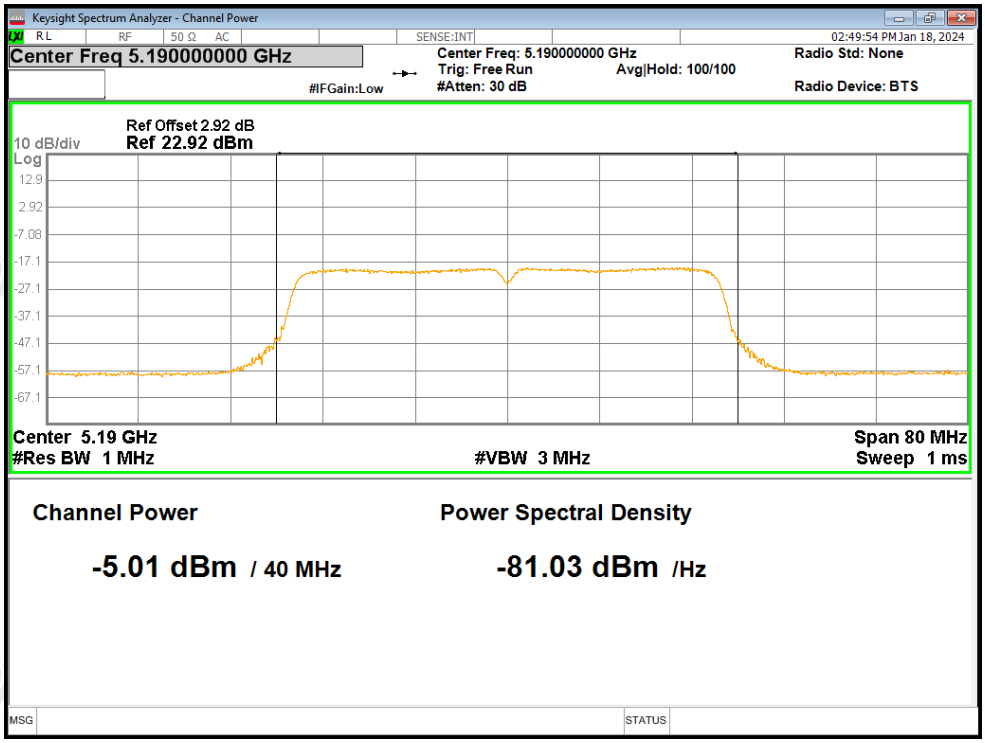
Power NVNT ac40 5190MHz Ant1



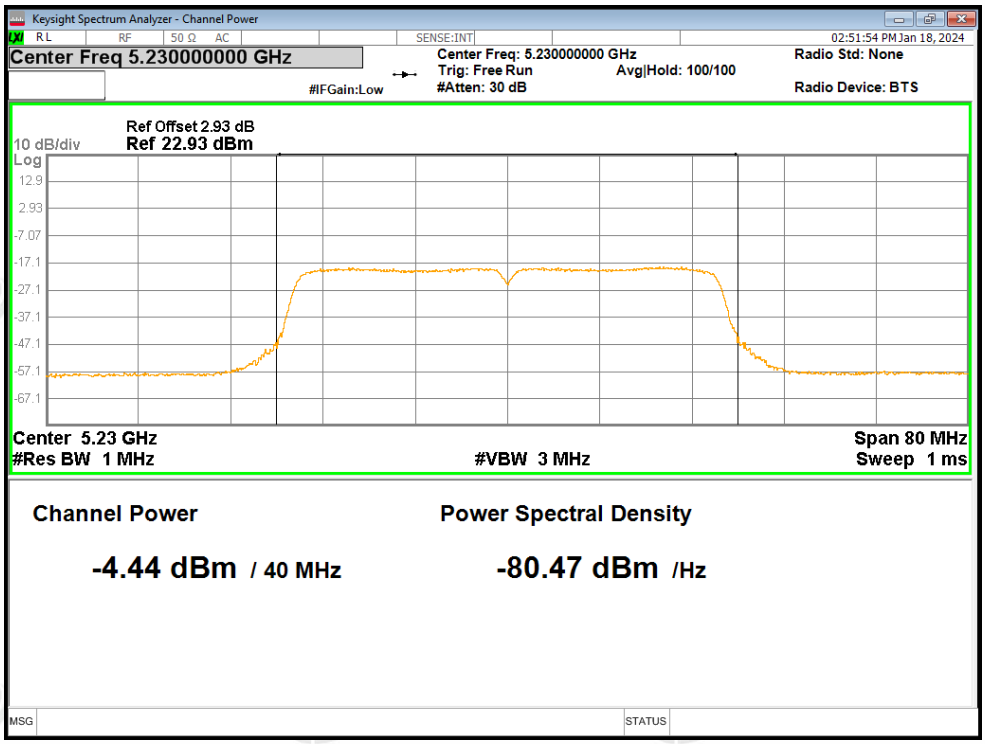
Power NVNT ac40 5230MHz Ant1



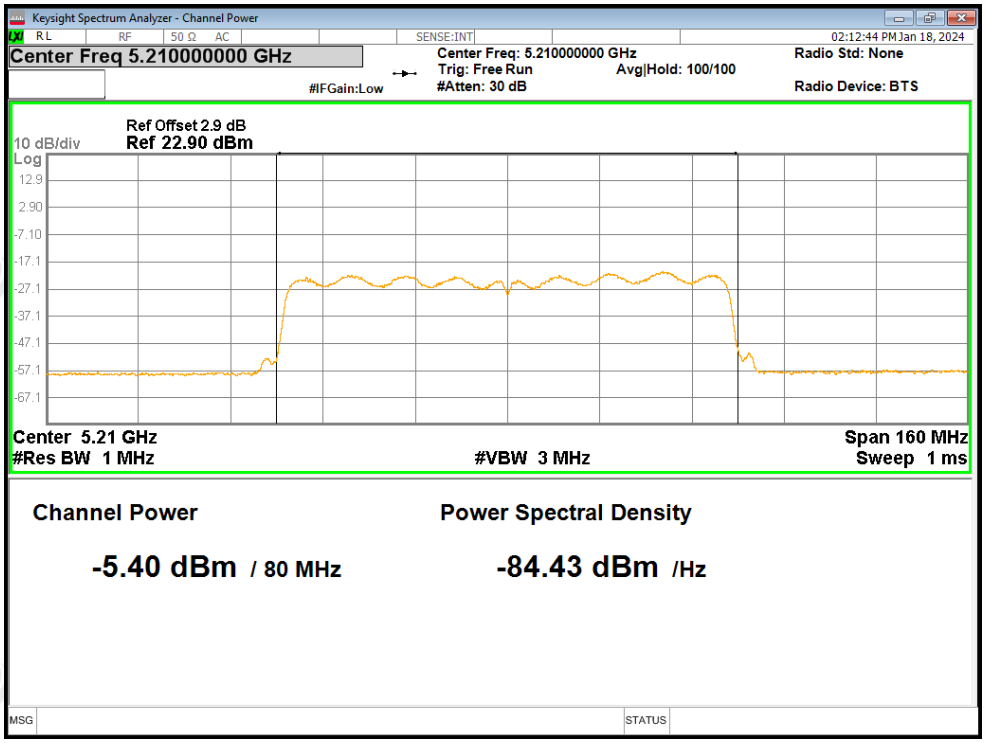
Power NVNT ac40 5190MHz Ant2



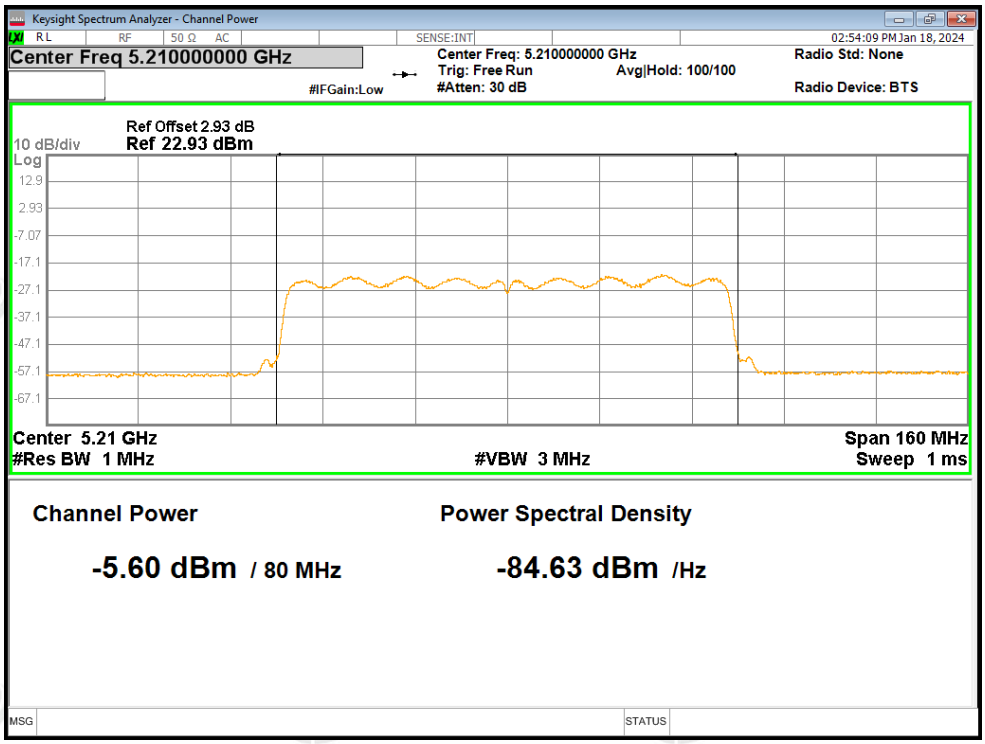
Power NVNT ac40 5230MHz Ant2



Power NVNT ac80 5210MHz Ant1



Power NVNT ac80 5210MHz Ant2

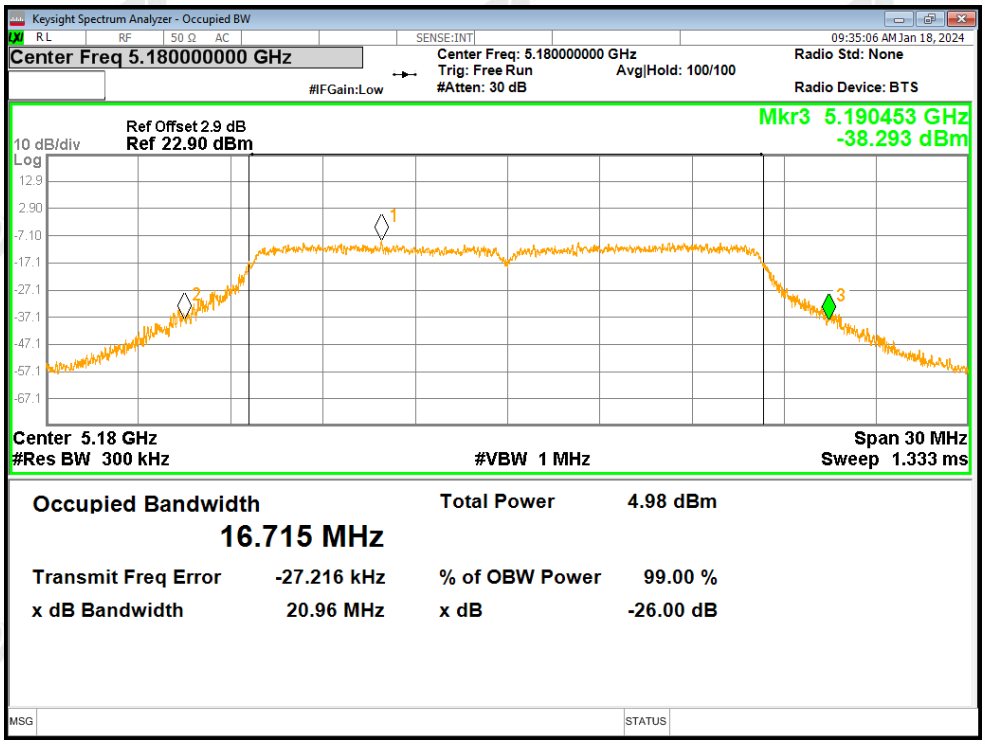


B3. -26dB Bandwidth

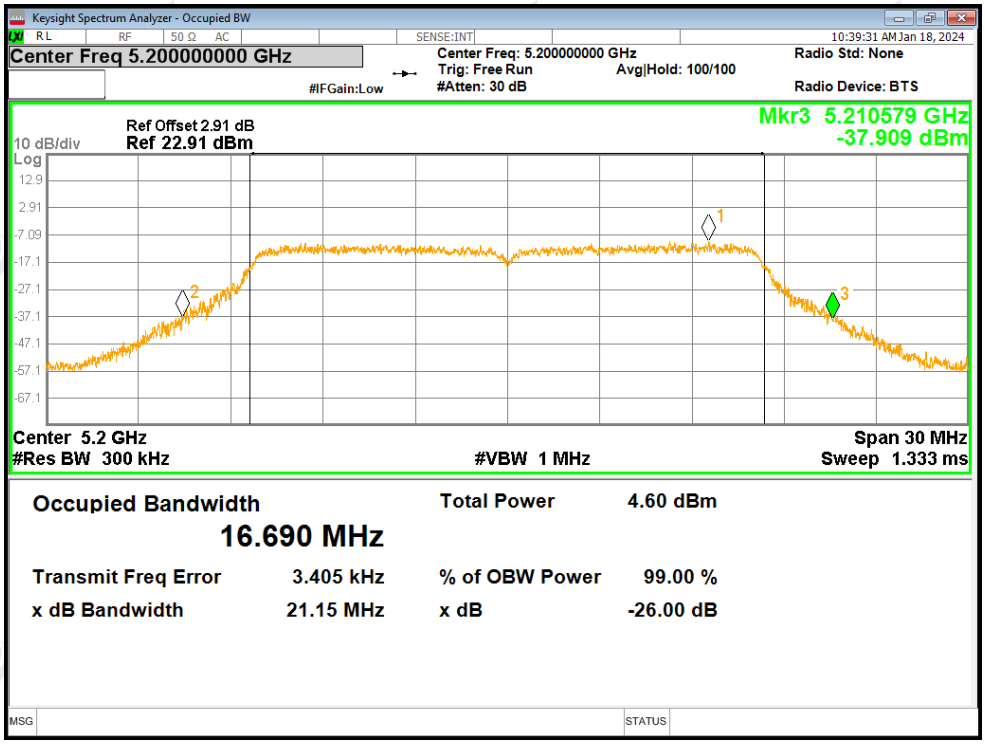
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)
NVNT	a	5180	Ant1	20.961
NVNT	a	5200	Ant1	21.151
NVNT	a	5240	Ant1	21.002
NVNT	a	5180	Ant2	21.357
NVNT	a	5200	Ant2	21.569
NVNT	a	5240	Ant2	20.69
NVNT	n20	5180	Ant1	21.719
NVNT	n20	5200	Ant1	21.783
NVNT	n20	5240	Ant1	21.557
NVNT	n20	5180	Ant2	21.649
NVNT	n20	5200	Ant2	21.528
NVNT	n20	5240	Ant2	21.404
NVNT	n40	5190	Ant1	40.651
NVNT	n40	5230	Ant1	40.372
NVNT	n40	5190	Ant2	40.678
NVNT	n40	5230	Ant2	41.03
NVNT	ac20	5180	Ant1	21.729
NVNT	ac20	5200	Ant1	21.176
NVNT	ac20	5240	Ant1	21.433
NVNT	ac20	5180	Ant2	21.532
NVNT	ac20	5200	Ant2	21.691
NVNT	ac20	5240	Ant2	21.897
NVNT	ac40	5190	Ant1	40.976
NVNT	ac40	5230	Ant1	40.898
NVNT	ac40	5190	Ant2	41.224
NVNT	ac40	5230	Ant2	40.882
NVNT	ac80	5210	Ant1	79.917
NVNT	ac80	5210	Ant2	80.028

