



Appendix D

RF Test Data for 5.2GWIFI (Conducted Measurement)

Product Name: Smart POS

Test Model: WIZARHAND Q1

Environmental Conditions

Temperature:	24.3°C
Relative Humidity:	53.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Billy Yu
Supervised by:	Paddi Chen



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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	Ant1	25.408	≥ 0.5	Pass
NVNT	a	5200	Ant1	25.923	≥ 0.5	Pass
NVNT	a	5240	Ant1	25.366	≥ 0.5	Pass
NVNT	n20	5180	Ant1	27.987	≥ 0.5	Pass
NVNT	n20	5200	Ant1	28.453	≥ 0.5	Pass
NVNT	n20	5240	Ant1	28.952	≥ 0.5	Pass
NVNT	n40	5190	Ant1	52.342	≥ 0.5	Pass
NVNT	n40	5230	Ant1	45.416	≥ 0.5	Pass
NVNT	ac20	5180	Ant1	27.926	≥ 0.5	Pass
NVNT	ac20	5200	Ant1	28.958	≥ 0.5	Pass
NVNT	ac20	5240	Ant1	28.136	≥ 0.5	Pass
NVNT	ac40	5190	Ant1	51.585	≥ 0.5	Pass
NVNT	ac40	5230	Ant1	47.44	≥ 0.5	Pass
NVNT	ac80	5210	Ant1	82.524	≥ 0.5	Pass

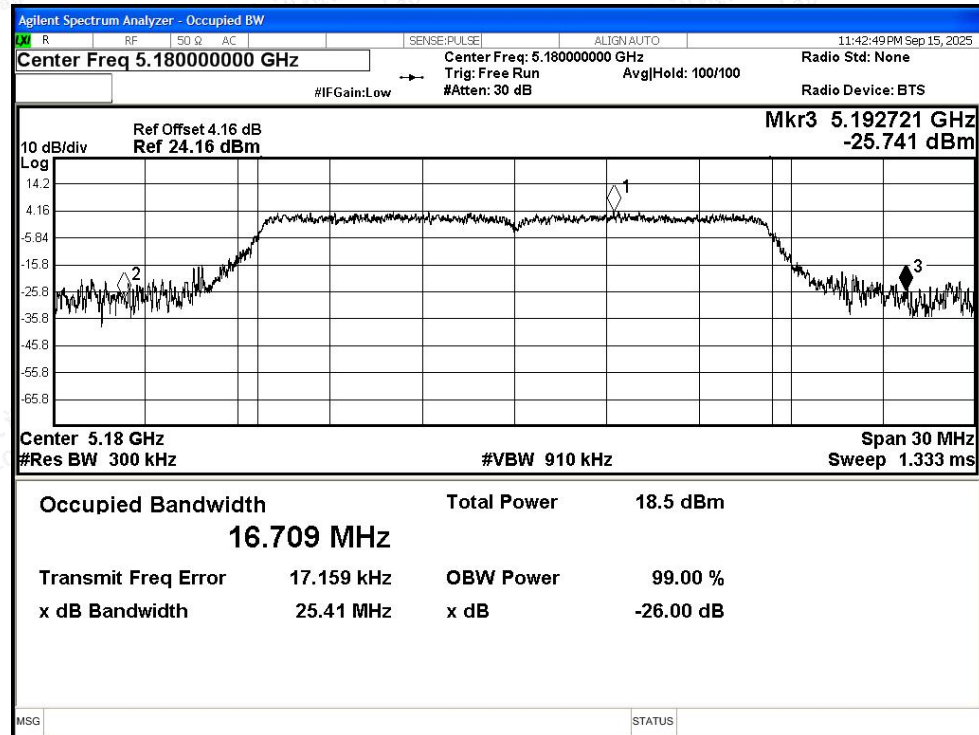


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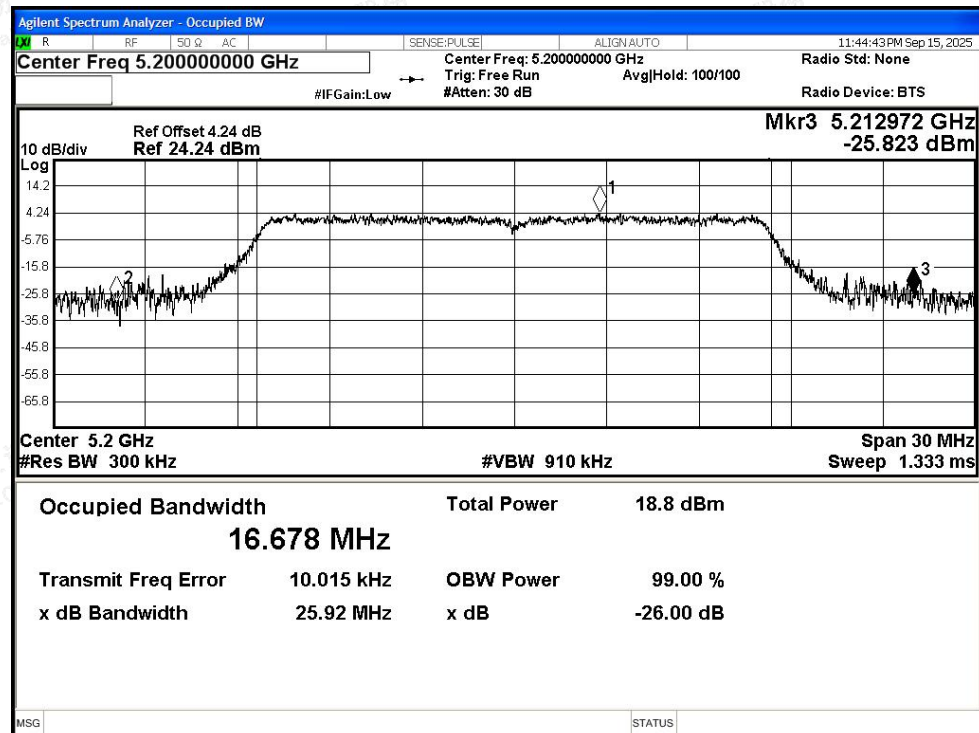


Test Graphs

-26dB Bandwidth NVNT a 5180MHz Ant1



-26dB Bandwidth NVNT a 5200MHz Ant1



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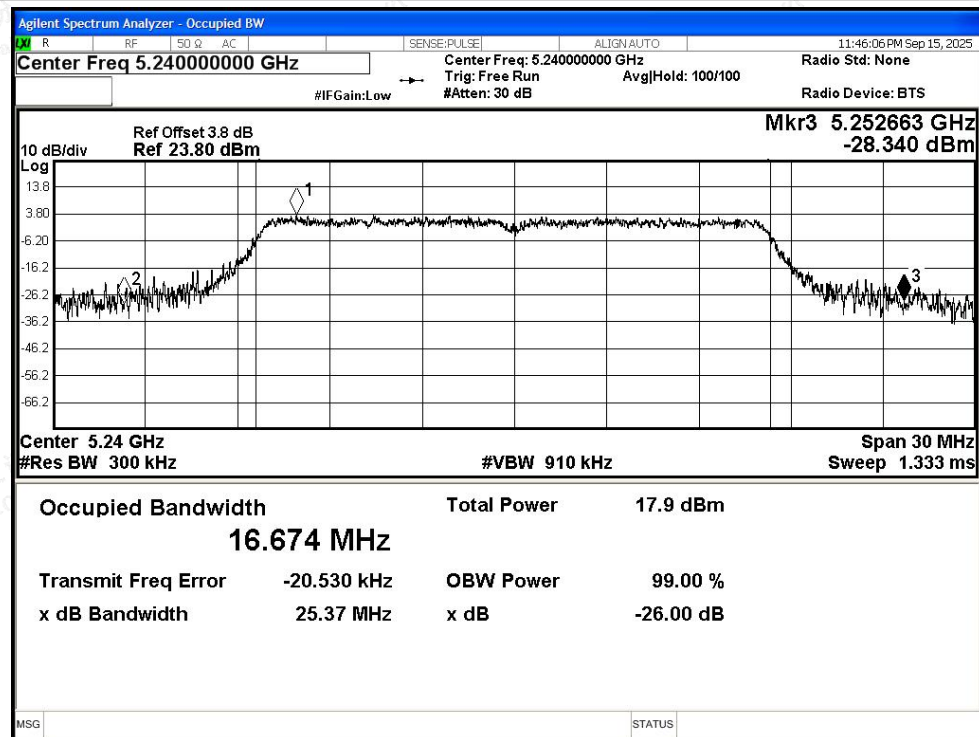
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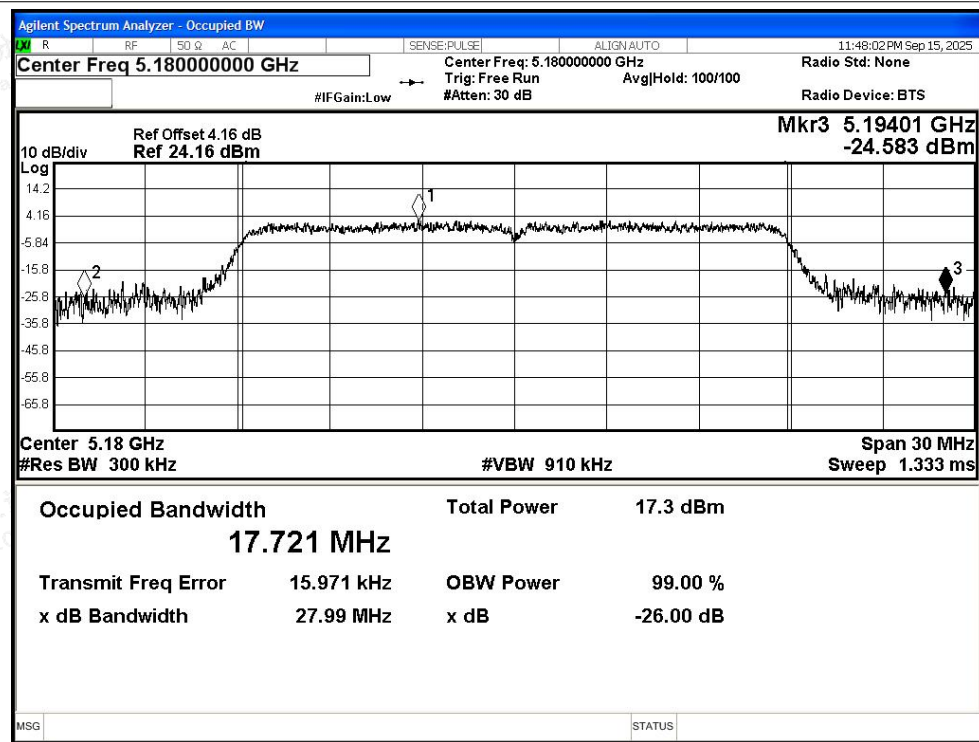
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-26dB Bandwidth NVNT a 5240MHz Ant1



-26dB Bandwidth NVNT n20 5180MHz Ant1



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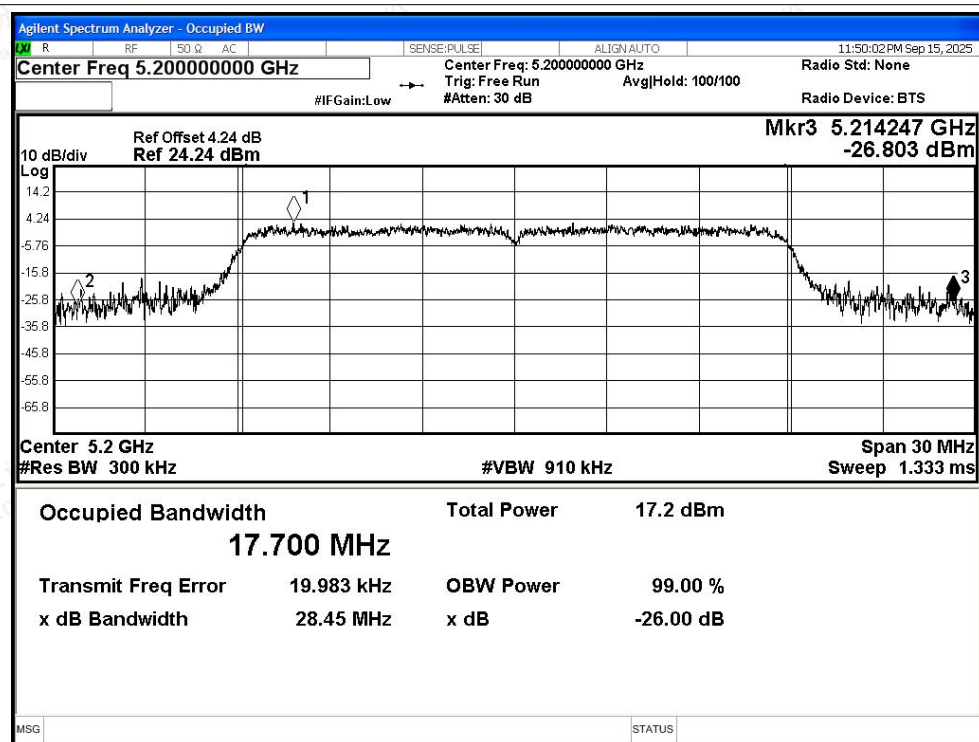
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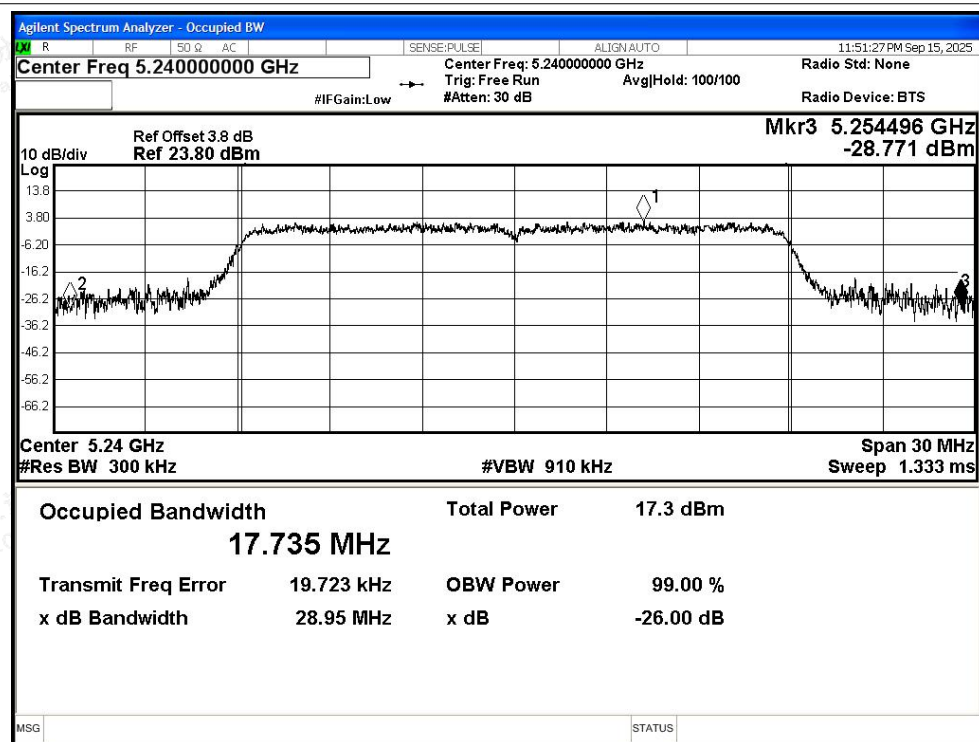
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-26dB Bandwidth NVNT n20 5200MHz Ant1

