

Appendix A

RF Test Data:

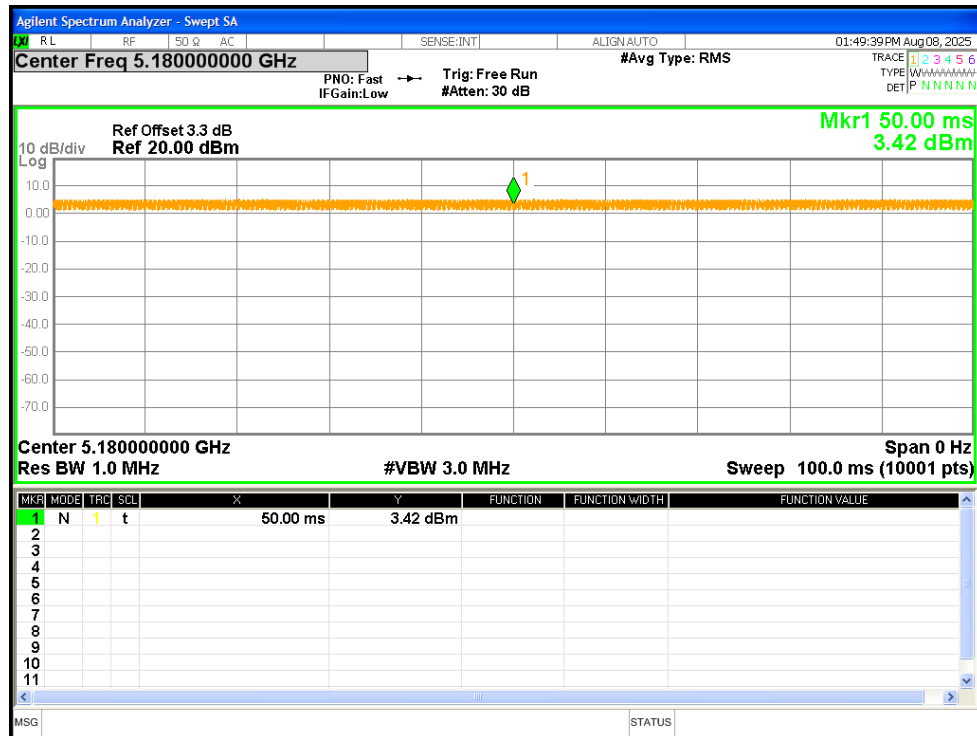
FCC ID:2BROY-GGJ

Product Name: Digital Signage Display

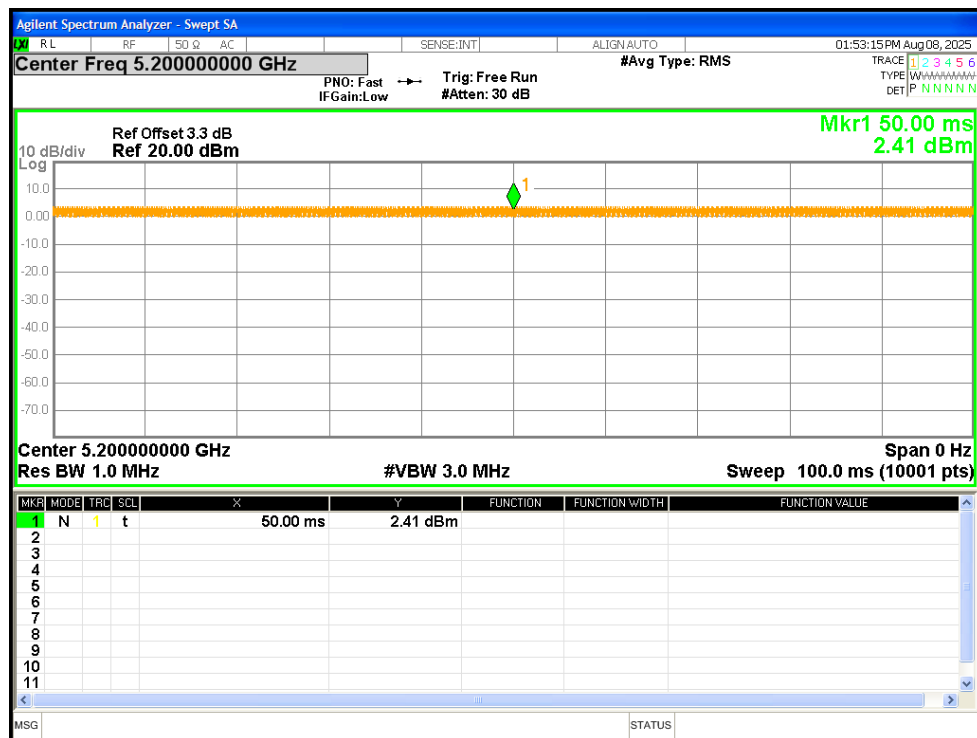
Tested Model:GGJ

1. Duty Cycle

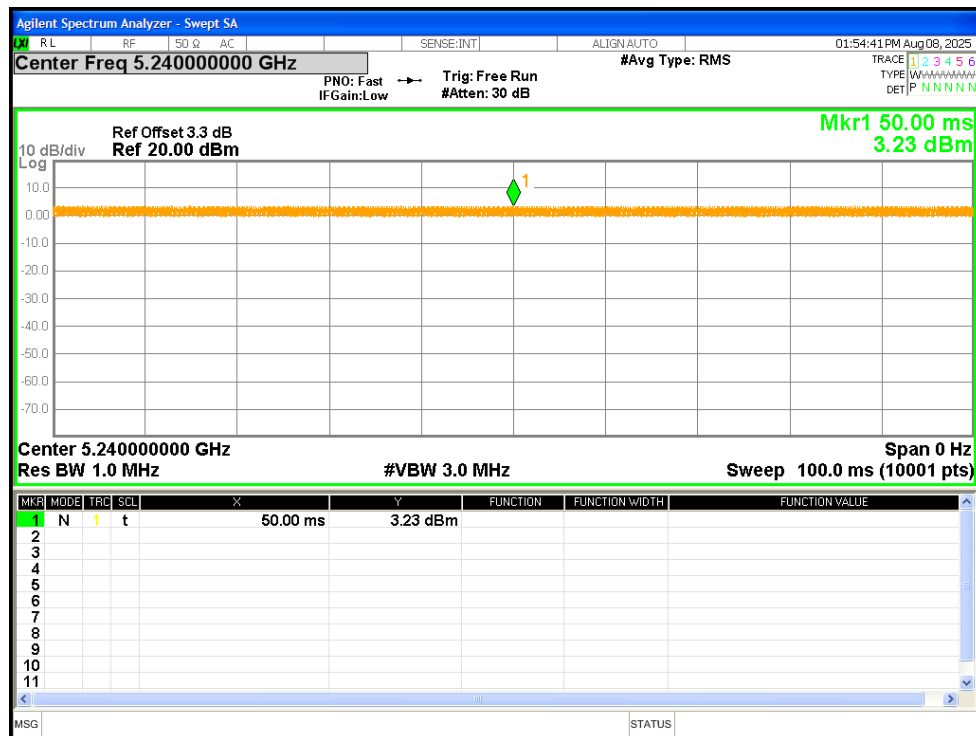
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	100	0	0
NVNT	a	5200	Ant1	100	0	0
NVNT	a	5240	Ant1	100	0	0
NVNT	a	5745	Ant1	100	0	0
NVNT	a	5785	Ant1	100	0	0
NVNT	a	5825	Ant1	100	0	0
NVNT	n20	5180	Ant1	100	0	0
NVNT	n20	5200	Ant1	100	0	0
NVNT	n20	5240	Ant1	100	0	0
NVNT	n20	5745	Ant1	100	0	0
NVNT	n20	5785	Ant1	100	0	0
NVNT	n20	5825	Ant1	100	0	0
NVNT	n40	5190	Ant1	100	0	0
NVNT	n40	5230	Ant1	100	0	0
NVNT	n40	5755	Ant1	100	0	0
NVNT	n40	5795	Ant1	100	0	0
NVNT	ac20	5180	Ant1	100	0	0
NVNT	ac20	5200	Ant1	100	0	0
NVNT	ac20	5240	Ant1	100	0	0
NVNT	ac20	5745	Ant1	100	0	0
NVNT	ac20	5785	Ant1	100	0	0
NVNT	ac20	5825	Ant1	100	0	0
NVNT	ac40	5190	Ant1	100	0	0
NVNT	ac40	5230	Ant1	100	0	0
NVNT	ac40	5755	Ant1	100	0	0
NVNT	ac40	5795	Ant1	100	0	0
NVNT	ac80	5210	Ant1	100	0	0
NVNT	ac80	5775	Ant1	100	0	0



