

Appendix A for 5GWIFI Test Data
Product Name: 4K Wireless Display Dongle
Test Model: US-RXTX--A

Environmental Conditions

Temperature:	24.6℃
Relative Humidity:	52%
ATM Pressure:	101.0 kPa
Test Engineer:	Leon Li
Supervised by:	Baret Wu

5.2G WIFI DATA

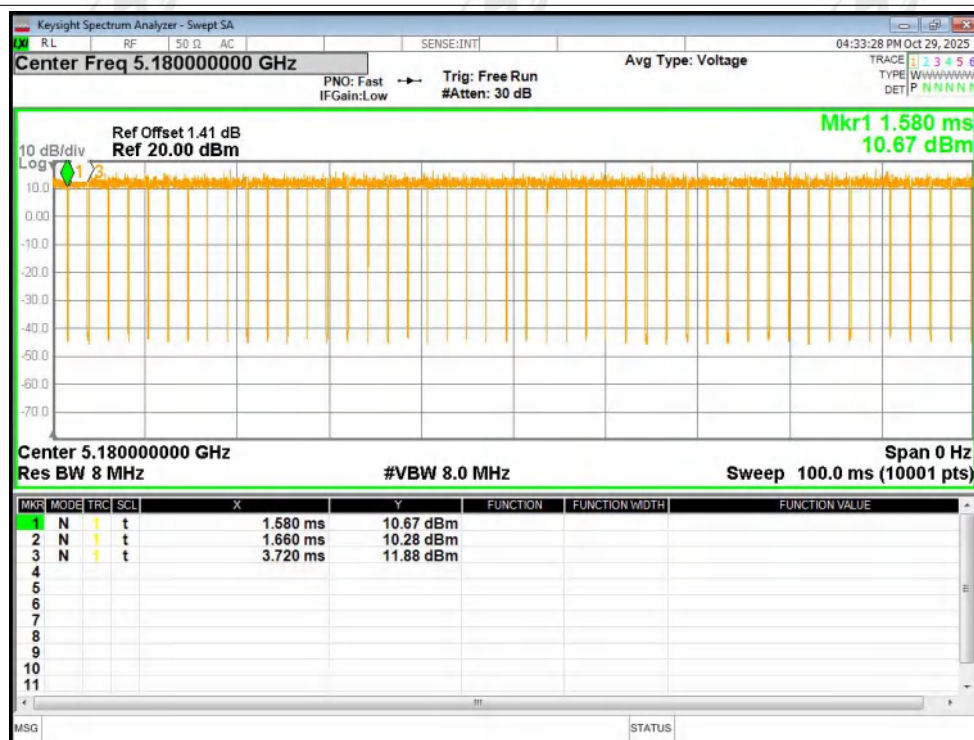
Duty Cycle	3
Maximum Conducted Output Power	11
-26dB Bandwidth	19
Occupied Channel Bandwidth	27
Maximum Power Spectral Density Level	35
Band Edge	43
Conducted RF Spurious Emission	51

Duty Cycle

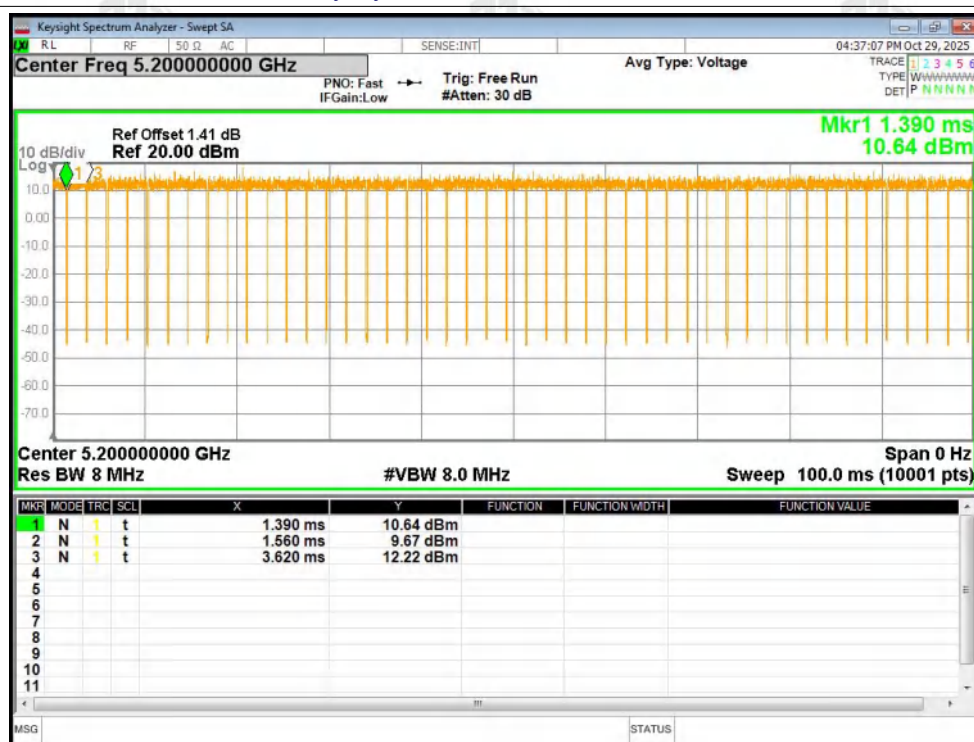
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	96.26	0.17	0.49
NVNT	a	5200	Ant1	92.38	0.34	0.49
NVNT	a	5240	Ant1	98.1	0.08	0.48
NVNT	n20	5180	Ant1	97.96	0.09	0.52
NVNT	n20	5200	Ant1	96	0.18	0.52
NVNT	n20	5240	Ant1	96.48	0.16	0.52
NVNT	n40	5190	Ant1	90.48	0.43	1.05
NVNT	n40	5230	Ant1	84.68	0.72	1.06
NVNT	ac20	5180	Ant1	94.61	0.24	0.52
NVNT	ac20	5200	Ant1	96.02	0.18	0.52
NVNT	ac20	5240	Ant1	91.9	0.37	0.52
NVNT	ac40	5190	Ant1	90.48	0.43	1.05
NVNT	ac40	5230	Ant1	84.82	0.72	1.05
NVNT	ac80	5210	Ant1	77.97	1.08	2.17

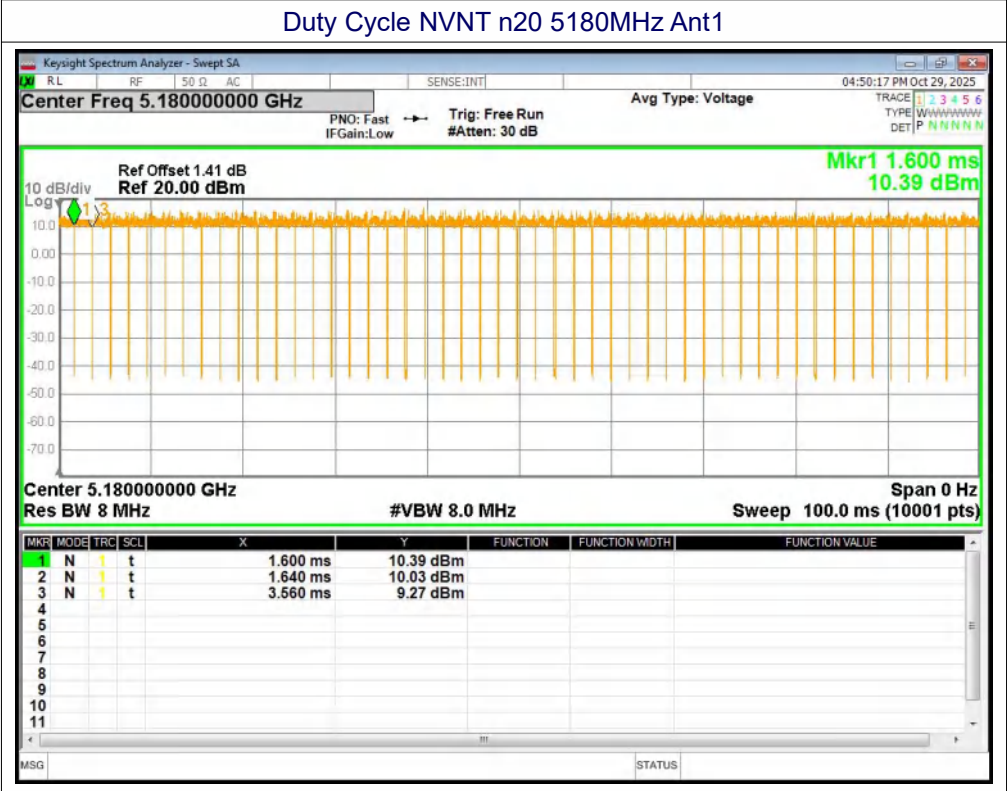
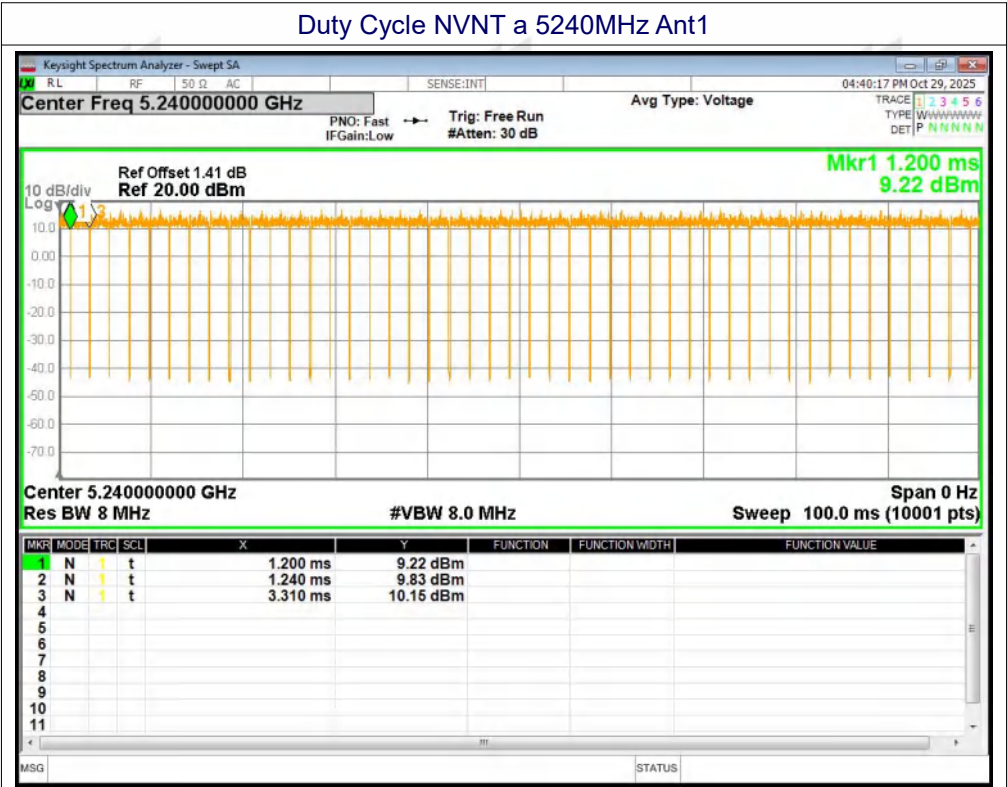
Test Graphs

Duty Cycle NVNT a 5180MHz Ant1

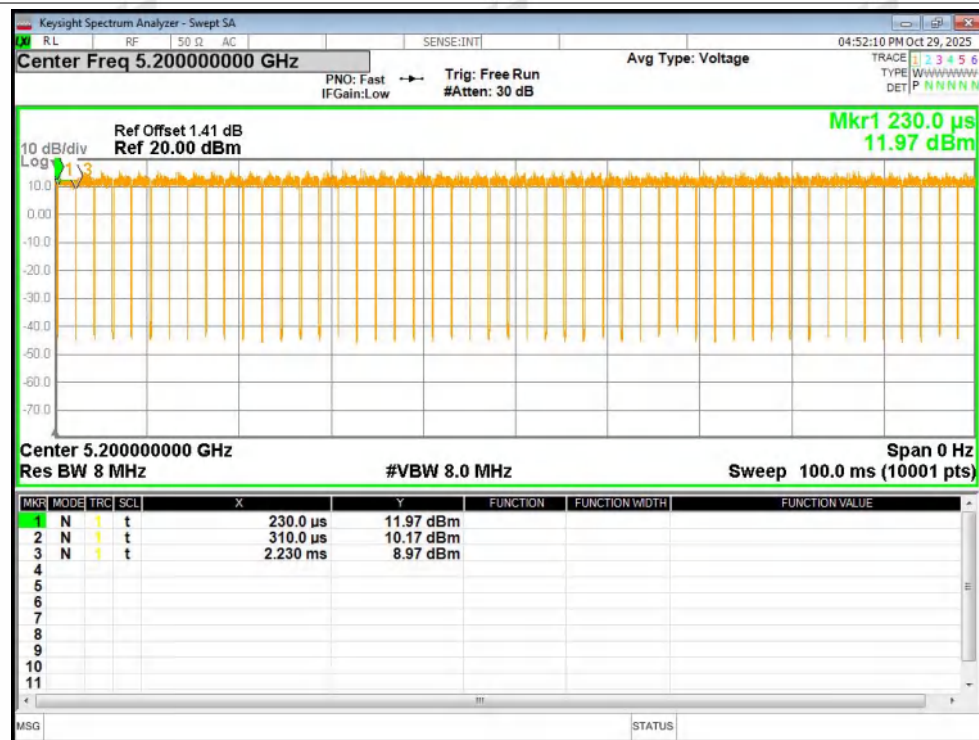


Duty Cycle NVNT a 5200MHz Ant1

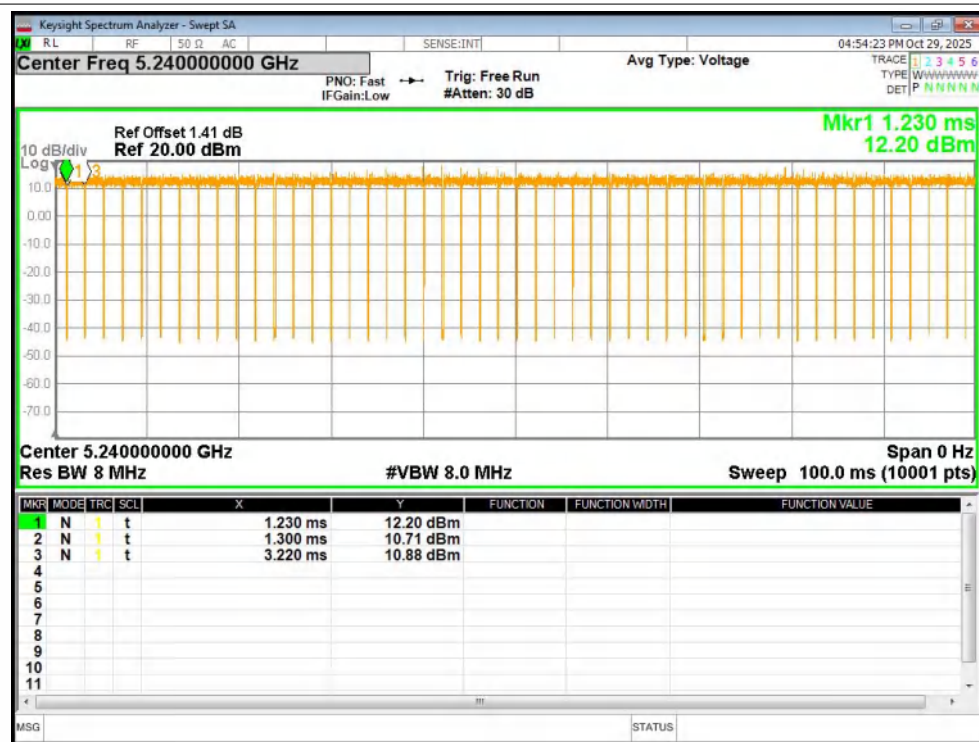




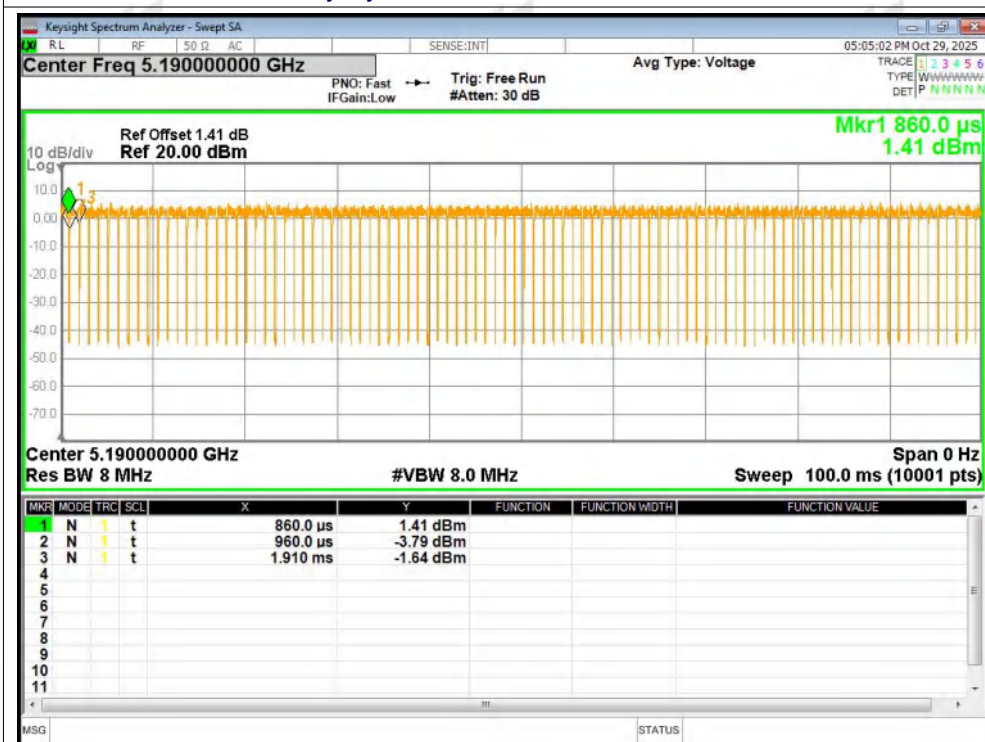
Duty Cycle NVNT n20 5200MHz Ant1



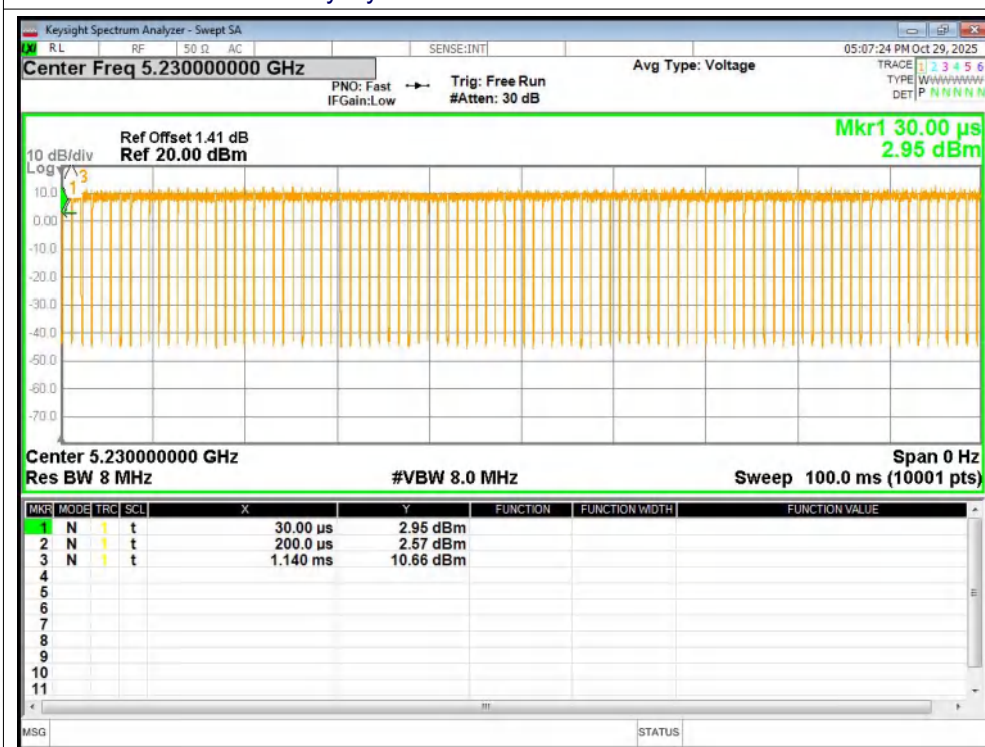
Duty Cycle NVNT n20 5240MHz Ant1

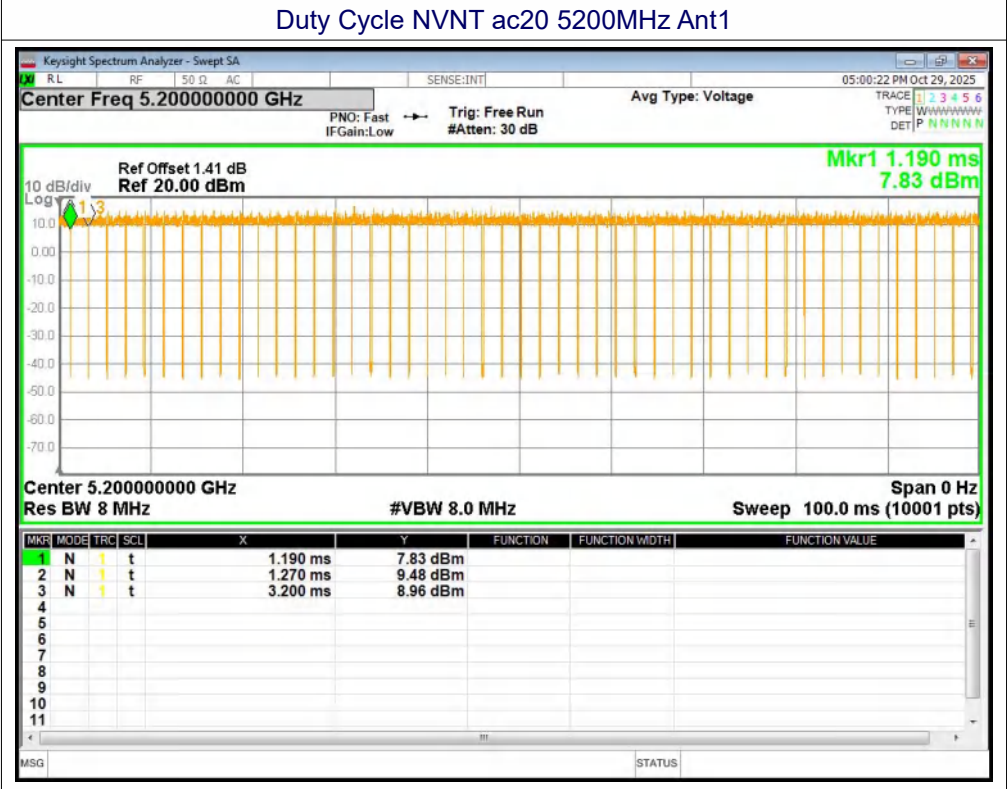
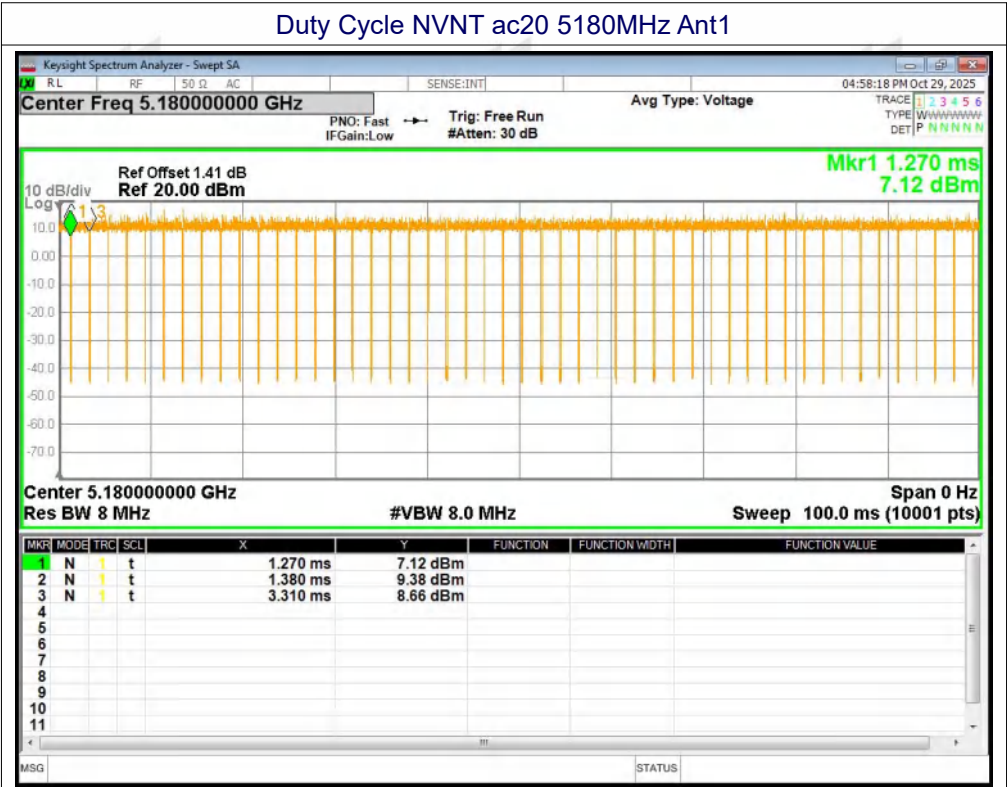