Test Graphs

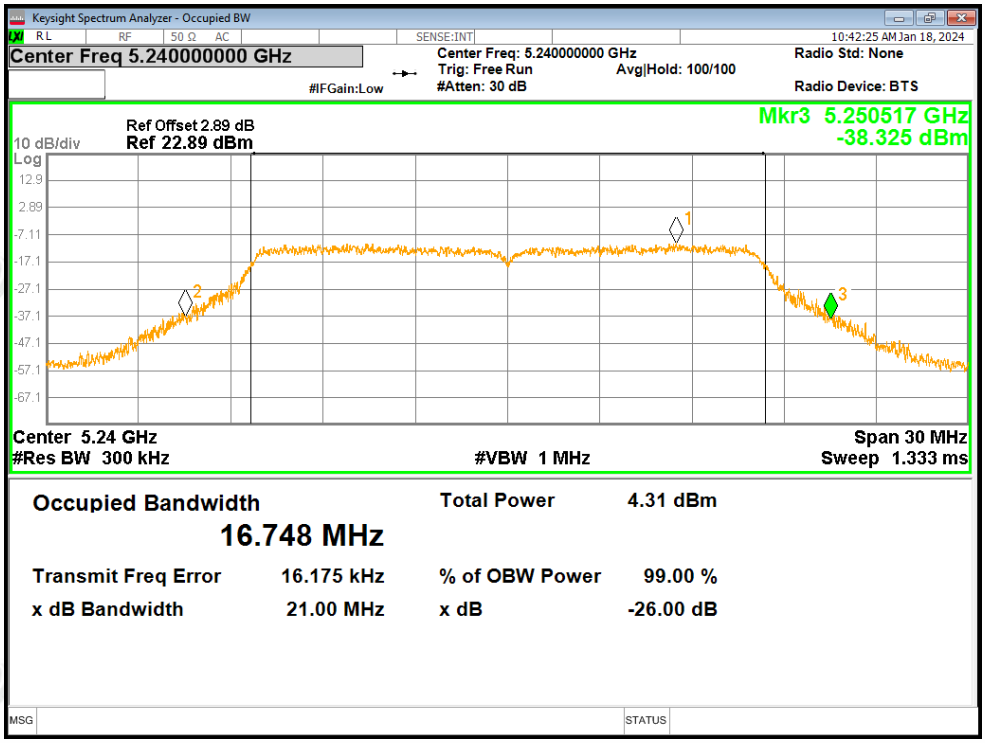
-26dB Bandwidth NVNT a 5180MHz Ant1



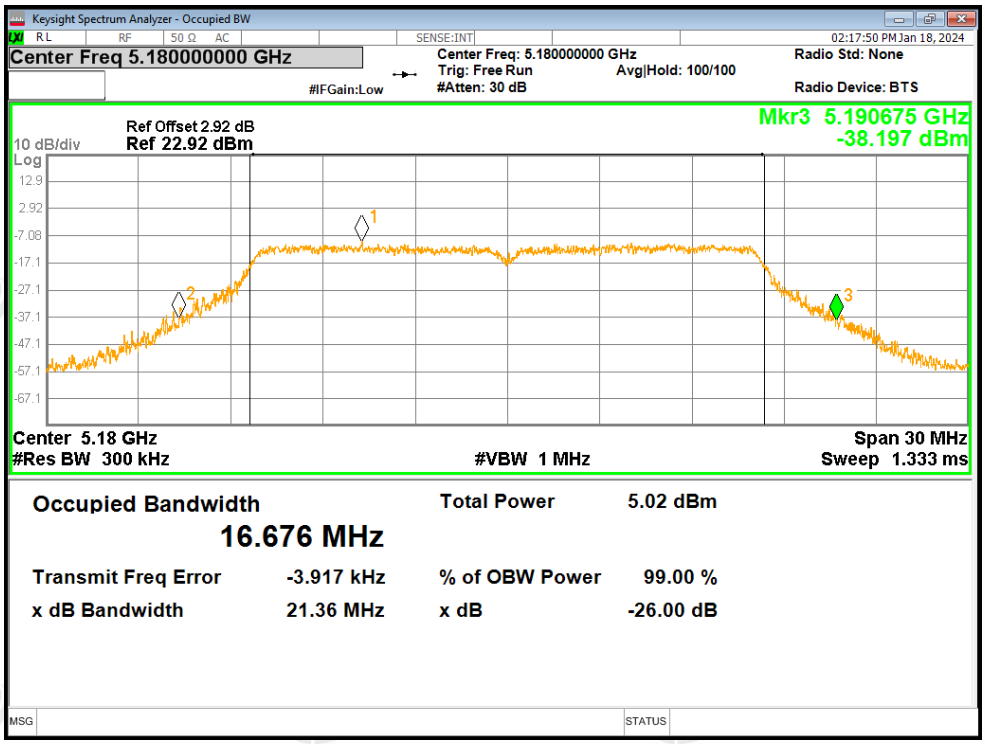
-26dB Bandwidth NVNT a 5200MHz Ant1



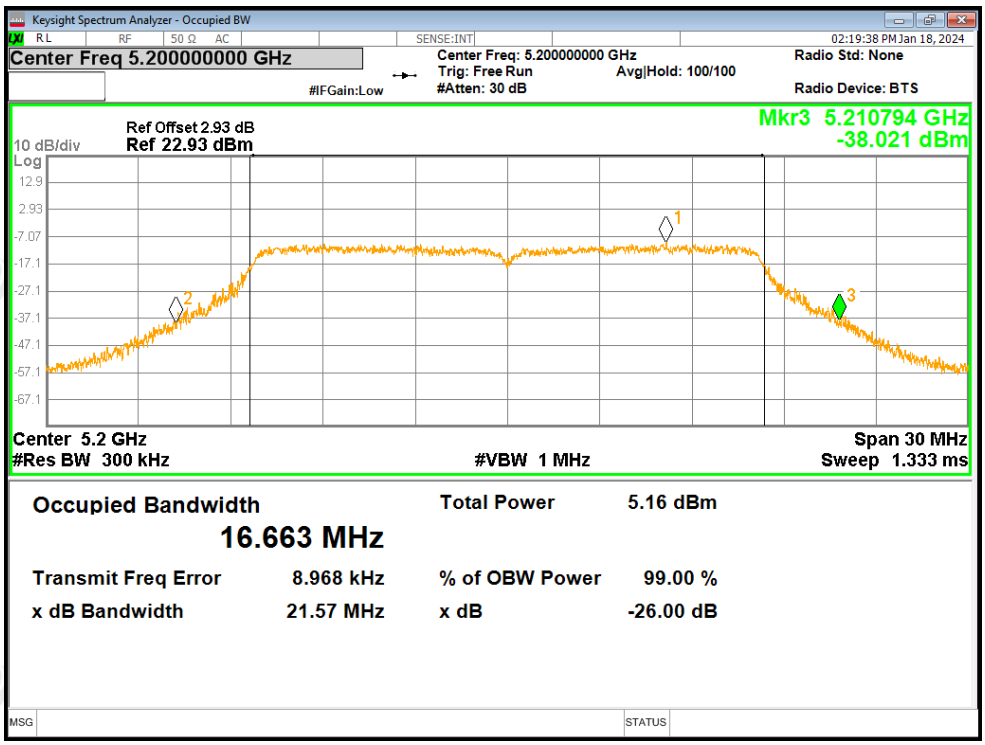
-26dB Bandwidth NVNT a 5240MHz Ant1



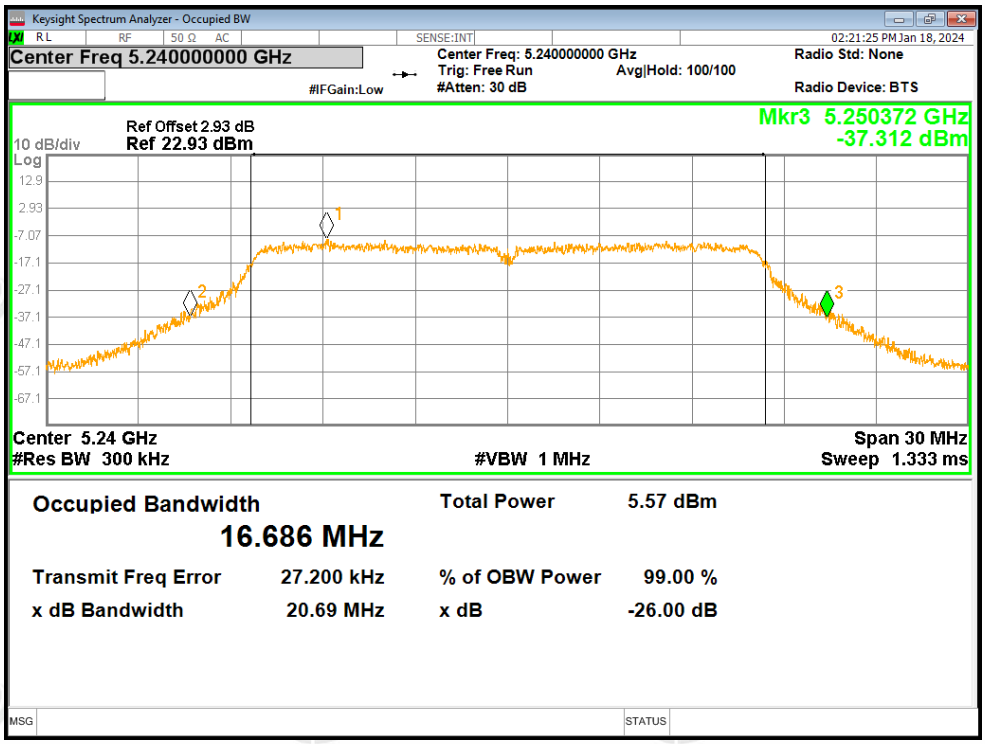
-26dB Bandwidth NVNT a 5180MHz Ant2



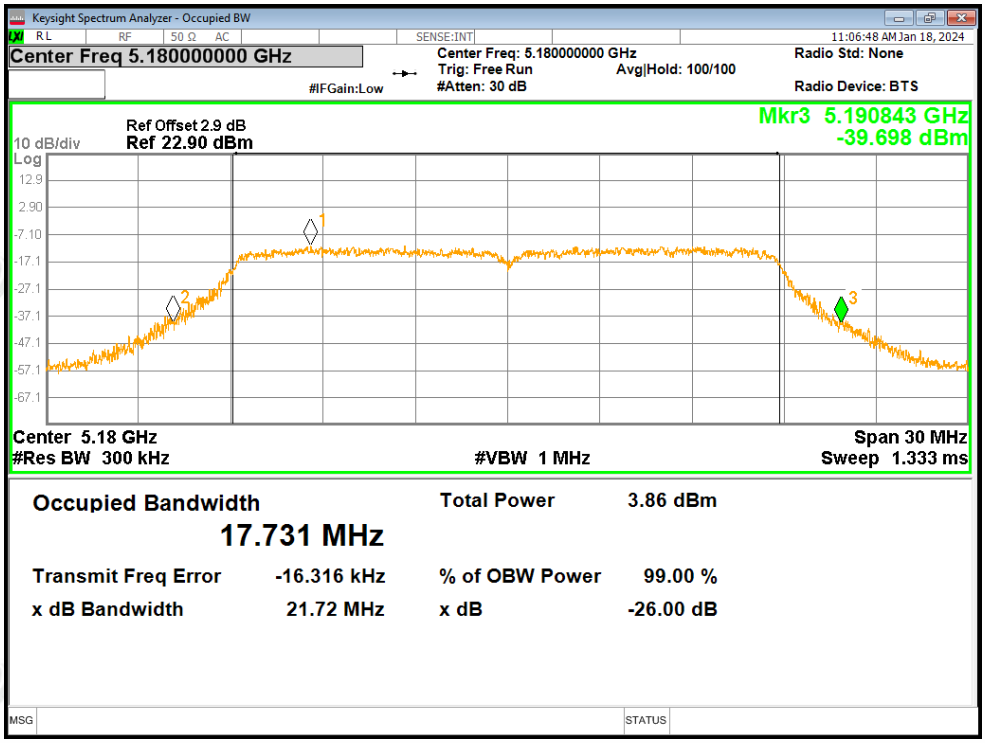
-26dB Bandwidth NVNT a 5200MHz Ant2



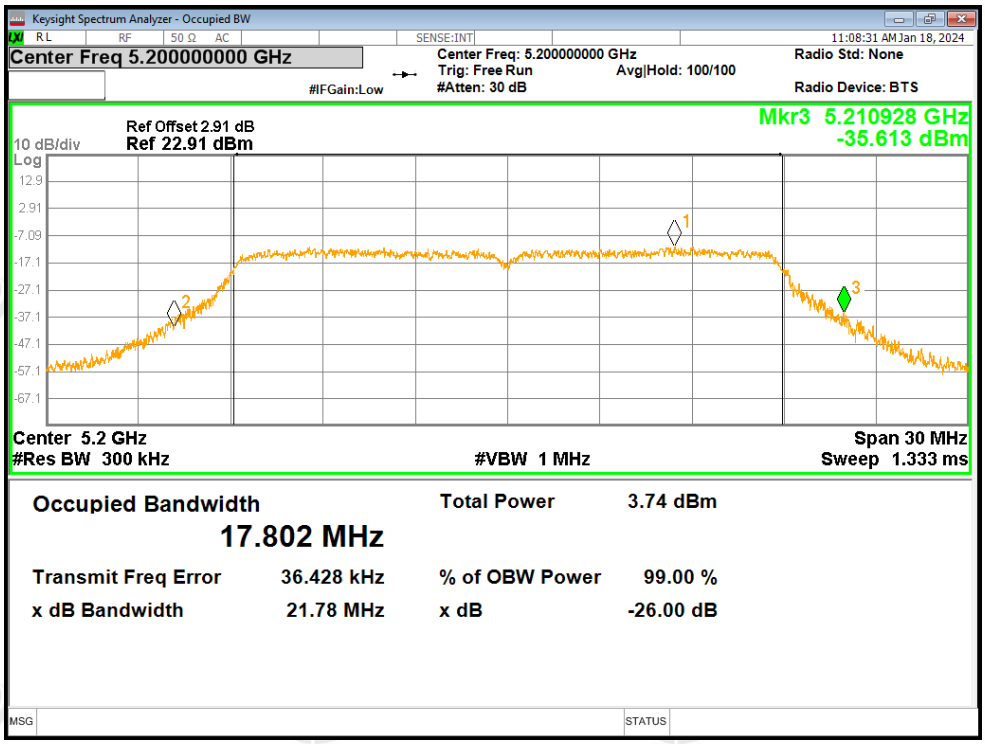
-26dB Bandwidth NVNT a 5240MHz Ant2



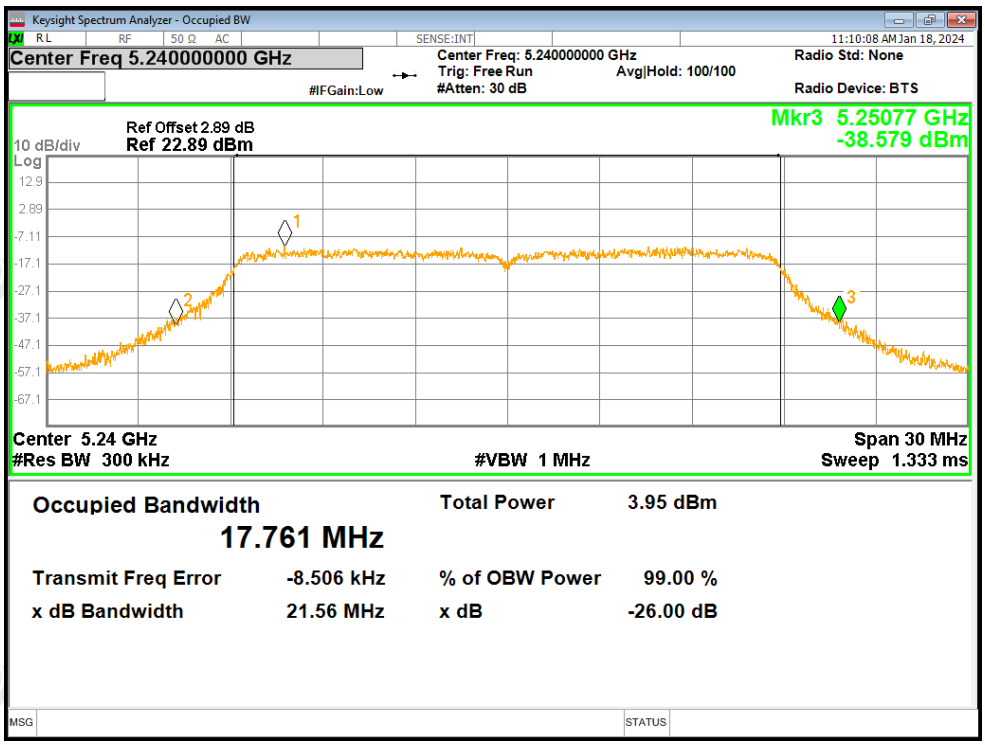
-26dB Bandwidth NVNT n20 5180MHz Ant1



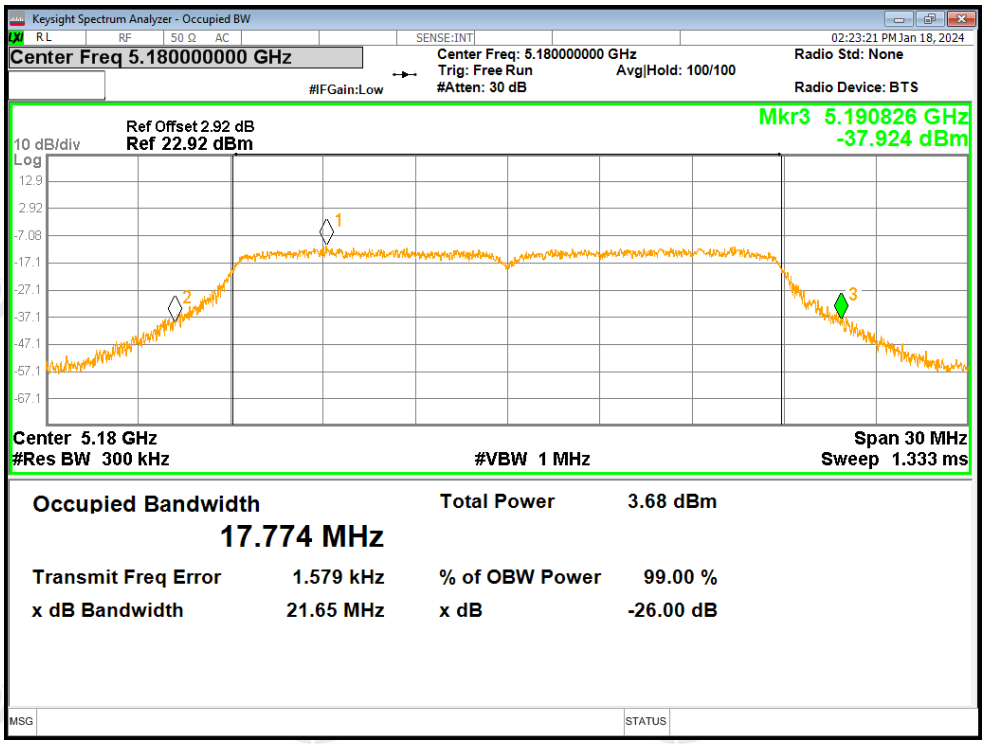
-26dB Bandwidth NVNT n20 5200MHz Ant1



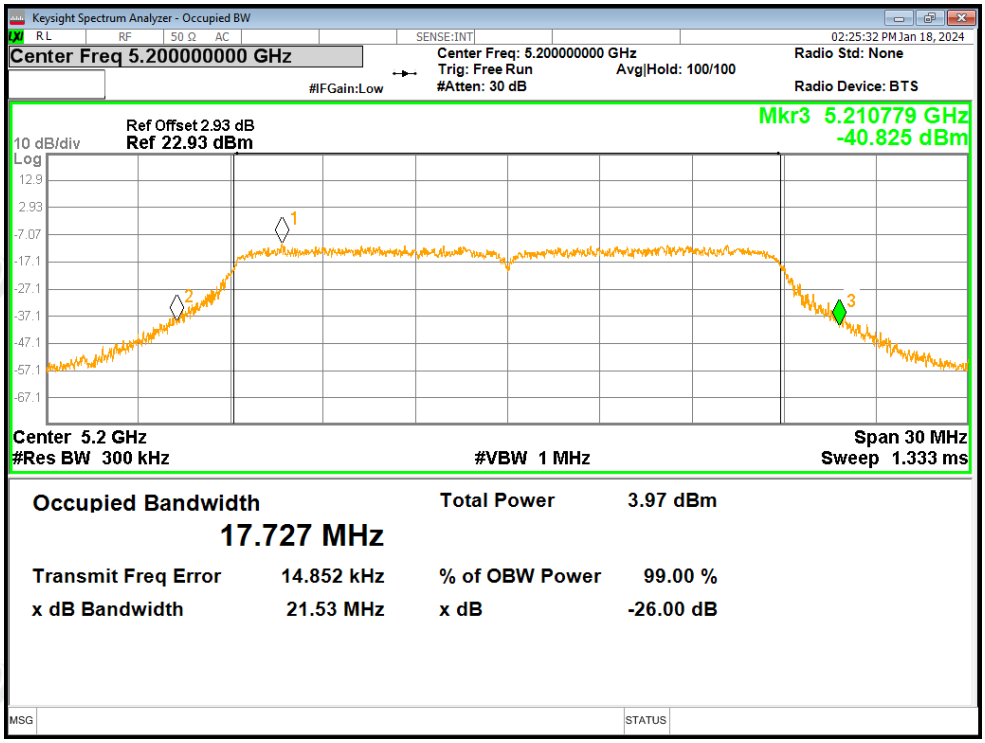
-26dB Bandwidth NVNT n20 5240MHz Ant1



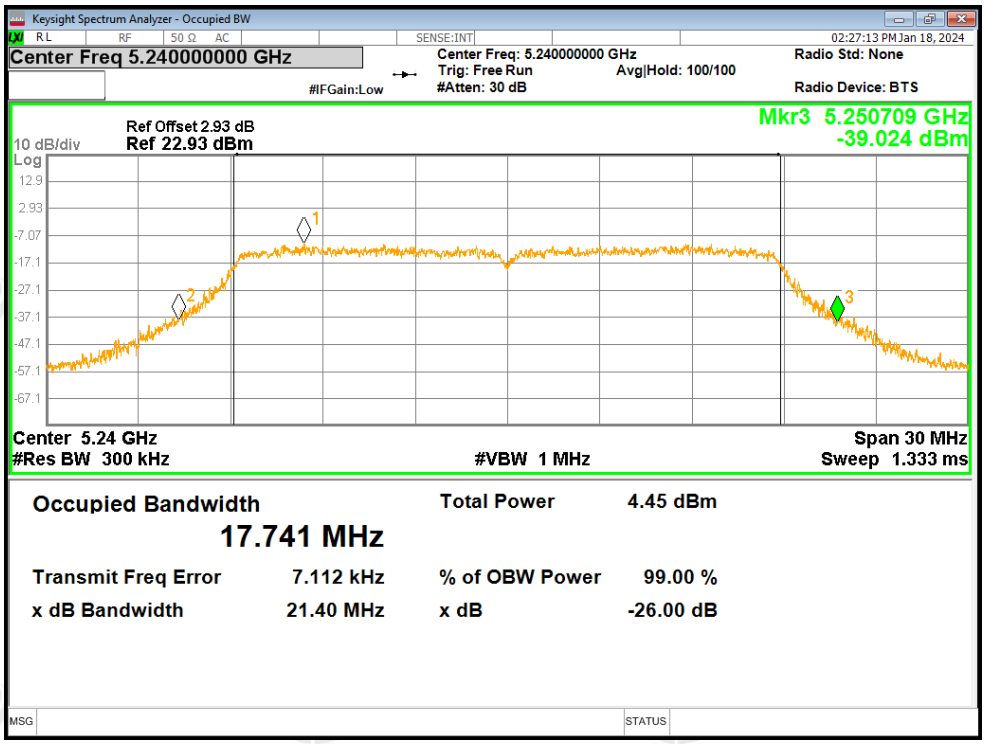
-26dB Bandwidth NVNT n20 5180MHz Ant2



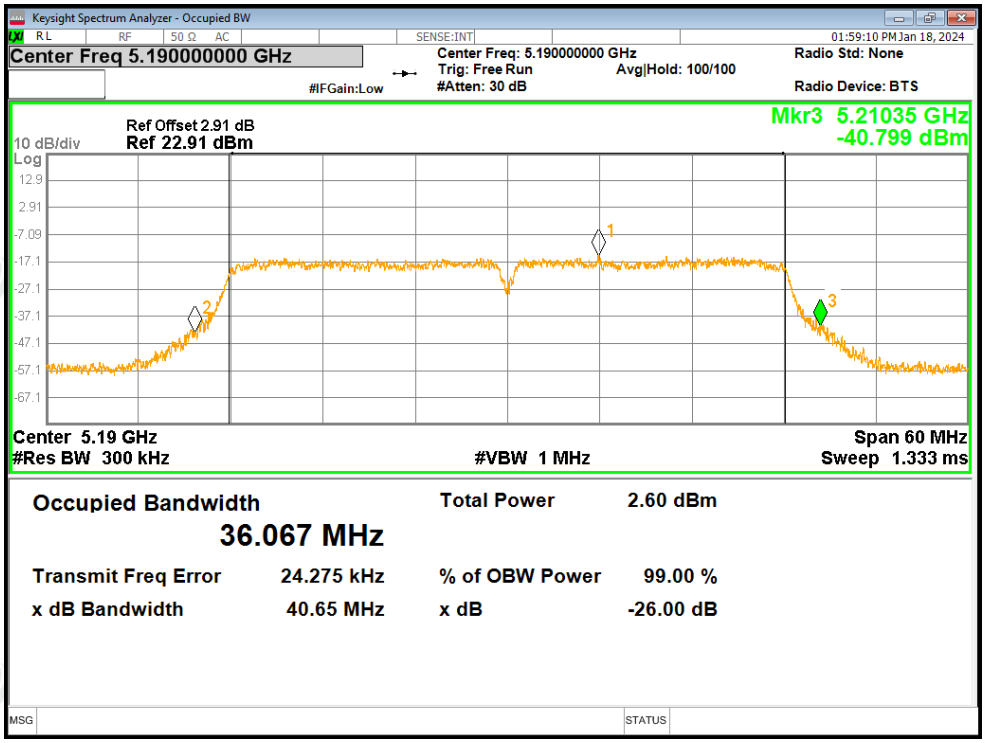
-26dB Bandwidth NVNT n20 5200MHz Ant2



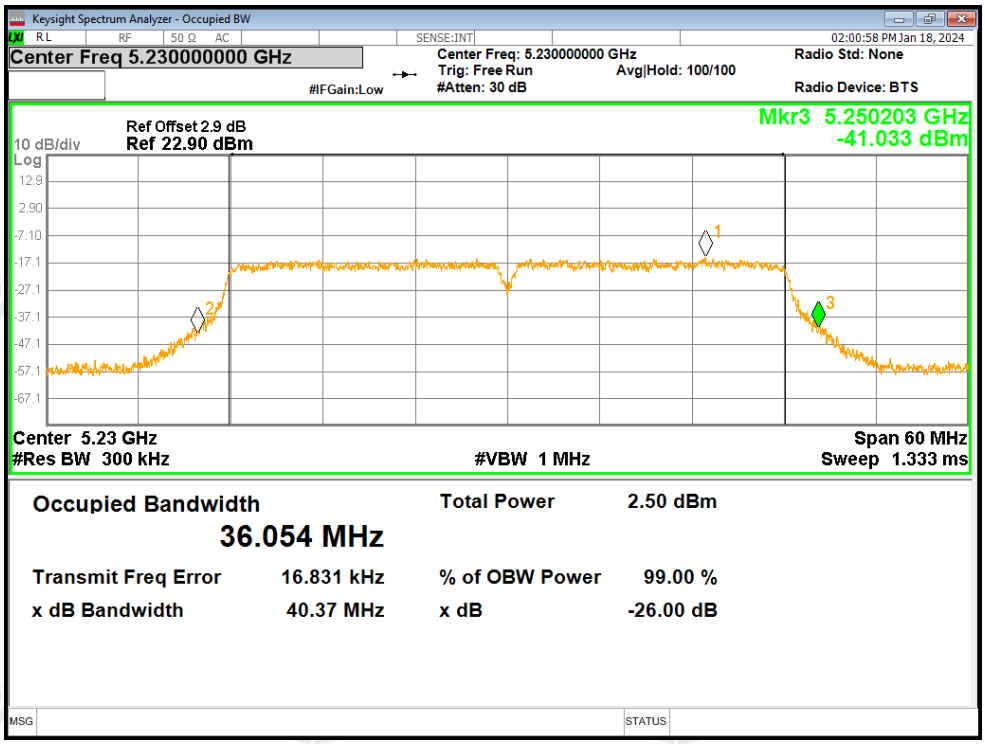
-26dB Bandwidth NVNT n20 5240MHz Ant2



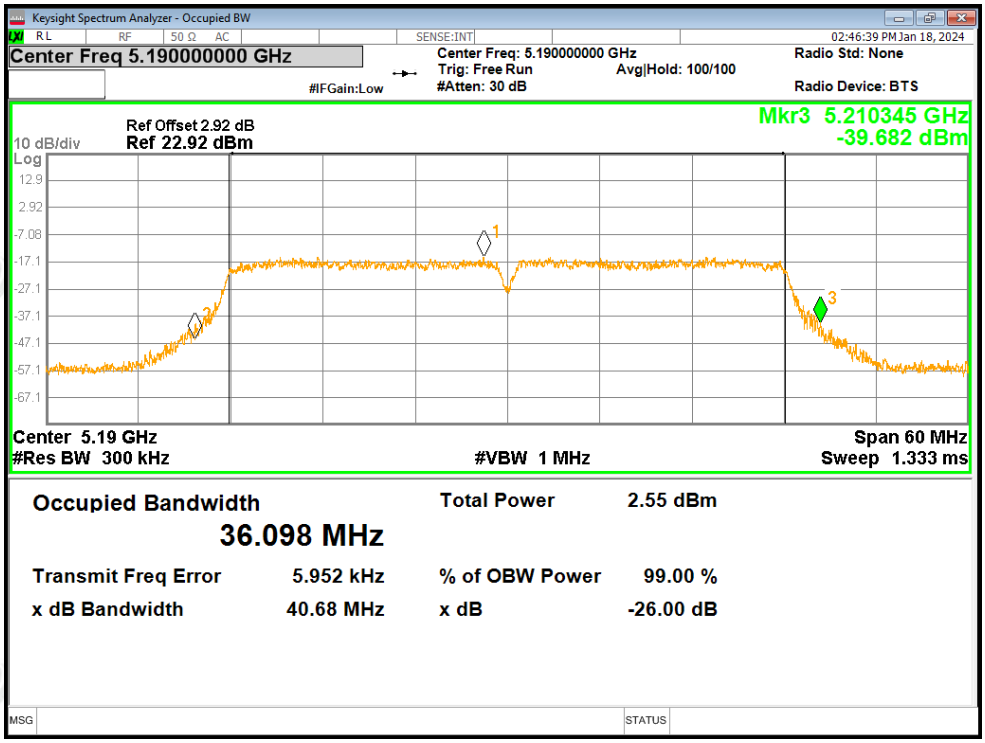
