



Appendix J: Test Data for E-UTRA Band 13

Product Name: mobile phone

Test Model: F31

Environmental Conditions

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



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J.1 Conducted Output Power Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	23.25	PASS
Band13	5MHz	16QAM	23205	1RB#0	22.18	PASS
Band13	5MHz	QPSK	23205	1RB#12	23.33	PASS
Band13	5MHz	16QAM	23205	1RB#12	22.25	PASS
Band13	5MHz	QPSK	23205	1RB#24	23.22	PASS
Band13	5MHz	16QAM	23205	1RB#24	22.14	PASS
Band13	5MHz	QPSK	23205	12RB#0	22.18	PASS
Band13	5MHz	16QAM	23205	12RB#0	21.20	PASS
Band13	5MHz	QPSK	23205	12RB#6	22.18	PASS
Band13	5MHz	16QAM	23205	12RB#6	21.17	PASS
Band13	5MHz	QPSK	23205	12RB#13	22.20	PASS
Band13	5MHz	16QAM	23205	12RB#13	21.26	PASS
Band13	5MHz	QPSK	23205	25RB#0	22.19	PASS
Band13	5MHz	16QAM	23205	25RB#0	21.26	PASS
Band13	5MHz	QPSK	23230	1RB#0	23.16	PASS
Band13	5MHz	16QAM	23230	1RB#0	22.27	PASS
Band13	5MHz	QPSK	23230	1RB#12	23.27	PASS
Band13	5MHz	16QAM	23230	1RB#12	22.35	PASS
Band13	5MHz	QPSK	23230	1RB#24	23.14	PASS
Band13	5MHz	16QAM	23230	1RB#24	22.19	PASS
Band13	5MHz	QPSK	23230	12RB#0	22.30	PASS
Band13	5MHz	16QAM	23230	12RB#0	21.35	PASS
Band13	5MHz	QPSK	23230	12RB#6	22.27	PASS
Band13	5MHz	16QAM	23230	12RB#6	21.37	PASS
Band13	5MHz	QPSK	23230	12RB#13	22.25	PASS
Band13	5MHz	16QAM	23230	12RB#13	21.33	PASS
Band13	5MHz	QPSK	23230	25RB#0	22.29	PASS
Band13	5MHz	16QAM	23230	25RB#0	21.28	PASS
Band13	5MHz	QPSK	23255	1RB#0	23.25	PASS
Band13	5MHz	16QAM	23255	1RB#0	22.12	PASS
Band13	5MHz	QPSK	23255	1RB#12	23.34	PASS
Band13	5MHz	16QAM	23255	1RB#12	22.19	PASS
Band13	5MHz	QPSK	23255	1RB#24	22.98	PASS
Band13	5MHz	16QAM	23255	1RB#24	21.87	PASS
Band13	5MHz	QPSK	23255	12RB#0	22.20	PASS



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Band13	5MHz	16QAM	23255	12RB#0	21.31	PASS
Band13	5MHz	QPSK	23255	12RB#6	22.20	PASS
Band13	5MHz	16QAM	23255	12RB#6	21.33	PASS
Band13	5MHz	QPSK	23255	12RB#13	22.19	PASS
Band13	5MHz	16QAM	23255	12RB#13	21.06	PASS
Band13	5MHz	QPSK	23255	25RB#0	22.15	PASS
Band13	5MHz	16QAM	23255	25RB#0	21.19	PASS
Band13	10MHz	QPSK	23230	1RB#0	23.13	PASS
Band13	10MHz	16QAM	23230	1RB#0	22.07	PASS
Band13	10MHz	QPSK	23230	1RB#24	23.24	PASS
Band13	10MHz	16QAM	23230	1RB#24	22.14	PASS
Band13	10MHz	QPSK	23230	1RB#49	22.71	PASS
Band13	10MHz	16QAM	23230	1RB#49	21.72	PASS
Band13	10MHz	QPSK	23230	25RB#0	22.06	PASS
Band13	10MHz	16QAM	23230	25RB#0	20.94	PASS
Band13	10MHz	QPSK	23230	25RB#12	22.16	PASS
Band13	10MHz	16QAM	23230	25RB#12	21.15	PASS
Band13	10MHz	QPSK	23230	25RB#25	21.92	PASS
Band13	10MHz	16QAM	23230	25RB#25	21.14	PASS
Band13	10MHz	QPSK	23230	50RB#0	21.98	PASS
Band13	10MHz	16QAM	23230	50RB#0	21.02	PASS





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

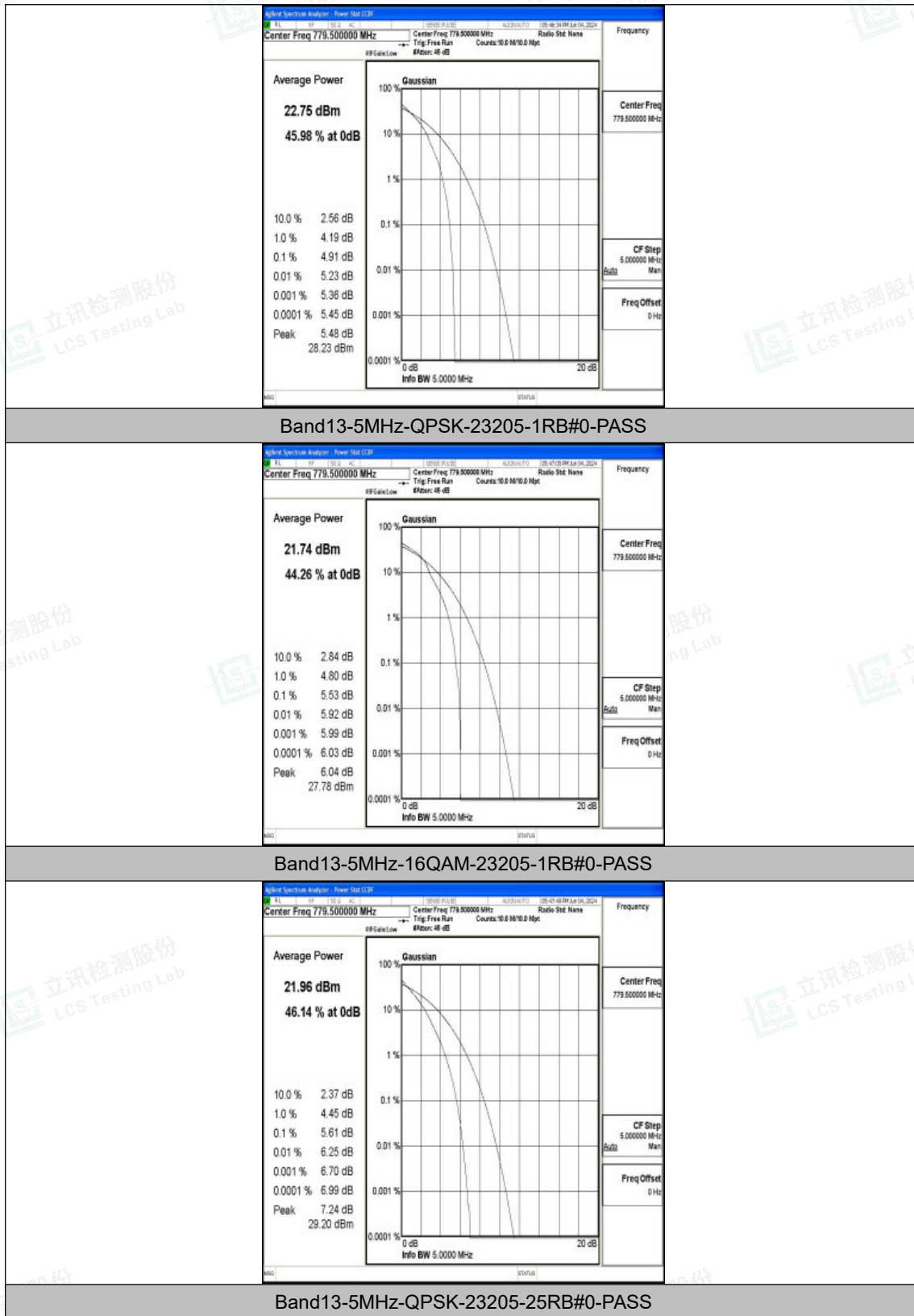
Test Result

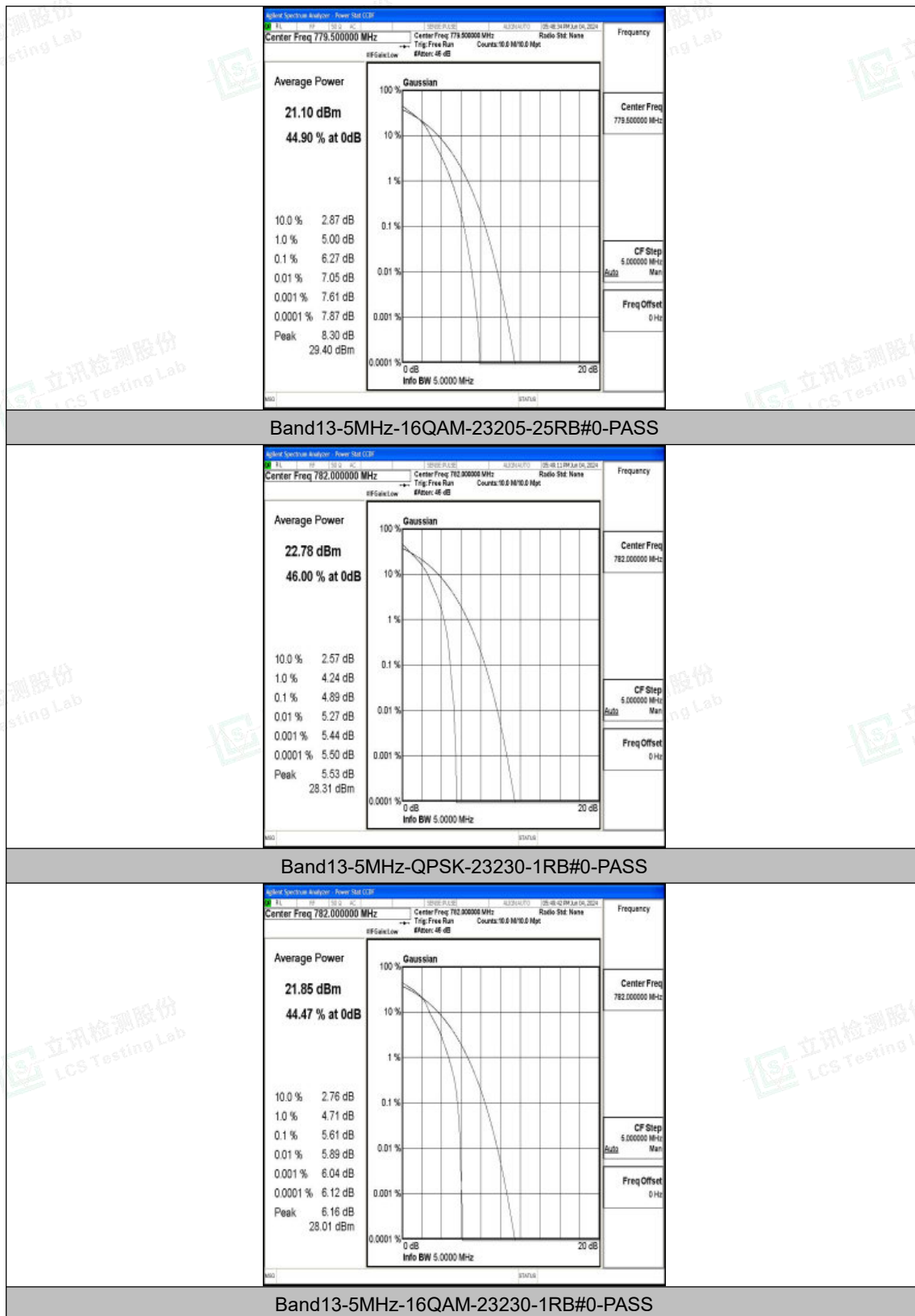
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	4.91	13	PASS
Band13	5MHz	16QAM	23205	1RB#0	5.53	13	PASS
Band13	5MHz	QPSK	23205	25RB#0	5.61	13	PASS
Band13	5MHz	16QAM	23205	25RB#0	6.27	13	PASS
Band13	5MHz	QPSK	23230	1RB#0	4.89	13	PASS
Band13	5MHz	16QAM	23230	1RB#0	5.61	13	PASS
Band13	5MHz	QPSK	23230	25RB#0	5.62	13	PASS
Band13	5MHz	16QAM	23230	25RB#0	6.25	13	PASS
Band13	5MHz	QPSK	23255	1RB#0	4.63	13	PASS
Band13	5MHz	16QAM	23255	1RB#0	5.37	13	PASS
Band13	5MHz	QPSK	23255	25RB#0	5.62	13	PASS
Band13	5MHz	16QAM	23255	25RB#0	6.28	13	PASS
Band13	10MHz	QPSK	23230	1RB#0	4.85	13	PASS
Band13	10MHz	16QAM	23230	1RB#0	5.72	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	5.60	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	6.29	13	PASS