Duty Cycle NVNT n40 5190MHz Ant1

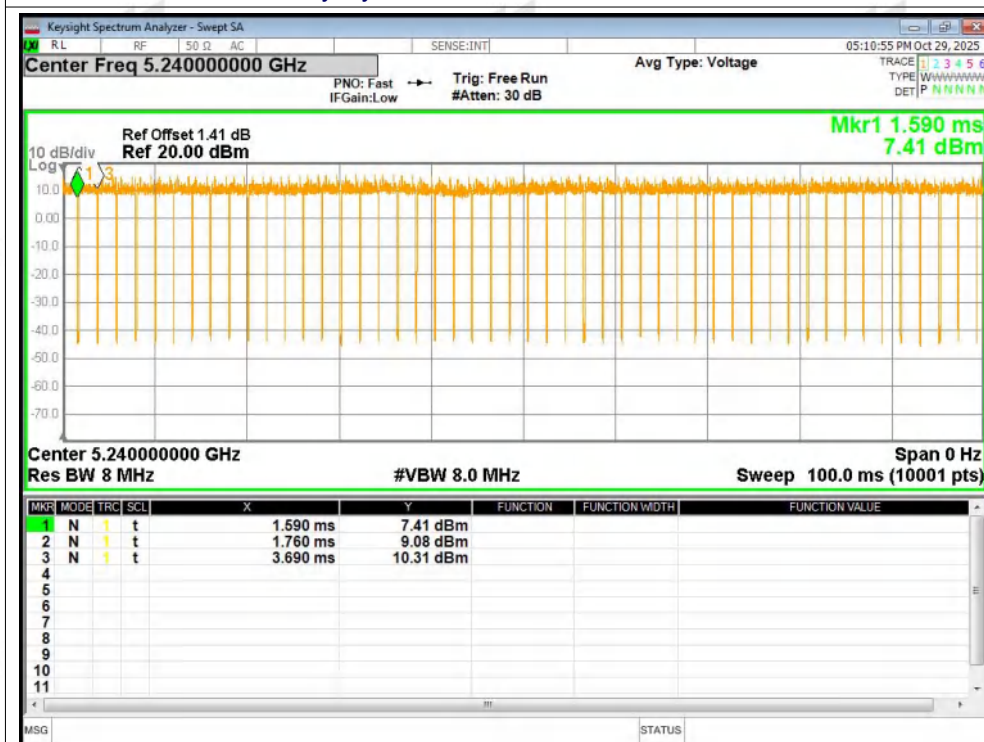


Duty Cycle NVNT n40 5230MHz Ant1

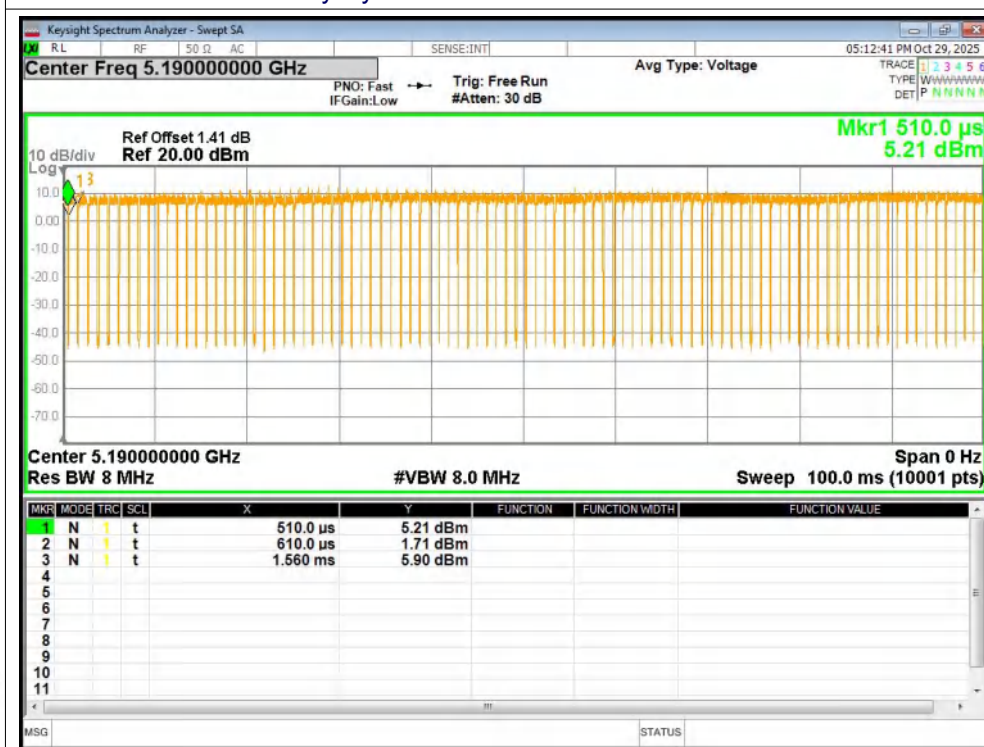




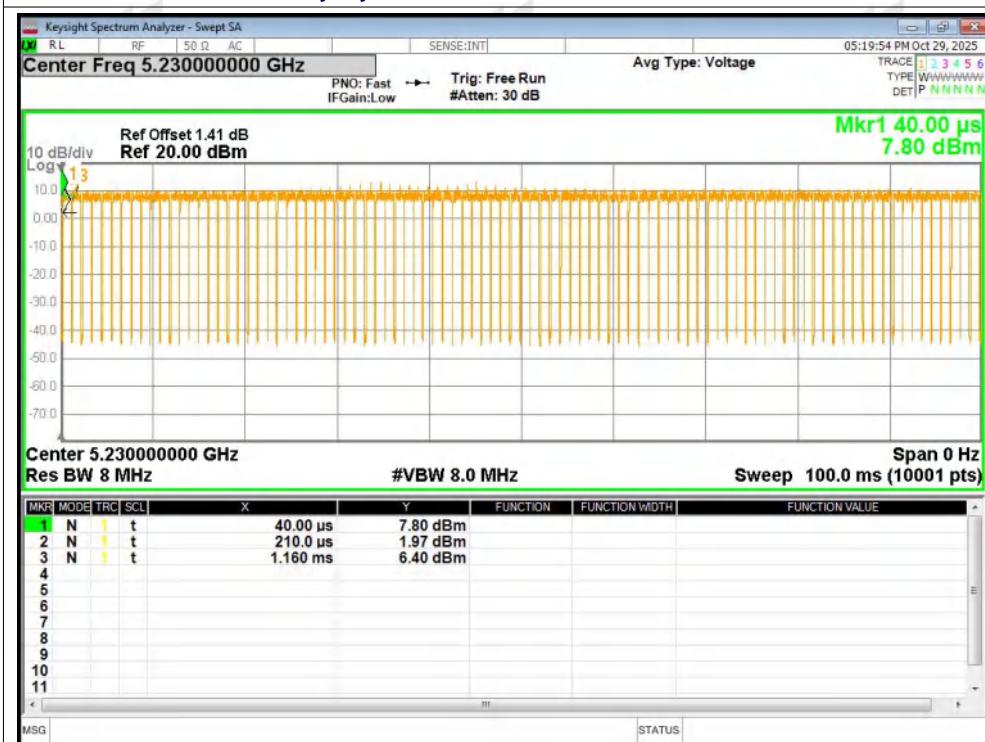
Duty Cycle NVNT ac20 5240MHz Ant1



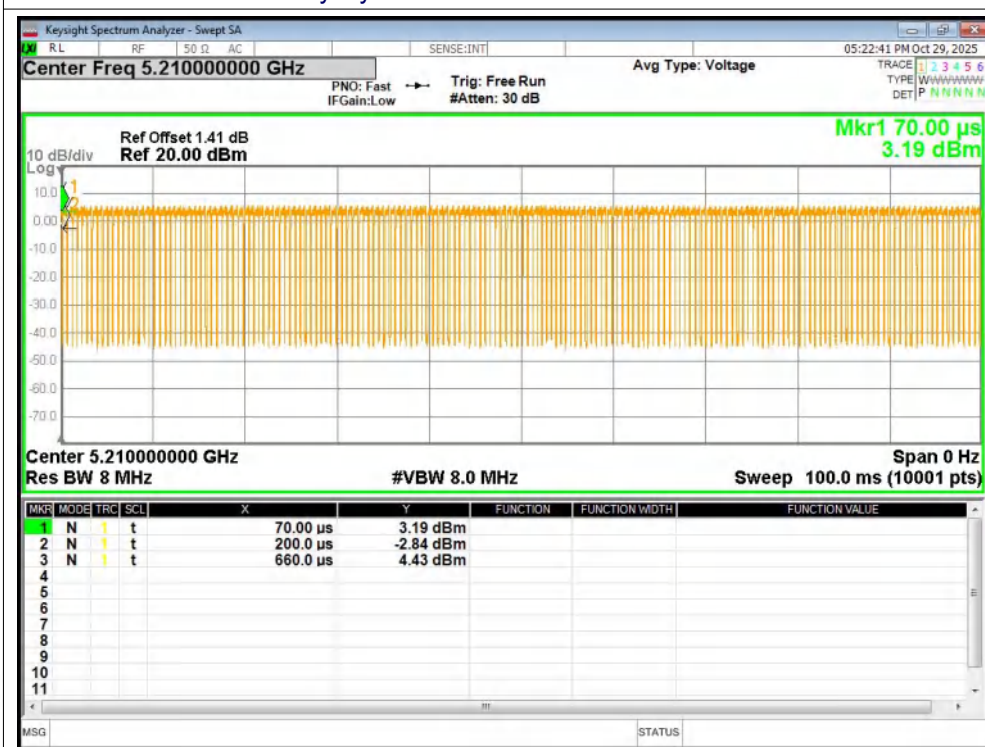
Duty Cycle NVNT ac40 5190MHz Ant1



Duty Cycle NVNT ac40 5230MHz Ant1



Duty Cycle NVNT ac80 5210MHz Ant1

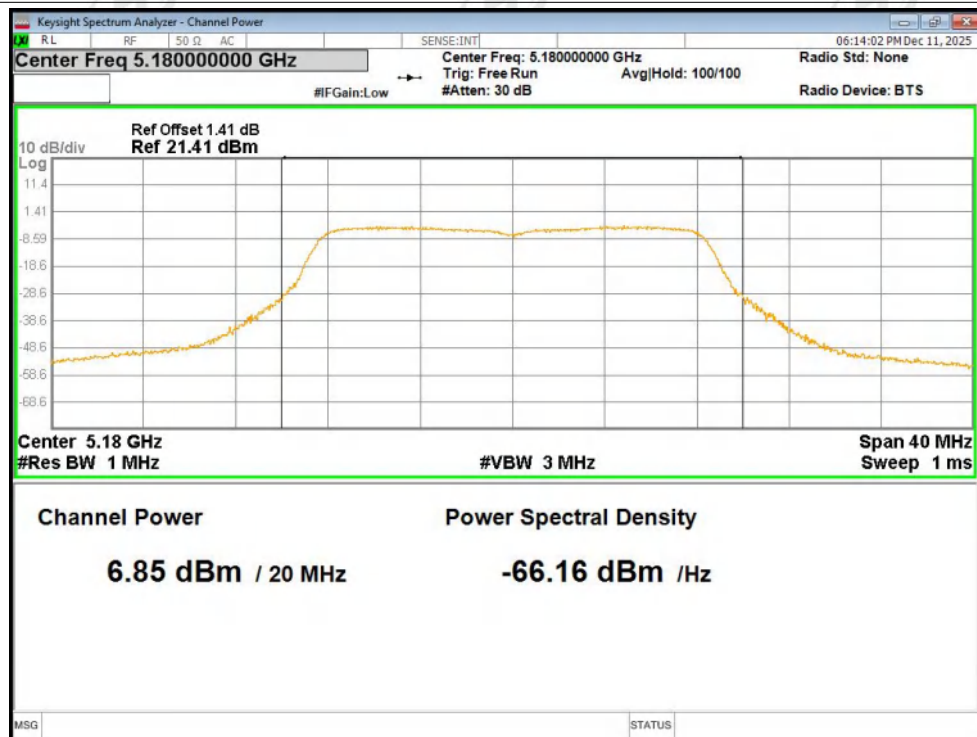


Maximum Conducted Output Power

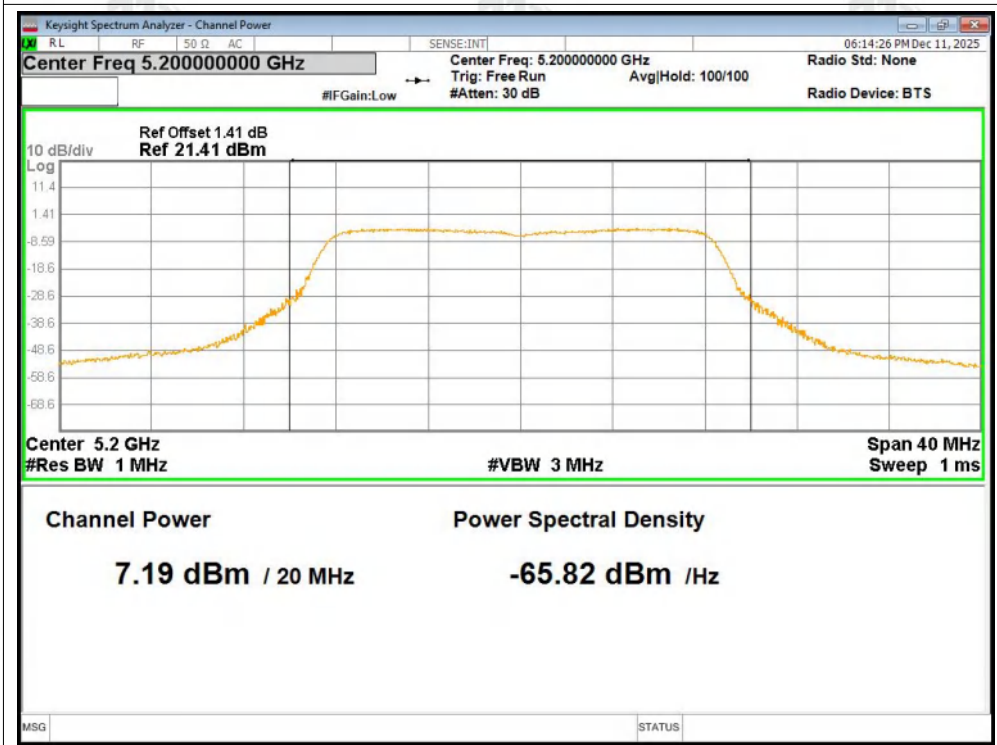
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	6.85	0.17	7.02	24	Pass
NVNT	a	5200	Ant1	7.19	0.34	7.53	24	Pass
NVNT	a	5240	Ant1	6.98	0.08	7.06	24	Pass
NVNT	n20	5180	Ant1	6.36	0.09	6.45	24	Pass
NVNT	n20	5200	Ant1	6.69	0.18	6.87	24	Pass
NVNT	n20	5240	Ant1	6.92	0.16	7.08	24	Pass
NVNT	n40	5190	Ant1	6.65	0.43	7.08	24	Pass
NVNT	n40	5230	Ant1	6.97	0.72	7.69	24	Pass
NVNT	ac20	5180	Ant1	6.51	0.24	6.75	24	Pass
NVNT	ac20	5200	Ant1	6.67	0.18	6.85	24	Pass
NVNT	ac20	5240	Ant1	6.89	0.37	7.26	24	Pass
NVNT	ac40	5190	Ant1	6.69	0.43	7.12	24	Pass
NVNT	ac40	5230	Ant1	7	0.72	7.72	24	Pass
NVNT	ac80	5210	Ant1	6.79	1.08	7.87	24	Pass

