Appendix D

RF Test Data for 5.8GWIFI (Conducted Measurement)

Product Name: Car Dashcam

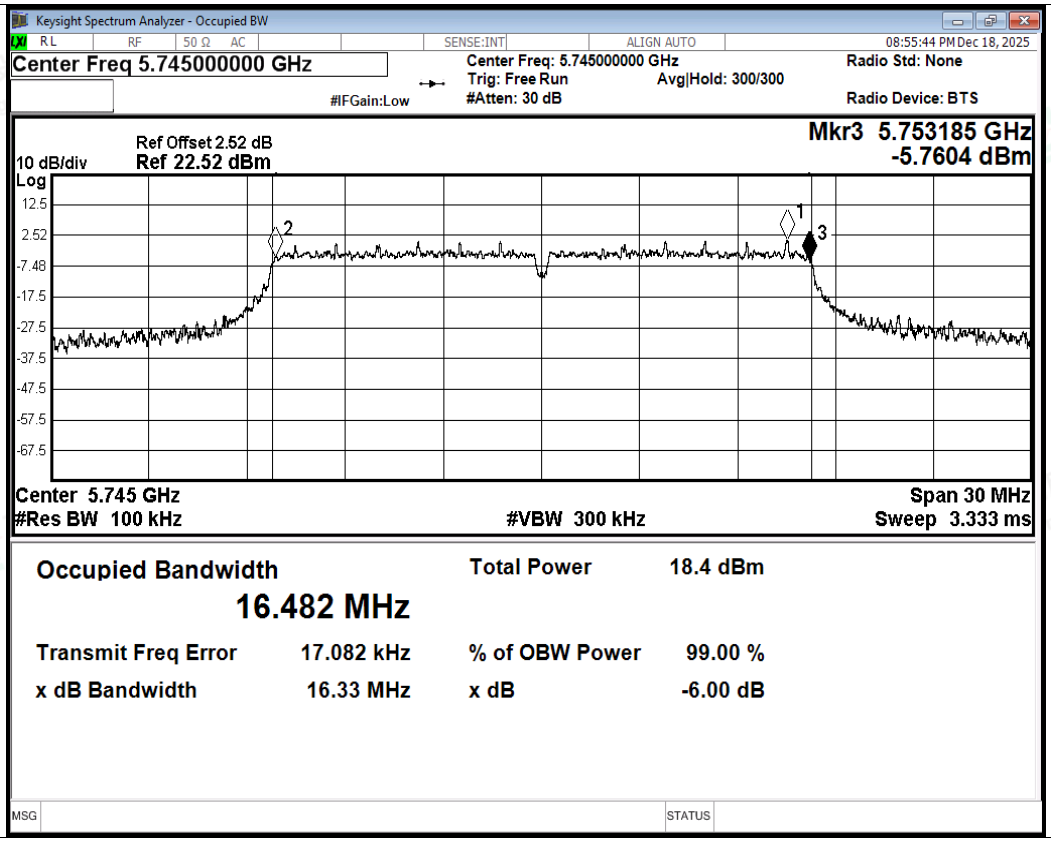
Test Model: ELITE9

Environmental Conditions

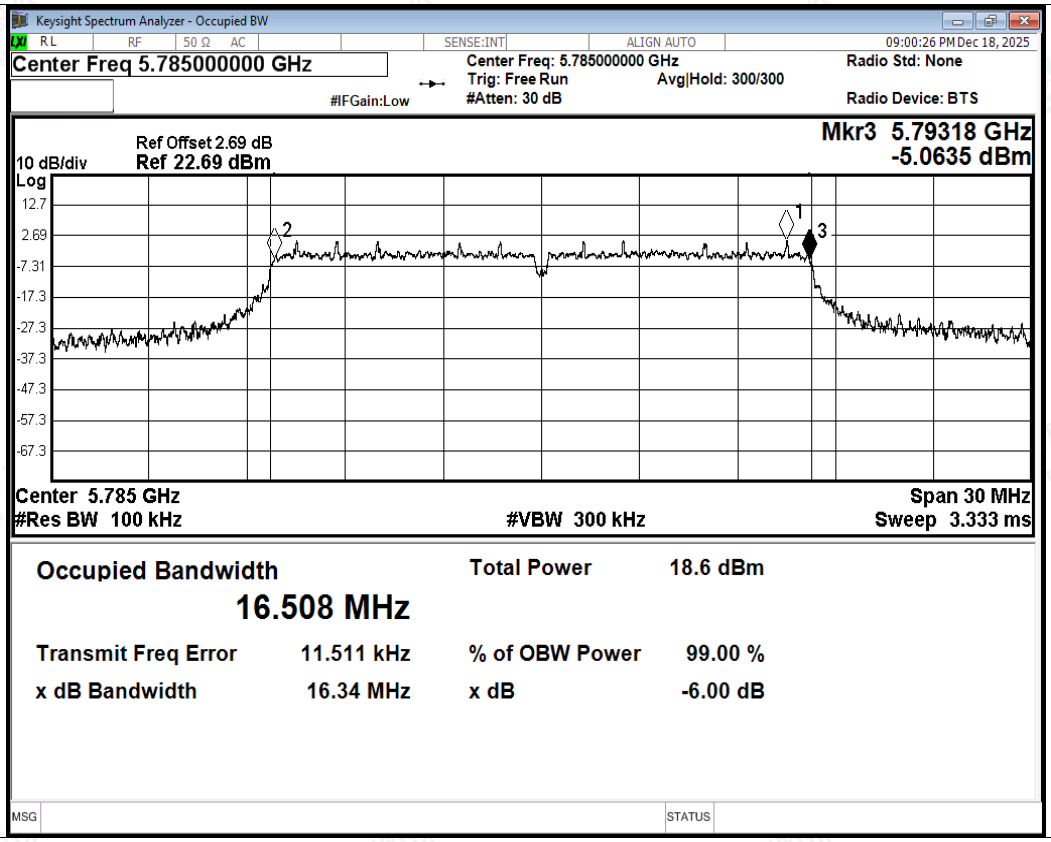
Temperature:	24.6°C
Relative Humidity:	53.9%
ATM Pressure:	100.0 kPa
Test Engineer:	Jerry Chu
Supervised by:	Can Kun

D.1 -6dB Bandwidth

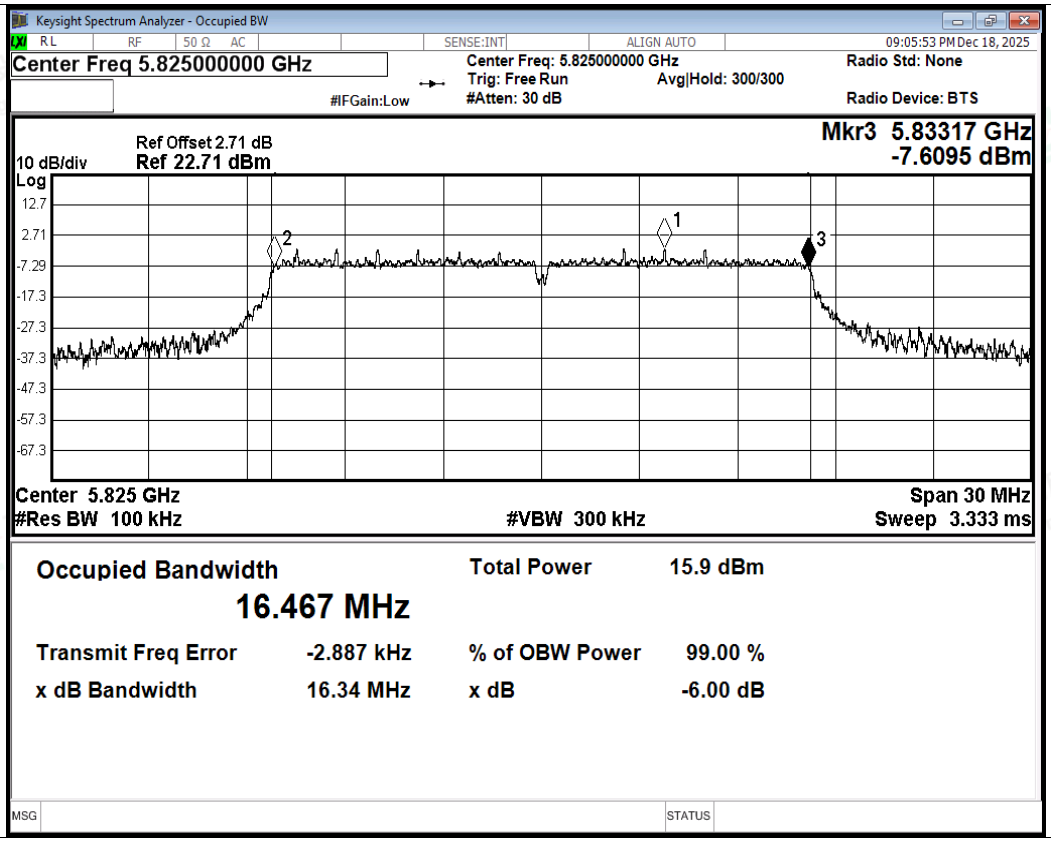
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	a	5745	Ant1	16.33	0.5	Pass
NVNT	a	5785	Ant1	16.34	0.5	Pass
NVNT	a	5825	Ant1	16.34	0.5	Pass
NVNT	n20	5745	Ant1	17.51	0.5	Pass
NVNT	n20	5785	Ant1	17.26	0.5	Pass
NVNT	n20	5825	Ant1	17.54	0.5	Pass
NVNT	n40	5755	Ant1	35.94	0.5	Pass
NVNT	n40	5795	Ant1	36.01	0.5	Pass
NVNT	ac20	5745	Ant1	17.39	0.5	Pass
NVNT	ac20	5785	Ant1	17.53	0.5	Pass
NVNT	ac20	5825	Ant1	17.4	0.5	Pass
NVNT	ac40	5755	Ant1	35.74	0.5	Pass
NVNT	ac40	5795	Ant1	35.91	0.5	Pass
NVNT	ac80	5775	Ant1	75.76	0.5	Pass



