



## Appendix G

### RF Test Data for 5.8GWIFI (Conducted Measurement)

Product Name: Smart Diagnostic System

Test Model: P102

#### Environmental Conditions

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





### G.1 -6dB Bandwidth

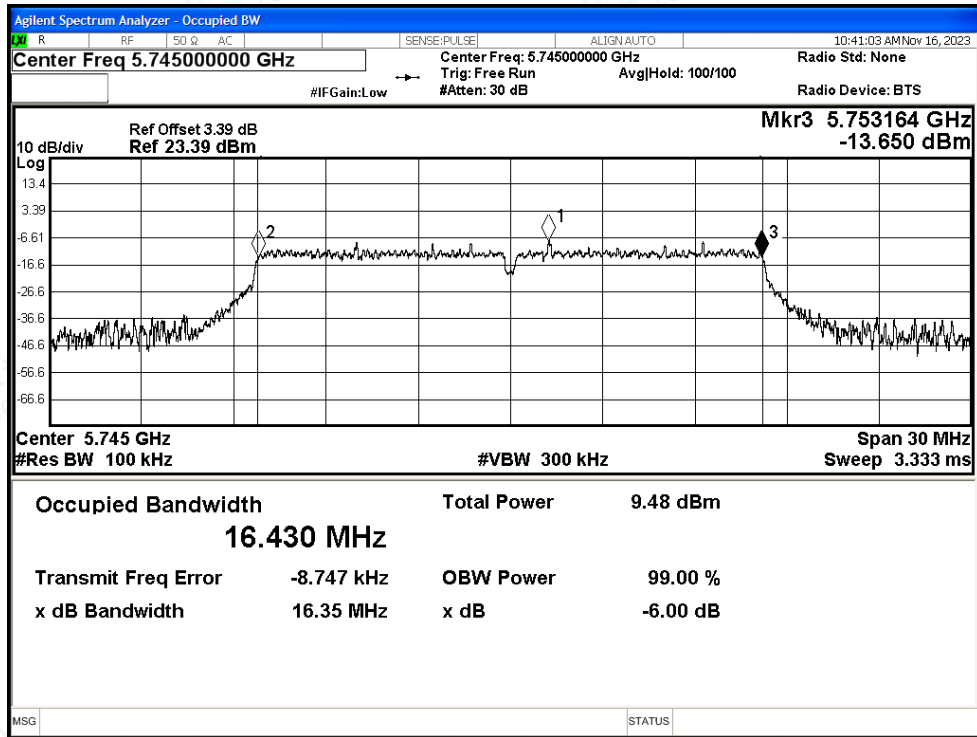
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	a	5745	Ant0	16.346	>=0.5	Pass
NVNT	a	5785	Ant0	16.345	>=0.5	Pass
NVNT	a	5825	Ant0	16.325	>=0.5	Pass
NVNT	n20	5745	Ant0	17.378	>=0.5	Pass
NVNT	n20	5785	Ant0	17.412	>=0.5	Pass
NVNT	n20	5825	Ant0	17.041	>=0.5	Pass
NVNT	n40	5755	Ant0	35.647	>=0.5	Pass
NVNT	n40	5795	Ant0	35.993	>=0.5	Pass
NVNT	ac20	5745	Ant0	17.268	>=0.5	Pass
NVNT	ac20	5785	Ant0	17.268	>=0.5	Pass
NVNT	ac20	5825	Ant0	17.266	>=0.5	Pass
NVNT	ac40	5755	Ant0	35.906	>=0.5	Pass
NVNT	ac40	5795	Ant0	36.003	>=0.5	Pass
NVNT	ac80	5775	Ant0	75.52	>=0.5	Pass



