



## Appendix E

### RF Test Data for 5.3GWIFI (Conducted Measurement)

Product Name: Smart Diagnostic System

Test Model: P902

#### Environmental Conditions

Temperature:	23.8 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Joker Hu
Supervised by:	Jack Cheng





### E.1 -26dB Bandwidth

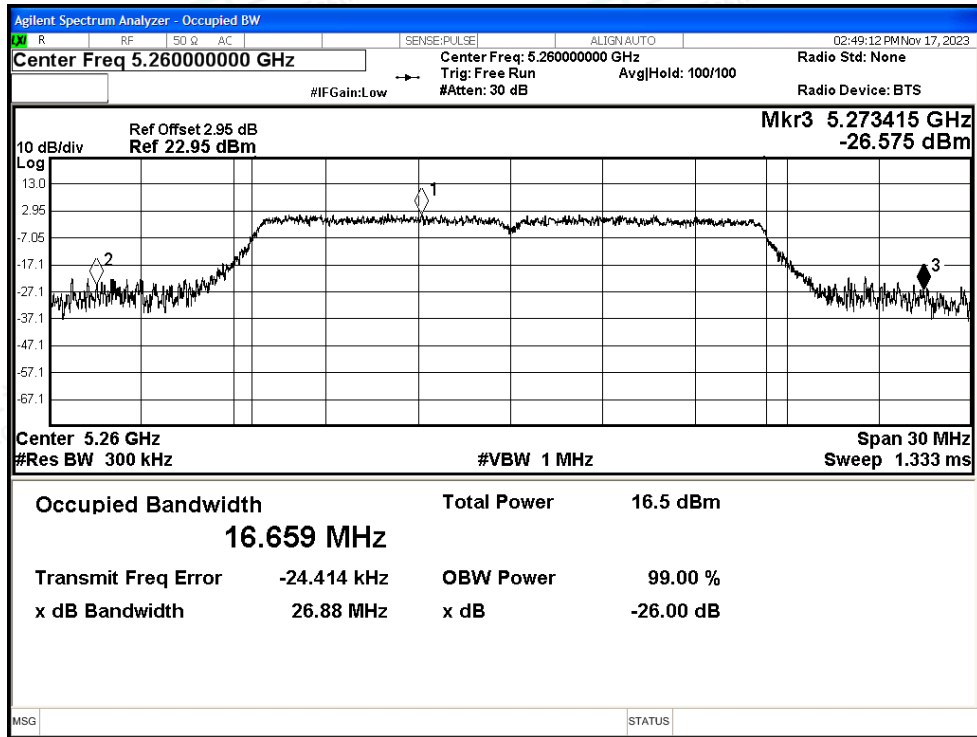
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5260	Ant0	26.879	>=0.5	Pass
NVNT	a	5300	Ant0	27.279	>=0.5	Pass
NVNT	a	5320	Ant0	26.182	>=0.5	Pass
NVNT	n20	5260	Ant0	27.716	>=0.5	Pass
NVNT	n20	5300	Ant0	29.54	>=0.5	Pass
NVNT	n20	5320	Ant0	28.094	>=0.5	Pass
NVNT	n40	5270	Ant0	39.076	>=0.5	Pass
NVNT	n40	5310	Ant0	42.992	>=0.5	Pass
NVNT	ac20	5260	Ant0	27.142	>=0.5	Pass
NVNT	ac20	5300	Ant0	27.873	>=0.5	Pass
NVNT	ac20	5320	Ant0	27.084	>=0.5	Pass
NVNT	ac40	5270	Ant0	39.084	>=0.5	Pass
NVNT	ac40	5310	Ant0	39.747	>=0.5	Pass
NVNT	ac80	5290	Ant0	78.356	>=0.5	Pass



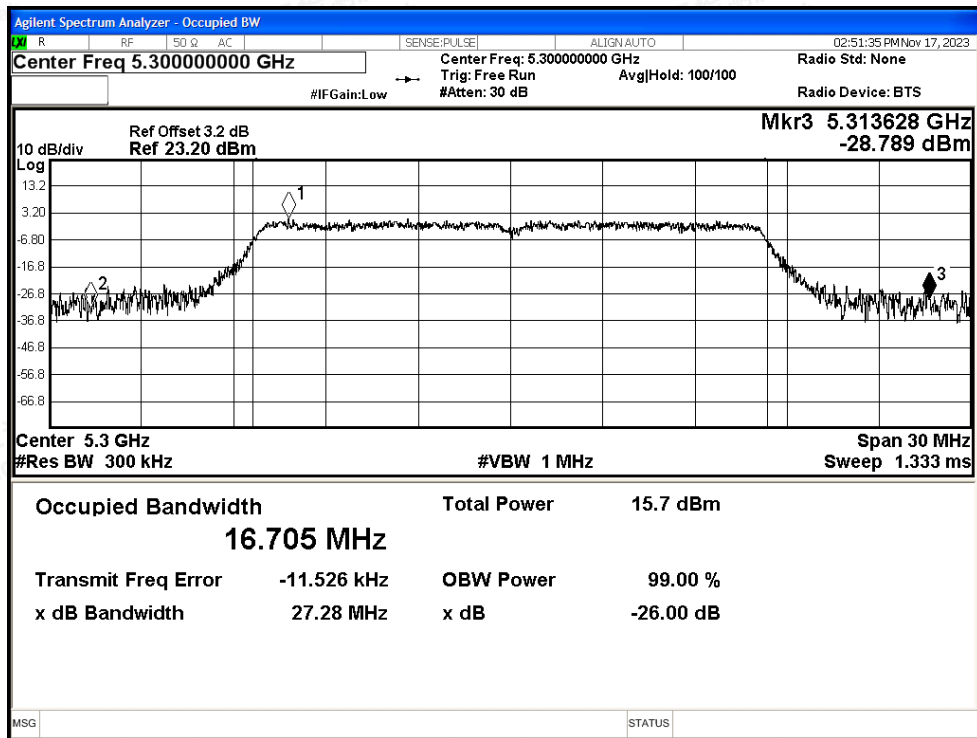


Test Graphs

-26dB Bandwidth NVNT a 5260MHz Ant0



-26dB Bandwidth NVNT a 5300MHz Ant0



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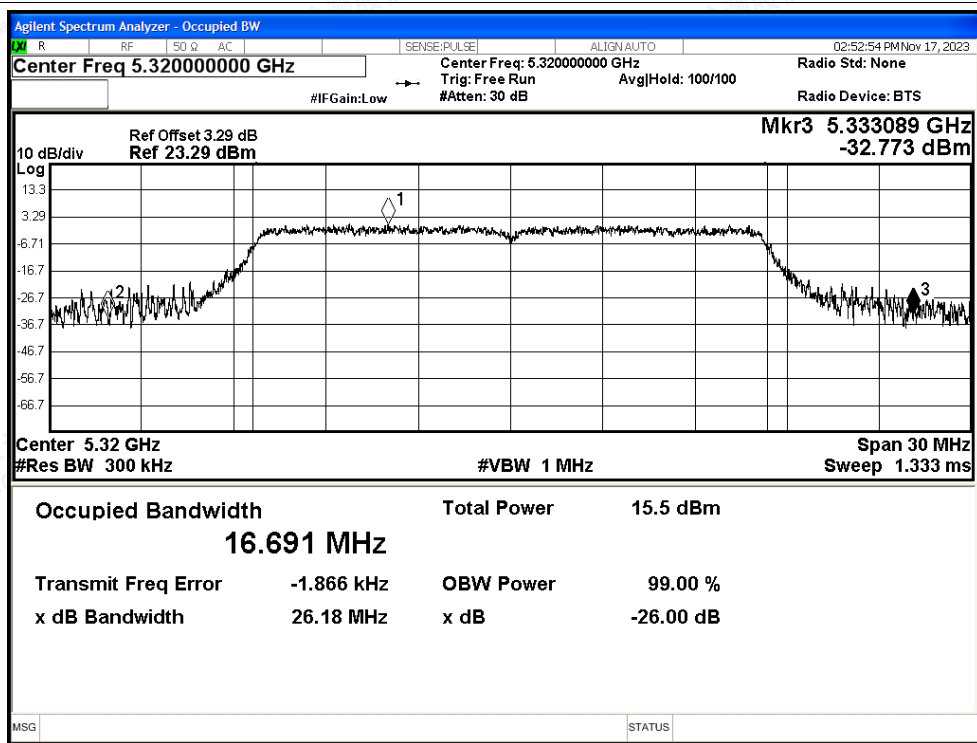
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

