Appendix G

RF Test Data for 5.8G WIFI (Conducted Measurement)

Product Name: LAVA Guitar

Test Model: LAVA ME PLAY

Environmental Conditions

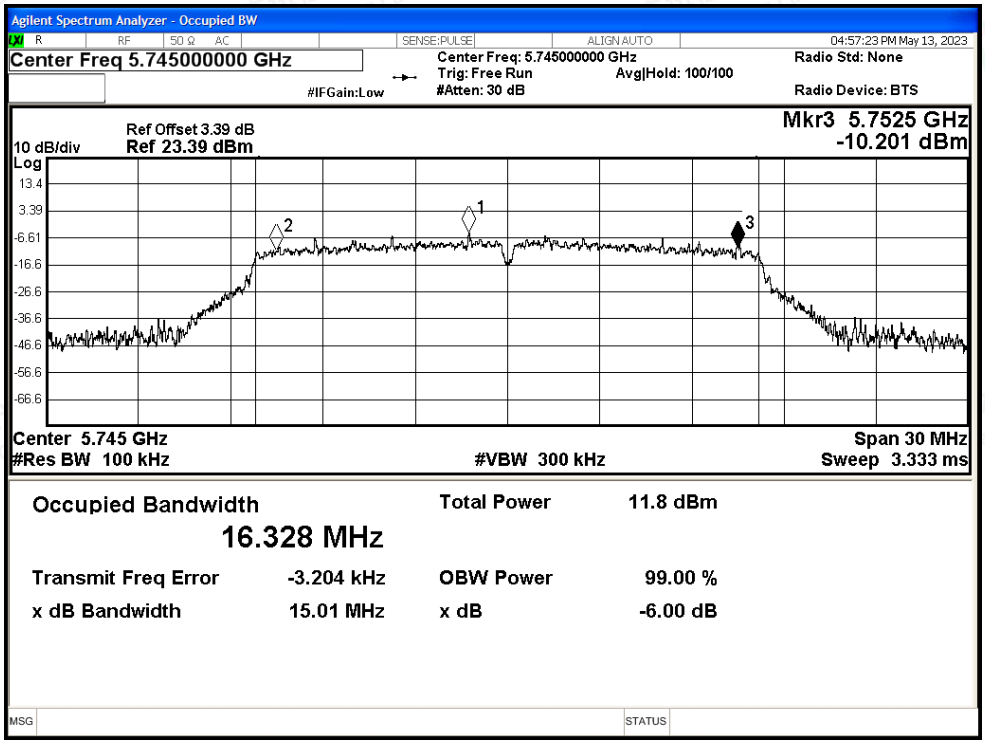
Temperature:	23.8 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Nick Peng
Supervised by:	Li Huan

G.1 -6dB Bandwidth

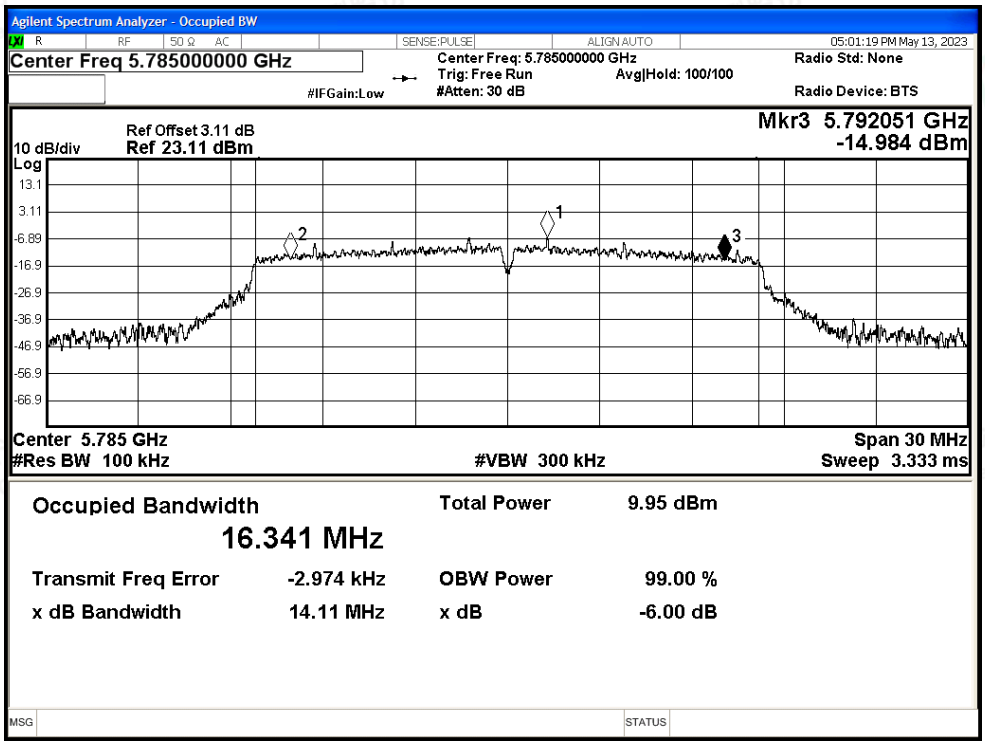
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	a	5745	Ant0	15.007	>=0.5	Pass
NVNT	a	5785	Ant0	14.108	>=0.5	Pass
NVNT	a	5825	Ant0	15.122	>=0.5	Pass
NVNT	n20	5745	Ant0	13.757	>=0.5	Pass
NVNT	n20	5785	Ant0	13.787	>=0.5	Pass
NVNT	n20	5825	Ant0	14.819	>=0.5	Pass
NVNT	n40	5755	Ant0	35.11	>=0.5	Pass
NVNT	n40	5795	Ant0	35.085	>=0.5	Pass
NVNT	ac20	5745	Ant0	15.004	>=0.5	Pass
NVNT	ac20	5785	Ant0	15.075	>=0.5	Pass
NVNT	ac20	5825	Ant0	16.05	>=0.5	Pass
NVNT	ac40	5755	Ant0	33.844	>=0.5	Pass
NVNT	ac40	5795	Ant0	35.045	>=0.5	Pass
NVNT	ac80	5775	Ant0	75.109	>=0.5	Pass

