Appendix F

RF Test Data for 5.5GWIFI (Conducted Measurement)

Product Name: IPTV Set-Top Box

Test Model: SML-5041W

Environmental Conditions

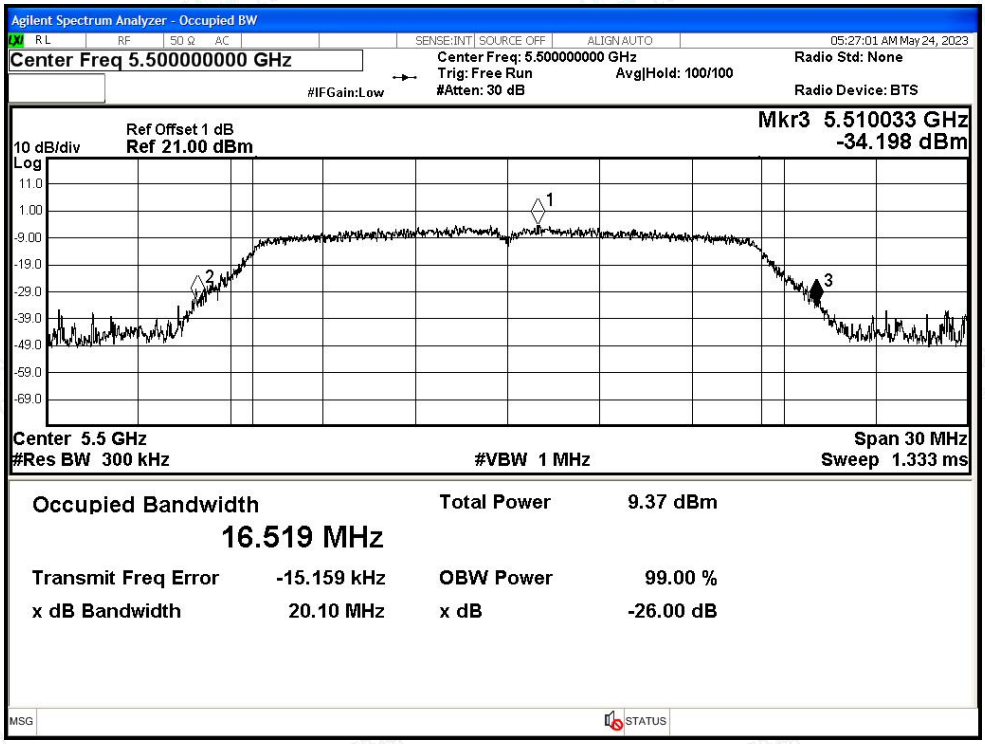
Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Mening Su
Supervised by:	Ling Zhu

F.1 -26dB Bandwidth

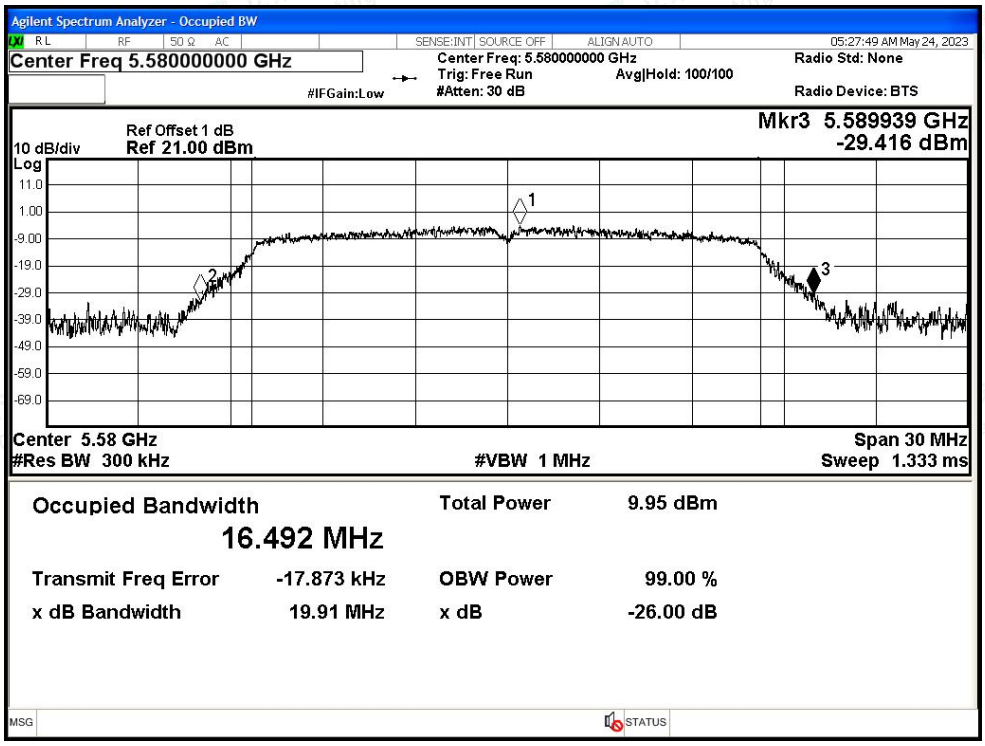
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5500	Ant0	20.096	--	Pass
NVNT	a	5580	Ant0	19.913	--	Pass
NVNT	a	5700	Ant0	20.153	--	Pass
NVNT	n20	5500	Ant0	20.371	--	Pass
NVNT	n20	5580	Ant0	20.189	--	Pass
NVNT	n20	5700	Ant0	20.331	--	Pass
NVNT	n40	5510	Ant0	39.645	--	Pass
NVNT	n40	5550	Ant0	39.639	--	Pass
NVNT	n40	5670	Ant0	40.16	--	Pass
NVNT	ac20	5500	Ant0	20.157	--	Pass
NVNT	ac20	5580	Ant0	20.179	--	Pass
NVNT	ac20	5700	Ant0	20.389	--	Pass
NVNT	ac40	5510	Ant0	39.84	--	Pass
NVNT	ac40	5550	Ant0	39.62	--	Pass
NVNT	ac40	5670	Ant0	39.888	--	Pass
NVNT	ac80	5530	Ant0	79.403	--	Pass
NVNT	ac80	5610	Ant0	79.273	--	Pass

