



Appendix E

RF Test Data for 5.3GWIFI(Conducted Measurement)

Product Name: Touch all in one

Test Model: 2151E

Environmental Conditions

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



Shenzhen LCS Compliance Testing Laboratory Ltd.
 Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street,
 Baoan District, Shenzhen, 518000, China
 Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
 Scan code to check authenticity



E.1 -26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5260	Ant1	24.412	>=0.5	Pass
NVNT	a	5300	Ant1	27.236	>=0.5	Pass
NVNT	a	5320	Ant1	29.491	>=0.5	Pass
NVNT	n20	5260	Ant1	27.307	>=0.5	Pass
NVNT	n20	5300	Ant1	30	>=0.5	Pass
NVNT	n20	5320	Ant1	30	>=0.5	Pass
NVNT	n40	5270	Ant1	60	>=0.5	Pass
NVNT	n40	5310	Ant1	59.982	>=0.5	Pass
NVNT	ac20	5260	Ant1	29.881	>=0.5	Pass
NVNT	ac20	5300	Ant1	29.983	>=0.5	Pass
NVNT	ac20	5320	Ant1	29.999	>=0.5	Pass
NVNT	ac40	5270	Ant1	49.721	>=0.5	Pass
NVNT	ac40	5310	Ant1	57.422	>=0.5	Pass
NVNT	ac80	5290	Ant1	115.441	>=0.5	Pass

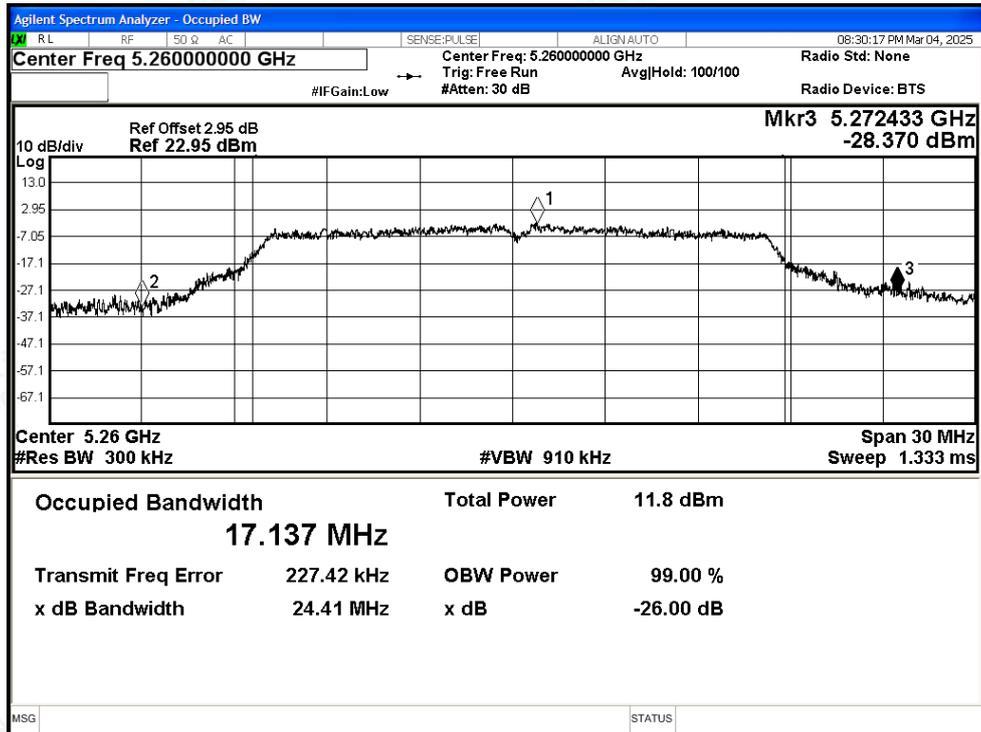


Shenzhen LCS Compliance Testing Laboratory Ltd.
 Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street,
 Baoan District, Shenzhen, 518000, China
 Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
 Scan code to check authenticity