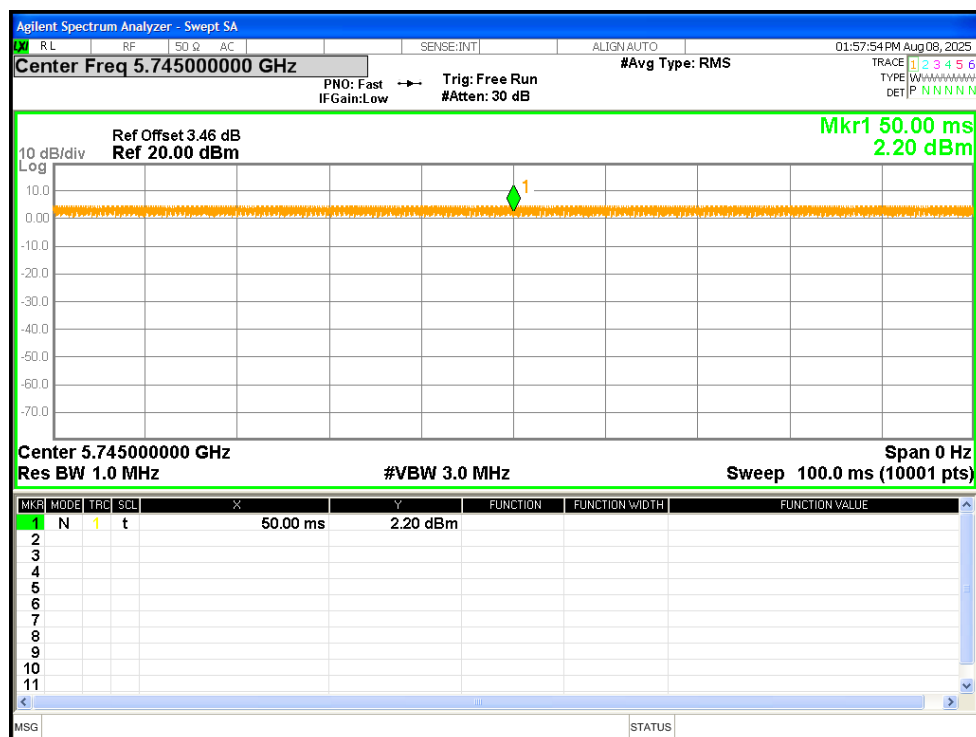
Duty Cycle NVNT a 5180MHz Ant1



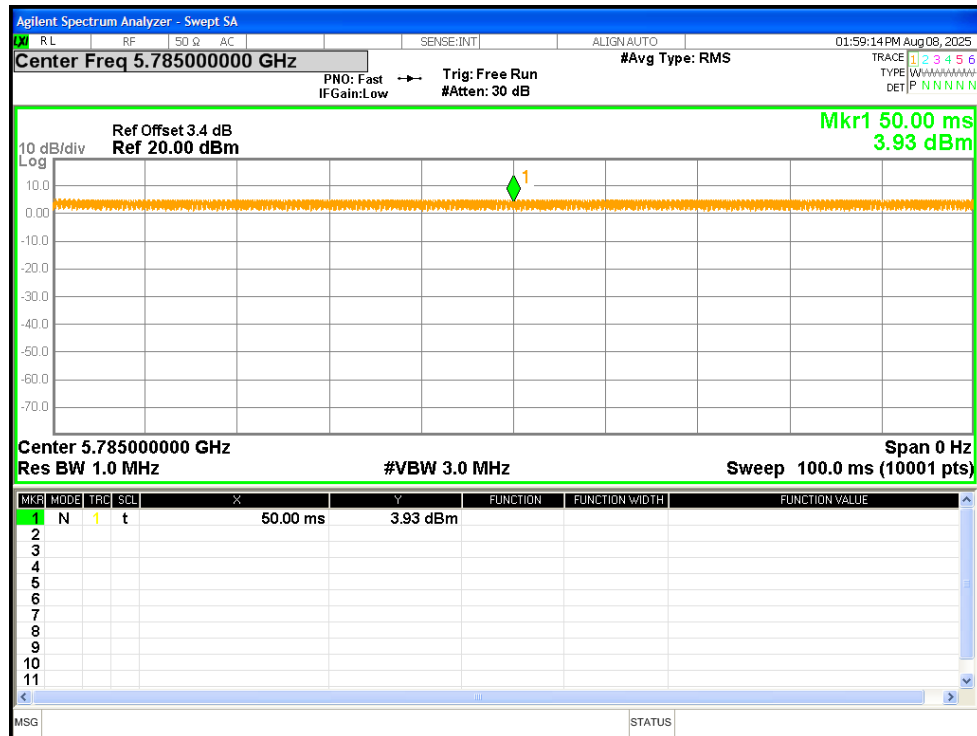
Duty Cycle NVNT a 5200MHz Ant1



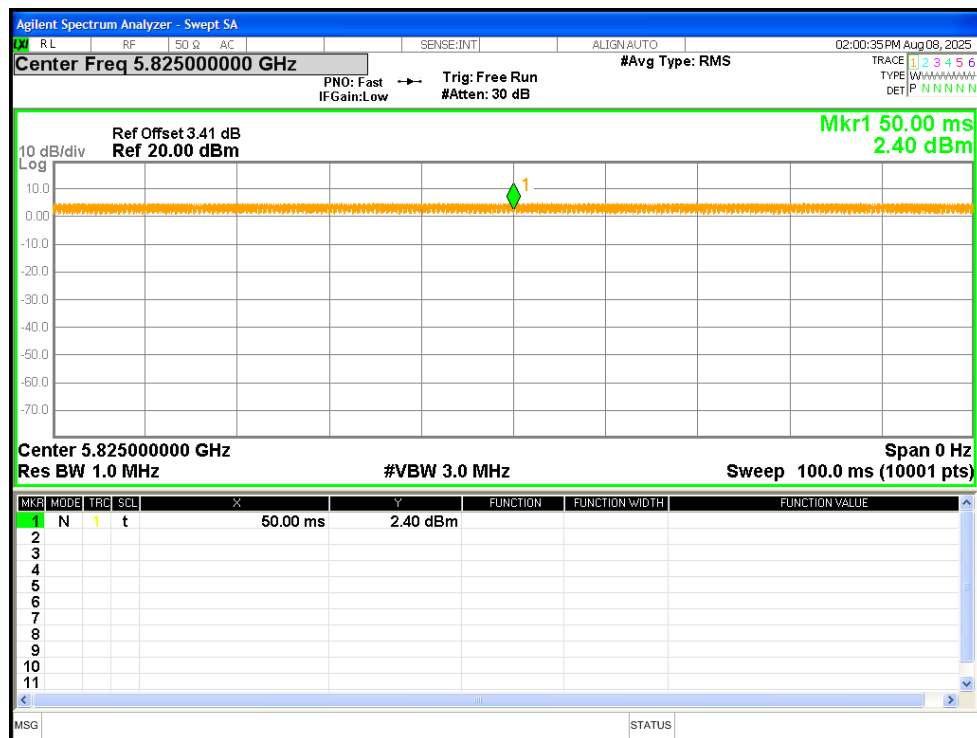
Duty Cycle NVNT a 5240MHz Ant1



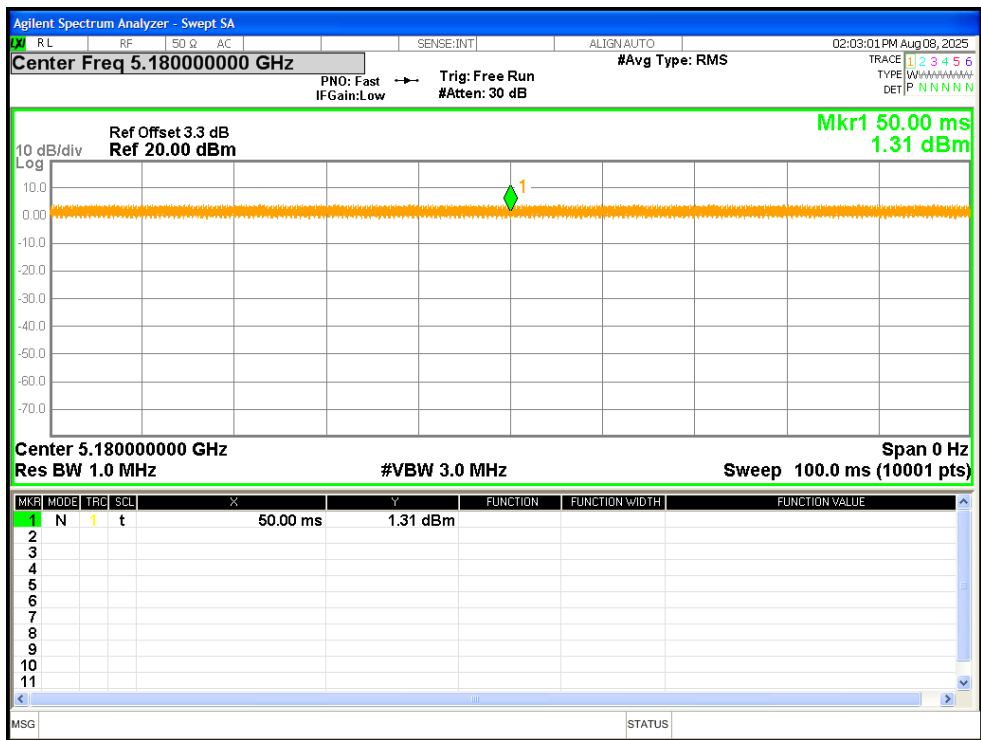
Duty Cycle NVNT a 5745MHz Ant1



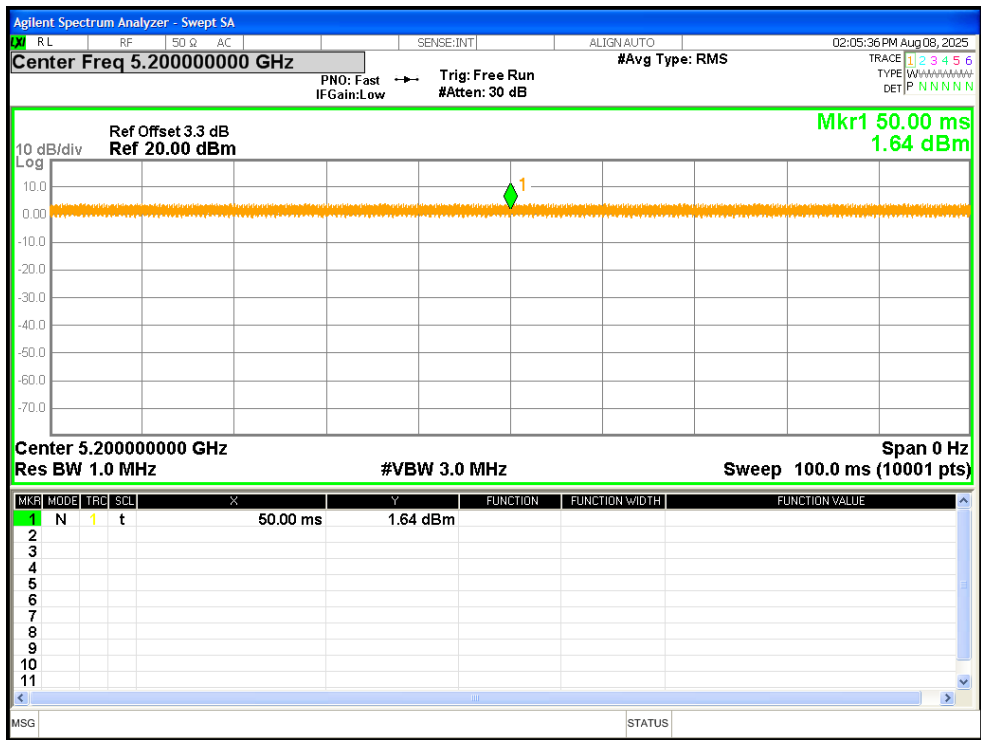
Duty Cycle NVNT a 5785MHz Ant1



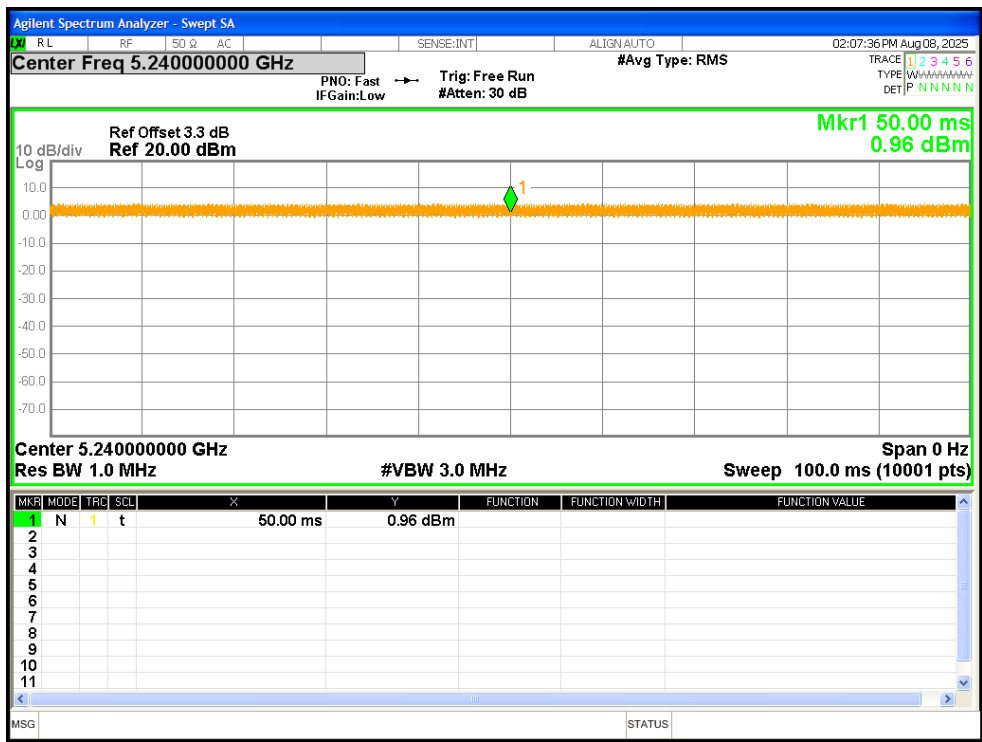
Duty Cycle NVNT a 5825MHz Ant1



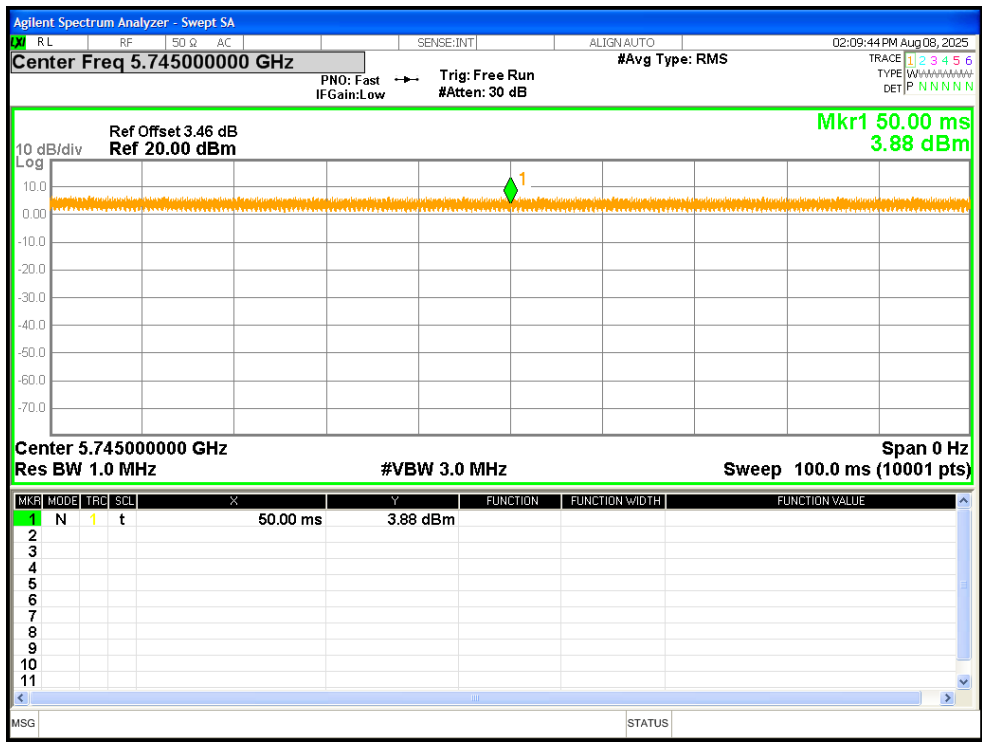
Duty Cycle NVNT n20 5180MHz Ant1



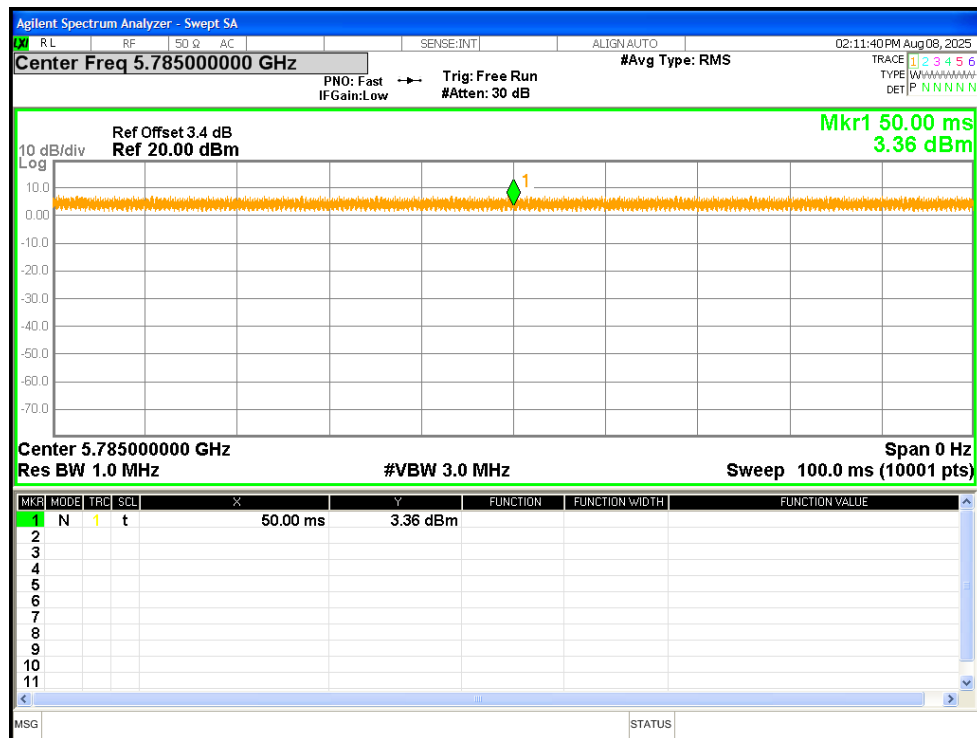
Duty Cycle NVNT n20 5200MHz Ant1



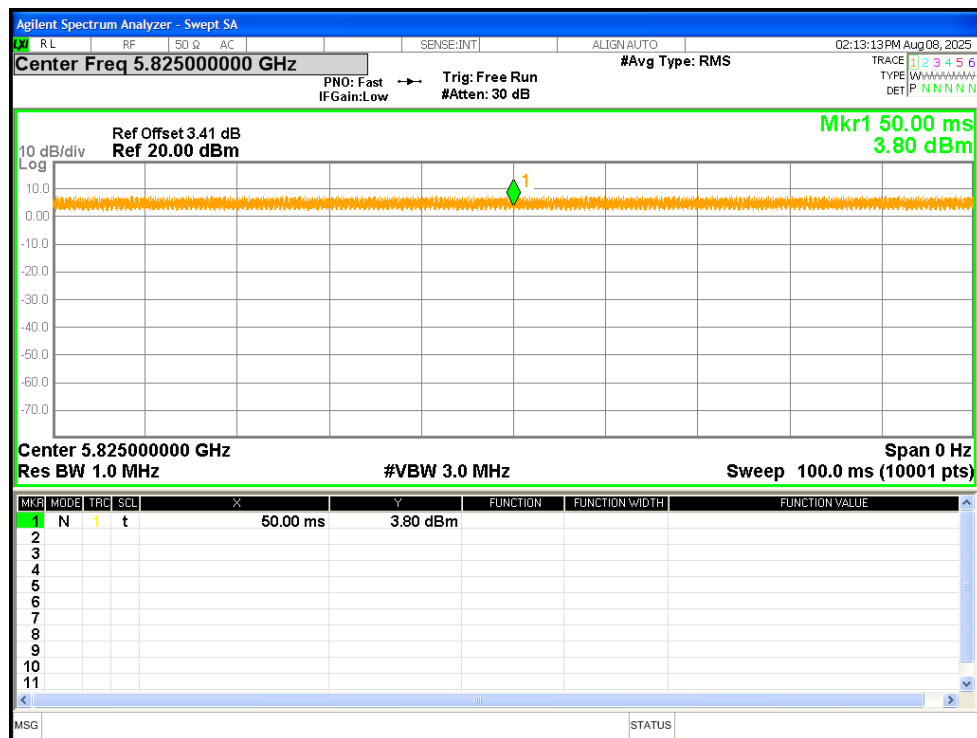
Duty Cycle NVNT n20 5240MHz Ant1



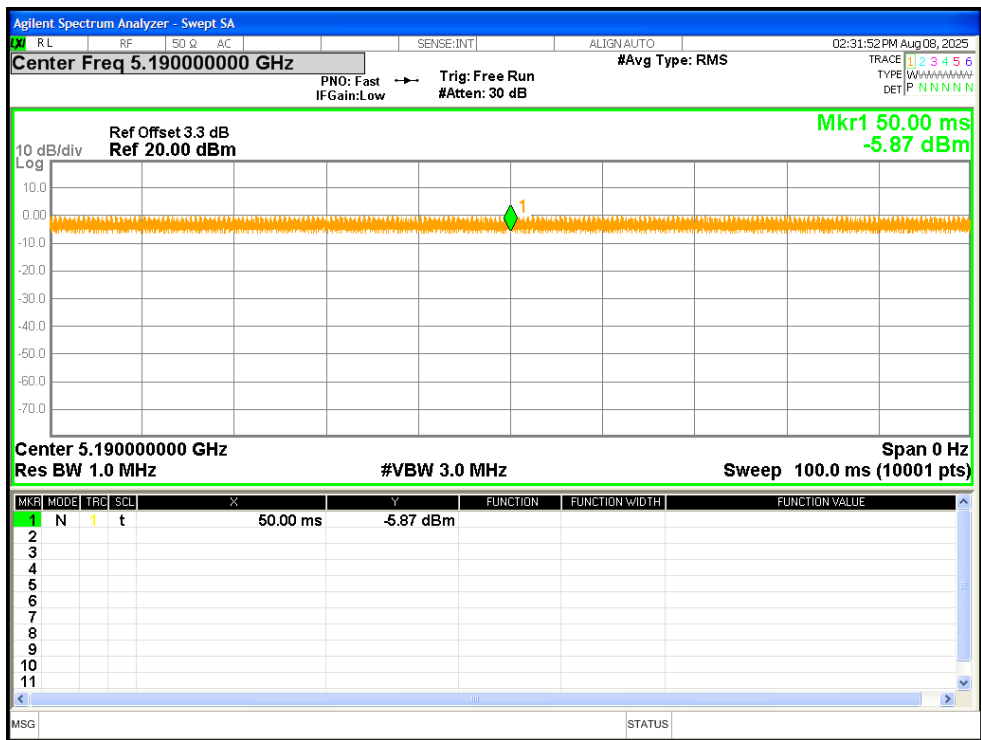
Duty Cycle NVNT n20 5745MHz Ant1



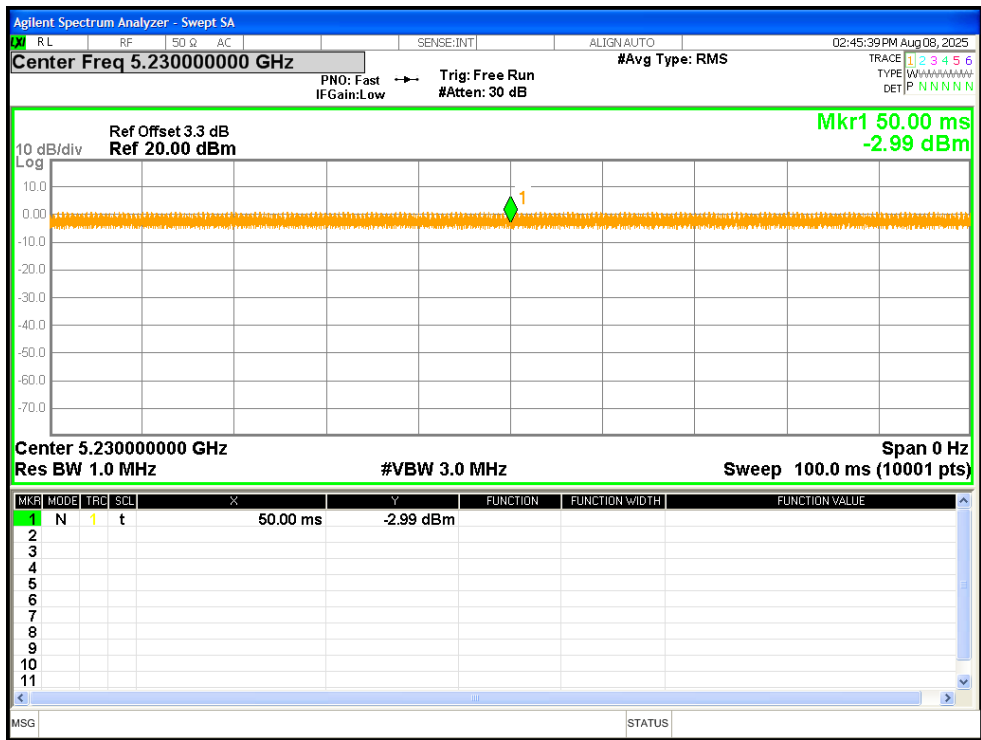
Duty Cycle NVNT n20 5785MHz Ant1



Duty Cycle NVNT n20 5825MHz Ant1



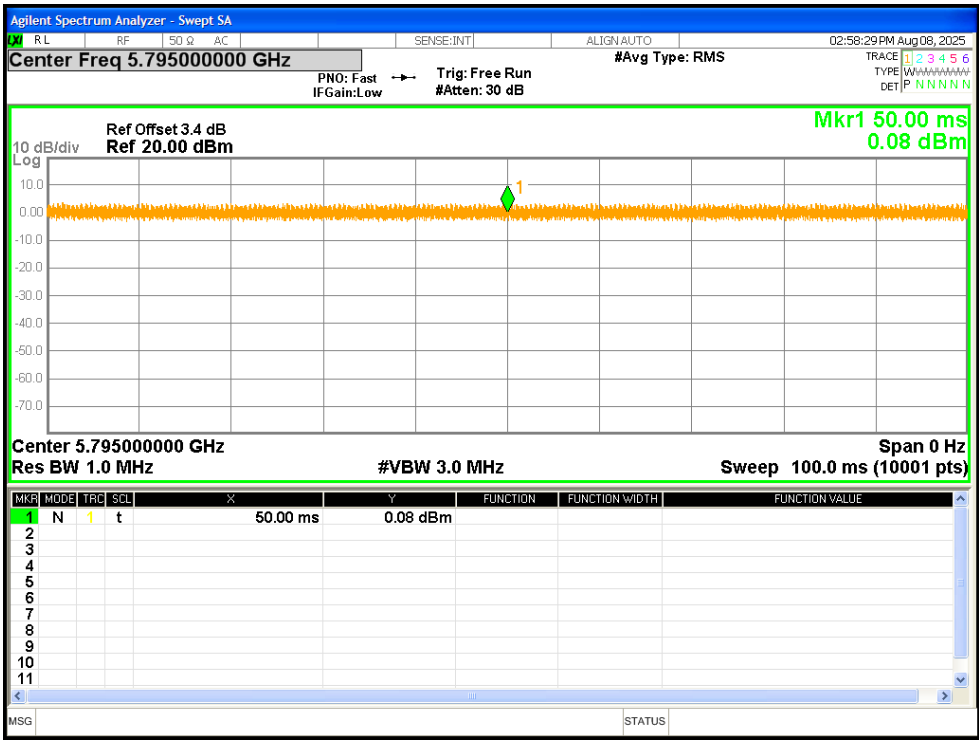
Duty Cycle NVNT n40 5190MHz Ant1



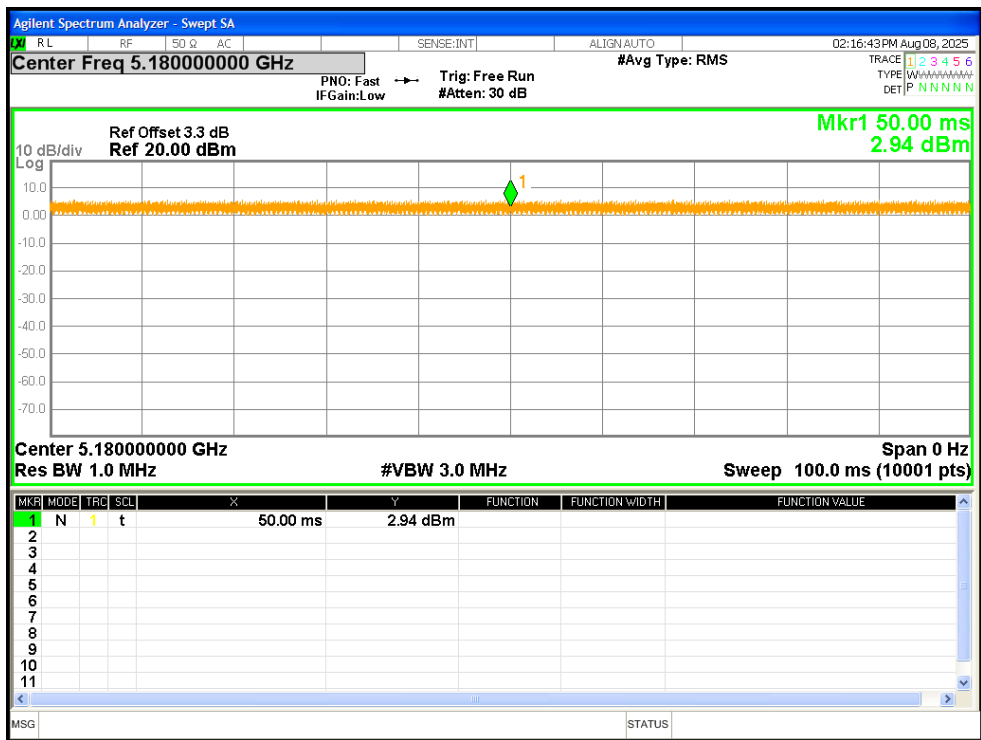
Duty Cycle NVNT n40 5230MHz Ant1



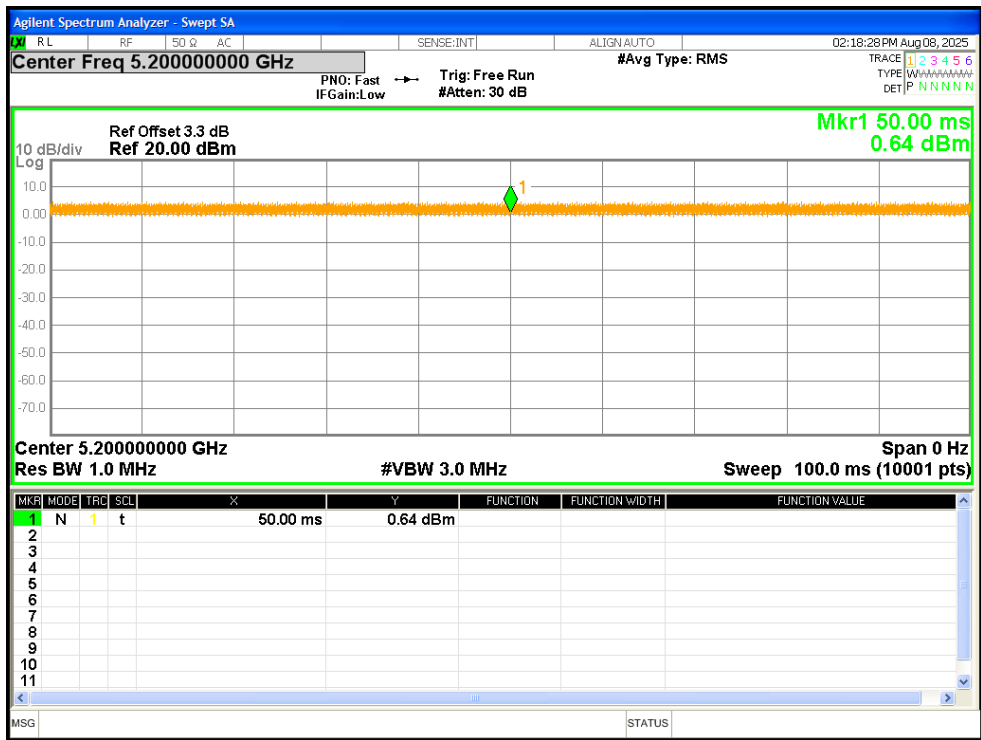
Duty Cycle NVNT n40 5755MHz Ant1



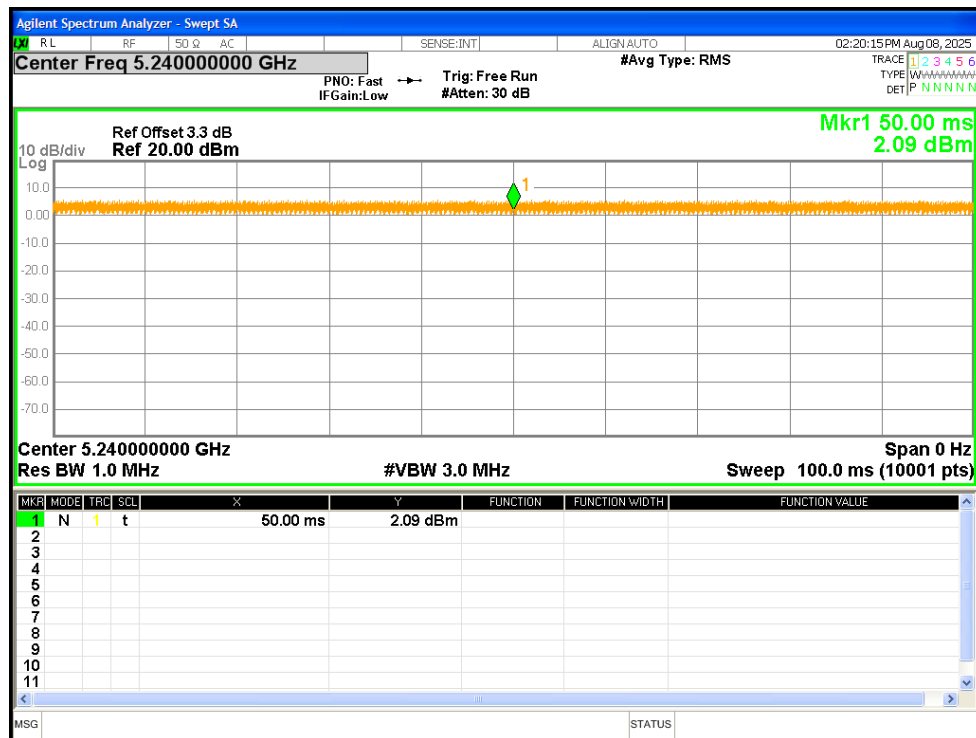
Duty Cycle NVNT n40 5795MHz Ant1



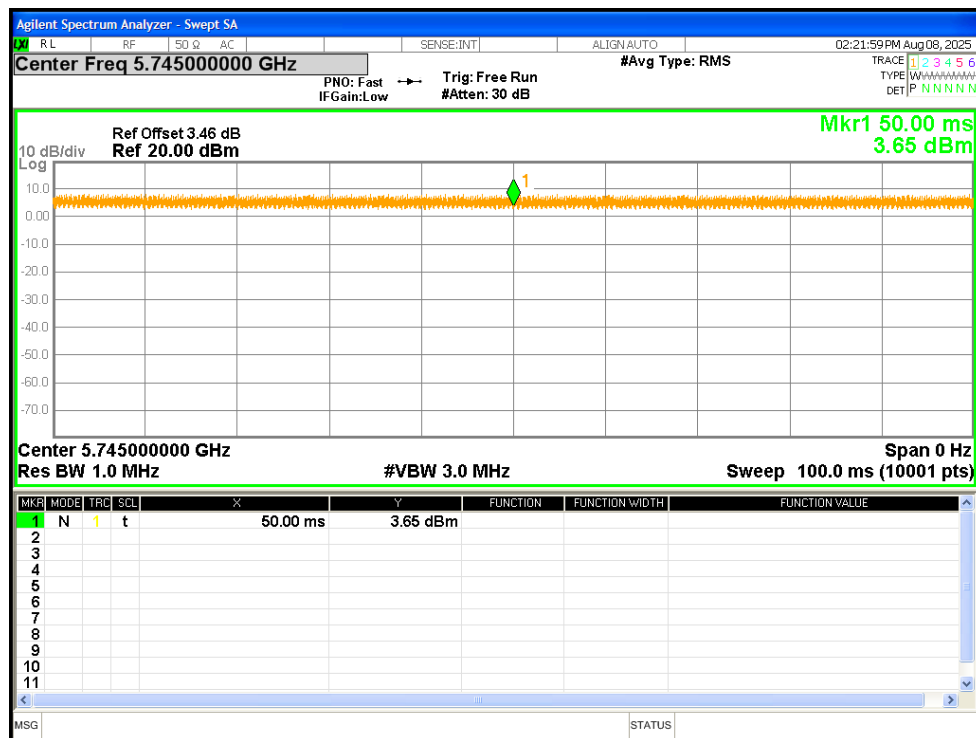
Duty Cycle NVNT ac20 5180MHz Ant1



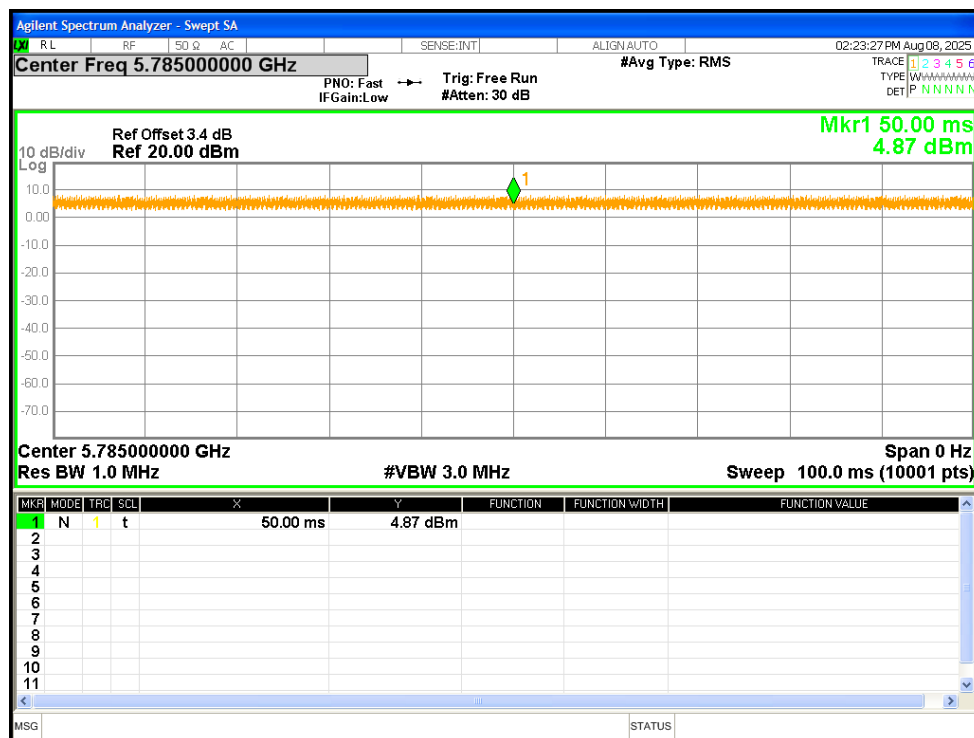
Duty Cycle NVNT ac20 5200MHz Ant1



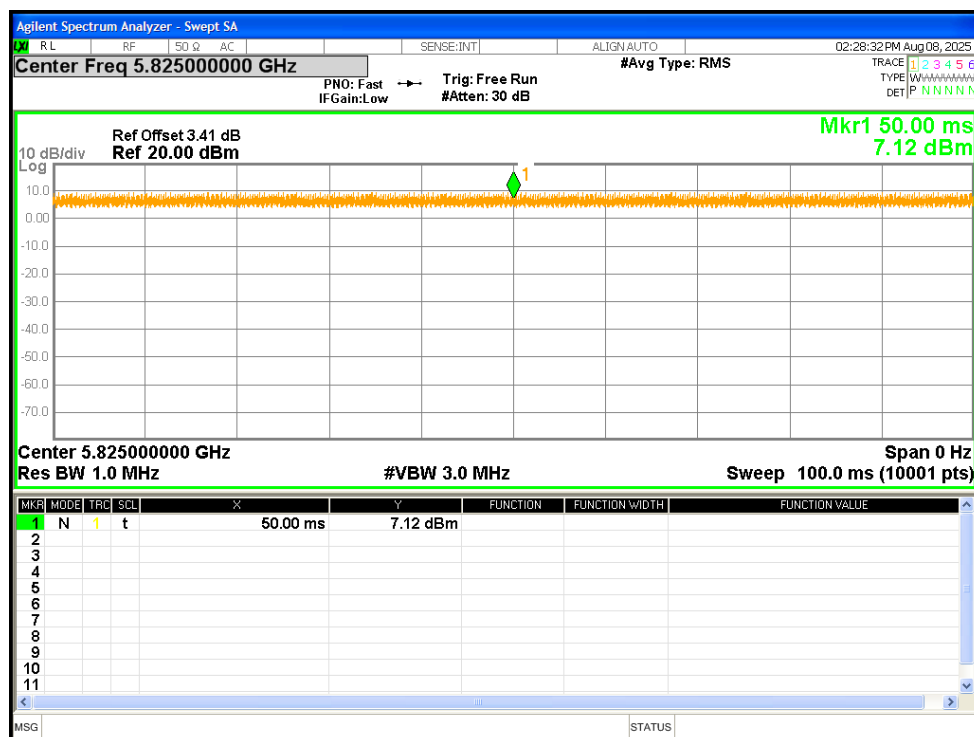
Duty Cycle NVNT ac20 5240MHz Ant1



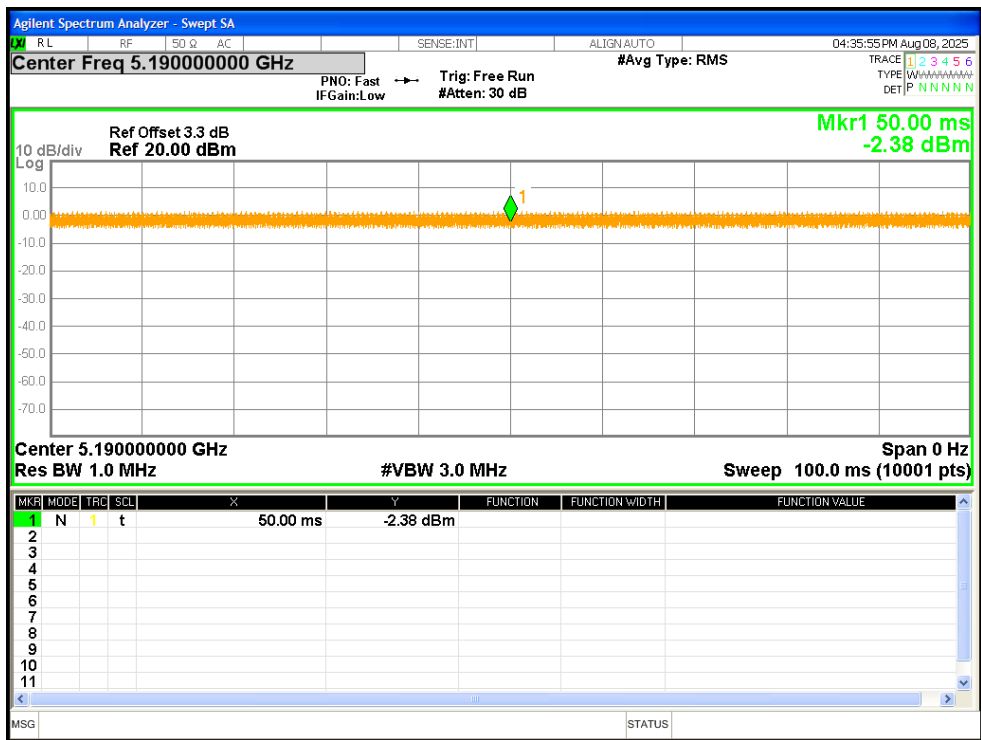
Duty Cycle NVNT ac20 5745MHz Ant1



Duty Cycle NVNT ac20 5785MHz Ant1



Duty Cycle NVNT ac20 5825MHz Ant1



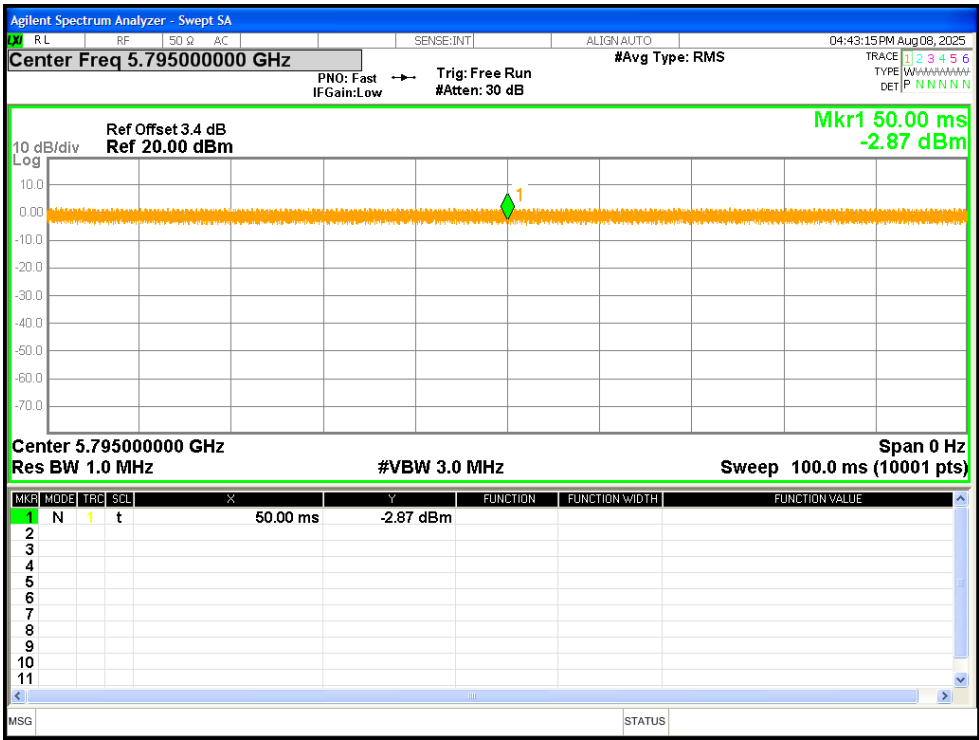
