



Appendix RF Test Data for 5.3GWIFI

Product Name: AI Translator Earbuds

Test Model: A9

Environmental Conditions

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

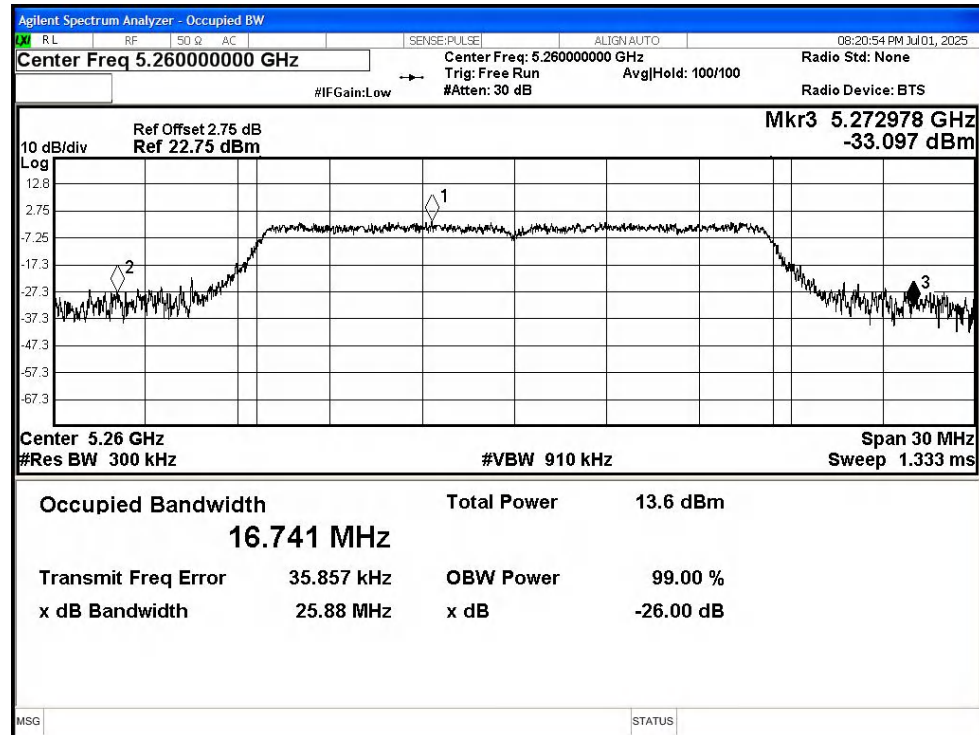


1. -26dB Bandwidth

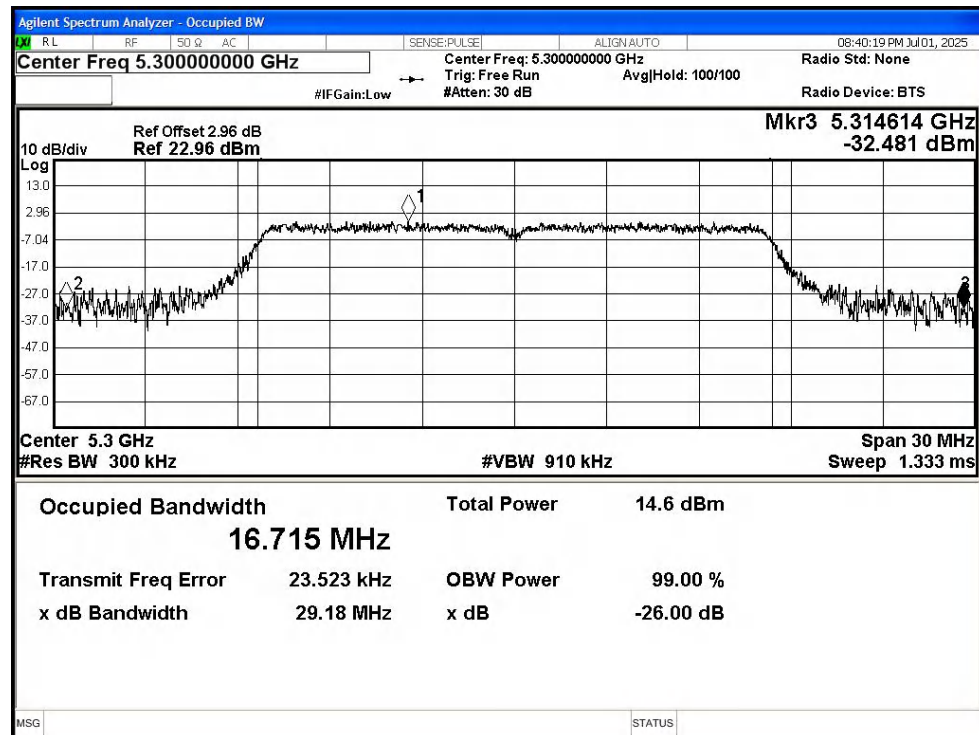
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5260	Ant1	25.884	---	Pass
NVNT	a	5300	Ant1	29.181	---	Pass
NVNT	a	5320	Ant1	25.863	---	Pass
NVNT	n20	5260	Ant1	28.602	---	Pass
NVNT	n20	5300	Ant1	25.817	---	Pass
NVNT	n20	5320	Ant1	29.281	---	Pass
NVNT	n40	5270	Ant1	45.912	---	Pass
NVNT	n40	5310	Ant1	50.749	---	Pass