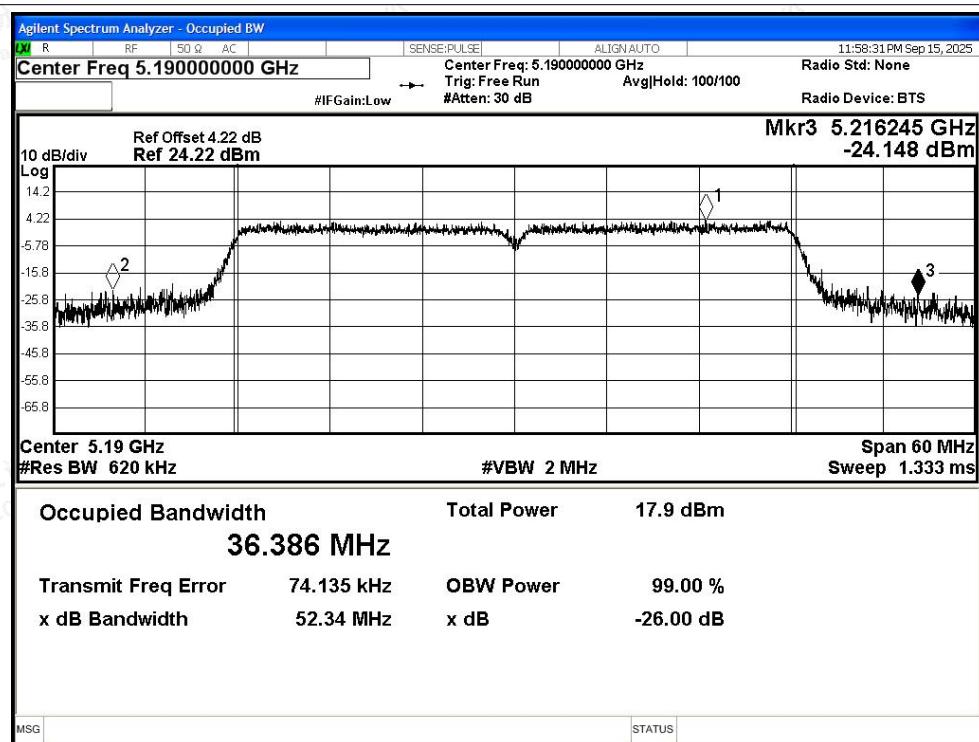


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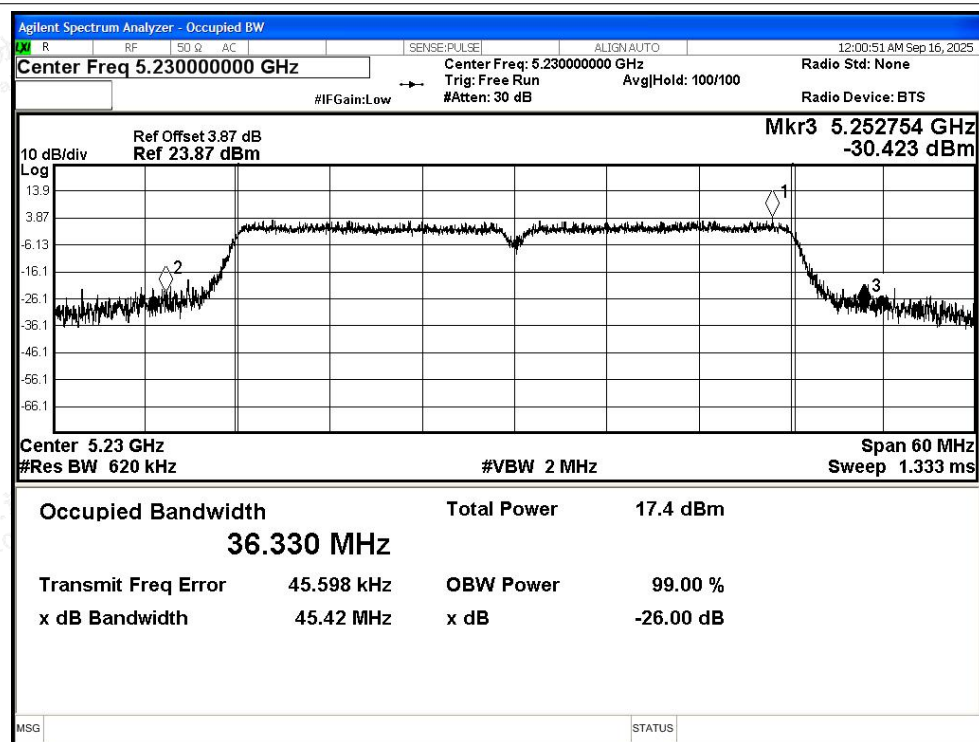




-26dB Bandwidth NVNT n40 5190MHz Ant1



-26dB Bandwidth NVNT n40 5230MHz Ant1



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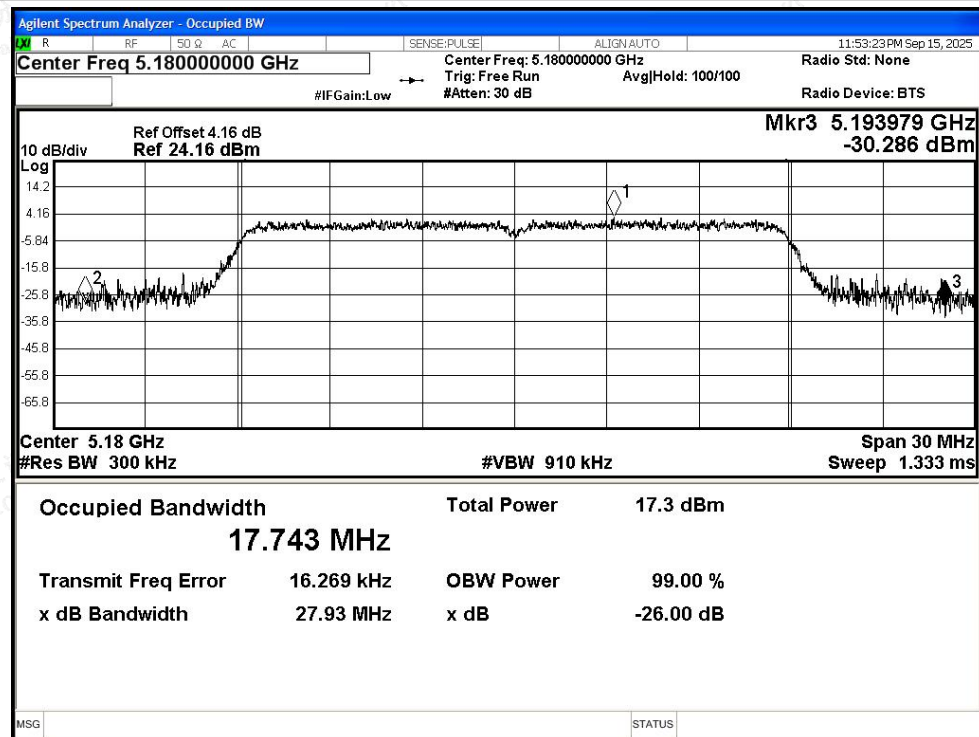
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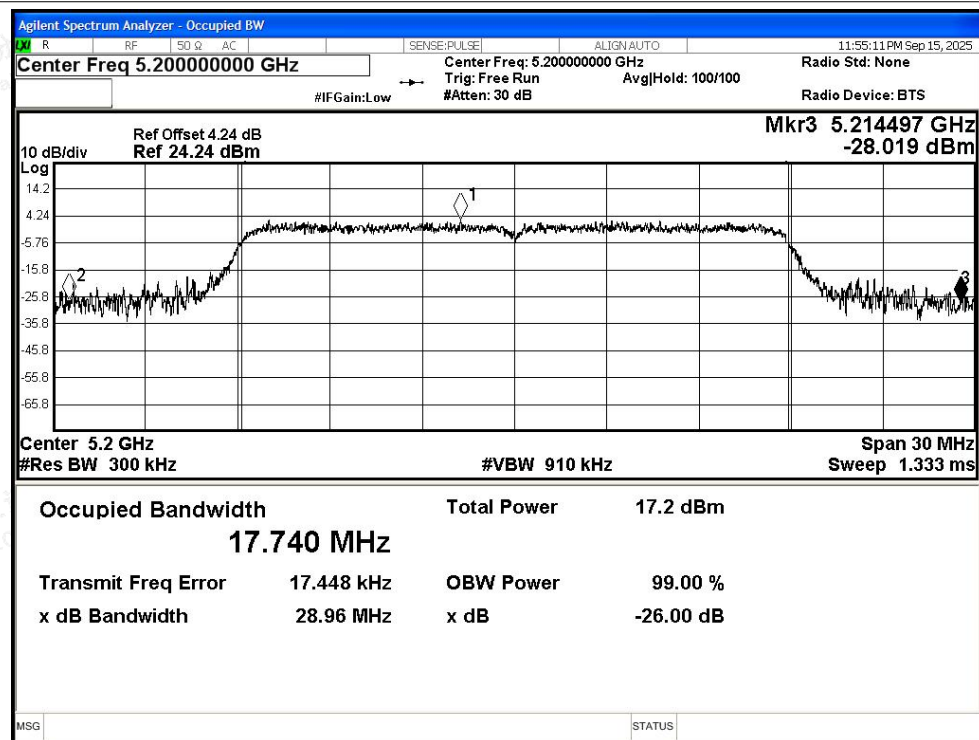
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-26dB Bandwidth NVNT ac20 5180MHz Ant1

