



Appendix B

RF Test Data for BT LE(Conducted Measurement)

Product Name: Wireless Bluetooth handset

Test Model: CIP-291-HS

Environmental Conditions

Temperature:	23.6°C
Relative Humidity:	54.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Jerry Chu
Supervised by:	Can Kun





B.1 DTS Bandwidth

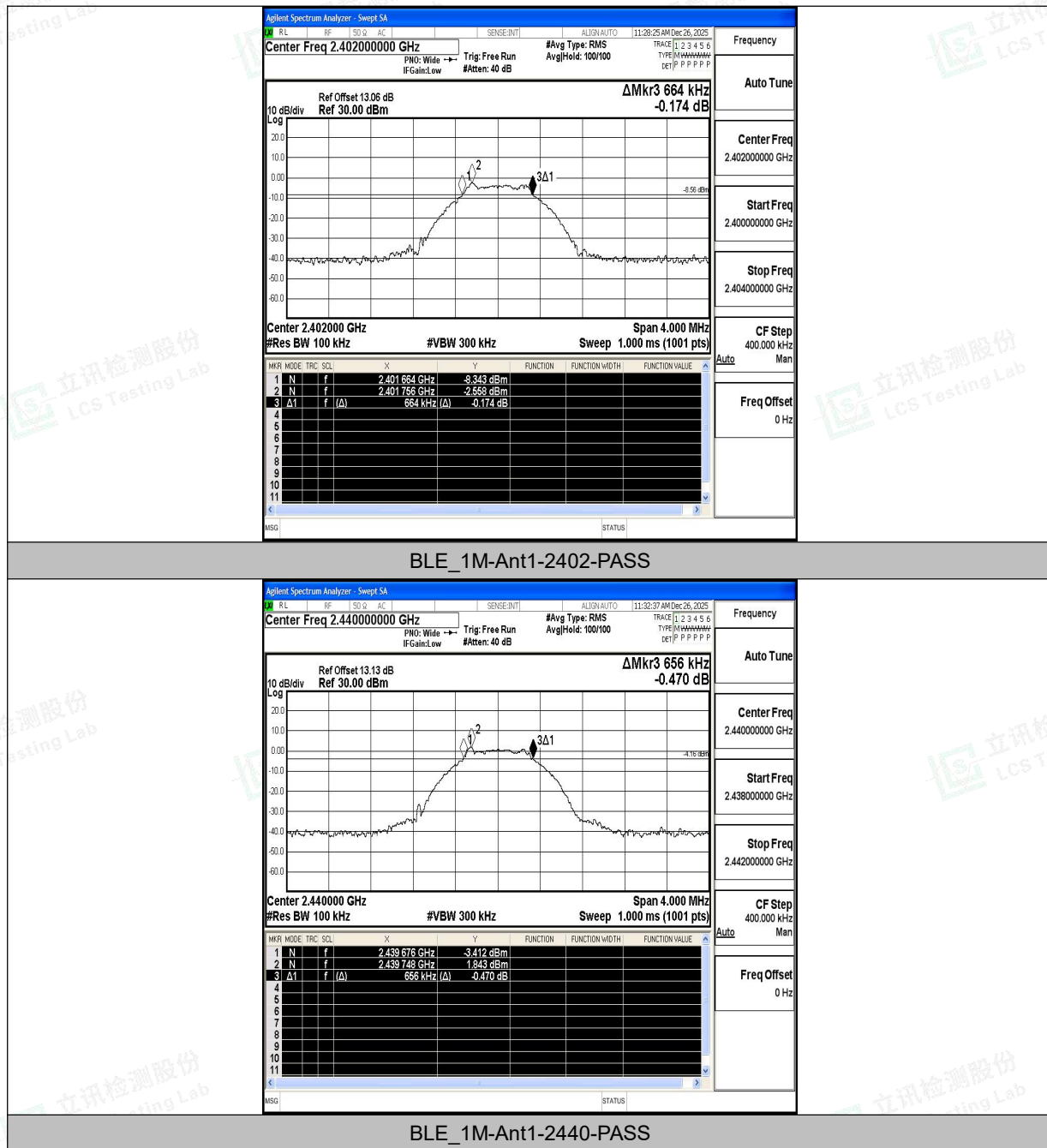
Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.664	2401.664	2402.328	0.5	PASS
BLE_1M	Ant1	2440	0.656	2439.676	2440.332	0.5	PASS
BLE_1M	Ant1	2480	0.704	2479.652	2480.356	0.5	PASS





Test Graphs

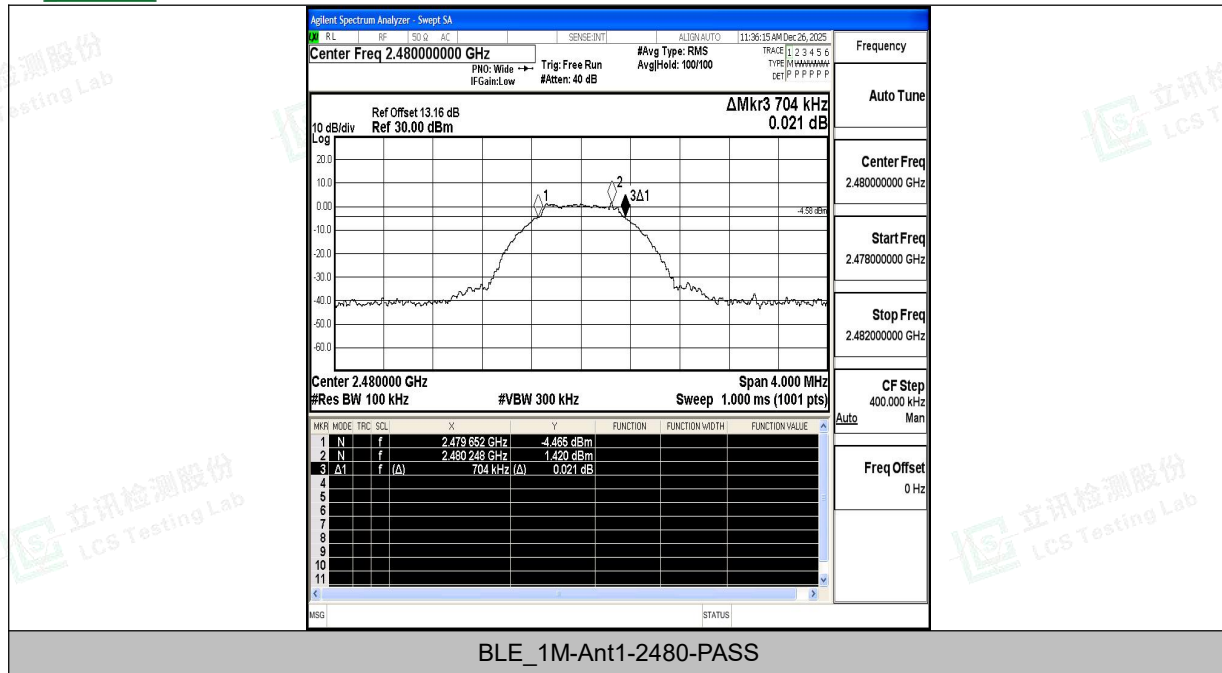


Shenzhen LCS Compliance Testing Laboratory Ltd.

