

Appendix B for 5.8GWIFI Test Data

Product Name: Mini PC

Test Model: BLMP20

Environmental Conditions

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

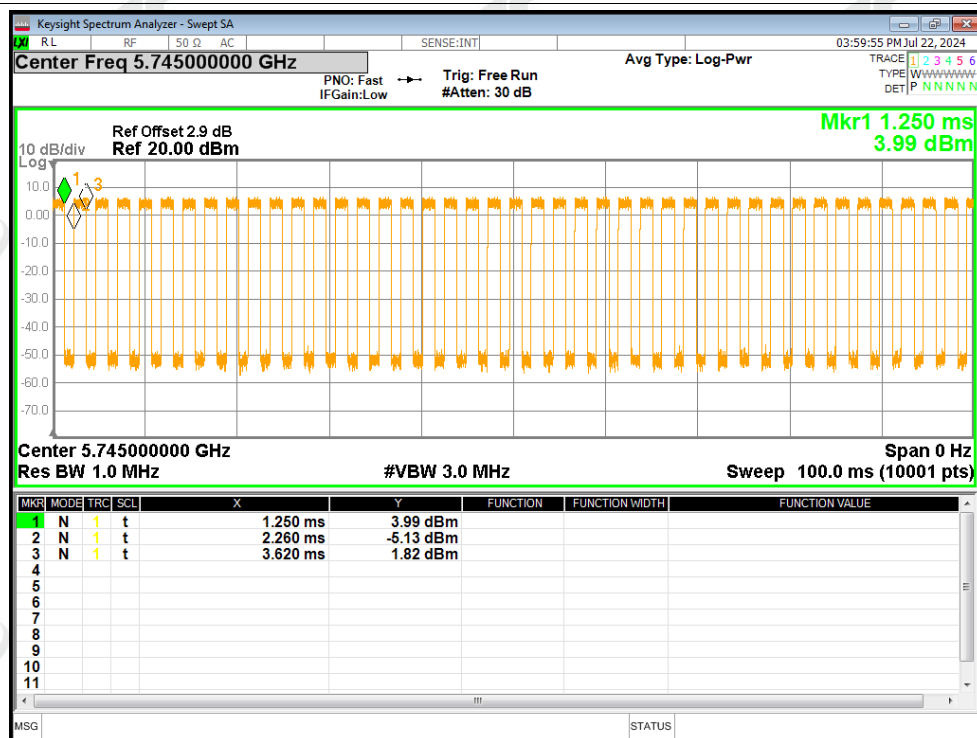


Duty Cycle

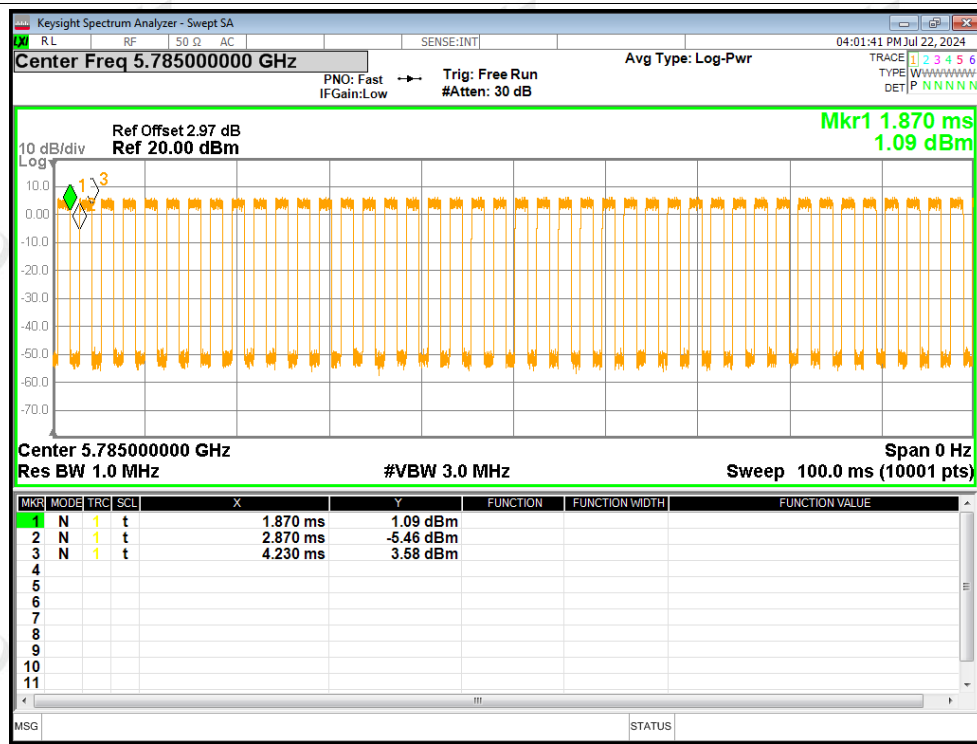
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5745	Ant1	57.38	2.41	0.74
NVNT	a	5785	Ant1	57.63	2.39	0.74
NVNT	a	5825	Ant1	57.81	2.38	0.73
NVNT	n20	5745	Ant1	56.14	2.51	0.78
NVNT	n20	5785	Ant1	55.95	2.52	0.79
NVNT	n20	5825	Ant1	56.14	2.51	0.78
NVNT	n40	5755	Ant1	38.65	4.13	1.59
NVNT	n40	5795	Ant1	38.41	4.16	1.59
NVNT	ac20	5745	Ant1	55.7	2.54	0.79
NVNT	ac20	5785	Ant1	56.14	2.51	0.78
NVNT	ac20	5825	Ant1	55.7	2.54	0.79
NVNT	ac40	5755	Ant1	39.02	4.09	1.56
NVNT	ac40	5795	Ant1	38.41	4.16	1.59
NVNT	ac80	5775	Ant1	24.24	6.15	3.12

Test Graphs

Duty Cycle NVNT a 5745MHz Ant1

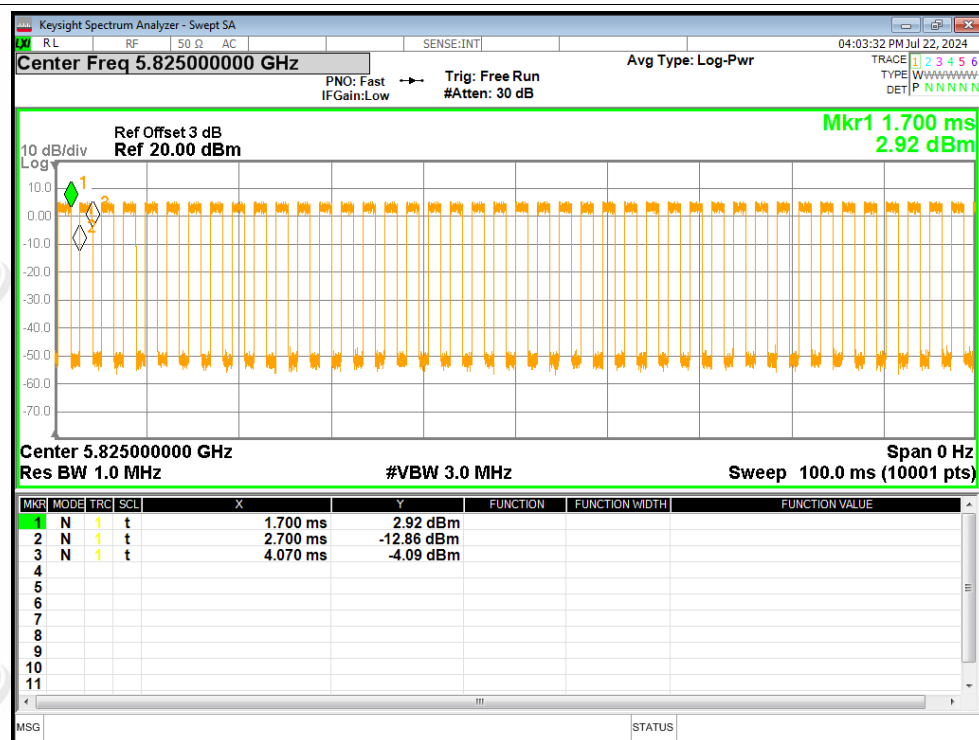


Duty Cycle NVNT a 5785MHz Ant1

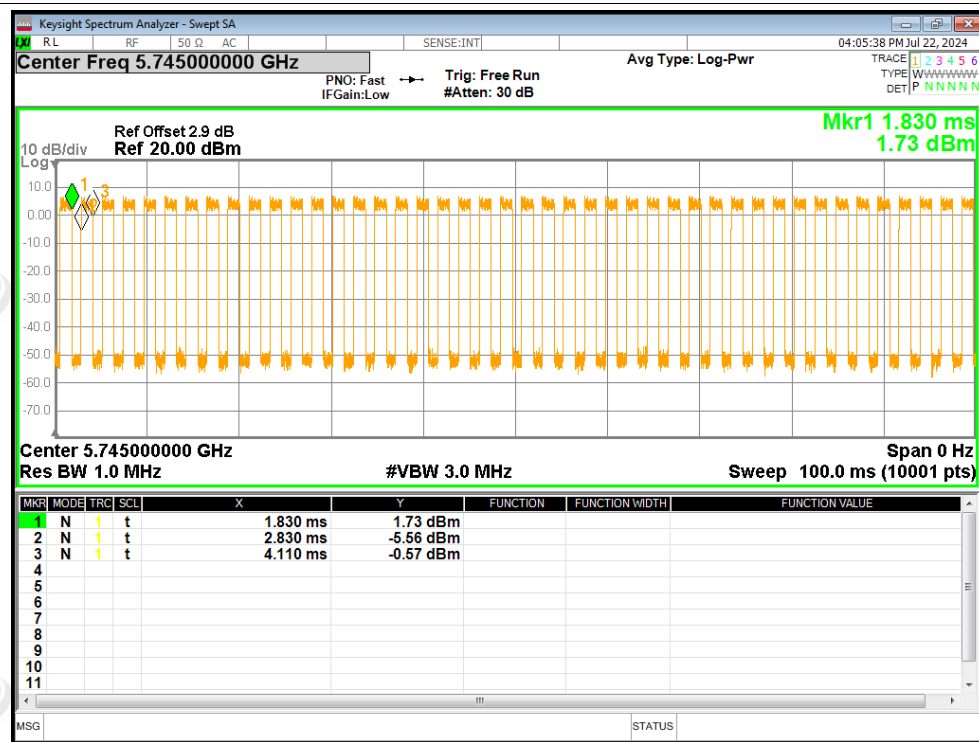




Duty Cycle NVNT a 5825MHz Ant1

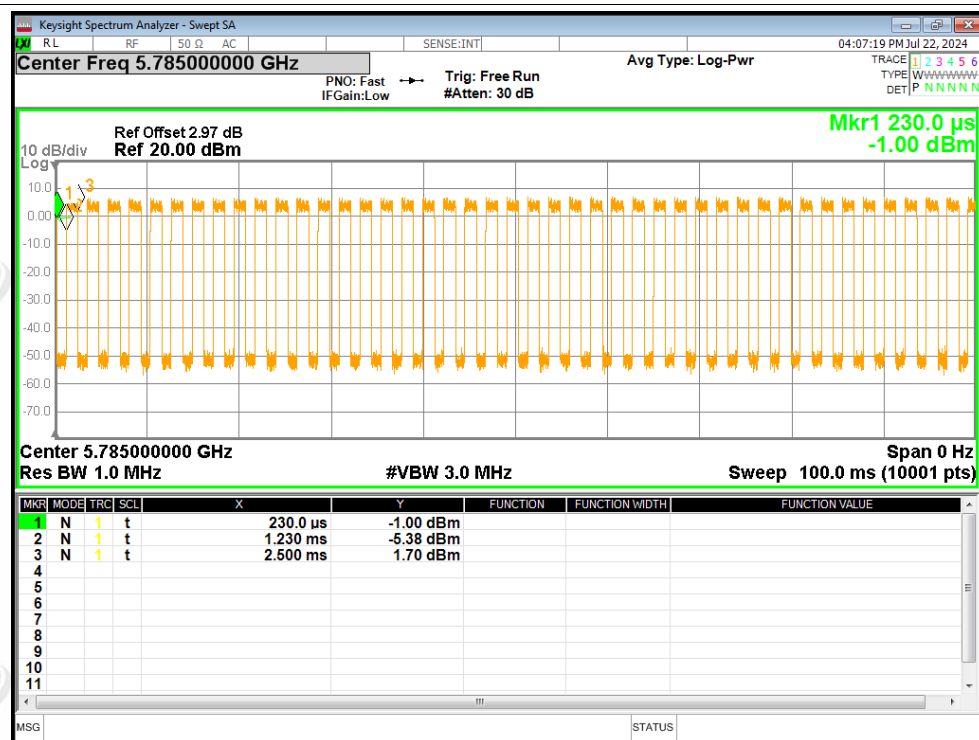


Duty Cycle NVNT n20 5745MHz Ant1

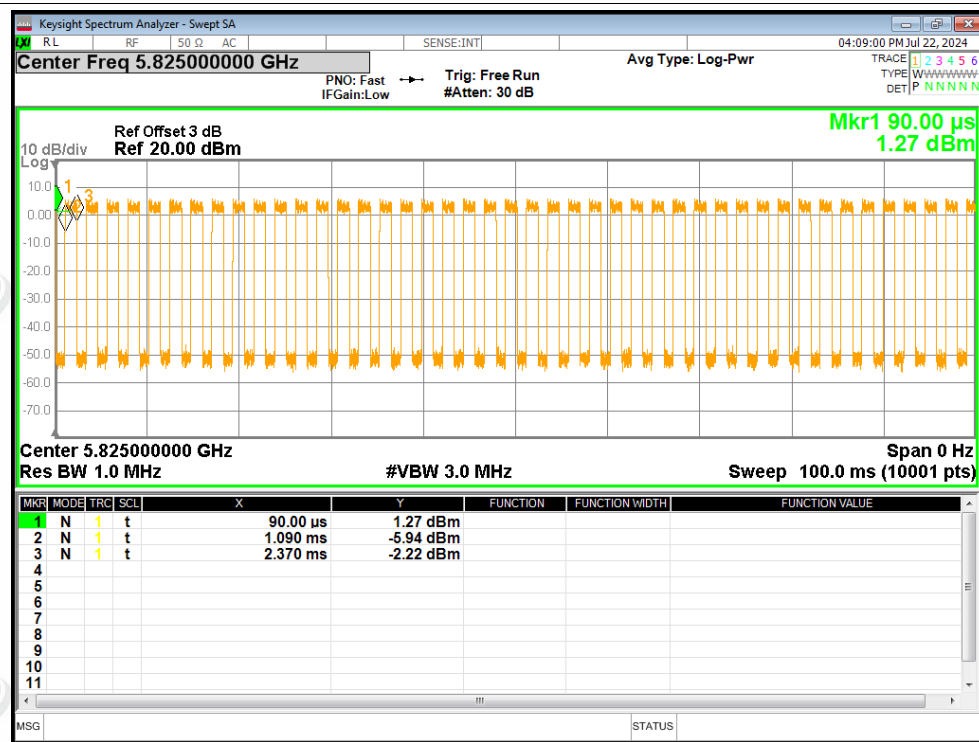




Duty Cycle NVNT n20 5785MHz Ant1

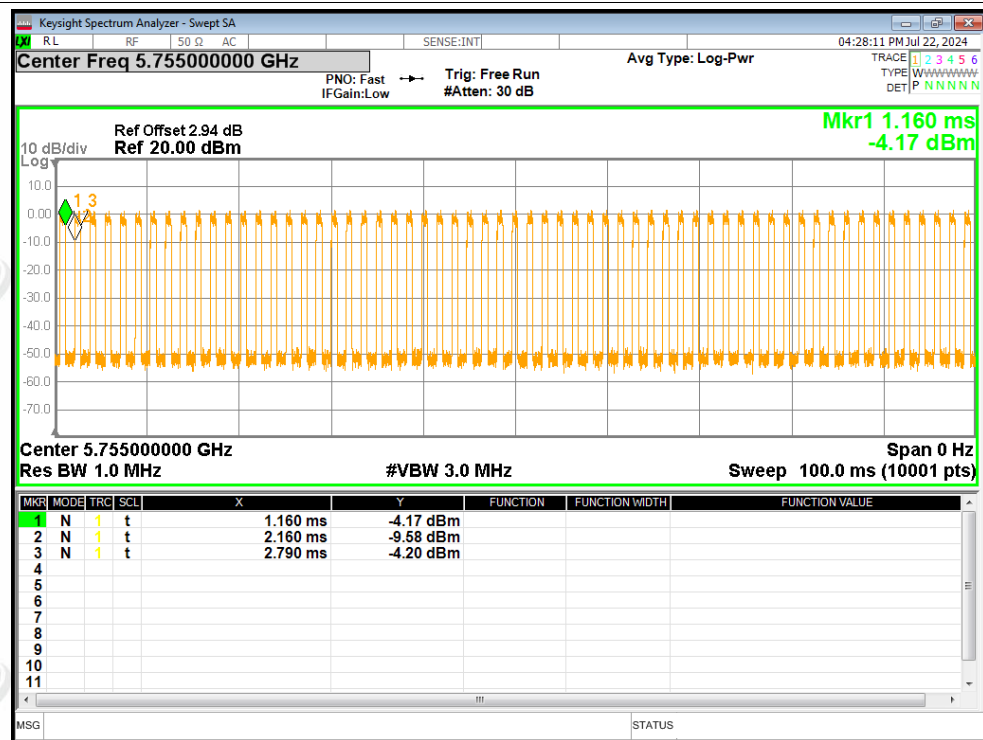


Duty Cycle NVNT n20 5825MHz Ant1

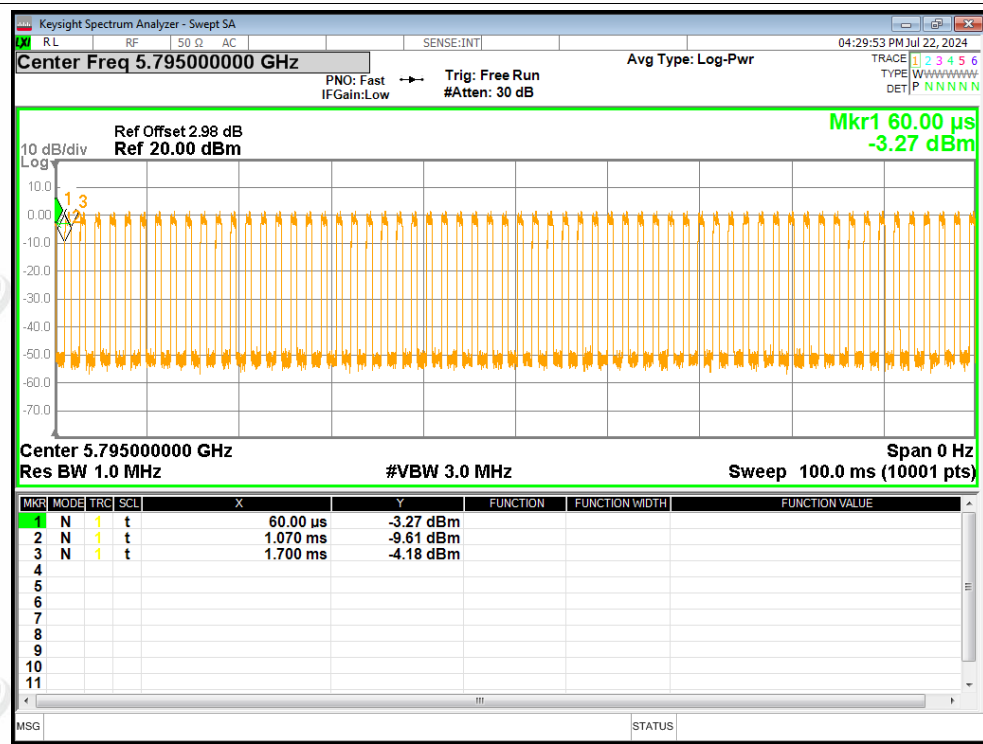




Duty Cycle NVNT n40 5755MHz Ant1

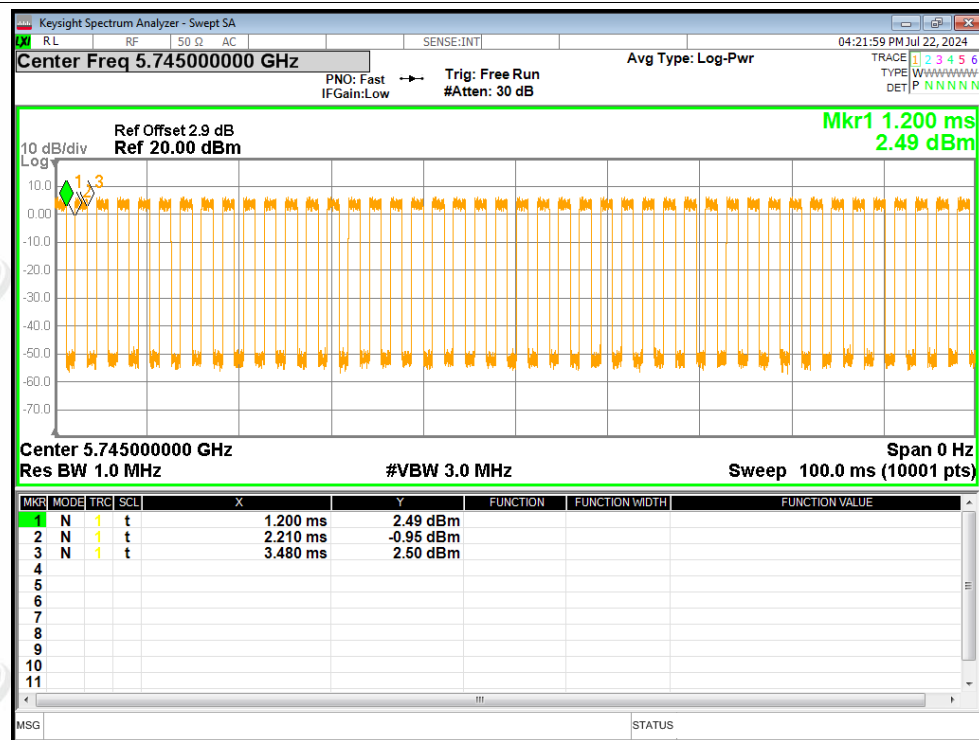


Duty Cycle NVNT n40 5795MHz Ant1

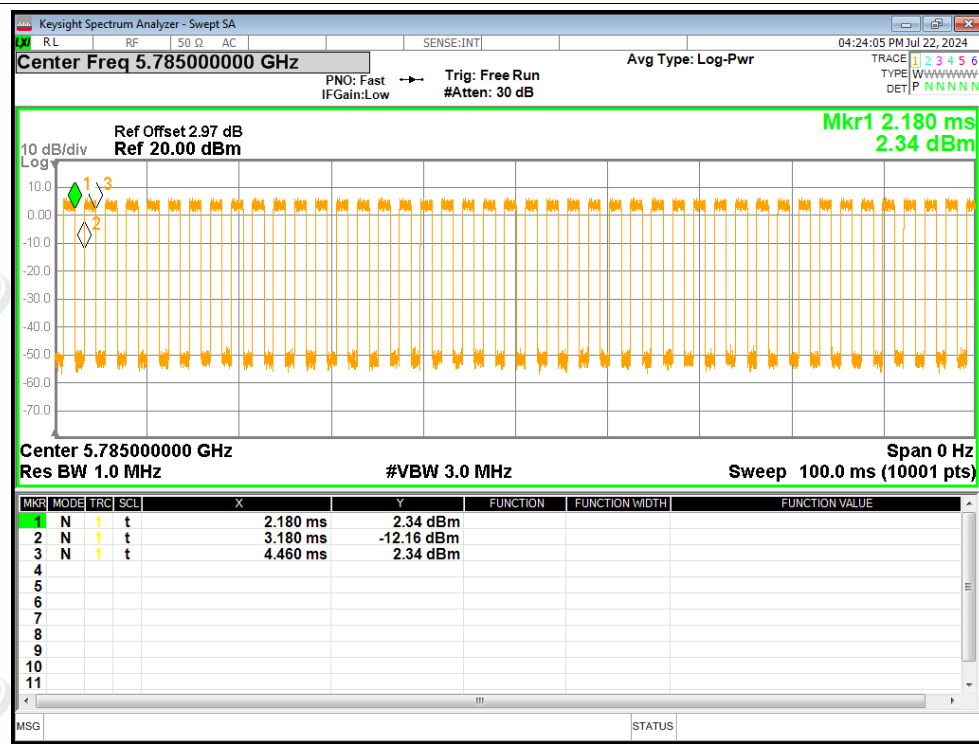




Duty Cycle NVNT ac20 5745MHz Ant1

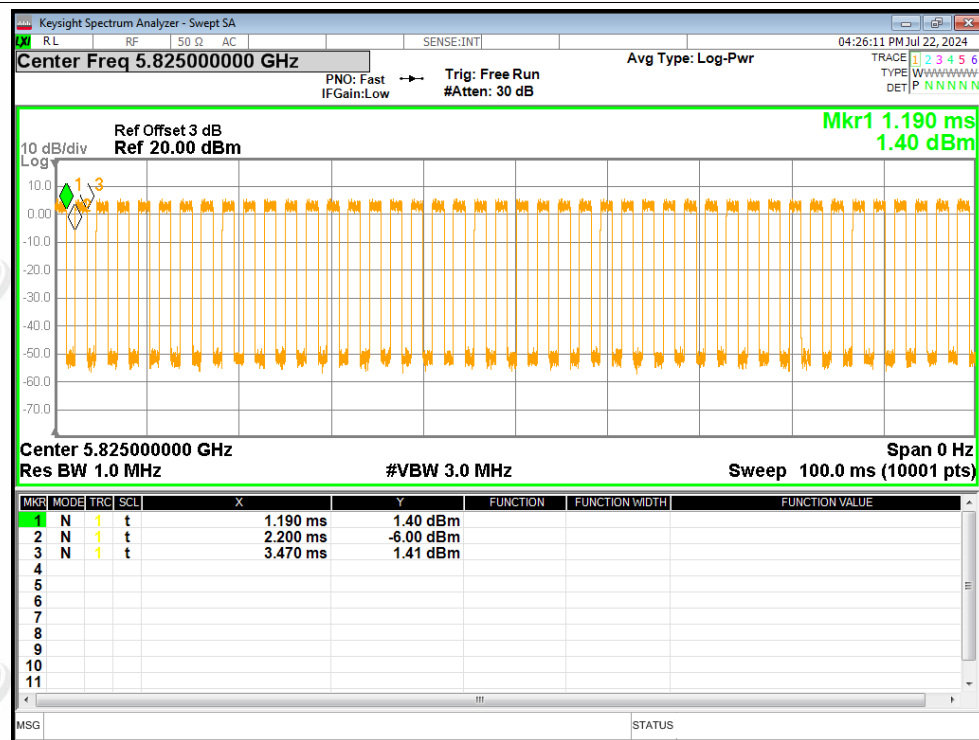


Duty Cycle NVNT ac20 5785MHz Ant1

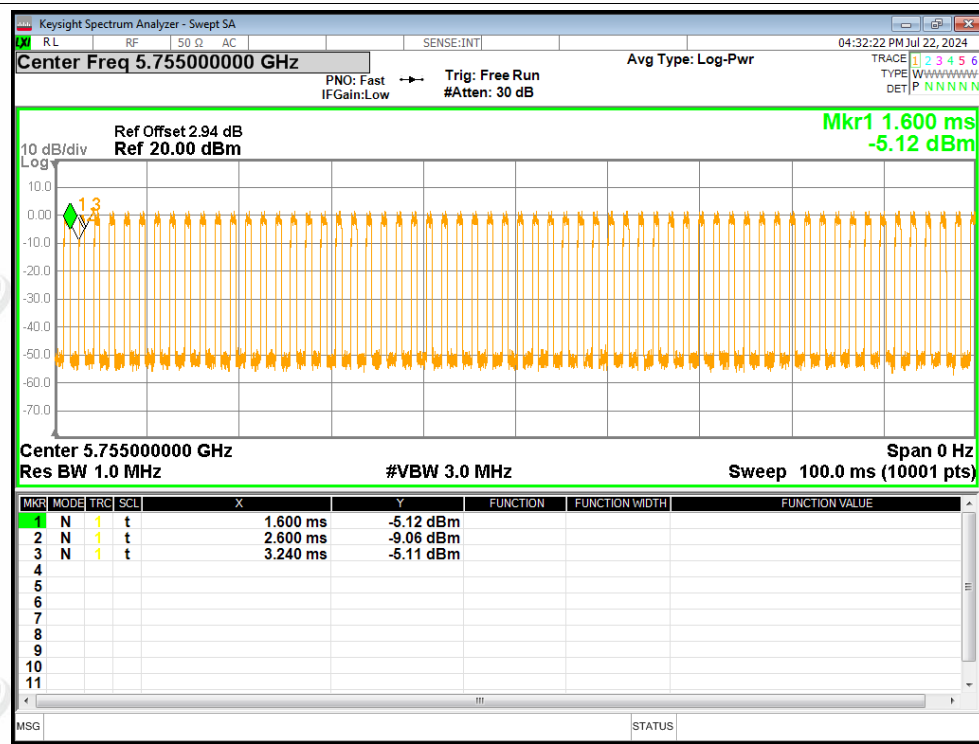




Duty Cycle NVNT ac20 5825MHz Ant1

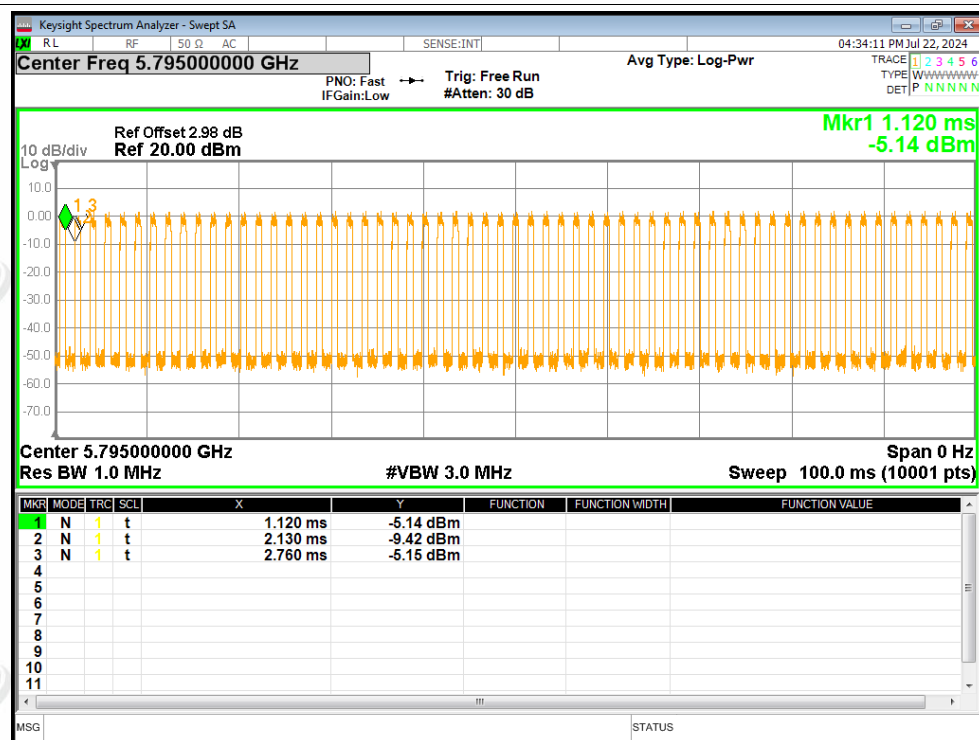


Duty Cycle NVNT ac40 5755MHz Ant1

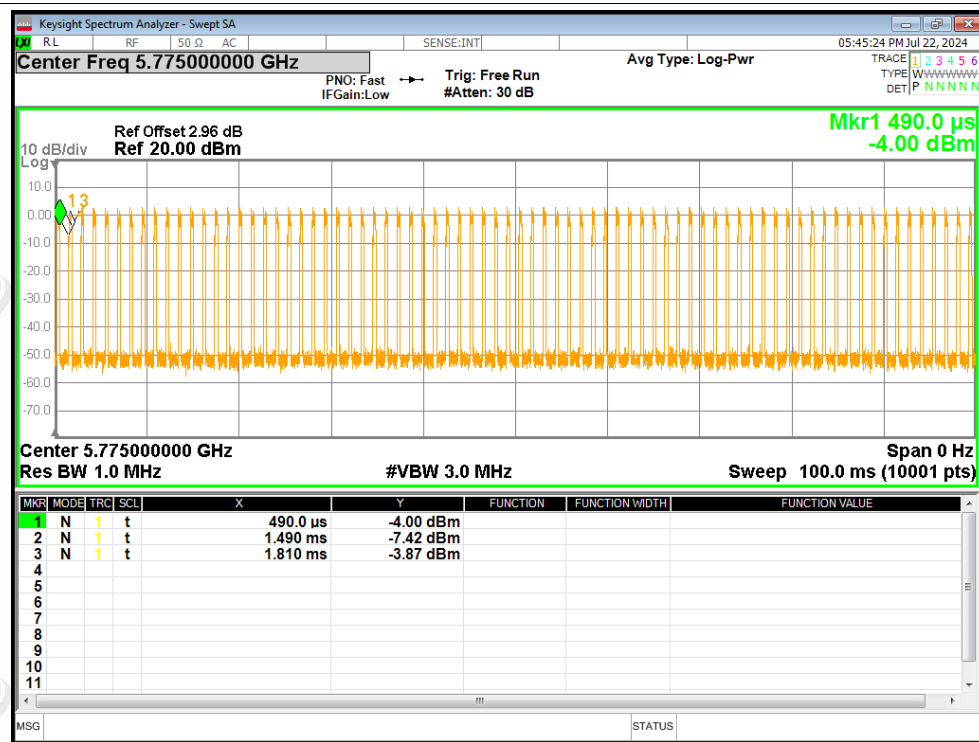




Duty Cycle NVNT ac40 5795MHz Ant1



Duty Cycle NVNT ac80 5775MHz Ant1



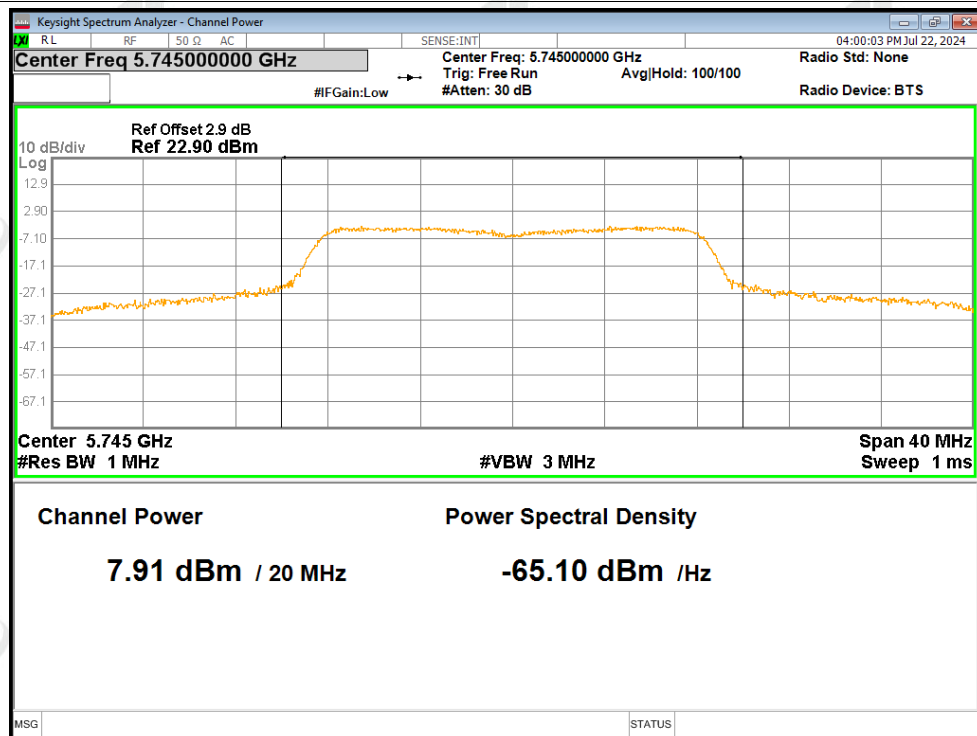
**ZHONGHAN****Maximum Conducted Output Power**

