

FCC Appendix RF Test Data for 5.5GWIFI

Product Name: Smart Diagnostic System

Test Model: P805

Environmental Conditions

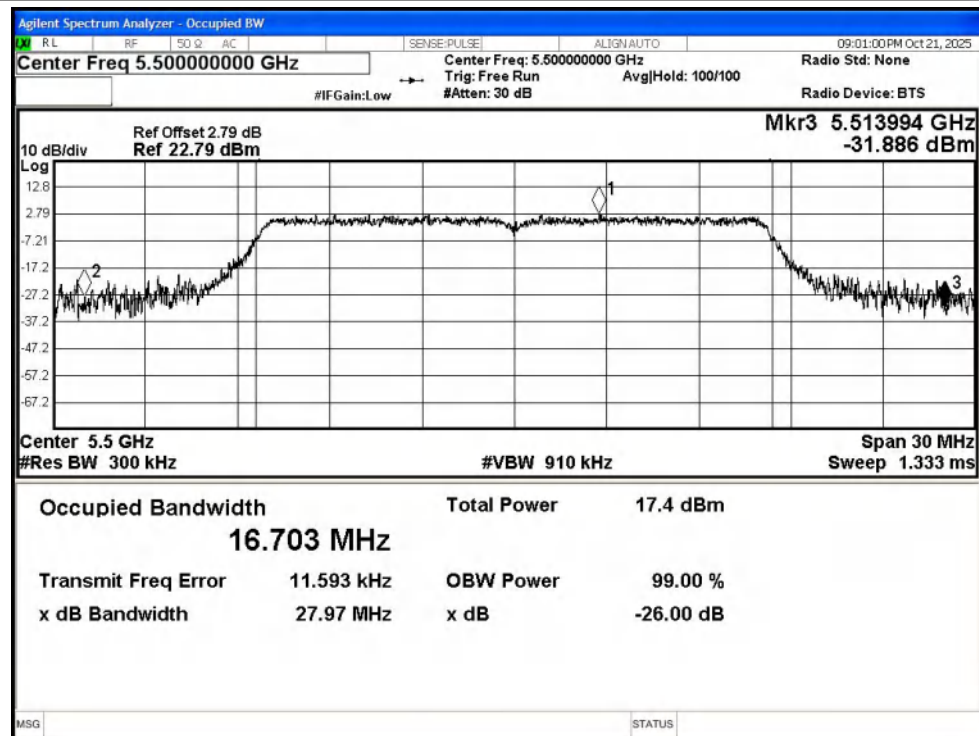
Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Zoey Cao
Supervised by:	Eric Wang

1. -26dB Bandwidth

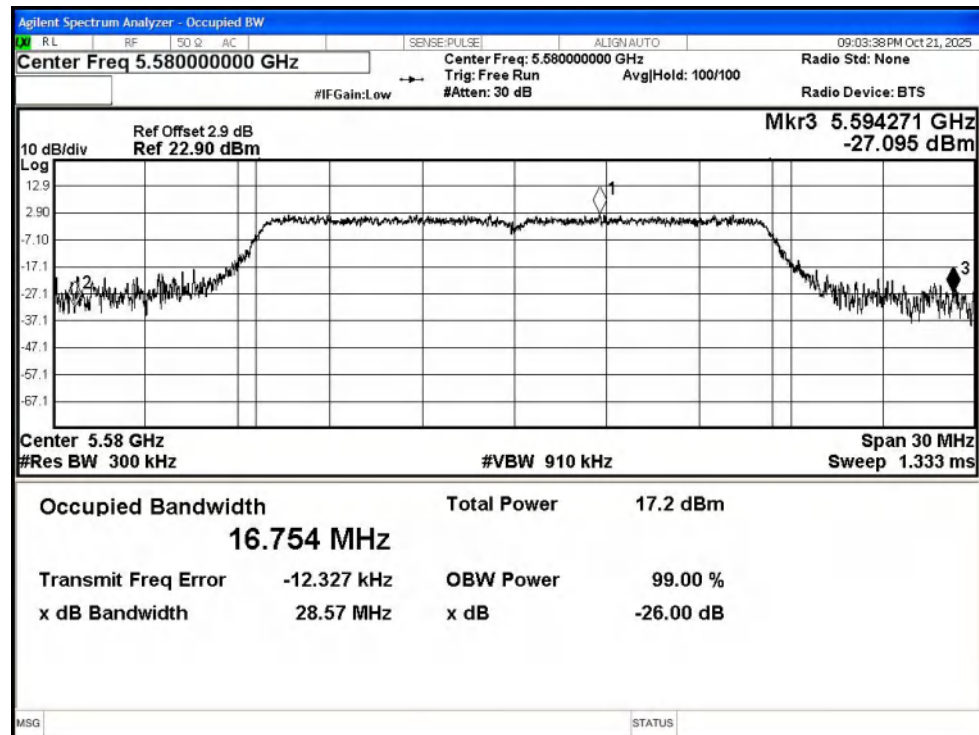
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5500	Ant1	27.966	≥ 0.5	Pass
NVNT	a	5580	Ant1	28.567	≥ 0.5	Pass
NVNT	a	5700	Ant1	27.241	≥ 0.5	Pass
NVNT	n20	5500	Ant1	28.935	≥ 0.5	Pass
NVNT	n20	5580	Ant1	29.264	≥ 0.5	Pass
NVNT	n20	5700	Ant1	28.881	≥ 0.5	Pass
NVNT	n40	5510	Ant1	47.002	≥ 0.5	Pass
NVNT	n40	5550	Ant1	47.001	≥ 0.5	Pass
NVNT	n40	5670	Ant1	48.017	≥ 0.5	Pass
NVNT	ac20	5500	Ant1	30	≥ 0.5	Pass
NVNT	ac20	5580	Ant1	28.432	≥ 0.5	Pass
NVNT	ac20	5700	Ant1	26.364	≥ 0.5	Pass
NVNT	ac40	5510	Ant1	53.779	≥ 0.5	Pass
NVNT	ac40	5550	Ant1	50.038	≥ 0.5	Pass
NVNT	ac40	5670	Ant1	43.51	≥ 0.5	Pass
NVNT	ac80	5530	Ant1	85.825	≥ 0.5	Pass
NVNT	ac80	5610	Ant1	89.952	≥ 0.5	Pass

