



Appendix C

RF Test Data for 5.2GWIFI (Conducted Measurement)

Product Name: Robot Vacuum Cleaner

Test Model: SL40,

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
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



C.1 -26dB Bandwidth

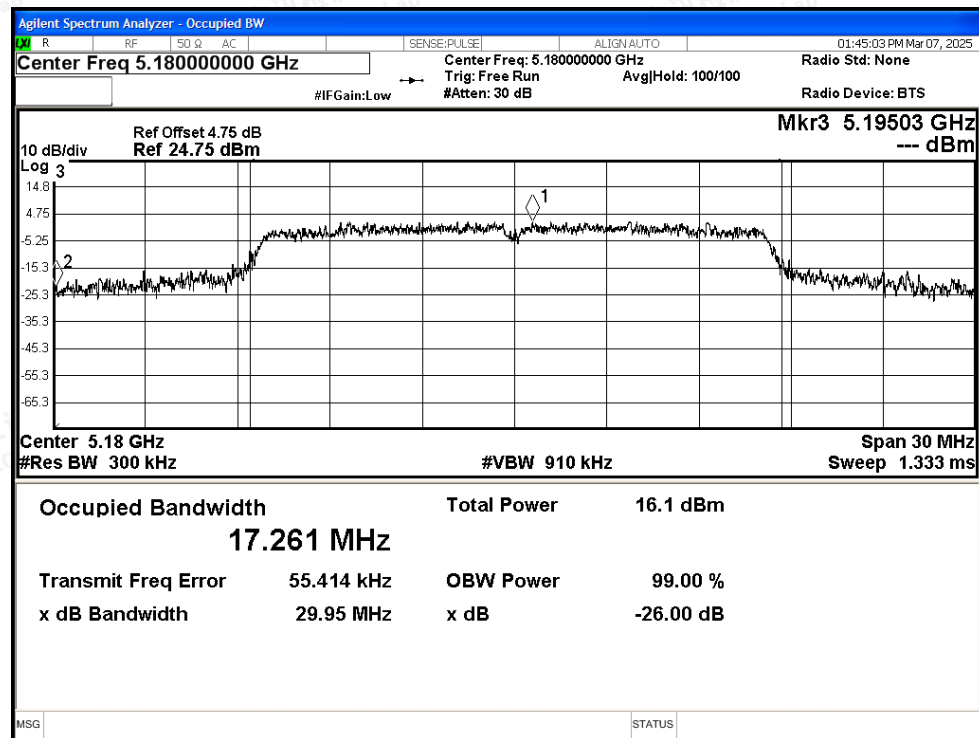
Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	29.949	≥ 0.5	Pass
NVNT	a	5200	Ant1	29.927	≥ 0.5	Pass
NVNT	a	5240	Ant1	29.988	≥ 0.5	Pass
NVNT	n20	5180	Ant1	19.524	≥ 0.5	Pass
NVNT	n20	5200	Ant1	19.282	≥ 0.5	Pass
NVNT	n20	5240	Ant1	19.415	≥ 0.5	Pass
NVNT	n40	5190	Ant1	39.181	≥ 0.5	Pass
NVNT	n40	5230	Ant1	39.123	≥ 0.5	Pass



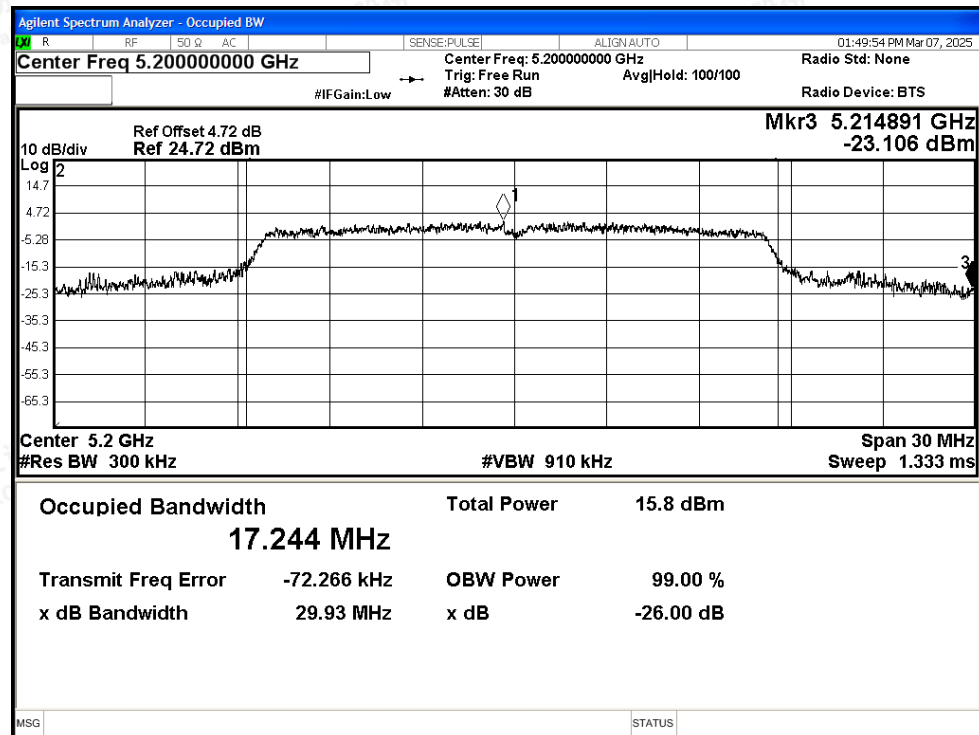


Test Graphs

-26dB Bandwidth NVNT a 5180MHz Ant1



-26dB Bandwidth NVNT a 5200MHz Ant1

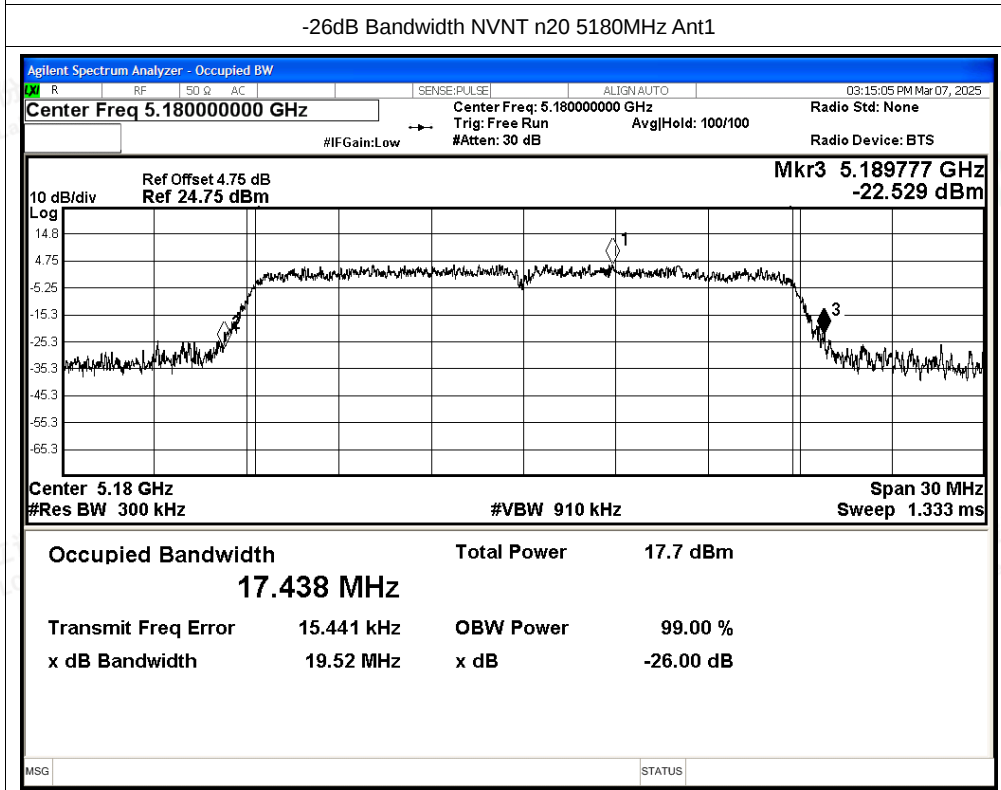
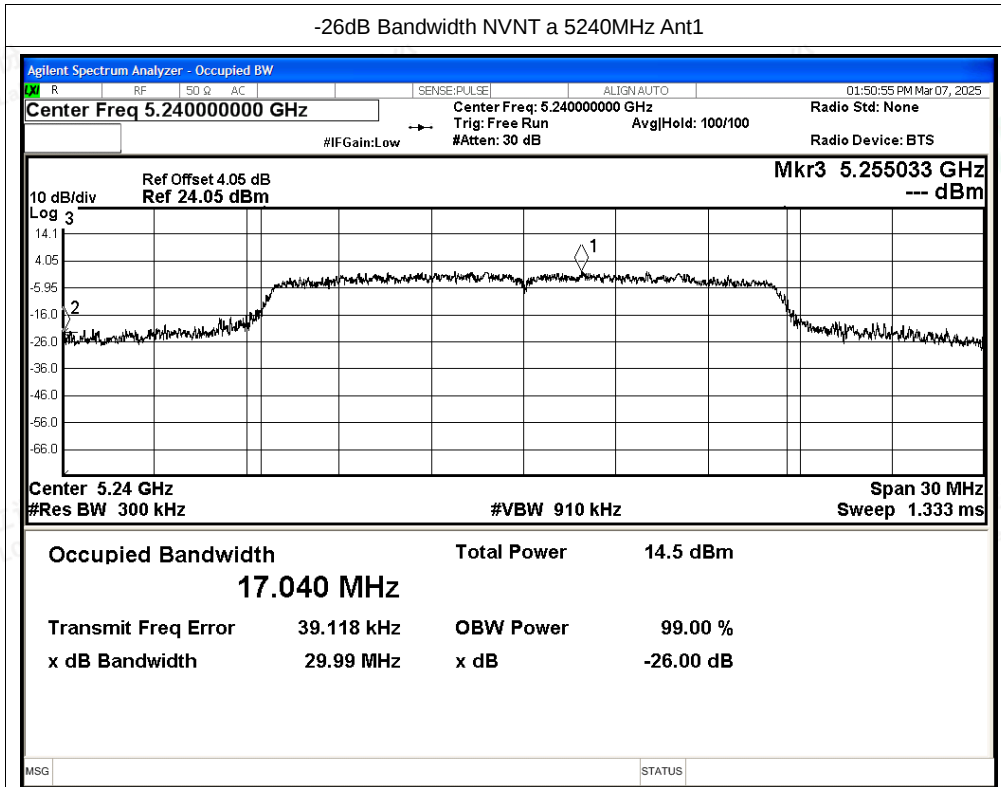


Shenzhen LCS Compliance Testing Laboratory Ltd.

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

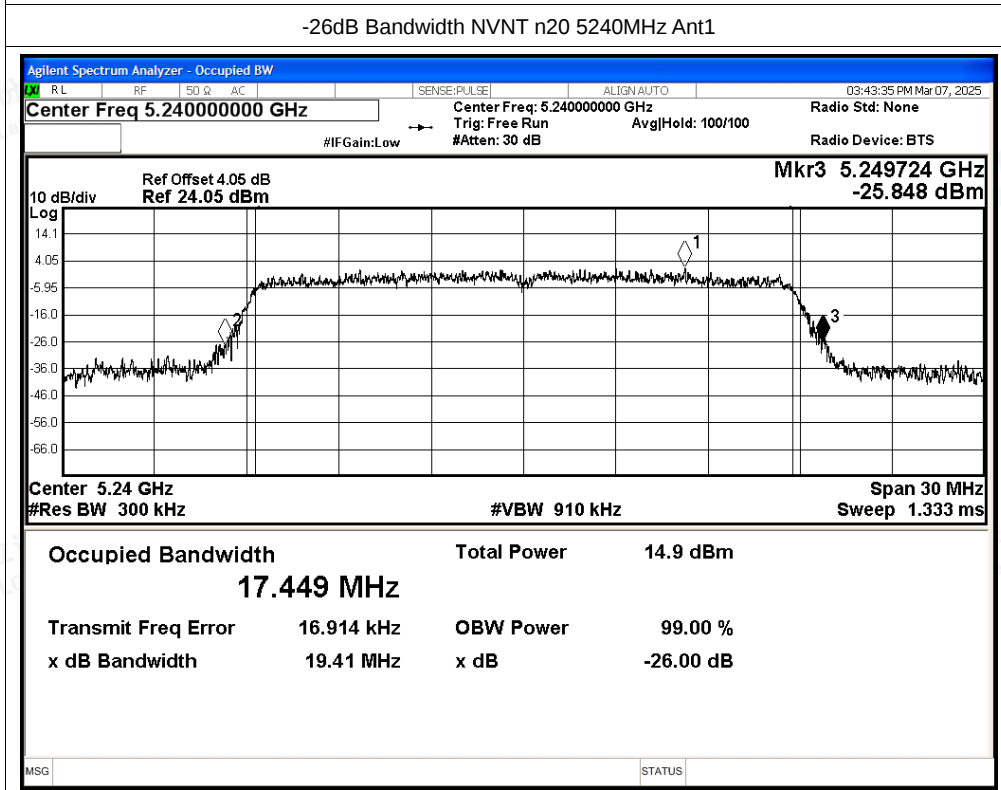
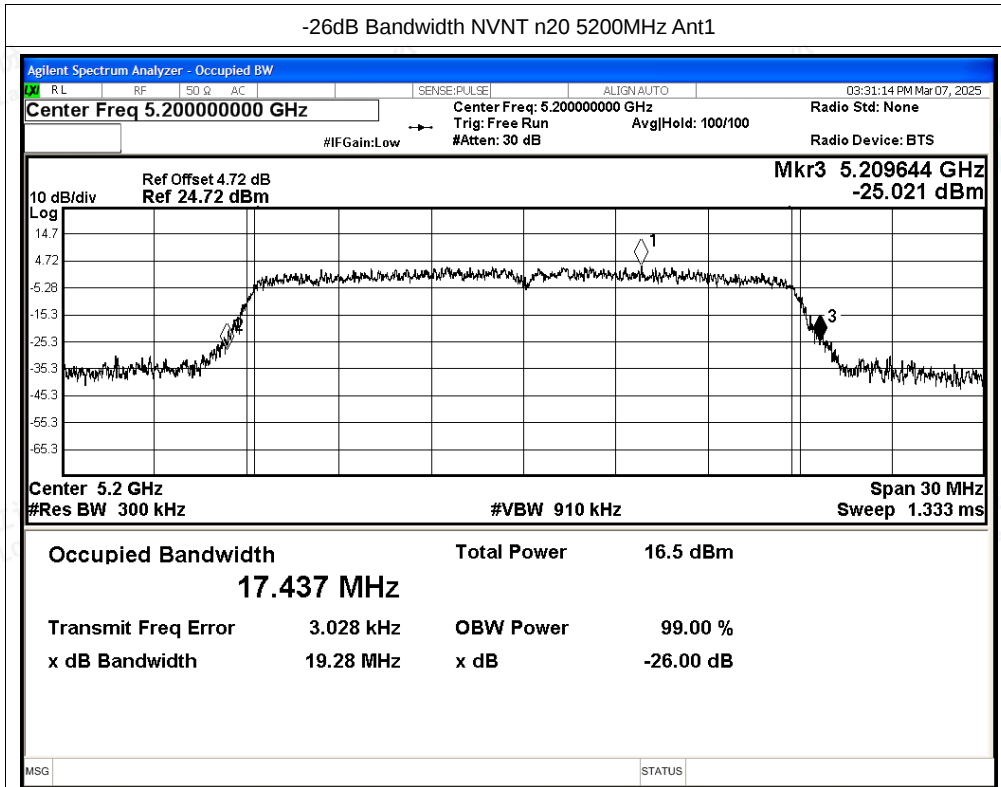


Shenzhen LCS Compliance Testing Laboratory Ltd.