Duty Cycle NVNT ac40 5190MHz Ant1



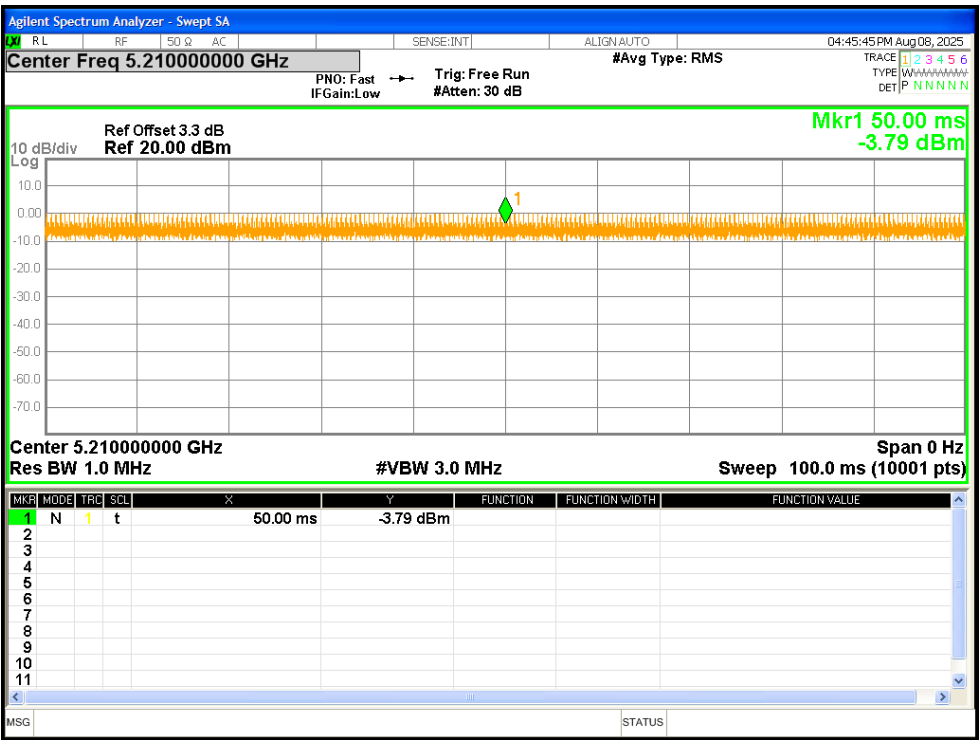
Duty Cycle NVNT ac40 5230MHz Ant1



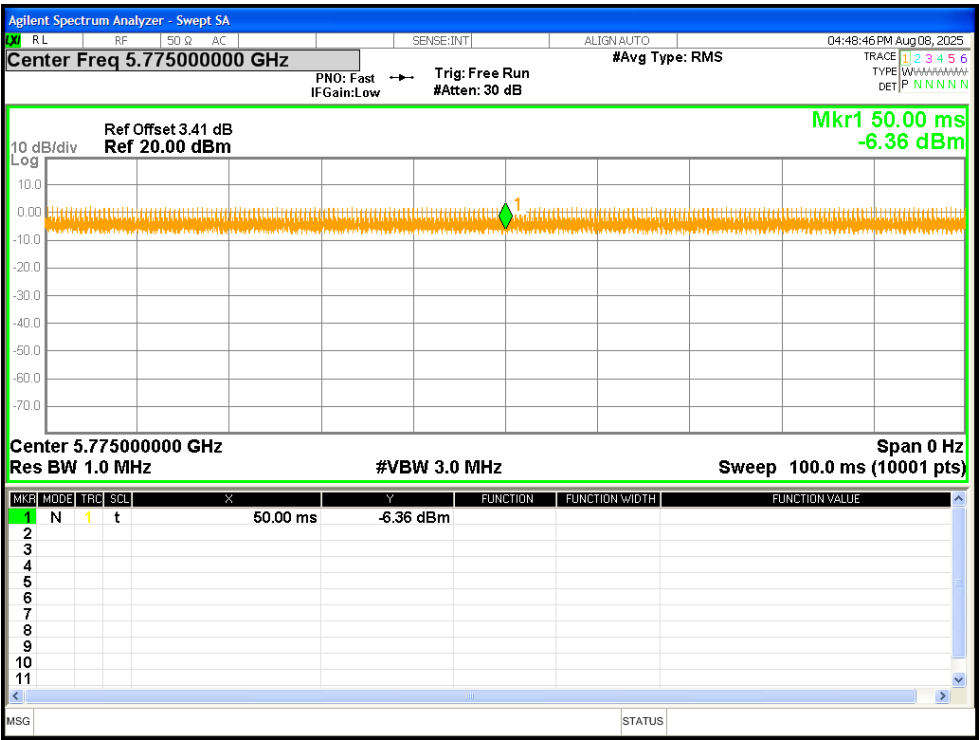
Duty Cycle NVNT ac40 5755MHz Ant1



Duty Cycle NVNT ac40 5795MHz Ant1



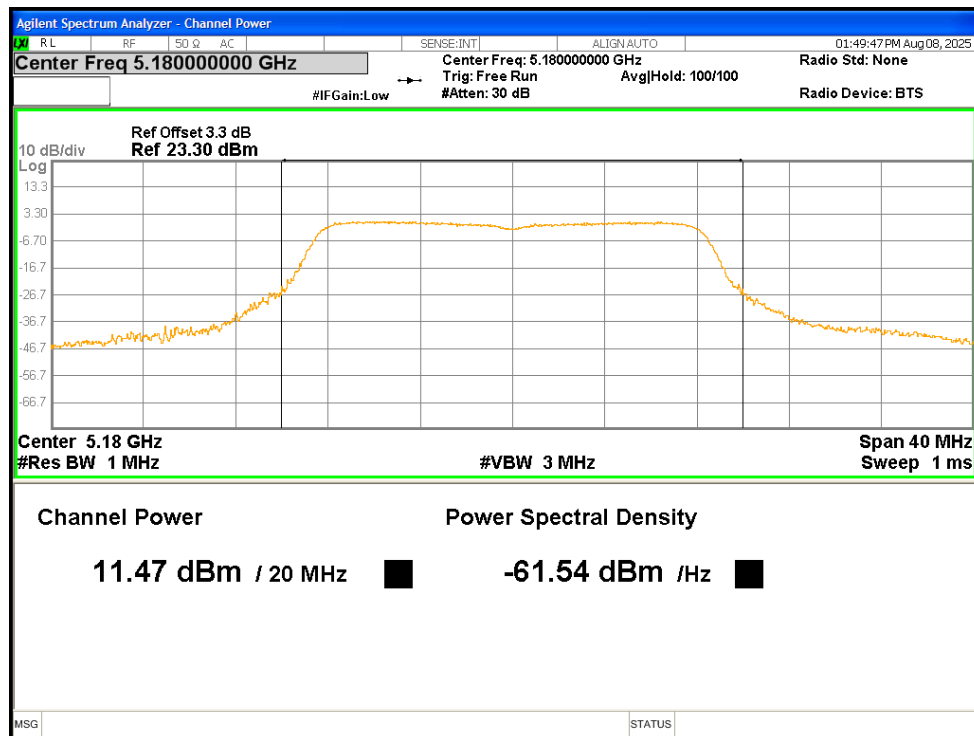
Duty Cycle NVNT ac80 5210MHz Ant1



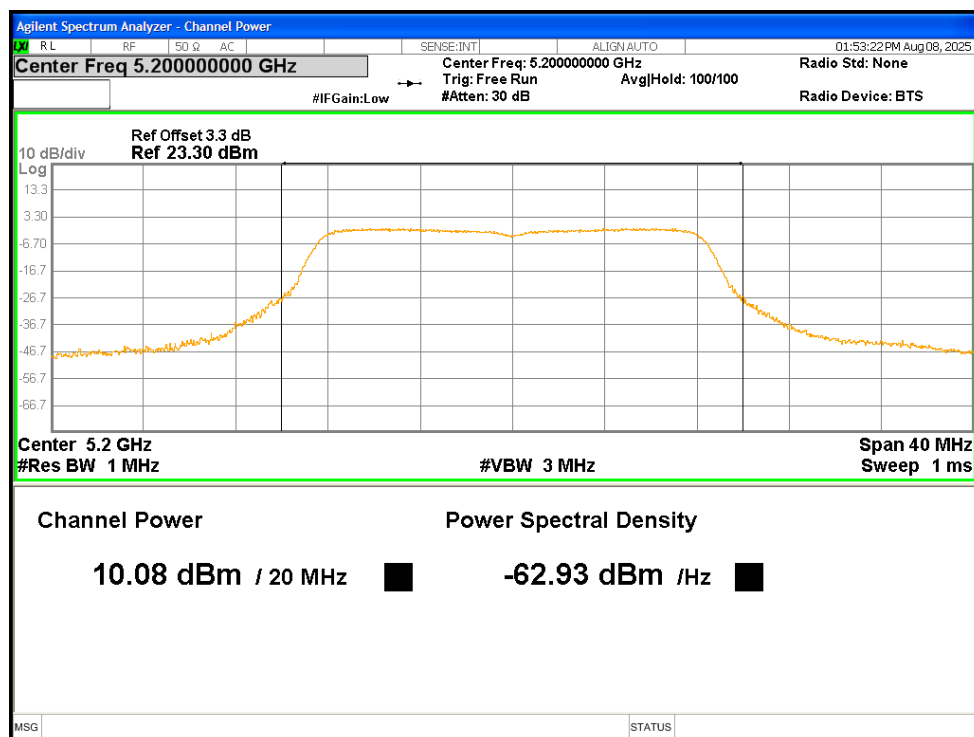
Duty Cycle NVNT ac80 5775MHz Ant1

2. Maximum Conducted Output Power

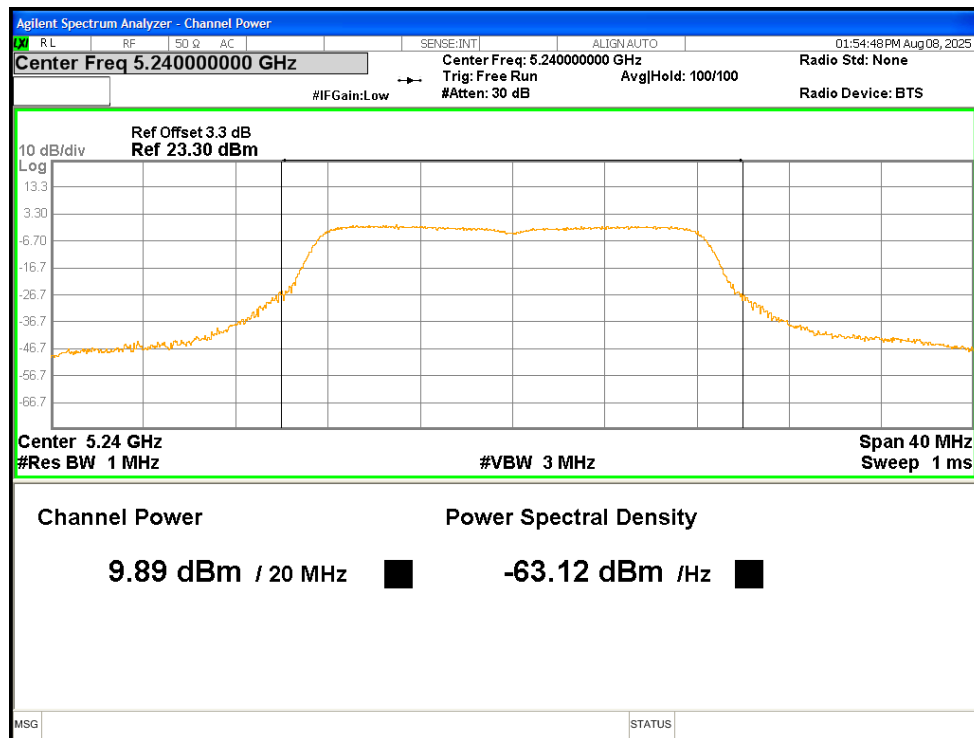
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	11.47	0	11.47	24	Pass
NVNT	a	5200	Ant1	10.08	0	10.08	24	Pass
NVNT	a	5240	Ant1	9.89	0	9.89	24	Pass
NVNT	a	5745	Ant1	11.61	0	11.61	30	Pass
NVNT	a	5785	Ant1	11.77	0	11.77	30	Pass
NVNT	a	5825	Ant1	11.19	0	11.19	30	Pass
NVNT	n20	5180	Ant1	9.89	0	9.89	24	Pass
NVNT	n20	5200	Ant1	9.72	0	9.72	24	Pass
NVNT	n20	5240	Ant1	10.14	0	10.14	24	Pass
NVNT	n20	5745	Ant1	12.16	0	12.16	30	Pass
NVNT	n20	5785	Ant1	12.54	0	12.54	30	Pass
NVNT	n20	5825	Ant1	12.83	0	12.83	30	Pass
NVNT	n40	5190	Ant1	10.87	0	10.87	24	Pass
NVNT	n40	5230	Ant1	11.18	0	11.18	24	Pass
NVNT	n40	5755	Ant1	12.33	0	12.33	30	Pass
NVNT	n40	5795	Ant1	13.51	0	13.51	30	Pass
NVNT	ac20	5180	Ant1	11.01	0	11.01	24	Pass
NVNT	ac20	5200	Ant1	10.05	0	10.05	24	Pass
NVNT	ac20	5240	Ant1	10.99	0	10.99	24	Pass
NVNT	ac20	5745	Ant1	13.53	0	13.53	30	Pass
NVNT	ac20	5785	Ant1	13.44	0	13.44	30	Pass
NVNT	ac20	5825	Ant1	14.15	0	14.15	30	Pass
NVNT	ac40	5190	Ant1	12.09	0	12.09	24	Pass
NVNT	ac40	5230	Ant1	10.17	0	10.17	24	Pass
NVNT	ac40	5755	Ant1	12.29	0	12.29	30	Pass
NVNT	ac40	5795	Ant1	12.36	0	12.36	30	Pass
NVNT	ac80	5210	Ant1	10.13	0	10.13	24	Pass
NVNT	ac80	5775	Ant1	11.78	0	11.78	30	Pass