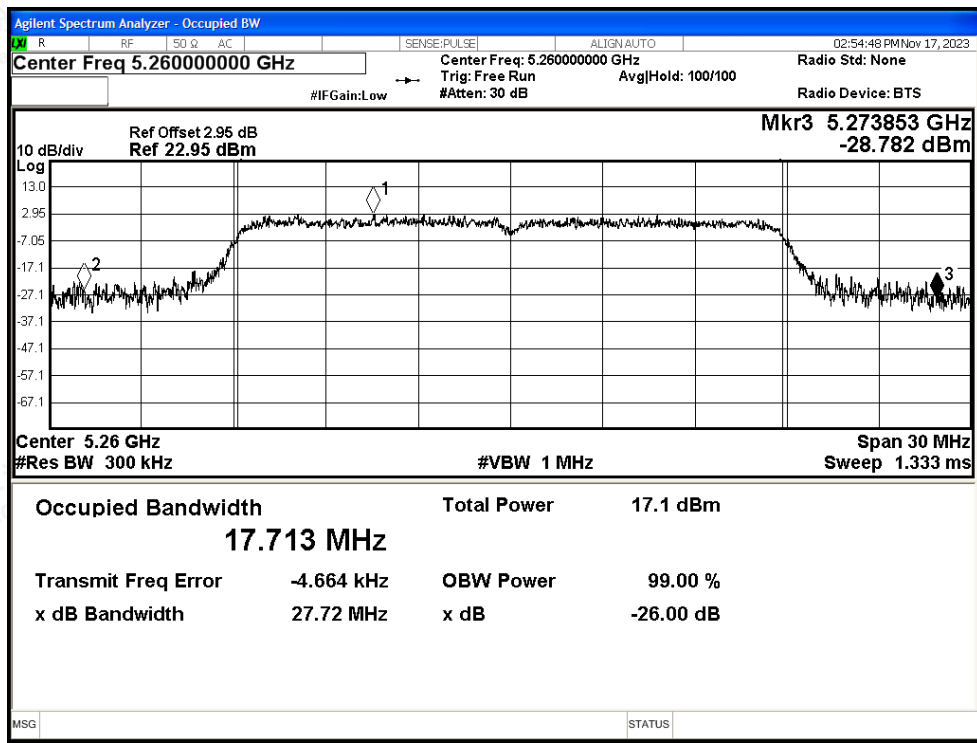
Scan code to check authenticity



-26dB Bandwidth NVNT a 5320MHz Ant0

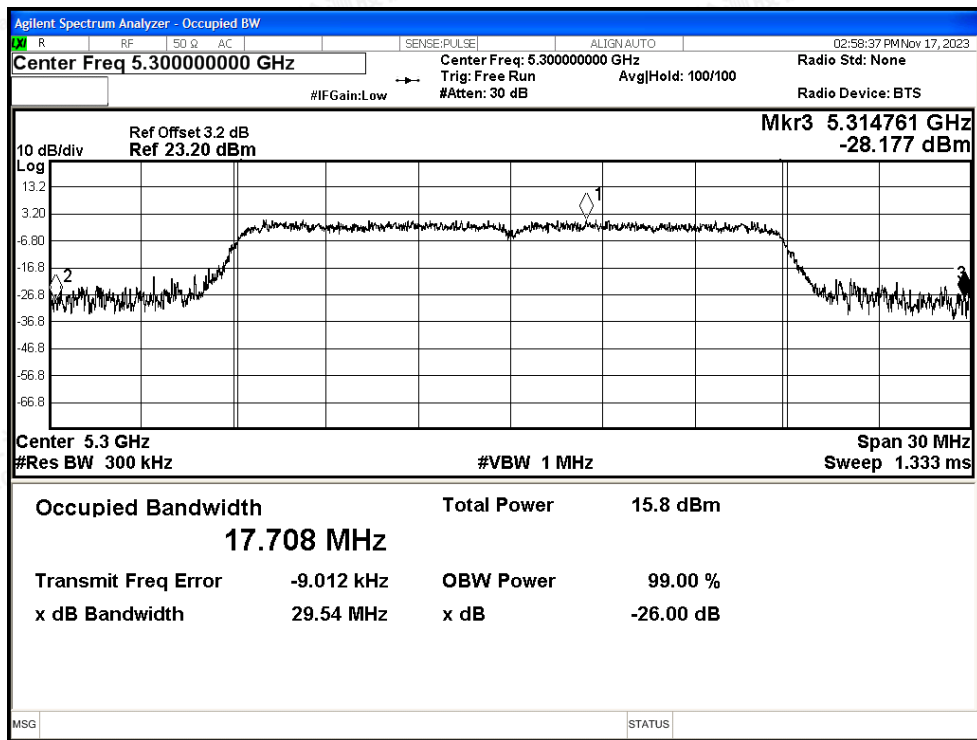


-26dB Bandwidth NVNT n20 5260MHz Ant0

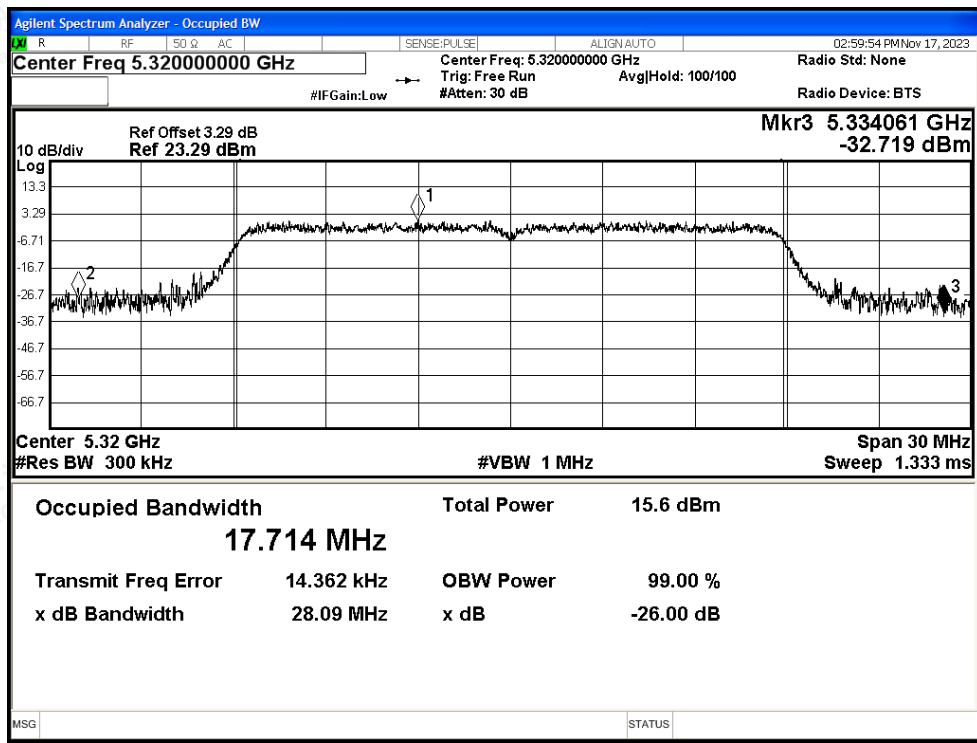




-26dB Bandwidth NVNT n20 5300MHz Ant0

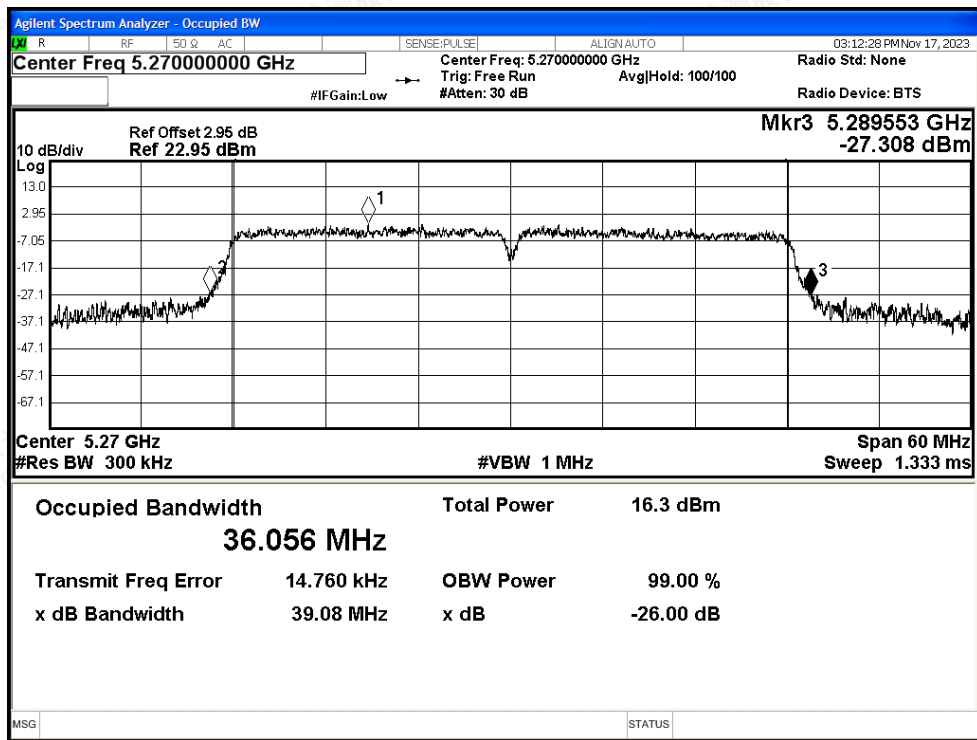


-26dB Bandwidth NVNT n20 5320MHz Ant0

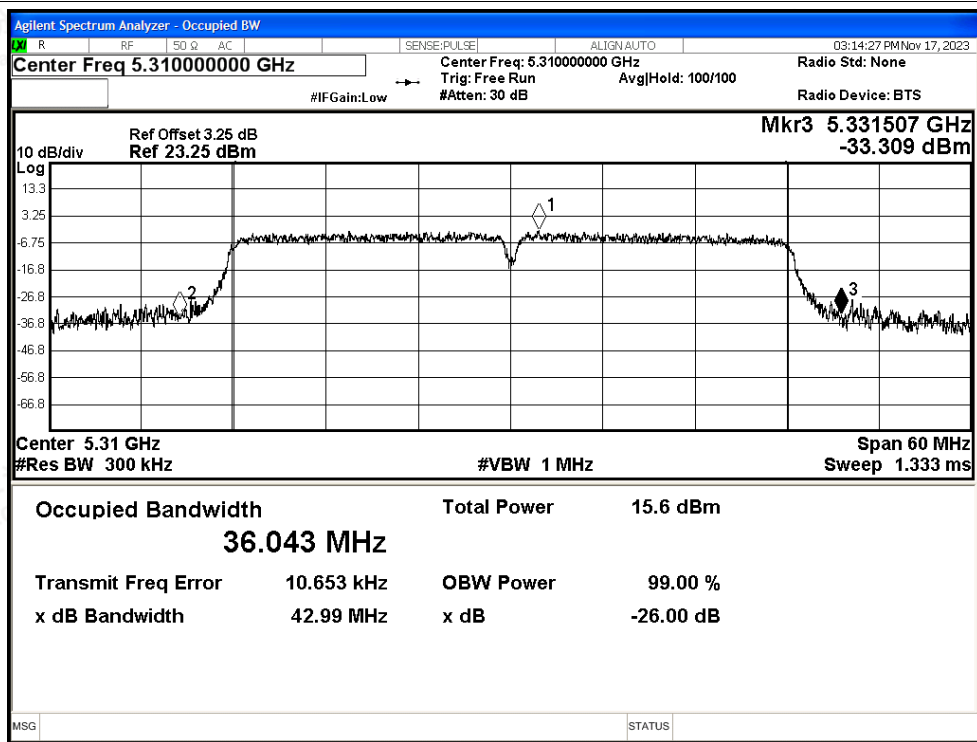




-26dB Bandwidth NVNT n40 5270MHz Ant0

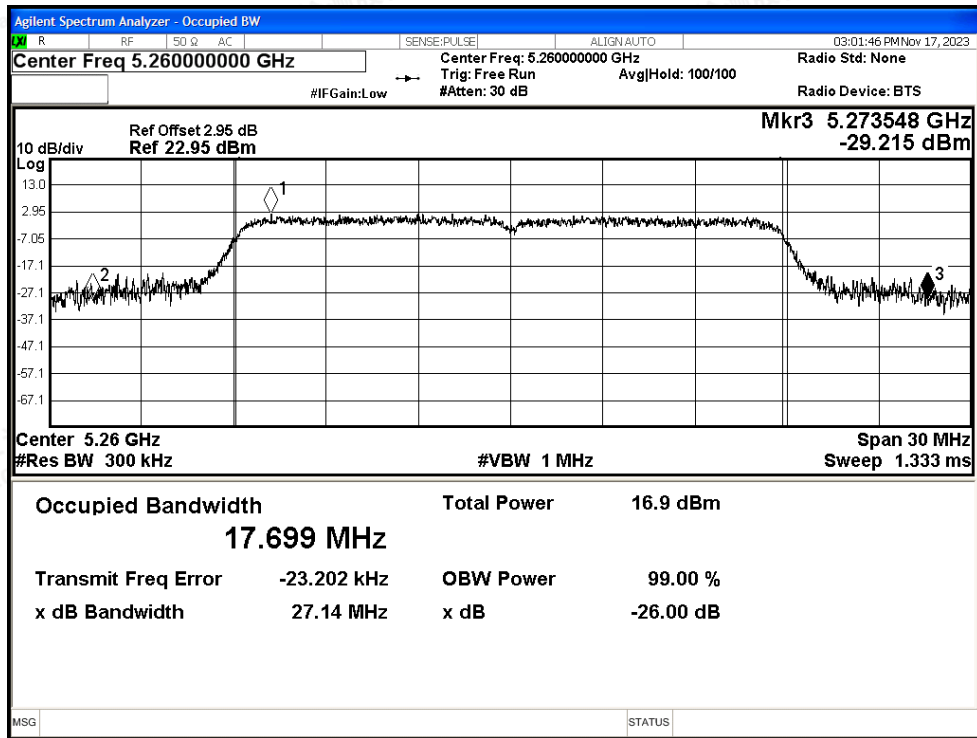


-26dB Bandwidth NVNT n40 5310MHz Ant0

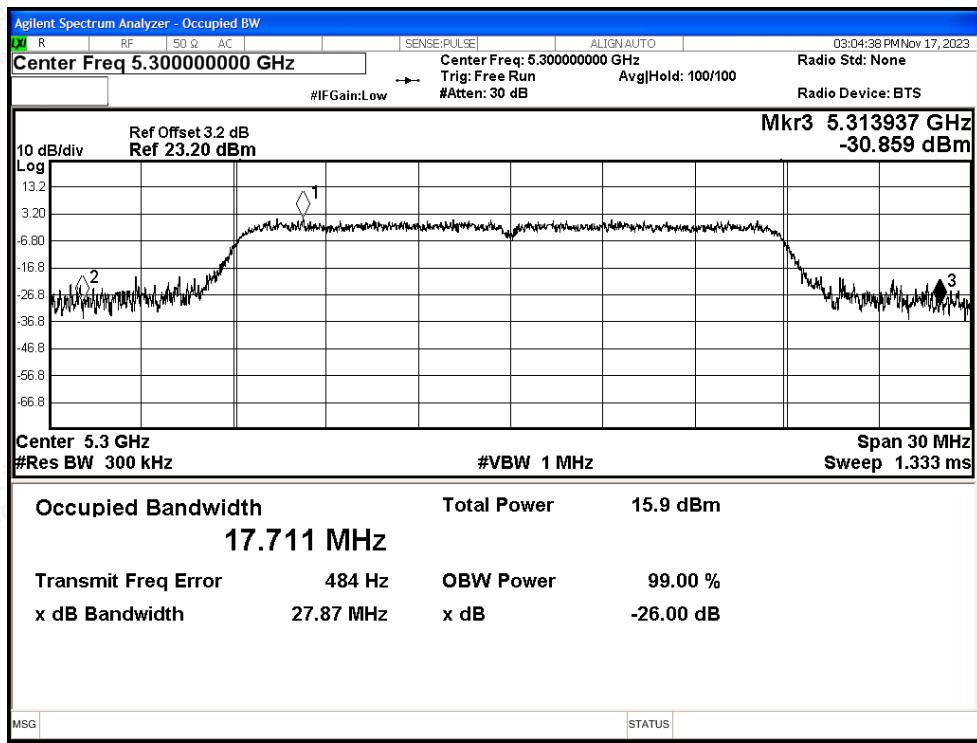




-26dB Bandwidth NVNT ac20 5260MHz Ant0

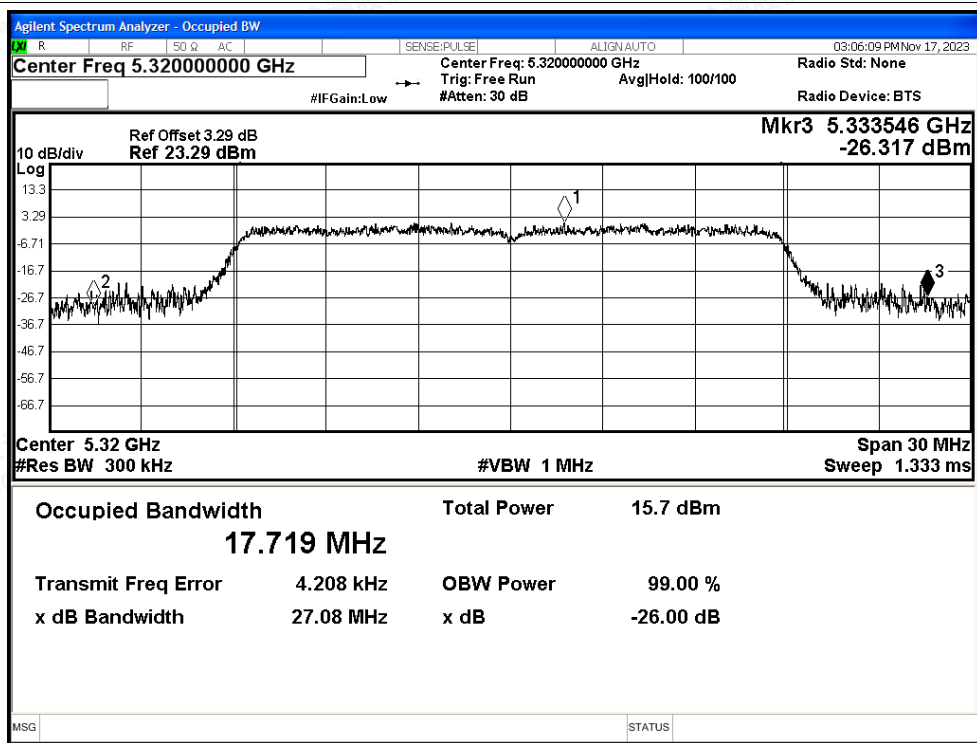


-26dB Bandwidth NVNT ac20 5300MHz Ant0

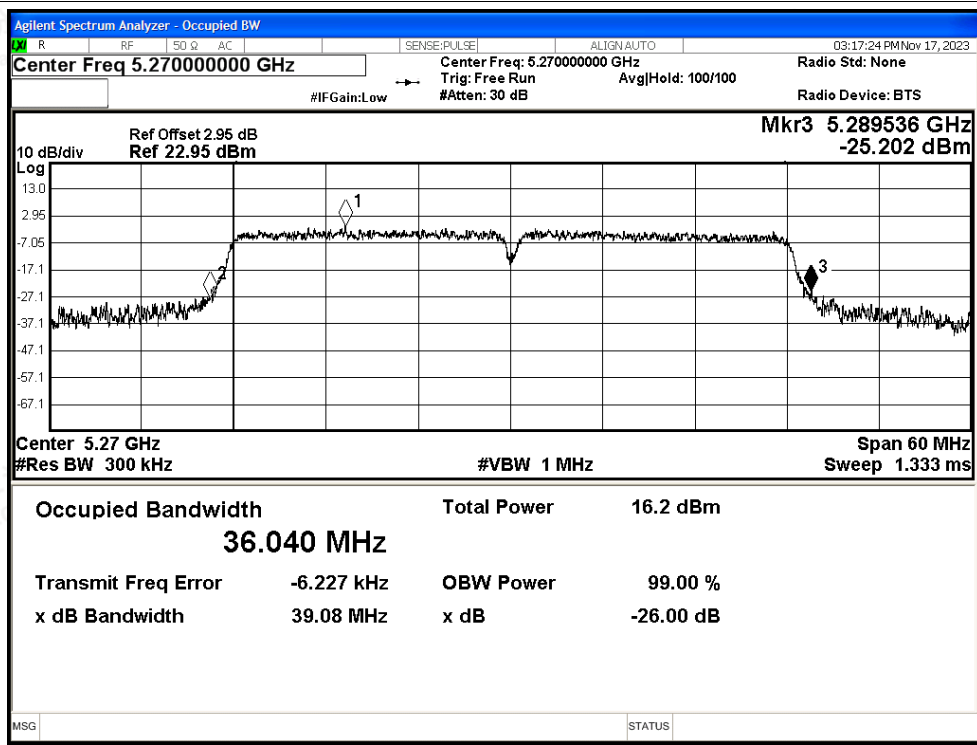




-26dB Bandwidth NVNT ac20 5320MHz Ant0



-26dB Bandwidth NVNT ac40 5270MHz Ant0



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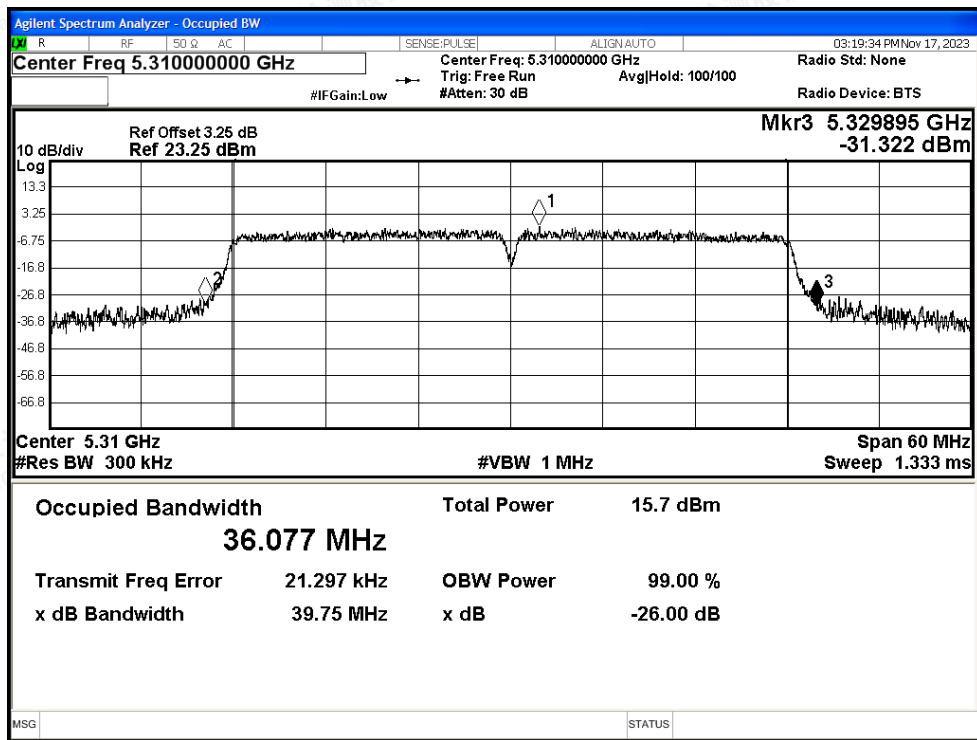
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

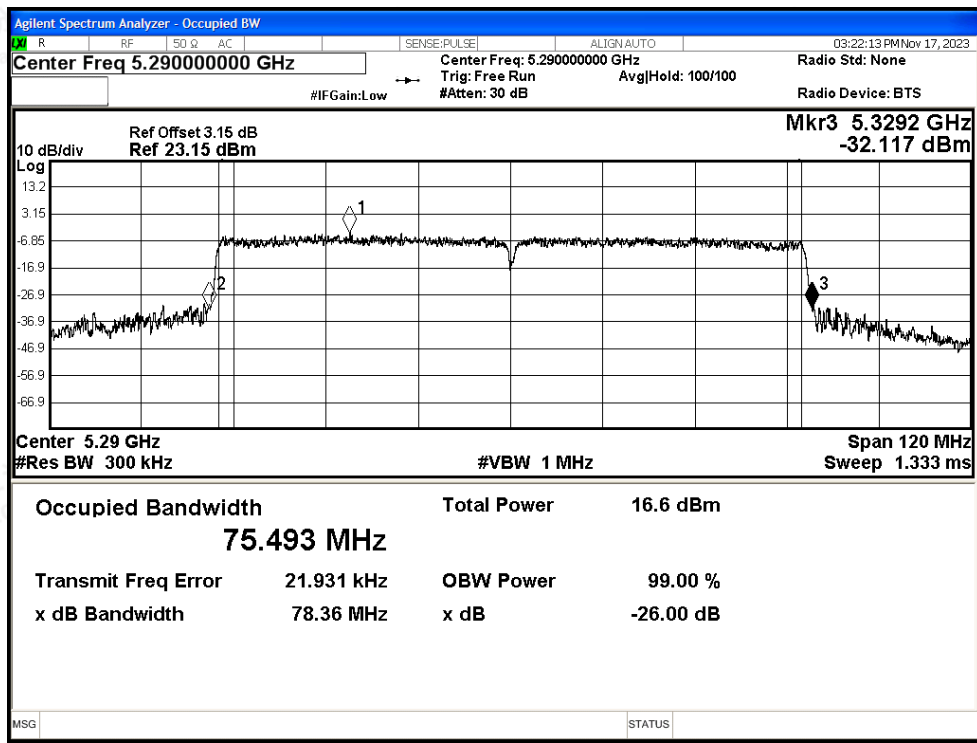




-26dB Bandwidth NVNT ac40 5310MHz Ant0



-26dB Bandwidth NVNT ac80 5290MHz Ant0





### E.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5260	Ant0	11.11	24	Pass
NVNT	a	5300	Ant0	10.28	24	Pass
NVNT	a	5320	Ant0	10.01	24	Pass
NVNT	n20	5260	Ant0	<b>11.59</b>	24	Pass
NVNT	n20	5300	Ant0	10.49	24	Pass
NVNT	n20	5320	Ant0	10.24	24	Pass
NVNT	n40	5270	Ant0	10.64	24	Pass
NVNT	n40	5310	Ant0	10.25	24	Pass
NVNT	ac20	5260	Ant0	11.53	24	Pass
NVNT	ac20	5300	Ant0	10.49	24	Pass
NVNT	ac20	5320	Ant0	10.37	24	Pass
NVNT	ac40	5270	Ant0	10.68	24	Pass
NVNT	ac40	5310	Ant0	10.36	24	Pass
NVNT	ac80	5290	Ant0	10.92	24	Pass





### E.3 Maximum Power Spectral Density Level

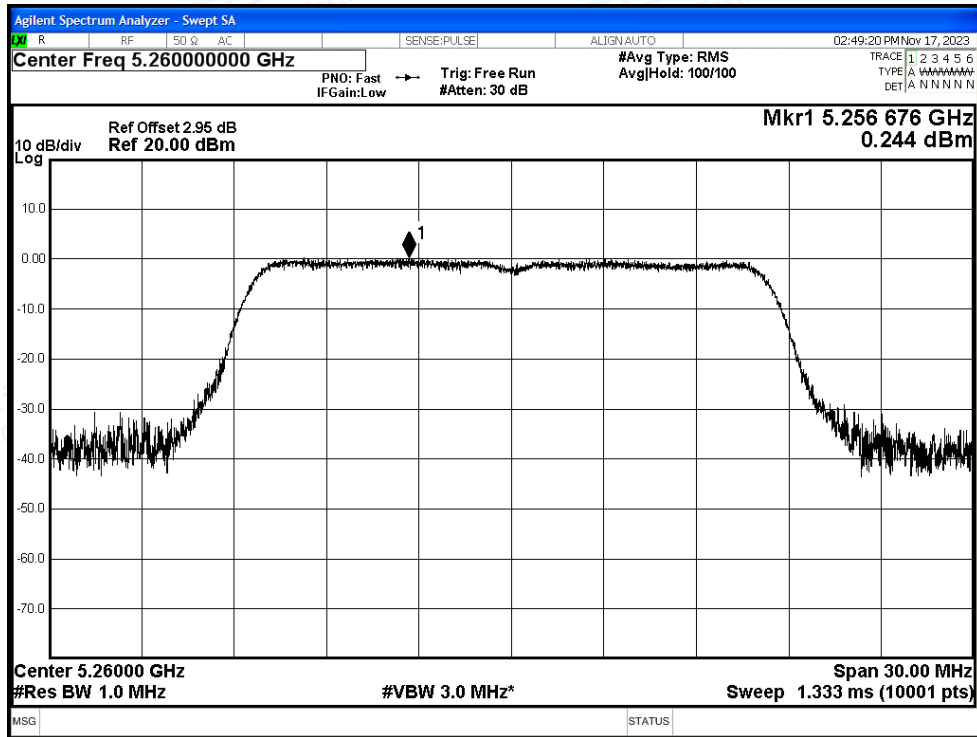
Condition	Mode	Frequency (MHz)	Antenna	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5260	Ant0	0.43	11	Pass
NVNT	a	5300	Ant0	-0.35	11	Pass
NVNT	a	5320	Ant0	-0.64	11	Pass
NVNT	n20	5260	Ant0	1.01	11	Pass
NVNT	n20	5300	Ant0	-0.3	11	Pass
NVNT	n20	5320	Ant0	-0.28	11	Pass
NVNT	n40	5270	Ant0	-2.79	11	Pass
NVNT	n40	5310	Ant0	-3.28	11	Pass
NVNT	ac20	5260	Ant0	0.84	11	Pass
NVNT	ac20	5300	Ant0	-0.22	11	Pass
NVNT	ac20	5320	Ant0	-0.38	11	Pass
NVNT	ac40	5270	Ant0	-2.94	11	Pass
NVNT	ac40	5310	Ant0	-3.25	11	Pass
NVNT	ac80	5290	Ant0	-5.77	11	Pass