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



Shenzhen LCS Compliance Testing Laboratory Ltd.

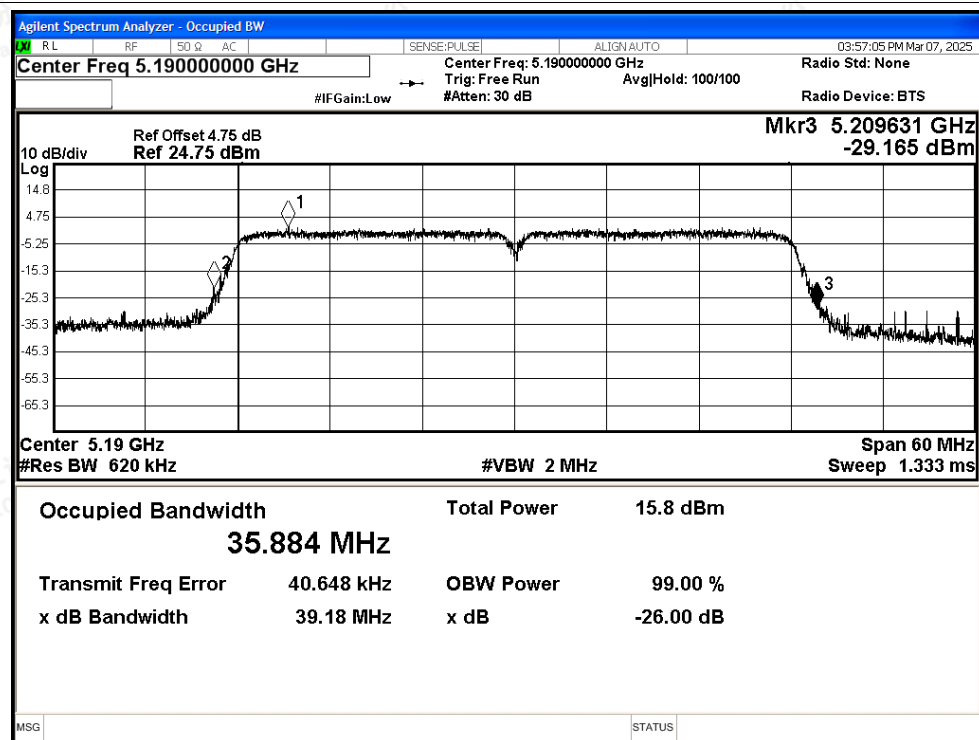
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

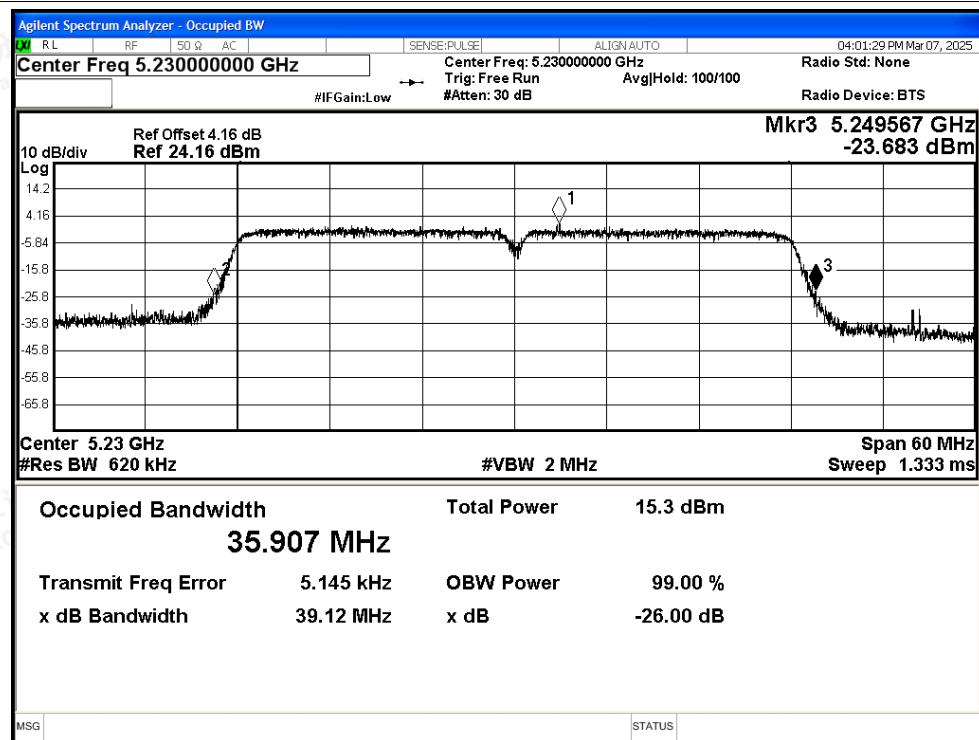
Scan code to check authenticity



-26dB Bandwidth NVNT n40 5190MHz Ant1



-26dB Bandwidth NVNT n40 5230MHz 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



C.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	3.87	7.43	11.30	24	Pass
NVNT	a	5200	Ant1	9.6	1.01	10.61	24	Pass
NVNT	a	5240	Ant1	8.1	1.03	9.13	24	Pass
NVNT	n20	5180	Ant1	5.42	5.86	11.28	24	Pass
NVNT	n20	5200	Ant1	4.18	6.96	11.14	24	Pass
NVNT	n20	5240	Ant1	3.24	7.71	10.95	24	Pass
NVNT	n40	5190	Ant1	6.82	3.06	9.88	24	Pass
NVNT	n40	5230	Ant1	6.68	3.17	9.85	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



C.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	-3.87	7.43	3.56	11	Pass
NVNT	a	5200	Ant1	-0.2	1.01	0.81	11	Pass
NVNT	a	5240	Ant1	-2.24	1.03	-1.21	11	Pass
NVNT	n20	5180	Ant1	-3.22	5.86	2.64	11	Pass
NVNT	n20	5200	Ant1	-4	6.96	2.96	11	Pass
NVNT	n20	5240	Ant1	-5.16	7.71	2.55	11	Pass
NVNT	n40	5190	Ant1	-5.8	3.06	-2.74	11	Pass
NVNT	n40	5230	Ant1	-6.98	3.17	-3.81	11	Pass