Test Graphs



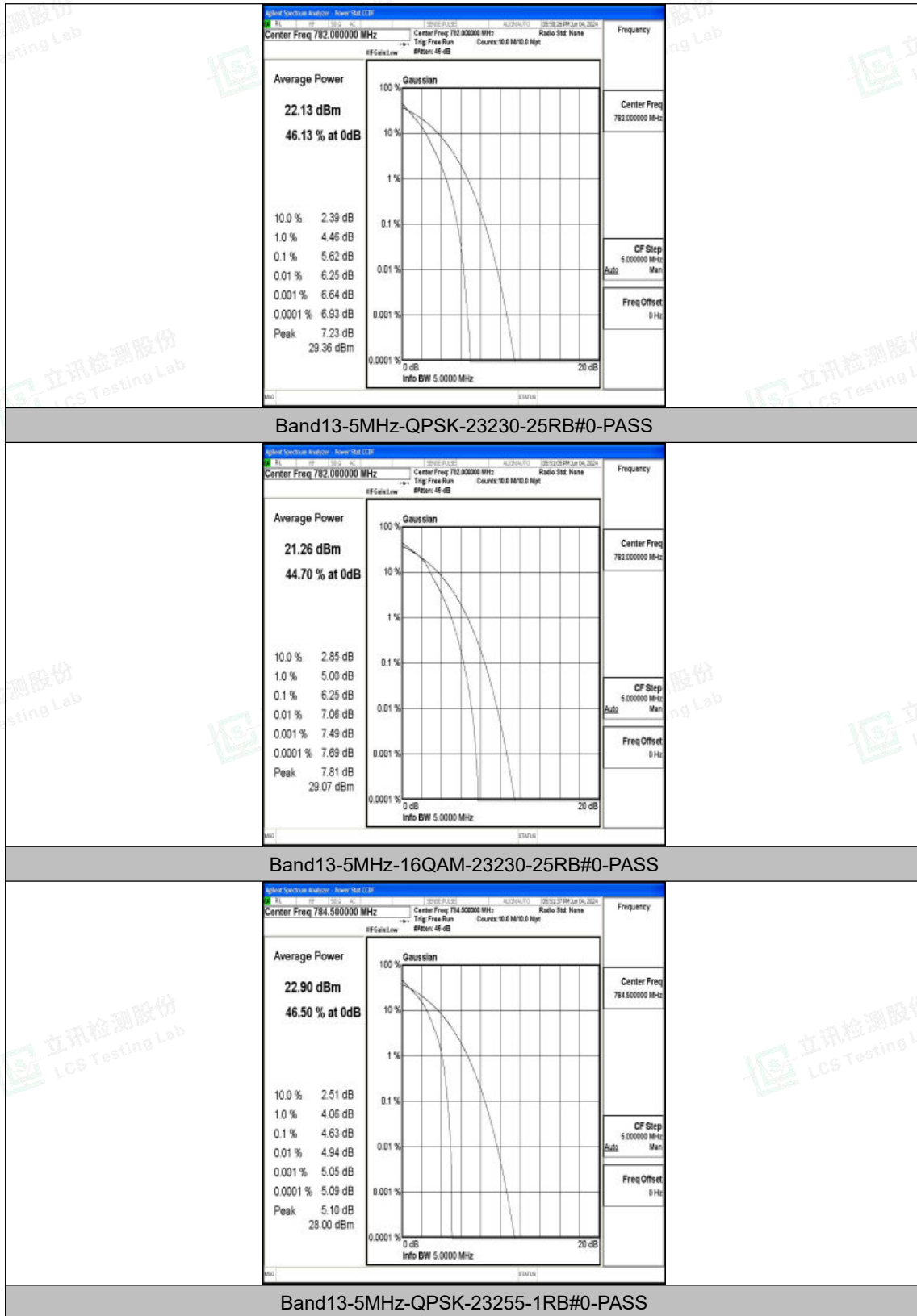


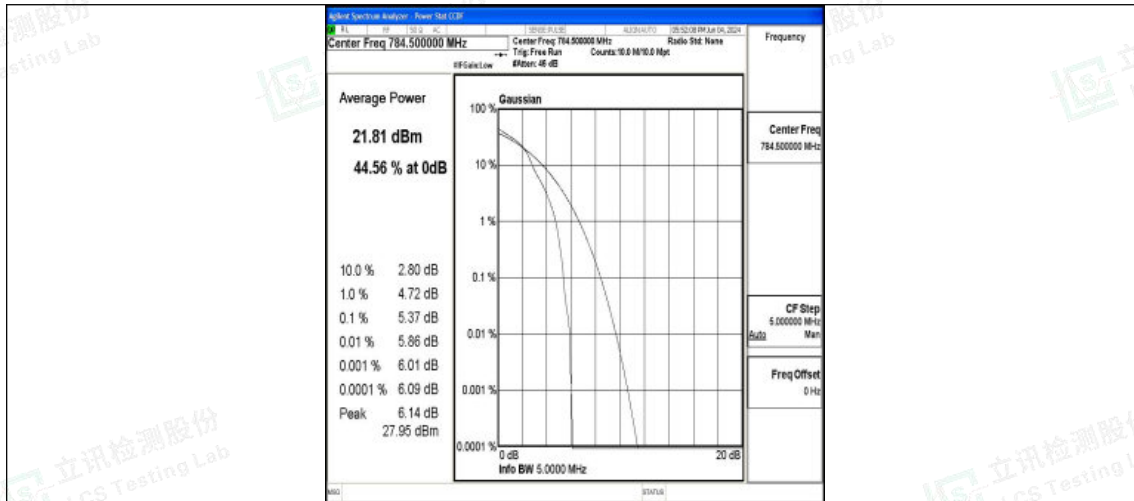
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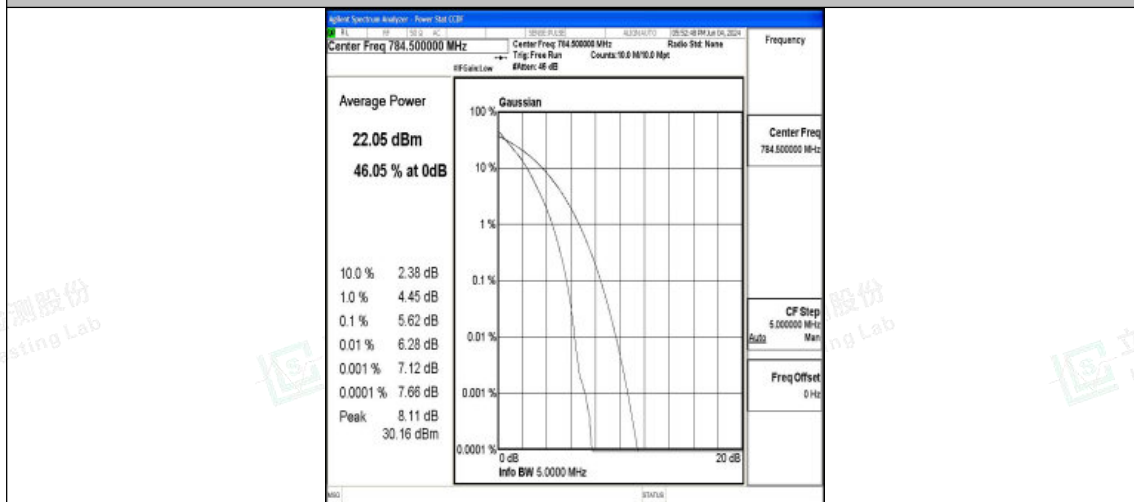
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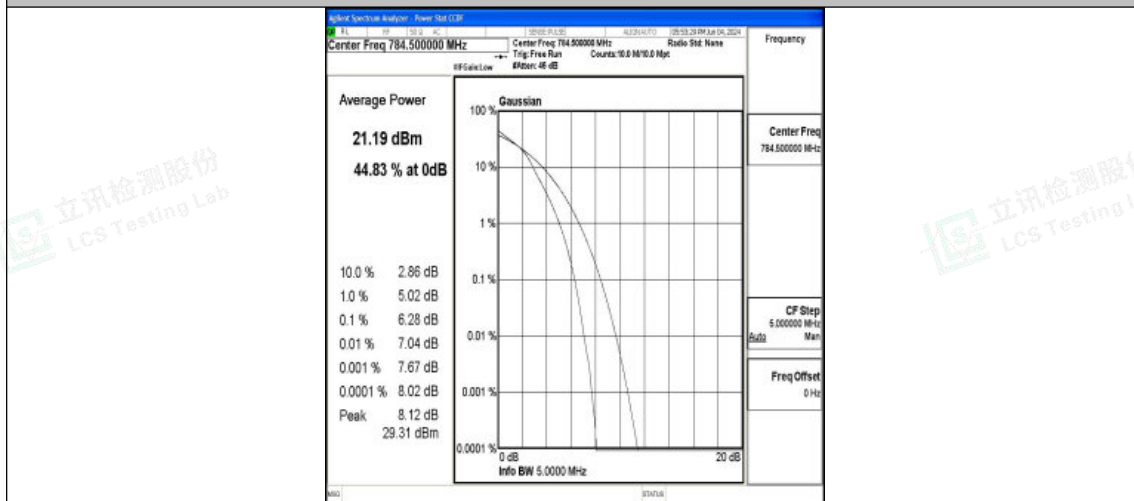




Band13-5MHz-16QAM-23255-1RB#0-PASS



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



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

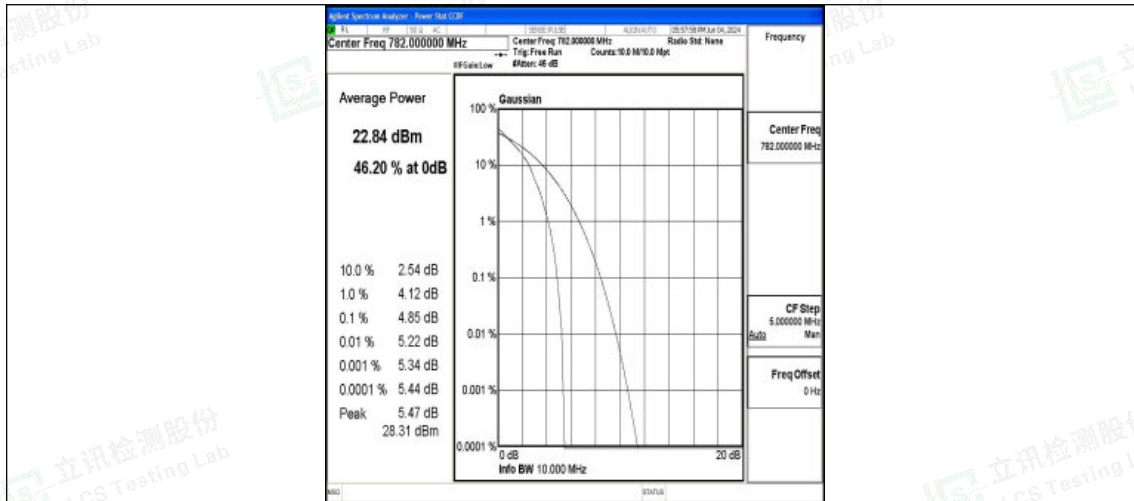


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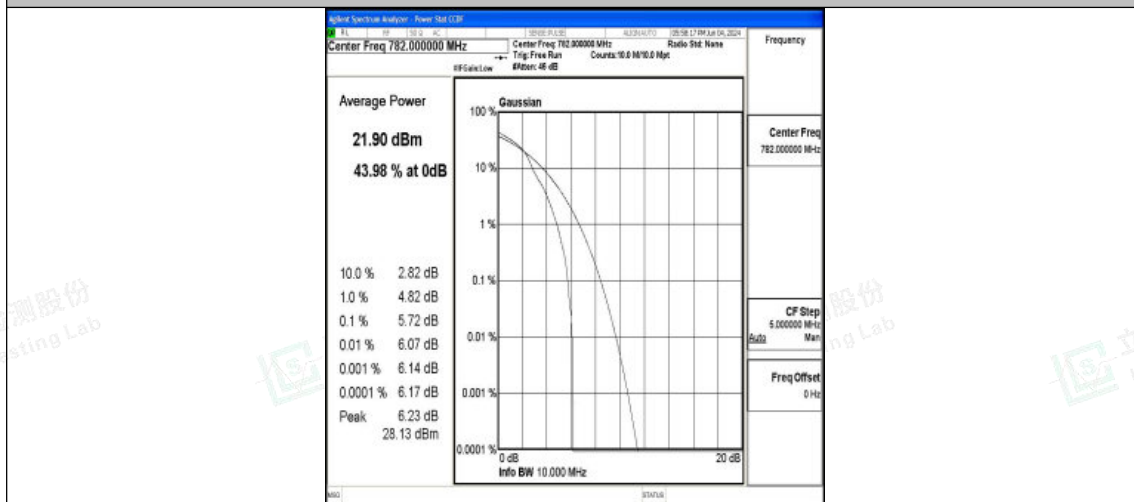
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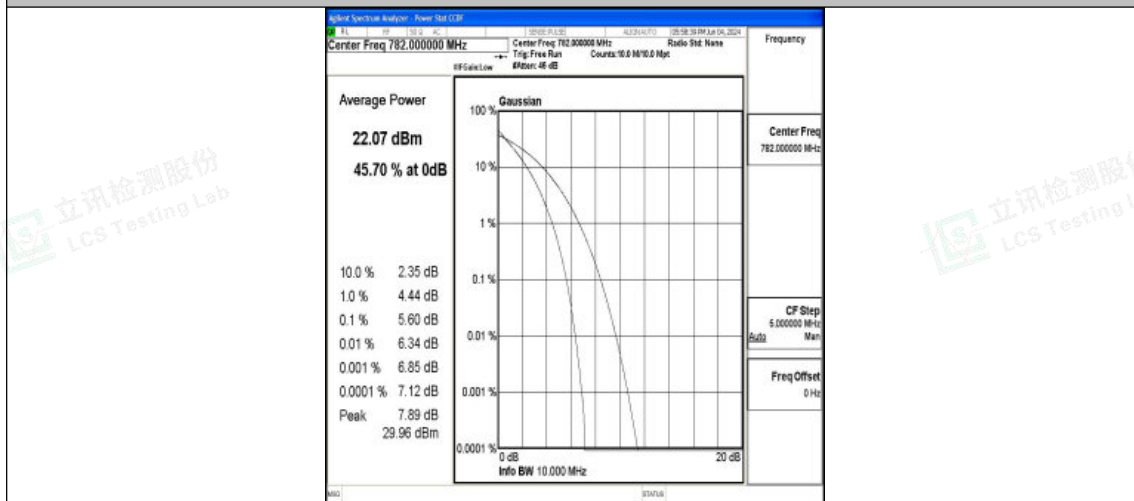
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Band13-10MHz-QPSK-23230-1RB#0-PASS