Test Graphs

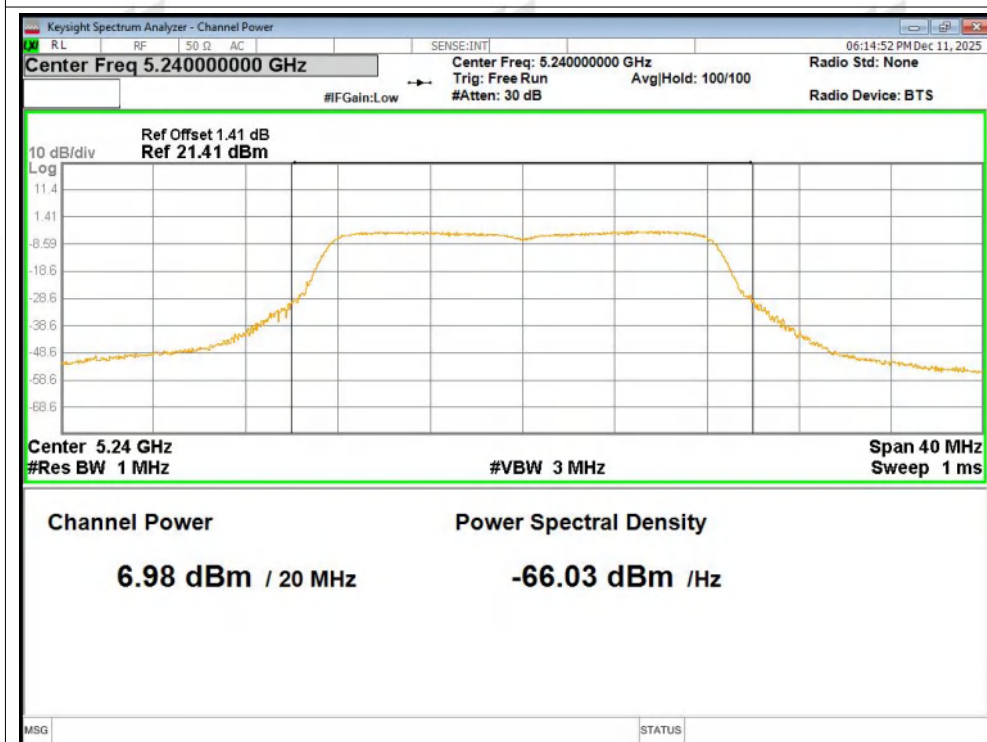
Power NVNT a 5180MHz Ant1



Power NVNT a 5200MHz Ant1



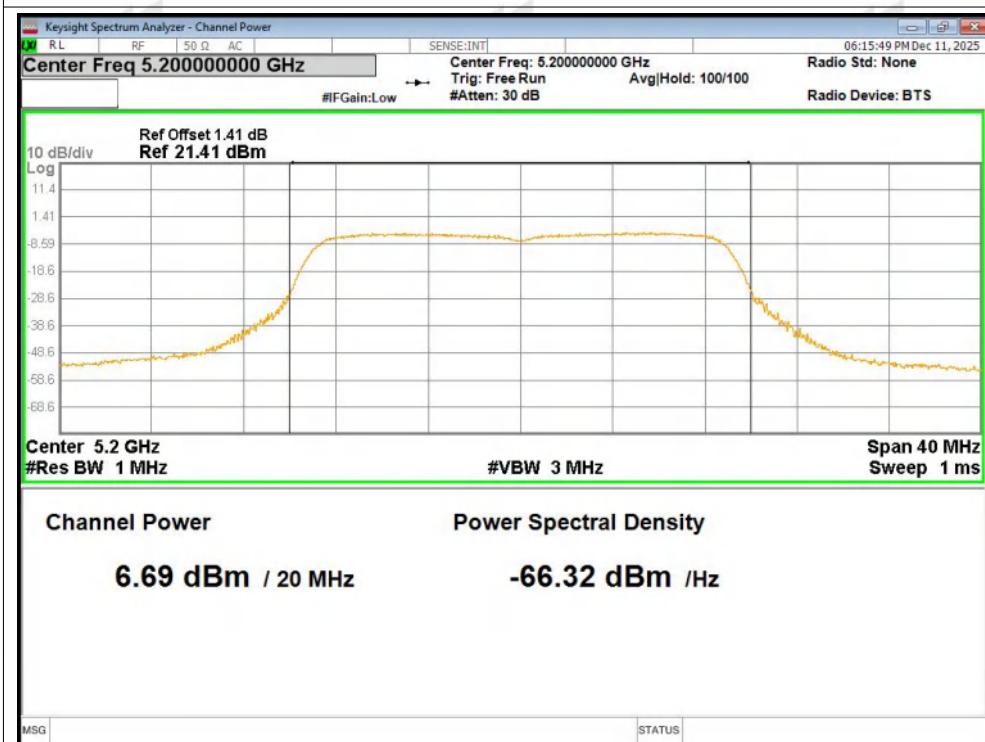
Power NVNT a 5240MHz Ant1



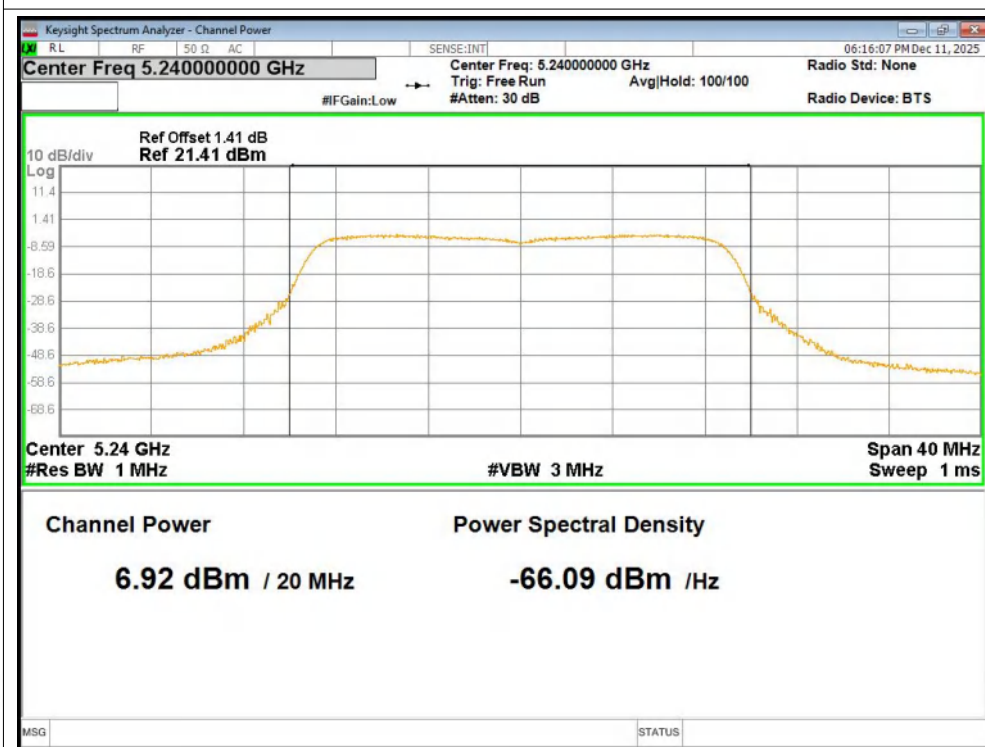
Power NVNT n20 5180MHz Ant1



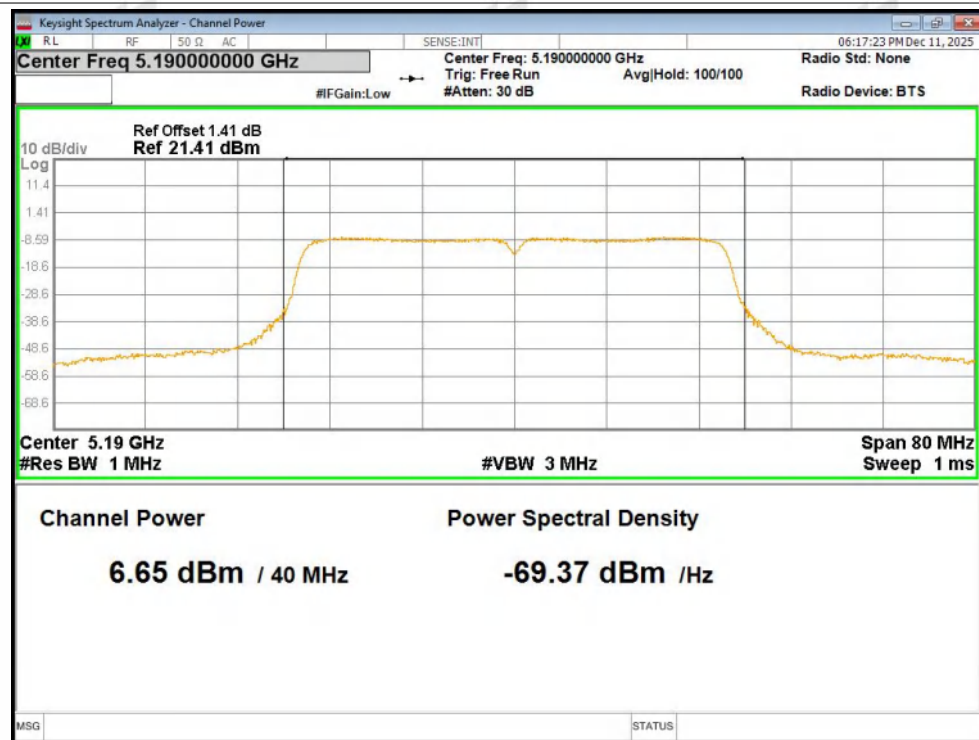
Power NVNT n20 5200MHz Ant1



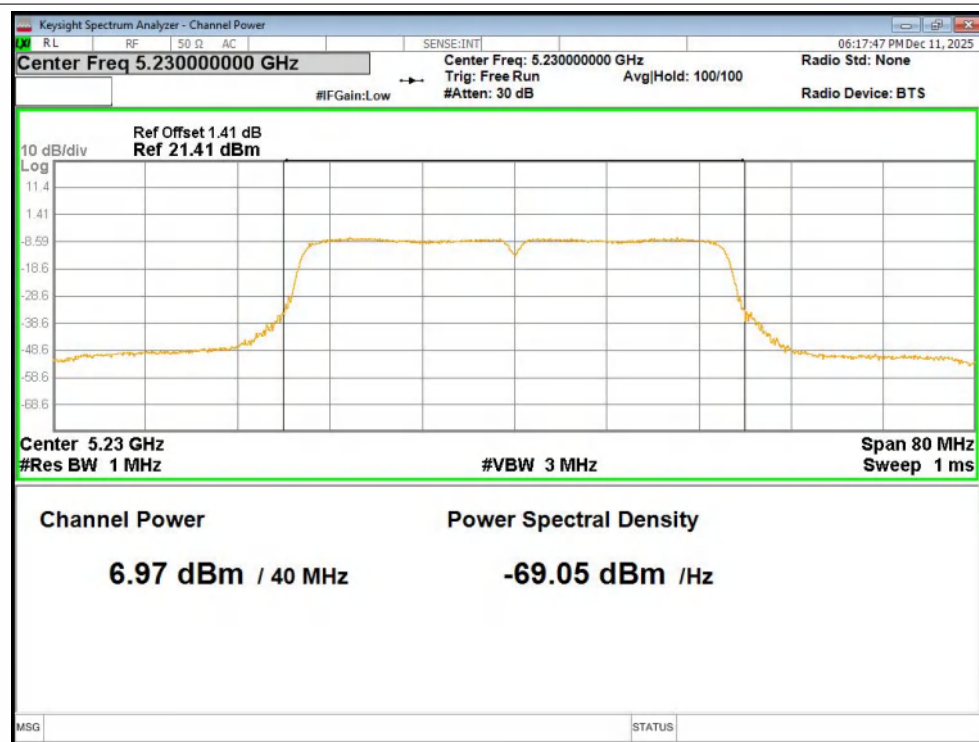
Power NVNT n20 5240MHz Ant1



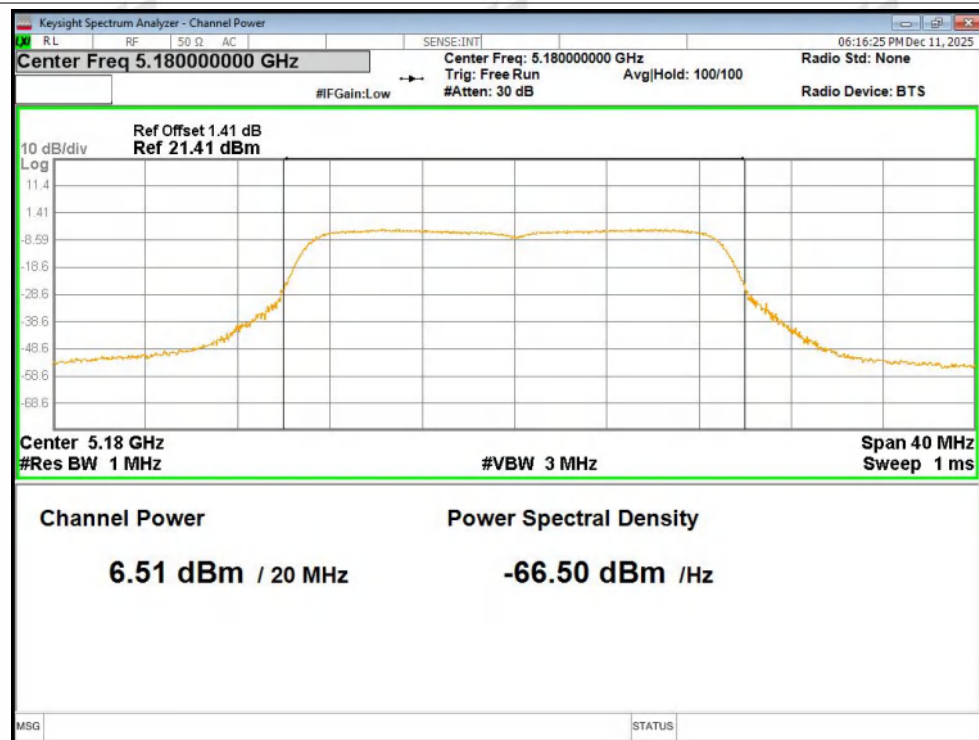
Power NVNT n40 5190MHz Ant1



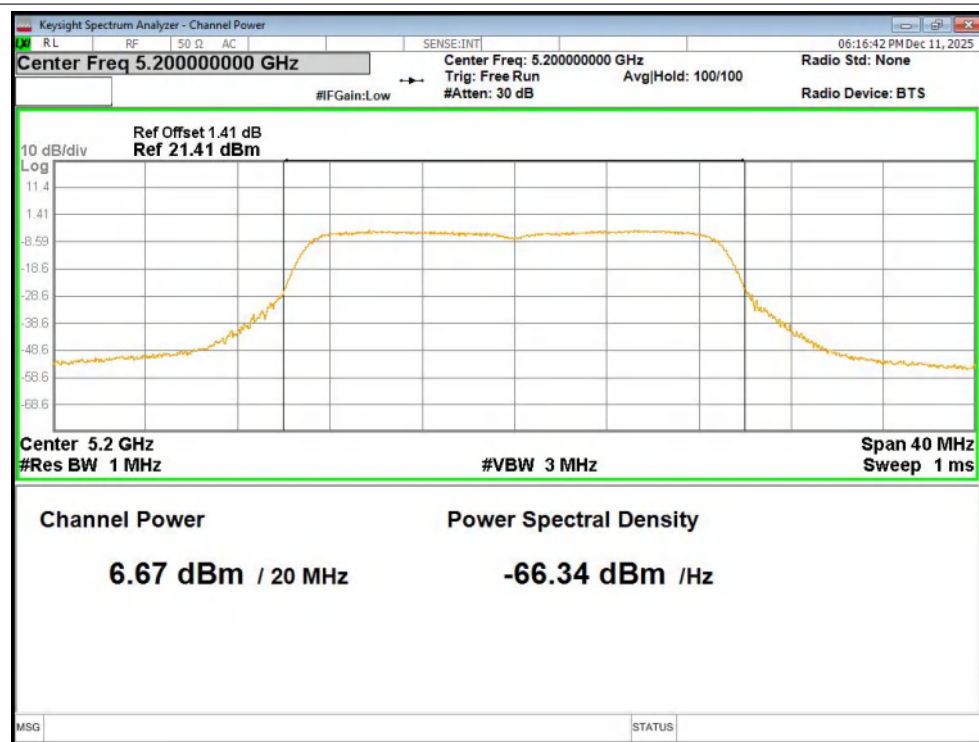
Power NVNT n40 5230MHz Ant1



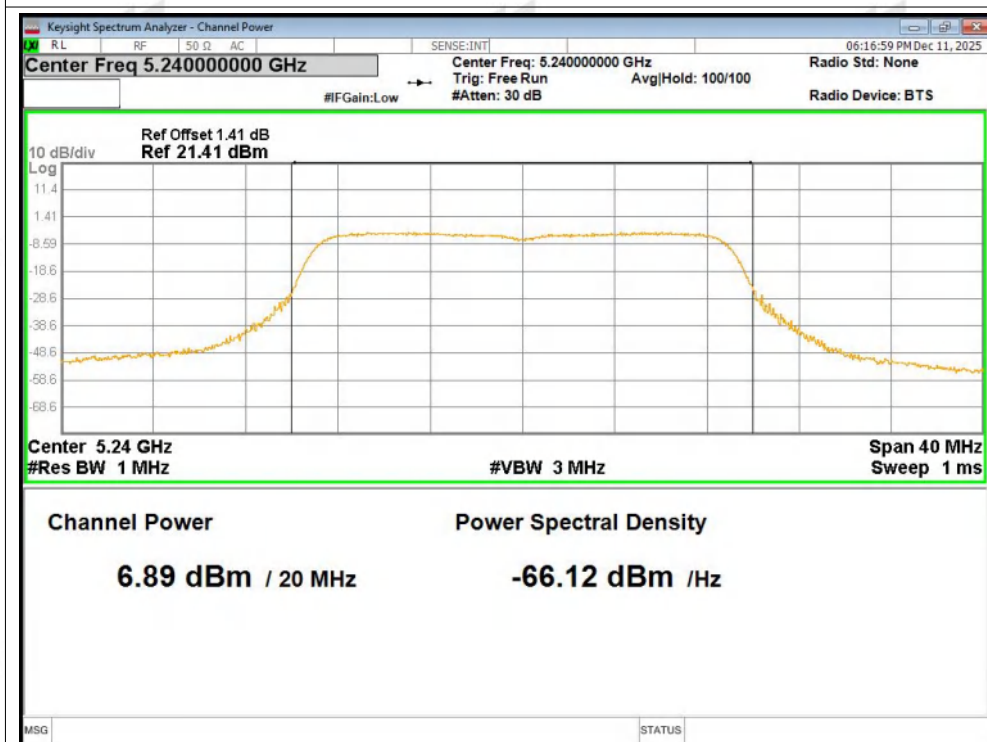
Power NVNT ac20 5180MHz Ant1



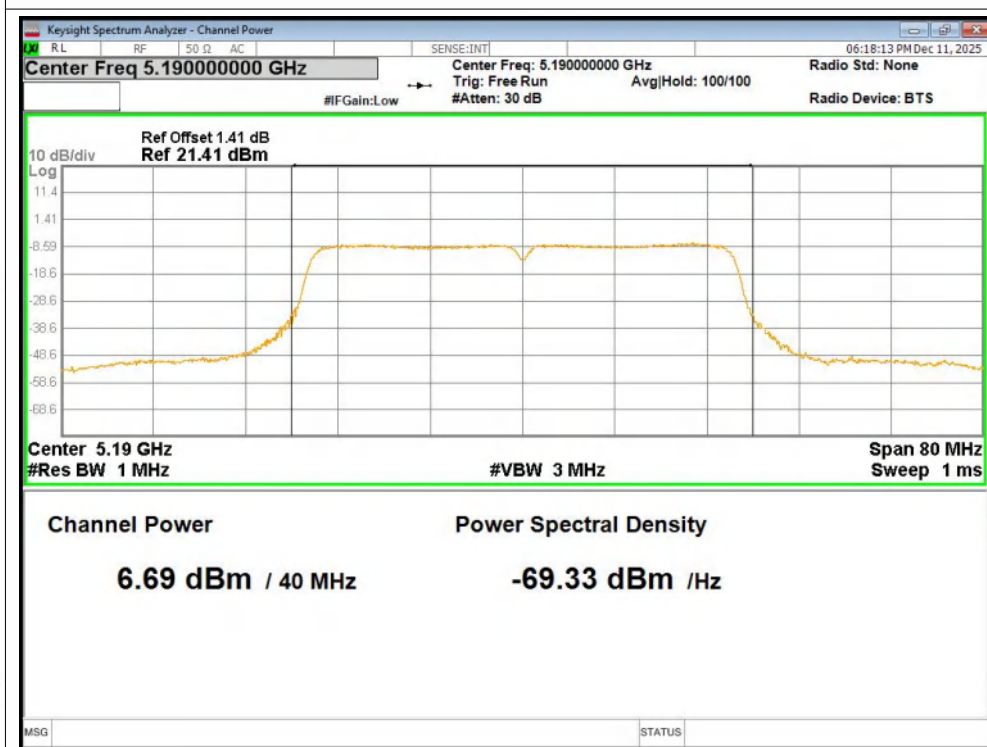
Power NVNT ac20 5200MHz Ant1



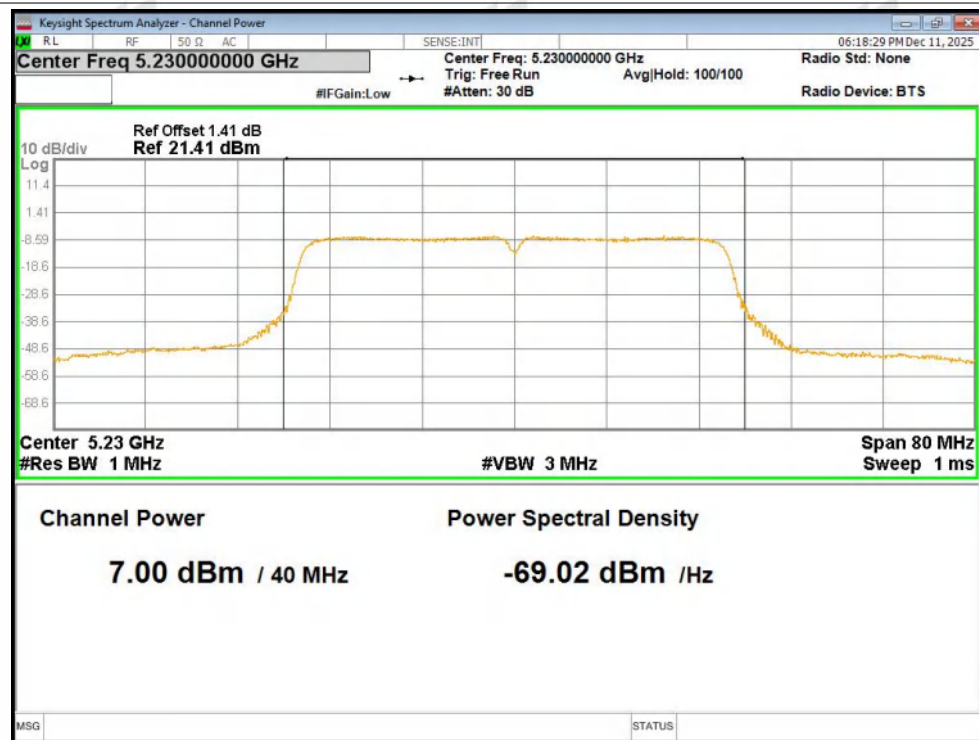
Power NVNT ac20 5240MHz Ant1



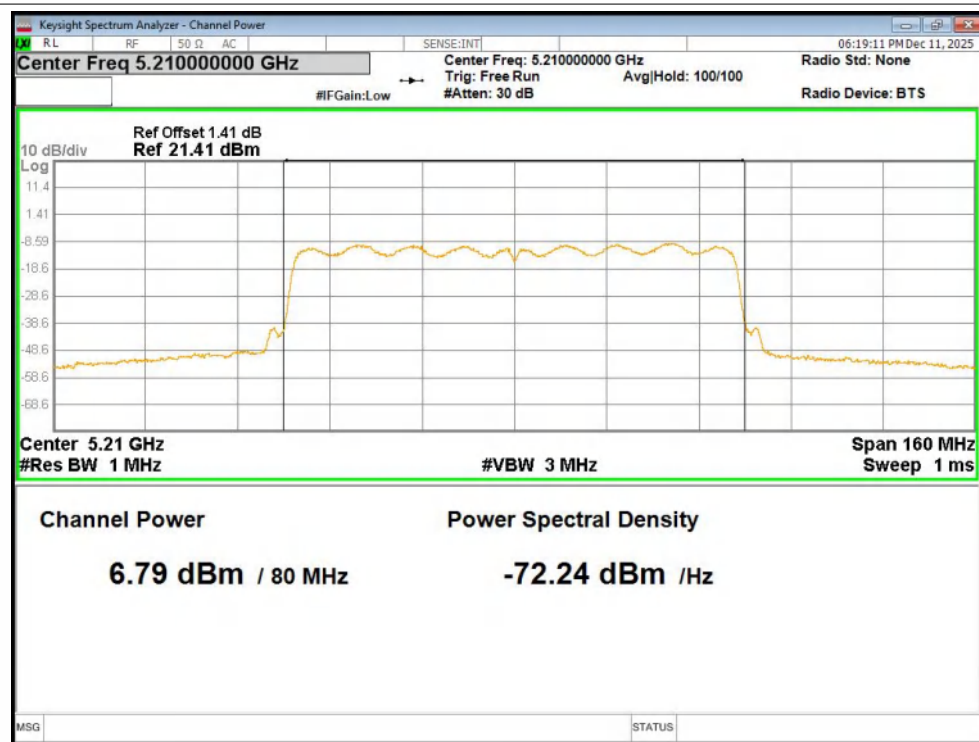
Power NVNT ac40 5190MHz Ant1



Power NVNT ac40 5230MHz Ant1



Power NVNT ac80 5210MHz Ant1

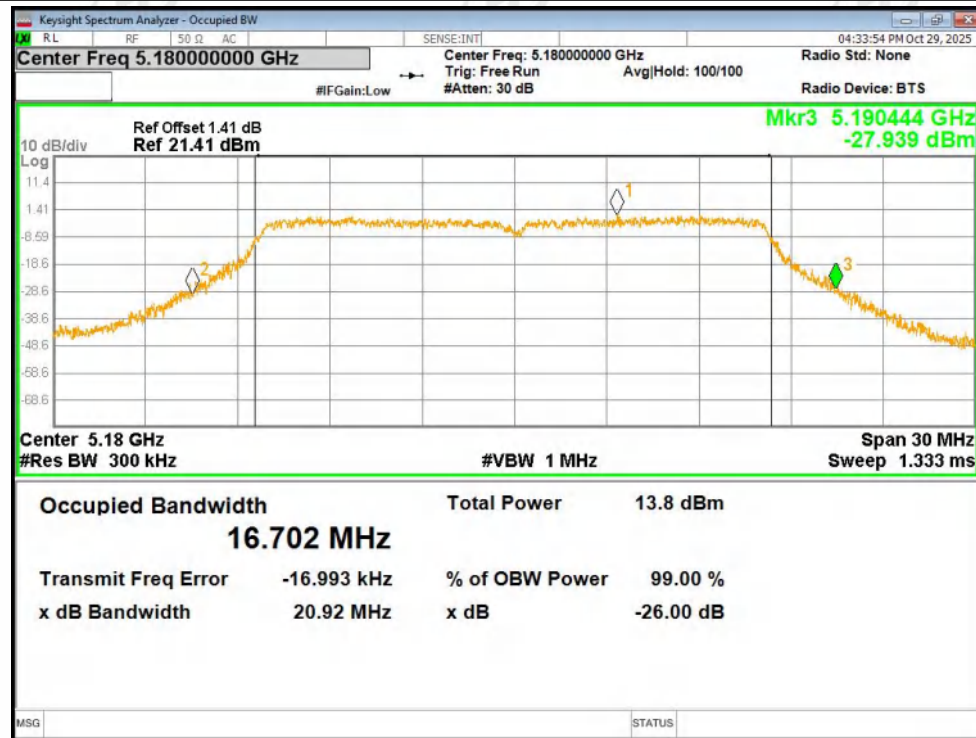


-26dB Bandwidth

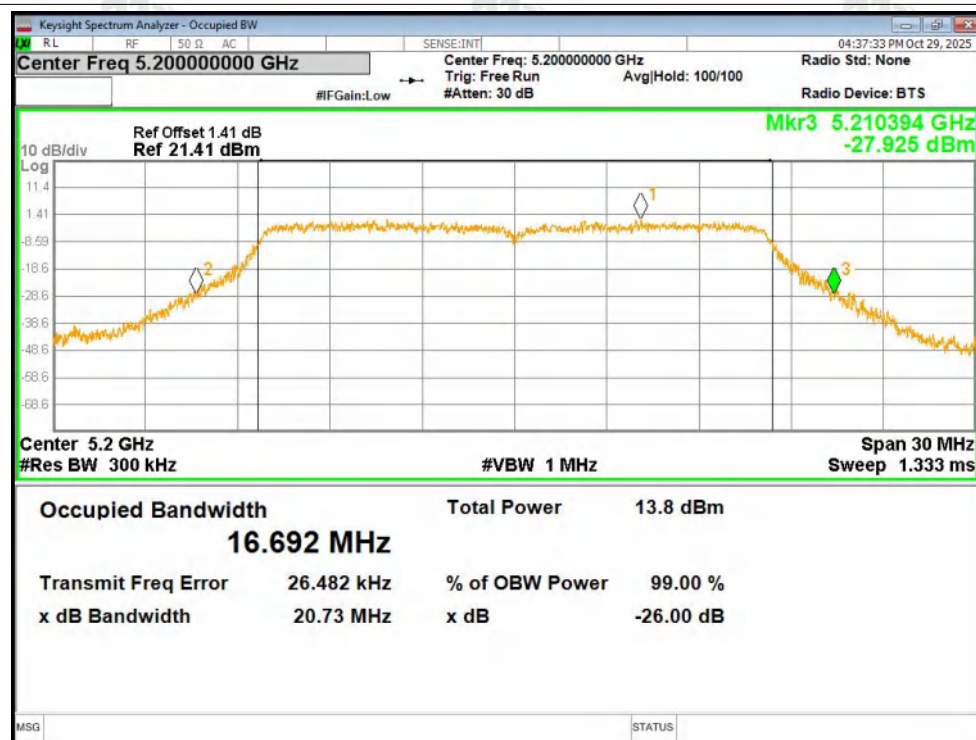
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	20.921	Pass
NVNT	a	5200	Ant1	20.734	Pass
NVNT	a	5240	Ant1	20.586	Pass
NVNT	n20	5180	Ant1	21.606	Pass
NVNT	n20	5200	Ant1	21.666	Pass
NVNT	n20	5240	Ant1	21.511	Pass
NVNT	n40	5190	Ant1	40.863	Pass
NVNT	n40	5230	Ant1	41.325	Pass
NVNT	ac20	5180	Ant1	21.372	Pass
NVNT	ac20	5200	Ant1	21.224	Pass
NVNT	ac20	5240	Ant1	21.298	Pass
NVNT	ac40	5190	Ant1	40.647	Pass
NVNT	ac40	5230	Ant1	40.798	Pass
NVNT	ac80	5210	Ant1	79.909	Pass

