

Appendix B for 5.8GWIFI Test Data

Product Name: Wireless USB Adapter

Test Model: GE-LW09-8822

Environmental Conditions

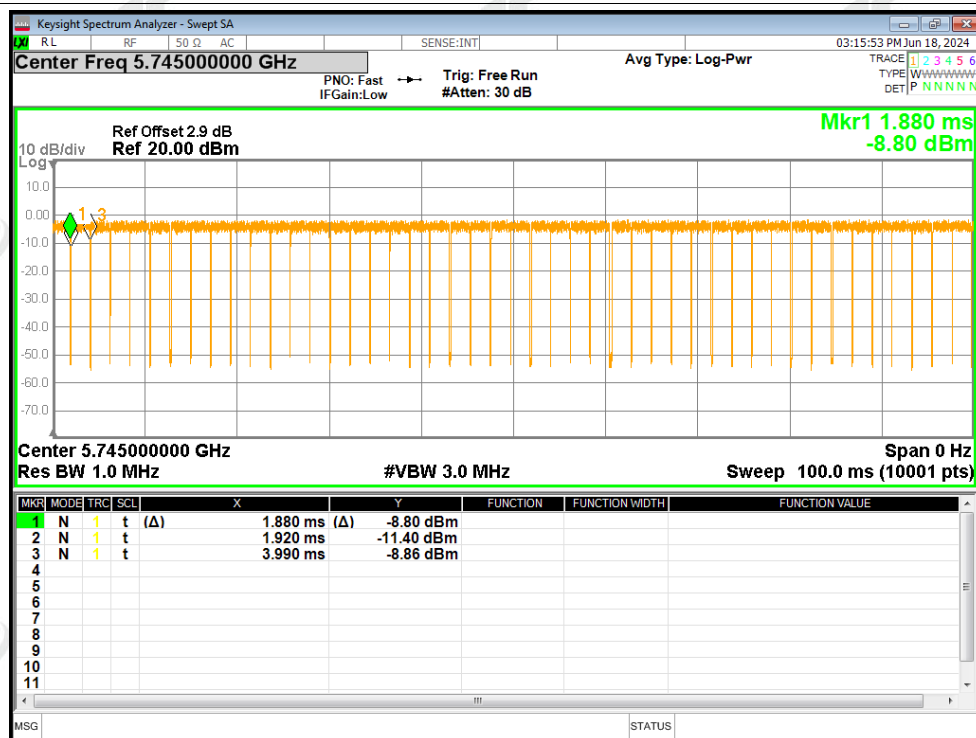
Temperature:	23.8℃
Relative Humidity:	52%
ATM Pressure:	101.0 kPa
Test Engineer:	Leon Li
Supervised by:	Baret Wu

**B1. Duty Cycle**

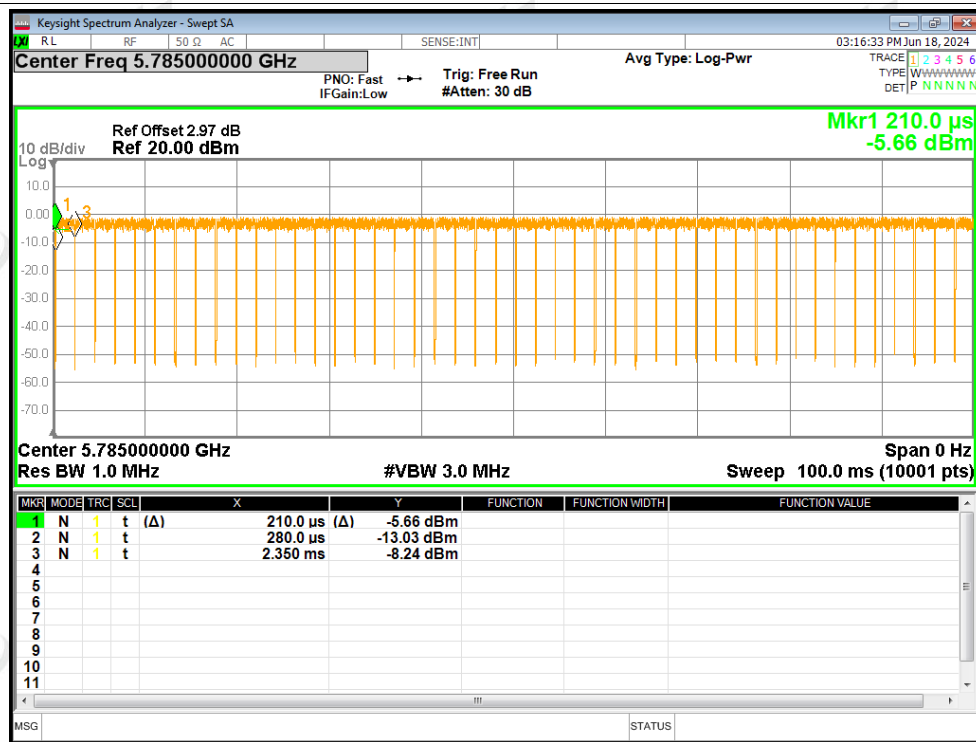
Condition	Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5745	98.1	0	0.48
NVNT	a	5785	96.73	0.14	0.48
NVNT	a	5825	94.5	0.25	0.49
NVNT	n20	5745	96.48	0.16	0.52
NVNT	n20	5785	93.66	0.28	0.52
NVNT	n20	5825	94.12	0.26	0.52
NVNT	n40	5755	94	0.27	1.06
NVNT	n40	5795	86.24	0.64	1.06
NVNT	ac20	5745	96.52	0.15	0.52
NVNT	ac20	5785	97	0.13	0.52
NVNT	ac20	5825	92.34	0.35	0.52
NVNT	ac40	5755	91.35	0.39	1.05
NVNT	ac40	5795	85.59	0.68	1.05
NVNT	ac80	5775	88.24	0.54	2.22

Test Graphs

Duty Cycle NVNT a 5745MHz Ant1

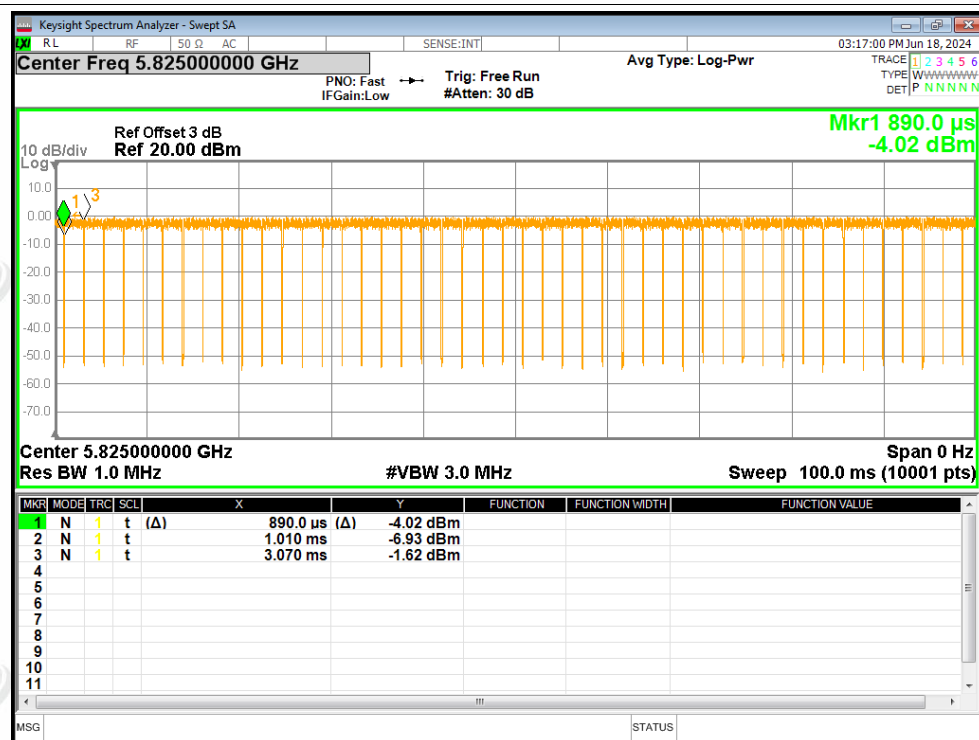


Duty Cycle NVNT a 5785MHz Ant1

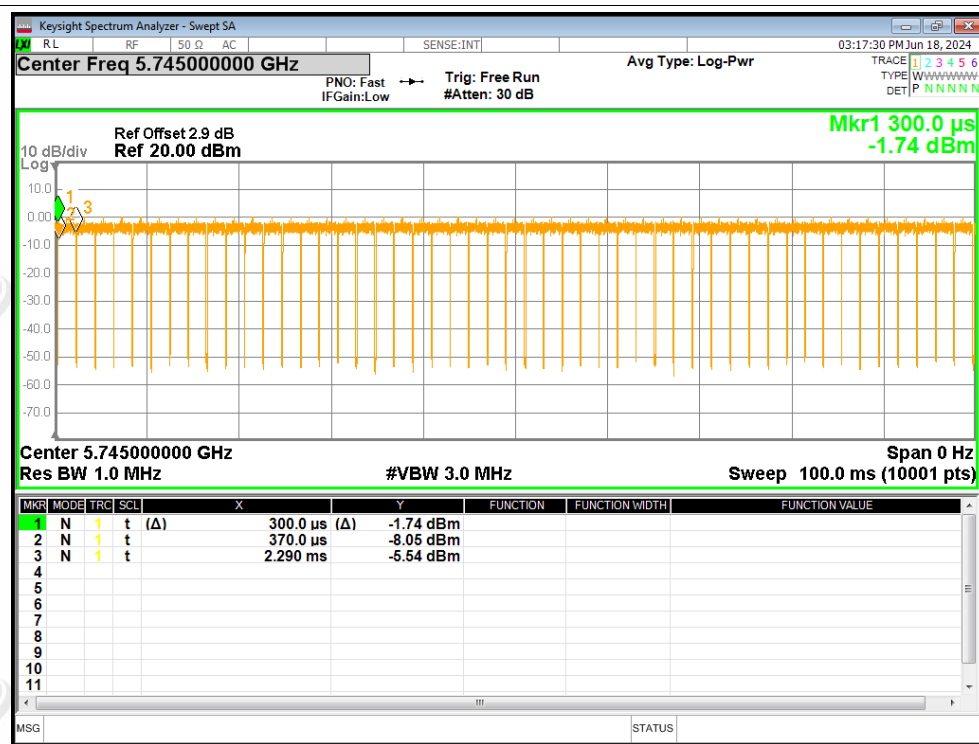




Duty Cycle NVNT a 5825MHz Ant1

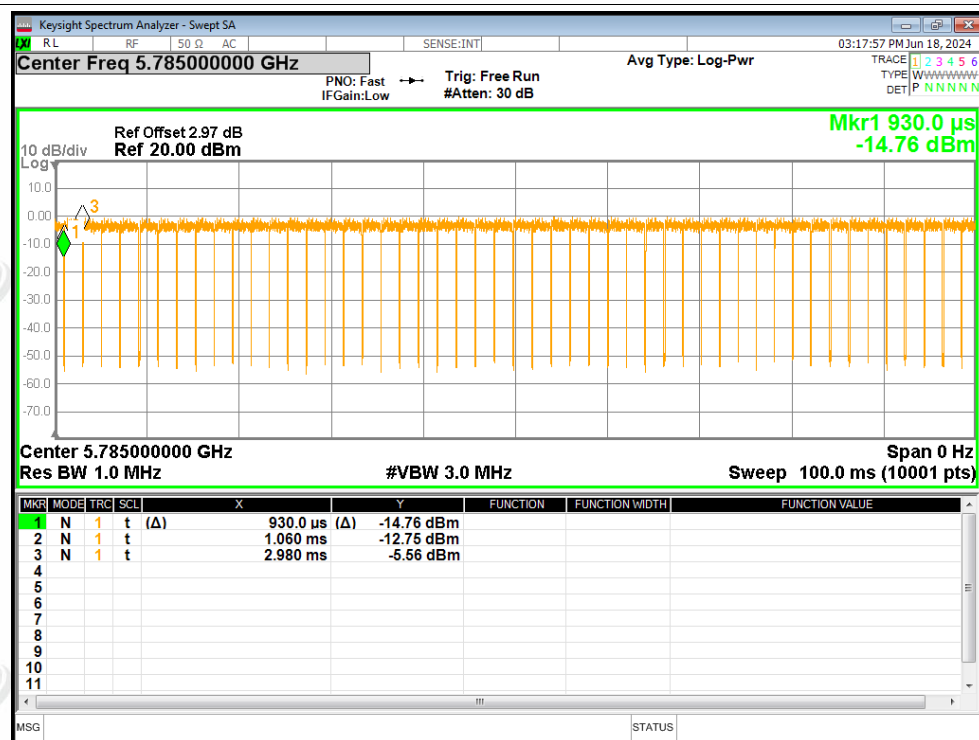


Duty Cycle NVNT n20 5745MHz Ant1

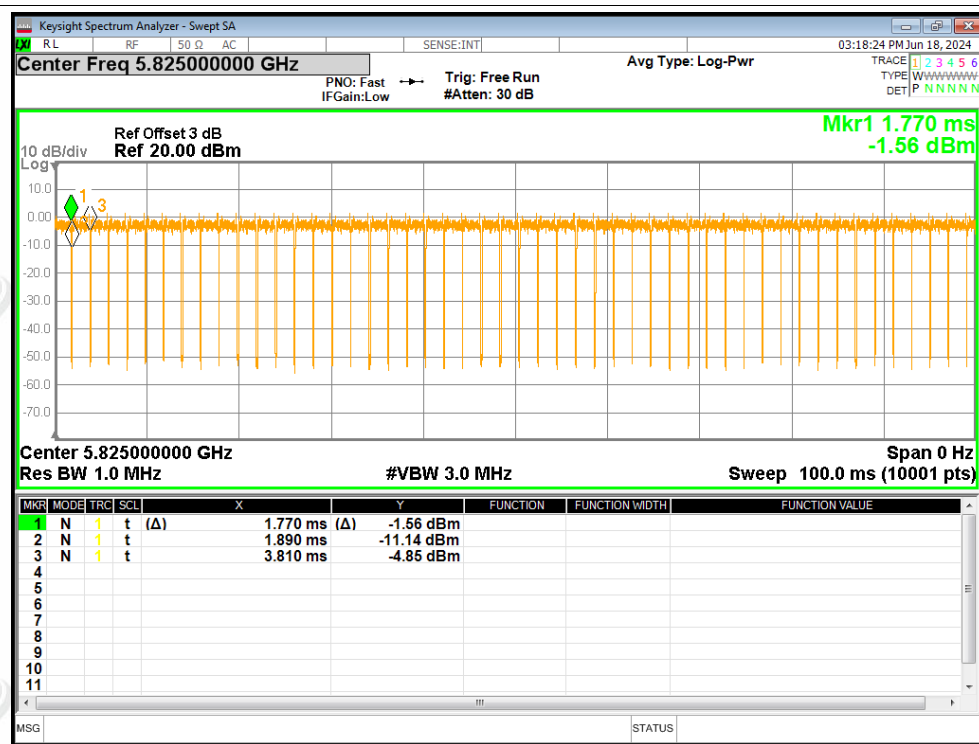




Duty Cycle NVNT n20 5785MHz Ant1

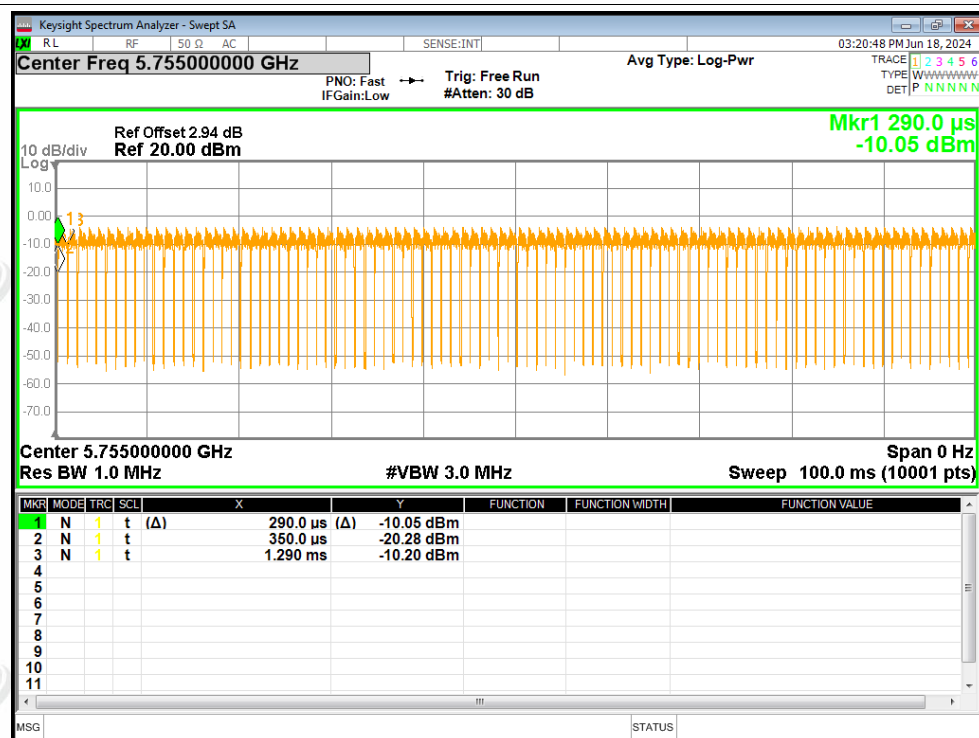


Duty Cycle NVNT n20 5825MHz Ant1

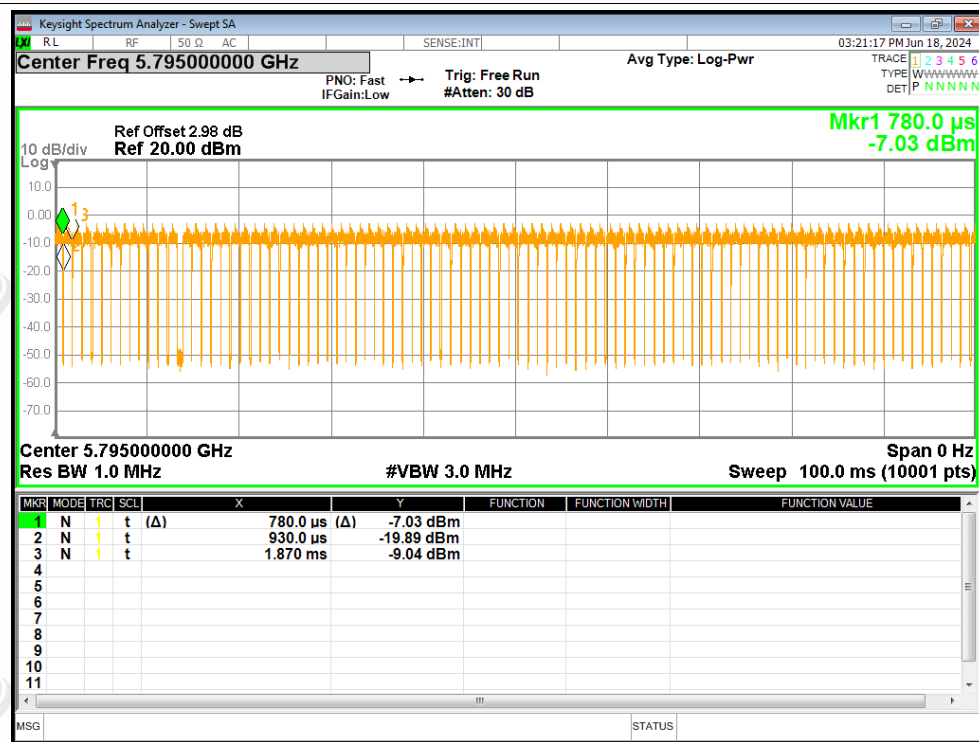




Duty Cycle NVNT n40 5755MHz Ant1

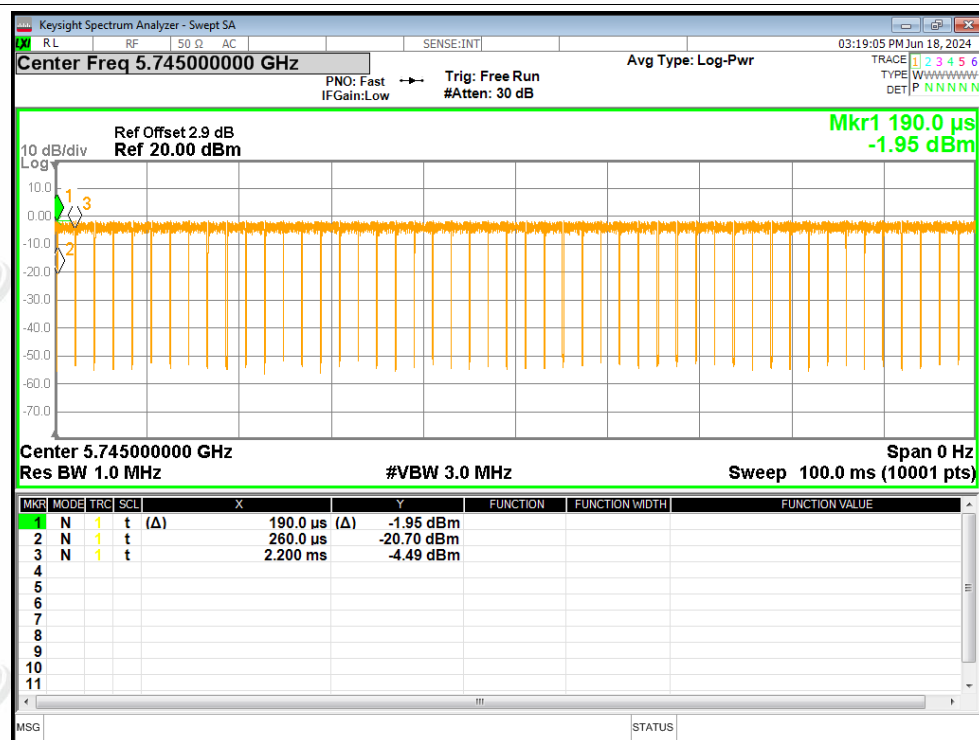


Duty Cycle NVNT n40 5795MHz Ant1

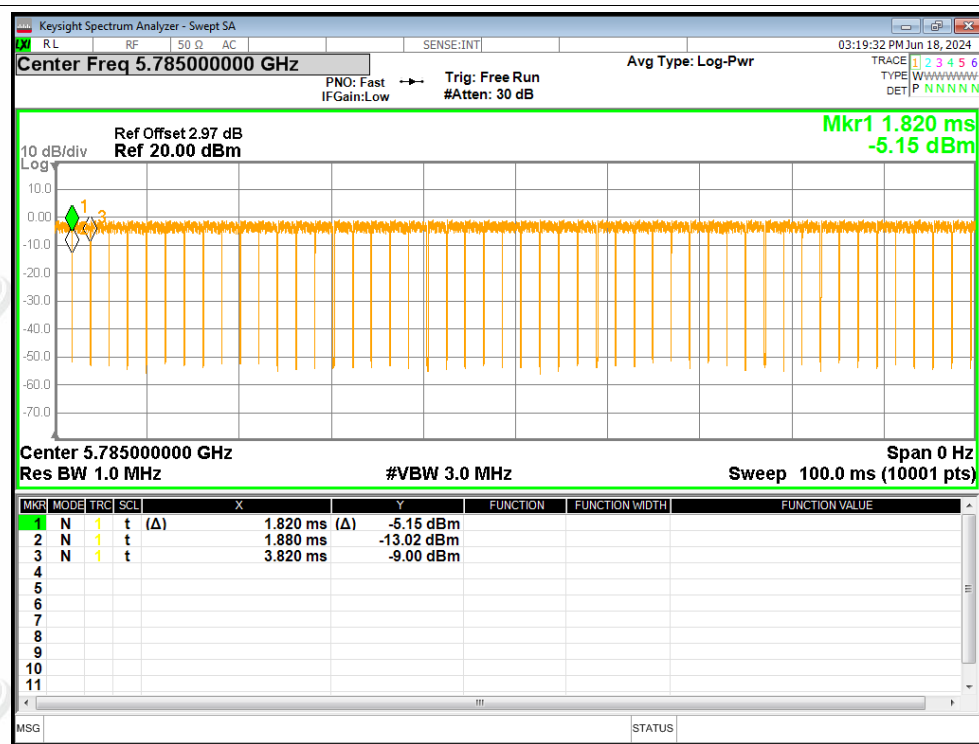




Duty Cycle NVNT ac20 5745MHz Ant1

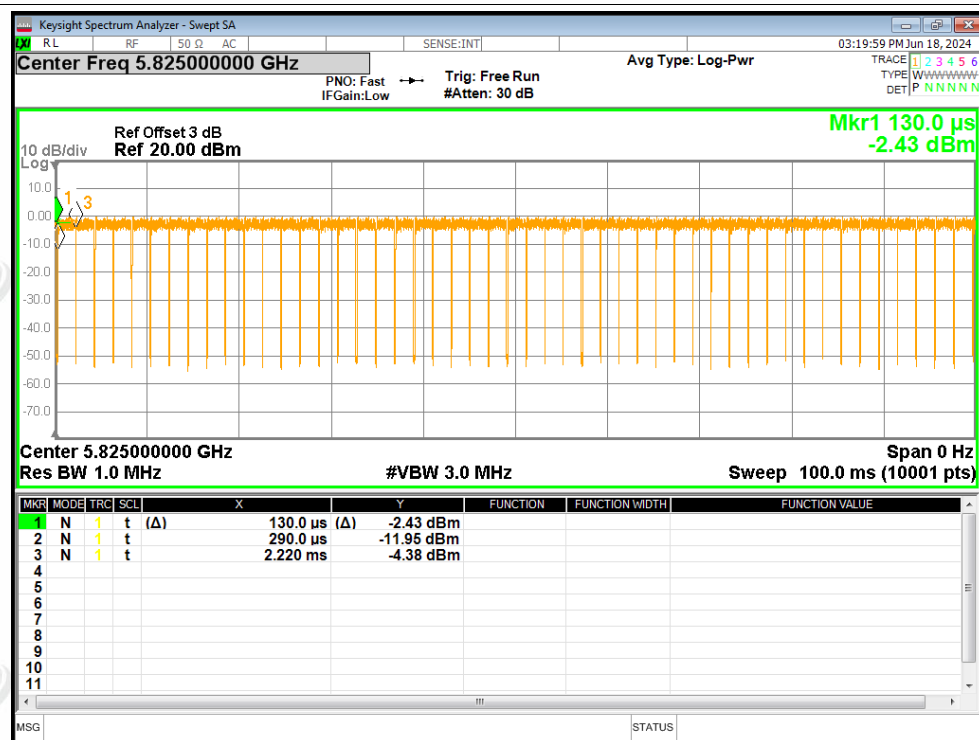


Duty Cycle NVNT ac20 5785MHz Ant1

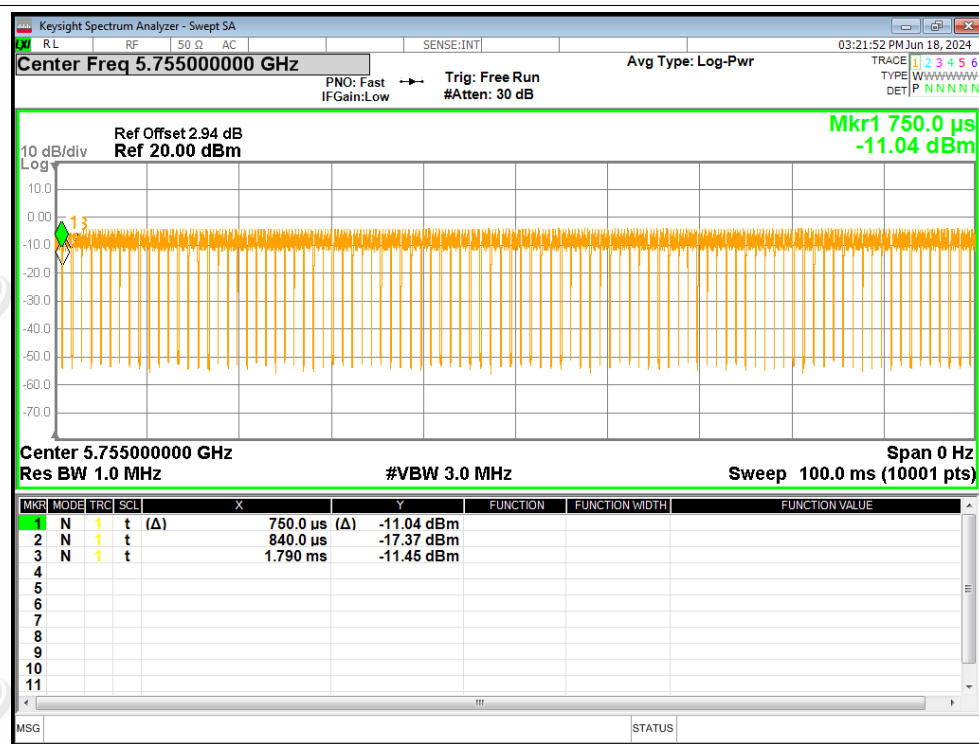




Duty Cycle NVNT ac20 5825MHz Ant1

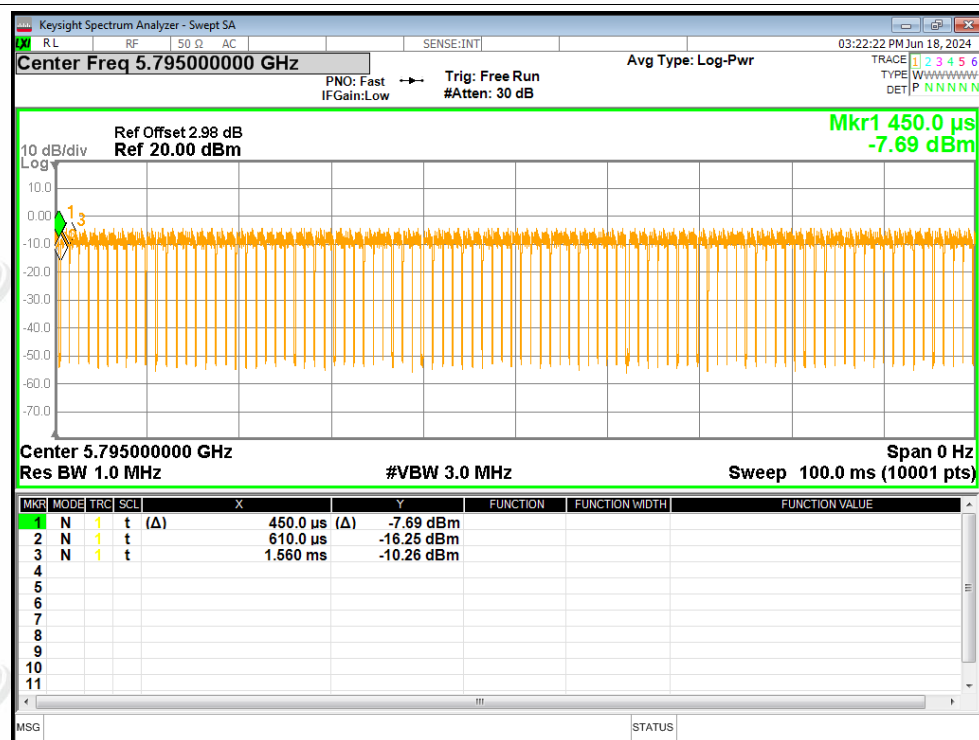


Duty Cycle NVNT ac40 5755MHz Ant1

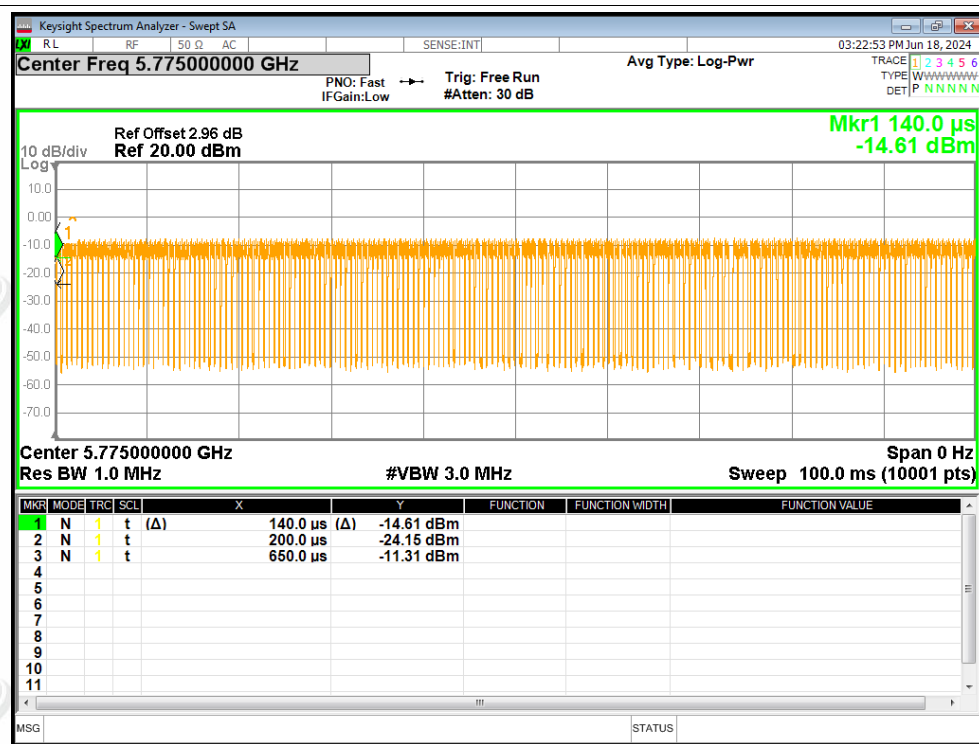




Duty Cycle NVNT ac40 5795MHz Ant1



Duty Cycle NVNT ac80 5775MHz Ant1



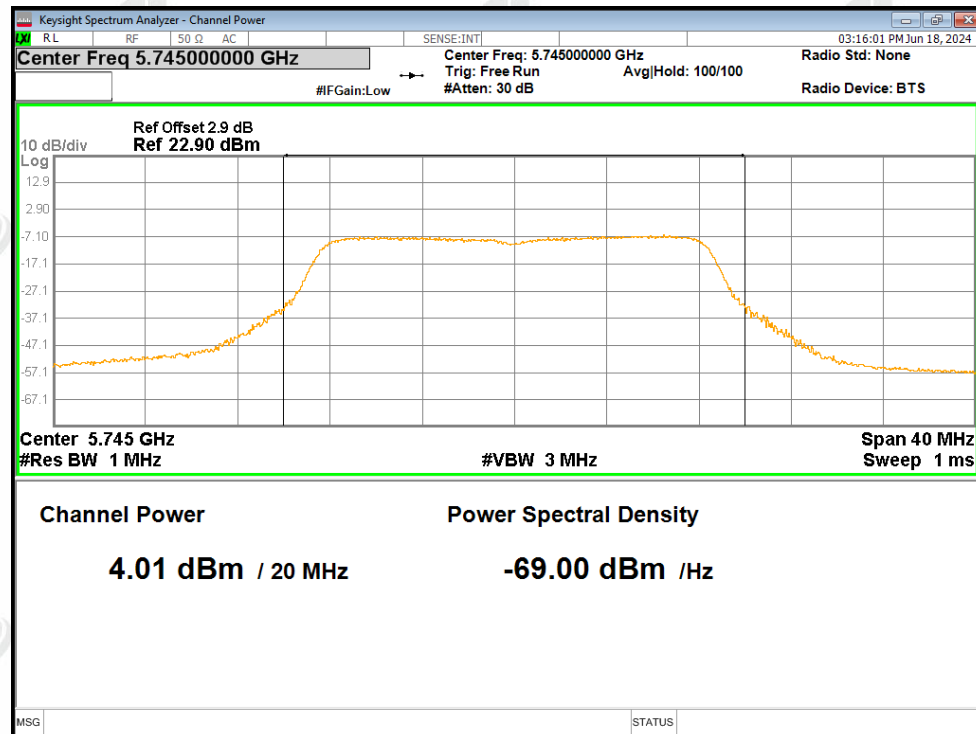
**ZHONGHAN****B2. Maximum Conducted Output Power**