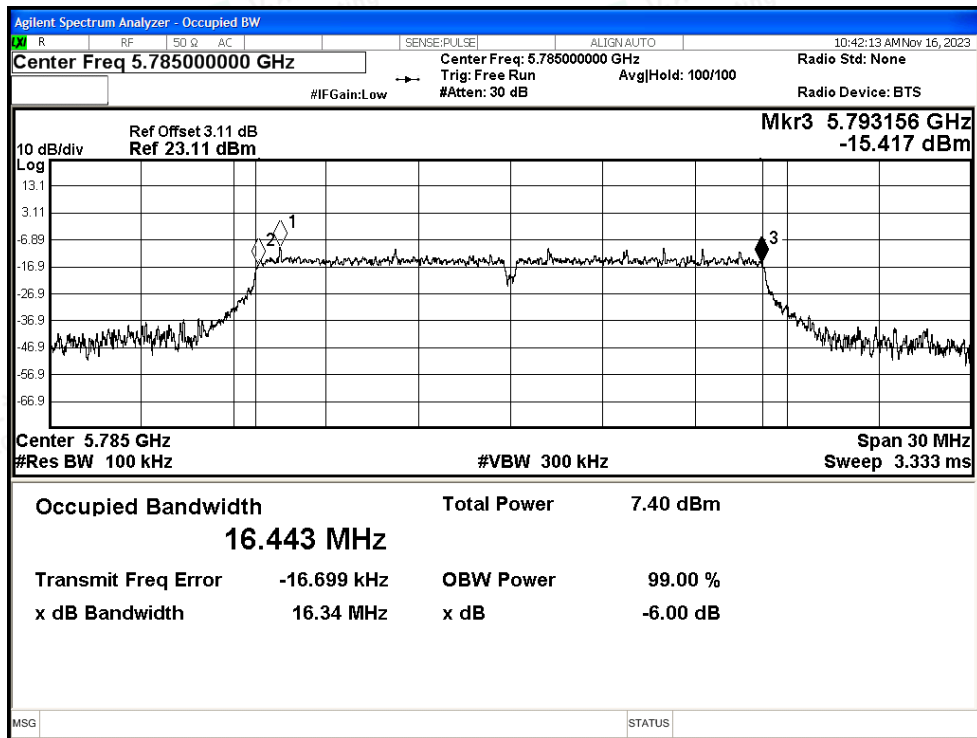


Test Graphs

-6dB Bandwidth NVNT a 5745MHz Ant0

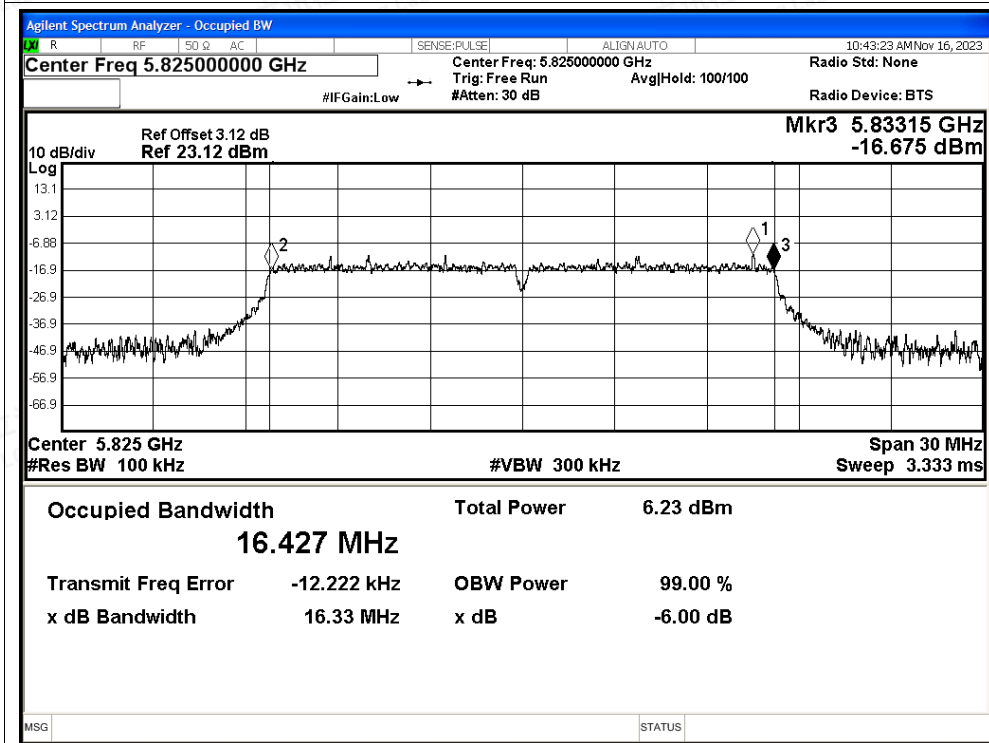


-6dB Bandwidth NVNT a 5785MHz Ant0

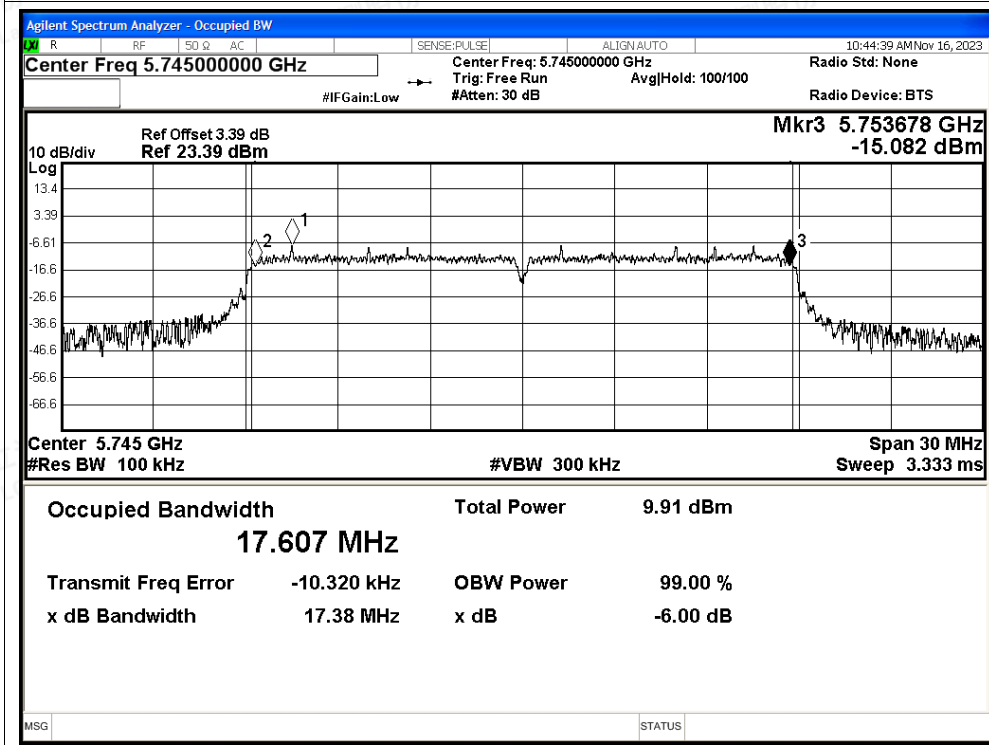




-6dB Bandwidth NVNT a 5825MHz Ant0

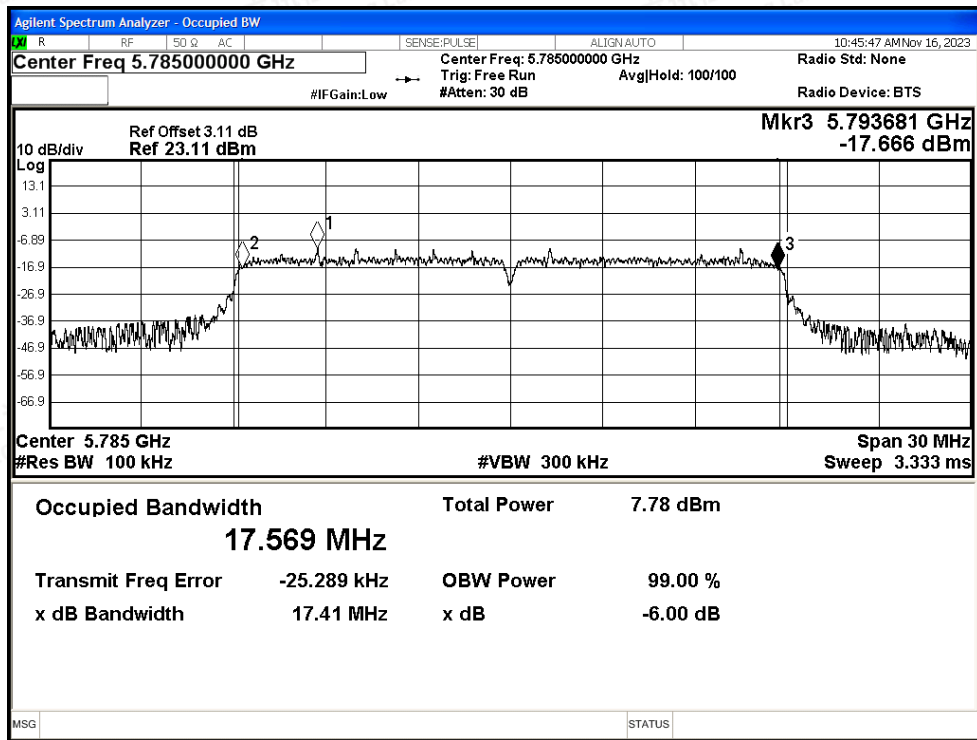


-6dB Bandwidth NVNT n20 5745MHz Ant0

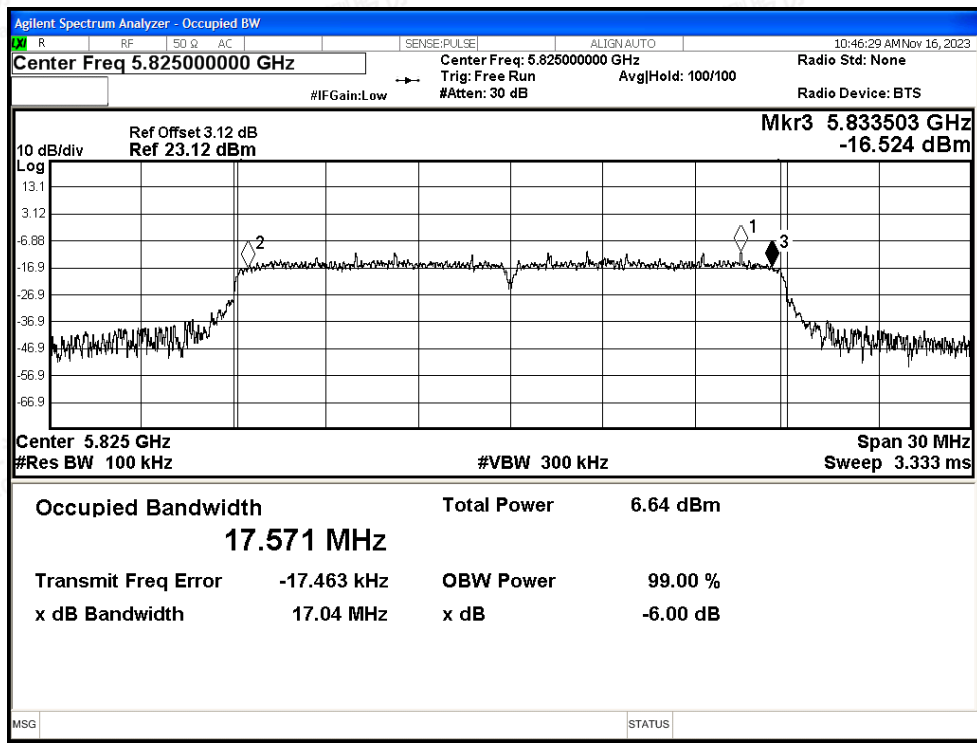




-6dB Bandwidth NVNT n20 5785MHz Ant0

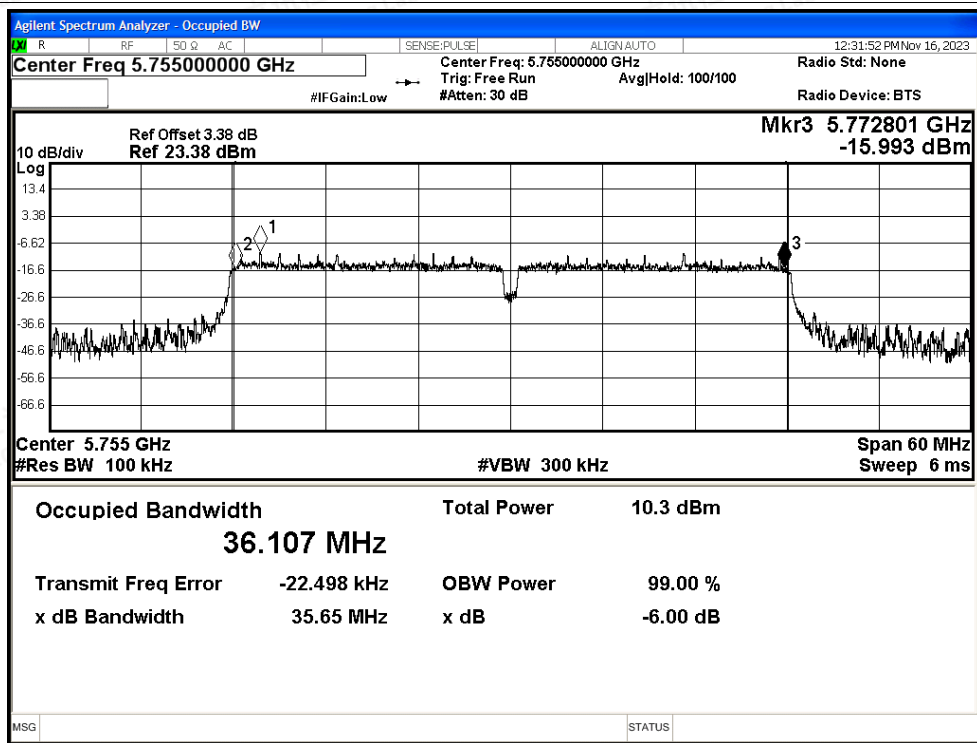


-6dB Bandwidth NVNT n20 5825MHz Ant0

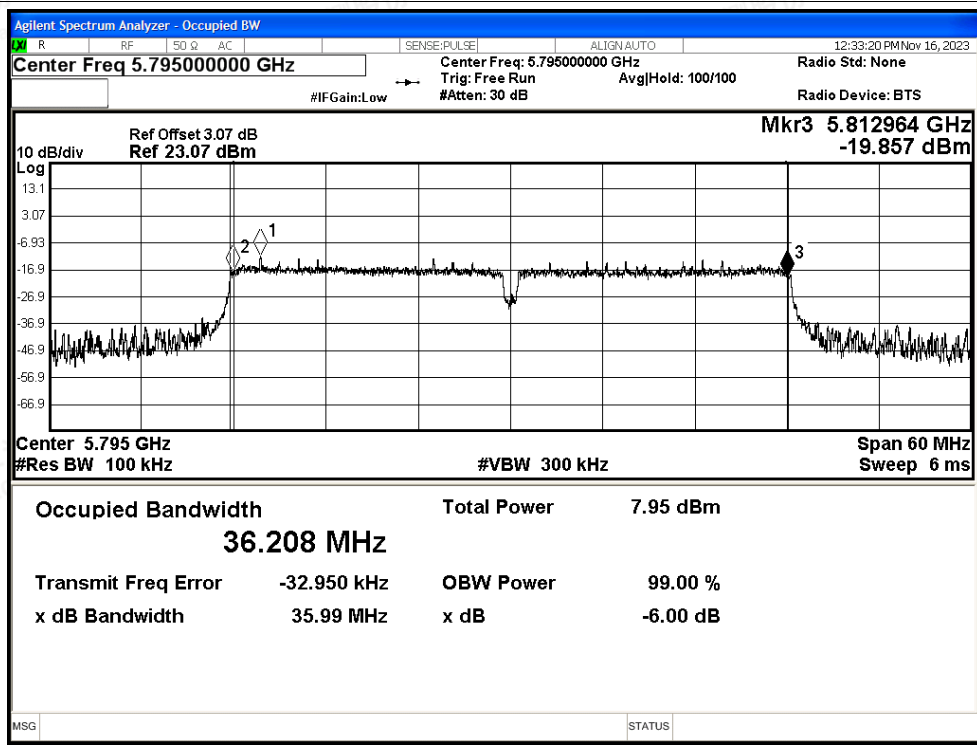




-6dB Bandwidth NVNT n40 5755MHz Ant0

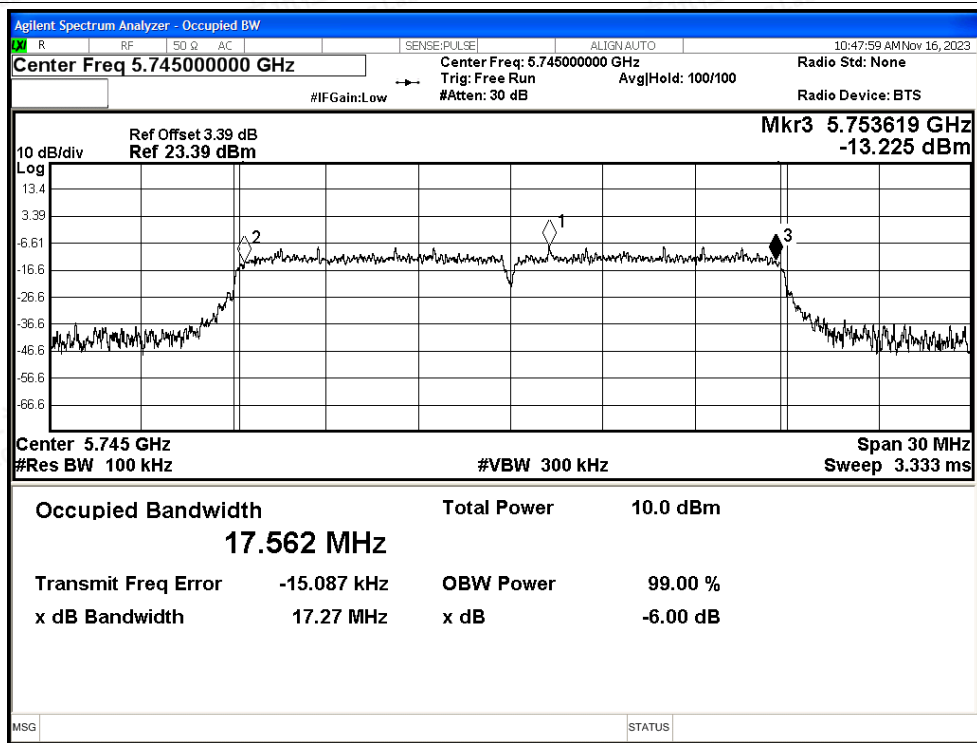


-6dB Bandwidth NVNT n40 5795MHz Ant0

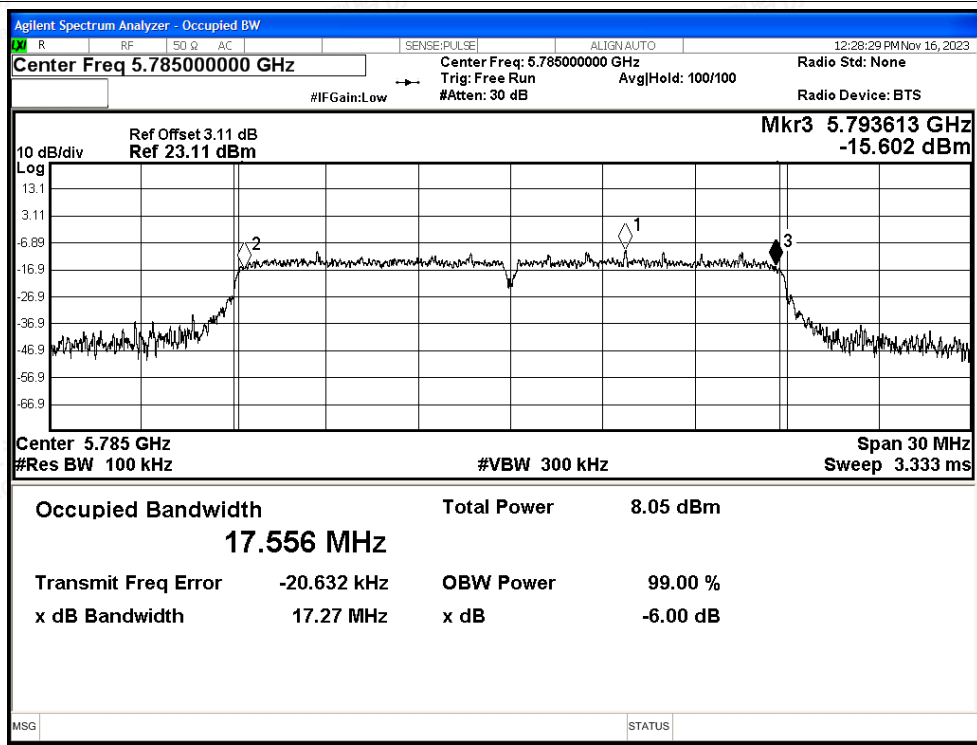




-6dB Bandwidth NVNT ac20 5745MHz Ant0

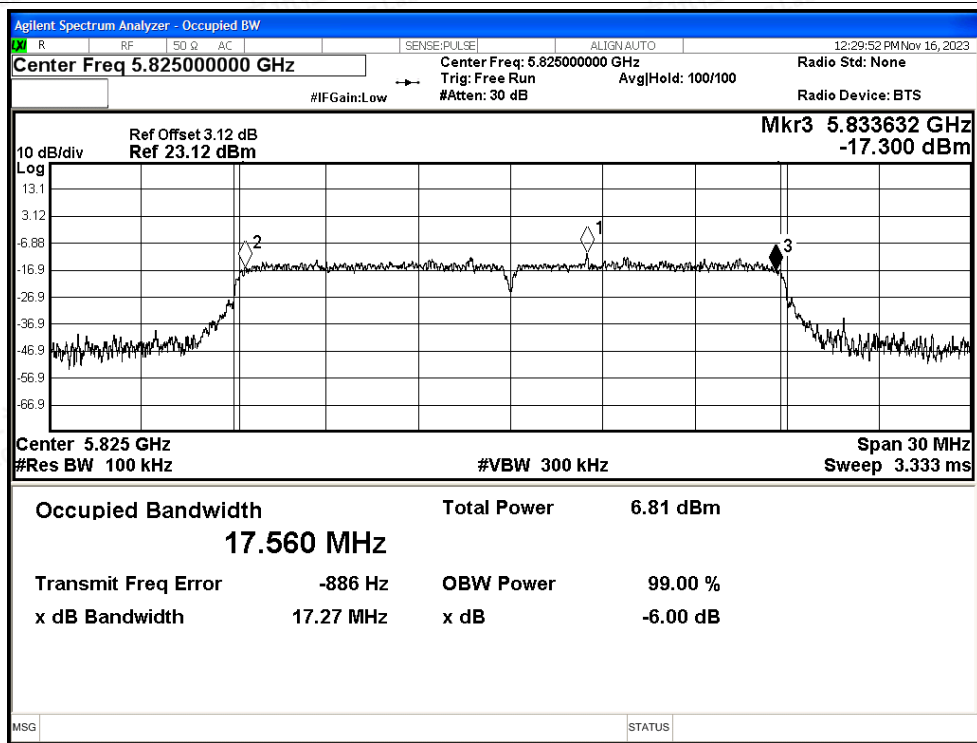


-6dB Bandwidth NVNT ac20 5785MHz Ant0

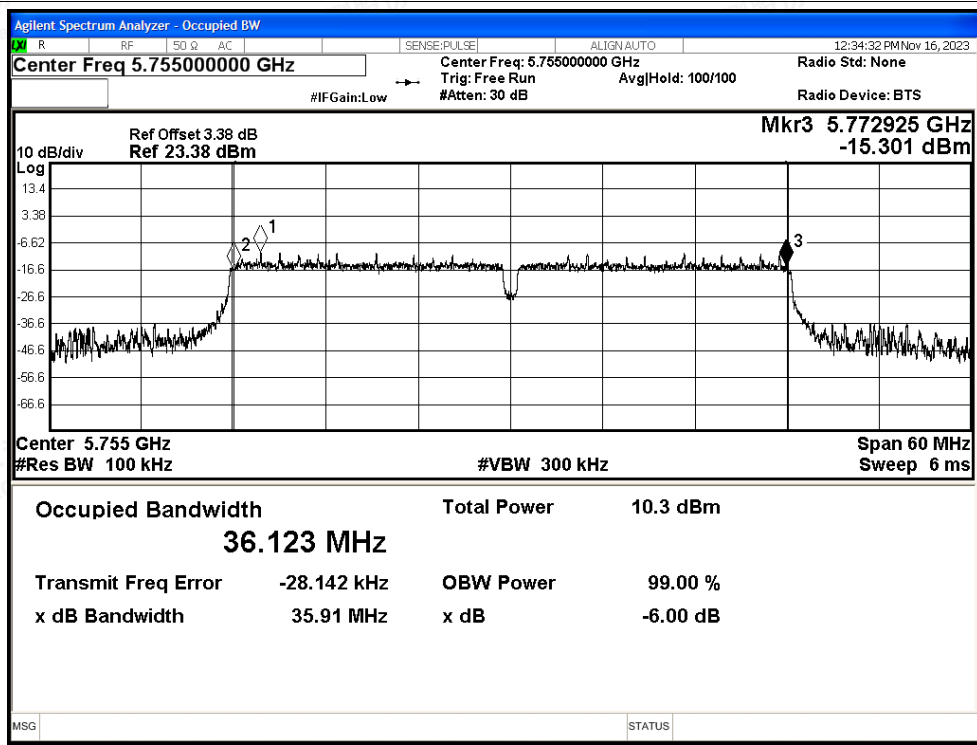




-6dB Bandwidth NVNT ac20 5825MHz Ant0



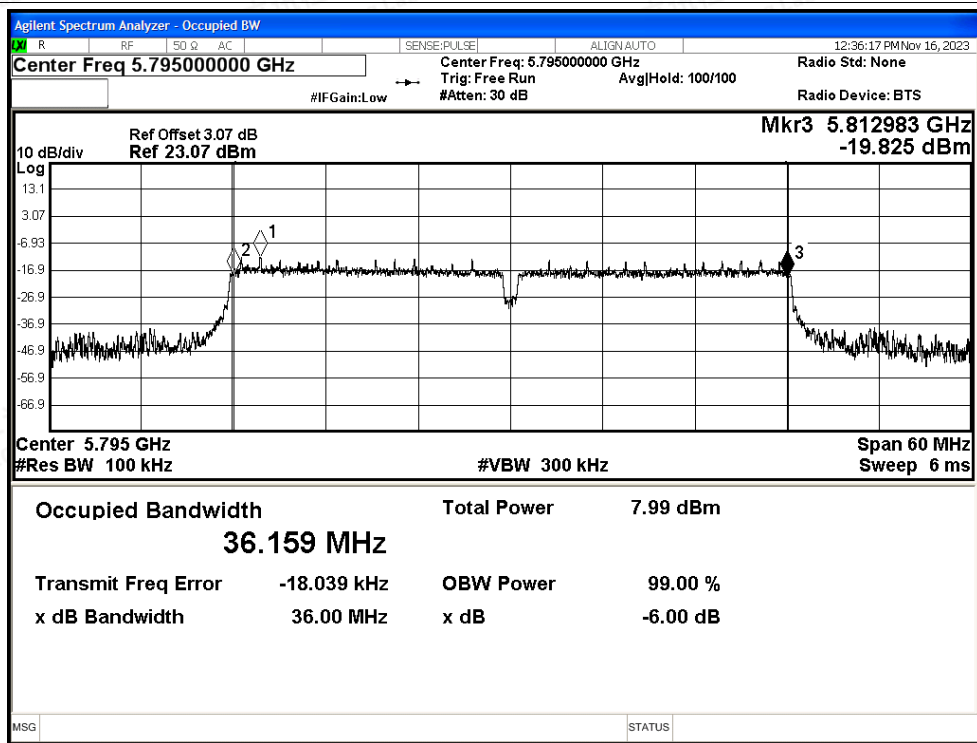
-6dB Bandwidth NVNT ac40 5755MHz Ant0



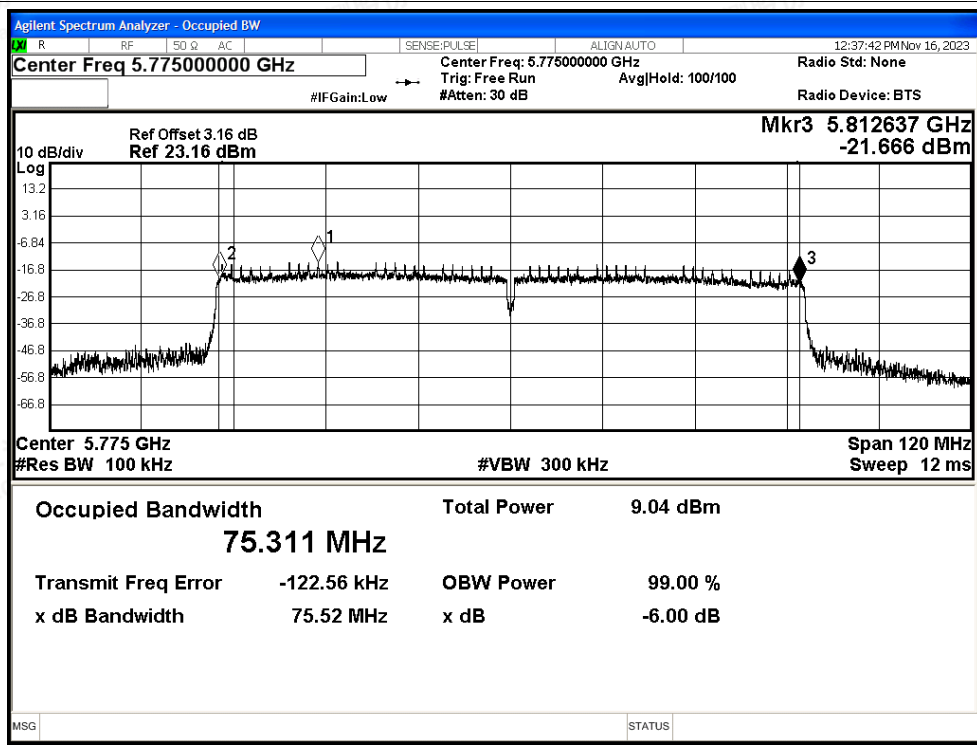




-6dB Bandwidth NVNT ac40 5795MHz Ant0



-6dB Bandwidth NVNT ac80 5775MHz Ant0





### 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	11.21	0.5	11.71	30	Pass
NVNT	a	5785	Ant0	9.08	0.43	9.51	30	Pass
NVNT	a	5825	Ant0	7.96	0.45	8.41	30	Pass
NVNT	n20	5745	Ant0	10.88	0.62	11.5	30	Pass
NVNT	n20	5785	Ant0	8.96	0.5	9.46	30	Pass
NVNT	n20	5825	Ant0	7.88	0.53	8.41	30	Pass
NVNT	n40	5755	Ant0	10.48	1.1	11.58	30	Pass
NVNT	n40	5795	Ant0	8.12	0.95	9.07	30	Pass
NVNT	ac20	5745	Ant0	10.86	0.59	11.45	30	Pass
NVNT	ac20	5785	Ant0	8.88	0.59	9.47	30	Pass
NVNT	ac20	5825	Ant0	8.04	0.53	8.57	30	Pass
NVNT	ac40	5755	Ant0	10.54	0.99	11.53	30	Pass
NVNT	ac40	5795	Ant0	8.17	0.99	9.16	30	Pass
NVNT	ac80	5775	Ant0	8.47	0.49	8.96	30	Pass



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### G.3 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	Ant0	-2.57	0.5	-2.07	30	Pass
NVNT	a	5785	Ant0	-4.26	0.43	-3.83	30	Pass
NVNT	a	5825	Ant0	-5.55	0.45	-5.1	30	Pass
NVNT	n20	5745	Ant0	-2.96	0.62	-2.34	30	Pass
NVNT	n20	5785	Ant0	-4.7	0.5	-4.2	30	Pass
NVNT	n20	5825	Ant0	-5.79	0.53	-5.26	30	Pass
NVNT	n40	5755	Ant0	-5.88	1.1	-4.78	30	Pass
NVNT	n40	5795	Ant0	-8.18	0.95	-7.23	30	Pass
NVNT	ac20	5745	Ant0	-2.97	0.59	-2.38	30	Pass
NVNT	ac20	5785	Ant0	-4.92	0.59	-4.33	30	Pass
NVNT	ac20	5825	Ant0	-5.74	0.53	-5.21	30	Pass
NVNT	ac40	5755	Ant0	-5.83	0.99	-4.84	30	Pass
NVNT	ac40	5795	Ant0	-8.1	0.99	-7.11	30	Pass
NVNT	ac80	5775	Ant0	-10.16	0.49	-9.67	30	Pass

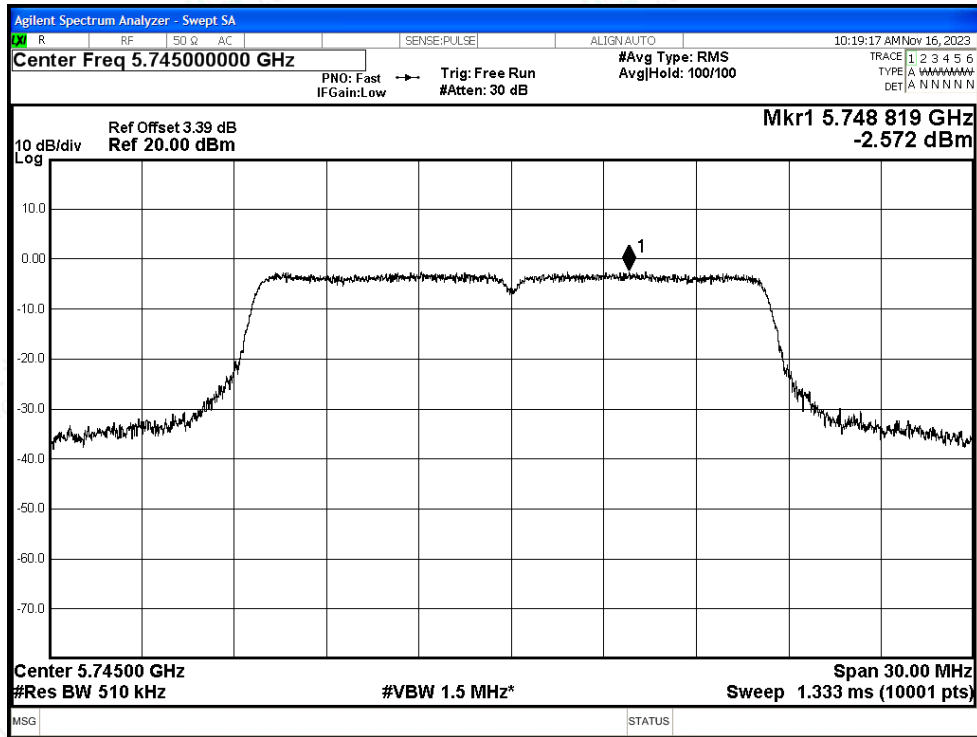


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 Scan code to check authenticity