Test Graphs

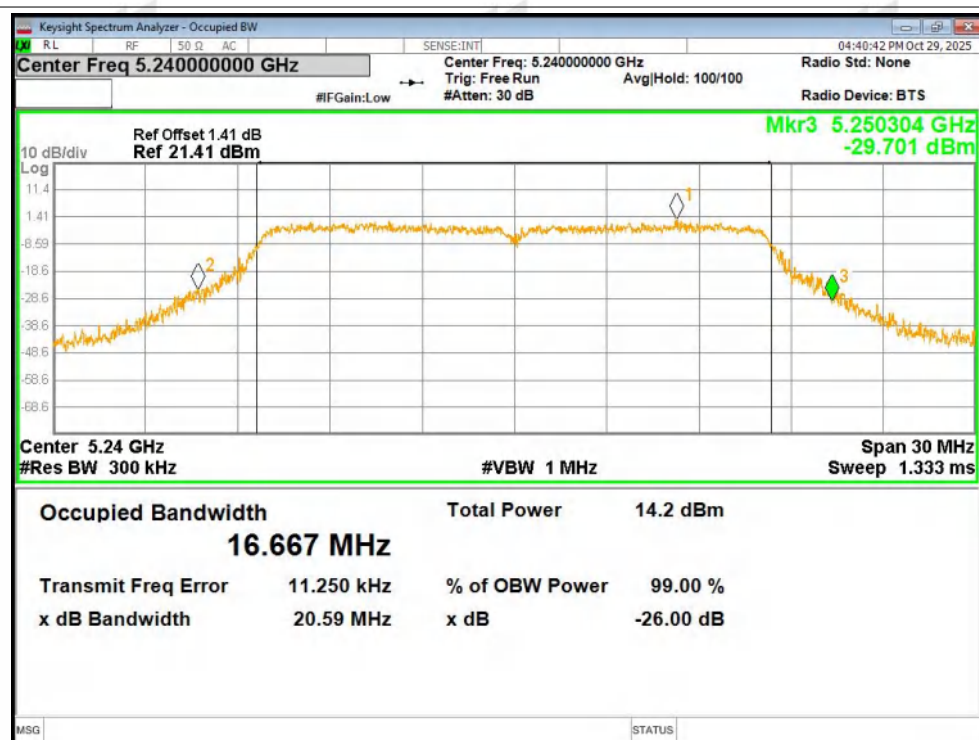
-26dB Bandwidth NVNT a 5180MHz Ant1



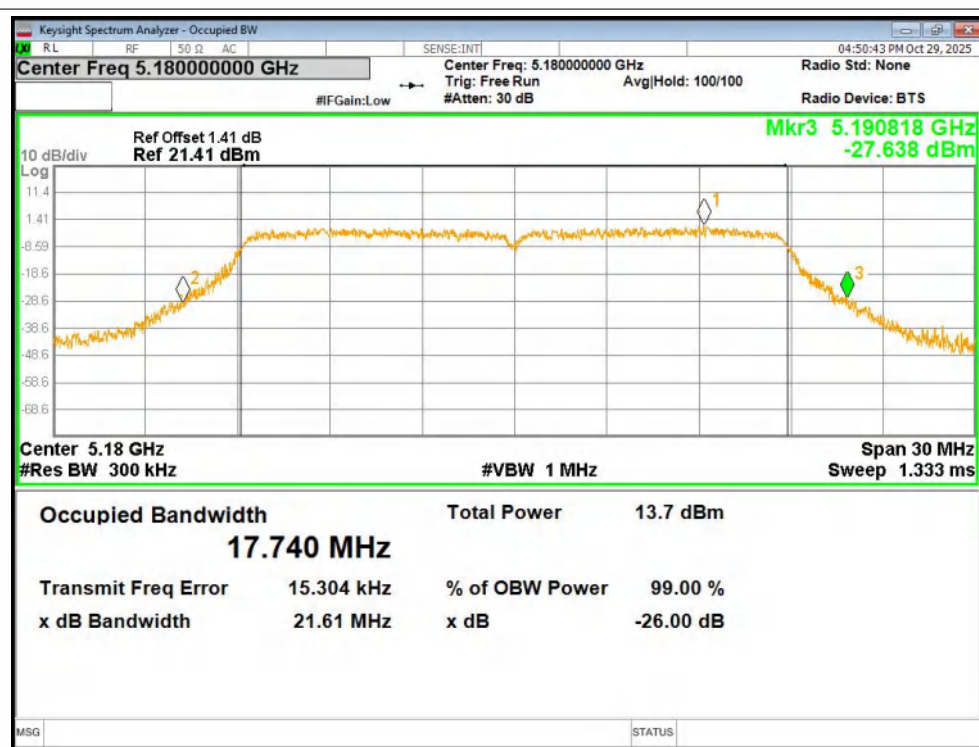
-26dB Bandwidth NVNT a 5200MHz Ant1



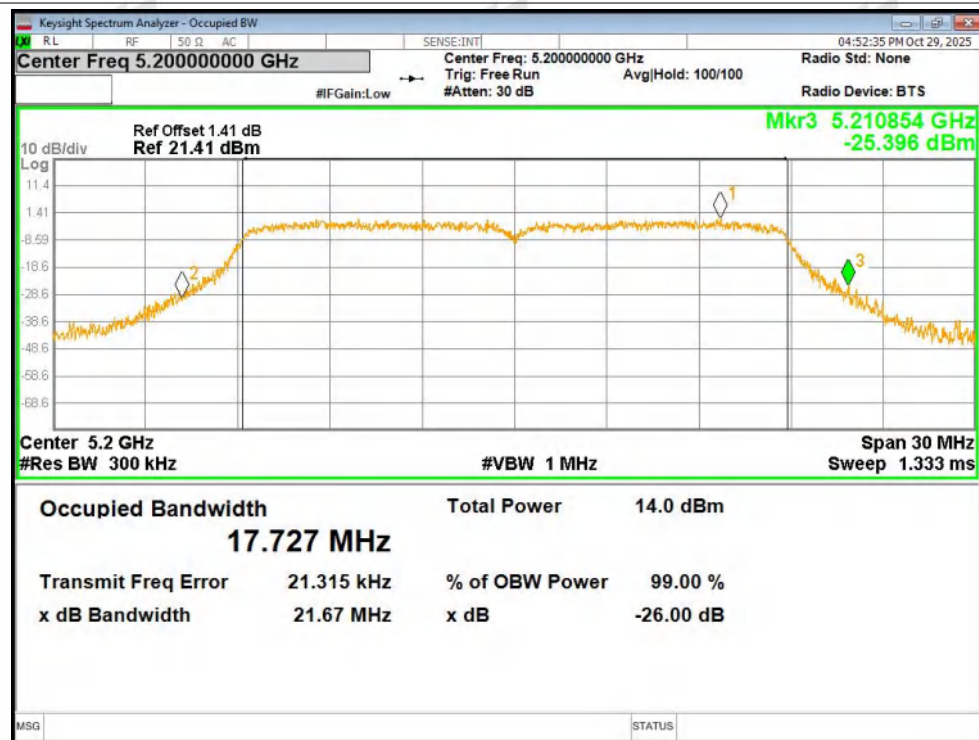
-26dB Bandwidth NVNT a 5240MHz Ant1



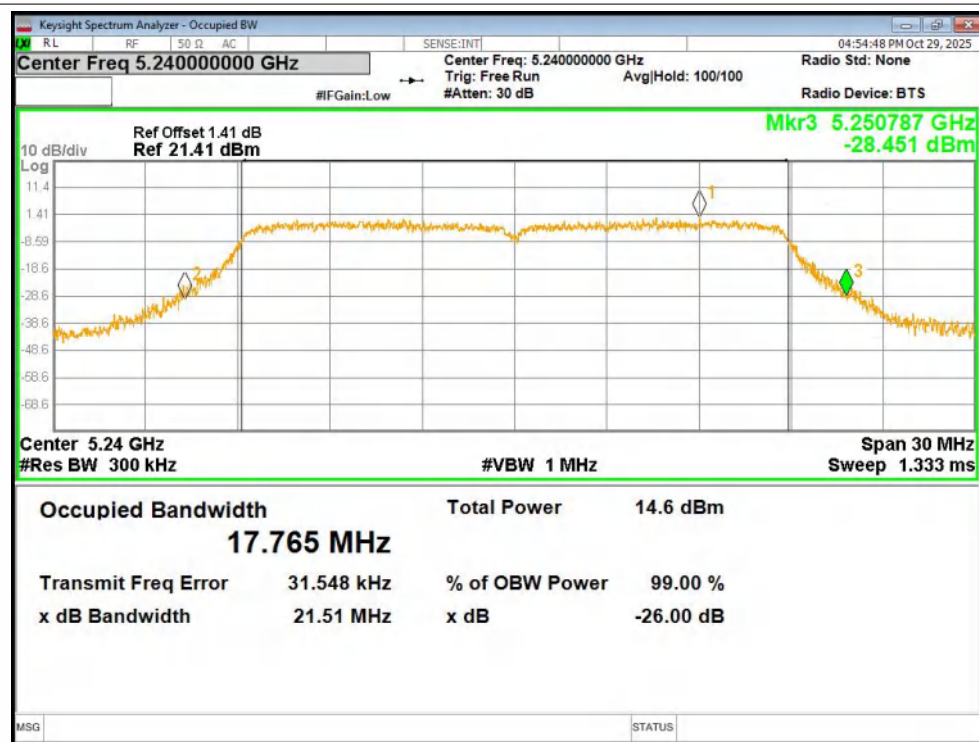
-26dB Bandwidth NVNT n20 5180MHz Ant1



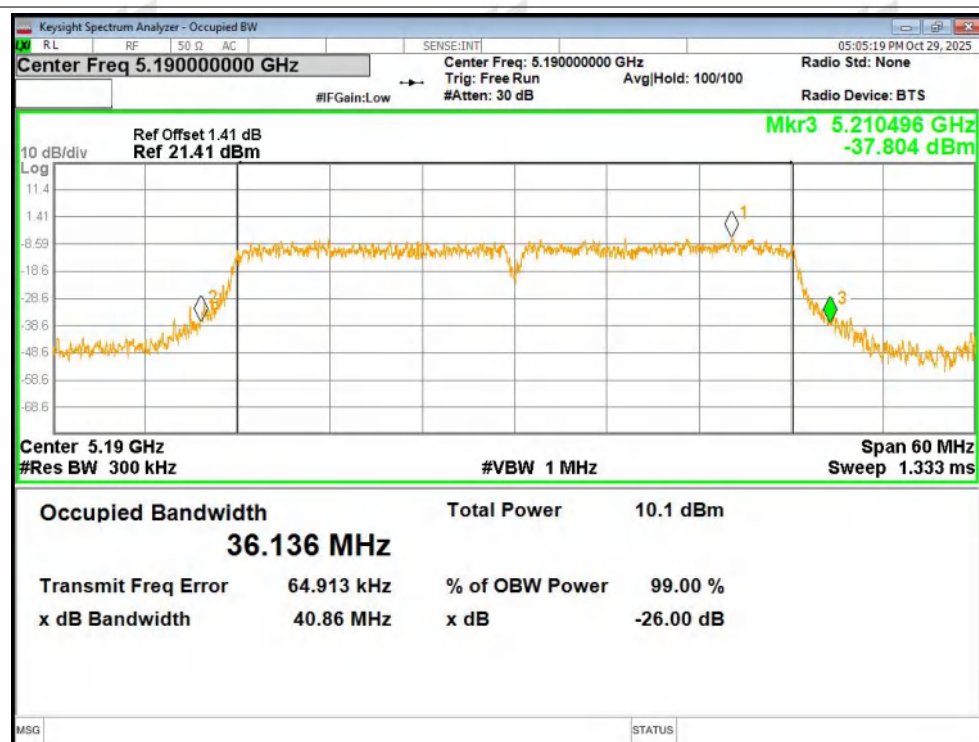
-26dB Bandwidth NVNT n20 5200MHz Ant1



-26dB Bandwidth NVNT n20 5240MHz Ant1



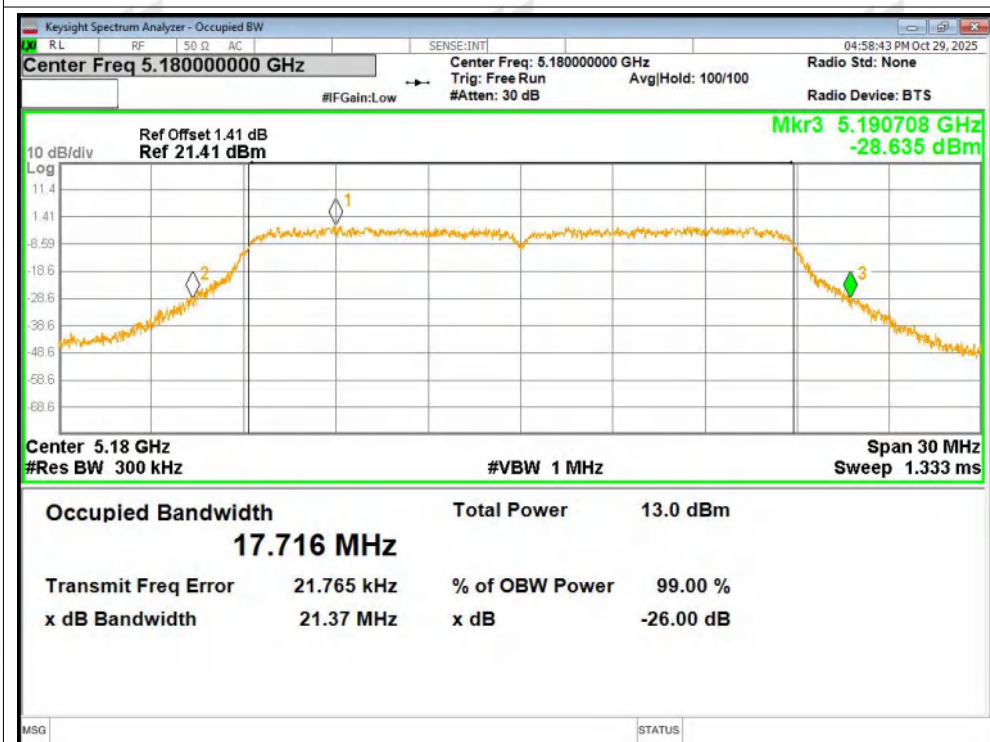
-26dB Bandwidth NVNT n40 5190MHz Ant1



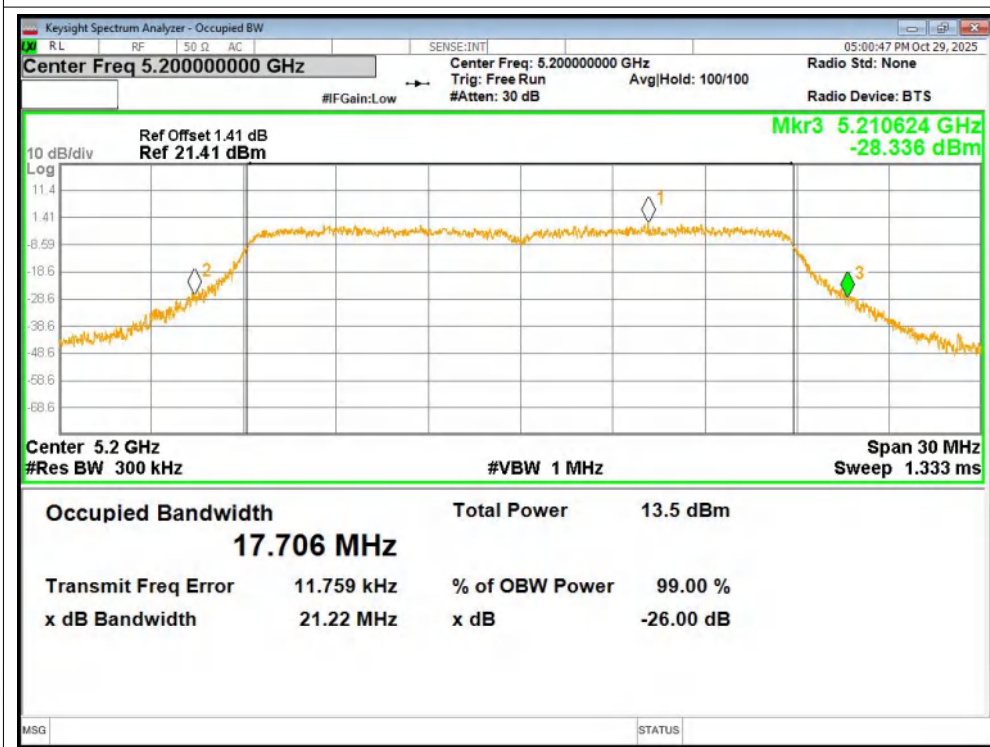
-26dB Bandwidth NVNT n40 5230MHz Ant1



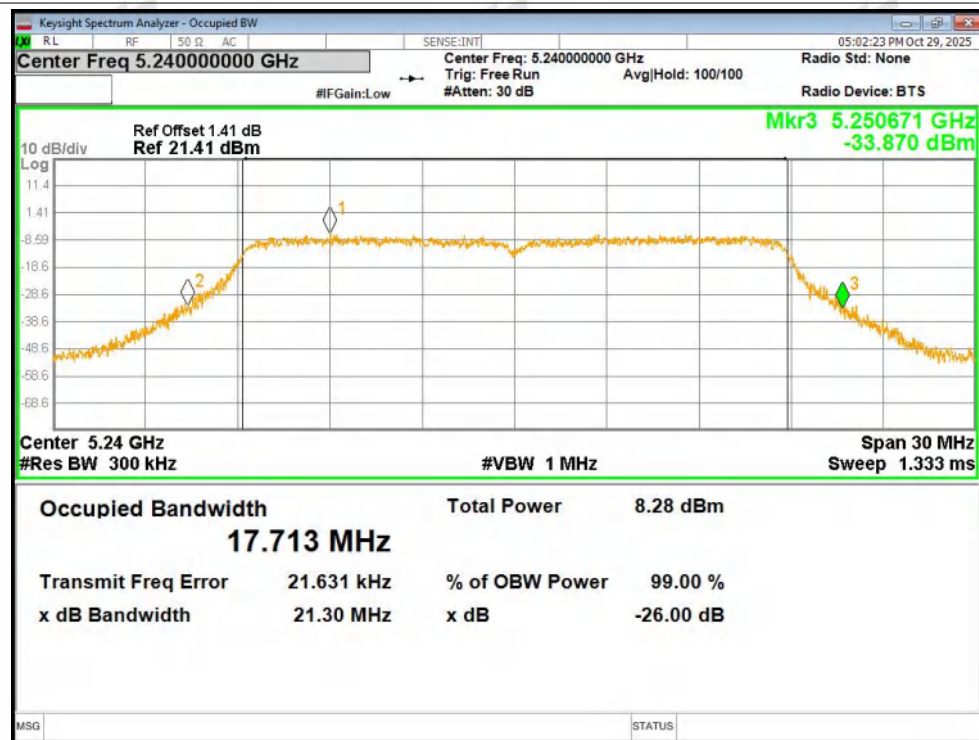
-26dB Bandwidth NVNT ac20 5180MHz Ant1



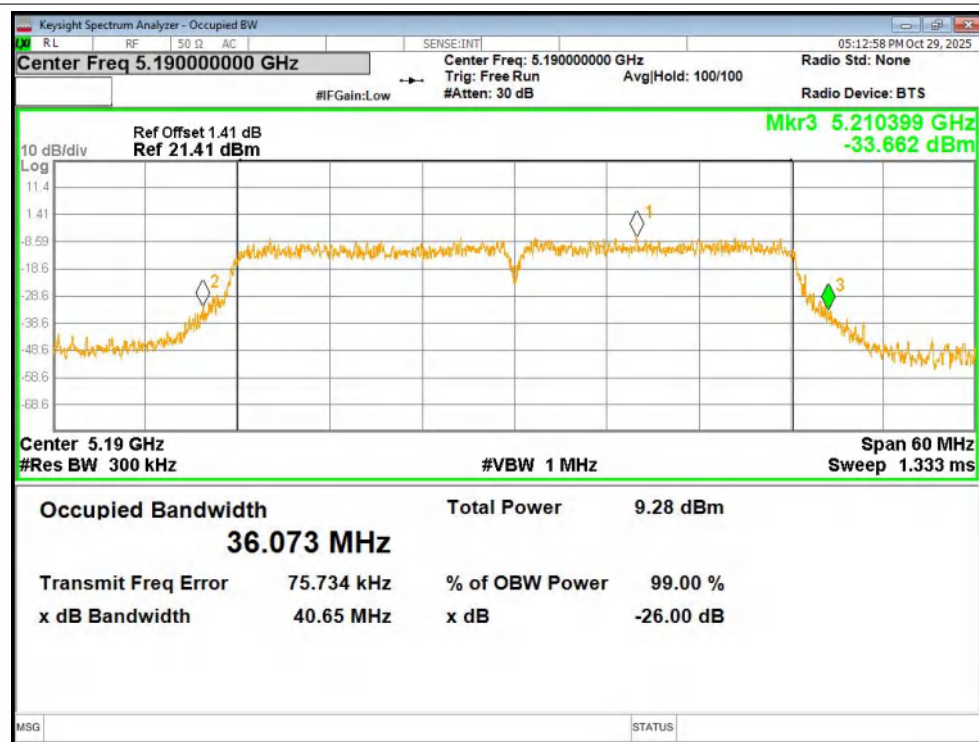
-26dB Bandwidth NVNT ac20 5200MHz Ant1



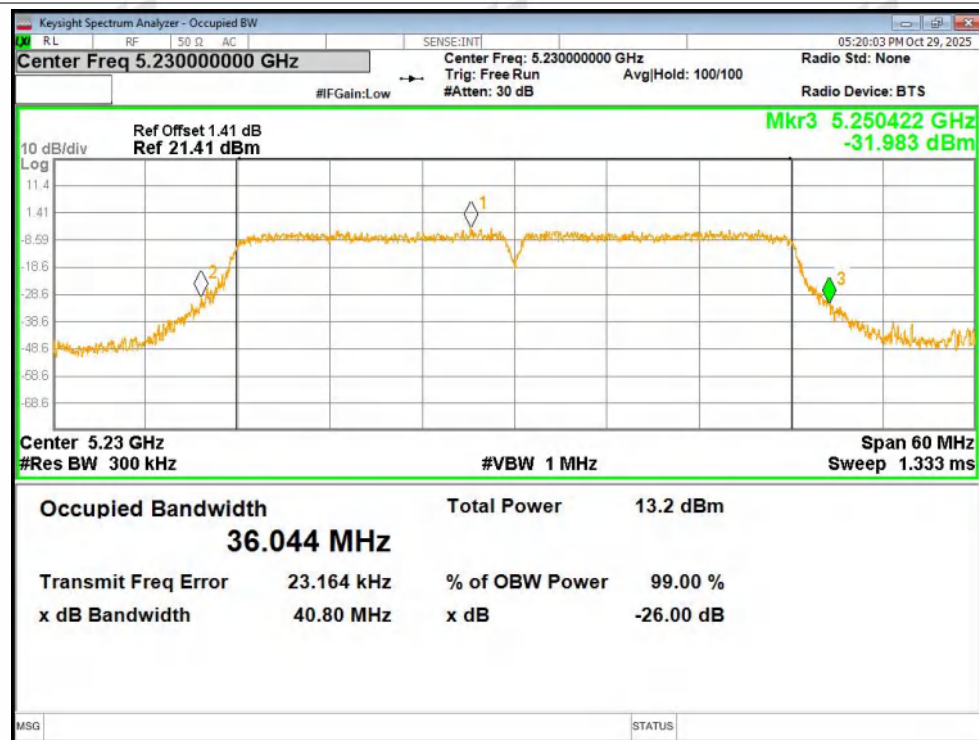
-26dB Bandwidth NVNT ac20 5240MHz Ant1



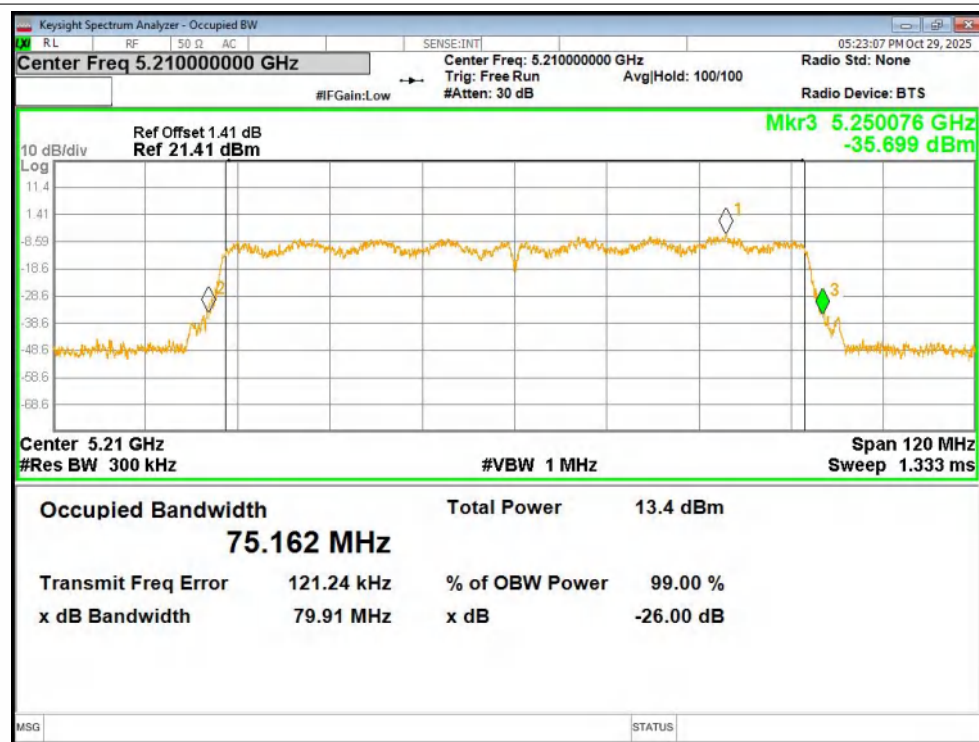
-26dB Bandwidth NVNT ac40 5190MHz Ant1



-26dB Bandwidth NVNT ac40 5230MHz Ant1



-26dB Bandwidth NVNT ac80 5210MHz Ant1

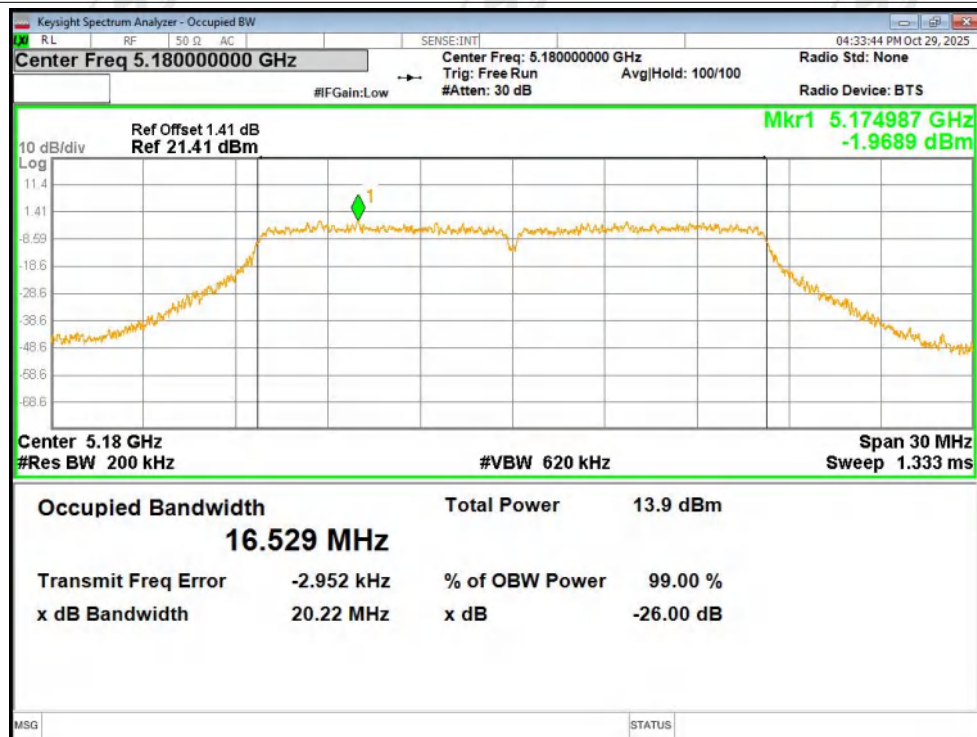


Occupied Channel Bandwidth

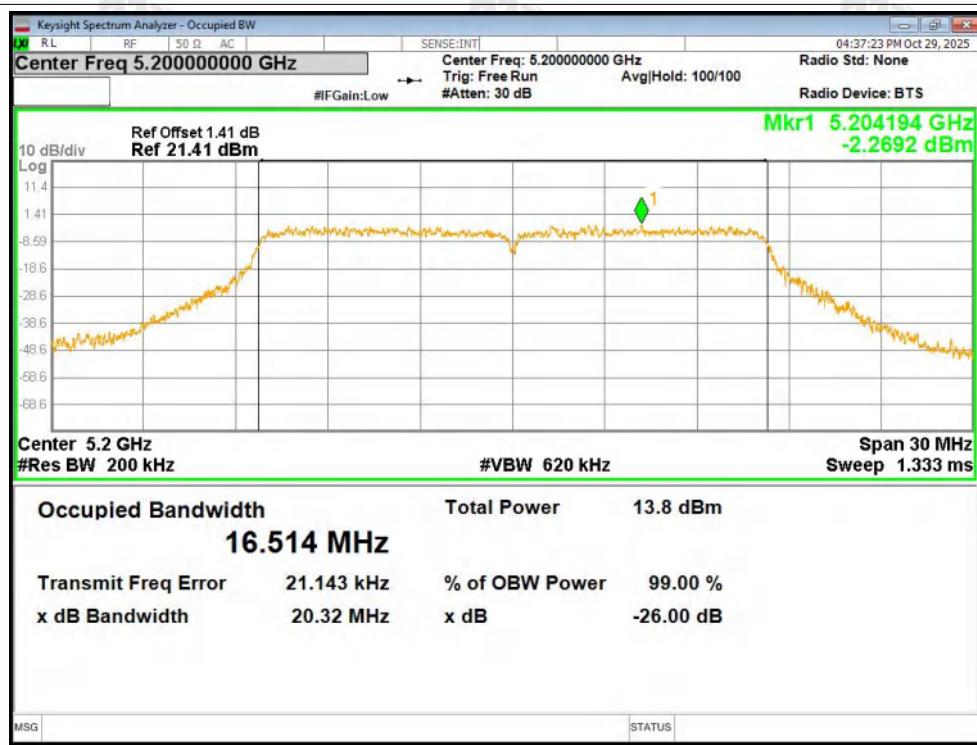
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5180	Ant1	16.529
NVNT	a	5200	Ant1	16.514
NVNT	a	5240	Ant1	16.535
NVNT	n20	5180	Ant1	17.614
NVNT	n20	5200	Ant1	17.613
NVNT	n20	5240	Ant1	17.633
NVNT	n40	5190	Ant1	36.142
NVNT	n40	5230	Ant1	36.131
NVNT	ac20	5180	Ant1	17.602
NVNT	ac20	5200	Ant1	17.603
NVNT	ac20	5240	Ant1	17.614
NVNT	ac40	5190	Ant1	36.095
NVNT	ac40	5230	Ant1	36.232
NVNT	ac80	5210	Ant1	75.197