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



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

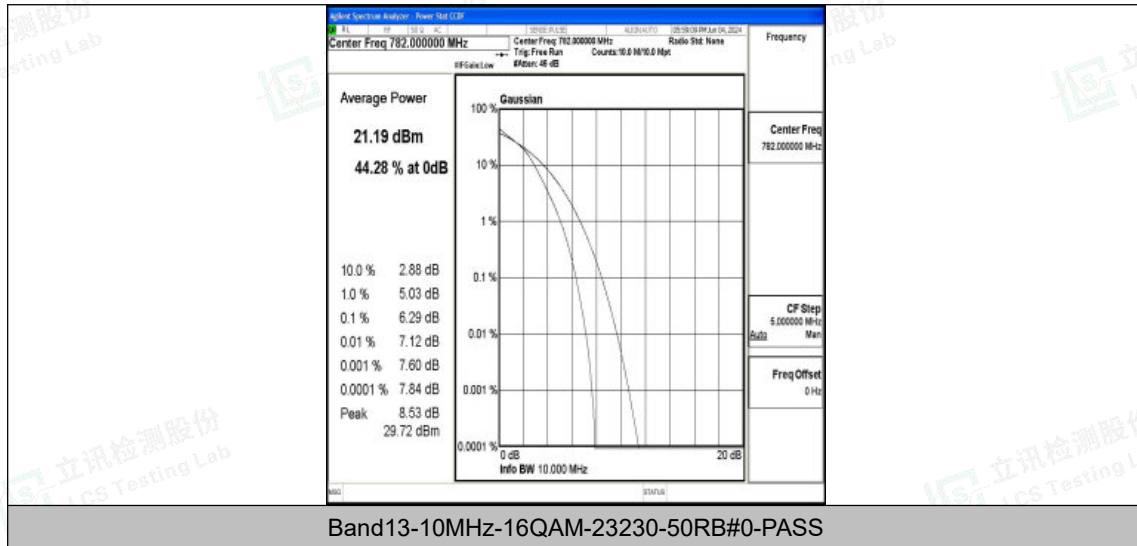


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J.3 26dB Bandwidth and Occupied Bandwidth

Test Result

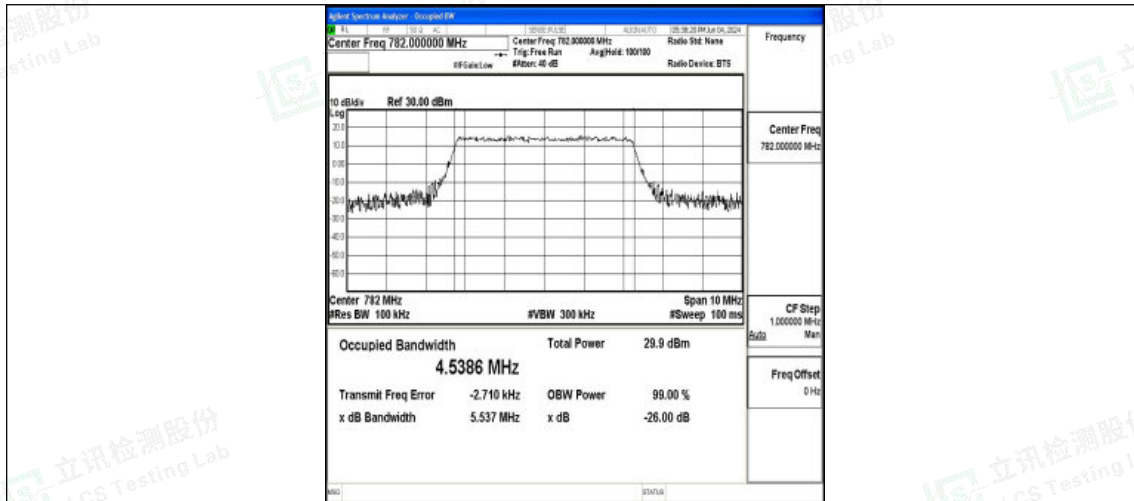
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.5250	5.549	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.5140	5.132	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.5152	5.388	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.5386	5.537	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.5252	6.133	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.5376	5.992	PASS
Band13	10MHz	QPSK	23230	50RB#0	9.0052	10.56	PASS
Band13	10MHz	16QAM	23230	50RB#0	9.0000	11.04	PASS