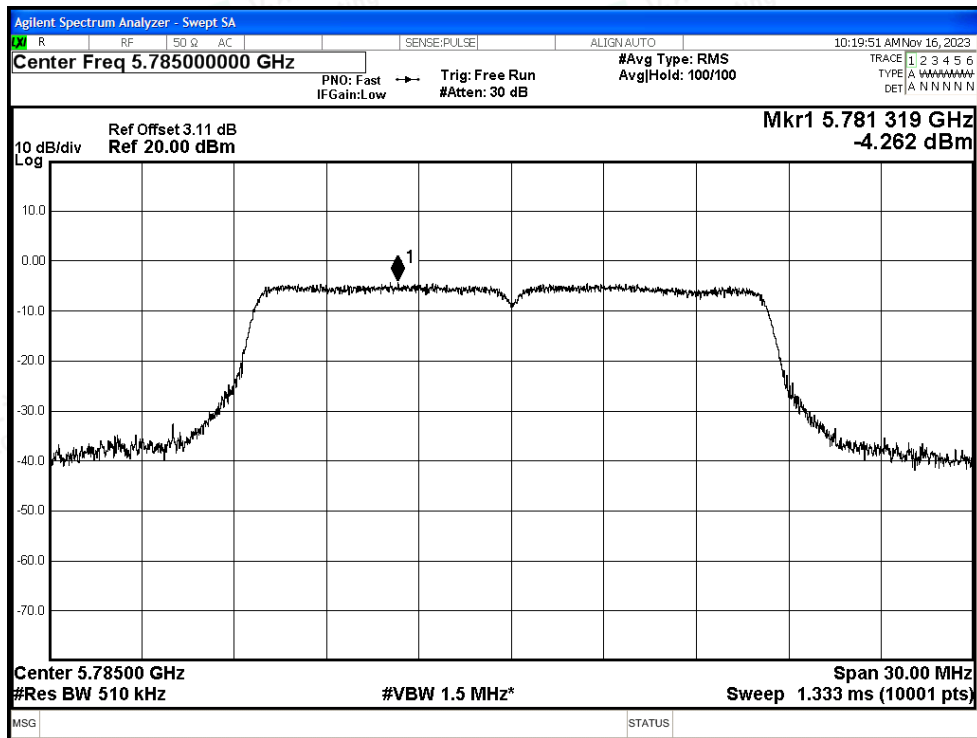


Test Graphs

PSD NVNT a 5745MHz Ant0

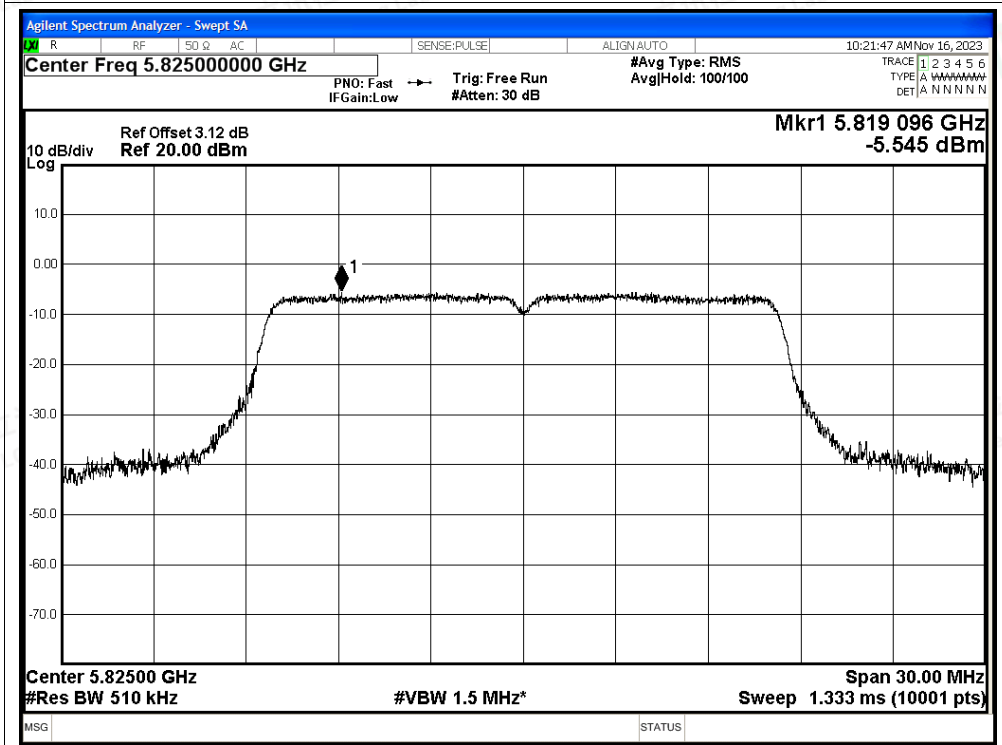


PSD NVNT a 5785MHz Ant0

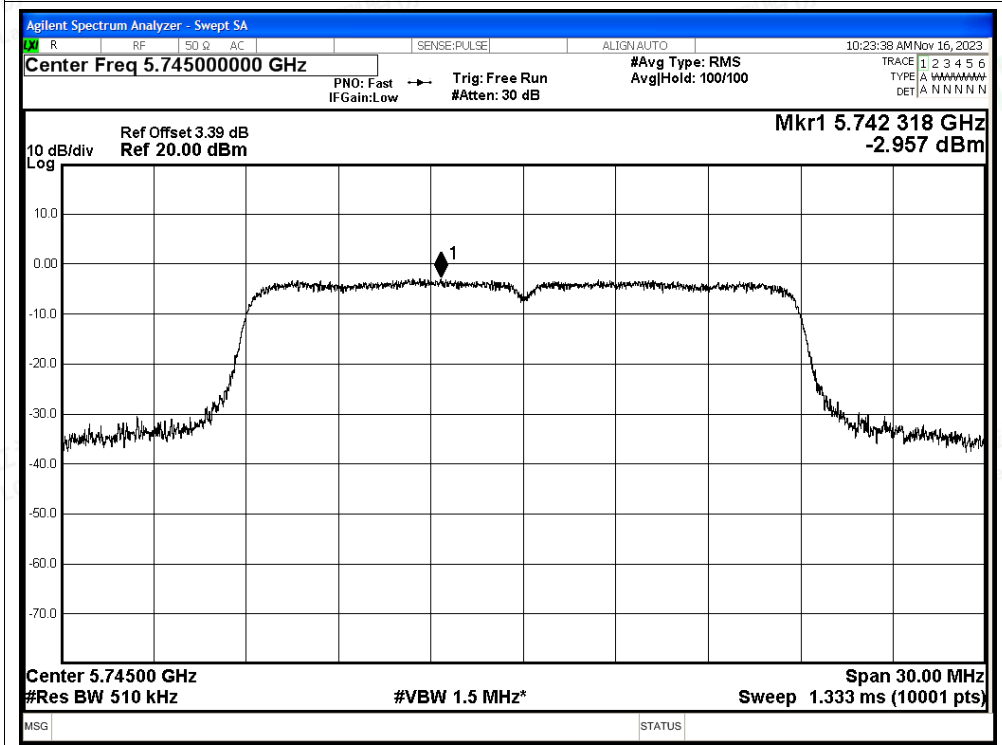


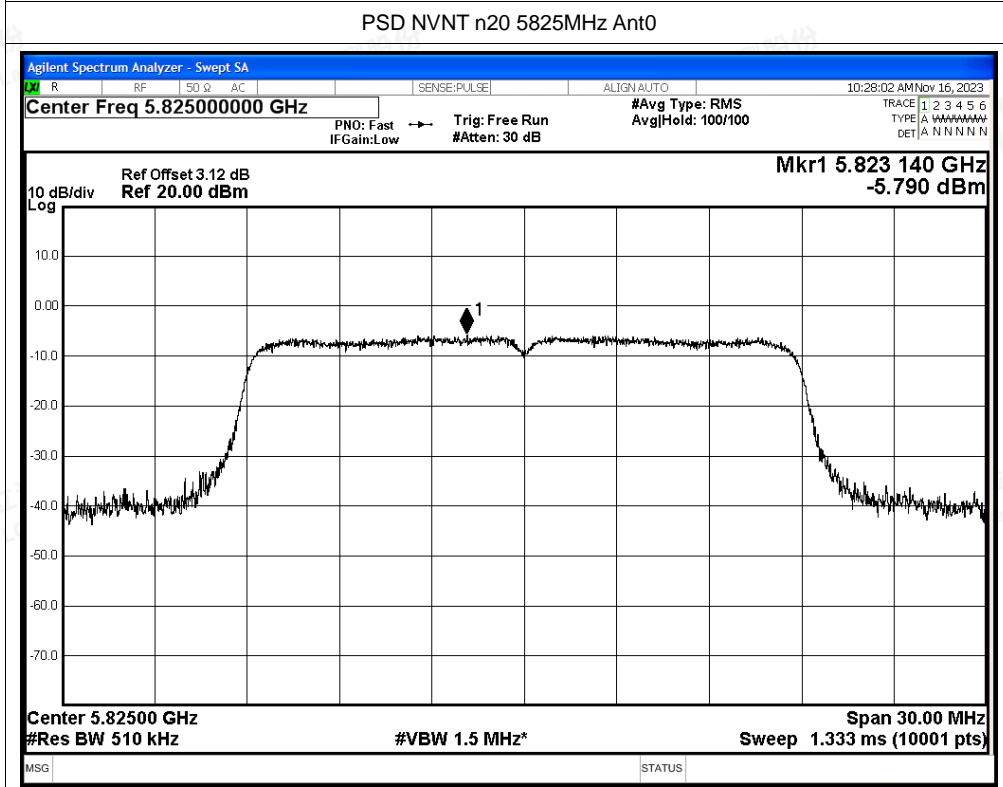
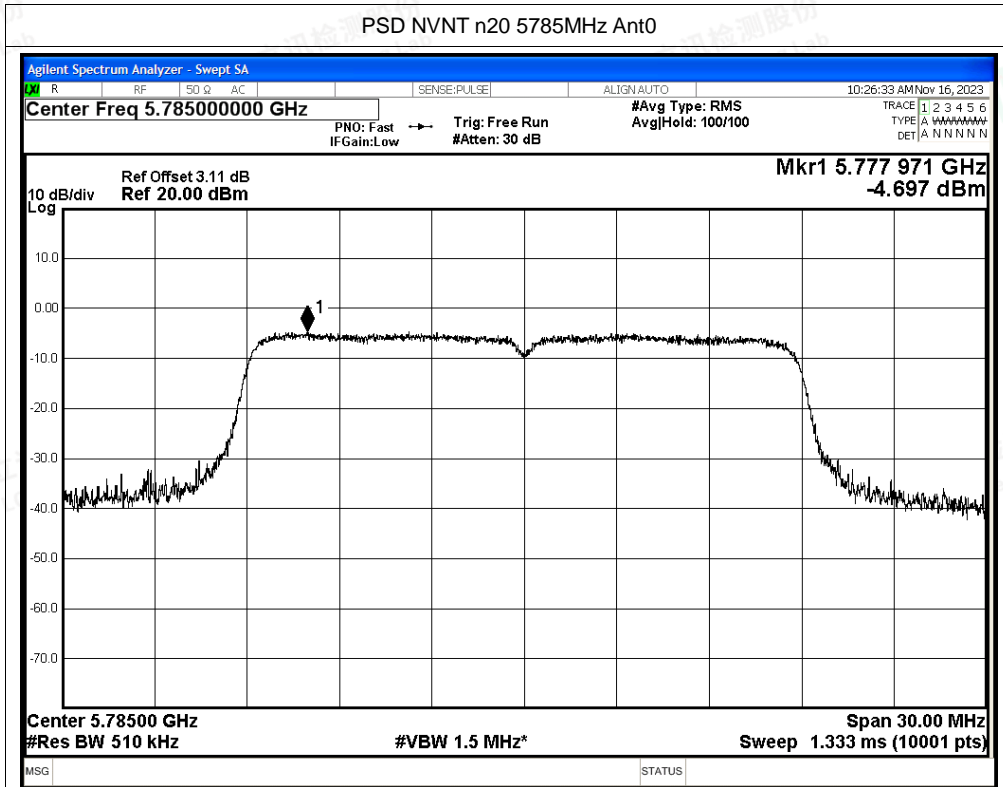


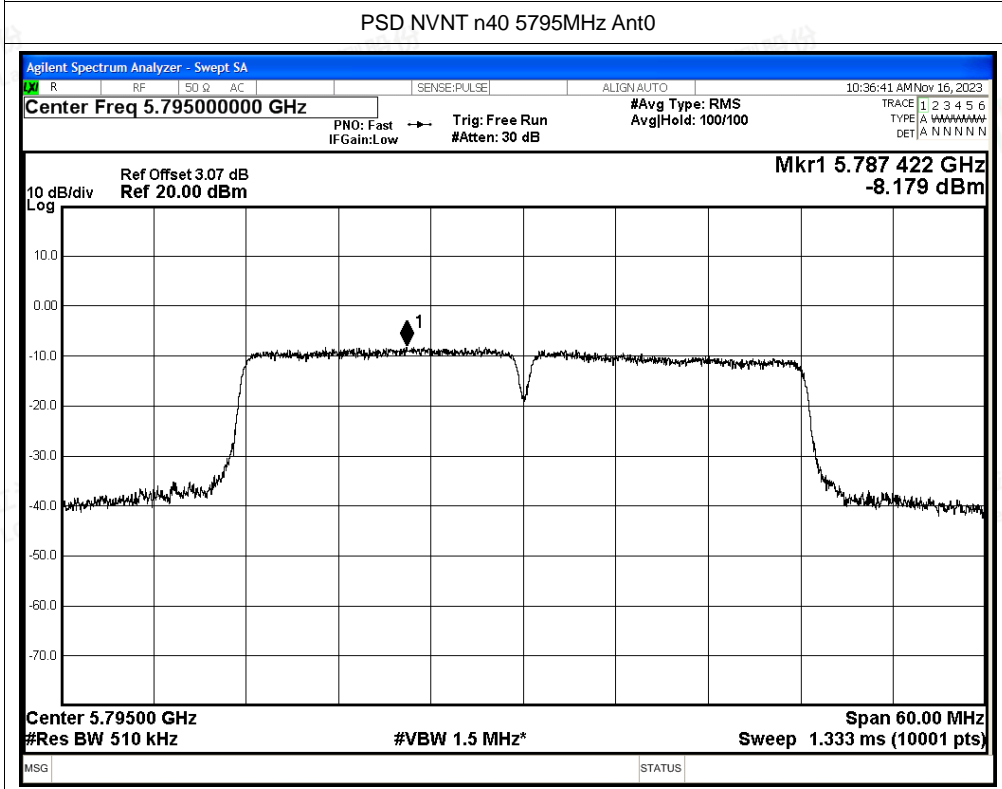
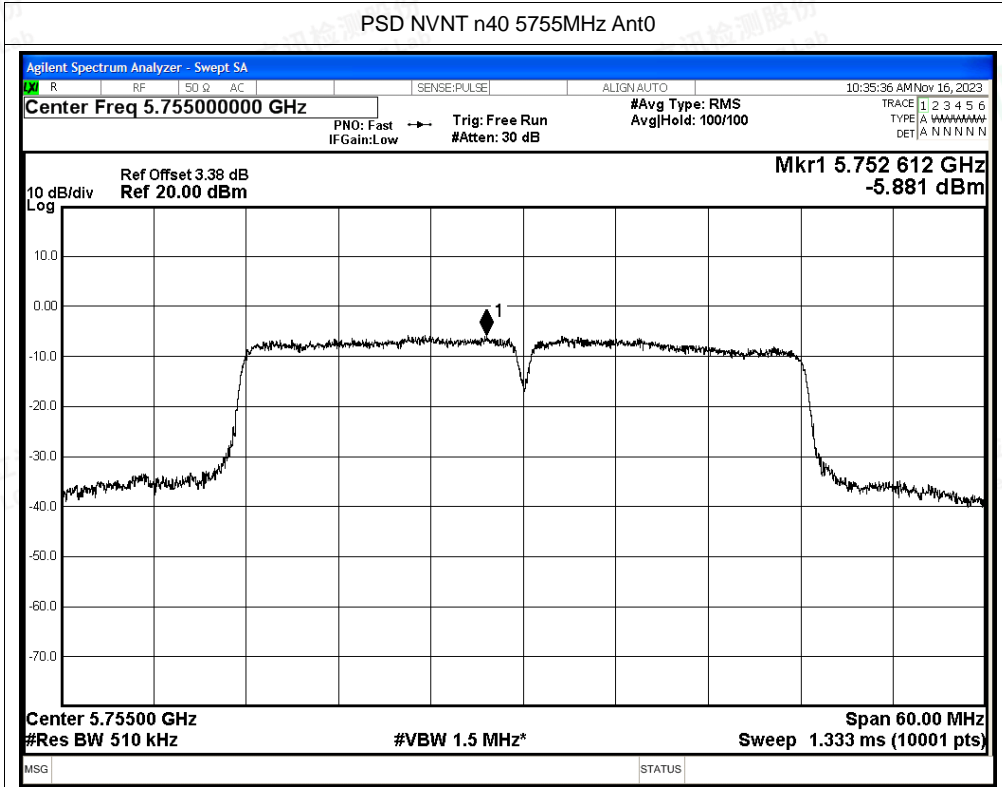
PSD NVNT a 5825MHz Ant0

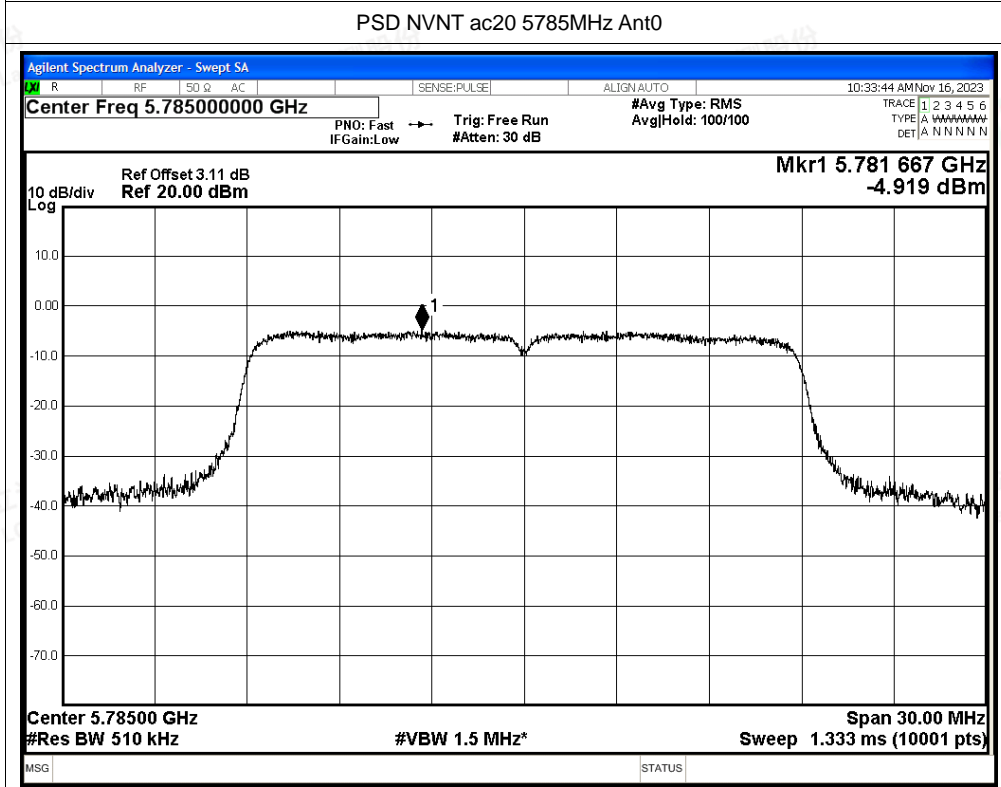
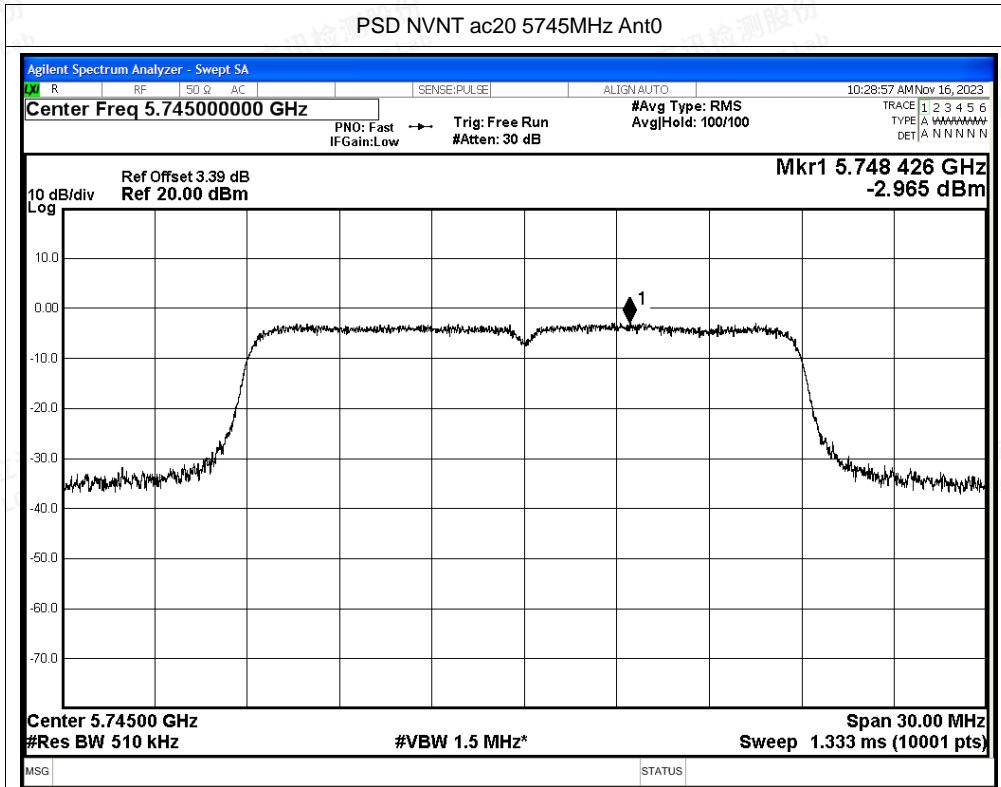


PSD NVNT n20 5745MHz Ant0

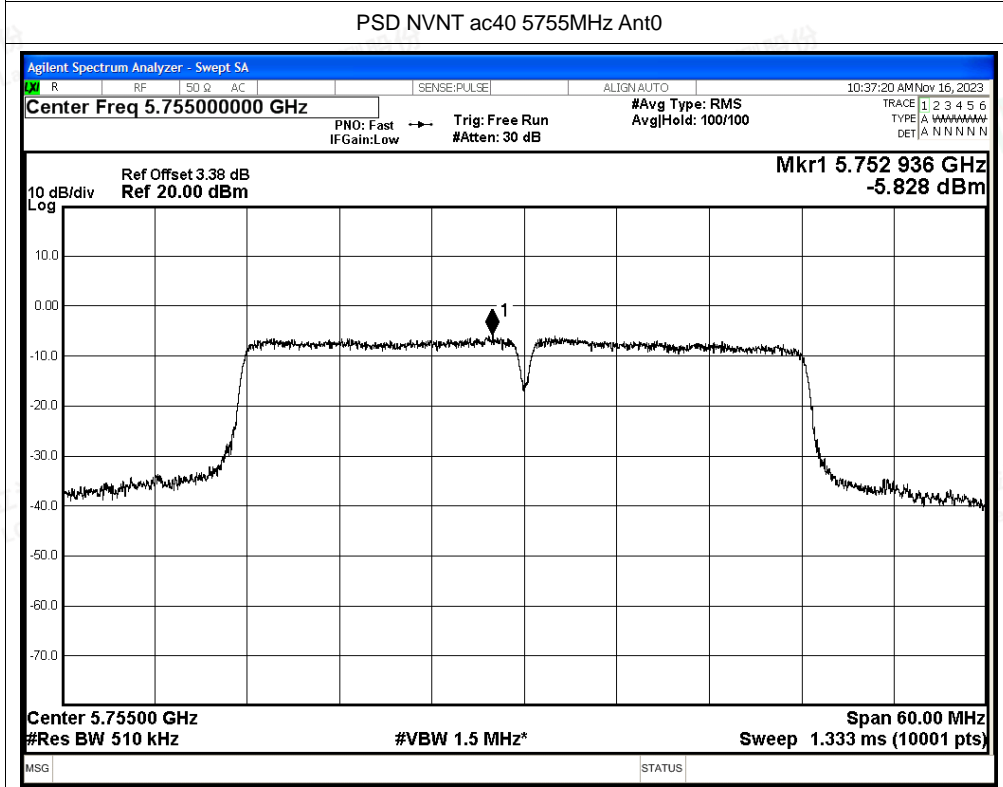
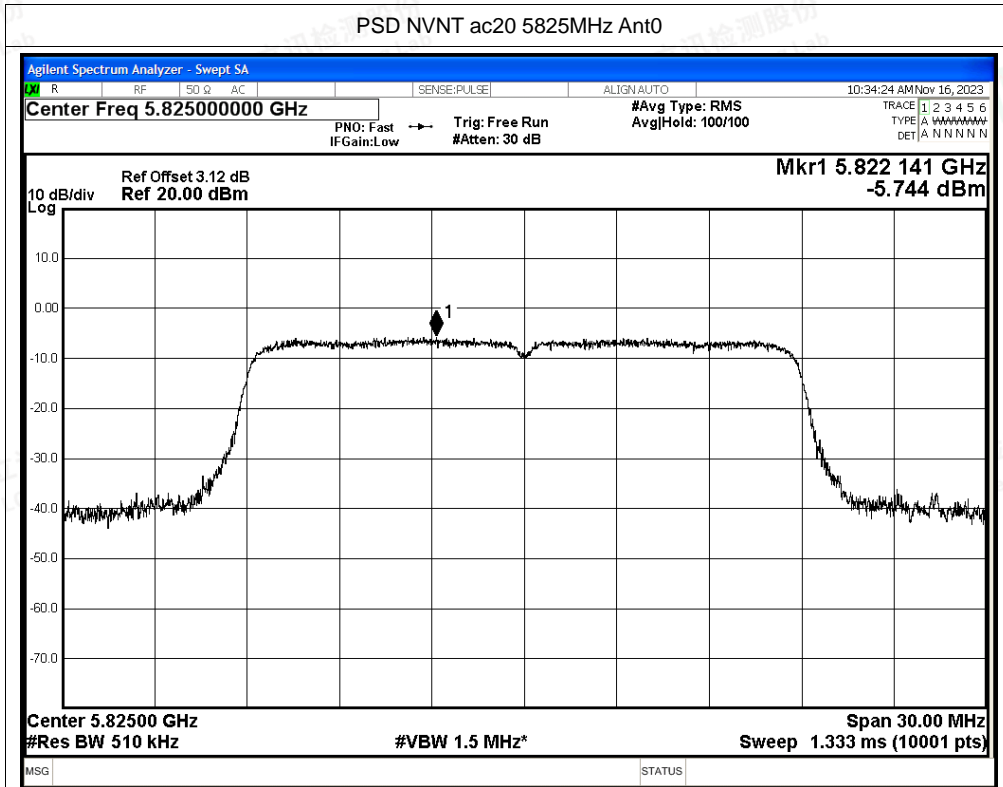


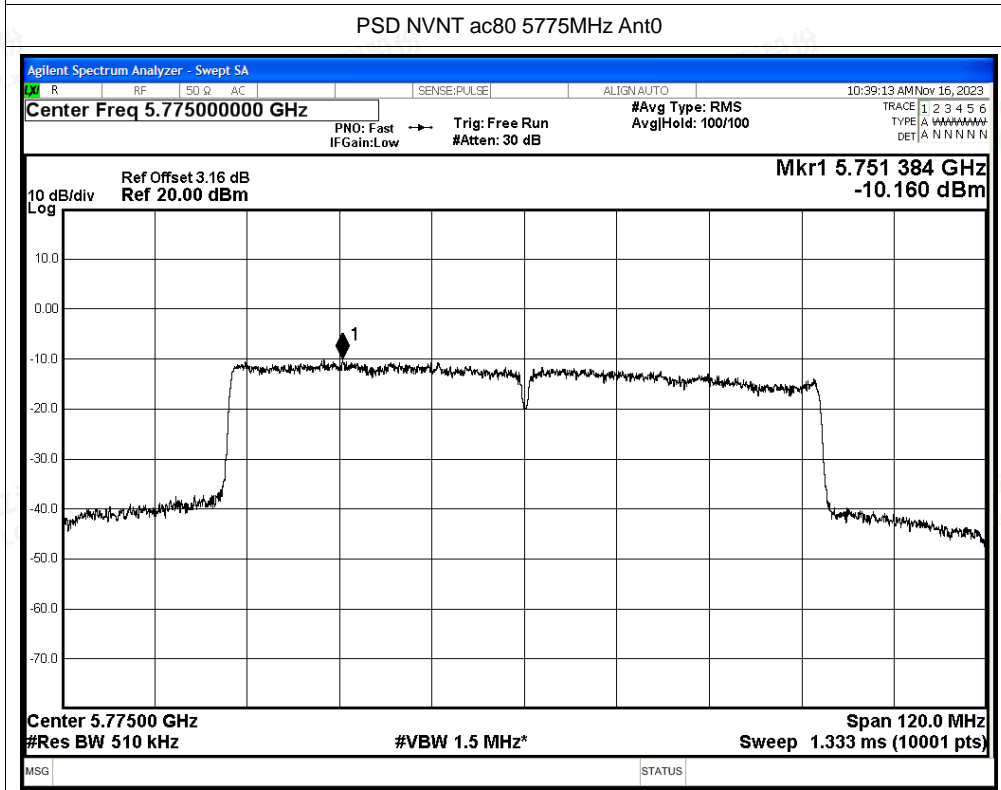
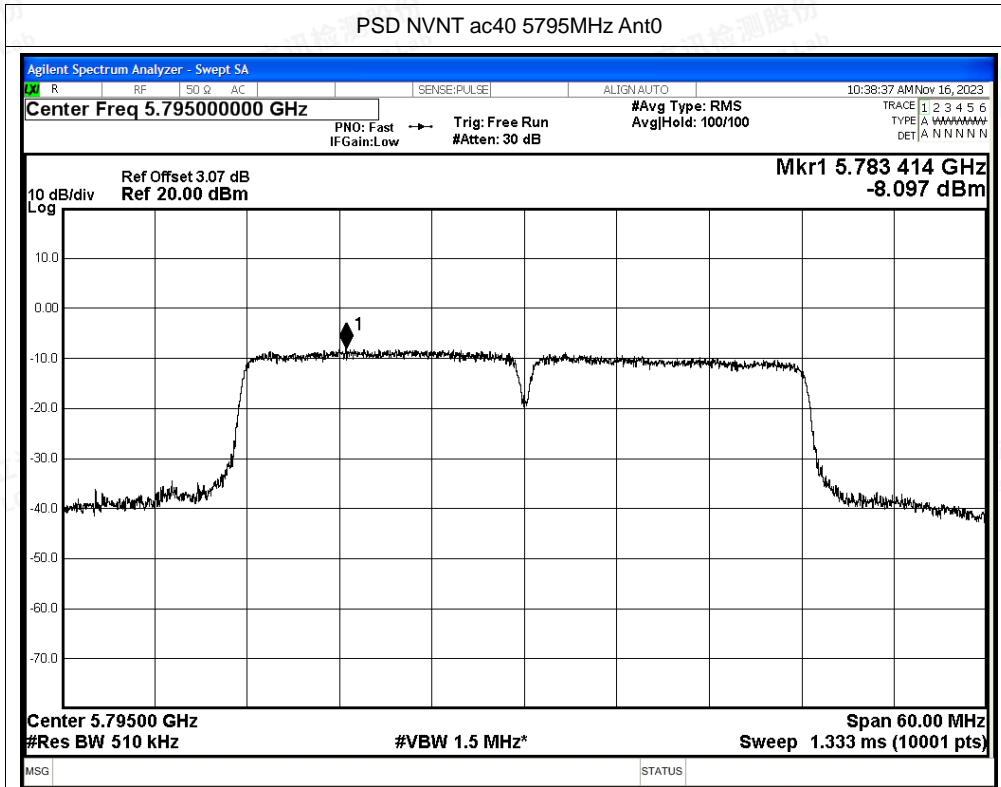














