Appendix F

RF Test Data for 5.5G WIFI (Conducted Measurement)

Product Name: LAVA Guitar

Test Model: LAVA ME PLAY

Environmental Conditions

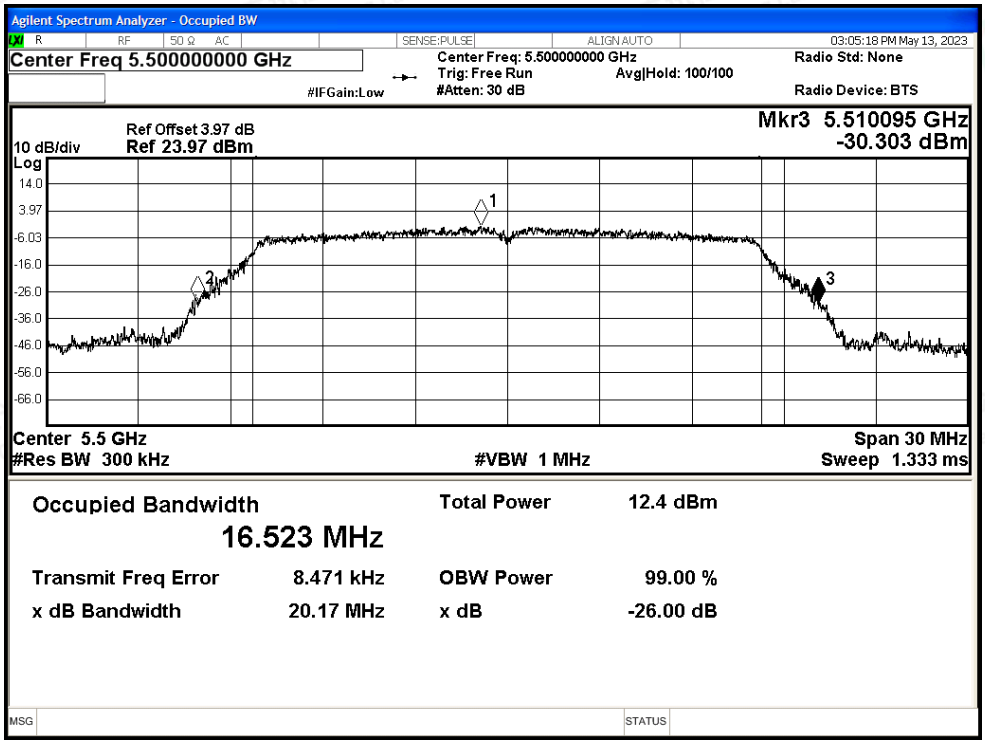
Temperature:	23.8 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Nick Peng
Supervised by:	Li Huan

F.1 -26dB Bandwidth

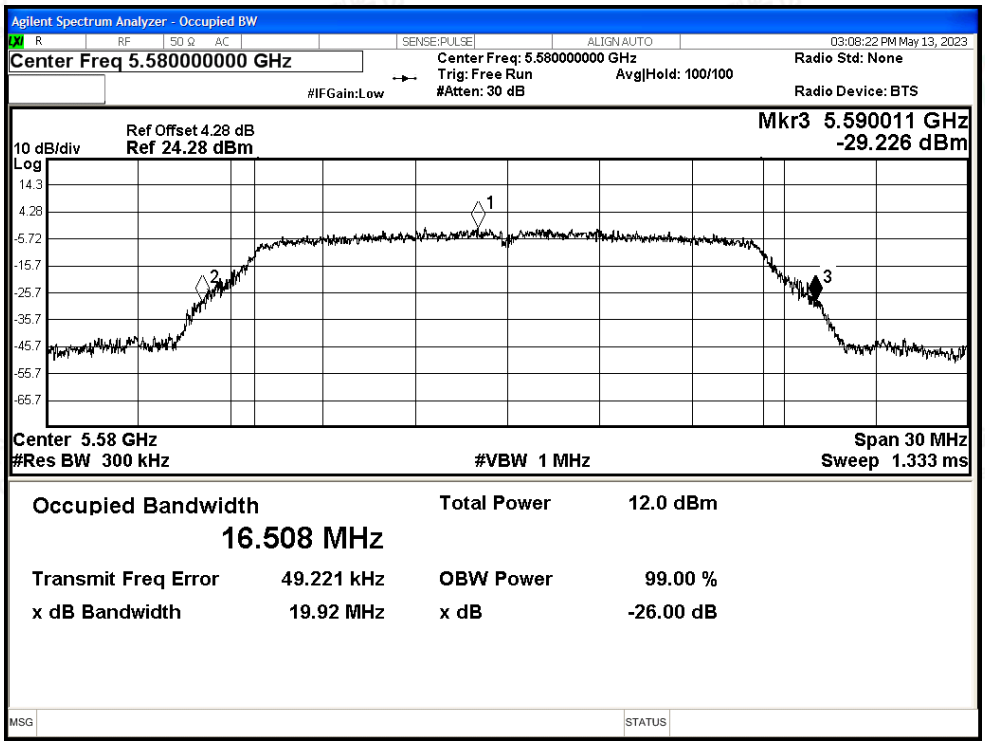
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5500	Ant0	20.173	>=0.5	Pass
NVNT	a	5580	Ant0	19.924	>=0.5	Pass
NVNT	a	5700	Ant0	19.685	>=0.5	Pass
NVNT	n20	5500	Ant0	20.382	>=0.5	Pass
NVNT	n20	5580	Ant0	20.131	>=0.5	Pass
NVNT	n20	5700	Ant0	20.22	>=0.5	Pass
NVNT	n40	5510	Ant0	39.916	>=0.5	Pass
NVNT	n40	5550	Ant0	39.324	>=0.5	Pass
NVNT	n40	5670	Ant0	40.309	>=0.5	Pass
NVNT	ac20	5500	Ant0	20.53	>=0.5	Pass
NVNT	ac20	5580	Ant0	20.229	>=0.5	Pass
NVNT	ac20	5700	Ant0	20.309	>=0.5	Pass
NVNT	ac40	5510	Ant0	39.385	>=0.5	Pass
NVNT	ac40	5550	Ant0	39.754	>=0.5	Pass
NVNT	ac40	5670	Ant0	39.371	>=0.5	Pass
NVNT	ac80	5530	Ant0	79.149	>=0.5	Pass
NVNT	ac80	5610	Ant0	79.201	>=0.5	Pass

