



Appendix D

RF Test Data for 5.2GWIFI(Conducted Measurement)

Product Name: Mobile phone

Test Model: F31tx

Environmental Conditions

Temperature:	23.9° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Luo
Supervised by:	Nick Peng



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D.1 -26dB Bandwidth

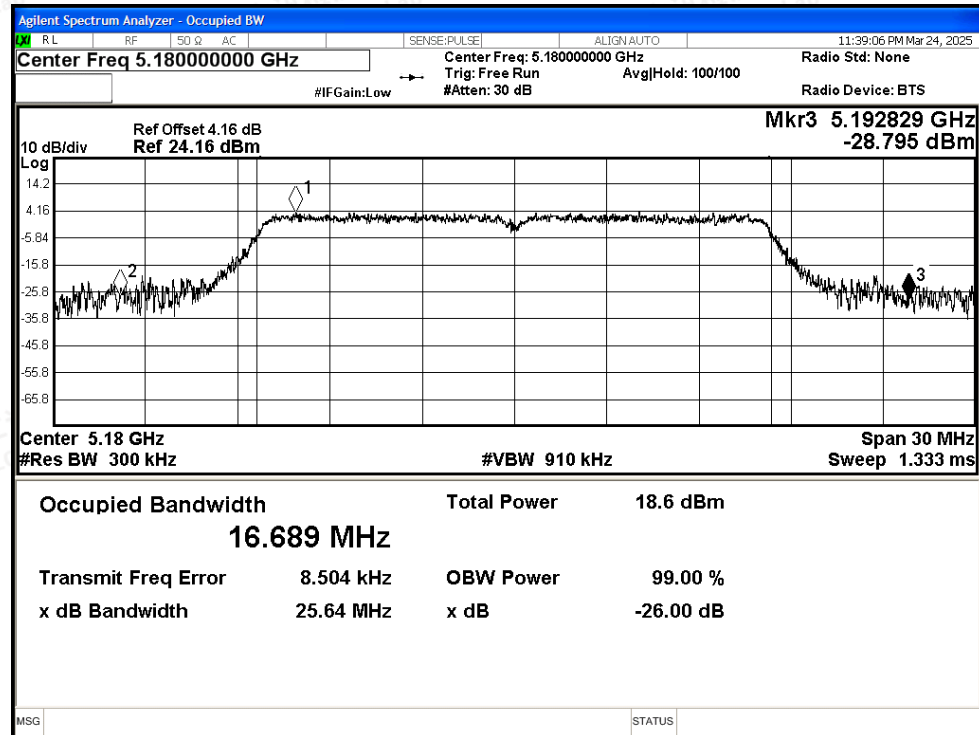
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant	25.641	----	Pass
NVNT	a	5200	Ant	25.367	----	Pass
NVNT	a	5240	Ant	27.407	----	Pass
NVNT	n20	5180	Ant	29.248	----	Pass
NVNT	n20	5200	Ant	29.117	----	Pass
NVNT	n20	5240	Ant	29.154	----	Pass
NVNT	n40	5190	Ant	50.397	----	Pass
NVNT	n40	5230	Ant	55.887	----	Pass



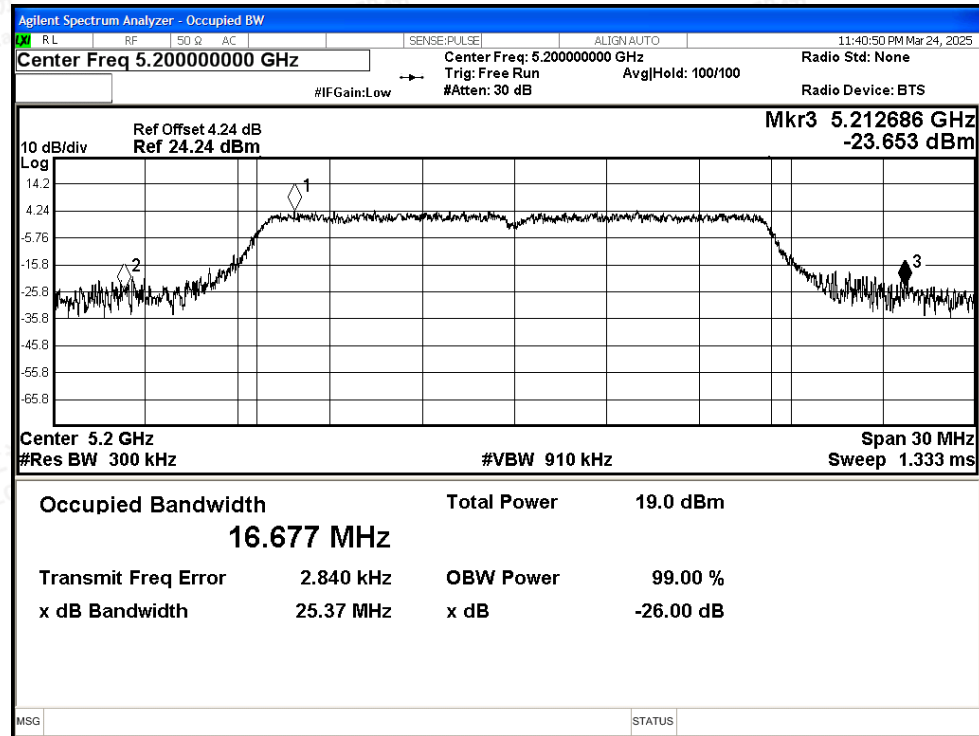


Test Graphs

-26dB Bandwidth NVNT a 5180MHz Ant



-26dB Bandwidth NVNT a 5200MHz Ant



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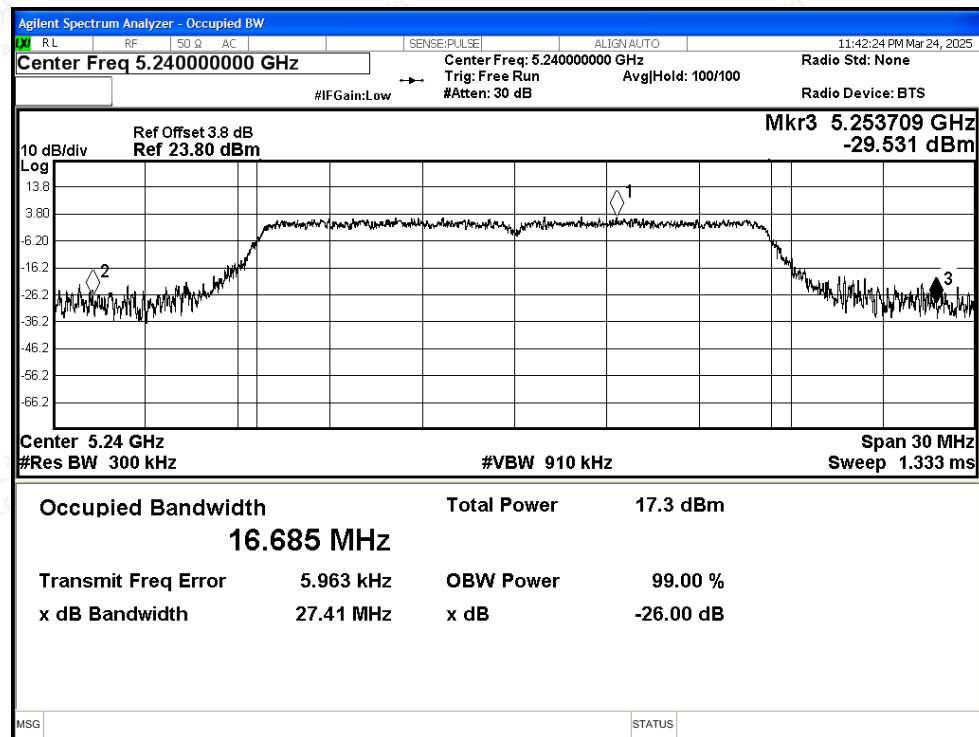
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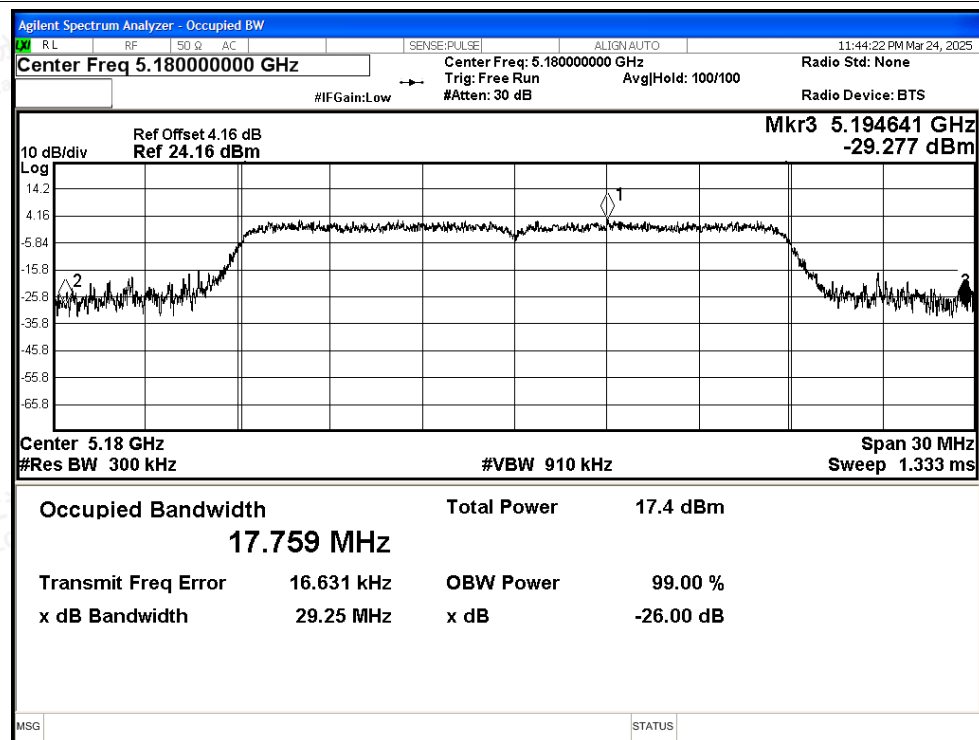
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-26dB Bandwidth NVNT a 5240MHz Ant



-26dB Bandwidth NVNT n20 5180MHz Ant



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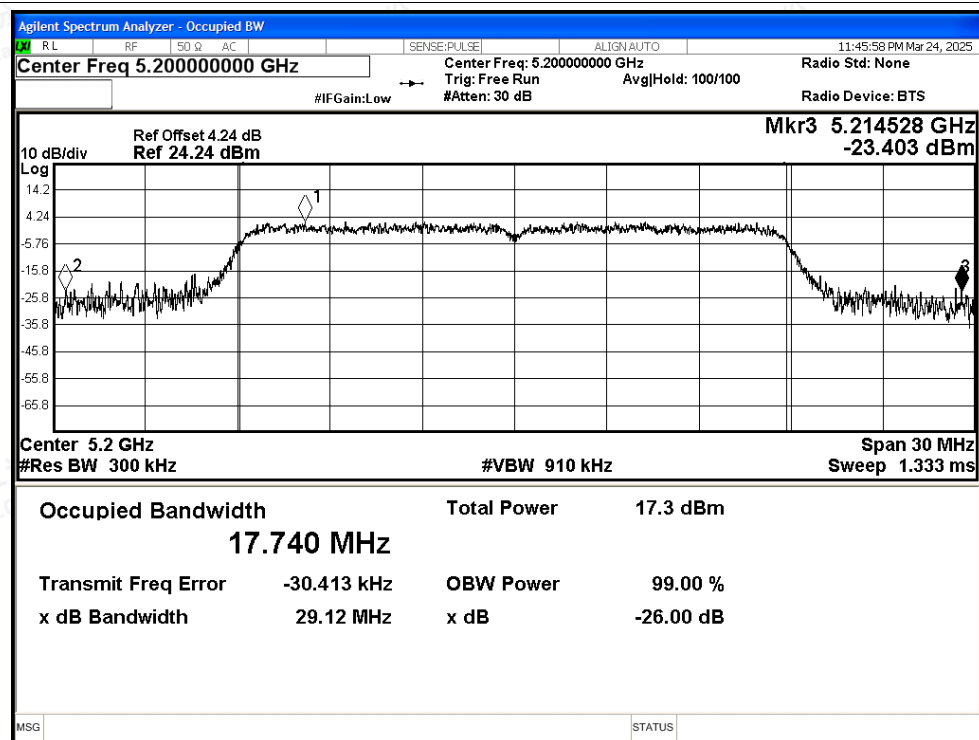
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