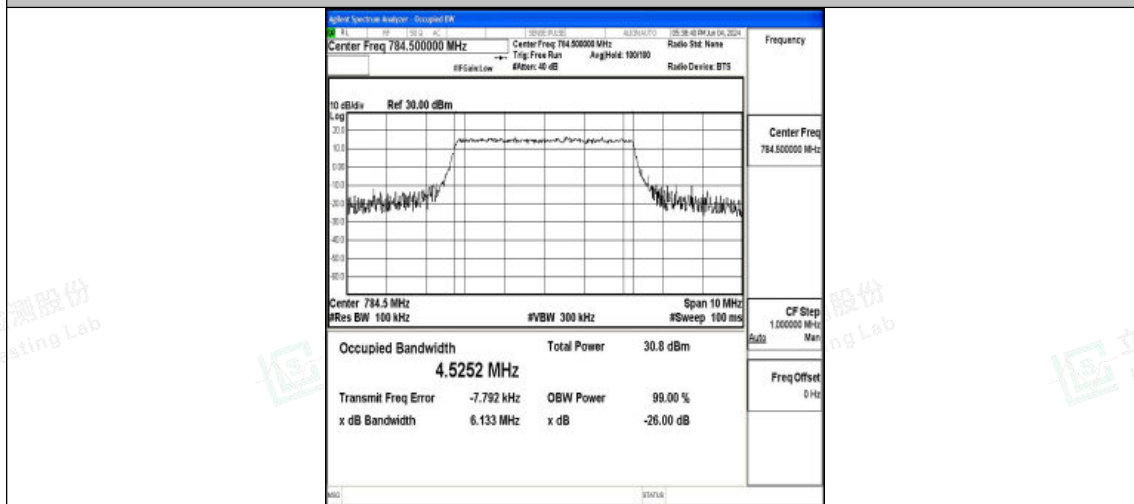


Test Graphs

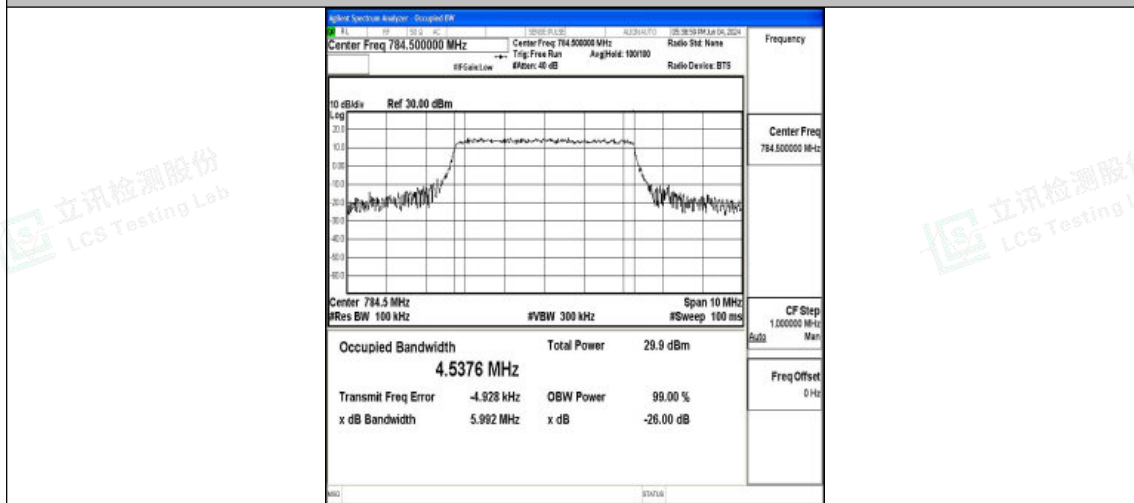




Band13-5MHz-16QAM-23230-25RB#0-PASS

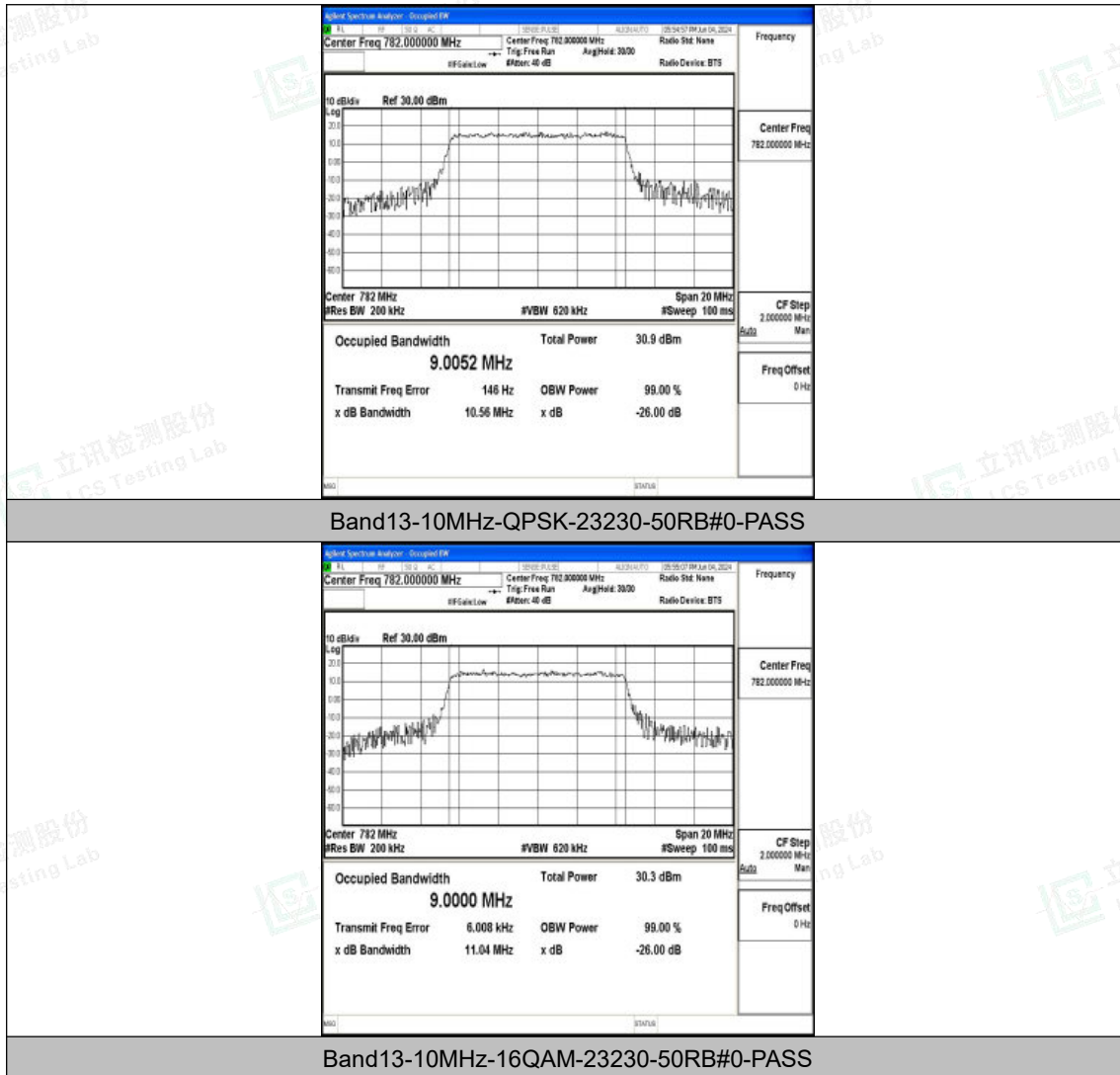


Band13-5MHz-QPSK-23255-25RB#0-PASS



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





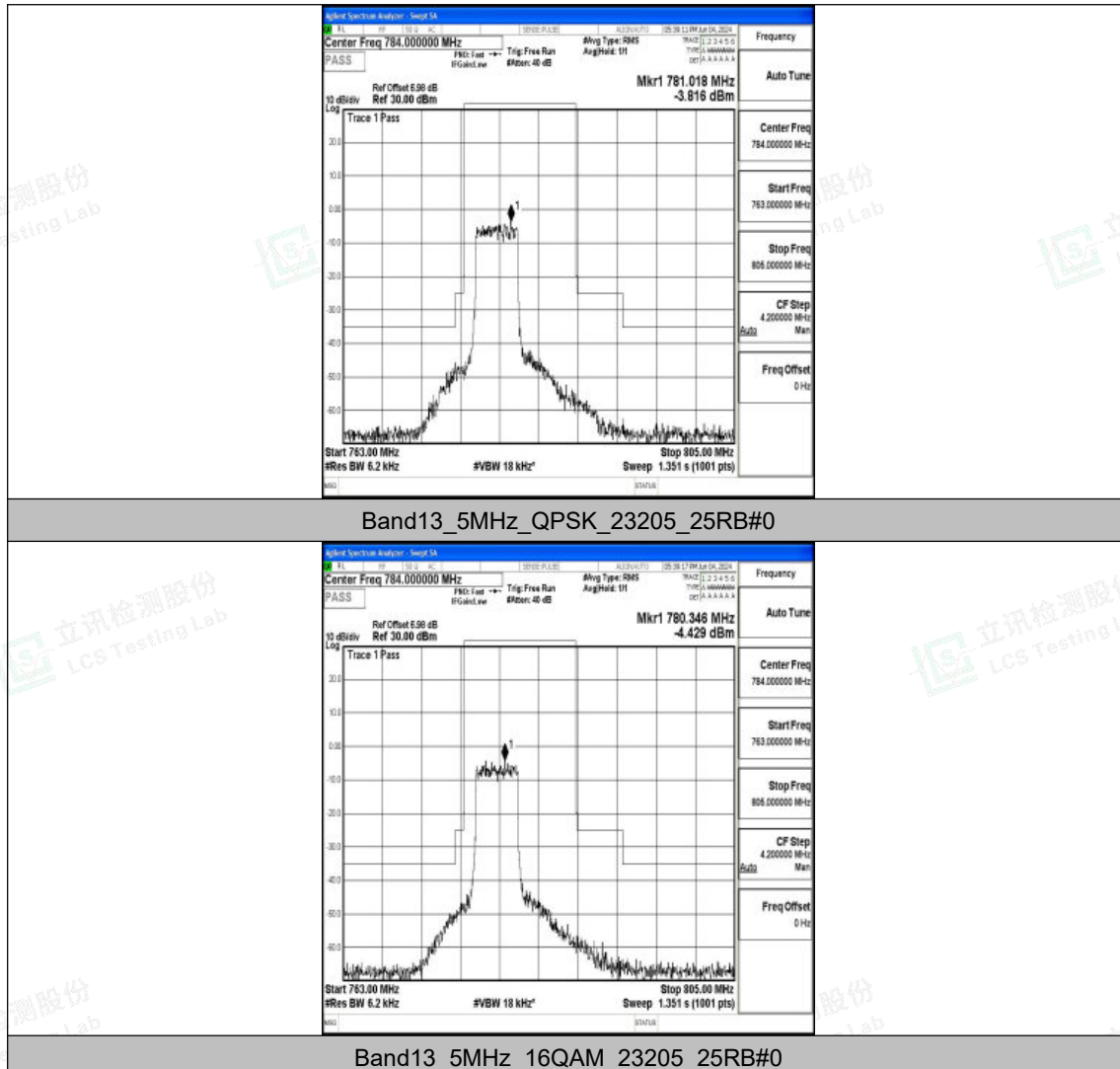


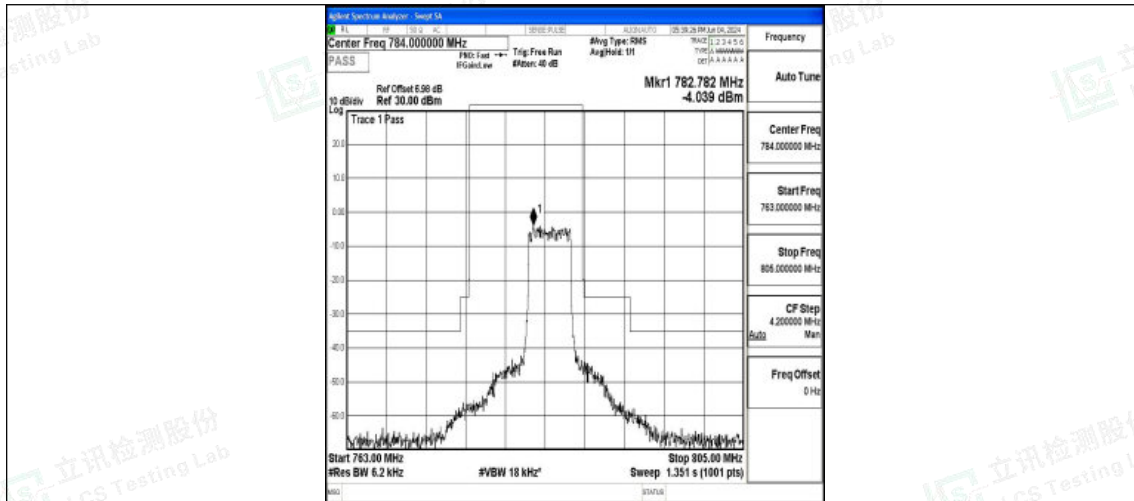
J.4 Band Edge

Test Result

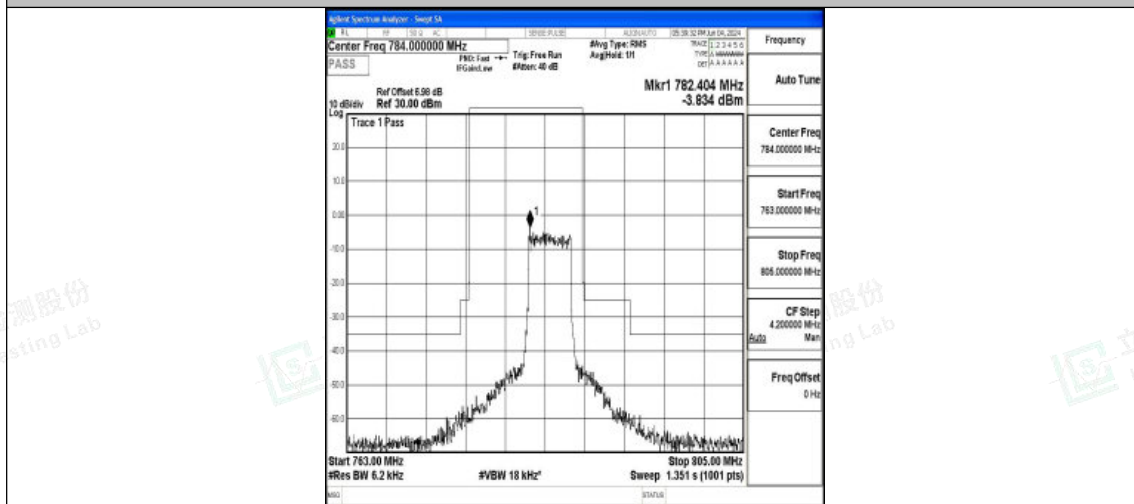
Band	Bandwidth	Modulation	Channel	RB Configuration	Peak Frequency	Result(dBm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	774.84	-47.37	PASS
Band13	5MHz	16QAM	23205	25RB#0	774.47	-49.95	PASS
Band13	5MHz	QPSK	23255	25RB#0	788.16	-44.23	PASS
Band13	5MHz	16QAM	23255	25RB#0	788.37	-45.93	PASS
Band13	10MHz	QPSK	23230	50RB#0	774.38	-49.66	PASS
Band13	10MHz	16QAM	23230	50RB#0	774.93	-49.97	PASS

Test Graphs

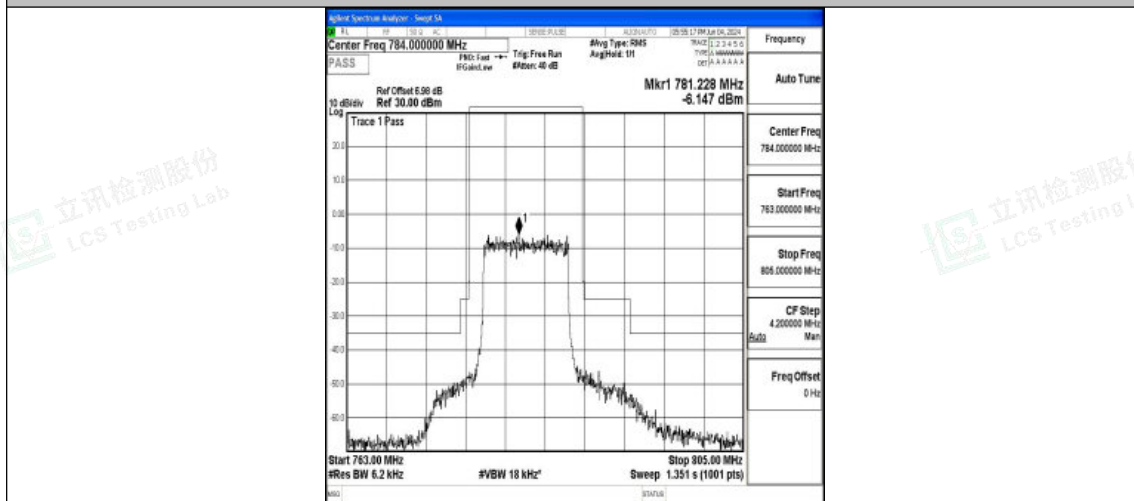




Band13_5MHz_QPSK_23255_25RB#0

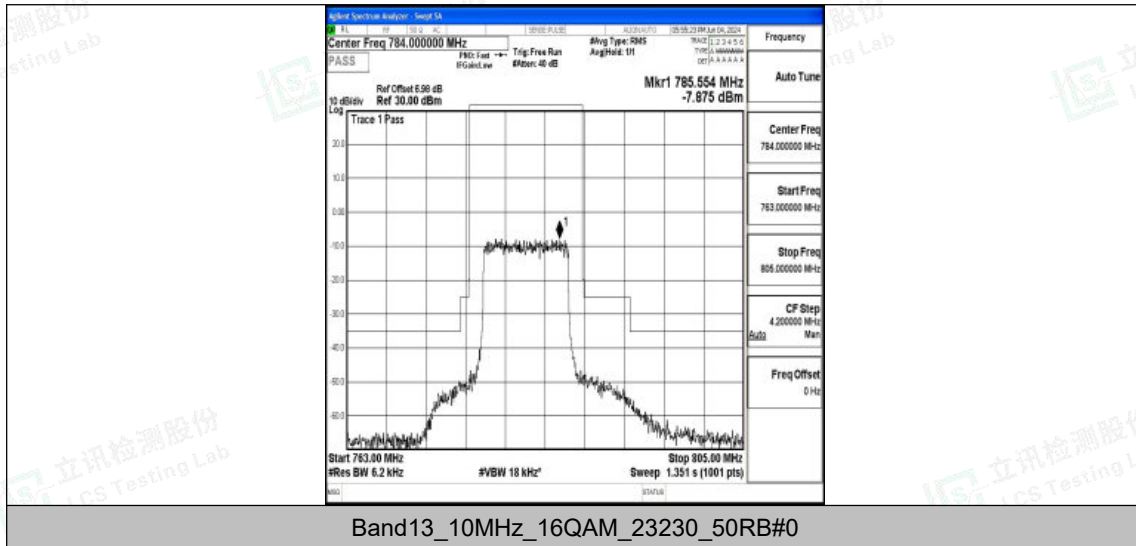


Band13_5MHz_16QAM_23255_25RB#0



Band13_10MHz_QPSK_23230_50RB#0







J.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	-58.85	PASS
Band13	5MHz	QPSK	23205	1RB#0	0.15~30	-51.00	PASS
Band13	5MHz	QPSK	23205	1RB#0	30~1000	-60.98	PASS
Band13	5MHz	QPSK	23205	1RB#0	1000~3000	-44.68	PASS
Band13	5MHz	QPSK	23205	1RB#0	3000~10000	-44.26	PASS
Band13	5MHz	16QAM	23205	1RB#0	0.009~0.15	-56.16	PASS
Band13	5MHz	16QAM	23205	1RB#0	0.15~30	-52.33	PASS
Band13	5MHz	16QAM	23205	1RB#0	30~1000	-62.02	PASS
Band13	5MHz	16QAM	23205	1RB#0	1000~3000	-45.13	PASS
Band13	5MHz	16QAM	23205	1RB#0	3000~10000	-44.22	PASS
Band13	5MHz	QPSK	23230	1RB#0	0.009~0.15	-58.65	PASS
Band13	5MHz	QPSK	23230	1RB#0	0.15~30	-54.56	PASS
Band13	5MHz	QPSK	23230	1RB#0	30~1000	-62.14	PASS
Band13	5MHz	QPSK	23230	1RB#0	1000~3000	-43.13	PASS
Band13	5MHz	QPSK	23230	1RB#0	3000~10000	-44.24	PASS
Band13	5MHz	16QAM	23230	1RB#0	0.009~0.15	-60.09	PASS
Band13	5MHz	16QAM	23230	1RB#0	0.15~30	-52.73	PASS
Band13	5MHz	16QAM	23230	1RB#0	30~1000	-62.13	PASS
Band13	5MHz	16QAM	23230	1RB#0	1000~3000	-43.90	PASS
Band13	5MHz	16QAM	23230	1RB#0	3000~10000	-44.05	PASS
Band13	5MHz	QPSK	23255	1RB#0	0.009~0.15	-56.96	PASS
Band13	5MHz	QPSK	23255	1RB#0	0.15~30	-51.64	PASS
Band13	5MHz	QPSK	23255	1RB#0	30~1000	-62.03	PASS
Band13	5MHz	QPSK	23255	1RB#0	1000~3000	-44.16	PASS
Band13	5MHz	QPSK	23255	1RB#0	3000~10000	-43.84	PASS
Band13	5MHz	16QAM	23255	1RB#0	0.009~0.15	-59.19	PASS
Band13	5MHz	16QAM	23255	1RB#0	0.15~30	-54.57	PASS
Band13	5MHz	16QAM	23255	1RB#0	30~1000	-61.90	PASS
Band13	5MHz	16QAM	23255	1RB#0	1000~3000	-44.30	PASS
Band13	5MHz	16QAM	23255	1RB#0	3000~10000	-43.92	PASS
Band13	10MHz	QPSK	23230	1RB#0	0.009~0.15	-56.65	PASS
Band13	10MHz	QPSK	23230	1RB#0	0.15~30	-52.74	PASS
Band13	10MHz	QPSK	23230	1RB#0	30~1000	-62.31	PASS
Band13	10MHz	QPSK	23230	1RB#0	1000~3000	-43.39	PASS



