

FCC Appendix RF Test Data for 5.3GWIFI

Product Name: Smart Diagnostic System
Test Model: P806

Environmental Conditions

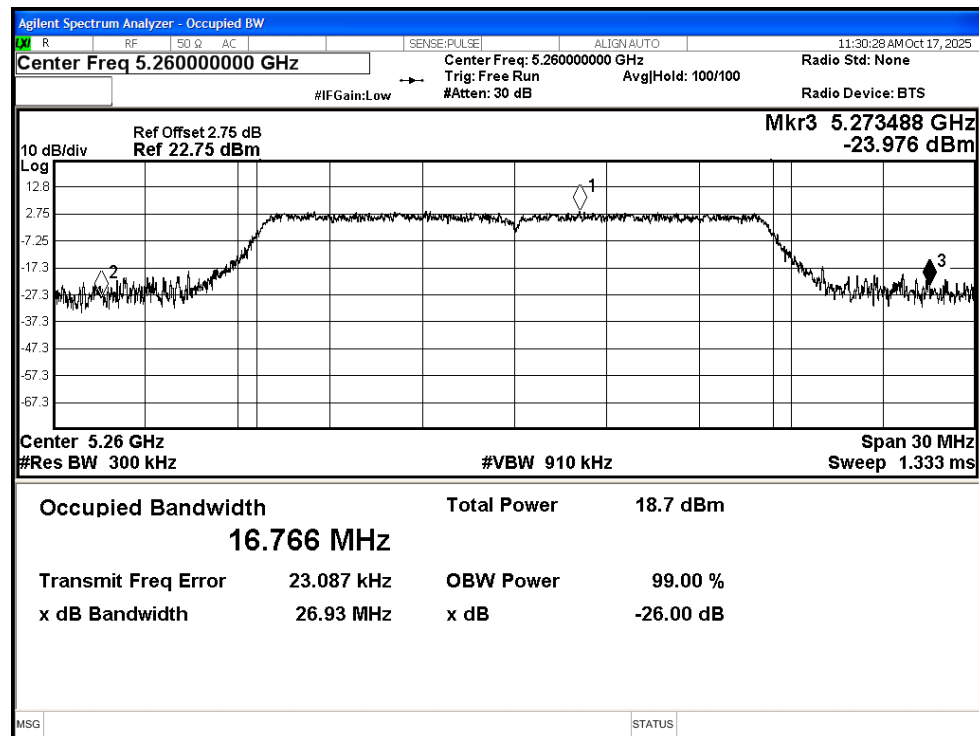
Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Zoey Cao
Supervised by:	Eric Wang

1. -26dB Bandwidth

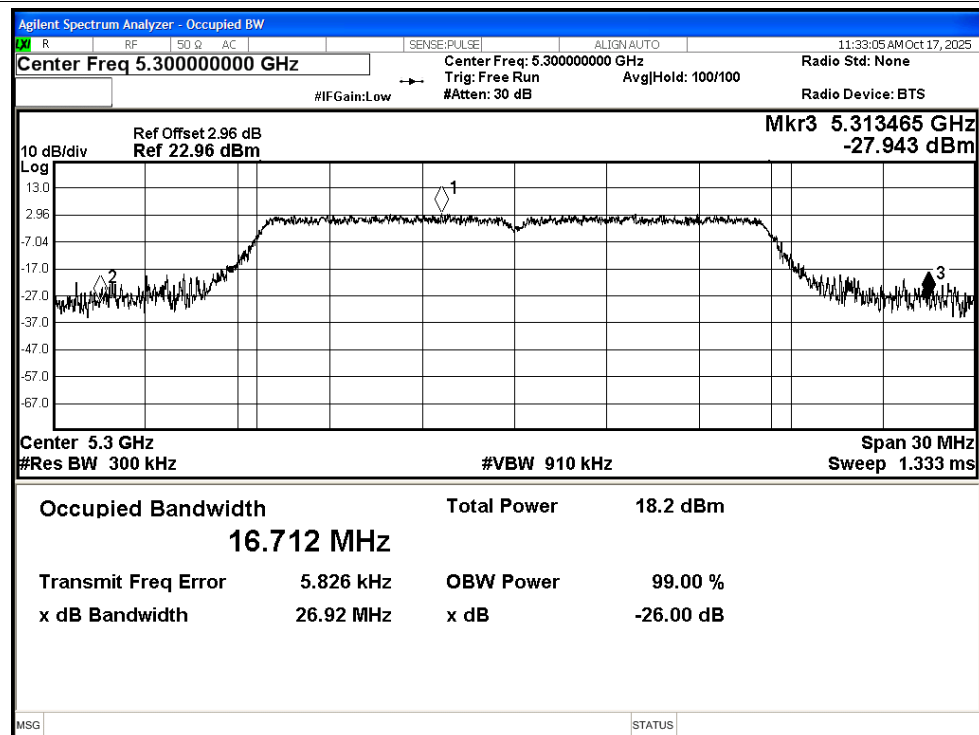
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5260	Ant	26.93	---	Pass
NVNT	a	5300	Ant	26.919	---	Pass
NVNT	a	5320	Ant	28.561	---	Pass
NVNT	n20	5260	Ant	28.576	---	Pass
NVNT	n20	5300	Ant	26.132	---	Pass
NVNT	n20	5320	Ant	27.415	---	Pass
NVNT	n40	5270	Ant	45.458	---	Pass
NVNT	n40	5310	Ant	53.986	---	Pass
NVNT	ac20	5260	Ant	27.461	---	Pass
NVNT	ac20	5300	Ant	27.32	---	Pass
NVNT	ac20	5320	Ant	29.617	---	Pass
NVNT	ac40	5270	Ant	47.244	---	Pass
NVNT	ac40	5310	Ant	49.244	---	Pass
NVNT	ac80	5290	Ant	86.505	---	Pass