Test Graphs

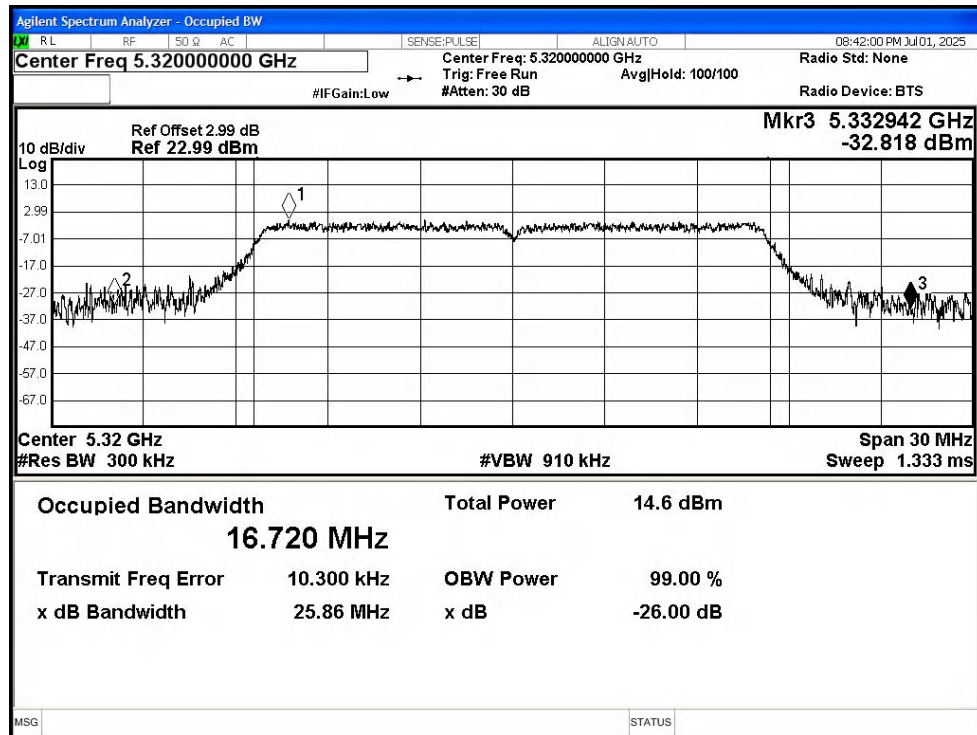
-26dB Bandwidth NVNT a 5260MHz Ant1



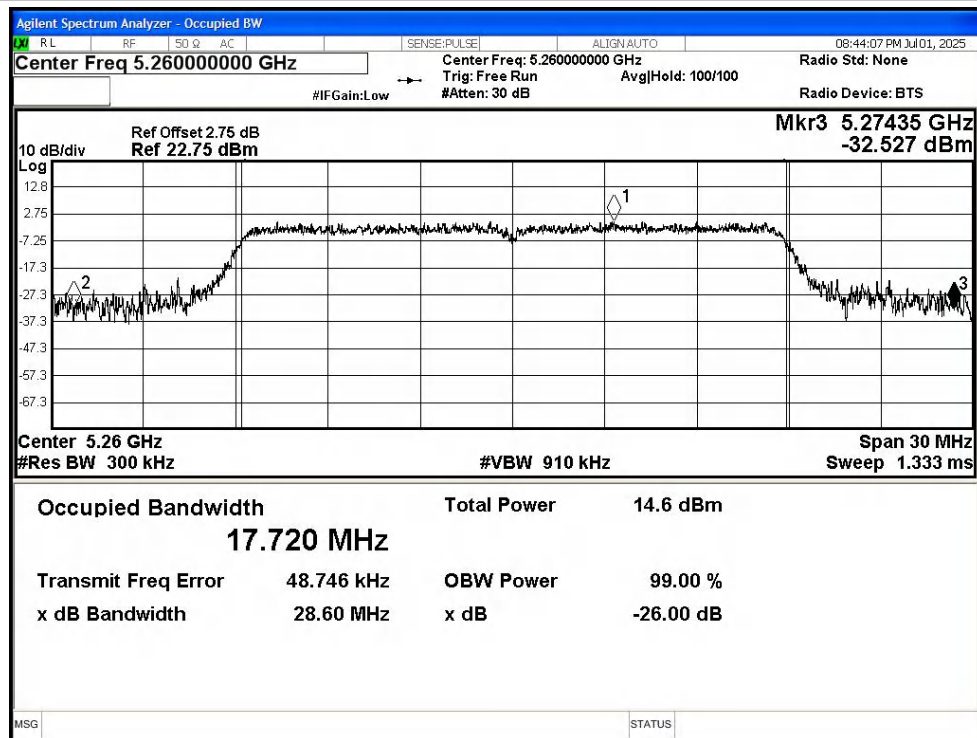
-26dB Bandwidth NVNT a 5300MHz Ant1



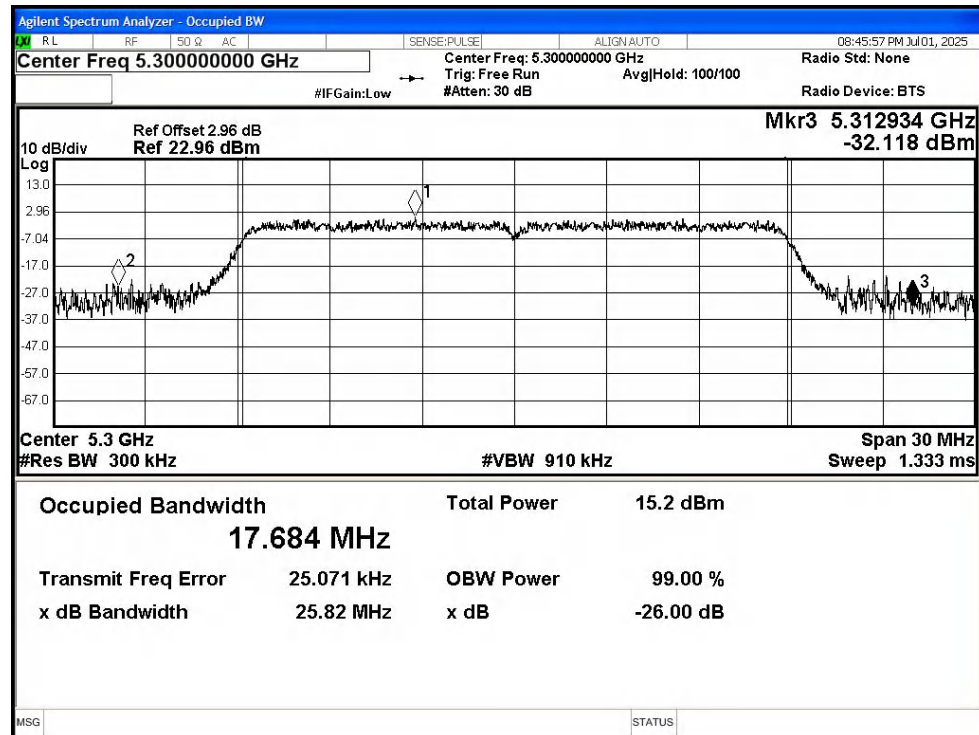
-26dB Bandwidth NVNT a 5320MHz Ant1



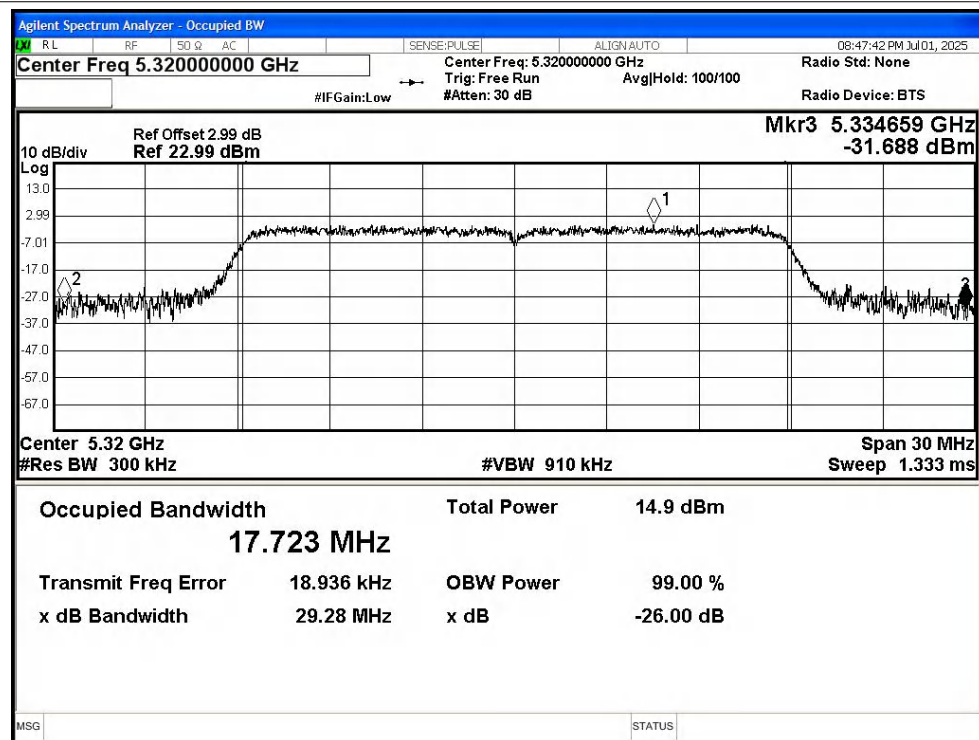
-26dB Bandwidth NVNT n20 5260MHz Ant1