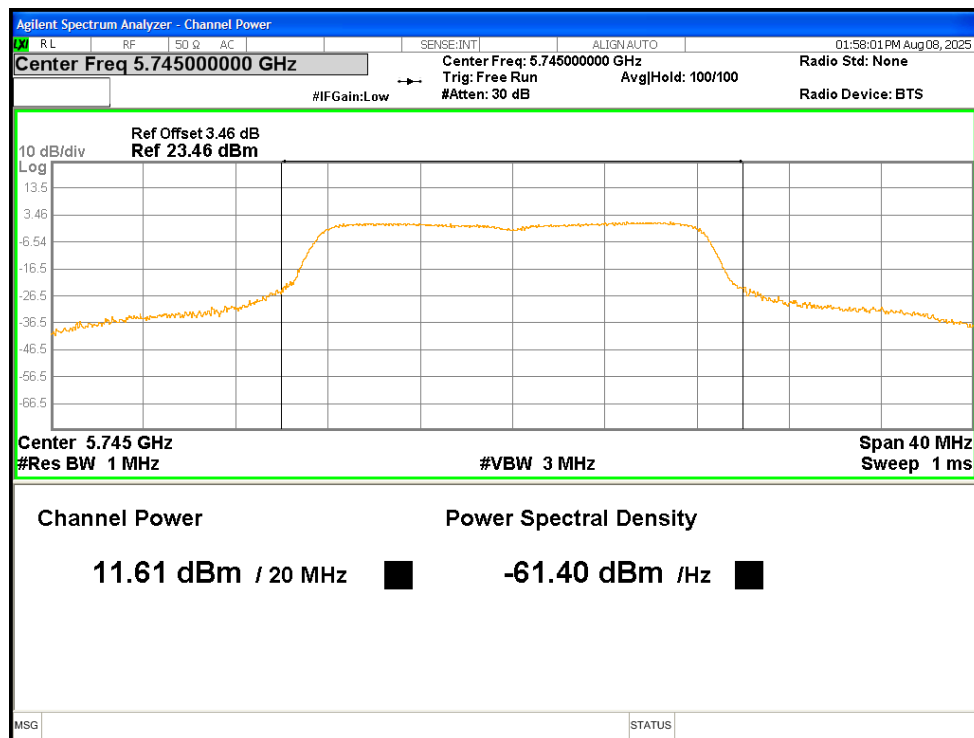
Power NVNT a 5180MHz Ant1



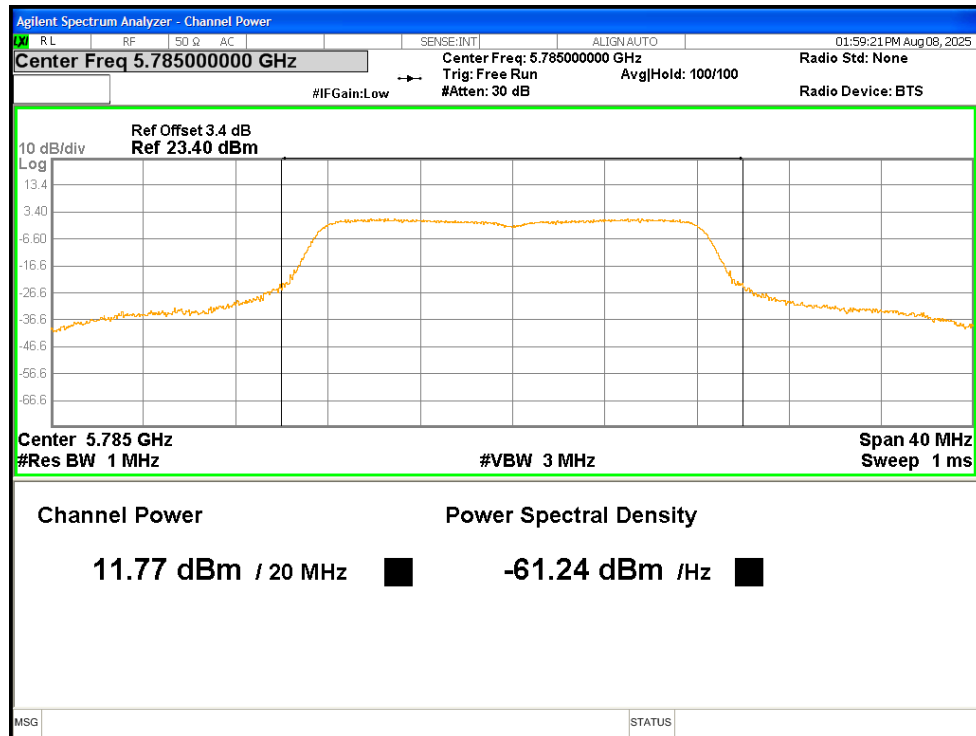
Power NVNT a 5200MHz Ant1



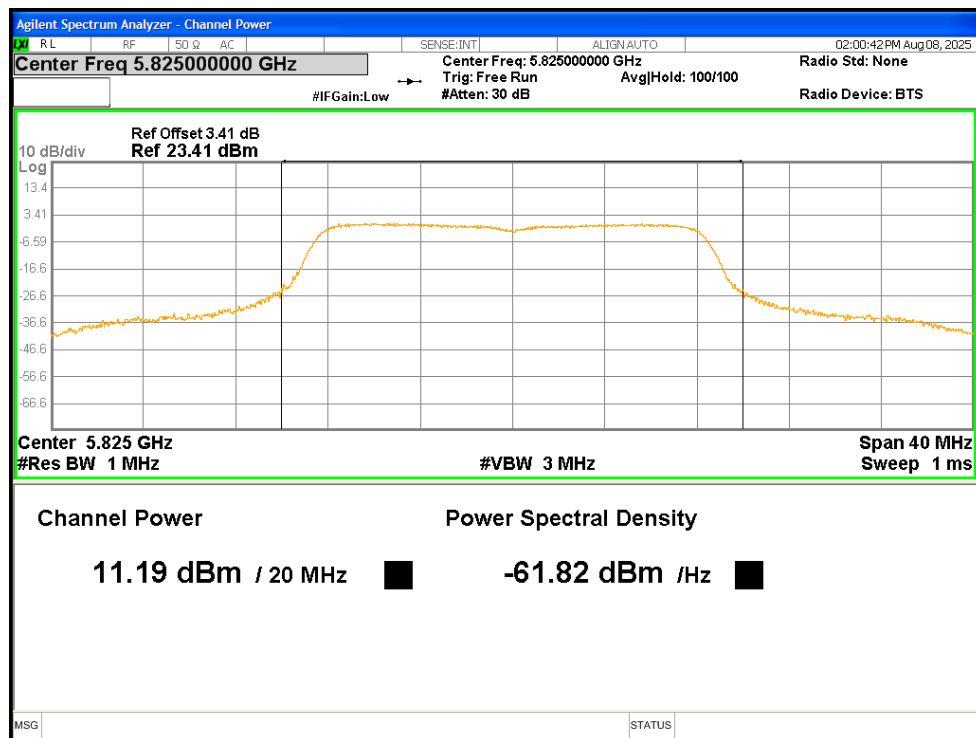
Power NVNT a 5240MHz Ant1



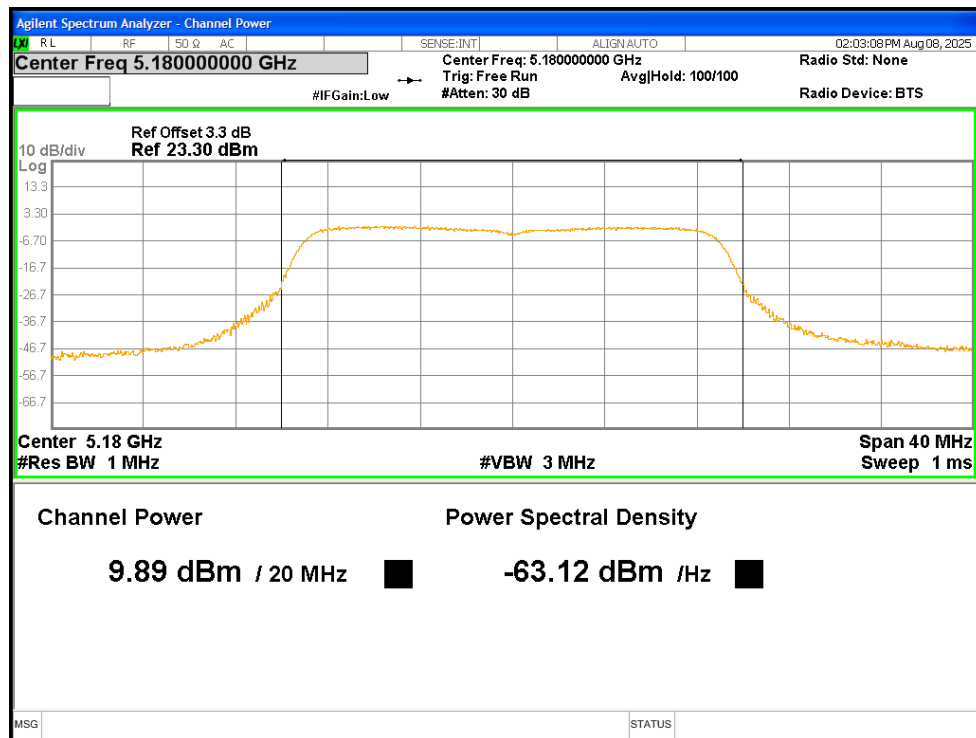
Power NVNT a 5745MHz Ant1



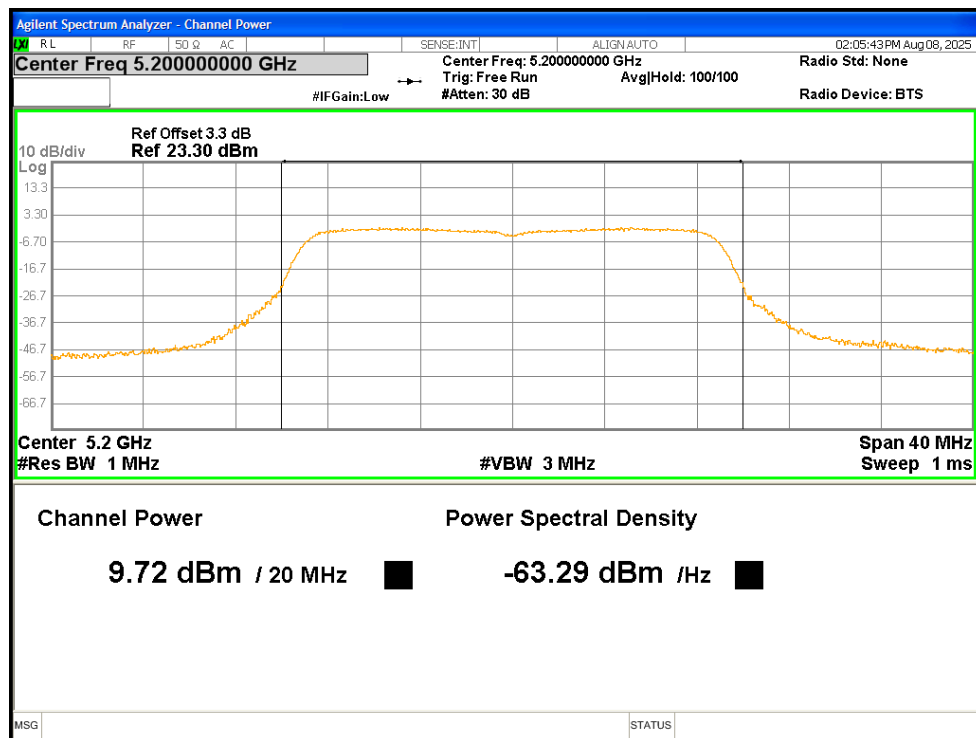
Power NVNT a 5785MHz Ant1



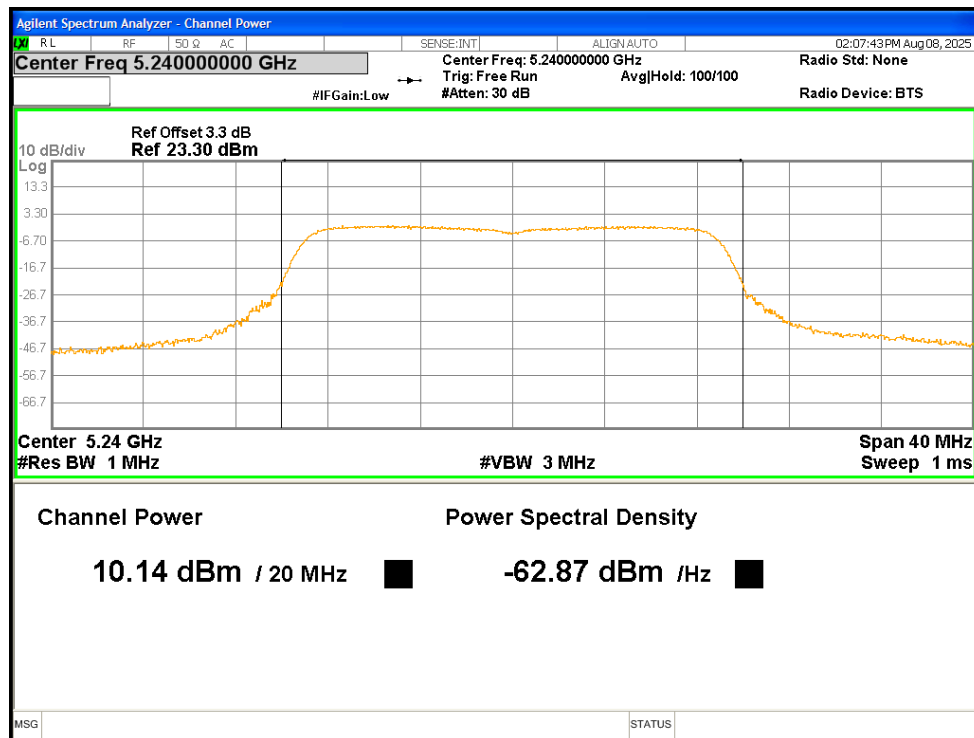
Power NVNT a 5825MHz Ant1



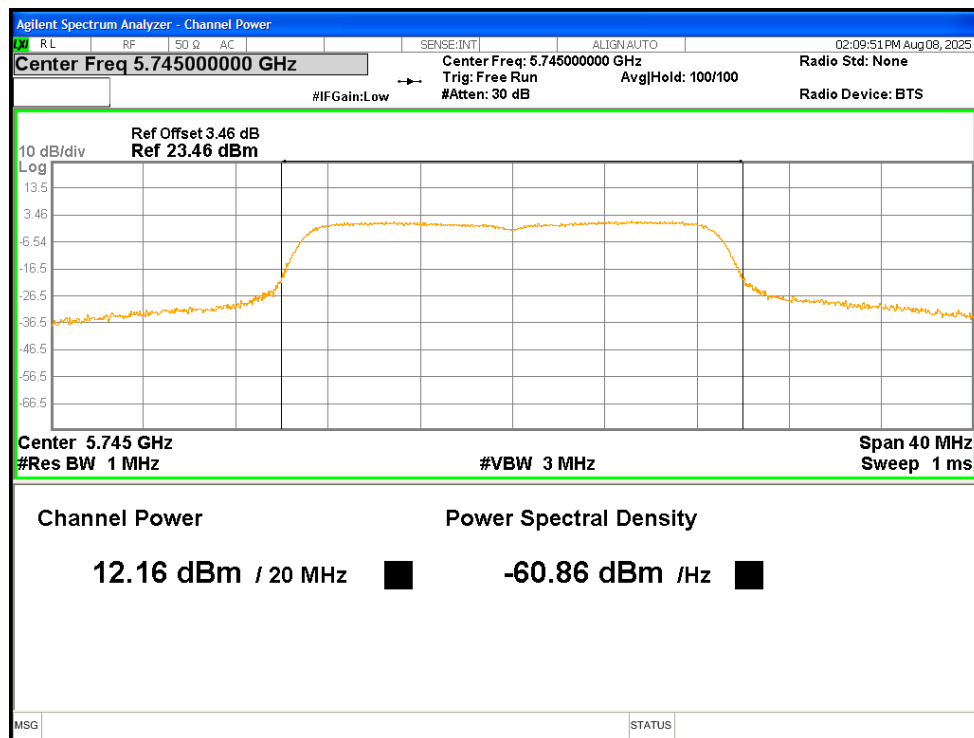
Power NVNT n20 5180MHz Ant1



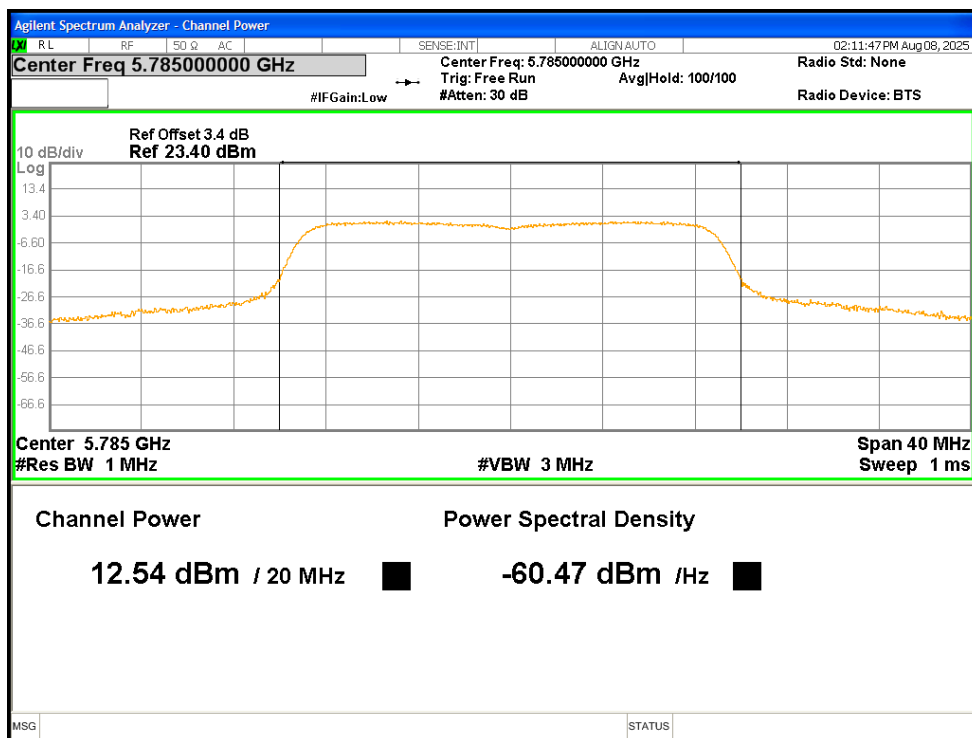
Power NVNT n20 5200MHz Ant1



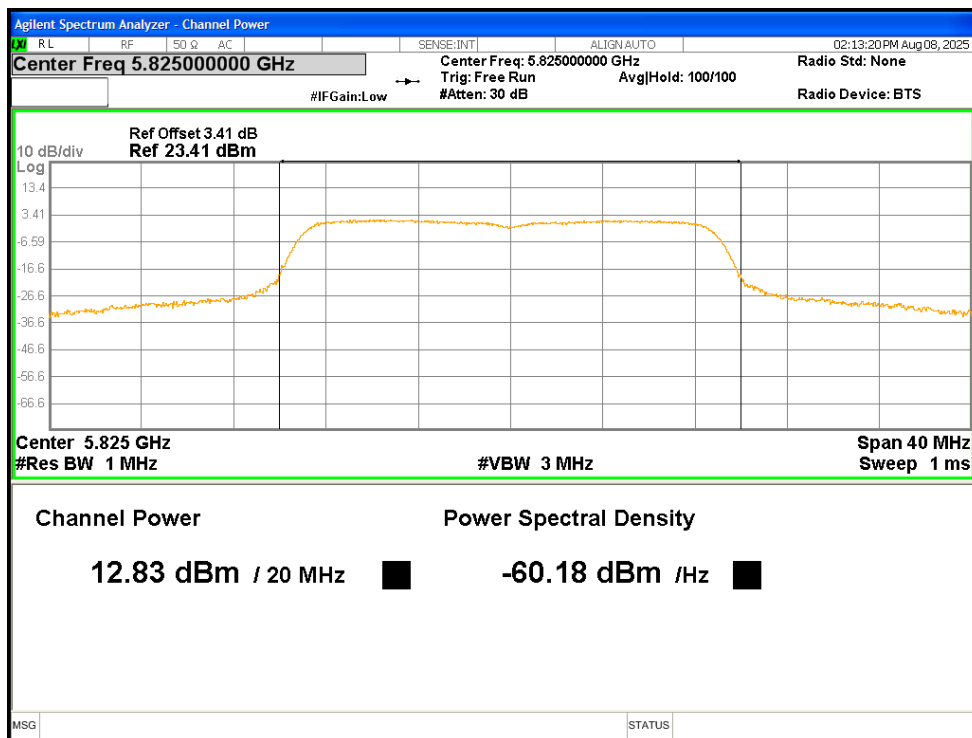
Power NVNT n20 5240MHz Ant1



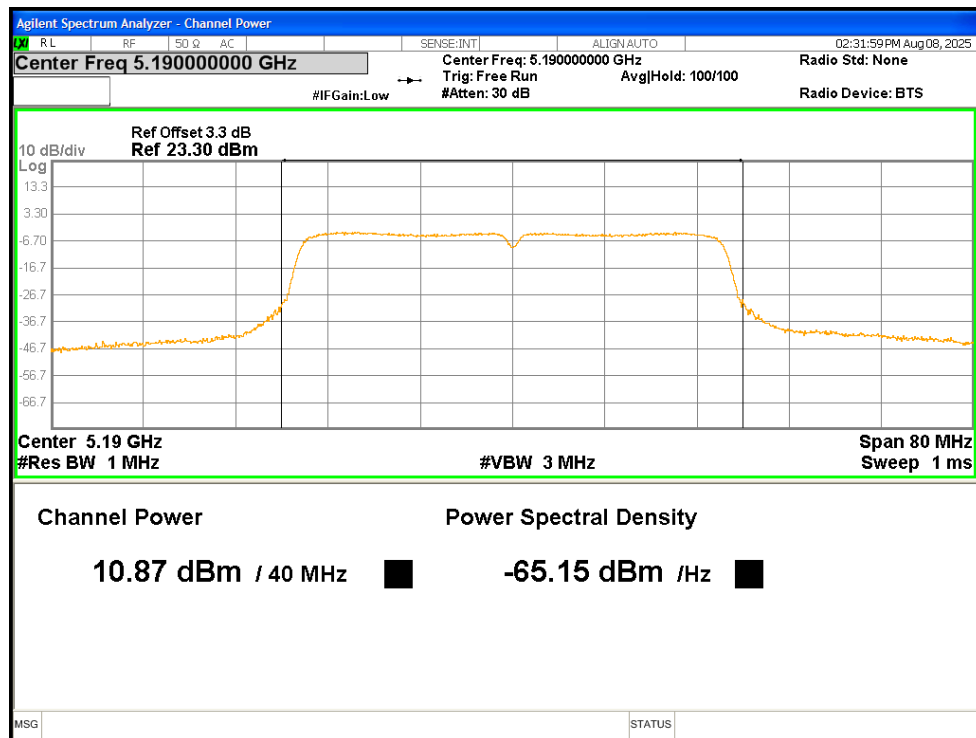
Power NVNT n20 5745MHz Ant1



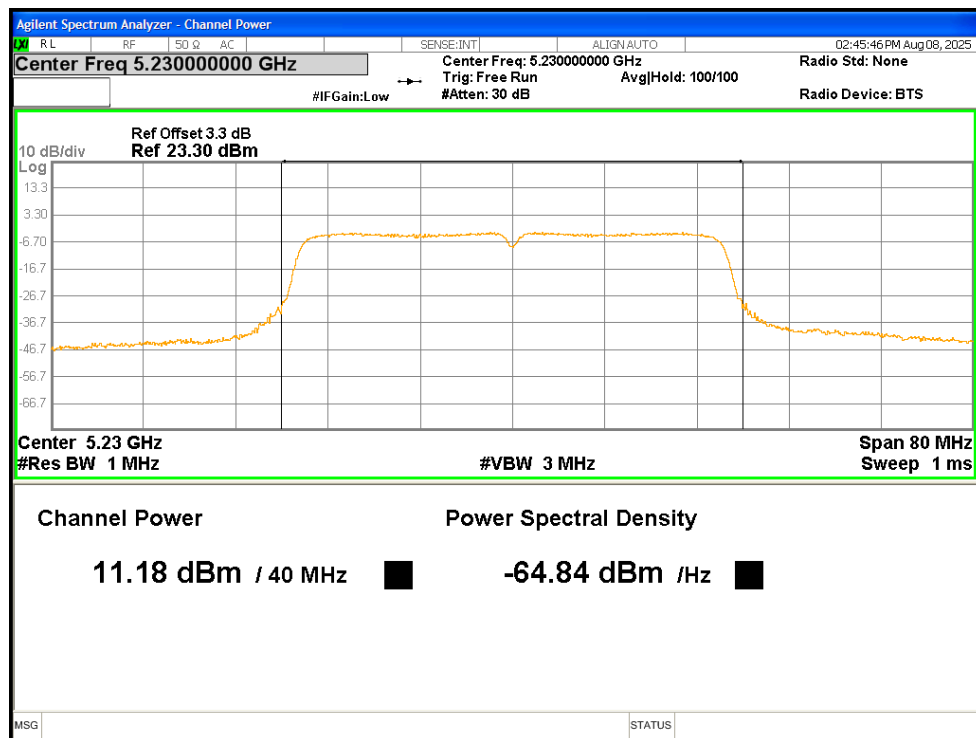
Power NVNT n20 5785MHz Ant1



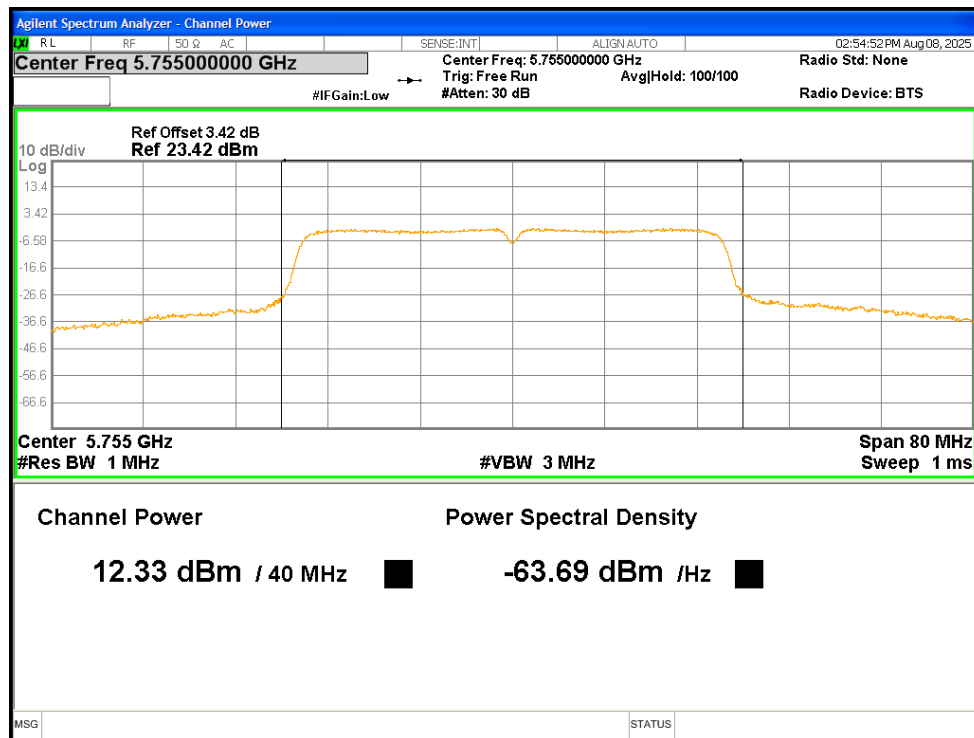
Power NVNT n20 5825MHz Ant1



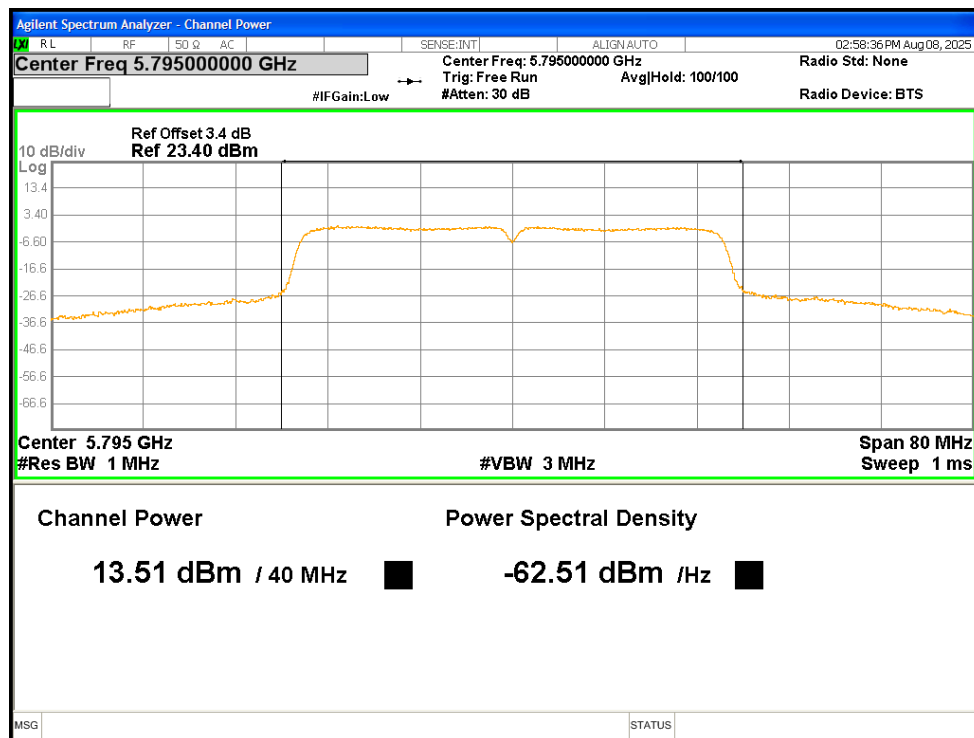
Power NVNT n40 5190MHz Ant1



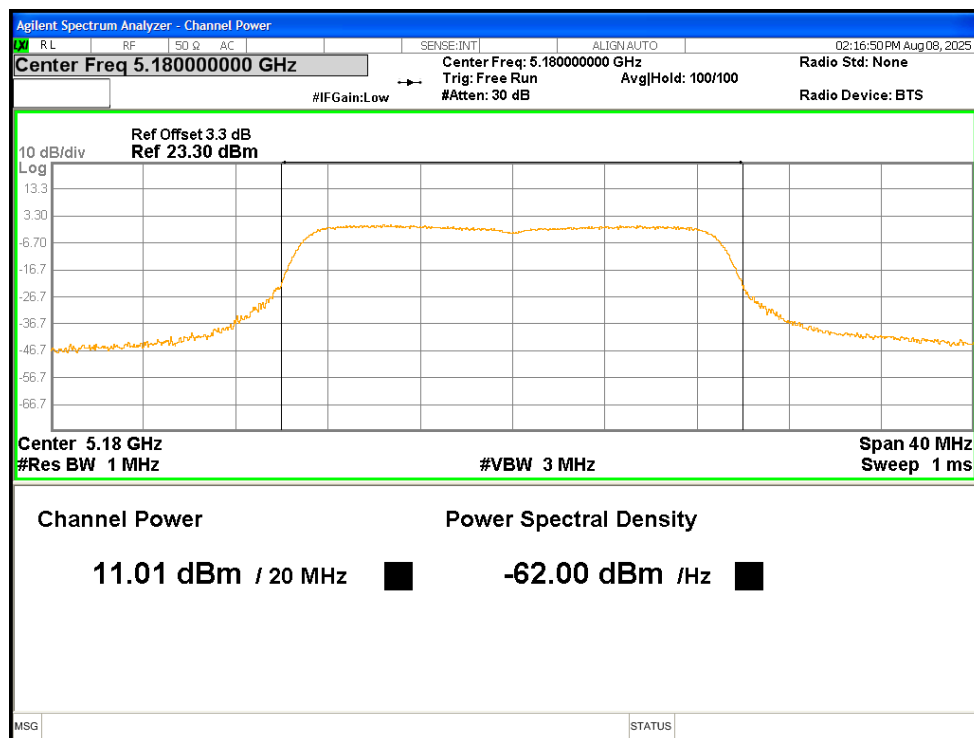
Power NVNT n40 5230MHz Ant1



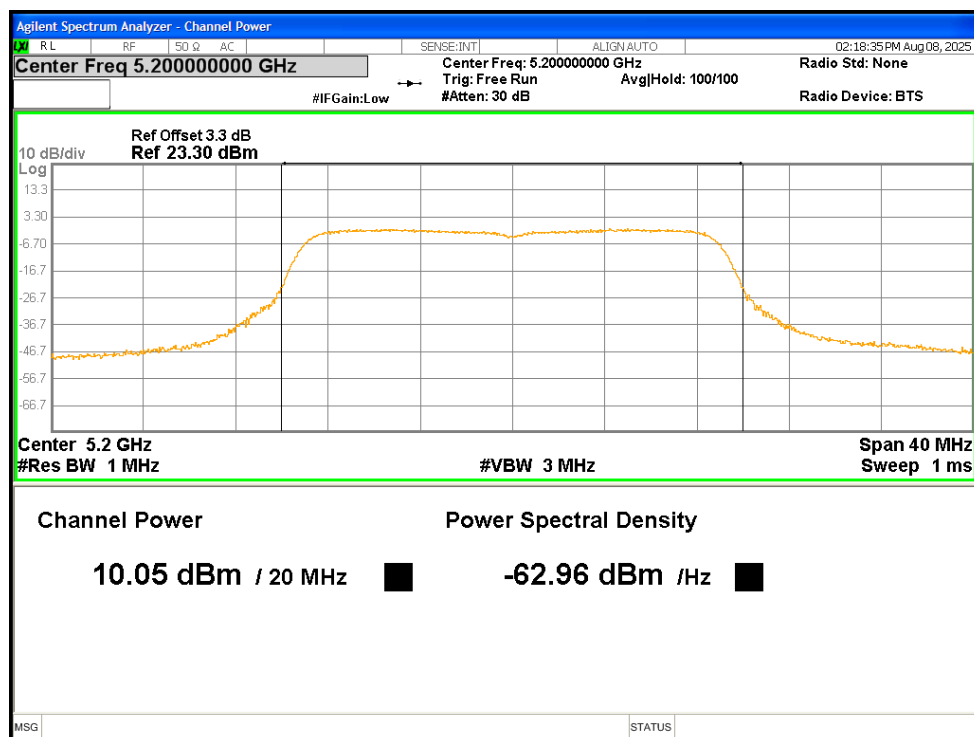
Power NVNT n40 5755MHz Ant1



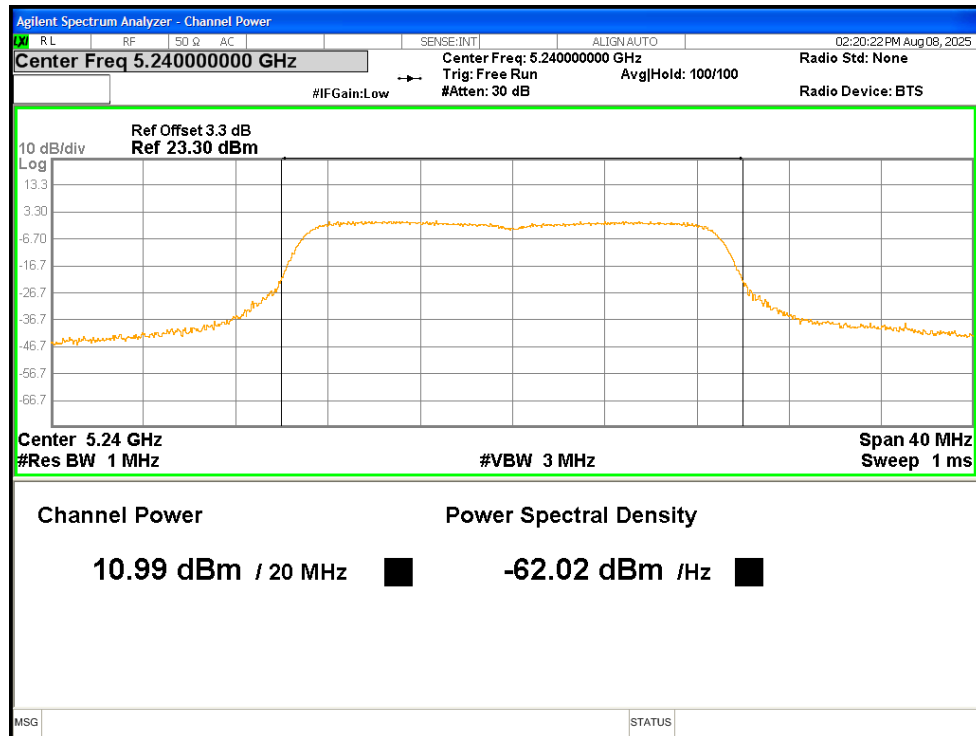
Power NVNT n40 5795MHz Ant1



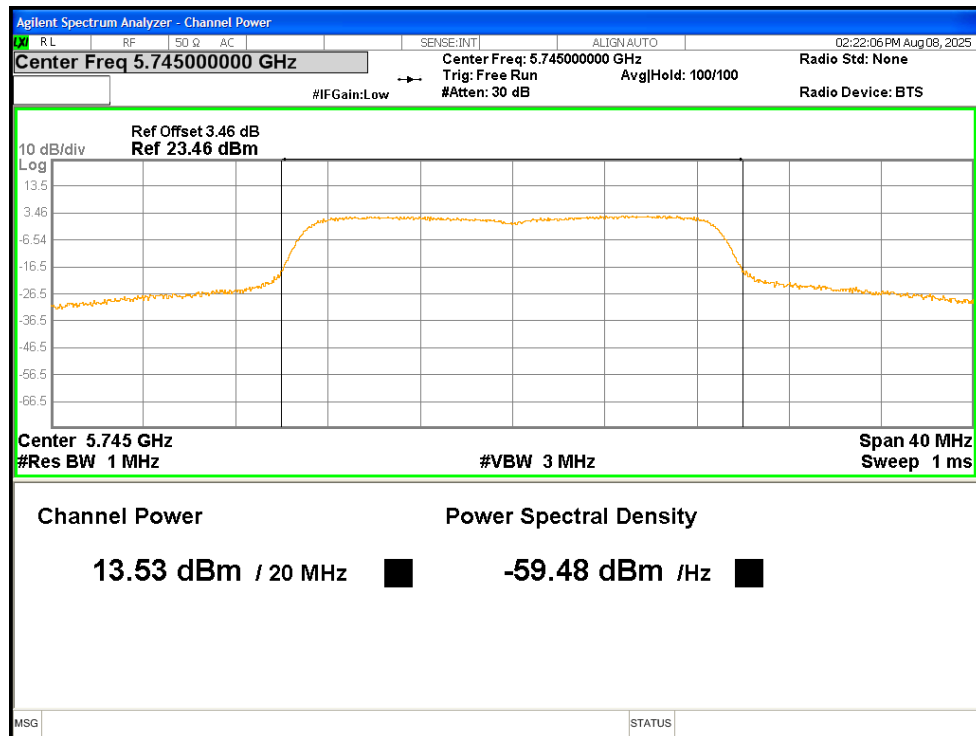
Power NVNT ac20 5180MHz Ant1



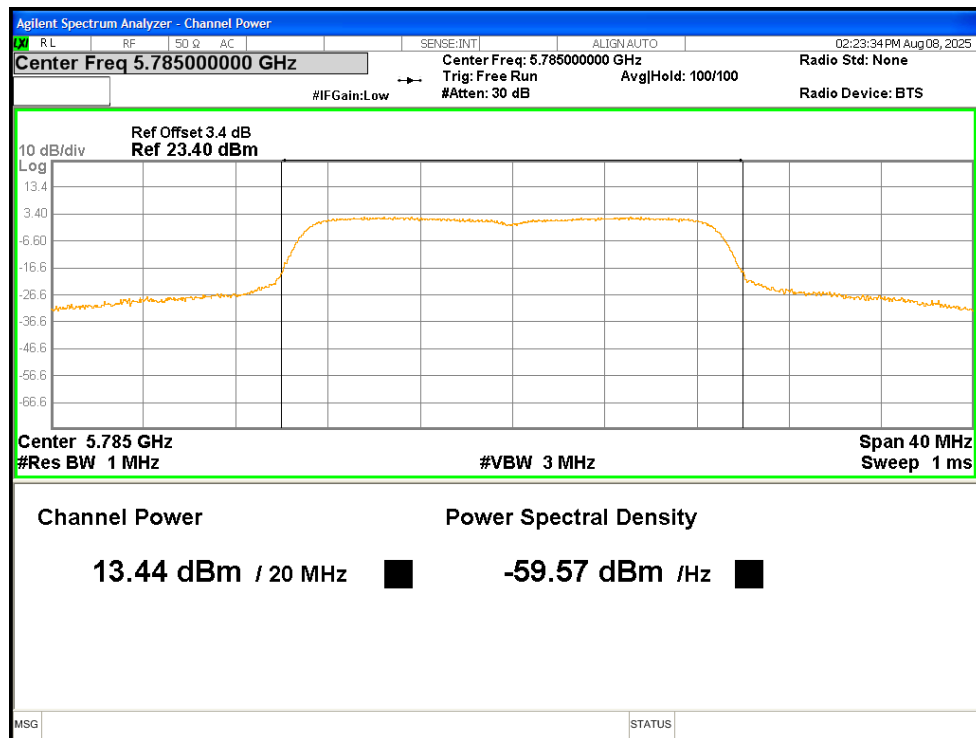
Power NVNT ac20 5200MHz Ant1



