



Appendix E: Test Data for E-UTRA Band 13

Product Name: 4G Module

Test Model: Air795U

Environmental Conditions

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





E.1 Conducted Output Power Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	23.30	PASS
Band13	5MHz	16QAM	23205	25RB#0	22.57	PASS
Band13	5MHz	QPSK	23230	25RB#0	23.19	PASS
Band13	5MHz	16QAM	23230	25RB#0	22.68	PASS
Band13	5MHz	QPSK	23255	25RB#0	23.08	PASS
Band13	5MHz	16QAM	23255	25RB#0	22.49	PASS
Band13	10MHz	QPSK	23230	25RB#0	22.78	PASS
Band13	10MHz	16QAM	23230	25RB#0	22.17	PASS
Band13	10MHz	QPSK	23230	25RB#12	22.76	PASS
Band13	10MHz	16QAM	23230	25RB#12	22.13	PASS
Band13	10MHz	QPSK	23230	25RB#25	22.59	PASS
Band13	10MHz	16QAM	23230	25RB#25	21.96	PASS





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

Test Result

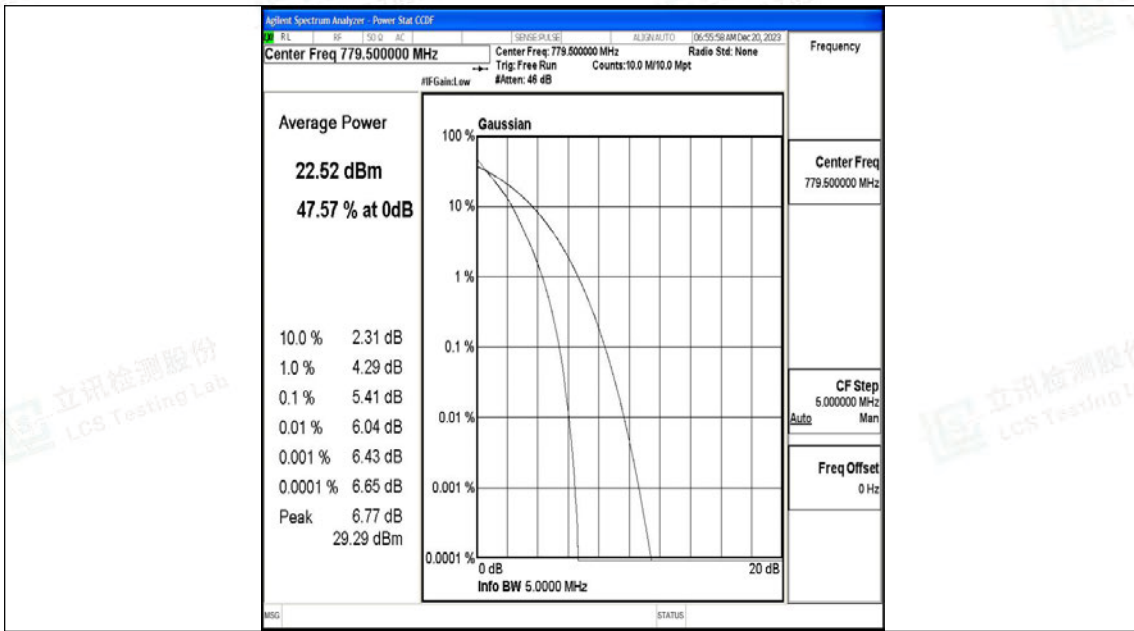
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	5.41	13	PASS
Band13	5MHz	16QAM	23205	25RB#0	6.00	13	PASS
Band13	5MHz	QPSK	23230	25RB#0	5.43	13	PASS
Band13	5MHz	16QAM	23230	25RB#0	6.03	13	PASS
Band13	5MHz	QPSK	23255	25RB#0	5.38	13	PASS
Band13	5MHz	16QAM	23255	25RB#0	6.01	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	5.30	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	5.95	13	PASS



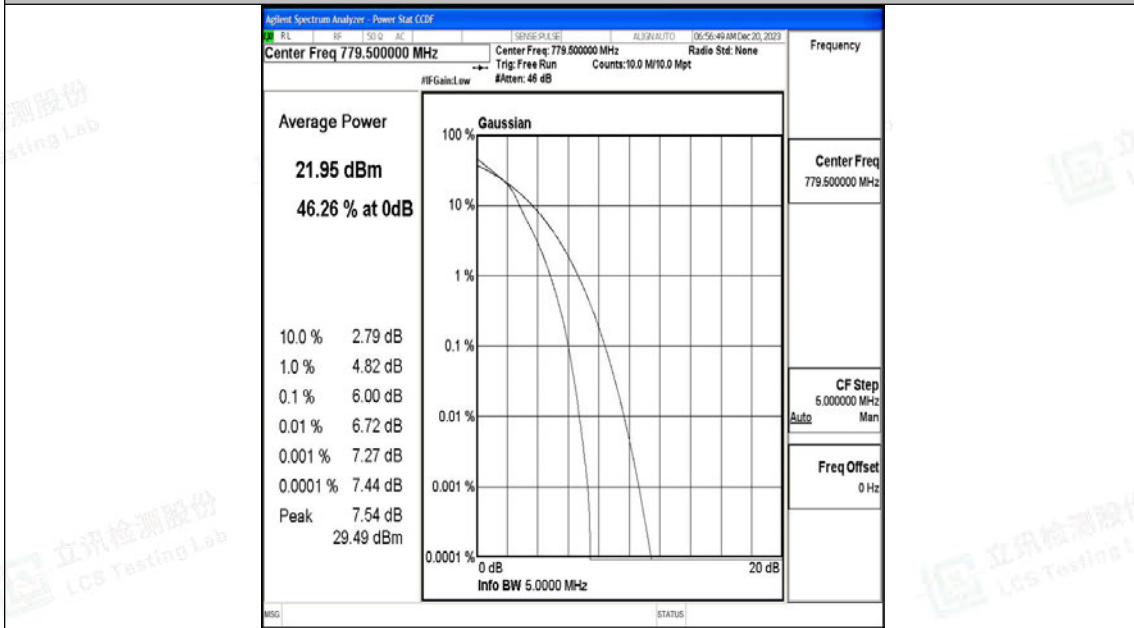
Shenzhen LCS Compliance Testing Laboratory Ltd.
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity