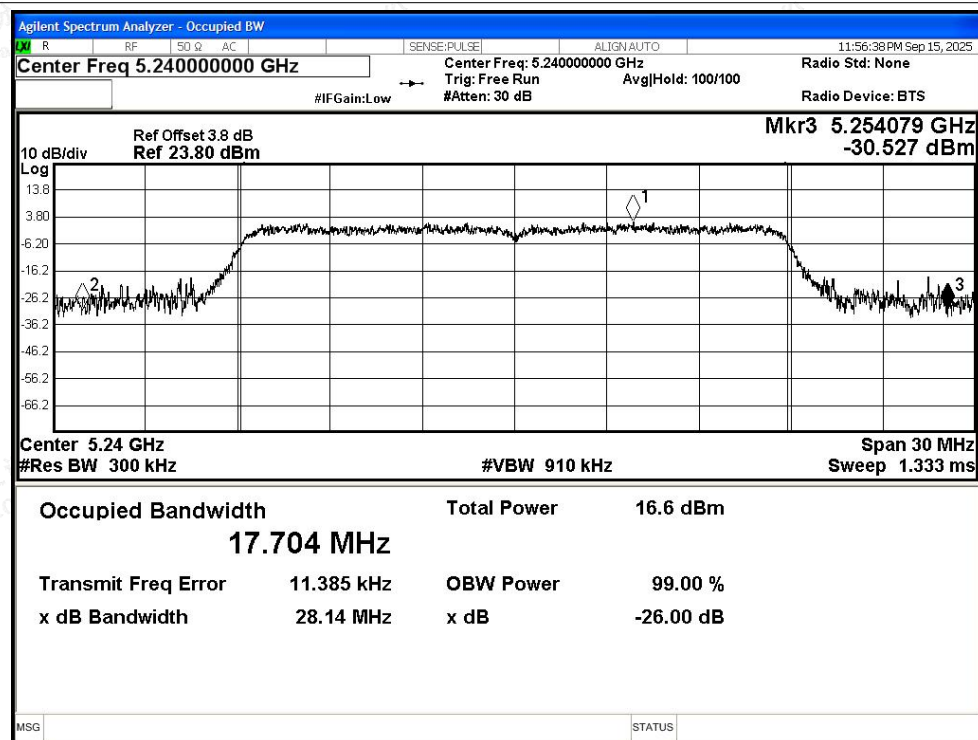


-26dB Bandwidth NVNT ac20 5200MHz Ant1

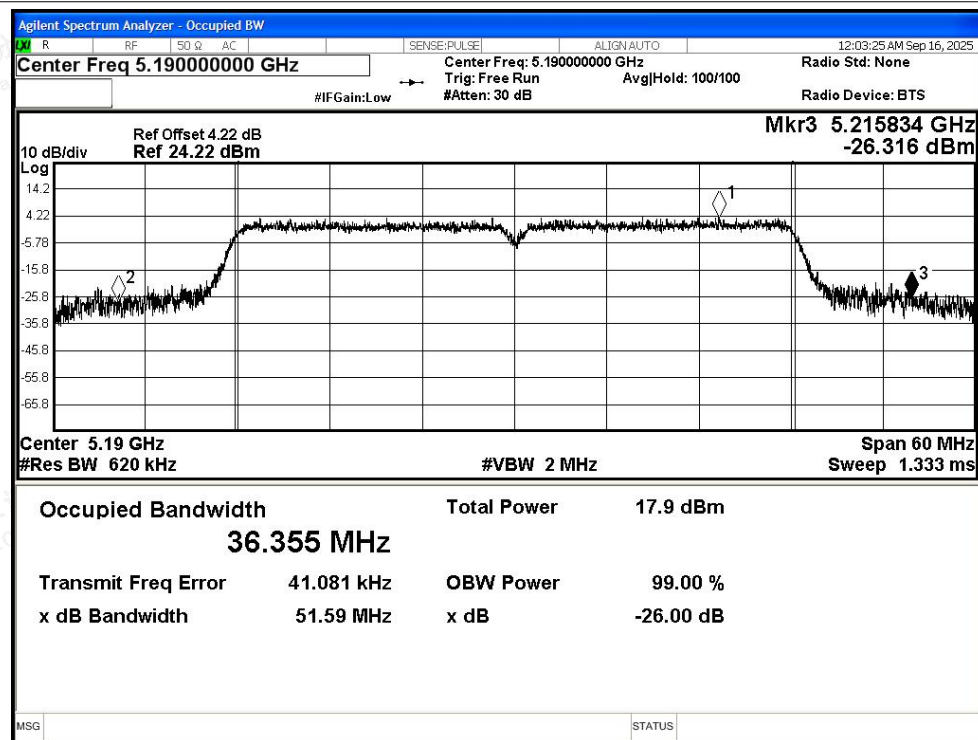




-26dB Bandwidth NVNT ac20 5240MHz Ant1



-26dB Bandwidth NVNT ac40 5190MHz Ant1



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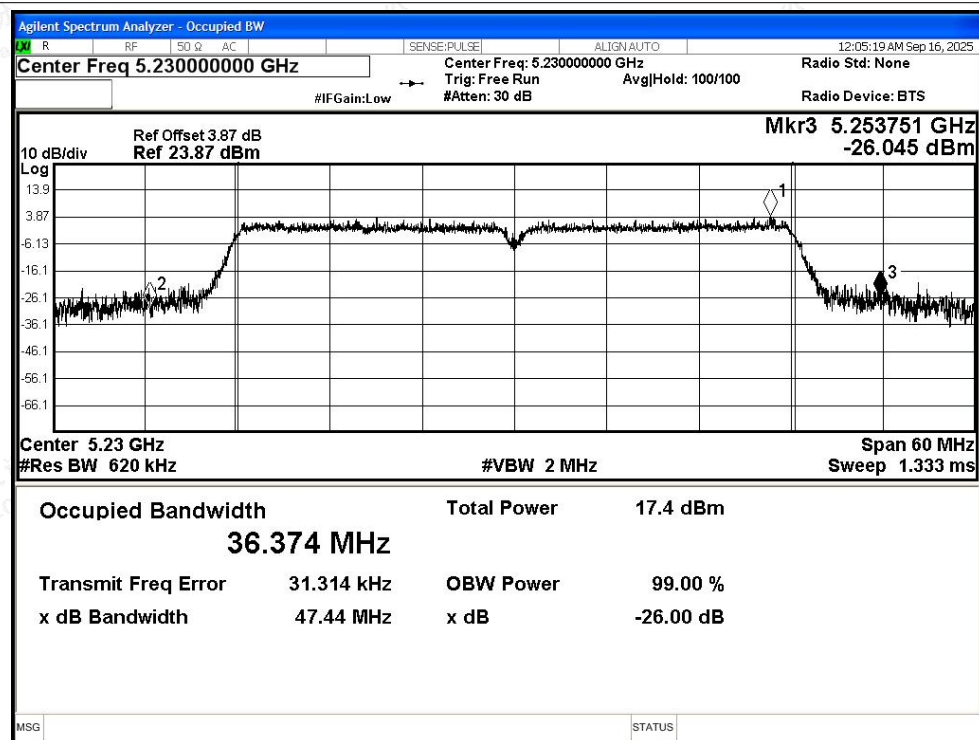
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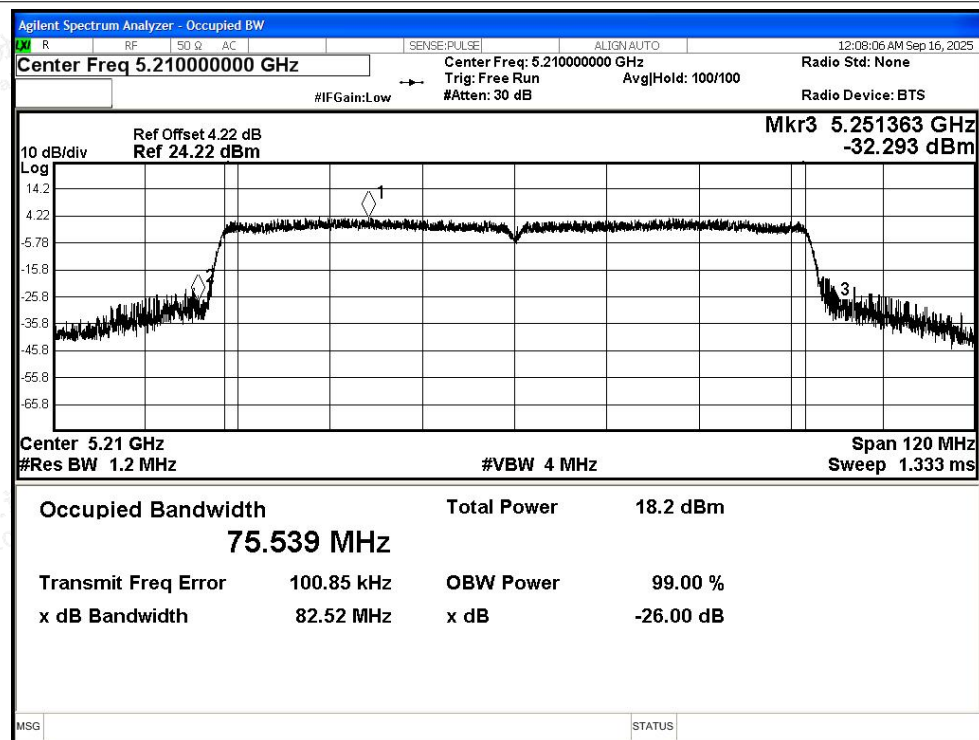
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-26dB Bandwidth NVNT ac40 5230MHz Ant1



-26dB Bandwidth NVNT ac80 5210MHz Ant1



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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	Ant1	12.77	0.24	13.01	24	Pass
NVNT	a	5200	Ant1	13.05	0.24	13.29	24	Pass
NVNT	a	5240	Ant1	12.11	0.24	12.35	24	Pass
NVNT	n20	5180	Ant1	11.79	0.12	11.91	24	Pass
NVNT	n20	5200	Ant1	11.70	0.12	11.82	24	Pass
NVNT	n20	5240	Ant1	11.79	0.12	11.91	24	Pass
NVNT	n40	5190	Ant1	11.60	0.23	11.83	24	Pass
NVNT	n40	5230	Ant1	10.98	0.23	11.21	24	Pass
NVNT	ac20	5180	Ant1	11.94	0.12	12.06	24	Pass
NVNT	ac20	5200	Ant1	11.73	0.12	11.85	24	Pass
NVNT	ac20	5240	Ant1	11.12	0.12	11.24	24	Pass
NVNT	ac40	5190	Ant1	11.55	0.24	11.79	24	Pass
NVNT	ac40	5230	Ant1	11.01	0.24	11.25	24	Pass
NVNT	ac80	5210	Ant1	10.84	0.47	11.31	24	Pass



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D.3 Maximum Power Spectral Density Level

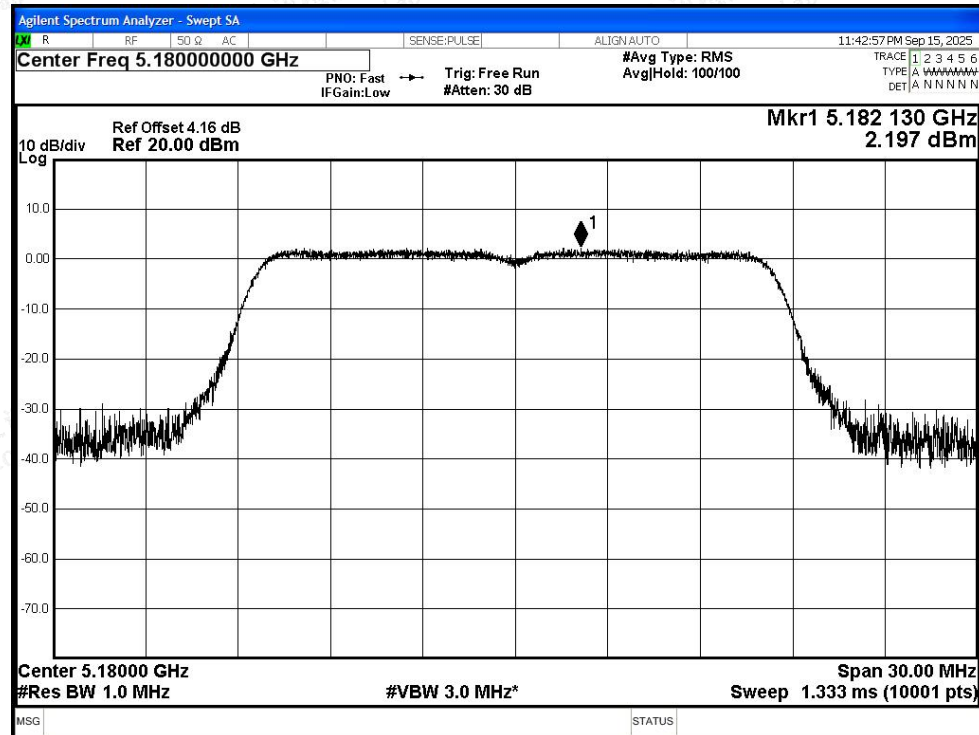
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	2.2	0.24	2.44	11	Pass
NVNT	a	5200	Ant1	2.47	0.24	2.71	11	Pass
NVNT	a	5240	Ant1	1.81	0.24	2.05	11	Pass
NVNT	n20	5180	Ant1	0.99	0.12	1.11	11	Pass
NVNT	n20	5200	Ant1	1.11	0.12	1.23	11	Pass
NVNT	n20	5240	Ant1	1.05	0.12	1.17	11	Pass
NVNT	n40	5190	Ant1	-1.88	0.23	-1.65	11	Pass
NVNT	n40	5230	Ant1	-2.48	0.23	-2.25	11	Pass
NVNT	ac20	5180	Ant1	1.2	0.12	1.32	11	Pass
NVNT	ac20	5200	Ant1	0.98	0.12	1.1	11	Pass
NVNT	ac20	5240	Ant1	0.46	0.12	0.58	11	Pass
NVNT	ac40	5190	Ant1	-2.19	0.24	-1.95	11	Pass
NVNT	ac40	5230	Ant1	-2.28	0.24	-2.04	11	Pass
NVNT	ac80	5210	Ant1	-5.79	0.47	-5.32	11	Pass



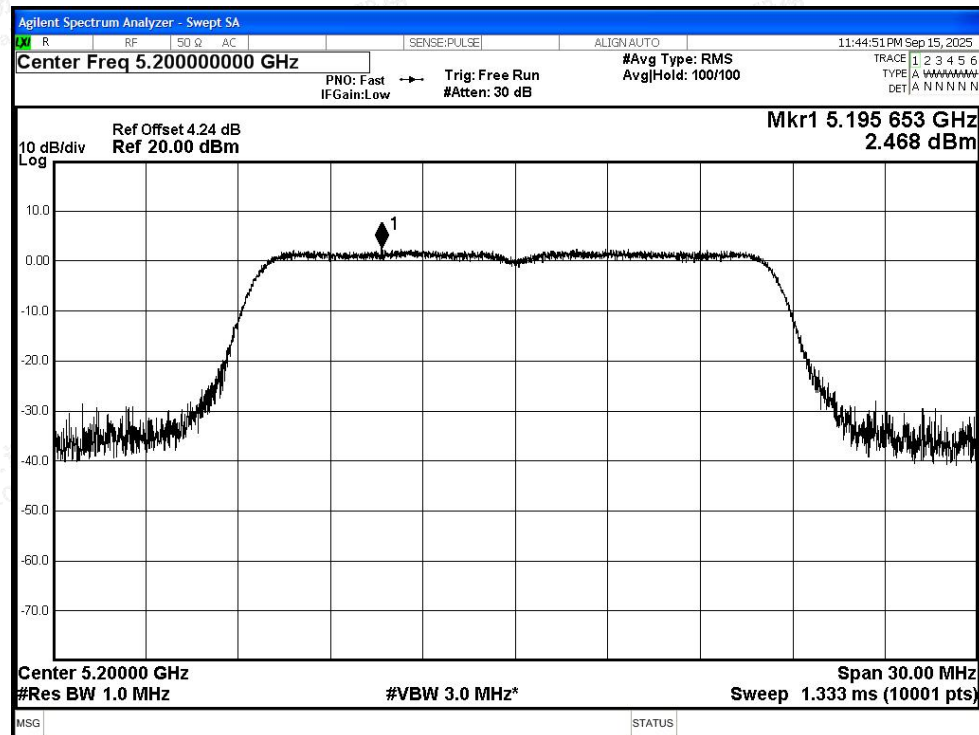


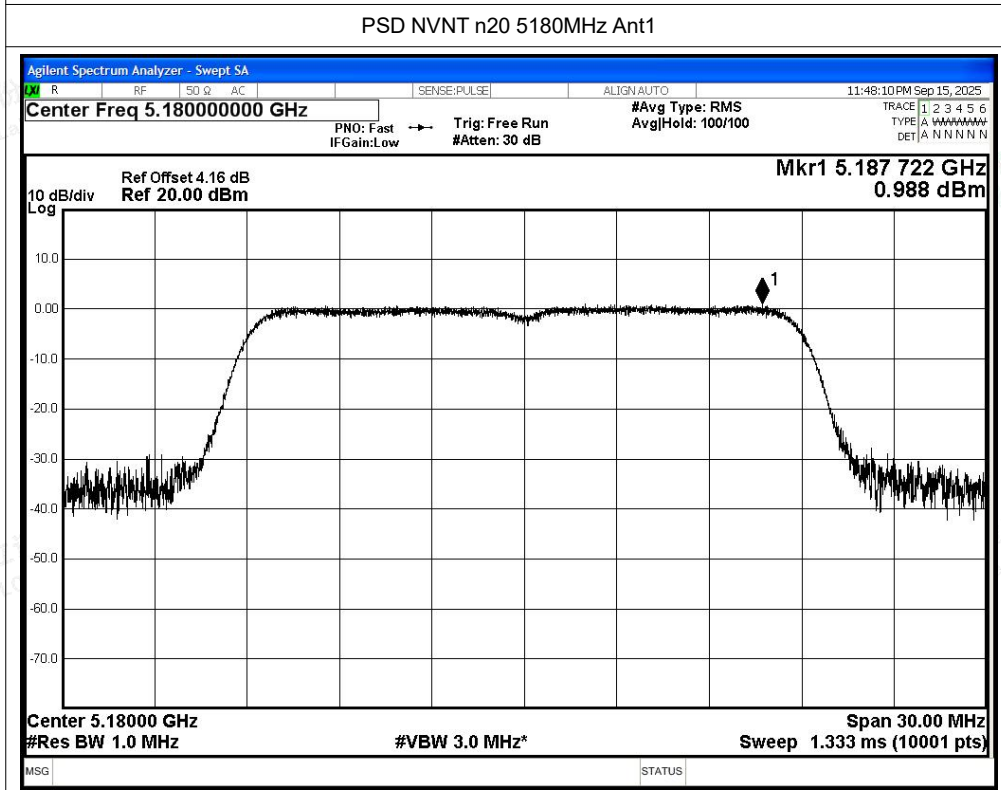
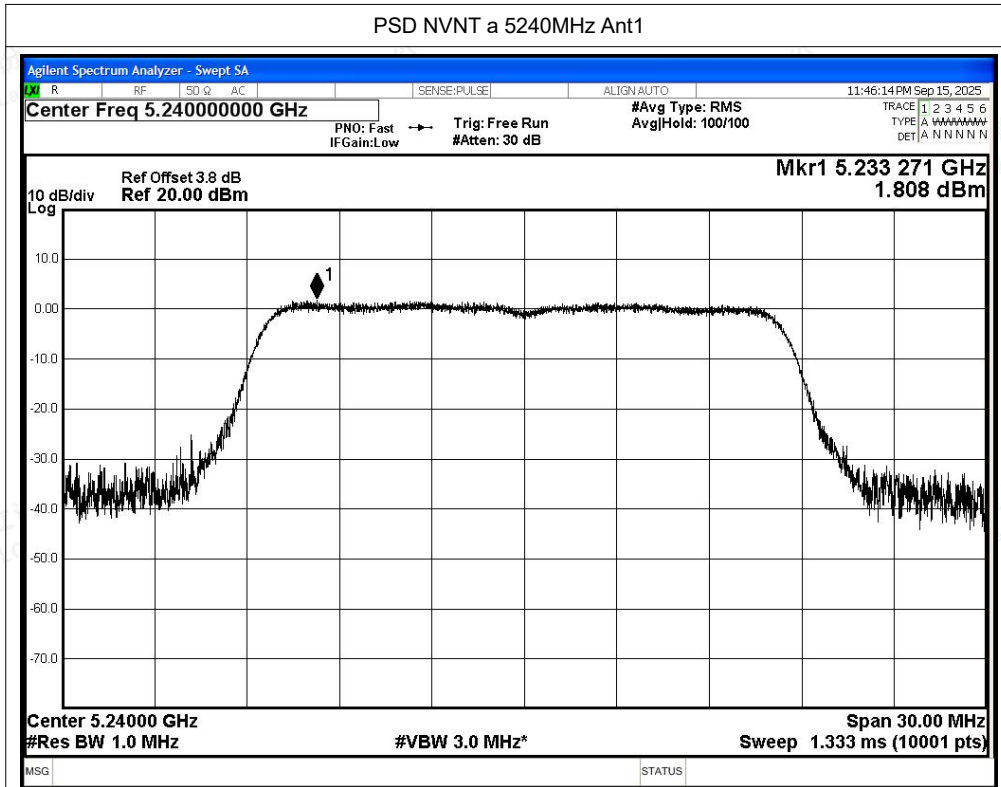
Test Graphs