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant1	7.91	2.41	10.32	30	Pass
NVNT	a	5785	Ant1	10.04	2.39	12.43	30	Pass
NVNT	a	5825	Ant1	9.09	2.38	11.47	30	Pass
NVNT	n20	5745	Ant1	9.47	2.51	11.98	30	Pass
NVNT	n20	5785	Ant1	9.32	2.52	11.84	30	Pass
NVNT	n20	5825	Ant1	8.42	2.51	10.93	30	Pass
NVNT	n40	5755	Ant1	8.21	4.13	12.34	30	Pass
NVNT	n40	5795	Ant1	8.65	4.16	12.81	30	Pass
NVNT	ac20	5745	Ant1	9.22	2.54	11.76	30	Pass
NVNT	ac20	5785	Ant1	9.38	2.51	11.89	30	Pass
NVNT	ac20	5825	Ant1	8.6	2.54	11.14	30	Pass
NVNT	ac40	5755	Ant1	8.17	4.09	12.26	30	Pass
NVNT	ac40	5795	Ant1	8.28	4.16	12.44	30	Pass
NVNT	ac80	5775	Ant1	8.86	6.15	15.01	30	Pass

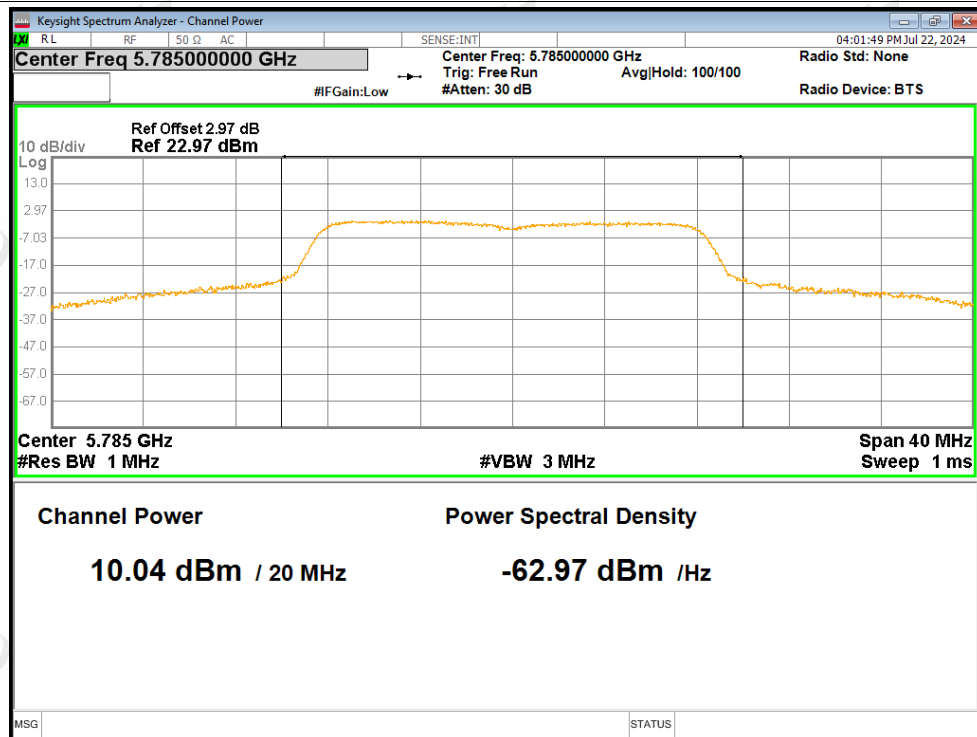


Test Graphs

Power NVNT a 5745MHz Ant1

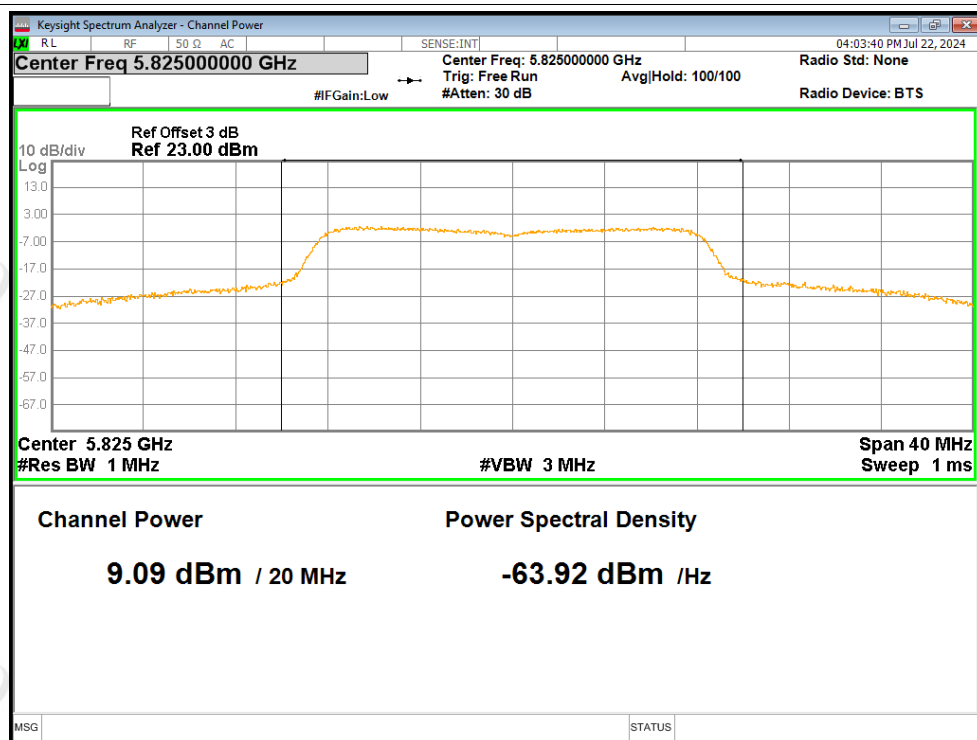


Power NVNT a 5785MHz Ant1

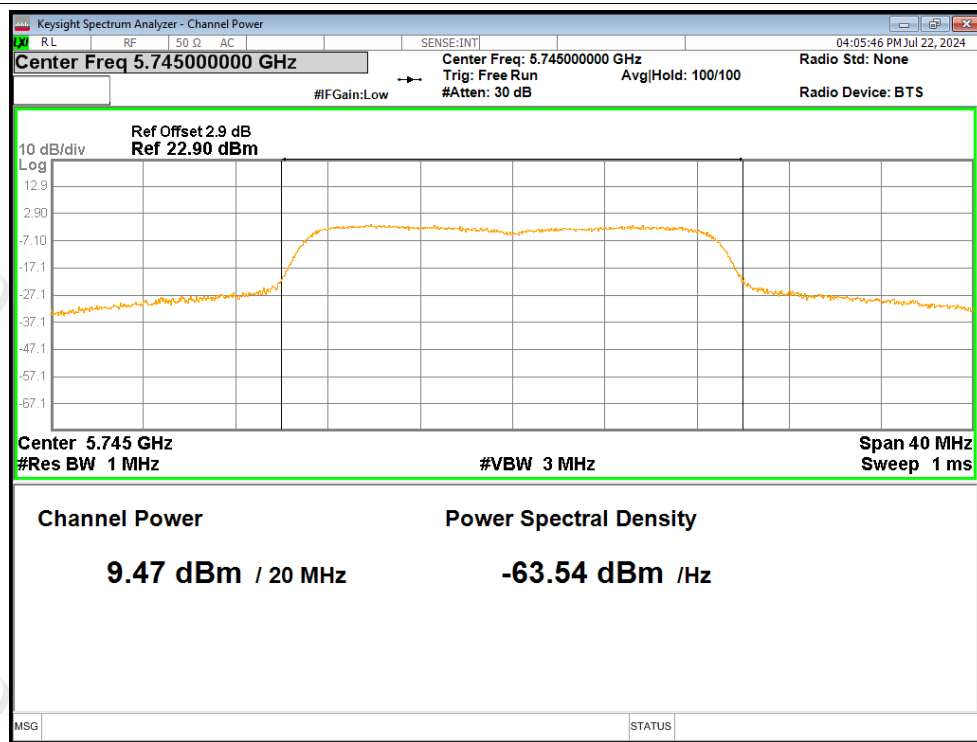




Power NVNT a 5825MHz Ant1

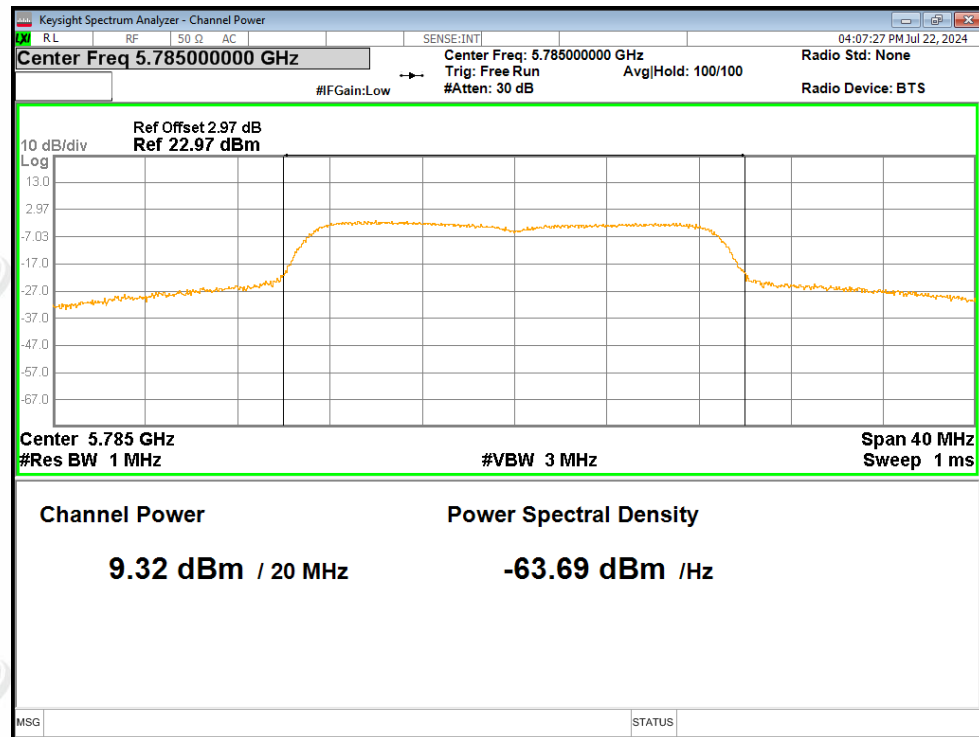


Power NVNT n20 5745MHz Ant1

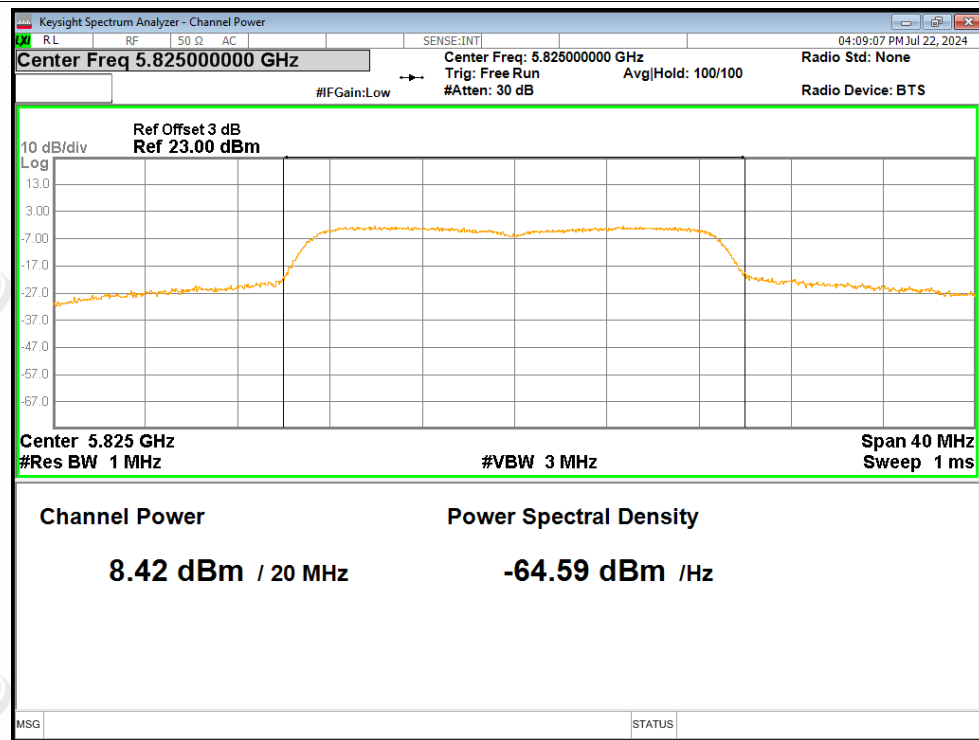




Power NVNT n20 5785MHz Ant1

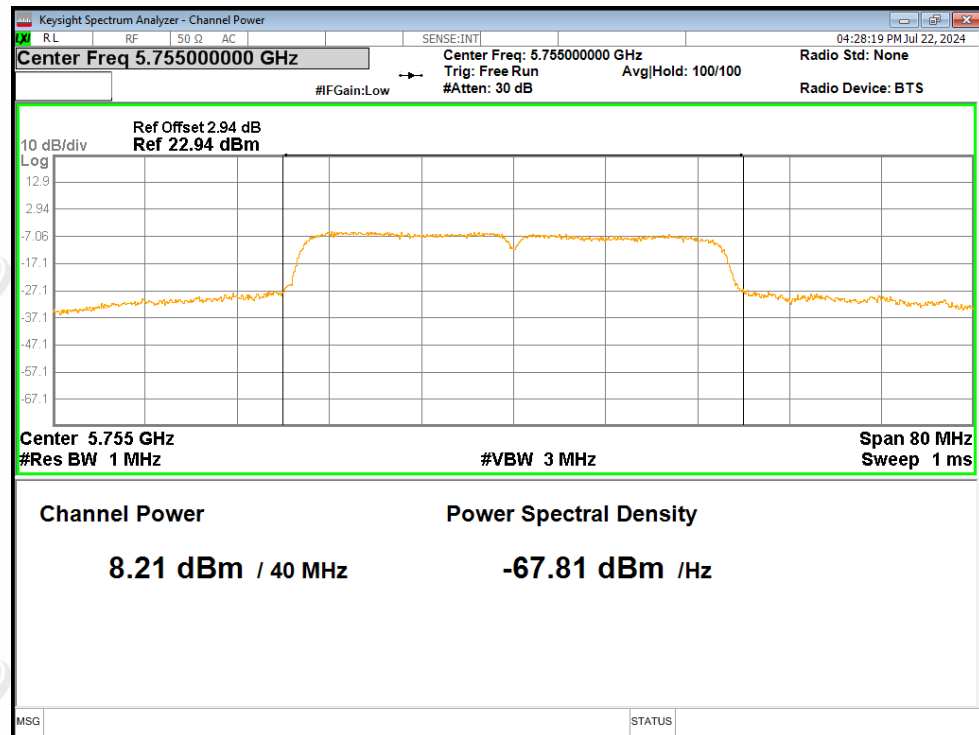


Power NVNT n20 5825MHz Ant1

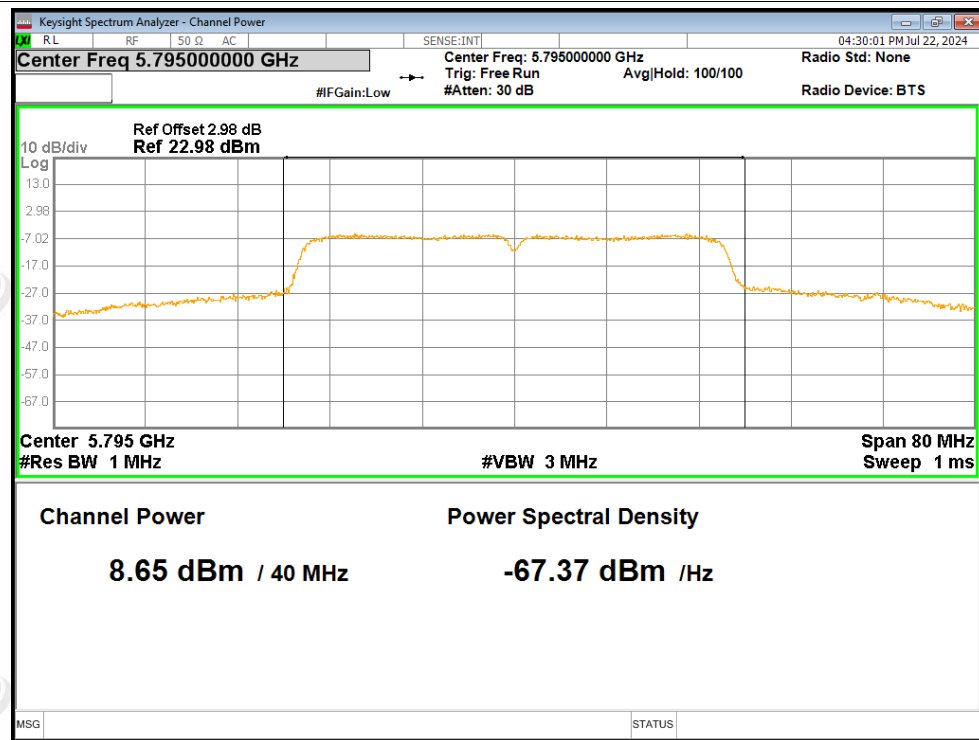




Power NVNT n40 5755MHz Ant1

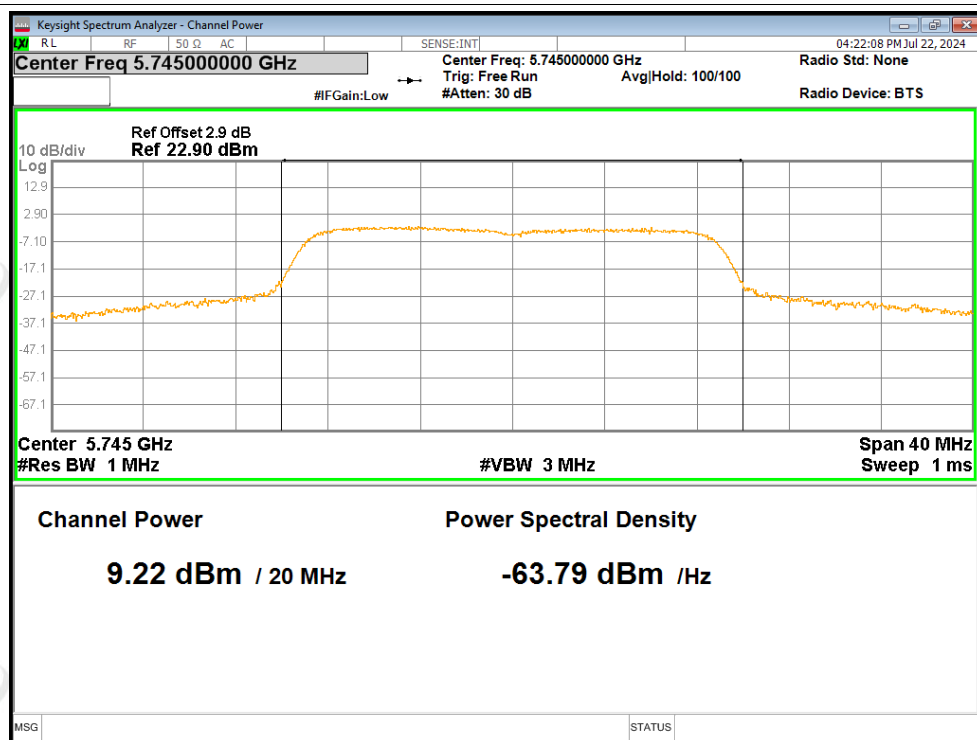


Power NVNT n40 5795MHz Ant1

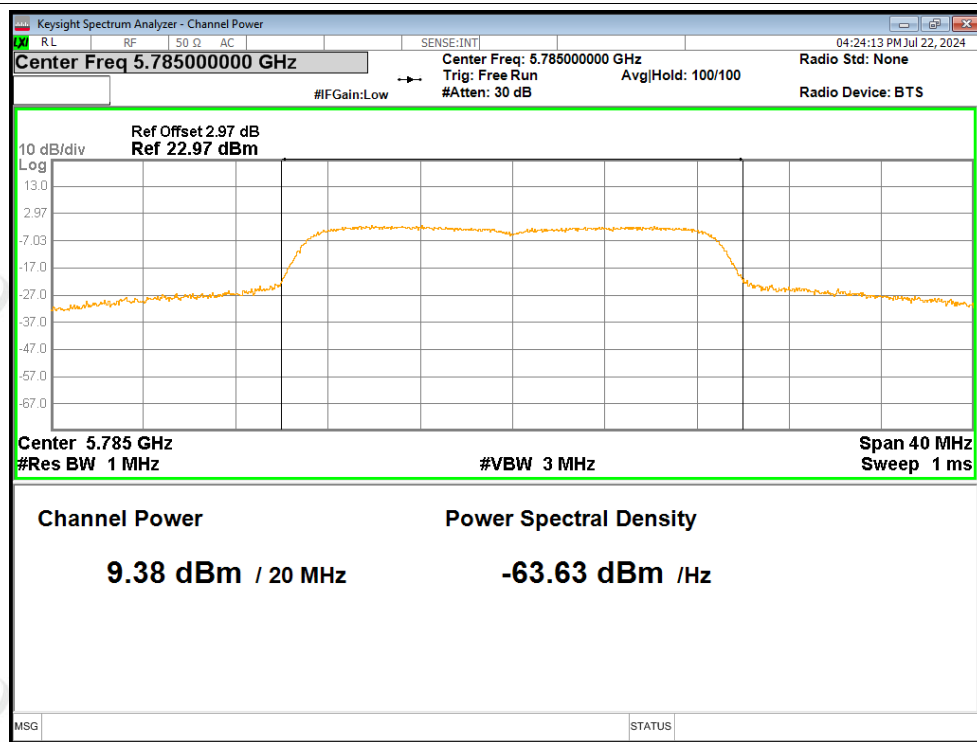




Power NVNT ac20 5745MHz Ant1

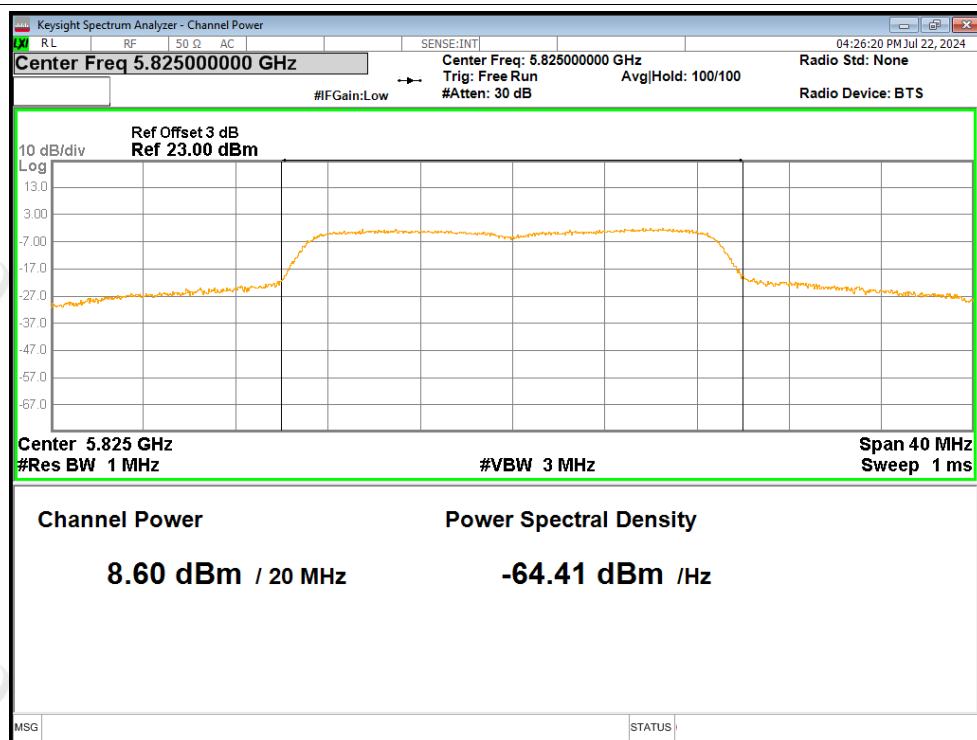


Power NVNT ac20 5785MHz Ant1

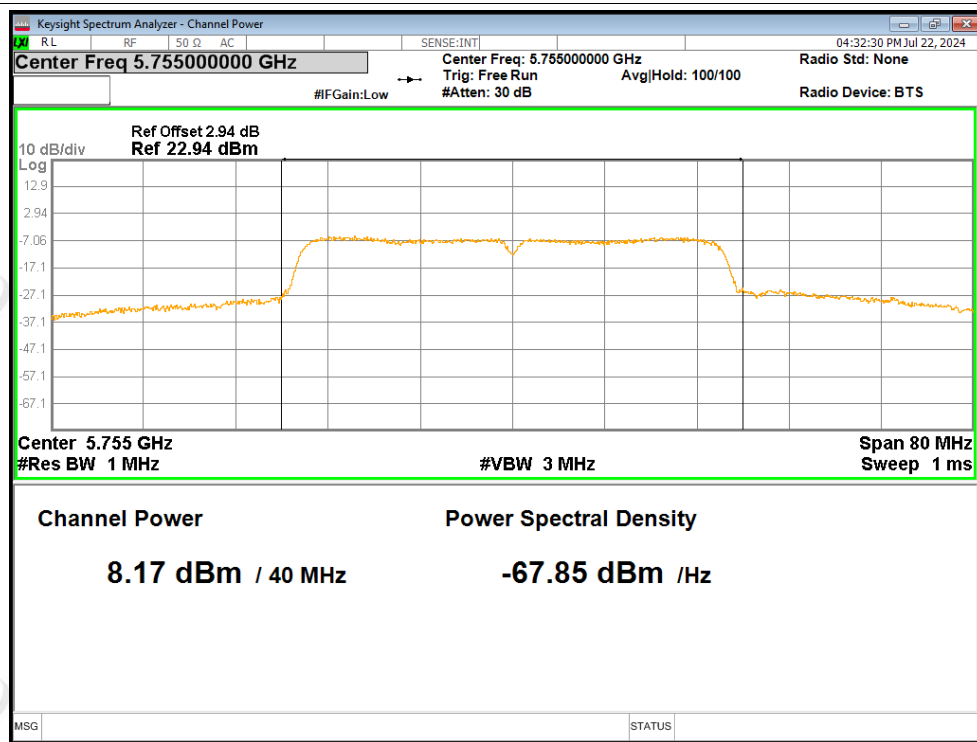




Power NVNT ac20 5825MHz Ant1

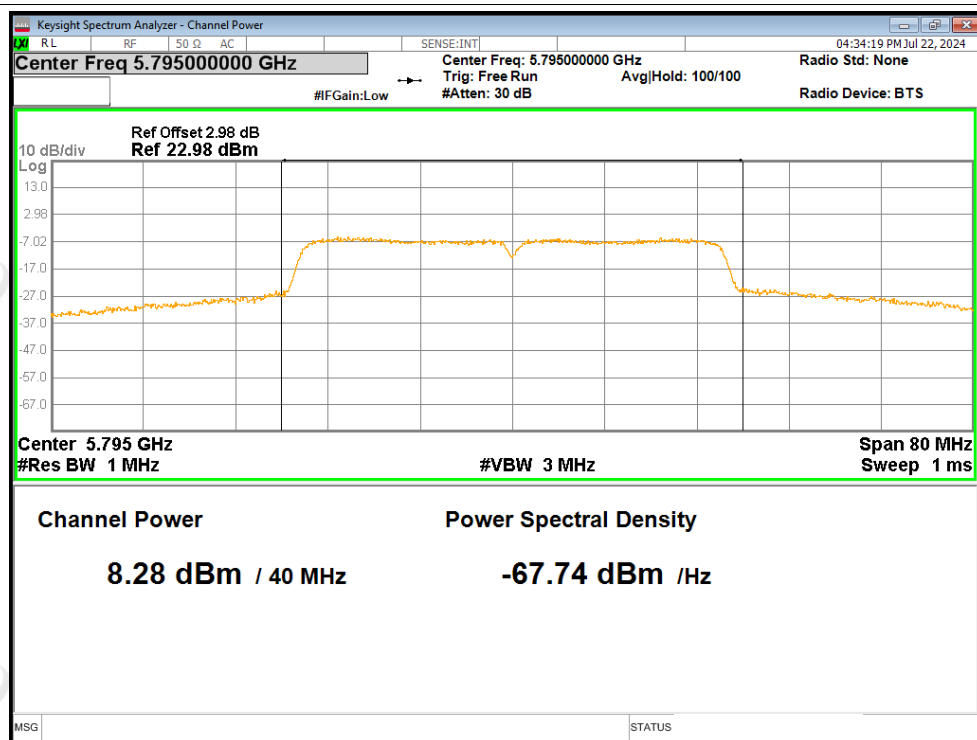


Power NVNT ac40 5755MHz Ant1

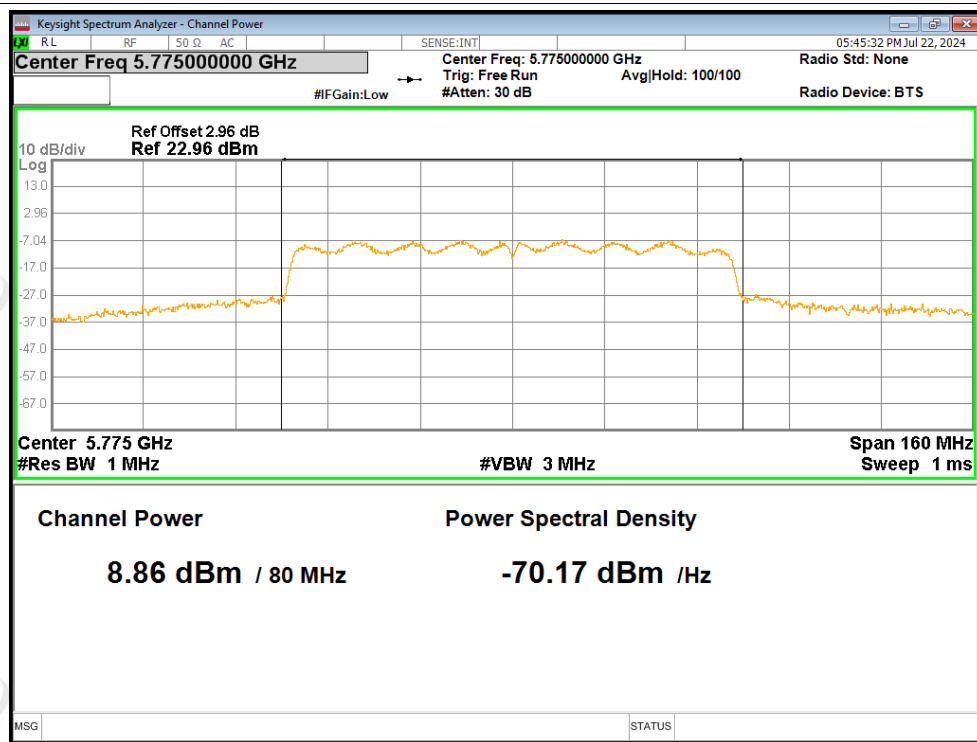




Power NVNT ac40 5795MHz Ant1



Power NVNT ac80 5775MHz Ant1



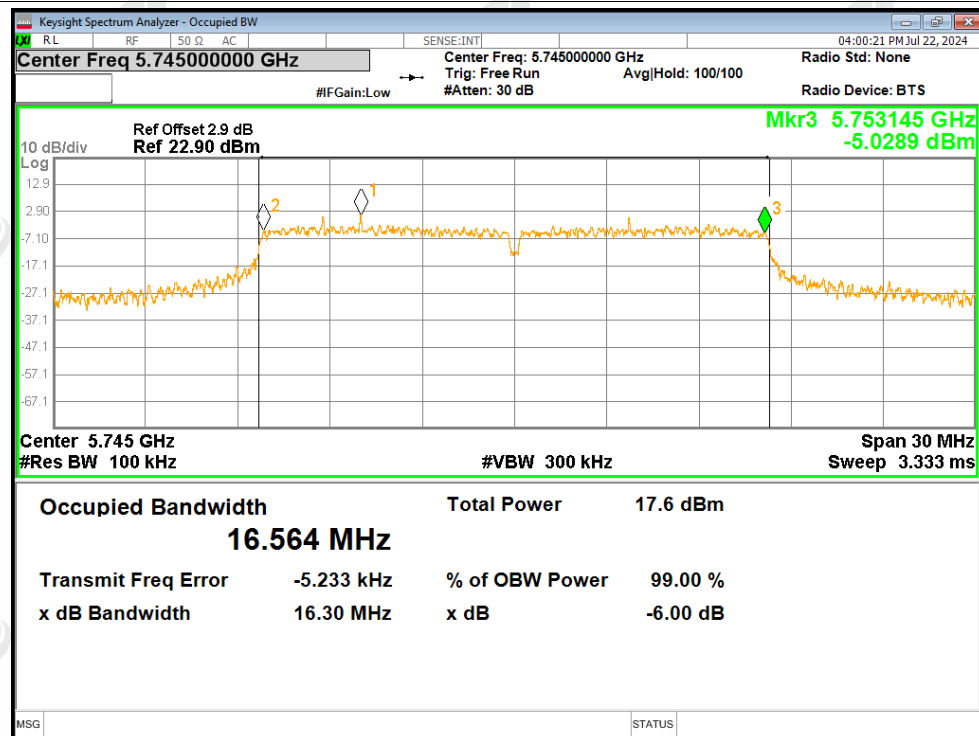
**ZHONGHAN**
-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	a	5745	Ant1	16.3	0.5	Pass
NVNT	a	5785	Ant1	16.261	0.5	Pass
NVNT	a	5825	Ant1	16.04	0.5	Pass
NVNT	n20	5745	Ant1	16.694	0.5	Pass
NVNT	n20	5785	Ant1	16.711	0.5	Pass
NVNT	n20	5825	Ant1	16.916	0.5	Pass
NVNT	n40	5755	Ant1	35.111	0.5	Pass
NVNT	n40	5795	Ant1	35.13	0.5	Pass
NVNT	ac20	5745	Ant1	17.106	0.5	Pass
NVNT	ac20	5785	Ant1	16.534	0.5	Pass
NVNT	ac20	5825	Ant1	17.277	0.5	Pass
NVNT	ac40	5755	Ant1	35.319	0.5	Pass
NVNT	ac40	5795	Ant1	35.487	0.5	Pass
NVNT	ac80	5775	Ant1	75.057	0.5	Pass