Test Graphs

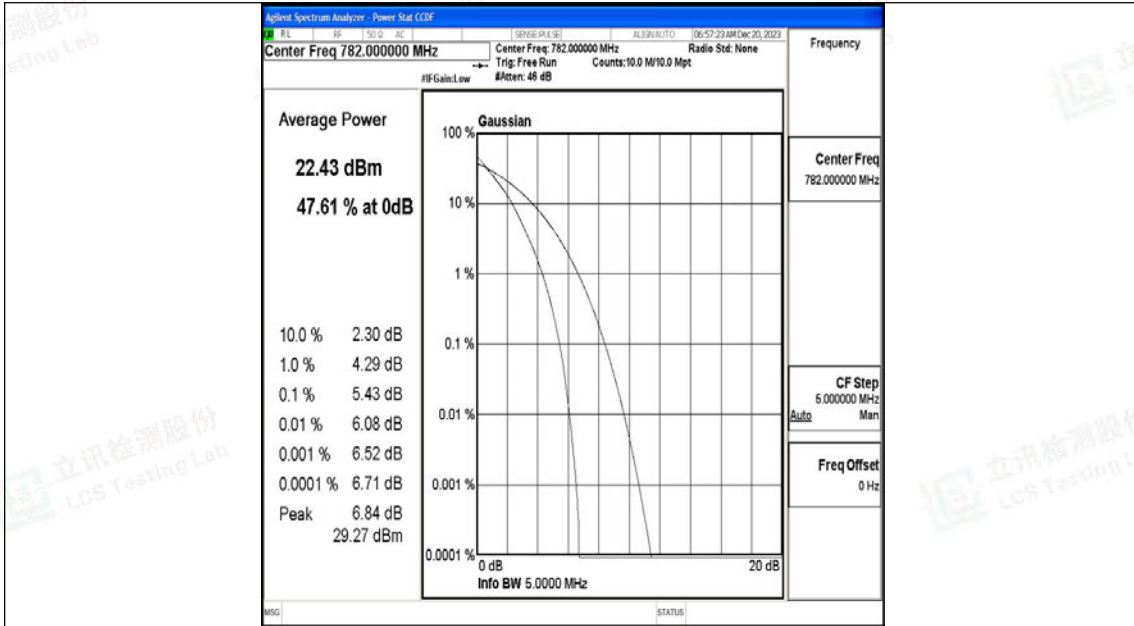


Band13-5MHz-QPSK-23205-25RB#0-PASS

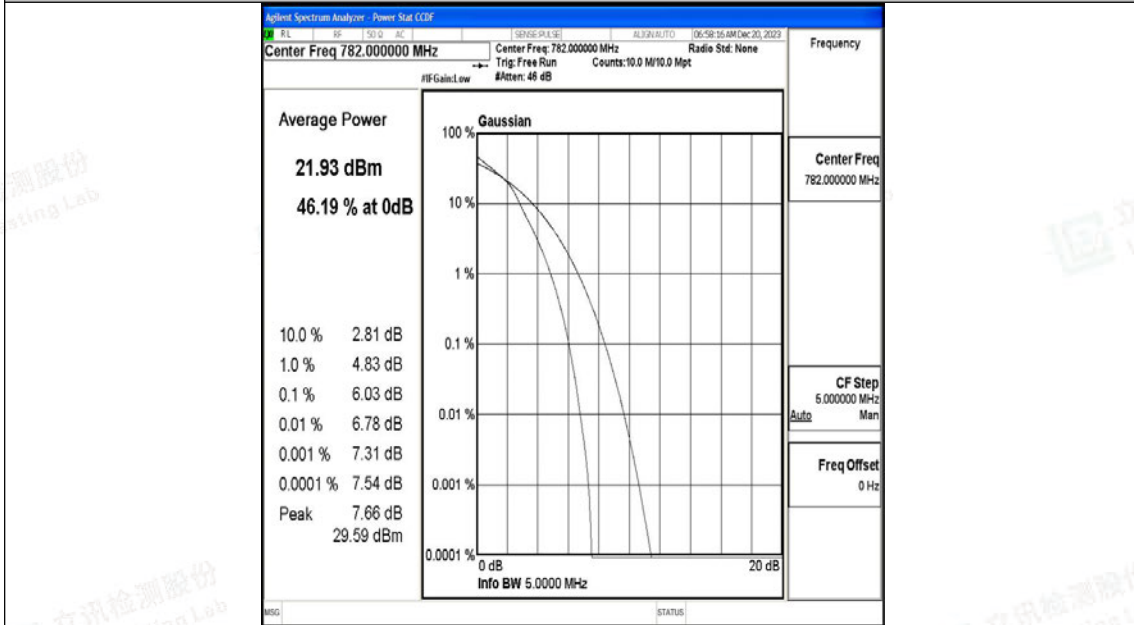


Band13-5MHz-16QAM-23205-25RB#0-PASS



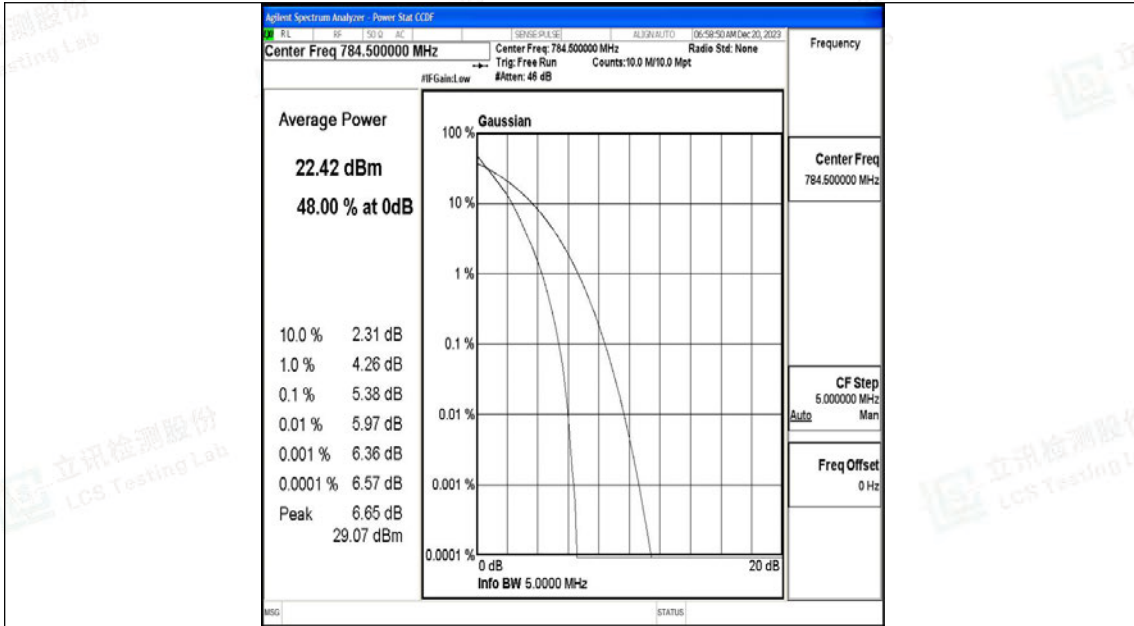


Band13-5MHz-QPSK-23230-25RB#0-PASS

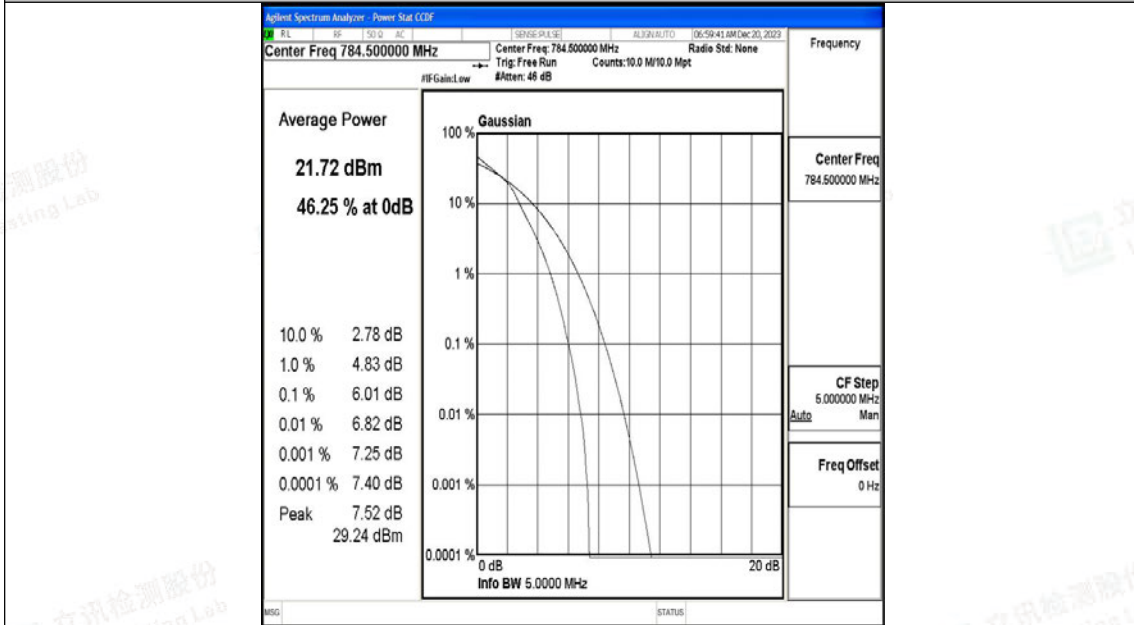


Band13-5MHz-16QAM-23230-25RB#0-PASS



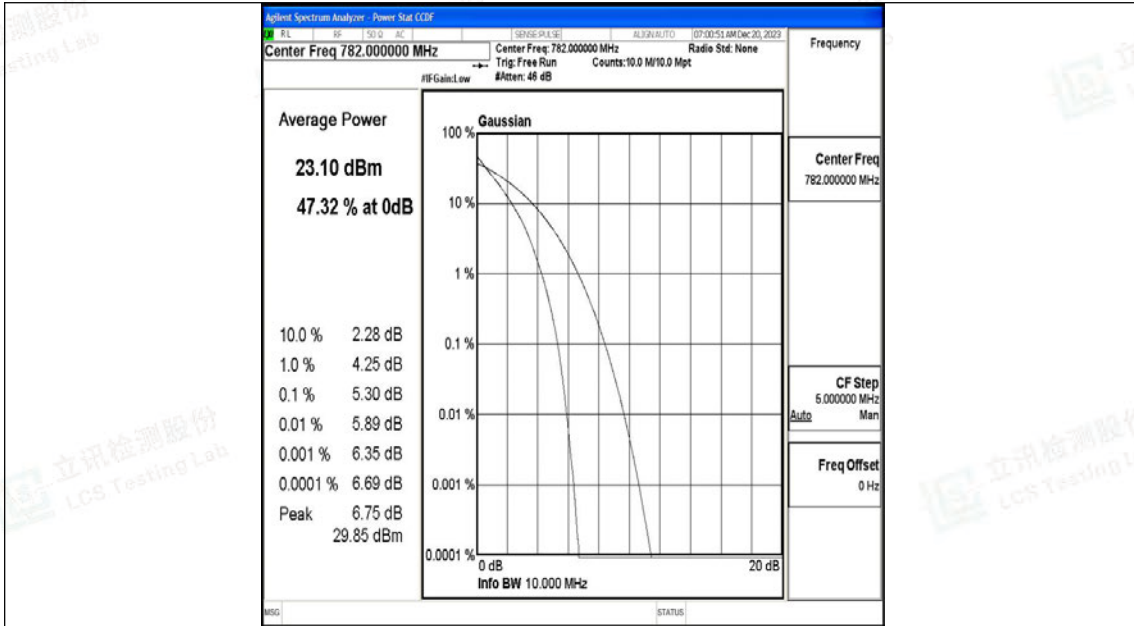


Band13-5MHz-QPSK-23255-25RB#0-PASS

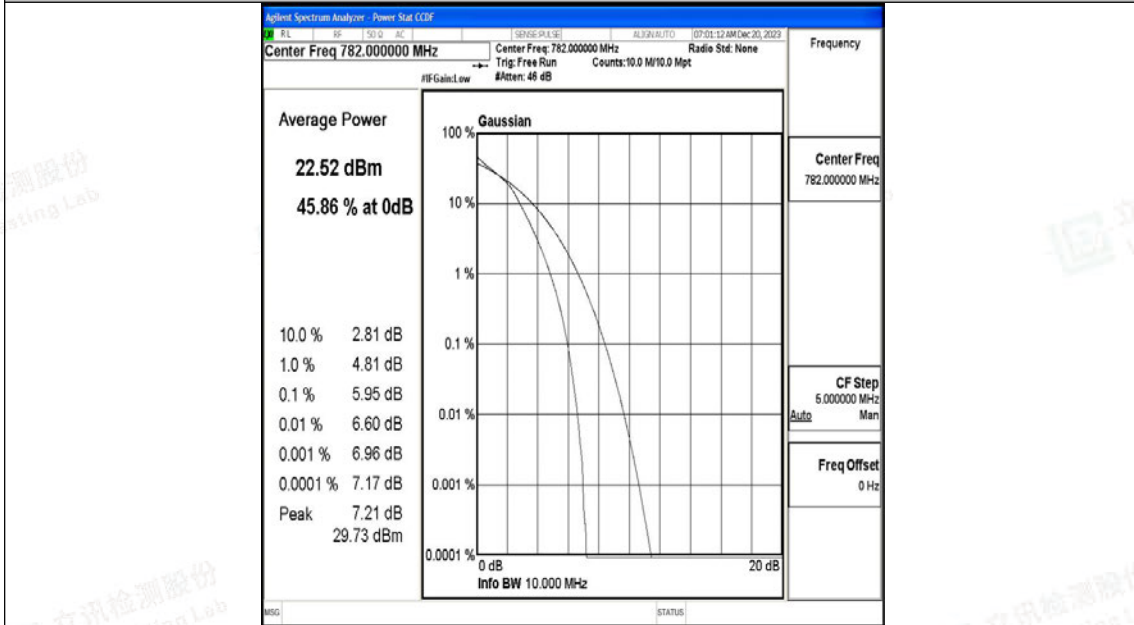


Band13-5MHz-16QAM-23255-25RB#0-PASS





Band13-10MHz-QPSK-23230-50RB#0-PASS



Band13-10MHz-16QAM-23230-50RB#0-PASS





E.3 26dB Bandwidth and Occupied Bandwidth

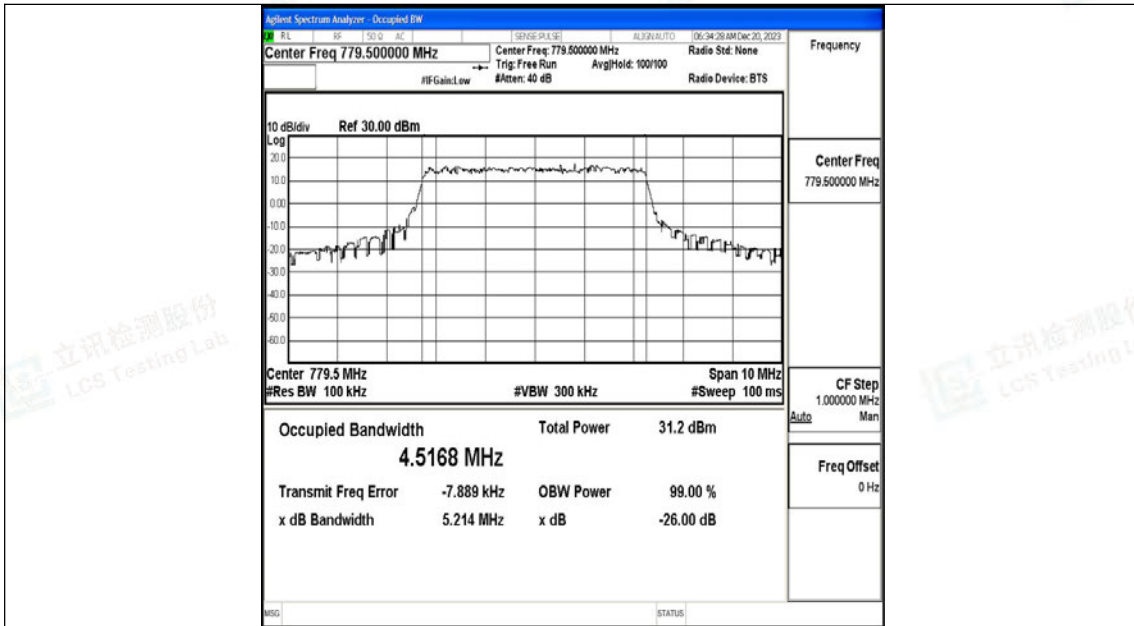
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.5168	5.214	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.5144	5.206	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.5118	5.376	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.5305	5.333	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.5090	5.183	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.5337	5.416	PASS
Band13	10MHz	QPSK	23230	50RB#0	8.9916	10.01	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.9771	10.03	PASS