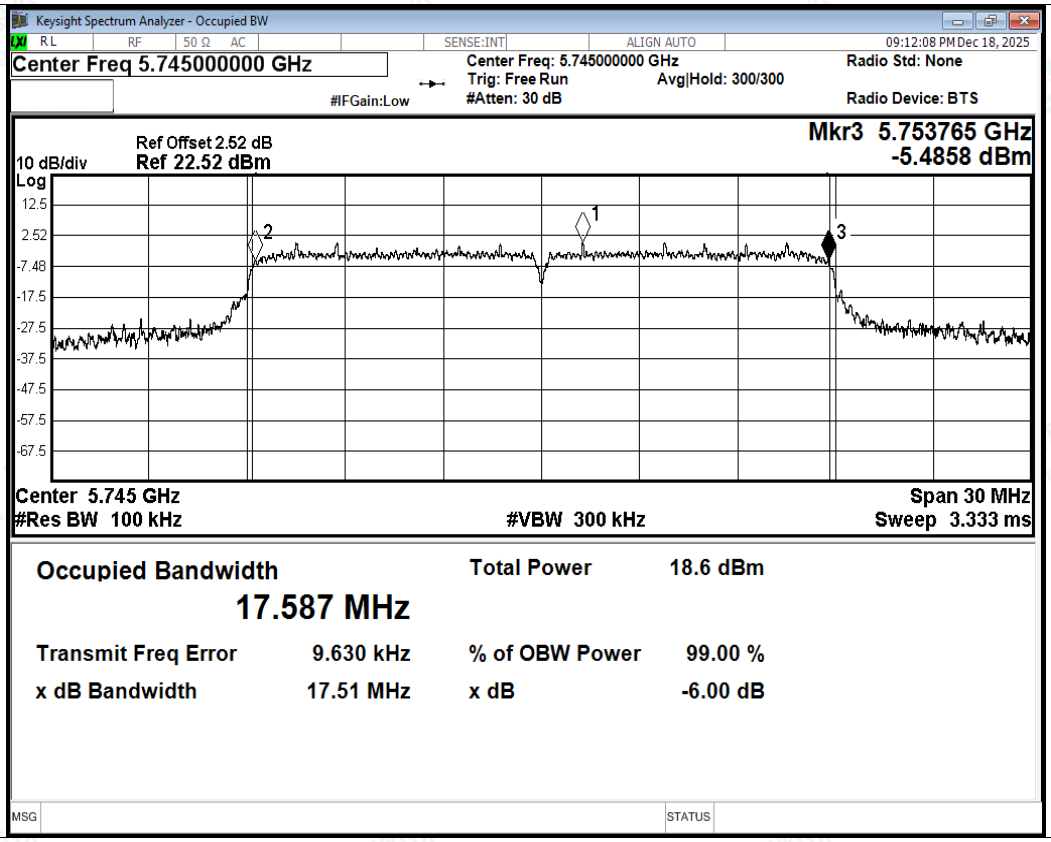
-6dB Bandwidth NVNT a 5745MHz Ant1



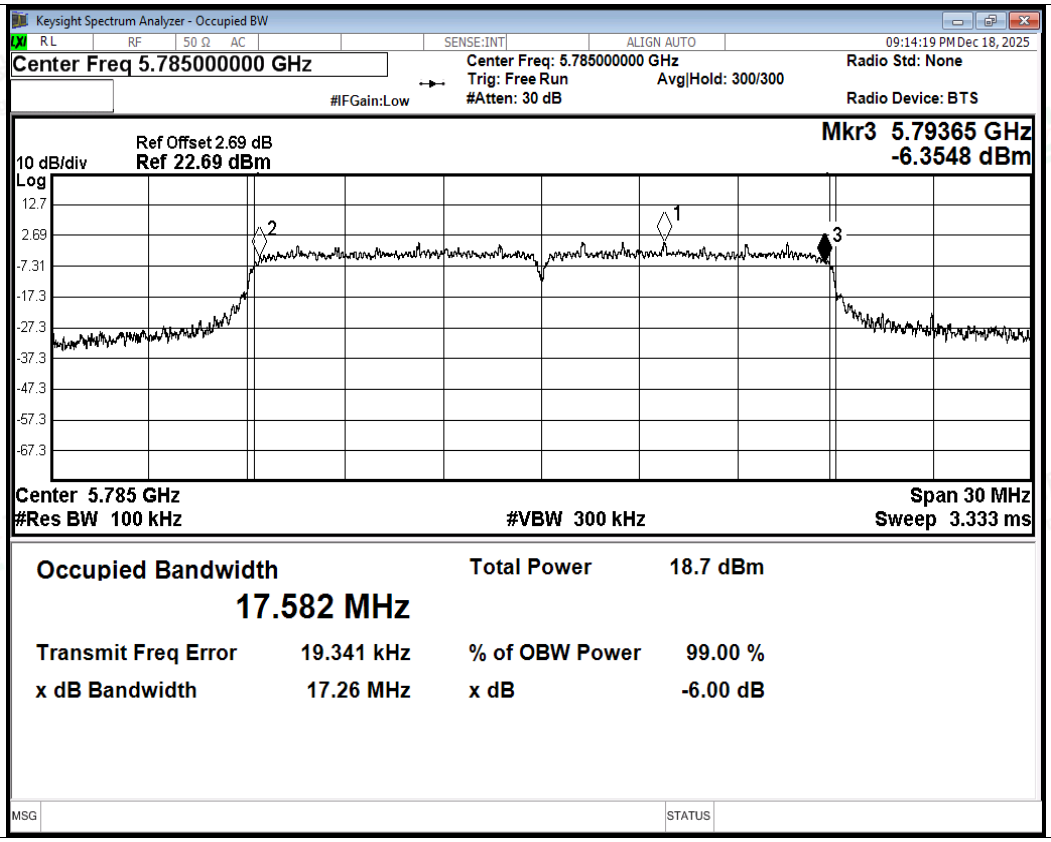
-6dB Bandwidth NVNT a 5785MHz Ant1



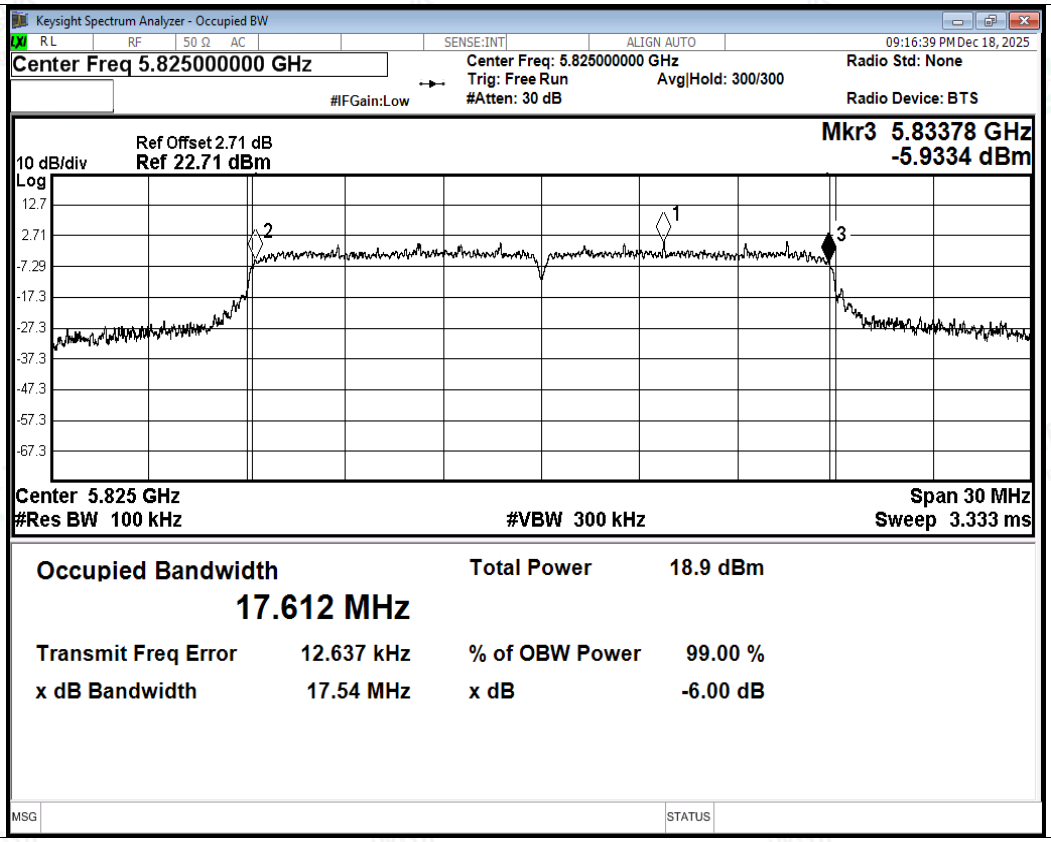
-6dB Bandwidth NVNT a 5825MHz Ant1



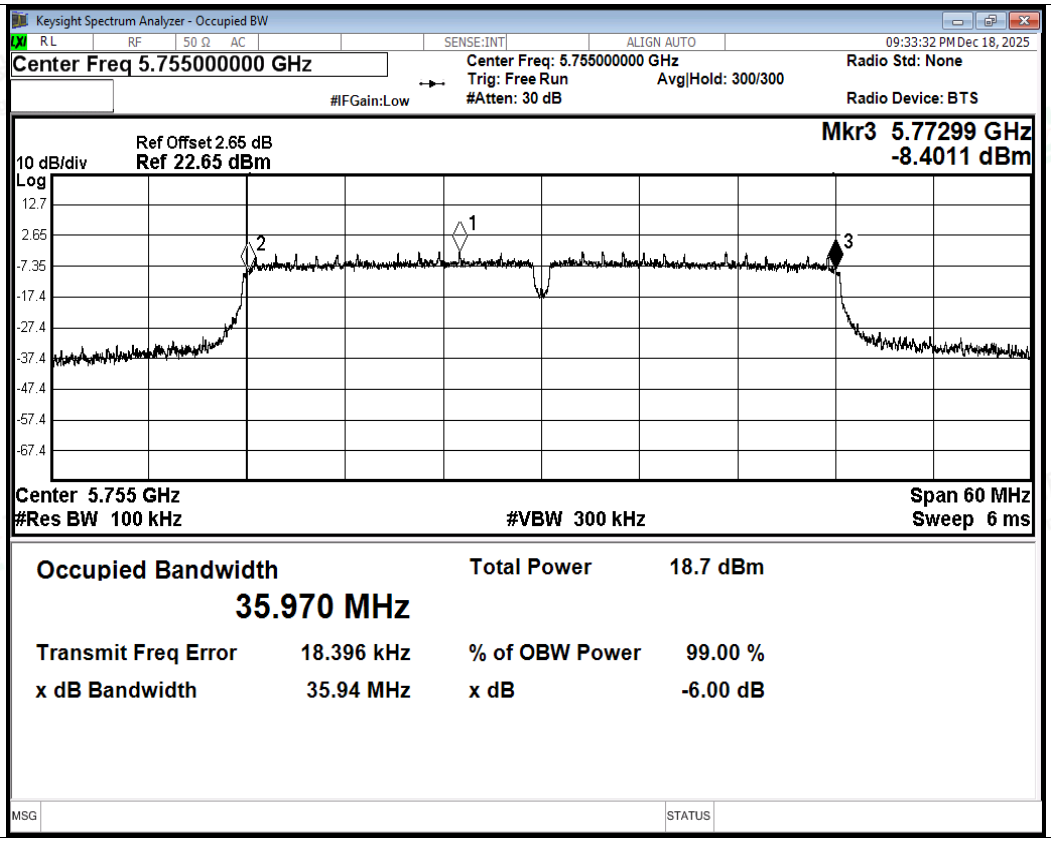
-6dB Bandwidth NVNT n20 5745MHz Ant1



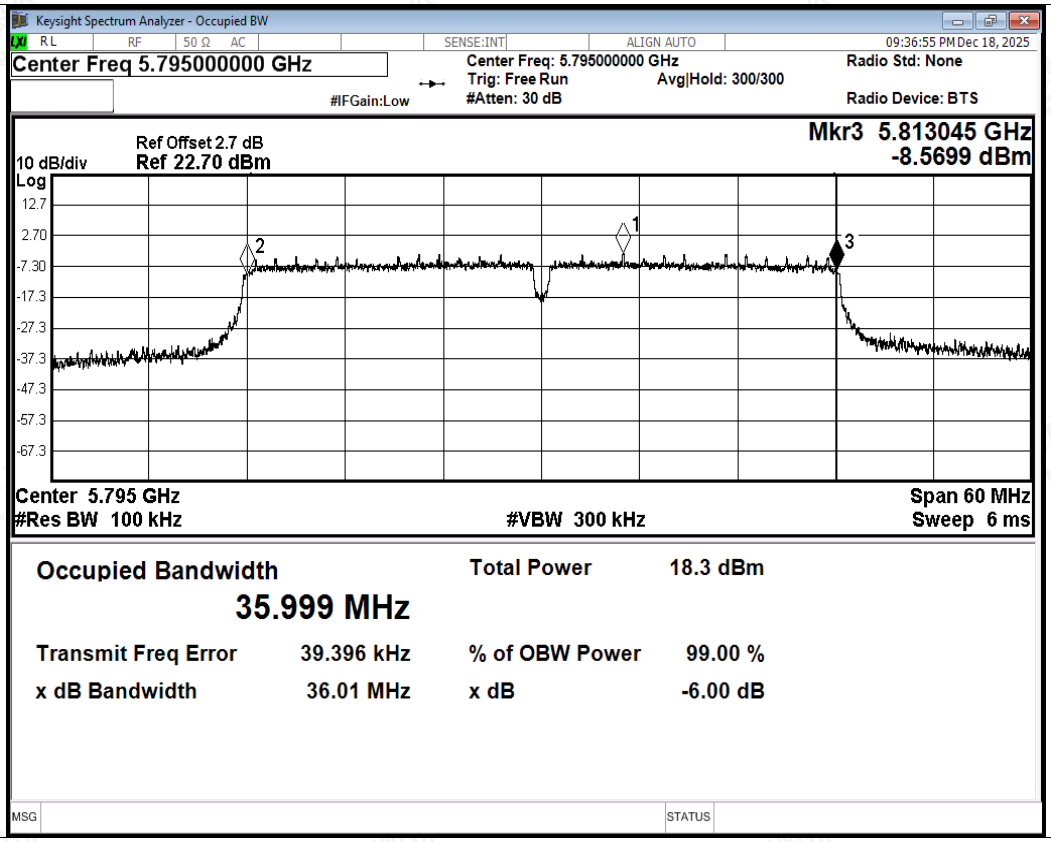
-6dB Bandwidth NVNT n20 5785MHz Ant1



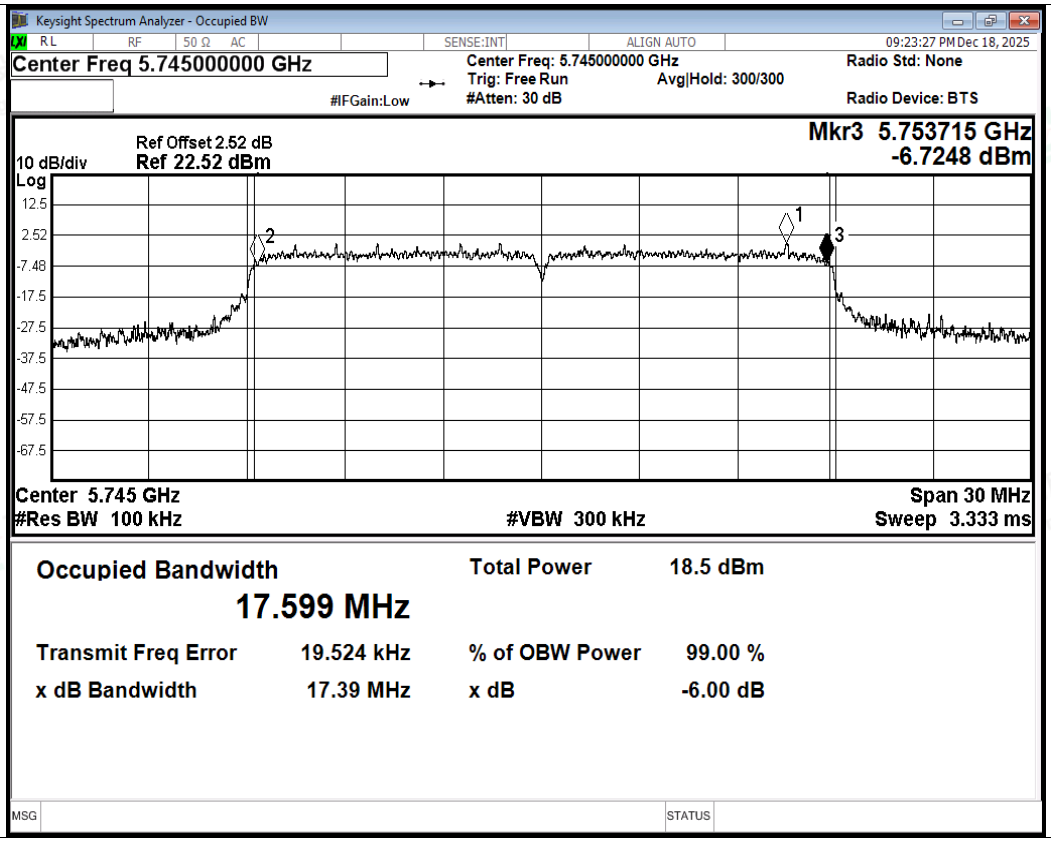
-6dB Bandwidth NVNT n20 5825MHz Ant1



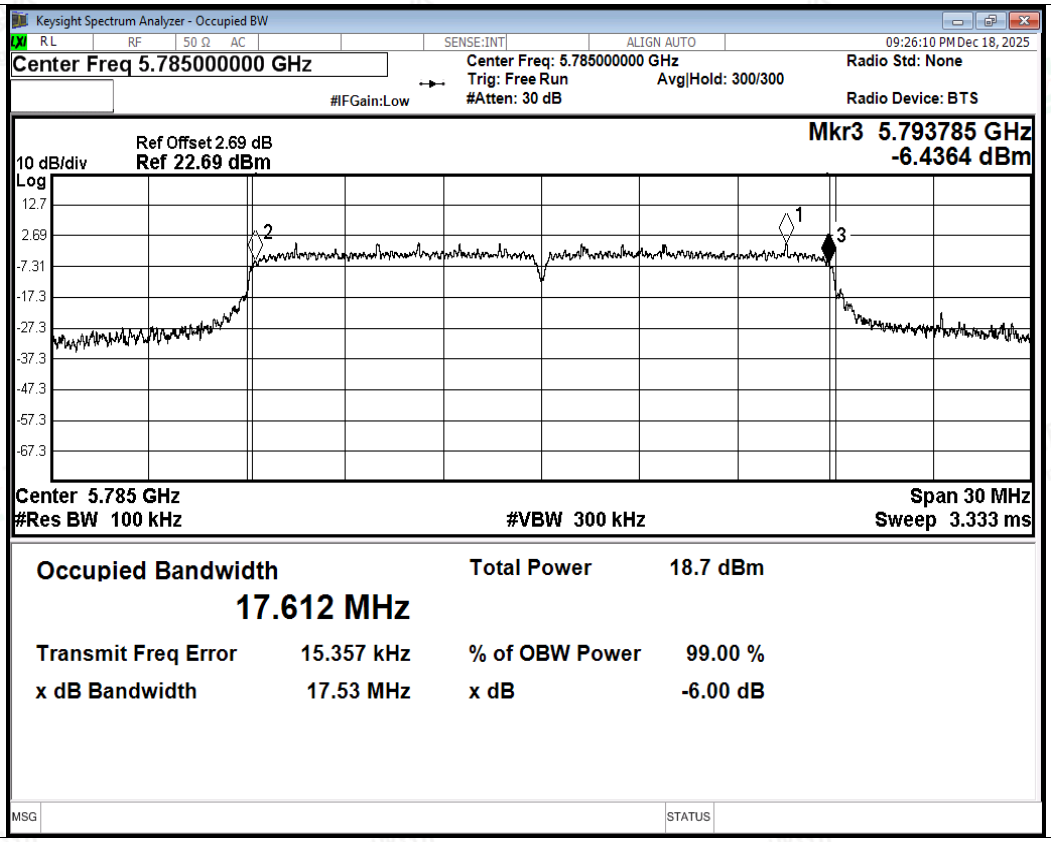
-6dB Bandwidth NVNT n40 5755MHz Ant1



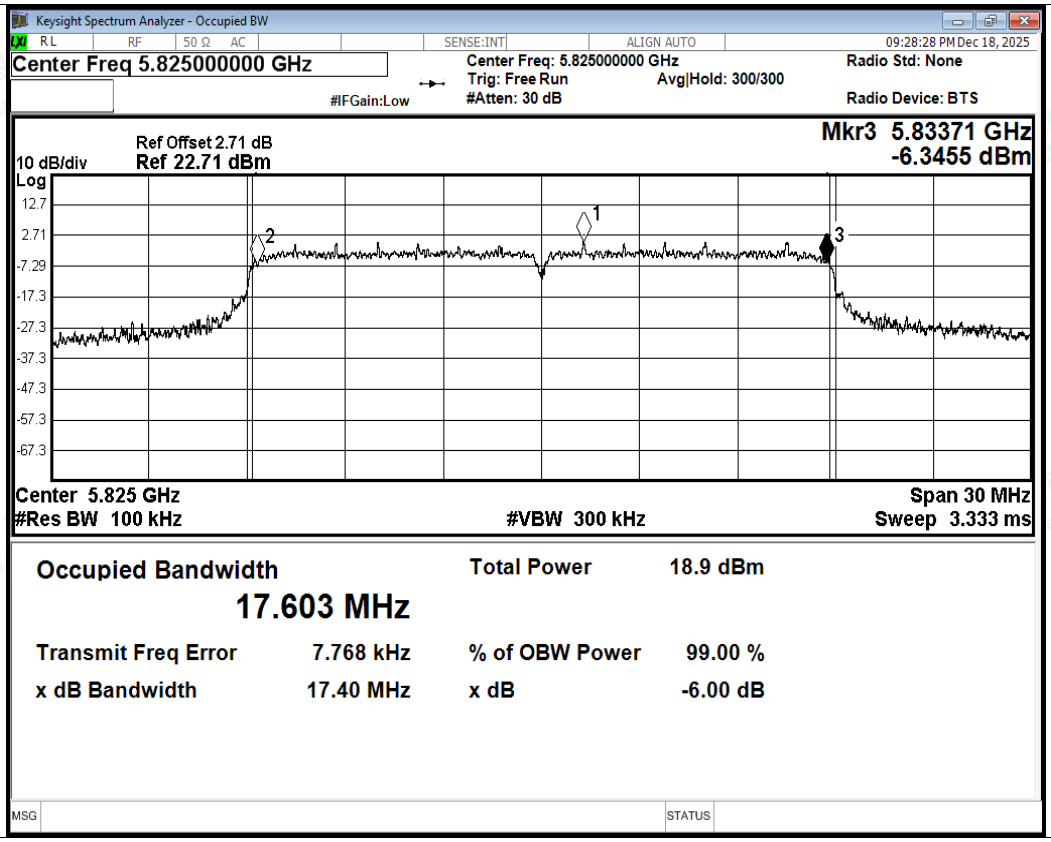
-6dB Bandwidth NVNT n40 5795MHz Ant1



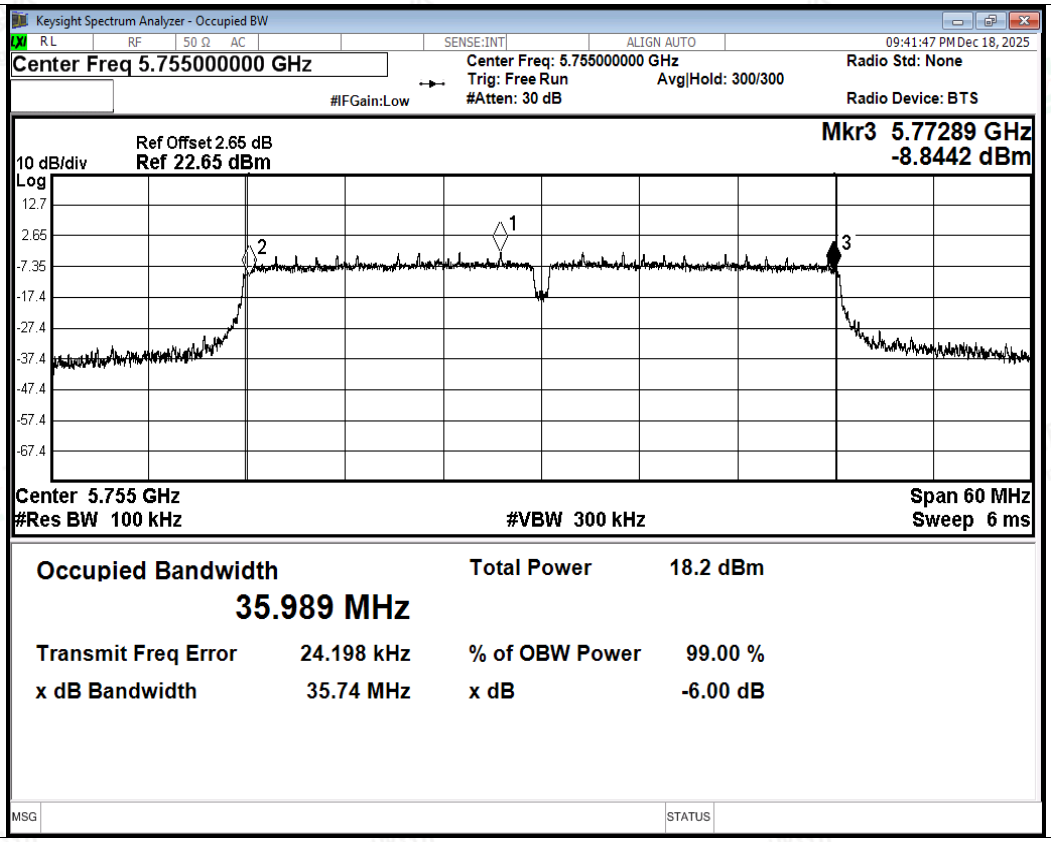
-6dB Bandwidth NVNT ac20 5745MHz Ant1



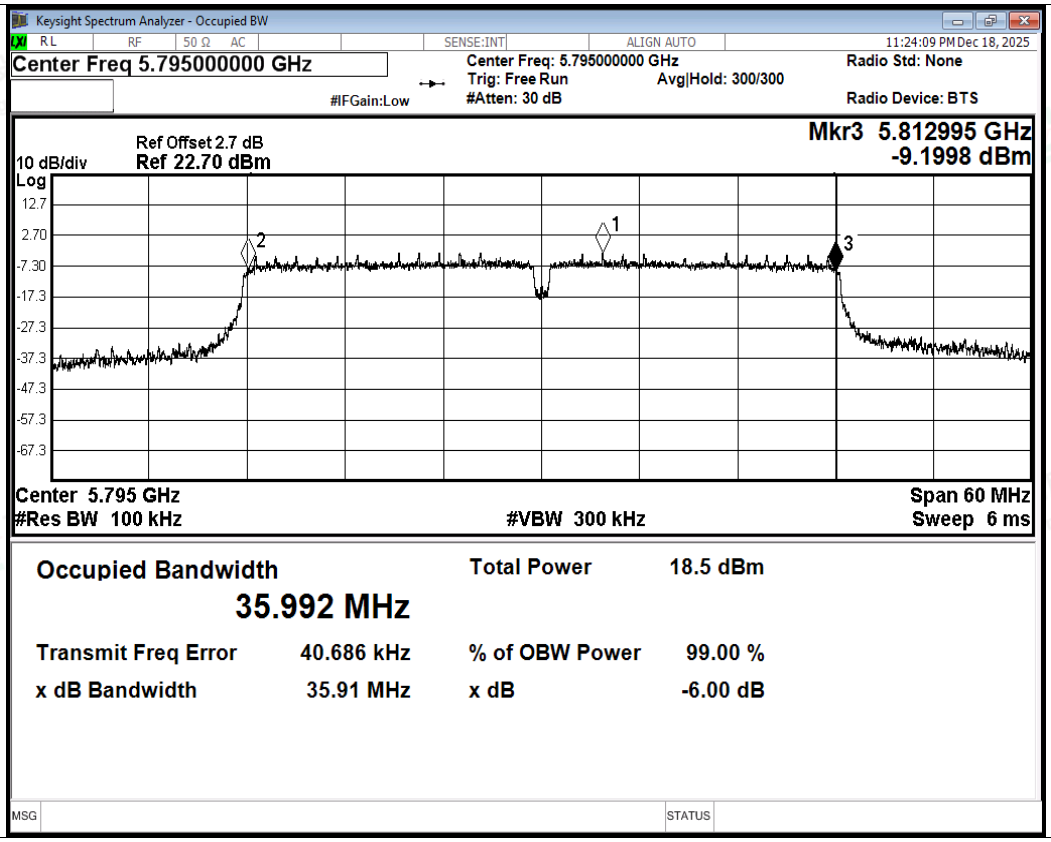
-6dB Bandwidth NVNT ac20 5785MHz Ant1



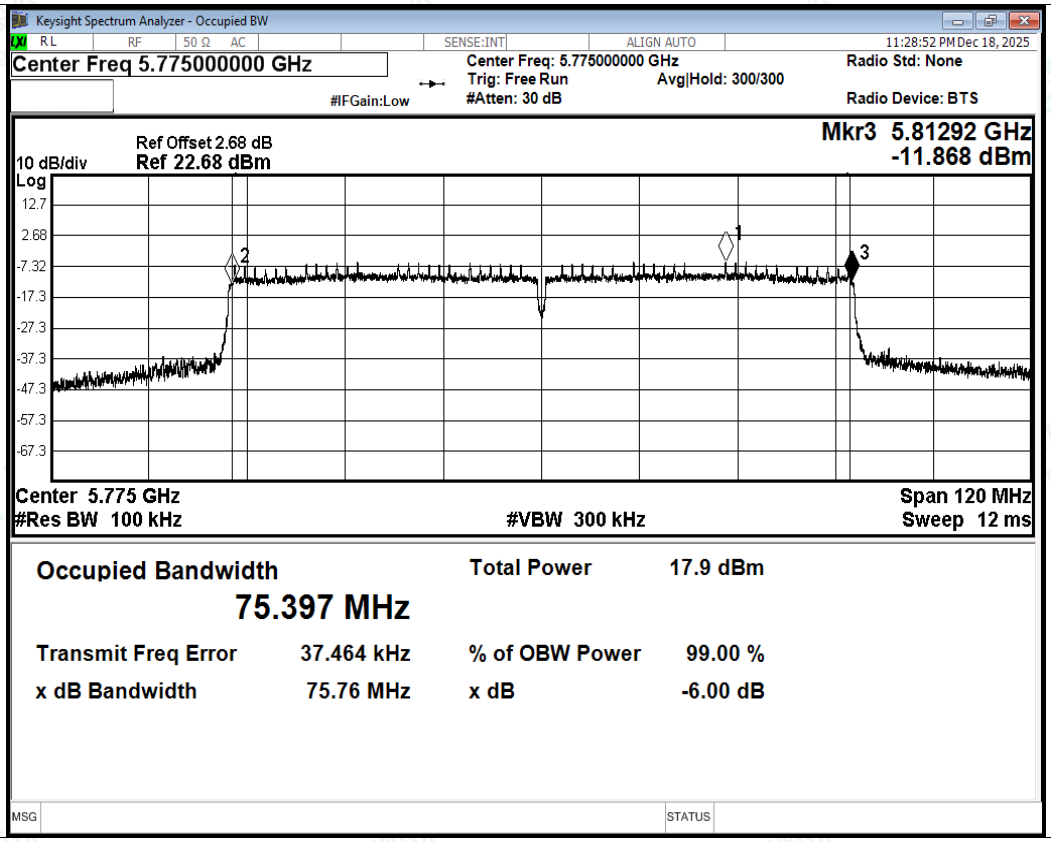
-6dB Bandwidth NVNT ac20 5825MHz Ant1



-6dB Bandwidth NVNT ac40 5755MHz Ant1



-6dB Bandwidth NVNT ac40 5795MHz Ant1



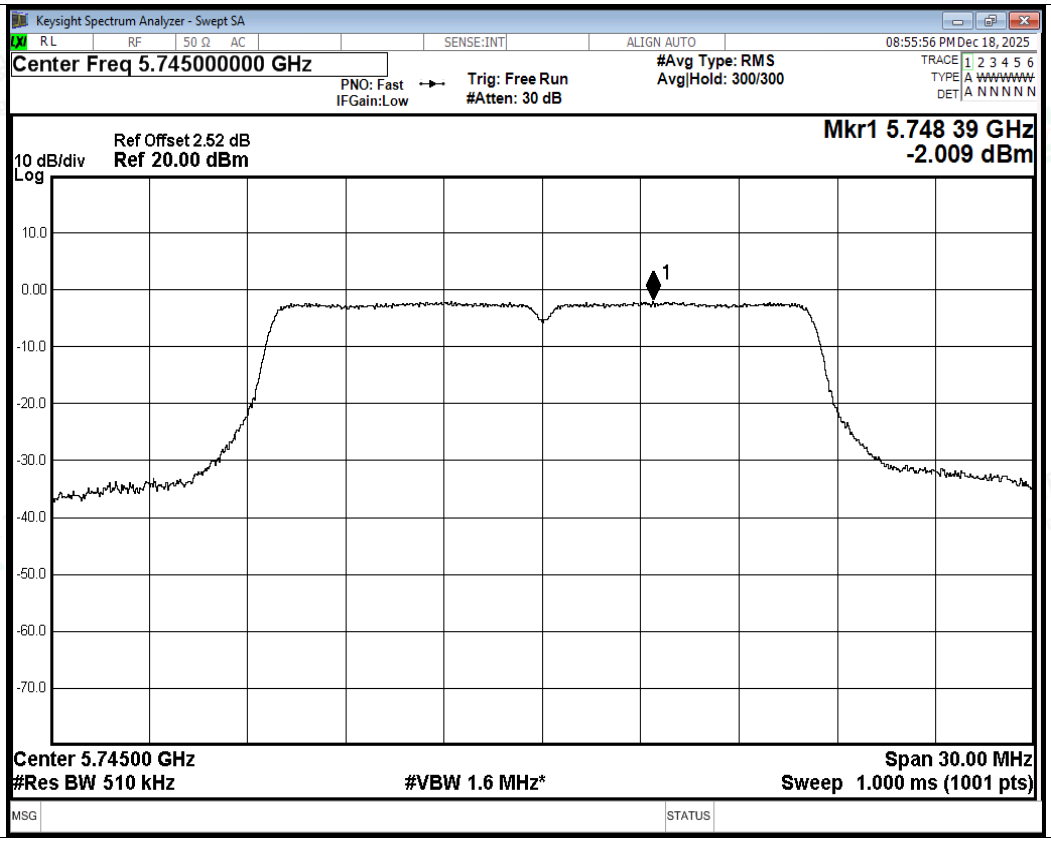
-6dB Bandwidth NVNT ac80 5775MHz Ant1

D.2 Maximum Conducted Output Power

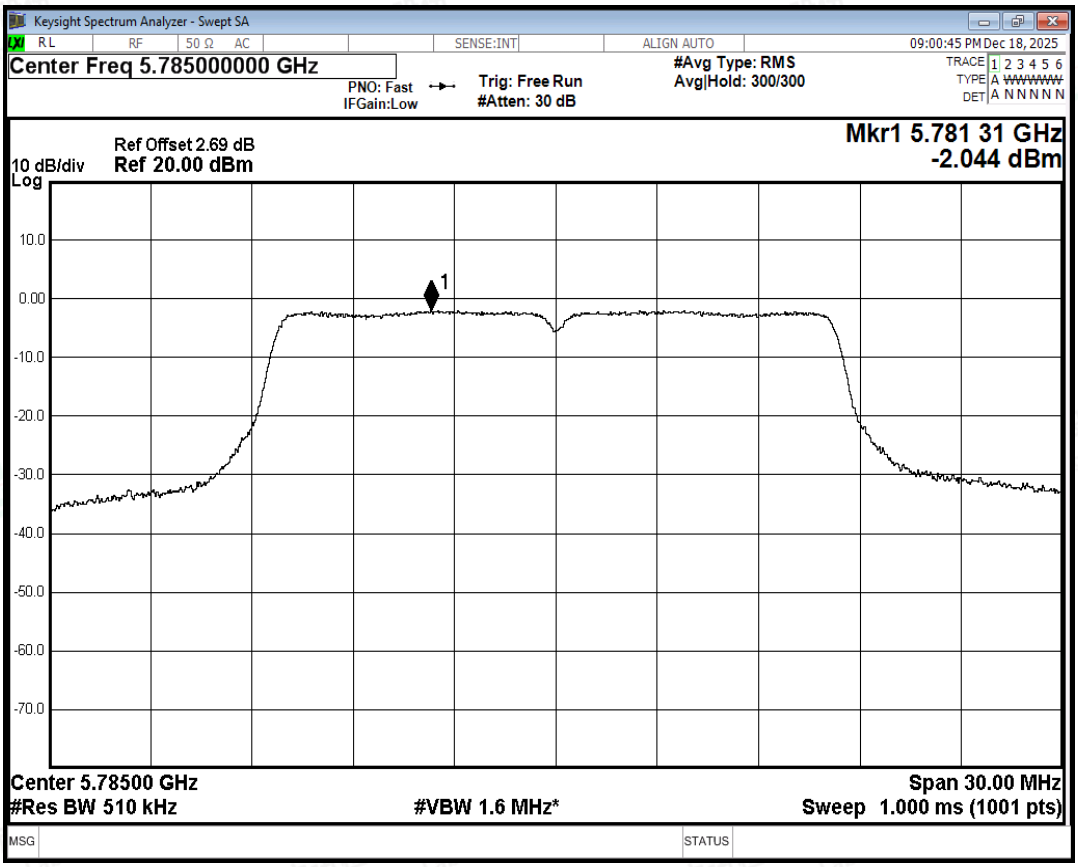
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Conducted Power (dBm)	Total Conducted Power (W)	Limit Conducted(dBm)	Verdict
NVNT	a	5745	Ant1	12.2	0.11	12.31	0.01702	30	Pass
NVNT	a	5785	Ant1	12.1	0.1	12.2	0.01660	30	Pass
NVNT	a	5825	Ant1	9.57	0.1	9.67	0.00927	30	Pass
NVNT	n20	5745	Ant1	11.72	0.13	11.85	0.01531	30	Pass
NVNT	n20	5785	Ant1	11.85	0.11	11.96	0.01570	30	Pass
NVNT	n20	5825	Ant1	12.11	0.11	12.22	0.01667	30	Pass
NVNT	n40	5755	Ant1	11.34	0.27	11.61	0.01449	30	Pass
NVNT	n40	5795	Ant1	11.31	0.23	11.54	0.01426	30	Pass
NVNT	ac20	5745	Ant1	11.37	0.13	11.5	0.01413	30	Pass
NVNT	ac20	5785	Ant1	11.89	0.13	12.02	0.01592	30	Pass
NVNT	ac20	5825	Ant1	12.09	0.11	12.2	0.01660	30	Pass
NVNT	ac40	5755	Ant1	11.33	0.23	11.56	0.01432	30	Pass
NVNT	ac40	5795	Ant1	11.42	0.23	11.65	0.01462	30	Pass
NVNT	ac80	5775	Ant1	10.75	0.54	11.29	0.01346	30	Pass

D.3 Maximum Power Spectral Density Level

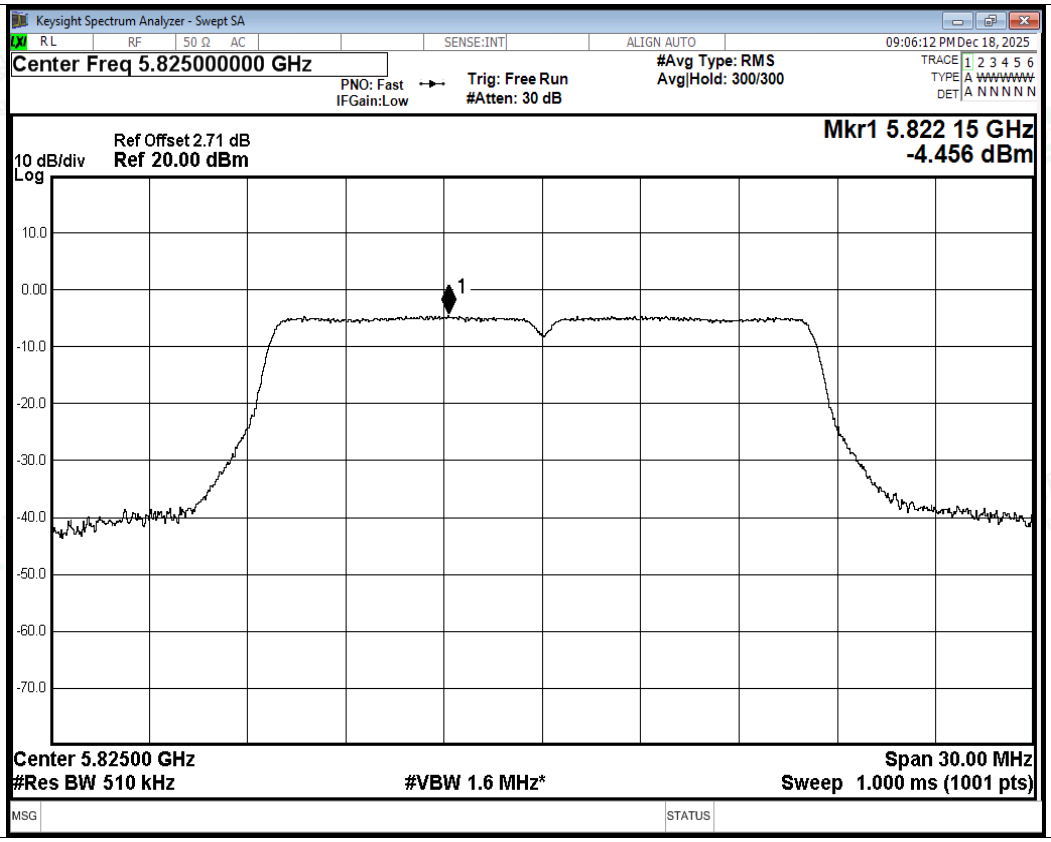
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total Conducted PSD (dBm)	Limit Conducted(dBm)	Verdict
NVNT	a	5745	Ant1	-2.01	0.11	-1.9	30	Pass
NVNT	a	5785	Ant1	-2.04	0.1	-1.94	30	Pass
NVNT	a	5825	Ant1	-4.46	0.1	-4.36	30	Pass
NVNT	n20	5745	Ant1	-2.34	0.13	-2.21	30	Pass
NVNT	n20	5785	Ant1	-2.49	0.11	-2.38	30	Pass
NVNT	n20	5825	Ant1	-2.24	0.11	-2.13	30	Pass
NVNT	n40	5755	Ant1	-5.47	0.27	-5.2	30	Pass
NVNT	n40	5795	Ant1	-5.98	0.23	-5.75	30	Pass
NVNT	ac20	5745	Ant1	-2.61	0.13	-2.48	30	Pass
NVNT	ac20	5785	Ant1	-2.53	0.13	-2.4	30	Pass
NVNT	ac20	5825	Ant1	-2.27	0.11	-2.16	30	Pass
NVNT	ac40	5755	Ant1	-5.94	0.23	-5.71	30	Pass
NVNT	ac40	5795	Ant1	-5.82	0.23	-5.59	30	Pass
NVNT	ac80	5775	Ant1	-9.89	0.54	-9.35	30	Pass



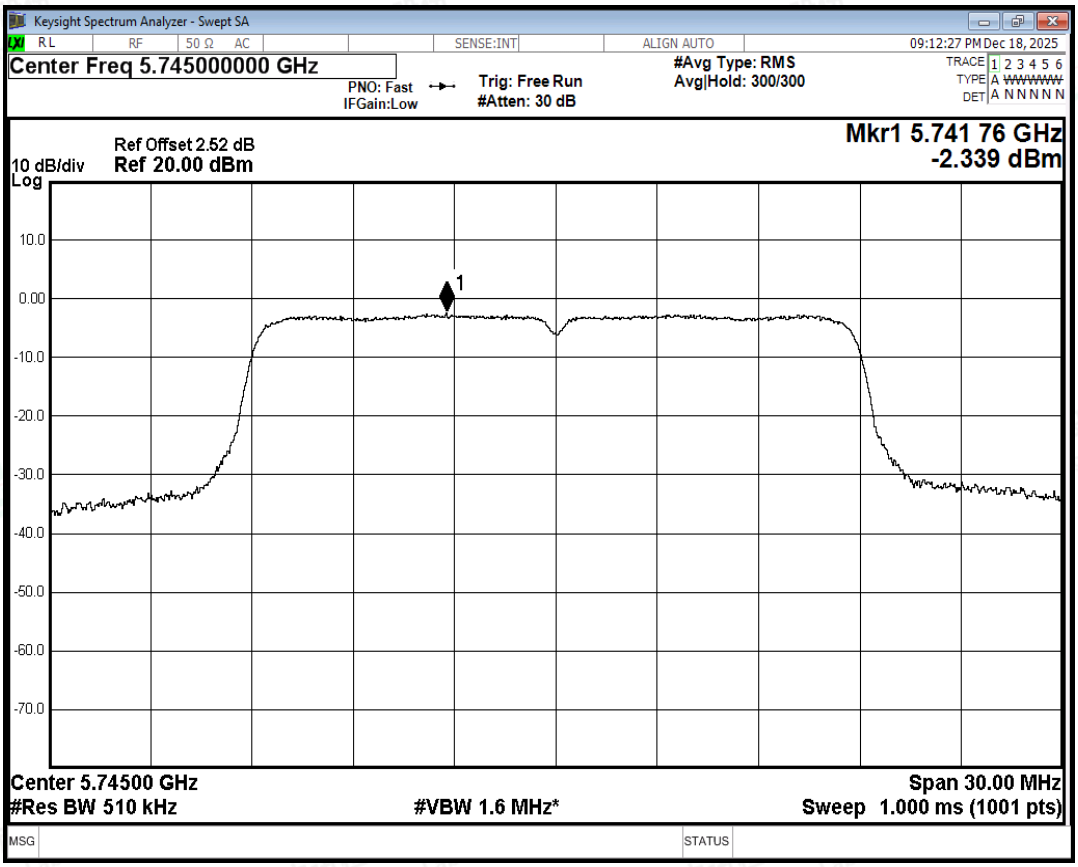
PSD NVNT a 5745MHz Ant1



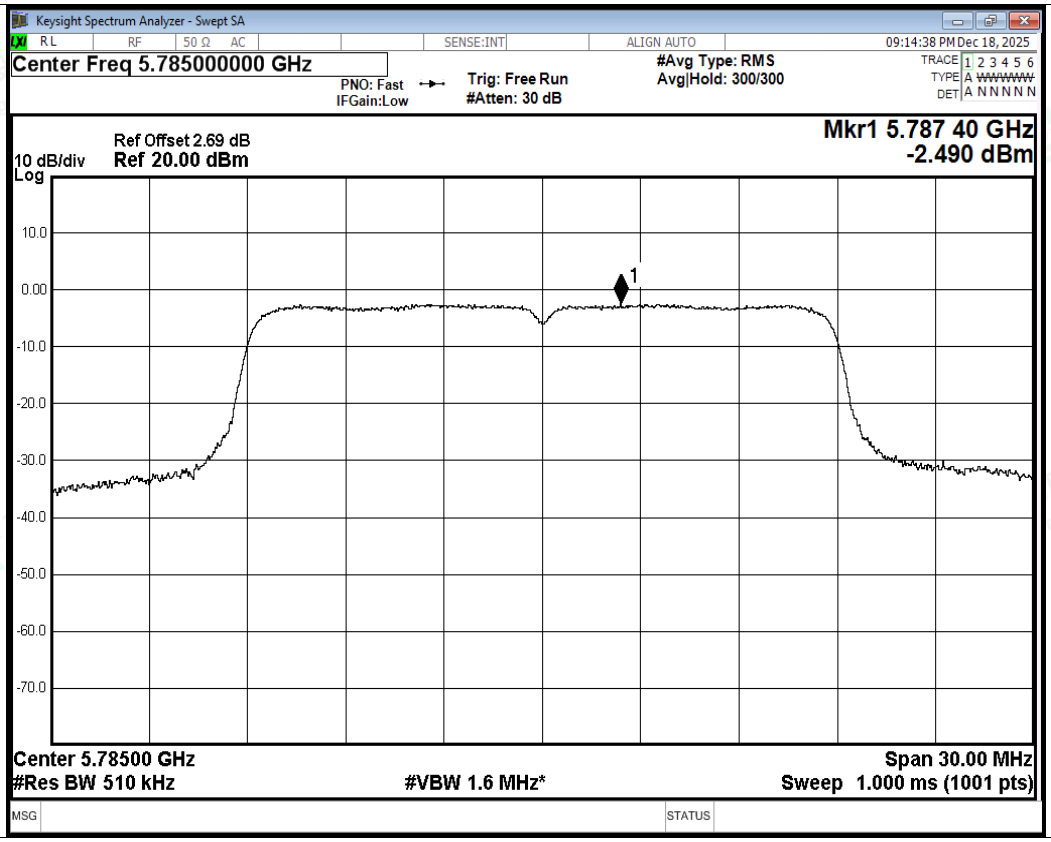
PSD NVNT a 5785MHz Ant1



PSD NVNT a 5825MHz Ant1



PSD NVNT n20 5745MHz Ant1



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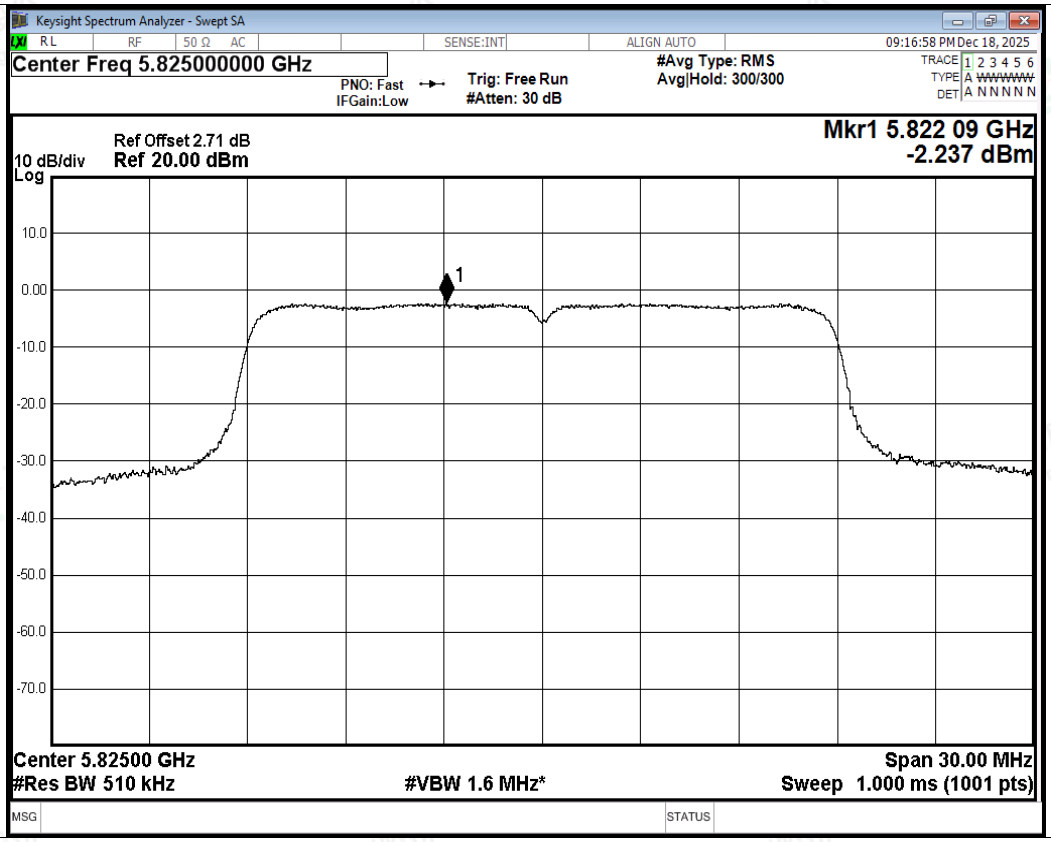