Test Graphs

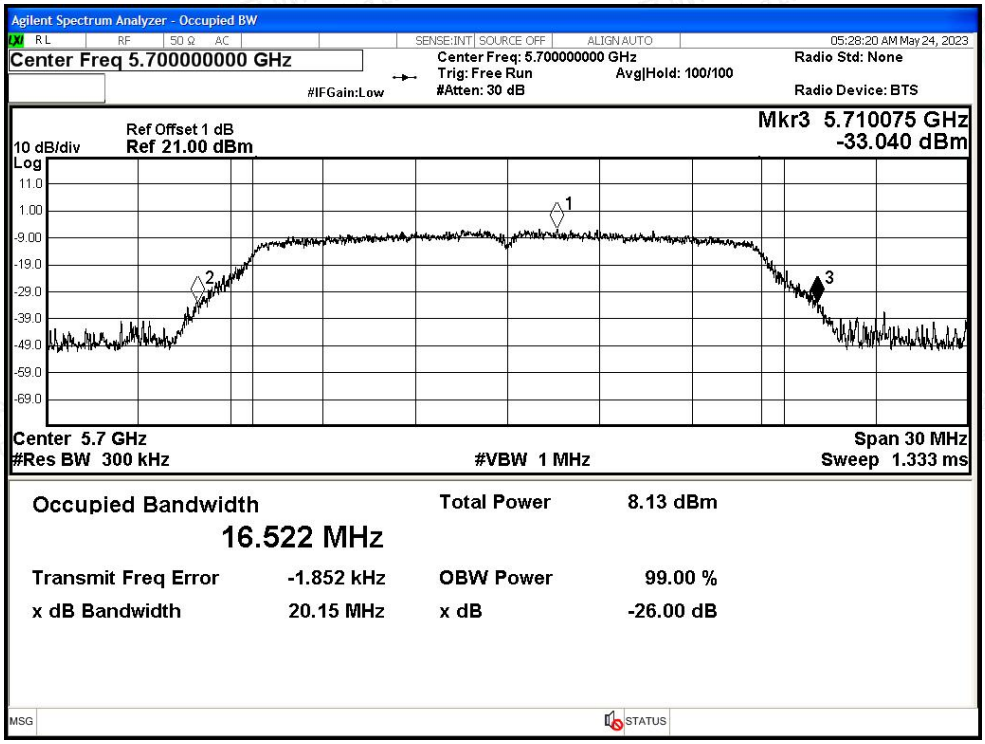
-26dB Bandwidth NVNT a 5500MHz Ant0



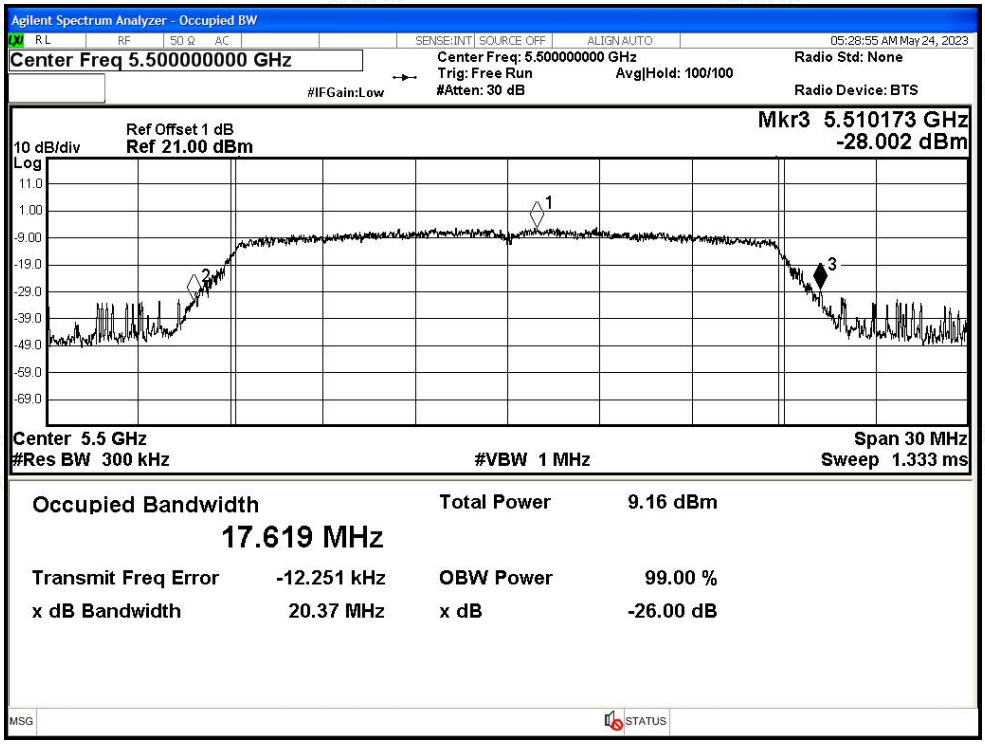
-26dB Bandwidth NVNT a 5580MHz Ant0



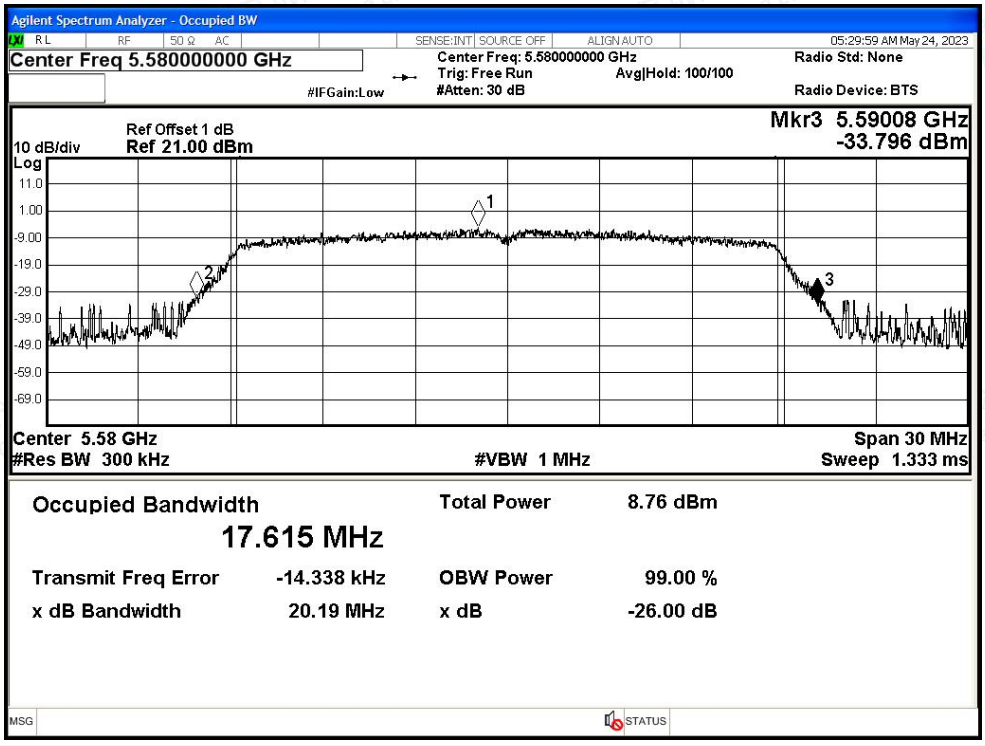
-26dB Bandwidth NVNT a 5700MHz Ant0



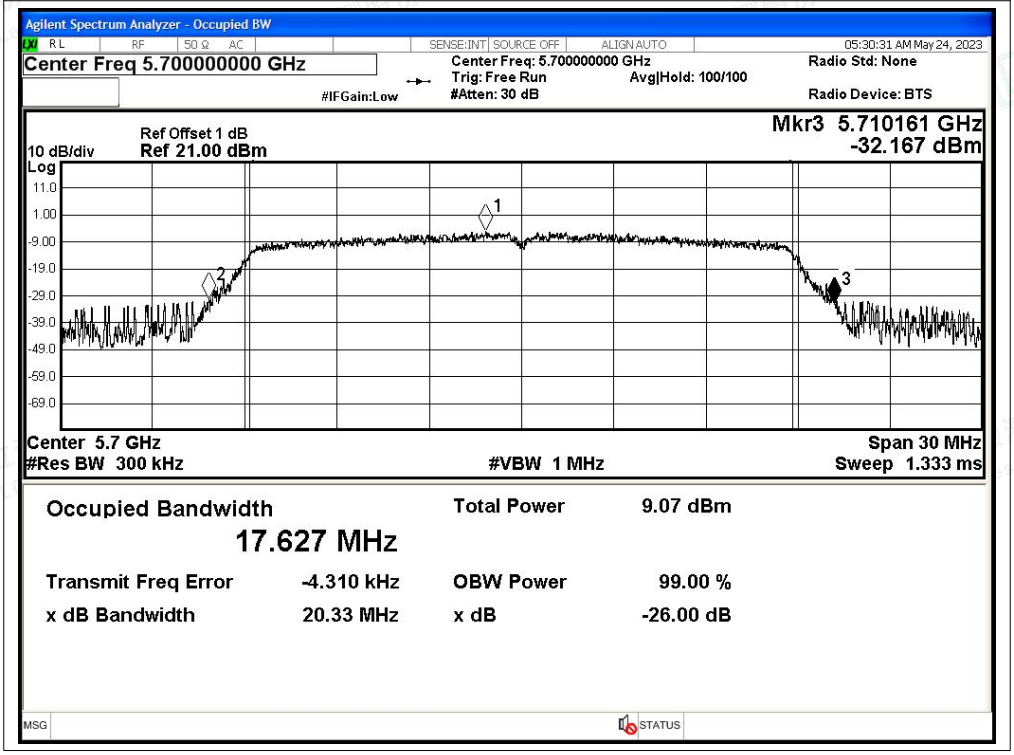
-26dB Bandwidth NVNT n20 5500MHz Ant0



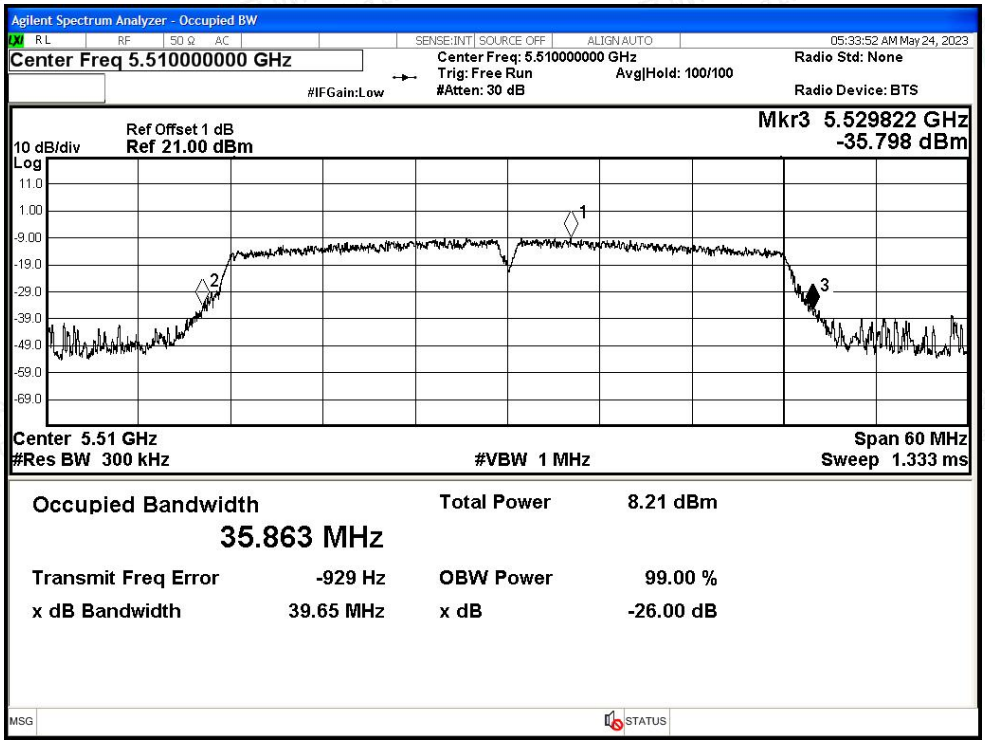
-26dB Bandwidth NVNT n20 5580MHz Ant0



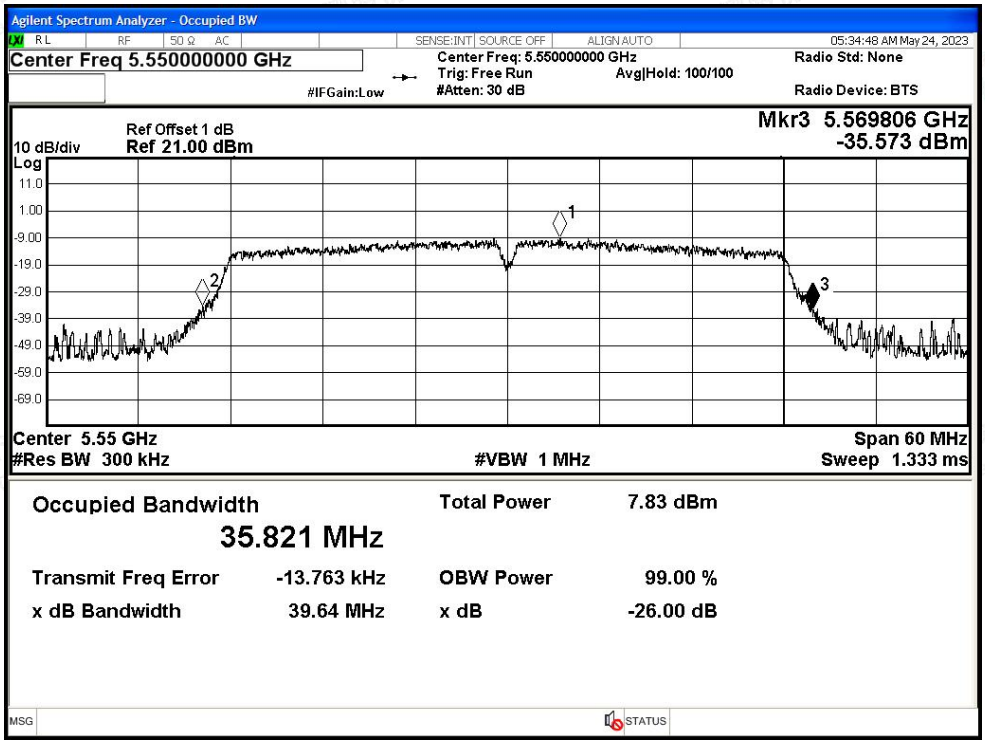
-26dB Bandwidth NVNT n20 5700MHz Ant0



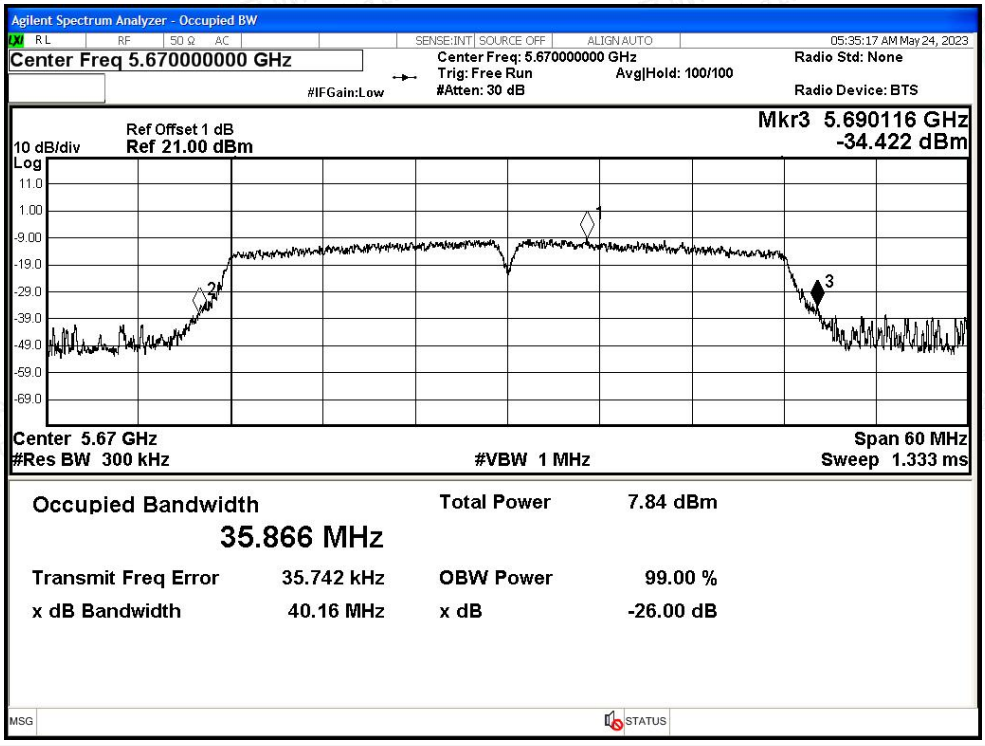
-26dB Bandwidth NVNT n40 5510MHz Ant0



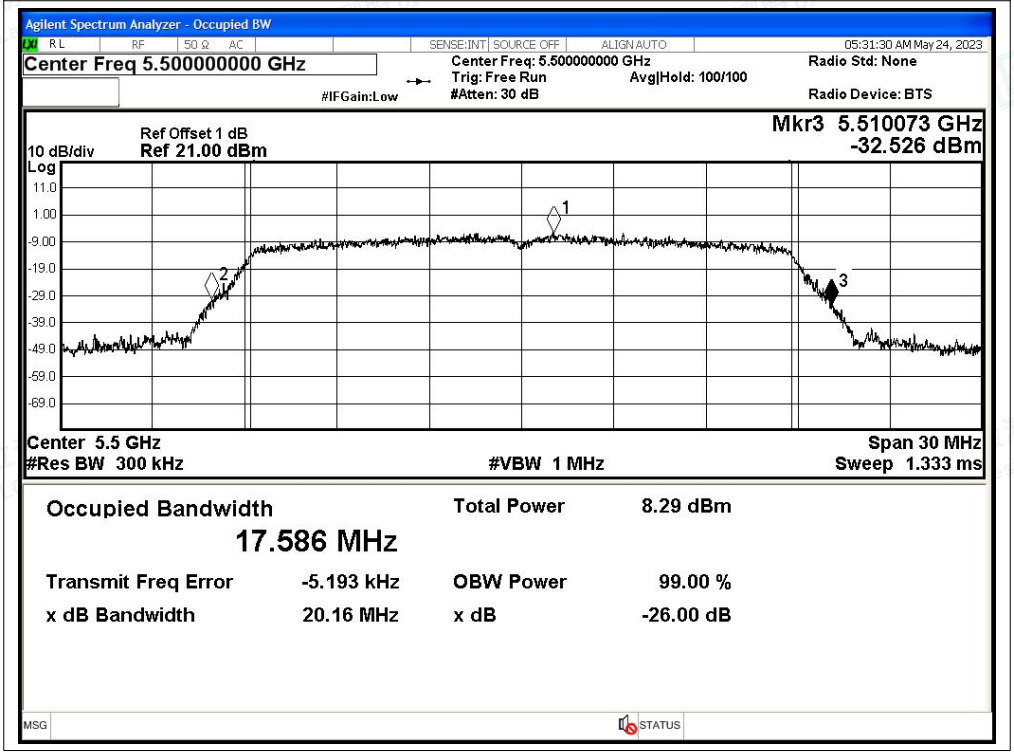
-26dB Bandwidth NVNT n40 5550MHz Ant0



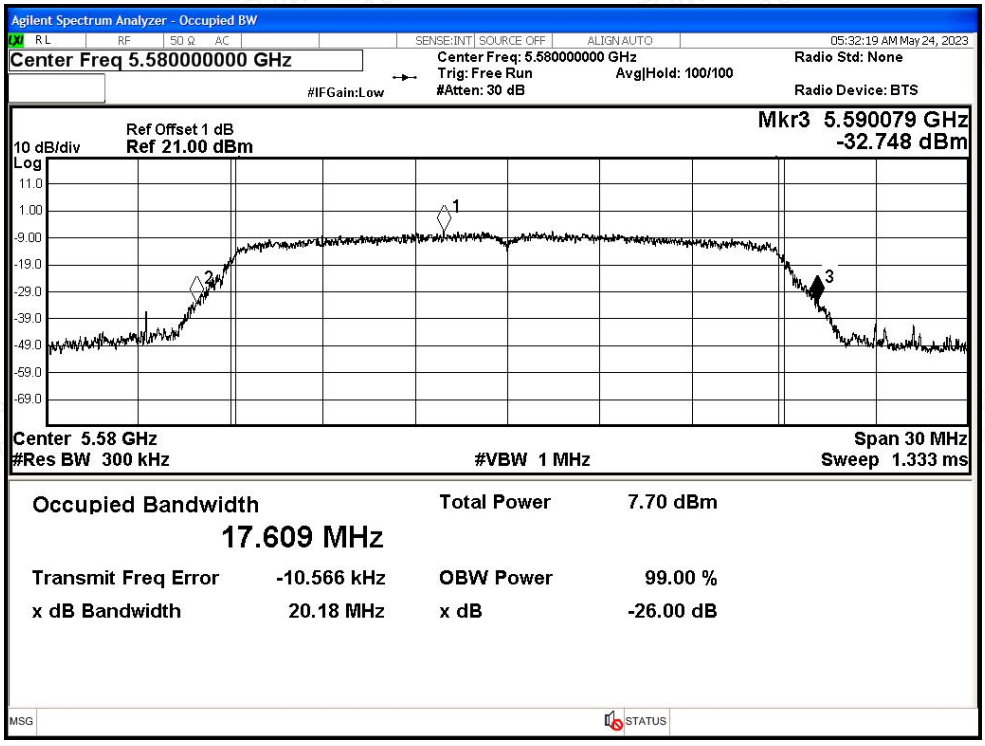
-26dB Bandwidth NVNT n40 5670MHz Ant0



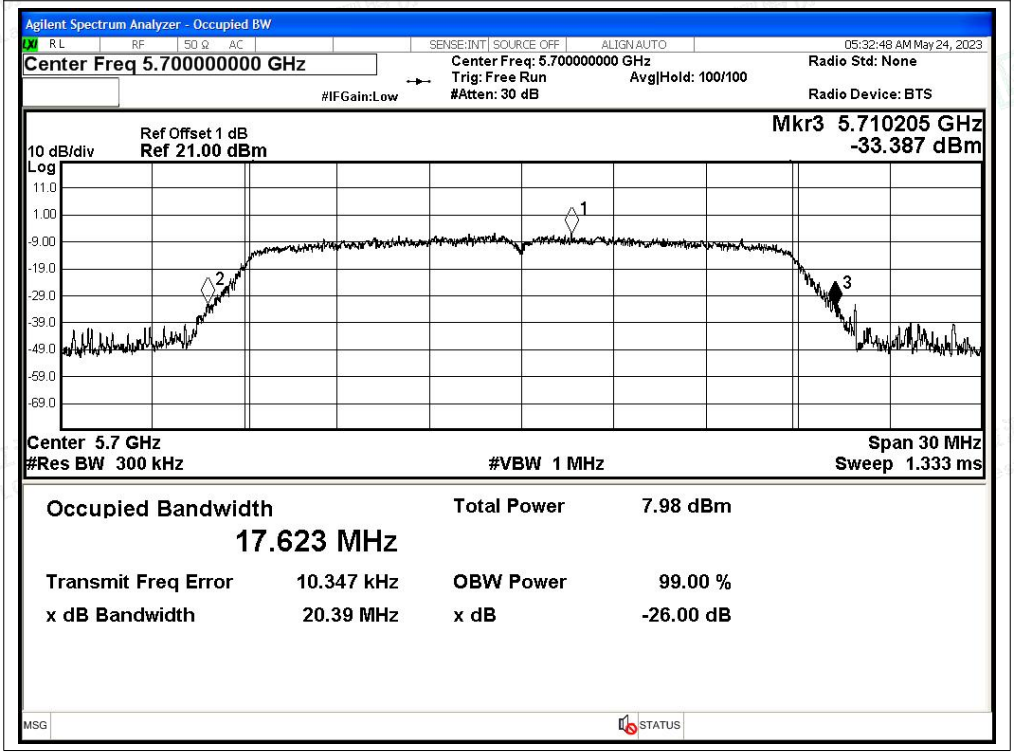
-26dB Bandwidth NVNT ac20 5500MHz Ant0



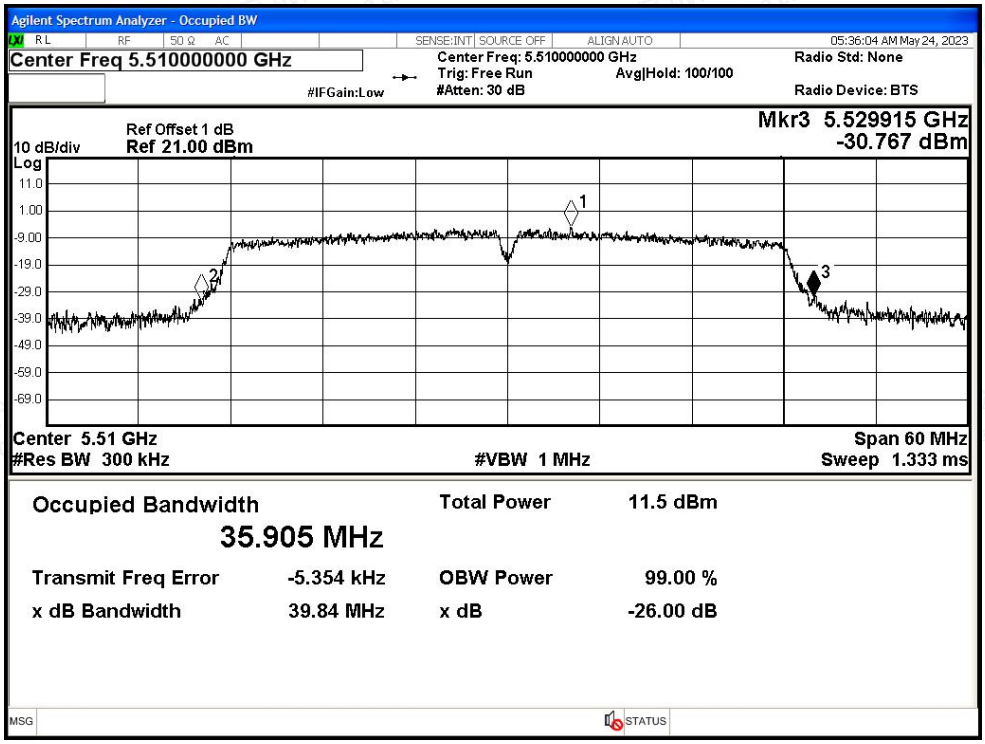
-26dB Bandwidth NVNT ac20 5580MHz Ant0



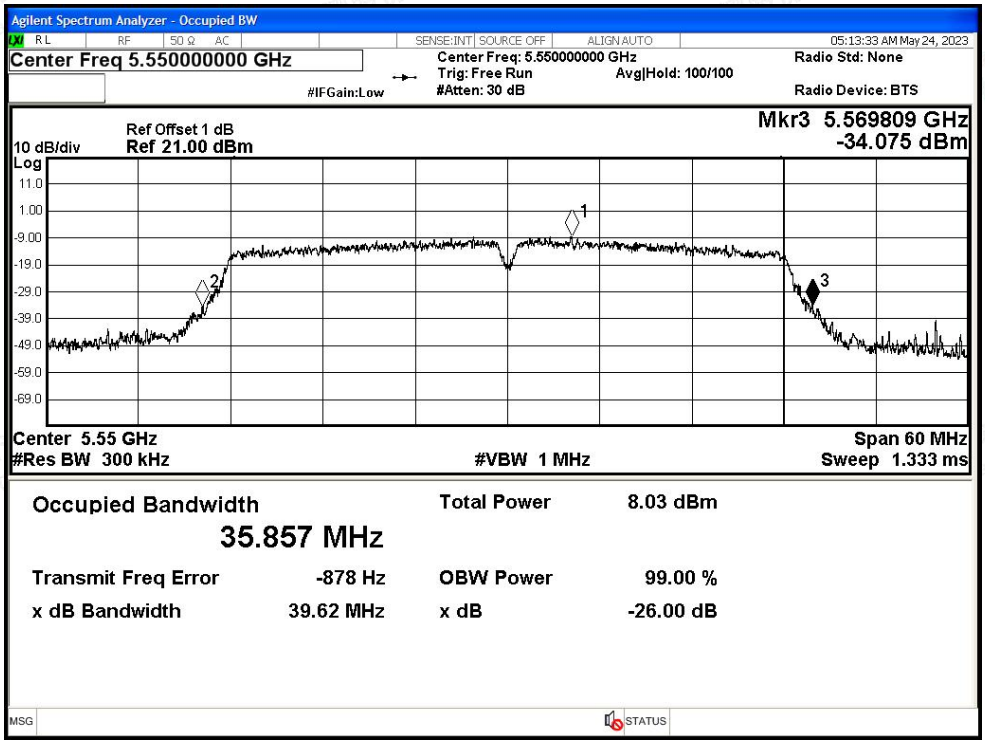
-26dB Bandwidth NVNT ac20 5700MHz Ant0



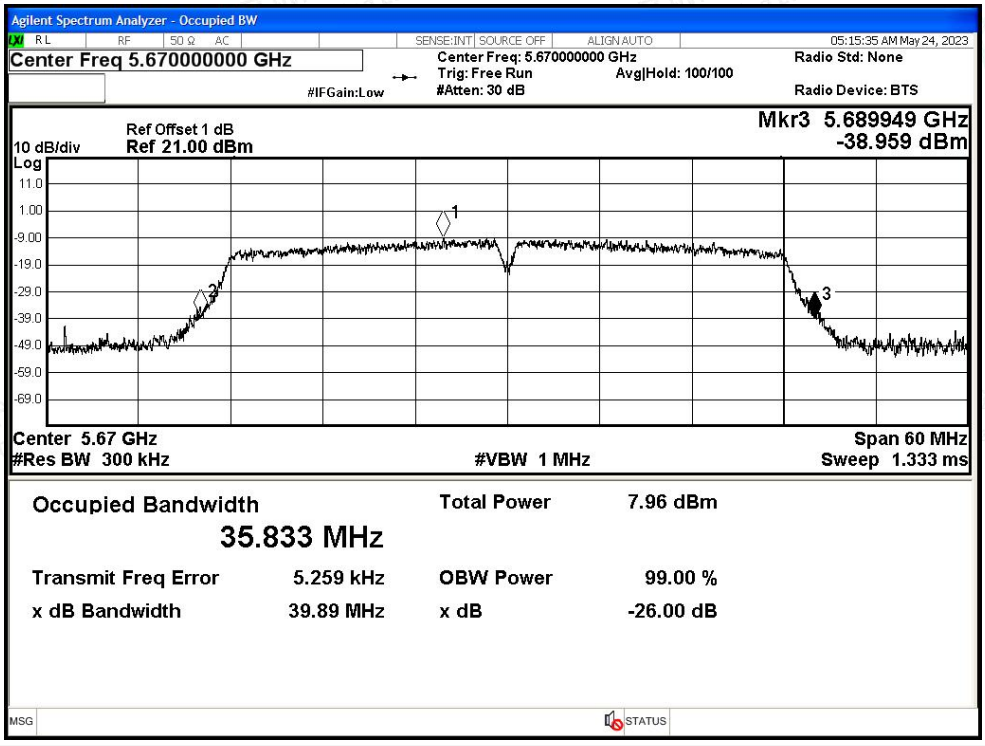