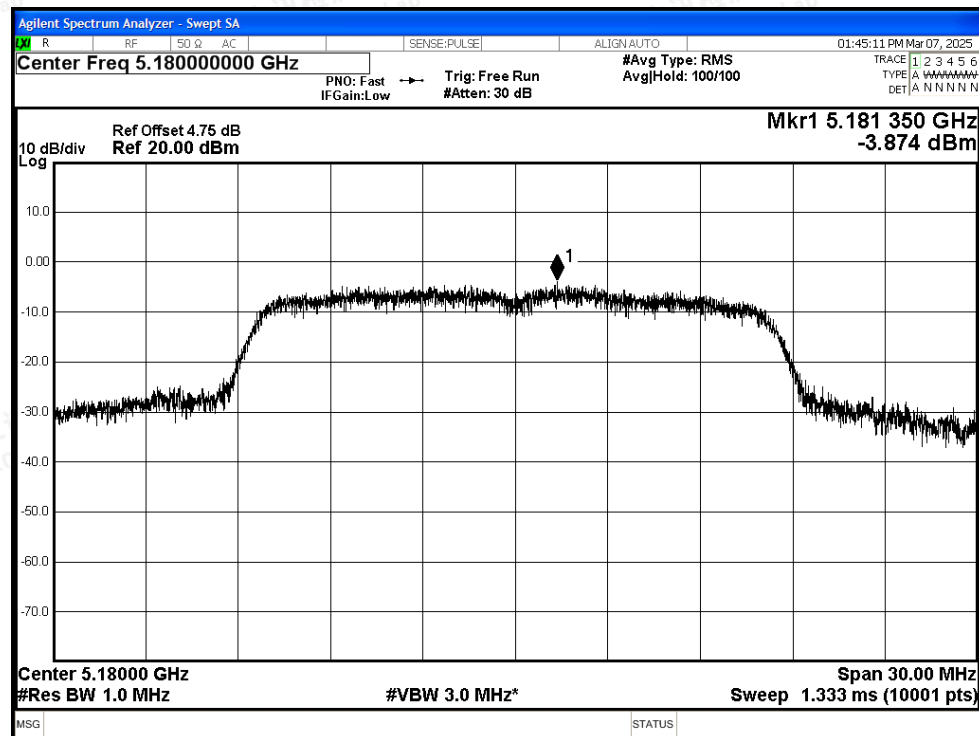


Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

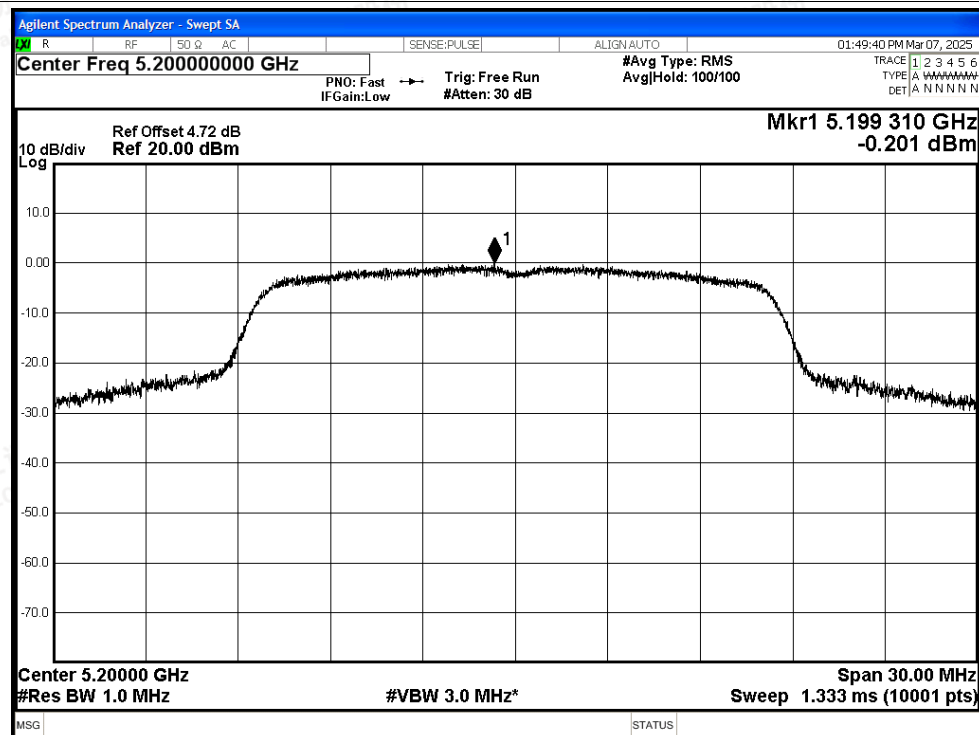


Test Graphs

PSD NVNT a 5180MHz Ant1

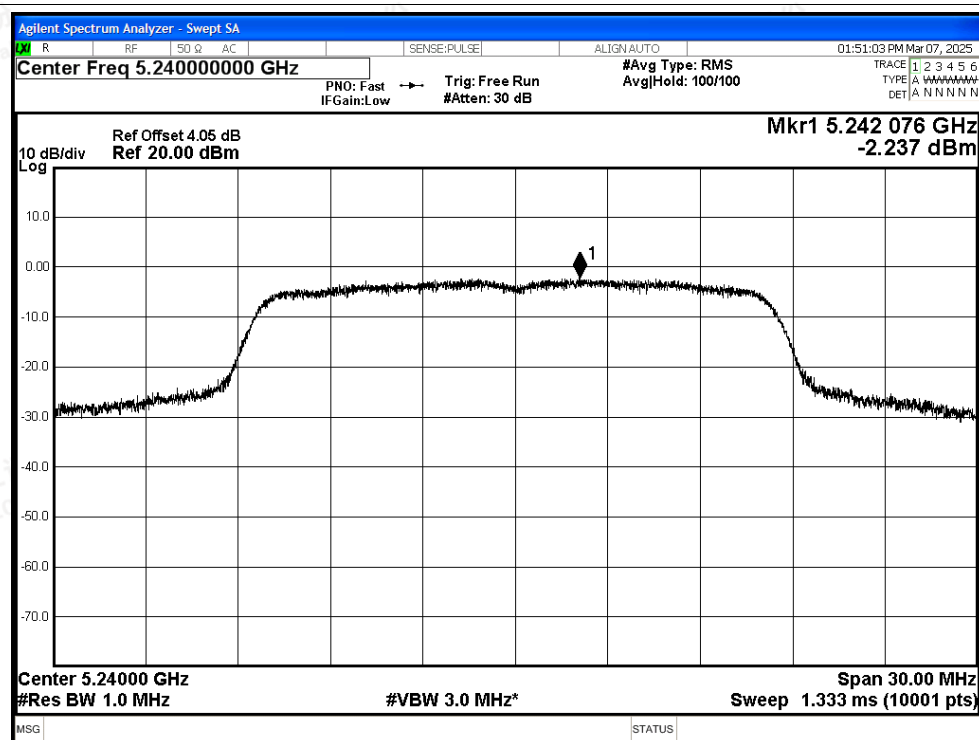


PSD NVNT a 5200MHz Ant1

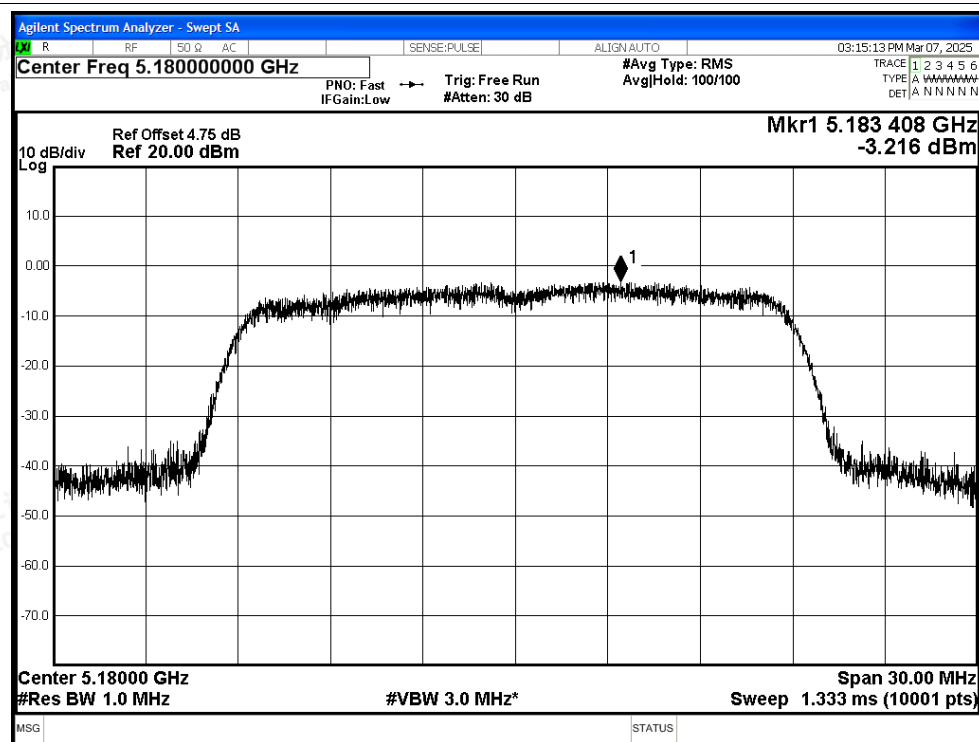


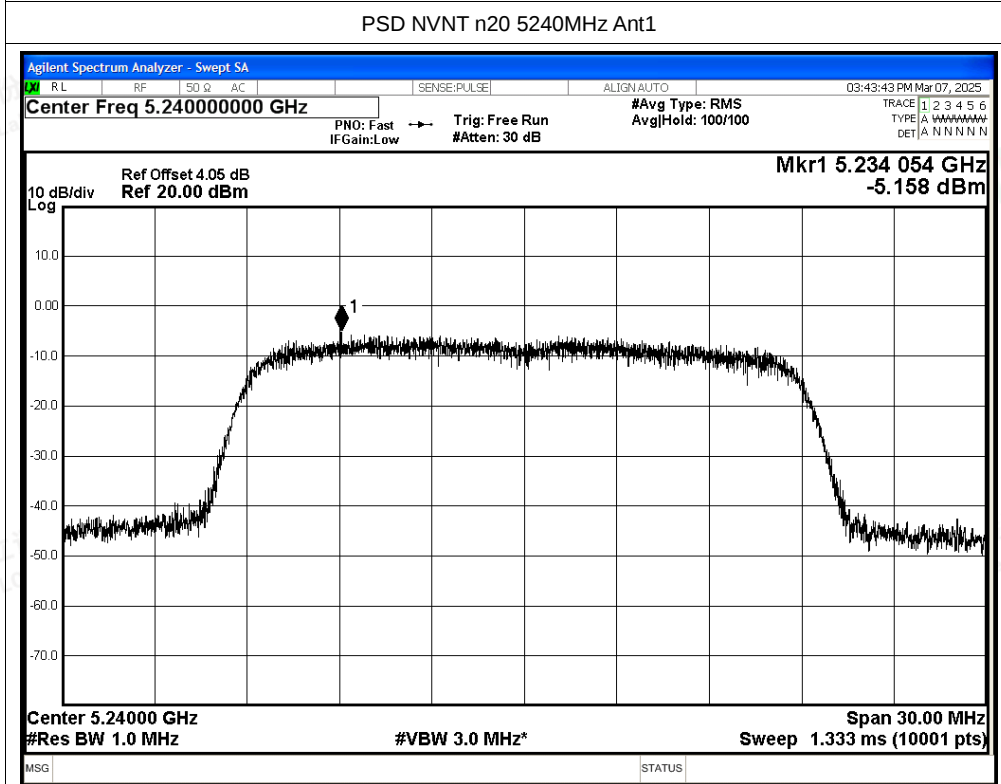
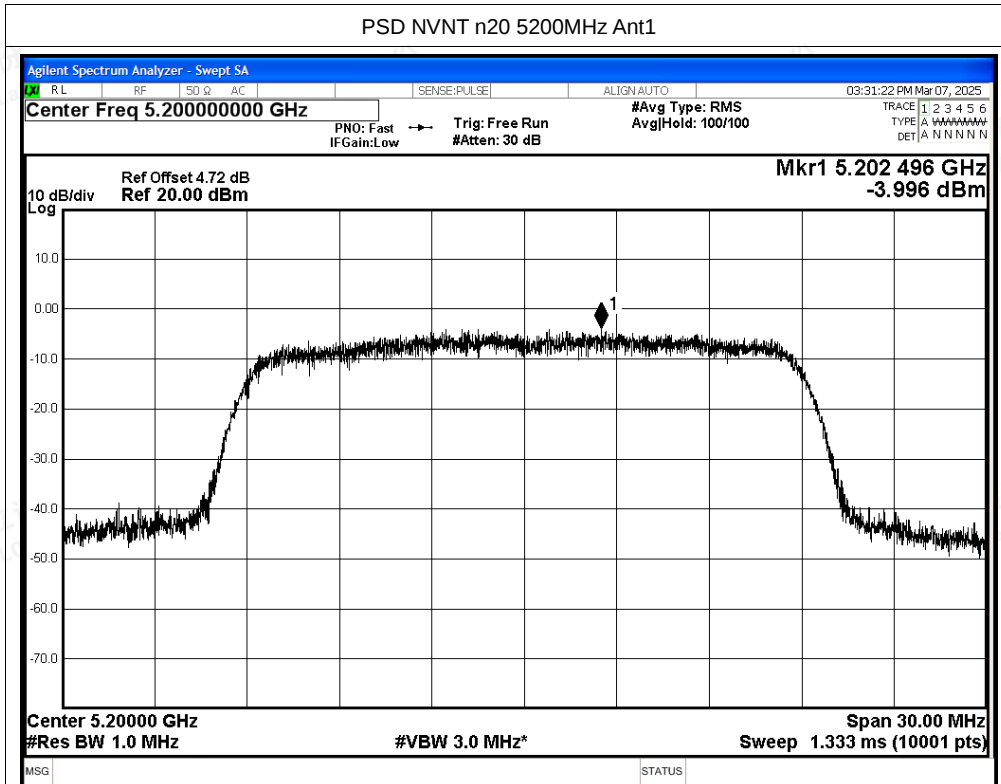


PSD NVNT a 5240MHz Ant1



PSD NVNT n20 5180MHz Ant1



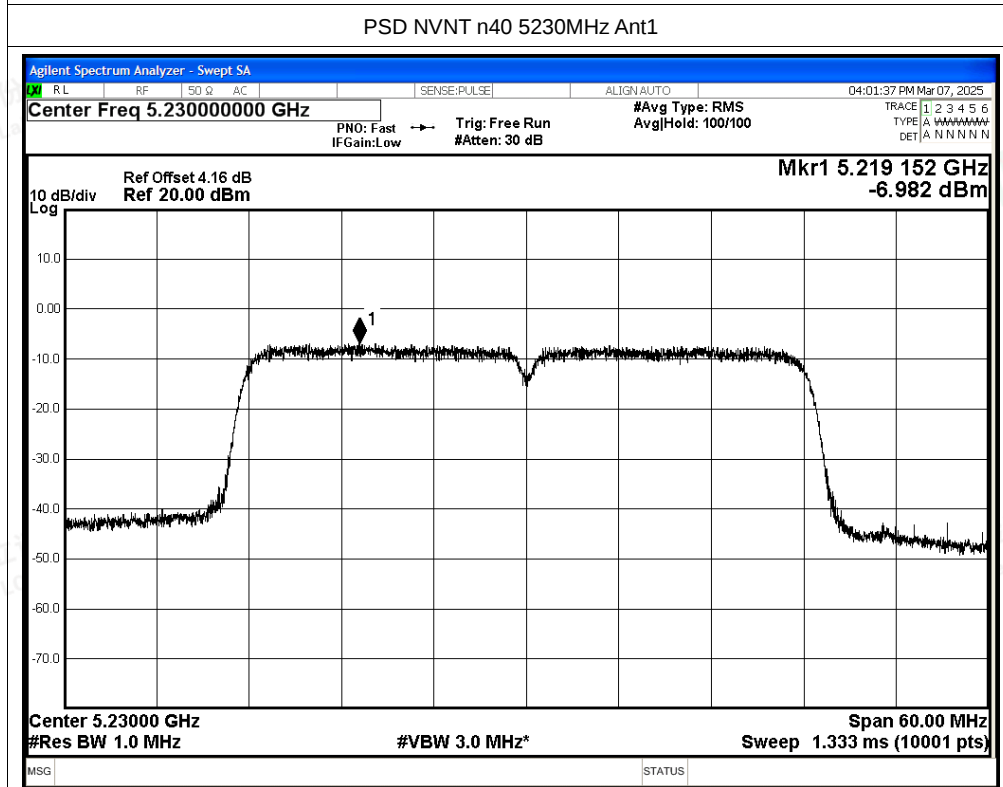
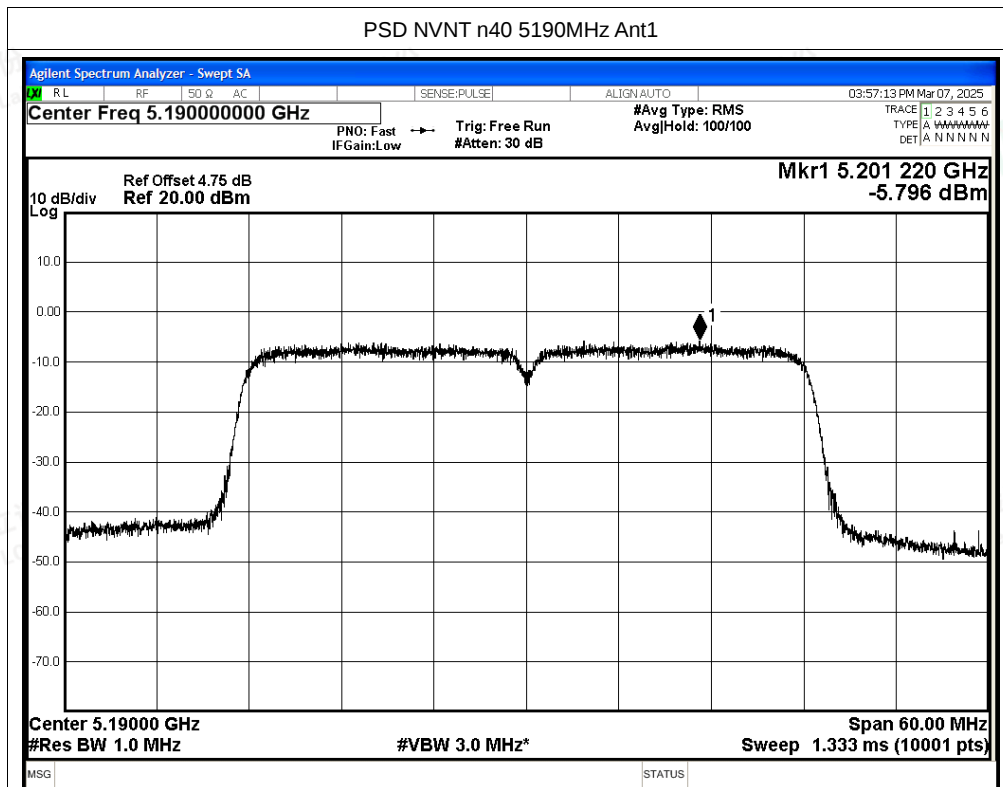


Shenzhen LCS Compliance Testing Laboratory Ltd.