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



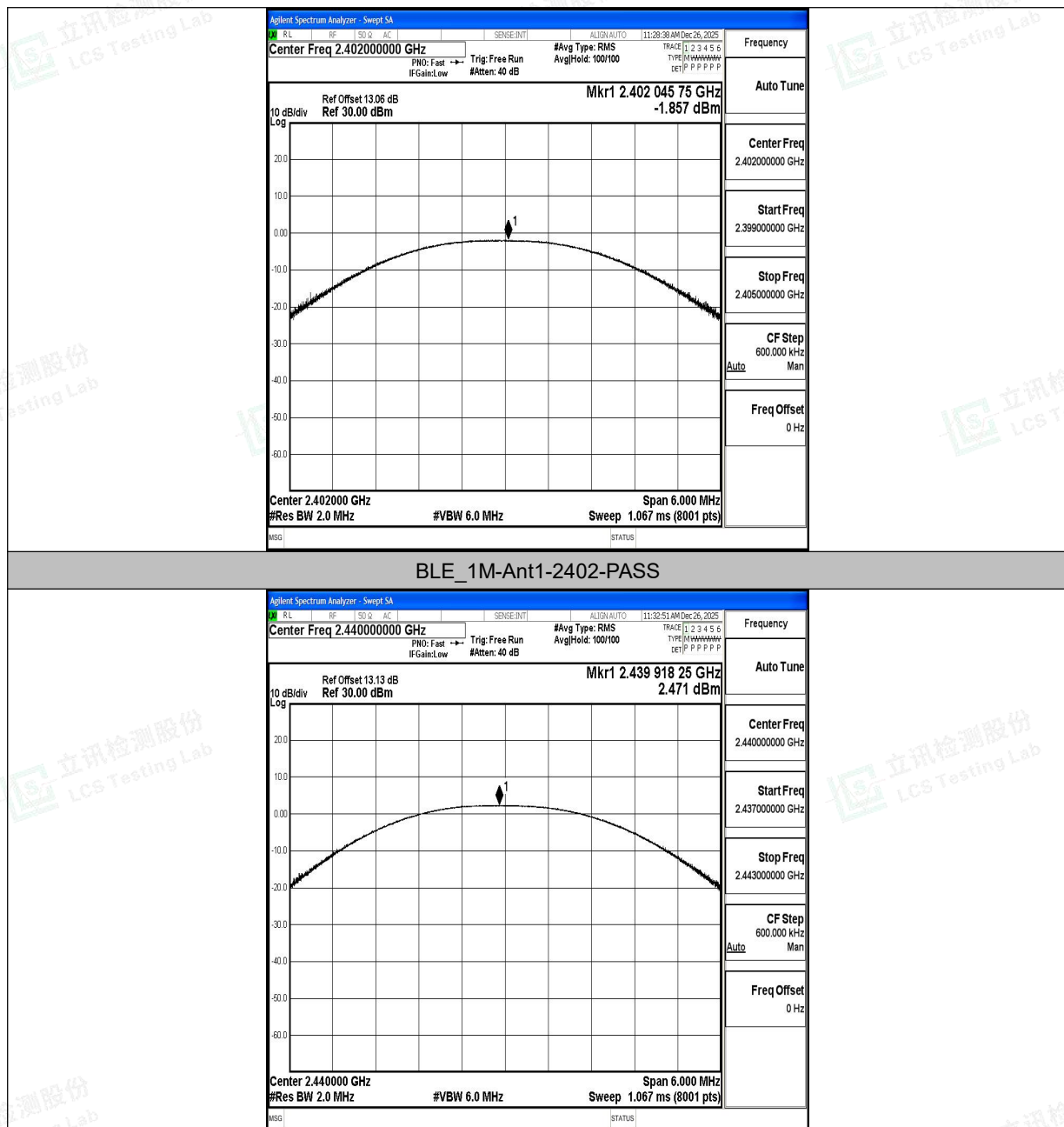


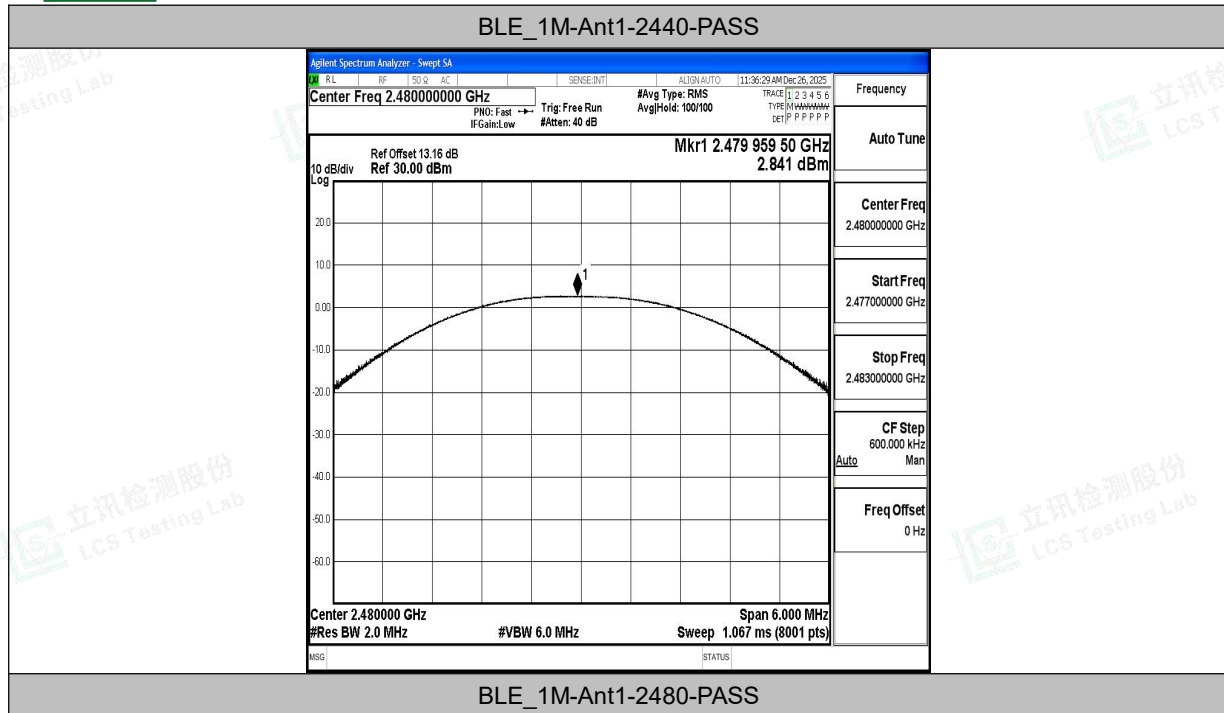
B.2 Maximum Peak conducted output power

Test Result Peak

TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-1.86	≤30	PASS
BLE_1M	Ant1	2440	2.47	≤30	PASS
BLE_1M	Ant1	2480	2.84	≤30	PASS