-26dB Bandwidth NVNT ac40 5510MHz Ant0



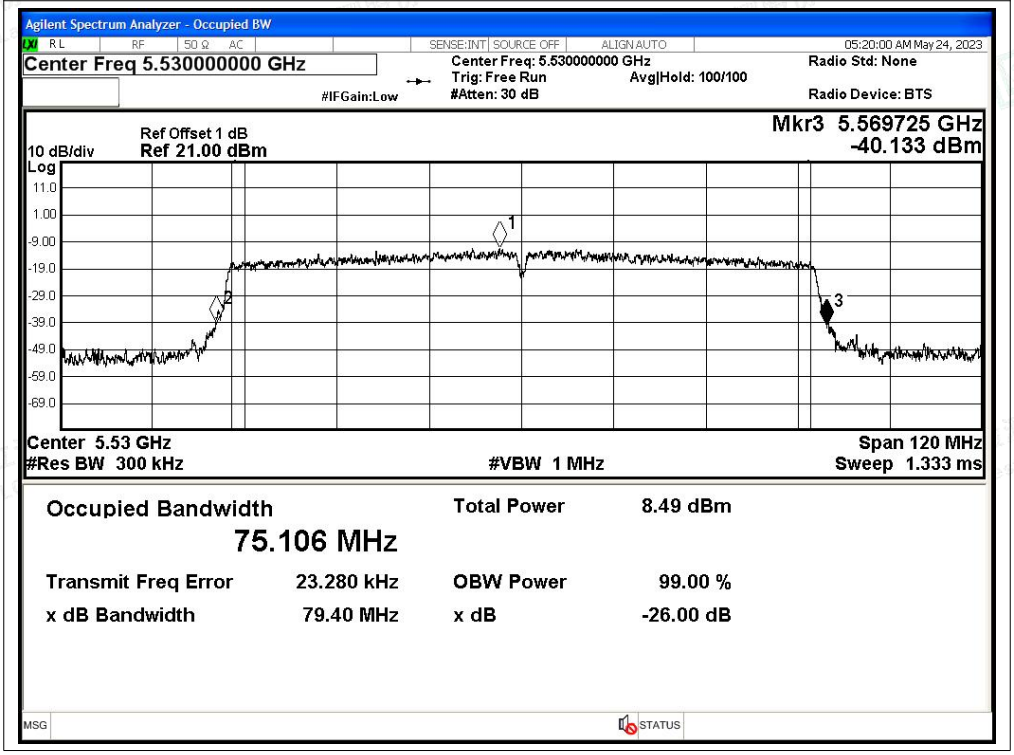
-26dB Bandwidth NVNT ac40 5550MHz Ant0



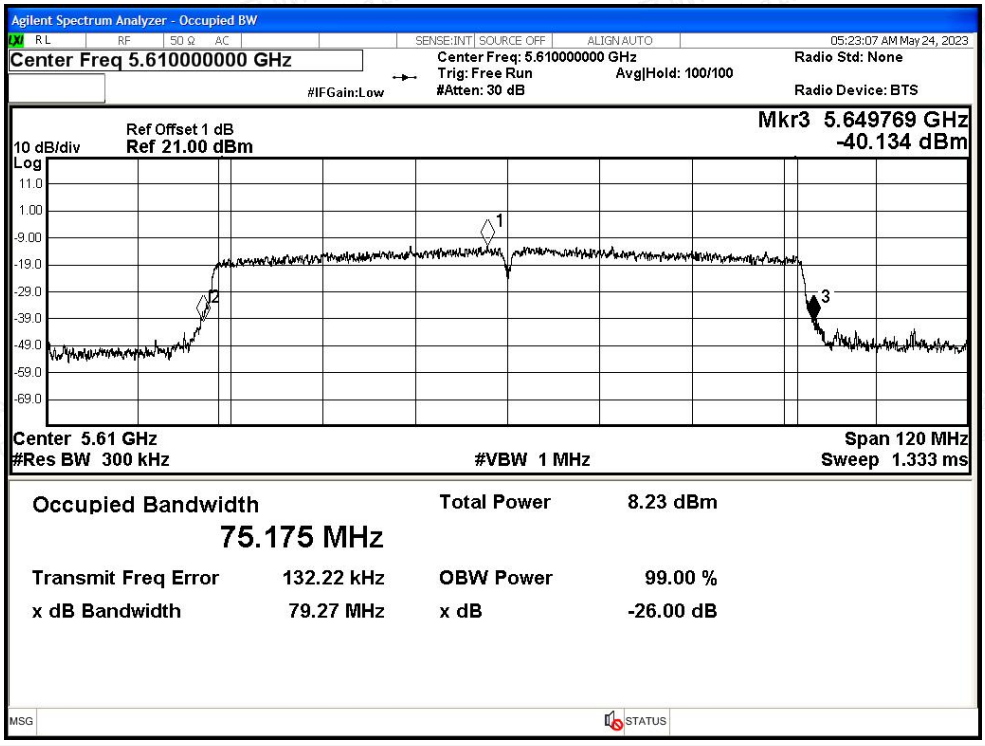
-26dB Bandwidth NVNT ac40 5670MHz Ant0



-26dB Bandwidth NVNT ac80 5530MHz Ant0



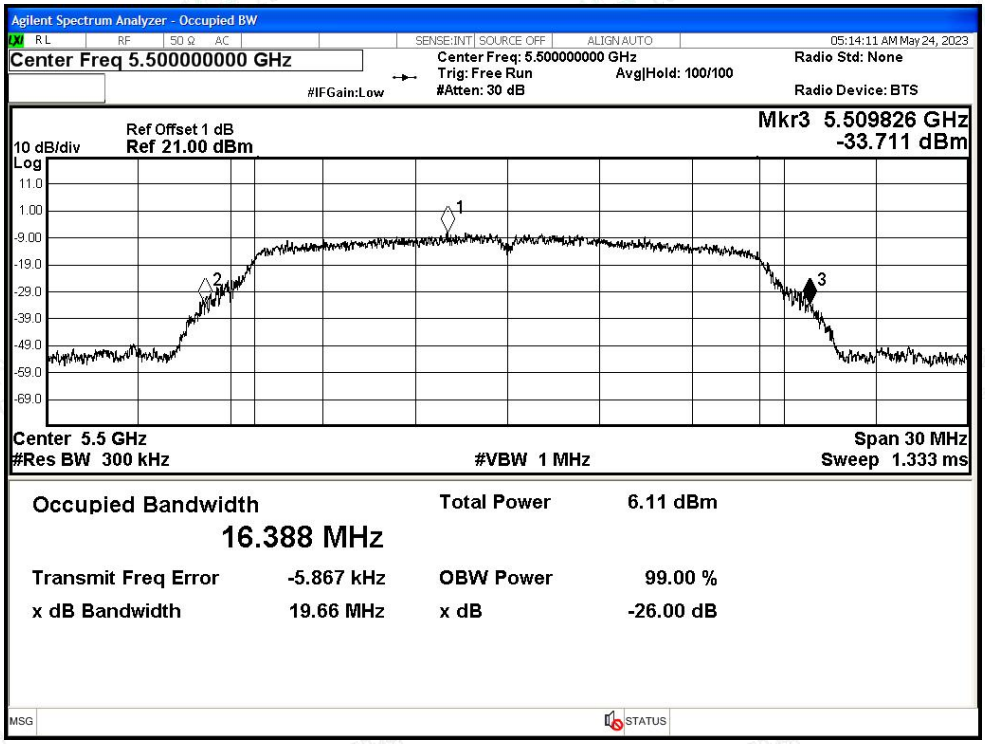
-26dB Bandwidth NVNT ac80 5610MHz Ant0



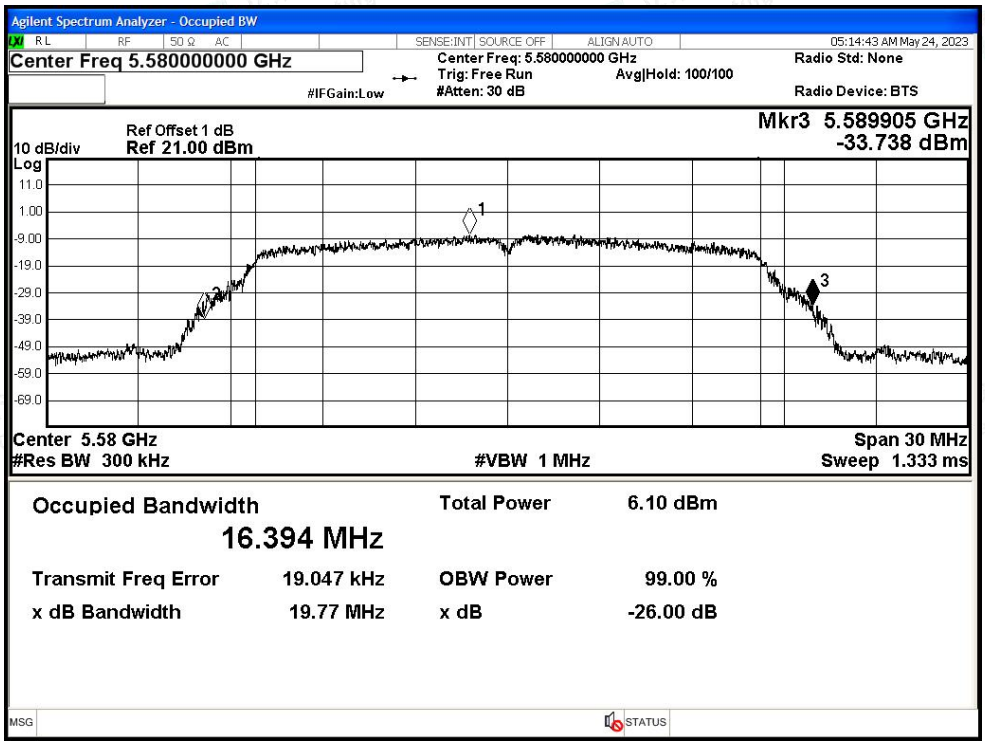
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5500	Ant1	19.663	--	Pass
NVNT	a	5580	Ant1	19.772	--	Pass
NVNT	a	5700	Ant1	19.65	--	Pass
NVNT	n20	5500	Ant1	20.107	--	Pass
NVNT	n20	5580	Ant1	20.283	--	Pass
NVNT	n20	5700	Ant1	19.995	--	Pass
NVNT	n40	5510	Ant1	39.723	--	Pass
NVNT	n40	5550	Ant1	39.672	--	Pass
NVNT	n40	5670	Ant1	39.216	--	Pass
NVNT	ac20	5500	Ant1	19.881	--	Pass
NVNT	ac20	5580	Ant1	20.125	--	Pass
NVNT	ac20	5700	Ant1	20.065	--	Pass
NVNT	ac40	5510	Ant1	39.037	--	Pass
NVNT	ac40	5550	Ant1	40.005	--	Pass
NVNT	ac40	5670	Ant1	39.381	--	Pass
NVNT	ac80	5530	Ant1	78.732	--	Pass
NVNT	ac80	5610	Ant1	78.836	--	Pass