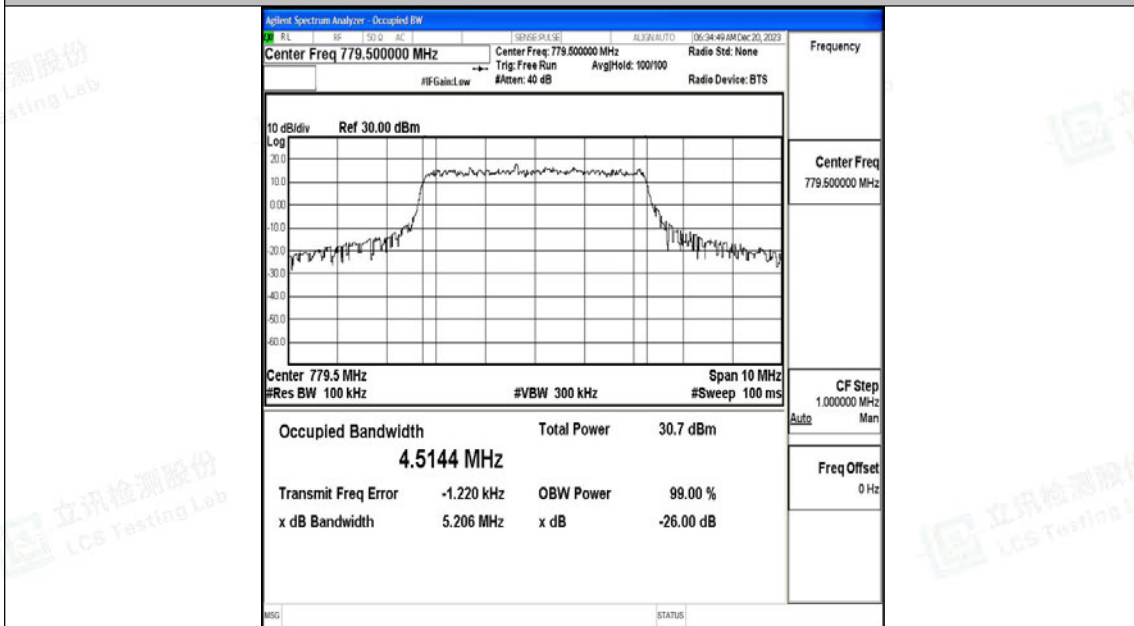




Test Graphs

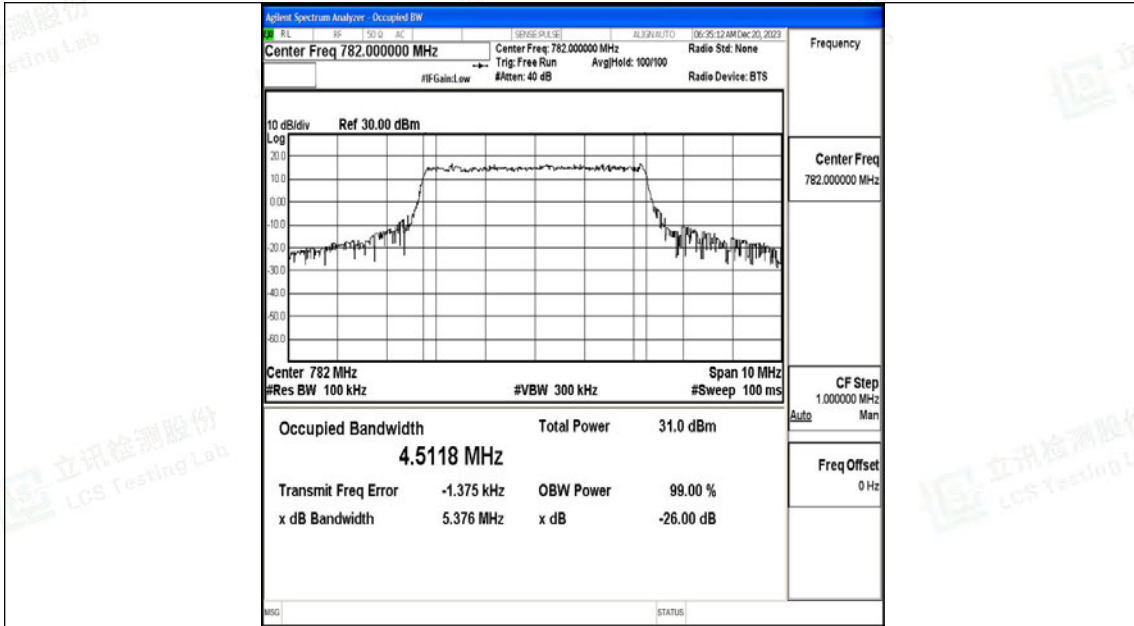


Band13-5MHz-QPSK-23205-25RB#0-PASS

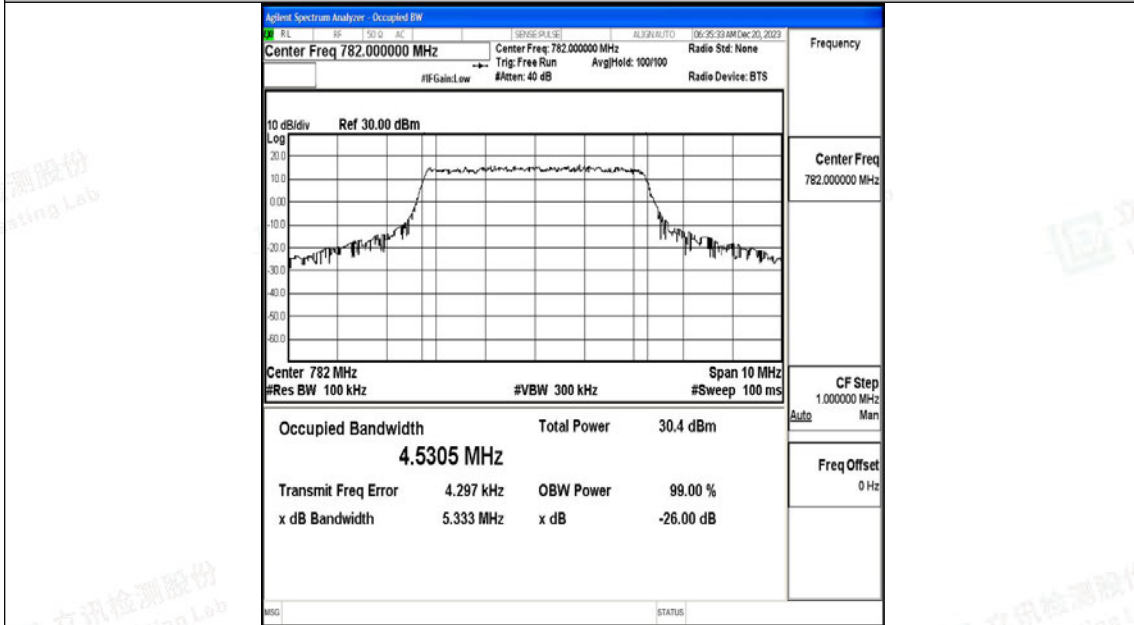


Band13-5MHz-16QAM-23205-25RB#0-PASS



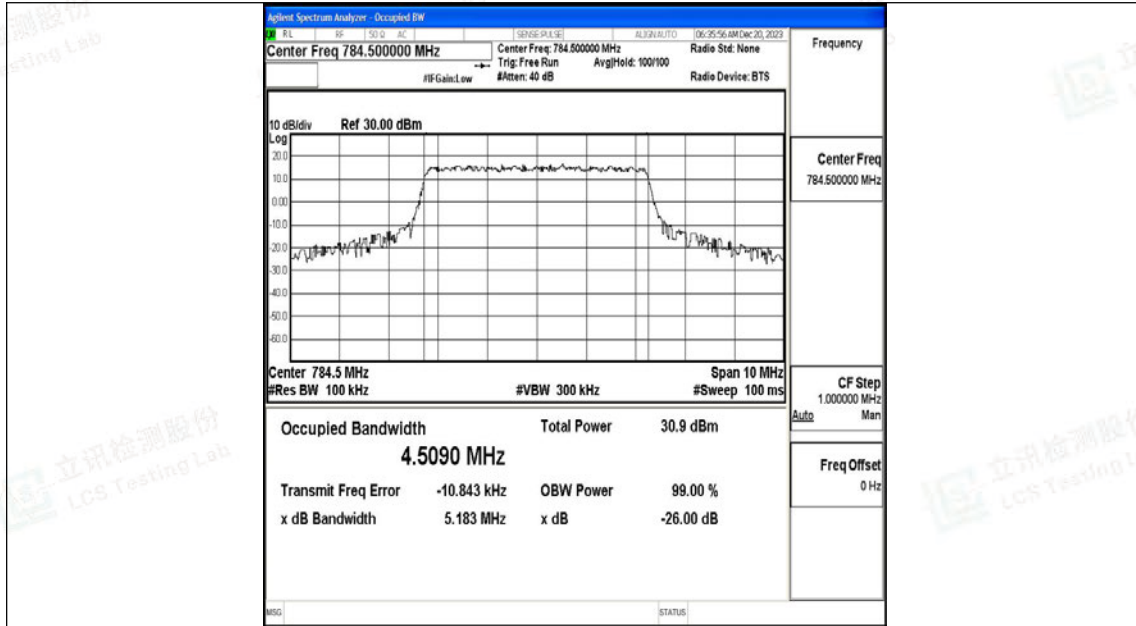


Band13-5MHz-QPSK-23230-25RB#0-PASS

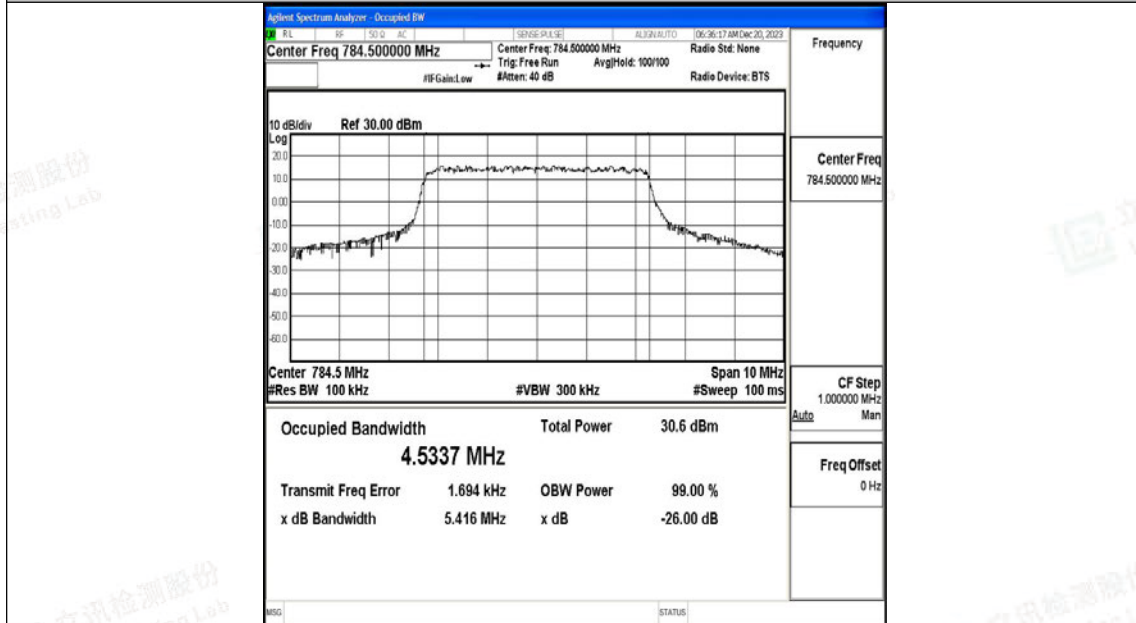


Band13-5MHz-16QAM-23230-25RB#0-PASS



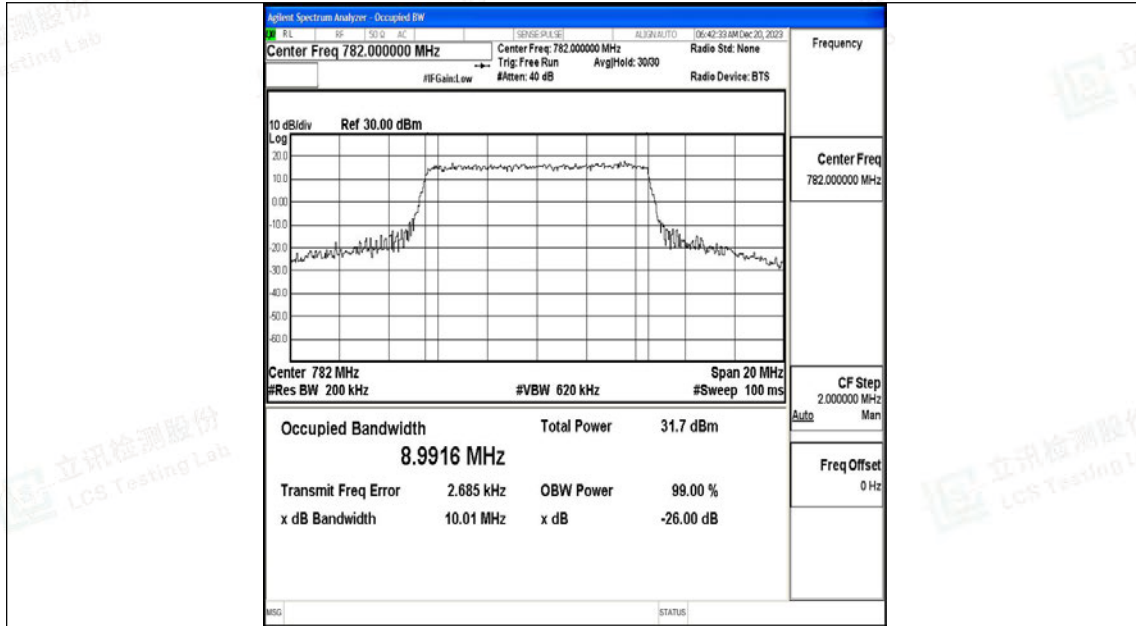


Band13-5MHz-QPSK-23255-25RB#0-PASS

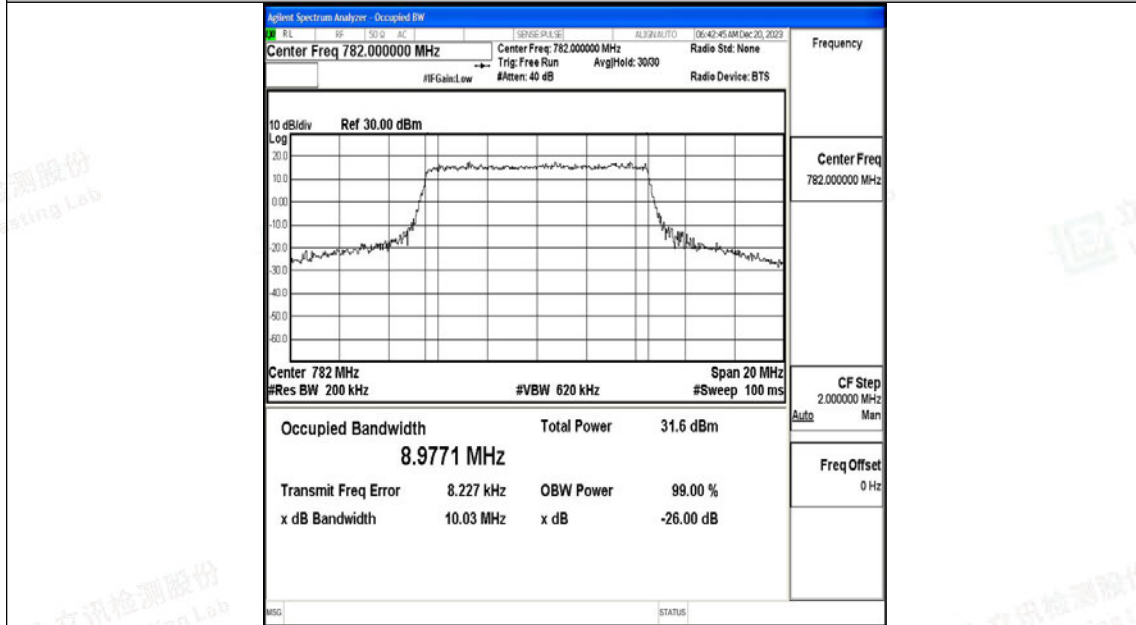


Band13-5MHz-16QAM-23255-25RB#0-PASS





Band13-10MHz-QPSK-23230-50RB#0-PASS



Band13-10MHz-16QAM-23230-50RB#0-PASS



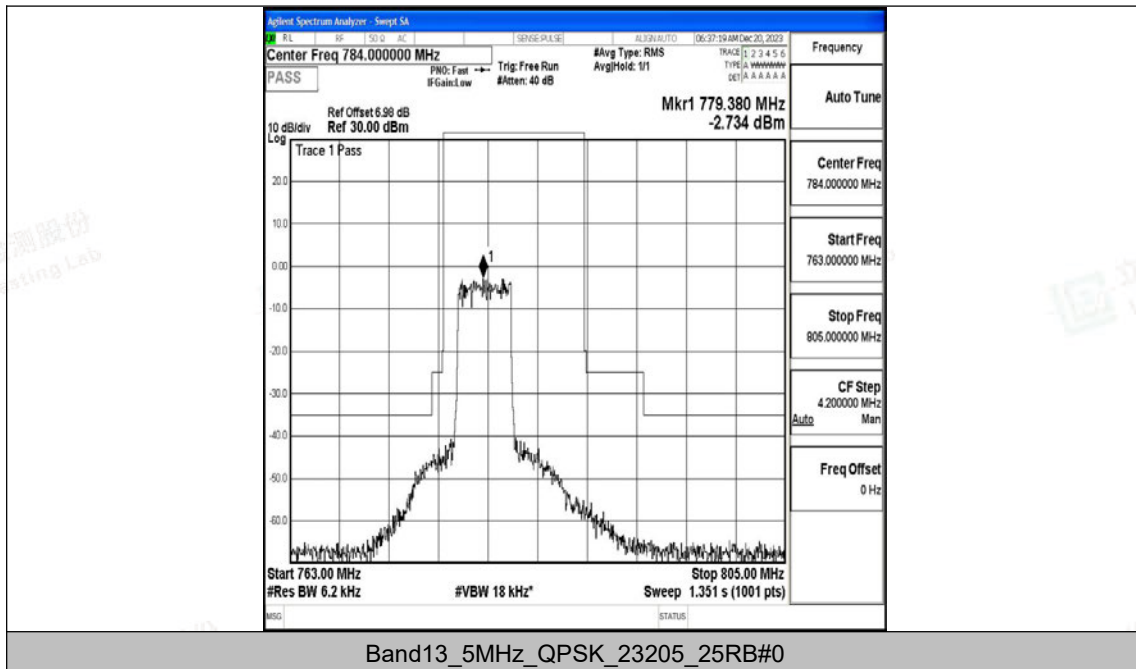


E.4 Band Edge

Test Result

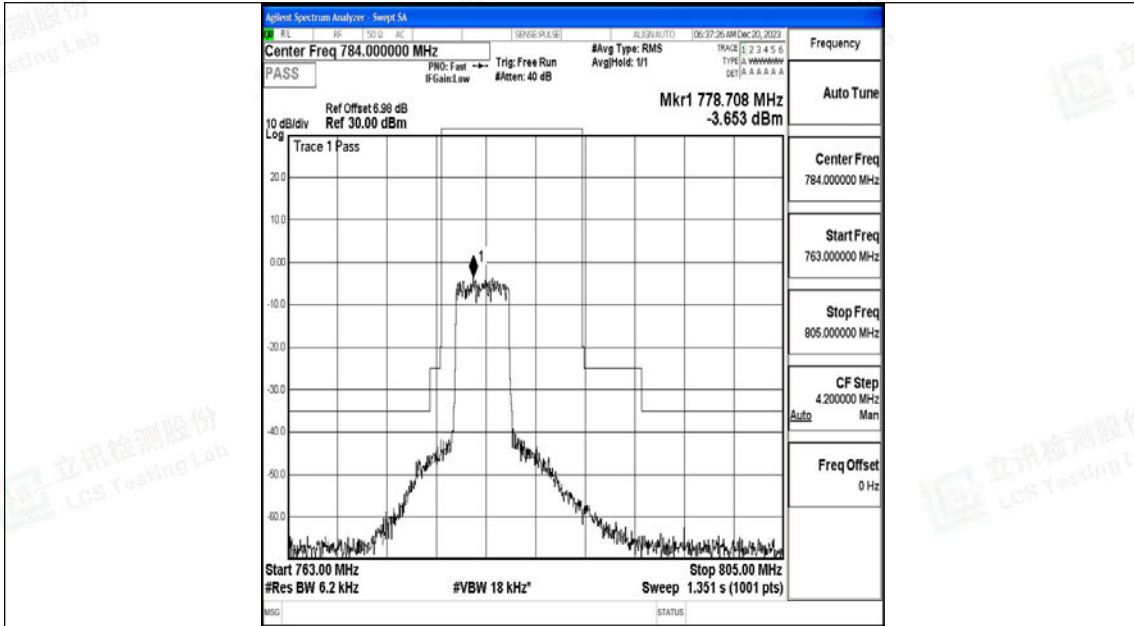
Band	Bandwidth	Modulation	Channel	RB Configuration	Peak Frequency	Result(dBm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	774.97	-45.92	PASS
Band13	5MHz	16QAM	23205	25RB#0	774.97	-45.44	PASS
Band13	5MHz	QPSK	23255	25RB#0	788.58	-43.30	PASS
Band13	5MHz	16QAM	23255	25RB#0	788.41	-44.01	PASS
Band13	10MHz	QPSK	23230	50RB#0	774.97	-46.45	PASS
Band13	10MHz	16QAM	23230	50RB#0	774.76	-47.25	PASS

Test Graphs

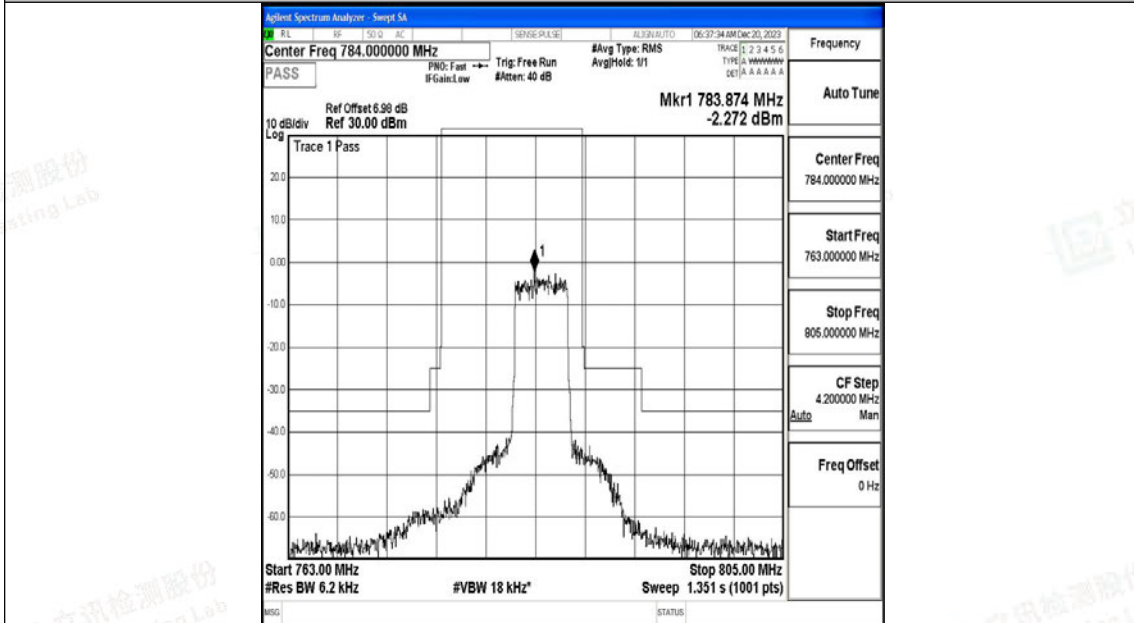


Band13_5MHz_QPSK_23205_25RB#0



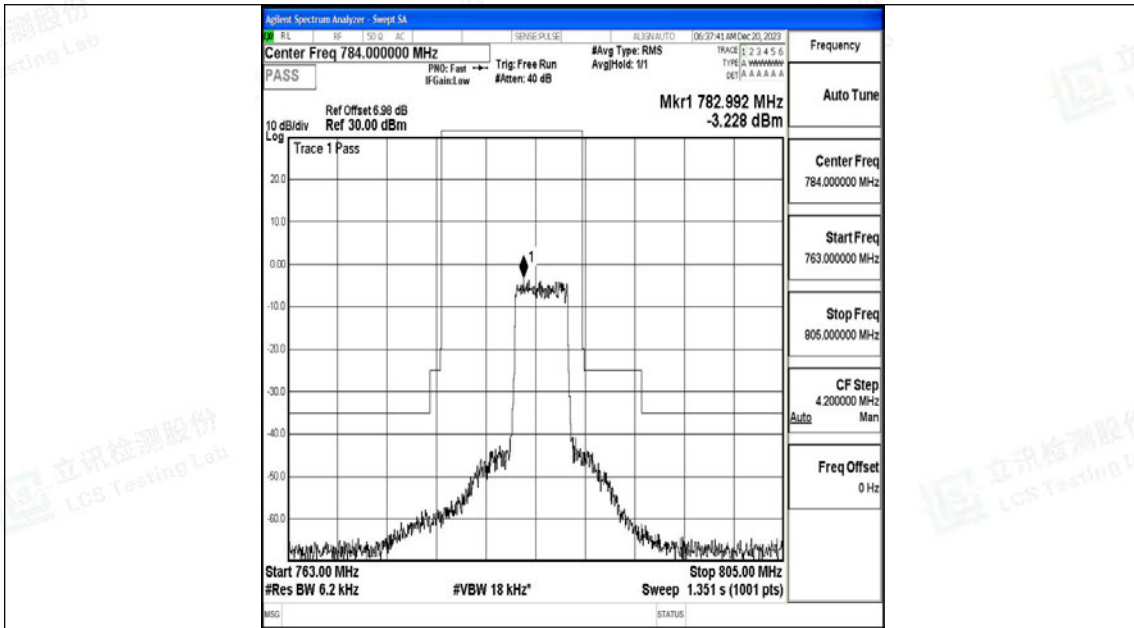


Band13_5MHz_16QAM_23205_25RB#0

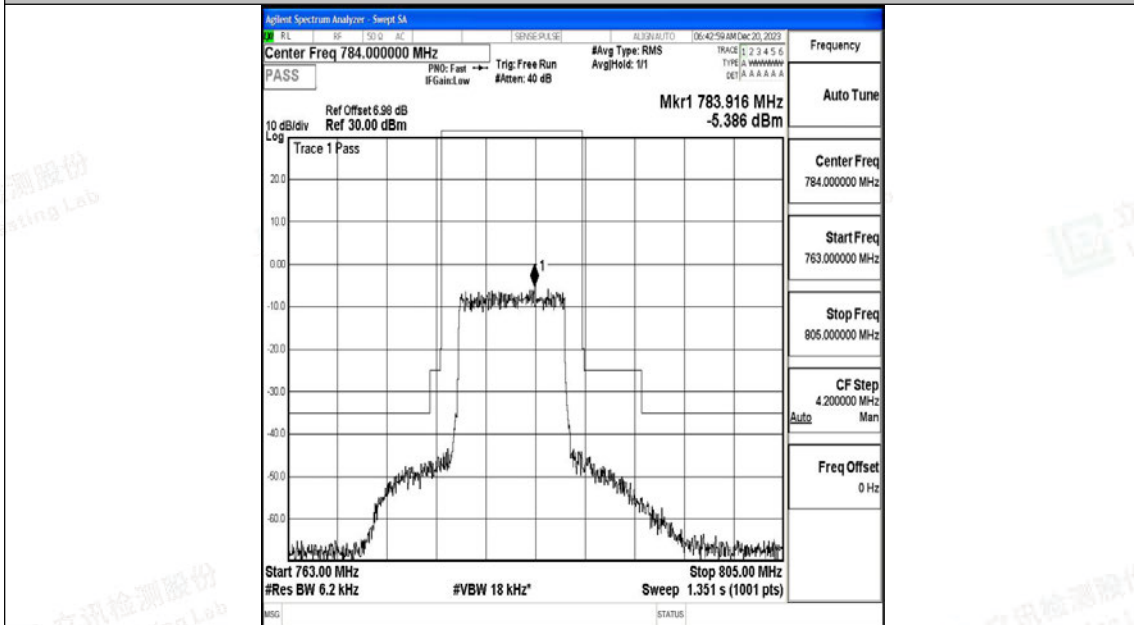


Band13_5MHz_QPSK_23255_25RB#0



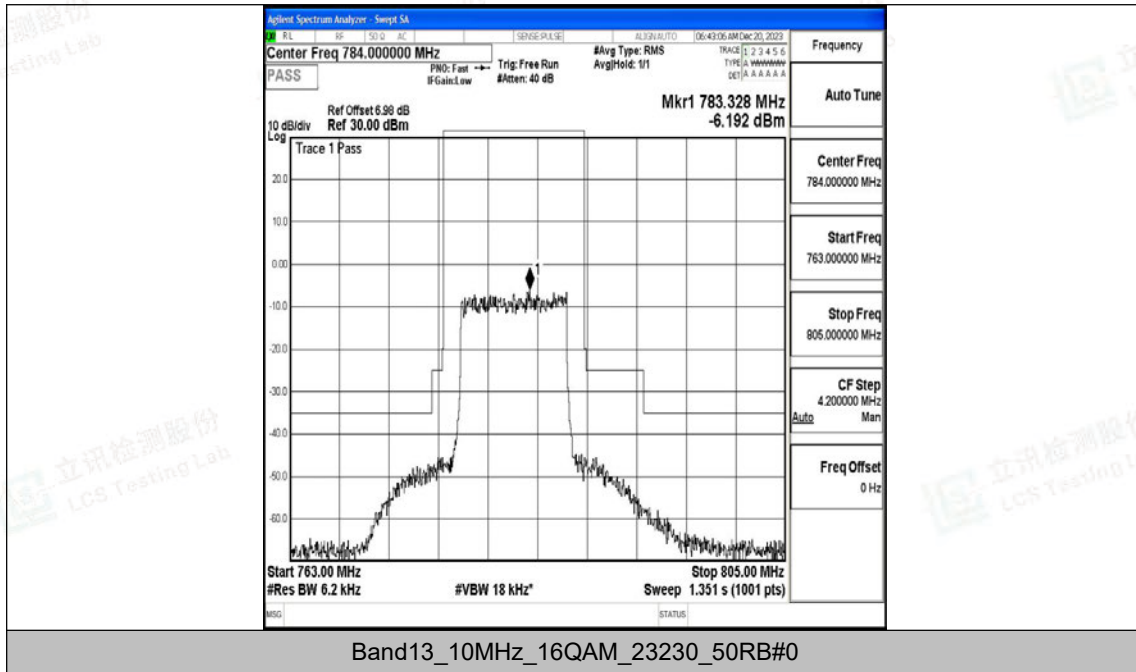


Band13_5MHz_16QAM_23255_25RB#0



Band13_10MHz_QPSK_23230_50RB#0







E.5 Conducted Spurious Emission

Test Result

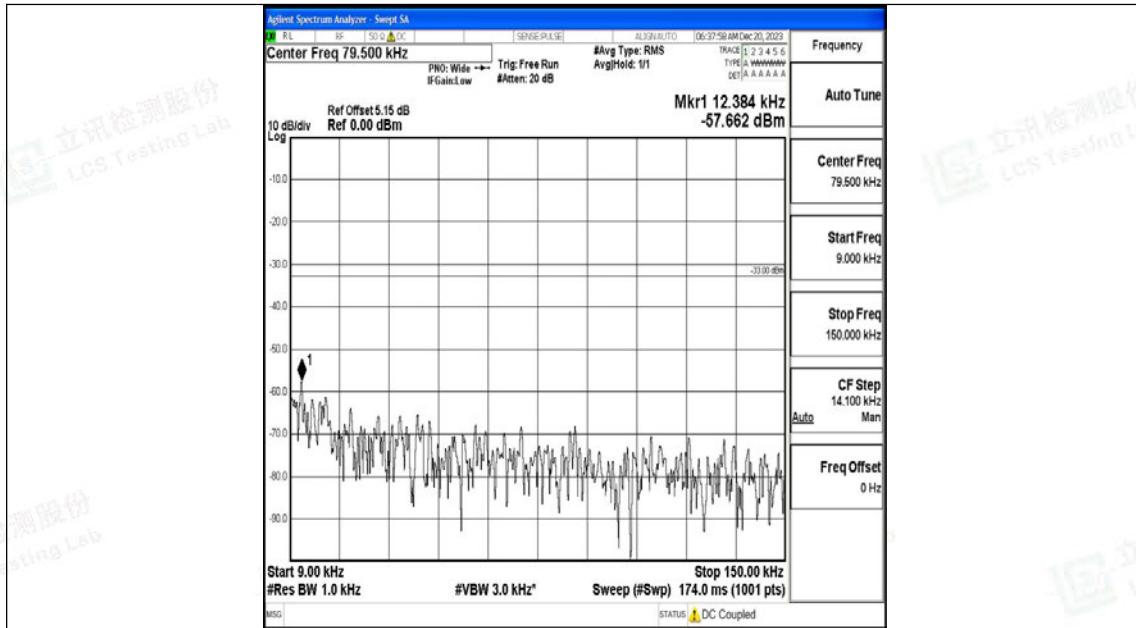
Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	0.009~0.15	-57.66	PASS
Band13	5MHz	QPSK	23205	1RB#0	0.15~30	-52.15	PASS
Band13	5MHz	QPSK	23205	1RB#0	30~1000	-61.21	PASS
Band13	5MHz	QPSK	23205	1RB#0	1000~3000	-41.73	PASS
Band13	5MHz	QPSK	23205	1RB#0	3000~10000	-43.65	PASS
Band13	5MHz	16QAM	23205	1RB#0	0.009~0.15	-58.23	PASS
Band13	5MHz	16QAM	23205	1RB#0	0.15~30	-52.15	PASS
Band13	5MHz	16QAM	23205	1RB#0	30~1000	-61.96	PASS
Band13	5MHz	16QAM	23205	1RB#0	1000~3000	-42.55	PASS
Band13	5MHz	16QAM	23205	1RB#0	3000~10000	-44.31	PASS
Band13	5MHz	QPSK	23230	1RB#0	0.009~0.15	-58.43	PASS
Band13	5MHz	QPSK	23230	1RB#0	0.15~30	-52.66	PASS
Band13	5MHz	QPSK	23230	1RB#0	1000~3000	-42.74	PASS
Band13	5MHz	QPSK	23230	1RB#0	3000~10000	-44.13	PASS
Band13	5MHz	16QAM	23230	1RB#0	0.009~0.15	-59.62	PASS
Band13	5MHz	16QAM	23230	1RB#0	0.15~30	-52.10	PASS
Band13	5MHz	16QAM	23230	1RB#0	30~1000	-61.82	PASS
Band13	5MHz	16QAM	23230	1RB#0	1000~3000	-42.99	PASS
Band13	5MHz	16QAM	23230	1RB#0	3000~10000	-44.27	PASS
Band13	5MHz	QPSK	23255	1RB#0	30~1000	-59.98	PASS
Band13	5MHz	QPSK	23255	1RB#0	1000~3000	-40.73	PASS
Band13	5MHz	QPSK	23255	1RB#0	3000~10000	-44.10	PASS
Band13	5MHz	16QAM	23255	1RB#0	0.009~0.15	-56.92	PASS
Band13	5MHz	16QAM	23255	1RB#0	0.15~30	-51.22	PASS
Band13	5MHz	16QAM	23255	1RB#0	30~1000	-60.61	PASS
Band13	5MHz	16QAM	23255	1RB#0	3000~10000	-44.14	PASS
Band13	10MHz	QPSK	23230	1RB#0	0.009~0.15	-55.02	PASS
Band13	10MHz	QPSK	23230	1RB#0	0.15~30	-52.10	PASS
Band13	10MHz	QPSK	23230	1RB#0	30~1000	-62.29	PASS
Band13	10MHz	QPSK	23230	1RB#0	1000~3000	-41.68	PASS
Band13	10MHz	QPSK	23230	1RB#0	3000~10000	-44.38	PASS
Band13	10MHz	16QAM	23230	1RB#0	0.009~0.15	-55.67	PASS
Band13	10MHz	16QAM	23230	1RB#0	30~1000	-61.82	PASS
Band13	10MHz	16QAM	23230	1RB#0	1000~3000	-42.17	PASS
Band13	10MHz	16QAM	23230	1RB#0	3000~10000	-44.10	PASS