Test Graphs

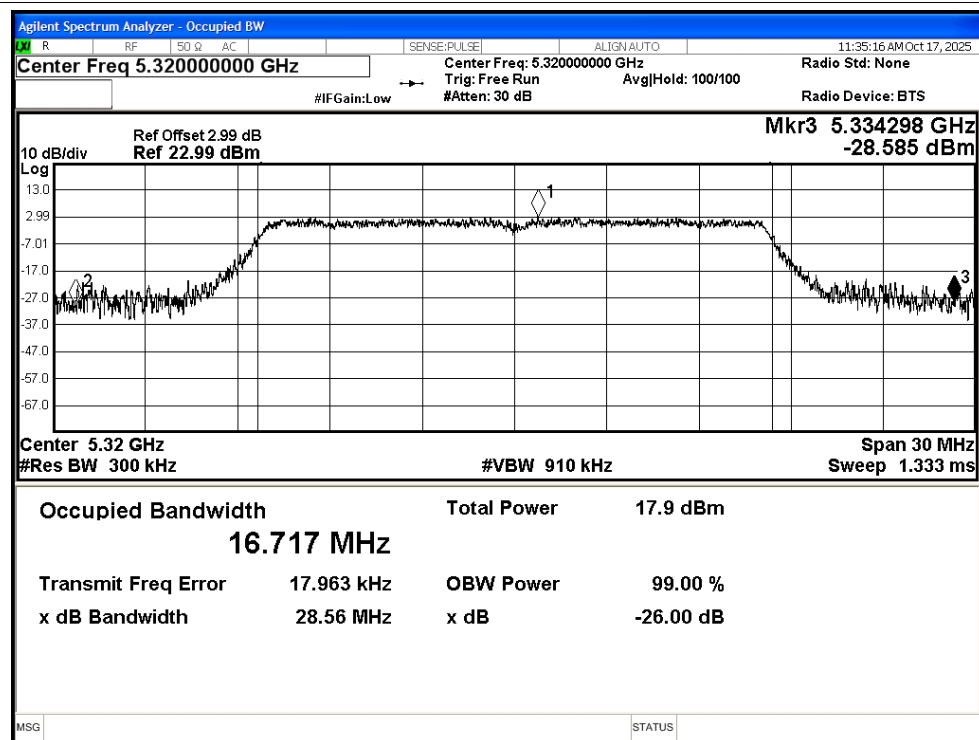
-26dB Bandwidth NVNT a 5260MHz Ant



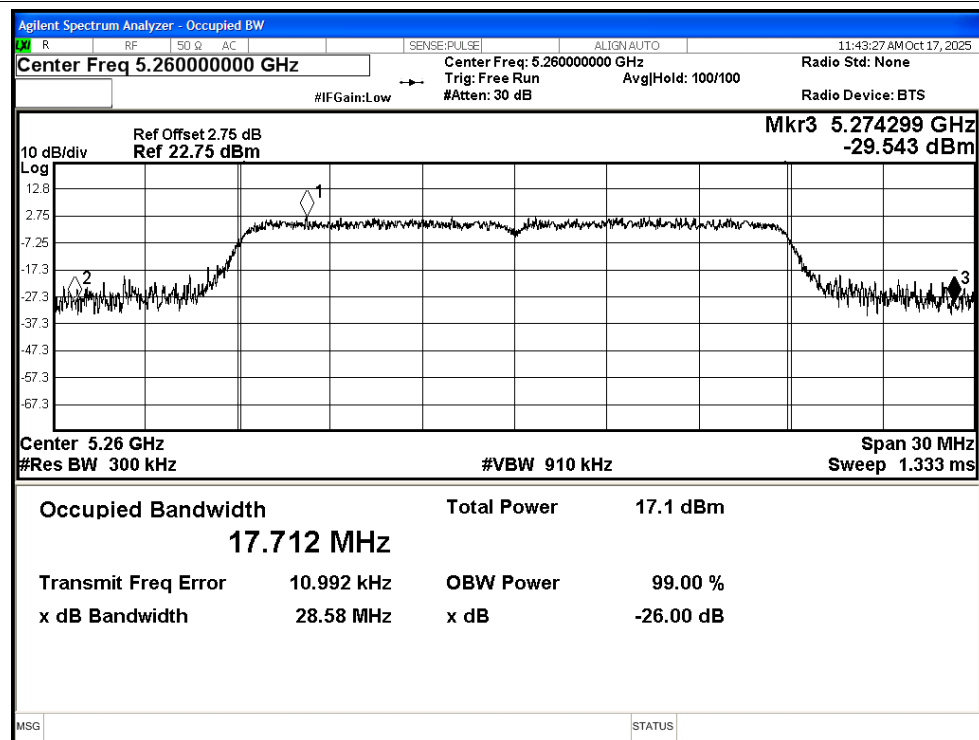
-26dB Bandwidth NVNT a 5300MHz Ant



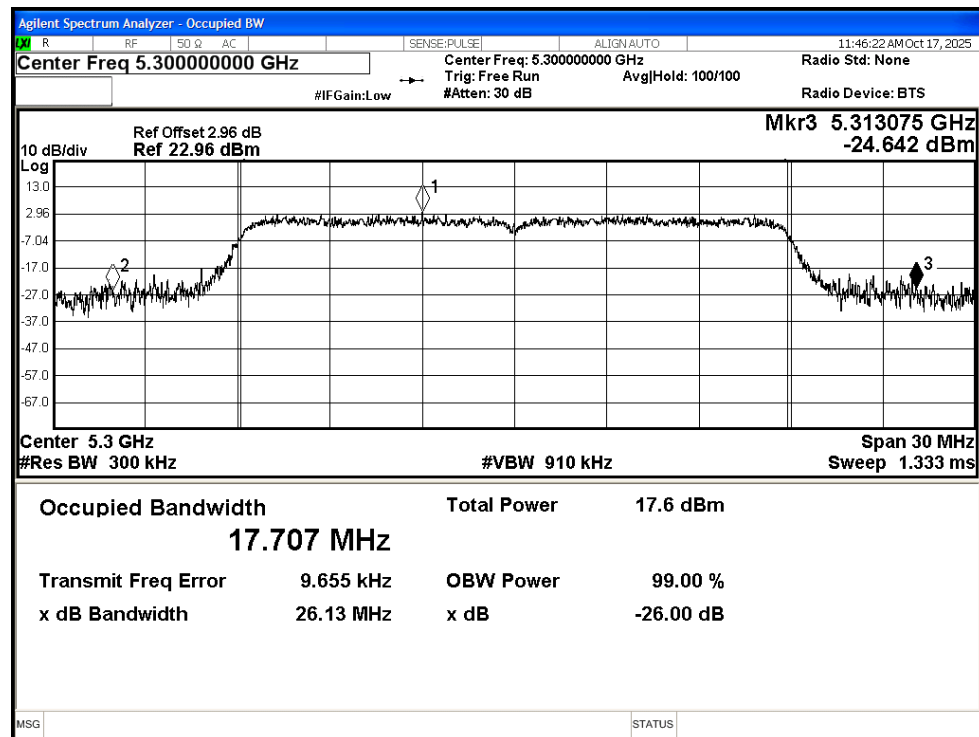
-26dB Bandwidth NVNT a 5320MHz Ant



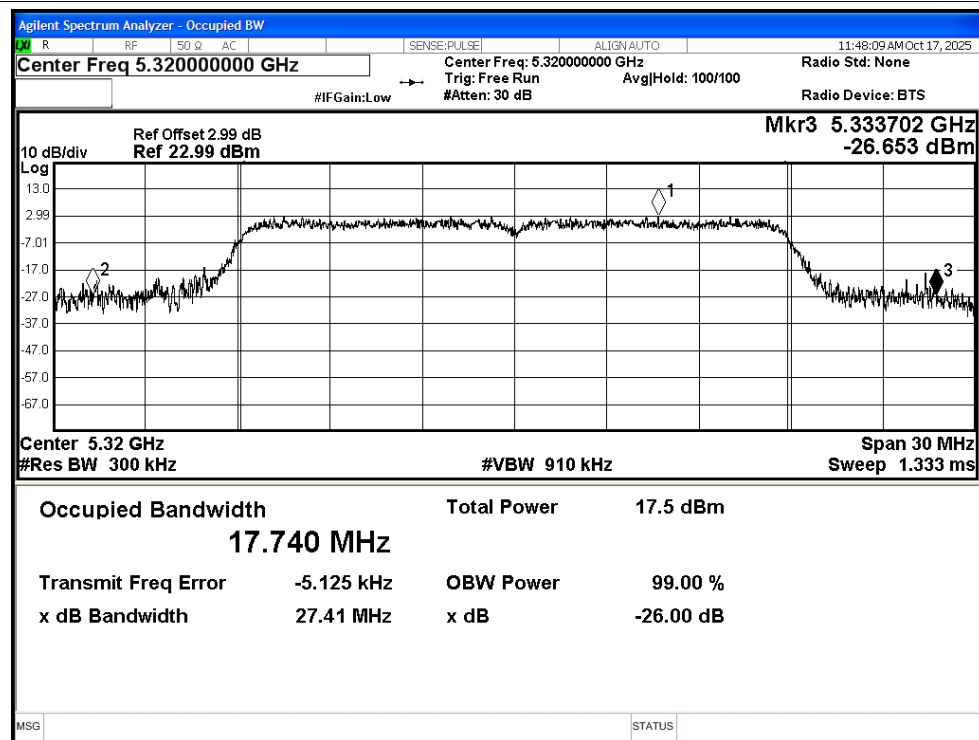
-26dB Bandwidth NVNT n20 5260MHz Ant



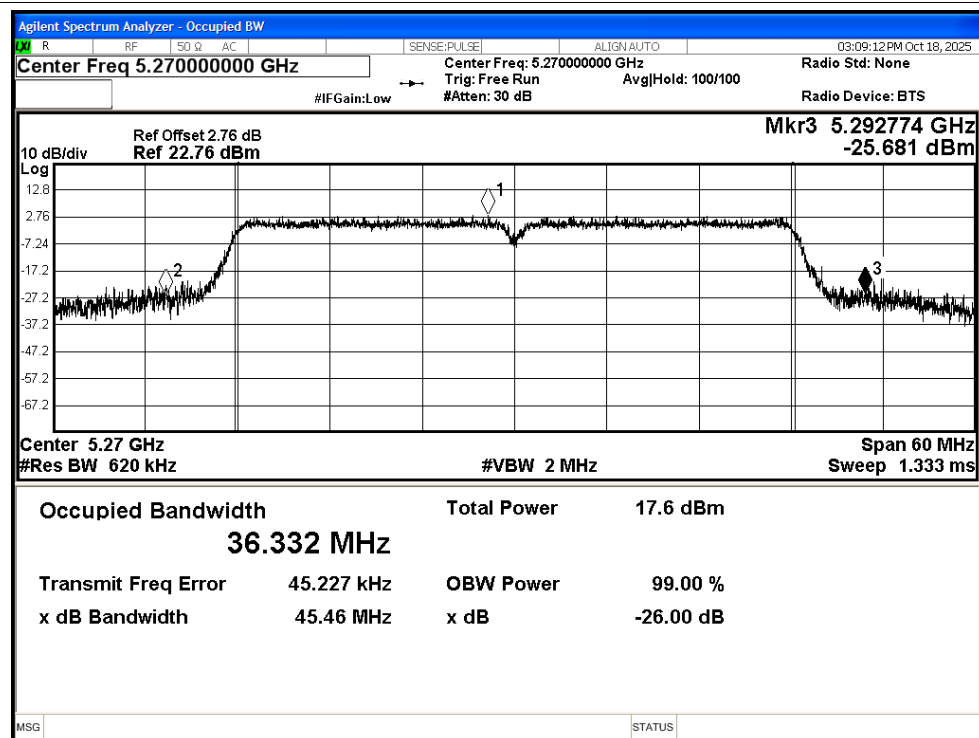
-26dB Bandwidth NVNT n20 5300MHz Ant



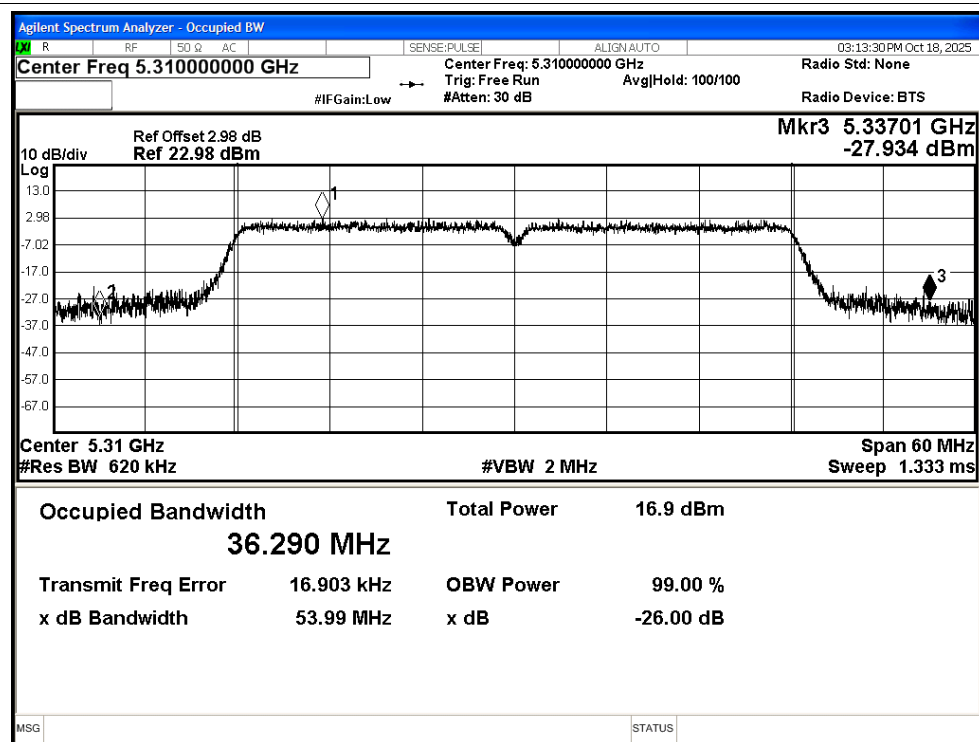
-26dB Bandwidth NVNT n20 5320MHz Ant



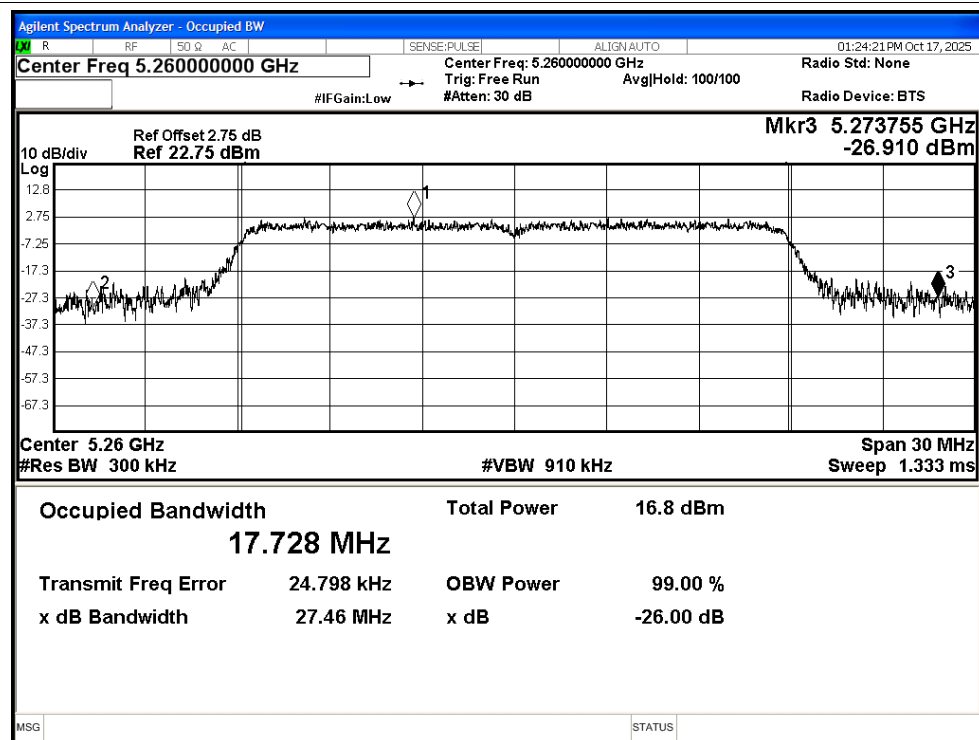
-26dB Bandwidth NVNT n40 5270MHz Ant



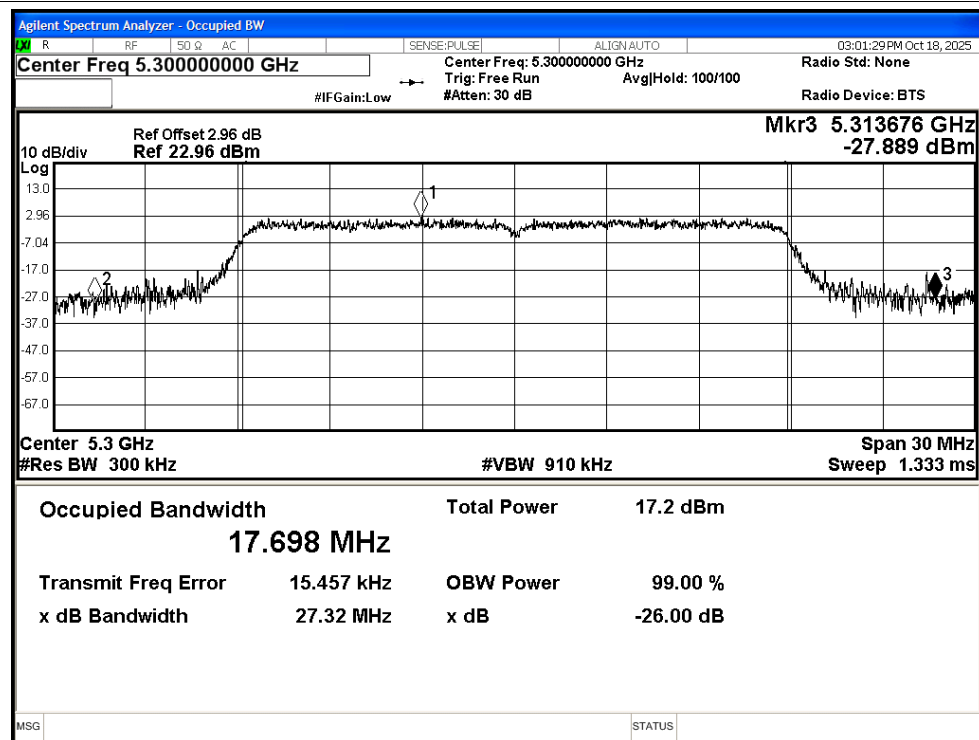
-26dB Bandwidth NVNT n40 5310MHz Ant



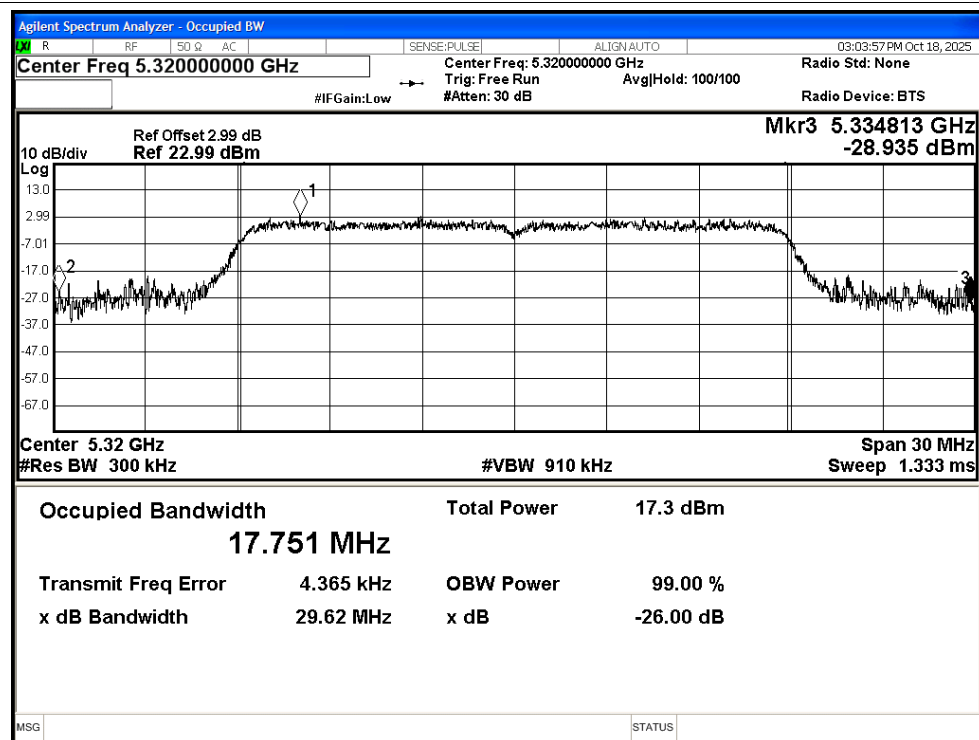
-26dB Bandwidth NVNT ac20 5260MHz Ant



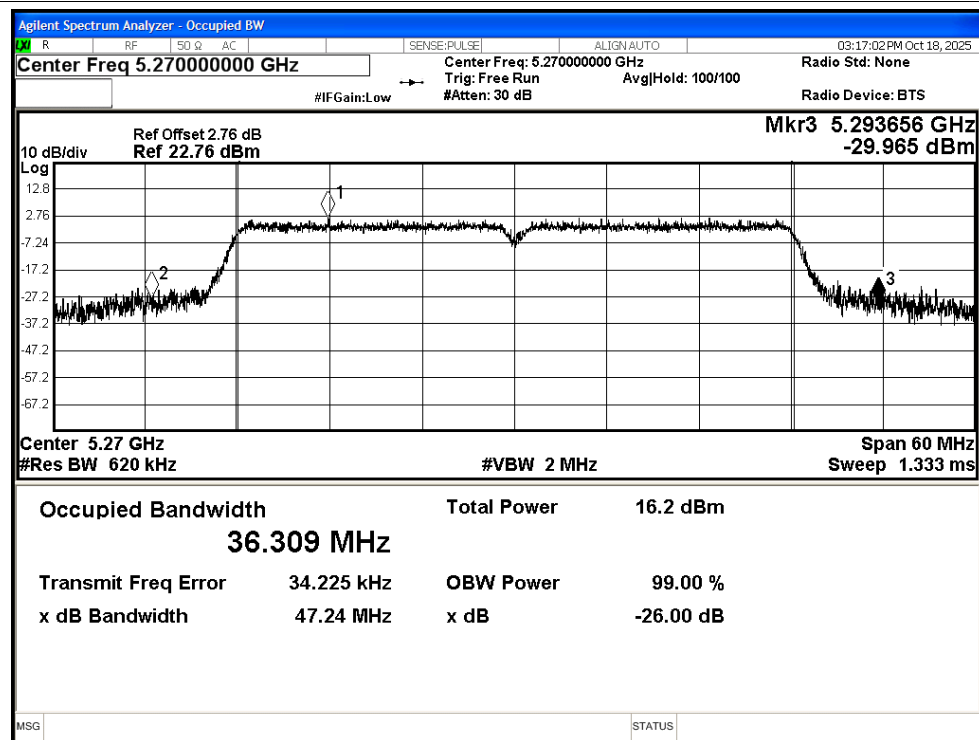
-26dB Bandwidth NVNT ac20 5300MHz Ant