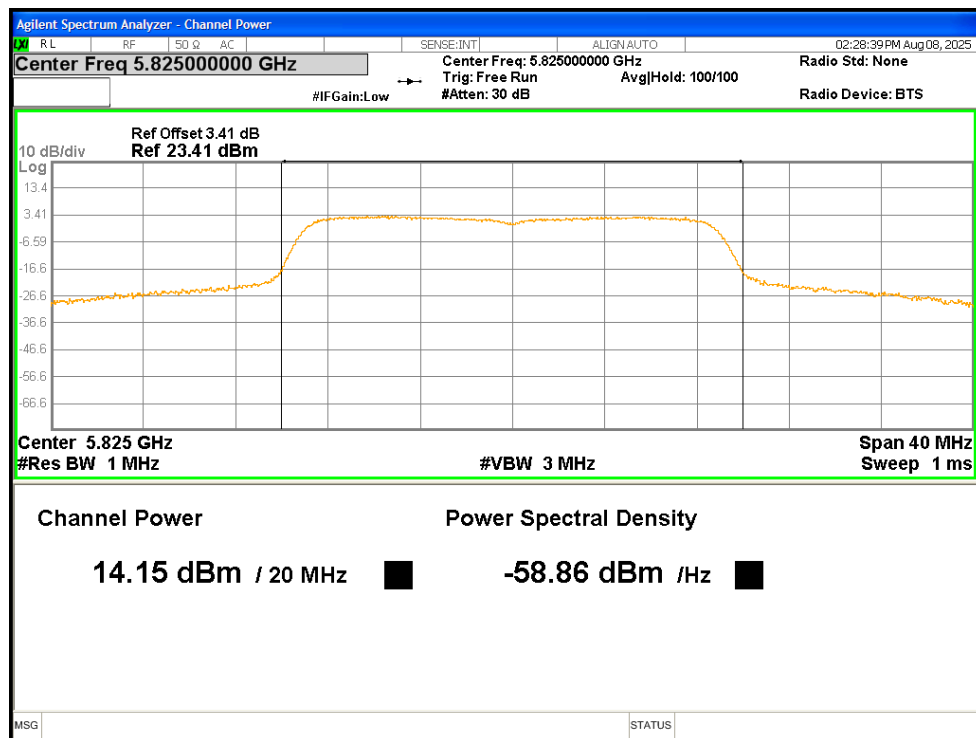
Power NVNT ac20 5240MHz Ant1



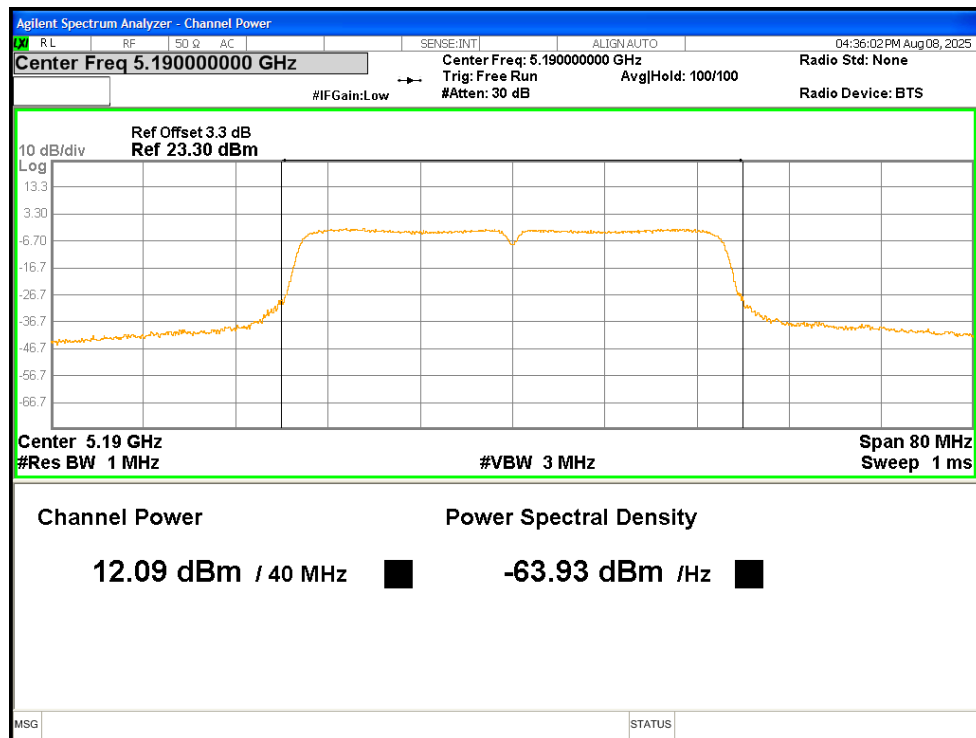
Power NVNT ac20 5745MHz Ant1



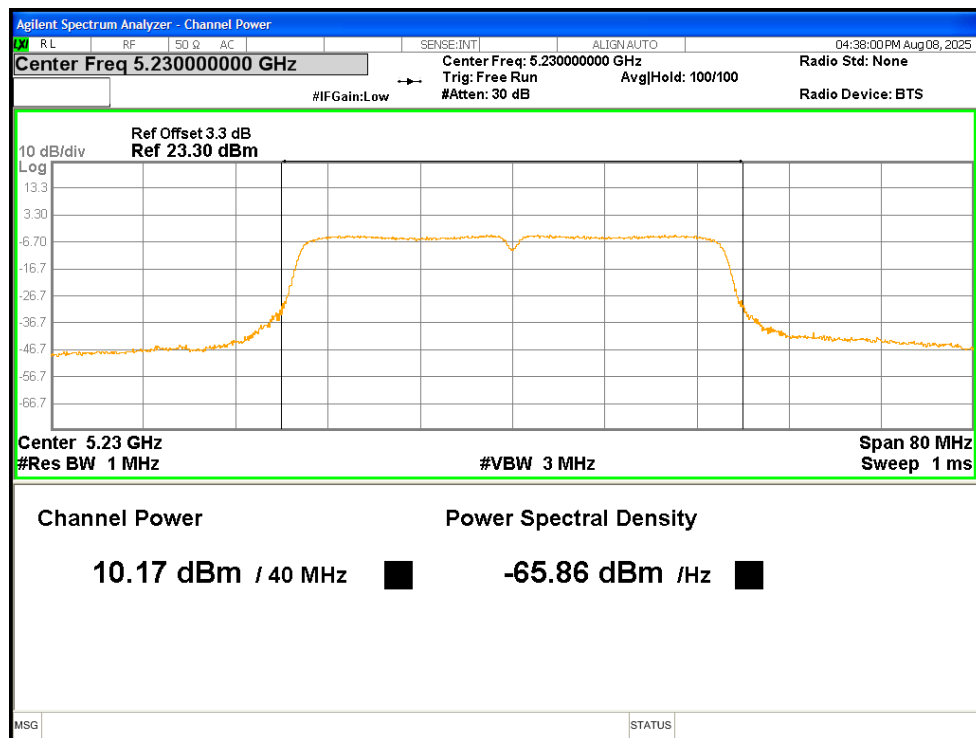
Power NVNT ac20 5785MHz Ant1



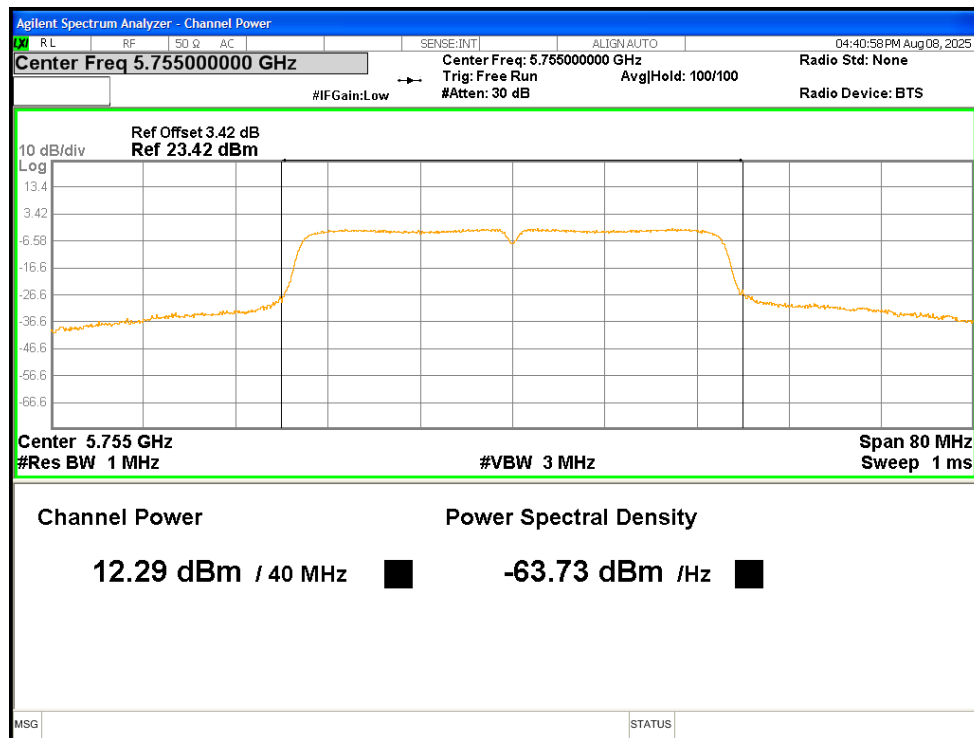
Power NVNT ac20 5825MHz Ant1



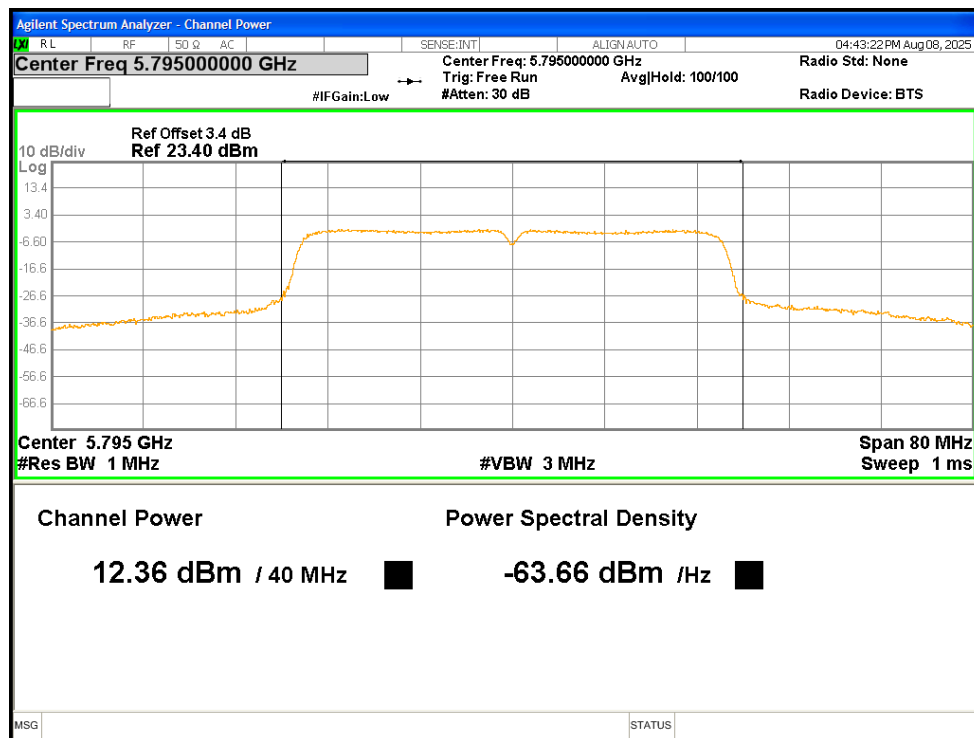
Power NVNT ac40 5190MHz Ant1



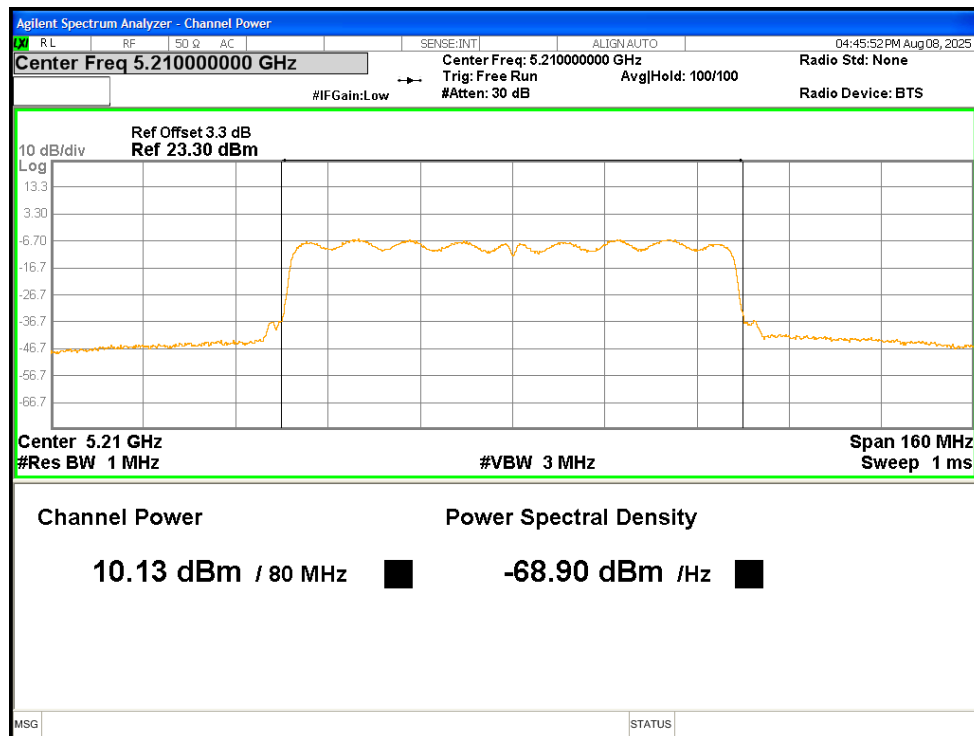
Power NVNT ac40 5230MHz Ant1



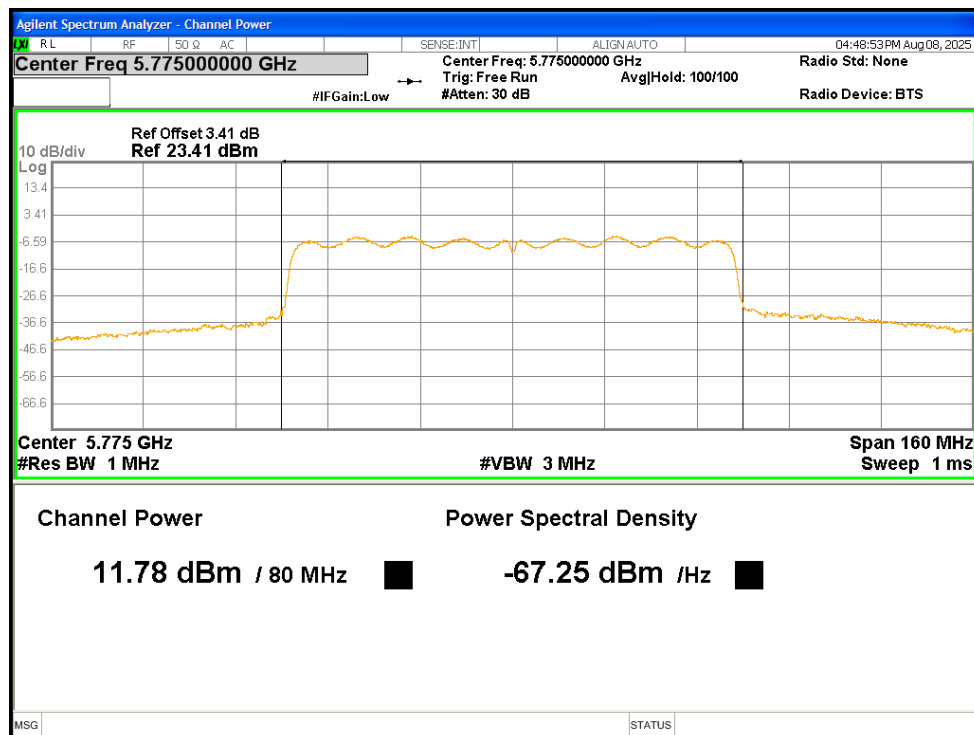
Power NVNT ac40 5755MHz Ant1



Power NVNT ac40 5795MHz Ant1



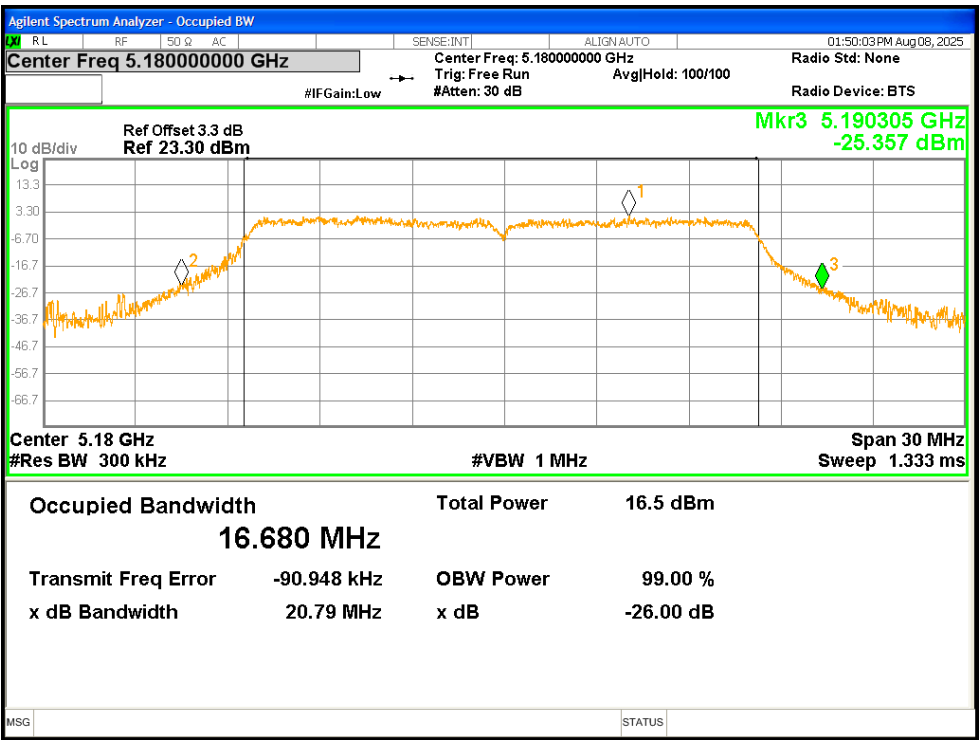
Power NVNT ac80 5210MHz Ant1



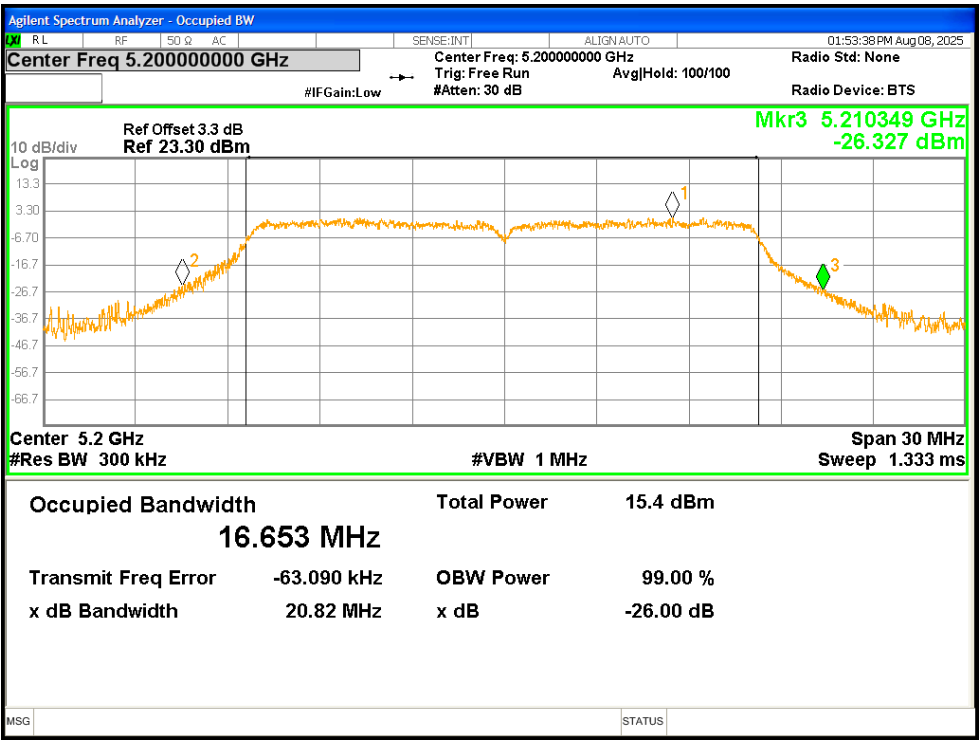
Power NVNT ac80 5775MHz Ant1

3. -26dB Bandwidth

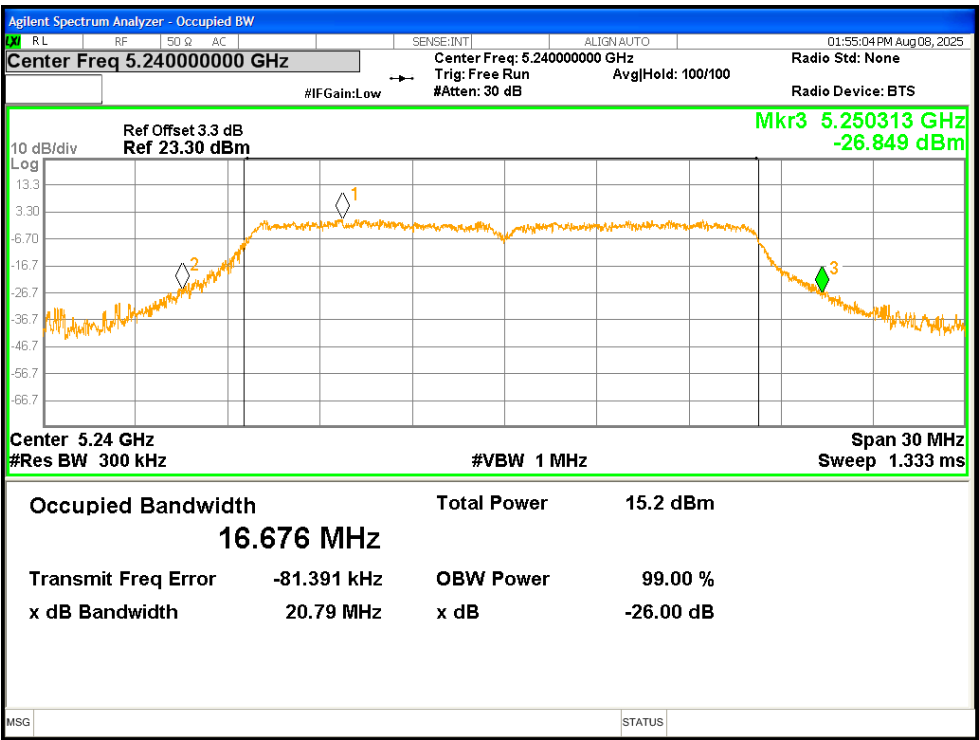
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	20.793	0.5	Pass
NVNT	a	5200	Ant1	20.824	0.5	Pass
NVNT	a	5240	Ant1	20.79	0.5	Pass
NVNT	n20	5180	Ant1	21.243	0.5	Pass
NVNT	n20	5200	Ant1	21.511	0.5	Pass
NVNT	n20	5240	Ant1	21.491	0.5	Pass
NVNT	n40	5190	Ant1	41.582	0.5	Pass
NVNT	n40	5230	Ant1	41.16	0.5	Pass
NVNT	ac20	5180	Ant1	21.404	0.5	Pass
NVNT	ac20	5200	Ant1	21.439	0.5	Pass
NVNT	ac20	5240	Ant1	21.381	0.5	Pass
NVNT	ac40	5190	Ant1	41.504	0.5	Pass
NVNT	ac40	5230	Ant1	40.451	0.5	Pass
NVNT	ac80	5210	Ant1	79.671	0.5	Pass