Test Graphs

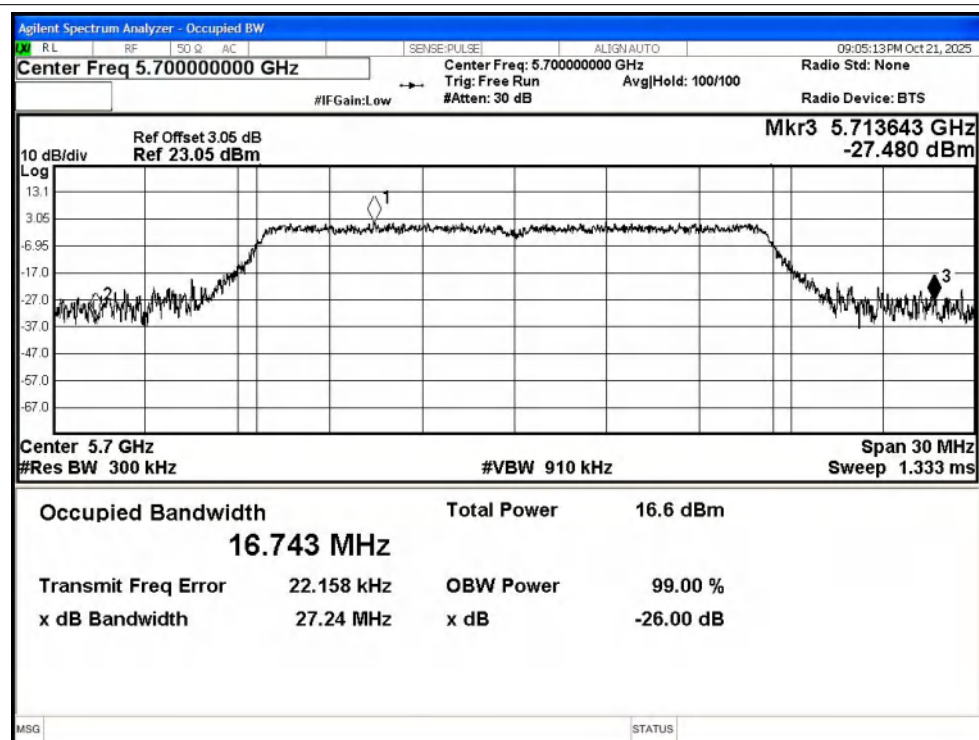
-26dB Bandwidth NVNT a 5500MHz Ant1



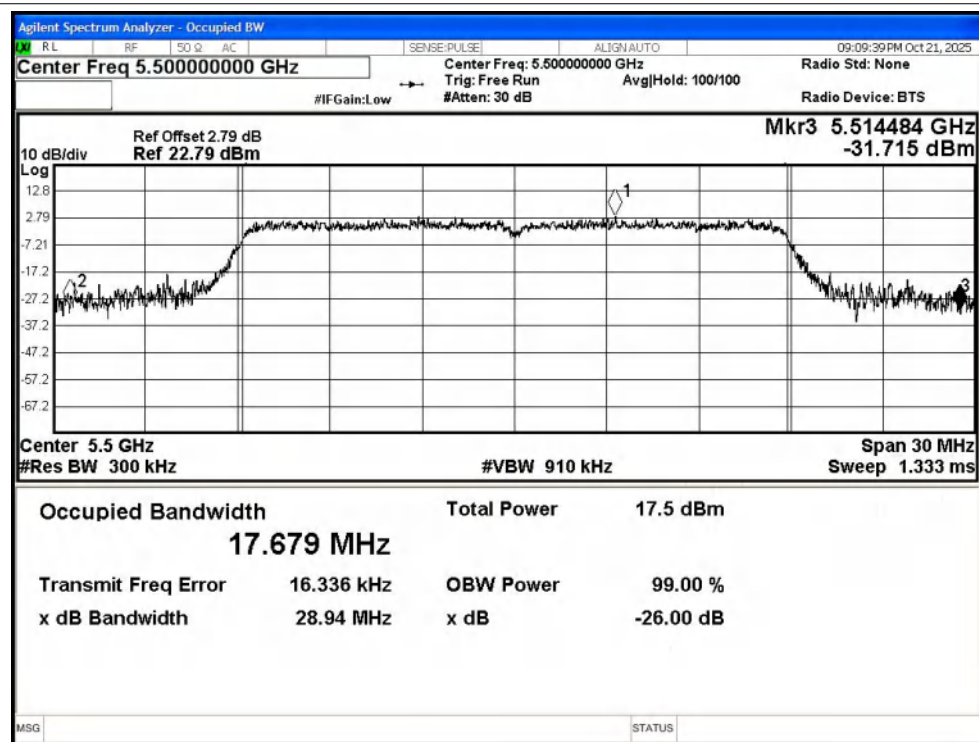
-26dB Bandwidth NVNT a 5580MHz Ant1



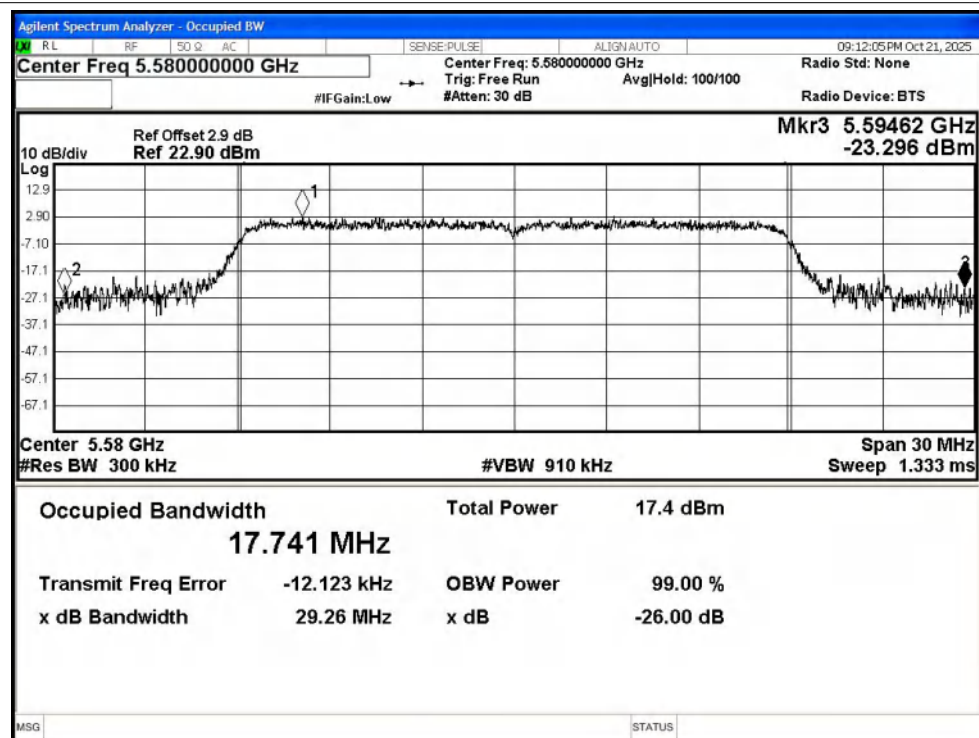
-26dB Bandwidth NVNT a 5700MHz Ant1



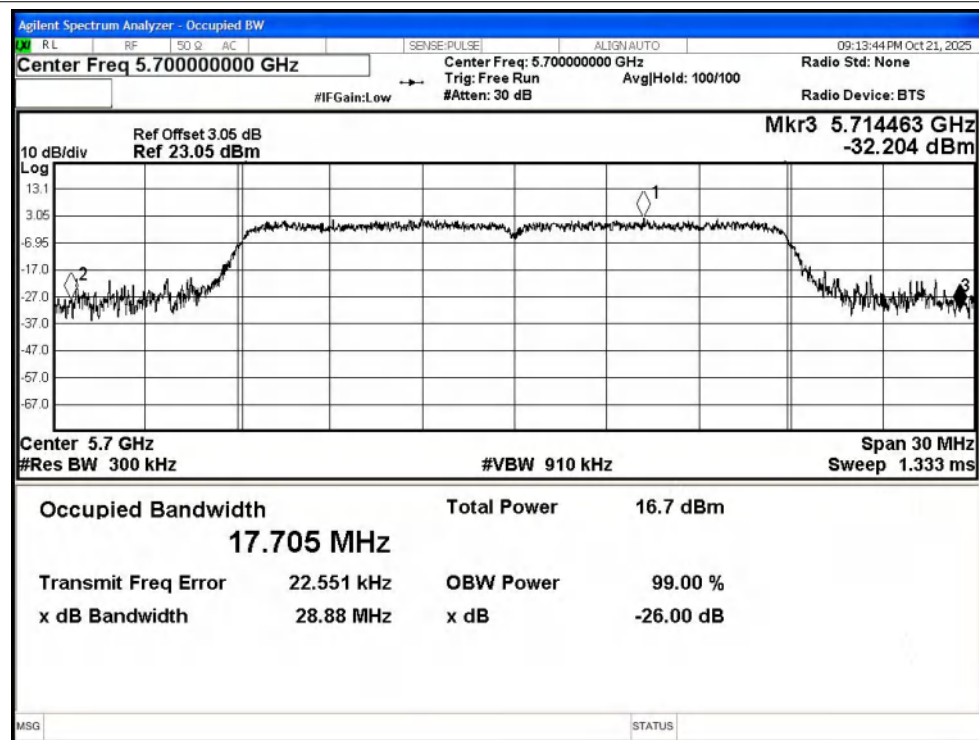
-26dB Bandwidth NVNT n20 5500MHz Ant1



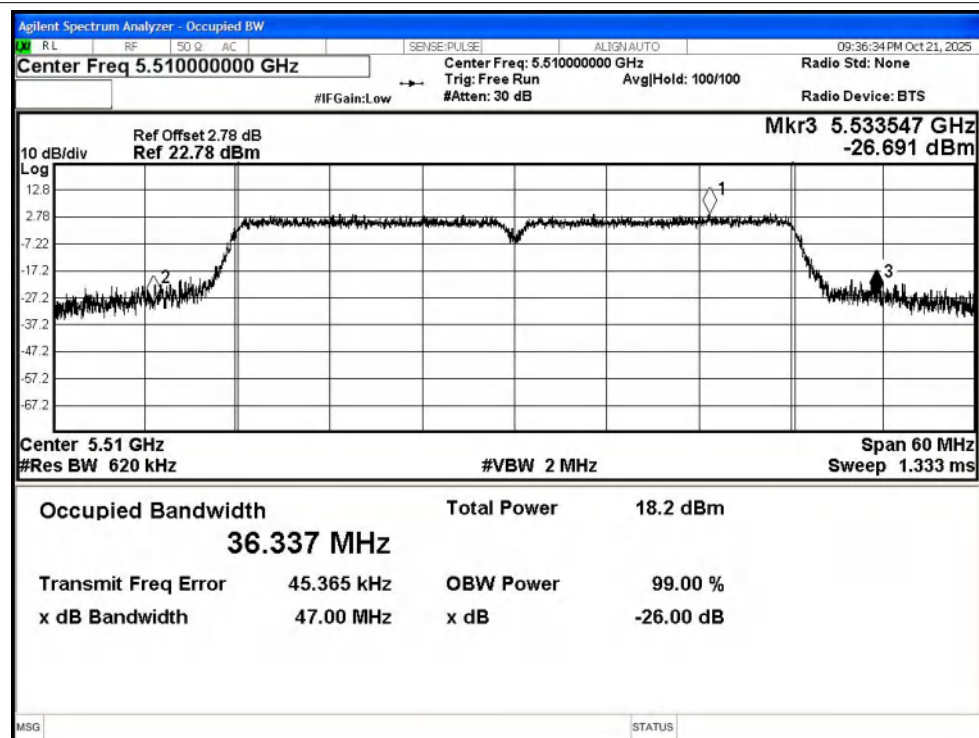
-26dB Bandwidth NVNT n20 5580MHz Ant1



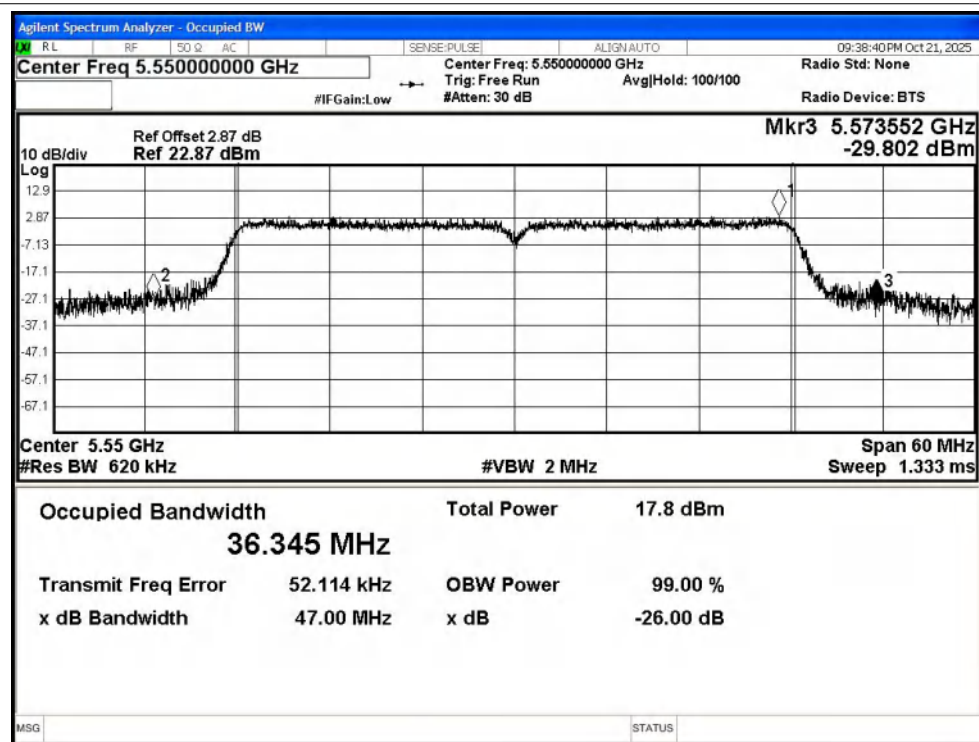
-26dB Bandwidth NVNT n20 5700MHz Ant1



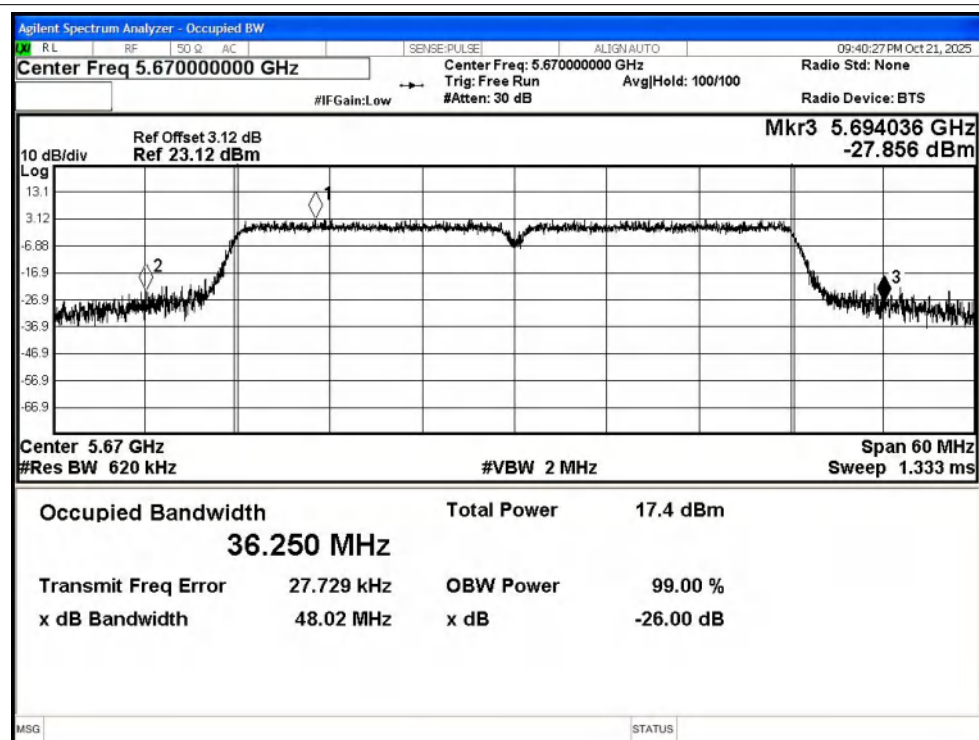
-26dB Bandwidth NVNT n40 5510MHz Ant1



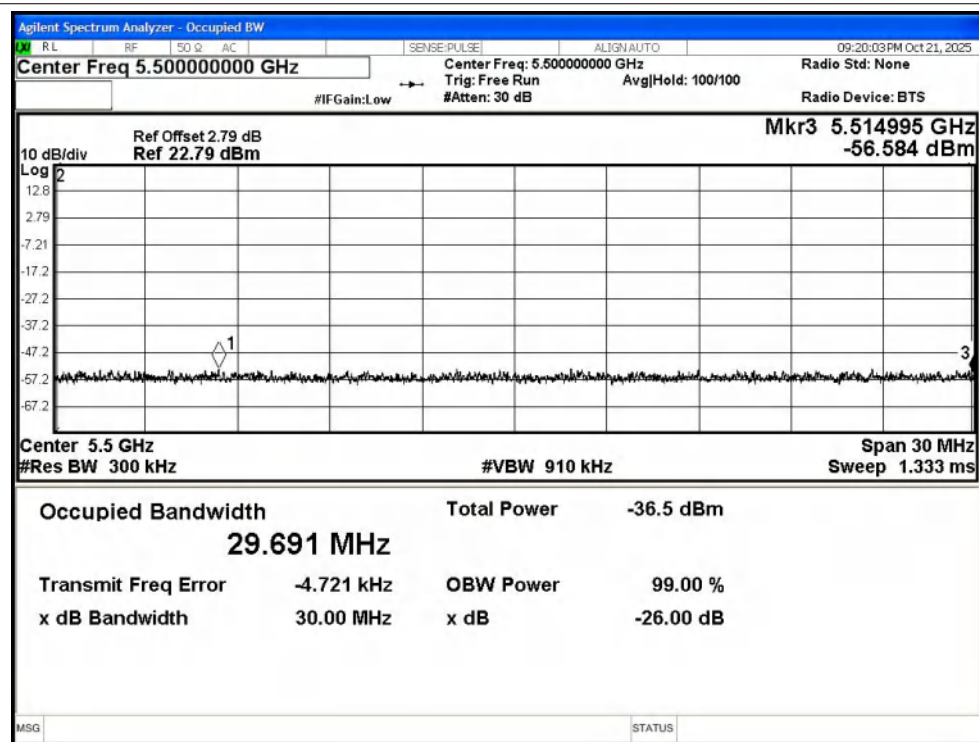
-26dB Bandwidth NVNT n40 5550MHz Ant1



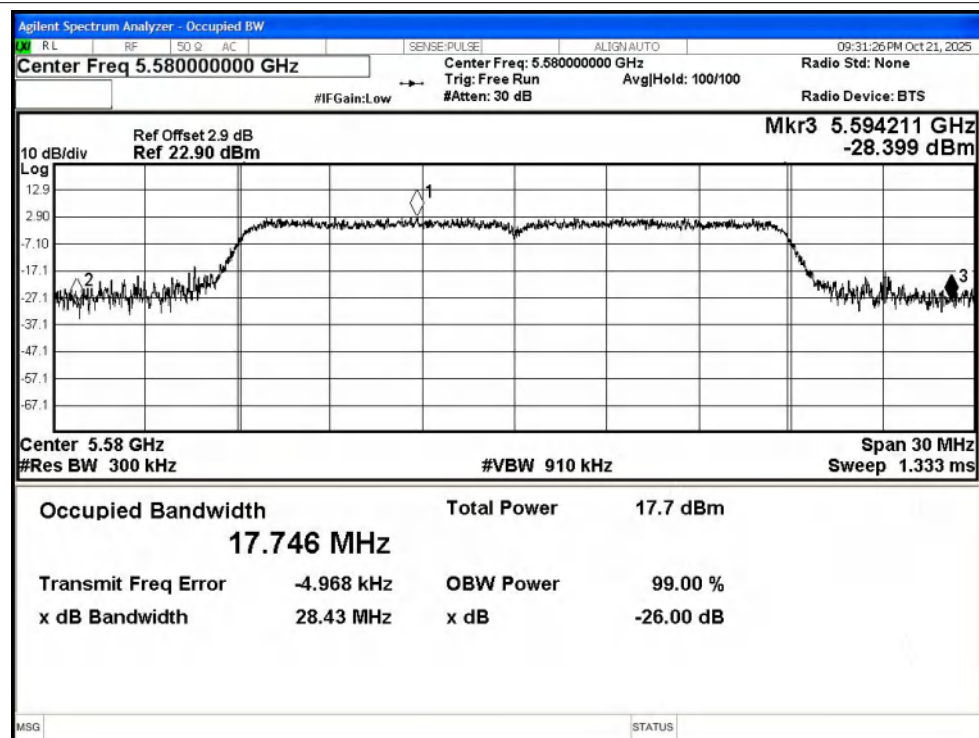
-26dB Bandwidth NVNT n40 5670MHz Ant1



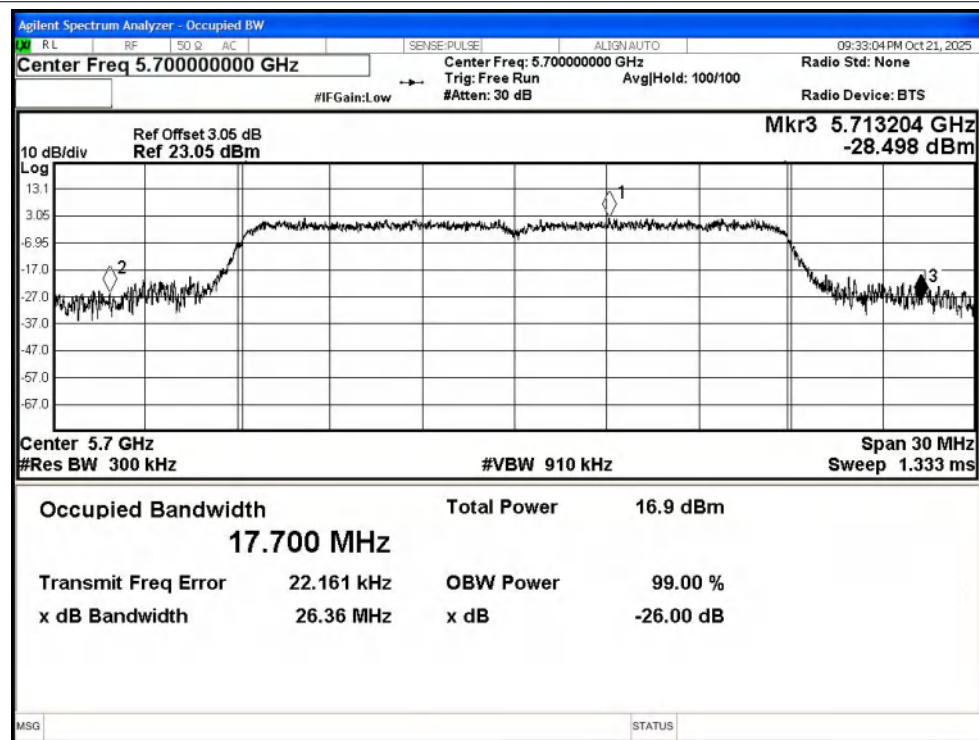
-26dB Bandwidth NVNT ac20 5500MHz Ant1



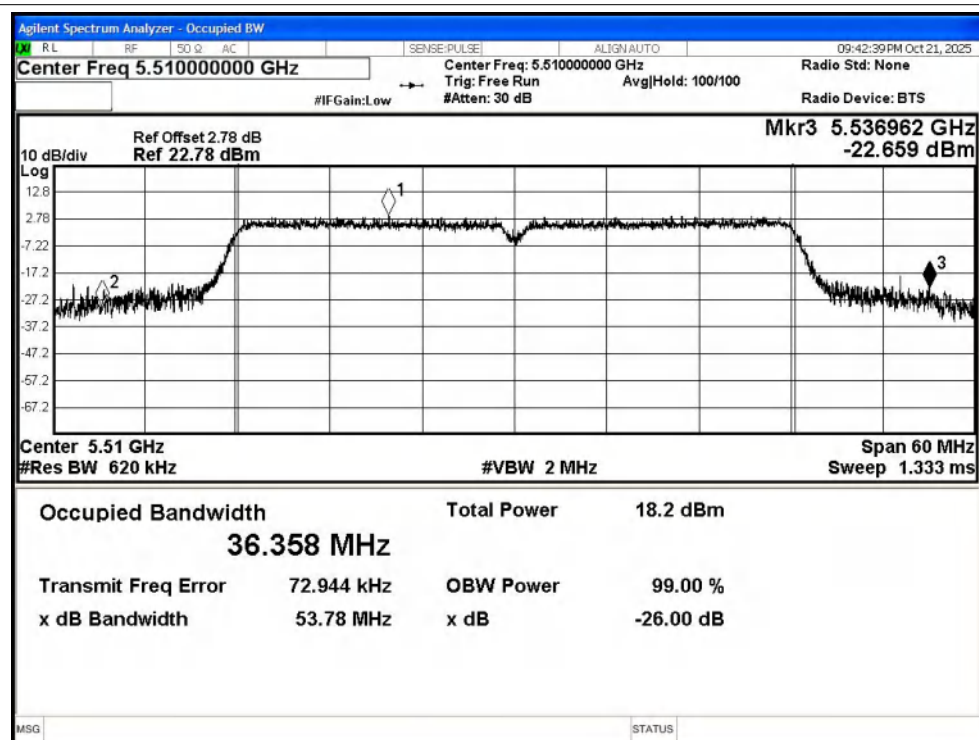
-26dB Bandwidth NVNT ac20 5580MHz Ant1



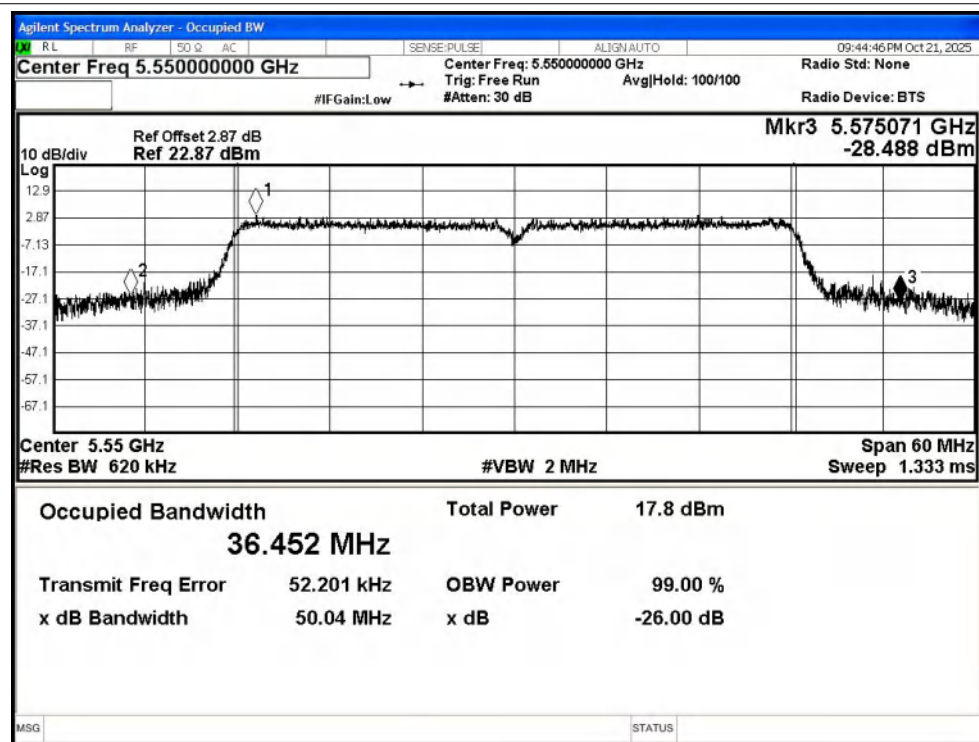
-26dB Bandwidth NVNT ac20 5700MHz Ant1



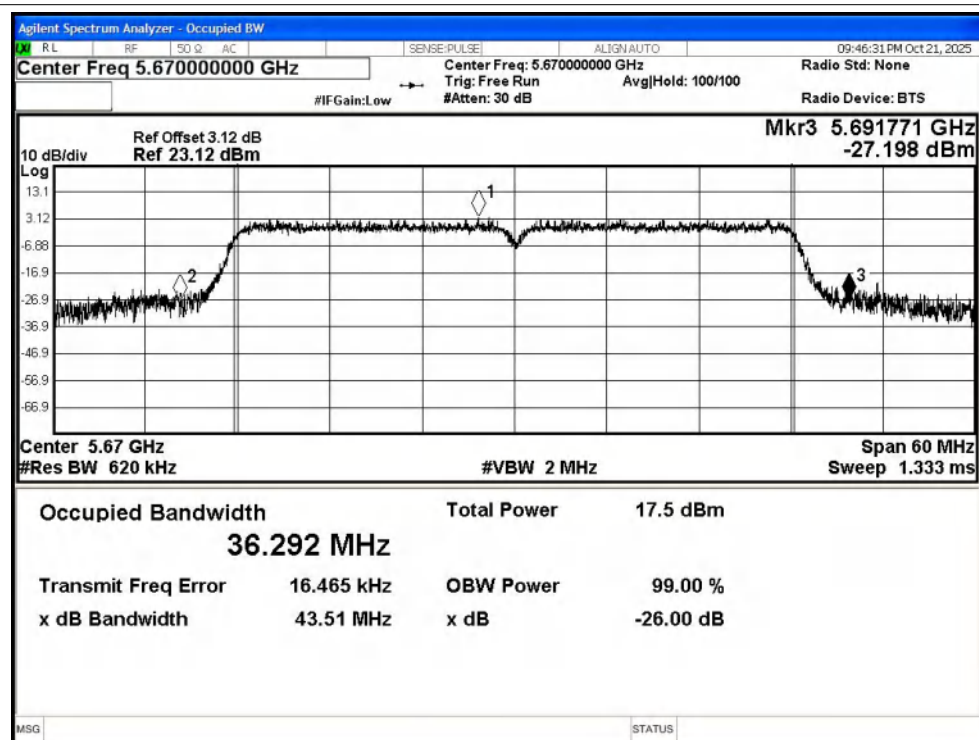
-26dB Bandwidth NVNT ac40 5510MHz Ant1



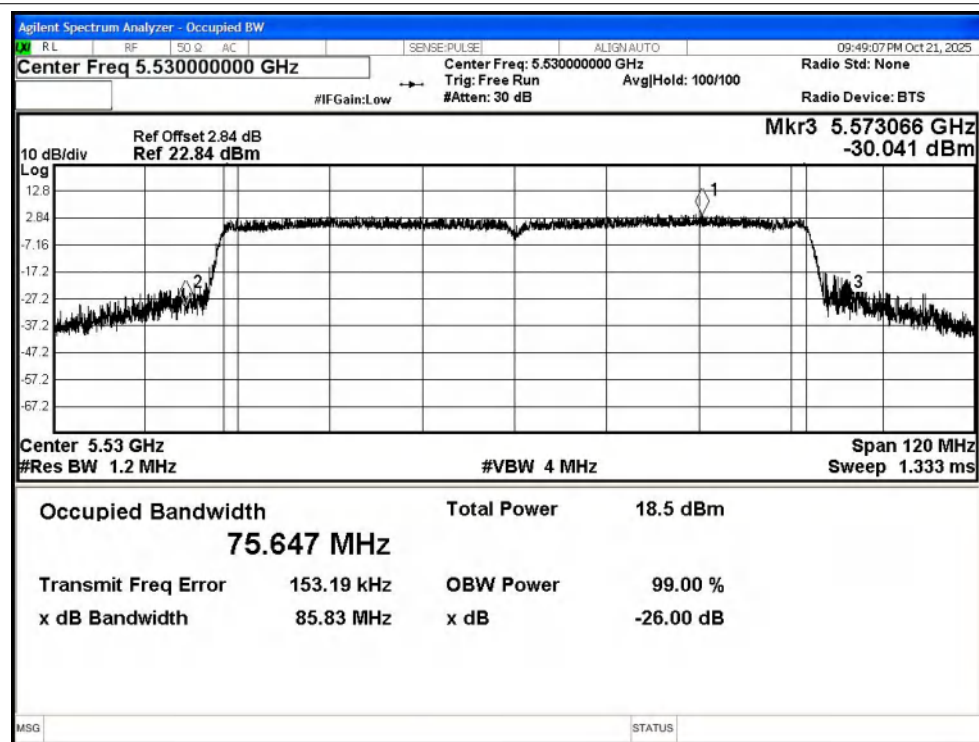
-26dB Bandwidth NVNT ac40 5550MHz Ant1



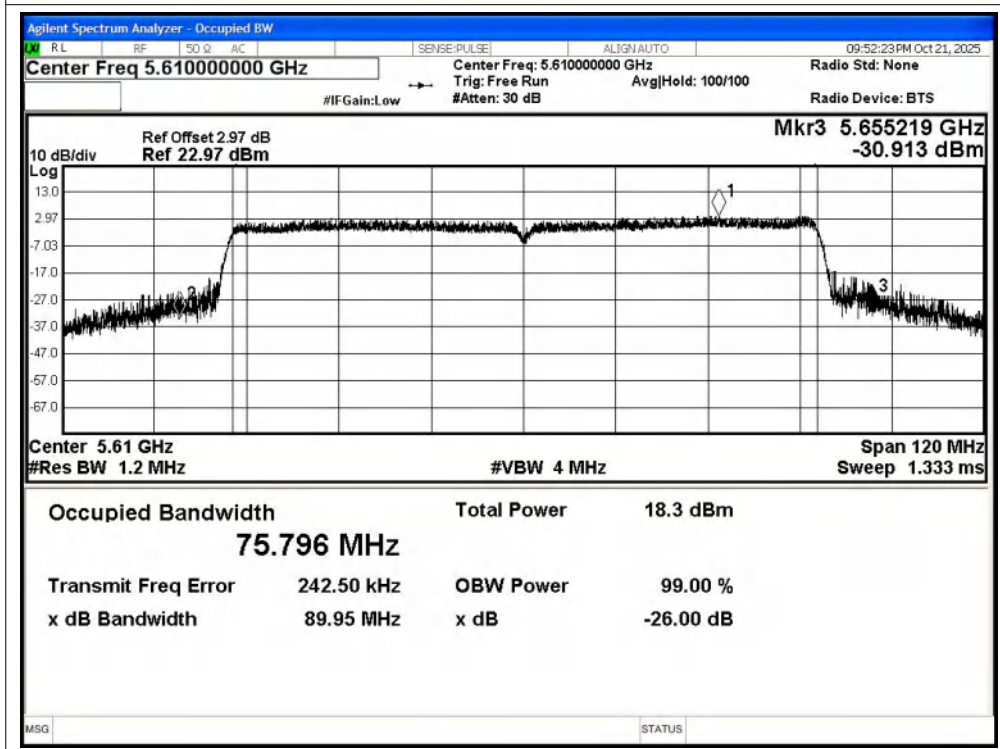
-26dB Bandwidth NVNT ac40 5670MHz Ant1



-26dB Bandwidth NVNT ac80 5530MHz Ant1



-26dB Bandwidth NVNT ac80 5610MHz Ant1



2. Maximum Conducted Output Power

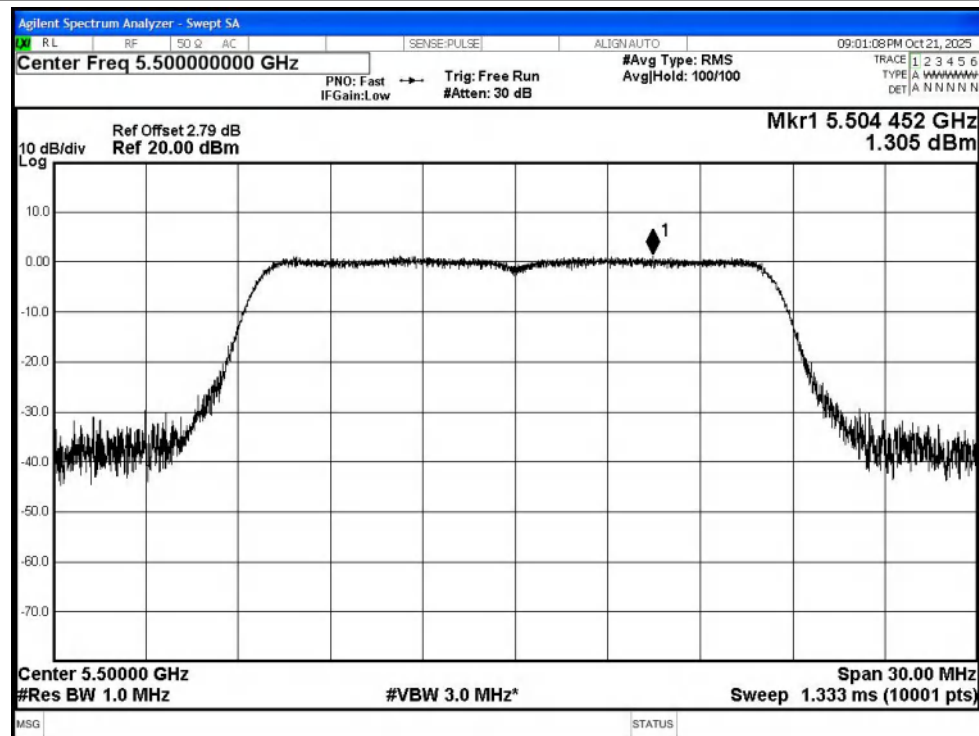
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5500	Ant1	11.84	0.1	11.94	24	Pass
NVNT	a	5580	Ant1	11.6	0.1	11.7	24	Pass