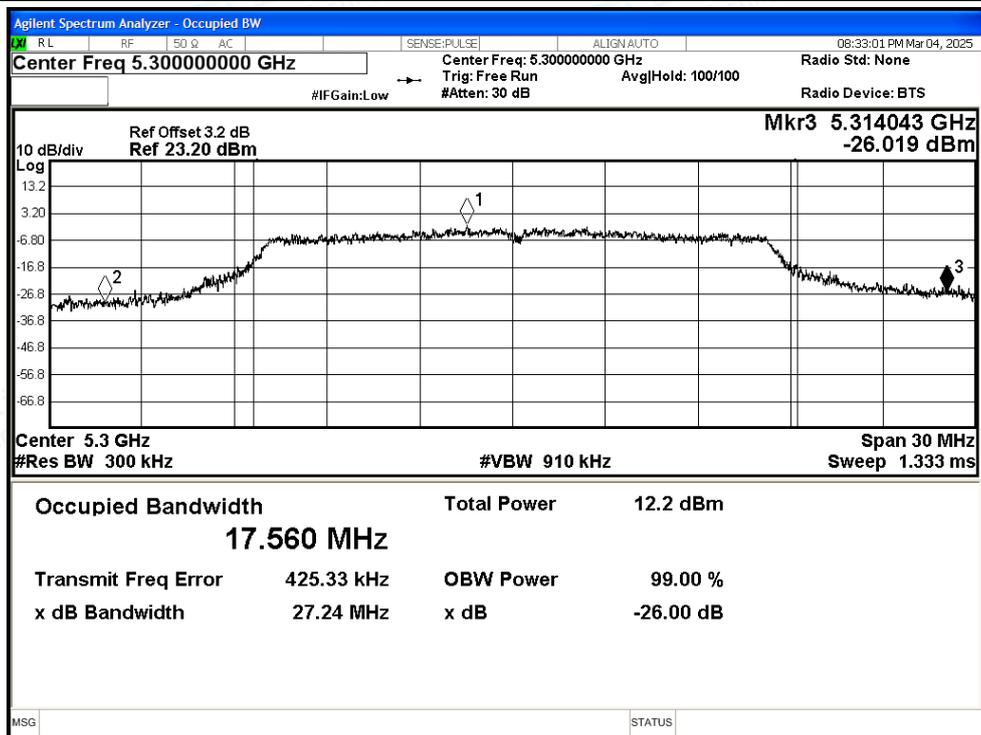


Test Graphs

-26dB Bandwidth NVNT a 5260MHz Ant1

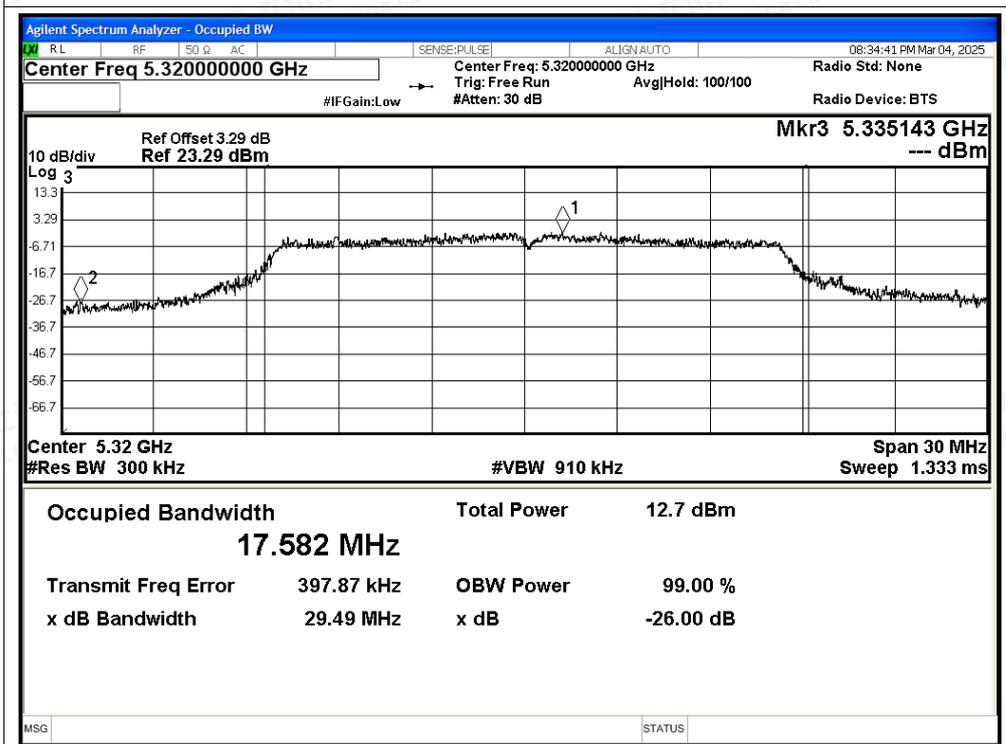


-26dB Bandwidth NVNT a 5300MHz Ant1

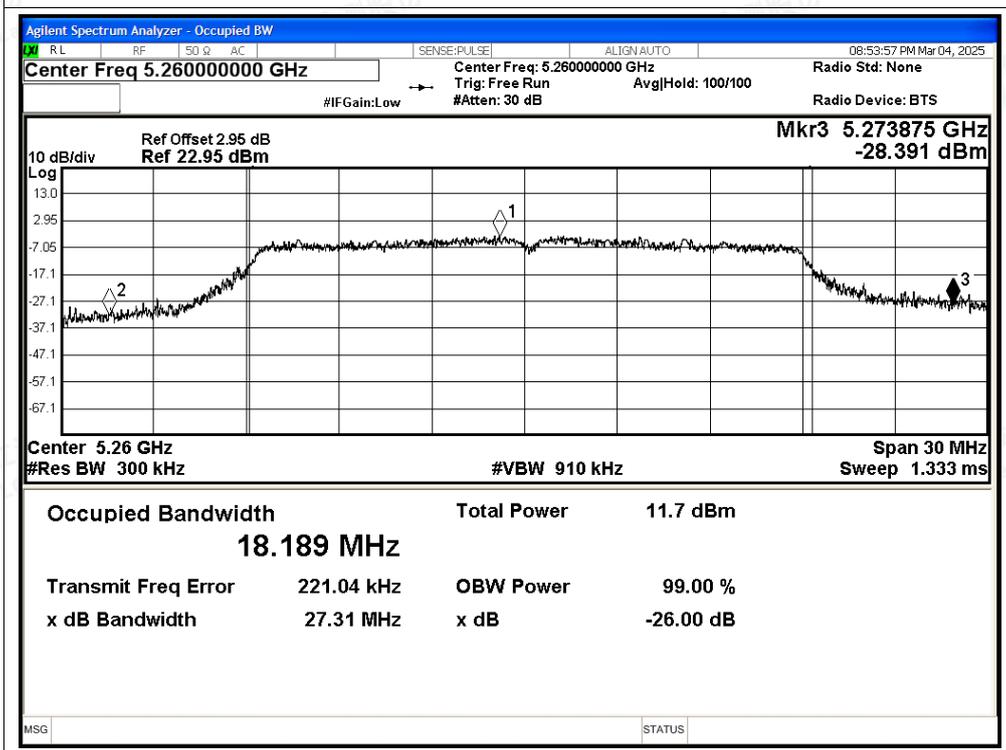




-26dB Bandwidth NVNT a 5320MHz Ant1

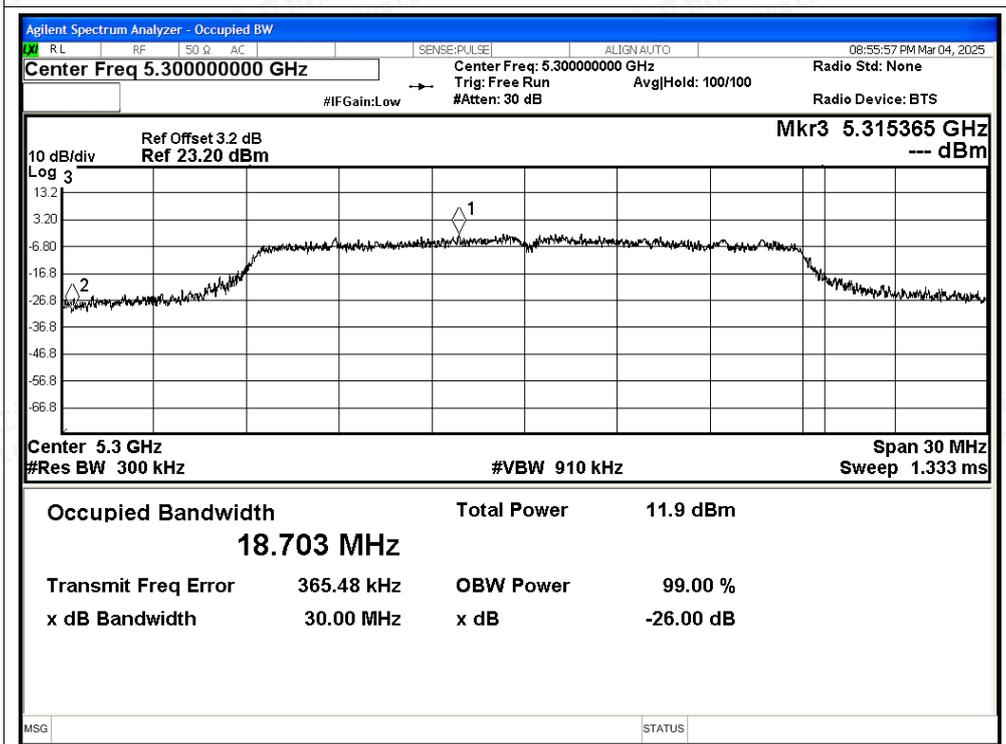


-26dB Bandwidth NVNT n20 5260MHz Ant1

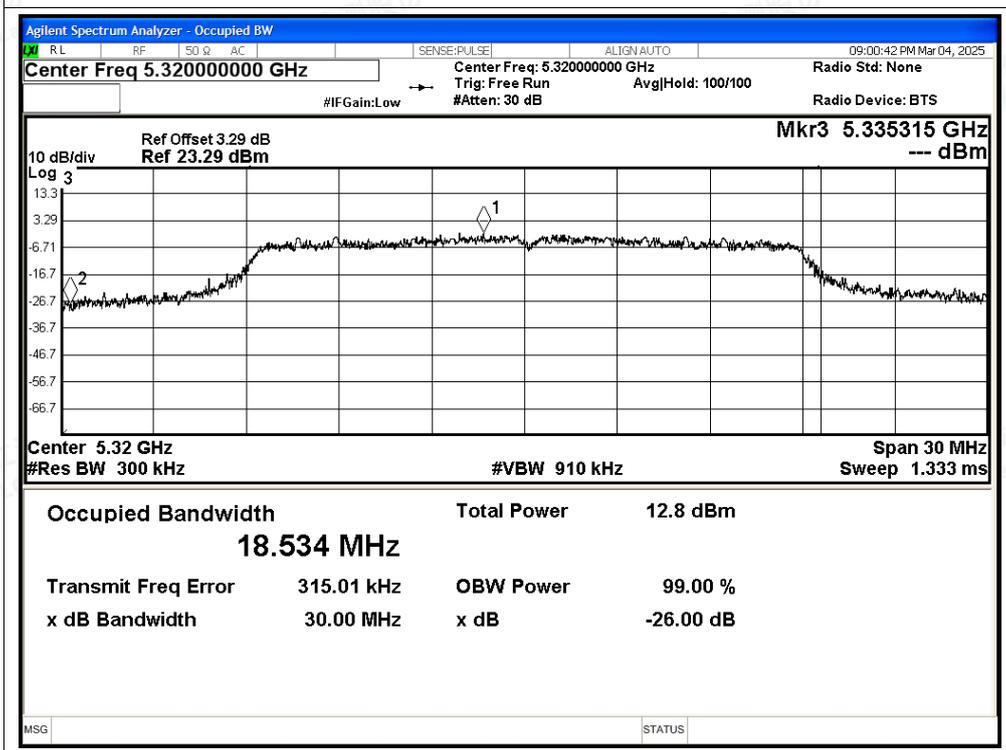




-26dB Bandwidth NVNT n20 5300MHz Ant1

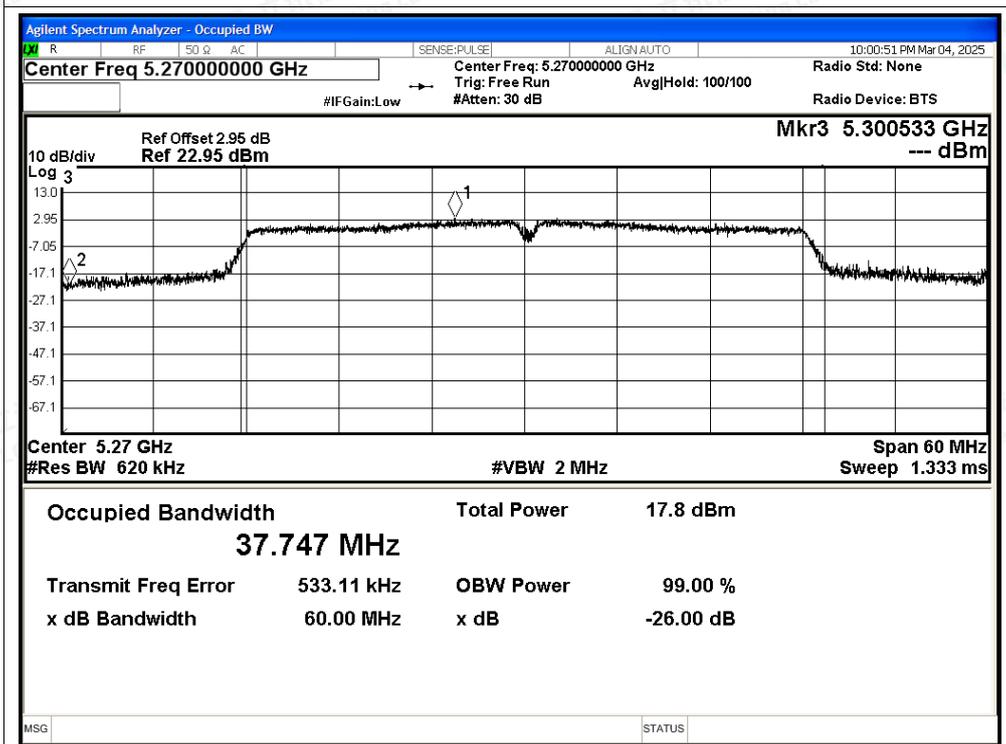


-26dB Bandwidth NVNT n20 5320MHz Ant1

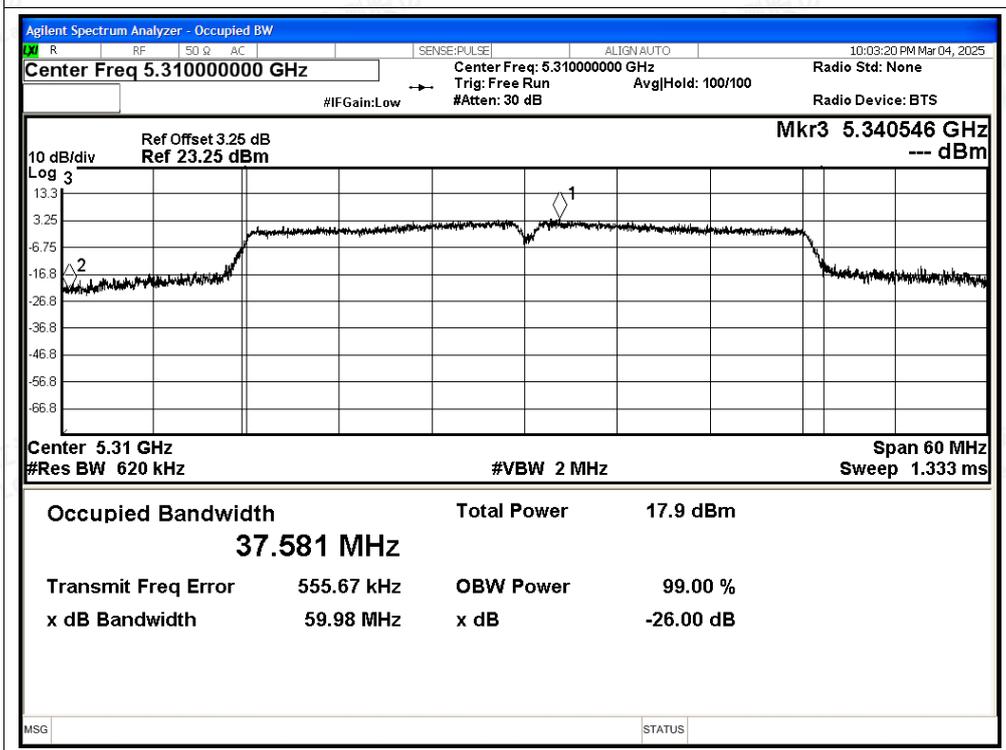




-26dB Bandwidth NVNT n40 5270MHz Ant1

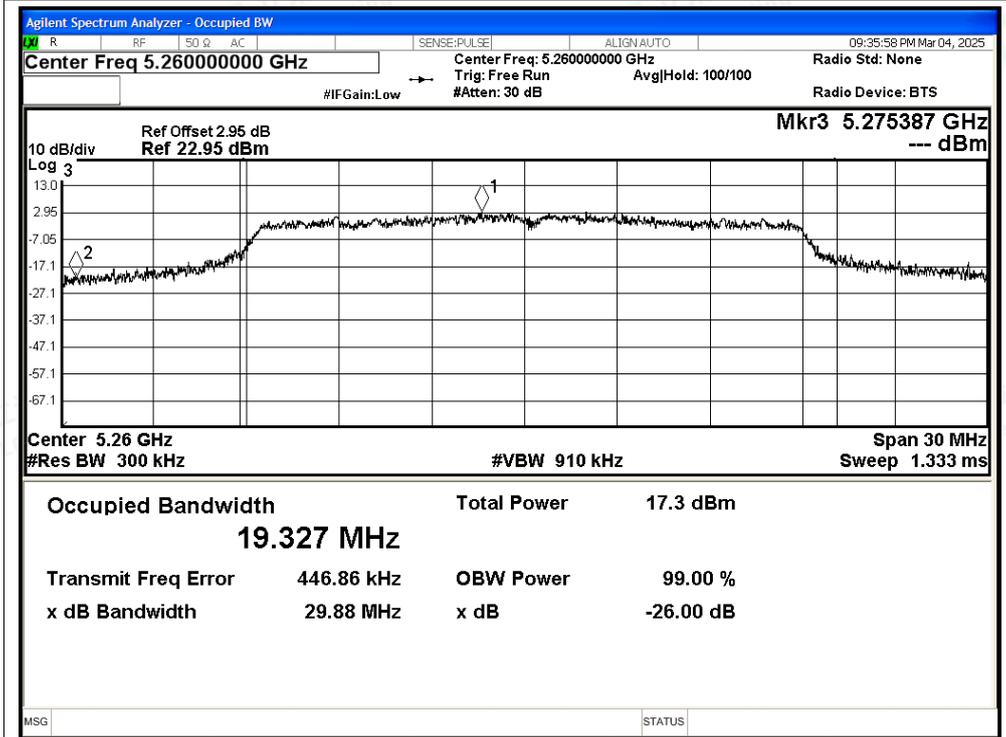


-26dB Bandwidth NVNT n40 5310MHz Ant1

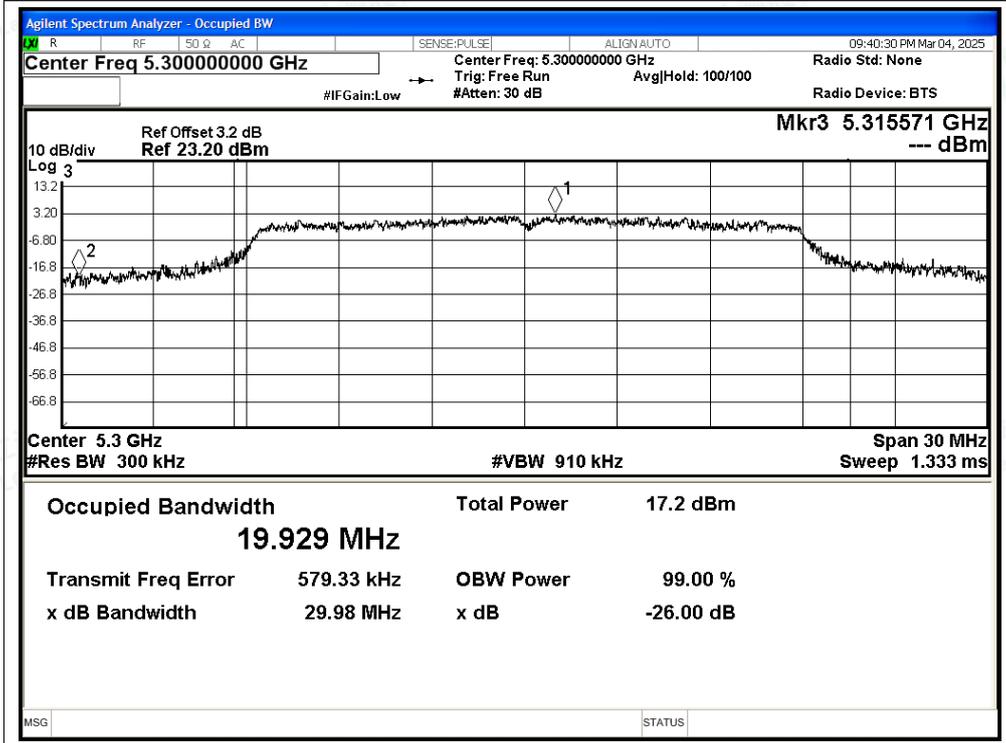




-26dB Bandwidth NVNT ac20 5260MHz Ant1

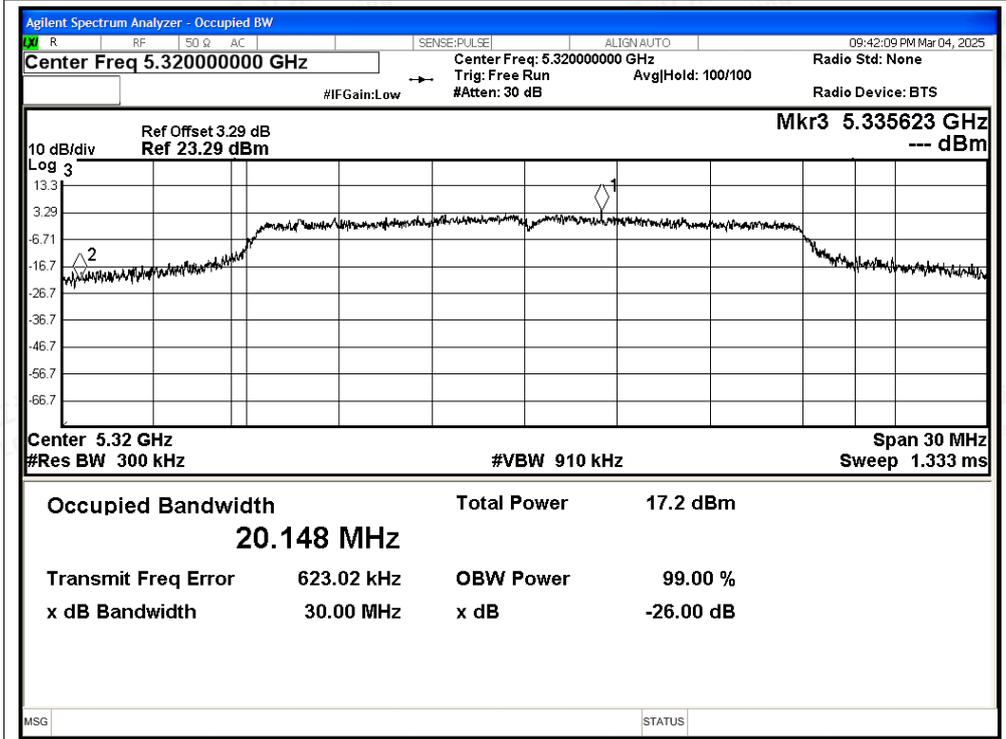


-26dB Bandwidth NVNT ac20 5300MHz Ant1

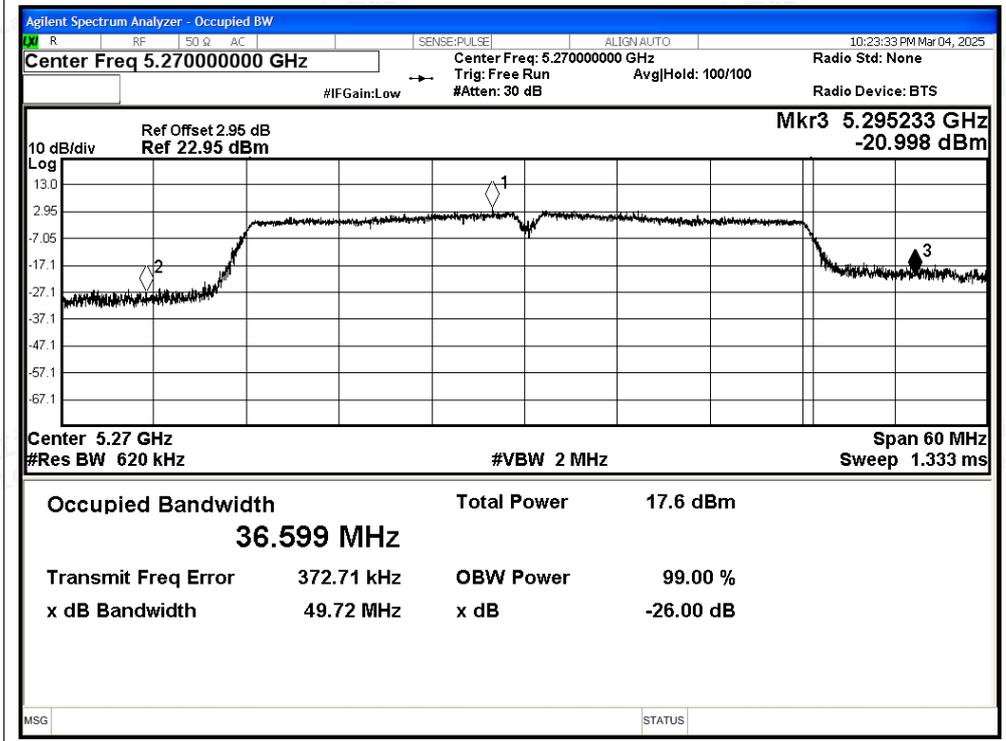




-26dB Bandwidth NVNT ac20 5320MHz Ant1

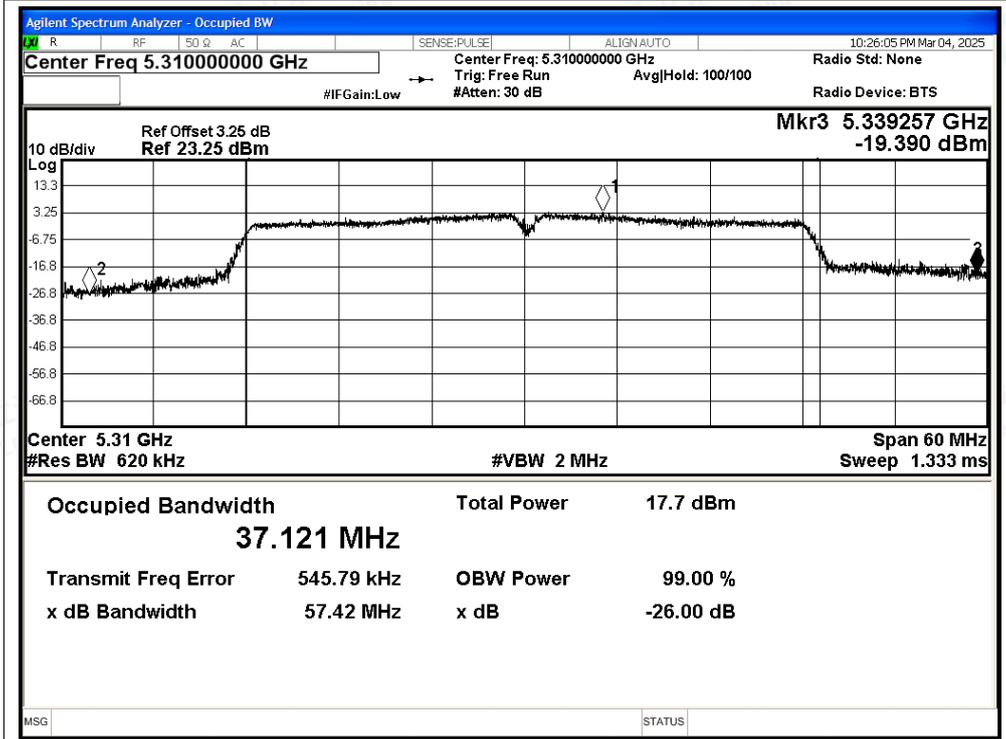


-26dB Bandwidth NVNT ac40 5270MHz Ant1

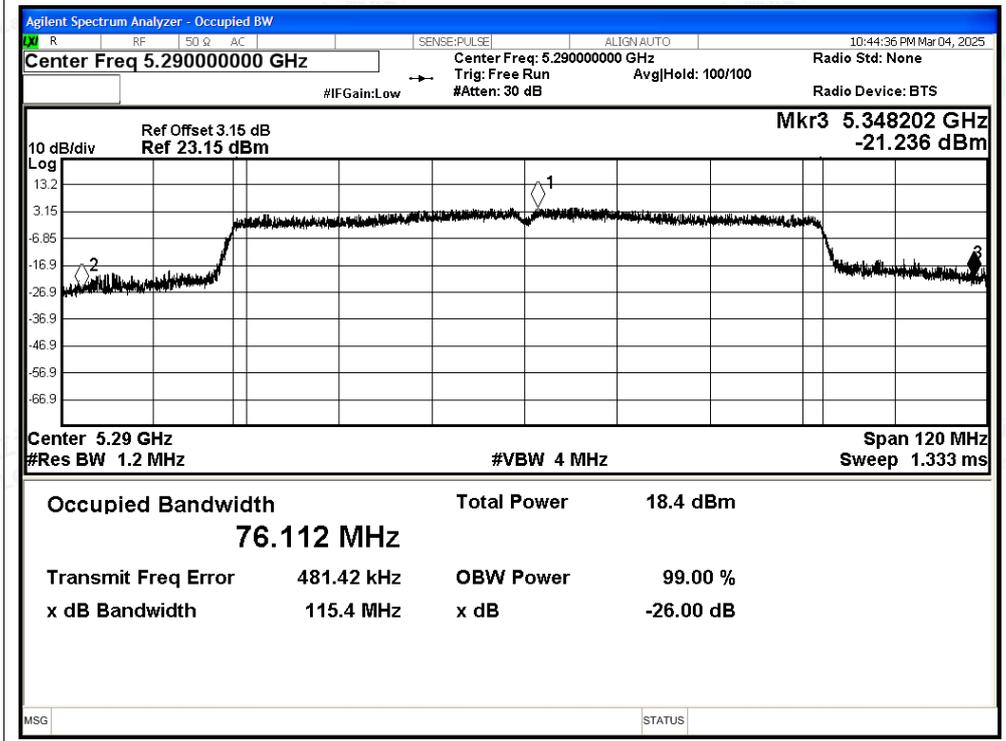




-26dB Bandwidth NVNT ac40 5310MHz Ant1



-26dB Bandwidth NVNT ac80 5290MHz Ant1



E.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	5.99	0.3	6.29	24	Pass
NVNT	a	5300	Ant1	6.33	0.3	6.63	24	Pass
NVNT	a	5320	Ant1	6.91	0.3	7.21	24	Pass
NVNT	n20	5260	Ant1	5.75	0.32	6.07	24	Pass
NVNT	n20	5300	Ant1	5.93	0.32	6.25	24	Pass
NVNT	n20	5320	Ant1	6.71	0.32	7.03	24	Pass
NVNT	n40	5270	Ant1	11.78	0.24	12.02	24	Pass
NVNT	n40	5310	Ant1	11.69	0.25	11.94	24	Pass
NVNT	ac20	5260	Ant1	11.48	0.13	11.61	24	Pass
NVNT	ac20	5300	Ant1	11.37	0.13	11.5	24	Pass
NVNT	ac20	5320	Ant1	11.48	0.13	11.61	24	Pass
NVNT	ac40	5270	Ant1	11.68	0.26	11.94	24	Pass
NVNT	ac40	5310	Ant1	11.61	0.26	11.87	24	Pass
NVNT	ac80	5290	Ant1	11.44	0.49	11.93	24	Pass



Shenzhen LCS Compliance Testing Laboratory Ltd.
 Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street,
 Baoan District, Shenzhen, 518000, China
 Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
 Scan code to check authenticity

E.3 Maximum Power Spectral Density Level

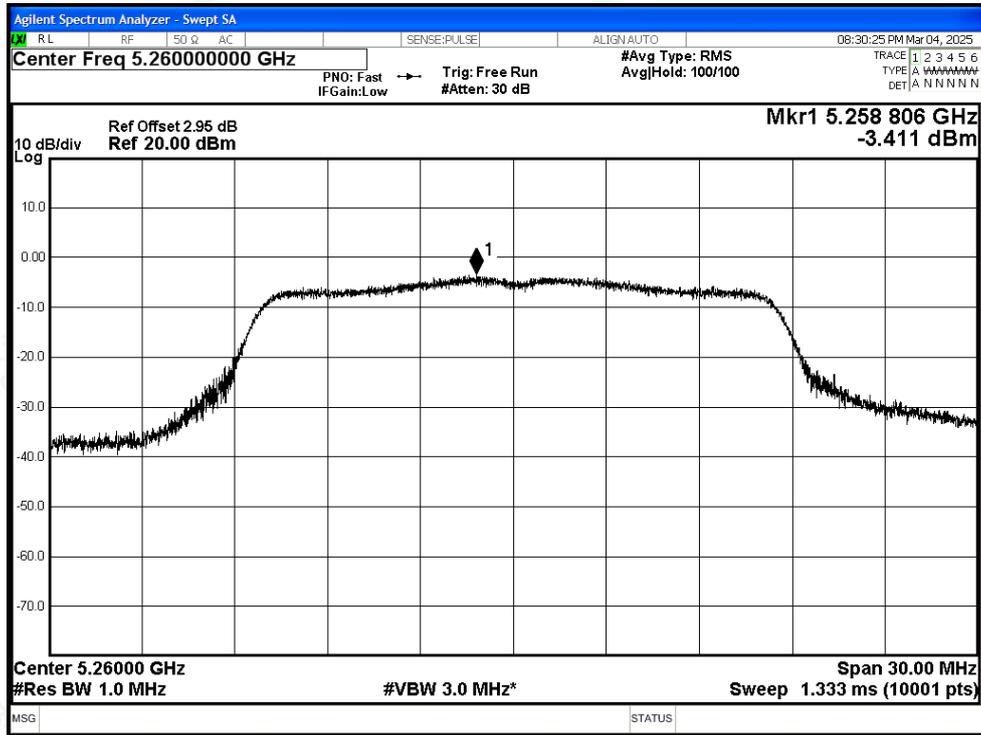
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD(dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Limit (dBm)	Verdict
NVNT	a	5260	Ant1	-3.41	0.3	-3.11	11	Pass
NVNT	a	5300	Ant1	-2.84	0.3	-2.54	11	Pass
NVNT	a	5320	Ant1	-2.72	0.3	-2.42	11	Pass
NVNT	n20	5260	Ant1	-4.01	0.32	-3.69	11	Pass
NVNT	n20	5300	Ant1	-3.55	0.32	-3.23	11	Pass
NVNT	n20	5320	Ant1	-2.91	0.32	-2.59	11	Pass
NVNT	n40	5270	Ant1	-0.88	0.24	-0.64	11	Pass
NVNT	n40	5310	Ant1	-0.93	0.25	-0.68	11	Pass
NVNT	ac20	5260	Ant1	1.69	0.13	1.82	11	Pass
NVNT	ac20	5300	Ant1	1.5	0.13	1.63	11	Pass
NVNT	ac20	5320	Ant1	1.46	0.13	1.59	11	Pass
NVNT	ac40	5270	Ant1	-1.36	0.26	-1.1	11	Pass
NVNT	ac40	5310	Ant1	-1.24	0.26	-0.98	11	Pass
NVNT	ac80	5290	Ant1	-4.14	0.49	-3.65	11	Pass



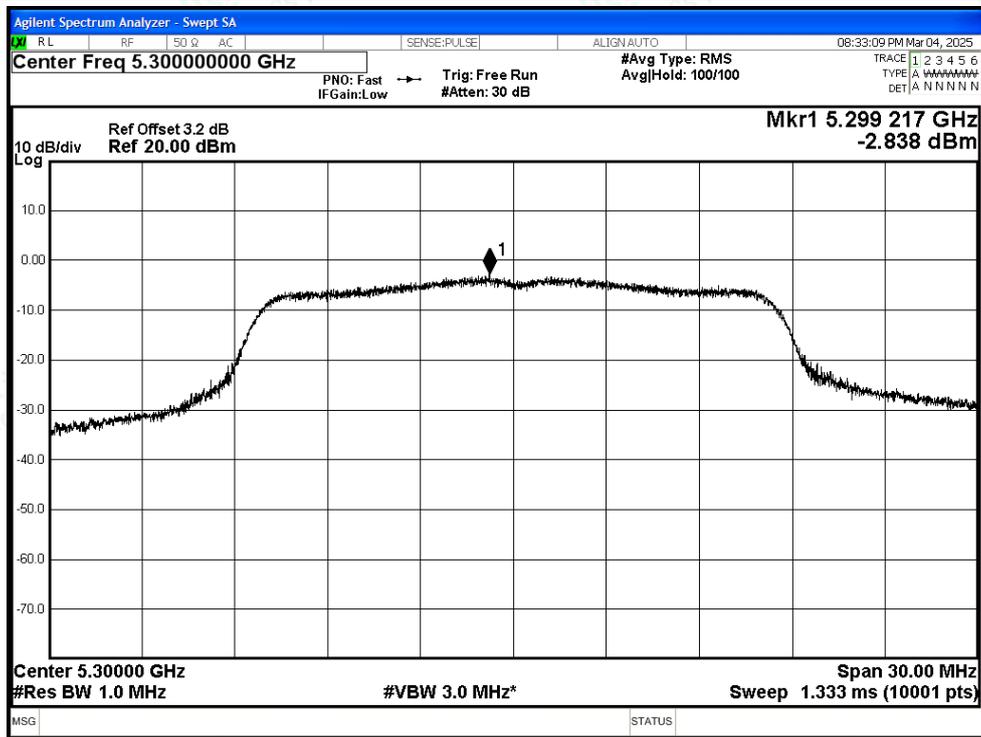
Shenzhen LCS Compliance Testing Laboratory Ltd.
 Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street,
 Baoan District, Shenzhen, 518000, China
 Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
 Scan code to check authenticity

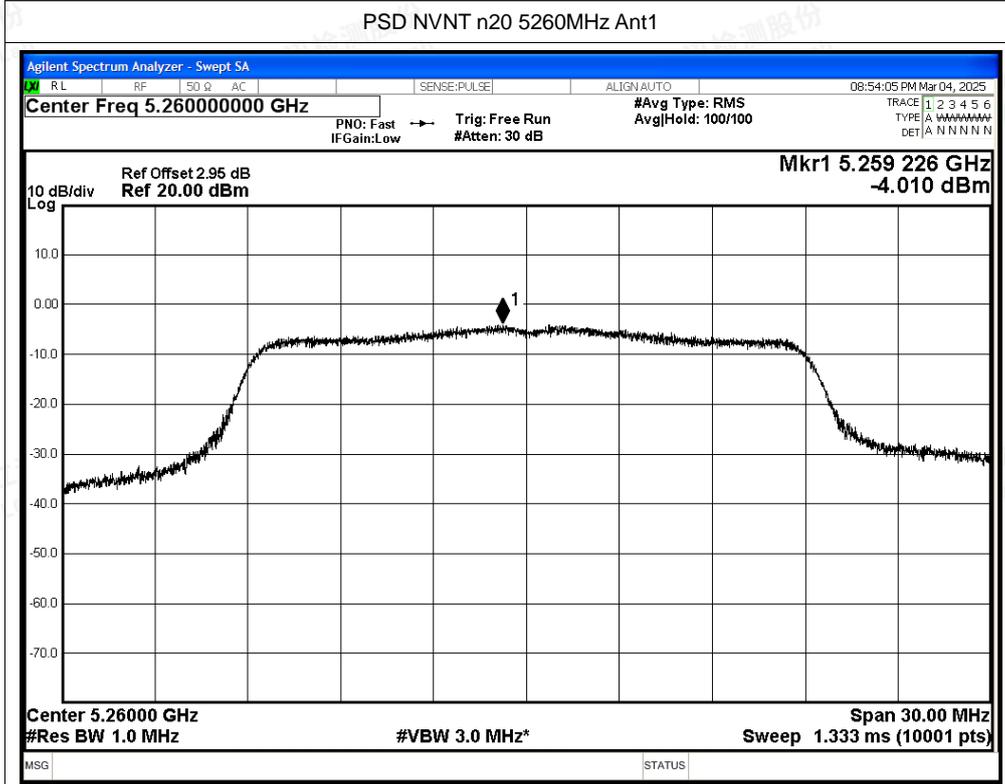
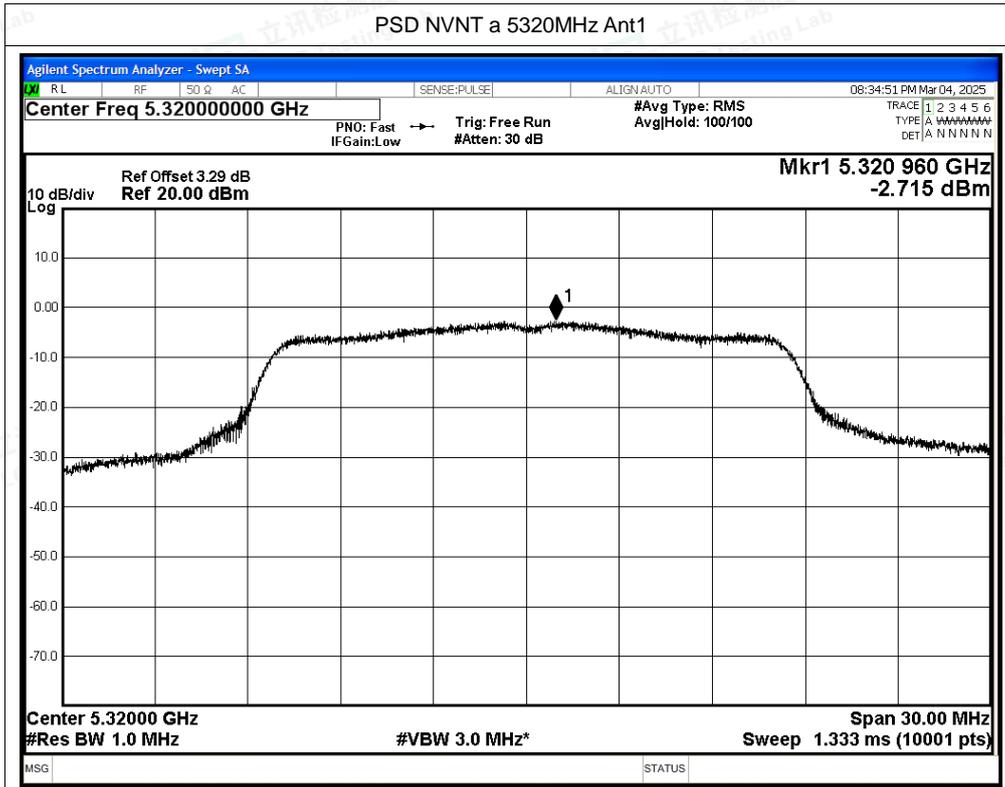
Test Graphs

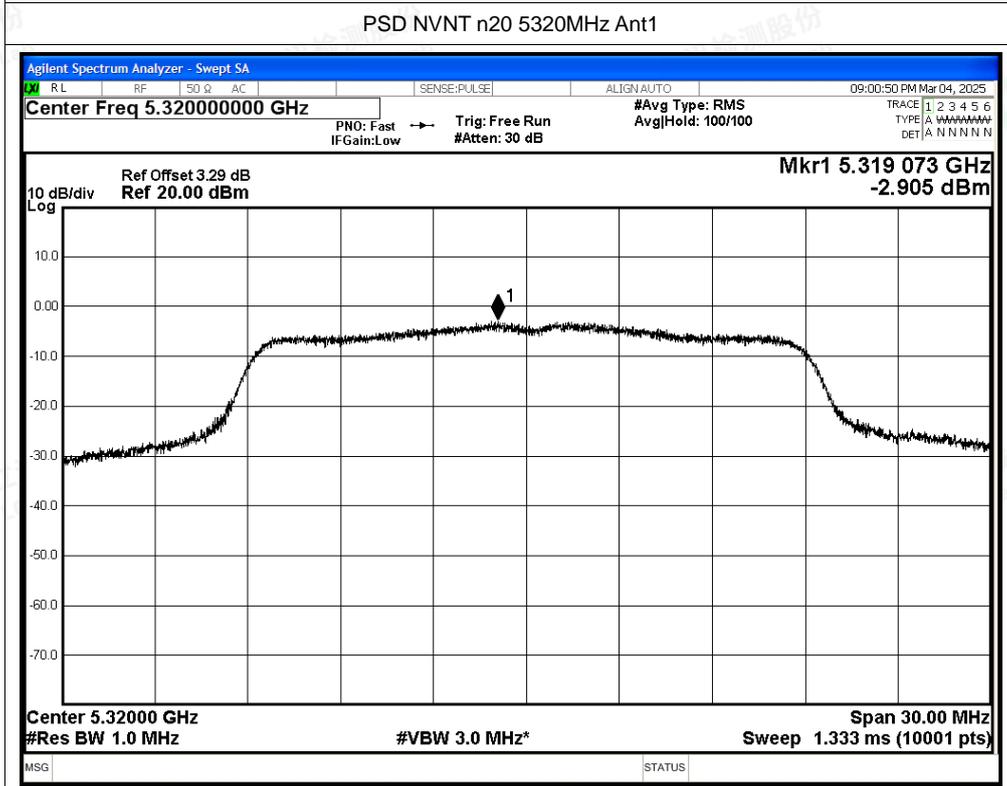
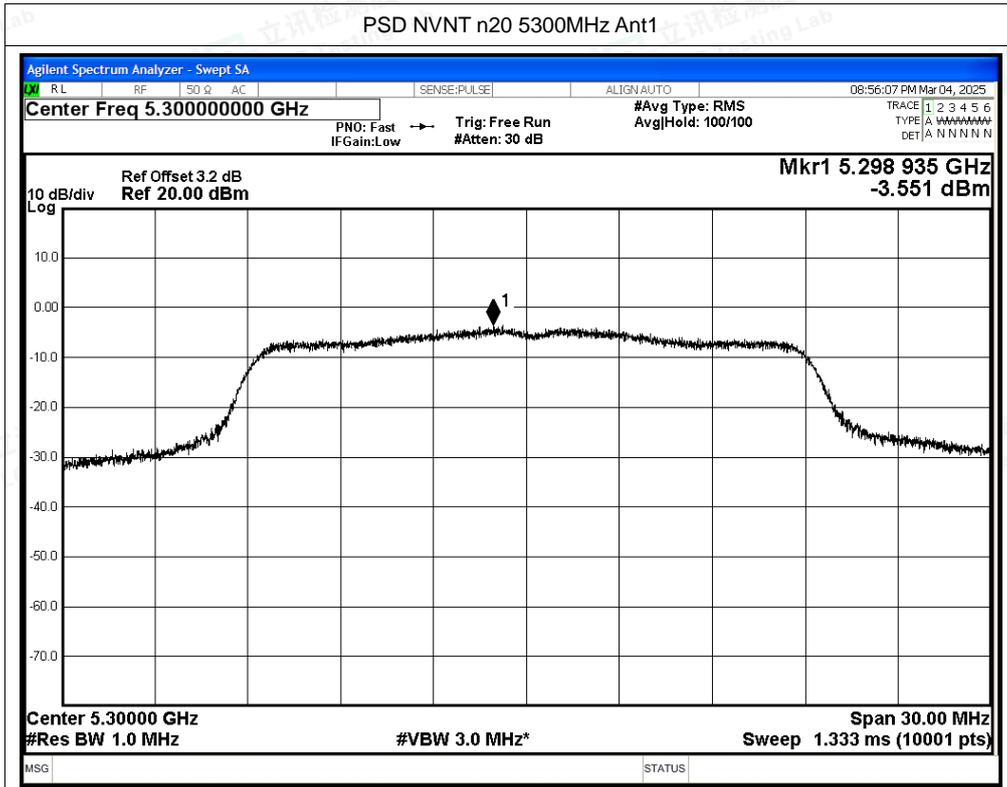
PSD NVNT a 5260MHz Ant1

