



Appendix N: Test Data for E-UTRA Band 17

Product Name: APOLLO

Test Model: APOLLO 7PRO

Environmental Conditions

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





N.1 Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band17	5MHz	QPSK	23755	1RB#0	22.41	PASS
Band17	5MHz	QPSK	23755	1RB#12	22.43	PASS
Band17	5MHz	QPSK	23755	1RB#24	22.34	PASS
Band17	5MHz	QPSK	23755	12RB#0	21.23	PASS
Band17	5MHz	QPSK	23755	12RB#6	21.18	PASS
Band17	5MHz	QPSK	23755	12RB#13	21.27	PASS
Band17	5MHz	QPSK	23755	25RB#0	21.27	PASS
Band17	5MHz	QPSK	23790	1RB#0	22.50	PASS
Band17	5MHz	QPSK	23790	1RB#12	22.58	PASS
Band17	5MHz	QPSK	23790	1RB#24	22.47	PASS
Band17	5MHz	QPSK	23790	12RB#0	21.33	PASS
Band17	5MHz	QPSK	23790	12RB#6	21.34	PASS
Band17	5MHz	QPSK	23790	12RB#13	21.38	PASS
Band17	5MHz	QPSK	23790	25RB#0	21.37	PASS
Band17	5MHz	QPSK	23825	1RB#0	22.60	PASS
Band17	5MHz	QPSK	23825	1RB#12	22.53	PASS
Band17	5MHz	QPSK	23825	1RB#24	22.43	PASS
Band17	5MHz	QPSK	23825	12RB#0	21.45	PASS
Band17	5MHz	QPSK	23825	12RB#6	21.46	PASS
Band17	5MHz	QPSK	23825	12RB#13	21.50	PASS
Band17	5MHz	QPSK	23825	25RB#0	21.44	PASS
Band17	5MHz	16QAM	23755	1RB#0	21.29	PASS
Band17	5MHz	16QAM	23755	1RB#12	21.38	PASS
Band17	5MHz	16QAM	23755	1RB#24	21.37	PASS
Band17	5MHz	16QAM	23755	12RB#0	20.23	PASS
Band17	5MHz	16QAM	23755	12RB#6	20.24	PASS
Band17	5MHz	16QAM	23755	12RB#13	20.33	PASS
Band17	5MHz	16QAM	23755	25RB#0	20.34	PASS
Band17	5MHz	16QAM	23790	1RB#0	21.82	PASS
Band17	5MHz	16QAM	23790	1RB#12	21.81	PASS





Band17	5MHz	16QAM	23790	1RB#24	21.78	PASS
Band17	5MHz	16QAM	23790	12RB#0	20.45	PASS
Band17	5MHz	16QAM	23790	12RB#6	20.36	PASS
Band17	5MHz	16QAM	23790	12RB#13	20.39	PASS
Band17	5MHz	16QAM	23790	25RB#0	20.40	PASS
Band17	5MHz	16QAM	23825	1RB#0	21.50	PASS
Band17	5MHz	16QAM	23825	1RB#12	21.52	PASS
Band17	5MHz	16QAM	23825	1RB#24	21.44	PASS
Band17	5MHz	16QAM	23825	12RB#0	20.54	PASS
Band17	5MHz	16QAM	23825	12RB#6	20.54	PASS
Band17	5MHz	16QAM	23825	12RB#13	20.52	PASS
Band17	5MHz	16QAM	23825	25RB#0	20.45	PASS
Band17	10MHz	QPSK	23780	1RB#0	22.66	PASS
Band17	10MHz	QPSK	23780	1RB#24	22.60	PASS
Band17	10MHz	QPSK	23780	1RB#49	22.51	PASS
Band17	10MHz	QPSK	23780	25RB#0	21.44	PASS
Band17	10MHz	QPSK	23780	25RB#12	21.46	PASS
Band17	10MHz	QPSK	23780	25RB#25	21.44	PASS
Band17	10MHz	QPSK	23780	50RB#0	21.42	PASS
Band17	10MHz	QPSK	23790	1RB#0	22.56	PASS
Band17	10MHz	QPSK	23790	1RB#24	22.36	PASS
Band17	10MHz	QPSK	23790	1RB#49	22.50	PASS
Band17	10MHz	QPSK	23790	25RB#0	21.44	PASS
Band17	10MHz	QPSK	23790	25RB#12	21.36	PASS
Band17	10MHz	QPSK	23790	25RB#25	21.36	PASS
Band17	10MHz	QPSK	23790	50RB#0	21.37	PASS
Band17	10MHz	QPSK	23800	1RB#0	22.76	PASS
Band17	10MHz	QPSK	23800	1RB#24	22.44	PASS
Band17	10MHz	QPSK	23800	1RB#49	22.58	PASS
Band17	10MHz	QPSK	23800	25RB#0	21.43	PASS
Band17	10MHz	QPSK	23800	25RB#12	21.49	PASS
Band17	10MHz	QPSK	23800	25RB#25	21.46	PASS
Band17	10MHz	QPSK	23800	50RB#0	21.46	PASS
Band17	10MHz	16QAM	23780	1RB#0	21.92	PASS
Band17	10MHz	16QAM	23780	1RB#24	21.58	PASS





Band17	10MHz	16QAM	23780	1RB#49	21.74	PASS
Band17	10MHz	16QAM	23780	25RB#0	20.49	PASS
Band17	10MHz	16QAM	23780	25RB#12	20.49	PASS
Band17	10MHz	16QAM	23780	25RB#25	20.46	PASS
Band17	10MHz	16QAM	23780	50RB#0	20.51	PASS
Band17	10MHz	16QAM	23790	1RB#0	21.78	PASS
Band17	10MHz	16QAM	23790	1RB#24	21.38	PASS
Band17	10MHz	16QAM	23790	1RB#49	21.72	PASS
Band17	10MHz	16QAM	23790	25RB#0	20.52	PASS
Band17	10MHz	16QAM	23790	25RB#12	20.52	PASS
Band17	10MHz	16QAM	23790	25RB#25	20.34	PASS
Band17	10MHz	16QAM	23790	50RB#0	20.43	PASS
Band17	10MHz	16QAM	23800	1RB#0	21.54	PASS
Band17	10MHz	16QAM	23800	1RB#24	21.30	PASS
Band17	10MHz	16QAM	23800	1RB#49	21.59	PASS
Band17	10MHz	16QAM	23800	25RB#0	20.47	PASS
Band17	10MHz	16QAM	23800	25RB#12	20.47	PASS
Band17	10MHz	16QAM	23800	25RB#25	20.46	PASS
Band17	10MHz	16QAM	23800	50RB#0	20.46	PASS