Test Graphs

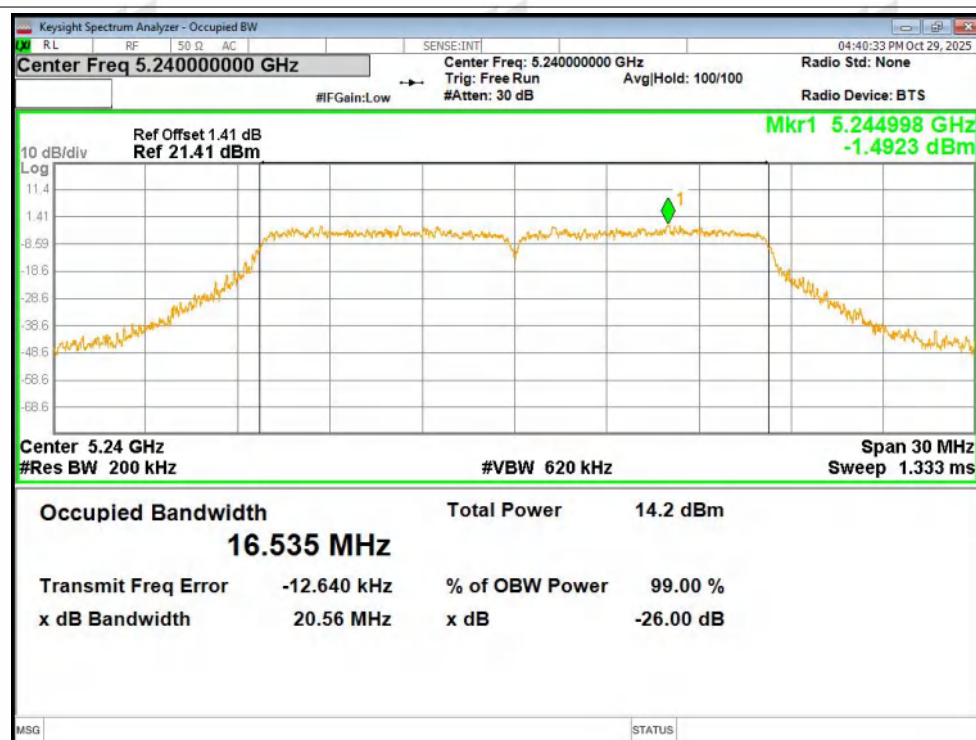
OBW NVNT a 5180MHz Ant1



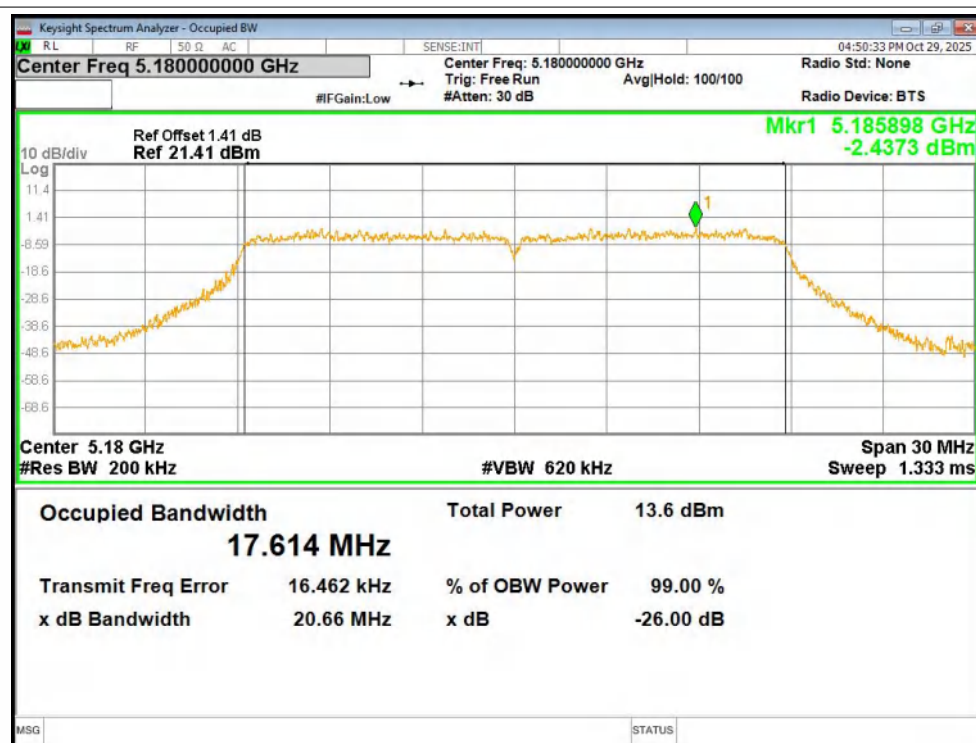
OBW NVNT a 5200MHz Ant1



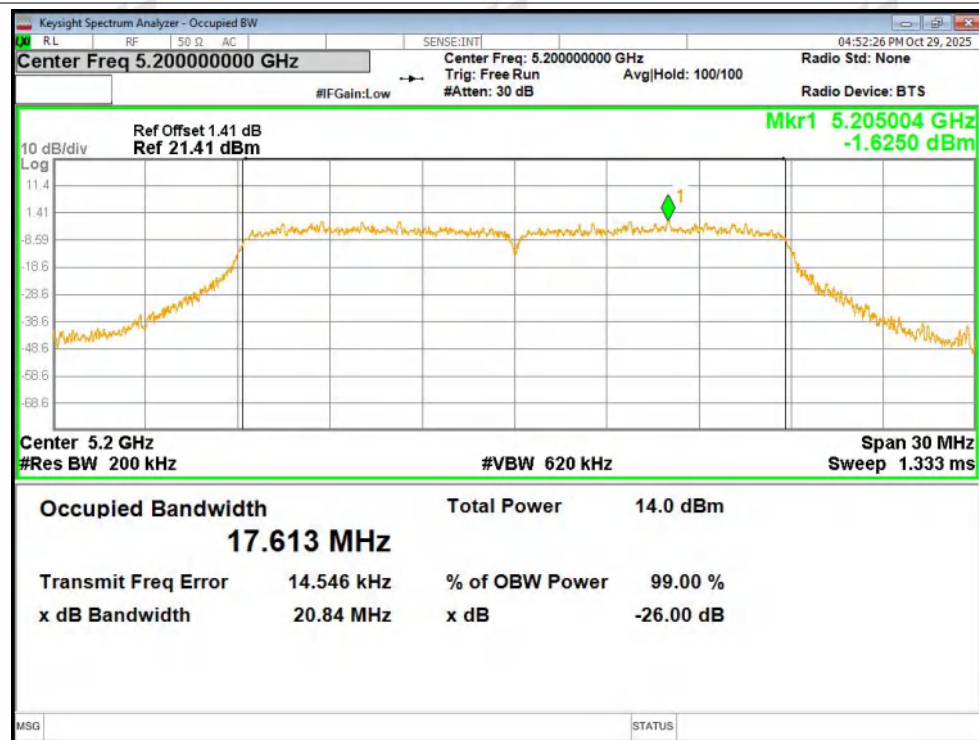
OBW NVNT a 5240MHz Ant1



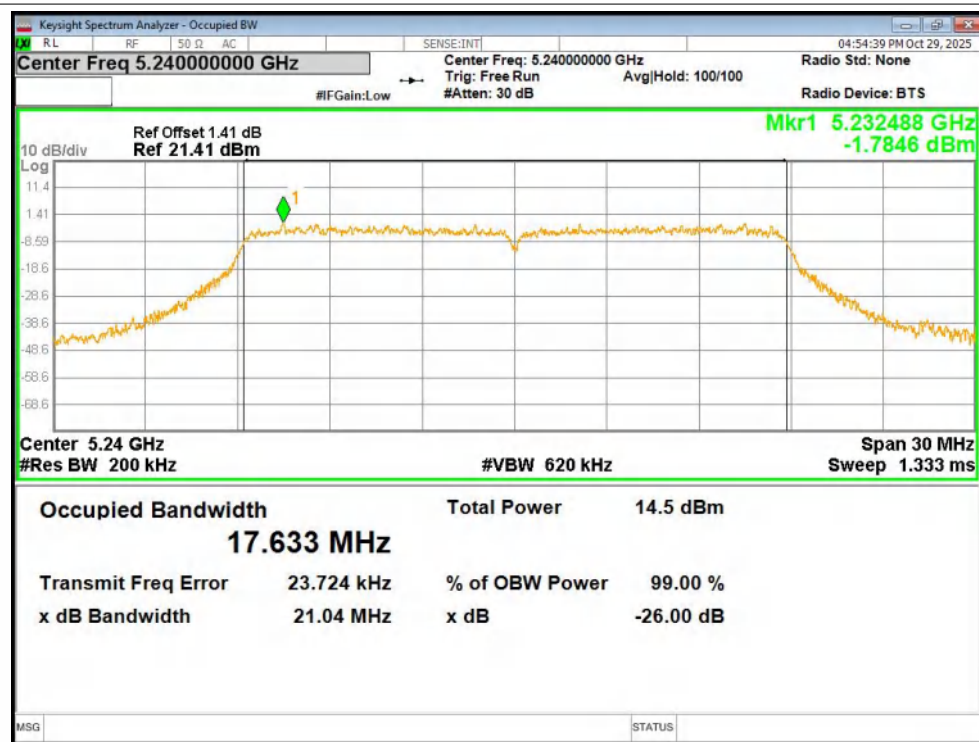
OBW NVNT n20 5180MHz Ant1



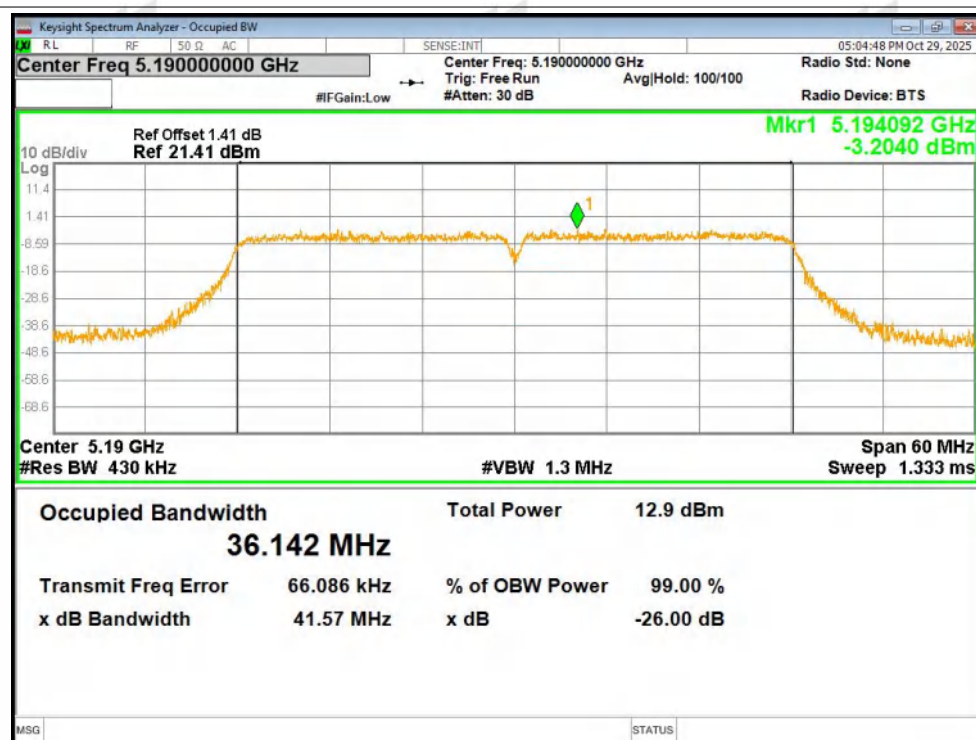
OBW NVNT n20 5200MHz Ant1



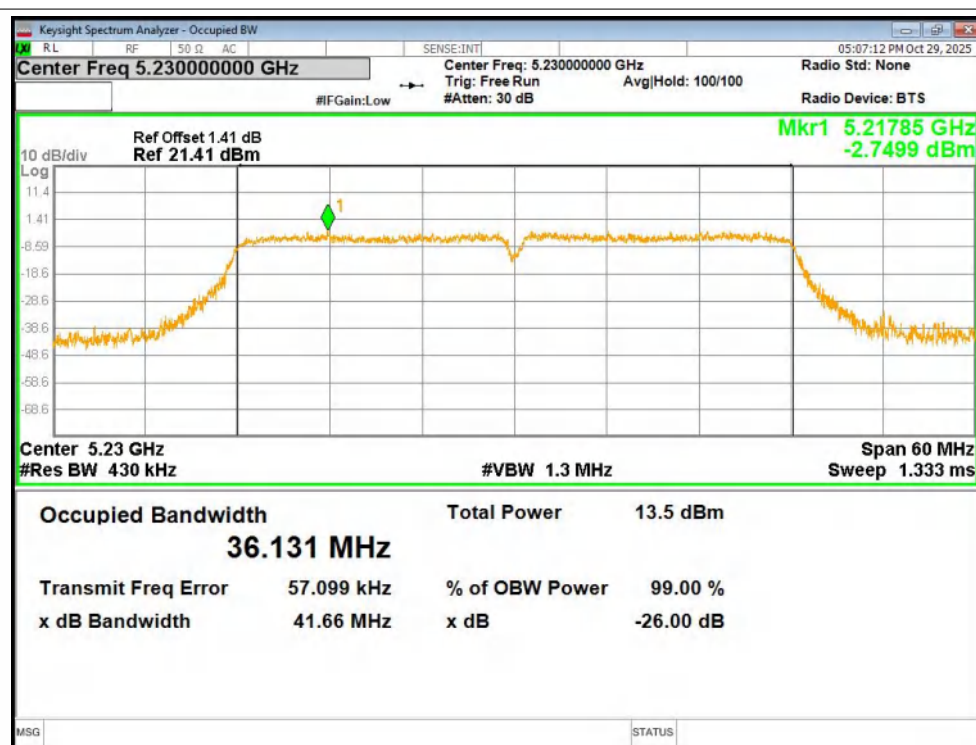
OBW NVNT n20 5240MHz Ant1



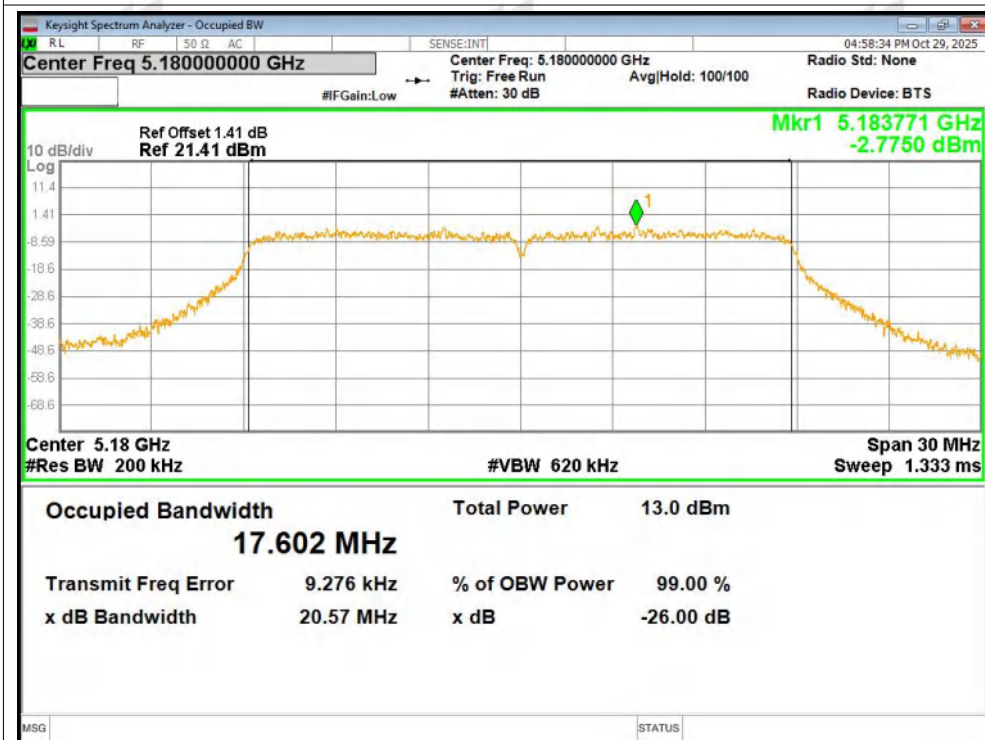
OBW NVNT n40 5190MHz Ant1



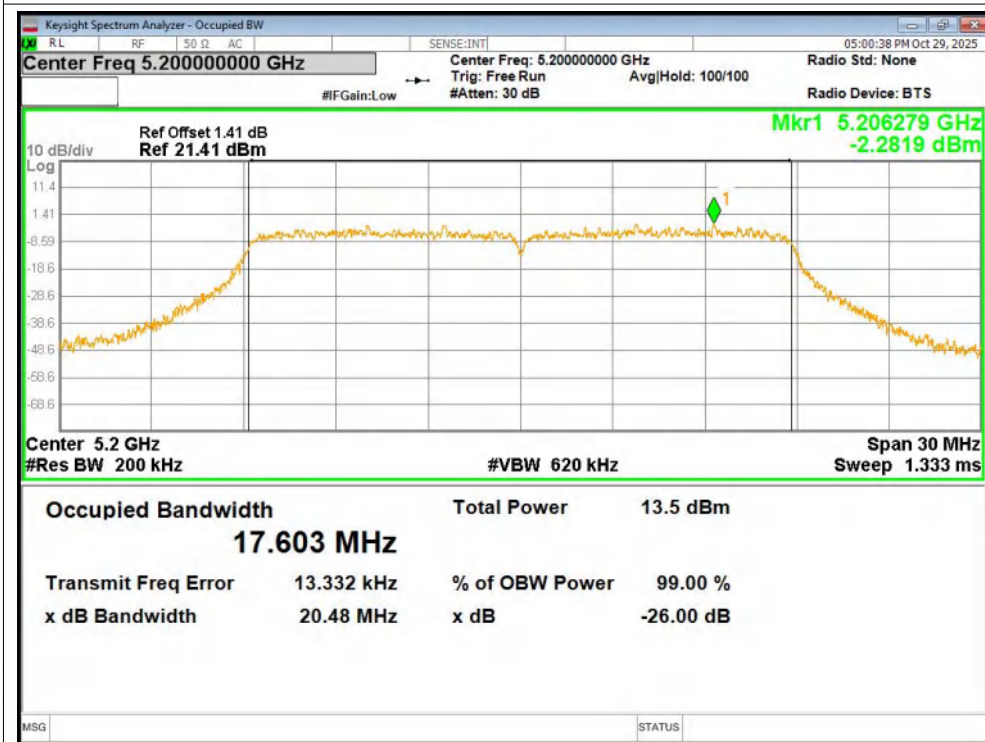
OBW NVNT n40 5230MHz Ant1



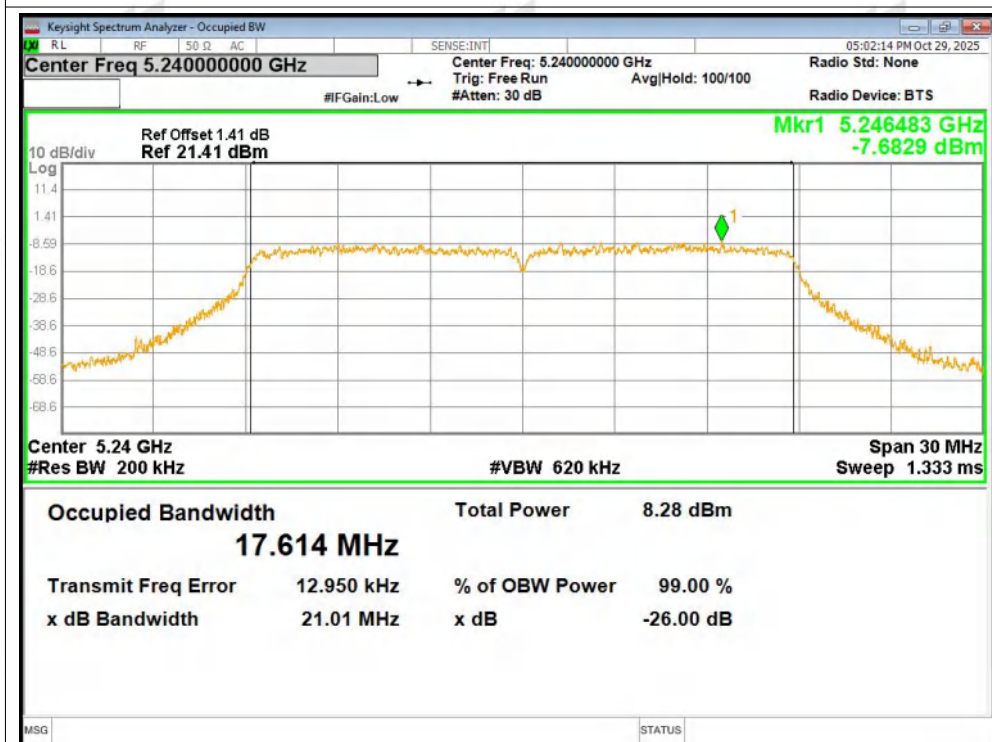
OBW NVNT ac20 5180MHz Ant1



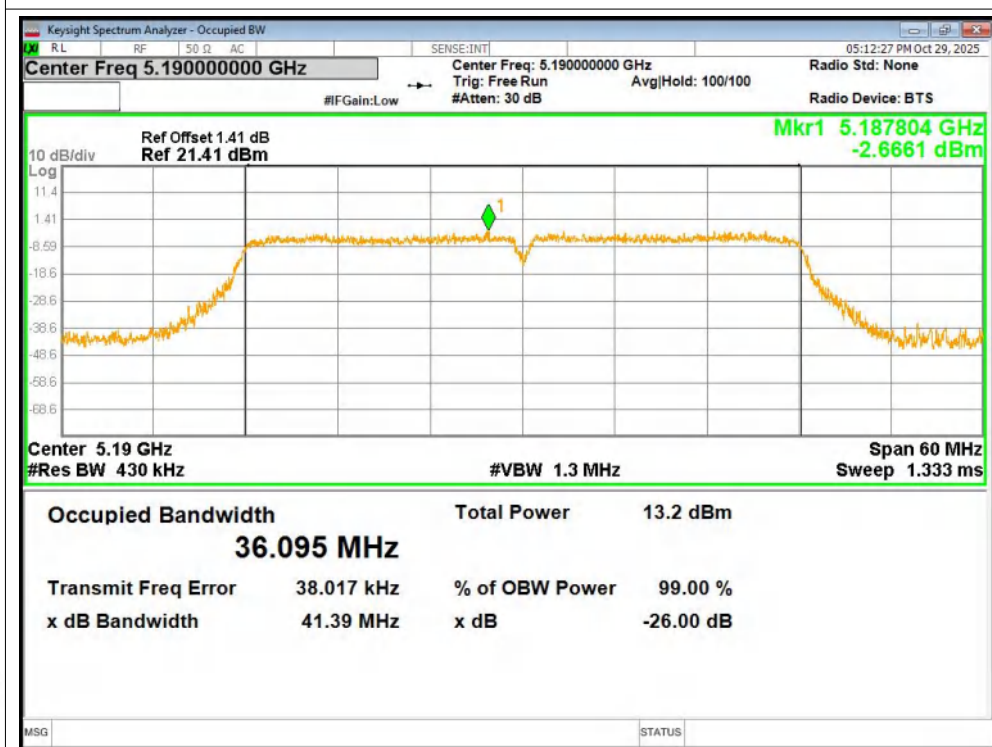
OBW NVNT ac20 5200MHz Ant1



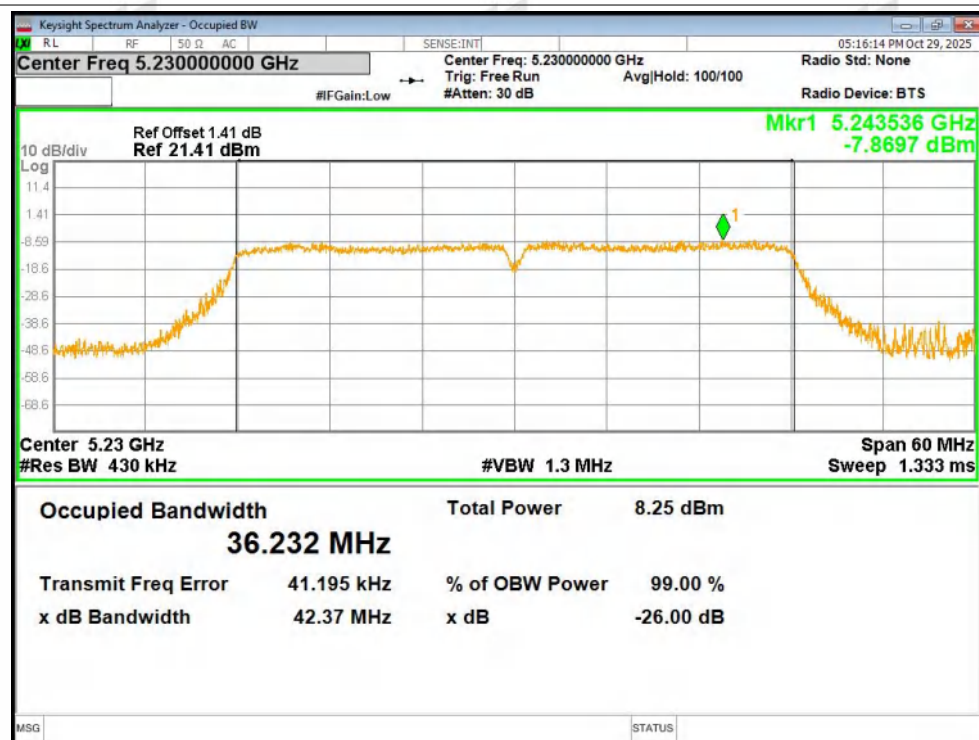
OBW NVNT ac20 5240MHz Ant1



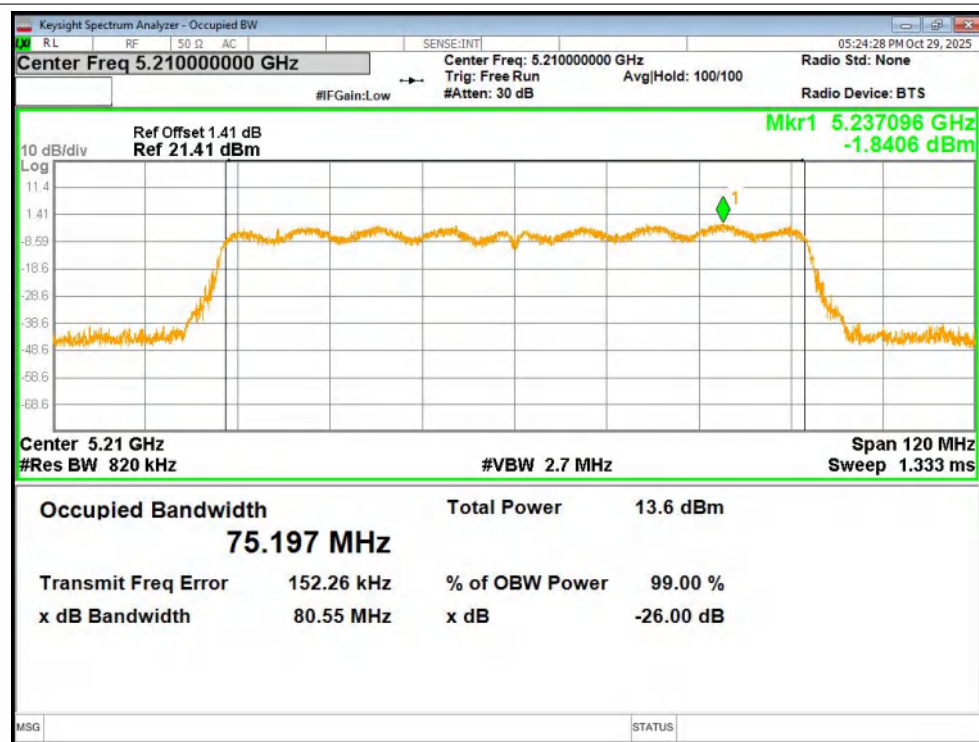
OBW NVNT ac40 5190MHz Ant1



OBW NVNT ac40 5230MHz Ant1



OBW NVNT ac80 5210MHz Ant1

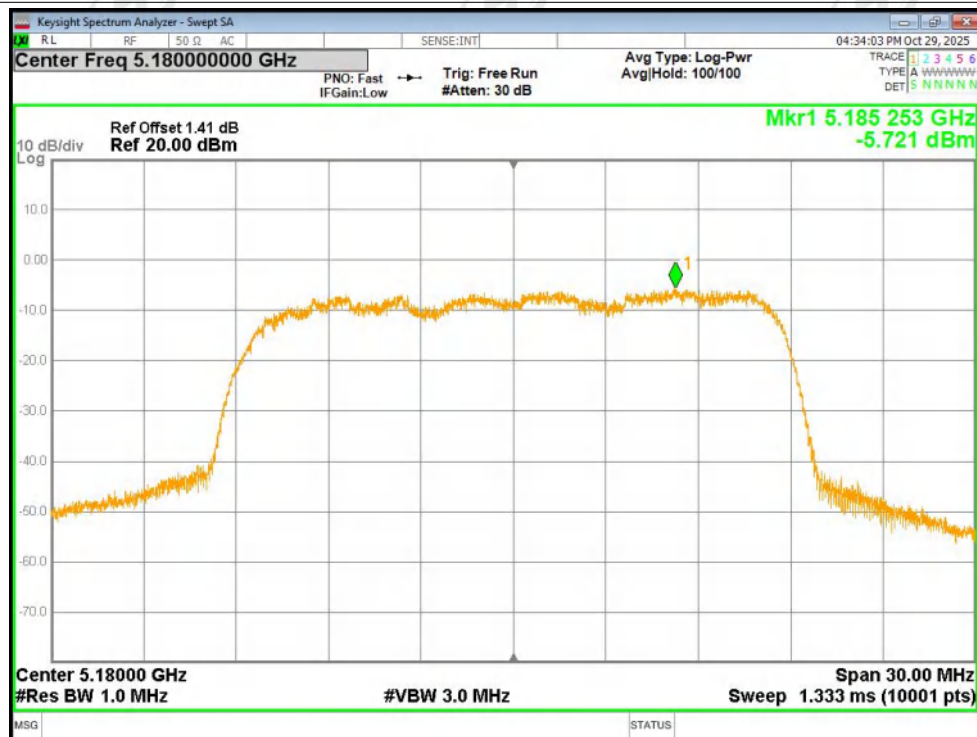


Maximum Power Spectral Density Level

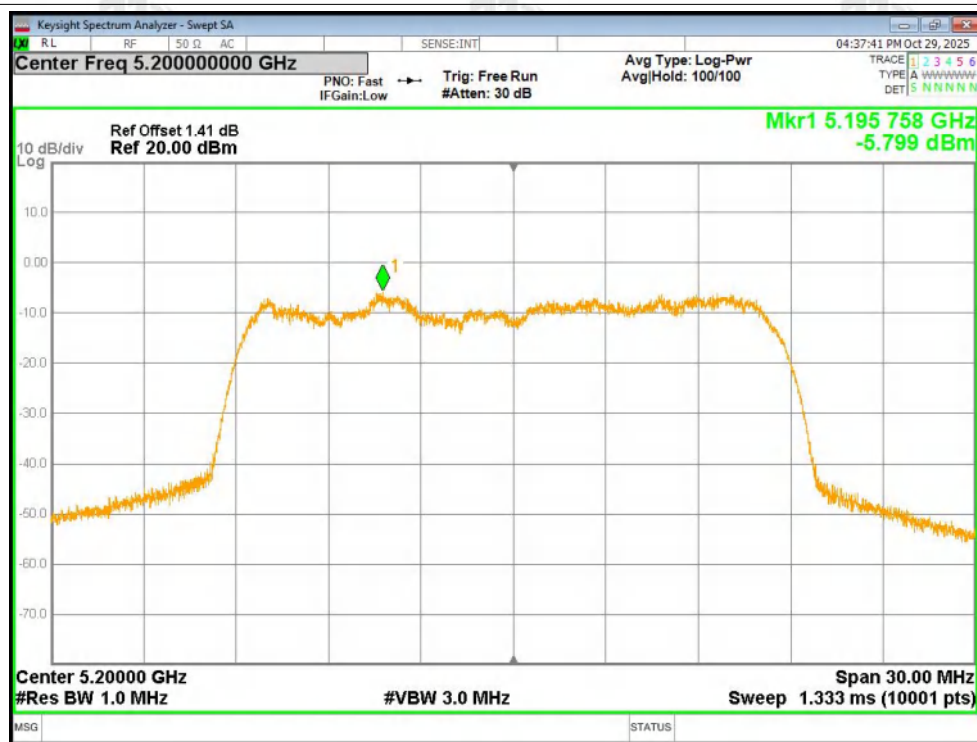
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5180	Ant1	-5.72	0.17	-5.55	11	Pass
NVNT	a	5200	Ant1	-5.8	0.34	-5.46	11	Pass
NVNT	a	5240	Ant1	-4.41	0.08	-4.33	11	Pass
NVNT	n20	5180	Ant1	-5.2	0.09	-5.11	11	Pass
NVNT	n20	5200	Ant1	-4.45	0.18	-4.27	11	Pass
NVNT	n20	5240	Ant1	-4.65	0.16	-4.49	11	Pass
NVNT	n40	5190	Ant1	-16.64	0.43	-16.21	11	Pass
NVNT	n40	5230	Ant1	-10.76	0.72	-10.04	11	Pass
NVNT	ac20	5180	Ant1	-5.75	0.24	-5.51	11	Pass
NVNT	ac20	5200	Ant1	-5.29	0.18	-5.11	11	Pass
NVNT	ac20	5240	Ant1	-11.2	0.37	-10.83	11	Pass
NVNT	ac40	5190	Ant1	-15.51	0.43	-15.08	11	Pass
NVNT	ac40	5230	Ant1	-10.78	0.72	-10.06	11	Pass
NVNT	ac80	5210	Ant1	-15.25	1.08	-14.17	11	Pass