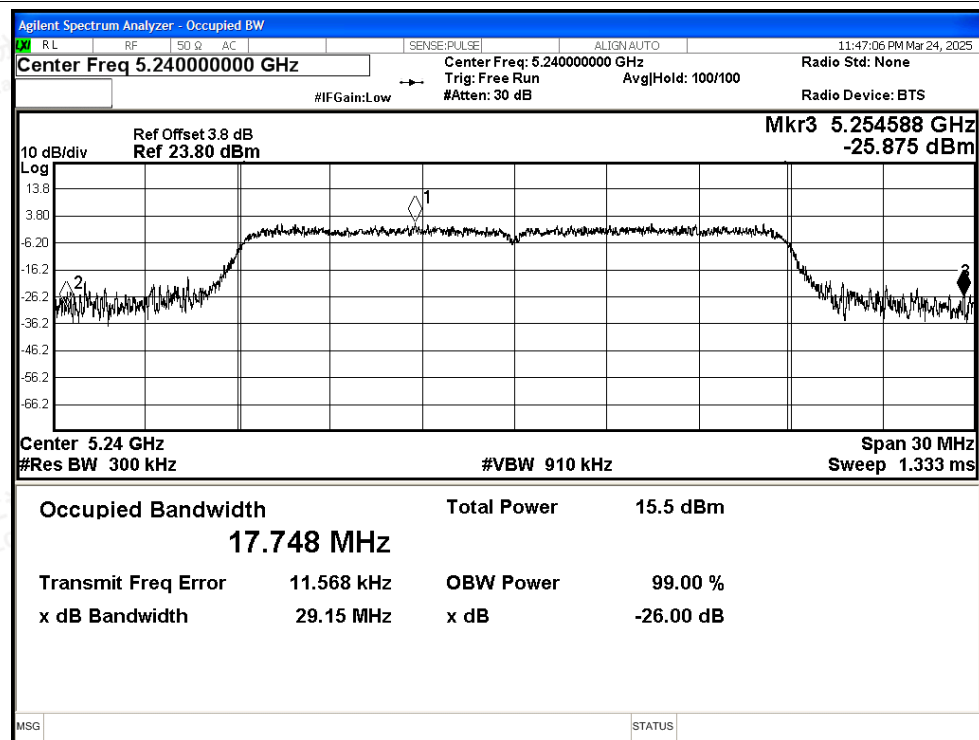
Scan code to check authenticity



-26dB Bandwidth NVNT n20 5200MHz Ant



-26dB Bandwidth NVNT n20 5240MHz Ant



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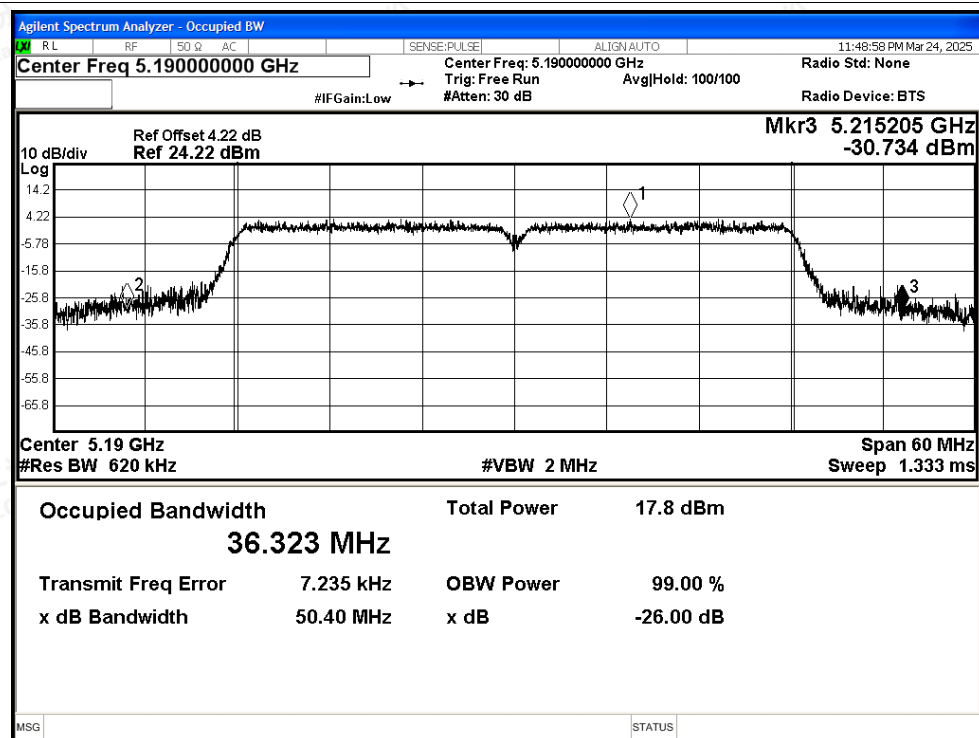
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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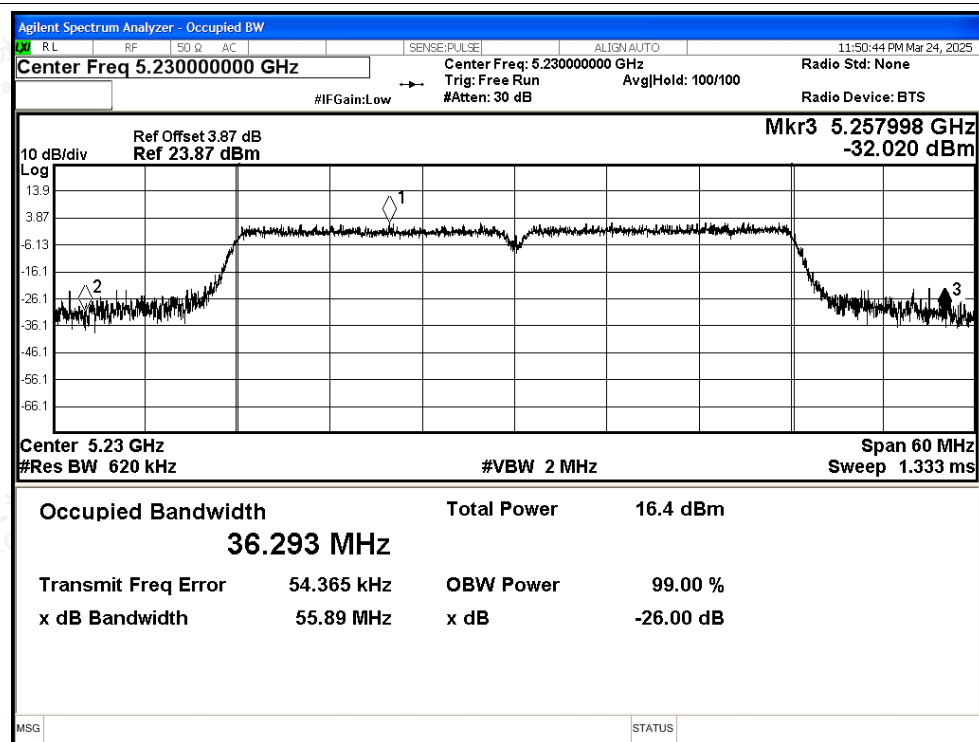
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-26dB Bandwidth NVNT n40 5190MHz Ant



-26dB Bandwidth NVNT n40 5230MHz Ant



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D.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant	12.75	0.24	12.99	24	Pass
NVNT	a	5200	Ant	12.83	0.24	13.07	24	Pass
NVNT	a	5240	Ant	11.64	0.24	11.88	24	Pass
NVNT	n20	5180	Ant	11.9	0.12	12.02	24	Pass
NVNT	n20	5200	Ant	11.77	0.12	11.89	24	Pass
NVNT	n20	5240	Ant	10.13	0.12	10.25	24	Pass
NVNT	n40	5190	Ant	11.34	0.24	11.58	24	Pass
NVNT	n40	5230	Ant	10.07	0.24	10.31	24	Pass





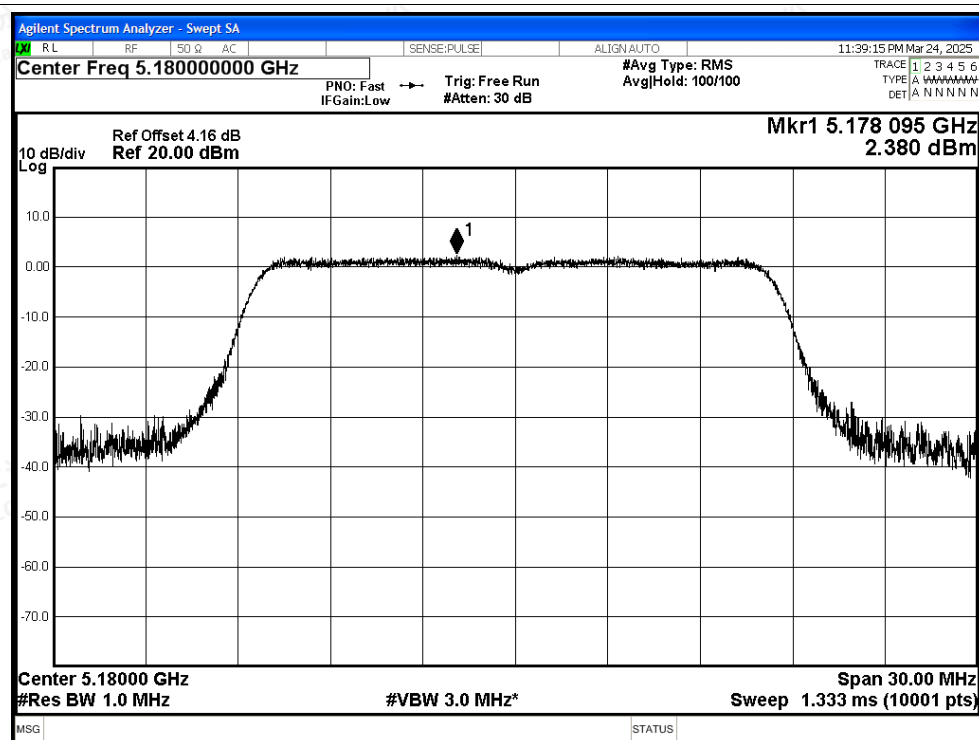
D.3 Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5180	Ant	2.38	0.24	2.62	11	Pass
NVNT	a	5200	Ant	3.07	0.24	3.31	11	Pass
NVNT	a	5240	Ant	1.27	0.24	1.51	11	Pass
NVNT	n20	5180	Ant	1.07	0.12	1.19	11	Pass
NVNT	n20	5200	Ant	0.89	0.12	1.01	11	Pass
NVNT	n20	5240	Ant	-0.83	0.12	-0.71	11	Pass
NVNT	n40	5190	Ant	-2.42	0.24	-2.18	11	Pass
NVNT	n40	5230	Ant	-3.66	0.24	-3.42	11	Pass