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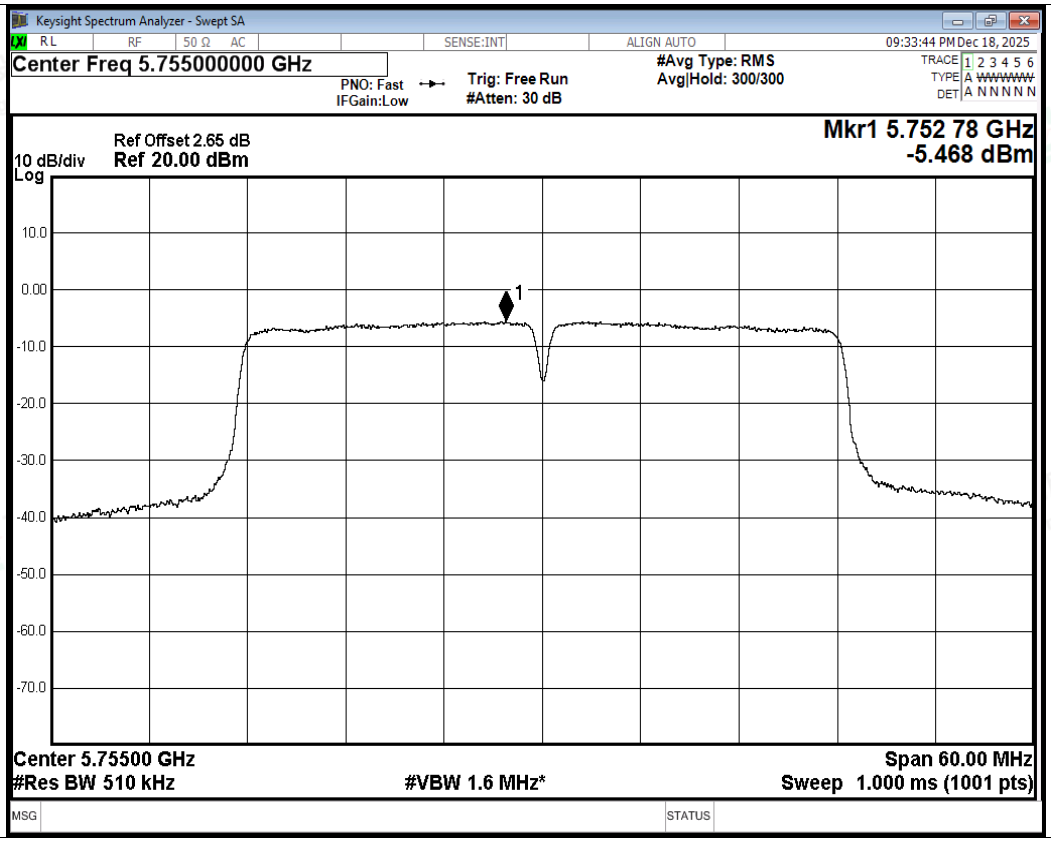

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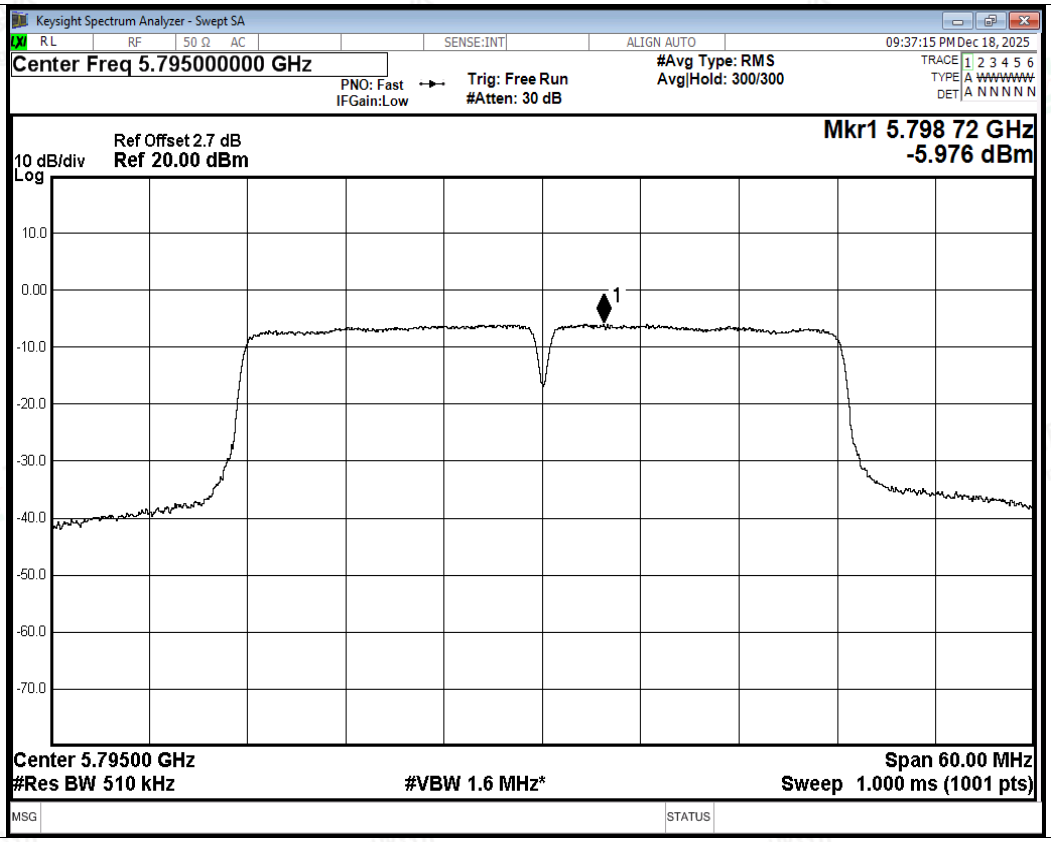
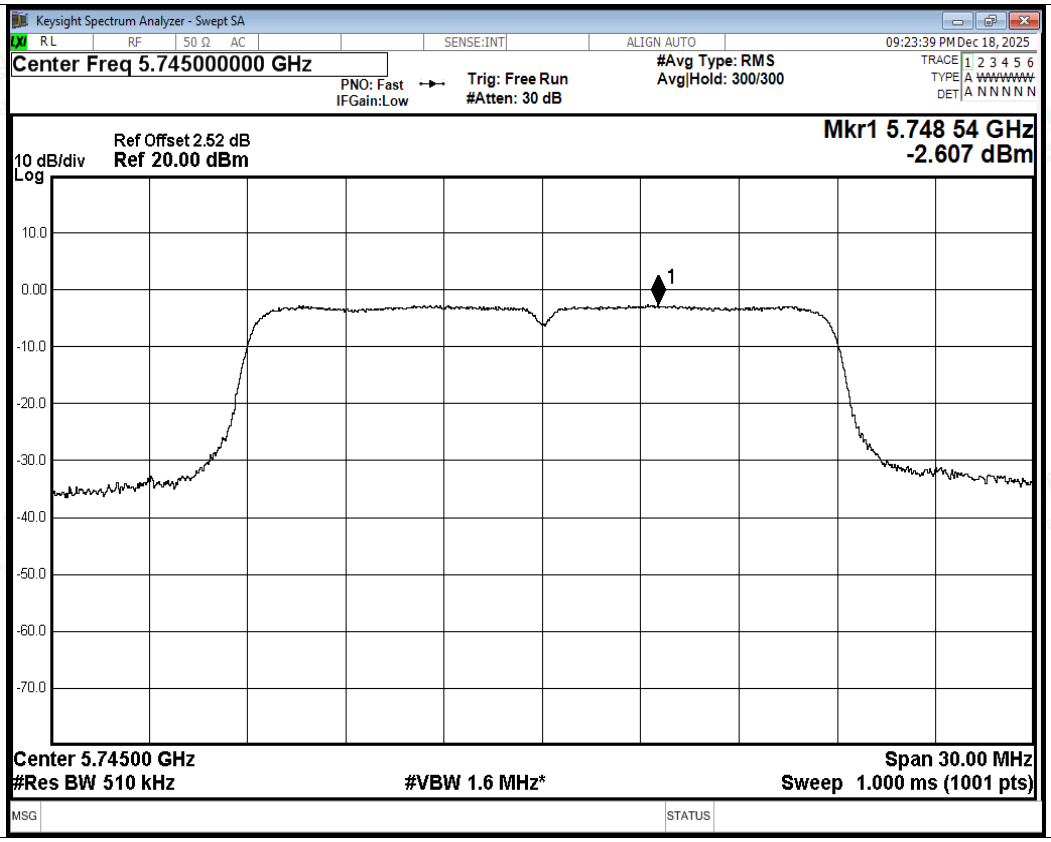
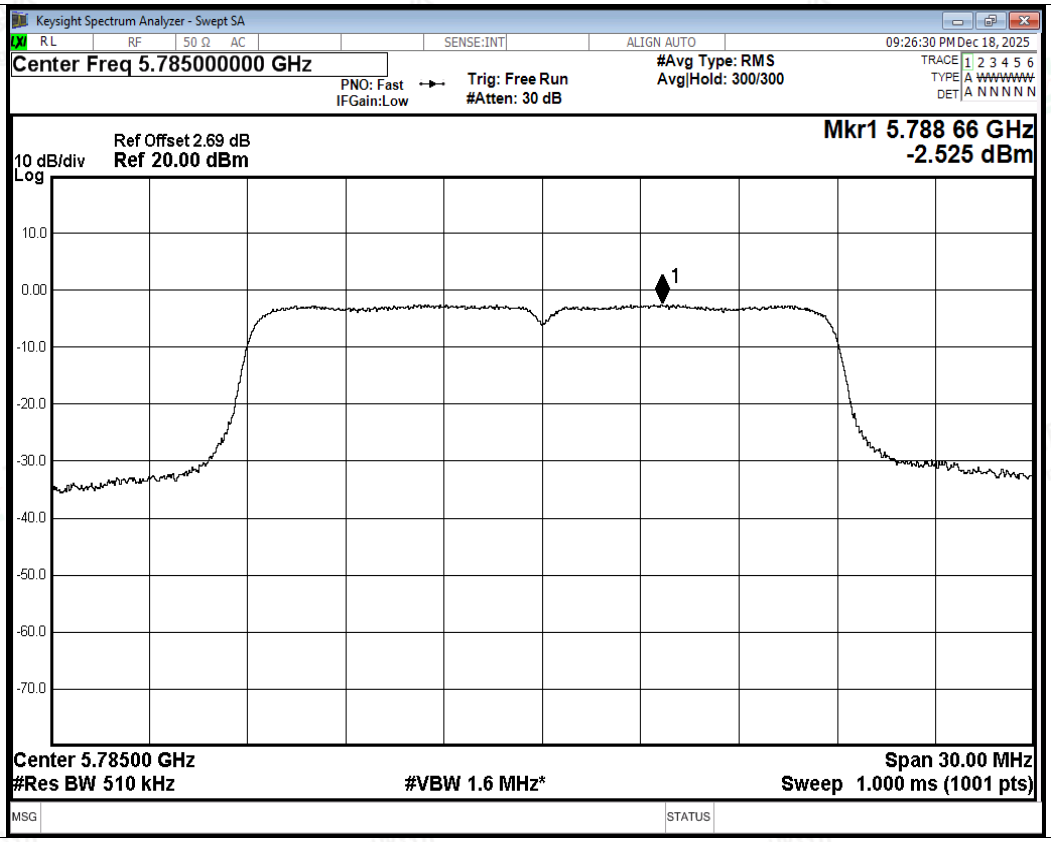


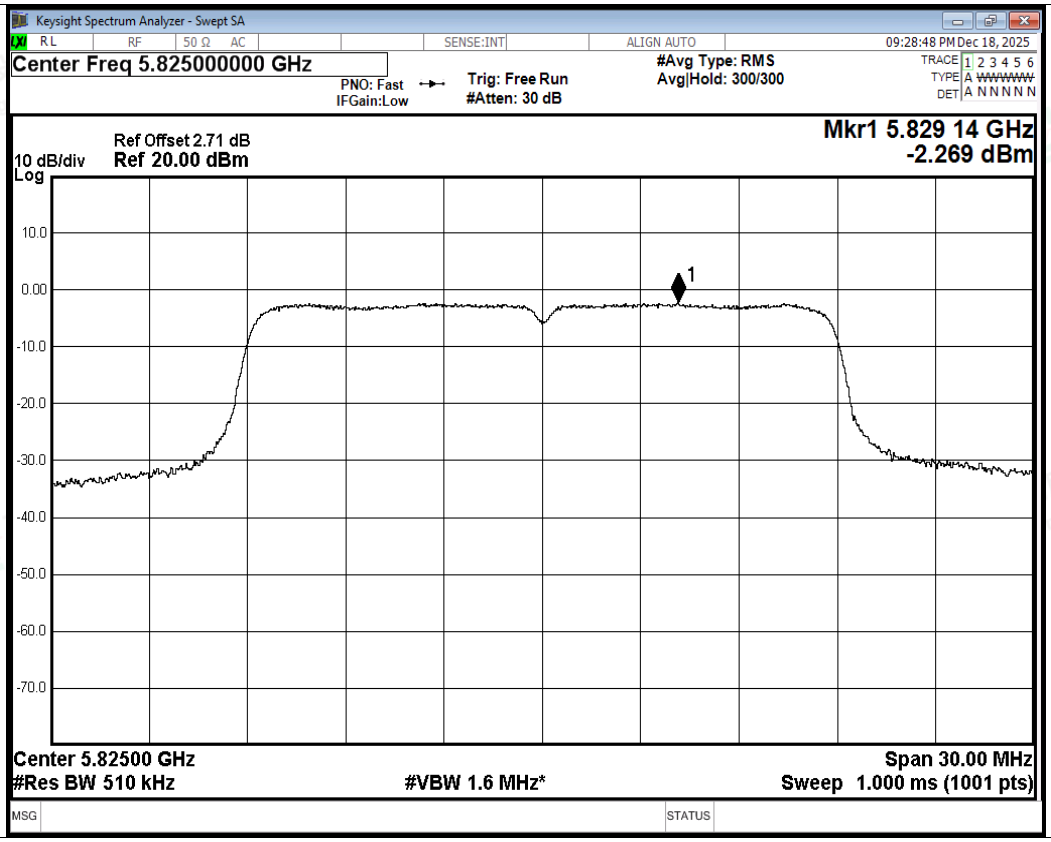
PSD NVNT n40 5795MHz Ant1



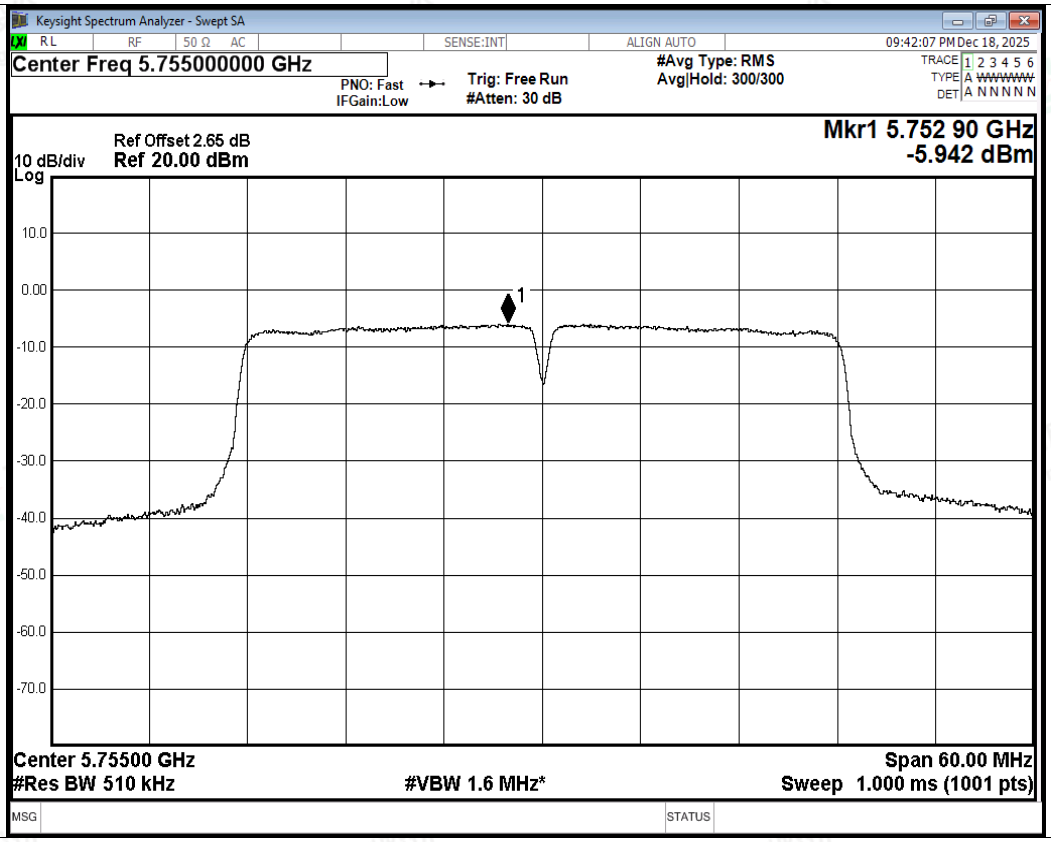
PSD NVNT ac20 5745MHz Ant1



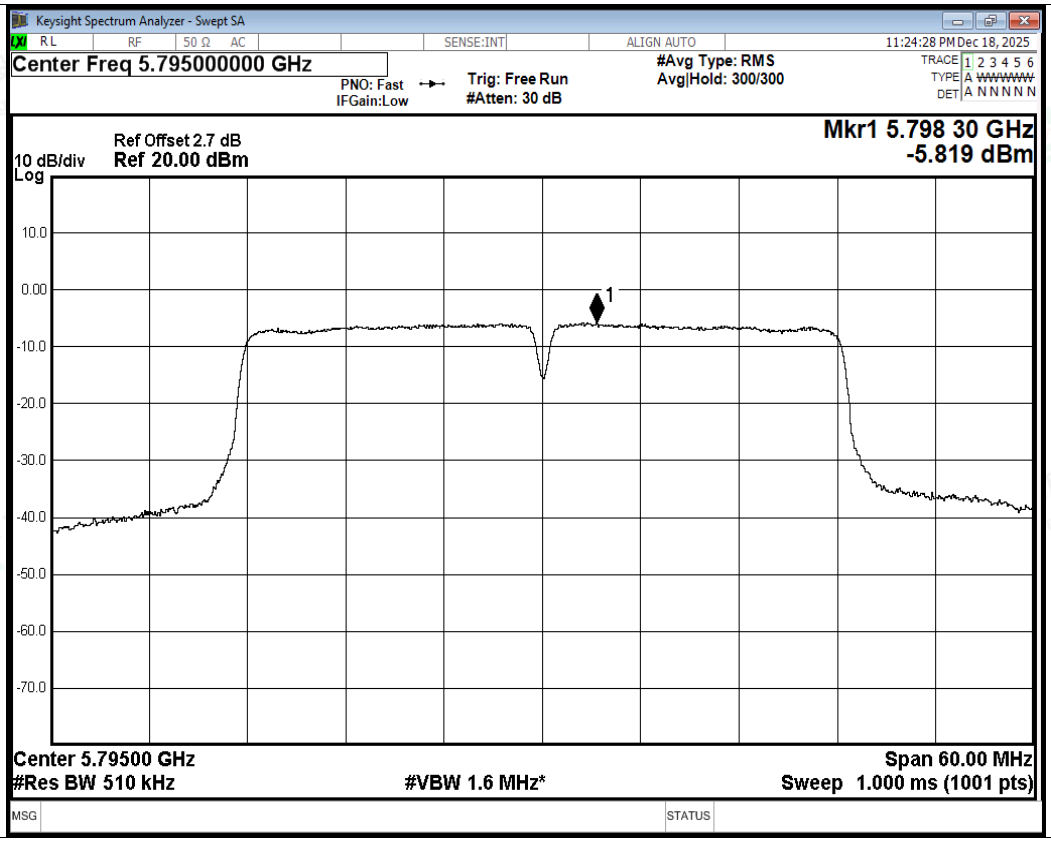
PSD NVNT ac20 5785MHz Ant1



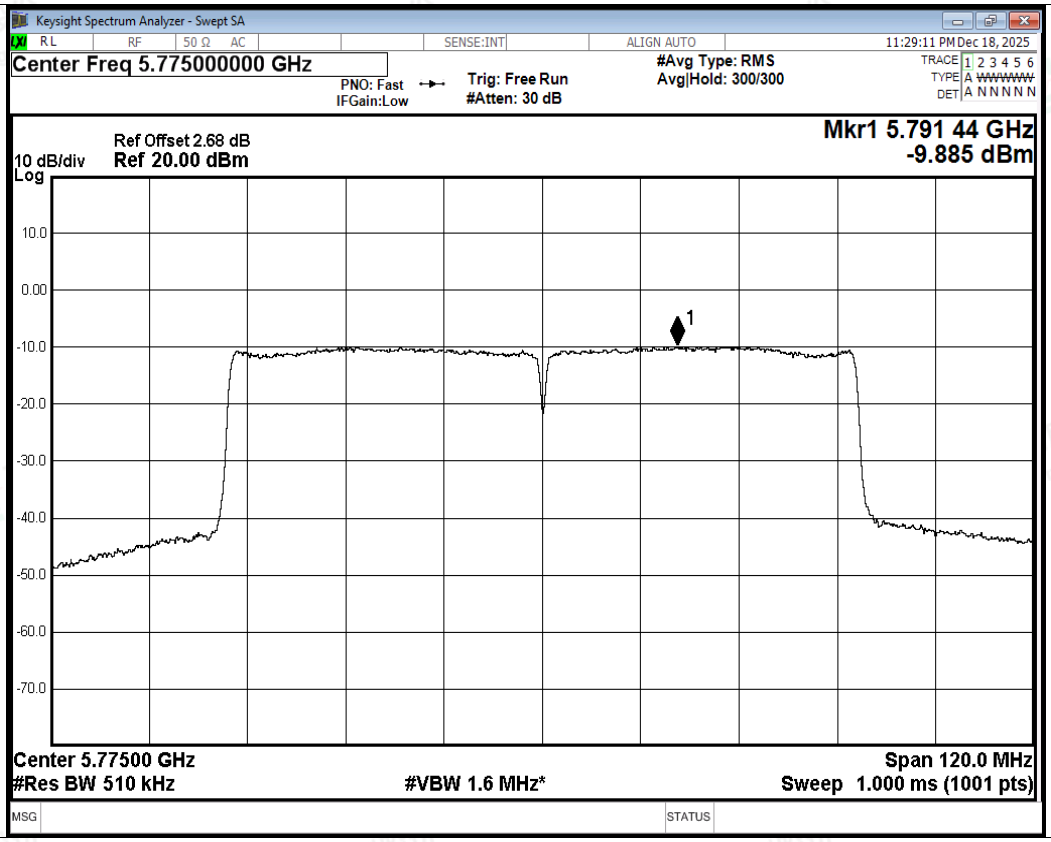
PSD NVNT ac20 5825MHz Ant1



PSD NVNT ac40 5755MHz Ant1



PSD NVNT ac40 5795MHz Ant1



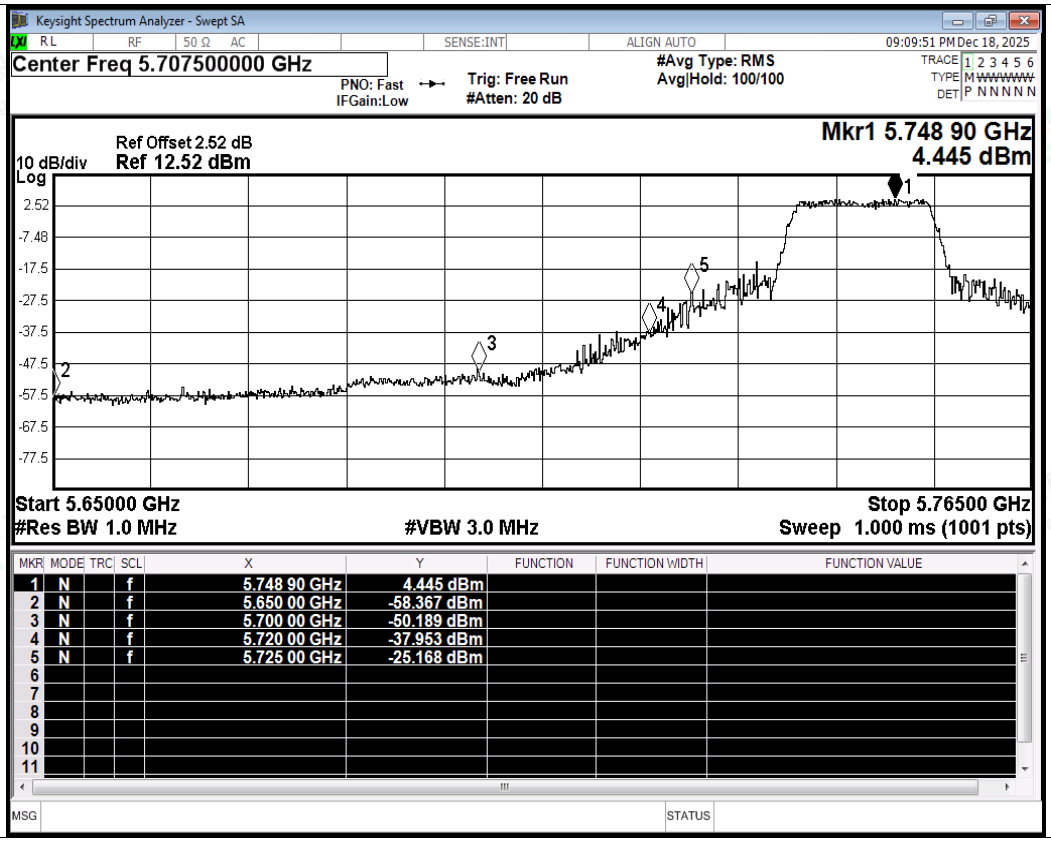
PSD NVNT ac80 5775MHz Ant1

D.4 Restrict Band

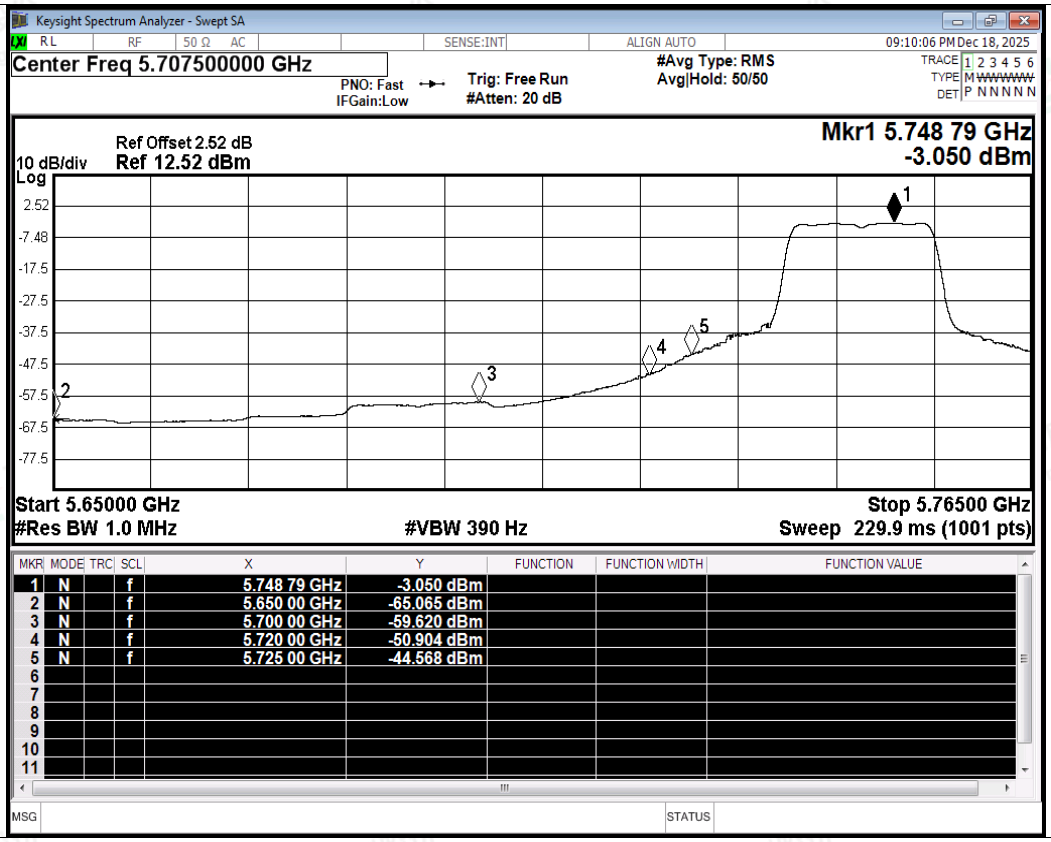
Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	a	5745	Ant1	5650	-58.36	2.61	-55.75	Peak	-27	Pass
NVNT	a	5745	Ant1	5650	-65.06	2.61	-62.45	Average	-27	Pass
NVNT	a	5745	Ant1	5700	-50.18	2.61	-47.57	Peak	10	Pass
NVNT	a	5745	Ant1	5700	-59.62	2.61	-57.01	Average	10	Pass
NVNT	a	5745	Ant1	5720	-37.95	2.61	-35.34	Peak	15.6	Pass
NVNT	a	5745	Ant1	5720	-50.9	2.61	-48.29	Average	15.6	Pass
NVNT	a	5745	Ant1	5725	-25.27	2.61	-22.66	Peak	27	Pass
NVNT	a	5745	Ant1	5725	-44.58	2.61	-41.97	Average	27	Pass
NVNT	a	5825	Ant1	5850	-34.35	2.61	-31.74	Peak	27	Pass
NVNT	a	5825	Ant1	5850	-48.88	2.61	-46.27	Average	27	Pass
NVNT	a	5825	Ant1	5855	-42.42	2.61	-39.81	Peak	15.6	Pass
NVNT	a	5825	Ant1	5855	-54.07	2.61	-51.46	Average	15.6	Pass
NVNT	a	5825	Ant1	5875	-51.29	2.61	-48.68	Peak	10	Pass
NVNT	a	5825	Ant1	5875	-59.87	2.61	-57.26	Average	10	Pass
NVNT	a	5825	Ant1	5925	-55.87	2.61	-53.26	Peak	-27	Pass
NVNT	a	5825	Ant1	5925	-62.71	2.61	-60.10	Average	-27	Pass
NVNT	n20	5745	Ant1	5650	-57.52	2.61	-54.91	Peak	-27	Pass
NVNT	n20	5745	Ant1	5650	-64.04	2.61	-61.43	Average	-27	Pass
NVNT	n20	5745	Ant1	5700	-52.17	2.61	-49.56	Peak	10	Pass
NVNT	n20	5745	Ant1	5700	-59.24	2.61	-56.63	Average	10	Pass
NVNT	n20	5745	Ant1	5720	-39.19	2.61	-36.58	Peak	15.6	Pass
NVNT	n20	5745	Ant1	5720	-47.85	2.61	-45.24	Average	15.6	Pass
NVNT	n20	5745	Ant1	5725	-27.74	2.61	-25.13	Peak	27	Pass
NVNT	n20	5745	Ant1	5725	-41.86	2.61	-39.25	Average	27	Pass
NVNT	n20	5825	Ant1	5850	-35.6	2.61	-32.99	Peak	27	Pass
NVNT	n20	5825	Ant1	5850	-48.68	2.61	-46.07	Average	27	Pass
NVNT	n20	5825	Ant1	5855	-40.66	2.61	-38.05	Peak	15.6	Pass
NVNT	n20	5825	Ant1	5855	-53.92	2.61	-51.31	Average	15.6	Pass
NVNT	n20	5825	Ant1	5875	-53.51	2.61	-50.90	Peak	10	Pass
NVNT	n20	5825	Ant1	5875	-59.88	2.61	-57.27	Average	10	Pass
NVNT	n20	5825	Ant1	5925	-55.55	2.61	-52.94	Peak	-27	Pass
NVNT	n20	5825	Ant1	5925	-62.67	2.61	-60.06	Average	-27	Pass
NVNT	n40	5755	Ant1	5650	-58.87	2.61	-56.26	Peak	-27	Pass
NVNT	n40	5755	Ant1	5650	-64.29	2.61	-61.68	Average	-27	Pass
NVNT	n40	5755	Ant1	5700	-50.03	2.61	-47.42	Peak	10	Pass
NVNT	n40	5755	Ant1	5700	-58.09	2.61	-55.48	Average	10	Pass
NVNT	n40	5755	Ant1	5720	-32.16	2.61	-29.55	Peak	15.6	Pass
NVNT	n40	5755	Ant1	5720	-45.09	2.61	-42.48	Average	15.6	Pass