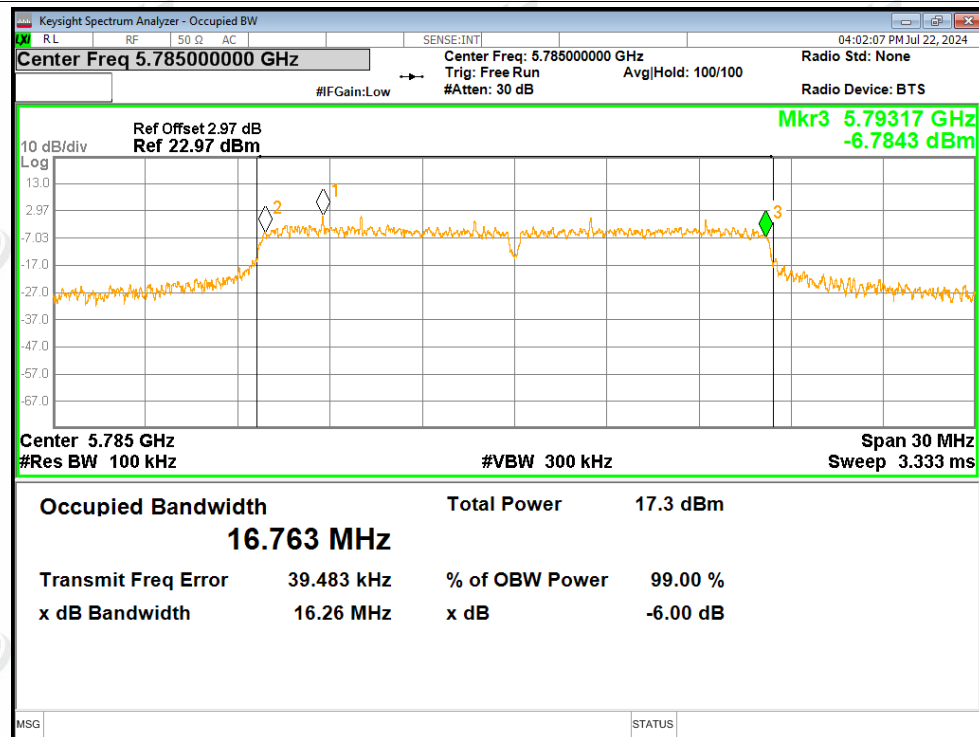


Test Graphs

-6dB Bandwidth NVNT a 5745MHz Ant1

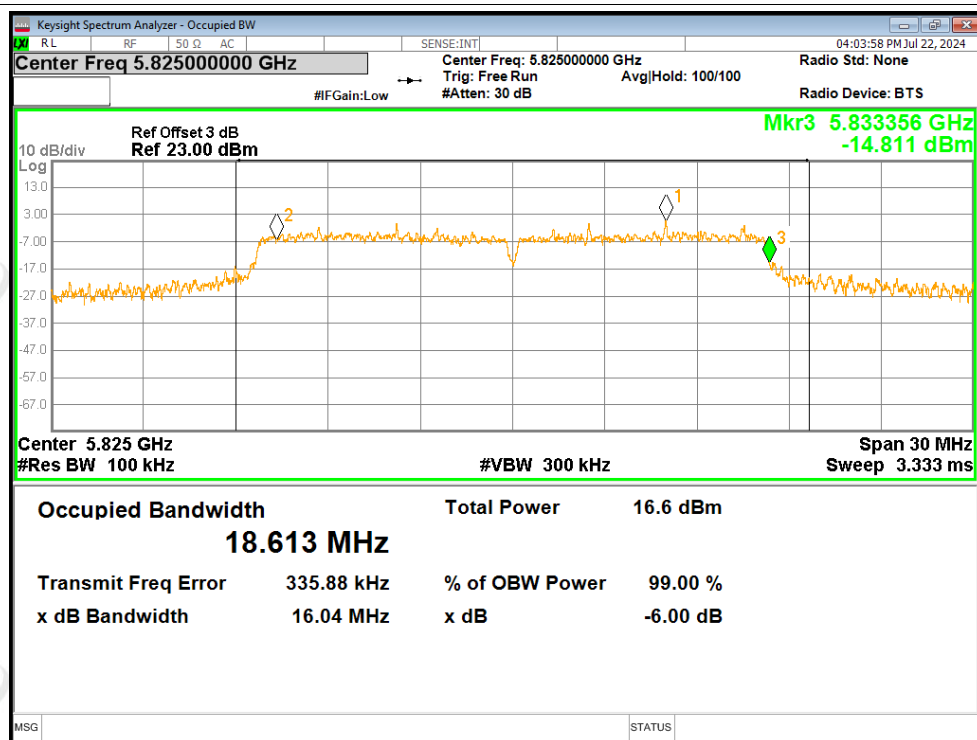


-6dB Bandwidth NVNT a 5785MHz Ant1

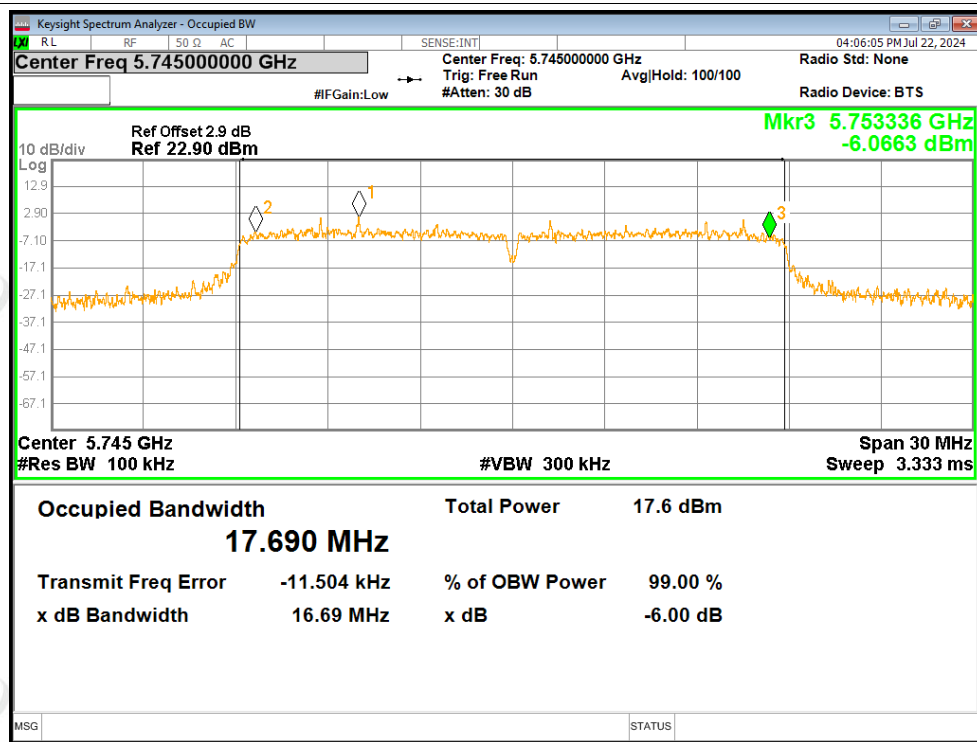




-6dB Bandwidth NVNT a 5825MHz Ant1

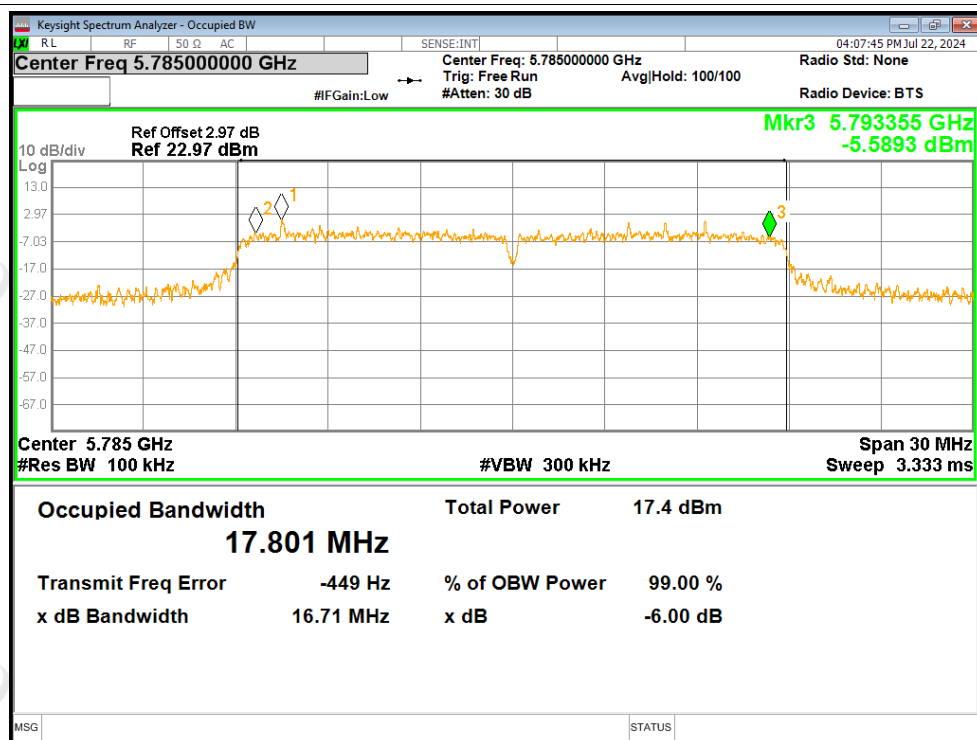


-6dB Bandwidth NVNT n20 5745MHz Ant1

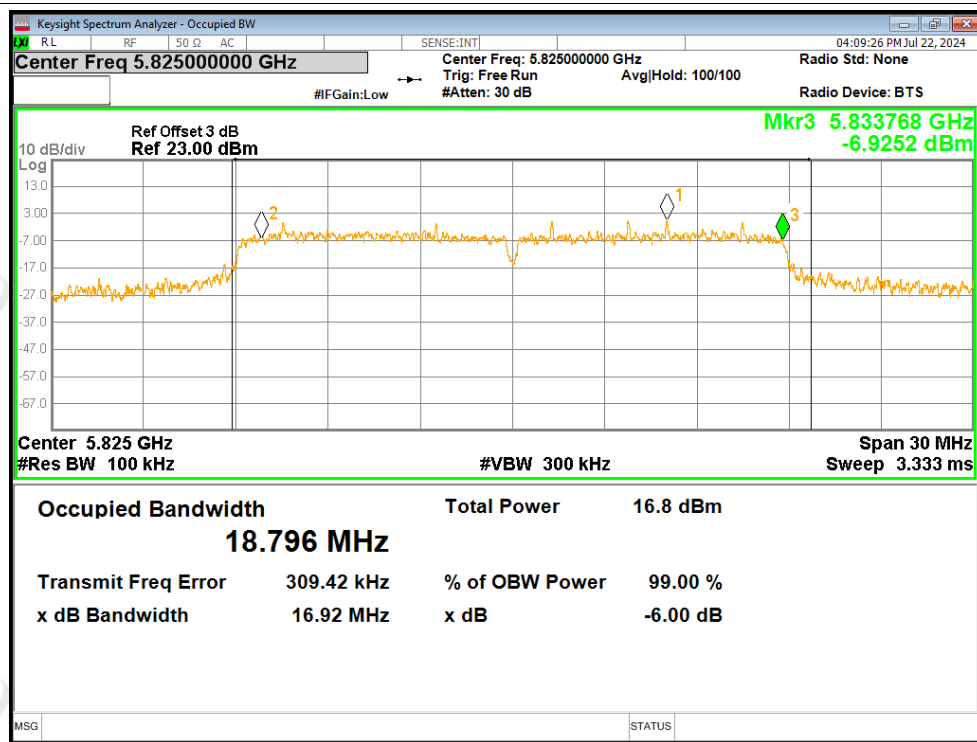




-6dB Bandwidth NVNT n20 5785MHz Ant1

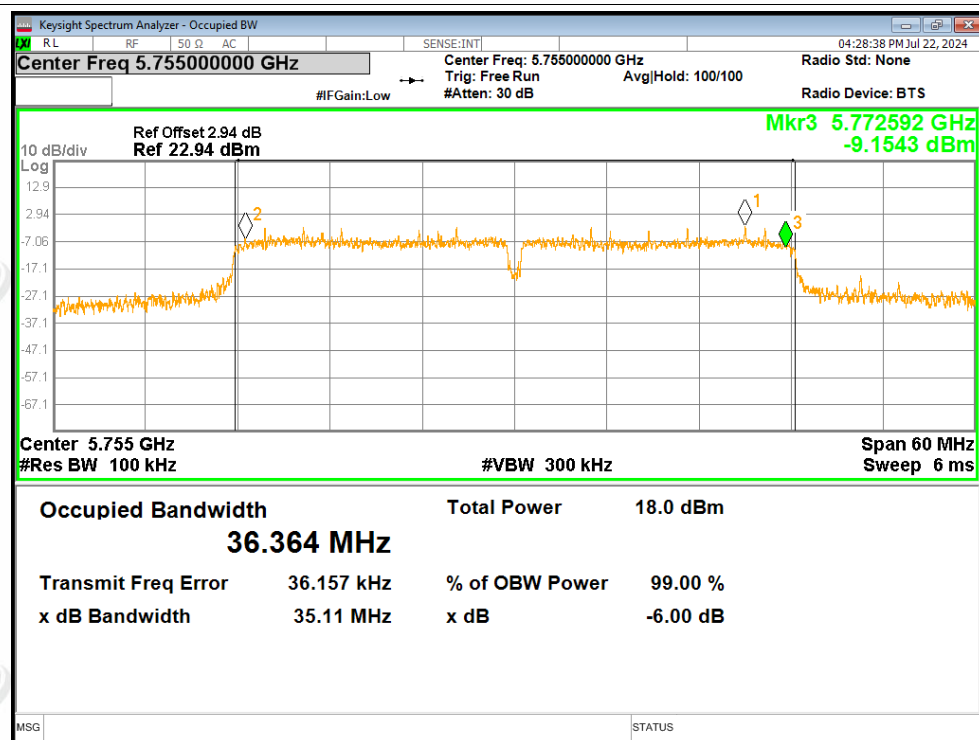


-6dB Bandwidth NVNT n20 5825MHz Ant1

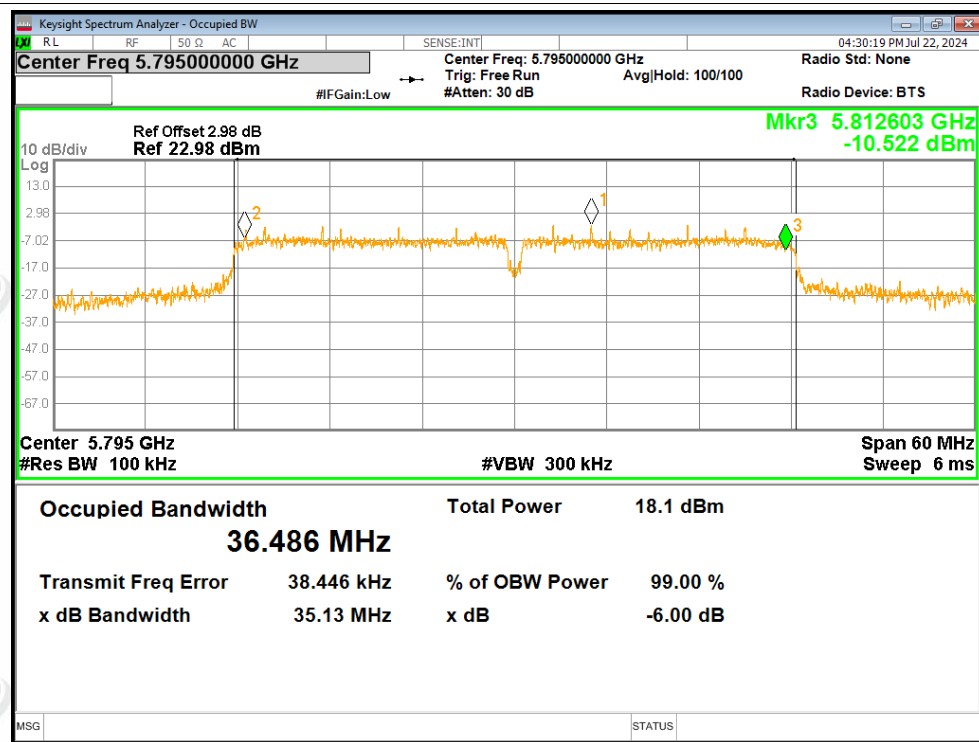




-6dB Bandwidth NVNT n40 5755MHz Ant1

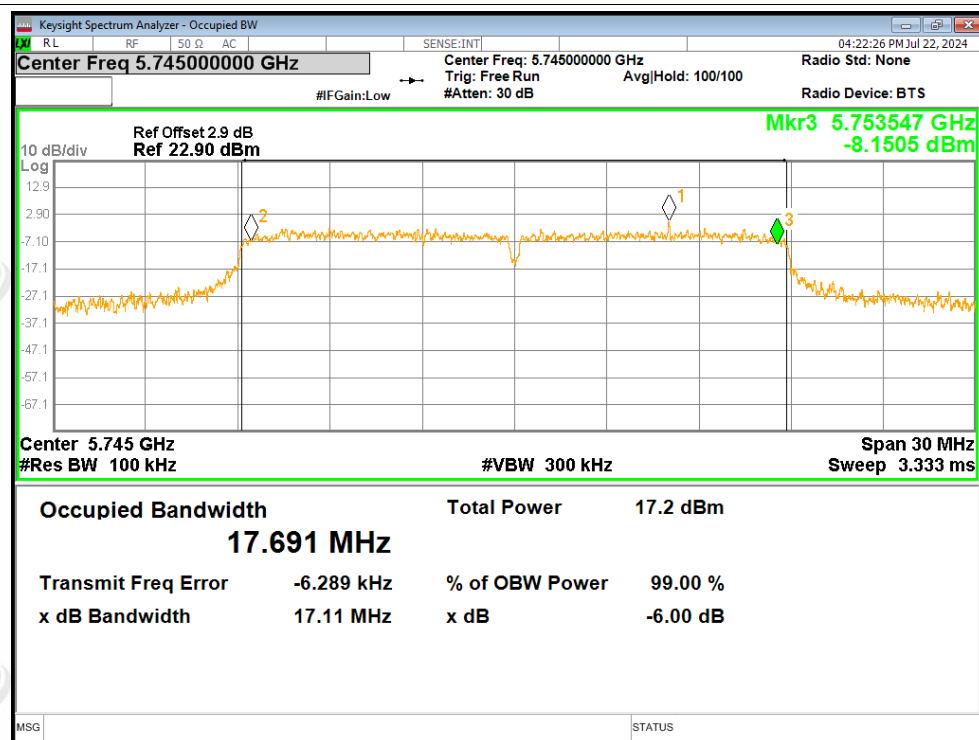


-6dB Bandwidth NVNT n40 5795MHz Ant1

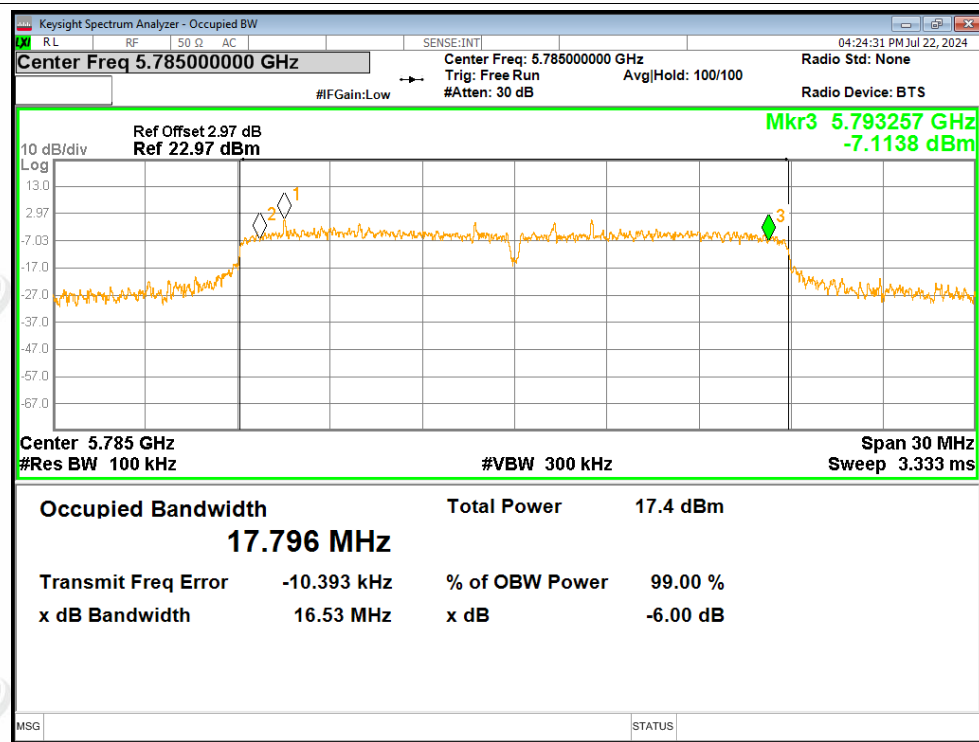




-6dB Bandwidth NVNT ac20 5745MHz Ant1

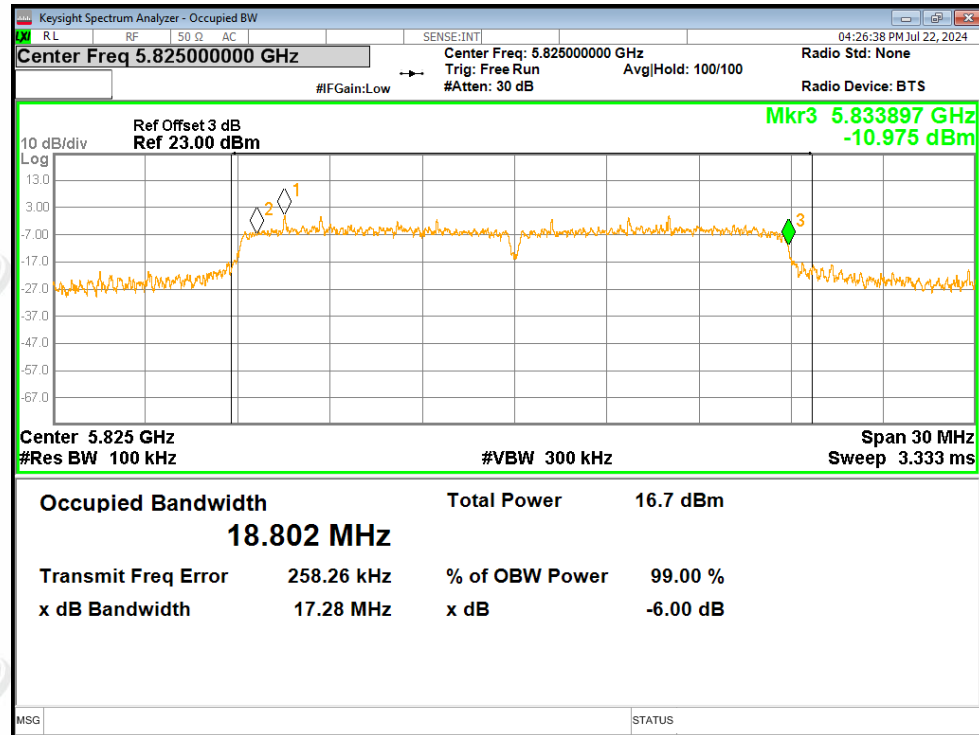


-6dB Bandwidth NVNT ac20 5785MHz Ant1

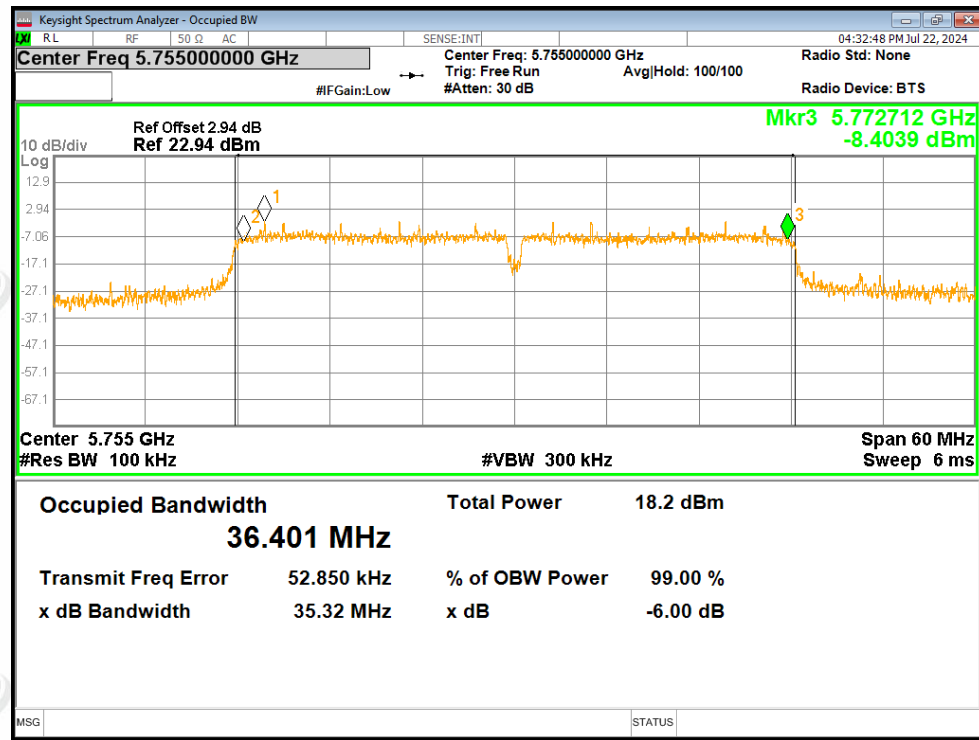




-6dB Bandwidth NVNT ac20 5825MHz Ant1

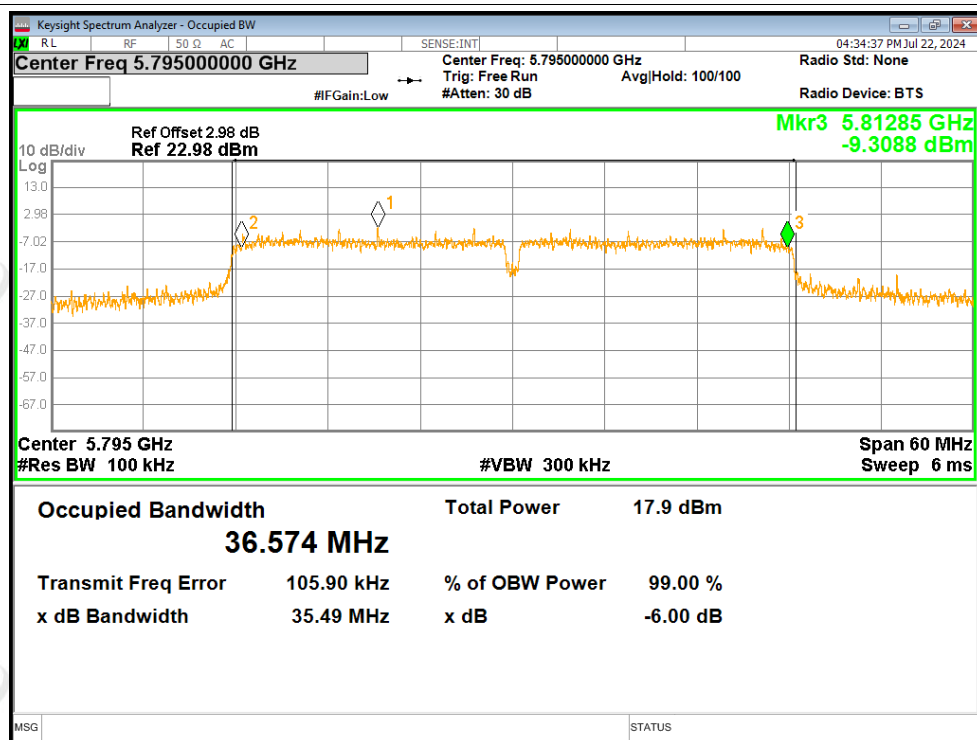


-6dB Bandwidth NVNT ac40 5755MHz Ant1

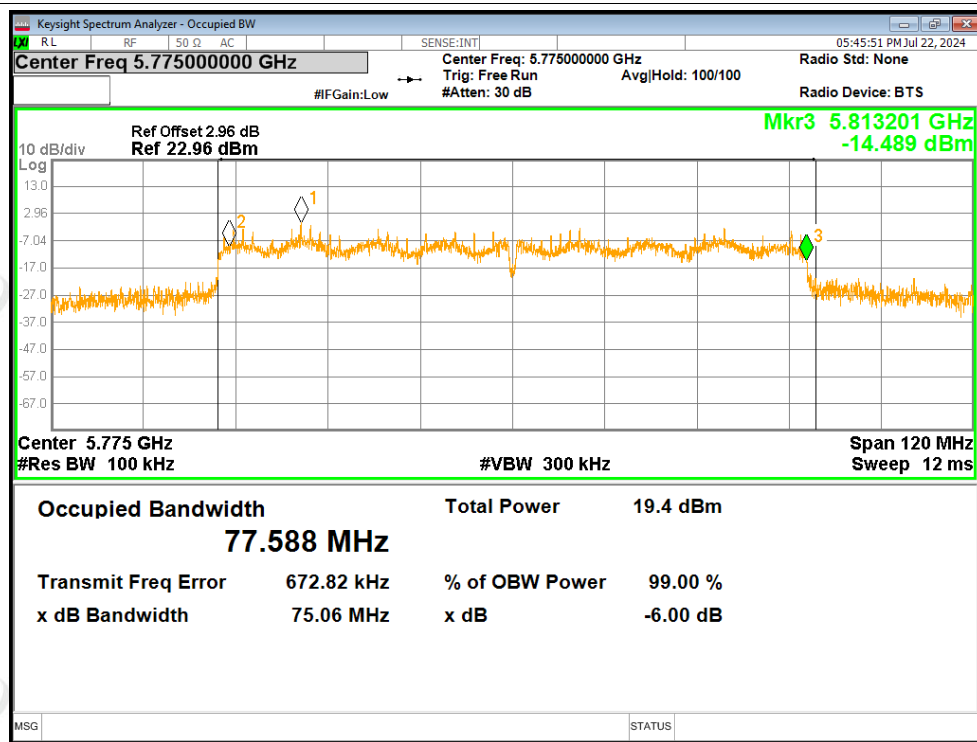




-6dB Bandwidth NVNT ac40 5795MHz Ant1



-6dB Bandwidth NVNT ac80 5775MHz Ant1



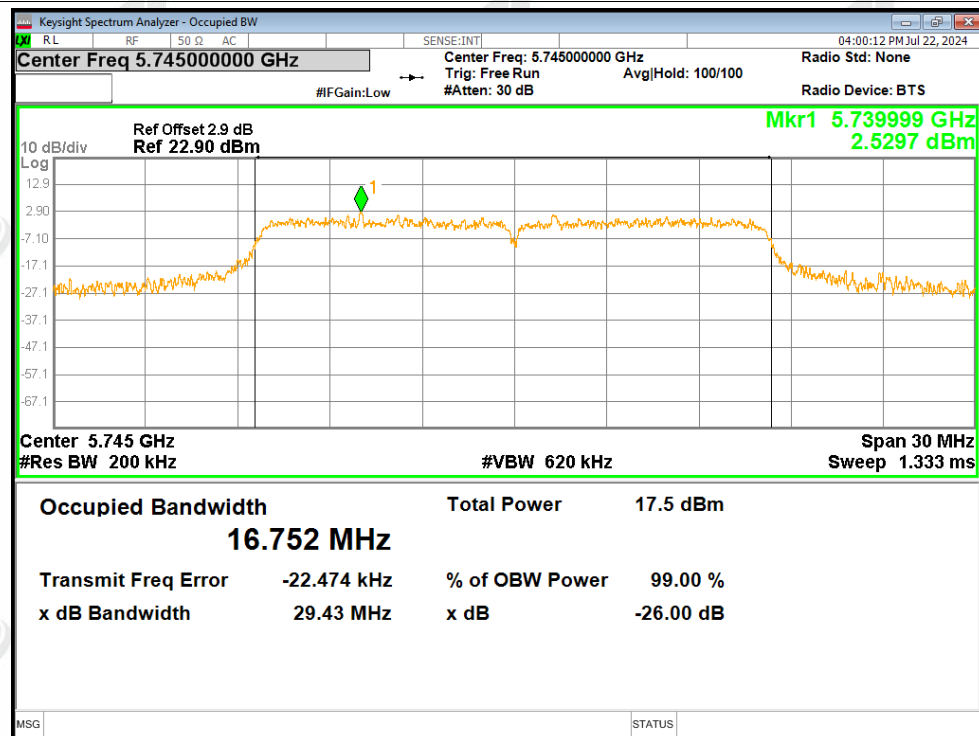
**ZHONGHAN****Occupied Channel Bandwidth**

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5745	Ant1	16.752
NVNT	a	5785	Ant1	16.993
NVNT	a	5825	Ant1	18.788
NVNT	n20	5745	Ant1	17.771
NVNT	n20	5785	Ant1	17.895
NVNT	n20	5825	Ant1	19.087
NVNT	n40	5755	Ant1	36.701
NVNT	n40	5795	Ant1	36.998
NVNT	ac20	5745	Ant1	17.752
NVNT	ac20	5785	Ant1	17.944
NVNT	ac20	5825	Ant1	18.976
NVNT	ac40	5755	Ant1	36.732
NVNT	ac40	5795	Ant1	37.038
NVNT	ac80	5775	Ant1	77.725