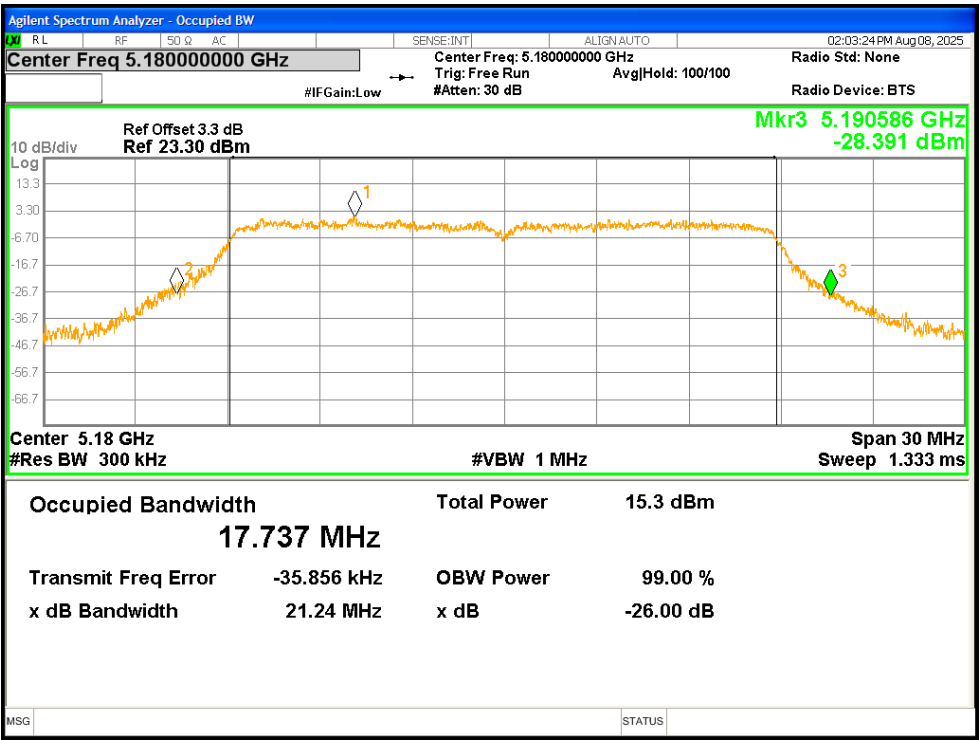
-26dB Bandwidth NVNT a 5180MHz Ant1



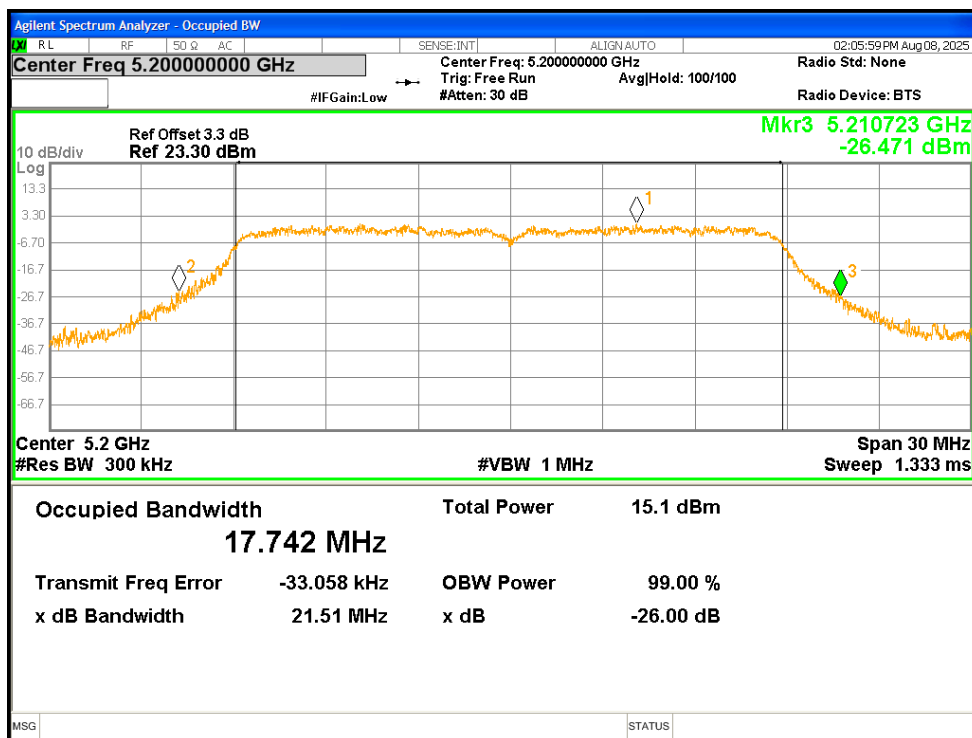
-26dB Bandwidth NVNT a 5200MHz Ant1



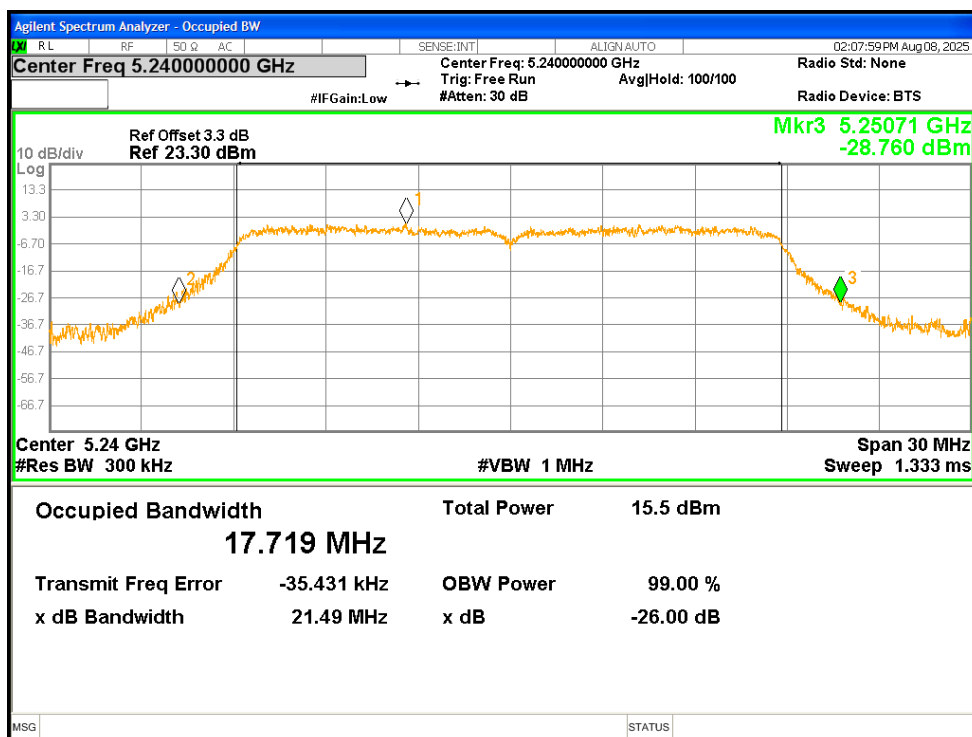
-26dB Bandwidth NVNT a 5240MHz Ant1



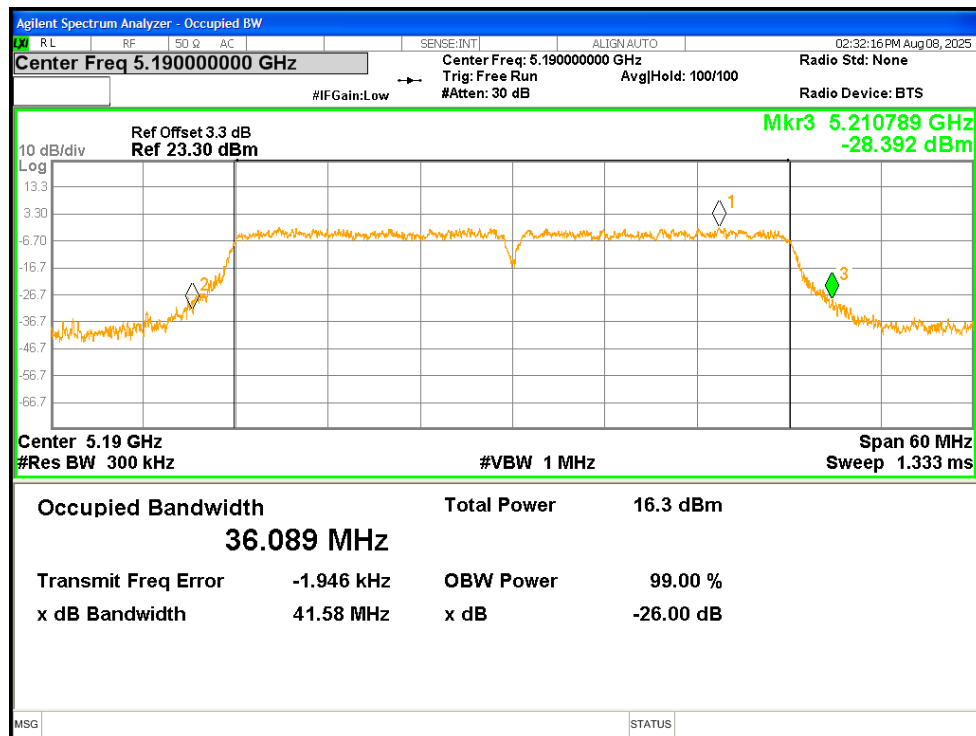
-26dB Bandwidth NVNT n20 5180MHz Ant1



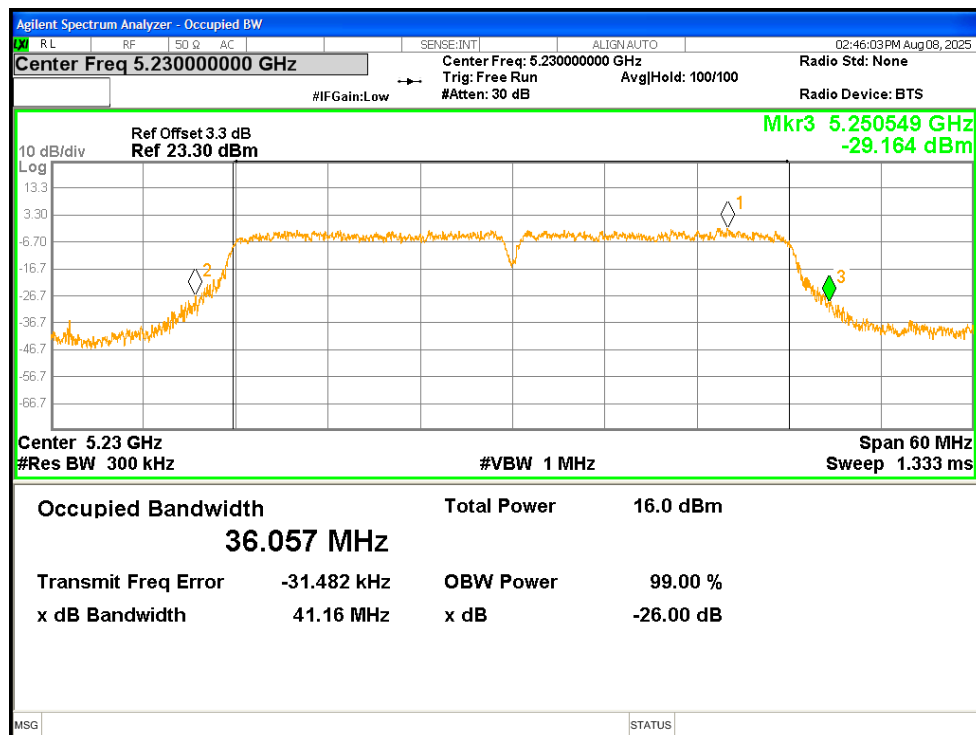
-26dB Bandwidth NVNT n20 5200MHz Ant1



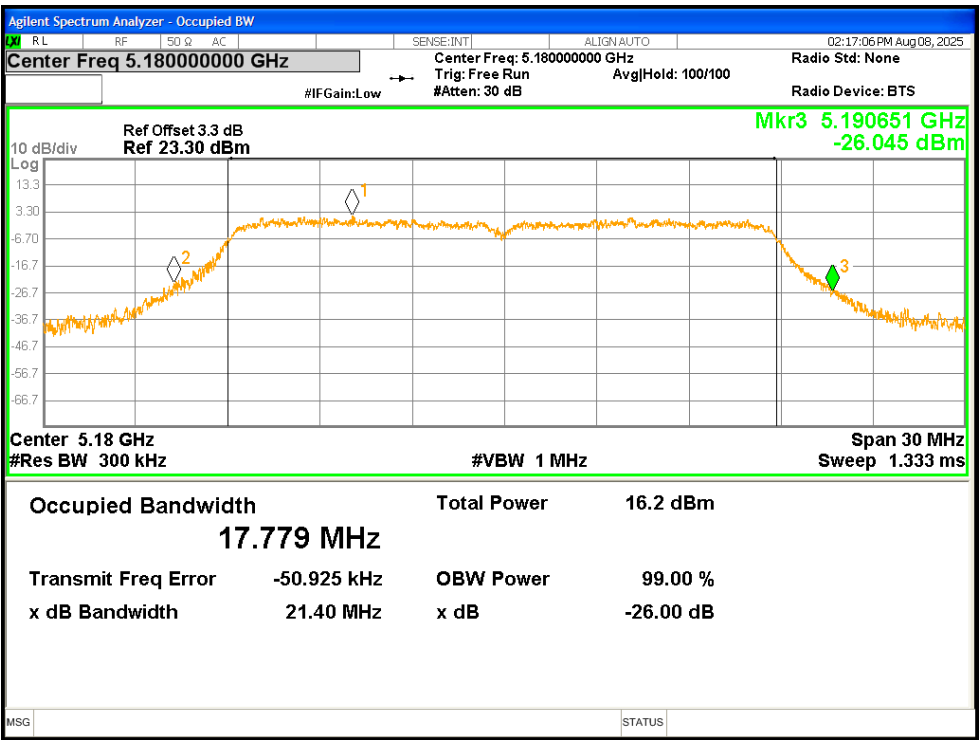
-26dB Bandwidth NVNT n20 5240MHz Ant1



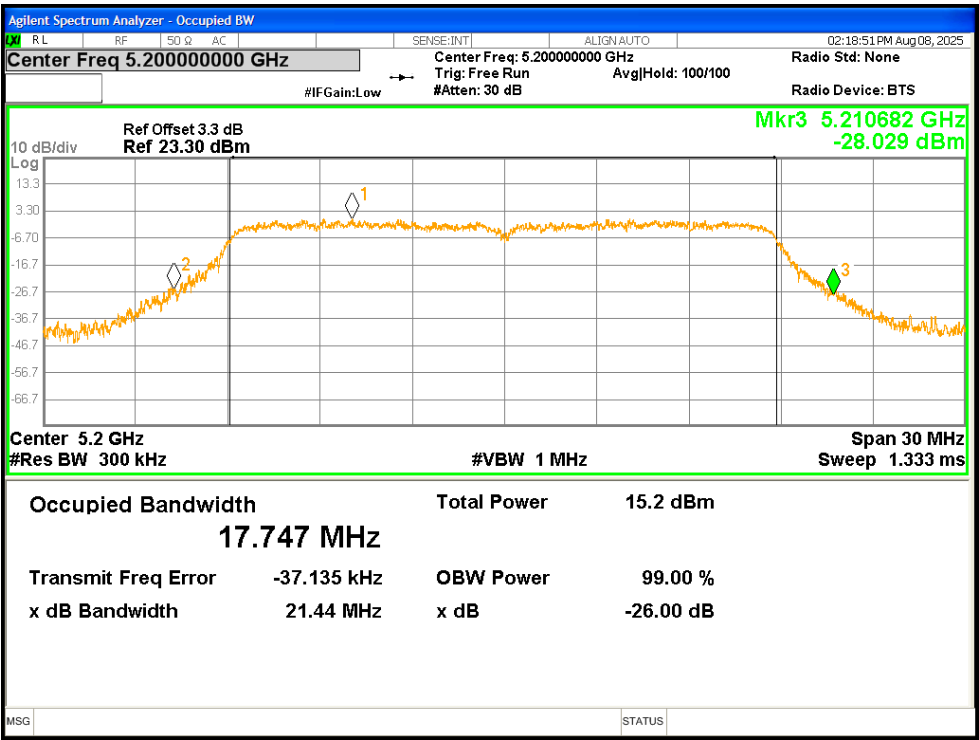
-26dB Bandwidth NVNT n40 5190MHz Ant1



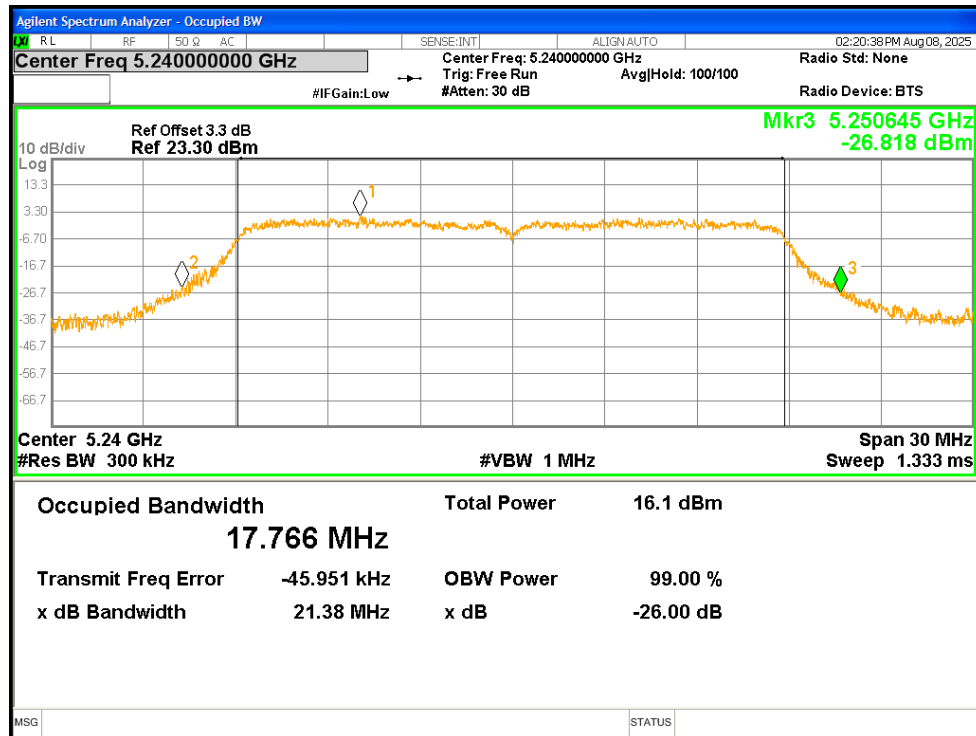
-26dB Bandwidth NVNT n40 5230MHz Ant1



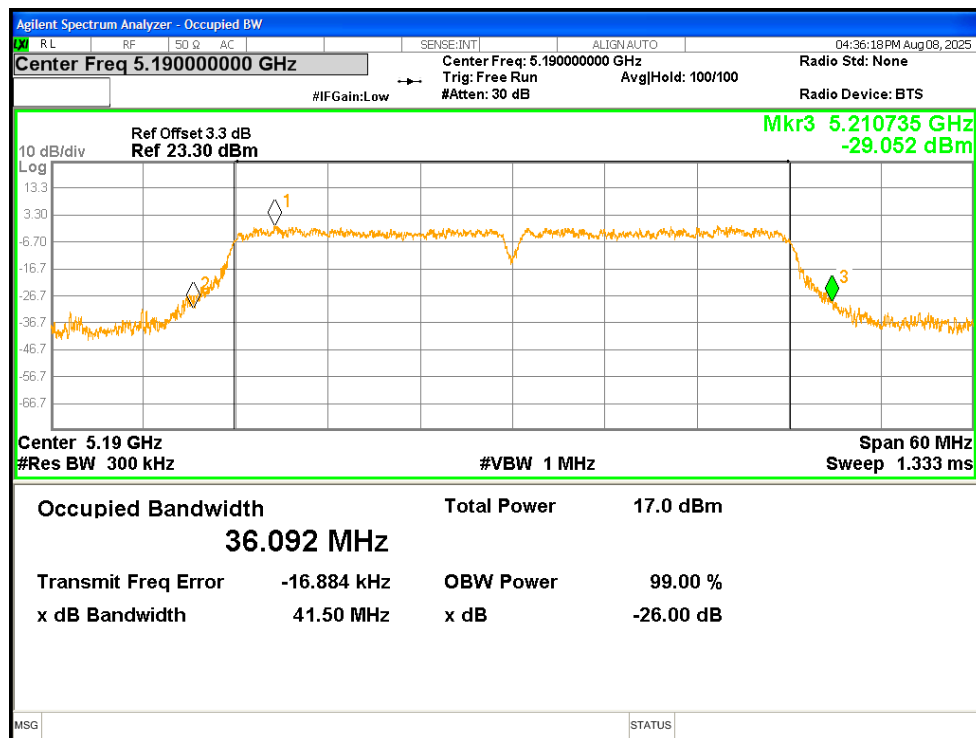
-26dB Bandwidth NVNT ac20 5180MHz Ant1



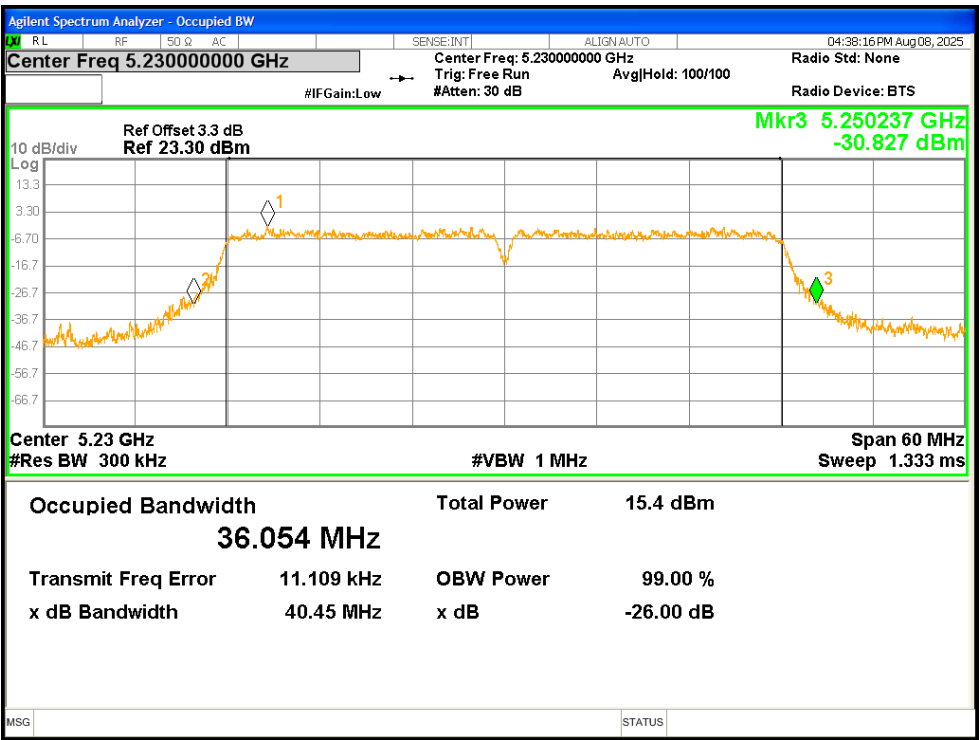
-26dB Bandwidth NVNT ac20 5200MHz Ant1



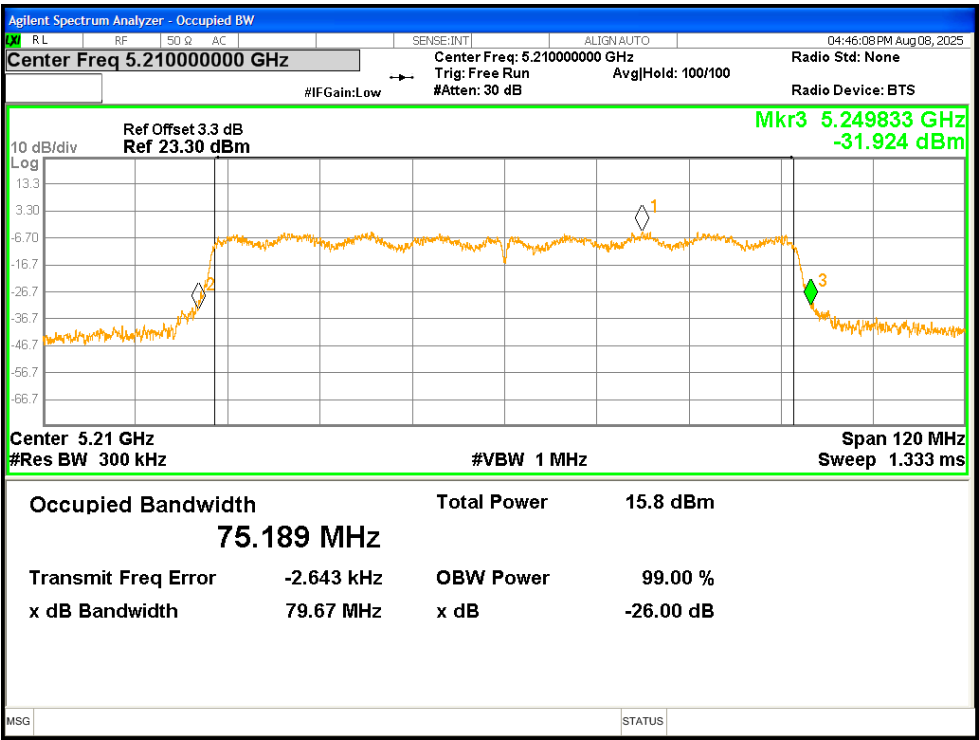
-26dB Bandwidth NVNT ac20 5240MHz Ant1



-26dB Bandwidth NVNT ac40 5190MHz Ant1



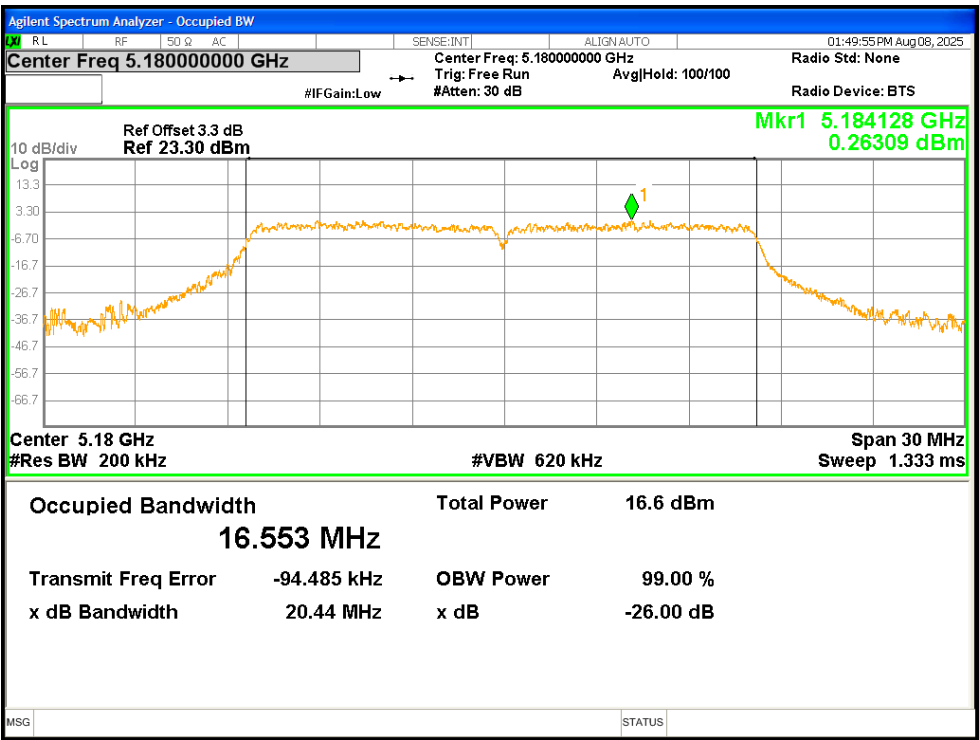
-26dB Bandwidth NVNT ac40 5230MHz Ant1



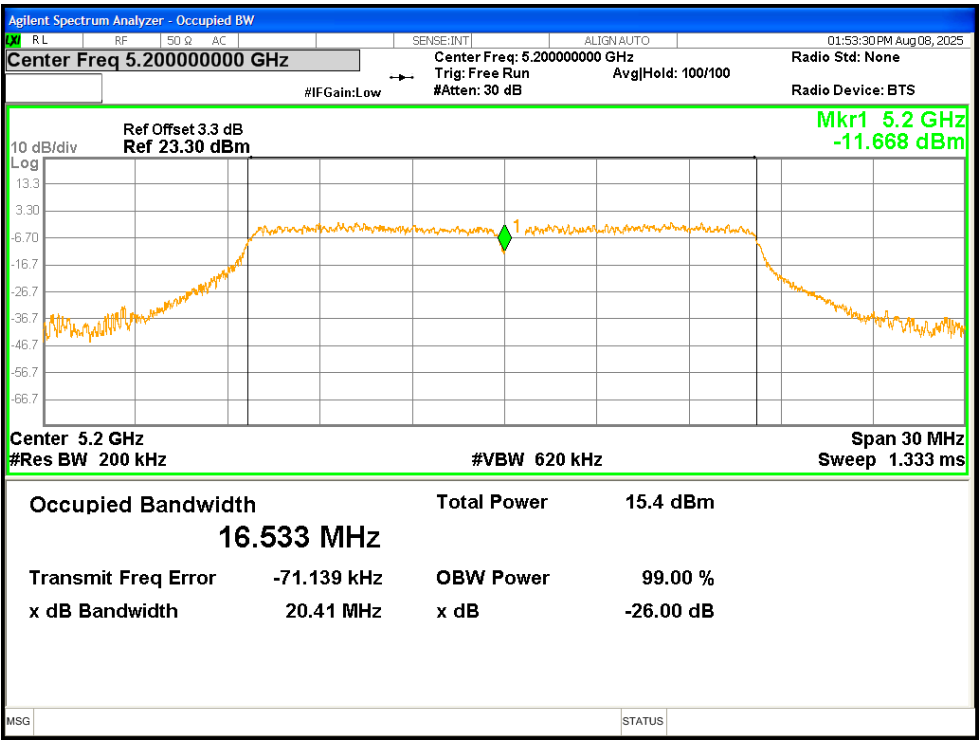
-26dB Bandwidth NVNT ac80 5210MHz Ant1

4. Occupied Channel Bandwidth

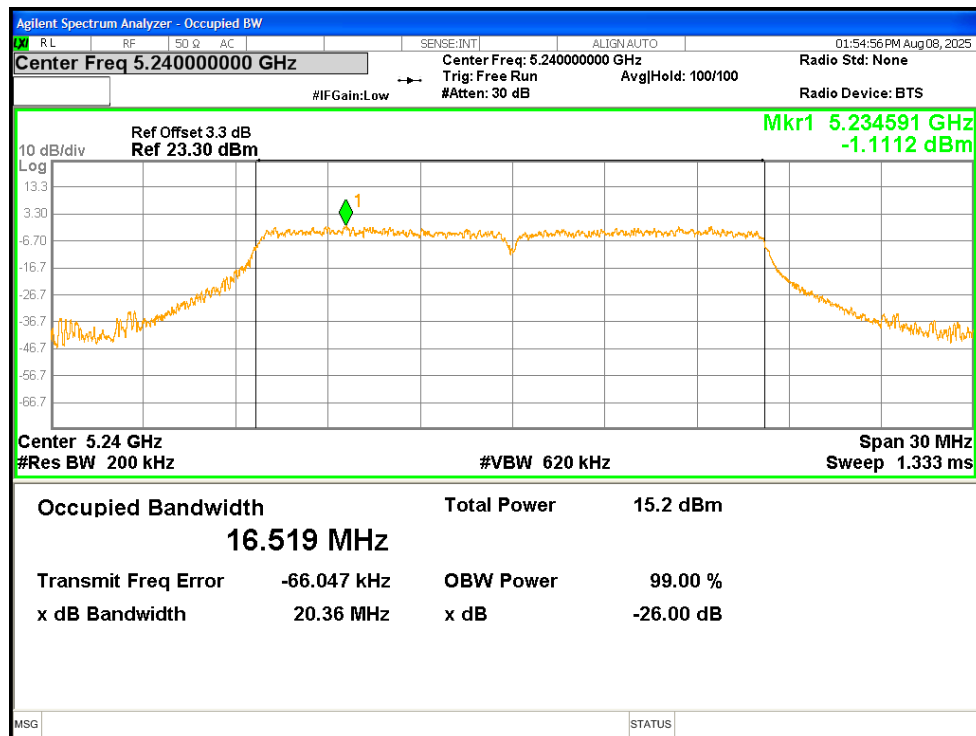
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5180	Ant1	16.553
NVNT	a	5200	Ant1	16.533
NVNT	a	5240	Ant1	16.519
NVNT	a	5745	Ant1	16.625
NVNT	a	5785	Ant1	16.582
NVNT	a	5825	Ant1	16.563
NVNT	n20	5180	Ant1	17.658
NVNT	n20	5200	Ant1	17.645
NVNT	n20	5240	Ant1	17.635
NVNT	n20	5745	Ant1	17.74
NVNT	n20	5785	Ant1	17.71
NVNT	n20	5825	Ant1	17.737
NVNT	n40	5190	Ant1	36.134
NVNT	n40	5230	Ant1	36.142
NVNT	n40	5755	Ant1	36.192
NVNT	n40	5795	Ant1	36.31
NVNT	ac20	5180	Ant1	17.68
NVNT	ac20	5200	Ant1	17.647
NVNT	ac20	5240	Ant1	17.666
NVNT	ac20	5745	Ant1	17.837
NVNT	ac20	5785	Ant1	17.775
NVNT	ac20	5825	Ant1	17.801
NVNT	ac40	5190	Ant1	36.185
NVNT	ac40	5230	Ant1	36.099
NVNT	ac40	5755	Ant1	36.195
NVNT	ac40	5795	Ant1	36.226
NVNT	ac80	5210	Ant1	75.322
NVNT	ac80	5775	Ant1	75.457