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

Test Result

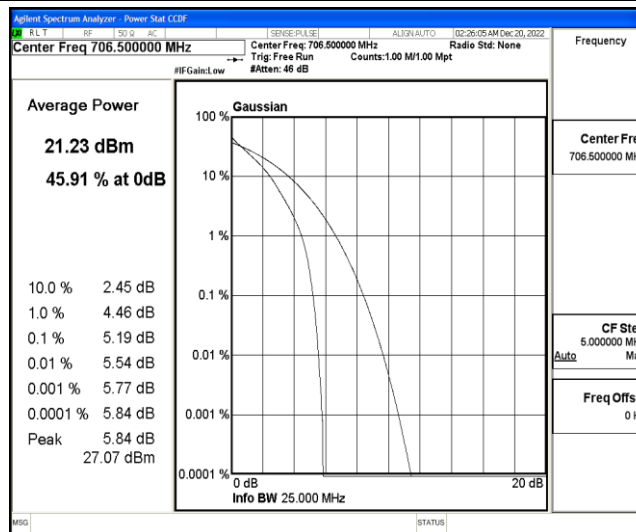
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band17	5MHz	QPSK	23755	25RB#0	5.19	13	PASS
Band17	5MHz	QPSK	23790	25RB#0	5.14	13	PASS
Band17	5MHz	QPSK	23825	25RB#0	4.74	13	PASS
Band17	5MHz	16QAM	23755	25RB#0	6.00	13	PASS
Band17	5MHz	16QAM	23790	25RB#0	5.97	13	PASS
Band17	5MHz	16QAM	23825	25RB#0	5.63	13	PASS
Band17	10MHz	QPSK	23780	50RB#0	5.17	13	PASS
Band17	10MHz	QPSK	23790	50RB#0	5.12	13	PASS
Band17	10MHz	QPSK	23800	50RB#0	5.02	13	PASS
Band17	10MHz	16QAM	23780	50RB#0	5.98	13	PASS
Band17	10MHz	16QAM	23790	50RB#0	5.97	13	PASS
Band17	10MHz	16QAM	23800	50RB#0	5.89	13	PASS