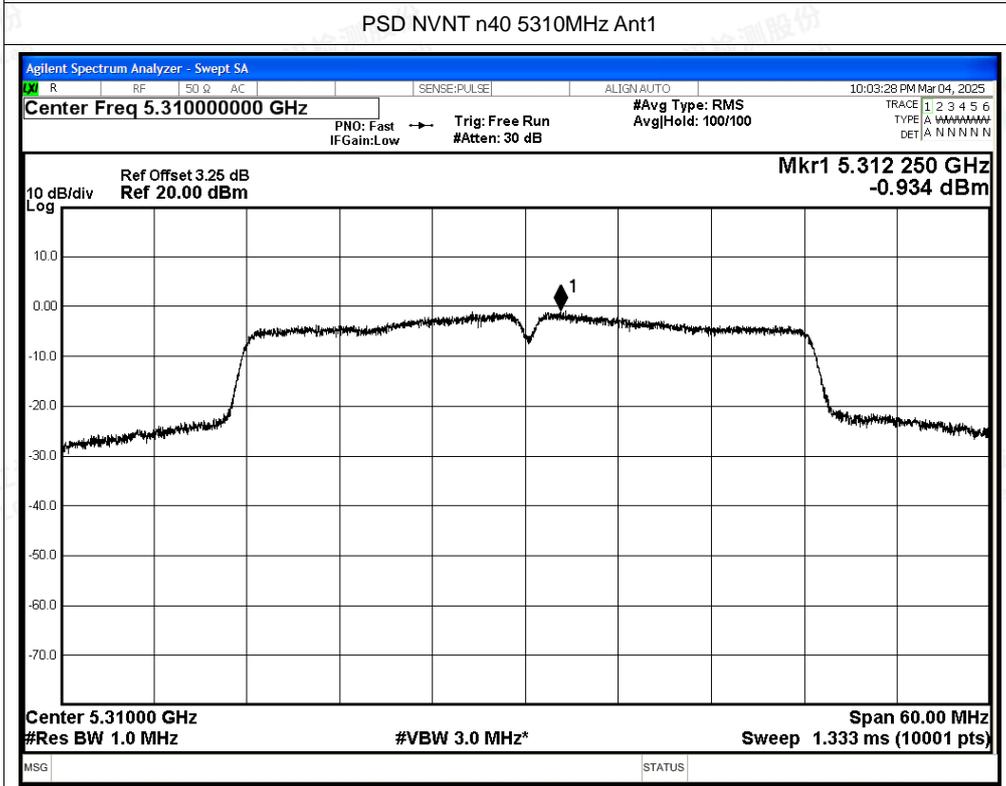
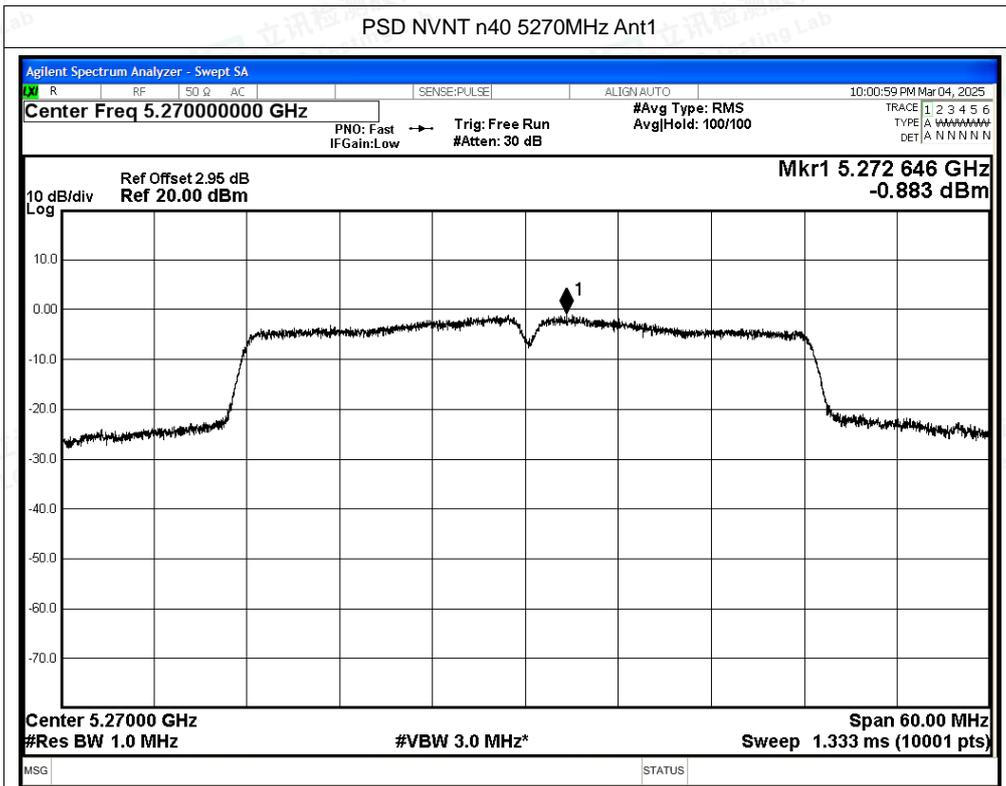


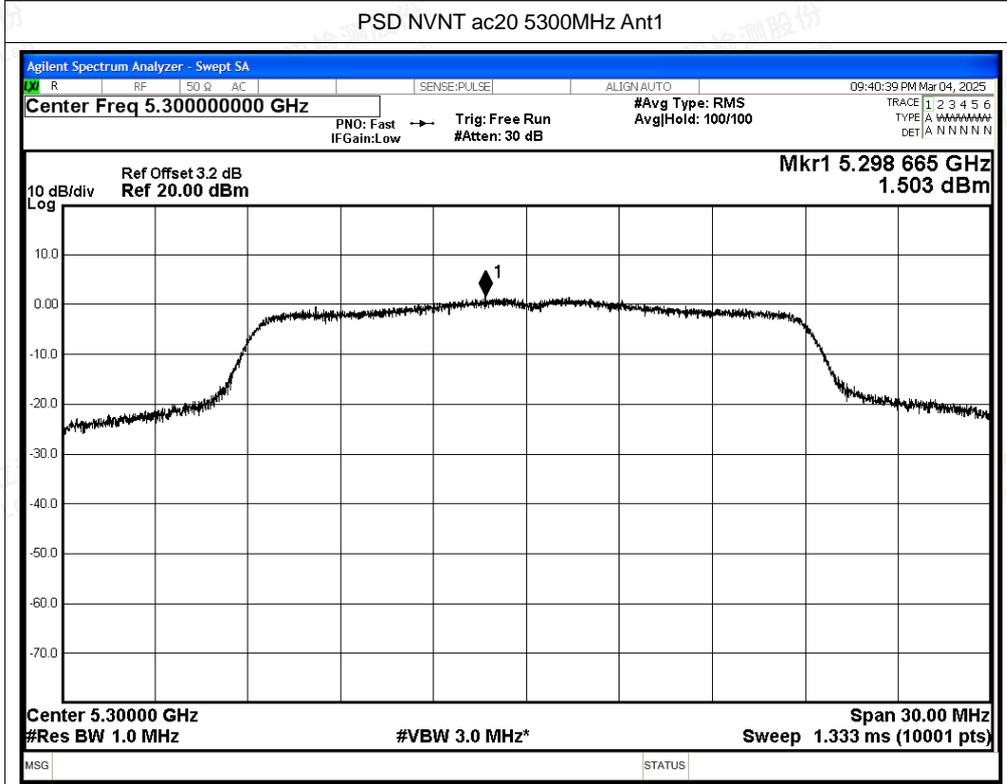
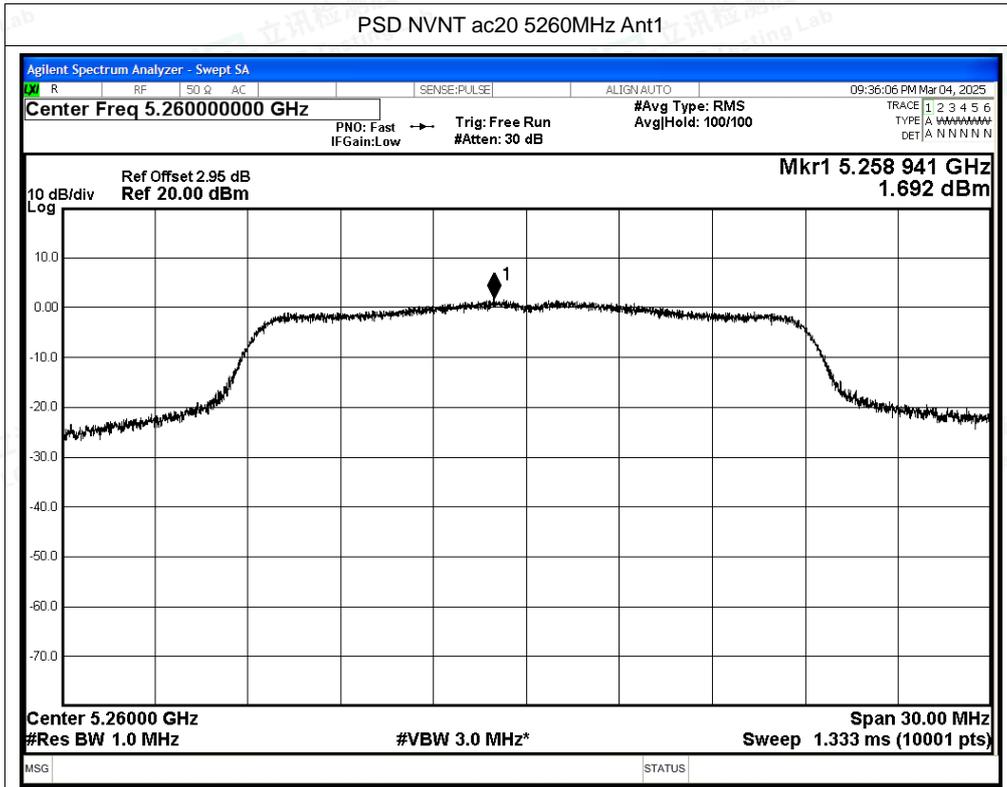
PSD NVNT a 5300MHz Ant1

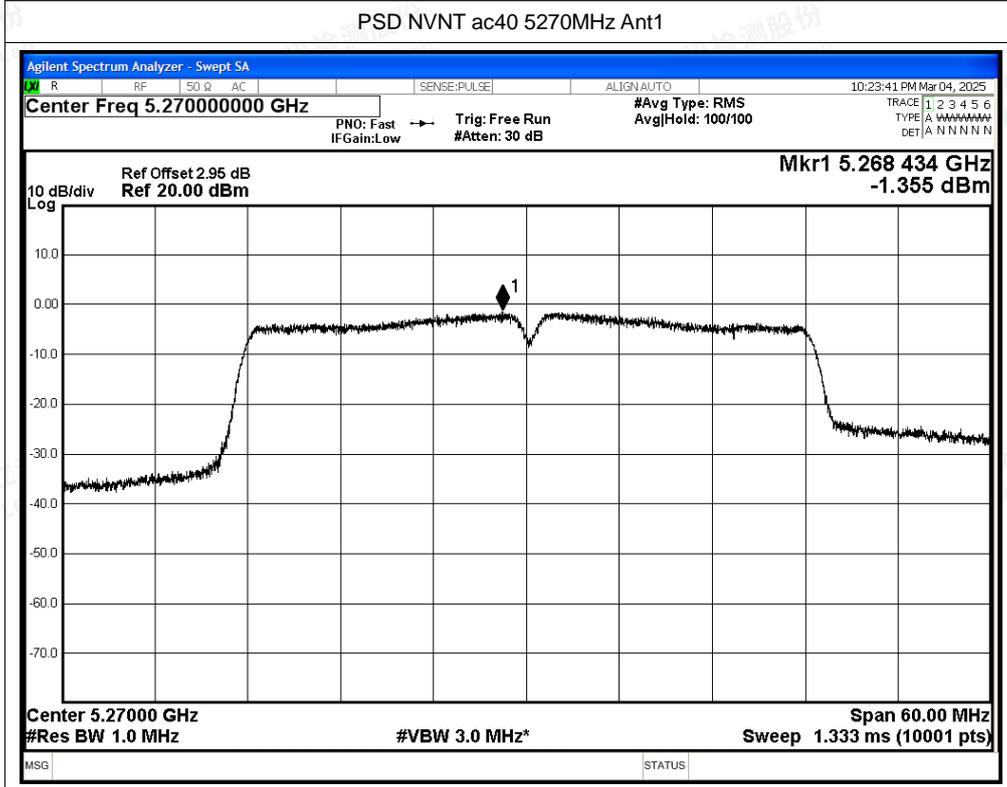
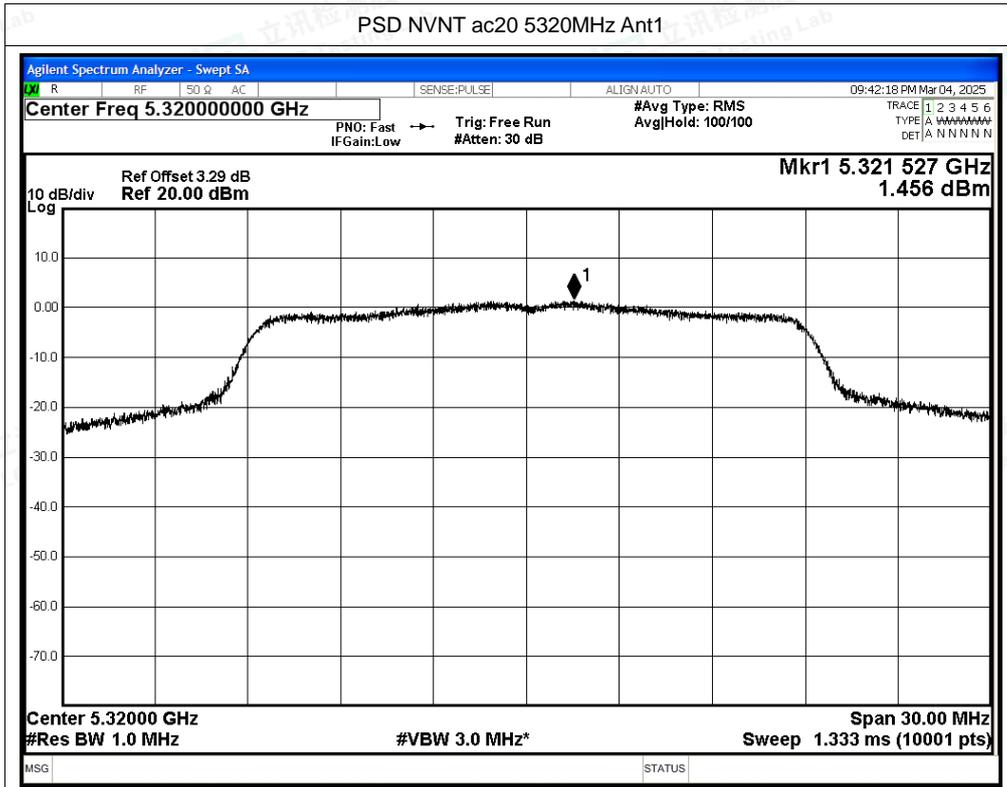


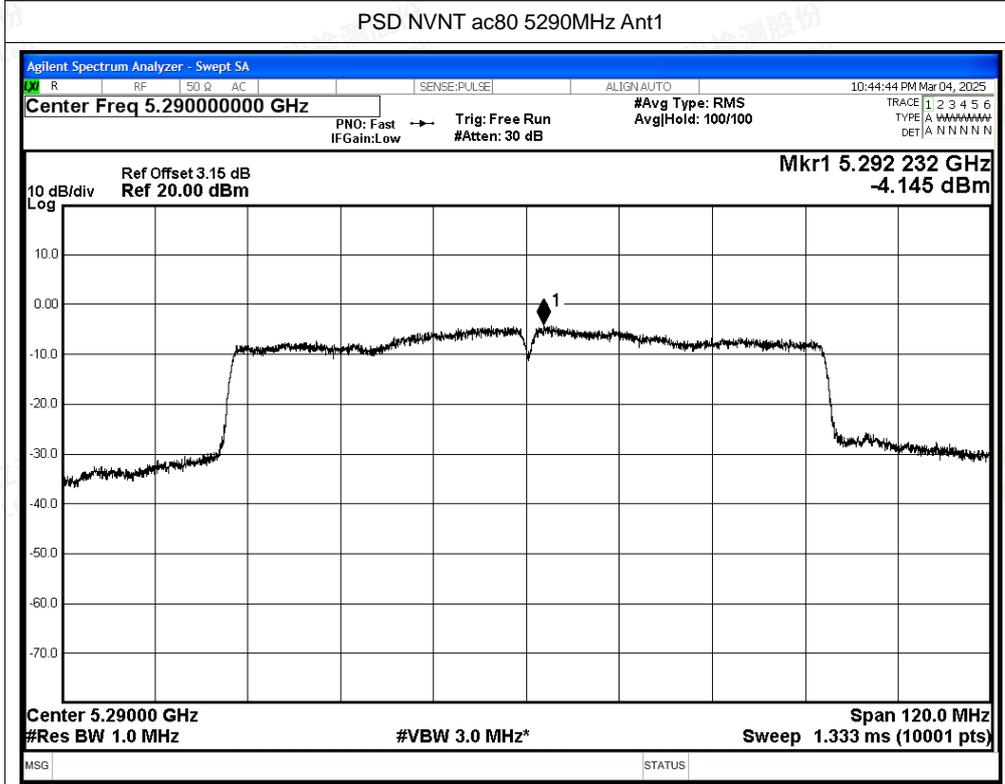
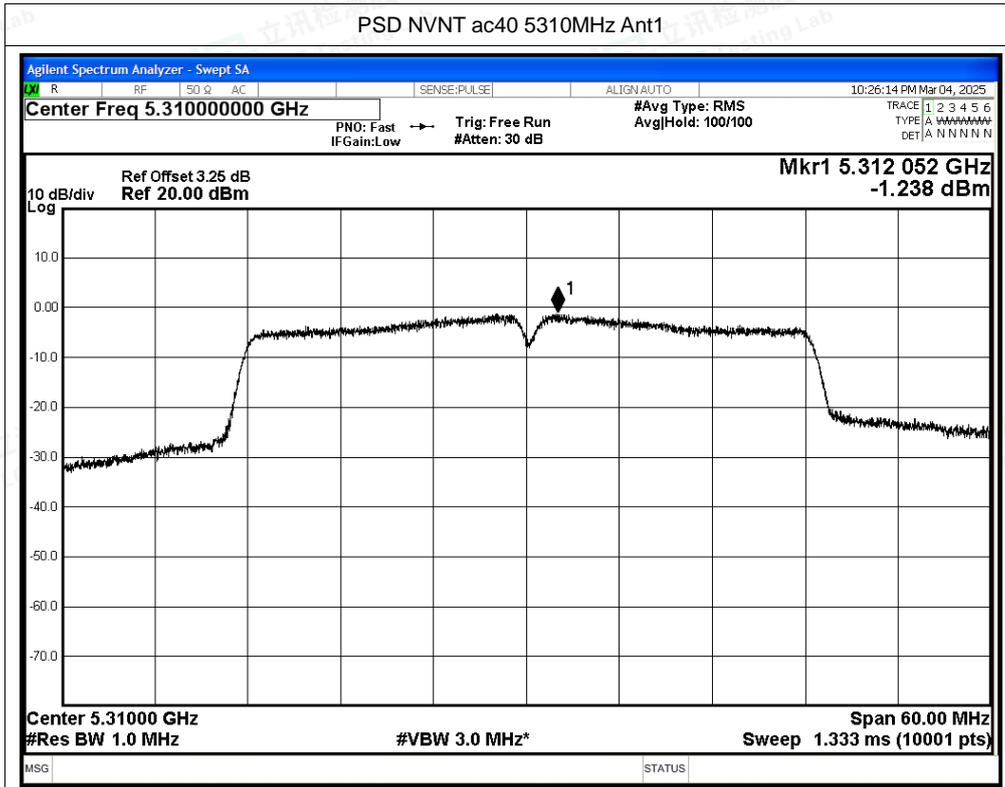












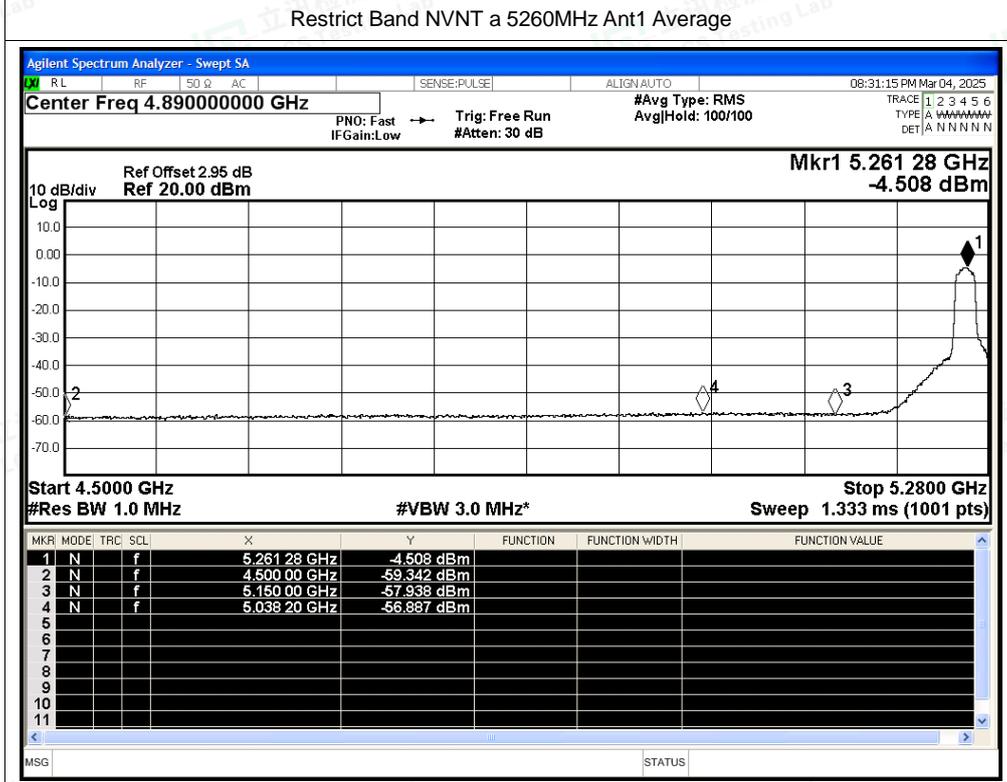
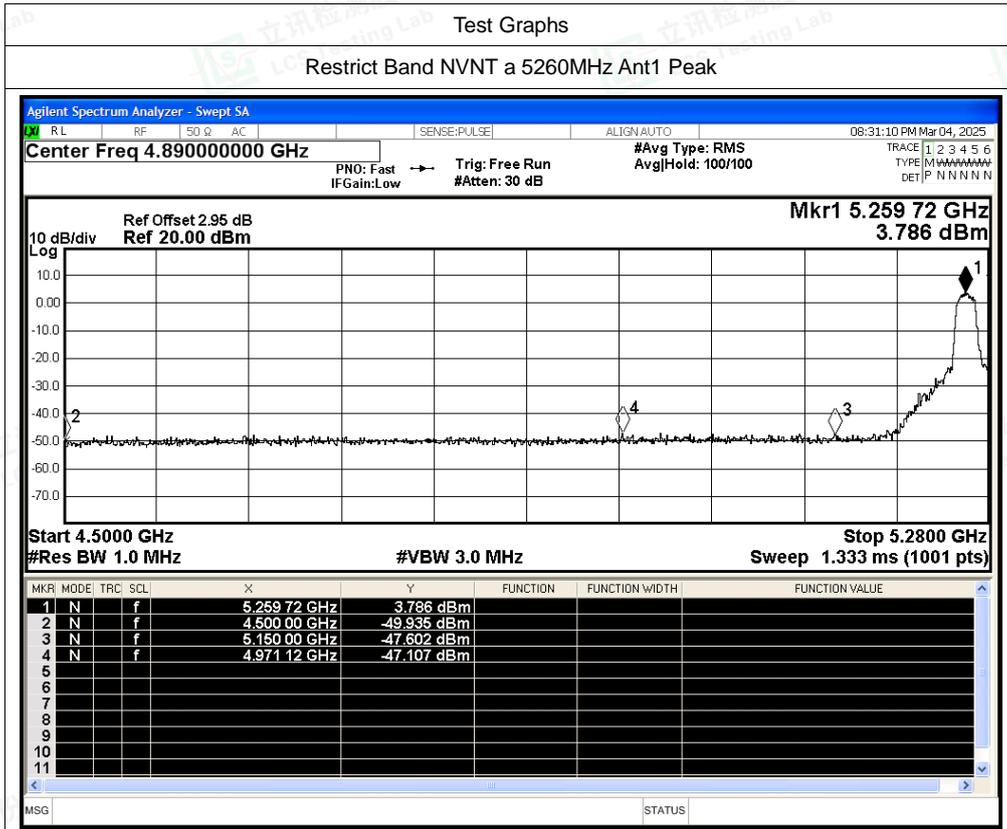
E.4 Restrict Band