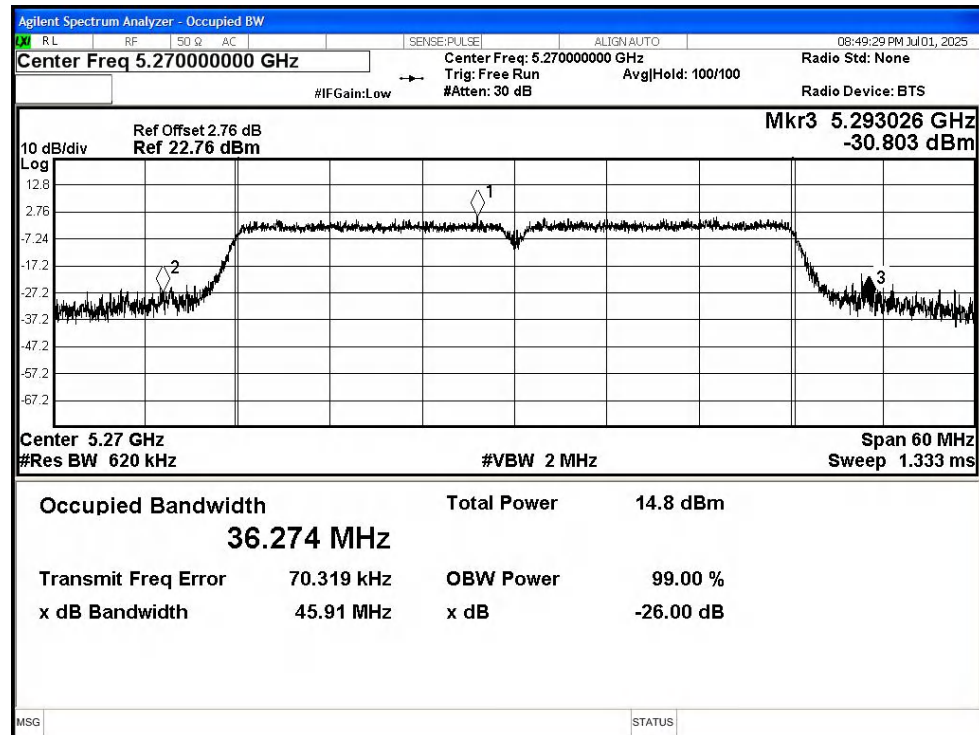
-26dB Bandwidth NVNT n20 5300MHz Ant1



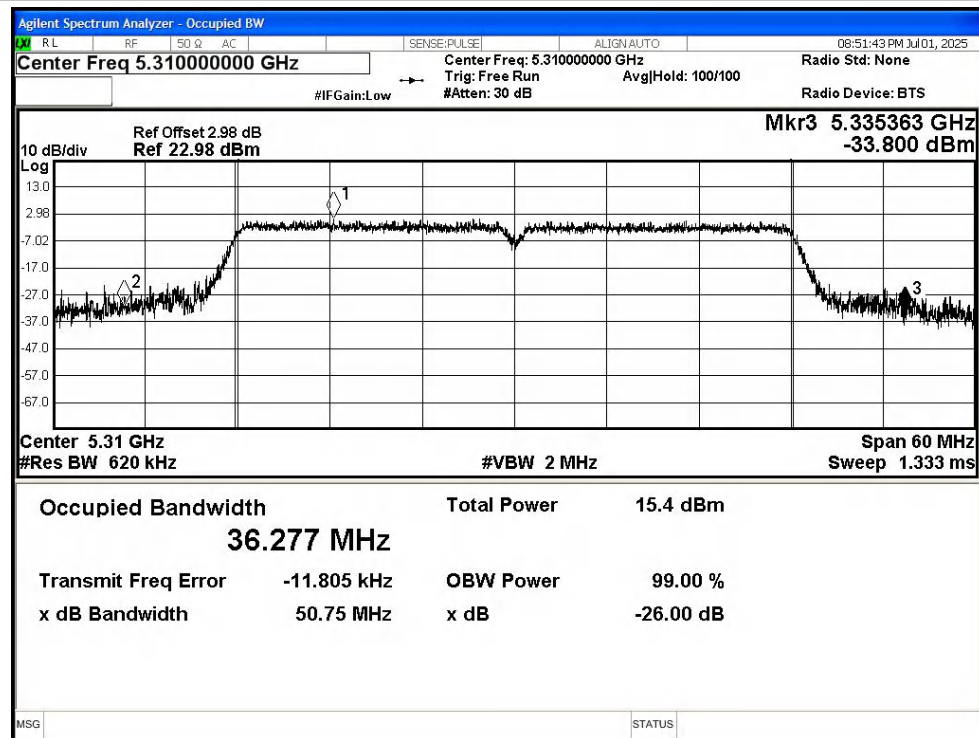
-26dB Bandwidth NVNT n20 5320MHz Ant1



-26dB Bandwidth NVNT n40 5270MHz Ant1



-26dB Bandwidth NVNT n40 5310MHz Ant1



2. Maximum Conducted Output Power

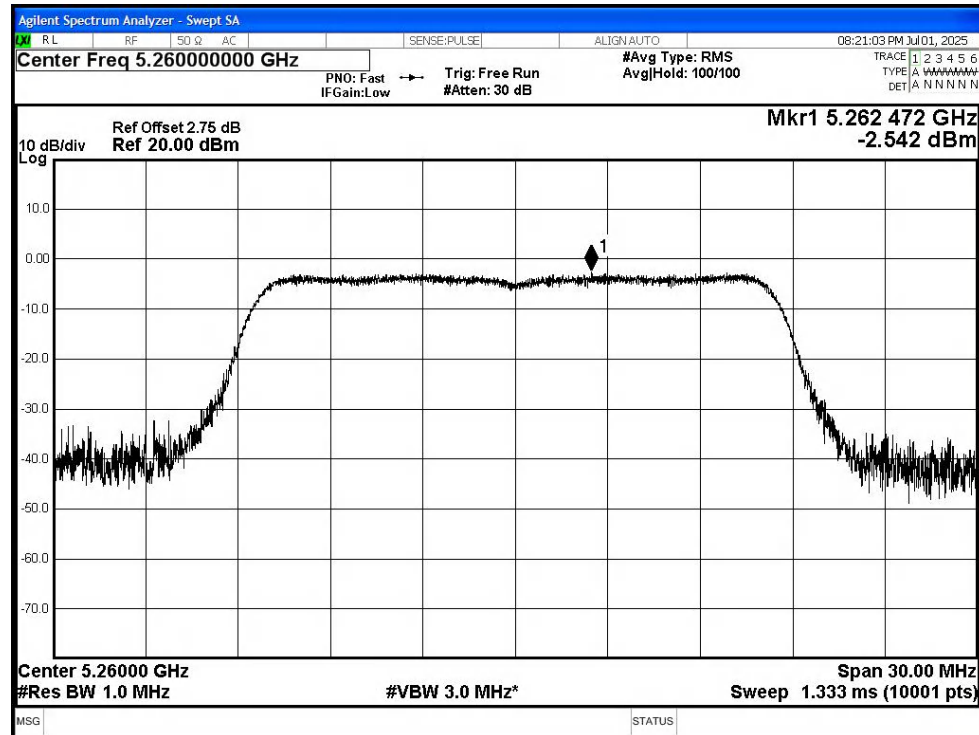
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5260	Ant1	7.91	0.24	8.15	24	Pass
NVNT	a	5300	Ant1	9.01	0.24	9.25	24	Pass
NVNT	a	5320	Ant1	8.93	0.24	9.17	24	Pass
NVNT	n20	5260	Ant1	8.99	0.28	9.27	24	Pass
NVNT	n20	5300	Ant1	9.41	0.28	9.69	24	Pass
NVNT	n20	5320	Ant1	9.25	0.28	9.53	24	Pass
NVNT	n40	5270	Ant1	8.19	0.55	8.74	24	Pass
NVNT	n40	5310	Ant1	8.76	0.55	9.31	24	Pass