## G.4 Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	EIRP Power (dBm)	Detector	Limit (dBm)	Verdict
NVNT	a	5745	Ant0	5650	-50.85	2	-48.85	Peak	-27	Pass
NVNT	a	5745	Ant0	5650	-56.82	2	-54.82	Average	-27	Pass
NVNT	a	5745	Ant0	5700	-48.34	2	-46.34	Peak	10	Pass
NVNT	a	5745	Ant0	5700	-56.48	2	-54.48	Average	10	Pass
NVNT	a	5745	Ant0	5720	-38.36	2	-36.36	Peak	15.6	Pass
NVNT	a	5745	Ant0	5720	-51.45	2	-49.45	Average	15.6	Pass
NVNT	a	5745	Ant0	5725	-33.97	2	-31.97	Peak	27	Pass
NVNT	a	5745	Ant0	5725	-47.52	2	-45.52	Average	27	Pass
NVNT	a	5825	Ant0	5850	-43.46	2	-41.46	Peak	27	Pass
NVNT	a	5825	Ant0	5850	-54.97	2	-52.97	Average	27	Pass
NVNT	a	5825	Ant0	5855	-50.41	2	-48.41	Peak	15.6	Pass
NVNT	a	5825	Ant0	5855	-56.39	2	-54.39	Average	15.6	Pass
NVNT	a	5825	Ant0	5875	-50.31	2	-48.31	Peak	10	Pass
NVNT	a	5825	Ant0	5875	-57.17	2	-55.17	Average	10	Pass
NVNT	a	5825	Ant0	5925	-49.31	2	-47.31	Peak	-27	Pass
NVNT	a	5825	Ant0	5925	-56.91	2	-54.91	Average	-27	Pass
NVNT	n20	5745	Ant0	5650	-50.56	2	-48.56	Peak	-27	Pass
NVNT	n20	5745	Ant0	5650	-56.83	2	-54.83	Average	-27	Pass
NVNT	n20	5745	Ant0	5700	-49.97	2	-47.97	Peak	10	Pass
NVNT	n20	5745	Ant0	5700	-56.39	2	-54.39	Average	10	Pass
NVNT	n20	5745	Ant0	5720	-38.66	2	-36.66	Peak	15.6	Pass
NVNT	n20	5745	Ant0	5720	-50.98	2	-48.98	Average	15.6	Pass
NVNT	n20	5745	Ant0	5725	-30.87	2	-28.87	Peak	27	Pass
NVNT	n20	5745	Ant0	5725	-45.39	2	-43.39	Average	27	Pass
NVNT	n20	5825	Ant0	5850	-43.22	2	-41.22	Peak	27	Pass
NVNT	n20	5825	Ant0	5850	-54.45	2	-52.45	Average	27	Pass
NVNT	n20	5825	Ant0	5855	-48.61	2	-46.61	Peak	15.6	Pass
NVNT	n20	5825	Ant0	5855	-56.17	2	-54.17	Average	15.6	Pass
NVNT	n20	5825	Ant0	5875	-49.28	2	-47.28	Peak	10	Pass
NVNT	n20	5825	Ant0	5875	-57.13	2	-55.13	Average	10	Pass
NVNT	n20	5825	Ant0	5925	-50.64	2	-48.64	Peak	-27	Pass
NVNT	n20	5825	Ant0	5925	-56.67	2	-54.67	Average	-27	Pass
NVNT	n40	5755	Ant0	5650	-51.33	2	-49.33	Peak	-27	Pass
NVNT	n40	5755	Ant0	5650	-56.65	2	-54.65	Average	-27	Pass
NVNT	n40	5755	Ant0	5700	-48.29	2	-46.29	Peak	10	Pass
NVNT	n40	5755	Ant0	5700	-55.92	2	-53.92	Average	10	Pass
NVNT	n40	5755	Ant0	5720	-35.51	2	-33.51	Peak	15.6	Pass





NVNT	n40	5755	Ant0	5720	-45.97	2	-43.97	Average	15.6	Pass
NVNT	n40	5755	Ant0	5725	-34.14	2	-32.14	Peak	27	Pass
NVNT	n40	5755	Ant0	5725	-42.4	2	-40.4	Average	27	Pass
NVNT	n40	5795	Ant0	5850	-50.79	2	-48.79	Peak	27	Pass
NVNT	n40	5795	Ant0	5850	-57.04	2	-55.04	Average	27	Pass
NVNT	n40	5795	Ant0	5855	-50.1	2	-48.1	Peak	15.6	Pass
NVNT	n40	5795	Ant0	5855	-57.06	2	-55.06	Average	15.6	Pass
NVNT	n40	5795	Ant0	5875	-50.33	2	-48.33	Peak	10	Pass
NVNT	n40	5795	Ant0	5875	-56.84	2	-54.84	Average	10	Pass
NVNT	n40	5795	Ant0	5925	-50.17	2	-48.17	Peak	-27	Pass
NVNT	n40	5795	Ant0	5925	-56.66	2	-54.66	Average	-27	Pass
NVNT	ac20	5745	Ant0	5650	-49.47	2	-47.47	Peak	-27	Pass
NVNT	ac20	5745	Ant0	5650	-56.88	2	-54.88	Average	-27	Pass
NVNT	ac20	5745	Ant0	5700	-49.52	2	-47.52	Peak	10	Pass
NVNT	ac20	5745	Ant0	5700	-56.5	2	-54.5	Average	10	Pass
NVNT	ac20	5745	Ant0	5720	-39.42	2	-37.42	Peak	15.6	Pass
NVNT	ac20	5745	Ant0	5720	-50.7	2	-48.7	Average	15.6	Pass
NVNT	ac20	5745	Ant0	5725	-36.51	2	-34.51	Peak	27	Pass
NVNT	ac20	5745	Ant0	5725	-46.18	2	-44.18	Average	27	Pass
NVNT	ac20	5825	Ant0	5850	-44.22	2	-42.22	Peak	27	Pass
NVNT	ac20	5825	Ant0	5850	-53.59	2	-51.59	Average	27	Pass
NVNT	ac20	5825	Ant0	5855	-47.86	2	-45.86	Peak	15.6	Pass
NVNT	ac20	5825	Ant0	5855	-55.71	2	-53.71	Average	15.6	Pass
NVNT	ac20	5825	Ant0	5875	-51.36	2	-49.36	Peak	10	Pass
NVNT	ac20	5825	Ant0	5875	-57.08	2	-55.08	Average	10	Pass
NVNT	ac20	5825	Ant0	5925	-49.81	2	-47.81	Peak	-27	Pass
NVNT	ac20	5825	Ant0	5925	-56.95	2	-54.95	Average	-27	Pass
NVNT	ac40	5755	Ant0	5650	-50.22	2	-48.22	Peak	-27	Pass
NVNT	ac40	5755	Ant0	5650	-56.58	2	-54.58	Average	-27	Pass
NVNT	ac40	5755	Ant0	5700	-49.16	2	-47.16	Peak	10	Pass
NVNT	ac40	5755	Ant0	5700	-55.86	2	-53.86	Average	10	Pass
NVNT	ac40	5755	Ant0	5720	-32.98	2	-30.98	Peak	15.6	Pass
NVNT	ac40	5755	Ant0	5720	-46.79	2	-44.79	Average	15.6	Pass
NVNT	ac40	5755	Ant0	5725	-29.99	2	-27.99	Peak	27	Pass
NVNT	ac40	5755	Ant0	5725	-44.57	2	-42.57	Average	27	Pass
NVNT	ac40	5795	Ant0	5850	-50.67	2	-48.67	Peak	27	Pass
NVNT	ac40	5795	Ant0	5850	-57.03	2	-55.03	Average	27	Pass
NVNT	ac40	5795	Ant0	5855	-49.91	2	-47.91	Peak	15.6	Pass
NVNT	ac40	5795	Ant0	5855	-57.06	2	-55.06	Average	15.6	Pass
NVNT	ac40	5795	Ant0	5875	-50.3	2	-48.3	Peak	10	Pass
NVNT	ac40	5795	Ant0	5875	-57.18	2	-55.18	Average	10	Pass





NVNT	ac40	5795	Ant0	5925	-49.03	2	-47.03	Peak	-27	Pass
NVNT	ac40	5795	Ant0	5925	-56.72	2	-54.72	Average	-27	Pass
NVNT	ac80	5775	Ant0	5650	-50.52	2	-48.52	Peak	-27	Pass
NVNT	ac80	5775	Ant0	5650	-56.28	2	-54.28	Average	-27	Pass
NVNT	ac80	5775	Ant0	5700	-46.99	2	-44.99	Peak	10	Pass
NVNT	ac80	5775	Ant0	5700	-52.79	2	-50.79	Average	10	Pass
NVNT	ac80	5775	Ant0	5720	-35.01	2	-33.01	Peak	15.6	Pass
NVNT	ac80	5775	Ant0	5720	-47.91	2	-45.91	Average	15.6	Pass
NVNT	ac80	5775	Ant0	5725	-38.8	2	-36.8	Peak	27	Pass
NVNT	ac80	5775	Ant0	5725	-48.05	2	-46.05	Average	27	Pass
NVNT	ac80	5775	Ant0	5850	-50.33	2	-48.33	Peak	27	Pass
NVNT	ac80	5775	Ant0	5850	-56.29	2	-54.29	Average	27	Pass
NVNT	ac80	5775	Ant0	5855	-49.04	2	-47.04	Peak	15.6	Pass
NVNT	ac80	5775	Ant0	5855	-56.11	2	-54.11	Average	15.6	Pass
NVNT	ac80	5775	Ant0	5875	-50.8	2	-48.8	Peak	10	Pass
NVNT	ac80	5775	Ant0	5875	-56.61	2	-54.61	Average	10	Pass
NVNT	ac80	5775	Ant0	5925	-50.02	2	-48.02	Peak	-27	Pass
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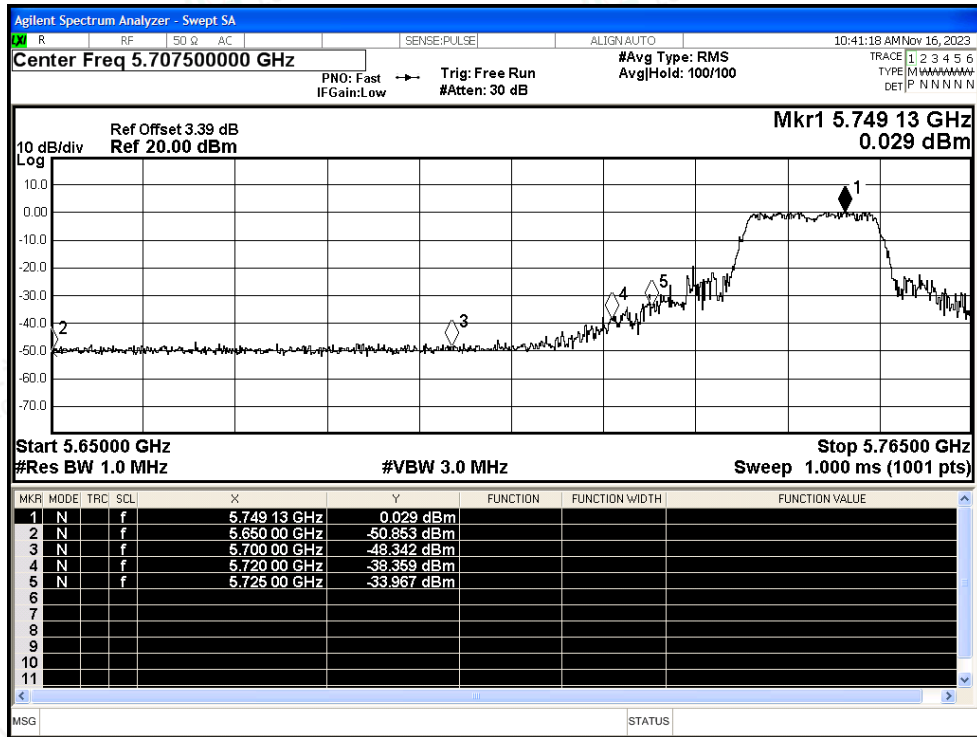


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 Scan code to check authenticity