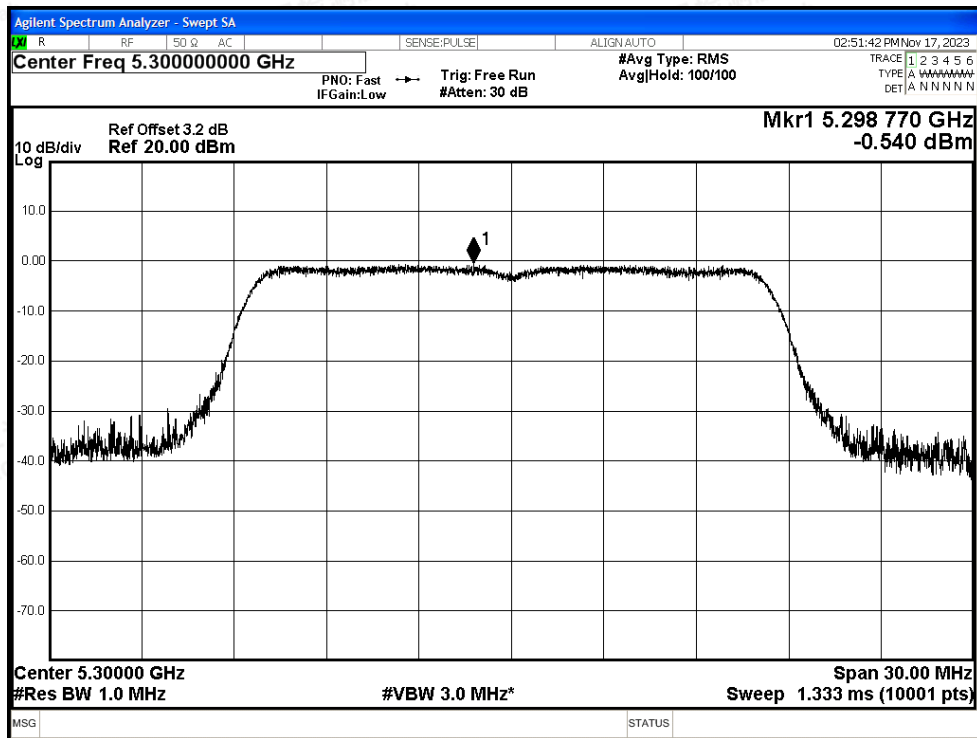


Test Graphs

PSD NVNT a 5260MHz Ant0

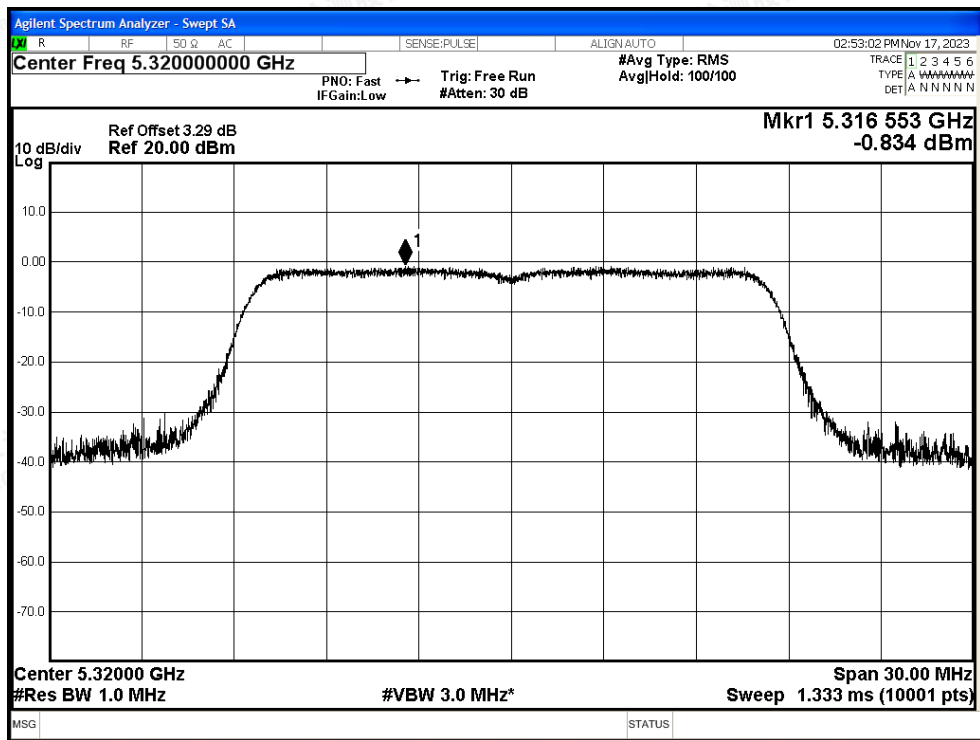


PSD NVNT a 5300MHz Ant0

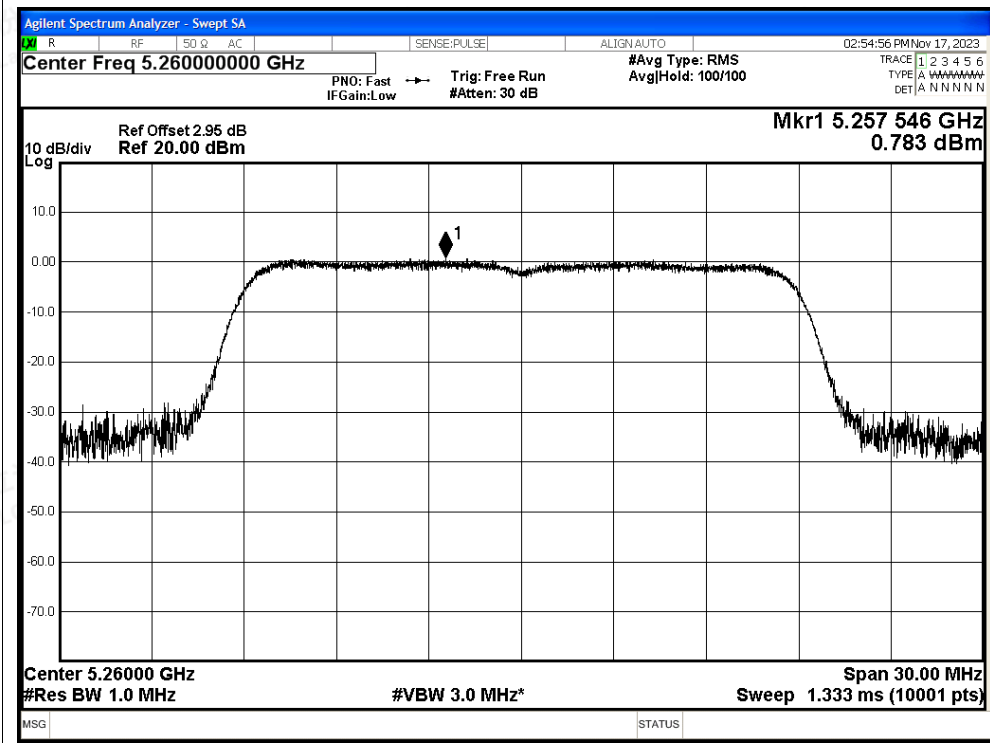


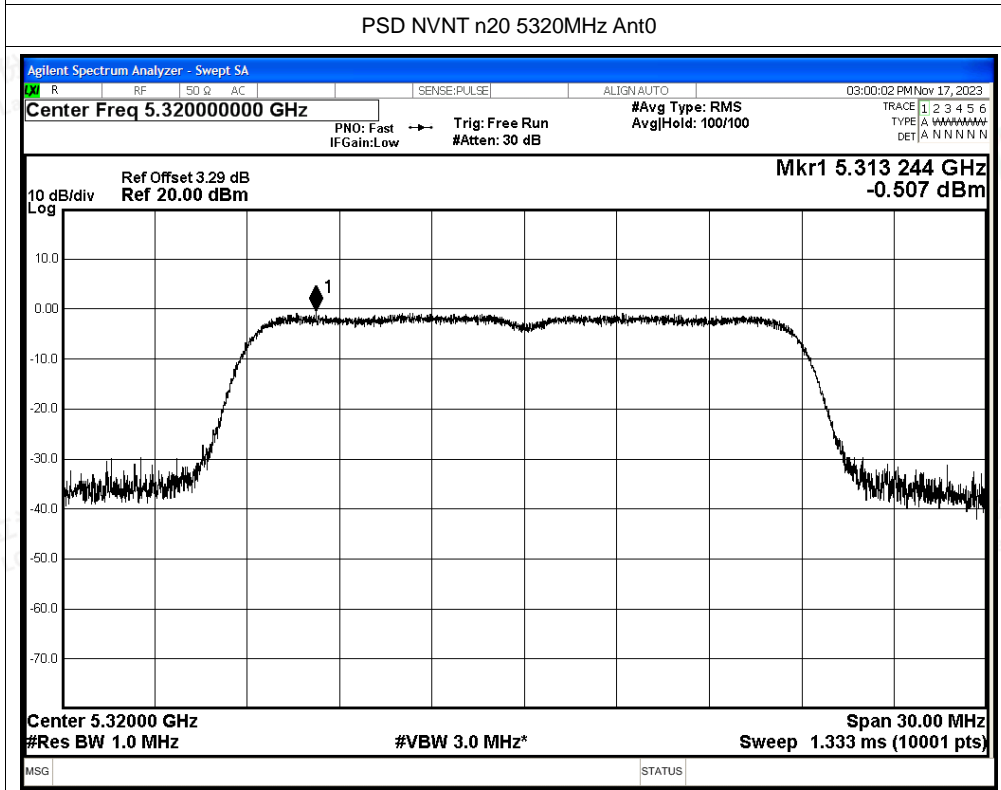
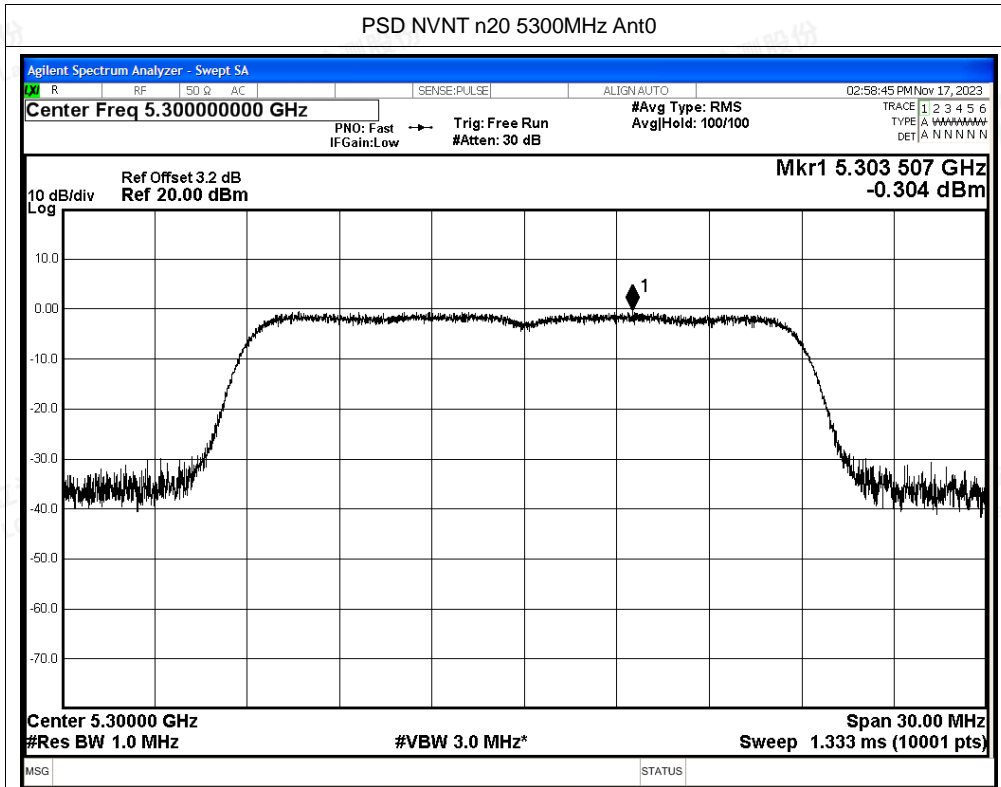


PSD NVNT a 5320MHz Ant0



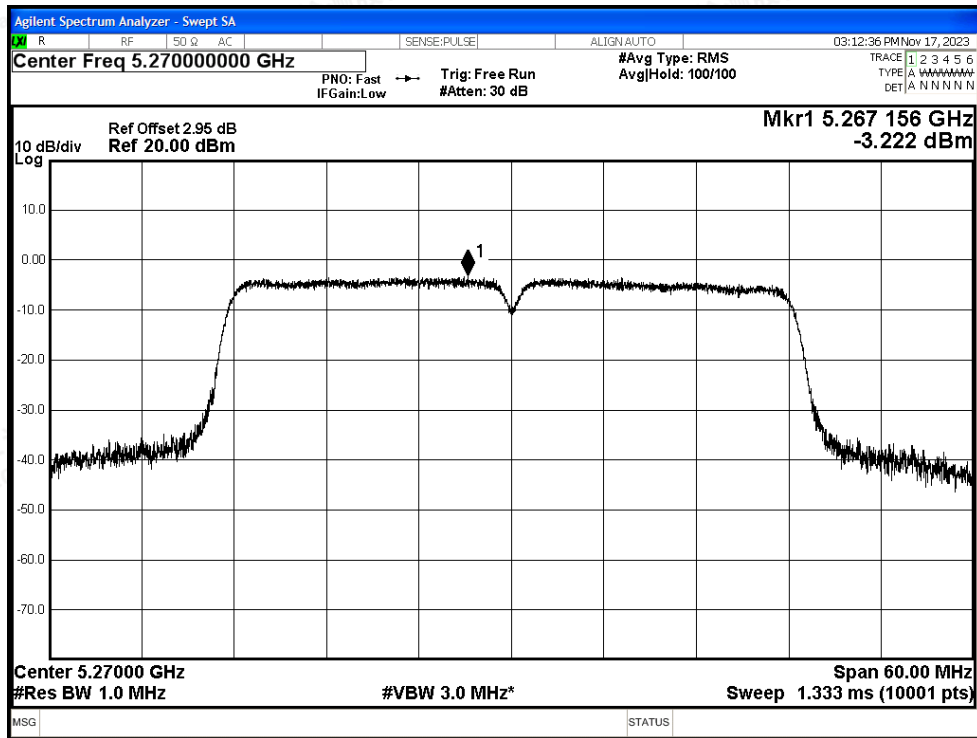
PSD NVNT n20 5260MHz Ant0



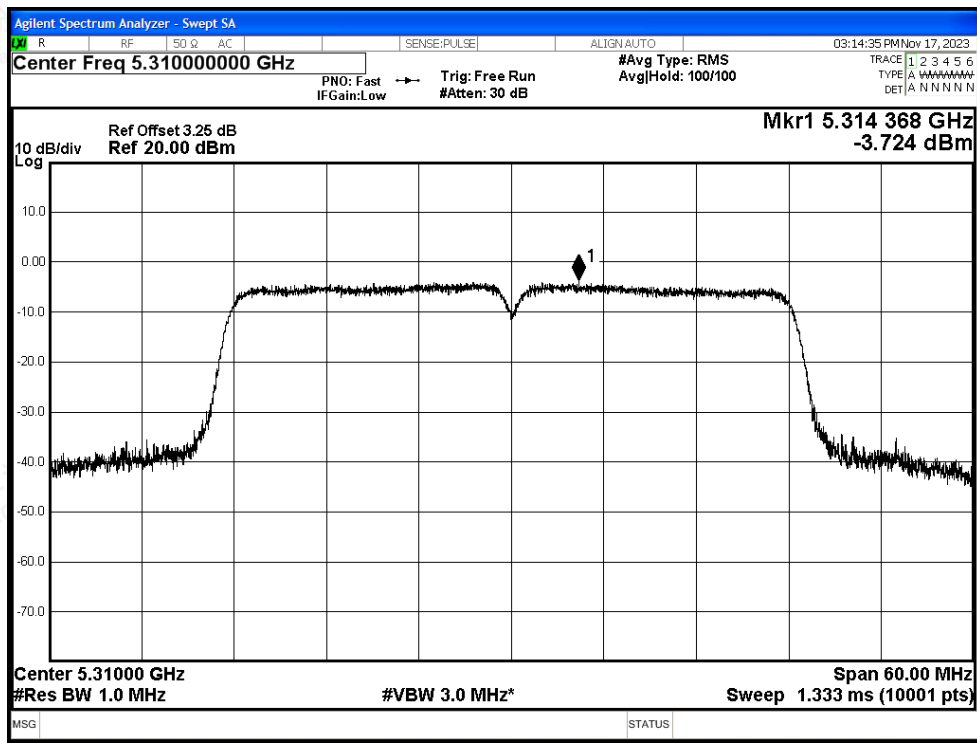


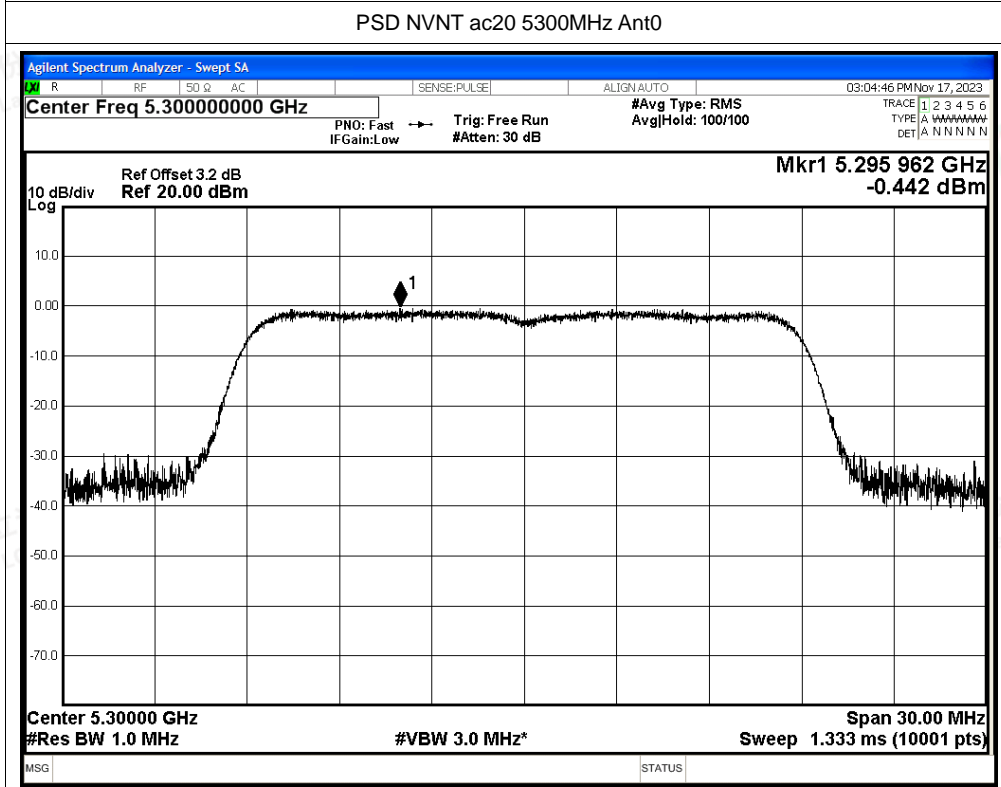
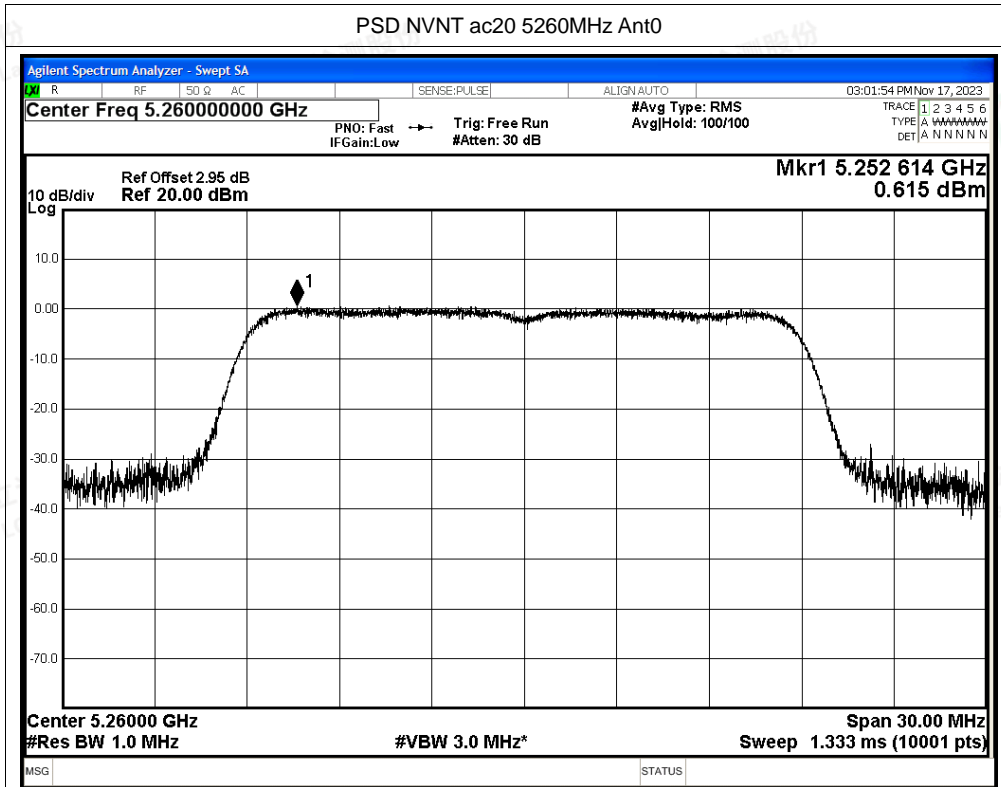


PSD NVNT n40 5270MHz Ant0

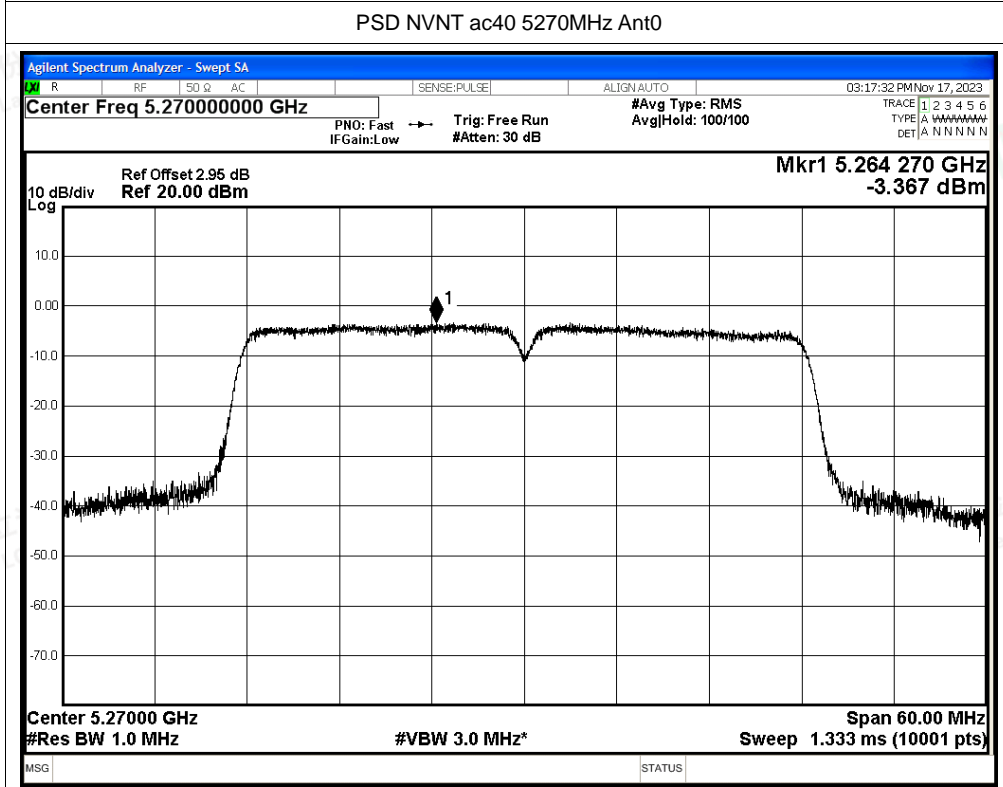
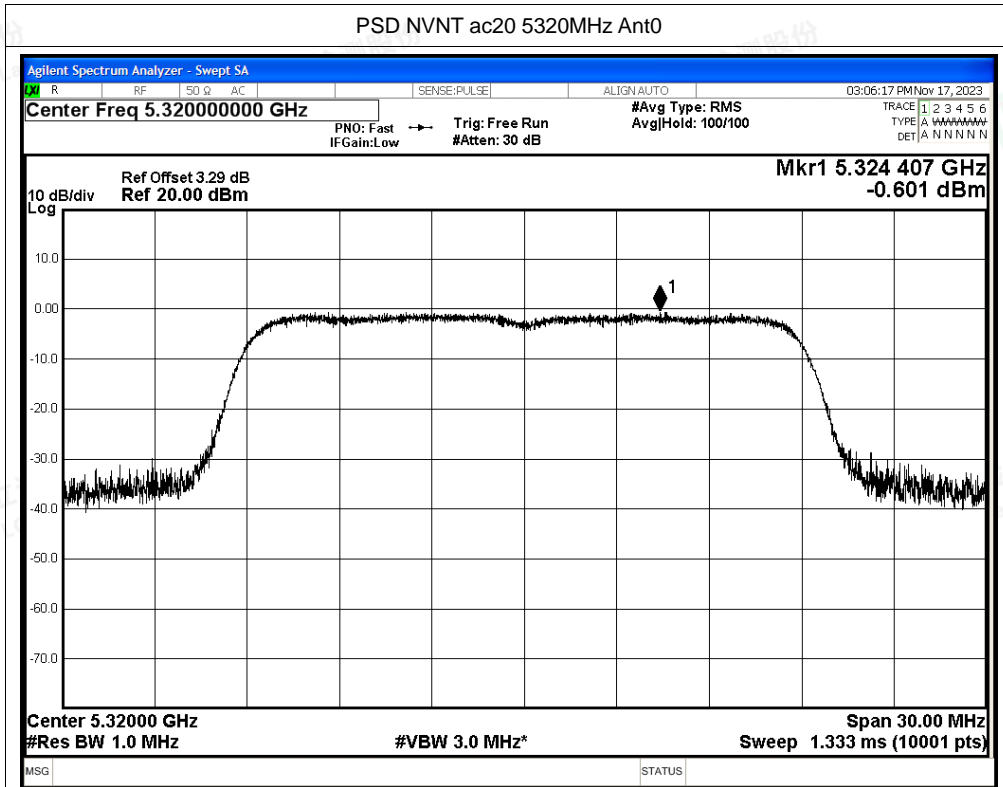