-26dB Bandwidth NVNT n40 5190MHz Ant1



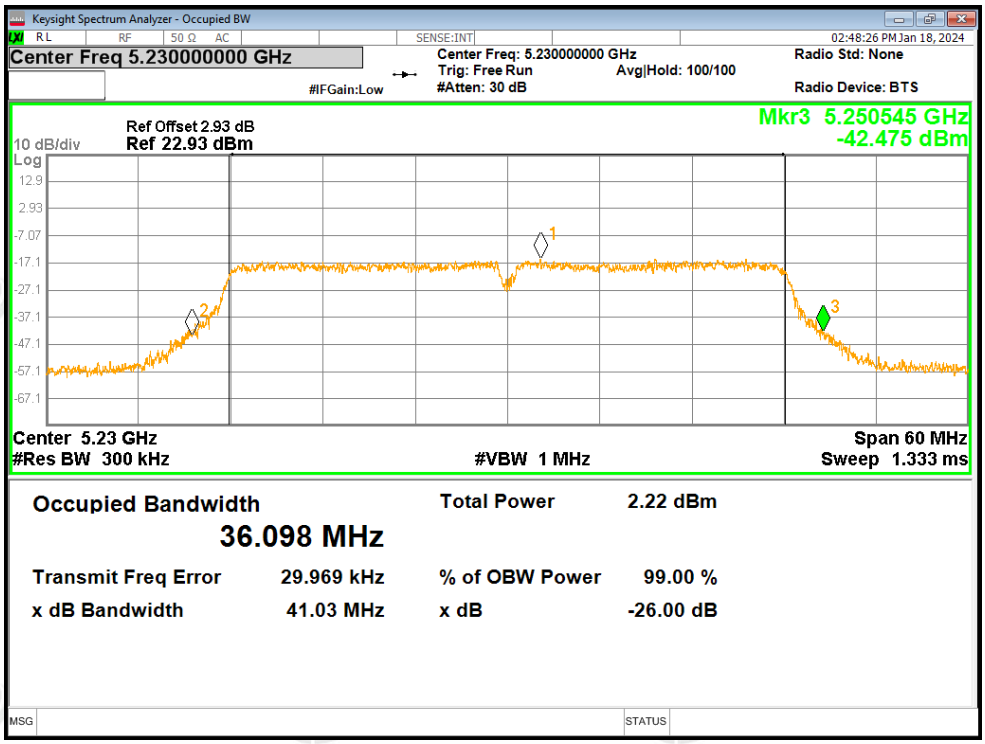
-26dB Bandwidth NVNT n40 5230MHz Ant1



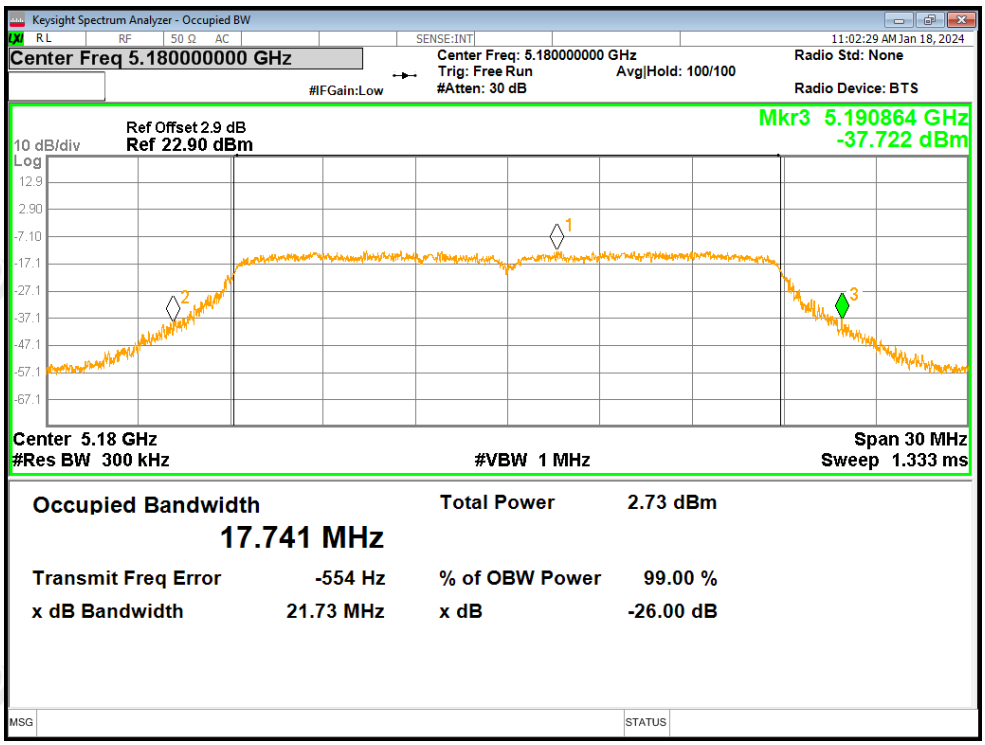
-26dB Bandwidth NVNT n40 5190MHz Ant2



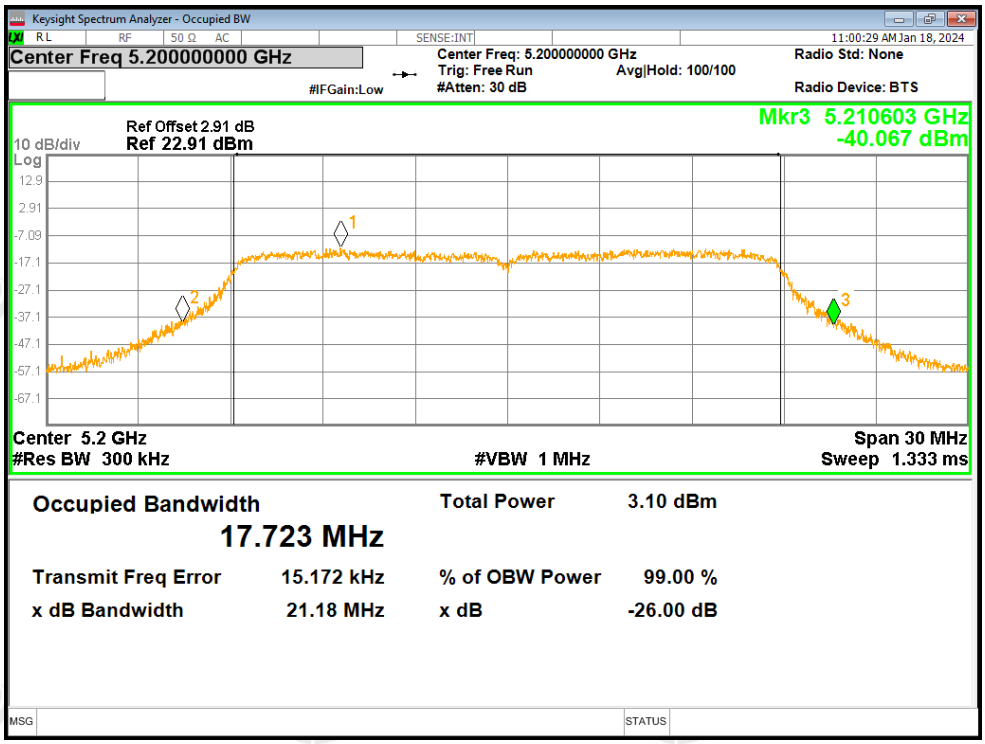
-26dB Bandwidth NVNT n40 5230MHz Ant2



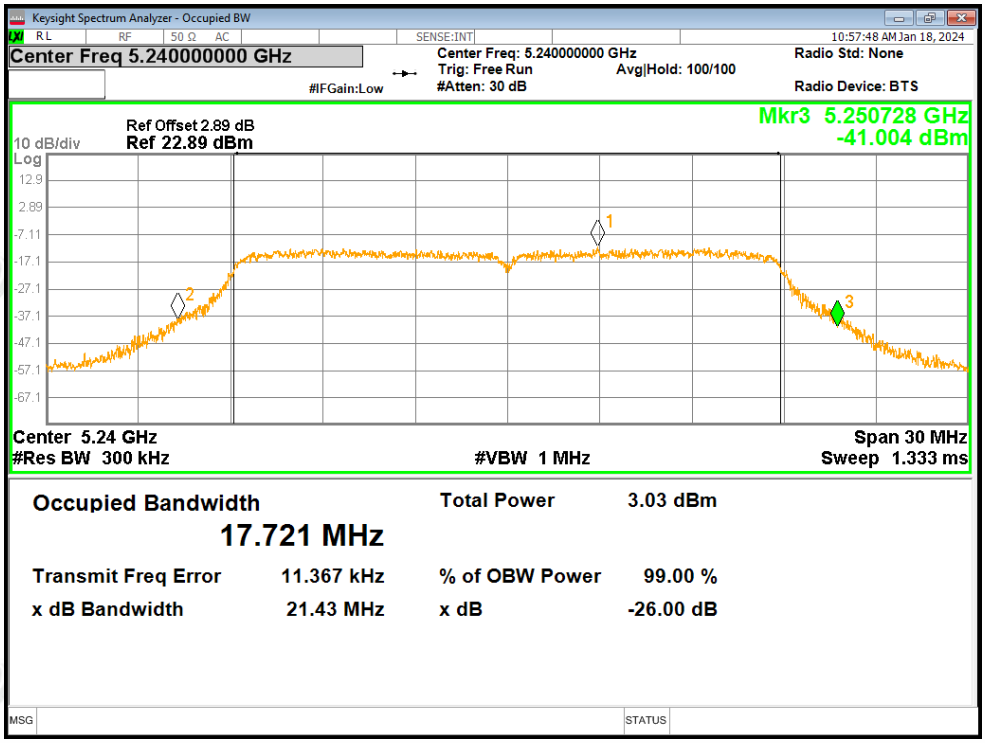
-26dB Bandwidth NVNT ac20 5180MHz Ant1



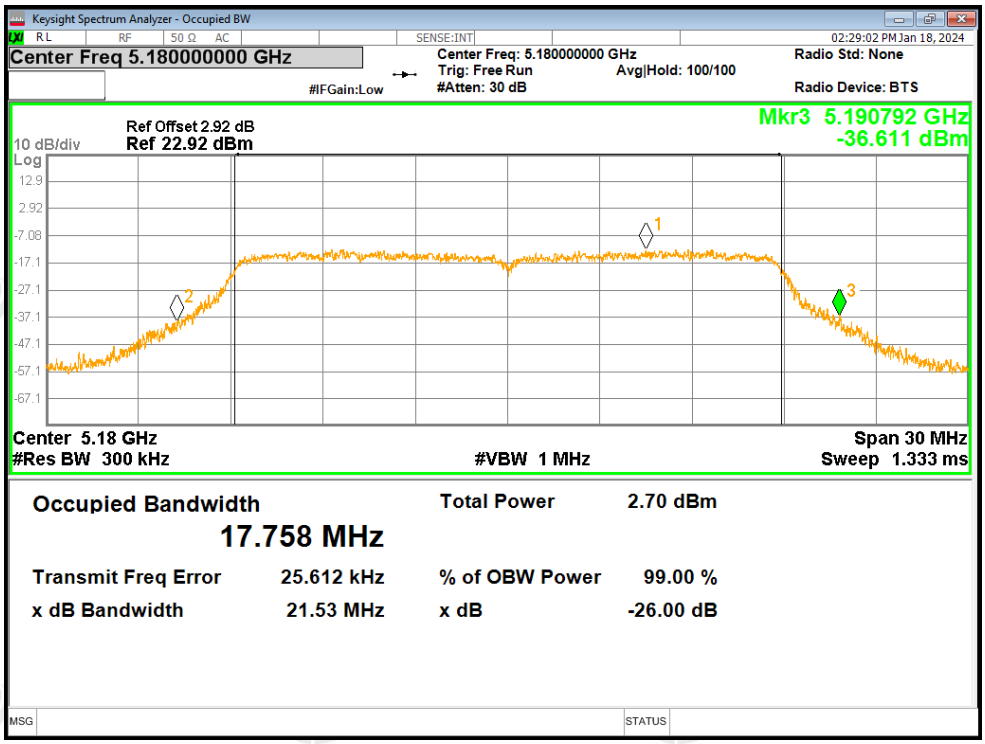
-26dB Bandwidth NVNT ac20 5200MHz Ant1



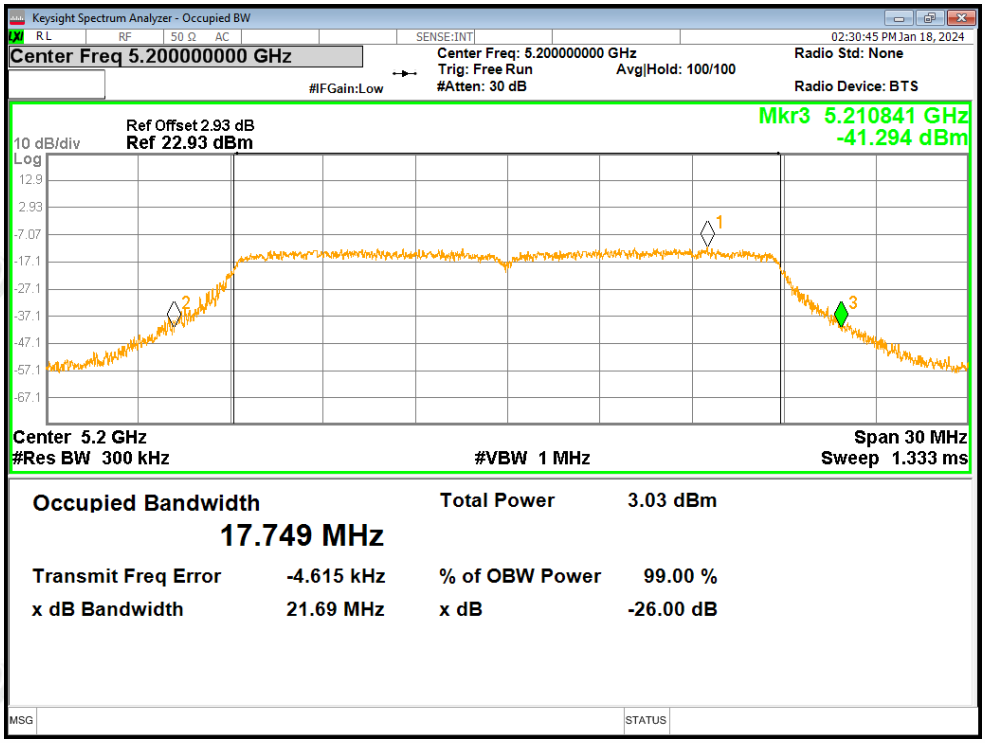
-26dB Bandwidth NVNT ac20 5240MHz Ant1



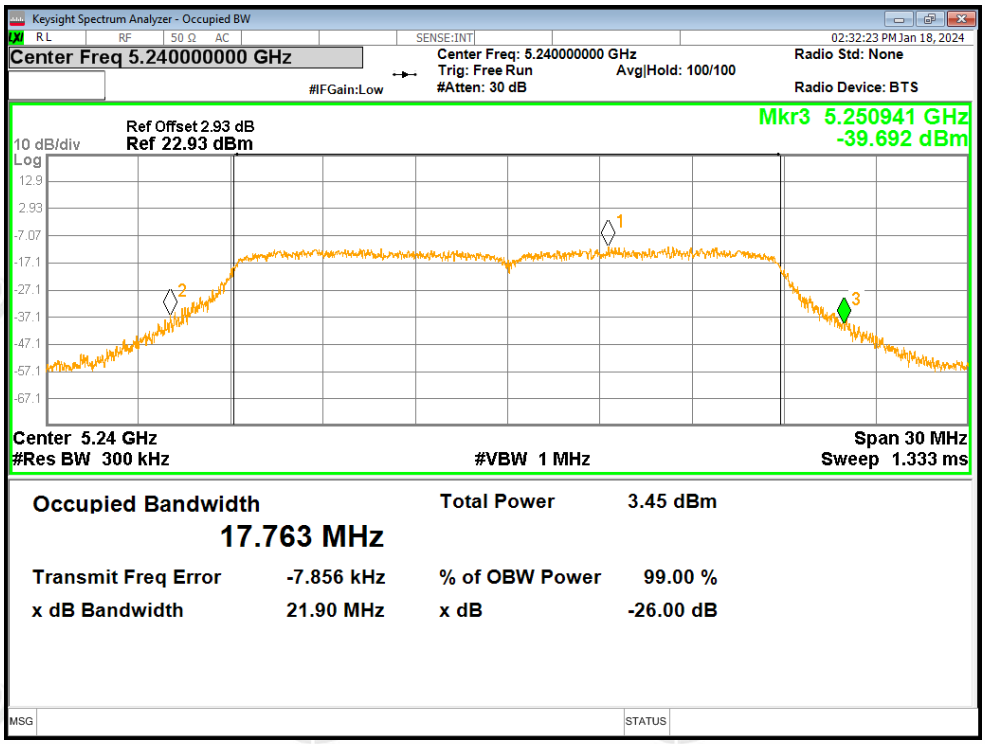
-26dB Bandwidth NVNT ac20 5180MHz Ant2



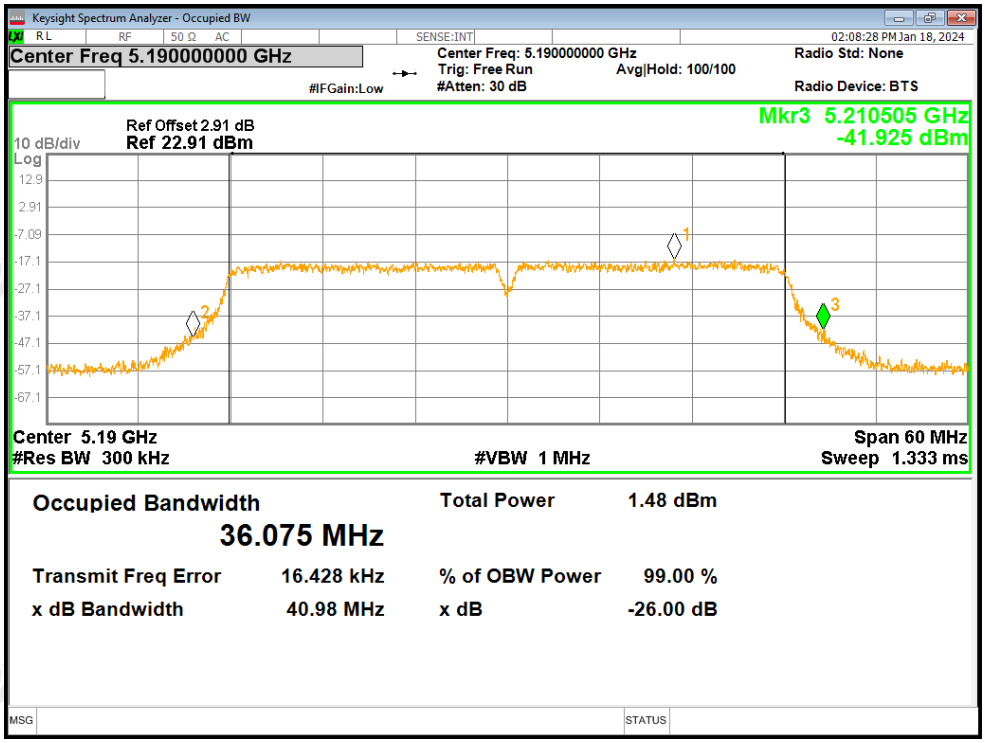
-26dB Bandwidth NVNT ac20 5200MHz Ant2



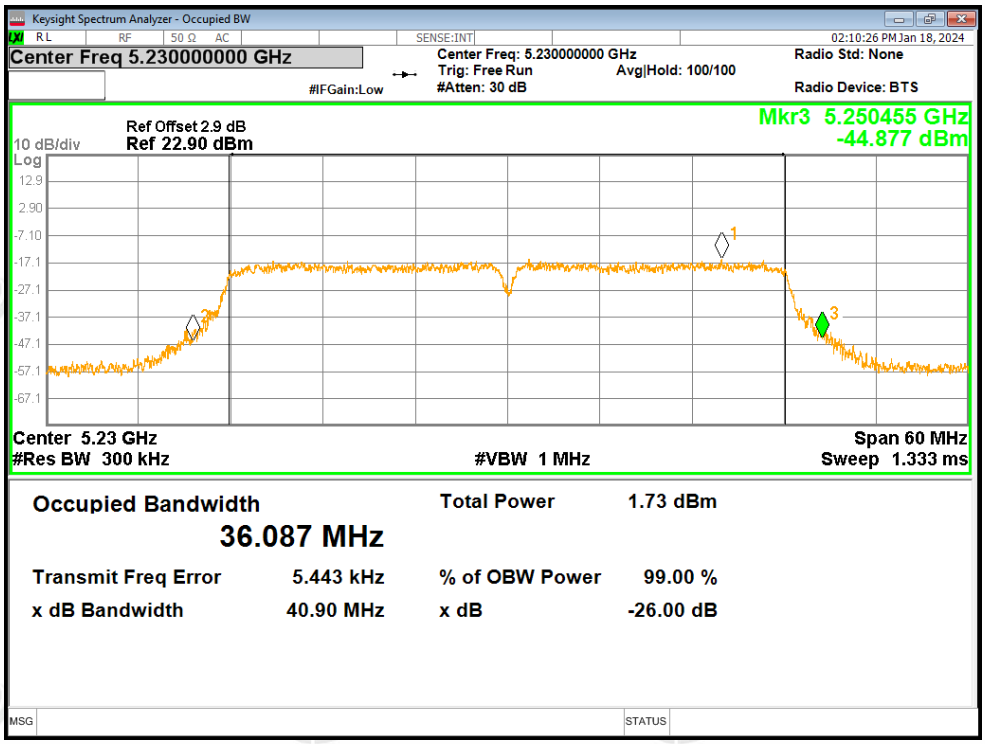
-26dB Bandwidth NVNT ac20 5240MHz Ant2



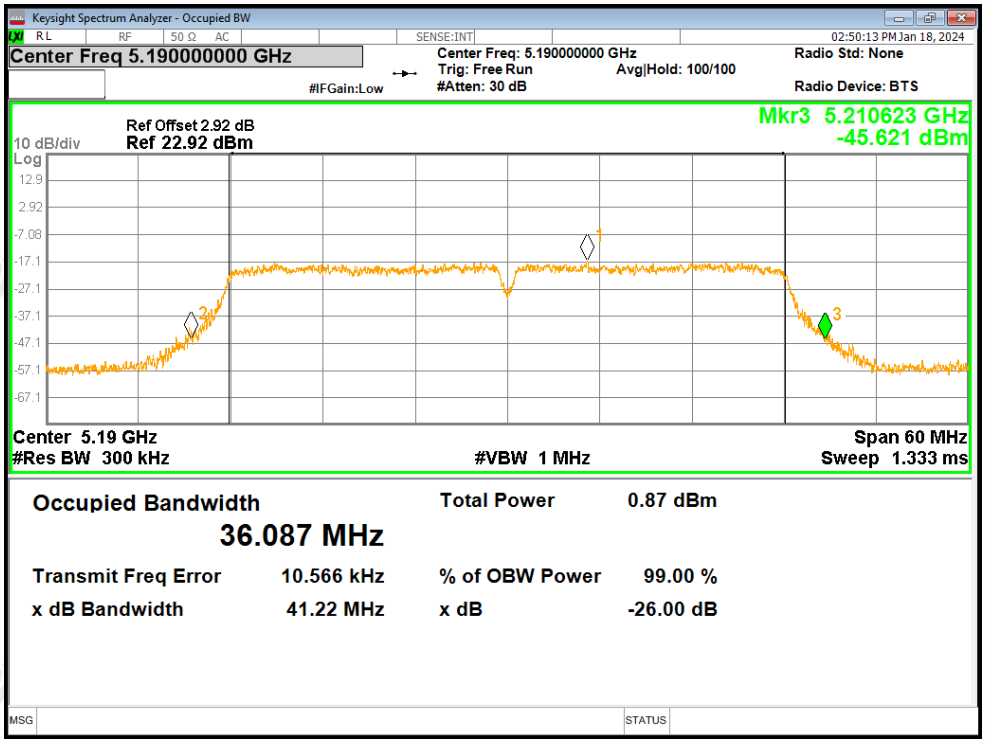
-26dB Bandwidth NVNT ac40 5190MHz Ant1



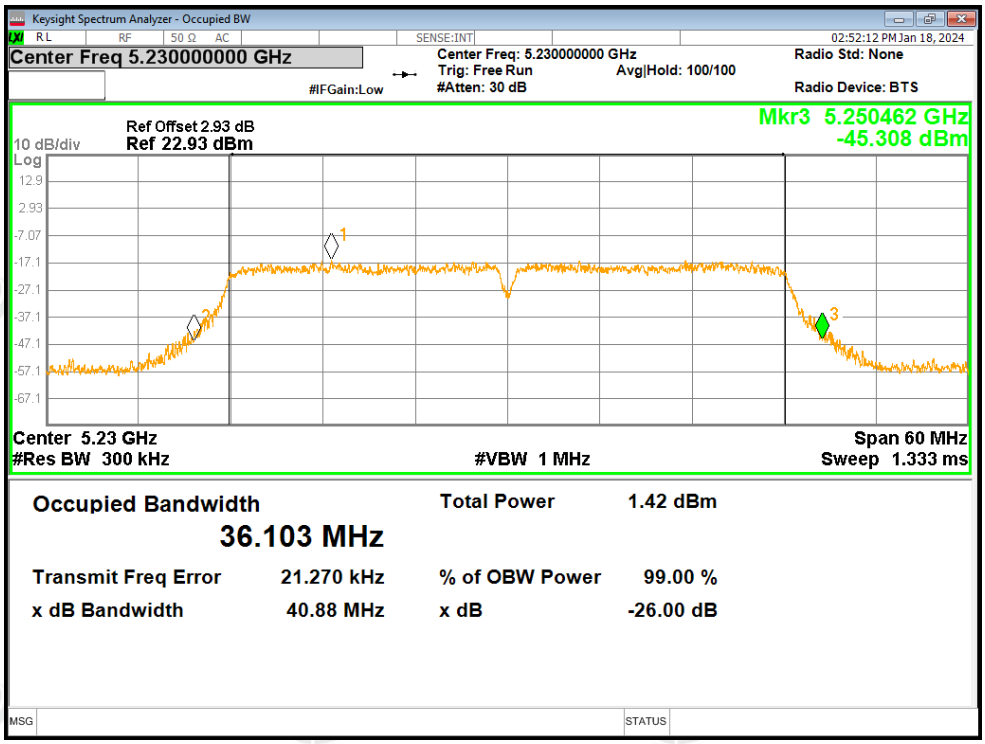
-26dB Bandwidth NVNT ac40 5230MHz Ant1



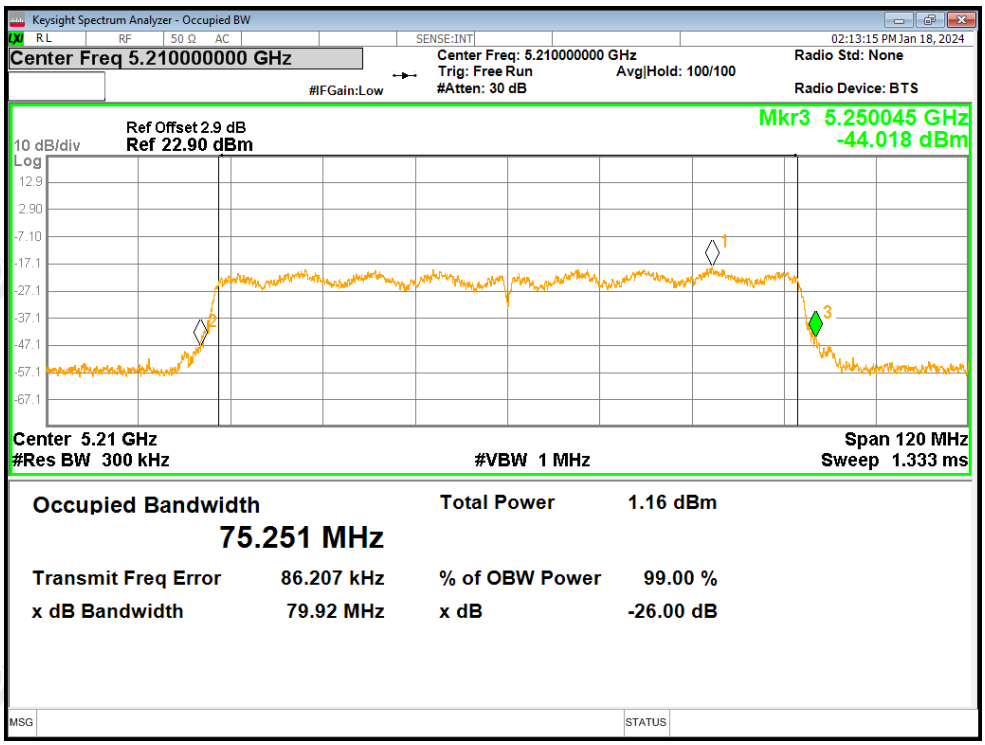
-26dB Bandwidth NVNT ac40 5190MHz Ant2