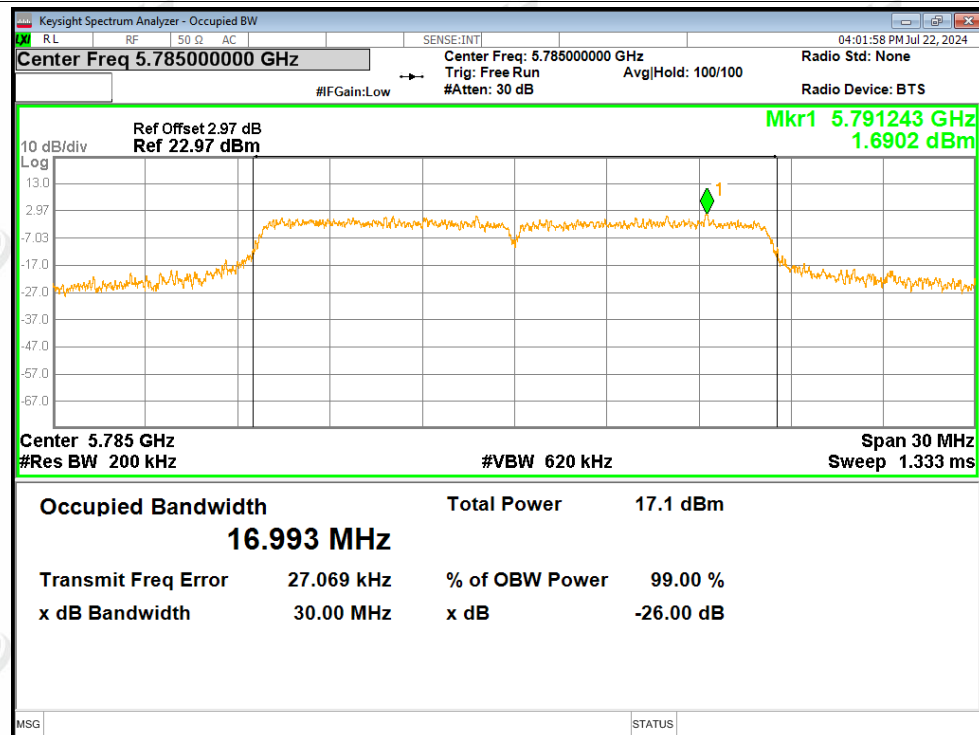


Test Graphs

OBW NVNT a 5745MHz Ant1

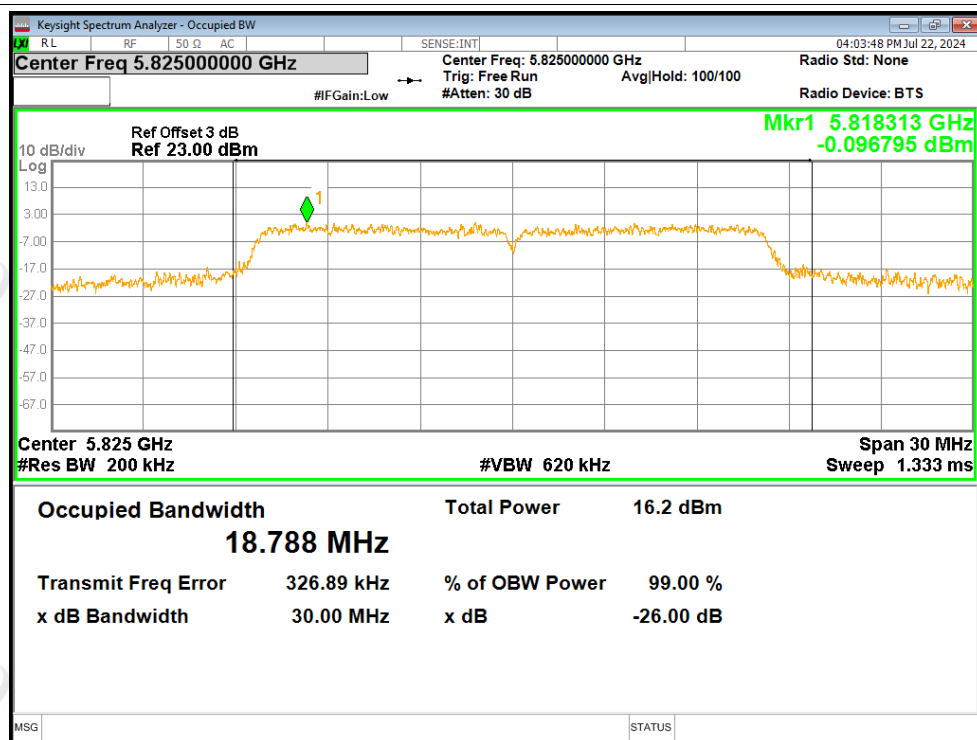


OBW NVNT a 5785MHz Ant1

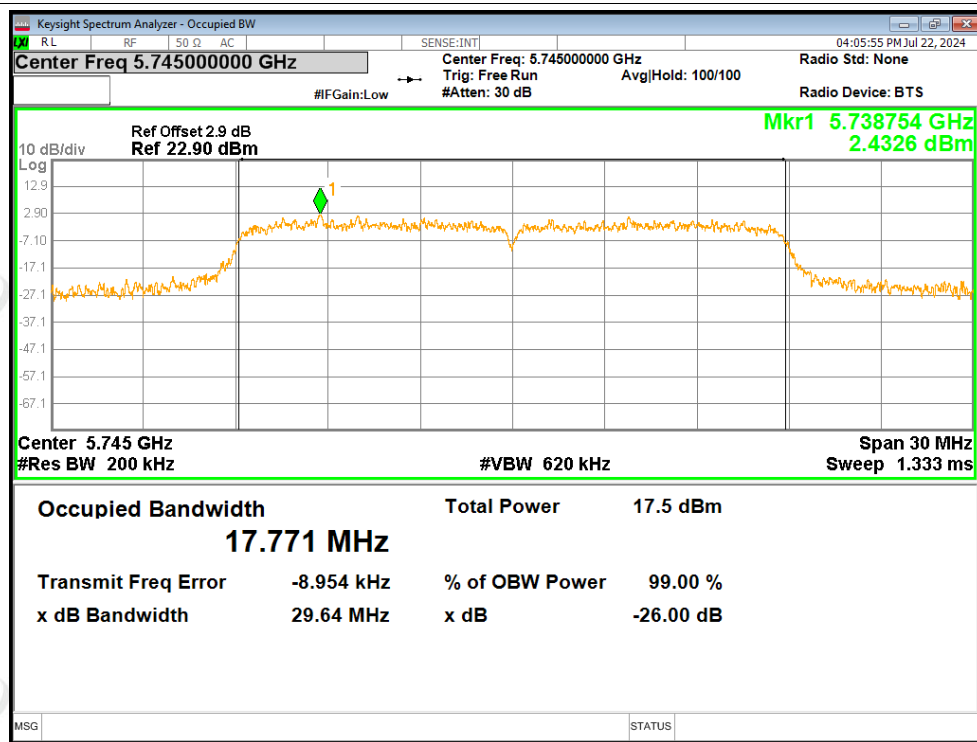




OBW NVNT a 5825MHz Ant1

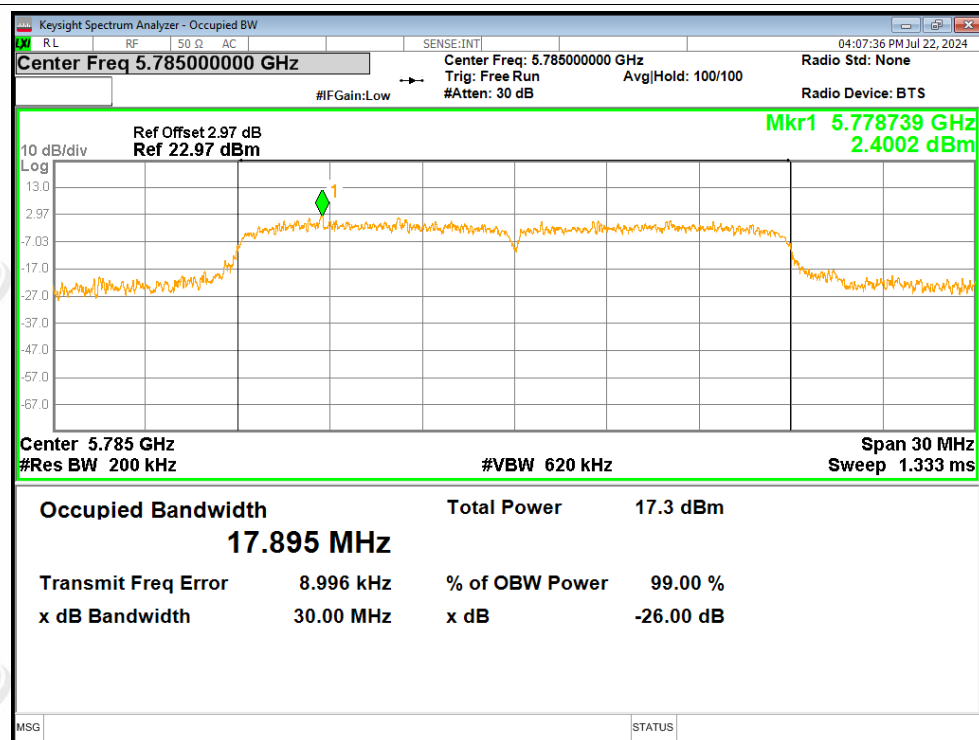


OBW NVNT n20 5745MHz Ant1

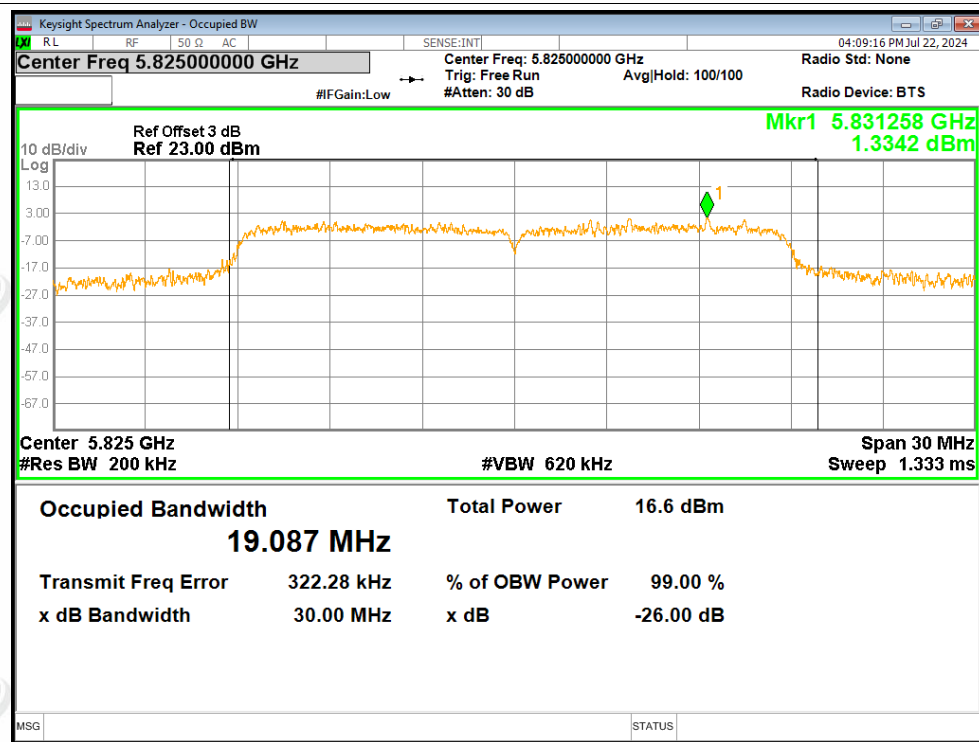




OBW NVNT n20 5785MHz Ant1

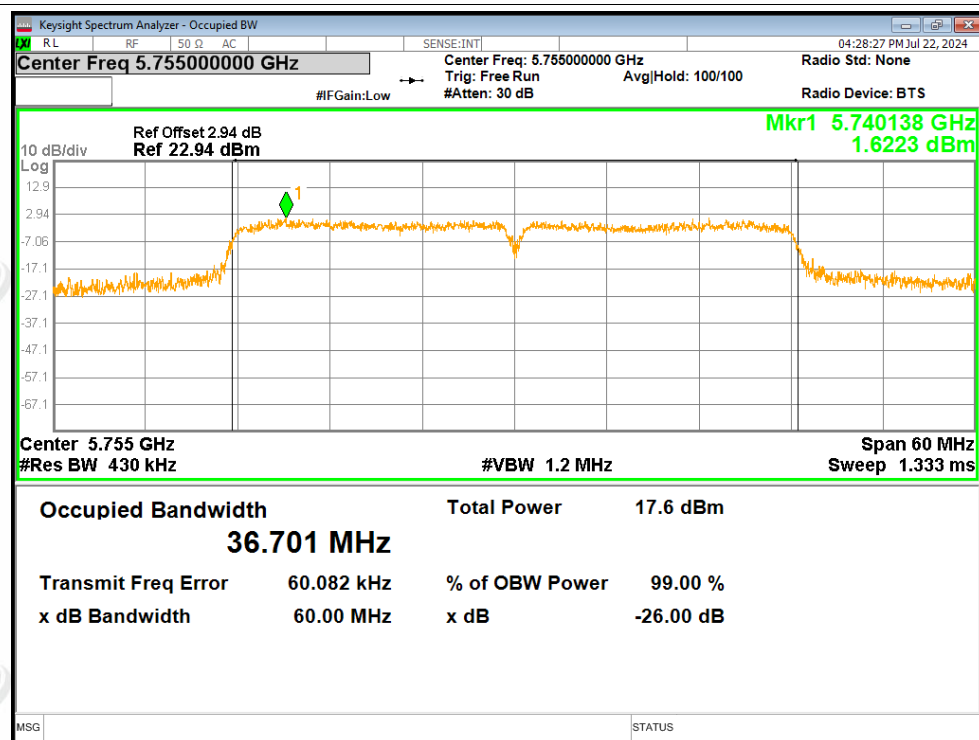


OBW NVNT n20 5825MHz Ant1

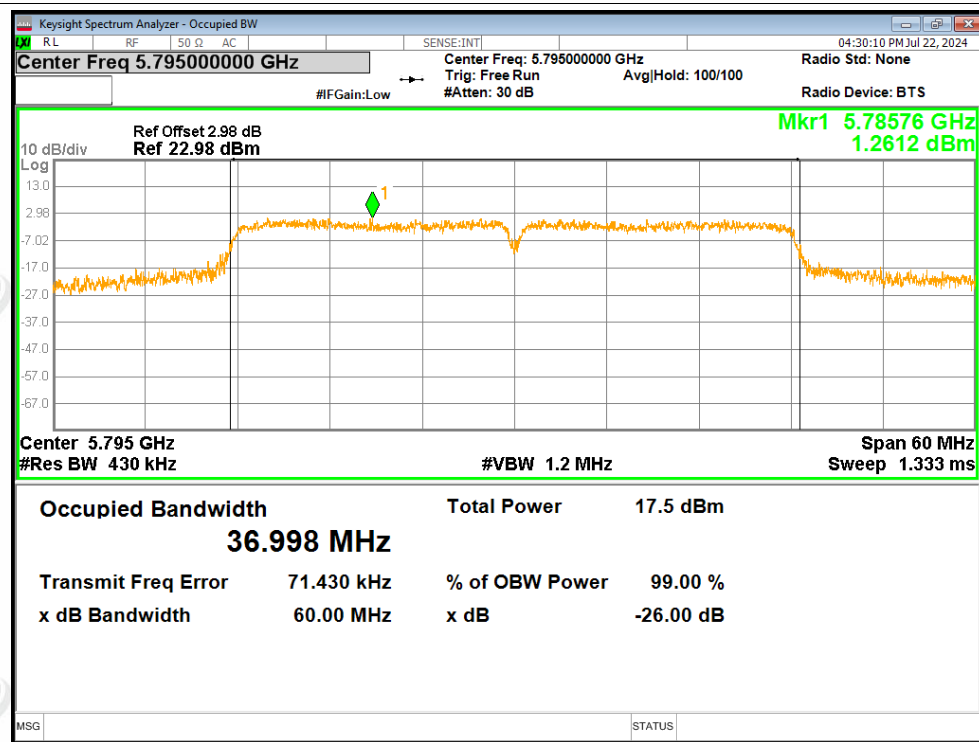




OBW NVNT n40 5755MHz Ant1

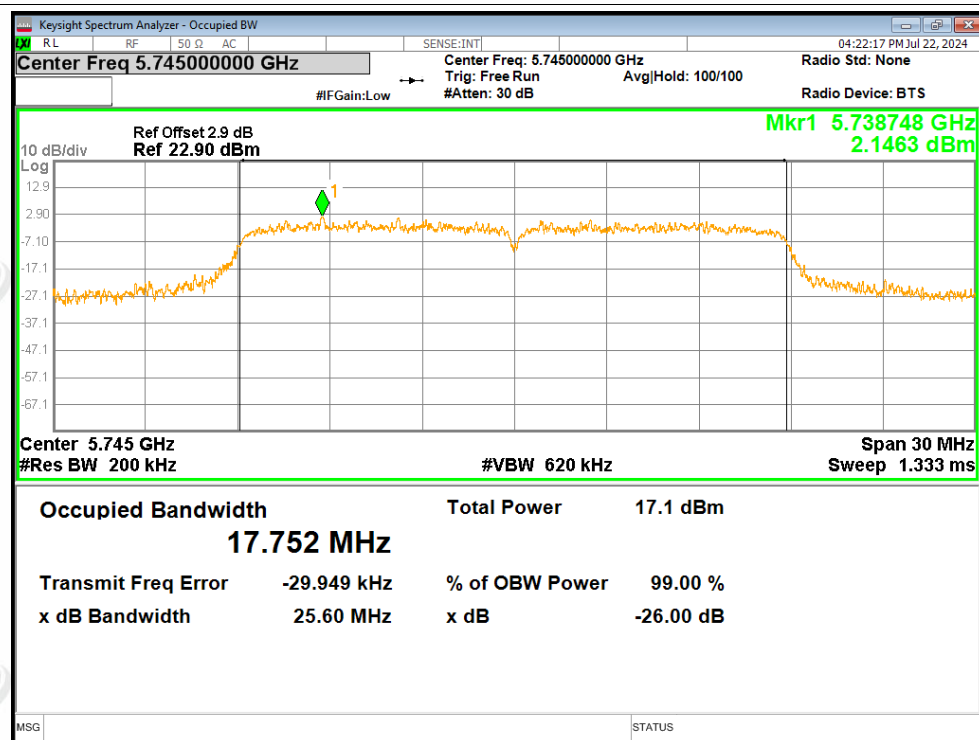


OBW NVNT n40 5795MHz Ant1

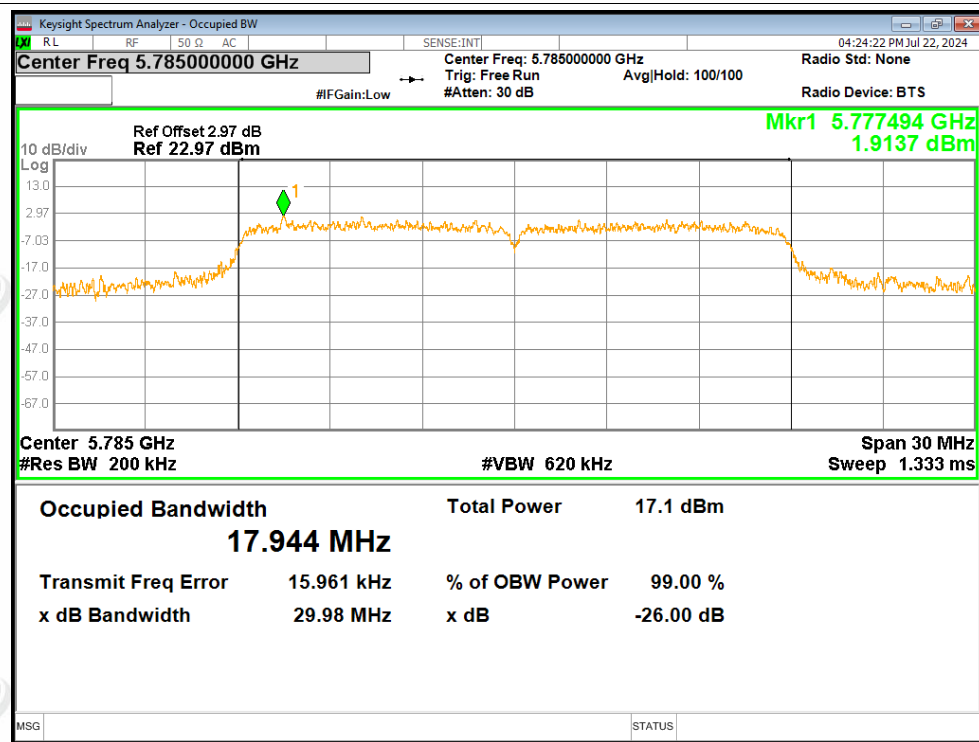




OBW NVNT ac20 5745MHz Ant1

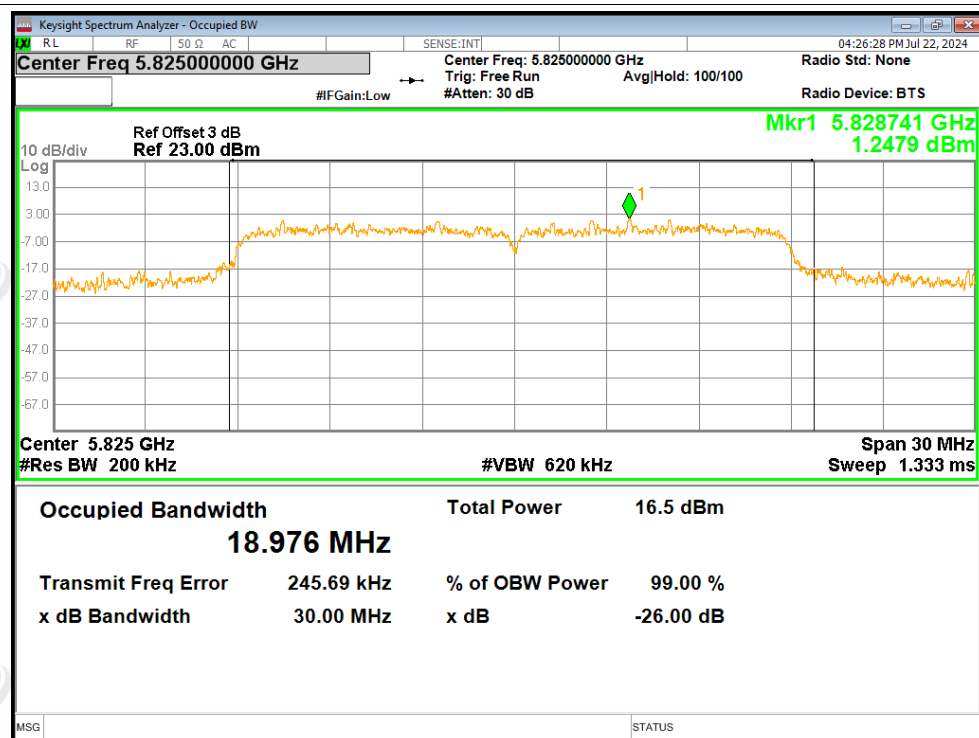


OBW NVNT ac20 5785MHz Ant1

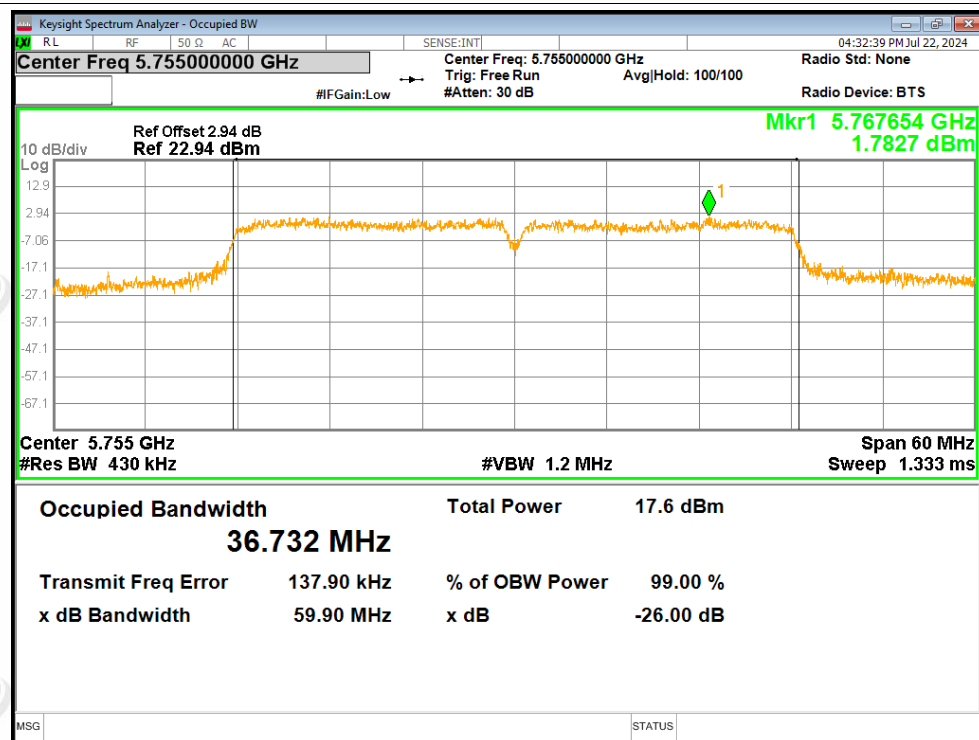




OBW NVNT ac20 5825MHz Ant1

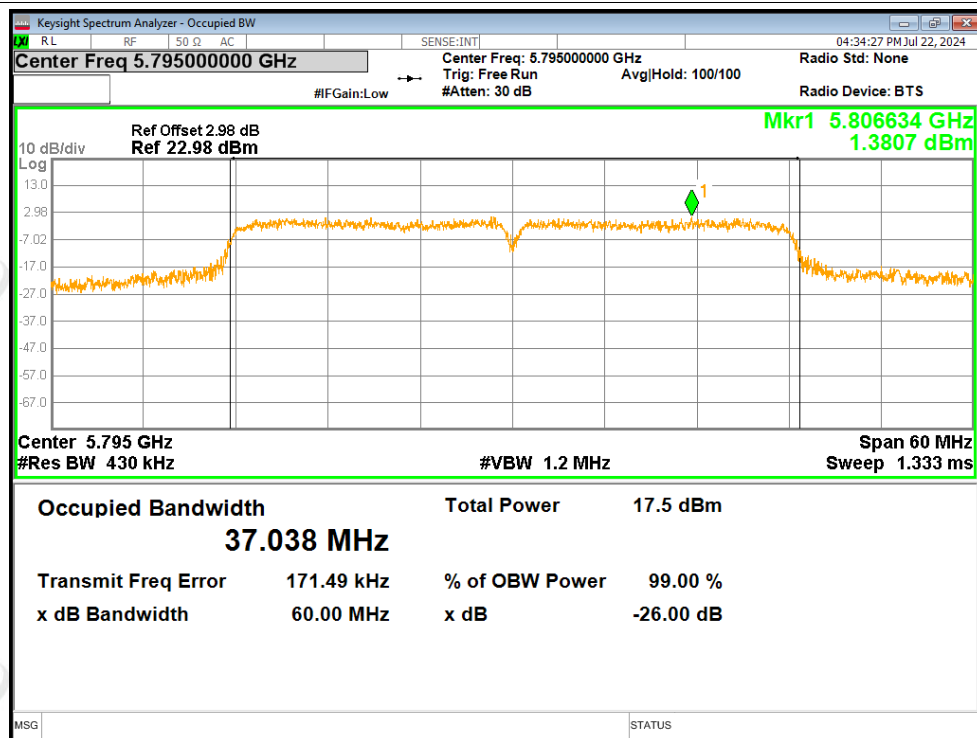


OBW NVNT ac40 5755MHz Ant1

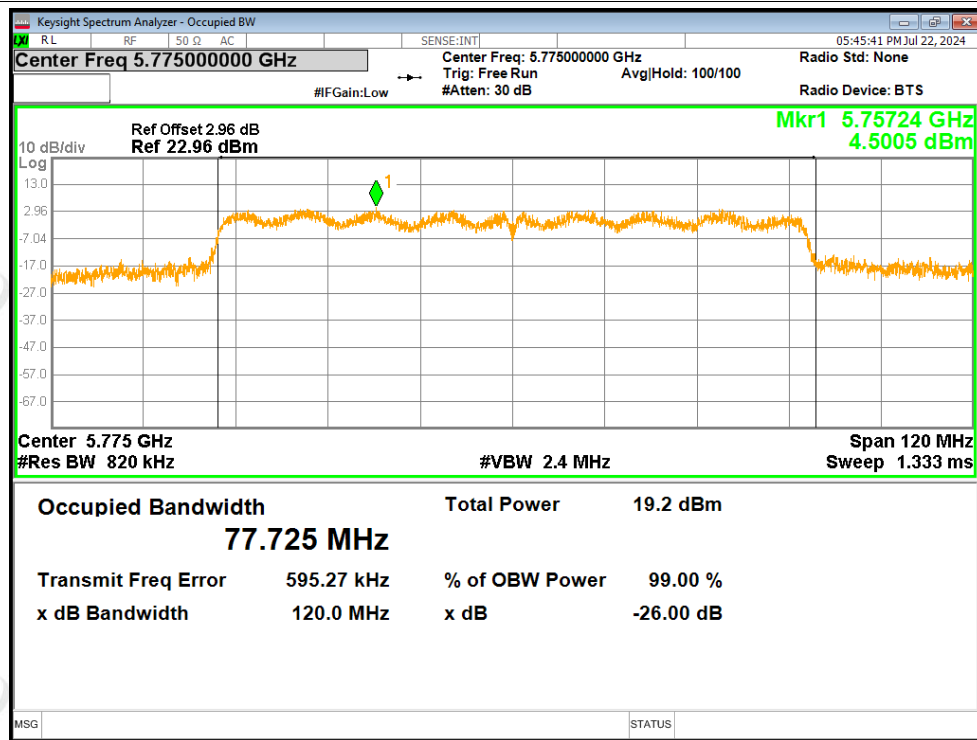




OBW NVNT ac40 5795MHz Ant1



OBW NVNT ac80 5775MHz Ant1



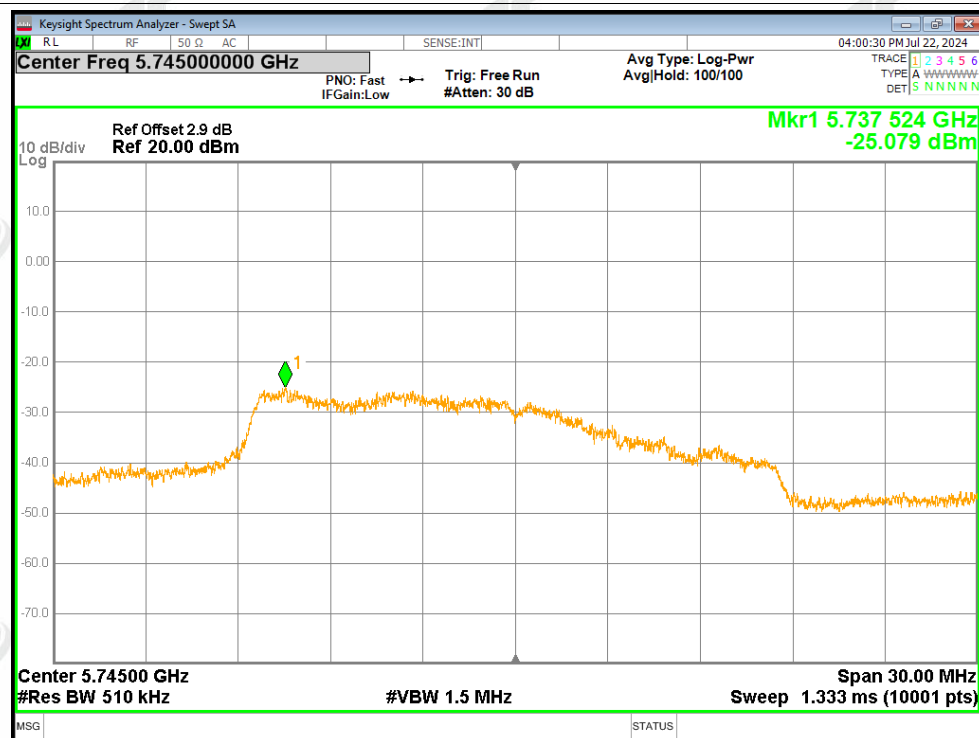
**ZHONGHAN****Maximum Power Spectral Density Level**

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant1	-25.08	2.41	-22.67	30	Pass
NVNT	a	5785	Ant1	-25.18	2.39	-22.79	30	Pass
NVNT	a	5825	Ant1	-24.81	2.38	-22.43	30	Pass
NVNT	n20	5745	Ant1	-28.03	2.51	-25.52	30	Pass
NVNT	n20	5785	Ant1	-28.26	2.52	-25.74	30	Pass
NVNT	n20	5825	Ant1	-25.83	2.51	-23.32	30	Pass
NVNT	n40	5755	Ant1	-33.84	4.13	-29.71	30	Pass
NVNT	n40	5795	Ant1	-32.71	4.16	-28.55	30	Pass
NVNT	ac20	5745	Ant1	-24.27	2.54	-21.73	30	Pass
NVNT	ac20	5785	Ant1	-28.02	2.51	-25.51	30	Pass
NVNT	ac20	5825	Ant1	-28.36	2.54	-25.82	30	Pass
NVNT	ac40	5755	Ant1	-29.35	4.09	-25.26	30	Pass
NVNT	ac40	5795	Ant1	-35.52	4.16	-31.36	30	Pass
NVNT	ac80	5775	Ant1	-45.13	6.15	-38.98	30	Pass