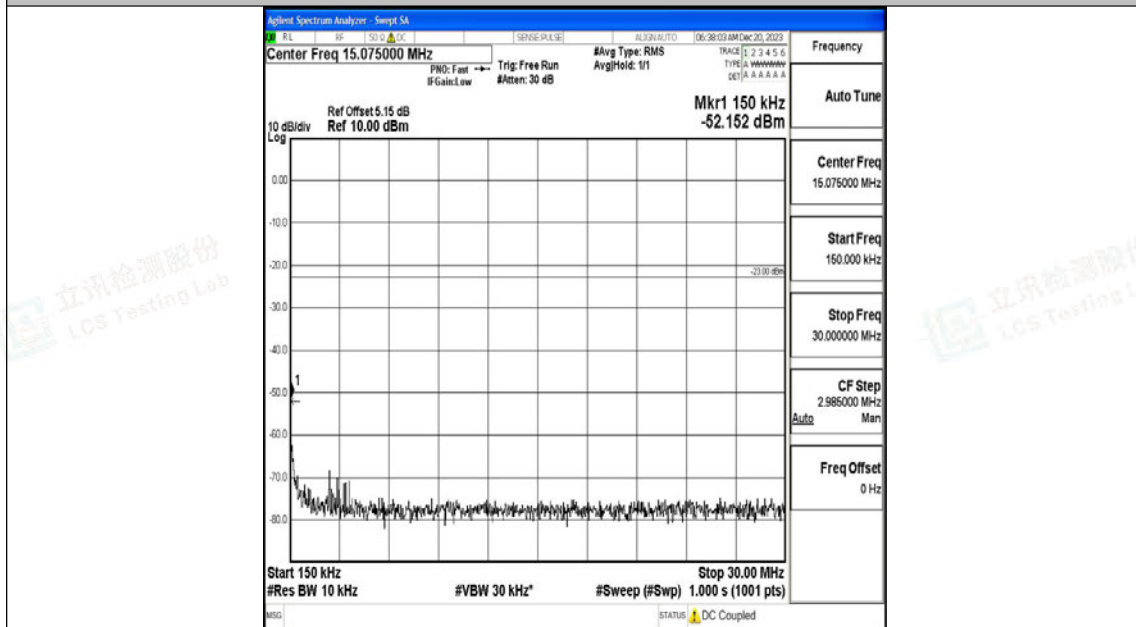


Band13	5MHz	QPSK	23255	1RB#0	0.15~30	-53.21	PASS
Band13	5MHz	16QAM	23255	1RB#0	1000~3000	-42.71	PASS
Band13	10MHz	16QAM	23230	1RB#0	0.15~30	-52.92	PASS
Band13	5MHz	QPSK	23230	1RB#0	30~1000	-61.93	PASS
Band13	5MHz	QPSK	23255	1RB#0	0.009~0.15	-55.49	PASS