NVNT	n40	5755	Ant1	5725	-26.51	2.61	-23.90	Peak	27	Pass
NVNT	n40	5755	Ant1	5725	-42.23	2.61	-39.62	Average	27	Pass
NVNT	n40	5795	Ant1	5850	-50.57	2.61	-47.96	Peak	27	Pass
NVNT	n40	5795	Ant1	5850	-58.05	2.61	-55.44	Average	27	Pass
NVNT	n40	5795	Ant1	5855	-52.06	2.61	-49.45	Peak	15.6	Pass
NVNT	n40	5795	Ant1	5855	-59.46	2.61	-56.85	Average	15.6	Pass
NVNT	n40	5795	Ant1	5875	-57.71	2.61	-55.10	Peak	10	Pass
NVNT	n40	5795	Ant1	5875	-63.59	2.61	-60.98	Average	10	Pass
NVNT	n40	5795	Ant1	5925	-56.95	2.61	-54.34	Peak	-27	Pass
NVNT	n40	5795	Ant1	5925	-65.7	2.61	-63.09	Average	-27	Pass
NVNT	ac20	5745	Ant1	5650	-50.2	2.61	-47.59	Peak	-27	Pass
NVNT	ac20	5745	Ant1	5650	-57.52	2.61	-54.91	Average	-27	Pass
NVNT	ac20	5745	Ant1	5700	-45.32	2.61	-42.71	Peak	10	Pass
NVNT	ac20	5745	Ant1	5700	-53.7	2.61	-51.09	Average	10	Pass
NVNT	ac20	5745	Ant1	5720	-32.39	2.61	-29.78	Peak	15.6	Pass
NVNT	ac20	5745	Ant1	5720	-42.71	2.61	-40.10	Average	15.6	Pass
NVNT	ac20	5745	Ant1	5725	-20.95	2.61	-18.34	Peak	27	Pass
NVNT	ac20	5745	Ant1	5725	-34.61	2.61	-32.00	Average	27	Pass
NVNT	ac20	5825	Ant1	5850	-33.47	2.61	-30.86	Peak	27	Pass
NVNT	ac20	5825	Ant1	5850	-46.15	2.61	-43.54	Average	27	Pass
NVNT	ac20	5825	Ant1	5855	-41.78	2.61	-39.17	Peak	15.6	Pass
NVNT	ac20	5825	Ant1	5855	-51.15	2.61	-48.54	Average	15.6	Pass
NVNT	ac20	5825	Ant1	5875	-48.25	2.61	-45.64	Peak	10	Pass
NVNT	ac20	5825	Ant1	5875	-55.62	2.61	-53.01	Average	10	Pass
NVNT	ac20	5825	Ant1	5925	-49.56	2.61	-46.95	Peak	-27	Pass
NVNT	ac20	5825	Ant1	5925	-56.67	2.61	-54.06	Average	-27	Pass
NVNT	ac40	5755	Ant1	5650	-50.48	2.61	-47.87	Peak	-27	Pass
NVNT	ac40	5755	Ant1	5650	-56.93	2.61	-54.32	Average	-27	Pass
NVNT	ac40	5755	Ant1	5700	-41.98	2.61	-39.37	Peak	10	Pass
NVNT	ac40	5755	Ant1	5700	-49.74	2.61	-47.13	Average	10	Pass
NVNT	ac40	5755	Ant1	5720	-25.56	2.61	-22.95	Peak	15.6	Pass
NVNT	ac40	5755	Ant1	5720	-37.32	2.61	-34.71	Average	15.6	Pass
NVNT	ac40	5755	Ant1	5725	-26.35	2.61	-23.74	Peak	27	Pass
NVNT	ac40	5755	Ant1	5725	-35.03	2.61	-32.42	Average	27	Pass
NVNT	ac40	5795	Ant1	5850	-41.51	2.61	-38.90	Peak	27	Pass
NVNT	ac40	5795	Ant1	5850	-49.91	2.61	-47.30	Average	27	Pass
NVNT	ac40	5795	Ant1	5855	-43.74	2.61	-41.13	Peak	15.6	Pass
NVNT	ac40	5795	Ant1	5855	-51.4	2.61	-48.79	Average	15.6	Pass
NVNT	ac40	5795	Ant1	5875	-47.67	2.61	-45.06	Peak	10	Pass
NVNT	ac40	5795	Ant1	5875	-55.86	2.61	-53.25	Average	10	Pass
NVNT	ac40	5795	Ant1	5925	-49.2	2.61	-46.59	Peak	-27	Pass
NVNT	ac40	5795	Ant1	5925	-57.28	2.61	-54.67	Average	-27	Pass
NVNT	ac80	5775	Ant1	5850	-33.69	2.61	-31.08	Peak	27	Pass

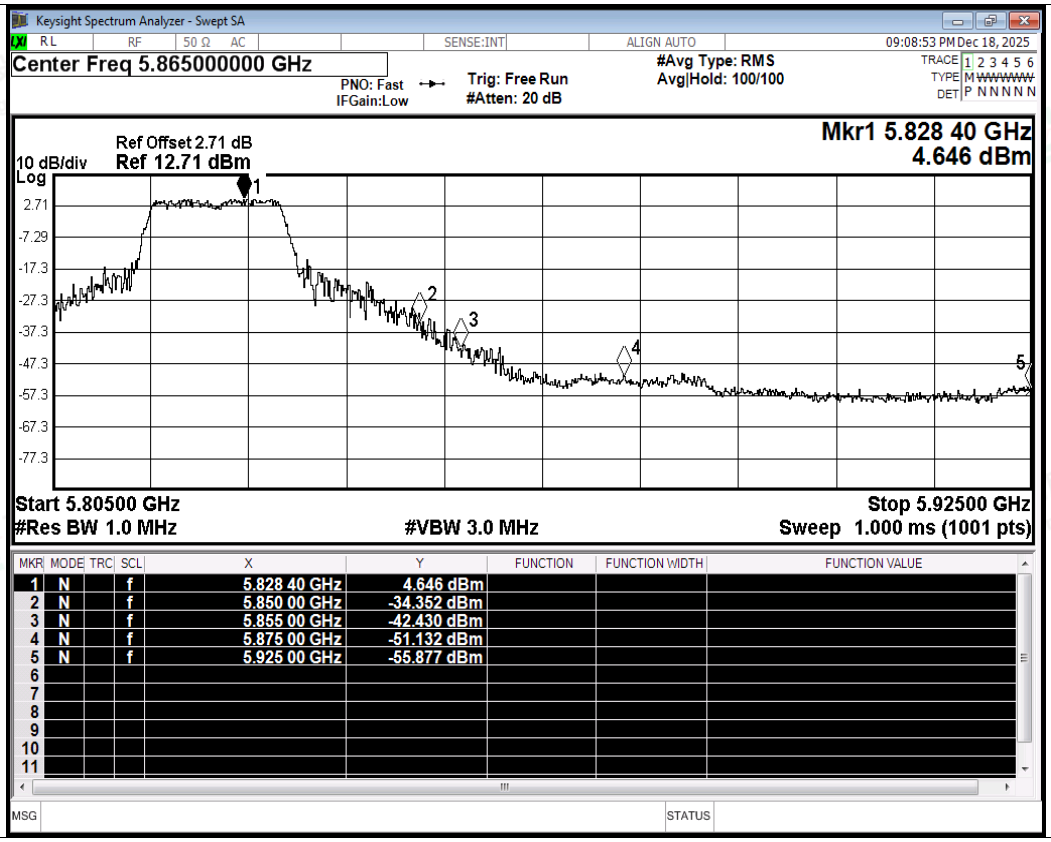
NVNT	ac80	5775	Ant1	5850	-41.59	2.61	-38.98	Average	27	Pass
NVNT	ac80	5775	Ant1	5855	-36.82	2.61	-34.21	Peak	15.6	Pass
NVNT	ac80	5775	Ant1	5855	-42.65	2.61	-40.04	Average	15.6	Pass
NVNT	ac80	5775	Ant1	5875	-39.7	2.61	-37.09	Peak	10	Pass
NVNT	ac80	5775	Ant1	5875	-48.75	2.61	-46.14	Average	10	Pass
NVNT	ac80	5775	Ant1	5925	-48.89	2.61	-46.28	Peak	-27	Pass
NVNT	ac80	5775	Ant1	5925	-56.24	2.61	-53.63	Average	-27	Pass
NVNT	ac80	5775	Ant1	5650	-47.83	2.61	-45.22	Peak	-27	Pass
NVNT	ac80	5775	Ant1	5650	-55.42	2.61	-52.81	Average	-27	Pass
NVNT	ac80	5775	Ant1	5700	-38.89	2.61	-36.28	Peak	10	Pass
NVNT	ac80	5775	Ant1	5700	-46	2.61	-43.39	Average	10	Pass
NVNT	ac80	5775	Ant1	5720	-31.5	2.61	-28.89	Peak	15.6	Pass
NVNT	ac80	5775	Ant1	5720	-41.65	2.61	-39.04	Average	15.6	Pass
NVNT	ac80	5775	Ant1	5725	-32.07	2.61	-29.46	Peak	27	Pass
NVNT	ac80	5775	Ant1	5725	-39.49	2.61	-36.88	Average	27	Pass



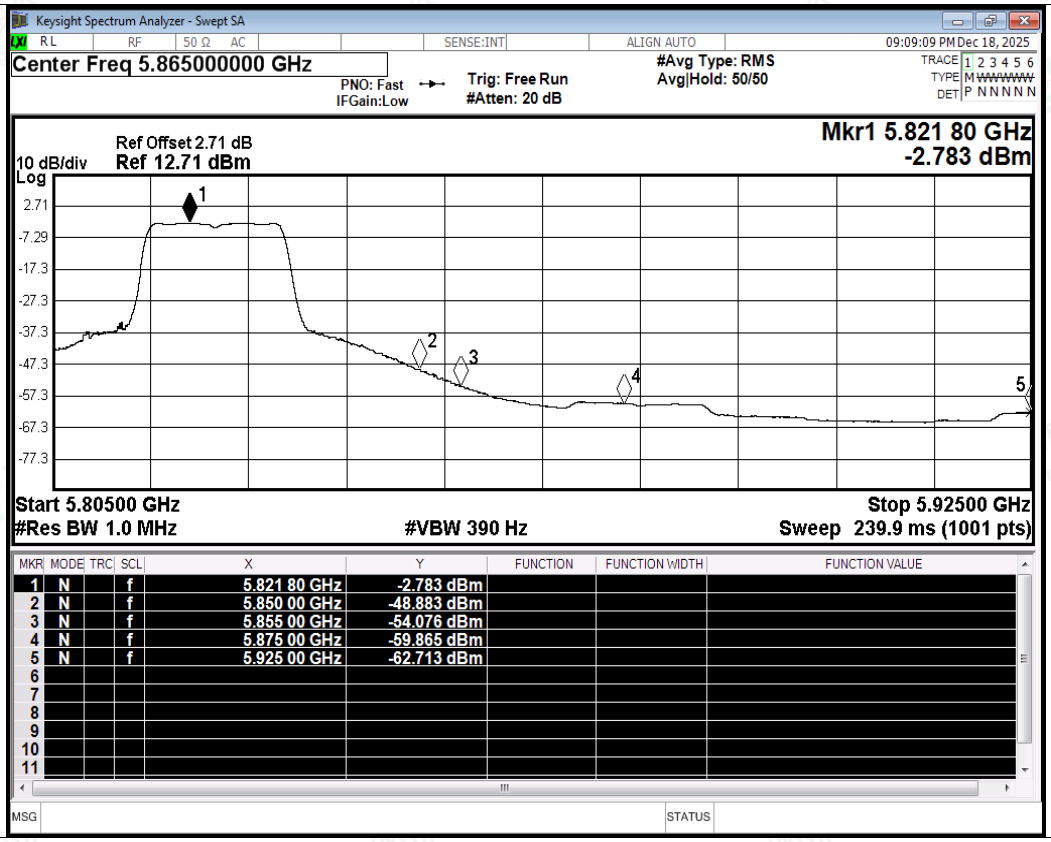
Restrict Band NVNT a 5745MHz Ant1 Peak



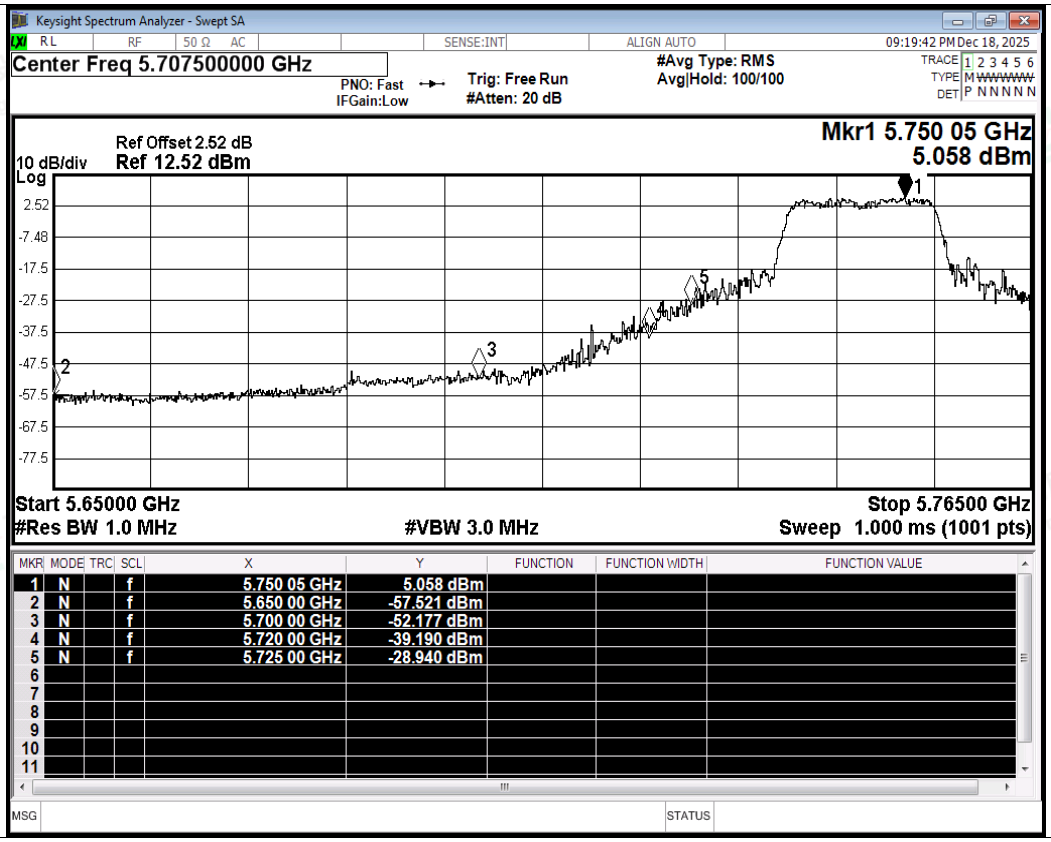
Restrict Band NVNT a 5745MHz Ant1 Average



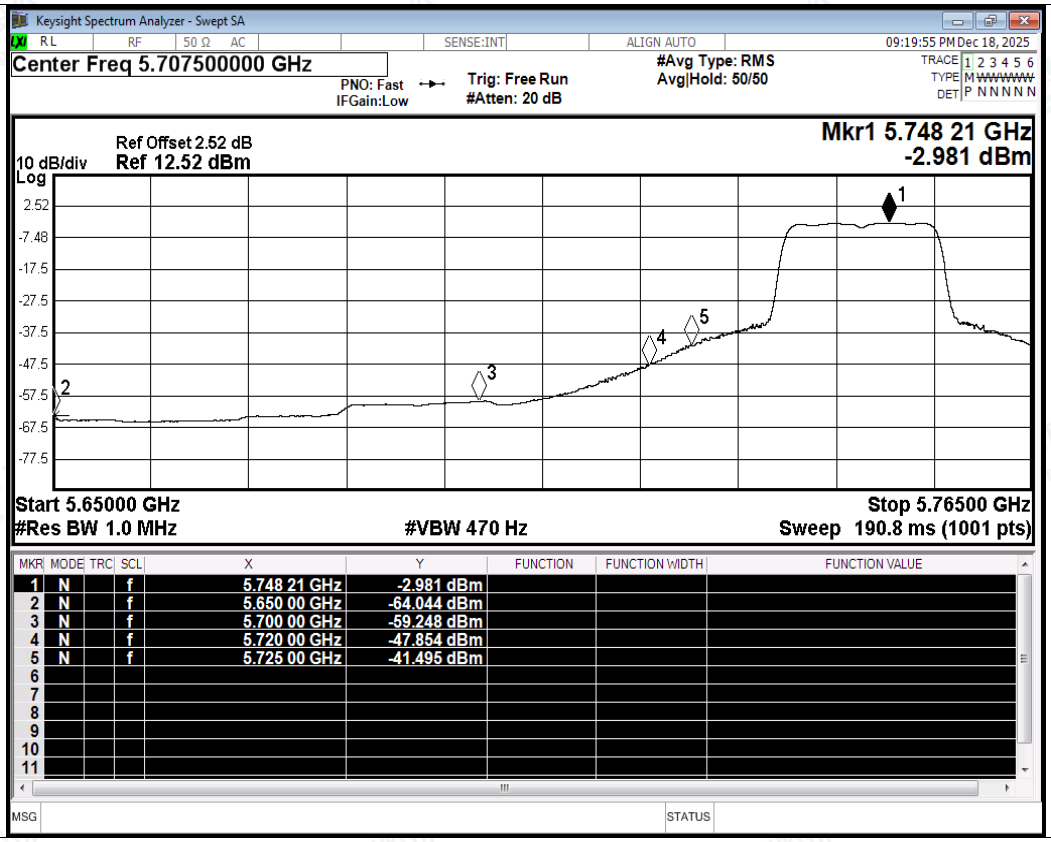
Restrict Band NVNT a 5825MHz Ant1 Peak



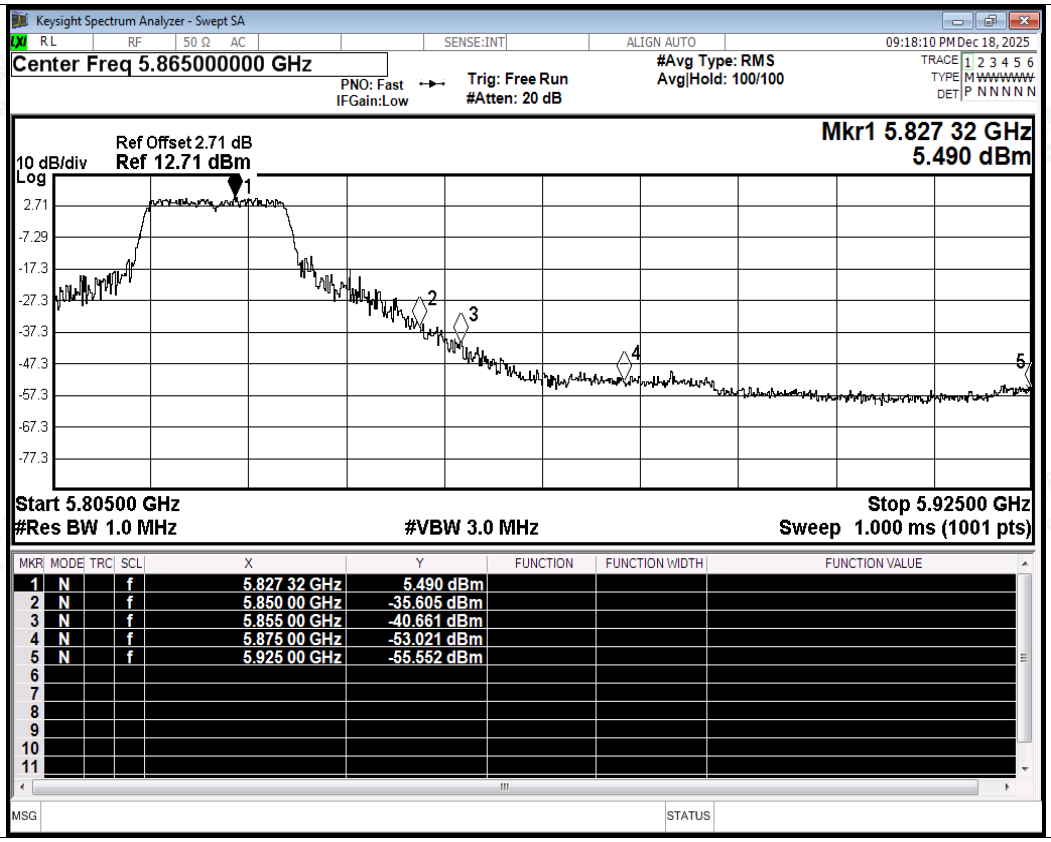
Restrict Band NVNT a 5825MHz Ant1 Average



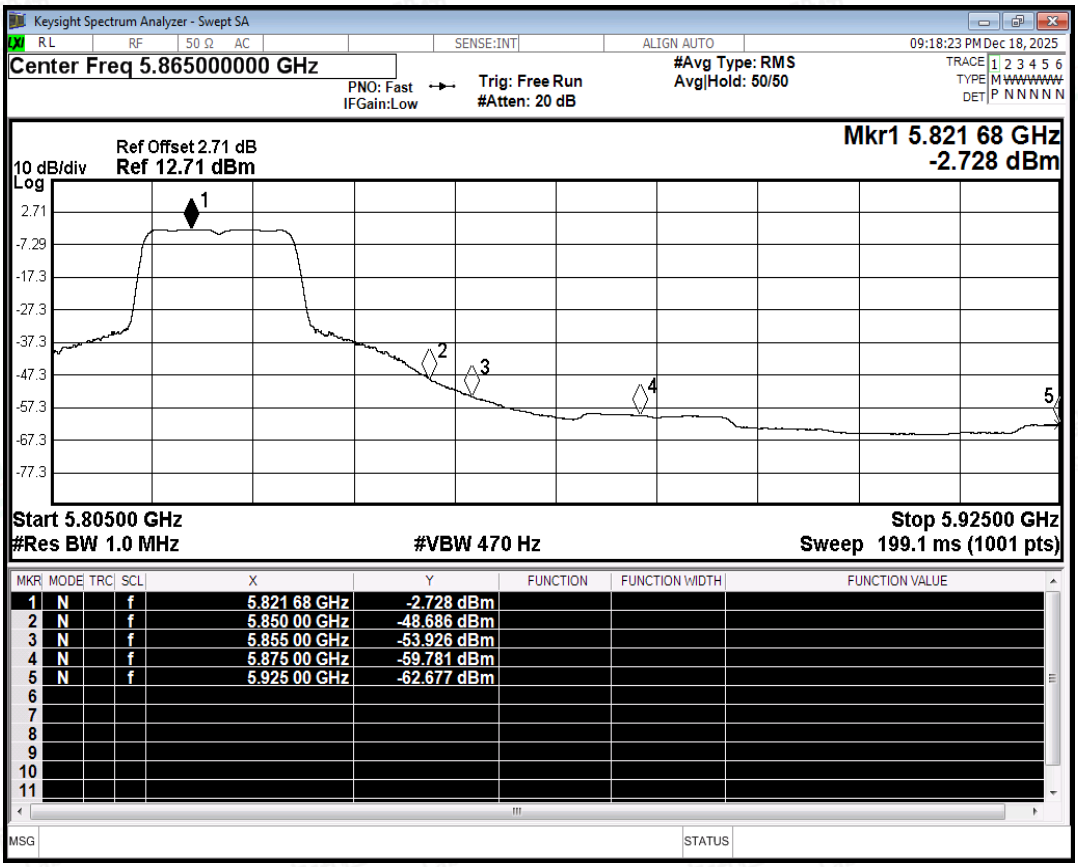
Restrict Band NVNT n20 5745MHz Ant1 Peak



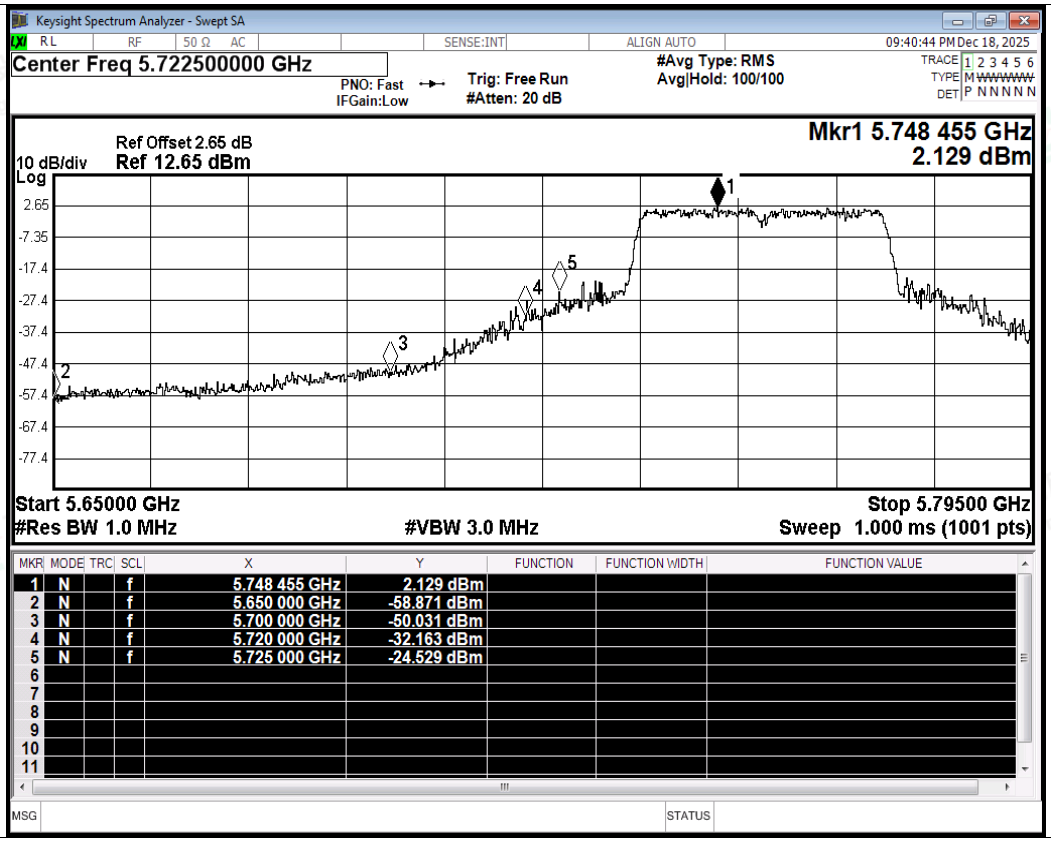
Restrict Band NVNT n20 5745MHz Ant1 Average



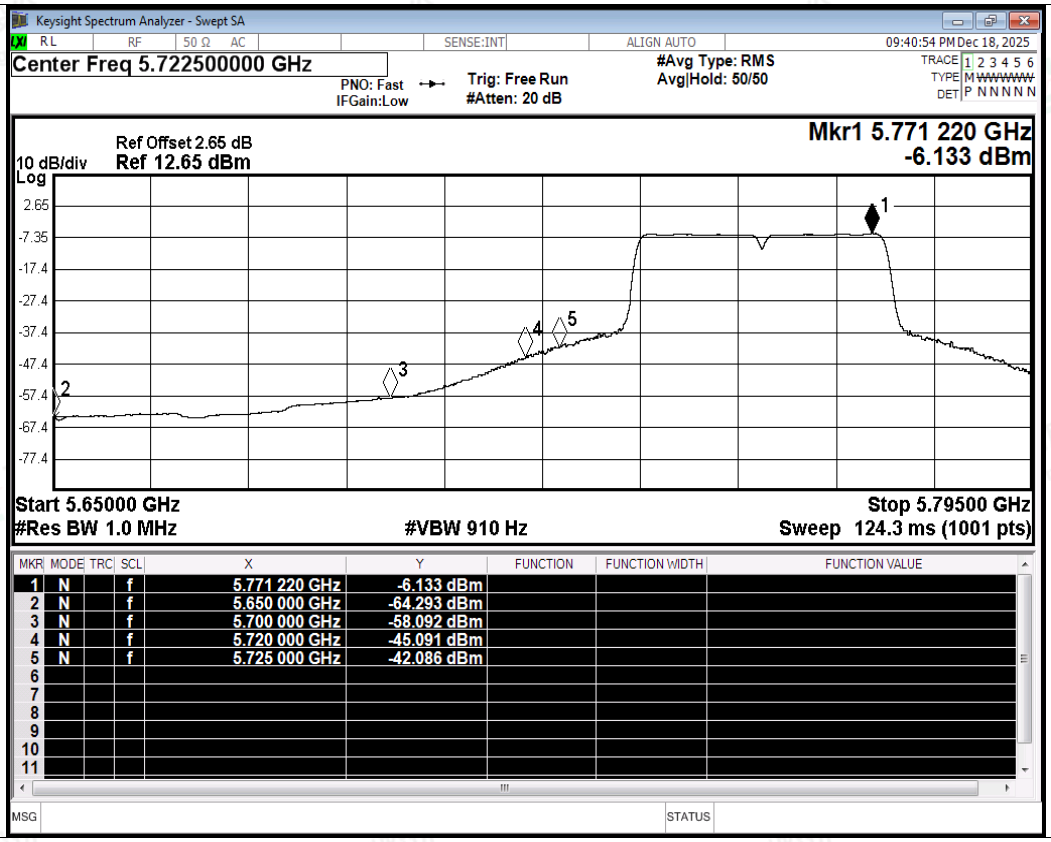
Restrict Band NVNT n20 5825MHz Ant1 Peak