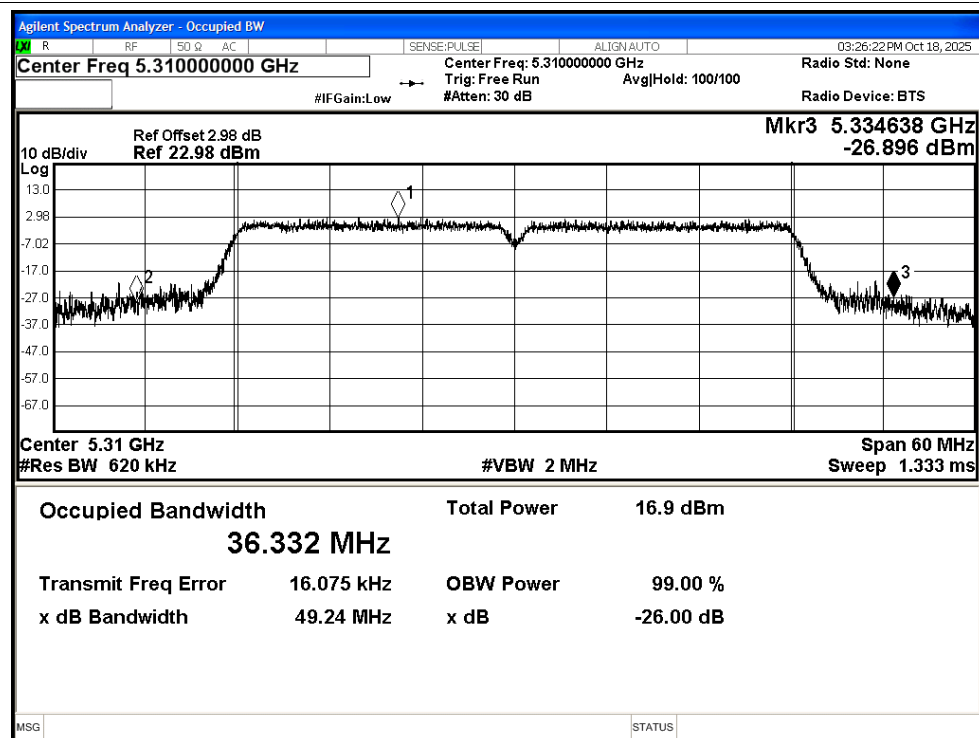
-26dB Bandwidth NVNT ac20 5320MHz Ant



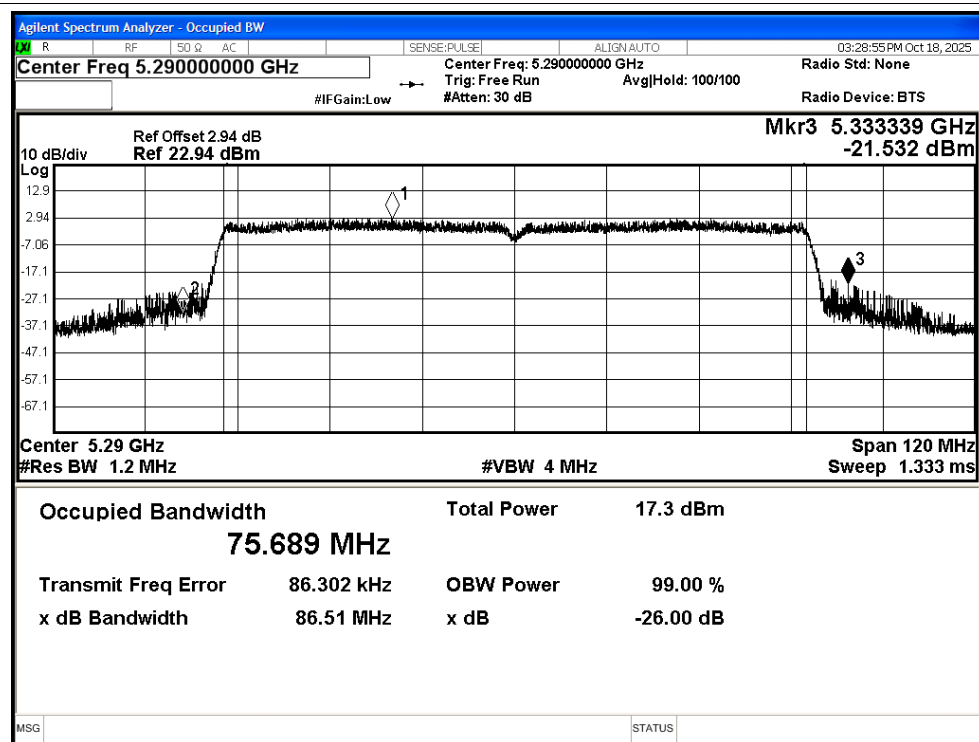
-26dB Bandwidth NVNT ac40 5270MHz Ant



-26dB Bandwidth NVNT ac40 5310MHz Ant



-26dB Bandwidth NVNT ac80 5290MHz Ant



2. Maximum Conducted Output Power

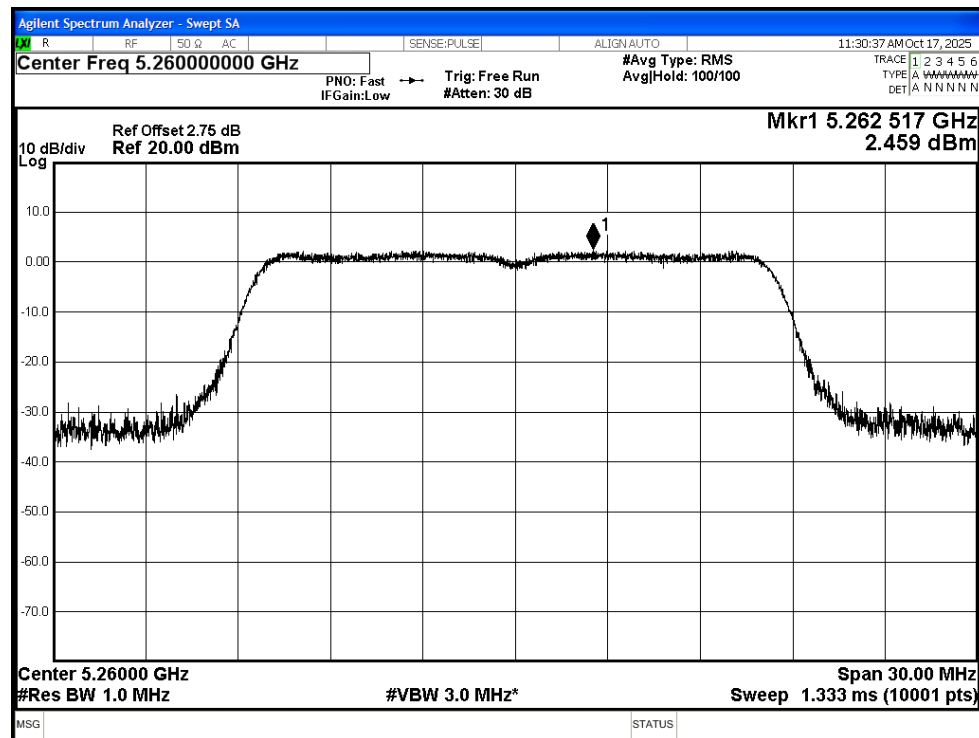
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5260	Ant	13.02	0.24	13.26	24	Pass
NVNT	a	5300	Ant	12.52	0.24	12.76	24	Pass
NVNT	a	5320	Ant	12.31	0.24	12.55	24	Pass
NVNT	n20	5260	Ant	11.37	0.28	11.65	24	Pass
NVNT	n20	5300	Ant	11.89	0.28	12.17	24	Pass
NVNT	n20	5320	Ant	11.81	0.28	12.09	24	Pass
NVNT	n40	5270	Ant	10.45	0.24	10.69	24	Pass
NVNT	n40	5310	Ant	10.86	0.24	11.1	24	Pass
NVNT	ac20	5260	Ant	10.85	0.28	11.13	24	Pass
NVNT	ac20	5300	Ant	11.55	0.28	11.83	24	Pass
NVNT	ac20	5320	Ant	11.63	0.28	11.91	24	Pass
