



Appendix F: Test Data for E-UTRA Band 13

Product Name: TRACK+

Test Model: X950LS

Environmental Conditions

Temperature:	23.9°C
Relative Humidity:	53.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Can Kun
Supervised by:	Paddi Chen



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



F.1 Conducted Output Power Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	23.43	PASS
Band13	5MHz	16QAM	23205	1RB#0	22.36	PASS
Band13	5MHz	QPSK	23205	1RB#12	23.46	PASS
Band13	5MHz	16QAM	23205	1RB#12	22.57	PASS
Band13	5MHz	QPSK	23205	1RB#24	23.45	PASS
Band13	5MHz	16QAM	23205	1RB#24	22.62	PASS
Band13	5MHz	QPSK	23205	12RB#0	22.34	PASS
Band13	5MHz	16QAM	23205	12RB#0	21.65	PASS
Band13	5MHz	QPSK	23205	12RB#6	22.26	PASS
Band13	5MHz	16QAM	23205	12RB#6	21.39	PASS
Band13	5MHz	QPSK	23205	12RB#13	22.23	PASS
Band13	5MHz	16QAM	23205	12RB#13	21.52	PASS
Band13	5MHz	QPSK	23205	25RB#0	22.29	PASS
Band13	5MHz	16QAM	23205	25RB#0	21.68	PASS
Band13	5MHz	QPSK	23230	1RB#0	23.14	PASS
Band13	5MHz	16QAM	23230	1RB#0	22.03	PASS
Band13	5MHz	QPSK	23230	1RB#12	23.15	PASS
Band13	5MHz	16QAM	23230	1RB#12	21.90	PASS
Band13	5MHz	QPSK	23230	1RB#24	23.05	PASS
Band13	5MHz	16QAM	23230	1RB#24	21.87	PASS
Band13	5MHz	QPSK	23230	12RB#0	22.29	PASS
Band13	5MHz	16QAM	23230	12RB#0	21.67	PASS
Band13	5MHz	QPSK	23230	12RB#6	22.28	PASS
Band13	5MHz	16QAM	23230	12RB#6	21.67	PASS
Band13	5MHz	QPSK	23230	12RB#13	22.19	PASS
Band13	5MHz	16QAM	23230	12RB#13	21.57	PASS
Band13	5MHz	QPSK	23230	25RB#0	22.26	PASS
Band13	5MHz	16QAM	23230	25RB#0	21.64	PASS
Band13	5MHz	QPSK	23255	1RB#0	22.97	PASS
Band13	5MHz	16QAM	23255	1RB#0	22.75	PASS
Band13	5MHz	QPSK	23255	1RB#12	22.83	PASS
Band13	5MHz	16QAM	23255	1RB#12	22.59	PASS
Band13	5MHz	QPSK	23255	1RB#24	22.51	PASS
Band13	5MHz	16QAM	23255	1RB#24	22.32	PASS
Band13	5MHz	QPSK	23255	12RB#0	22.19	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



Band13	5MHz	16QAM	23255	12RB#0	21.79	PASS
Band13	5MHz	QPSK	23255	12RB#6	22.19	PASS
Band13	5MHz	16QAM	23255	12RB#6	21.53	PASS
Band13	5MHz	QPSK	23255	12RB#13	22.07	PASS
Band13	5MHz	16QAM	23255	12RB#13	21.36	PASS
Band13	5MHz	QPSK	23255	25RB#0	22.10	PASS
Band13	5MHz	16QAM	23255	25RB#0	21.50	PASS
Band13	10MHz	QPSK	23230	1RB#0	22.58	PASS
Band13	10MHz	16QAM	23230	1RB#0	22.02	PASS
Band13	10MHz	QPSK	23230	1RB#24	22.57	PASS
Band13	10MHz	16QAM	23230	1RB#24	21.98	PASS
Band13	10MHz	QPSK	23230	1RB#49	22.15	PASS
Band13	10MHz	16QAM	23230	1RB#49	21.67	PASS
Band13	10MHz	QPSK	23230	25RB#0	21.57	PASS
Band13	10MHz	16QAM	23230	25RB#0	21.01	PASS
Band13	10MHz	QPSK	23230	25RB#12	21.76	PASS
Band13	10MHz	16QAM	23230	25RB#12	21.00	PASS
Band13	10MHz	QPSK	23230	25RB#25	21.39	PASS
Band13	10MHz	16QAM	23230	25RB#25	21.91	PASS
Band13	10MHz	QPSK	23230	50RB#0	21.67	PASS
Band13	10MHz	16QAM	23230	50RB#0	21.06	PASS





F.2 Peak-to-Average Ratio(CCDF)

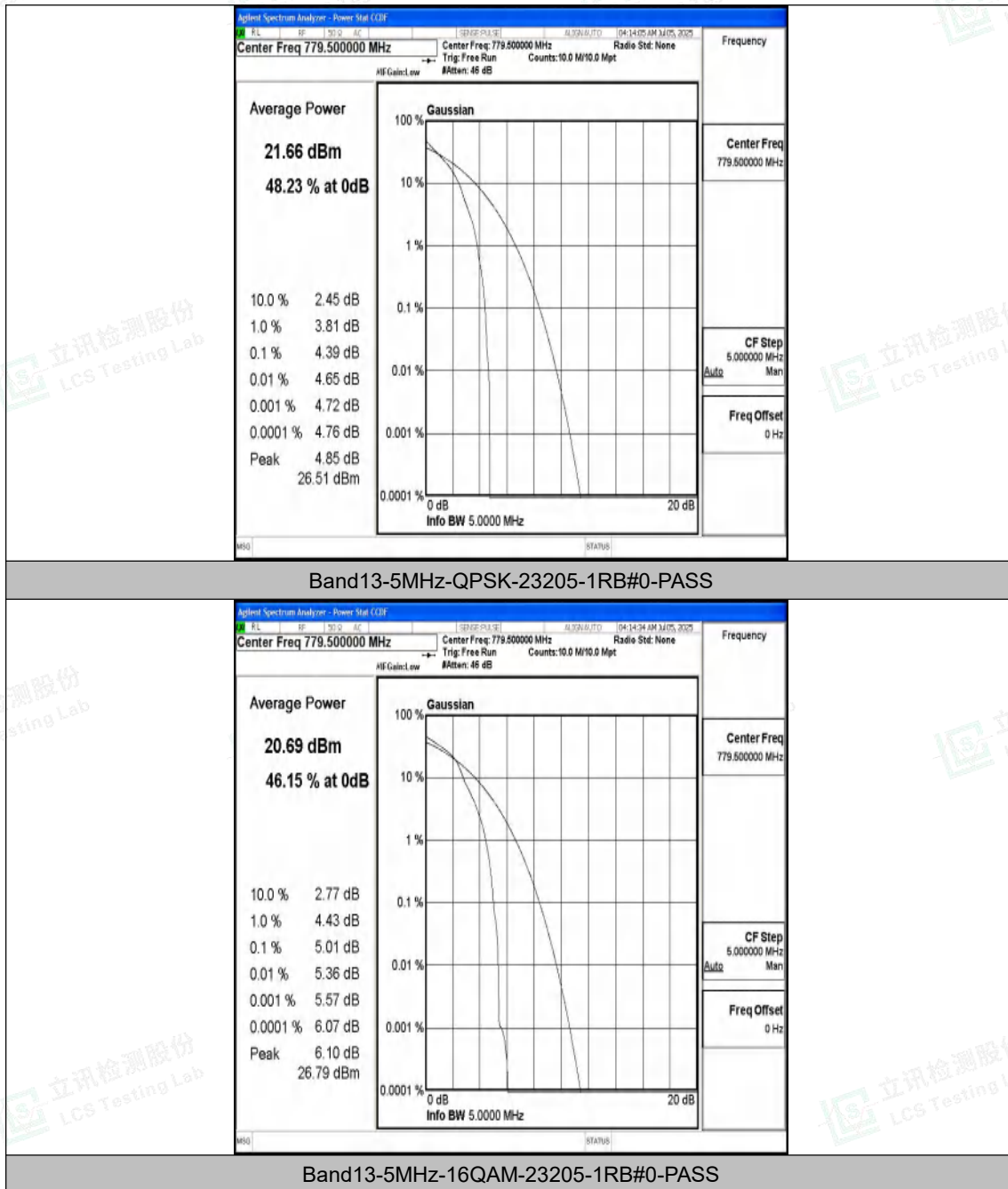
Test Result

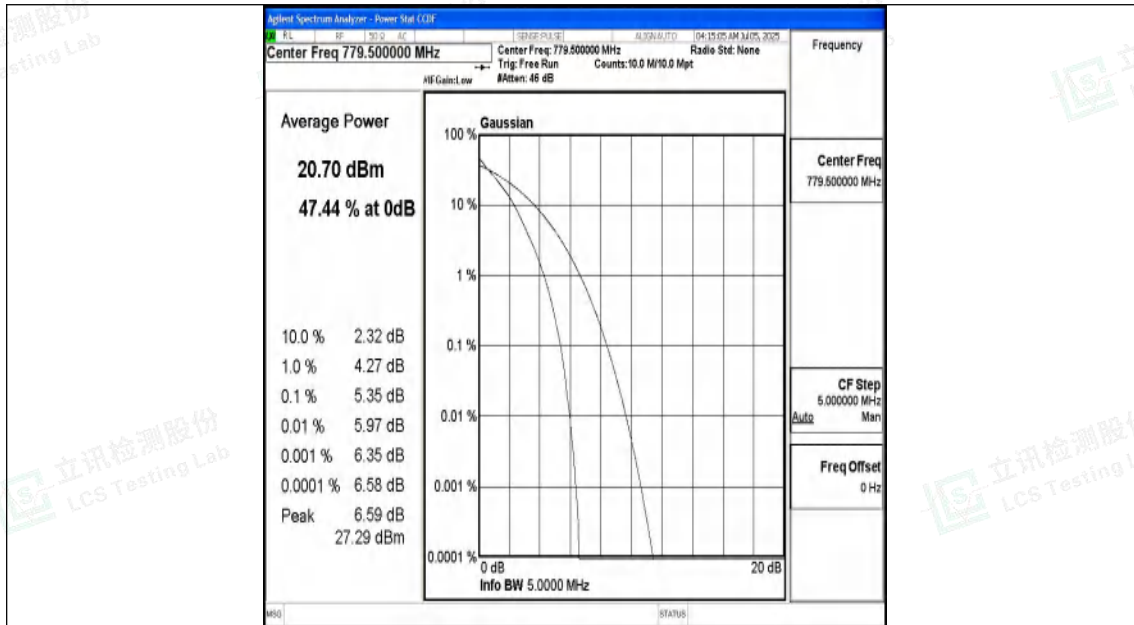
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	4.39	13	PASS
Band13	5MHz	16QAM	23205	1RB#0	5.01	13	PASS
Band13	5MHz	QPSK	23205	25RB#0	5.35	13	PASS
Band13	5MHz	16QAM	23205	25RB#0	5.94	13	PASS
Band13	5MHz	QPSK	23230	1RB#0	4.60	13	PASS
Band13	5MHz	16QAM	23230	1RB#0	5.08	13	PASS
Band13	5MHz	QPSK	23230	25RB#0	5.40	13	PASS
Band13	5MHz	16QAM	23230	25RB#0	6.06	13	PASS
Band13	5MHz	QPSK	23255	1RB#0	4.71	13	PASS
Band13	5MHz	16QAM	23255	1RB#0	5.23	13	PASS
Band13	5MHz	QPSK	23255	25RB#0	5.37	13	PASS
Band13	5MHz	16QAM	23255	25RB#0	6.01	13	PASS
Band13	10MHz	QPSK	23230	1RB#0	4.34	13	PASS
Band13	10MHz	16QAM	23230	1RB#0	4.92	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	5.38	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	6.01	13	PASS