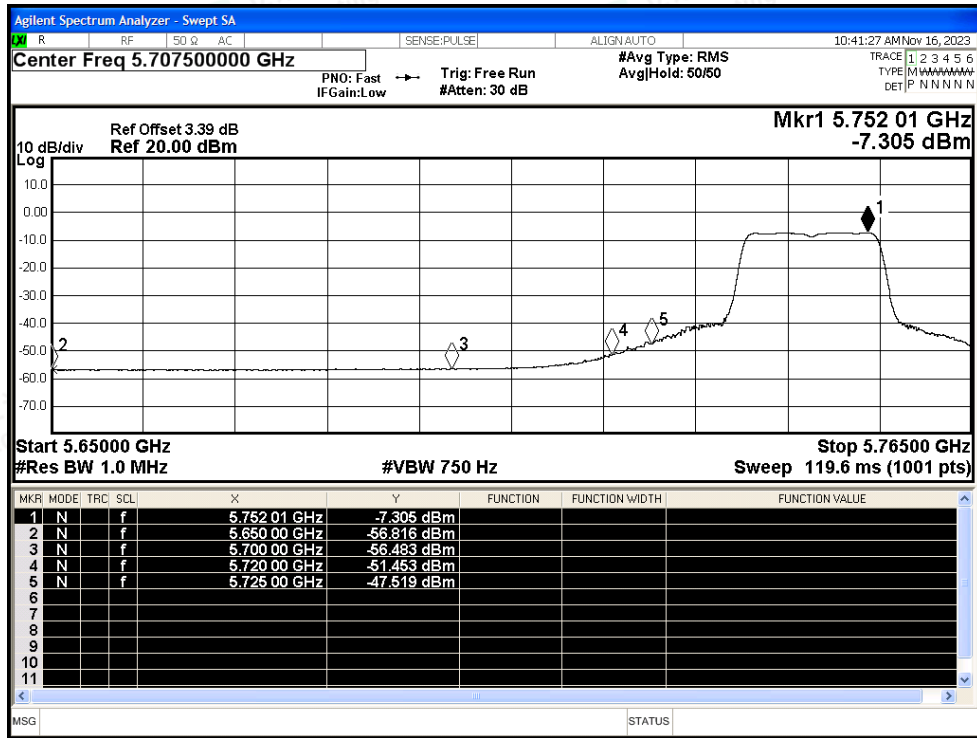


Test Graphs

Restrict Band NVNT a 5745MHz Ant0 Peak

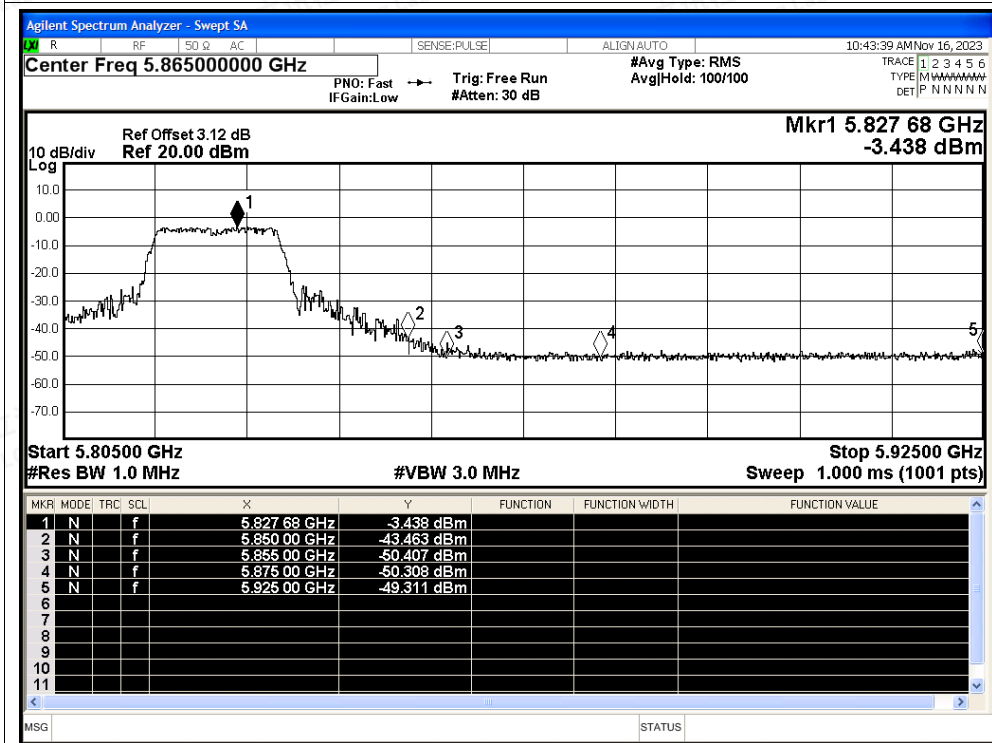


Restrict Band NVNT a 5745MHz Ant0 Average

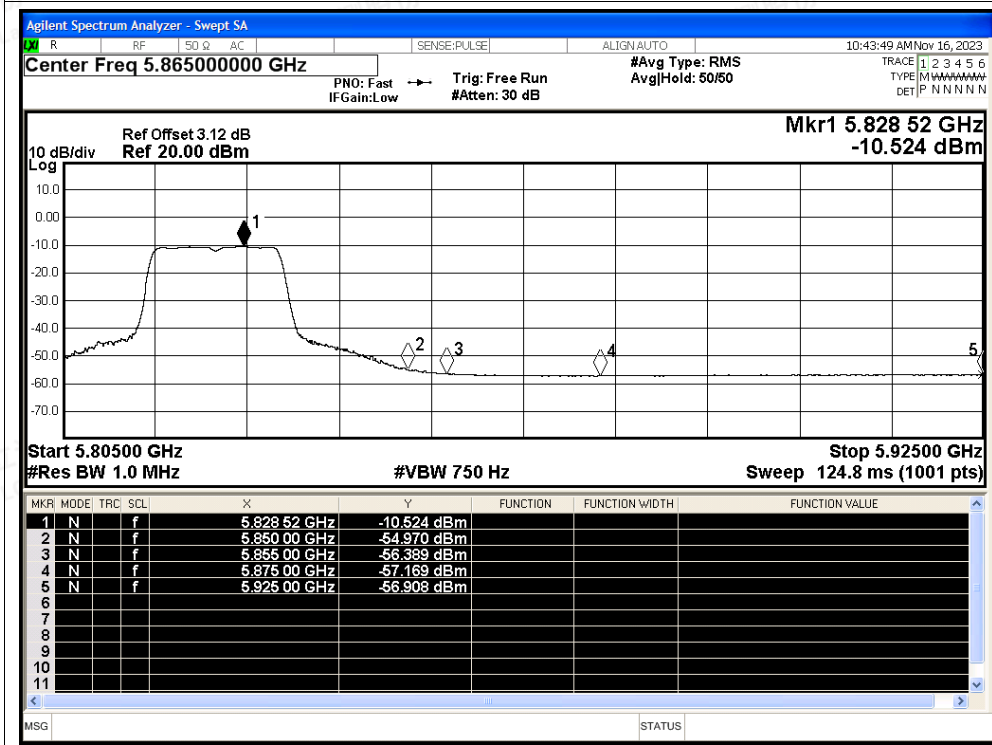




Restrict Band NVNT a 5825MHz Ant0 Peak

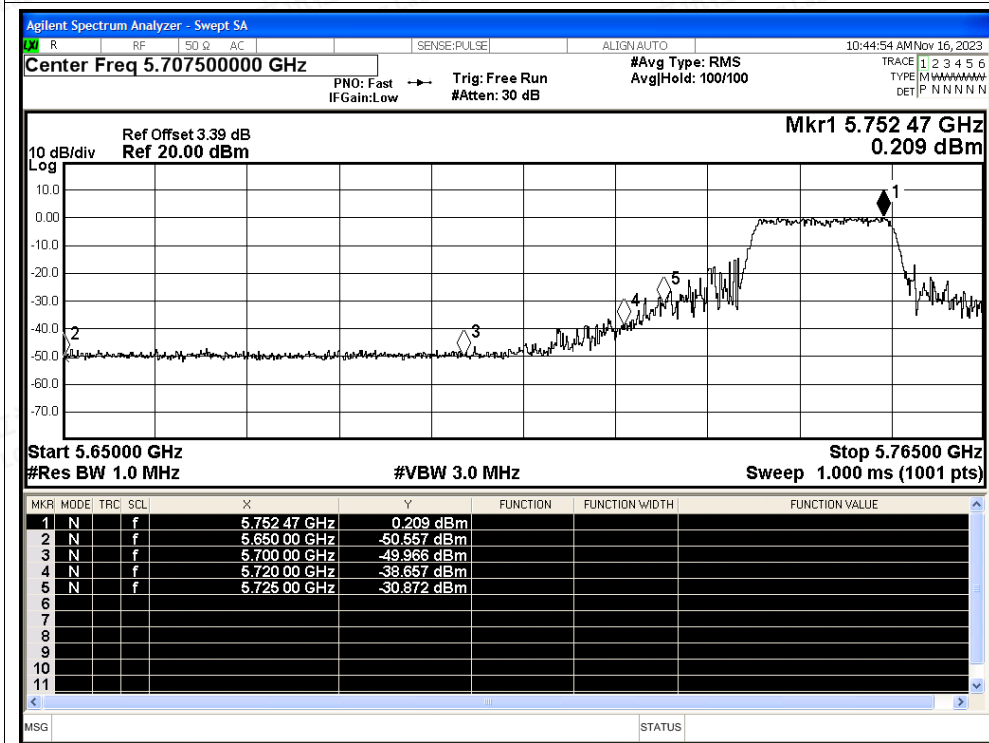


Restrict Band NVNT a 5825MHz Ant0 Average

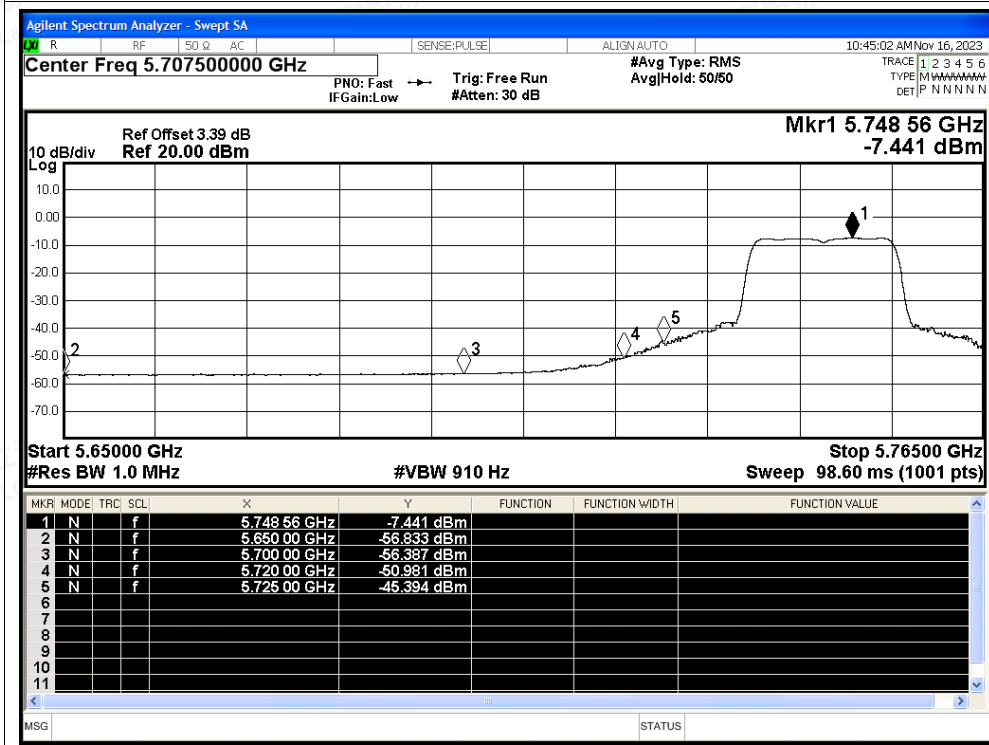




Restrict Band NVNT n20 5745MHz Ant0 Peak



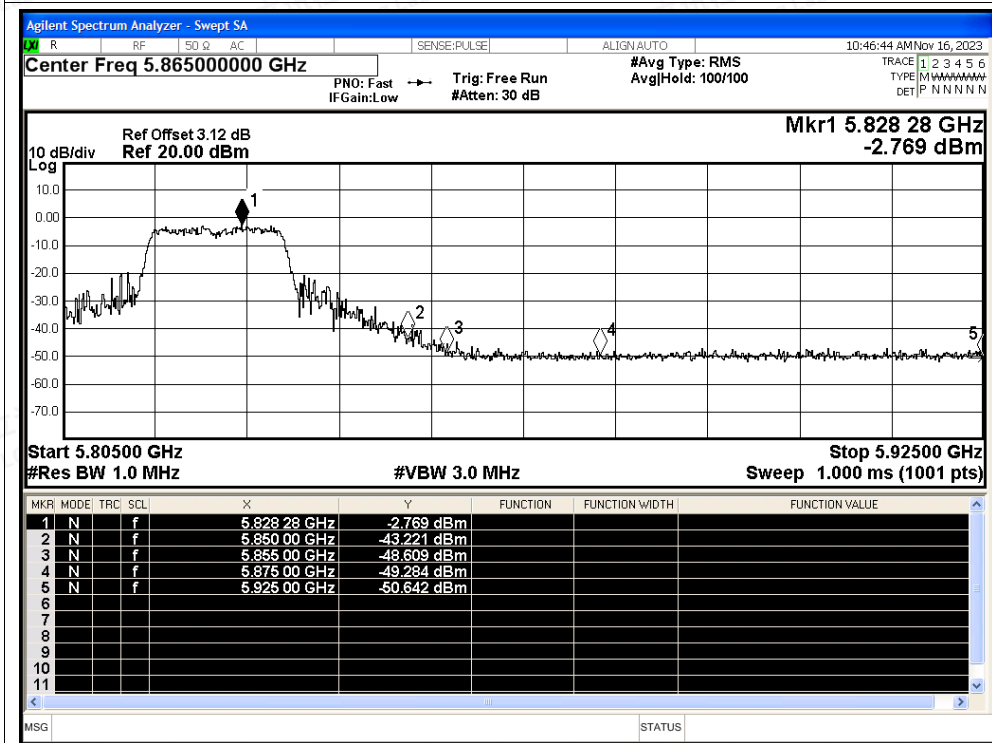
Restrict Band NVNT n20 5745MHz Ant0 Average