NVNT	ac40	5270	Ant	10.57	0.23	10.8	24	Pass
NVNT	ac40	5310	Ant	10.68	0.24	10.92	24	Pass
NVNT	ac80	5290	Ant	9.11	0.47	9.58	24	Pass

3. Maximum Power Spectral Density Level

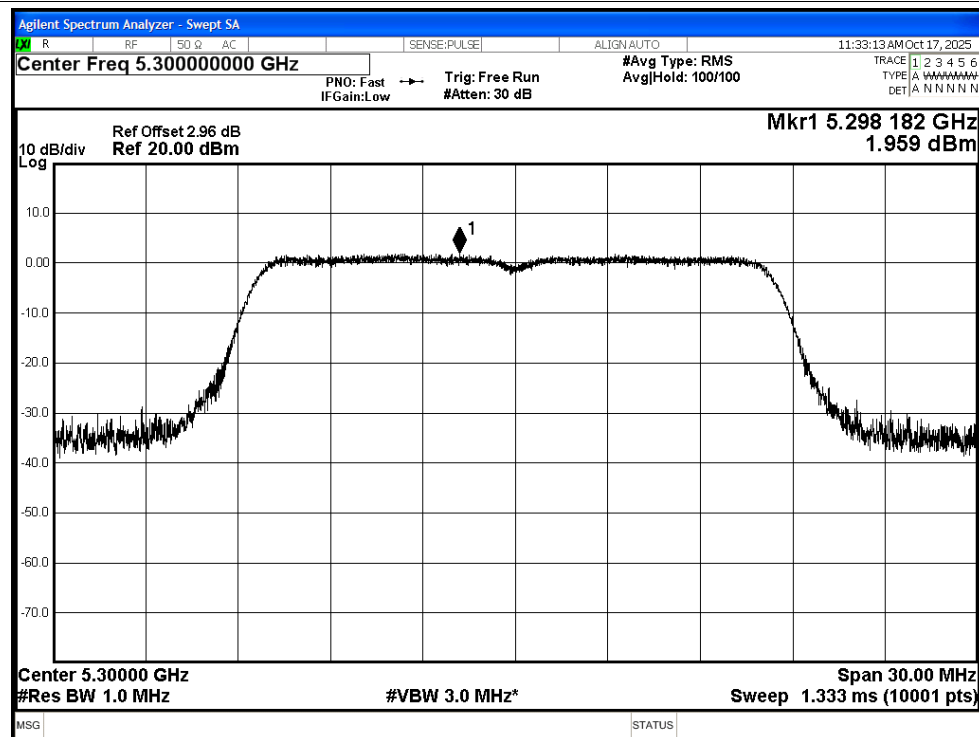
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5260	Ant	2.46	0.24	2.7	11	Pass
NVNT	a	5300	Ant	1.96	0.24	2.2	11	Pass
NVNT	a	5320	Ant	1.74	0.24	1.98	11	Pass
NVNT	n20	5260	Ant	0.52	0.28	0.8	11	Pass
NVNT	n20	5300	Ant	1.04	0.28	1.32	11	Pass
NVNT	n20	5320	Ant	1.04	0.28	1.32	11	Pass
NVNT	n40	5270	Ant	-2.25	0.24	-2.01	11	Pass
NVNT	n40	5310	Ant	-3.21	0.24	-2.97	11	Pass
NVNT	ac20	5260	Ant	0.62	0.28	0.9	11	Pass
NVNT	ac20	5300	Ant	0.92	0.28	1.2	11	Pass
NVNT	ac20	5320	Ant	1.05	0.28	1.33	11	Pass
NVNT	ac40	5270	Ant	-3.81	0.23	-3.58	11	Pass
NVNT	ac40	5310	Ant	-3.34	0.24	-3.1	11	Pass
NVNT	ac80	5290	Ant	-6.54	0.47	-6.07	11	Pass