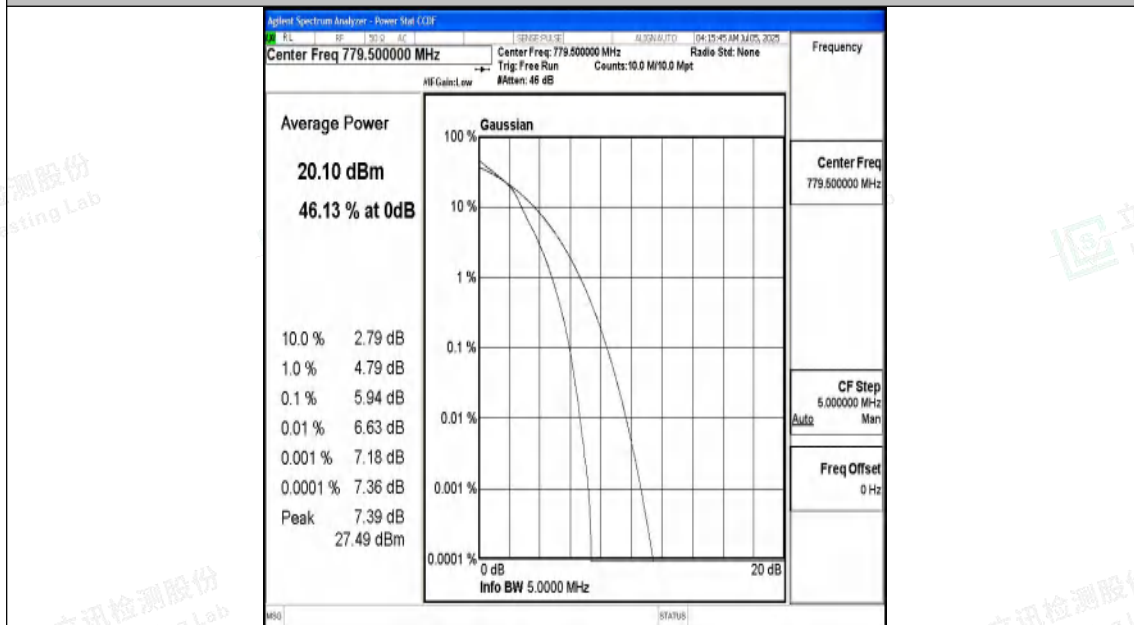


Test Graphs



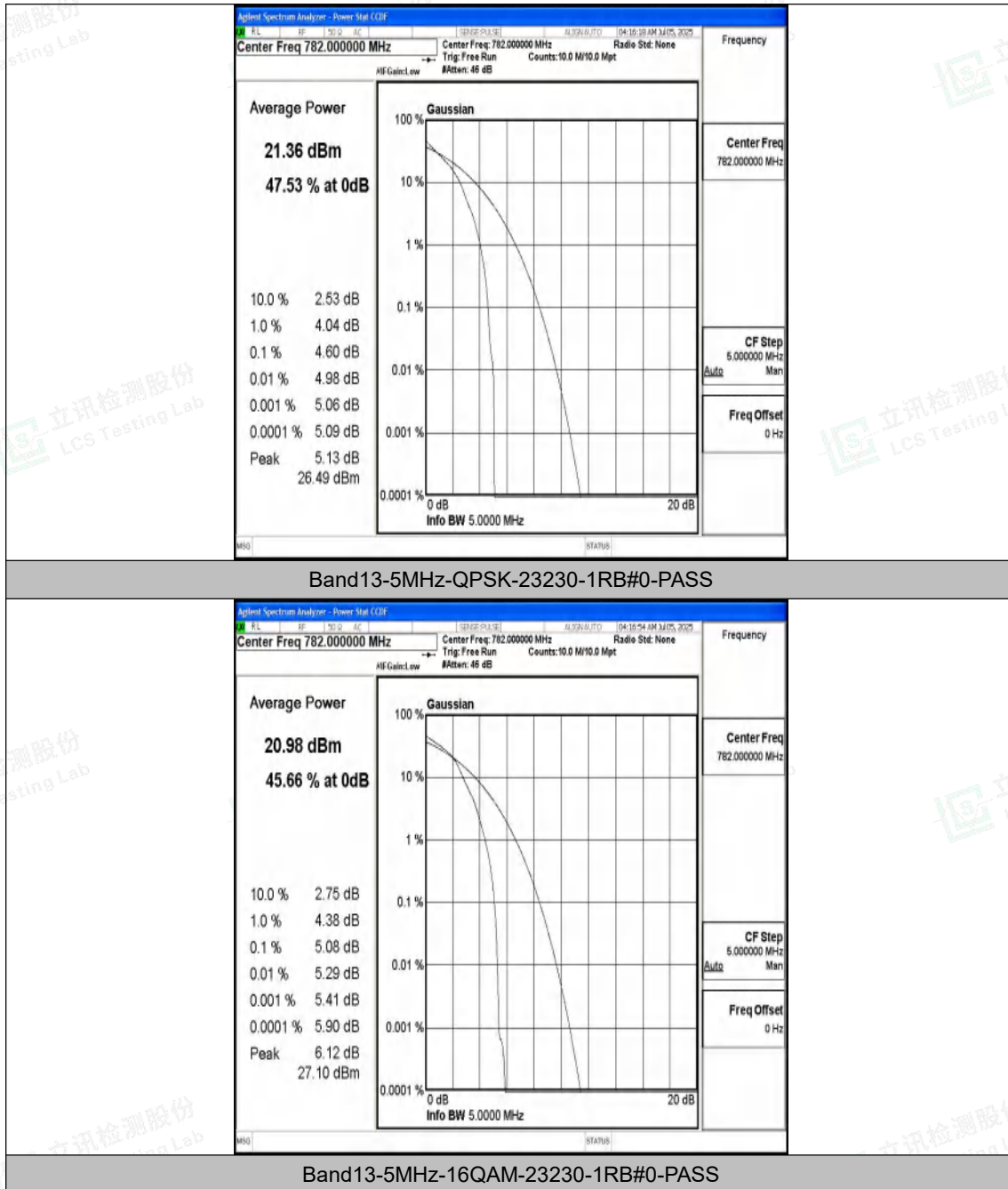


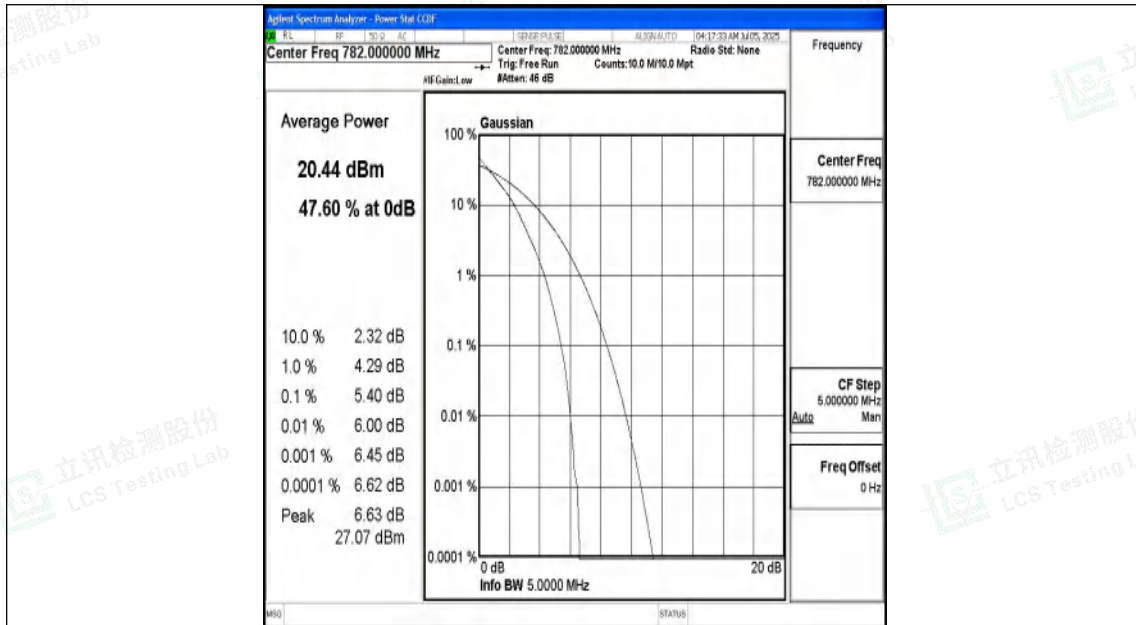
Band13-5MHz-QPSK-23205-25RB#0-PASS



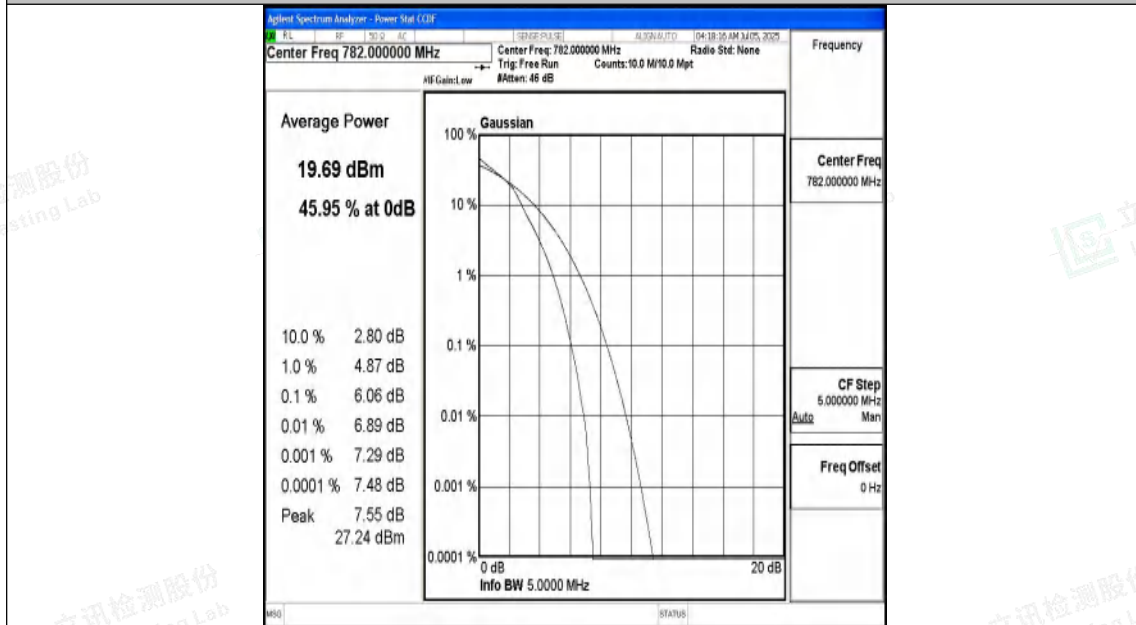
Band13-5MHz-16QAM-23205-25RB#0-PASS





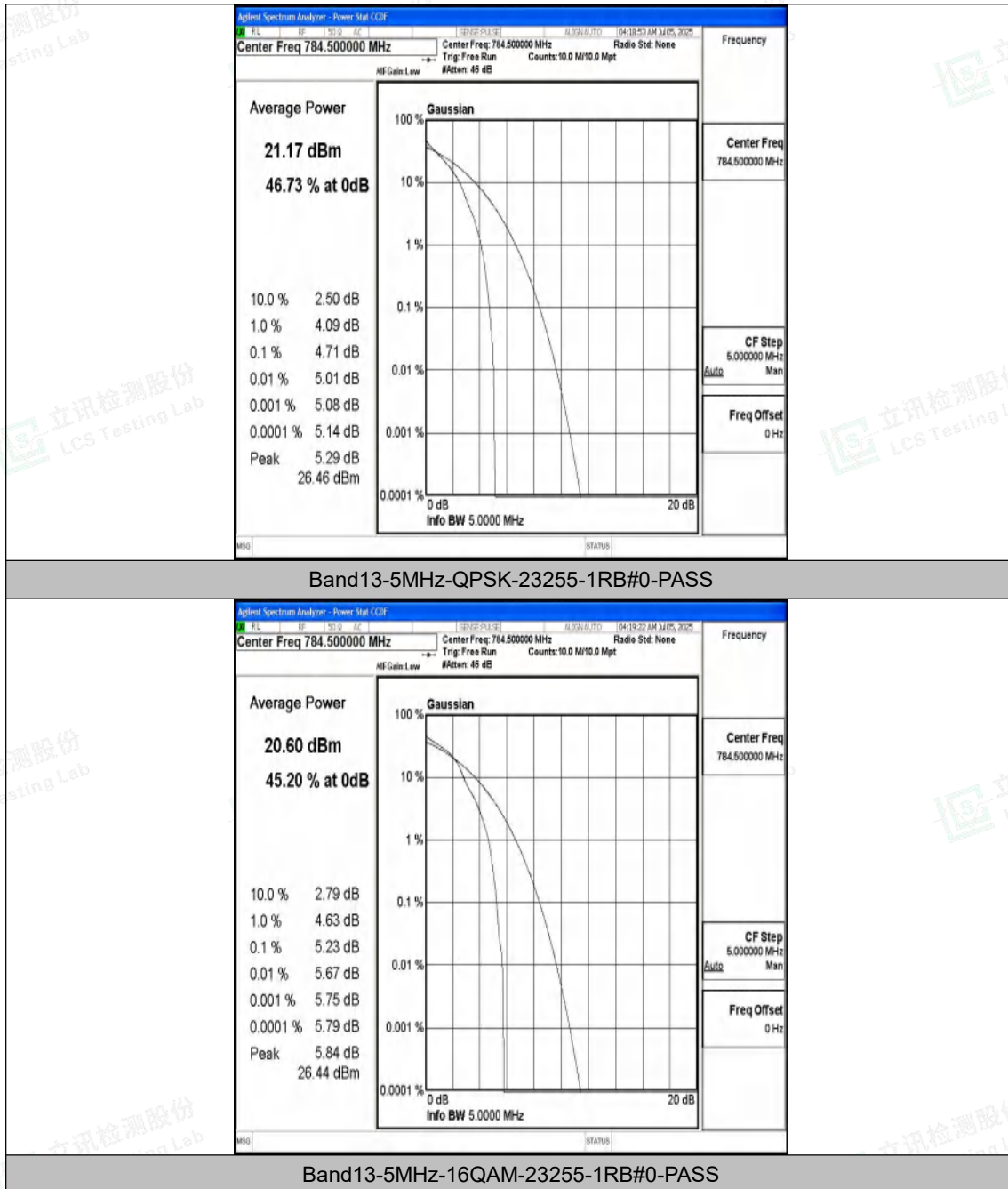


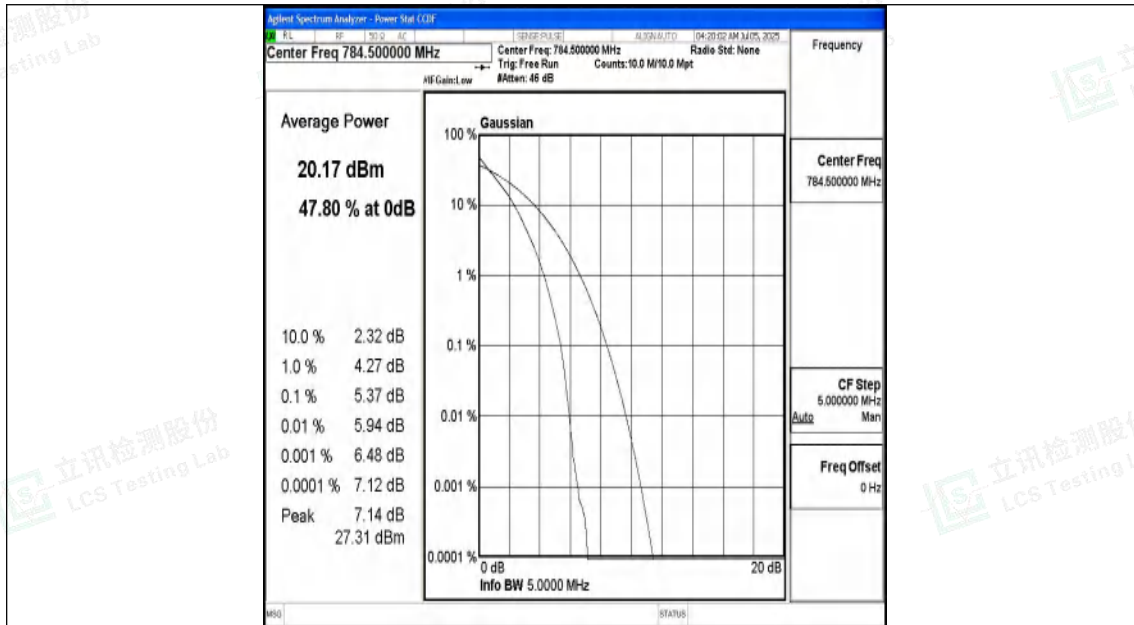
Band13-5MHz-QPSK-23230-25RB#0-PASS



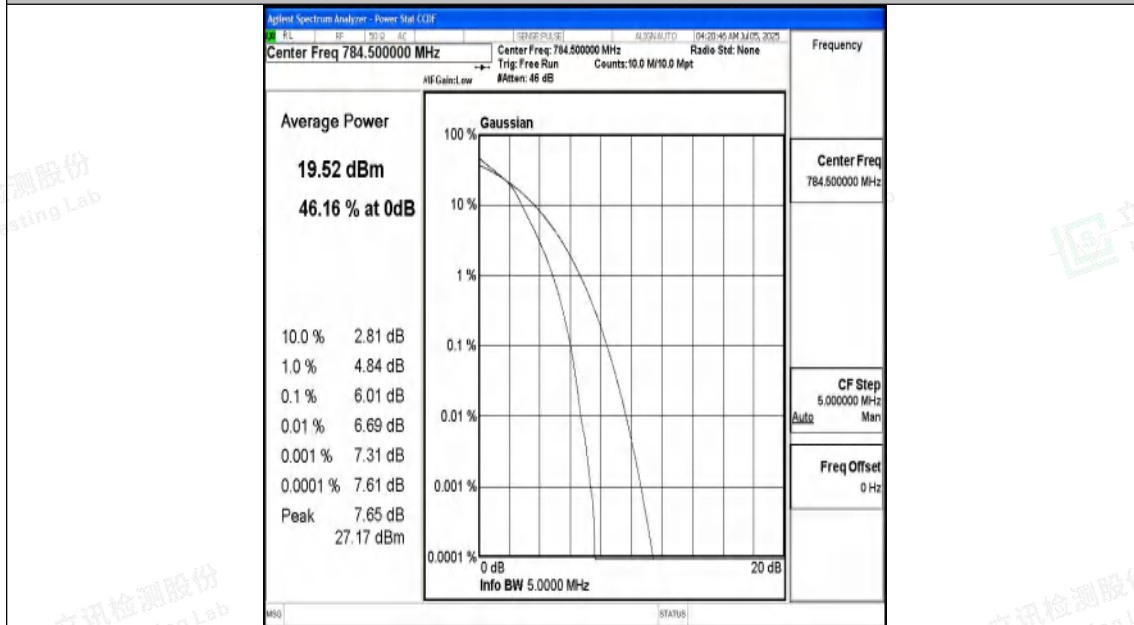
Band13-5MHz-16QAM-23230-25RB#0-PASS





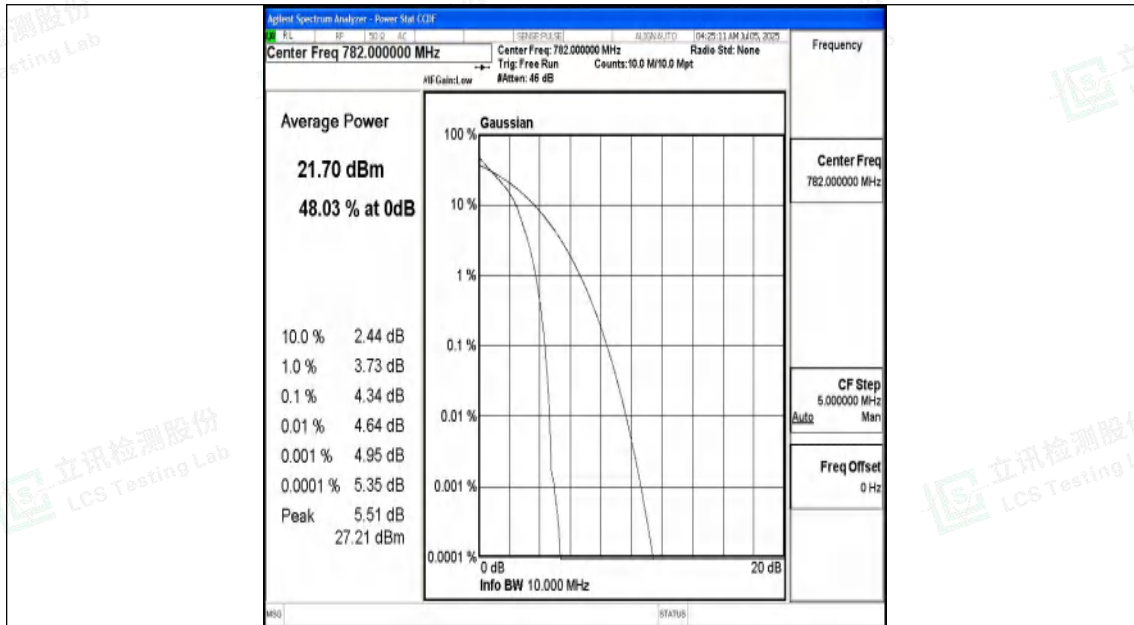


Band13-5MHz-QPSK-23255-25RB#0-PASS

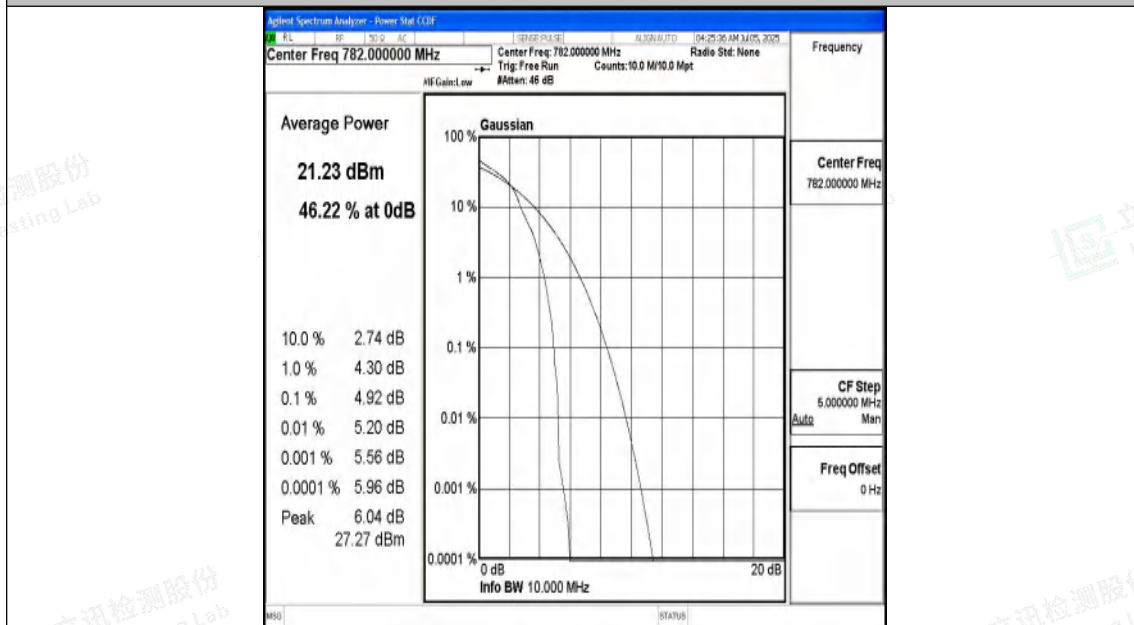


Band13-5MHz-16QAM-23255-25RB#0-PASS



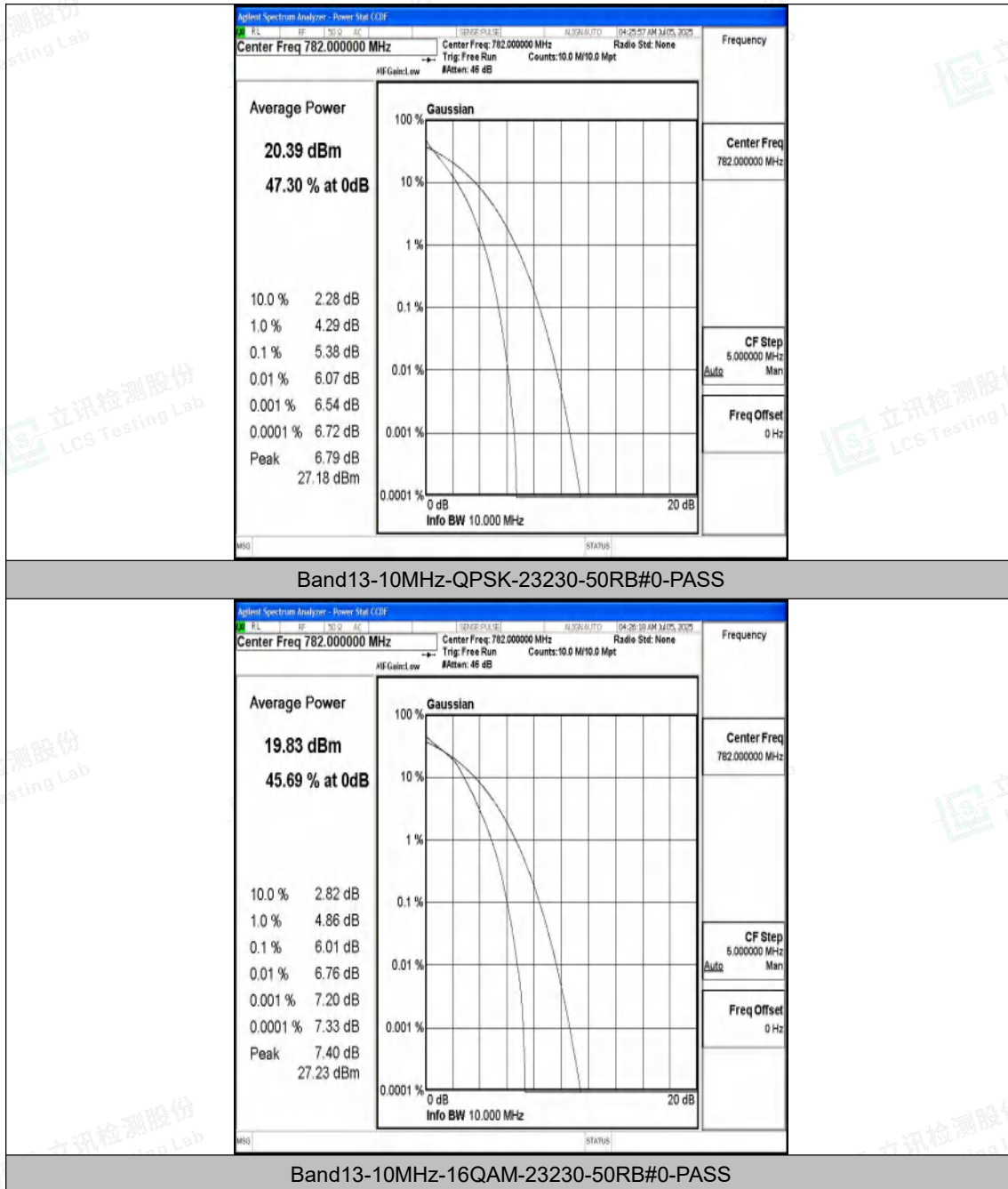


Band13-10MHz-QPSK-23230-1RB#0-PASS



Band13-10MHz-16QAM-23230-1RB#0-PASS







F.3 26dB Bandwidth and Occupied Bandwidth

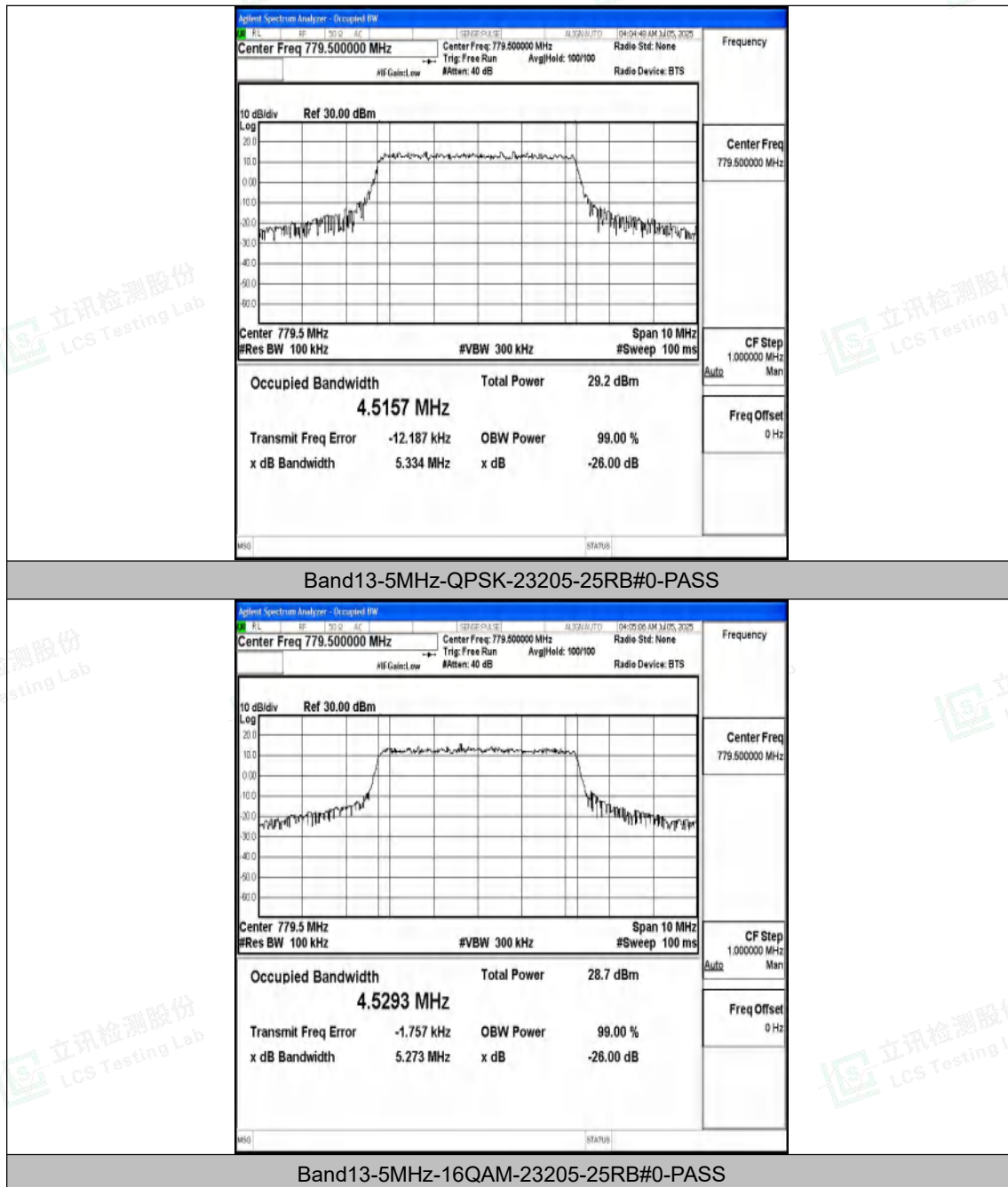
Test Result

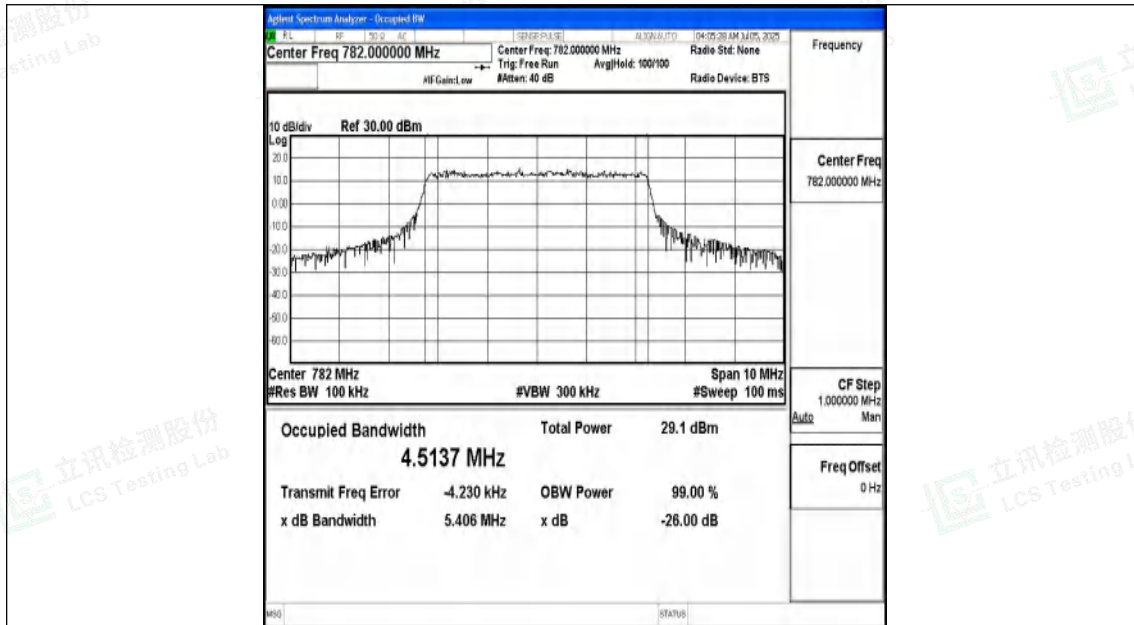
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.5157	5.334	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.5293	5.273	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.5137	5.406	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.5283	5.397	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.5126	5.147	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.5336	5.413	PASS
Band13	10MHz	QPSK	23230	50RB#0	8.9898	10.13	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.9968	10.13	PASS