NVNT	a	5700	Ant1	11.09	0.1	11.19	24	Pass
NVNT	n20	5500	Ant1	12.07	0.12	12.19	24	Pass
NVNT	n20	5580	Ant1	11.85	0.12	11.97	24	Pass
NVNT	n20	5700	Ant1	11.19	0.12	11.31	24	Pass
NVNT	n40	5510	Ant1	11.92	0.23	12.15	24	Pass
NVNT	n40	5550	Ant1	11.51	0.24	11.75	24	Pass
NVNT	n40	5670	Ant1	11.17	0.24	11.41	24	Pass
NVNT	ac20	5500	Ant1	12.22	0.12	12.34	24	Pass
NVNT	ac20	5580	Ant1	11.78	0.12	11.9	24	Pass
NVNT	ac20	5700	Ant1	11.36	0.12	11.48	24	Pass
NVNT	ac40	5510	Ant1	11.86	0.24	12.10	24	Pass
NVNT	ac40	5550	Ant1	11.48	0.23	11.71	24	Pass
NVNT	ac40	5670	Ant1	11.23	0.23	11.46	24	Pass
NVNT	ac80	5530	Ant1	11.45	0.47	11.92	24	Pass
NVNT	ac80	5610	Ant1	11.24	0.47	11.71	24	Pass

3. Maximum Power Spectral Density Level

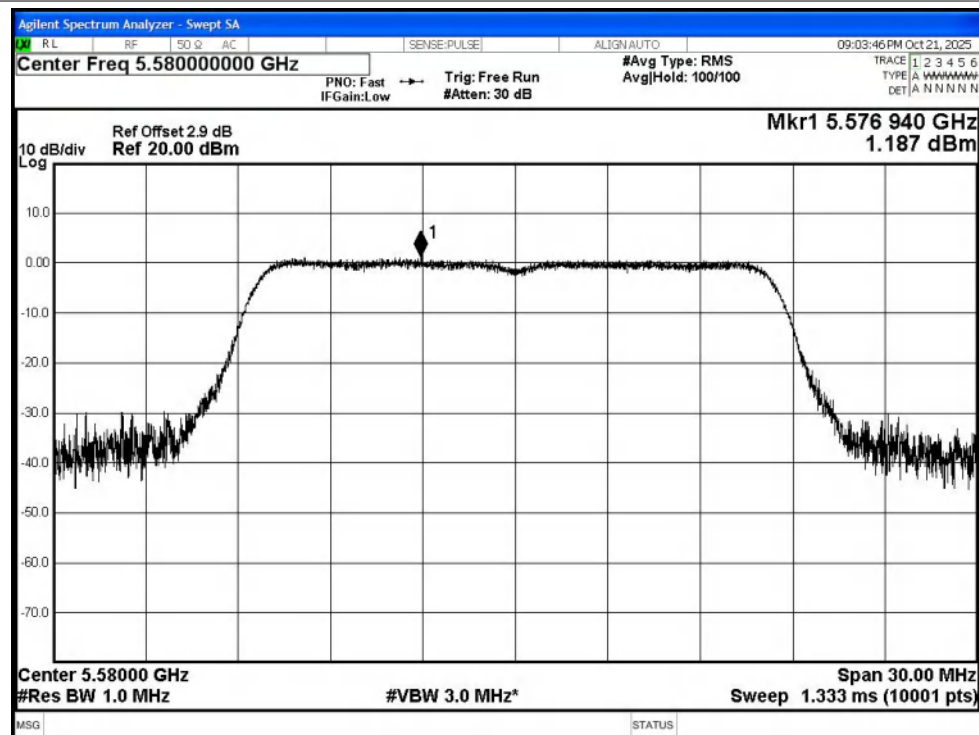
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5500	Ant1	1.31	0.1	1.41	11	Pass
NVNT	a	5580	Ant1	1.19	0.1	1.29	11	Pass
NVNT	a	5700	Ant1	0.57	0.1	0.67	11	Pass
NVNT	n20	5500	Ant1	1.24	0.12	1.36	11	Pass
NVNT	n20	5580	Ant1	1.16	0.12	1.28	11	Pass
NVNT	n20	5700	Ant1	0.33	0.12	0.45	11	Pass
NVNT	n40	5510	Ant1	-1.75	0.23	-1.52	11	Pass
NVNT	n40	5550	Ant1	-1.99	0.24	-1.75	11	Pass
NVNT	n40	5670	Ant1	-2.74	0.24	-2.5	11	Pass
NVNT	ac20	5500	Ant1	-56.46	0.12	-56.34	11	Pass
NVNT	ac20	5580	Ant1	1.66	0.12	1.78	11	Pass
NVNT	ac20	5700	Ant1	0.5	0.12	0.62	11	Pass
NVNT	ac40	5510	Ant1	-1.94	0.24	-1.7	11	Pass
NVNT	ac40	5550	Ant1	-1.9	0.23	-1.67	11	Pass
NVNT	ac40	5670	Ant1	-2.81	0.23	-2.58	11	Pass
NVNT	ac80	5530	Ant1	-5.21	0.47	-4.74	11	Pass
NVNT	ac80	5610	Ant1	-4.79	0.47	-4.32	11	Pass