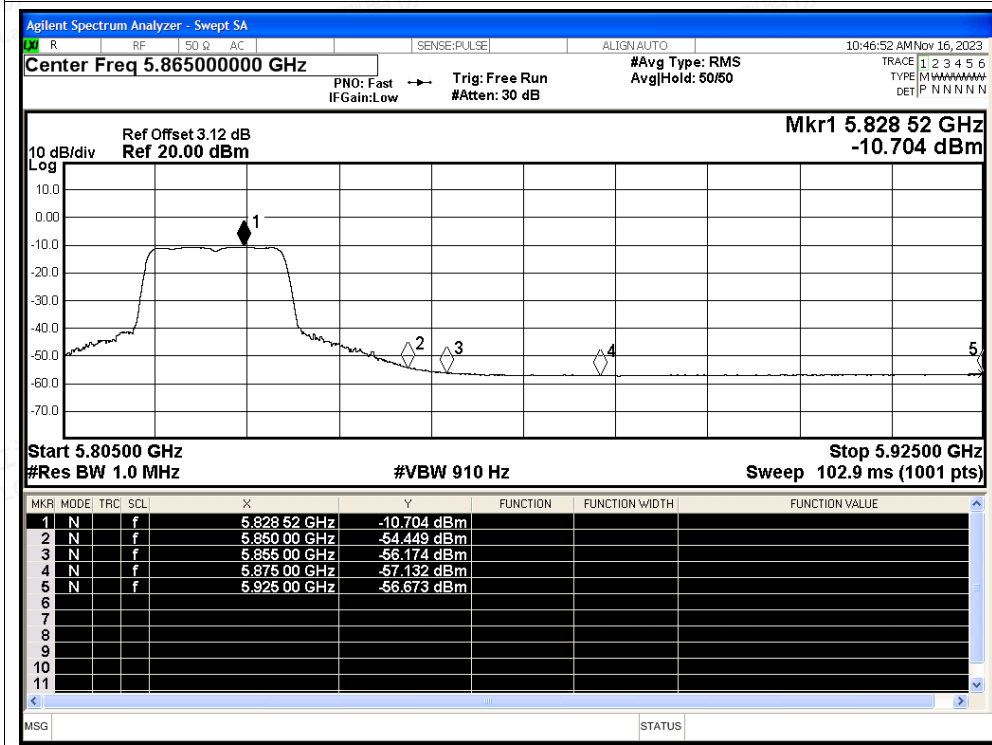




Restrict Band NVNT n20 5825MHz Ant0 Peak

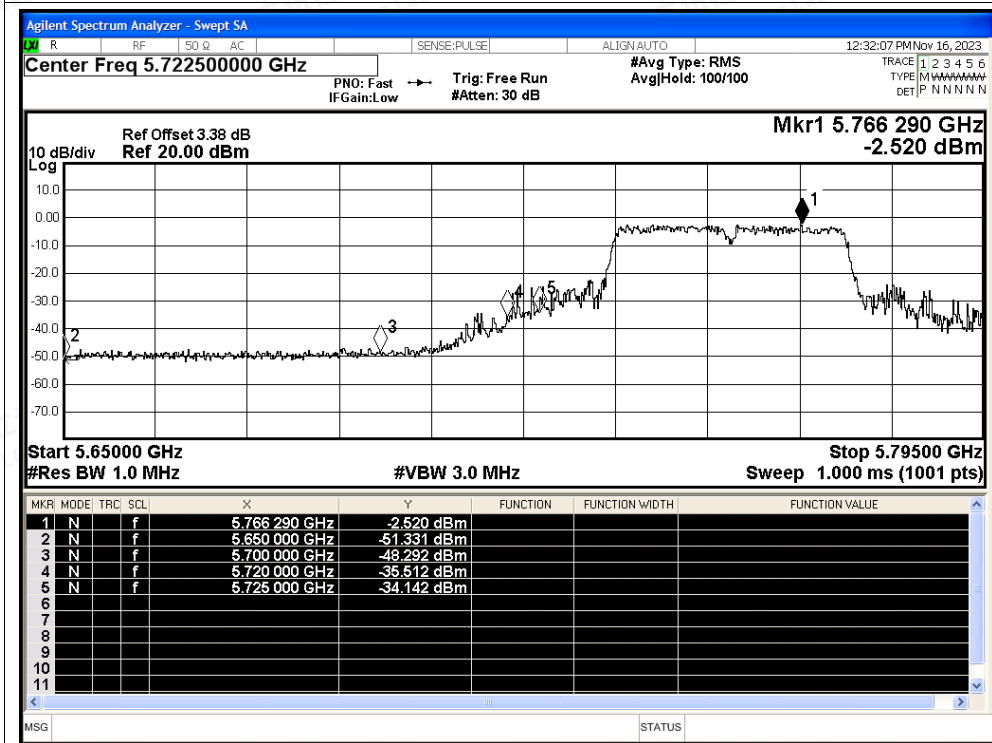


Restrict Band NVNT n20 5825MHz Ant0 Average

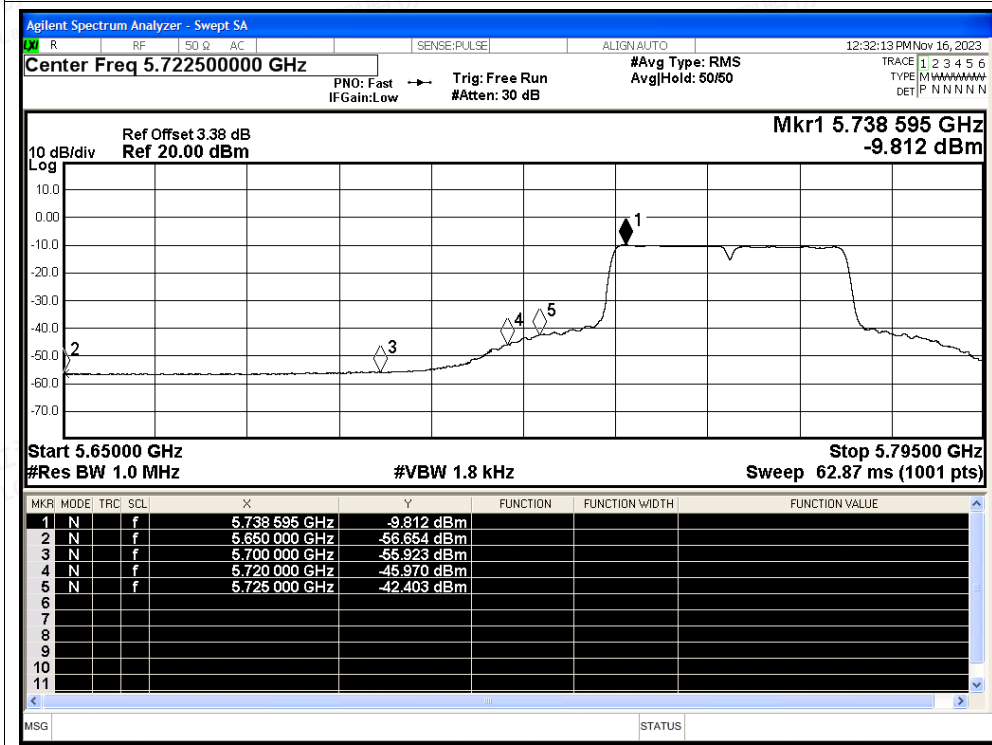




Restrict Band NVNT n40 5755MHz Ant0 Peak

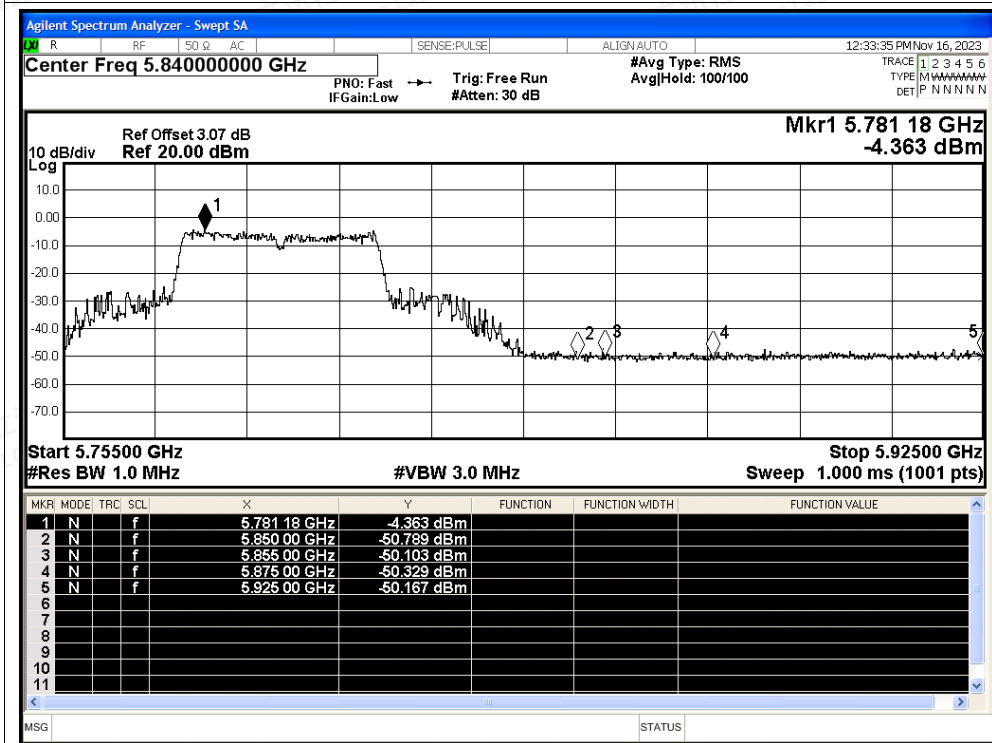


Restrict Band NVNT n40 5755MHz Ant0 Average

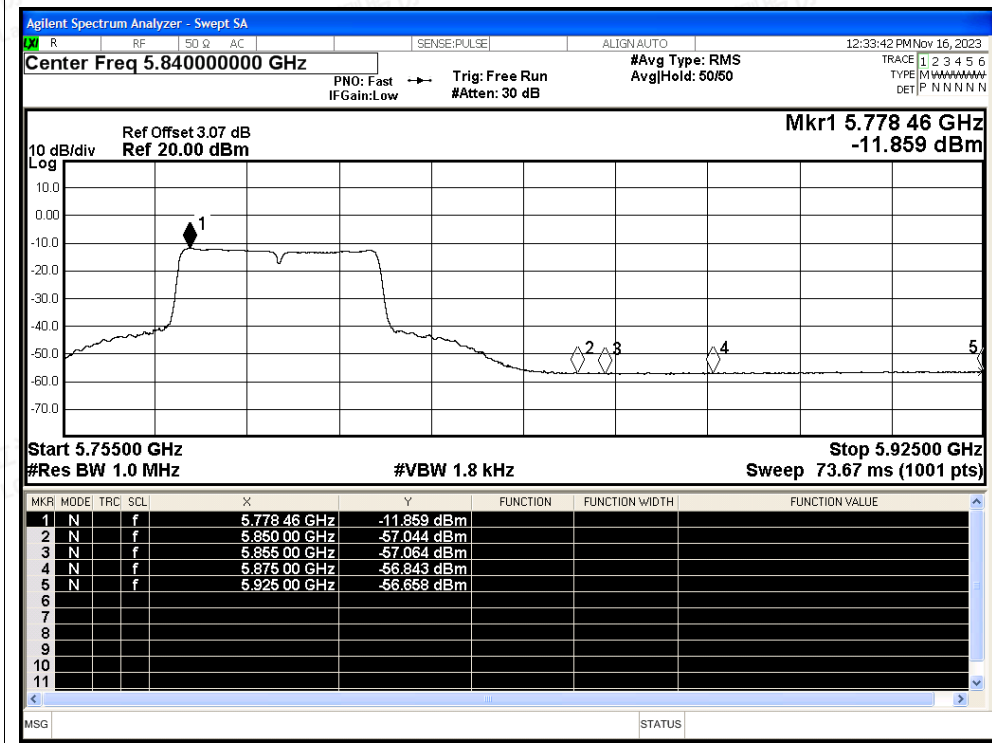




Restrict Band NVNT n40 5795MHz Ant0 Peak

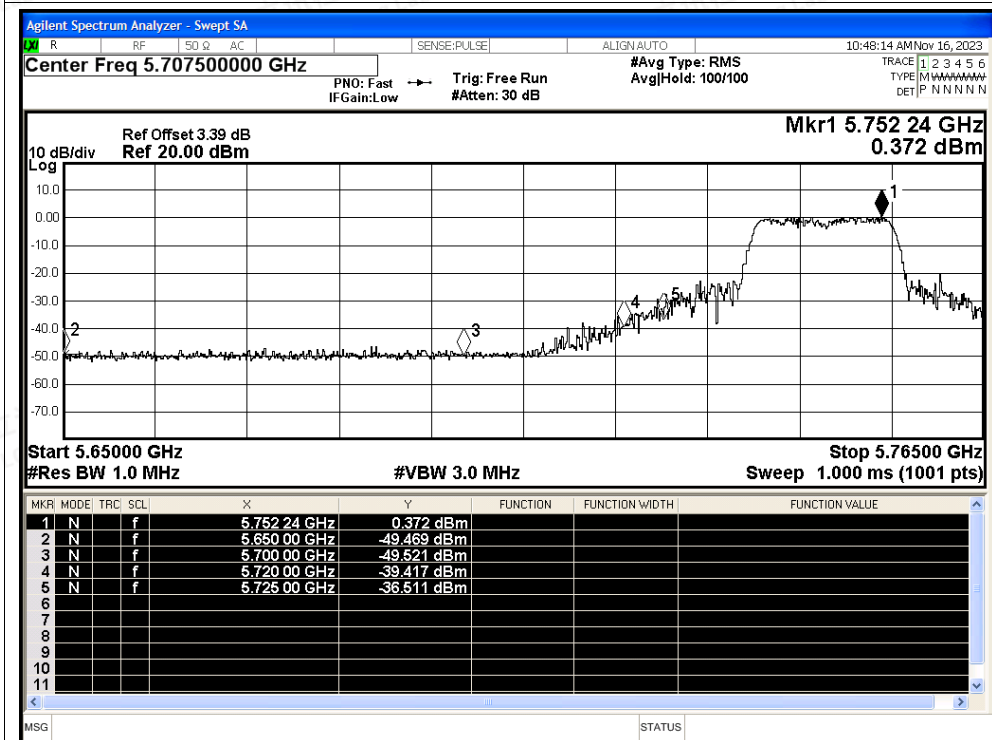


Restrict Band NVNT n40 5795MHz Ant0 Average

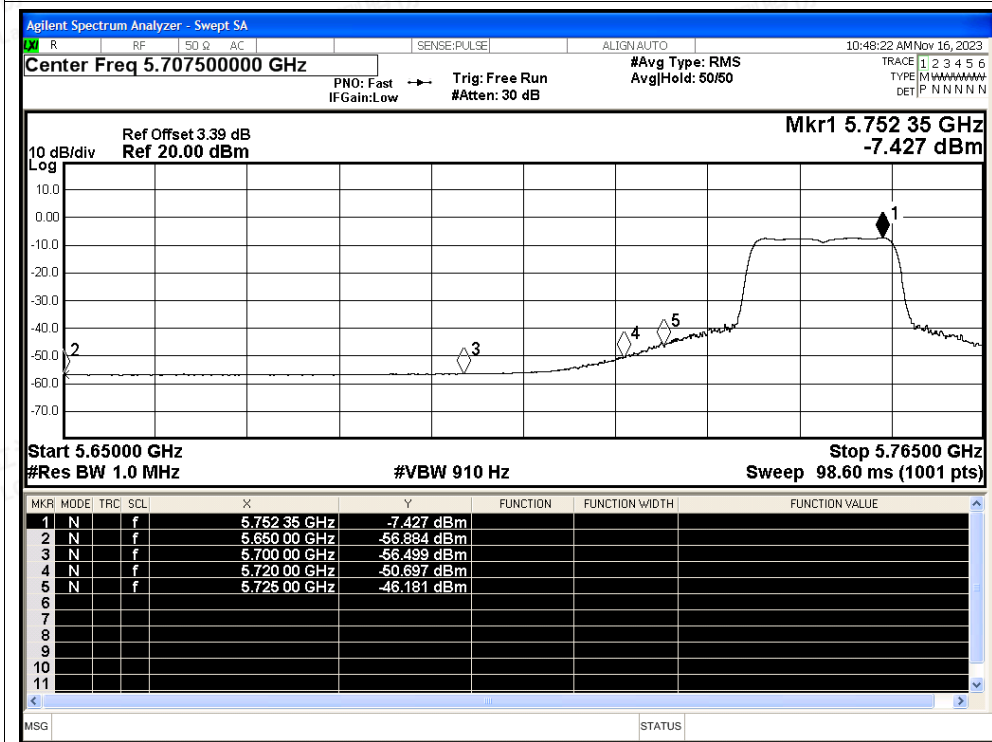




Restrict Band NVNT ac20 5745MHz Ant0 Peak

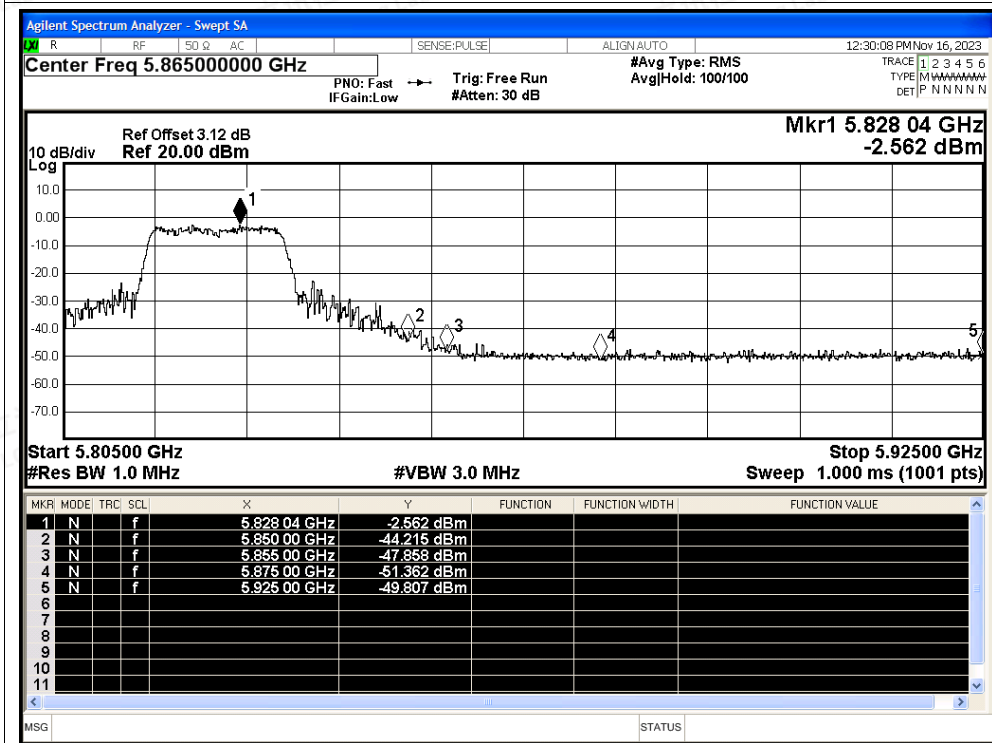


Restrict Band NVNT ac20 5745MHz Ant0 Average

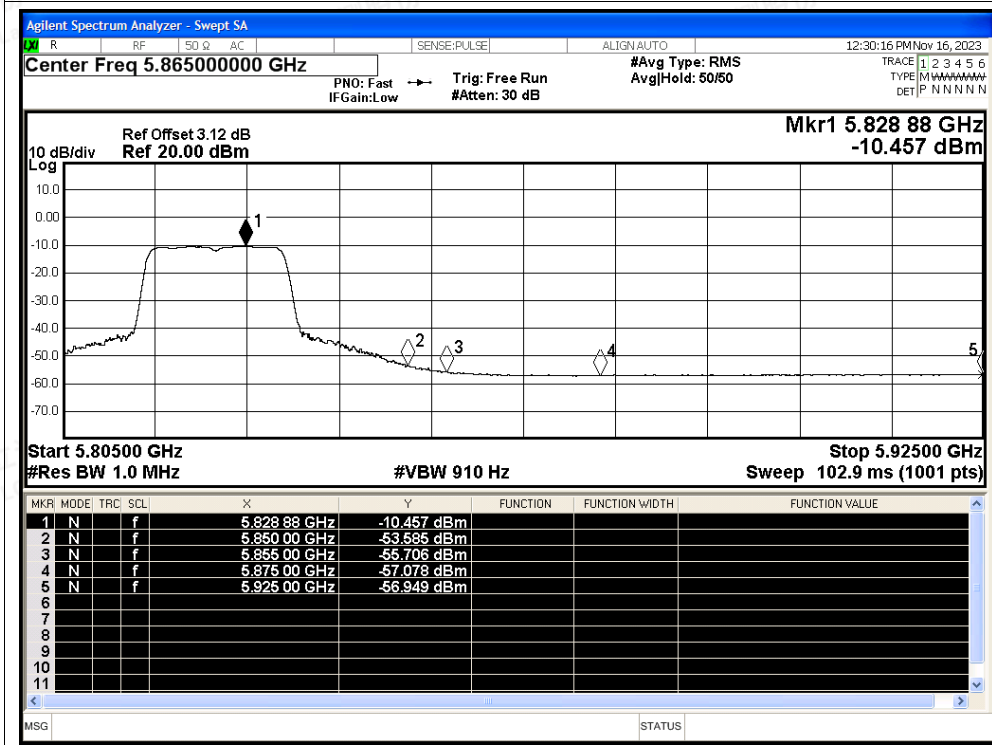




Restrict Band NVNT ac20 5825MHz Ant0 Peak



Restrict Band NVNT ac20 5825MHz Ant0 Average

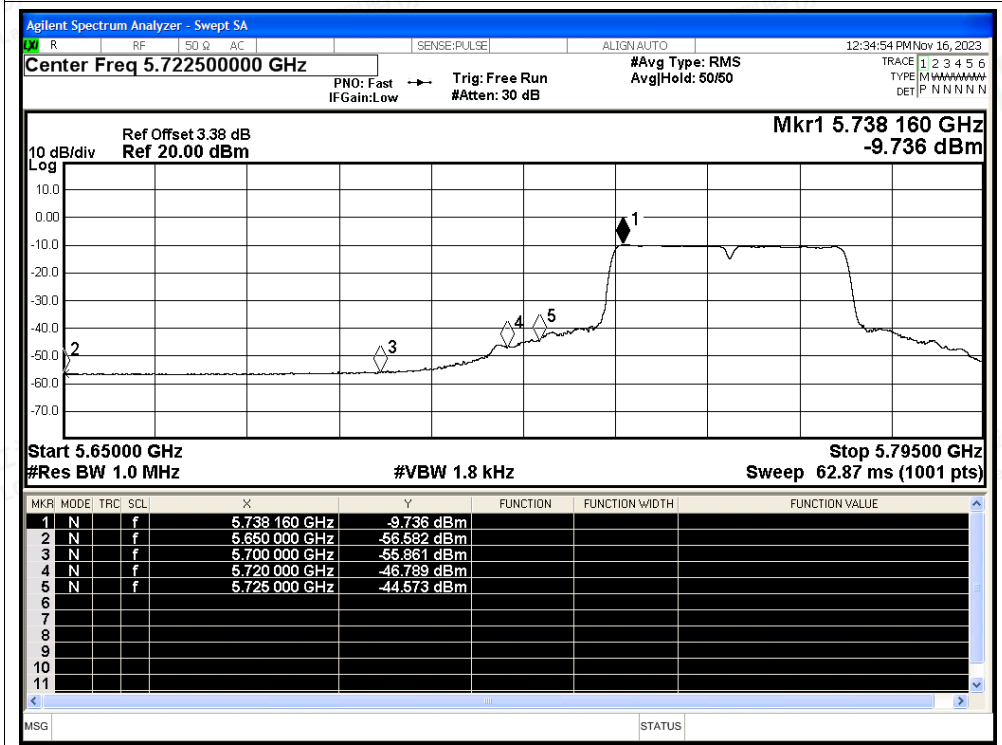




Restrict Band NVNT ac40 5755MHz Ant0 Peak

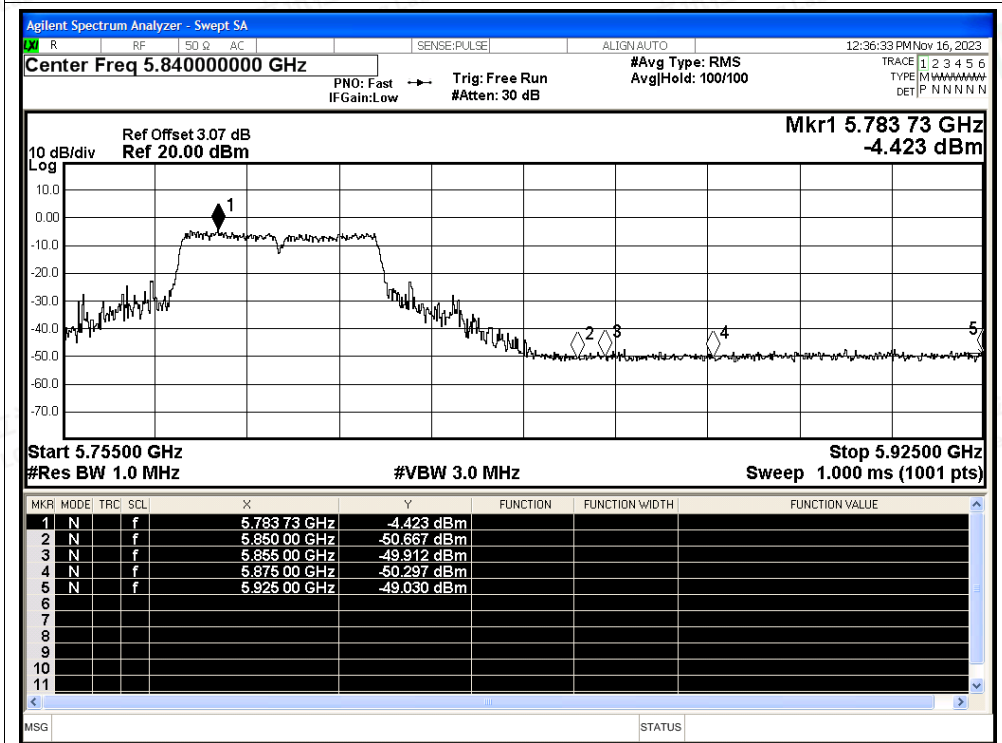


Restrict Band NVNT ac40 5755MHz Ant0 Average

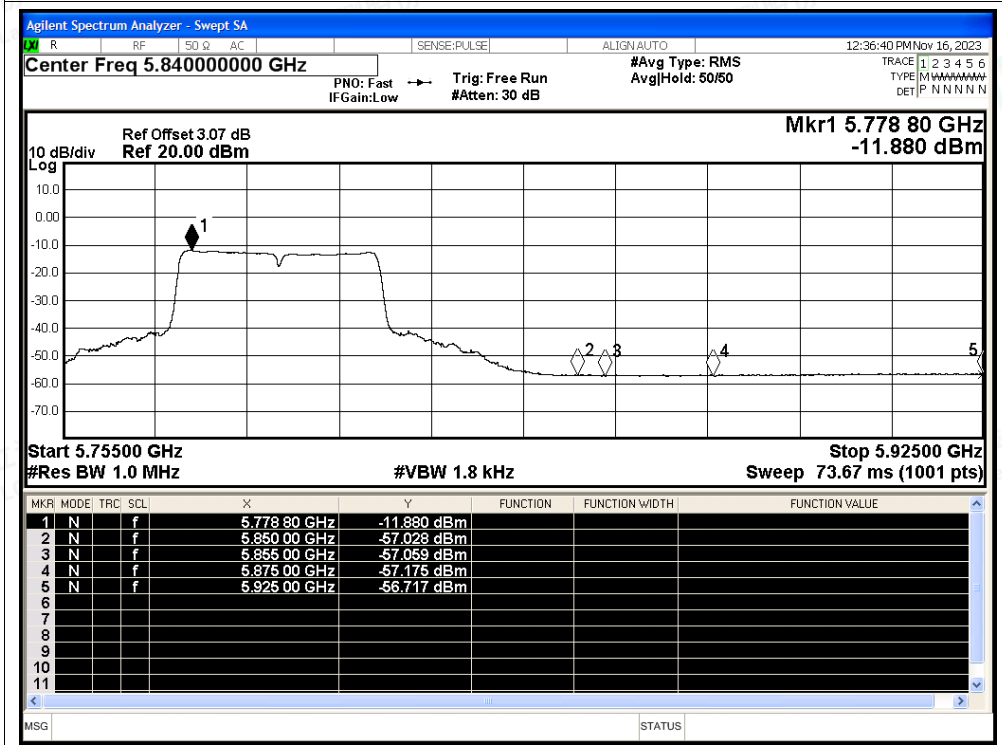


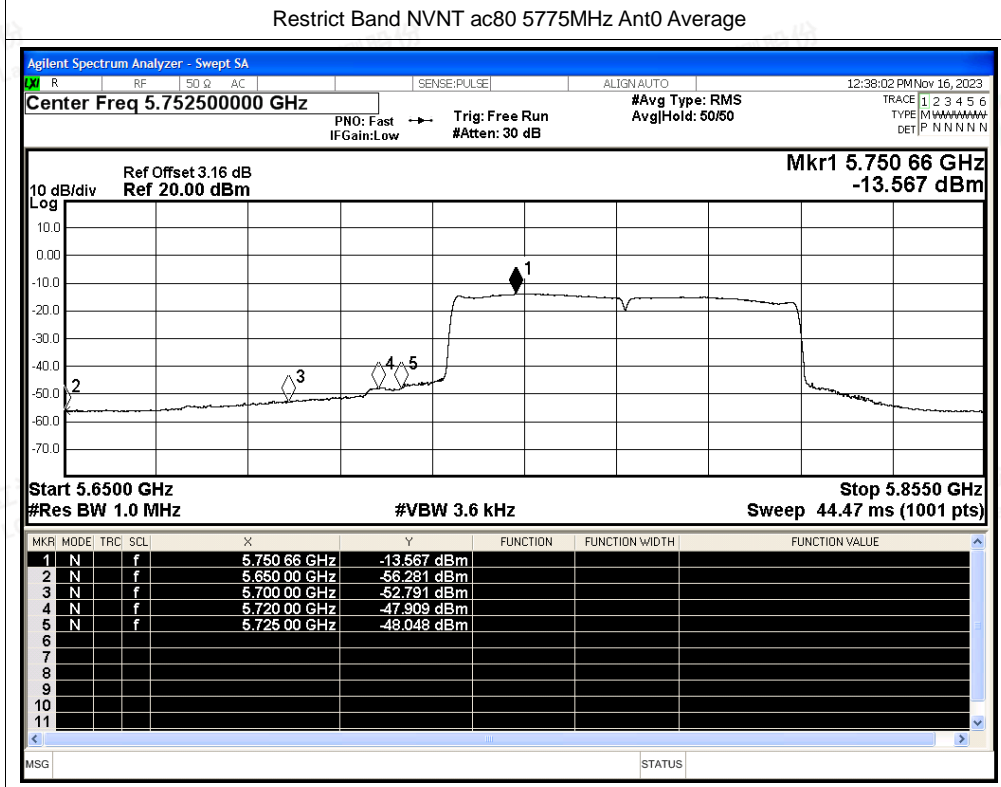
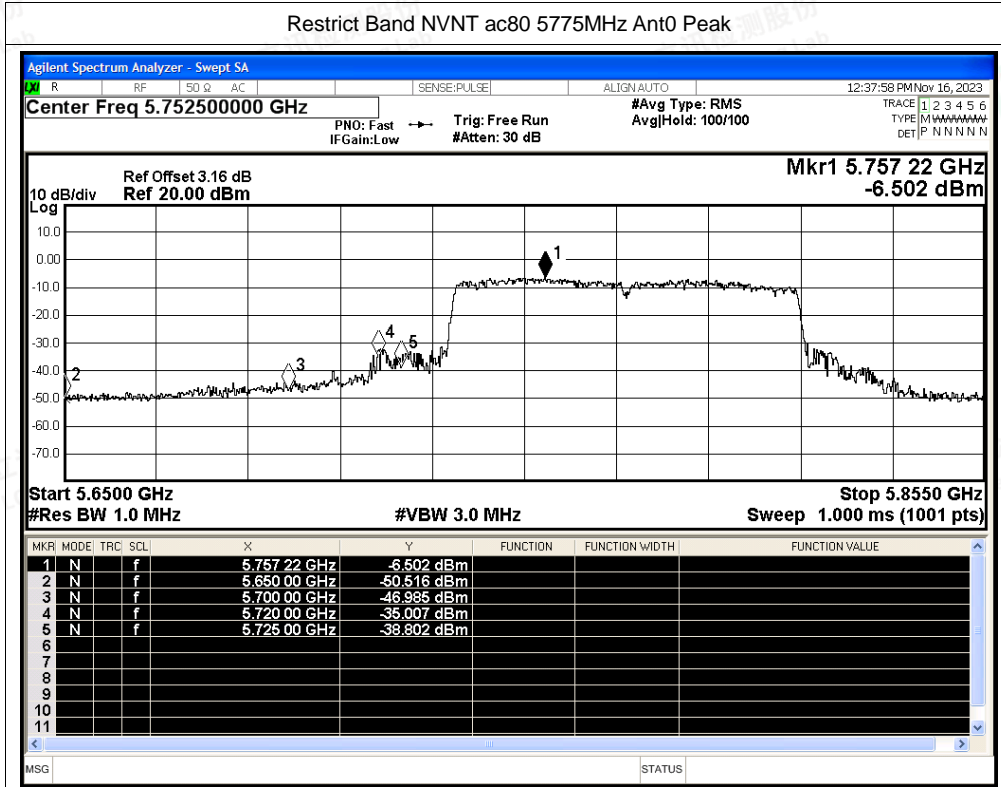


Restrict Band NVNT ac40 5795MHz Ant0 Peak



Restrict Band NVNT ac40 5795MHz Ant0 Average

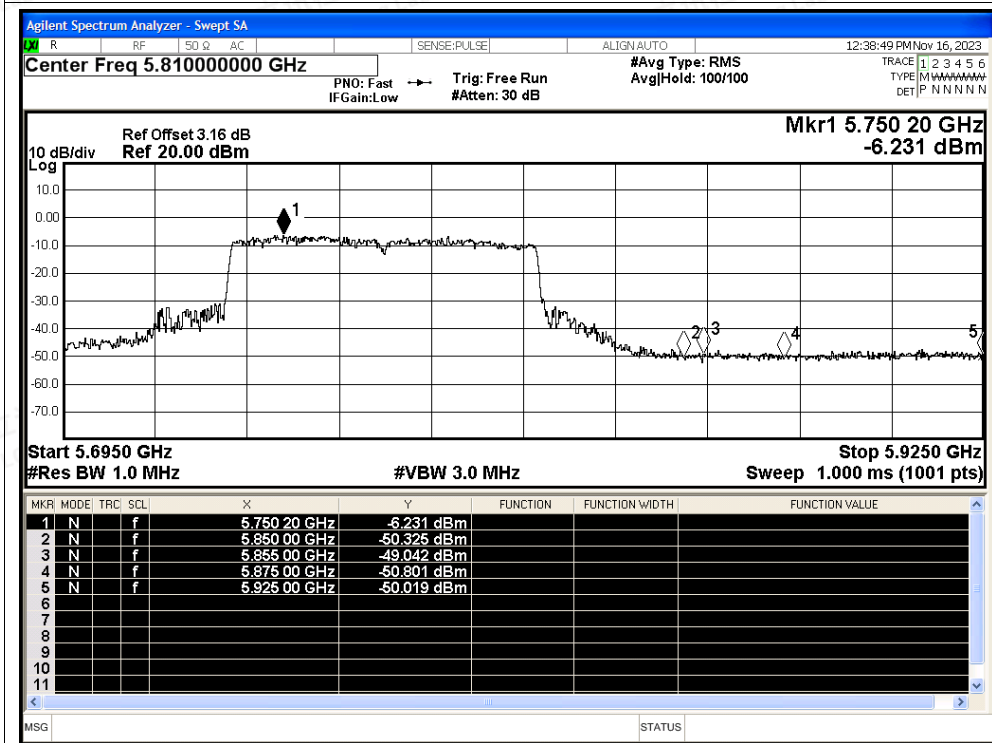




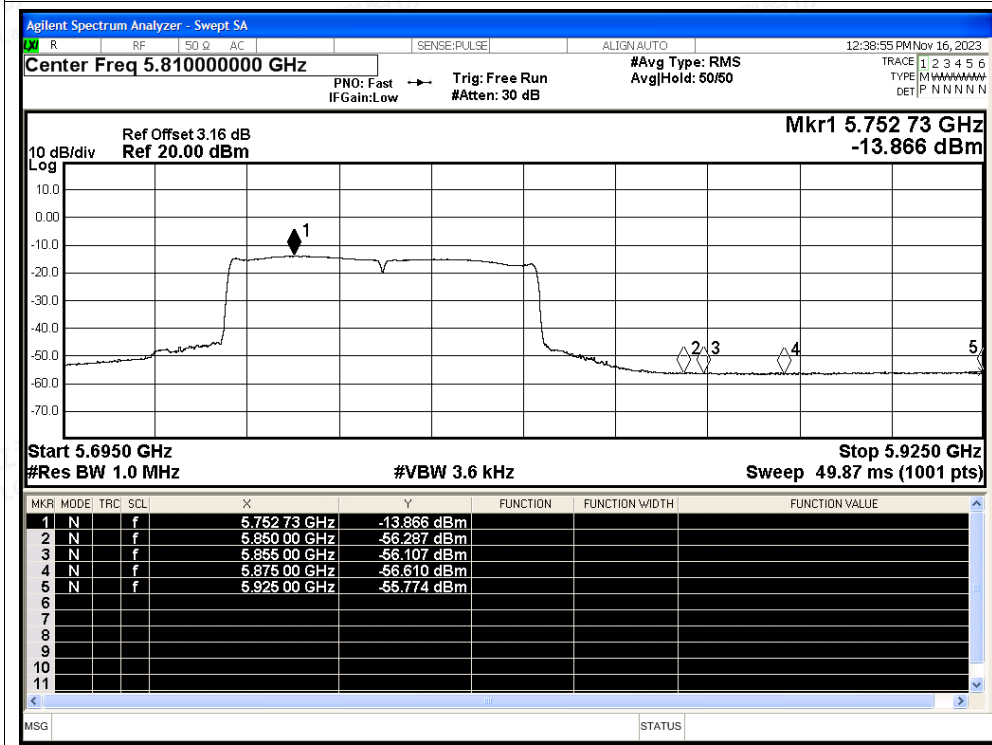




Restrict Band NVNT ac80 5775MHz Ant0 Peak



Restrict Band NVNT ac80 5775MHz Ant0 Average





### G.5 Frequency Stability

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	ac20	5745	Ant0	5744.96	-40000	-6.96	25	Pass
NVNT	ac20	5785	Ant0	5784.96	-40000	-6.91	25	Pass
NVNT	ac20	5825	Ant0	5824.98	-20000	-3.43	25	Pass
NVNT	ac40	5755	Ant0	5754.96	-40000	-6.95	25	Pass
NVNT	ac40	5795	Ant0	5794.96	-40000	-6.9	25	Pass
NVNT	ac80	5775	Ant0	5775	0	0	25	Pass