3. Maximum Power Spectral Density Level

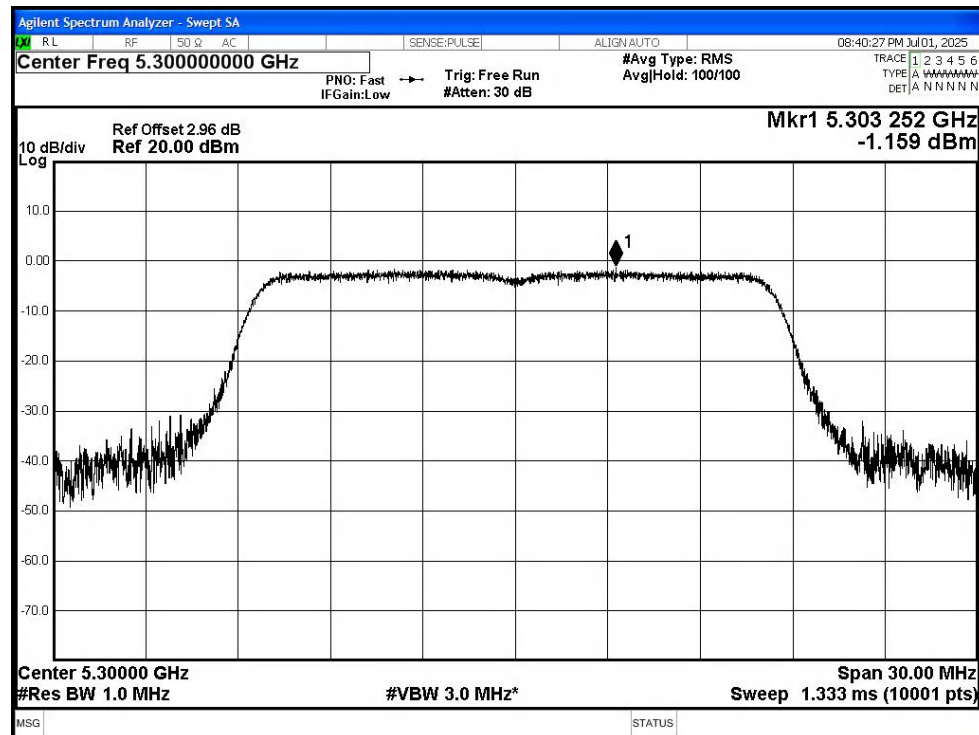
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD(dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5260	Ant1	-2.54	0.24	-2.3	11	Pass
NVNT	a	5300	Ant1	-1.16	0.24	-0.92	11	Pass
NVNT	a	5320	Ant1	-1.66	0.24	-1.42	11	Pass
NVNT	n20	5260	Ant1	-1.84	0.28	-1.56	11	Pass
NVNT	n20	5300	Ant1	-1.29	0.28	-1.01	11	Pass
NVNT	n20	5320	Ant1	-1.43	0.28	-1.15	11	Pass
NVNT	n40	5270	Ant1	-5.44	0.55	-4.89	11	Pass
NVNT	n40	5310	Ant1	-4.9	0.55	-4.35	11	Pass