Test Graphs

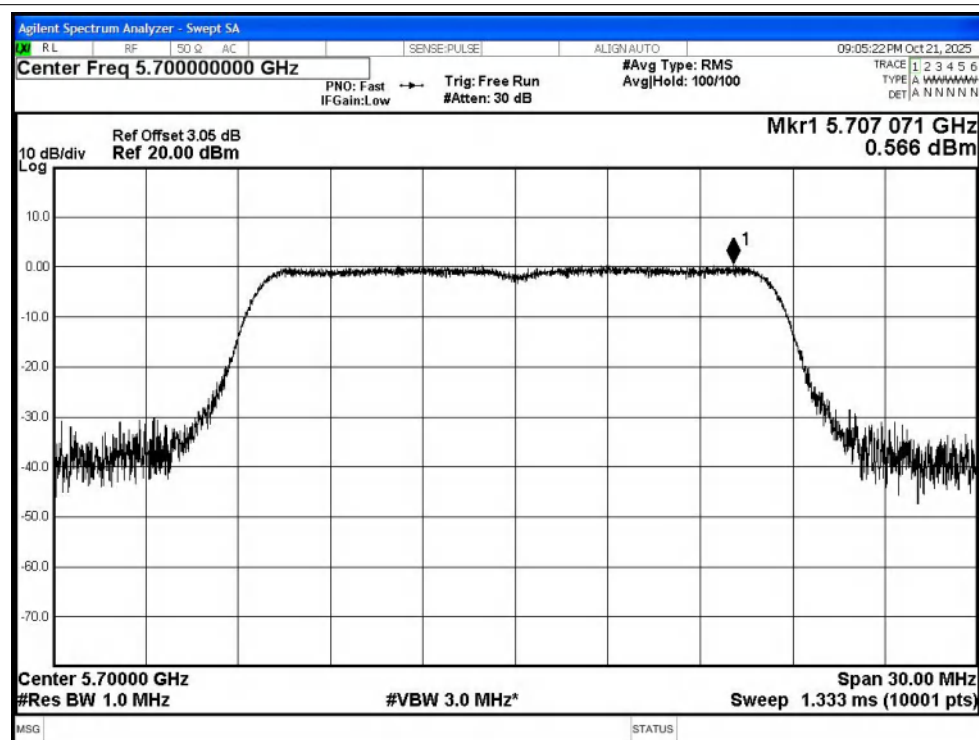
PSD NVNT a 5500MHz Ant1



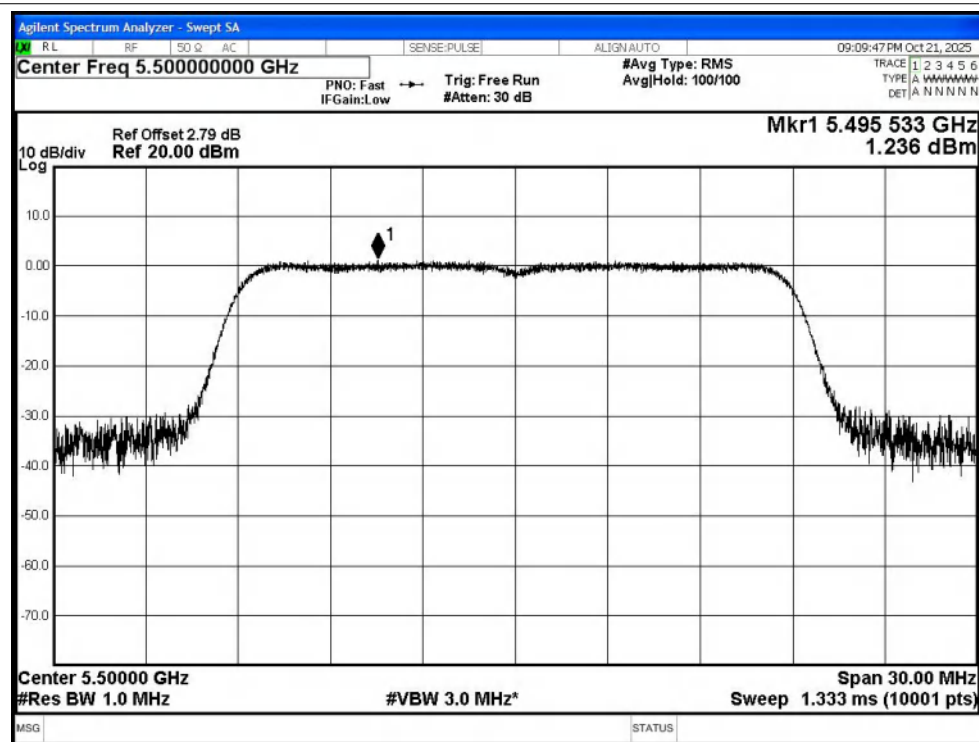
PSD NVNT a 5580MHz Ant1



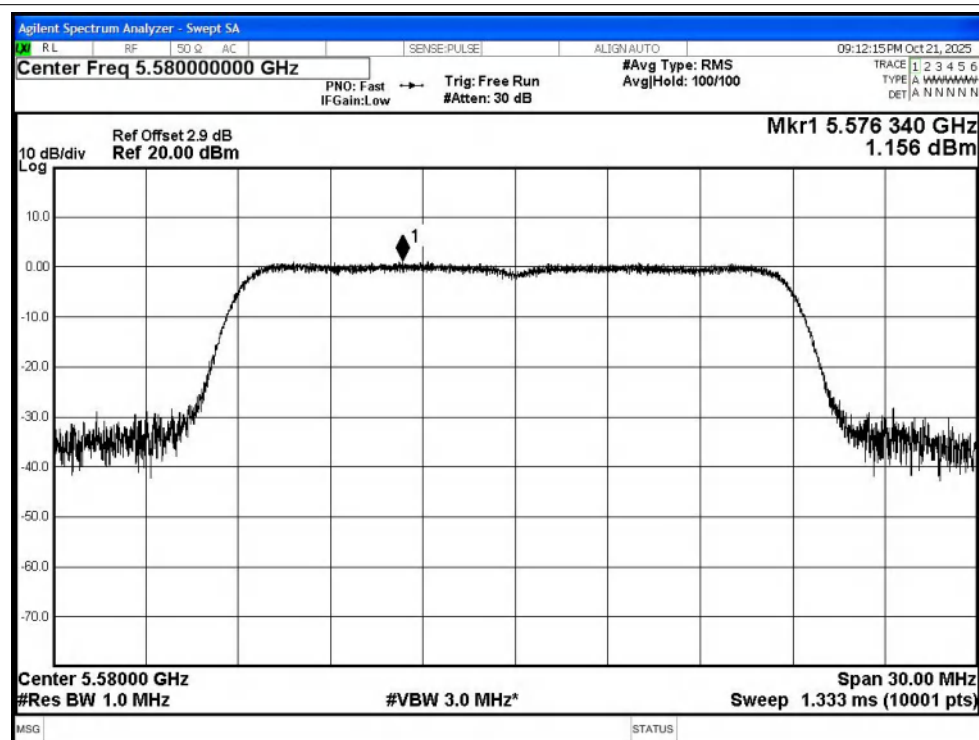
PSD NVNT a 5700MHz Ant1



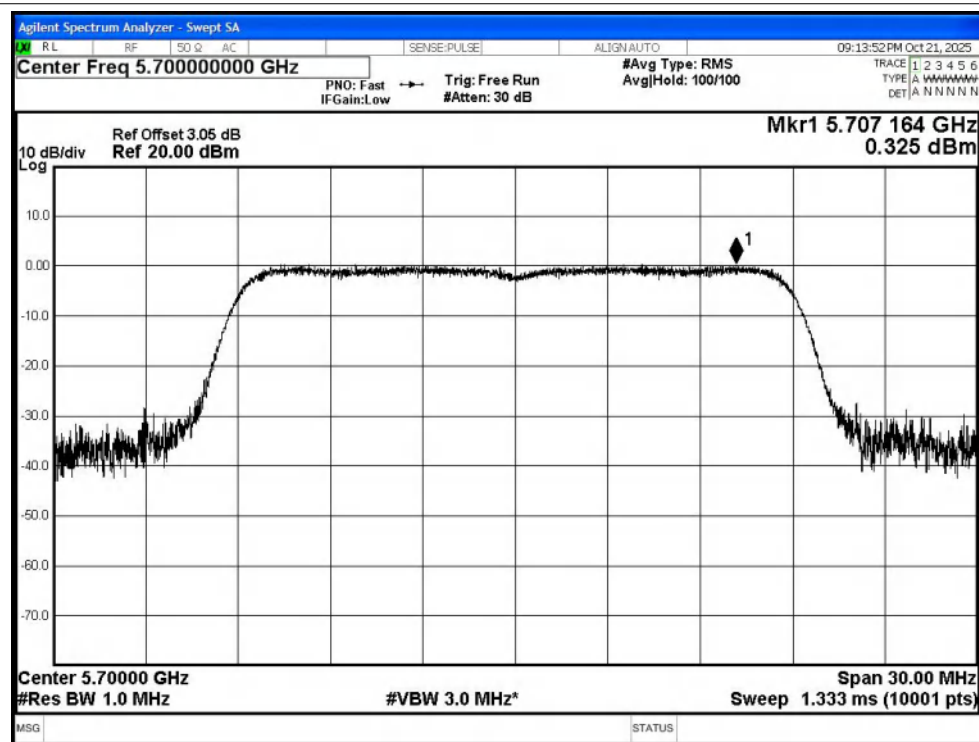
PSD NVNT n20 5500MHz Ant1



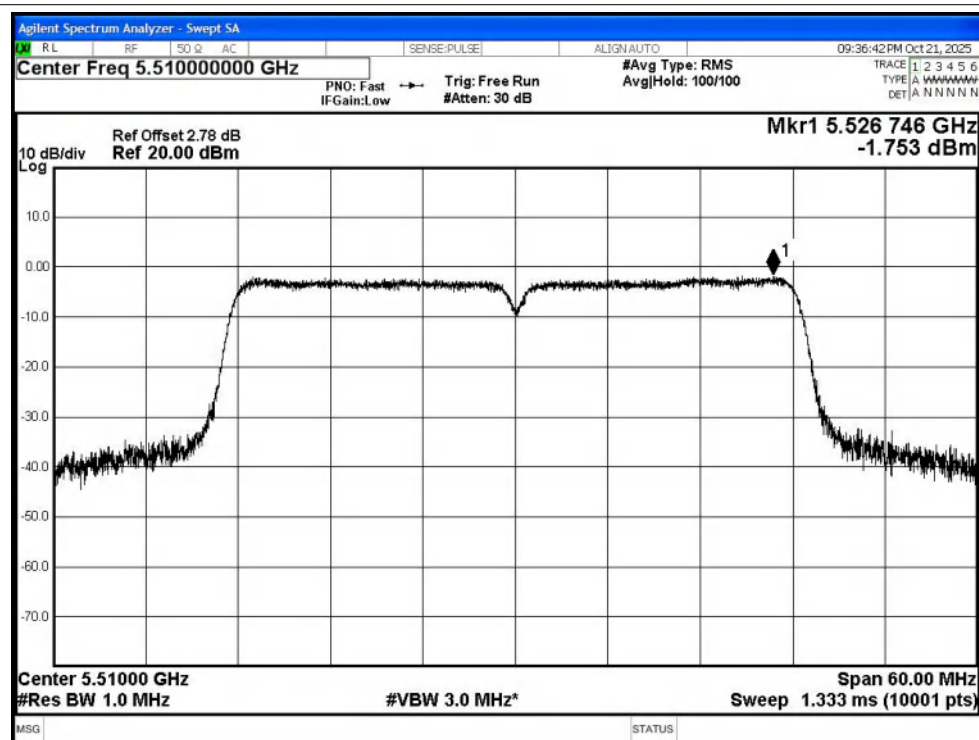
PSD NVNT n20 5580MHz Ant1



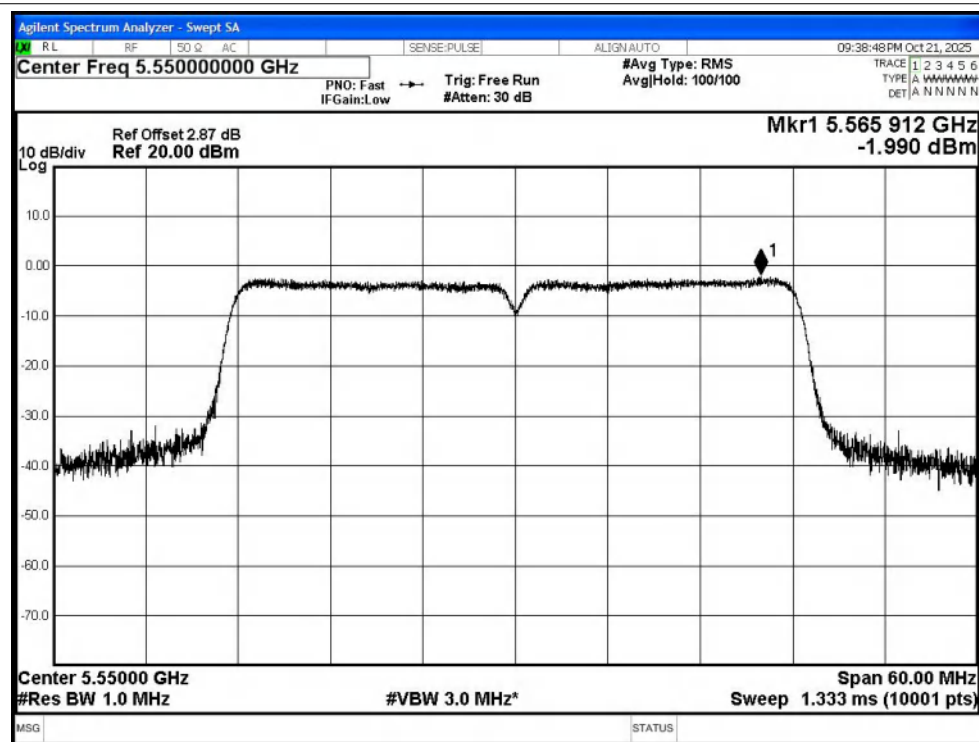
PSD NVNT n20 5700MHz Ant1



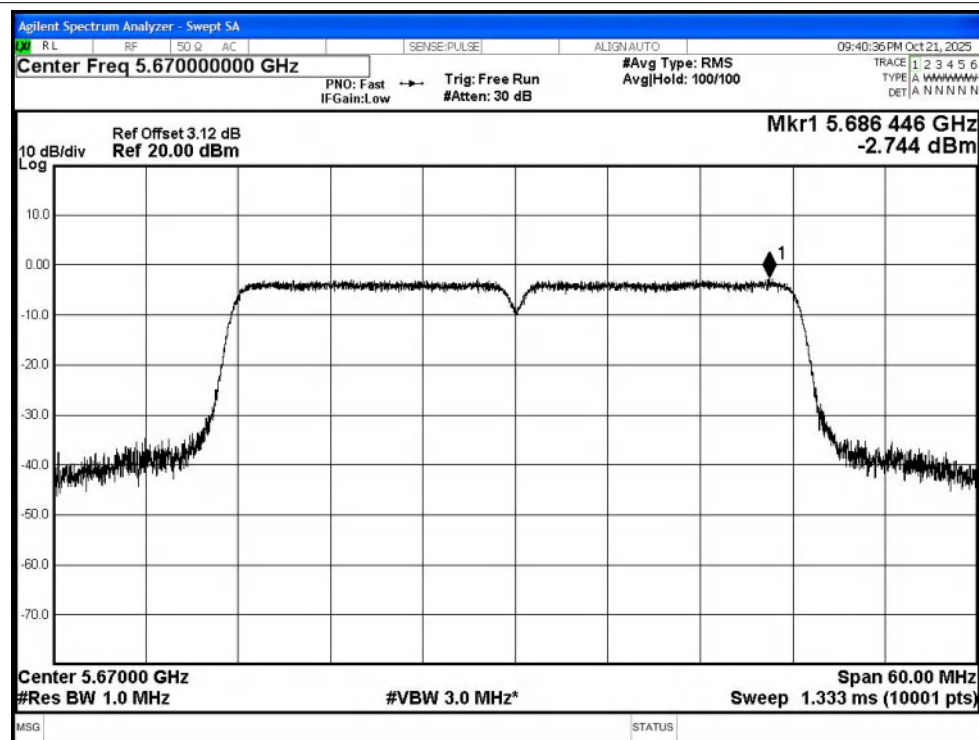
PSD NVNT n40 5510MHz Ant1



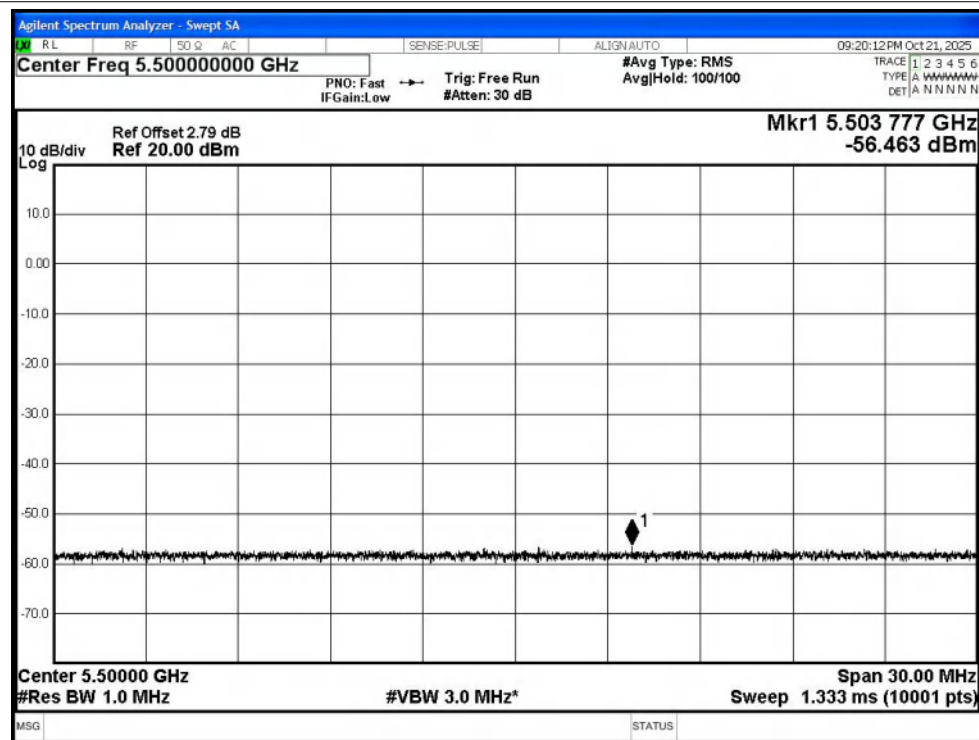
PSD NVNT n40 5550MHz Ant1



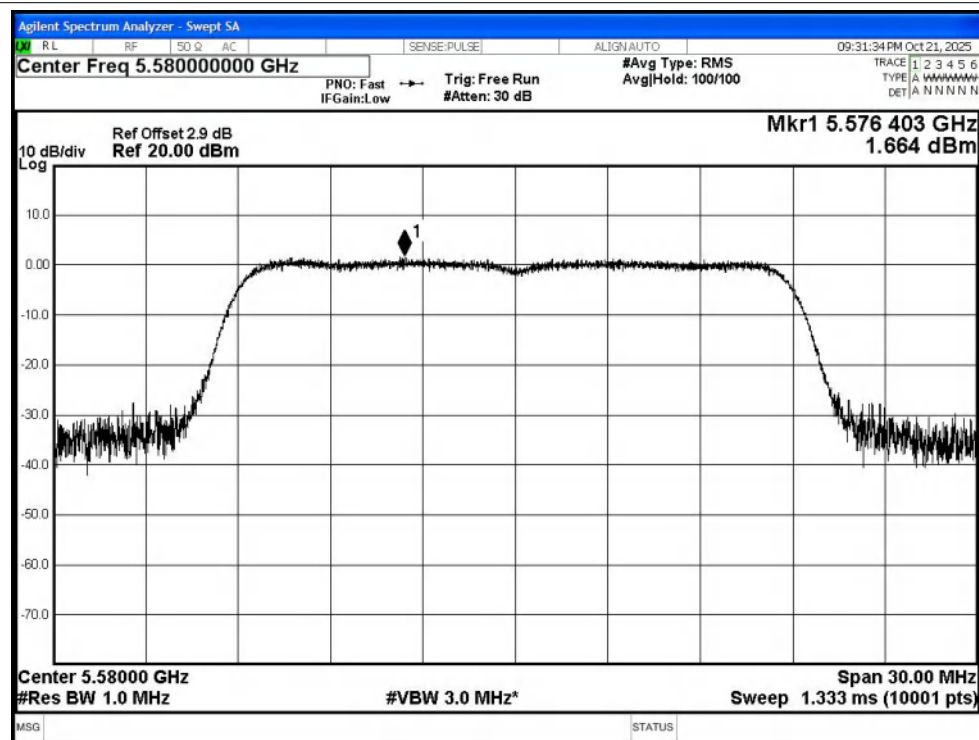
PSD NVNT n40 5670MHz Ant1



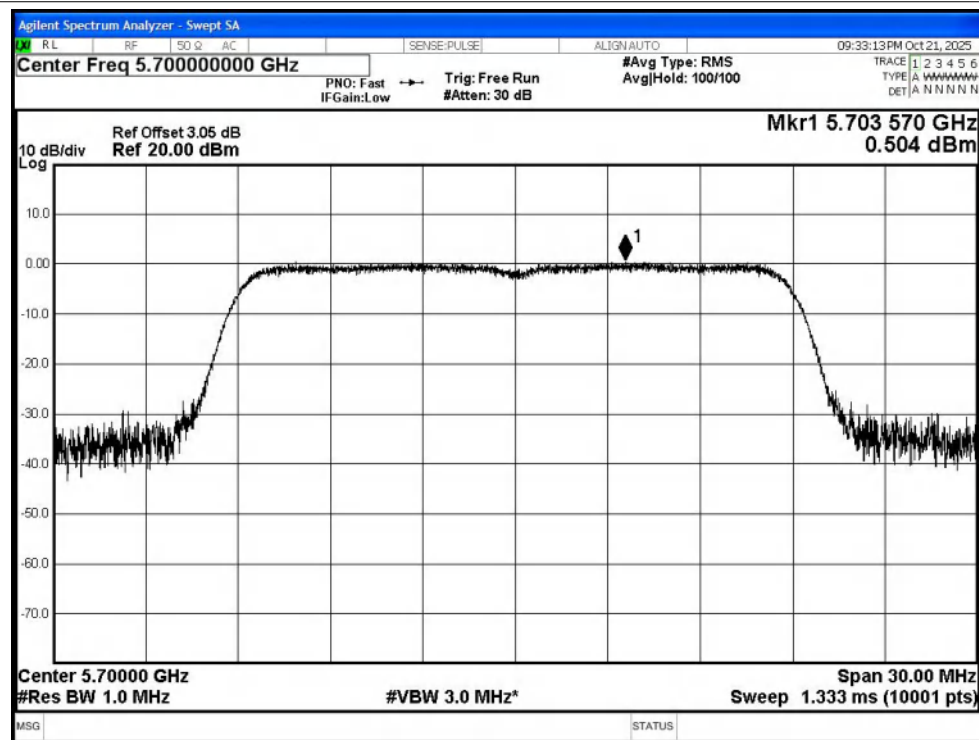
PSD NVNT ac20 5500MHz Ant1



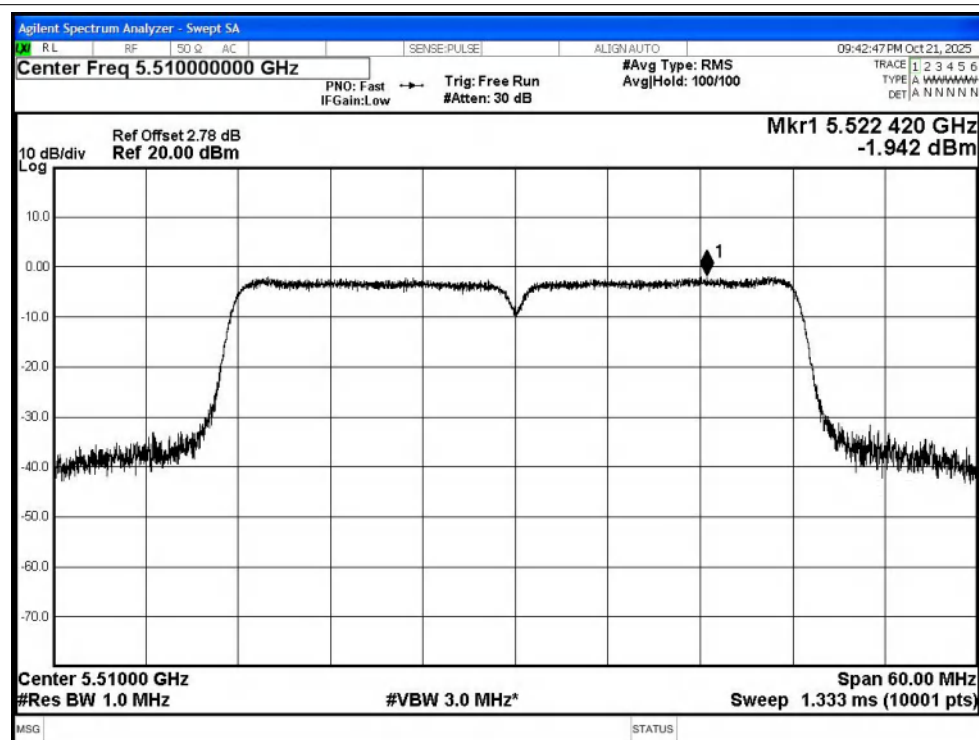
PSD NVNT ac20 5580MHz Ant1



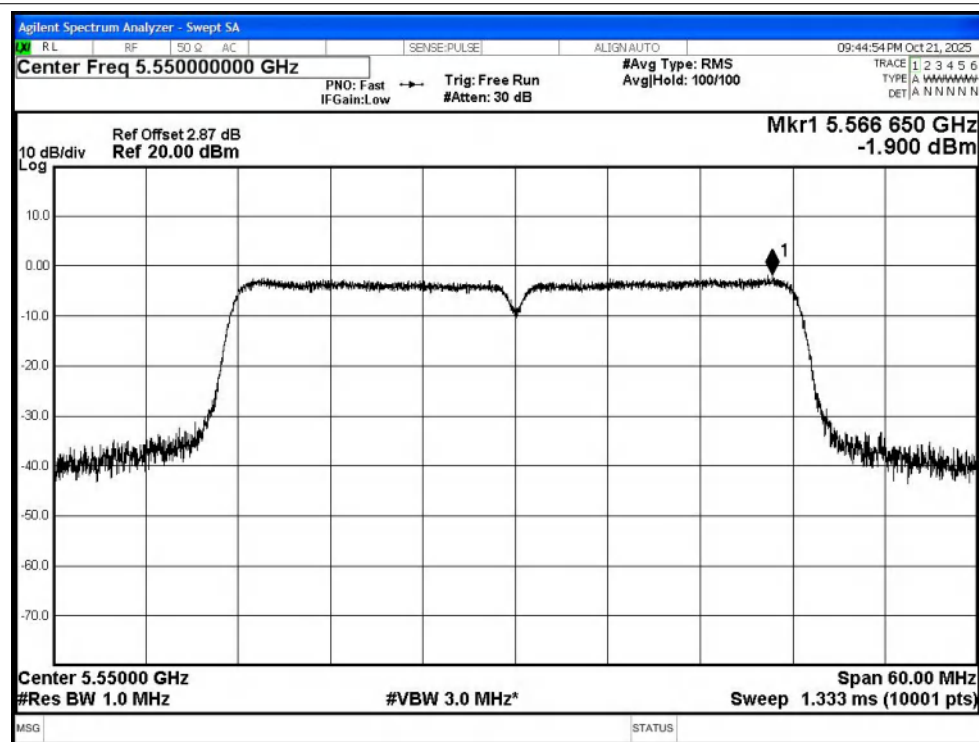
PSD NVNT ac20 5700MHz Ant1



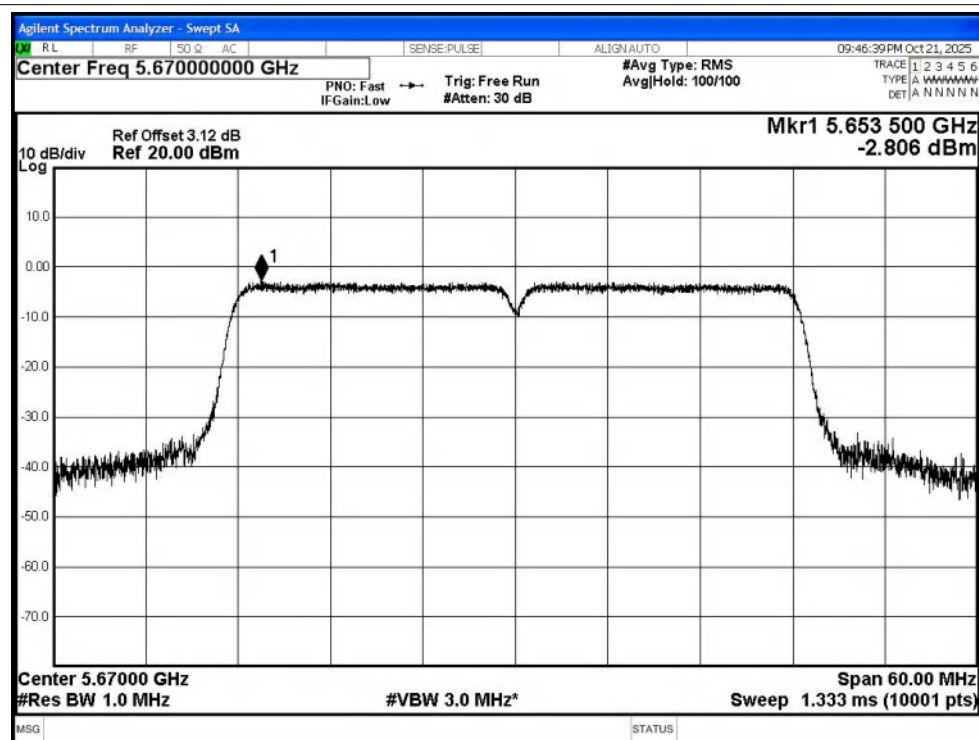
PSD NVNT ac40 5510MHz Ant1



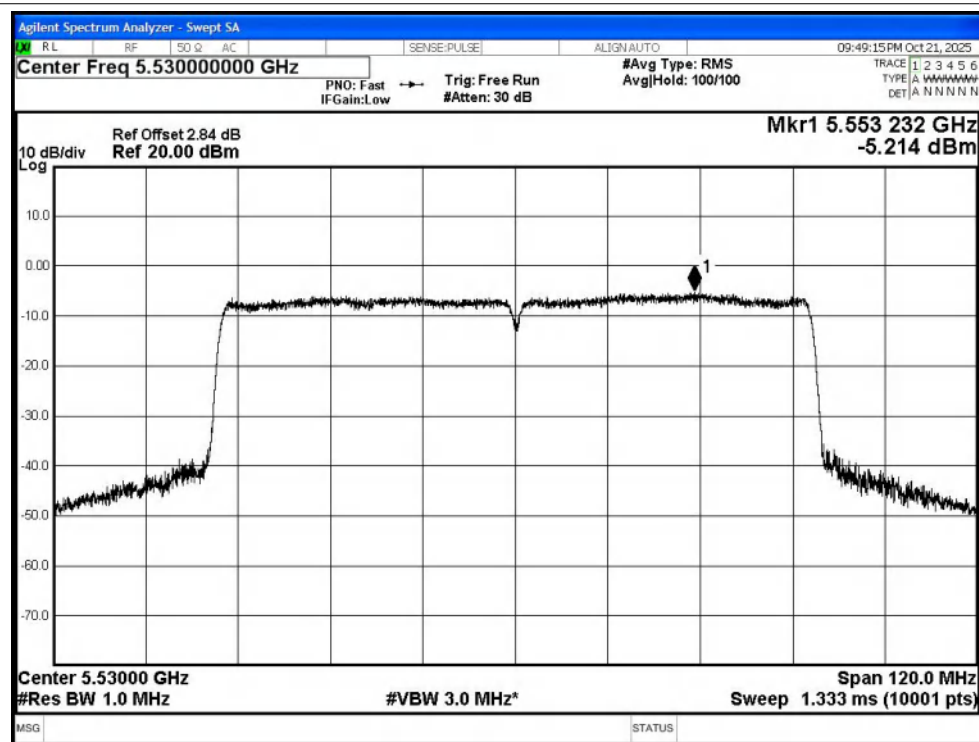
PSD NVNT ac40 5550MHz Ant1

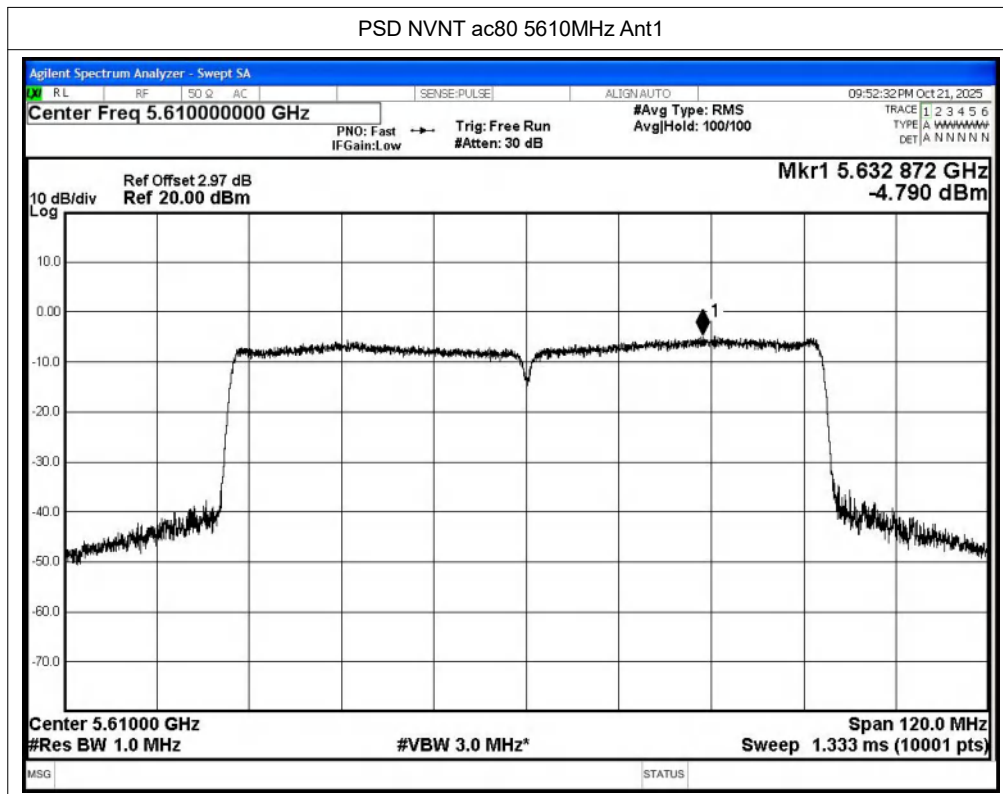


PSD NVNT ac40 5670MHz Ant1



PSD NVNT ac80 5530MHz Ant1



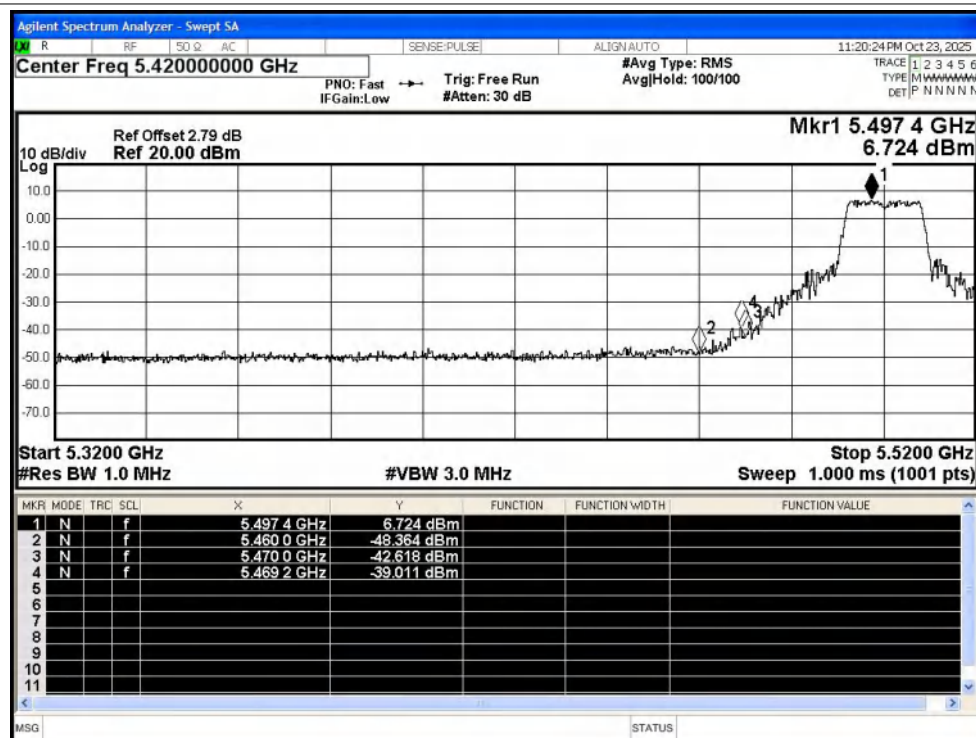


4. Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	a	5500	Ant1	5460	-48.36	4.48	-	51.35	Peak	68.2	Pass
NVNT	a	5500	Ant1	5460	-56.02	4.48	0.1	43.79	Average	54	Pass
NVNT	a	5500	Ant1	5469.2	-39.01	4.48	-	60.7	Peak	68.2	Pass
NVNT	a	5500	Ant1	5470	-52.13	4.48	0.1	47.68	Average	54	Pass
NVNT	a	5500	Ant1	5470	-42.62	4.48	-	57.09	Peak	68.2	Pass
NVNT	a	5700	Ant1	5725	-32.82	4.48	-	66.89	Peak	68.2	Pass
NVNT	a	5700	Ant1	5725	-50.82	4.48	0.1	48.99	Average	54	Pass
NVNT	a	5700	Ant1	5735	-47.13	4.48	-	52.58	Peak	68.2	Pass
NVNT	a	5700	Ant1	5735	-56.4	4.48	0.1	43.41	Average	54	Pass
NVNT	n20	5500	Ant1	5460	-45.94	4.48	-	53.77	Peak	68.2	Pass
NVNT	n20	5500	Ant1	5460	-56.18	4.48	0.12	43.65	Average	54	Pass