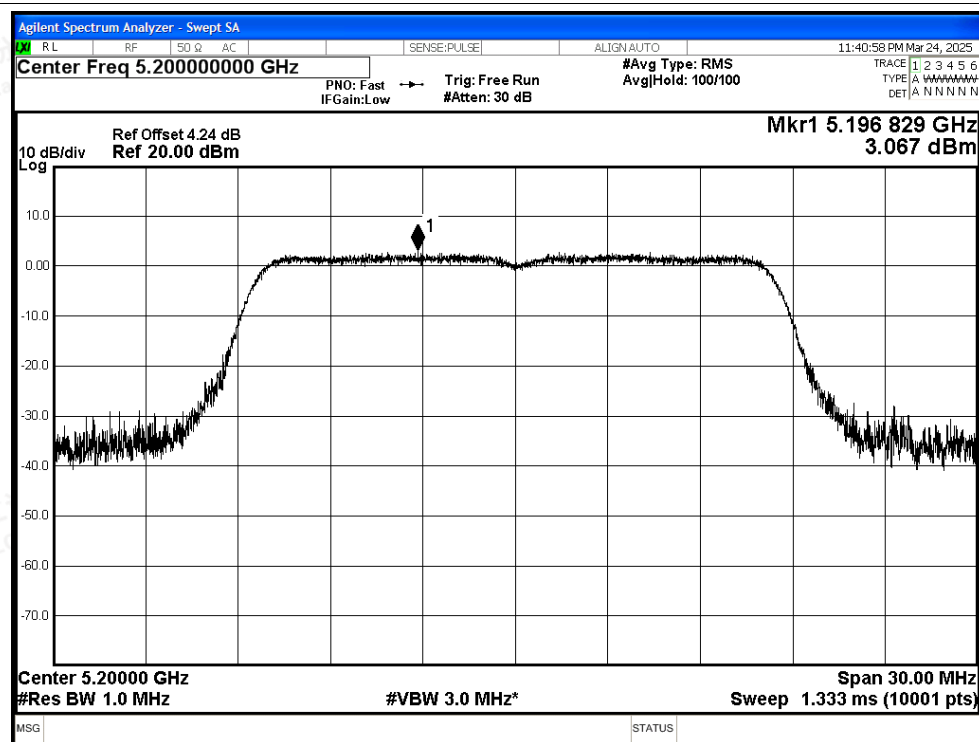




PSD NVNT a 5180MHz Ant



PSD NVNT a 5200MHz Ant



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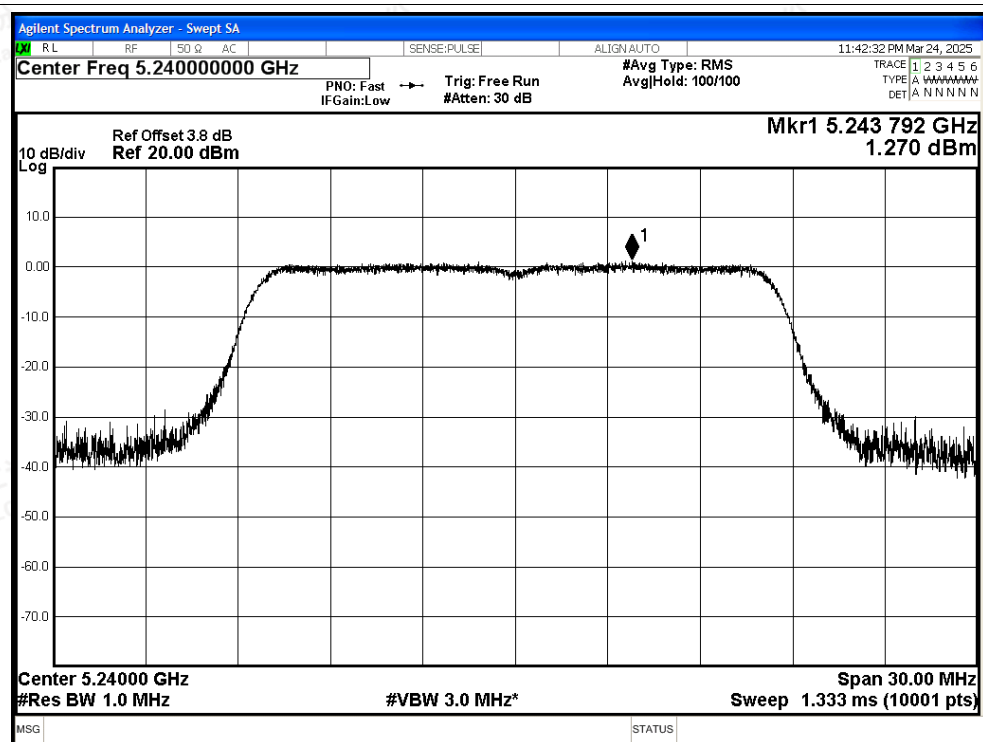
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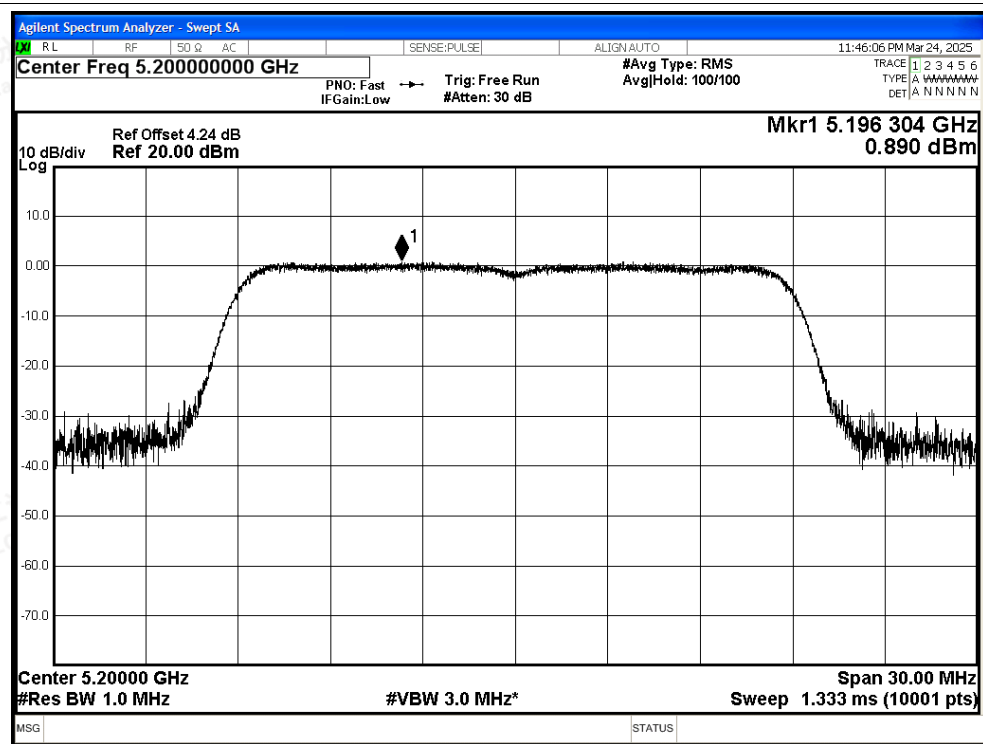
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PSD NVNT a 5240MHz Ant

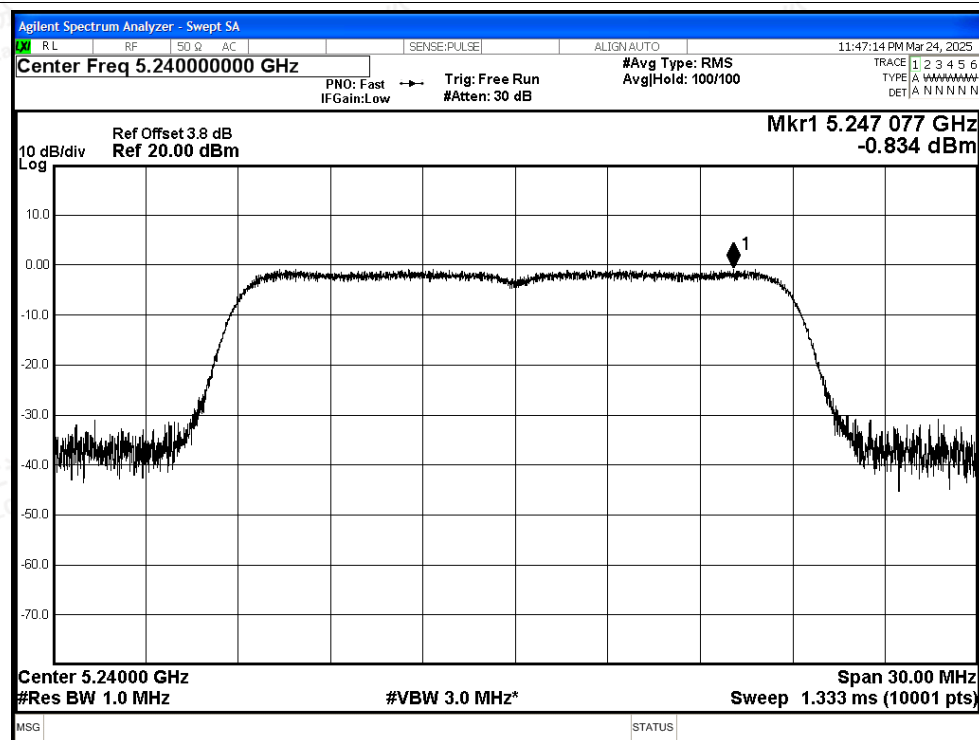


PSD NVNT n20 5200MHz Ant

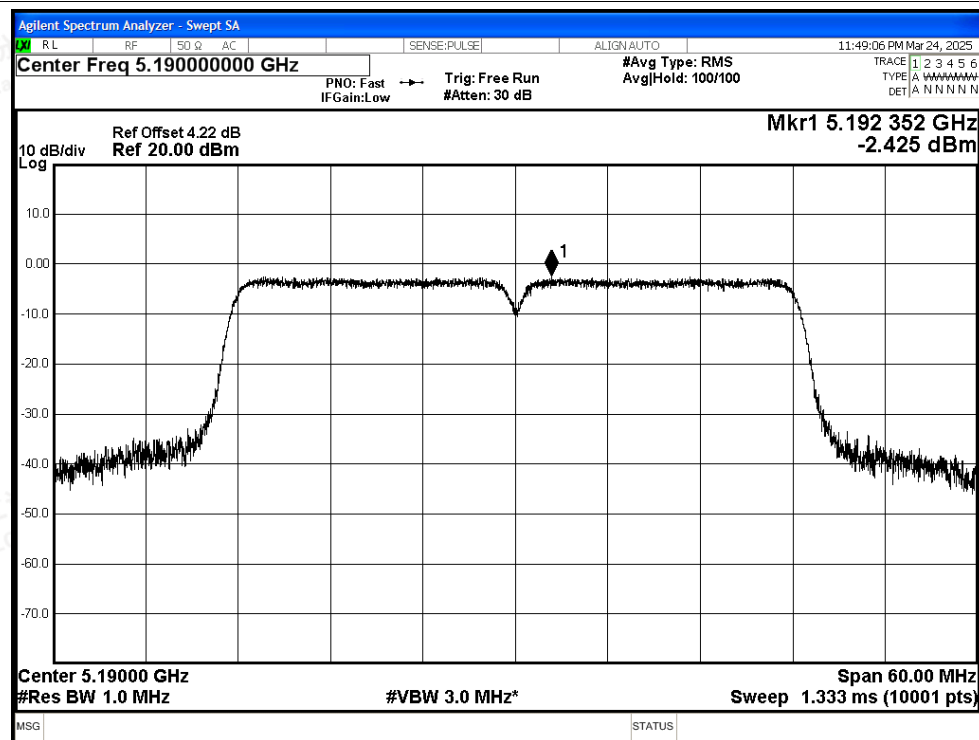




PSD NVNT n20 5240MHz Ant



PSD NVNT n40 5190MHz Ant



PSD NVNT n40 5230MHz Ant

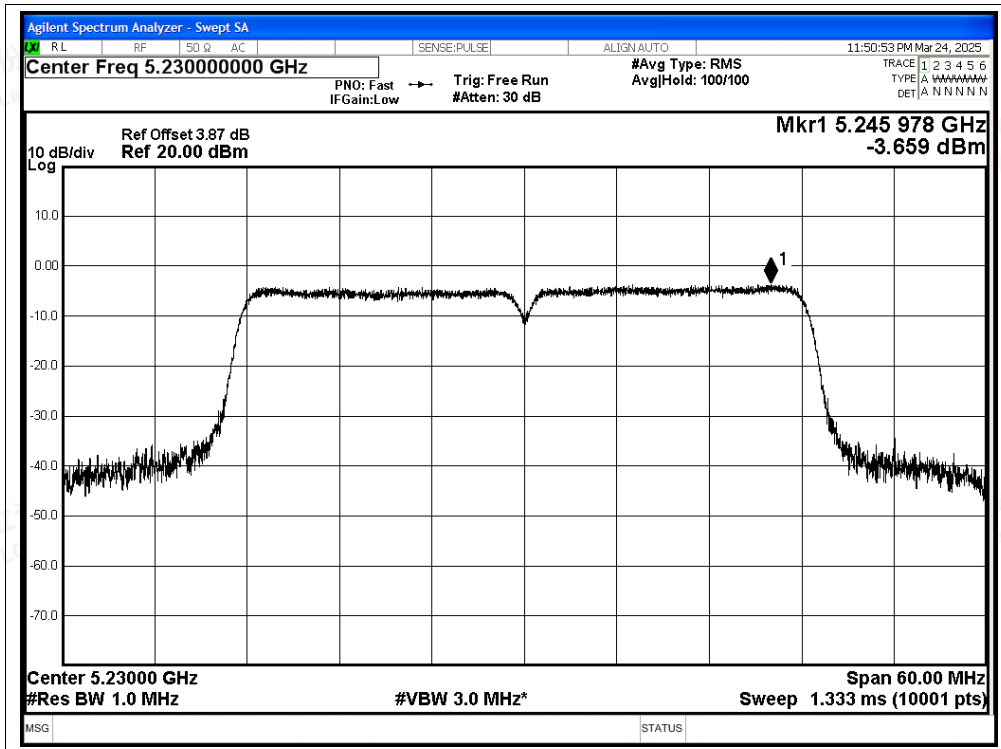


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D.4 Restrict Band

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	5180	Ant	4500	-49.32	2	-	47.91	Peak	68.2	Pass
NVNT	a	5180	Ant	4500	-57.95	2	0.24	39.52	Average	54	Pass
NVNT	a	5180	Ant	5149.6	-43.66	2	-	53.57	Peak	68.2	Pass
NVNT	a	5180	Ant	5147.5	-54.98	2	0.24	42.49	Average	54	Pass
NVNT	a	5180	Ant	5150	-46.13	2	-	51.1	Peak	68.2	Pass
NVNT	a	5180	Ant	5150	-55.05	2	0.24	42.42	Average	54	Pass
NVNT	a	5240	Ant	5350	-49.22	2	-	48.01	Peak	68.2	Pass
NVNT	a	5240	Ant	5350	-57.45	2	0.24	40.02	Average	54	Pass
NVNT	a	5240	Ant	5410.8	-45.96	2	-	51.27	Peak	68.2	Pass
NVNT	a	5240	Ant	5378.16	-56.38	2	0.24	41.09	Average	54	Pass
NVNT	a	5240	Ant	5460	-49.7	2	-	47.53	Peak	68.2	Pass
NVNT	a	5240	Ant	5460	-57.55	2	0.24	39.92	Average	54	Pass
NVNT	n20	5180	Ant	4500	-50.01	2	-	47.22	Peak	68.2	Pass
NVNT	n20	5180	Ant	4500	-57.46	2	0.12	39.89	Average	54	Pass
NVNT	n20	5180	Ant	5149.6	-42.93	2	-	54.3	Peak	68.2	Pass
NVNT	n20	5180	Ant	5149.6	-54.45	2	0.12	42.9	Average	54	Pass
NVNT	n20	5180	Ant	5150	-43.53	2	-	53.7	Peak	68.2	Pass
NVNT	n20	5180	Ant	5150	-54.81	2	0.12	42.54	Average	54	Pass
NVNT	n20	5240	Ant	5350	-49.2	2	-	48.03	Peak	68.2	Pass
NVNT	n20	5240	Ant	5350	-57.15	2	0.12	40.2	Average	54	Pass
NVNT	n20	5240	Ant	5387.04	-46.59	2	-	50.64	Peak	68.2	Pass
NVNT	n20	5240	Ant	5374.08	-56.39	2	0.12	40.96	Average	54	Pass
NVNT	n20	5240	Ant	5460	-49.45	2	-	47.78	Peak	68.2	Pass
NVNT	n20	5240	Ant	5460	-57.31	2	0.12	40.04	Average	54	Pass
NVNT	n40	5190	Ant	4500	-50.38	2	-	46.85	Peak	68.2	Pass
NVNT	n40	5190	Ant	4500	-58.46	2	0.24	39.01	Average	54	Pass
NVNT	n40	5190	Ant	5148.97	-42.96	2	-	54.27	Peak	68.2	Pass
NVNT	n40	5190	Ant	5148.97	-53.82	2	0.24	43.65	Average	54	Pass
NVNT	n40	5190	Ant	5150	-44.37	2	-	52.86	Peak	68.2	Pass
NVNT	n40	5190	Ant	5150	-54.08	2	0.24	43.39	Average	54	Pass
NVNT	n40	5230	Ant	5350	-48.04	2	-	49.19	Peak	68.2	Pass
NVNT	n40	5230	Ant	5350	-57.17	2	0.24	40.3	Average	54	Pass
NVNT	n40	5230	Ant	5457.03	-46.53	2	-	50.7	Peak	68.2	Pass
NVNT	n40	5230	Ant	5374.68	-56.11	2	0.24	41.36	Average	54	Pass
NVNT	n40	5230	Ant	5460	-48.78	2	-	48.45	Peak	68.2	Pass
NVNT	n40	5230	Ant	5460	-57.35	2	0.24	40.12	Average	54	Pass