Test Graphs

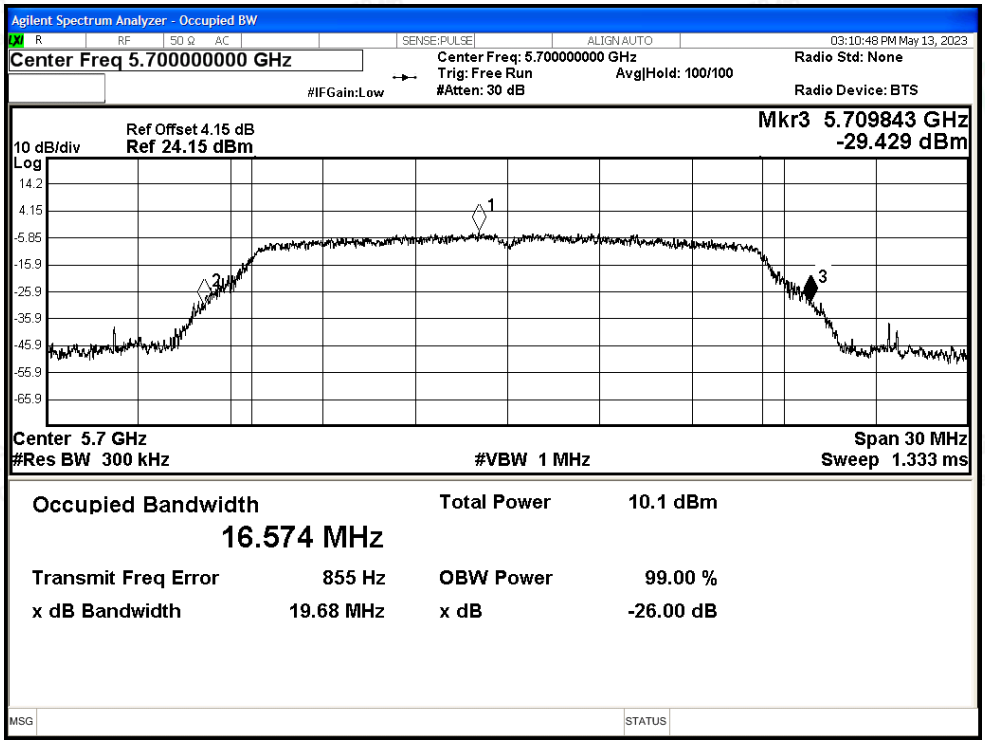
-26dB Bandwidth NVNT a 5500MHz Ant0



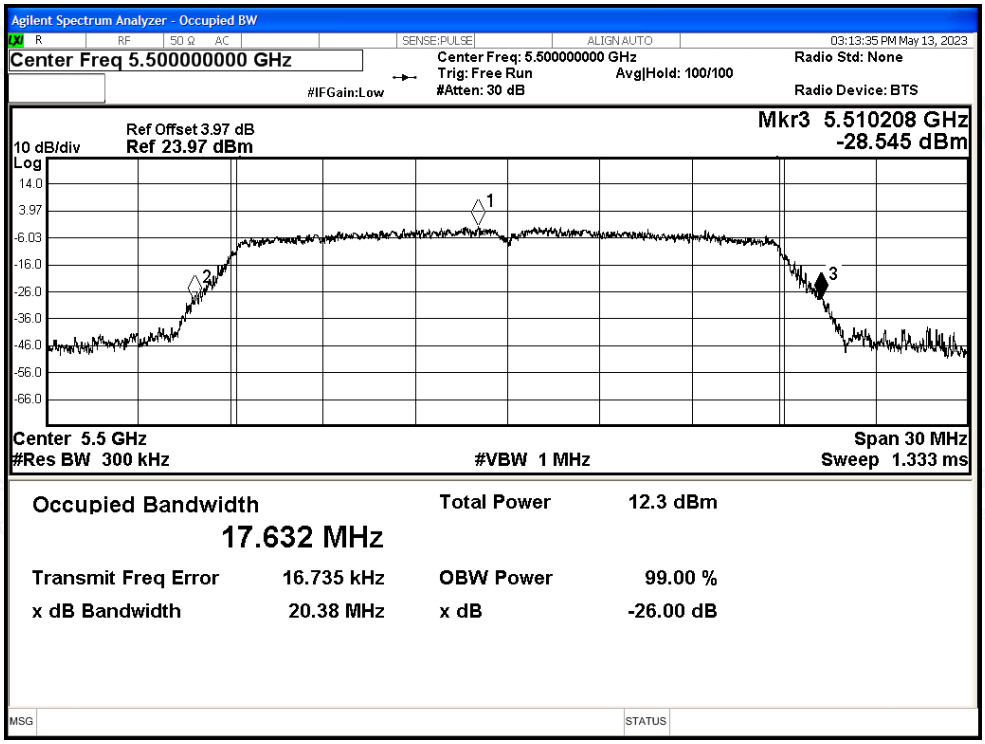
-26dB Bandwidth NVNT a 5580MHz Ant0



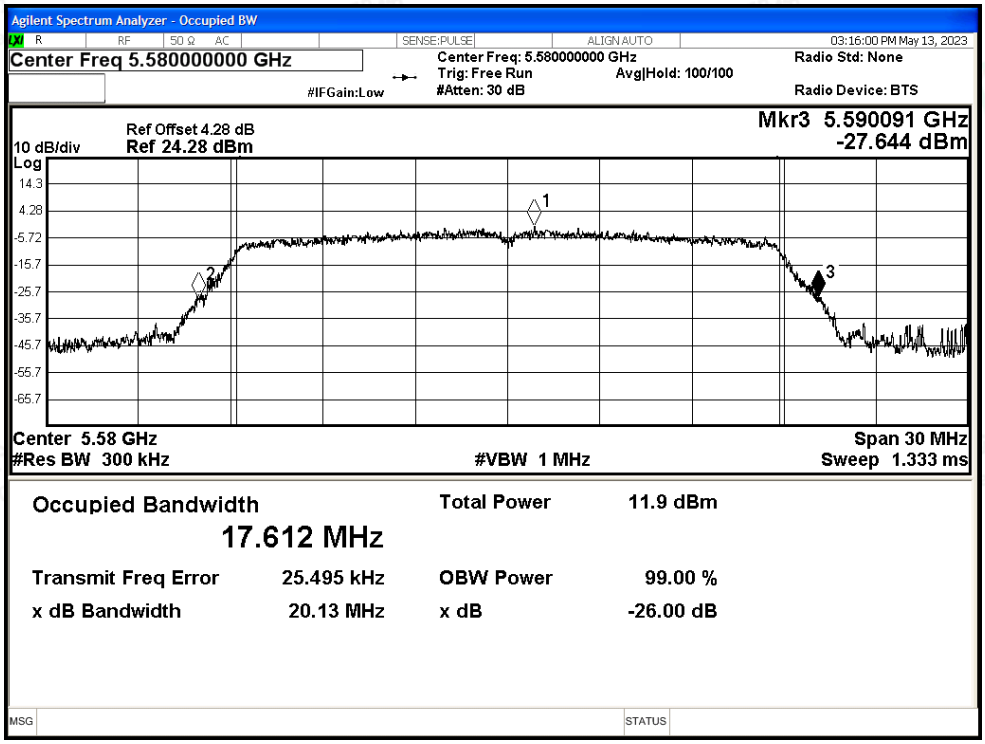
-26dB Bandwidth NVNT a 5700MHz Ant0



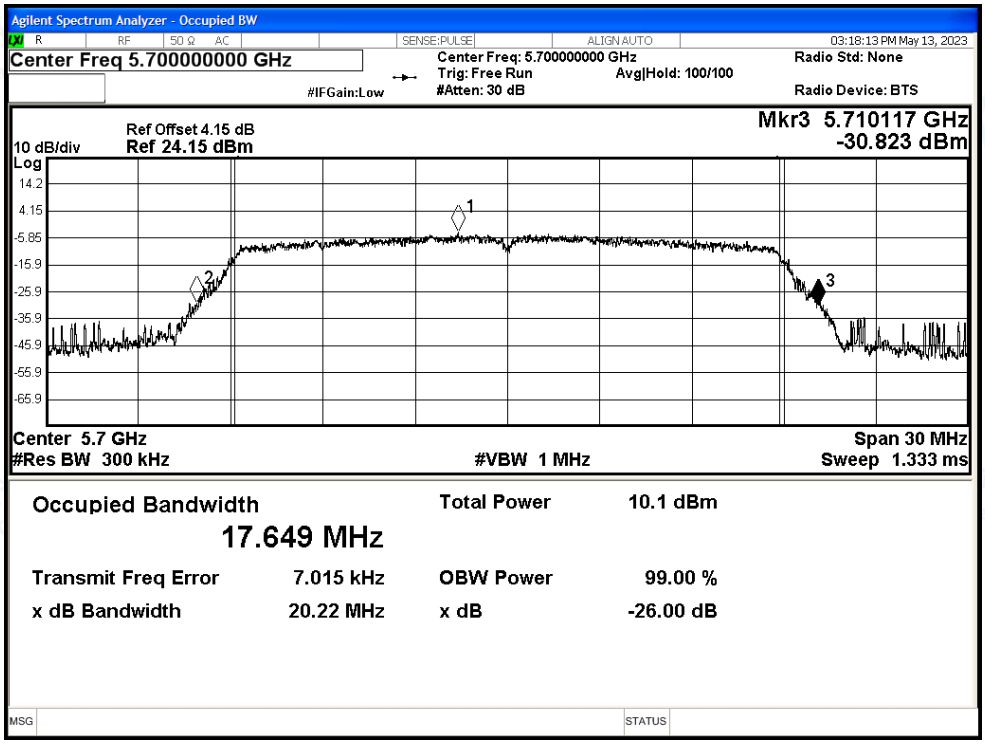
-26dB Bandwidth NVNT n20 5500MHz Ant0



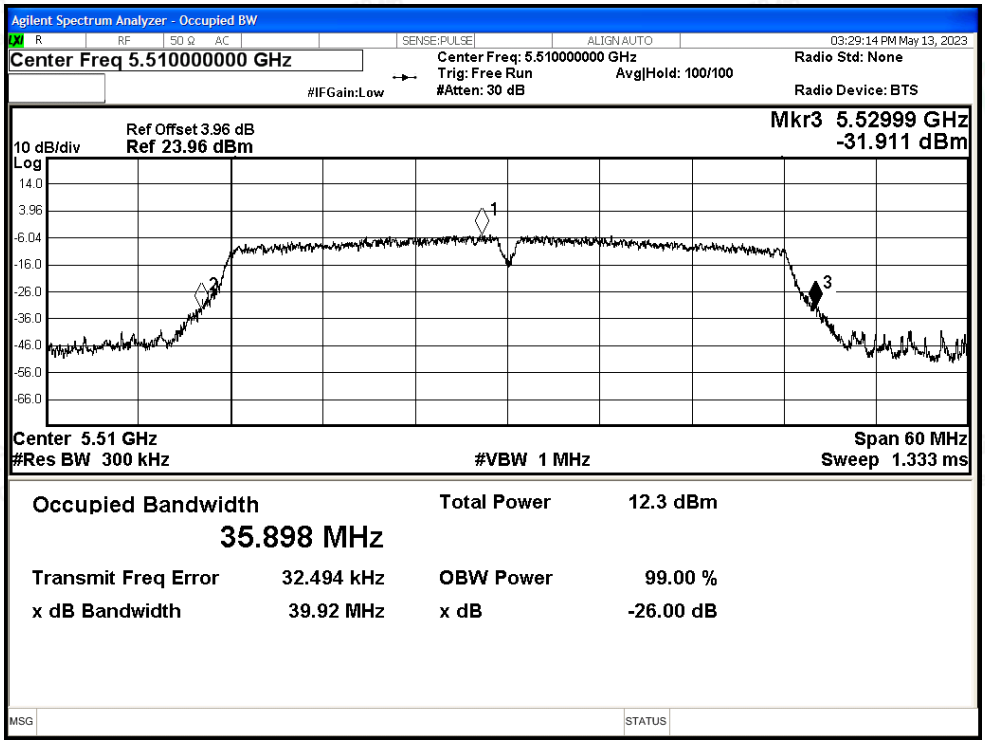
-26dB Bandwidth NVNT n20 5580MHz Ant0



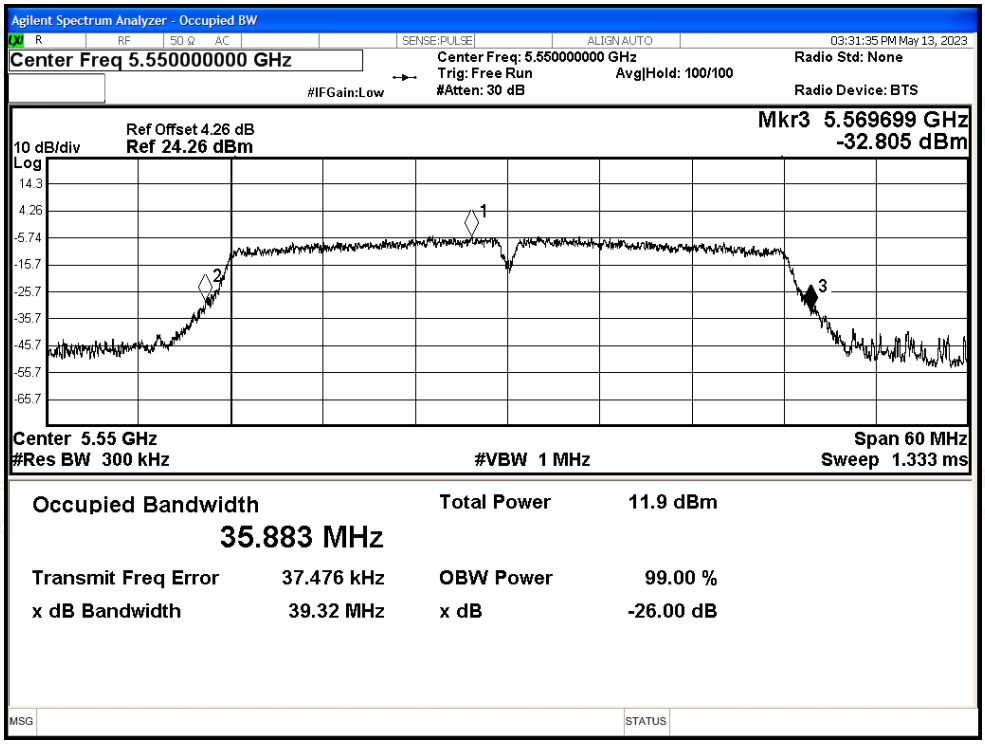
-26dB Bandwidth NVNT n20 5700MHz Ant0



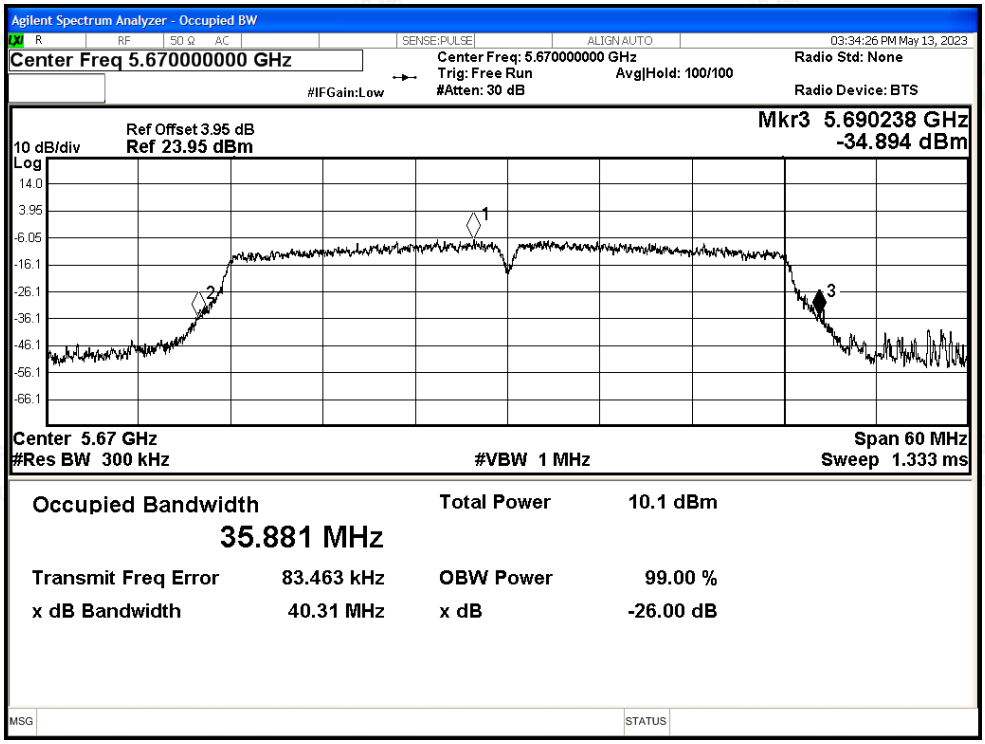
-26dB Bandwidth NVNT n40 5510MHz Ant0



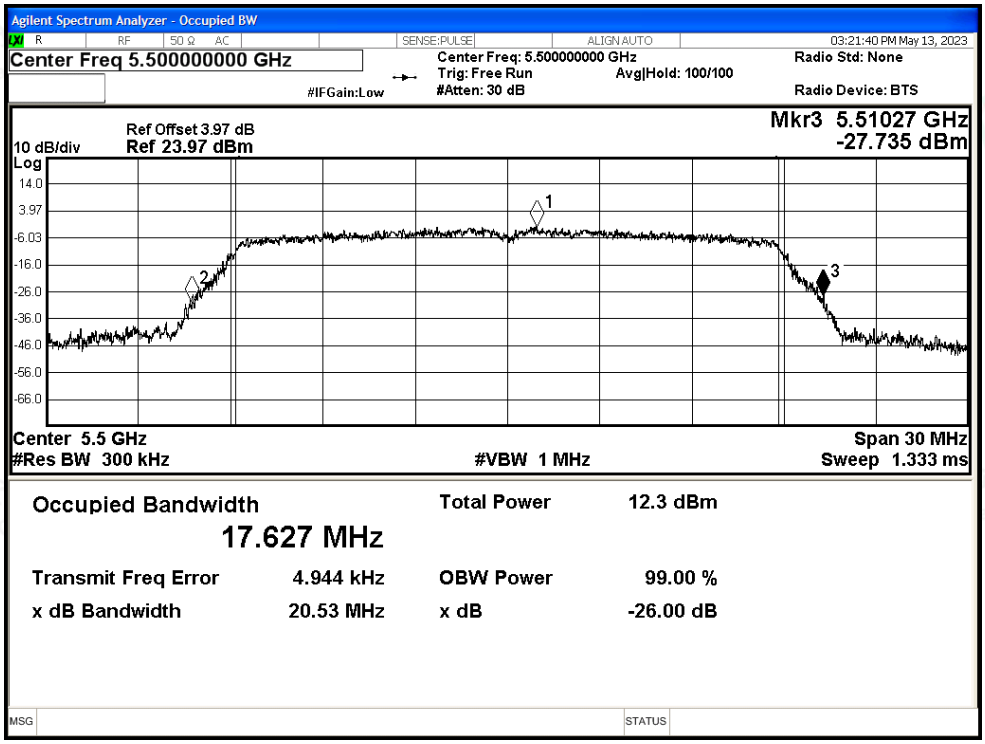
-26dB Bandwidth NVNT n40 5550MHz Ant0



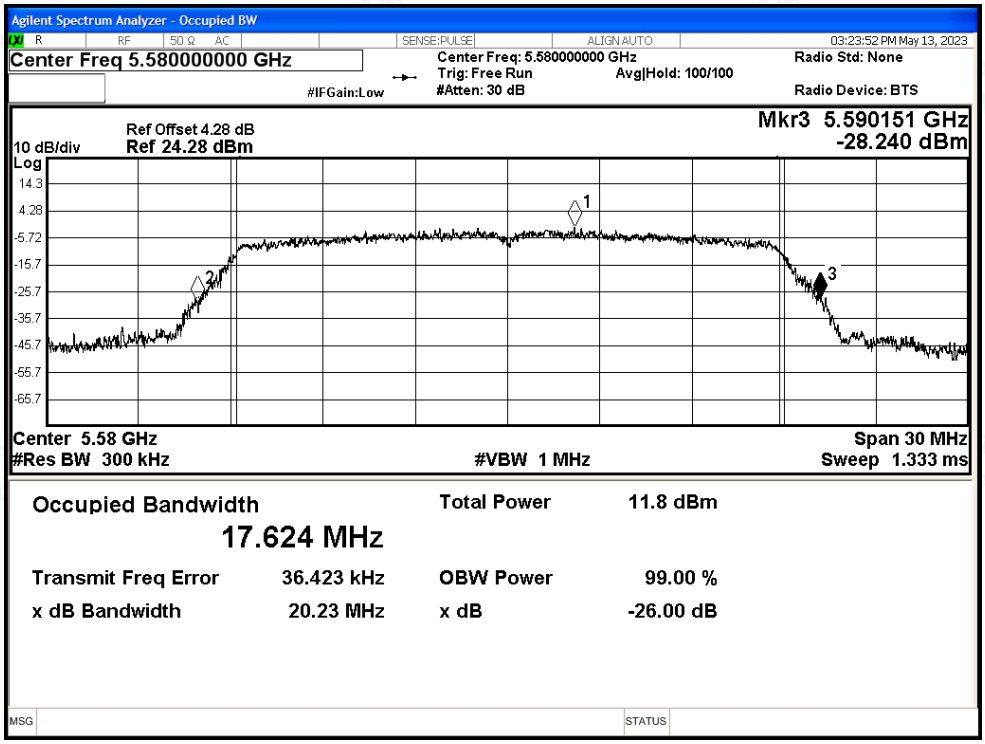
-26dB Bandwidth NVNT n40 5670MHz Ant0



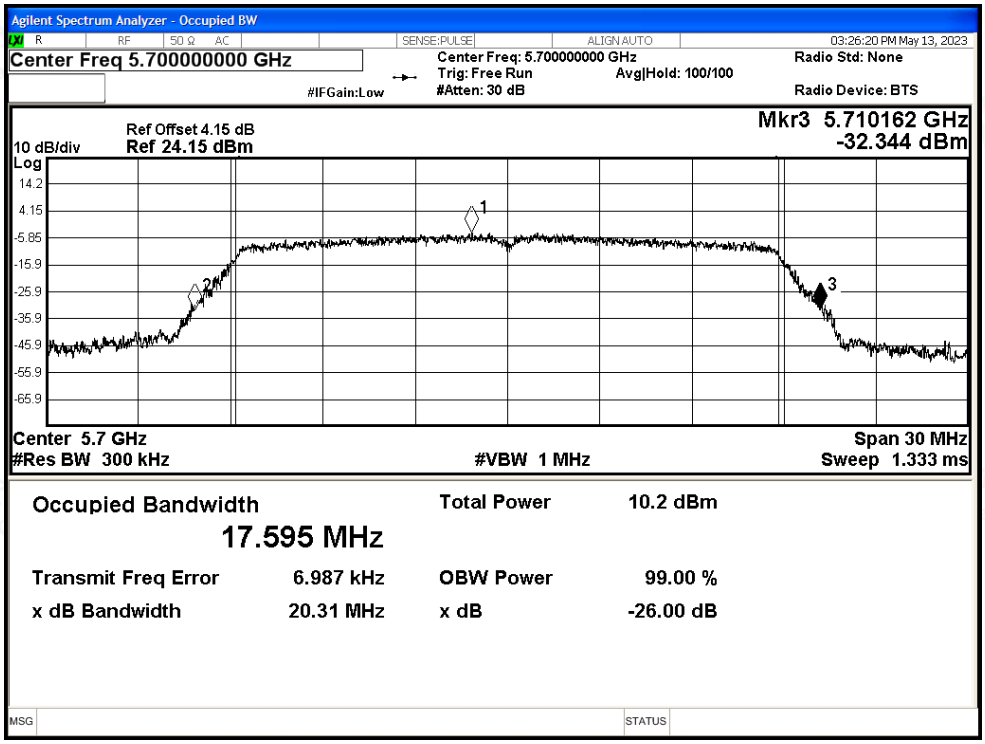
-26dB Bandwidth NVNT ac20 5500MHz Ant0



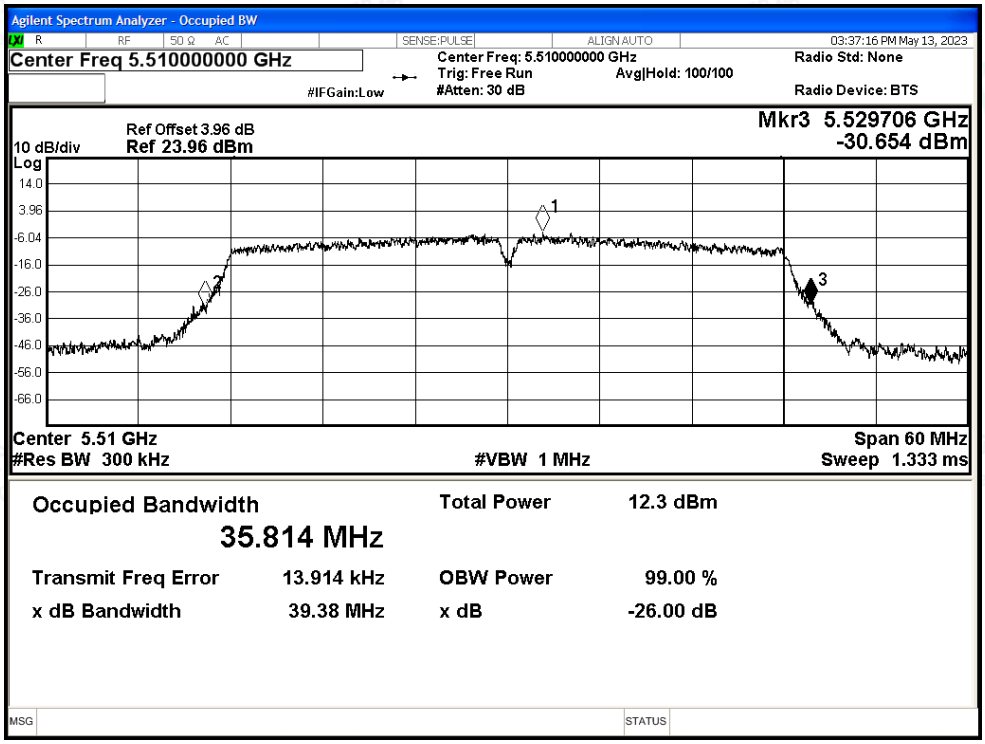
-26dB Bandwidth NVNT ac20 5580MHz Ant0



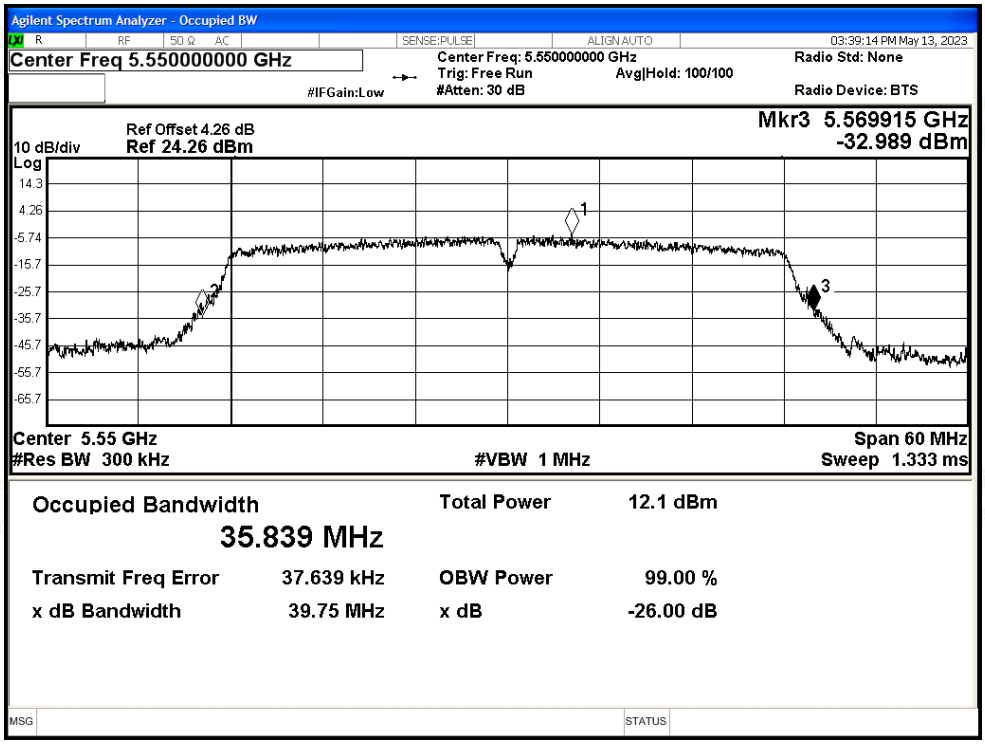
-26dB Bandwidth NVNT ac20 5700MHz Ant0



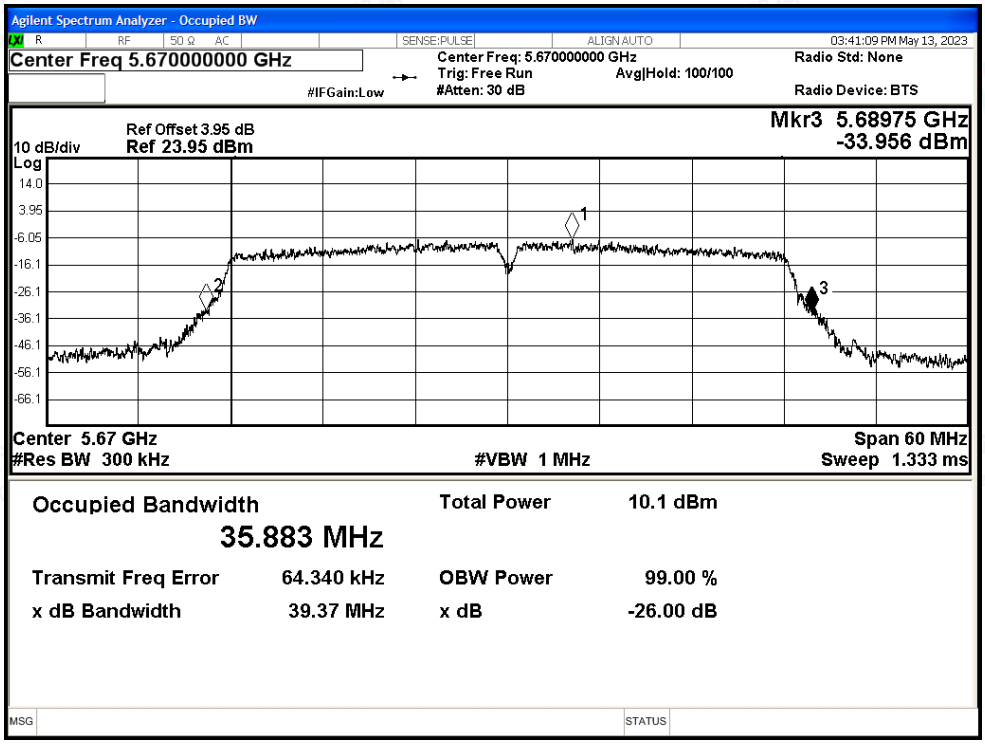
-26dB Bandwidth NVNT ac40 5510MHz Ant0



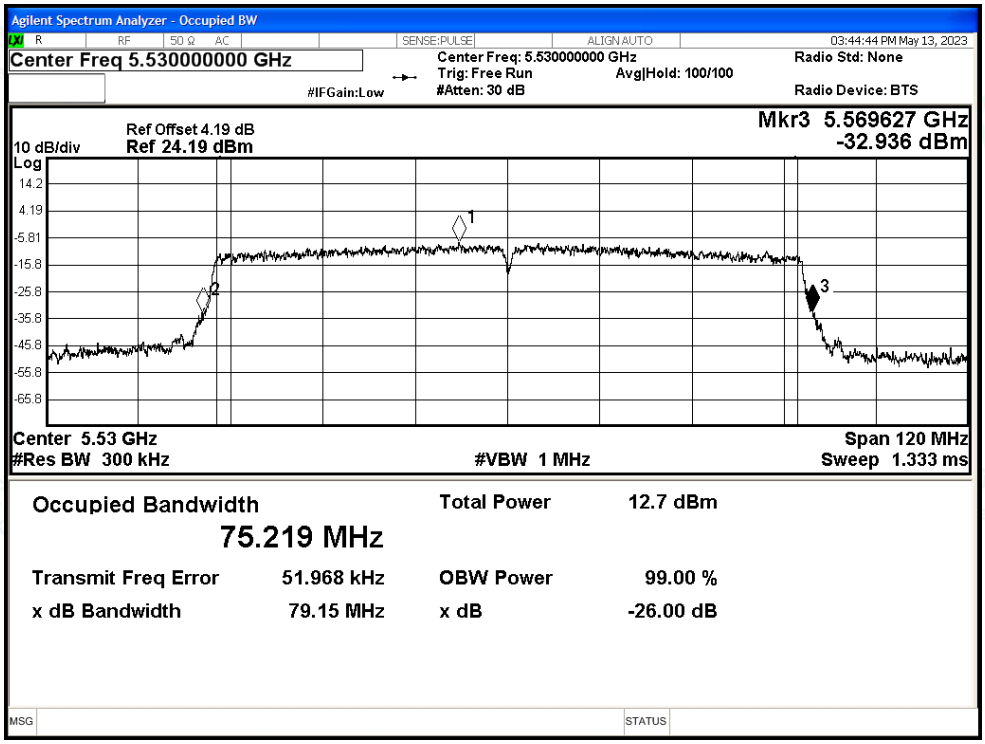
-26dB Bandwidth NVNT ac40 5550MHz Ant0



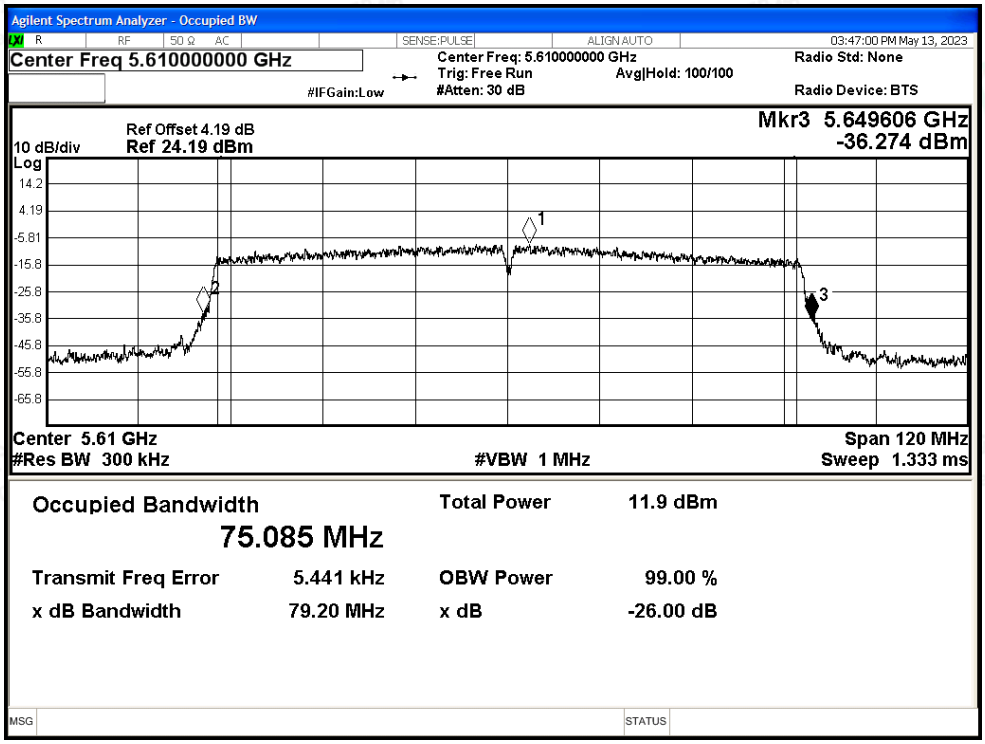
-26dB Bandwidth NVNT ac40 5670MHz Ant0



-26dB Bandwidth NVNT ac80 5530MHz Ant0



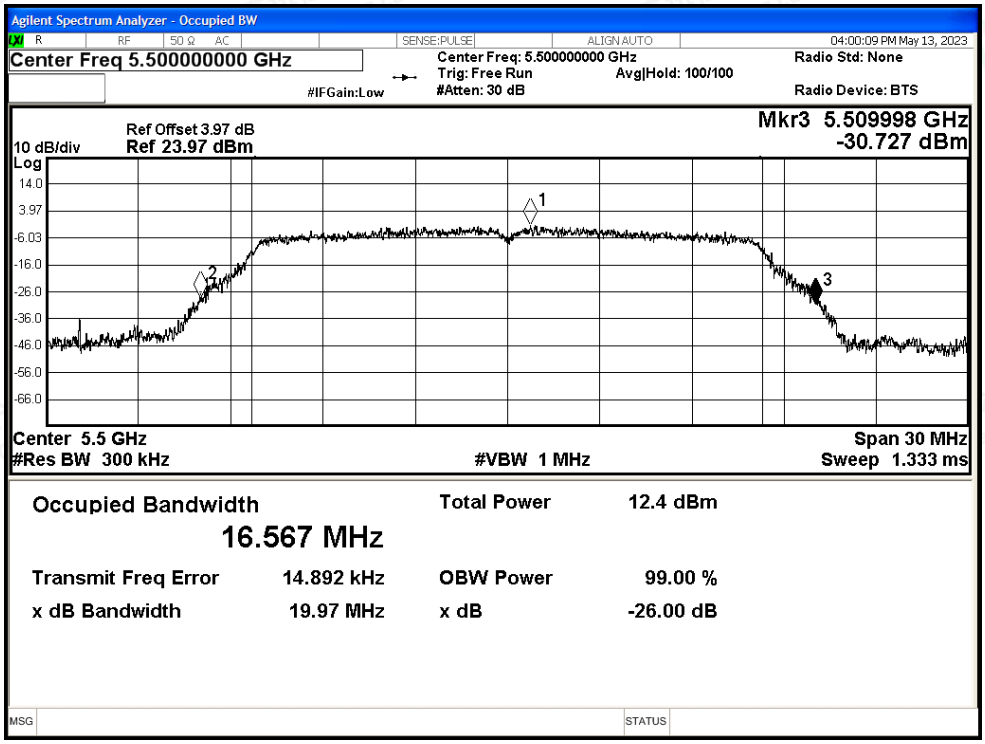
-26dB Bandwidth NVNT ac80 5610MHz Ant0



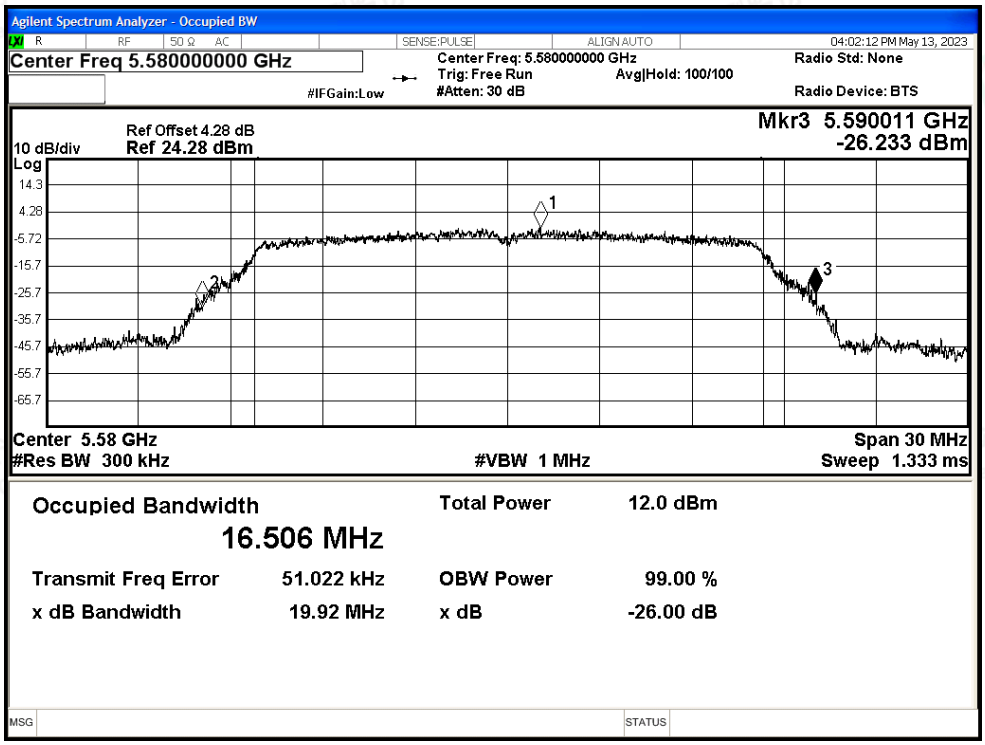
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5500	Ant1	19.966	>=0.5	Pass
NVNT	a	5580	Ant1	19.92	>=0.5	Pass
NVNT	a	5700	Ant1	20.172	>=0.5	Pass
NVNT	n20	5500	Ant1	20.265	>=0.5	Pass
NVNT	n20	5580	Ant1	20.661	>=0.5	Pass
NVNT	n20	5700	Ant1	20.414	>=0.5	Pass
NVNT	n40	5510	Ant1	39.615	>=0.5	Pass
NVNT	n40	5550	Ant1	39.762	>=0.5	Pass
NVNT	n40	5670	Ant1	39.176	>=0.5	Pass
NVNT	ac20	5500	Ant1	20.528	>=0.5	Pass
NVNT	ac20	5580	Ant1	20.31	>=0.5	Pass
NVNT	ac20	5700	Ant1	20.239	>=0.5	Pass
NVNT	ac40	5510	Ant1	39.651	>=0.5	Pass
NVNT	ac40	5550	Ant1	39.884	>=0.5	Pass
NVNT	ac40	5670	Ant1	40.115	>=0.5	Pass
NVNT	ac80	5530	Ant1	79.524	>=0.5	Pass
NVNT	ac80	5610	Ant1	79.434	>=0.5	Pass