Test Graphs

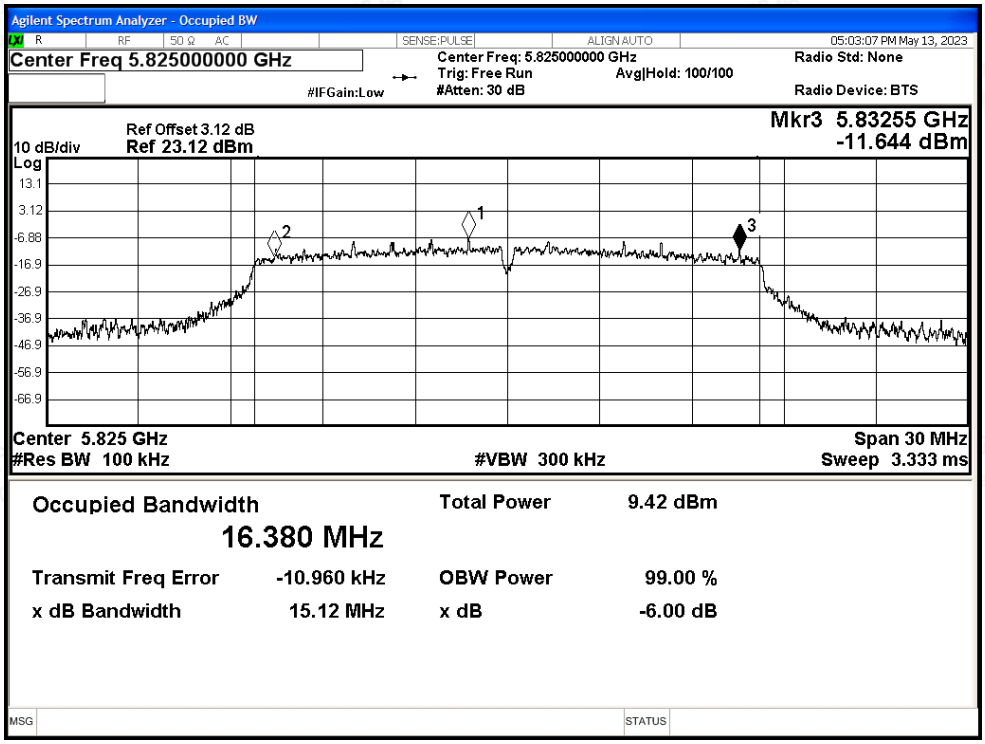
-6dB Bandwidth NVNT a 5745MHz Ant0



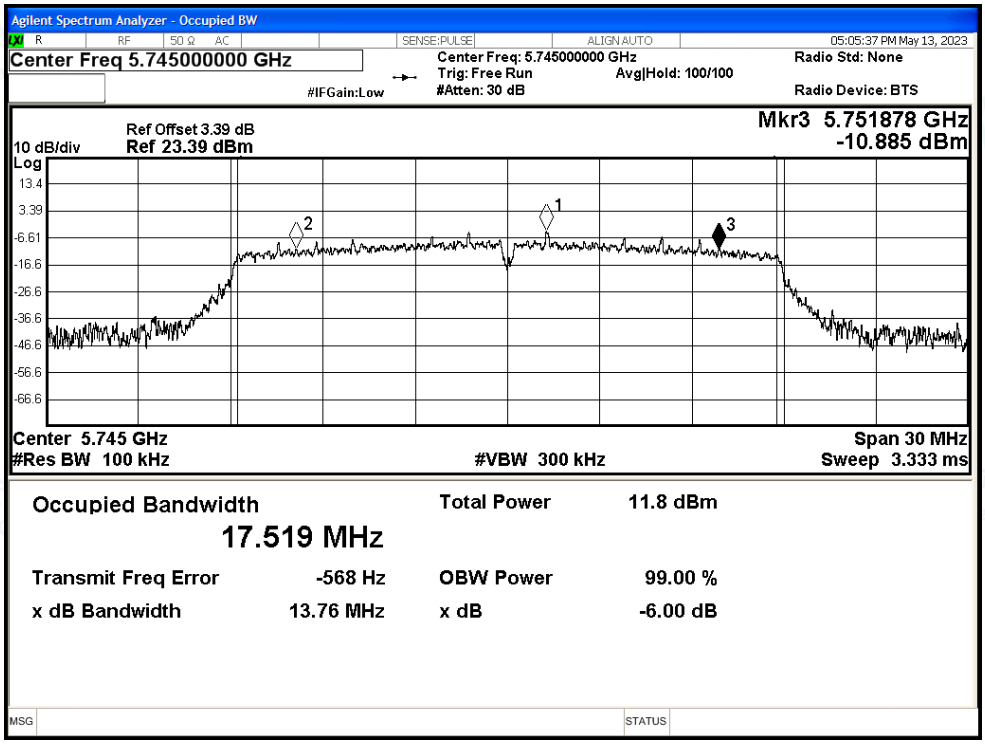
-6dB Bandwidth NVNT a 5785MHz Ant0



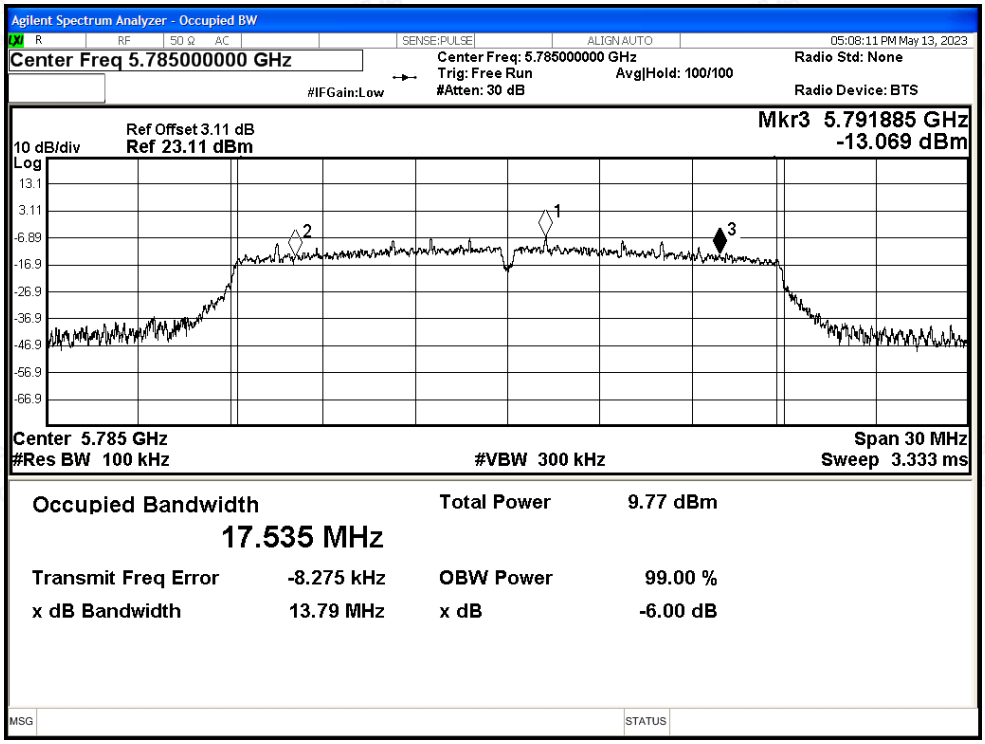
-6dB Bandwidth NVNT a 5825MHz Ant0



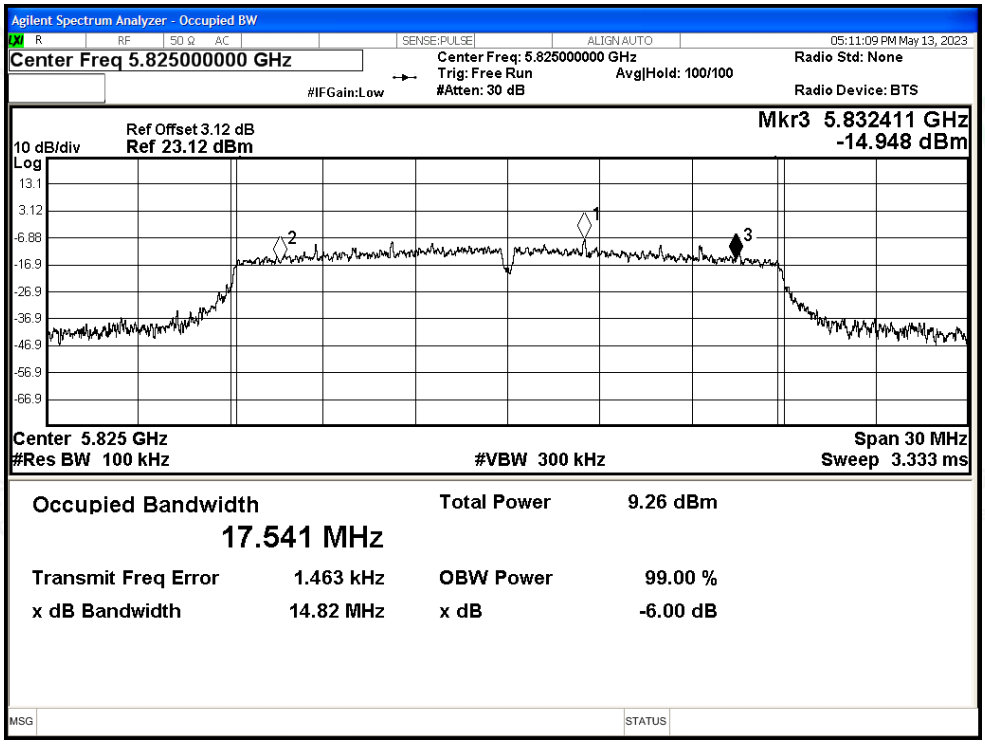
-6dB Bandwidth NVNT n20 5745MHz Ant0



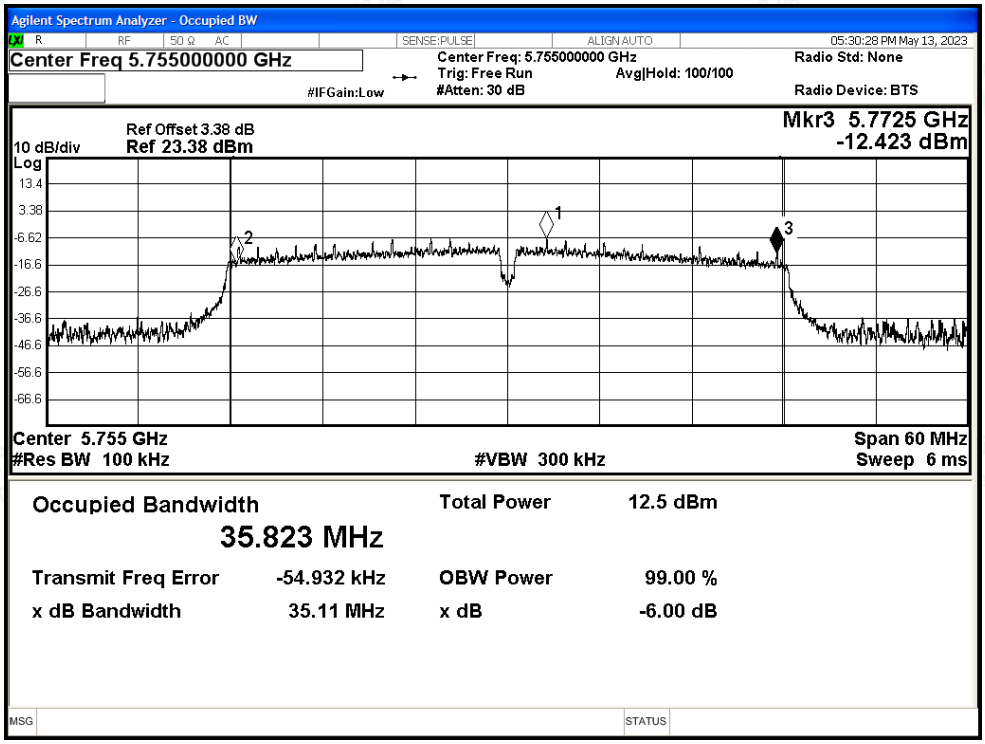
-6dB Bandwidth NVNT n20 5785MHz Ant0



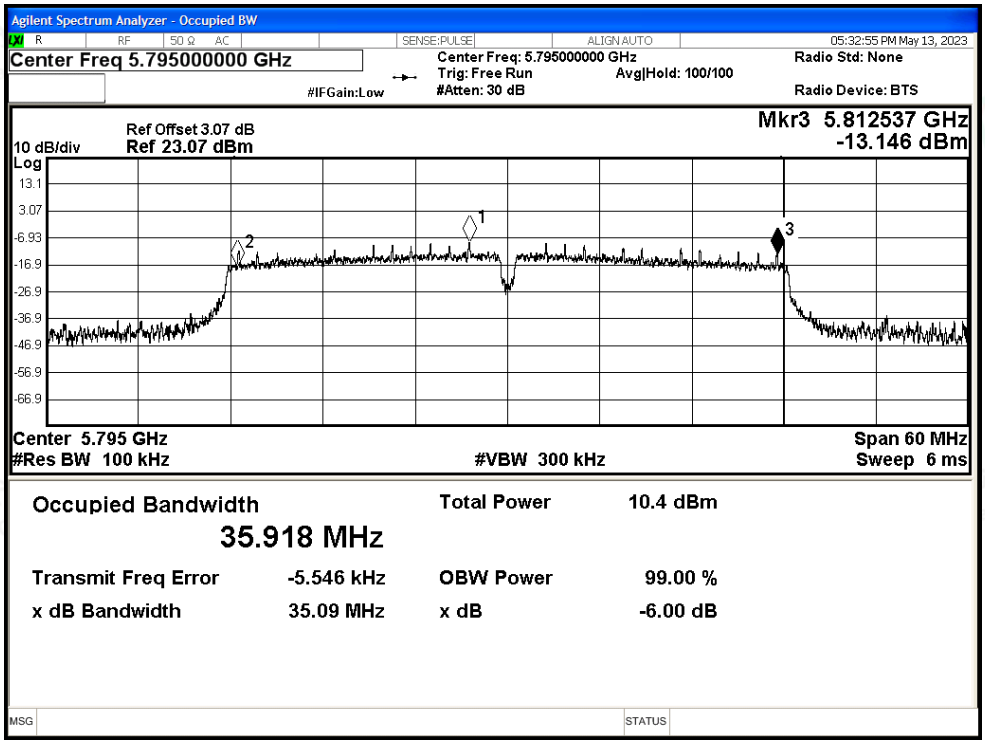
-6dB Bandwidth NVNT n20 5825MHz Ant0



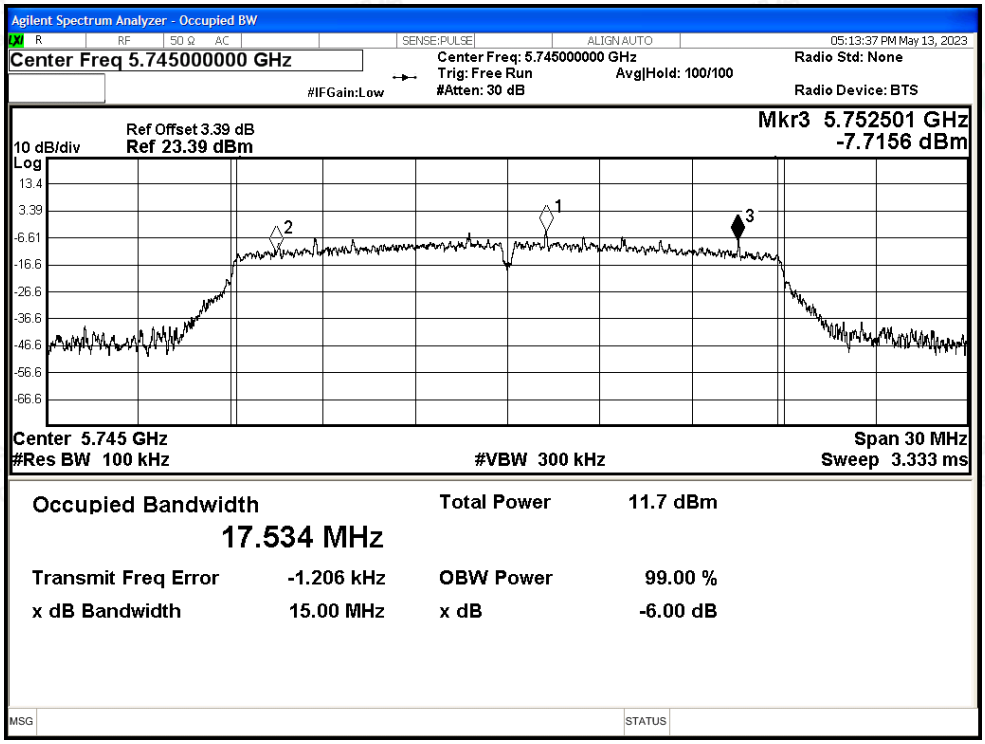
-6dB Bandwidth NVNT n40 5755MHz Ant0



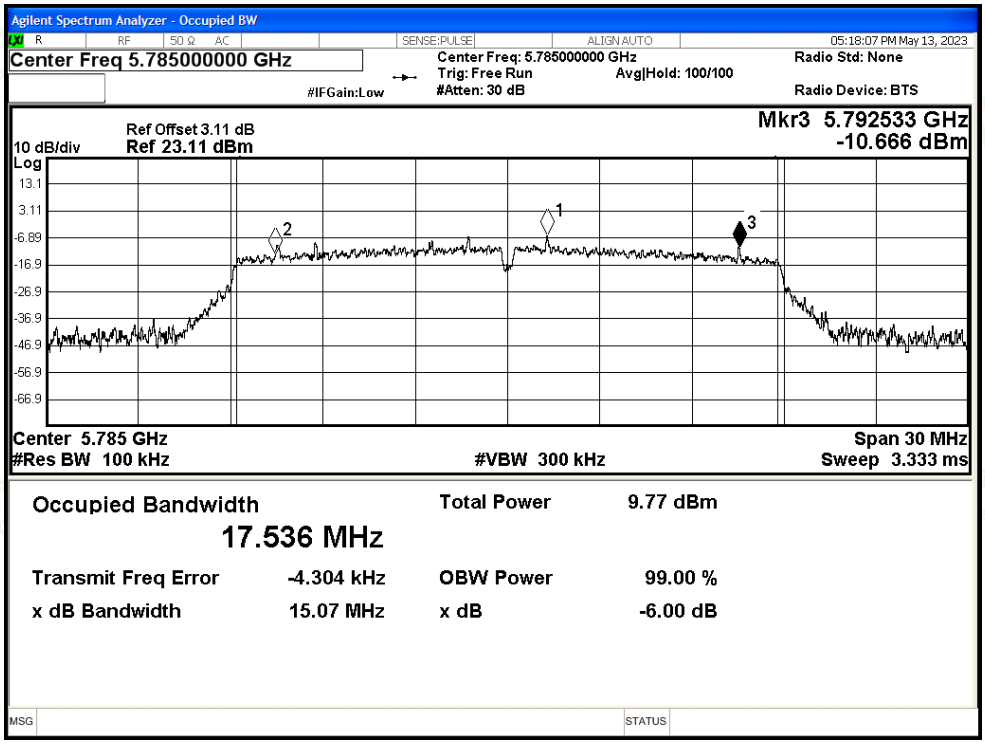
-6dB Bandwidth NVNT n40 5795MHz Ant0



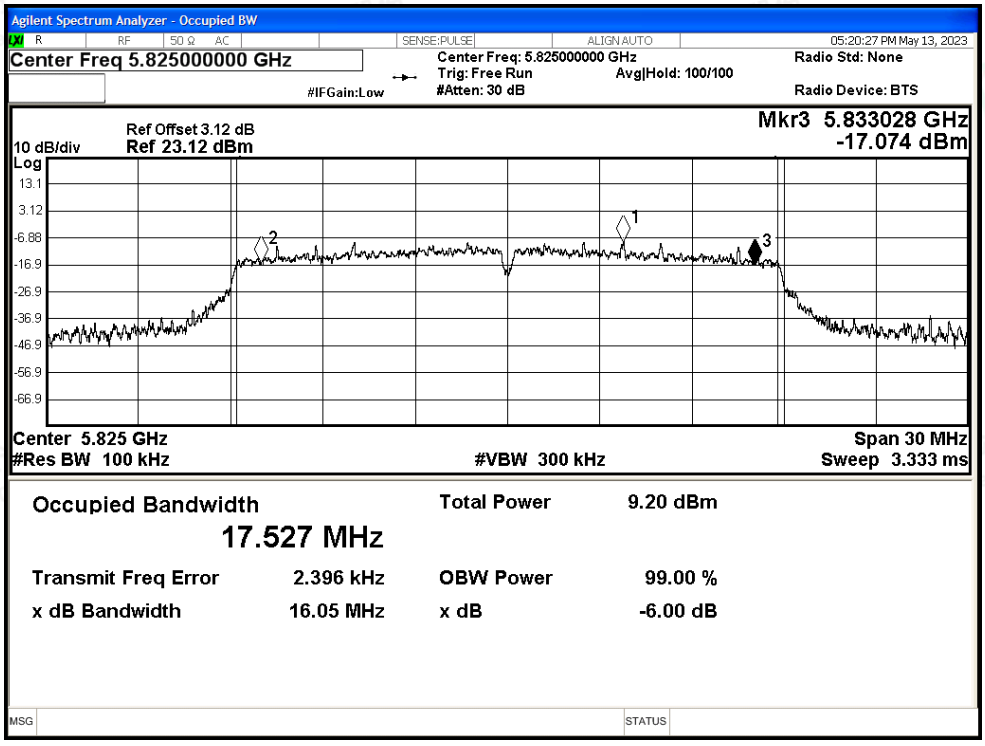
-6dB Bandwidth NVNT ac20 5745MHz Ant0



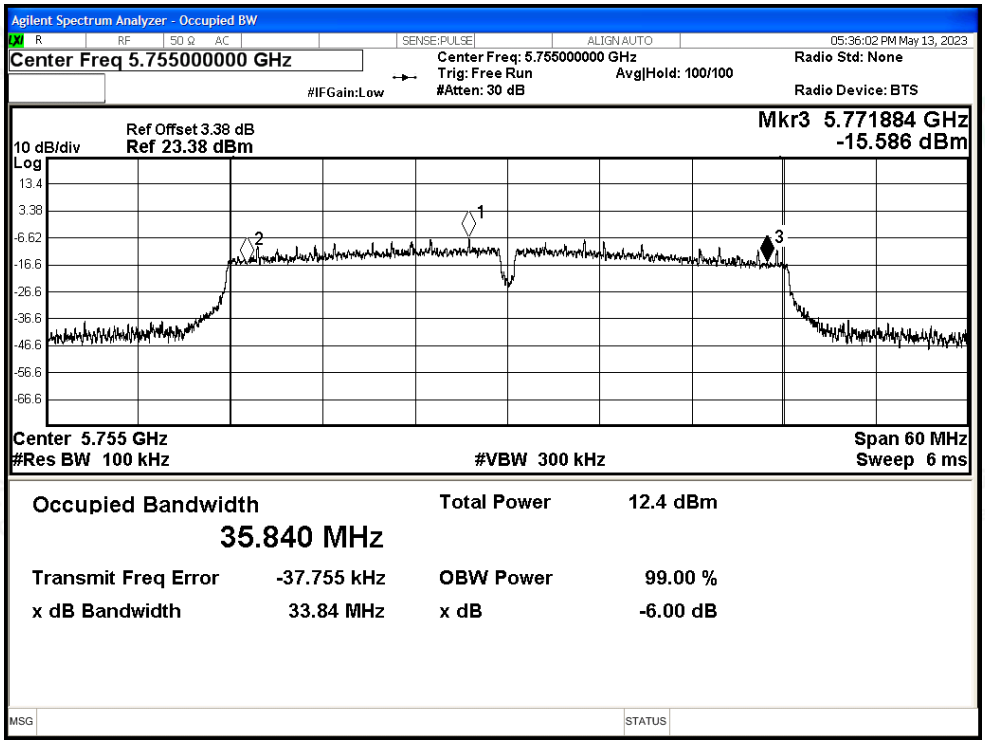
-6dB Bandwidth NVNT ac20 5785MHz Ant0



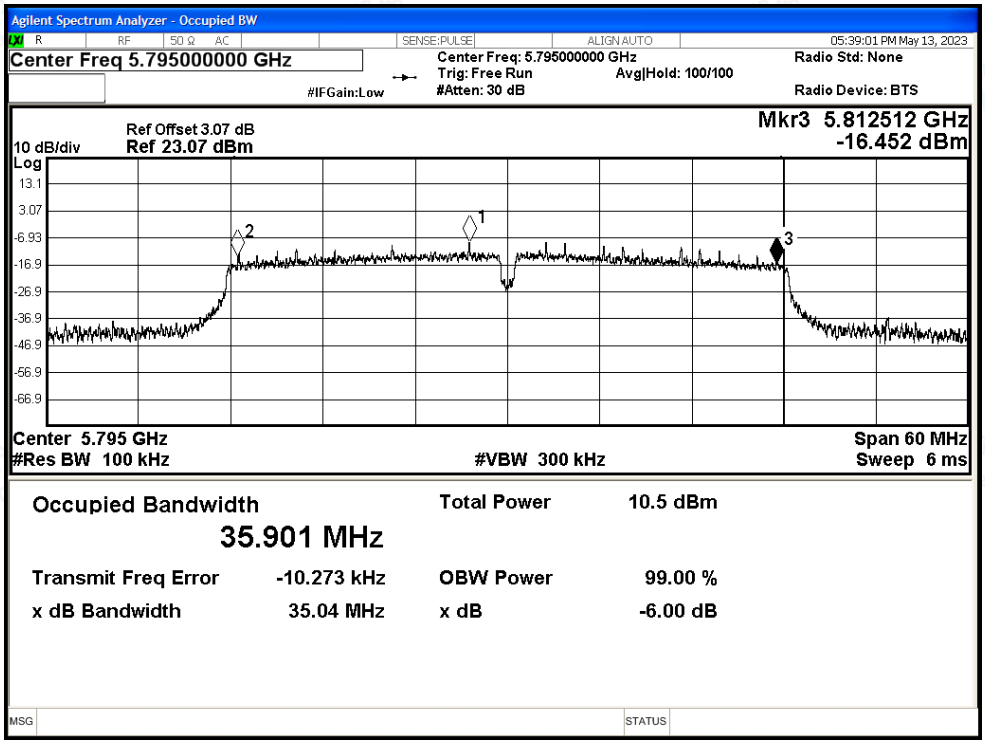