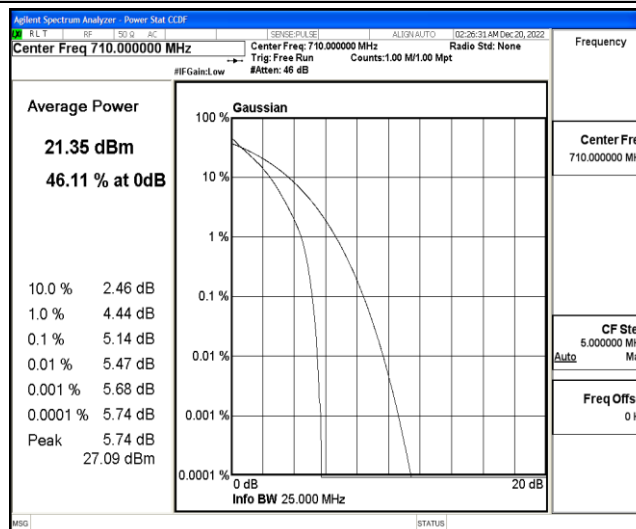


Test Graphs

Band17-5MHz-QPSK-23755-25RB#0

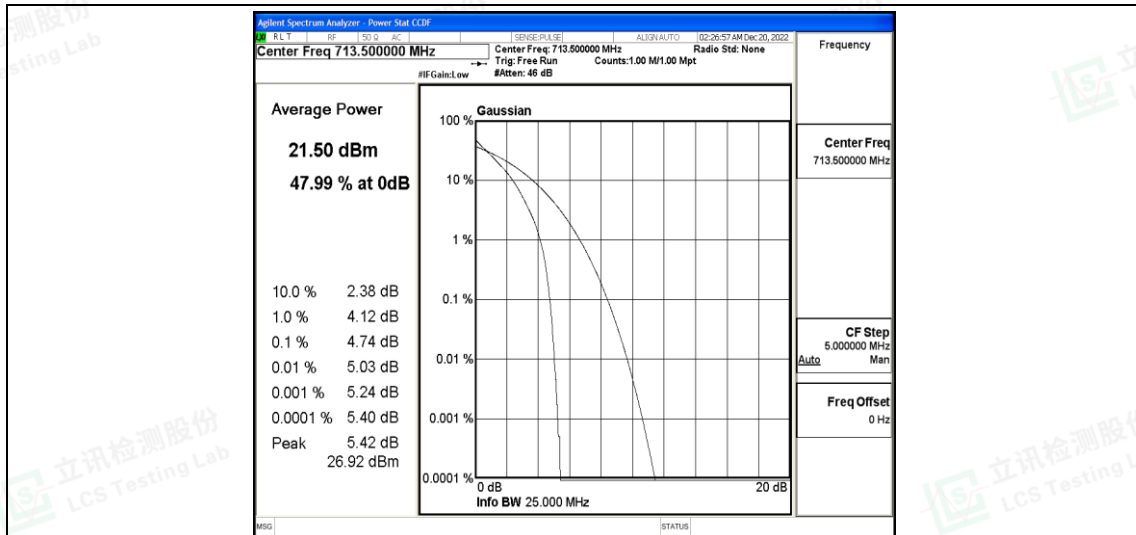


Band17-5MHz-QPSK-23790-25RB#0

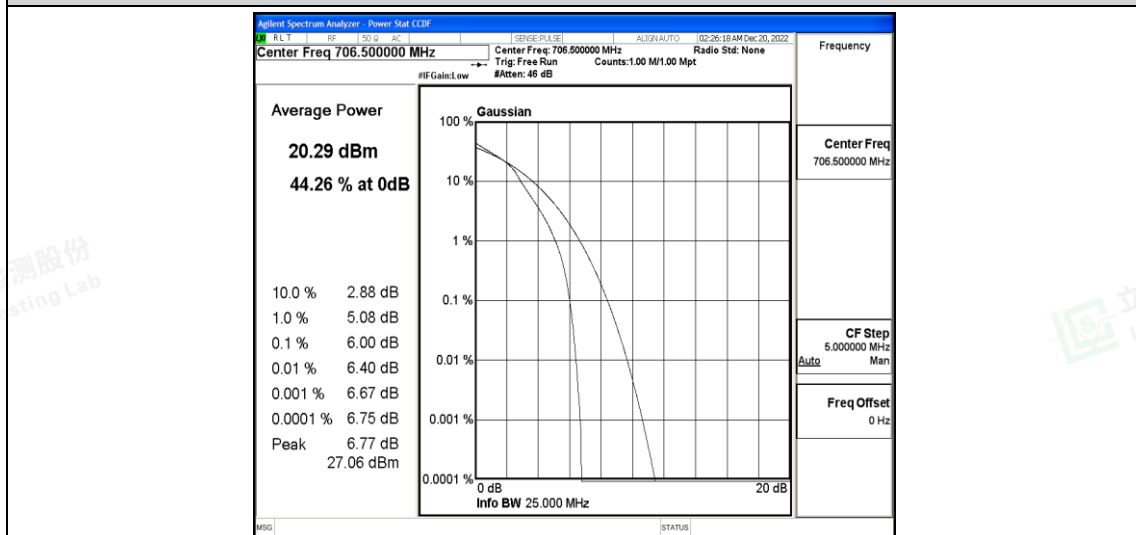


Band17-5MHz-QPSK-23825-25RB#0

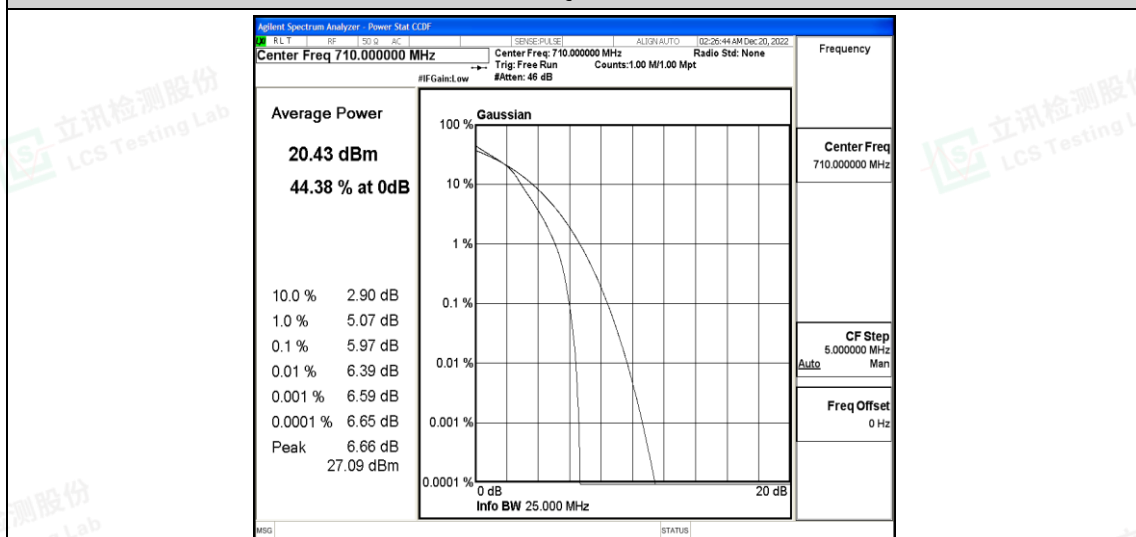




Band17-5MHz-16QAM-23755-25RB#0

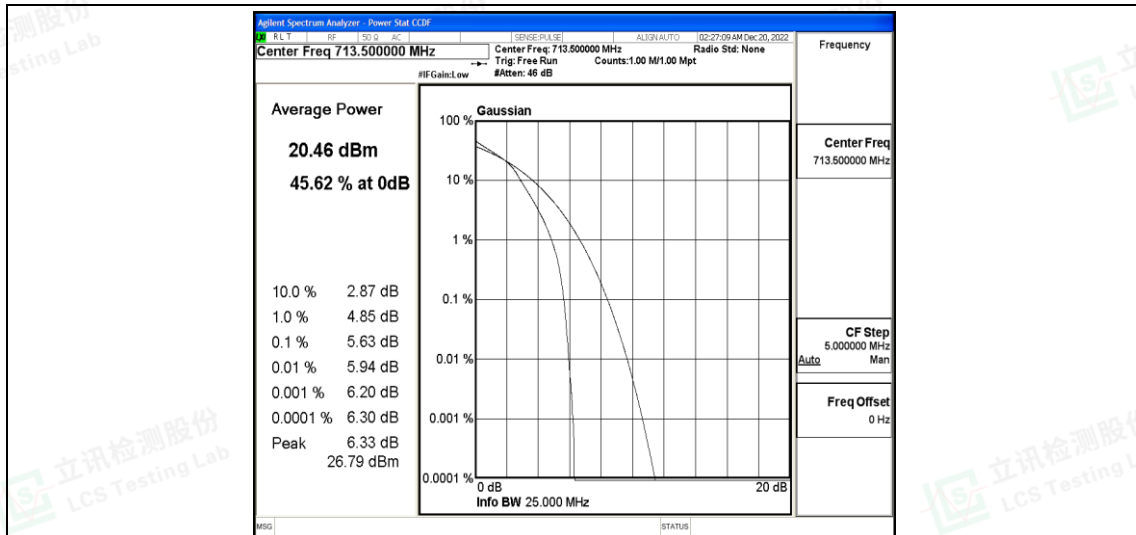


Band17-5MHz-16QAM-23790-25RB#0