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





C.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	-49.33	2.21	-	48.11	Peak	68.2	Pass
NVNT	a	5180	Ant1	4500	-57.13	2.21	7.43	47.74	Average	54	Pass
NVNT	a	5180	Ant1	5149.6	-36.27	2.21	-	61.17	Peak	68.2	Pass
NVNT	a	5180	Ant1	5148.9	-51.77	2.21	7.43	53.1	Average	54	Pass
NVNT	a	5180	Ant1	5150	-34.96	2.21	-	62.48	Peak	68.2	Pass
NVNT	a	5180	Ant1	5150	-52.27	2.21	7.43	52.6	Average	54	Pass
NVNT	a	5240	Ant1	5350	-48.27	2.21	-	49.17	Peak	68.2	Pass
NVNT	a	5240	Ant1	5350	-56.49	2.21	1.03	41.98	Average	54	Pass
NVNT	a	5240	Ant1	5356.56	-45.53	2.21	-	51.91	Peak	68.2	Pass
NVNT	a	5240	Ant1	5402.16	-55.52	2.21	1.03	42.95	Average	54	Pass
NVNT	a	5240	Ant1	5460	-48.65	2.21	-	48.79	Peak	68.2	Pass
NVNT	a	5240	Ant1	5460	-56.97	2.21	1.03	41.5	Average	54	Pass
NVNT	n20	5180	Ant1	4500	-49.18	2.21	-	48.26	Peak	68.2	Pass
NVNT	n20	5180	Ant1	4500	-57.5	2.21	5.86	45.8	Average	54	Pass
NVNT	n20	5180	Ant1	5148.9	-37.05	2.21	-	60.39	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5148.9	-52.14	2.21	5.86	51.16	Average	54	Pass
NVNT	n20	5180	Ant1	5150	-39.64	2.21	-	57.8	Peak	68.2	Pass
NVNT	n20	5180	Ant1	5150	-53.31	2.21	5.86	49.99	Average	54	Pass
NVNT	n20	5240	Ant1	5350	-46.98	2.21	-	50.46	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5350	-56.93	2.21	7.71	48.22	Average	54	Pass
NVNT	n20	5240	Ant1	5351.04	-46.45	2.21	-	50.99	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5435.04	-56.21	2.21	7.71	48.94	Average	54	Pass
NVNT	n20	5240	Ant1	5460	-49.48	2.21	-	47.96	Peak	68.2	Pass
NVNT	n20	5240	Ant1	5460	-56.65	2.21	7.71	48.5	Average	54	Pass
NVNT	n40	5190	Ant1	4500	-49.7	2.21	-	47.74	Peak	68.2	Pass
NVNT	n40	5190	Ant1	4500	-57.33	2.21	3.06	43.17	Average	54	Pass
NVNT	n40	5190	Ant1	5147.51	-36.02	2.21	-	61.42	Peak	68.2	Pass
NVNT	n40	5190	Ant1	5149.7	-47.37	2.21	3.06	53.13	Average	54	Pass
NVNT	n40	5190	Ant1	5150	-36.03	2.21	-	61.41	Peak	68.2	Pass
NVNT	n40	5190	Ant1	5150	-47.37	2.21	3.06	53.13	Average	54	Pass
NVNT	n40	5230	Ant1	5350	-48.31	2.21	-	49.13	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5350	-56.55	2.21	3.17	44.06	Average	54	Pass
NVNT	n40	5230	Ant1	5352.81	-45.35	2.21	-	52.09	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5363.61	-55.85	2.21	3.17	44.76	Average	54	Pass
NVNT	n40	5230	Ant1	5460	-49.56	2.21	-	47.88	Peak	68.2	Pass
NVNT	n40	5230	Ant1	5460	-56.65	2.21	3.17	43.96	Average	54	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

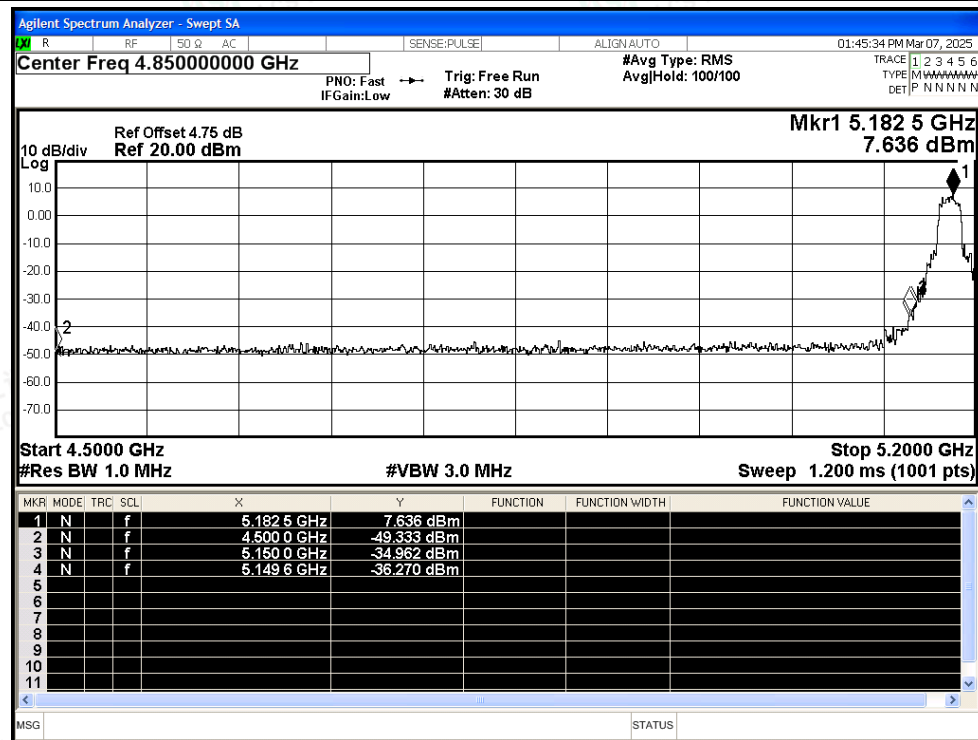
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

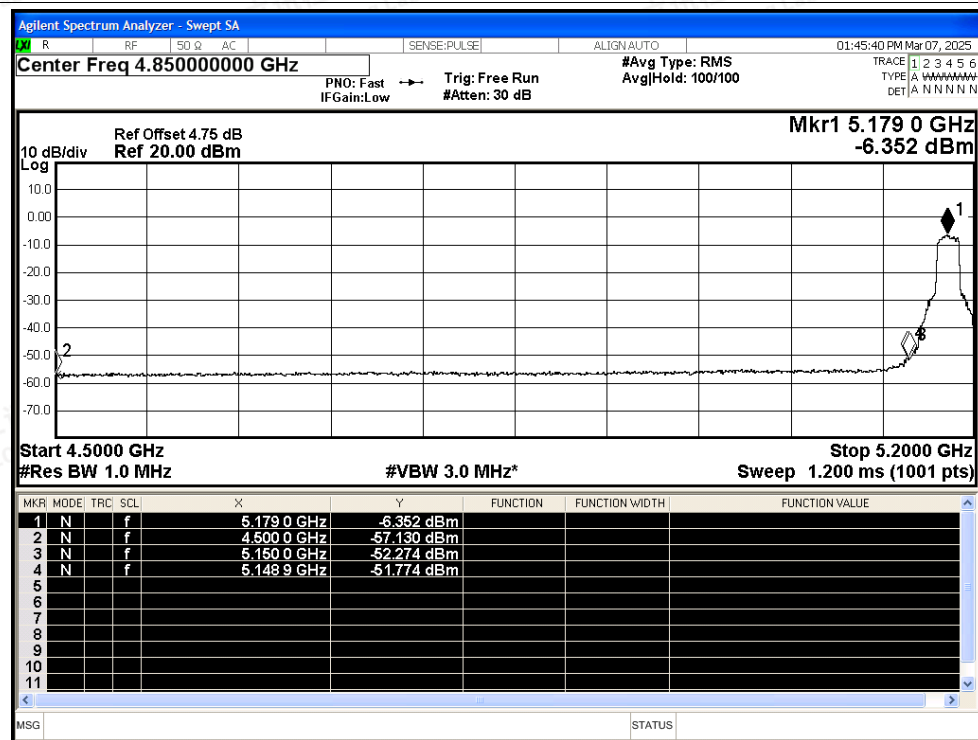


Test Graphs

Restrict Band NVNT a 5180MHz Ant1 Peak



Restrict Band NVNT a 5180MHz Ant1 Average



Shenzhen LCS Compliance Testing Laboratory Ltd.

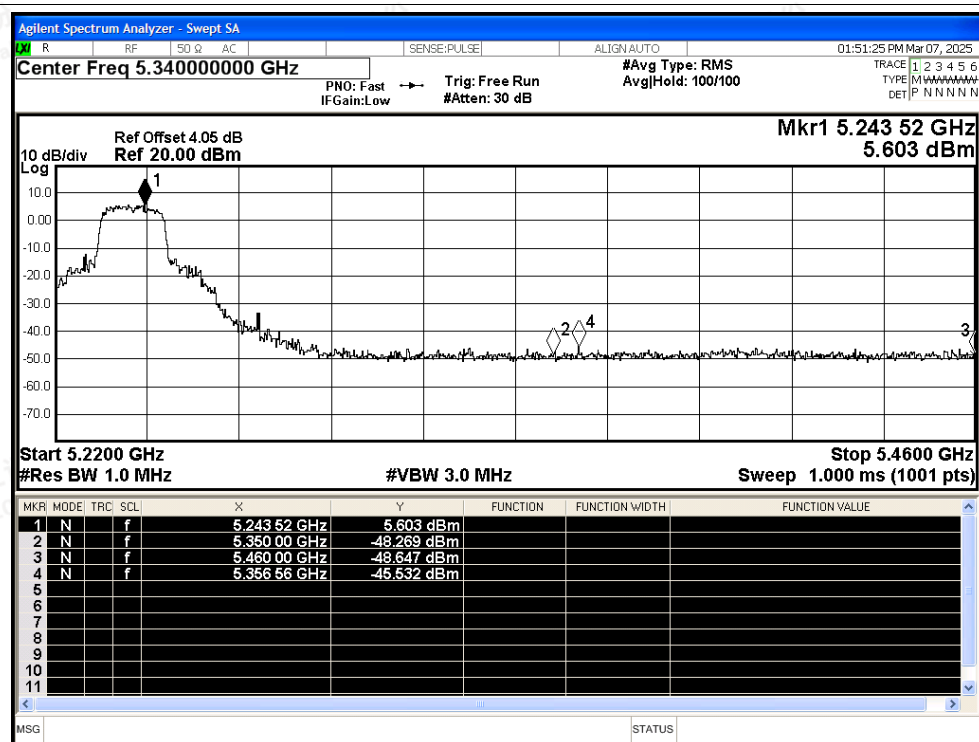
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

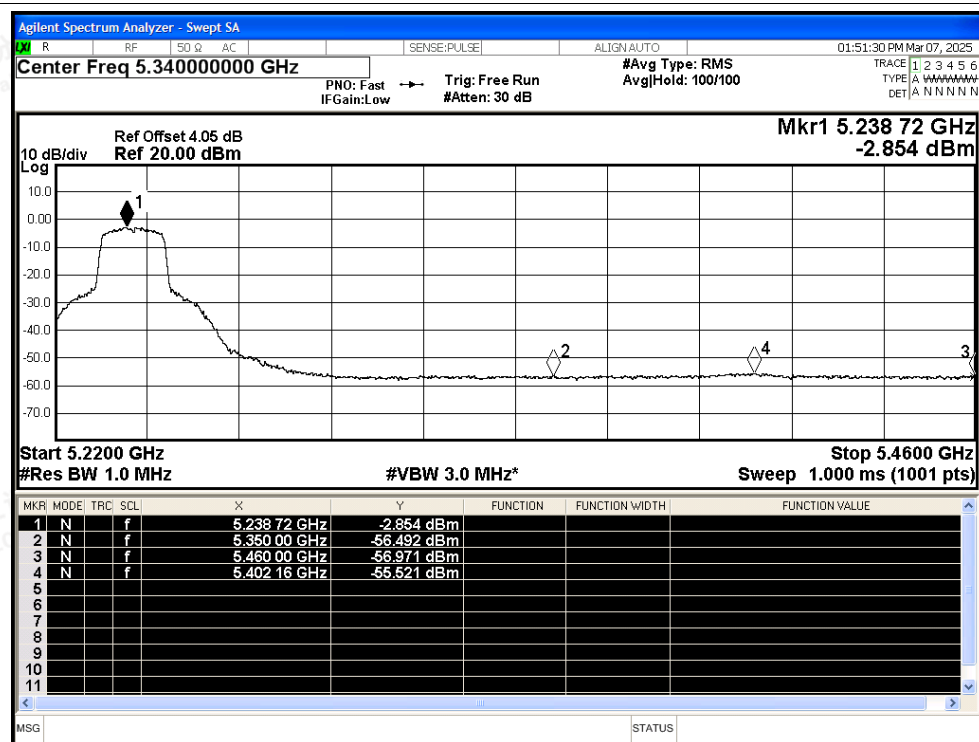
Scan code to check authenticity



Restrict Band NVNT a 5240MHz Ant1 Peak



Restrict Band NVNT a 5240MHz Ant1 Average



Shenzhen LCS Compliance Testing Laboratory Ltd.