Test Graphs

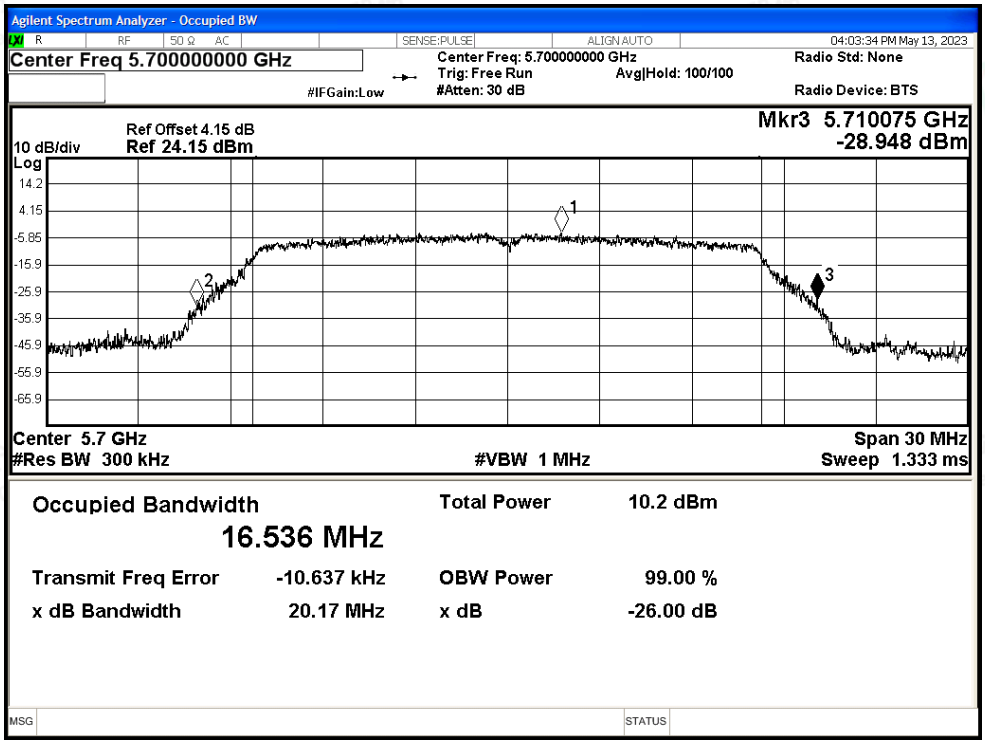
-26dB Bandwidth NVNT a 5500MHz Ant1



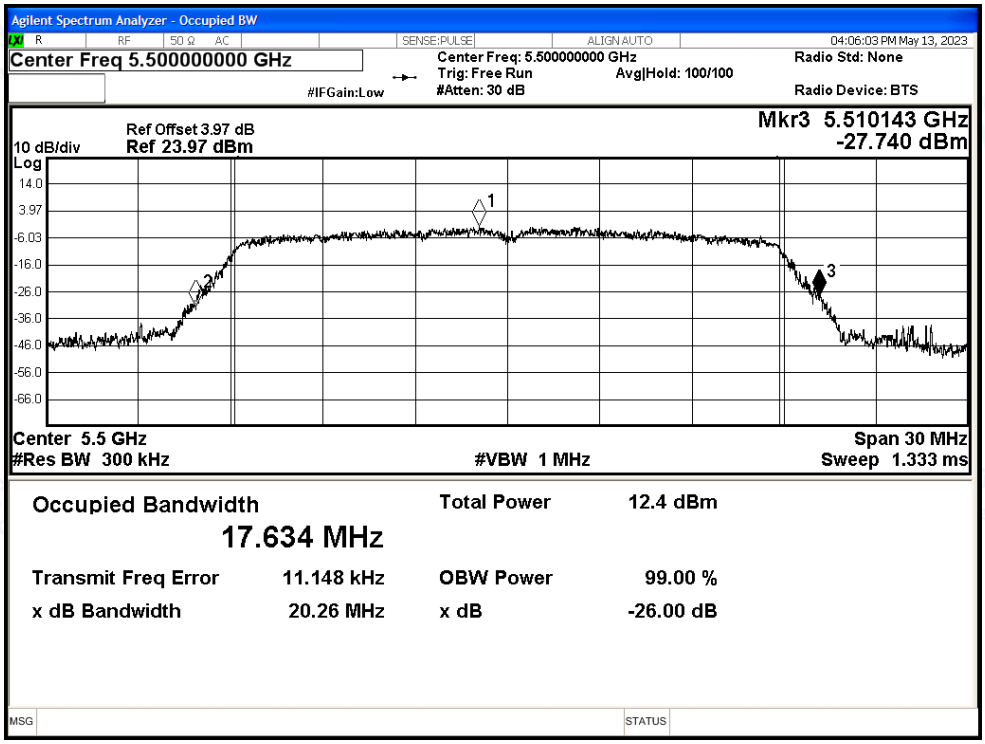
-26dB Bandwidth NVNT a 5580MHz Ant1



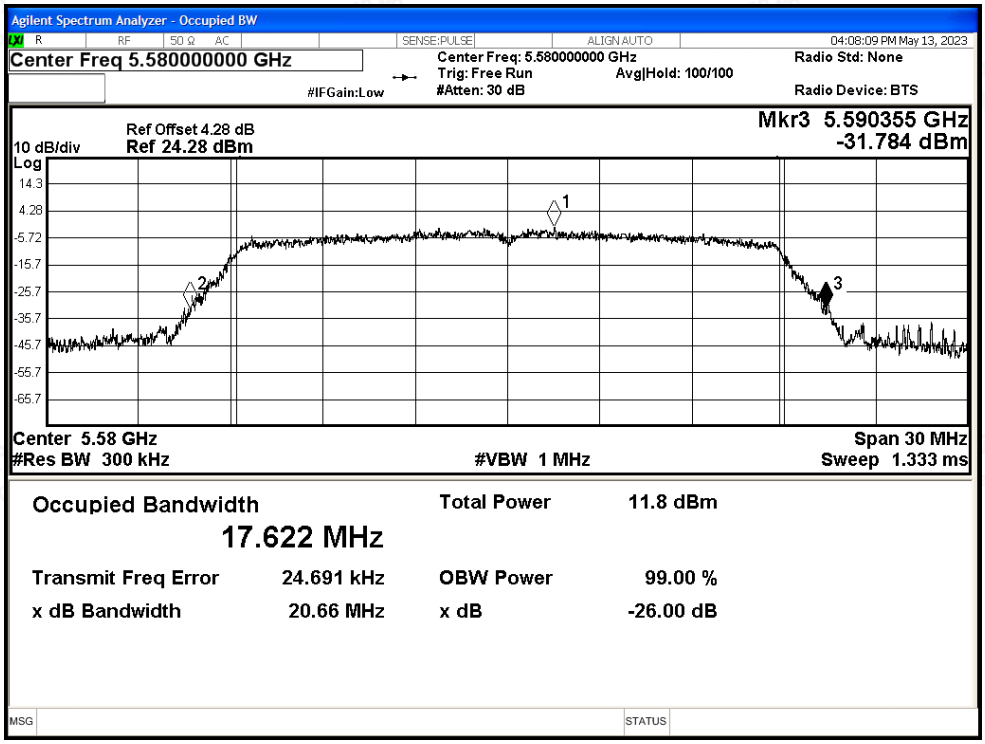
-26dB Bandwidth NVNT a 5700MHz Ant1



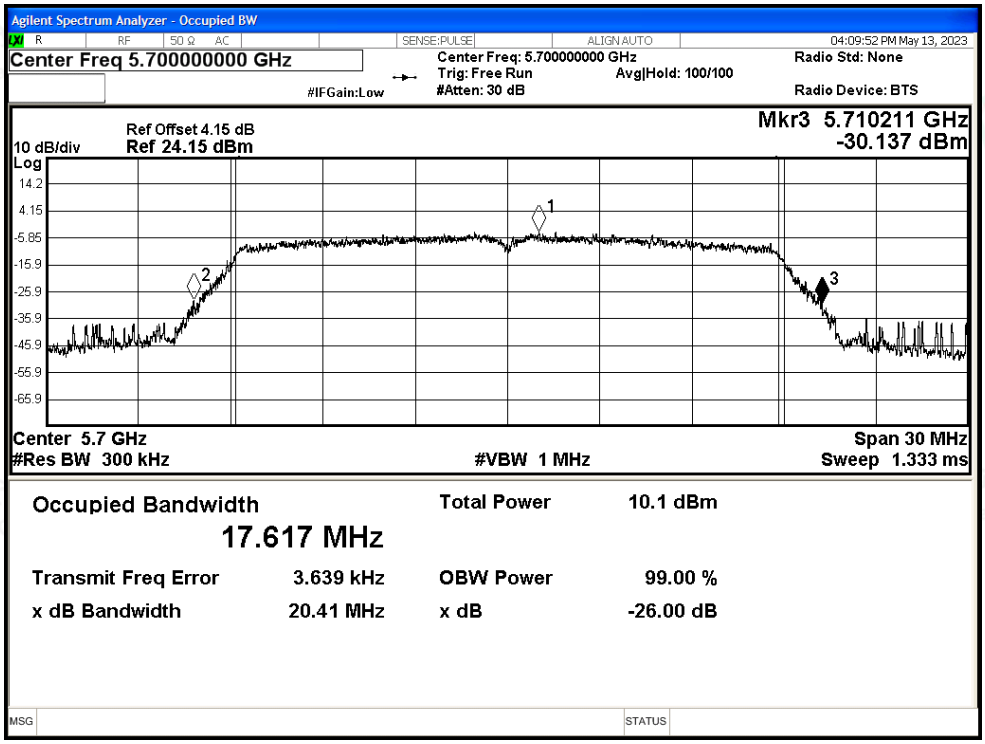
-26dB Bandwidth NVNT n20 5500MHz Ant1



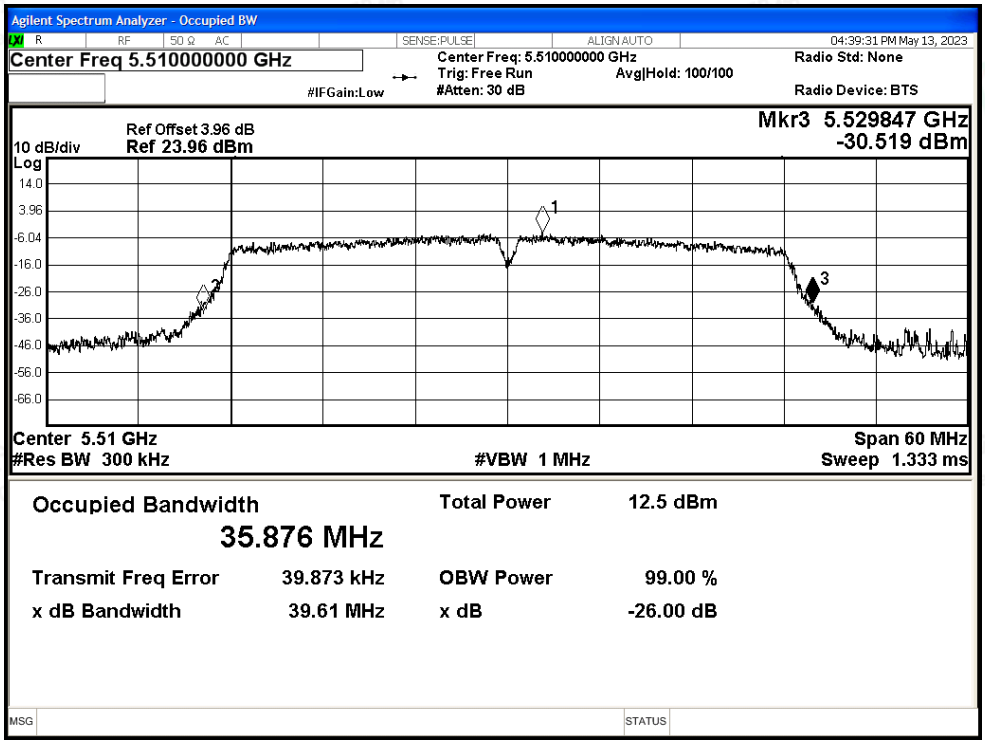
-26dB Bandwidth NVNT n20 5580MHz Ant1



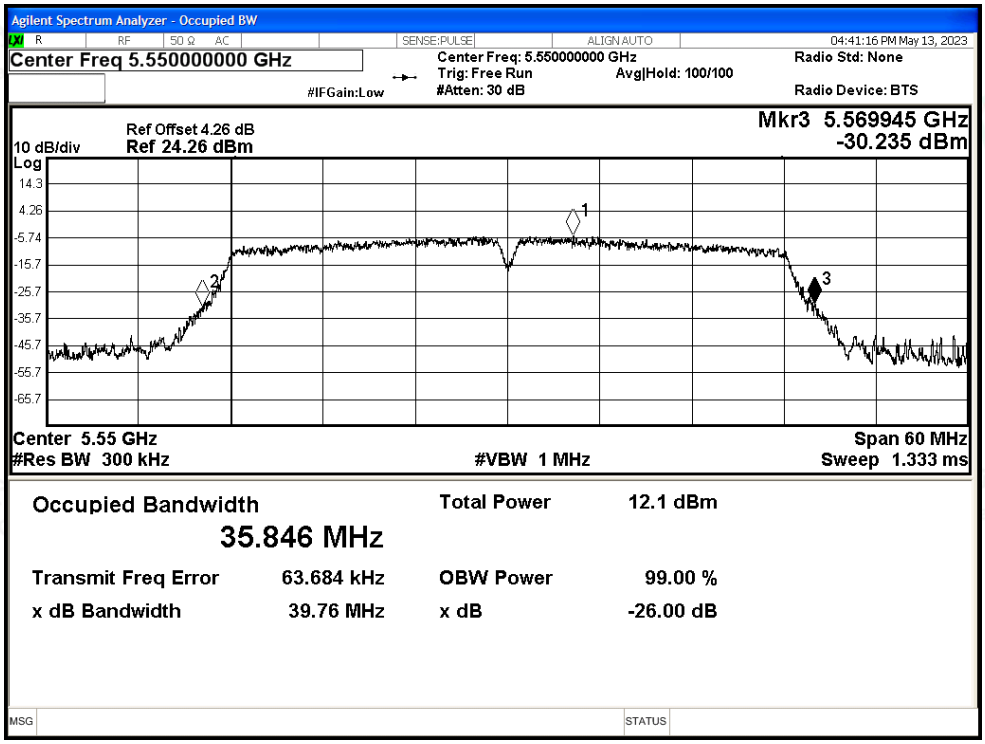
-26dB Bandwidth NVNT n20 5700MHz Ant1



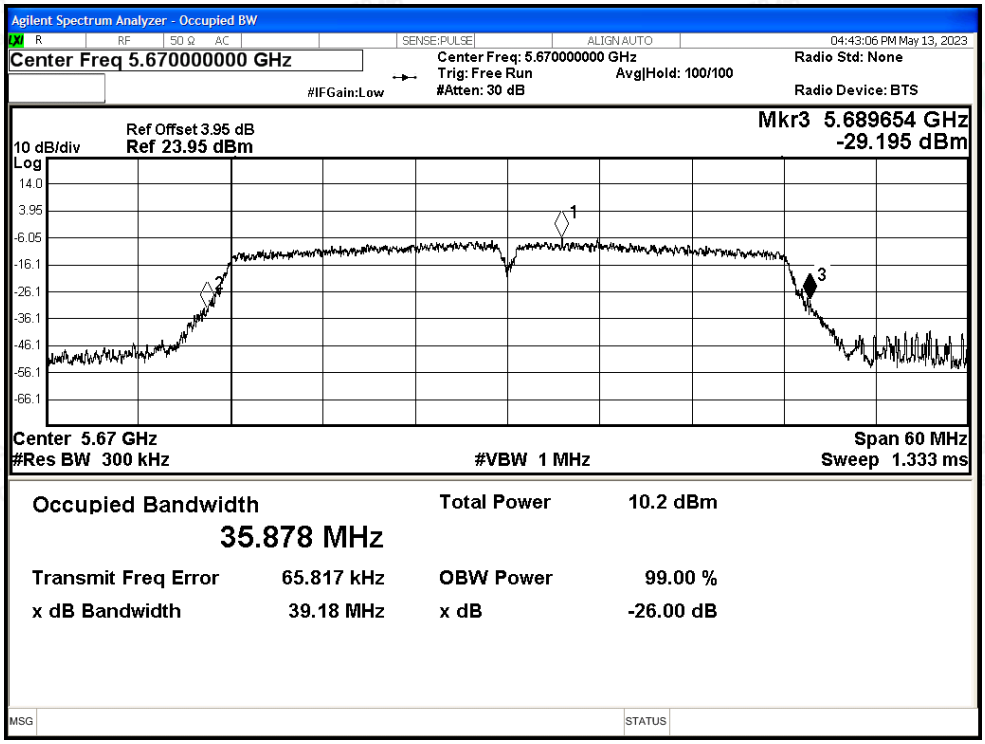
-26dB Bandwidth NVNT n40 5510MHz Ant1



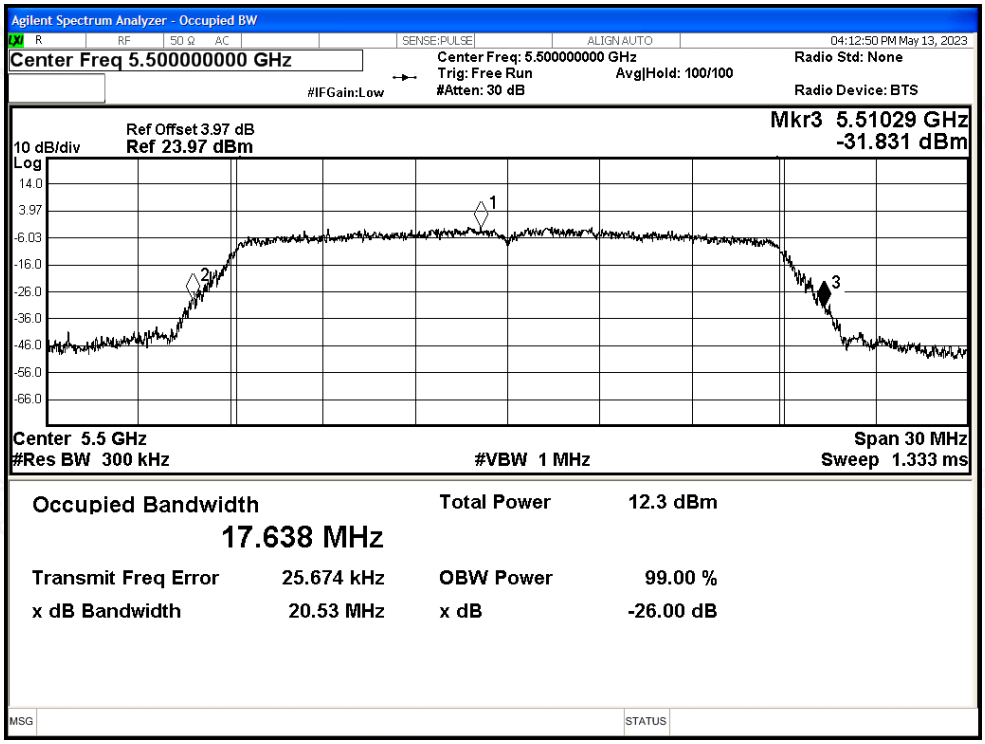
-26dB Bandwidth NVNT n40 5550MHz Ant1



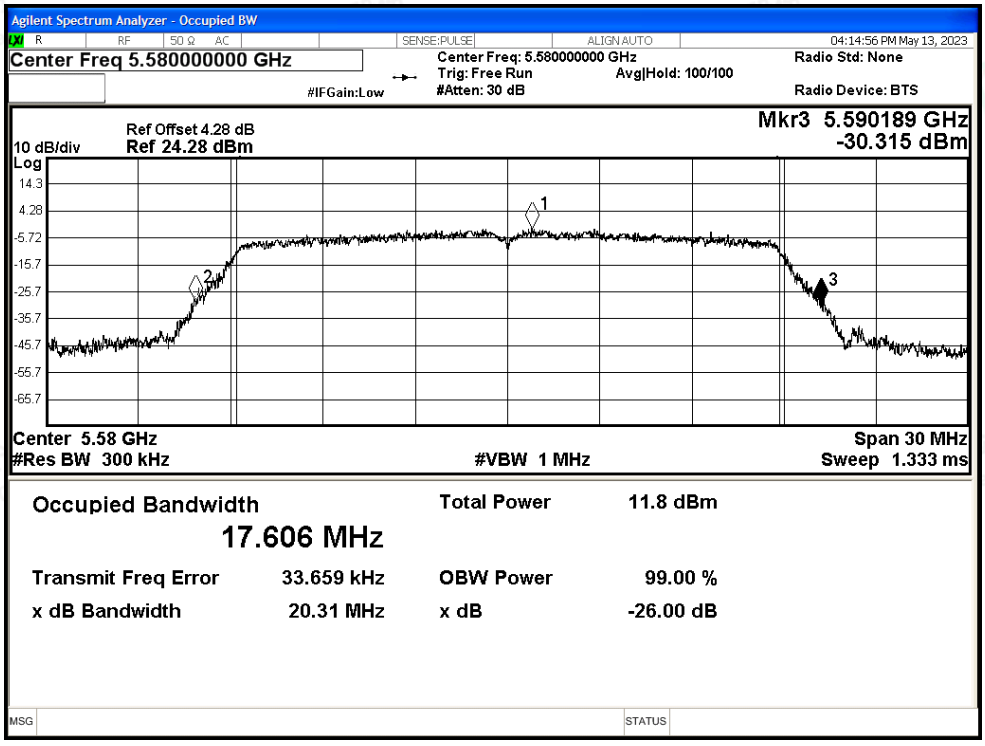
-26dB Bandwidth NVNT n40 5670MHz Ant1



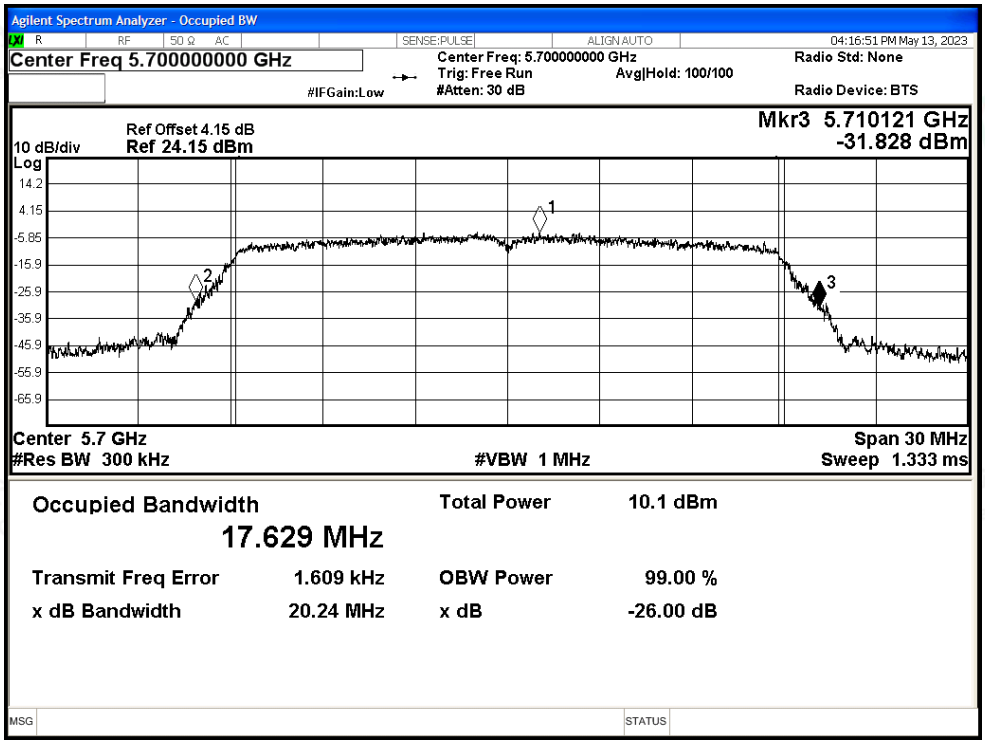
-26dB Bandwidth NVNT ac20 5500MHz Ant1



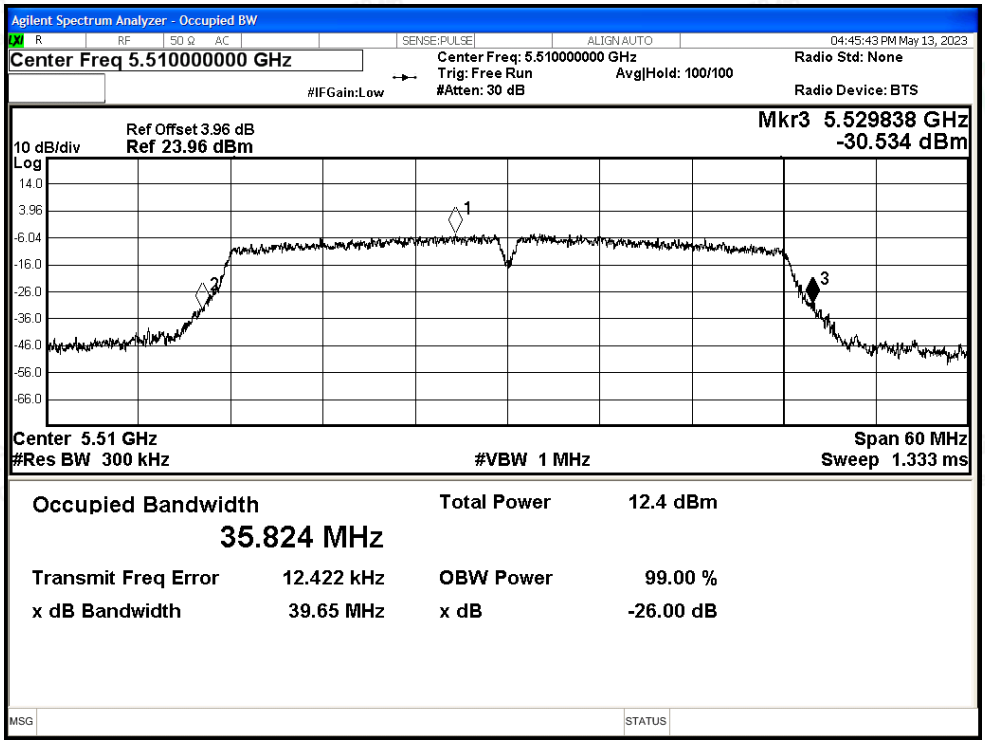
-26dB Bandwidth NVNT ac20 5580MHz Ant1



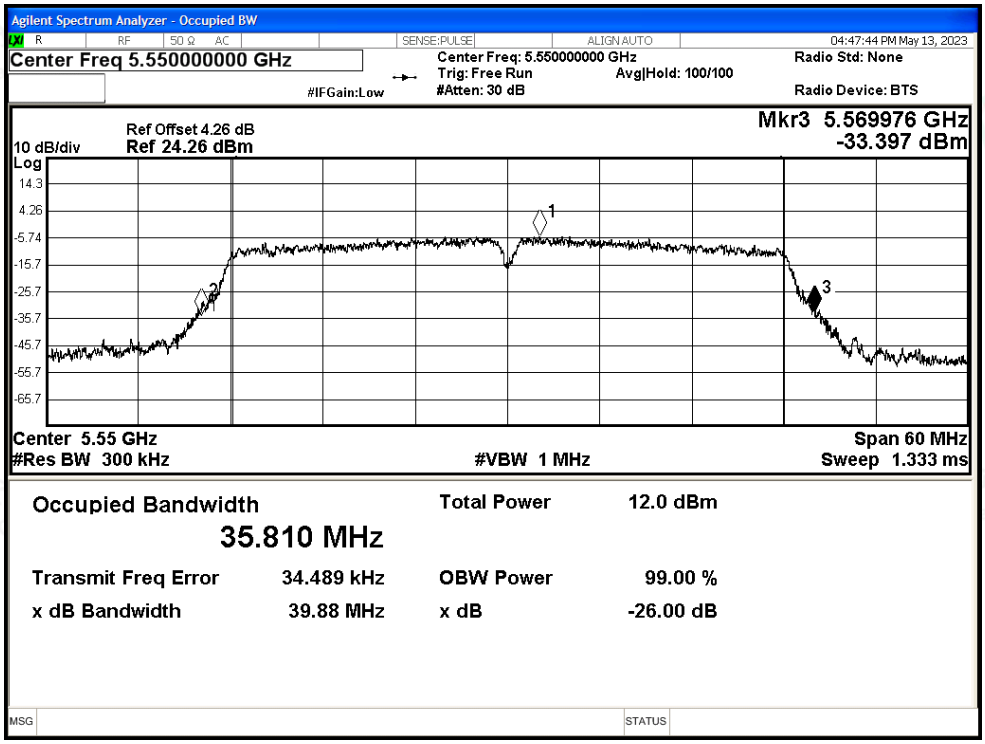
-26dB Bandwidth NVNT ac20 5700MHz Ant1



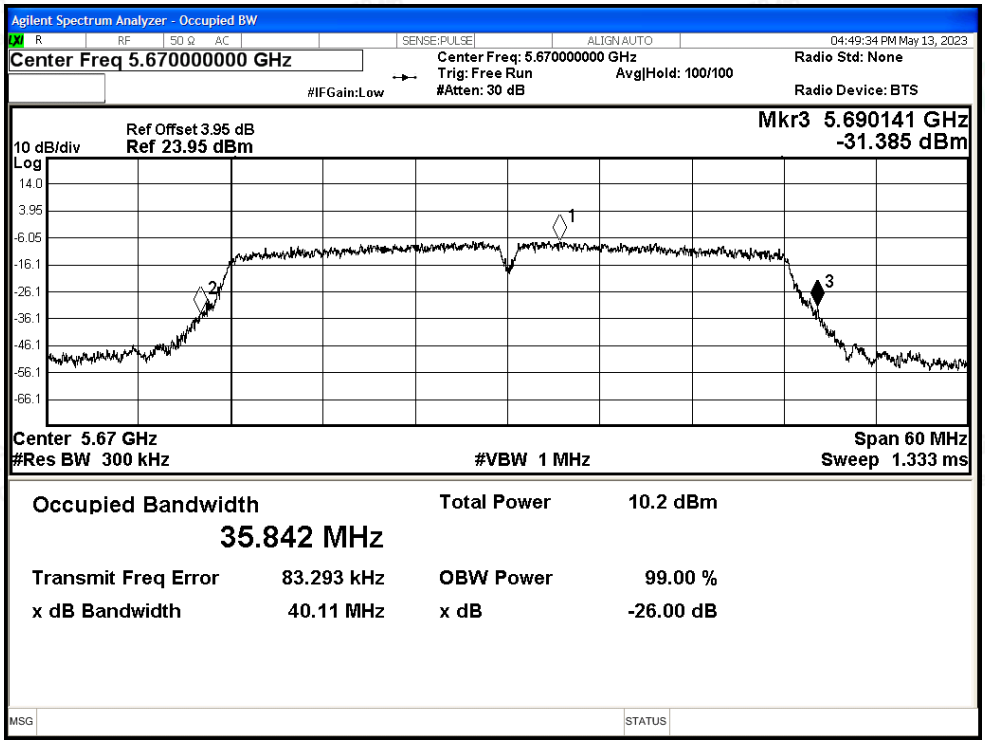
-26dB Bandwidth NVNT ac40 5510MHz Ant1



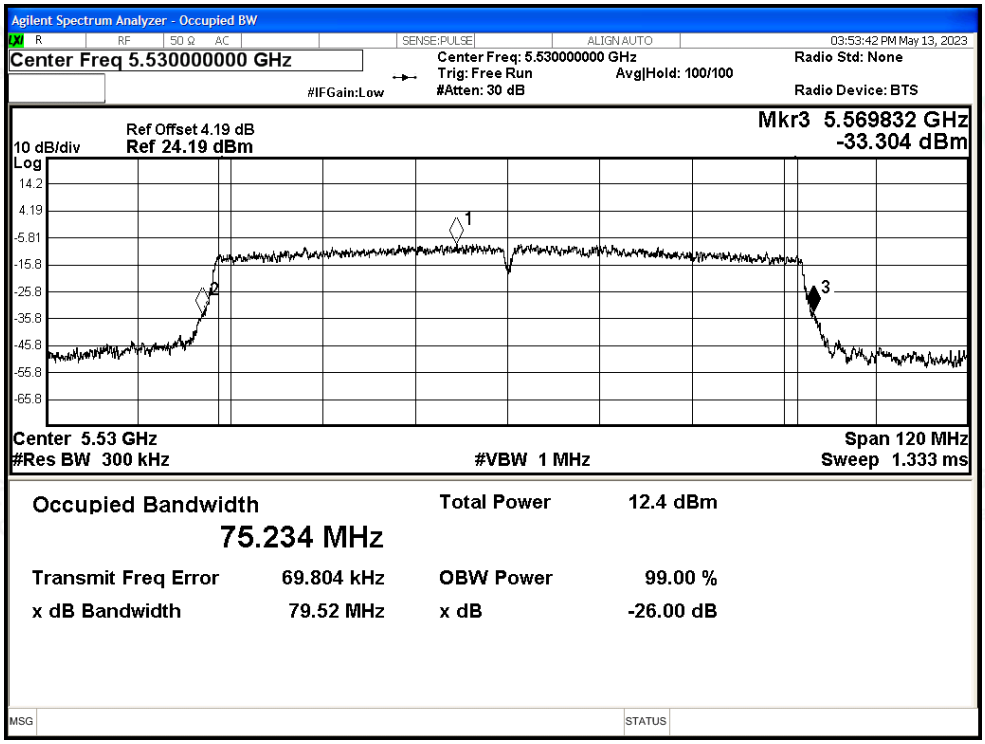
-26dB Bandwidth NVNT ac40 5550MHz Ant1



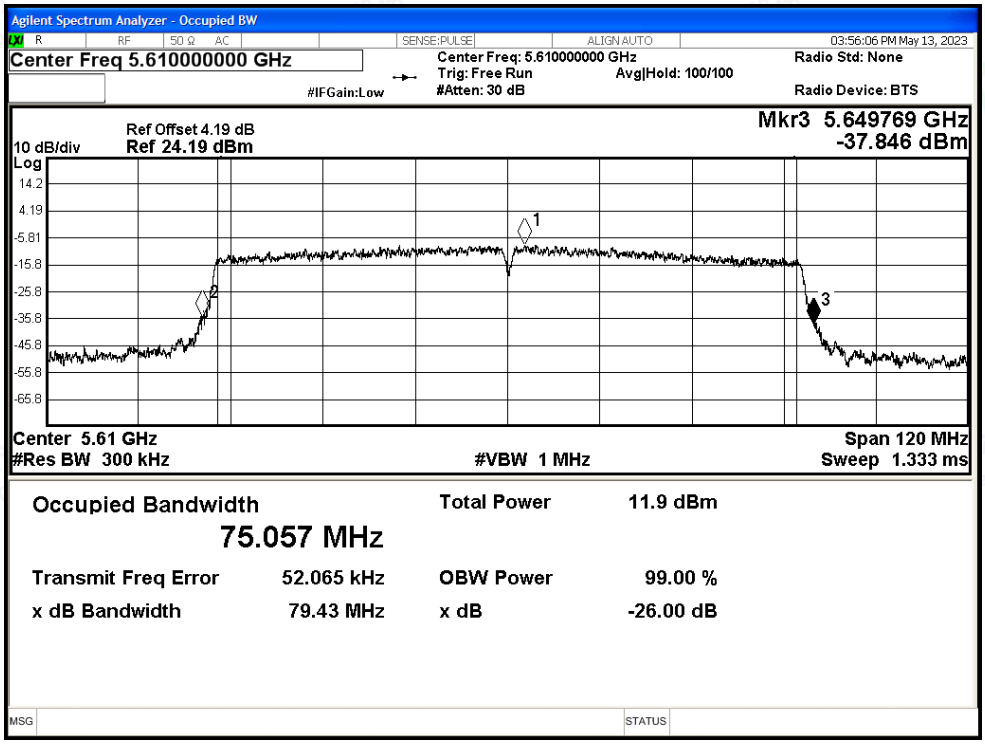
-26dB Bandwidth NVNT ac40 5670MHz Ant1



-26dB Bandwidth NVNT ac80 5530MHz Ant1



-26dB Bandwidth NVNT ac80 5610MHz Ant1



F.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5500	Ant0	6.74	0.13	6.87	24	Pass
NVNT	a	5580	Ant0	6.3	0.13	6.43	24	Pass
NVNT	a	5700	Ant0	4.54	0.13	4.67	24	Pass
NVNT	n20	5500	Ant0	6.65	0.15	6.8	24	Pass
NVNT	n20	5580	Ant0	6.2	0.14	6.34	24	Pass
NVNT	n20	5700	Ant0	4.49	0.14	4.63	24	Pass
NVNT	n40	5510	Ant0	6.37	0.28	6.65	24	Pass
NVNT	n40	5550	Ant0	5.97	0.28	6.25	24	Pass
NVNT	n40	5670	Ant0	4.14	0.29	4.43	24	Pass
NVNT	ac20	5500	Ant0	6.65	0.14	6.79	24	Pass
NVNT	ac20	5580	Ant0	6.15	0.14	6.29	24	Pass
NVNT	ac20	5700	Ant0	4.45	0.14	4.59	24	Pass
NVNT	ac40	5510	Ant0	6.26	0.28	6.54	24	Pass
NVNT	ac40	5550	Ant0	6.13	0.28	6.41	24	Pass
NVNT	ac40	5670	Ant0	4.14	0.28	4.42	24	Pass
NVNT	ac80	5530	Ant0	5.97	0.55	6.52	24	Pass
NVNT	ac80	5610	Ant0	5.43	0.55	5.98	24	Pass

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5500	Ant1	6.79	0.14	6.93	24	Pass
NVNT	a	5580	Ant1	6.31	0.13	6.44	24	Pass
NVNT	a	5700	Ant1	4.59	0.13	4.72	24	Pass
NVNT	n20	5500	Ant1	6.67	0.14	6.81	24	Pass
NVNT	n20	5580	Ant1	6.13	0.14	6.27	24	Pass
NVNT	n20	5700	Ant1	4.48	0.14	4.62	24	Pass
NVNT	n40	5510	Ant1	6.65	0.27	6.92	24	Pass
NVNT	n40	5550	Ant1	6.15	0.29	6.44	24	Pass
NVNT	n40	5670	Ant1	4.29	0.29	4.58	24	Pass
NVNT	ac20	5500	Ant1	6.63	0.14	6.77	24	Pass
NVNT	ac20	5580	Ant1	6.12	0.14	6.26	24	Pass
NVNT	ac20	5700	Ant1	4.41	0.14	4.55	24	Pass
NVNT	ac40	5510	Ant1	6.39	0.28	6.67	24	Pass
NVNT	ac40	5550	Ant1	5.93	0.28	6.21	24	Pass
NVNT	ac40	5670	Ant1	4.22	0.28	4.5	24	Pass
NVNT	ac80	5530	Ant1	5.83	0.55	6.38	24	Pass
NVNT	ac80	5610	Ant1	5.49	0.55	6.04	24	Pass

MIMO

Condition	Mode	Frequency (MHz)	Total Power (dBm)			Limit (dBm)	Verdict
			Ant0	Ant1	Ant0+Ant1		