Test Graphs

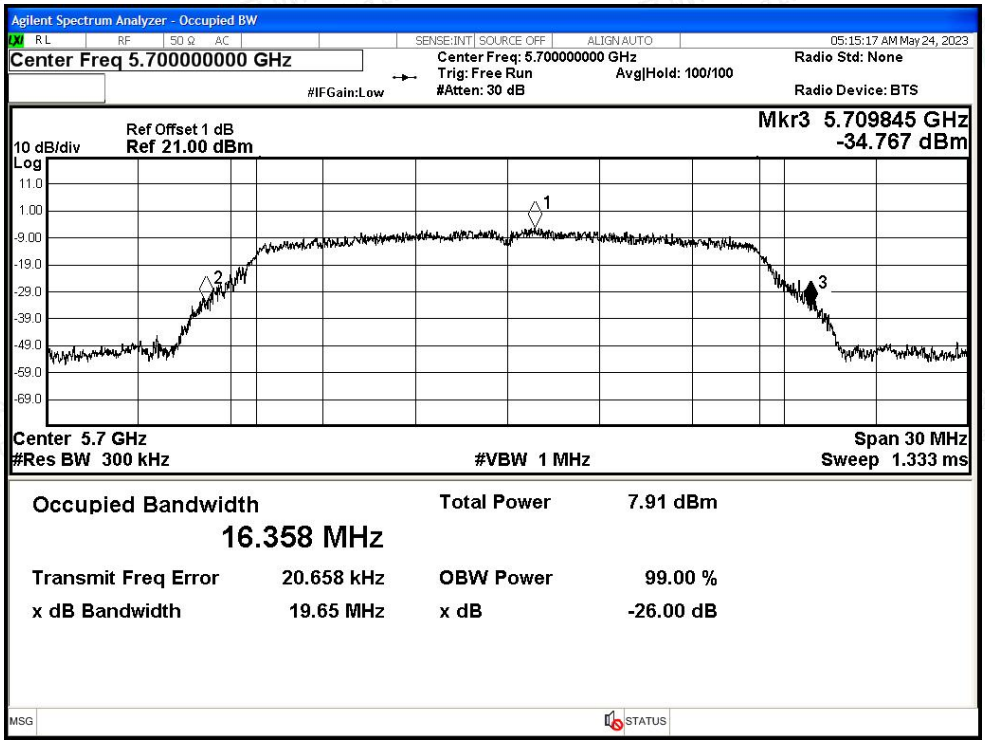
-26dB Bandwidth NVNT a 5500MHz Ant1



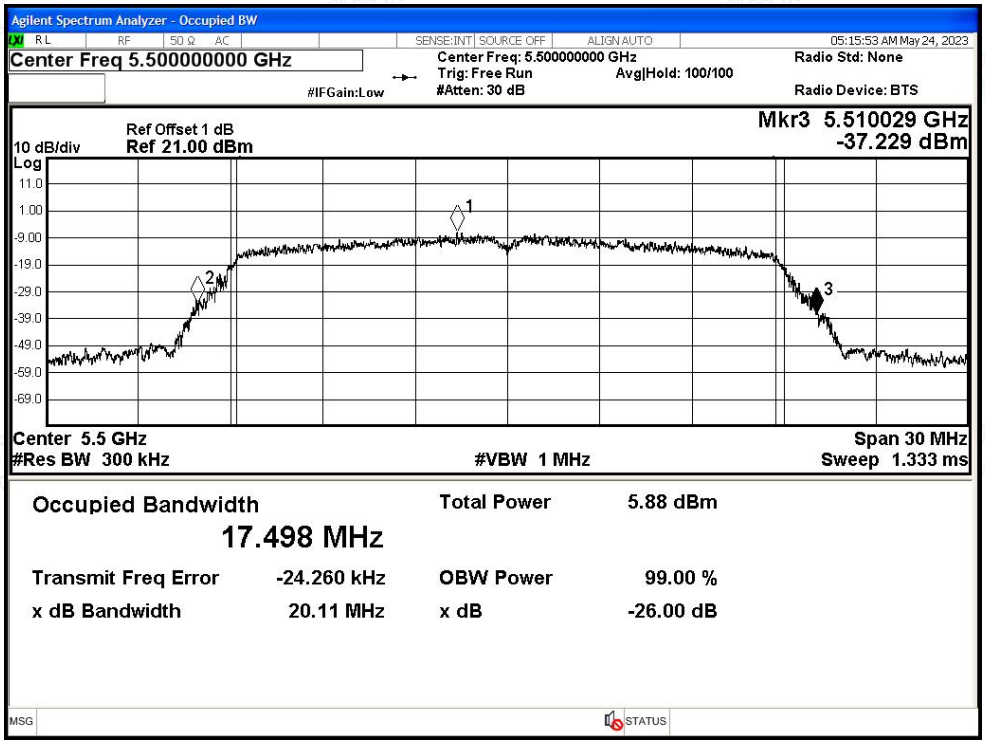
-26dB Bandwidth NVNT a 5580MHz Ant1



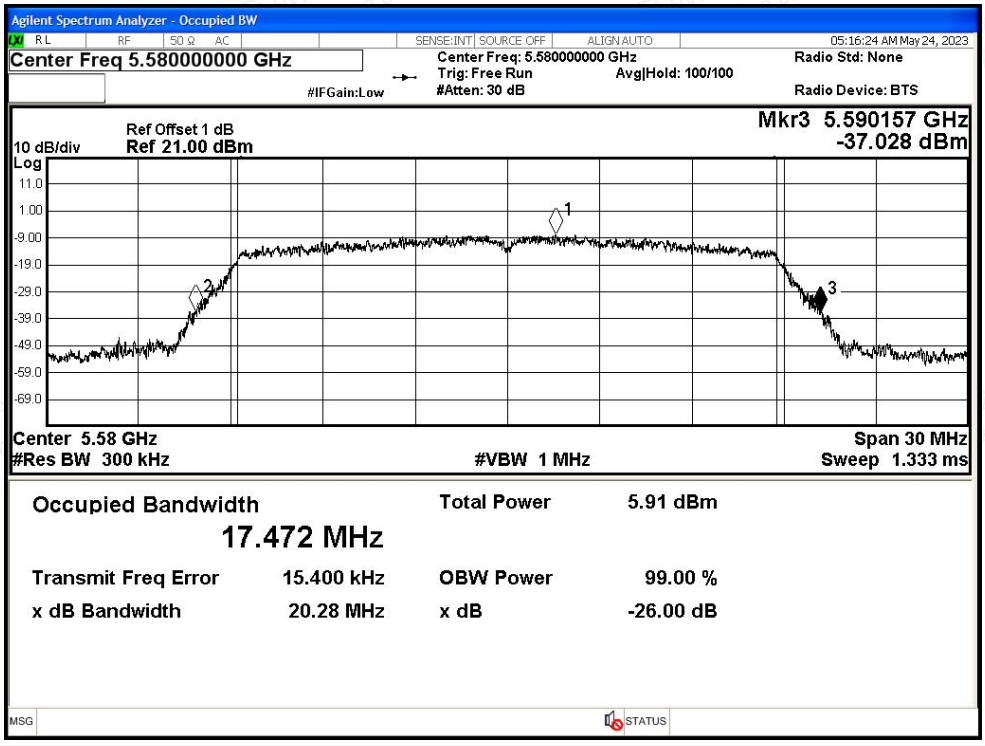
-26dB Bandwidth NVNT a 5700MHz Ant1



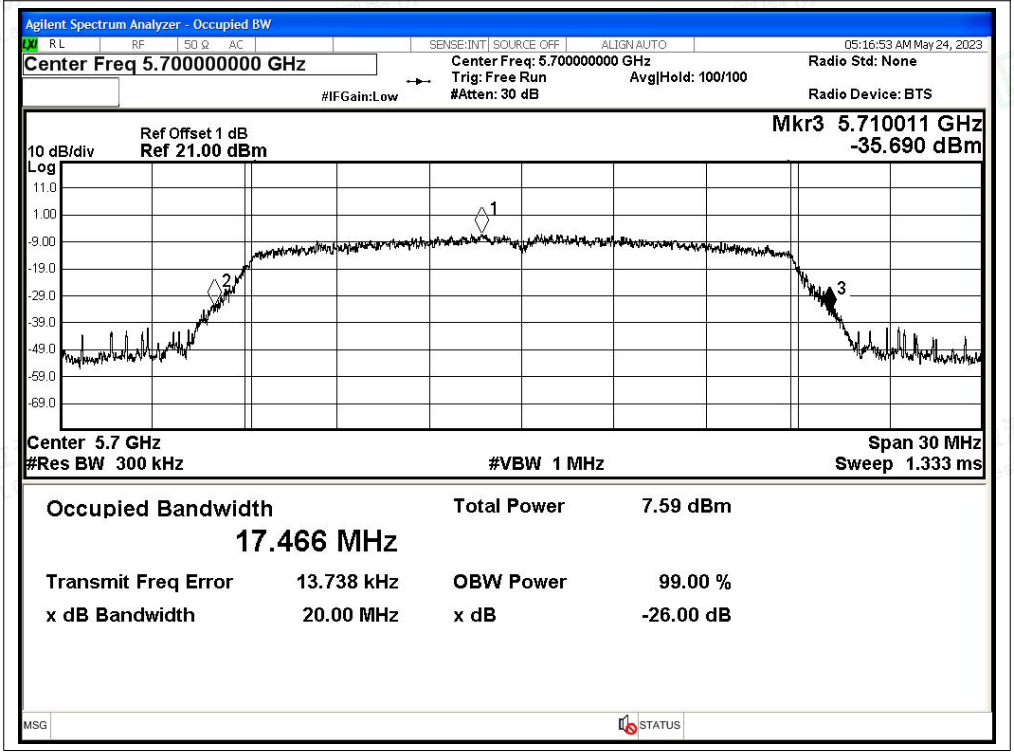
-26dB Bandwidth NVNT n20 5500MHz Ant1



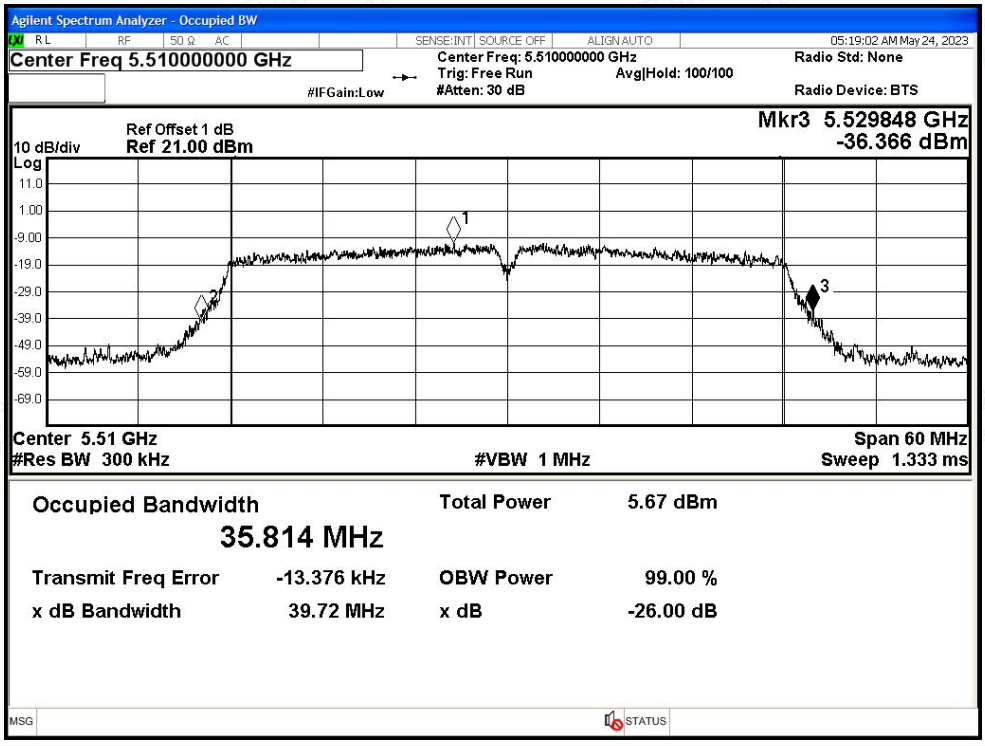
-26dB Bandwidth NVNT n20 5580MHz Ant1



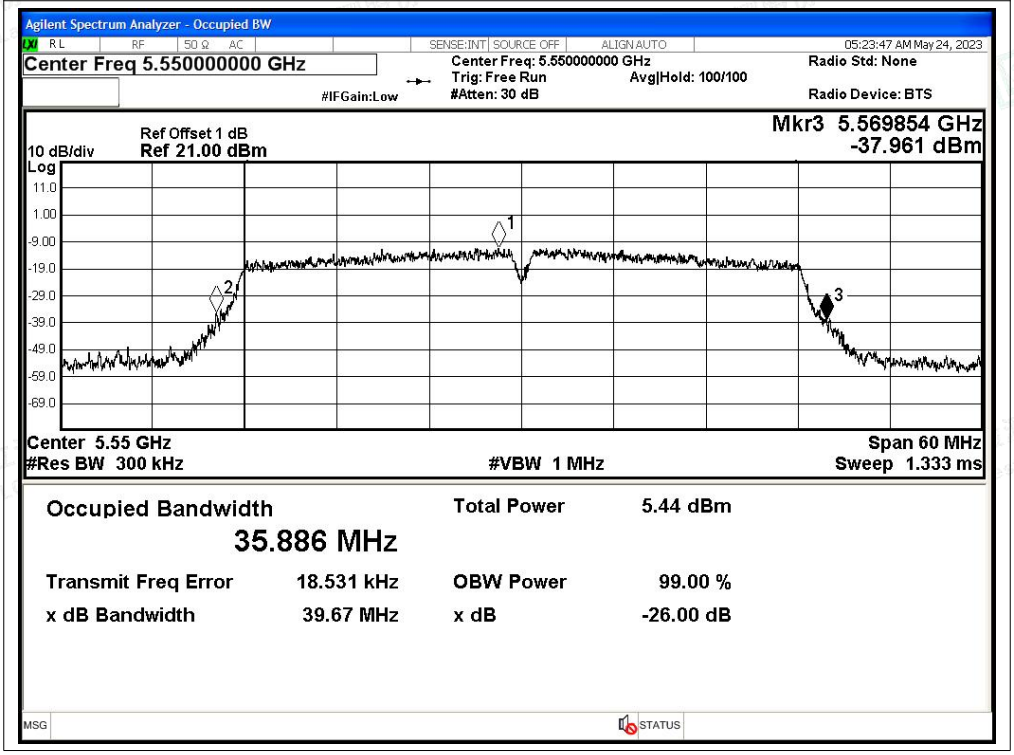
-26dB Bandwidth NVNT n20 5700MHz Ant1



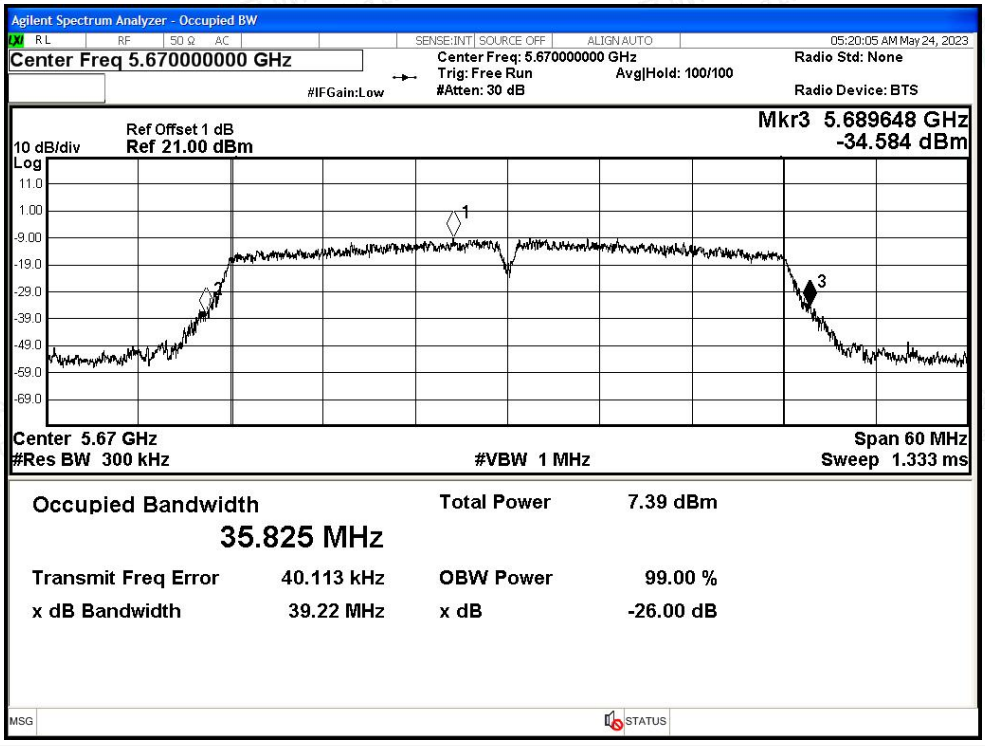
-26dB Bandwidth NVNT n40 5510MHz Ant1



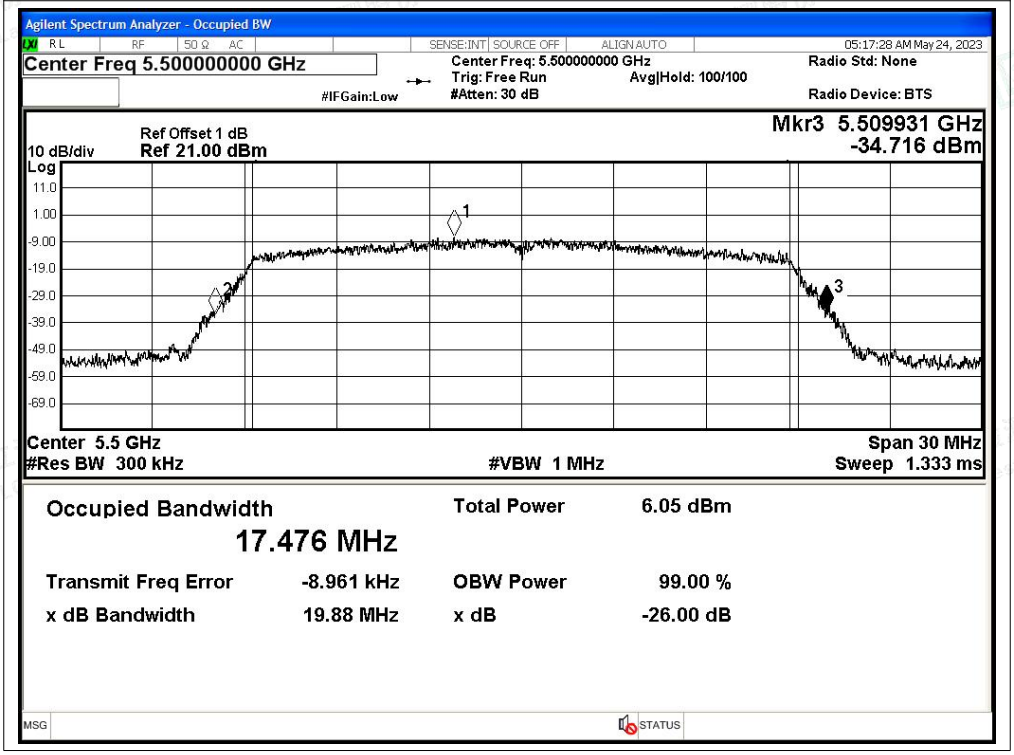
-26dB Bandwidth NVNT n40 5550MHz Ant1



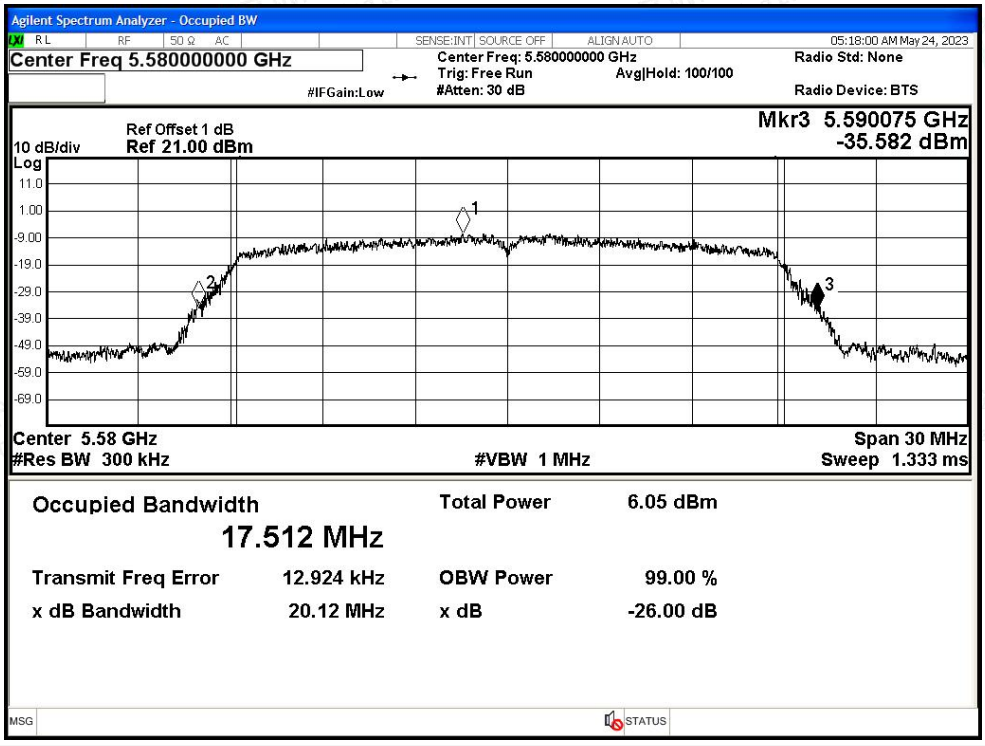
-26dB Bandwidth NVNT n40 5670MHz Ant1



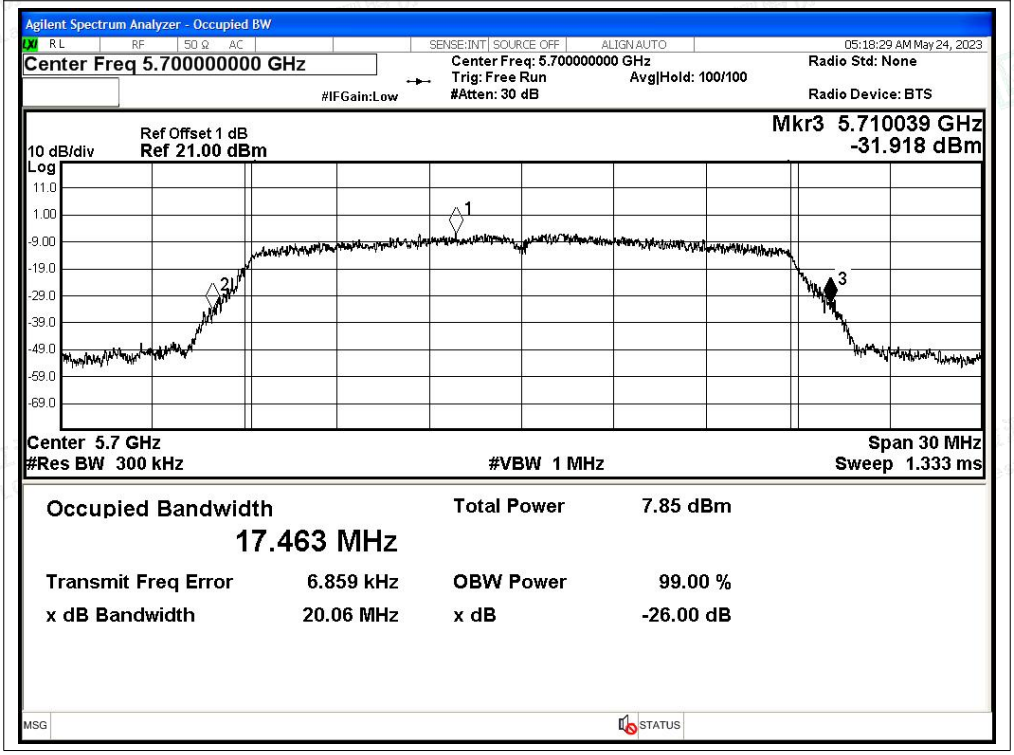
-26dB Bandwidth NVNT ac20 5500MHz Ant1



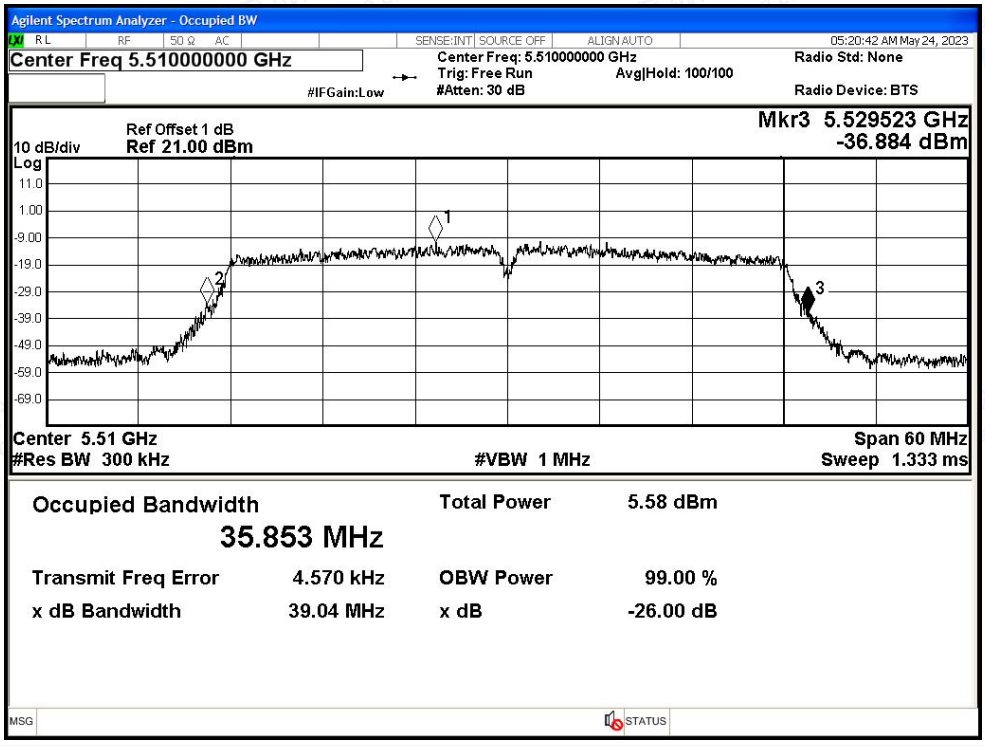
-26dB Bandwidth NVNT ac20 5580MHz Ant1



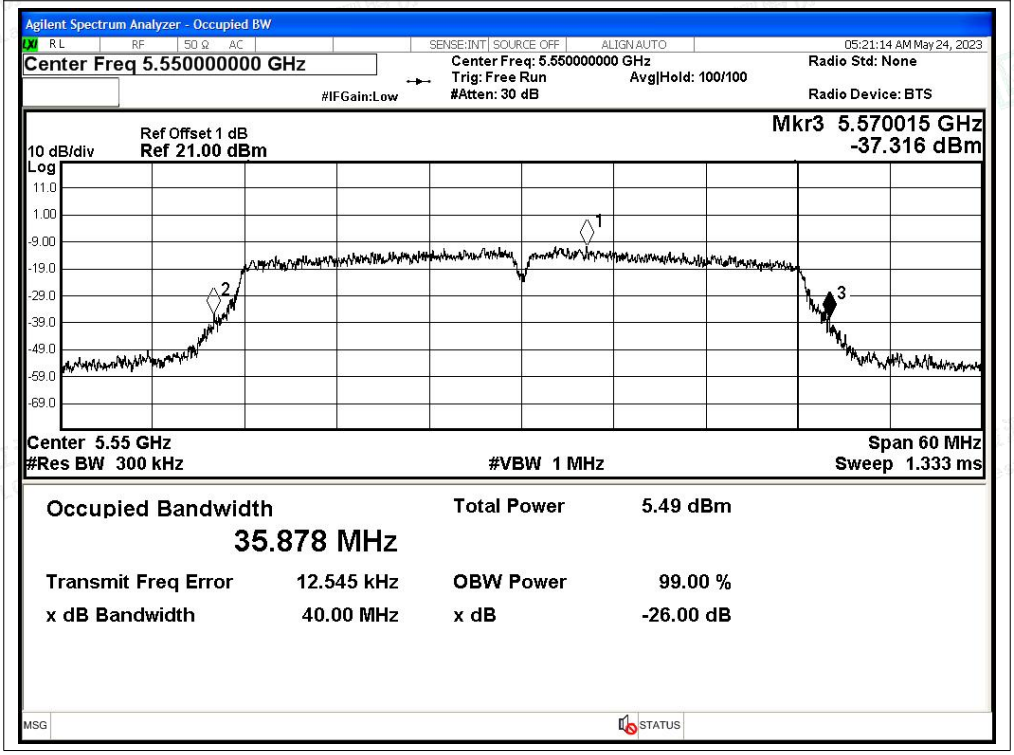
-26dB Bandwidth NVNT ac20 5700MHz Ant1



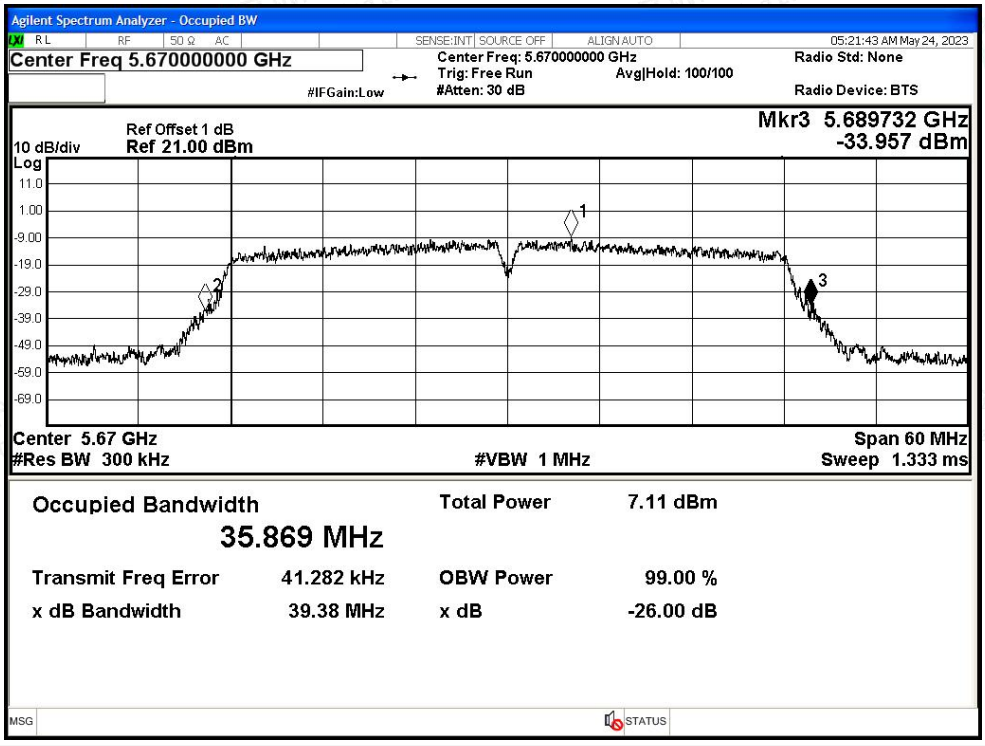
-26dB Bandwidth NVNT ac40 5510MHz Ant1



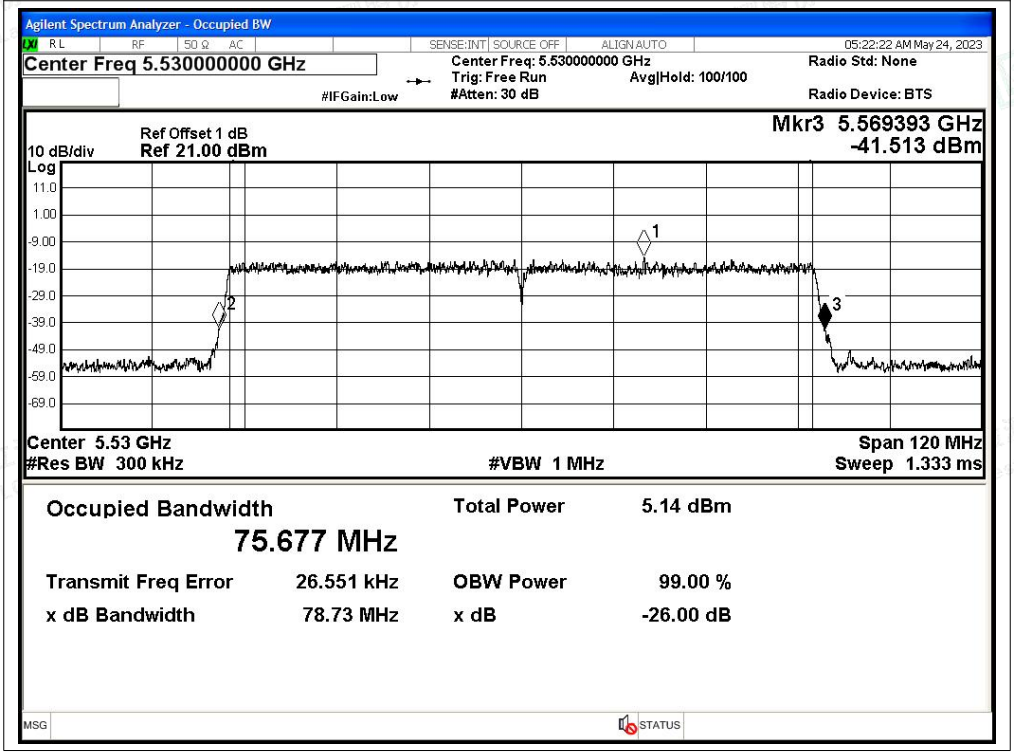
-26dB Bandwidth NVNT ac40 5550MHz Ant1



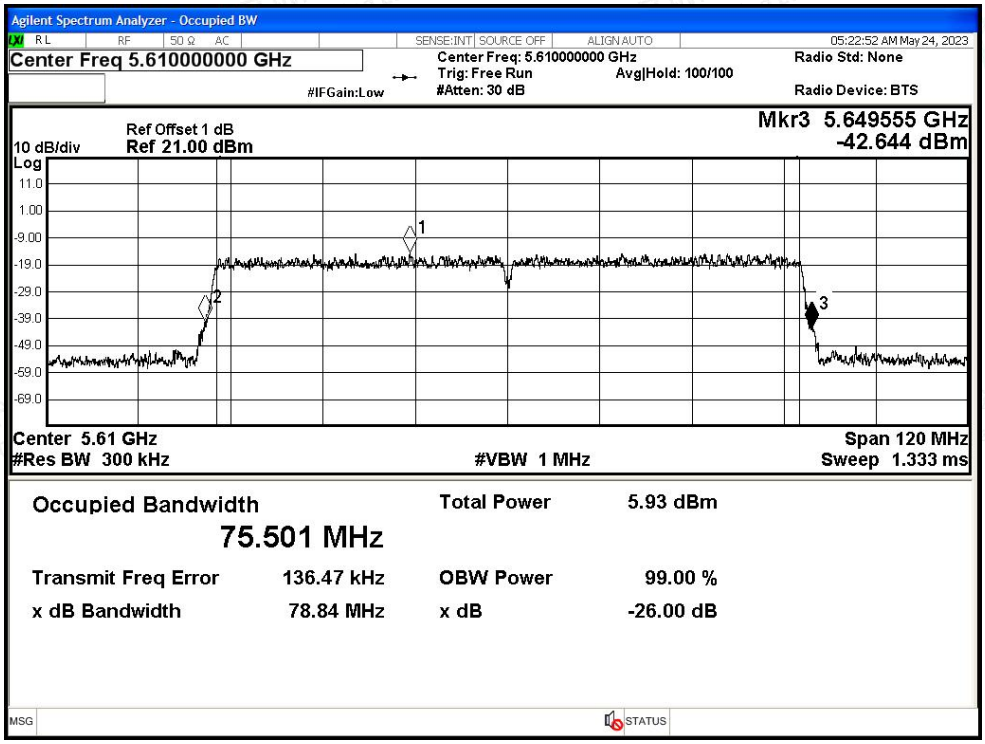
-26dB Bandwidth NVNT ac40 5670MHz Ant1



-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	11.07	0.14	11.21	24	Pass
NVNT	a	5580	Ant0	10.09	0.13	10.22	24	Pass
NVNT	a	5700	Ant0	9.81	0.13	9.94	24	Pass
NVNT	n20	5500	Ant0	10.51	0.14	10.65	24	Pass
NVNT	n20	5580	Ant0	9.82	0.14	9.96	24	Pass
NVNT	n20	5700	Ant0	9.71	0.14	9.85	24	Pass
NVNT	n40	5510	Ant0	10.45	0.29	10.74	24	Pass
NVNT	n40	5550	Ant0	9.99	0.29	10.28	24	Pass
NVNT	n40	5670	Ant0	9.91	0.29	10.2	24	Pass
NVNT	ac20	5500	Ant0	10.45	0.15	10.6	24	Pass