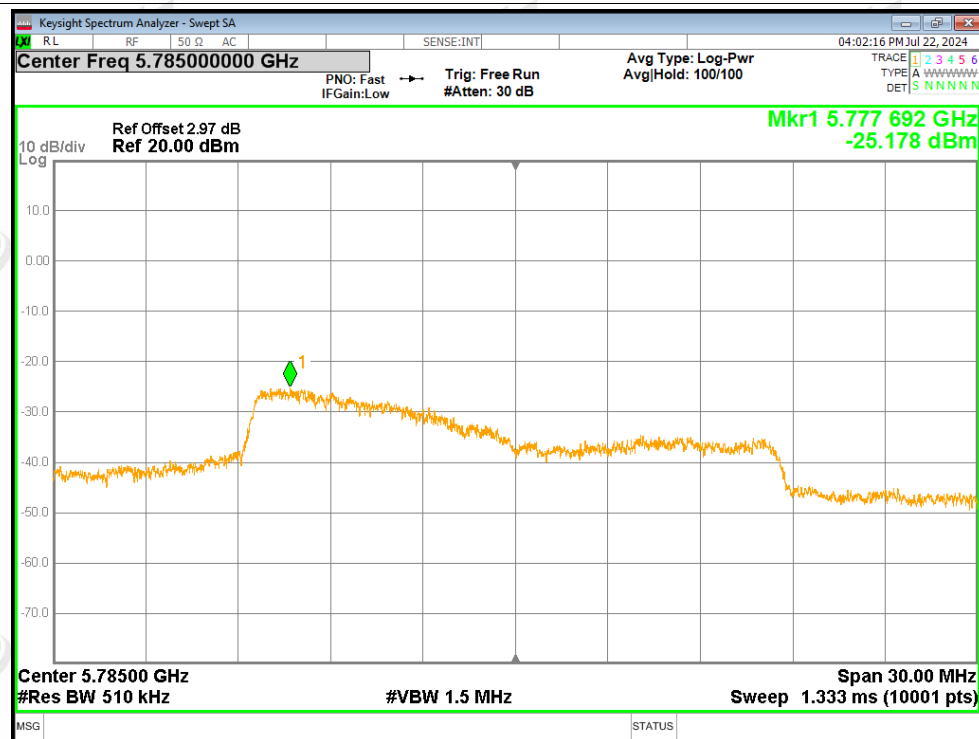


Test Graphs

PSD NVNT a 5745MHz Ant1

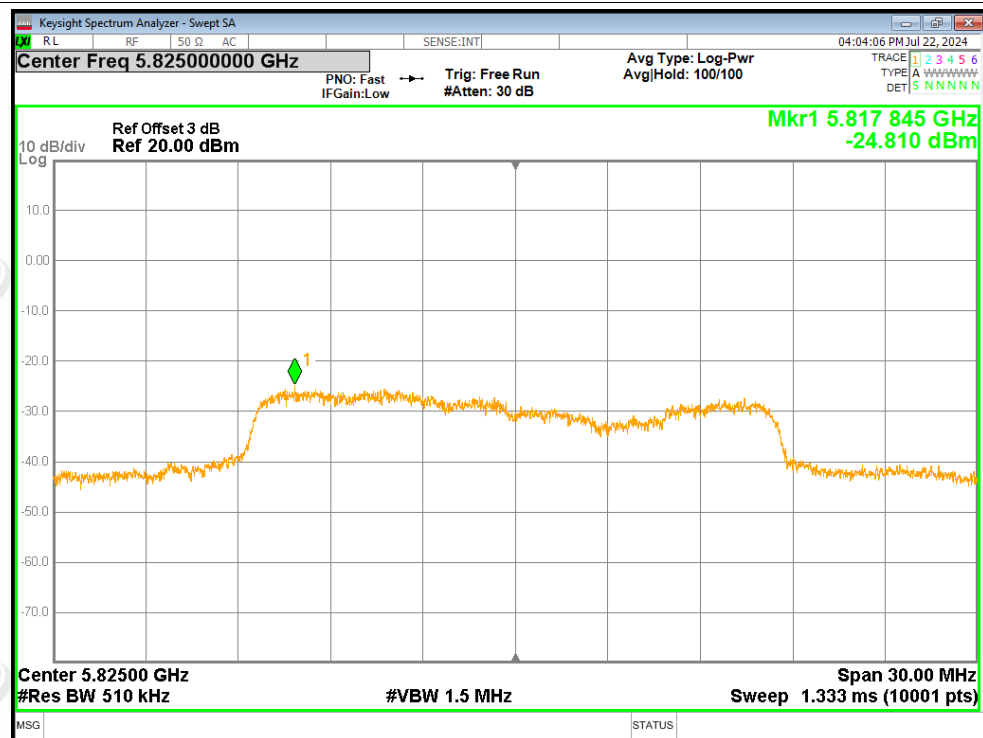


PSD NVNT a 5785MHz Ant1

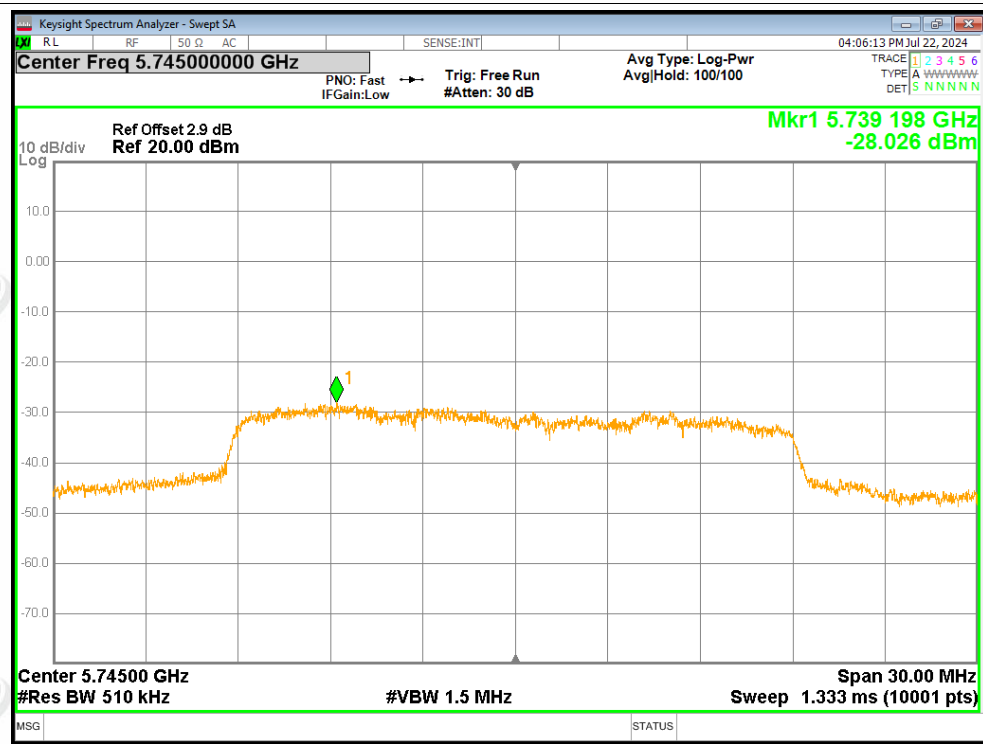




PSD NVNT a 5825MHz Ant1

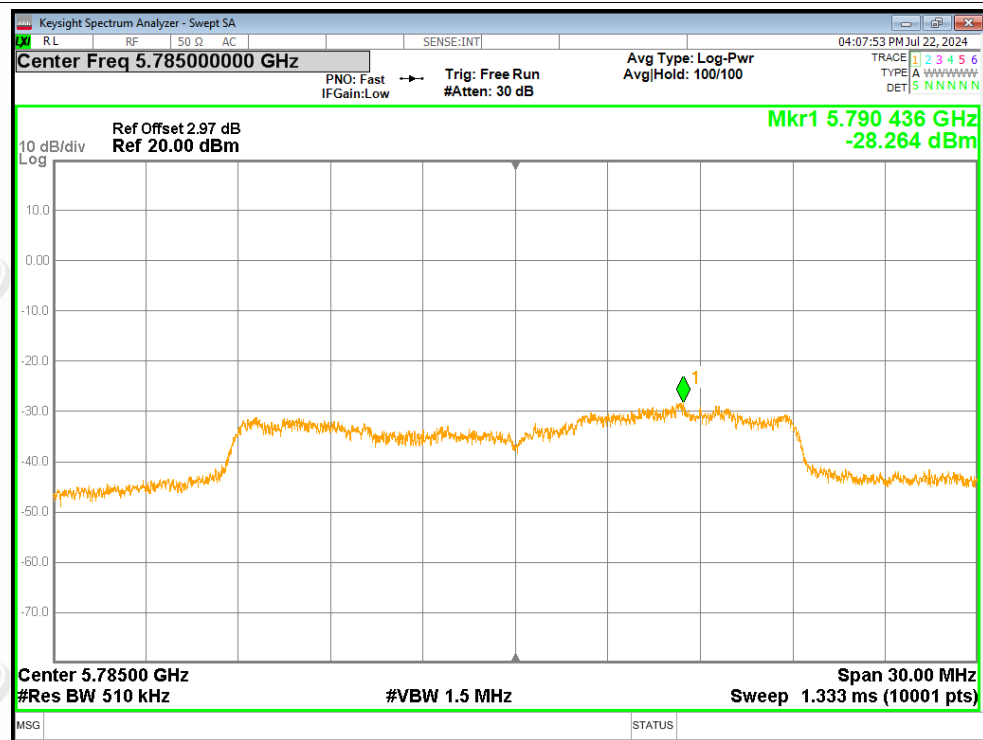


PSD NVNT n20 5745MHz Ant1

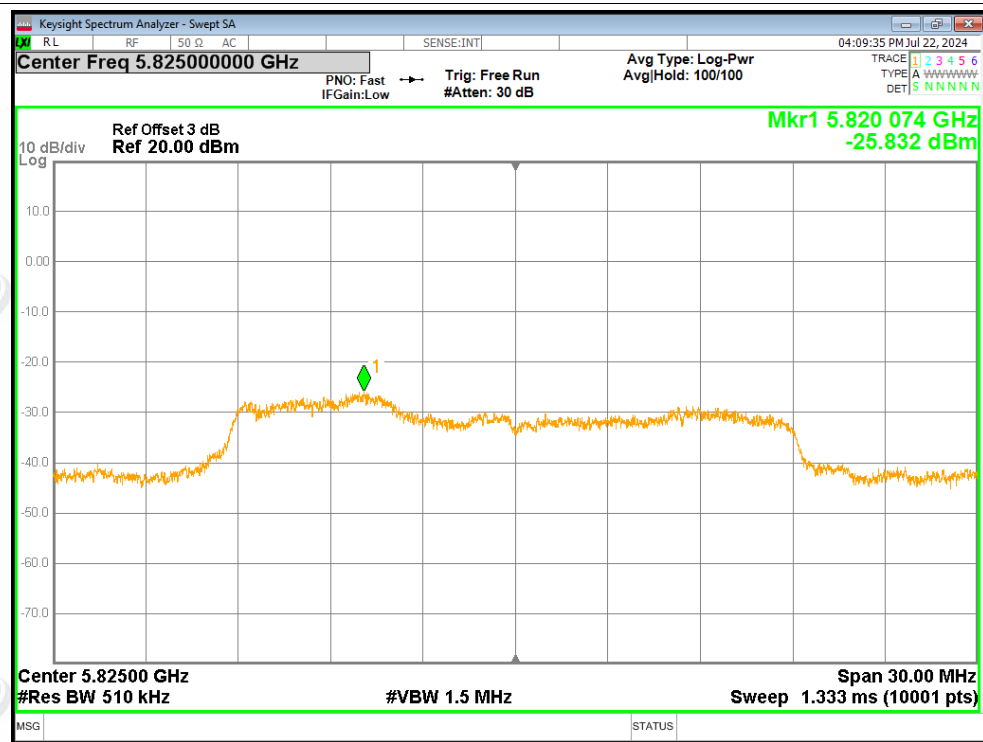




PSD NVNT n20 5785MHz Ant1

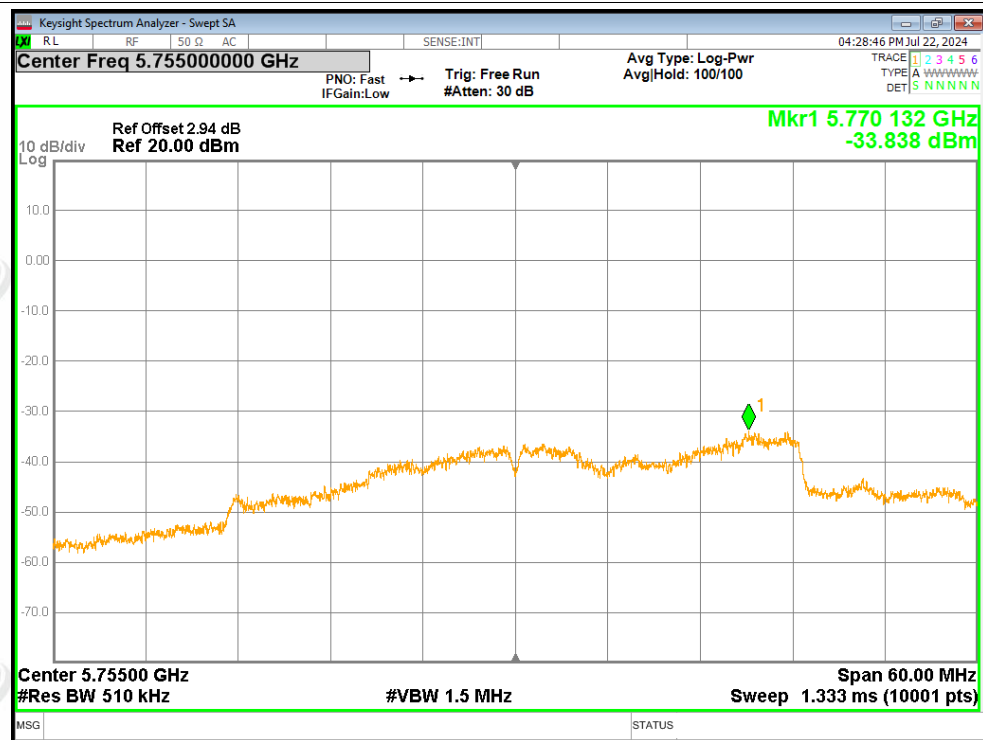


PSD NVNT n20 5825MHz Ant1

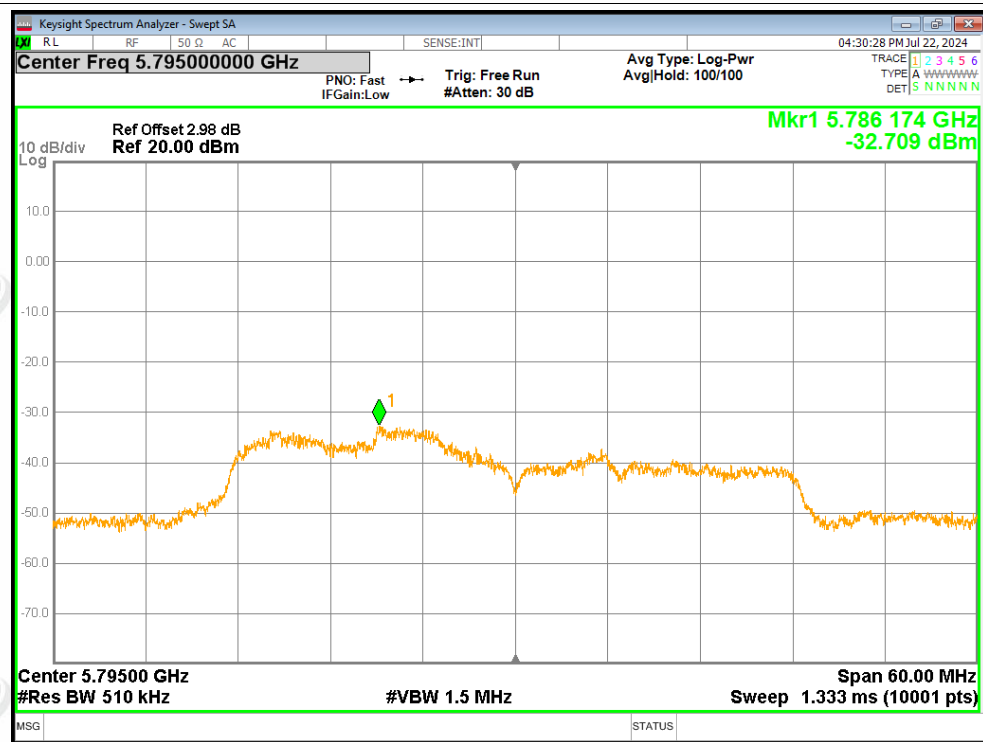




PSD NVNT n40 5755MHz Ant1

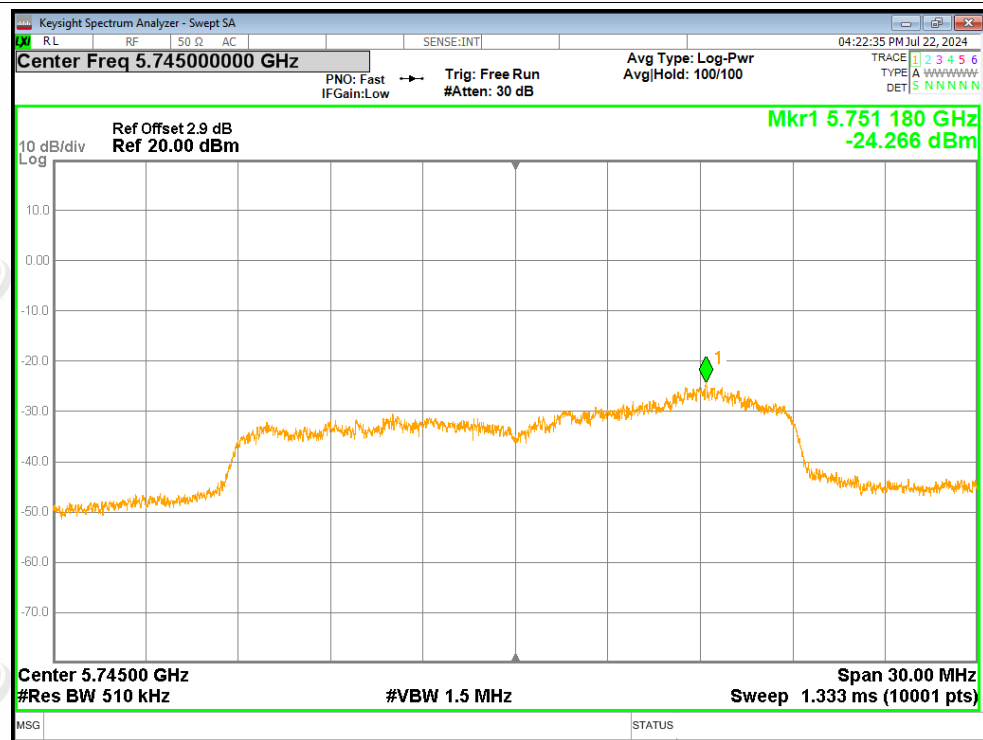


PSD NVNT n40 5795MHz Ant1

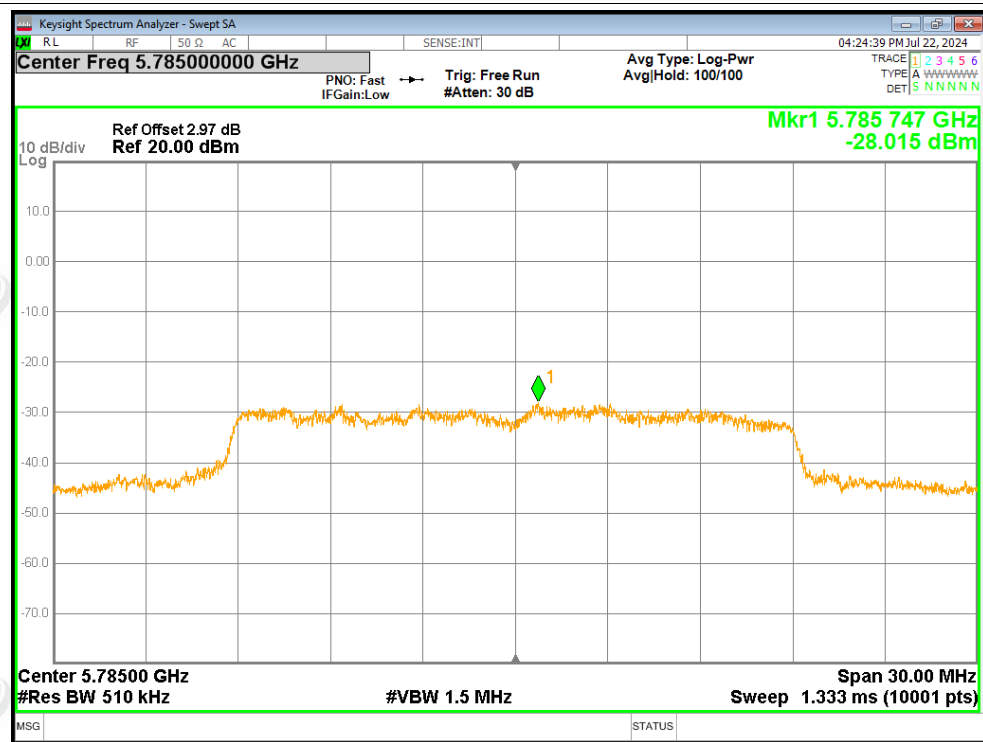




PSD NVNT ac20 5745MHz Ant1

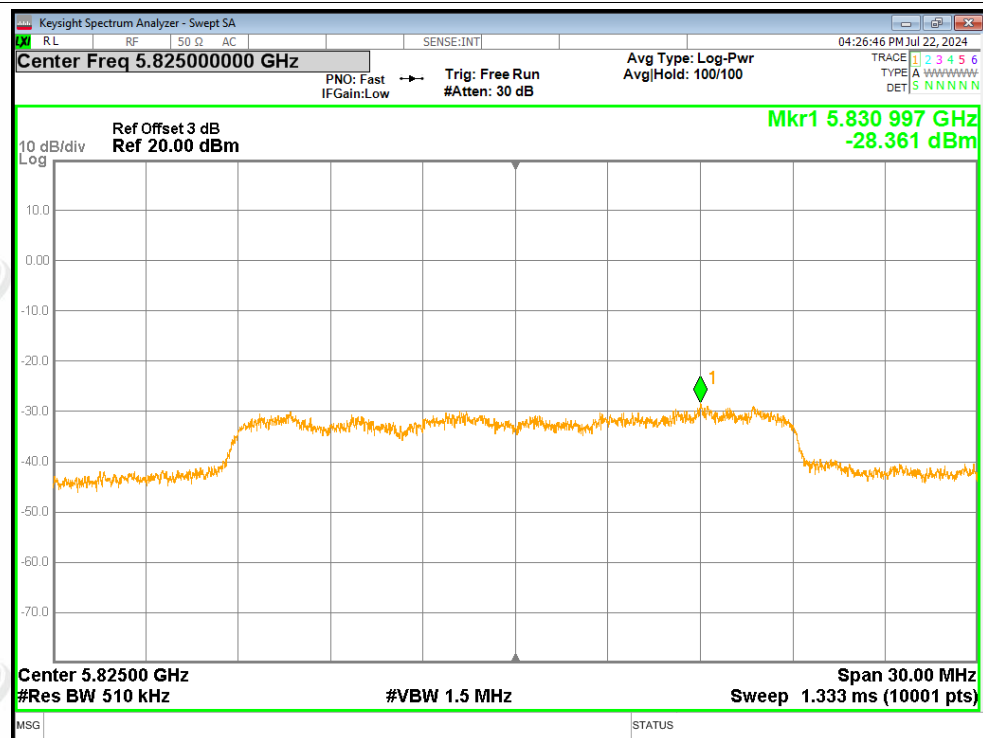


PSD NVNT ac20 5785MHz Ant1

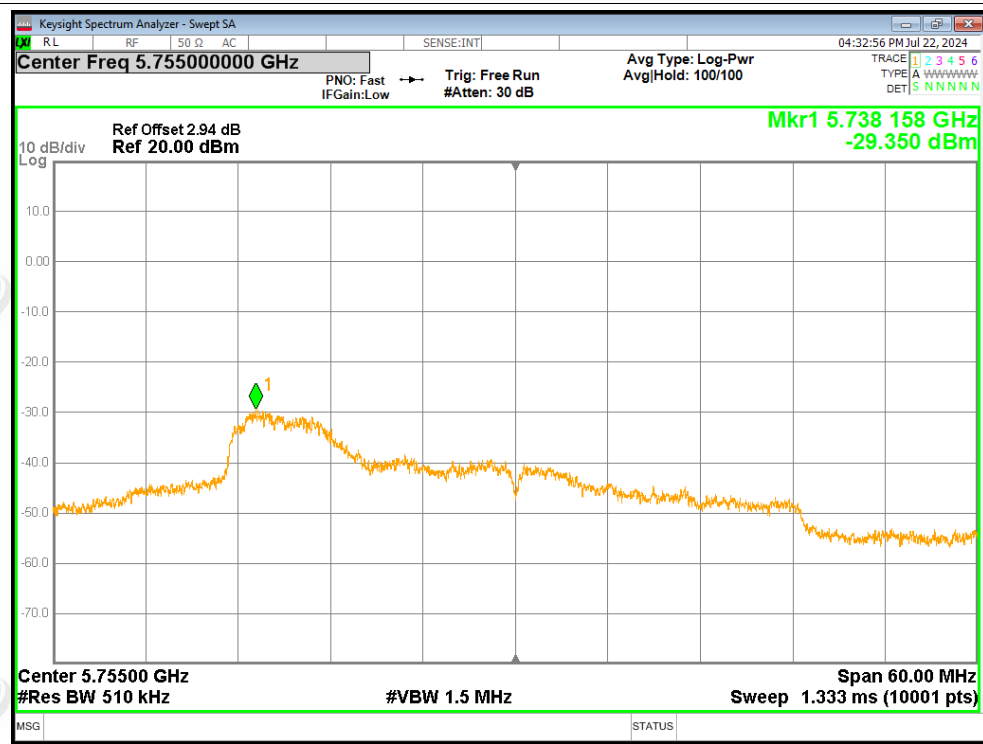




PSD NVNT ac20 5825MHz Ant1

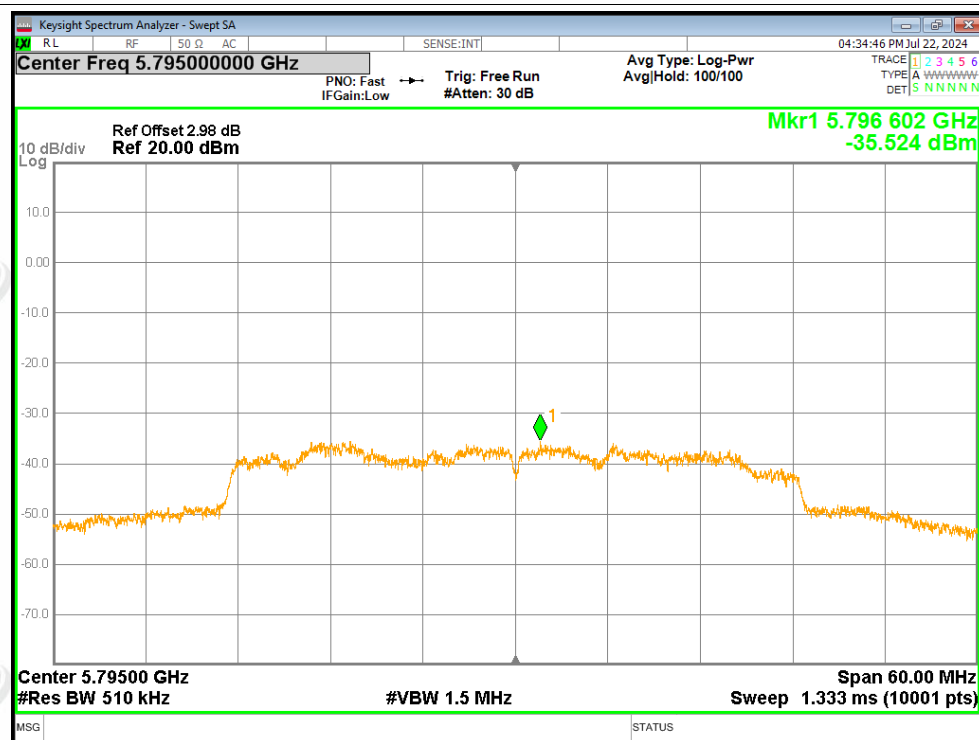


PSD NVNT ac40 5755MHz Ant1

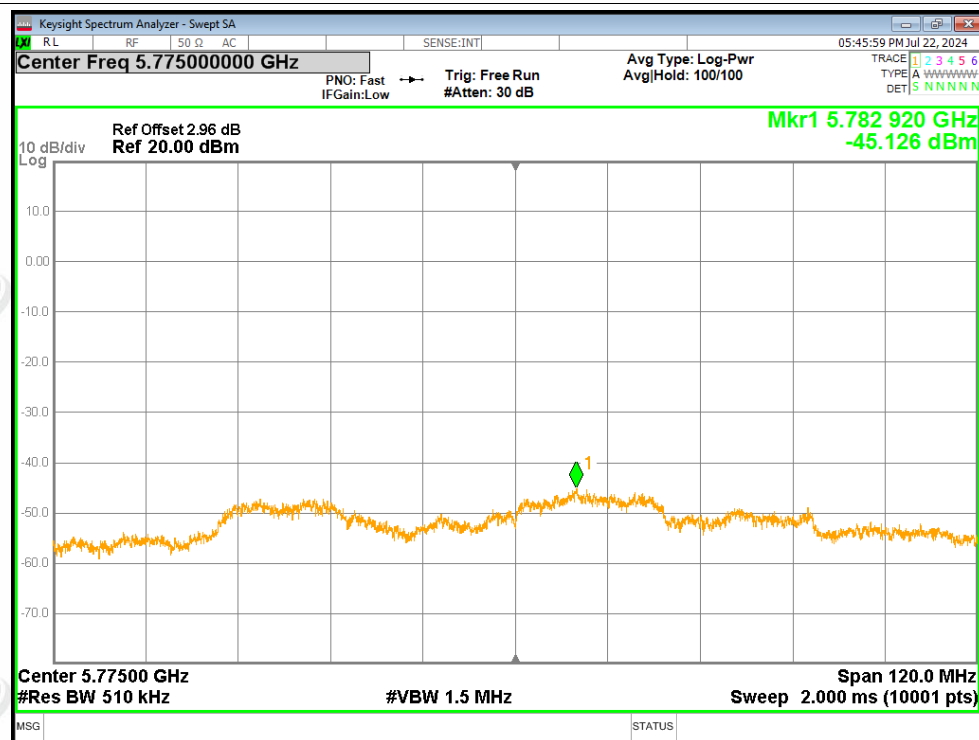




PSD NVNT ac40 5795MHz Ant1



PSD NVNT ac80 5775MHz Ant1

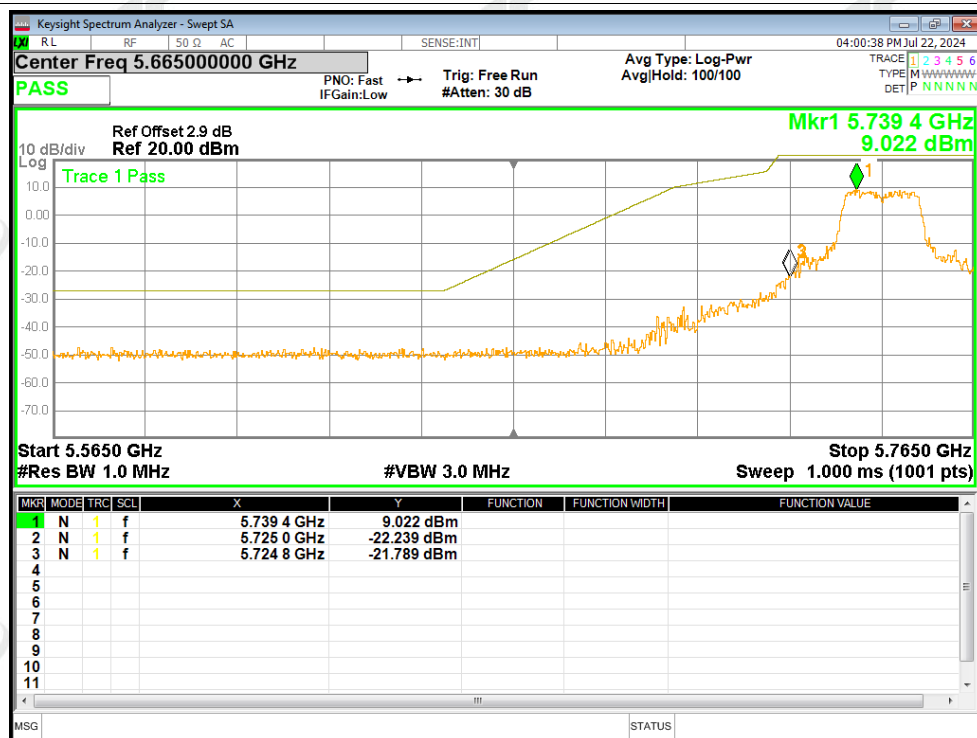




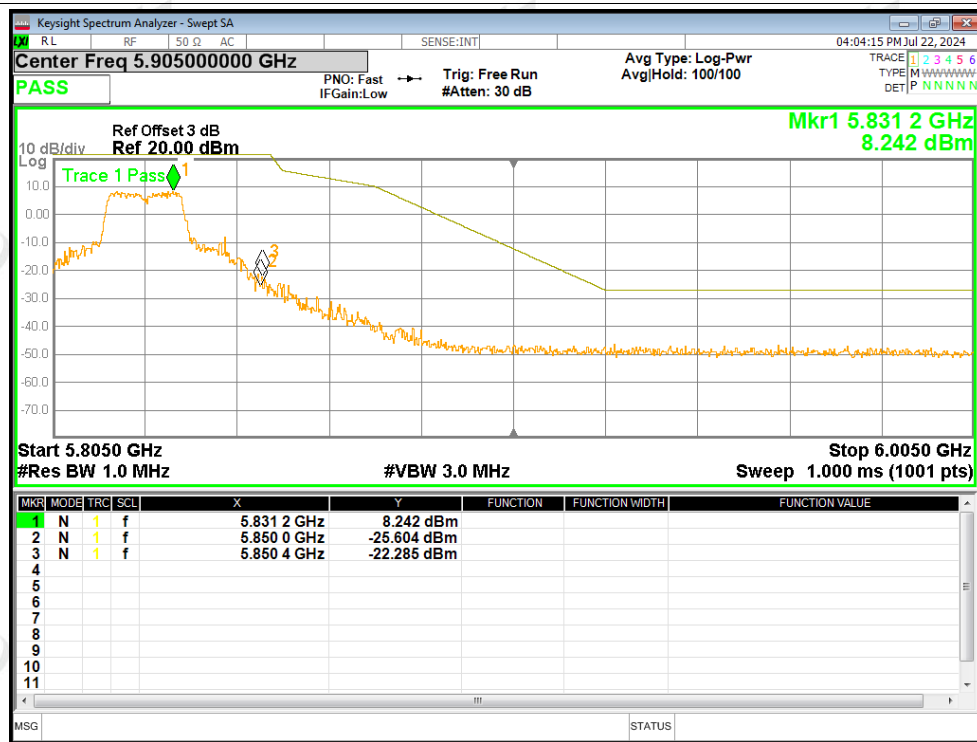
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBm)	Verdict
NVNT	a	5745	Ant1	-21.78	Pass
NVNT	a	5825	Ant1	-22.28	Pass
NVNT	n20	5745	Ant1	-19.04	Pass
NVNT	n20	5825	Ant1	-21.37	Pass
NVNT	n40	5755	Ant1	-16.32	Pass
NVNT	n40	5795	Ant1	-25.79	Pass
NVNT	ac20	5745	Ant1	-19.78	Pass
NVNT	ac20	5825	Ant1	-20.1	Pass
NVNT	ac40	5755	Ant1	-14.87	Pass
NVNT	ac40	5795	Ant1	-24.34	Pass
NVNT	ac80	5775	Ant1	-14.42	Pass

Test Graphs

Band Edge NVNT a 5745MHz Low Ant1

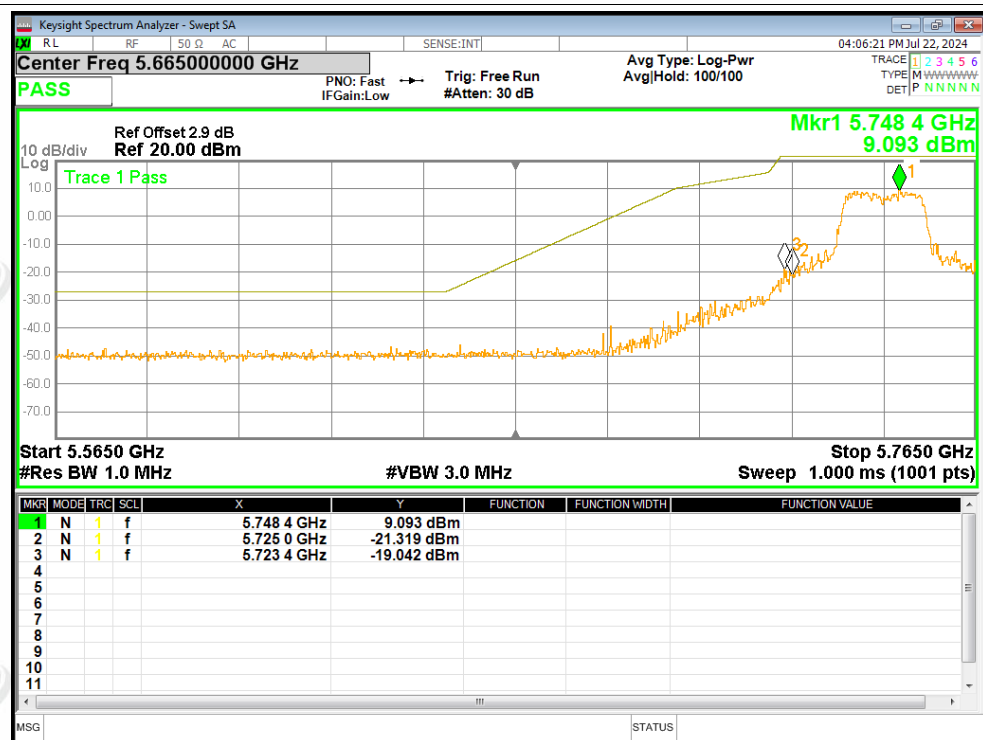


Band Edge NVNT a 5825MHz High Ant1