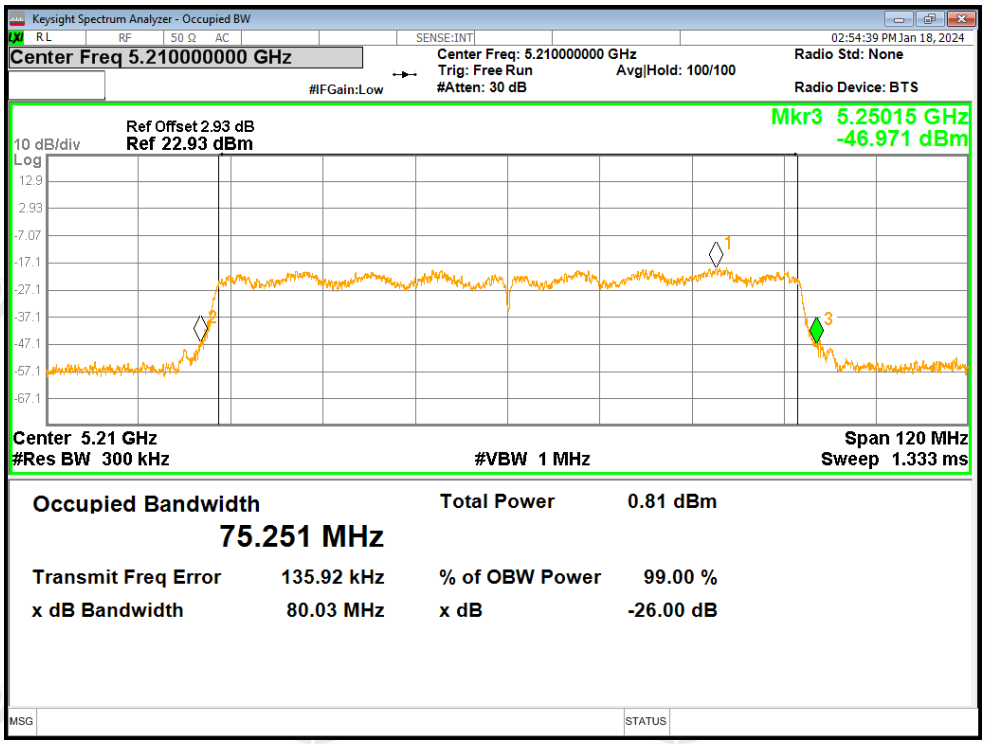
-26dB Bandwidth NVNT ac40 5230MHz Ant2



-26dB Bandwidth NVNT ac80 5210MHz Ant1



-26dB Bandwidth NVNT ac80 5210MHz Ant2

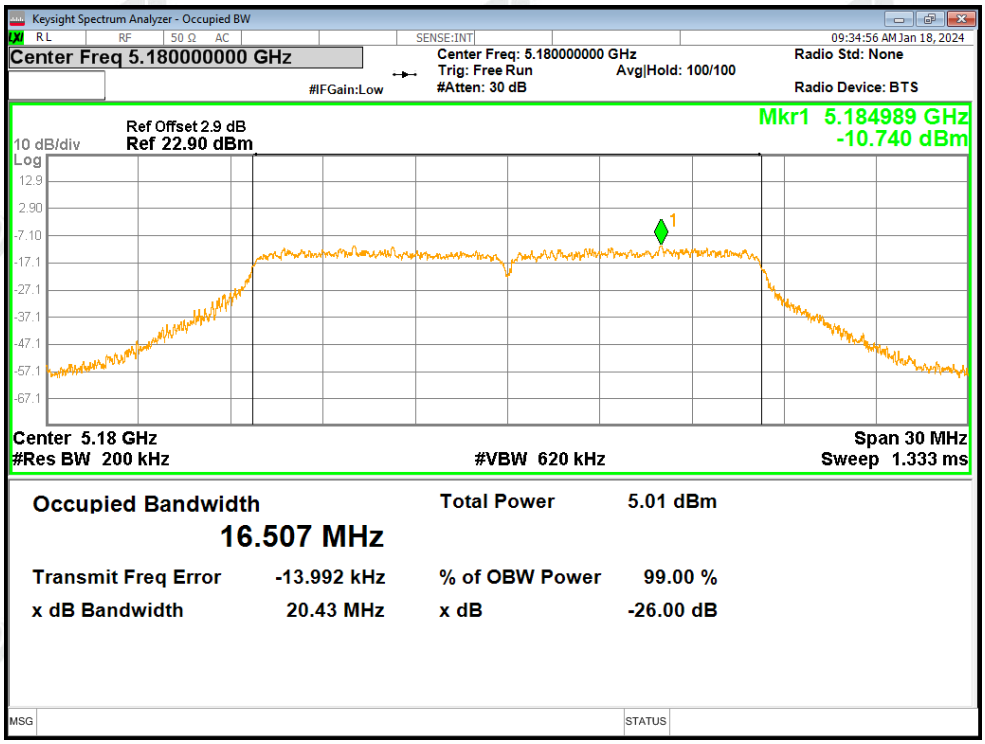


B4. Occupied Channel Bandwidth

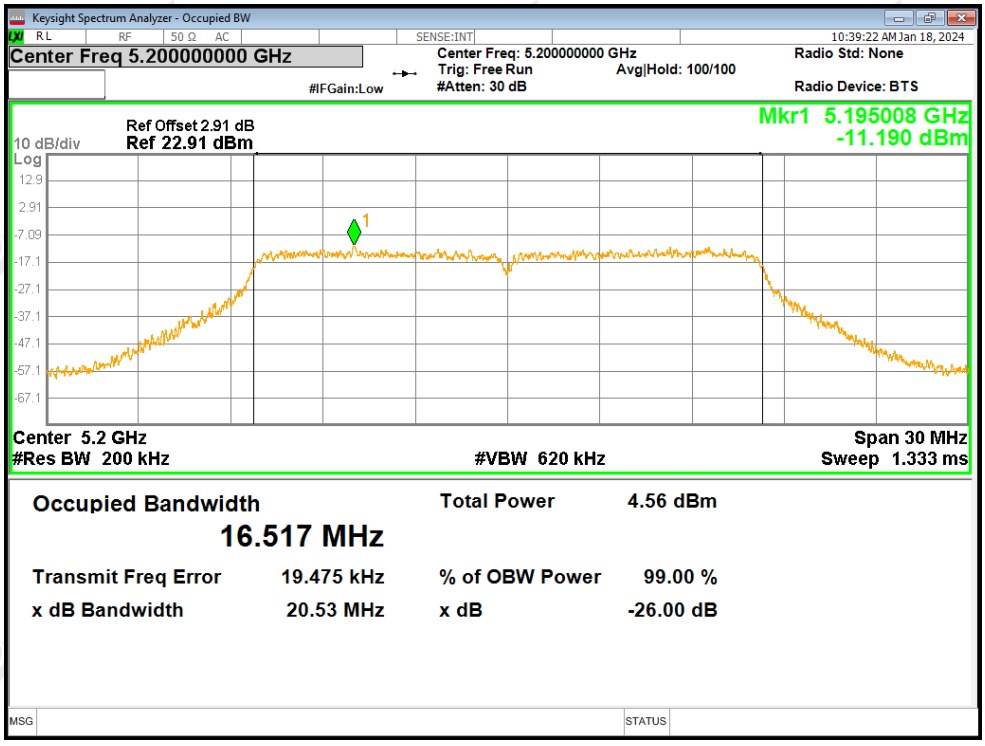
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5180	Ant1	16.507
NVNT	a	5200	Ant1	16.517
NVNT	a	5240	Ant1	16.604
NVNT	a	5180	Ant2	16.551
NVNT	a	5200	Ant2	16.573
NVNT	a	5240	Ant2	16.546
NVNT	n20	5180	Ant1	17.618
NVNT	n20	5200	Ant1	17.637
NVNT	n20	5240	Ant1	17.63
NVNT	n20	5180	Ant2	17.67
NVNT	n20	5200	Ant2	17.664
NVNT	n20	5240	Ant2	17.638
NVNT	n40	5190	Ant1	36.101
NVNT	n40	5230	Ant1	36.129
NVNT	n40	5190	Ant2	36.183
NVNT	n40	5230	Ant2	36.168
NVNT	ac20	5180	Ant1	17.698
NVNT	ac20	5200	Ant1	17.626
NVNT	ac20	5240	Ant1	17.624
NVNT	ac20	5180	Ant2	17.64
NVNT	ac20	5200	Ant2	17.64
NVNT	ac20	5240	Ant2	17.65
NVNT	ac40	5190	Ant1	36.138
NVNT	ac40	5230	Ant1	36.137
NVNT	ac40	5190	Ant2	36.149
NVNT	ac40	5230	Ant2	36.197
NVNT	ac80	5210	Ant1	75.332
NVNT	ac80	5210	Ant2	75.307