NVNT	ac20	5580	Ant0	9.84	0.14	9.98	24	Pass
NVNT	ac20	5700	Ant0	9.74	0.14	9.88	24	Pass
NVNT	ac40	5510	Ant0	10.23	0.28	10.51	24	Pass
NVNT	ac40	5550	Ant0	9.94	0.28	10.22	24	Pass
NVNT	ac40	5670	Ant0	9.88	0.28	10.16	24	Pass
NVNT	ac80	5530	Ant0	10.23	0.55	10.78	24	Pass
NVNT	ac80	5610	Ant0	9.72	0.55	10.27	24	Pass

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5500	Ant1	11.22	0.11	11.33	24	Pass
NVNT	a	5580	Ant1	11.28	0.11	11.39	24	Pass
NVNT	a	5700	Ant1	11.19	0.11	11.3	24	Pass
NVNT	n20	5500	Ant1	11.44	0.12	11.56	24	Pass
NVNT	n20	5580	Ant1	11.18	0.12	11.3	24	Pass
NVNT	n20	5700	Ant1	10.69	0.12	10.81	24	Pass
NVNT	n40	5510	Ant1	10.8	0.23	11.03	24	Pass
NVNT	n40	5550	Ant1	10.98	0.23	11.21	24	Pass
NVNT	n40	5670	Ant1	10.91	0.23	11.14	24	Pass
NVNT	ac20	5500	Ant1	10.92	0.12	11.04	24	Pass
NVNT	ac20	5580	Ant1	10.71	0.11	10.82	24	Pass
NVNT	ac20	5700	Ant1	9.83	0.12	9.95	24	Pass
NVNT	ac40	5510	Ant1	10.93	0.23	11.16	24	Pass
NVNT	ac40	5550	Ant1	11.04	0.23	11.27	24	Pass
NVNT	ac40	5670	Ant1	10.67	0.23	10.9	24	Pass
NVNT	ac80	5530	Ant1	10.87	0.44	11.31	24	Pass
NVNT	ac80	5610	Ant1	10.62	0.45	11.07	24	Pass

Condition	Mode	Frequency (MHz)	Total Power (dBm)			Limit (dBm)	Verdict
			Ant0	Ant1	Ant0+Ant1		
NVNT	n20	5500	10.65	11.56	14.14	24	Pass
NVNT	n20	5580	9.96	11.3	13.69	24	Pass
NVNT	n20	5700	9.85	10.81	13.37	24	Pass
NVNT	n40	5510	10.74	11.03	13.90	24	Pass
NVNT	n40	5550	10.28	11.21	13.78	24	Pass
NVNT	n40	5670	10.2	11.14	13.71	24	Pass
NVNT	ac20	5500	10.6	11.04	13.84	24	Pass
NVNT	ac20	5580	9.98	10.82	13.43	24	Pass
NVNT	ac20	5700	9.88	9.95	12.93	24	Pass
NVNT	ac40	5510	10.51	11.16	13.86	24	Pass
NVNT	ac40	5550	10.22	11.27	13.79	24	Pass
NVNT	ac40	5670	10.16	10.9	13.56	24	Pass
NVNT	ac80	5530	10.78	11.31	14.06	24	Pass