Test Graphs

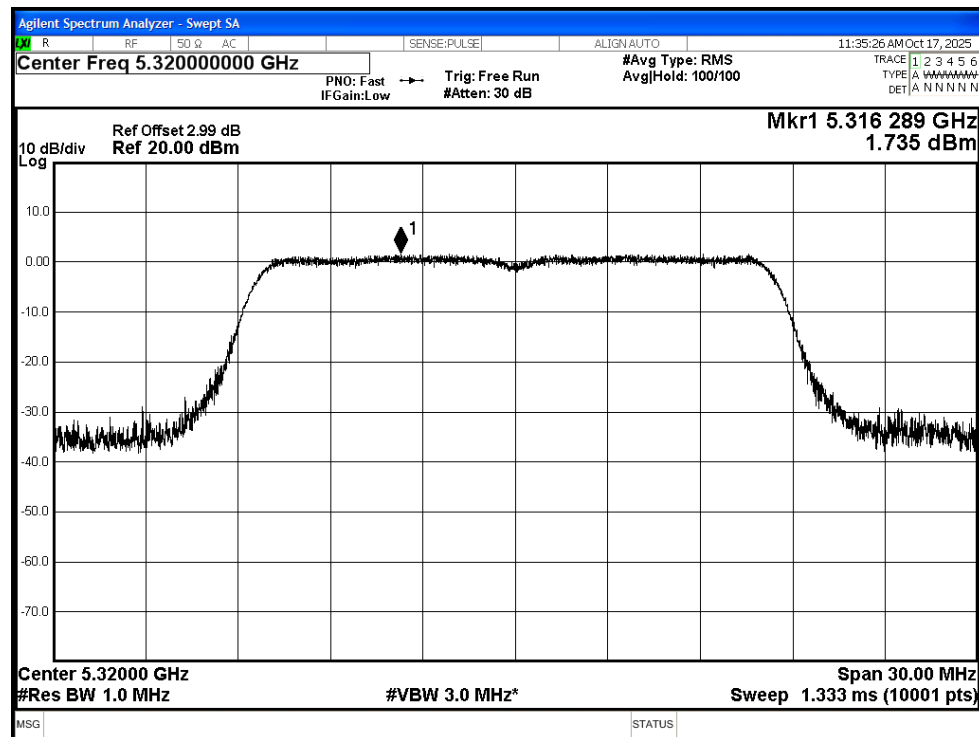
PSD NVNT a 5260MHz Ant



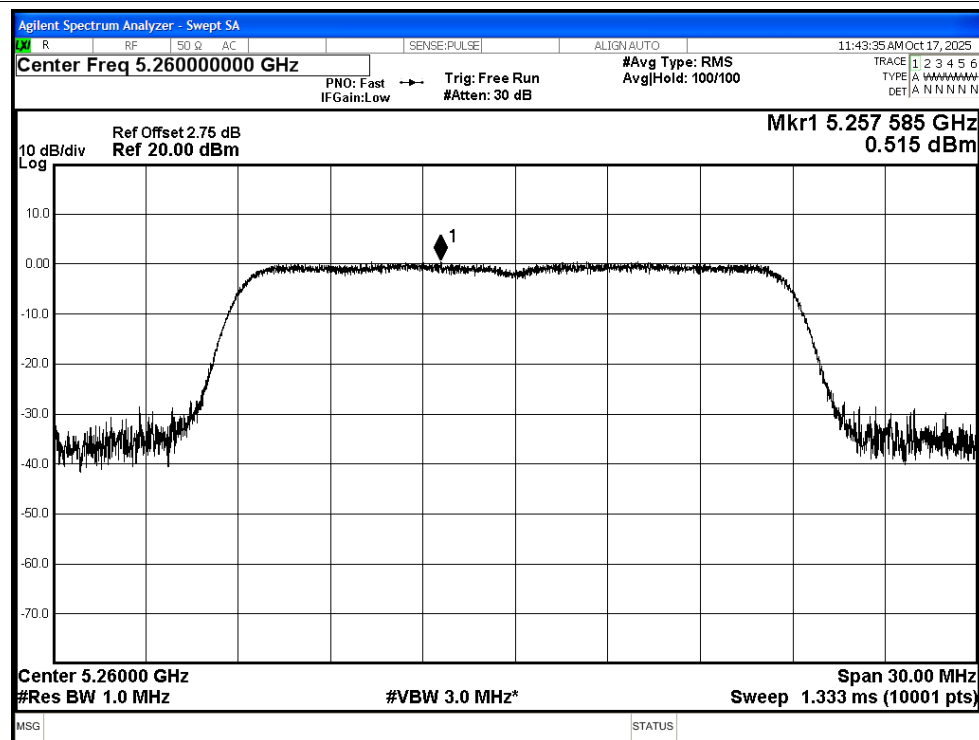
PSD NVNT a 5300MHz Ant



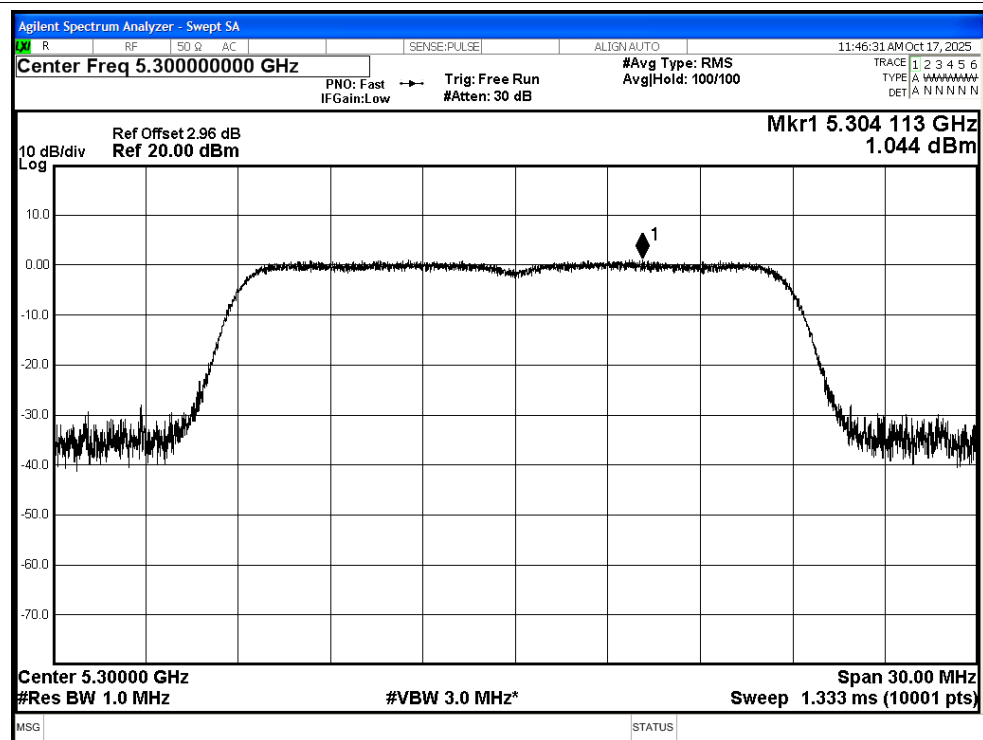
PSD NVNT a 5320MHz Ant



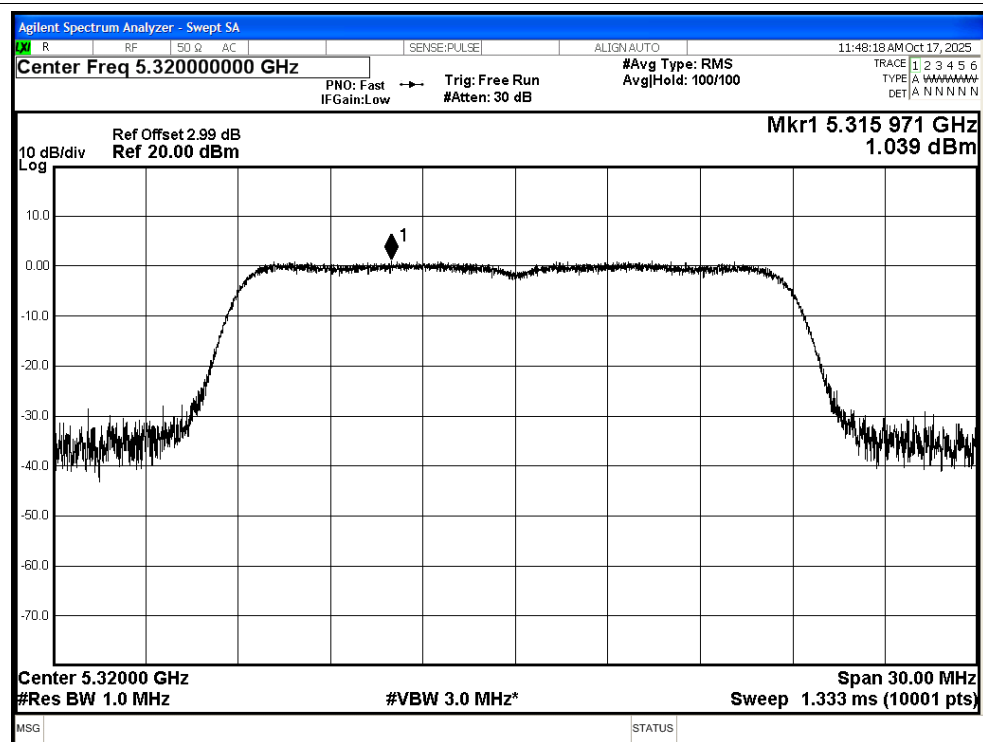
PSD NVNT n20 5260MHz Ant



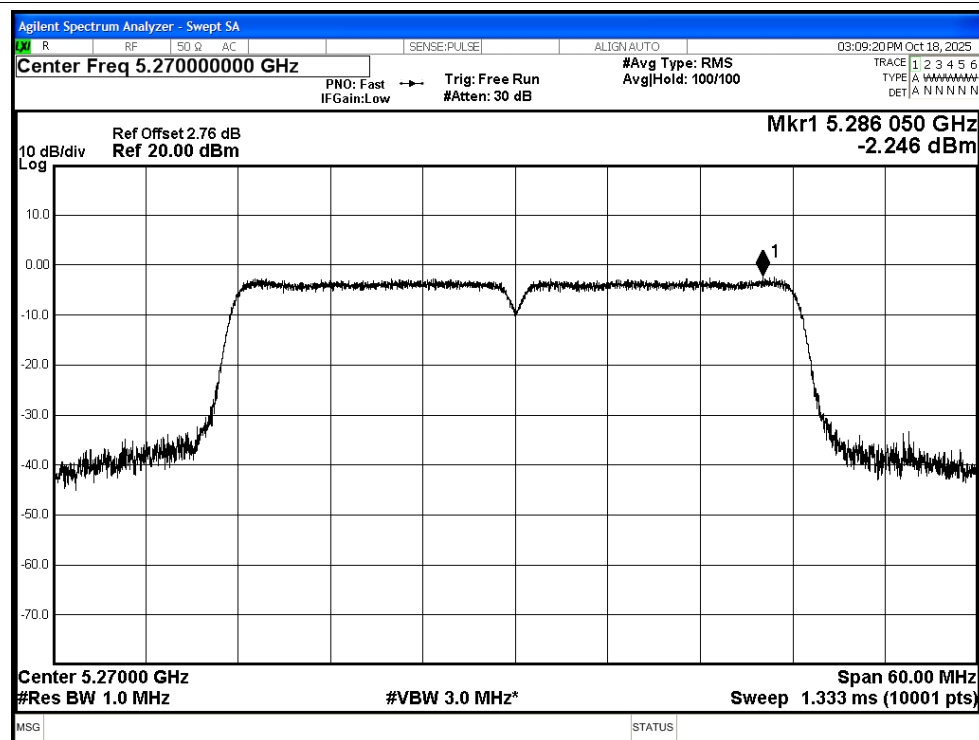
PSD NVNT n20 5300MHz Ant



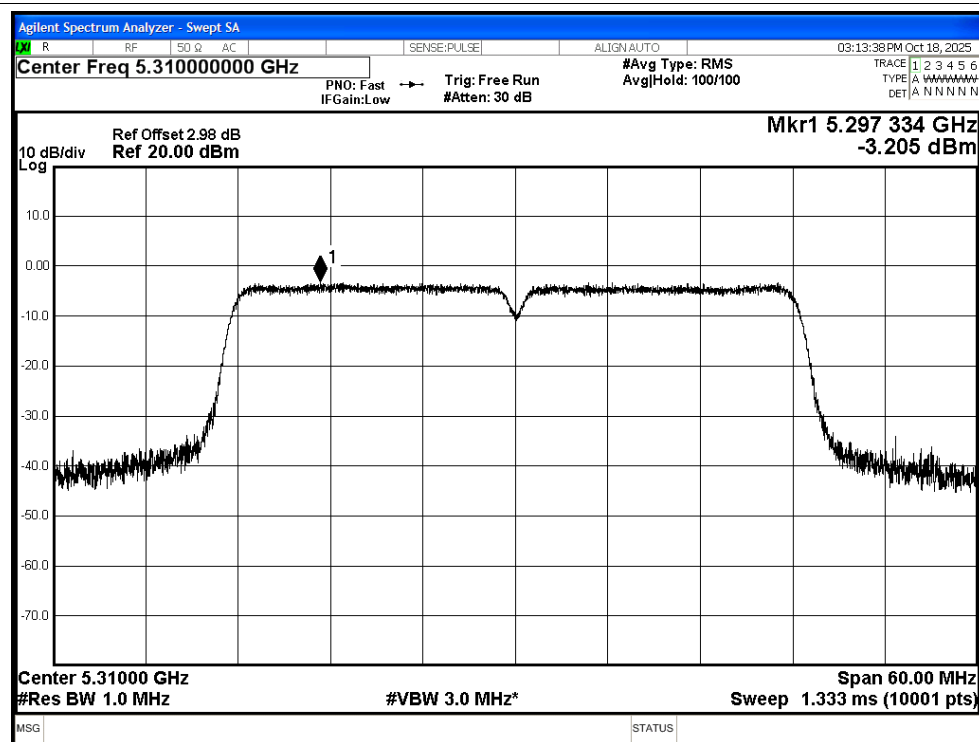
PSD NVNT n20 5320MHz Ant



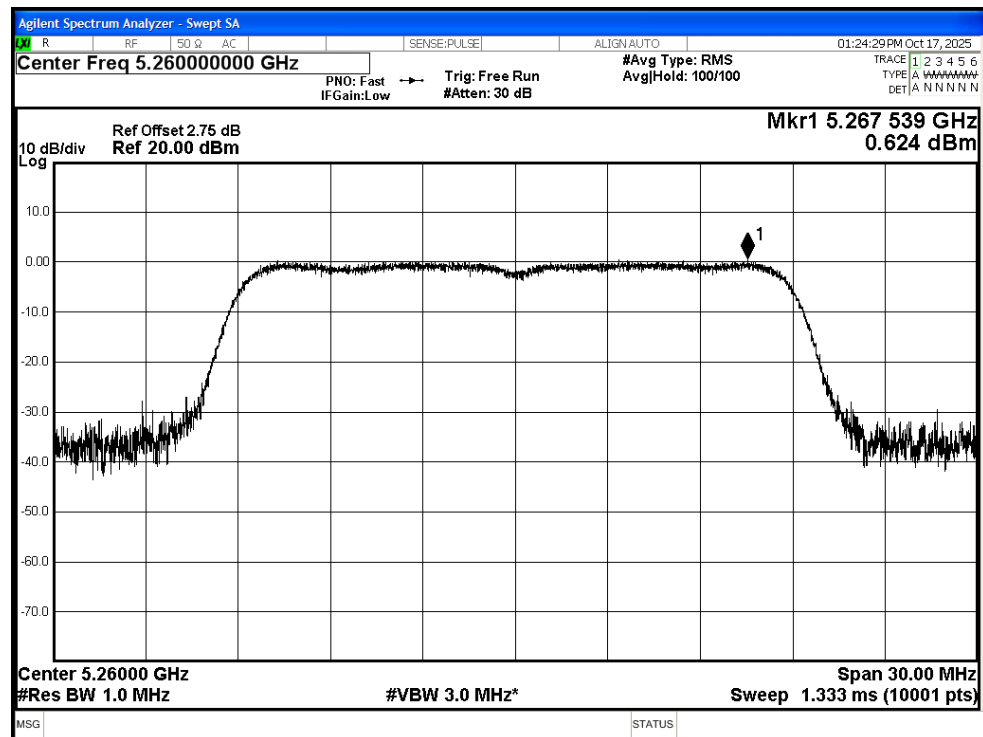
PSD NVNT n40 5270MHz Ant



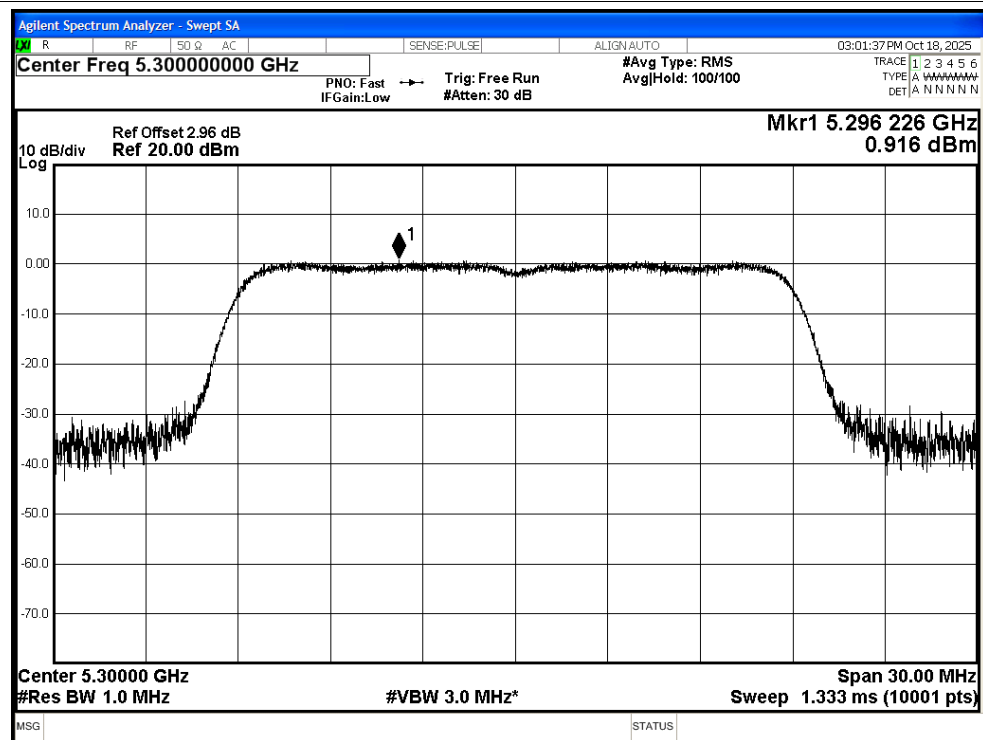
PSD NVNT n40 5310MHz Ant



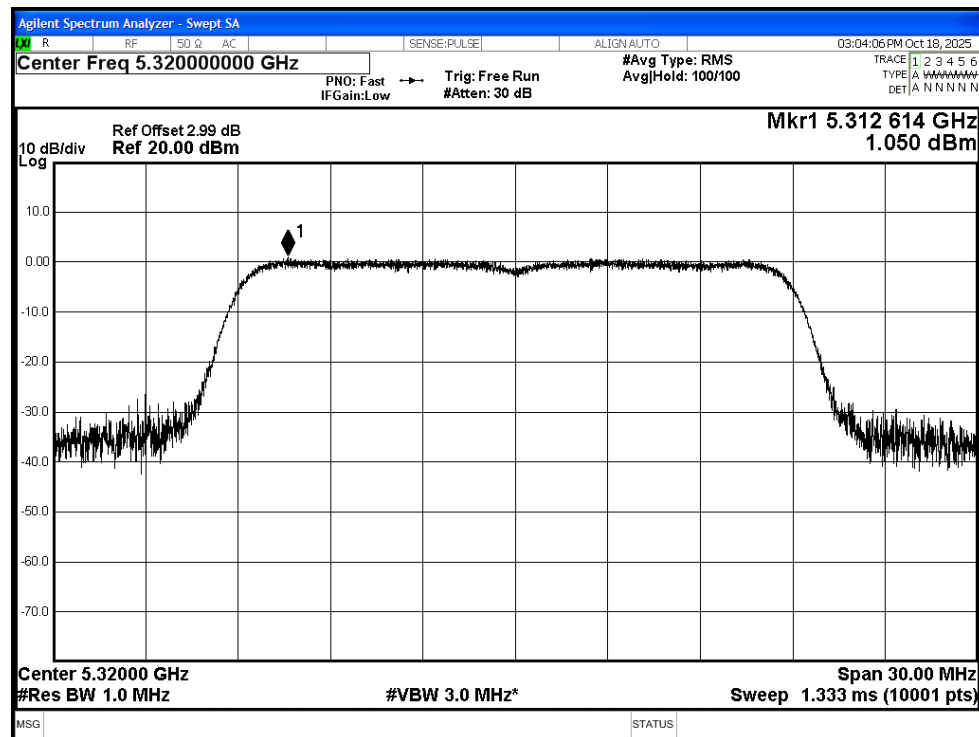
PSD NVNT ac20 5260MHz Ant



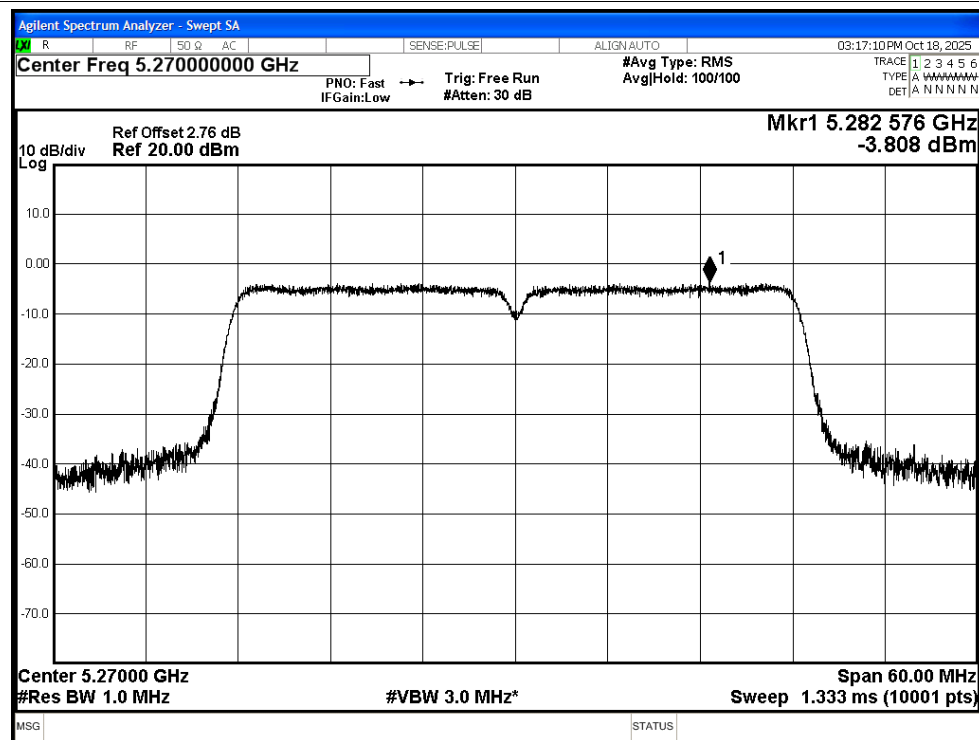
PSD NVNT ac20 5300MHz Ant



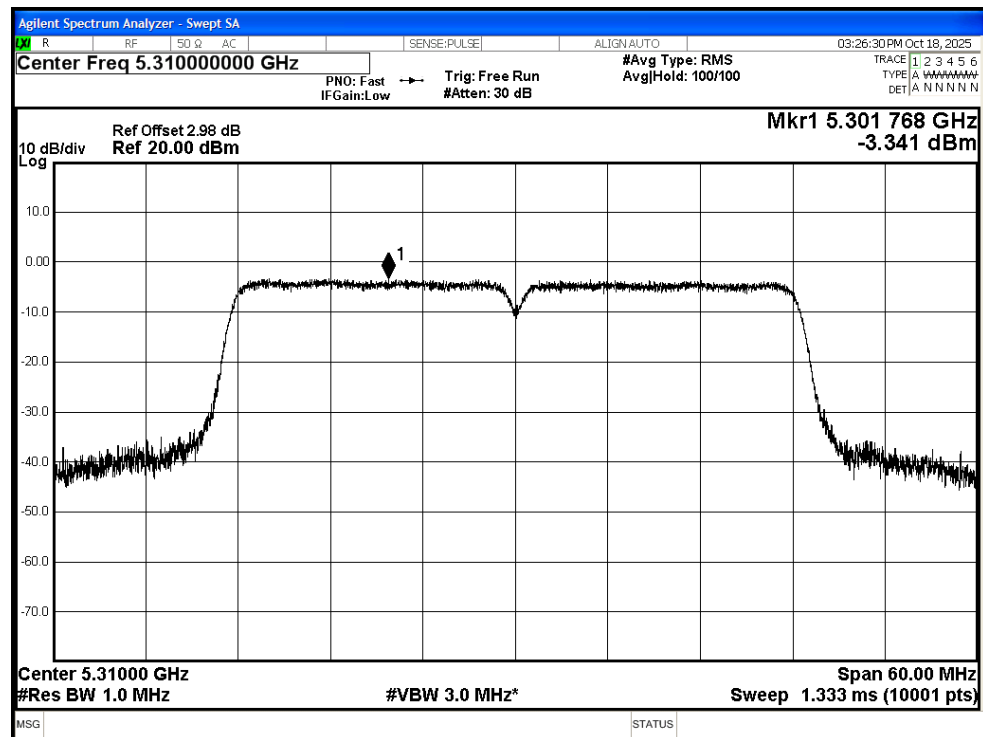
PSD NVNT ac20 5320MHz Ant



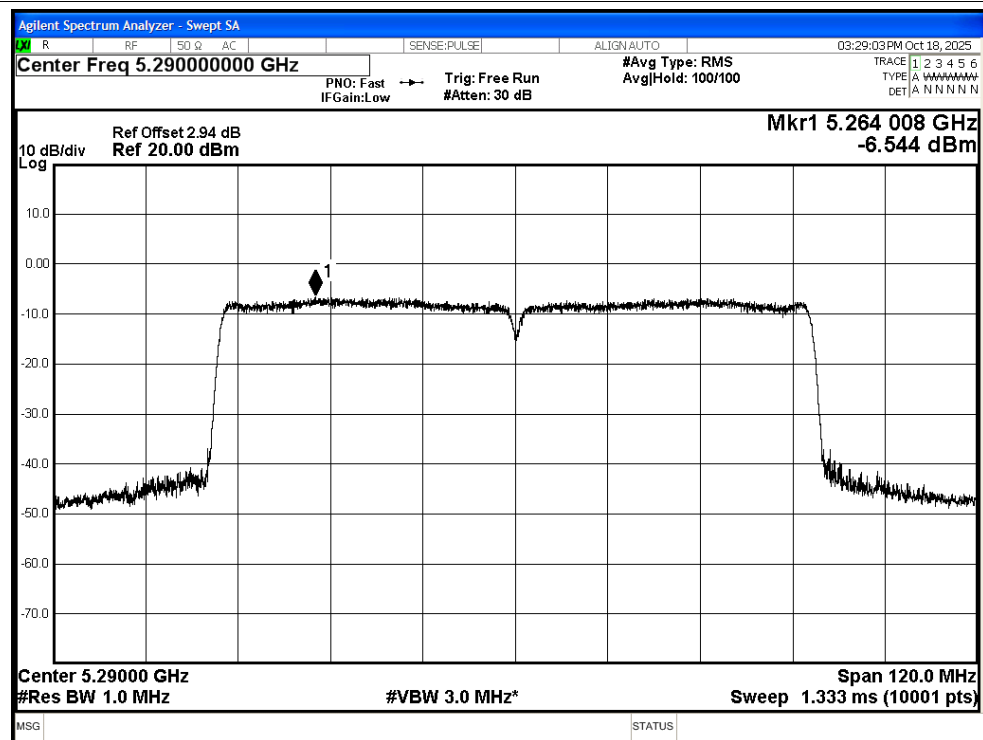
PSD NVNT ac40 5270MHz Ant



PSD NVNT ac40 5310MHz Ant



PSD NVNT ac80 5290MHz Ant



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	5260	Ant	4500	-49.89	3.5	-	48.84	Peak	68.2	Pass
NVNT	a	5260	Ant	4500	-59.13	3.5	0.24	39.84	Average	54	Pass
NVNT	a	5260	Ant	4772.22	-45.42	3.5	-	53.31	Peak	68.2	Pass
NVNT	a	5260	Ant	4787.82	-54.02	3.5	0.24	44.95	Average	54	Pass
NVNT	a	5260	Ant	5150	-47.14	3.5	-	51.59	Peak	68.2	Pass
NVNT	a	5260	Ant	5150	-55.81	3.5	0.24	43.16	Average	54	Pass
NVNT	a	5320	Ant	5350	-42.8	3.5	-	55.93	Peak	68.2	Pass
NVNT	a	5320	Ant	5350	-53.57	3.5	0.24	45.40	Average	54	Pass
NVNT	a	5320	Ant	5351.6	-36.99	3.5	-	61.74	Peak	68.2	Pass
NVNT	a	5320	Ant	5350	-53.57	3.5	0.24	45.40	Average	54	Pass
NVNT	a	5320	Ant	5460	-50.14	3.5	-	48.59	Peak	68.2	Pass
NVNT	a	5320	Ant	5460	-57.99	3.5	0.24	40.98	Average	54	Pass
NVNT	n20	5260	Ant	4500	-51.11	3.5	-	47.62	Peak	68.2	Pass
NVNT	n20	5260	Ant	4500	-59.71	3.5	0.28	39.30	Average	54	Pass