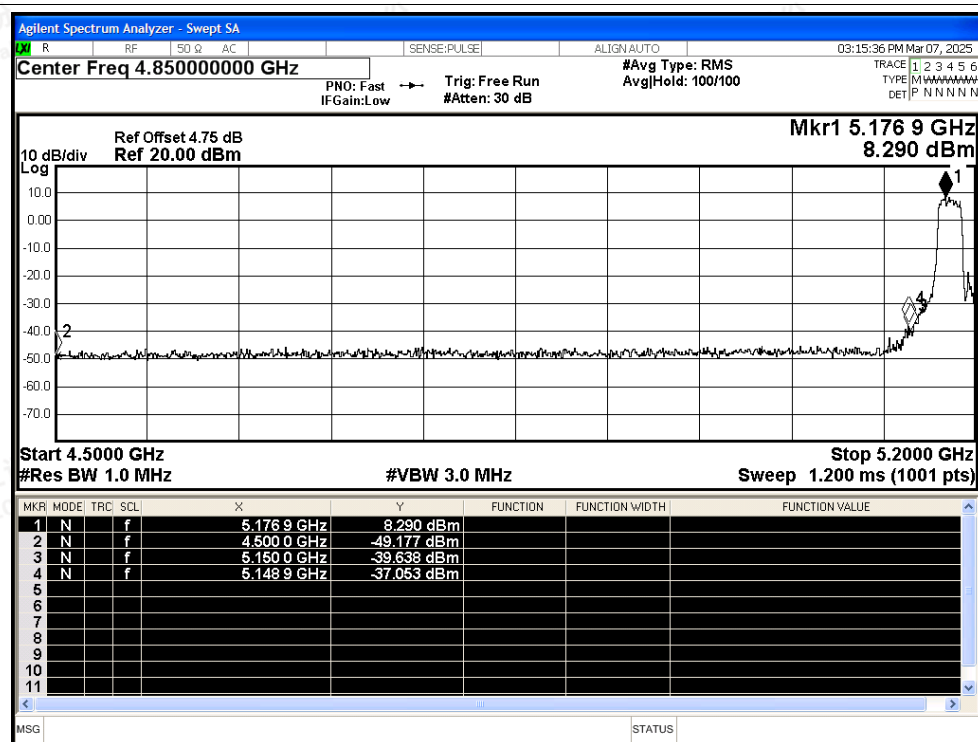
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

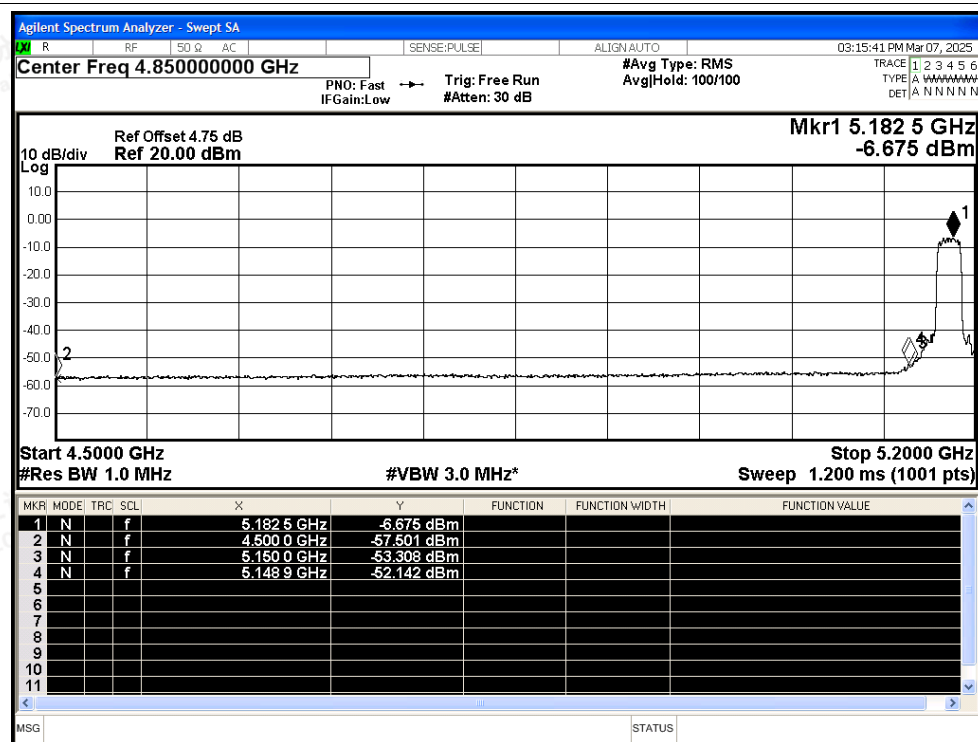
Scan code to check authenticity



Restrict Band NVNT n20 5180MHz Ant1 Peak



Restrict Band NVNT n20 5180MHz Ant1 Average



Shenzhen LCS Compliance Testing Laboratory Ltd.

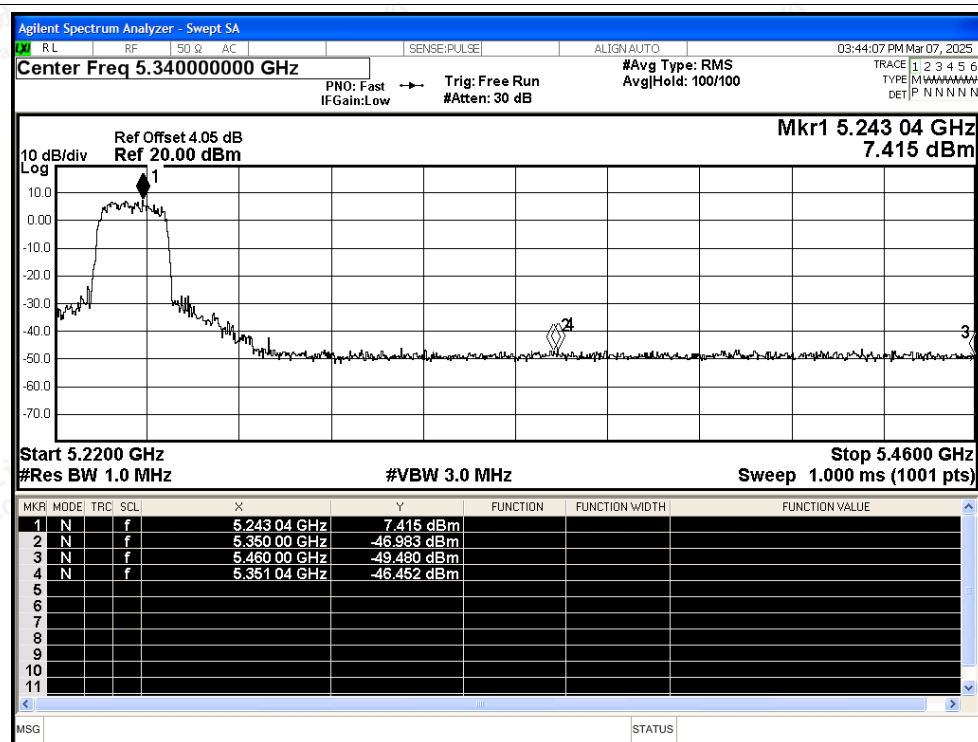
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

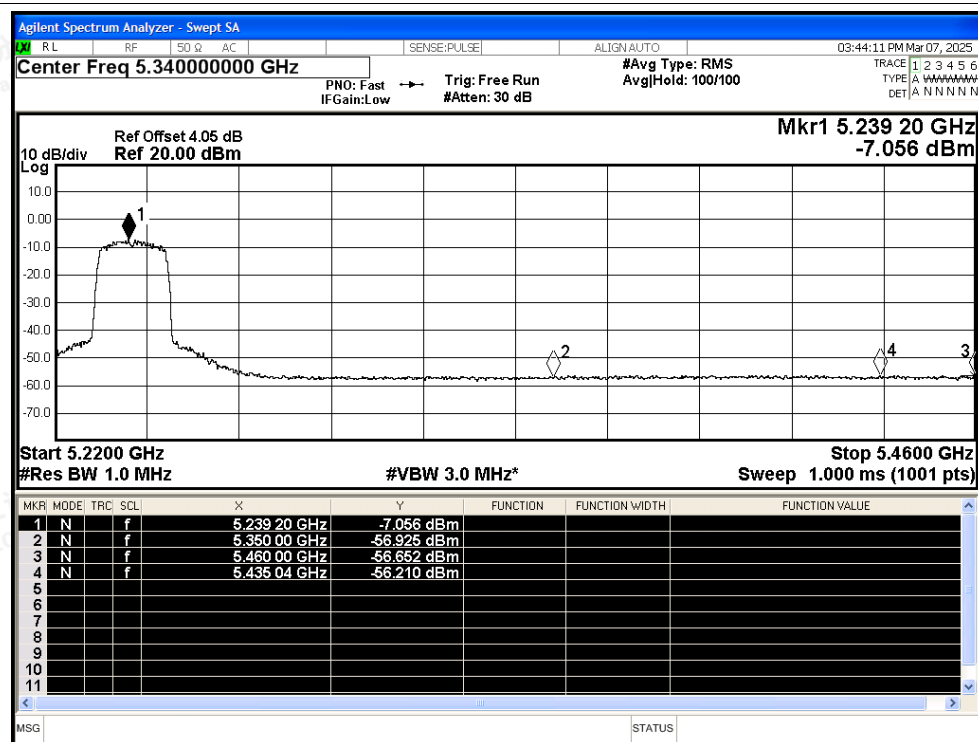
Scan code to check authenticity



Restrict Band NVNT n20 5240MHz Ant1 Peak



Restrict Band NVNT n20 5240MHz Ant1 Average



Shenzhen LCS Compliance Testing Laboratory Ltd.

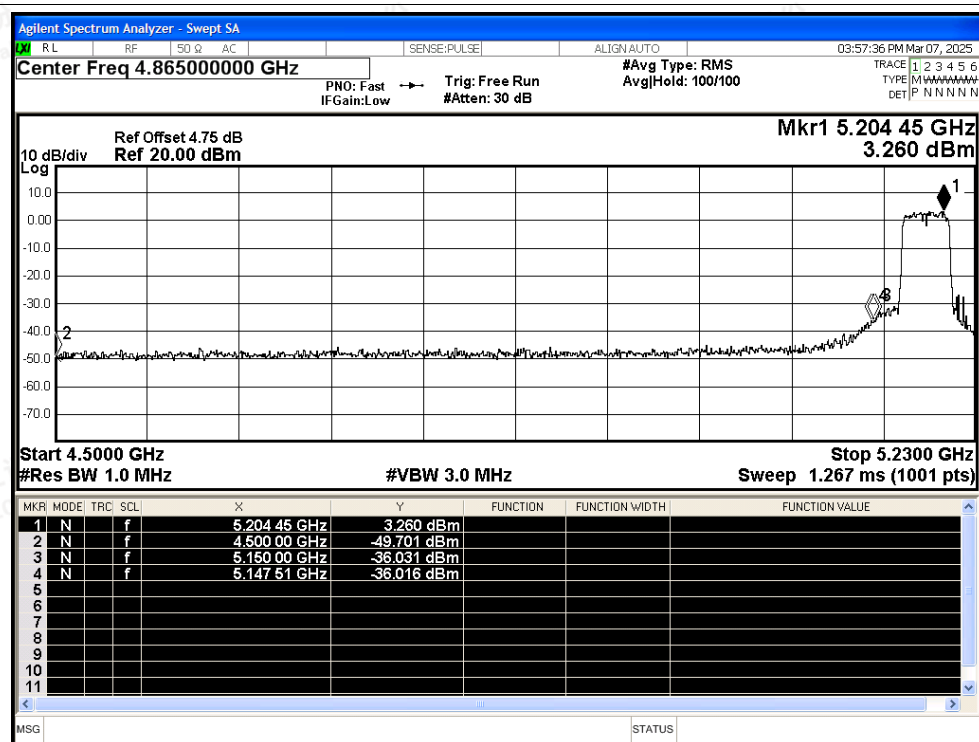
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

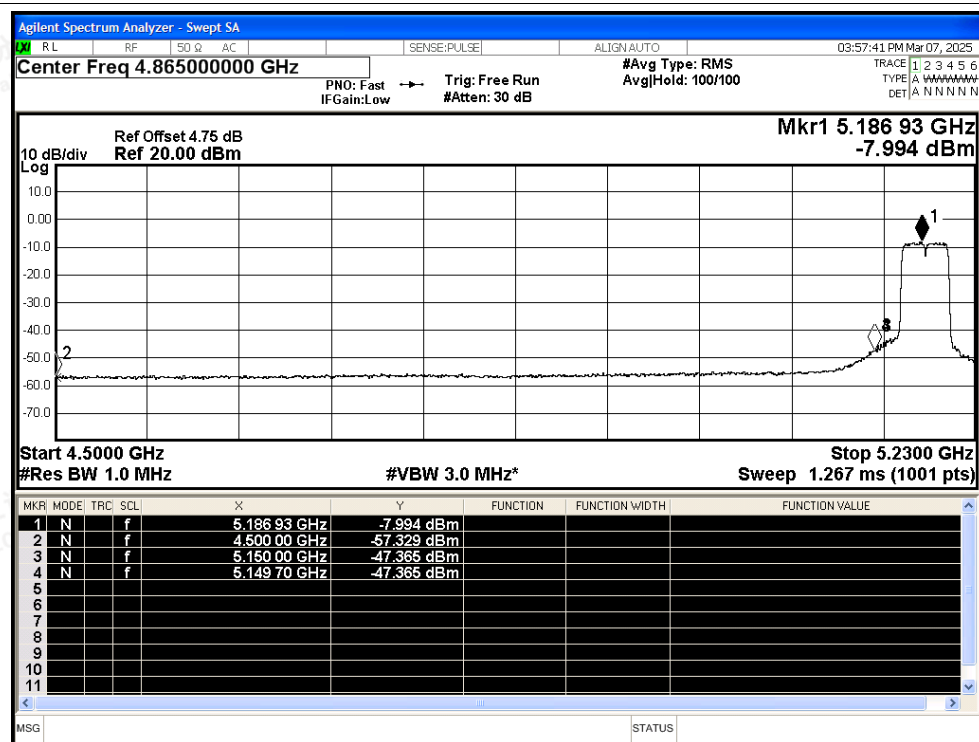
Scan code to check authenticity



Restrict Band NVNT n40 5190MHz Ant1 Peak



Restrict Band NVNT n40 5190MHz Ant1 Average



Shenzhen LCS Compliance Testing Laboratory Ltd.