NVNT	ac80	5610	10.27	11.07	13.70	24	Pass

F.3 Maximum Power Spectral Density Level

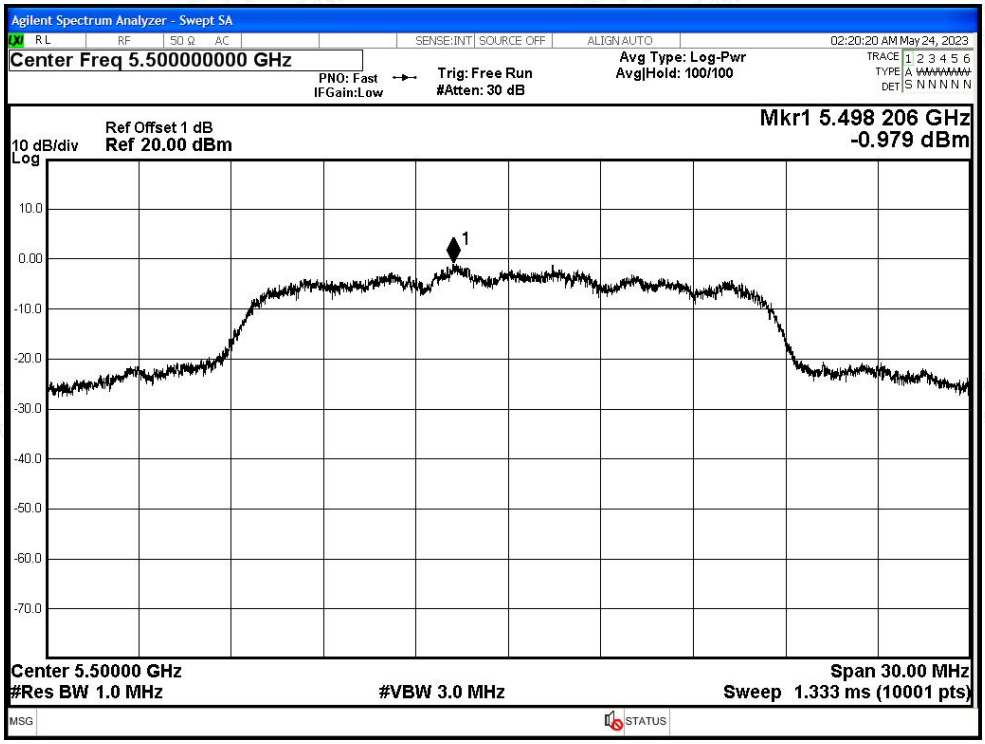
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5500	Ant0	-0.98	0.14	-0.84	11	Pass
NVNT	a	5580	Ant0	-2.71	0.13	-2.58	11	Pass
NVNT	a	5700	Ant0	-2.37	0.13	-2.24	11	Pass
NVNT	n20	5500	Ant0	-1.58	0.14	-1.44	11	Pass
NVNT	n20	5580	Ant0	-3.14	0.14	-3	11	Pass
NVNT	n20	5700	Ant0	-2.28	0.14	-2.14	11	Pass
NVNT	n40	5510	Ant0	-5.95	0.29	-5.66	11	Pass
NVNT	n40	5550	Ant0	-5.72	0.29	-5.43	11	Pass
NVNT	n40	5670	Ant0	-6.67	0.29	-6.38	11	Pass
NVNT	ac20	5500	Ant0	-2.48	0.15	-2.33	11	Pass
NVNT	ac20	5580	Ant0	-2.61	0.14	-2.47	11	Pass
NVNT	ac20	5700	Ant0	-3.11	0.14	-2.97	11	Pass
NVNT	ac40	5510	Ant0	-4.83	0.28	-4.55	11	Pass
NVNT	ac40	5550	Ant0	-7.07	0.28	-6.79	11	Pass
NVNT	ac40	5670	Ant0	-5.29	0.28	-5.01	11	Pass
NVNT	ac80	5530	Ant0	-10.3	0.55	-9.75	11	Pass
NVNT	ac80	5610	Ant0	-11.46	0.55	-10.91	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	-0.29	0.11	-0.18	11	Pass
NVNT	a	5580	Ant1	-0.32	0.11	-0.21	11	Pass
NVNT	a	5700	Ant1	0.06	0.11	0.17	11	Pass
NVNT	n20	5500	Ant1	-1.01	0.12	-0.89	11	Pass
NVNT	n20	5580	Ant1	-0.79	0.12	-0.67	11	Pass
NVNT	n20	5700	Ant1	-1.68	0.12	-1.56	11	Pass
NVNT	n40	5510	Ant1	-4.32	0.23	-4.09	11	Pass
NVNT	n40	5550	Ant1	-4.27	0.23	-4.04	11	Pass
NVNT	n40	5670	Ant1	-3.89	0.23	-3.66	11	Pass
NVNT	ac20	5500	Ant1	-1.2	0.12	-1.08	11	Pass
NVNT	ac20	5580	Ant1	-1.91	0.11	-1.8	11	Pass
NVNT	ac20	5700	Ant1	-2.4	0.12	-2.28	11	Pass
NVNT	ac40	5510	Ant1	-4.81	0.23	-4.58	11	Pass
NVNT	ac40	5550	Ant1	-4.69	0.23	-4.46	11	Pass
NVNT	ac40	5670	Ant1	-4.65	0.23	-4.42	11	Pass
NVNT	ac80	5530	Ant1	-10.93	0.44	-10.49	11	Pass
NVNT	ac80	5610	Ant1	-11.55	0.45	-11.1	11	Pass