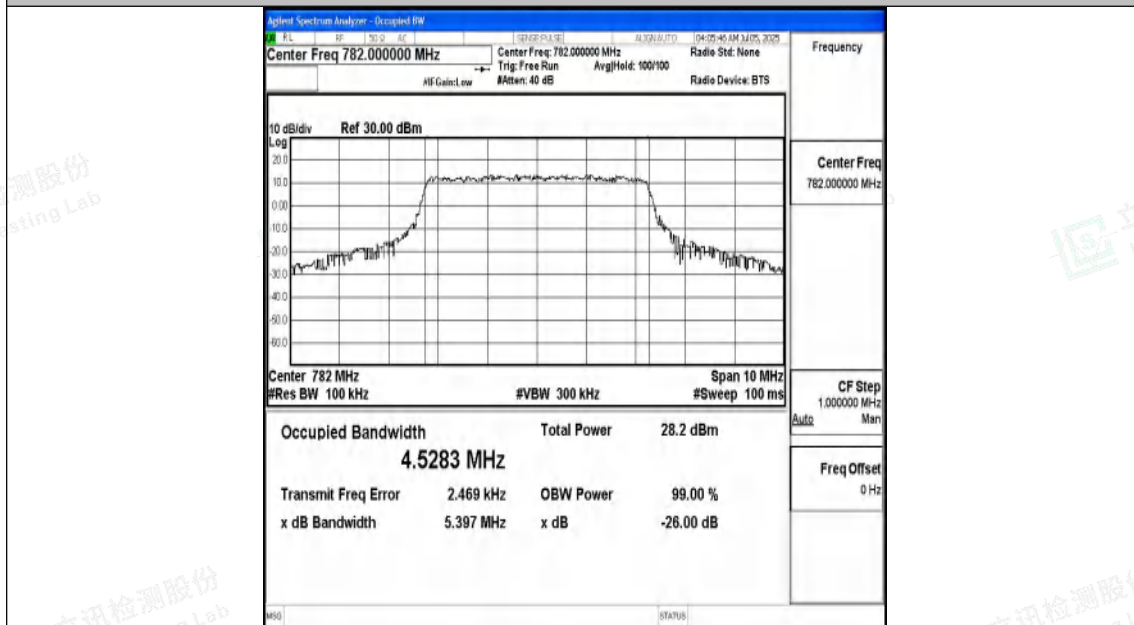


Test Graphs



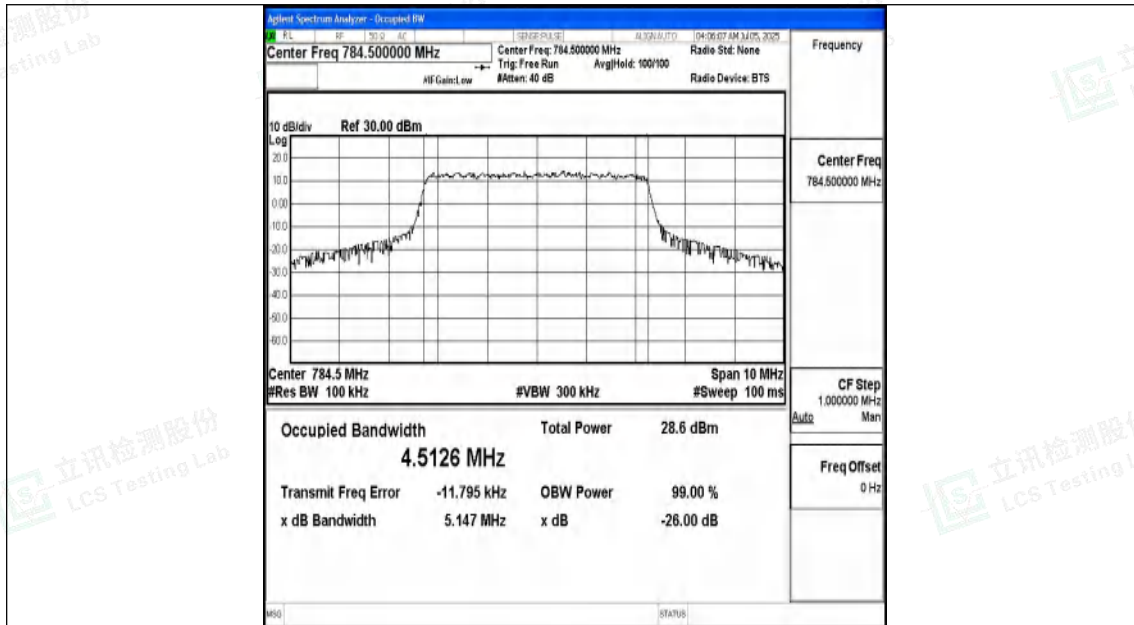


Band13-5MHz-QPSK-23230-25RB#0-PASS

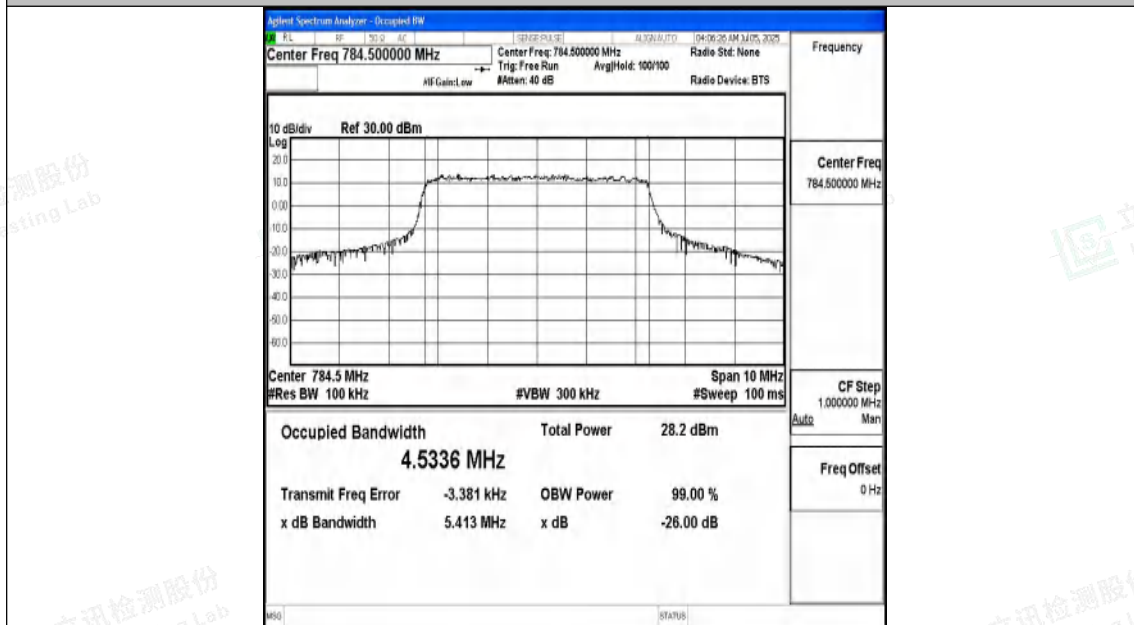


Band13-5MHz-16QAM-23230-25RB#0-PASS



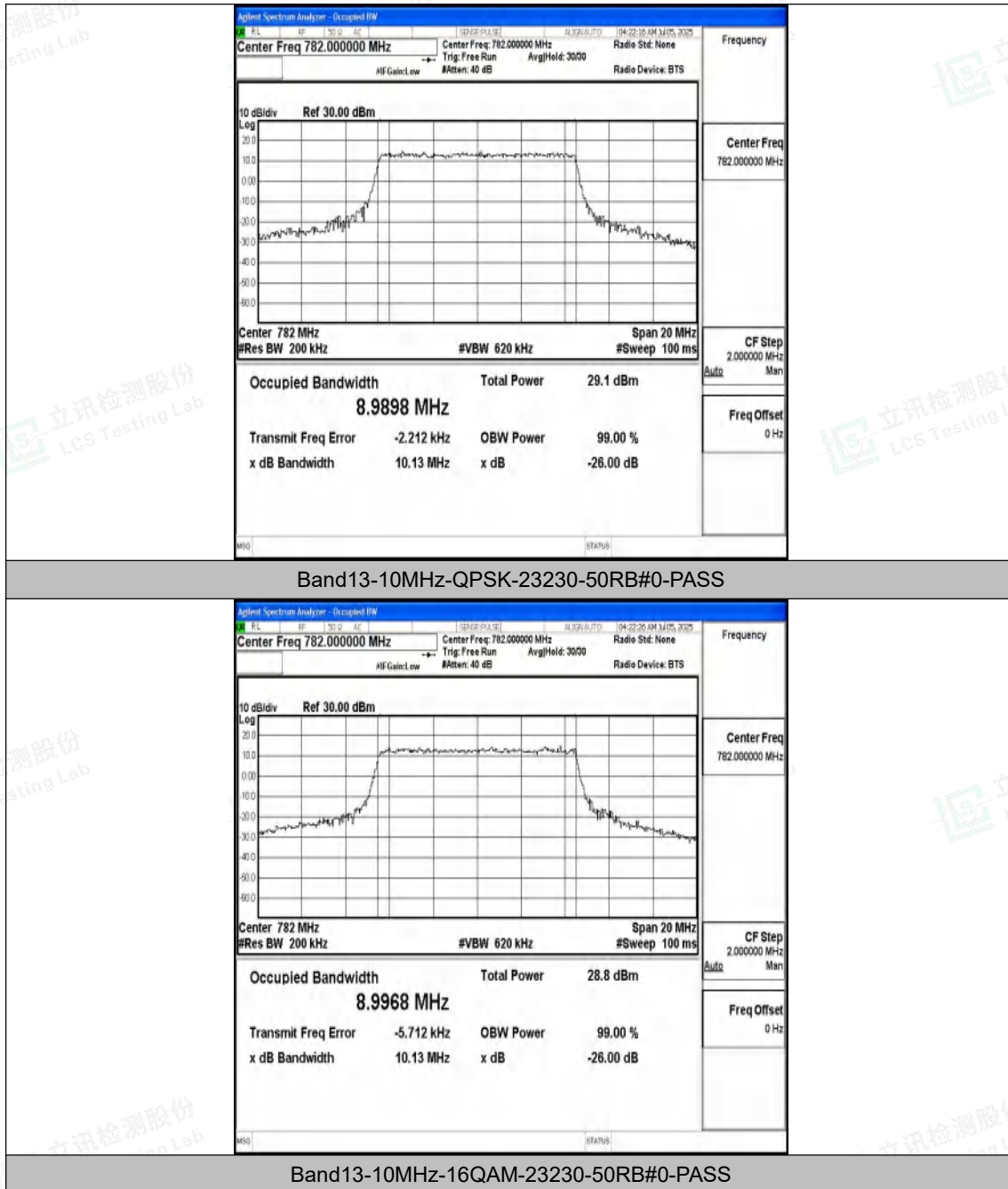


Band13-5MHz-QPSK-23255-25RB#0-PASS



Band13-5MHz-16QAM-23255-25RB#0-PASS





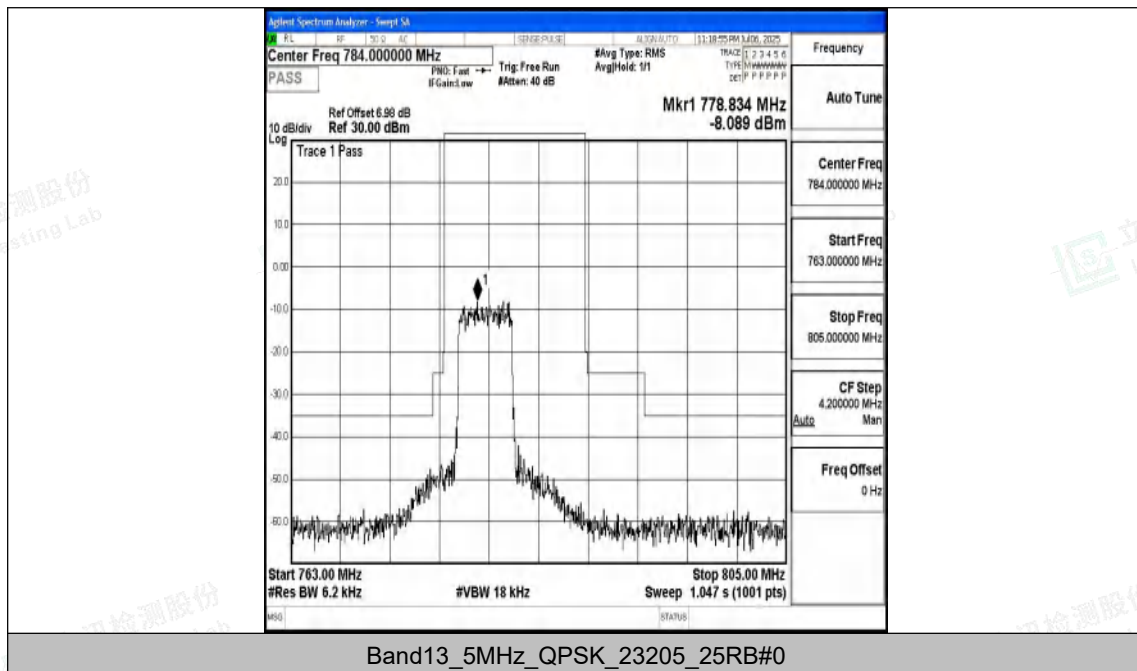


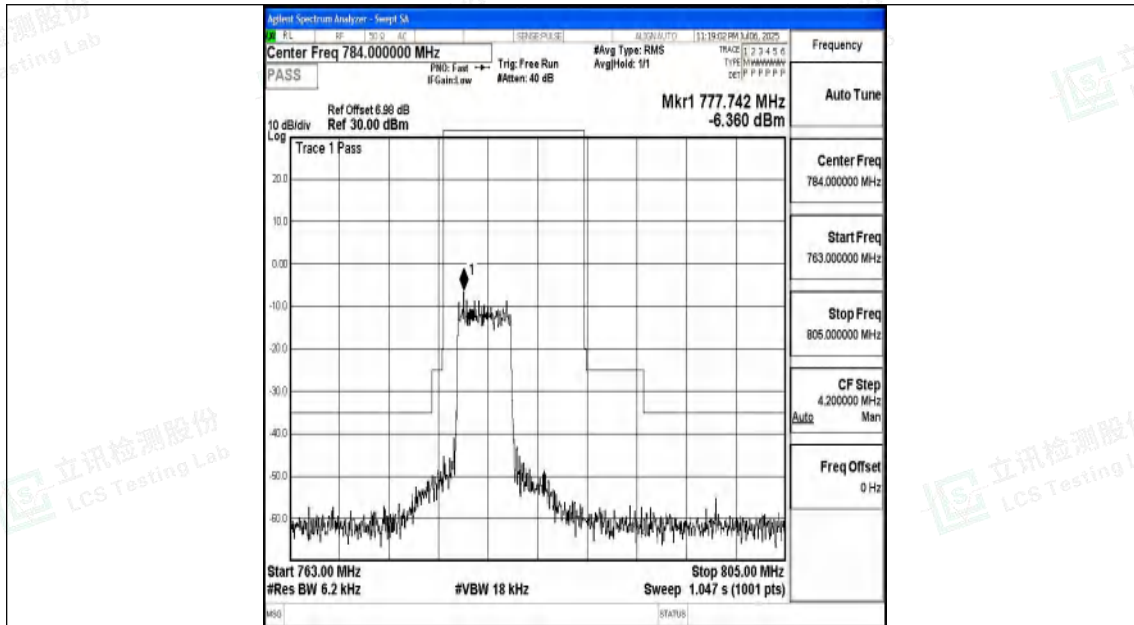
F.4 Band Edge

Test Result

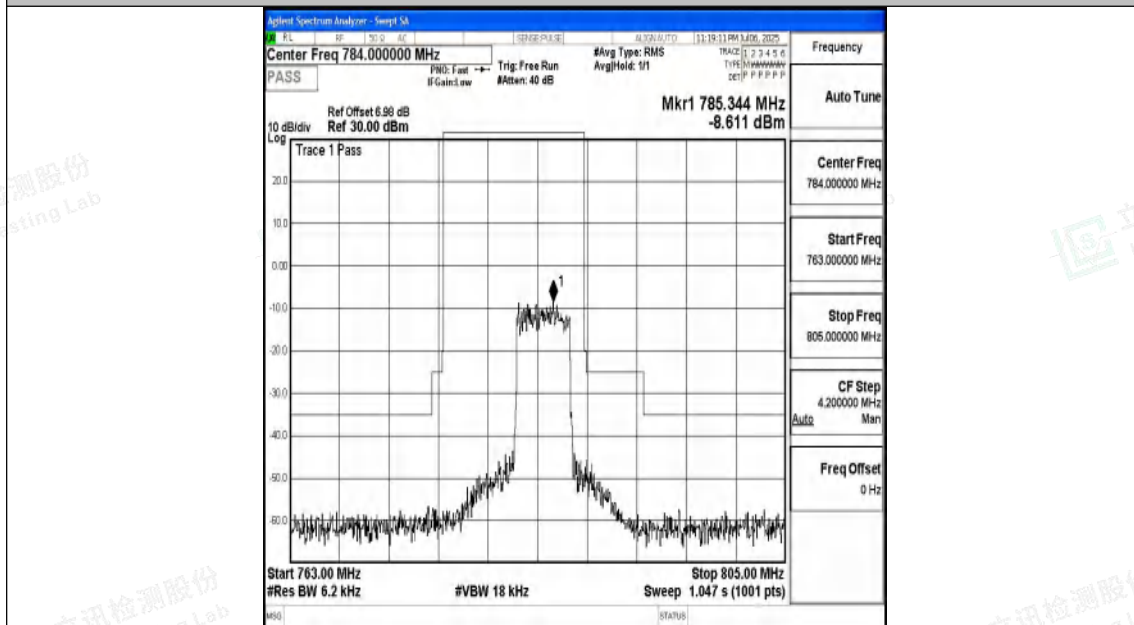
Band	Bandwidth	Modulation	Channel	RB Configuration	Peak Frequency	Result(dBm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	774.84	-47.70	PASS
Band13	5MHz	16QAM	23205	25RB#0	774.76	-51.15	PASS
Band13	5MHz	QPSK	23255	25RB#0	788.12	-45.63	PASS
Band13	5MHz	16QAM	23255	25RB#0	788.12	-45.83	PASS
Band13	10MHz	QPSK	23230	50RB#0	774.13	-49.86	PASS
Band13	10MHz	16QAM	23230	50RB#0	774.93	-50.25	PASS

Test Graphs



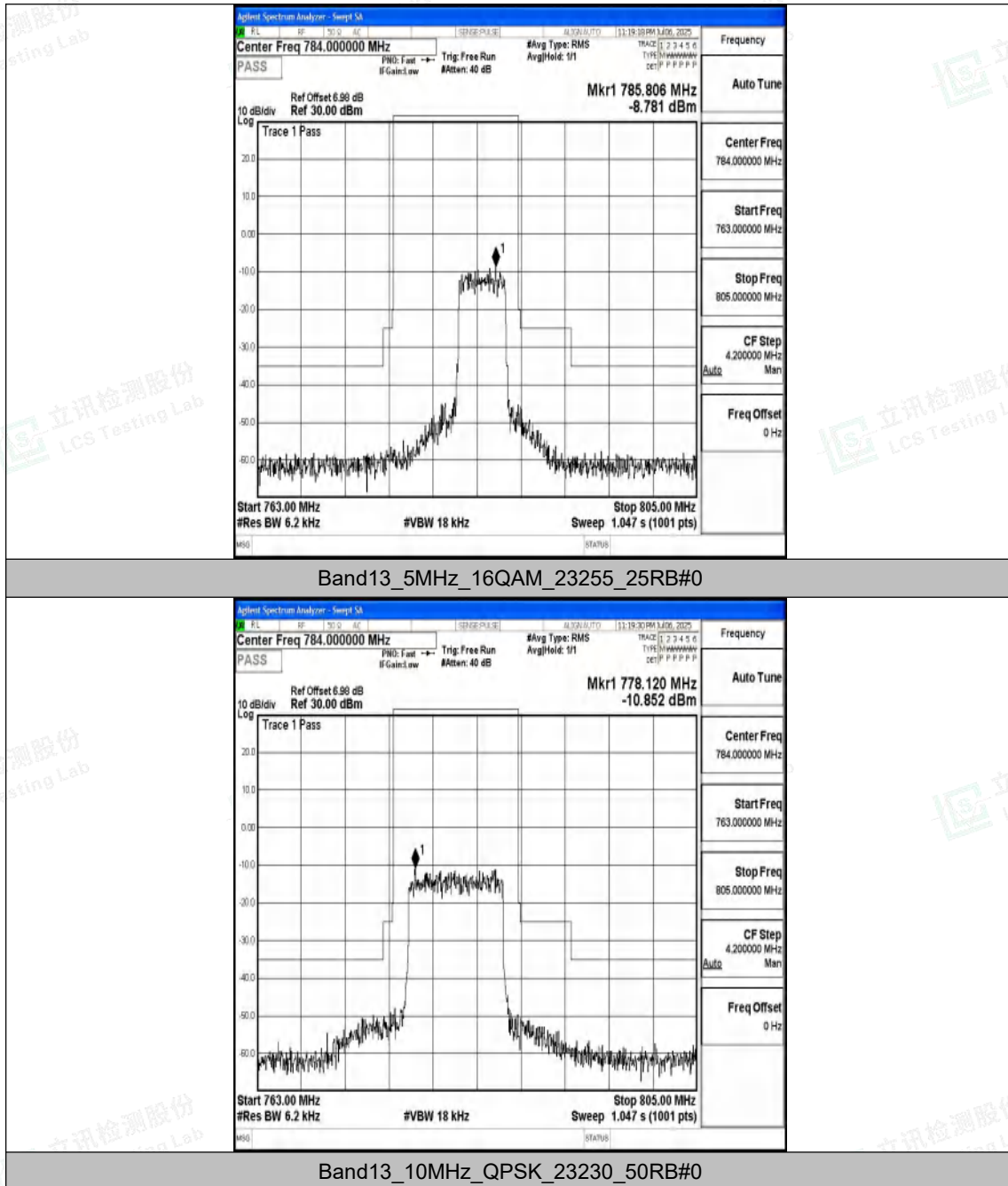


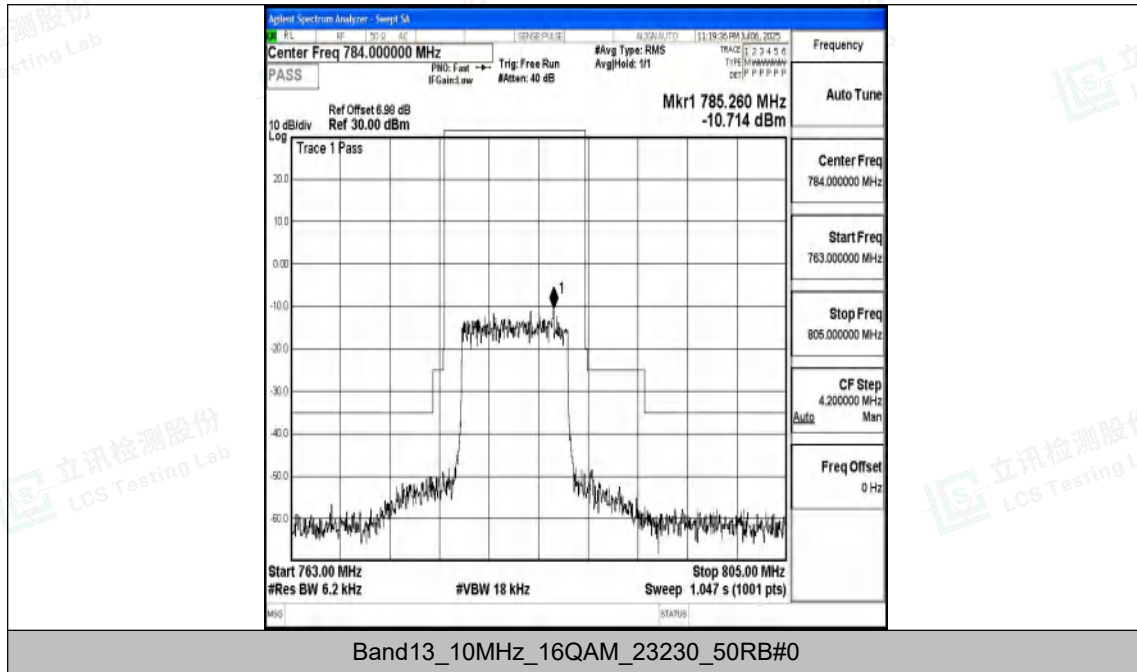
Band13_5MHz_16QAM_23205_25RB#0



Band13_5MHz_QPSK_23255_25RB#0









F.5 Conducted Spurious Emission

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	0.009~0.15	-55.78	PASS
Band13	5MHz	QPSK	23205	1RB#0	0.15~30	-44.31	PASS
Band13	5MHz	QPSK	23205	1RB#0	30~1000	-48.13	PASS
Band13	5MHz	QPSK	23205	1RB#0	1000~3000	-37.58	PASS
Band13	5MHz	QPSK	23205	1RB#0	3000~10000	-34.46	PASS
Band13	5MHz	16QAM	23205	1RB#0	0.009~0.15	-55.03	PASS
Band13	5MHz	16QAM	23205	1RB#0	0.15~30	-43.60	PASS
Band13	5MHz	16QAM	23205	1RB#0	30~1000	-49.21	PASS
Band13	5MHz	16QAM	23205	1RB#0	1000~3000	-38.69	PASS
Band13	5MHz	16QAM	23205	1RB#0	3000~10000	-34.77	PASS
Band13	5MHz	QPSK	23230	1RB#0	0.009~0.15	-56.76	PASS
Band13	5MHz	QPSK	23230	1RB#0	0.15~30	-46.54	PASS