Test Graphs Peak







B.3 Maximum power spectral density

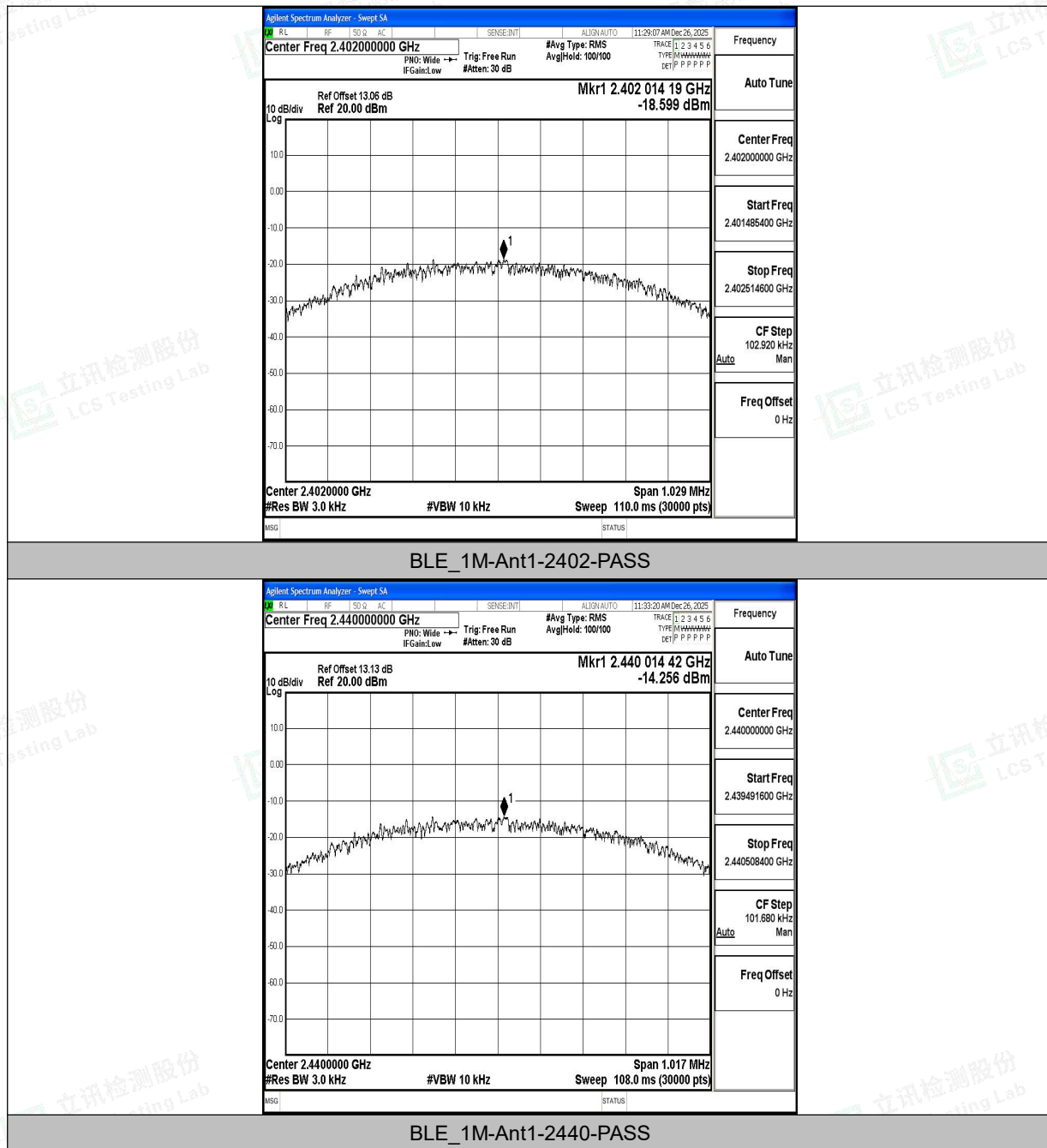
Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-18.60	≤8.00	PASS
BLE_1M	Ant1	2440	-14.26	≤8.00	PASS
BLE_1M	Ant1	2480	-13.76	≤8.00	PASS





Test Graphs

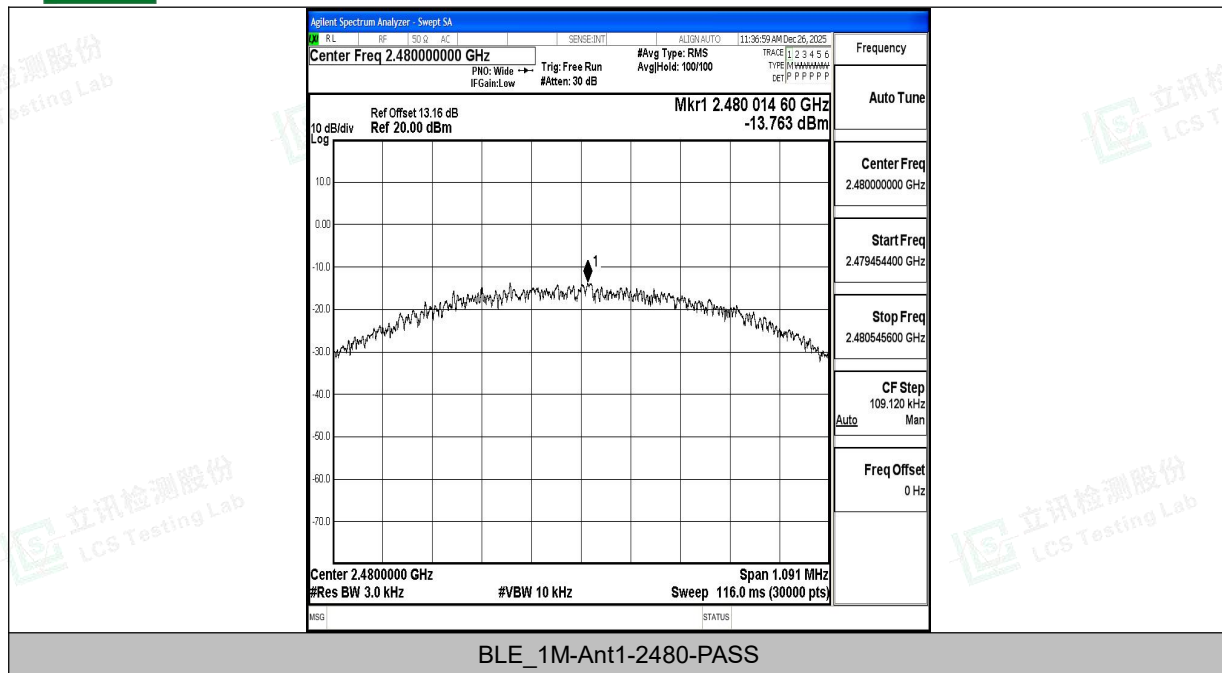


Shenzhen LCS Compliance Testing Laboratory Ltd.

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





B.4 Band edge measurements

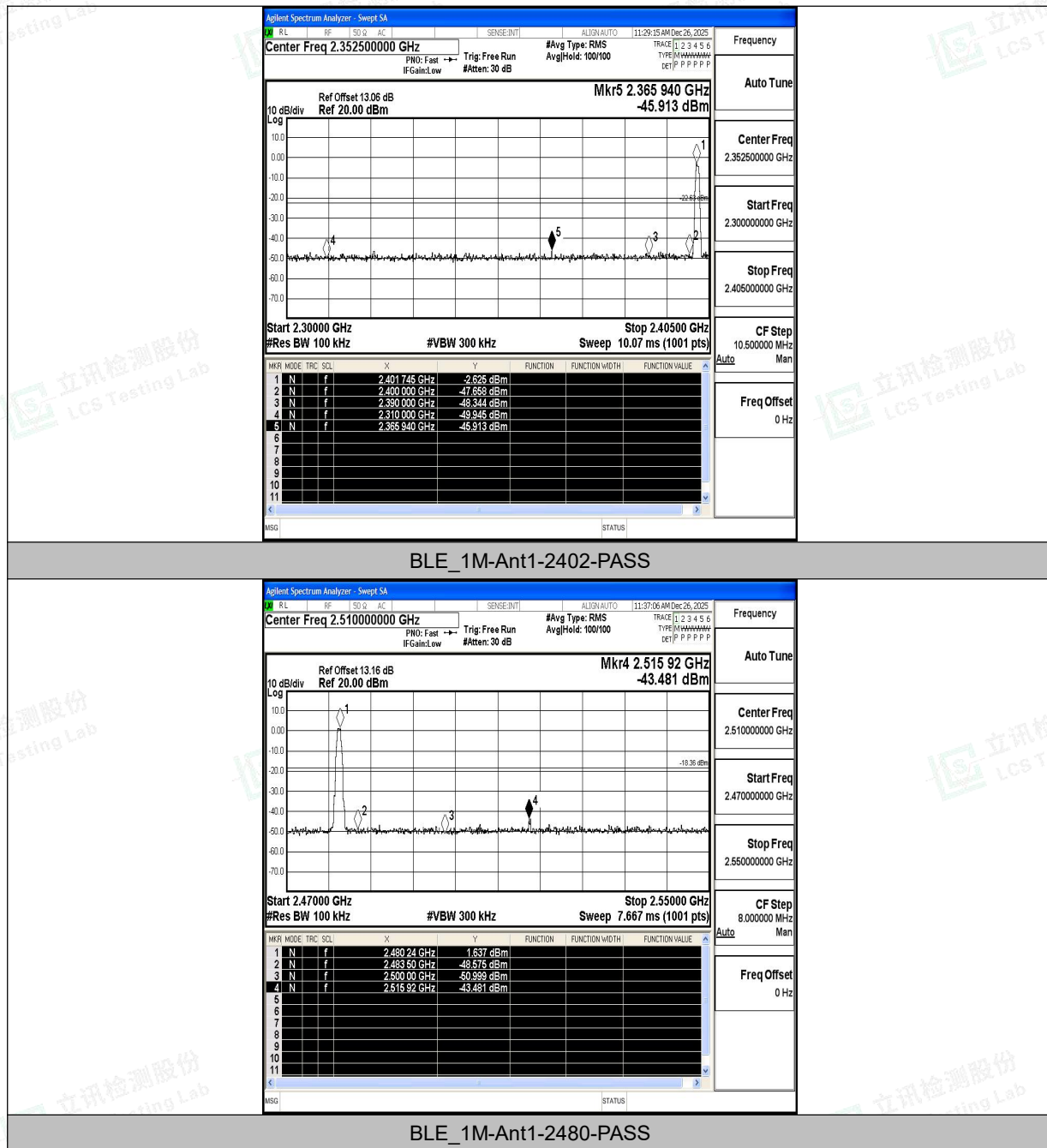
Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-2.63	-45.91	≤-22.63	PASS
BLE_1M	Ant1	High	2480	1.64	-43.48	≤-18.36	PASS