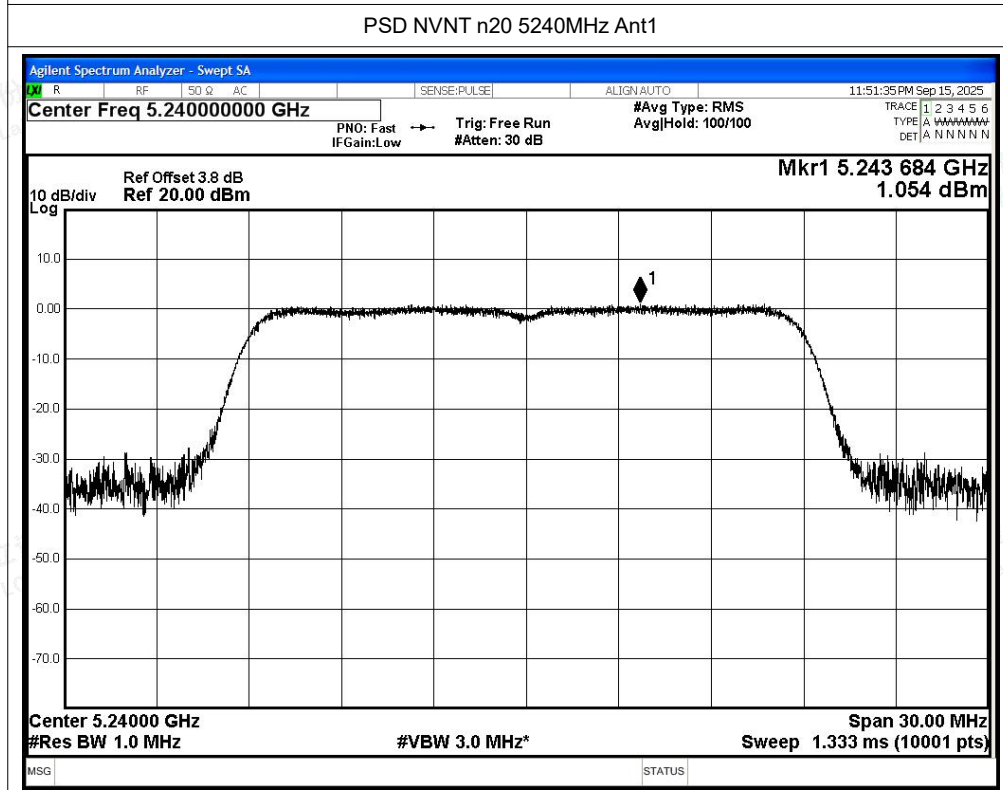
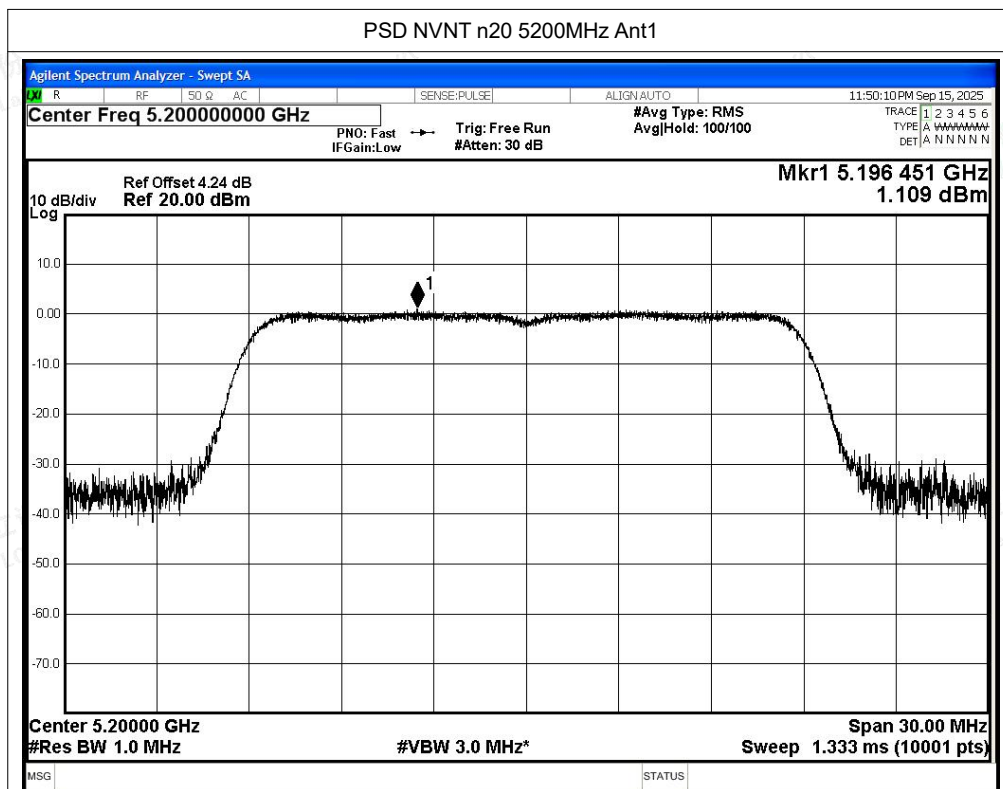
PSD NVNT a 5180MHz Ant1

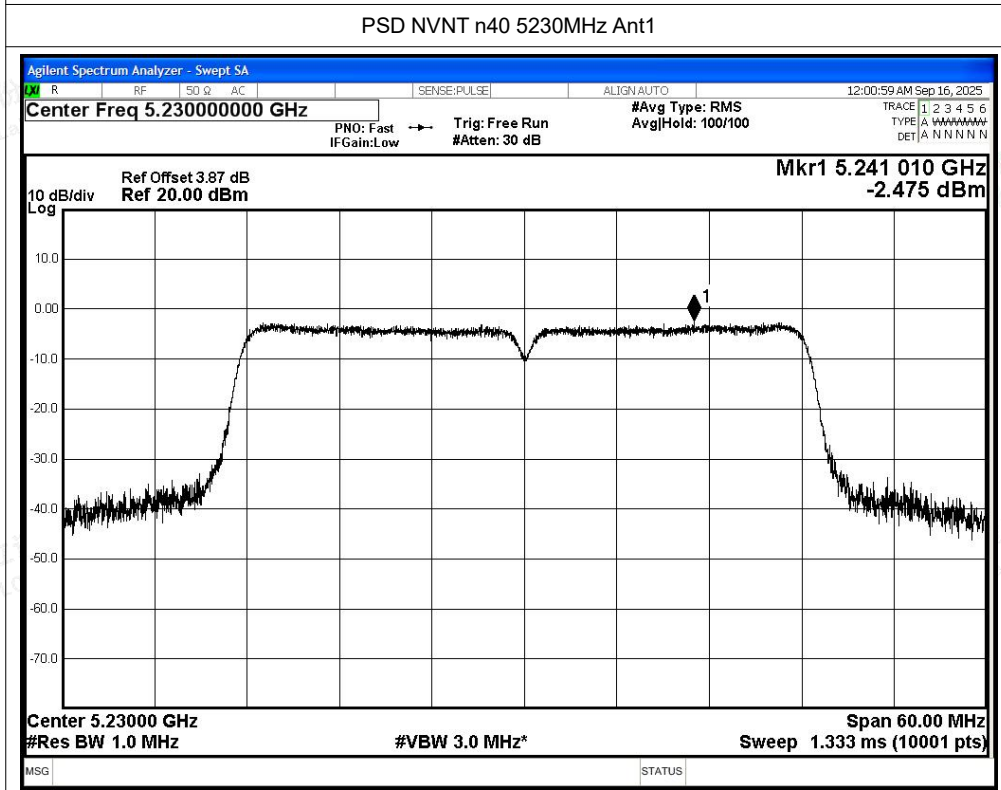
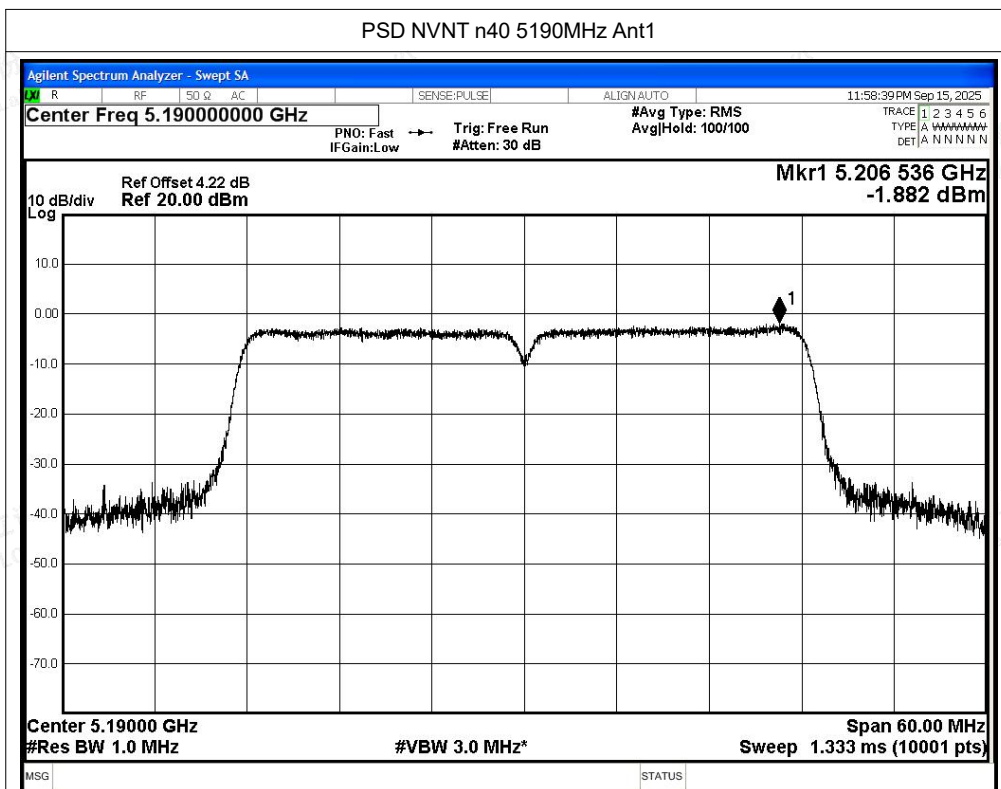