Test Graphs

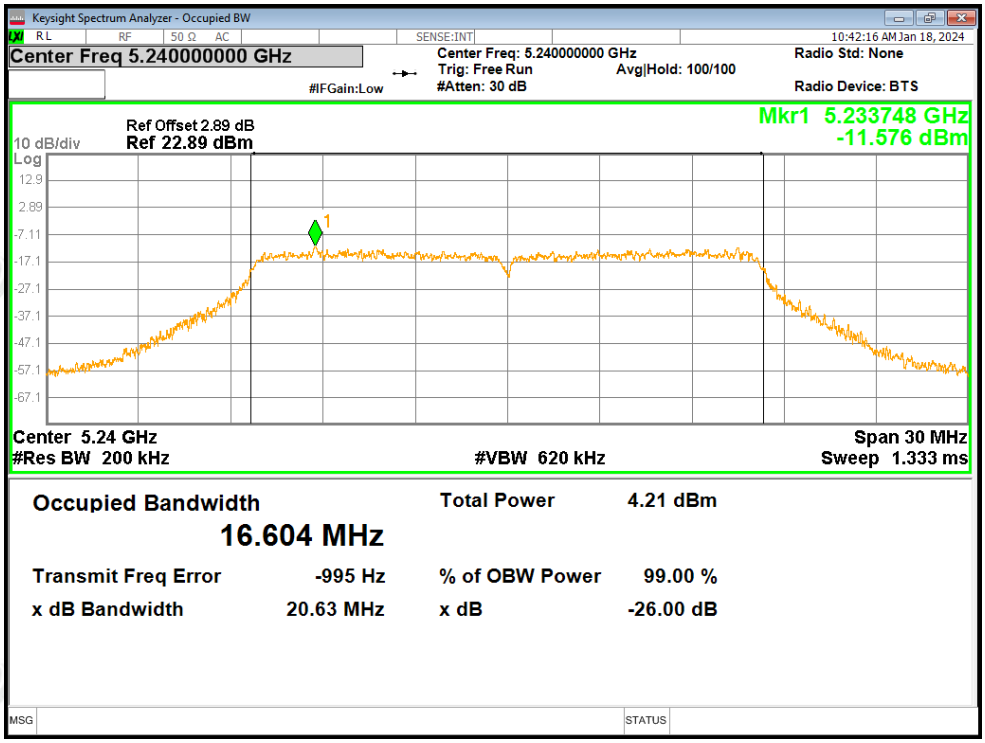
OBW NVNT a 5180MHz Ant1



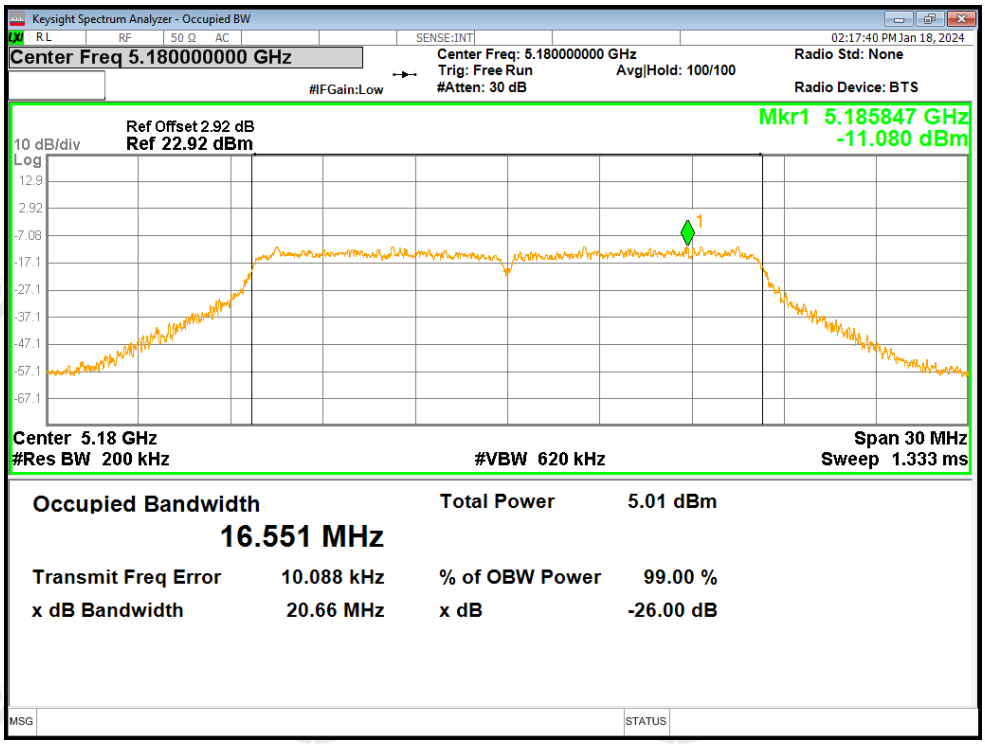
OBW NVNT a 5200MHz Ant1



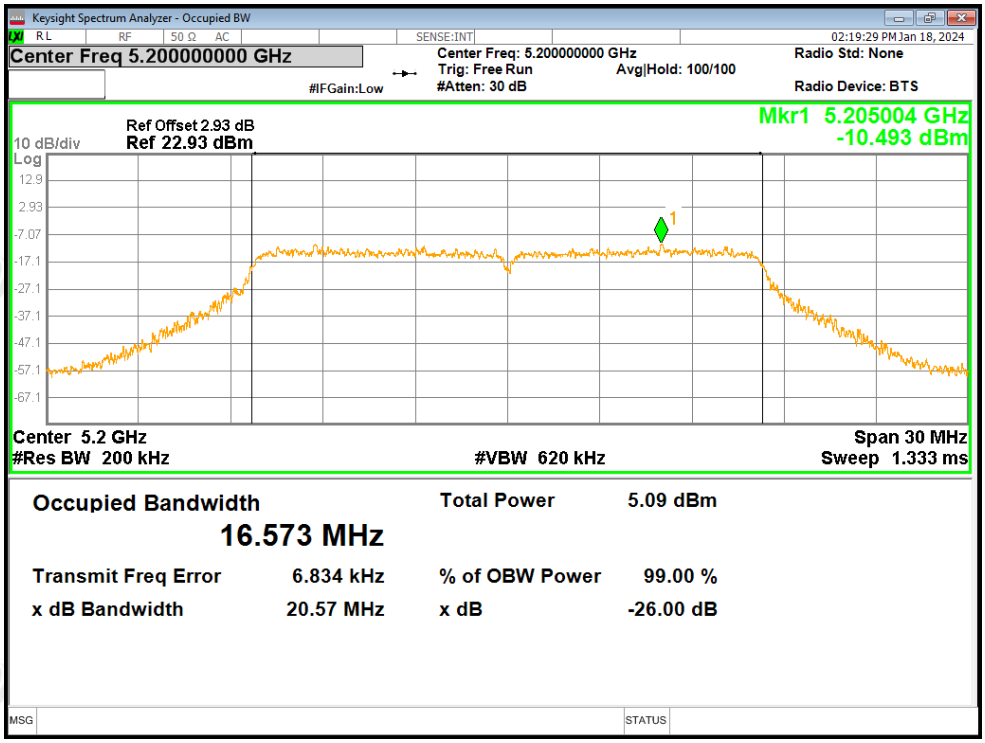
OBW NVNT a 5240MHz Ant1



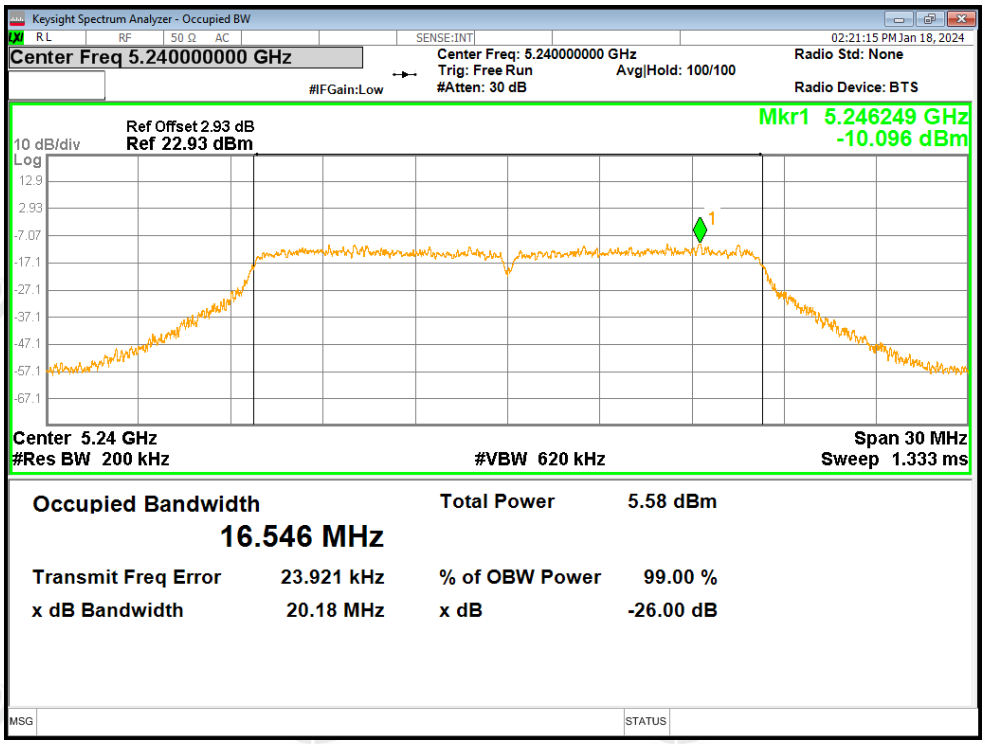
OBW NVNT a 5180MHz Ant2



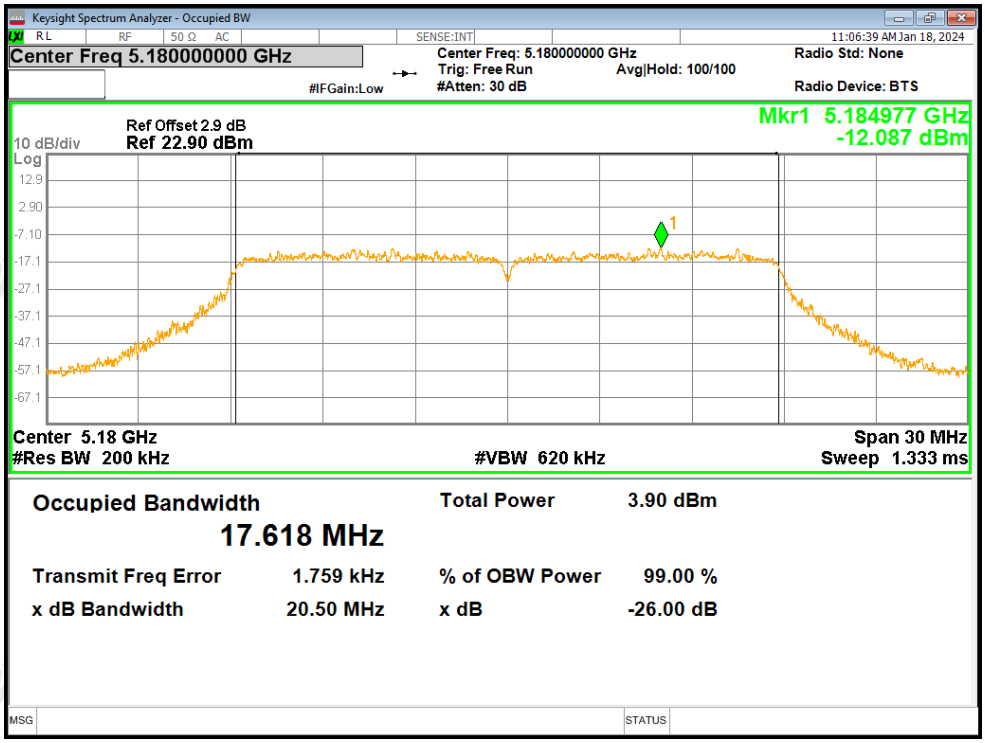
OBW NVNT a 5200MHz Ant2



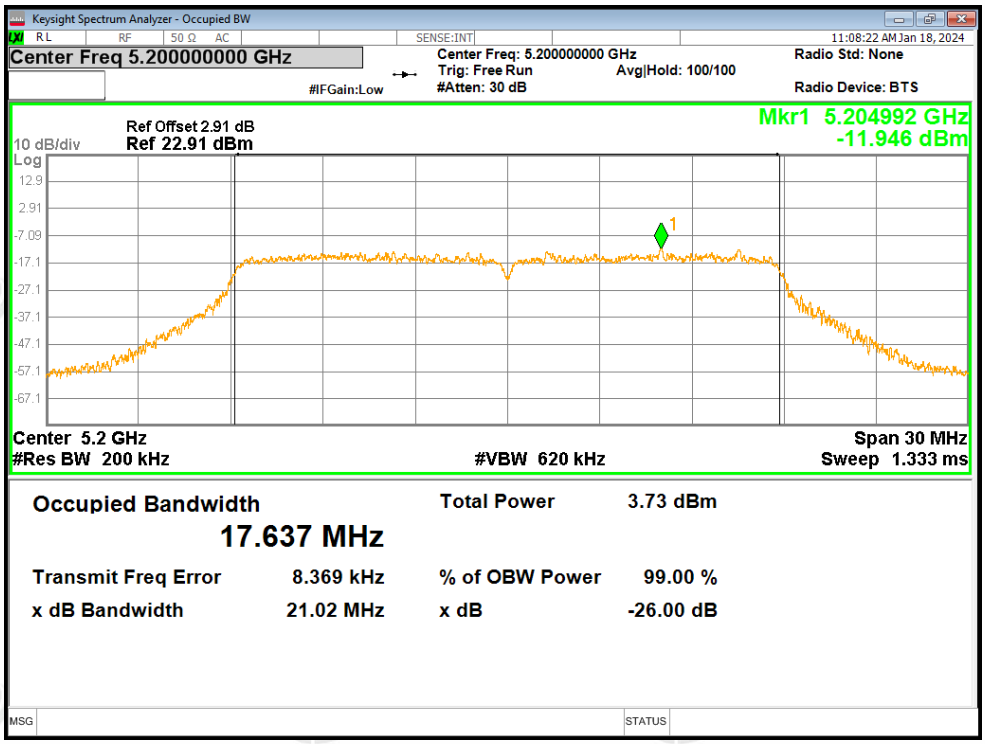
OBW NVNT a 5240MHz Ant2



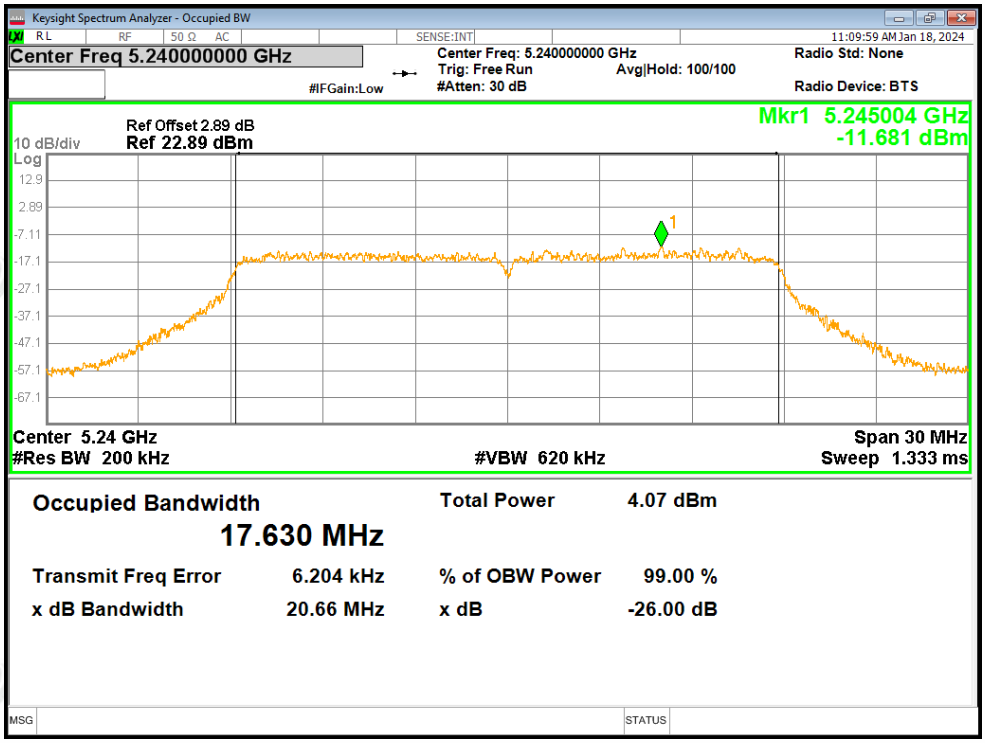
OBW NVNT n20 5180MHz Ant1



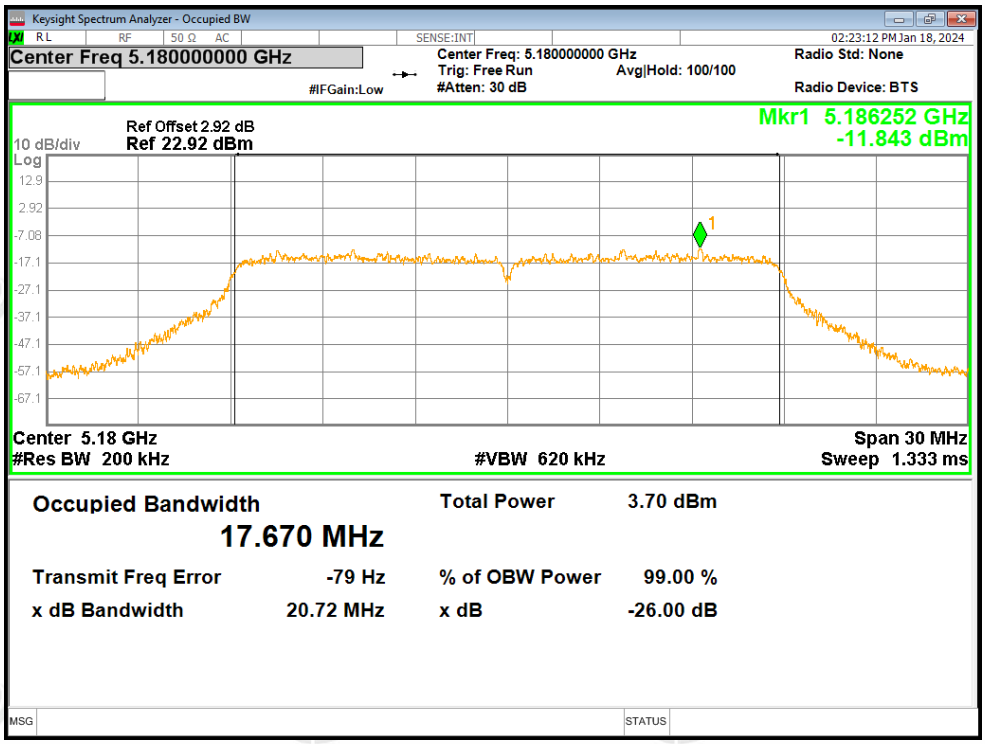
OBW NVNT n20 5200MHz Ant1



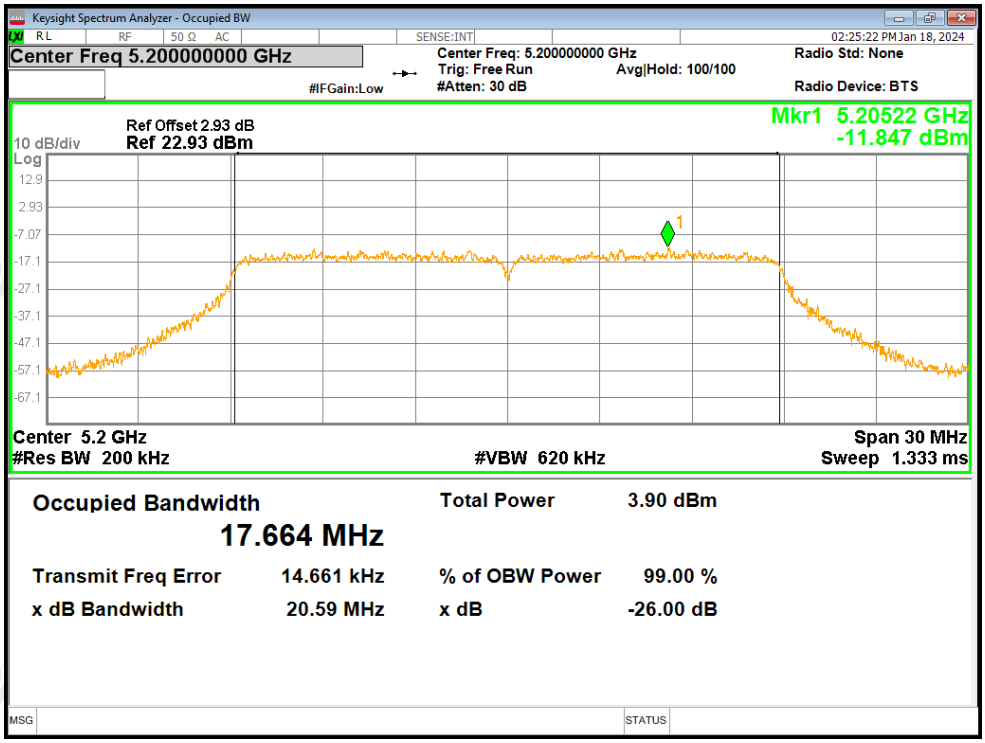
OBW NVNT n20 5240MHz Ant1



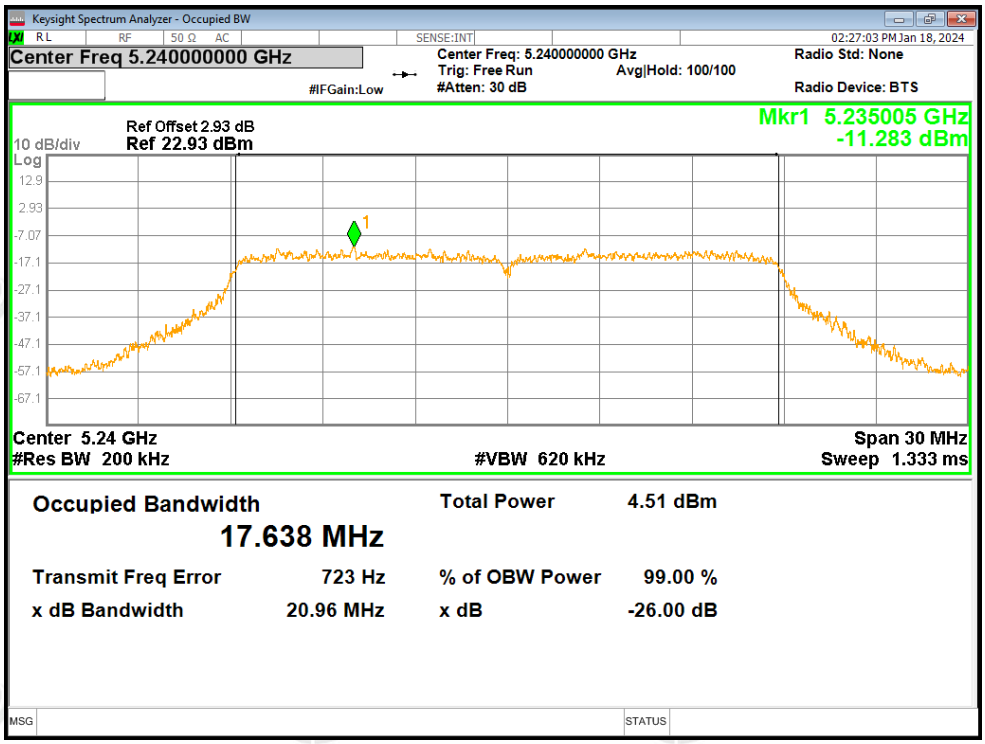