-6dB Bandwidth NVNT ac20 5825MHz Ant0



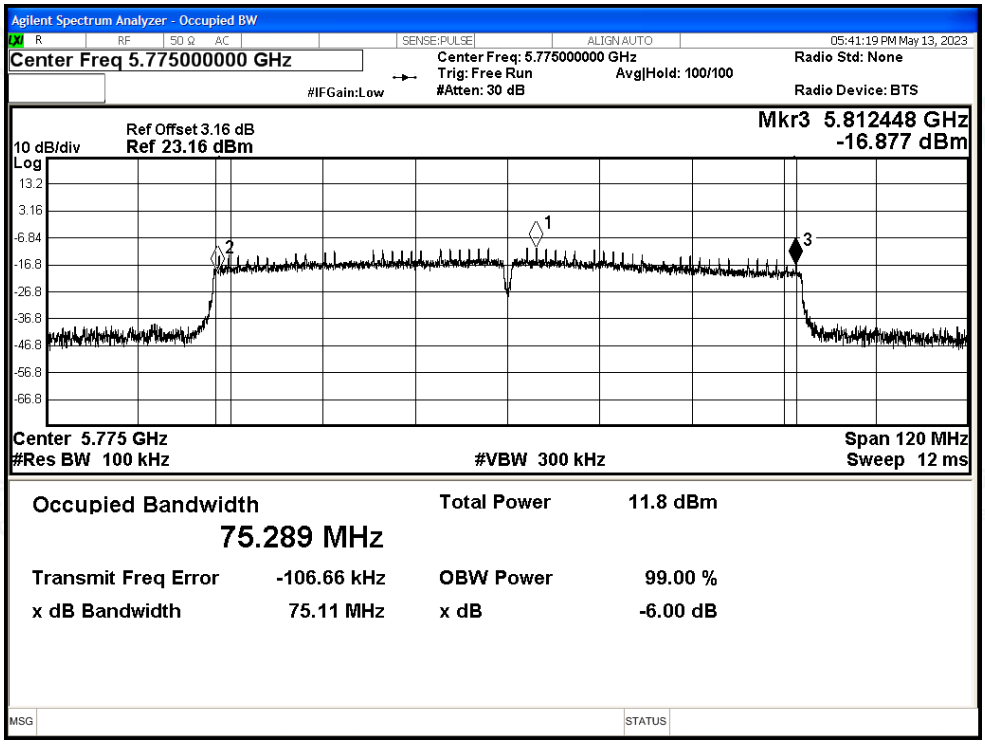
-6dB Bandwidth NVNT ac40 5755MHz Ant0



-6dB Bandwidth NVNT ac40 5795MHz Ant0



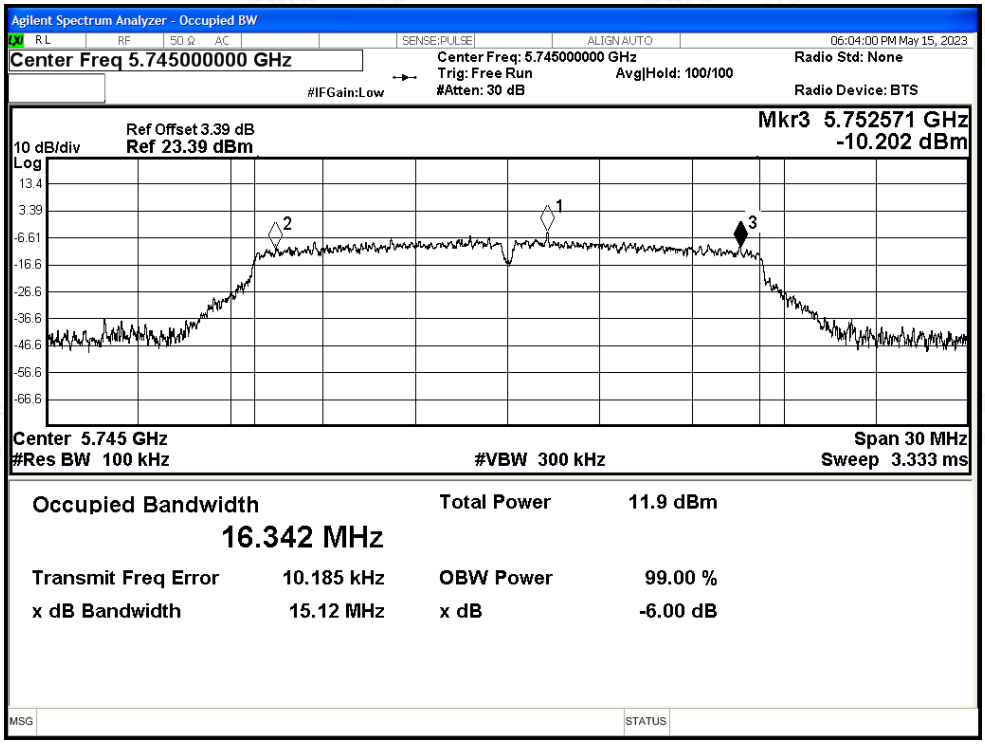
-6dB Bandwidth NVNT ac80 5775MHz Ant0



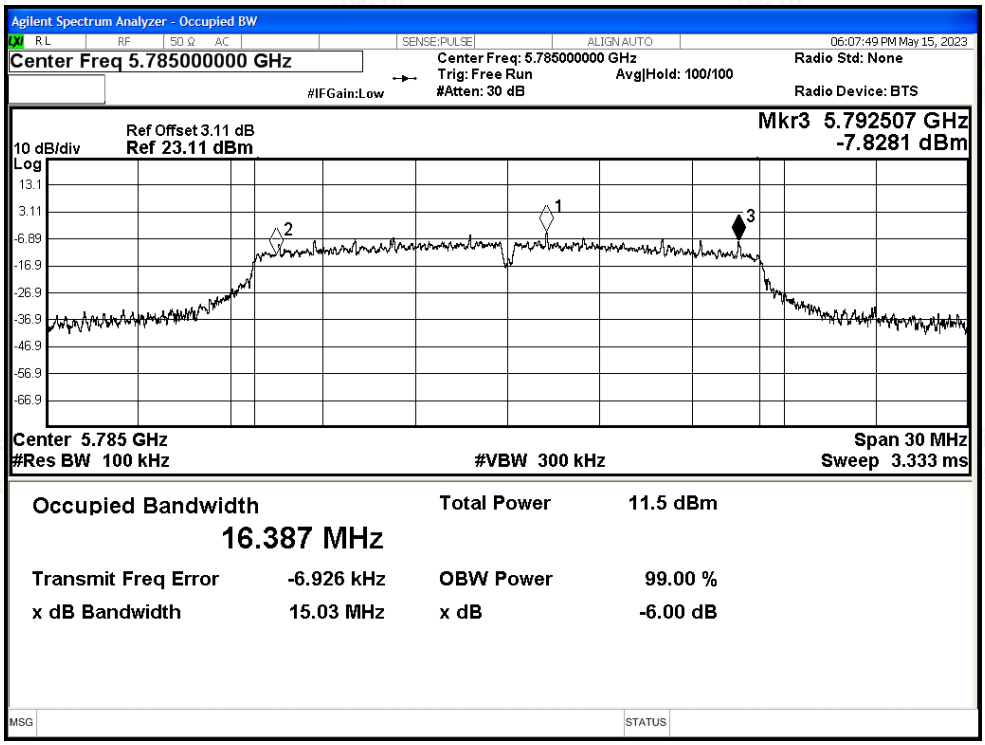
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	a	5745	Ant1	15.121	>=0.5	Pass
NVNT	a	5785	Ant1	15.027	>=0.5	Pass
NVNT	a	5825	Ant1	15.013	>=0.5	Pass
NVNT	n20	5745	Ant1	15.076	>=0.5	Pass
NVNT	n20	5785	Ant1	15.306	>=0.5	Pass
NVNT	n20	5825	Ant1	15.059	>=0.5	Pass
NVNT	n40	5755	Ant1	35.1	>=0.5	Pass
NVNT	n40	5795	Ant1	35.107	>=0.5	Pass
NVNT	ac20	5745	Ant1	17.025	>=0.5	Pass
NVNT	ac20	5785	Ant1	15.088	>=0.5	Pass
NVNT	ac20	5825	Ant1	13.115	>=0.5	Pass
NVNT	ac40	5755	Ant1	34.999	>=0.5	Pass
NVNT	ac40	5795	Ant1	35.085	>=0.5	Pass
NVNT	ac80	5775	Ant1	73.887	>=0.5	Pass