Condition	Mode	Frequency (MHz)	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	4.01	0	4.01	30	Pass
NVNT	a	5785	4.83	0.14	4.97	30	Pass
NVNT	a	5825	5.24	0.25	5.49	30	Pass
NVNT	n20	5745	4.47	0.16	4.63	30	Pass
NVNT	n20	5785	4.73	0.28	5.01	30	Pass
NVNT	n20	5825	5.22	0.26	5.48	30	Pass
NVNT	n40	5755	4.47	0.27	4.74	30	Pass
NVNT	n40	5795	4.85	0.64	5.49	30	Pass
NVNT	ac20	5745	4.47	0.15	4.62	30	Pass
NVNT	ac20	5785	4.76	0.13	4.89	30	Pass
NVNT	ac20	5825	5.09	0.35	5.44	30	Pass
NVNT	ac40	5755	4.56	0.39	4.95	30	Pass
NVNT	ac40	5795	4.79	0.68	5.47	30	Pass
NVNT	ac80	5775	4.63	0.54	5.17	30	Pass

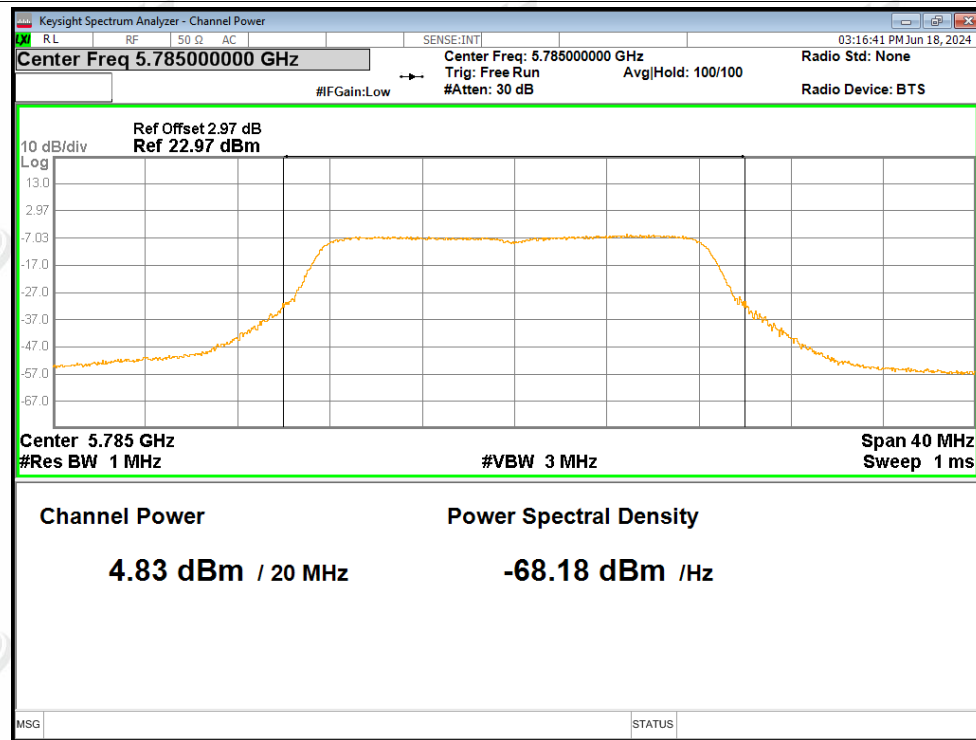


Test Graphs

Power NVNT a 5745MHz Ant1

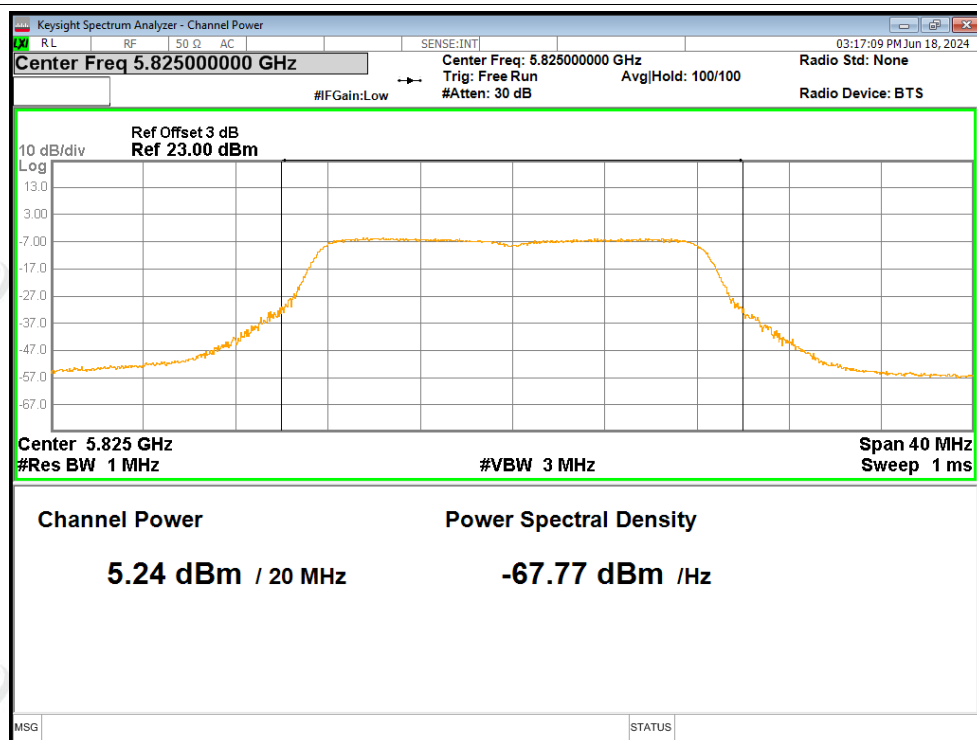


Power NVNT a 5785MHz Ant1

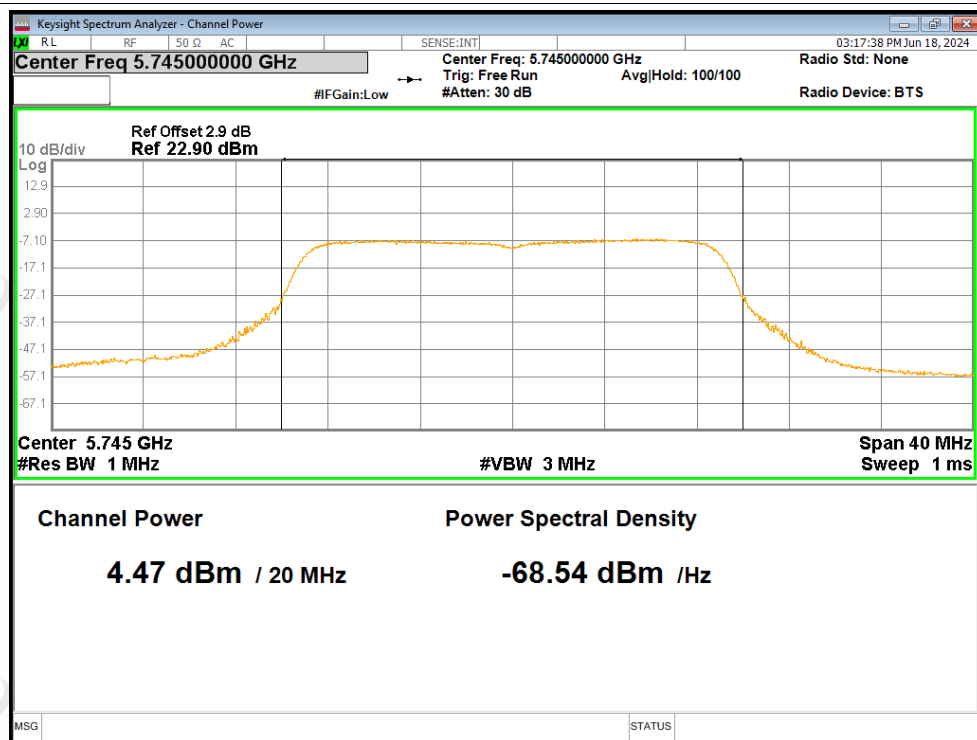




Power NVNT a 5825MHz Ant1

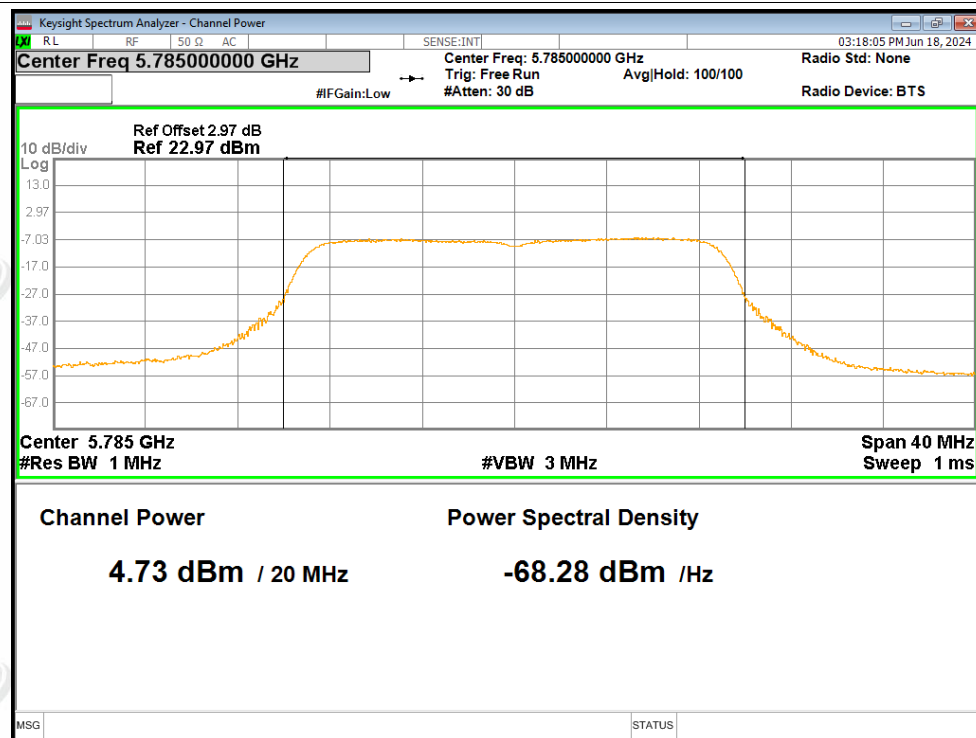


Power NVNT n20 5745MHz Ant1

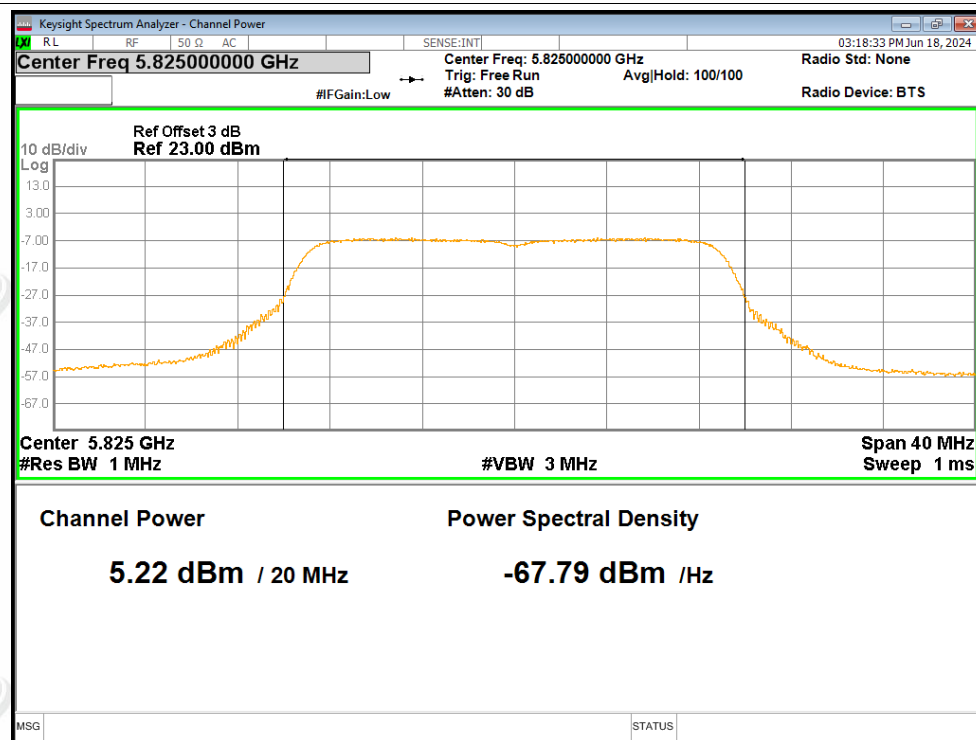




Power NVNT n20 5785MHz Ant1

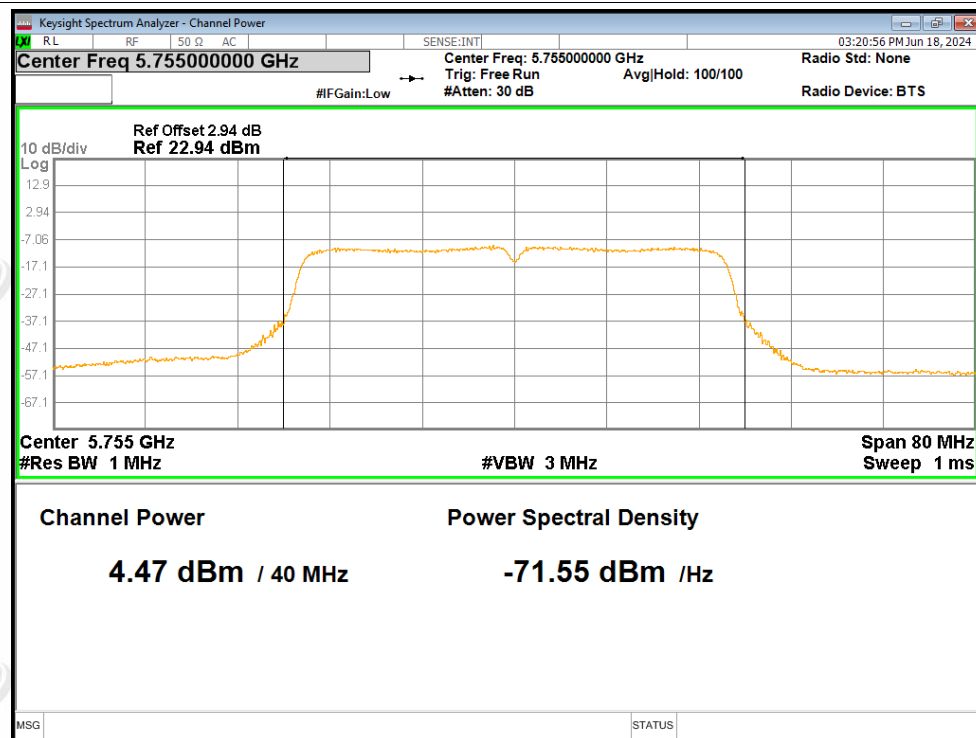


Power NVNT n20 5825MHz Ant1

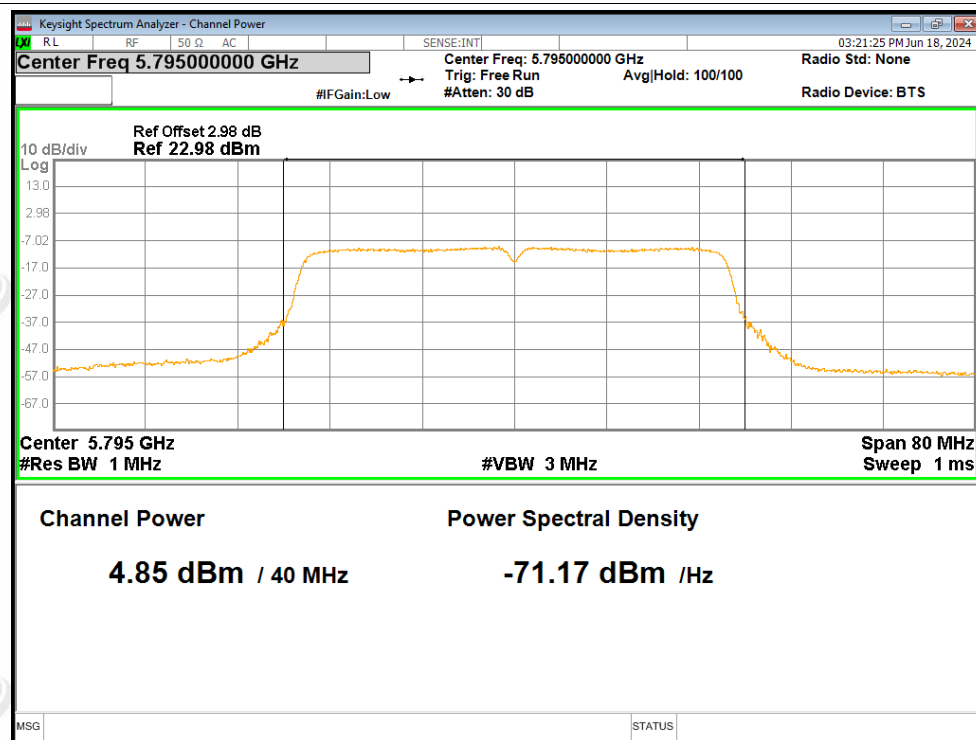




Power NVNT n40 5755MHz Ant1

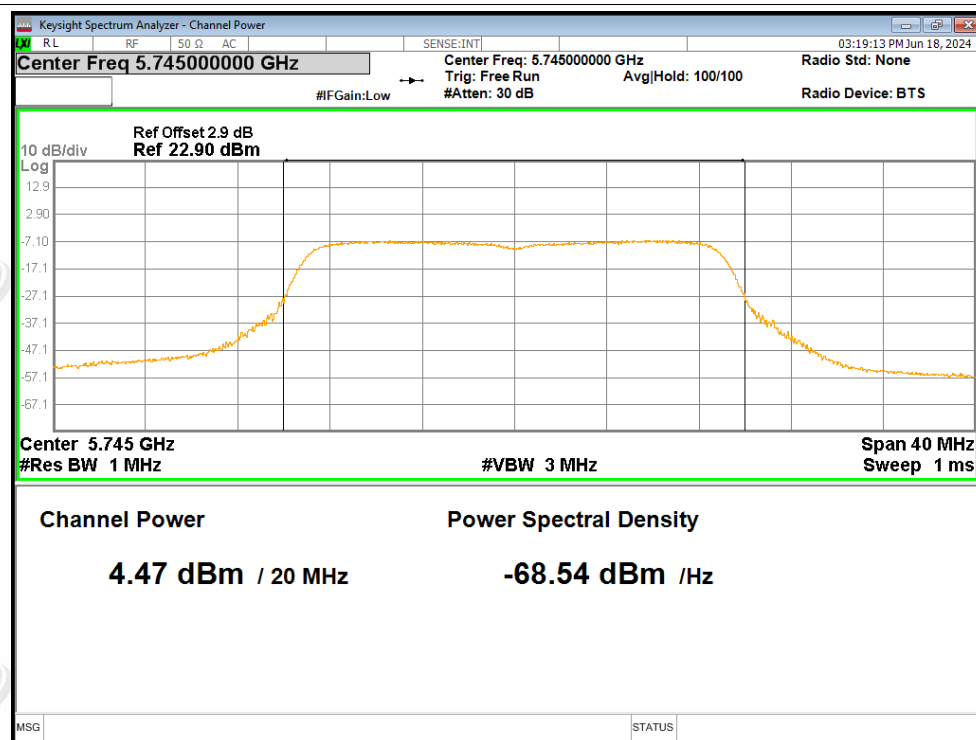


Power NVNT n40 5795MHz Ant1

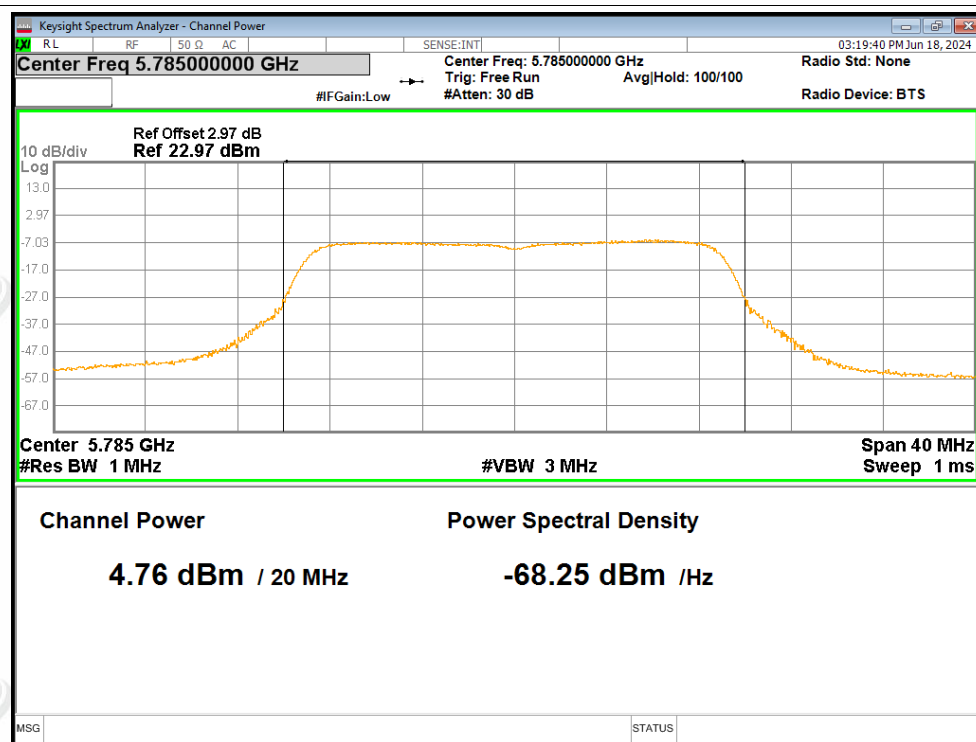




Power NVNT ac20 5745MHz Ant1

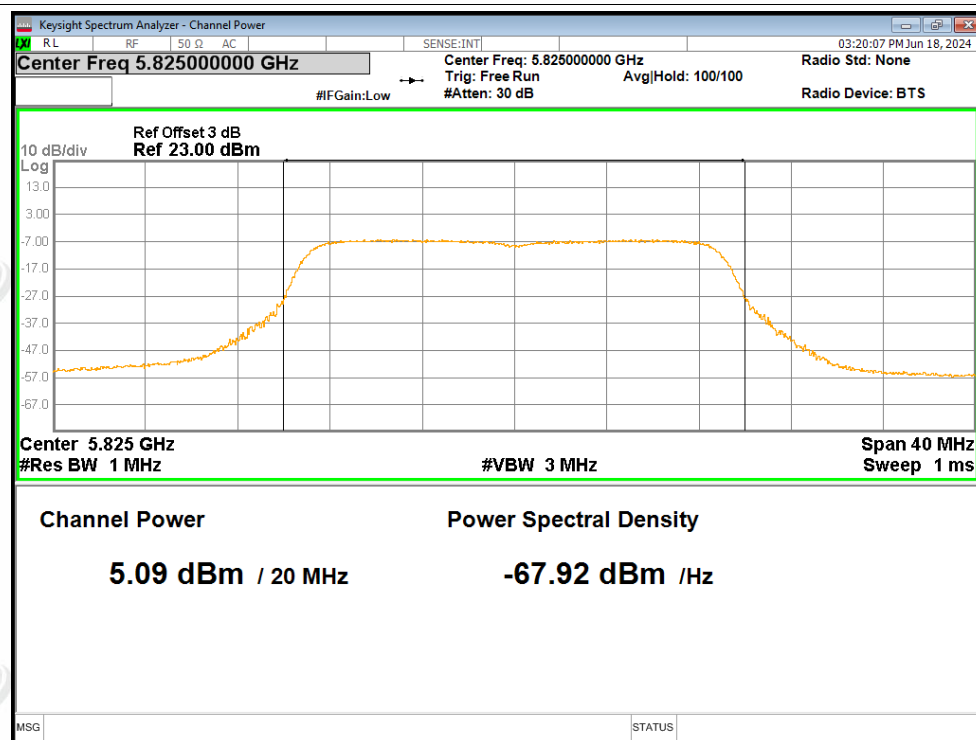


Power NVNT ac20 5785MHz Ant1

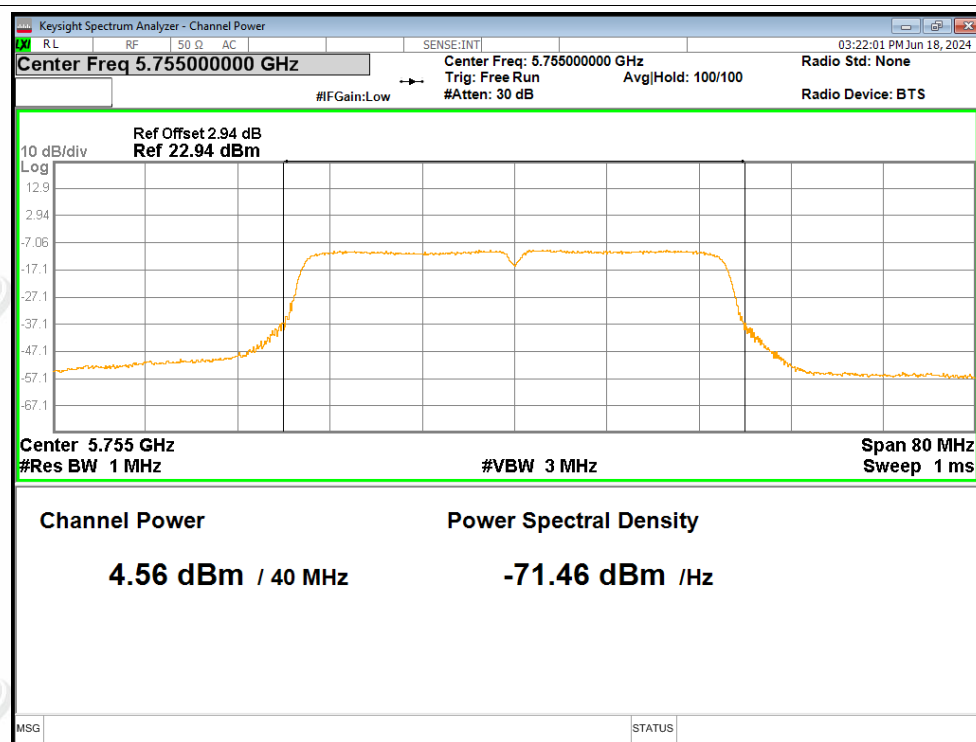




Power NVNT ac20 5825MHz Ant1

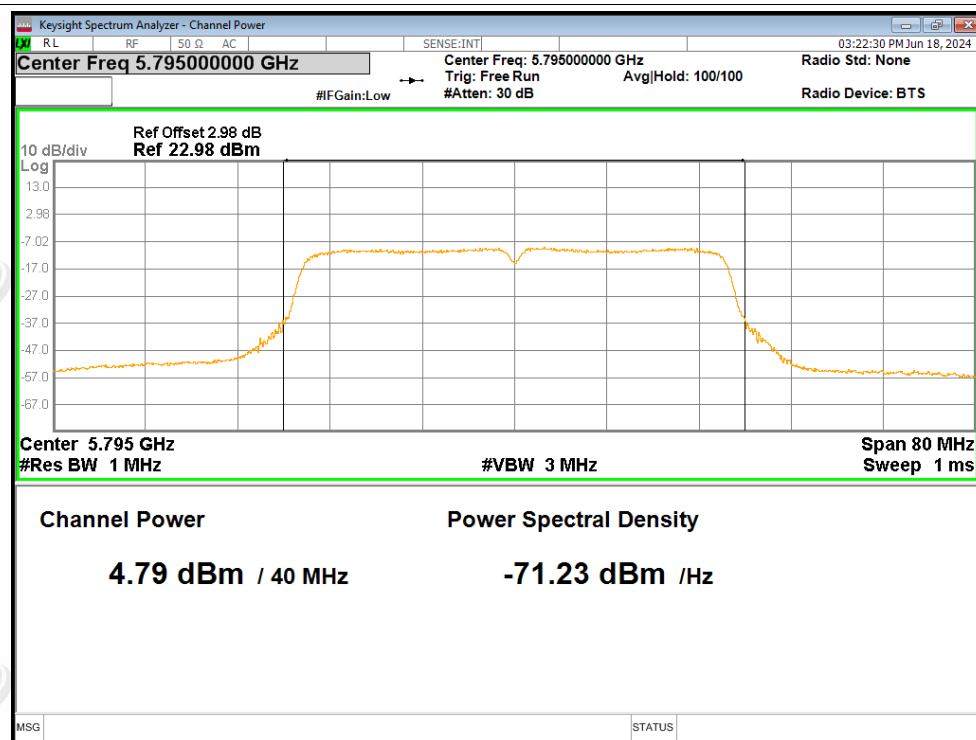


Power NVNT ac40 5755MHz Ant1

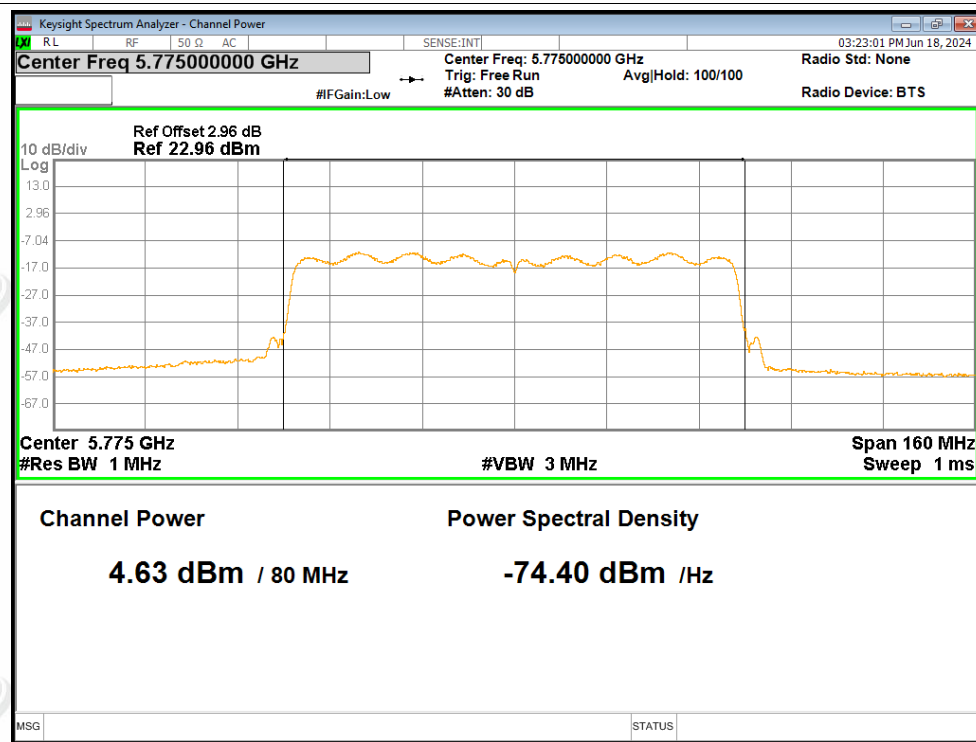




Power NVNT ac40 5795MHz Ant1



Power NVNT ac80 5775MHz Ant1



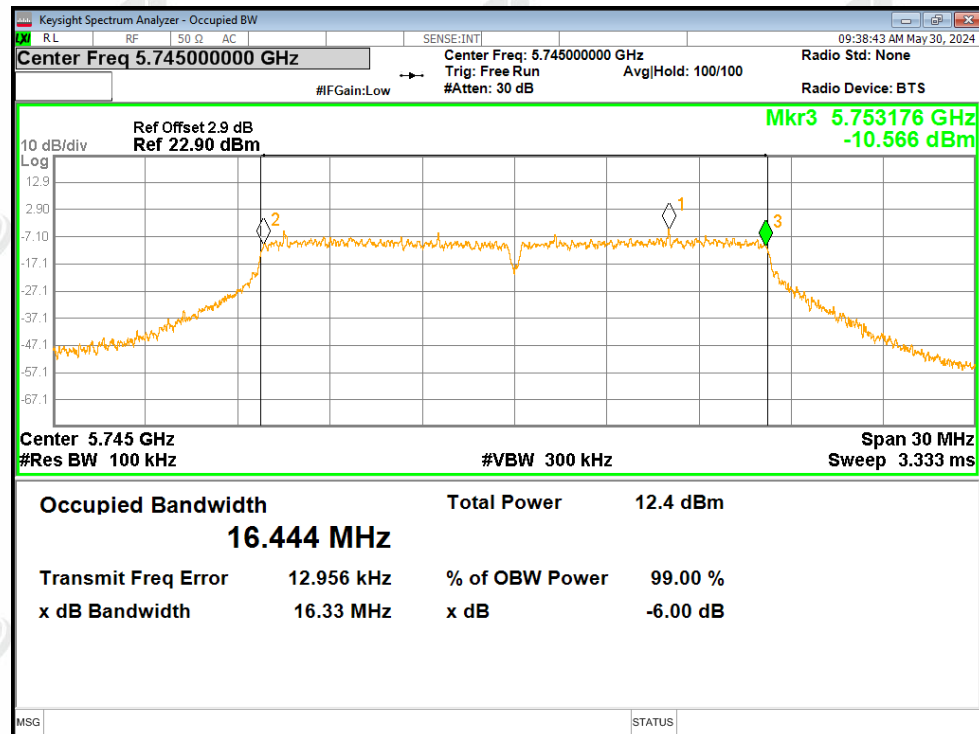
**ZHONGHAN****B3. -6dB Bandwidth**

Condition	Mode	Frequency (MHz)	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	a	5745	16.326	0.5	Pass
NVNT	a	5785	16.352	0.5	Pass
NVNT	a	5825	16.337	0.5	Pass
NVNT	n20	5745	17.035	0.5	Pass
NVNT	n20	5785	16.651	0.5	Pass
NVNT	n20	5825	17.293	0.5	Pass
NVNT	n40	5755	35.073	0.5	Pass
NVNT	n40	5795	35.616	0.5	Pass
NVNT	ac20	5745	17.014	0.5	Pass
NVNT	ac20	5785	17.273	0.5	Pass
NVNT	ac20	5825	17.025	0.5	Pass
NVNT	ac40	5755	35.357	0.5	Pass
NVNT	ac40	5795	35.257	0.5	Pass
NVNT	ac80	5775	74.221	0.5	Pass