Test Graphs



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



B.5 Conducted Spurious Emission

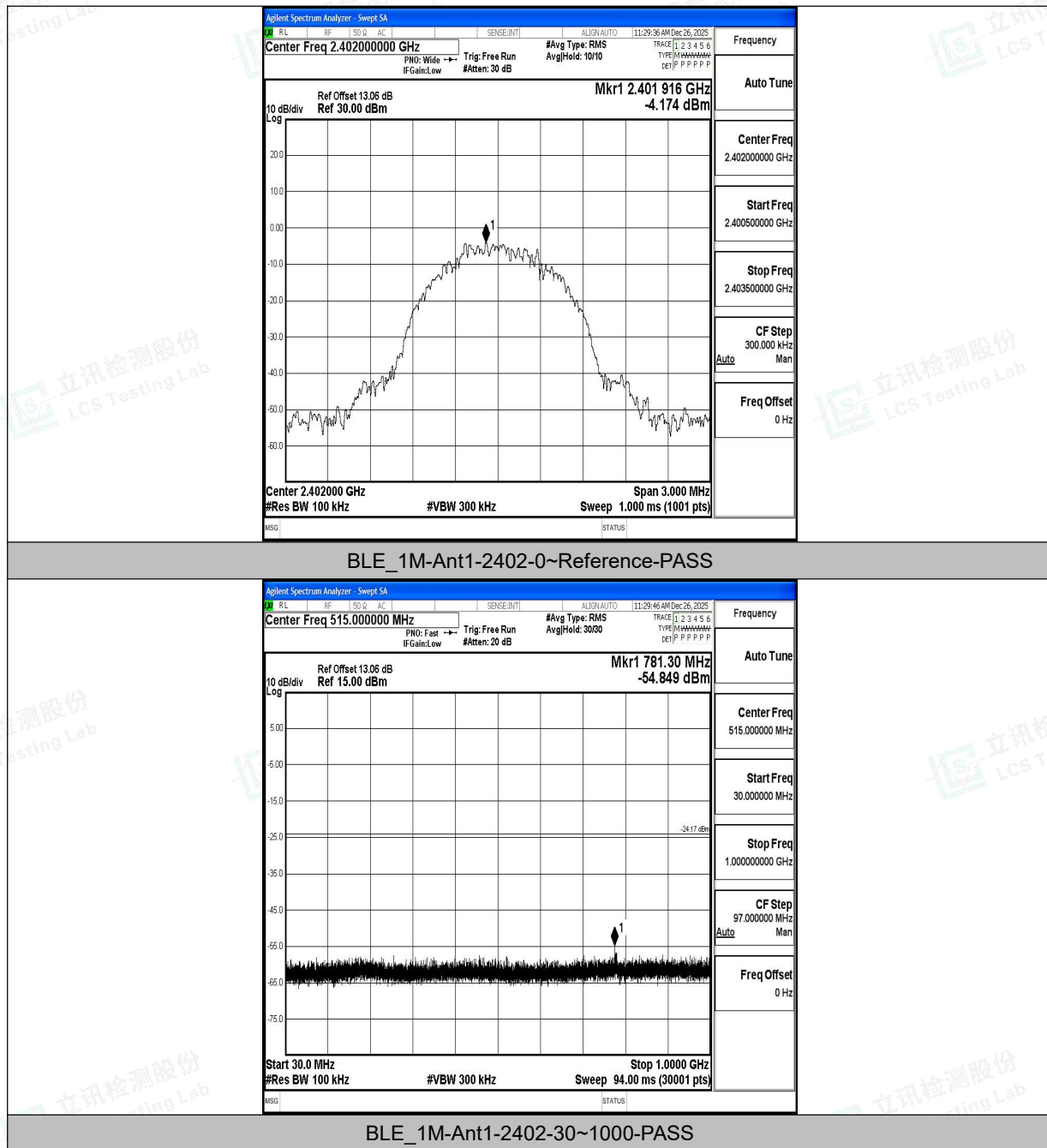
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	0~Reference	-4.17	-4.17	---	PASS
BLE_1M	Ant1	2402	30~1000	-4.17	-54.85	≤-24.17	PASS
BLE_1M	Ant1	2402	1000~26500	-4.17	-43.39	≤-24.17	PASS
BLE_1M	Ant1	2440	0~Reference	0.66	0.66	---	PASS
BLE_1M	Ant1	2440	30~1000	0.66	-56.19	≤-19.34	PASS
BLE_1M	Ant1	2440	1000~26500	0.66	-43.49	≤-19.34	PASS
BLE_1M	Ant1	2480	0~Reference	1.11	1.11	---	PASS
BLE_1M	Ant1	2480	30~1000	1.11	-54.58	≤-18.89	PASS
BLE_1M	Ant1	2480	1000~26500	1.11	-44.54	≤-18.89	PASS