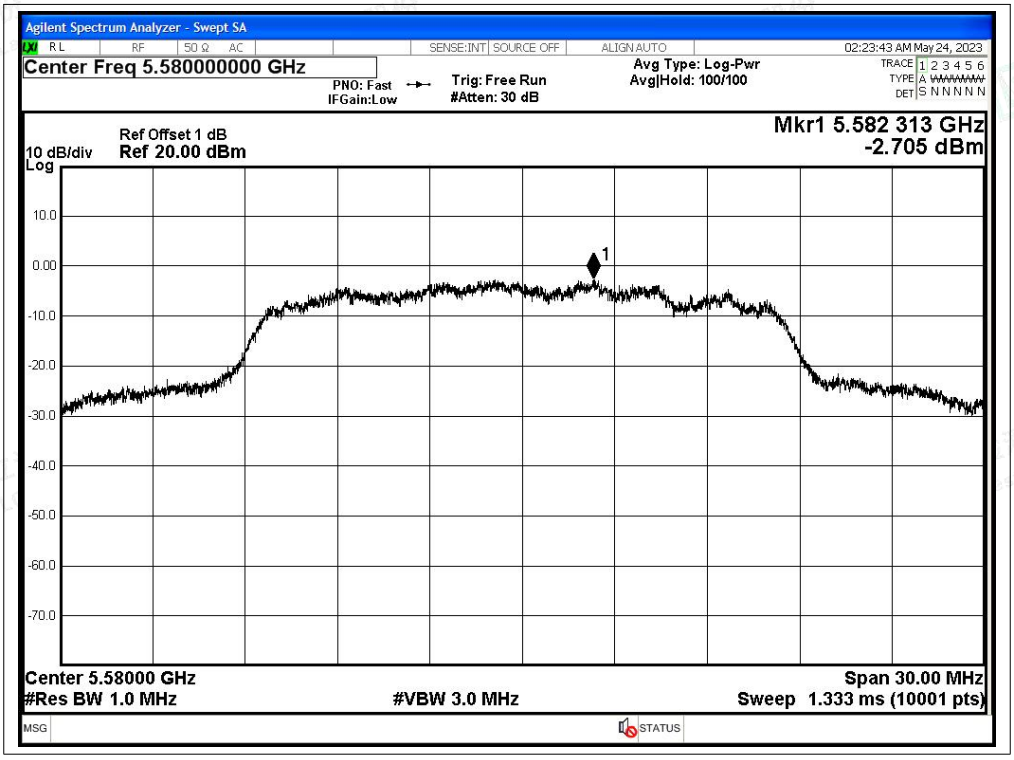
Condition	Mode	Frequency (MHz)	Total PSD (dBm)			Limit (dBm)	Verdict
			Ant0	Ant1	Ant0+Ant1		
NVNT	n20	5500	-1.44	-0.89	1.85	11	Pass
NVNT	n20	5580	-3	-0.67	1.33	11	Pass
NVNT	n20	5700	-2.14	-1.56	1.17	11	Pass
NVNT	n40	5510	-5.66	-4.09	-1.79	11	Pass
NVNT	n40	5550	-5.43	-4.04	-1.67	11	Pass
NVNT	n40	5670	-6.38	-3.66	-1.80	11	Pass
NVNT	ac20	5500	-2.33	-1.08	1.35	11	Pass
NVNT	ac20	5580	-2.47	-1.8	0.89	11	Pass
NVNT	ac20	5700	-2.97	-2.28	0.40	11	Pass
NVNT	ac40	5510	-4.55	-4.58	-1.55	11	Pass
NVNT	ac40	5550	-6.79	-4.46	-2.46	11	Pass
NVNT	ac40	5670	-5.01	-4.42	-1.69	11	Pass
NVNT	ac80	5530	-9.75	-10.49	-7.09	11	Pass
NVNT	ac80	5610	-10.91	-11.1	-7.99	11	Pass

Test Graphs

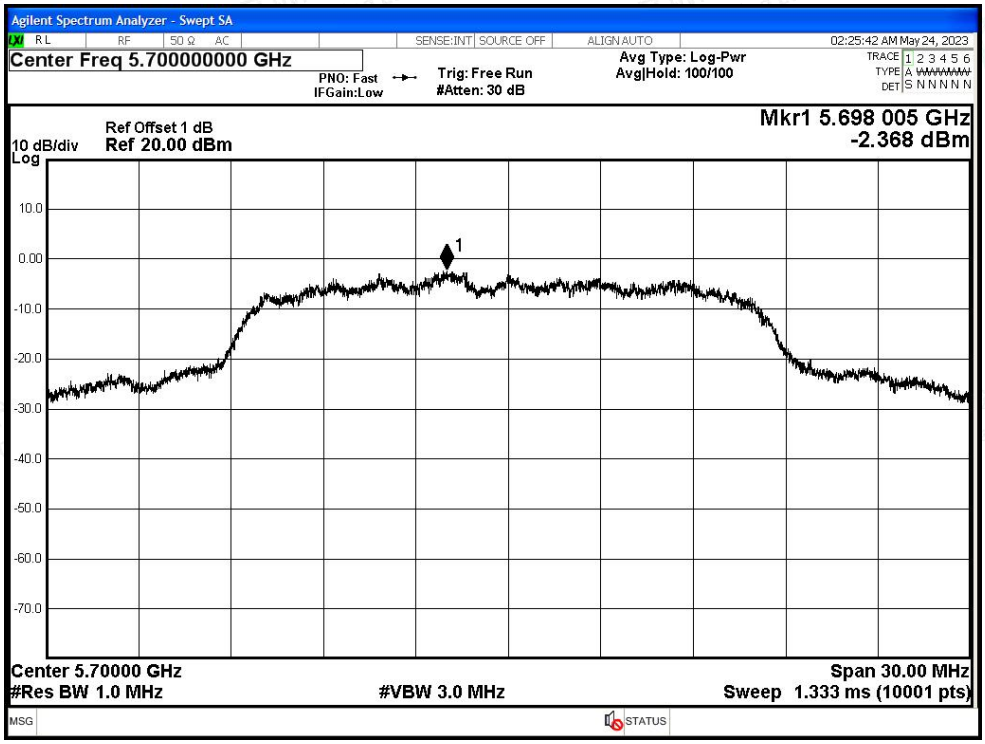
PSD NVNT a 5500MHz Ant0



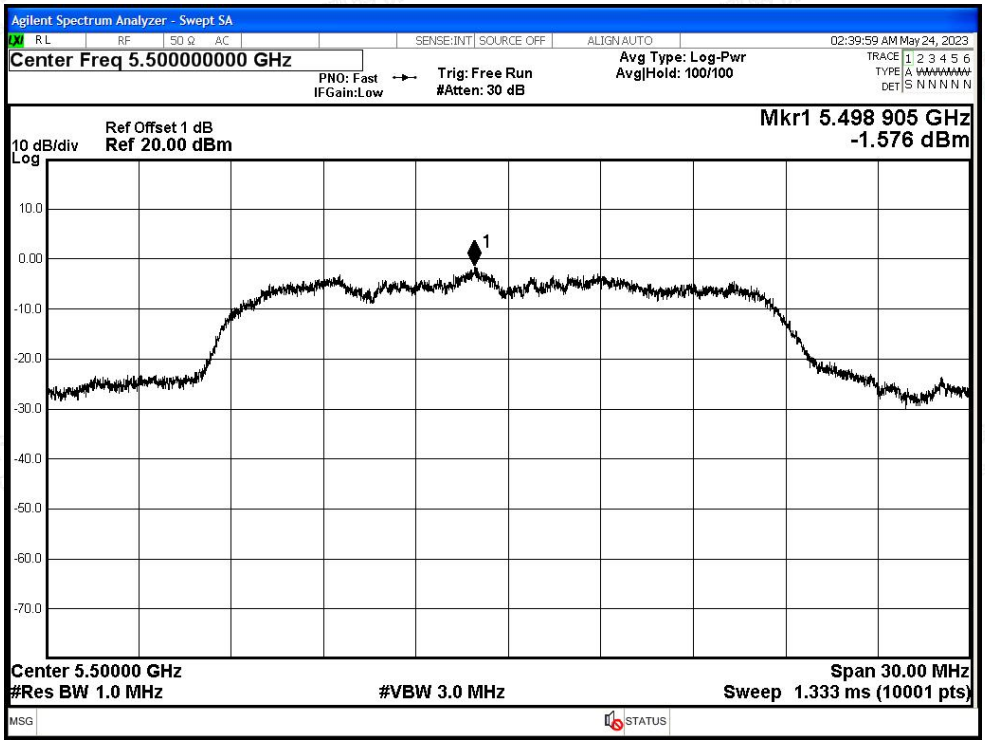
PSD NVNT a 5580MHz Ant0


Agilent Spectrum Analyzer - Swept SA
Center Freq 5.580000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 100/100
02:23:43 AM May 24, 2023
Ref Offset 1 dB
10 dB/div
Log
Ref 20.00 dBm
Mkr1 5.582 313 GHz
-2.705 dBm
Center 5.58000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Span 30.00 MHz
Sweep 1.333 ms (10001 pts)