PSD NVNT n40 5310MHz Ant0



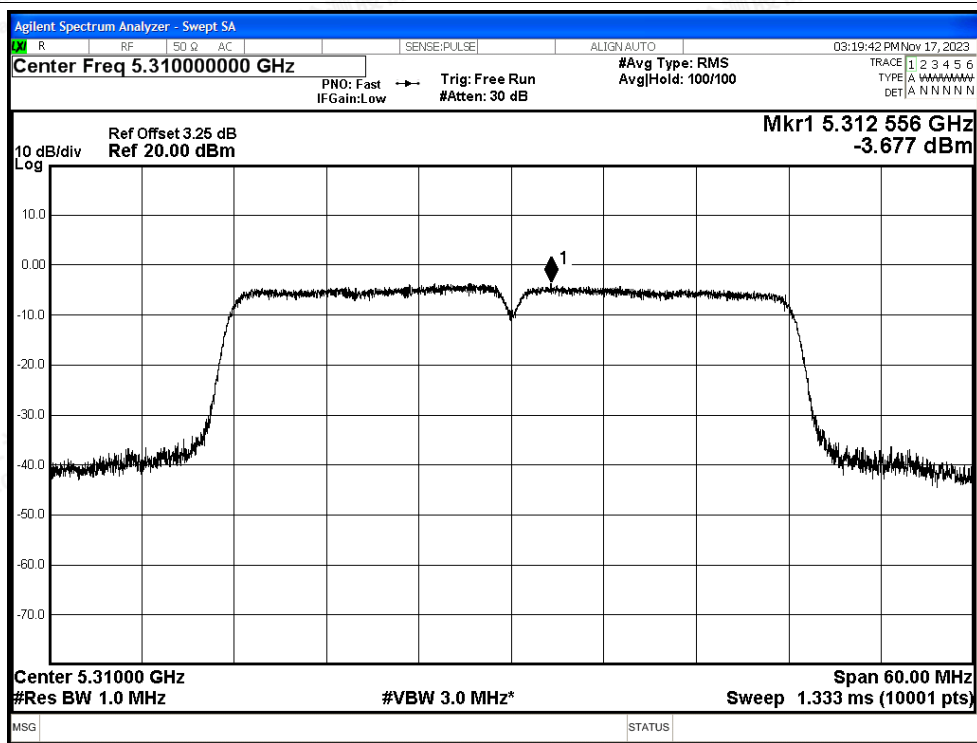




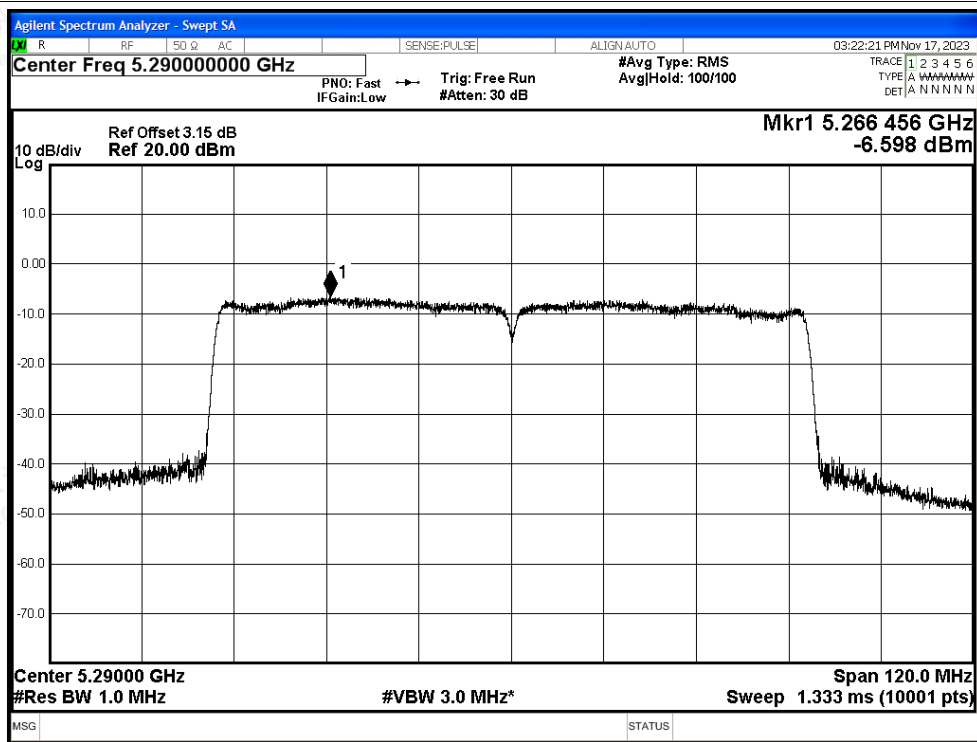




PSD NVNT ac40 5310MHz Ant0



PSD NVNT ac80 5290MHz Ant0





### E.4 Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	a	5260	Ant0	4500	-50.34	2	46.89	Peak	68.2	Pass
NVNT	a	5260	Ant0	4500	-58.01	2	39.22	Average	54	Pass
NVNT	a	5260	Ant0	4773	-46.17	2	51.06	Peak	68.2	Pass
NVNT	a	5260	Ant0	4787.82	-53.58	2	43.65	Average	54	Pass
NVNT	a	5260	Ant0	5150	-48.84	2	48.39	Peak	68.2	Pass
NVNT	a	5260	Ant0	5150	-55.09	2	42.14	Average	54	Pass
NVNT	a	5320	Ant0	5350	-38.95	2	58.28	Peak	68.2	Pass
NVNT	a	5320	Ant0	5350	-49.4	2	47.83	Average	54	Pass
NVNT	a	5320	Ant0	5350.2	-37.1	2	60.13	Peak	68.2	Pass
NVNT	a	5320	Ant0	5460	-49.54	2	47.69	Peak	68.2	Pass
NVNT	a	5320	Ant0	5460	-56.95	2	40.28	Average	54	Pass
NVNT	n20	5260	Ant0	4500	-51.83	2	45.4	Peak	68.2	Pass
NVNT	n20	5260	Ant0	4500	-58.02	2	39.21	Average	54	Pass
NVNT	n20	5260	Ant0	4787.82	-46.29	2	50.94	Peak	68.2	Pass
NVNT	n20	5260	Ant0	4787.82	-53.35	2	43.88	Average	54	Pass
NVNT	n20	5260	Ant0	5150	-49.65	2	47.58	Peak	68.2	Pass
NVNT	n20	5260	Ant0	5150	-54.95	2	42.28	Average	54	Pass
NVNT	n20	5320	Ant0	5350	-37.84	2	59.39	Peak	68.2	Pass
NVNT	n20	5320	Ant0	5350	-46.91	2	50.32	Average	54	Pass
NVNT	n20	5320	Ant0	5350.8	-31.76	2	65.47	Peak	68.2	Pass
NVNT	n20	5320	Ant0	5460	-50.43	2	46.8	Peak	68.2	Pass
NVNT	n20	5320	Ant0	5460	-56.98	2	40.25	Average	54	Pass
NVNT	n40	5270	Ant0	4500	-50.85	2	46.38	Peak	68.2	Pass
NVNT	n40	5270	Ant0	4500	-57.71	2	39.52	Average	54	Pass
NVNT	n40	5270	Ant0	4807.8	-42.2	2	55.03	Peak	68.2	Pass
NVNT	n40	5270	Ant0	4806.99	-49.73	2	47.5	Average	54	Pass
NVNT	n40	5270	Ant0	5150	-47.33	2	49.9	Peak	68.2	Pass
NVNT	n40	5270	Ant0	5150	-55.36	2	41.87	Average	54	Pass
NVNT	n40	5310	Ant0	5350	-36.17	2	61.06	Peak	68.2	Pass
NVNT	n40	5310	Ant0	5350	-45.44	2	51.79	Average	54	Pass
NVNT	n40	5310	Ant0	5352.4	-34.49	2	62.74	Peak	68.2	Pass
NVNT	n40	5310	Ant0	5350.2	-45.42	2	51.81	Average	54	Pass
NVNT	n40	5310	Ant0	5460	-49.19	2	48.04	Peak	68.2	Pass
NVNT	n40	5310	Ant0	5460	-56.74	2	40.49	Average	54	Pass
NVNT	ac20	5260	Ant0	4500	-51.42	2	45.81	Peak	68.2	Pass
NVNT	ac20	5260	Ant0	4500	-58.04	2	39.19	Average	54	Pass
NVNT	ac20	5260	Ant0	4788.6	-46.23	2	51	Peak	68.2	Pass
NVNT	ac20	5260	Ant0	4787.82	-53.4	2	43.83	Average	54	Pass





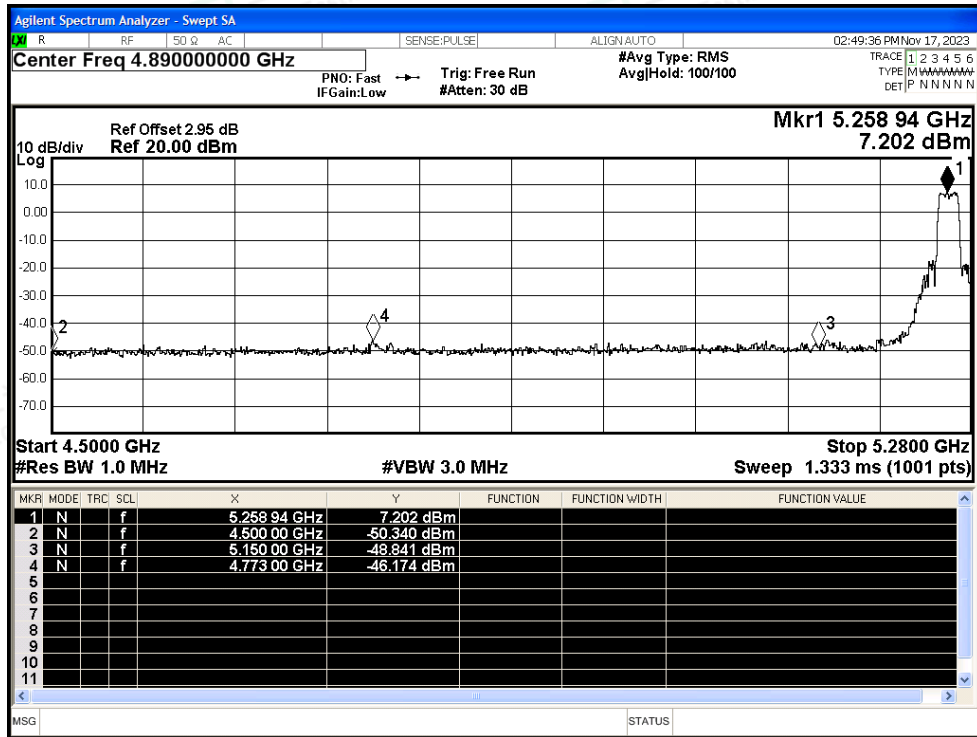
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NVNT	ac20	5320	Ant0	5350	-36.87	2	60.36	Peak	68.2	Pass
NVNT	ac20	5320	Ant0	5350	-47.21	2	50.02	Average	54	Pass
NVNT	ac20	5320	Ant0	5350.8	-31.16	2	66.07	Peak	68.2	Pass
NVNT	ac20	5320	Ant0	5350.4	-46.65	2	50.58	Average	54	Pass
NVNT	ac20	5320	Ant0	5460	-49.89	2	47.34	Peak	68.2	Pass
NVNT	ac20	5320	Ant0	5460	-56.88	2	40.35	Average	54	Pass
NVNT	ac40	5270	Ant0	4500	-51.29	2	45.94	Peak	68.2	Pass
NVNT	ac40	5270	Ant0	4500	-57.7	2	39.53	Average	54	Pass
NVNT	ac40	5270	Ant0	4806.18	-44.09	2	53.14	Peak	68.2	Pass
NVNT	ac40	5270	Ant0	4806.99	-49.77	2	47.46	Average	54	Pass
NVNT	ac40	5270	Ant0	5150	-49.26	2	47.97	Peak	68.2	Pass
NVNT	ac40	5270	Ant0	5150	-55.39	2	41.84	Average	54	Pass
NVNT	ac40	5310	Ant0	5350	-35.42	2	61.81	Peak	68.2	Pass
NVNT	ac40	5310	Ant0	5350	-45.37	2	51.86	Average	54	Pass
NVNT	ac40	5310	Ant0	5350.6	-35.17	2	62.06	Peak	68.2	Pass
NVNT	ac40	5310	Ant0	5350.2	-45.19	2	52.04	Average	54	Pass
NVNT	ac40	5310	Ant0	5460	-48.79	2	48.44	Peak	68.2	Pass
NVNT	ac40	5310	Ant0	5460	-56.69	2	40.54	Average	54	Pass
NVNT	ac80	5290	Ant0	4500	-50.27	2	46.96	Peak	68.2	Pass
NVNT	ac80	5290	Ant0	4500	-56.88	2	40.35	Average	54	Pass
NVNT	ac80	5290	Ant0	5138.58	-43.58	2	53.65	Peak	68.2	Pass
NVNT	ac80	5290	Ant0	5149.02	-52.52	2	44.71	Average	54	Pass
NVNT	ac80	5290	Ant0	5150	-44.25	2	52.98	Peak	68.2	Pass
NVNT	ac80	5290	Ant0	5150	-52.84	2	44.39	Average	54	Pass
NVNT	ac80	5290	Ant0	5350	-38.81	2	58.42	Peak	68.2	Pass
NVNT	ac80	5290	Ant0	5350	-45.15	2	52.08	Average	54	Pass
NVNT	ac80	5290	Ant0	5352.25	-36.29	2	60.94	Peak	68.2	Pass
NVNT	ac80	5290	Ant0	5460	-48.63	2	48.6	Peak	68.2	Pass
NVNT	ac80	5290	Ant0	5460	-56.1	2	41.13	Average	54	Pass



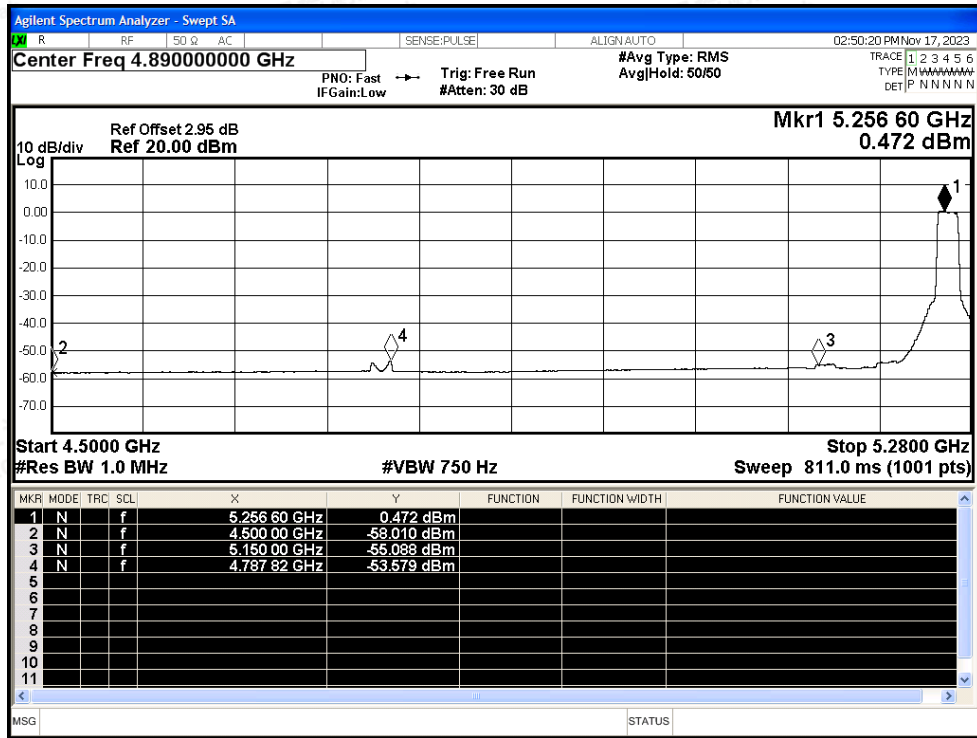


Test Graphs

Restrict Band NVNT a 5260MHz Ant0 Peak



Restrict Band NVNT a 5260MHz Ant0 Average



Shenzhen LCS Compliance Testing Laboratory Ltd.

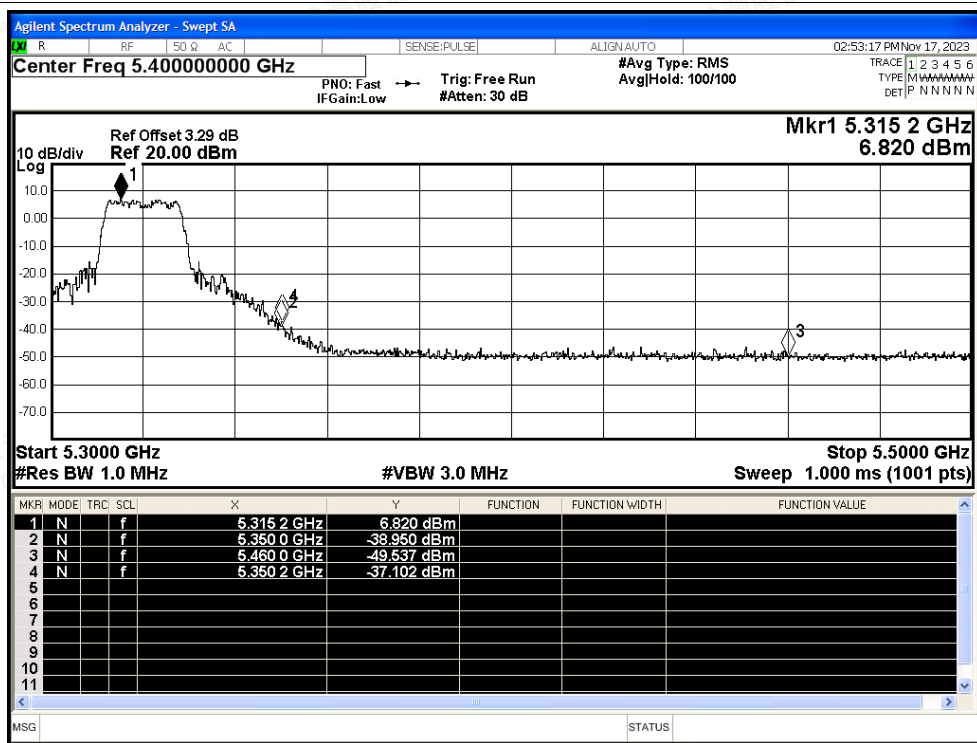
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

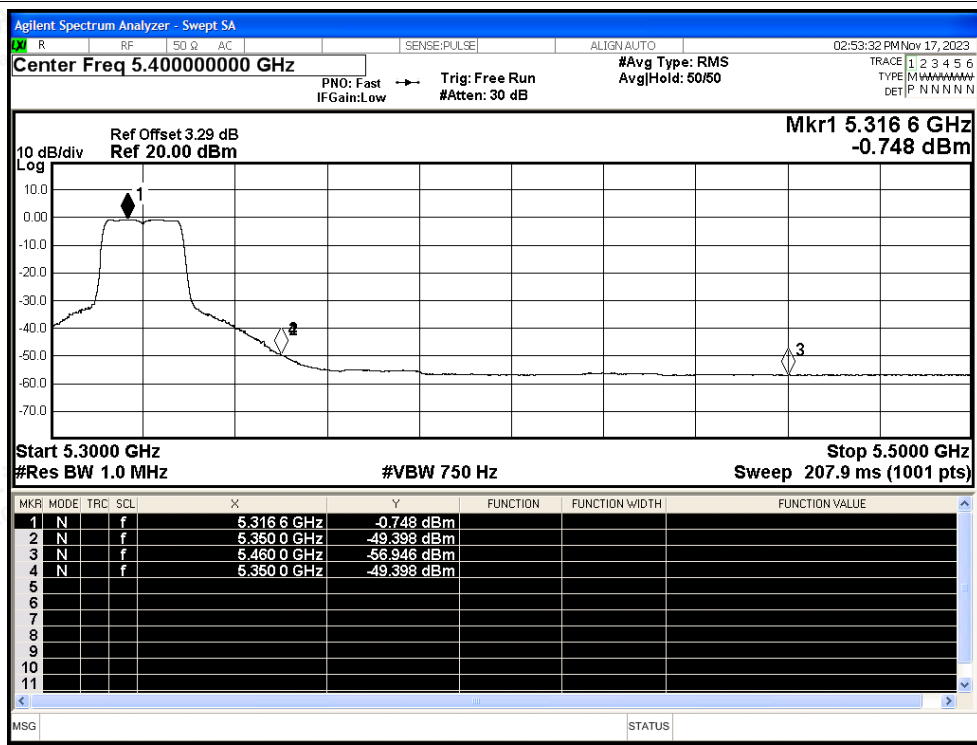
Scan code to check authenticity



Restrict Band NVNT a 5320MHz Ant0 Peak

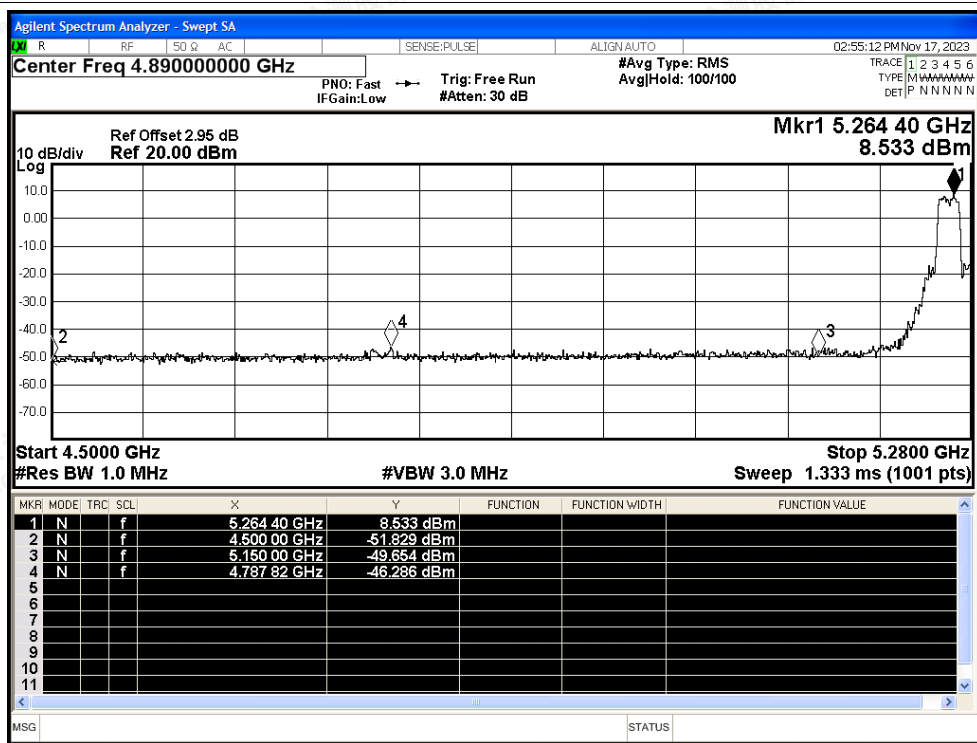


Restrict Band NVNT a 5320MHz Ant0 Average

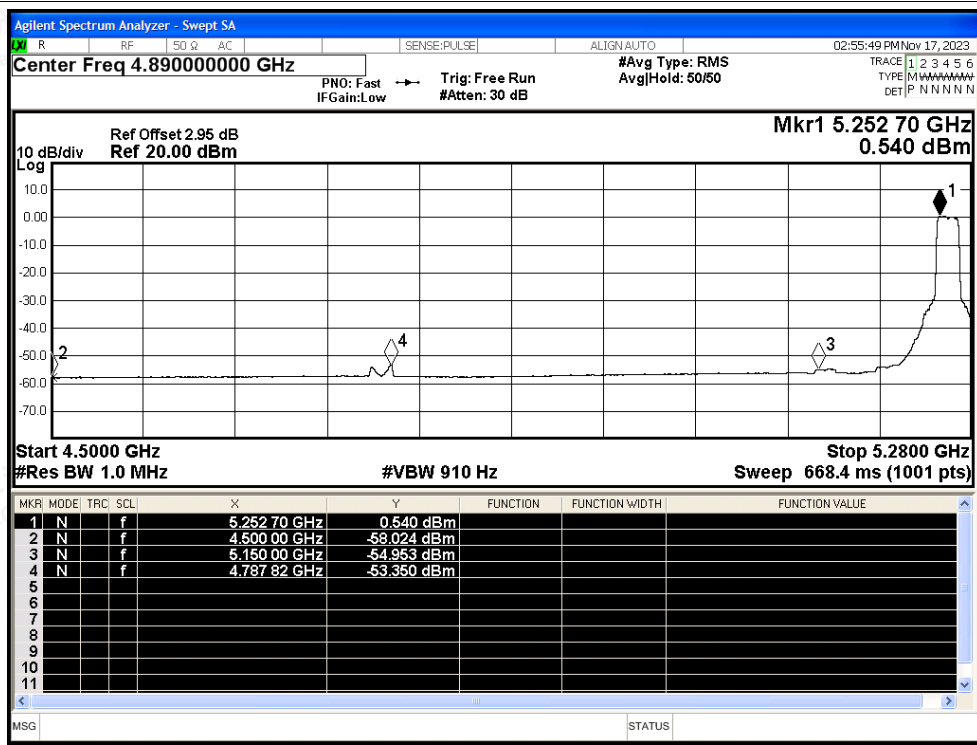




Restrict Band NVNT n20 5260MHz Ant0 Peak



Restrict Band NVNT n20 5260MHz Ant0 Average



Shenzhen LCS Compliance Testing Laboratory Ltd.