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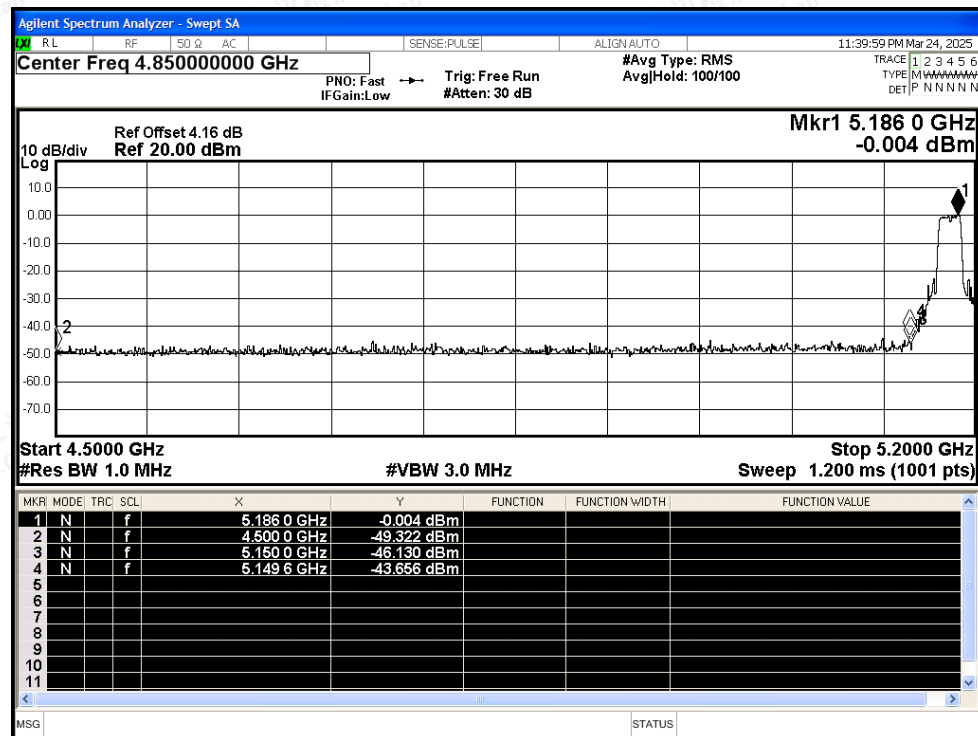
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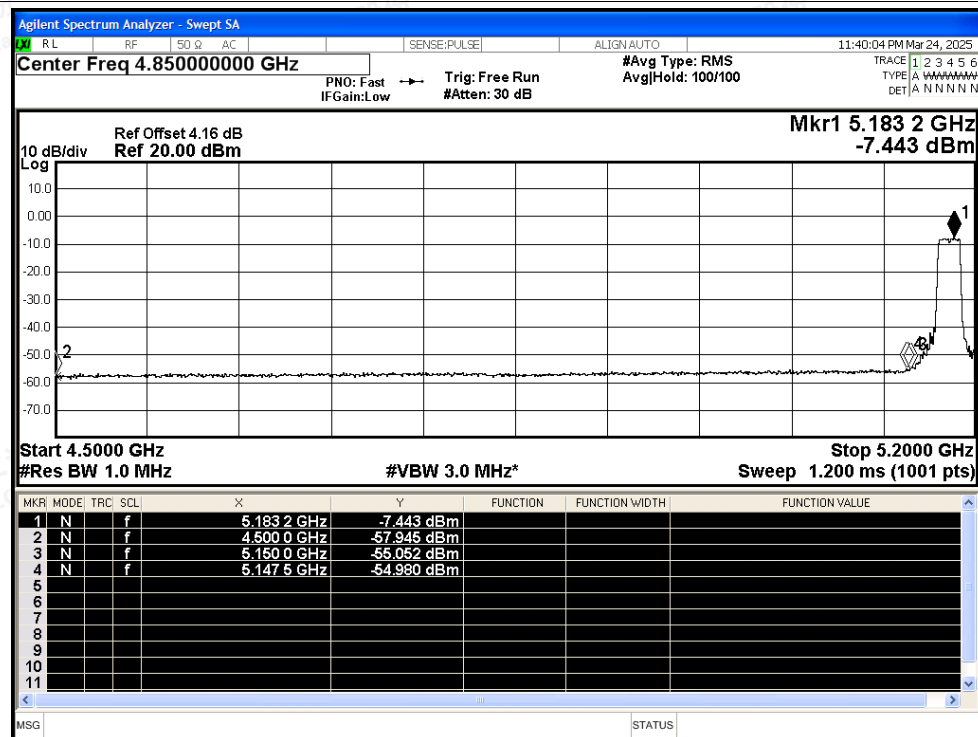


Test Graphs

Restrict Band NVNT a 5180MHz Ant Peak



Restrict Band NVNT a 5180MHz Ant Average



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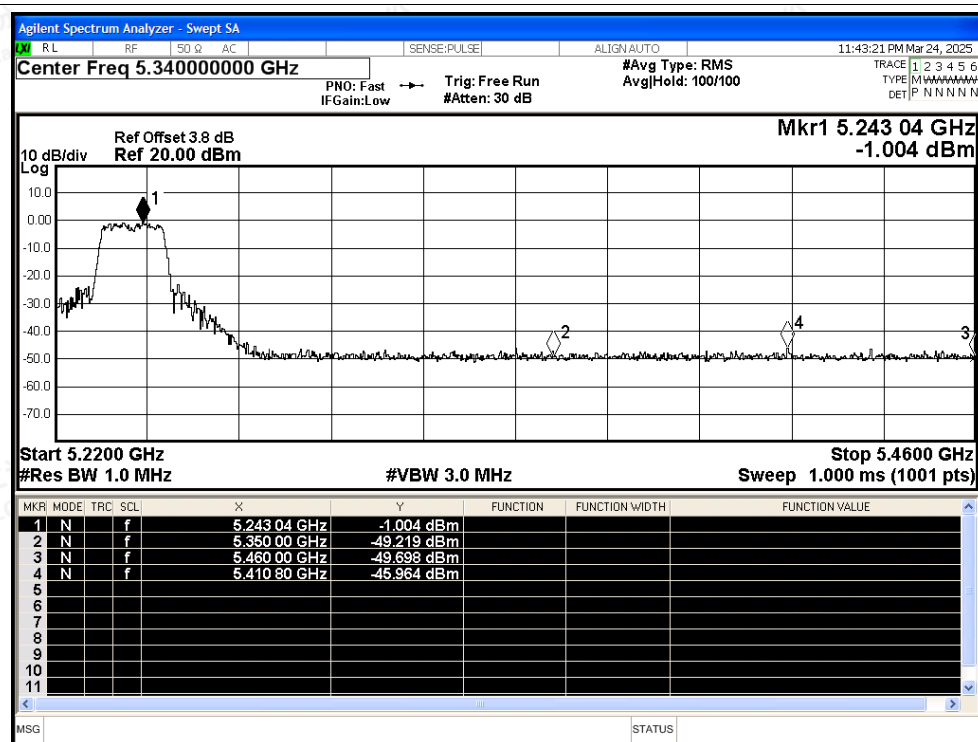
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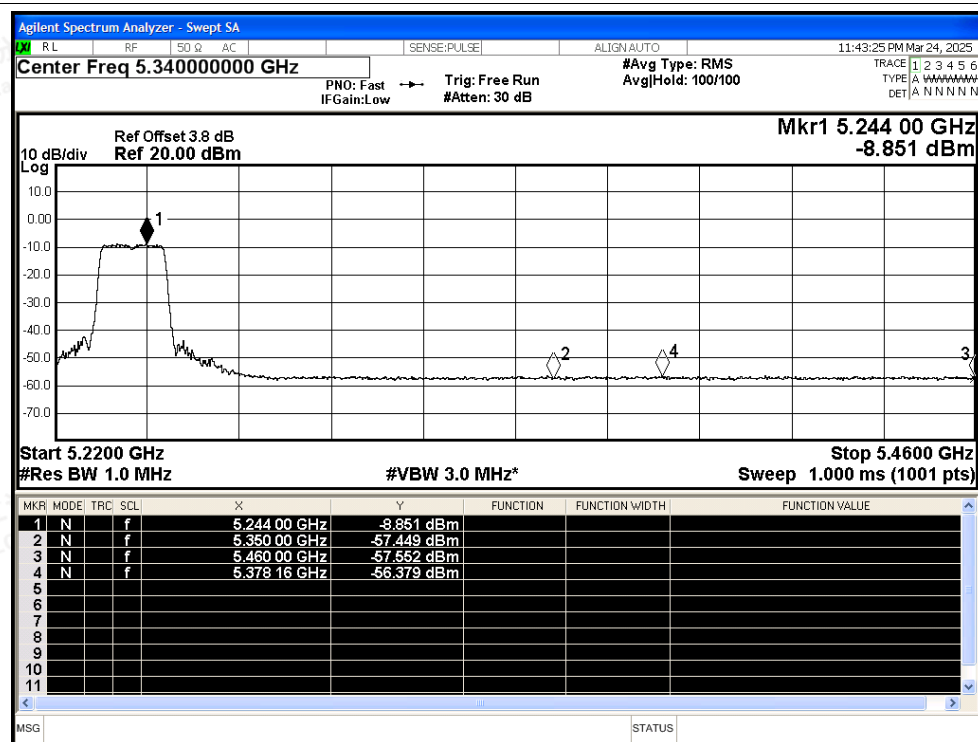
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Restrict Band NVNT a 5240MHz Ant Peak



Restrict Band NVNT a 5240MHz Ant Average

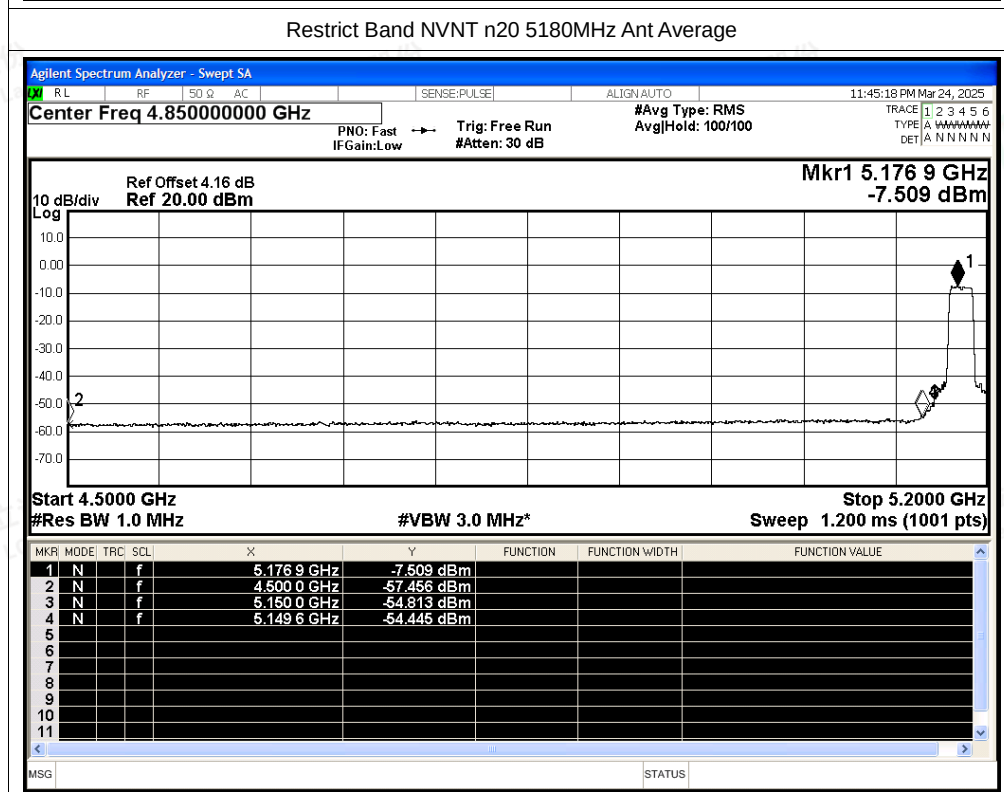
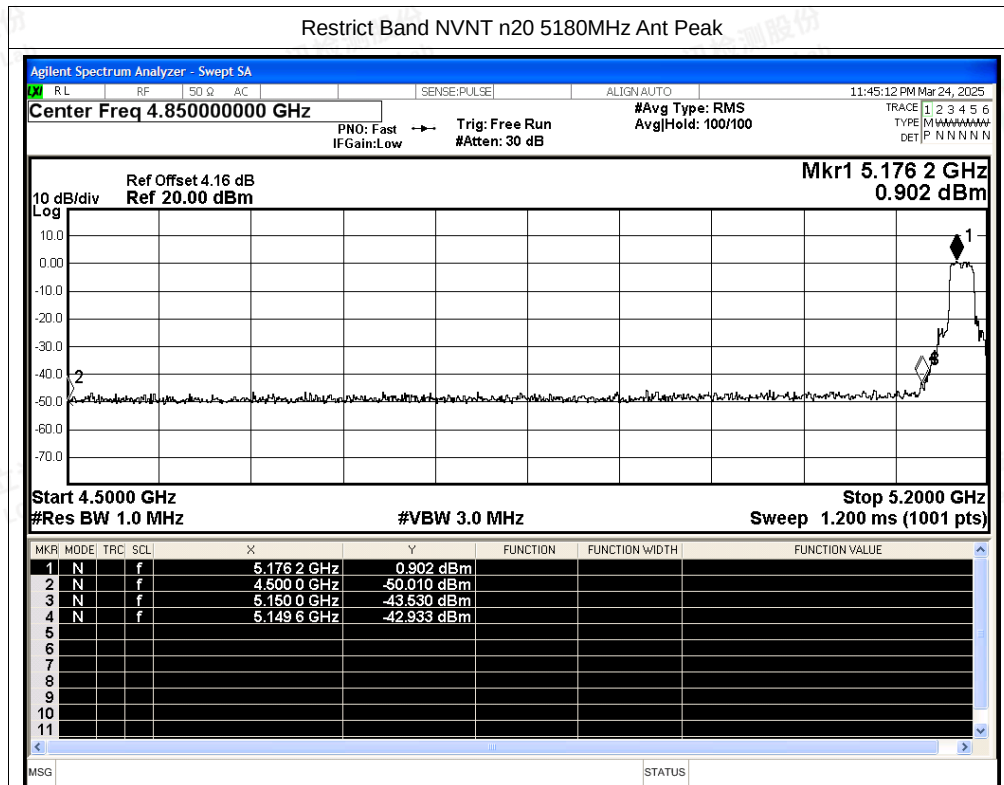