Test Graphs

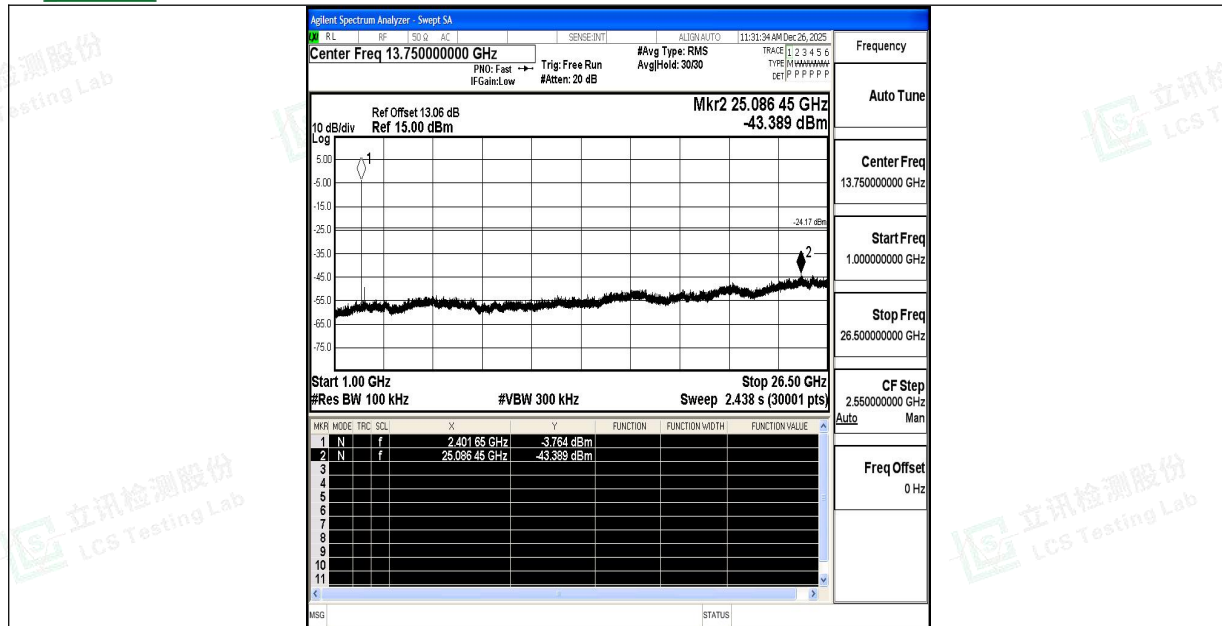


Shenzhen LCS Compliance Testing Laboratory Ltd.

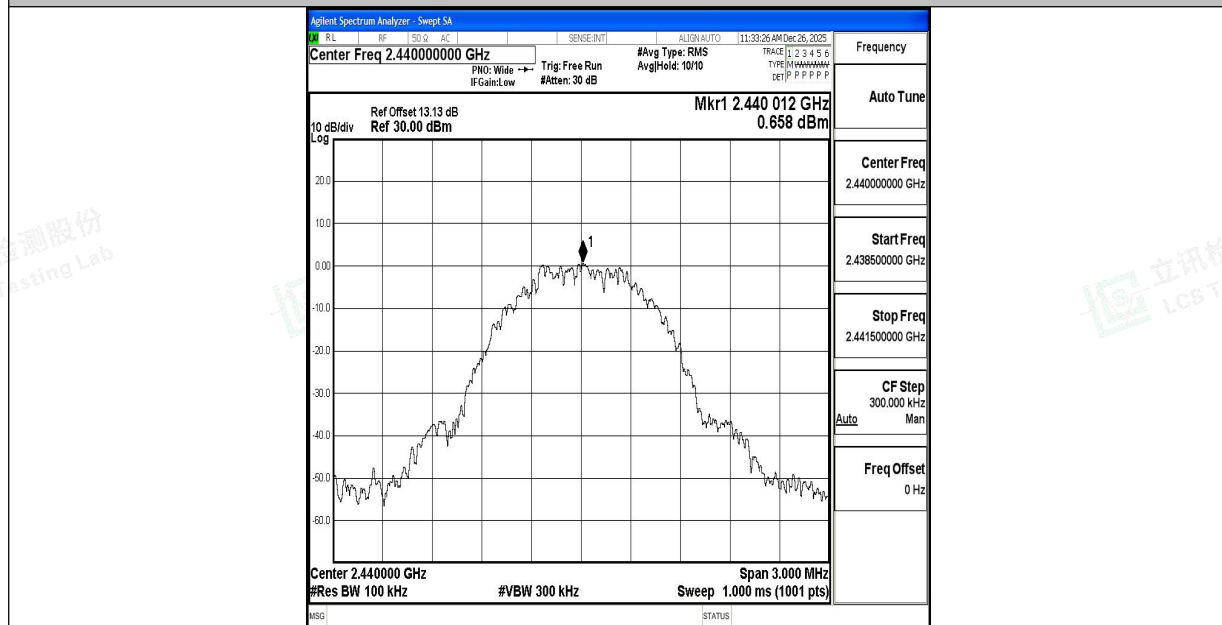
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

Scan code to check authenticity



BLE_1M-Ant1-2402-1000~26500-PASS



BLE_1M-Ant1-2440-0~Reference-PASS

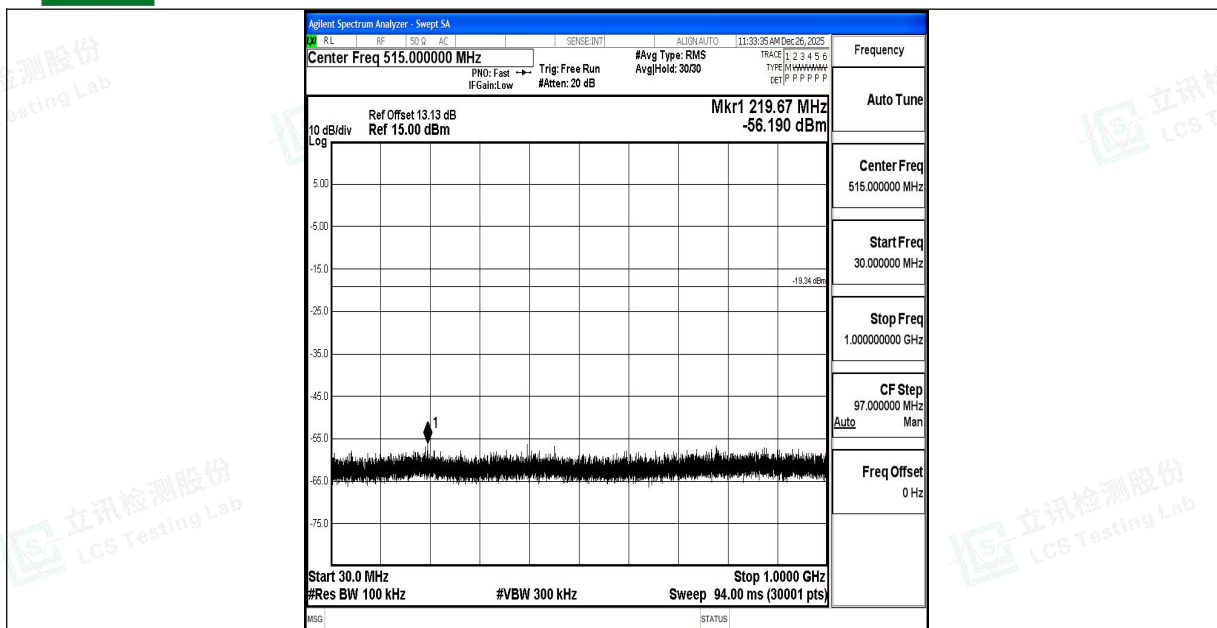


Shenzhen LCS Compliance Testing Laboratory Ltd.