NVNT	n20	5500	6.8	6.81	9.82	24	Pass
NVNT	n20	5580	6.34	6.27	9.32	24	Pass
NVNT	n20	5700	4.63	4.62	7.64	24	Pass
NVNT	n40	5510	6.65	6.92	9.80	24	Pass
NVNT	n40	5550	6.25	6.44	9.36	24	Pass
NVNT	n40	5670	4.43	4.58	7.52	24	Pass
NVNT	ac20	5500	6.79	6.77	9.79	24	Pass
NVNT	ac20	5580	6.29	6.26	9.29	24	Pass
NVNT	ac20	5700	4.59	4.55	7.58	24	Pass
NVNT	ac40	5510	6.54	6.67	9.62	24	Pass
NVNT	ac40	5550	6.41	6.21	9.32	24	Pass
NVNT	ac40	5670	4.42	4.5	7.47	24	Pass
NVNT	ac80	5530	6.52	6.38	9.46	24	Pass
NVNT	ac80	5610	5.98	6.04	9.02	24	Pass

F.3 Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5500	Ant0	-2.73	0.13	-2.6	11	Pass
NVNT	a	5580	Ant0	-3.21	0.13	-3.08	11	Pass
NVNT	a	5700	Ant0	-5.24	0.13	-5.11	11	Pass
NVNT	n20	5500	Ant0	-3.18	0.15	-3.03	11	Pass
NVNT	n20	5580	Ant0	-3.68	0.14	-3.54	11	Pass
NVNT	n20	5700	Ant0	-5.13	0.14	-4.99	11	Pass
NVNT	n40	5510	Ant0	-5.99	0.28	-5.71	11	Pass
NVNT	n40	5550	Ant0	-6.8	0.28	-6.52	11	Pass
NVNT	n40	5670	Ant0	-8.68	0.29	-8.39	11	Pass
NVNT	ac20	5500	Ant0	-3	0.14	-2.86	11	Pass
NVNT	ac20	5580	Ant0	-3.76	0.14	-3.62	11	Pass
NVNT	ac20	5700	Ant0	-5.36	0.14	-5.22	11	Pass
NVNT	ac40	5510	Ant0	-6.09	0.28	-5.81	11	Pass
NVNT	ac40	5550	Ant0	-6.31	0.28	-6.03	11	Pass
NVNT	ac40	5670	Ant0	-8.76	0.28	-8.48	11	Pass
NVNT	ac80	5530	Ant0	-9.99	0.55	-9.44	11	Pass
NVNT	ac80	5610	Ant0	-10.01	0.55	-9.46	11	Pass

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5500	Ant1	-2.86	0.14	-2.72	11	Pass
NVNT	a	5580	Ant1	-3.34	0.13	-3.21	11	Pass
NVNT	a	5700	Ant1	-4.74	0.13	-4.61	11	Pass
NVNT	n20	5500	Ant1	-2.99	0.14	-2.85	11	Pass
NVNT	n20	5580	Ant1	-3.84	0.14	-3.7	11	Pass
NVNT	n20	5700	Ant1	-5.53	0.14	-5.39	11	Pass
NVNT	n40	5510	Ant1	-5.95	0.27	-5.68	11	Pass
NVNT	n40	5550	Ant1	-6.31	0.29	-6.02	11	Pass
NVNT	n40	5670	Ant1	-8.14	0.29	-7.85	11	Pass
NVNT	ac20	5500	Ant1	-3.21	0.14	-3.07	11	Pass
NVNT	ac20	5580	Ant1	-3.51	0.14	-3.37	11	Pass
NVNT	ac20	5700	Ant1	-5.57	0.14	-5.43	11	Pass
NVNT	ac40	5510	Ant1	-6.21	0.28	-5.93	11	Pass
NVNT	ac40	5550	Ant1	-6.52	0.28	-6.24	11	Pass
NVNT	ac40	5670	Ant1	-8.54	0.28	-8.26	11	Pass
NVNT	ac80	5530	Ant1	-10.15	0.55	-9.6	11	Pass
NVNT	ac80	5610	Ant1	-10.29	0.55	-9.74	11	Pass

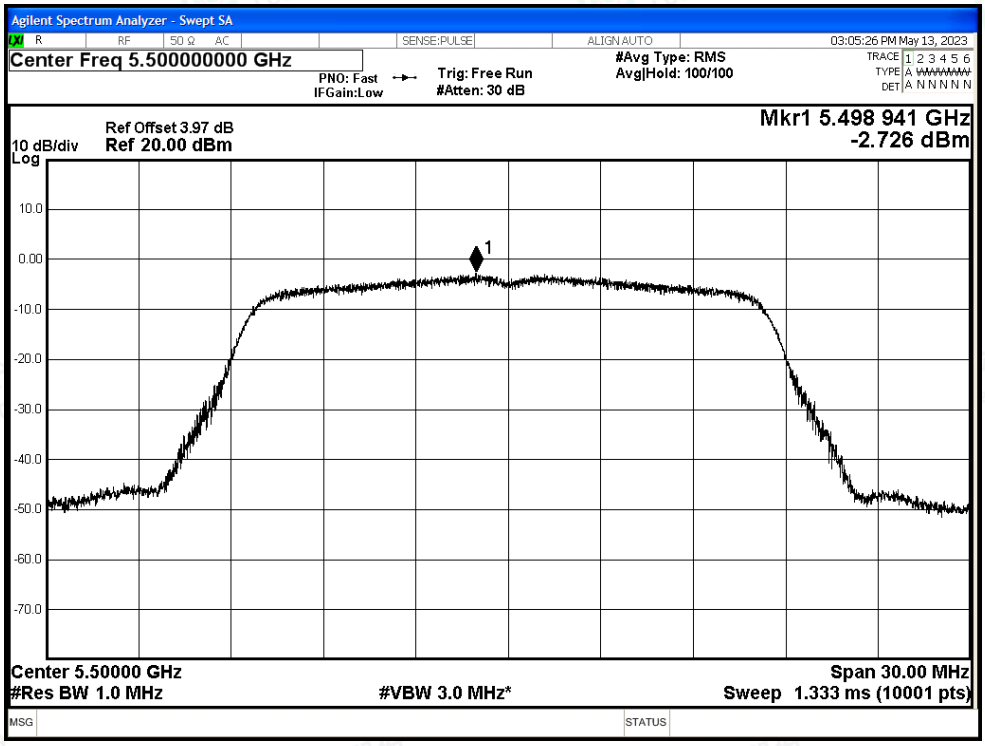
MIMO

Test Mode	Channel	Frequency (MHz)	Ant 0 Conducted Power (dBm/MHz)	Ant 1 Conducted Power (dBm/MHz)	MIMO AV Conducted Power (dBm/MHz)	Limit (dBm/MHz)	Verdict
n20	100	5500	-3.03	-2.85	0.07	10.79	Pass
	116	5580	-3.54	-3.7	-0.61	10.79	Pass
	140	5700	-4.99	-5.39	-2.18	10.79	Pass
N40	102	5510	-5.71	-5.68	-2.68	10.79	Pass
	110	5550	-6.52	-6.02	-3.25	10.79	Pass
	134	5670	-8.39	-7.85	-5.10	10.79	Pass
ac20	100	5500	-2.86	-3.07	0.05	10.79	Pass
	116	5580	-3.62	-3.37	-0.48	10.79	Pass
	140	5700	-5.22	-5.43	-2.31	10.79	Pass
ac40	102	5510	-5.81	-5.93	-2.86	10.79	Pass
	110	5550	-6.03	-6.24	-3.12	10.79	Pass
	134	5670	-8.48	-8.26	-5.36	10.79	Pass
ac80	106	5530	-9.44	-9.6	-6.51	10.79	Pass
ac80	122	5610	-9.46	-9.74	-6.59	10.79	Pass

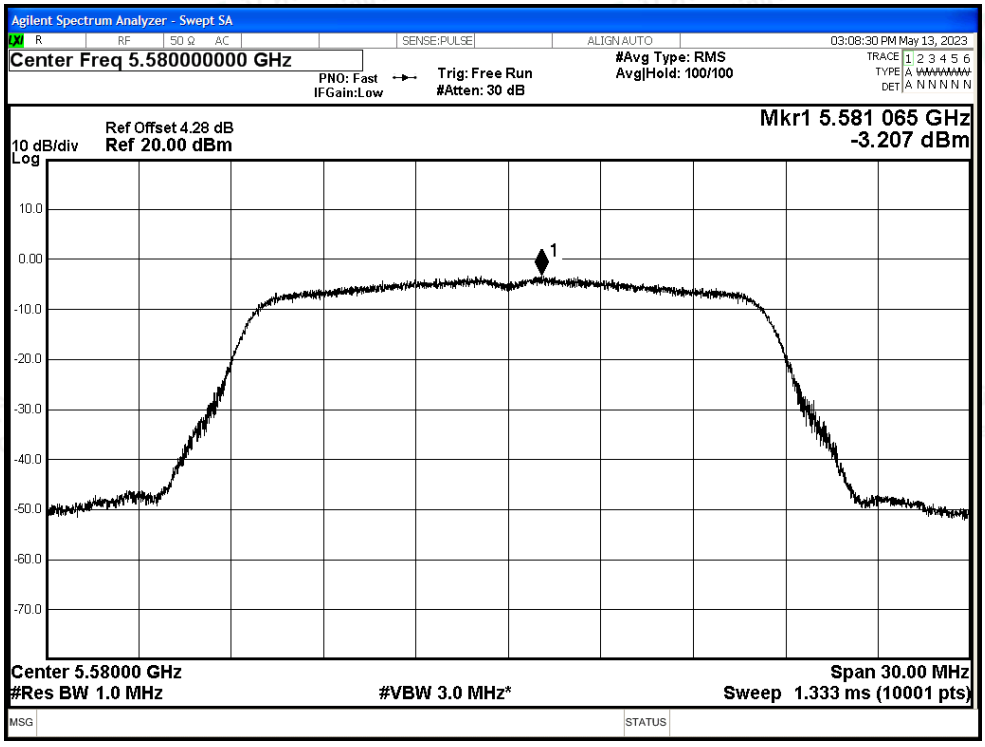
Note：The Duty Cycle Factor is compensated in the graph.