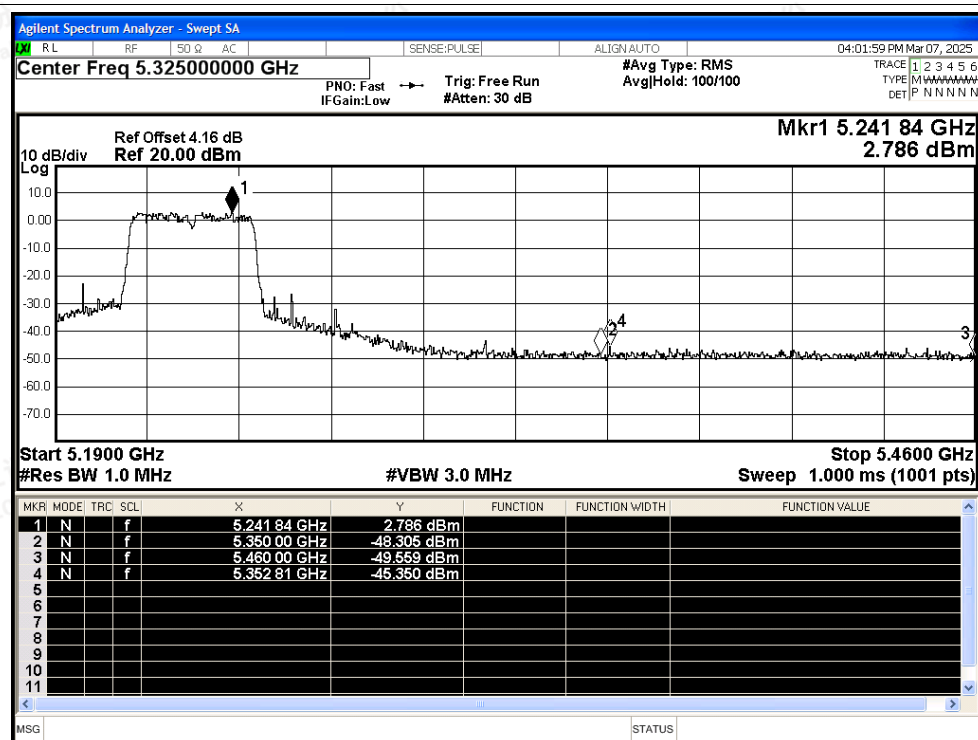
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

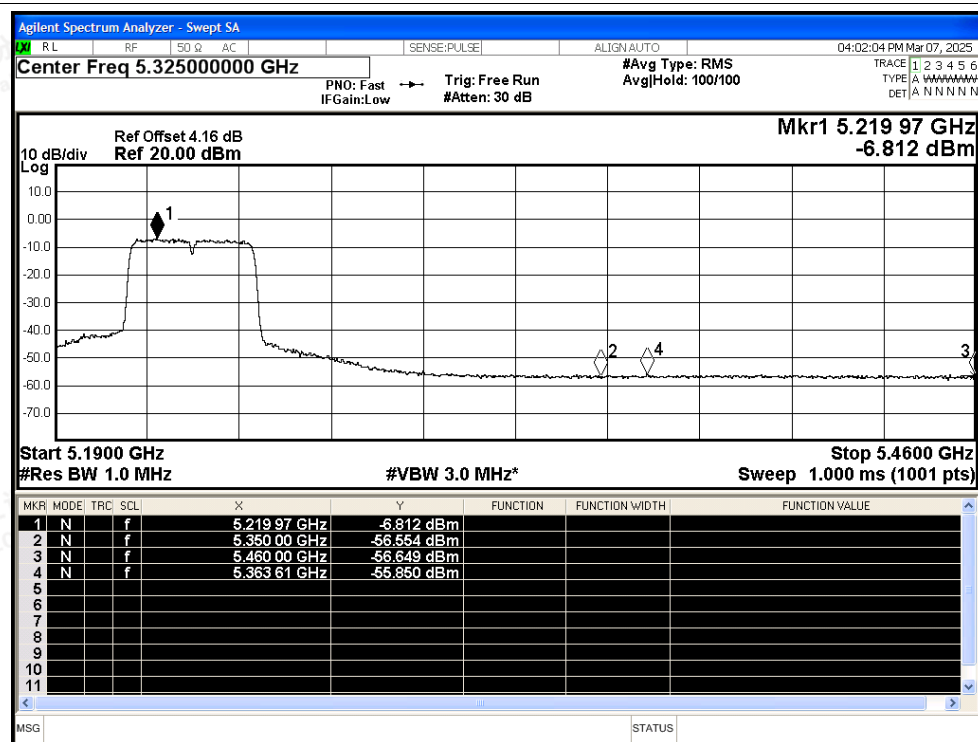
Scan code to check authenticity



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



C.5 Frequency Stability

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
NVNT	a	5180	Ant1	5180.02	20000	3.86	25	Pass
NVNT	a	5200	Ant1	5200	0	0	25	Pass
NVNT	a	5240	Ant1	5240.02	20000	3.82	25	Pass
NVNT	n20	5180	Ant1	5180.04	40000	7.72	25	Pass
NVNT	n20	5200	Ant1	5200.02	20000	3.85	25	Pass
NVNT	n20	5240	Ant1	5240.02	20000	3.82	25	Pass
NVNT	n40	5190	Ant1	5190.04	40000	7.71	25	Pass
NVNT	n40	5230	Ant1	5230	0	0	25	Pass

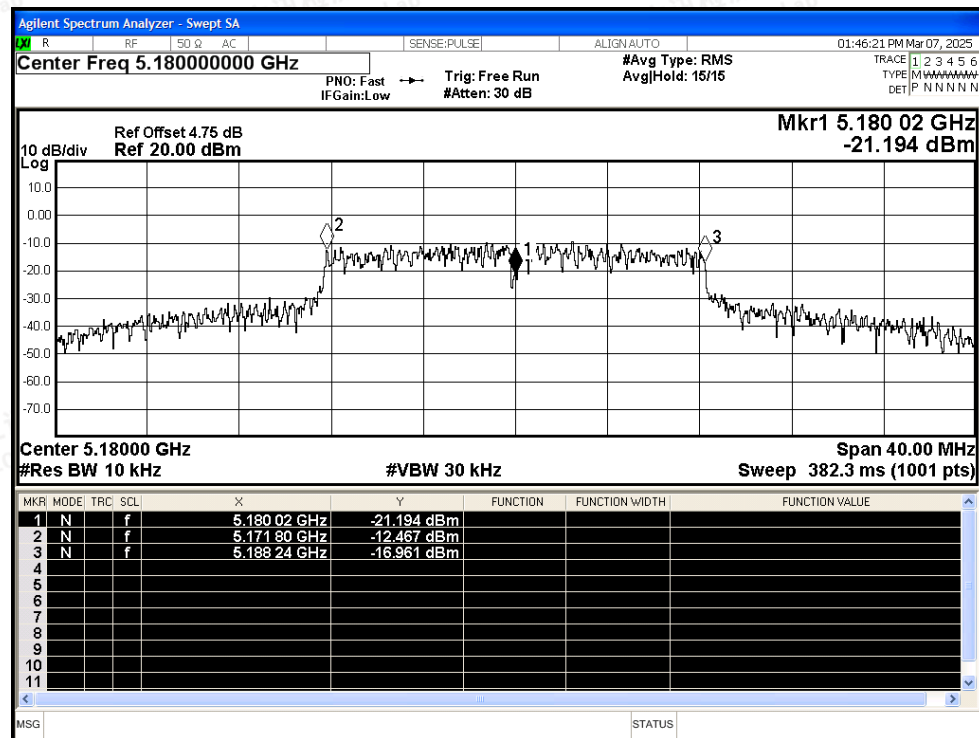


Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

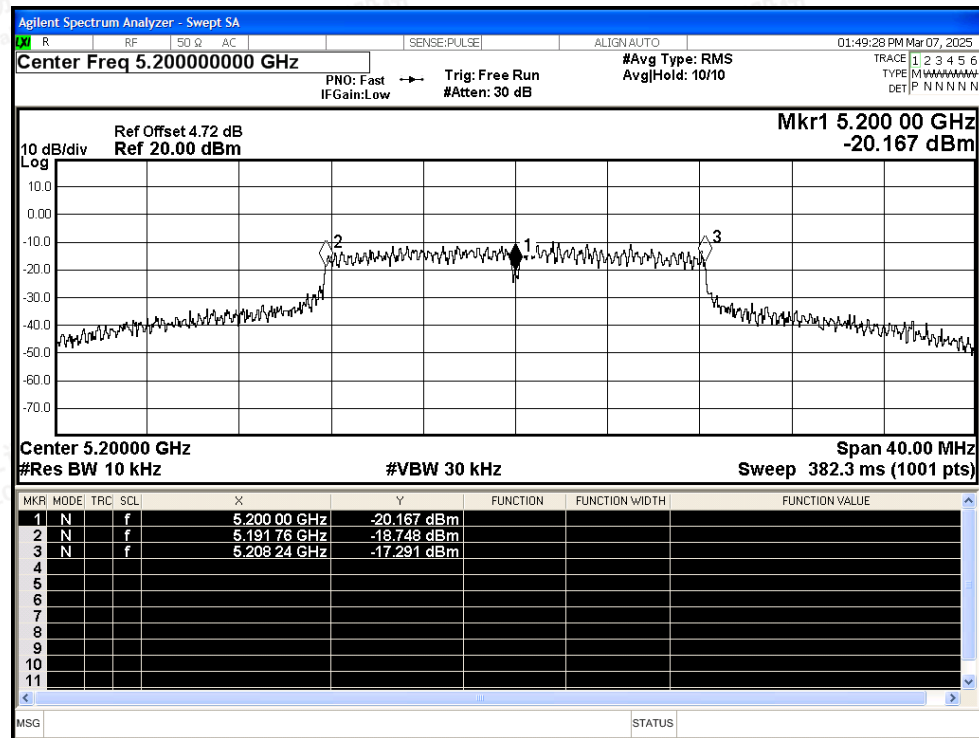


Test Graphs

Freq. Stability NVNT a 5180MHz Ant1



Freq. Stability NVNT a 5200MHz Ant1



Shenzhen LCS Compliance Testing Laboratory Ltd.

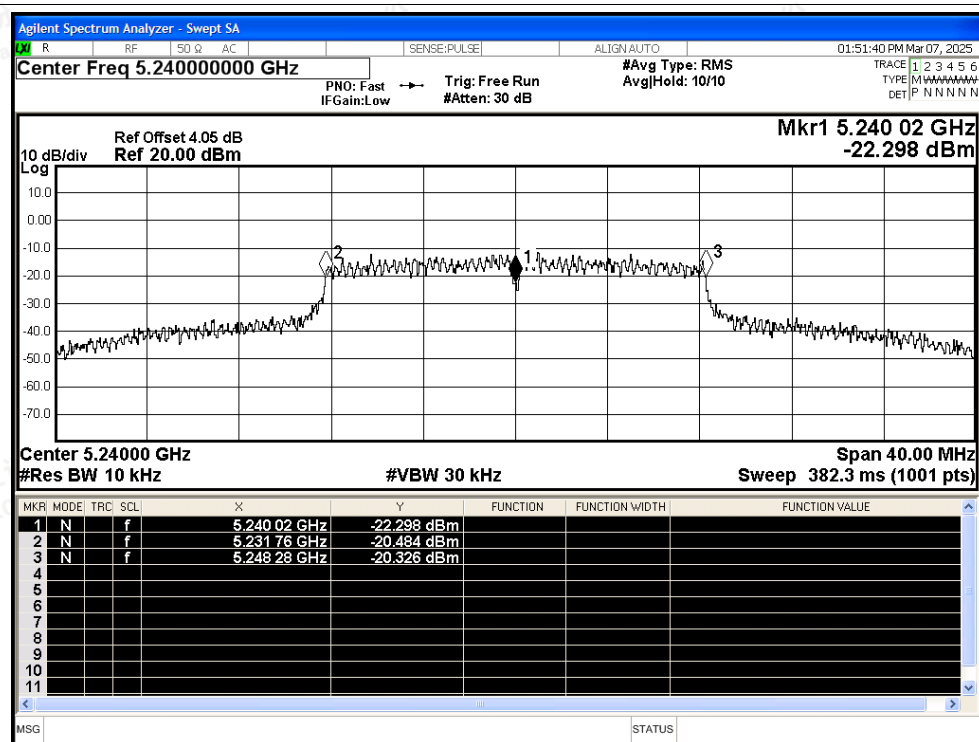
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

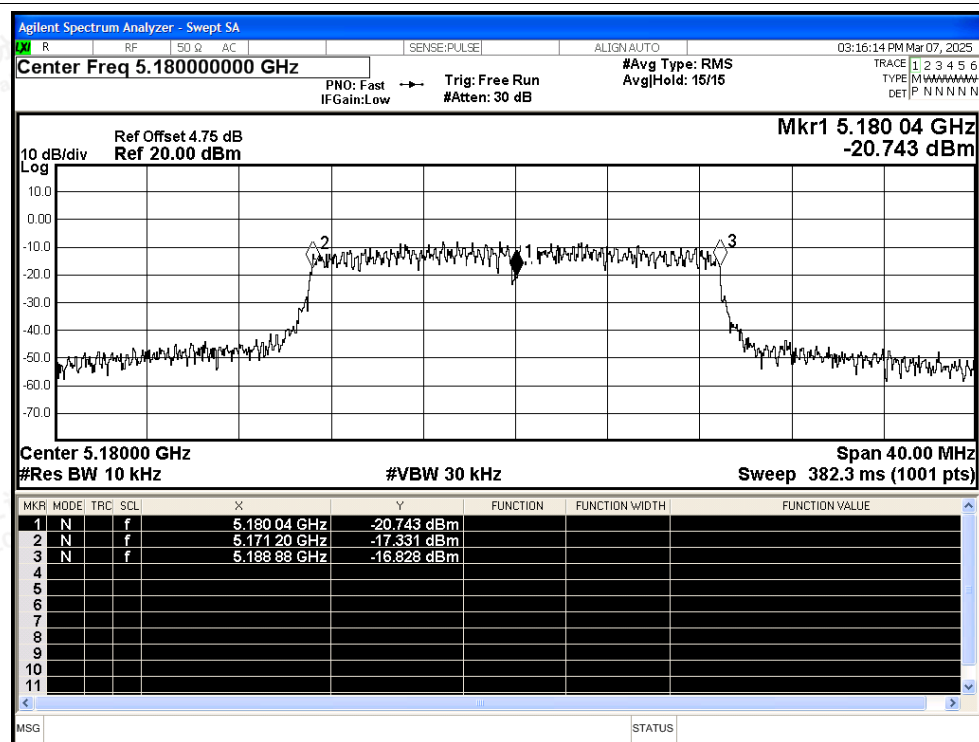
Scan code to check authenticity



Freq. Stability NVNT a 5240MHz Ant1



Freq. Stability NVNT n20 5180MHz Ant1



Shenzhen LCS Compliance Testing Laboratory Ltd.