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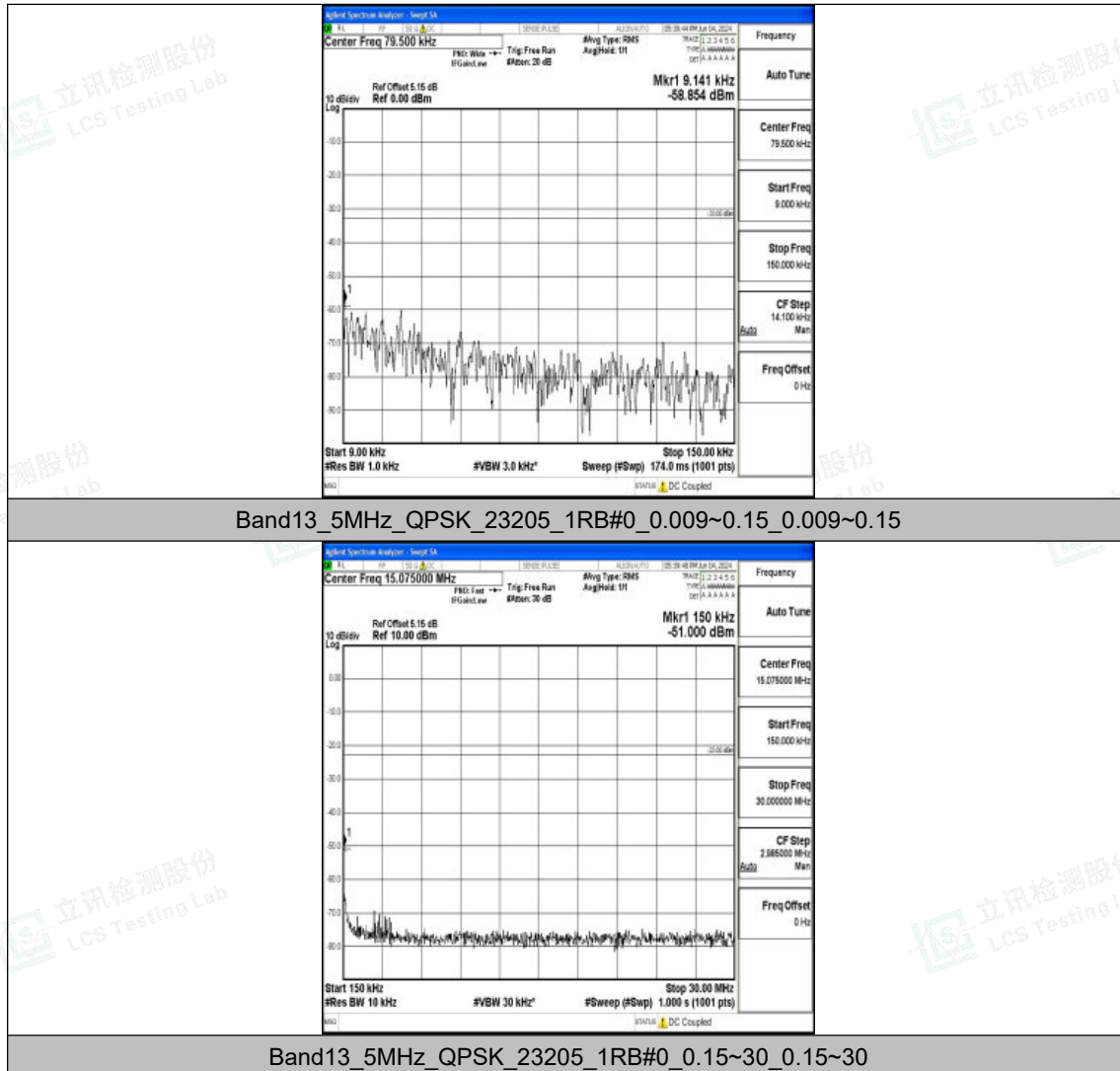
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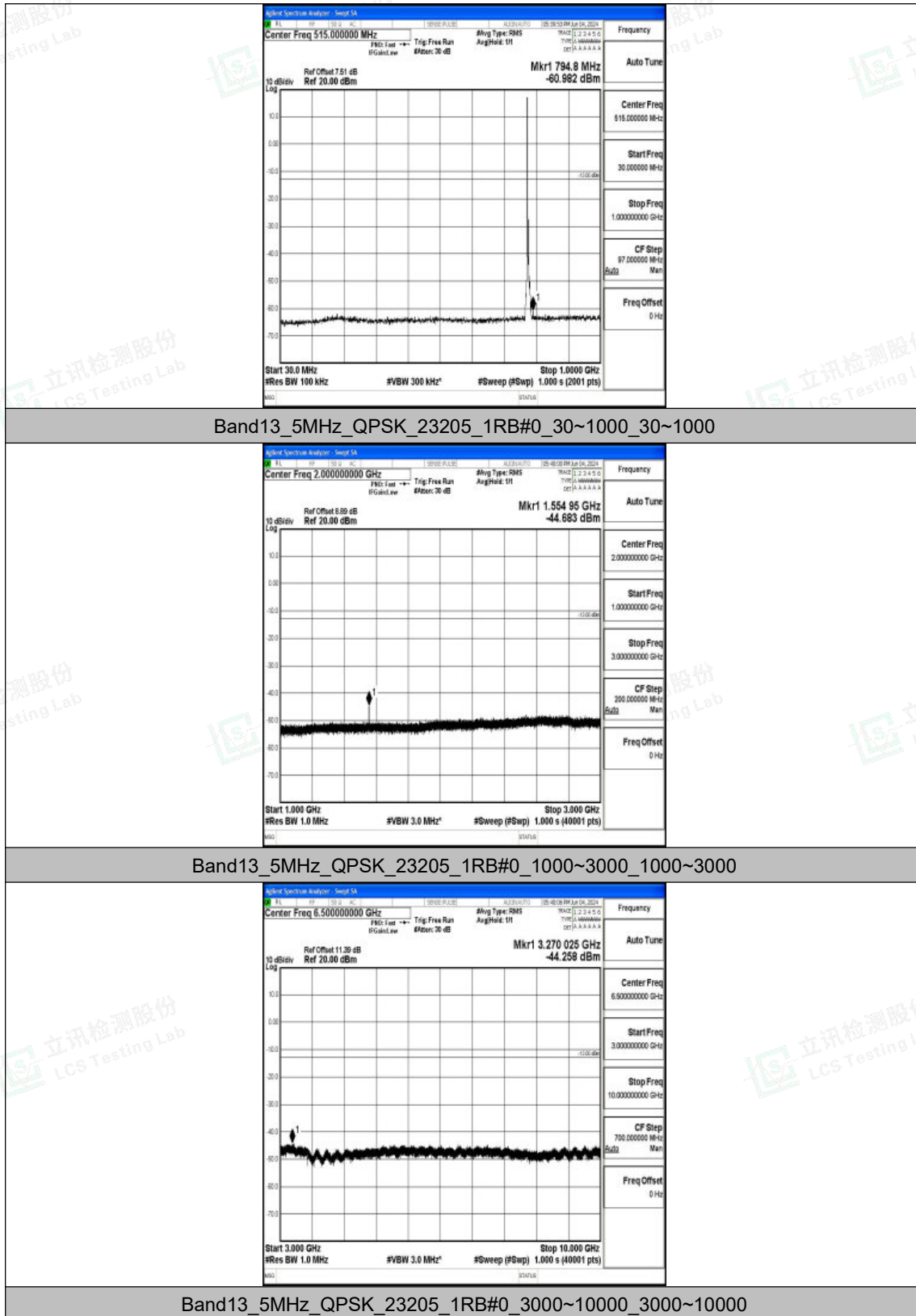
Scan code to check authenticity

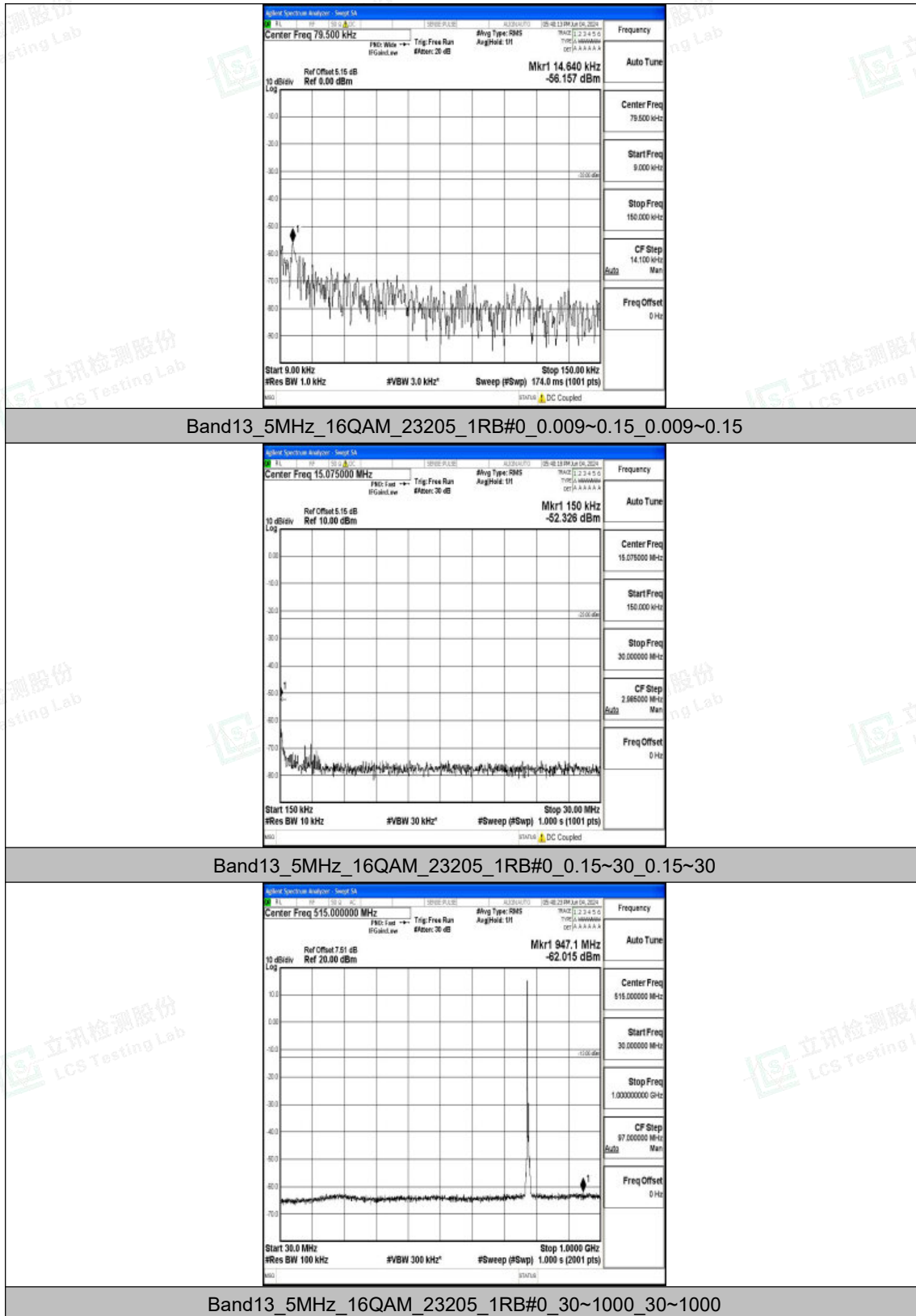


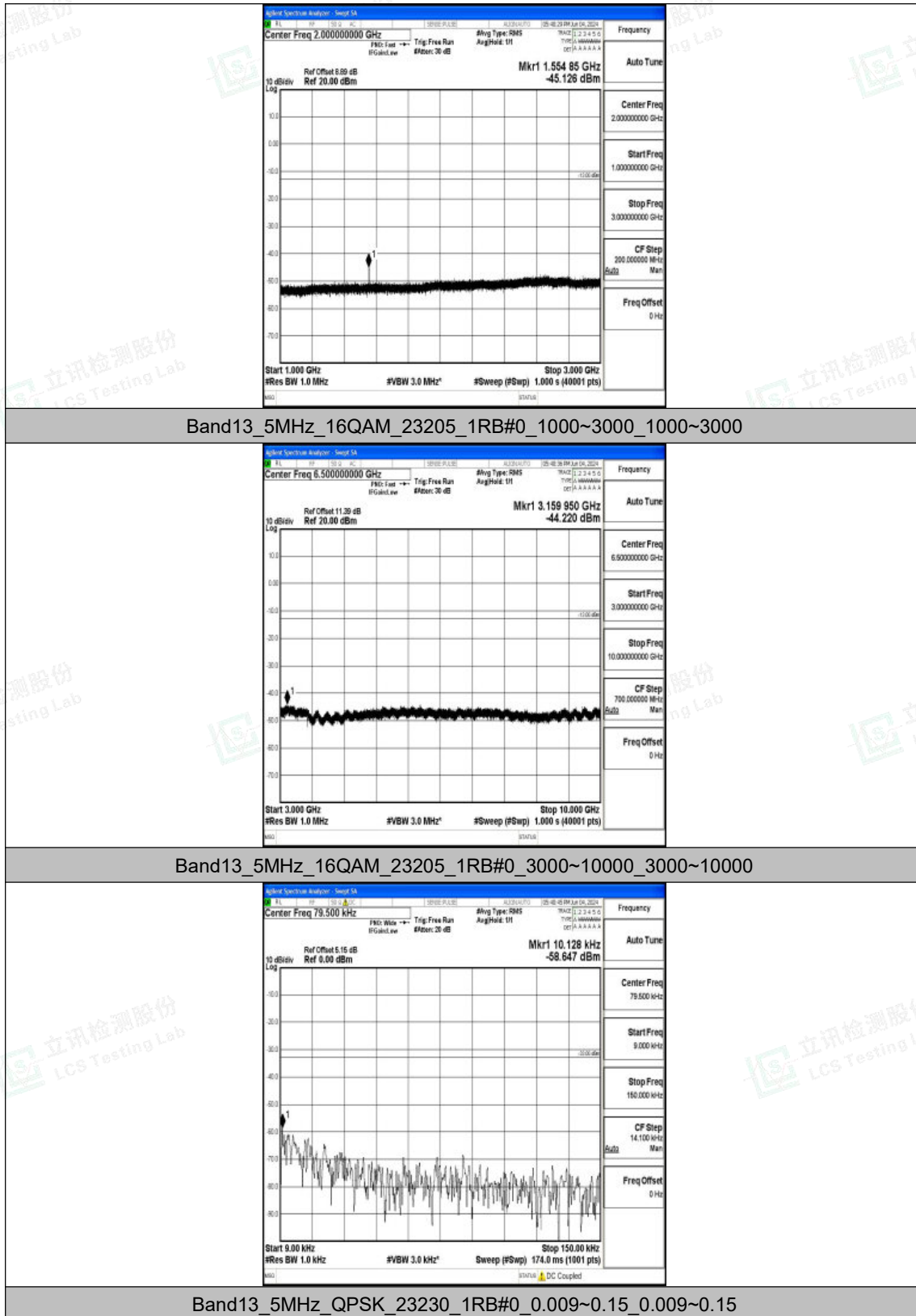
Band13	10MHz	QPSK	23230	1RB#0	3000~10000	-43.90	PASS
Band13	10MHz	16QAM	23230	1RB#0	0.009~0.15	-56.84	PASS
Band13	10MHz	16QAM	23230	1RB#0	0.15~30	-53.41	PASS
Band13	10MHz	16QAM	23230	1RB#0	30~1000	-61.94	PASS
Band13	10MHz	16QAM	23230	1RB#0	1000~3000	-44.07	PASS
Band13	10MHz	16QAM	23230	1RB#0	3000~10000	-44.08	PASS