NVNT	n20	5500	Ant1	5470	-33.86	4.48	-	65.85	Peak	68.2	Pass
NVNT	n20	5500	Ant1	5469.2	-51.41	4.48	0.12	48.42	Average	54	Pass
NVNT	n20	5500	Ant1	5470	-51.43	4.48	0.12	48.4	Average	54	Pass
NVNT	n20	5700	Ant1	5725	-36.16	4.48	-	63.55	Peak	68.2	Pass
NVNT	n20	5700	Ant1	5725	-51.05	4.48	0.12	48.78	Average	54	Pass
NVNT	n20	5700	Ant1	5725.6	-33.54	4.48	-	66.17	Peak	68.2	Pass
NVNT	n20	5700	Ant1	5725.6	-50.03	4.48	0.12	49.8	Average	54	Pass
NVNT	n20	5700	Ant1	5735	-48.73	4.48	-	50.98	Peak	68.2	Pass
NVNT	n20	5700	Ant1	5735	-55.98	4.48	0.12	43.85	Average	54	Pass
NVNT	n40	5510	Ant1	5460	-47.55	4.48	-	52.16	Peak	68.2	Pass
NVNT	n40	5510	Ant1	5460	-56.16	4.48	0.23	43.78	Average	54	Pass
NVNT	n40	5510	Ant1	5468	-34.72	4.48	-	64.99	Peak	68.2	Pass
NVNT	n40	5510	Ant1	5470	-51.22	4.48	0.23	48.72	Average	54	Pass
NVNT	n40	5510	Ant1	5470	-39.5	4.48	-	60.21	Peak	68.2	Pass
NVNT	n40	5670	Ant1	5725	-48.51	4.48	-	51.2	Peak	68.2	Pass
NVNT	n40	5670	Ant1	5725	-56.84	4.48	0.24	43.11	Average	54	Pass
NVNT	n40	5670	Ant1	5725.6	-45.5	4.48	-	54.21	Peak	68.2	Pass
NVNT	n40	5670	Ant1	5730.2	-56.42	4.48	0.24	43.53	Average	54	Pass
NVNT	n40	5670	Ant1	5735	-50.07	4.48	-	49.64	Peak	68.2	Pass
NVNT	n40	5670	Ant1	5735	-57.62	4.48	0.24	42.33	Average	54	Pass
NVNT	ac20	5500	Ant1	5460	-46.27	4.48	-	53.44	Peak	68.2	Pass
NVNT	ac20	5500	Ant1	5460	-56.15	4.48	0.12	43.68	Average	54	Pass
NVNT	ac20	5500	Ant1	5468.8	-37.05	4.48	-	62.66	Peak	68.2	Pass
NVNT	ac20	5500	Ant1	5470	-50.83	4.48	0.12	49	Average	54	Pass
NVNT	ac20	5500	Ant1	5470	-39.65	4.48	-	60.06	Peak	68.2	Pass
NVNT	ac20	5700	Ant1	5725	-35.95	4.48	-	63.76	Peak	68.2	Pass
NVNT	ac20	5700	Ant1	5725	-50.63	4.48	0.12	49.2	Average	54	Pass
NVNT	ac20	5700	Ant1	5726	-34.24	4.48	-	65.47	Peak	68.2	Pass

NVNT	ac20	5700	Ant1	5725.2	-49.73	4.48	0.12	50.1	Average	54	Pass