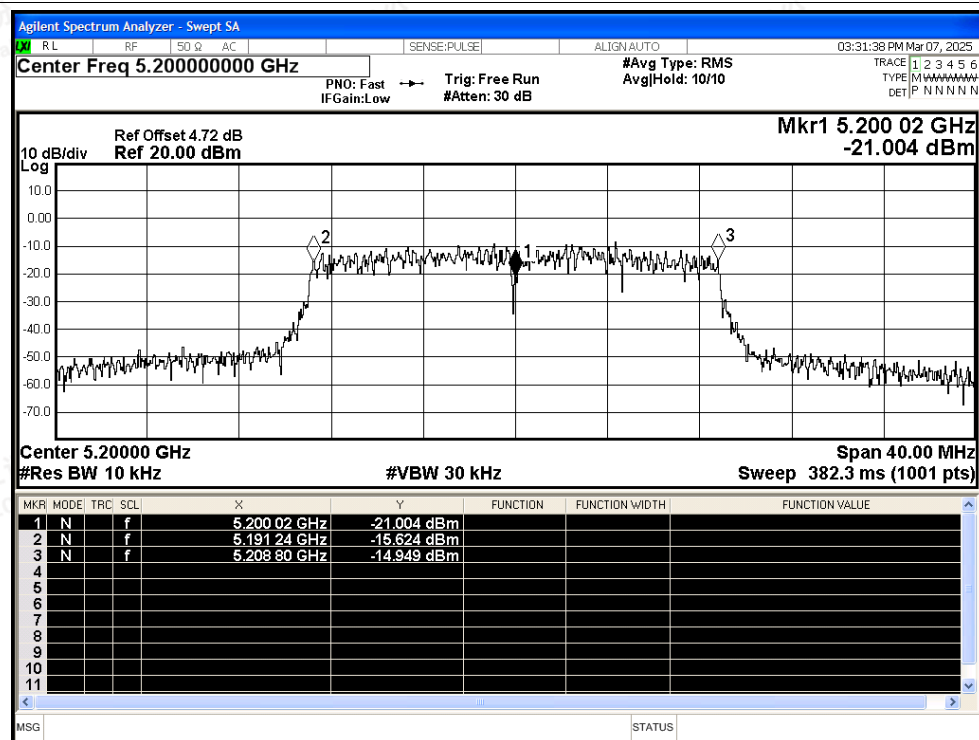
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

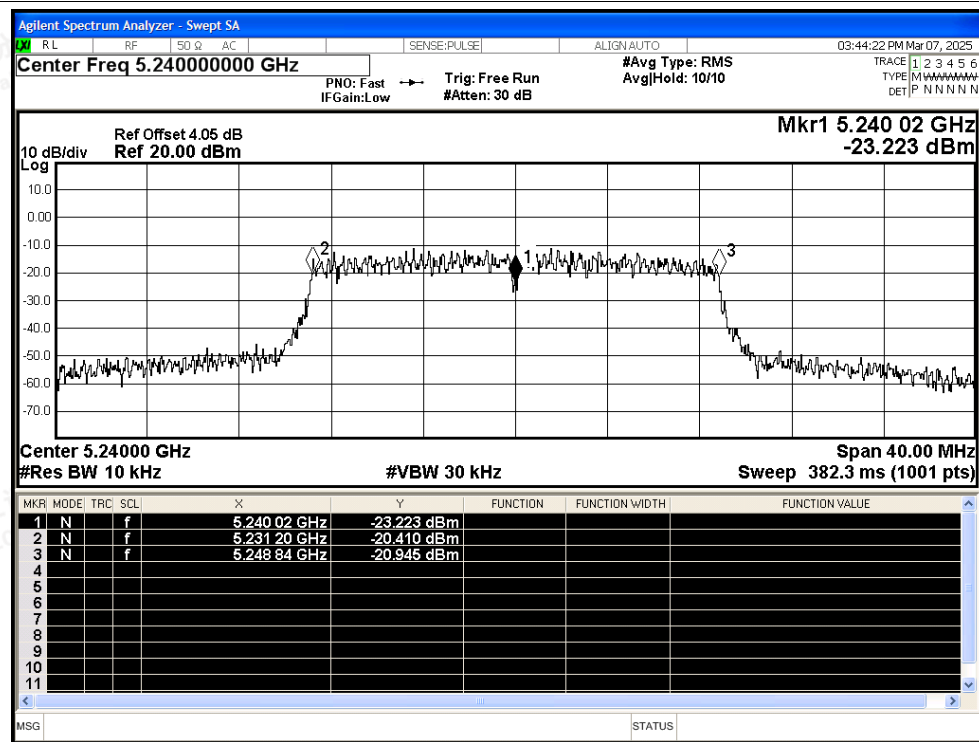
Scan code to check authenticity



Freq. Stability NVNT n20 5200MHz Ant1



Freq. Stability NVNT n20 5240MHz Ant1



Shenzhen LCS Compliance Testing Laboratory Ltd.

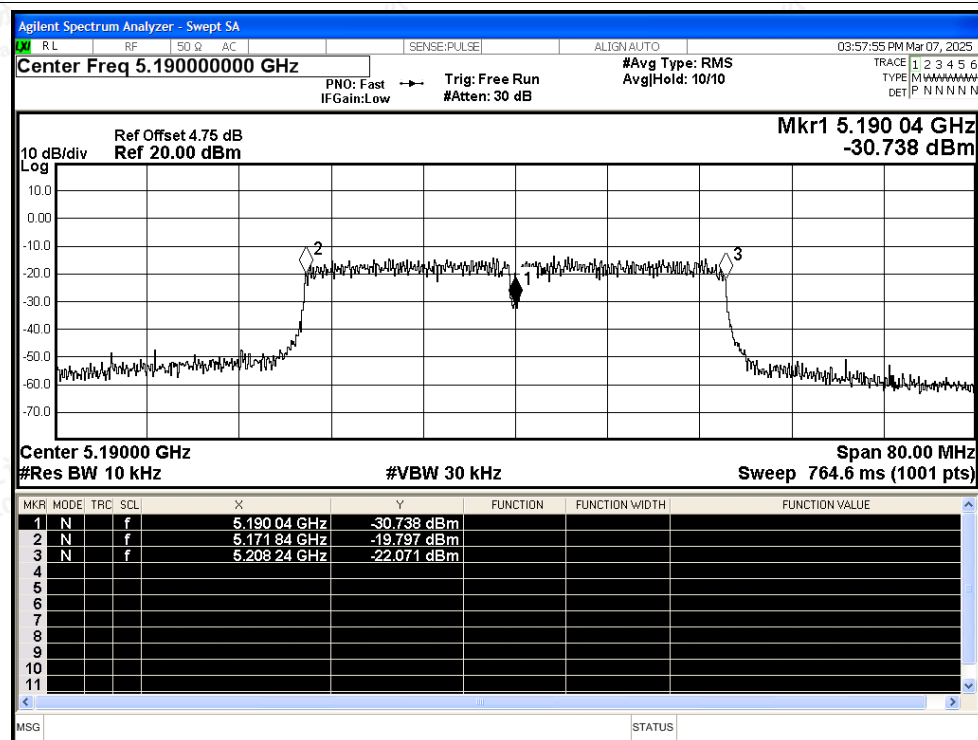
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

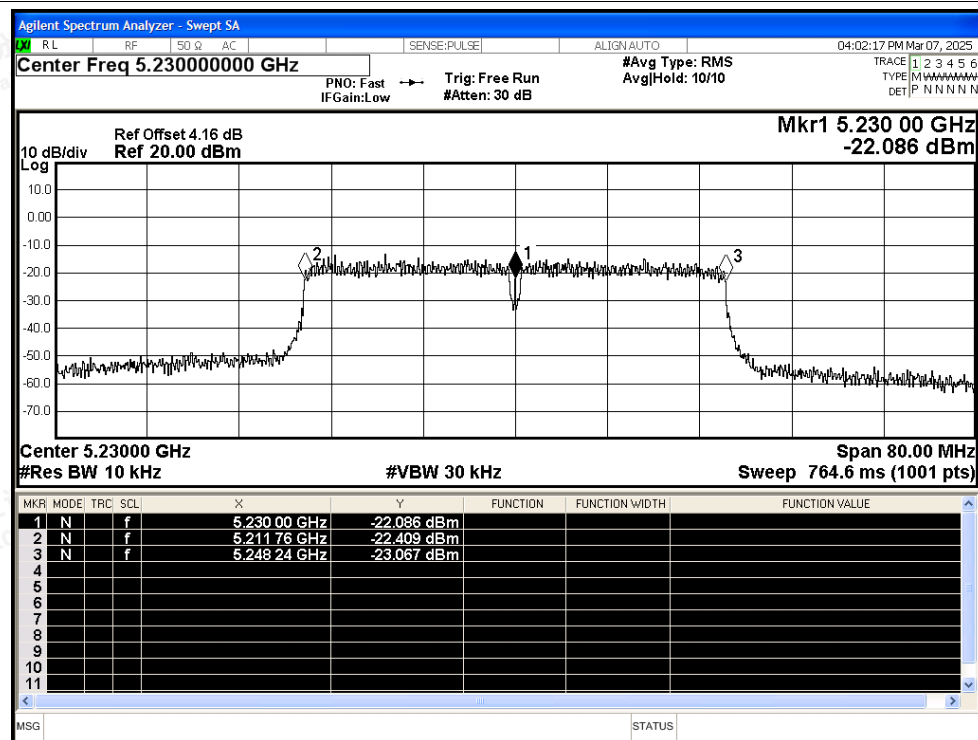
Scan code to check authenticity



Freq. Stability NVNT n40 5190MHz Ant1



Freq. Stability NVNT n40 5230MHz 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



C.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	18.08	7.43	0
NVNT	a	5200	Ant1	79.28	1.01	0.72
NVNT	a	5240	Ant1	78.91	1.03	0.72
NVNT	n20	5180	Ant1	20.13	6.96	0.77
NVNT	n20	5200	Ant1	20.13	6.96	0.77
NVNT	n20	5240	Ant1	20.13	6.96	0.77
NVNT	n40	5190	Ant1	48.15	3.17	0.4
NVNT	n40	5230	Ant1	48.17	3.17	0.4

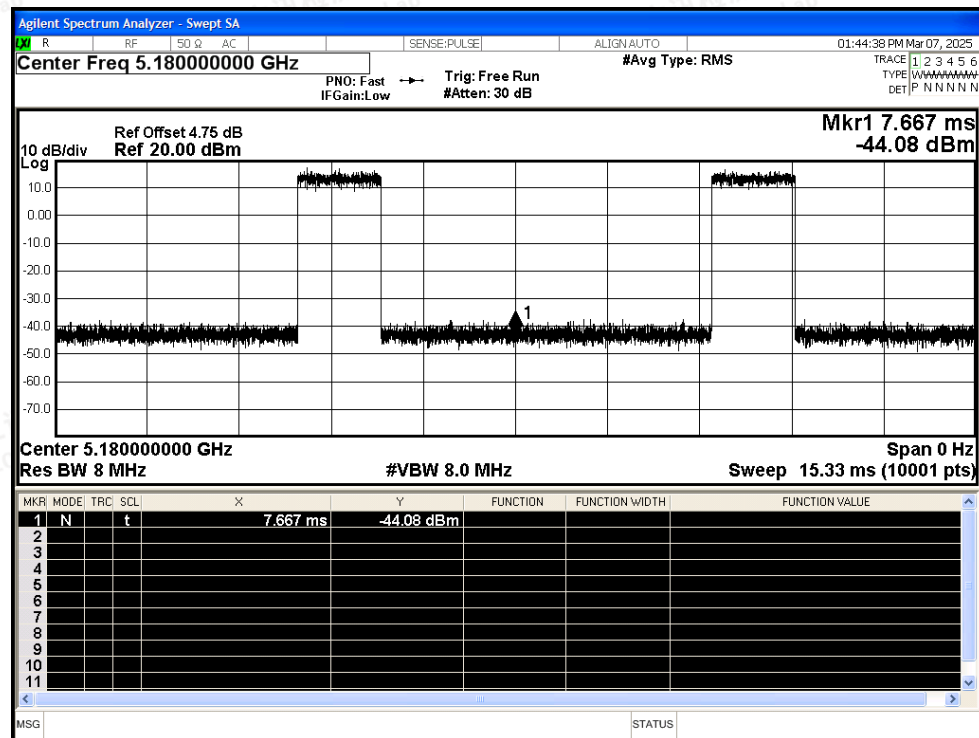


Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity

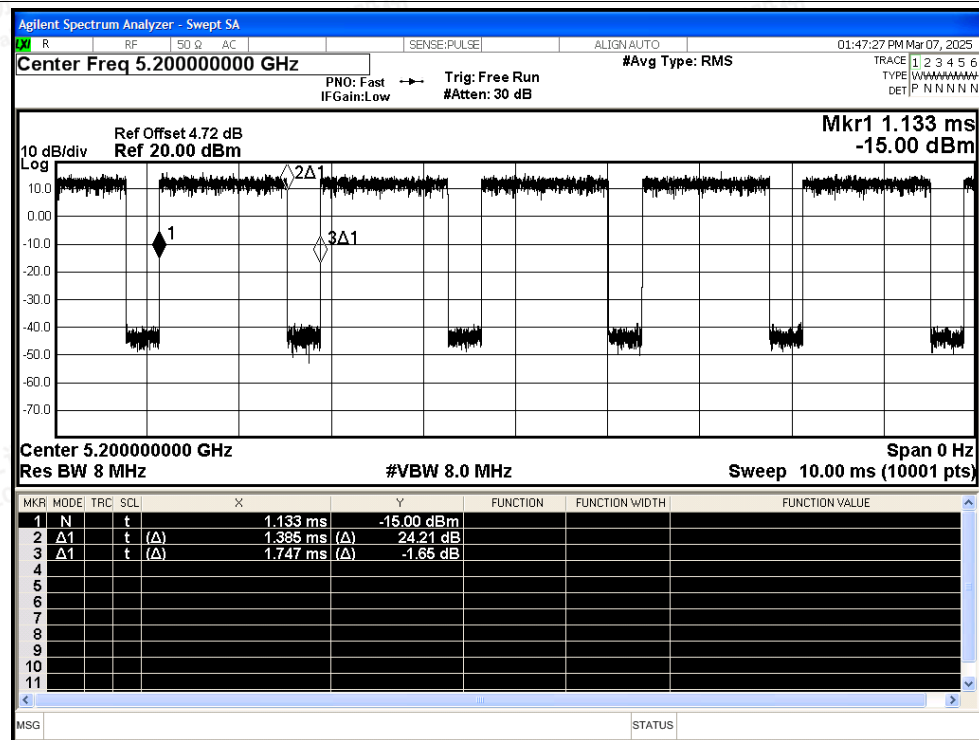


Test Graphs

Duty Cycle NVNT a 5180MHz Ant1



Duty Cycle NVNT a 5200MHz Ant1



Shenzhen LCS Compliance Testing Laboratory Ltd.