Test Graphs

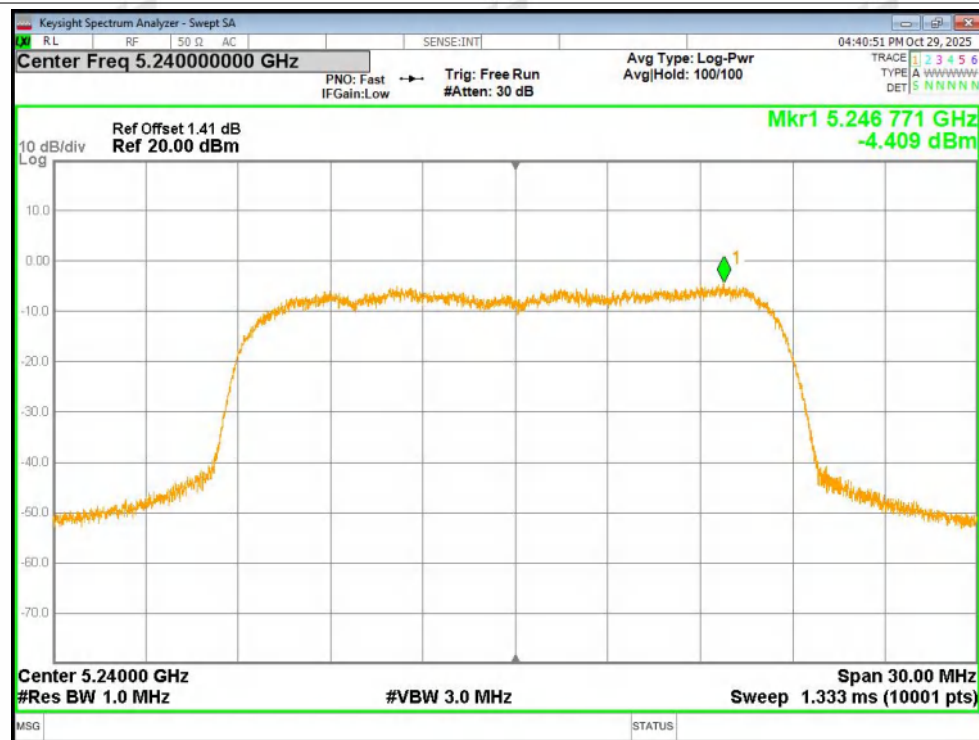
PSD NVNT a 5180MHz Ant1



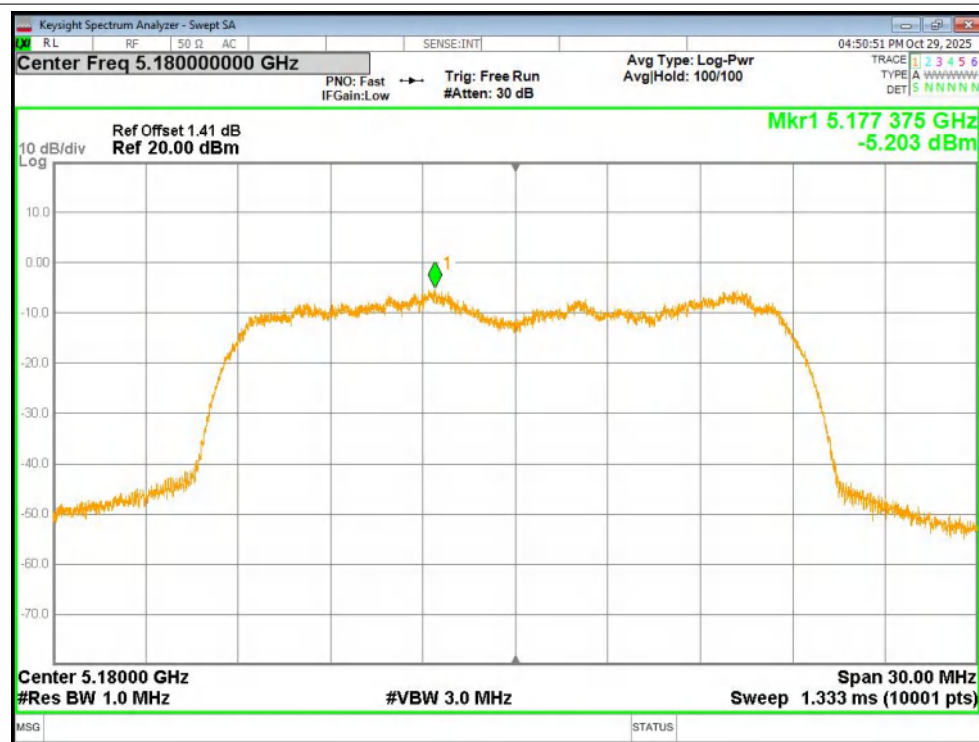
PSD NVNT a 5200MHz Ant1



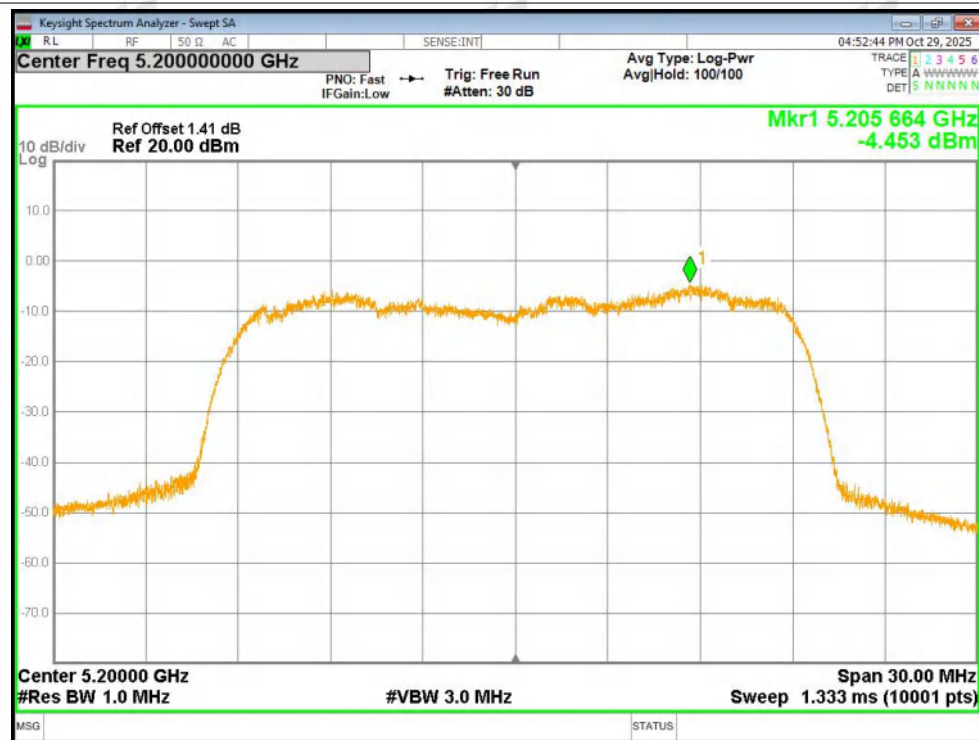
PSD NVNT a 5240MHz Ant1



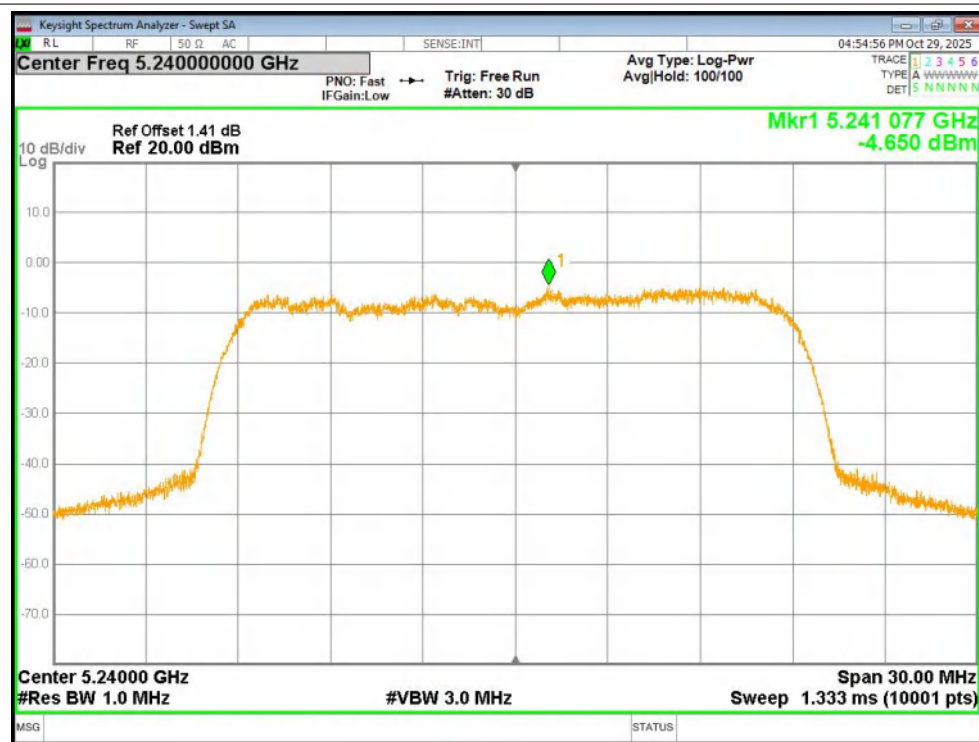
PSD NVNT n20 5180MHz Ant1



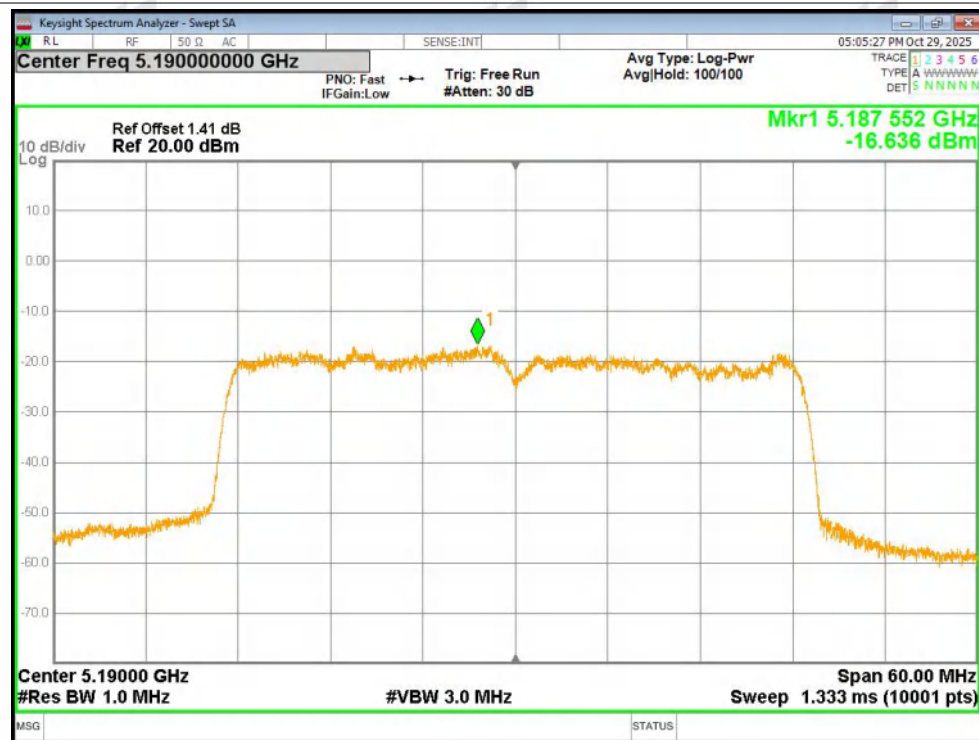
PSD NVNT n20 5200MHz Ant1



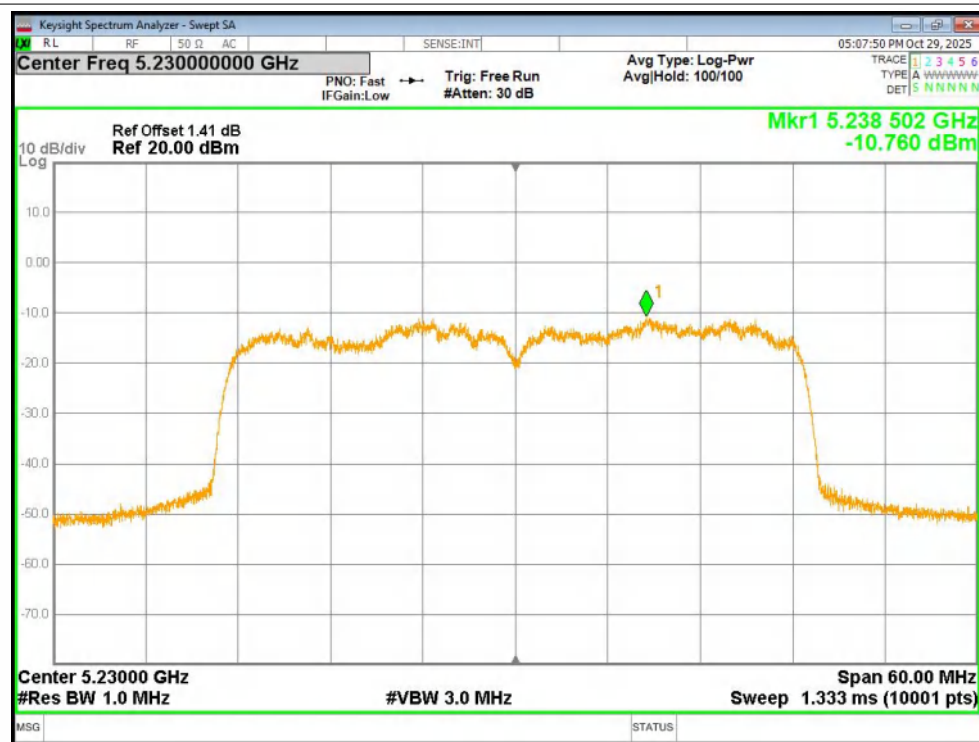
PSD NVNT n20 5240MHz Ant1



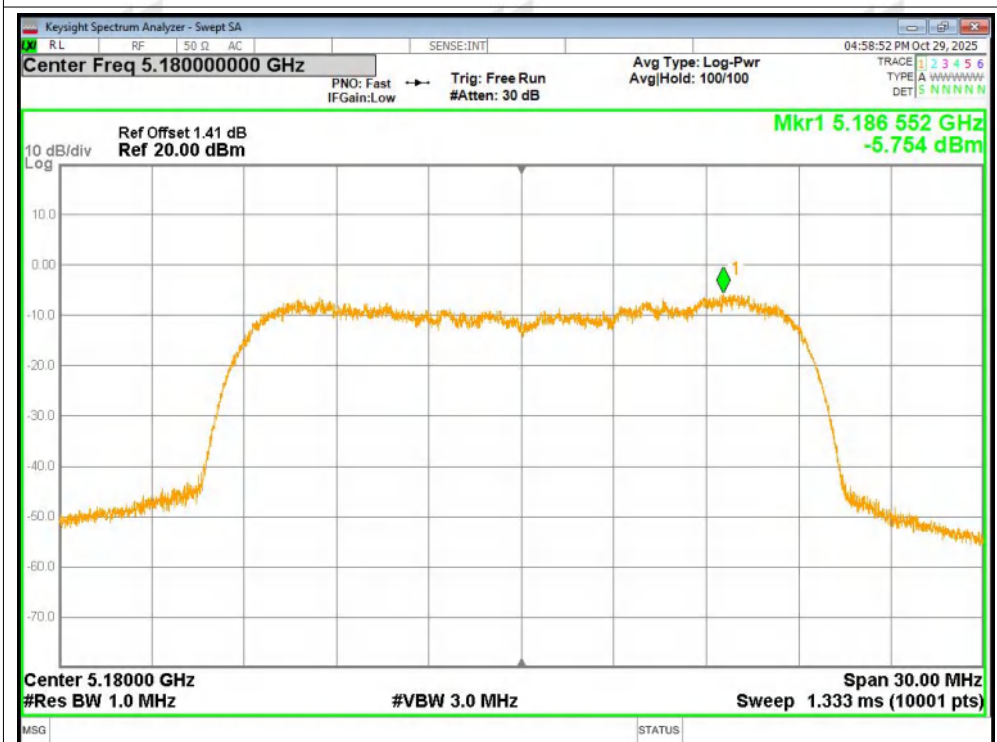
PSD NVNT n40 5190MHz Ant1



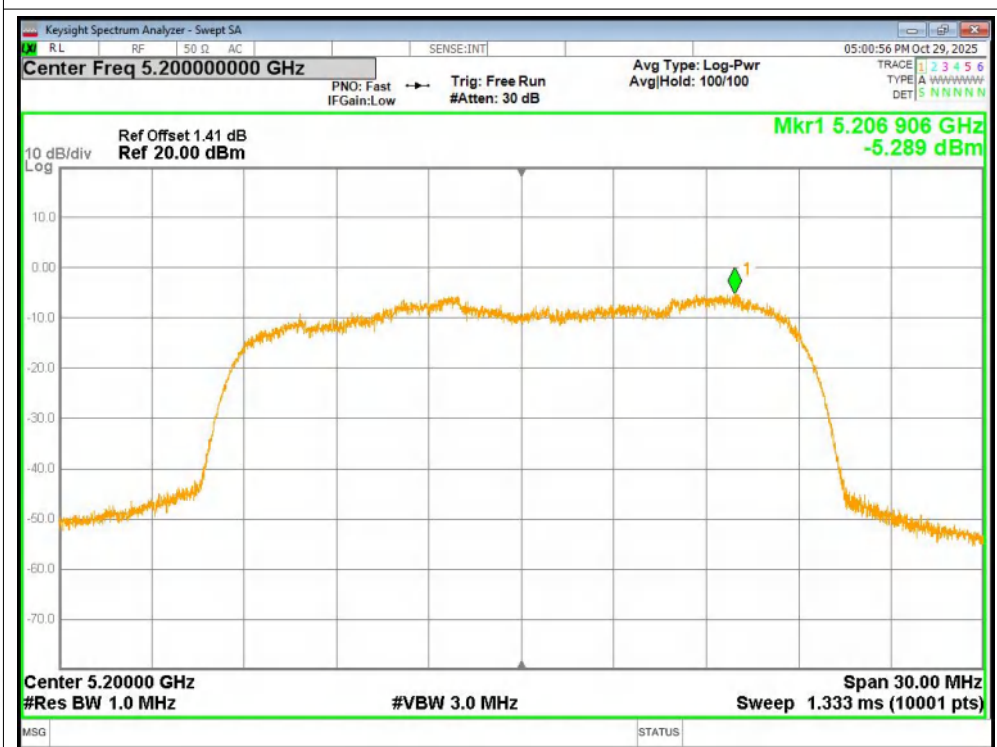
PSD NVNT n40 5230MHz Ant1



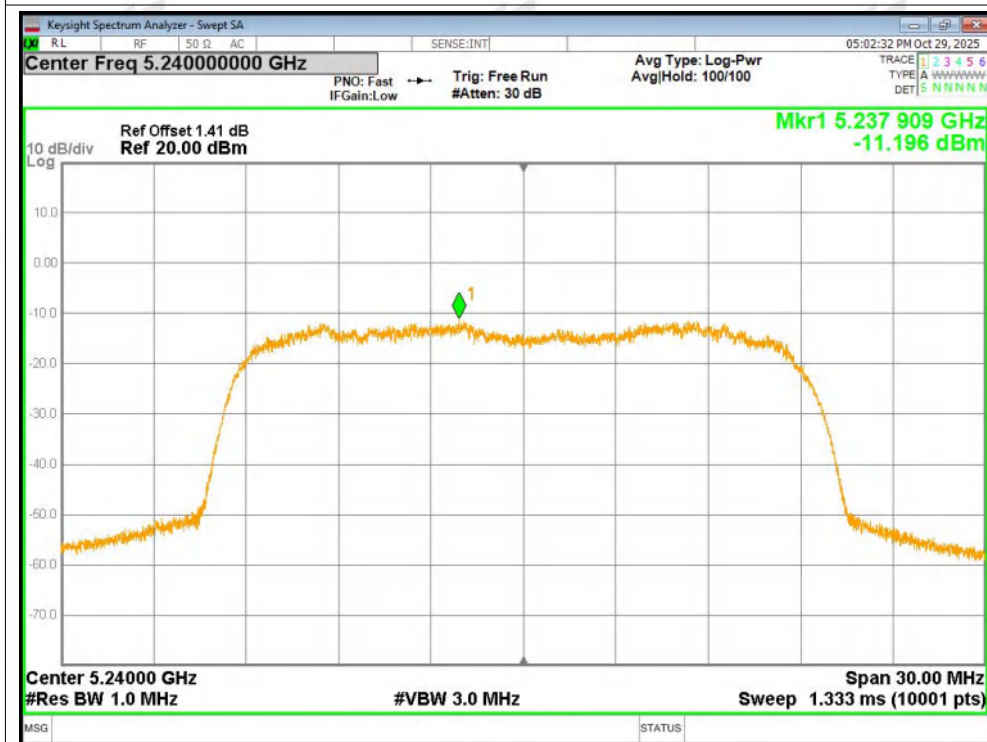
PSD NVNT ac20 5180MHz Ant1



PSD NVNT ac20 5200MHz Ant1



PSD NVNT ac20 5240MHz Ant1



PSD NVNT ac40 5190MHz Ant1



PSD NVNT ac40 5230MHz Ant1



PSD NVNT ac80 5210MHz Ant1

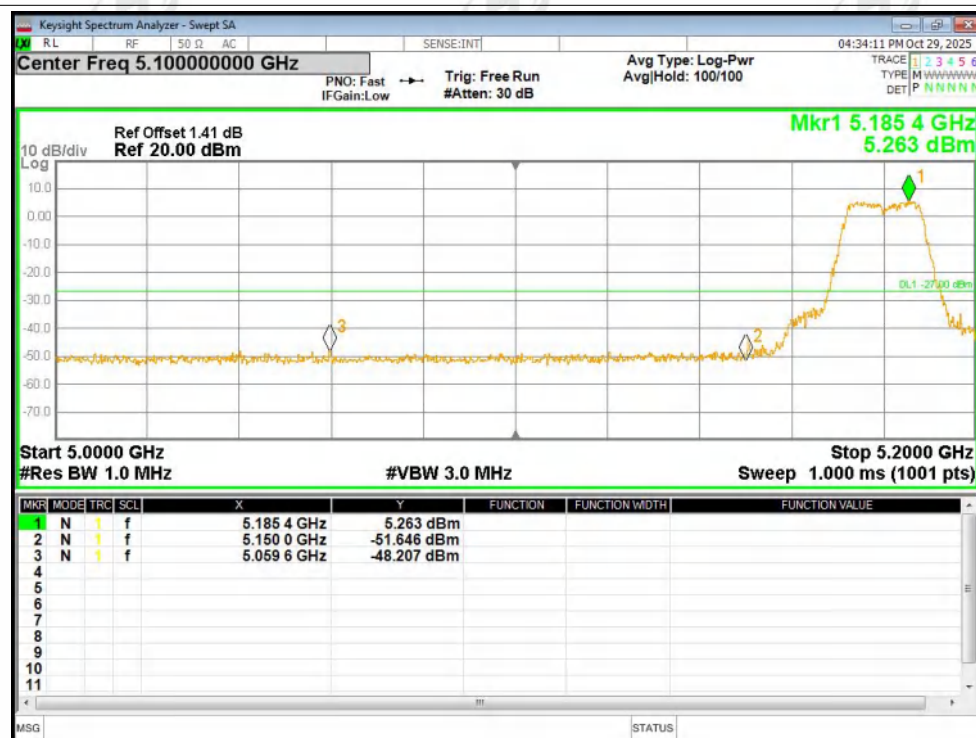


Band Edge

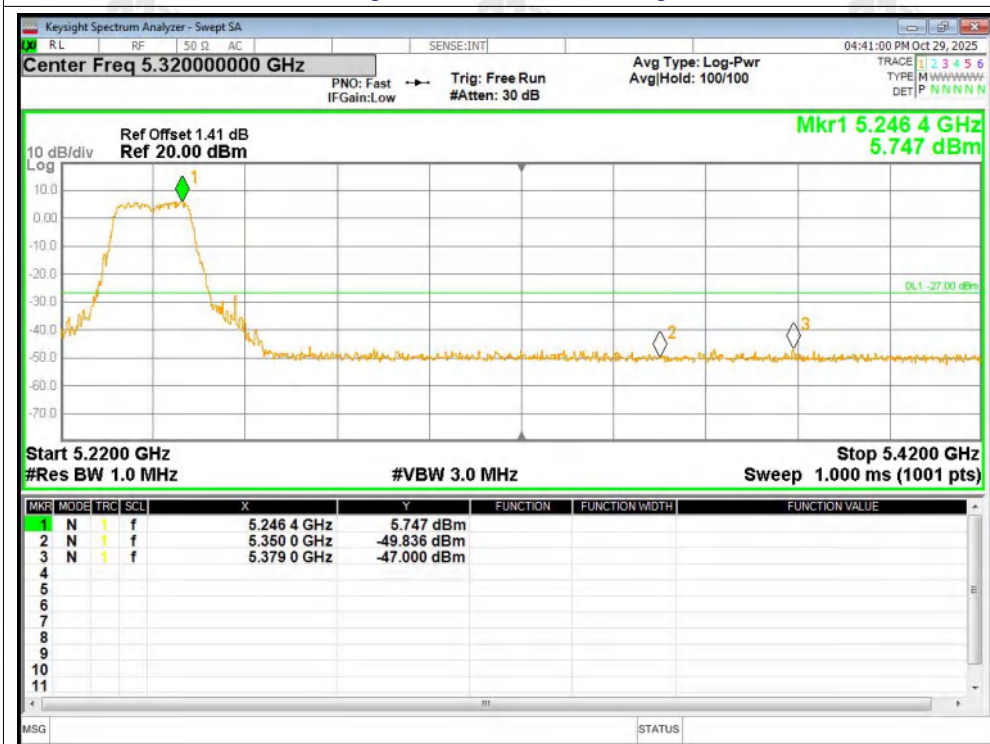
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	-48.2	-27	Pass
NVNT	a	5240	Ant1	-47	-27	Pass
NVNT	n20	5180	Ant1	-45.16	-27	Pass
NVNT	n20	5240	Ant1	-47.74	-27	Pass
NVNT	n40	5190	Ant1	-40.78	-27	Pass
NVNT	n40	5230	Ant1	-47.58	-27	Pass
NVNT	ac20	5180	Ant1	-48.4	-27	Pass
NVNT	ac20	5240	Ant1	-47.88	-27	Pass
NVNT	ac40	5190	Ant1	-40.17	-27	Pass
NVNT	ac40	5230	Ant1	-47.69	-27	Pass
NVNT	ac80	5210	Ant1	-40.36	-27	Pass