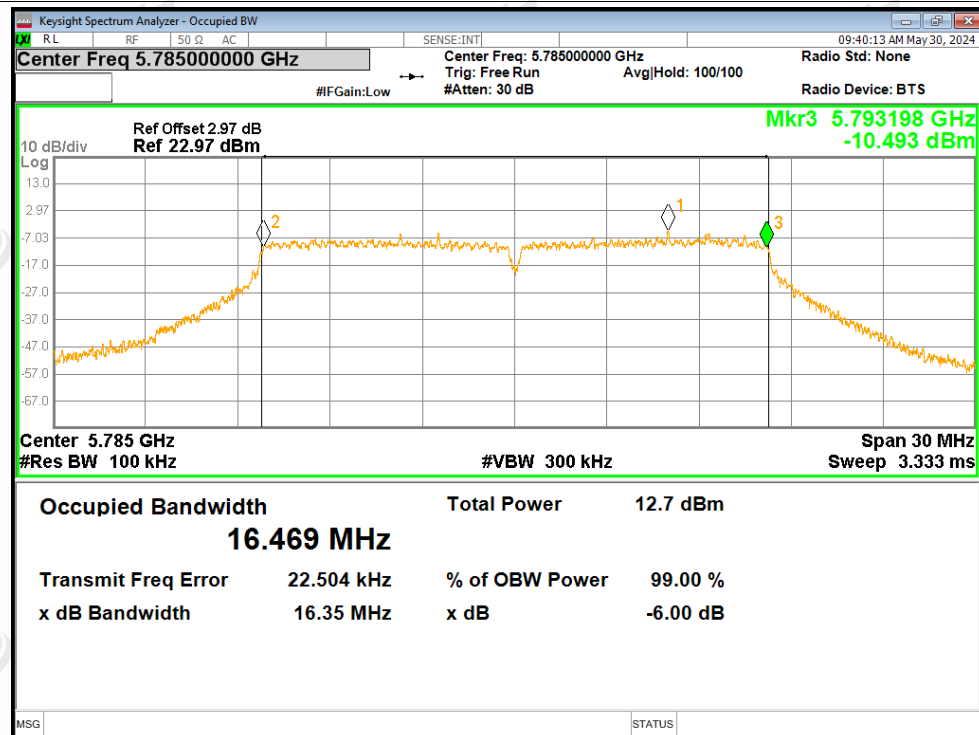


Test Graphs

-6dB Bandwidth NVNT a 5745MHz Ant1

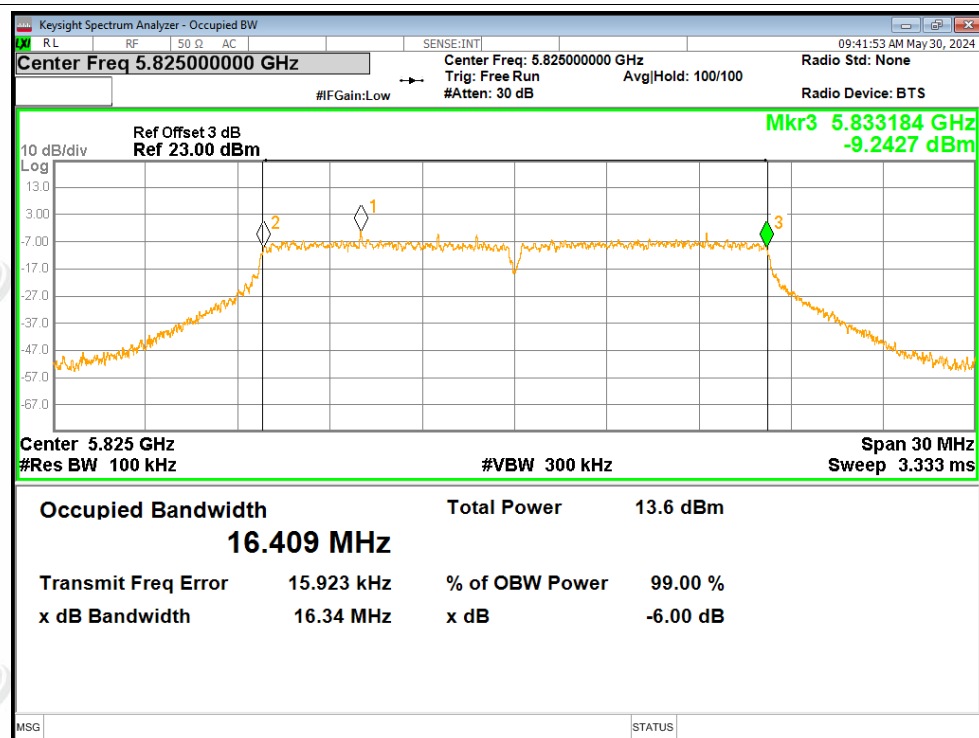


-6dB Bandwidth NVNT a 5785MHz Ant1

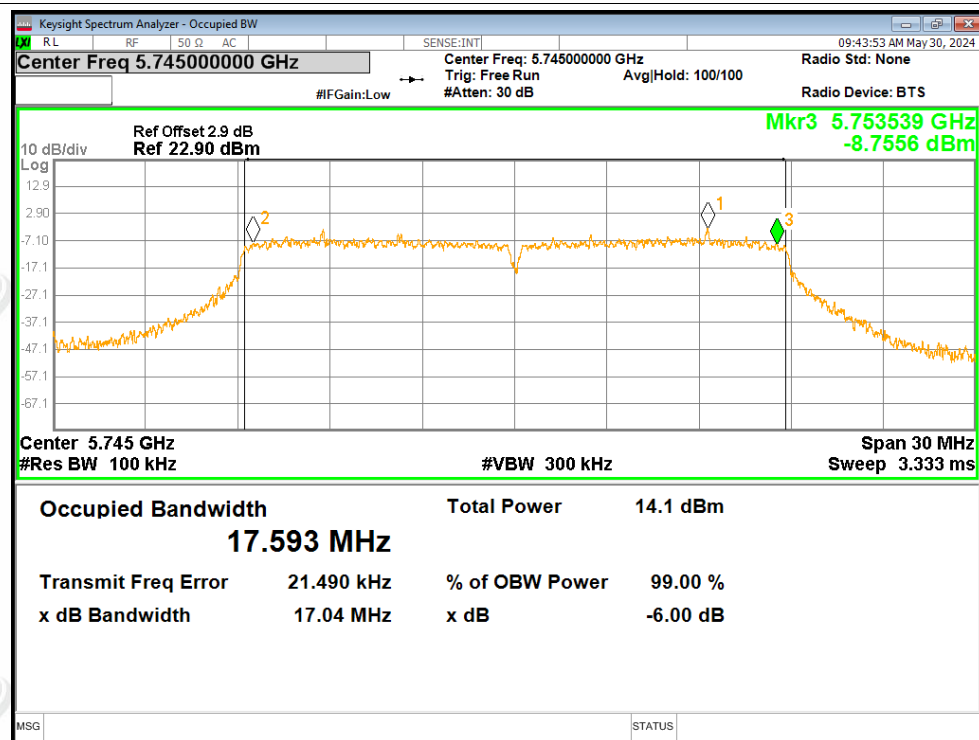




-6dB Bandwidth NVNT a 5825MHz Ant1

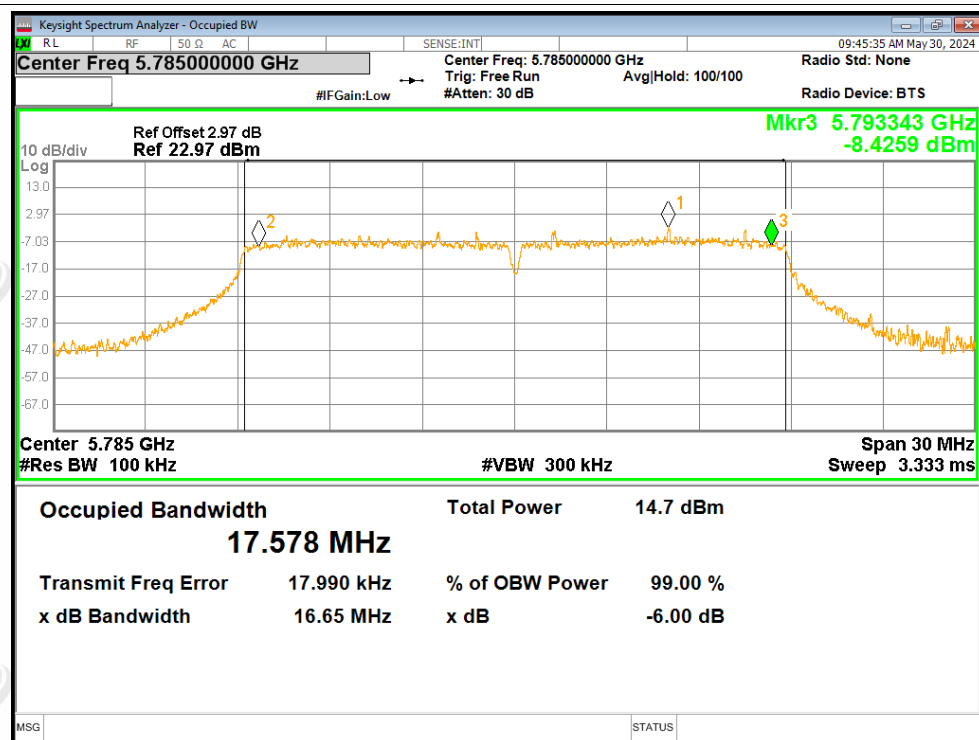


-6dB Bandwidth NVNT n20 5745MHz Ant1

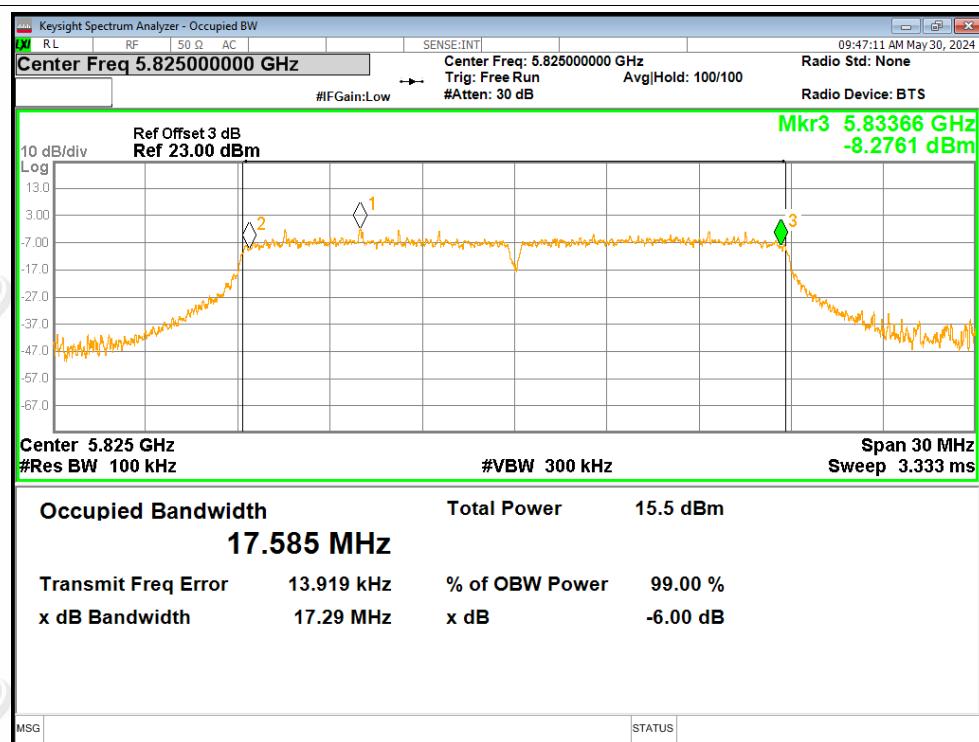




-6dB Bandwidth NVNT n20 5785MHz Ant1

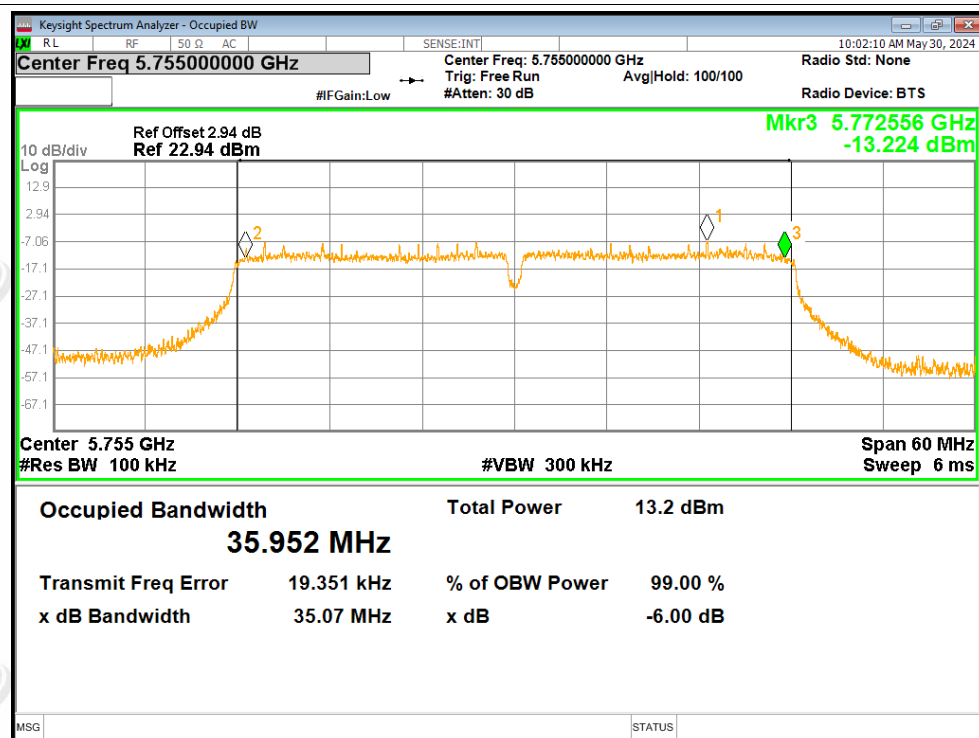


-6dB Bandwidth NVNT n20 5825MHz Ant1

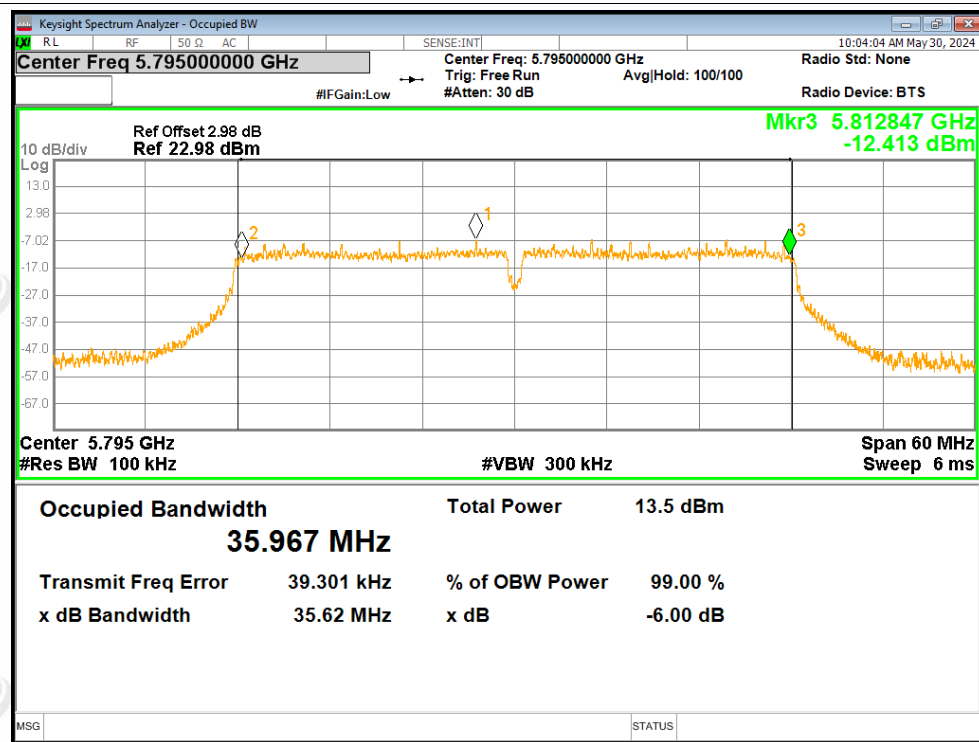




-6dB Bandwidth NVNT n40 5755MHz Ant1

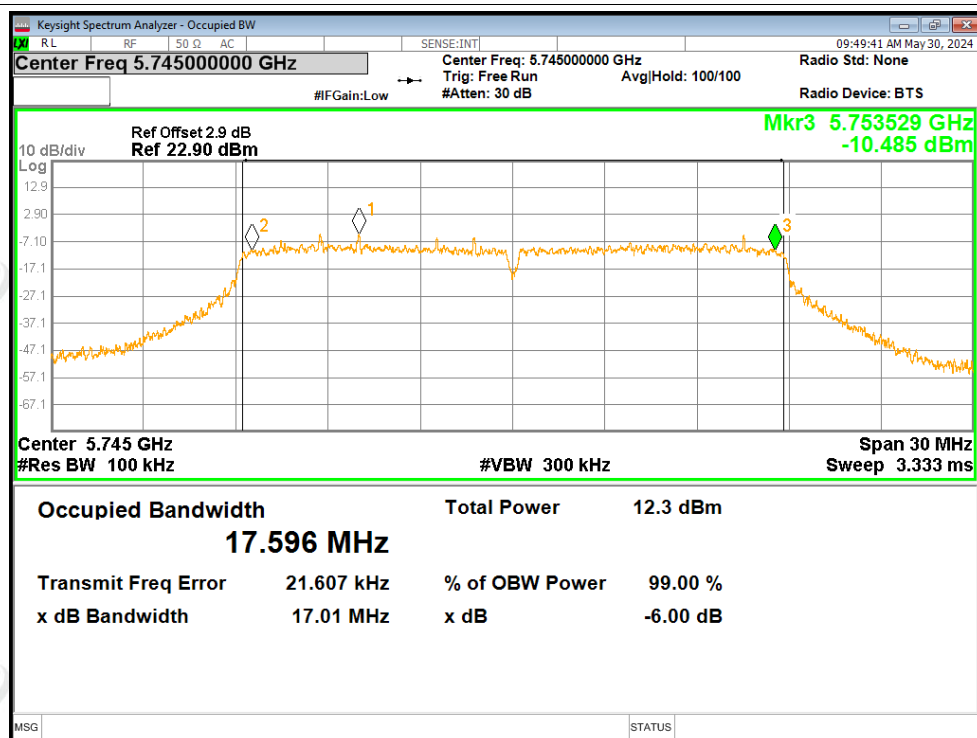


-6dB Bandwidth NVNT n40 5795MHz Ant1

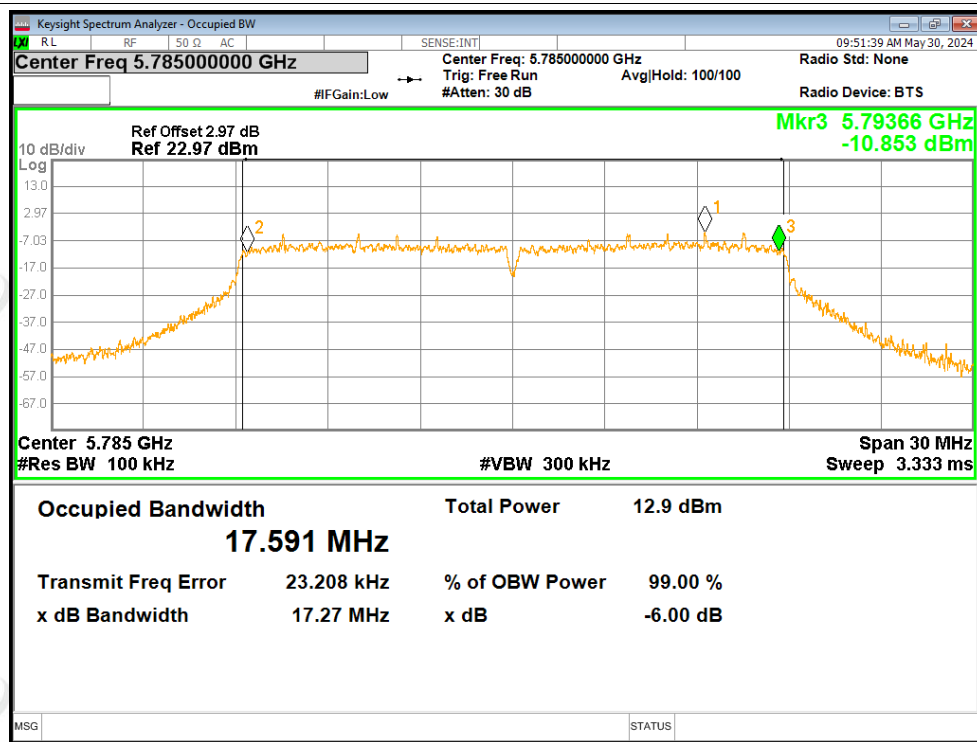




-6dB Bandwidth NVNT ac20 5745MHz Ant1

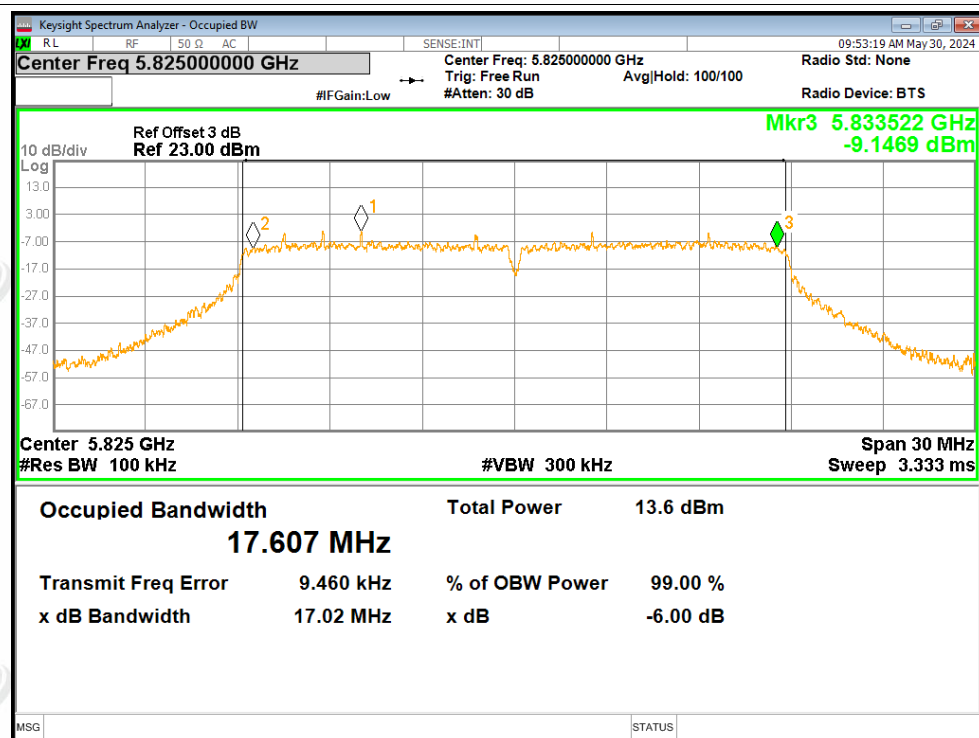


-6dB Bandwidth NVNT ac20 5785MHz Ant1

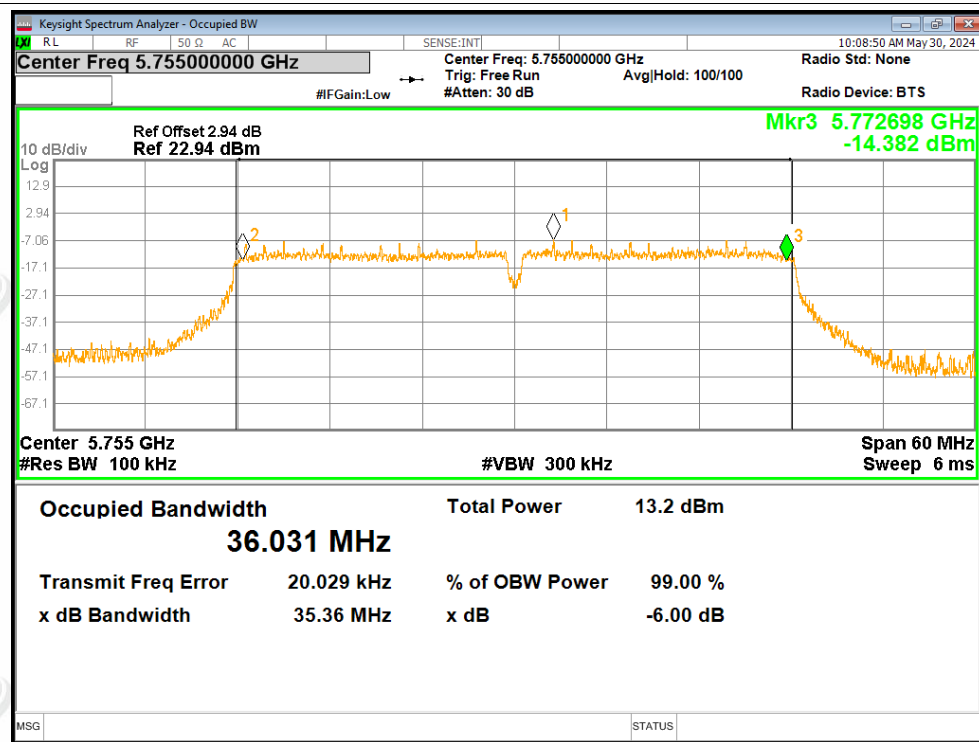




-6dB Bandwidth NVNT ac20 5825MHz Ant1

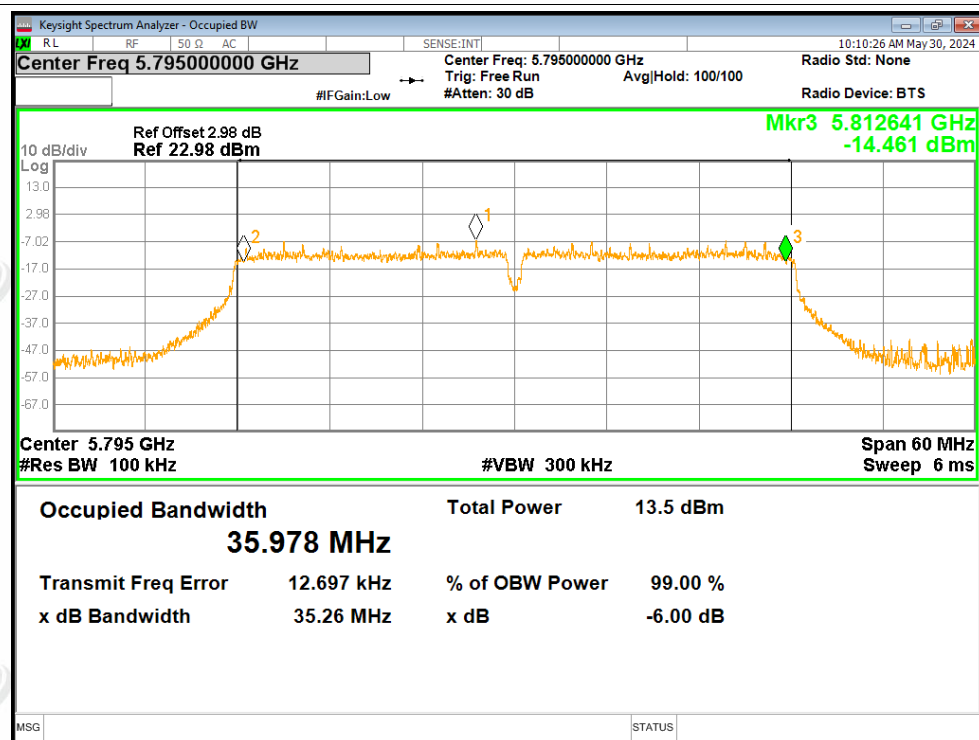


-6dB Bandwidth NVNT ac40 5755MHz Ant1

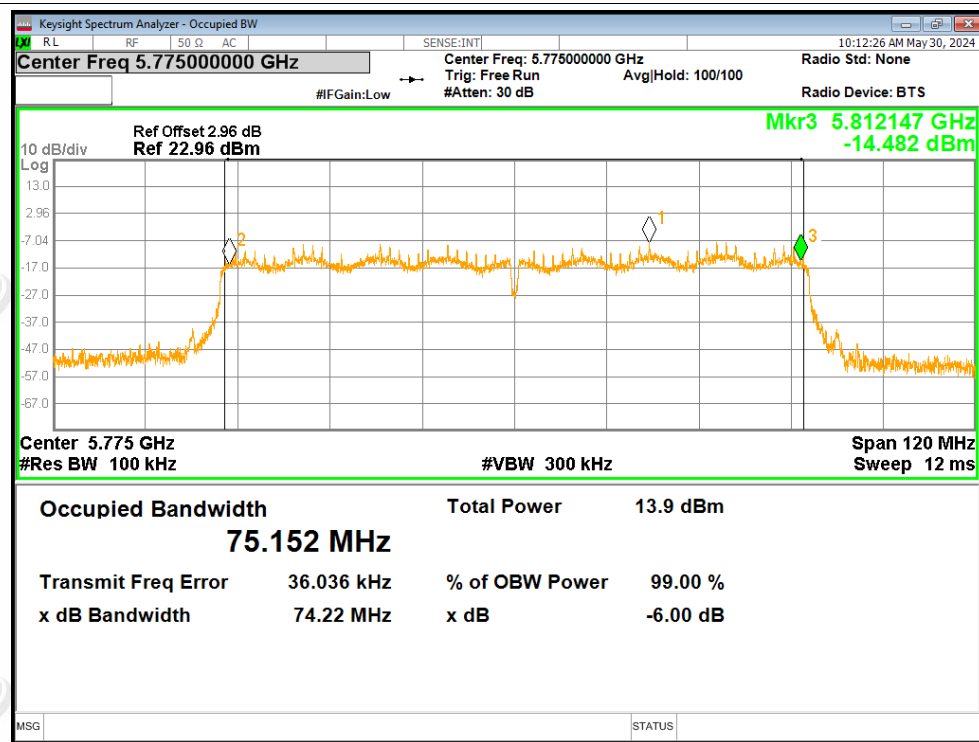




-6dB Bandwidth NVNT ac40 5795MHz Ant1



-6dB Bandwidth NVNT ac80 5775MHz Ant1



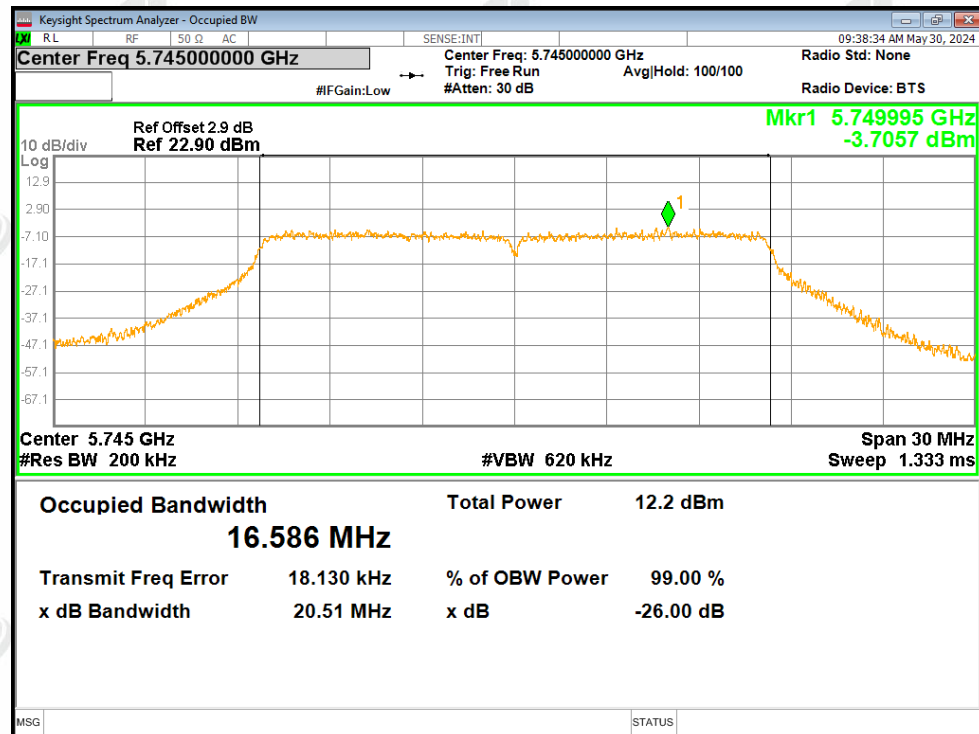
**ZHONGHAN****B4. Occupied Channel Bandwidth**

Condition	Mode	Frequency (MHz)	99% OBW (MHz)
NVNT	a	5745	16.586
NVNT	a	5785	16.604
NVNT	a	5825	16.511
NVNT	n20	5745	17.648
NVNT	n20	5785	17.62
NVNT	n20	5825	17.635
NVNT	n40	5755	36.093
NVNT	n40	5795	36.092
NVNT	ac20	5745	17.67
NVNT	ac20	5785	17.62
NVNT	ac20	5825	17.636
NVNT	ac40	5755	36.157
NVNT	ac40	5795	36.12
NVNT	ac80	5775	75.262