Test Graphs

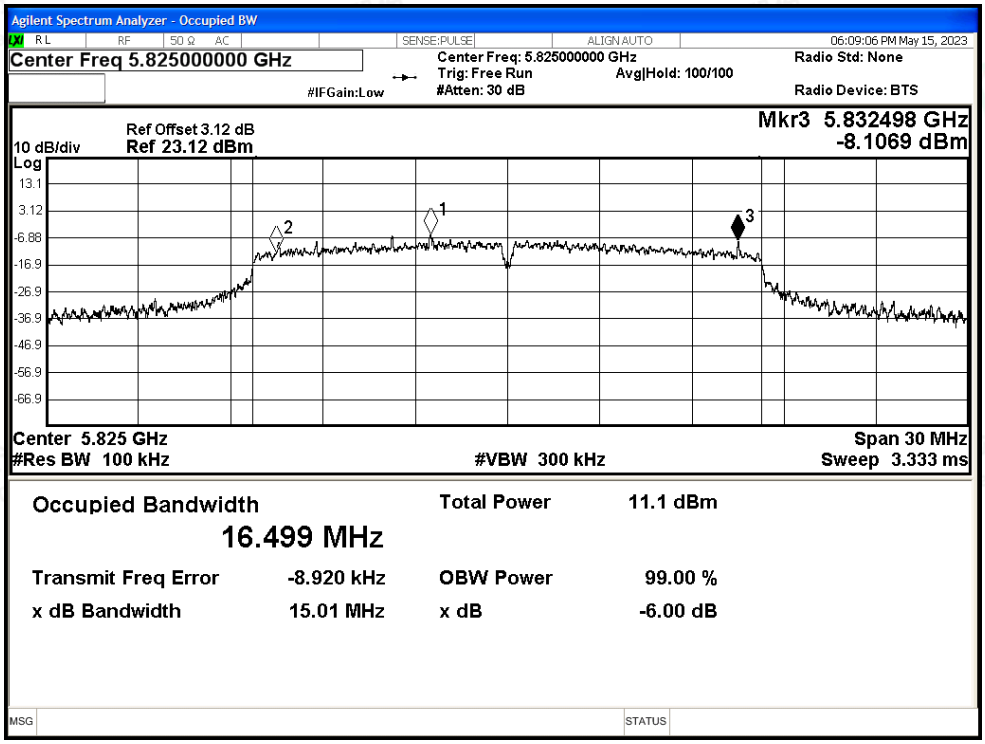
-6dB Bandwidth NVNT a 5745MHz Ant1



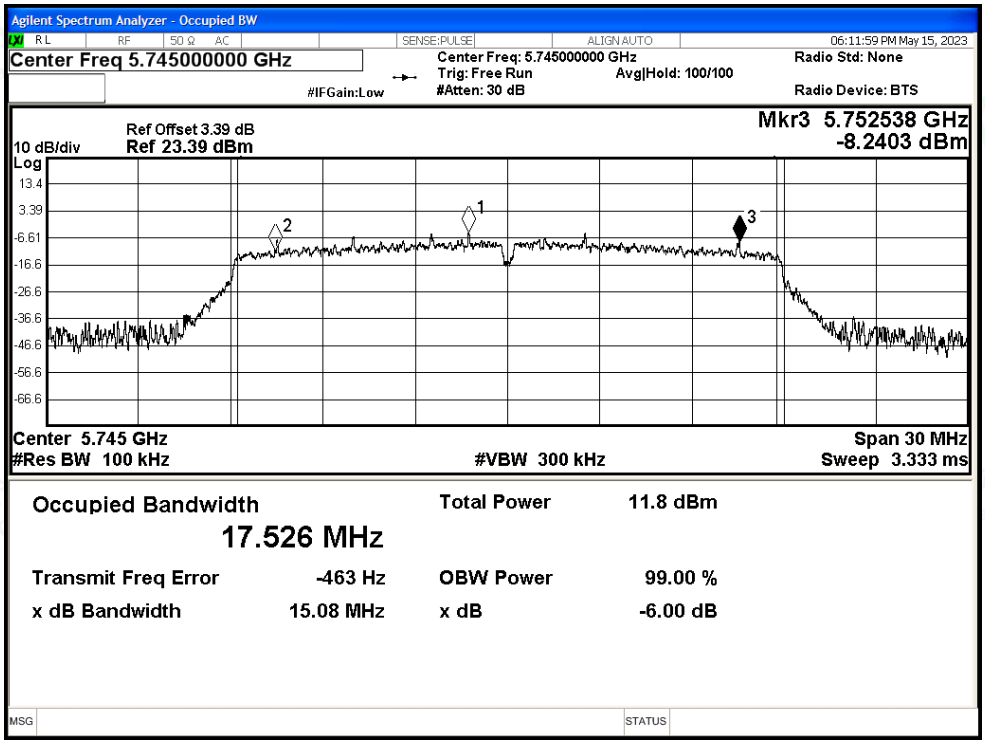
-6dB Bandwidth NVNT a 5785MHz Ant1



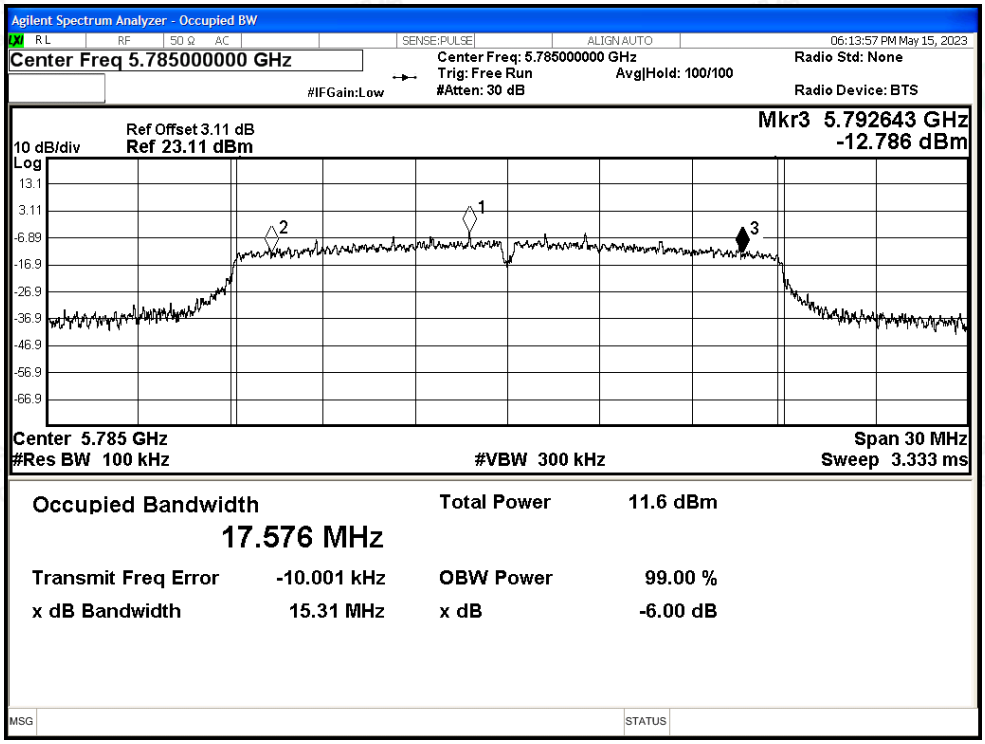
-6dB Bandwidth NVNT a 5825MHz Ant1



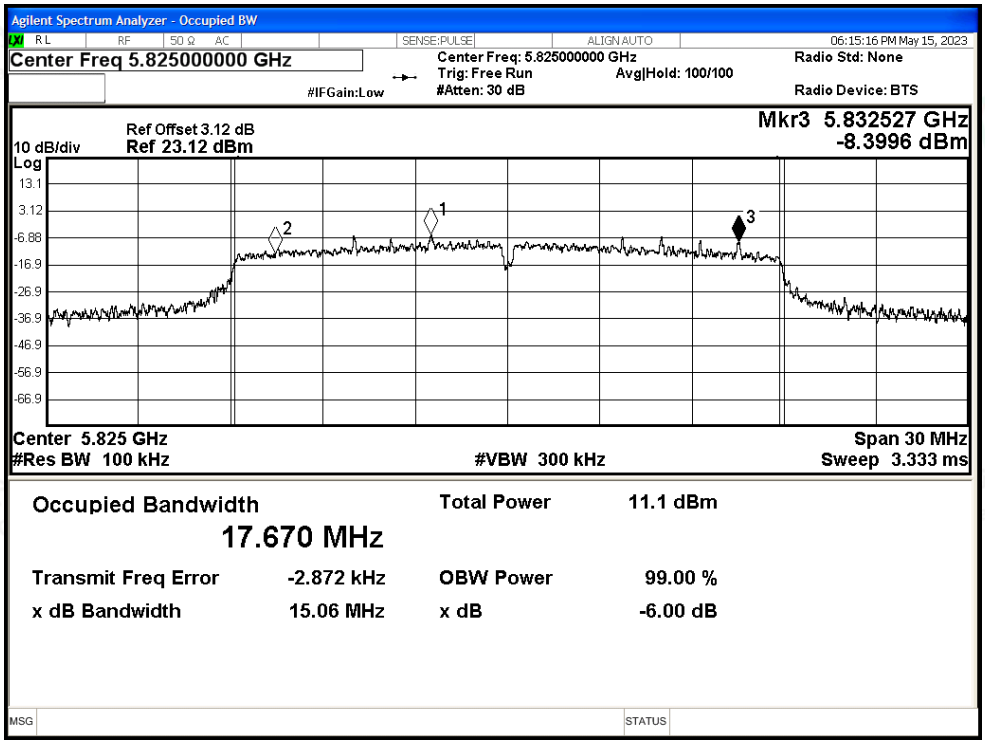
-6dB Bandwidth NVNT n20 5745MHz Ant1



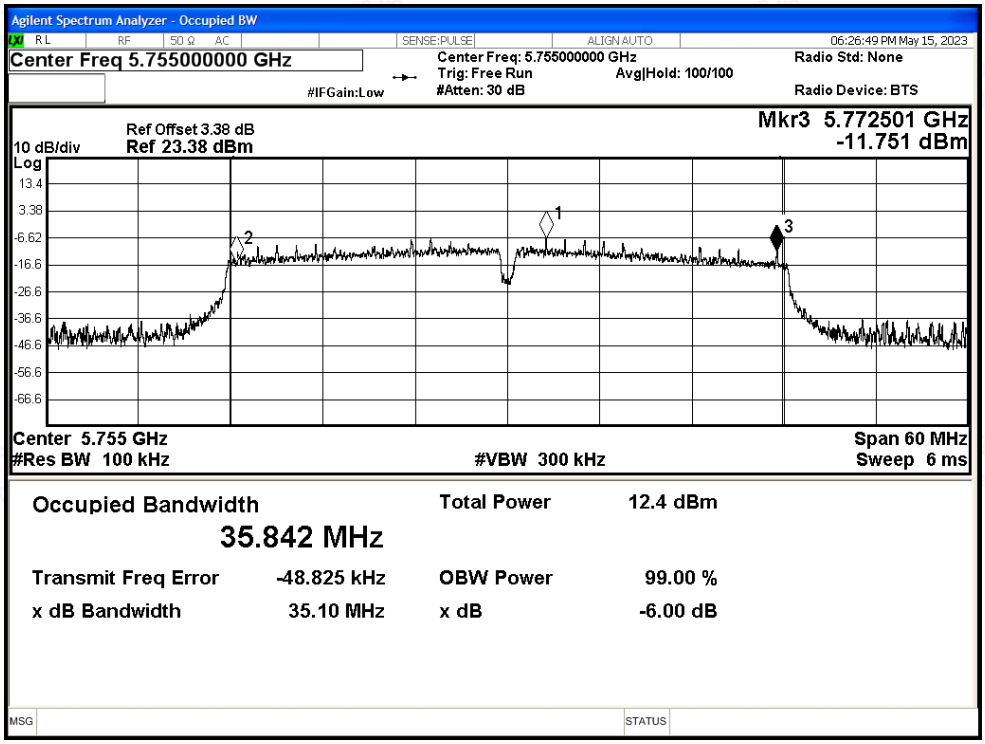
-6dB Bandwidth NVNT n20 5785MHz Ant1



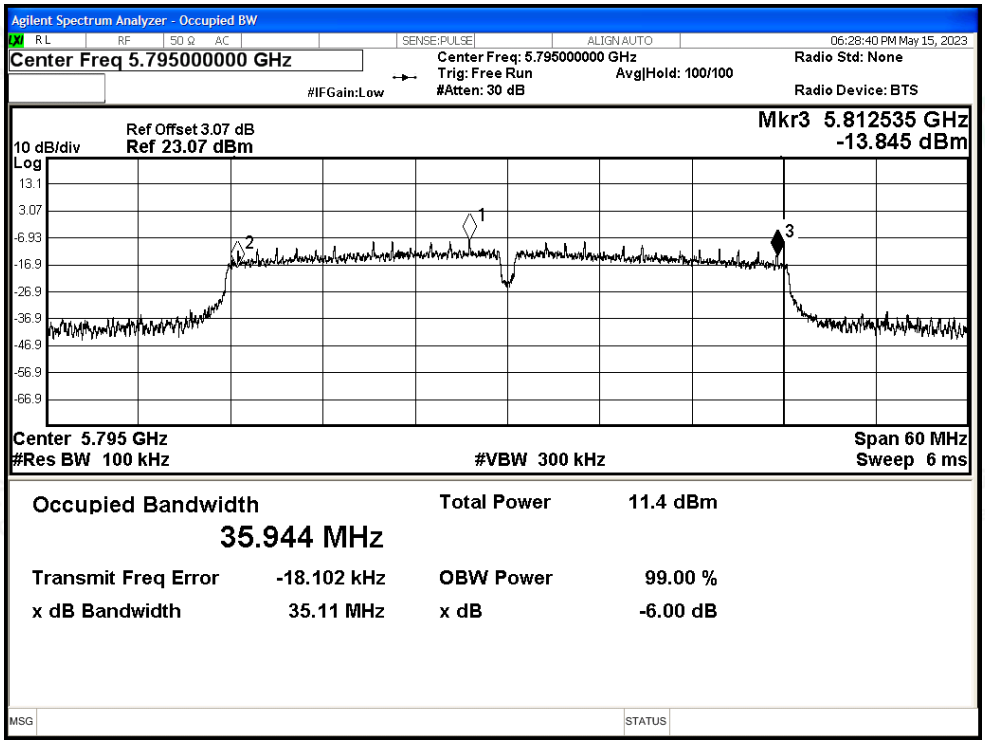
-6dB Bandwidth NVNT n20 5825MHz Ant1



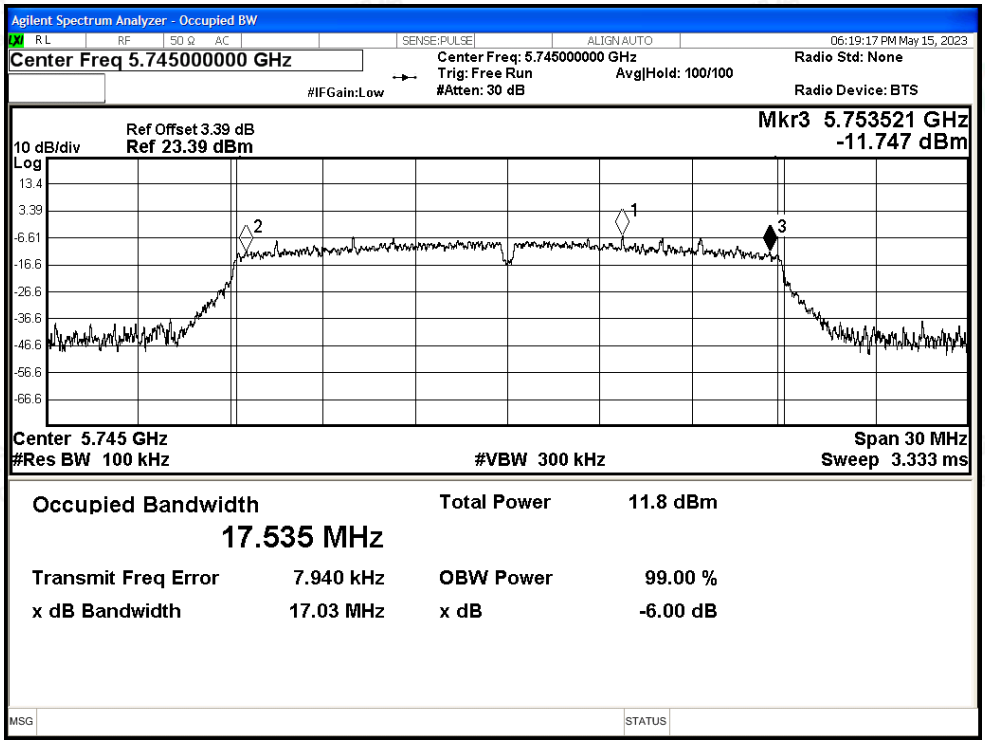
-6dB Bandwidth NVNT n40 5755MHz Ant1



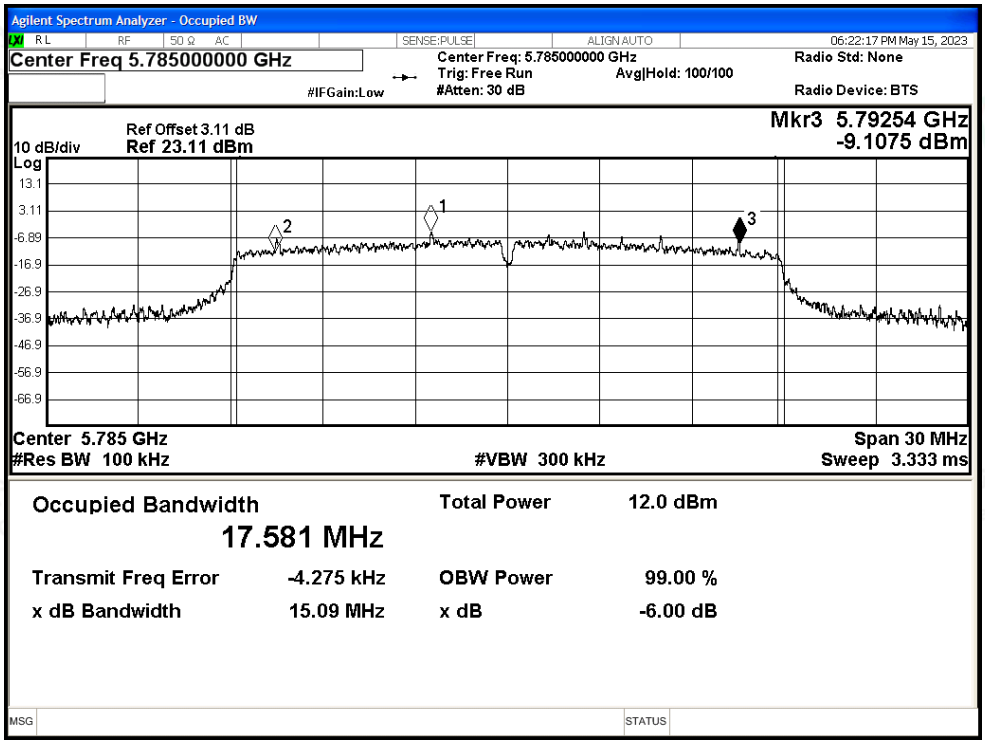
-6dB Bandwidth NVNT n40 5795MHz Ant1



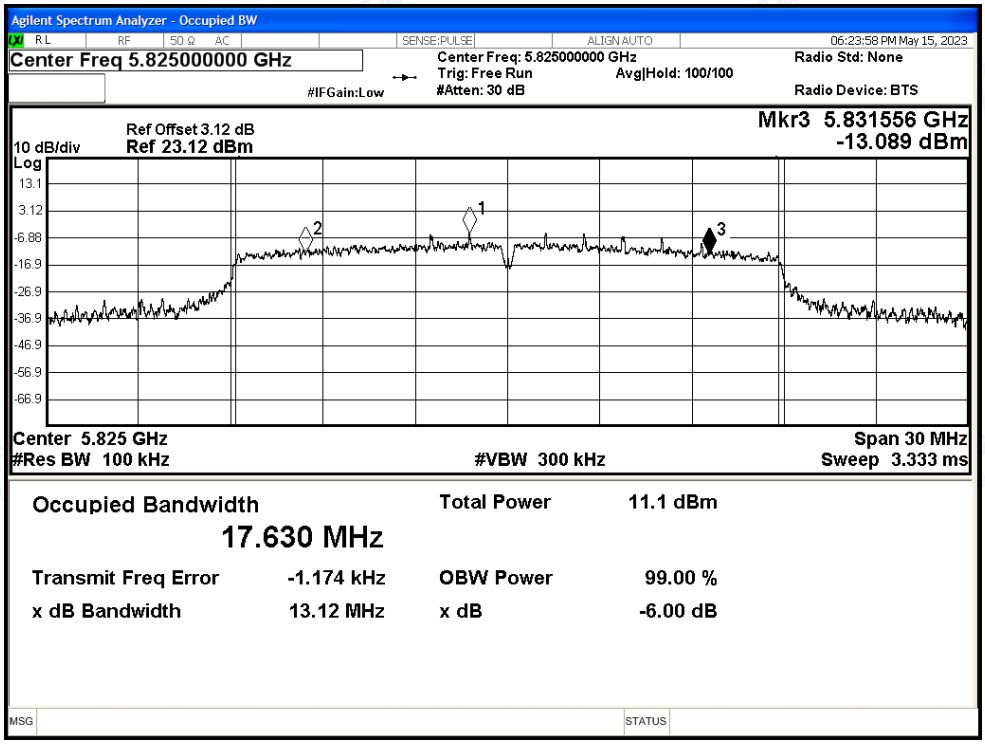
-6dB Bandwidth NVNT ac20 5745MHz Ant1



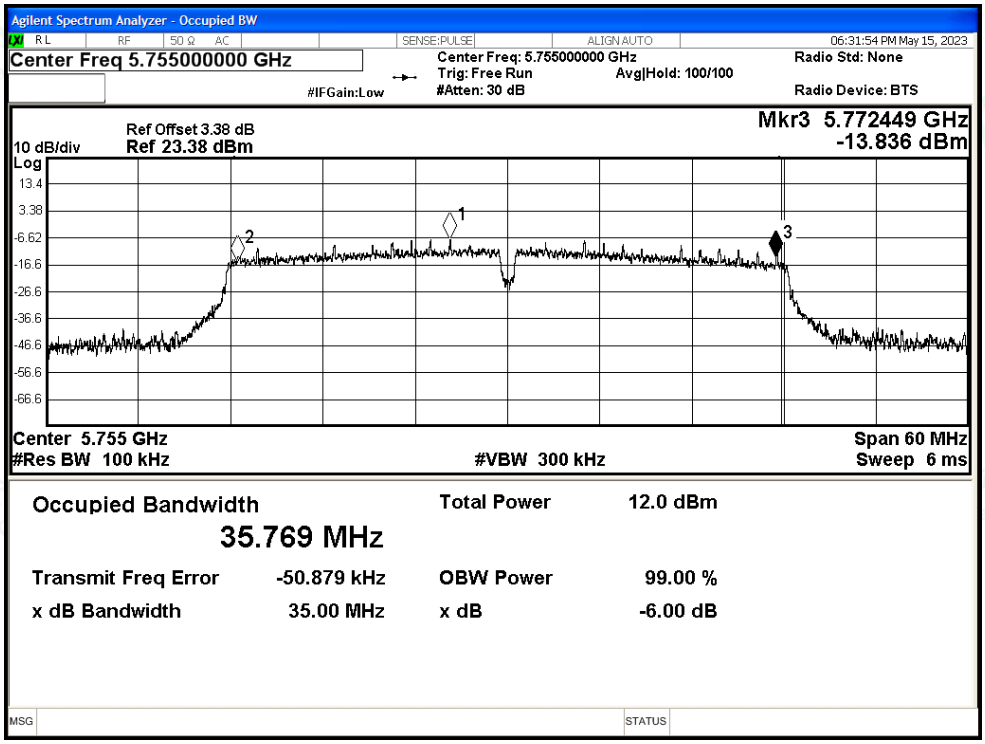
-6dB Bandwidth NVNT ac20 5785MHz Ant1



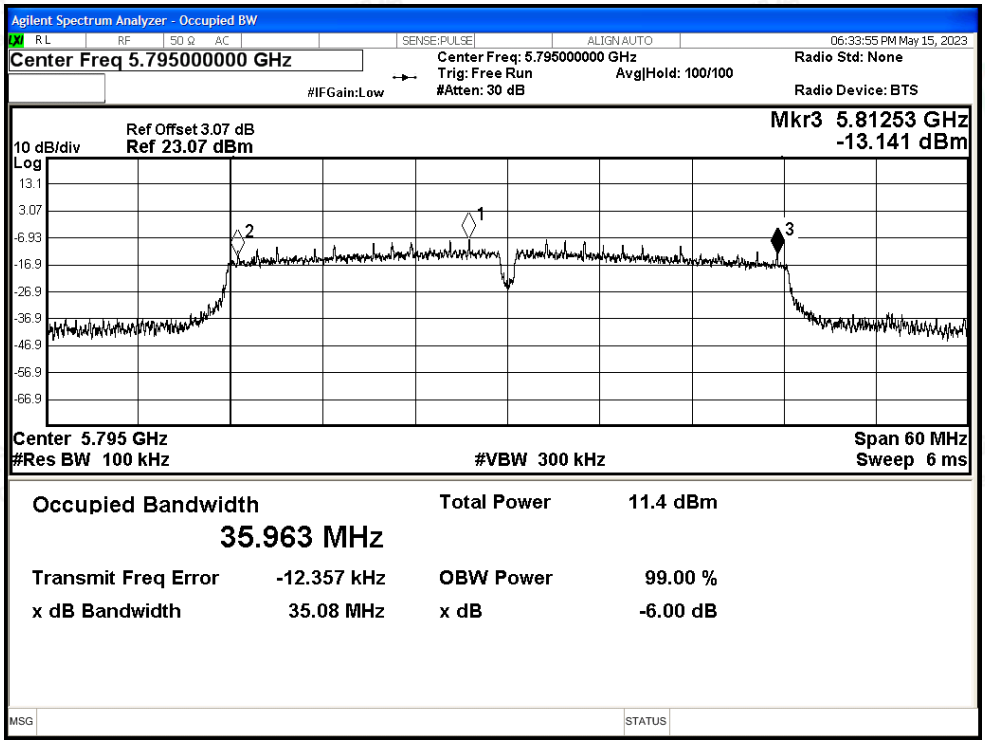
-6dB Bandwidth NVNT ac20 5825MHz Ant1



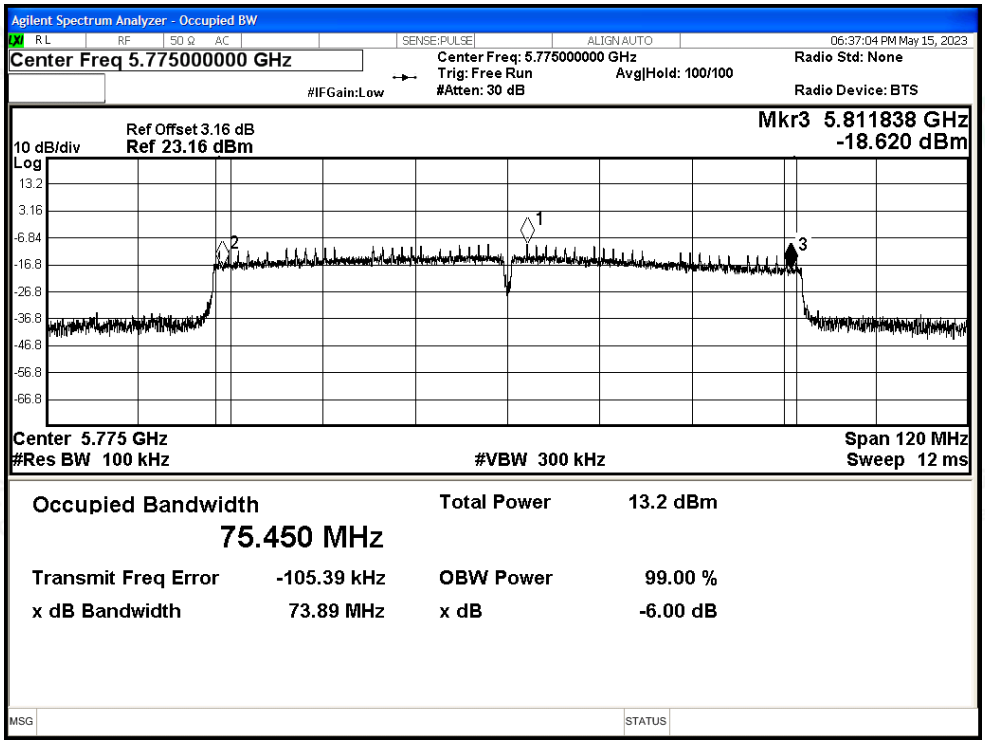
-6dB Bandwidth NVNT ac40 5755MHz Ant1



-6dB Bandwidth NVNT ac40 5795MHz Ant1



-6dB Bandwidth NVNT ac80 5775MHz Ant1



G.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant0	6.02	0.13	6.15	30	Pass
NVNT	a	5785	Ant0	4.01	0.13	4.14	30	Pass
NVNT	a	5825	Ant0	3.55	0.13	3.68	30	Pass
NVNT	n20	5745	Ant0	5.83	0.14	5.97	30	Pass
NVNT	n20	5785	Ant0	3.73	0.14	3.87	30	Pass
NVNT	n20	5825	Ant0	3.36	0.15	3.51	30	Pass
NVNT	n40	5755	Ant0	6.05	0.28	6.33	30	Pass
NVNT	n40	5795	Ant0	3.91	0.29	4.2	30	Pass
NVNT	ac20	5745	Ant0	5.73	0.14	5.87	30	Pass
NVNT	ac20	5785	Ant0	3.85	0.15	4	30	Pass
NVNT	ac20	5825	Ant0	3.24	0.14	3.38	30	Pass
NVNT	ac40	5755	Ant0	6.06	0.28	6.34	30	Pass
NVNT	ac40	5795	Ant0	4.06	0.28	4.34	30	Pass
NVNT	ac80	5775	Ant0	4.58	0.55	5.13	30	Pass

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant1	6.15	0.13	6.28	30	Pass