Test Graphs

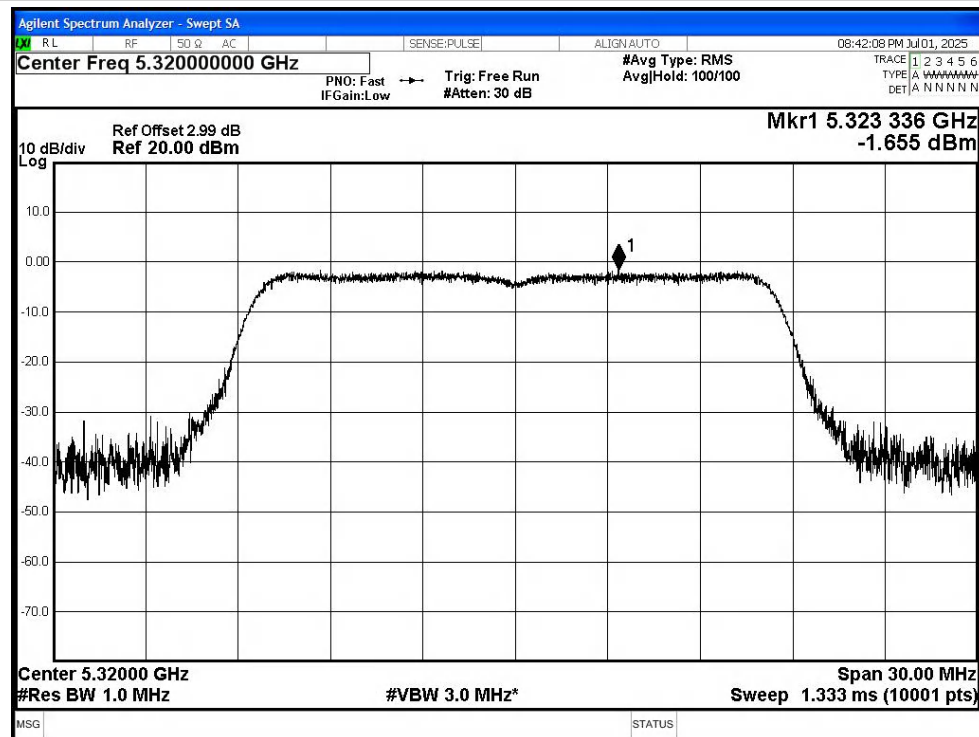
PSD NVNT a 5260MHz Ant1



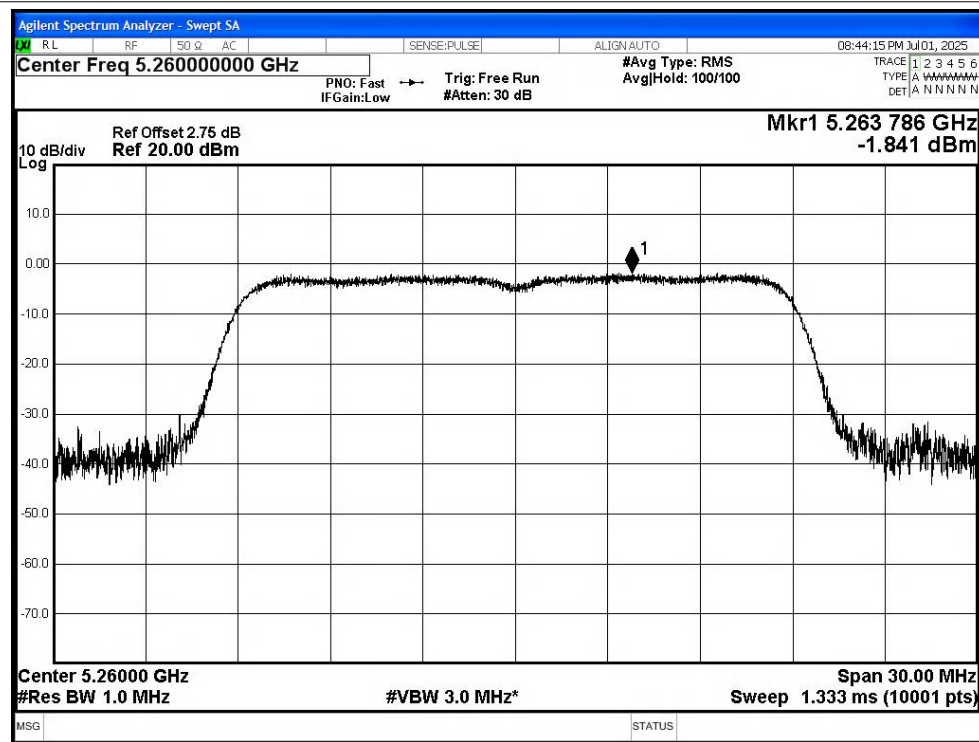
PSD NVNT a 5300MHz Ant1

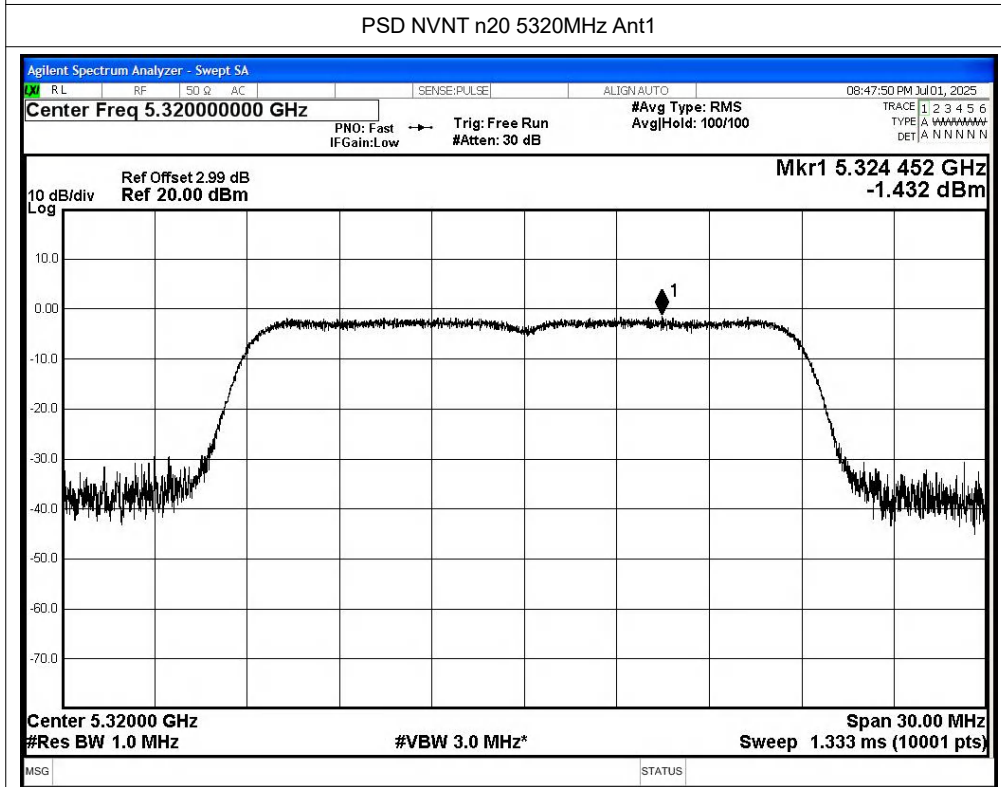
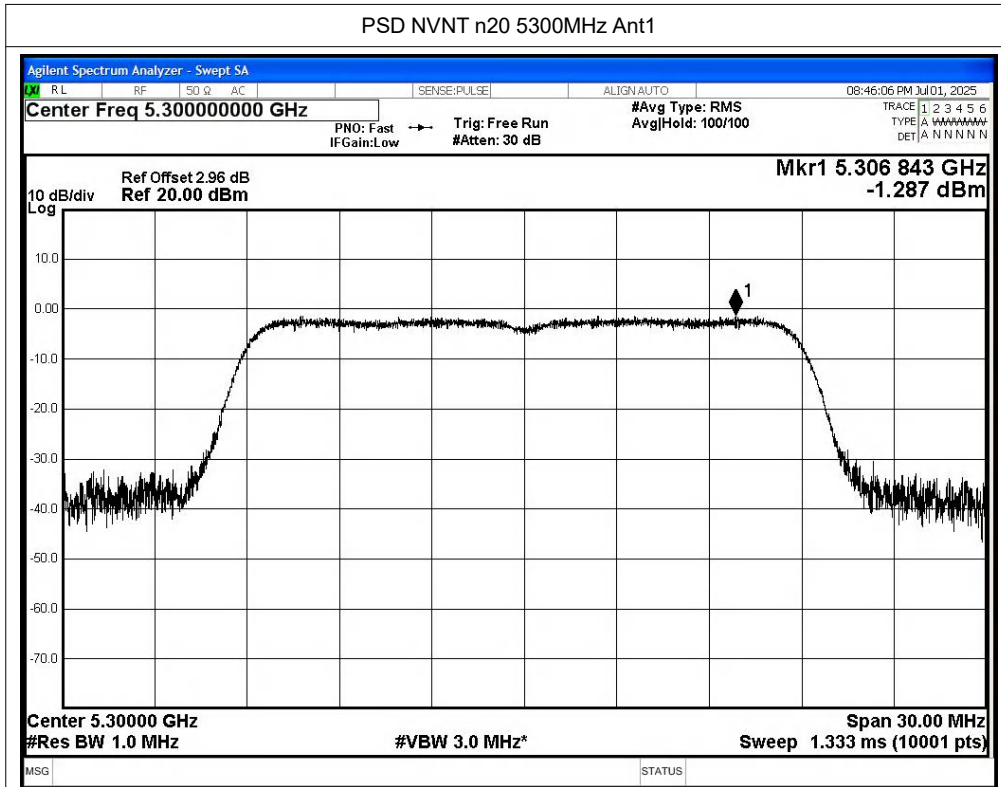