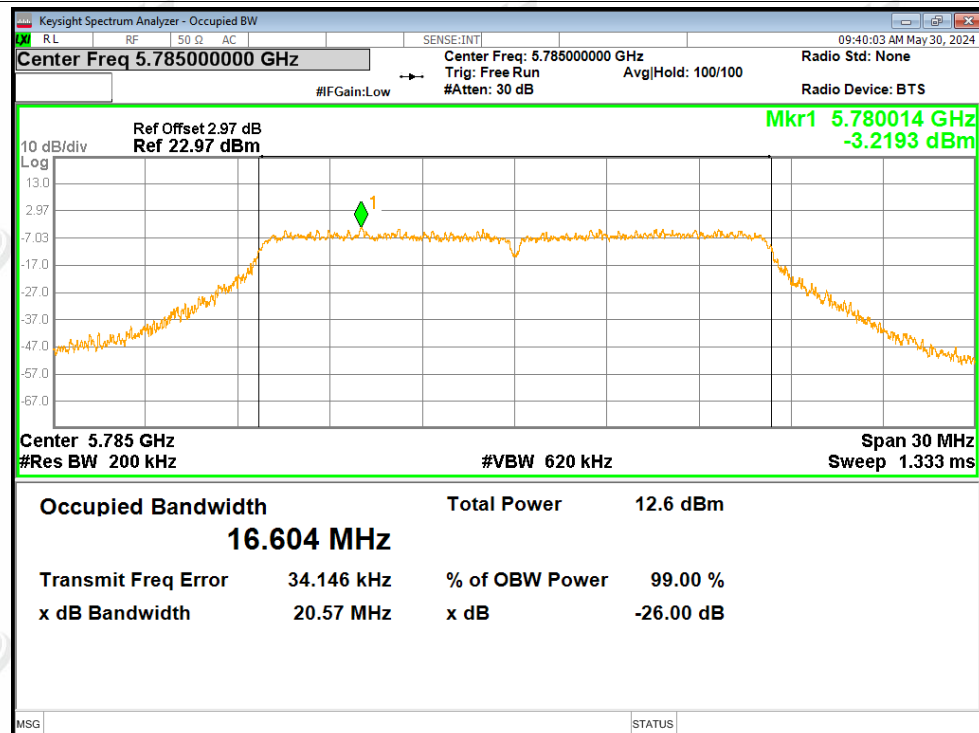


Test Graphs

OBW NVNT a 5745MHz Ant1

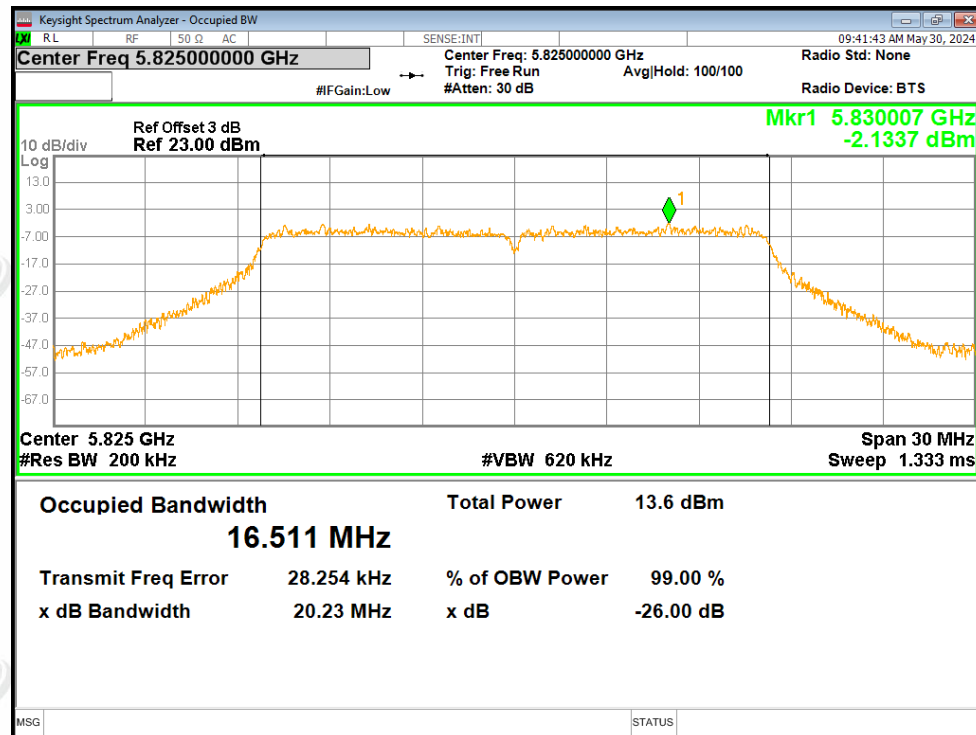


OBW NVNT a 5785MHz Ant1

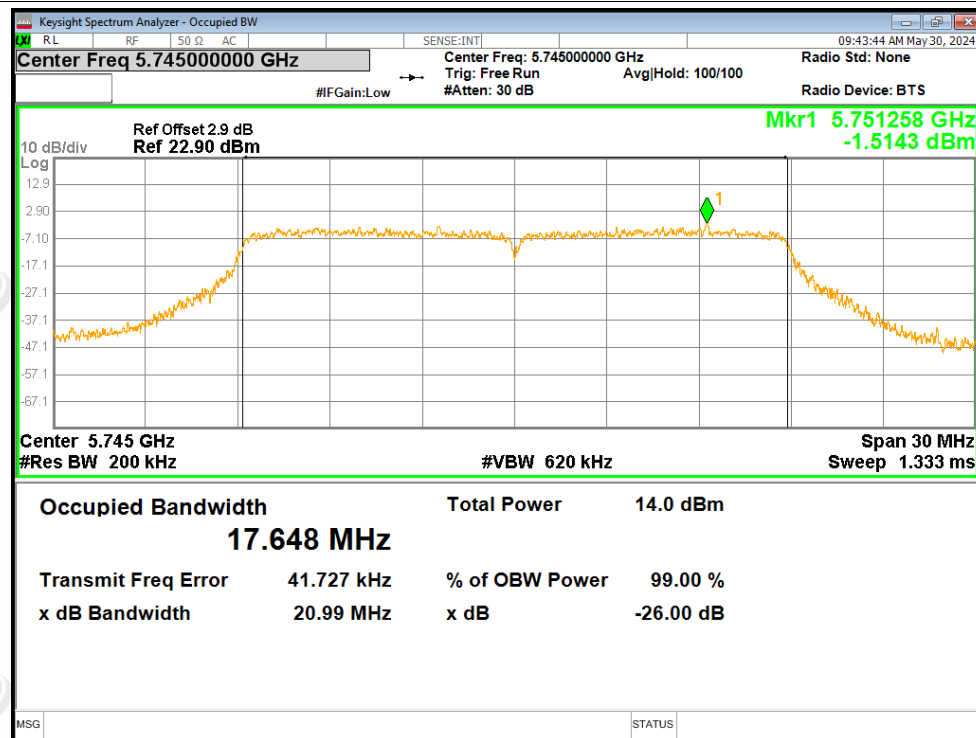




OBW NVNT a 5825MHz Ant1

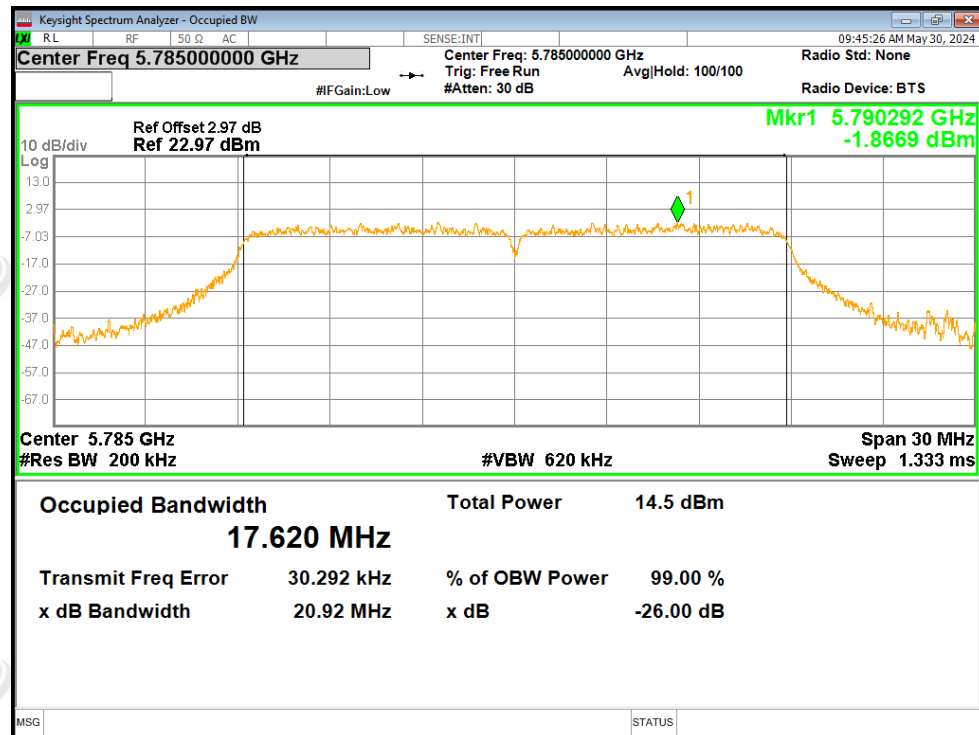


OBW NVNT n20 5745MHz Ant1

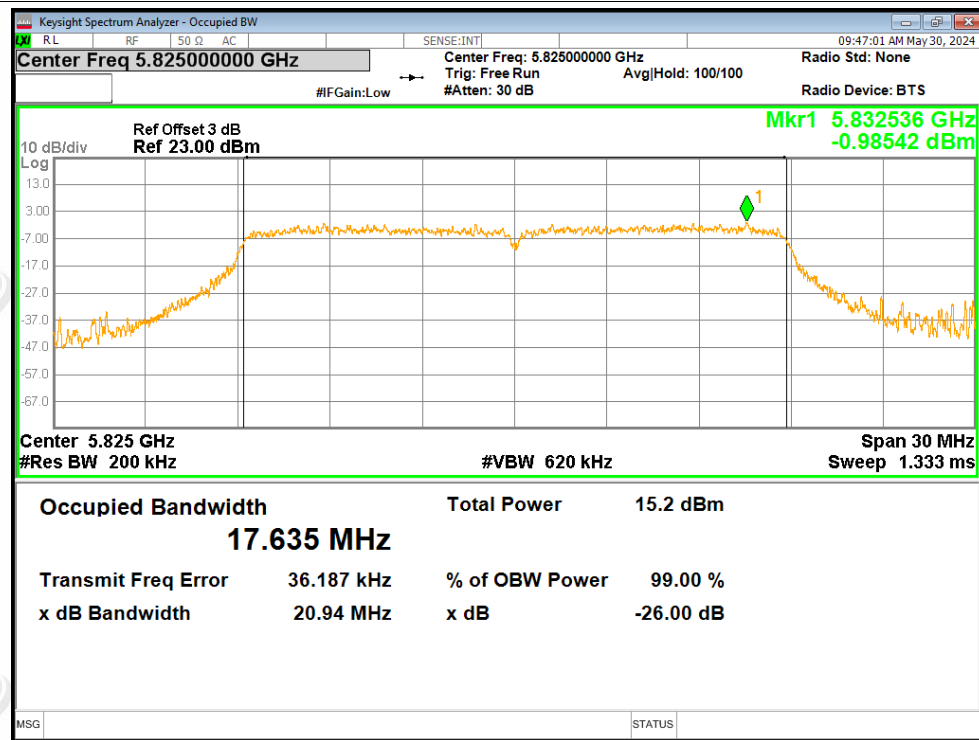




OBW NVNT n20 5785MHz Ant1

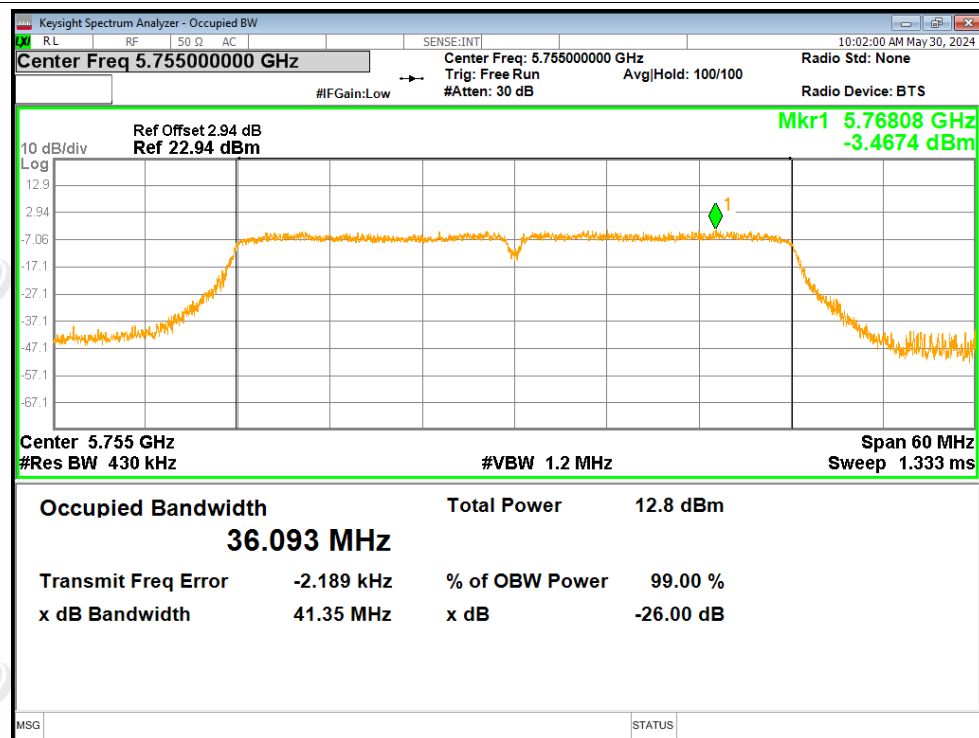


OBW NVNT n20 5825MHz Ant1

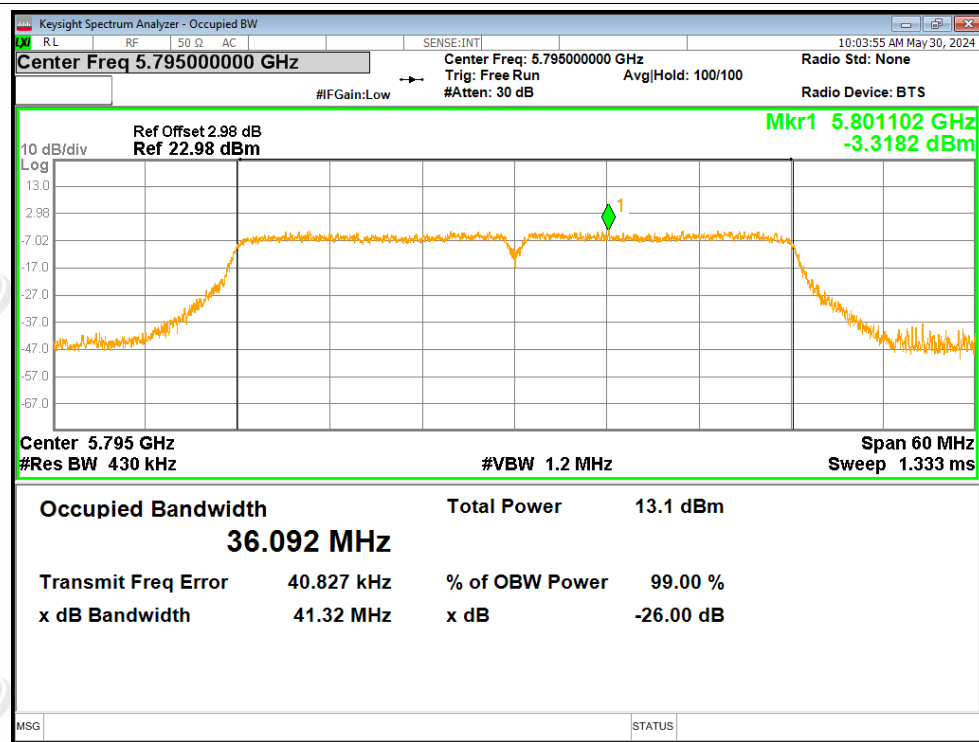




OBW NVNT n40 5755MHz Ant1

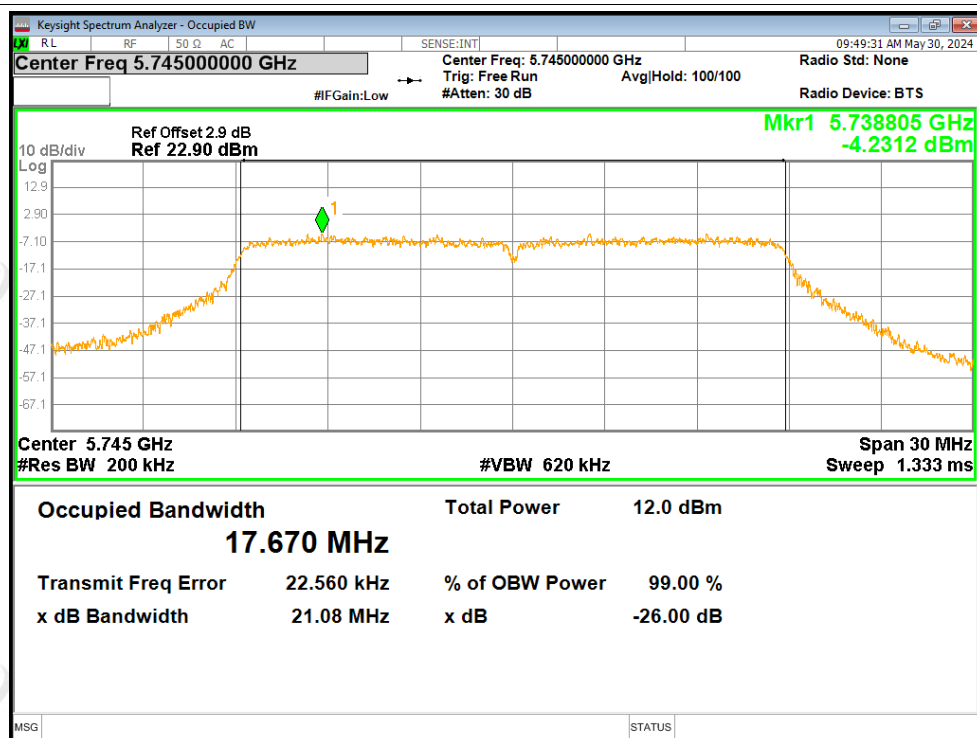


OBW NVNT n40 5795MHz Ant1

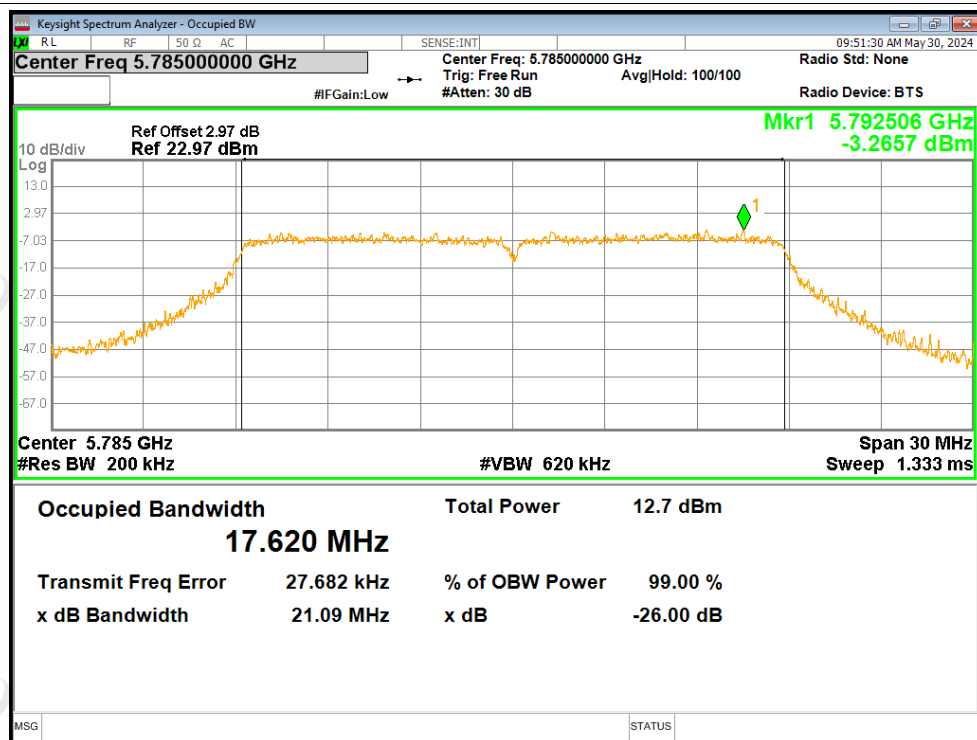




OBW NVNT ac20 5745MHz Ant1

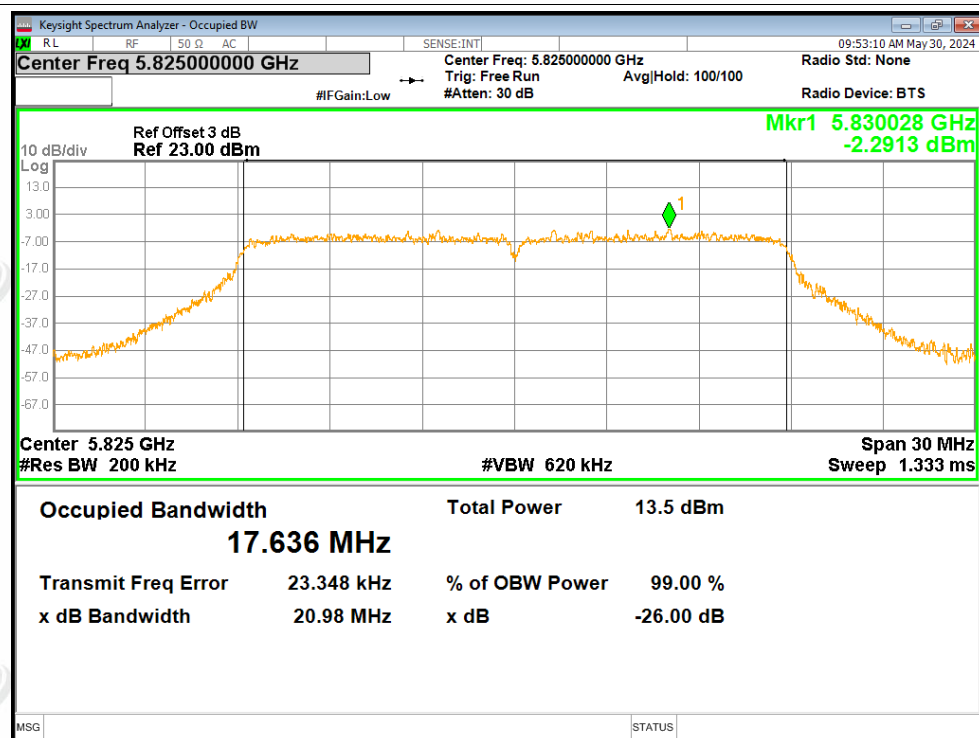


OBW NVNT ac20 5785MHz Ant1

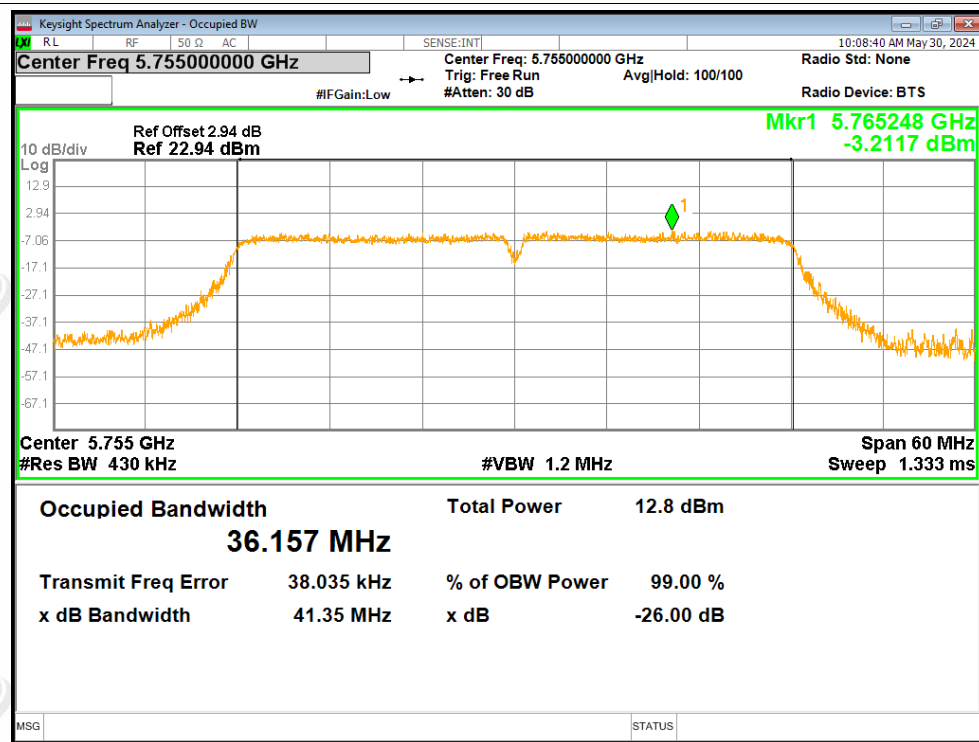




OBW NVNT ac20 5825MHz Ant1

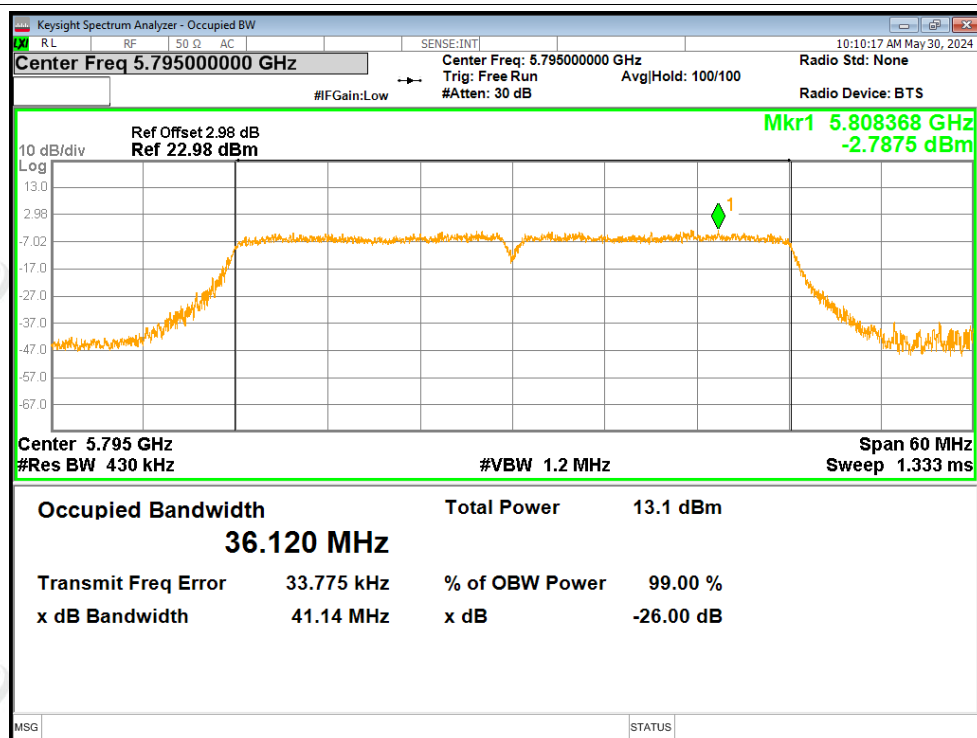


OBW NVNT ac40 5755MHz Ant1

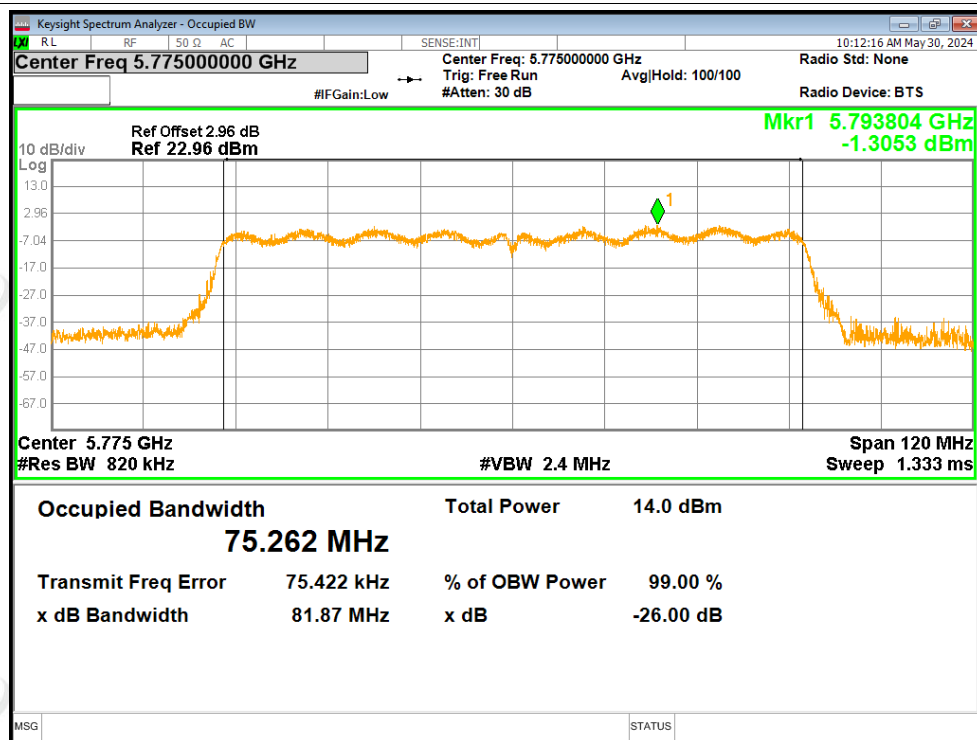




OBW NVNT ac40 5795MHz Ant1



OBW NVNT ac80 5775MHz Ant1



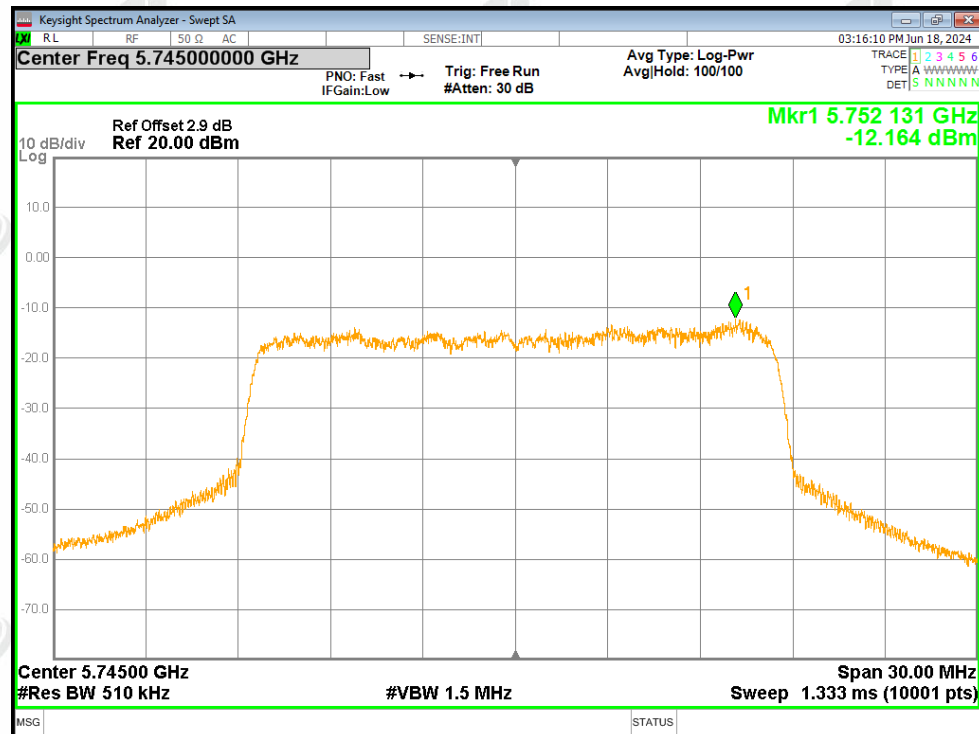
**ZHONGHAN****B5. Maximum Power Spectral Density Level**

Condition	Mode	Frequency (MHz)	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	-12.16	0	-12.16	30	Pass
NVNT	a	5785	-11.4	0.14	-11.26	30	Pass
NVNT	a	5825	-11.29	0.25	-11.04	30	Pass
NVNT	n20	5745	-11.42	0.16	-11.26	30	Pass
NVNT	n20	5785	-11.36	0.28	-11.08	30	Pass
NVNT	n20	5825	-10.65	0.26	-10.39	30	Pass
NVNT	n40	5755	-16.28	0.27	-16.01	30	Pass
NVNT	n40	5795	-15.67	0.64	-15.03	30	Pass
NVNT	ac20	5745	-12.41	0.15	-12.26	30	Pass
NVNT	ac20	5785	-11.04	0.13	-10.91	30	Pass
NVNT	ac20	5825	-11.16	0.35	-10.81	30	Pass
NVNT	ac40	5755	-16.57	0.39	-16.18	30	Pass
NVNT	ac40	5795	-15.66	0.68	-14.98	30	Pass
NVNT	ac80	5775	-22.41	0.54	-21.87	30	Pass