Test Graphs

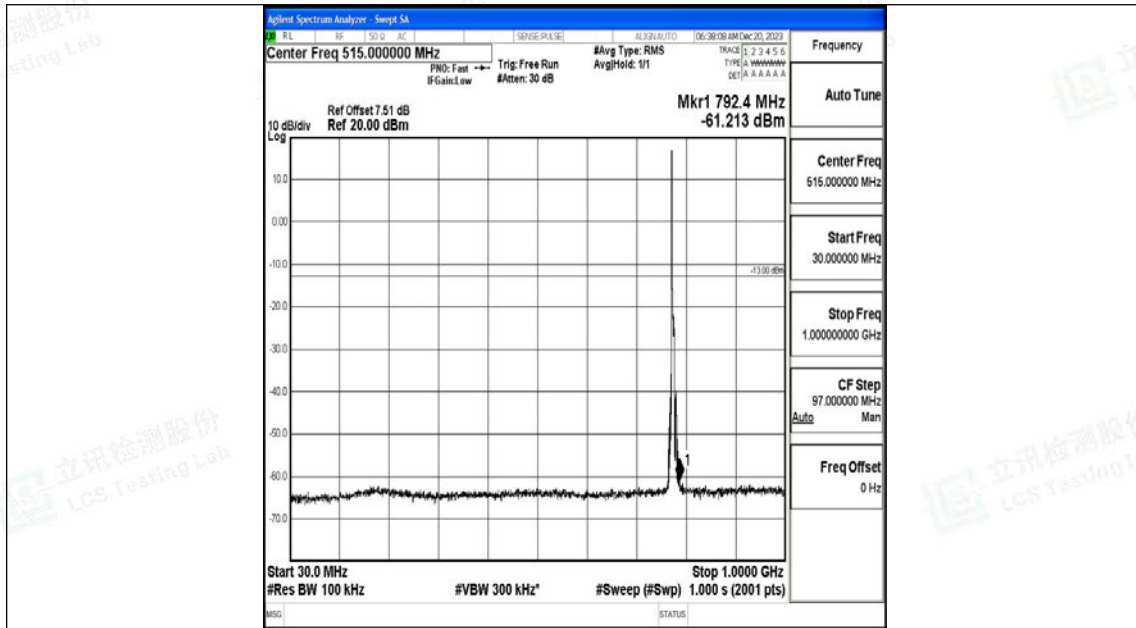


Band13_5MHz_QPSK_23205_1RB#0_0.009~0.15_0.009~0.15

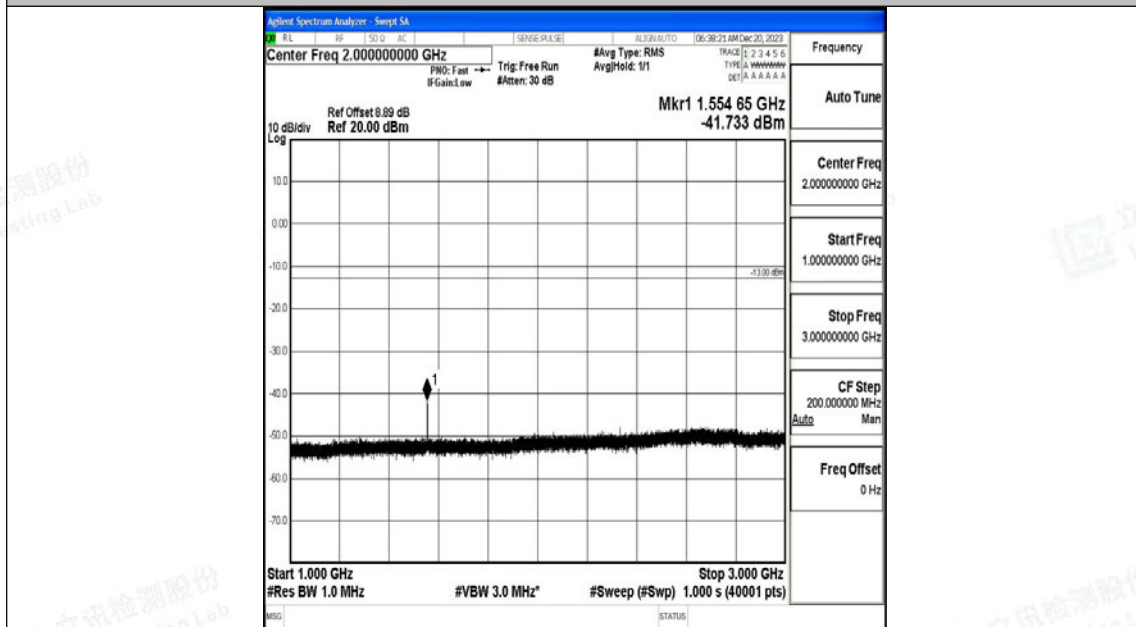


Band13_5MHz_QPSK_23205_1RB#0_0.15~30_0.15~30



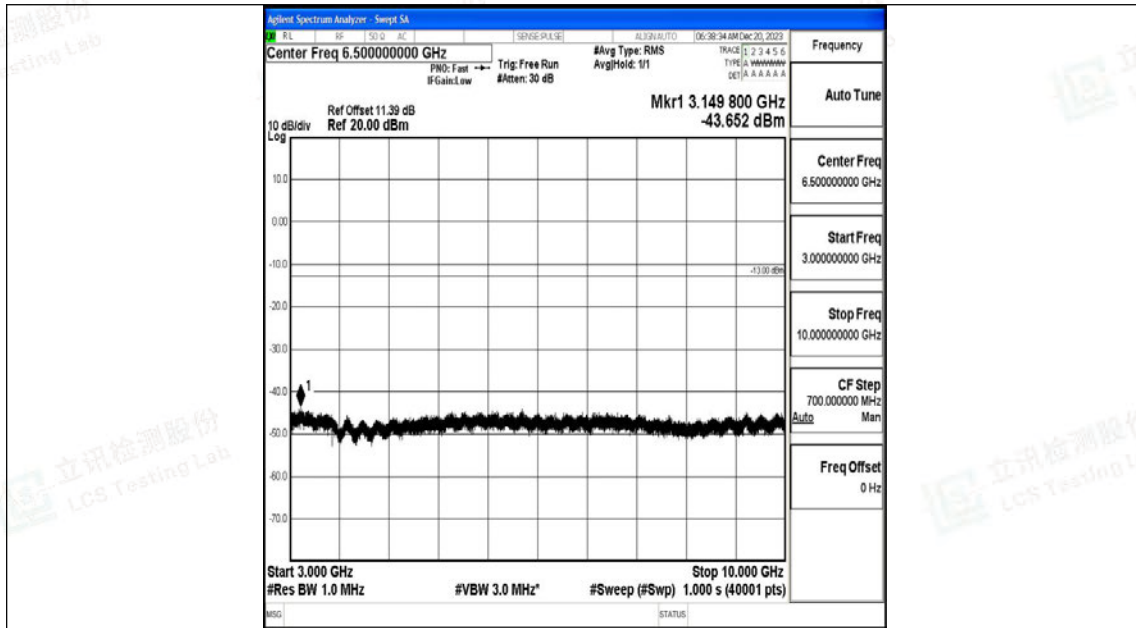


Band13_5MHz_QPSK_23205_1RB#0_30~1000_30~1000

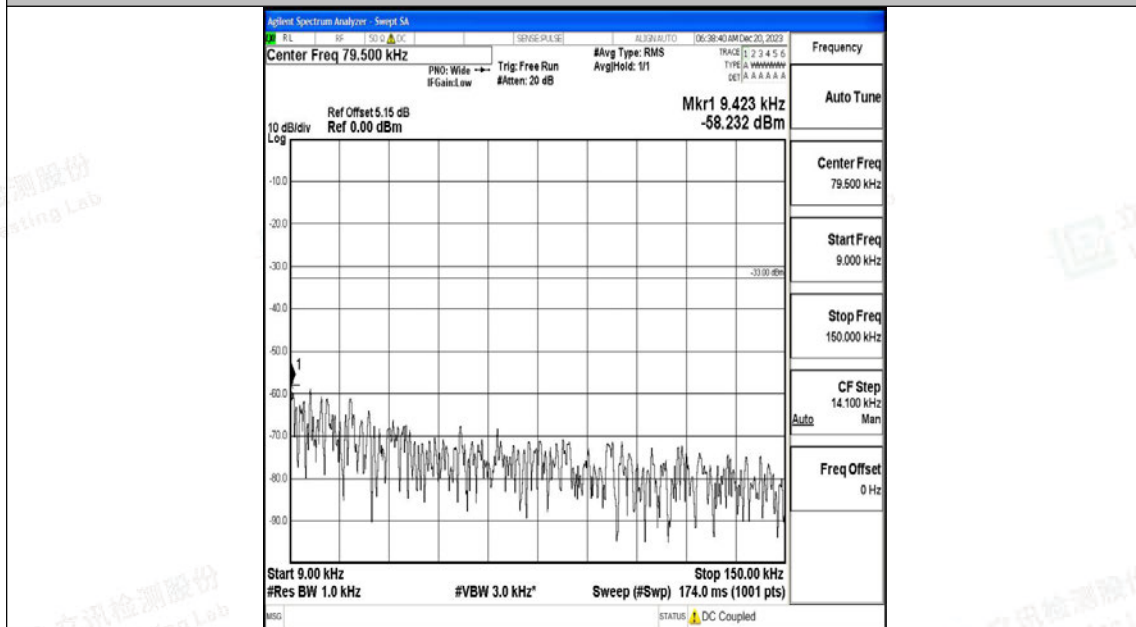


Band13_5MHz_QPSK_23205_1RB#0_1000~3000_1000~3000



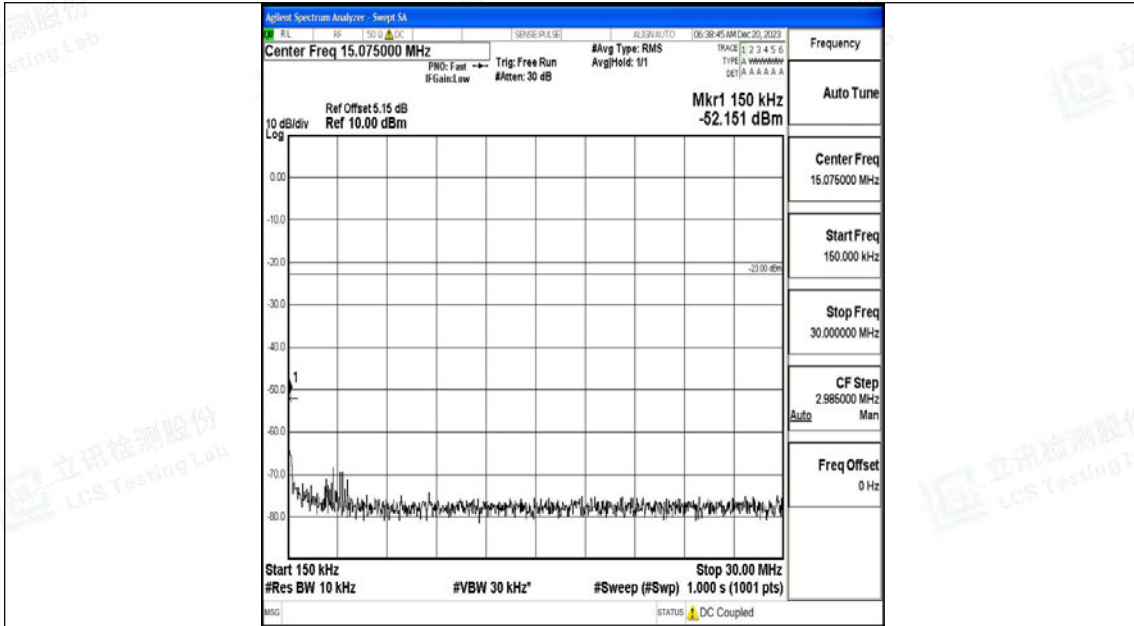


Band13_5MHz_QPSK_23205_1RB#0_3000~10000_3000~10000

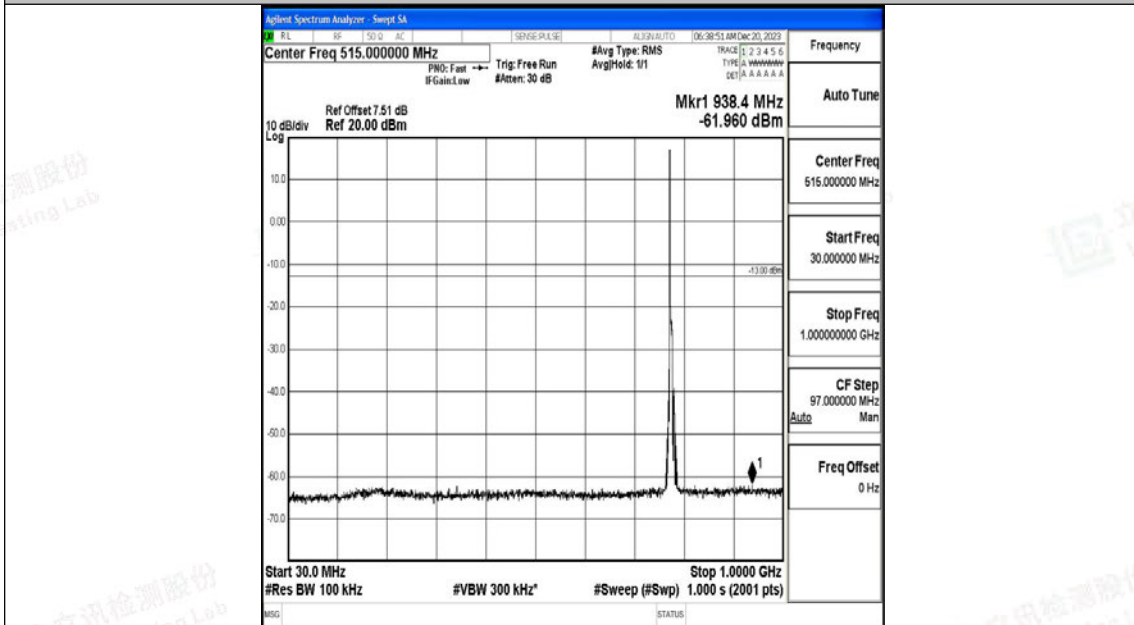


Band13_5MHz_16QAM_23205_1RB#0_0.009~0.15_0.009~0.15



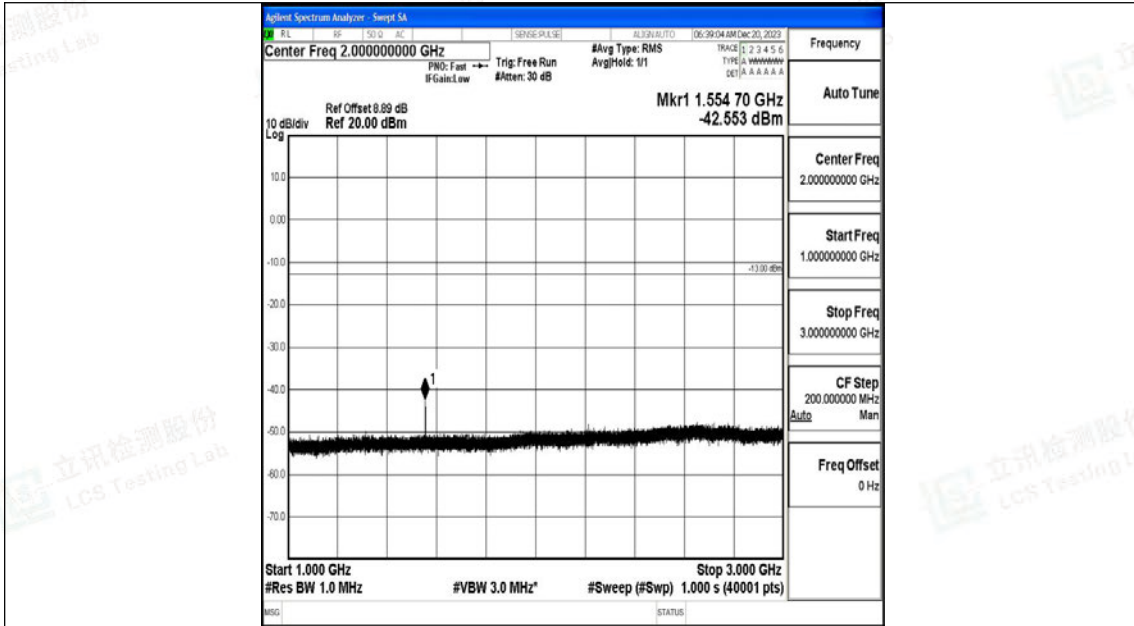


Band13_5MHz_16QAM_23205_1RB#0_0.15~30_0.15~30

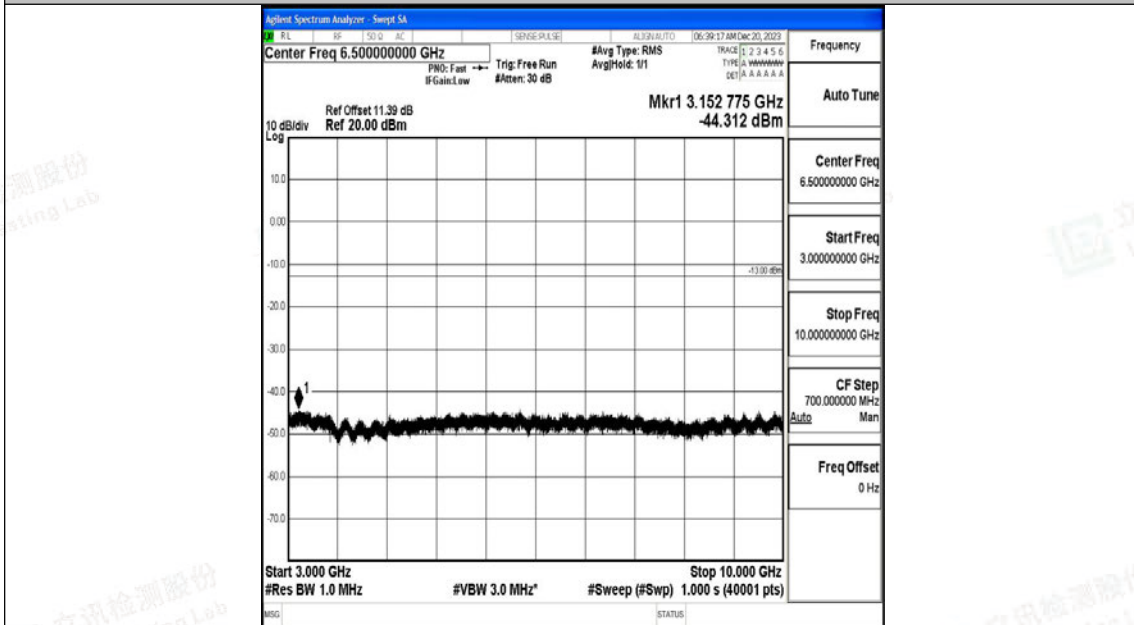


Band13_5MHz_16QAM_23205_1RB#0_30~1000_30~1000



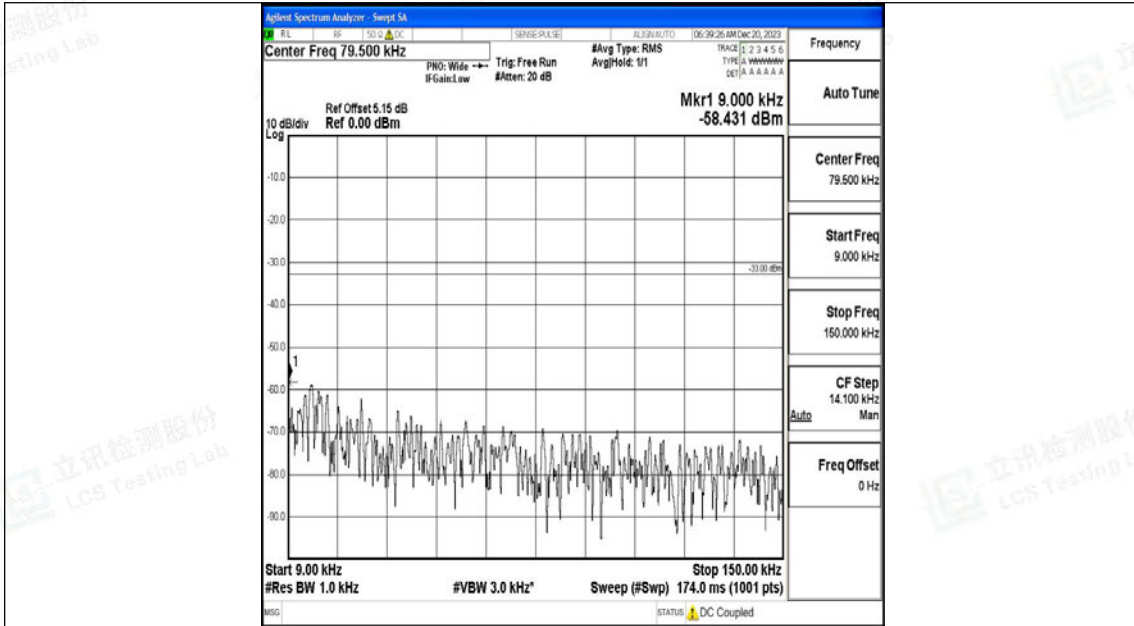


Band13_5MHz_16QAM_23205_1RB#0_1000~3000_1000~3000

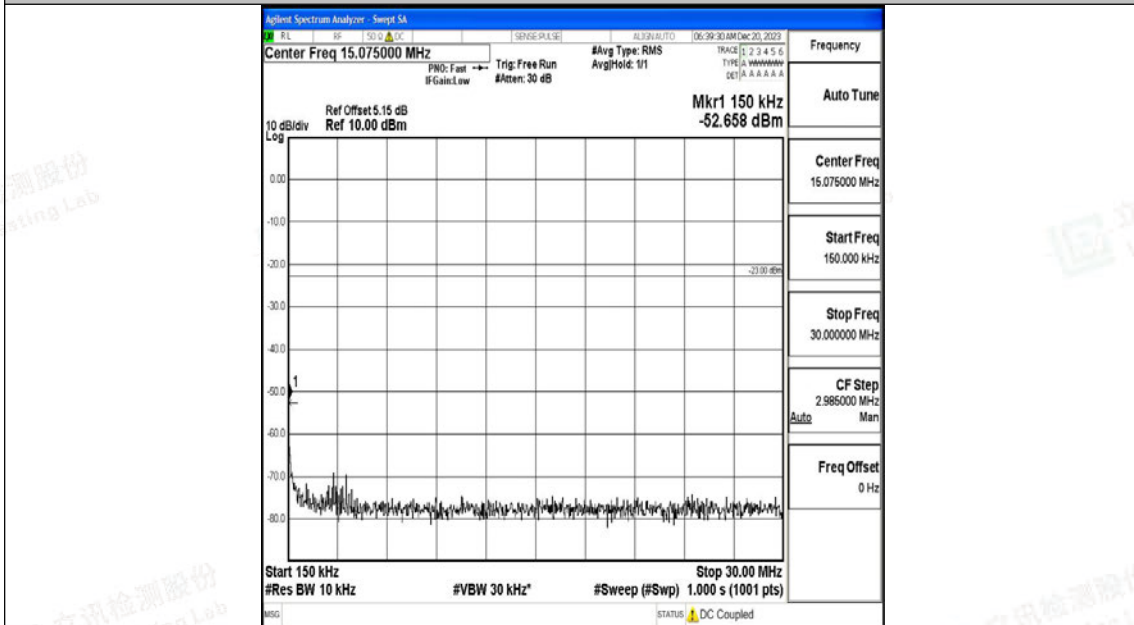