Test Graphs

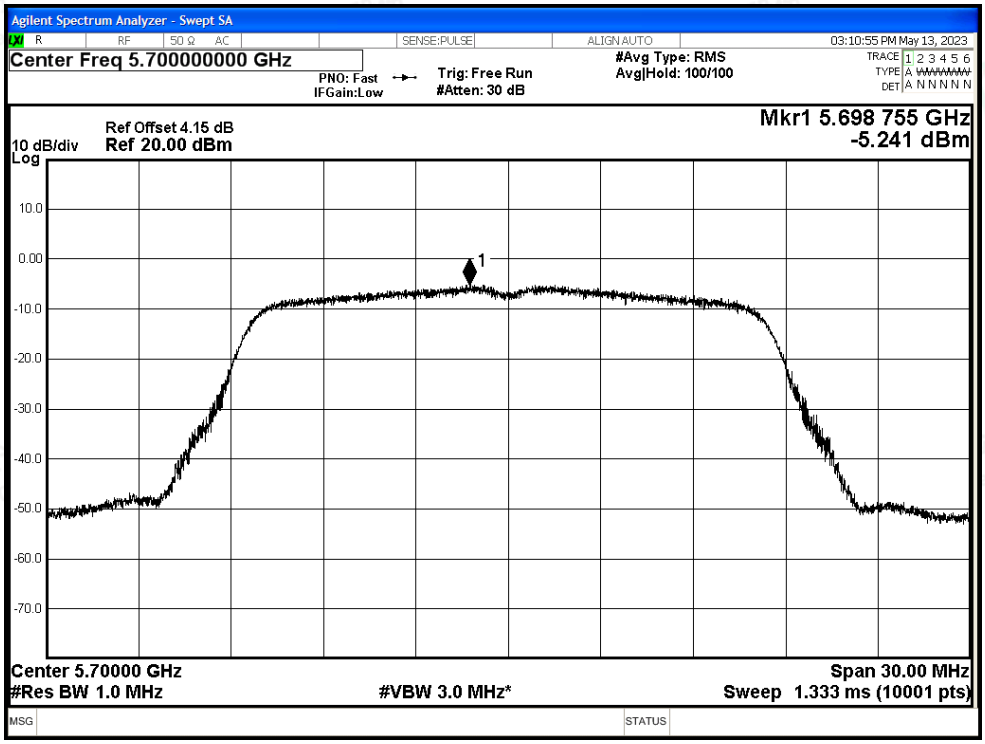
PSD NVNT a 5500MHz Ant0



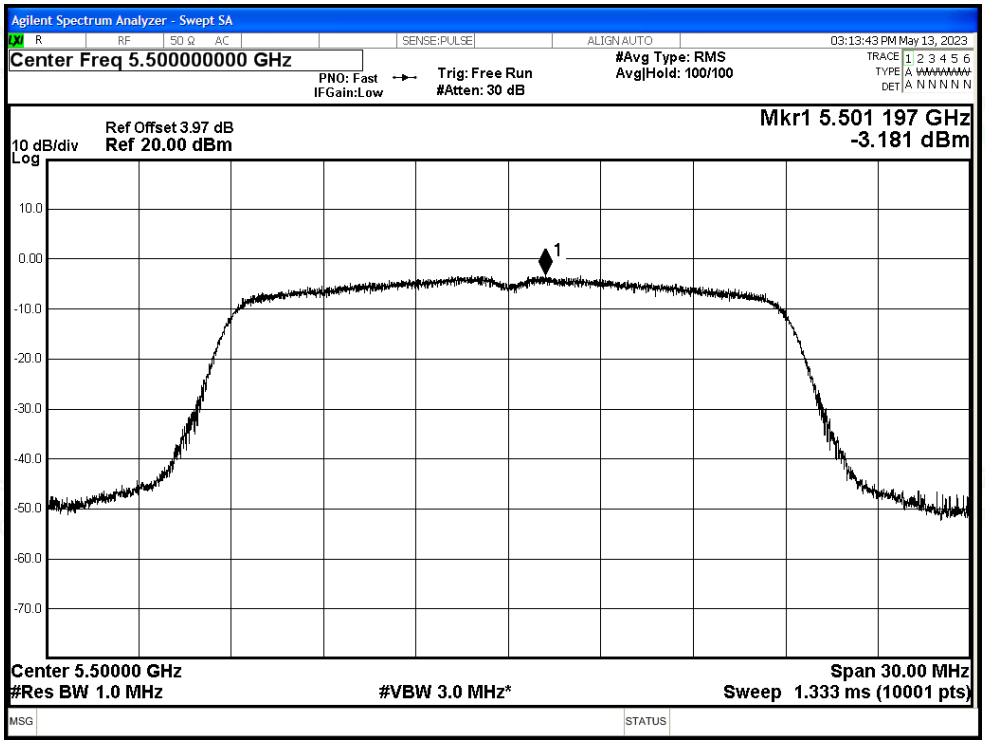
PSD NVNT a 5580MHz Ant0



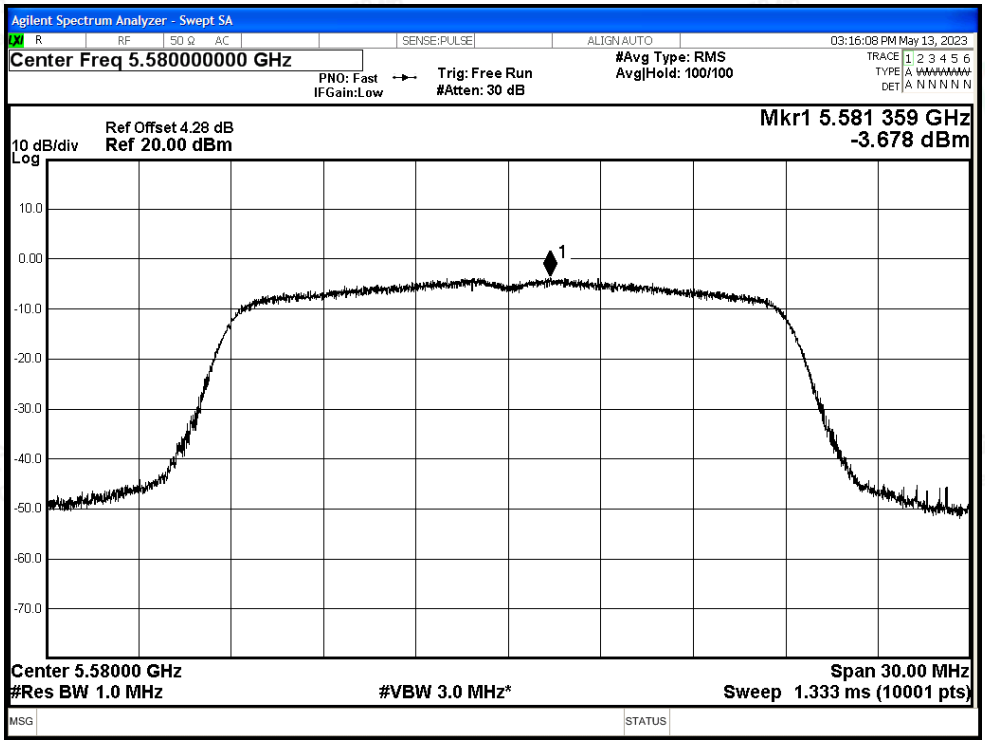
PSD NVNT a 5700MHz Ant0



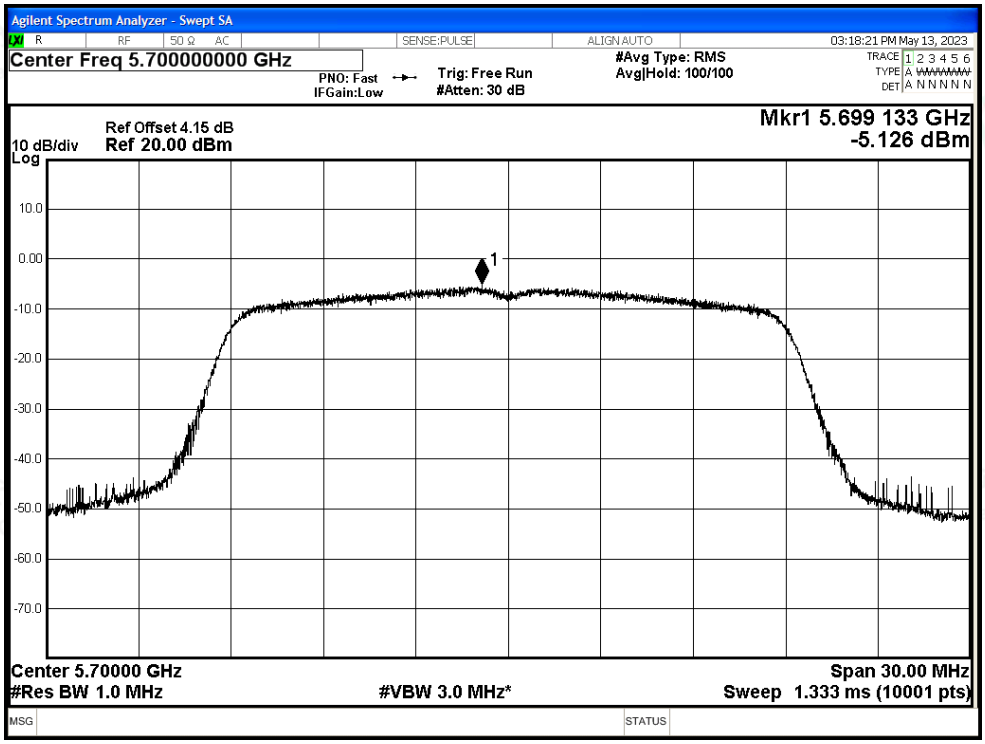
PSD NVNT n20 5500MHz Ant0



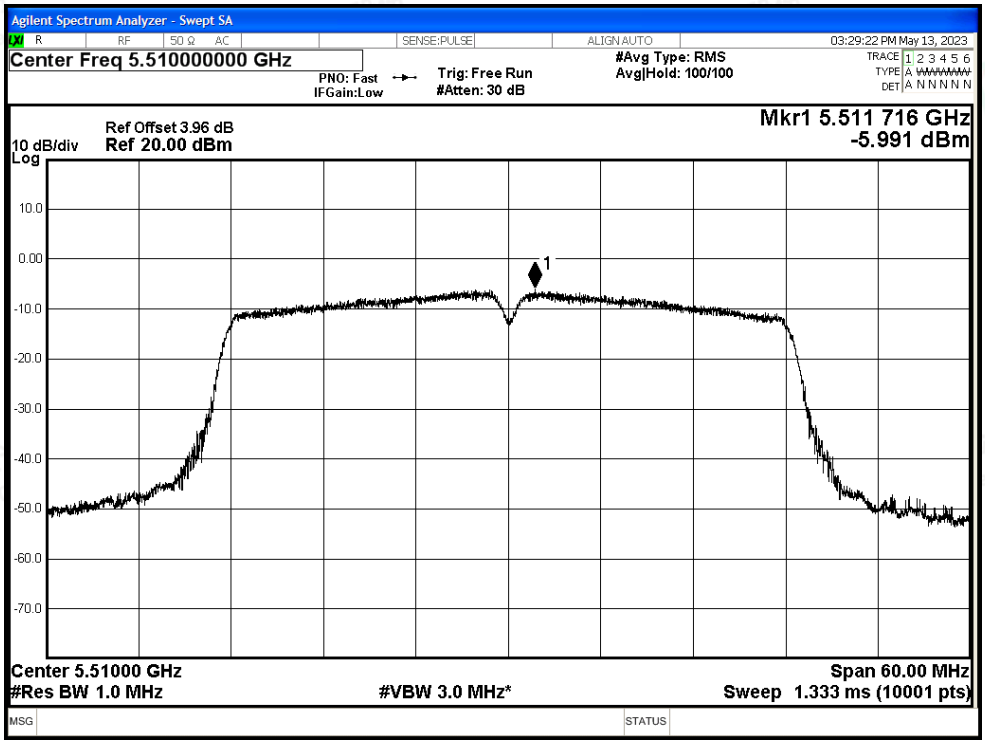
PSD NVNT n20 5580MHz Ant0



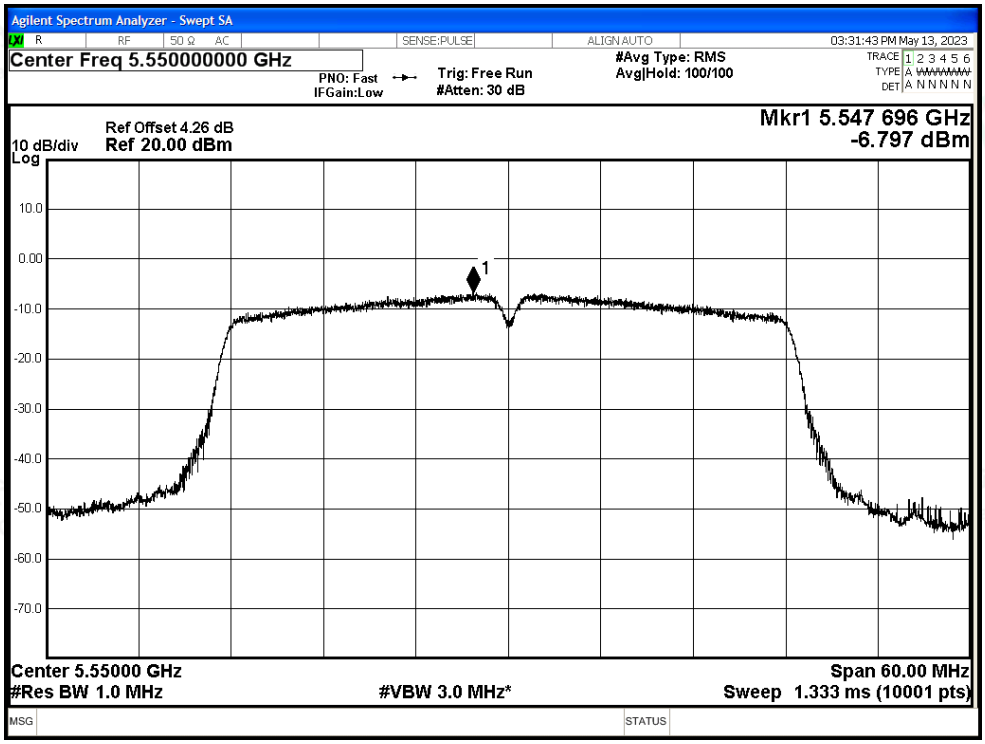
PSD NVNT n20 5700MHz Ant0



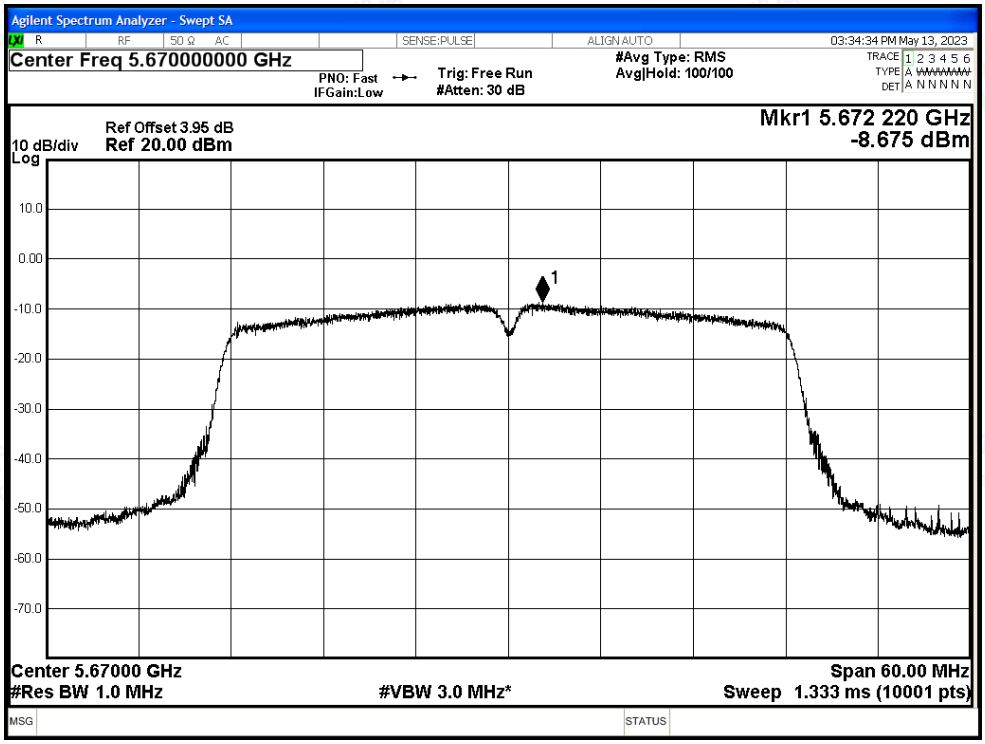
PSD NVNT n40 5510MHz Ant0



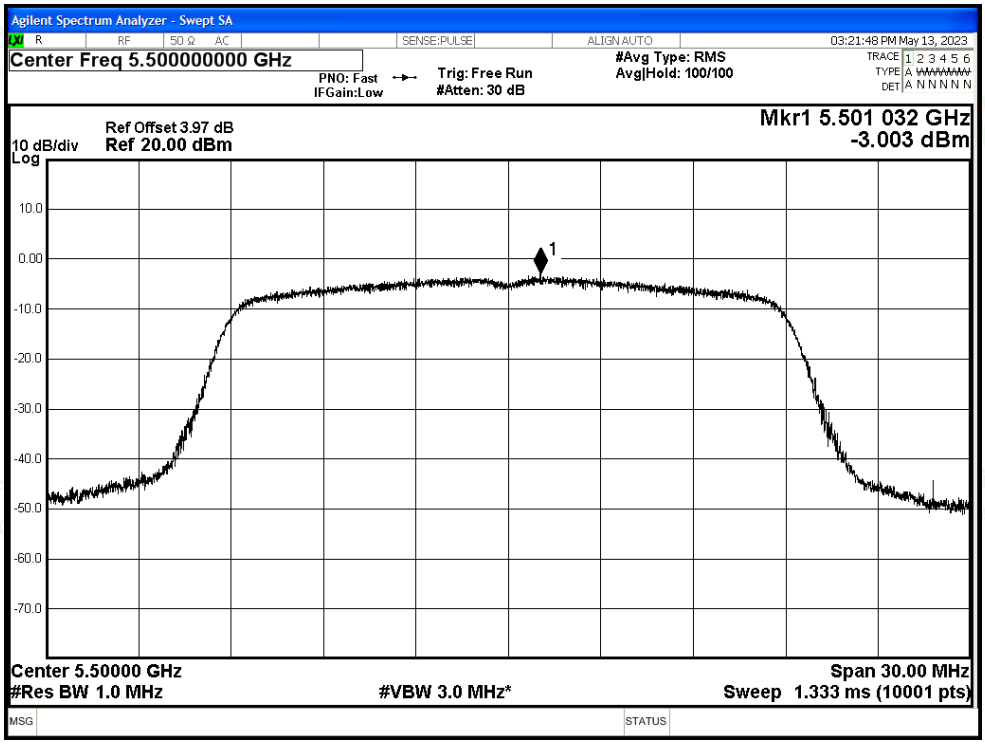
PSD NVNT n40 5550MHz Ant0



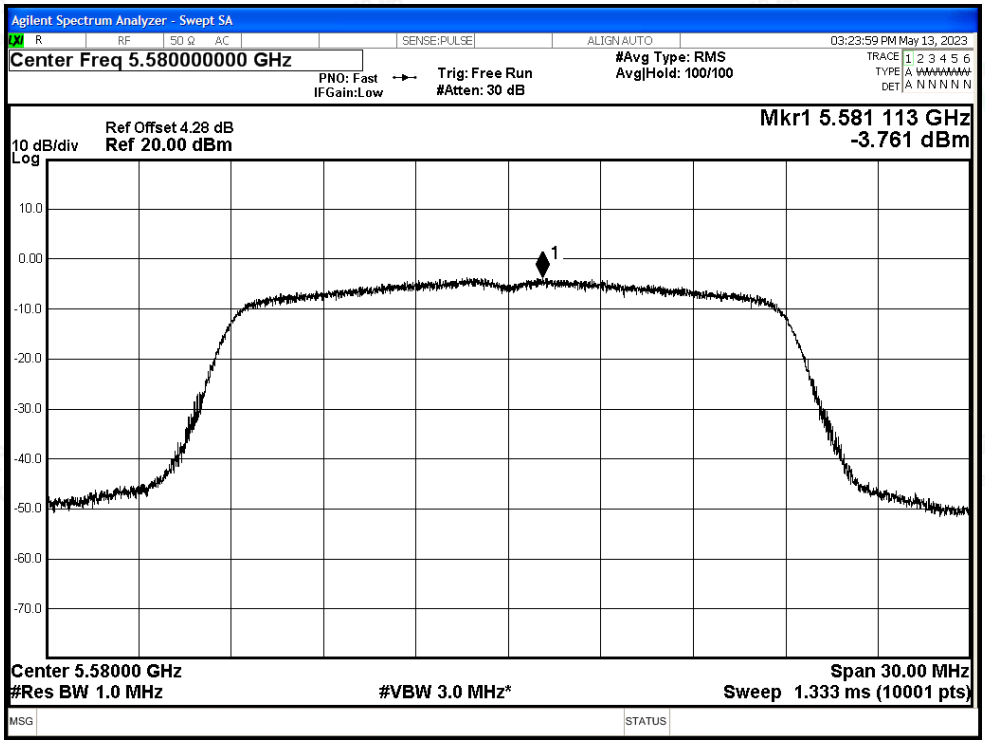
PSD NVNT n40 5670MHz Ant0



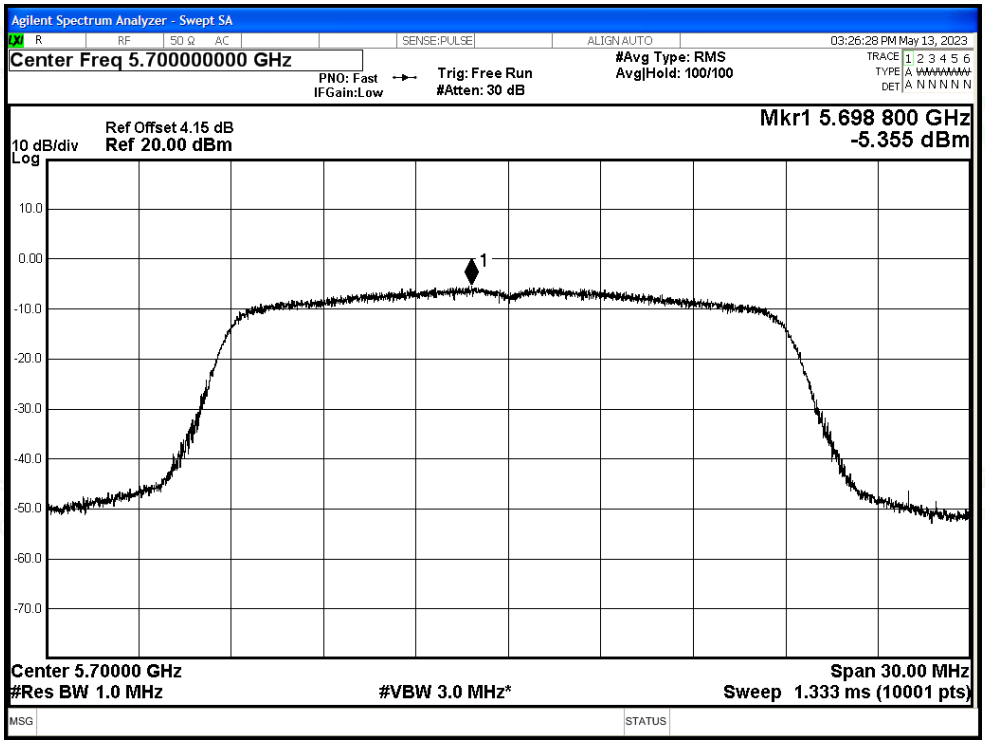
PSD NVNT ac20 5500MHz Ant0



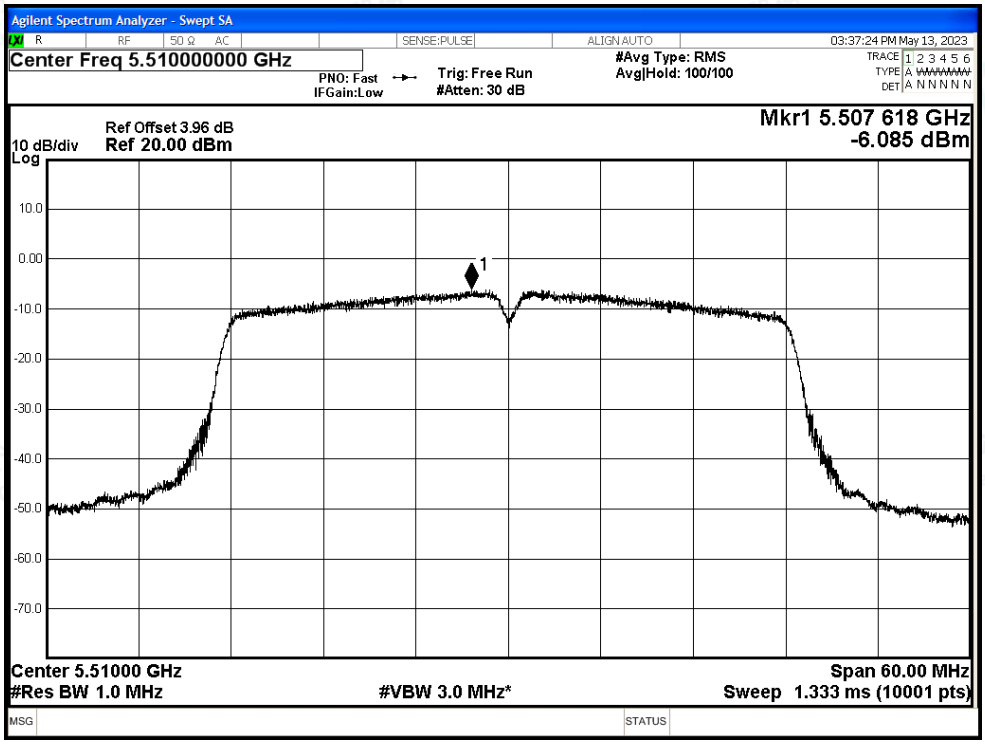
PSD NVNT ac20 5580MHz Ant0



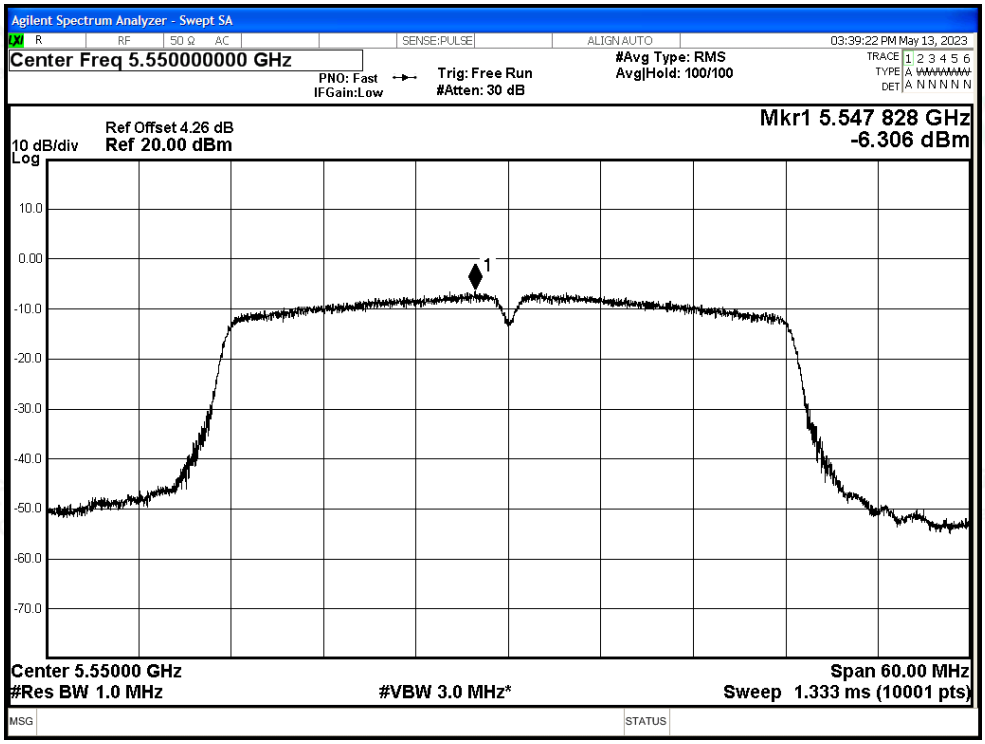
PSD NVNT ac20 5700MHz Ant0



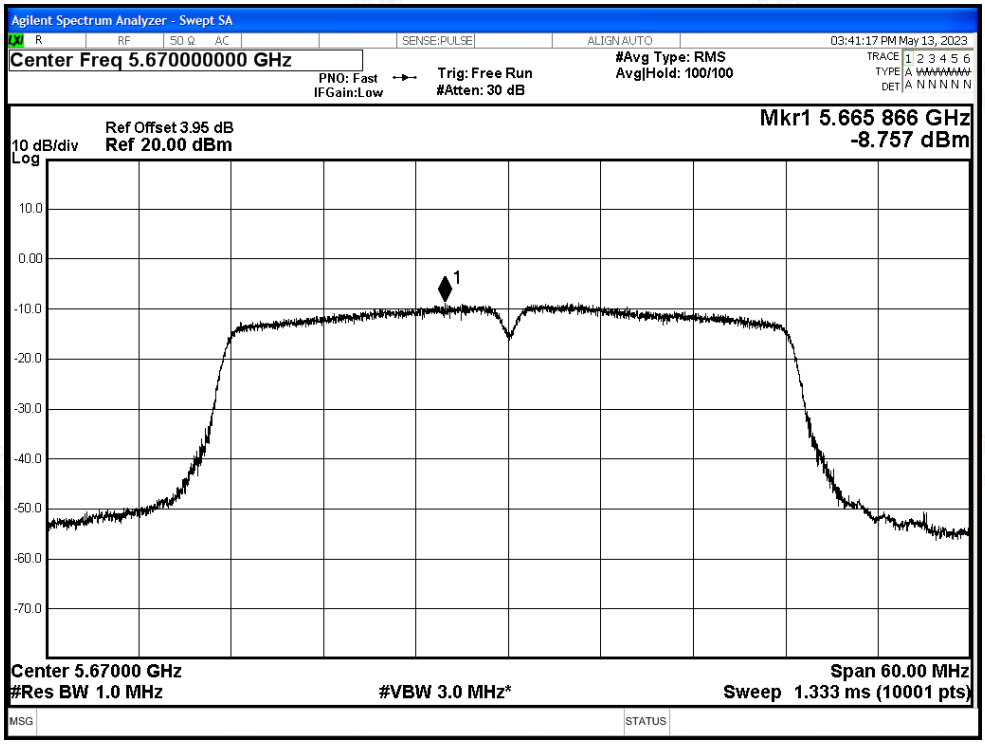
PSD NVNT ac40 5510MHz Ant0



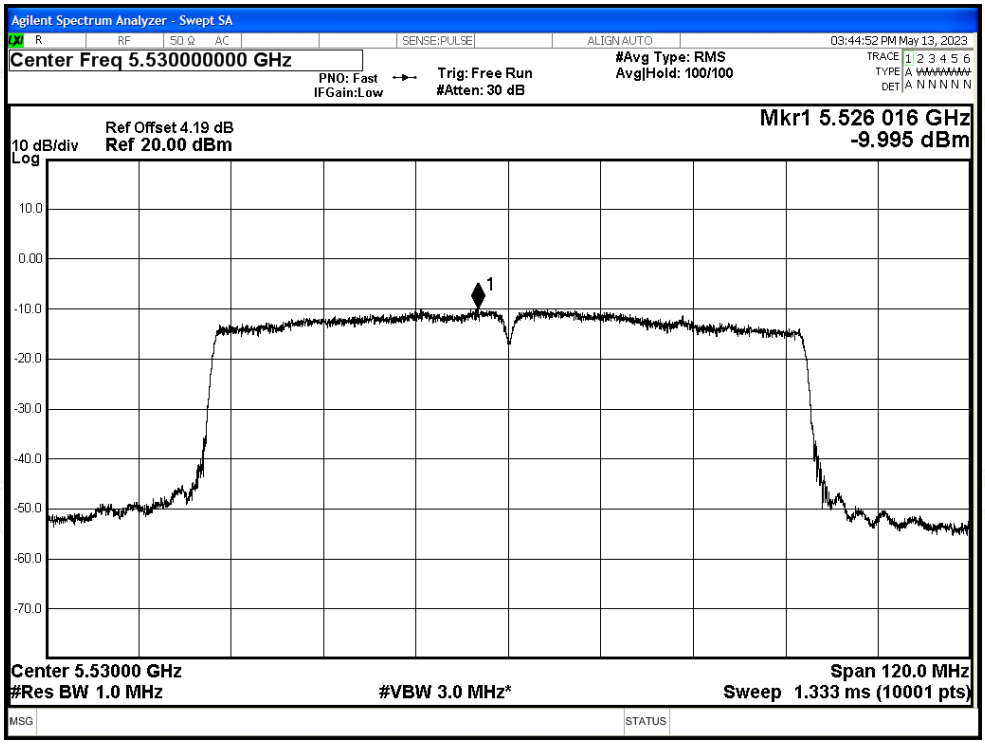
PSD NVNT ac40 5550MHz Ant0



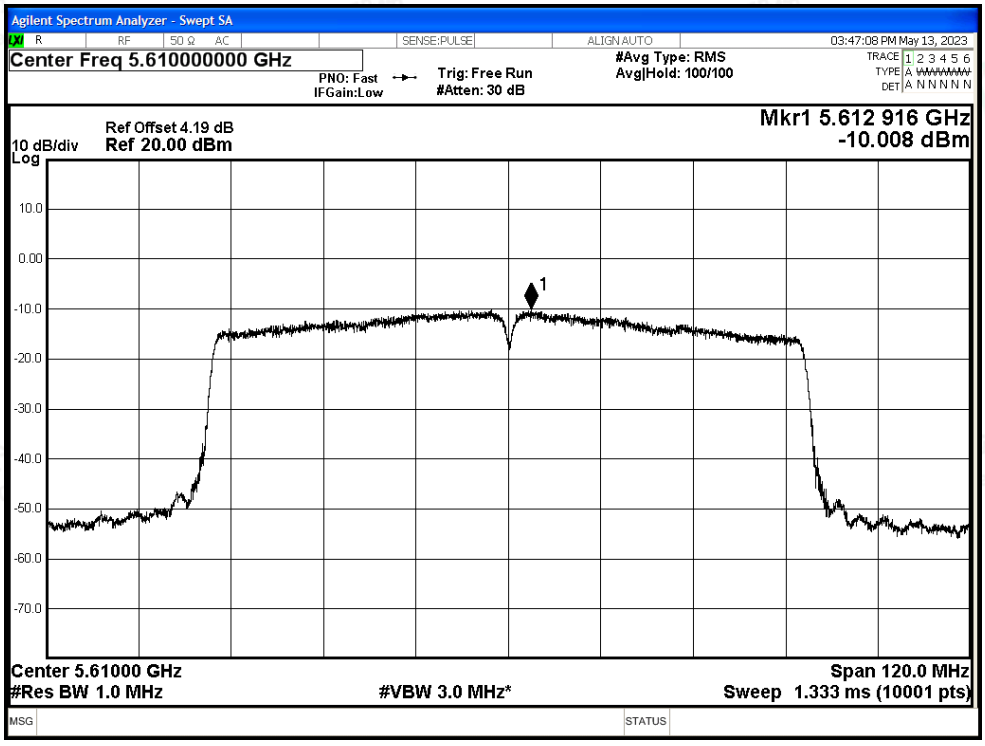
PSD NVNT ac40 5670MHz Ant0



PSD NVNT ac80 5530MHz Ant0

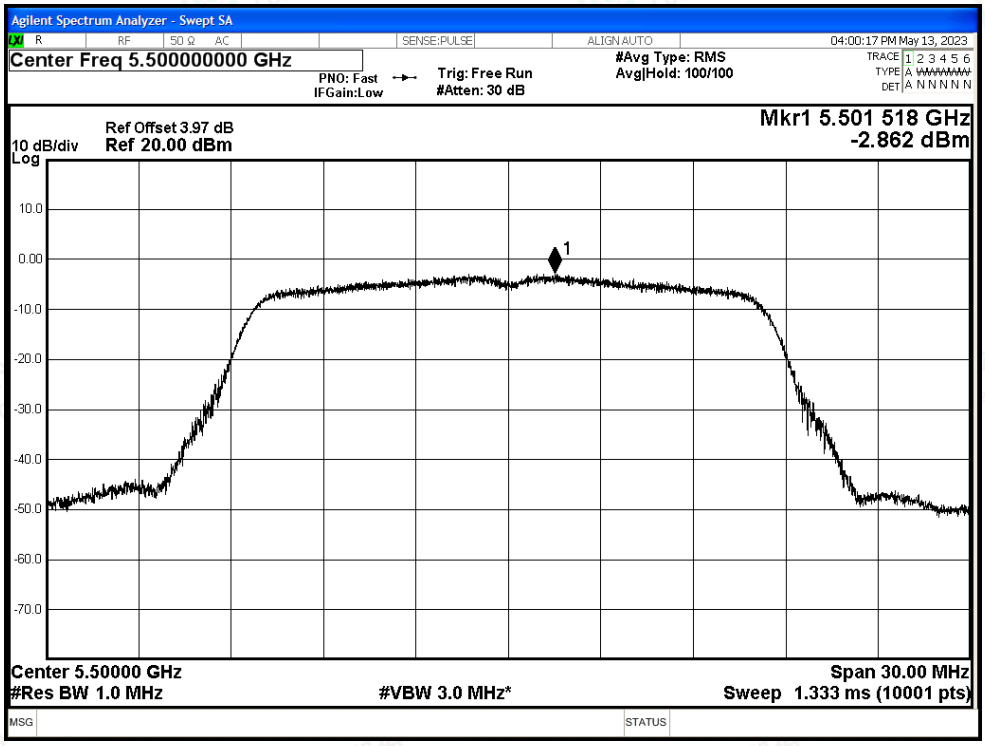


PSD NVNT ac80 5610MHz Ant0

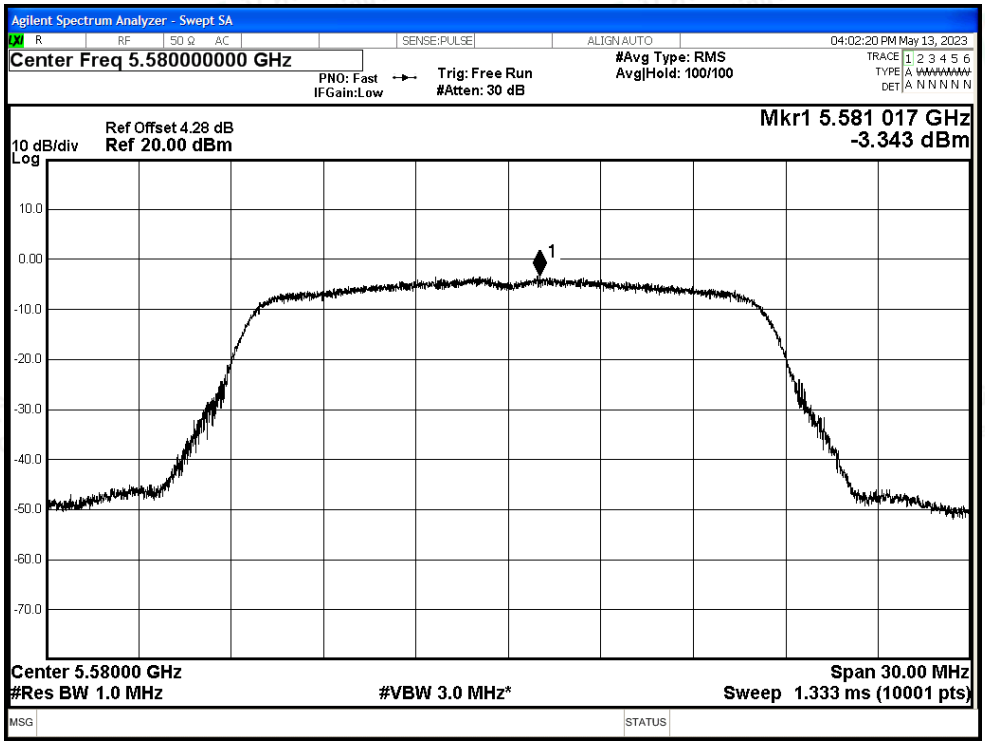


Test Graphs

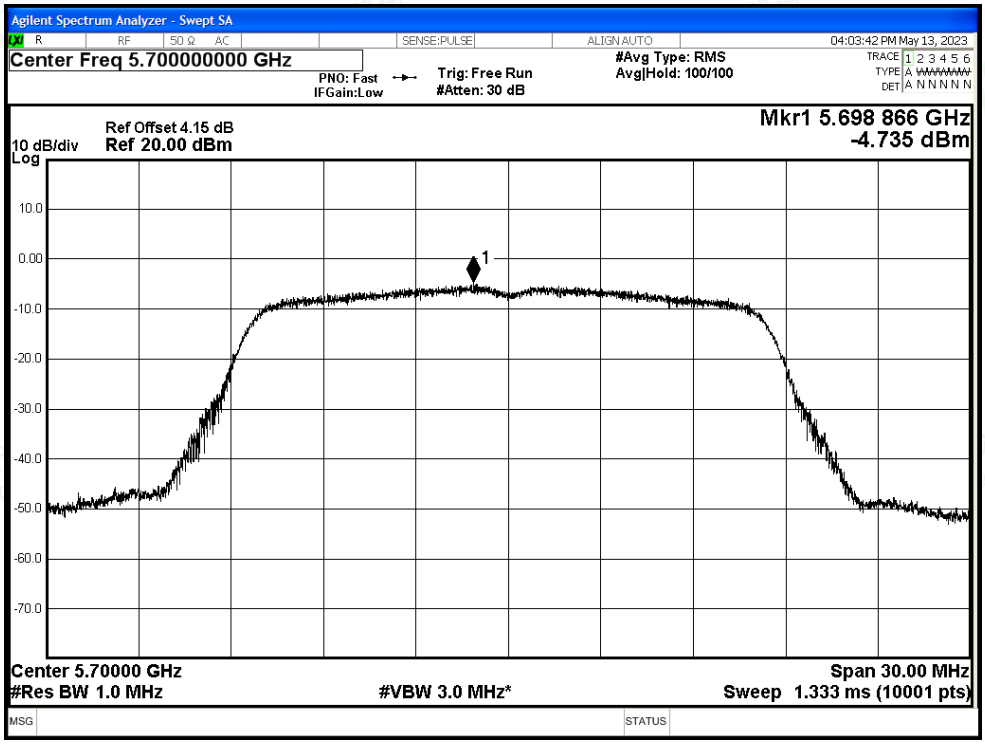
PSD NVNT a 5500MHz Ant1



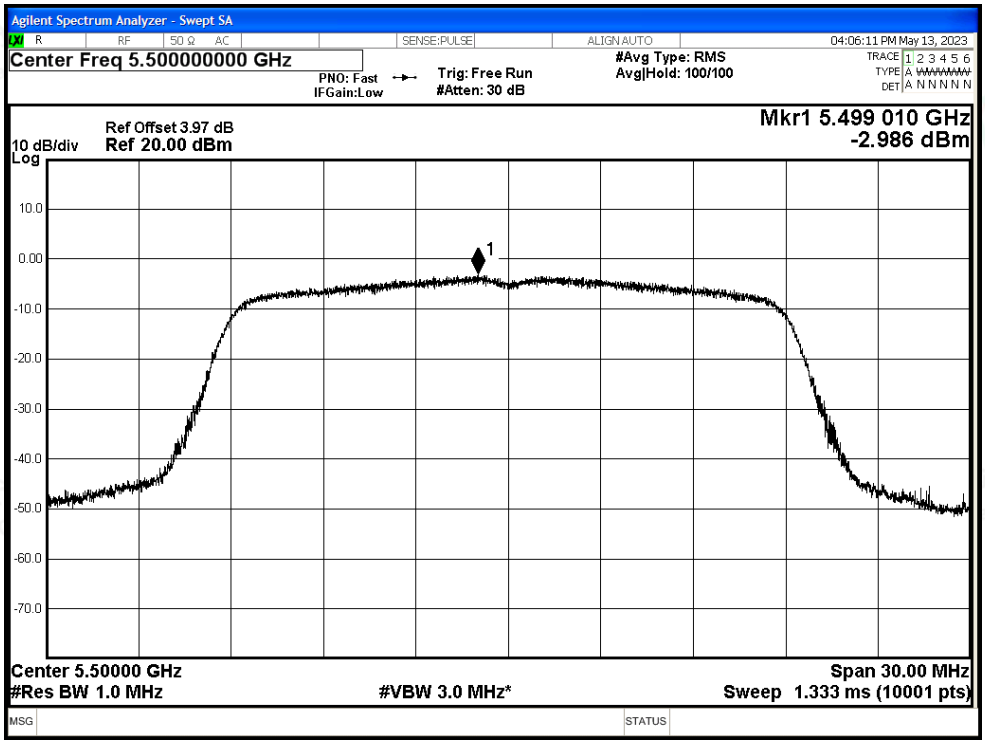
PSD NVNT a 5580MHz Ant1



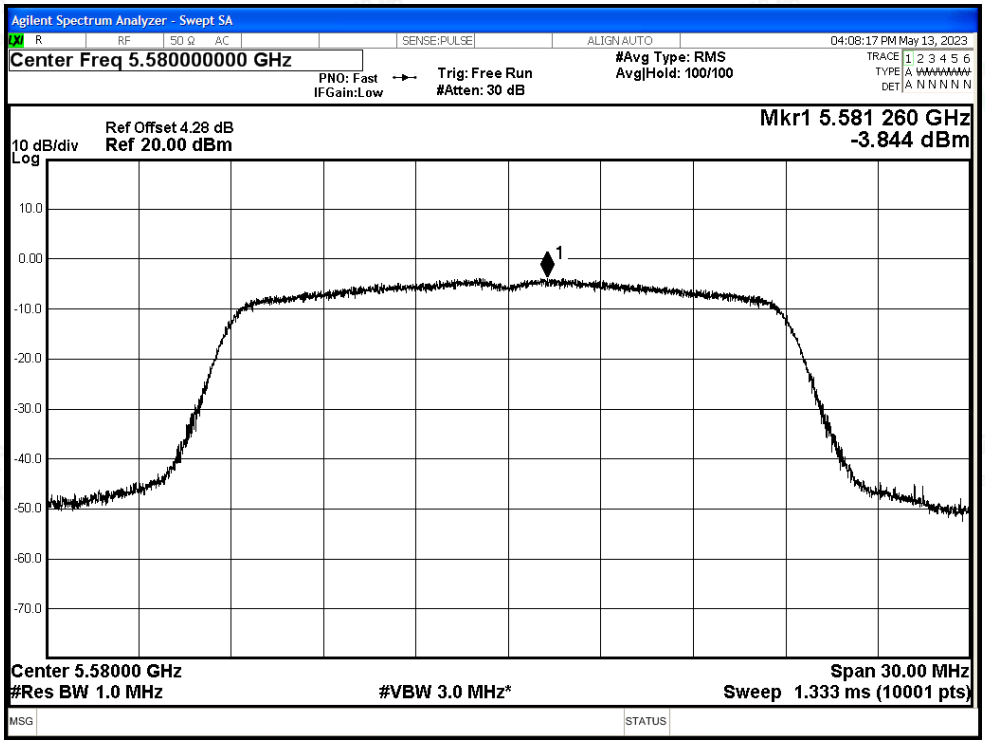
PSD NVNT a 5700MHz Ant1



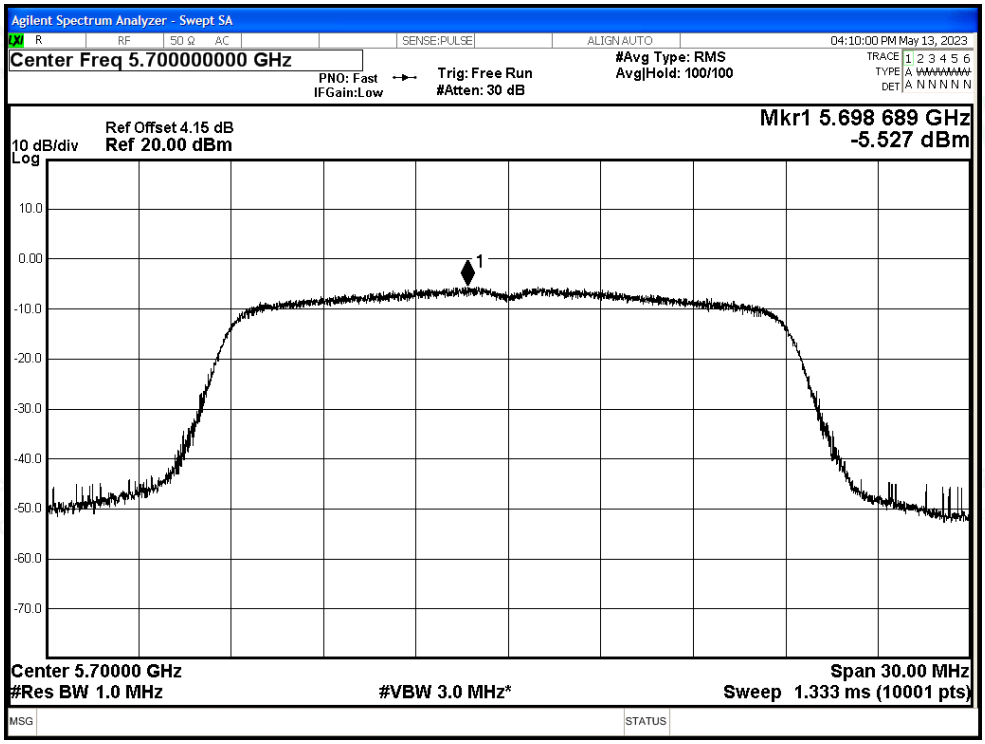
PSD NVNT n20 5500MHz Ant1



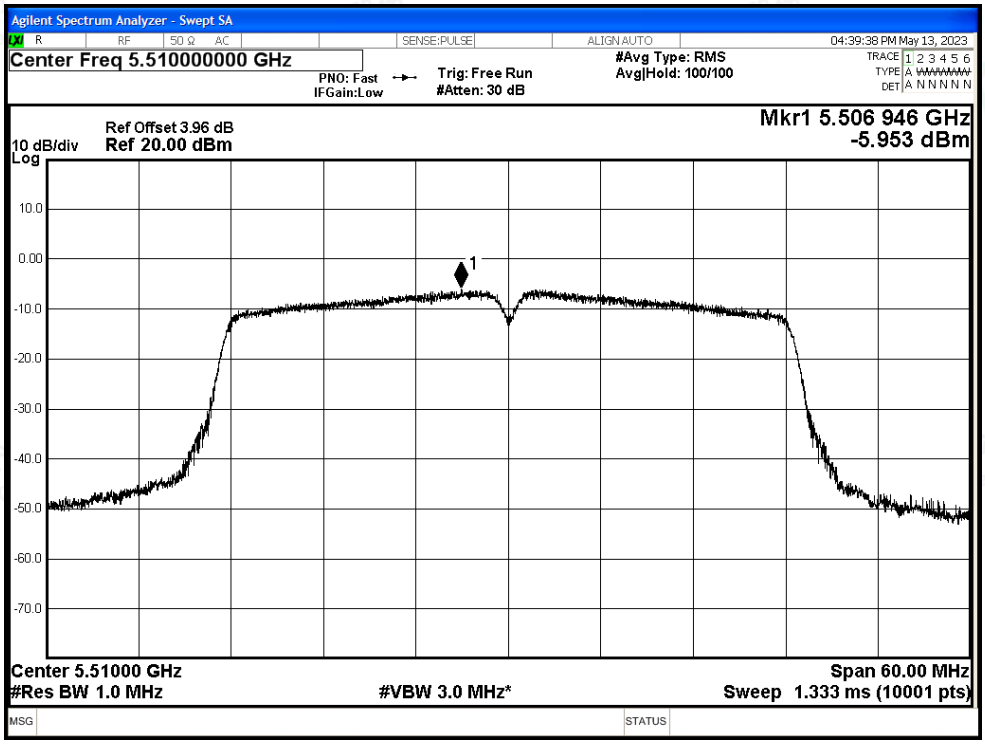
PSD NVNT n20 5580MHz Ant1