NVNT	n20	5260	Ant	4737.9	-46.95	3.5	-	51.78	Peak	68.2	Pass
NVNT	n20	5260	Ant	5148.18	-57	3.5	0.28	42.01	Average	54	Pass
NVNT	n20	5260	Ant	5150	-48.15	3.5	-	50.58	Peak	68.2	Pass
NVNT	n20	5260	Ant	5150	-57.95	3.5	0.28	41.06	Average	54	Pass
NVNT	n20	5320	Ant	5350	-47.11	3.5	-	51.62	Peak	68.2	Pass
NVNT	n20	5320	Ant	5350	-55.74	3.5	0.28	43.27	Average	54	Pass
NVNT	n20	5320	Ant	5351.6	-41.42	3.5	-	57.31	Peak	68.2	Pass
NVNT	n20	5320	Ant	5350.8	-55.52	3.5	0.28	43.49	Average	54	Pass
NVNT	n20	5320	Ant	5460	-49.25	3.5	-	49.48	Peak	68.2	Pass
NVNT	n20	5320	Ant	5460	-57.5	3.5	0.28	41.51	Average	54	Pass
NVNT	n40	5270	Ant	4500	-50.65	3.5	-	48.08	Peak	68.2	Pass
NVNT	n40	5270	Ant	4500	-58.75	3.5	0.24	40.22	Average	54	Pass
NVNT	n40	5270	Ant	4773.78	-42.75	3.5	-	55.98	Peak	68.2	Pass
NVNT	n40	5270	Ant	4806.99	-51.29	3.5	0.24	47.68	Average	54	Pass
NVNT	n40	5270	Ant	5150	-50.1	3.5	-	48.63	Peak	68.2	Pass
NVNT	n40	5270	Ant	5150	-56.82	3.5	0.24	42.15	Average	54	Pass
NVNT	n40	5310	Ant	5350	-43.35	3.5	-	55.38	Peak	68.2	Pass
NVNT	n40	5310	Ant	5350	-54.53	3.5	0.24	44.44	Average	54	Pass
NVNT	n40	5310	Ant	5350.8	-40.05	3.5	-	58.68	Peak	68.2	Pass
NVNT	n40	5310	Ant	5350.2	-54.47	3.5	0.24	44.50	Average	54	Pass
NVNT	n40	5310	Ant	5460	-51.06	3.5	-	47.67	Peak	68.2	Pass
NVNT	n40	5310	Ant	5460	-58.2	3.5	0.24	40.77	Average	54	Pass
NVNT	ac20	5260	Ant	4500	-49.79	3.5	-	48.94	Peak	68.2	Pass
NVNT	ac20	5260	Ant	4500	-58.82	3.5	0.28	40.19	Average	54	Pass
NVNT	ac20	5260	Ant	4788.6	-46.39	3.5	-	52.34	Peak	68.2	Pass

NVNT	ac20	5260	Ant	4787.82	-53.95	3.5	0.28	45.06	Average	54	Pass
NVNT	ac20	5260	Ant	5150	-48.02	3.5	-	50.71	Peak	68.2	Pass
NVNT	ac20	5260	Ant	5150	-56.31	3.5	0.28	42.70	Average	54	Pass
NVNT	ac20	5320	Ant	5350	-41.84	3.5	-	56.89	Peak	68.2	Pass