Band13_5MHz_16QAM_23205_1RB#0_3000~10000_3000~10000



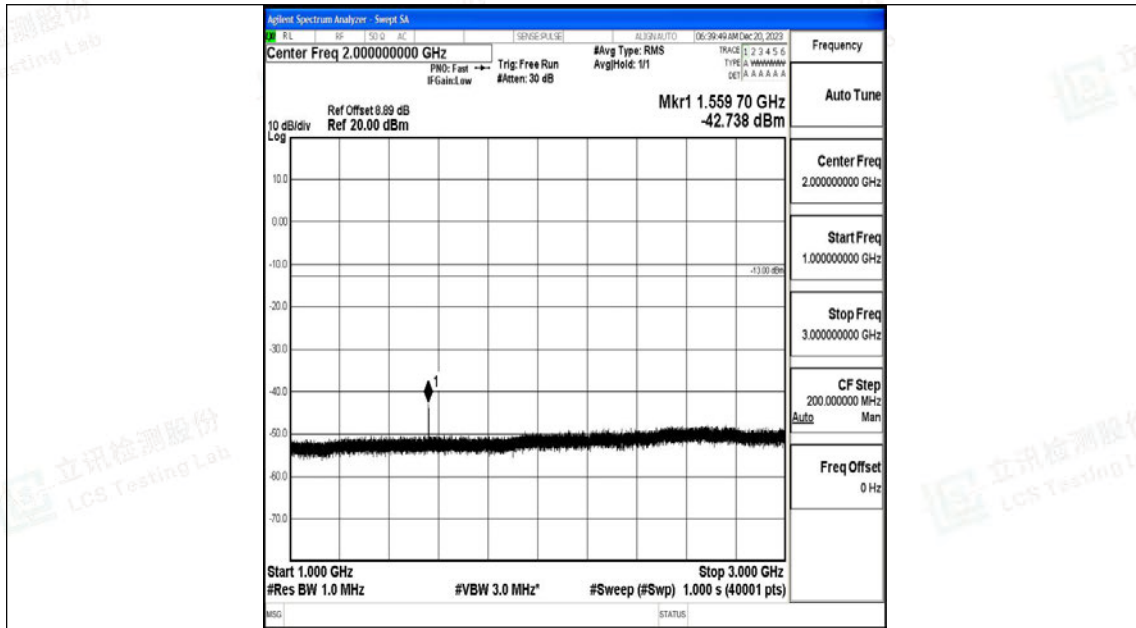


Band13_5MHz_QPSK_23230_1RB#0_0.009~0.15_0.009~0.15

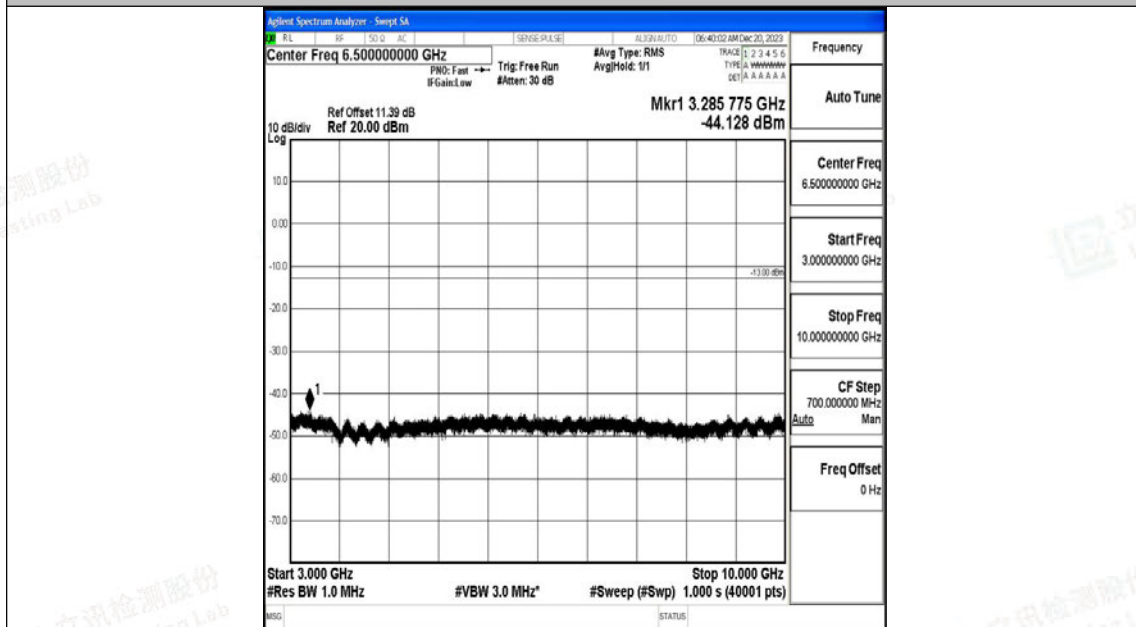


Band13_5MHz_QPSK_23230_1RB#0_0.15~30_0.15~30



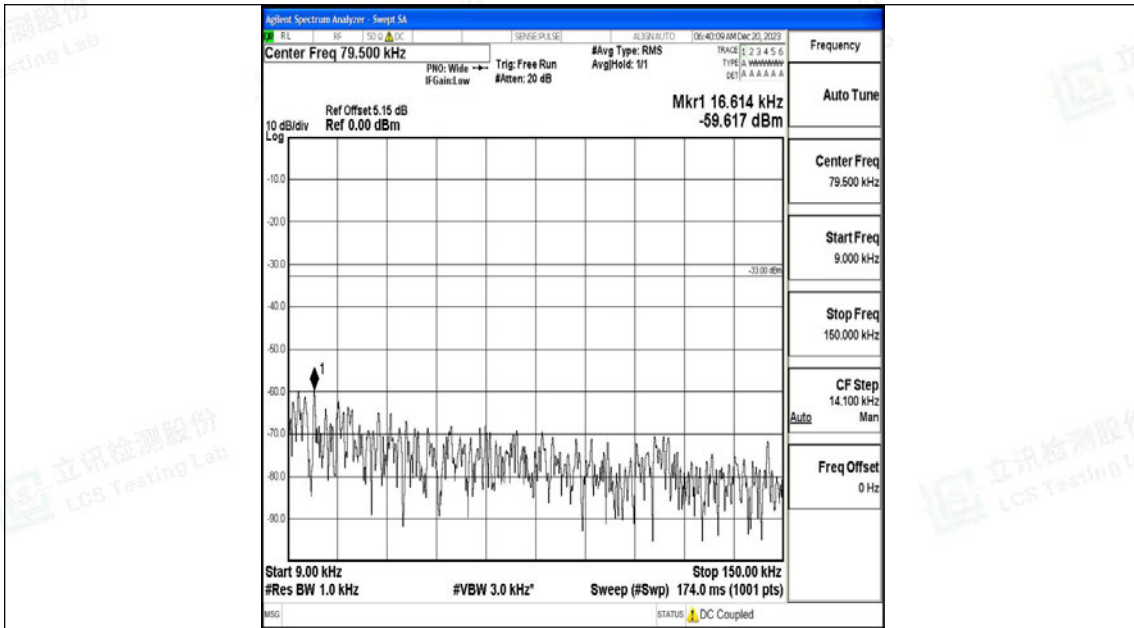


Band13_5MHz_QPSK_23230_1RB#0_1000~3000_1000~3000

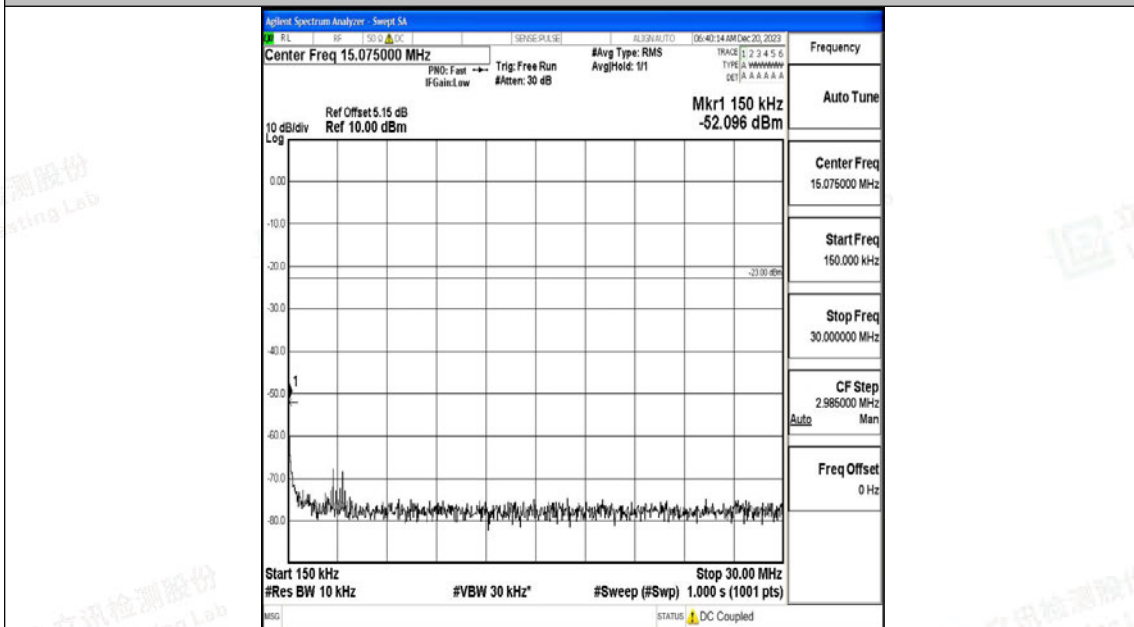


Band13_5MHz_QPSK_23230_1RB#0_3000~10000_3000~10000



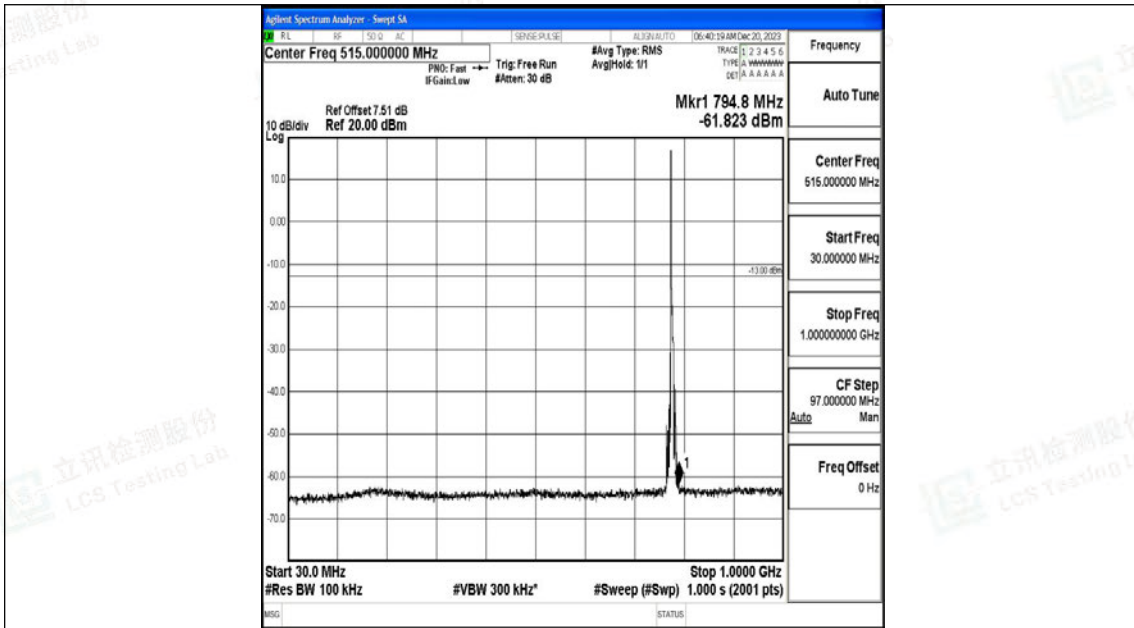


Band13_5MHz_16QAM_23230_1RB#0_0.009~0.15_0.009~0.15

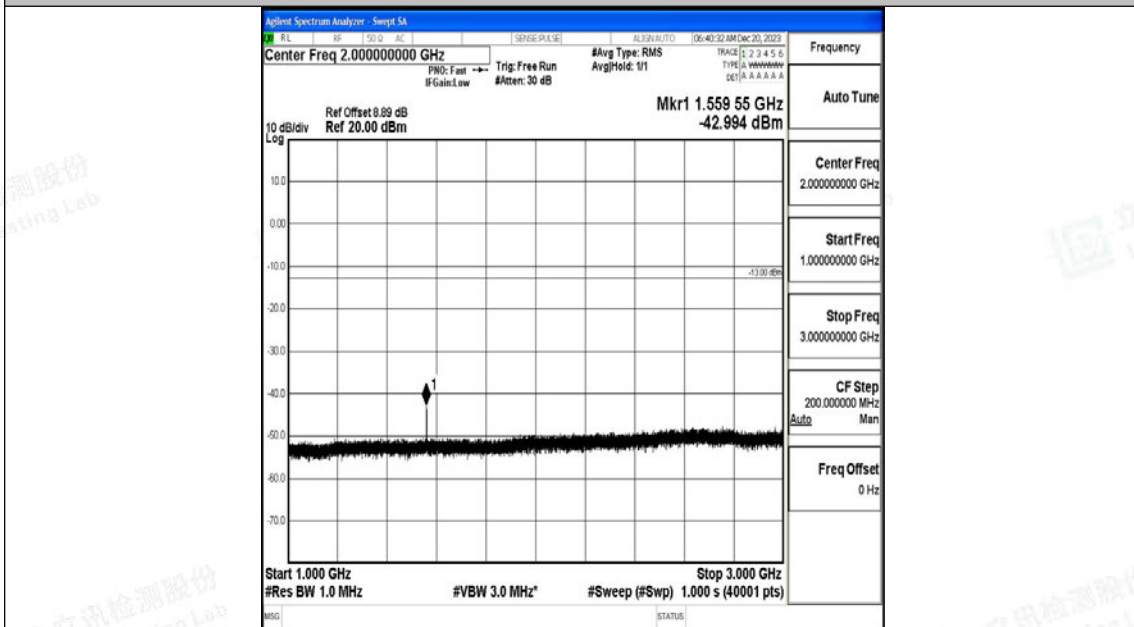


Band13_5MHz_16QAM_23230_1RB#0_0.15~30_0.15~30



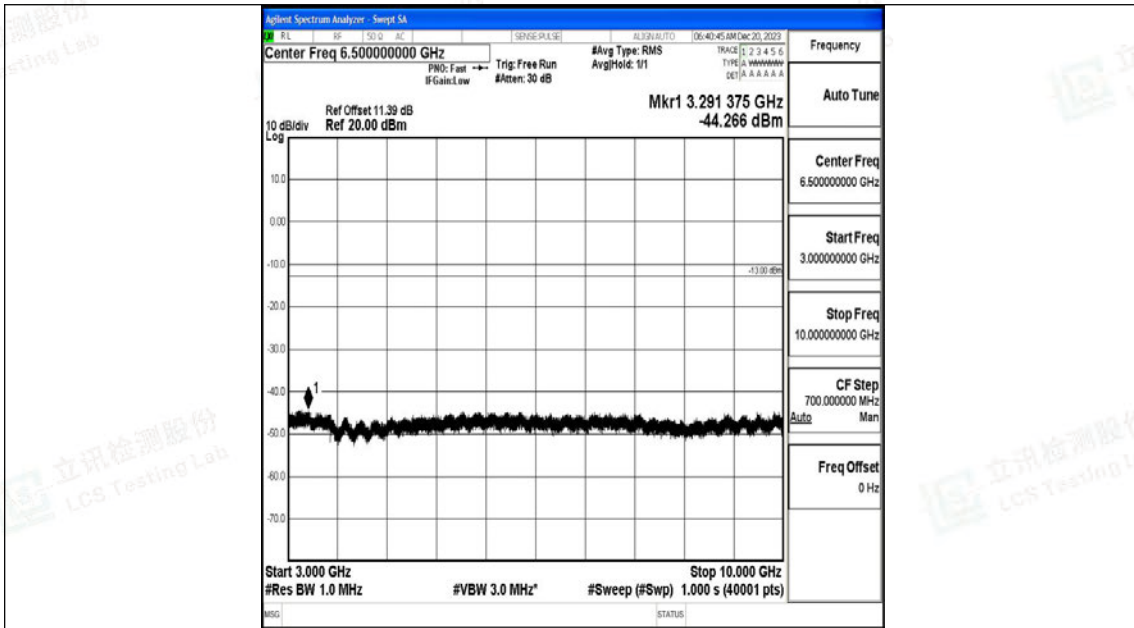


Band13_5MHz_16QAM_23230_1RB#0_30~1000_30~1000

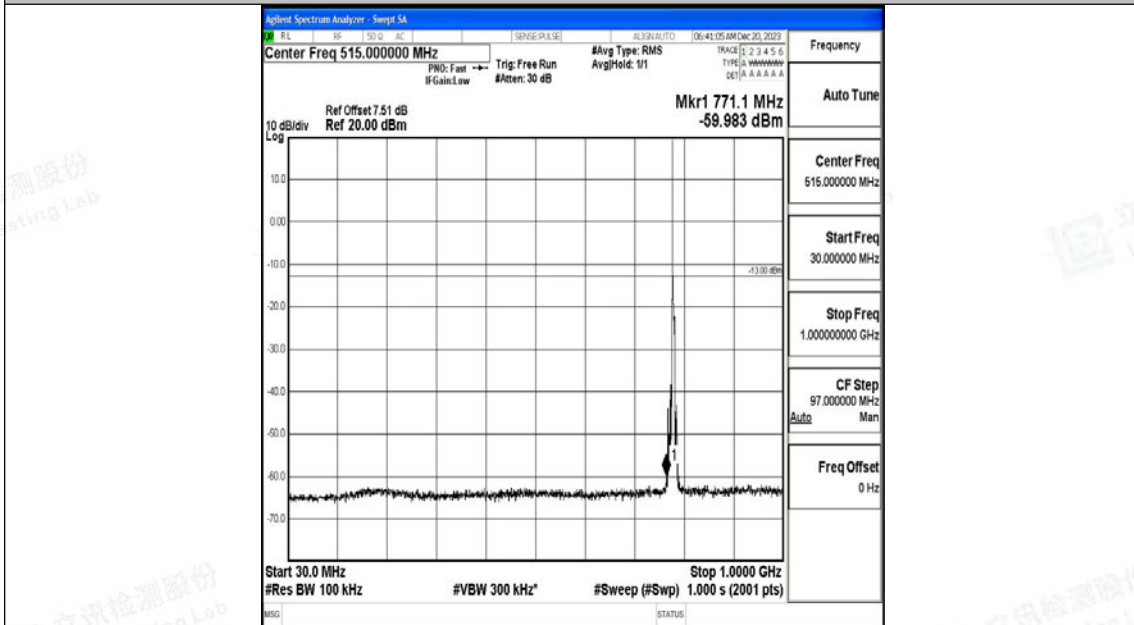


Band13_5MHz_16QAM_23230_1RB#0_1000~3000_1000~3000



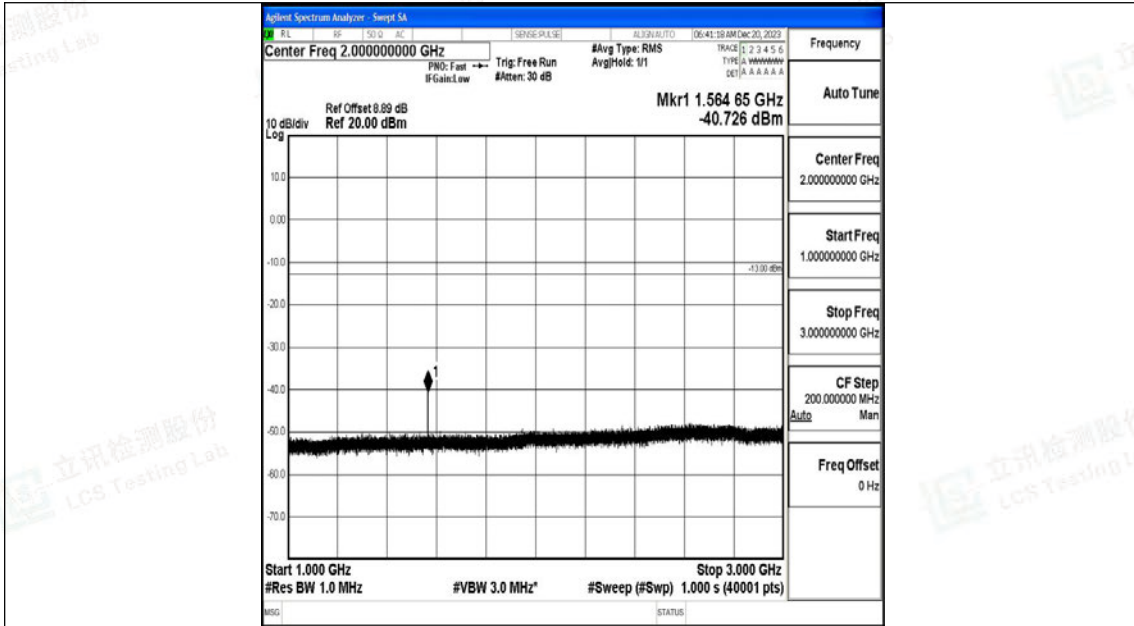


Band13_5MHz_16QAM_23230_1RB#0_3000~10000_3000~10000

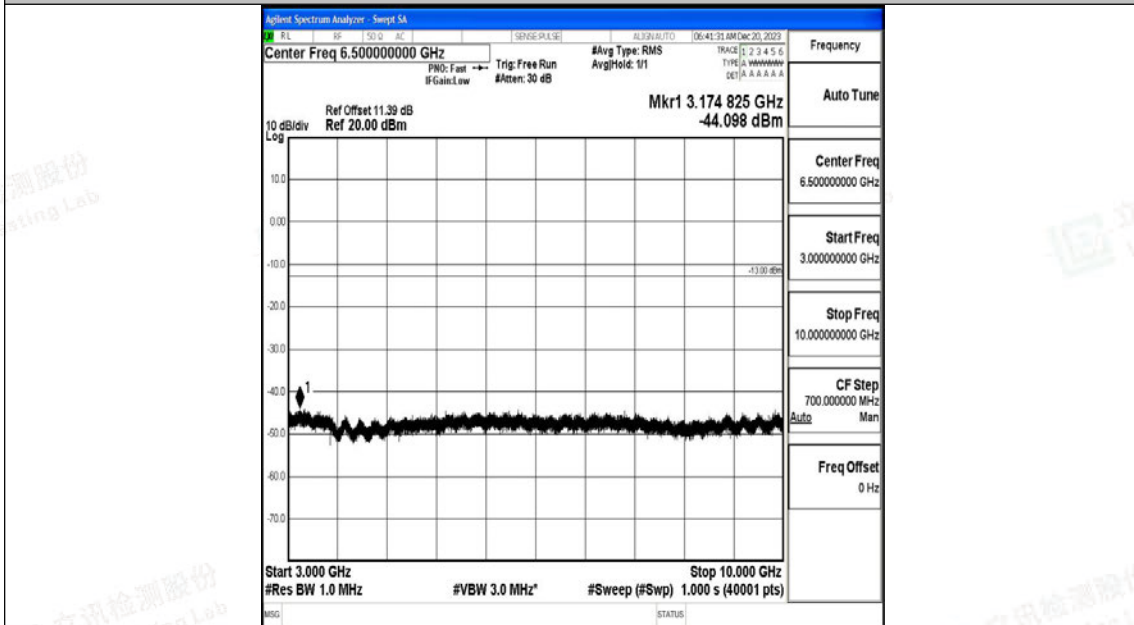