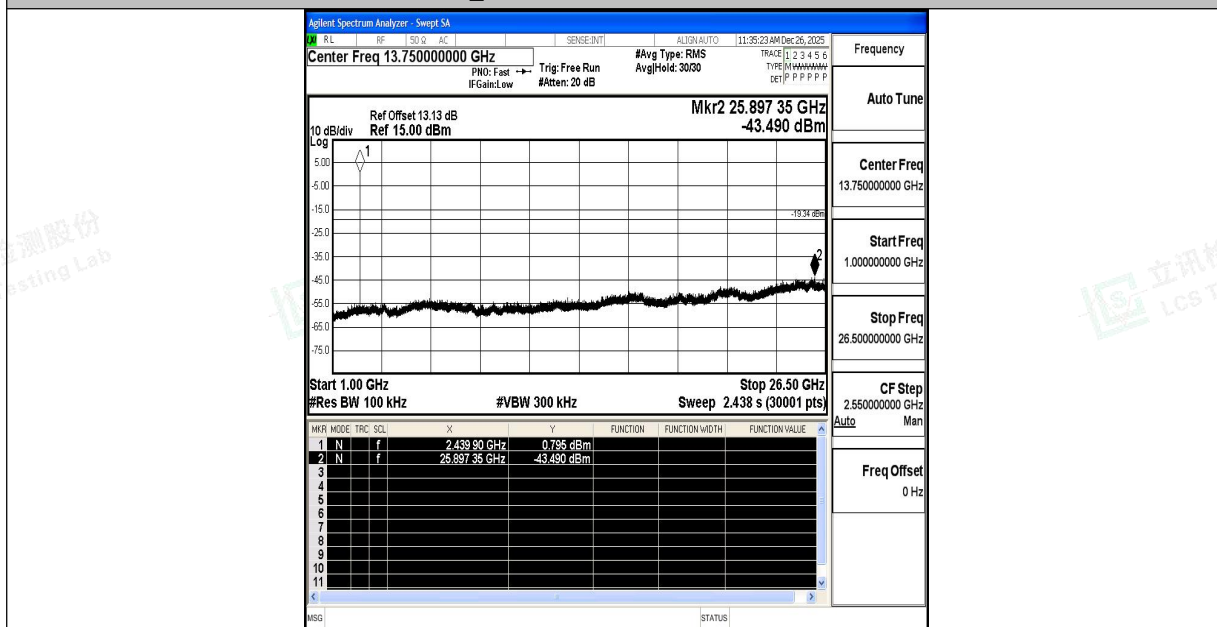
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

Scan code to check authenticity



BLE_1M-Ant1-2440-30~1000-PASS



BLE_1M-Ant1-2440-1000~26500-PASS

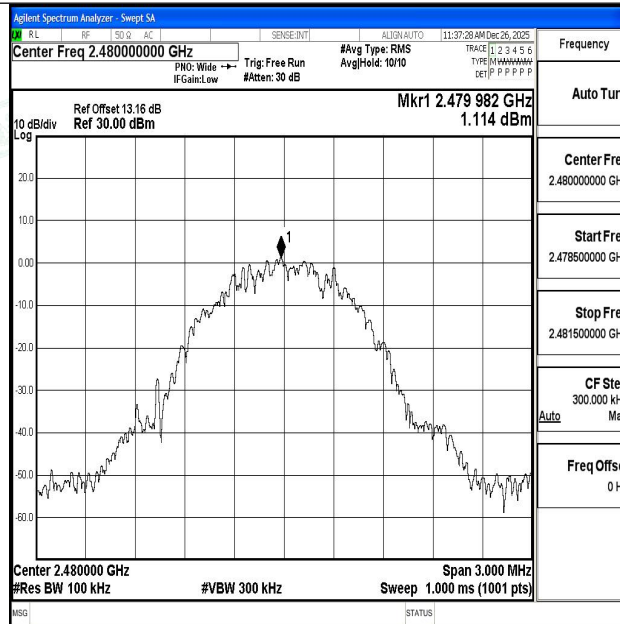


Shenzhen LCS Compliance Testing Laboratory Ltd.

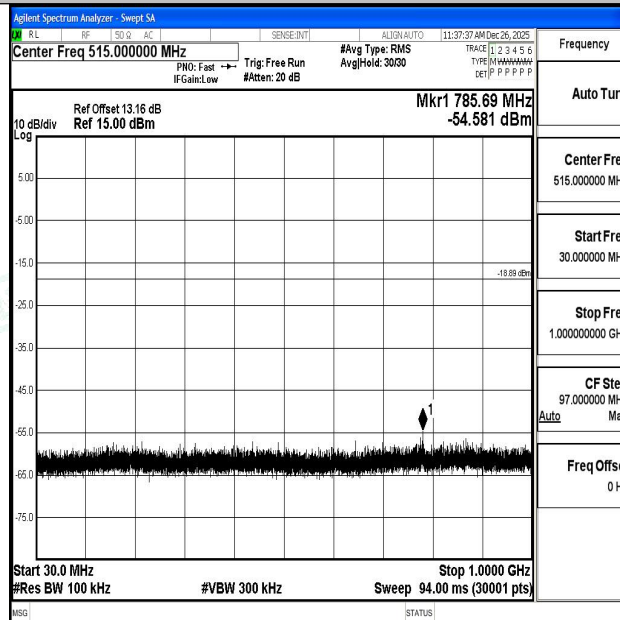
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

Scan code to check authenticity



BLE_1M-Ant1-2480-0~Reference-PASS



BLE_1M-Ant1-2480-30~1000-PASS

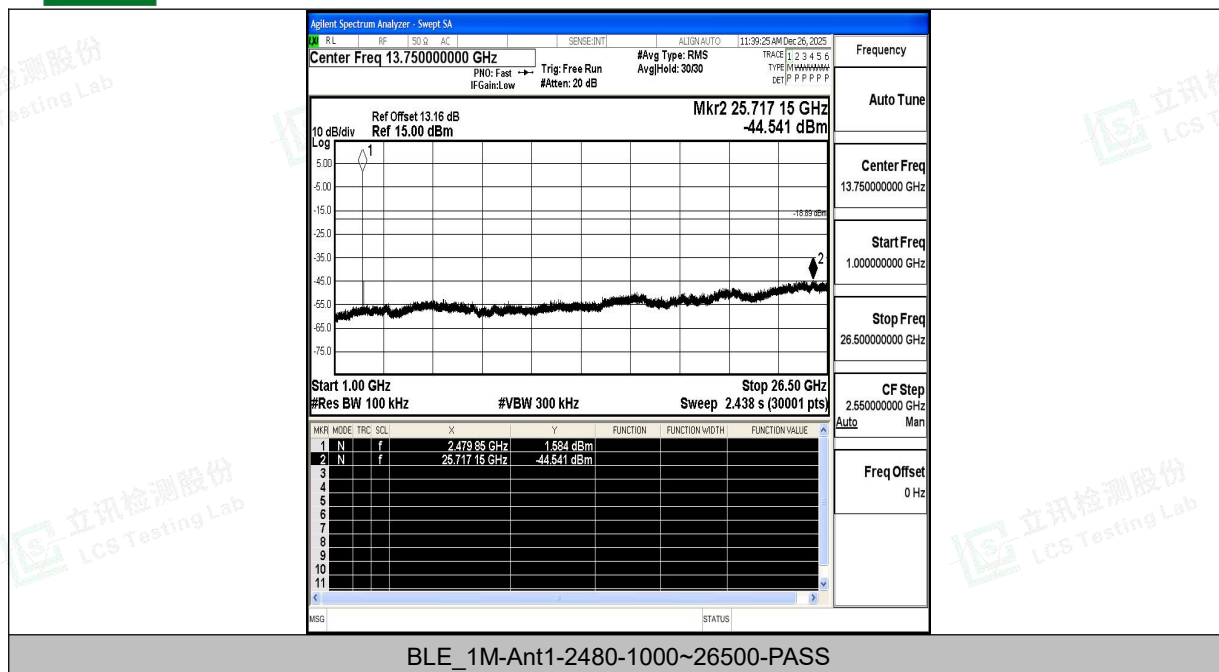


Shenzhen LCS Compliance Testing Laboratory Ltd.