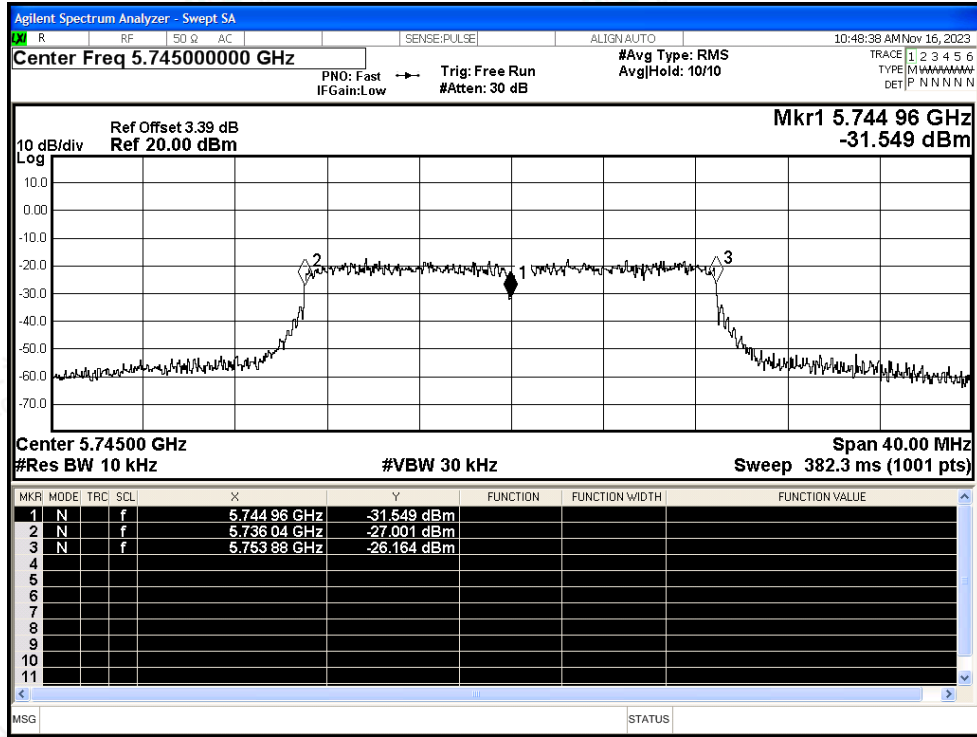


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Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com  
Scan code to check authenticity

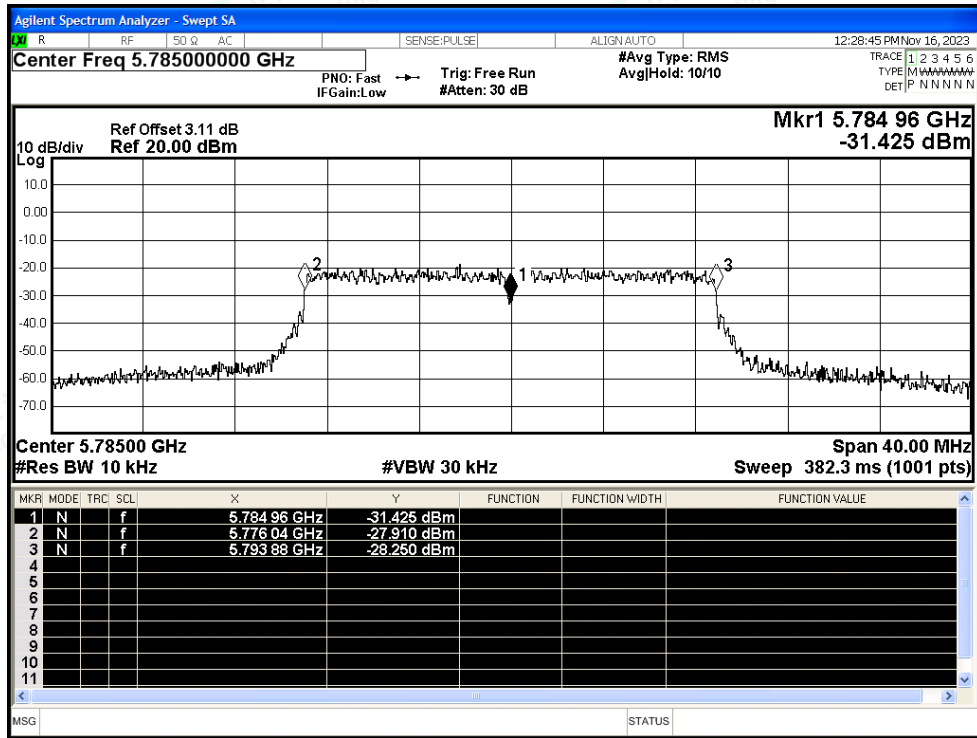


Test Graphs

Freq. Stability NVNT ac20 5745MHz Ant0

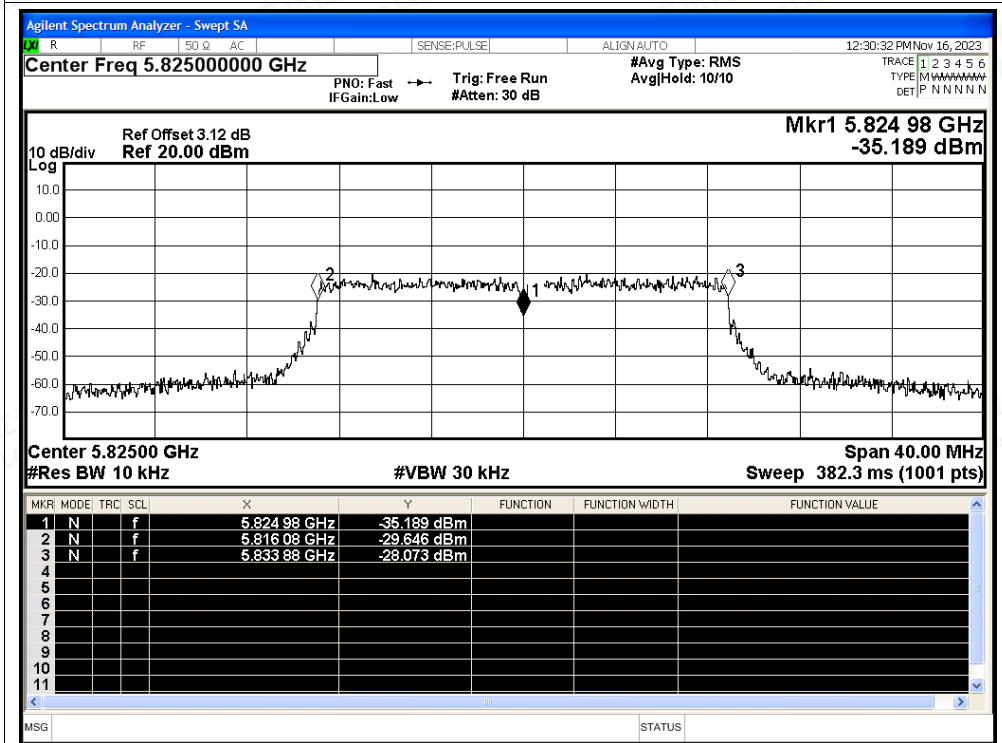


Freq. Stability NVNT ac20 5785MHz Ant0

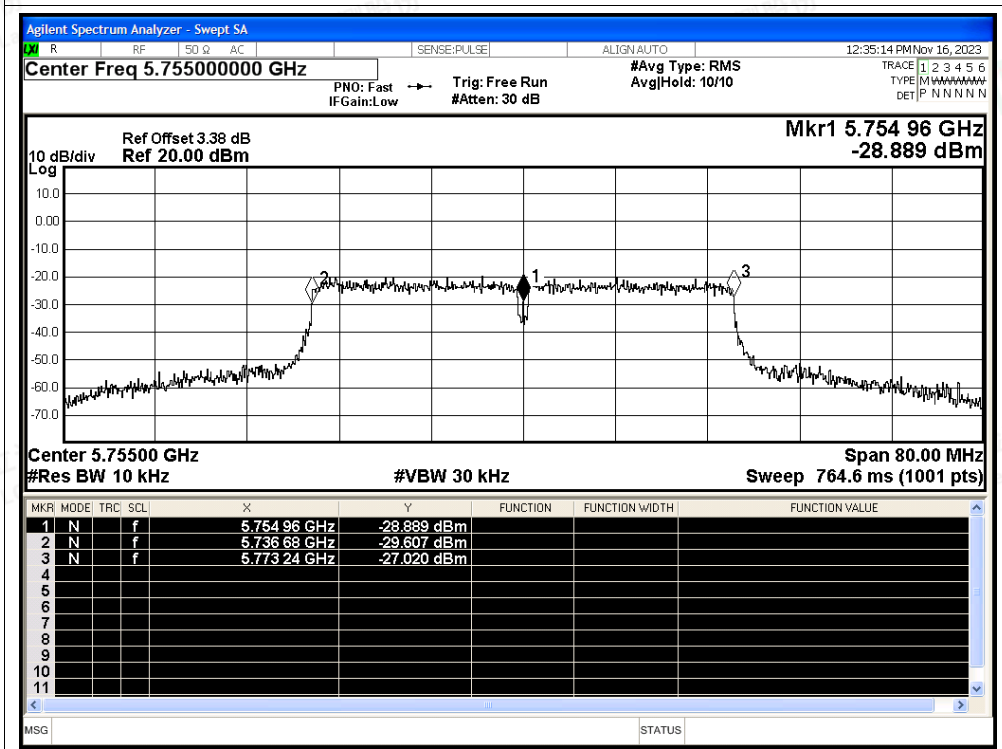




Freq. Stability NVNT ac20 5825MHz Ant0

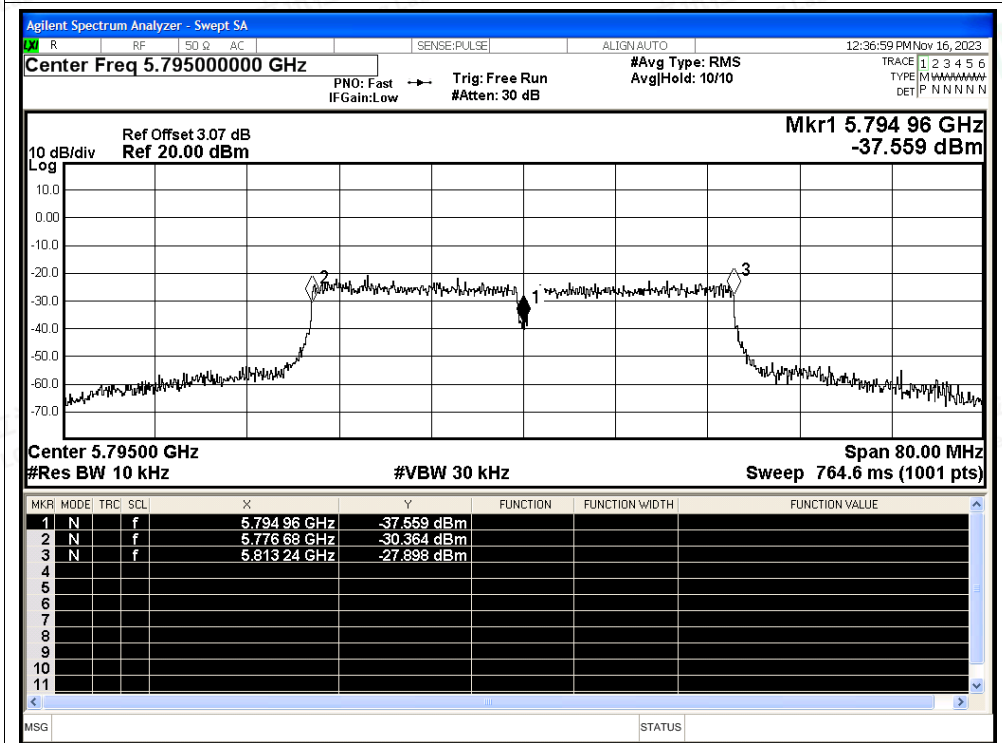


Freq. Stability NVNT ac40 5755MHz Ant0

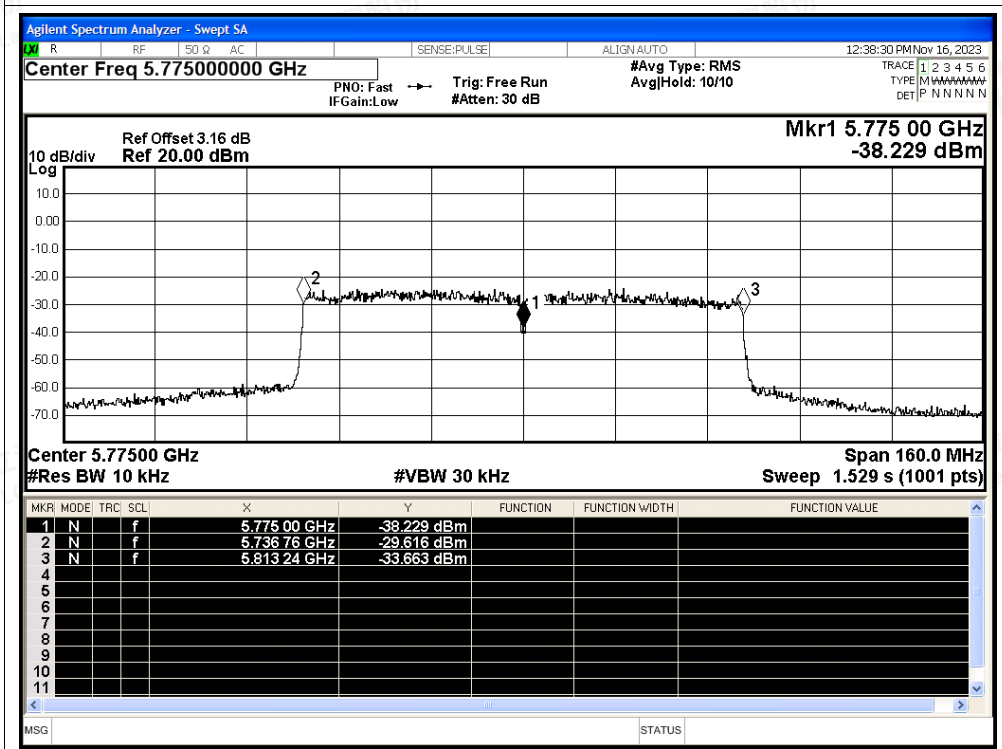




Freq. Stability NVNT ac40 5795MHz Ant0



Freq. Stability NVNT ac80 5775MHz Ant0





### G.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5745	Ant0	89.06	0.5	0.72
NVNT	a	5785	Ant0	90.62	0.43	0.72
NVNT	a	5825	Ant0	90.1	0.45	0.72
NVNT	n20	5745	Ant0	86.63	0.62	0.85
NVNT	n20	5785	Ant0	89.07	0.5	0.85
NVNT	n20	5825	Ant0	88.47	0.53	0.85
NVNT	n40	5755	Ant0	77.54	1.1	1.7
NVNT	n40	5795	Ant0	80.41	0.95	1.7
NVNT	ac20	5745	Ant0	87.39	0.59	0.84
NVNT	ac20	5785	Ant0	87.32	0.59	0.84
NVNT	ac20	5825	Ant0	88.57	0.53	0.84
NVNT	ac40	5755	Ant0	79.54	0.99	1.69
NVNT	ac40	5795	Ant0	79.54	0.99	1.69
NVNT	ac80	5775	Ant0	89.43	0.49	3.38

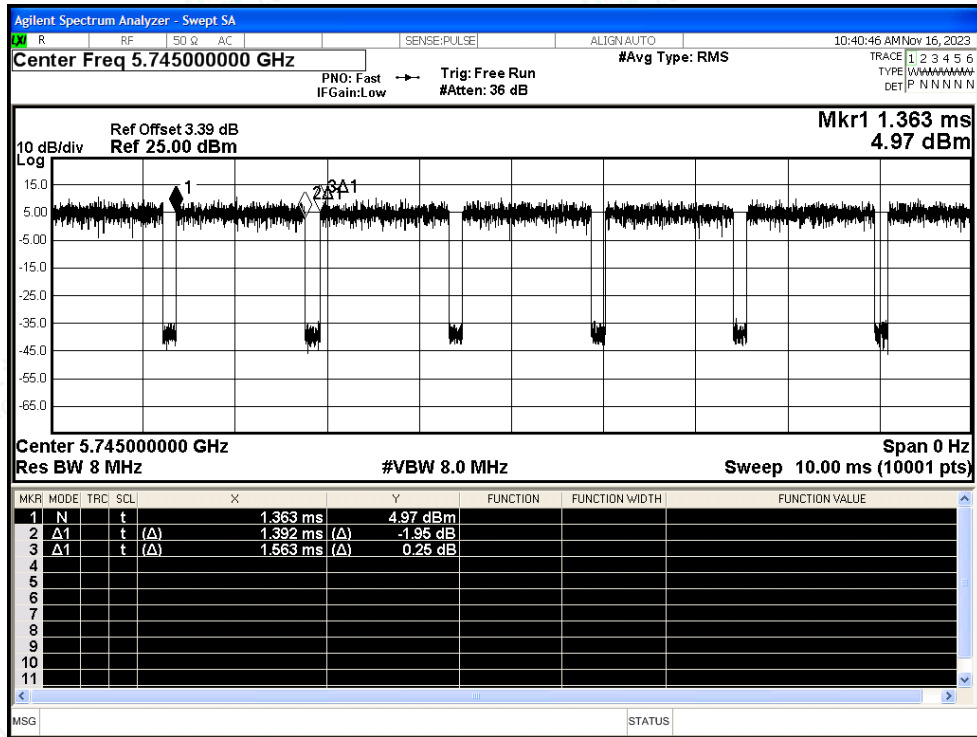


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 Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com  
 Scan code to check authenticity