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	-49.94	2.00	-	47.29	Peak	68.2	Pass
NVNT	a	5260	Ant1	4500	-59.34	2.00	0.3	38.19	Average	54	Pass
NVNT	a	5260	Ant1	4971.12	-47.11	2.00	-	50.12	Peak	68.2	Pass
NVNT	a	5260	Ant1	5038.2	-56.89	2.00	0.3	40.64	Average	54	Pass
NVNT	a	5260	Ant1	5150	-47.6	2.00	-	49.63	Peak	68.2	Pass
NVNT	a	5260	Ant1	5150	-57.94	2.00	0.3	39.59	Average	54	Pass
NVNT	a	5320	Ant1	5350	-49.58	2.00	-	47.65	Peak	68.2	Pass
NVNT	a	5320	Ant1	5350	-57.64	2.00	0.3	39.89	Average	54	Pass
NVNT	a	5320	Ant1	5420.2	-46.93	2.00	-	50.30	Peak	68.2	Pass
NVNT	a	5320	Ant1	5350.4	-57.1	2.00	0.3	40.43	Average	54	Pass
NVNT	a	5320	Ant1	5460	-50.06	2.00	-	47.17	Peak	68.2	Pass
NVNT	a	5320	Ant1	5460	-58.08	2.00	0.3	39.45	Average	54	Pass
NVNT	n20	5260	Ant1	4500	-50.38	2.00	-	46.85	Peak	68.2	Pass
NVNT	n20	5260	Ant1	4500	-59.34	2.00	0.32	38.21	Average	54	Pass
NVNT	n20	5260	Ant1	5091.24	-46.36	2.00	-	50.87	Peak	68.2	Pass
NVNT	n20	5260	Ant1	5093.58	-56.73	2.00	0.32	40.82	Average	54	Pass
NVNT	n20	5260	Ant1	5150	-49.22	2.00	-	48.01	Peak	68.2	Pass
NVNT	n20	5260	Ant1	5150	-57.66	2.00	0.32	39.89	Average	54	Pass
NVNT	n20	5320	Ant1	5350	-48.95	2.00	-	48.28	Peak	68.2	Pass
NVNT	n20	5320	Ant1	5350	-58.07	2.00	0.32	39.48	Average	54	Pass
NVNT	n20	5320	Ant1	5397.8	-46.72	2.00	-	50.51	Peak	68.2	Pass
NVNT	n20	5320	Ant1	5363.2	-57.21	2.00	0.32	40.34	Average	54	Pass
NVNT	n20	5320	Ant1	5460	-50.08	2.00	-	47.15	Peak	68.2	Pass
NVNT	n20	5320	Ant1	5460	-58.36	2.00	0.32	39.19	Average	54	Pass
NVNT	n40	5270	Ant1	4500	-51.23	2.00	-	46.00	Peak	68.2	Pass
NVNT	n40	5270	Ant1	4500	-59.38	2.00	0.24	38.09	Average	54	Pass
NVNT	n40	5270	Ant1	5140.71	-43.16	2.00	-	54.07	Peak	68.2	Pass
NVNT	n40	5270	Ant1	5148.81	-54.61	2.00	0.24	42.86	Average	54	Pass
NVNT	n40	5270	Ant1	5150	-45.89	2.00	-	51.34	Peak	68.2	Pass
NVNT	n40	5270	Ant1	5150	-55.23	2.00	0.24	42.24	Average	54	Pass
NVNT	n40	5310	Ant1	5350	-48.71	2.00	-	48.52	Peak	68.2	Pass
NVNT	n40	5310	Ant1	5350	-56.45	2.00	0.25	41.03	Average	54	Pass
NVNT	n40	5310	Ant1	5361.4	-46.54	2.00	-	50.69	Peak	68.2	Pass
NVNT	n40	5310	Ant1	5350.8	-56.14	2.00	0.25	41.34	Average	54	Pass
NVNT	n40	5310	Ant1	5460	-50.01	2.00	-	47.22	Peak	68.2	Pass

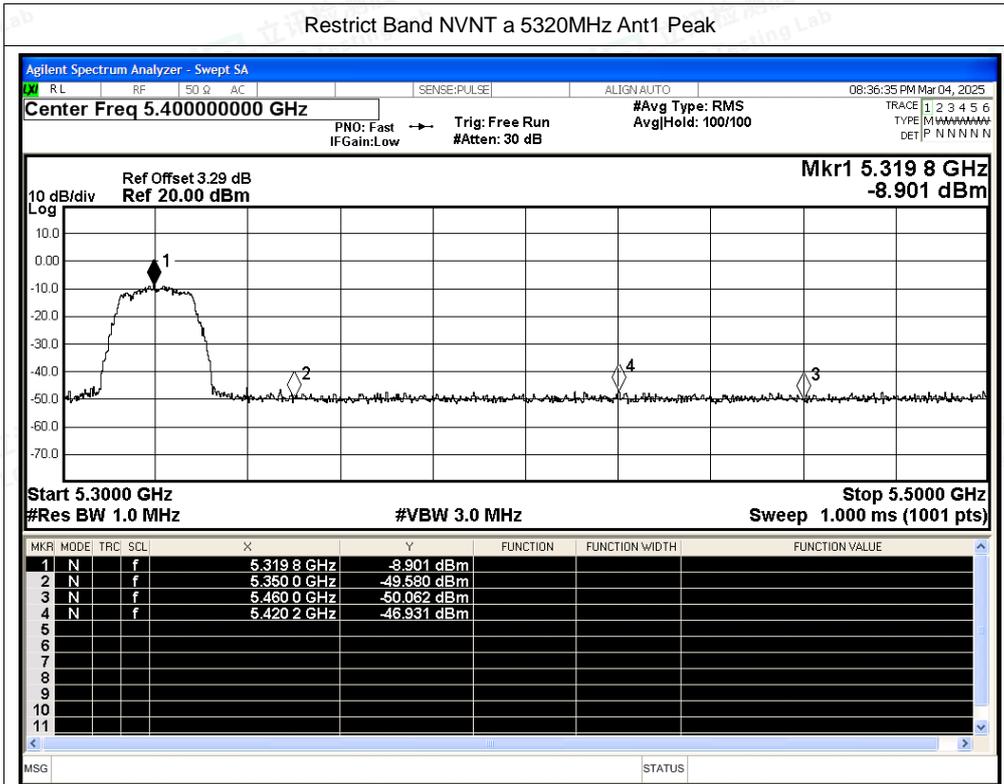


NVNT	n40	5310	Ant1	5460	-58.13	2.00	0.25	39.35	Average	54	Pass
NVNT	ac20	5260	Ant1	4500	-51.15	2.00	-	46.08	Peak	68.2	Pass
NVNT	ac20	5260	Ant1	4500	-59.12	2.00	0.13	38.24	Average	54	Pass
NVNT	ac20	5260	Ant1	5087.34	-46.46	2.00	-	50.77	Peak	68.2	Pass
NVNT	ac20	5260	Ant1	5120.1	-56.66	2.00	0.13	40.70	Average	54	Pass
NVNT	ac20	5260	Ant1	5150	-48.45	2.00	-	48.78	Peak	68.2	Pass
NVNT	ac20	5260	Ant1	5150	-57.63	2.00	0.13	39.73	Average	54	Pass
NVNT	ac20	5320	Ant1	5350	-48.36	2.00	-	48.87	Peak	68.2	Pass
NVNT	ac20	5320	Ant1	5350	-56.75	2.00	0.13	40.61	Average	54	Pass
NVNT	ac20	5320	Ant1	5357.2	-46.42	2.00	-	50.81	Peak	68.2	Pass
NVNT	ac20	5320	Ant1	5354.2	-56.61	2.00	0.13	40.75	Average	54	Pass
NVNT	ac20	5320	Ant1	5460	-49.68	2.00	-	47.55	Peak	68.2	Pass
NVNT	ac20	5320	Ant1	5460	-58.14	2.00	0.13	39.22	Average	54	Pass
NVNT	ac40	5270	Ant1	4500	-50.4	2.00	-	46.83	Peak	68.2	Pass
NVNT	ac40	5270	Ant1	4500	-59.01	2.00	0.26	38.48	Average	54	Pass
NVNT	ac40	5270	Ant1	5057.28	-45.65	2.00	-	51.58	Peak	68.2	Pass
NVNT	ac40	5270	Ant1	5149.62	-54.95	2.00	0.26	42.54	Average	54	Pass
NVNT	ac40	5270	Ant1	5150	-47.93	2.00	-	49.30	Peak	68.2	Pass
NVNT	ac40	5270	Ant1	5150	-54.95	2.00	0.26	42.54	Average	54	Pass
NVNT	ac40	5310	Ant1	5350	-48.1	2.00	-	49.13	Peak	68.2	Pass
NVNT	ac40	5310	Ant1	5350	-56.21	2.00	0.26	41.28	Average	54	Pass
NVNT	ac40	5310	Ant1	5390.4	-46.44	2.00	-	50.79	Peak	68.2	Pass
NVNT	ac40	5310	Ant1	5350	-56.21	2.00	0.26	41.28	Average	54	Pass
NVNT	ac40	5310	Ant1	5460	-49.15	2.00	-	48.08	Peak	68.2	Pass
NVNT	ac40	5310	Ant1	5460	-57.4	2.00	0.26	40.09	Average	54	Pass
NVNT	ac80	5290	Ant1	4500	-50.43	2.00	-	46.80	Peak	68.2	Pass
NVNT	ac80	5290	Ant1	4500	-58.62	2.00	0.49	39.10	Average	54	Pass
NVNT	ac80	5290	Ant1	5134.23	-46.68	2.00	-	50.55	Peak	68.2	Pass
NVNT	ac80	5290	Ant1	5019.39	-56.63	2.00	0.49	41.09	Average	54	Pass
NVNT	ac80	5290	Ant1	5150	-49.56	2.00	-	47.67	Peak	68.2	Pass
NVNT	ac80	5290	Ant1	5150	-57.3	2.00	0.49	40.42	Average	54	Pass
NVNT	ac80	5290	Ant1	5350	-46.7	2.00	-	50.53	Peak	68.2	Pass
NVNT	ac80	5290	Ant1	5350	-56.92	2.00	0.49	40.80	Average	54	Pass
NVNT	ac80	5290	Ant1	5360	-46.12	2.00	-	51.11	Peak	68.2	Pass
NVNT	ac80	5290	Ant1	5352.25	-56.02	2.00	0.49	41.70	Average	54	Pass
NVNT	ac80	5290	Ant1	5460	-50.47	2.00	-	46.76	Peak	68.2	Pass
NVNT	ac80	5290	Ant1	5460	-57.48	2.00	0.49	40.24	Average	54	Pass

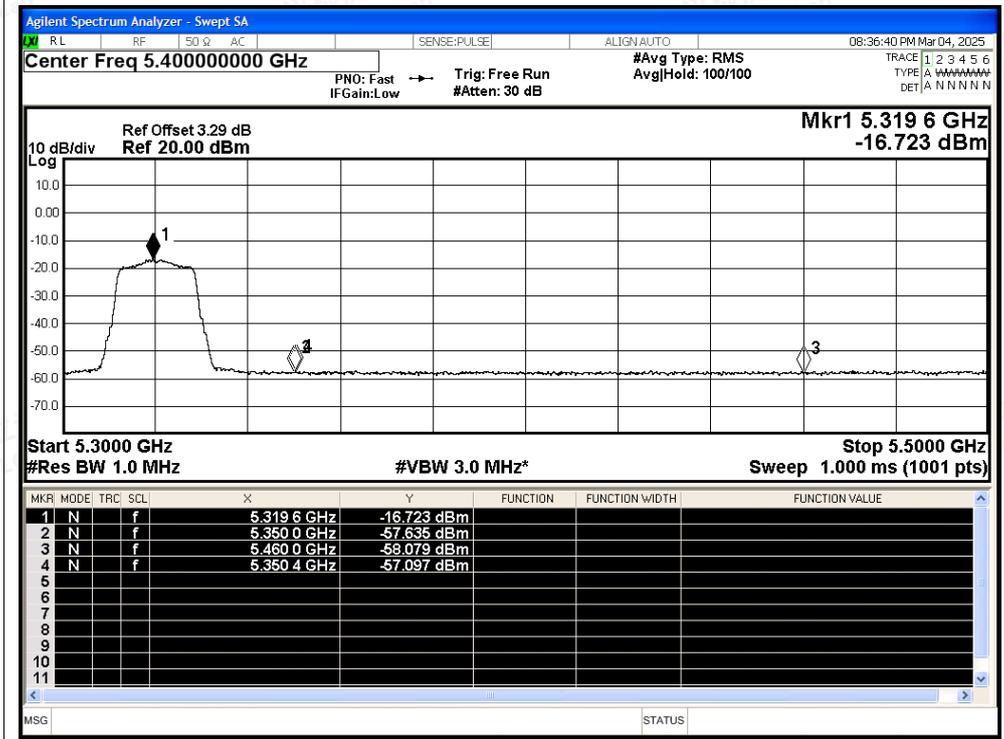


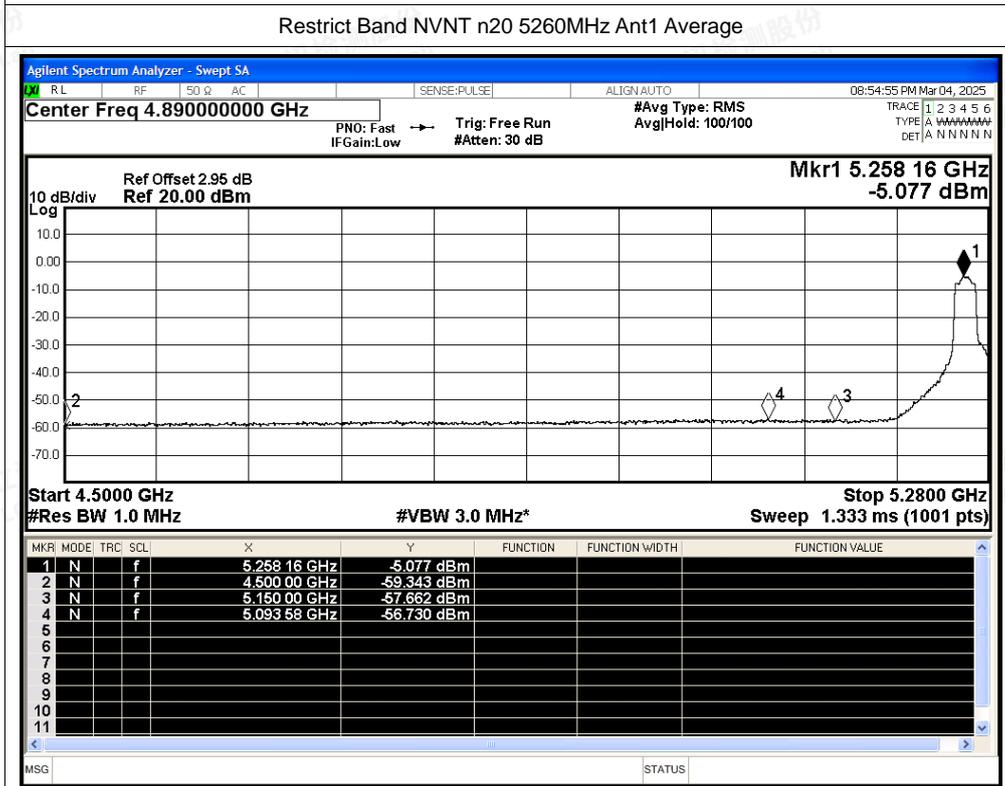
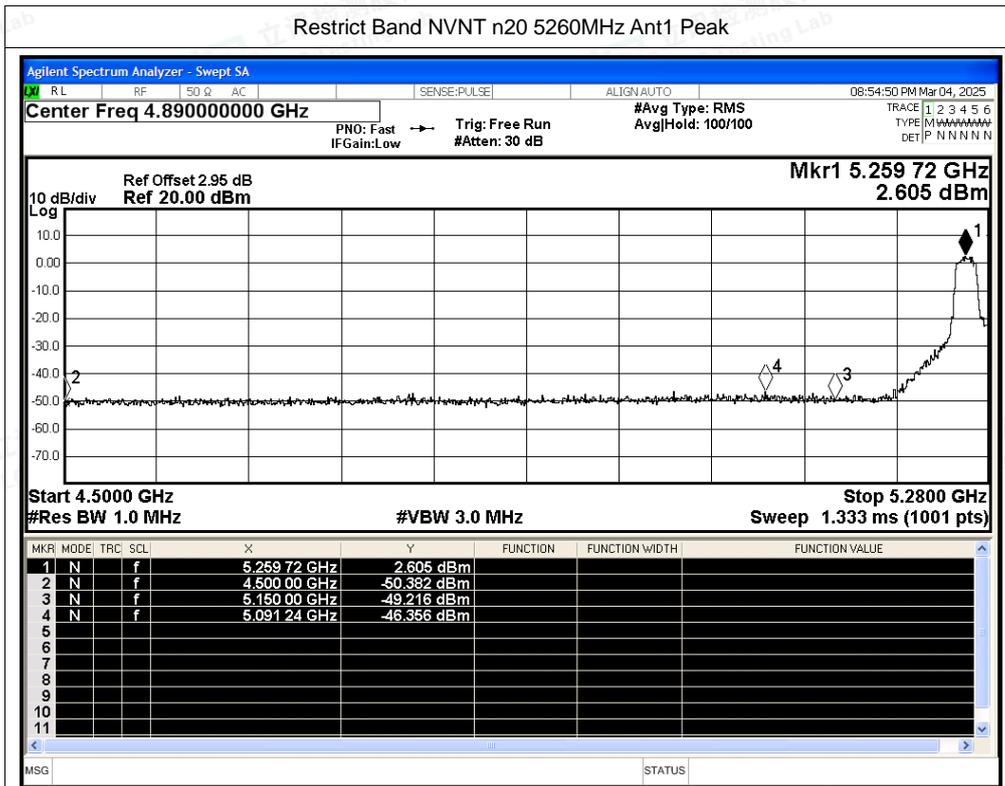


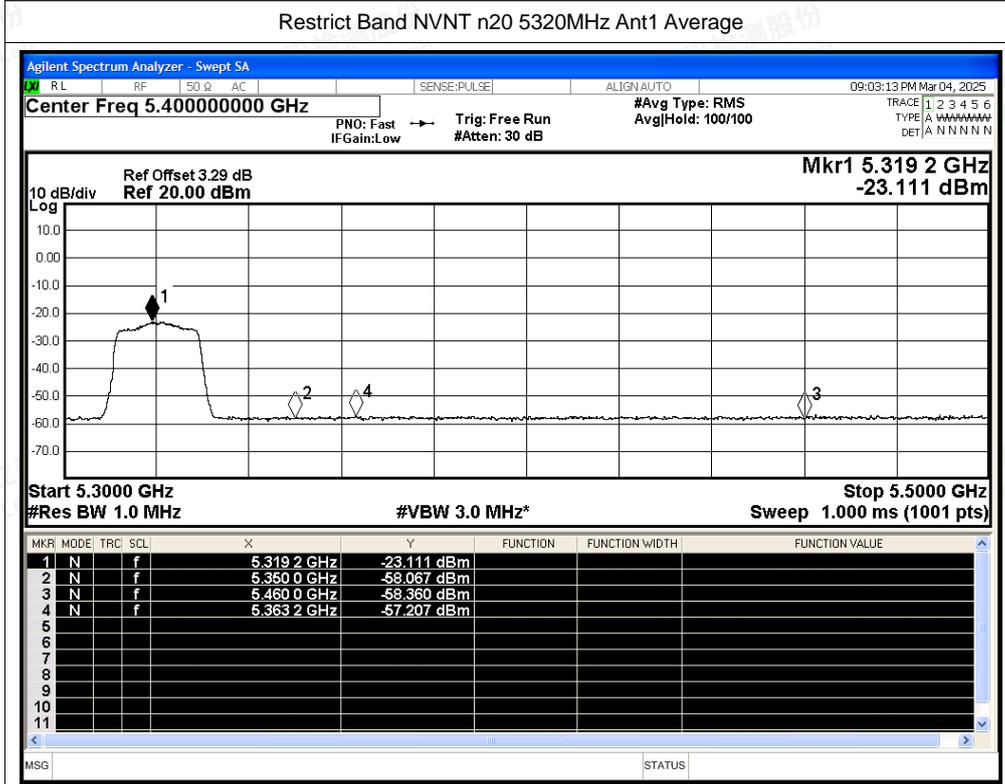
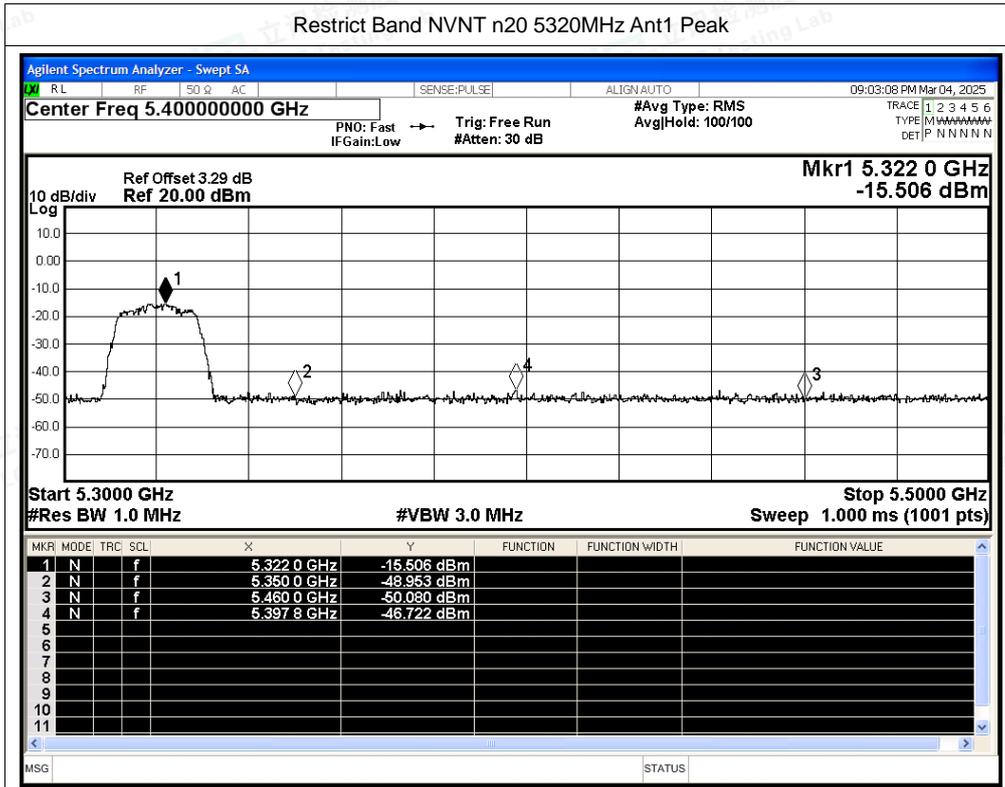
Restrict Band NVNT a 5320MHz Ant1 Peak

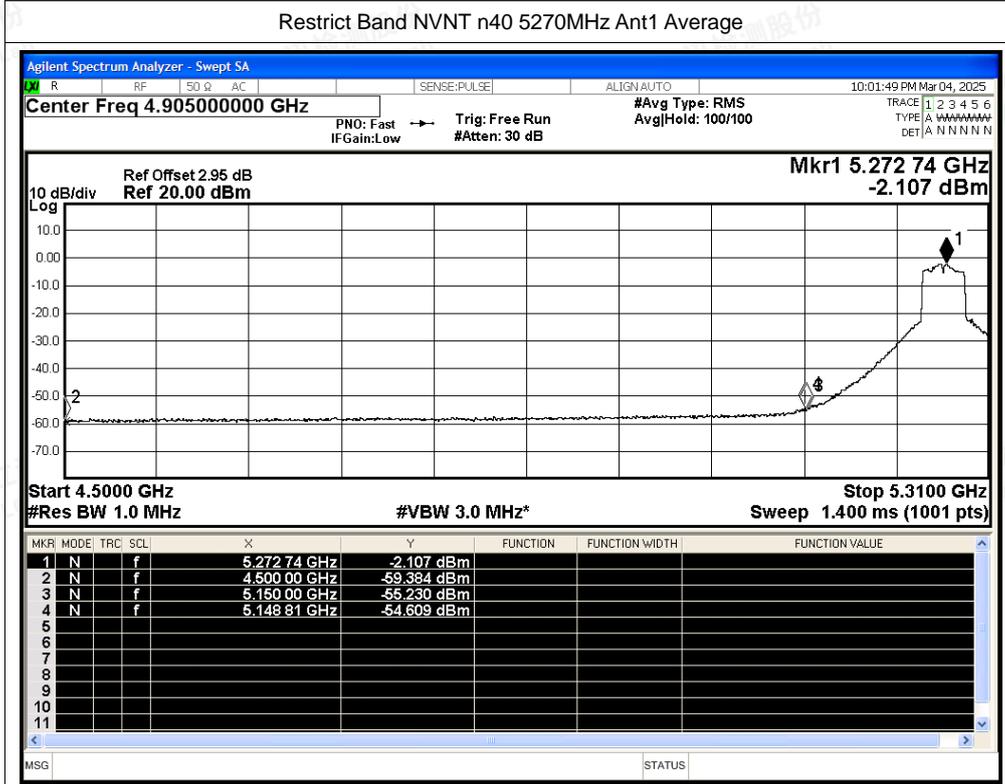
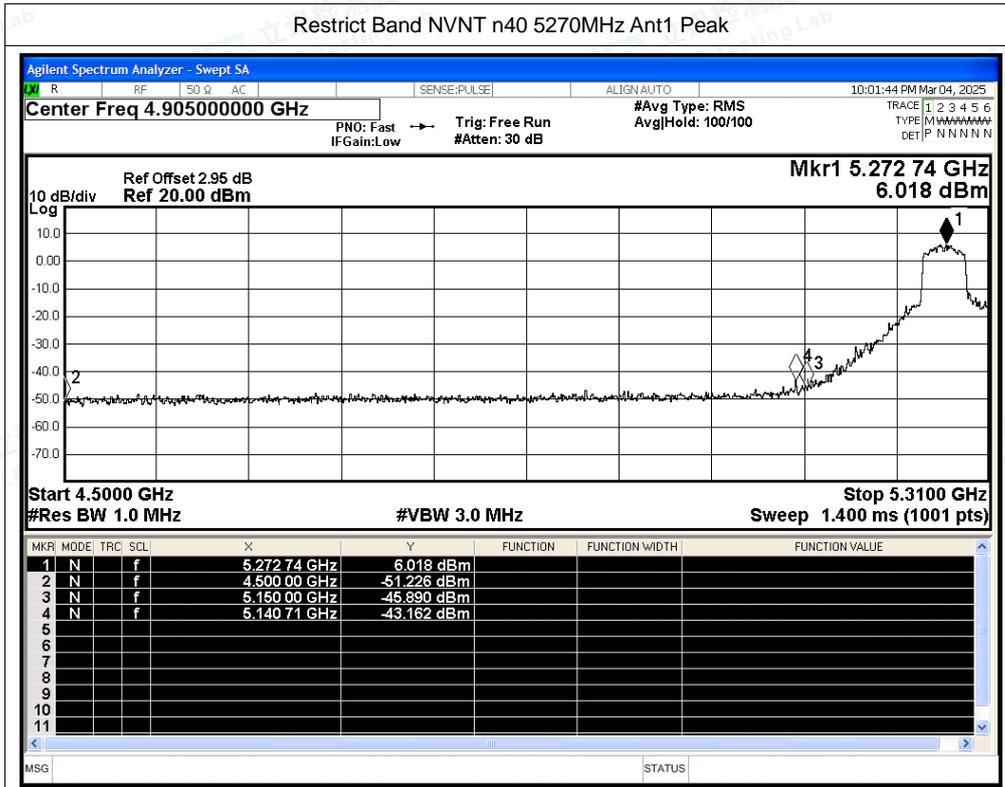