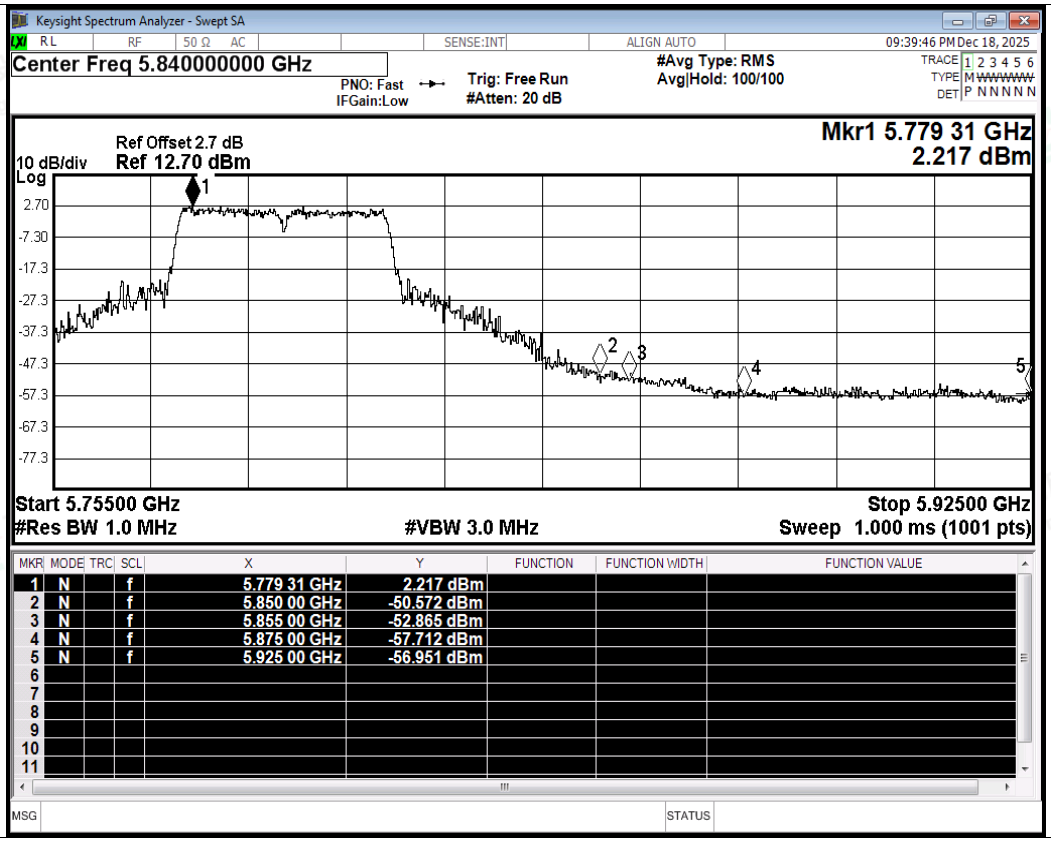
Restrict Band NVNT n20 5825MHz Ant1 Average



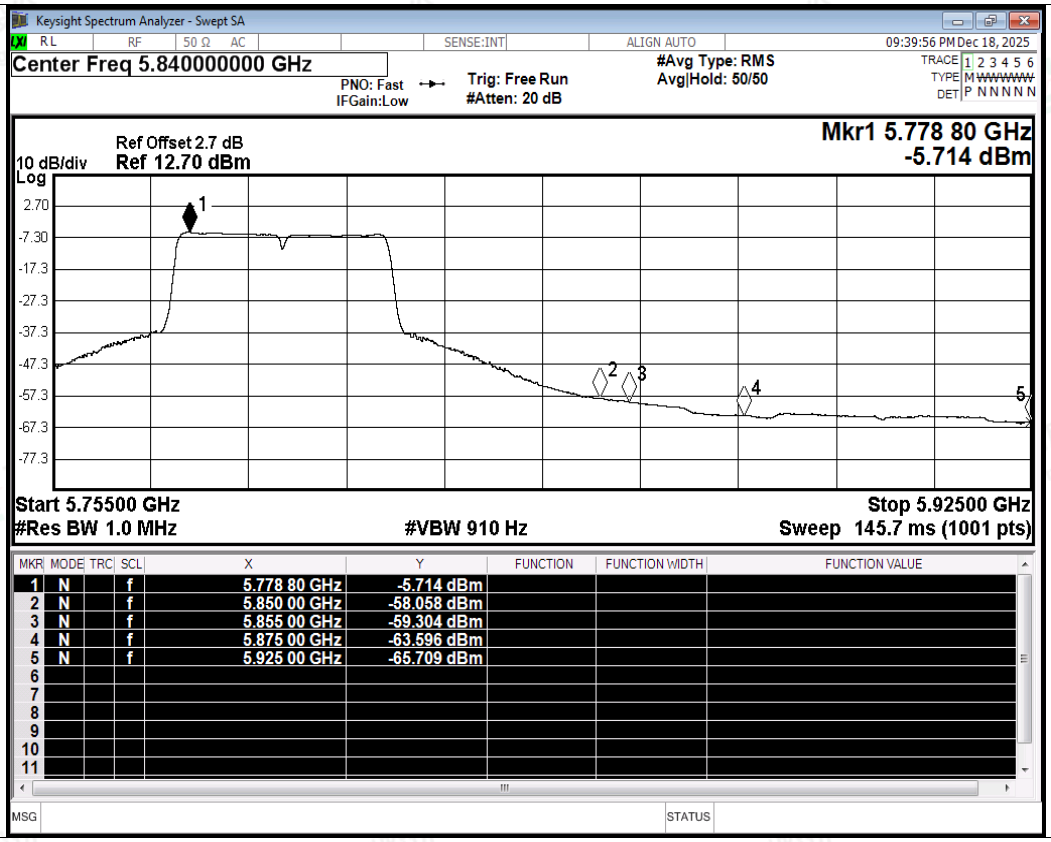
Restrict Band NVNT n40 5755MHz Ant1 Peak



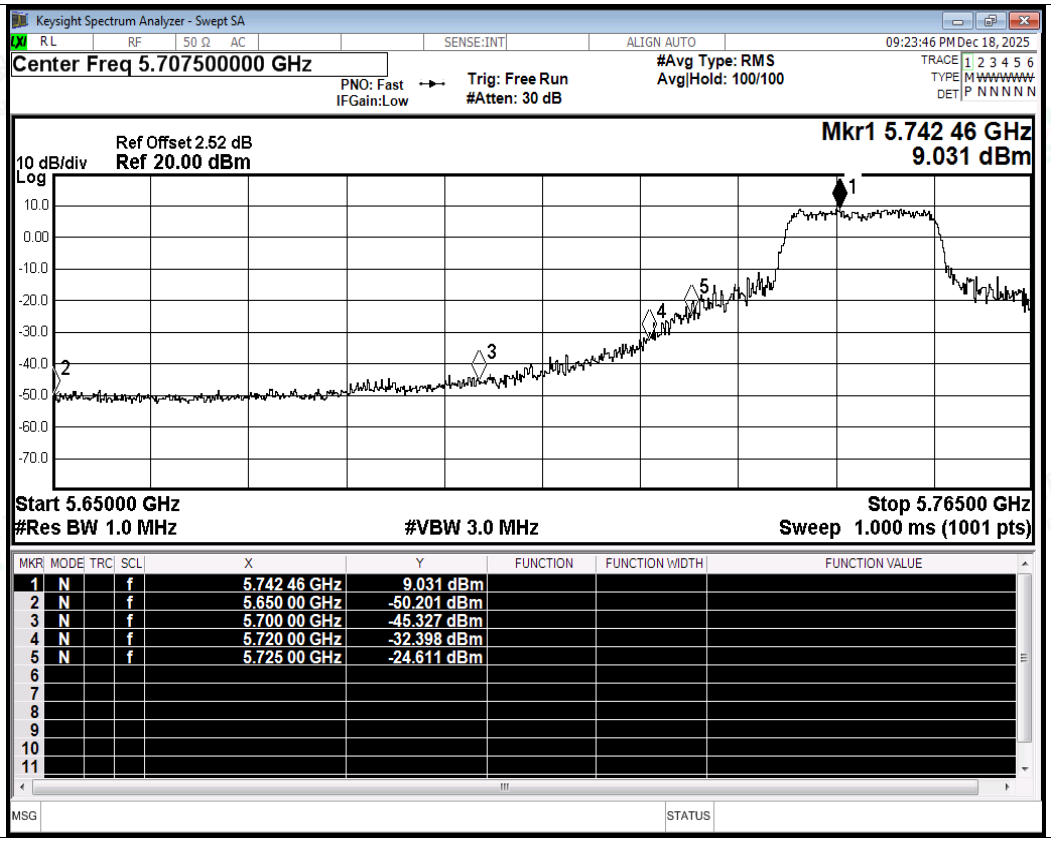
Restrict Band NVNT n40 5755MHz Ant1 Average



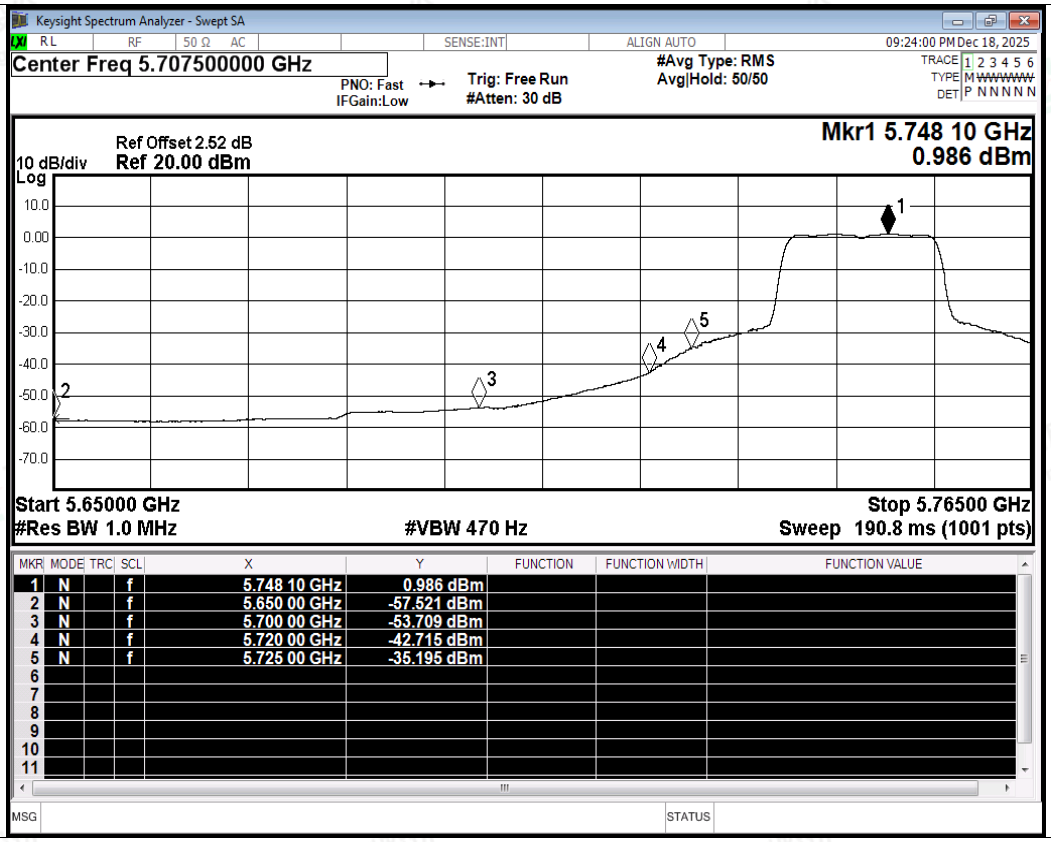
Restrict Band NVNT n40 5795MHz Ant1 Peak



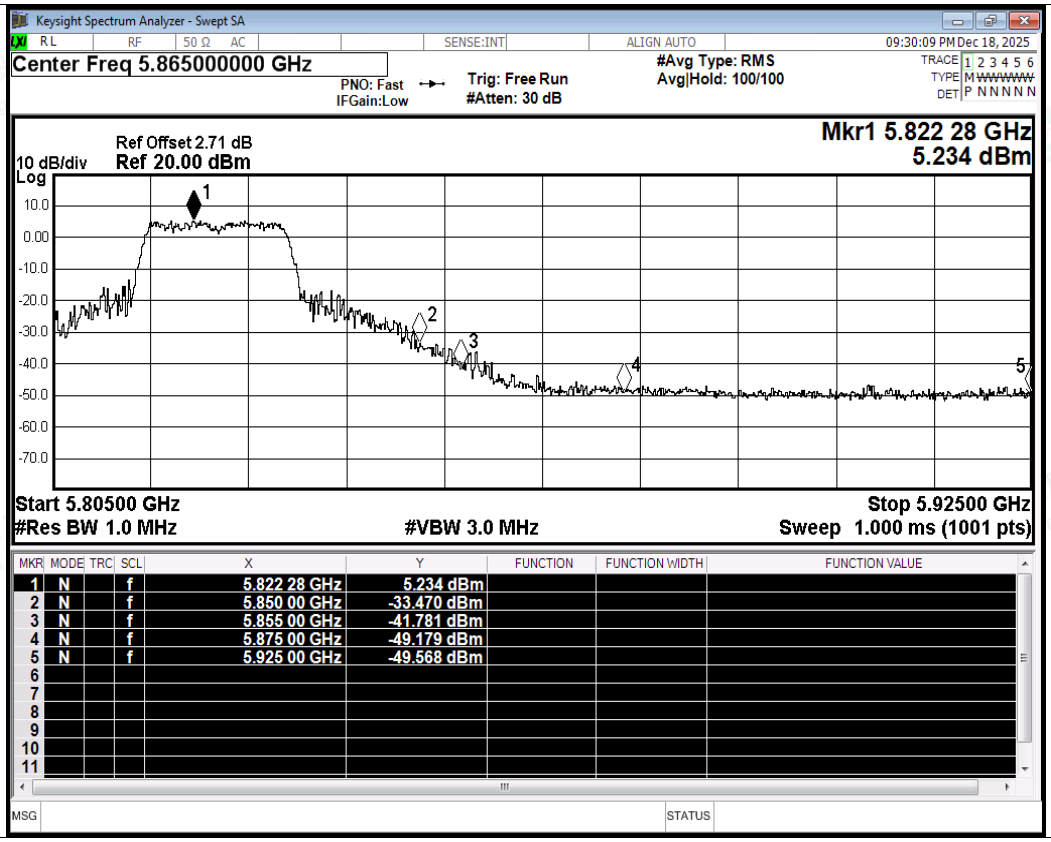
Restrict Band NVNT n40 5795MHz Ant1 Average



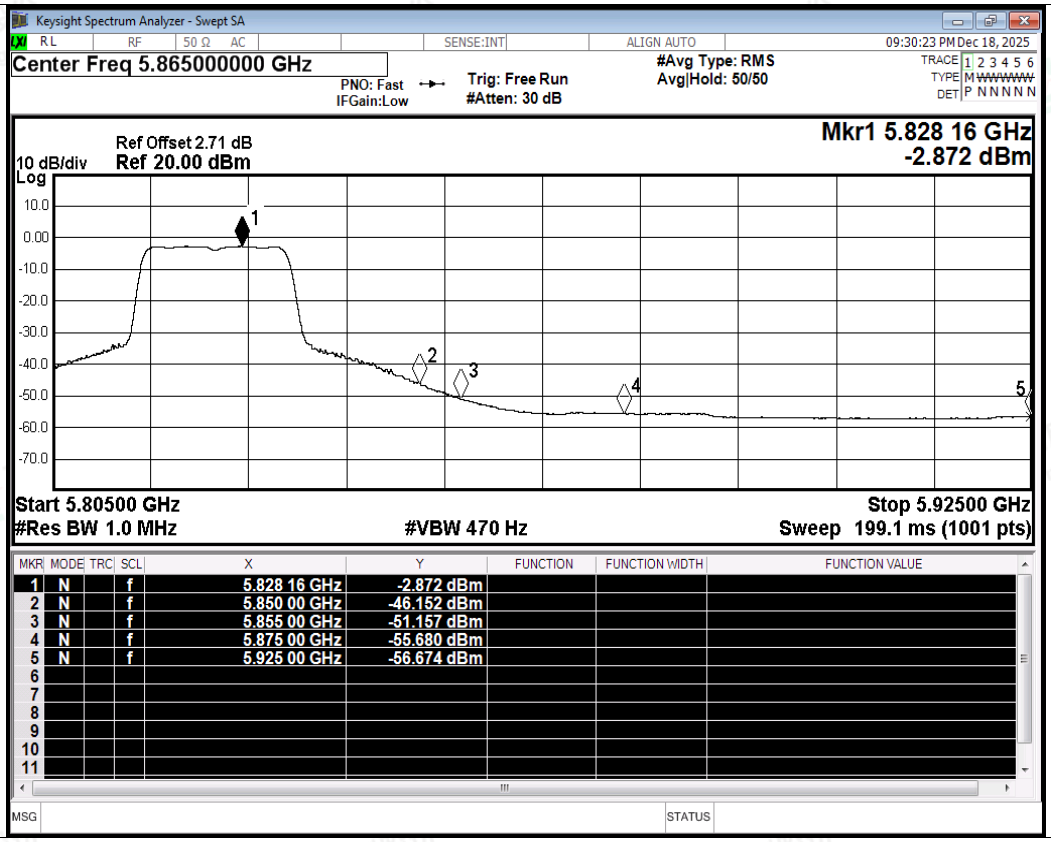
Restrict Band NVNT ac20 5745MHz Ant1 Peak



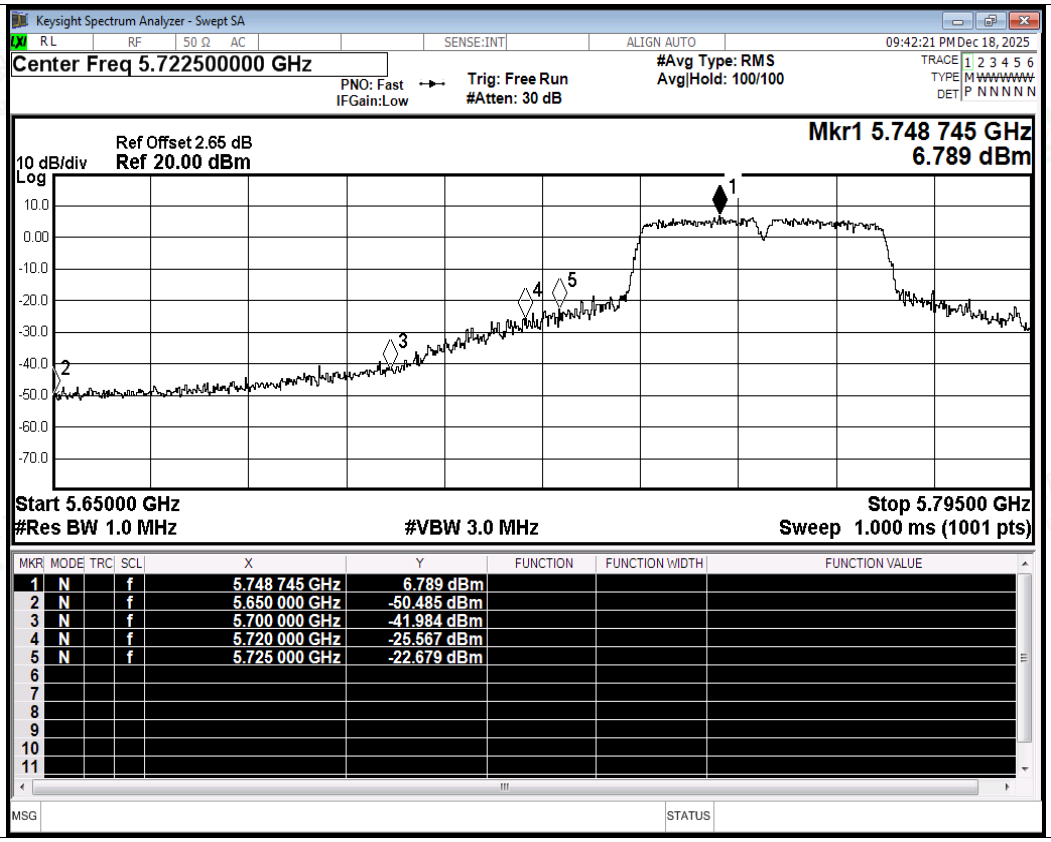
Restrict Band NVNT ac20 5745MHz Ant1 Average



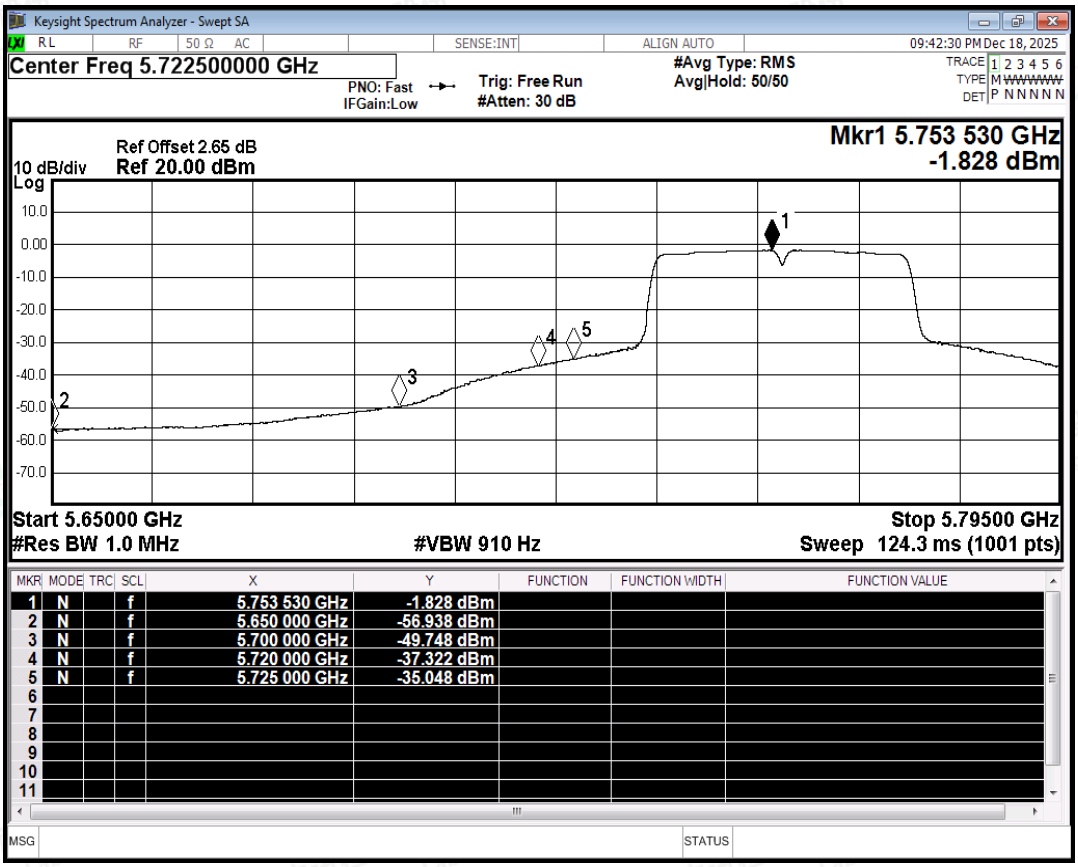
Restrict Band NVNT ac20 5825MHz Ant1 Peak



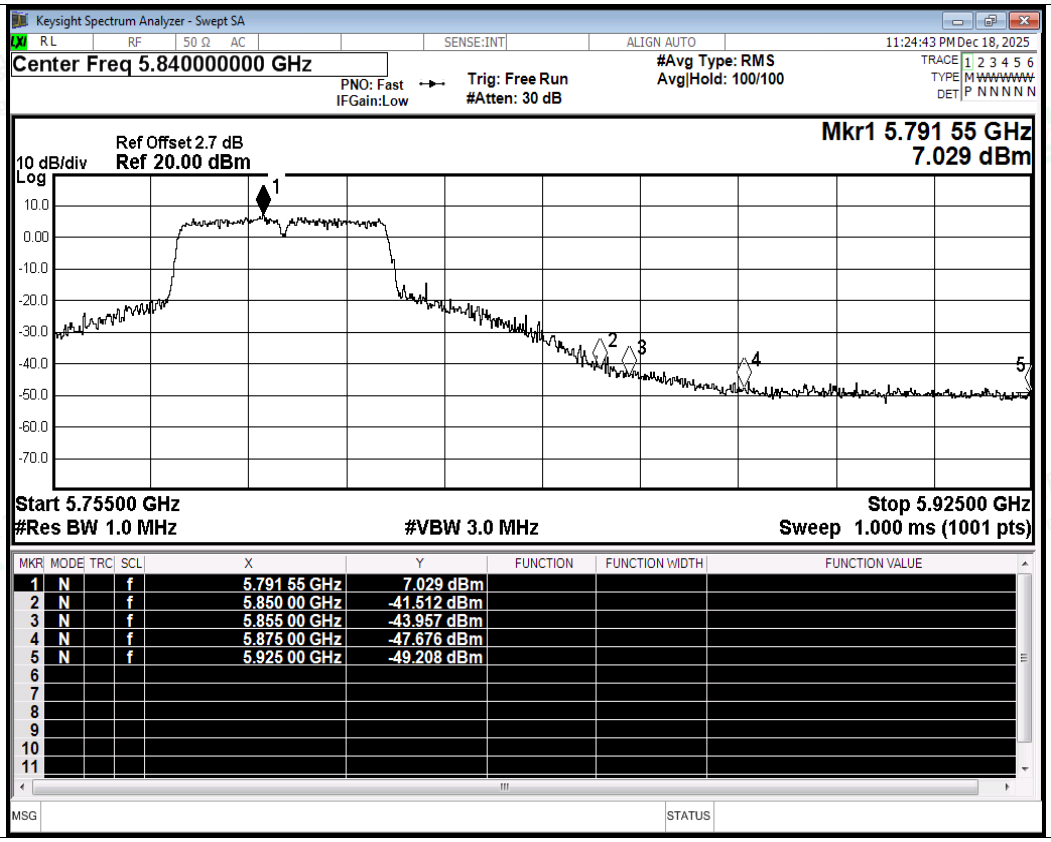
Restrict Band NVNT ac20 5825MHz Ant1 Average



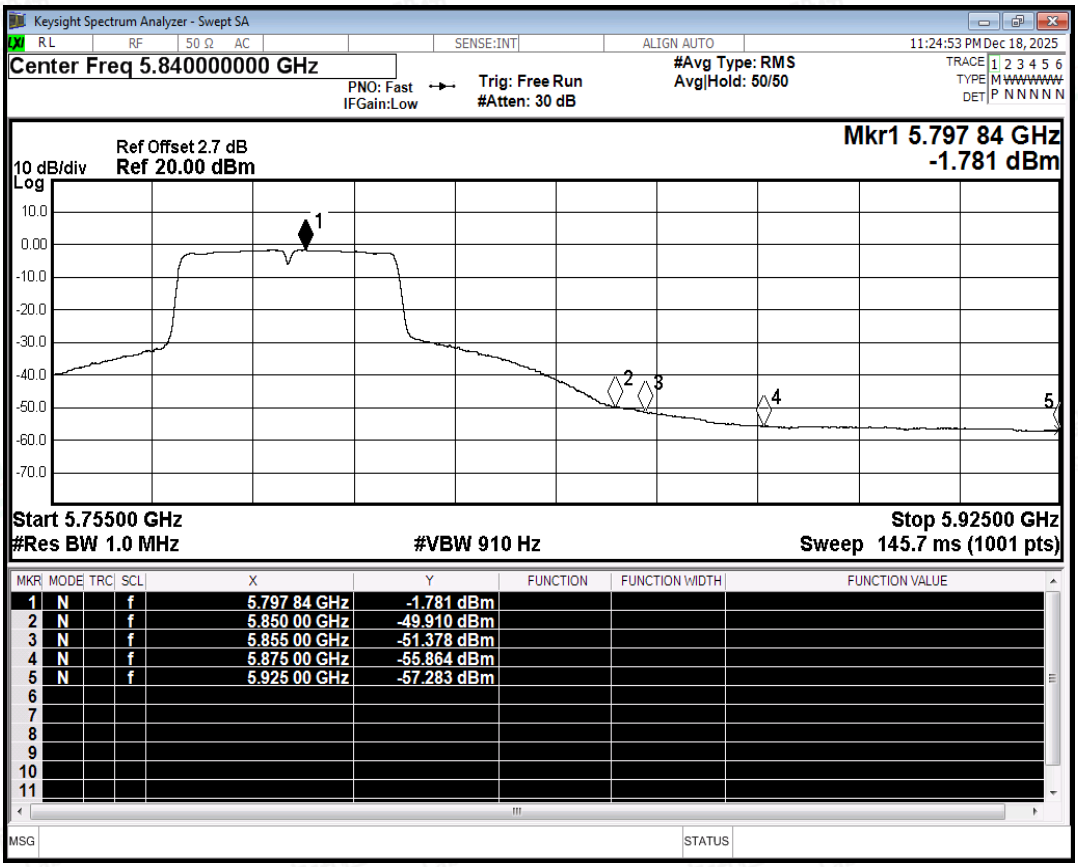
Restrict Band NVNT ac40 5755MHz Ant1 Peak



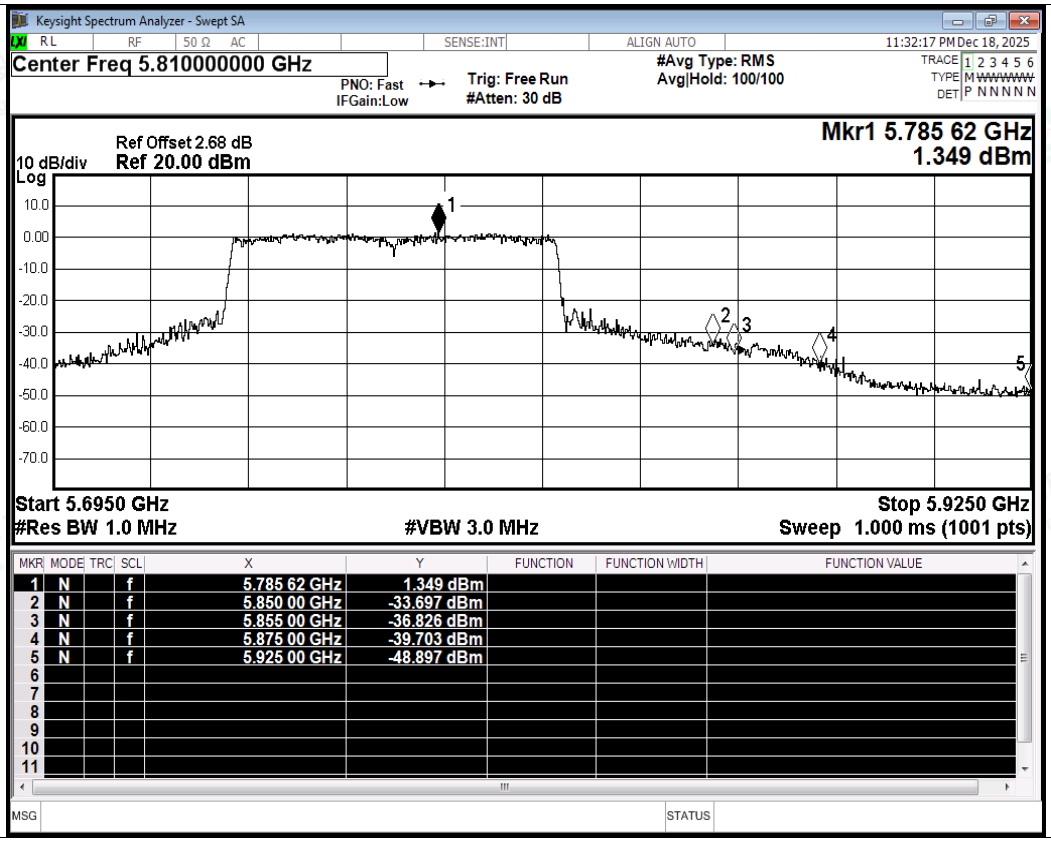
Restrict Band NVNT ac40 5755MHz Ant1 Average