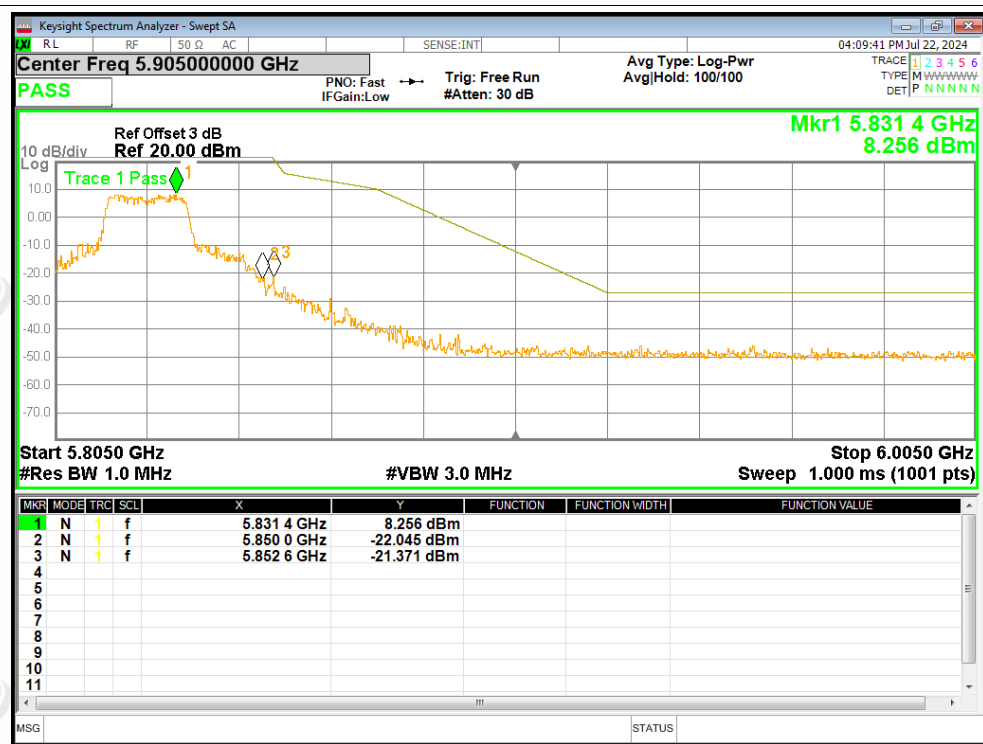




Band Edge NVNT n20 5745MHz Low Ant1

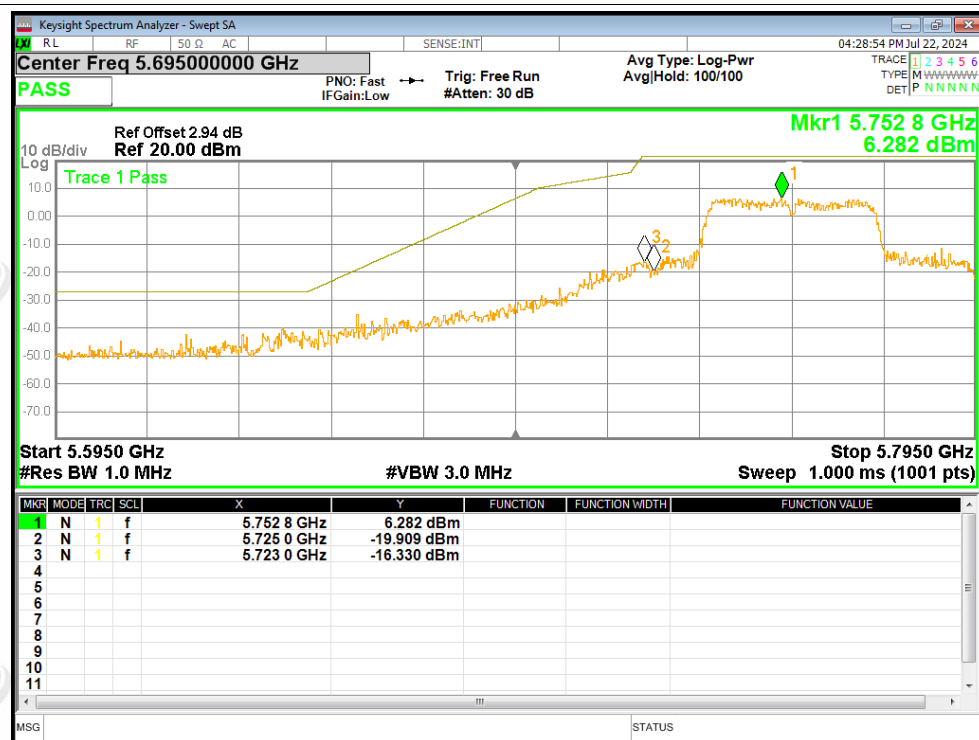


Band Edge NVNT n20 5825MHz High Ant1

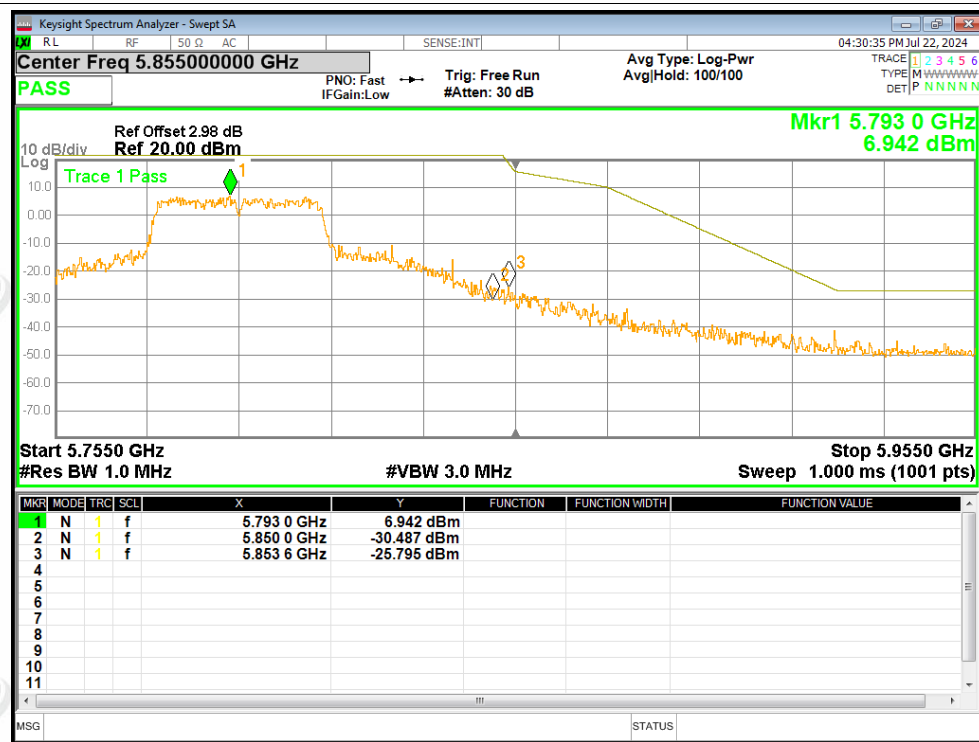




Band Edge NVNT n40 5755MHz Low Ant1

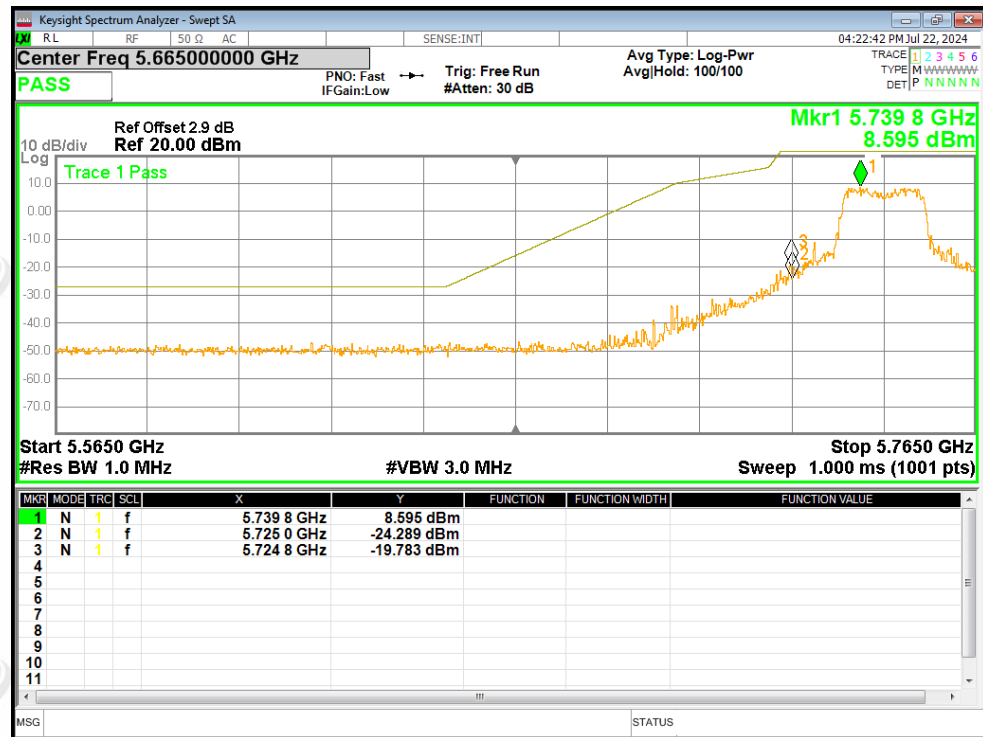


Band Edge NVNT n40 5795MHz High Ant1

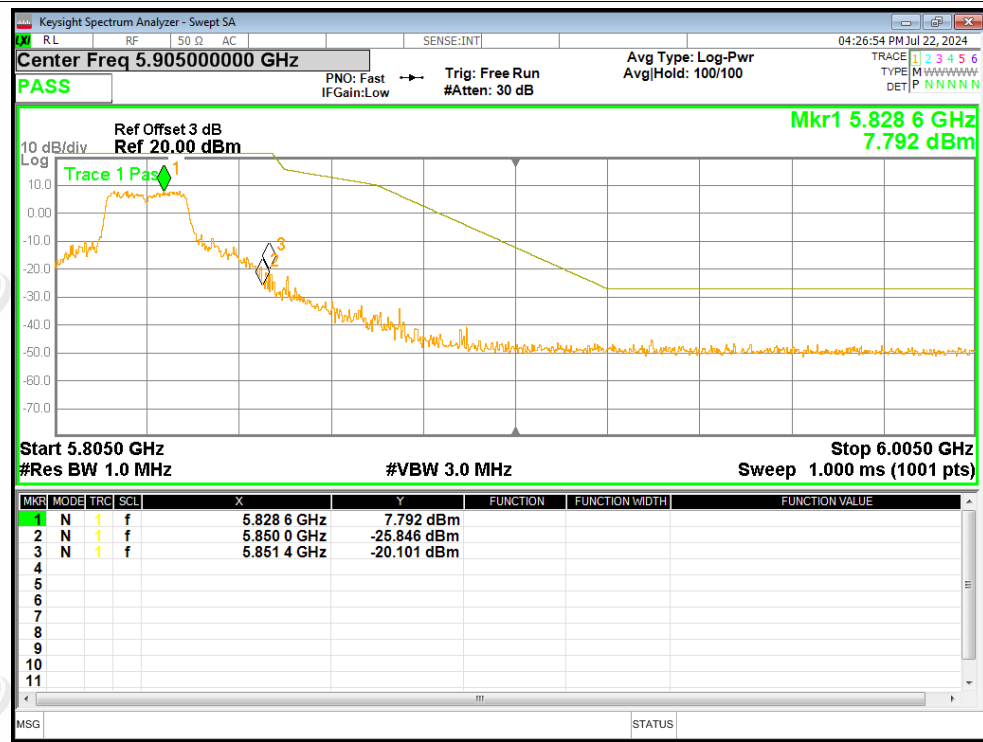




Band Edge NVNT ac20 5745MHz Low Ant1

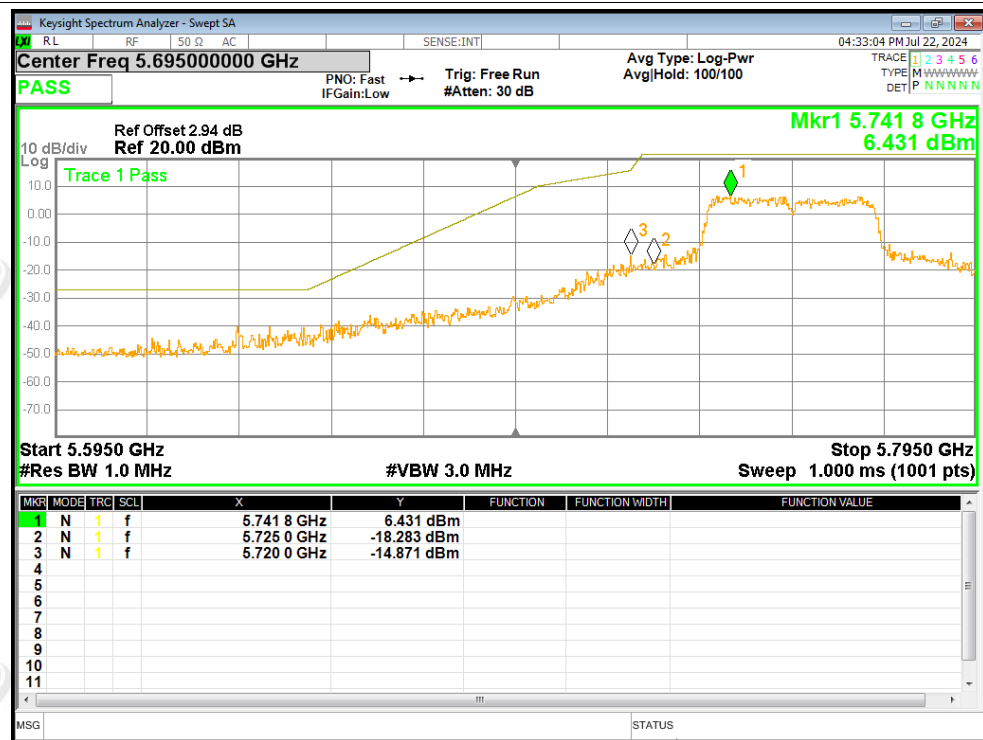


Band Edge NVNT ac20 5825MHz High Ant1

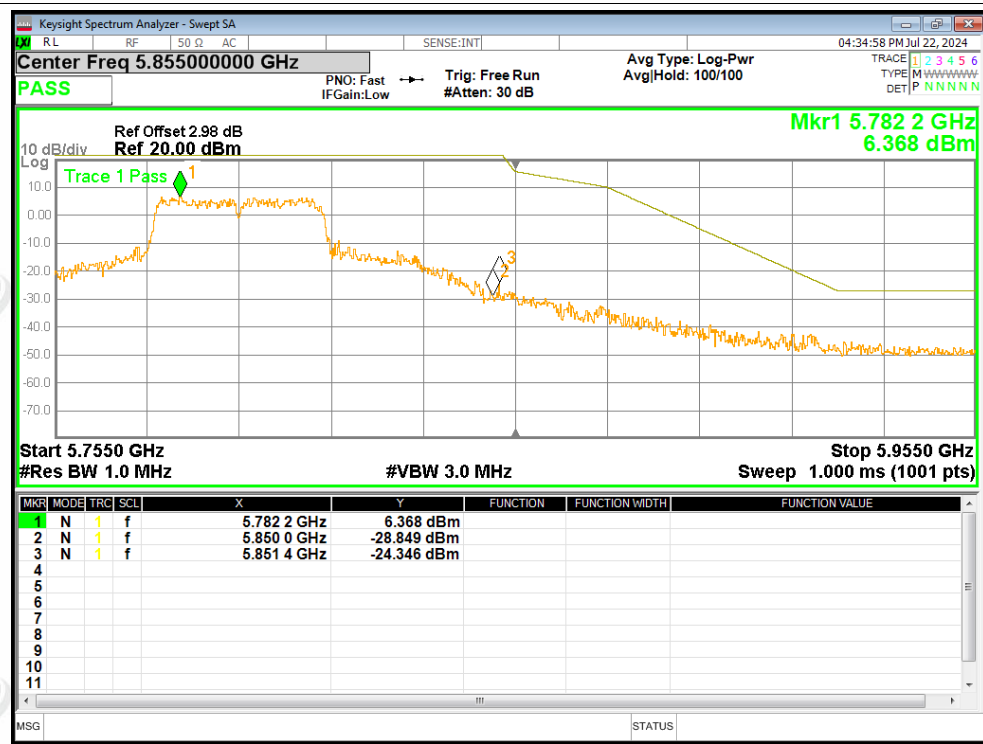


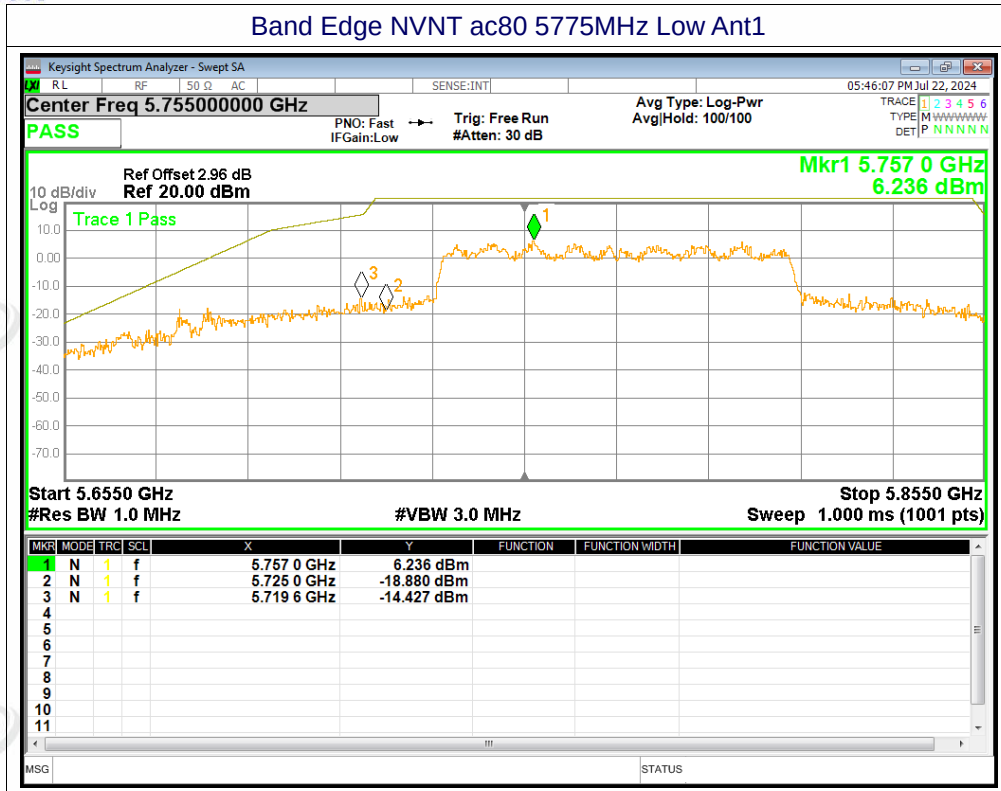


Band Edge NVNT ac40 5755MHz Low Ant1



Band Edge NVNT ac40 5795MHz High Ant1





**ZHONGHAN****Frequency Stability**

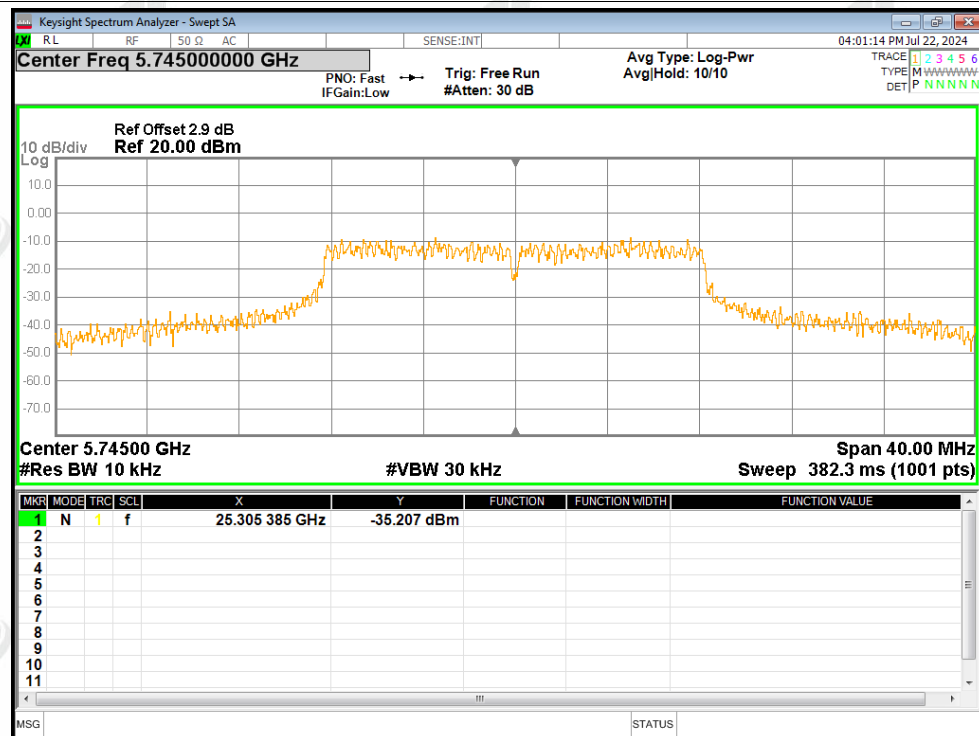
Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
a	5745	Ant1	5744.98	-20000	-3.48	Within 5745-5825MHz	Pass
a	5785	Ant1	5784.98	-20000	-3.46		Pass
a	5825	Ant1	5824.98	-20000	-3.43		Pass
n20	5745	Ant1	5744.96	-40000	-6.96		Pass
n20	5785	Ant1	5784.98	-20000	-3.46		Pass
n20	5825	Ant1	5824.96	-40000	-6.87		Pass
n40	5755	Ant1	5754.96	-40000	-6.95	Within 5755-5795MHz	Pass
n40	5795	Ant1	5795	0	0		Pass
ac20	5745	Ant1	5744.98	-20000	-3.48	Within 5745-5825MHz	Pass
ac20	5785	Ant1	5784.98	-20000	-3.46		Pass
ac20	5825	Ant1	5825	0	0		Pass
ac40	5755	Ant1	5755	0	0	Within 5755-5795MHz	Pass
ac40	5795	Ant1	5795	0	0		Pass
ac80	5775	Ant1	5775	0	0	Within 5775MHz	Pass

Note: Test temperature: -20° to + 70°. At room temperature, the test results are the worst, only reflecting the test results graphs at room temperature.