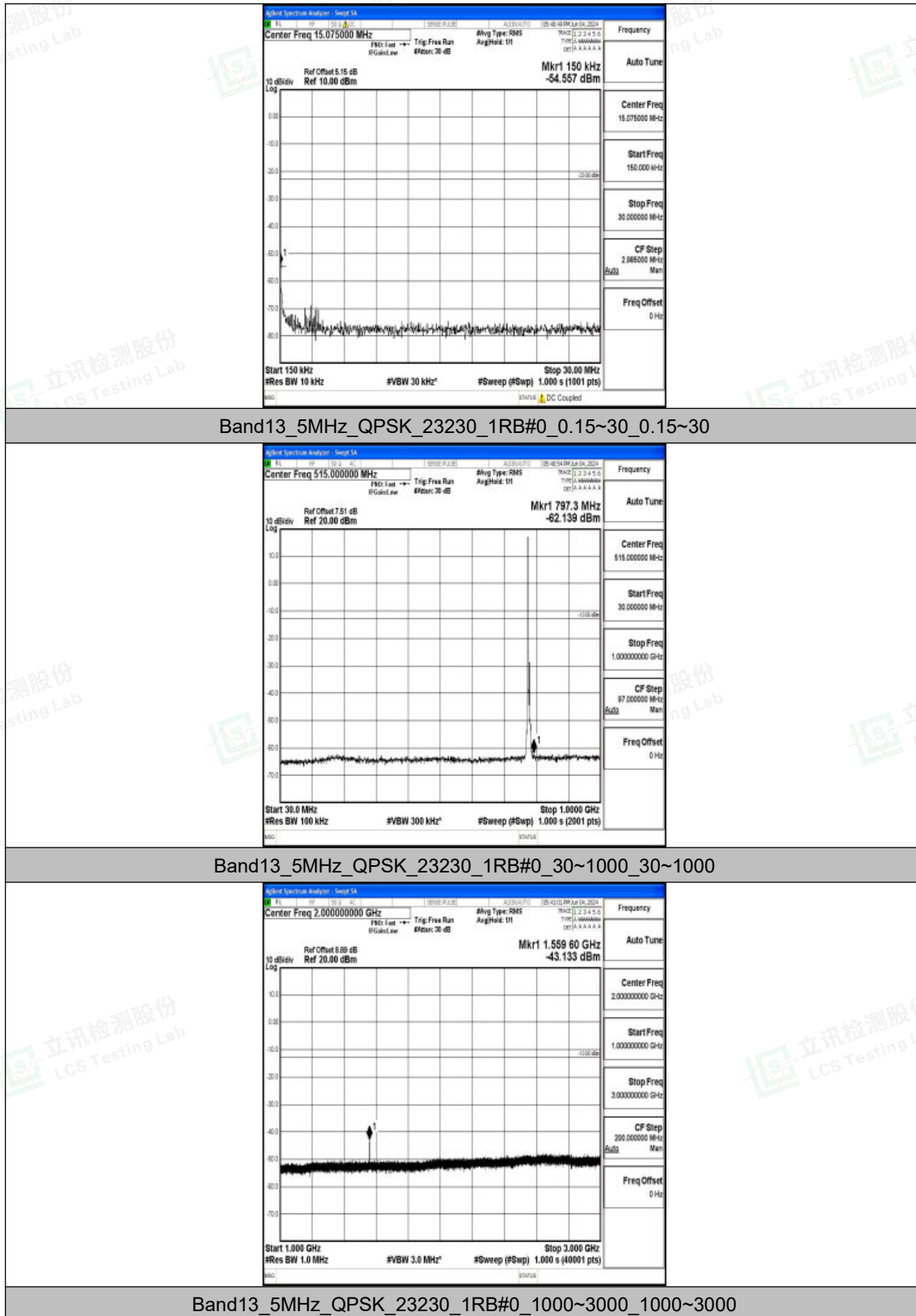
Test Graphs

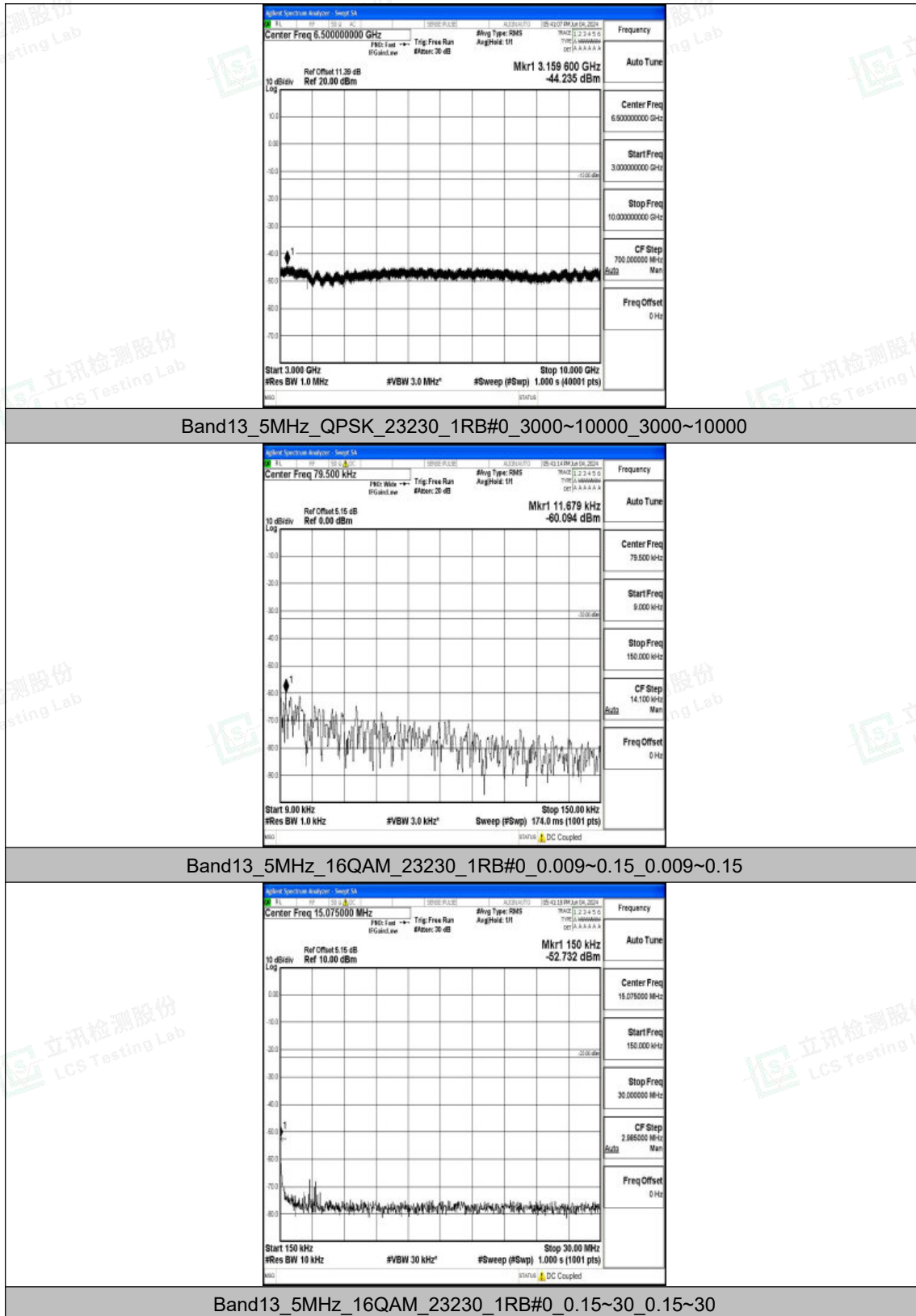


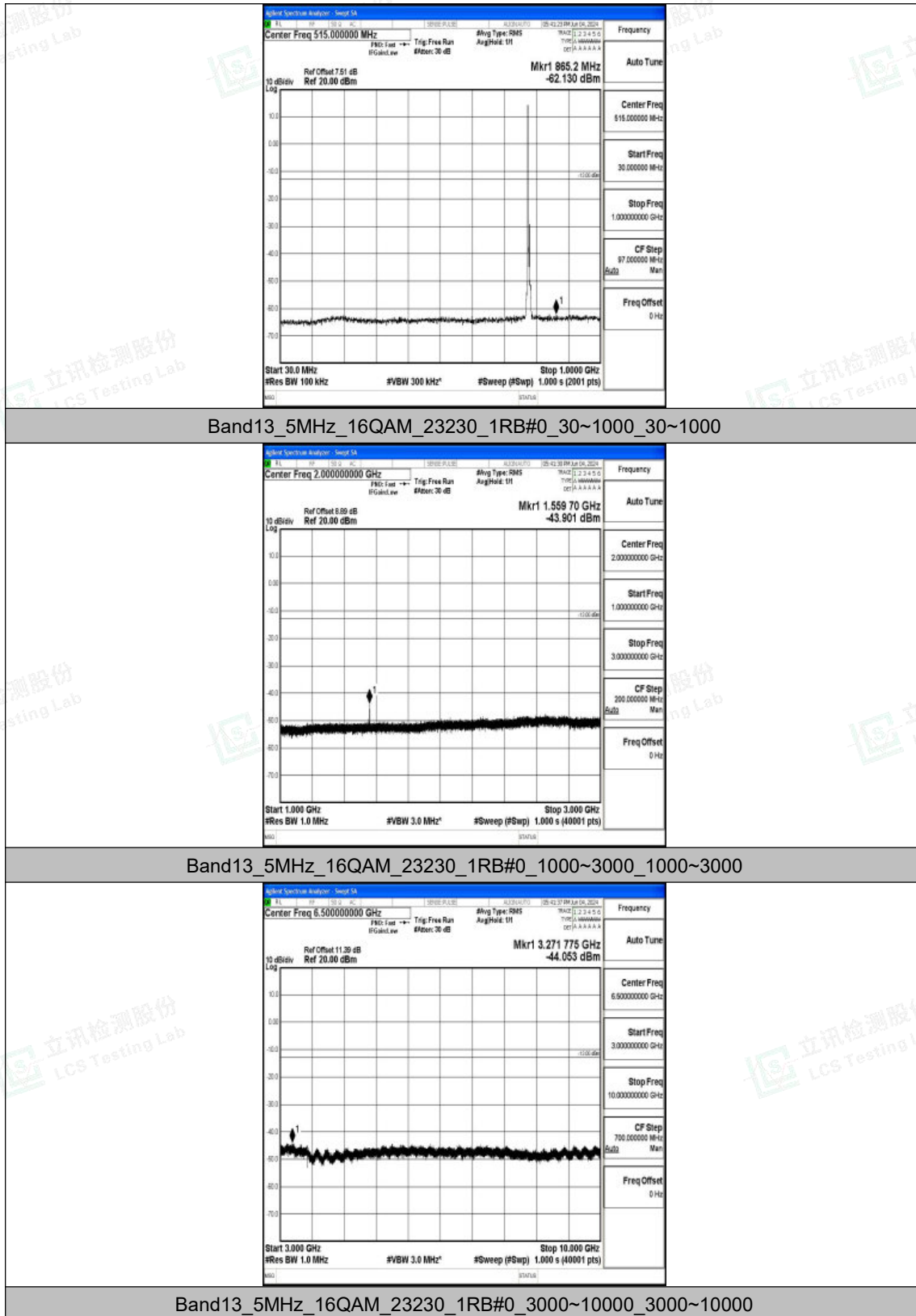


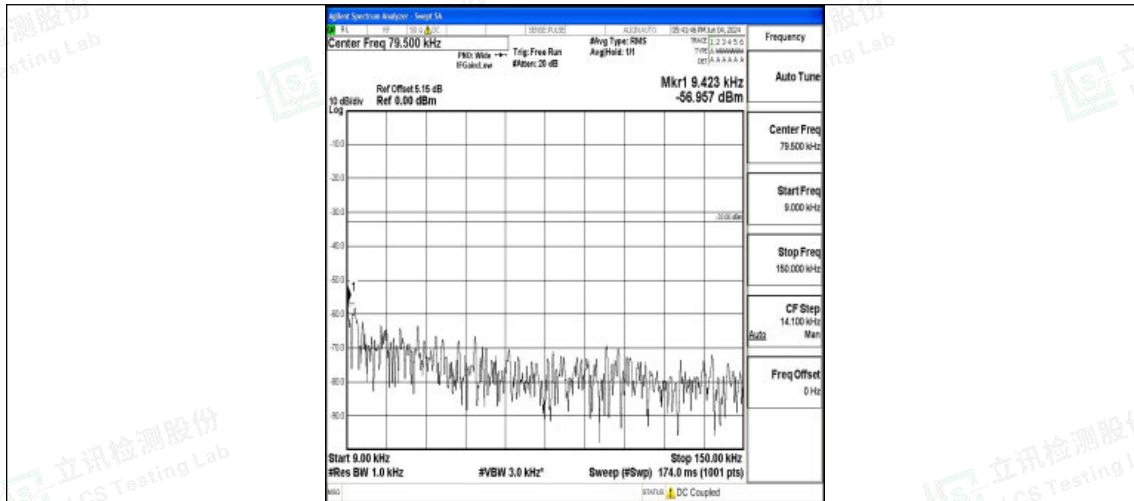




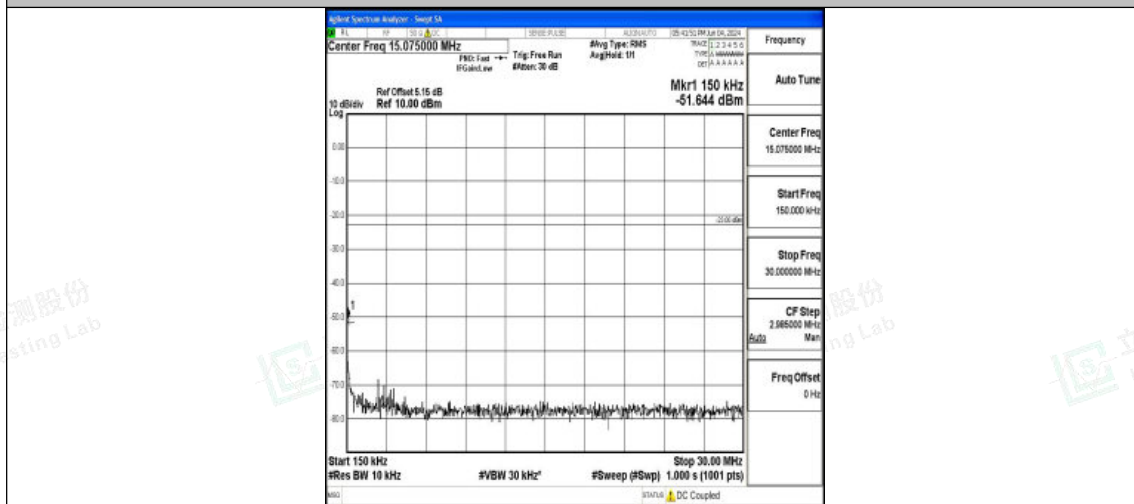




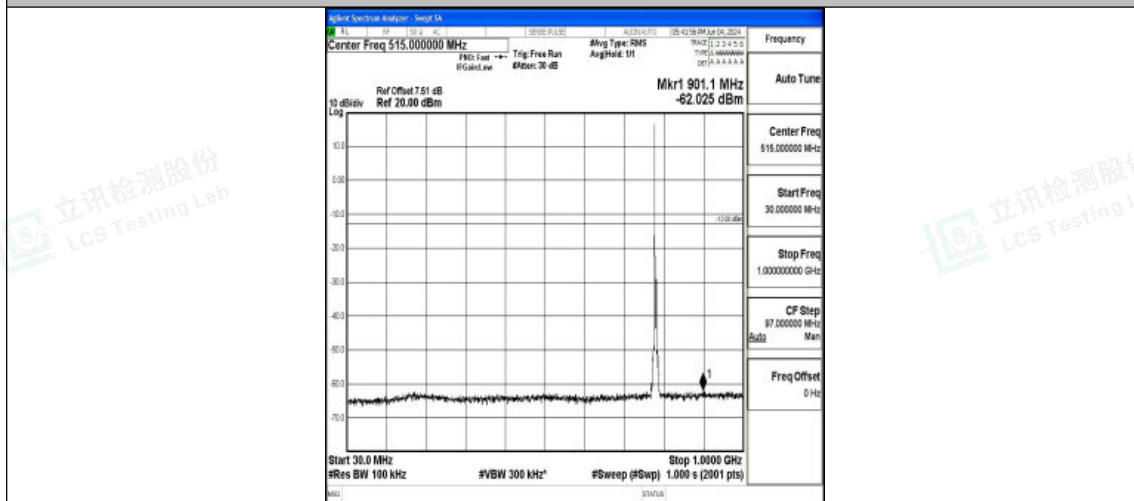




Band13_5MHz_QPSK_23255_1RB#0_0.009~0.15_0.009~0.15