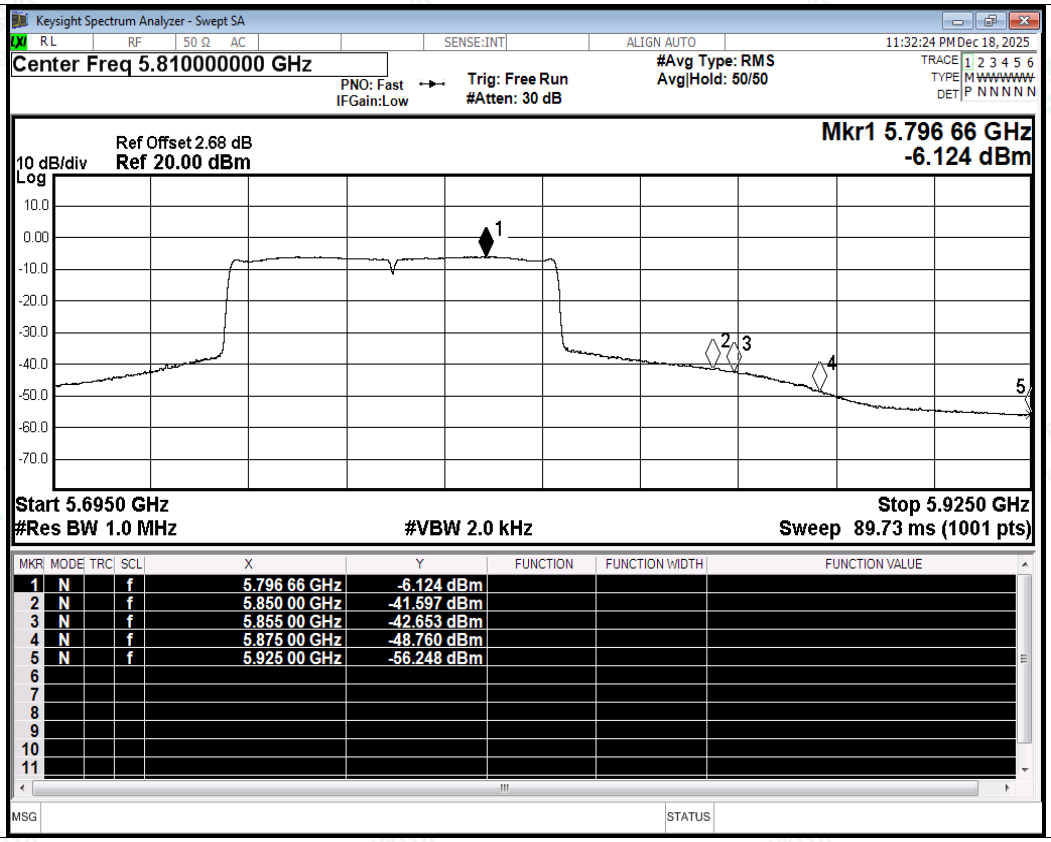
Restrict Band NVNT ac40 5795MHz Ant1 Peak



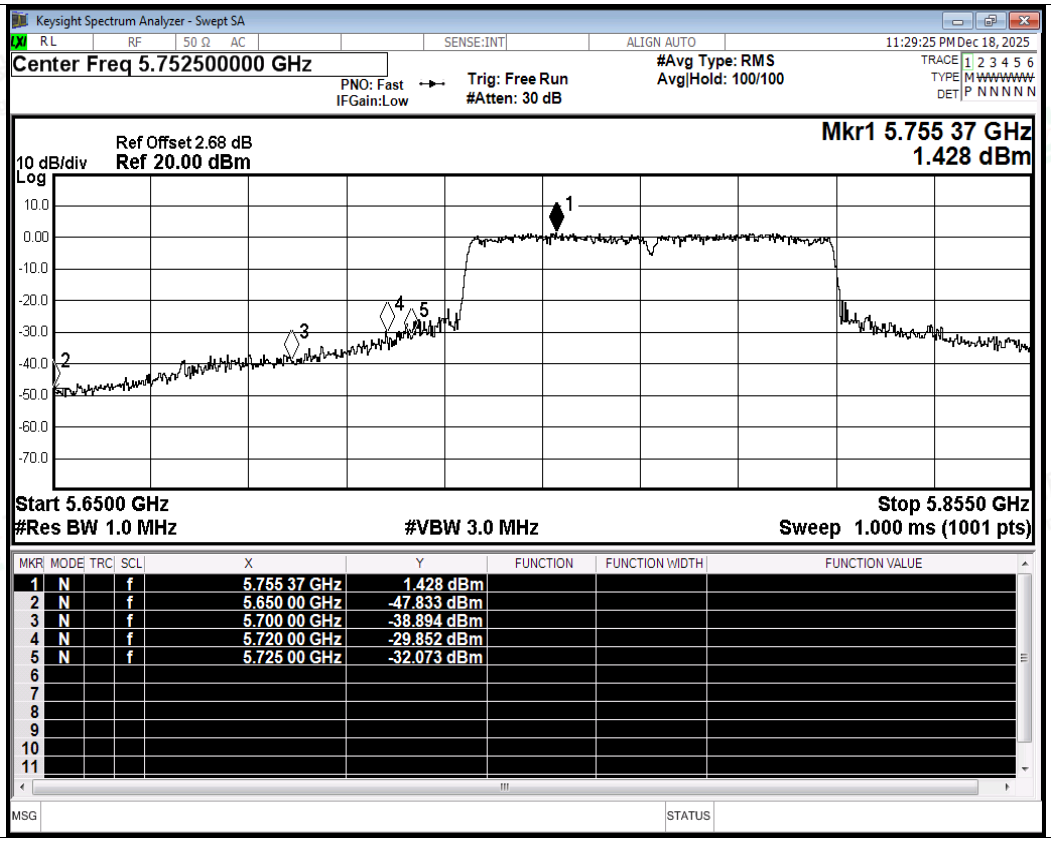
Restrict Band NVNT ac40 5795MHz Ant1 Average



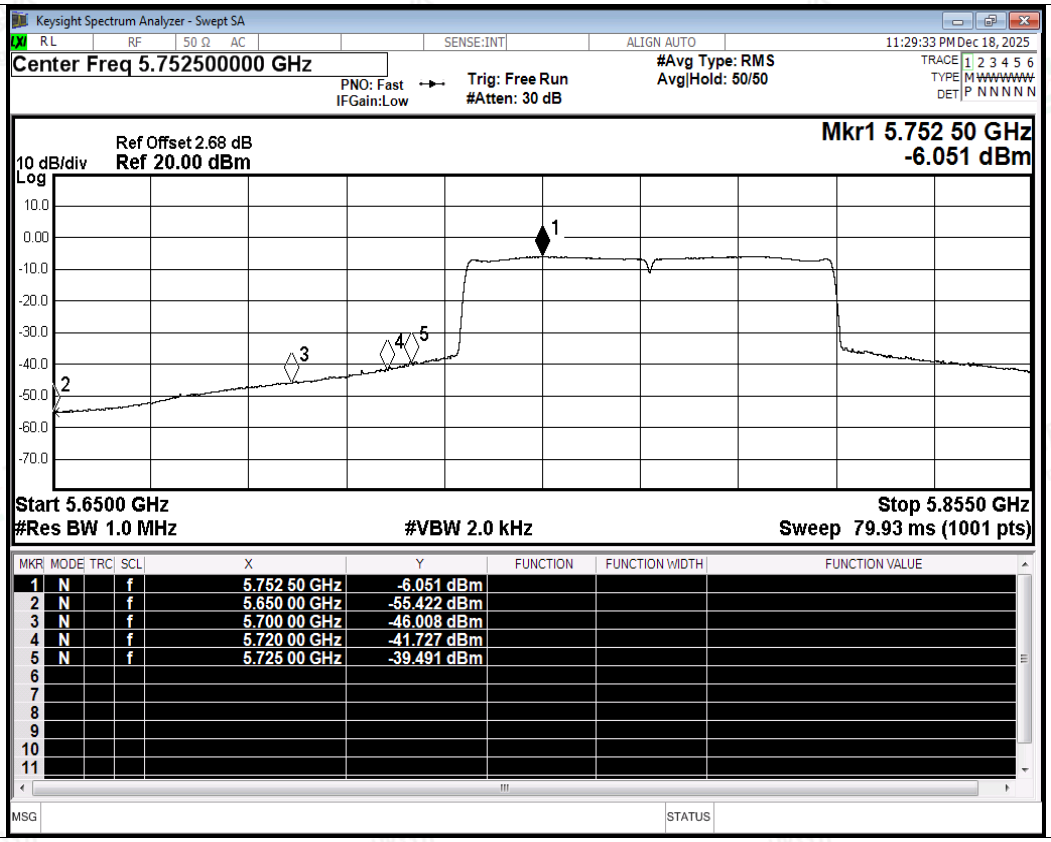
Restrict Band NVNT ac80 5775MHz Ant1 Peak



Restrict Band NVNT ac80 5775MHz Ant1 Average



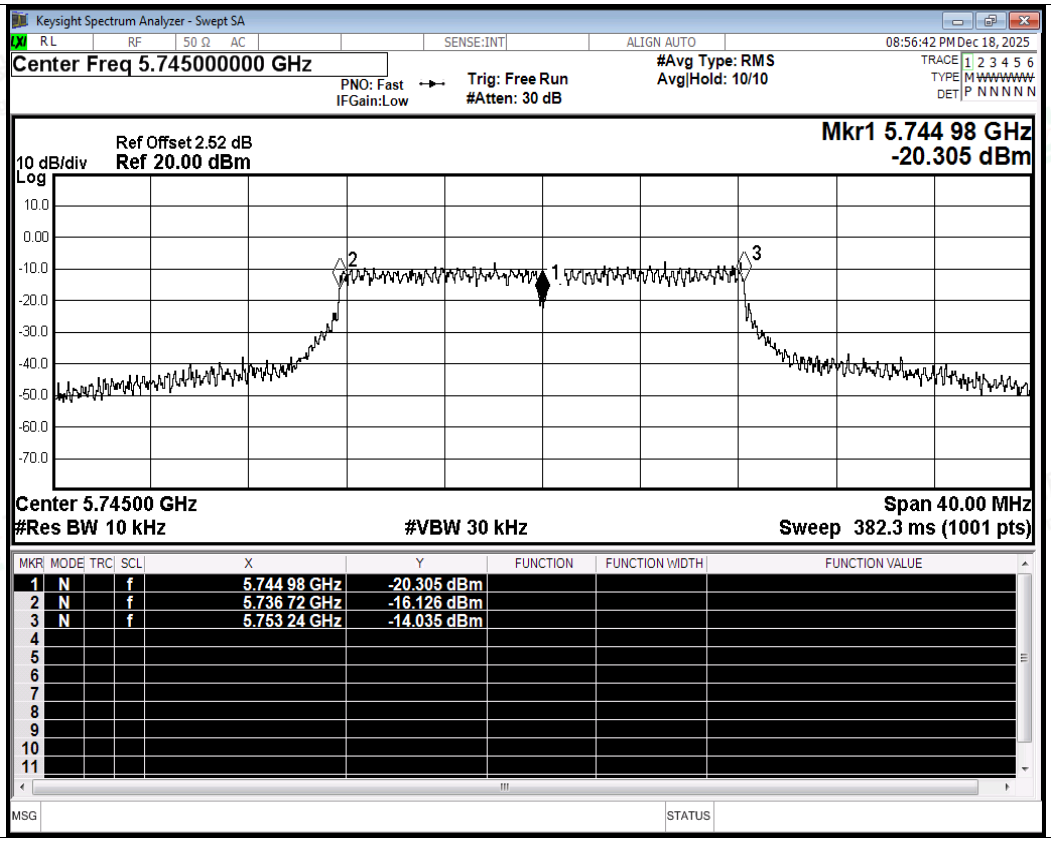
Restrict Band NVNT ac80 5775MHz Ant1 Peak



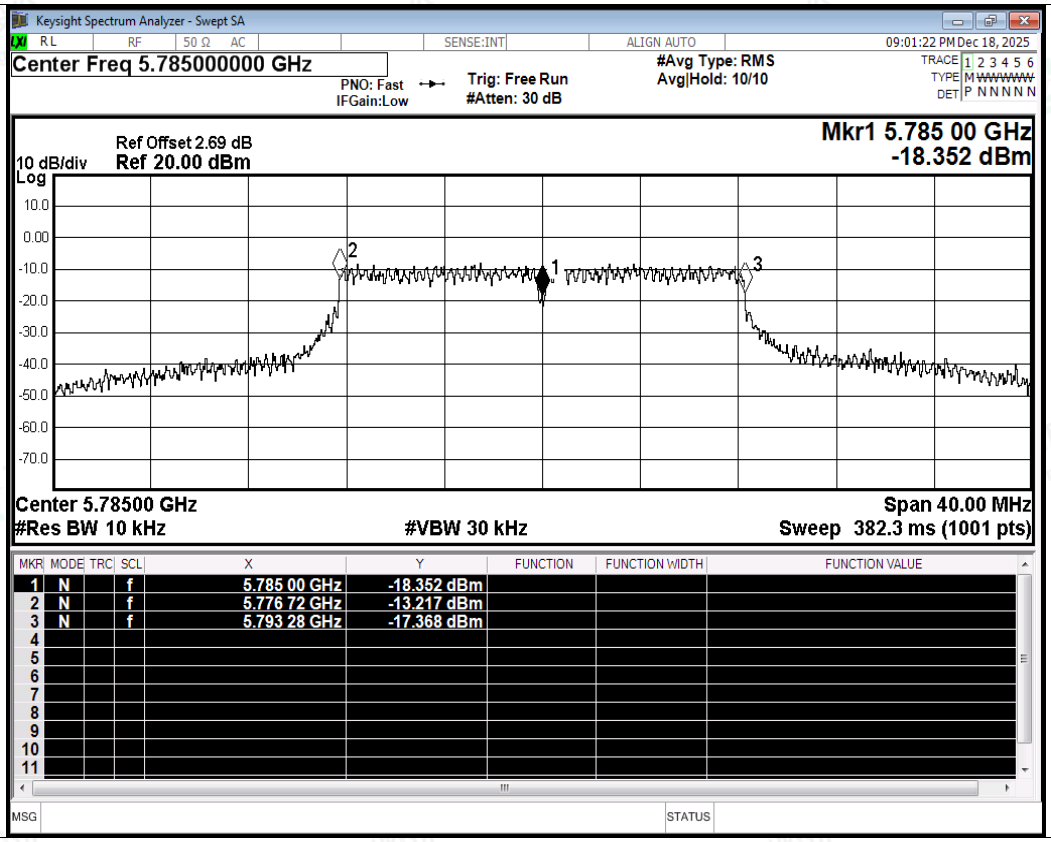
Restrict Band NVNT ac80 5775MHz Ant1 Average

D.5 Frequency Stability

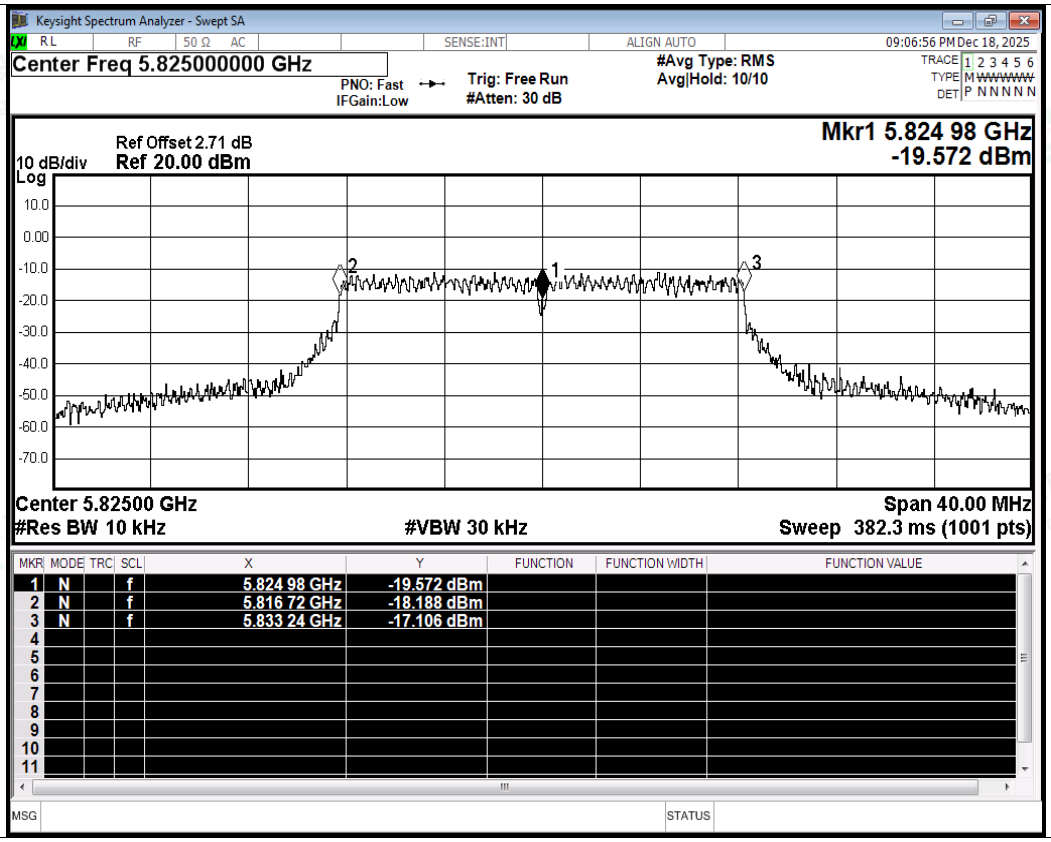
Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	a	5745	Ant1	5744.98	-20000	-3.48	25	Pass
NVNT	a	5785	Ant1	5785	0	0	25	Pass
NVNT	a	5825	Ant1	5824.98	-20000	-3.43	25	Pass
NVNT	n20	5745	Ant1	5745	0	0	25	Pass
NVNT	n20	5785	Ant1	5785	0	0	25	Pass
NVNT	n20	5825	Ant1	5824.98	-20000	-3.43	25	Pass
NVNT	n40	5755	Ant1	5755	0	0	25	Pass
NVNT	n40	5795	Ant1	5794.96	-40000	-6.9	25	Pass
NVNT	ac20	5745	Ant1	5744.98	-20000	-3.48	25	Pass
NVNT	ac20	5785	Ant1	5784.98	-20000	-3.46	25	Pass
NVNT	ac20	5825	Ant1	5825	0	0	25	Pass
NVNT	ac40	5755	Ant1	5755	0	0	25	Pass
NVNT	ac40	5795	Ant1	5795	0	0	25	Pass
NVNT	ac80	5775	Ant1	5775	0	0	25	Pass