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





B.6 Duty Cycle

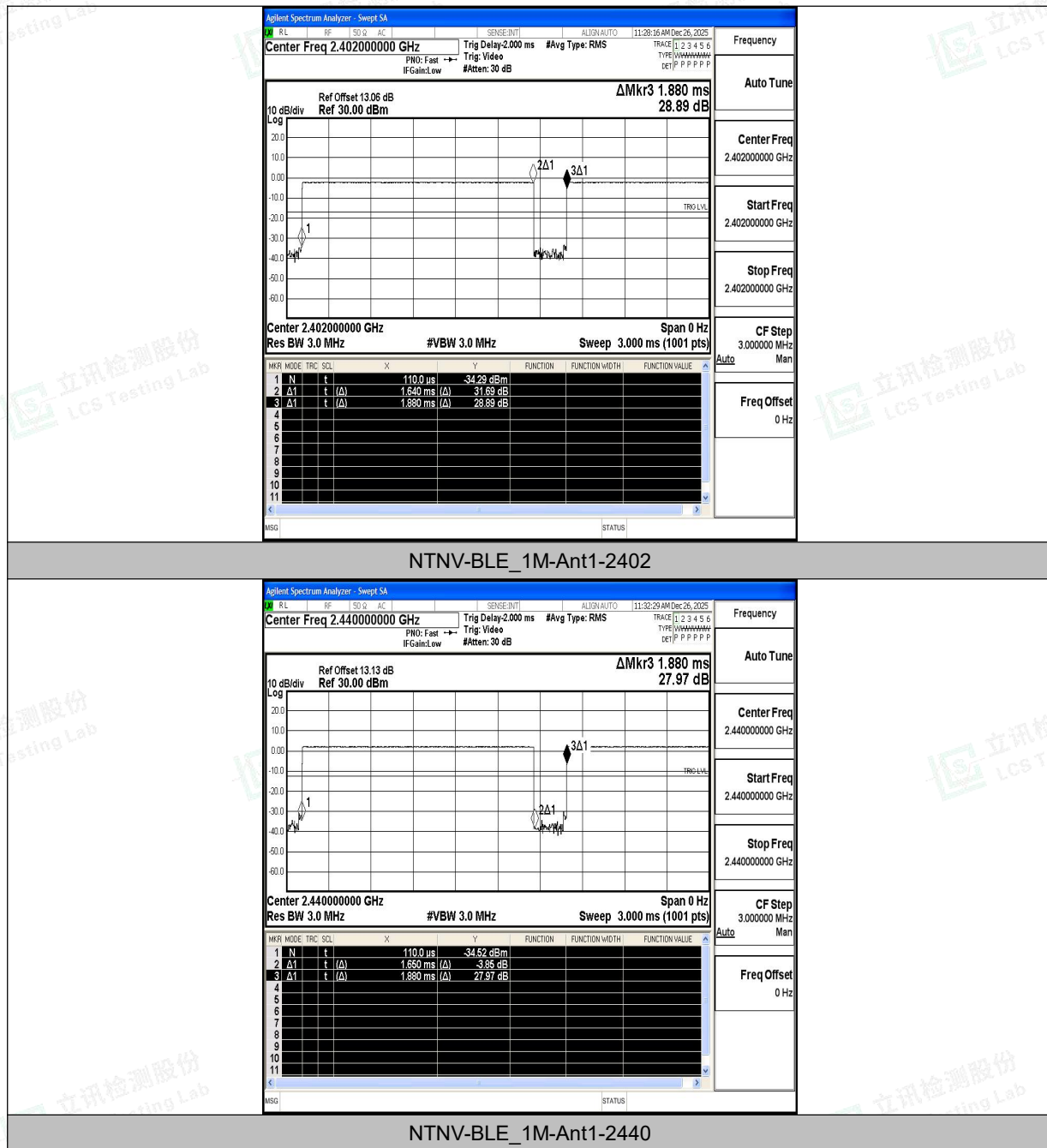
Test Result

TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	1.64	1.88	87.23	0.59
BLE_1M	Ant1	2440	1.65	1.88	87.77	0.57
BLE_1M	Ant1	2480	1.64	1.88	87.23	0.59





Test Graphs

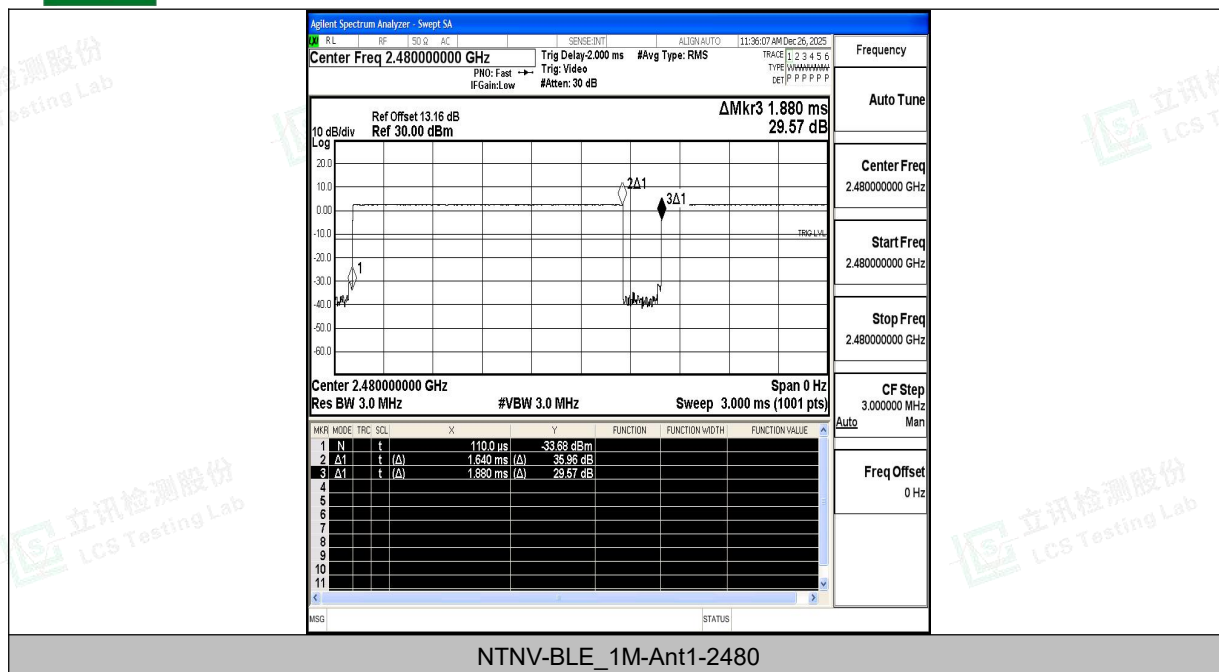


Shenzhen LCS Compliance Testing Laboratory Ltd.

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



B.7 Emissions in Restricted Bands

Test Result

TestMode	Antenna	Channel	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
BLE_1M	Ant1	Low	2402	Peak	2390.000	-38.57	≤-21.20	56.63	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2310.000	-39.07	≤-21.20	56.13	≤74	PASS
BLE_1M	Ant1	Low	2402	Peak	2378.015	-34.92	≤-21.20	60.28	≤74	PASS
BLE_1M	Ant1	Low	2402	AV	2390.000	-45.56	≤-41.20	49.64	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2310.000	-46.2	≤-41.20	49.00	≤54	PASS
BLE_1M	Ant1	Low	2402	AV	2357.540	-44.94	≤-41.20	50.26	≤54	PASS
BLE_1M	Ant1	High	2480	Peak	2483.500	-38.65	≤-21.20	56.55	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2500.000	-38.79	≤-21.20	56.41	≤74	PASS
BLE_1M	Ant1	High	2480	Peak	2495.120	-35.66	≤-21.20	59.54	≤74	PASS
BLE_1M	Ant1	High	2480	AV	2483.500	-46.15	≤-41.20	49.05	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2500.000	-45.62	≤-41.20	49.58	≤54	PASS
BLE_1M	Ant1	High	2480	AV	2492.880	-45.34	≤-41.20	49.86	≤54	PASS