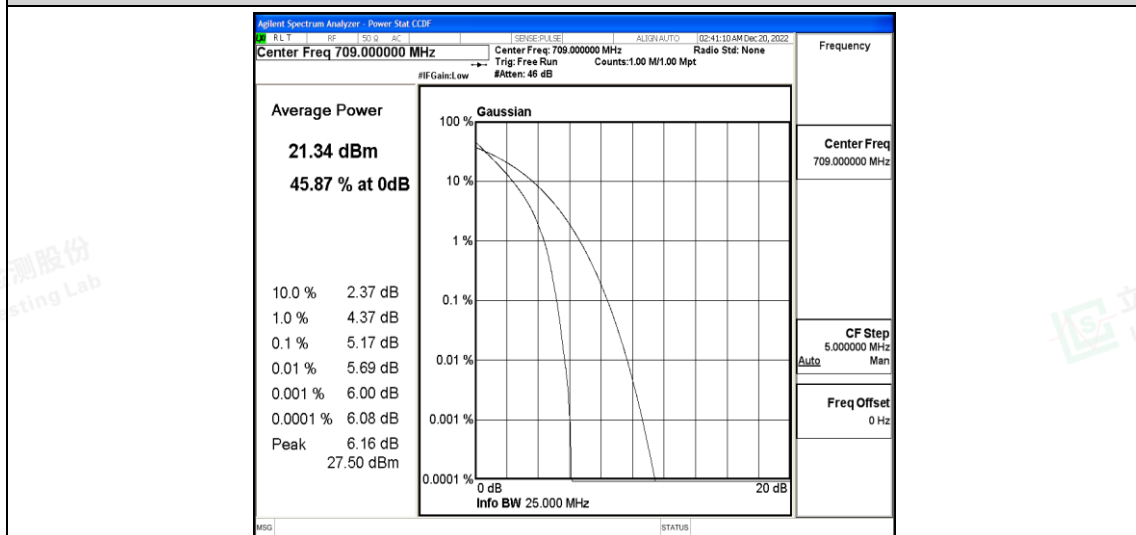


Band17-5MHz-16QAM-23825-25RB#0

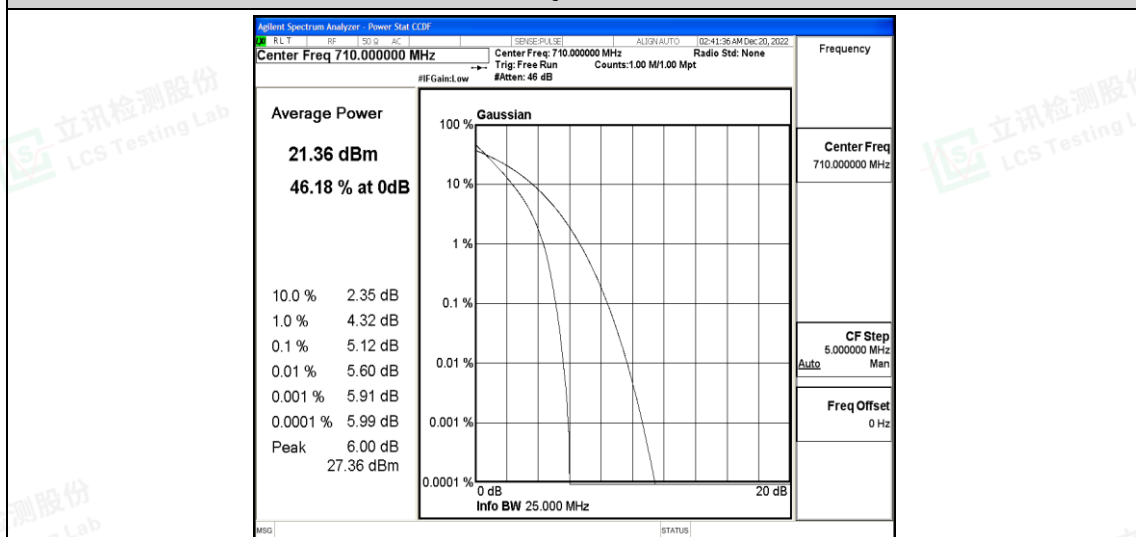




Band17-10MHz-QPSK-23780-50RB#0

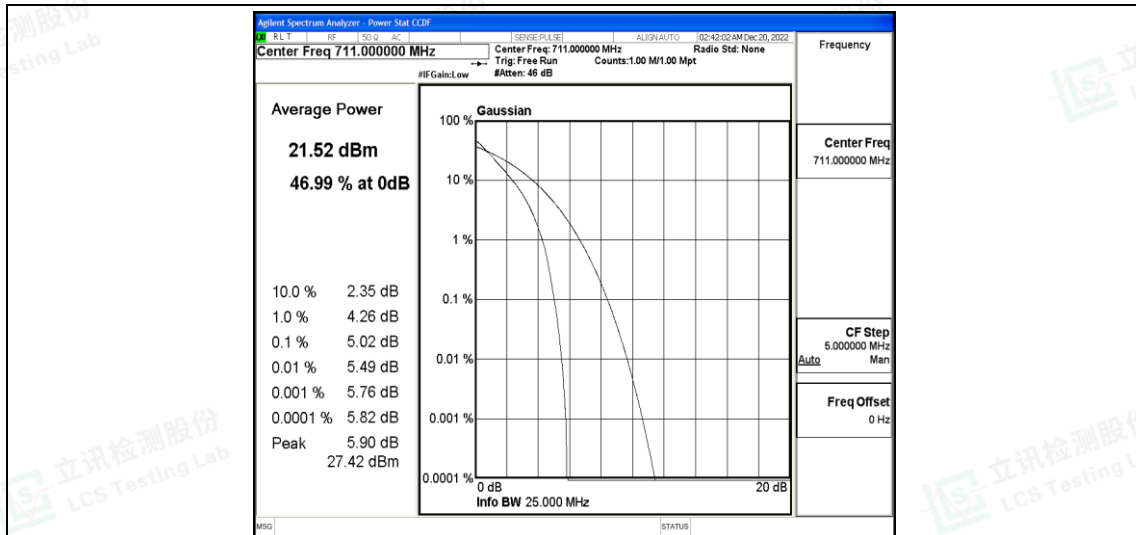


Band17-10MHz-QPSK-23790-50RB#0

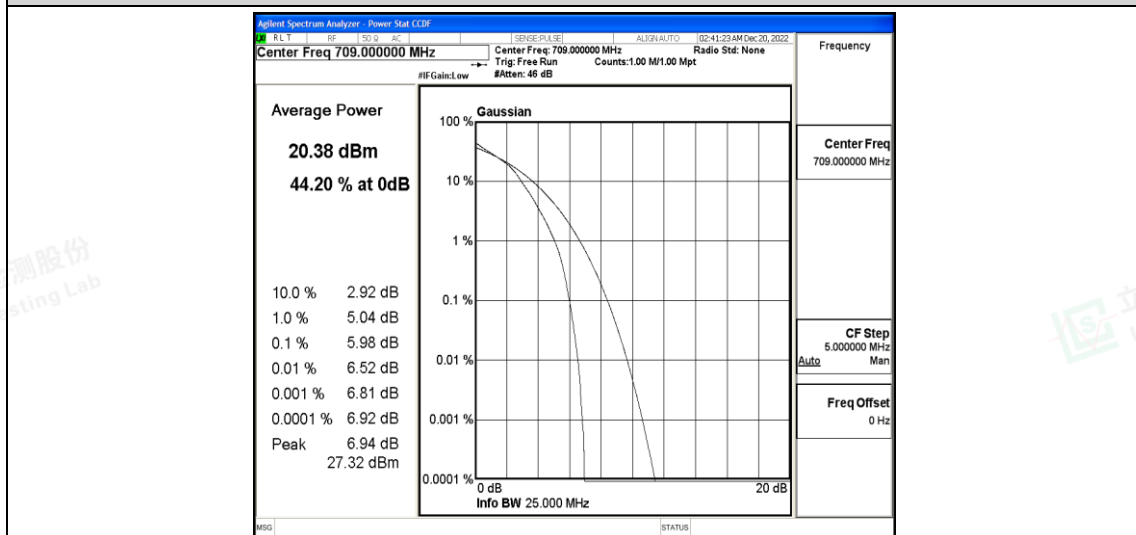


Band17-10MHz-QPSK-23800-50RB#0

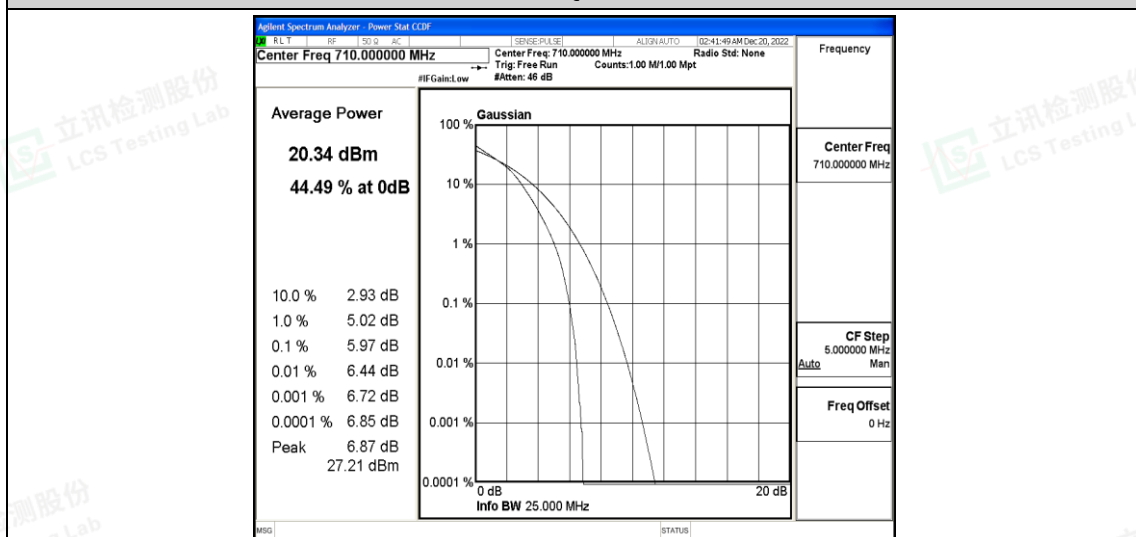




Band17-10MHz-16QAM-23780-50RB#0

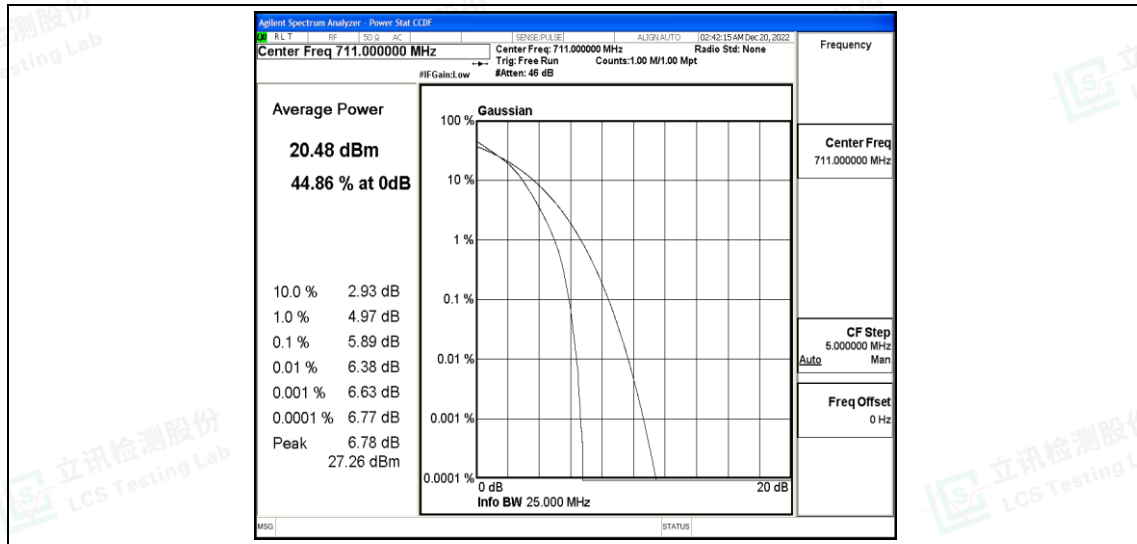