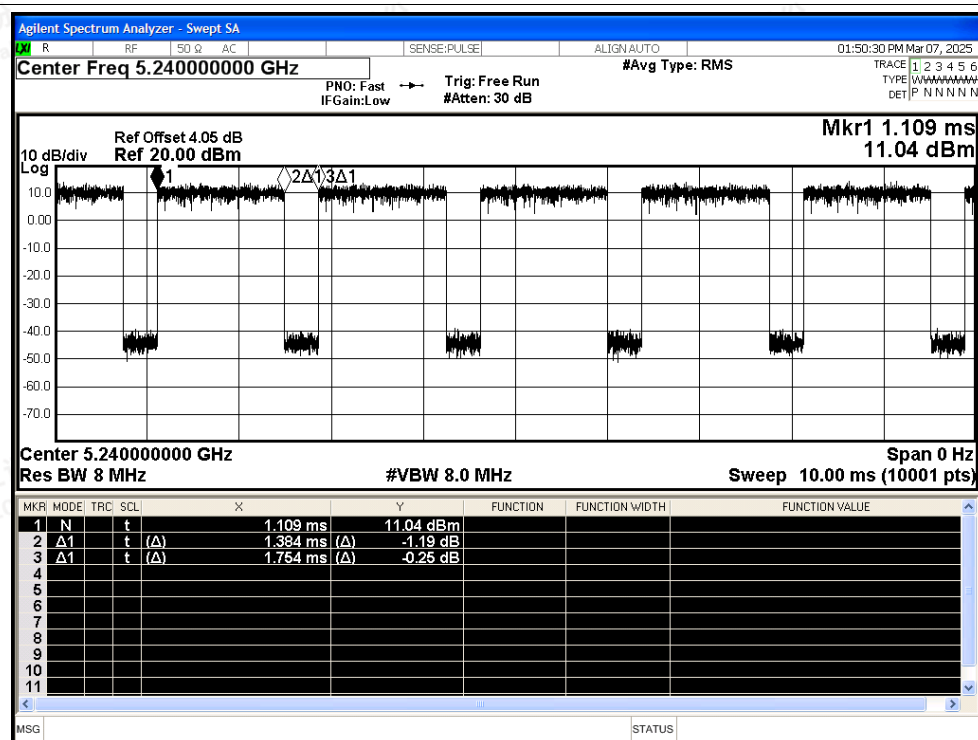
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

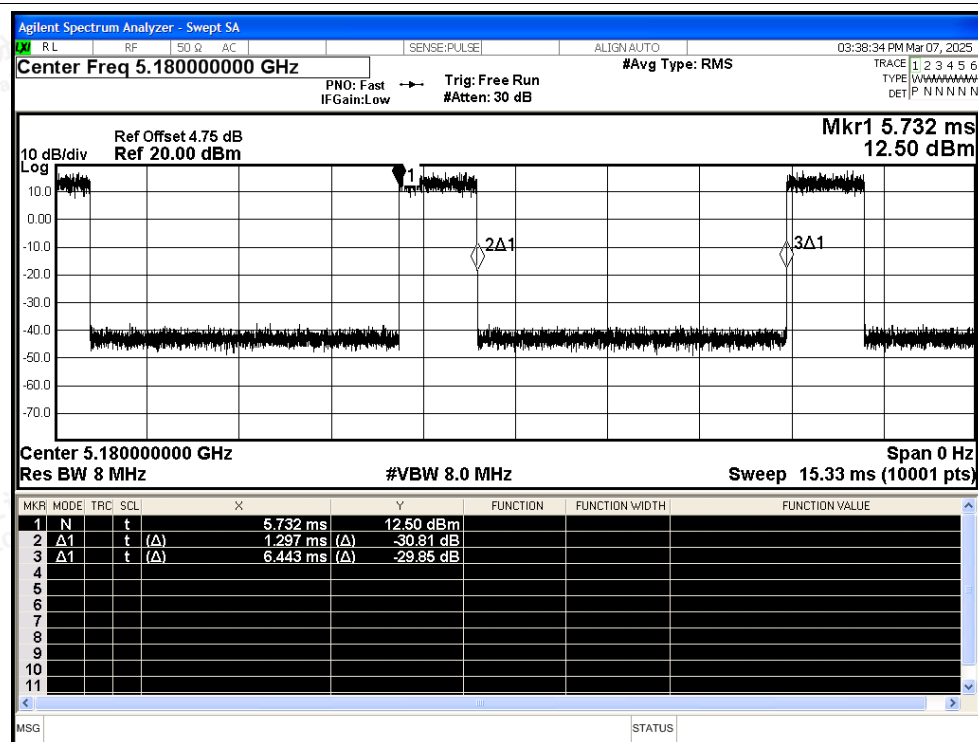
Scan code to check authenticity



Duty Cycle NVNT a 5240MHz Ant1



Duty Cycle NVNT n20 5180MHz Ant1



Shenzhen LCS Compliance Testing Laboratory Ltd.

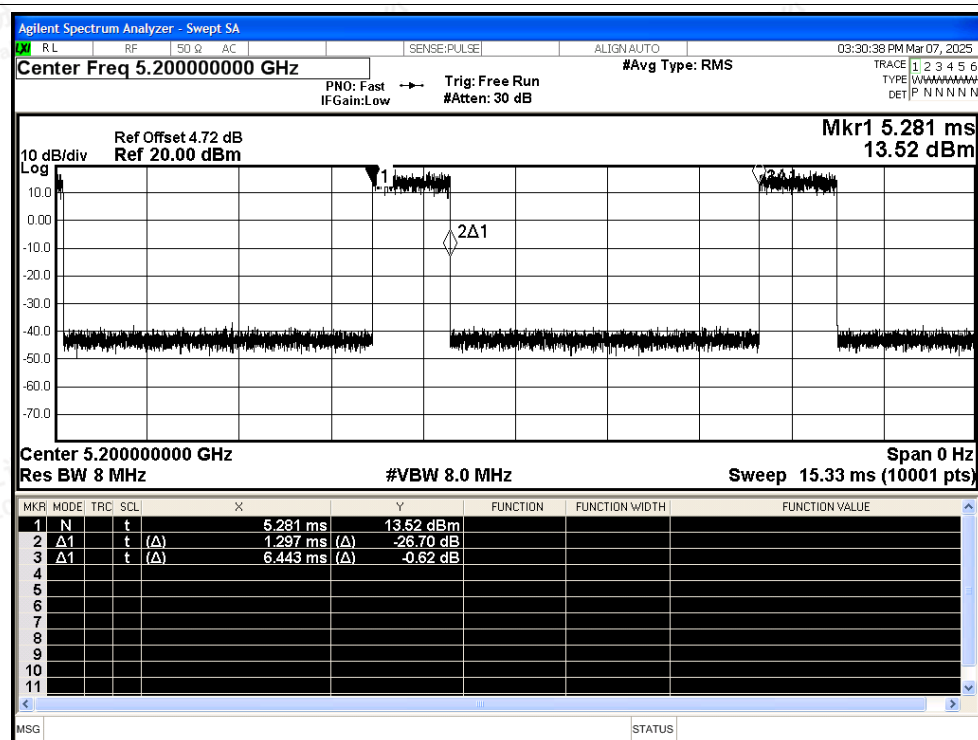
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

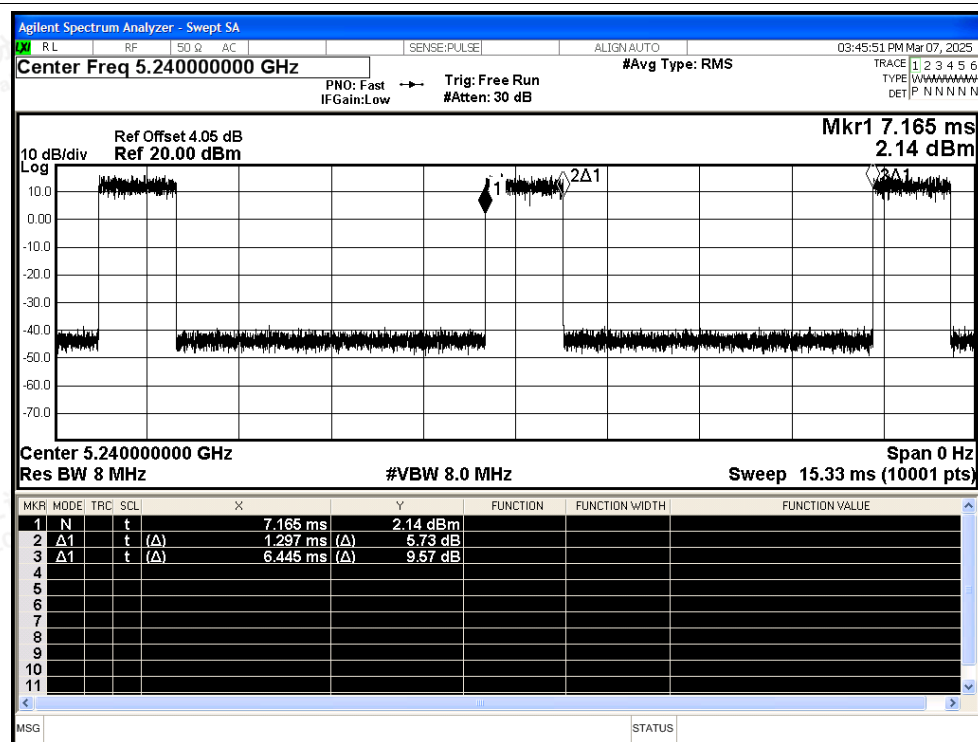
Scan code to check authenticity



Duty Cycle NVNT n20 5200MHz Ant1



Duty Cycle NVNT n20 5240MHz Ant1



Shenzhen LCS Compliance Testing Laboratory Ltd.

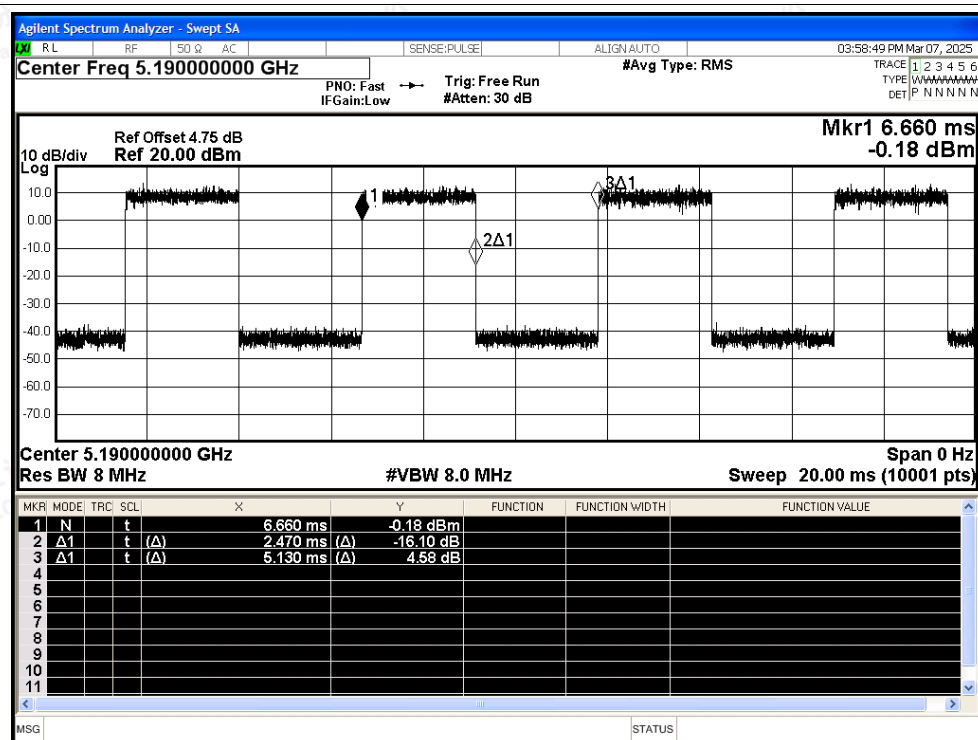
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

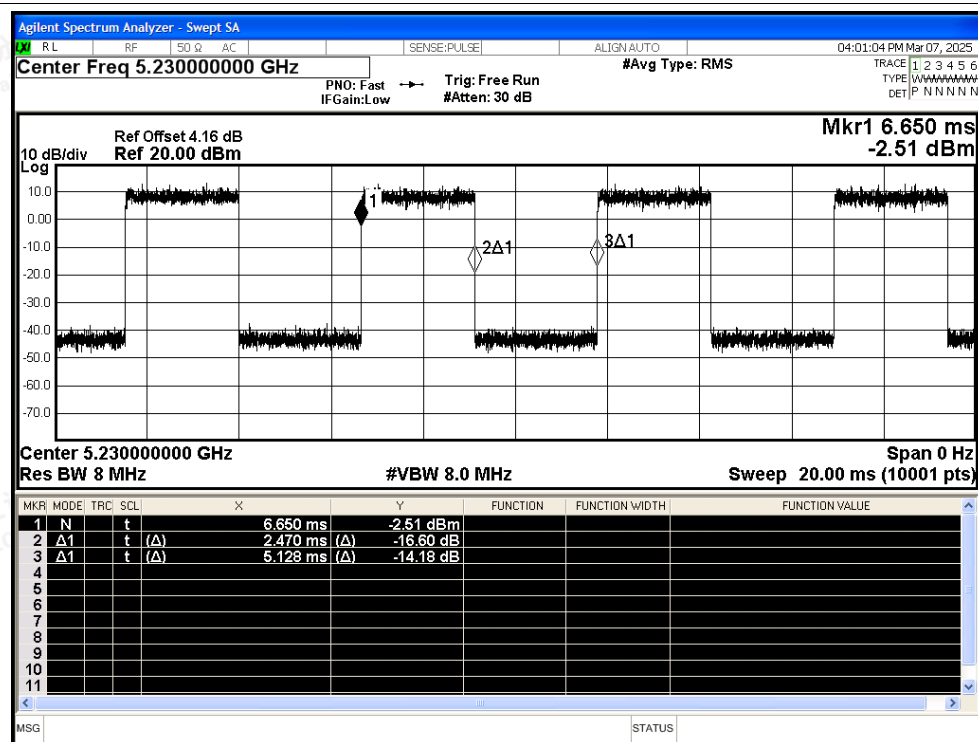
Scan code to check authenticity



Duty Cycle NVNT n40 5190MHz Ant1



Duty Cycle NVNT n40 5230MHz 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