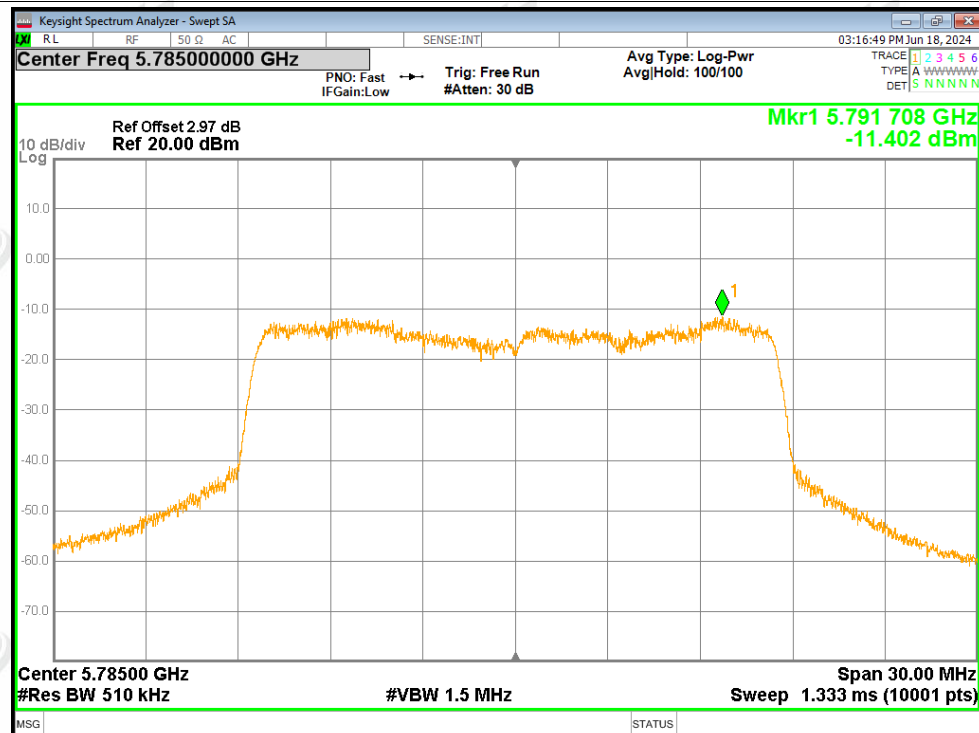


Test Graphs

PSD NVNT a 5745MHz Ant1

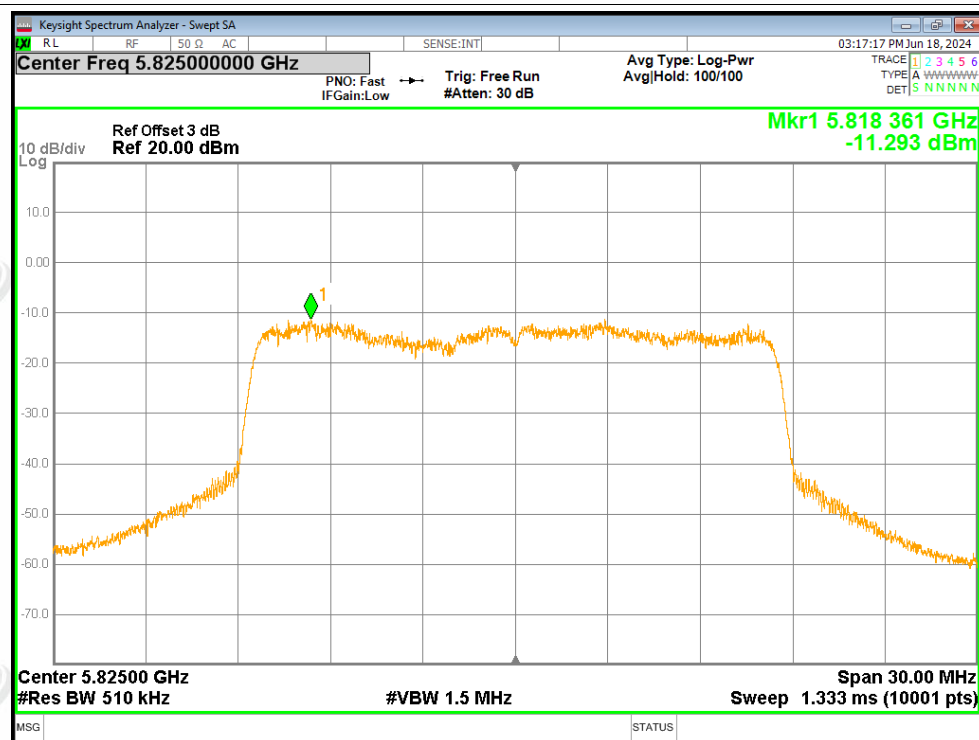


PSD NVNT a 5785MHz Ant1

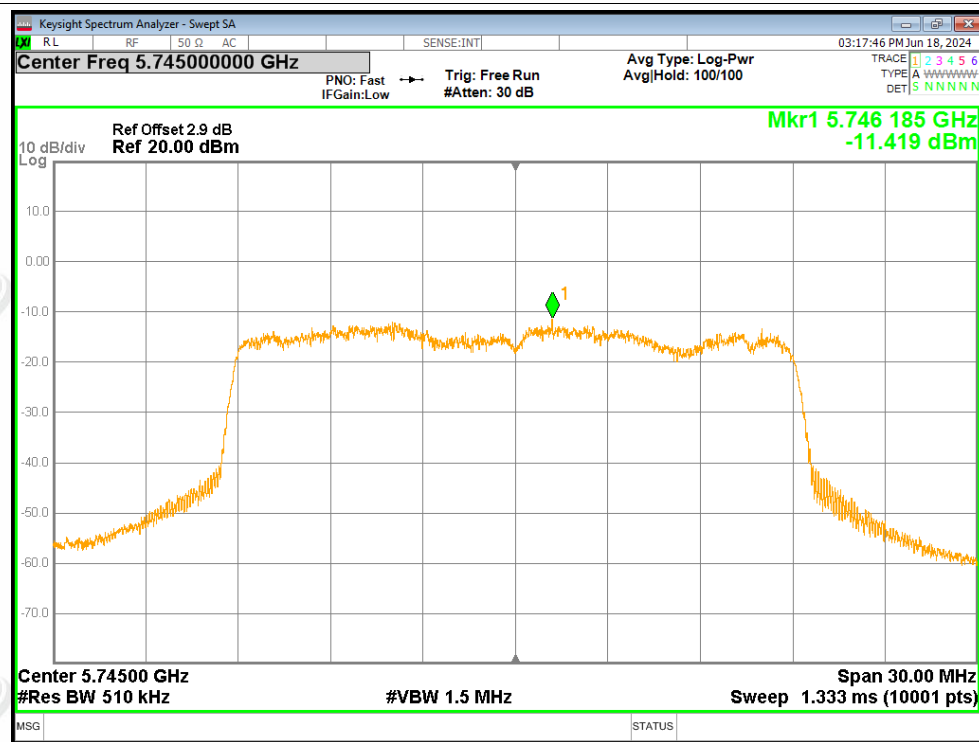




PSD NVNT a 5825MHz Ant1

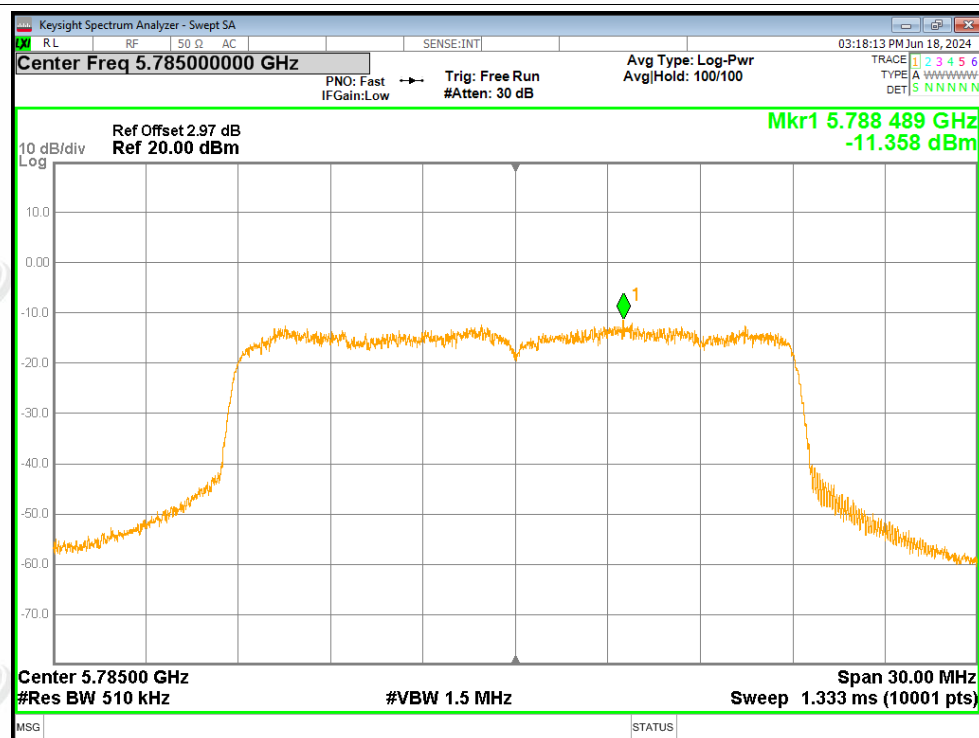


PSD NVNT n20 5745MHz Ant1

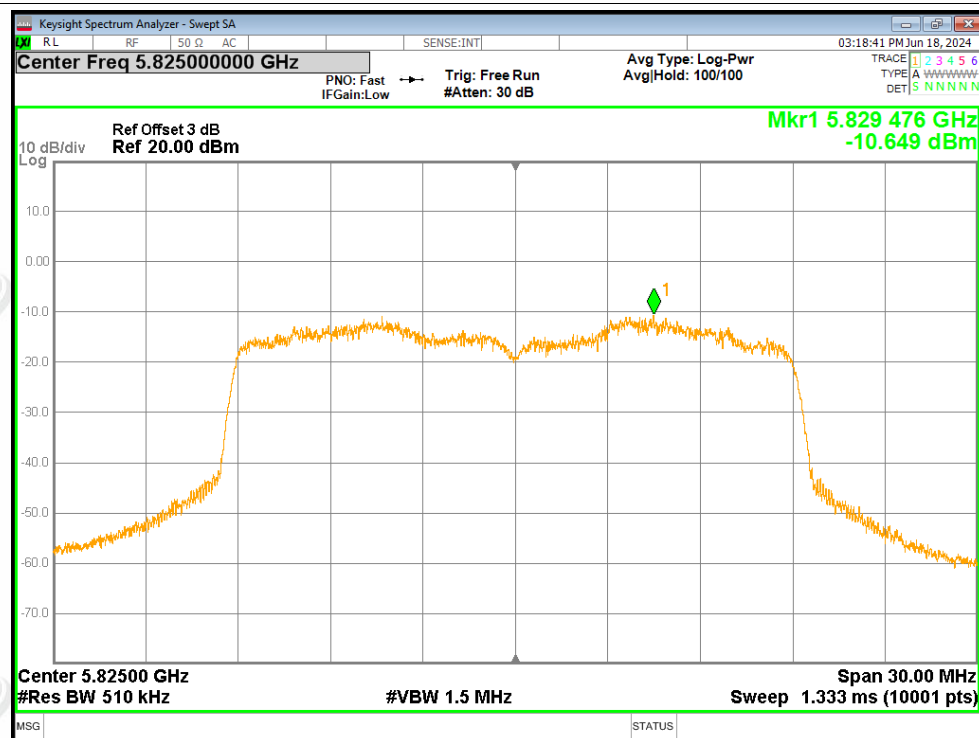




PSD NVNT n20 5785MHz Ant1

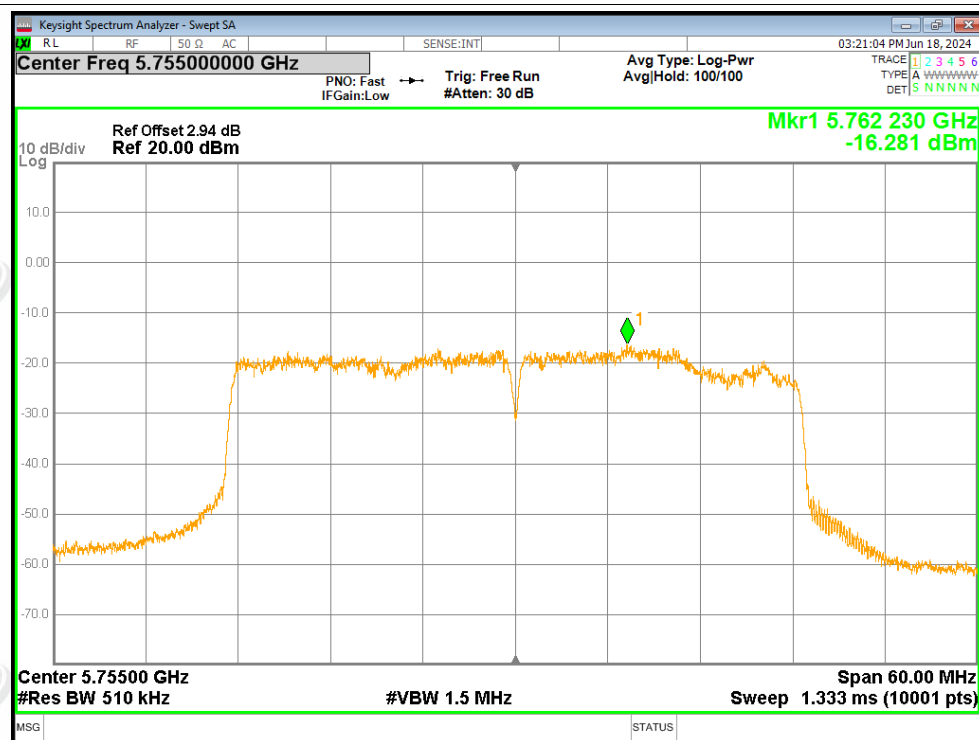


PSD NVNT n20 5825MHz Ant1

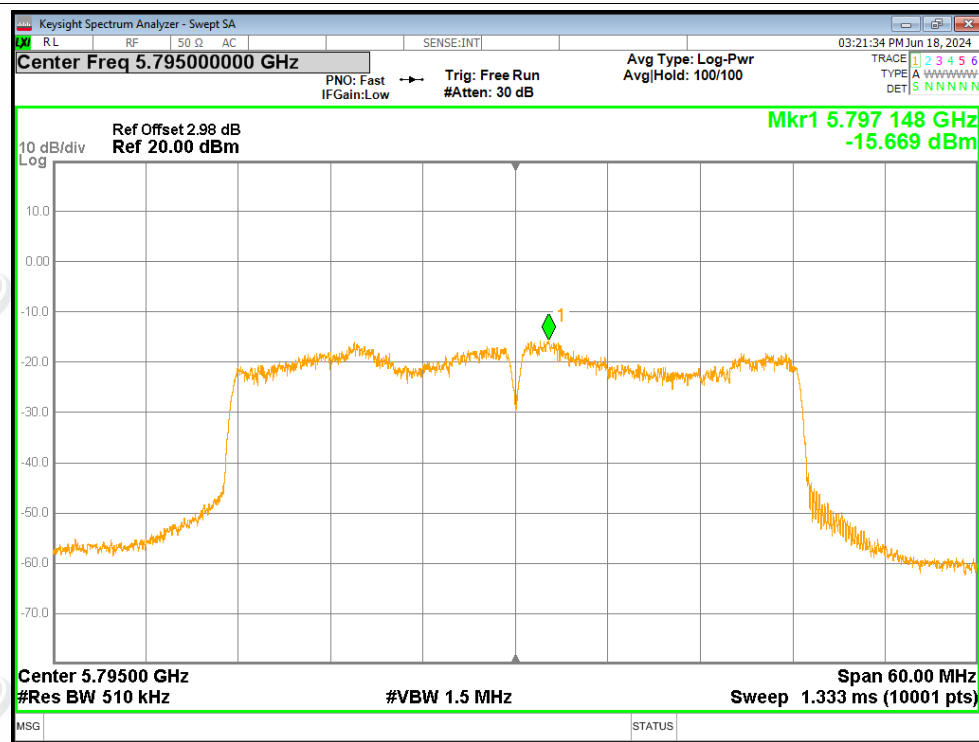




PSD NVNT n40 5755MHz Ant1

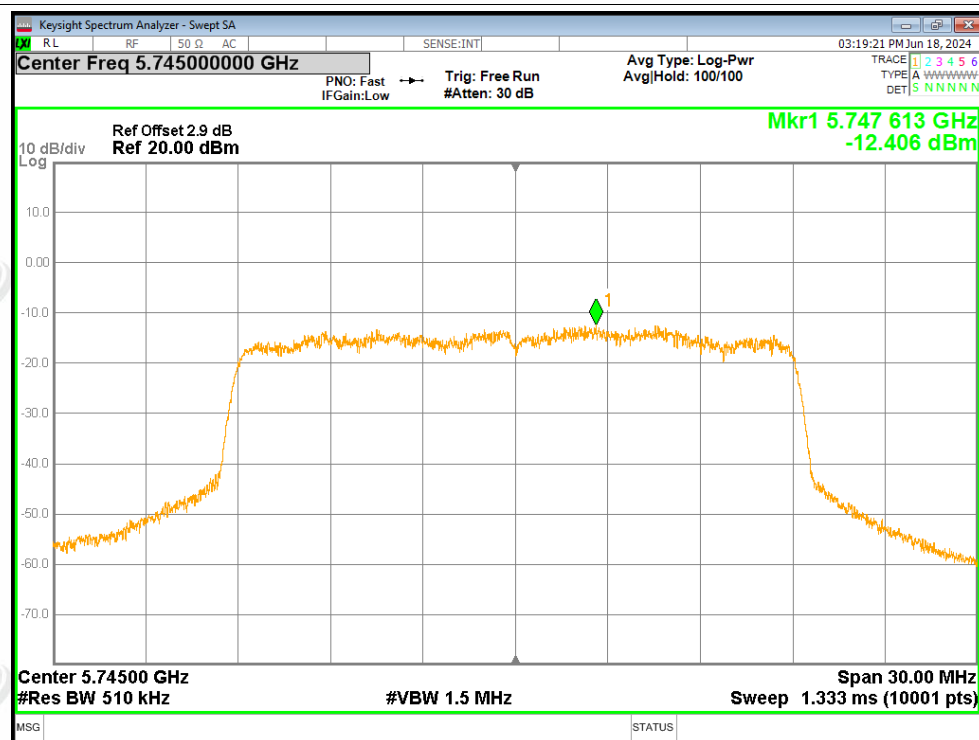


PSD NVNT n40 5795MHz Ant1

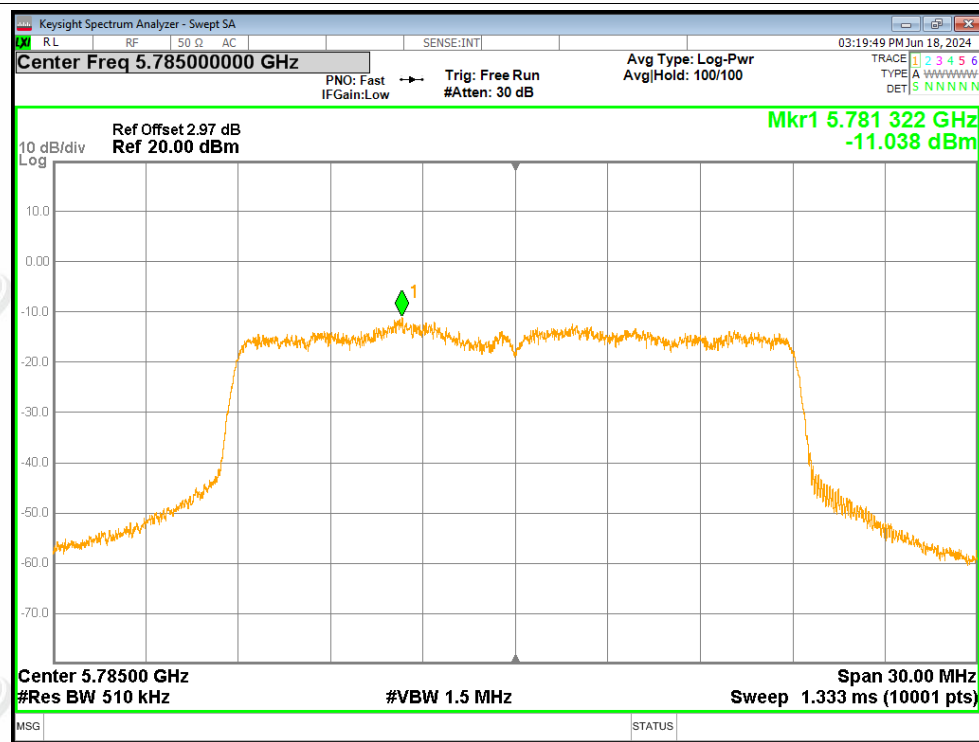




PSD NVNT ac20 5745MHz Ant1

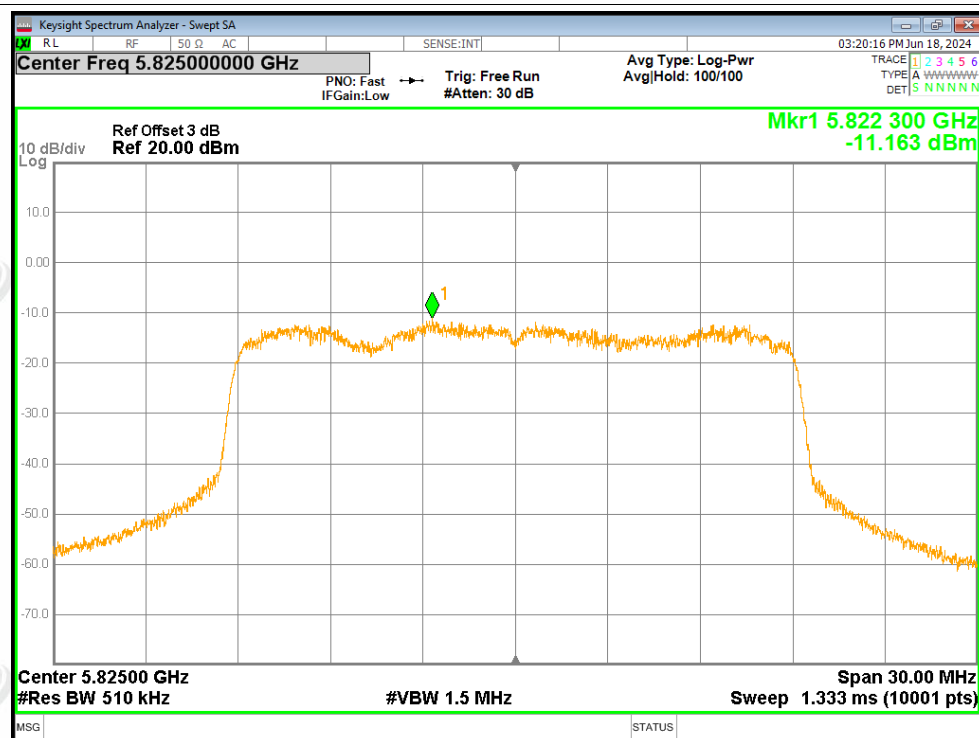


PSD NVNT ac20 5785MHz Ant1

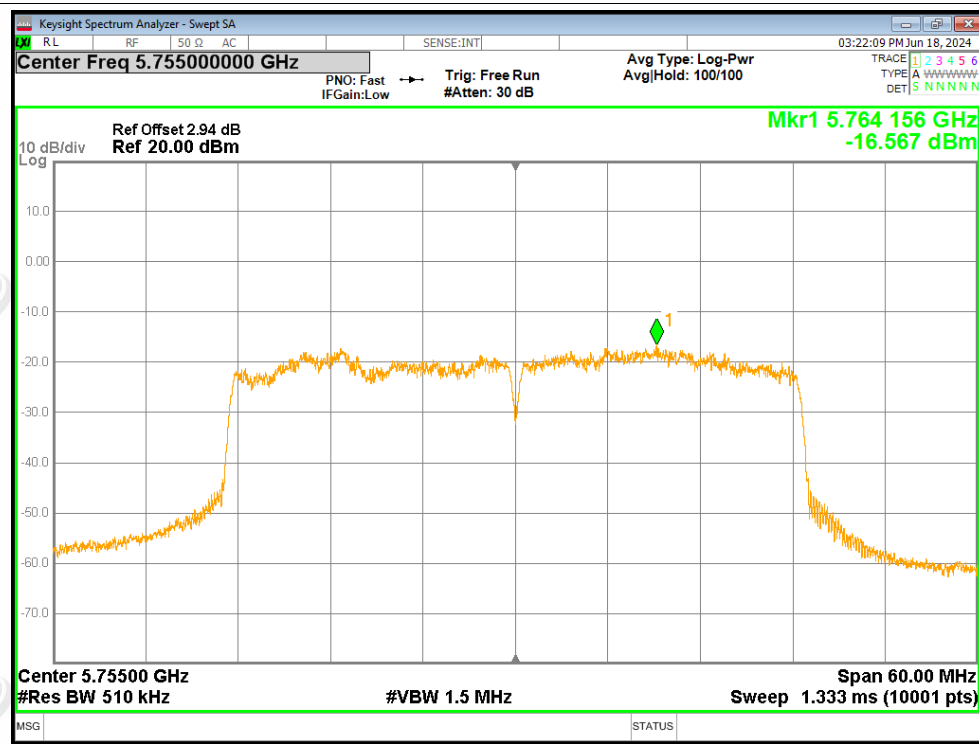




PSD NVNT ac20 5825MHz Ant1

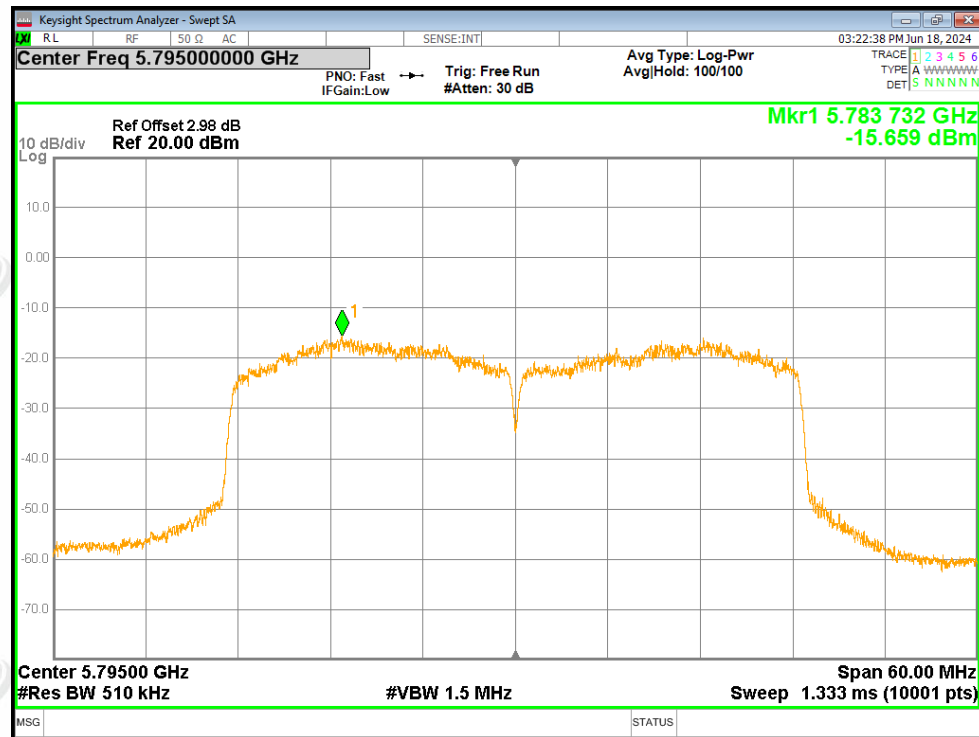


PSD NVNT ac40 5755MHz Ant1

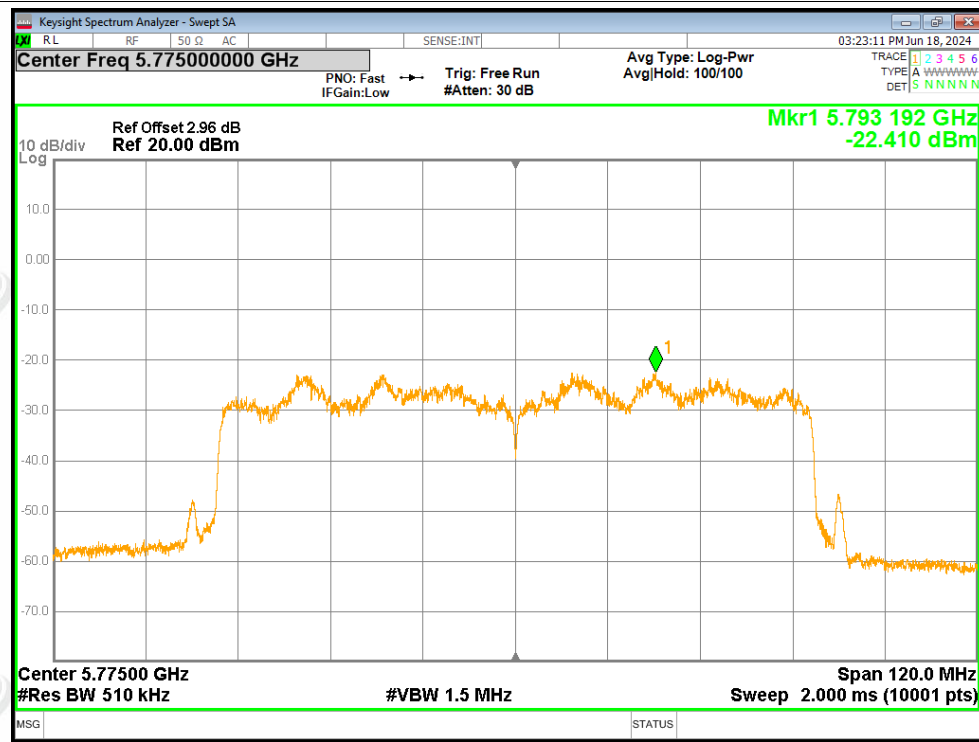




PSD NVNT ac40 5795MHz Ant1



PSD NVNT ac80 5775MHz Ant1

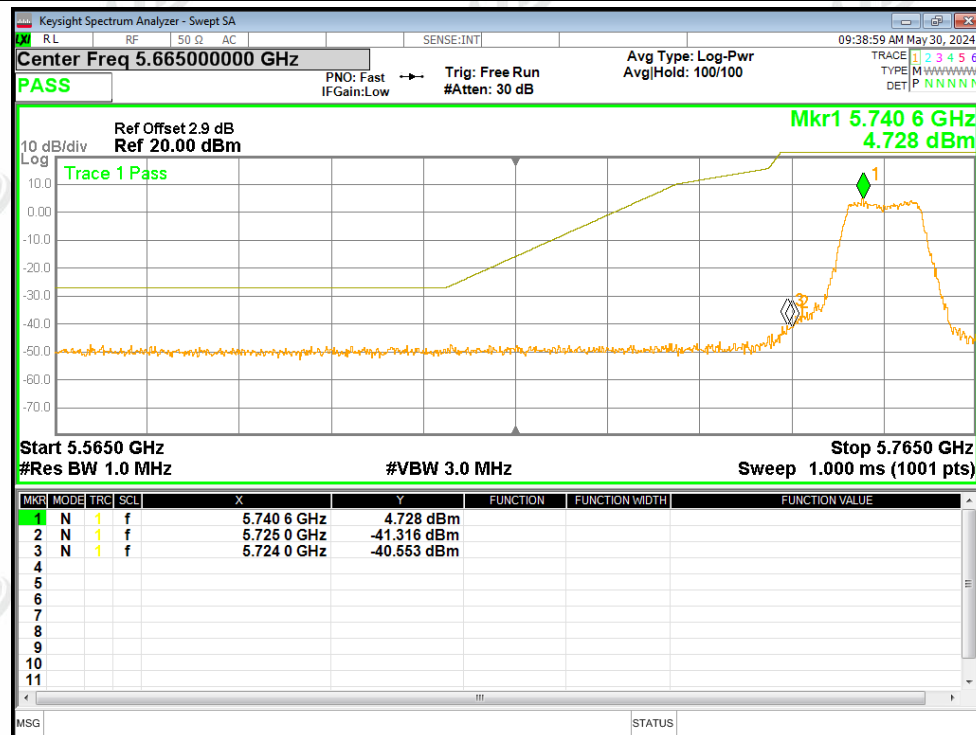




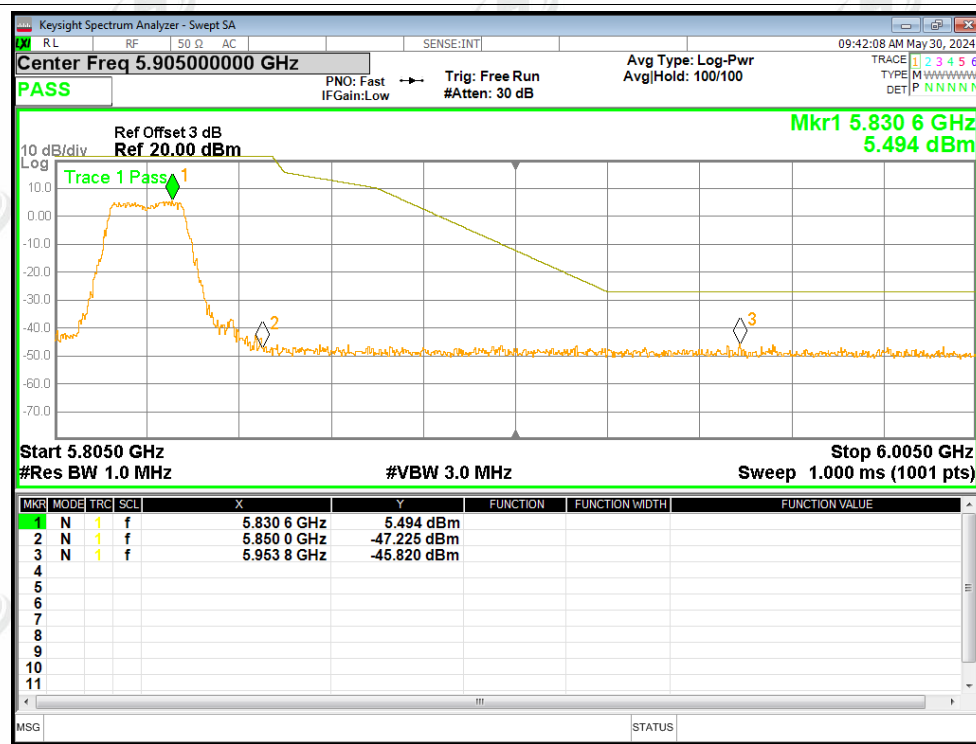
Condition	Mode	Frequency (MHz)	Max Value (dBm)	Verdict
NVNT	a	5745	-40.55	Pass
NVNT	a	5825	-45.81	Pass
NVNT	n20	5745	-34.27	Pass
NVNT	n20	5825	-37.96	Pass
NVNT	n40	5755	-35.05	Pass
NVNT	n40	5795	-46.12	Pass
NVNT	ac20	5745	-38.66	Pass
NVNT	ac20	5825	-43.82	Pass
NVNT	ac40	5755	-35.97	Pass
NVNT	ac40	5795	-43.96	Pass
NVNT	ac80	5775	-35.63	Pass

Test Graphs

Band Edge NVNT a 5745MHz Low Ant1

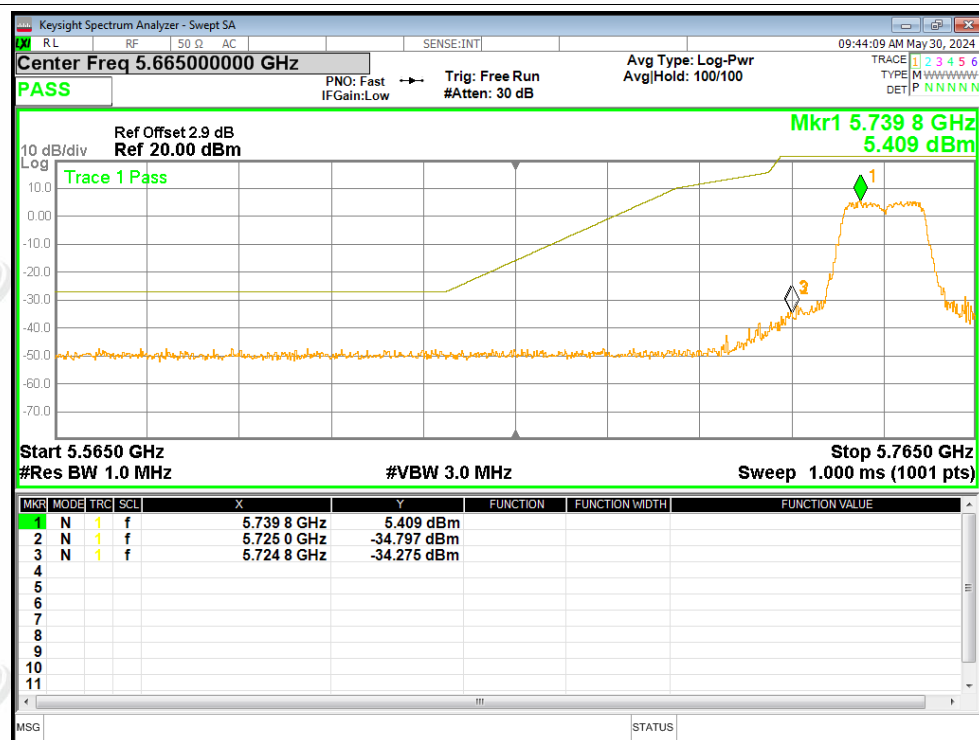


Band Edge NVNT a 5825MHz High Ant1