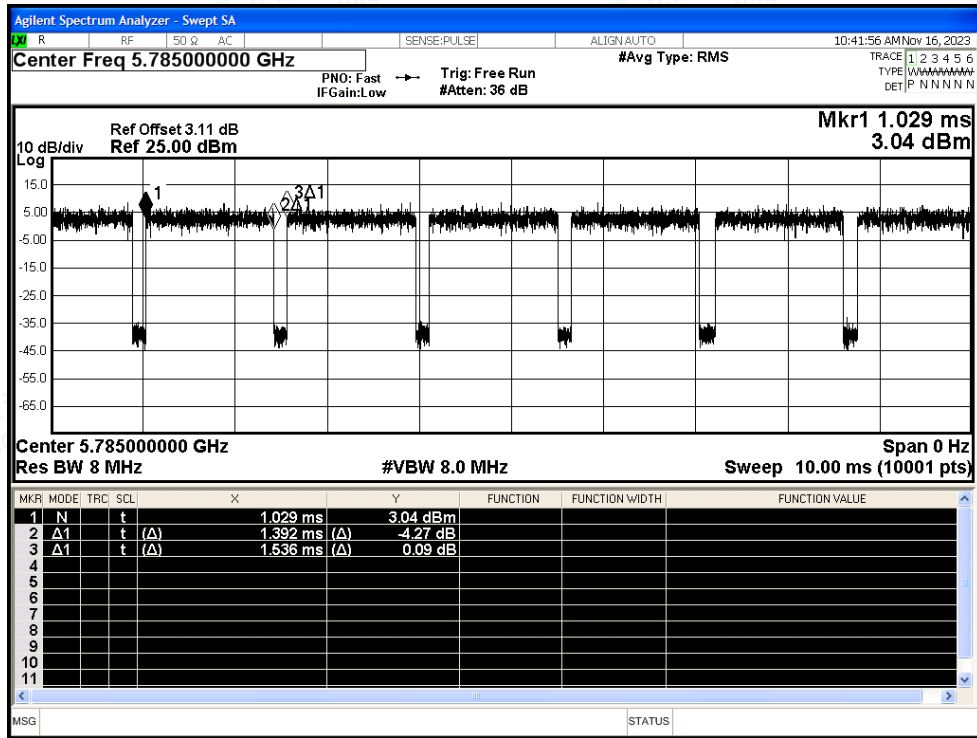


Test Graphs

Duty Cycle NVNT a 5745MHz Ant0

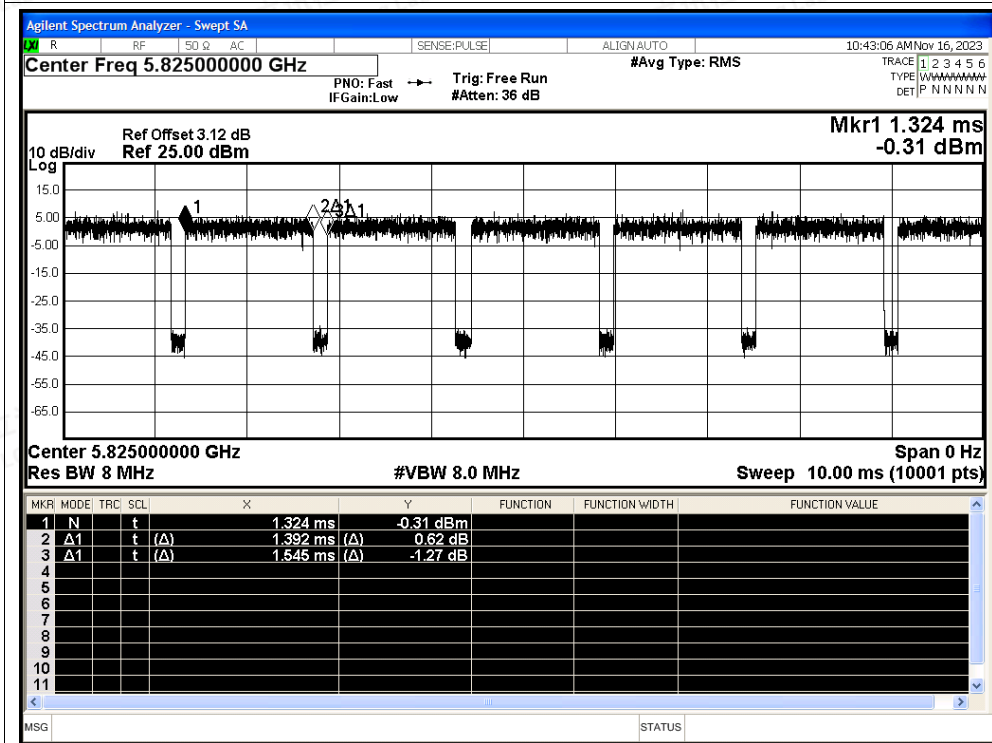


Duty Cycle NVNT a 5785MHz Ant0

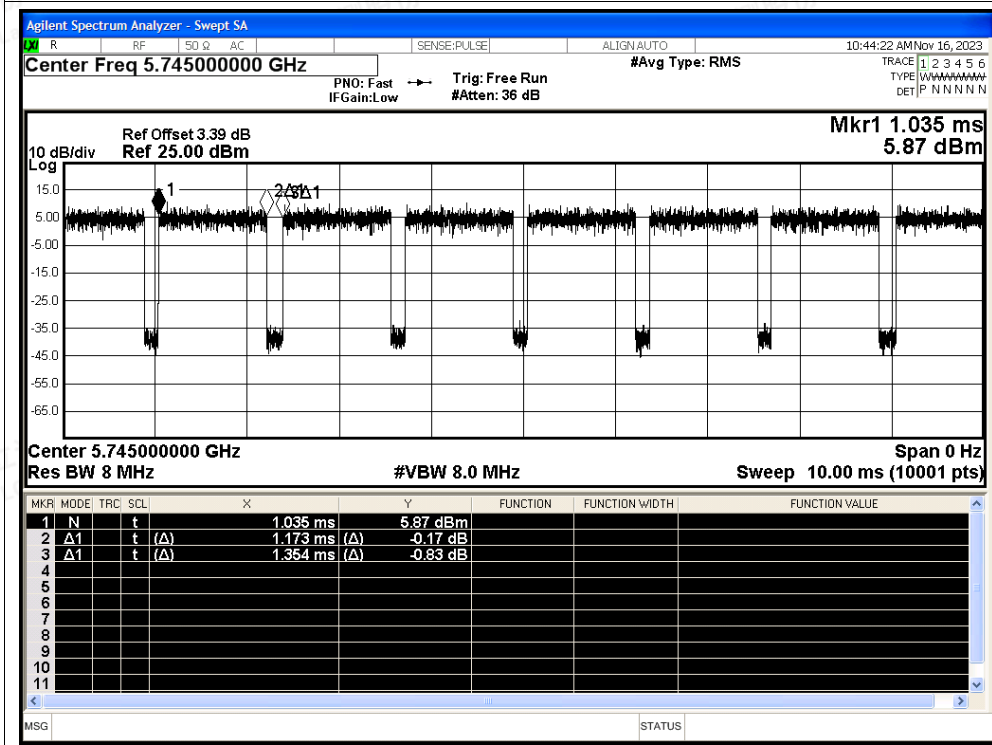




Duty Cycle NVNT a 5825MHz Ant0



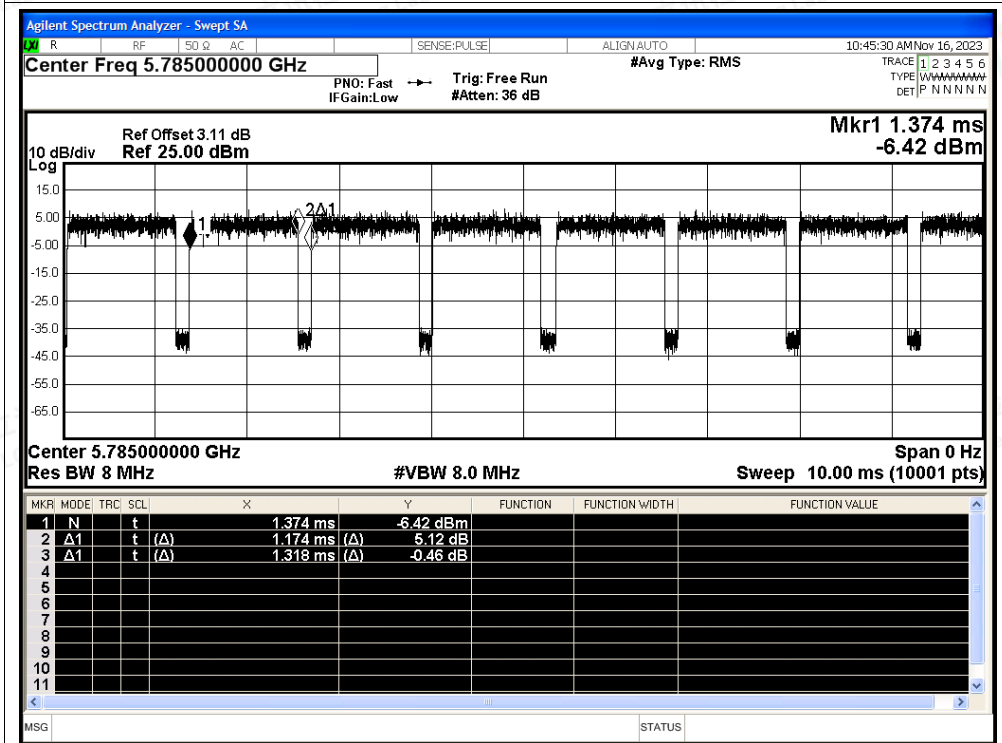
Duty Cycle NVNT n20 5745MHz Ant0



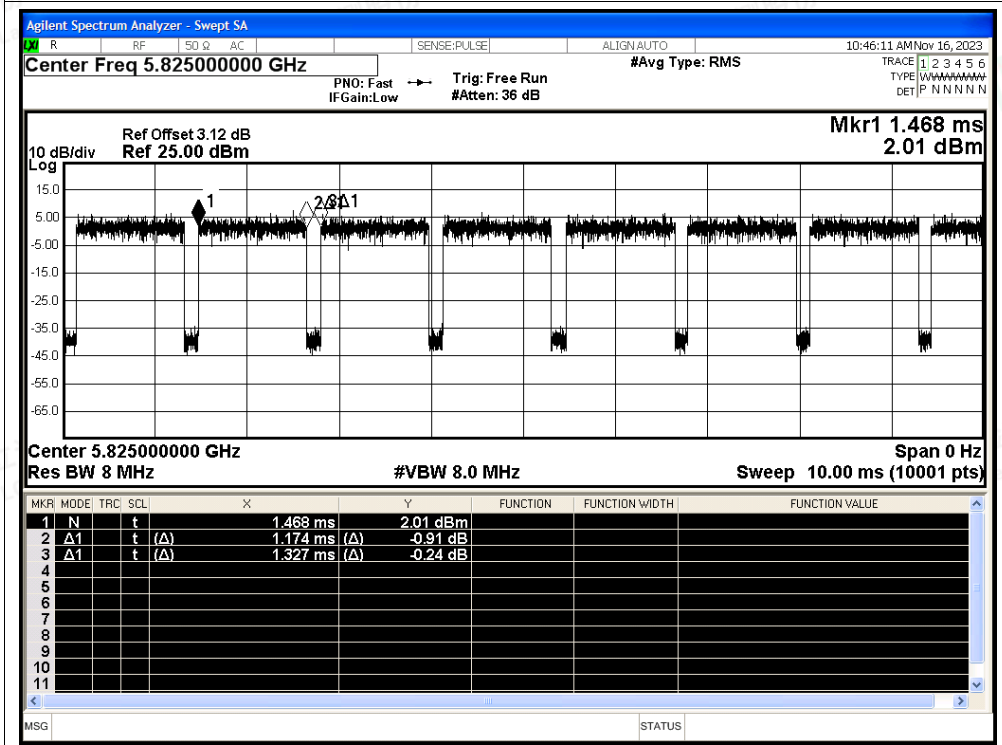




Duty Cycle NVNT n20 5785MHz Ant0

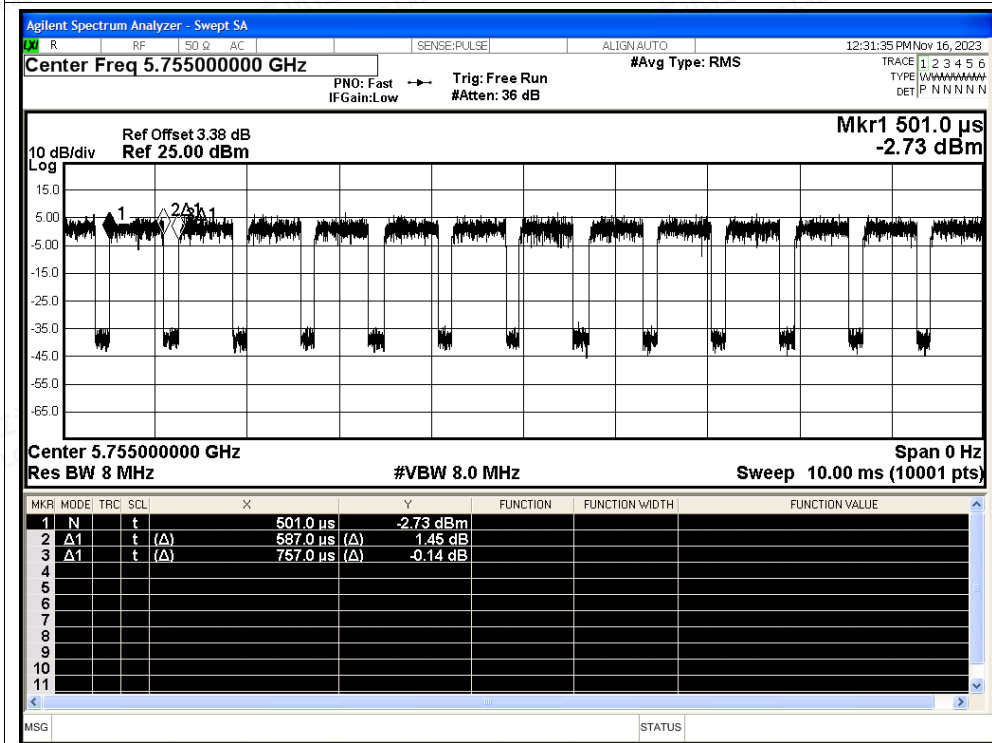


Duty Cycle NVNT n20 5825MHz Ant0

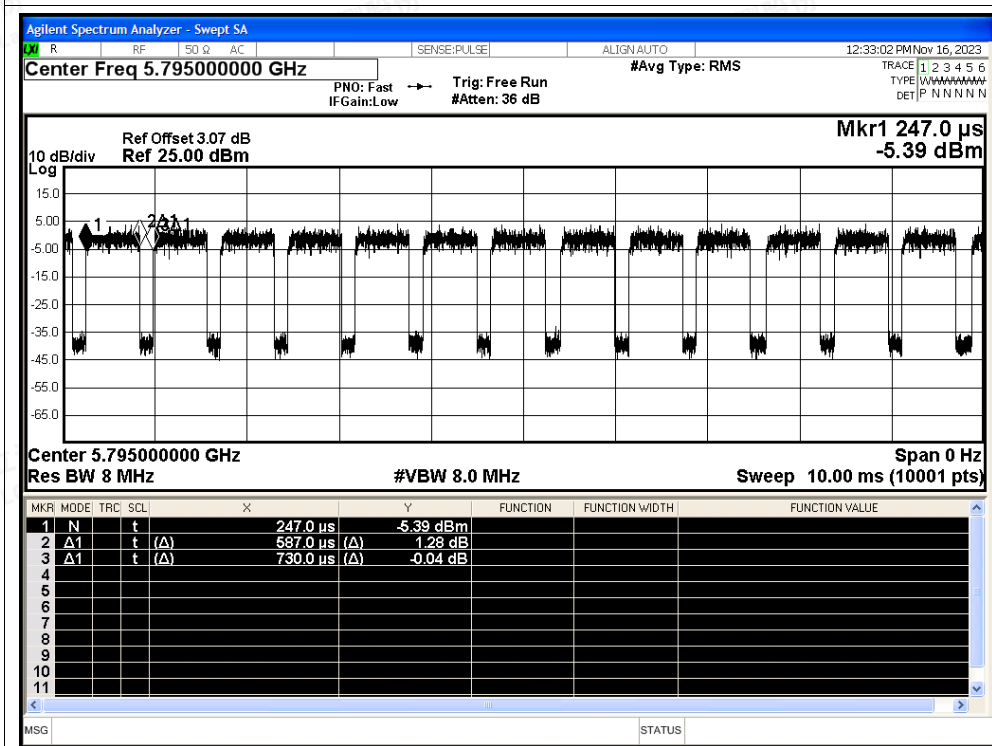




Duty Cycle NVNT n40 5755MHz Ant0

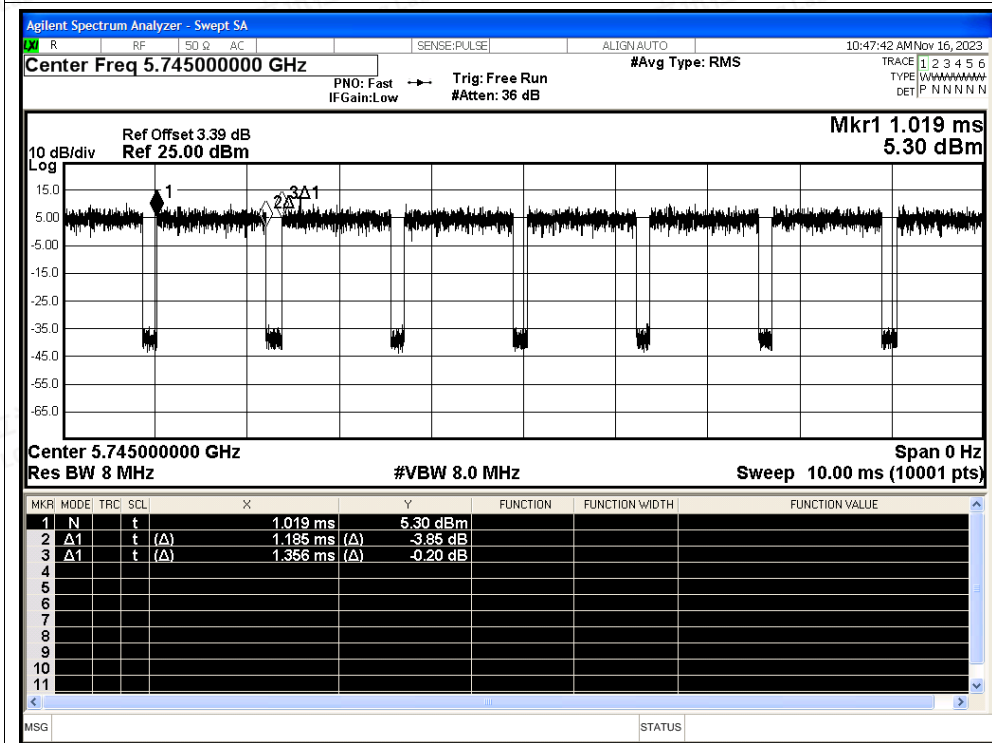


Duty Cycle NVNT n40 5795MHz Ant0

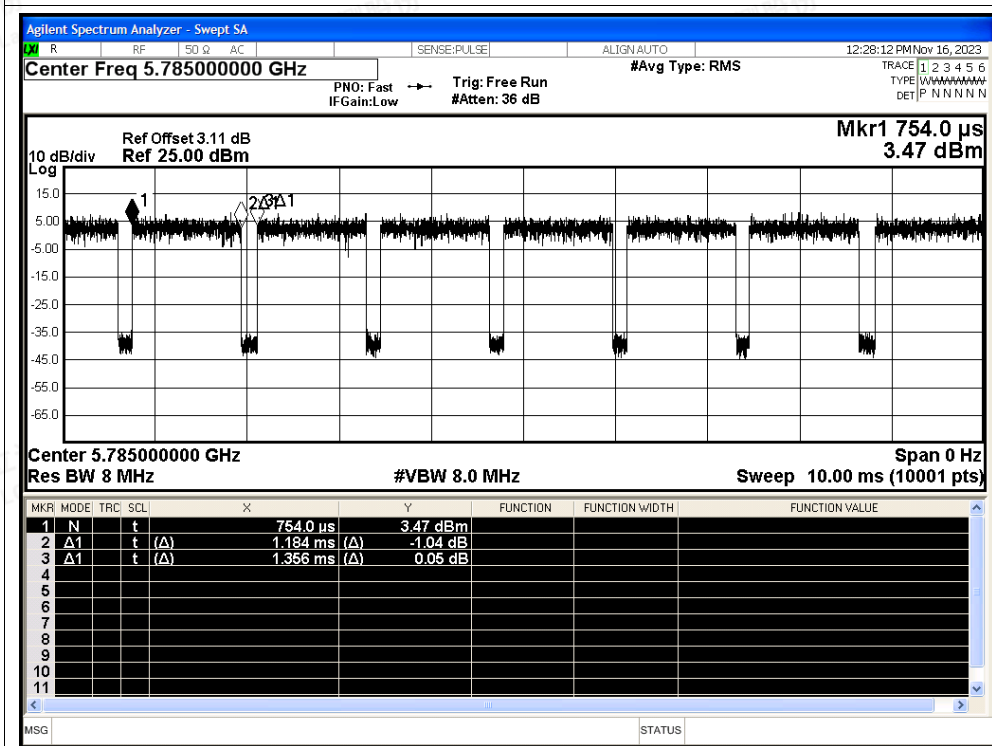




Duty Cycle NVNT ac20 5745MHz Ant0

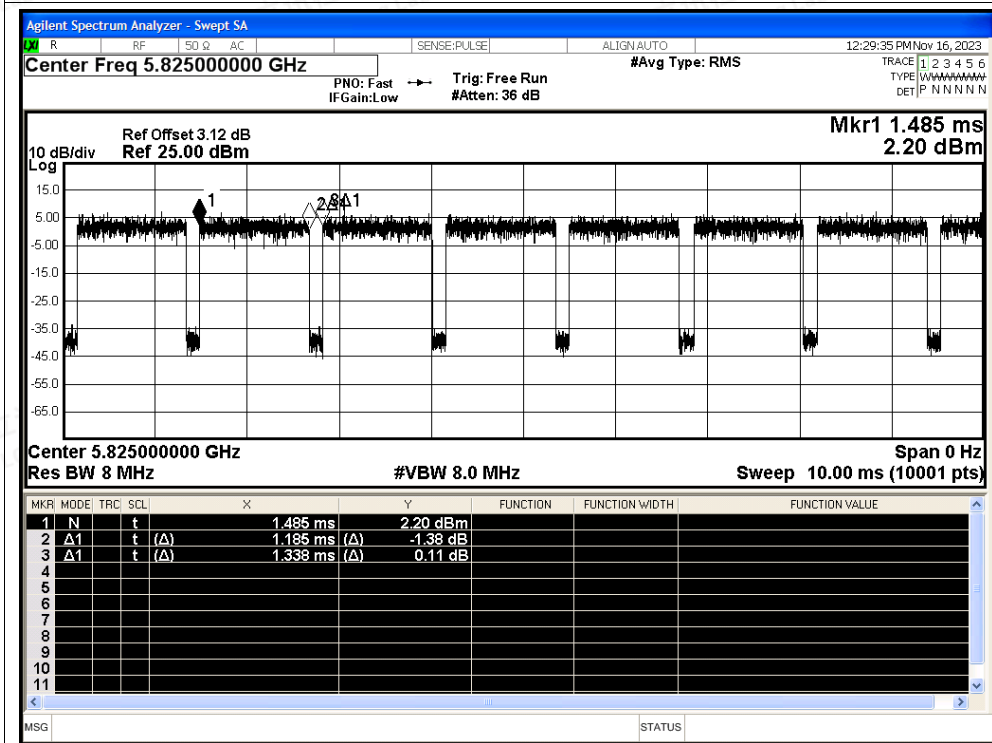


Duty Cycle NVNT ac20 5785MHz Ant0

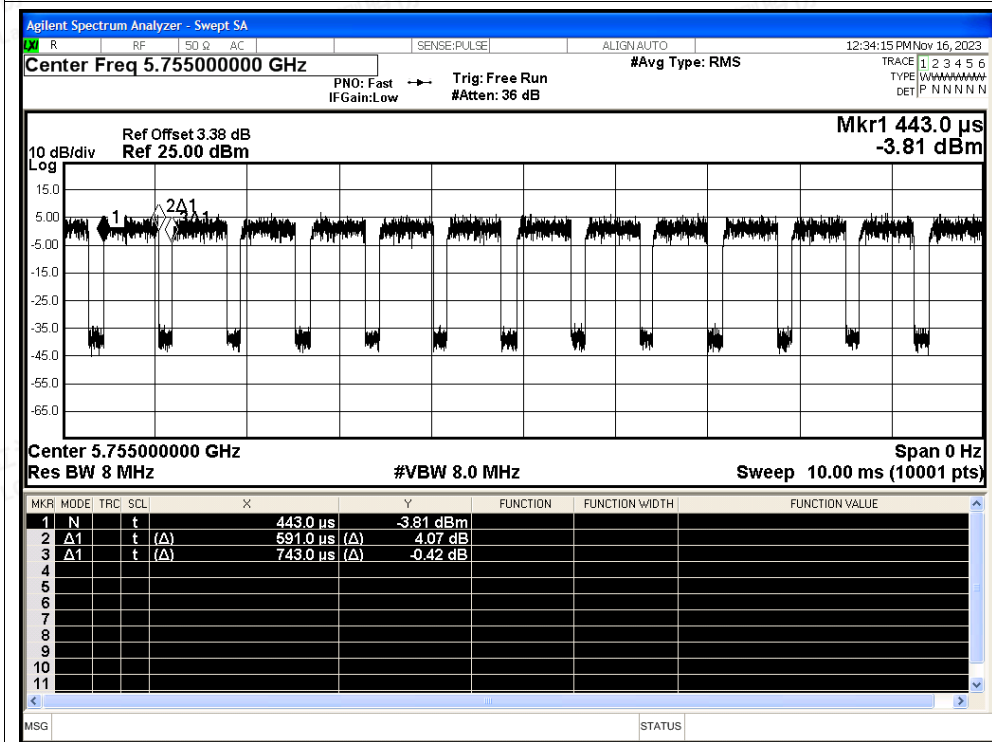




Duty Cycle NVNT ac20 5825MHz Ant0

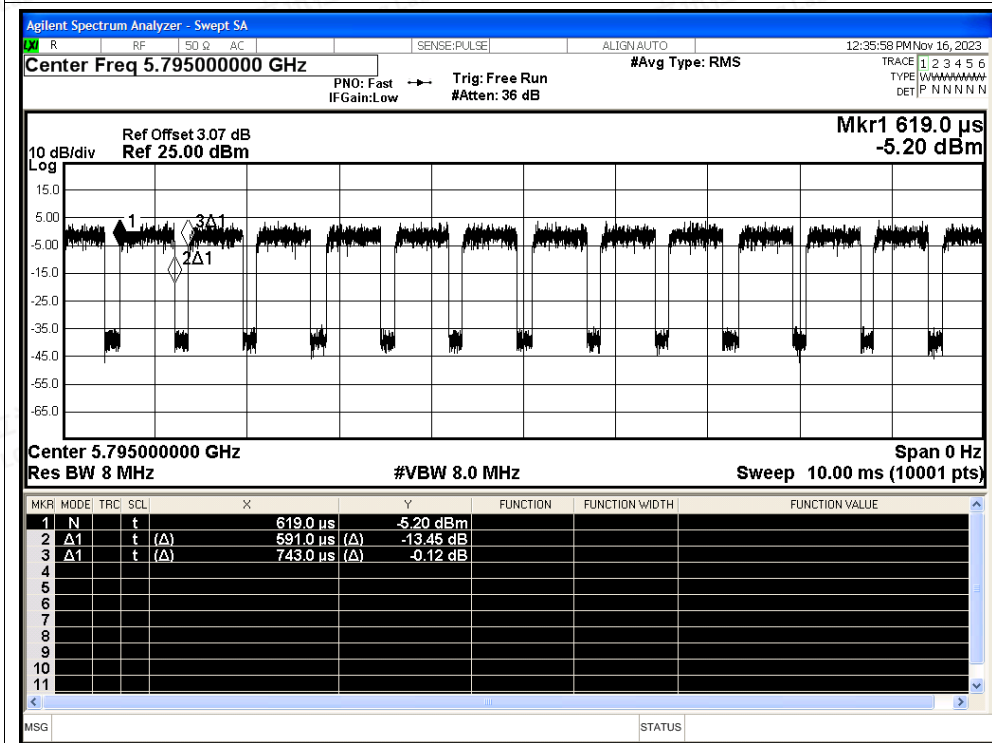


Duty Cycle NVNT ac40 5755MHz Ant0





Duty Cycle NVNT ac40 5795MHz Ant0



Duty Cycle NVNT ac80 5775MHz Ant0