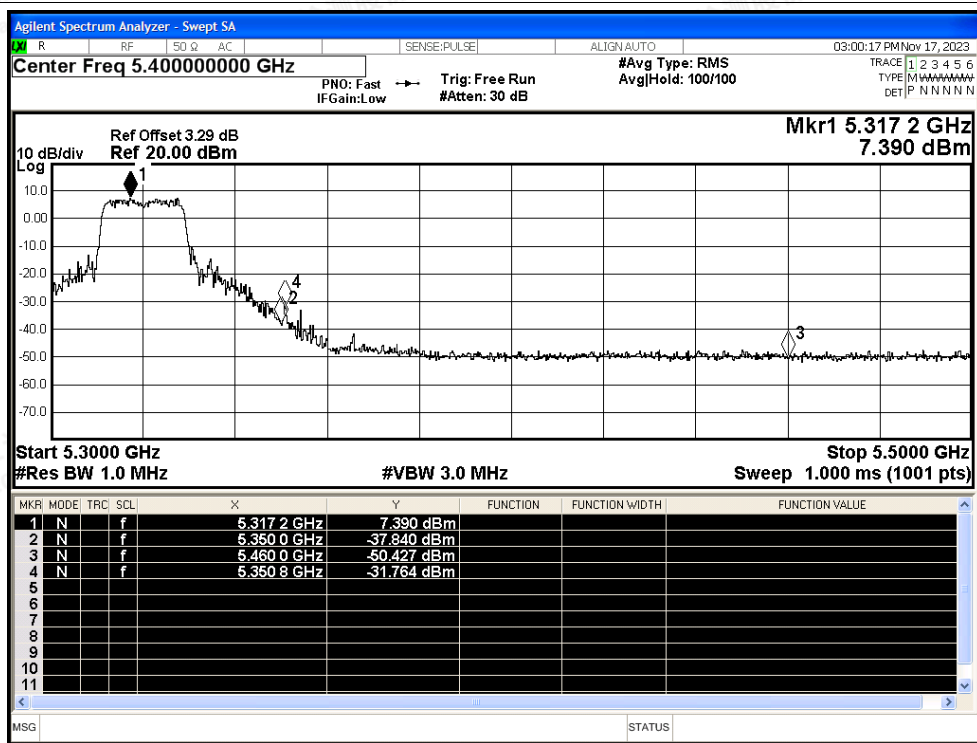
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

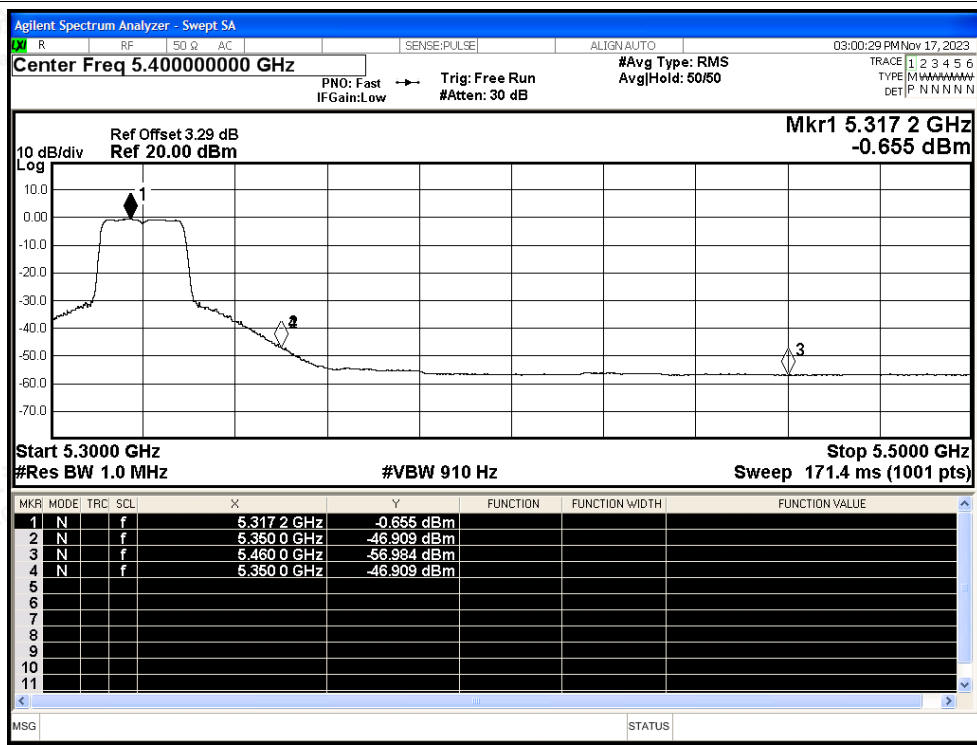
Scan code to check authenticity



Restrict Band NVNT n20 5320MHz Ant0 Peak



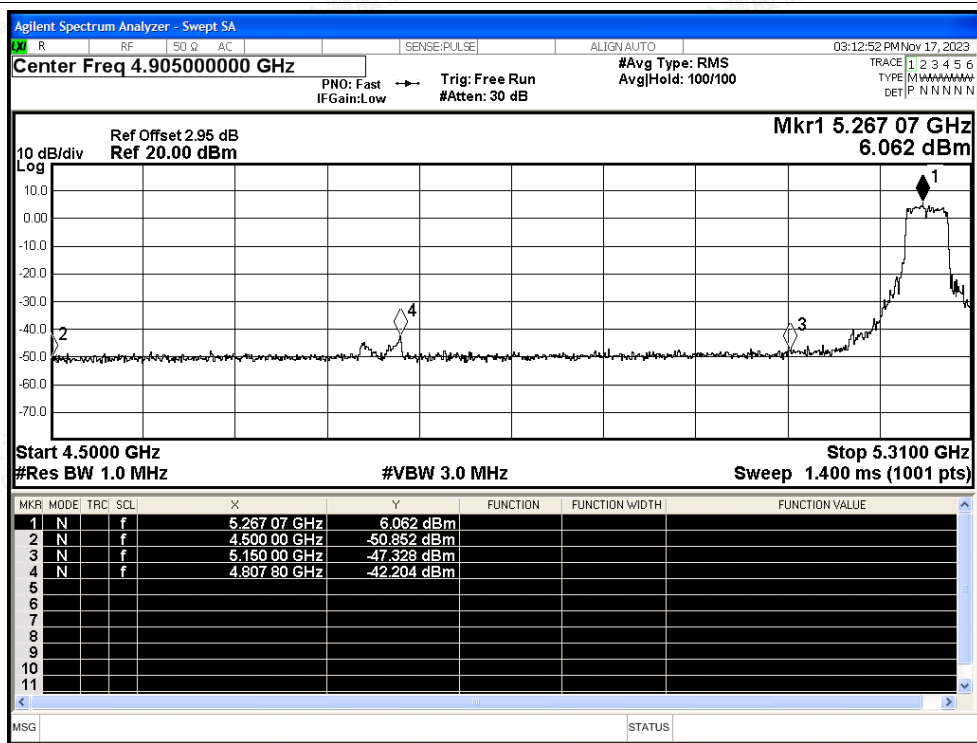
Restrict Band NVNT n20 5320MHz Ant0 Average



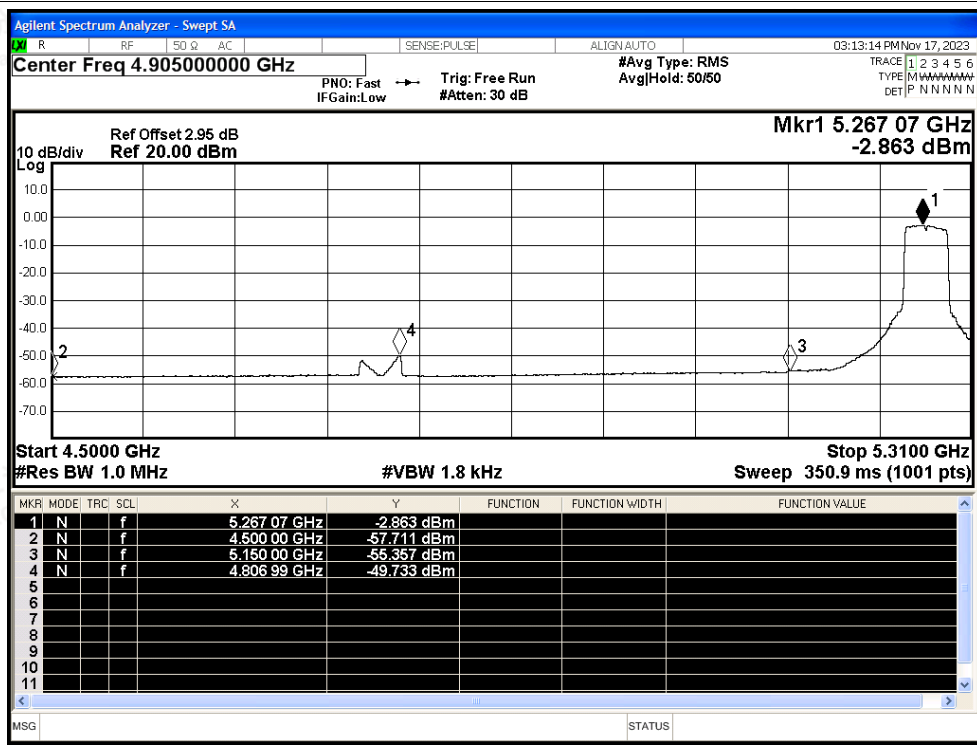




Restrict Band NVNT n40 5270MHz Ant0 Peak

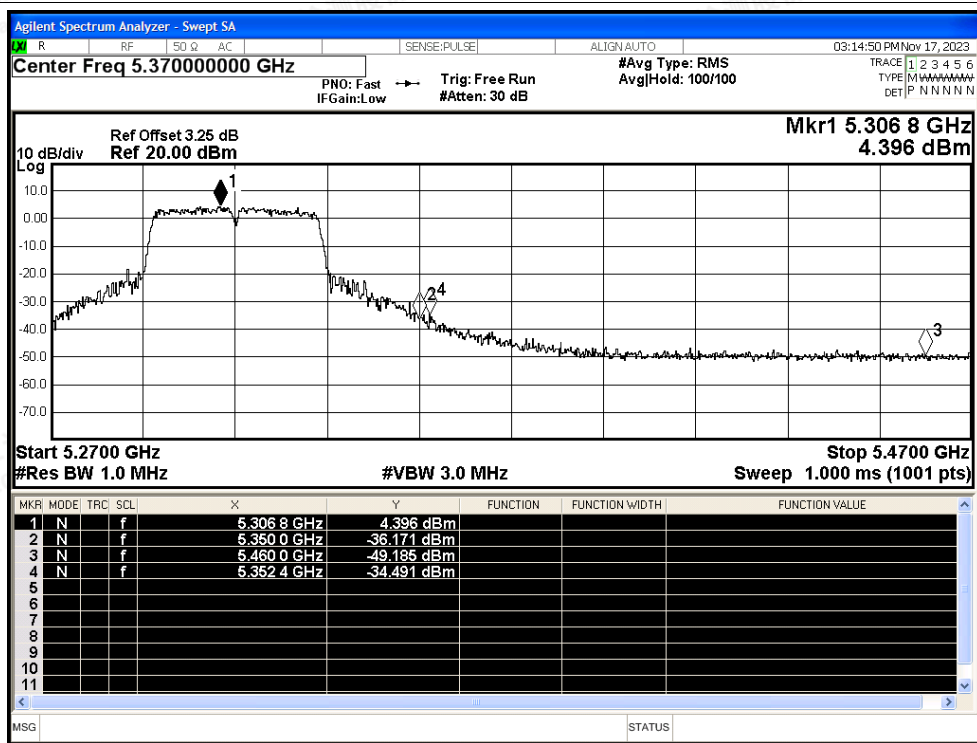


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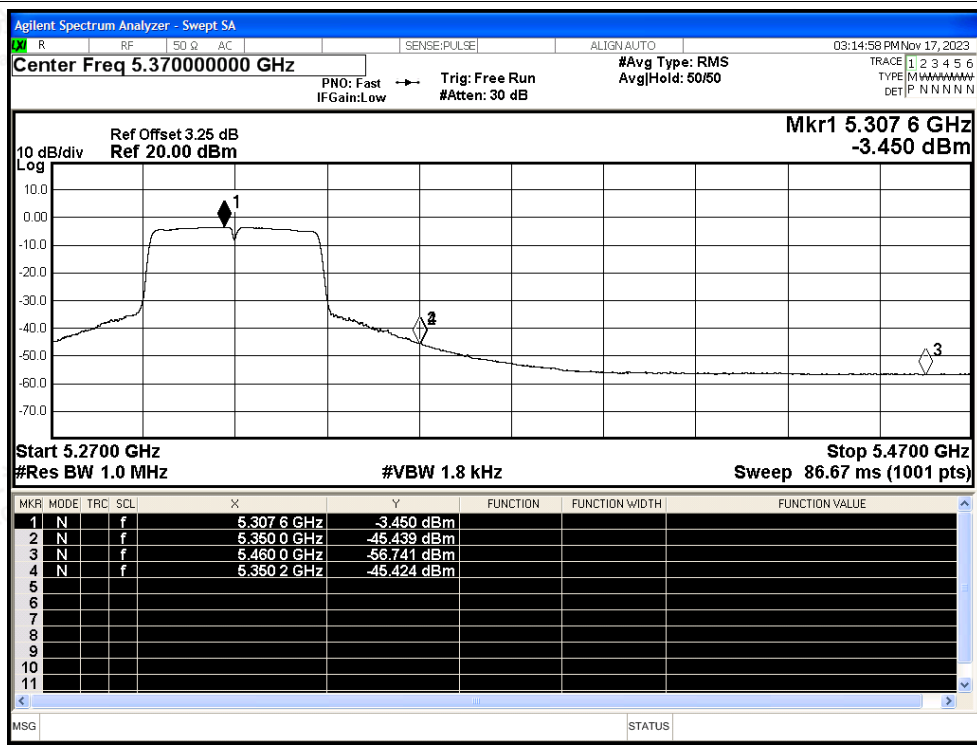