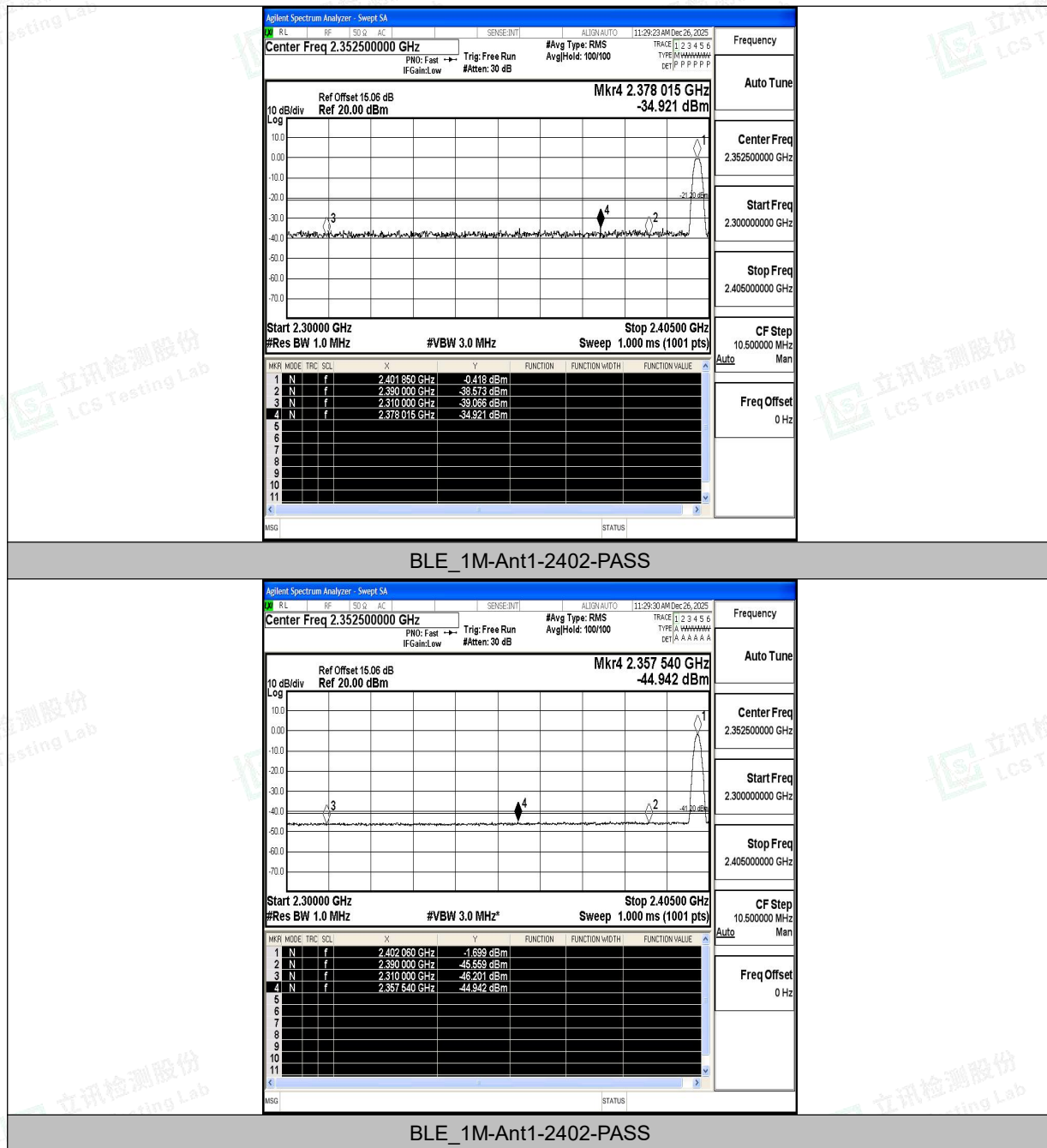
Note:

1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.





Test Graphs

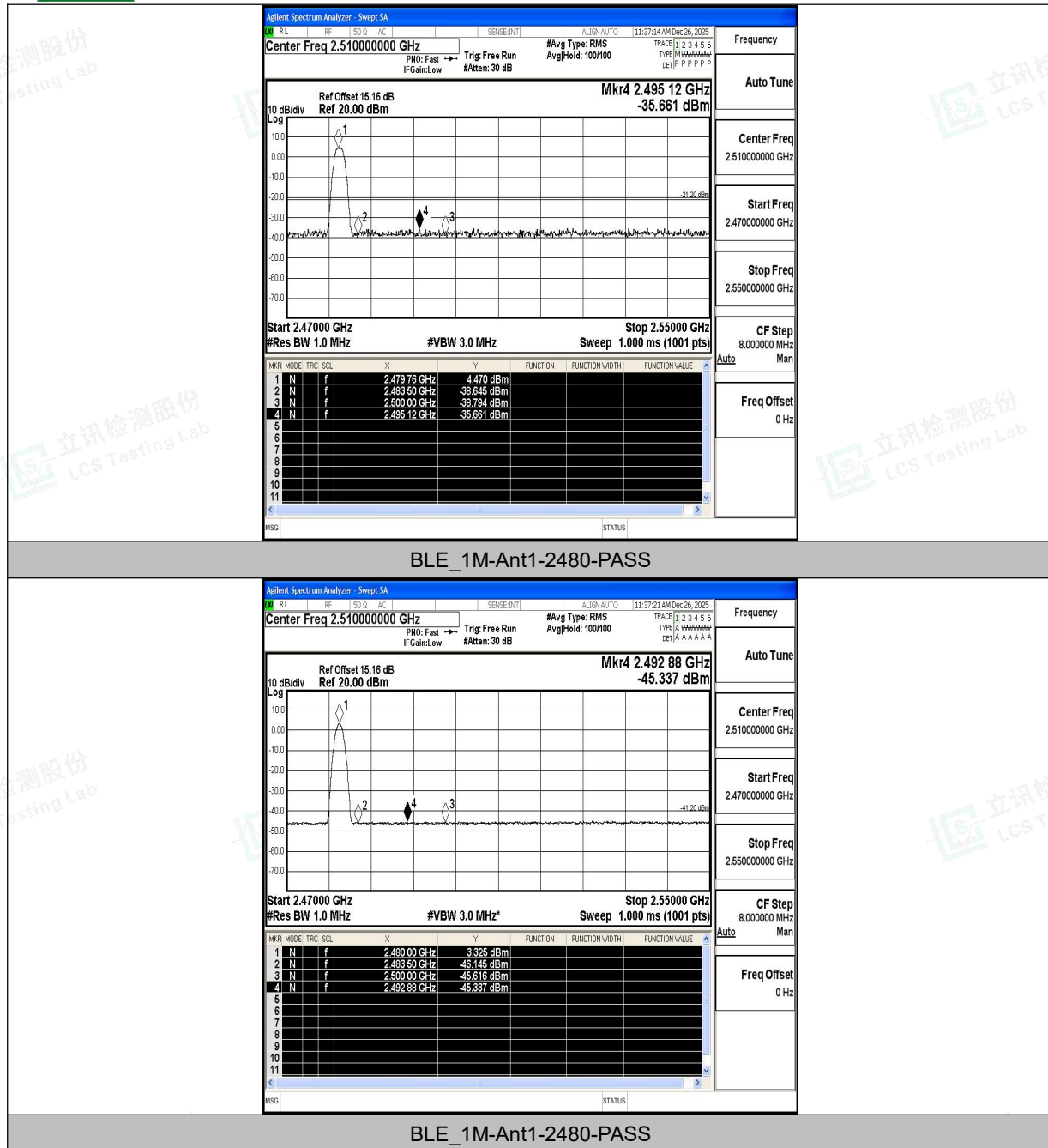


Shenzhen LCS Compliance Testing Laboratory Ltd.

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