NVNT	ac20	5320	Ant	5350	-55.89	3.5	0.28	43.12	Average	54	Pass
NVNT	ac20	5320	Ant	5350.4	-41.77	3.5	-	56.96	Peak	68.2	Pass
NVNT	ac20	5320	Ant	5350.2	-55.24	3.5	0.28	43.77	Average	54	Pass
NVNT	ac20	5320	Ant	5460	-50.85	3.5	-	47.88	Peak	68.2	Pass
NVNT	ac20	5320	Ant	5460	-57.89	3.5	0.28	41.12	Average	54	Pass
NVNT	ac40	5270	Ant	4500	-51.86	3.5	-	46.87	Peak	68.2	Pass
NVNT	ac40	5270	Ant	4500	-59.13	3.5	0.23	39.83	Average	54	Pass
NVNT	ac40	5270	Ant	4807.8	-43.7	3.5	-	55.03	Peak	68.2	Pass
NVNT	ac40	5270	Ant	4806.18	-52.38	3.5	0.23	46.58	Average	54	Pass
NVNT	ac40	5270	Ant	5150	-49.13	3.5	-	49.60	Peak	68.2	Pass
NVNT	ac40	5270	Ant	5150	-56.89	3.5	0.23	42.07	Average	54	Pass
NVNT	ac40	5310	Ant	5350	-44.96	3.5	-	53.77	Peak	68.2	Pass
NVNT	ac40	5310	Ant	5350	-55.15	3.5	0.24	43.82	Average	54	Pass
NVNT	ac40	5310	Ant	5350.4	-41.49	3.5	-	57.24	Peak	68.2	Pass
NVNT	ac40	5310	Ant	5350.4	-54.65	3.5	0.24	44.32	Average	54	Pass
NVNT	ac40	5310	Ant	5460	-50	3.5	-	48.73	Peak	68.2	Pass
NVNT	ac40	5310	Ant	5460	-57.77	3.5	0.24	41.20	Average	54	Pass
NVNT	ac80	5290	Ant	4500	-50.16	3.5	-	48.57	Peak	68.2	Pass
NVNT	ac80	5290	Ant	4500	-59.16	3.5	0.47	40.04	Average	54	Pass
NVNT	ac80	5290	Ant	5149.89	-44.29	3.5	-	54.44	Peak	68.2	Pass
NVNT	ac80	5290	Ant	5149.89	-55.27	3.5	0.47	43.93	Average	54	Pass
NVNT	ac80	5290	Ant	5150	-44.29	3.5	-	54.44	Peak	68.2	Pass
NVNT	ac80	5290	Ant	5150	-55.27	3.5	0.47	43.93	Average	54	Pass
NVNT	ac80	5290	Ant	5350	-43.95	3.5	-	54.78	Peak	68.2	Pass
NVNT	ac80	5290	Ant	5350	-55.64	3.5	0.47	43.56	Average	54	Pass
NVNT	ac80	5290	Ant	5351.5	-41.06	3.5	-	57.67	Peak	68.2	Pass
NVNT	ac80	5290	Ant	5351	-55.1	3.5	0.47	44.10	Average	54	Pass
NVNT	ac80	5290	Ant	5460	-50.49	3.5	-	48.24	Peak	68.2	Pass
NVNT	ac80	5290	Ant	5460	-58.39	3.5	0.47	40.81	Average	54	Pass