Test Graphs

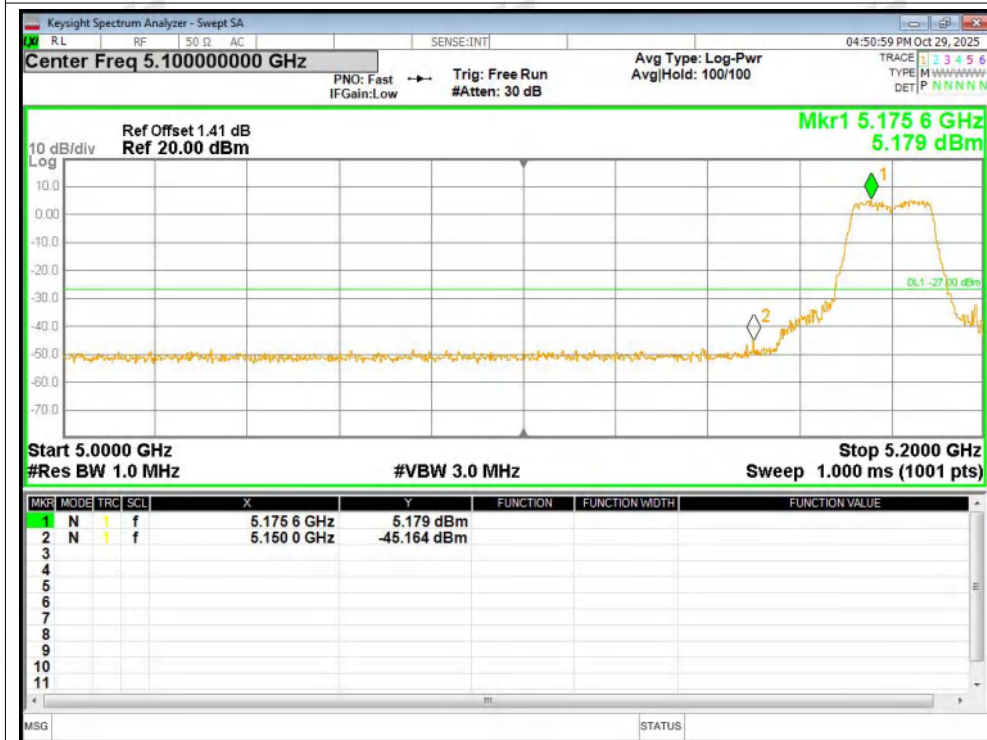
Band Edge NVNT a 5180MHz Low Ant1



Band Edge NVNT a 5240MHz High Ant1



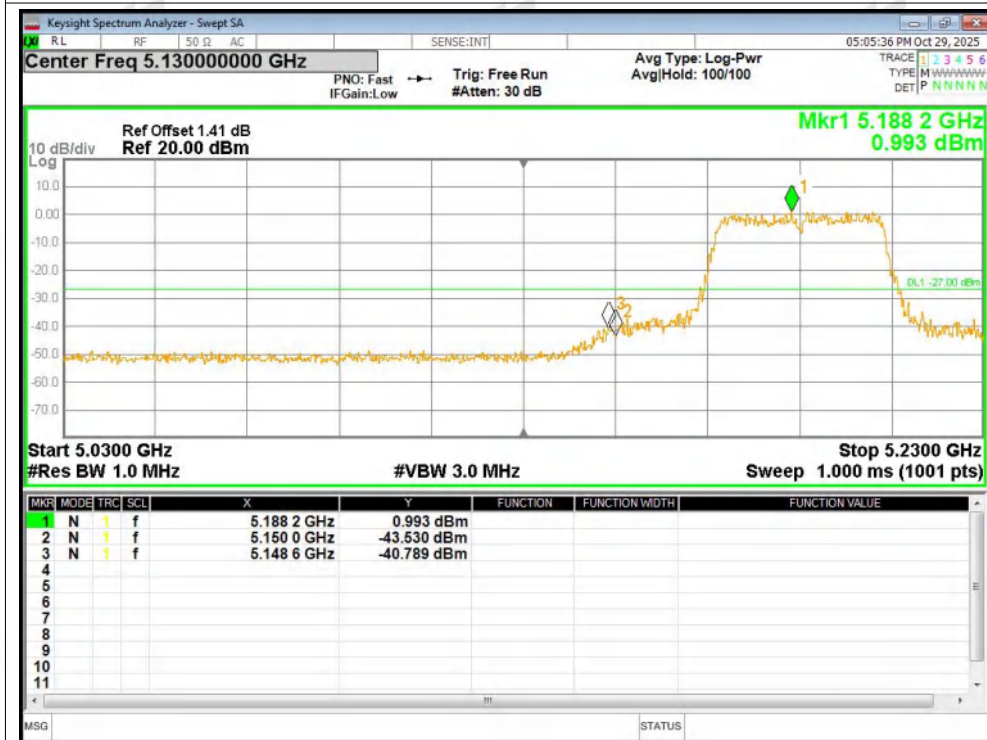
Band Edge NVNT n20 5180MHz Low Ant1



Band Edge NVNT n20 5240MHz High Ant1



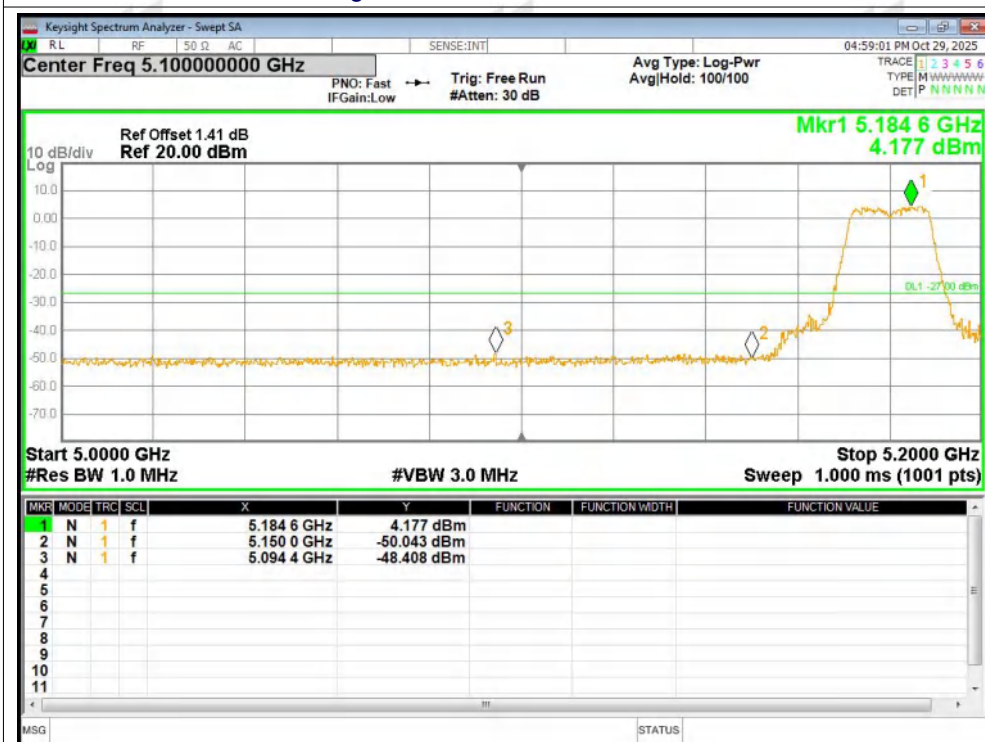
Band Edge NVNT n40 5190MHz Low Ant1



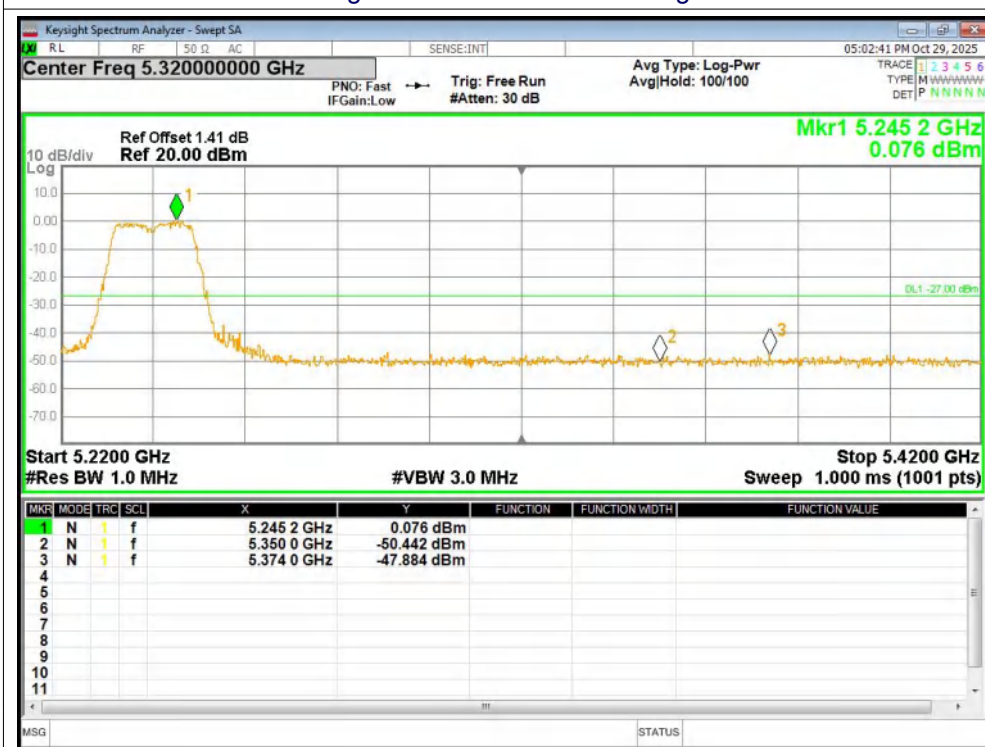
Band Edge NVNT n40 5230MHz High Ant1



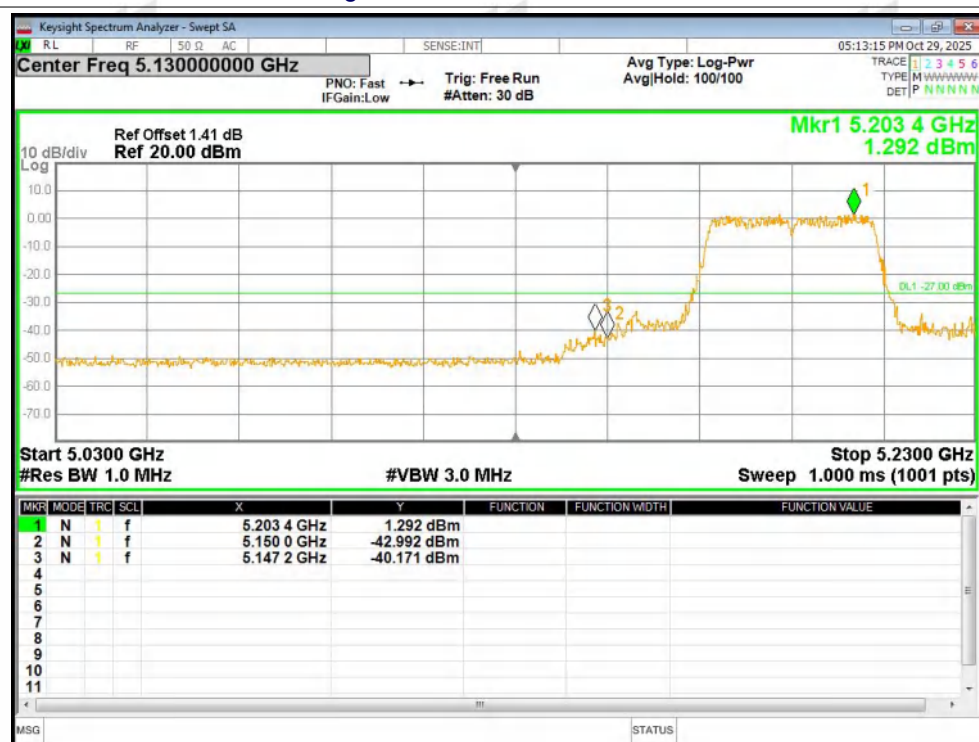
Band Edge NVNT ac20 5180MHz Low Ant1



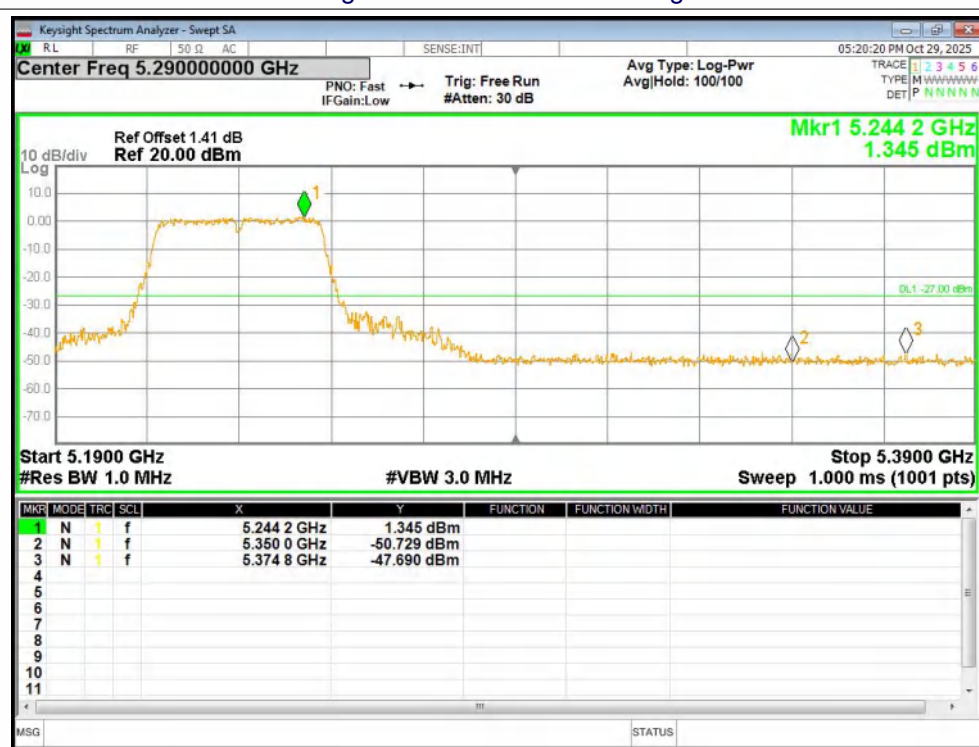
Band Edge NVNT ac20 5240MHz High Ant1

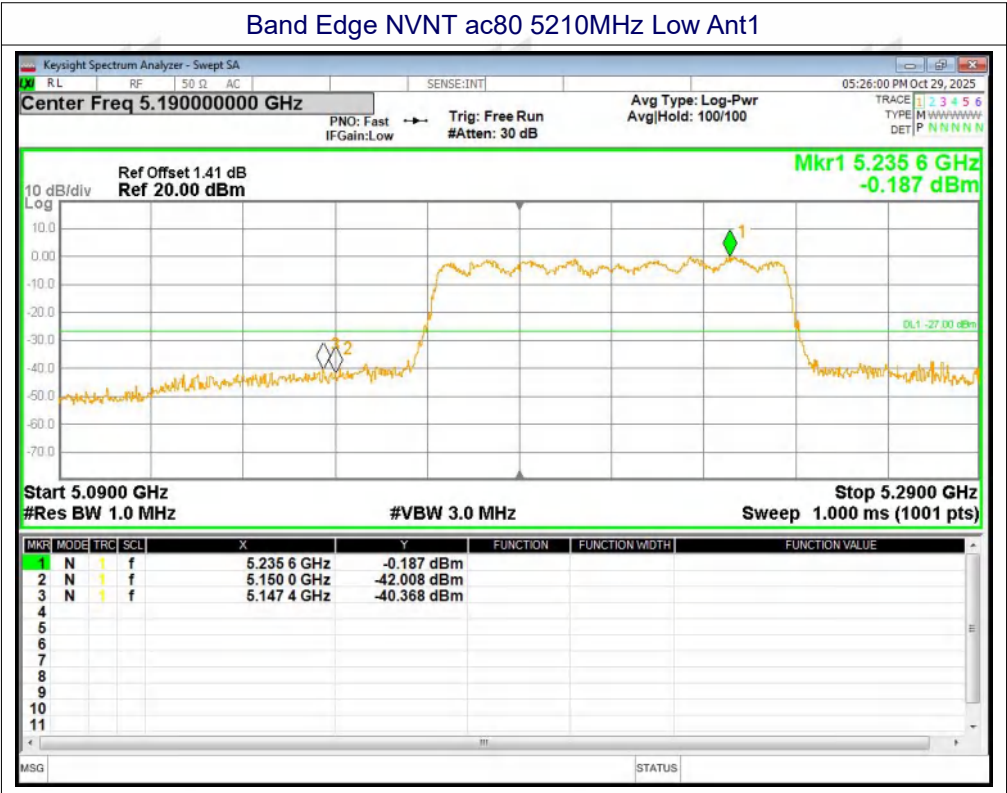


Band Edge NVNT ac40 5190MHz Low Ant1



Band Edge NVNT ac40 5230MHz High Ant1





Frequency Stability

Voltage						
Test Mode	Channel	Voltage [Vdc]	Temperature (°C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
a	5180	NV	NT	5179.98	Within 5150-5250MHz	Pass
		LV	NT	5179.98		
		HV	NT	5180		
Temperature						
Test Mode	Channel	Voltage [Vdc]	Temperature (°C)	Measured Frequency (MHz)	Limit (MHz)	Verdict
a	5180	NV	-30	5180.04	Within 5150-5250MHz	Pass
		NV	-20	5180.01		
		NV	-10	5180.08		
		NV	0	5180.01		
		NV	10	5180.00		
		NV	20	5180.09		
		NV	30	5180.04		
		NV	40	5180.07		
		NV	50	5180.02		

Note: Only show the worst case 802.11 a Mode 5180MHz.

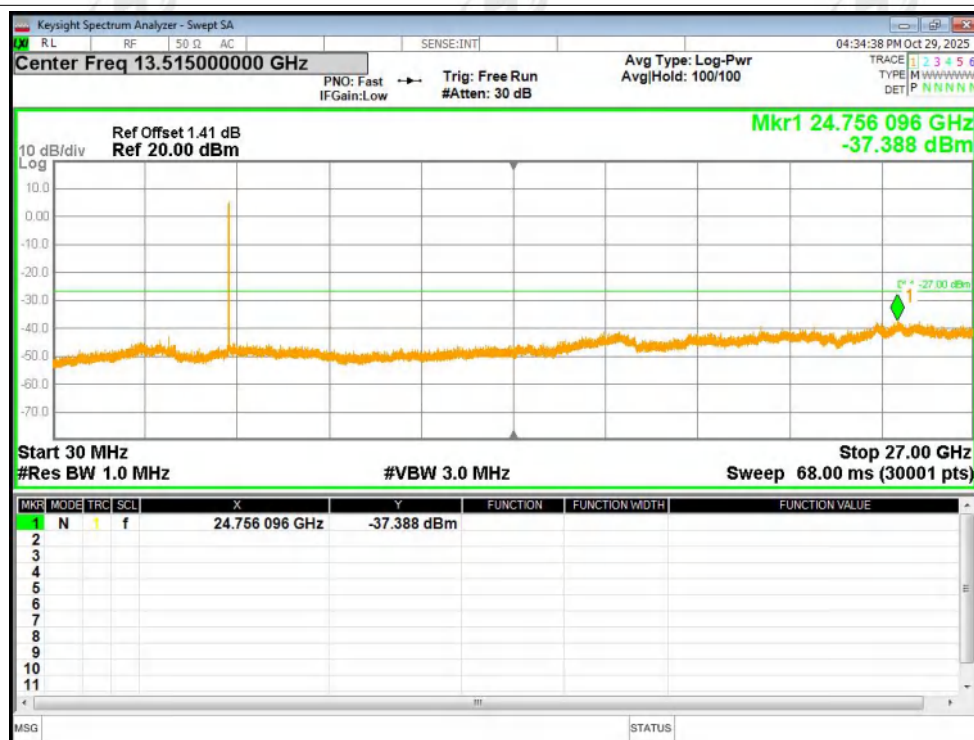


Conducted RF Spurious Emission

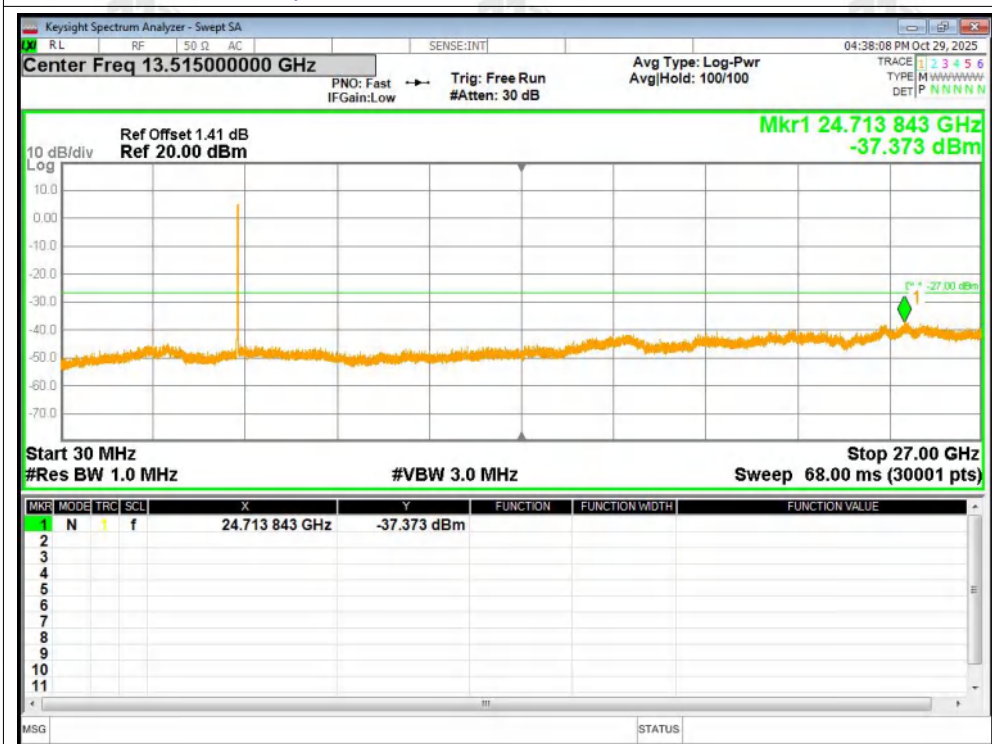
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	-37.38	-27	Pass
NVNT	a	5200	Ant1	-37.37	-27	Pass
NVNT	a	5240	Ant1	-37.34	-27	Pass
NVNT	n20	5180	Ant1	-37.07	-27	Pass
NVNT	n20	5200	Ant1	-37.56	-27	Pass
NVNT	n20	5240	Ant1	-37.31	-27	Pass
NVNT	n40	5190	Ant1	-35.37	-27	Pass
NVNT	n40	5230	Ant1	-37.46	-27	Pass
NVNT	ac20	5180	Ant1	-36.37	-27	Pass
NVNT	ac20	5200	Ant1	-37.36	-27	Pass
NVNT	ac20	5240	Ant1	-34.76	-27	Pass
NVNT	ac40	5190	Ant1	-31.8	-27	Pass
NVNT	ac40	5230	Ant1	-37.09	-27	Pass
NVNT	ac80	5210	Ant1	-36.09	-27	Pass