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



Band13_5MHz_QPSK_23255_1RB#0_30~1000_30~1000

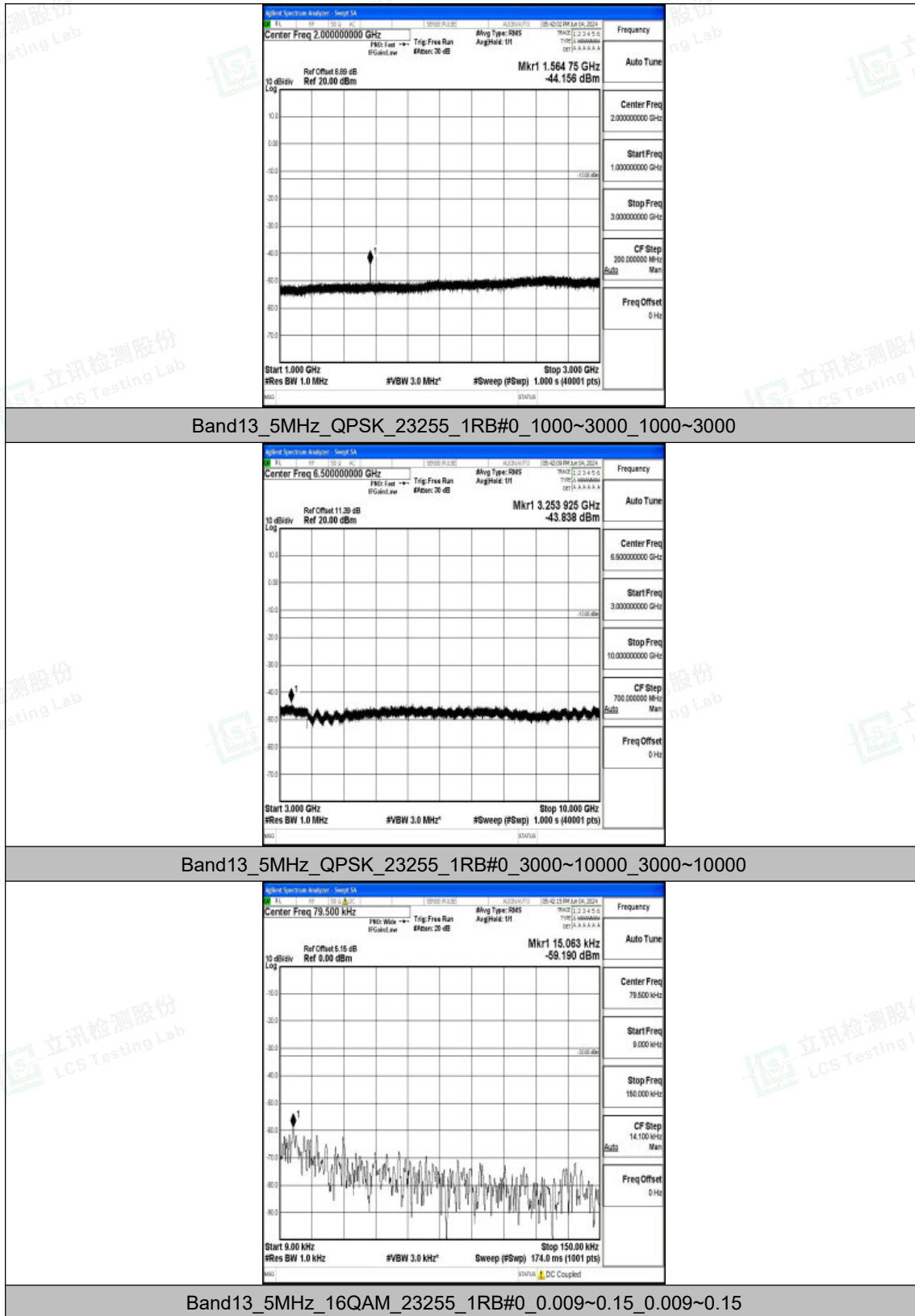


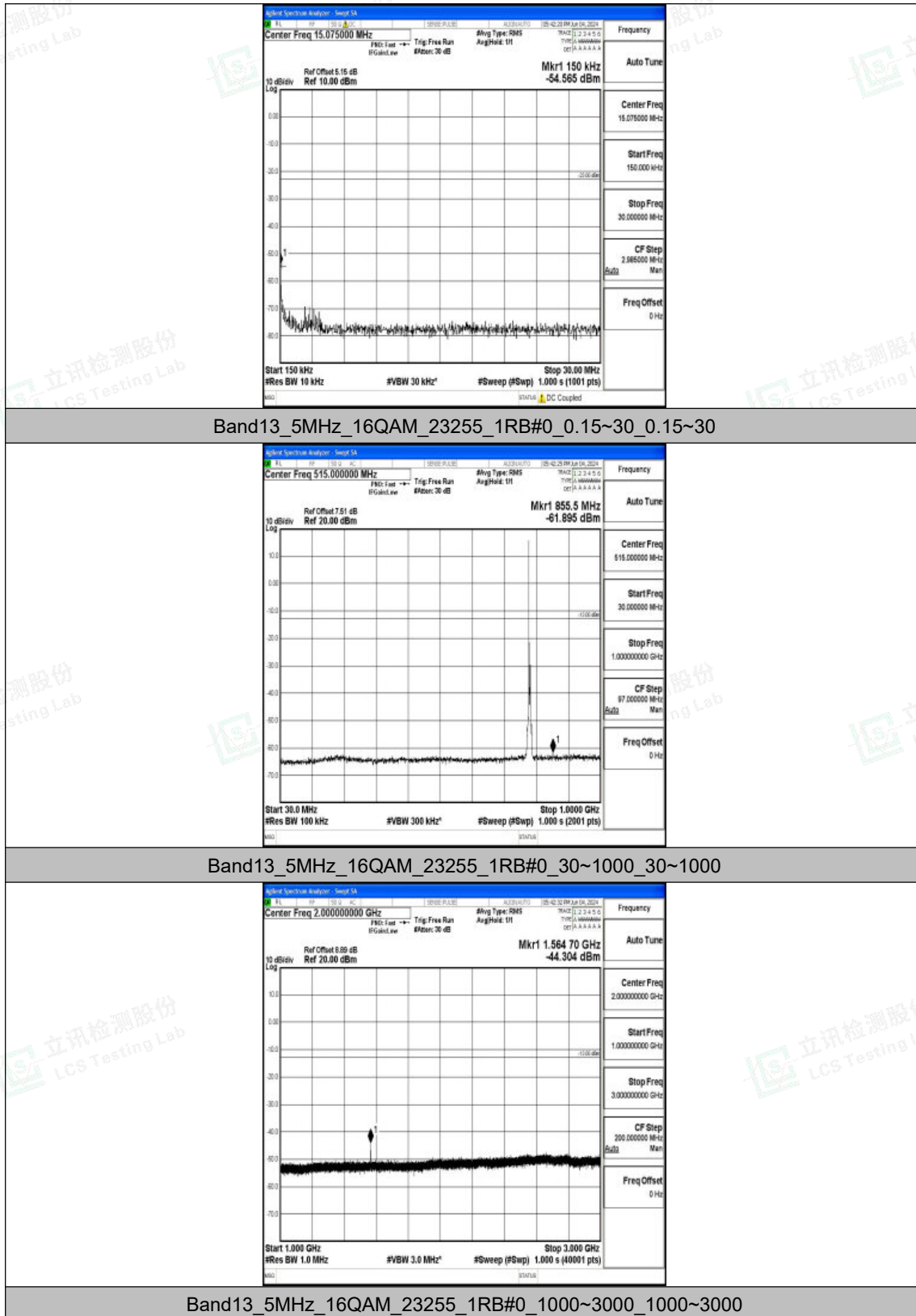
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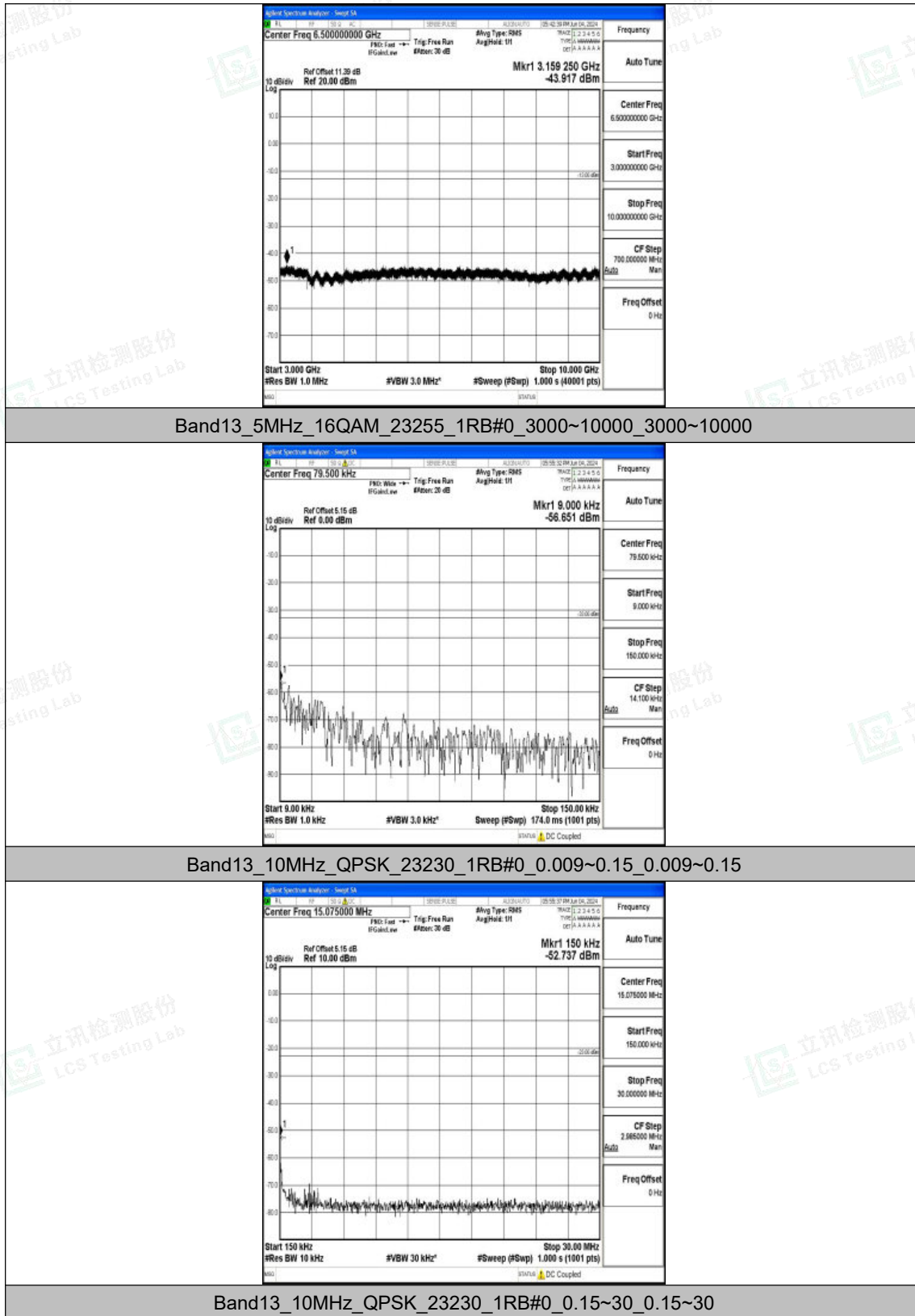