NVNT	a	5785	Ant1	5.66	0.13	5.79	30	Pass
NVNT	a	5825	Ant1	5.27	0.14	5.41	30	Pass
NVNT	n20	5745	Ant1	5.93	0.14	6.07	30	Pass
NVNT	n20	5785	Ant1	5.7	0.14	5.84	30	Pass
NVNT	n20	5825	Ant1	5.14	0.15	5.29	30	Pass
NVNT	n40	5755	Ant1	6.06	0.29	6.35	30	Pass
NVNT	n40	5795	Ant1	4.93	0.29	5.22	30	Pass
NVNT	ac20	5745	Ant1	5.92	0.14	6.06	30	Pass
NVNT	ac20	5785	Ant1	6.05	0.14	6.19	30	Pass
NVNT	ac20	5825	Ant1	5.1	0.14	5.24	30	Pass
NVNT	ac40	5755	Ant1	5.75	0.28	6.03	30	Pass
NVNT	ac40	5795	Ant1	4.94	0.28	5.22	30	Pass
NVNT	ac80	5775	Ant1	5.97	0.55	6.52	30	Pass

MIMO

Condition	Mode	Frequency (MHz)	Total Power (dBm)			Limit (dBm)	Verdict
			Ant0	Ant1	Ant0+Ant1		
NVNT	n20	5745	5.97	6.07	9.03	30	Pass
NVNT	n20	5785	3.87	5.84	7.98	30	Pass
NVNT	n20	5825	3.51	5.29	7.50	30	Pass
NVNT	n40	5755	6.33	6.35	9.35	30	Pass
NVNT	n40	5795	4.2	5.22	7.75	30	Pass
NVNT	ac20	5745	5.87	6.06	8.98	30	Pass
NVNT	ac20	5785	4	6.19	8.24	30	Pass
NVNT	ac20	5825	3.38	5.24	7.42	30	Pass
NVNT	ac40	5755	6.34	6.03	9.20	30	Pass
NVNT	ac40	5795	4.34	5.22	7.81	30	Pass
NVNT	ac80	5775	5.13	6.52	8.89	30	Pass

G.3 Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Verdict
NVNT	a	5745	Ant0	-6.48	0.13	-6.35	30	Pass
NVNT	a	5785	Ant0	-8.58	0.13	-8.45	30	Pass
NVNT	a	5825	Ant0	-8.93	0.13	-8.8	30	Pass
NVNT	n20	5745	Ant0	-6.86	0.14	-6.72	30	Pass
NVNT	n20	5785	Ant0	-8.96	0.14	-8.82	30	Pass
NVNT	n20	5825	Ant0	-9.28	0.15	-9.13	30	Pass
NVNT	n40	5755	Ant0	-9.41	0.28	-9.13	30	Pass
NVNT	n40	5795	Ant0	-12.02	0.29	-11.73	30	Pass
NVNT	ac20	5745	Ant0	-6.98	0.14	-6.84	30	Pass
NVNT	ac20	5785	Ant0	-8.93	0.15	-8.78	30	Pass
NVNT	ac20	5825	Ant0	-9.63	0.14	-9.49	30	Pass
NVNT	ac40	5755	Ant0	-9.51	0.28	-9.23	30	Pass
NVNT	ac40	5795	Ant0	-11.64	0.28	-11.36	30	Pass
NVNT	ac80	5775	Ant0	-14.23	0.55	-13.68	30	Pass