NVNT	ac20	5700	Ant1	5735	-39.57	4.48	-	60.14	Peak	68.2	Pass
NVNT	ac20	5700	Ant1	5735	-55.44	4.48	0.12	44.39	Average	54	Pass
NVNT	ac40	5510	Ant1	5460	-47.04	4.48	-	52.67	Peak	68.2	Pass
NVNT	ac40	5510	Ant1	5460	-55.72	4.48	0.24	44.23	Average	54	Pass
NVNT	ac40	5510	Ant1	5469.8	-33.86	4.48	-	65.85	Peak	68.2	Pass
NVNT	ac40	5510	Ant1	5470	-50.61	4.48	0.24	49.34	Average	54	Pass
NVNT	ac40	5510	Ant1	5470	-38.99	4.48	-	60.72	Peak	68.2	Pass
NVNT	ac40	5670	Ant1	5725	-49.74	4.48	-	49.97	Peak	68.2	Pass
NVNT	ac40	5670	Ant1	5725	-56.92	4.48	0.23	43.02	Average	54	Pass
NVNT	ac40	5670	Ant1	5733	-47.97	4.48	-	51.74	Peak	68.2	Pass
NVNT	ac40	5670	Ant1	5725.2	-56.44	4.48	0.23	43.5	Average	54	Pass
NVNT	ac40	5670	Ant1	5735	-48.79	4.48	-	50.92	Peak	68.2	Pass
NVNT	ac40	5670	Ant1	5735	-57.29	4.48	0.23	42.65	Average	54	Pass
NVNT	ac80	5530	Ant1	5460	-46.82	4.48	-	52.89	Peak	68.2	Pass
NVNT	ac80	5530	Ant1	5460	-55.11	4.48	0.47	45.07	Average	54	Pass
NVNT	ac80	5530	Ant1	5462	-38.58	4.48	-	61.13	Peak	68.2	Pass
NVNT	ac80	5530	Ant1	5469	-51.81	4.48	0.47	48.37	Average	54	Pass
NVNT	ac80	5530	Ant1	5470	-39.89	4.48	-	59.82	Peak	68.2	Pass
NVNT	ac80	5530	Ant1	5470	-52.12	4.48	0.47	48.06	Average	54	Pass
NVNT	ac80	5610	Ant1	5725	-47.46	4.48	-	52.25	Peak	68.2	Pass
NVNT	ac80	5610	Ant1	5725	-57.94	4.48	0.47	42.24	Average	54	Pass
NVNT	ac80	5610	Ant1	5733.36	-47.5	4.48	-	52.21	Peak	68.2	Pass
NVNT	ac80	5610	Ant1	5729.465	-56.91	4.48	0.47	43.27	Average	54	Pass
NVNT	ac80	5610	Ant1	5735	-49.09	4.48	-	50.62	Peak	68.2	Pass
NVNT	ac80	5610	Ant1	5735	-57.98	4.48	0.47	42.2	Average	54	Pass

Restrict Band NVNT a 5500MHz Ant1 Peak



[illegible][illegible]

[illegible]

Agilent Spectrum Analyzer - Swept SA

R F SQ Q AC SENSE-PULSE ALIGN AUTO 11:25:26 PM Oct 23, 2025

Center Freq 5.780000000 GHz

PNO: Fast IF Gain: Low Trig: Free Run #Atten: 30 dB #Avg Type: RMS AvgHold: 100/100