Band17-10MHz-16QAM-23790-50RB#0



Band17-10MHz-16QAM-23800-50RB#0







N.3 26dB Bandwidth and Occupied Bandwidth

Test Result

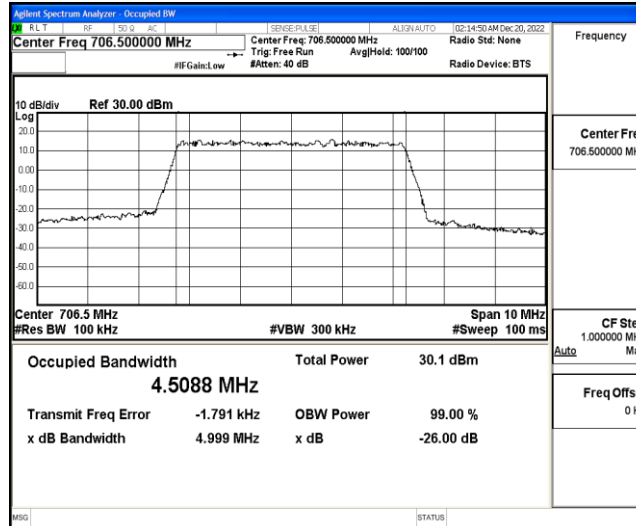
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band17	5MHz	QPSK	23755	25RB#0	4.5088	4.999	PASS
Band17	5MHz	QPSK	23790	25RB#0	4.5049	4.981	PASS
Band17	5MHz	QPSK	23825	25RB#0	4.4972	4.994	PASS
Band17	5MHz	16QAM	23755	25RB#0	4.5035	4.980	PASS
Band17	5MHz	16QAM	23790	25RB#0	4.5251	5.062	PASS
Band17	5MHz	16QAM	23825	25RB#0	4.4999	5.023	PASS
Band17	10MHz	QPSK	23780	50RB#0	9.0103	9.976	PASS
Band17	10MHz	QPSK	23790	50RB#0	8.9933	9.899	PASS
Band17	10MHz	QPSK	23800	50RB#0	8.9537	9.898	PASS
Band17	10MHz	16QAM	23780	50RB#0	8.9911	9.924	PASS
Band17	10MHz	16QAM	23790	50RB#0	8.9792	9.941	PASS
Band17	10MHz	16QAM	23800	50RB#0	8.9907	9.929	PASS