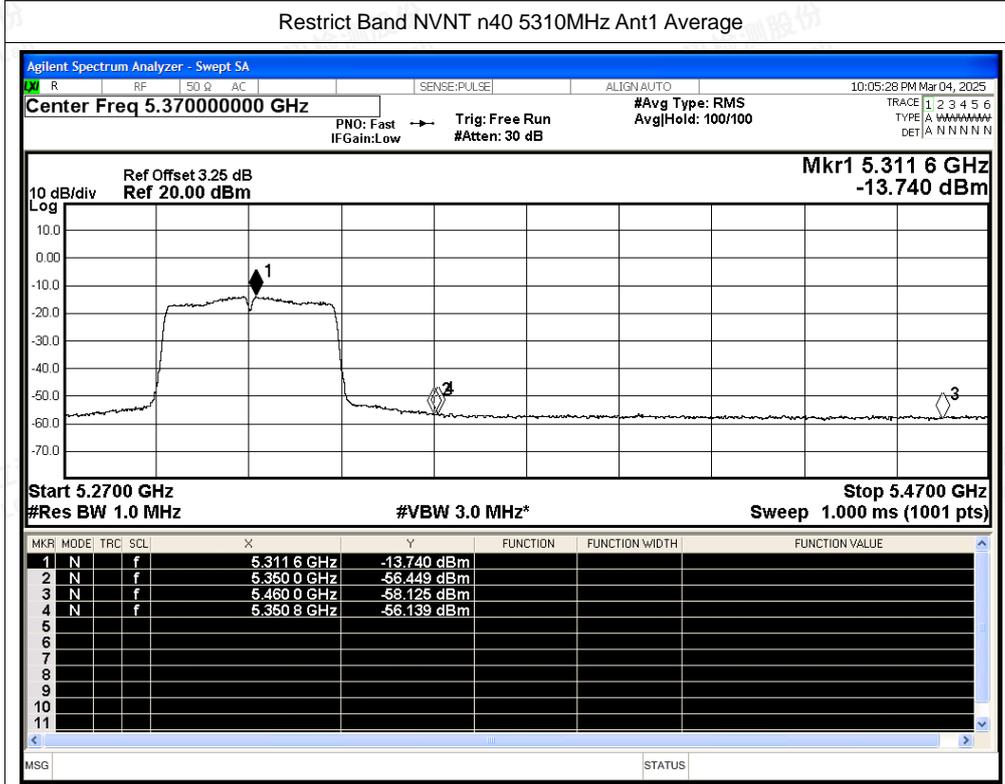
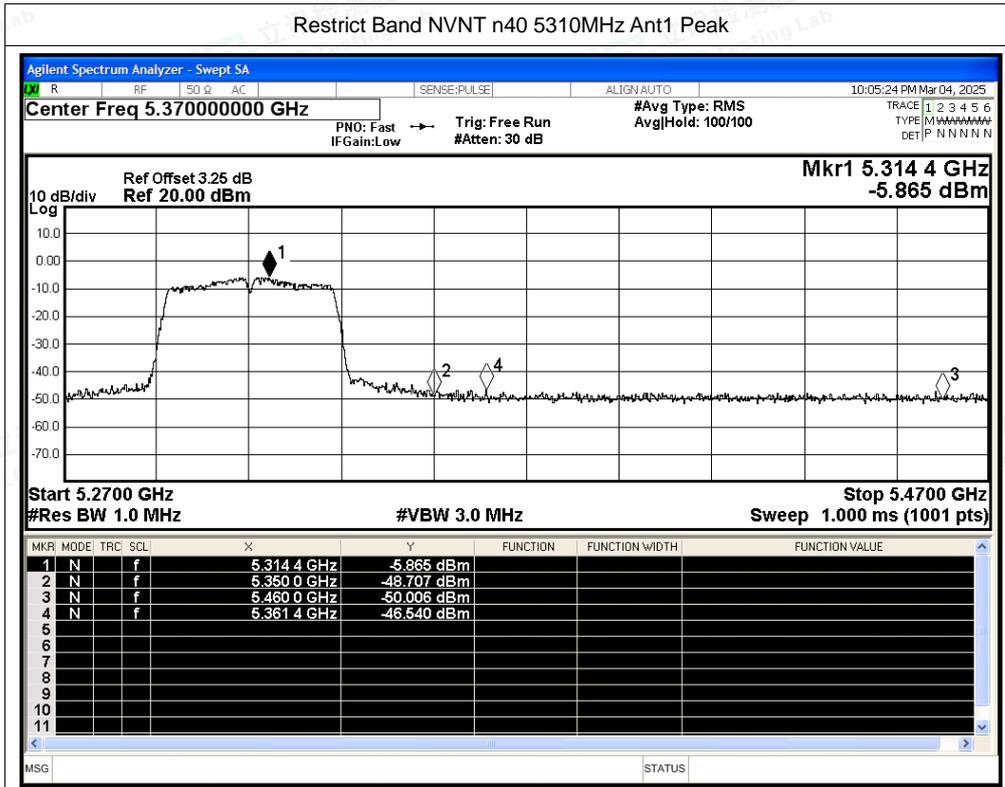
Restrict Band NVNT a 5320MHz Ant1 Average

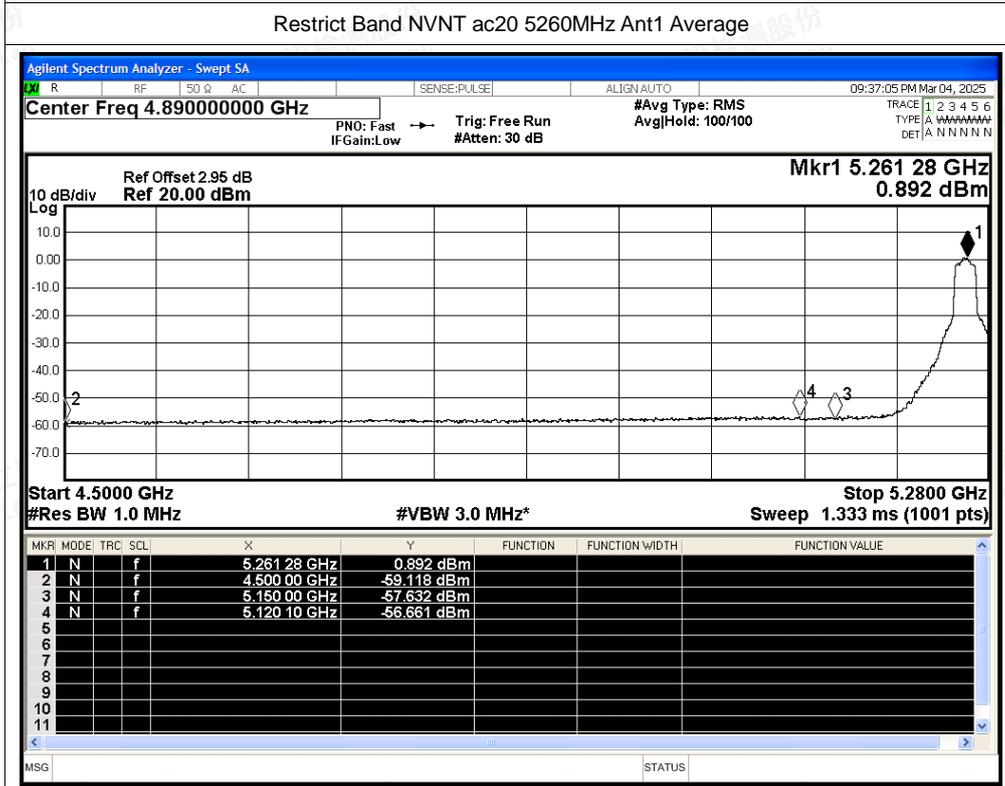
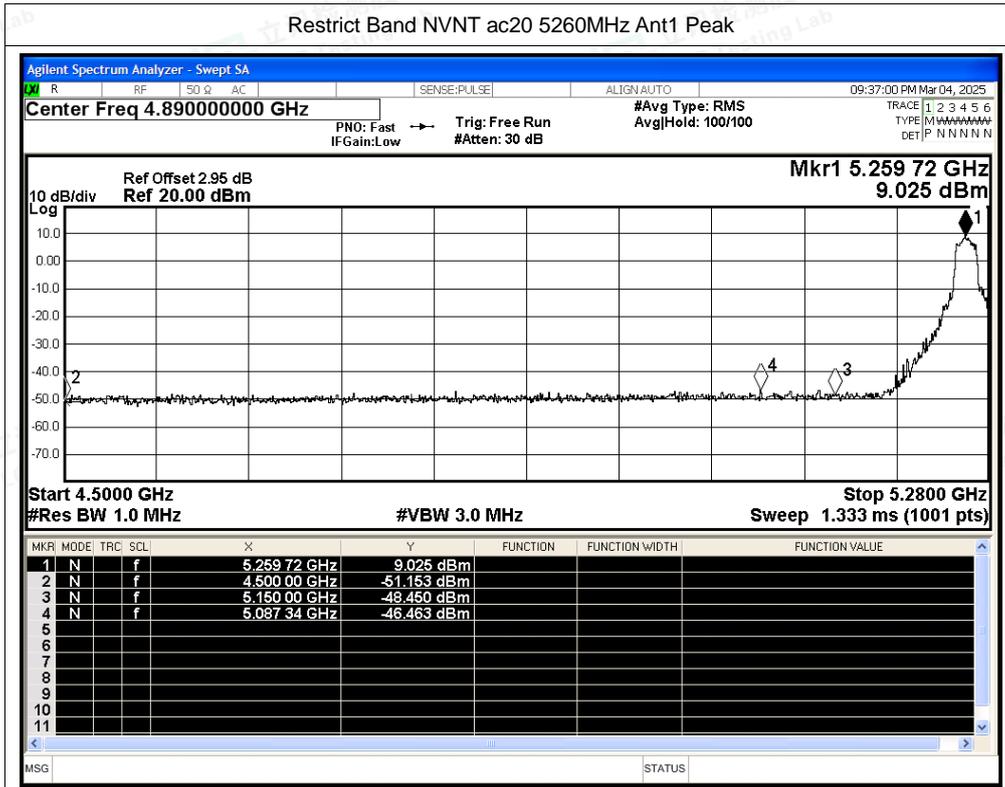


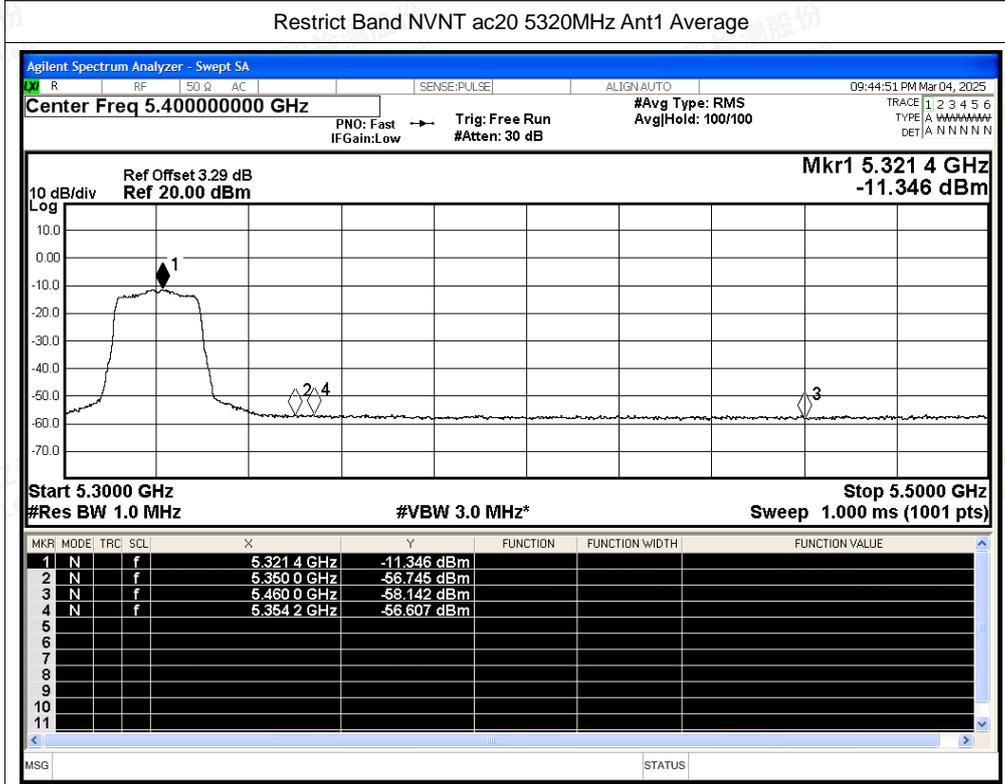
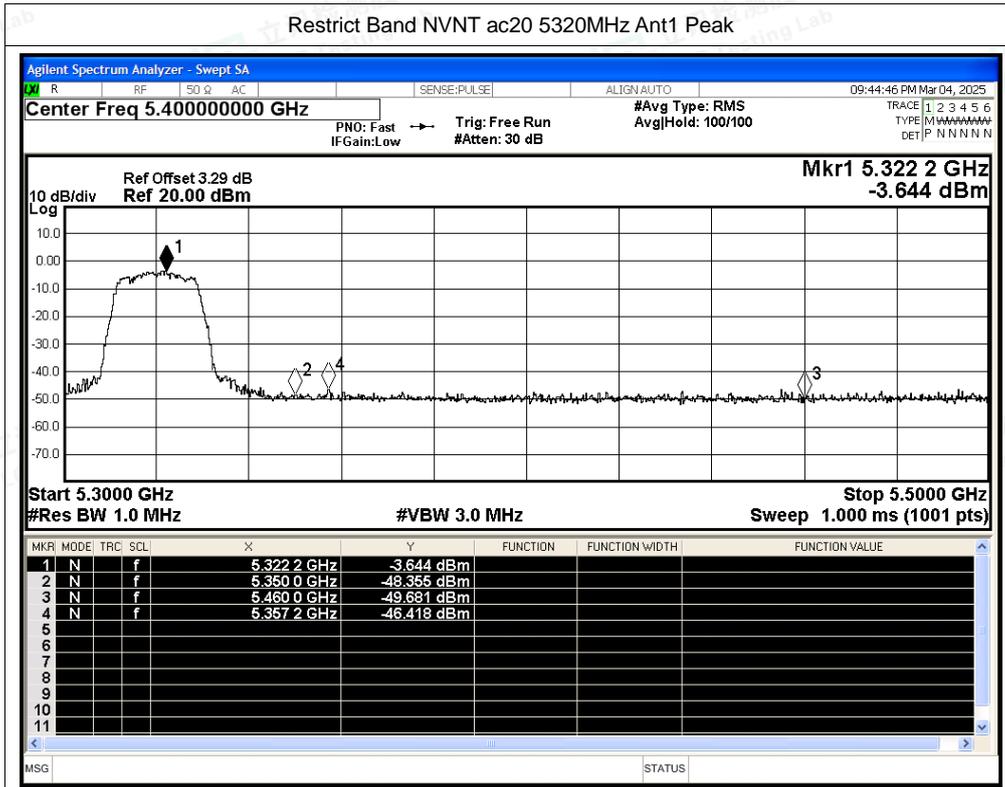


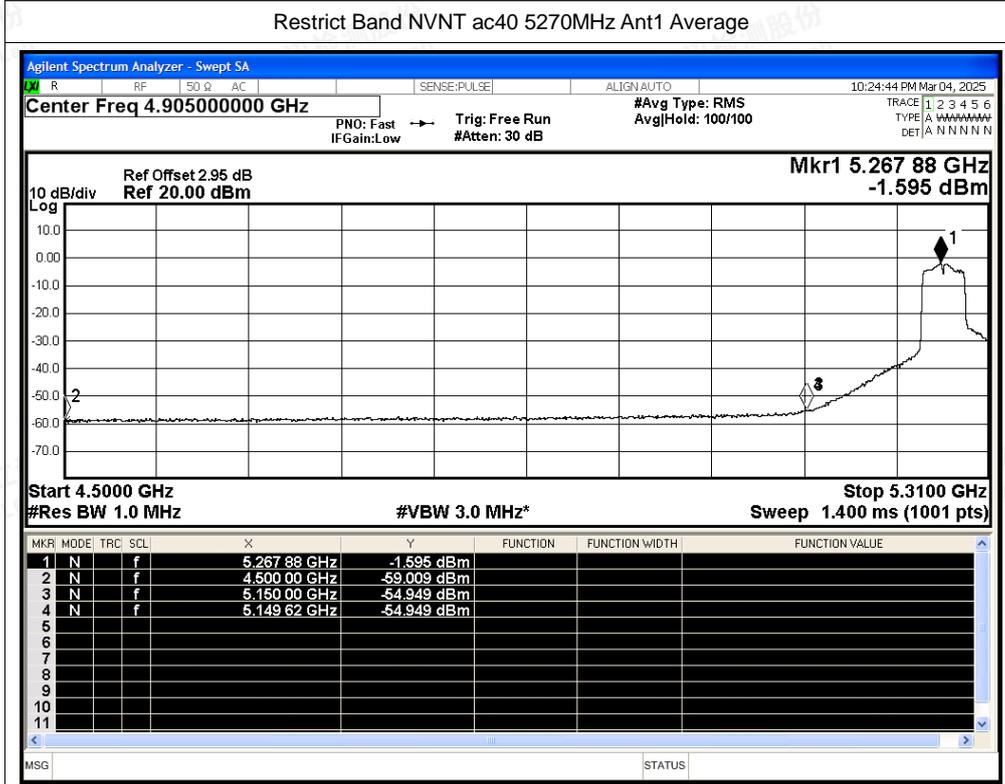
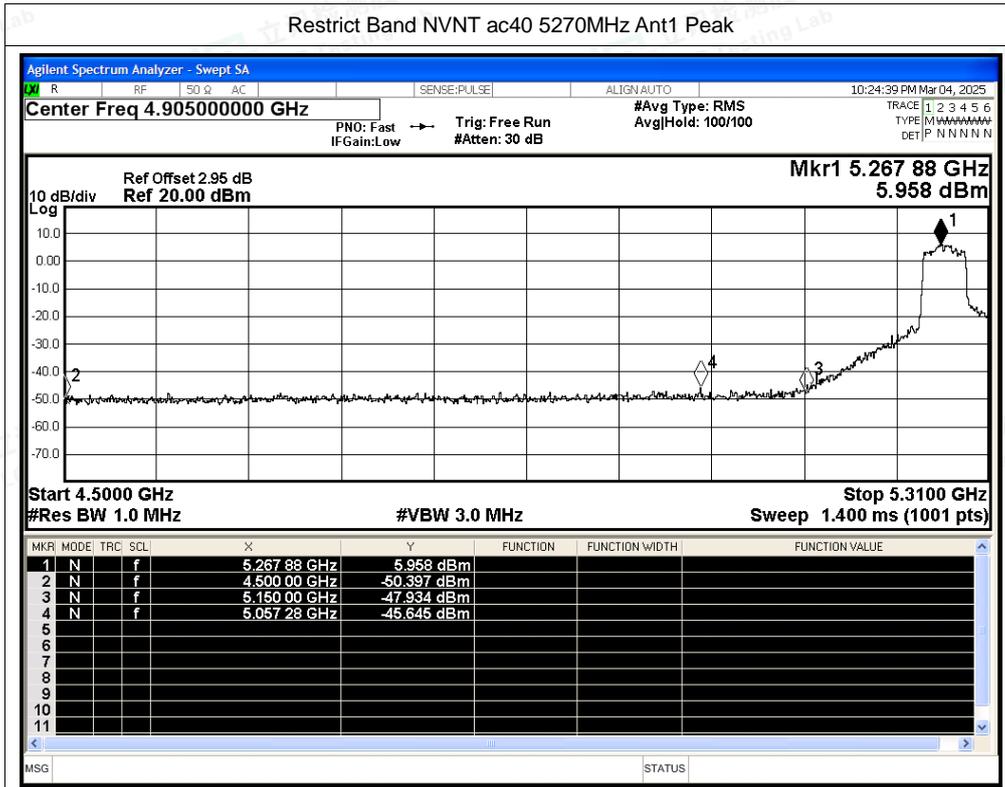


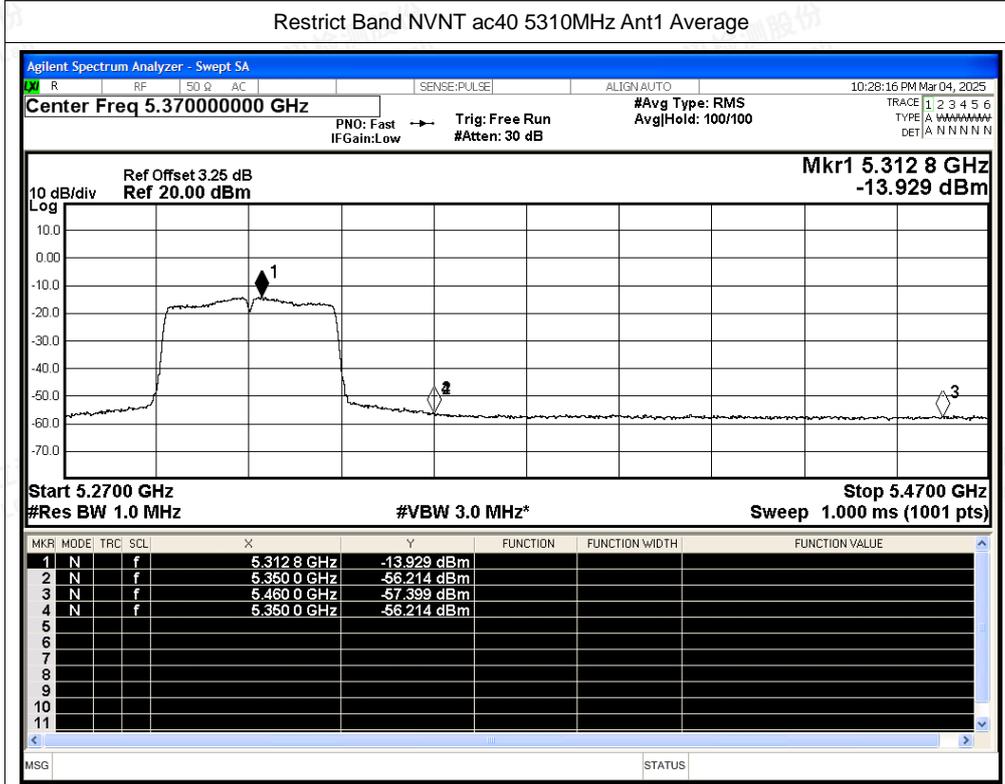
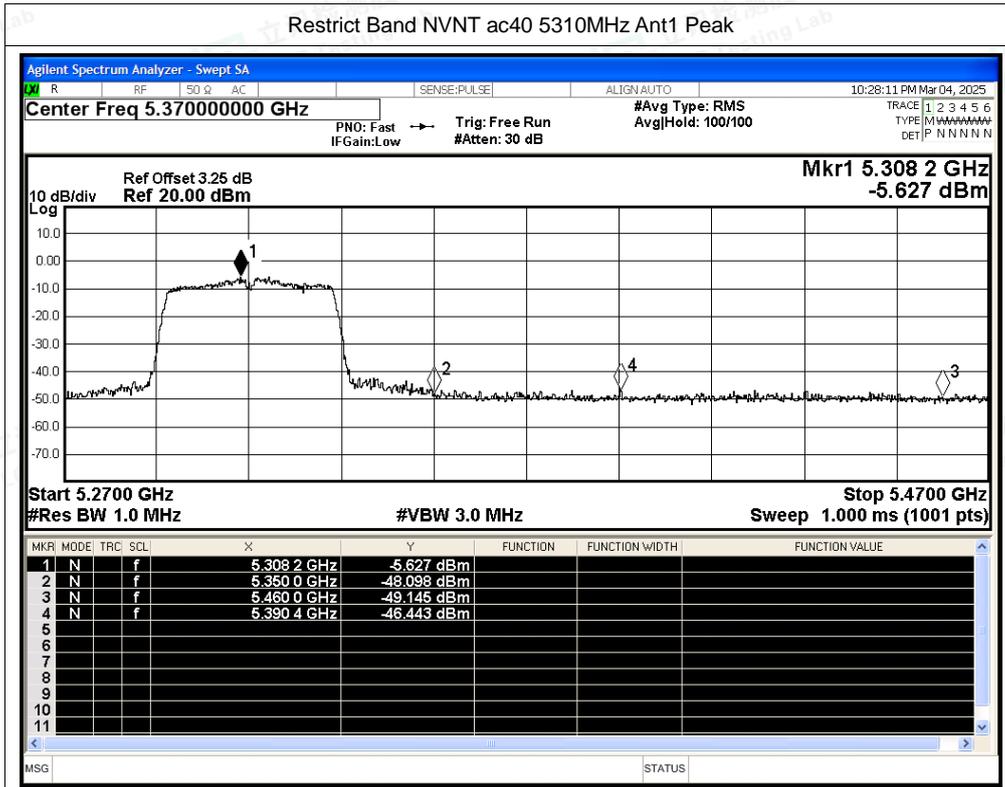