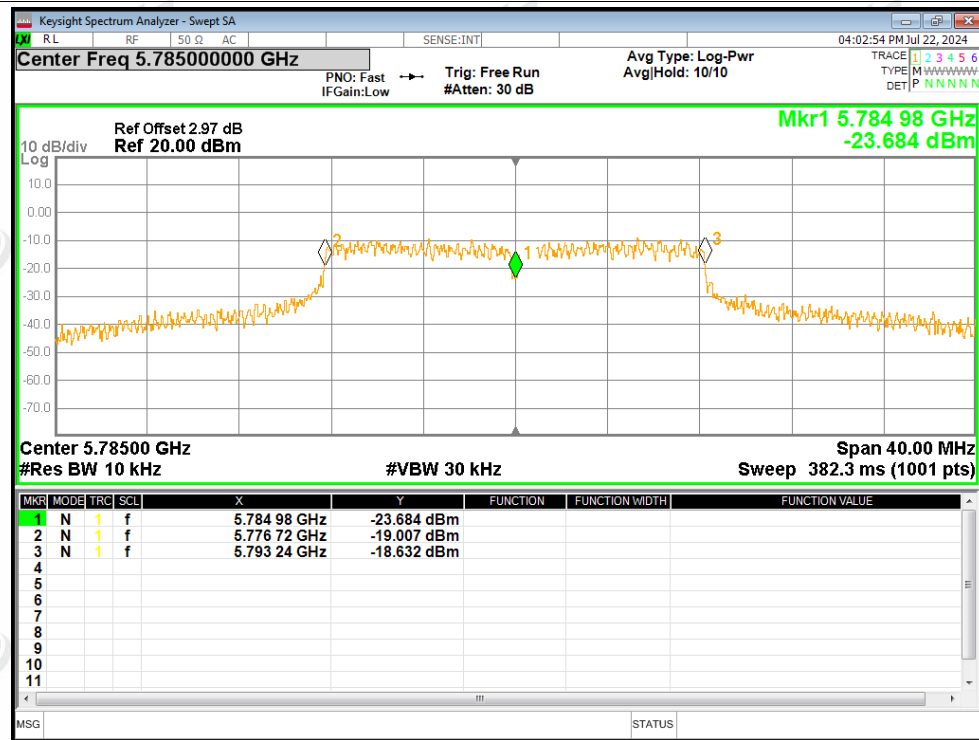


Test Graphs

Freq. Stability NVNT a 5745MHz Ant1

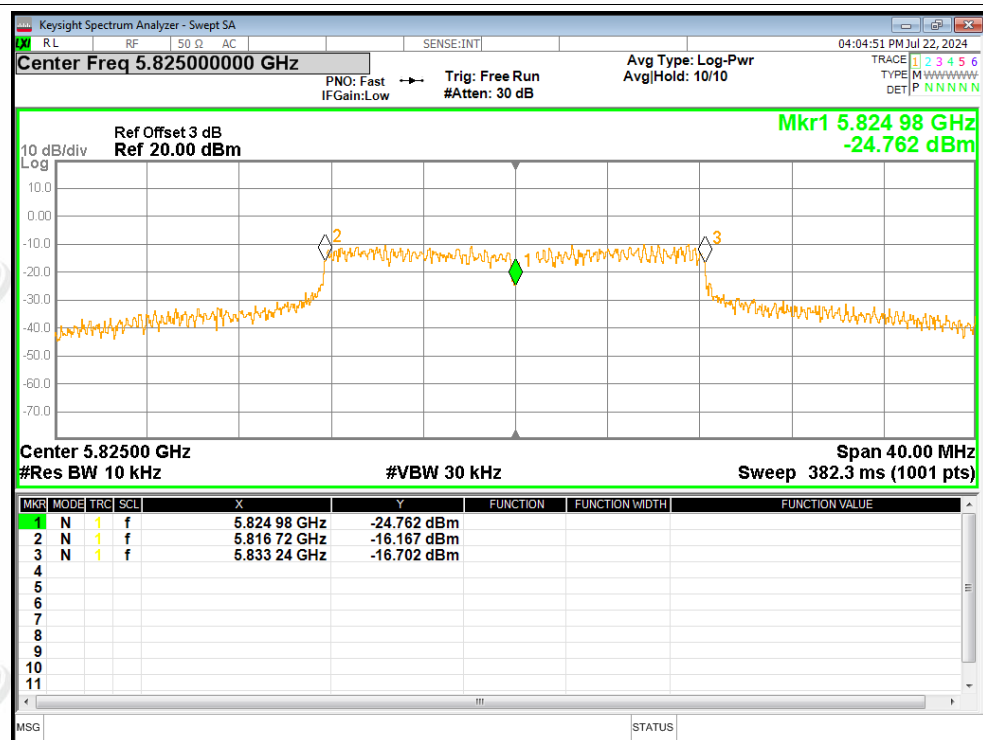


Freq. Stability NVNT a 5785MHz Ant1

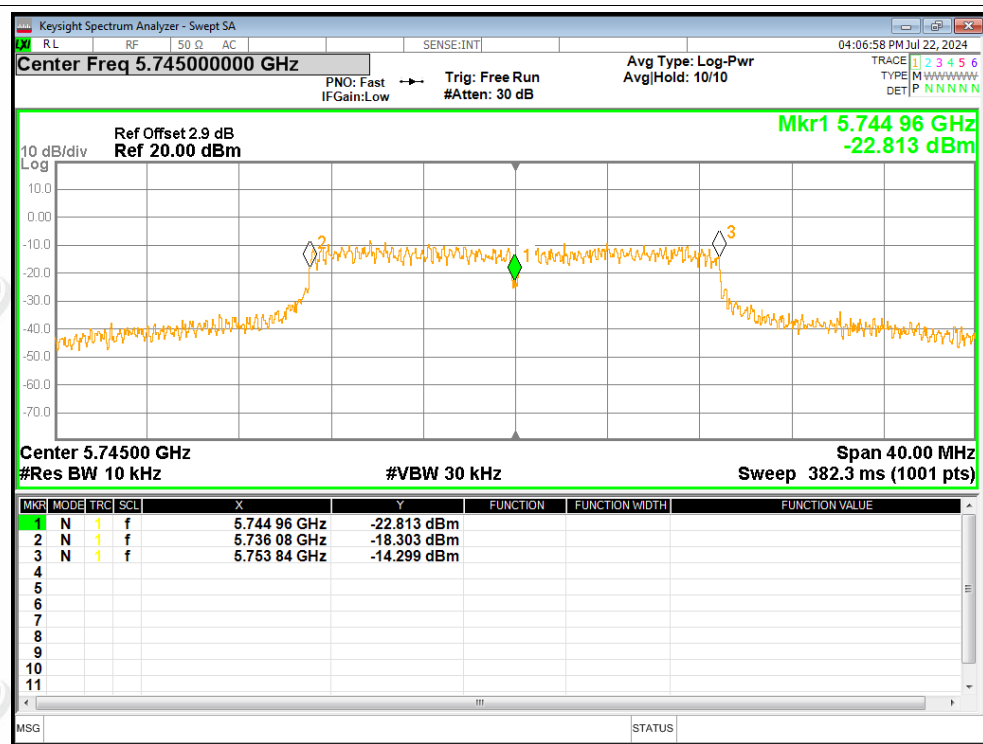




Freq. Stability NVNT a 5825MHz Ant1

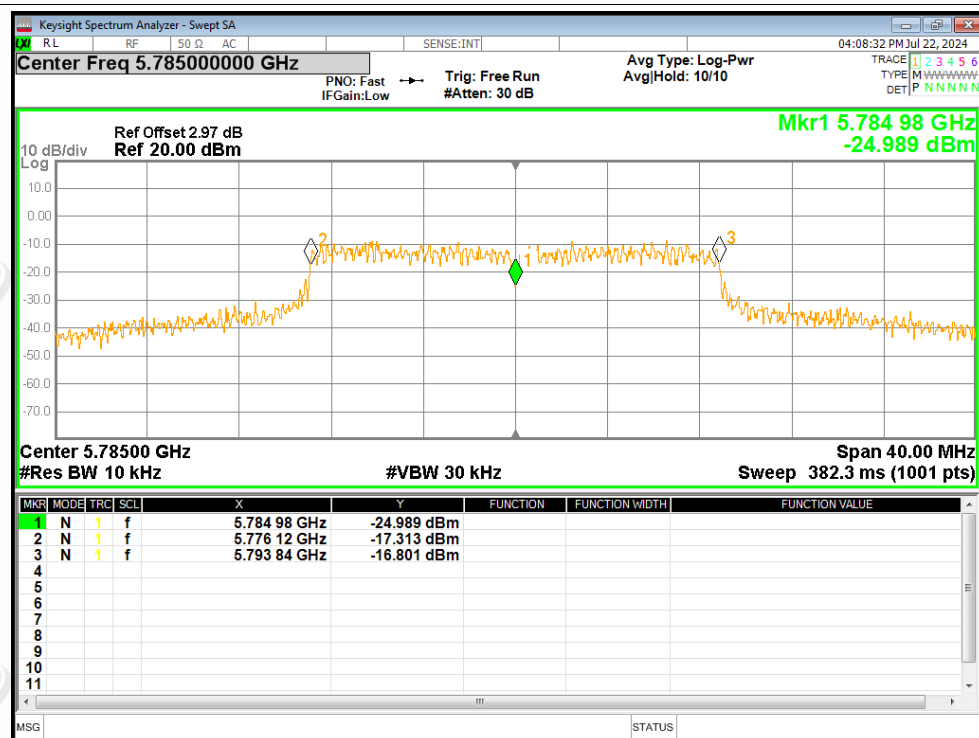


Freq. Stability NVNT n20 5745MHz Ant1

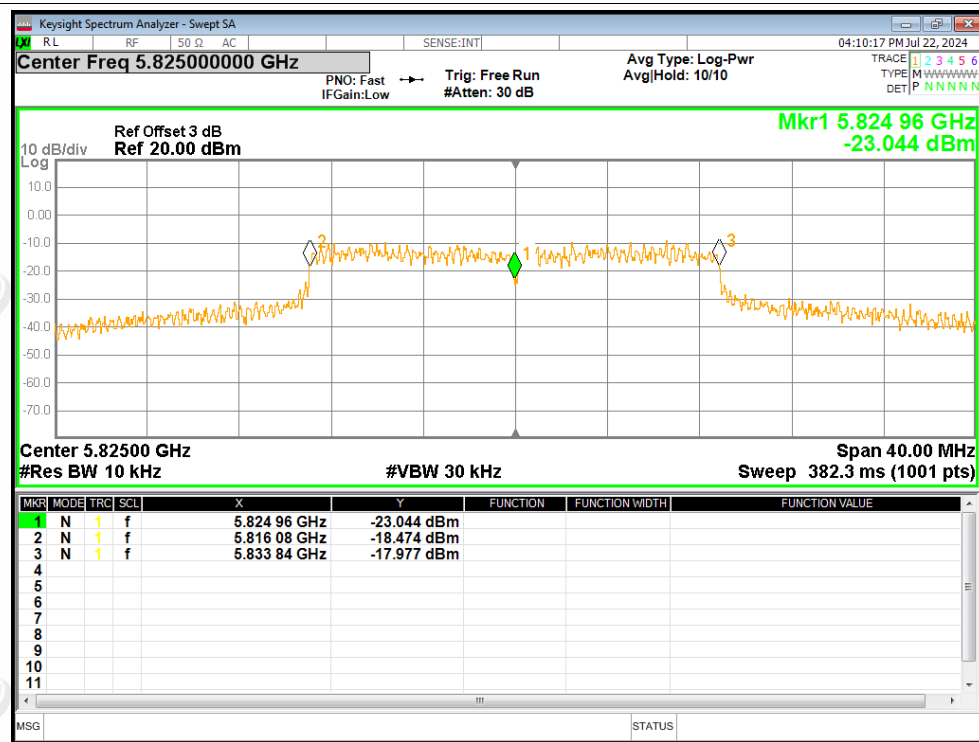




Freq. Stability NVNT n20 5785MHz Ant1

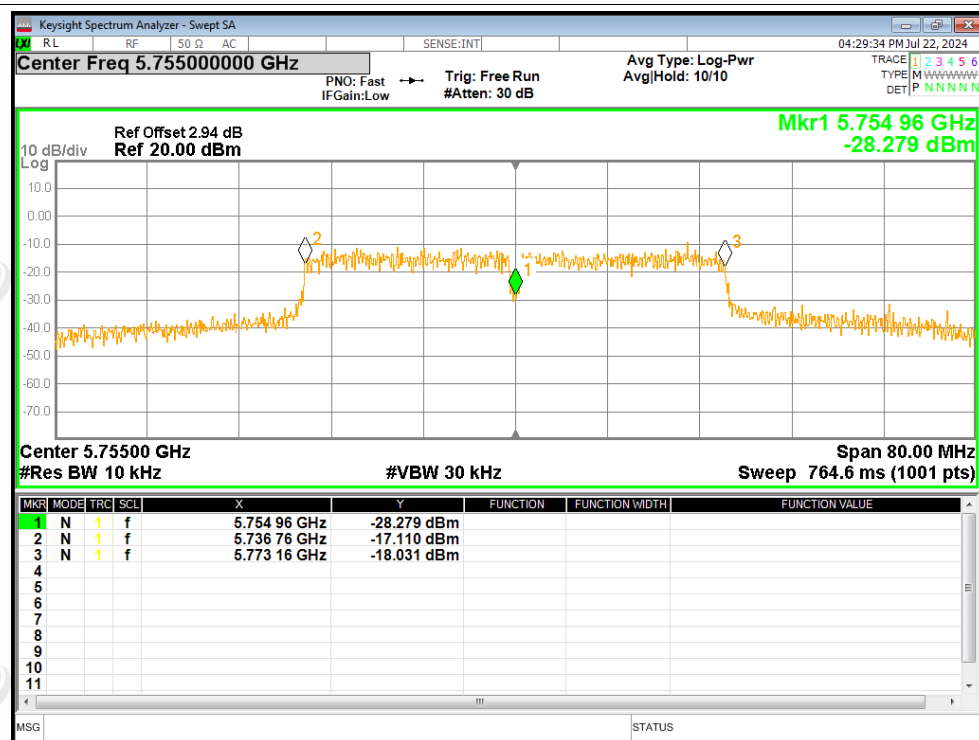


Freq. Stability NVNT n20 5825MHz Ant1

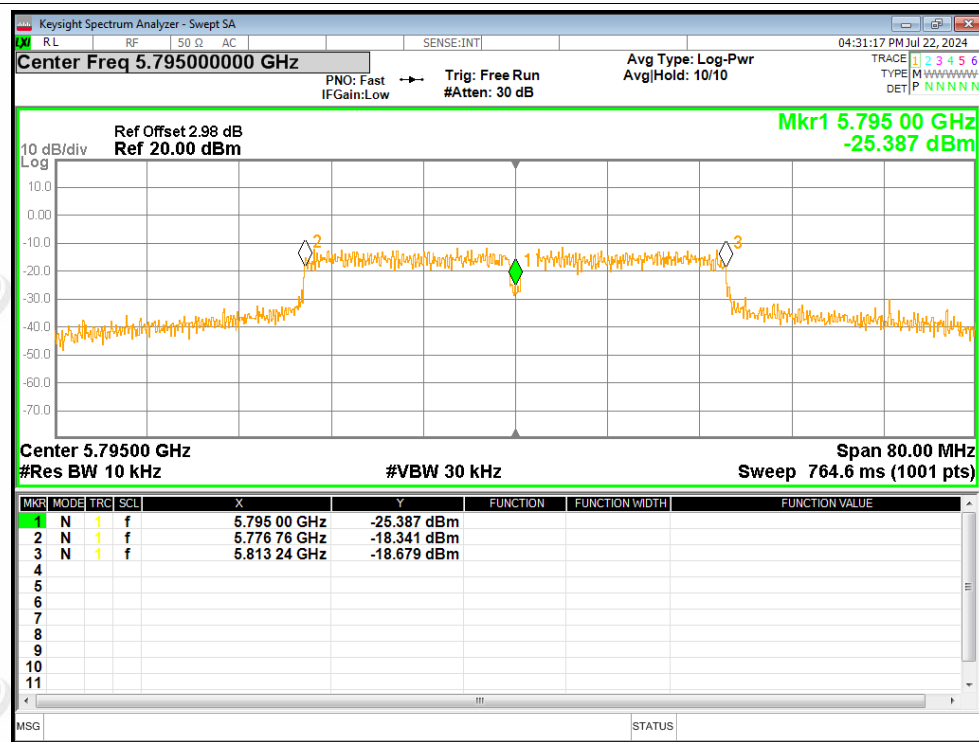




Freq. Stability NVNT n40 5755MHz Ant1

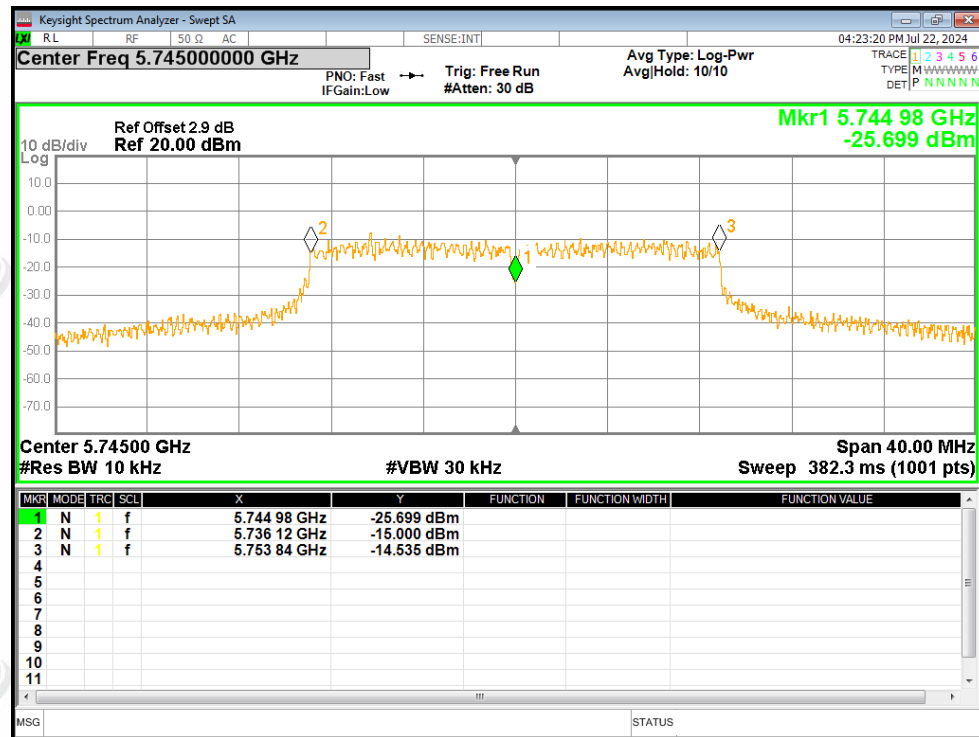


Freq. Stability NVNT n40 5795MHz Ant1

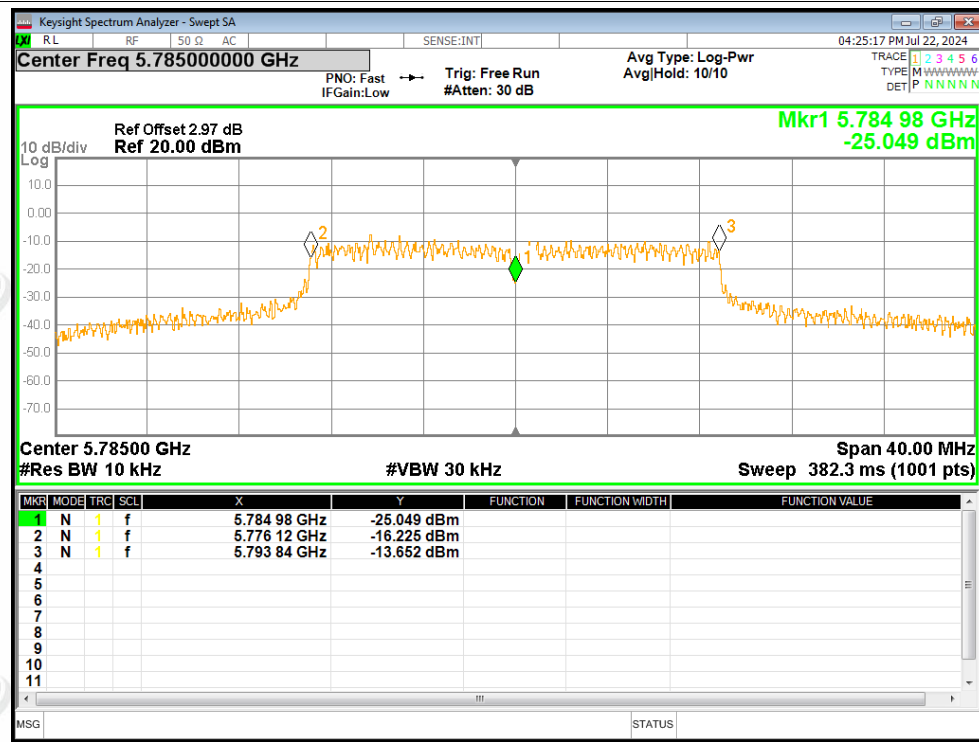




Freq. Stability NVNT ac20 5745MHz Ant1

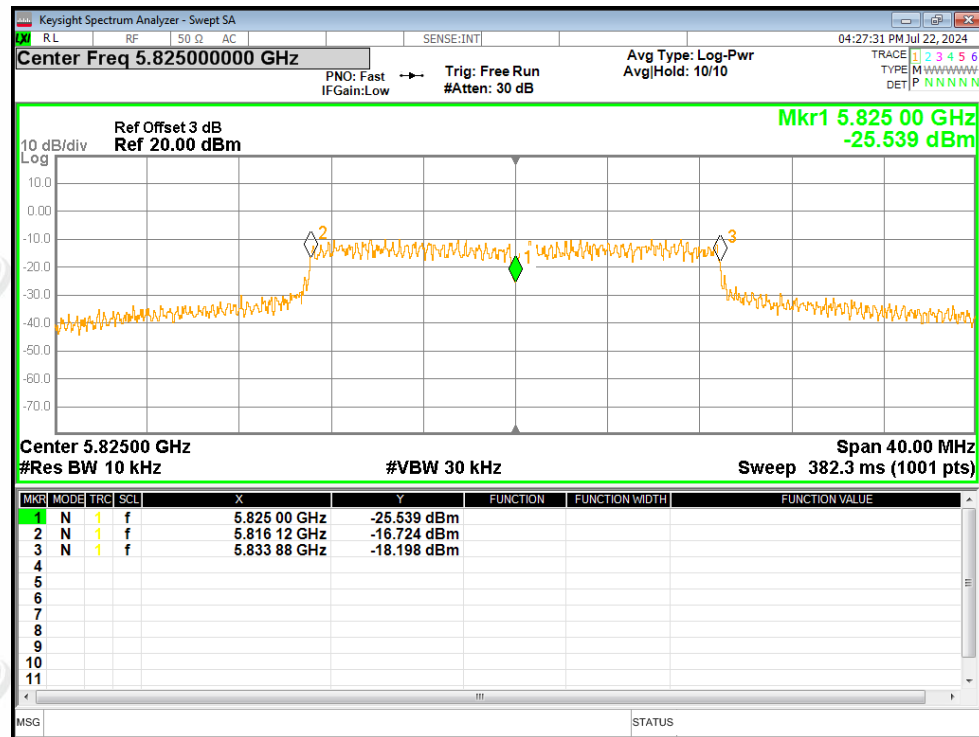


Freq. Stability NVNT ac20 5785MHz Ant1

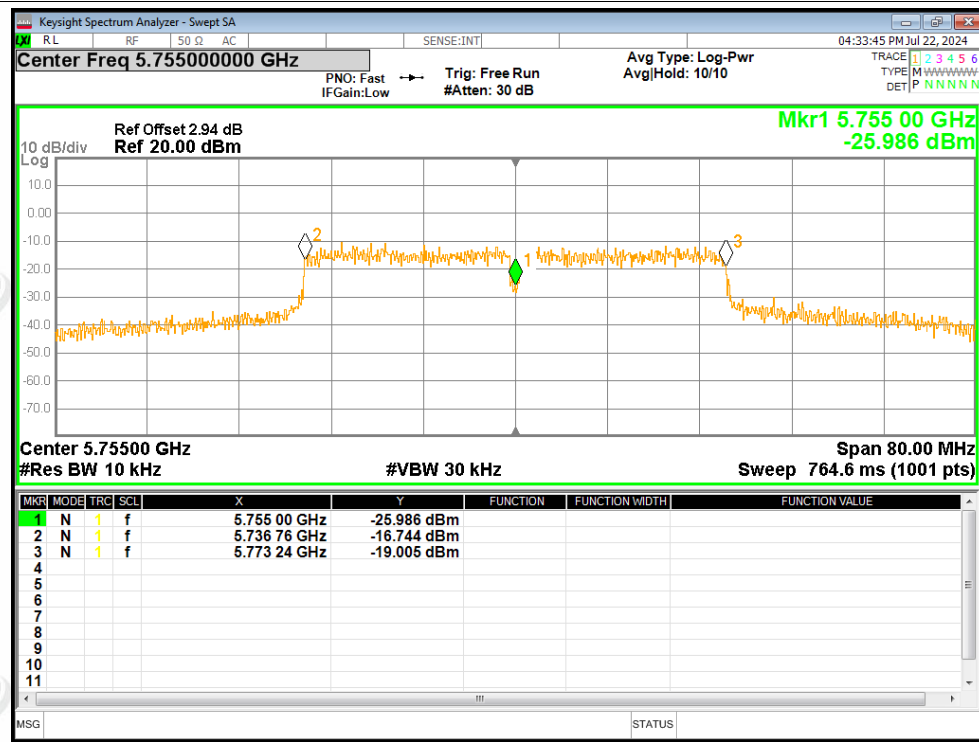




Freq. Stability NVNT ac20 5825MHz Ant1

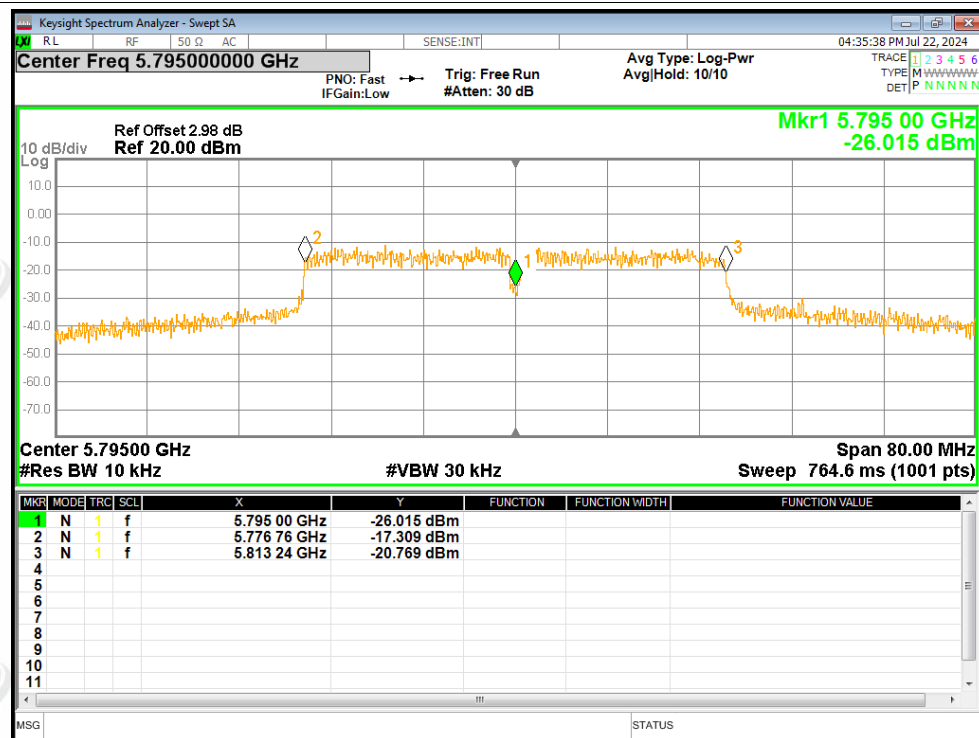


Freq. Stability NVNT ac40 5755MHz Ant1

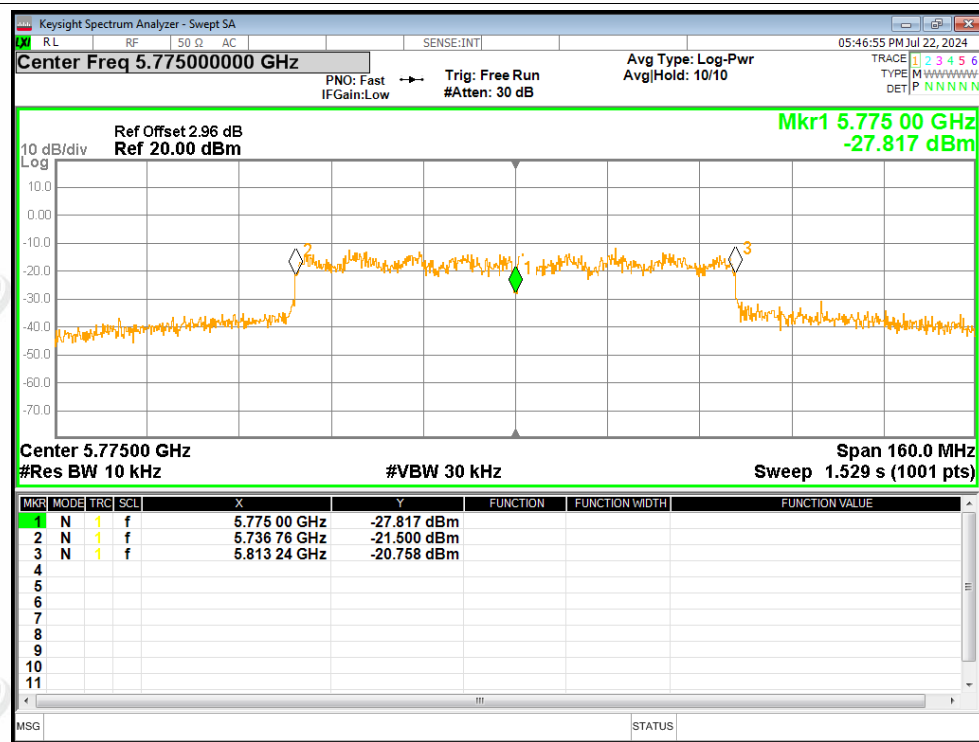




Freq. Stability NVNT ac40 5795MHz Ant1



Freq. Stability NVNT ac80 5775MHz Ant1



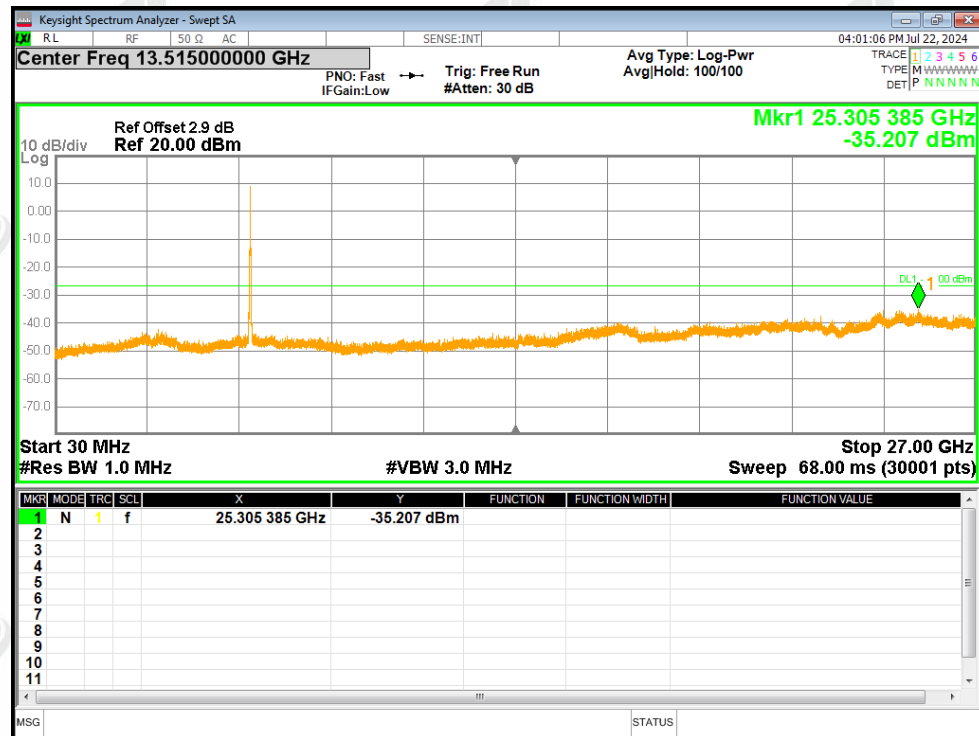
**ZHONGHAN****Conducted RF Spurious Emission**