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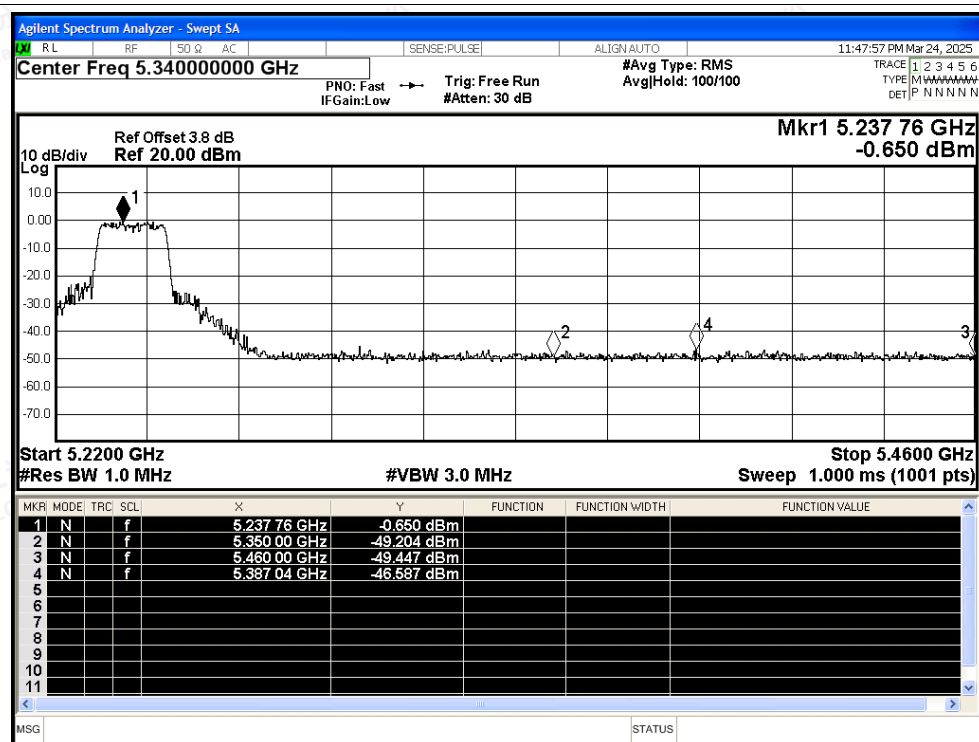
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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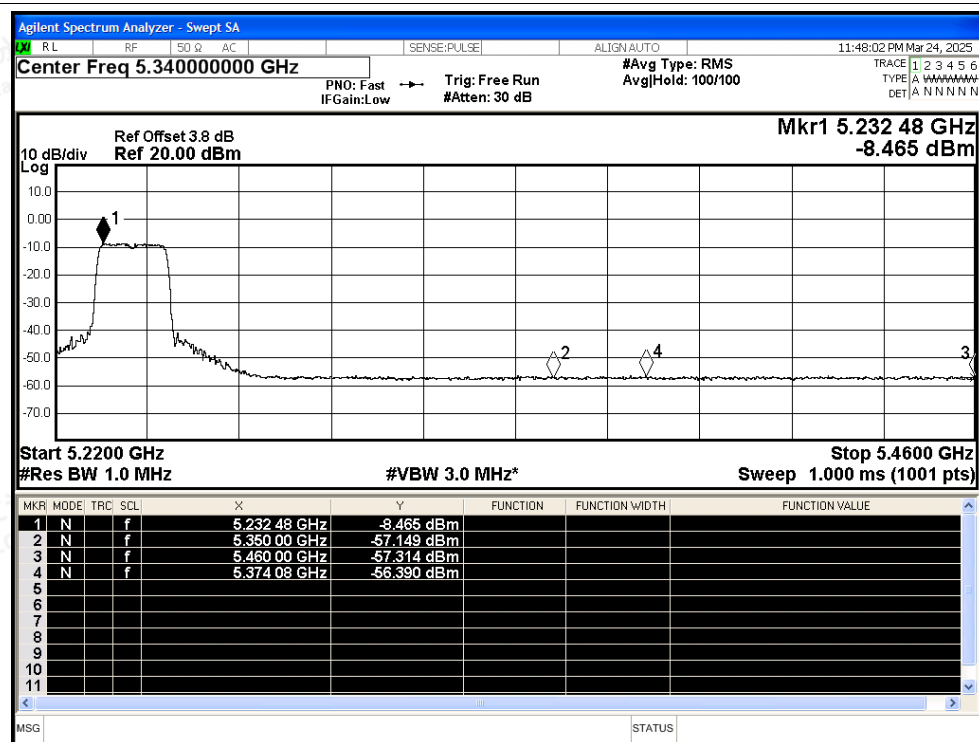
Scan code to check authenticity



Restrict Band NVNT n20 5240MHz Ant Peak



Restrict Band NVNT n20 5240MHz Ant Average

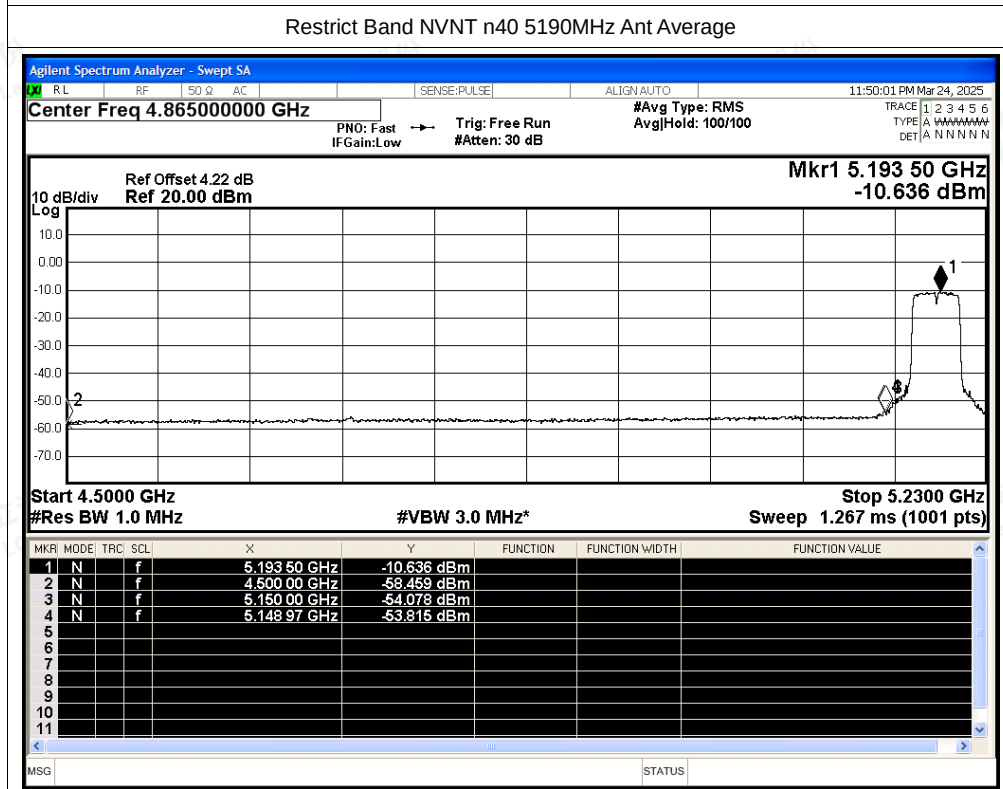
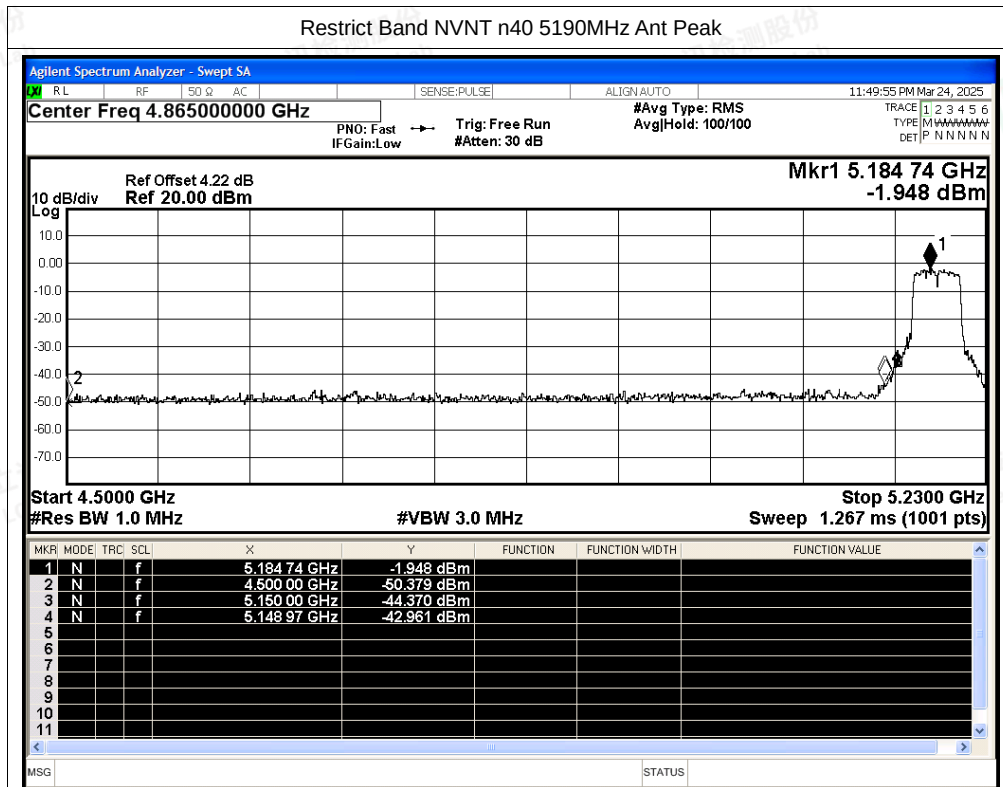


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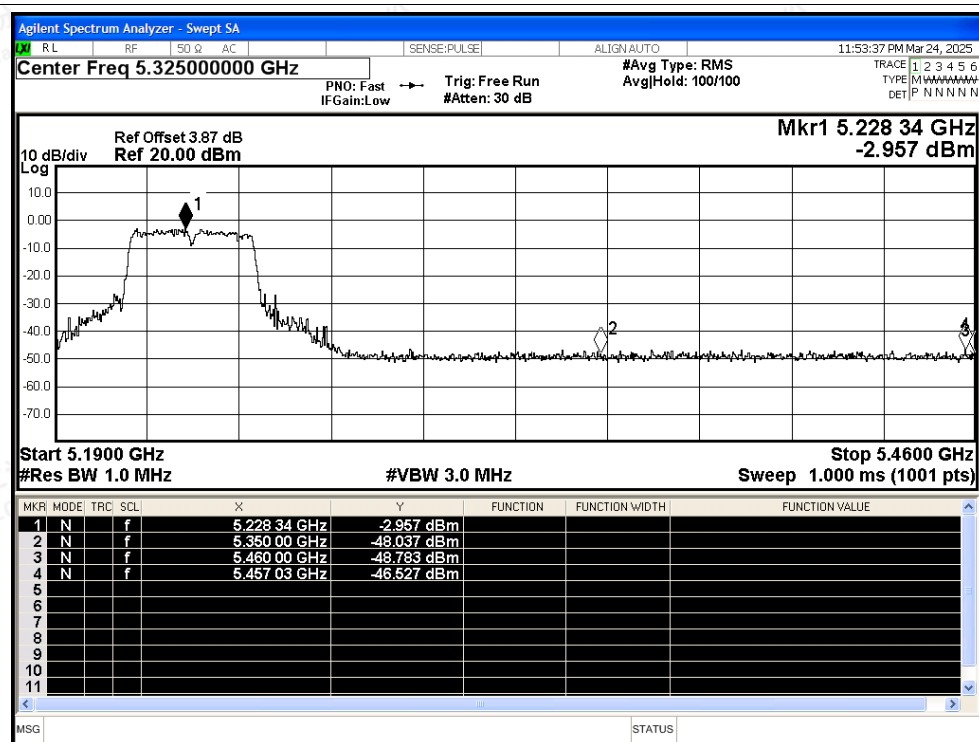
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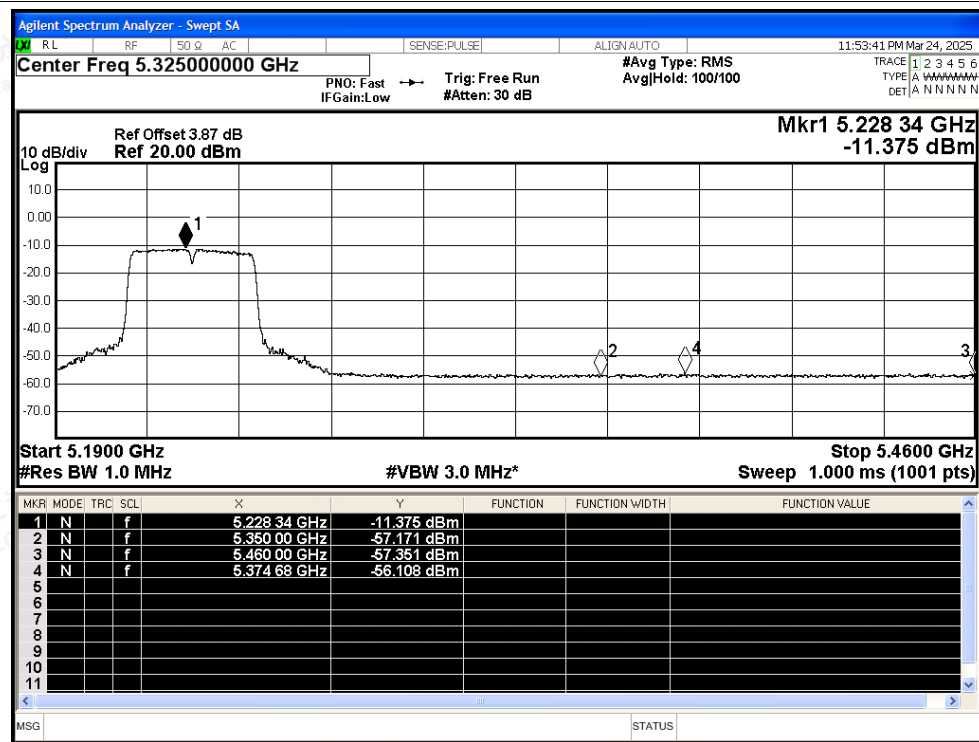
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Restrict Band NVNT n40 5230MHz Ant Peak