PSD NVNT a 5320MHz Ant1

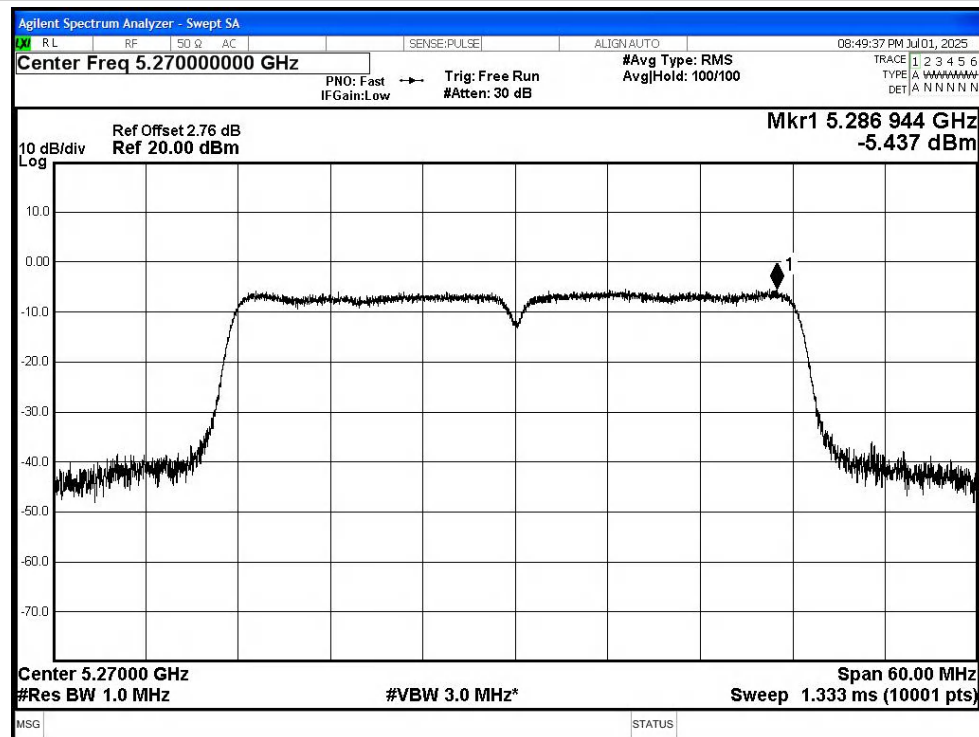


PSD NVNT n20 5260MHz Ant1

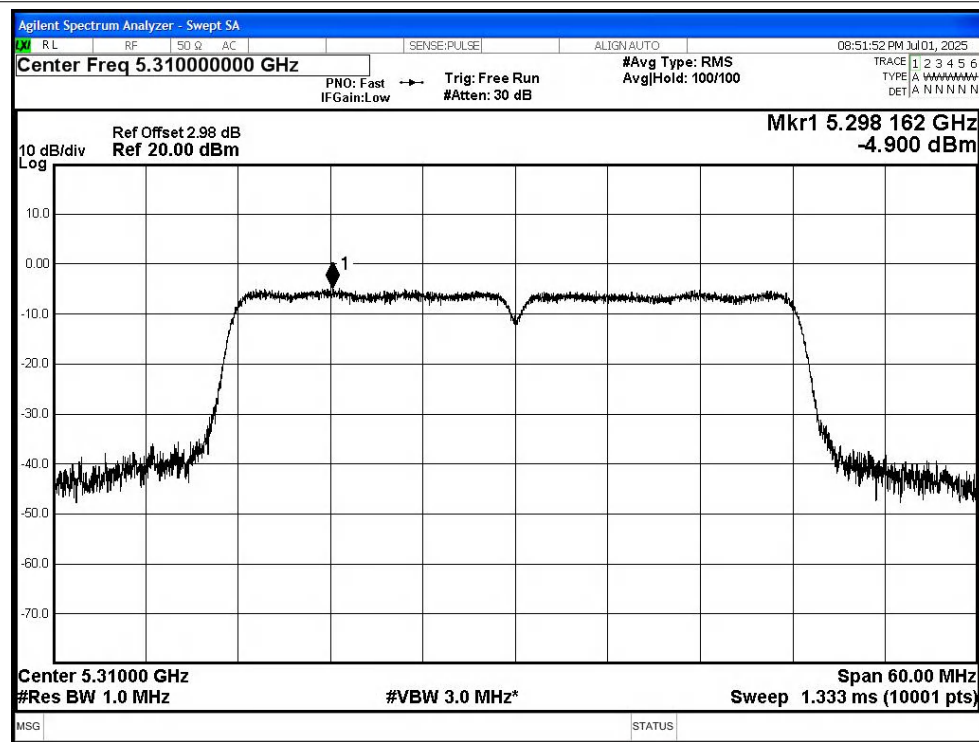




PSD NVNT n40 5270MHz Ant1



PSD NVNT n40 5310MHz Ant1



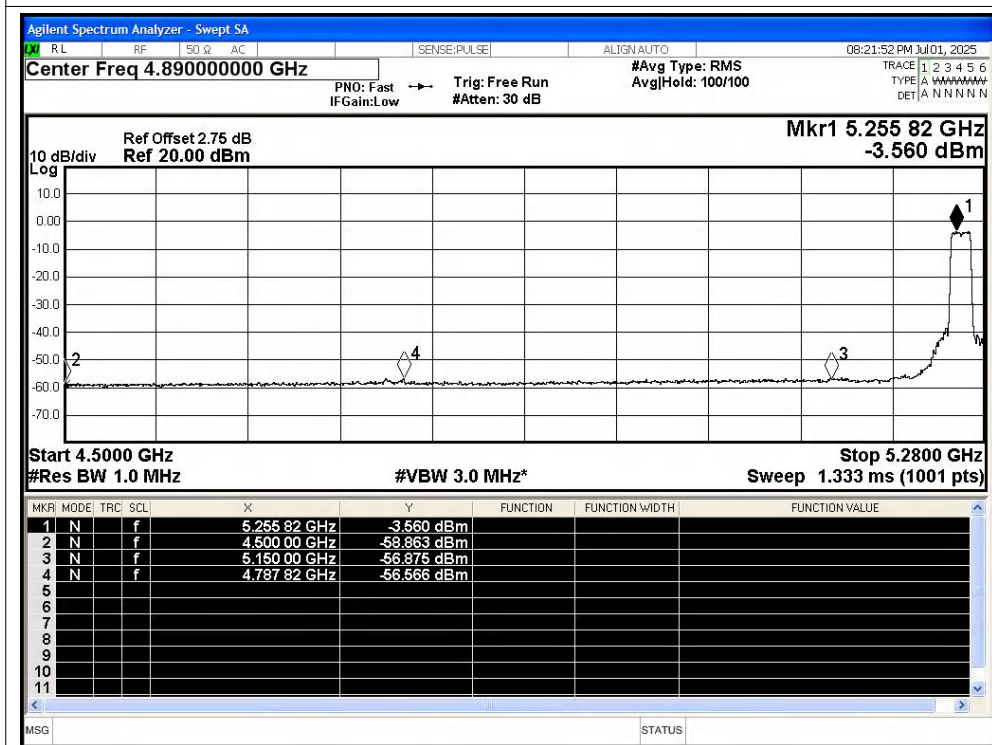


4. Restrict Band

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	5260	Ant1	4500	-51.12	2	-	46.11	Peak	68.2	Pass
NVNT	a	5260	Ant1	4500	-58.86	2	0.24	38.61	Average	54	Pass
NVNT	a	5260	Ant1	5131.8	-46.84	2	-	50.39	Peak	68.2	Pass
NVNT	a	5260	Ant1	4787.82	-56.57	2	0.24	40.9	Average	54	Pass
NVNT	a	5260	Ant1	5150	-49.64	2	-	47.59	Peak	68.2	Pass
NVNT	a	5260	Ant1	5150	-56.88	2	0.24	40.59	Average	54	Pass
NVNT	a	5320	Ant1	5350	-39.23	2	-	58	Peak	68.2	Pass
NVNT	a	5320	Ant1	5350	-51.2	2	0.24	46.27	Average	54	Pass
NVNT	a	5320	Ant1	5350.4	-36.09	2	-	61.14	Peak	68.2	Pass
NVNT	a	5320	Ant1	5350.2	-50.46	2	0.24	47.01	Average	54	Pass
NVNT	a	5320	Ant1	5460	-49.21	2	-	48.02	Peak	68.2	Pass
NVNT	a	5320	Ant1	5460	-58.76	2	0.24	38.71	Average	54	Pass
NVNT	n20	5260	Ant1	4500	-51.24	2	-	45.99	Peak	68.2	Pass
NVNT	n20	5260	Ant1	4500	-59.18	2	0.28	38.33	Average	54	Pass
NVNT	n20	5260	Ant1	5097.48	-46.53	2	-	50.7	Peak	68.2	Pass
NVNT	n20	5260	Ant1	4787.82	-56.44	2	0.28	41.07	Average	54	Pass
NVNT	n20	5260	Ant1	5150	-48.67	2	-	48.56	Peak	68.2	Pass
NVNT	n20	5260	Ant1	5150	-56.59	2	0.28	40.92	Average	54	Pass
NVNT	n20	5320	Ant1	5350	-37.13	2	-	60.1	Peak	68.2	Pass
NVNT	n20	5320	Ant1	5350	-51.28	2	0.28	46.23	Average	54	Pass
NVNT	n20	5320	Ant1	5350.8	-34.72	2	-	62.51	Peak	68.2	Pass
NVNT	n20	5320	Ant1	5460	-48.52	2	-	48.71	Peak	68.2	Pass