OBW NVNT n20 5180MHz Ant2



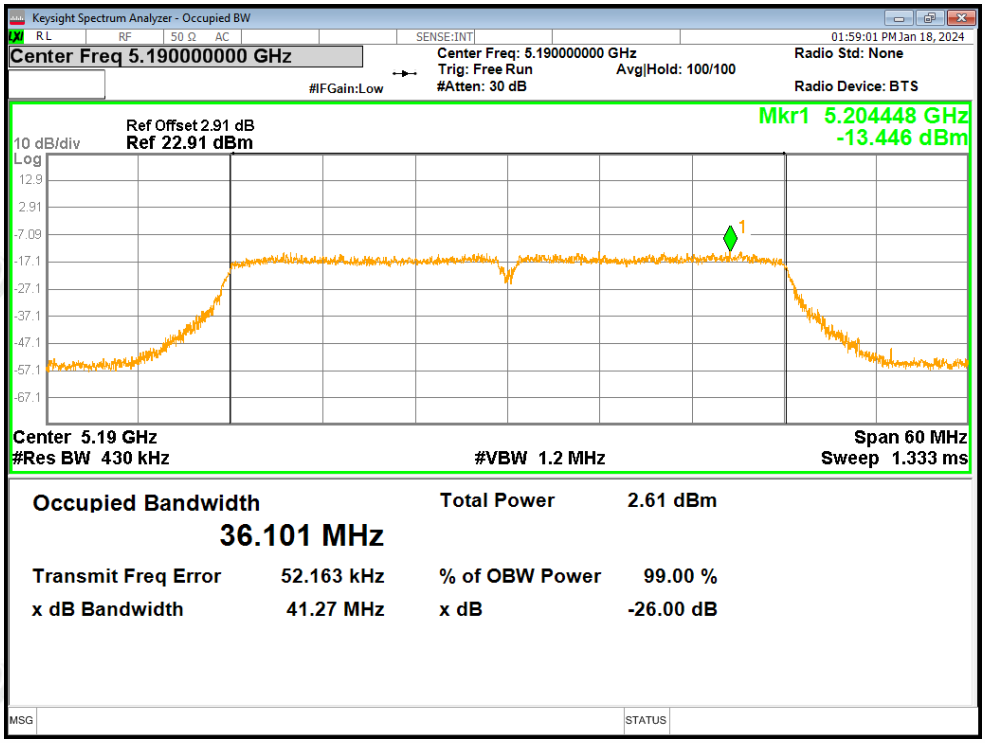
OBW NVNT n20 5200MHz Ant2



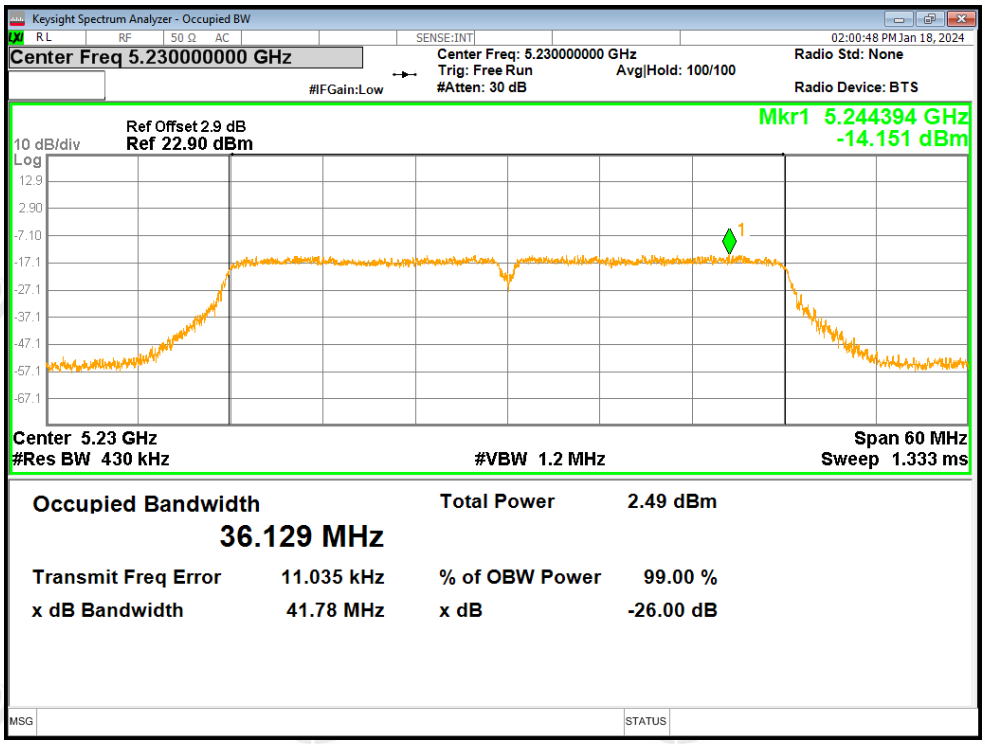
OBW NVNT n20 5240MHz Ant2



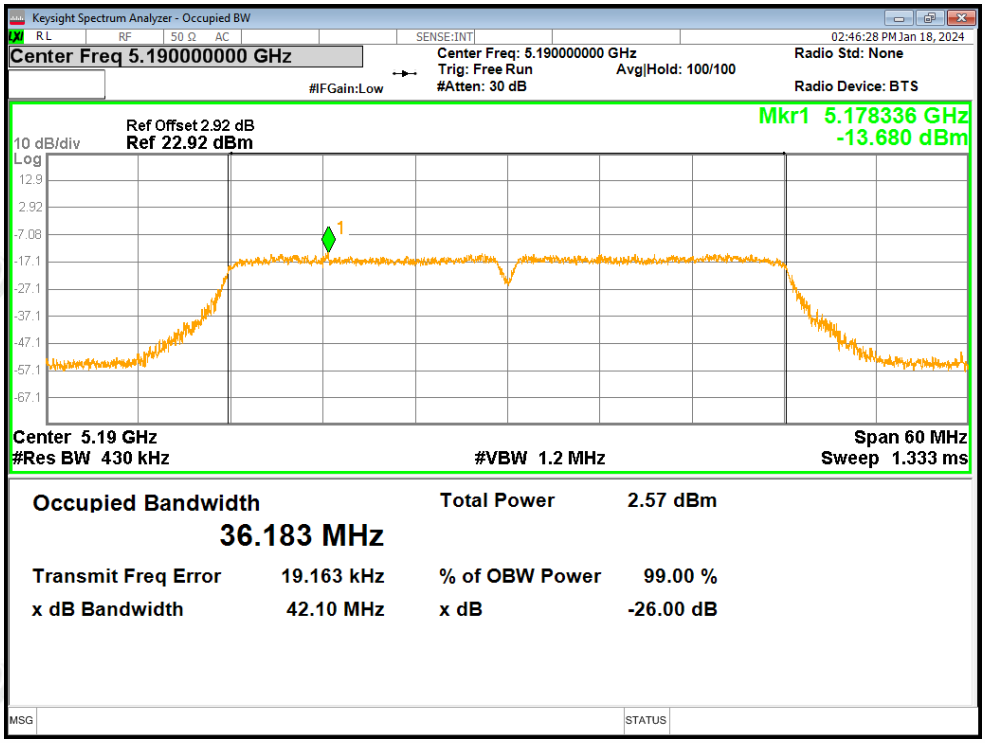
OBW NVNT n40 5190MHz Ant1



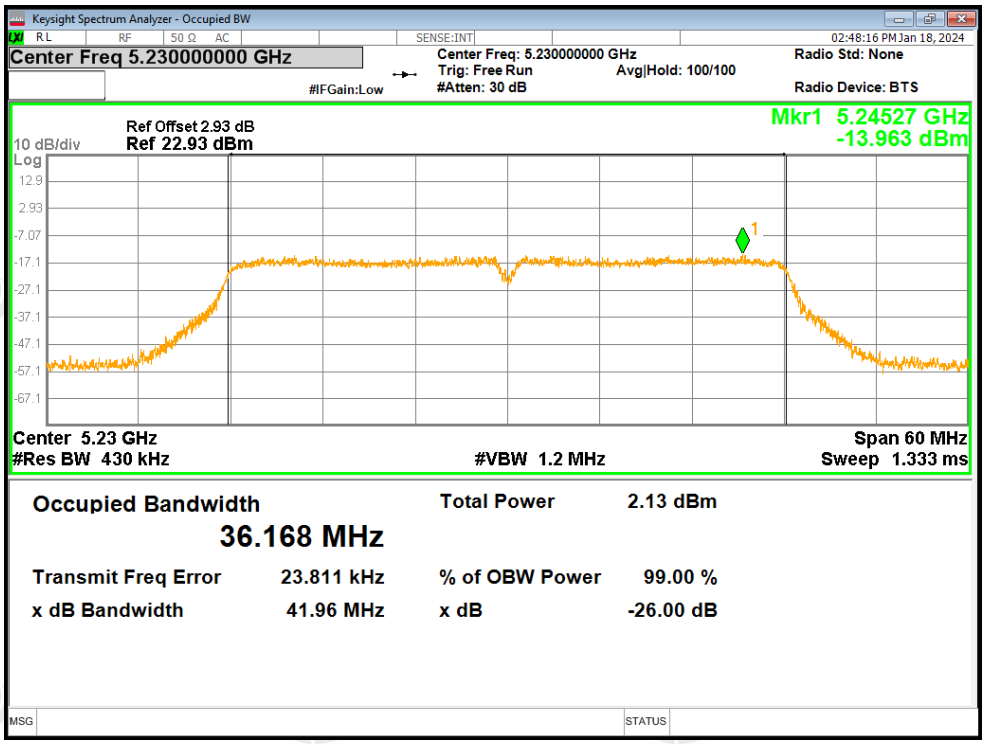
OBW NVNT n40 5230MHz Ant1



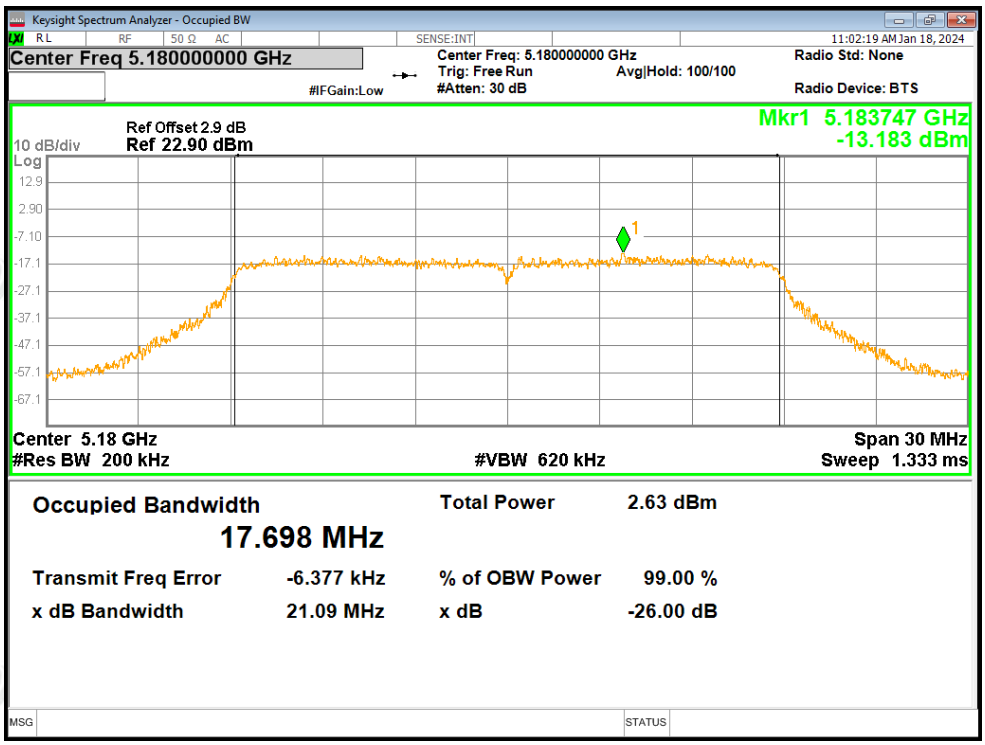
OBW NVNT n40 5190MHz Ant2



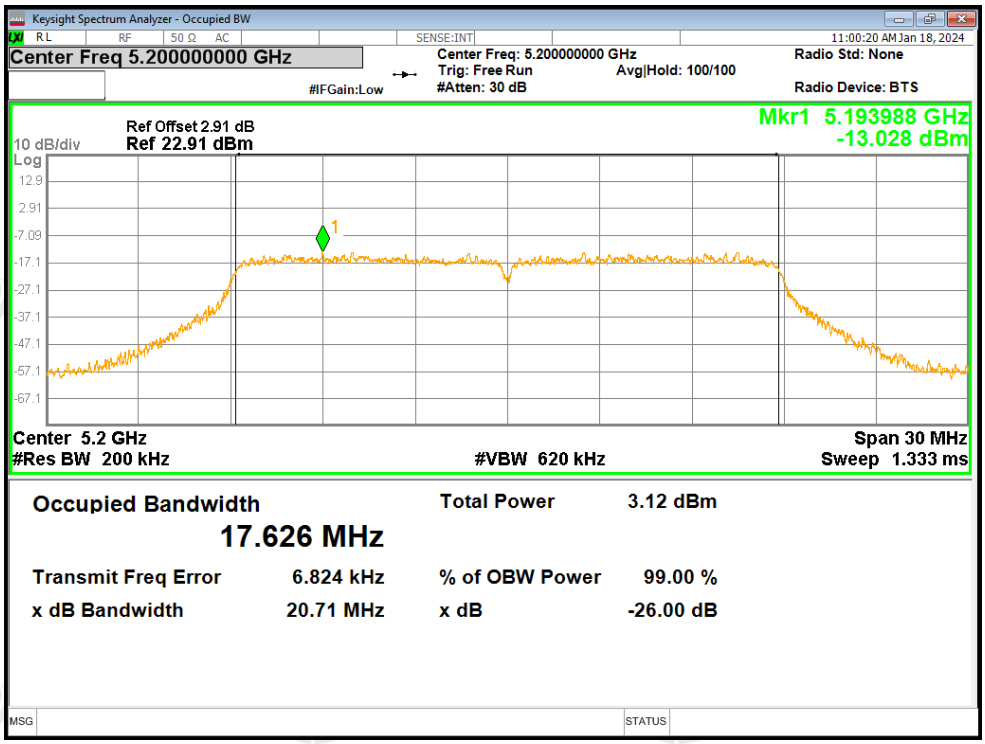
OBW NVNT n40 5230MHz Ant2



OBW NVNT ac20 5180MHz Ant1



OBW NVNT ac20 5200MHz Ant1



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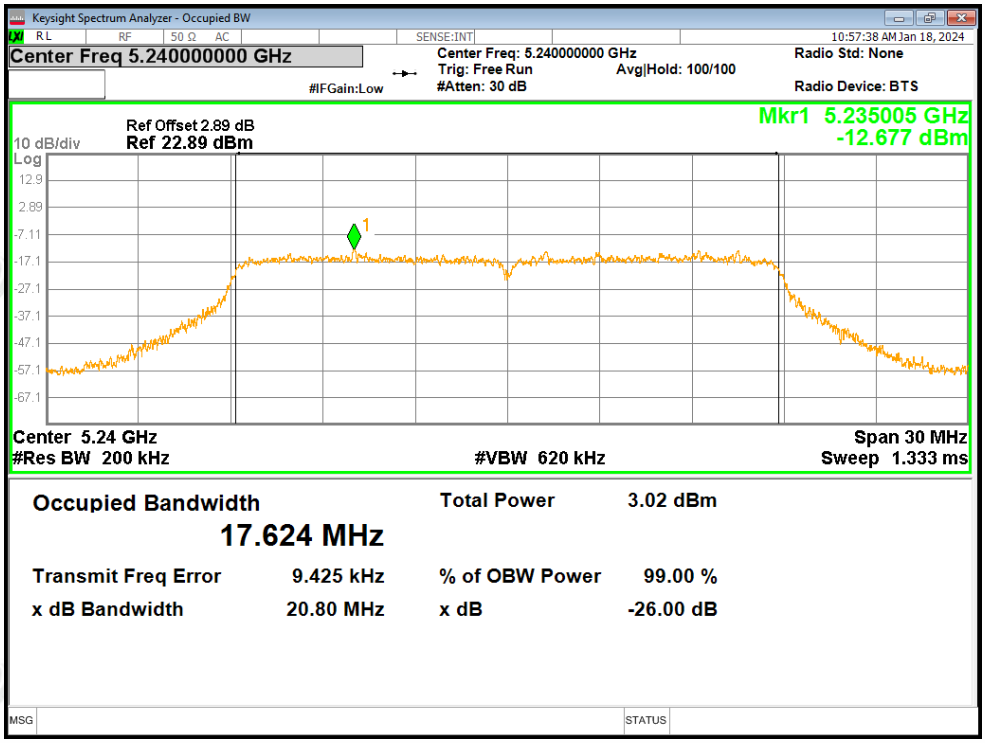
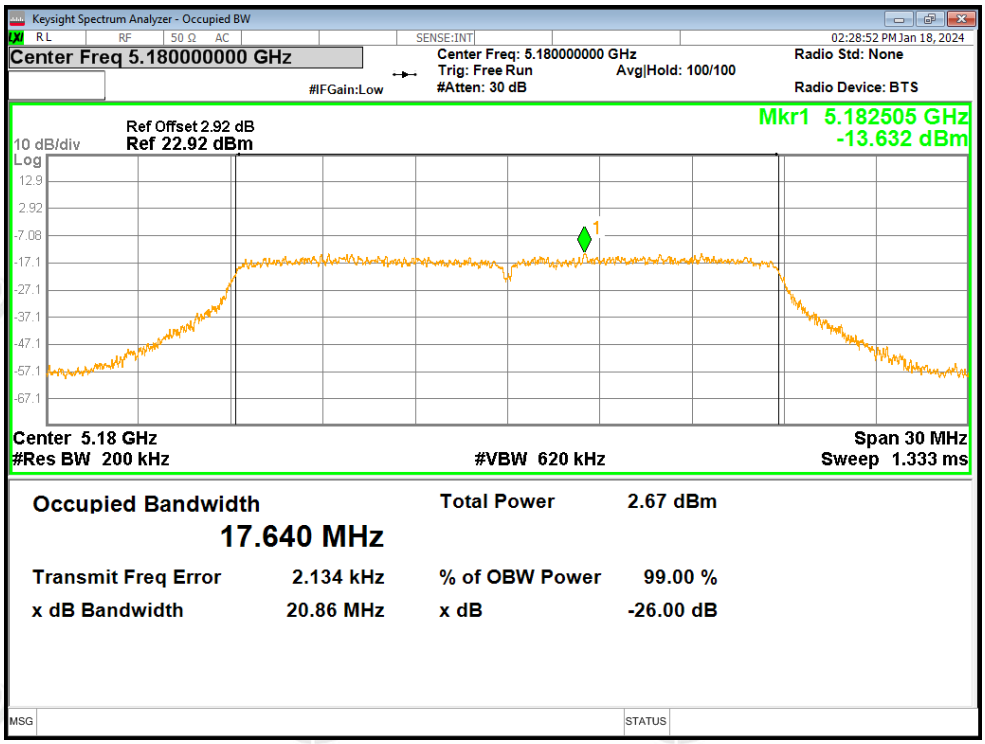
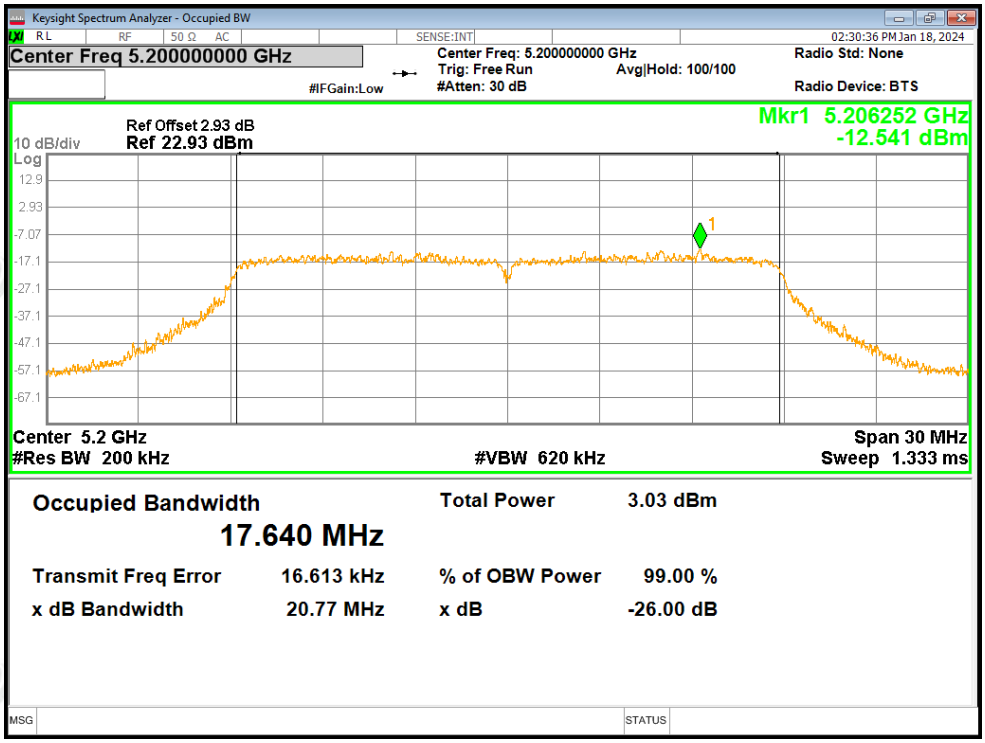