Band13_5MHz_QPSK_23255_1RB#0_30~1000_30~1000



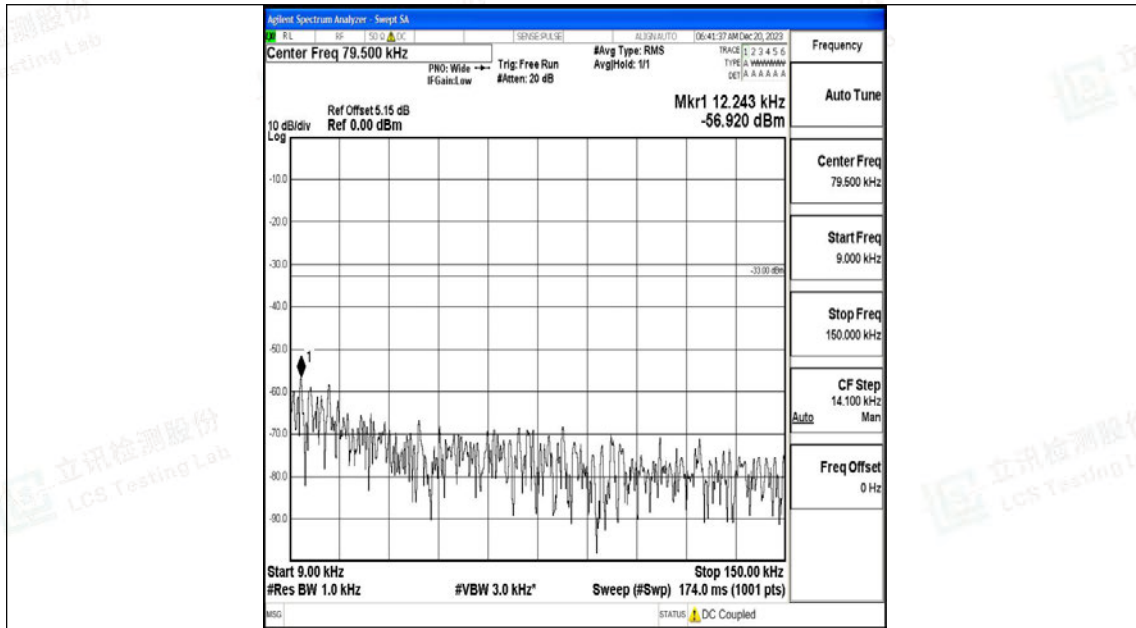


Band13_5MHz_QPSK_23255_1RB#0_1000~3000_1000~3000

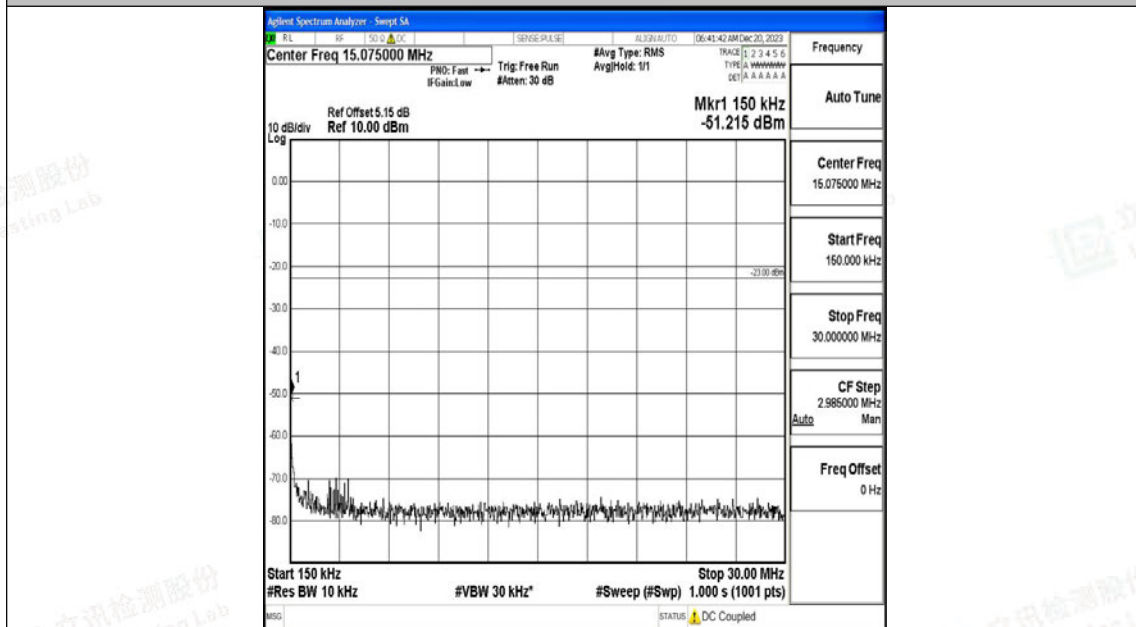


Band13_5MHz_QPSK_23255_1RB#0_3000~10000_3000~10000



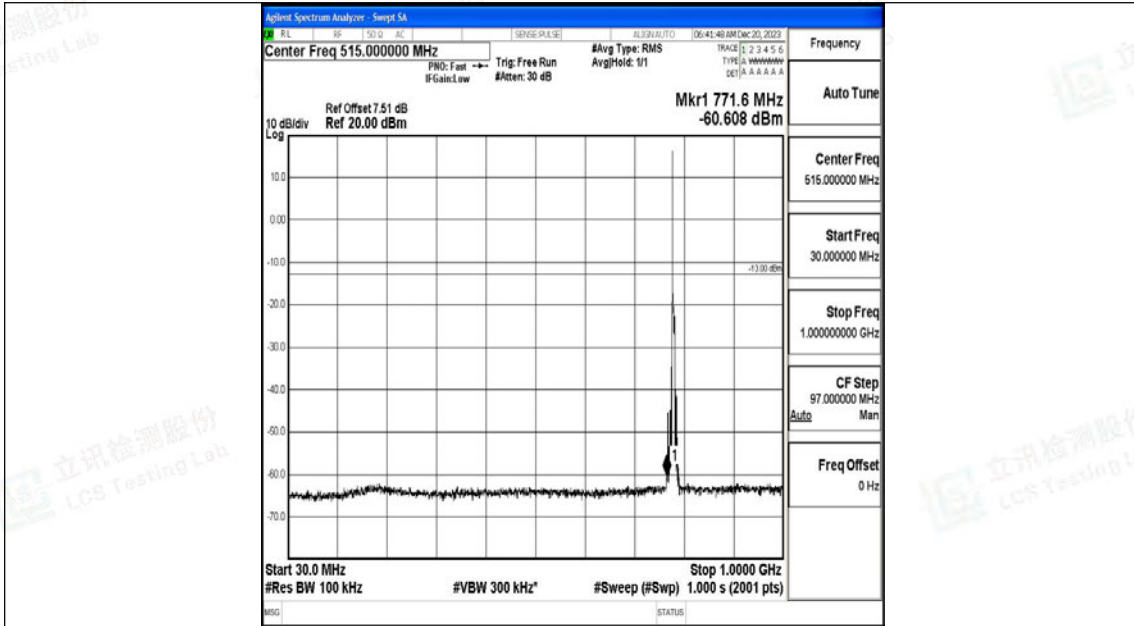


Band13_5MHz_16QAM_23255_1RB#0_0.009~0.15_0.009~0.15

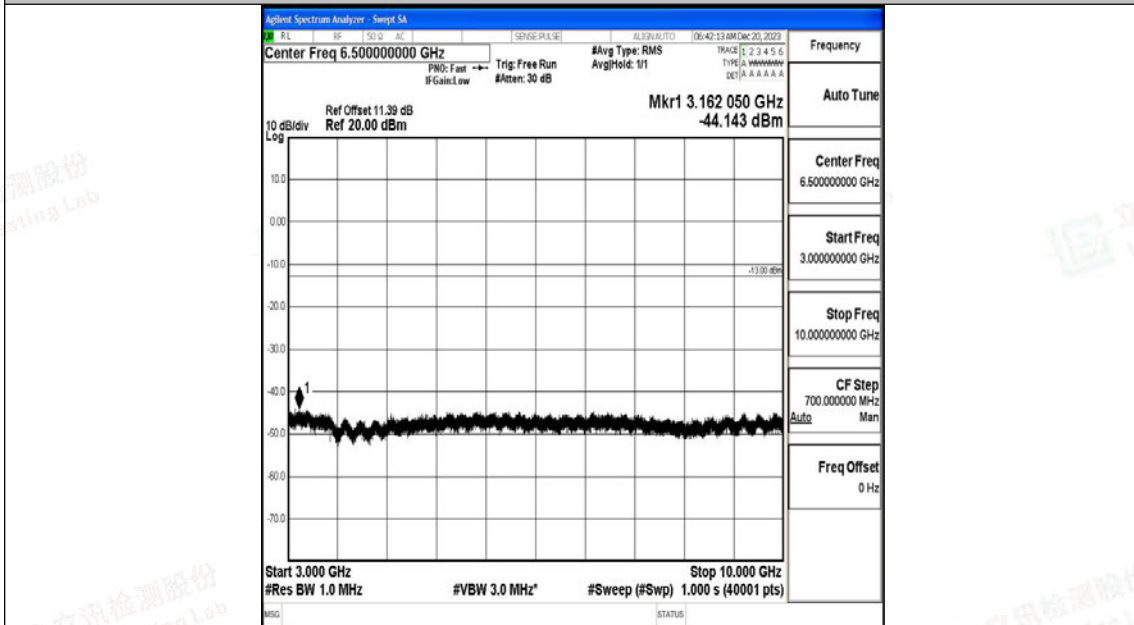


Band13_5MHz_16QAM_23255_1RB#0_0.15~30_0.15~30



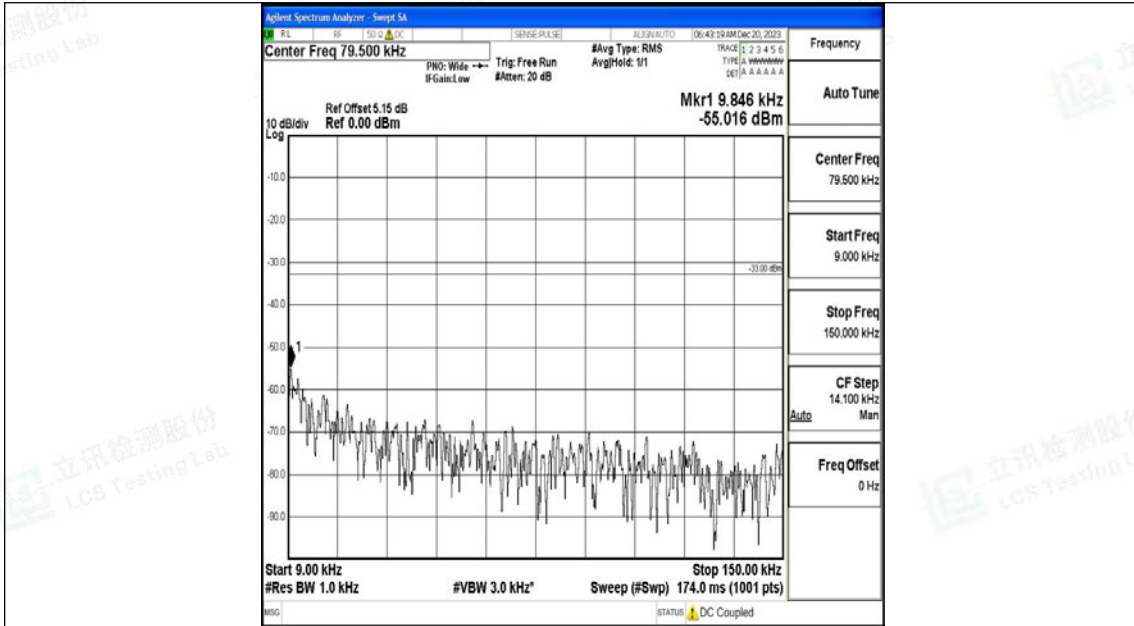


Band13_5MHz_16QAM_23255_1RB#0_30~1000_30~1000

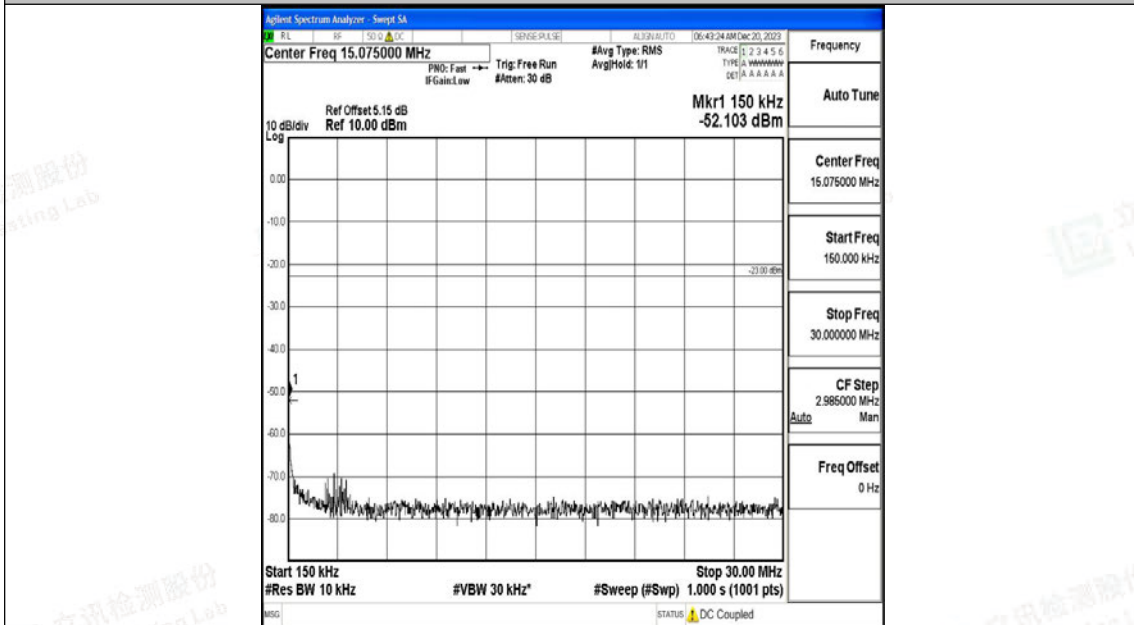


Band13_5MHz_16QAM_23255_1RB#0_3000~10000_3000~10000



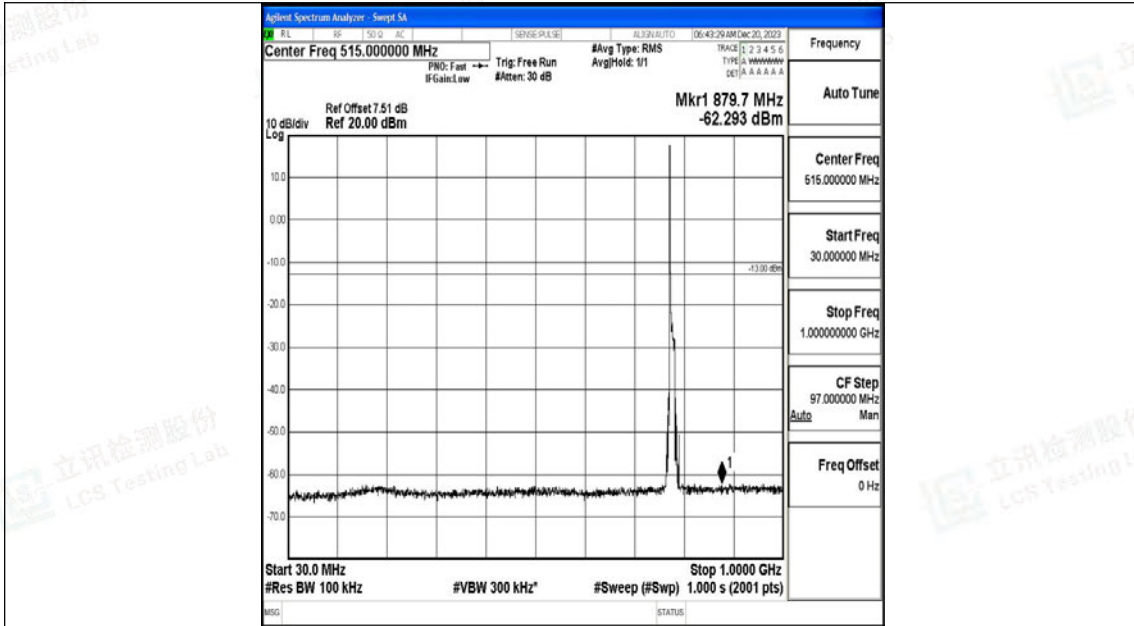


Band13_10MHz_QPSK_23230_1RB#0_0.009~0.15_0.009~0.15

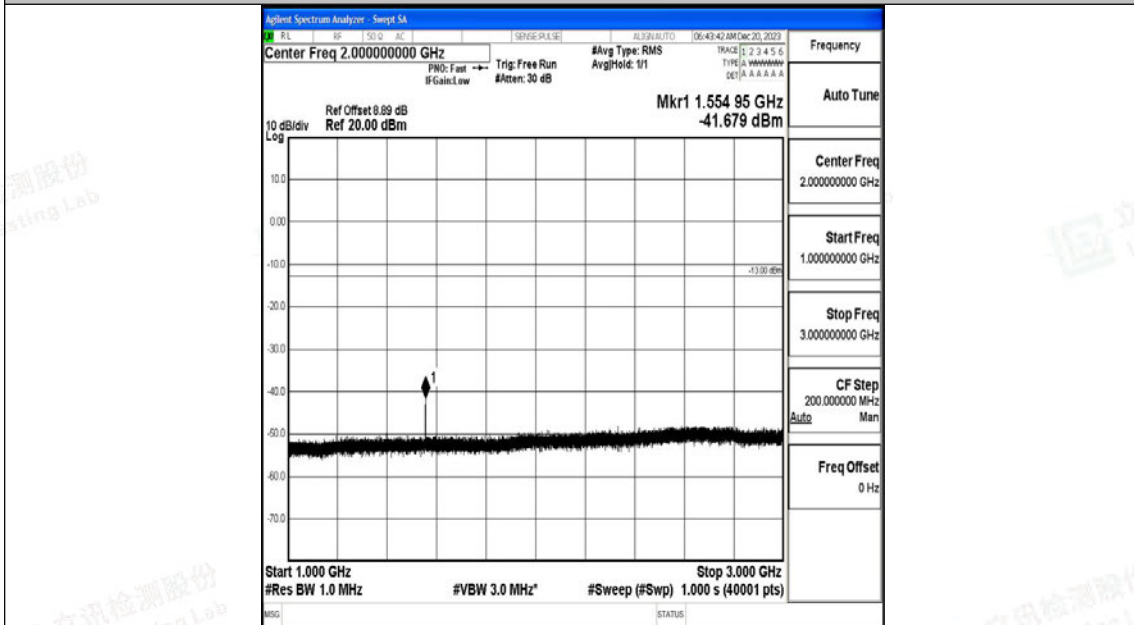


Band13_10MHz_QPSK_23230_1RB#0_0.15~30_0.15~30



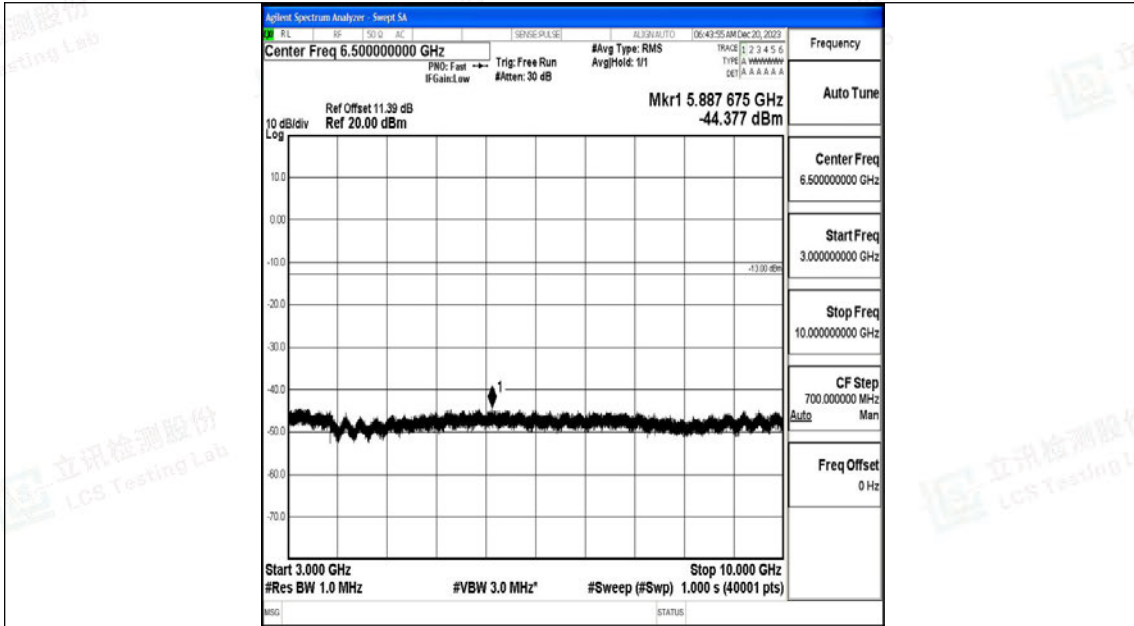


Band13_10MHz_QPSK_23230_1RB#0_30~1000_30~1000

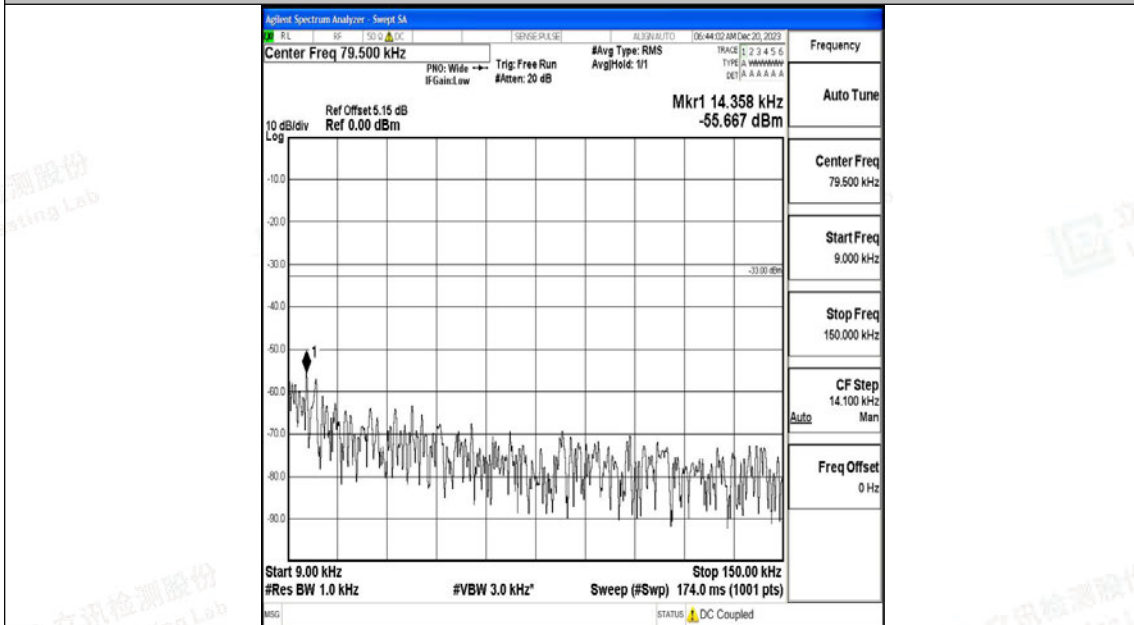