PSD NVNT a 5200MHz Ant1







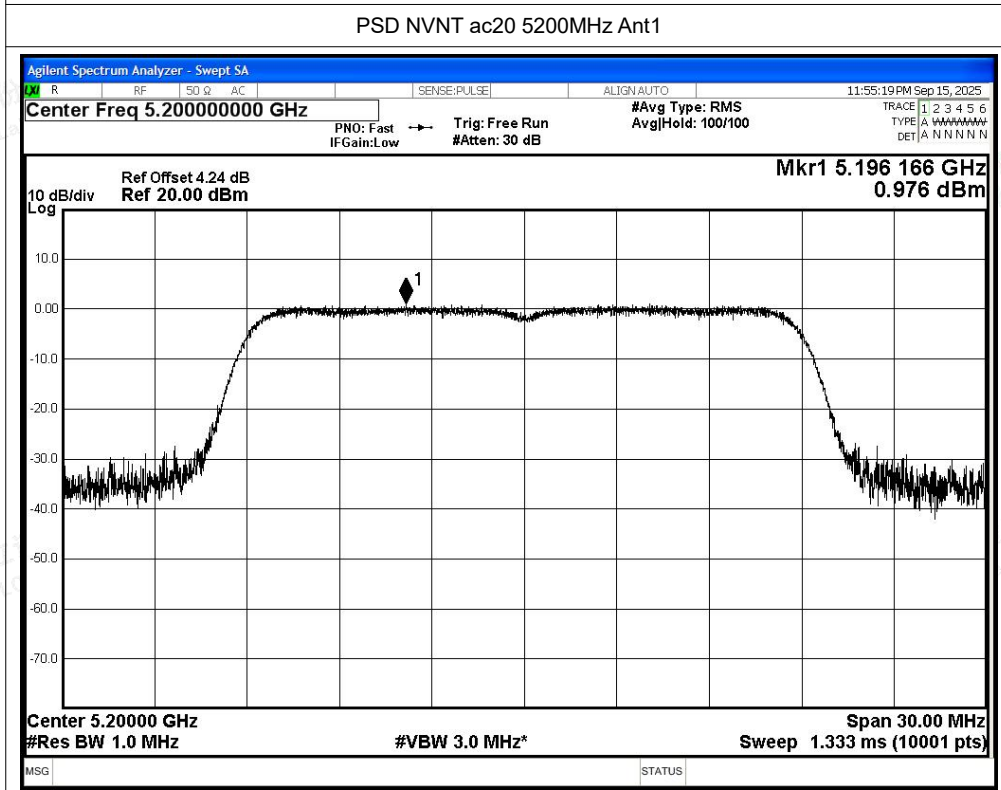
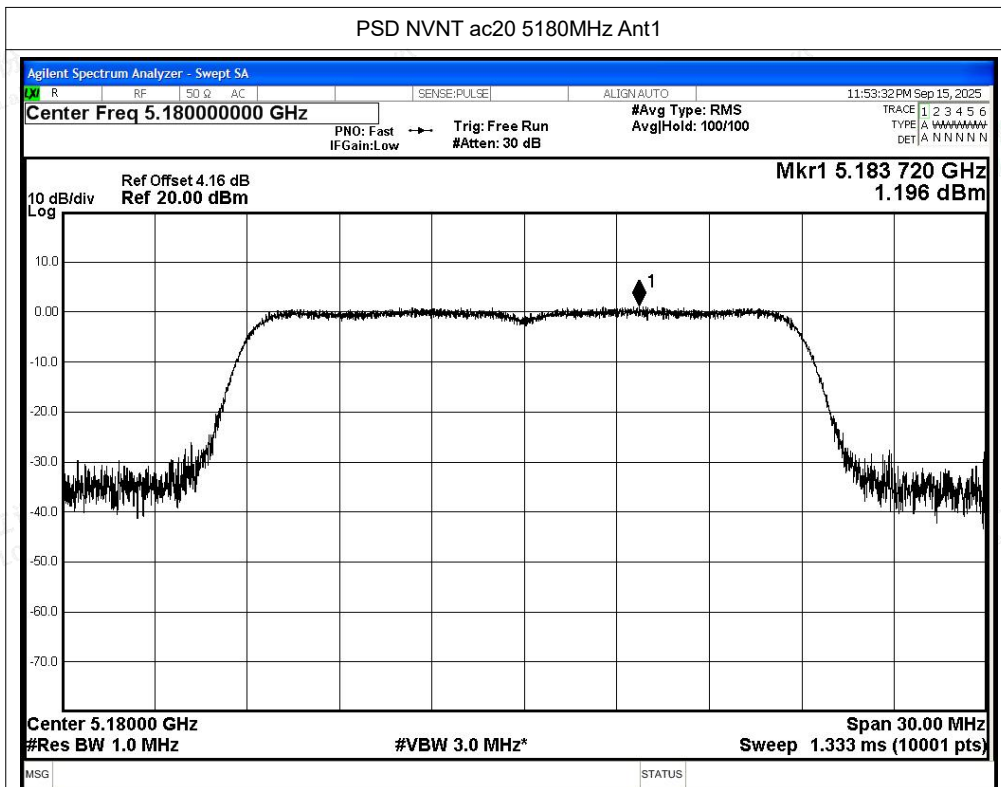


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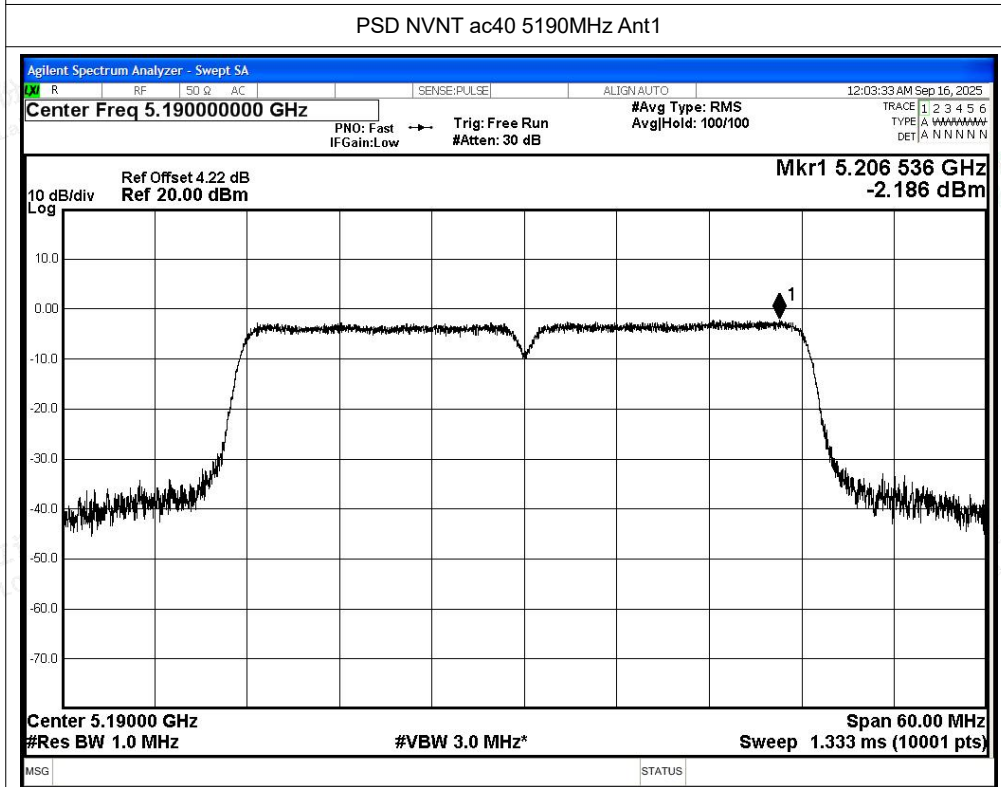
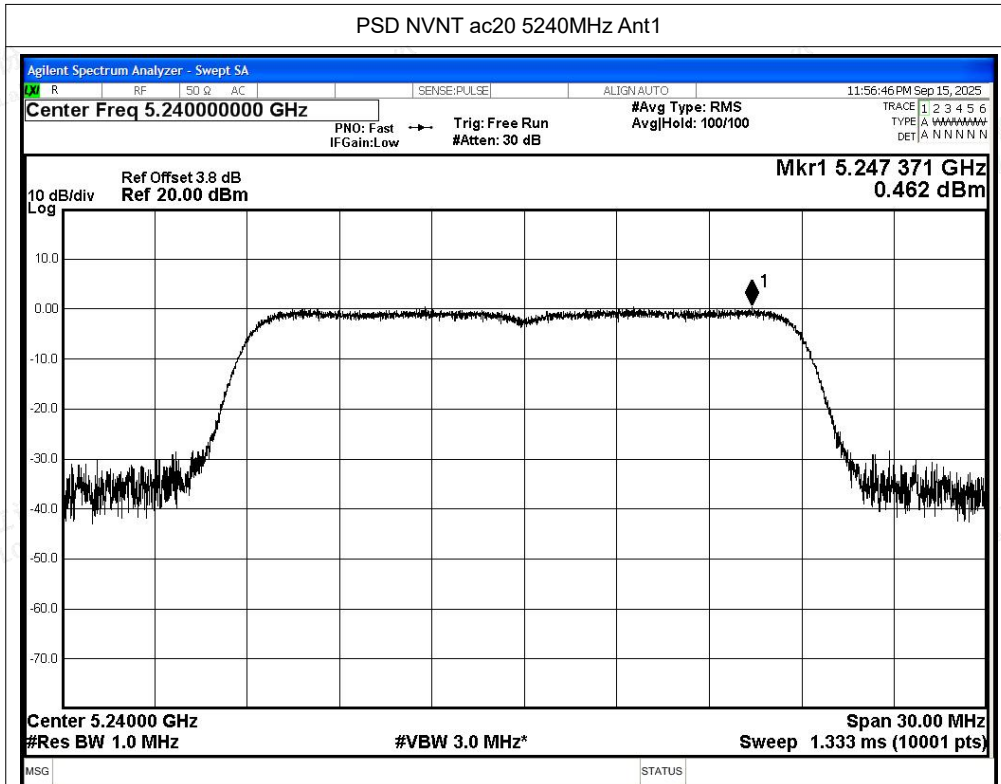


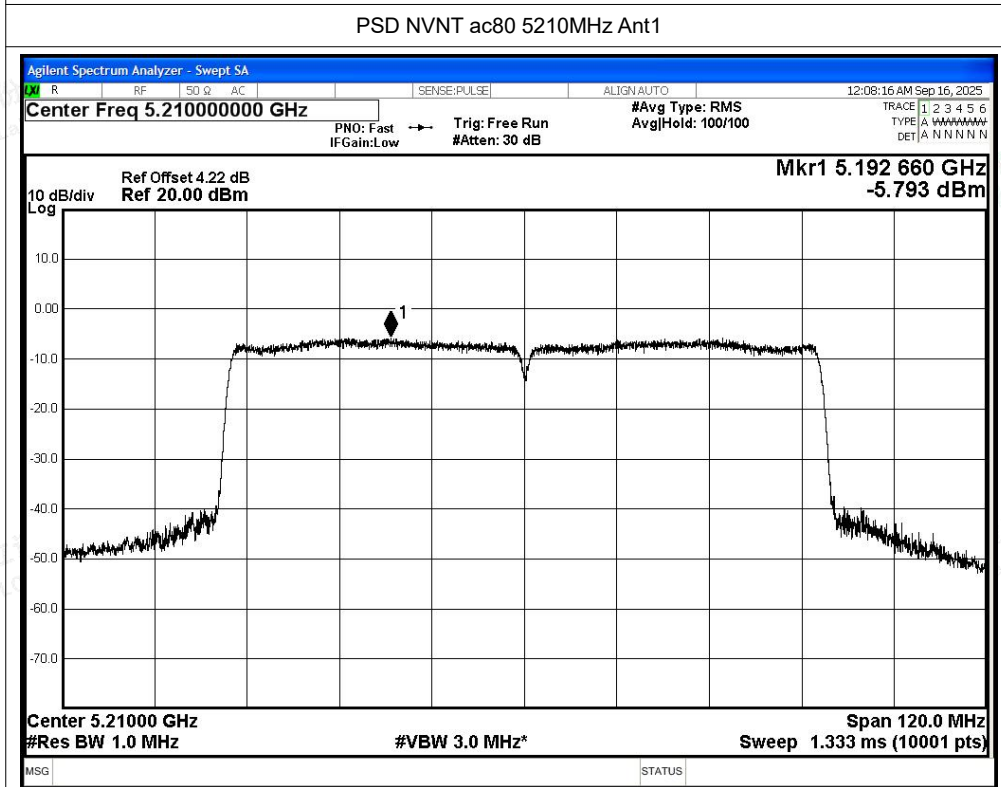
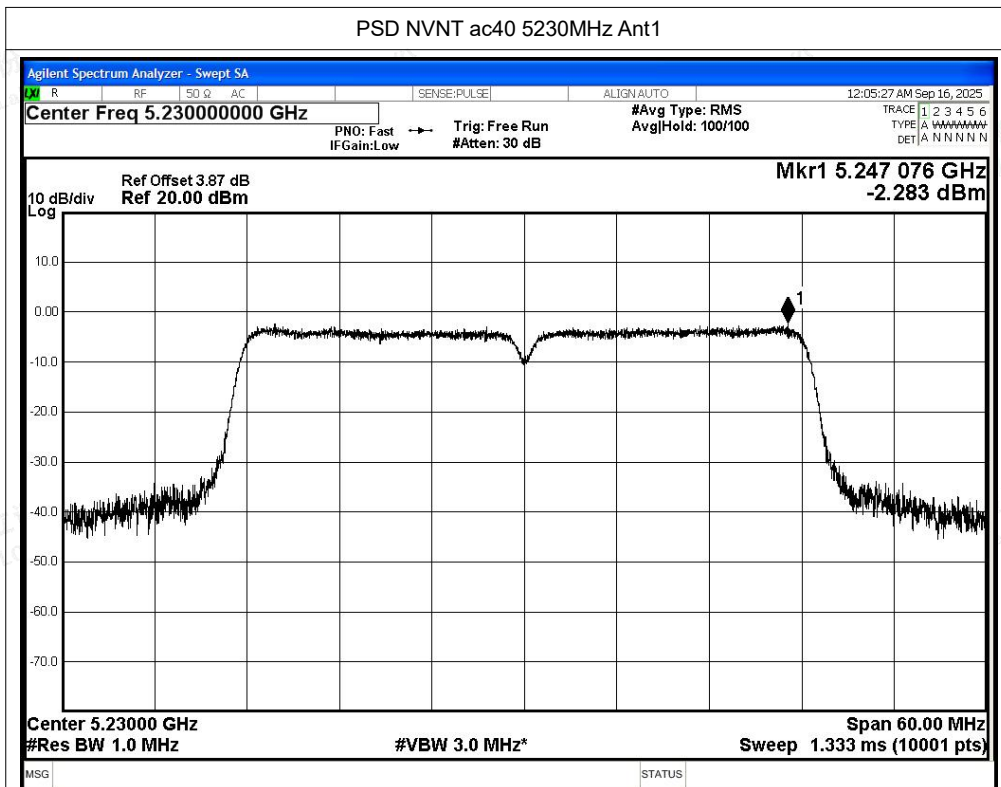
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D.4 Restrict Band