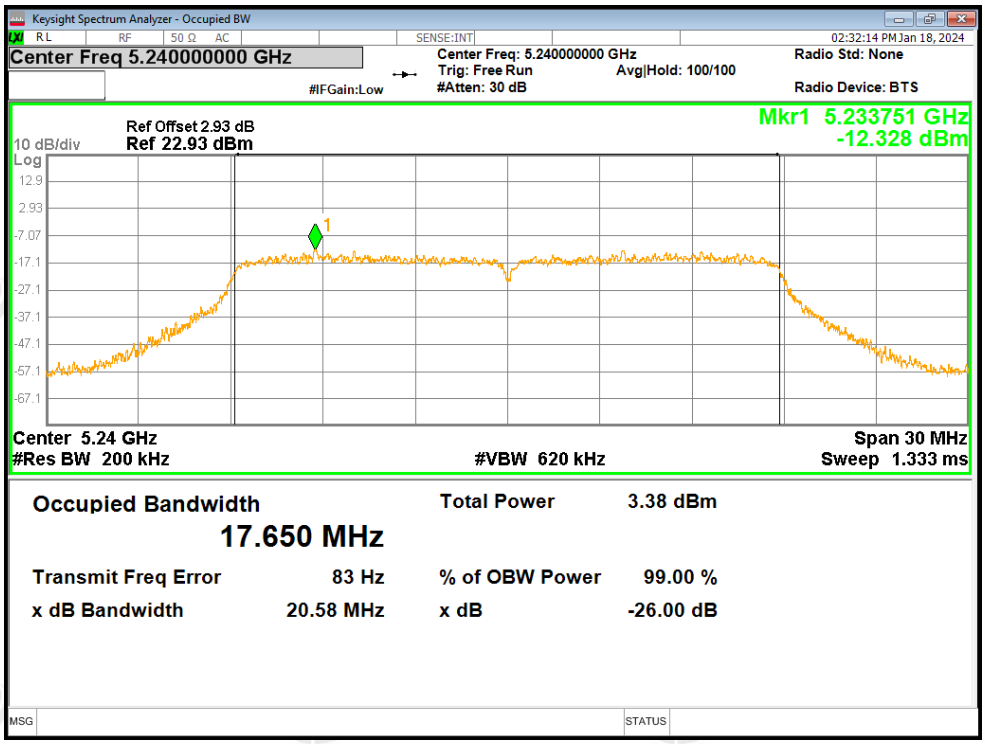
OBW NVNT ac20 5180MHz Ant2



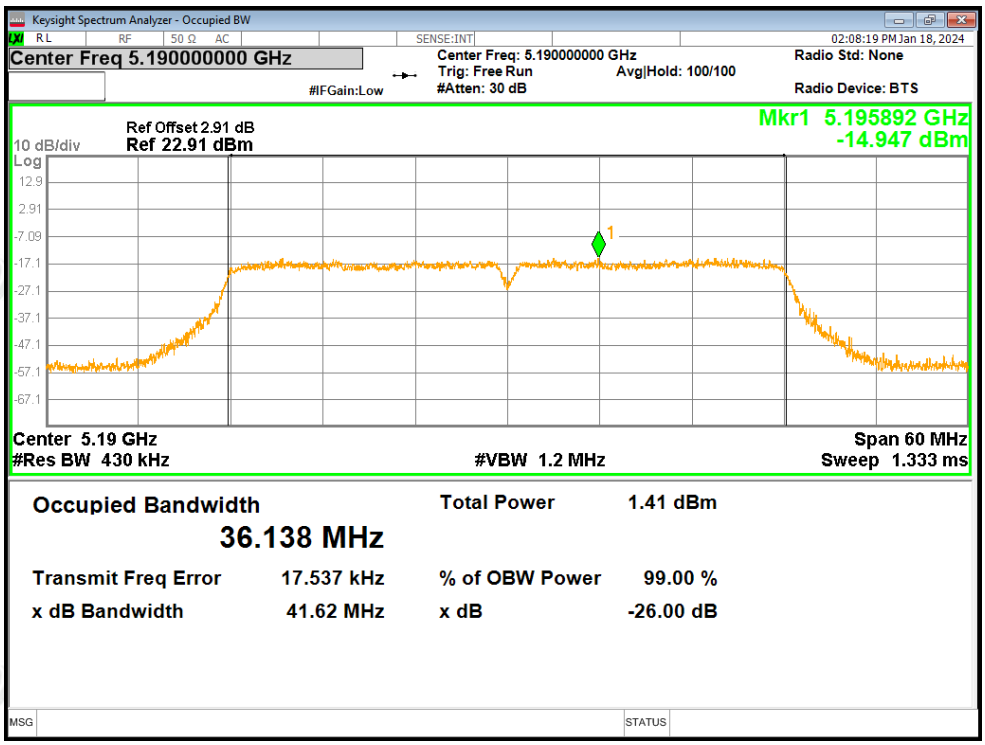
OBW NVNT ac20 5200MHz Ant2



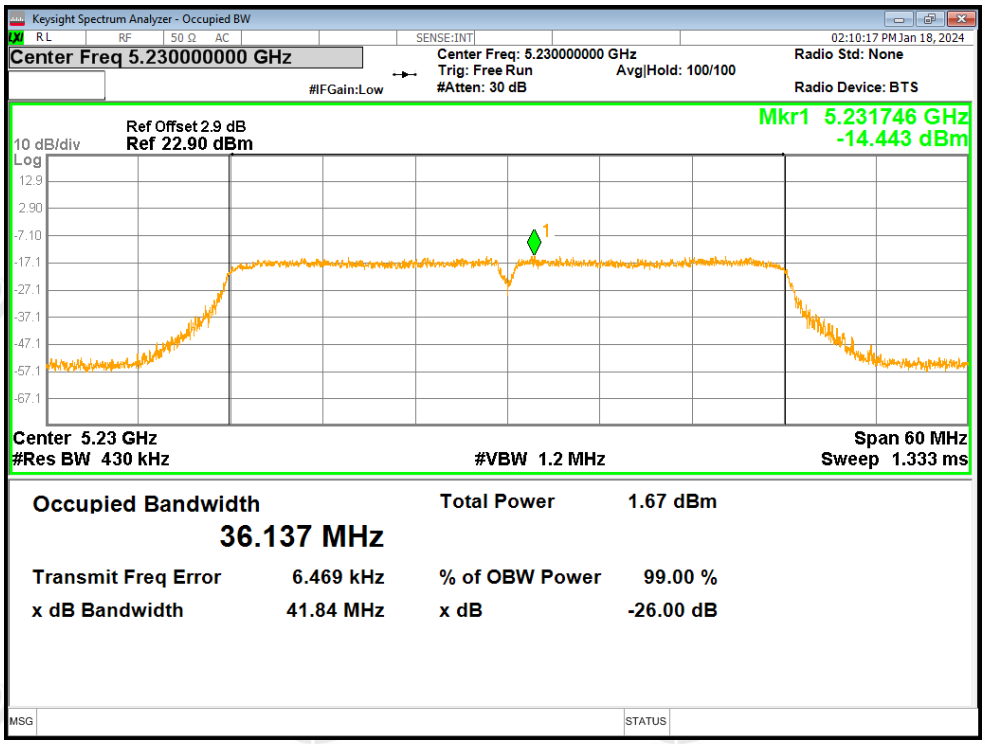
OBW NVNT ac20 5240MHz Ant2



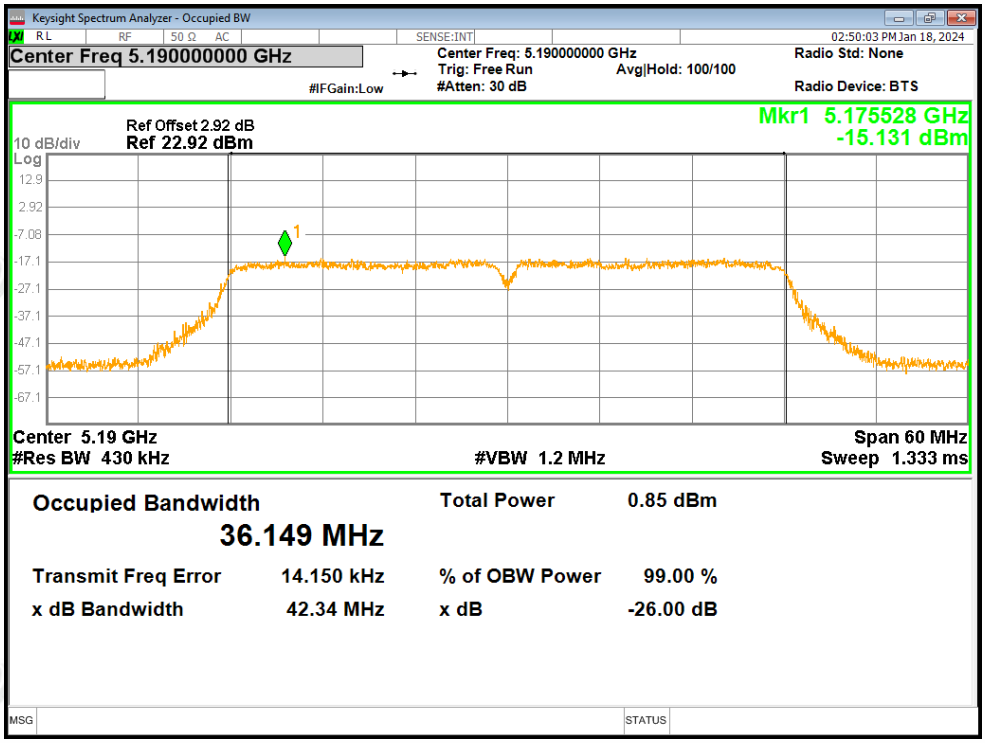
OBW NVNT ac40 5190MHz Ant1



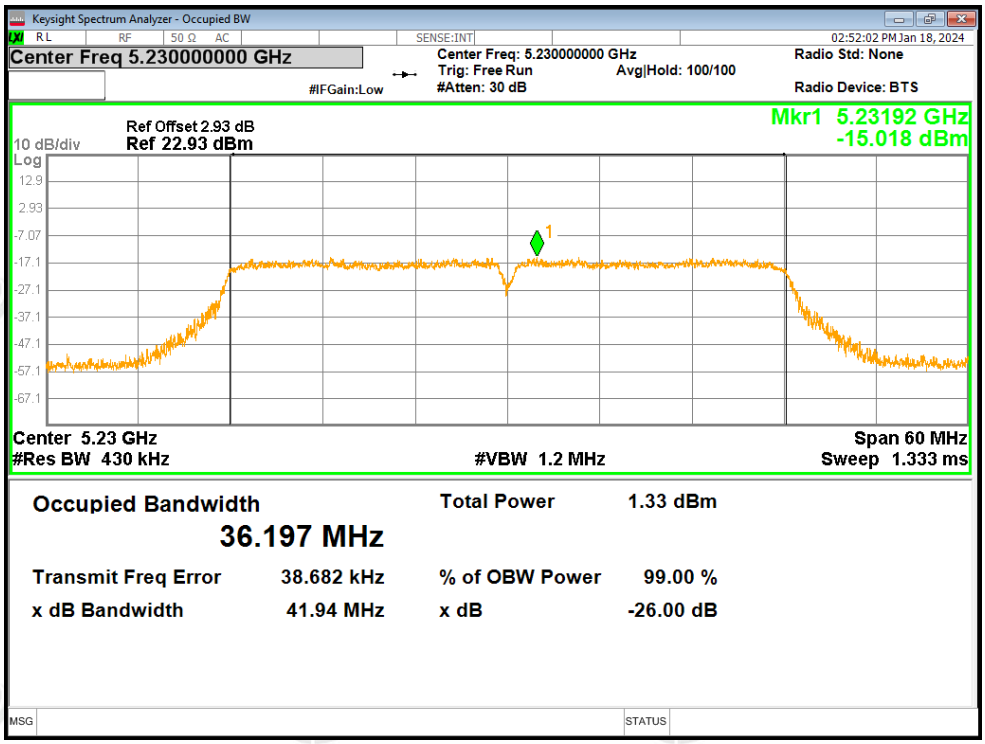
OBW NVNT ac40 5230MHz Ant1



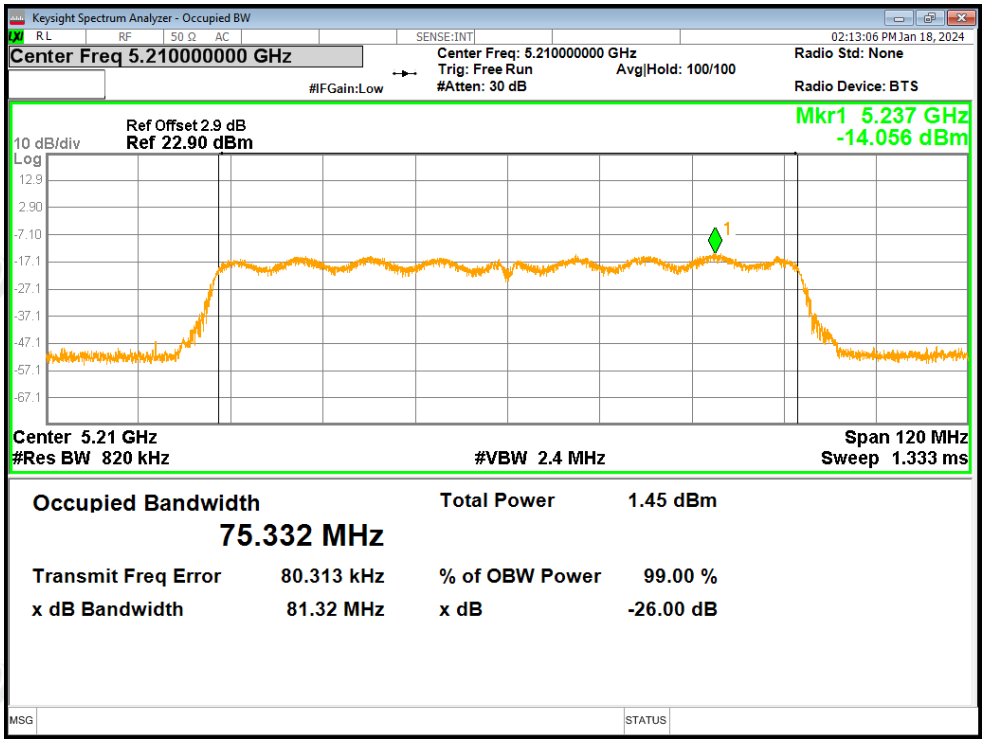
OBW NVNT ac40 5190MHz Ant2



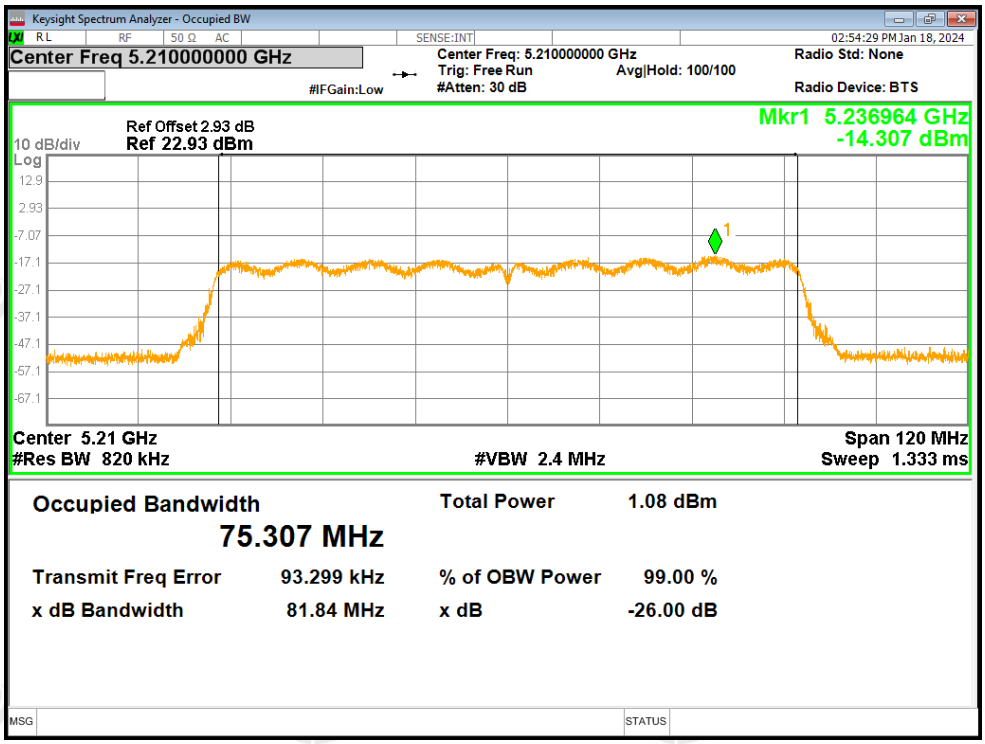
OBW NVNT ac40 5230MHz Ant2



OBW NVNT ac80 5210MHz Ant1



OBW NVNT ac80 5210MHz Ant2

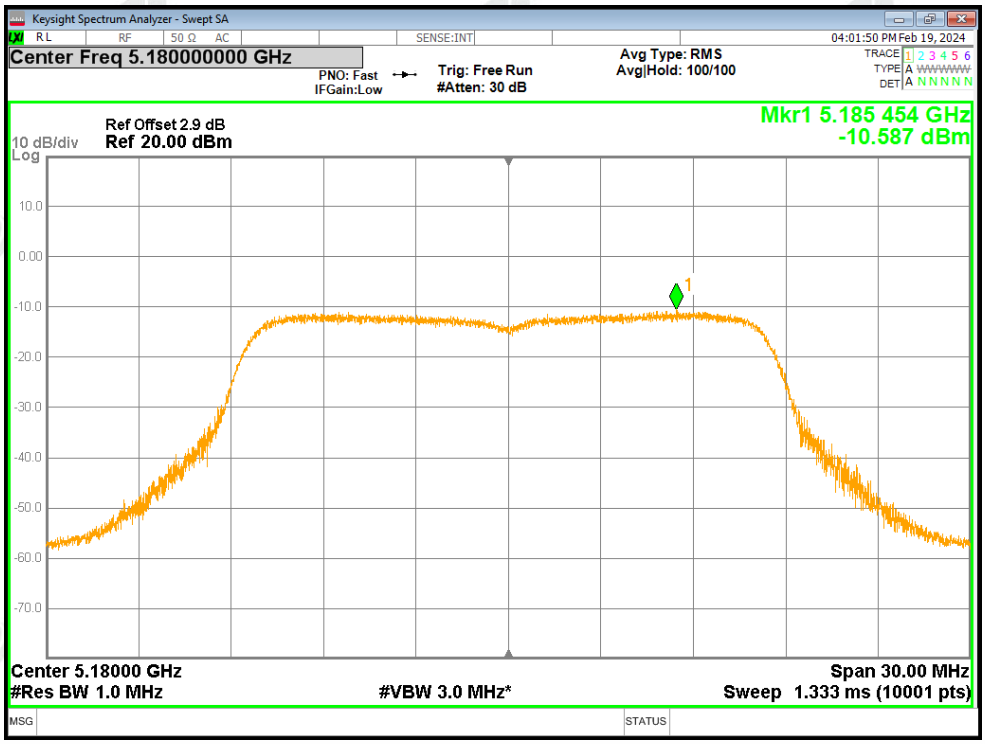


B5. Maximum Power Spectral Density Level

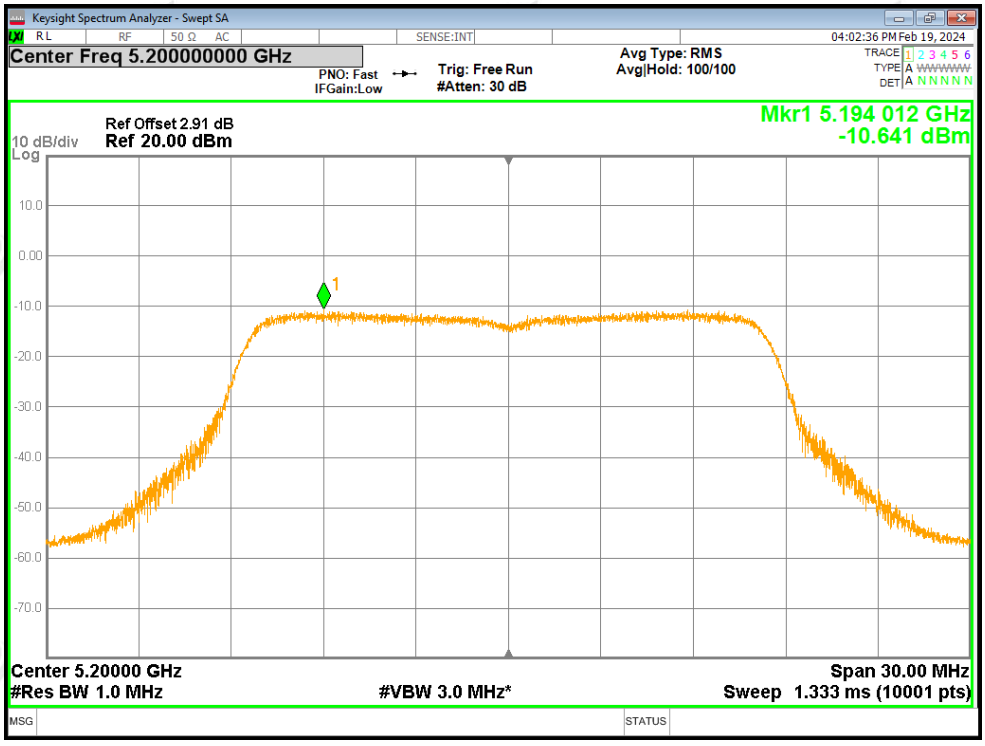
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	-10.59	0.34	-10.25	11	Pass
NVNT	a	5200	Ant1	-10.64	0.34	-10.3	11	Pass
NVNT	a	5240	Ant1	-10.42	0.34	-10.08	11	Pass
NVNT	a	5180	Ant2	-10.84	0.26	-10.58	11	Pass
NVNT	a	5200	Ant2	-10.55	0.1	-10.45	11	Pass
NVNT	a	5240	Ant2	-10.2	0.19	-10.01	11	Pass
NVNT	n20	5180	Ant1	-12.17	0.33	-11.84	11	Pass
NVNT	n20	5200	Ant1	-12.04	0.2	-11.84	11	Pass
NVNT	n20	5240	Ant1	-11.83	0.35	-11.48	11	Pass
NVNT	n20	5180	Ant2	-12.24	0.31	-11.93	11	Pass
NVNT	n20	5200	Ant2	-11.95	0.11	-11.84	11	Pass
NVNT	n20	5240	Ant2	-10.85	0.37	-10.48	11	Pass
NVNT	n40	5190	Ant1	-17.24	0.73	-16.51	11	Pass
NVNT	n40	5230	Ant1	-16.81	0.18	-16.63	11	Pass