Band13	5MHz	QPSK	23230	1RB#0	30~1000	-52.94	PASS
Band13	5MHz	QPSK	23230	1RB#0	1000~3000	-34.79	PASS
Band13	5MHz	QPSK	23230	1RB#0	3000~10000	-35.22	PASS
Band13	5MHz	16QAM	23230	1RB#0	0.009~0.15	-57.58	PASS
Band13	5MHz	16QAM	23230	1RB#0	0.15~30	-47.69	PASS
Band13	5MHz	16QAM	23230	1RB#0	30~1000	-52.90	PASS
Band13	5MHz	16QAM	23230	1RB#0	1000~3000	-38.52	PASS
Band13	5MHz	16QAM	23230	1RB#0	3000~10000	-35.08	PASS
Band13	5MHz	QPSK	23255	1RB#0	0.009~0.15	-52.98	PASS
Band13	5MHz	QPSK	23255	1RB#0	0.15~30	-46.77	PASS
Band13	5MHz	QPSK	23255	1RB#0	30~1000	-48.33	PASS
Band13	5MHz	QPSK	23255	1RB#0	1000~3000	-38.48	PASS
Band13	5MHz	QPSK	23255	1RB#0	3000~10000	-35.68	PASS
Band13	5MHz	16QAM	23255	1RB#0	0.009~0.15	-59.12	PASS
Band13	5MHz	16QAM	23255	1RB#0	0.15~30	-48.53	PASS
Band13	5MHz	16QAM	23255	1RB#0	30~1000	-43.60	PASS
Band13	5MHz	16QAM	23255	1RB#0	1000~3000	-38.71	PASS
Band13	5MHz	16QAM	23255	1RB#0	3000~10000	-34.24	PASS
Band13	10MHz	QPSK	23230	1RB#0	0.009~0.15	-58.95	PASS
Band13	10MHz	QPSK	23230	1RB#0	0.15~30	-45.35	PASS
Band13	10MHz	QPSK	23230	1RB#0	30~1000	-53.20	PASS
Band13	10MHz	QPSK	23230	1RB#0	1000~3000	-38.94	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

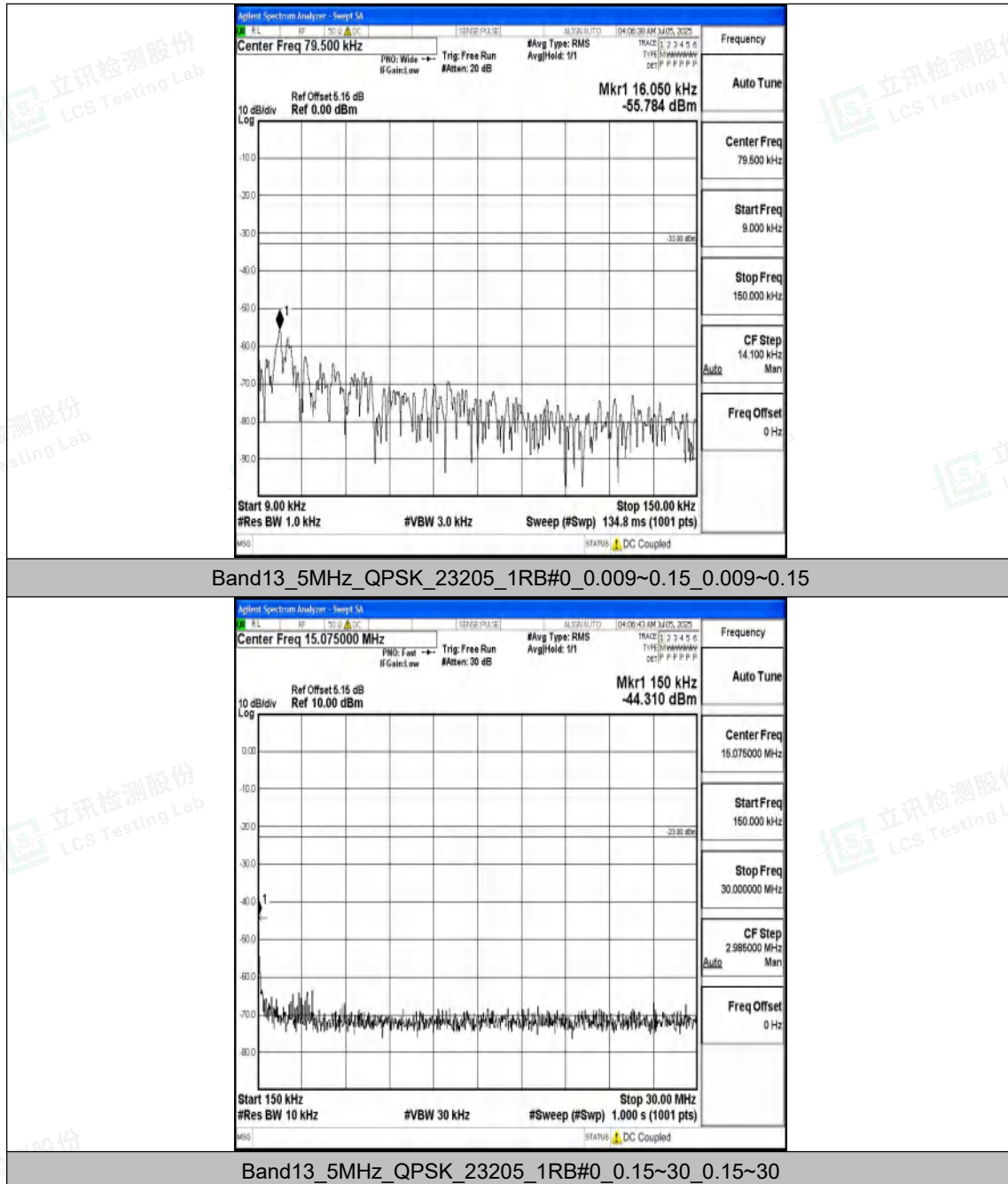
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

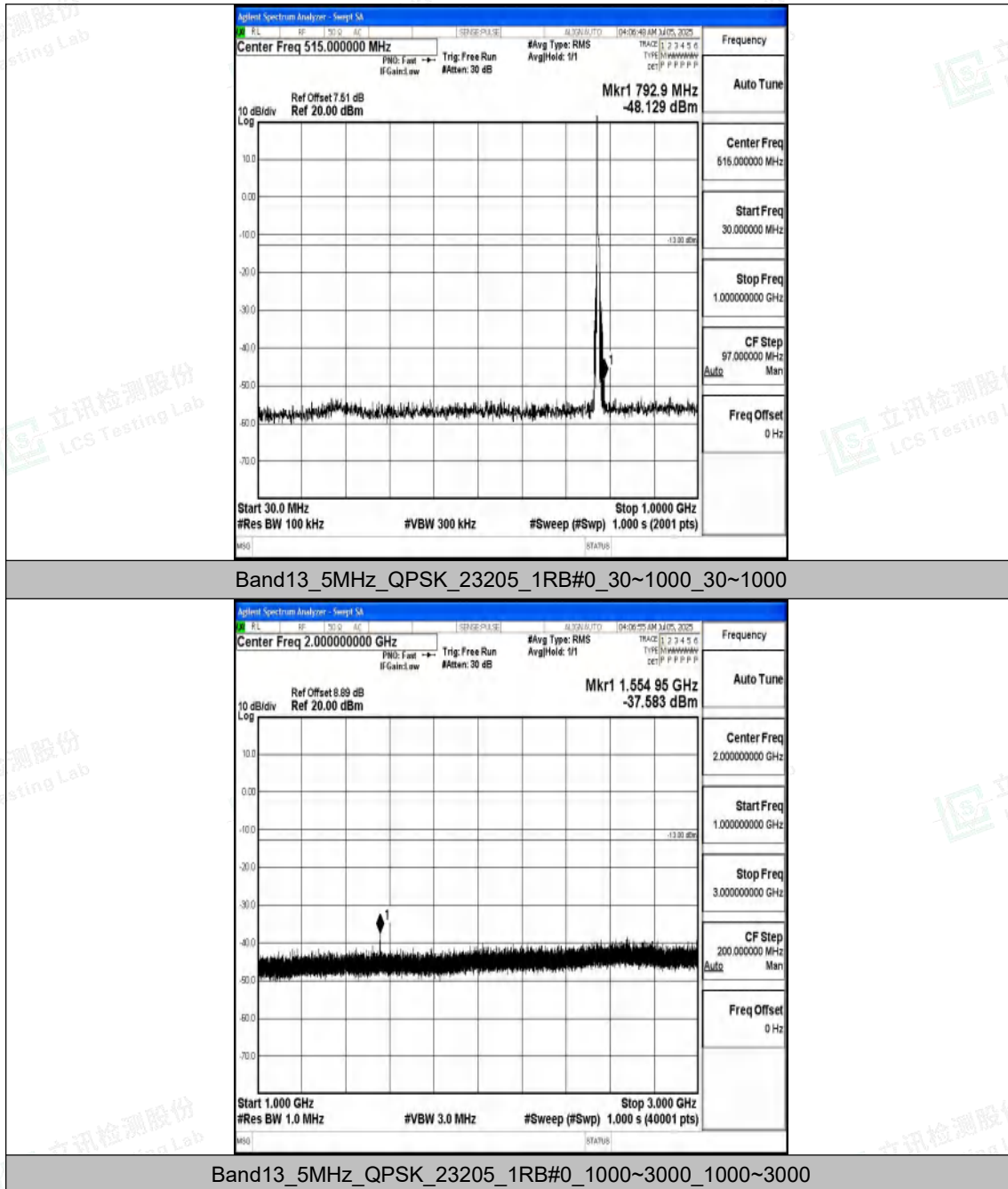
Scan code to check authenticity

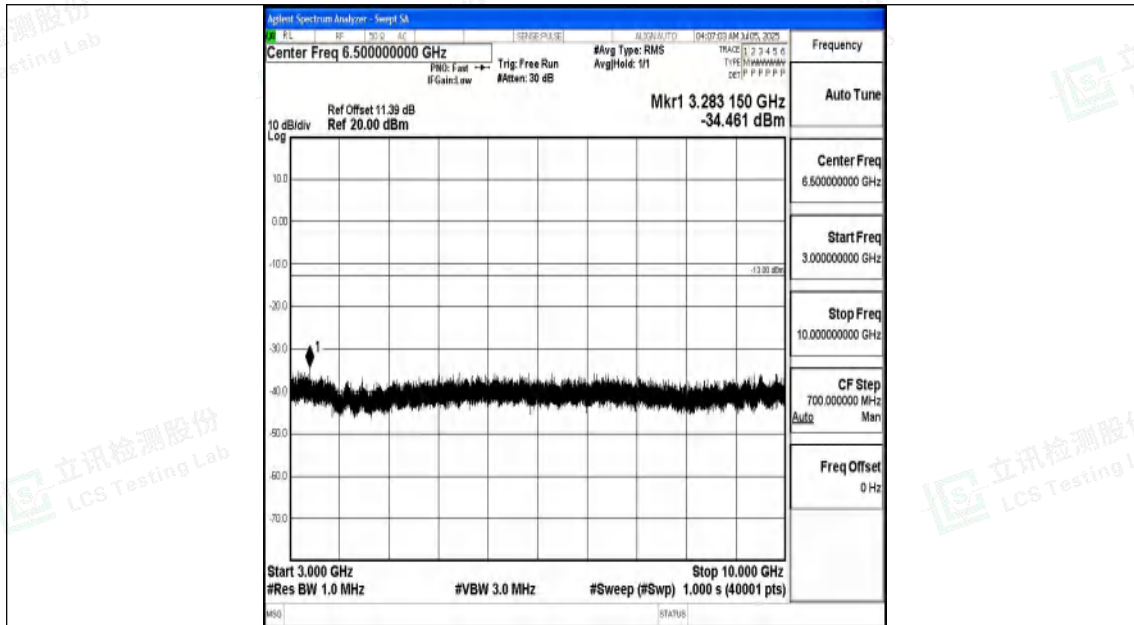


Band13	10MHz	QPSK	23230	1RB#0	3000~10000	-34.74	PASS
Band13	10MHz	16QAM	23230	1RB#0	0.009~0.15	-56.43	PASS
Band13	10MHz	16QAM	23230	1RB#0	0.15~30	-46.45	PASS
Band13	10MHz	16QAM	23230	1RB#0	30~1000	-52.81	PASS
Band13	10MHz	16QAM	23230	1RB#0	1000~3000	-38.49	PASS
Band13	10MHz	16QAM	23230	1RB#0	3000~10000	-35.44	PASS