Restrict Band NVNT n40 5230MHz Ant Average



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D.5 Frequency Stability

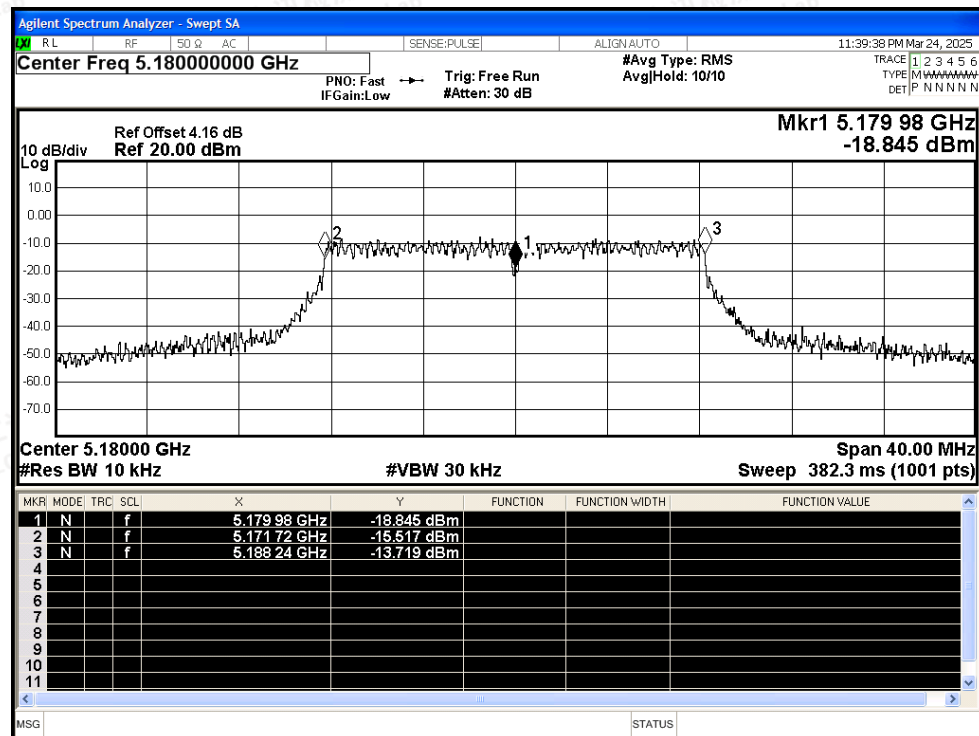
Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	a	5180	Ant	5179.98	-20000	-3.86	25	Pass
NVNT	a	5200	Ant	5200	0	0	25	Pass
NVNT	a	5240	Ant	5239.98	-20000	-3.82	25	Pass
NVNT	n20	5180	Ant	5180.02	20000	3.86	25	Pass
NVNT	n20	5200	Ant	5200	0	0	25	Pass
NVNT	n20	5240	Ant	5240	0	0	25	Pass
NVNT	n40	5190	Ant	5190	0	0	25	Pass
NVNT	n40	5230	Ant	5229.96	-40000	-7.65	25	Pass



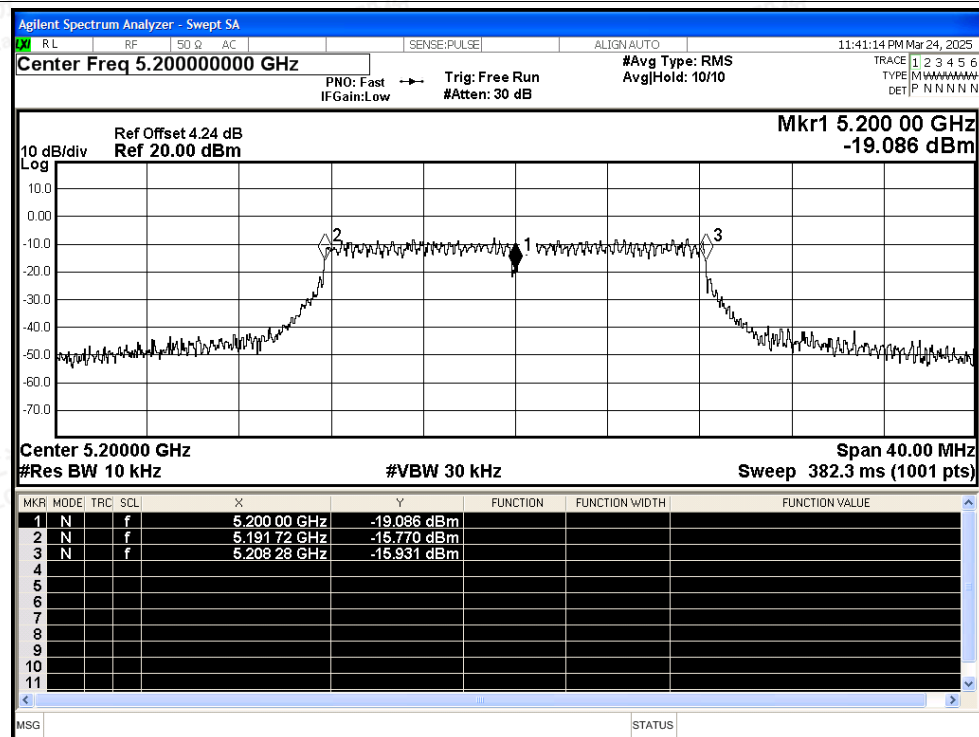


Test Graphs

Freq. Stability NVNT a 5180MHz Ant



Freq. Stability NVNT a 5200MHz Ant



Shenzhen LCS Compliance Testing Laboratory Ltd.

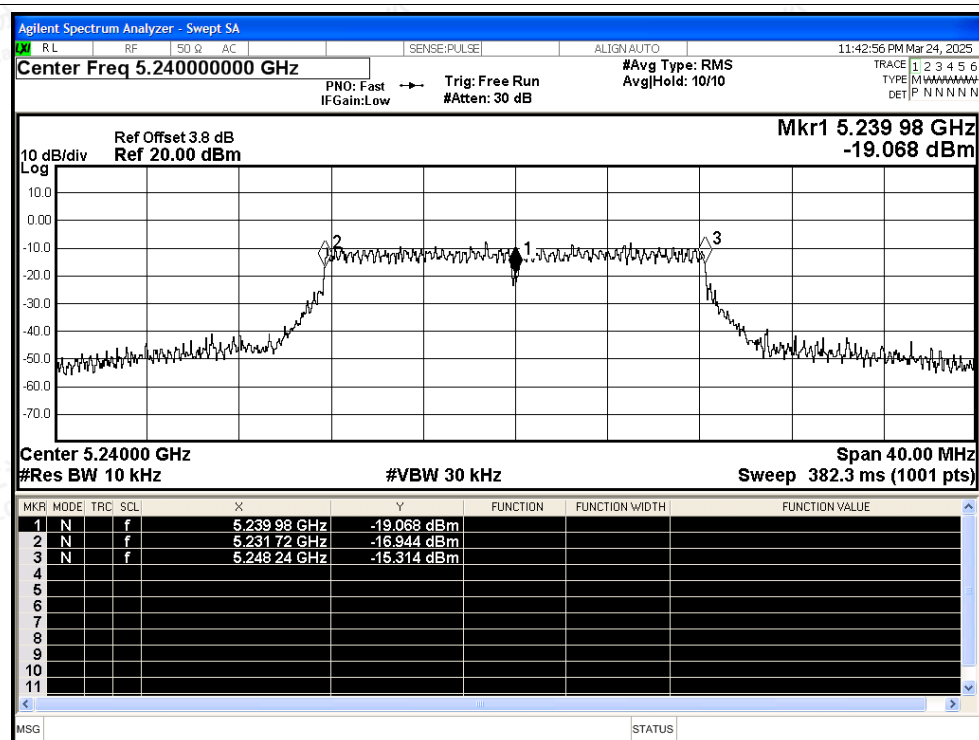
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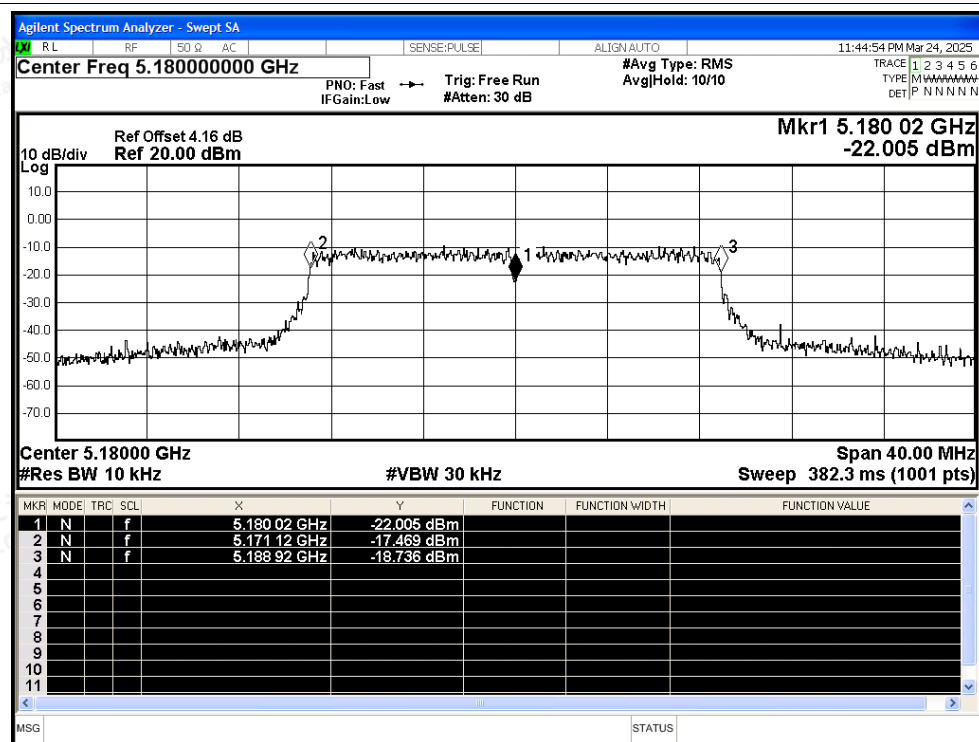
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Freq. Stability NVNT a 5240MHz Ant