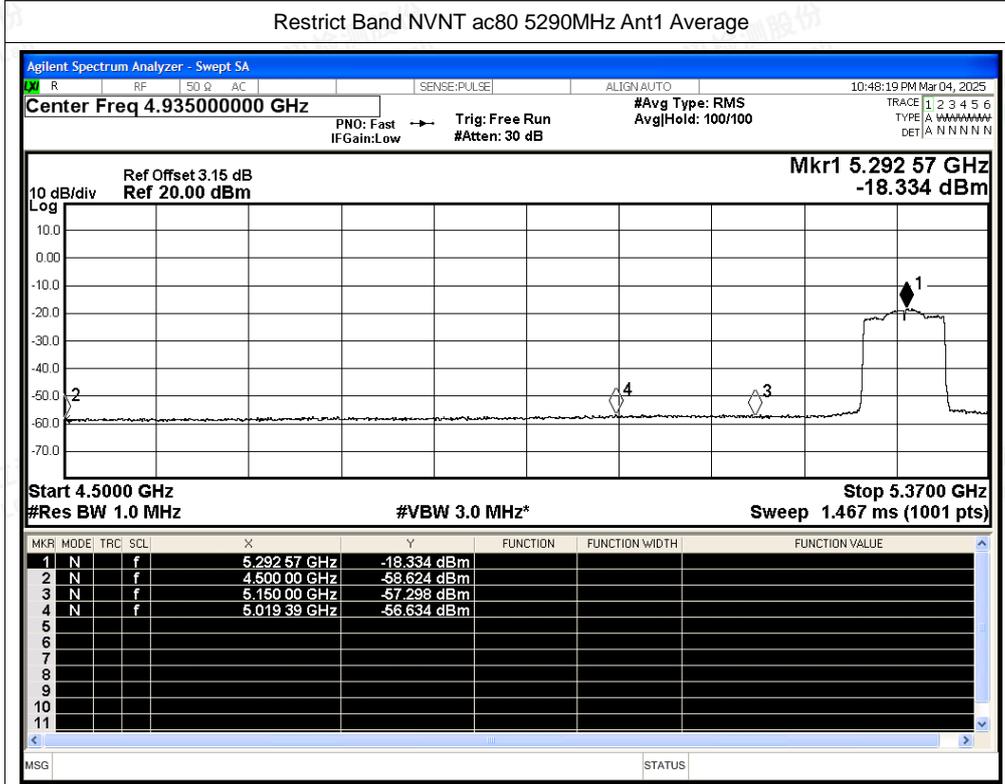
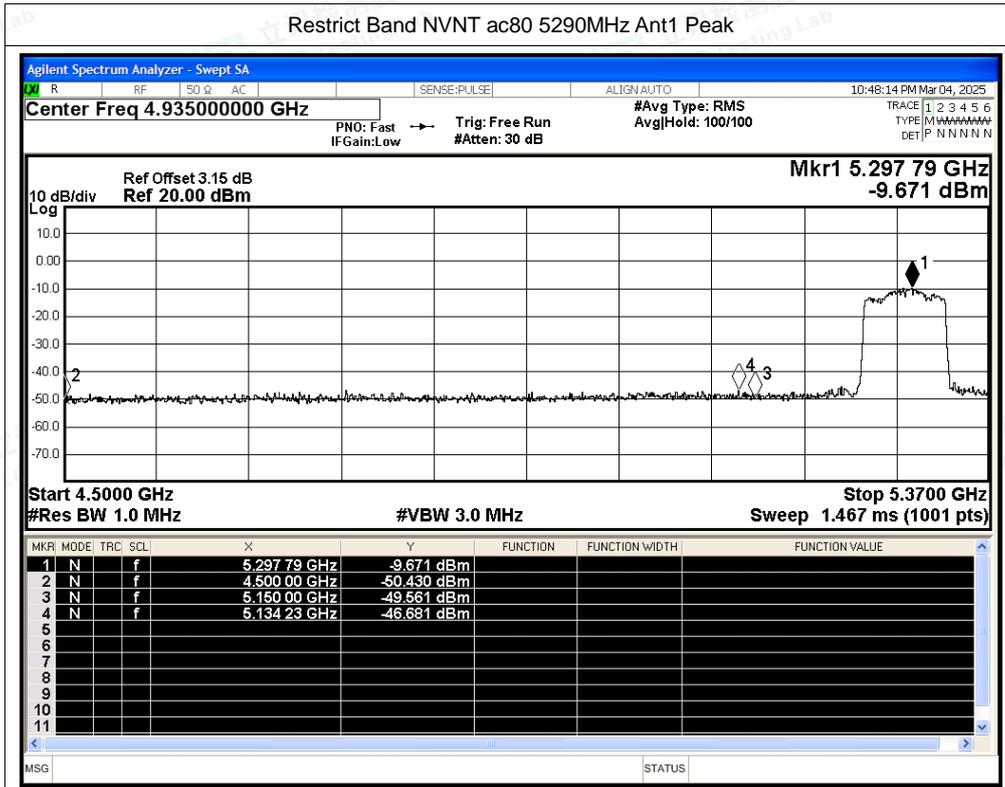


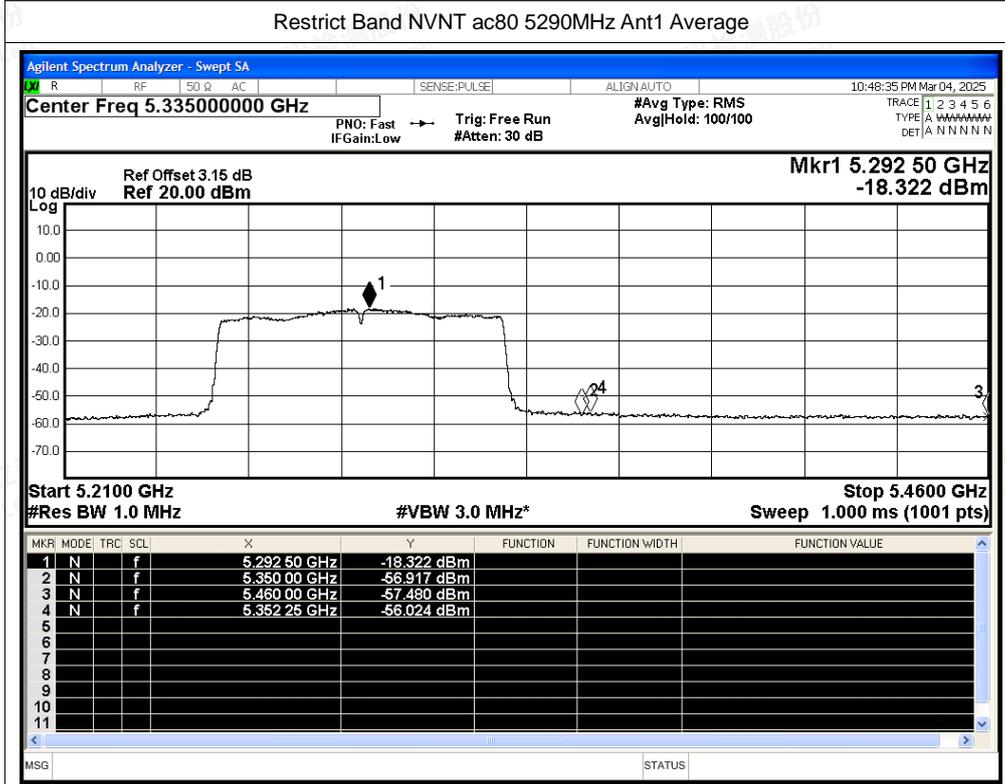
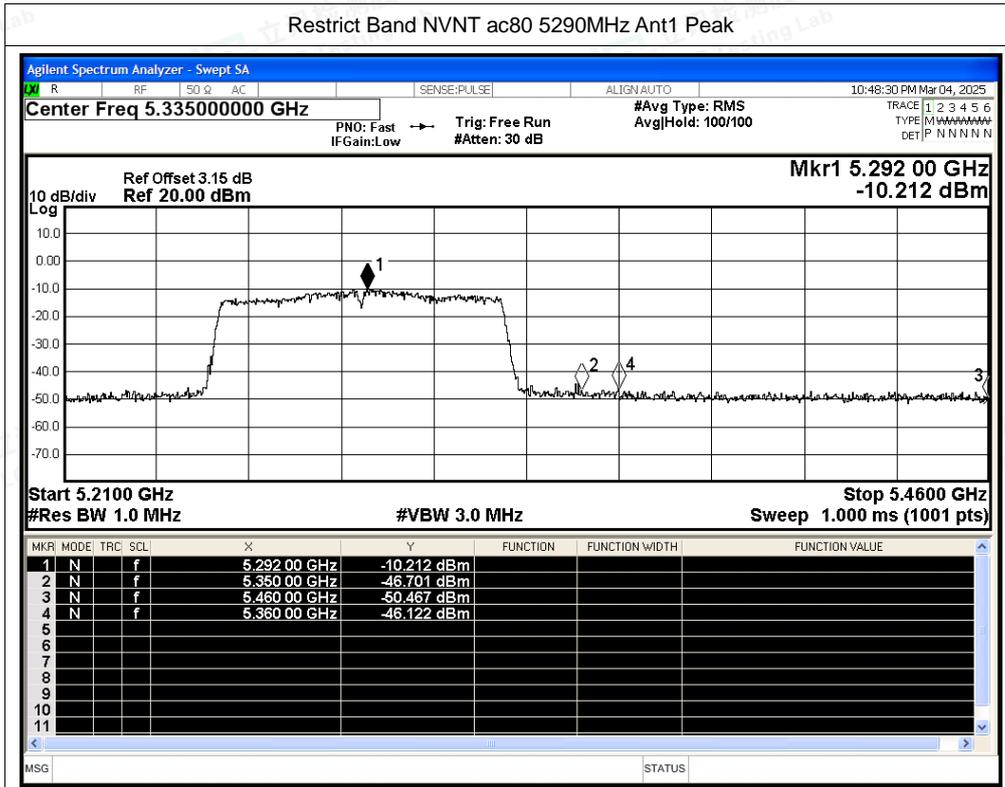








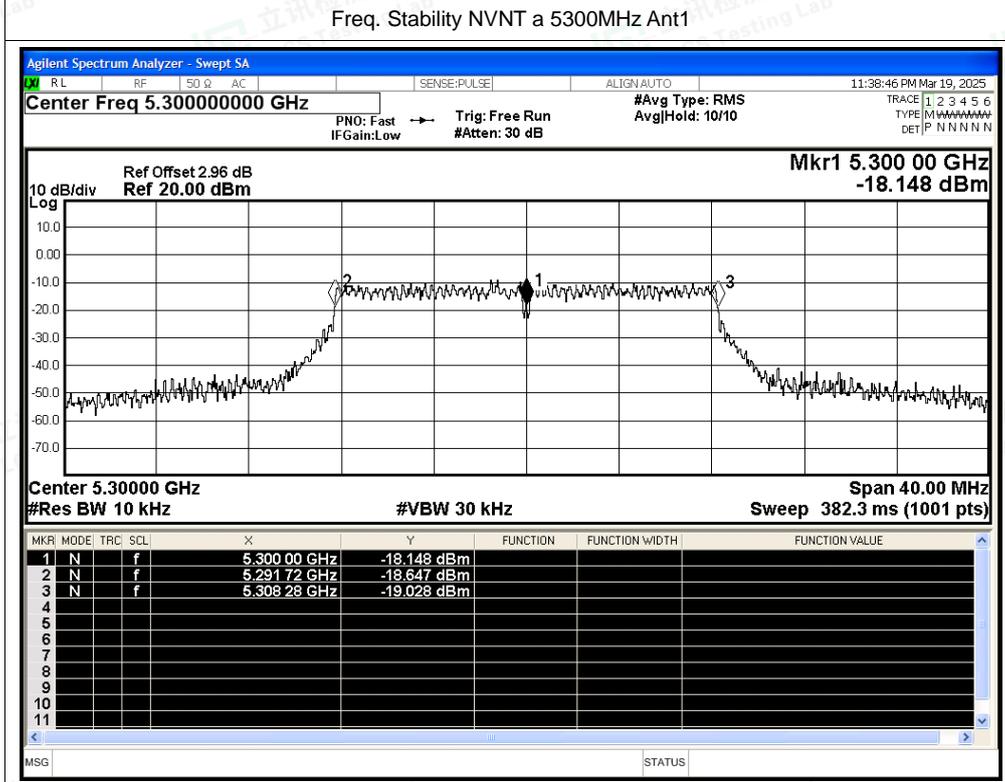
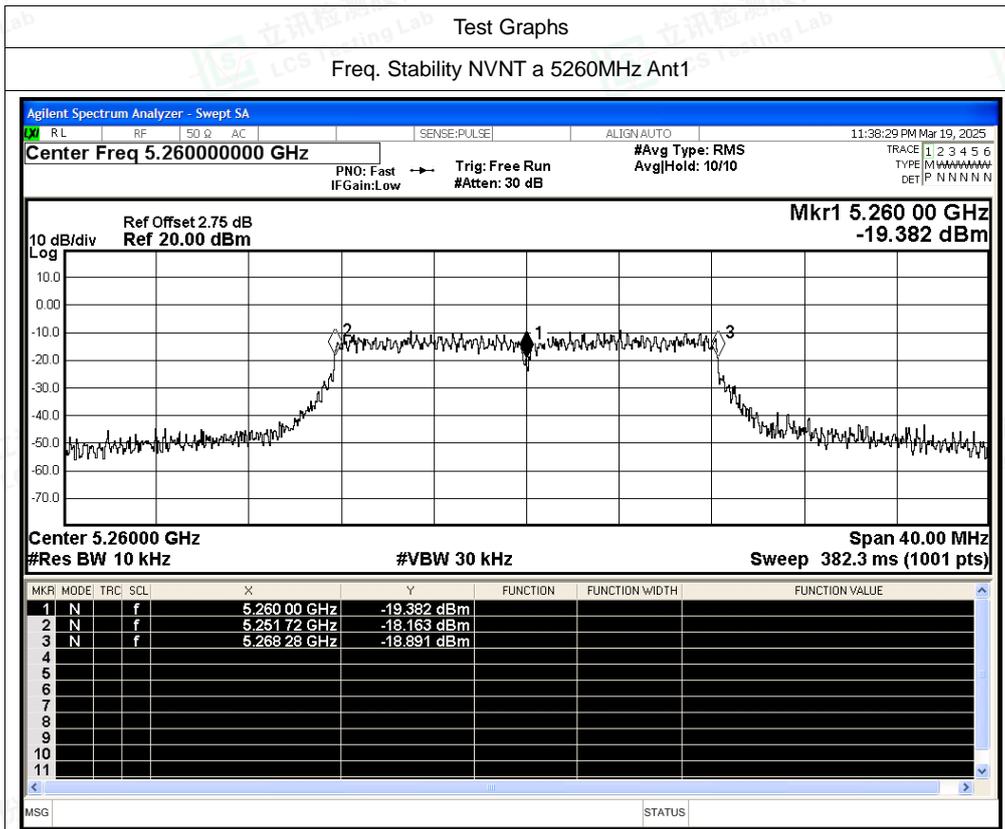




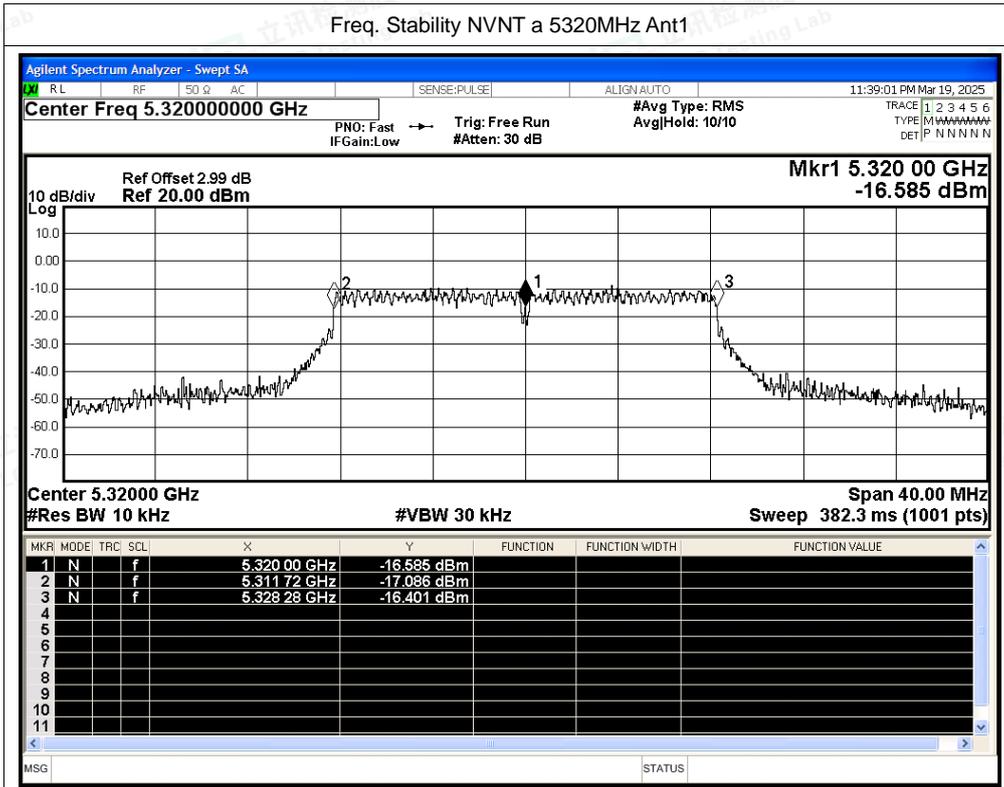
E.5 Frequency Stability

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
NVNT	ac20	5260	Ant1	5260	0	0	25	Pass
NVNT	ac20	5300	Ant1	5300	0	0	25	Pass
NVNT	ac20	5320	Ant1	5319.98	-20000	-3.76	25	Pass
NVNT	ac40	5270	Ant1	5270	0	0	25	Pass
NVNT	ac40	5310	Ant1	5310	0	0	25	Pass
NVNT	ac80	5290	Ant1	5290	0	0	25	Pass

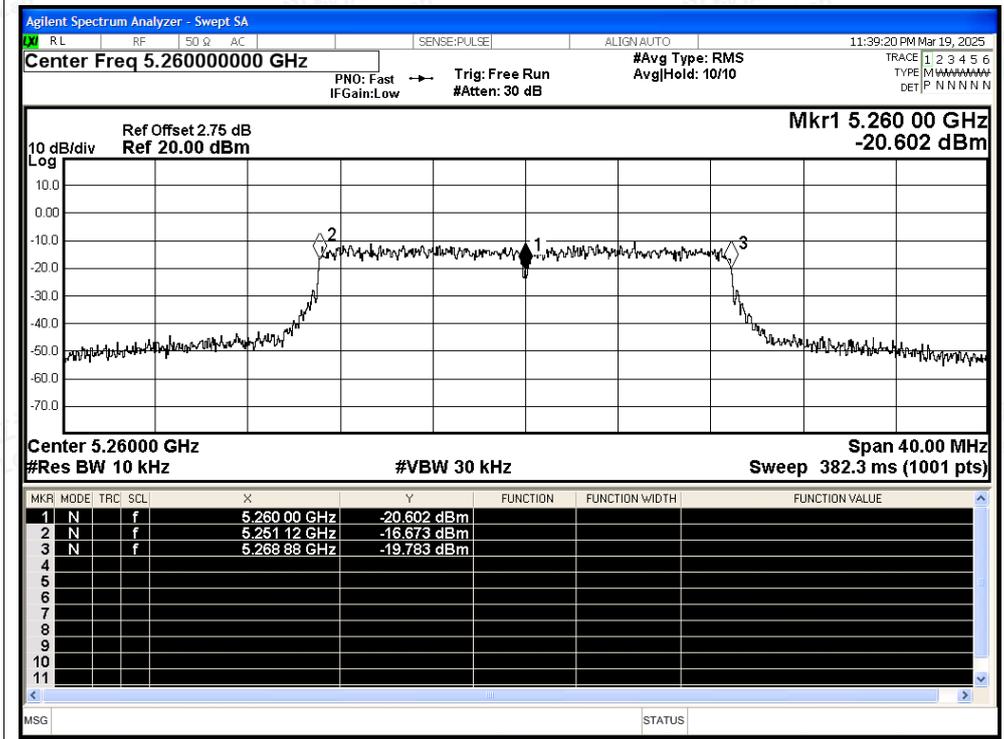


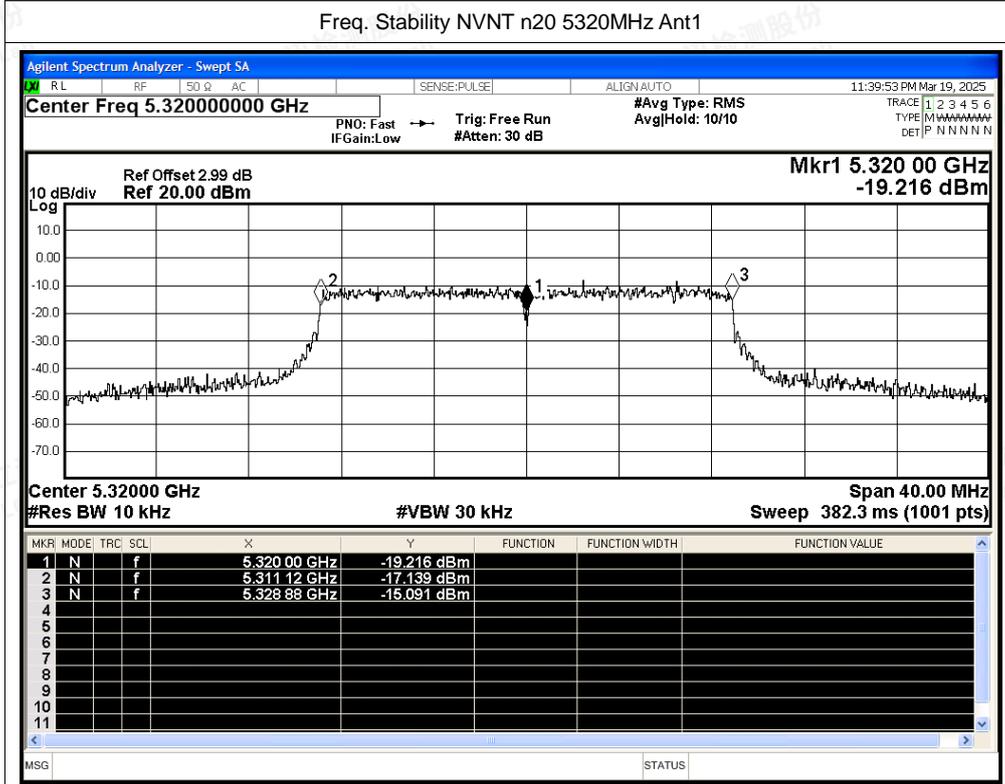
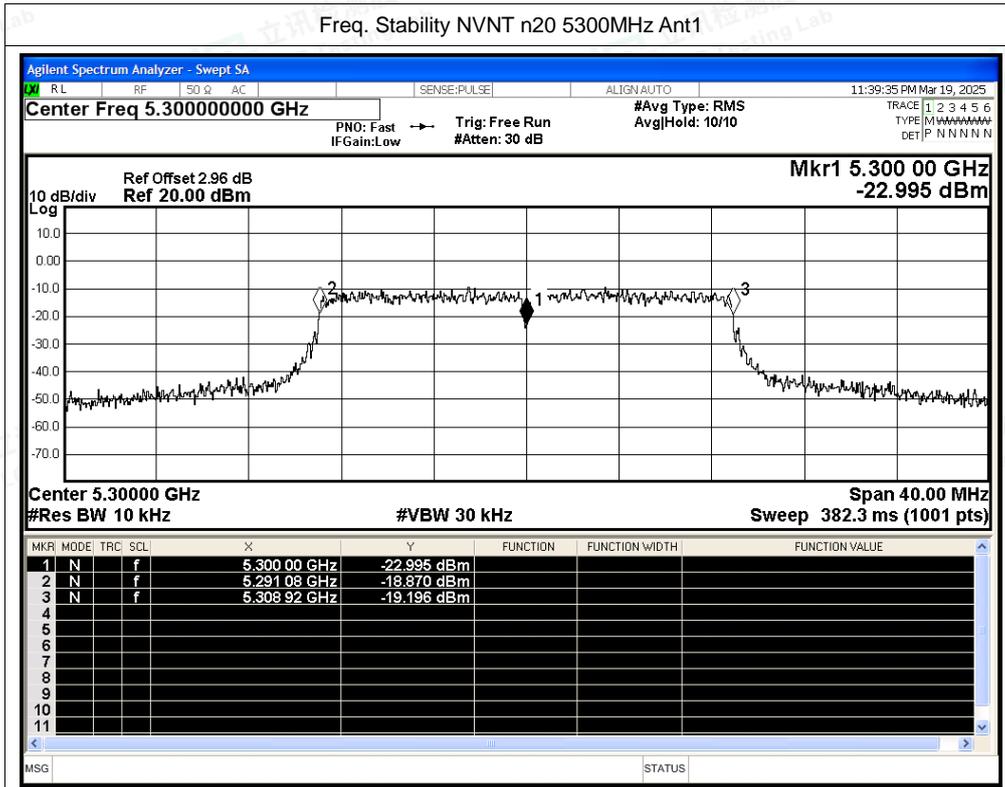


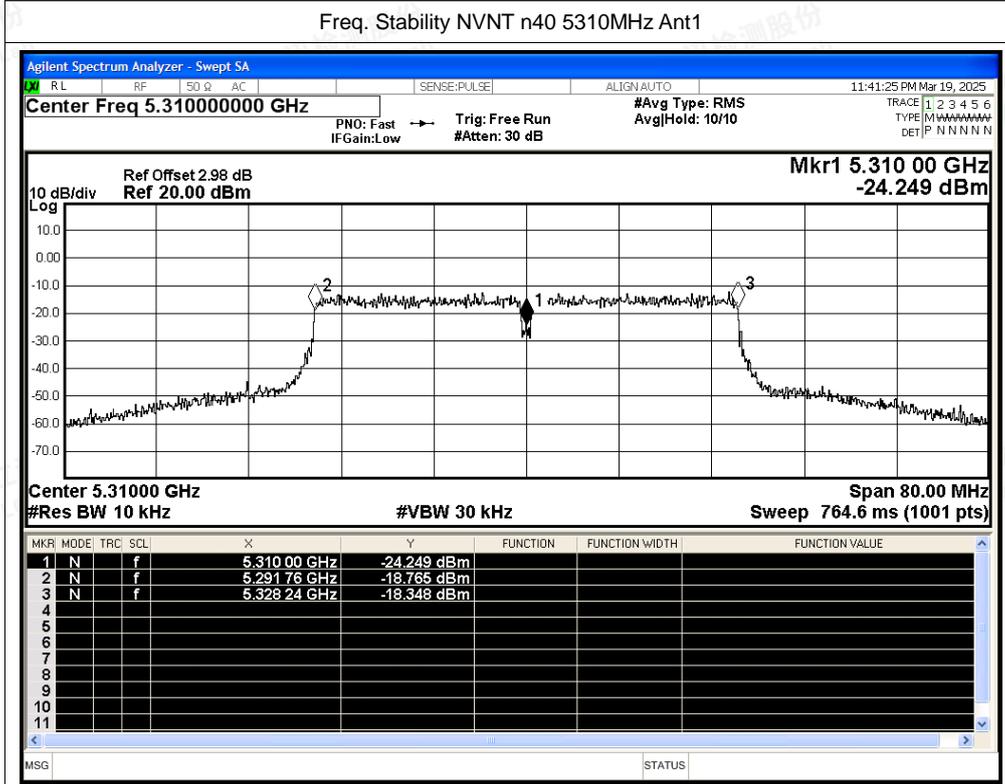
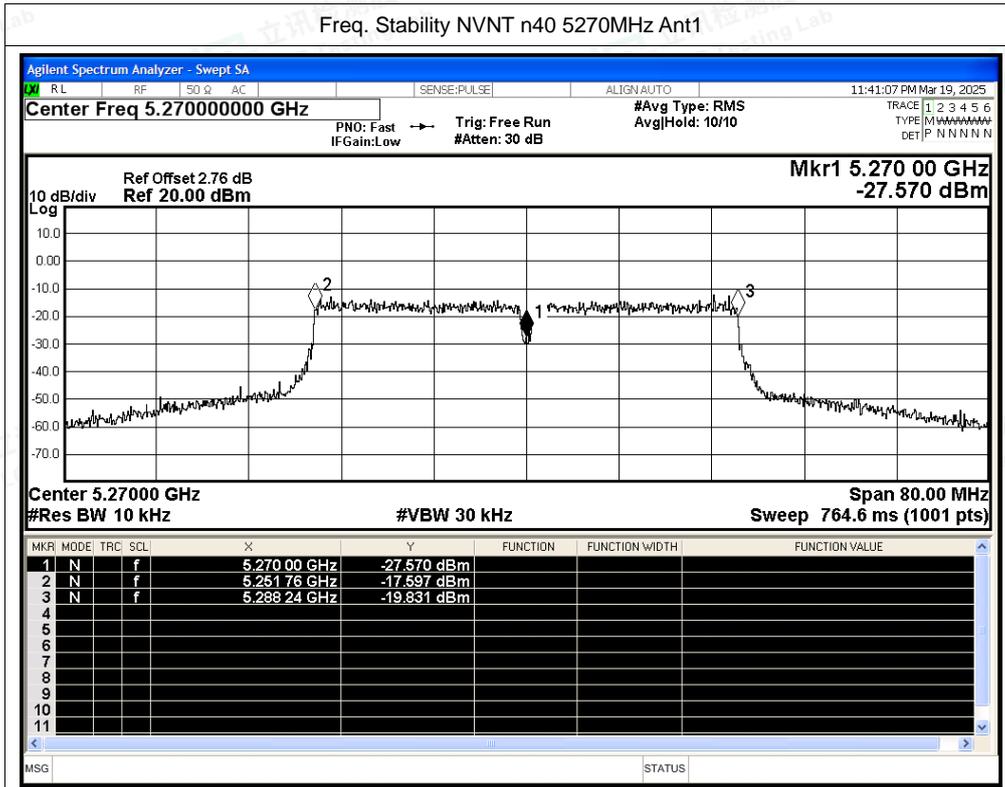
Freq. Stability NVNT a 5320MHz Ant1