NVNT	n20	5320	Ant1	5460	-57.84	2	0.28	39.67	Average	54	Pass
NVNT	n40	5270	Ant1	4500	-50.96	2	-	46.27	Peak	68.2	Pass
NVNT	n40	5270	Ant1	4500	-59.21	2	0.55	38.57	Average	54	Pass
NVNT	n40	5270	Ant1	4806.18	-46.03	2	-	51.2	Peak	68.2	Pass
NVNT	n40	5270	Ant1	4806.99	-53.53	2	0.55	44.25	Average	54	Pass
NVNT	n40	5270	Ant1	5150	-47.72	2	-	49.51	Peak	68.2	Pass
NVNT	n40	5270	Ant1	5150	-57.2	2	0.55	40.58	Average	54	Pass
NVNT	n40	5310	Ant1	5350	-40.73	2	-	56.5	Peak	68.2	Pass
NVNT	n40	5310	Ant1	5350	-51.61	2	0.55	46.17	Average	54	Pass
NVNT	n40	5310	Ant1	5353	-37.47	2	-	59.76	Peak	68.2	Pass
NVNT	n40	5310	Ant1	5351.4	-50.94	2	0.55	46.84	Average	54	Pass
NVNT	n40	5310	Ant1	5460	-49.08	2	-	48.15	Peak	68.2	Pass
NVNT	n40	5310	Ant1	5460	-58.48	2	0.55	39.3	Average	54	Pass

Test Graphs

Restrict Band NVNT a 5260MHz Ant1 Peak





5. Frequency Stability

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	a	5260	Ant1	5260	0	0	25	Pass
NVNT	a	5300	Ant1	5300	0	0	25	Pass
NVNT	a	5320	Ant1	5320	0	0	25	Pass
NVNT	n20	5260	Ant1	5260	0	0	25	Pass
NVNT	n20	5300	Ant1	5300	0	0	25	Pass
NVNT	n20	5320	Ant1	5320	0	0	25	Pass
NVNT	n40	5270	Ant1	5270	0	0	25	Pass
NVNT	n40	5310	Ant1	5310	0	0	25	Pass

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6. Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5260	Ant1	94.56	0.24	0.91
NVNT	a	5300	Ant1	94.56	0.24	0.91
NVNT	a	5320	Ant1	94.65	0.24	0.91
NVNT	n20	5260	Ant1	93.77	0.28	1.07
NVNT	n20	5300	Ant1	93.67	0.28	1.07
NVNT	n20	5320	Ant1	93.67	0.28	1.07
NVNT	n40	5270	Ant1	88.16	0.55	2.13
NVNT	n40	5310	Ant1	88.14	0.55	2.14