Restrict Band NVNT n40 5310MHz Ant0 Peak

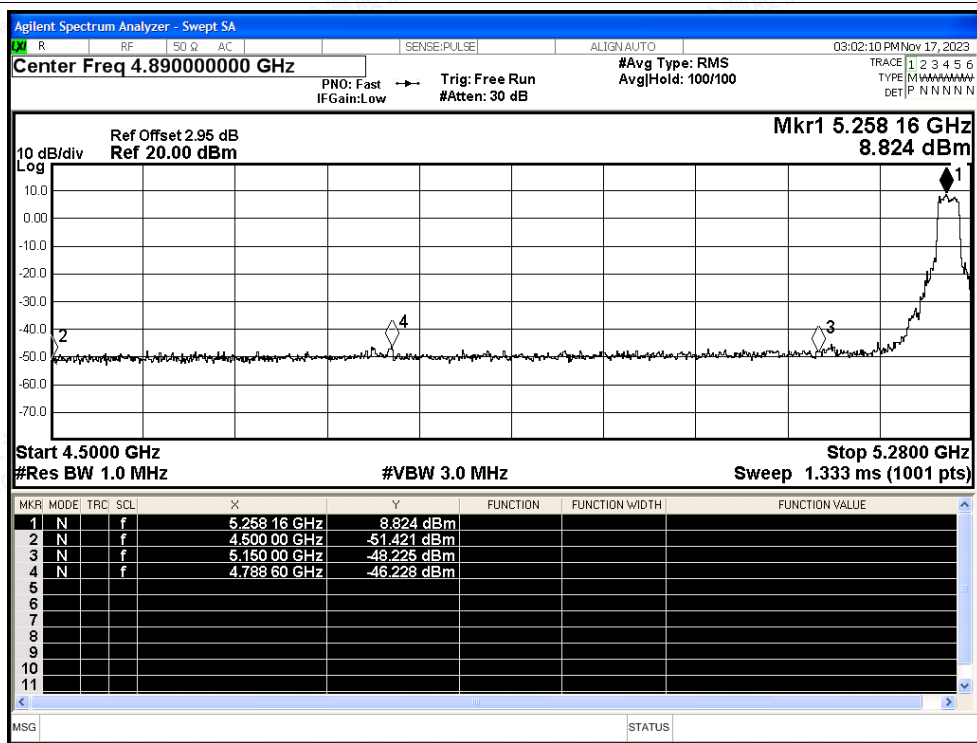


Restrict Band NVNT n40 5310MHz Ant0 Average

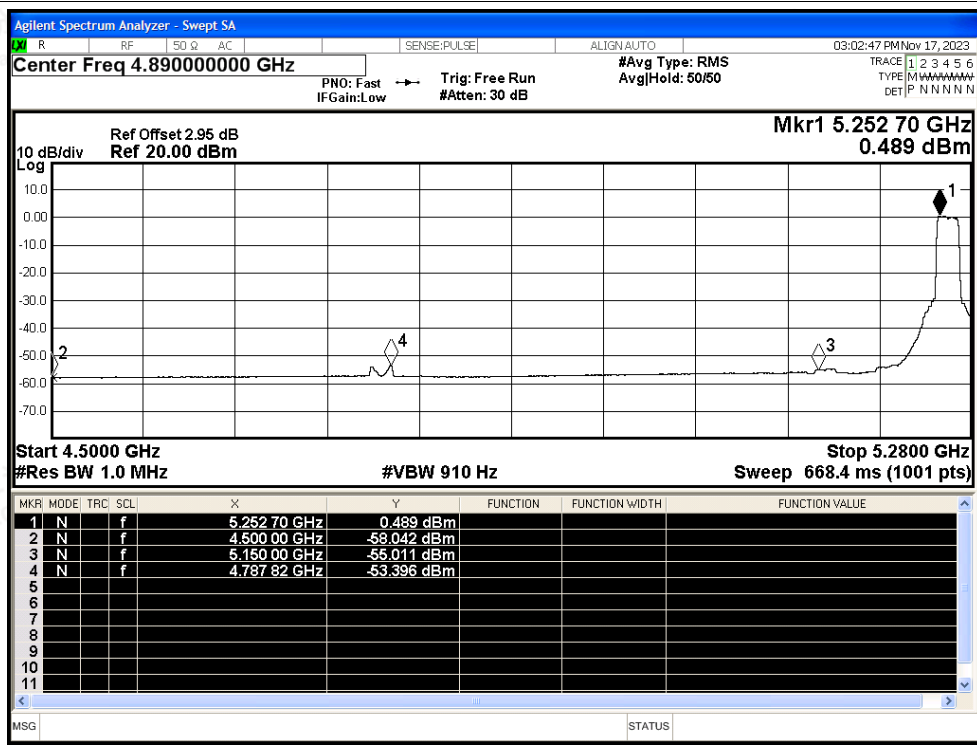




Restrict Band NVNT ac20 5260MHz Ant0 Peak

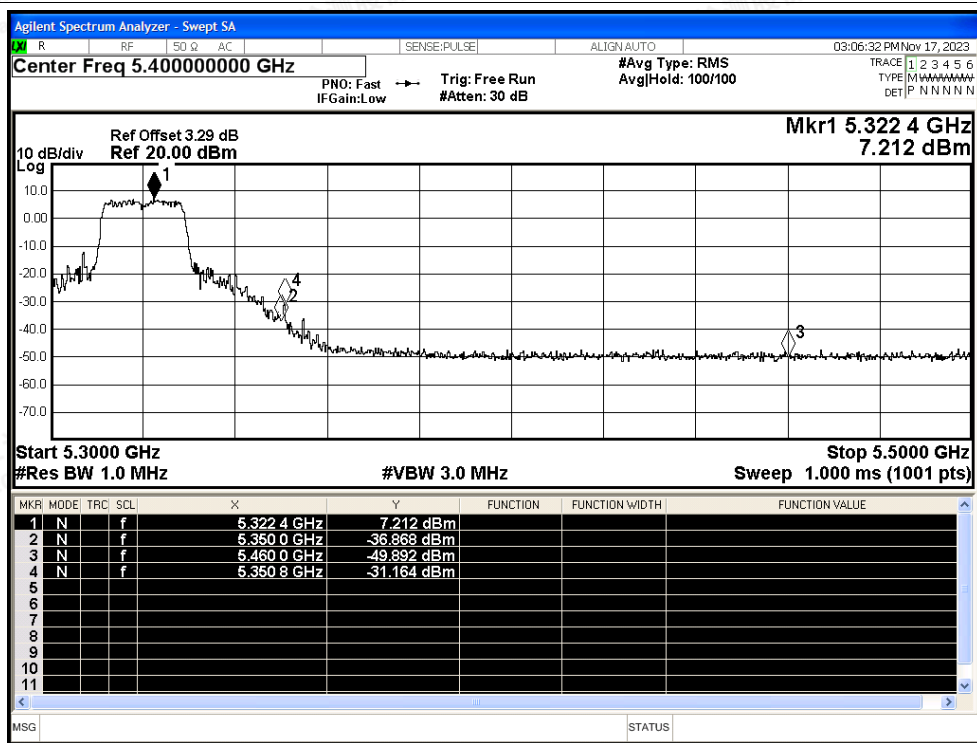


Restrict Band NVNT ac20 5260MHz Ant0 Average

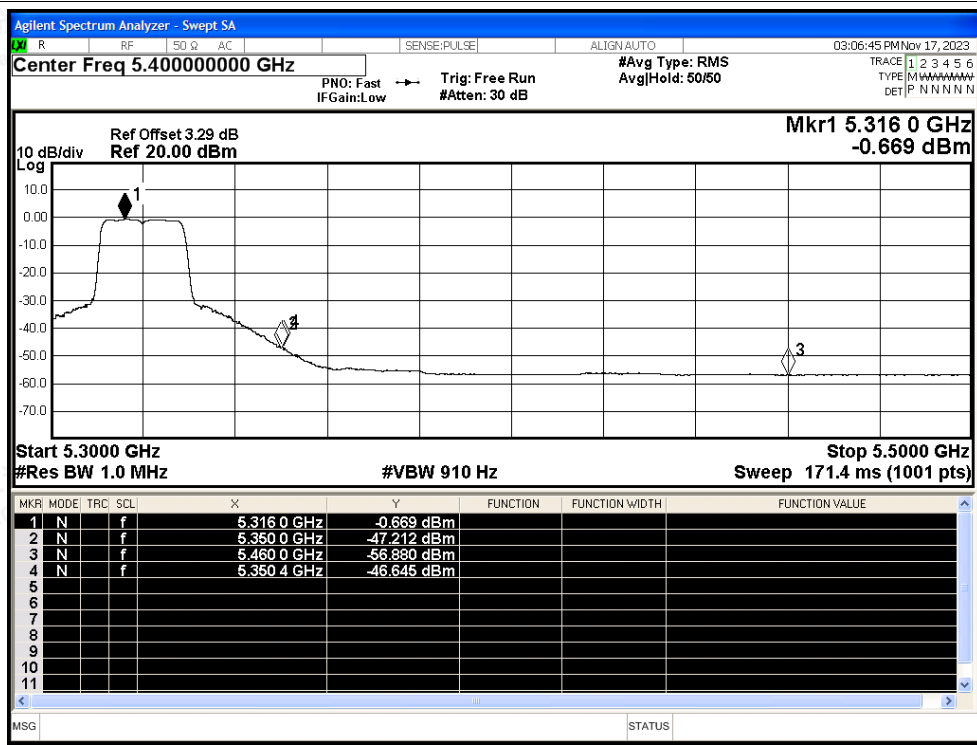




Restrict Band NVNT ac20 5320MHz Ant0 Peak

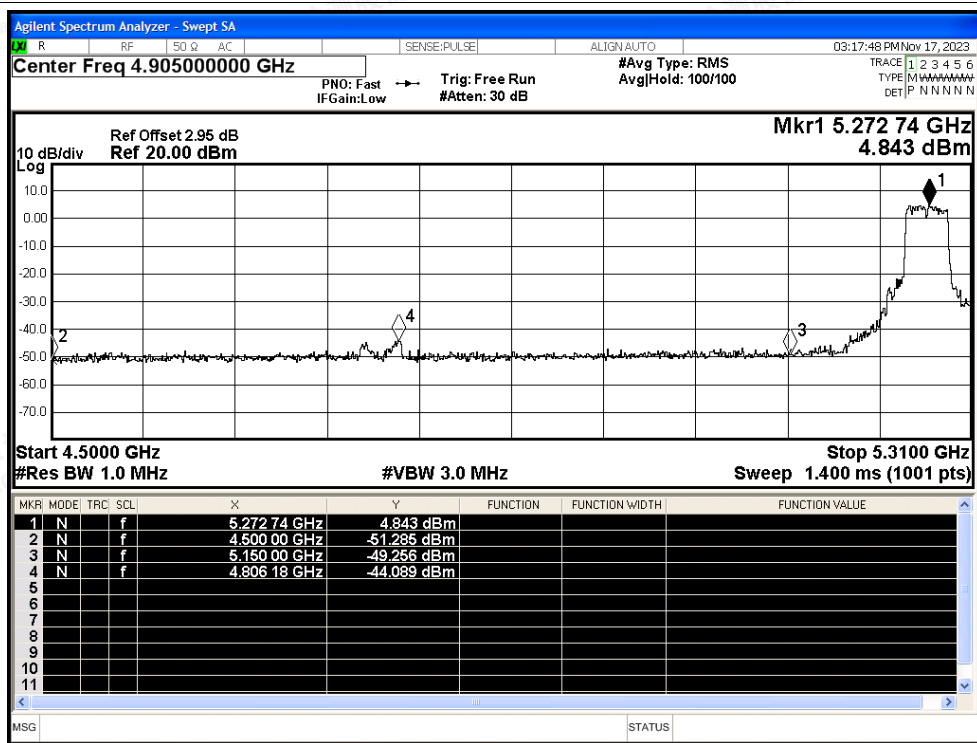


Restrict Band NVNT ac20 5320MHz Ant0 Average

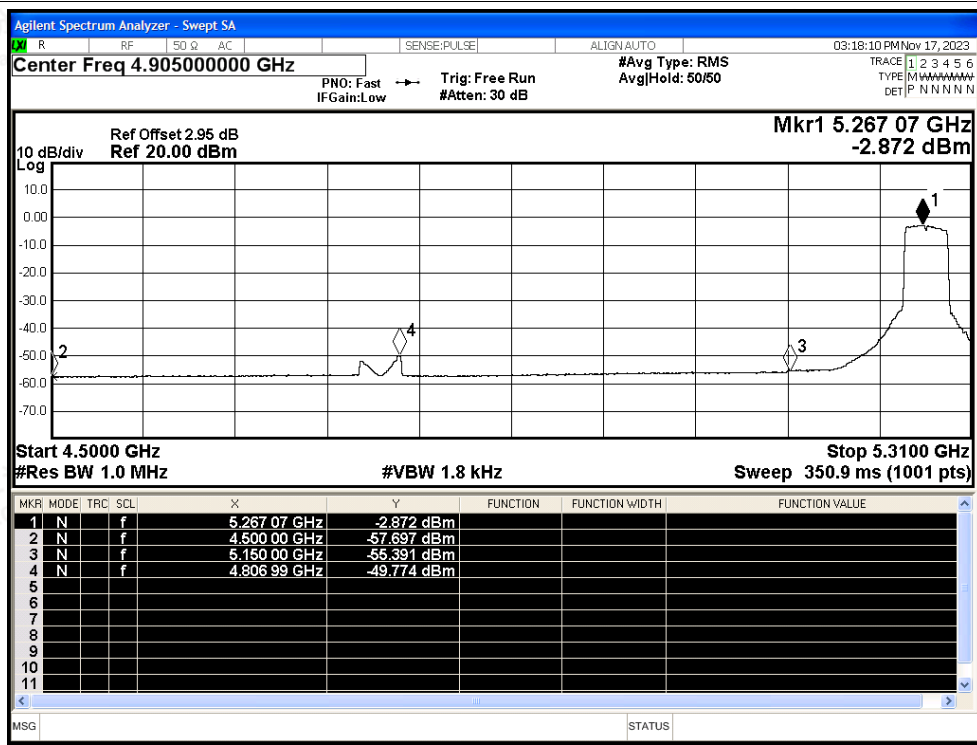




Restrict Band NVNT ac40 5270MHz Ant0 Peak

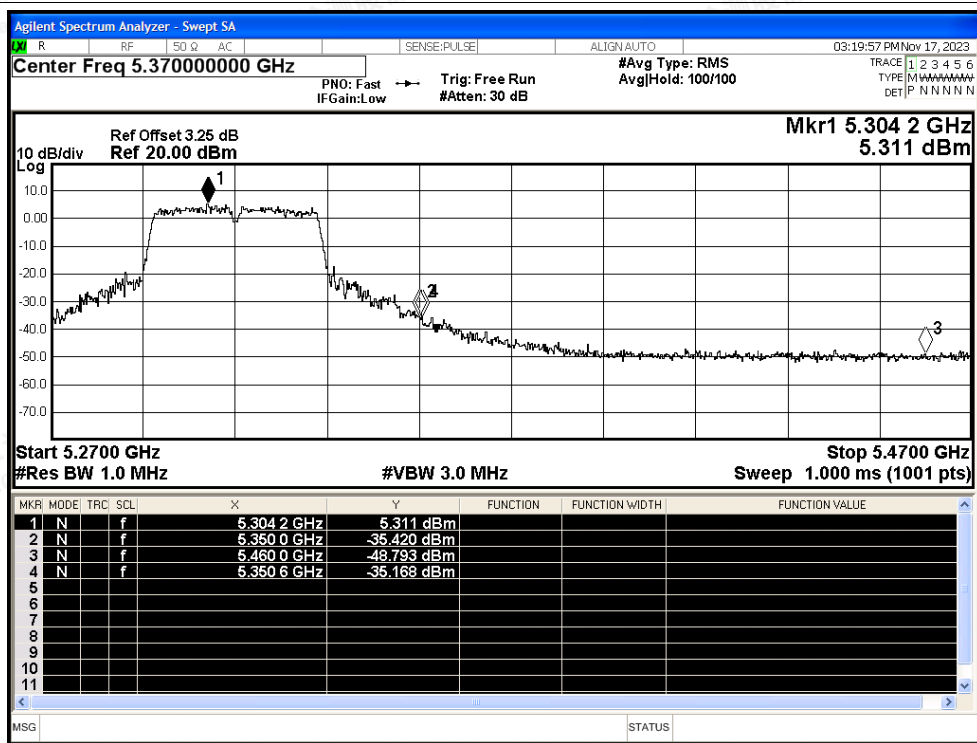


Restrict Band NVNT ac40 5270MHz Ant0 Average

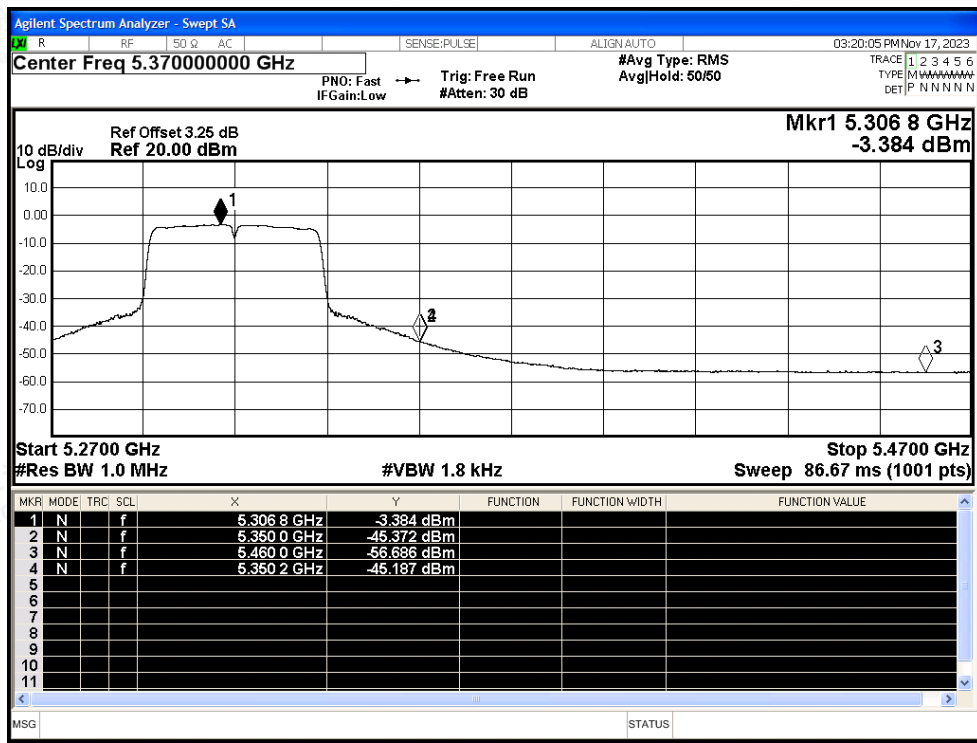




Restrict Band NVNT ac40 5310MHz Ant0 Peak

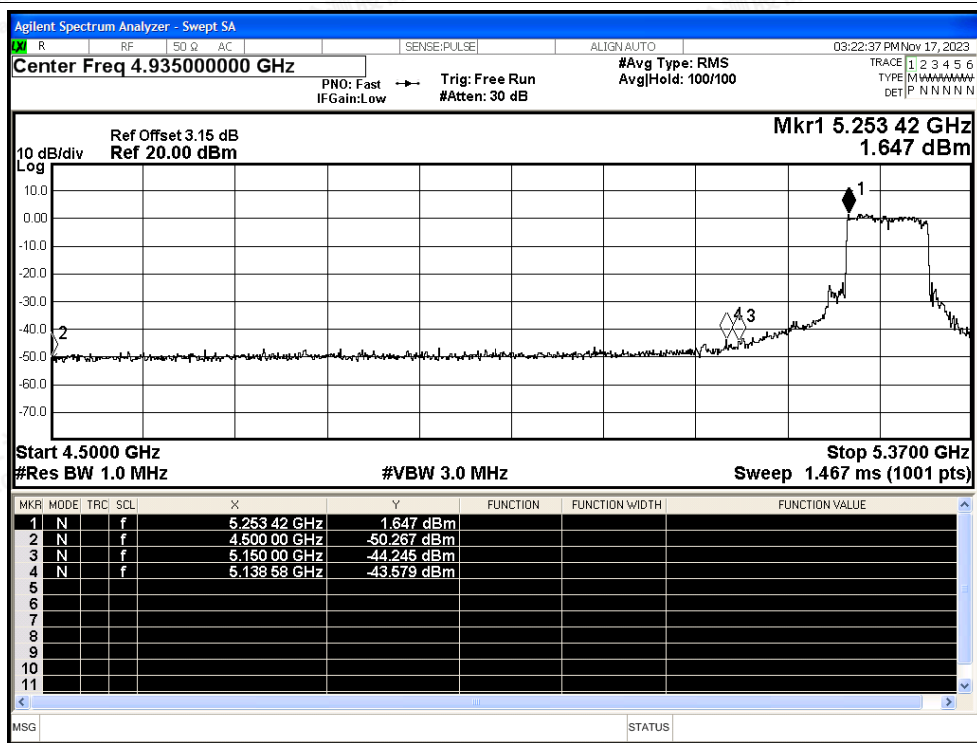


Restrict Band NVNT ac40 5310MHz Ant0 Average

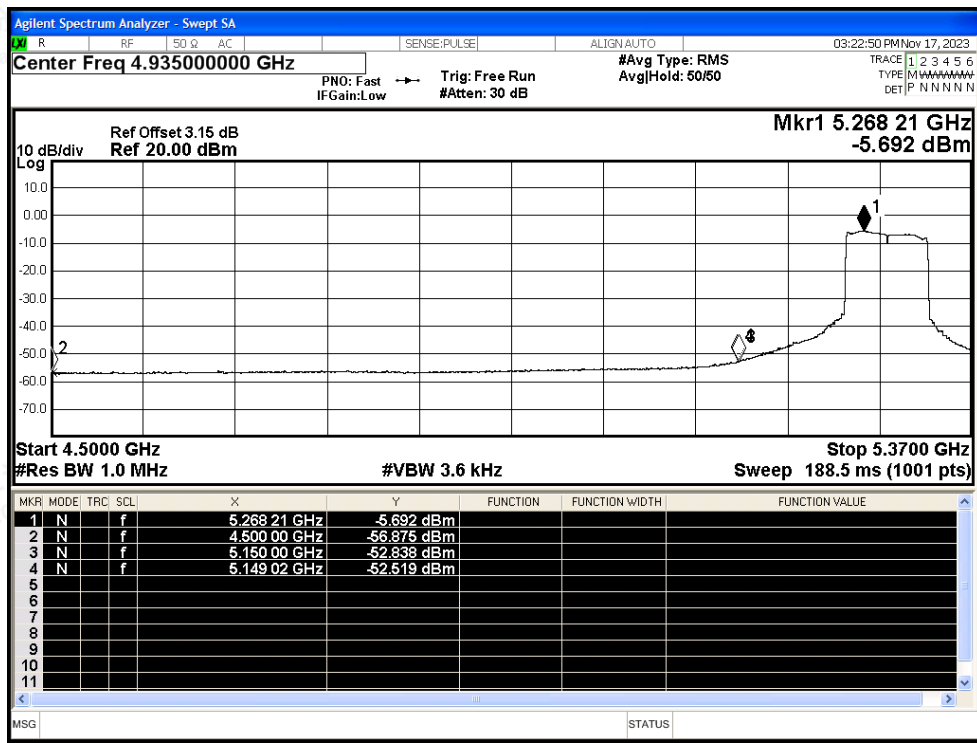




Restrict Band NVNT ac80 5290MHz Ant0 Peak

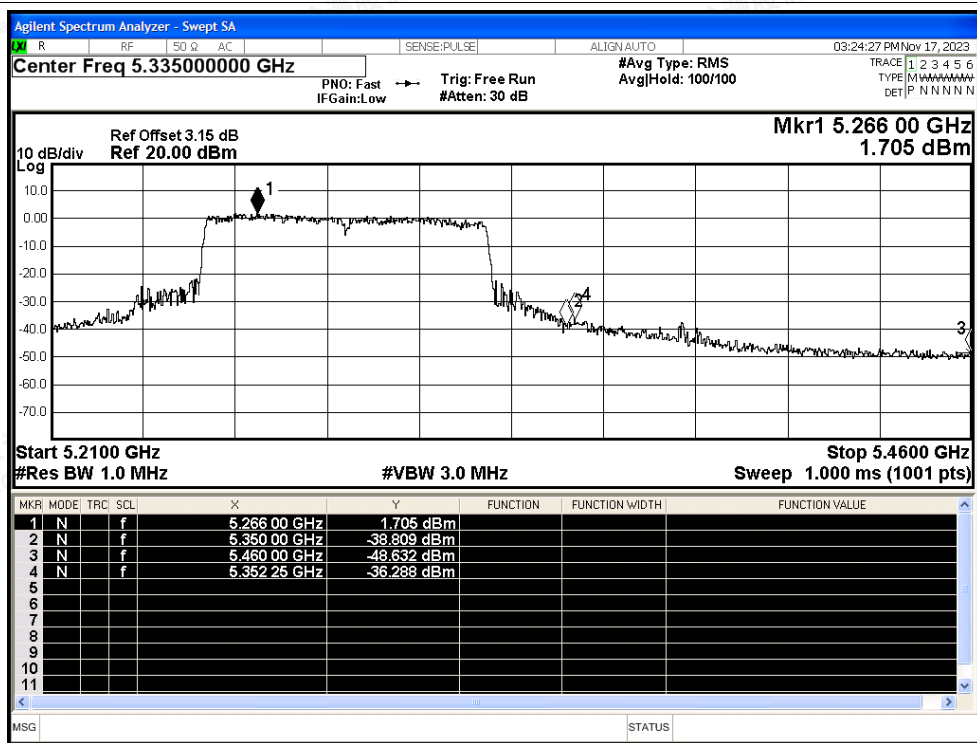


Restrict Band NVNT ac80 5290MHz Ant0 Average

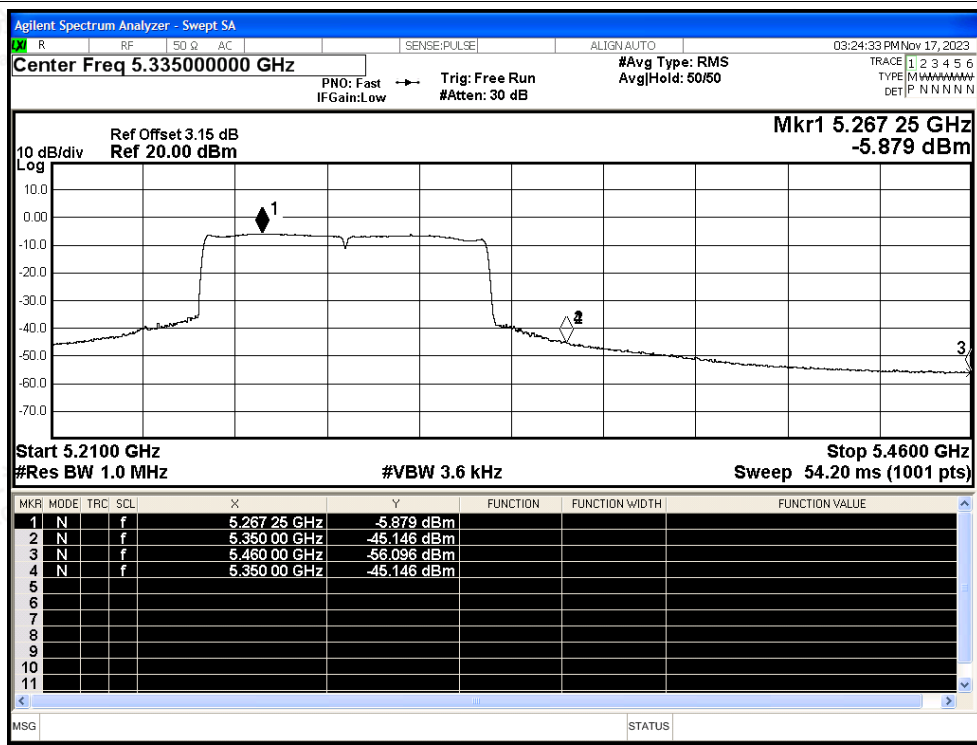




Restrict Band NVNT ac80 5290MHz Ant0 Peak



Restrict Band NVNT ac80 5290MHz Ant0 Average







### E.5 Frequency Stability

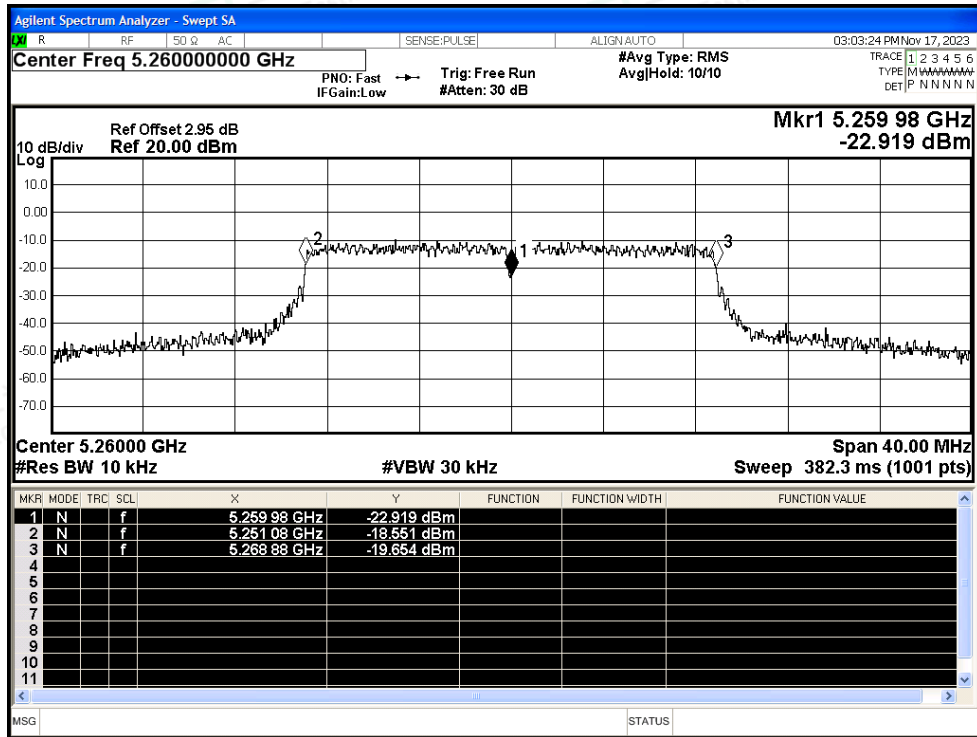
Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	ac20	5260	Ant0	5259.98	-20000	-3.8	25	Pass
NVNT	ac20	5300	Ant0	5299.98	-20000	-3.77	25	Pass
NVNT	ac20	5320	Ant0	5319.98	-20000	-3.76	25	Pass
NVNT	ac40	5270	Ant0	5270	0	0	25	Pass
NVNT	ac40	5310	Ant0	5310	0	0	25	Pass
NVNT	ac80	5290	Ant0	5290	0	0	25	Pass