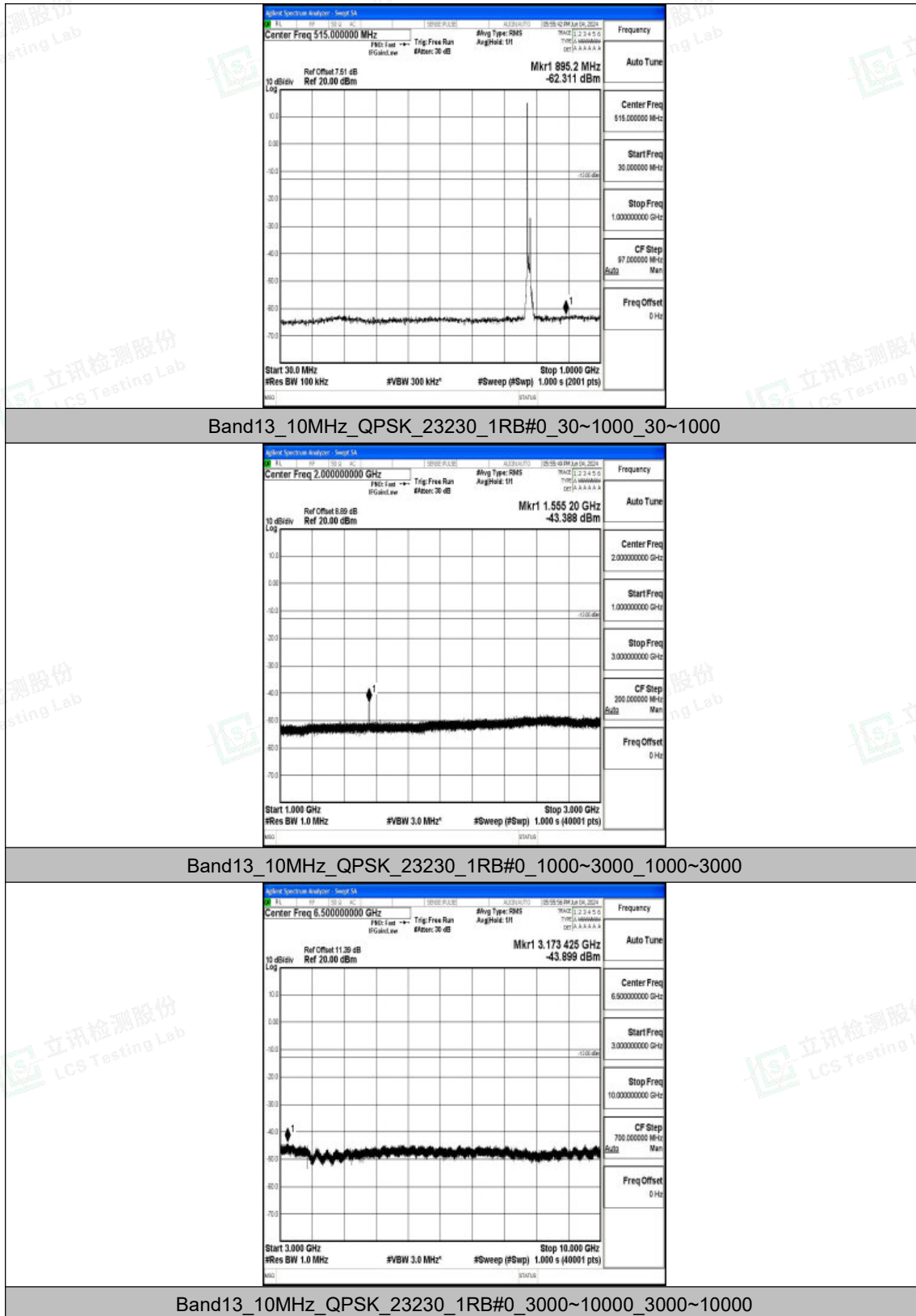
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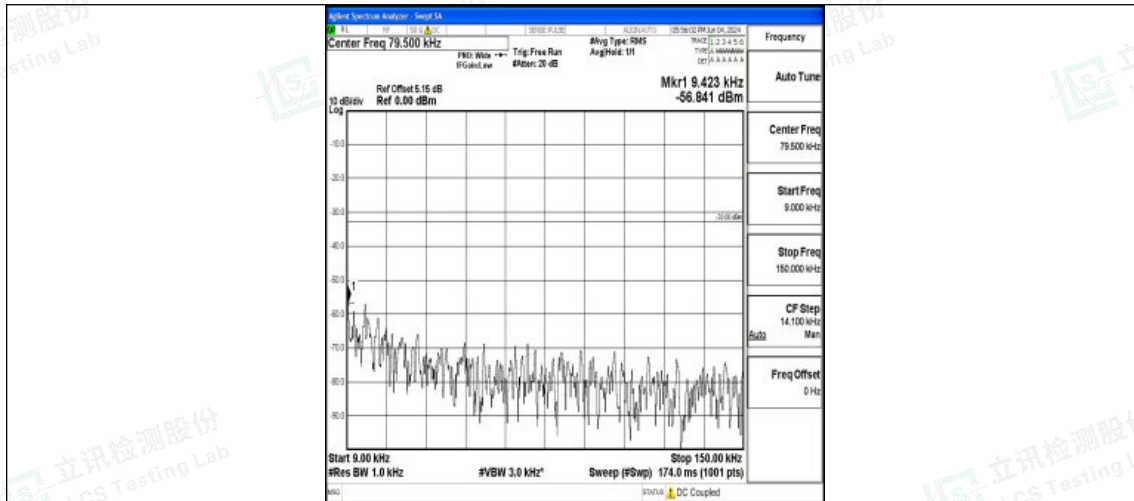
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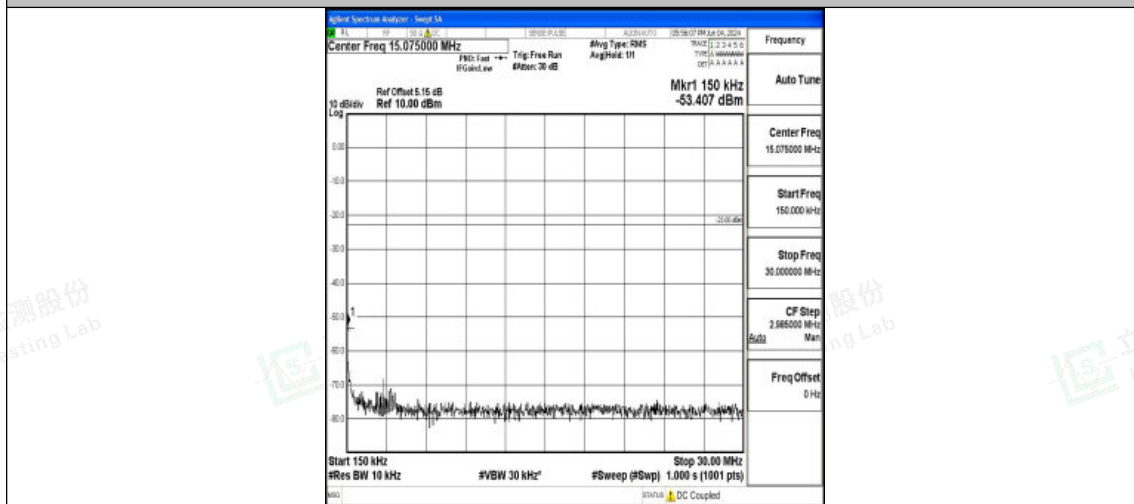
Scan code to check authenticity



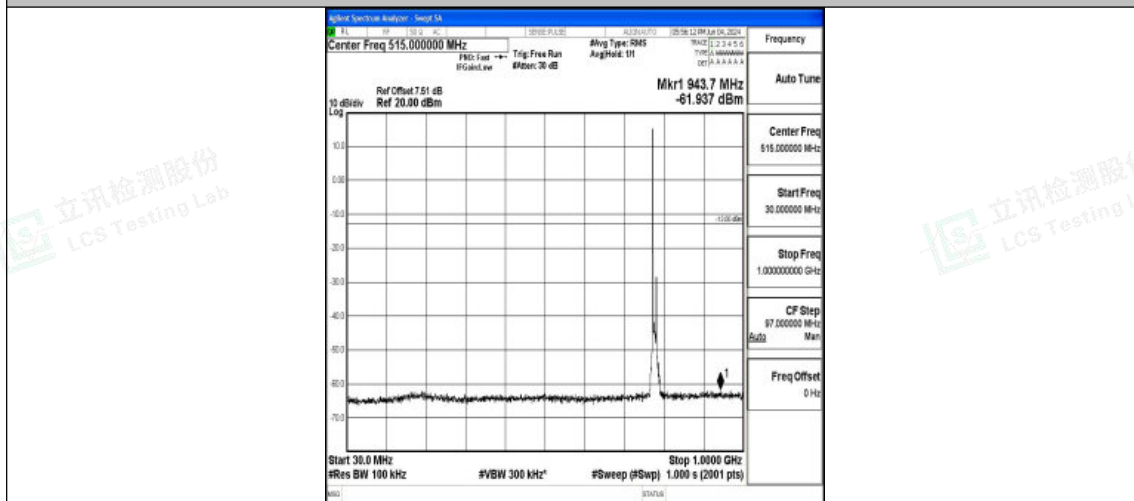




Band13_10MHz_16QAM_23230_1RB#0_0.009~0.15_0.009~0.15



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



Band13_10MHz_16QAM_23230_1RB#0_30~1000_30~1000

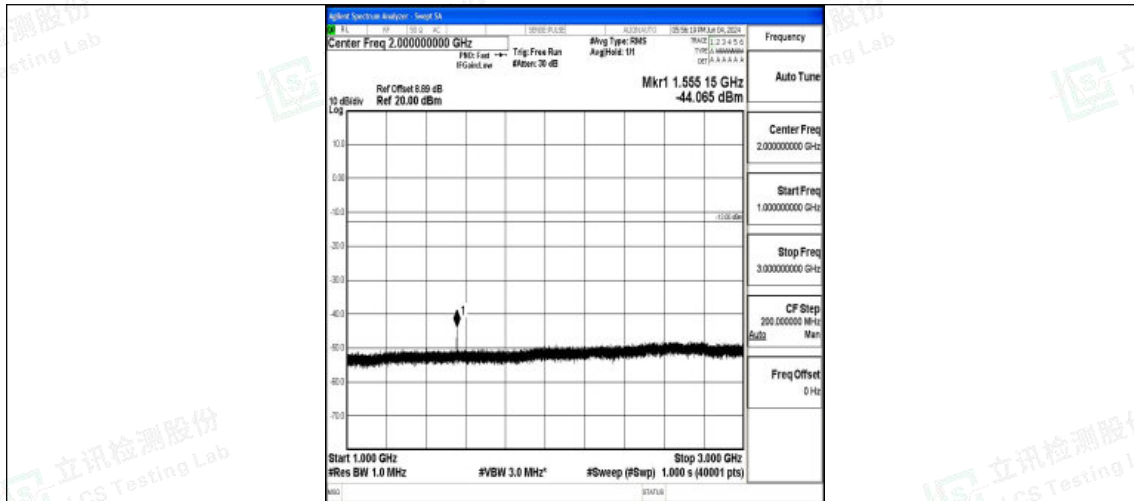


Shenzhen LCS Compliance Testing Laboratory Ltd.

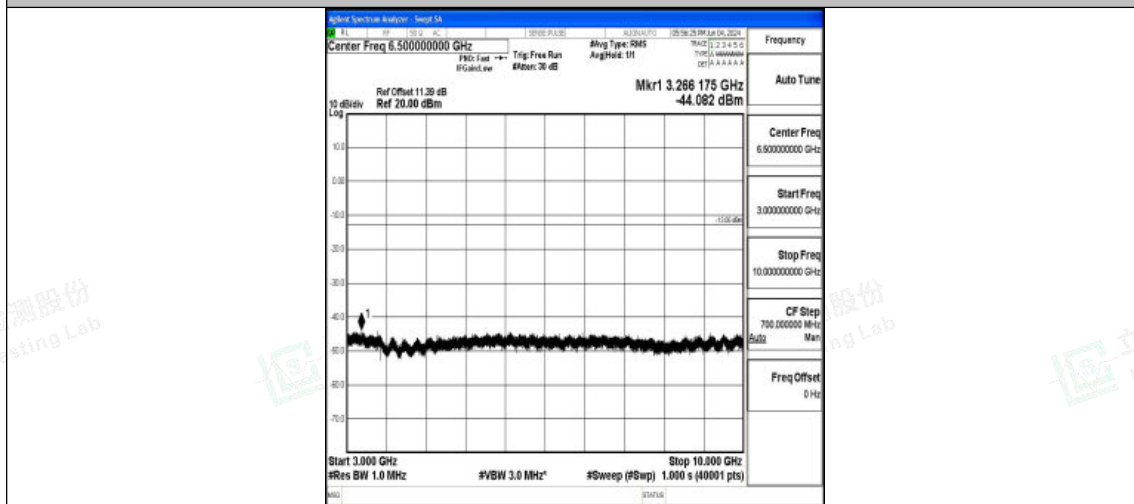
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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Scan code to check authenticity



Band13_10MHz_16QAM_23230_1RB#0_1000~3000_1000~3000



Band13_10MHz_16QAM_23230_1RB#0_3000~10000_3000~10000