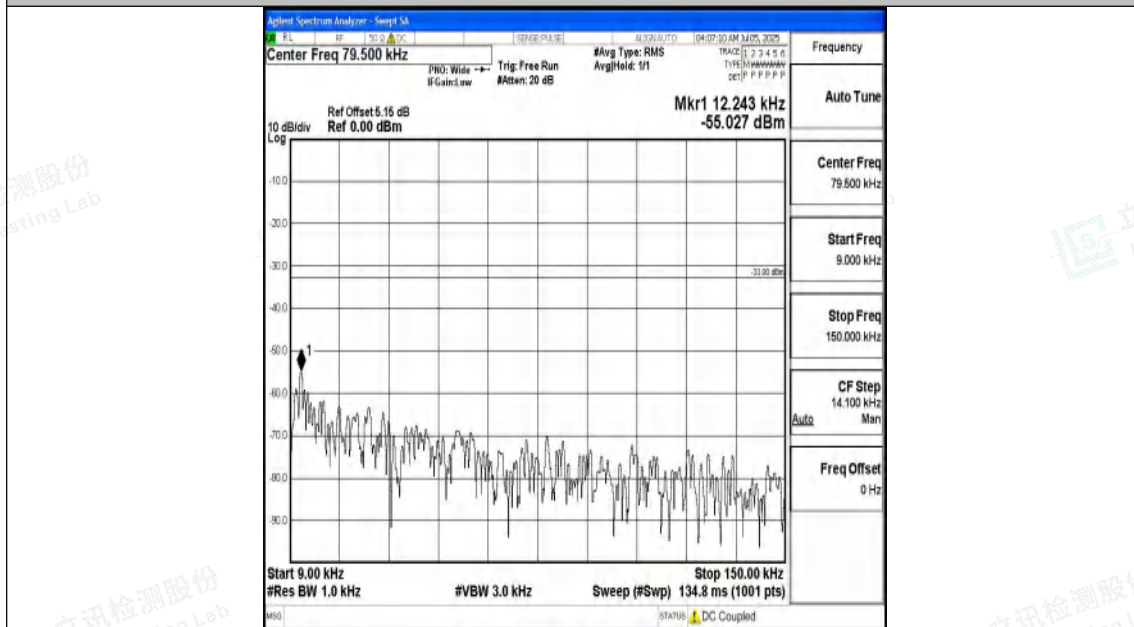
Test Graphs





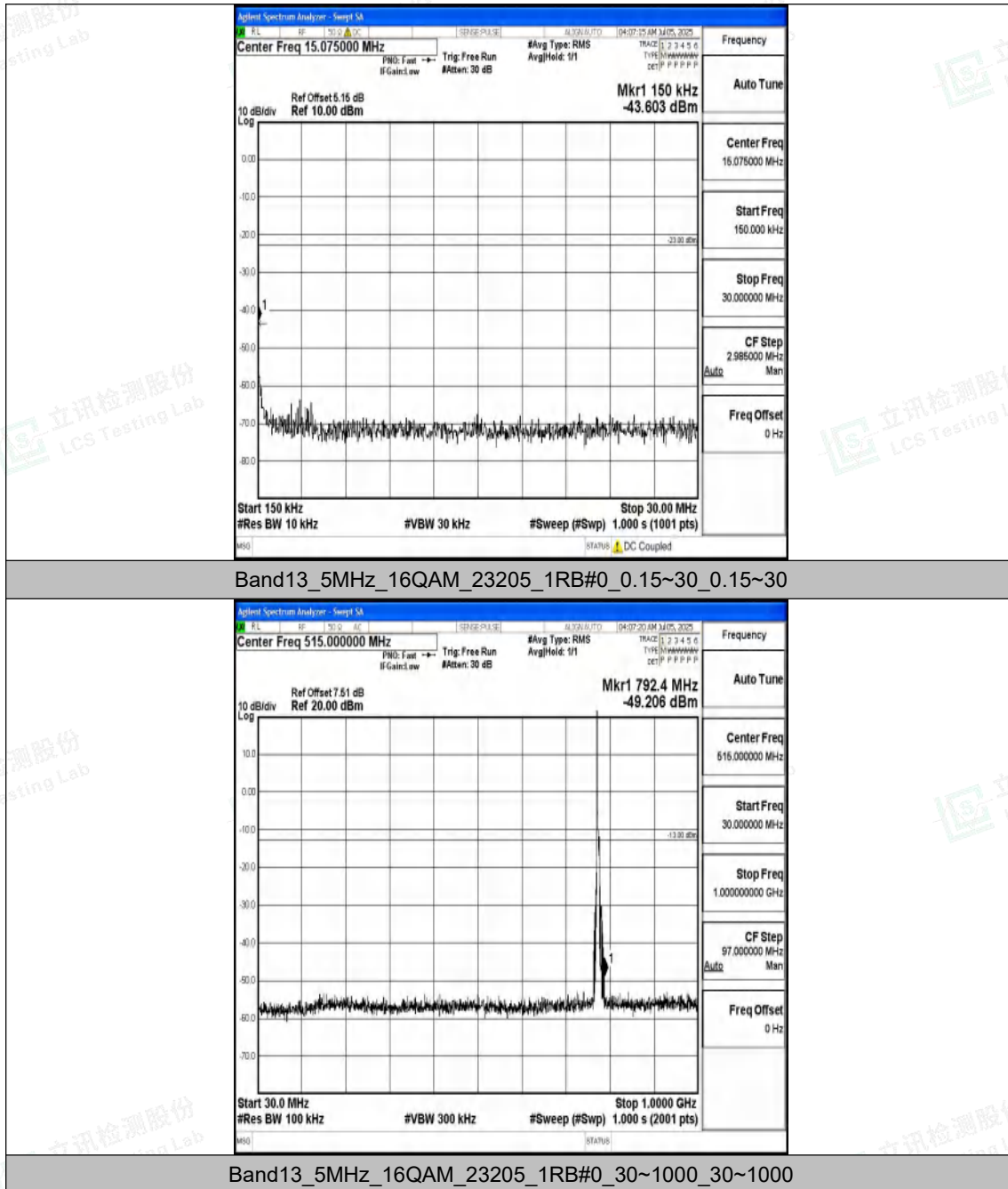


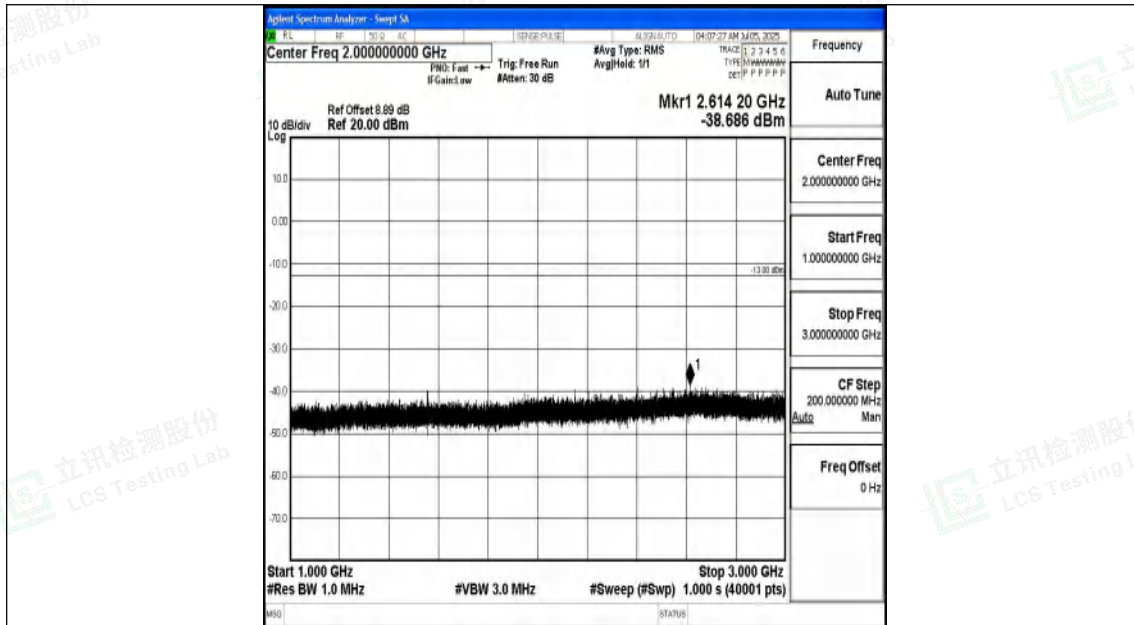
Band13_5MHz_QPSK_23205_1RB#0_3000~10000_3000~10000



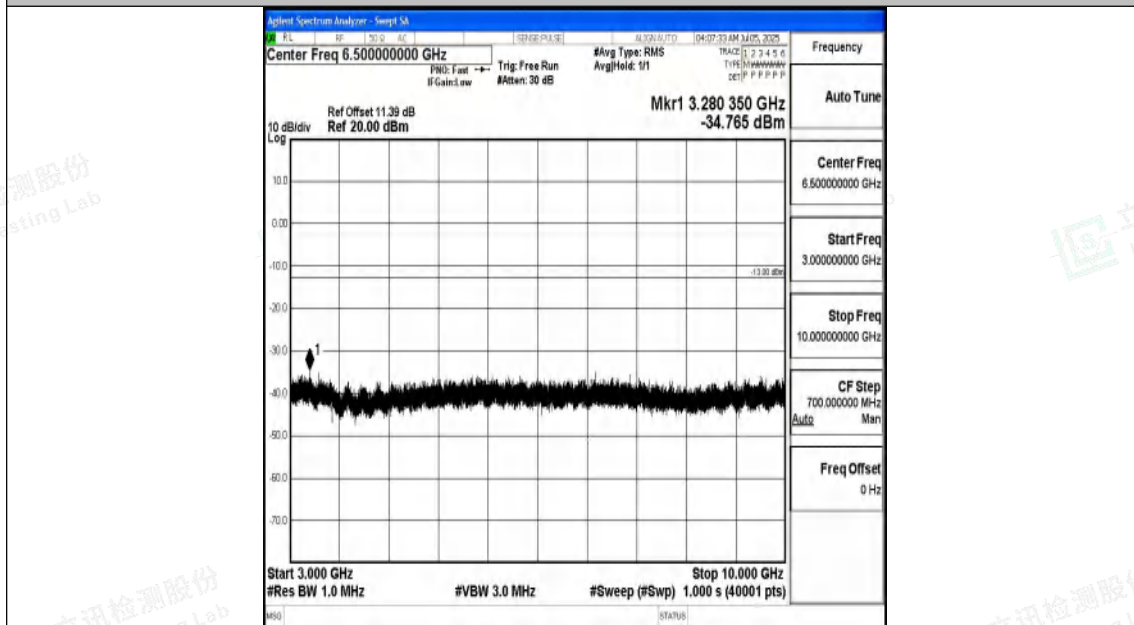
Band13_5MHz_16QAM_23205_1RB#0_0.009~0.15_0.009~0.15