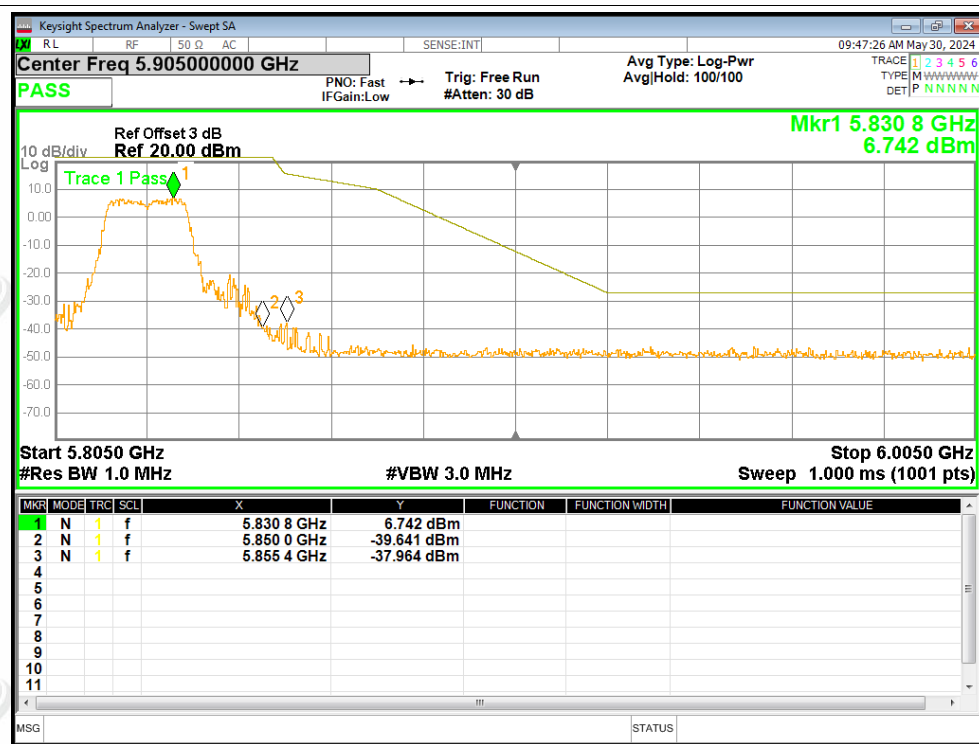




Band Edge NVNT n20 5745MHz Low Ant1

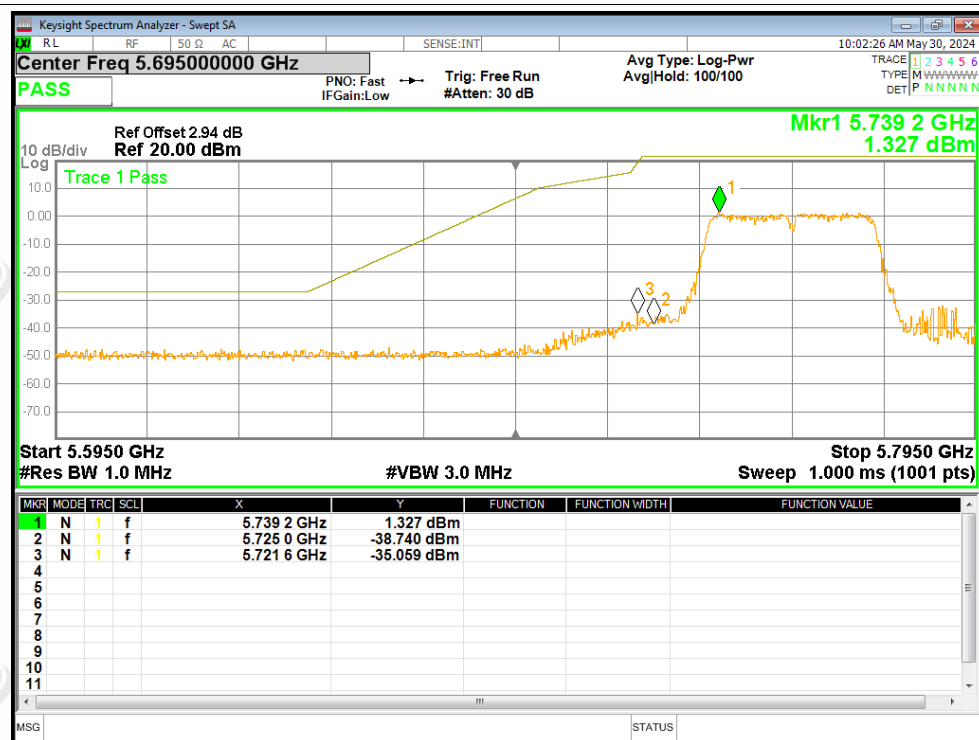


Band Edge NVNT n20 5825MHz High Ant1

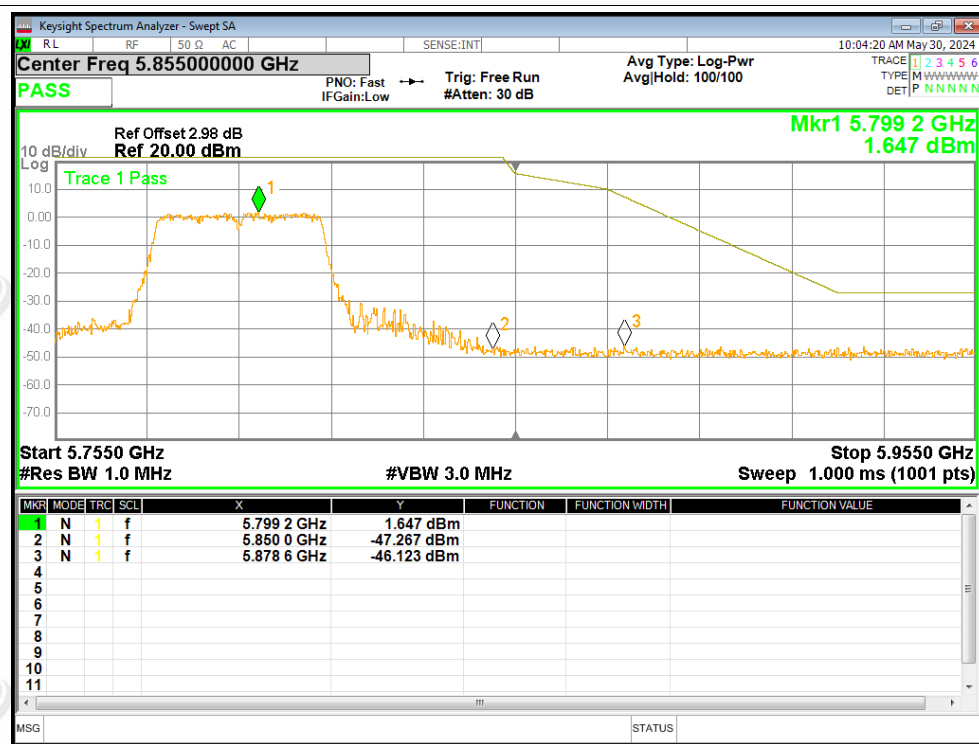




Band Edge NVNT n40 5755MHz Low Ant1

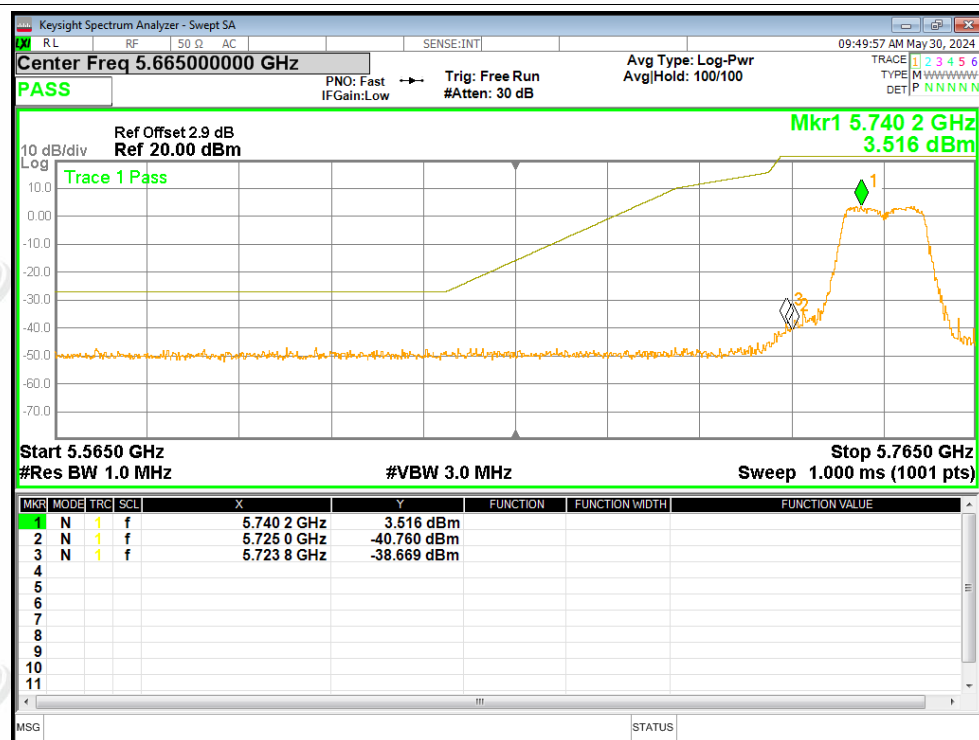


Band Edge NVNT n40 5795MHz High Ant1

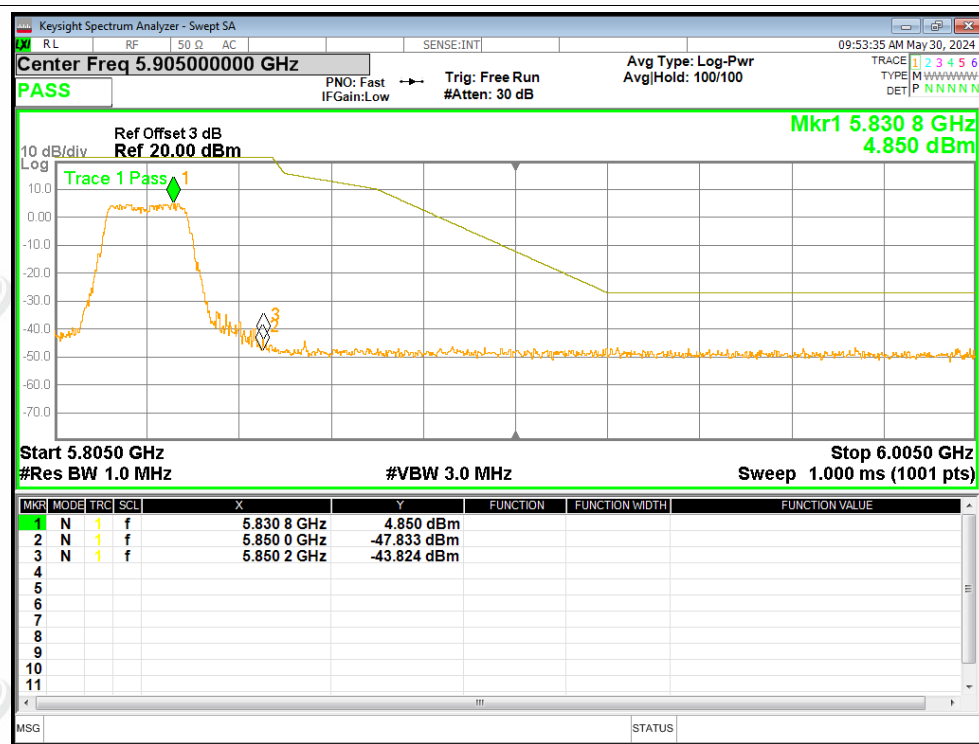




Band Edge NVNT ac20 5745MHz Low Ant1

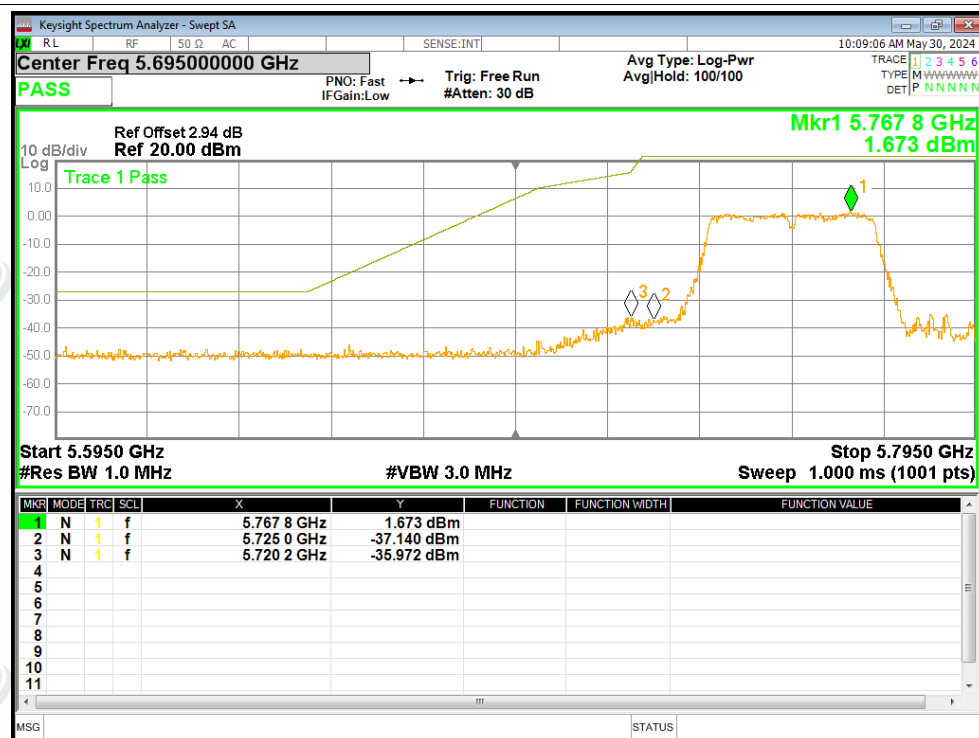


Band Edge NVNT ac20 5825MHz High Ant1

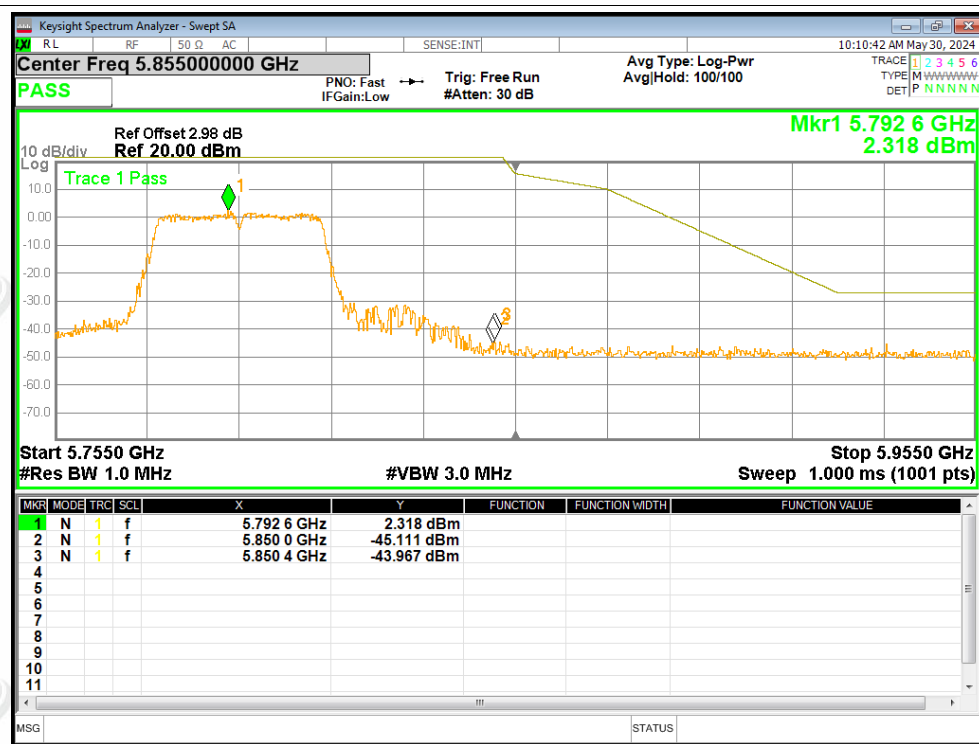


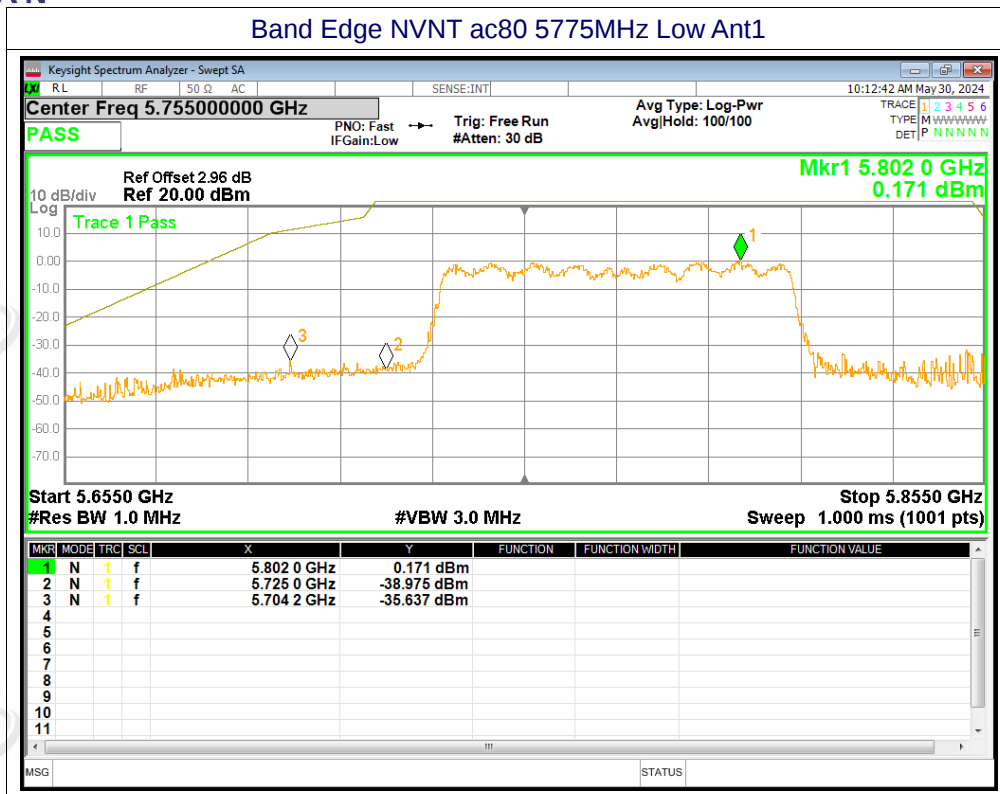


Band Edge NVNT ac40 5755MHz Low Ant1



Band Edge NVNT ac40 5795MHz High Ant1





**ZHONGHAN****B7. Frequency Stability**

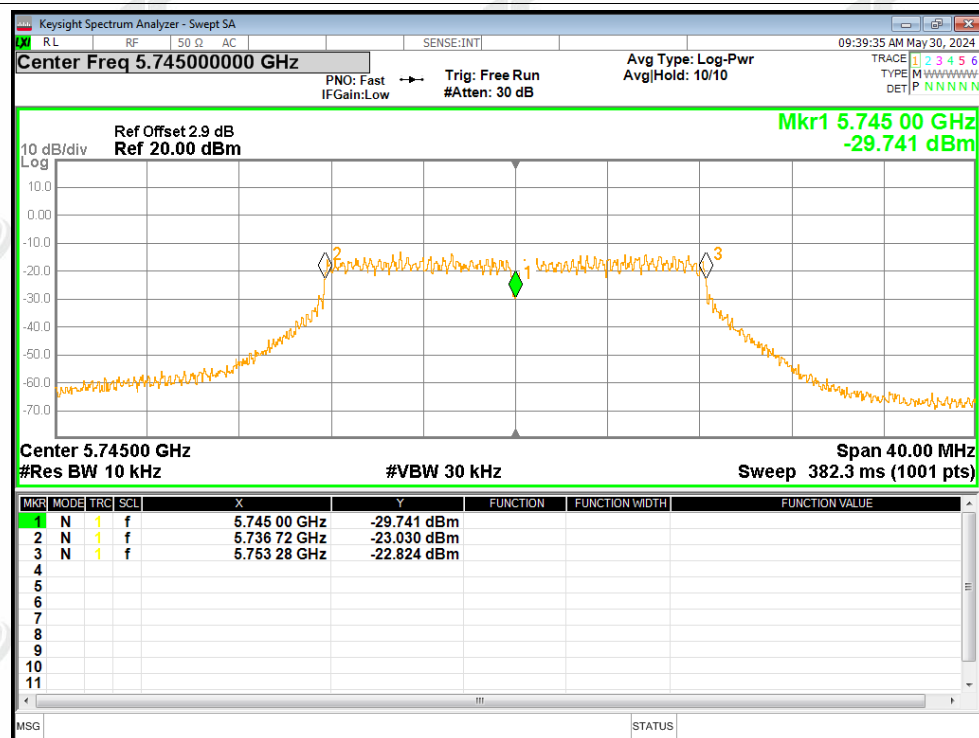
Condition	Mode	Frequency (MHz)	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	a	5745	5745	0	0	Within 5745-5825MHz	Pass
NVNT	a	5785	5785	0	0		Pass
NVNT	a	5825	5825.02	20000	3.43		Pass
NVNT	n20	5745	5745	0	0		Pass
NVNT	n20	5785	5785	0	0		Pass
NVNT	n20	5825	5825.02	20000	3.43		Pass
NVNT	n40	5755	5755.04	40000	6.95	Within 5755-5795MHz	Pass
NVNT	n40	5795	5795	0	0		Pass
NVNT	ac20	5745	5745	0	0	Within 5745-5825MHz	Pass
NVNT	ac20	5785	5785	0	0		Pass
NVNT	ac20	5825	5825	0	0		Pass
NVNT	ac40	5755	5755	0	0	Within 5755-5795MHz	Pass
NVNT	ac40	5795	5795	0	0		Pass
NVNT	ac80	5775	5775.08	80000	13.85	Within 5775MHz	Pass

Note: Test temperature: -20° to $+70^{\circ}$. At room temperature, the test results are the worst, only reflecting the test results graphs at room temperature.