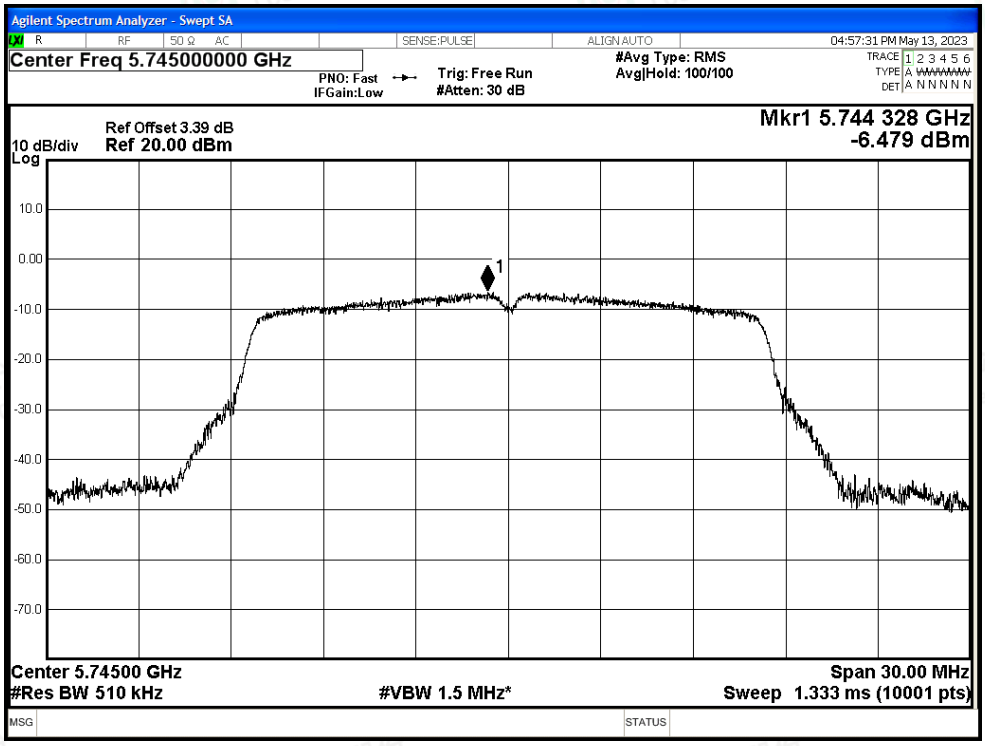
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Verdict
NVNT	a	5745	Ant1	-6.45	0.13	-6.32	30	Pass
NVNT	a	5785	Ant1	-6.87	0.13	-6.74	30	Pass
NVNT	a	5825	Ant1	-7.09	0.14	-6.95	30	Pass
NVNT	n20	5745	Ant1	-6.64	0.14	-6.5	30	Pass
NVNT	n20	5785	Ant1	-7.09	0.14	-6.95	30	Pass
NVNT	n20	5825	Ant1	-7.38	0.15	-7.23	30	Pass
NVNT	n40	5755	Ant1	-9.63	0.29	-9.34	30	Pass
NVNT	n40	5795	Ant1	-10.97	0.29	-10.68	30	Pass
NVNT	ac20	5745	Ant1	-6.97	0.14	-6.83	30	Pass
NVNT	ac20	5785	Ant1	-6.82	0.14	-6.68	30	Pass
NVNT	ac20	5825	Ant1	-7.56	0.14	-7.42	30	Pass
NVNT	ac40	5755	Ant1	-9.66	0.28	-9.38	30	Pass
NVNT	ac40	5795	Ant1	-10.93	0.28	-10.65	30	Pass
NVNT	ac80	5775	Ant1	-12.87	0.55	-12.32	30	Pass

MIMO

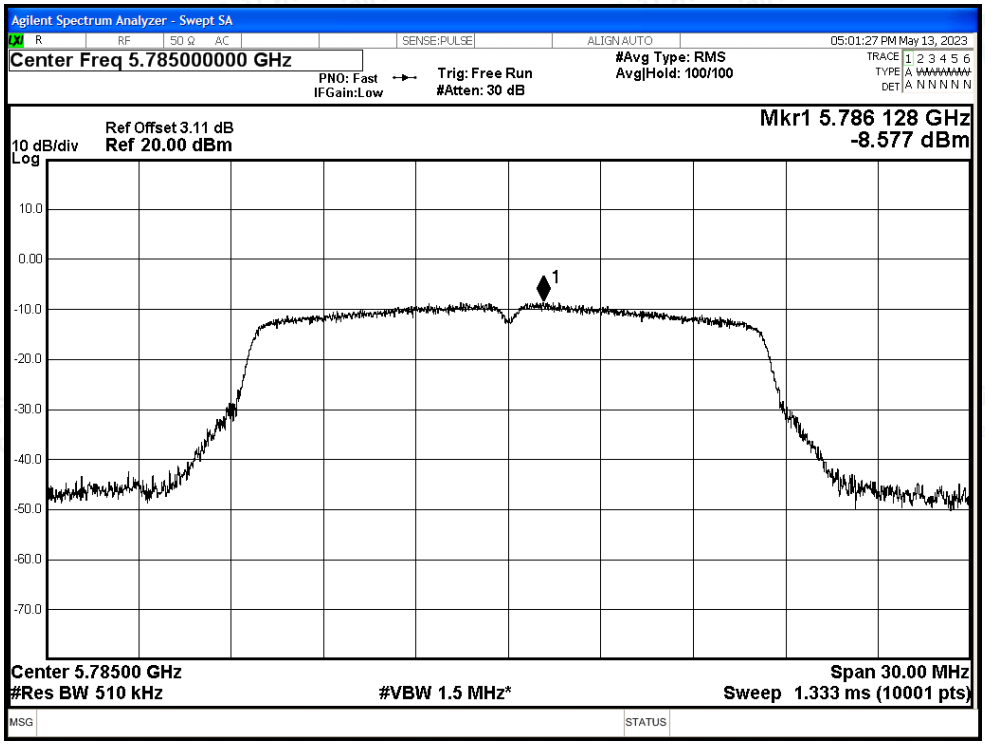
Test Mode	Channel	Frequency (MHz)	Total PSD (dBm/500KHz)			Limit (dBm/500KHz)	Verdict
			Ant 0	Ant 1	Ant0+Ant1		
n20	149	5745	-6.72	-6.5	-3.60	29.69	Pass
	157	5785	-8.82	-6.95	-4.77	29.69	Pass
	165	5825	-9.13	-7.23	-5.07	29.69	Pass
n40	151	5755	-9.13	-9.34	-6.22	29.69	Pass
	159	5795	-11.73	-10.68	-8.16	29.69	Pass
ac20	149	5745	-6.84	-6.83	-3.82	29.69	Pass
	157	5785	-8.78	-6.68	-4.59	29.69	Pass
	165	5825	-9.49	-7.42	-5.32	29.69	Pass
ac40	151	5755	-9.23	-9.38	-6.29	29.69	Pass
	159	5795	-11.36	-10.65	-7.98	29.69	Pass
ac80	155	5775	-13.68	-12.32	-9.94	29.69	Pass