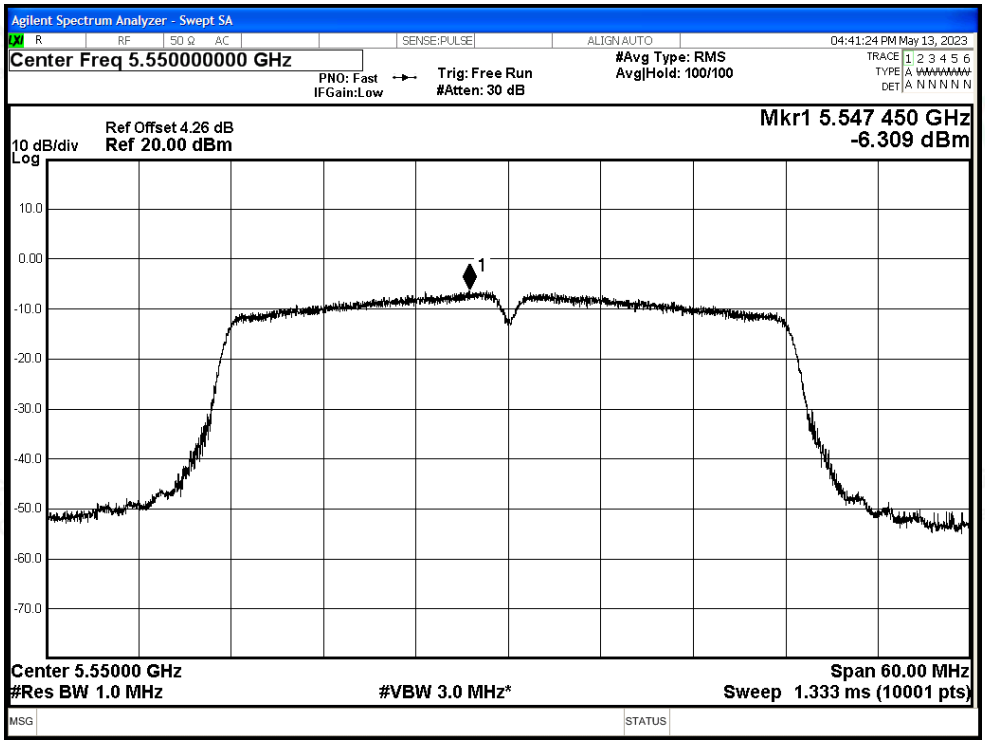
PSD NVNT n20 5700MHz Ant1



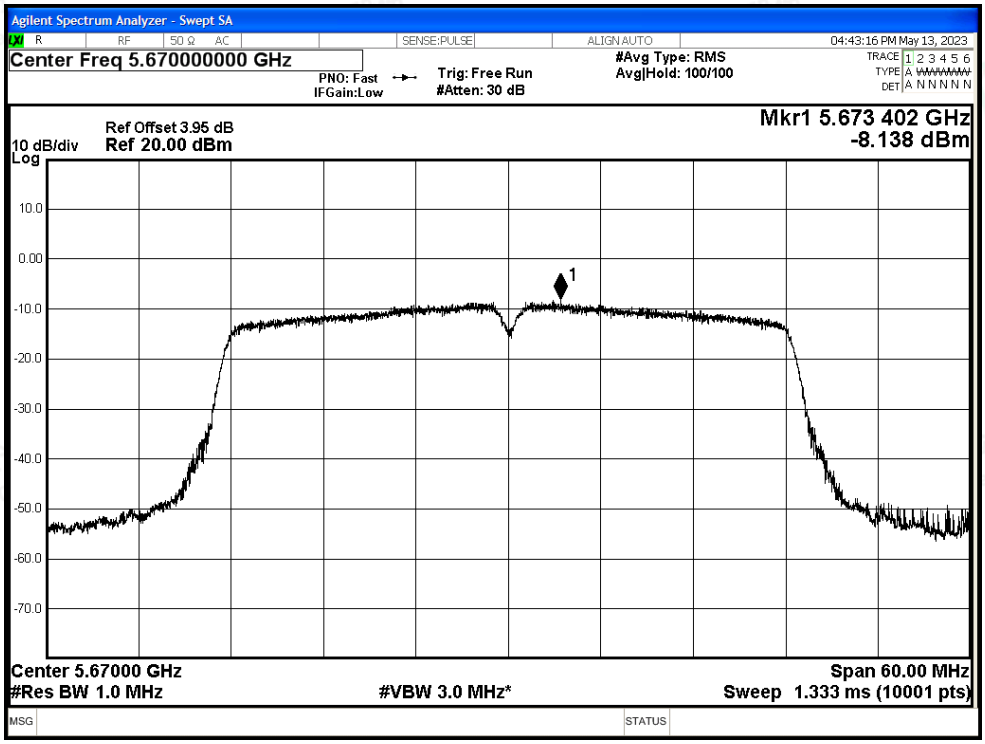
PSD NVNT n40 5510MHz Ant1



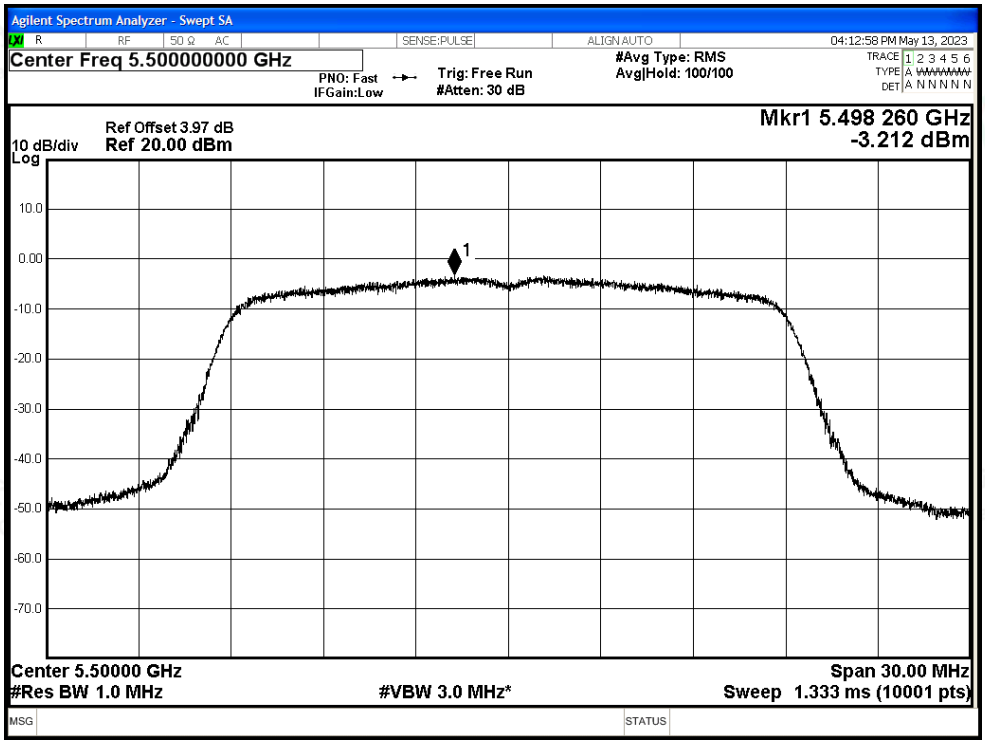
PSD NVNT n40 5550MHz Ant1



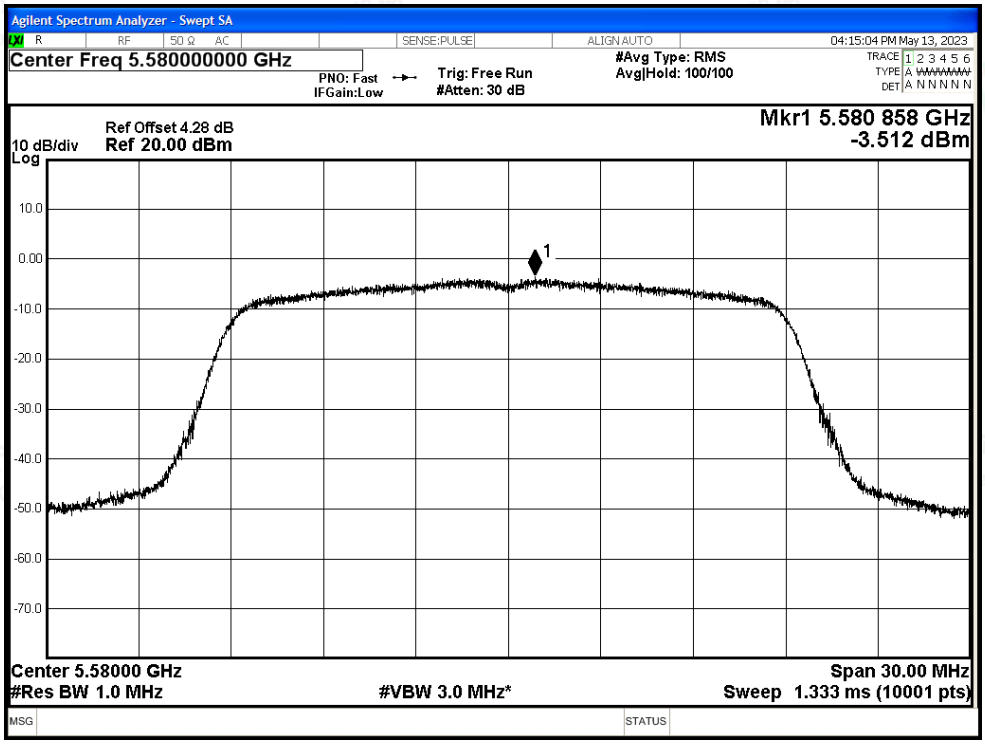
PSD NVNT n40 5670MHz Ant1



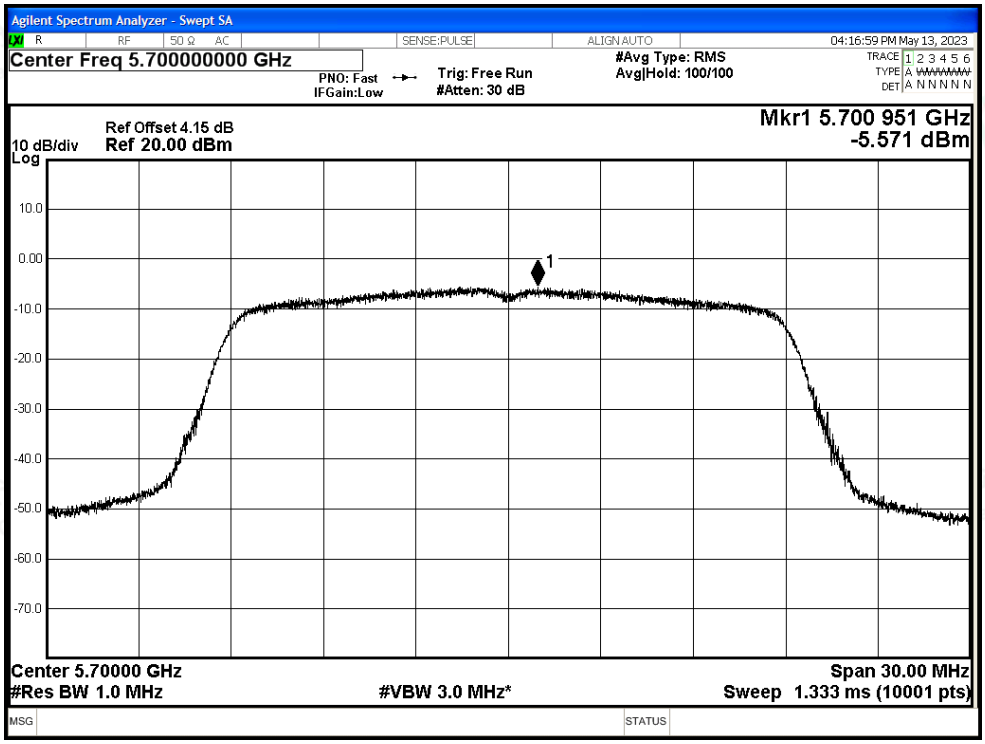
PSD NVNT ac20 5500MHz Ant1



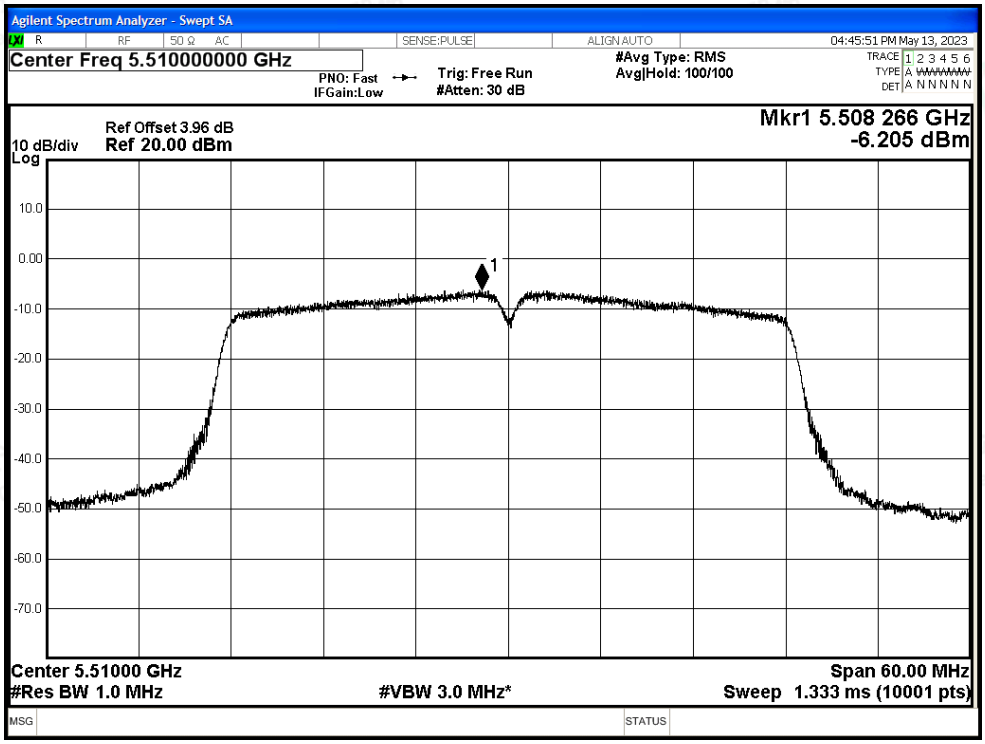
PSD NVNT ac20 5580MHz Ant1



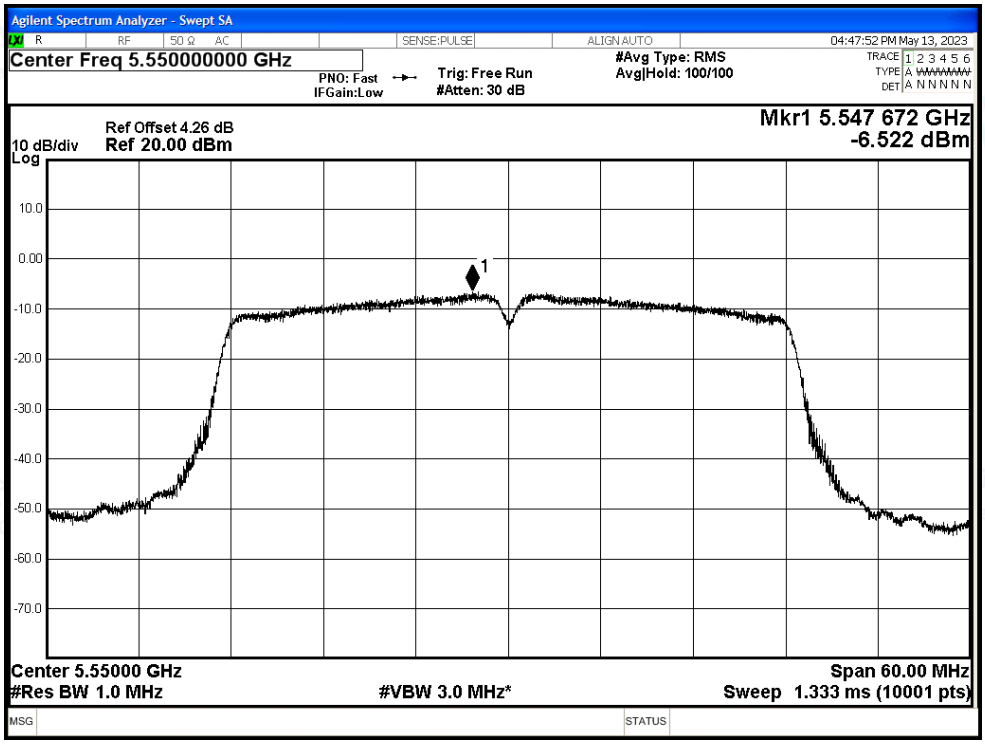
PSD NVNT ac20 5700MHz Ant1



PSD NVNT ac40 5510MHz Ant1



PSD NVNT ac40 5550MHz Ant1



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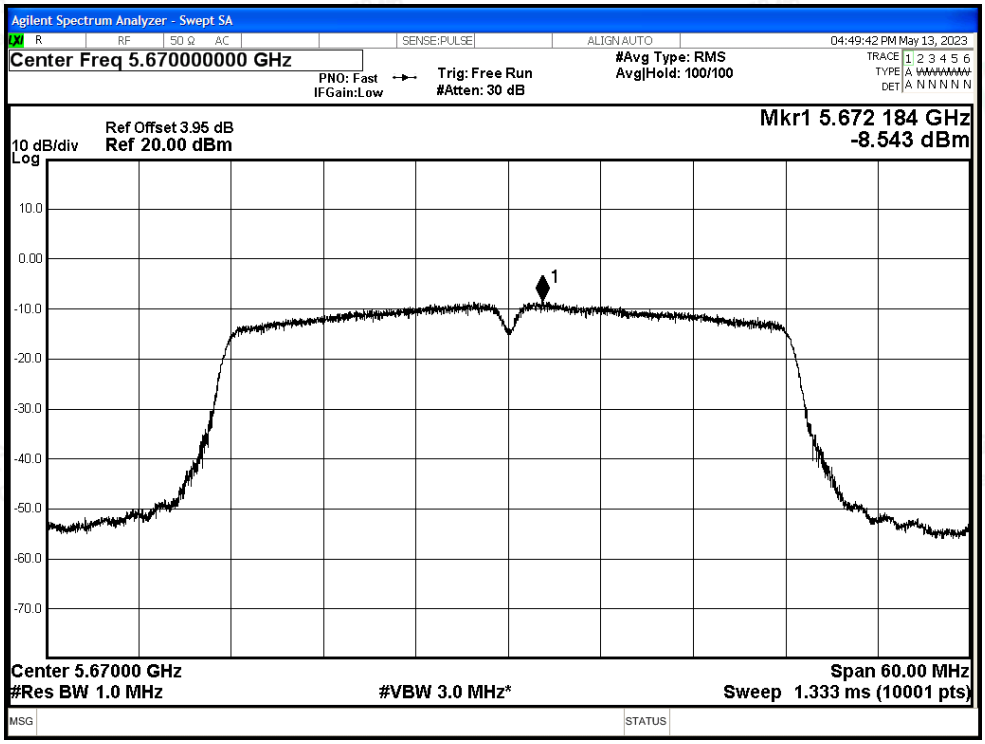
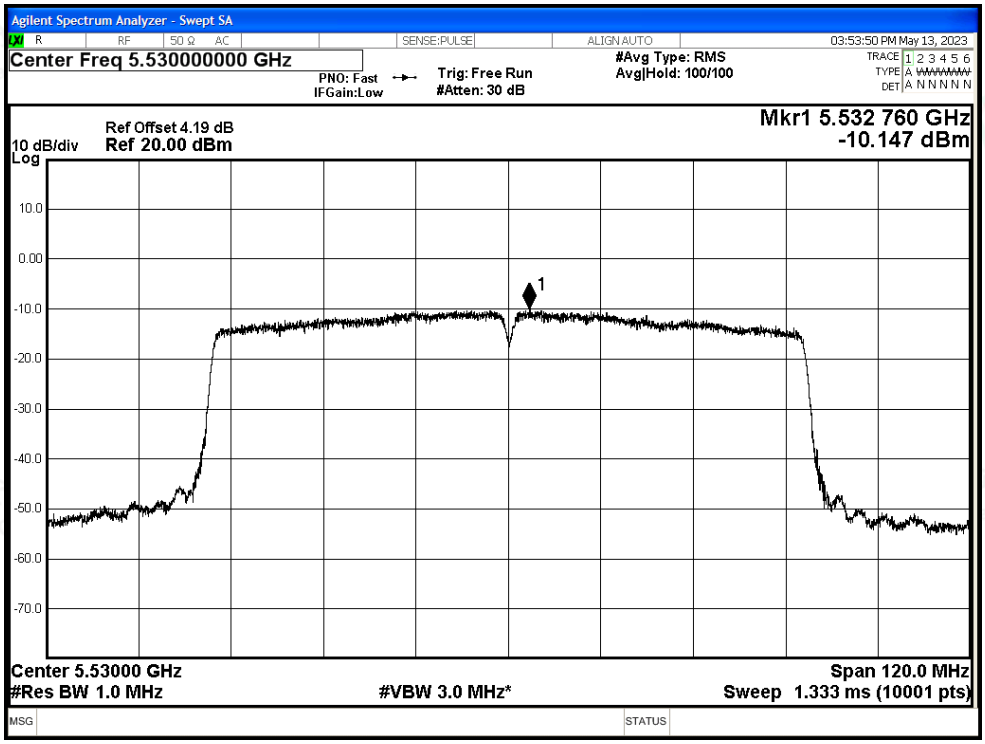
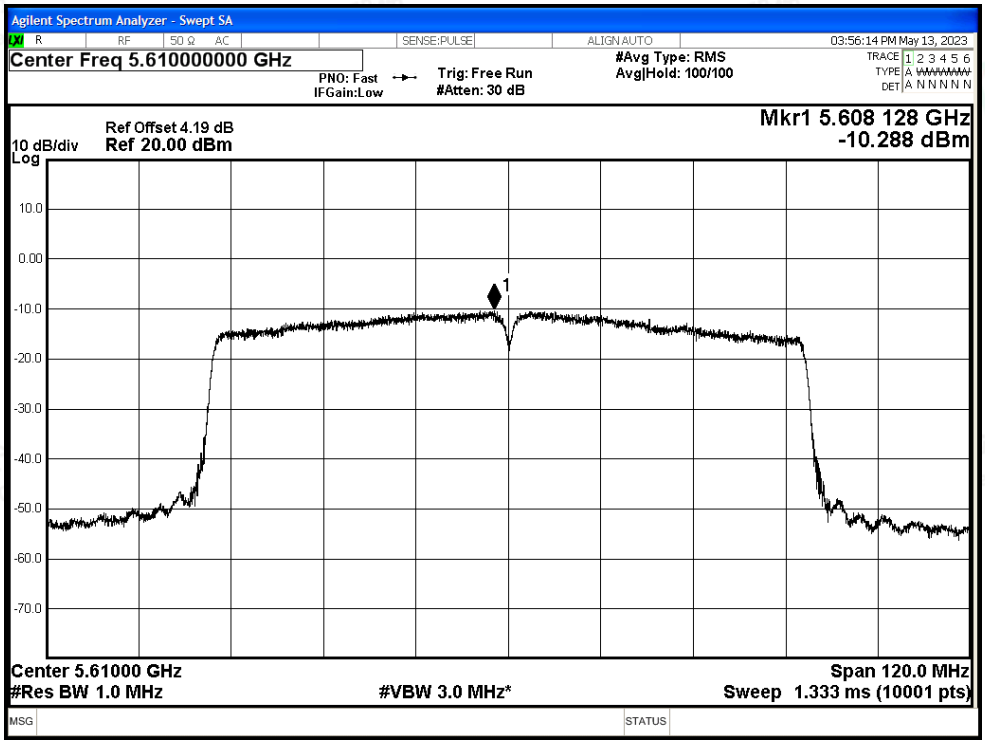


PSD NVNT ac80 5530MHz Ant1



PSD NVNT ac80 5610MHz Ant1



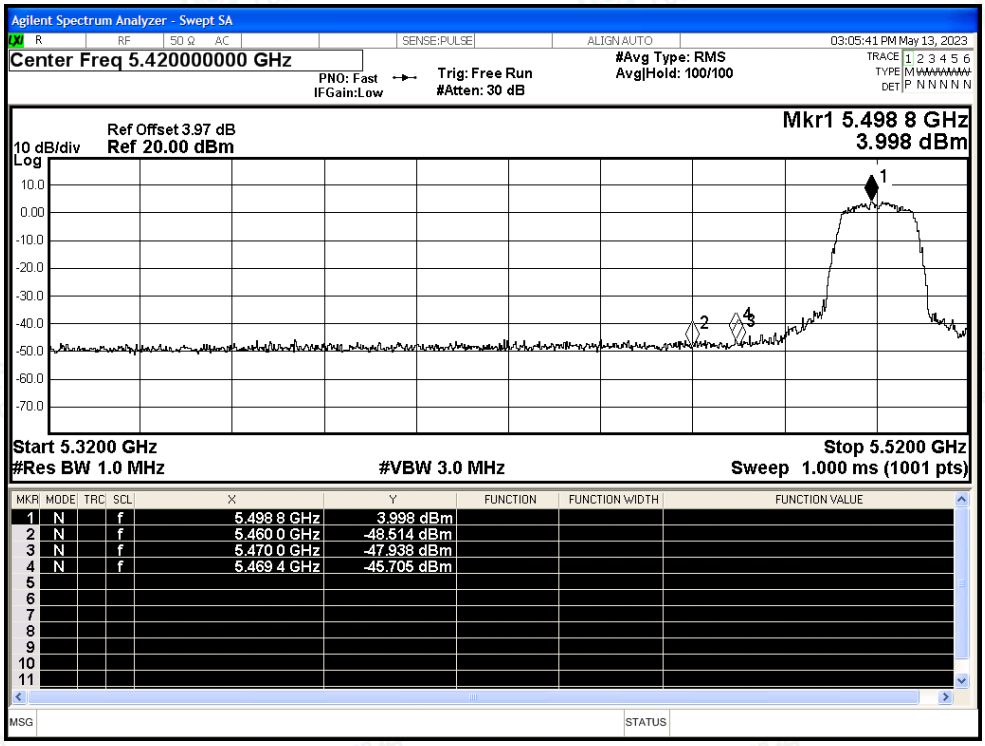
F.4 Restrict Band

Condition	Mode	Frequency (MHz)	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	a	5500	5460	-48.51	3.2	49.92	Peak	68.2	Pass
NVNT	a	5500	5460	-54.83	3.2	43.60	Average	54	Pass
NVNT	a	5500	5469.4	-45.71	3.2	52.72	Peak	68.2	Pass
NVNT	a	5500	5470	-54.38	3.2	44.05	Average	54	Pass
NVNT	a	5500	5470	-47.94	3.2	50.49	Peak	68.2	Pass
NVNT	a	5700	5725	-46.56	3.2	51.87	Peak	68.2	Pass
NVNT	a	5700	5725	-54.32	3.2	44.11	Average	54	Pass
NVNT	a	5700	5729.4	-45.16	3.2	53.27	Peak	68.2	Pass
NVNT	a	5700	5725.8	-54.26	3.2	44.17	Average	54	Pass
NVNT	a	5700	5735	-48.14	3.2	50.29	Peak	68.2	Pass
NVNT	a	5700	5735	-55.1	3.2	43.33	Average	54	Pass
NVNT	n20mimo	5500	5460	-47.08	6.21	54.36	Peak	68.2	Pass