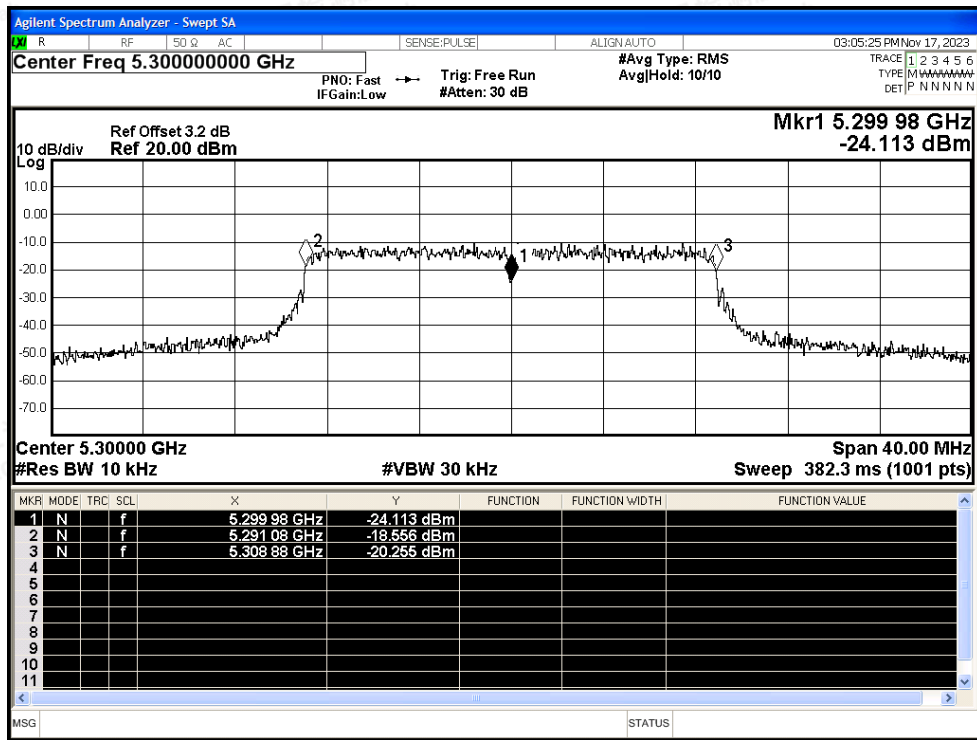


Test Graphs

Freq. Stability NVNT ac20 5260MHz Ant0



Freq. Stability NVNT ac20 5300MHz Ant0



Shenzhen LCS Compliance Testing Laboratory Ltd.

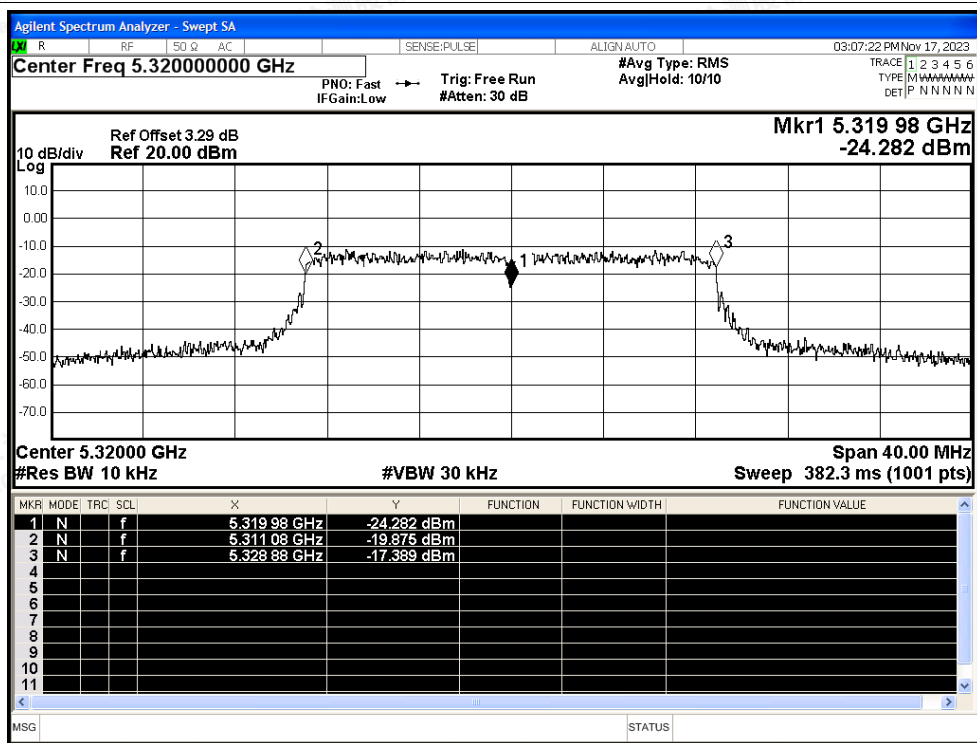
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

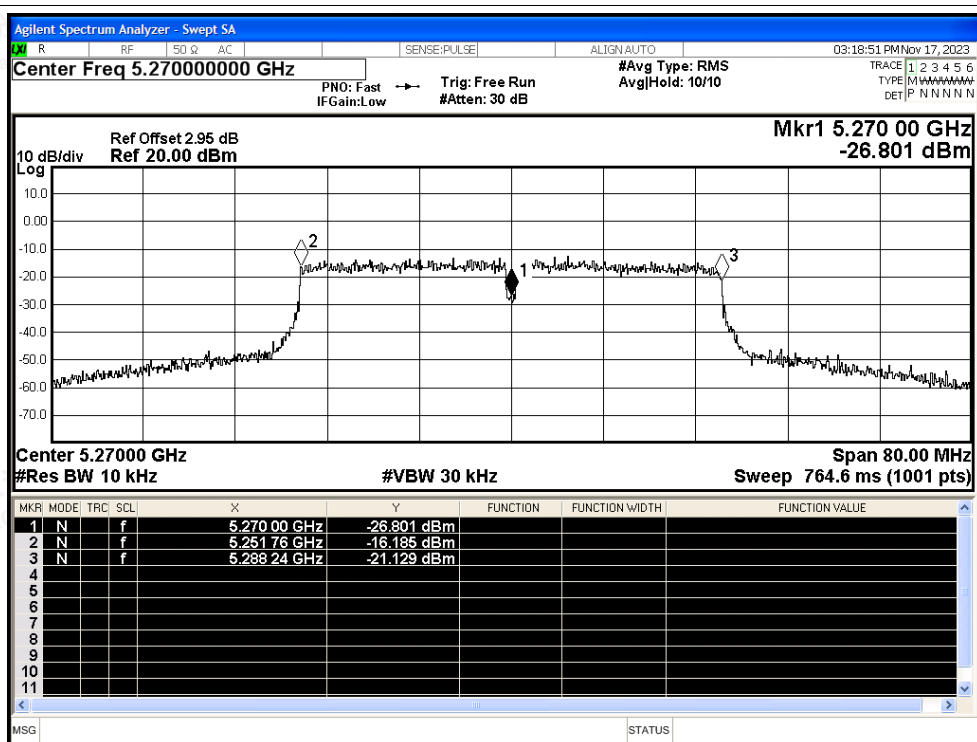
Scan code to check authenticity



Freq. Stability NVNT ac20 5320MHz Ant0

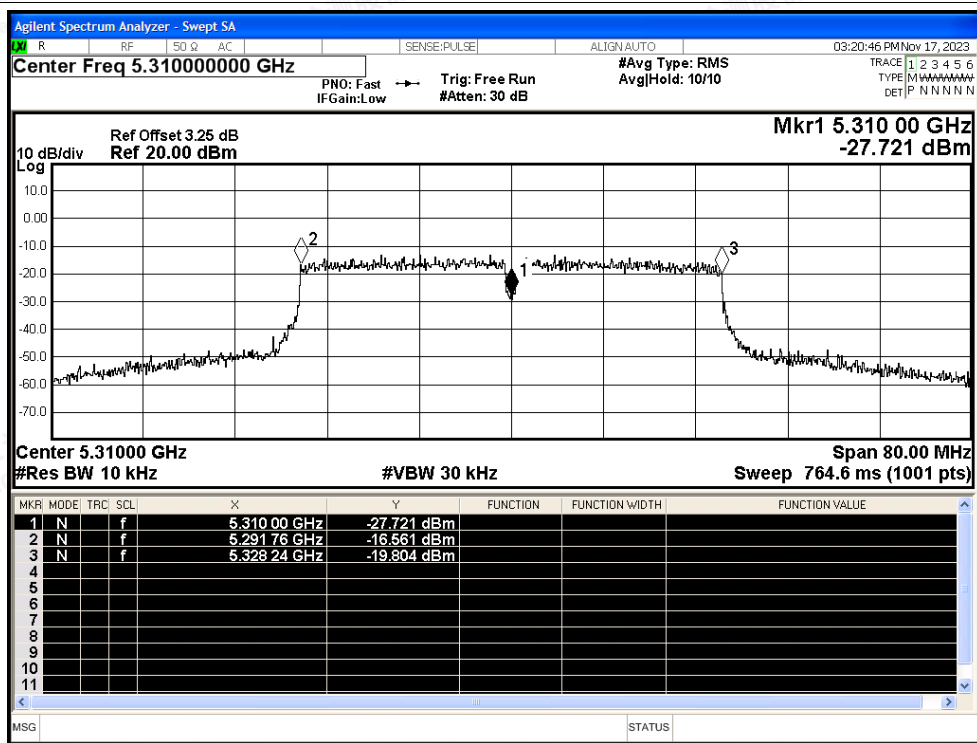


Freq. Stability NVNT ac40 5270MHz Ant0

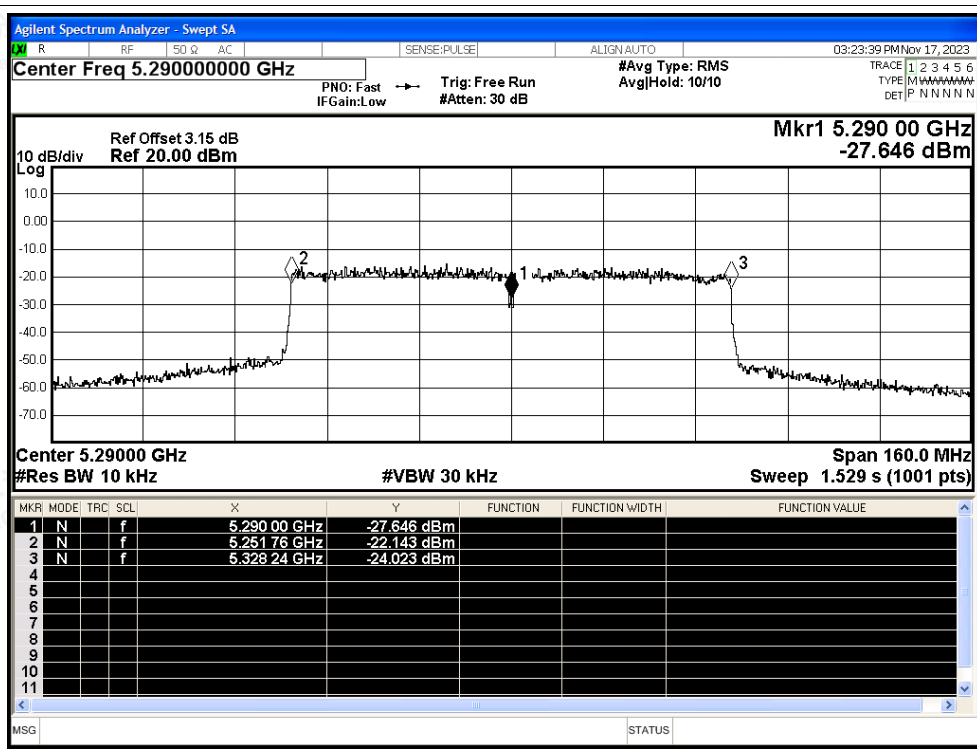




Freq. Stability NVNT ac40 5310MHz Ant0



Freq. Stability NVNT ac80 5290MHz Ant0





## E.6 Duty Cycle

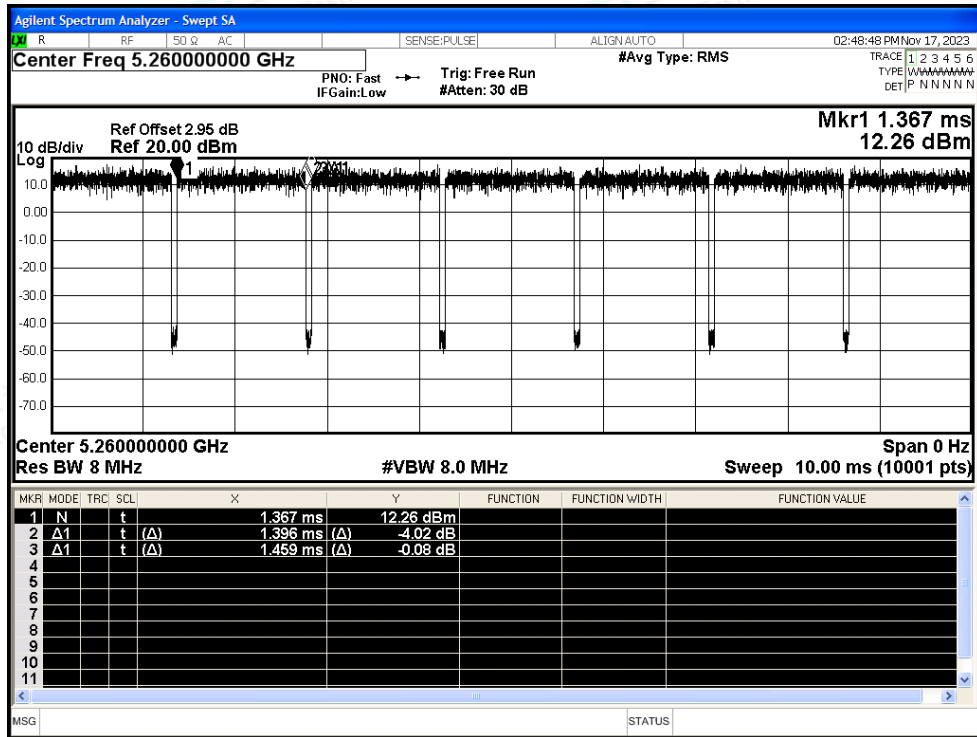
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5260	Ant0	95.68	0.19	0.72
NVNT	a	5300	Ant0	95.68	0.19	0.72
NVNT	a	5320	Ant0	95.68	0.19	0.72
NVNT	n20	5260	Ant0	94.94	0.23	0.85
NVNT	n20	5300	Ant0	94.94	0.23	0.85
NVNT	n20	5320	Ant0	94.94	0.23	0.85
NVNT	n40	5270	Ant0	90.56	0.43	1.68
NVNT	n40	5310	Ant0	90.41	0.44	1.68
NVNT	ac20	5260	Ant0	95.04	0.22	0.84
NVNT	ac20	5300	Ant0	95.04	0.22	0.84
NVNT	ac20	5320	Ant0	95.04	0.22	0.84
NVNT	ac40	5270	Ant0	90.56	0.43	1.68
NVNT	ac40	5310	Ant0	90.56	0.43	1.68
NVNT	ac80	5290	Ant0	82.68	0.83	3.38