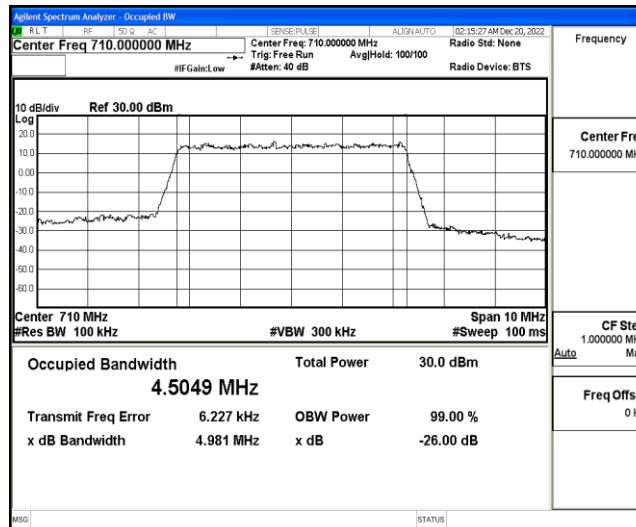


Test Graphs

Band17-5MHz-QPSK-23755-25RB#0

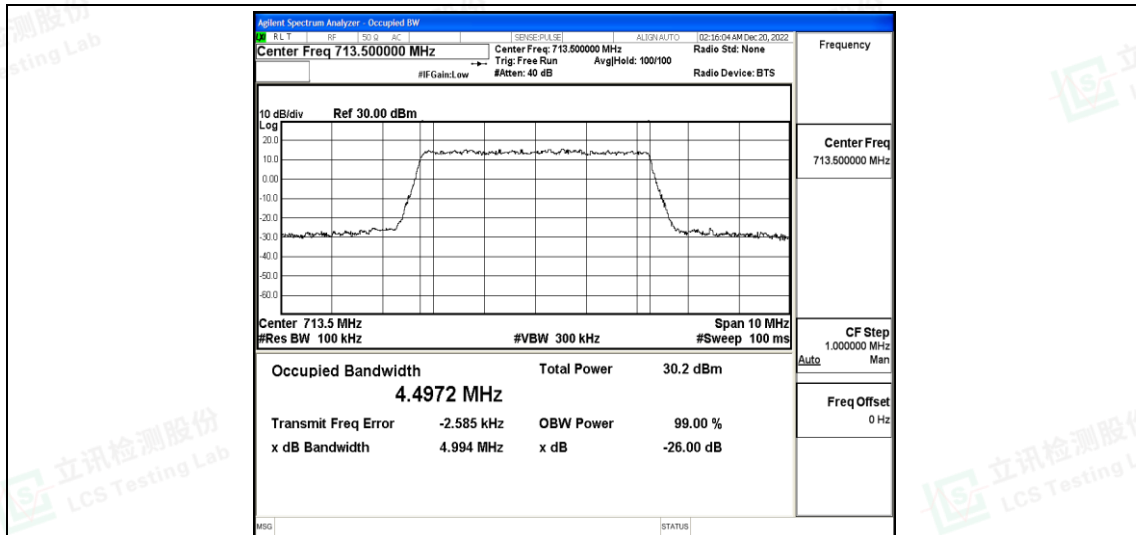


Band17-5MHz-QPSK-23790-25RB#0

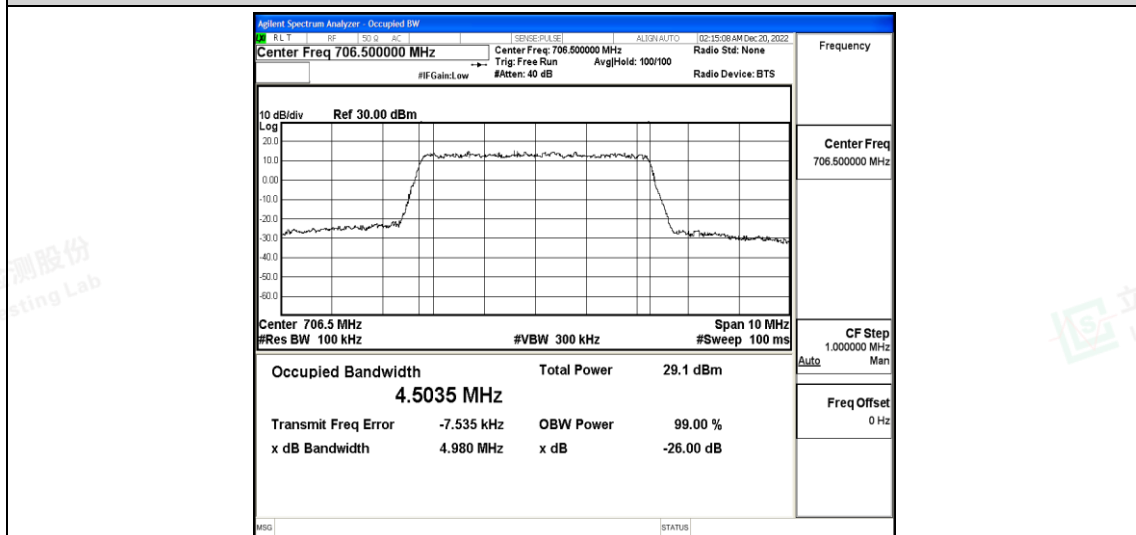


Band17-5MHz-QPSK-23825-25RB#0

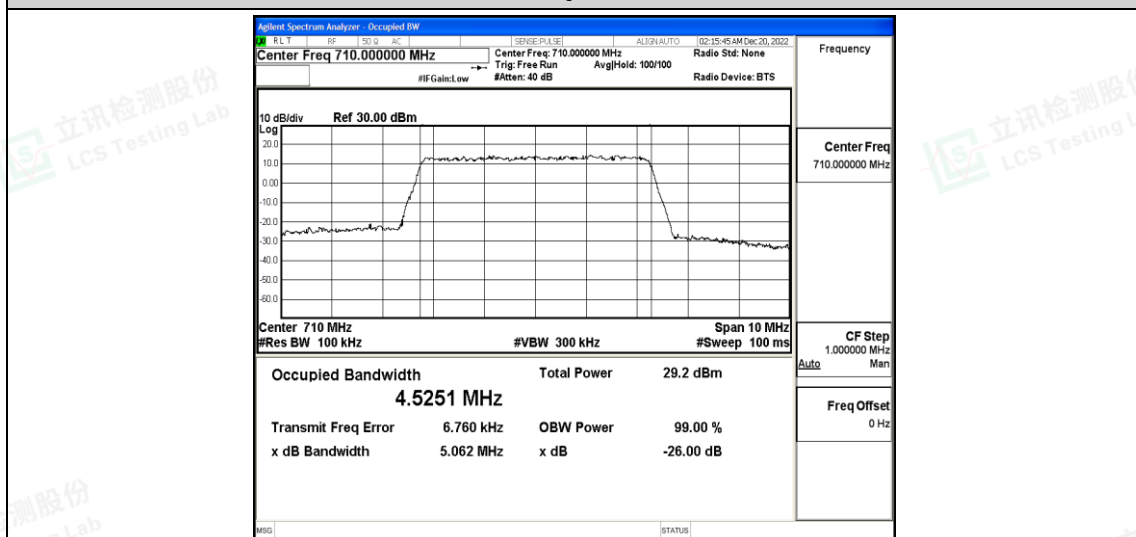




Band17-5MHz-16QAM-23755-25RB#0