Test Graphs

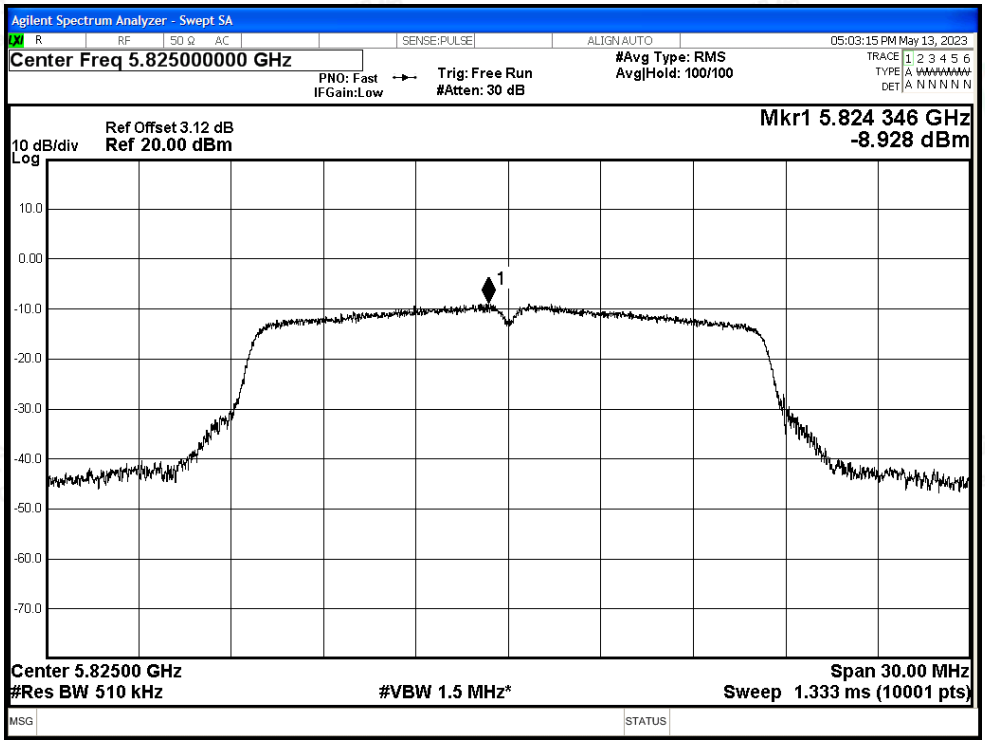
PSD NVNT a 5745MHz Ant0



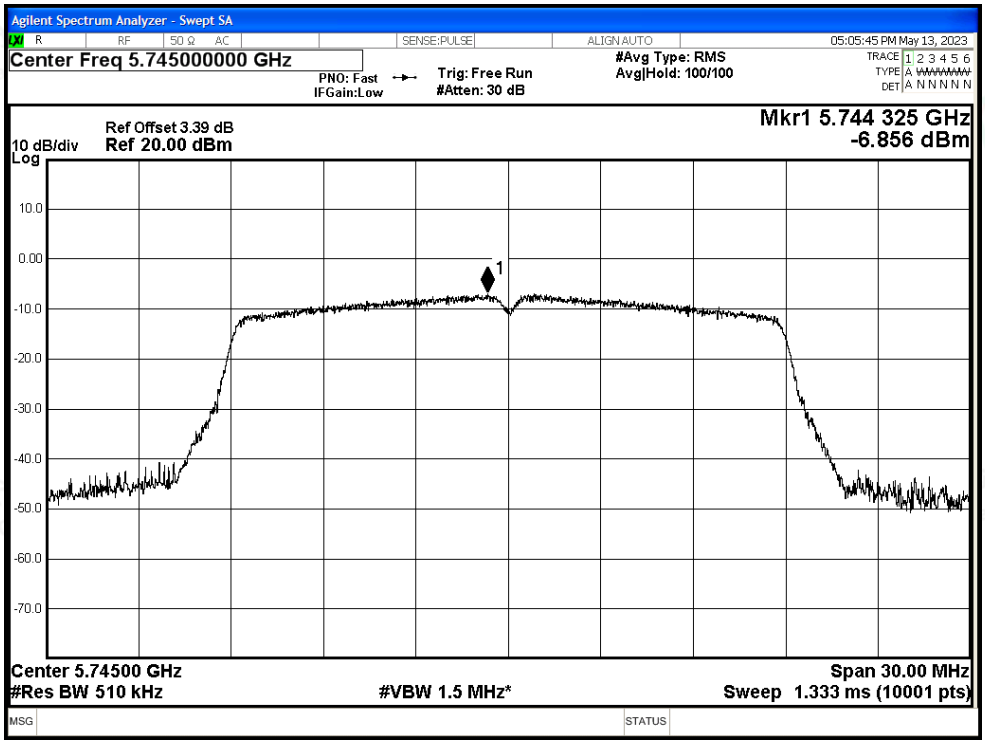
PSD NVNT a 5785MHz Ant0



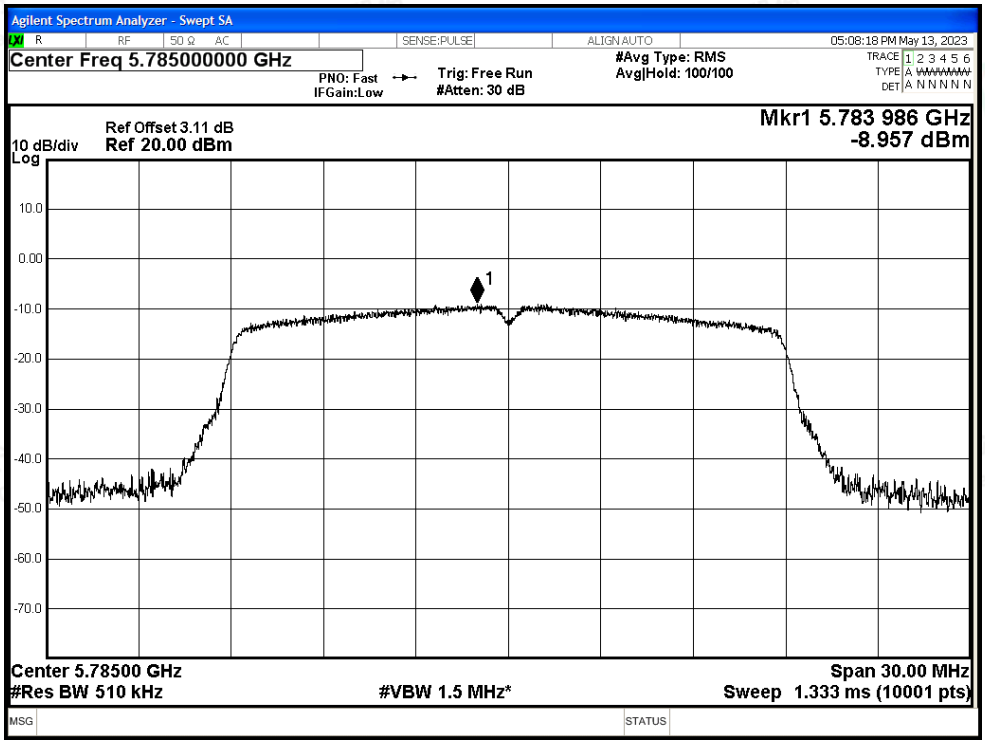
PSD NVNT a 5825MHz Ant0



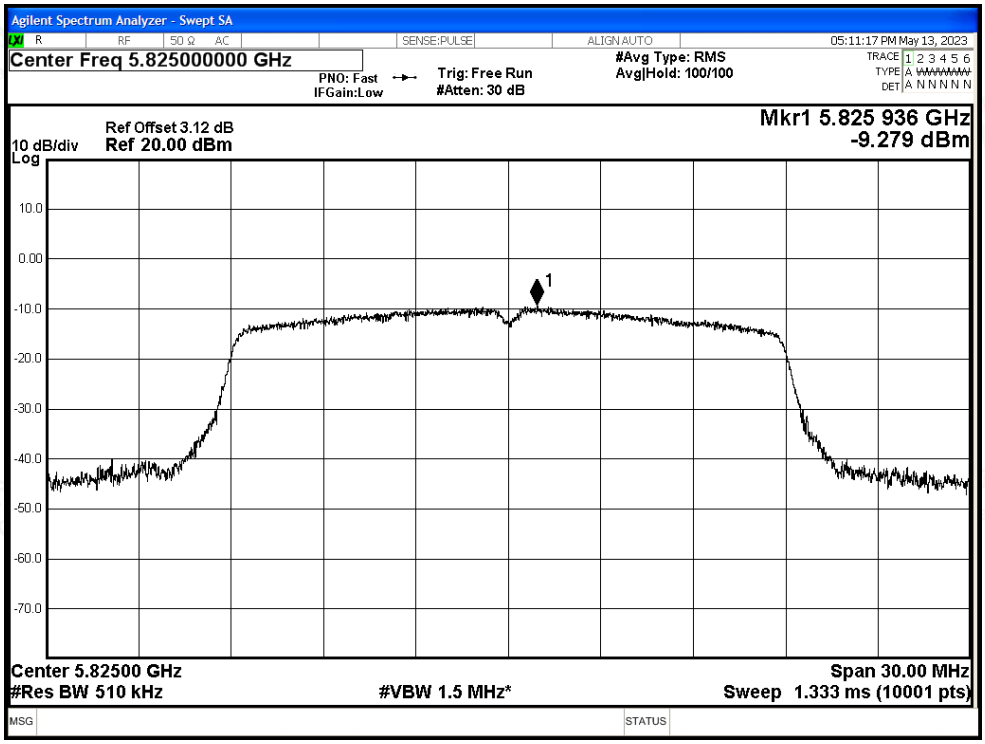
PSD NVNT n20 5745MHz Ant0



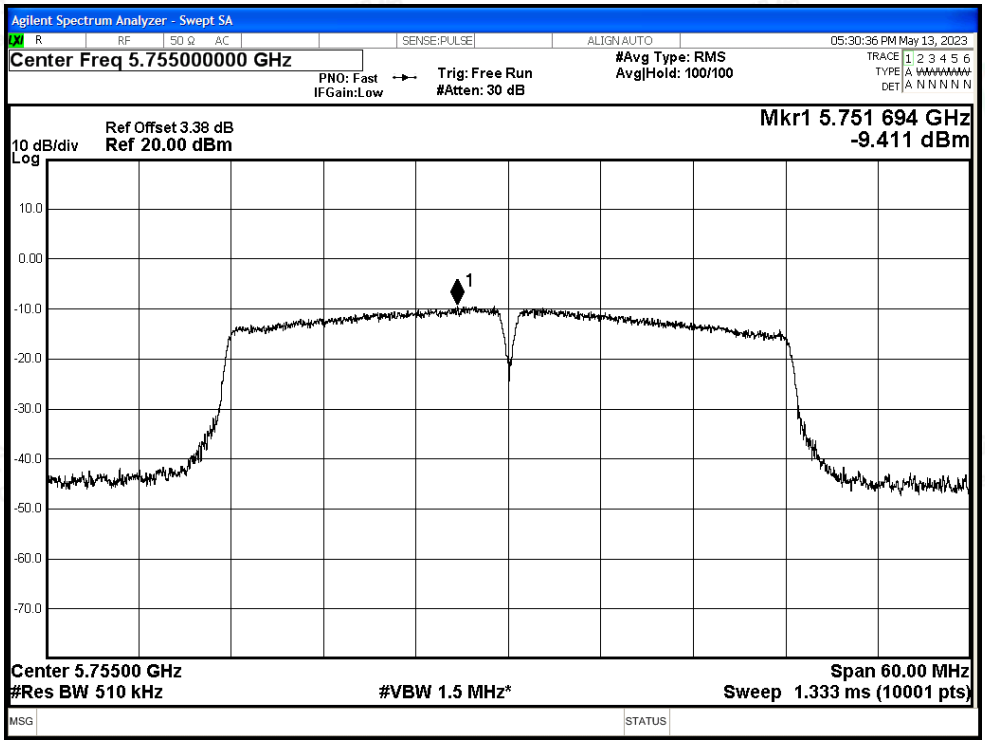
PSD NVNT n20 5785MHz Ant0



PSD NVNT n20 5825MHz Ant0



PSD NVNT n40 5755MHz Ant0



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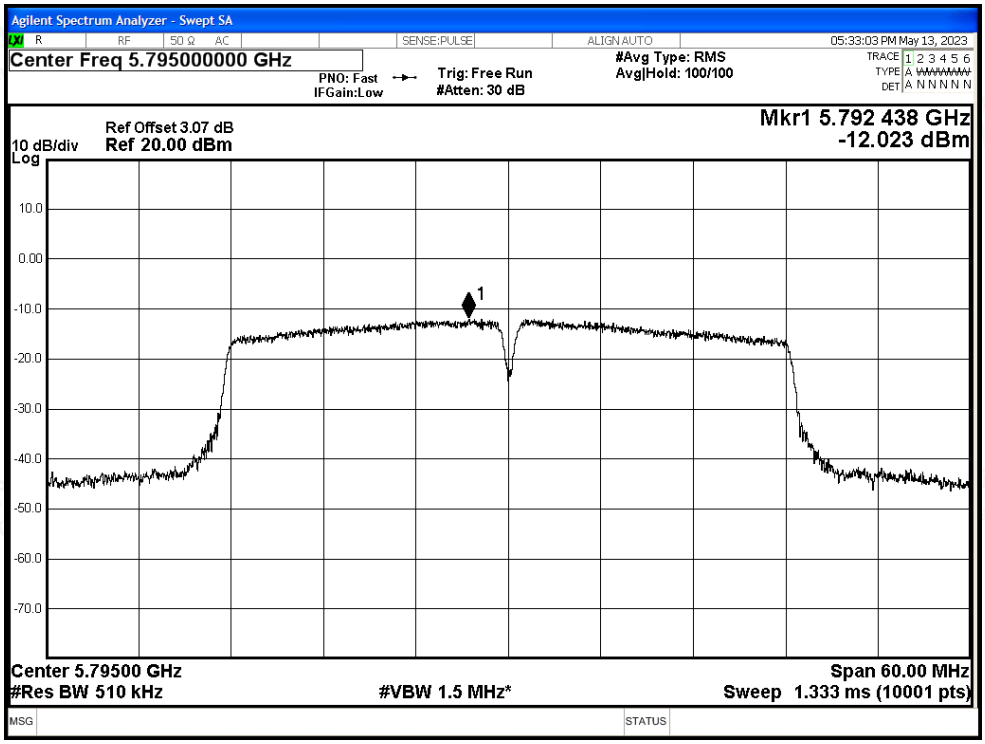
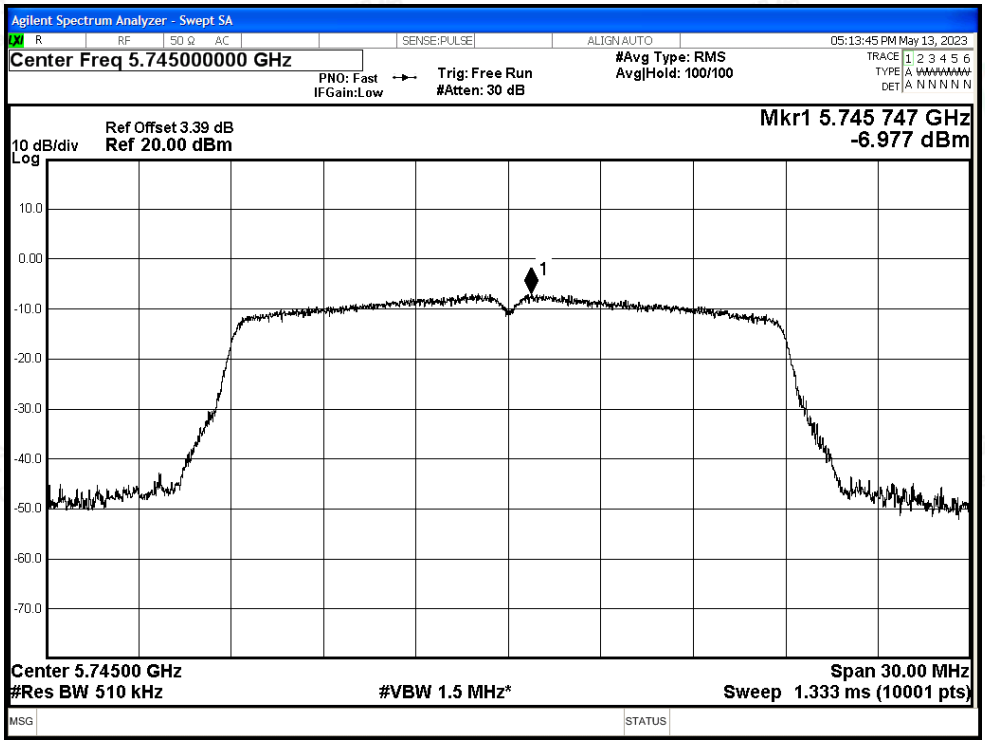
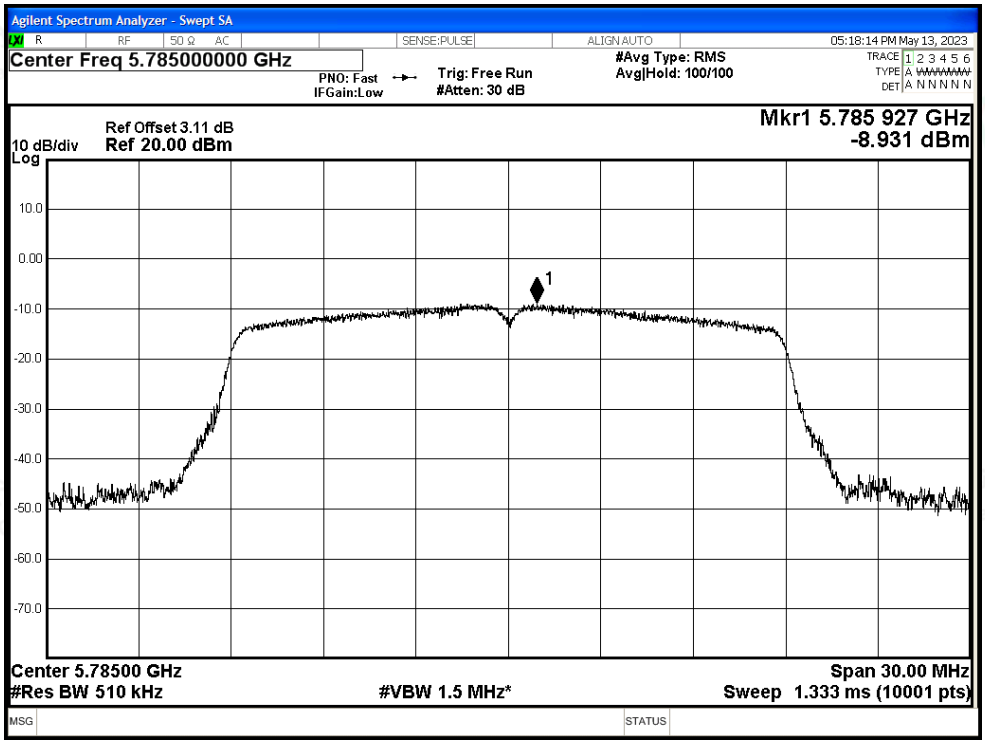