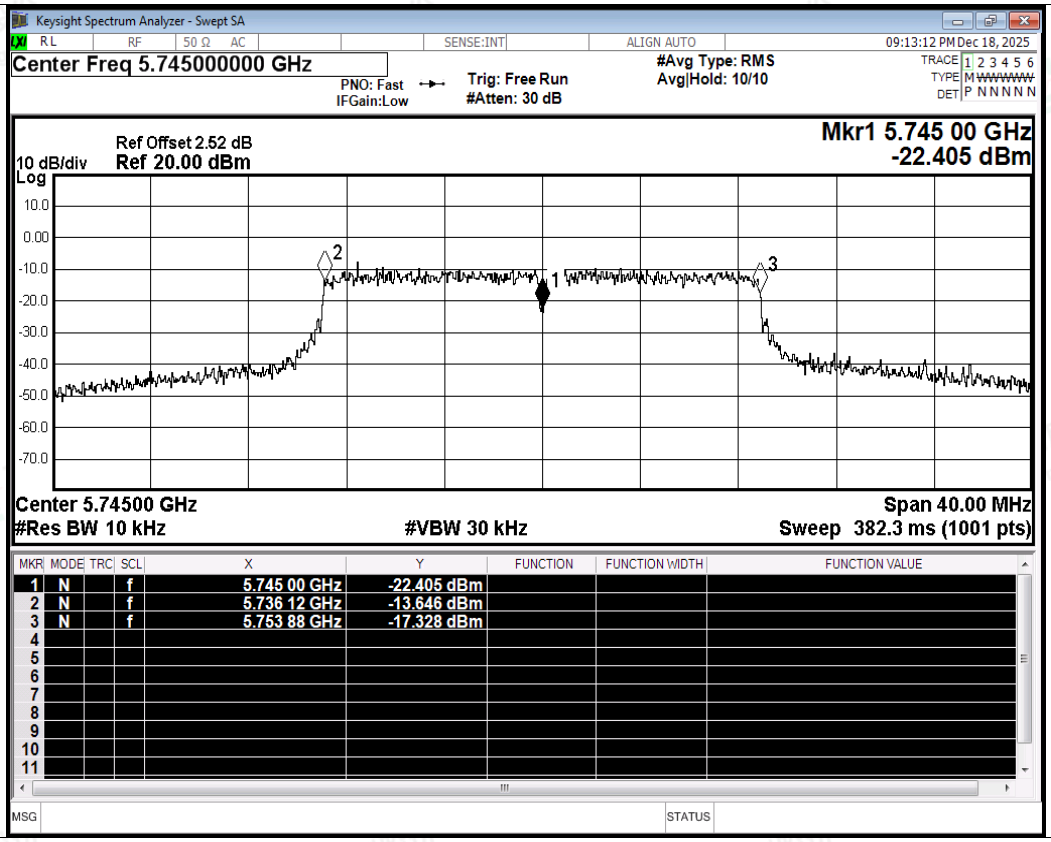
Freq. Stability NVNT a 5745MHz Ant1



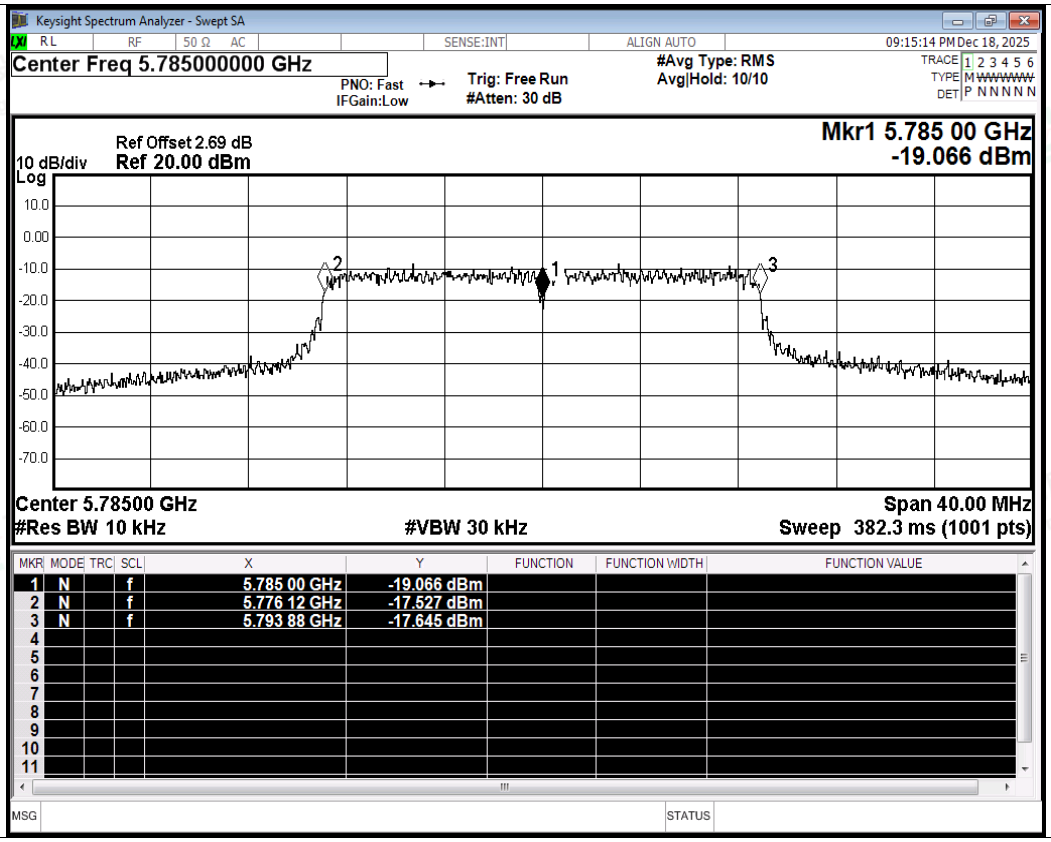
Freq. Stability NVNT a 5785MHz Ant1



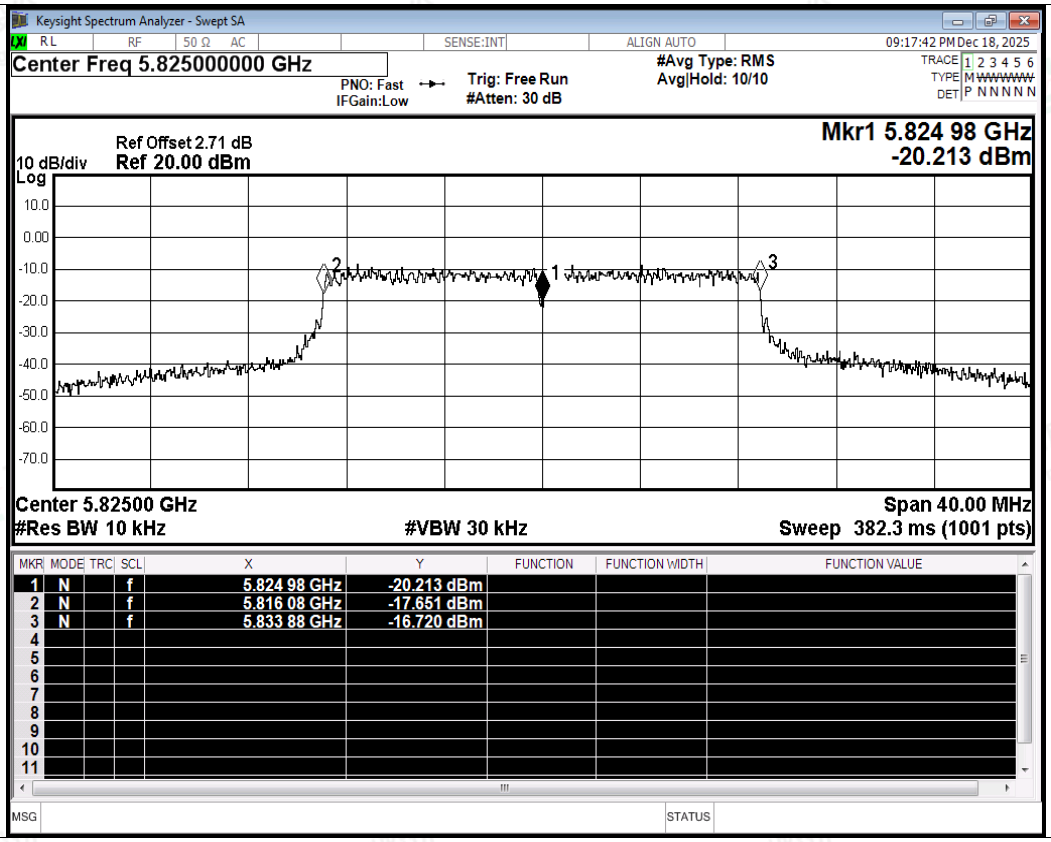
Freq. Stability NVNT a 5825MHz Ant1



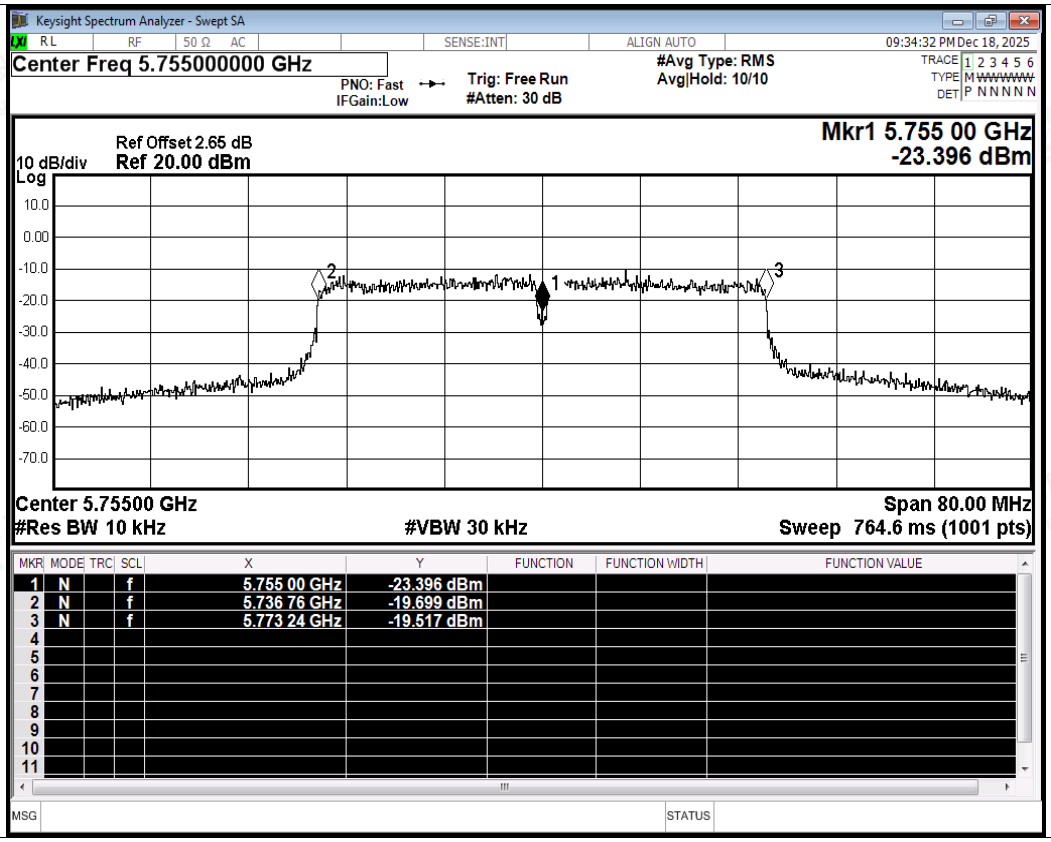
Freq. Stability NVNT n20 5745MHz Ant1



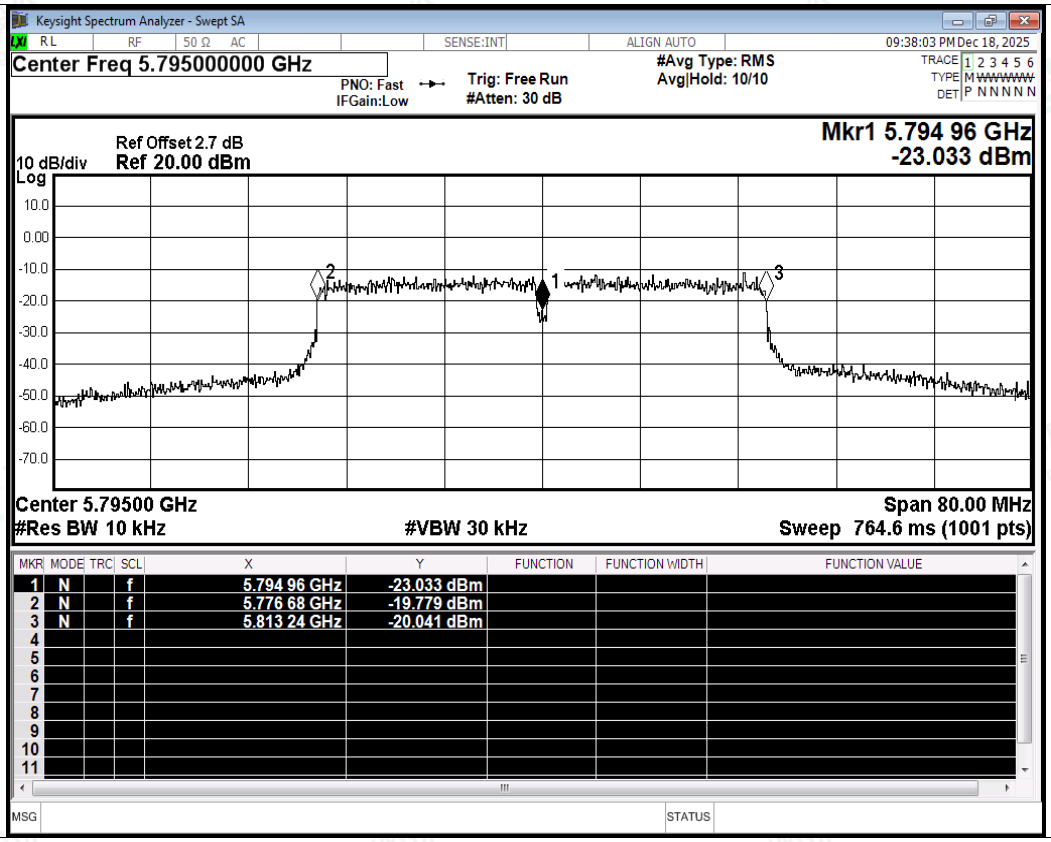
Freq. Stability NVNT n20 5785MHz Ant1



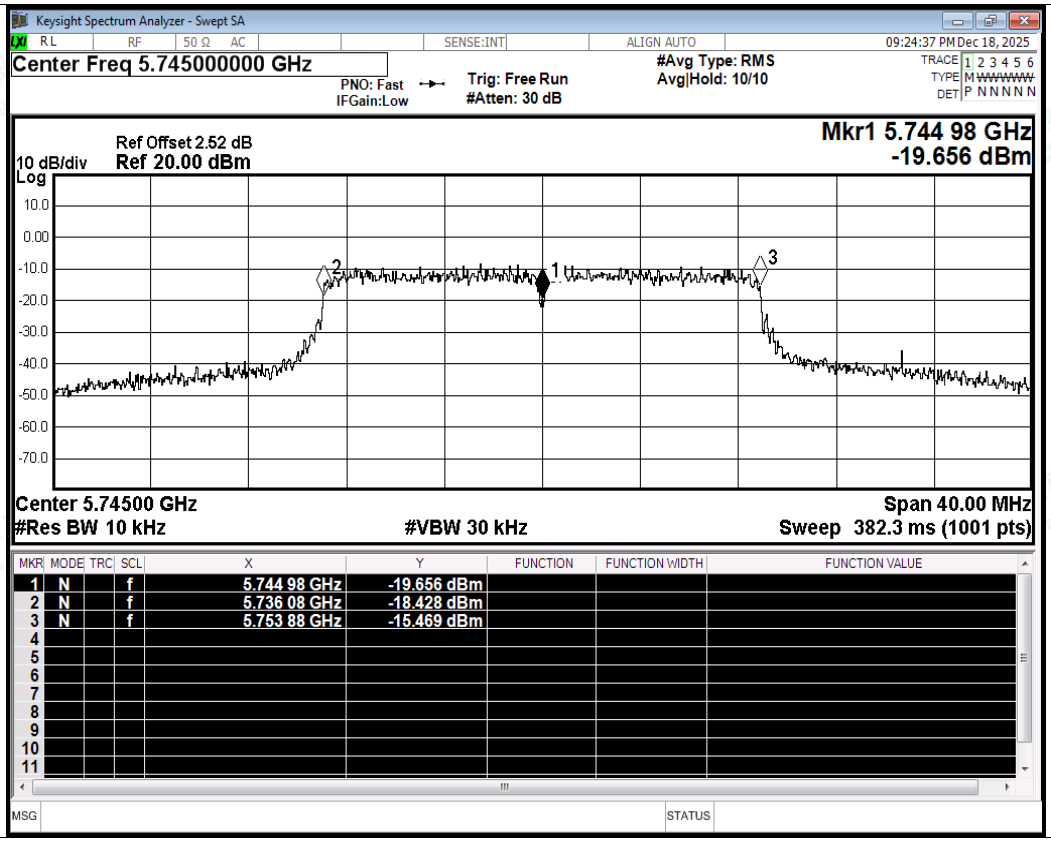
Freq. Stability NVNT n20 5825MHz Ant1



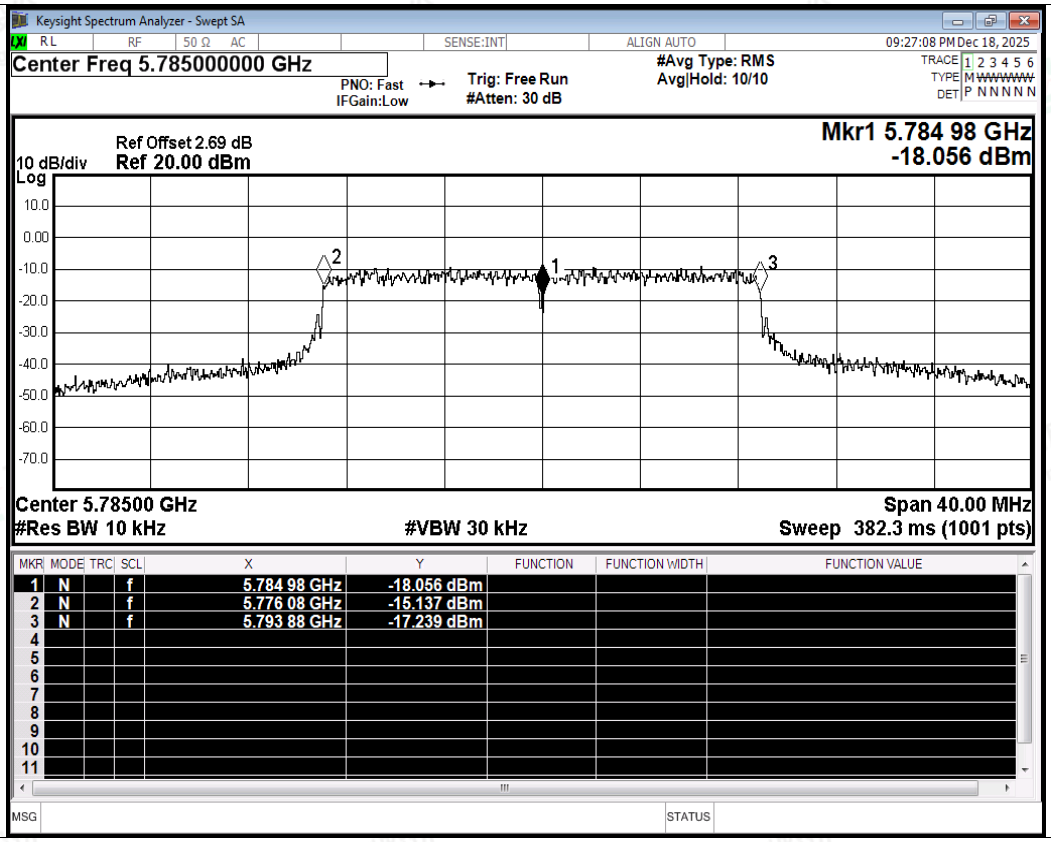
Freq. Stability NVNT n40 5755MHz Ant1



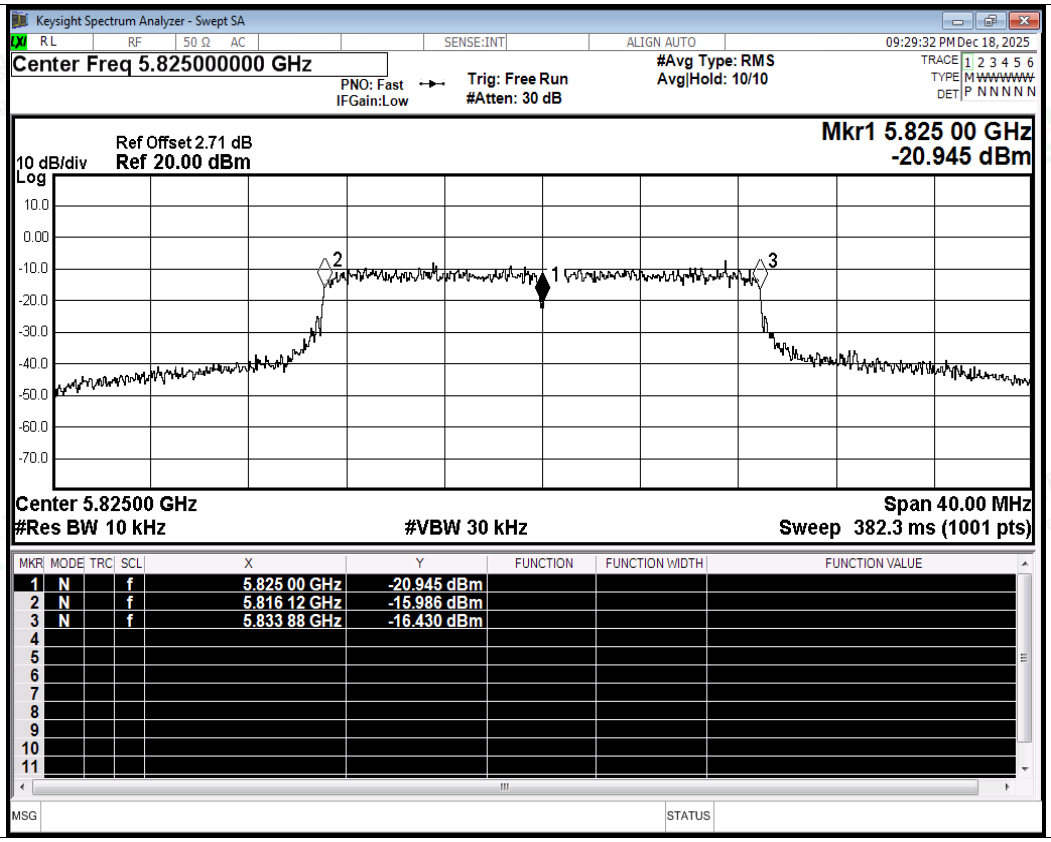
Freq. Stability NVNT n40 5795MHz Ant1



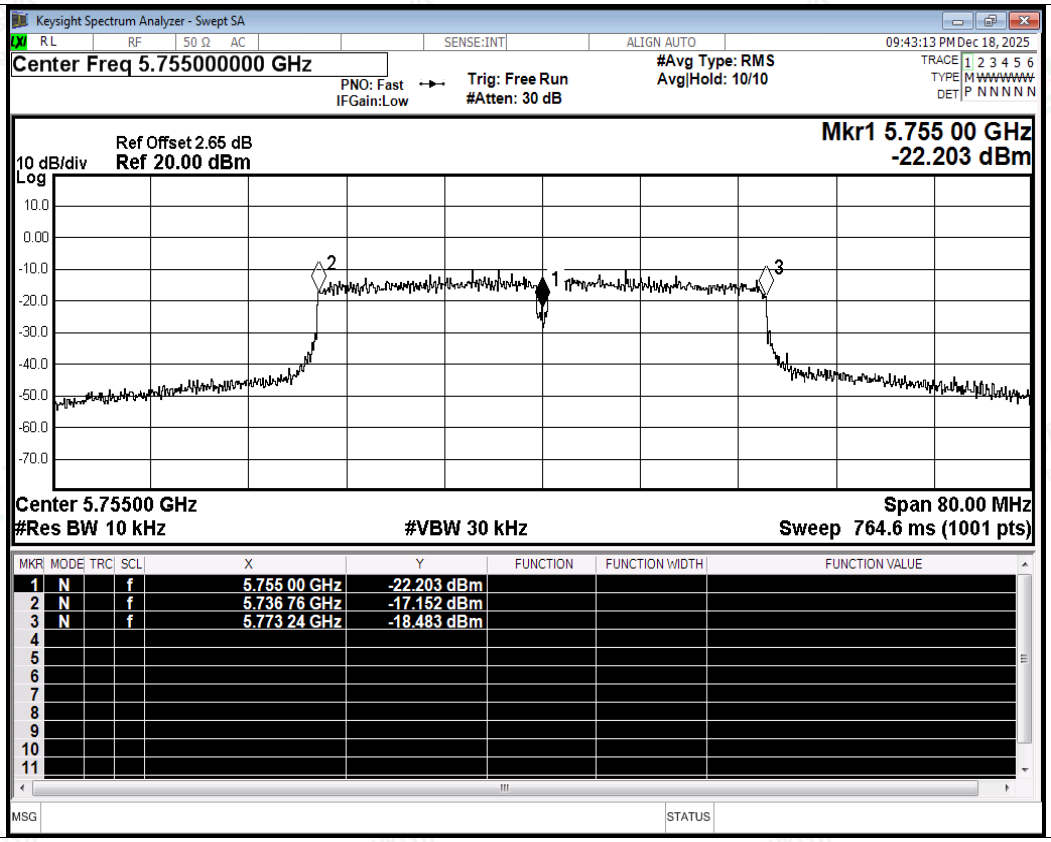
Freq. Stability NVNT ac20 5745MHz Ant1



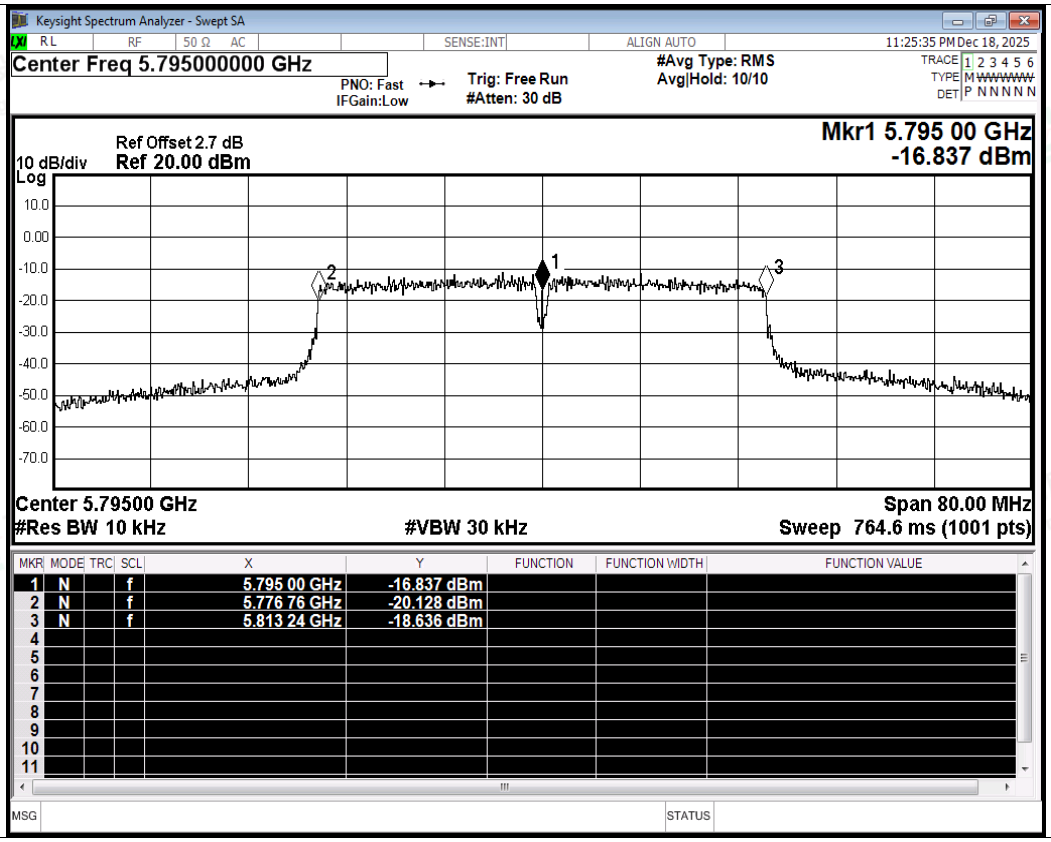
Freq. Stability NVNT ac20 5785MHz Ant1



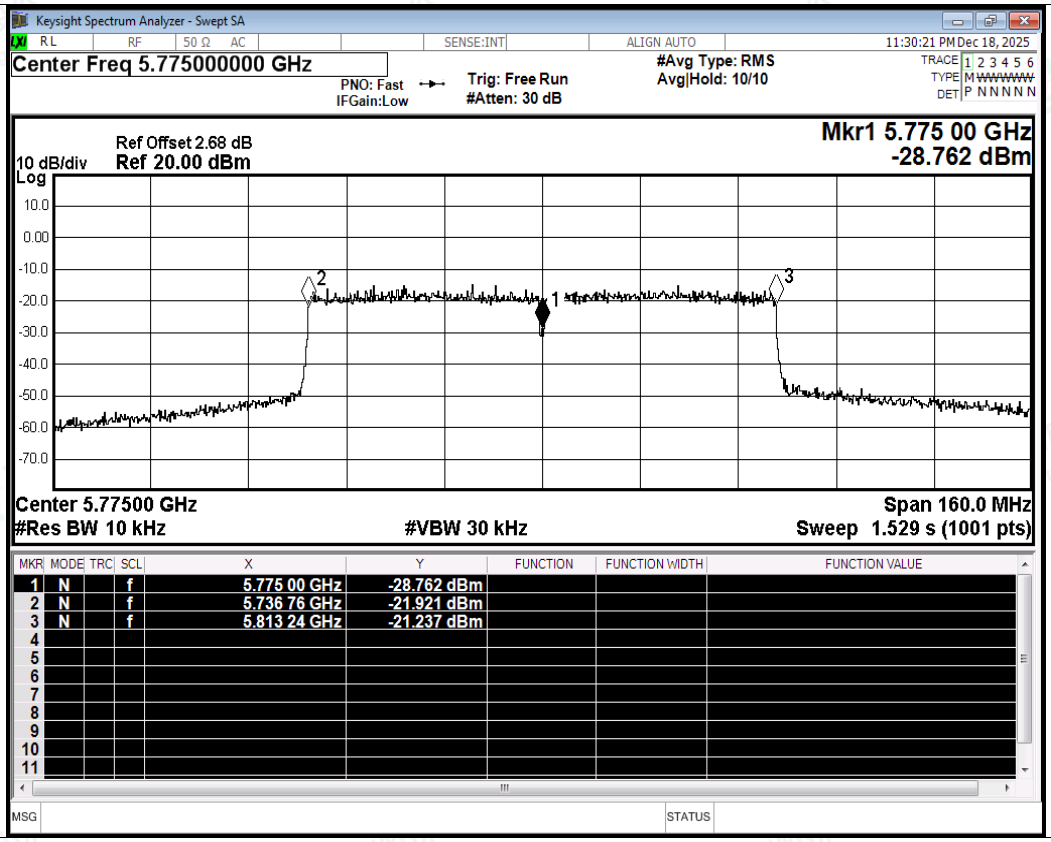
Freq. Stability NVNT ac20 5825MHz Ant1



Freq. Stability NVNT ac40 5755MHz Ant1



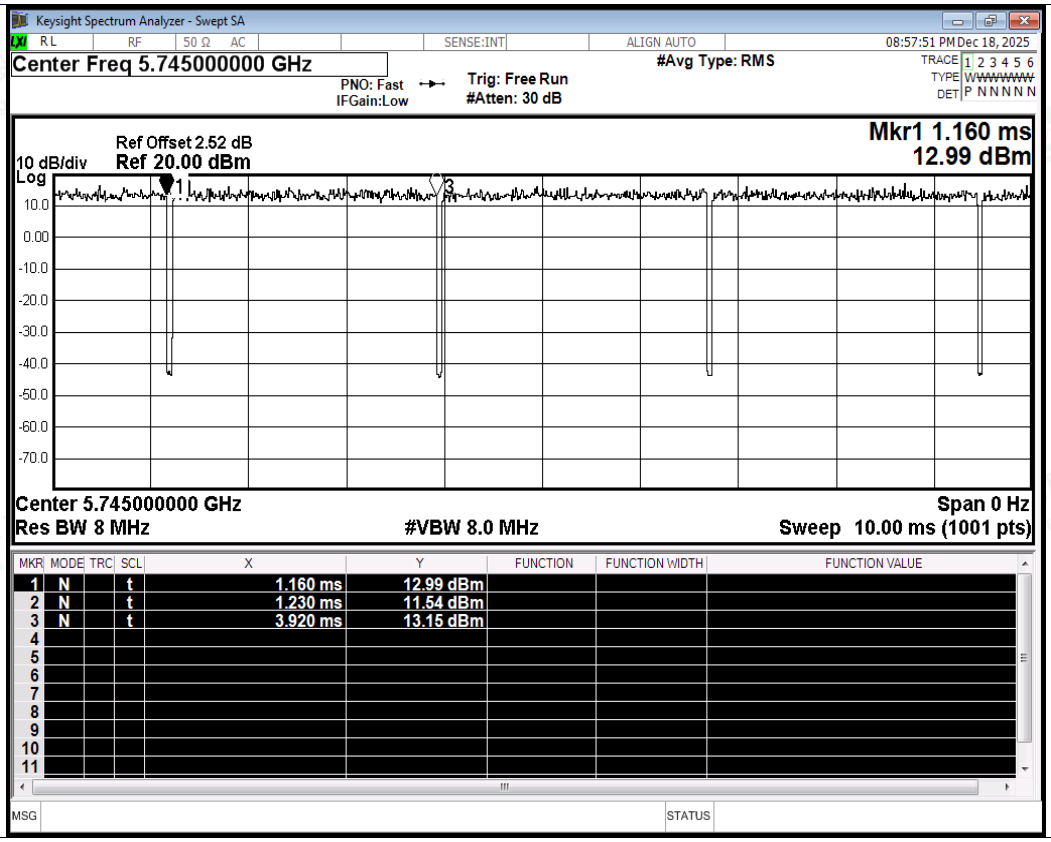
Freq. Stability NVNT ac40 5795MHz Ant1



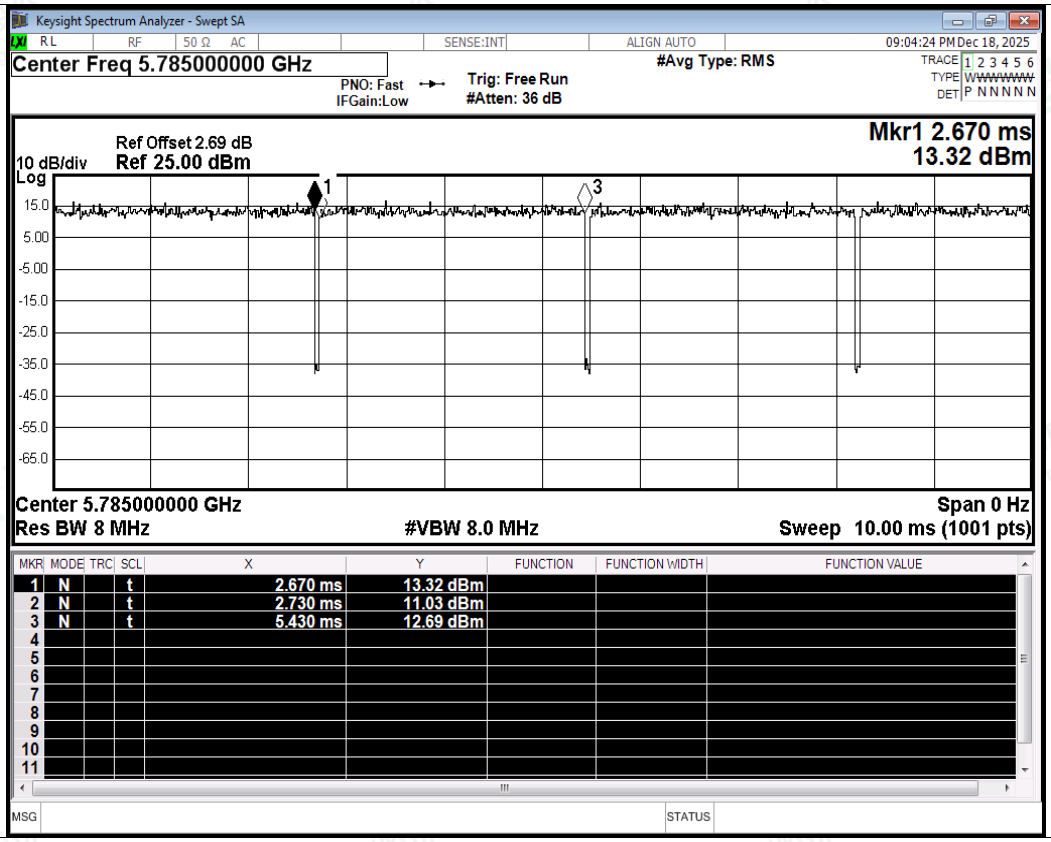
Freq. Stability NVNT ac80 5775MHz Ant1

D.6 Duty Cycle

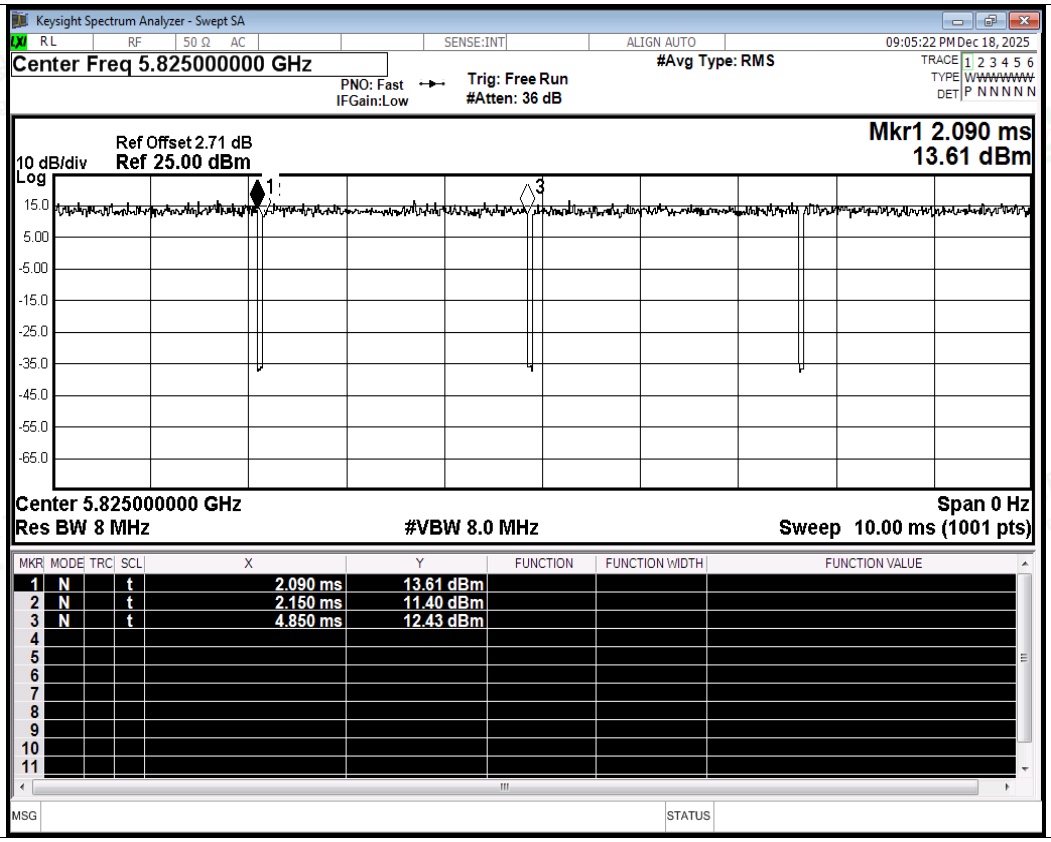
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5745	Ant1	97.46	0.11	0.37
NVNT	a	5785	Ant1	97.83	0.1	0.37
NVNT	a	5825	Ant1	97.83	0.1	0.37
NVNT	n20	5745	Ant1	97	0.13	0.44
NVNT	n20	5785	Ant1	97.42	0.11	0.44
NVNT	n20	5825	Ant1	97.42	0.11	0.44
NVNT	n40	5755	Ant1	94.02	0.27	0.91
NVNT	n40	5795	Ant1	94.87	0.23	0.9
NVNT	ac20	5745	Ant1	97.01	0.13	0.44
NVNT	ac20	5785	Ant1	97	0.13	0.44
NVNT	ac20	5825	Ant1	97.42	0.11	0.44
NVNT	ac40	5755	Ant1	94.92	0.23	0.89
NVNT	ac40	5795	Ant1	94.92	0.23	0.89
NVNT	ac80	5775	Ant1	88.33	0.54	1.89