Freq. Stability NVNT n20 5180MHz Ant



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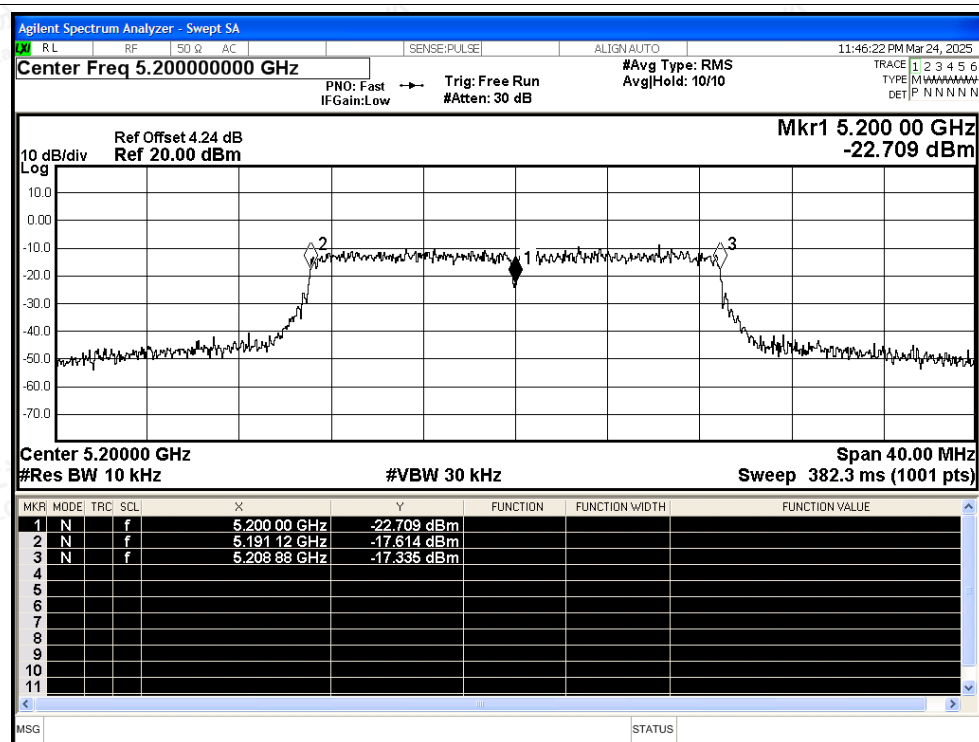
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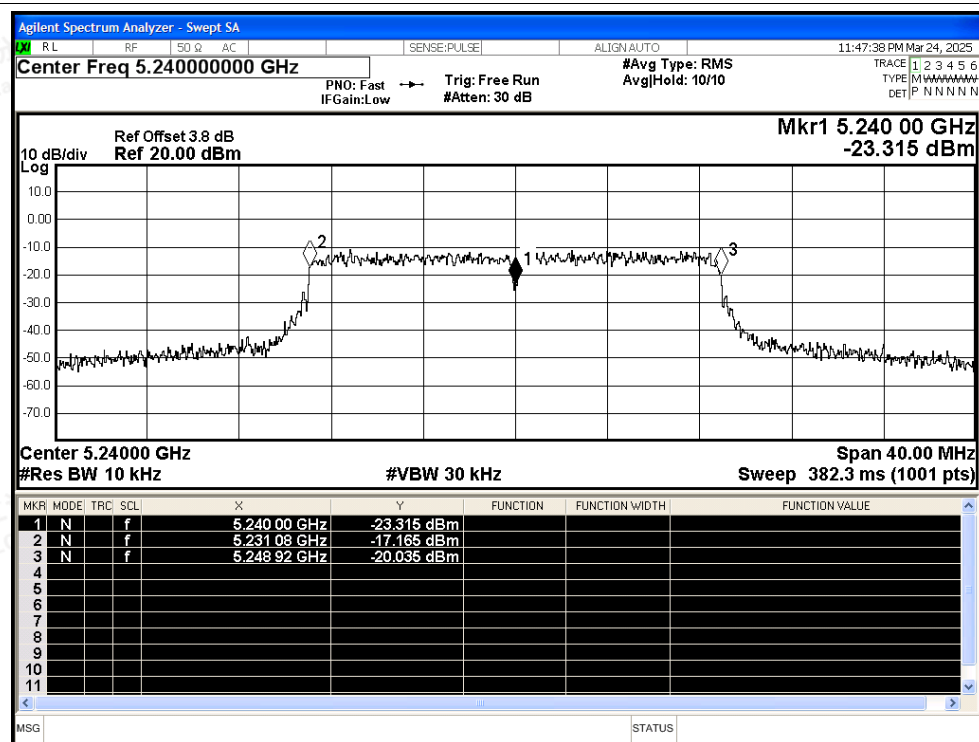
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Freq. Stability NVNT n20 5200MHz Ant



Freq. Stability NVNT n20 5240MHz Ant



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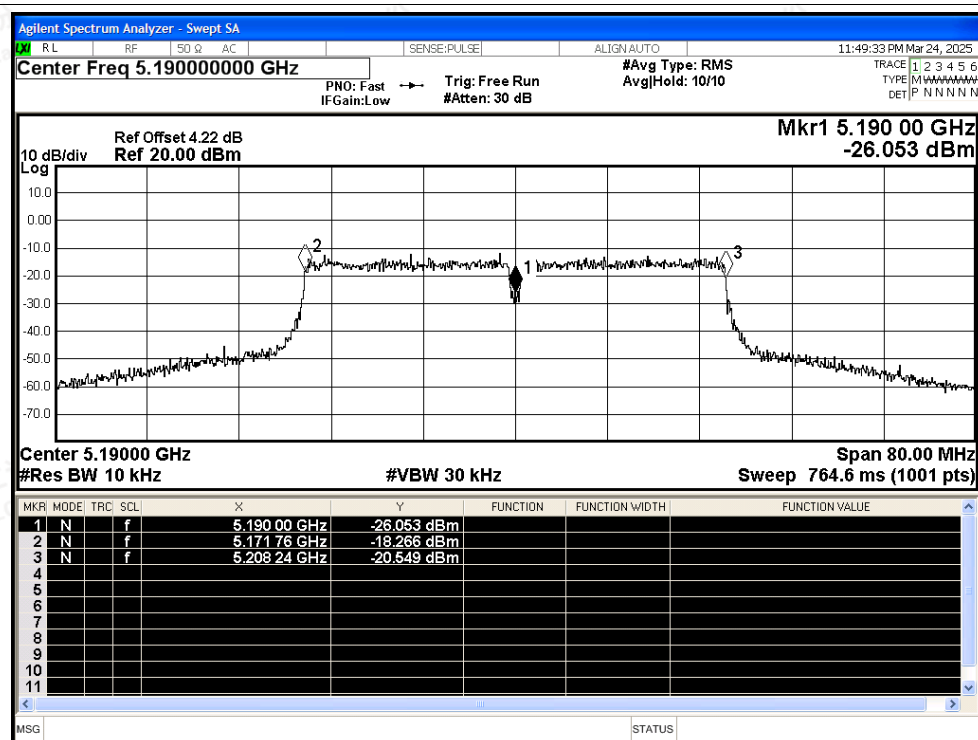
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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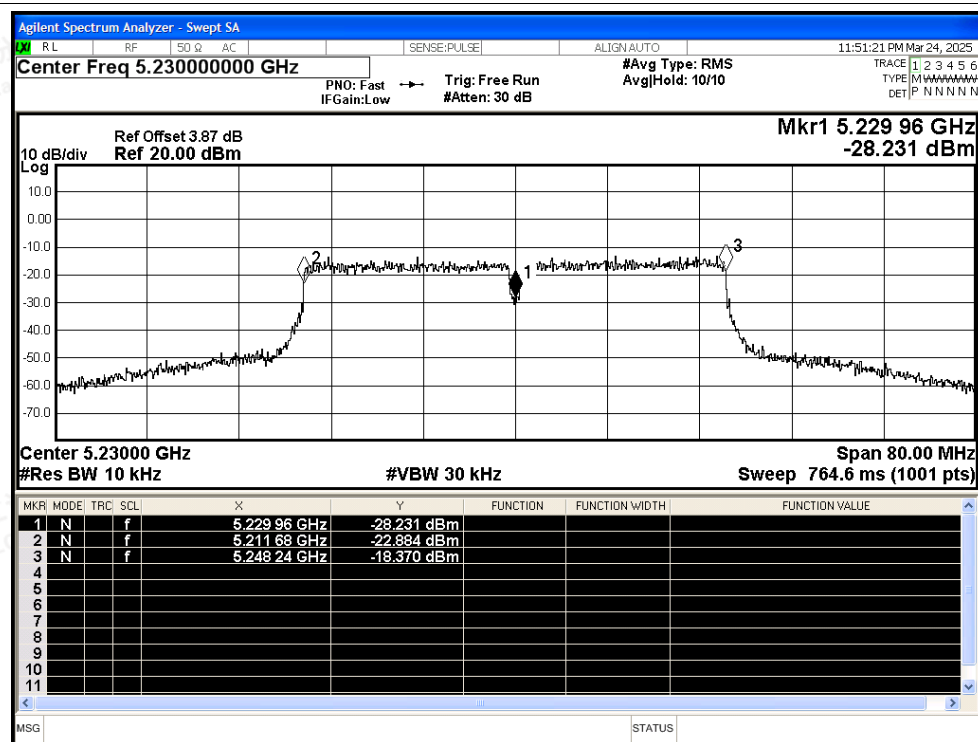
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Freq. Stability NVNT n40 5190MHz Ant



Freq. Stability NVNT n40 5230MHz Ant



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D.6 Duty Cycle

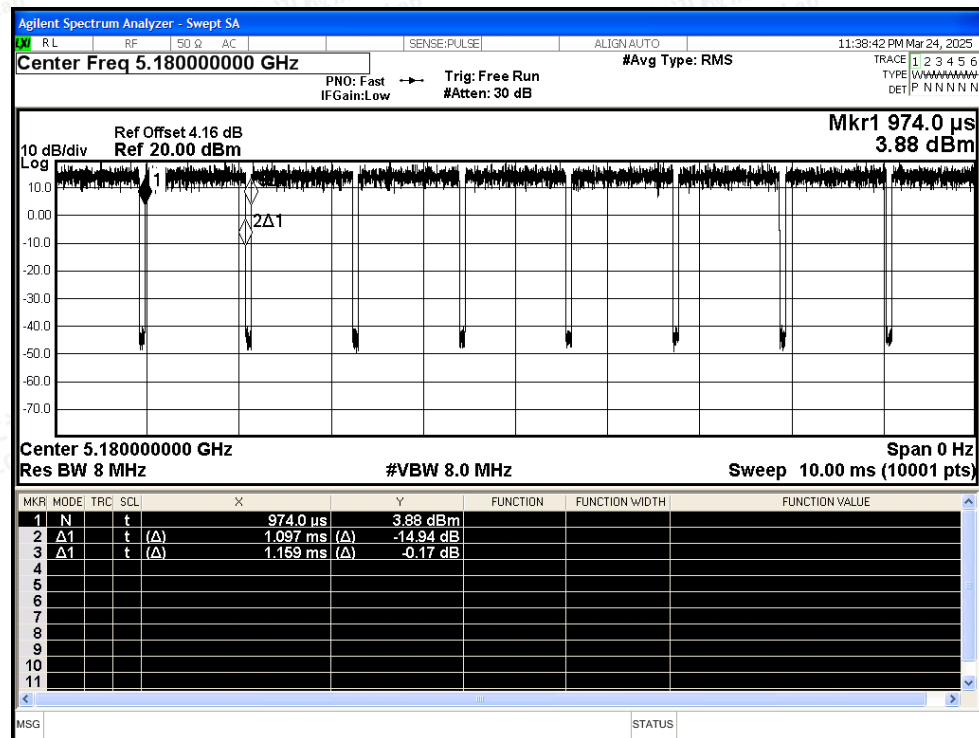
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant	94.65	0.24	0.91
NVNT	a	5200	Ant	94.56	0.24	0.91
NVNT	a	5240	Ant	94.65	0.24	0.91
NVNT	n20	5180	Ant	97.29	0.12	0.44
NVNT	n20	5200	Ant	97.29	0.12	0.44
NVNT	n20	5240	Ant	97.29	0.12	0.44
NVNT	n40	5190	Ant	94.71	0.24	0.9
NVNT	n40	5230	Ant	94.71	0.24	0.9



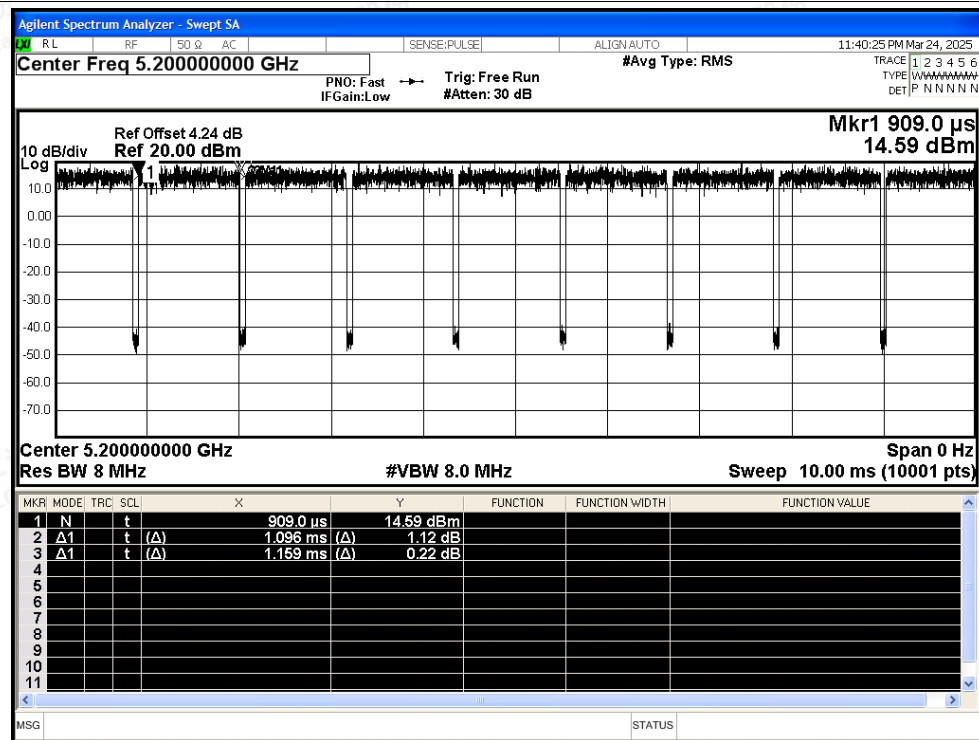


Test Graphs

Duty Cycle NVNT a 5180MHz Ant



Duty Cycle NVNT a 5200MHz Ant



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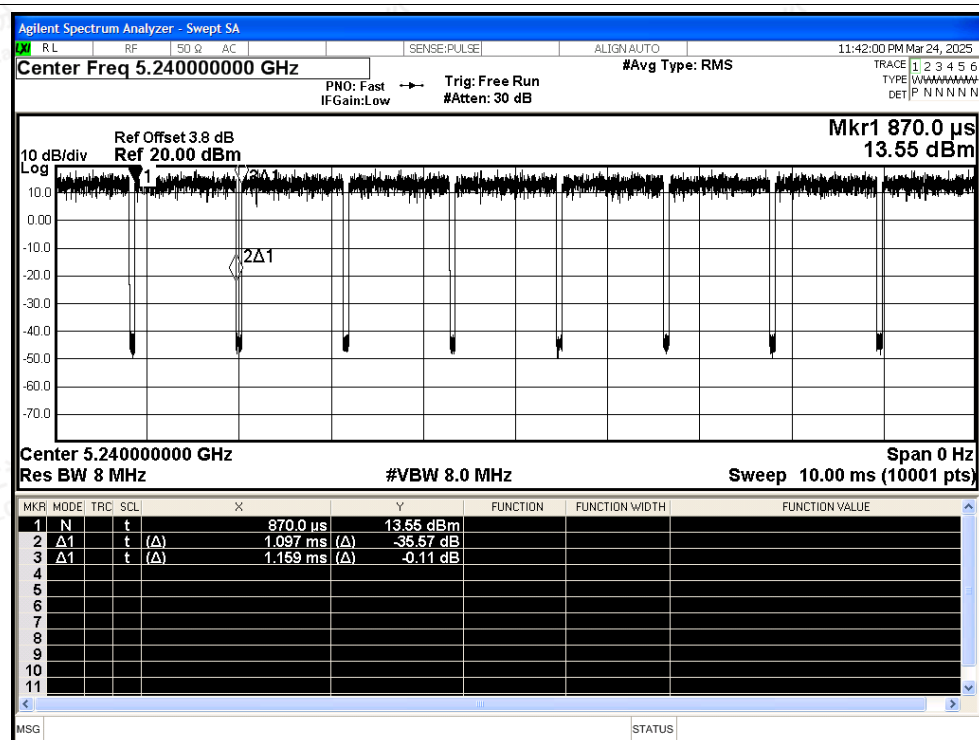
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