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	Ant1	4500	-48.83	3.34	-	49.74	Peak	68.2	Pass
NVNT	a	5180	Ant1	4500	-57.9	3.34	0.24	40.91	Average	54	Pass
NVNT	a	5180	Ant1	5098.5	-44.19	3.34	-	54.38	Peak	68.2	Pass
NVNT	a	5180	Ant1	5069.1	-55.33	3.34	0.24	43.48	Average	54	Pass
NVNT	a	5180	Ant1	5150	-45.89	3.34	-	52.68	Peak	68.2	Pass
NVNT	a	5180	Ant1	5150	-55.42	3.34	0.24	43.39	Average	54	Pass
NVNT	a	5240	Ant1	5350	-48.14	3.34	-	50.43	Peak	68.2	Pass
NVNT	a	5240	Ant1	5350	-57.12	3.34	0.24	41.69	Average	54	Pass
NVNT	a	5240	Ant1	5362.56	-46.13	3.34	-	52.44	Peak	68.2	Pass
NVNT	a	5240	Ant1	5436.48	-56.32	3.34	0.24	42.49	Average	54	Pass
NVNT	a	5240	Ant1	5460	-48.12	3.34	-	50.45	Peak	68.2	Pass
NVNT	a	5240	Ant1	5460	-57.56	3.34	0.24	41.25	Average	54	Pass
NVNT	n20	5180	Ant1	4500	-49.08	3.34	-	49.49	Peak	68.2	Pass
NVNT	n20	5180	Ant1	4500	-57.62	3.34	0.12	41.07	Average	54	Pass
NVNT	n20	5180	Ant1	5149.6	-41.83	3.34	-	56.74	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5149.6	-54.79	3.34	0.12	43.90	Average	54	Pass
NVNT	n20	5180	Ant1	5150	-43.29	3.34	-	55.28	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5150	-55.06	3.34	0.12	43.63	Average	54	Pass
NVNT	n20	5240	Ant1	5350	-49.1	3.34	-	49.47	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5350	-57.02	3.34	0.12	41.67	Average	54	Pass
NVNT	n20	5240	Ant1	5381.76	-46.37	3.34	-	52.20	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5356.08	-56.29	3.34	0.12	42.40	Average	54	Pass
NVNT	n20	5240	Ant1	5460	-48.36	3.34	-	50.21	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5460	-57.37	3.34	0.12	41.32	Average	54	Pass
NVNT	n40	5190	Ant1	4500	-49.01	3.34	-	49.56	Peak	68.2	Pass
NVNT	n40	5190	Ant1	4500	-58.34	3.34	0.23	40.46	Average	54	Pass
NVNT	n40	5190	Ant1	5148.97	-41.93	3.34	-	56.64	Peak	68.2	Pass
NVNT	n40	5190	Ant1	5149.7	-54.88	3.34	0.23	43.92	Average	54	Pass
NVNT	n40	5190	Ant1	5150	-46.83	3.34	-	51.74	Peak	68.2	Pass
NVNT	n40	5190	Ant1	5150	-54.88	3.34	0.23	43.92	Average	54	Pass
NVNT	n40	5230	Ant1	5350	-50.1	3.34	-	48.47	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5350	-57.34	3.34	0.23	41.46	Average	54	Pass
NVNT	n40	5230	Ant1	5410.59	-46.15	3.34	-	52.42	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5406.54	-56.41	3.34	0.23	42.39	Average	54	Pass
NVNT	n40	5230	Ant1	5460	-48.95	3.34	-	49.62	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5460	-57.39	3.34	0.23	41.41	Average	54	Pass





NVNT	ac20	5180	Ant1	4500	-49.87	3.34	-	48.70	Peak	68.2	Pass
NVNT	ac20	5180	Ant1	4500	-57.91	3.34	0.12	40.78	Average	54	Pass
NVNT	ac20	5180	Ant1	5149.6	-44.13	3.34	-	54.44	Peak	68.2	Pass
NVNT	ac20	5180	Ant1	5145.4	-55.07	3.34	0.12	43.62	Average	54	Pass
NVNT	ac20	5180	Ant1	5150	-41.32	3.34	-	57.25	Peak	68.2	Pass
NVNT	ac20	5180	Ant1	5150	-54.73	3.34	0.12	43.96	Average	54	Pass
NVNT	ac20	5240	Ant1	5350	-50.22	3.34	-	48.35	Peak	68.2	Pass
NVNT	ac20	5240	Ant1	5350	-57.7	3.34	0.12	40.99	Average	54	Pass
NVNT	ac20	5240	Ant1	5439.12	-45.58	3.34	-	52.99	Peak	68.2	Pass
NVNT	ac20	5240	Ant1	5376.72	-56.44	3.34	0.12	42.25	Average	54	Pass
NVNT	ac20	5240	Ant1	5460	-48.54	3.34	-	50.03	Peak	68.2	Pass
NVNT	ac20	5240	Ant1	5460	-57.57	3.34	0.12	41.12	Average	54	Pass
NVNT	ac40	5190	Ant1	4500	-49.01	3.34	-	49.56	Peak	68.2	Pass
NVNT	ac40	5190	Ant1	4500	-58.32	3.34	0.24	40.49	Average	54	Pass
NVNT	ac40	5190	Ant1	5148.24	-40.4	3.34	-	58.17	Peak	68.2	Pass
NVNT	ac40	5190	Ant1	5149.7	-54.45	3.34	0.24	44.36	Average	54	Pass
NVNT	ac40	5190	Ant1	5150	-45.39	3.34	-	53.18	Peak	68.2	Pass
NVNT	ac40	5190	Ant1	5150	-54.45	3.34	0.24	44.36	Average	54	Pass
NVNT	ac40	5230	Ant1	5350	-49.58	3.34	-	48.99	Peak	68.2	Pass
NVNT	ac40	5230	Ant1	5350	-57.54	3.34	0.24	41.27	Average	54	Pass
NVNT	ac40	5230	Ant1	5387.37	-46.57	3.34	-	52.00	Peak	68.2	Pass
NVNT	ac40	5230	Ant1	5447.85	-56.33	3.34	0.24	42.48	Average	54	Pass
NVNT	ac40	5230	Ant1	5460	-48.21	3.34	-	50.36	Peak	68.2	Pass
NVNT	ac40	5230	Ant1	5460	-56.88	3.34	0.24	41.93	Average	54	Pass
NVNT	ac80	5210	Ant1	5350	-45.89	3.34	-	52.68	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5350	-56.11	3.34	0.47	42.93	Average	54	Pass
NVNT	ac80	5210	Ant1	5390.7	-45.57	3.34	-	53.00	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5368.92	-55.22	3.34	0.47	43.82	Average	54	Pass
NVNT	ac80	5210	Ant1	5460	-48.77	3.34	-	49.80	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5460	-56.99	3.34	0.47	42.05	Average	54	Pass
NVNT	ac80	5210	Ant1	4500	-48.95	3.34	-	49.62	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	4500	-58.15	3.34	0.47	40.89	Average	54	Pass
NVNT	ac80	5210	Ant1	5146.22	-42.68	3.34	-	55.89	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5149.38	-53.68	3.34	0.47	45.36	Average	54	Pass
NVNT	ac80	5210	Ant1	5150	-43.52	3.34	-	55.05	Peak	68.2	Pass
NVNT	ac80	5210	Ant1	5150	-54.57	3.34	0.47	44.47	Average	54	Pass



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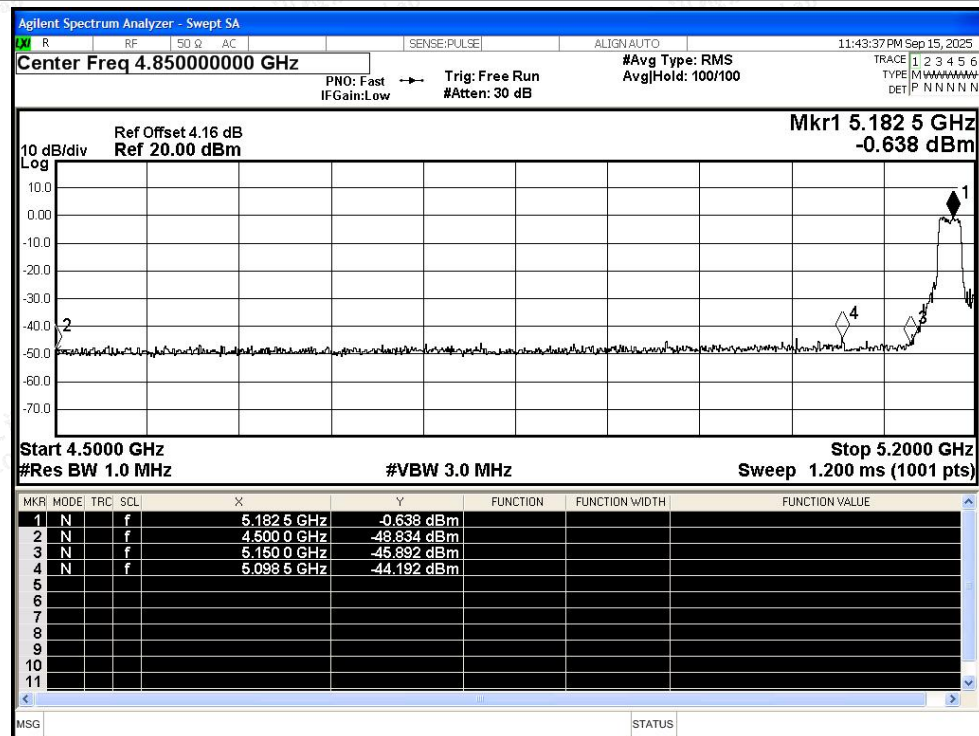
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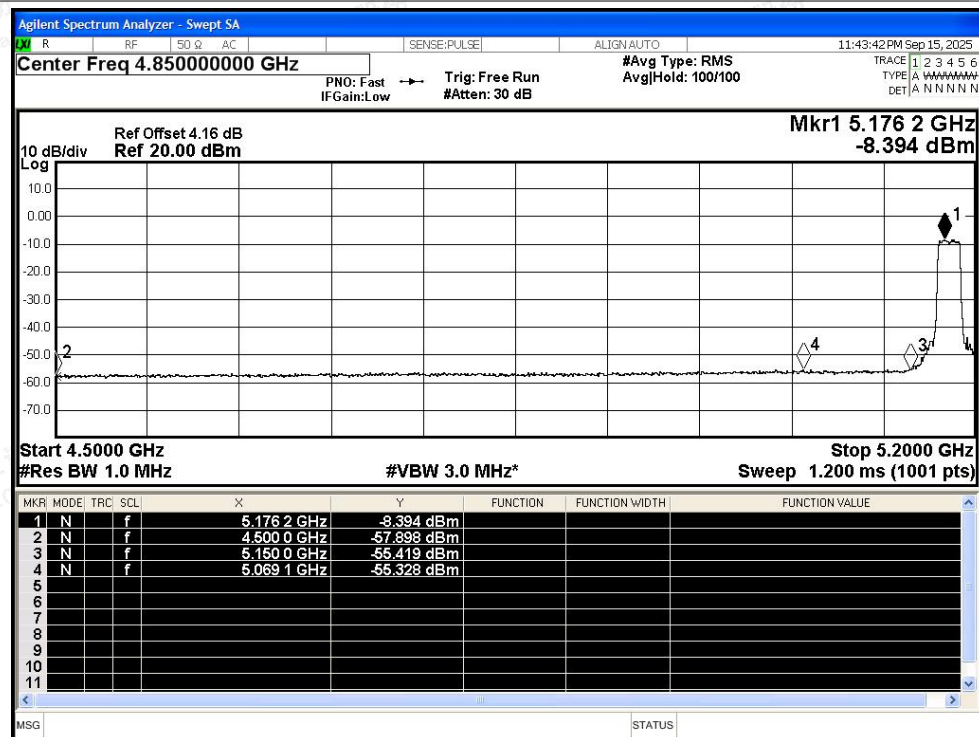


Test Graphs

Restrict Band NVNT a 5180MHz Ant1 Peak



Restrict Band NVNT a 5180MHz Ant1 Average



Shenzhen LCS Compliance Testing Laboratory Ltd.

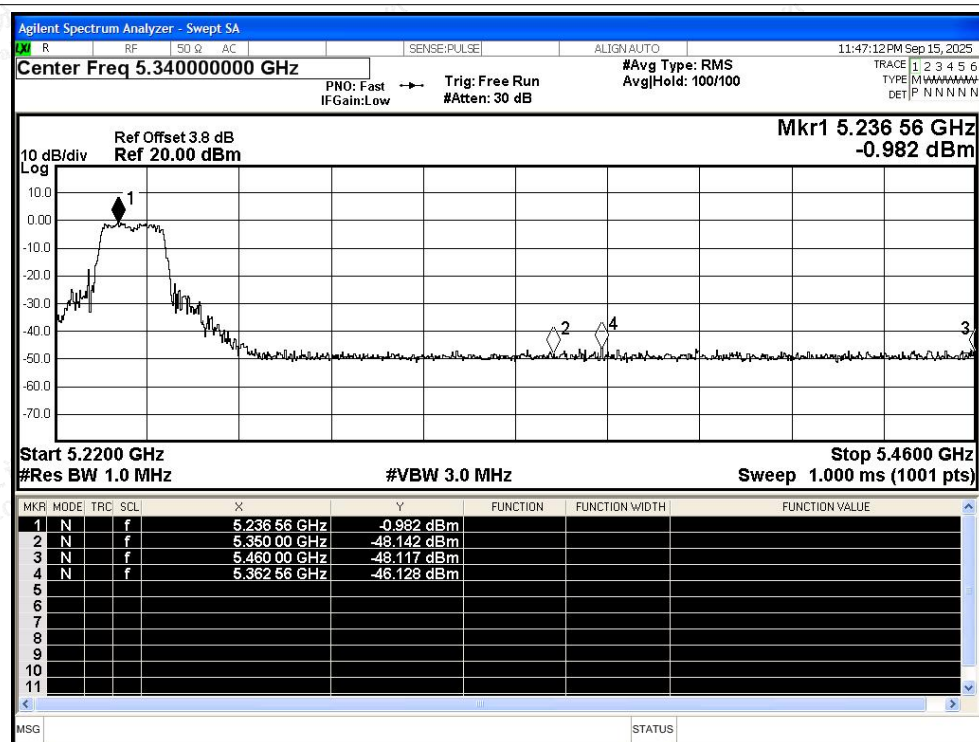
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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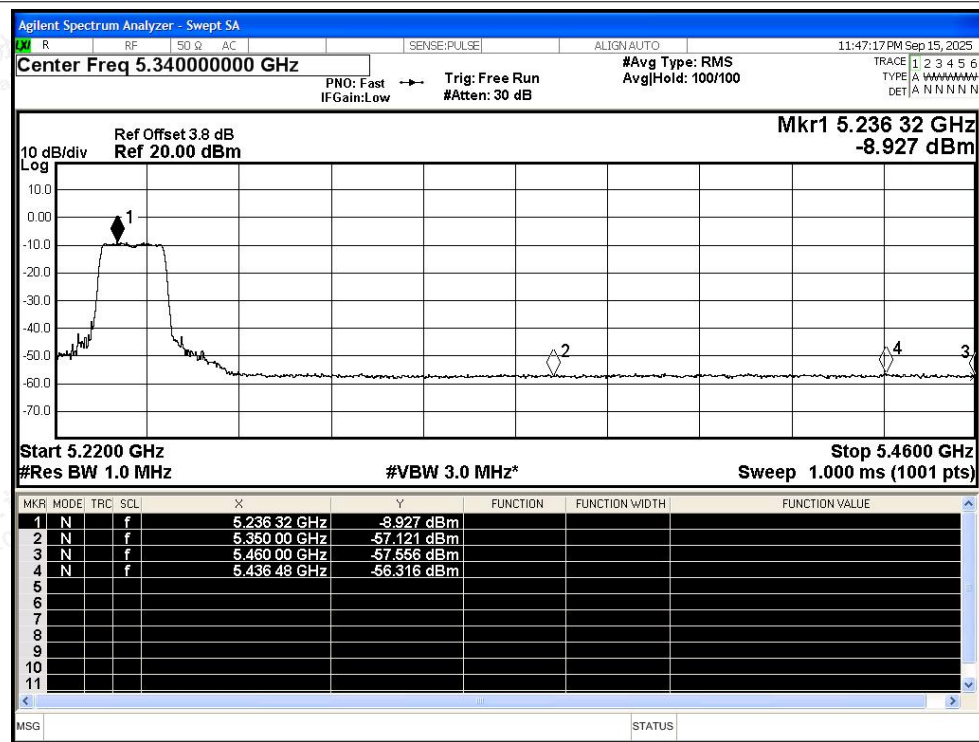
Scan code to check authenticity



Restrict Band NVNT a 5240MHz Ant1 Peak



Restrict Band NVNT a 5240MHz Ant1 Average



Shenzhen LCS Compliance Testing Laboratory Ltd.