NVNT	n20mimo	5500	5460	-54.82	6.21	46.62	Average	54	Pass
NVNT	n20mimo	5500	5468.6	-39.13	6.21	62.31	Peak	68.2	Pass
NVNT	n20mimo	5500	5469.6	-54.22	6.21	47.22	Average	54	Pass
NVNT	n20mimo	5500	5470	-44.07	6.21	57.37	Peak	68.2	Pass
NVNT	n20mimo	5500	5470	-54.3	6.21	47.14	Average	54	Pass
NVNT	n20mimo	5700	5725	-48.54	6.21	52.90	Peak	68.2	Pass
NVNT	n20mimo	5700	5725	-54.1	6.21	47.34	Average	54	Pass
NVNT	n20mimo	5700	5725.8	-39.51	6.21	61.93	Peak	68.2	Pass
NVNT	n20mimo	5700	5725.4	-53.79	6.21	47.65	Average	54	Pass
NVNT	n20mimo	5700	5735	-47.55	6.21	53.89	Peak	68.2	Pass
NVNT	n20mimo	5700	5735	-55.13	6.21	46.31	Average	54	Pass
NVNT	n40mimo	5510	5460	-46.83	6.21	54.61	Peak	68.2	Pass
NVNT	n40mimo	5510	5460	-54.26	6.21	47.18	Average	54	Pass
NVNT	n40mimo	5510	5467	-36.66	6.21	64.78	Peak	68.2	Pass
NVNT	n40mimo	5510	5469.8	-51.67	6.21	49.77	Average	54	Pass
NVNT	n40mimo	5510	5470	-46.07	6.21	55.37	Peak	68.2	Pass
NVNT	n40mimo	5510	5470	-51.96	6.21	49.48	Average	54	Pass
NVNT	n40mimo	5670	5725	-48.48	6.21	52.96	Peak	68.2	Pass
NVNT	n40mimo	5670	5725	-54.99	6.21	46.45	Average	54	Pass
NVNT	n40mimo	5670	5725.2	-41.15	6.21	60.29	Peak	68.2	Pass
NVNT	n40mimo	5670	5727.8	-54.96	6.21	46.48	Average	54	Pass
NVNT	n40mimo	5670	5735	-47.89	6.21	53.55	Peak	68.2	Pass
NVNT	n40mimo	5670	5735	-55.44	6.21	46.00	Average	54	Pass
NVNT	ac20mimo	5500	5460	-48.1	6.21	53.34	Peak	68.2	Pass
NVNT	ac20mimo	5500	5460	-54.76	6.21	46.68	Average	54	Pass
NVNT	ac20mimo	5500	5469.8	-45.04	6.21	56.40	Peak	68.2	Pass
NVNT	ac20mimo	5500	5469.6	-54.28	6.21	47.16	Average	54	Pass