NVNT	n40	5190	Ant2	-16.63	0.28	-16.35	11	Pass
NVNT	n40	5230	Ant2	-16.24	0.57	-15.67	11	Pass
NVNT	ac20	5180	Ant1	-13.6	0.18	-13.42	11	Pass
NVNT	ac20	5200	Ant1	-13.16	0.09	-13.07	11	Pass
NVNT	ac20	5240	Ant1	-12.8	0.15	-12.65	11	Pass
NVNT	ac20	5180	Ant2	-13.48	0.26	-13.22	11	Pass
NVNT	ac20	5200	Ant2	-12.99	0.34	-12.65	11	Pass
NVNT	ac20	5240	Ant2	-12.61	0.2	-12.41	11	Pass
NVNT	ac40	5190	Ant1	-18.17	0.4	-17.77	11	Pass
NVNT	ac40	5230	Ant1	-17.59	0.4	-17.19	11	Pass
NVNT	ac40	5190	Ant2	-17.91	0.27	-17.64	11	Pass
NVNT	ac40	5230	Ant2	-17.27	0.49	-16.78	11	Pass
NVNT	ac80	5210	Ant1	-20.8	0.32	-20.48	11	Pass
NVNT	ac80	5210	Ant2	-20.64	0.93	-19.71	11	Pass
NVNT	n20	5180	MIMO	-12.17	0.33	-11.84	11	Pass
NVNT	n20	5200	MIMO	/	/	-8.87	11	Pass
NVNT	n20	5240	MIMO	/	/	-8.83	11	Pass
NVNT	n40	5190	MIMO	/	/	-7.94	11	Pass
NVNT	n40	5230	MIMO	/	/	-13.42	11	Pass
NVNT	ac20	5180	MIMO	/	/	-13.11	11	Pass
NVNT	ac20	5200	MIMO	/	/	-10.31	11	Pass
NVNT	ac20	5240	MIMO	/	/	-9.84	11	Pass
NVNT	ac40	5190	MIMO	/	/	-9.52	11	Pass
NVNT	ac40	5230	MIMO	/	/	-14.69	11	Pass
NVNT	ac80	5210	MIMO	/	/	-13.97	11	Pass

Test Graphs

PSD NVNT a 5180MHz Ant1



PSD NVNT a 5200MHz Ant1



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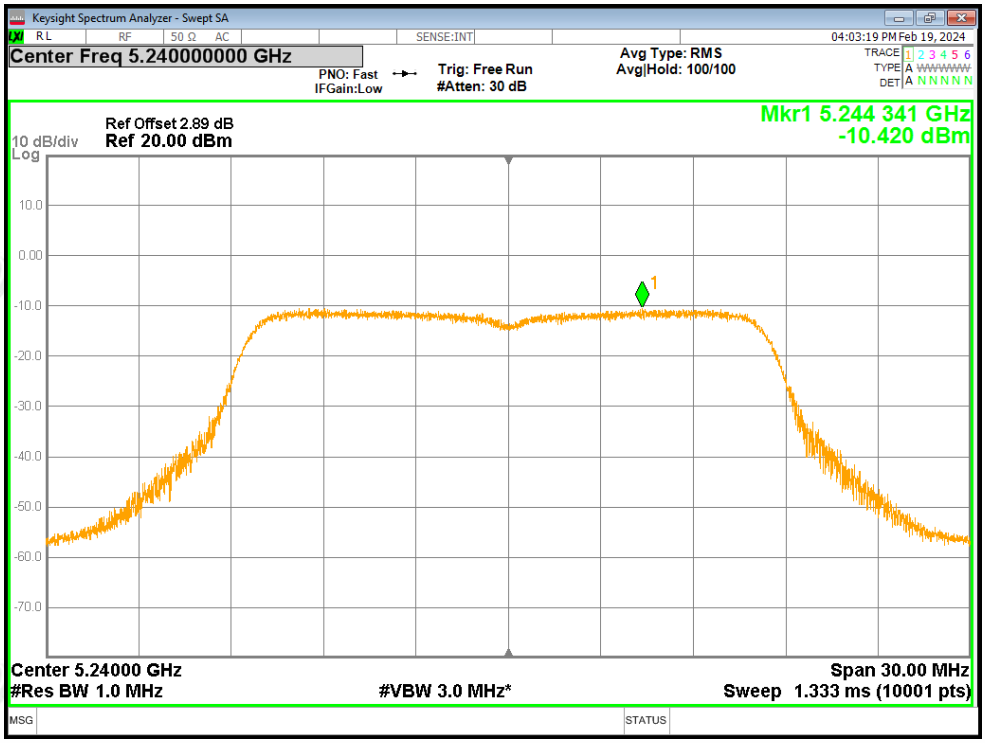
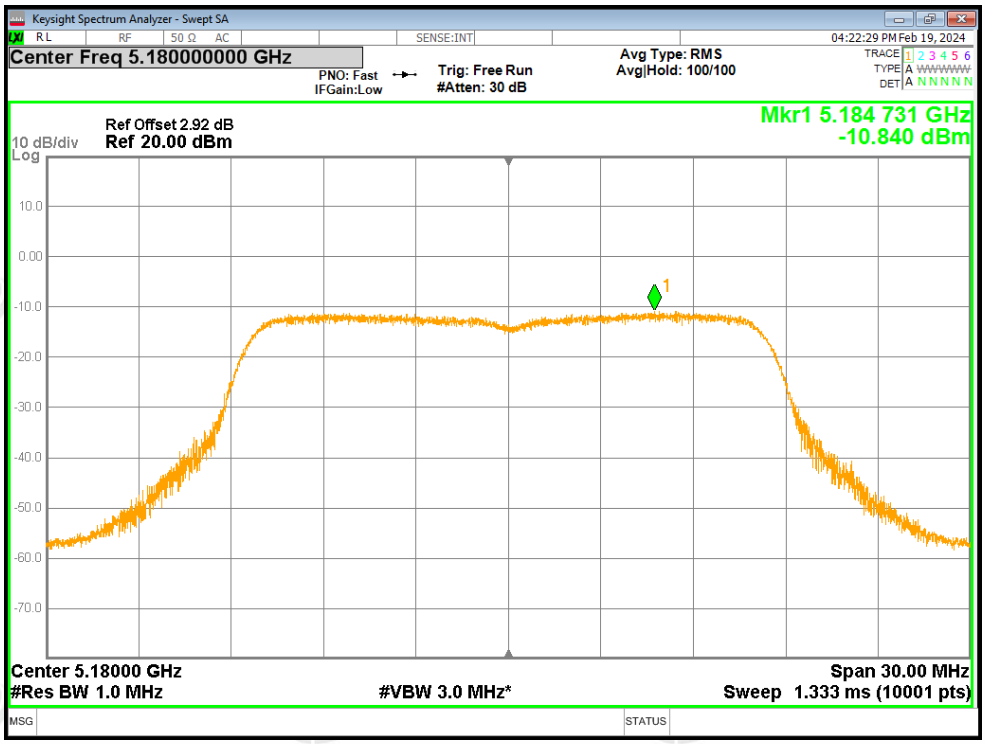
PSD NVNT a 5180MHz Ant2