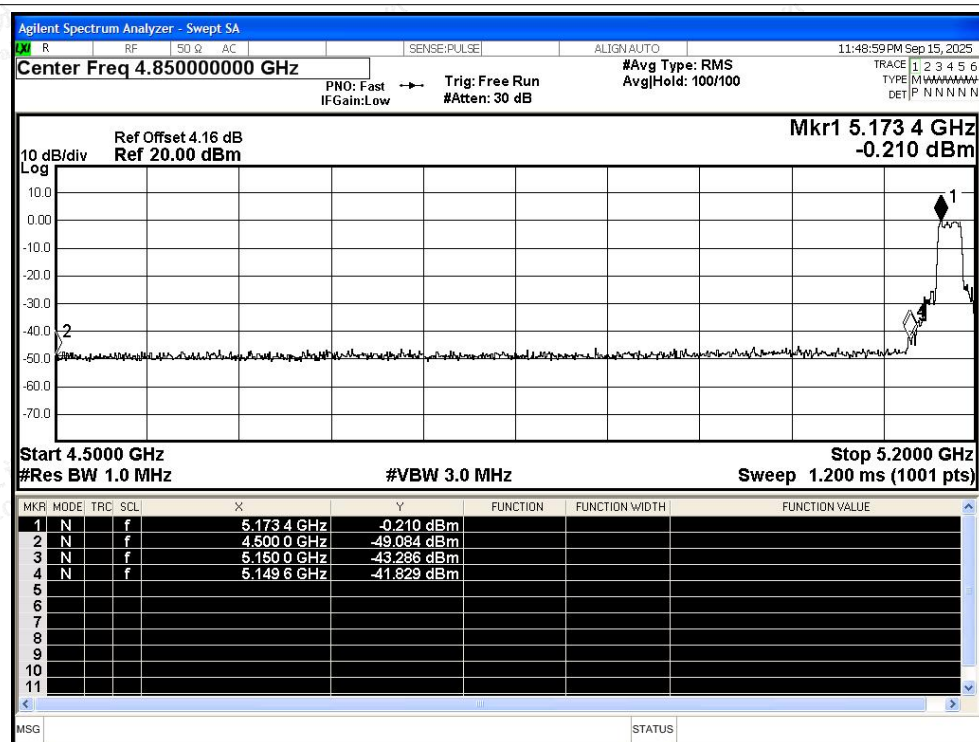
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

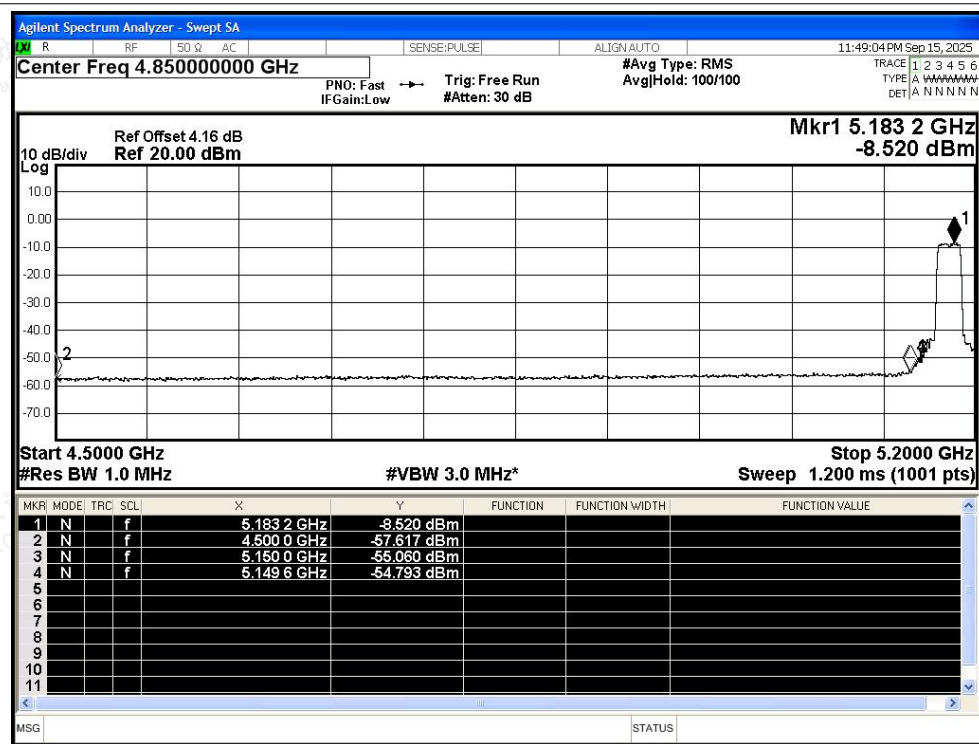
Scan code to check authenticity



Restrict Band NVNT n20 5180MHz Ant1 Peak



Restrict Band NVNT n20 5180MHz Ant1 Average



Shenzhen LCS Compliance Testing Laboratory Ltd.

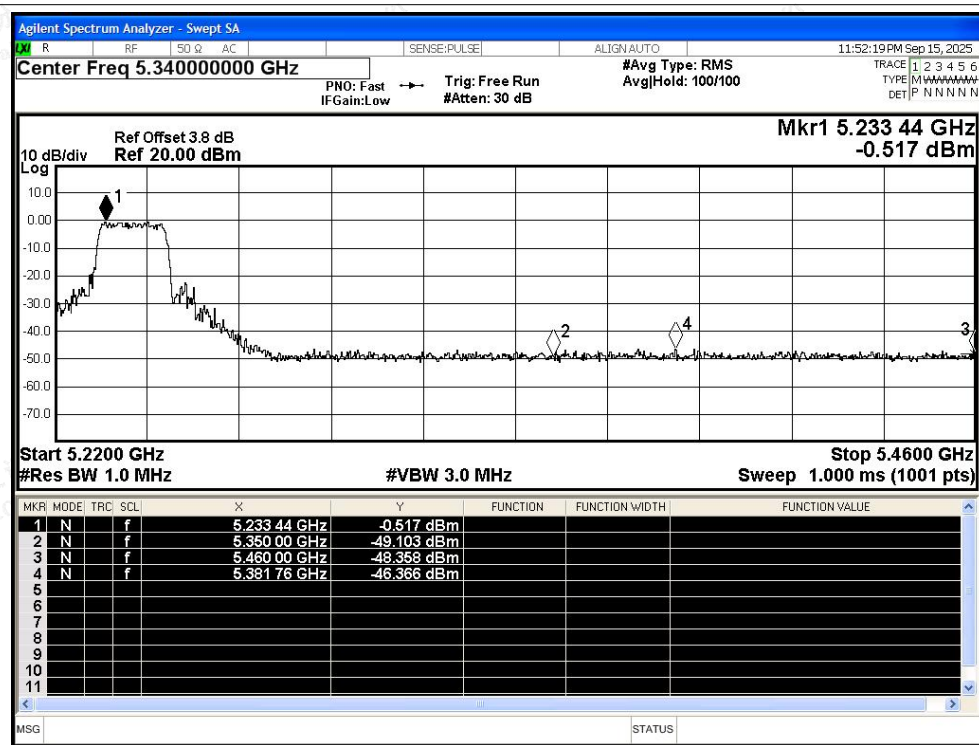
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

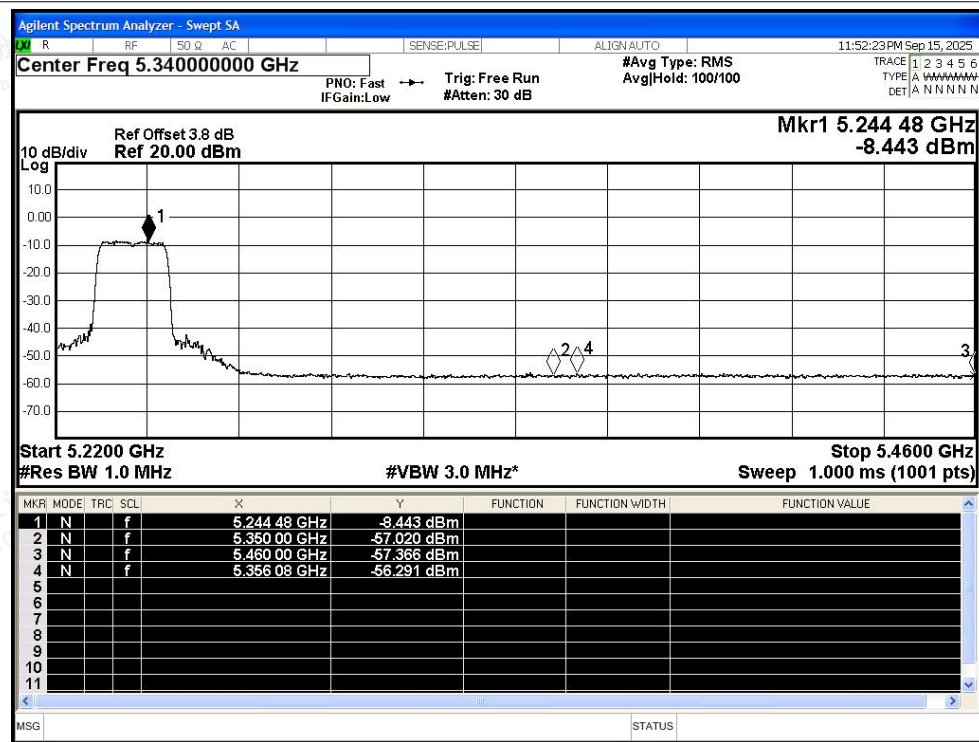
Scan code to check authenticity



Restrict Band NVNT n20 5240MHz Ant1 Peak



Restrict Band NVNT n20 5240MHz Ant1 Average



Shenzhen LCS Compliance Testing Laboratory Ltd.

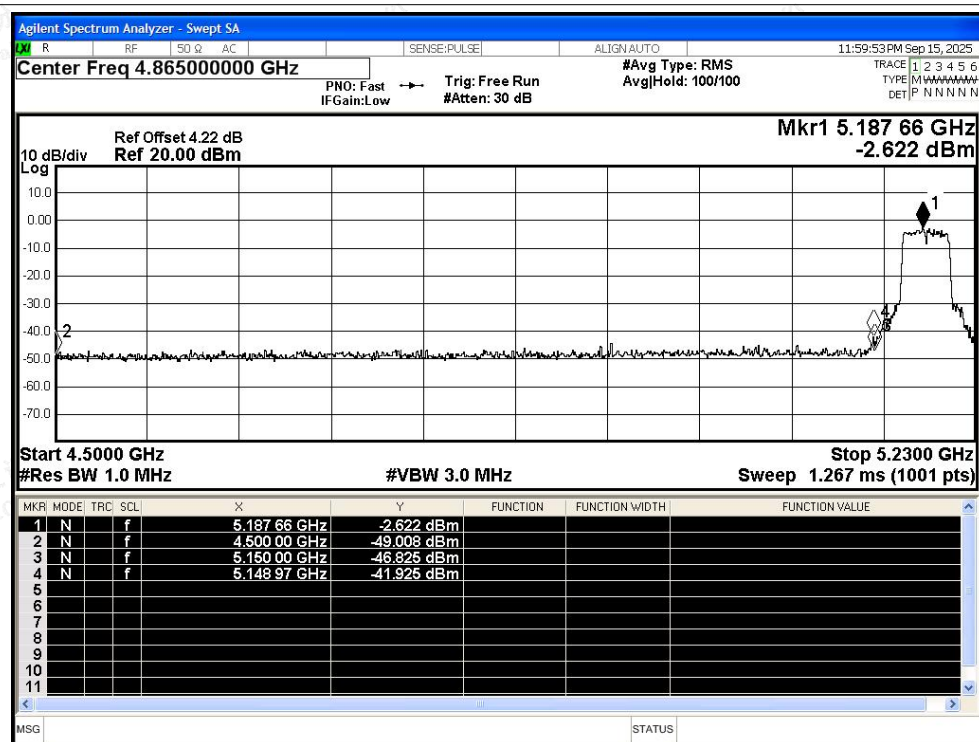
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

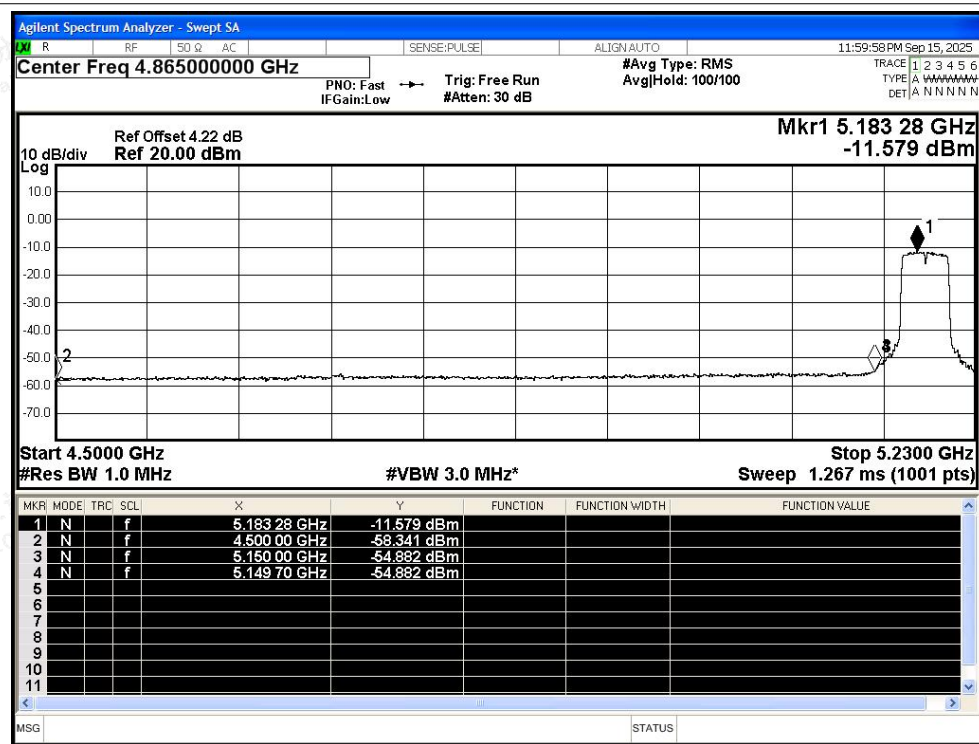
Scan code to check authenticity



Restrict Band NVNT n40 5190MHz Ant1 Peak



Restrict Band NVNT n40 5190MHz Ant1 Average



Shenzhen LCS Compliance Testing Laboratory Ltd.