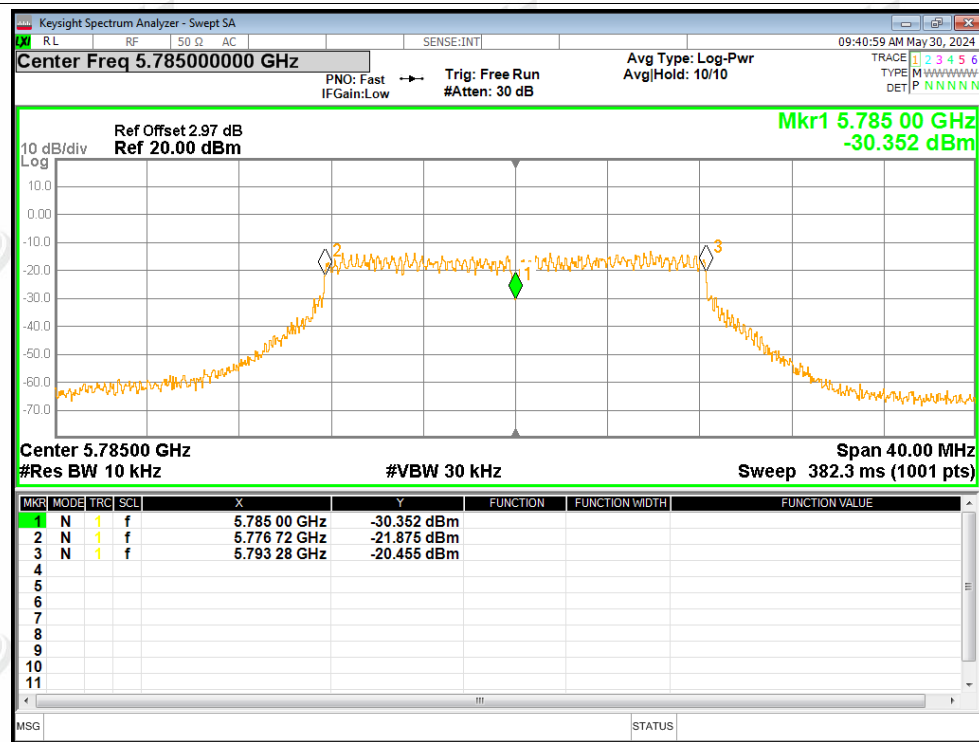


Test Graphs

Freq. Stability NVNT a 5745MHz Ant1

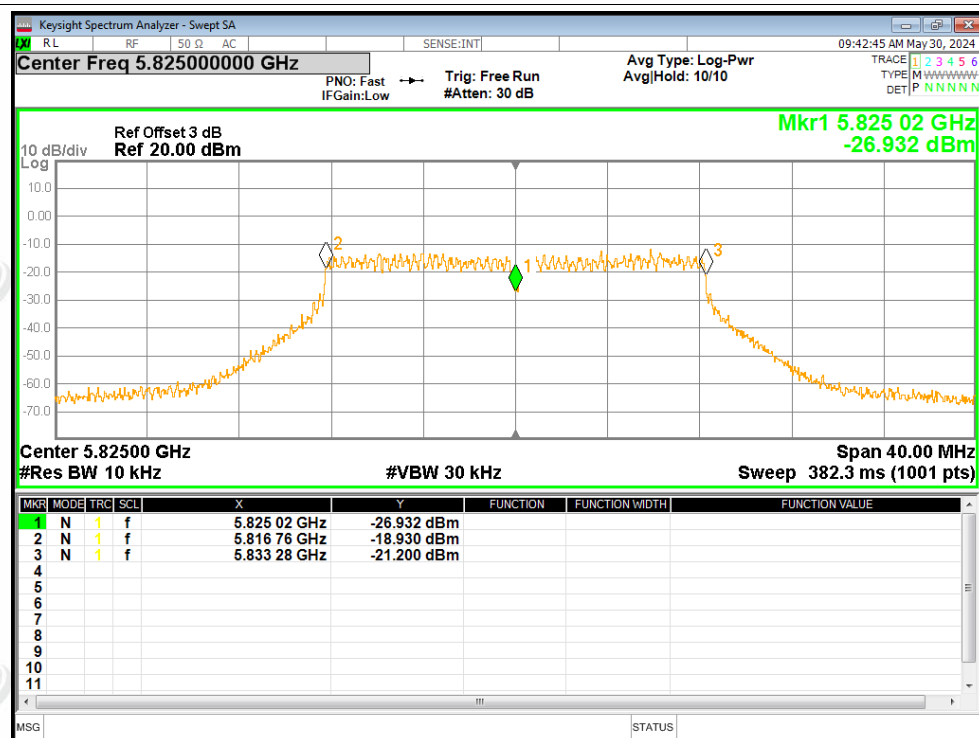


Freq. Stability NVNT a 5785MHz Ant1

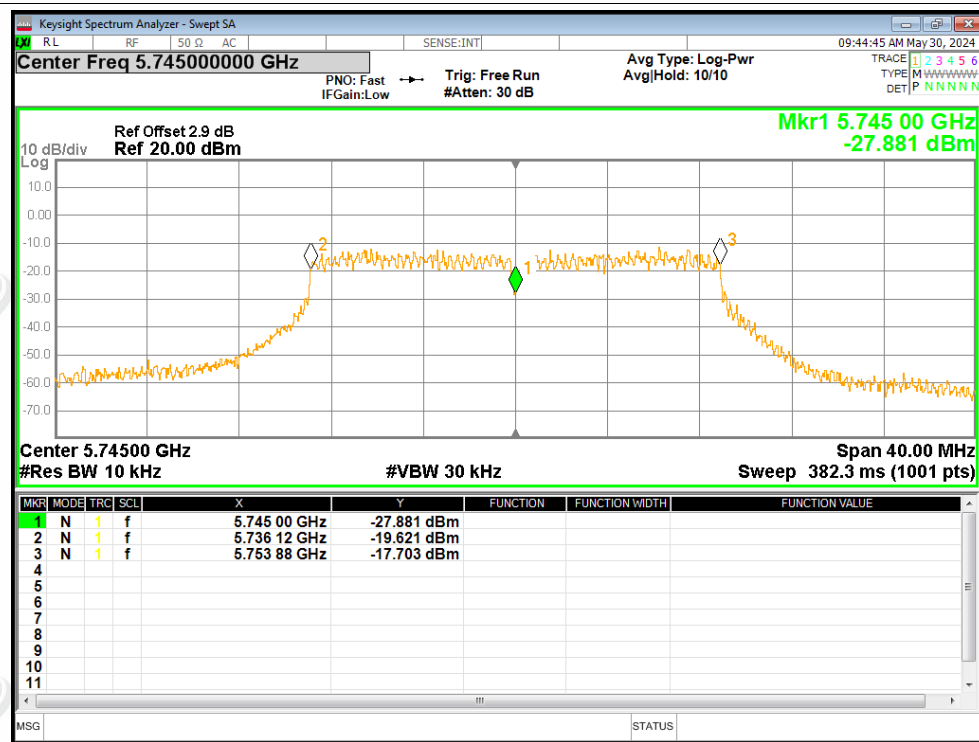




Freq. Stability NVNT a 5825MHz Ant1

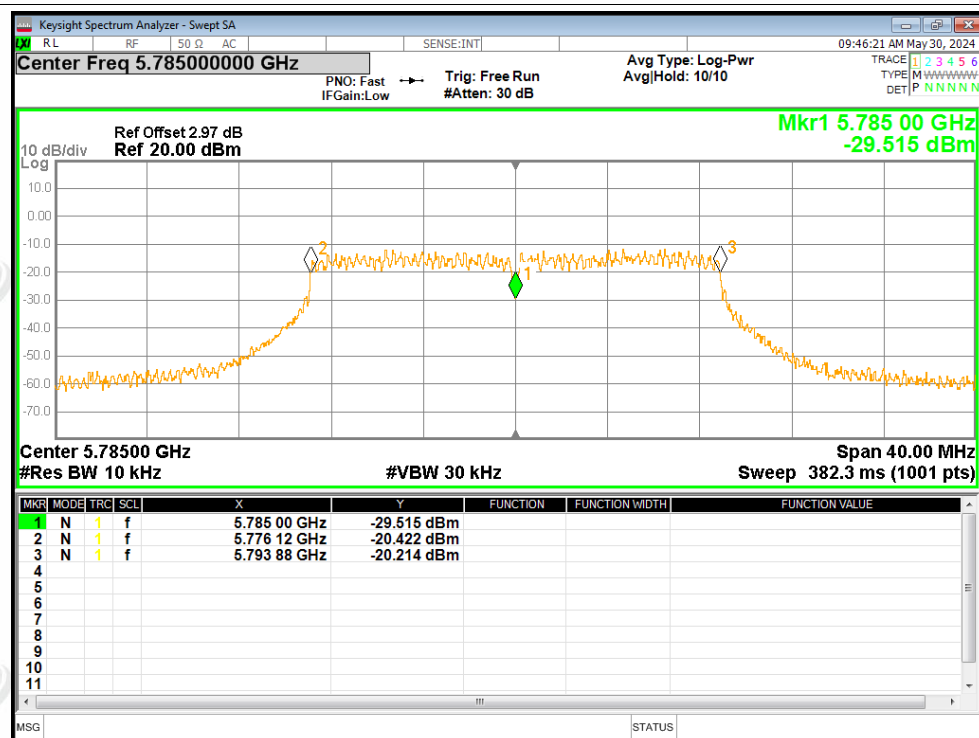


Freq. Stability NVNT n20 5745MHz Ant1

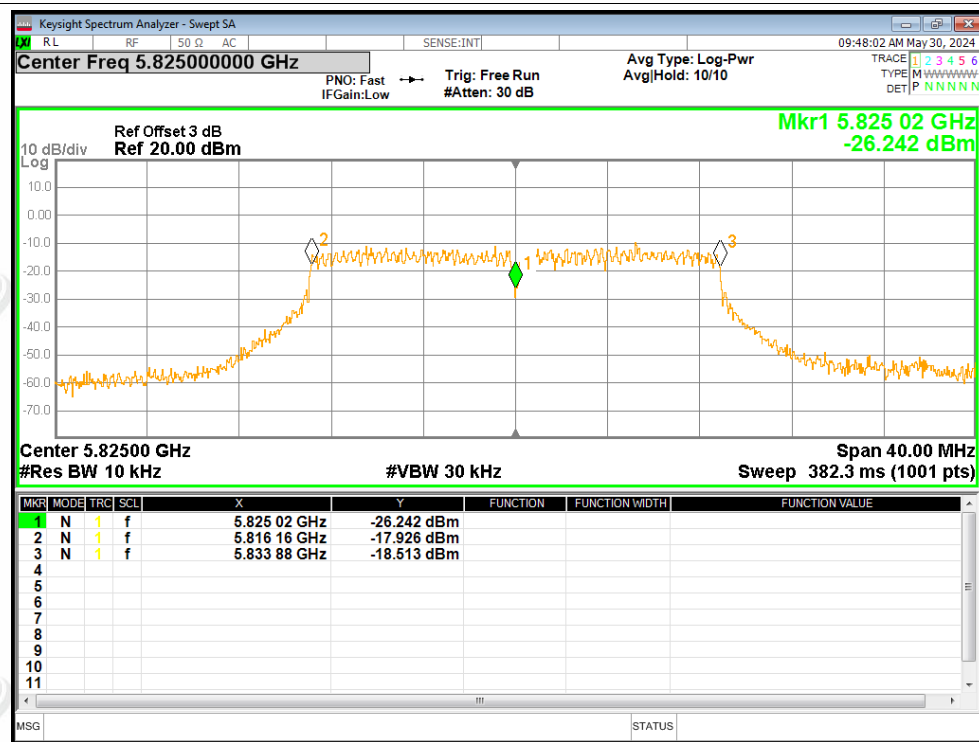




Freq. Stability NVNT n20 5785MHz Ant1

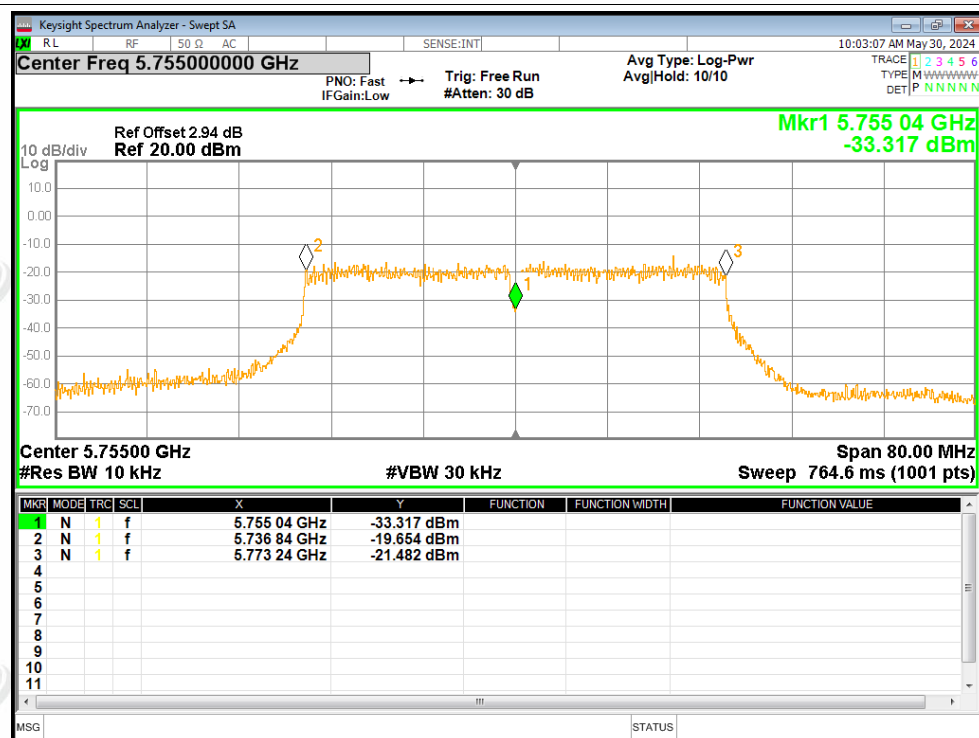


Freq. Stability NVNT n20 5825MHz Ant1

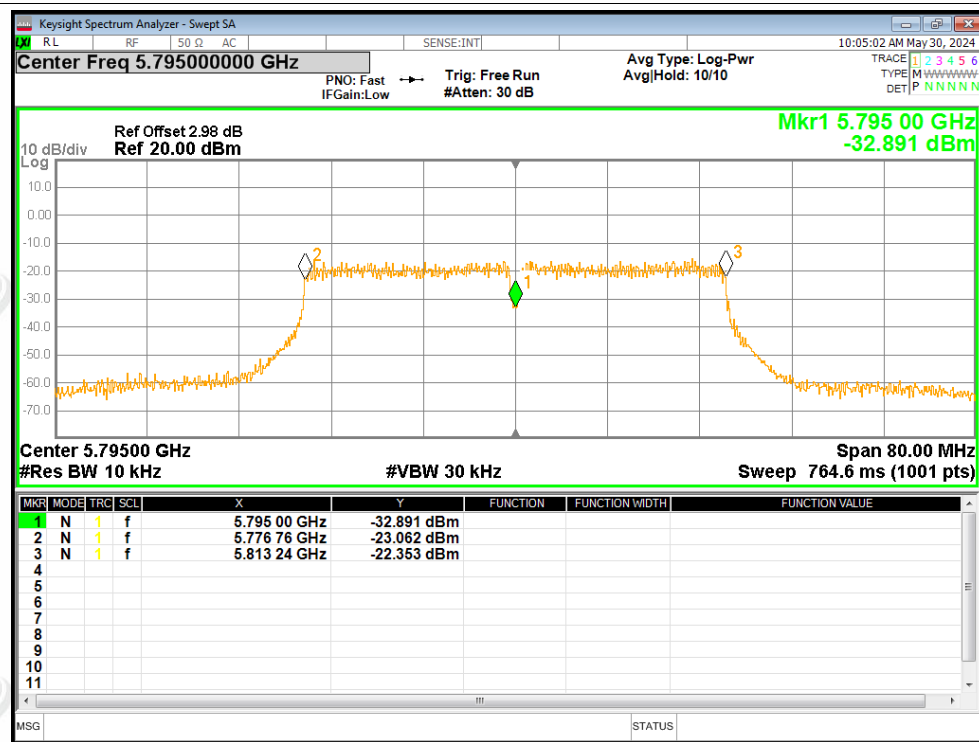




Freq. Stability NVNT n40 5755MHz Ant1

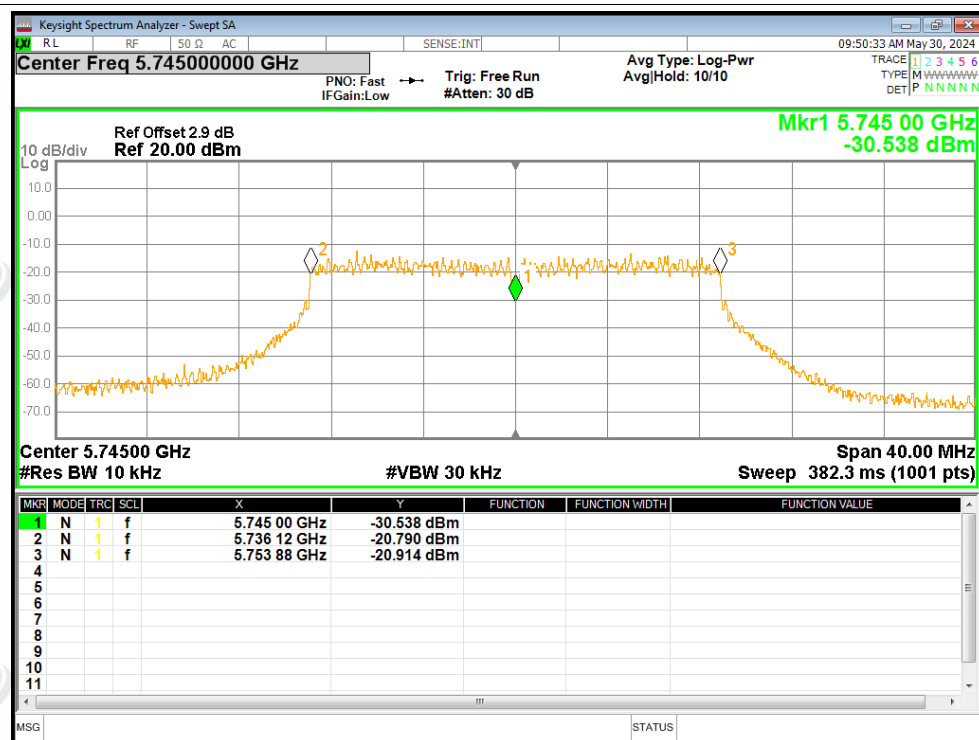


Freq. Stability NVNT n40 5795MHz Ant1

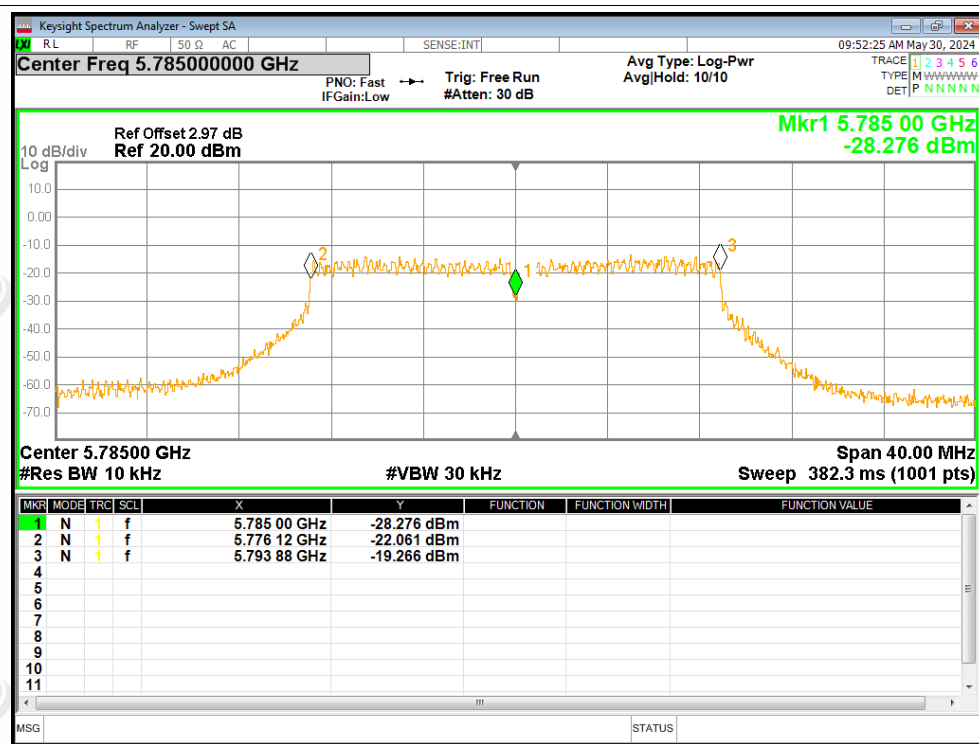




Freq. Stability NVNT ac20 5745MHz Ant1

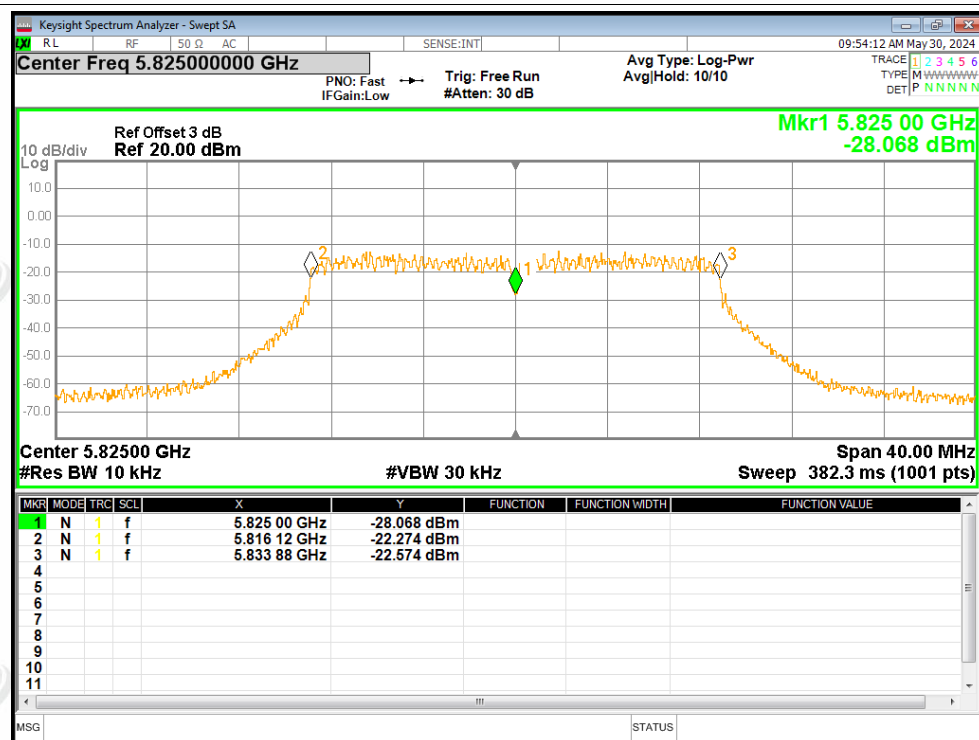


Freq. Stability NVNT ac20 5785MHz Ant1

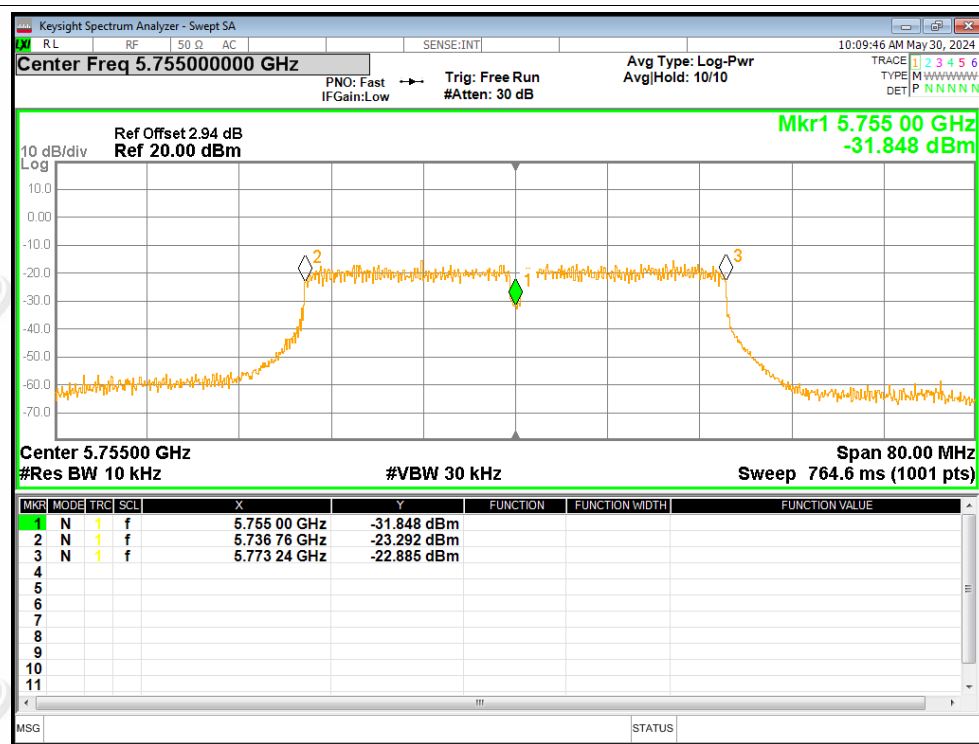




Freq. Stability NVNT ac20 5825MHz Ant1

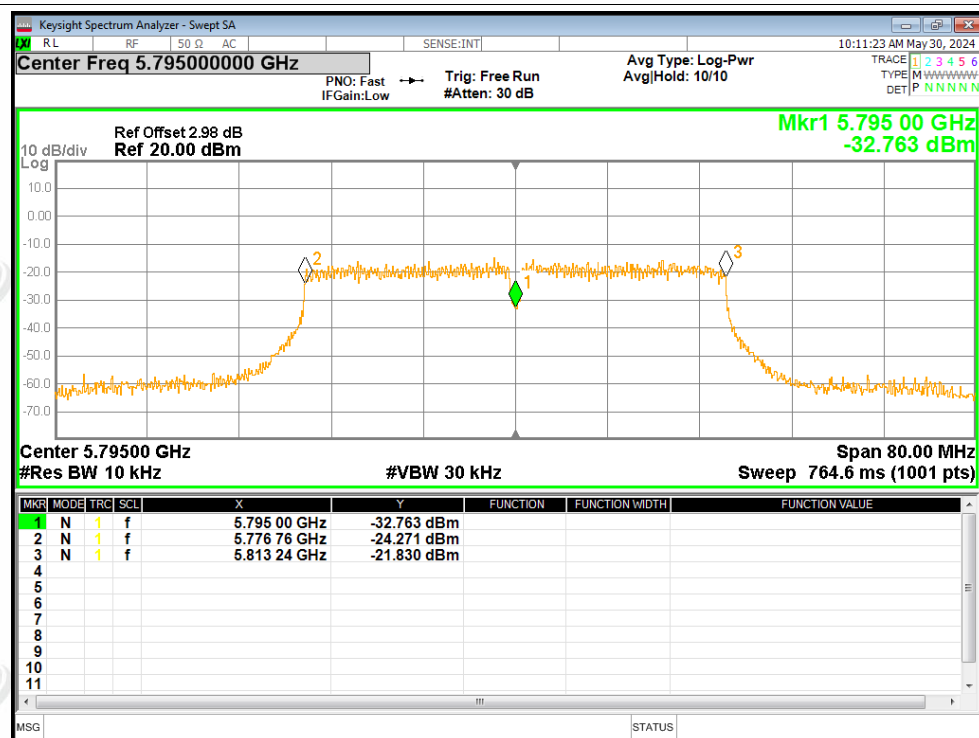


Freq. Stability NVNT ac40 5755MHz Ant1

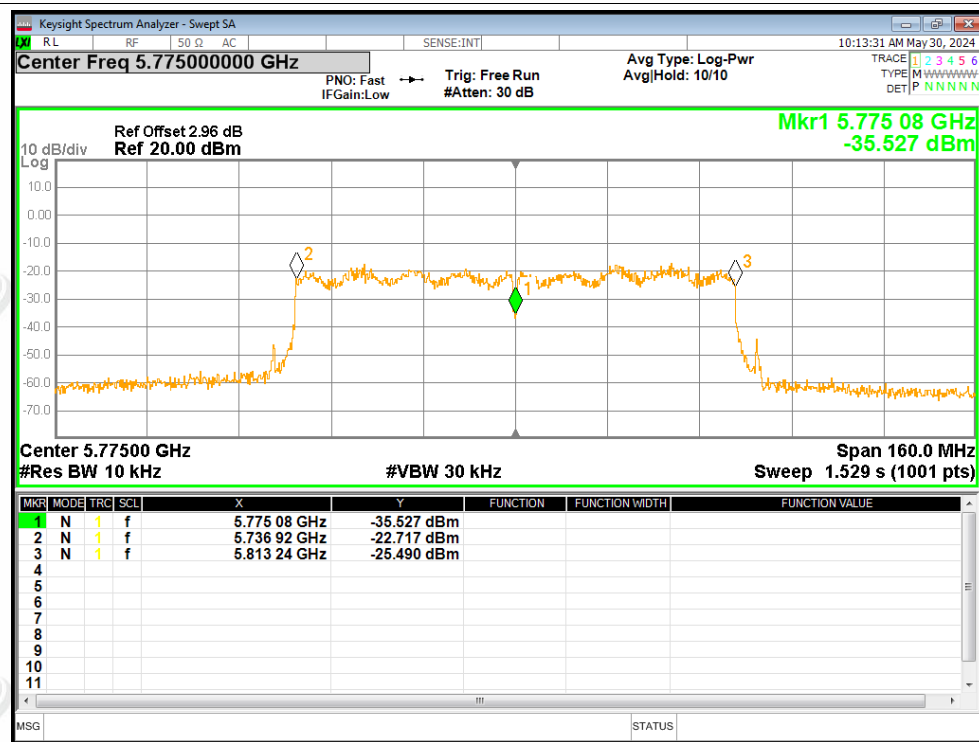




Freq. Stability NVNT ac40 5795MHz Ant1



Freq. Stability NVNT ac80 5775MHz Ant1



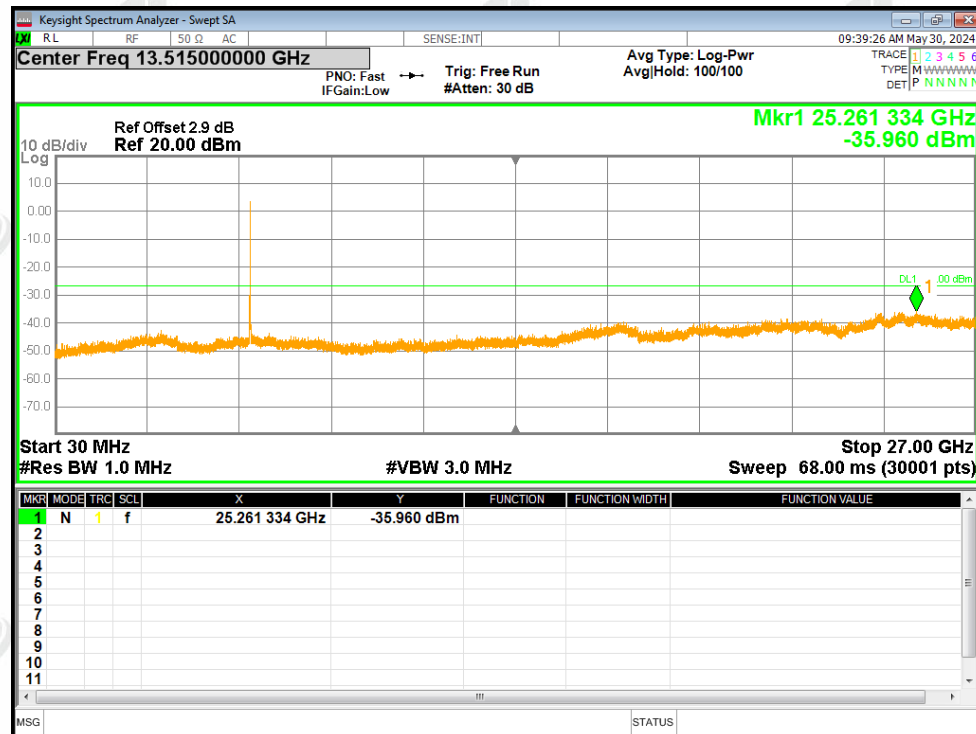
**ZHONGHAN****B8. Conducted RF Spurious Emission**