Test Graphs

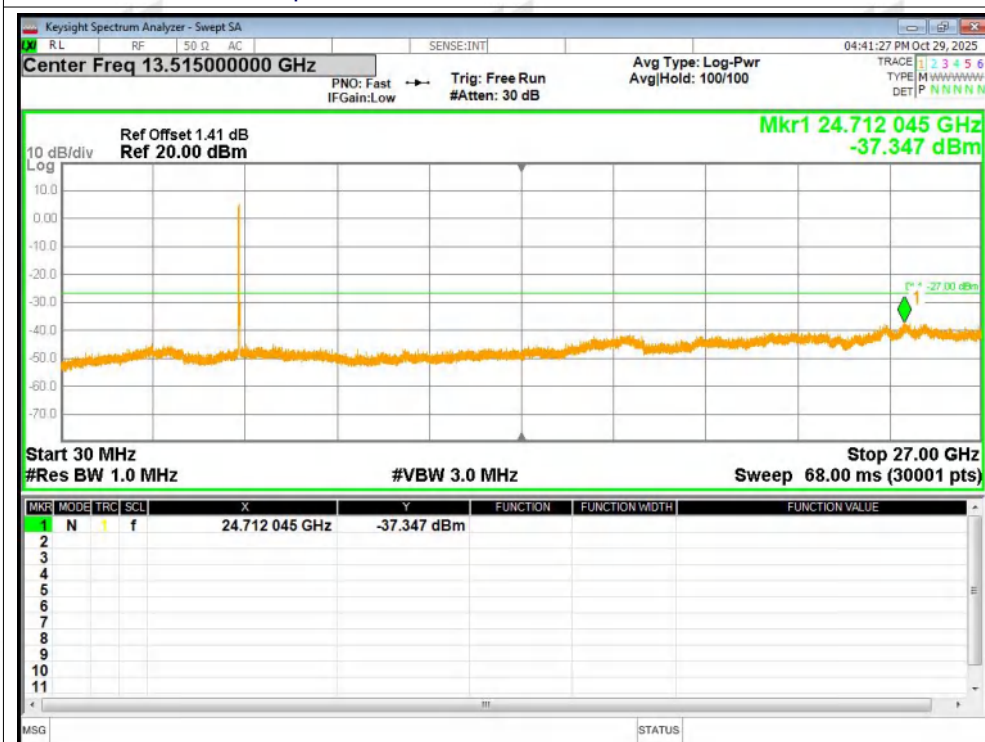
Tx. Spurious NVNT a 5180MHz Ant1 Emission



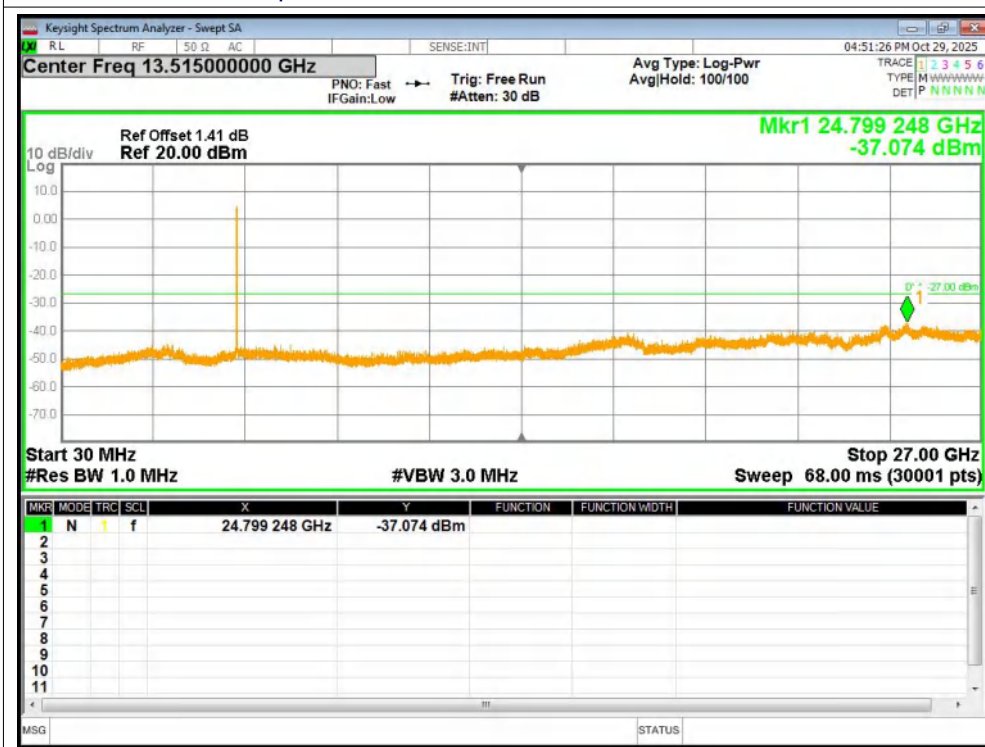
Tx. Spurious NVNT a 5200MHz Ant1 Emission



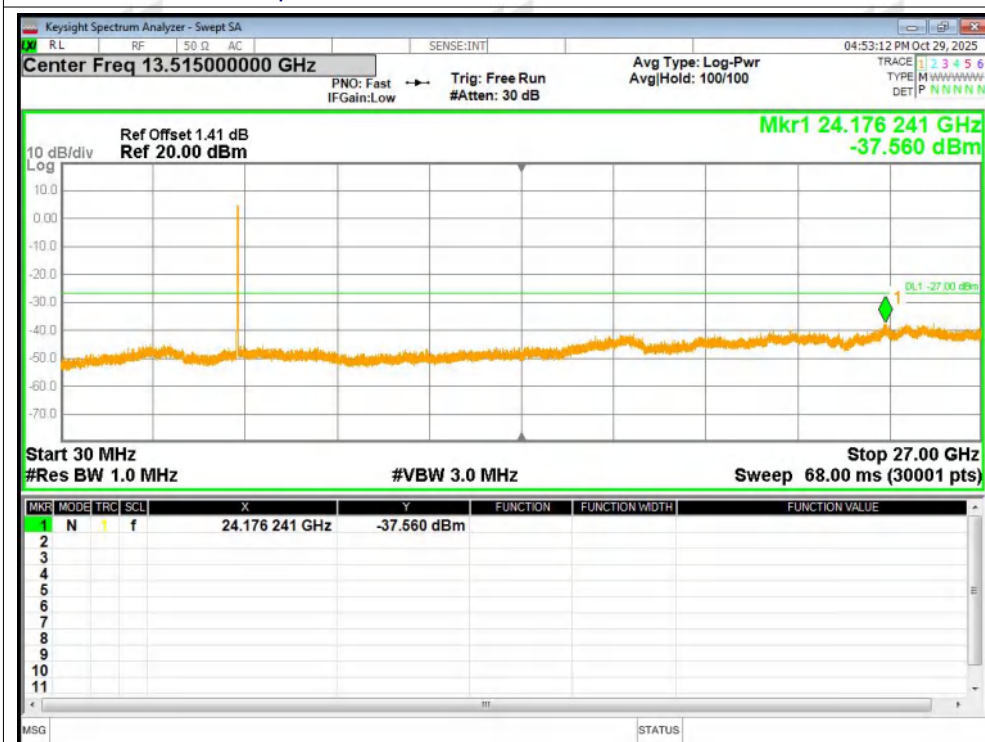
Tx. Spurious NVNT a 5240MHz Ant1 Emission



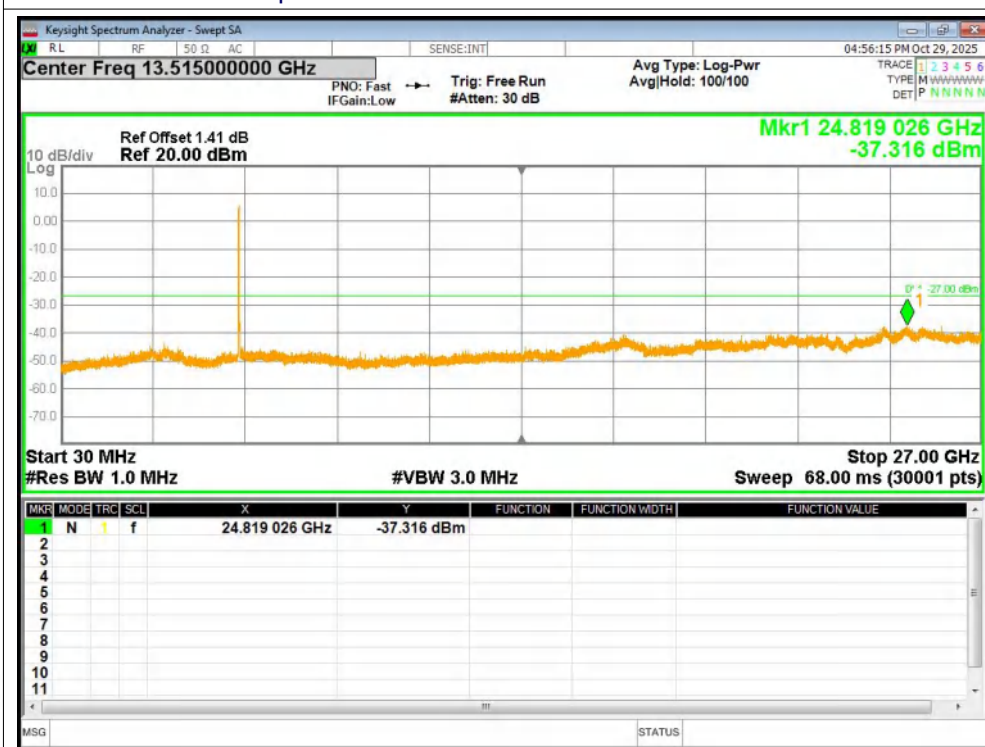
Tx. Spurious NVNT n20 5180MHz Ant1 Emission



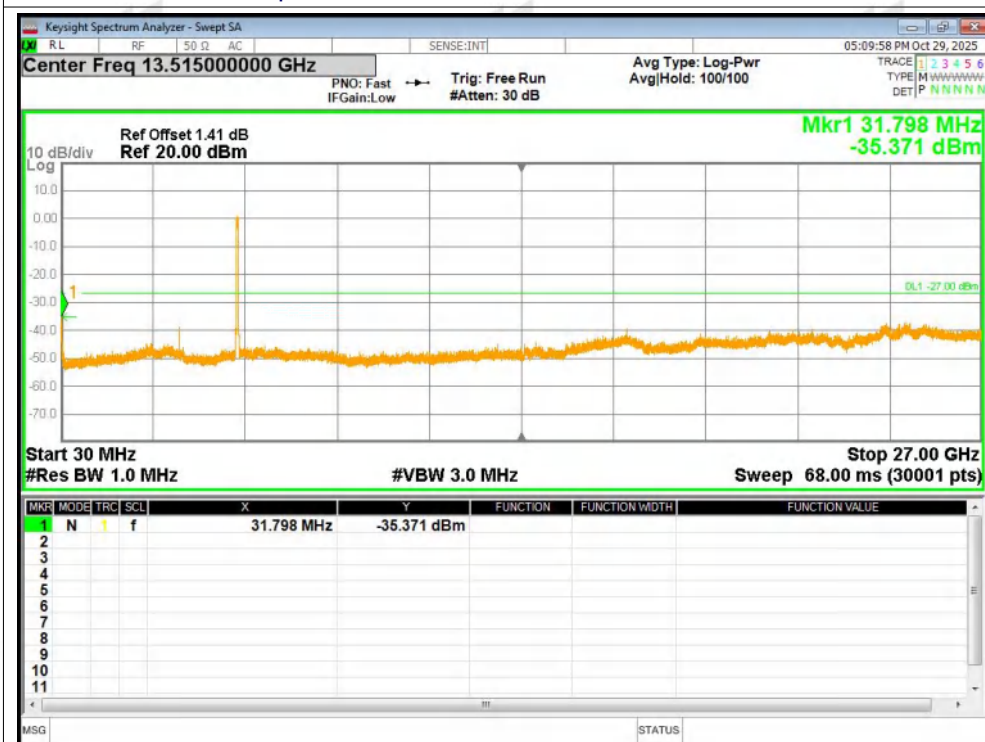
Tx. Spurious NVNT n20 5200MHz Ant1 Emission



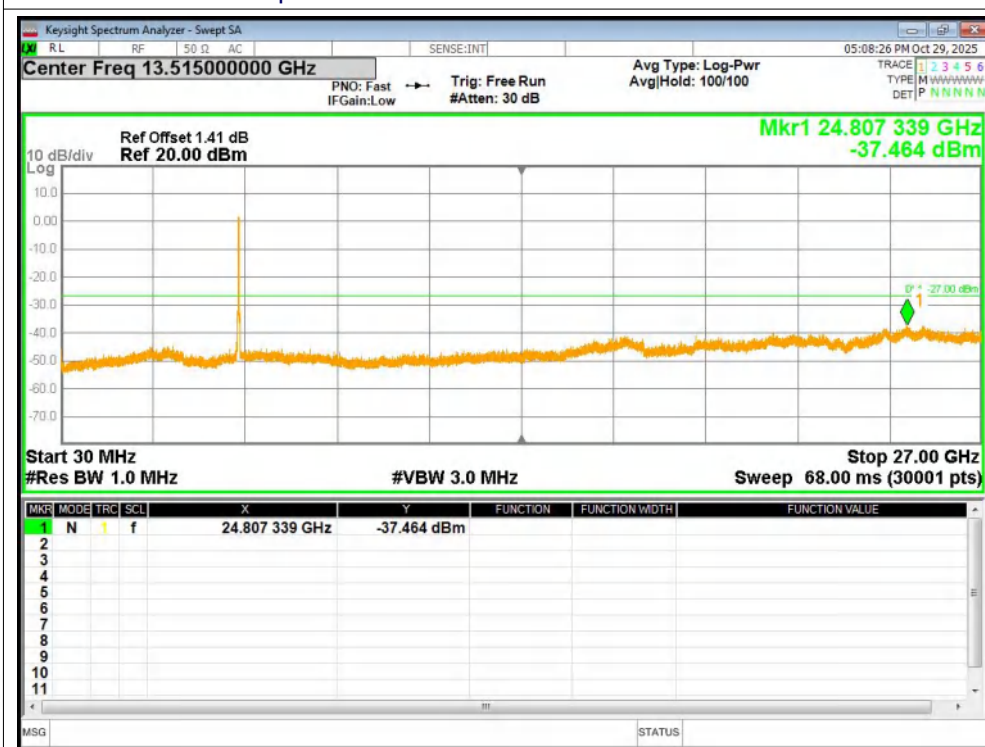
Tx. Spurious NVNT n20 5240MHz Ant1 Emission



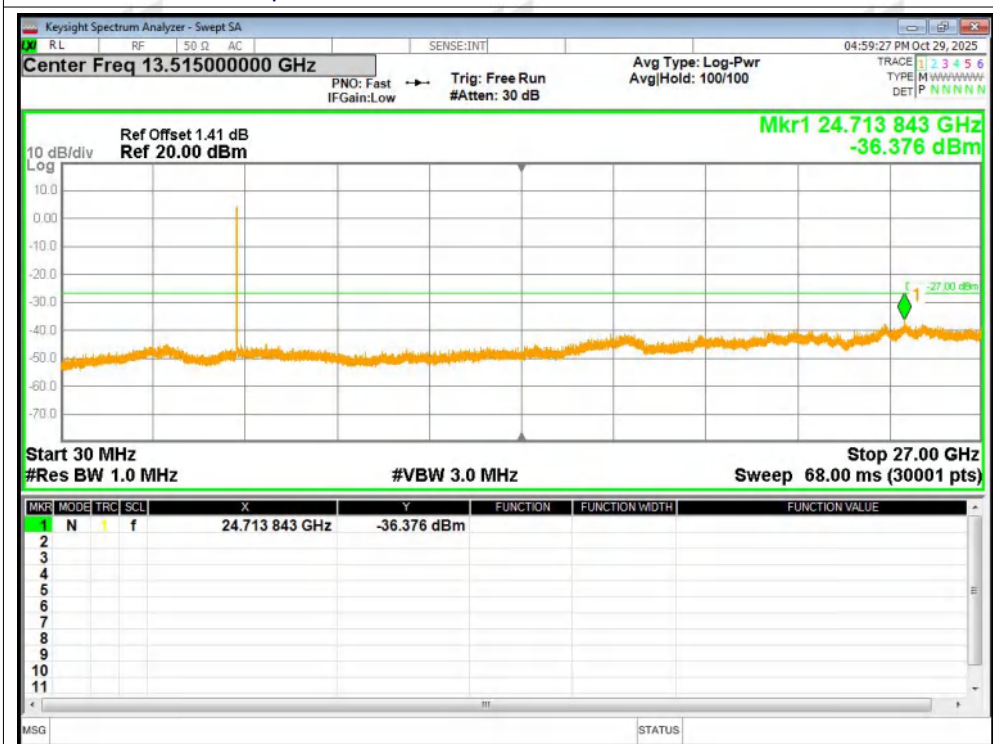
Tx. Spurious NVNT n40 5190MHz Ant1 Emission



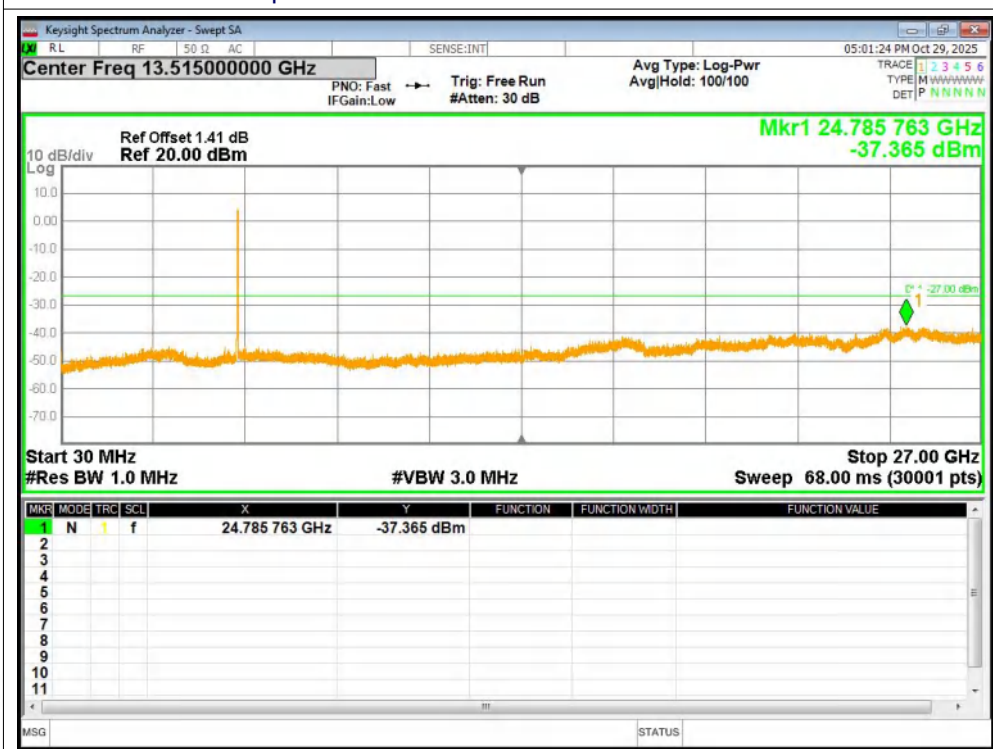
Tx. Spurious NVNT n40 5230MHz Ant1 Emission



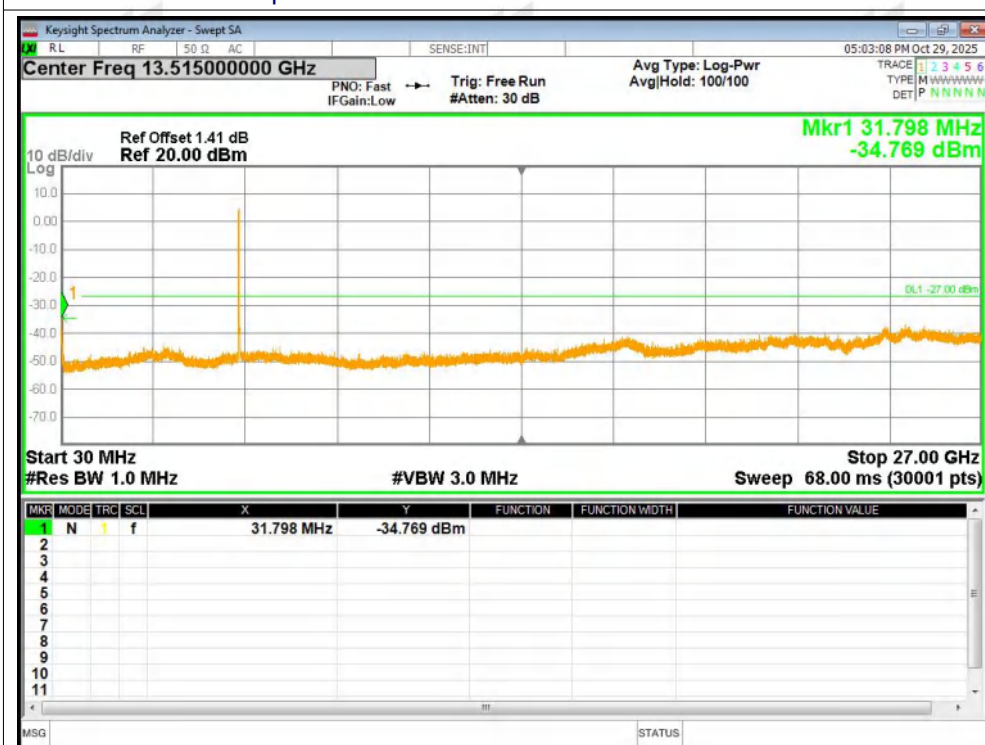
Tx. Spurious NVNT ac20 5180MHz Ant1 Emission



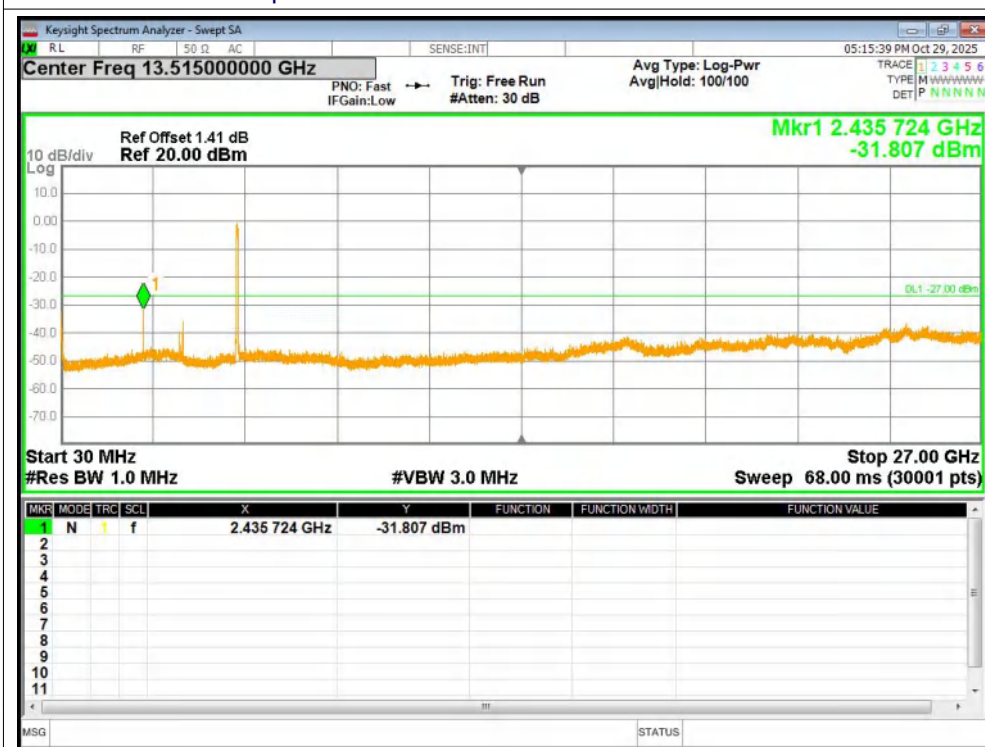
Tx. Spurious NVNT ac20 5200MHz Ant1 Emission



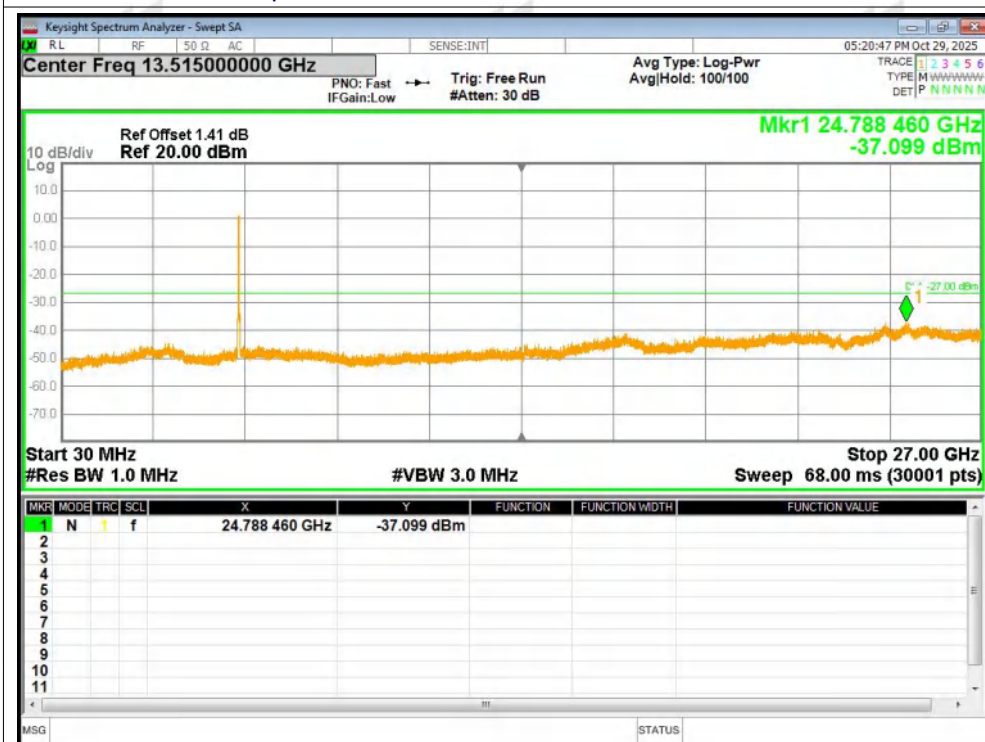
Tx. Spurious NVNT ac20 5240MHz Ant1 Emission



Tx. Spurious NVNT ac40 5190MHz Ant1 Emission



Tx. Spurious NVNT ac40 5230MHz Ant1 Emission



Tx. Spurious NVNT ac80 5210MHz Ant1 Emission