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	a	5745	Ant1	-35.2	-27	Pass
NVNT	a	5785	Ant1	-35.31	-27	Pass
NVNT	a	5825	Ant1	-35.67	-27	Pass
NVNT	n20	5745	Ant1	-35.92	-27	Pass
NVNT	n20	5785	Ant1	-35.73	-27	Pass
NVNT	n20	5825	Ant1	-35.29	-27	Pass
NVNT	n40	5755	Ant1	-36.26	-27	Pass
NVNT	n40	5795	Ant1	-36.68	-27	Pass
NVNT	ac20	5745	Ant1	-35.58	-27	Pass
NVNT	ac20	5785	Ant1	-36.7	-27	Pass
NVNT	ac20	5825	Ant1	-36.59	-27	Pass
NVNT	ac40	5755	Ant1	-36.68	-27	Pass
NVNT	ac40	5795	Ant1	-36.95	-27	Pass
NVNT	ac80	5775	Ant1	-36.87	-27	Pass

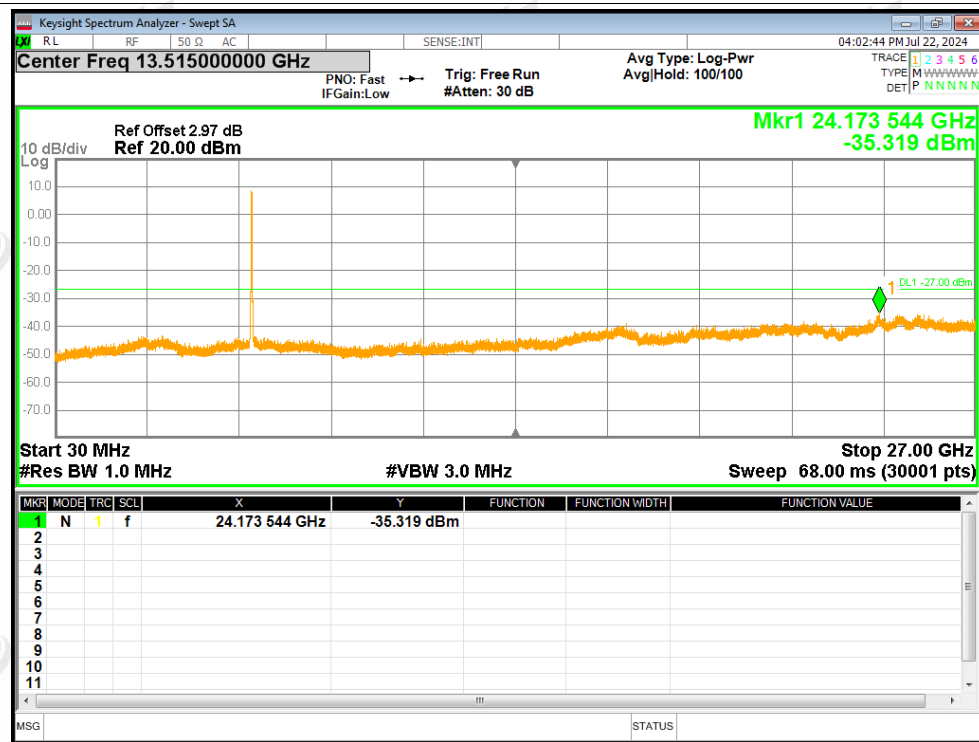


Test Graphs

Tx. Spurious NVNT a 5745MHz Ant1 Emission

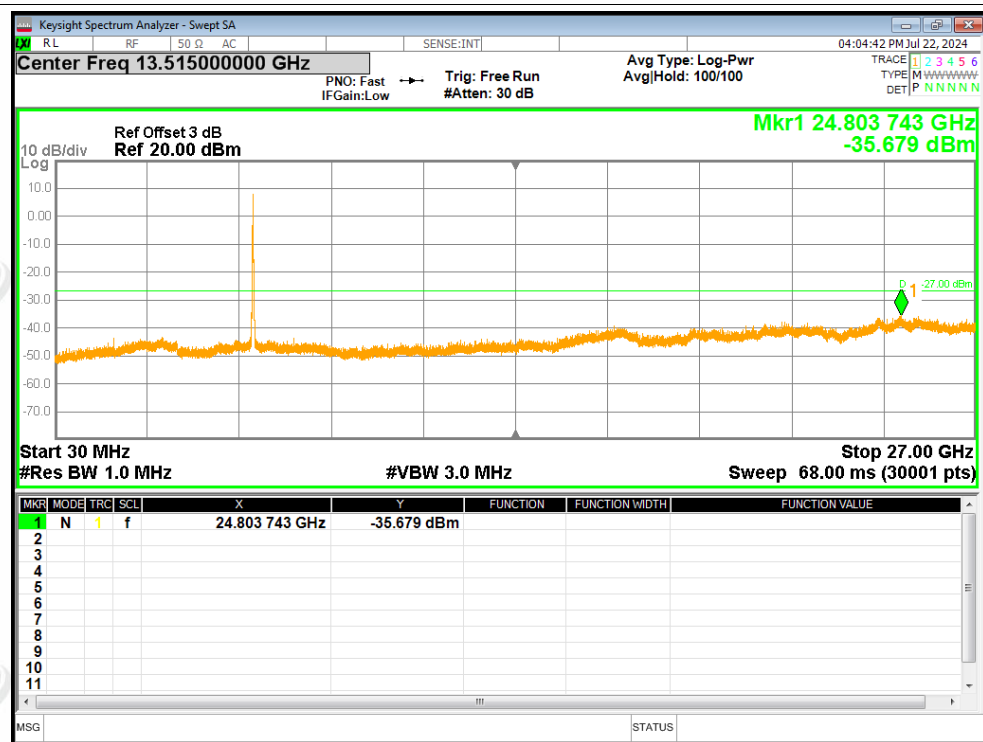


Tx. Spurious NVNT a 5785MHz Ant1 Emission

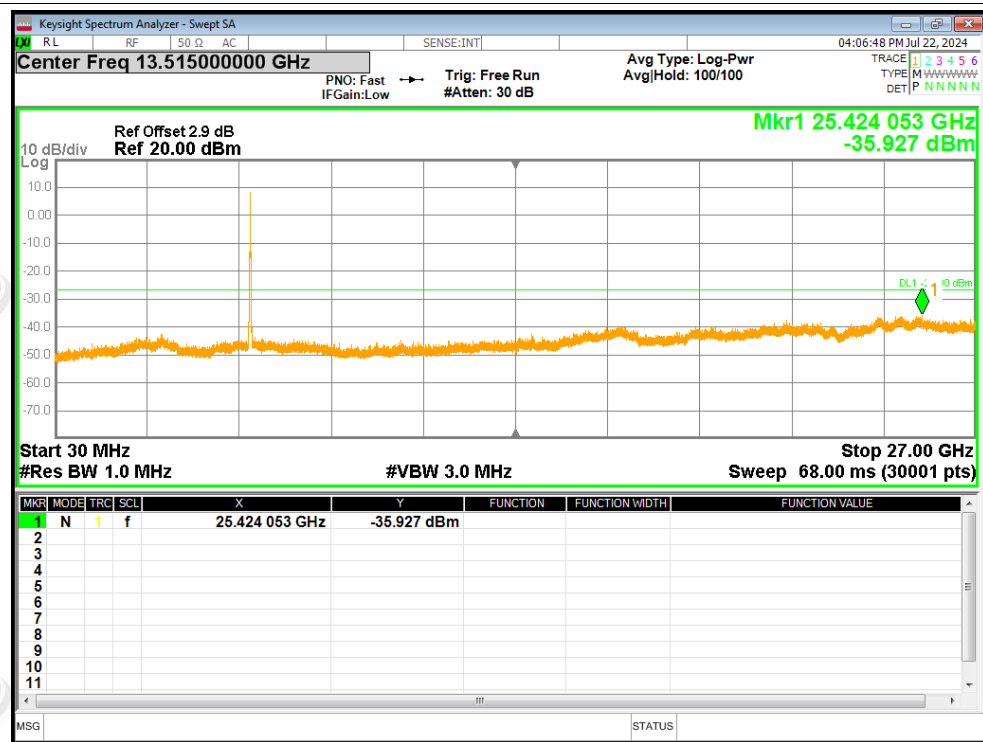




Tx. Spurious NVNT a 5825MHz Ant1 Emission

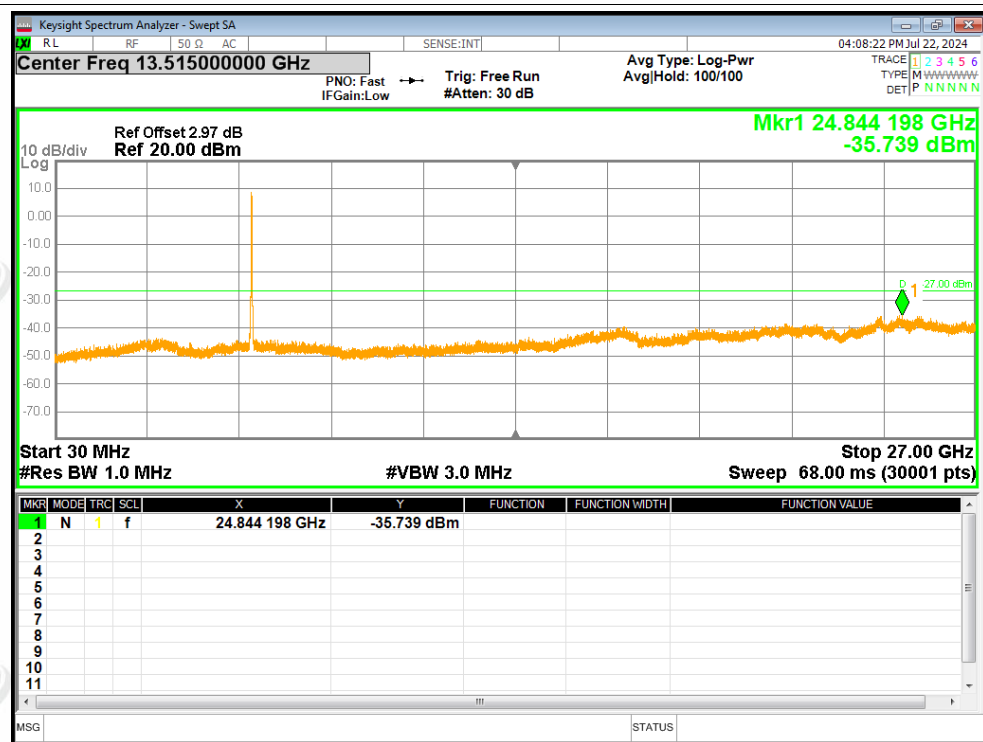


Tx. Spurious NVNT n20 5745MHz Ant1 Emission

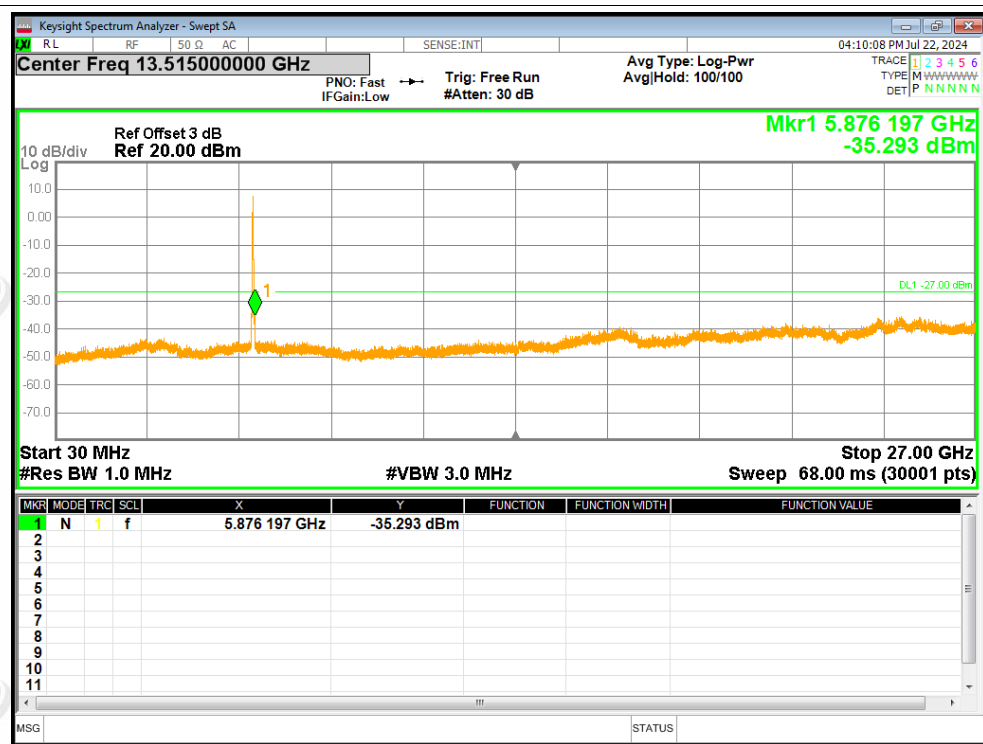




Tx. Spurious NVNT n20 5785MHz Ant1 Emission

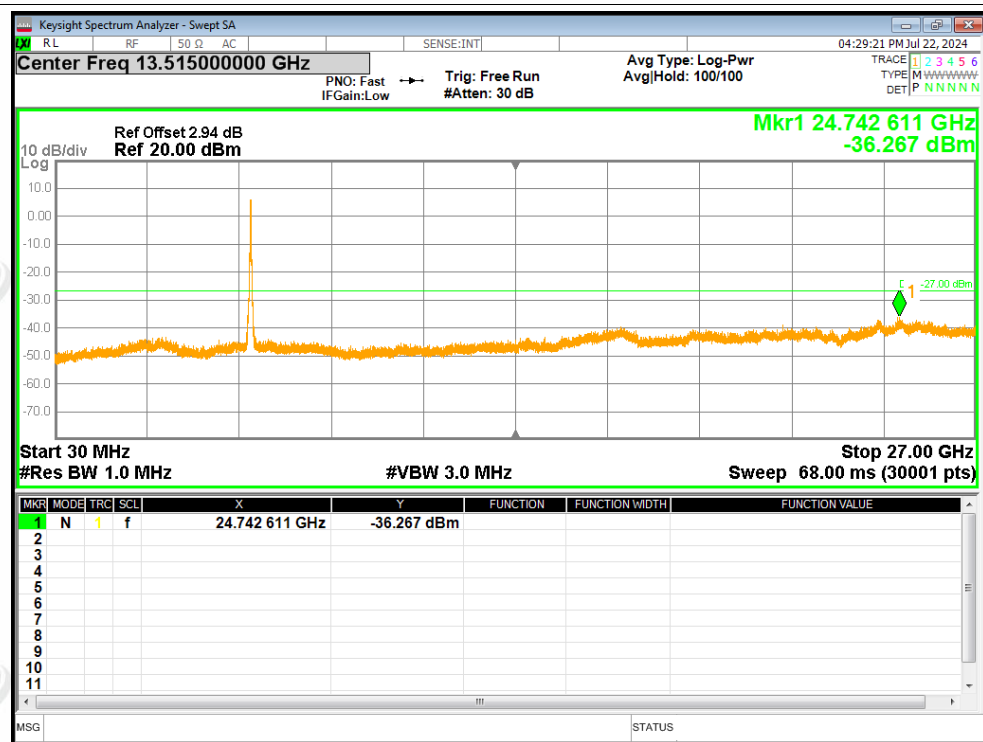


Tx. Spurious NVNT n20 5825MHz Ant1 Emission

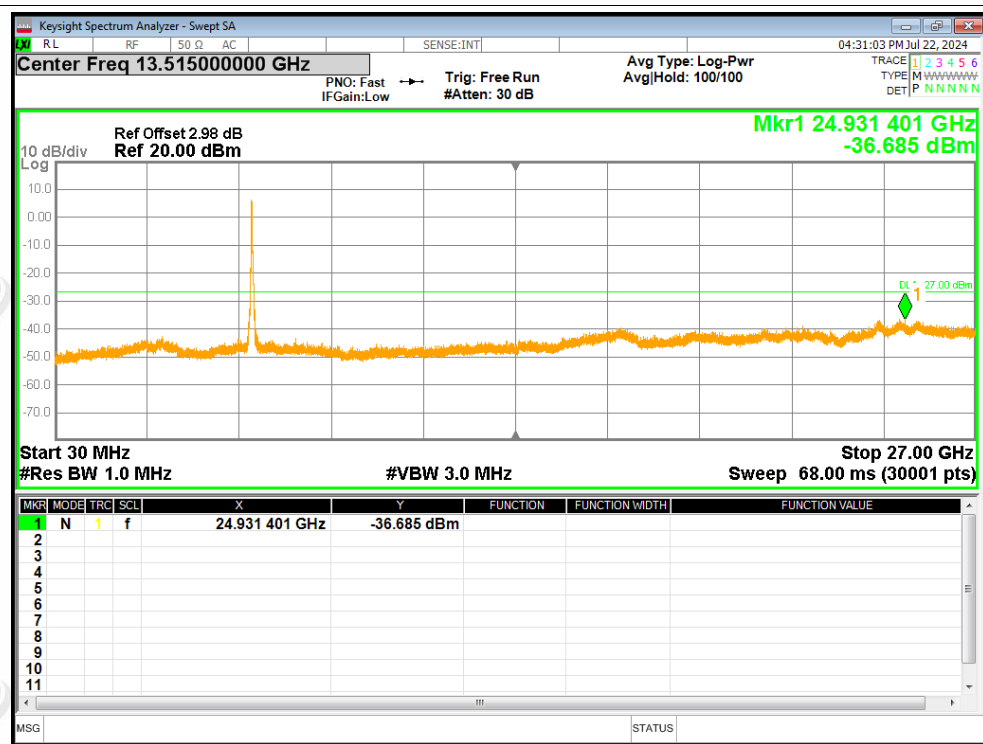




Tx. Spurious NVNT n40 5755MHz Ant1 Emission

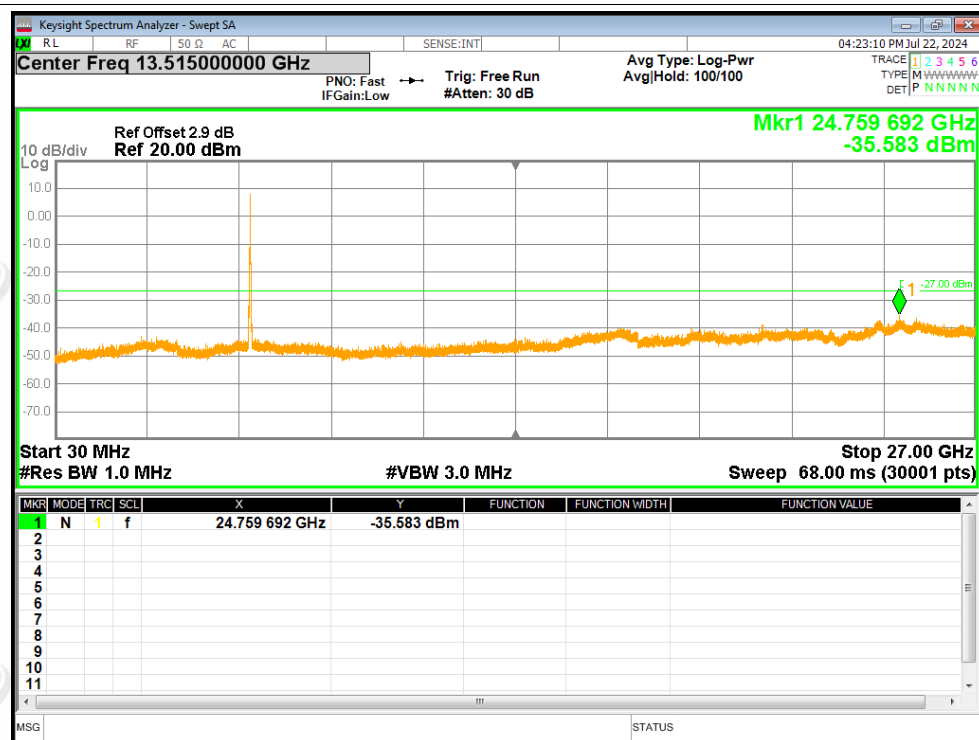


Tx. Spurious NVNT n40 5795MHz Ant1 Emission

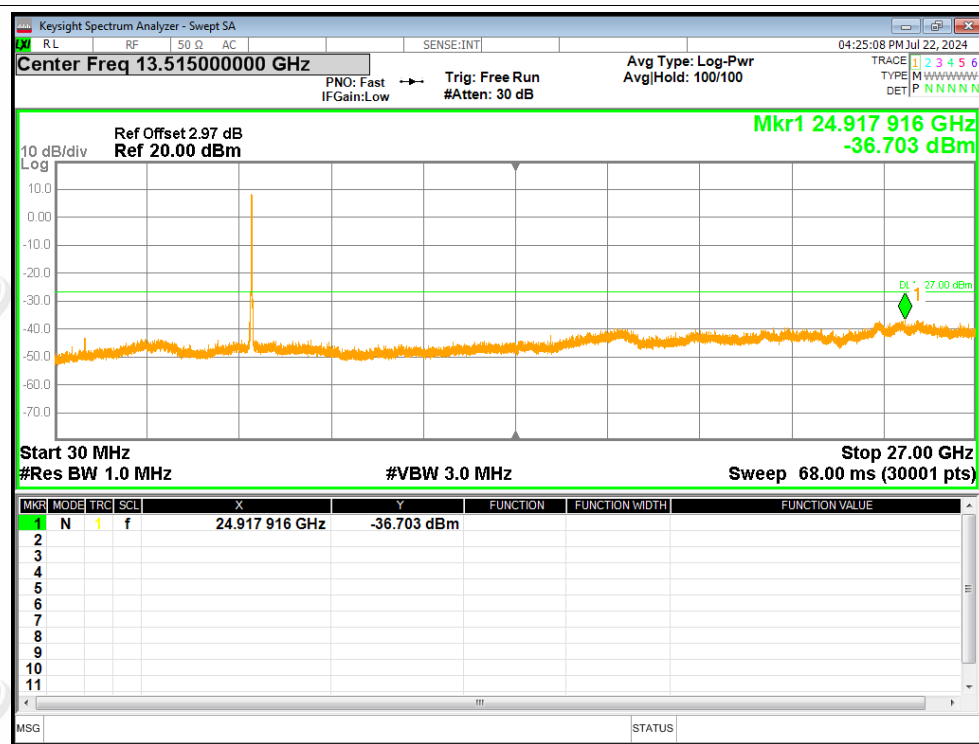




Tx. Spurious NVNT ac20 5745MHz Ant1 Emission

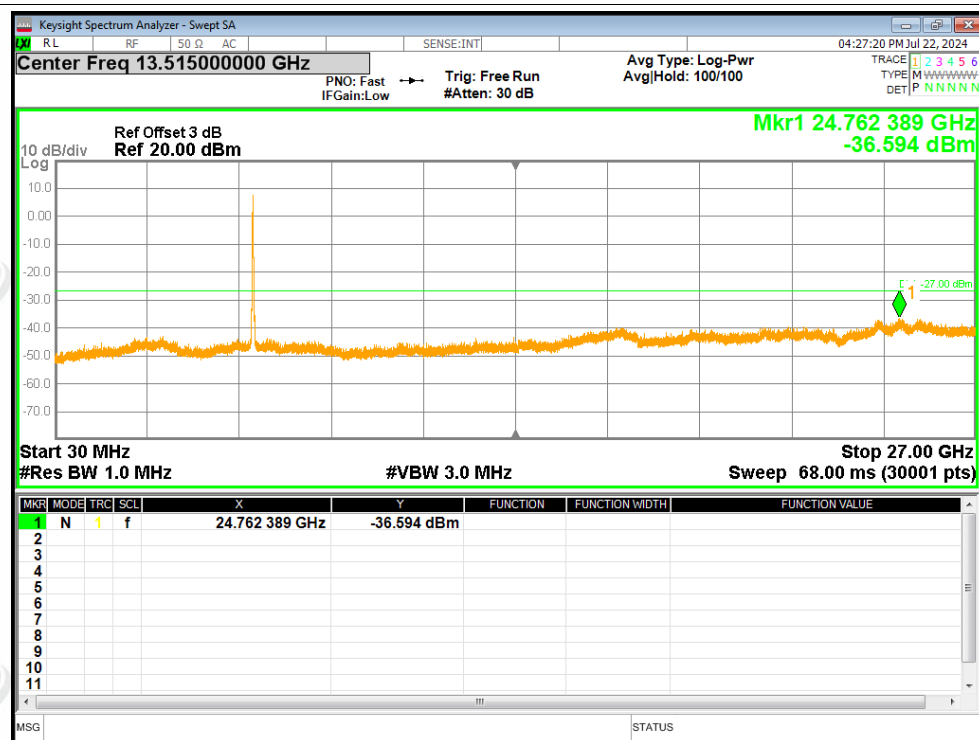


Tx. Spurious NVNT ac20 5785MHz Ant1 Emission

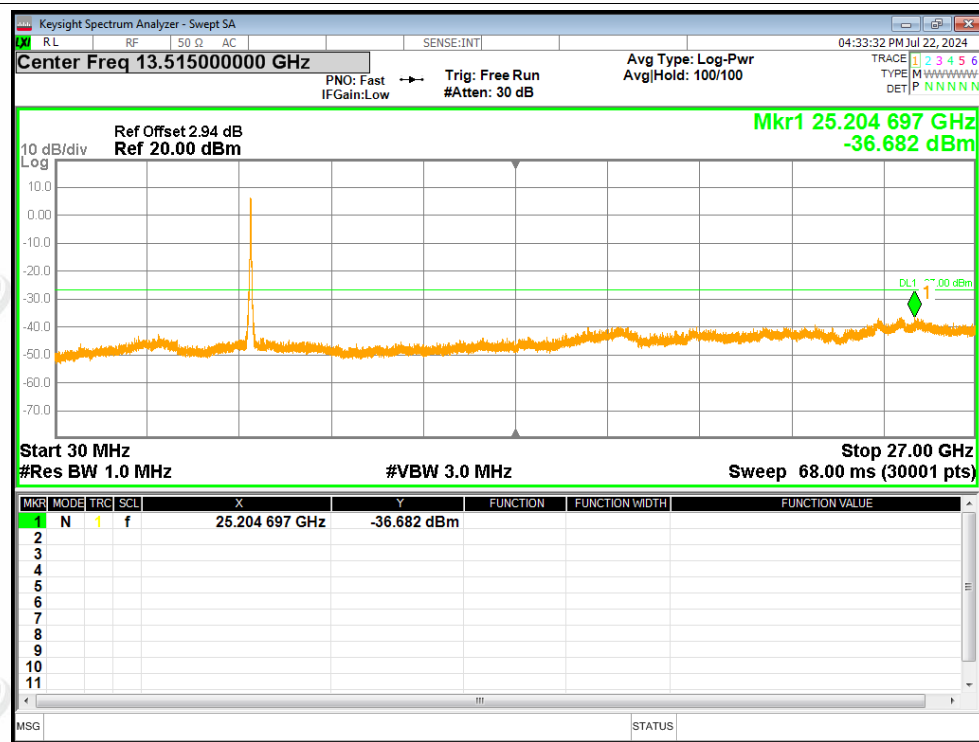




Tx. Spurious NVNT ac20 5825MHz Ant1 Emission

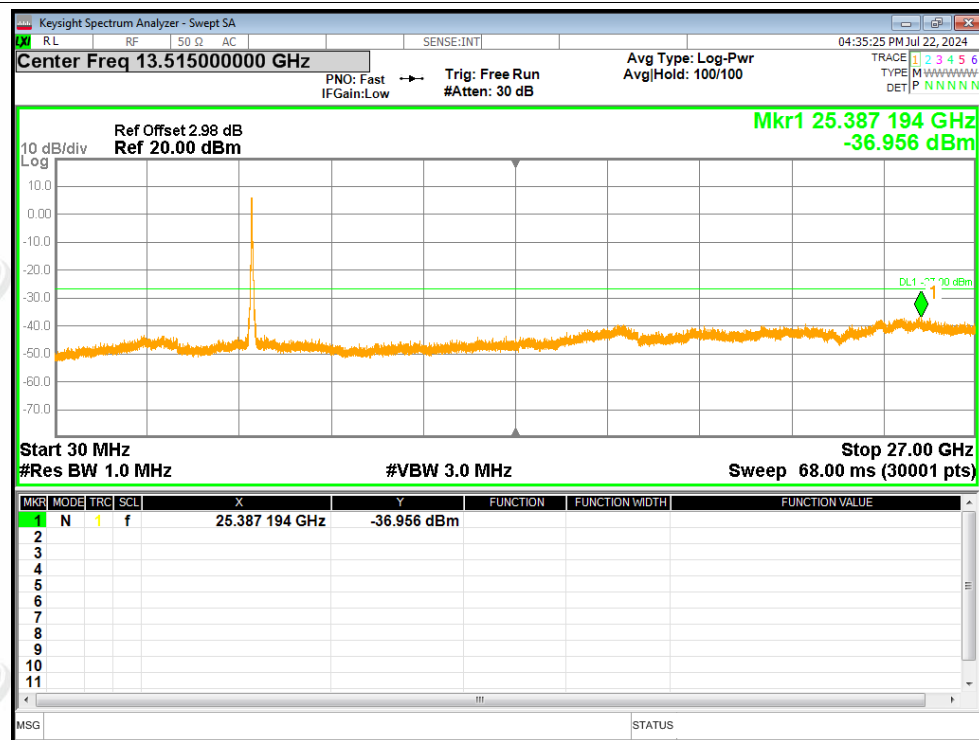


Tx. Spurious NVNT ac40 5755MHz Ant1 Emission





Tx. Spurious NVNT ac40 5795MHz Ant1 Emission



Tx. Spurious NVNT ac80 5775MHz Ant1 Emission