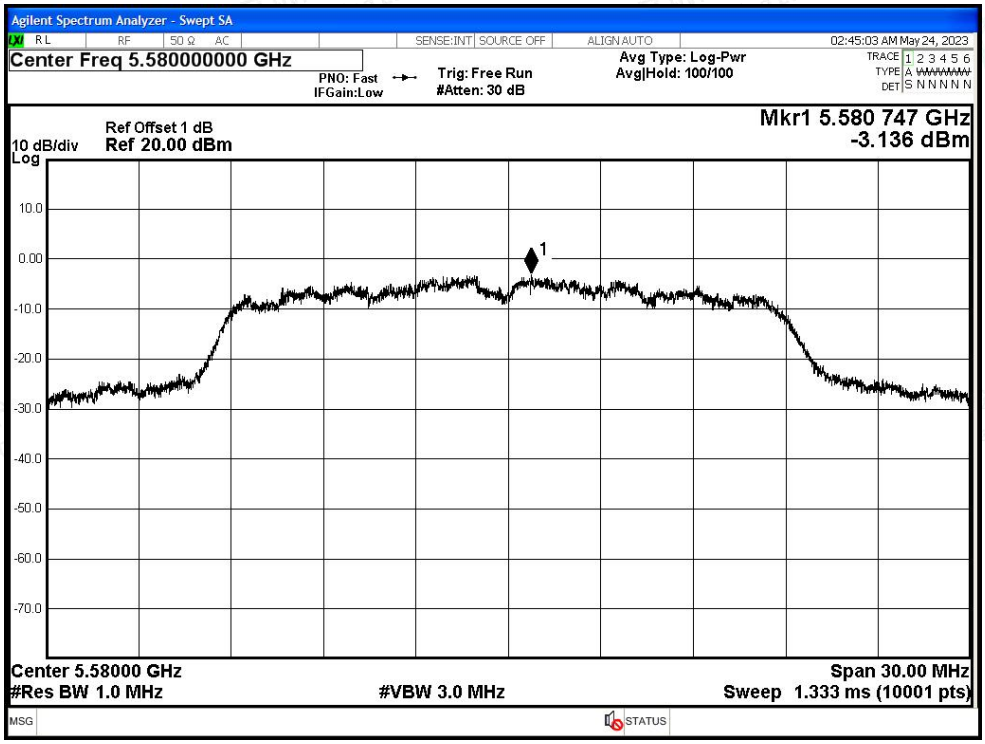
PSD NVNT a 5700MHz Ant0



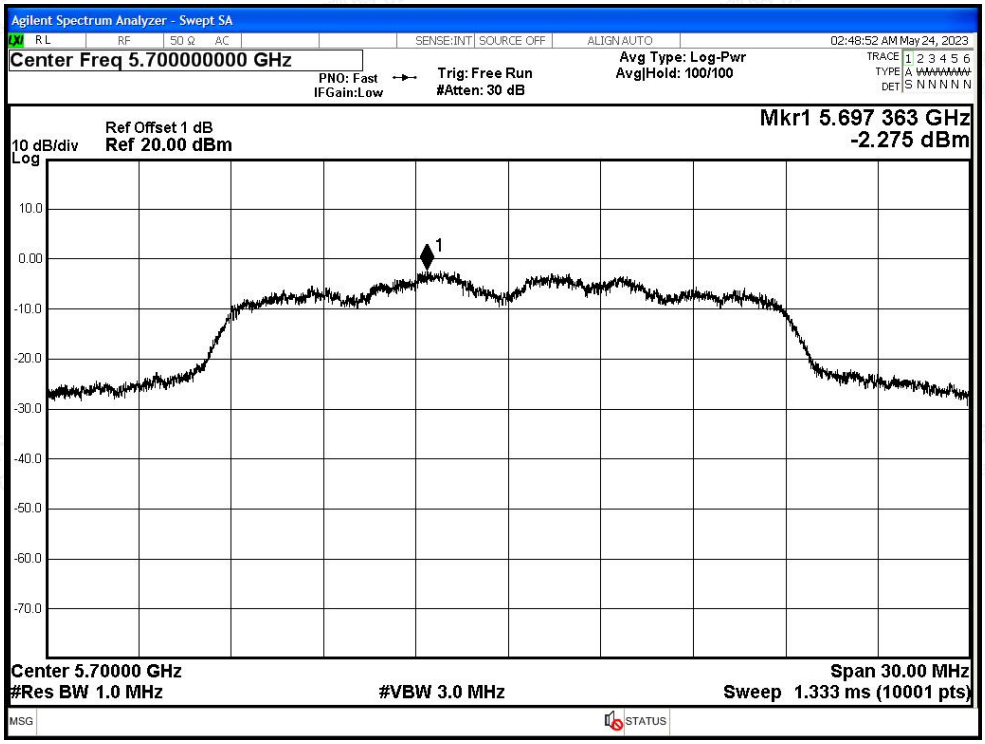
PSD NVNT n20 5500MHz Ant0



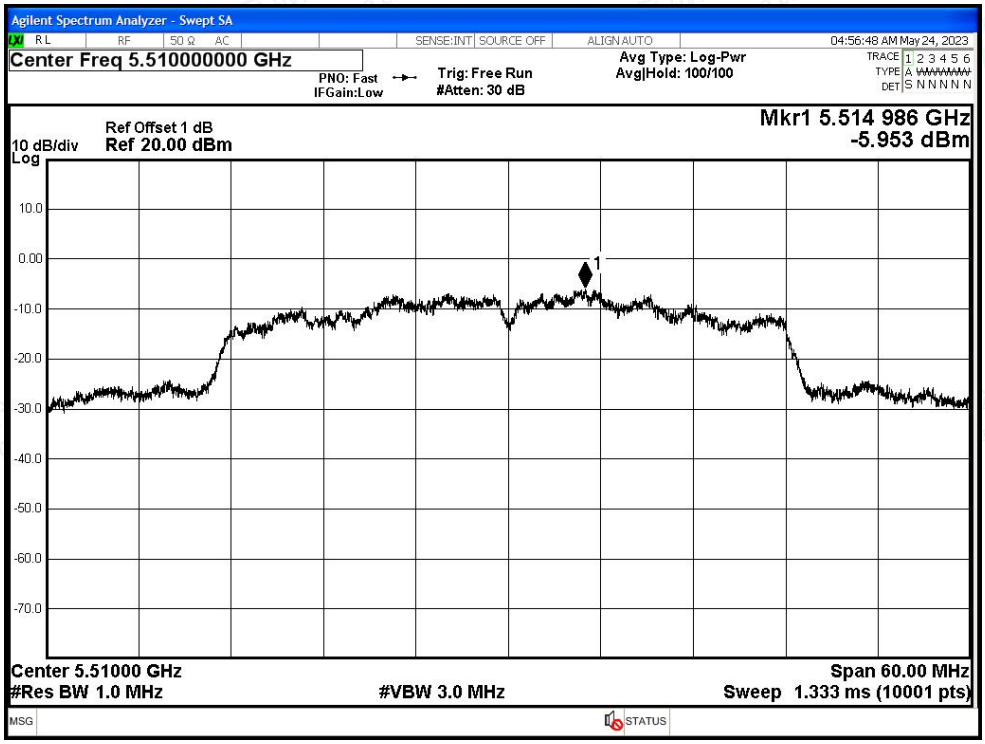
PSD NVNT n20 5580MHz Ant0



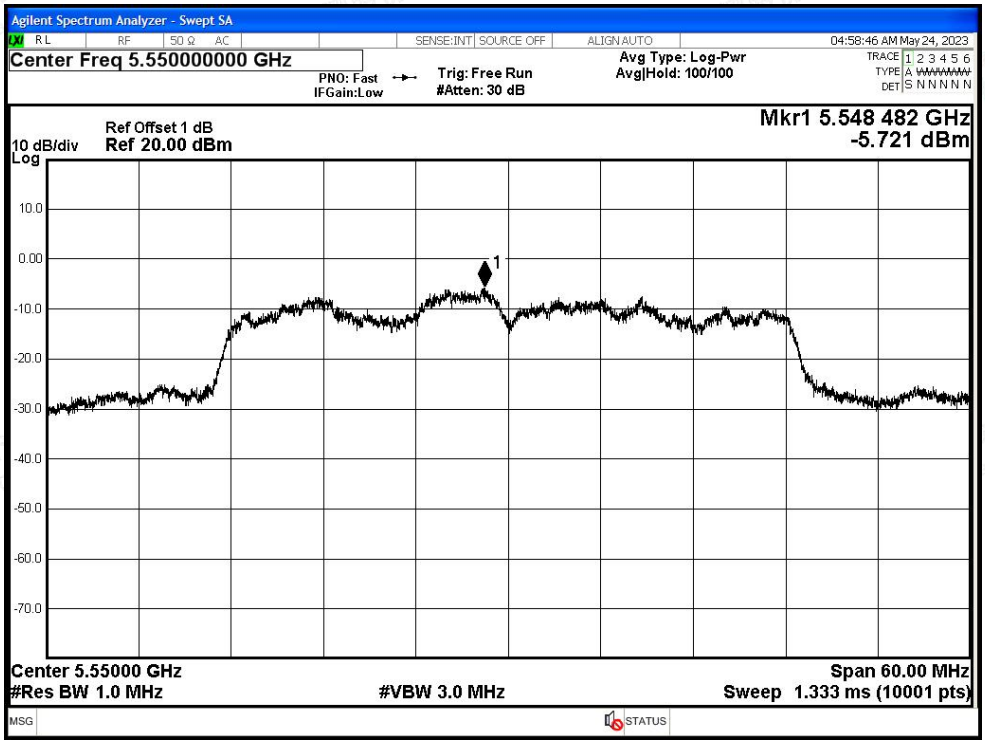
PSD NVNT n20 5700MHz Ant0



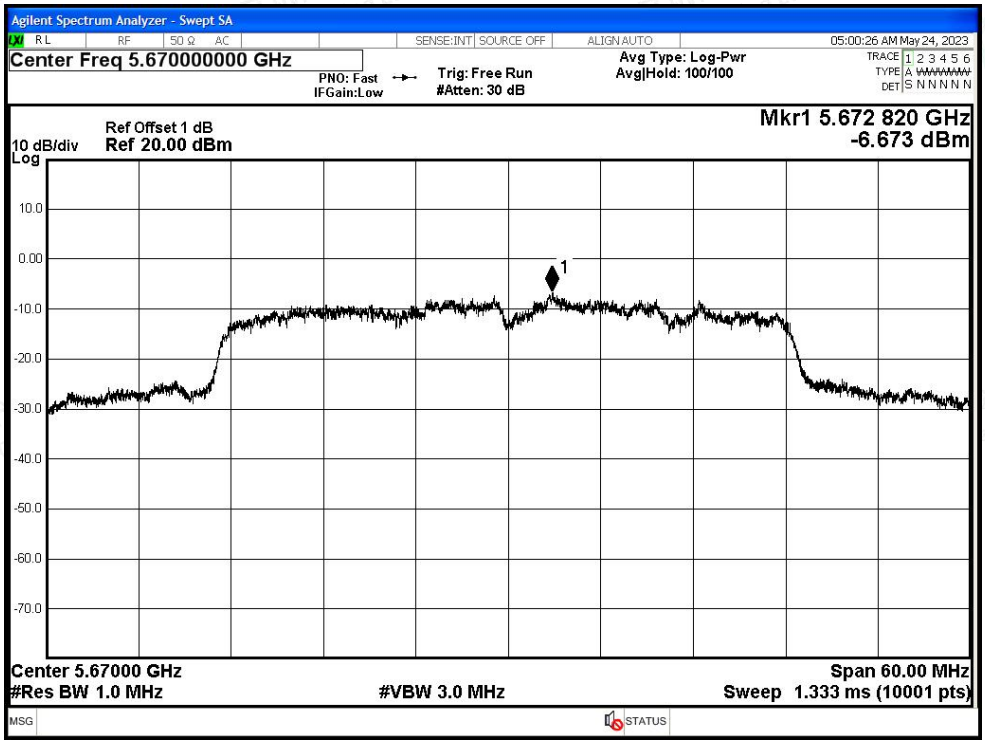
PSD NVNT n40 5510MHz Ant0



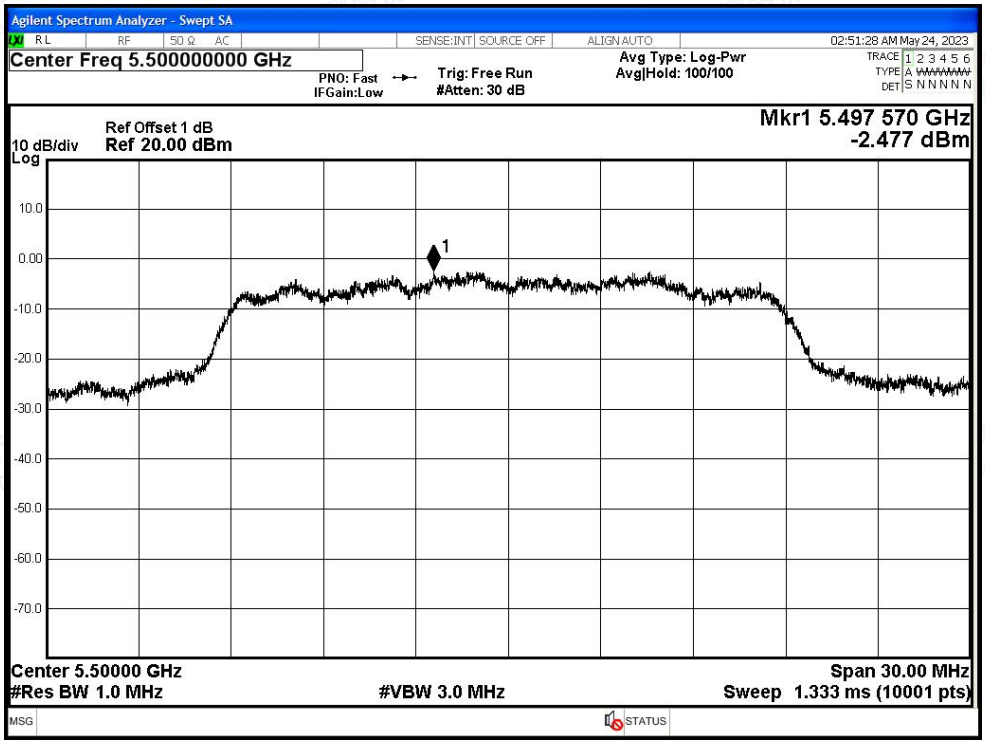
PSD NVNT n40 5550MHz Ant0



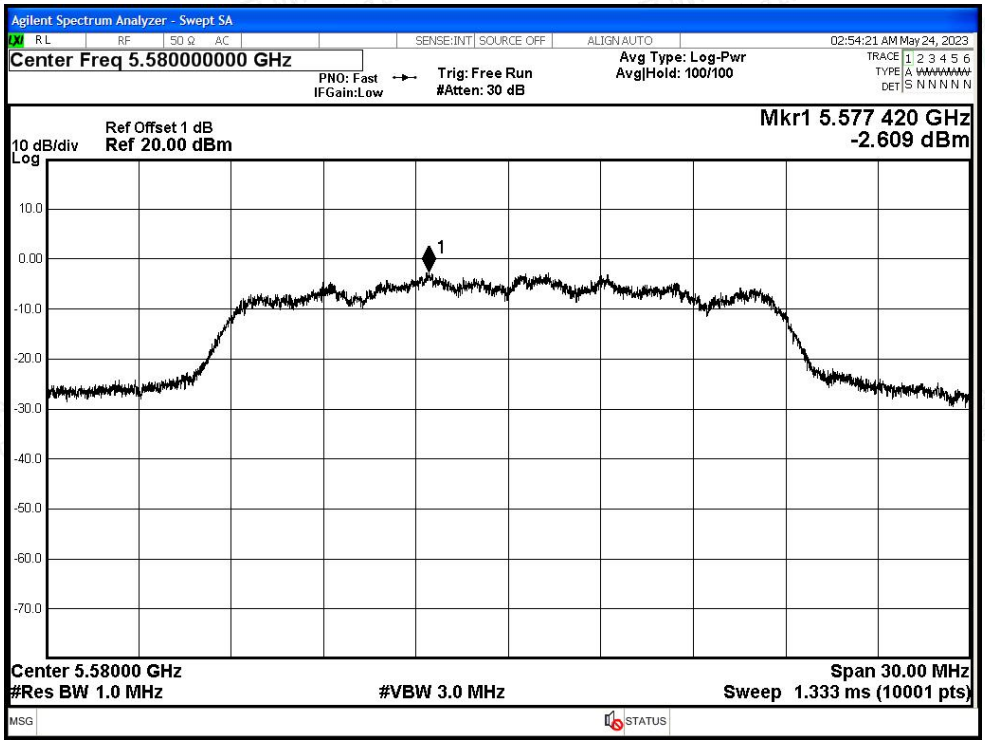
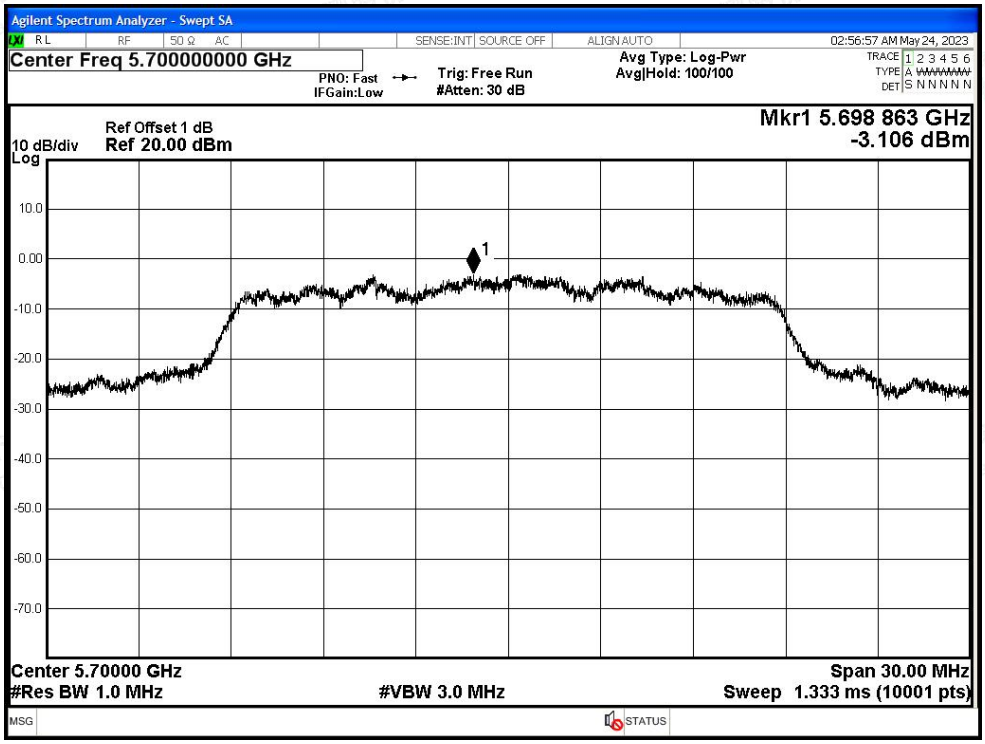
PSD NVNT n40 5670MHz Ant0



PSD NVNT ac20 5500MHz Ant0



PSD NVNT ac20 5580MHz Ant0



PSD NVNT ac20 5700MHz Ant0