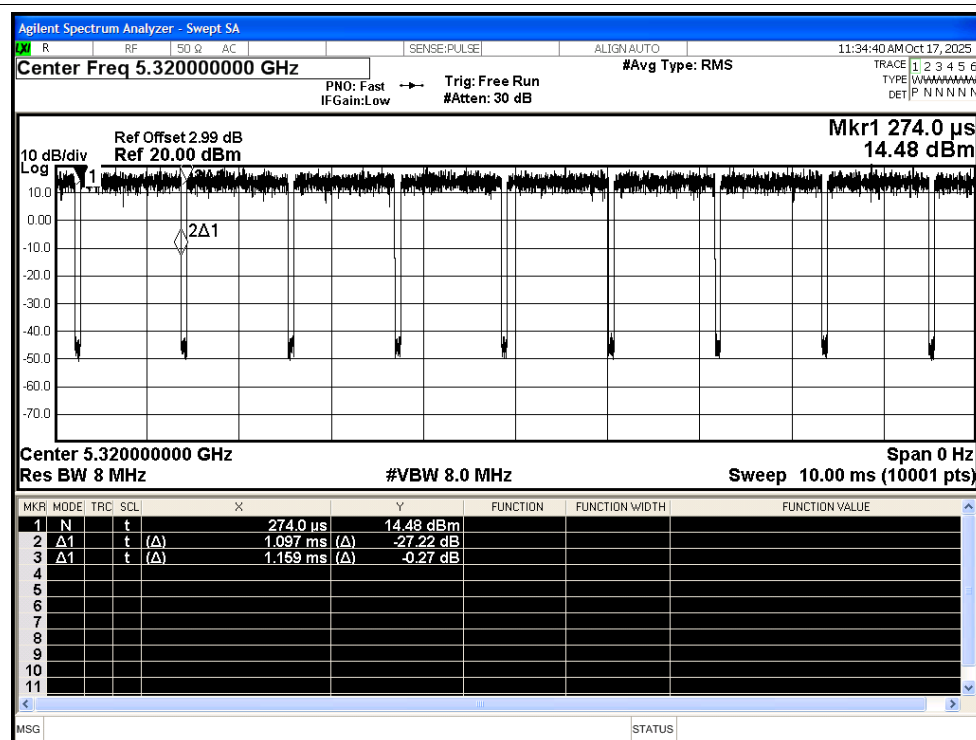
5. Frequency Stability

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	a	5260	Ant	5259.98	-20000	-3.8	25	Pass
NVNT	a	5300	Ant	5300	0	0	25	Pass
NVNT	a	5320	Ant	5319.98	-20000	-3.76	25	Pass
NVNT	n20	5260	Ant	5260	0	0	25	Pass
NVNT	n20	5300	Ant	5299.98	-20000	-3.77	25	Pass
NVNT	n20	5320	Ant	5319.98	-20000	-3.76	25	Pass
NVNT	n40	5270	Ant	5270	0	0	25	Pass
NVNT	n40	5310	Ant	5310	0	0	25	Pass
NVNT	ac20	5260	Ant	5260.02	20000	3.8	25	Pass
NVNT	ac20	5300	Ant	5299.98	-20000	-3.77	25	Pass
NVNT	ac20	5320	Ant	5319.98	-20000	-3.76	25	Pass
NVNT	ac40	5270	Ant	5270	0	0	25	Pass
NVNT	ac40	5310	Ant	5310	0	0	25	Pass
NVNT	ac80	5290	Ant	5290	0	0	25	Pass

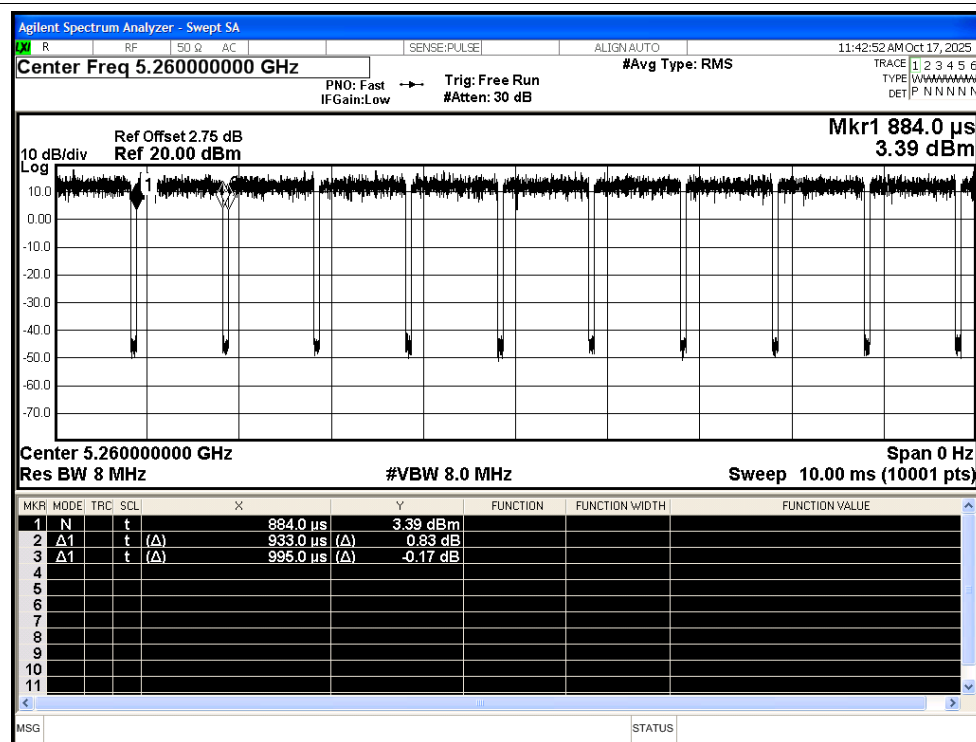
6. Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5260	Ant	94.65	0.24	0.91
NVNT	a	5300	Ant	94.65	0.24	0.91
NVNT	a	5320	Ant	94.65	0.24	0.91
NVNT	n20	5260	Ant	93.77	0.28	1.07
NVNT	n20	5300	Ant	93.67	0.28	1.07
NVNT	n20	5320	Ant	93.77	0.28	1.07
NVNT	n40	5270	Ant	94.71	0.24	0.9
NVNT	n40	5310	Ant	94.71	0.24	0.9
NVNT	ac20	5260	Ant	93.72	0.28	1.06
NVNT	ac20	5300	Ant	93.72	0.28	1.06
NVNT	ac20	5320	Ant	93.72	0.28	1.06
NVNT	ac40	5270	Ant	94.81	0.23	0.9
NVNT	ac40	5310	Ant	94.72	0.24	0.9
NVNT	ac80	5290	Ant	89.65	0.47	1.86

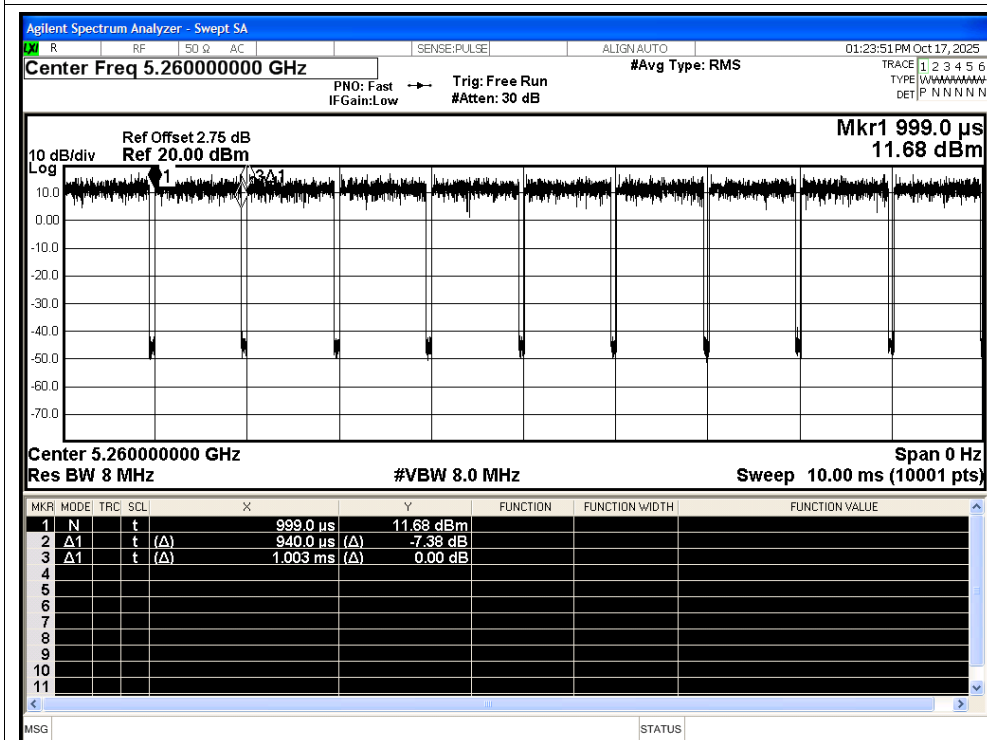
Duty Cycle NVNT a 5320MHz Ant



Duty Cycle NVNT n20 5260MHz Ant



Duty Cycle NVNT ac20 5260MHz Ant



Duty Cycle NVNT ac20 5300MHz Ant