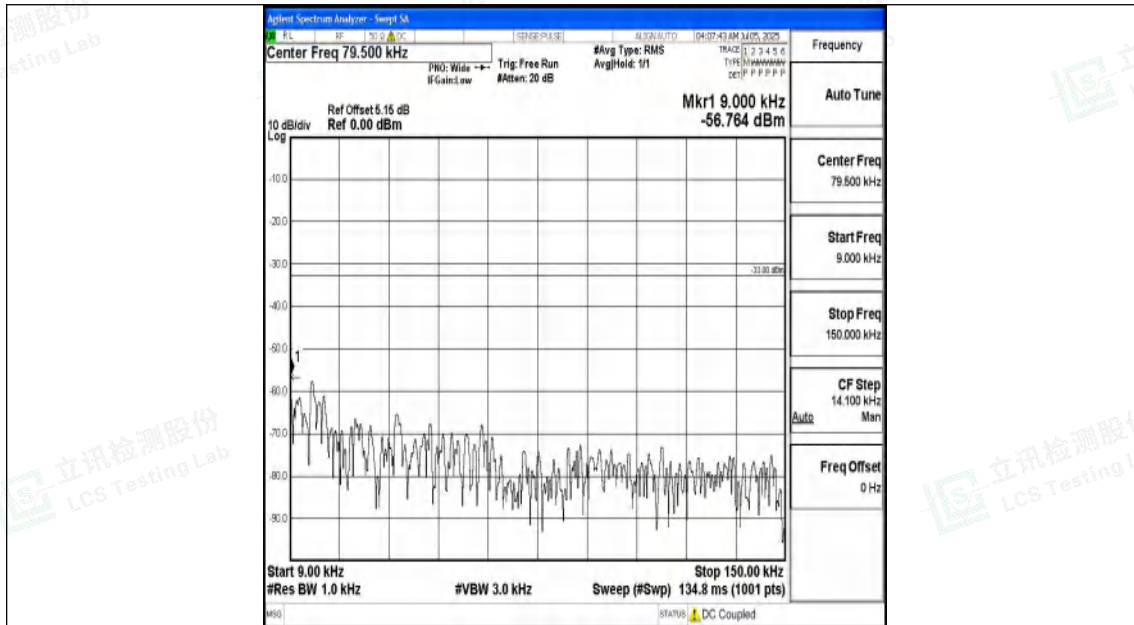


Band13_5MHz_16QAM_23205_1RB#0_1000~3000_1000~3000

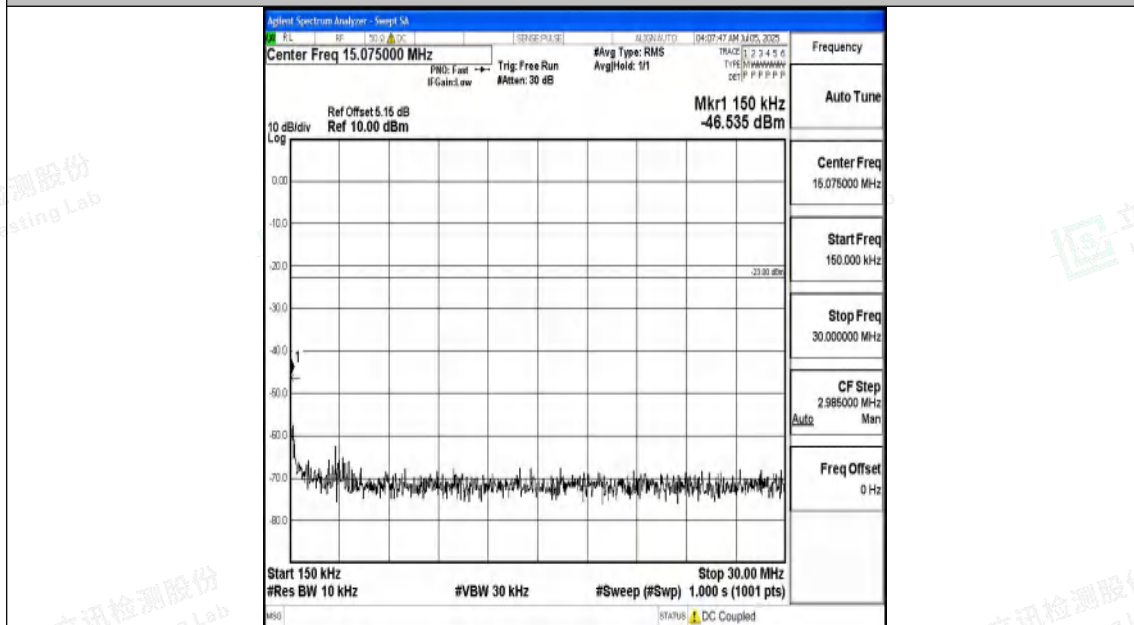


Band13_5MHz_16QAM_23205_1RB#0_3000~10000_3000~10000



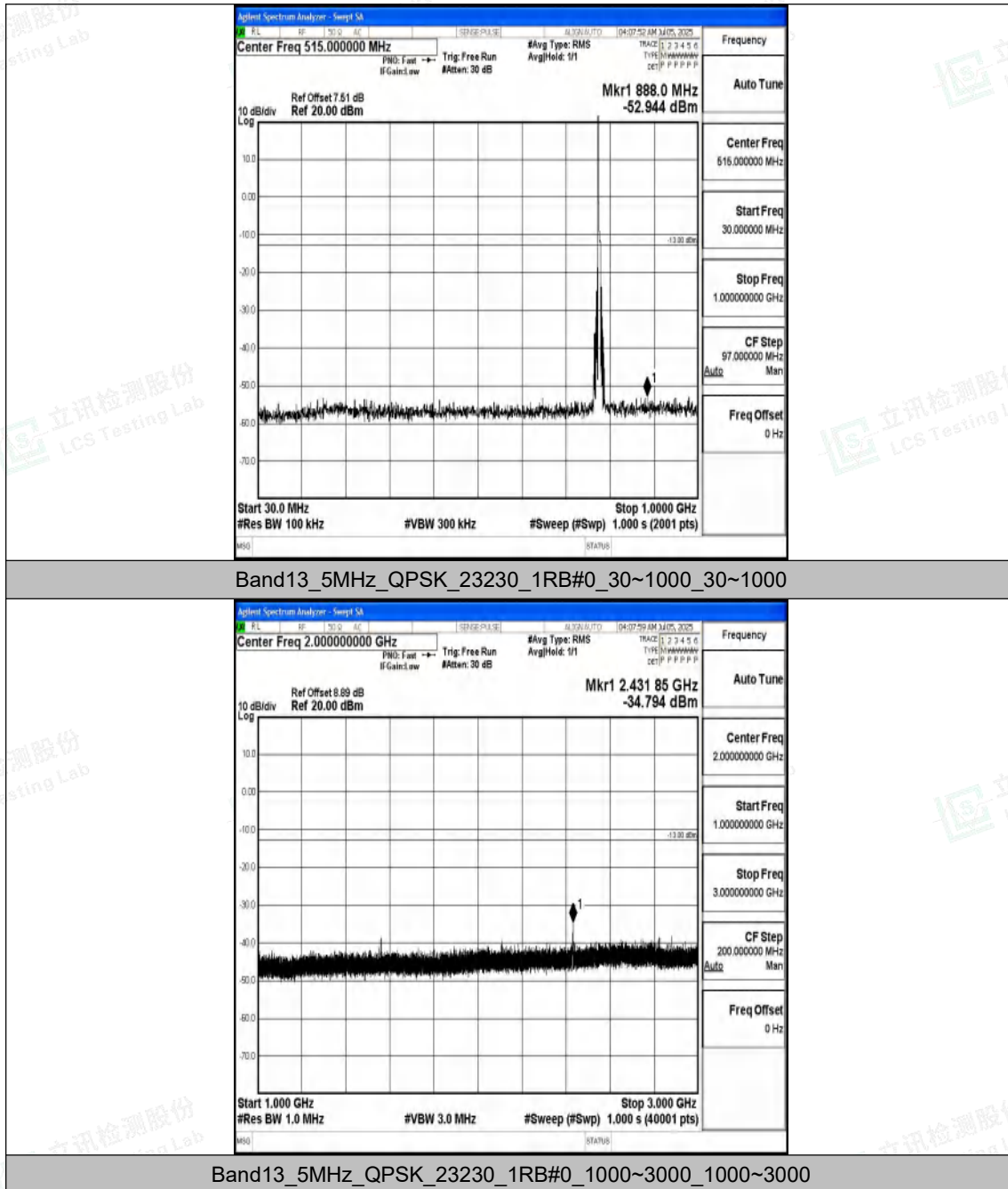


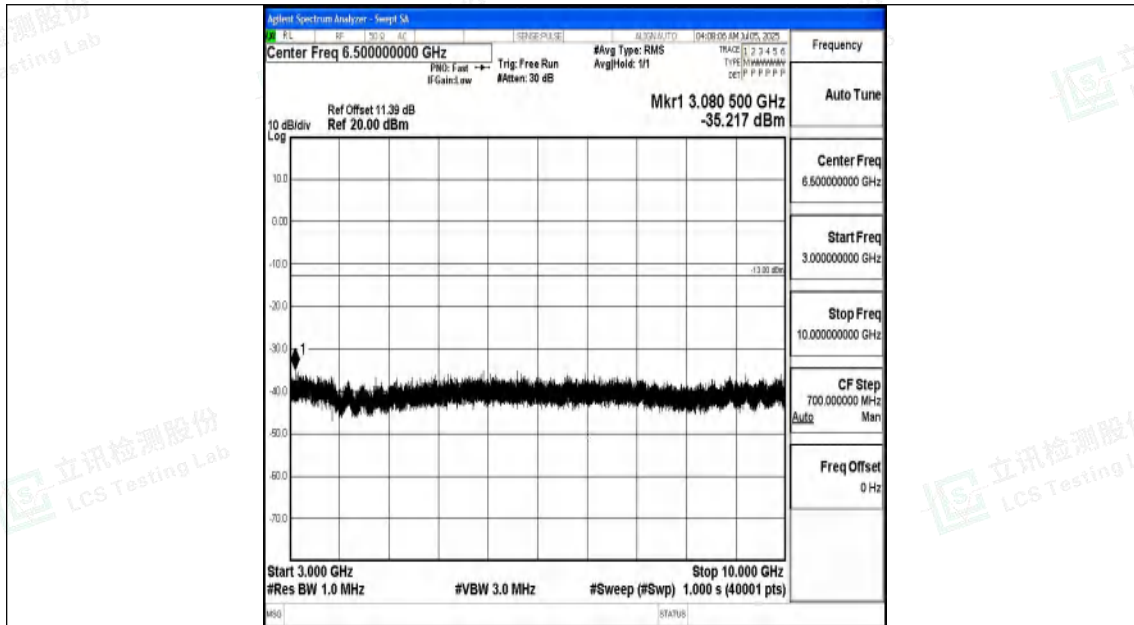
Band13_5MHz_QPSK_23230_1RB#0_0.009~0.15_0.009~0.15



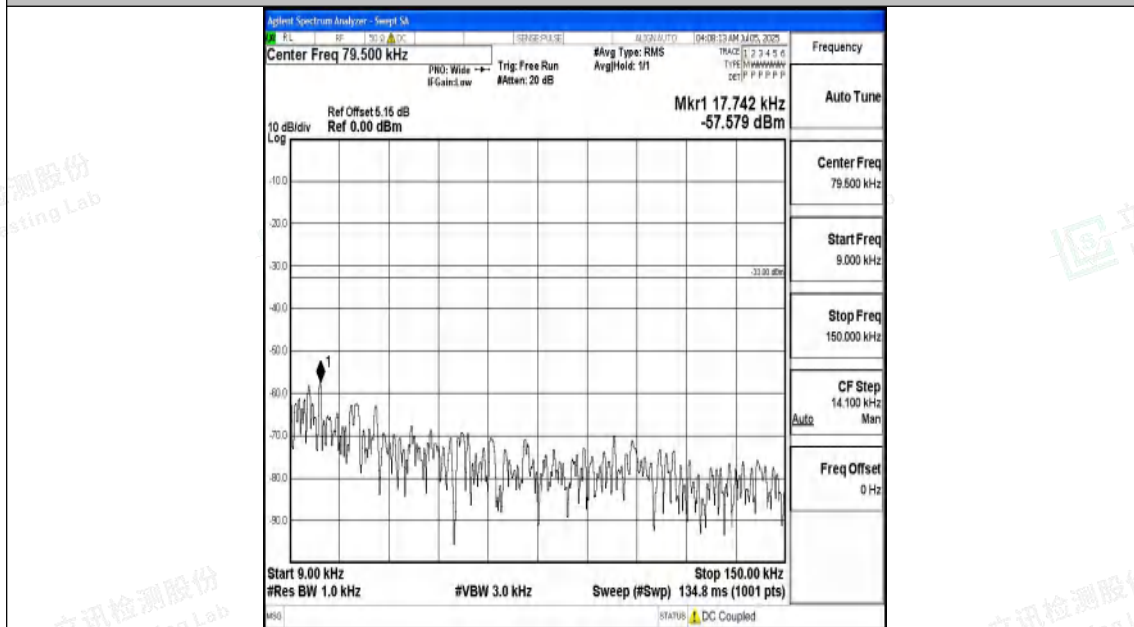
Band13_5MHz_QPSK_23230_1RB#0_0.15~30_0.15~30





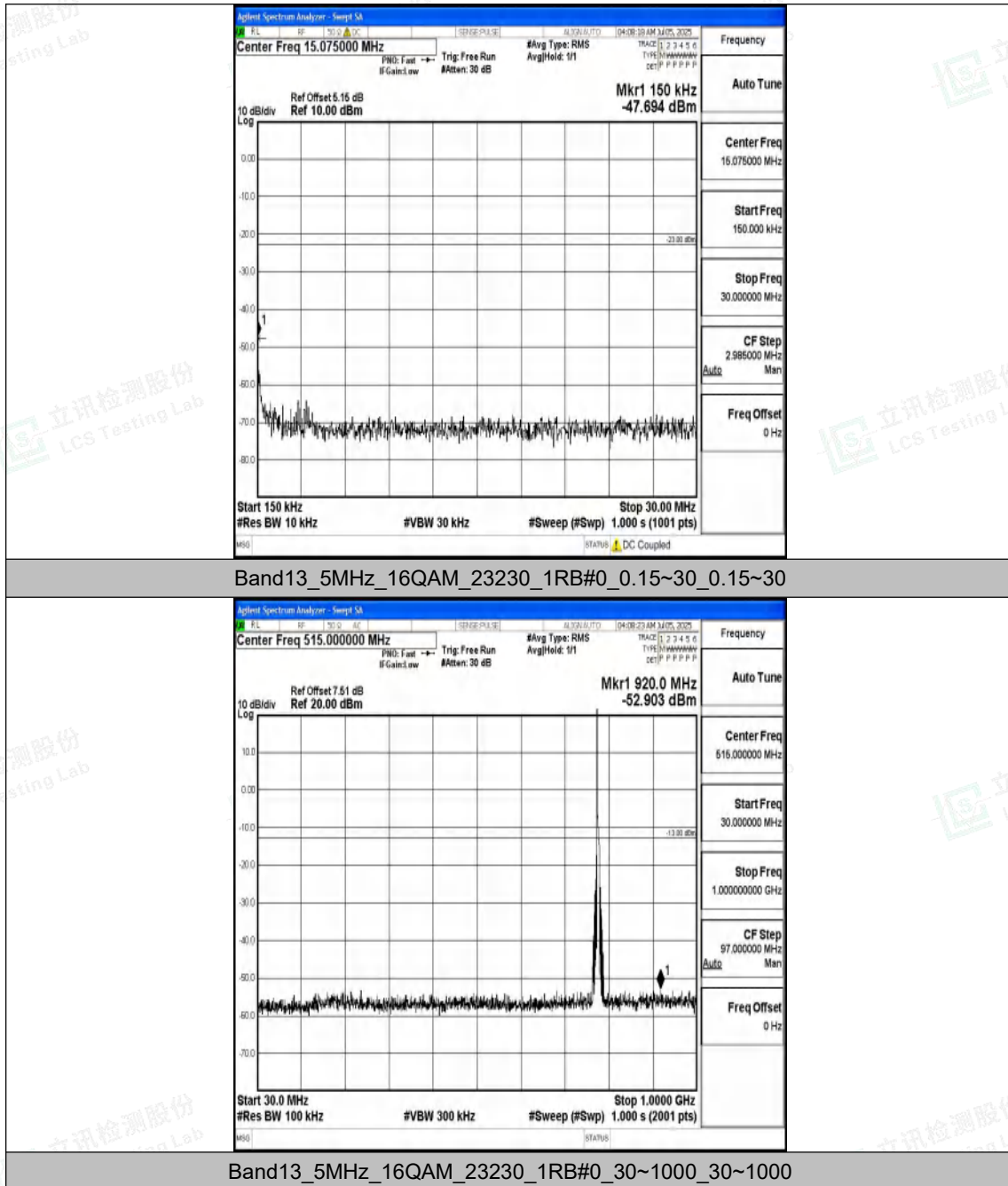


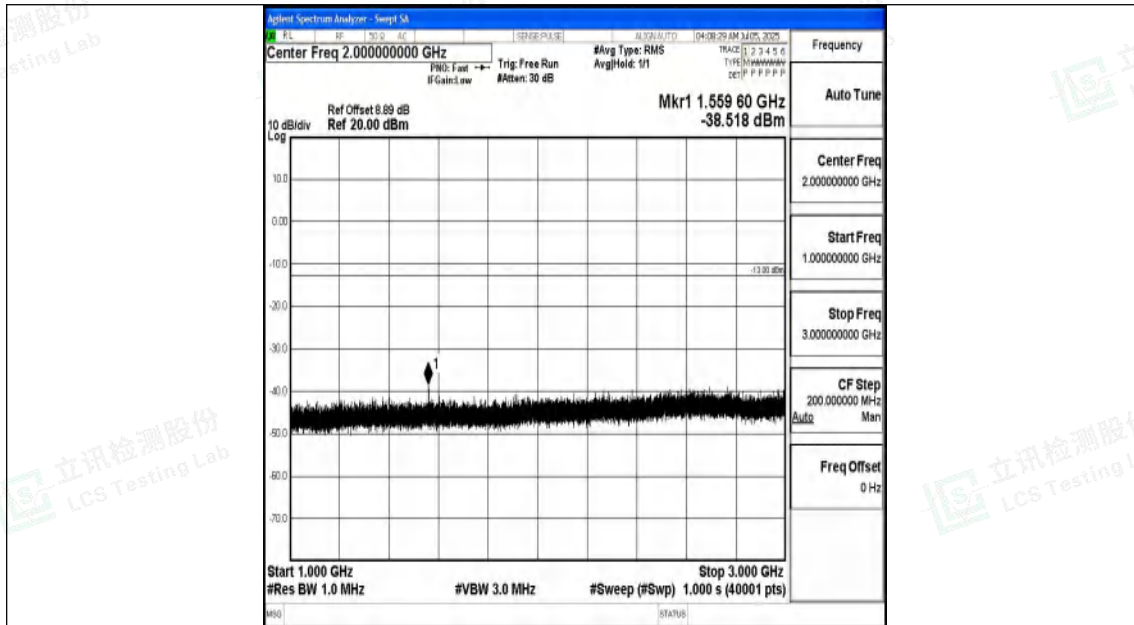
Band13_5MHz_QPSK_23230_1RB#0_3000~10000_3000~10000



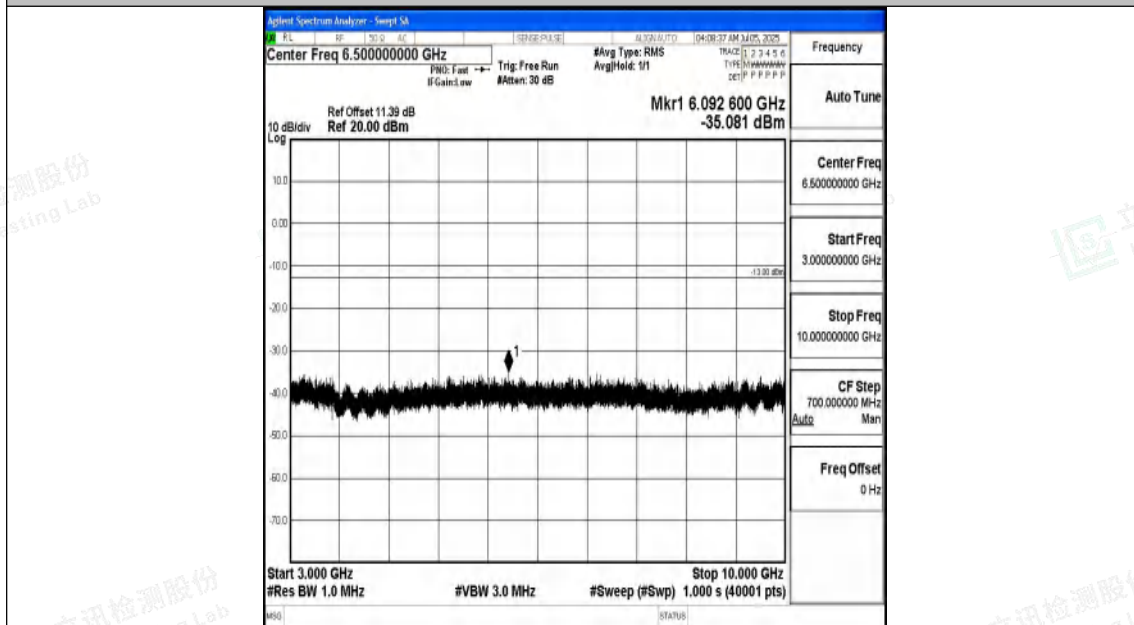
Band13_5MHz_16QAM_23230_1RB#0_0.009~0.15_0.009~0.15