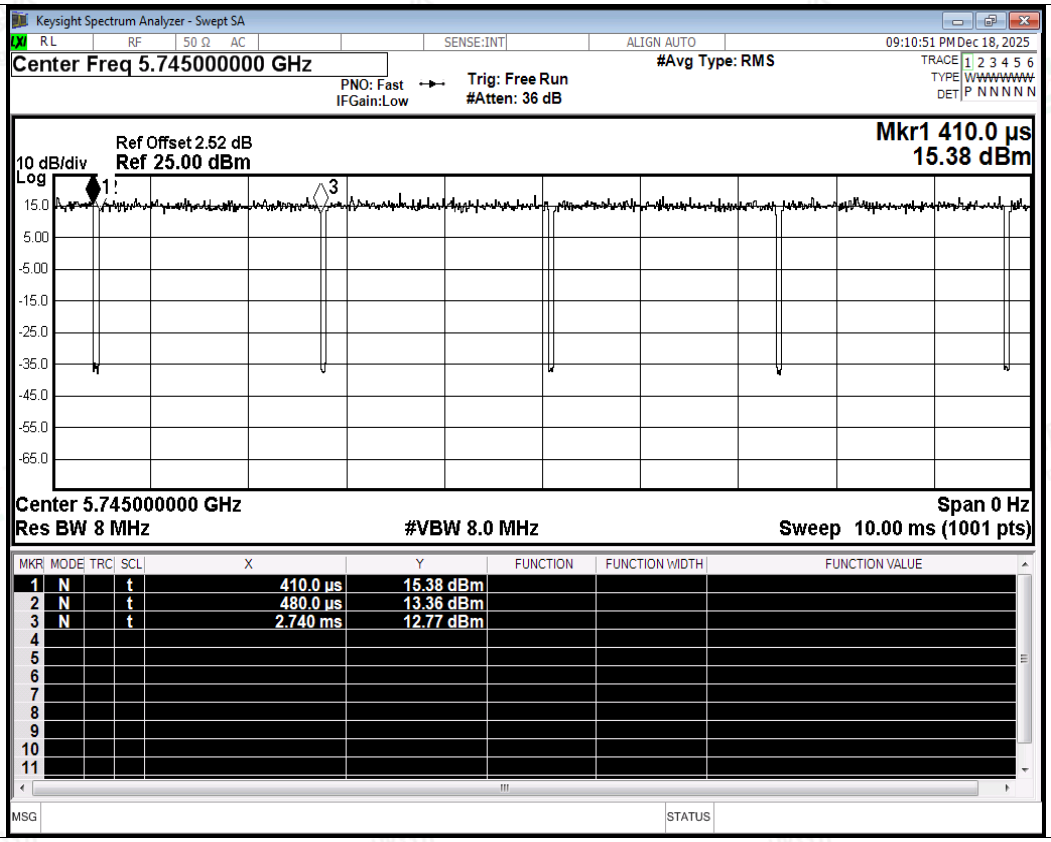
Duty Cycle NVNT a 5745MHz Ant1



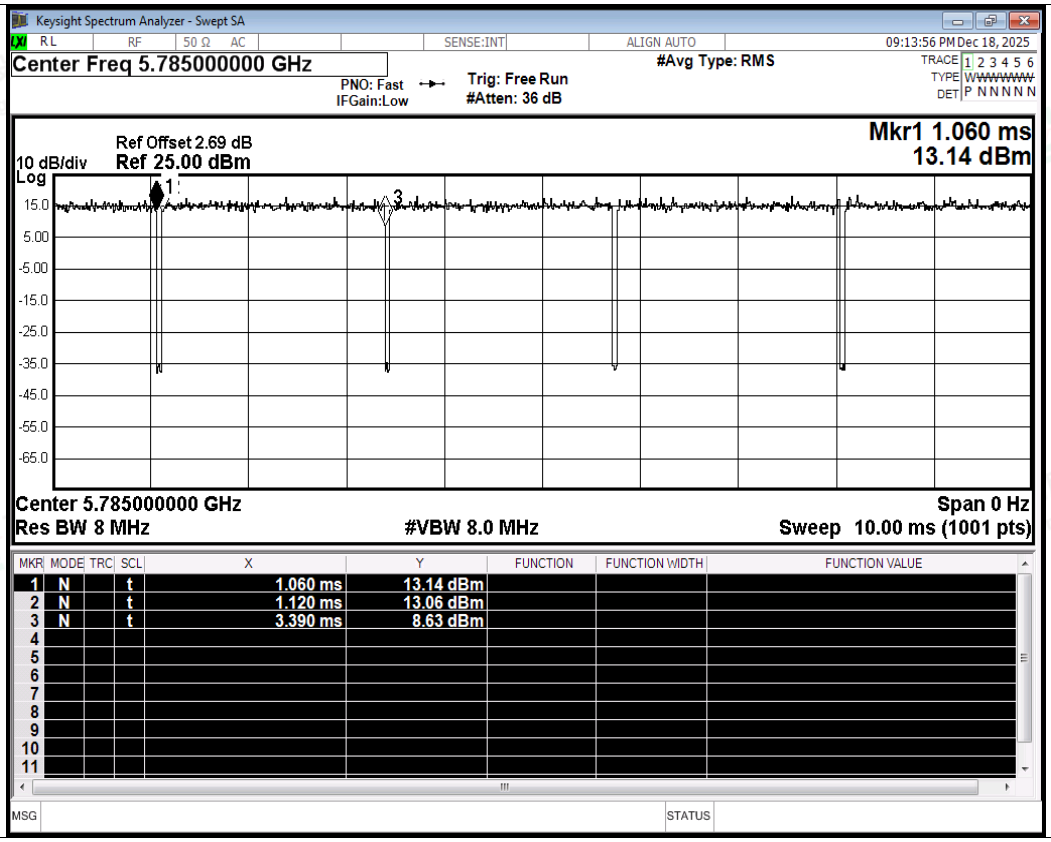
Duty Cycle NVNT a 5785MHz Ant1



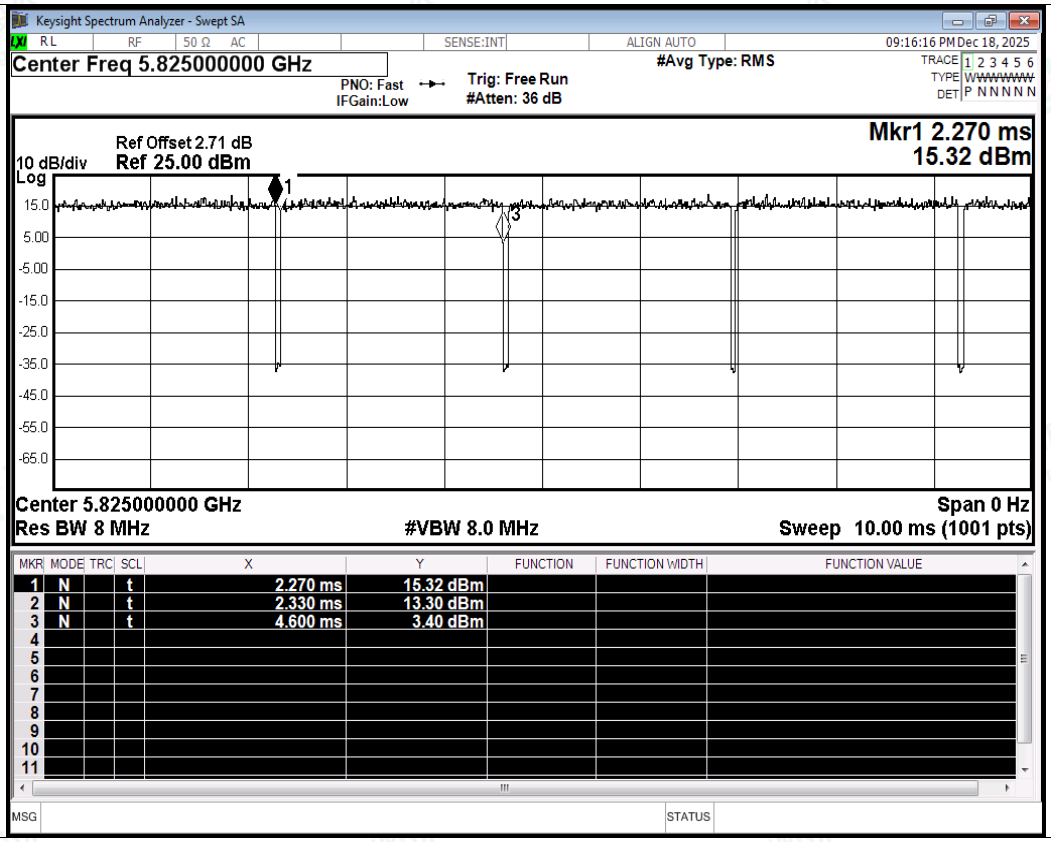
Duty Cycle NVNT a 5825MHz Ant1



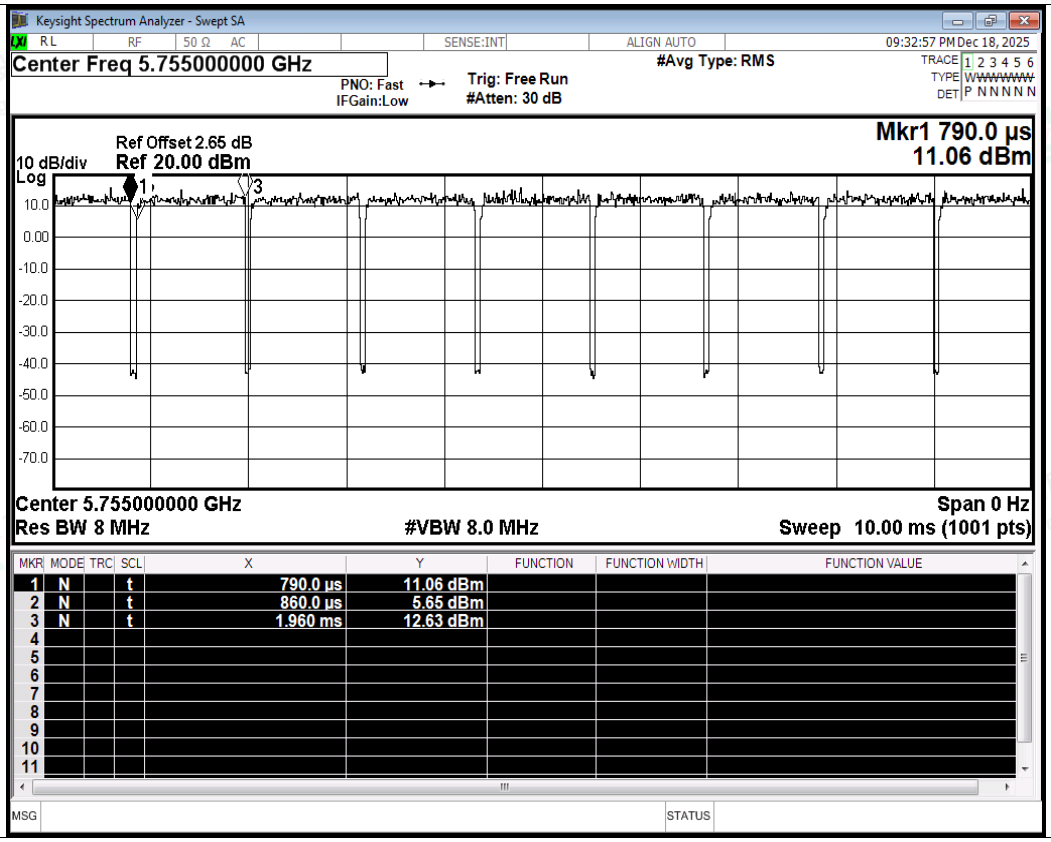
Duty Cycle NVNT n20 5745MHz Ant1



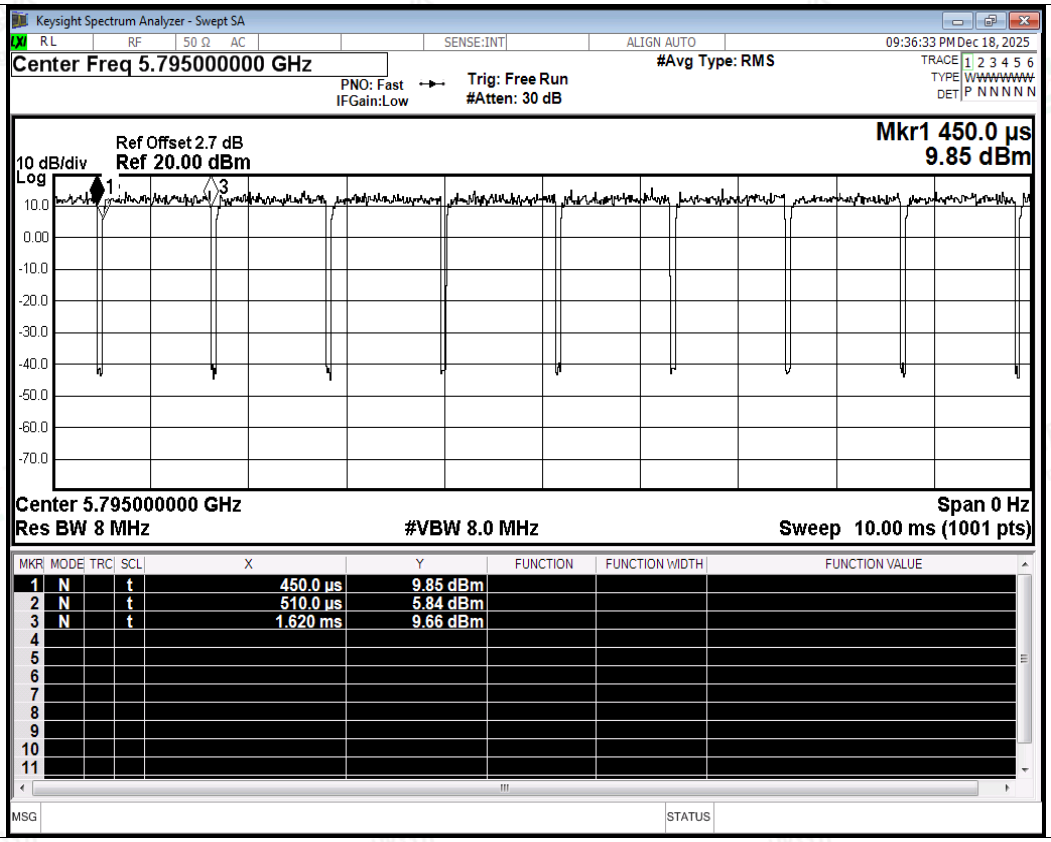
Duty Cycle NVNT n20 5785MHz Ant1



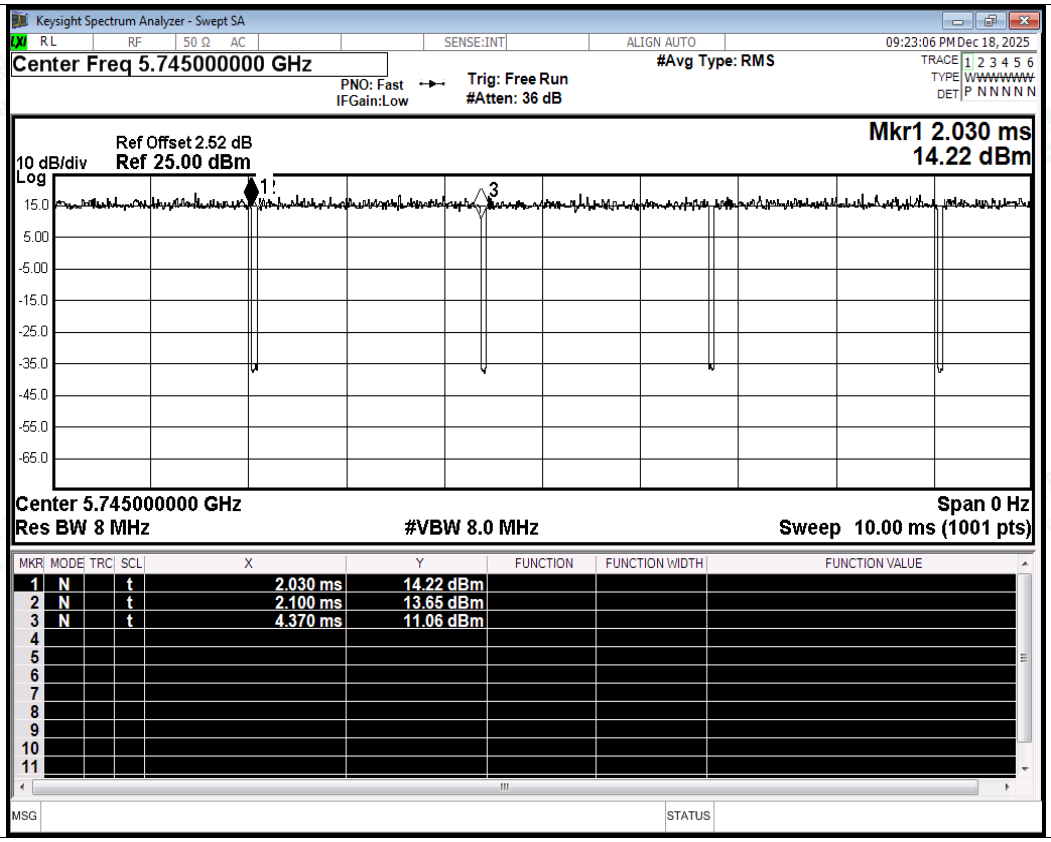
Duty Cycle NVNT n20 5825MHz Ant1



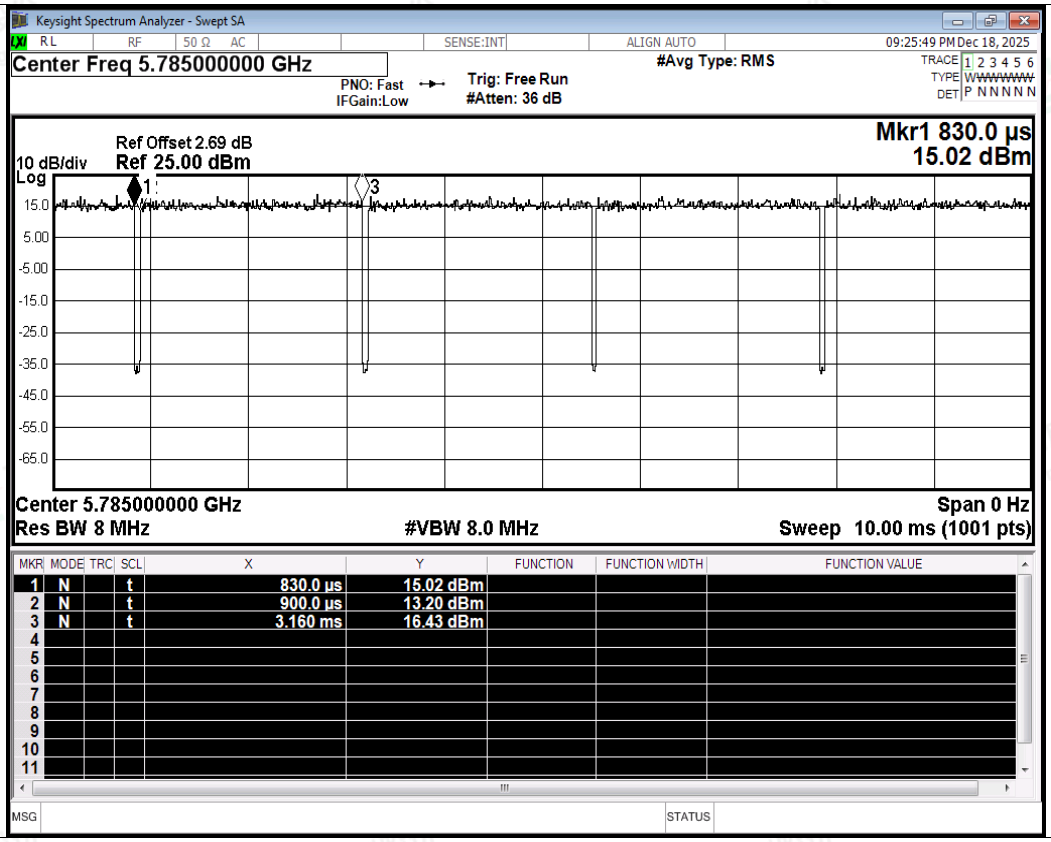
Duty Cycle NVNT n40 5755MHz Ant1



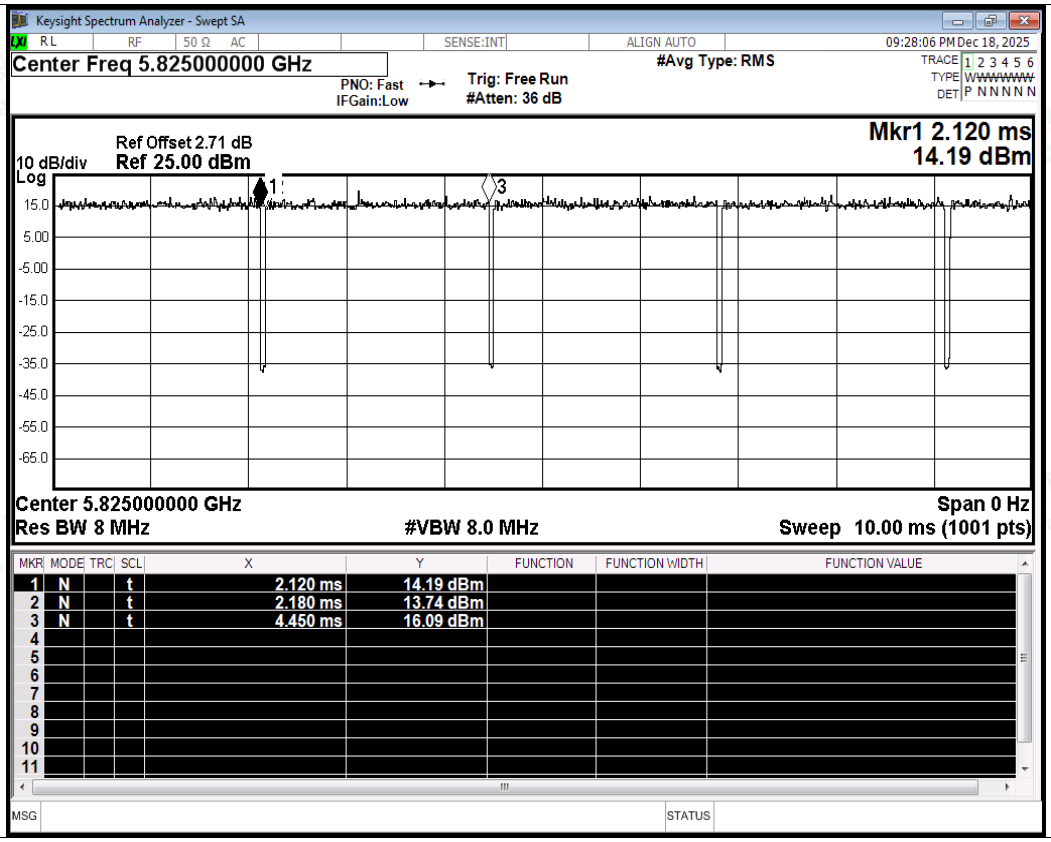
Duty Cycle NVNT n40 5795MHz Ant1



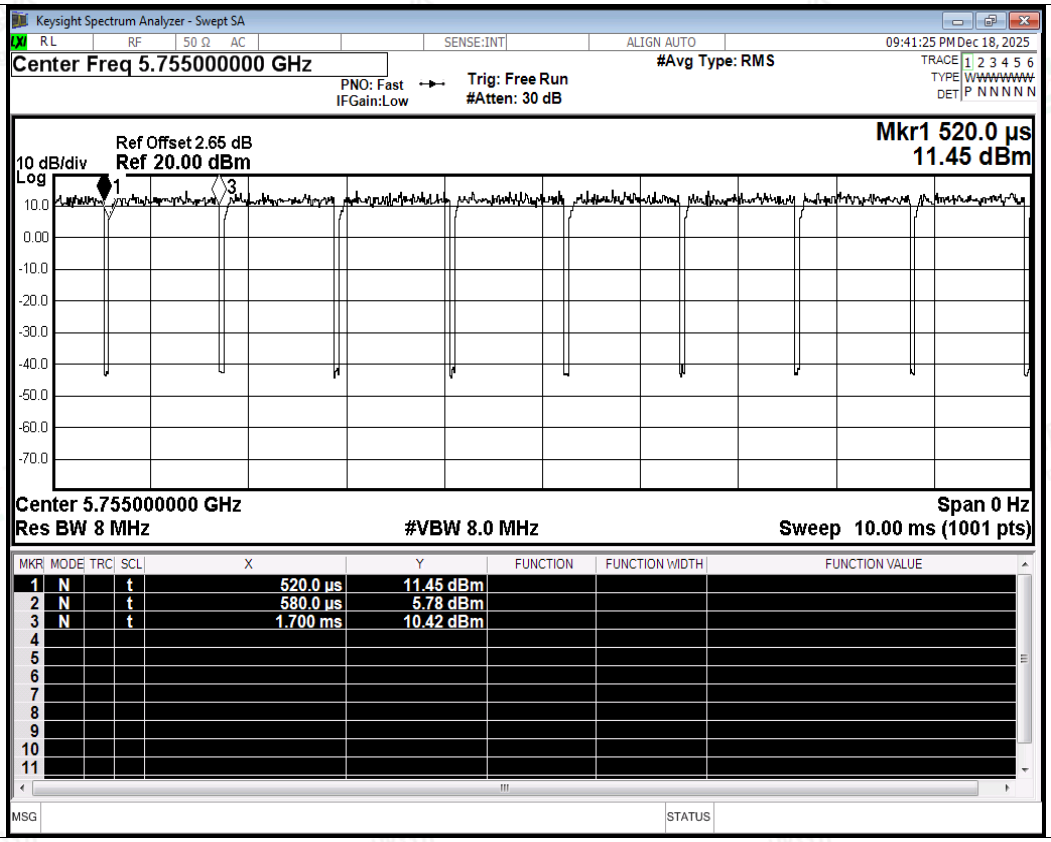
Duty Cycle NVNT ac20 5745MHz Ant1



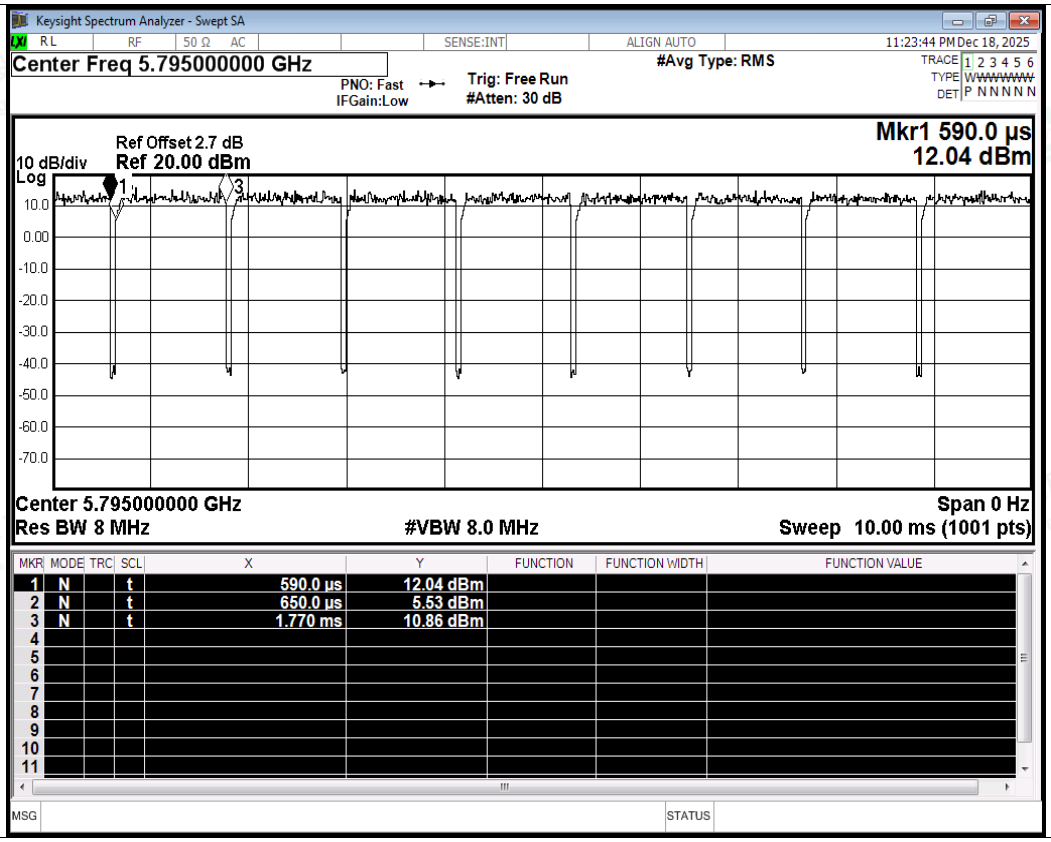
Duty Cycle NVNT ac20 5785MHz Ant1



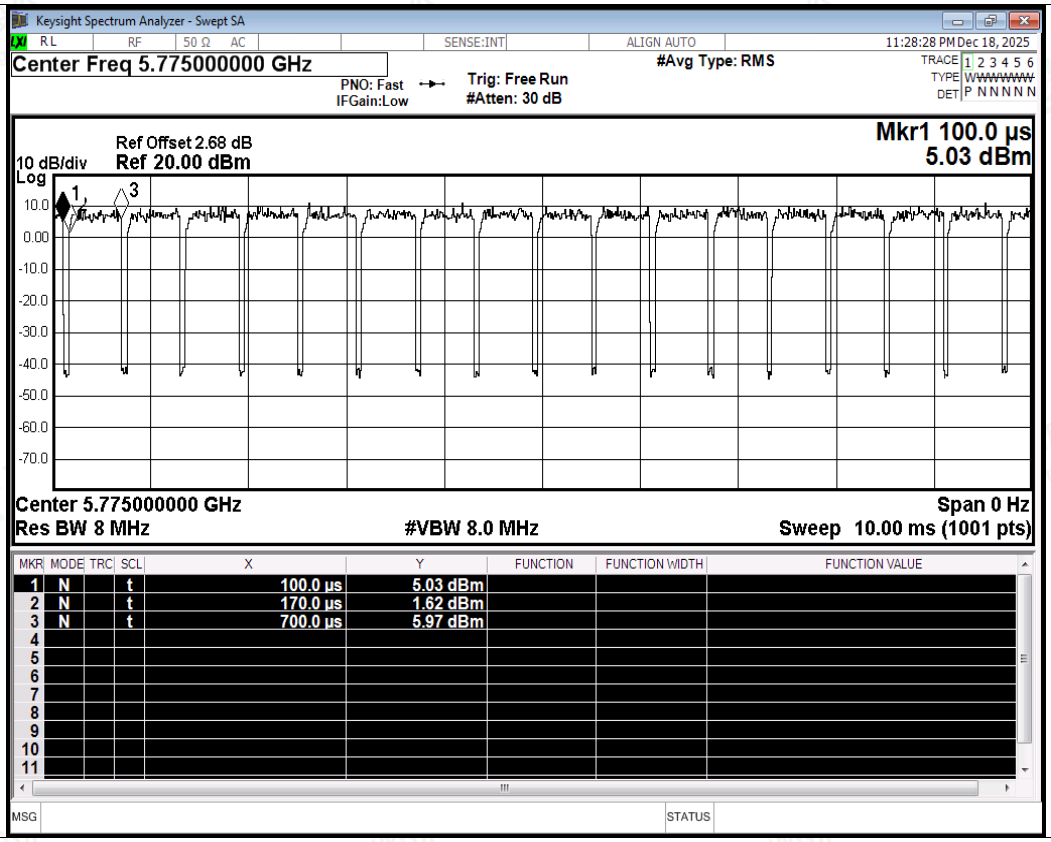
Duty Cycle NVNT ac20 5825MHz Ant1



Duty Cycle NVNT ac40 5755MHz Ant1



Duty Cycle NVNT ac40 5795MHz Ant1



Duty Cycle NVNT ac80 5775MHz Ant1