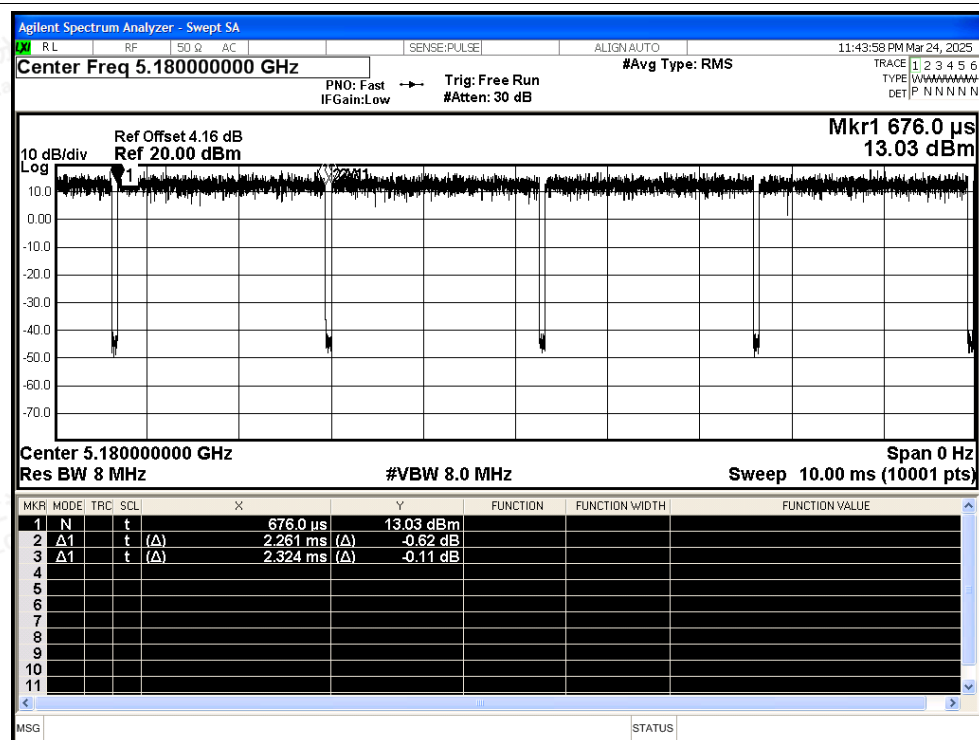
Scan code to check authenticity



Duty Cycle NVNT a 5240MHz Ant



Duty Cycle NVNT n20 5180MHz Ant



Duty Cycle NVNT n20 5200MHz Ant

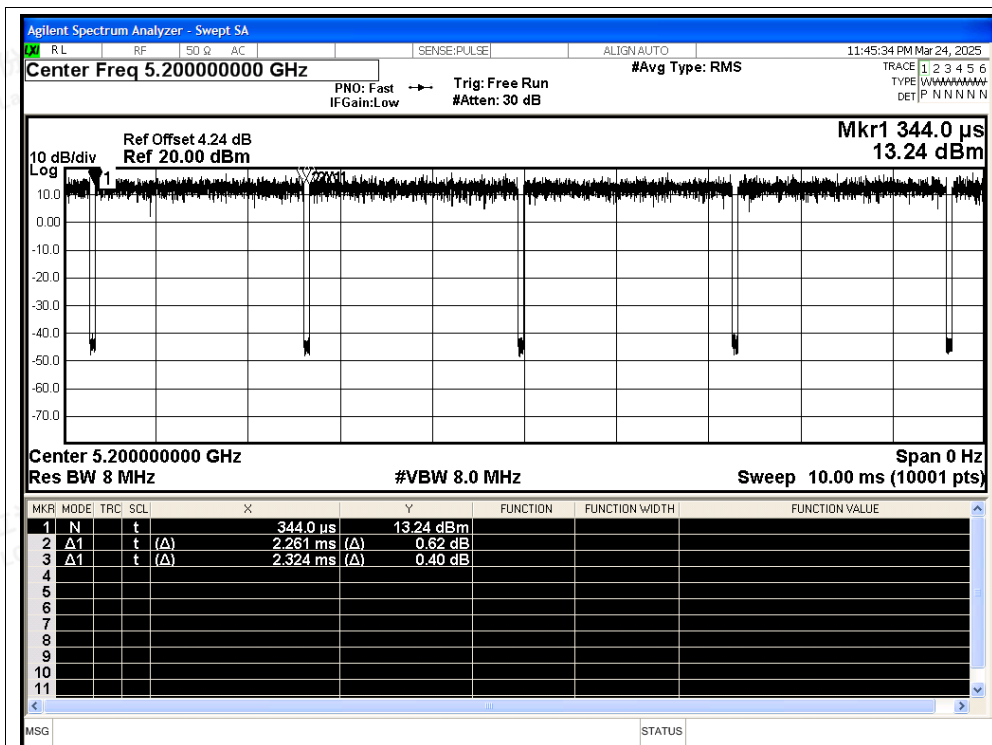


Shenzhen LCS Compliance Testing Laboratory Ltd.

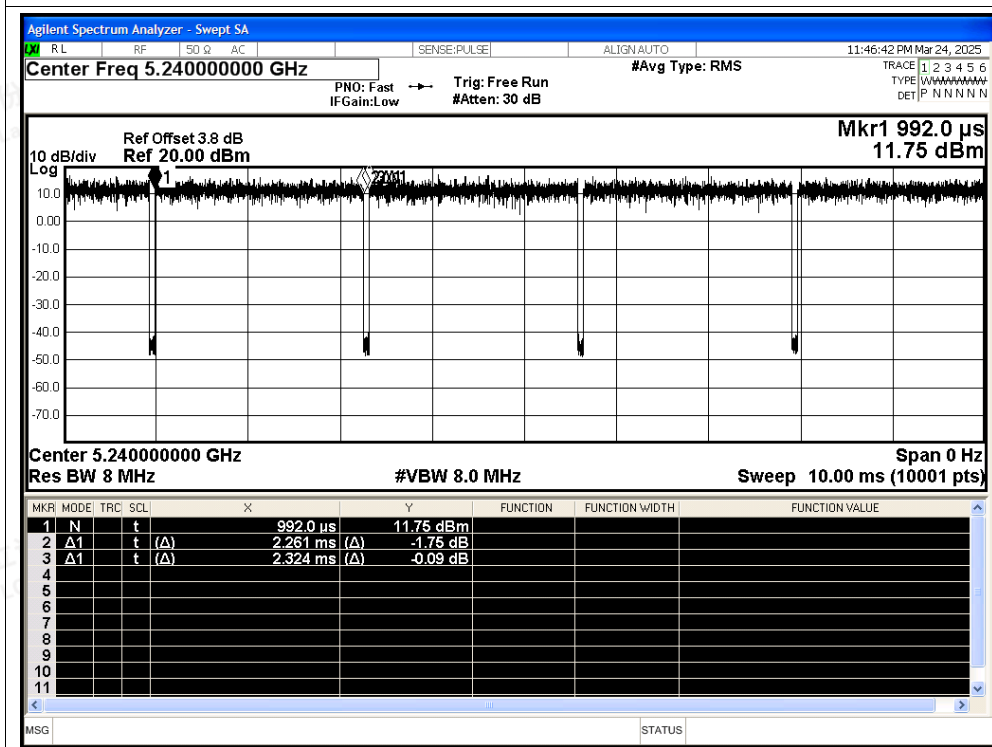
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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Duty Cycle NVNT n20 5240MHz Ant



Shenzhen LCS Compliance Testing Laboratory Ltd.

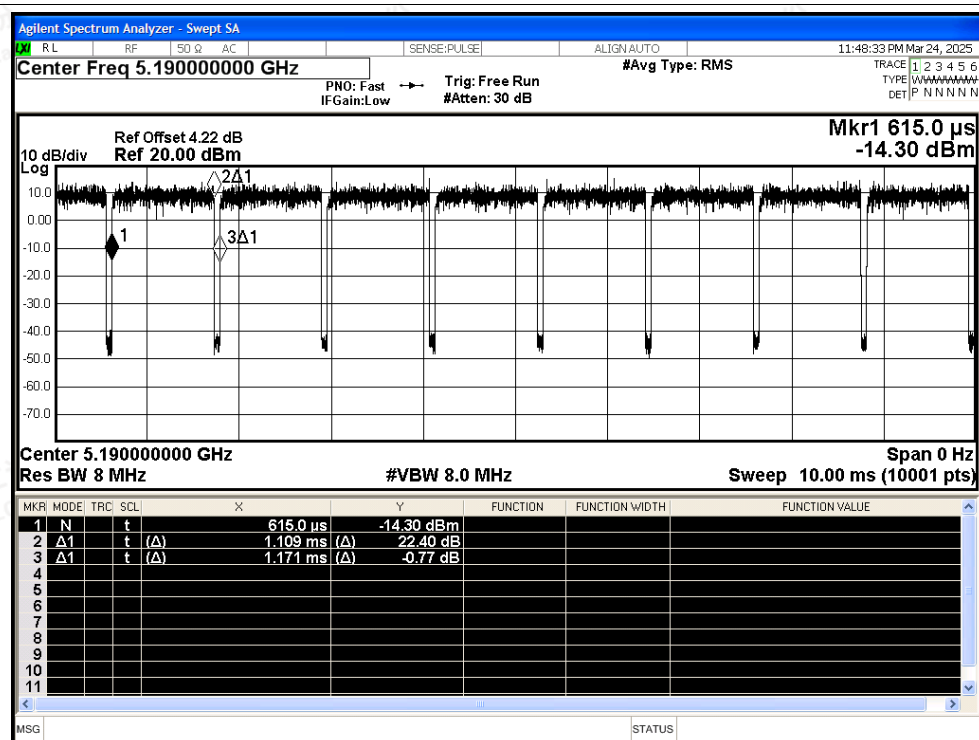
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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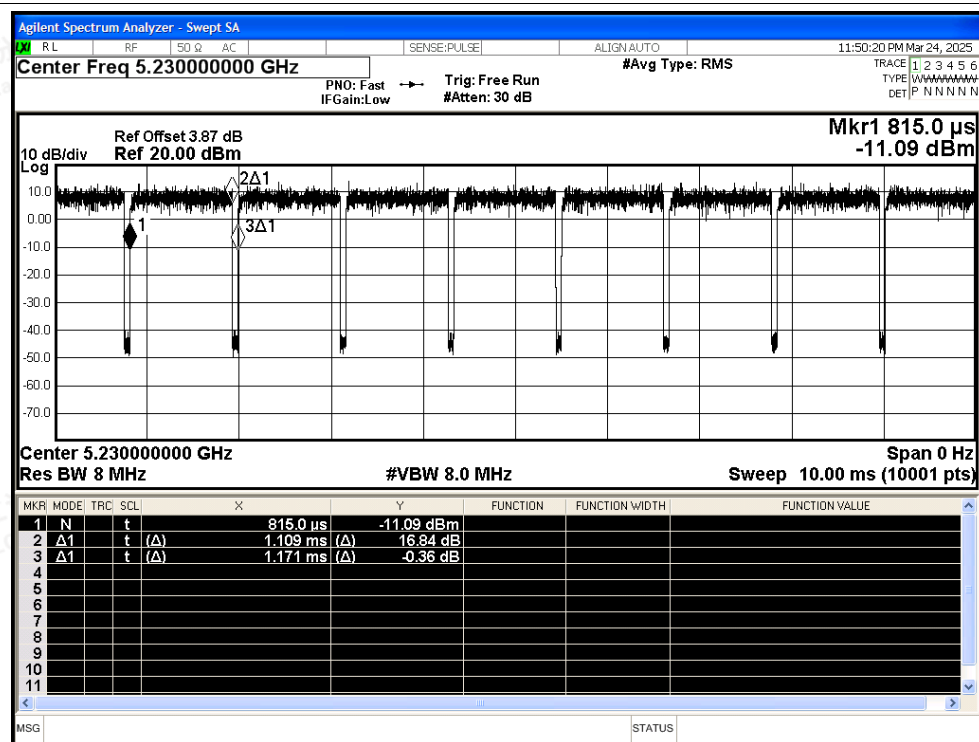
Scan code to check authenticity



Duty Cycle NVNT n40 5190MHz Ant



Duty Cycle NVNT n40 5230MHz Ant



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