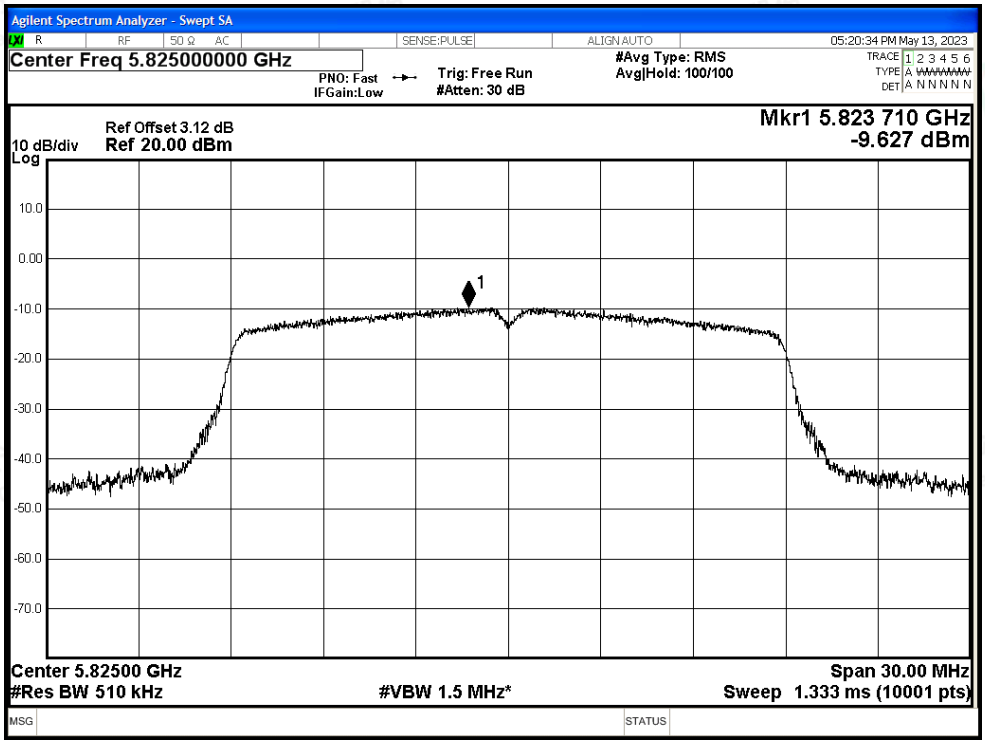
PSD NVNT ac20 5745MHz Ant0



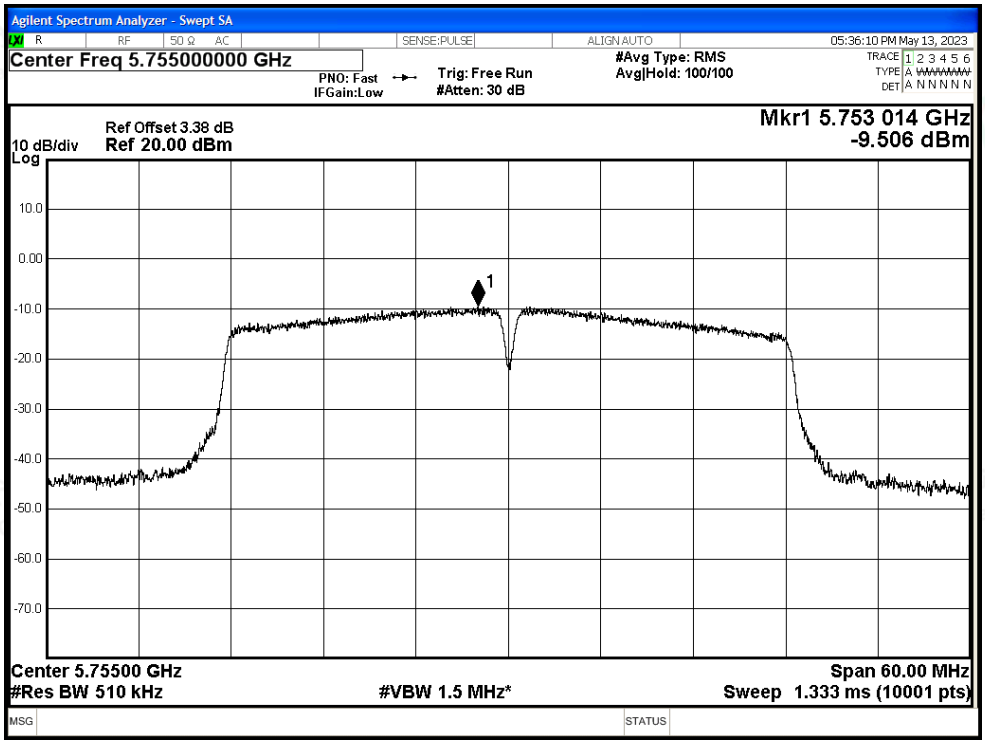
PSD NVNT ac20 5785MHz Ant0



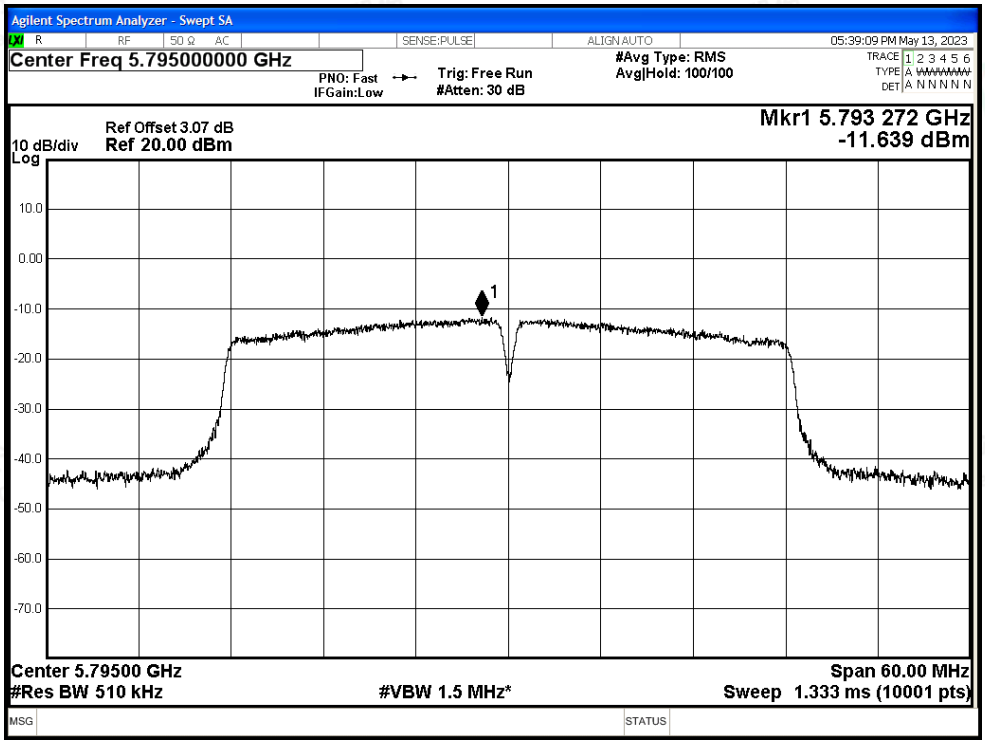
PSD NVNT ac20 5825MHz Ant0



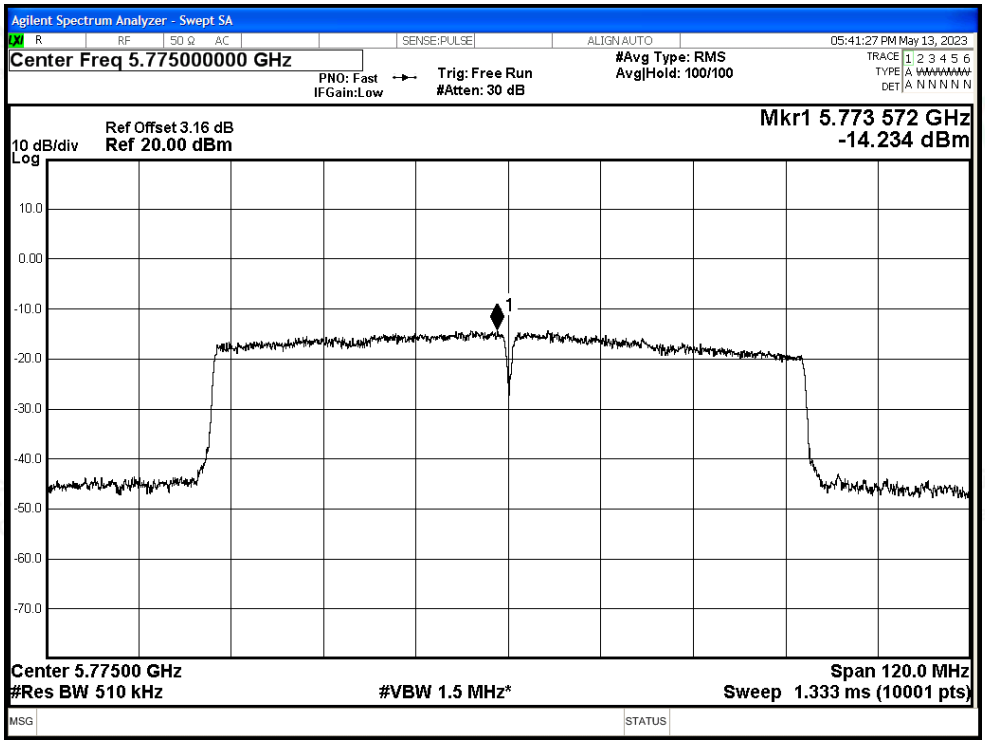
PSD NVNT ac40 5755MHz Ant0



PSD NVNT ac40 5795MHz Ant0

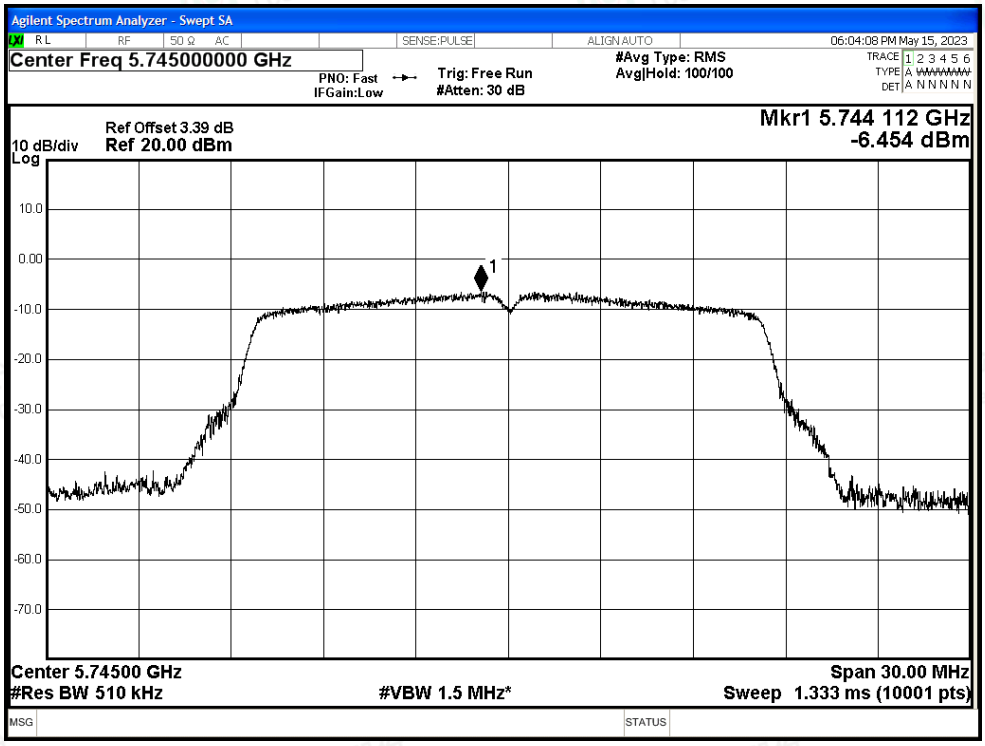


PSD NVNT ac80 5775MHz Ant0

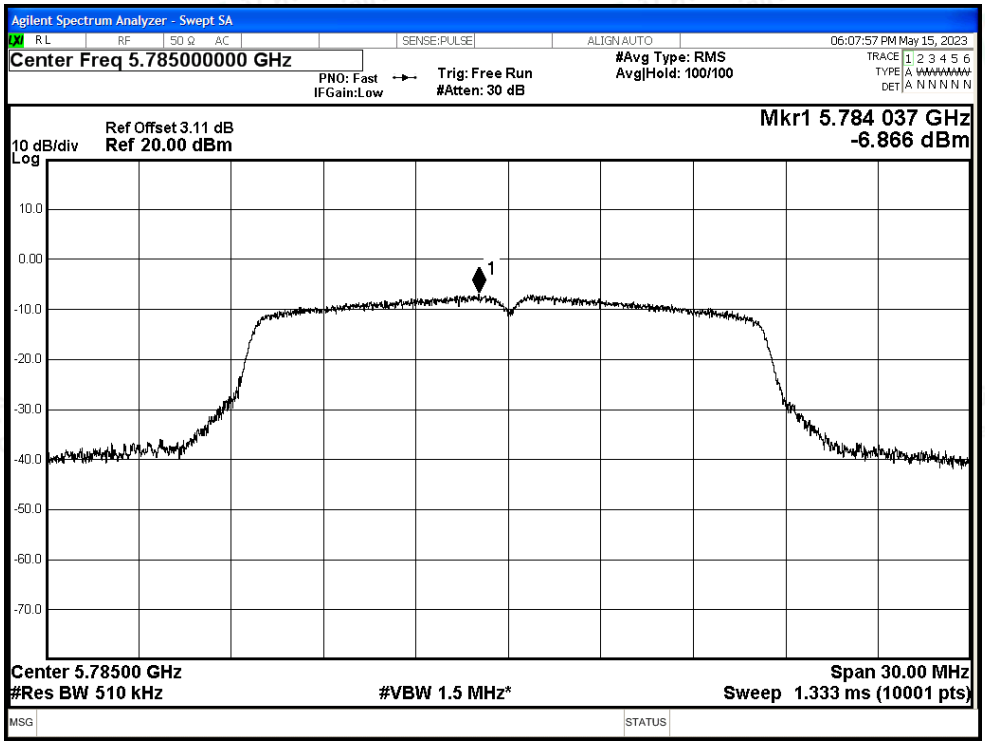


Test Graphs

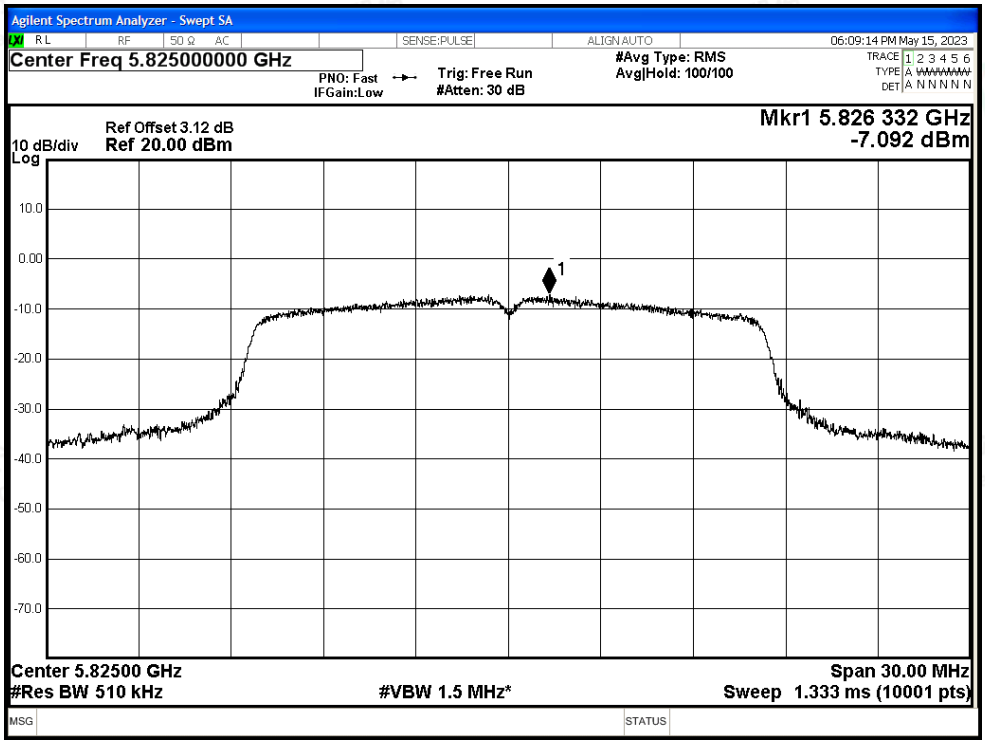
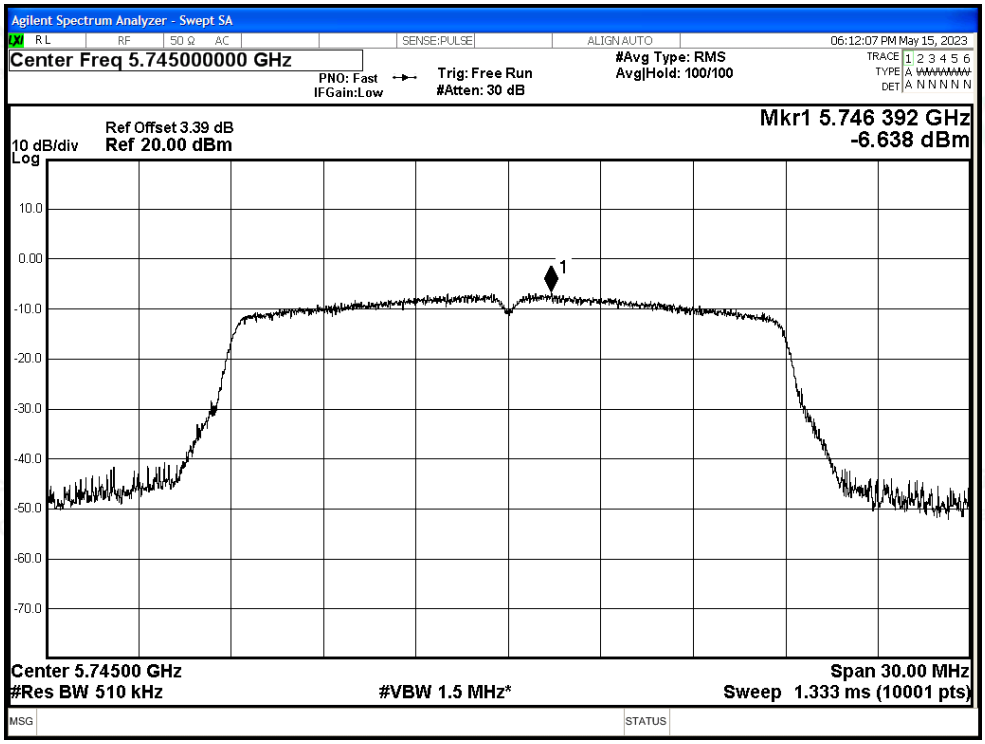
PSD NVNT a 5745MHz Ant1



PSD NVNT a 5785MHz Ant1



PSD NVNT a 5825MHz Ant1



PSD NVNT n20 5745MHz Ant1