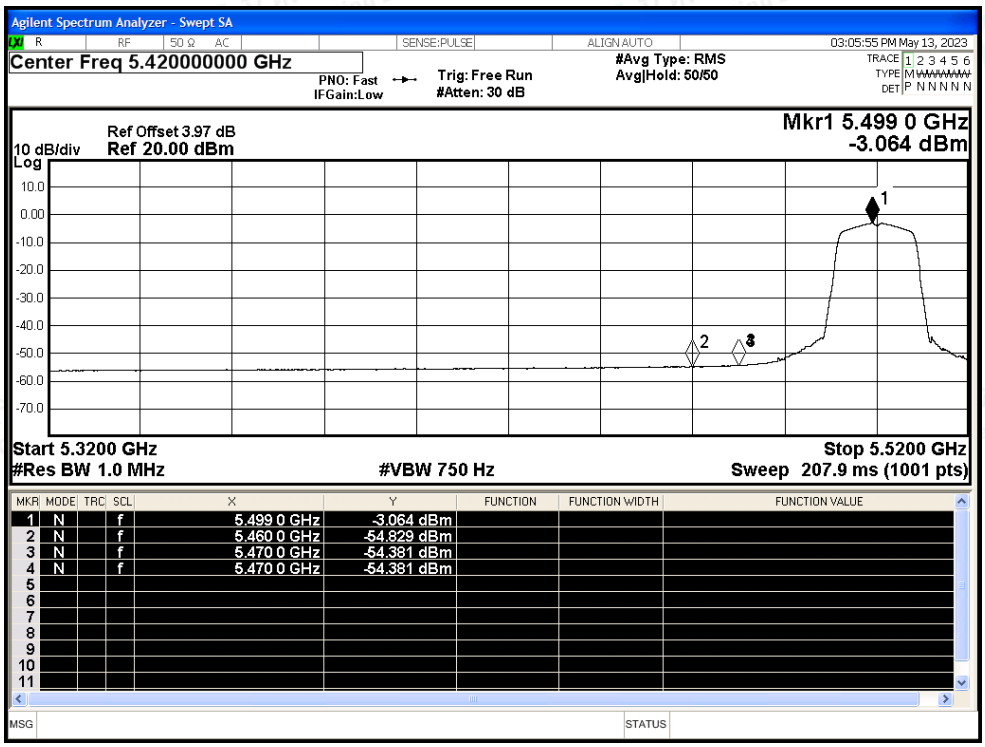
NVNT	ac20mimo	5500	5470	-46.41	6.21	55.03	Peak	68.2	Pass
NVNT	ac20mimo	5500	5470	-54.37	6.21	47.07	Average	54	Pass
NVNT	ac20mimo	5700	5725	-48.09	6.21	53.35	Peak	68.2	Pass
NVNT	ac20mimo	5700	5725	-54.09	6.21	47.35	Average	54	Pass
NVNT	ac20mimo	5700	5727.2	-45.2	6.21	56.24	Peak	68.2	Pass
NVNT	ac20mimo	5700	5735	-47.4	6.21	54.04	Peak	68.2	Pass
NVNT	ac20mimo	5700	5735	-55.11	6.21	46.33	Average	54	Pass
NVNT	ac40mimo	5510	5460	-48.93	6.21	52.51	Peak	68.2	Pass
NVNT	ac40mimo	5510	5460	-54.42	6.21	47.02	Average	54	Pass
NVNT	ac40mimo	5510	5466.8	-44.79	6.21	56.65	Peak	68.2	Pass
NVNT	ac40mimo	5510	5470	-52.64	6.21	48.80	Average	54	Pass
NVNT	ac40mimo	5510	5470	-45.39	6.21	56.05	Peak	68.2	Pass
NVNT	ac40mimo	5670	5725	-49.17	6.21	52.27	Peak	68.2	Pass
NVNT	ac40mimo	5670	5725	-55.3	6.21	46.14	Average	54	Pass
NVNT	ac40mimo	5670	5725.4	-46.78	6.21	54.66	Peak	68.2	Pass
NVNT	ac40mimo	5670	5730	-55.07	6.21	46.37	Average	54	Pass
NVNT	ac40mimo	5670	5735	-48.9	6.21	52.54	Peak	68.2	Pass
NVNT	ac40mimo	5670	5735	-55.52	6.21	45.92	Average	54	Pass
NVNT	ac80mimo	5530	5725	-49.3	6.21	52.14	Peak	68.2	Pass
NVNT	ac80mimo	5530	5725	-55.73	6.21	45.71	Average	54	Pass
NVNT	ac80mimo	5530	5728.16	-45.99	6.21	55.45	Peak	68.2	Pass
NVNT	ac80mimo	5530	5728.445	-55.36	6.21	46.08	Average	54	Pass
NVNT	ac80mimo	5530	5735	-50.49	6.21	50.95	Peak	68.2	Pass
NVNT	ac80mimo	5530	5735	-55.84	6.21	45.60	Average	54	Pass
NVNT	ac80mimo	5530	5460	-47.62	6.21	53.82	Peak	68.2	Pass
NVNT	ac80mimo	5530	5460	-52.16	6.21	49.28	Average	54	Pass
NVNT	ac80mimo	5530	5469.4	-43.03	6.21	58.41	Peak	68.2	Pass
NVNT	ac80mimo	5530	5469.6	-49.76	6.21	51.68	Average	54	Pass
NVNT	ac80mimo	5530	5470	-43.36	6.21	58.08	Peak	68.2	Pass
NVNT	ac80mimo	5530	5470	-49.94	6.21	51.50	Average	54	Pass
NVNT	ac80mimo	5610	5725	-48.56	6.21	52.88	Peak	68.2	Pass
NVNT	ac80mimo	5610	5725	-54.68	6.21	46.76	Average	54	Pass
NVNT	ac80mimo	5610	5729.055	-46.59	6.21	54.85	Peak	68.2	Pass
NVNT	ac80mimo	5610	5725.16	-54.51	6.21	46.93	Average	54	Pass
NVNT	ac80mimo	5610	5735	-47.61	6.21	53.83	Peak	68.2	Pass
NVNT	ac80mimo	5610	5735	-55.25	6.21	46.19	Average	54	Pass

Test Graphs

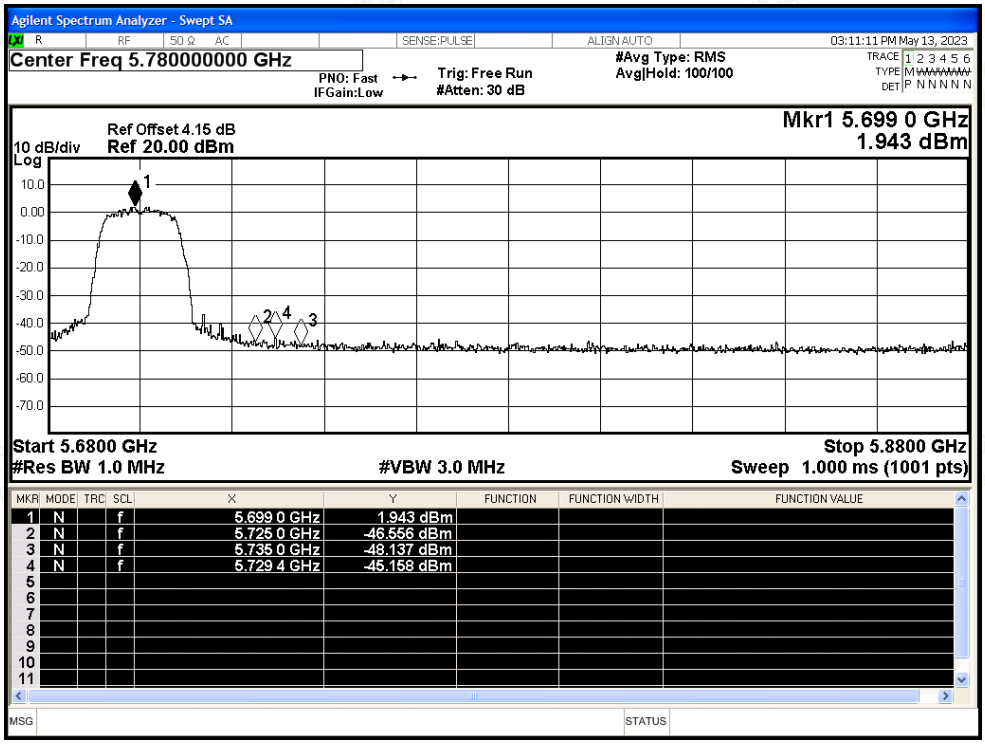
Restrict Band NVNT a 5500MHz Peak



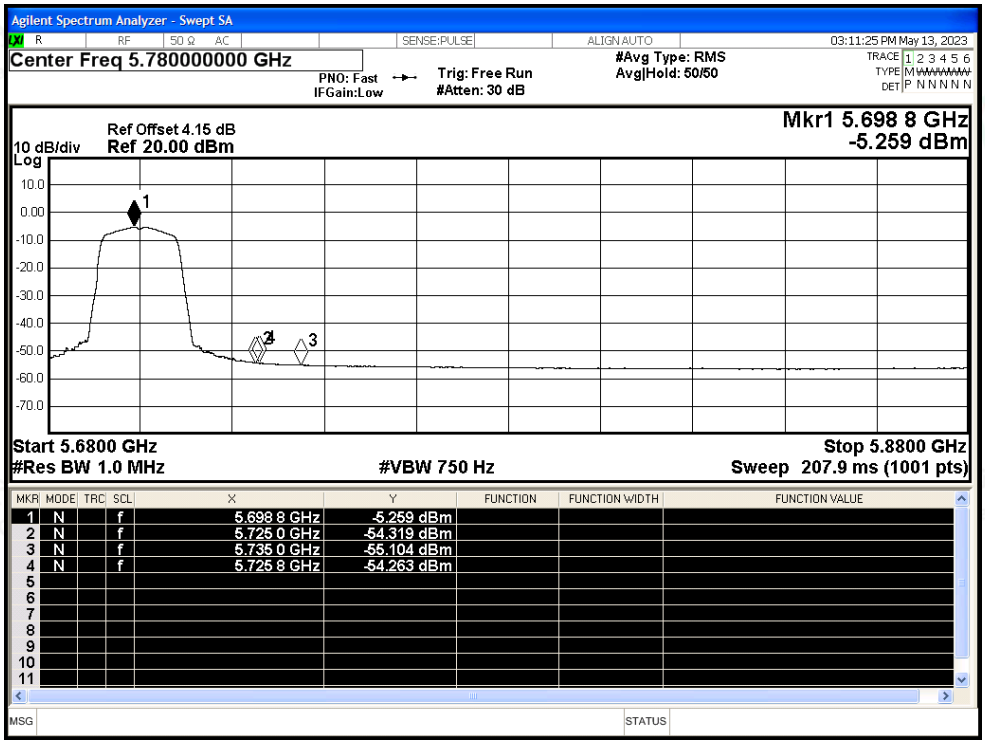
Restrict Band NVNT a 5500MHz Average



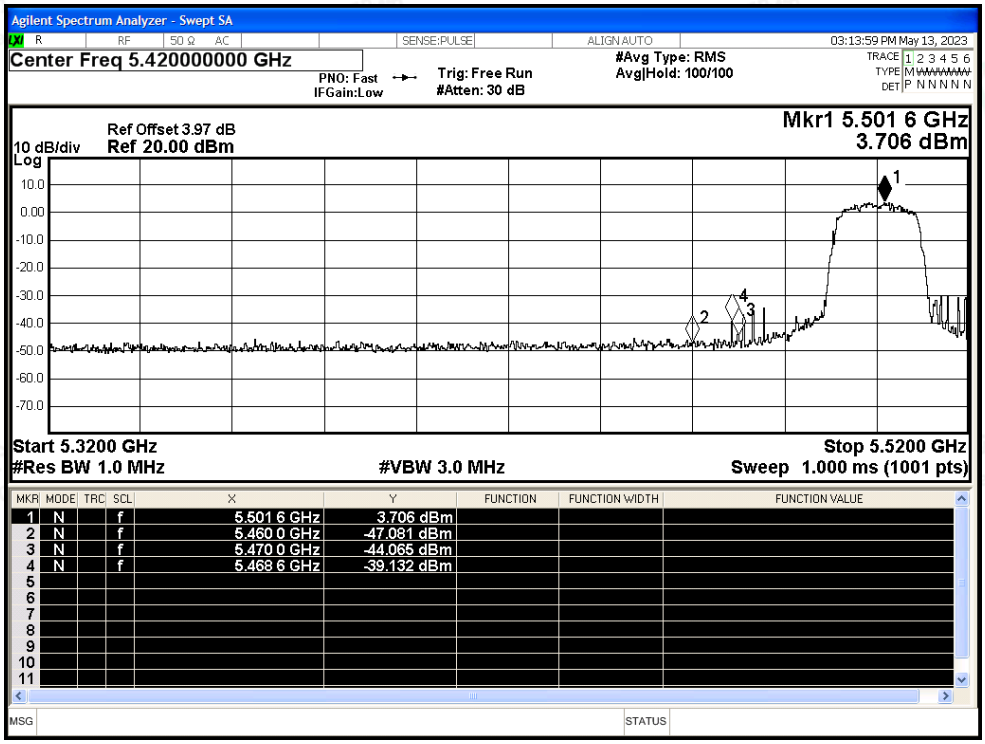
Restrict Band NVNT a 5700MHz Peak



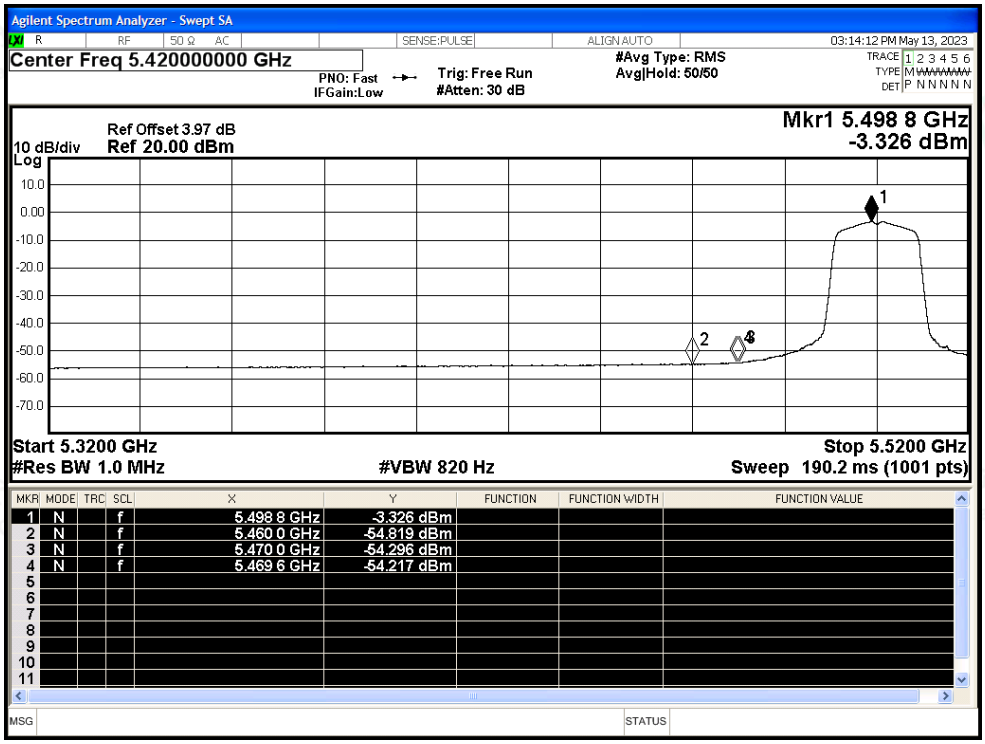
Restrict Band NVNT a 5700MHz Average



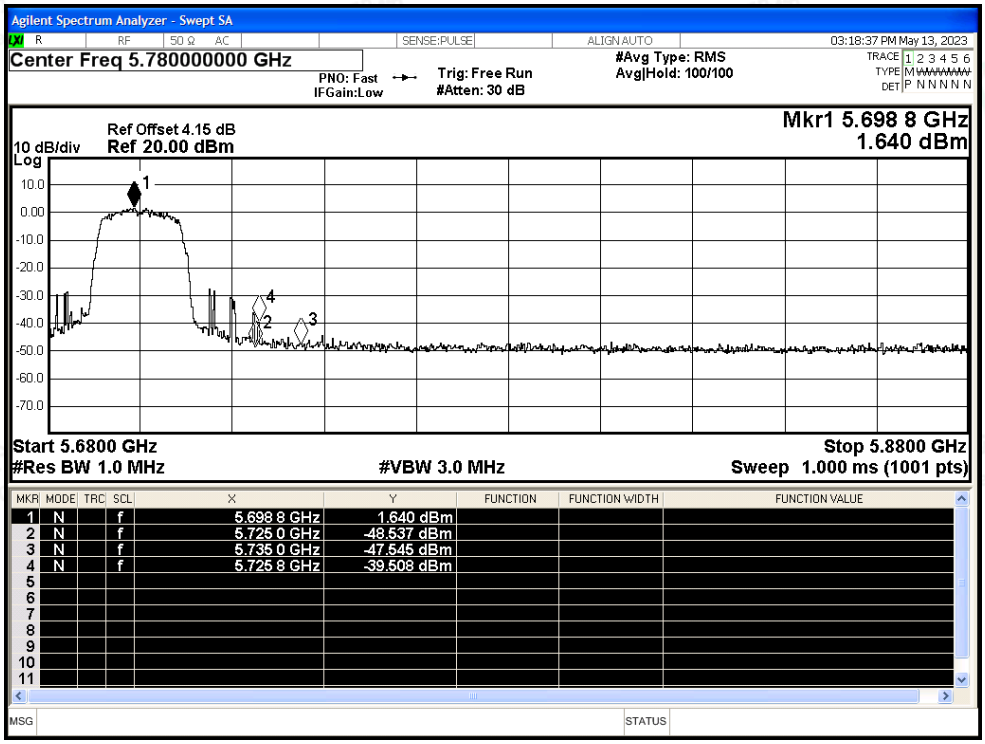
Restrict Band NVNT n20 5500MHz Peak



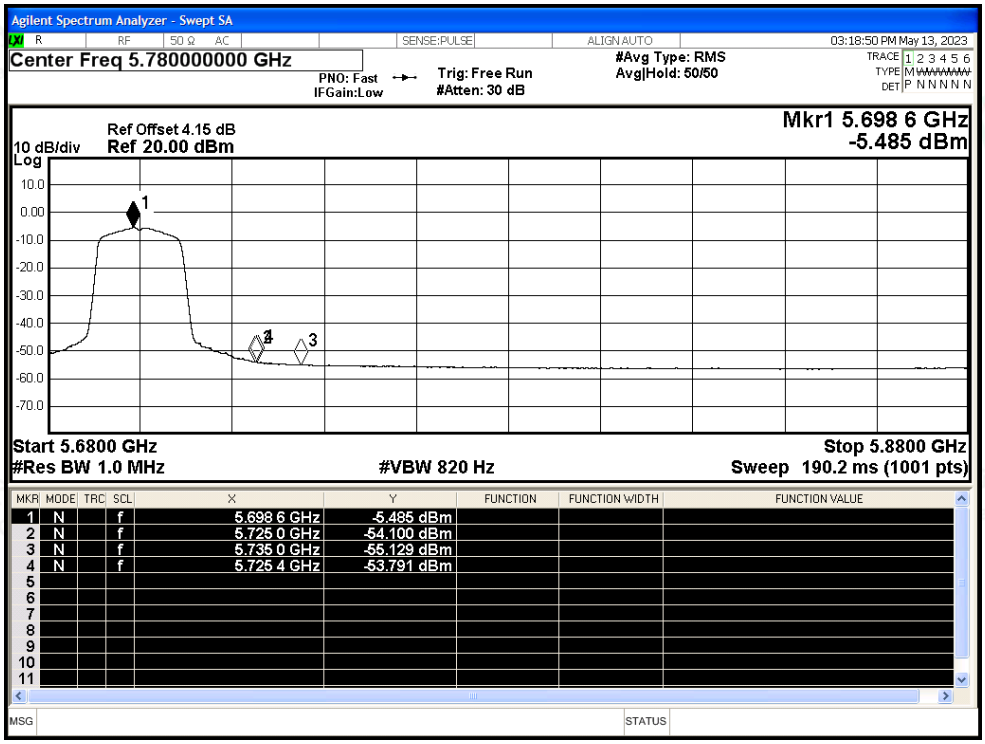
Restrict Band NVNT n20 5500MHz Average



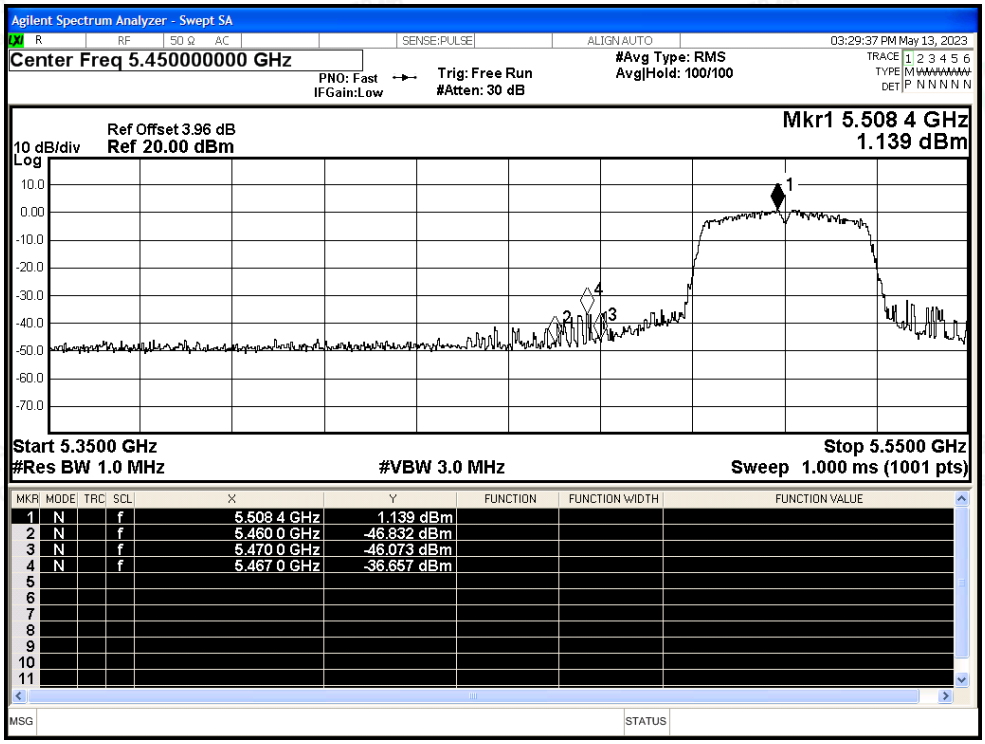
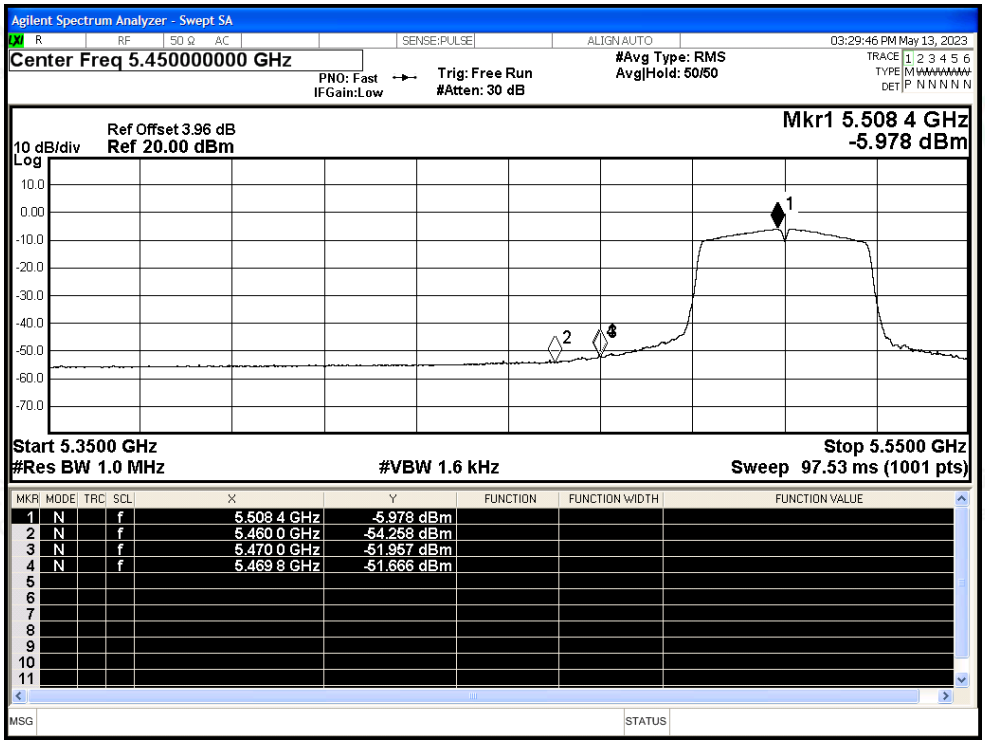
Restrict Band NVNT n20 5700MHz Peak



Restrict Band NVNT n20 5700MHz Average



Restrict Band NVNT n40 5510MHz Peak



Restrict Band NVNT n40 5510MHz Average