Band13_10MHz_QPSK_23230_1RB#0_1000~3000_1000~3000



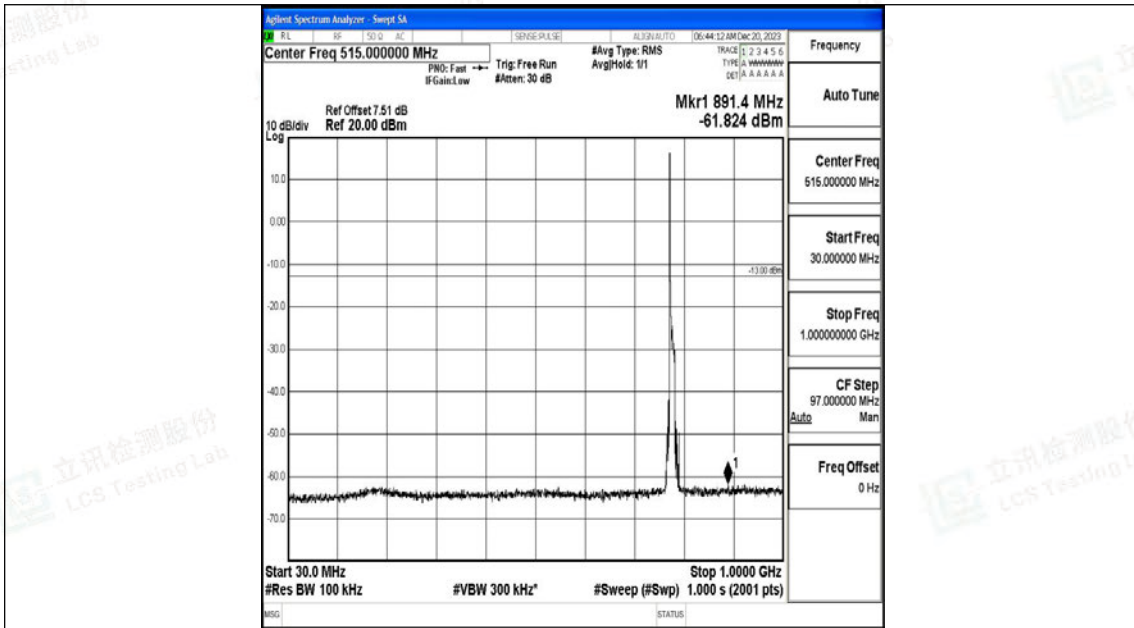


Band13_10MHz_QPSK_23230_1RB#0_3000~10000_3000~10000

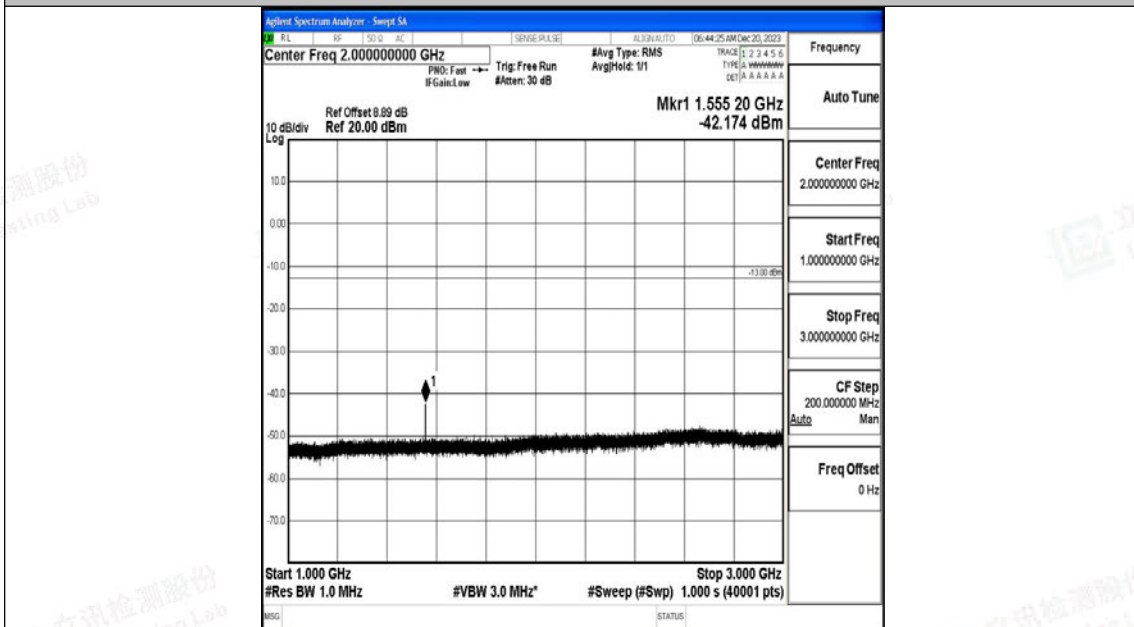


Band13_10MHz_16QAM_23230_1RB#0_0.009~0.15_0.009~0.15



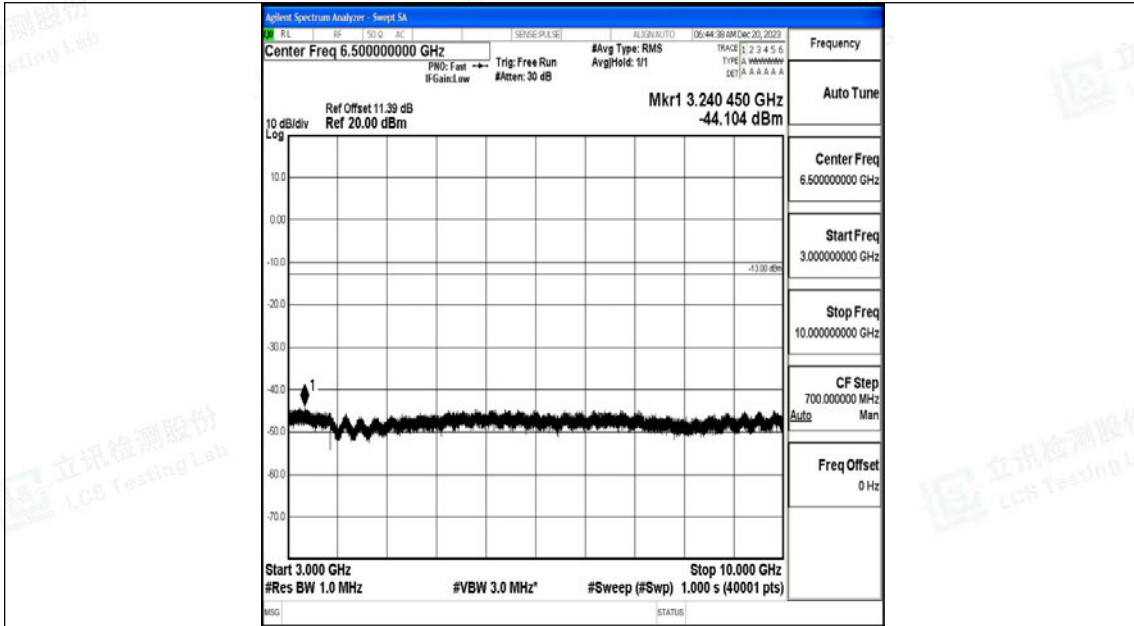


Band13_10MHz_16QAM_23230_1RB#0_30~1000_30~1000

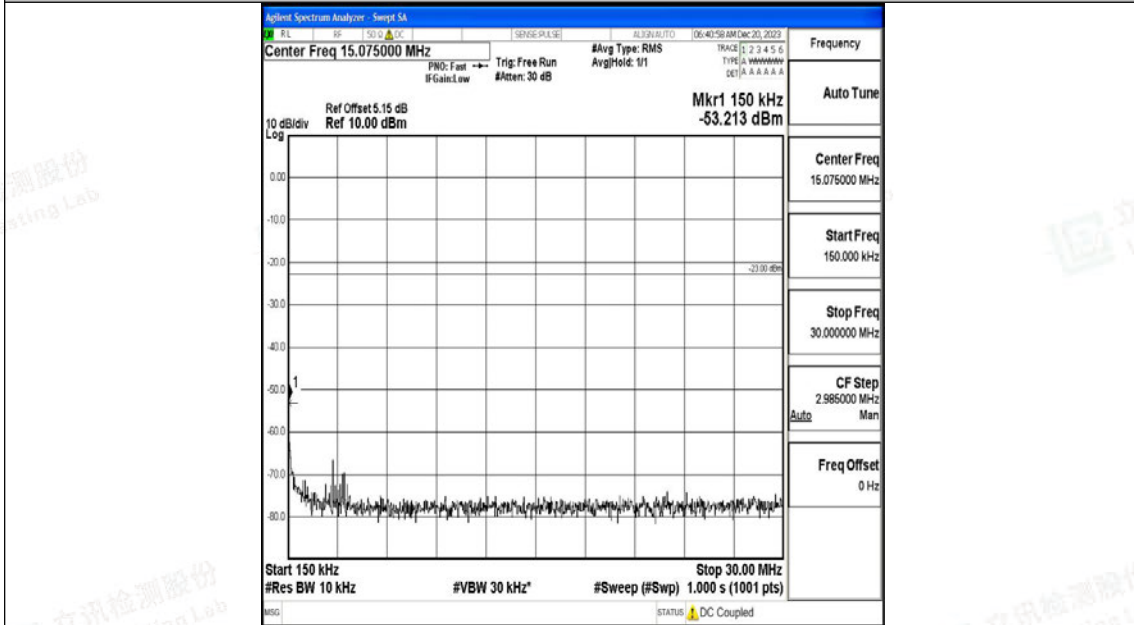


Band13_10MHz_16QAM_23230_1RB#0_1000~3000_1000~3000



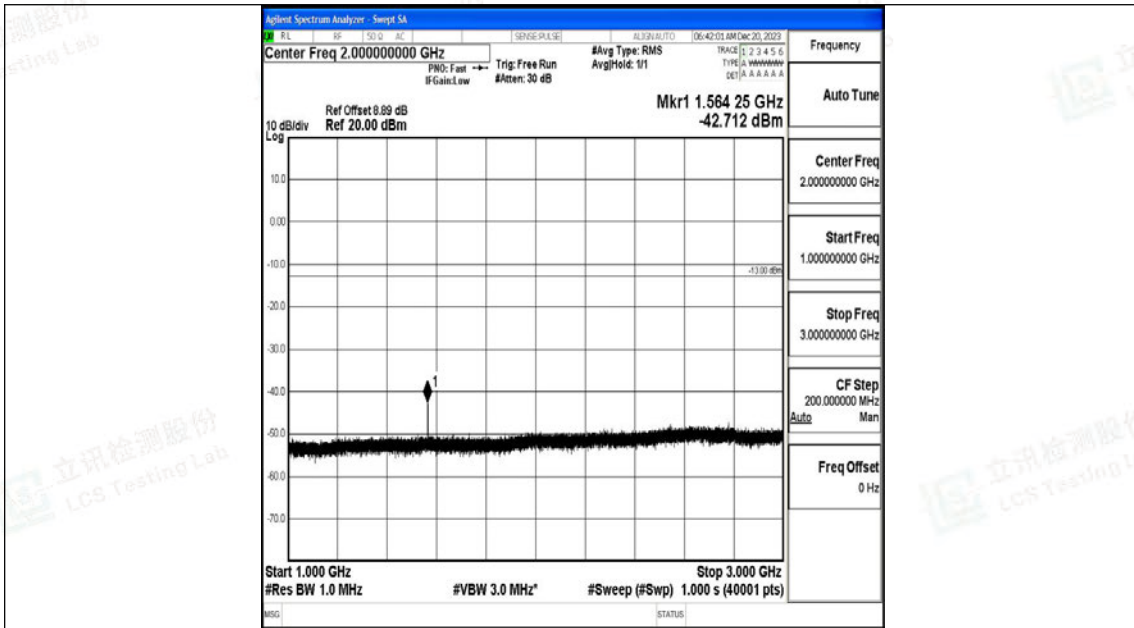


Band13_10MHz_16QAM_23230_1RB#0_3000~10000_3000~10000

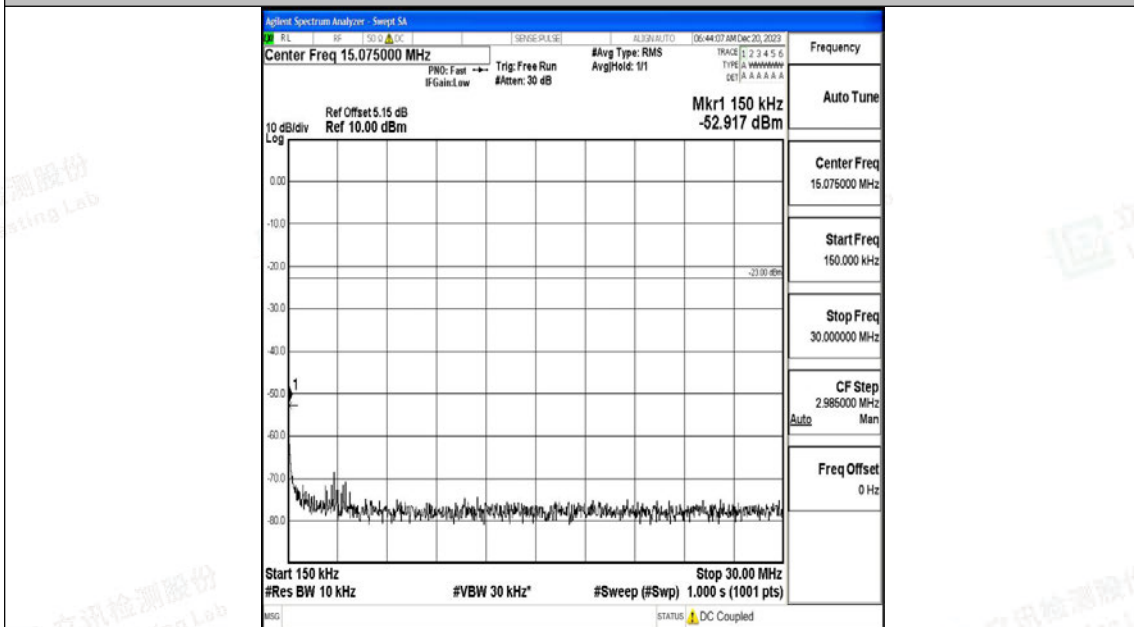


Band13_5MHz_QPSK_23255_1RB#0_0.15~30_0.15~30



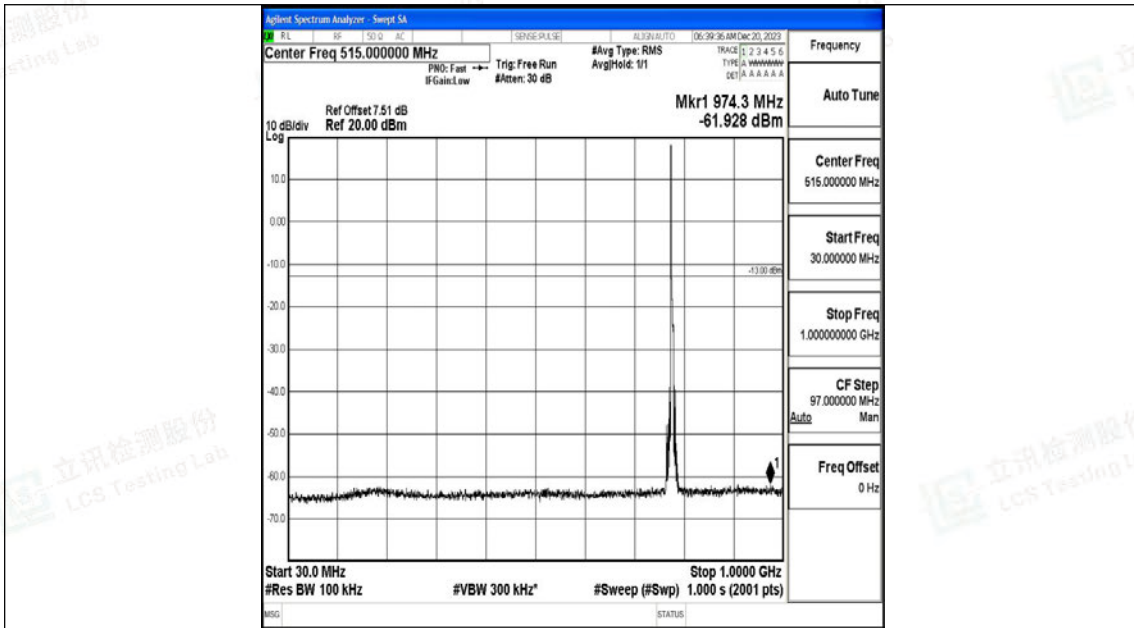


Band13_5MHz_16QAM_23255_1RB#0_1000~3000_1000~3000

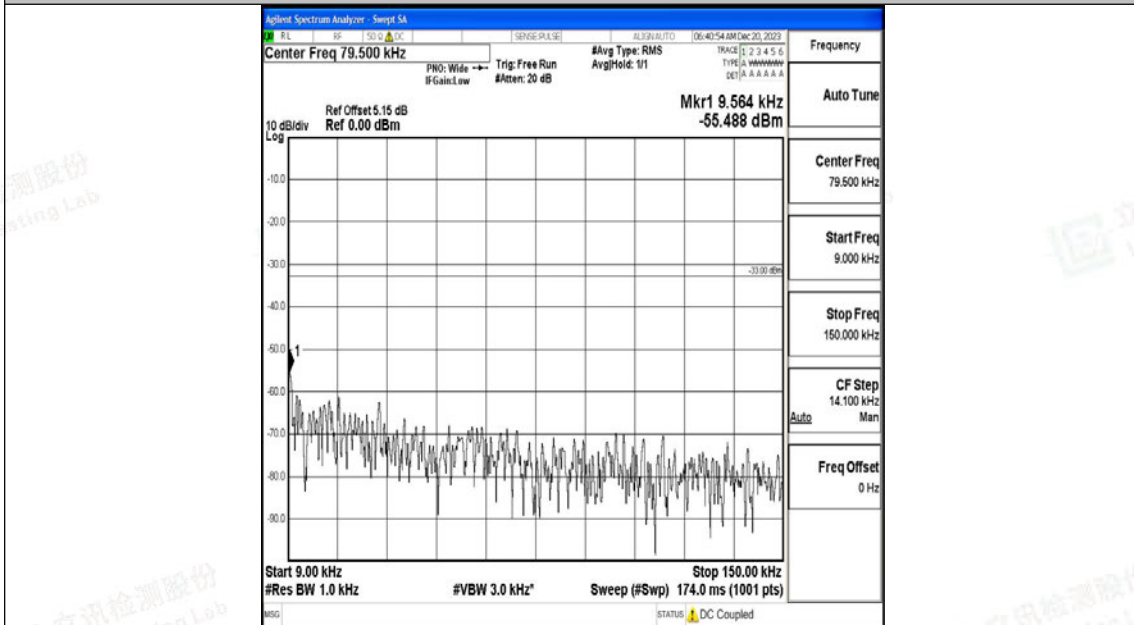


Band13_10MHz_16QAM_23230_1RB#0_0.15~30_0.15~30





Band13_5MHz_QPSK_23230_1RB#0_30~1000_30~1000



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