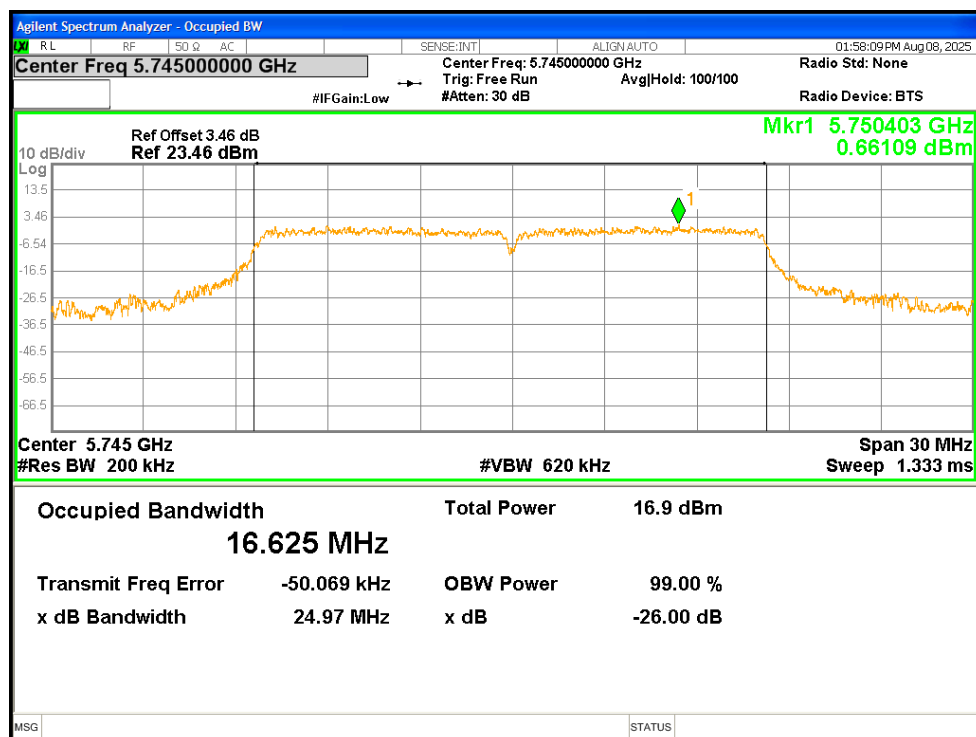
OBW NVNT a 5180MHz Ant1



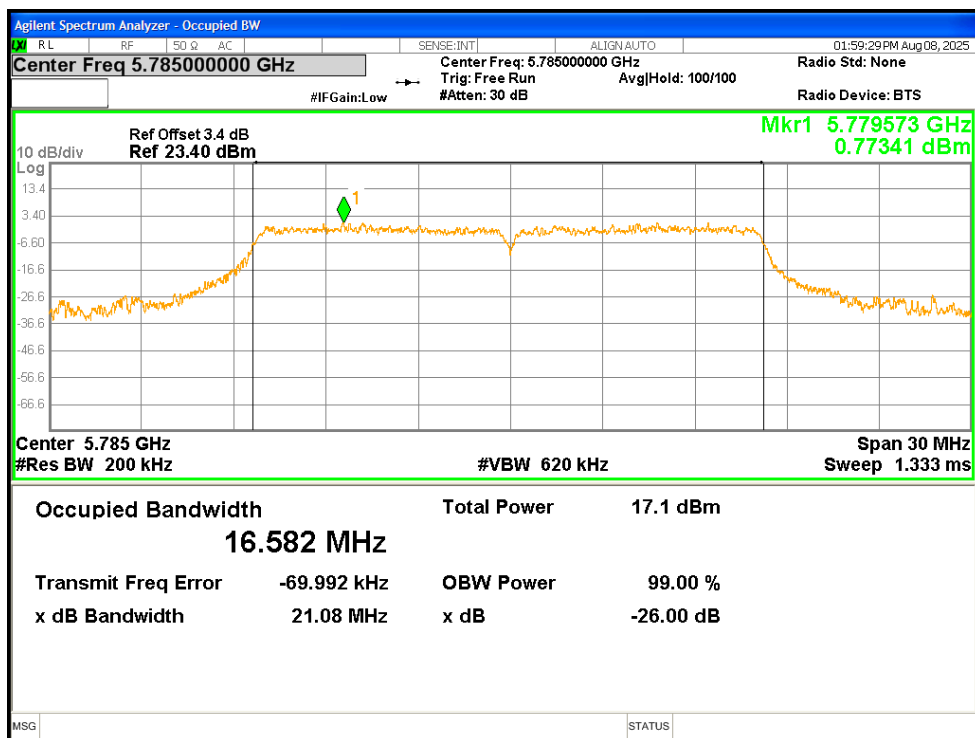
OBW NVNT a 5200MHz Ant1



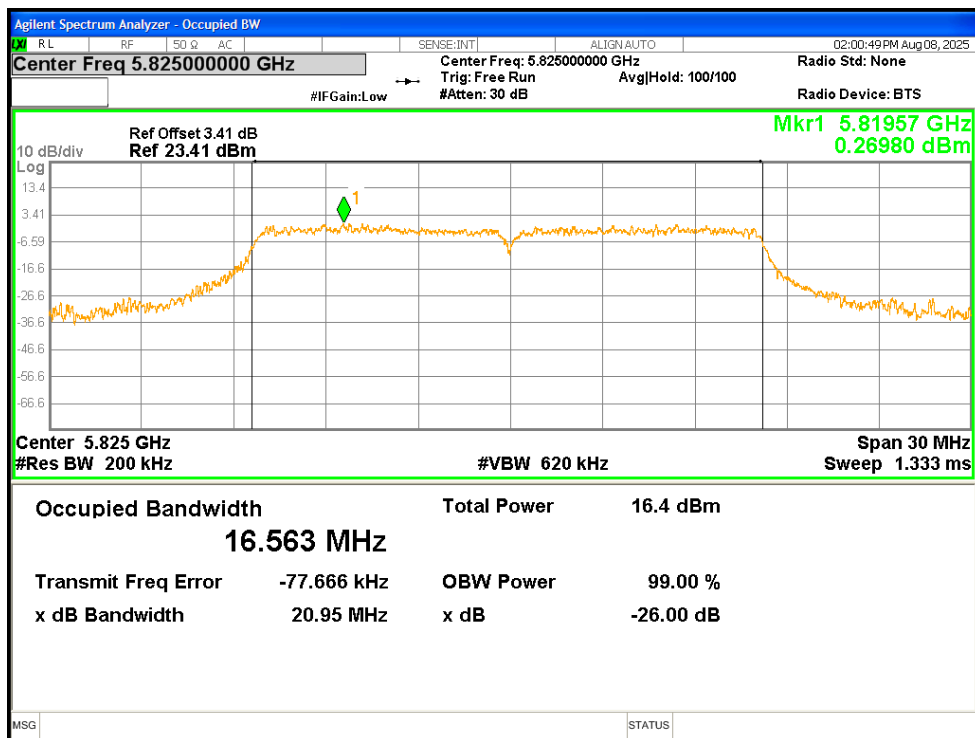
OBW NVNT a 5240MHz Ant1



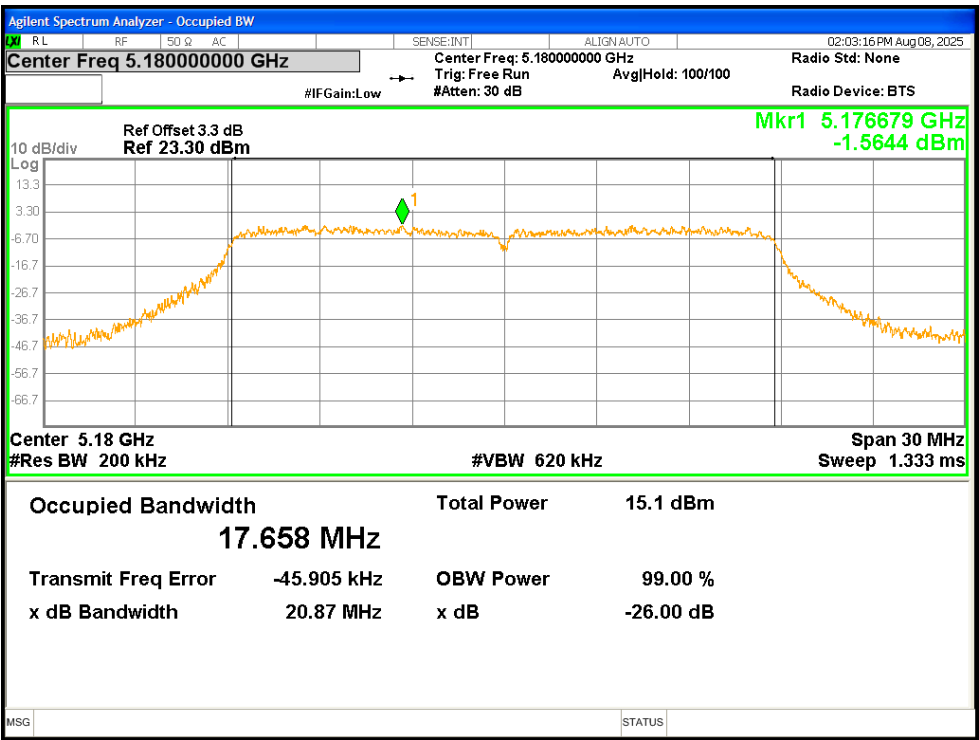
OBW NVNT a 5745MHz Ant1



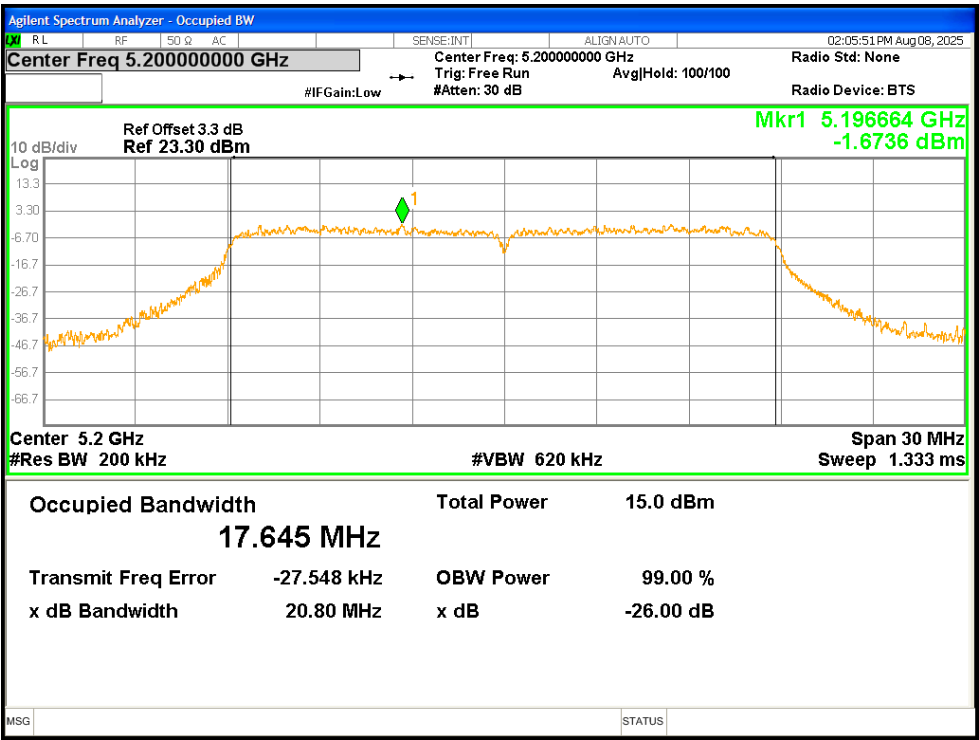
OBW NVNT a 5785MHz Ant1



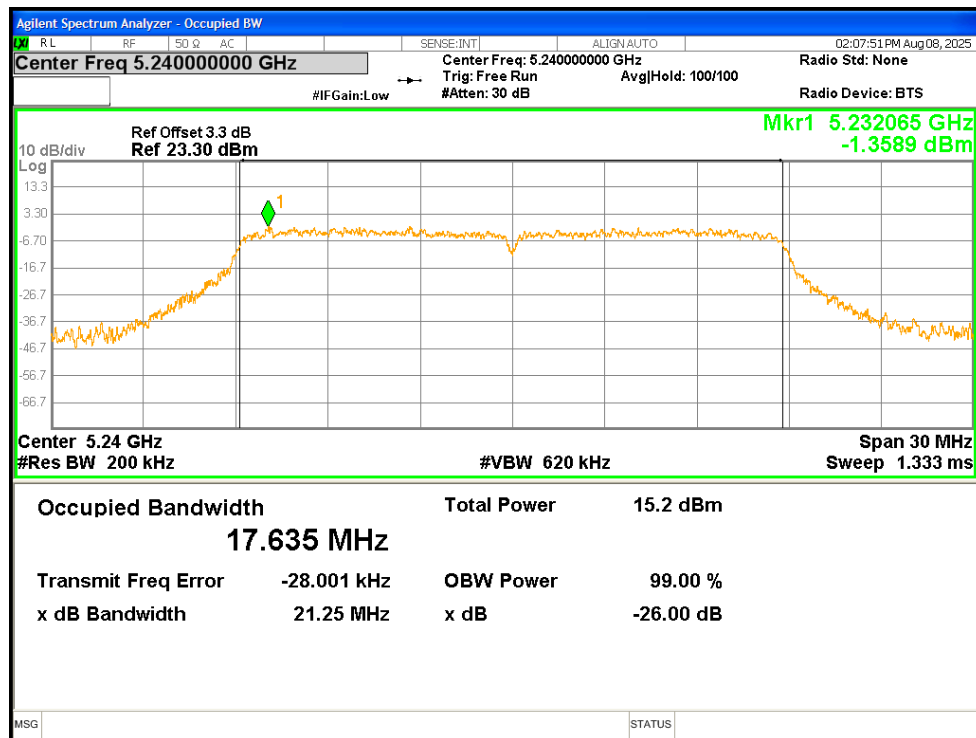
OBW NVNT a 5825MHz Ant1



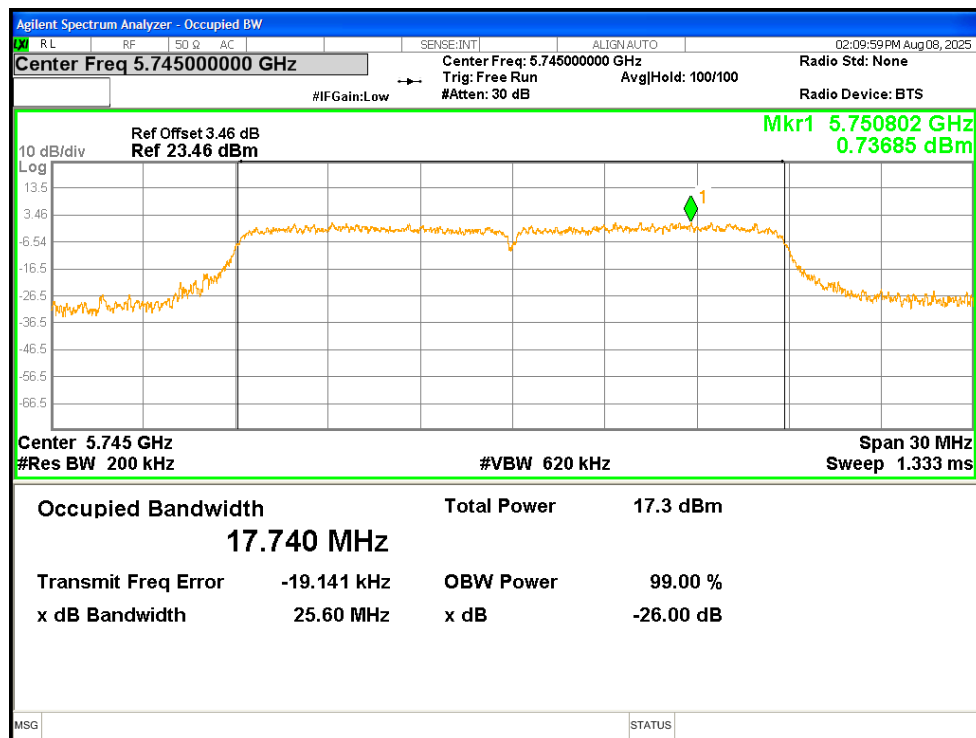
OBW NVNT n20 5180MHz Ant1



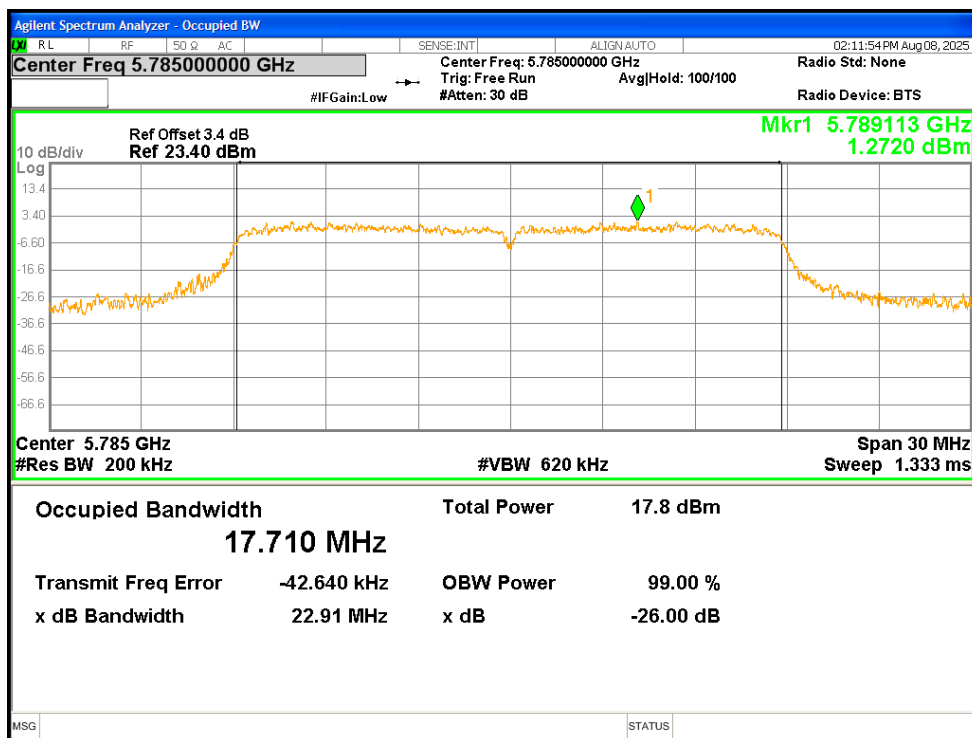
OBW NVNT n20 5200MHz Ant1



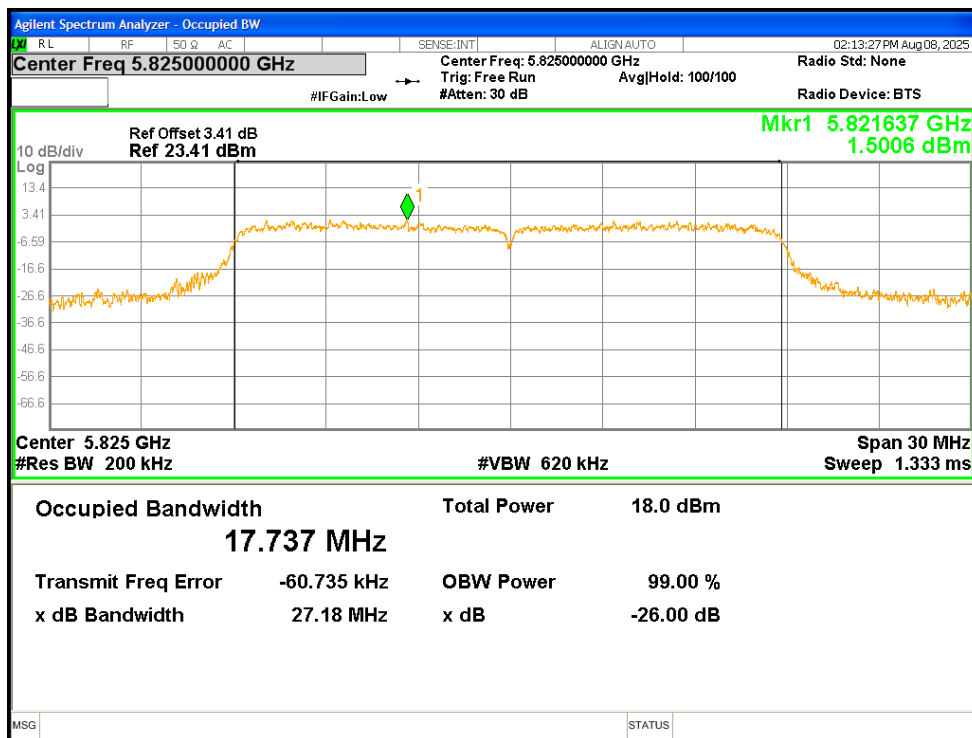
OBW NVNT n20 5240MHz Ant1



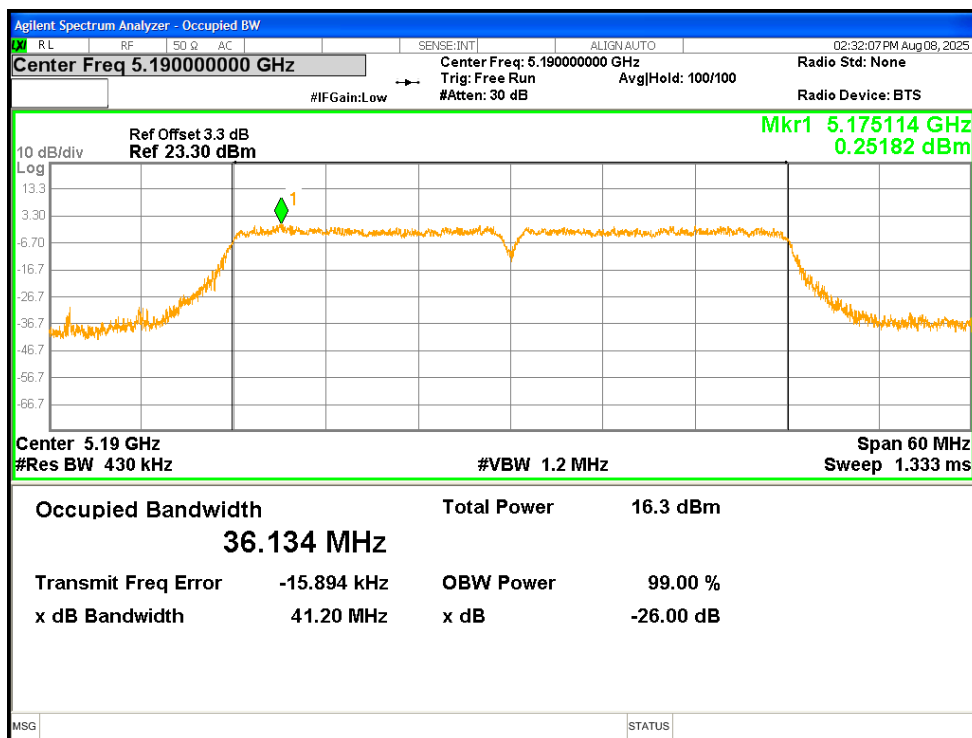
OBW NVNT n20 5745MHz Ant1



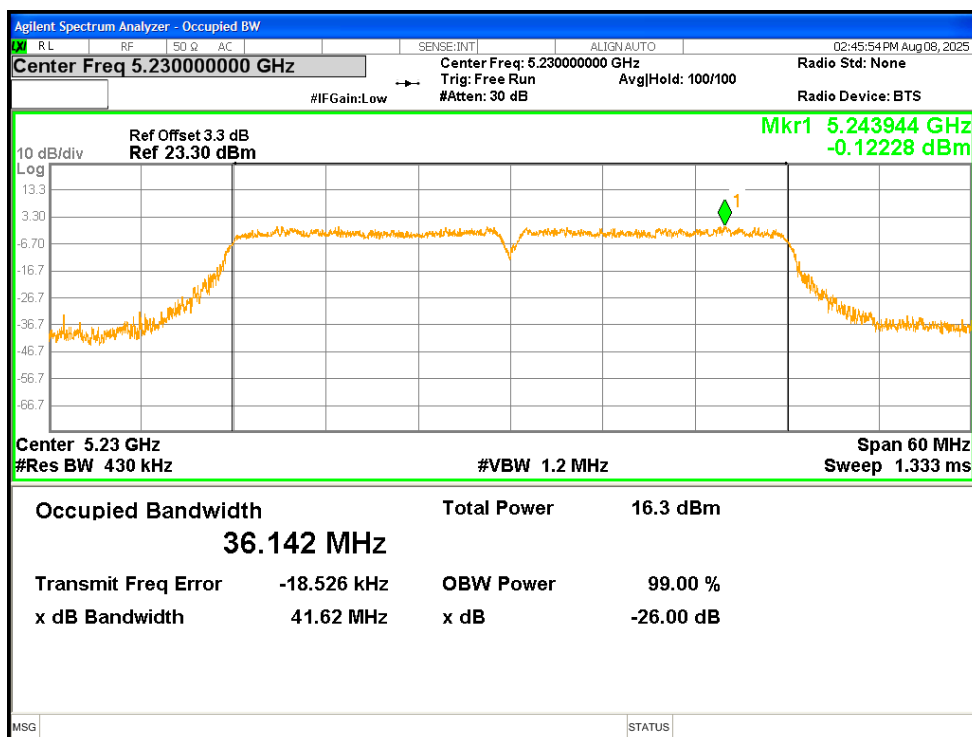
OBW NVNT n20 5785MHz Ant1



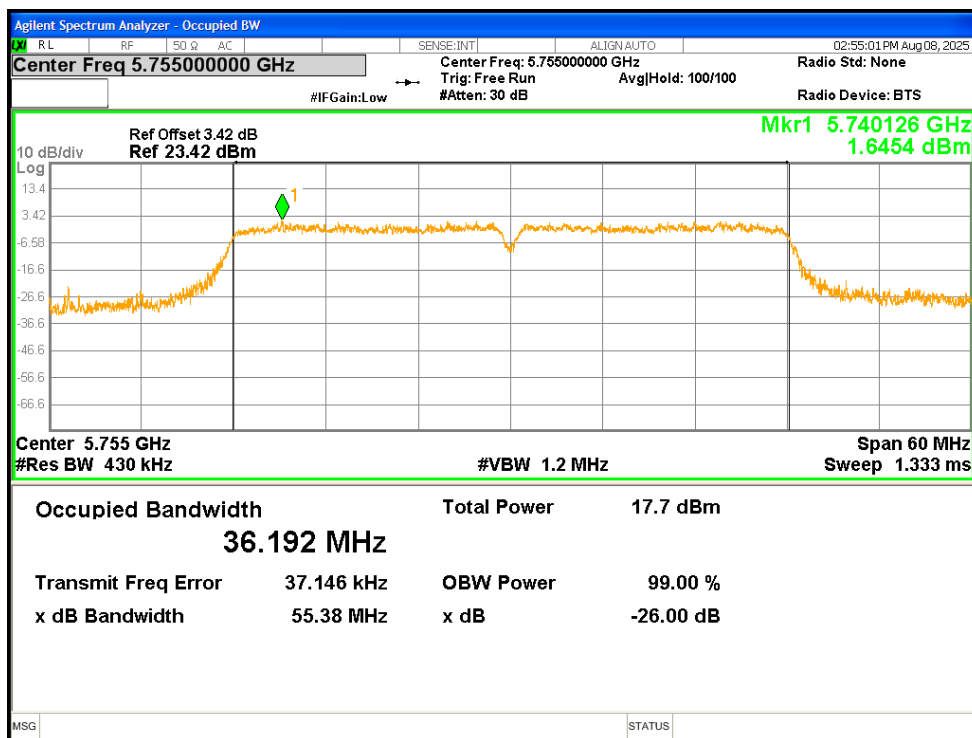
OBW NVNT n20 5825MHz Ant1



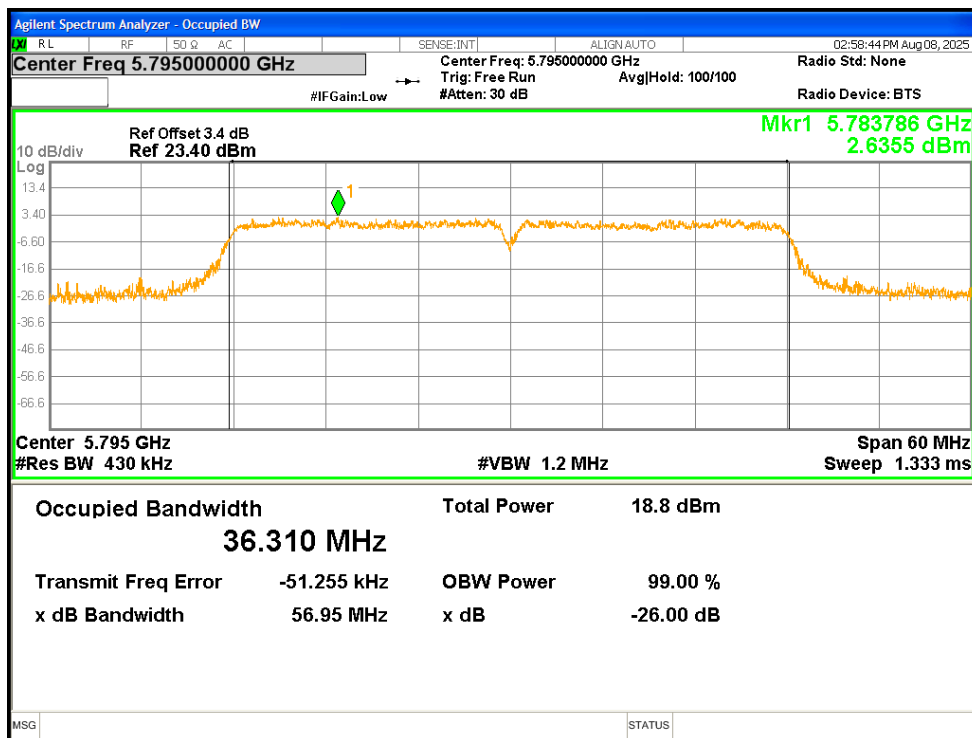
OBW NVNT n40 5190MHz Ant1



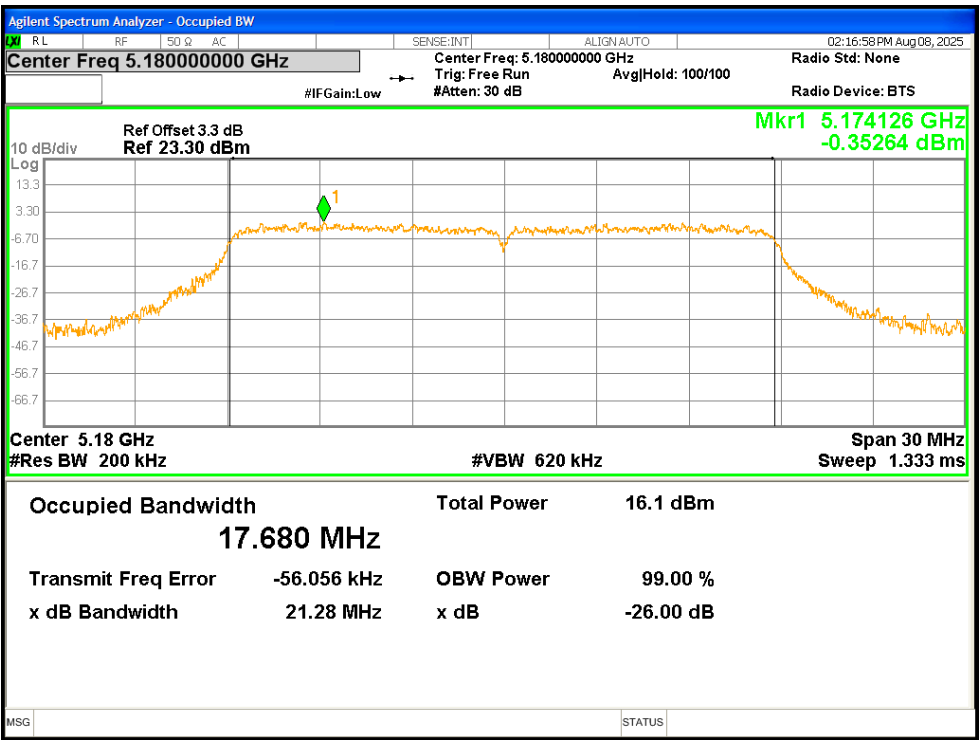
OBW NVNT n40 5230MHz Ant1



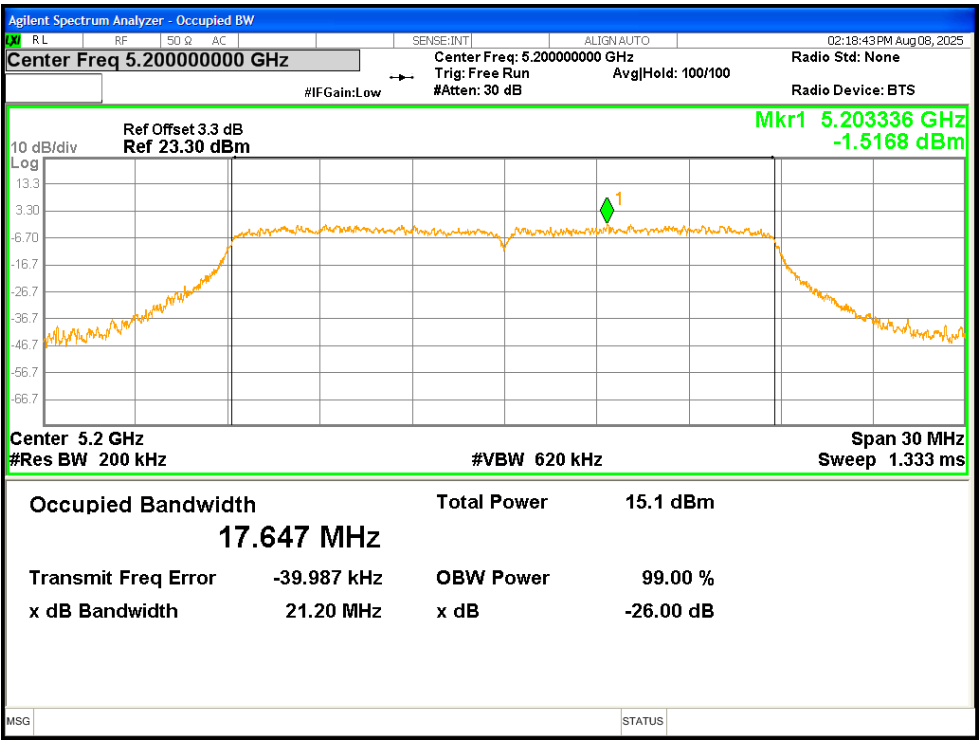
OBW NVNT n40 5755MHz Ant1



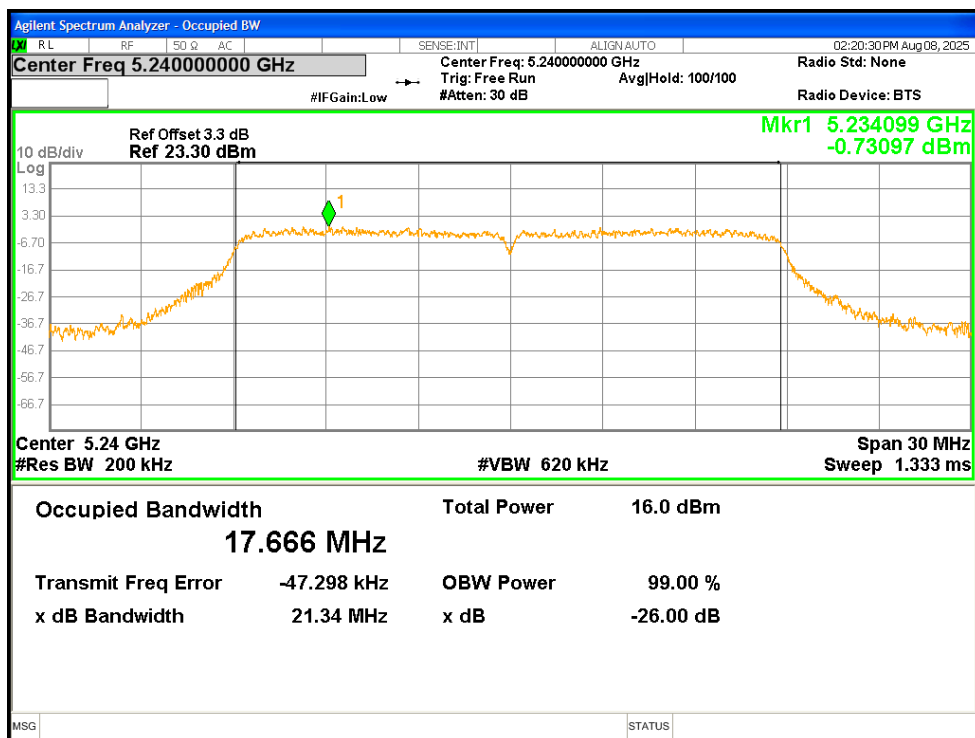
OBW NVNT n40 5795MHz Ant1



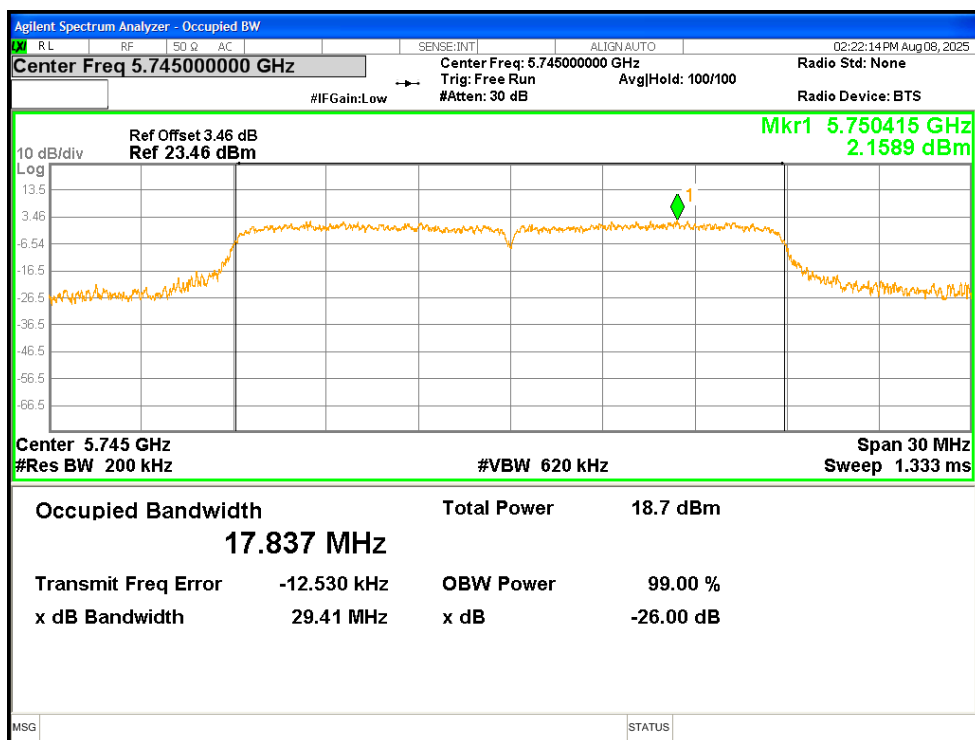
OBW NVNT ac20 5180MHz Ant1



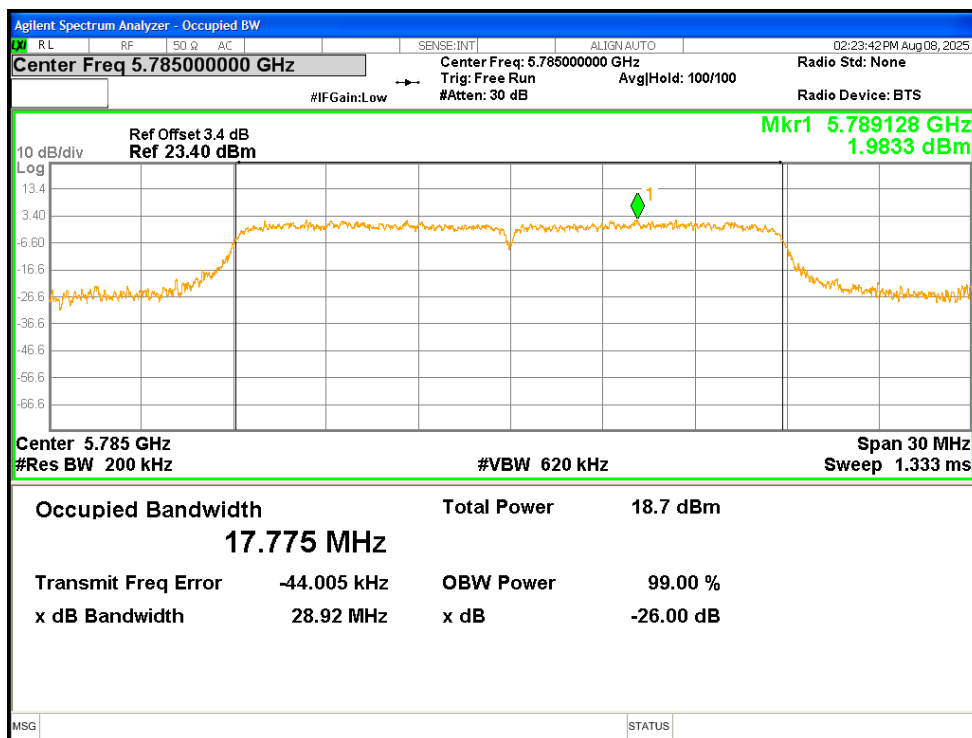
OBW NVNT ac20 5200MHz Ant1



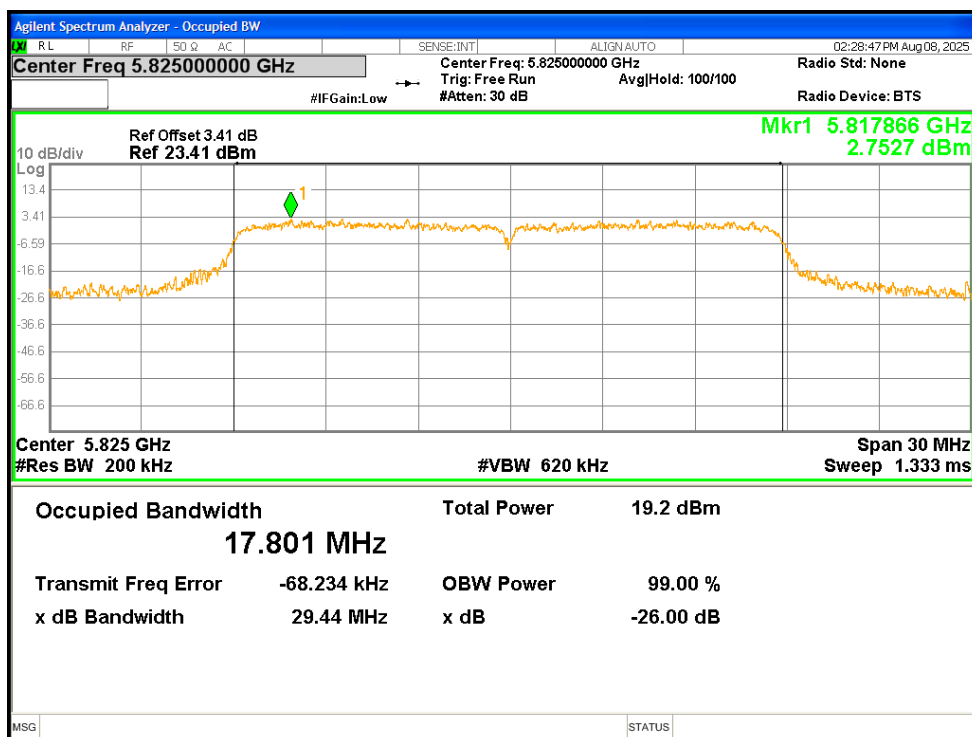
OBW NVNT ac20 5240MHz Ant1



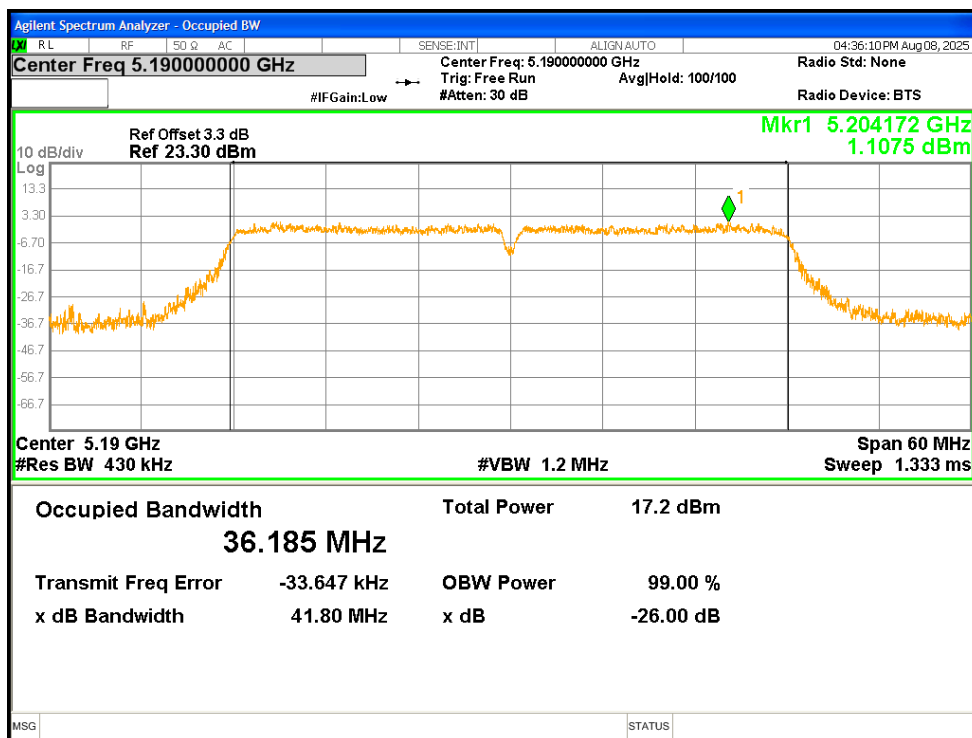
OBW NVNT ac20 5745MHz Ant1



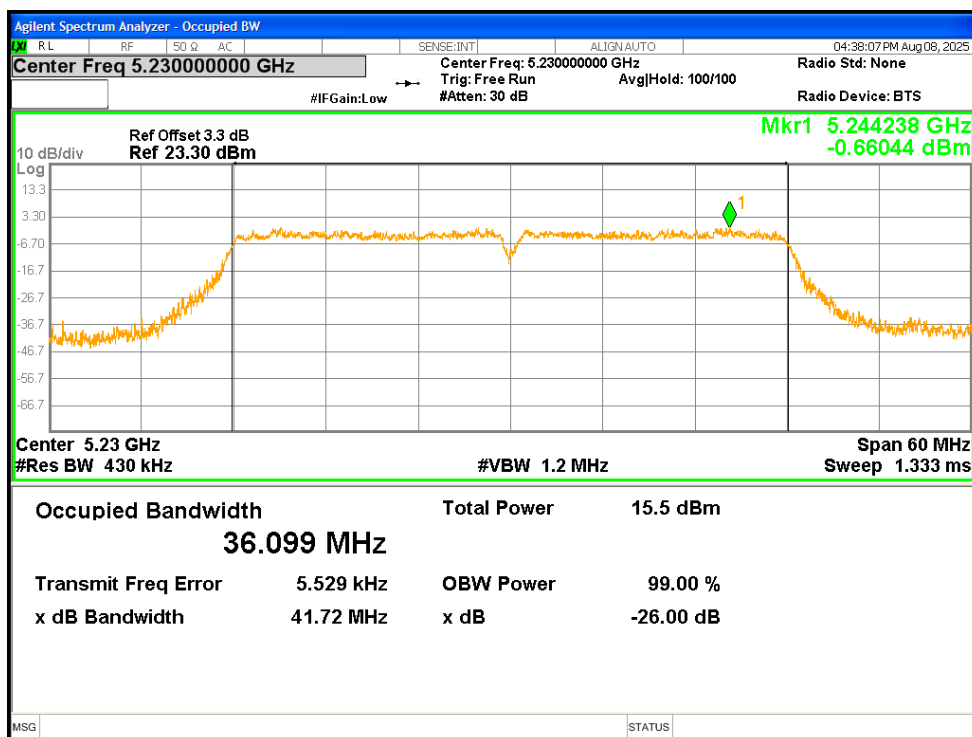
OBW NVNT ac20 5785MHz Ant1



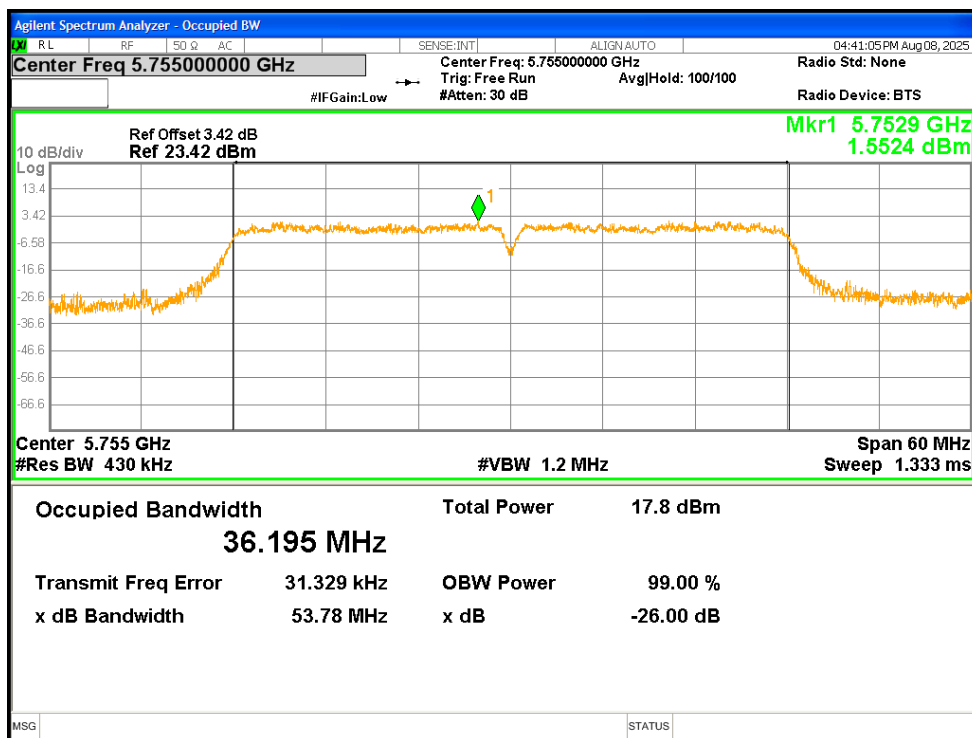