TRACE 1: 2 3 4 5 6
TYPE A W W W W W W W
DET A N N N N N

Ref Offset 3.05 dB
Ref 20.00 dBm

Mkr1 5.692 8 GHz
-4.506 dBm

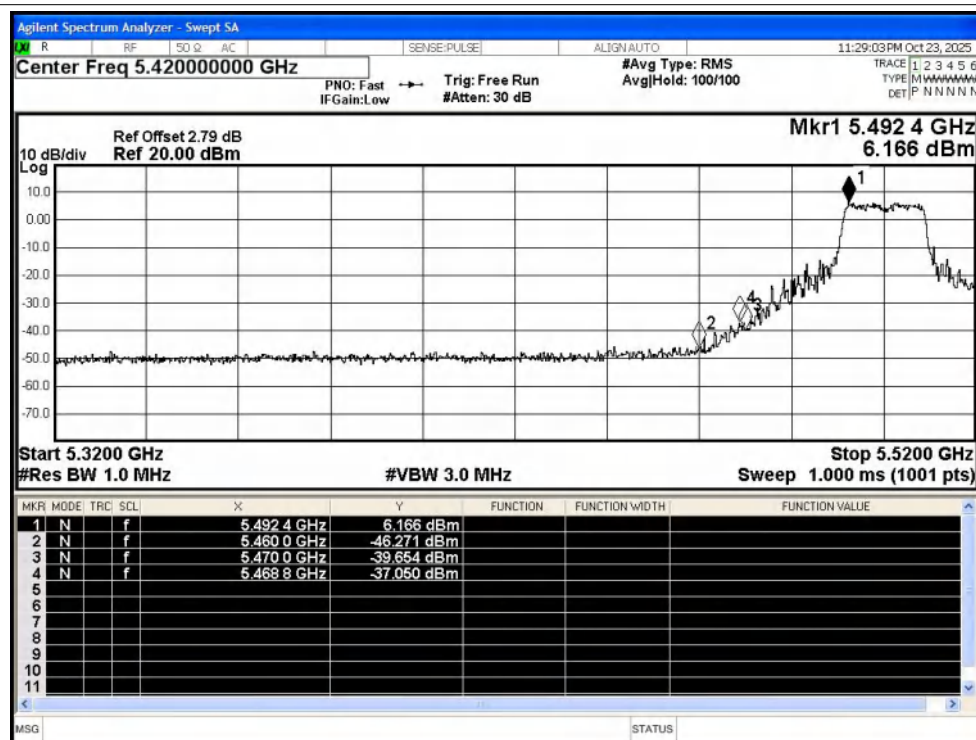
10 dB/div
Log

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N		f	5.692 8 GHz	-4.506 dBm			
2	N		f	5.725 0 GHz	-51.045 dBm			
3	N		f	5.735 0 GHz	-55.984 dBm			
4	N		f	5.725 6 GHz	-50.029 dBm			
5								
6								
7								
8								
9								
10								
11								

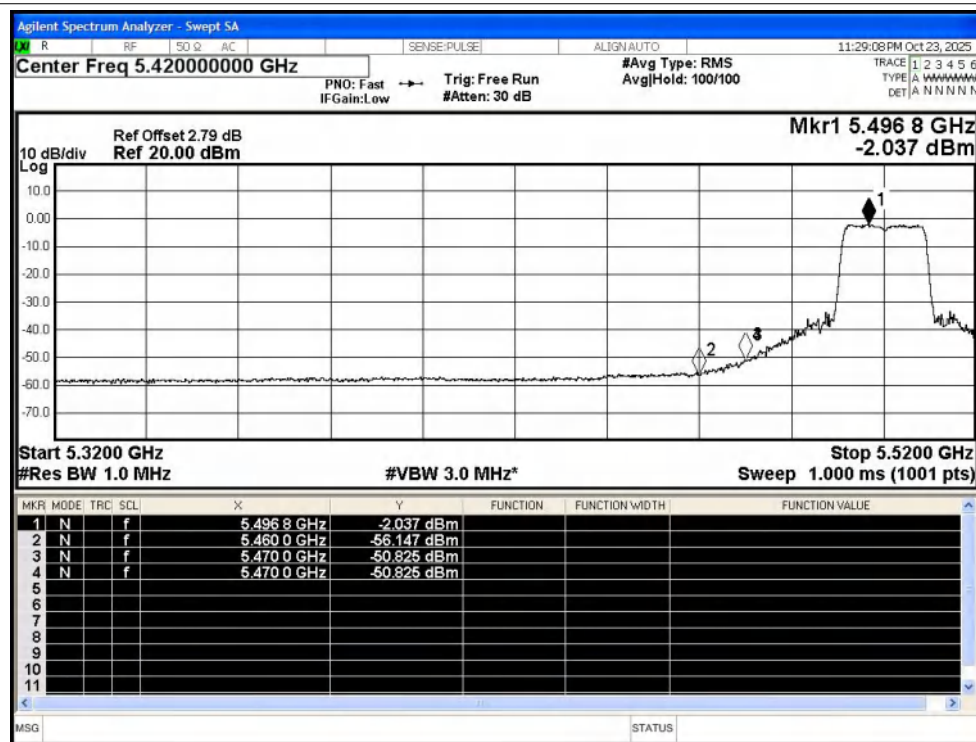
Start 5.6800 GHz Stop 5.8800 GHz
#Res BW 1.0 MHz #VBW 3.0 MHz* Sweep 1.000 ms (1001 pts)

MSG STATUS

Restrict Band NVNT ac20 5500MHz Ant1 Peak



Restrict Band NVNT ac20 5500MHz Ant1 Average



[illegible][illegible]

[illegible][illegible]

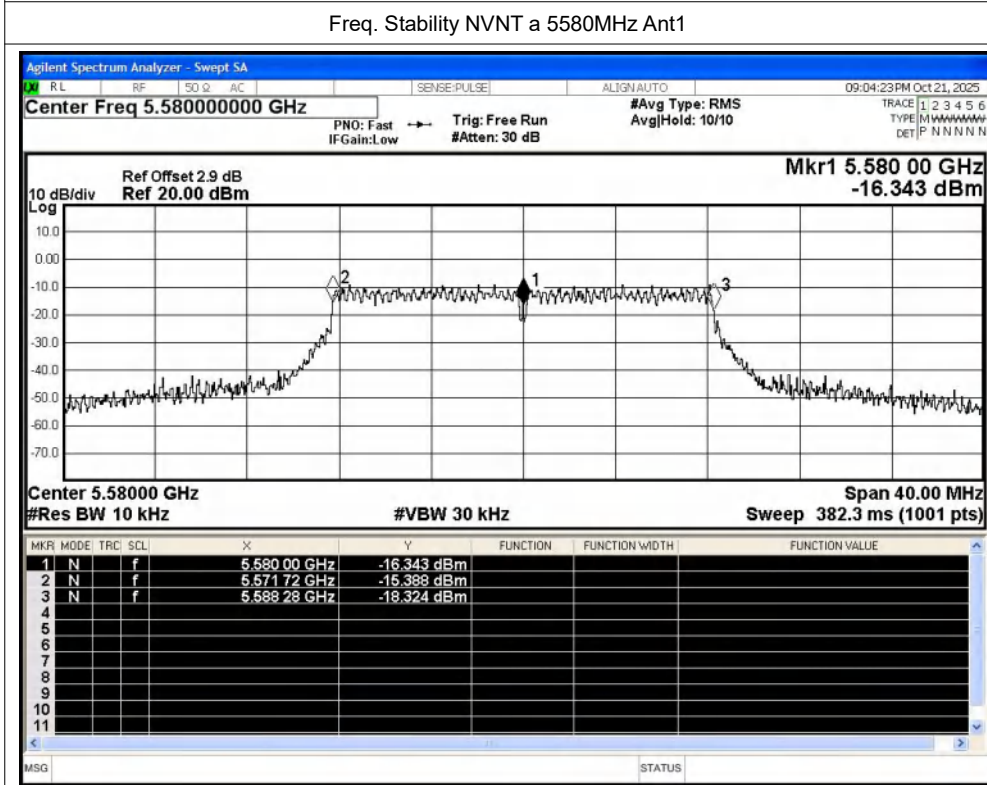
[illegible][illegible]

[illegible][illegible]

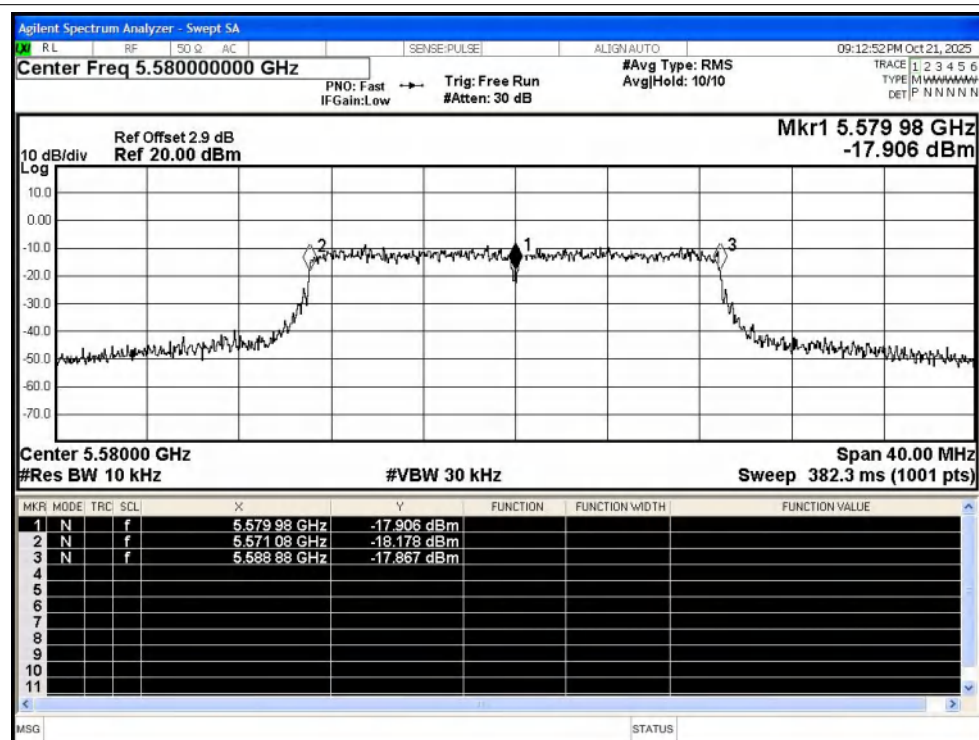
5. Frequency Stability

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	a	5500	Ant1	5500	0	0	25	Pass
NVNT	a	5580	Ant1	5580	0	0	25	Pass
NVNT	a	5700	Ant1	5700	0	0	25	Pass
NVNT	n20	5500	Ant1	5500	0	0	25	Pass
NVNT	n20	5580	Ant1	5579.98	-20000	-3.58	25	Pass
NVNT	n20	5700	Ant1	5699.98	-20000	-3.51	25	Pass
NVNT	n40	5510	Ant1	5510	0	0	25	Pass
NVNT	n40	5550	Ant1	5550	0	0	25	Pass
NVNT	n40	5670	Ant1	5670	0	0	25	Pass
NVNT	ac20	5500	Ant1	5500	0	0	25	Pass
NVNT	ac20	5580	Ant1	5580	0	0	25	Pass
NVNT	ac20	5700	Ant1	5700	0	0	25	Pass
NVNT	ac40	5510	Ant1	5510	0	0	25	Pass
NVNT	ac40	5550	Ant1	5550	0	0	25	Pass
NVNT	ac40	5670	Ant1	5670	0	0	25	Pass
NVNT	ac80	5530	Ant1	5530	0	0	25	Pass
NVNT	ac80	5610	Ant1	5610	0	0	25	Pass