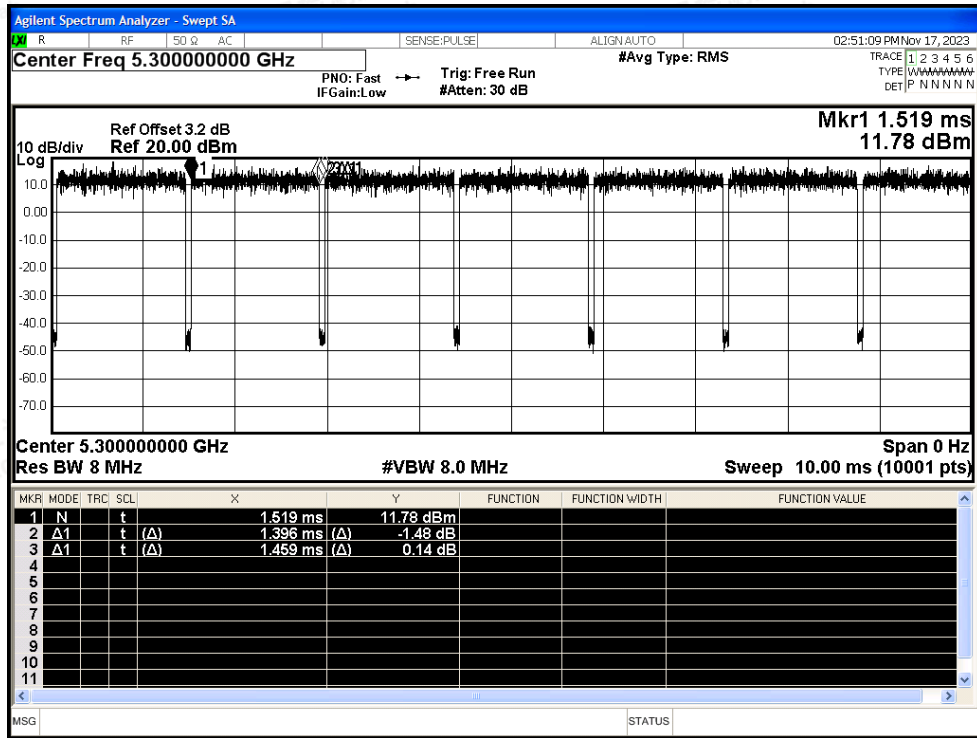


Test Graphs

Duty Cycle NVNT a 5260MHz Ant0

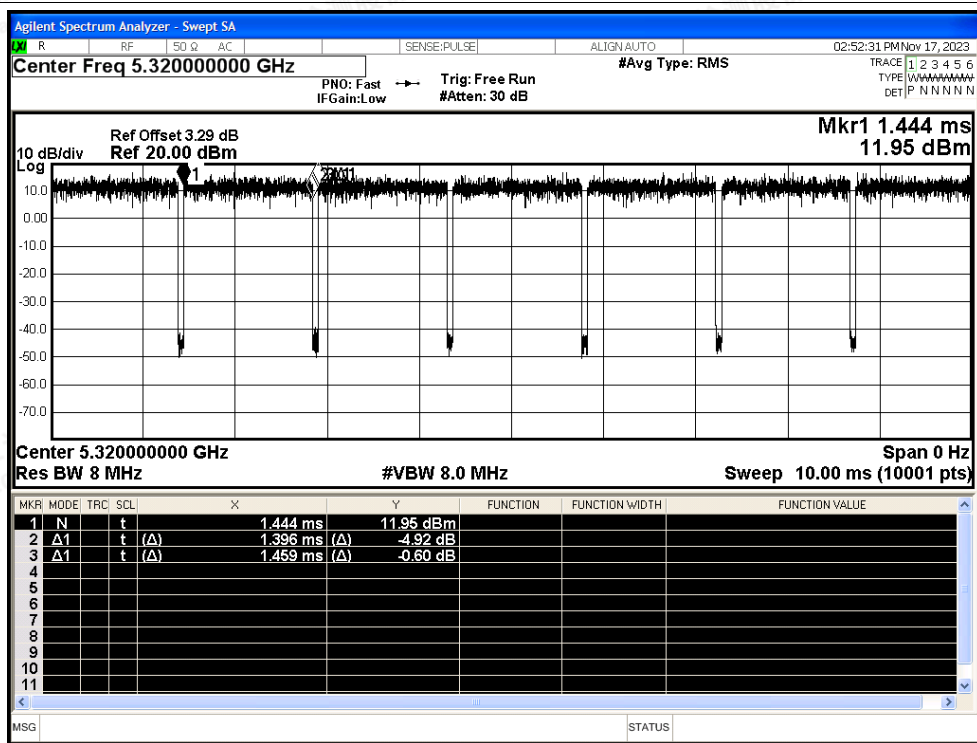


Duty Cycle NVNT a 5300MHz Ant0

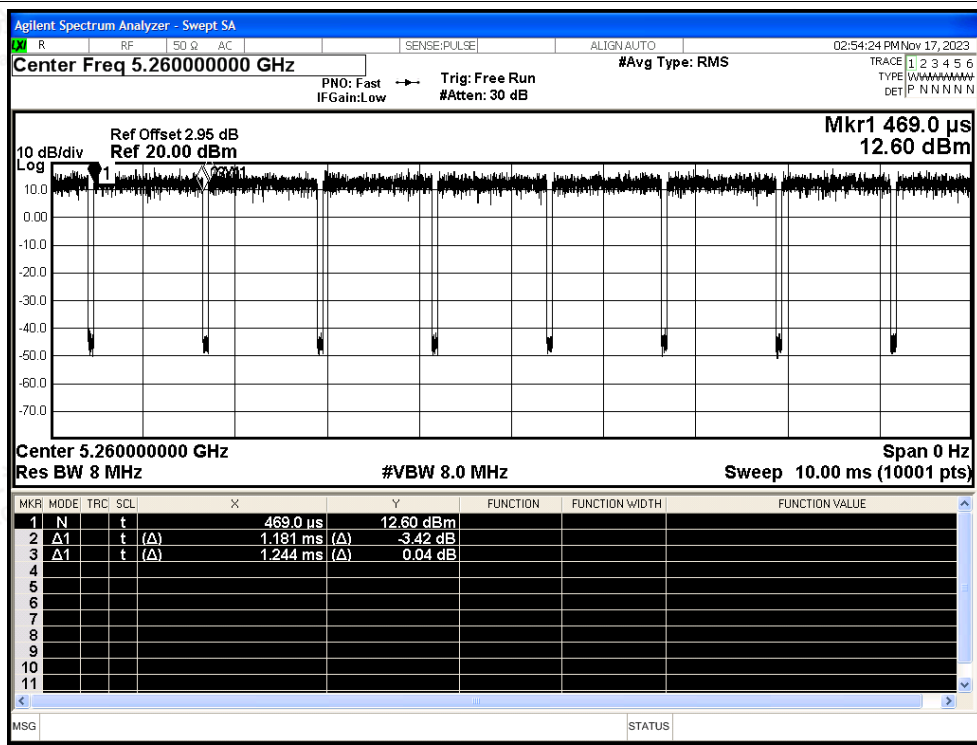




Duty Cycle NVNT a 5320MHz Ant0

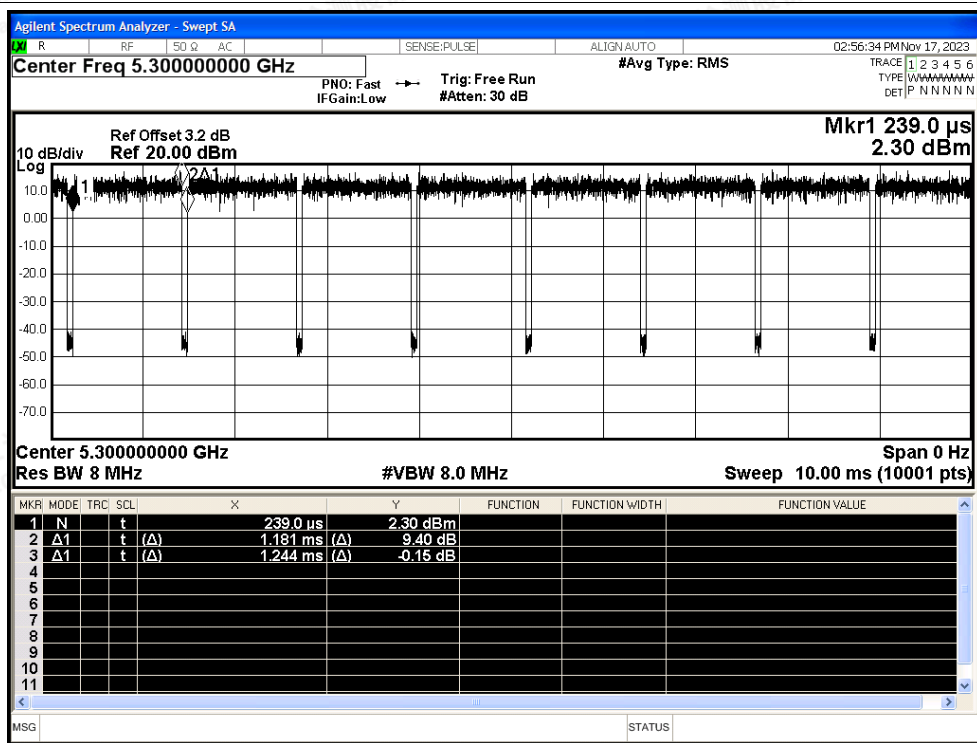


Duty Cycle NVNT n20 5260MHz Ant0

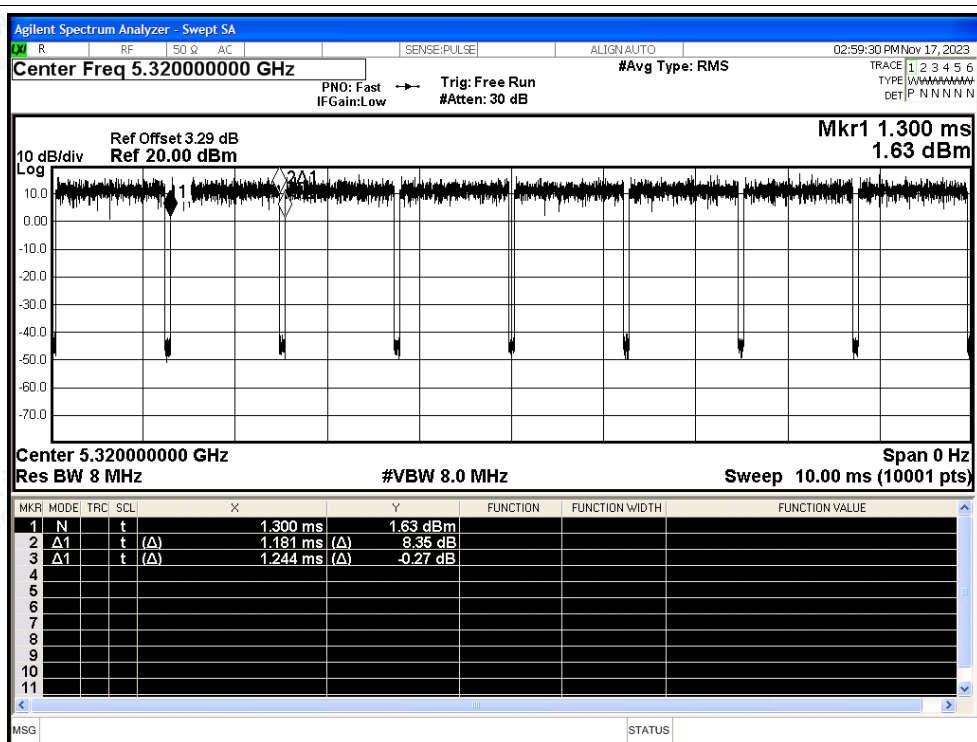




Duty Cycle NVNT n20 5300MHz Ant0



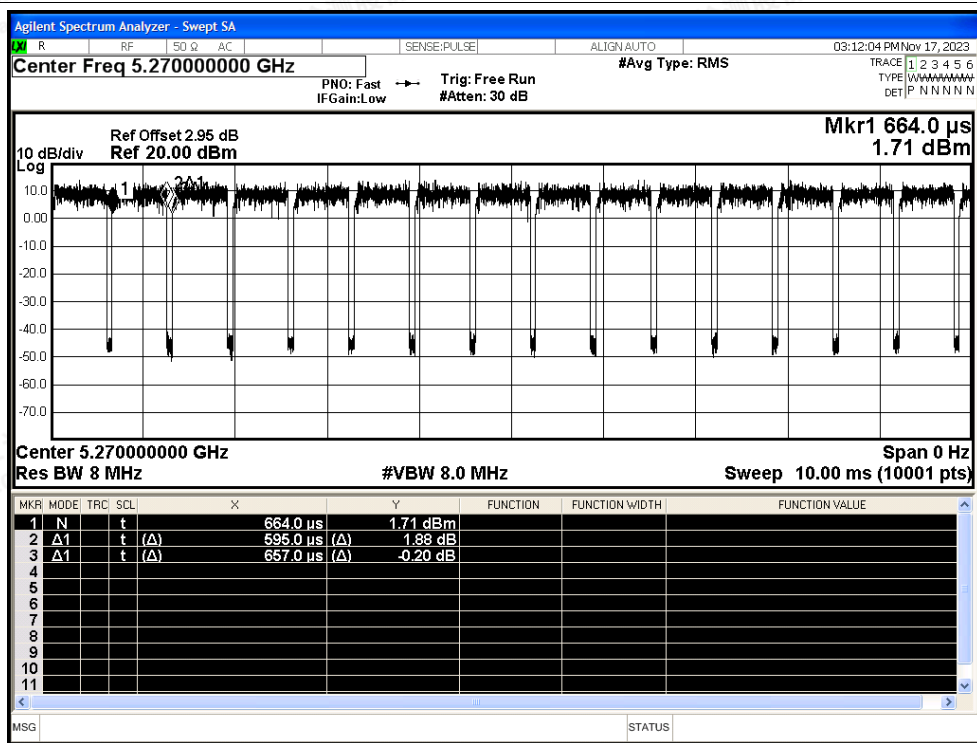
Duty Cycle NVNT n20 5320MHz Ant0



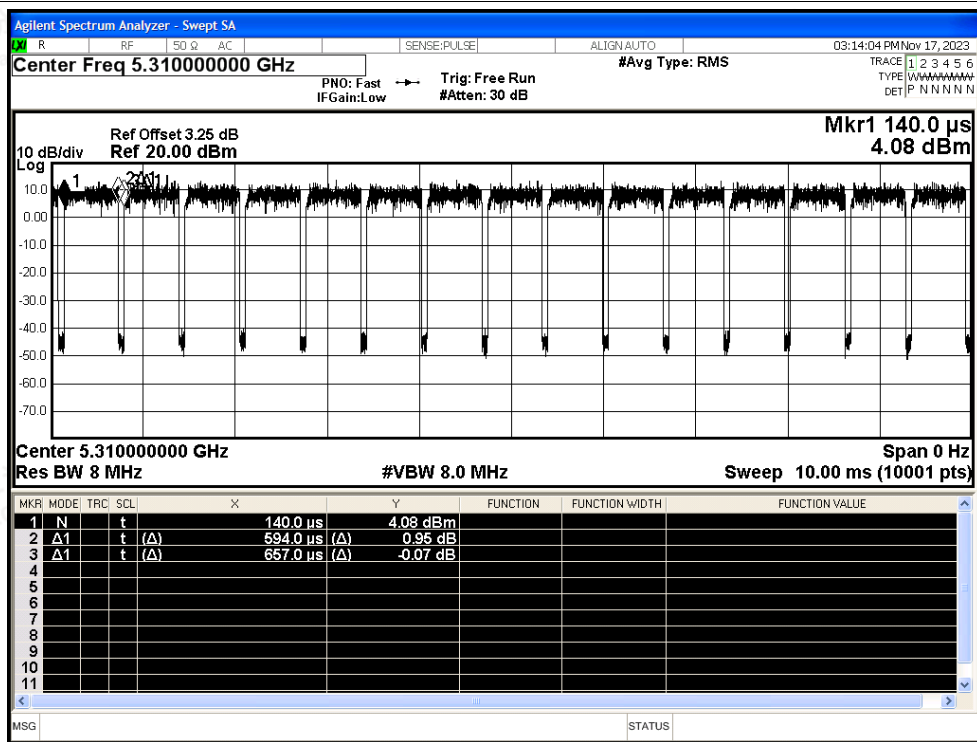




Duty Cycle NVNT n40 5270MHz Ant0

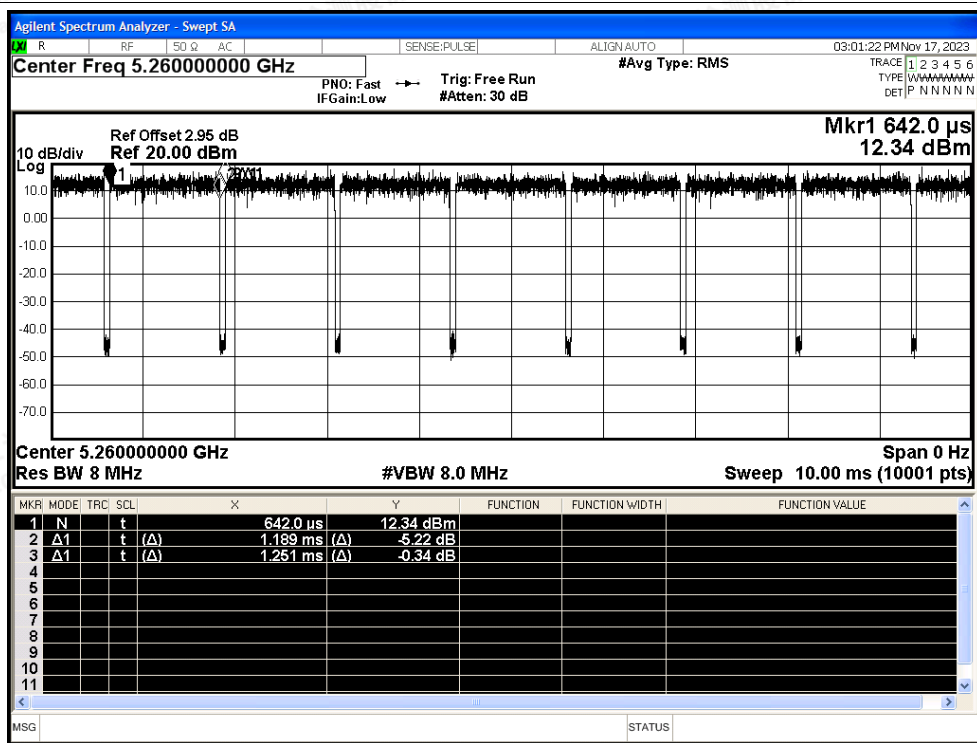


Duty Cycle NVNT n40 5310MHz Ant0

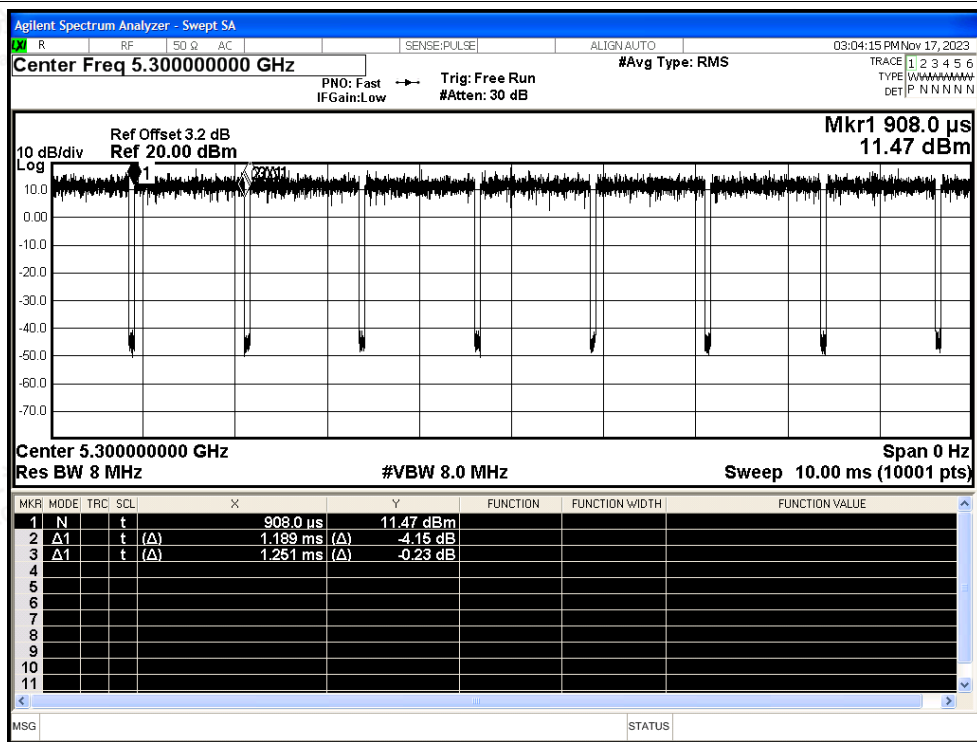


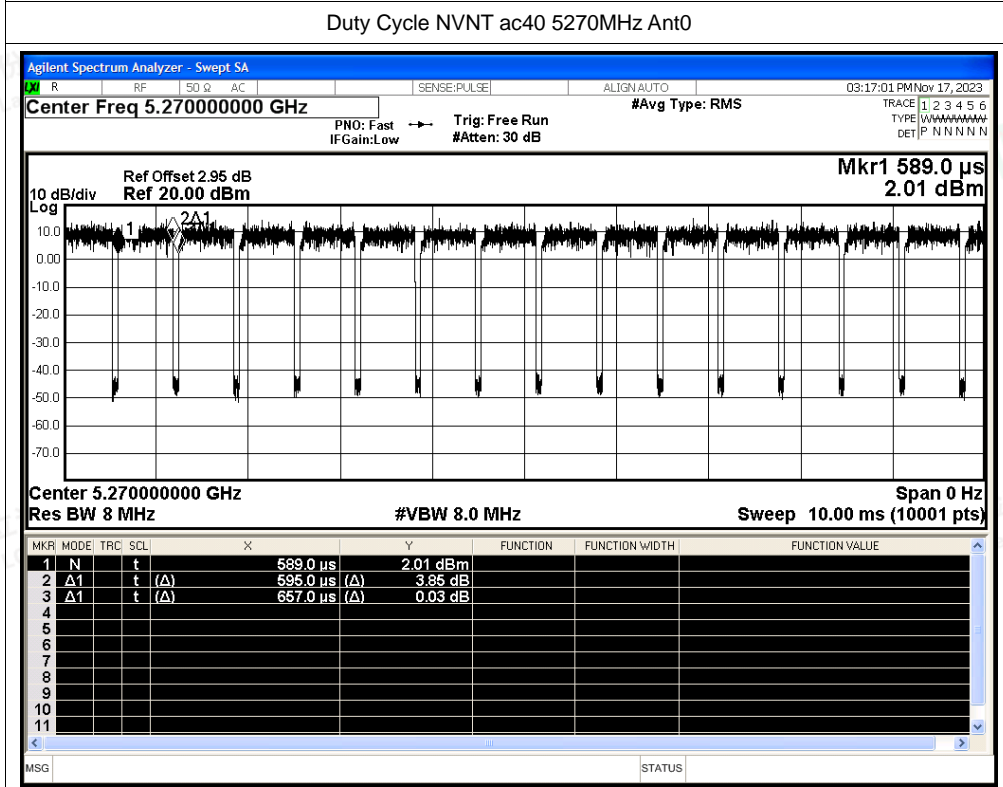
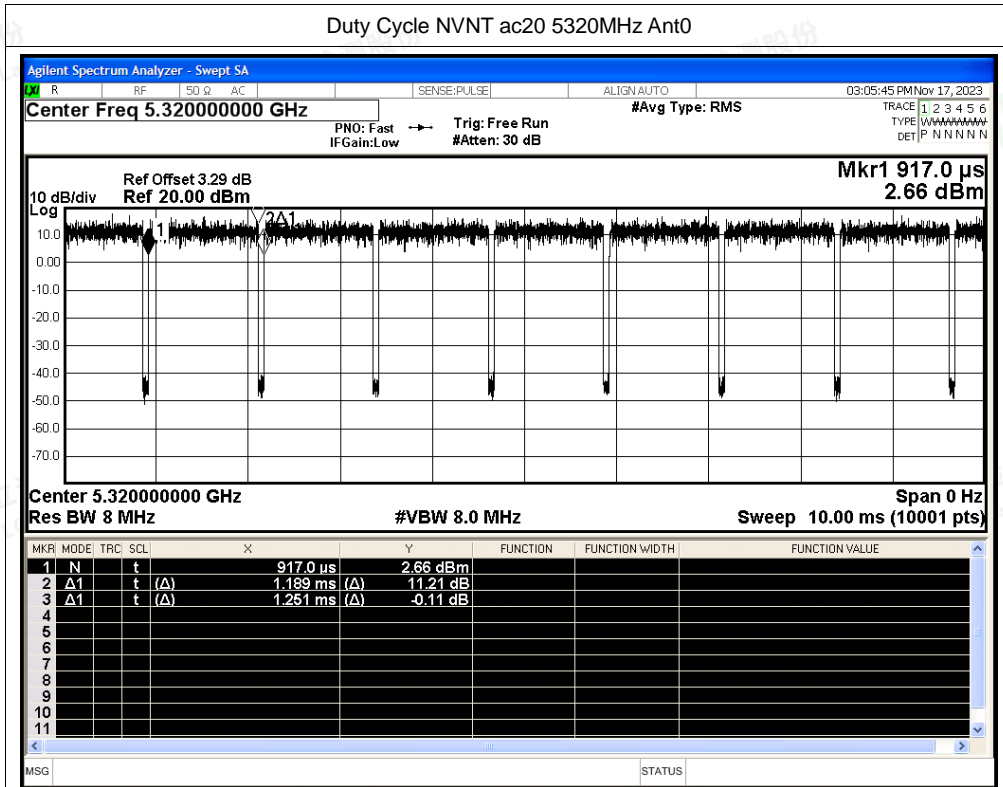


Duty Cycle NVNT ac20 5260MHz Ant0



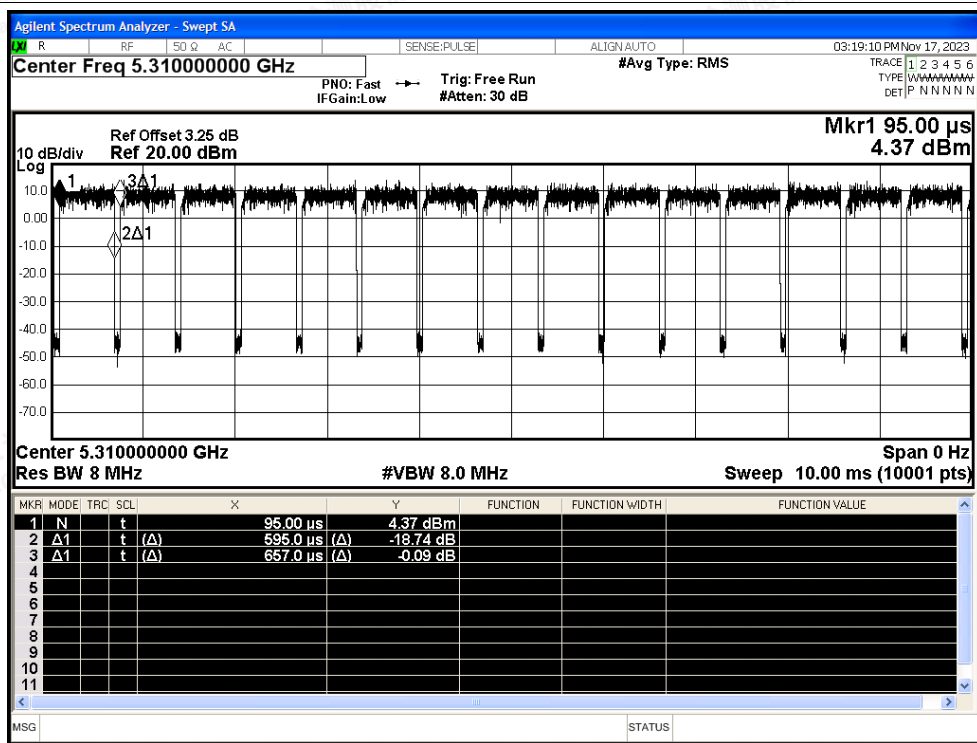
Duty Cycle NVNT ac20 5300MHz Ant0







Duty Cycle NVNT ac40 5310MHz Ant0



Duty Cycle NVNT ac80 5290MHz Ant0