OBW NVNT ac20 5825MHz Ant1



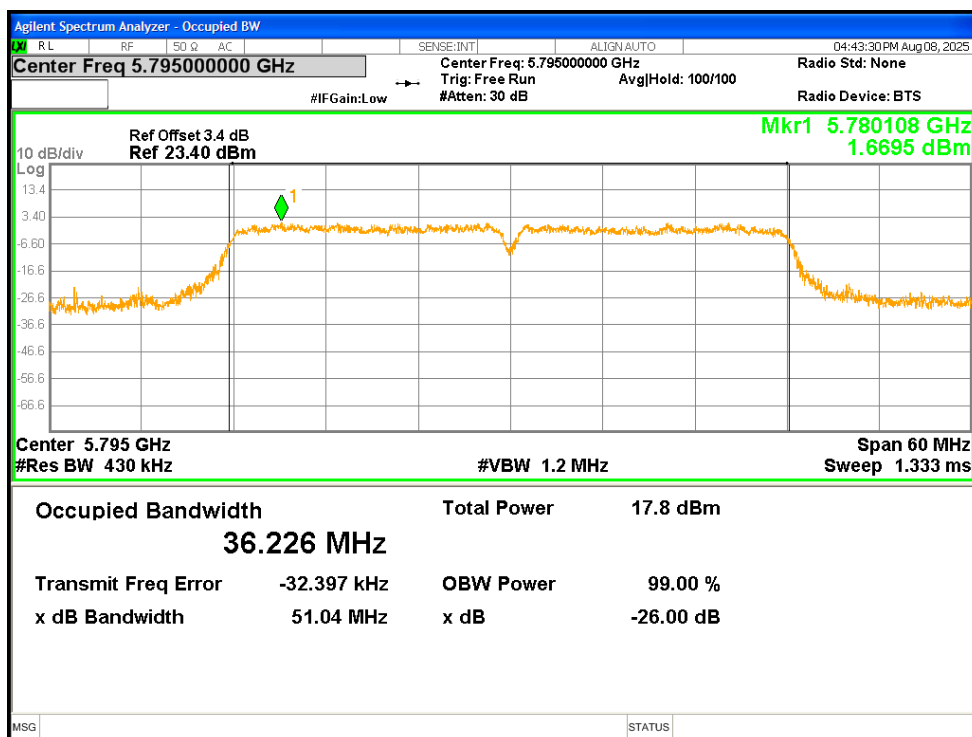
OBW NVNT ac40 5190MHz Ant1



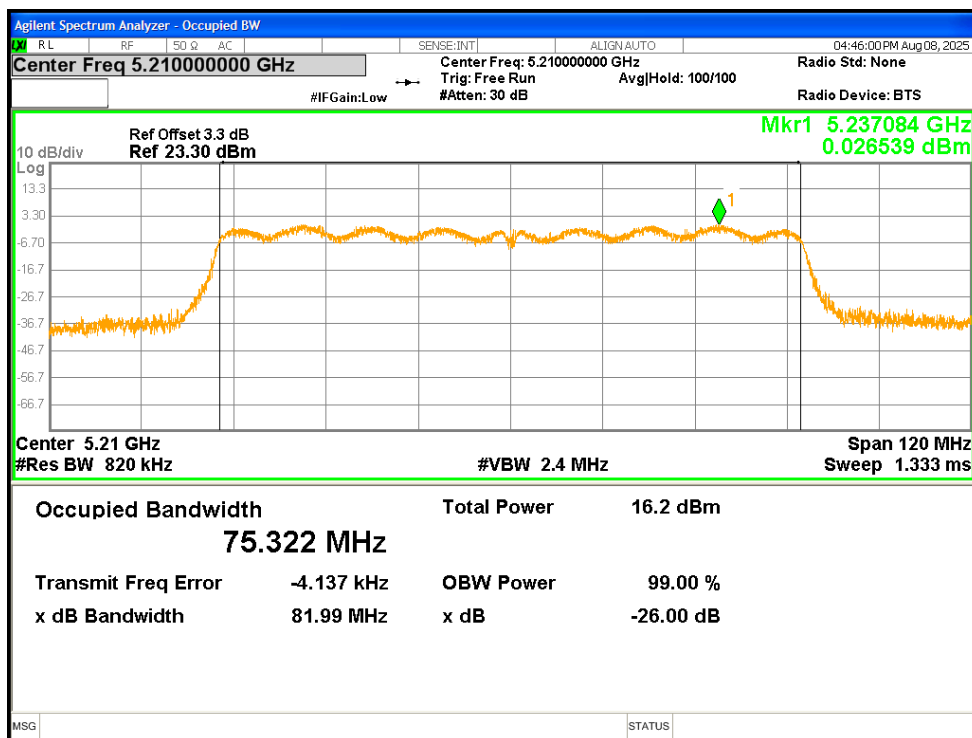
OBW NVNT ac40 5230MHz Ant1



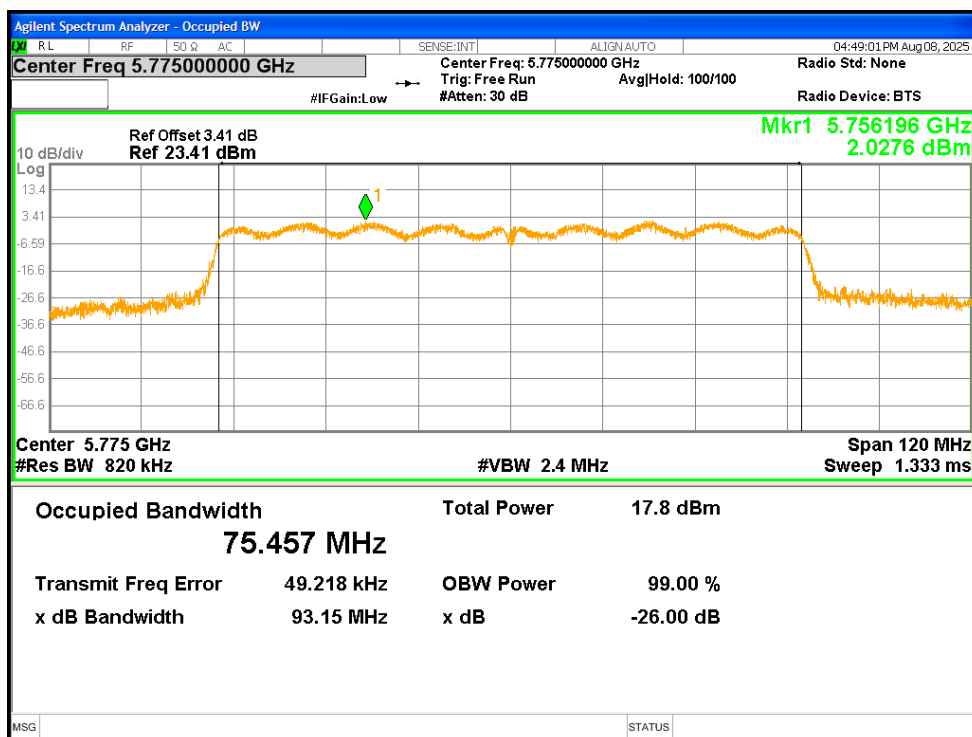
OBW NVNT ac40 5755MHz Ant1



OBW NVNT ac40 5795MHz Ant1



OBW NVNT ac80 5210MHz Ant1



OBW NVNT ac80 5775MHz Ant1

5. 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	0.64	0	0.64	11	Pass
NVNT	a	5200	Ant1	-0.42	0	-0.42	11	Pass
NVNT	a	5240	Ant1	-0.71	0	-0.71	11	Pass
NVNT	a	5745	Ant1	-1.63	0	-1.63	30	Pass
NVNT	a	5785	Ant1	-1.51	0	-1.51	30	Pass
NVNT	a	5825	Ant1	-2.33	0	-2.33	30	Pass
NVNT	n20	5180	Ant1	-0.8	0	-0.8	11	Pass
NVNT	n20	5200	Ant1	-1.16	0	-1.16	11	Pass
NVNT	n20	5240	Ant1	-0.7	0	-0.7	11	Pass
NVNT	n20	5745	Ant1	-1.51	0	-1.51	30	Pass
NVNT	n20	5785	Ant1	-1.05	0	-1.05	30	Pass
NVNT	n20	5825	Ant1	-0.75	0	-0.75	30	Pass
NVNT	n40	5190	Ant1	-3.04	0	-3.04	11	Pass
NVNT	n40	5230	Ant1	-3.58	0	-3.58	11	Pass
NVNT	n40	5755	Ant1	-4.47	0	-4.47	30	Pass
NVNT	n40	5795	Ant1	-3.67	0	-3.67	30	Pass
NVNT	ac20	5180	Ant1	0.41	0	0.41	11	Pass
NVNT	ac20	5200	Ant1	-0.55	0	-0.55	11	Pass
NVNT	ac20	5240	Ant1	0.43	0	0.43	11	Pass
NVNT	ac20	5745	Ant1	0.13	0	0.13	30	Pass
NVNT	ac20	5785	Ant1	-0.33	0	-0.33	30	Pass
NVNT	ac20	5825	Ant1	0.05	0	0.05	30	Pass
NVNT	ac40	5190	Ant1	-2.24	0	-2.24	11	Pass
NVNT	ac40	5230	Ant1	-3.88	0	-3.88	11	Pass
NVNT	ac40	5755	Ant1	-4.54	0	-4.54	30	Pass
NVNT	ac40	5795	Ant1	-4.6	0	-4.6	30	Pass
NVNT	ac80	5210	Ant1	-6.01	0	-6.01	11	Pass
NVNT	ac80	5775	Ant1	-7.03	0	-7.03	30	Pass