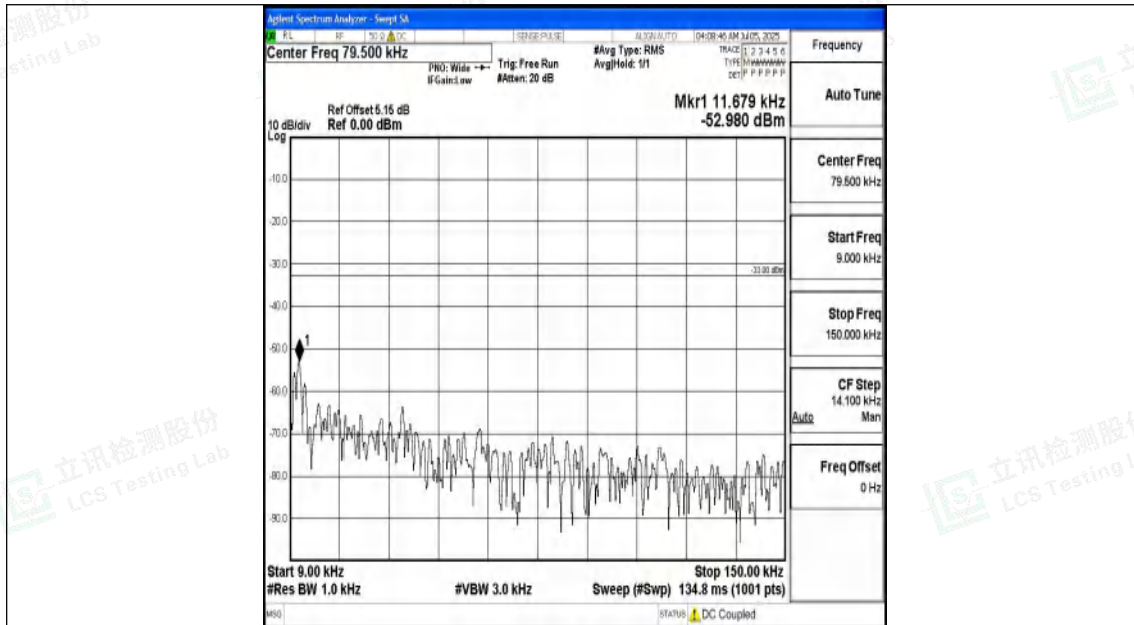


Band13_5MHz_16QAM_23230_1RB#0_1000~3000_1000~3000

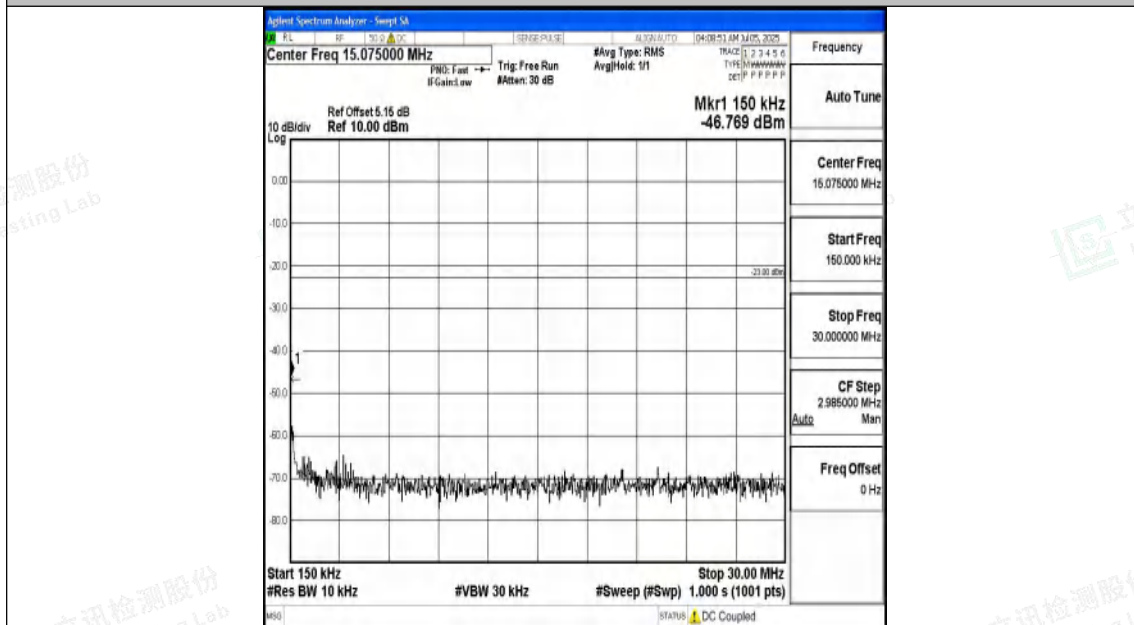


Band13_5MHz_16QAM_23230_1RB#0_3000~10000_3000~10000



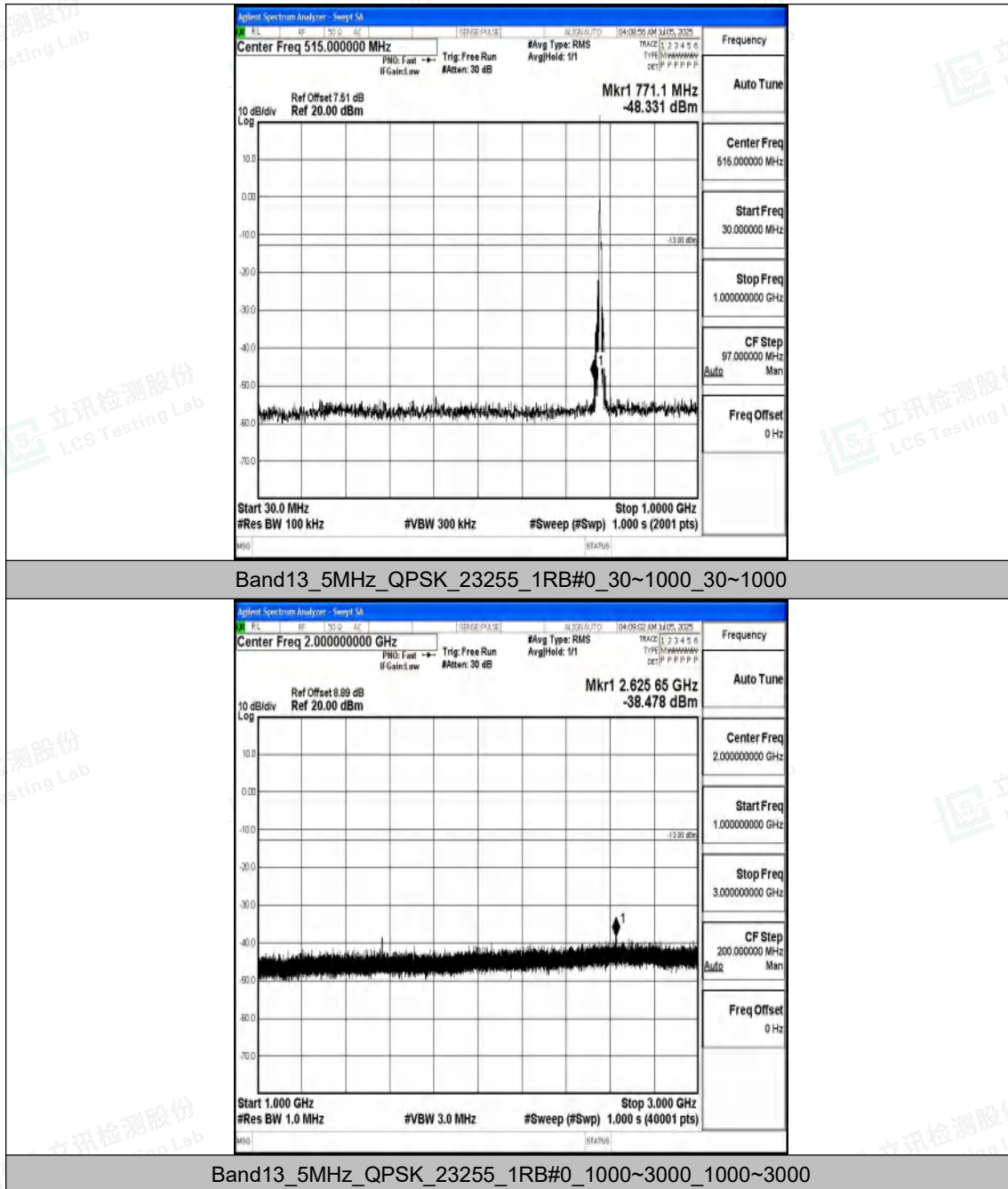


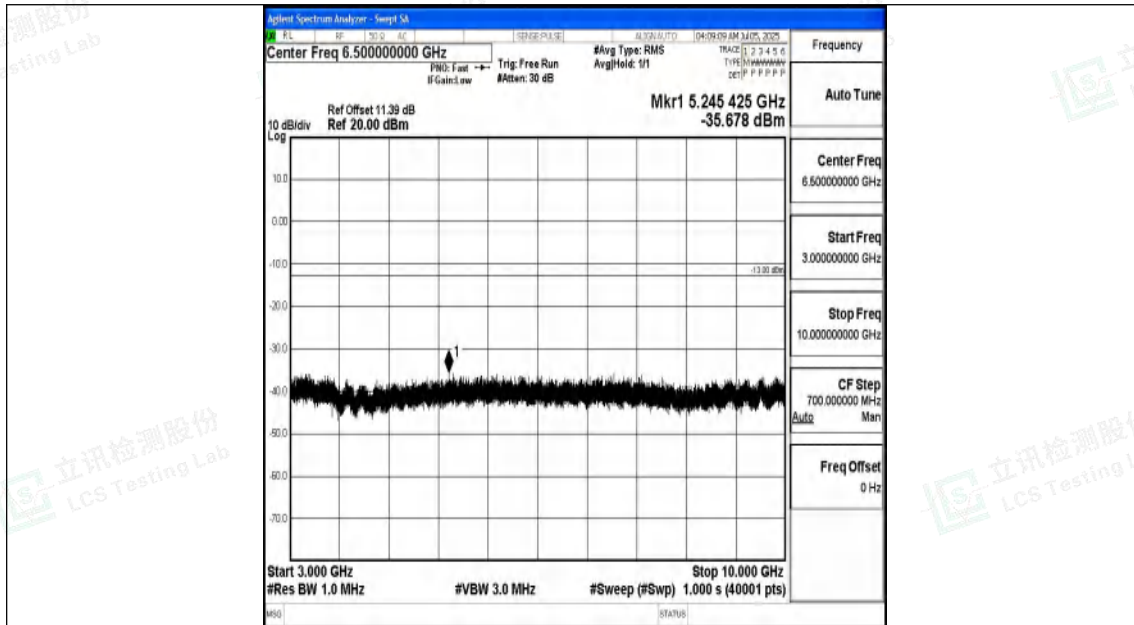
Band13_5MHz_QPSK_23255_1RB#0_0.009~0.15_0.009~0.15



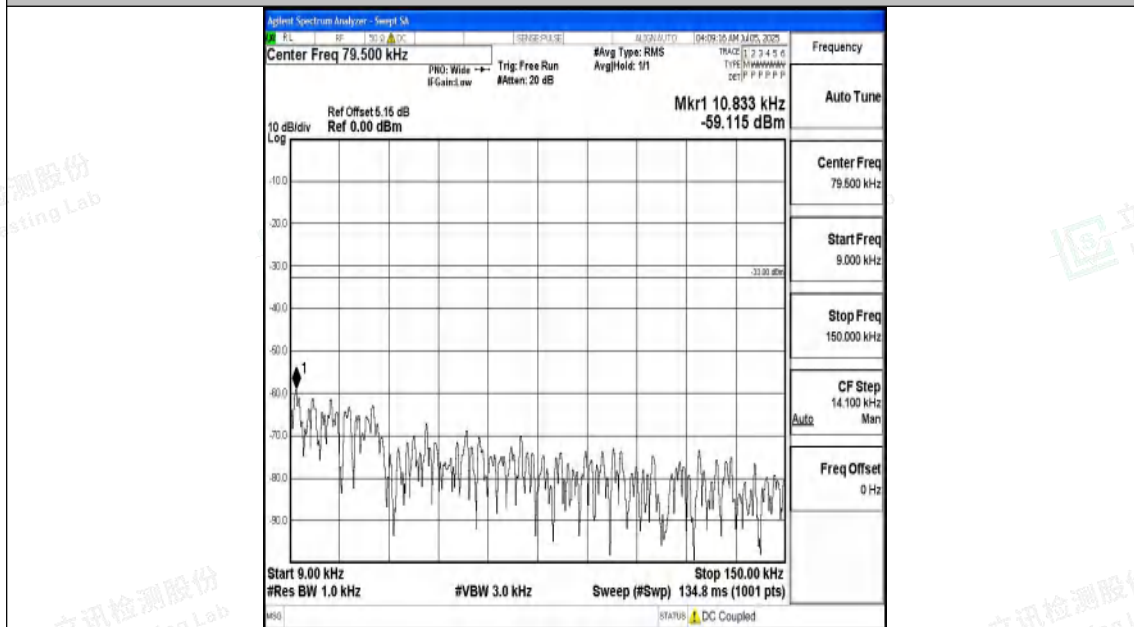
Band13_5MHz_QPSK_23255_1RB#0_0.15~30_0.15~30





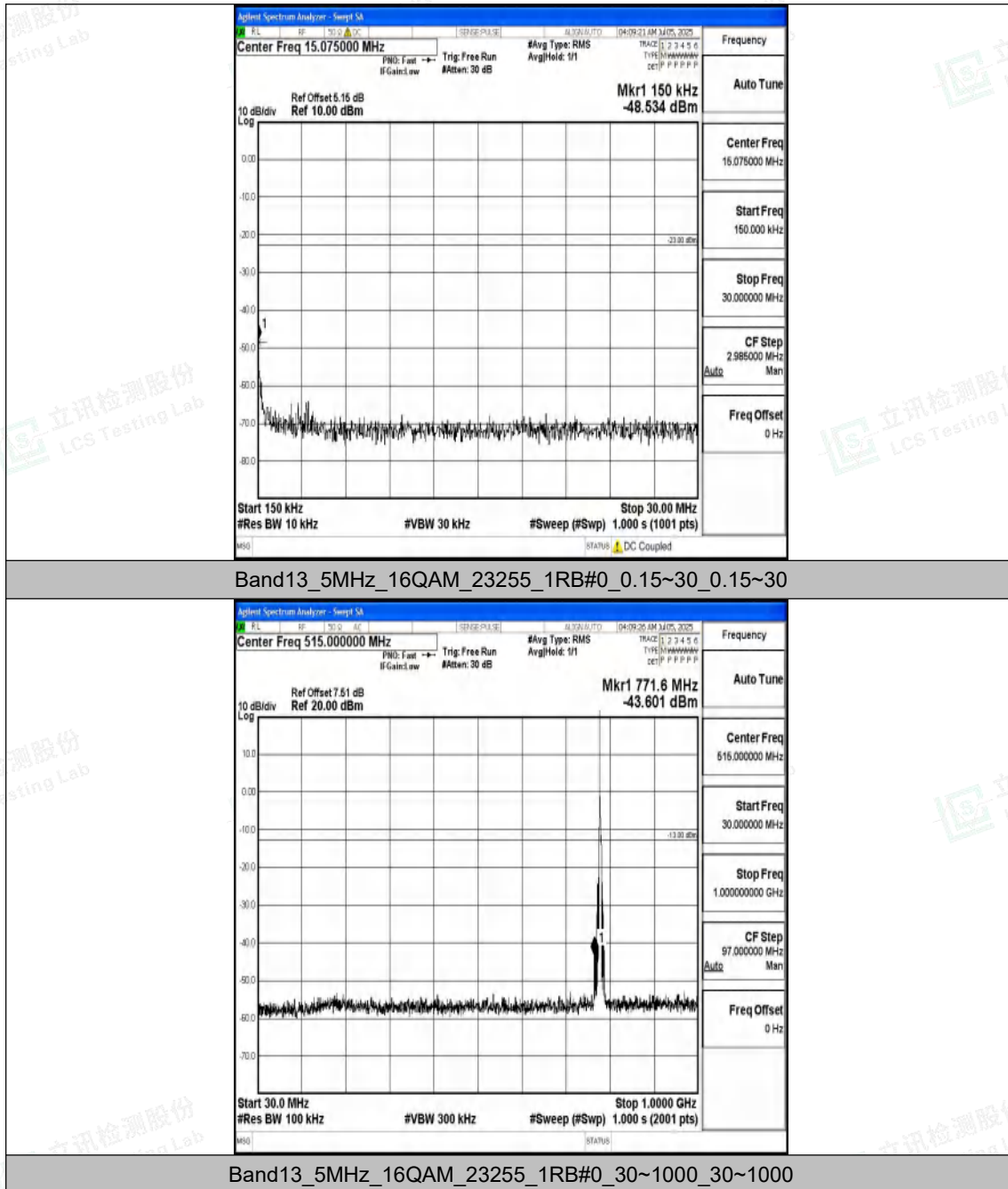


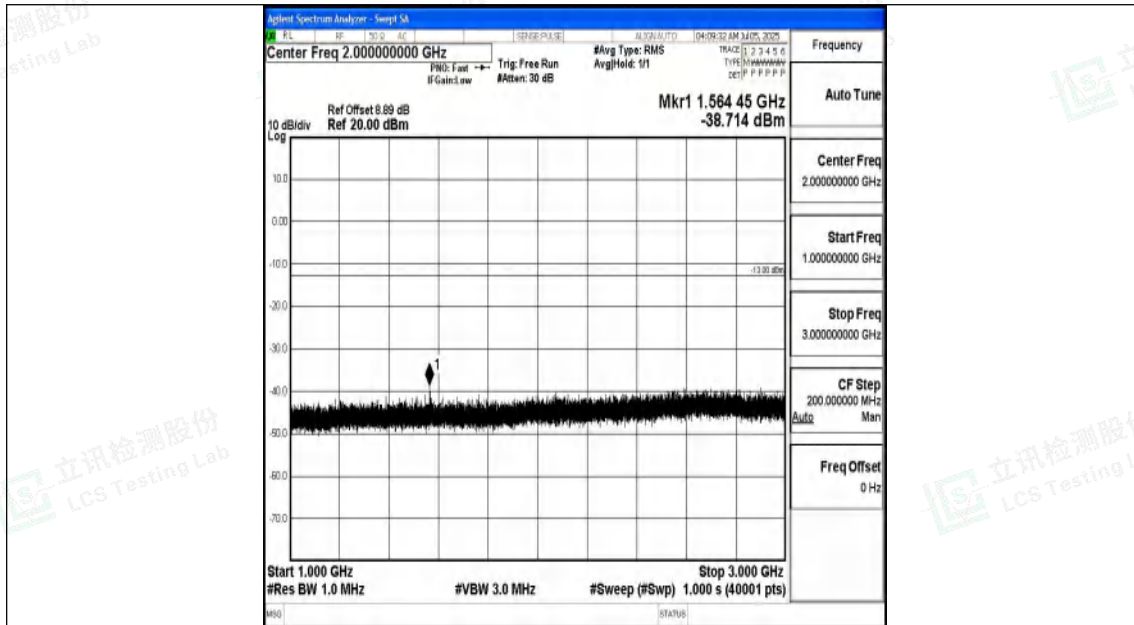
Band13_5MHz_QPSK_23255_1RB#0_3000~10000_3000~10000



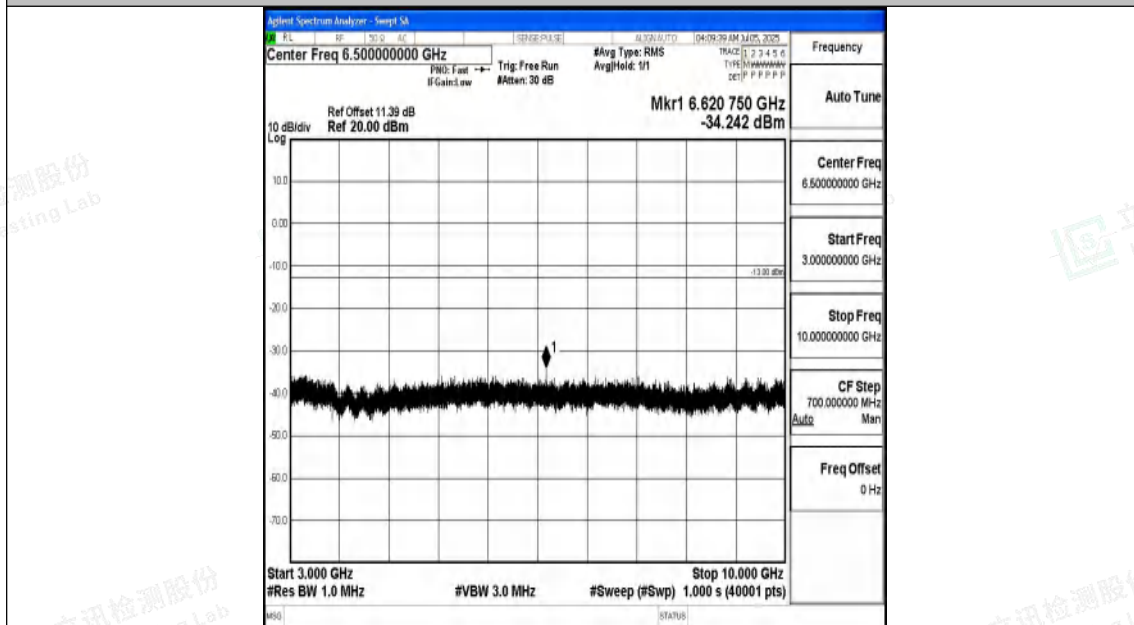
Band13_5MHz_16QAM_23255_1RB#0_0.009~0.15_0.009~0.15