Condition	Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	a	5745	-35.95	-27	Pass
NVNT	a	5785	-35.19	-27	Pass
NVNT	a	5825	-35.4	-27	Pass
NVNT	n20	5745	-35.42	-27	Pass
NVNT	n20	5785	-34.8	-27	Pass
NVNT	n20	5825	-35.82	-27	Pass
NVNT	n40	5755	-35.69	-27	Pass
NVNT	n40	5795	-34.62	-27	Pass
NVNT	ac20	5745	-35.03	-27	Pass
NVNT	ac20	5785	-35.19	-27	Pass
NVNT	ac20	5825	-35.87	-27	Pass
NVNT	ac40	5755	-35.12	-27	Pass
NVNT	ac40	5795	-35.63	-27	Pass
NVNT	ac80	5775	-35.67	-27	Pass

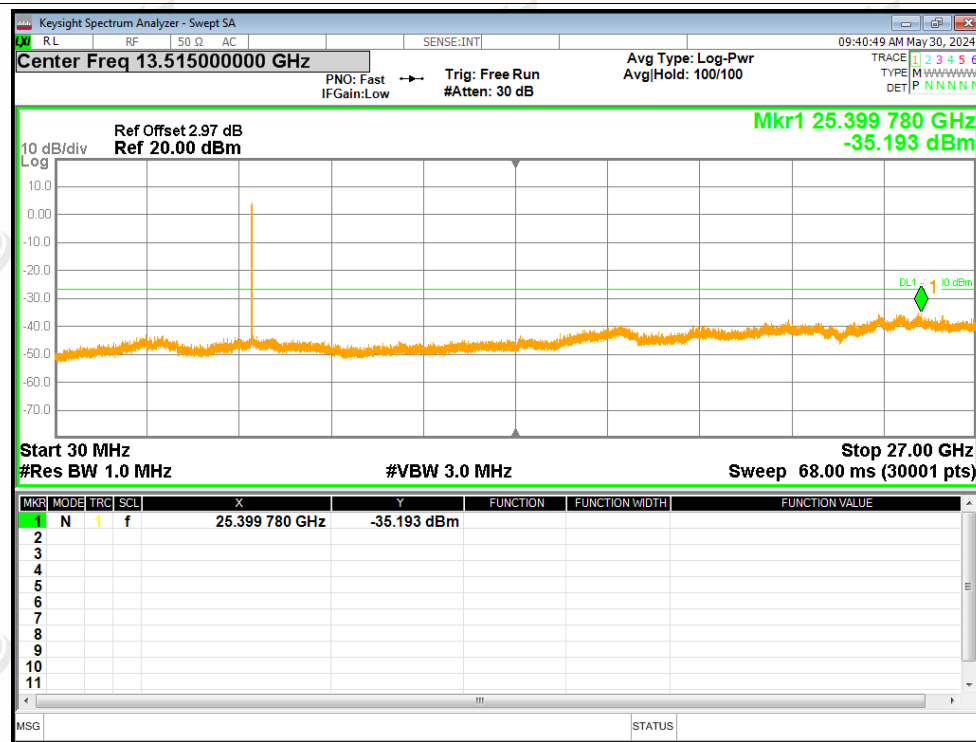


Test Graphs

Tx. Spurious NVNT a 5745MHz Ant1 Emission

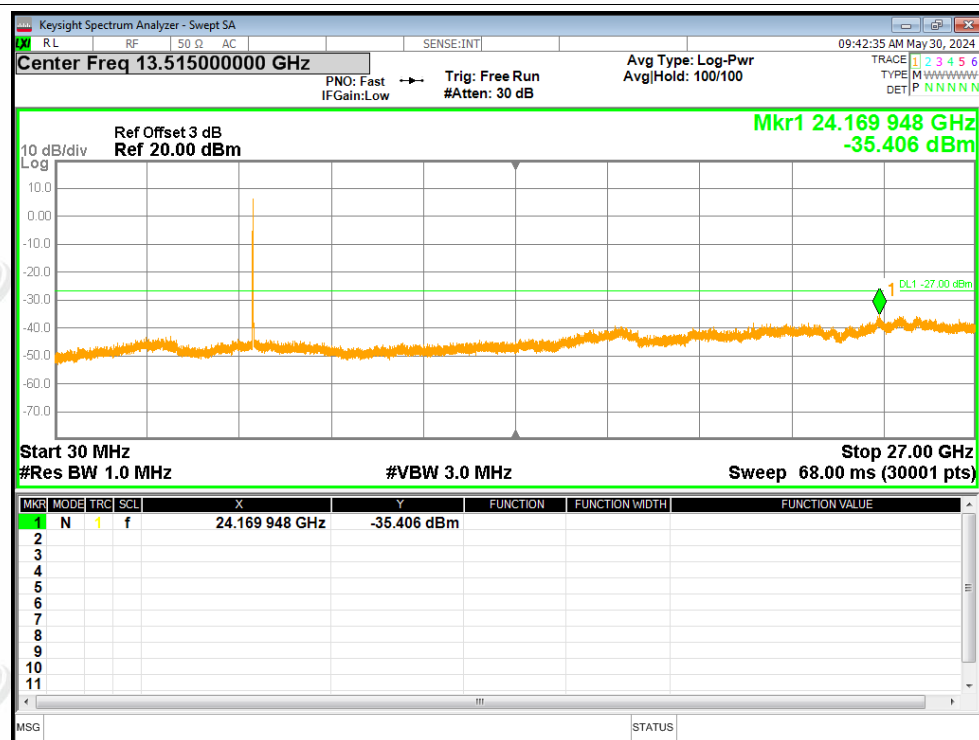


Tx. Spurious NVNT a 5785MHz Ant1 Emission

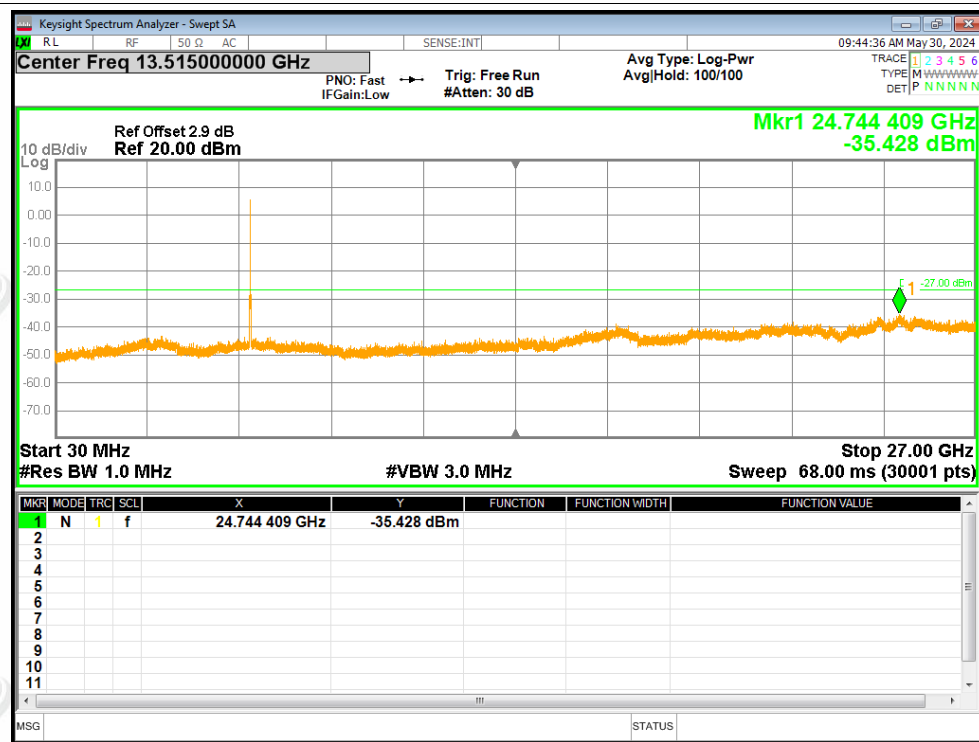




Tx. Spurious NVNT a 5825MHz Ant1 Emission

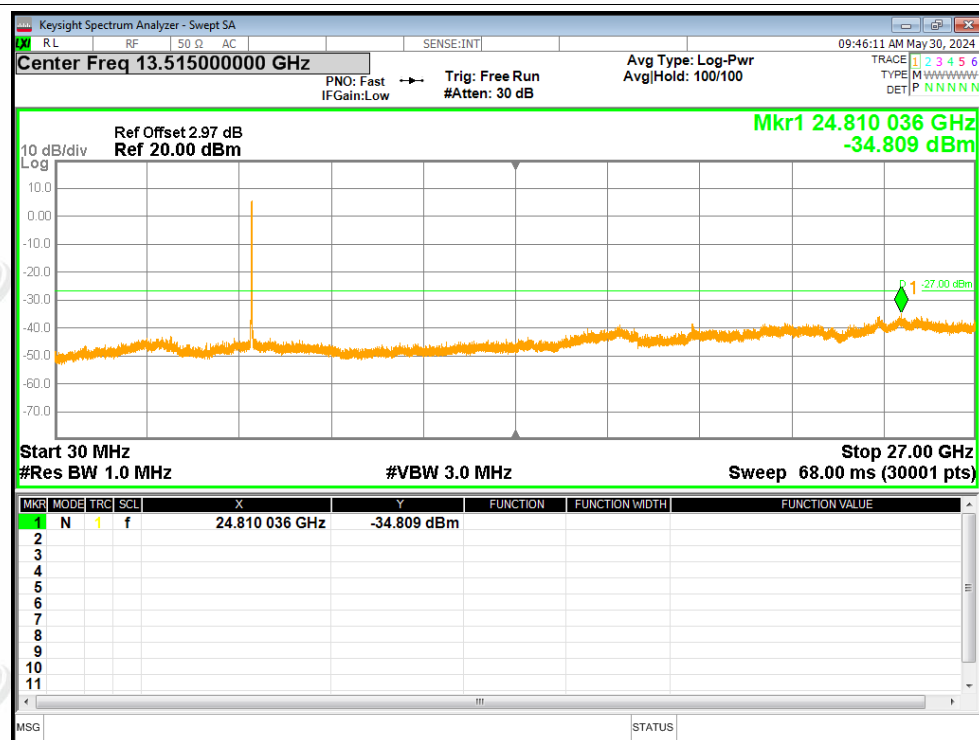


Tx. Spurious NVNT n20 5745MHz Ant1 Emission

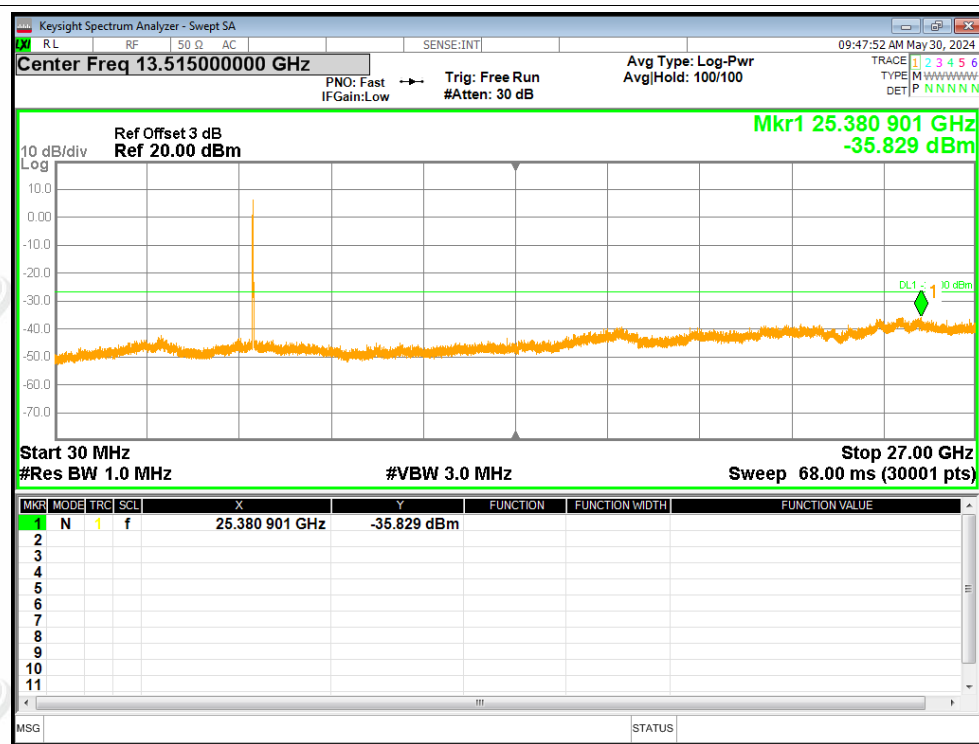




Tx. Spurious NVNT n20 5785MHz Ant1 Emission

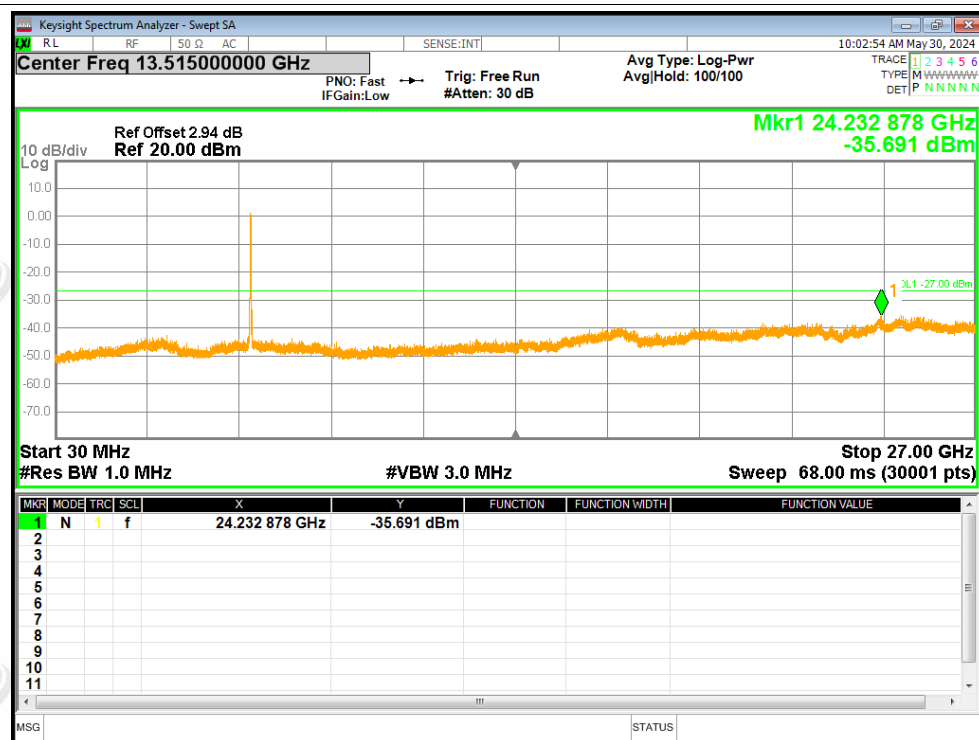


Tx. Spurious NVNT n20 5825MHz Ant1 Emission

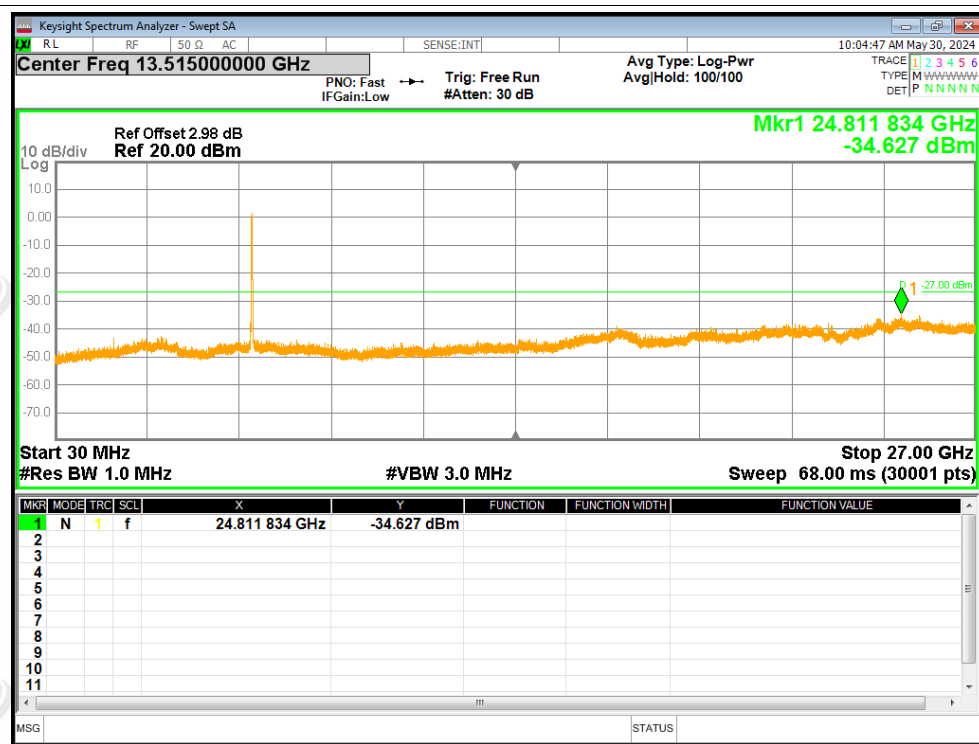




Tx. Spurious NVNT n40 5755MHz Ant1 Emission

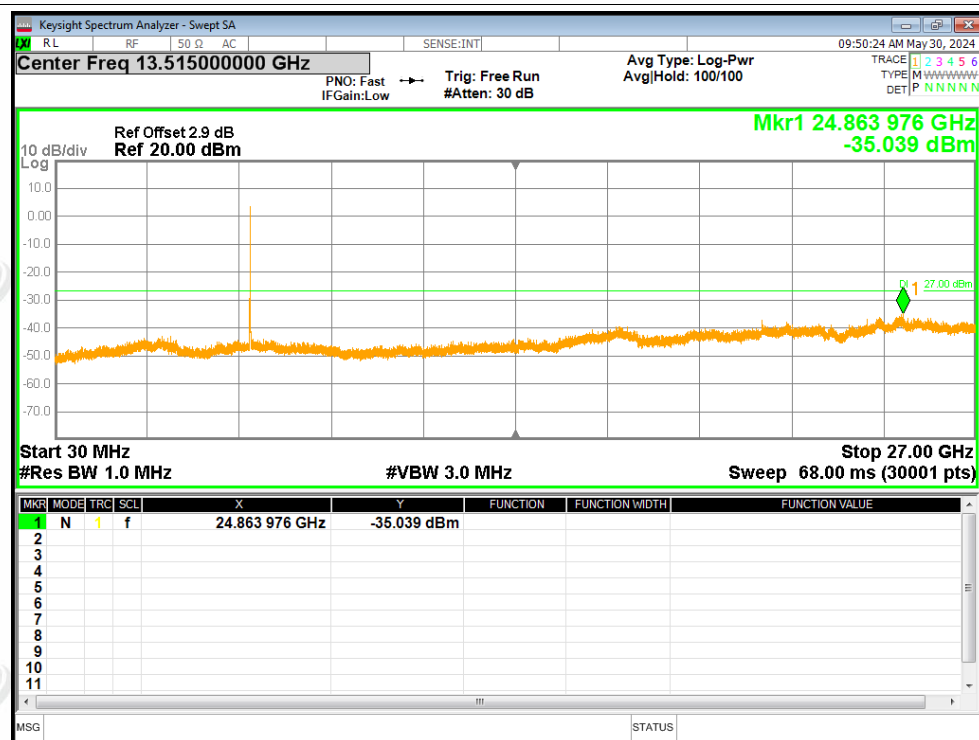


Tx. Spurious NVNT n40 5795MHz Ant1 Emission

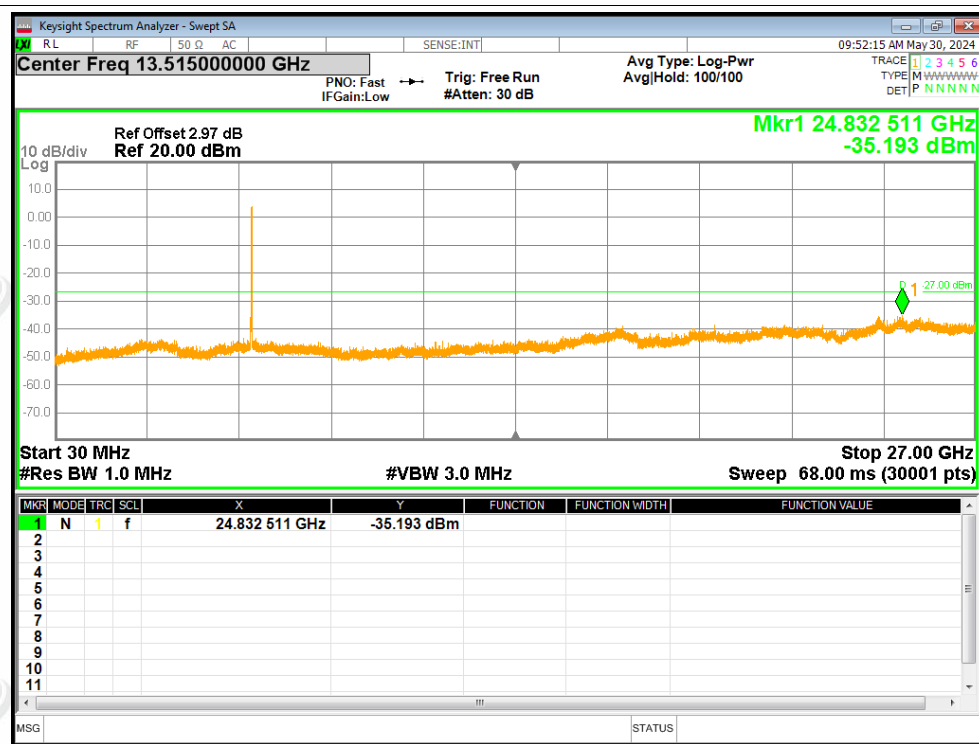




Tx. Spurious NVNT ac20 5745MHz Ant1 Emission

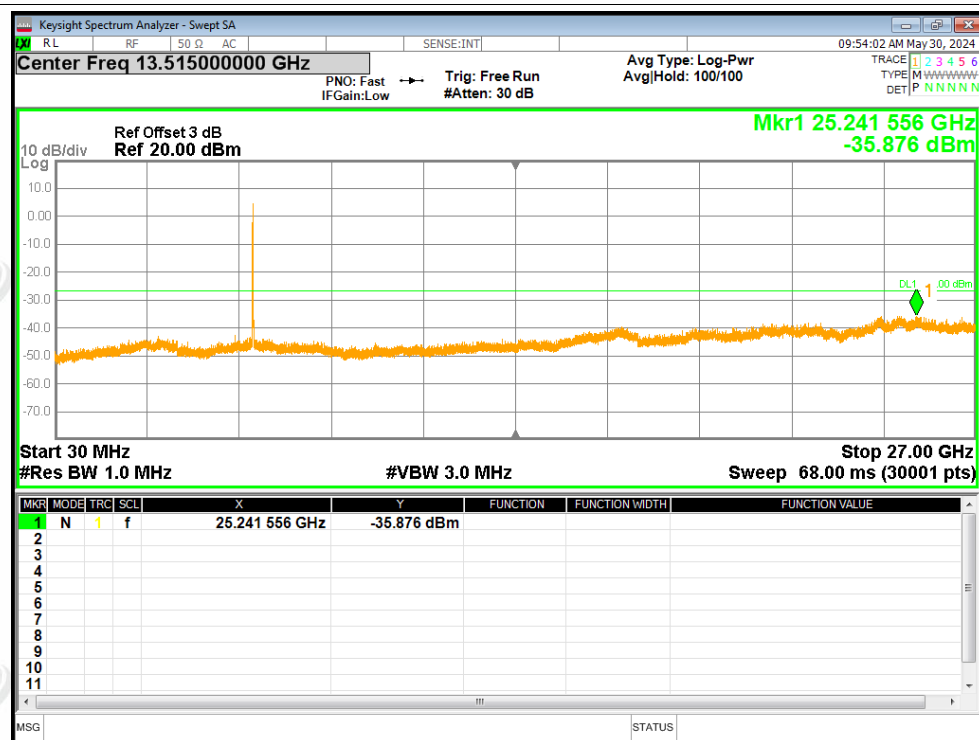


Tx. Spurious NVNT ac20 5785MHz Ant1 Emission

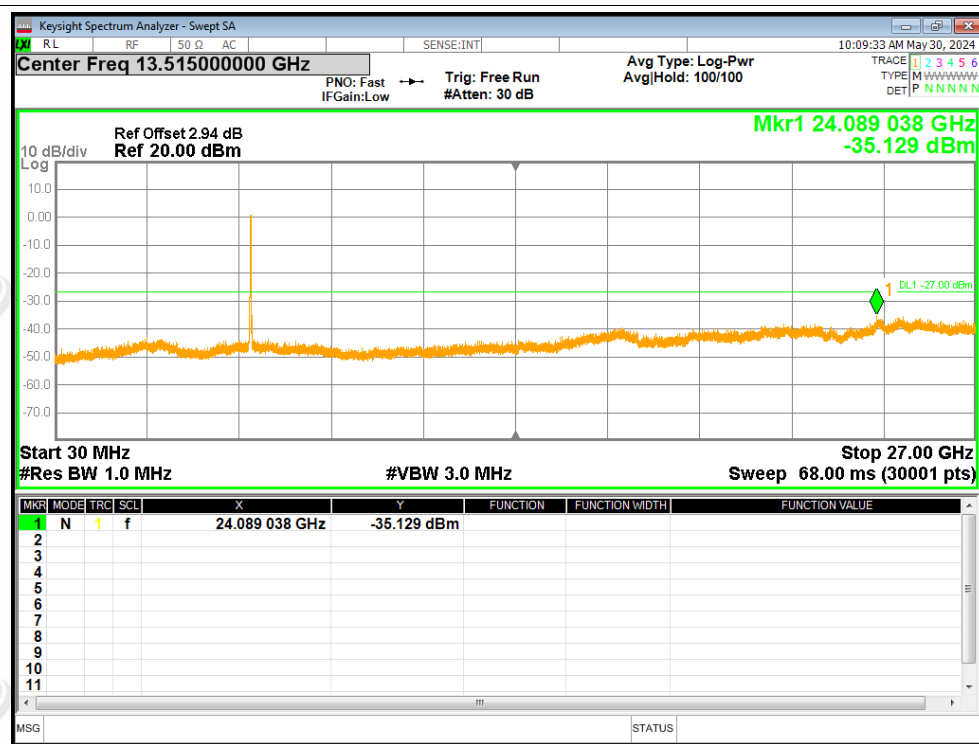




Tx. Spurious NVNT ac20 5825MHz Ant1 Emission

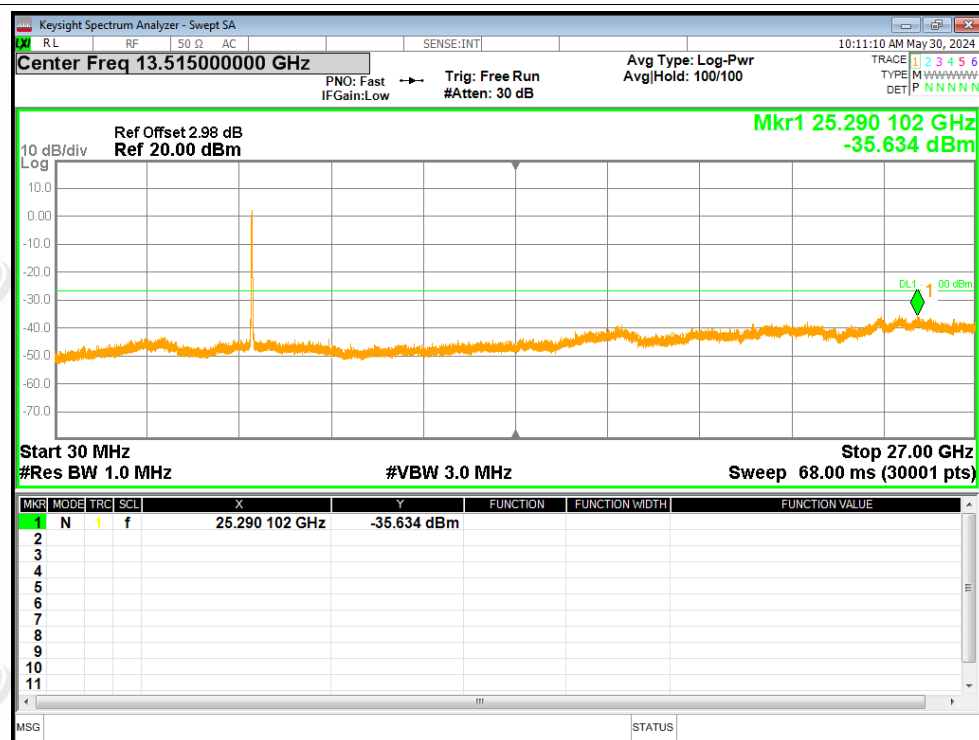


Tx. Spurious NVNT ac40 5755MHz Ant1 Emission





Tx. Spurious NVNT ac40 5795MHz Ant1 Emission



Tx. Spurious NVNT ac80 5775MHz Ant1 Emission