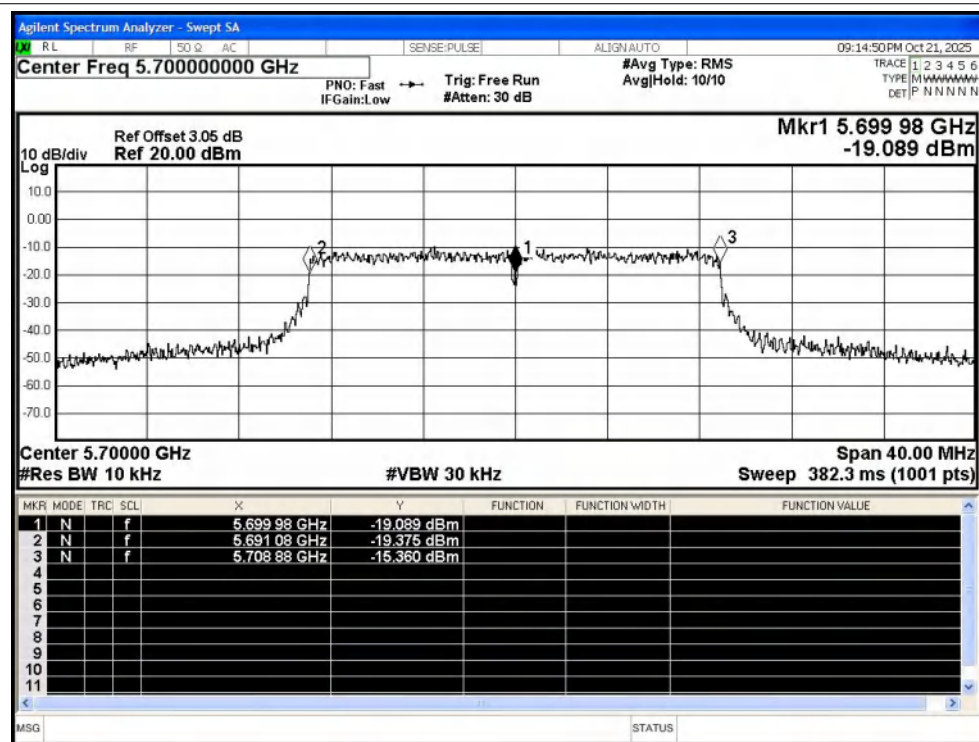
Freq. Stability NVNT a 5500MHz Ant1



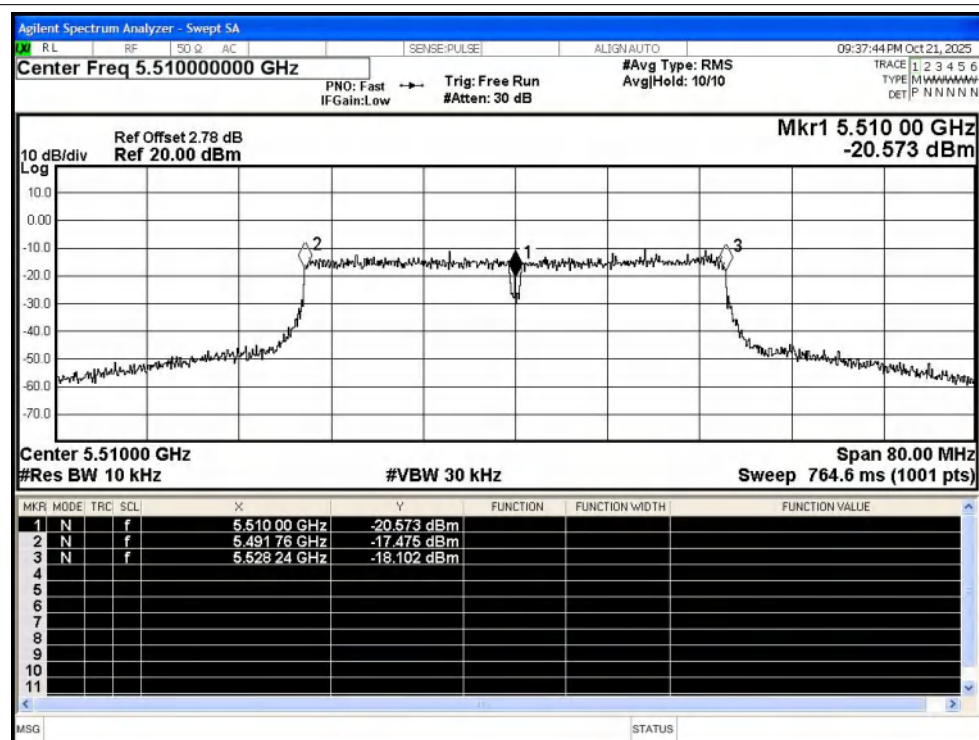
Freq. Stability NVNT n20 5580MHz Ant1



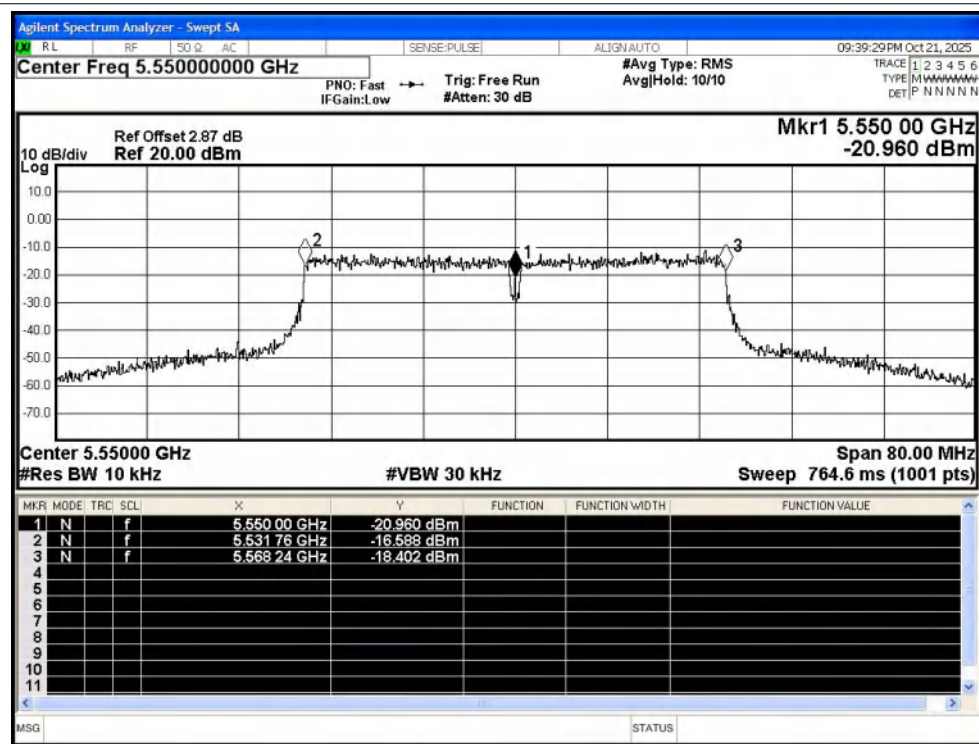
Freq. Stability NVNT n20 5700MHz Ant1



Freq. Stability NVNT n40 5510MHz Ant1



Freq. Stability NVNT n40 5550MHz Ant1



[illegible][illegible]

Freq. Stability NVNT ac20 5580MHz Ant1

Agilent Spectrum Analyzer - Swept SA

Center Freq 5.58000000 GHz

Ref Offset 2.9 dB
Ref 20.00 dBm

Mkr1 5.580 00 GHz
-23.496 dBm

10 dB/div
Log

Center 5.58000 GHz
#Res BW 10 kHz

#VBW 30 kHz

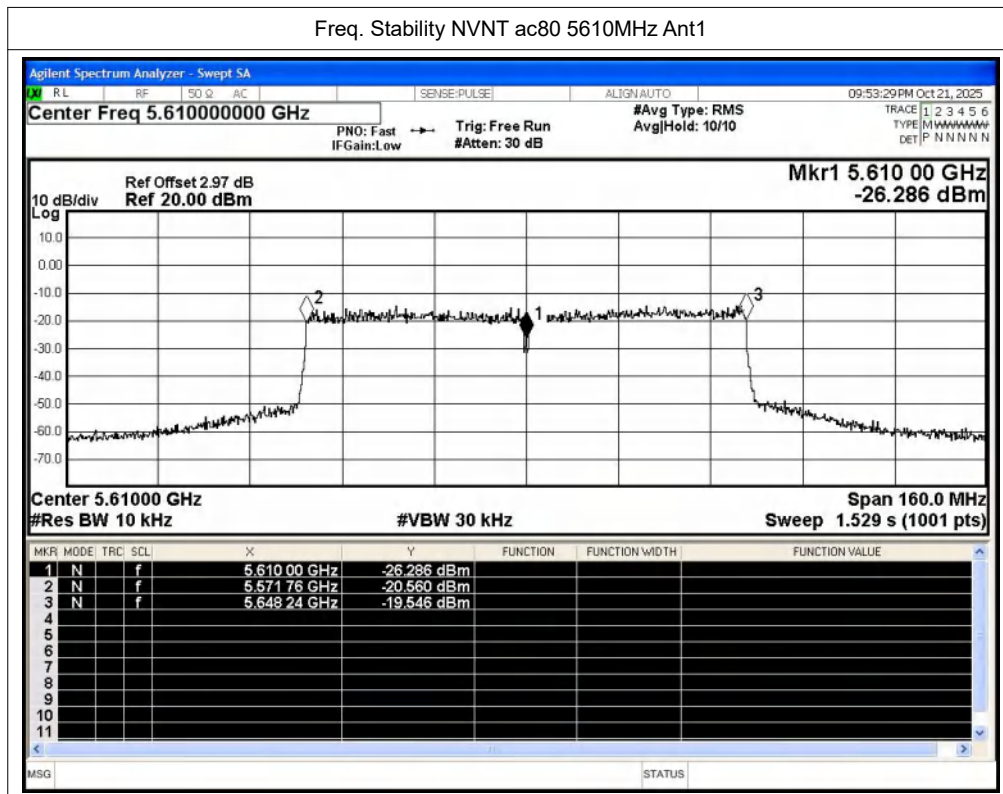
Span 40.00 MHz
Sweep 382.3 ms (1001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	f		5.580 00 GHz	-23.496 dBm			
2	N	f		5.671 16 GHz	-15.627 dBm			
3	N	f		5.588 84 GHz	-14.746 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

[illegible]

[illegible][illegible]

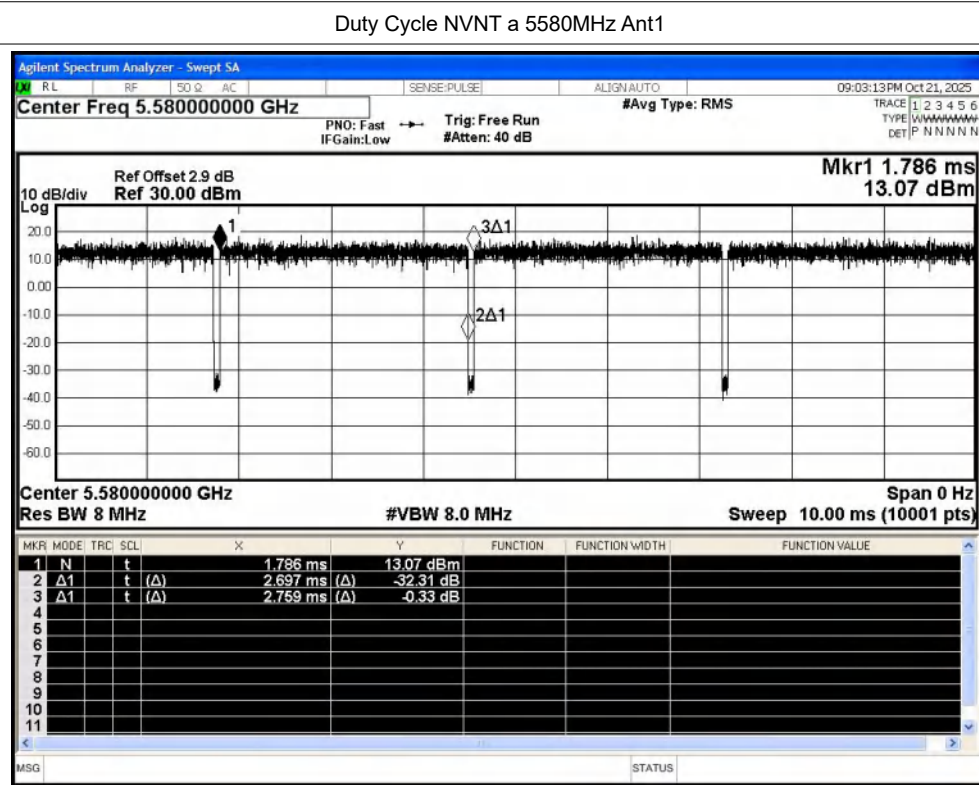
[illegible][illegible]



6. Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5500	Ant1	97.72	0.1	0.37
NVNT	a	5580	Ant1	97.75	0.1	0.37
NVNT	a	5700	Ant1	97.72	0.1	0.37
NVNT	n20	5500	Ant1	97.29	0.12	0.44
NVNT	n20	5580	Ant1	97.29	0.12	0.44
NVNT	n20	5700	Ant1	97.29	0.12	0.44
NVNT	n40	5510	Ant1	94.79	0.23	0.9
NVNT	n40	5550	Ant1	94.71	0.24	0.9
NVNT	n40	5670	Ant1	94.71	0.24	0.9
NVNT	ac20	5500	Ant1	97.3	0.12	0.44
NVNT	ac20	5580	Ant1	97.3	0.12	0.44
NVNT	ac20	5700	Ant1	97.34	0.12	0.44
NVNT	ac40	5510	Ant1	94.72	0.24	0.9
NVNT	ac40	5550	Ant1	94.81	0.23	0.9
NVNT	ac40	5670	Ant1	94.81	0.23	0.9
NVNT	ac80	5530	Ant1	89.65	0.47	1.86
NVNT	ac80	5610	Ant1	89.65	0.47	1.86

Duty Cycle NVNT a 5500MHz Ant1



Duty Cycle NVNT a 5700MHz Ant1

Agilent Spectrum Analyzer - Swept SA

Center Freq **5.700000000 GHz** PNO: Fast IFGain:Low Trig: Free Run #Atten: 40 dB #Avg Type: RMS

Ref Offset **3.05 dB** Ref **30.00 dBm** Mkr1 **1.200 ms** **12.36 dBm**

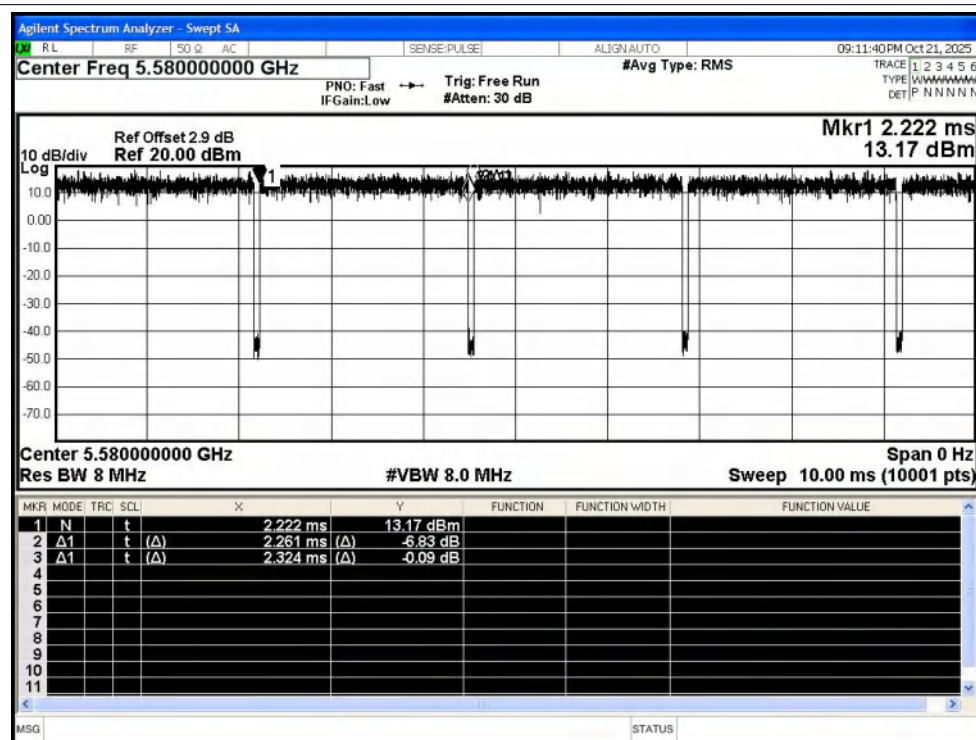
10 dB/div Log

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	t		1.200 ms	12.36 dBm			
2	Δ1	t	(Δ)	2.696 ms (Δ)	-3.06 dB			
3	Δ1	t	(Δ)	2.759 ms (Δ)	-0.15 dB			
4								
5								
6								
7								
8								
9								
10								
11								

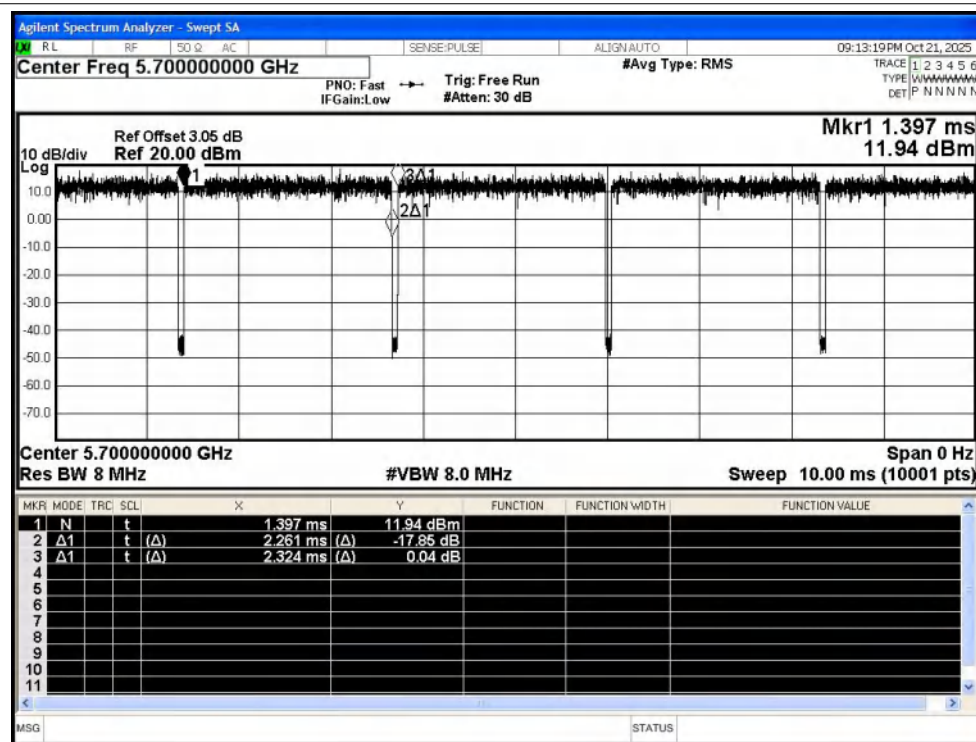
Center **5.700000000 GHz** Res BW **8 MHz** #VBW **8.0 MHz** Sweep **10.00 ms (10001 pts)** Span **0 Hz**

[illegible]

Duty Cycle NVNT n20 5580MHz Ant1



Duty Cycle NVNT n20 5700MHz Ant1



[illegible][illegible]

[illegible]

Duty Cycle NVNT ac20 5500MHz Ant1

Agilent Spectrum Analyzer - Swept SA

Center Freq 5.500000000 GHz

Ref Offset 2.79 dB
Ref 20.00 dBm

Mkr1 293.0 μ s
13.45 dBm

Center 5.500000000 GHz
Res BW 8 MHz

#VBW 8.0 MHz

Sweep 10.00 ms (10001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	t		293.0 μ s	13.45 dBm			
2	Δ 1	t	(Δ)	2.268 ms	-2.47 dB			
3	Δ 1	t	(Δ)	2.331 ms	0.06 dB			
4								
5								
6								
7								
8								
9								
10								
11								

MSG

STATUS

[illegible][illegible]

[illegible][illegible]

[illegible][illegible]