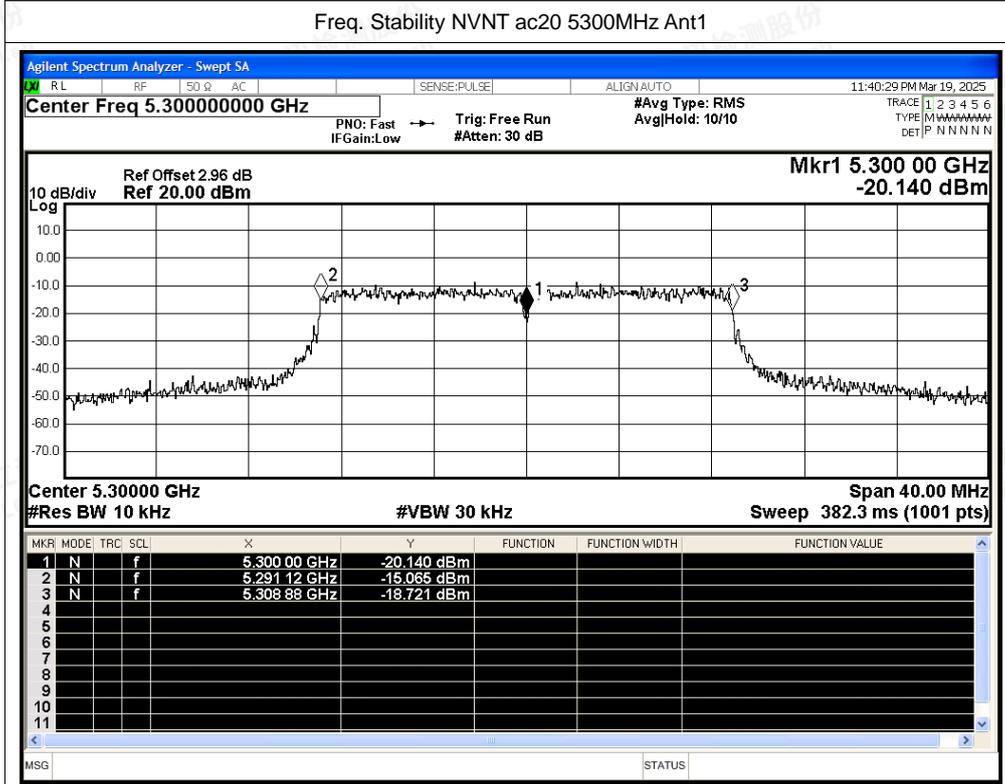
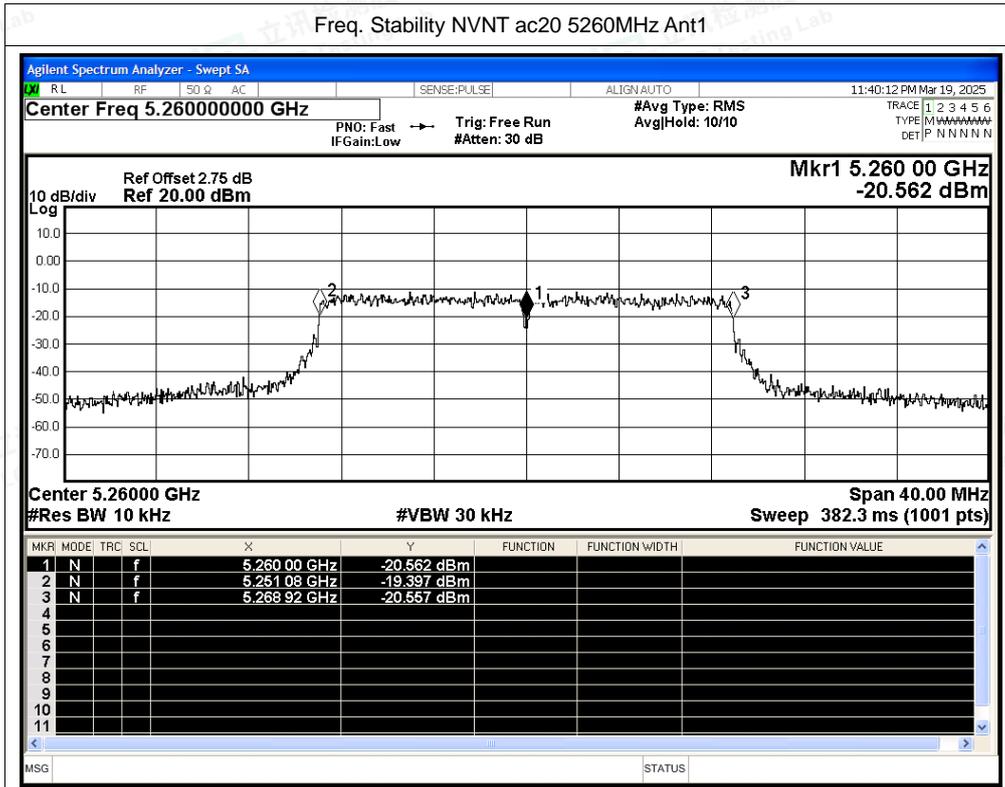


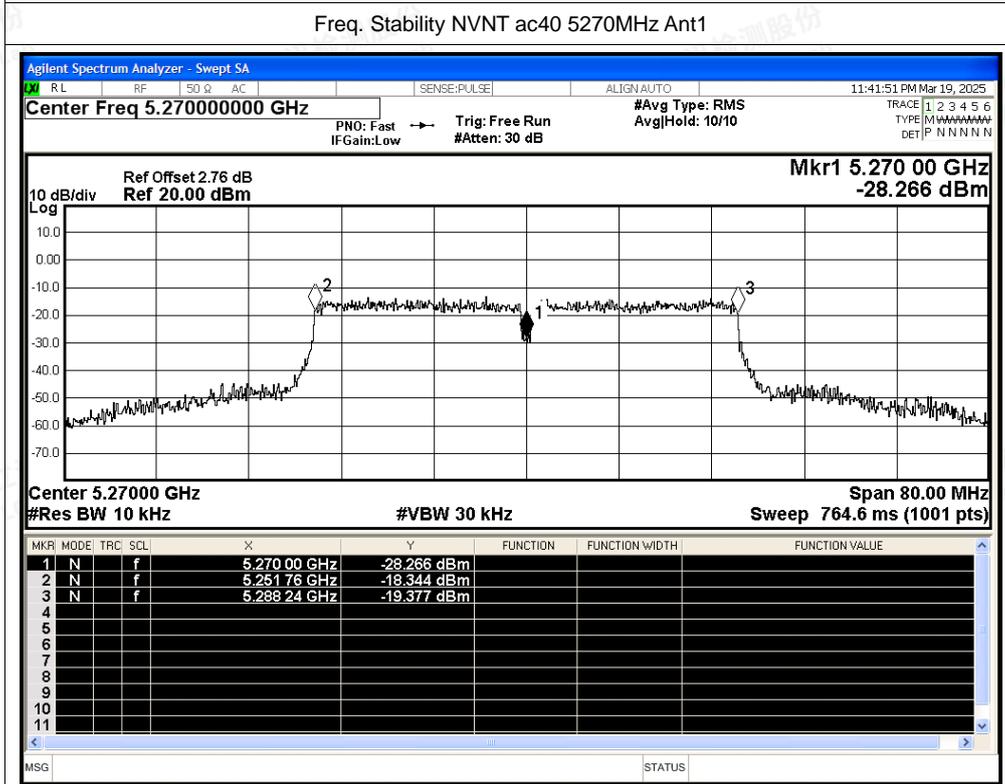
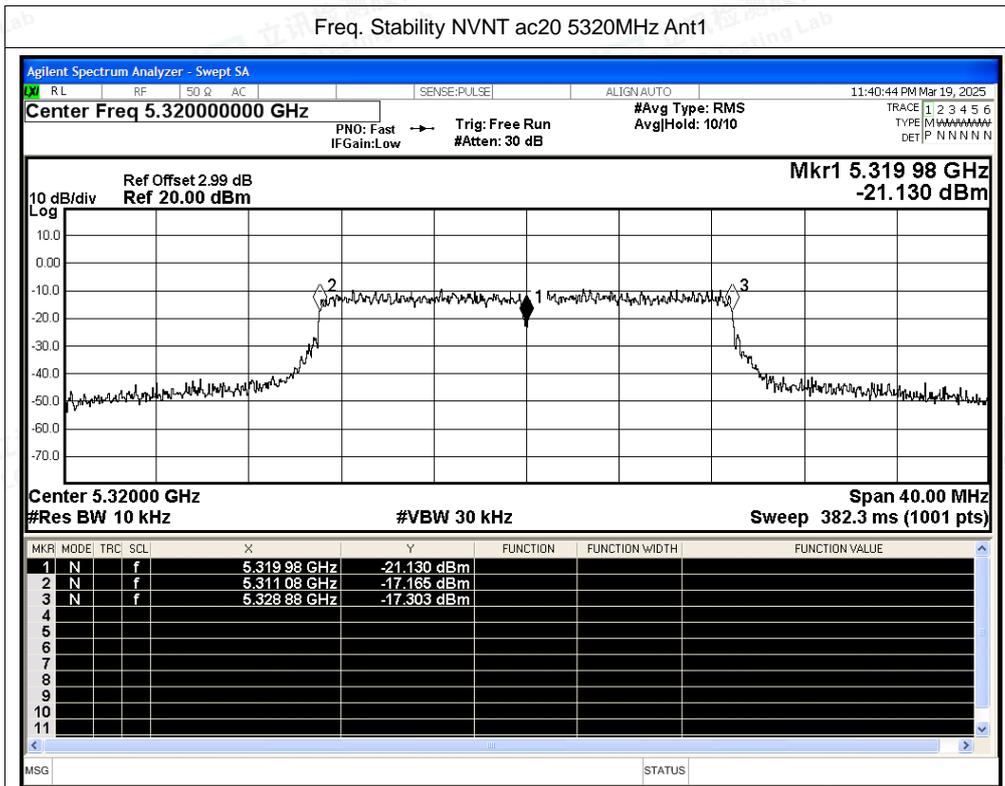
Freq. Stability NVNT n20 5260MHz Ant1



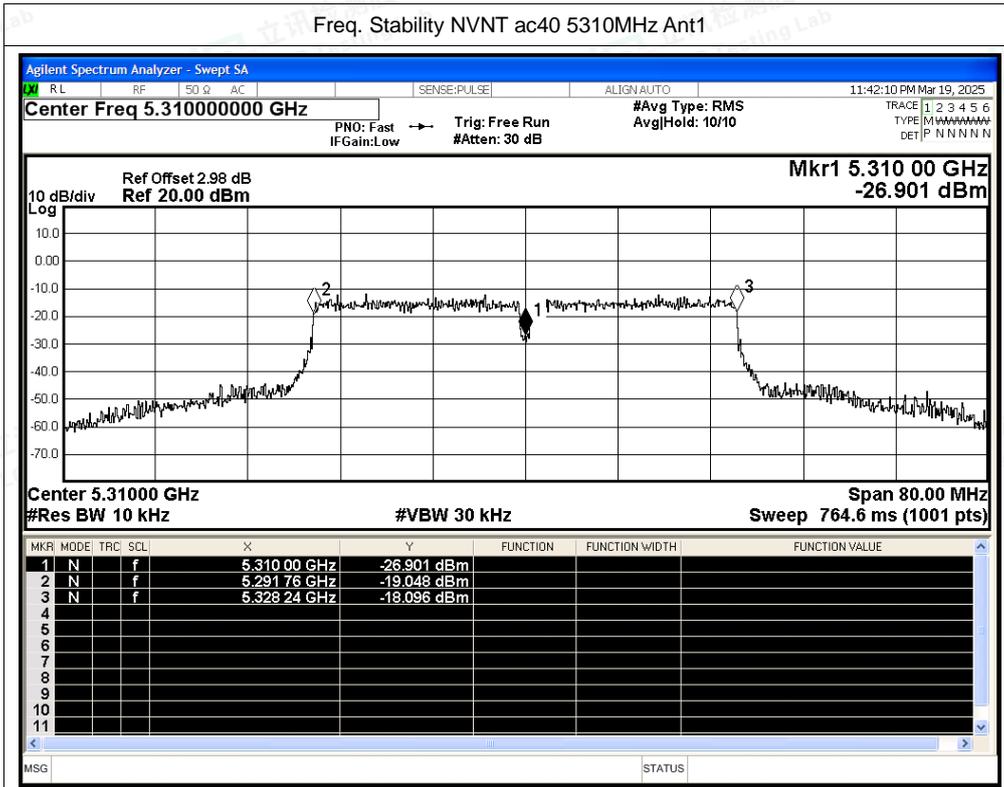




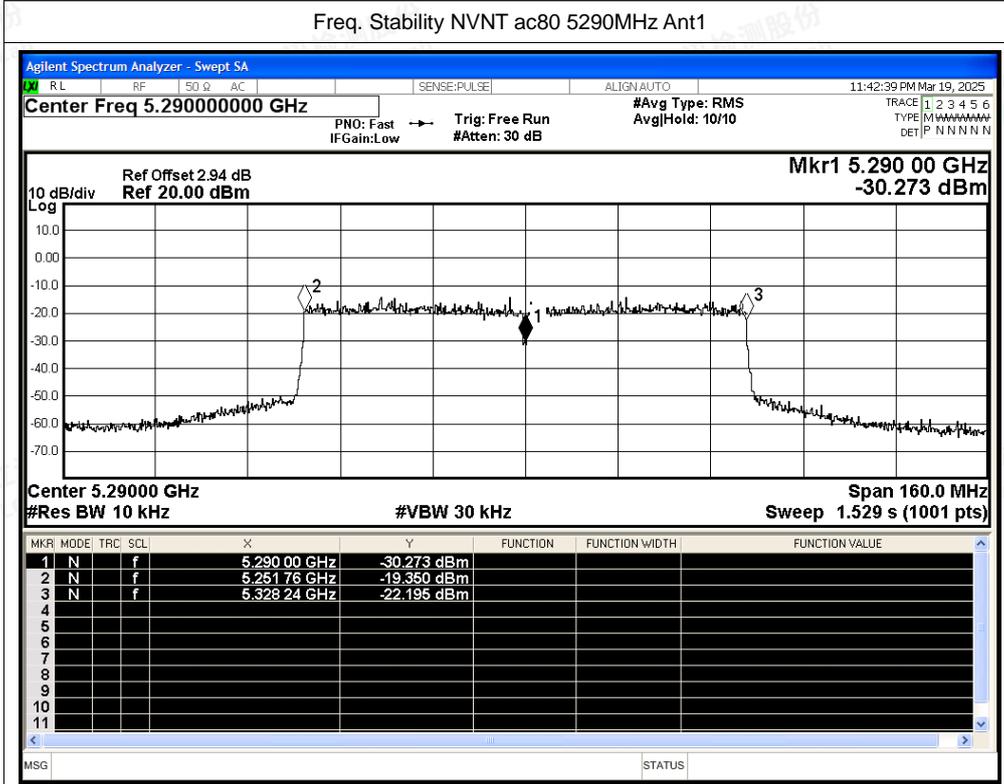




Freq. Stability NVNT ac40 5310MHz Ant1



Freq. Stability NVNT ac80 5290MHz Ant1



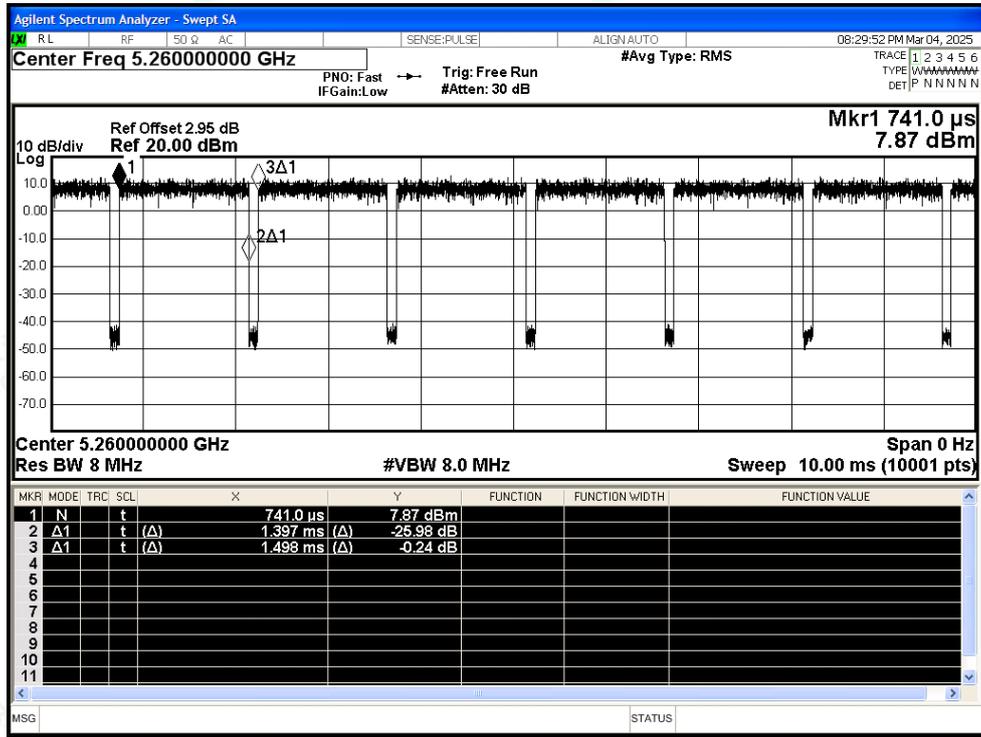
E.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5260	Ant1	93.26	0.3	0.72
NVNT	a	5300	Ant1	93.26	0.3	0.72
NVNT	a	5320	Ant1	93.25	0.3	0.72
NVNT	n20	5260	Ant1	92.84	0.32	0.76
NVNT	n20	5300	Ant1	92.84	0.32	0.76
NVNT	n20	5320	Ant1	92.84	0.32	0.76
NVNT	n40	5270	Ant1	94.63	0.24	1.53
NVNT	n40	5310	Ant1	94.34	0.25	1.54
NVNT	ac20	5260	Ant1	96.98	0.13	0.76
NVNT	ac20	5300	Ant1	96.98	0.13	0.76
NVNT	ac20	5320	Ant1	96.98	0.13	0.76
NVNT	ac40	5270	Ant1	94.27	0.26	1.52
NVNT	ac40	5310	Ant1	94.26	0.26	1.52
NVNT	ac80	5290	Ant1	89.32	0.49	3.07