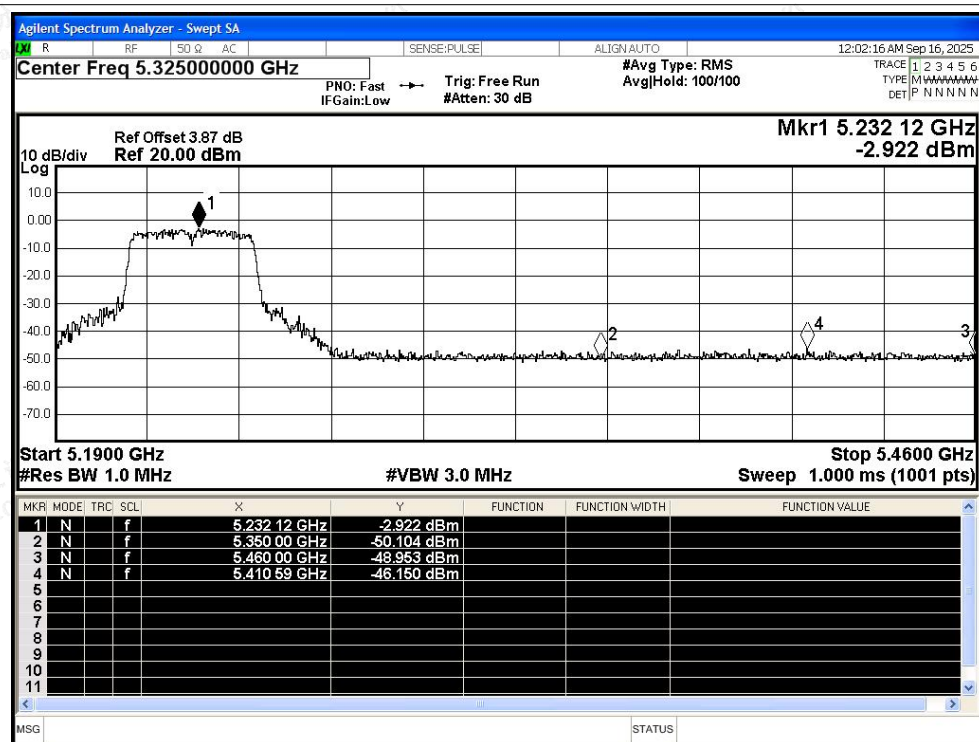
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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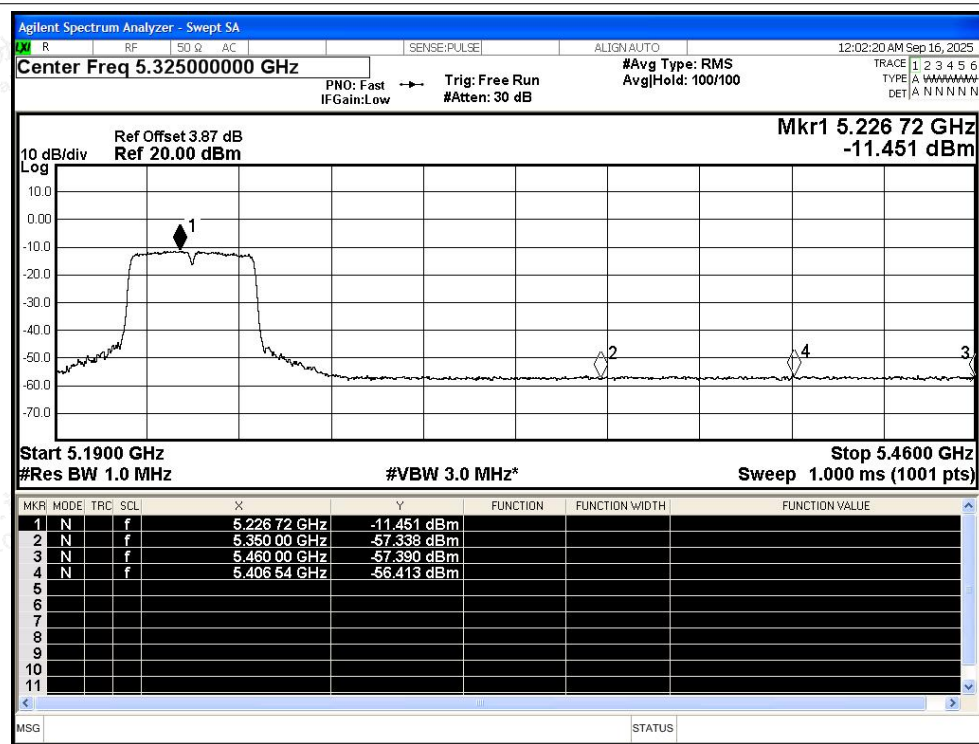
Scan code to check authenticity



Restrict Band NVNT n40 5230MHz Ant1 Peak



Restrict Band NVNT n40 5230MHz Ant1 Average



Shenzhen LCS Compliance Testing Laboratory Ltd.

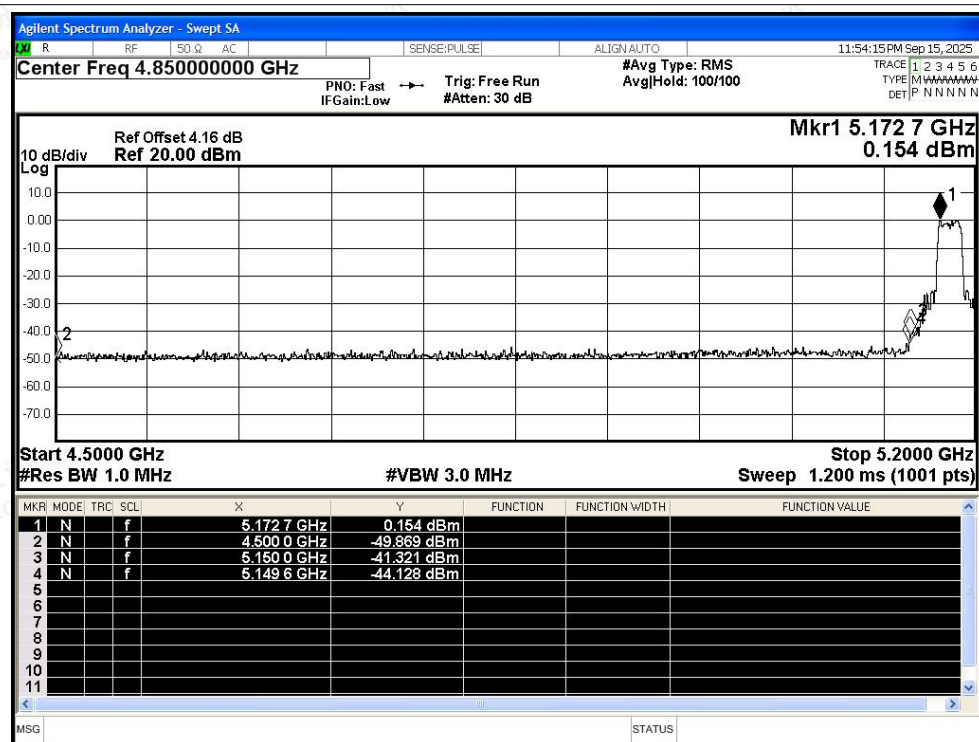
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

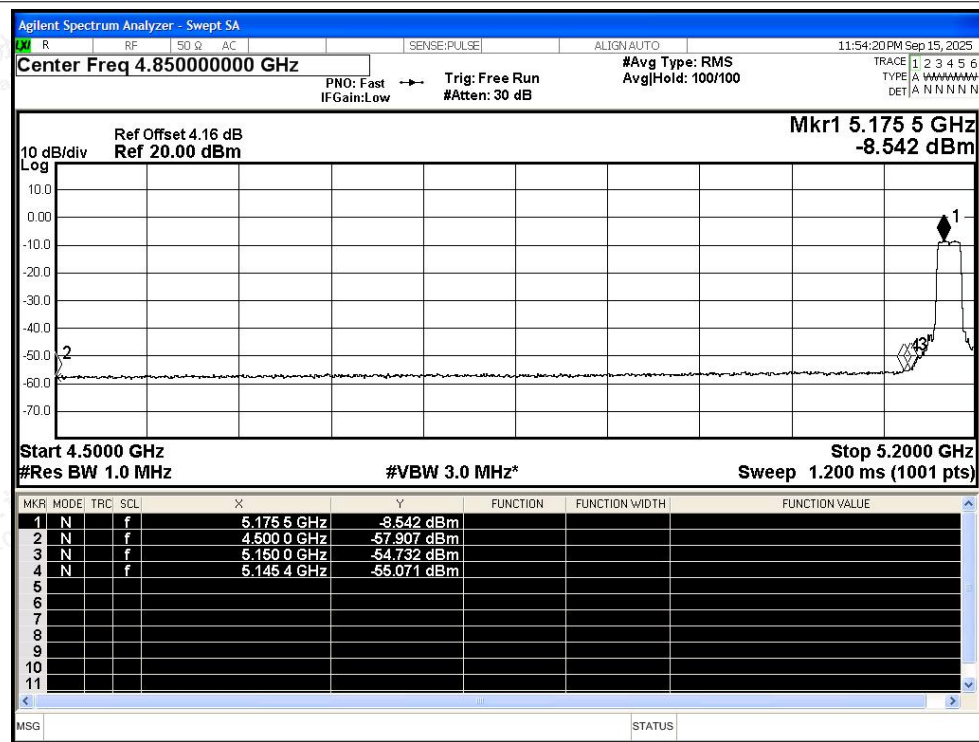
Scan code to check authenticity



Restrict Band NVNT ac20 5180MHz Ant1 Peak



Restrict Band NVNT ac20 5180MHz Ant1 Average



Shenzhen LCS Compliance Testing Laboratory Ltd.

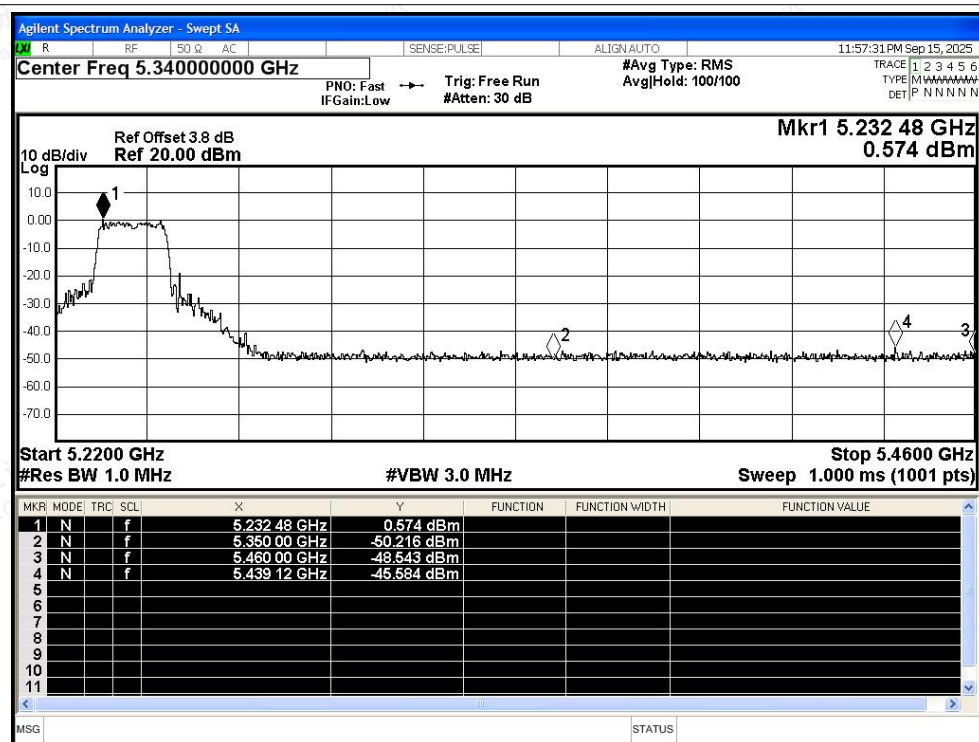
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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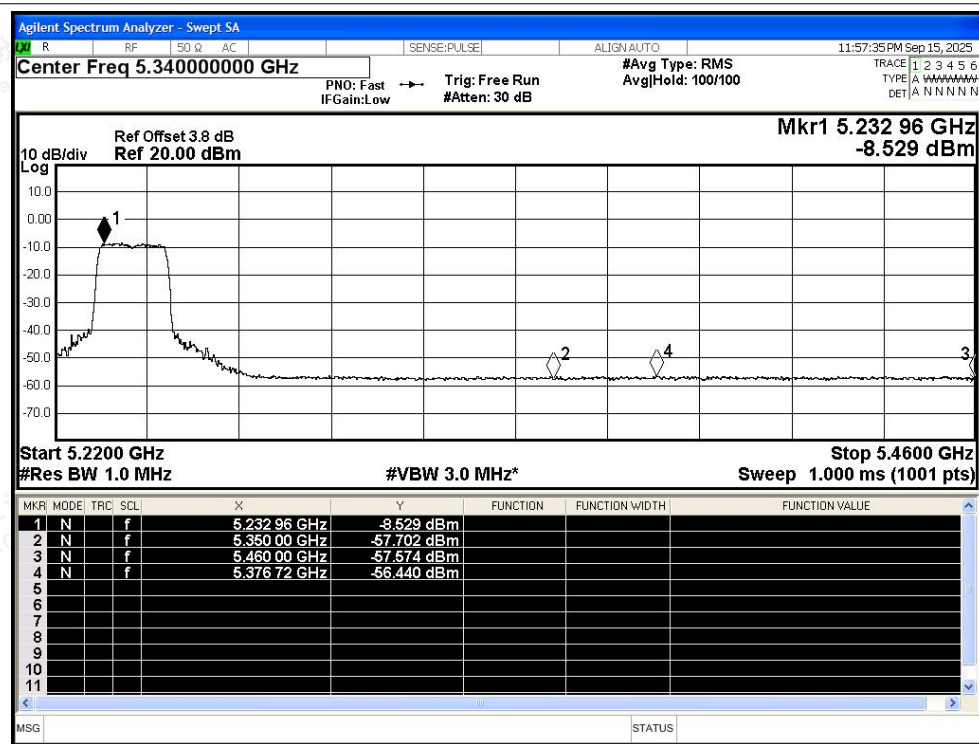
Scan code to check authenticity



Restrict Band NVNT ac20 5240MHz Ant1 Peak



Restrict Band NVNT ac20 5240MHz Ant1 Average



Shenzhen LCS Compliance Testing Laboratory Ltd.

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