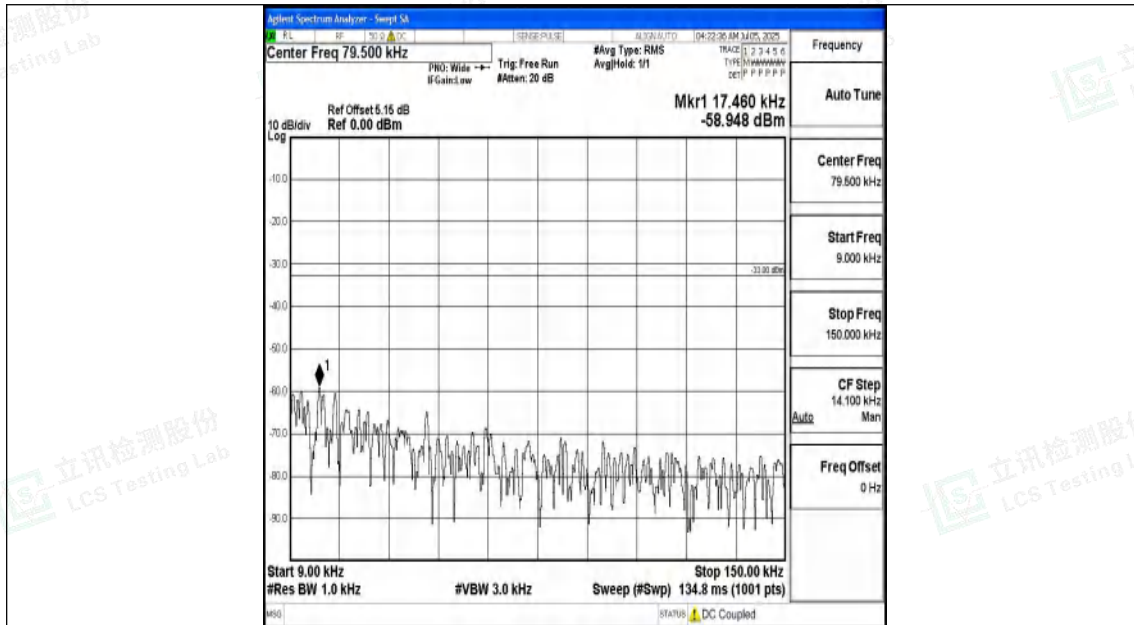


Band13_5MHz_16QAM_23255_1RB#0_1000~3000_1000~3000

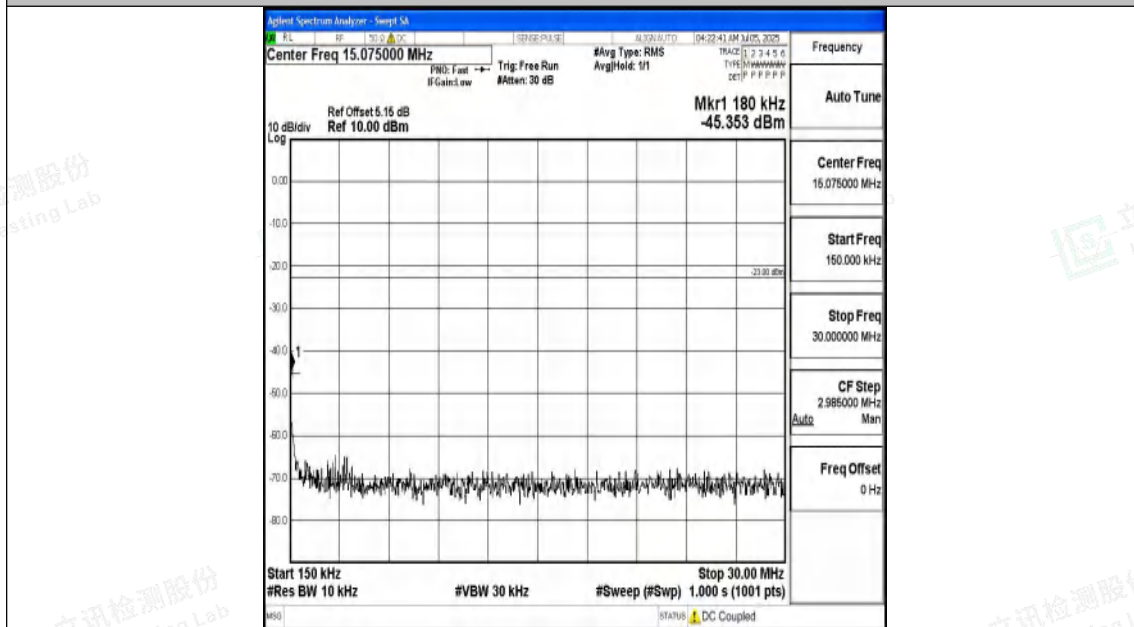


Band13_5MHz_16QAM_23255_1RB#0_3000~10000_3000~10000



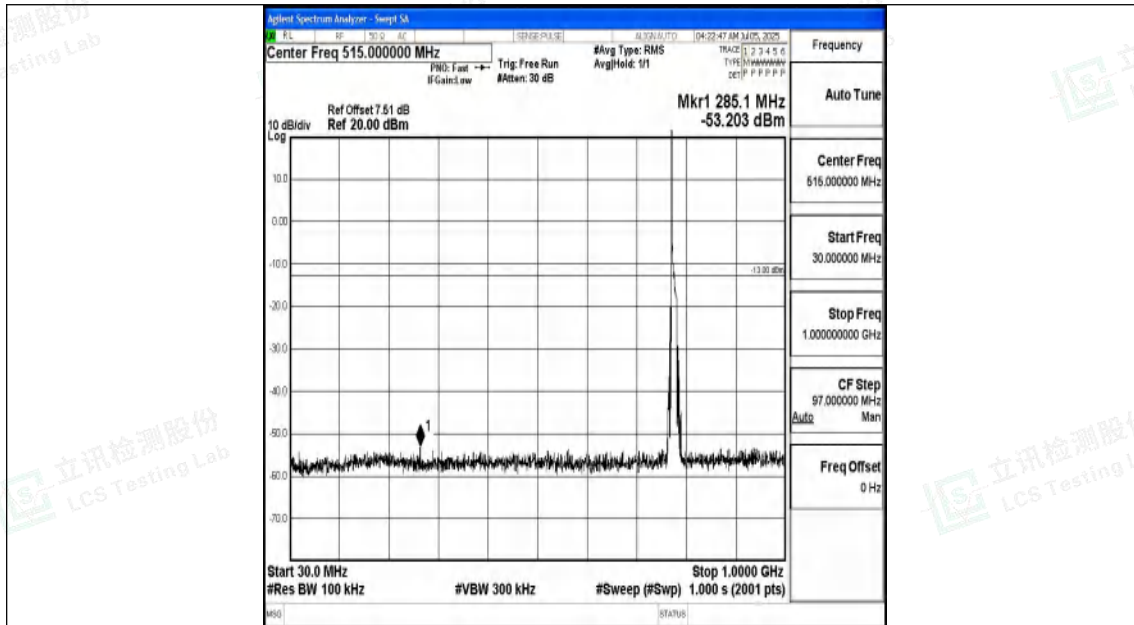


Band13_10MHz_QPSK_23230_1RB#0_0.009~0.15_0.009~0.15

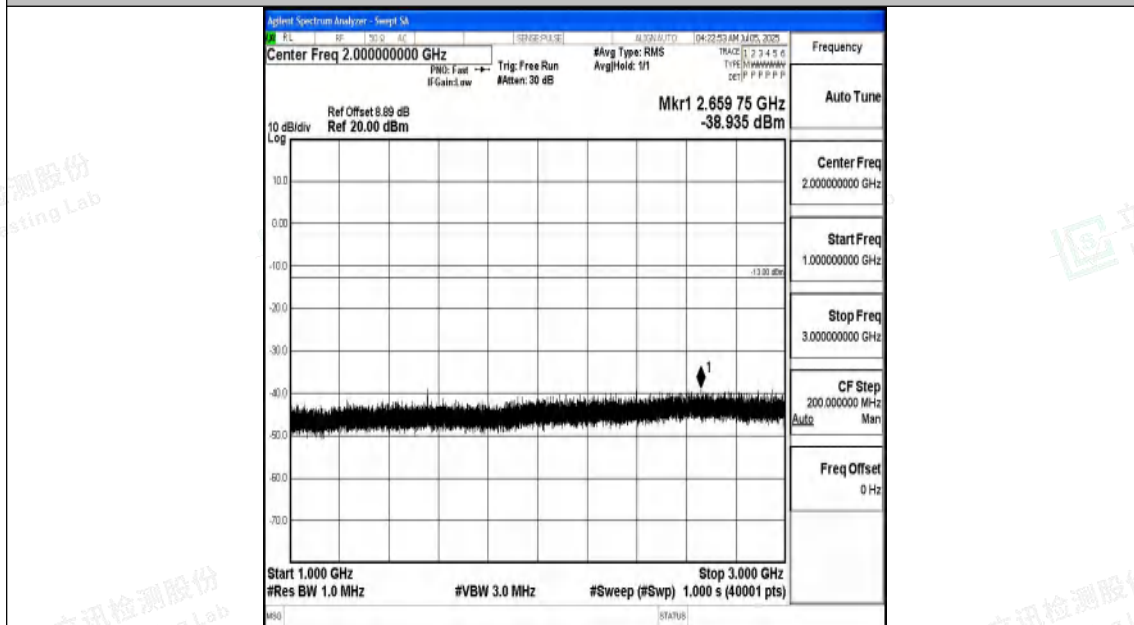


Band13_10MHz_QPSK_23230_1RB#0_0.15~30_0.15~30



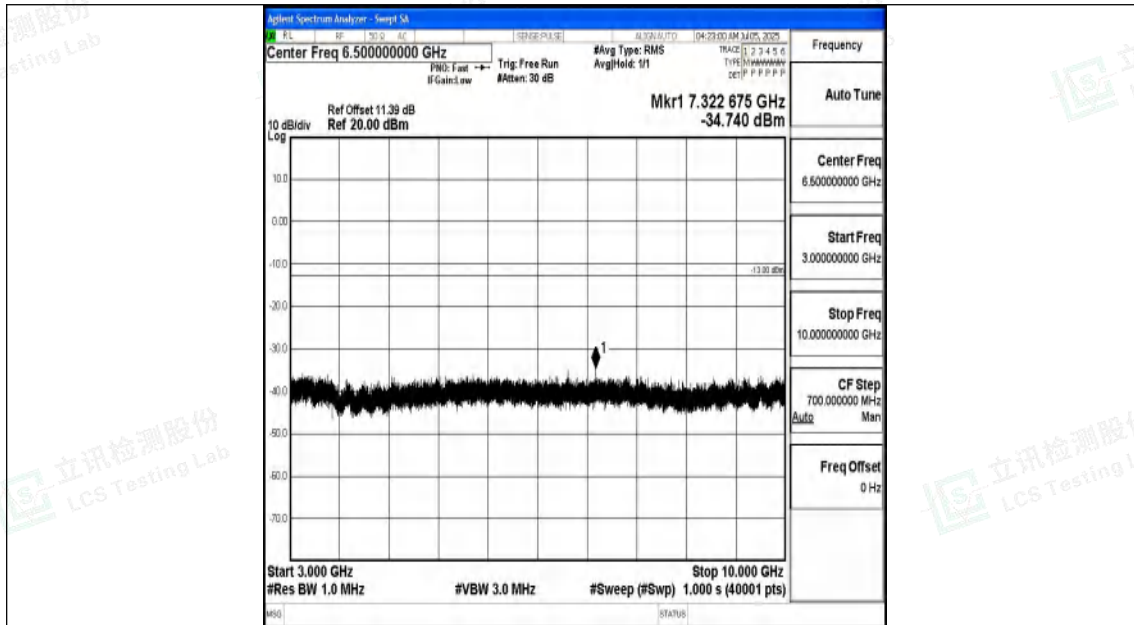


Band13_10MHz_QPSK_23230_1RB#0_30~1000_30~1000

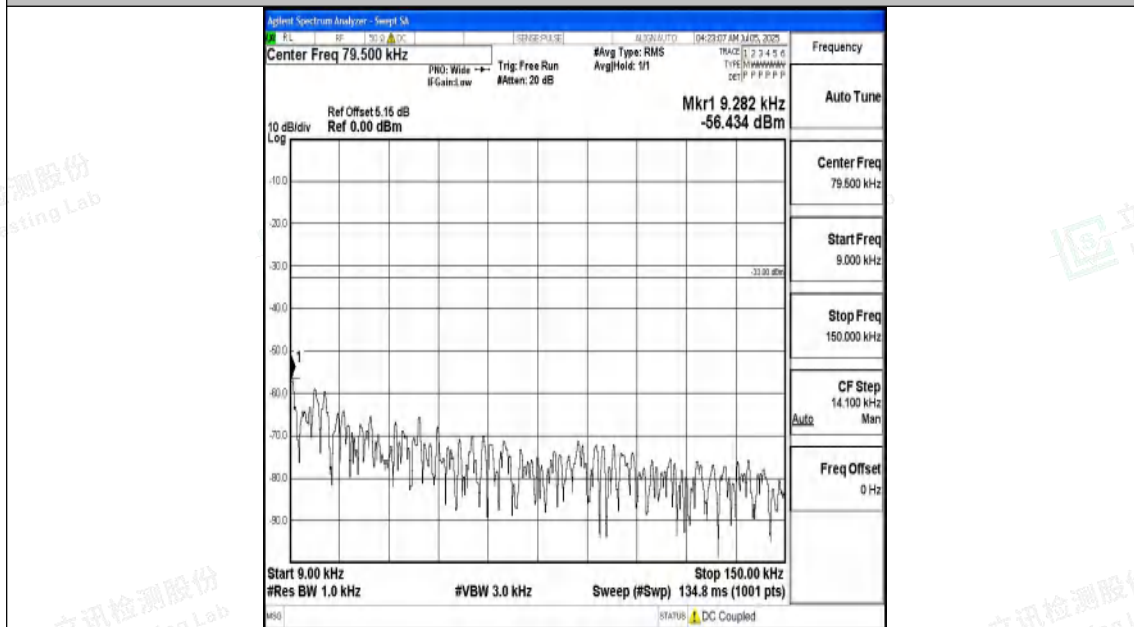


Band13_10MHz_QPSK_23230_1RB#0_1000~3000_1000~3000



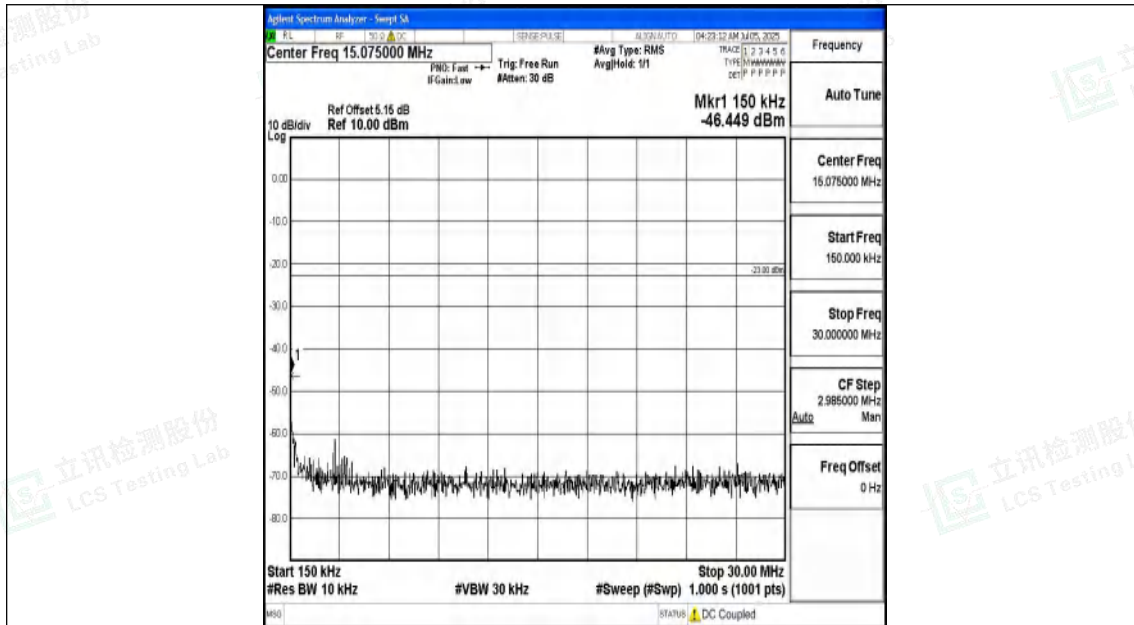


Band13_10MHz_QPSK_23230_1RB#0_3000~10000_3000~10000

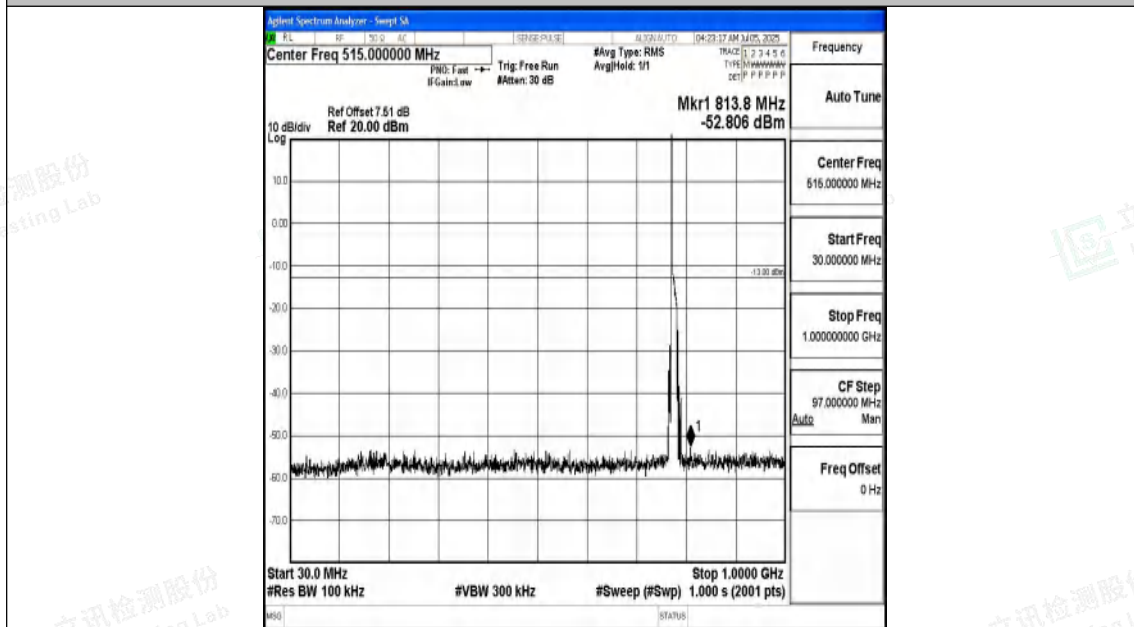


Band13_10MHz_16QAM_23230_1RB#0_0.009~0.15_0.009~0.15



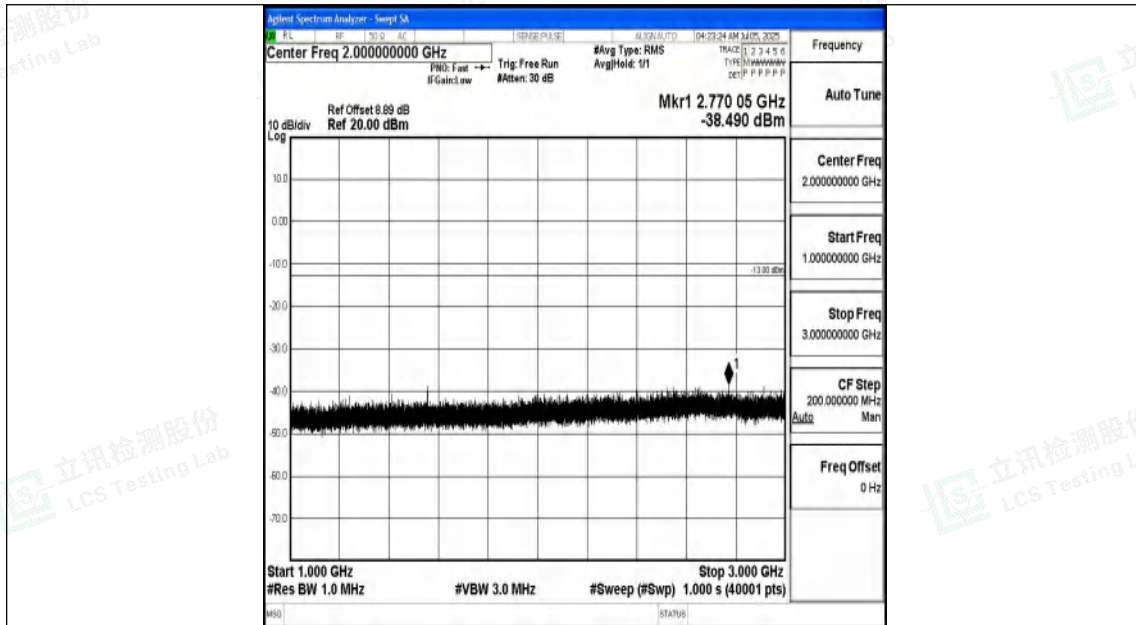


Band13_10MHz_16QAM_23230_1RB#0_0.15~30_0.15~30

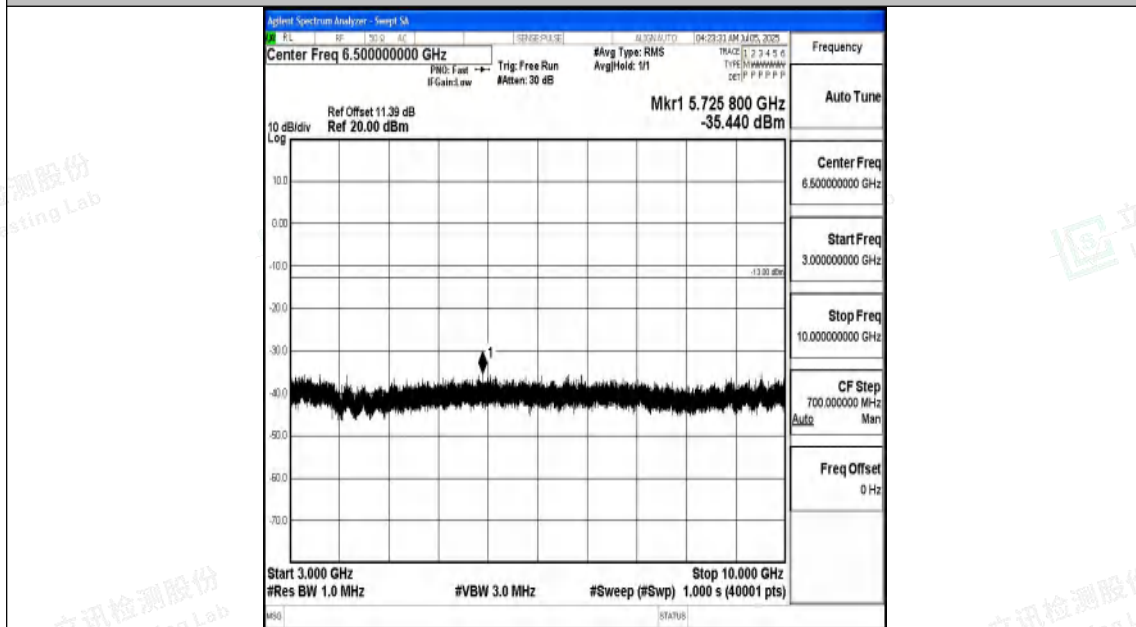


Band13_10MHz_16QAM_23230_1RB#0_30~1000_30~1000





Band13_10MHz_16QAM_23230_1RB#0_1000~3000_1000~3000



Band13_10MHz_16QAM_23230_1RB#0_3000~10000_3000~10000