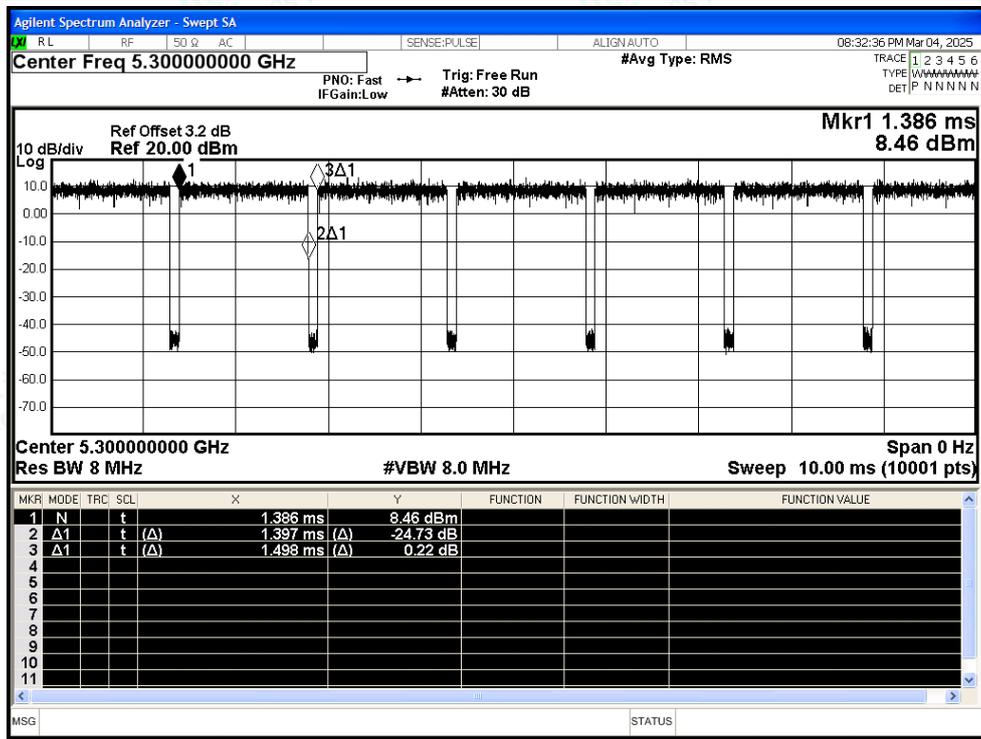


Test Graphs

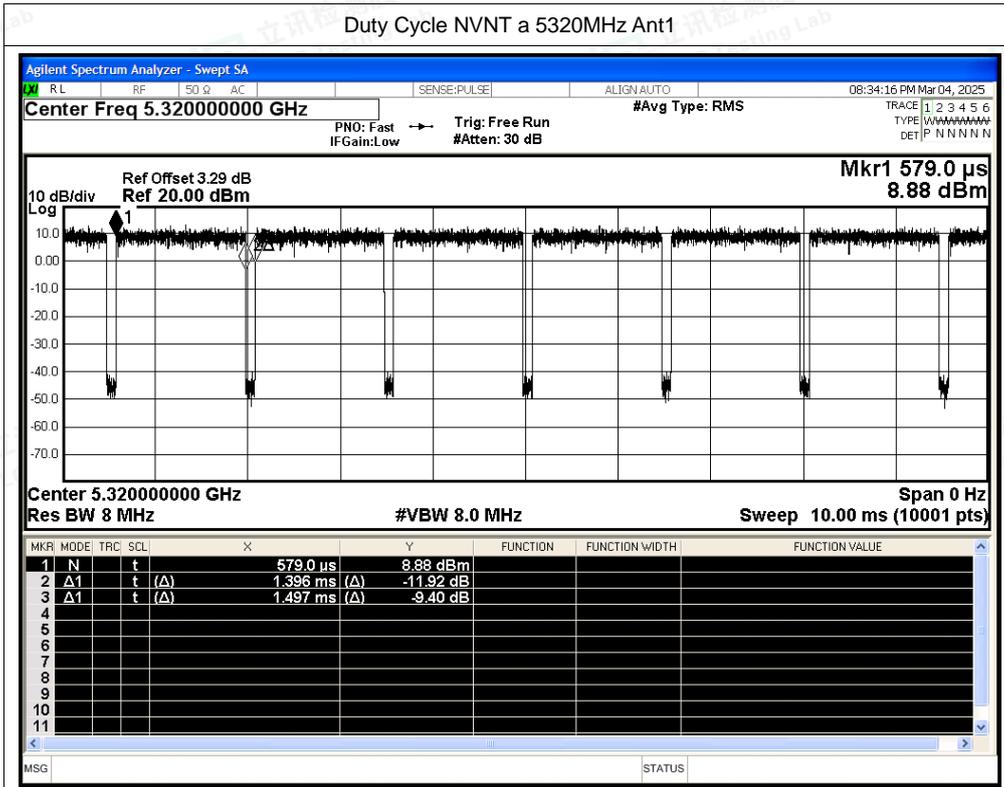
Duty Cycle NVNT a 5260MHz Ant1



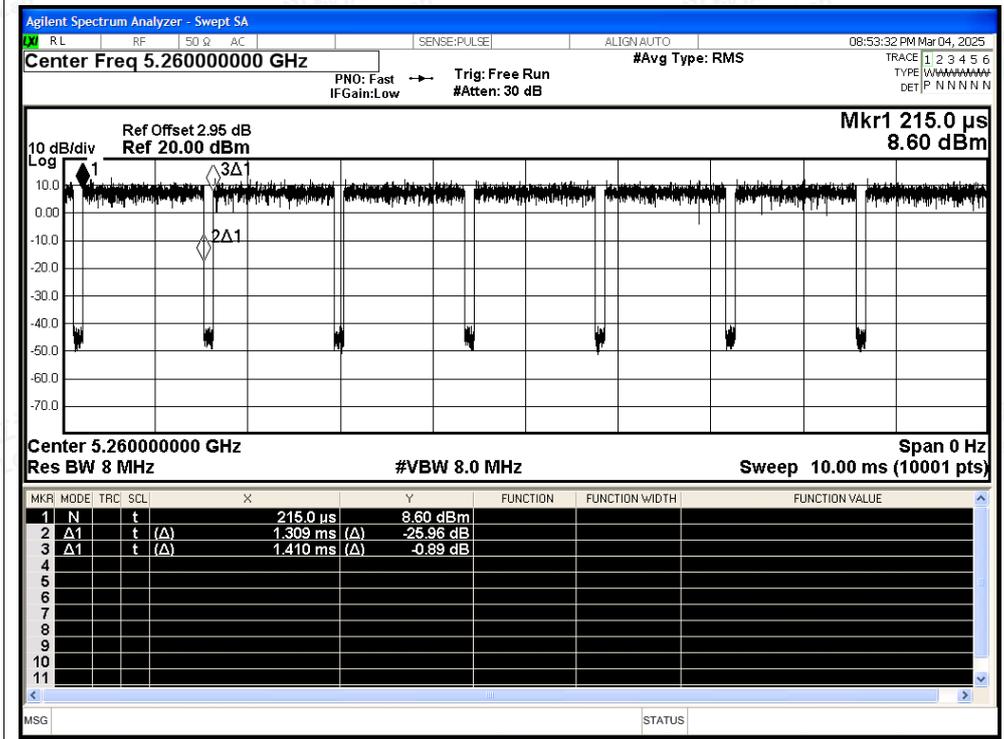
Duty Cycle NVNT a 5300MHz Ant1

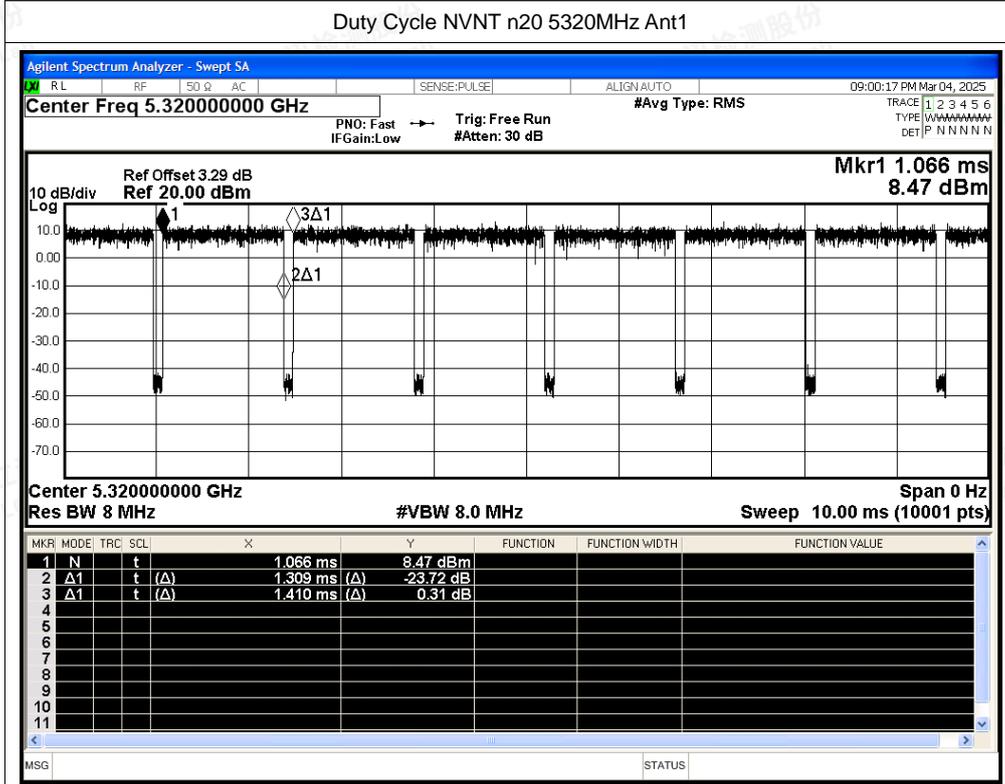
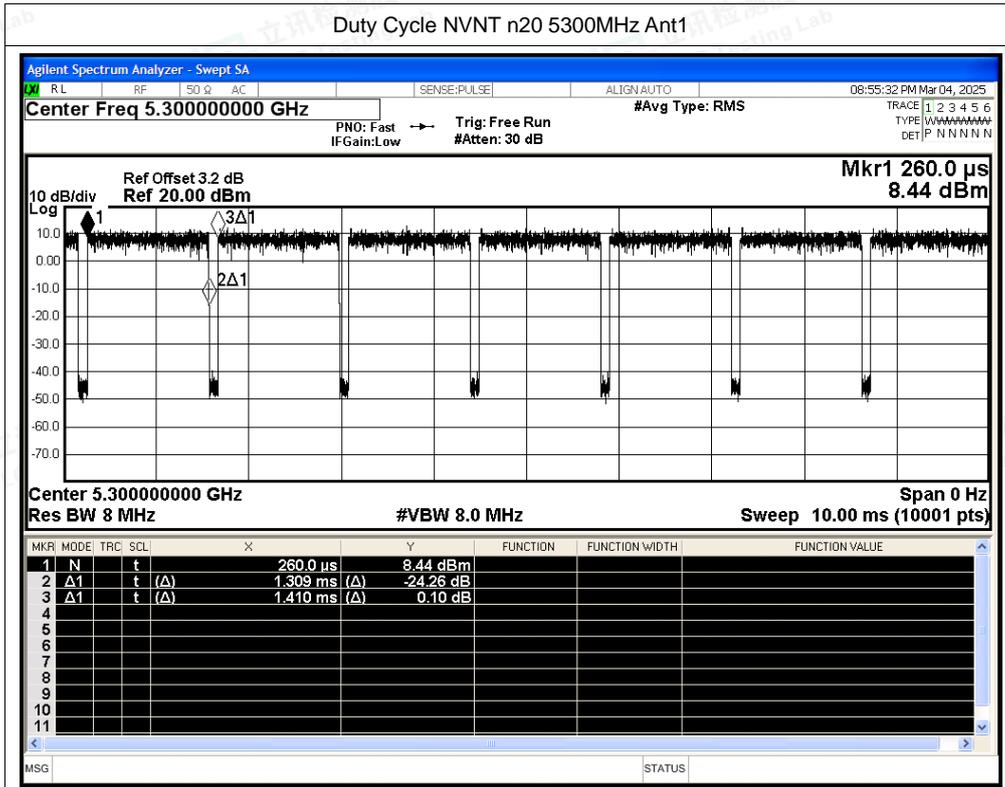


Duty Cycle NVNT a 5320MHz Ant1

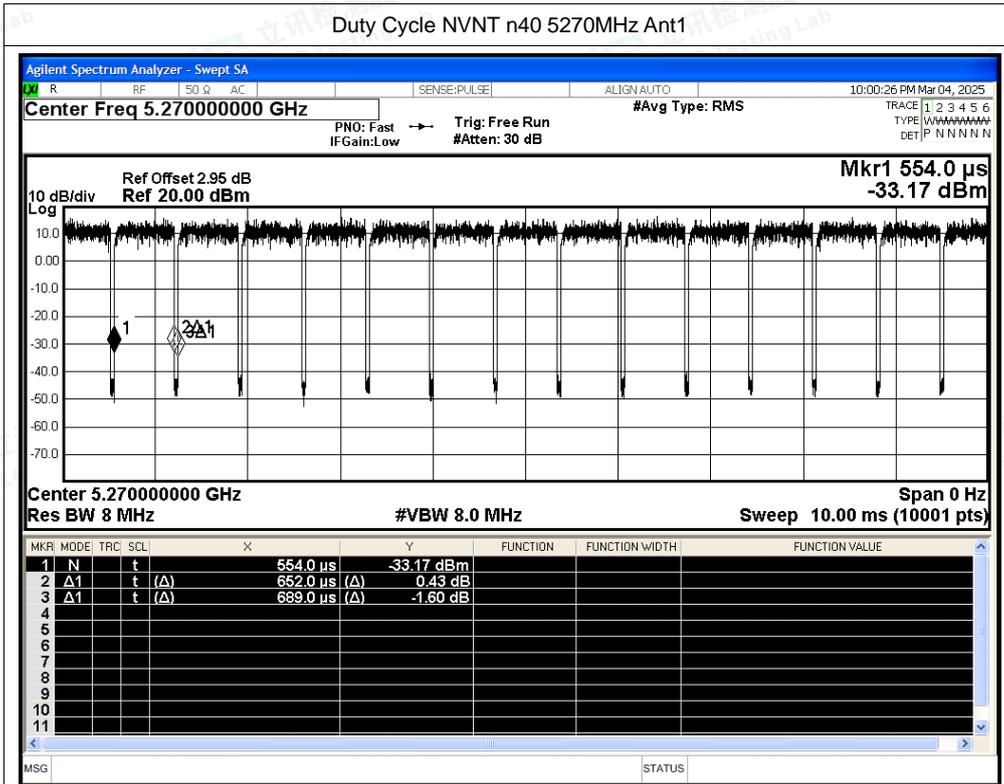


Duty Cycle NVNT n20 5260MHz Ant1

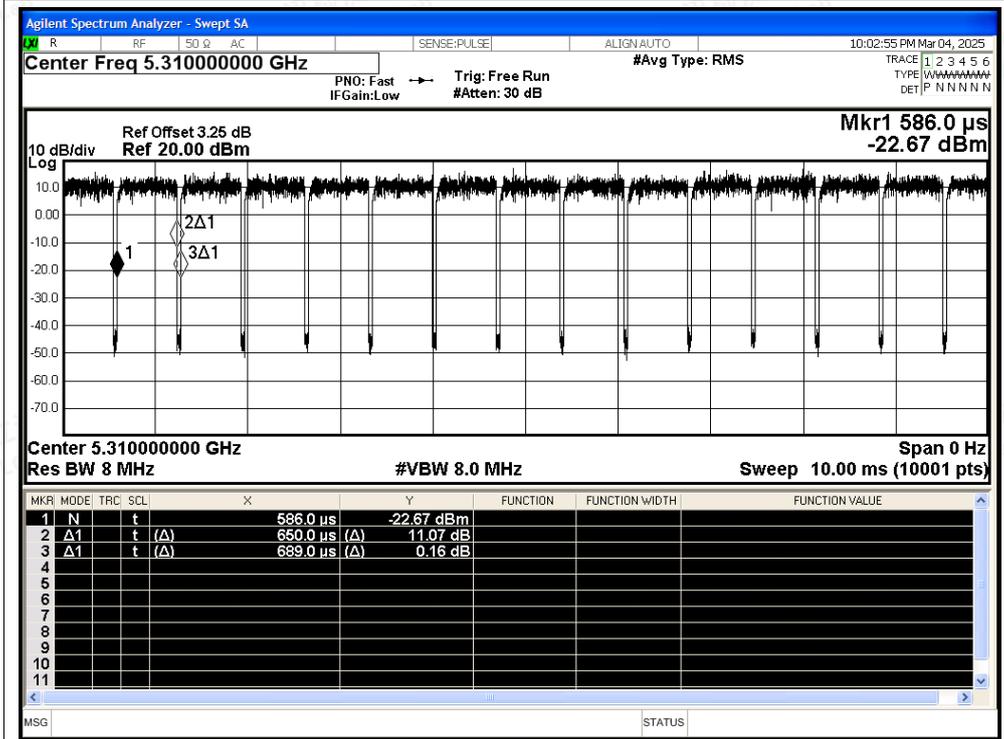


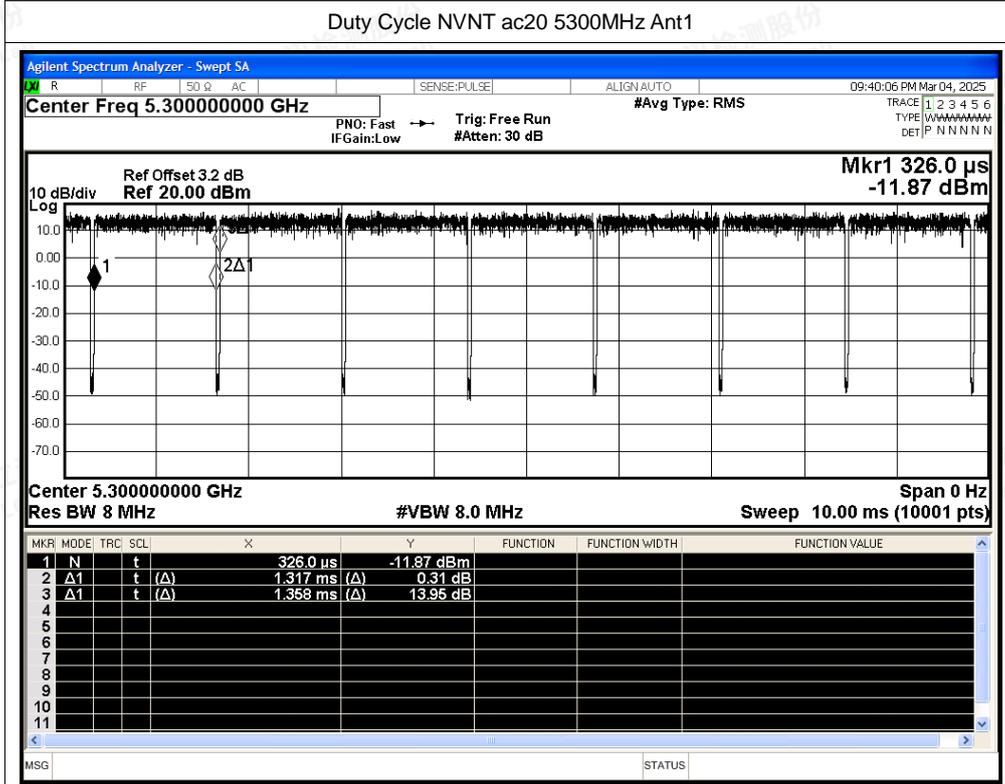
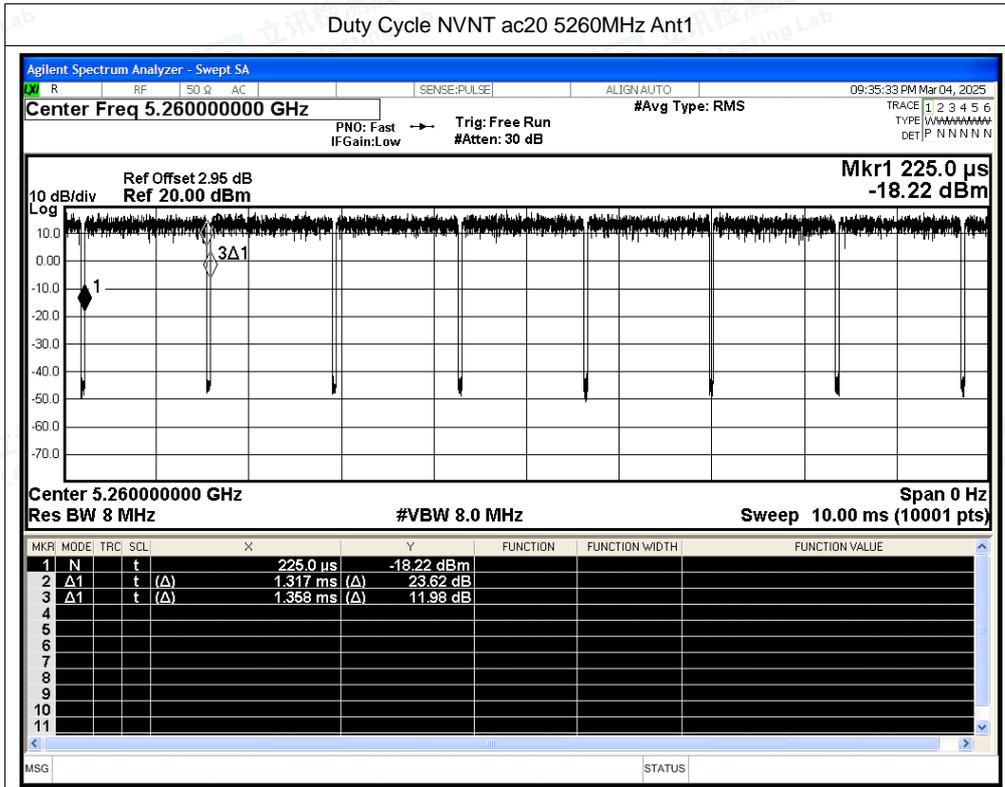


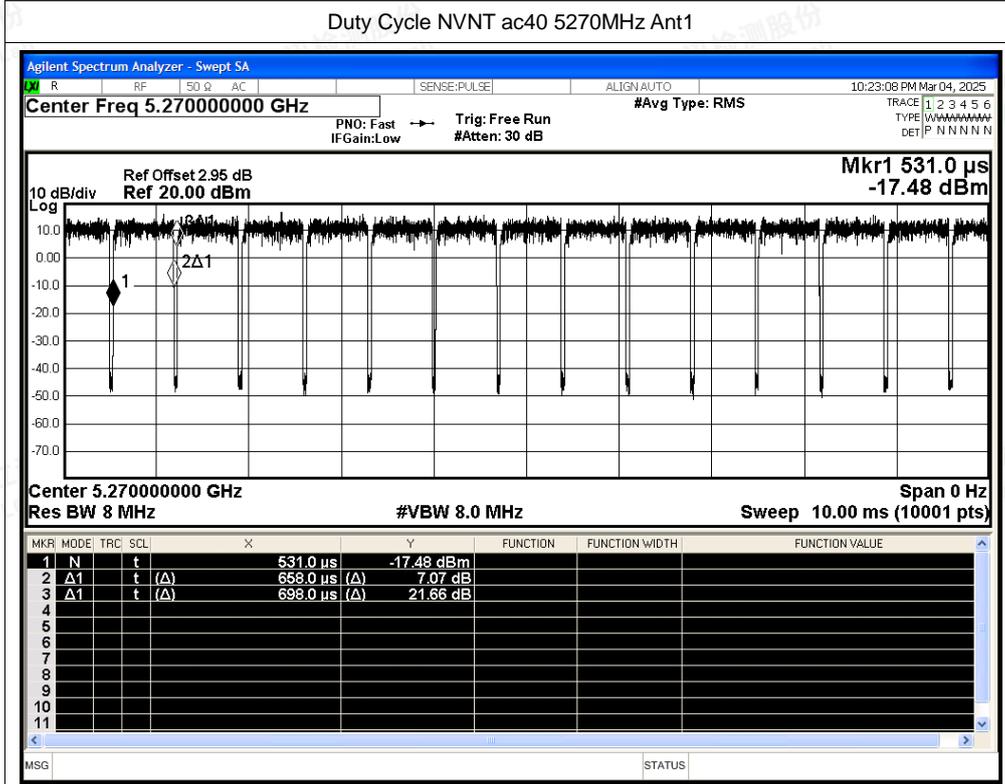
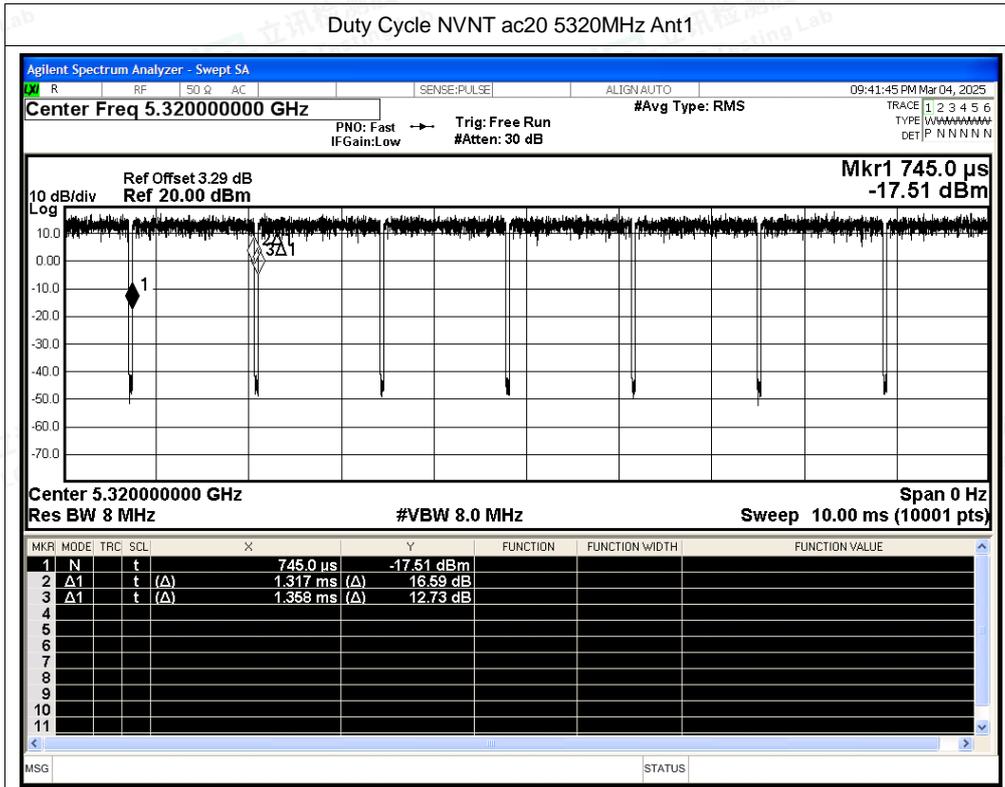
Duty Cycle NVNT n40 5270MHz Ant1

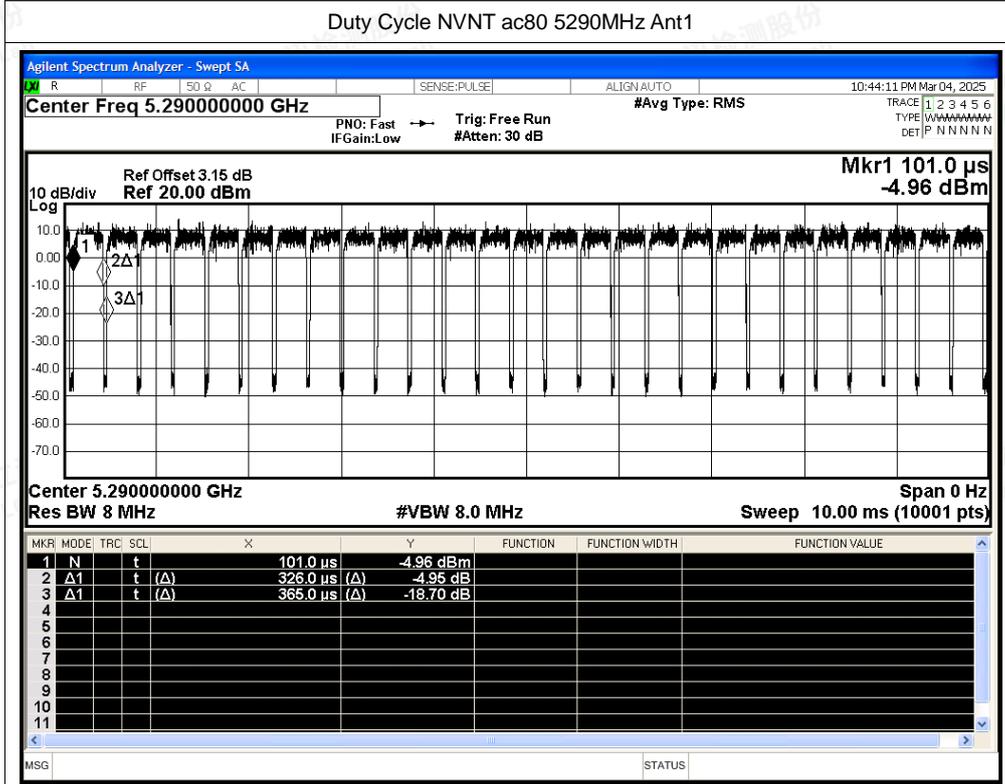
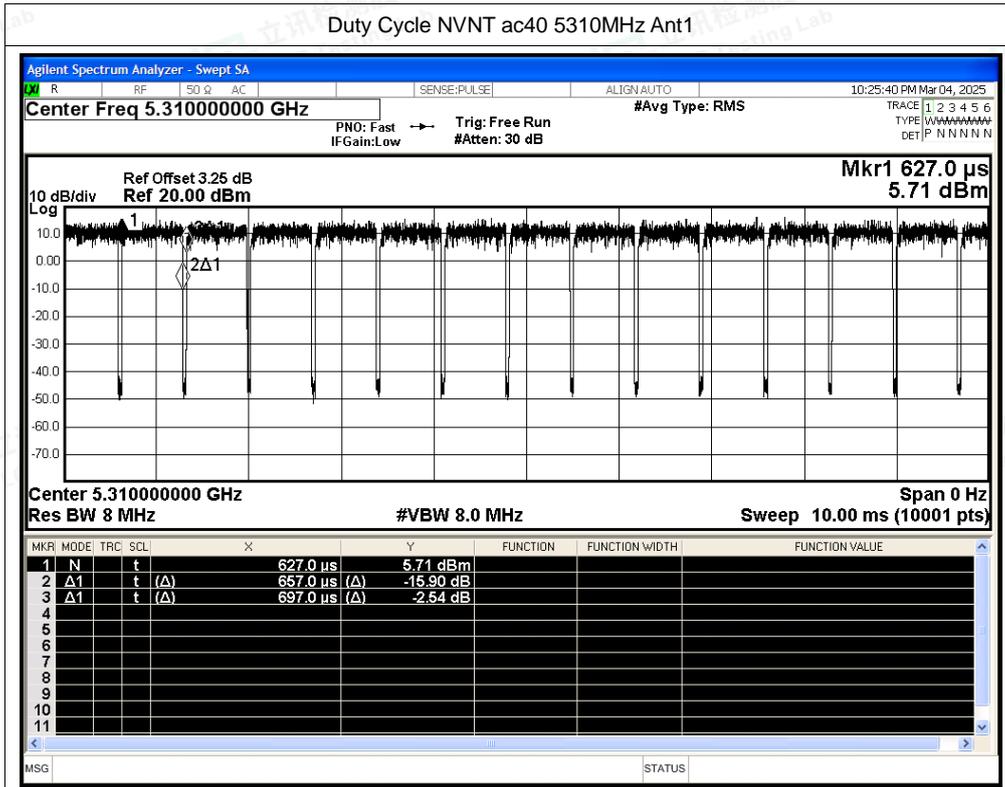


Duty Cycle NVNT n40 5310MHz Ant1











Shenzhen LCS Compliance Testing Laboratory Ltd.
 Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street,
 Baoan District, Shenzhen, 518000, China
 Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
 Scan code to check authenticity