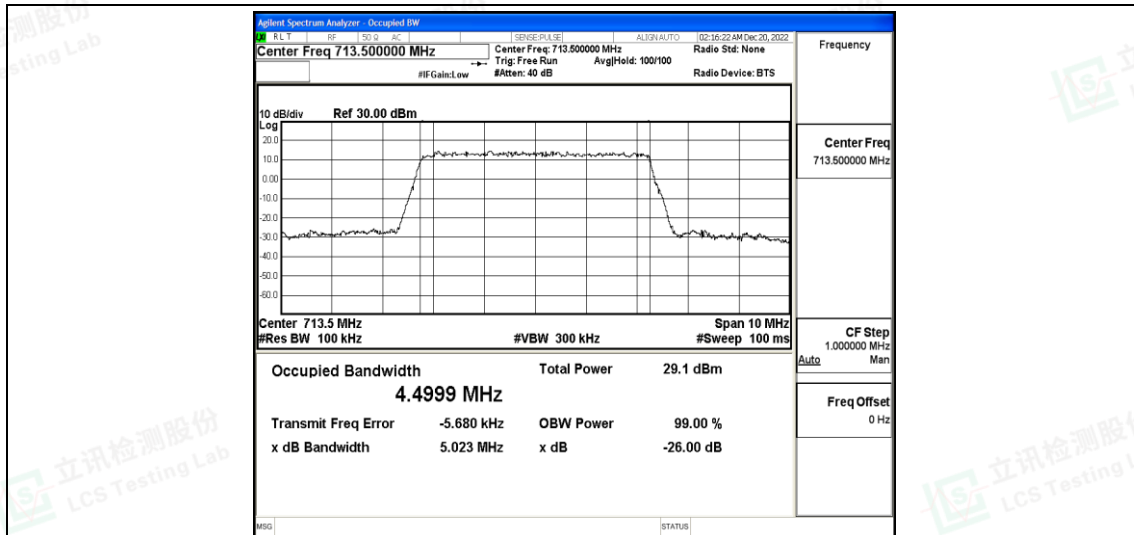


Band17-5MHz-16QAM-23790-25RB#0

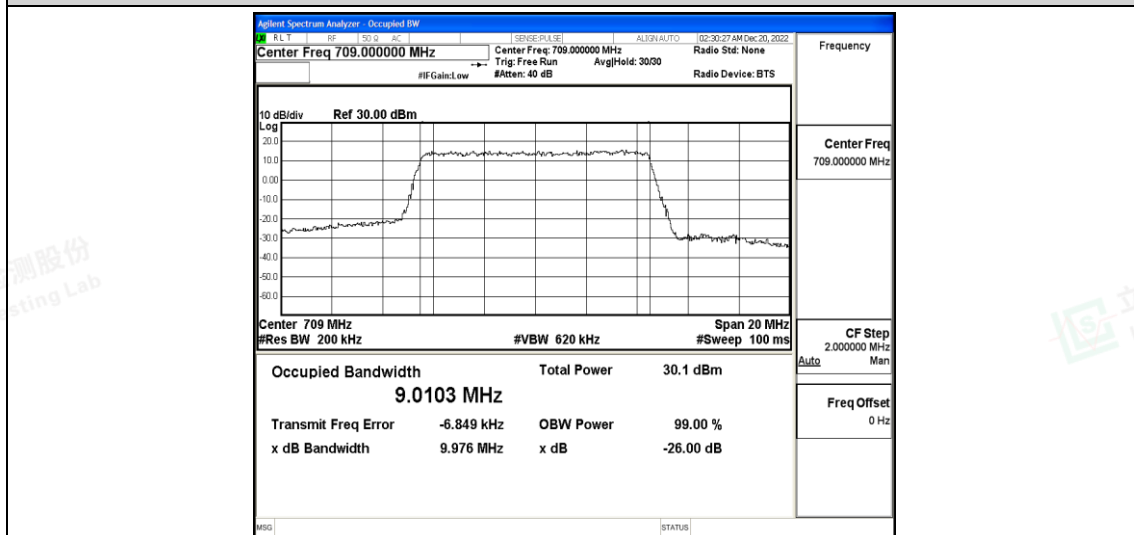


Band17-5MHz-16QAM-23825-25RB#0

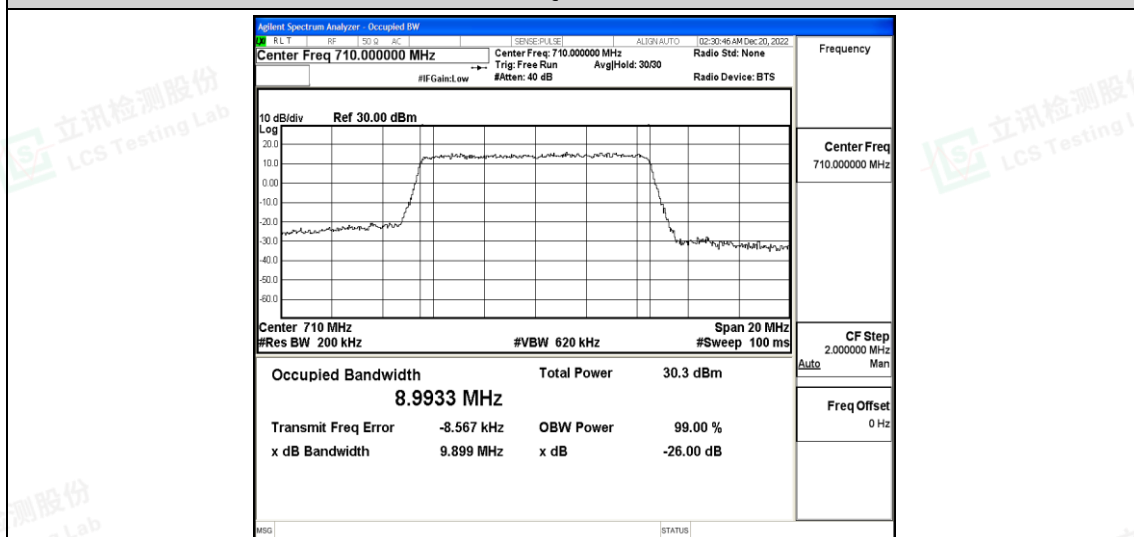




Band17-10MHz-QPSK-23780-50RB#0

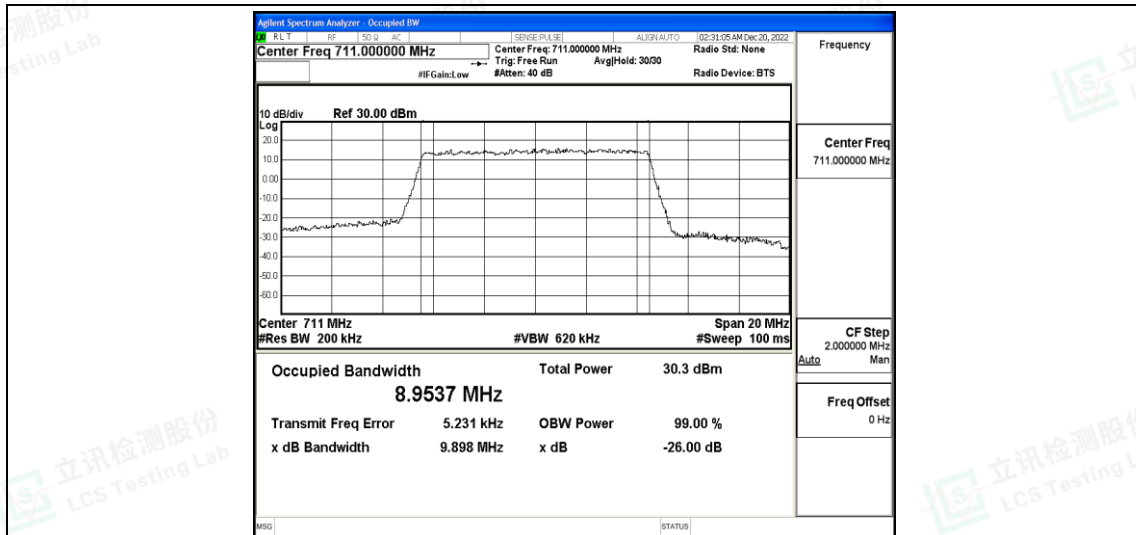


Band17-10MHz-QPSK-23790-50RB#0

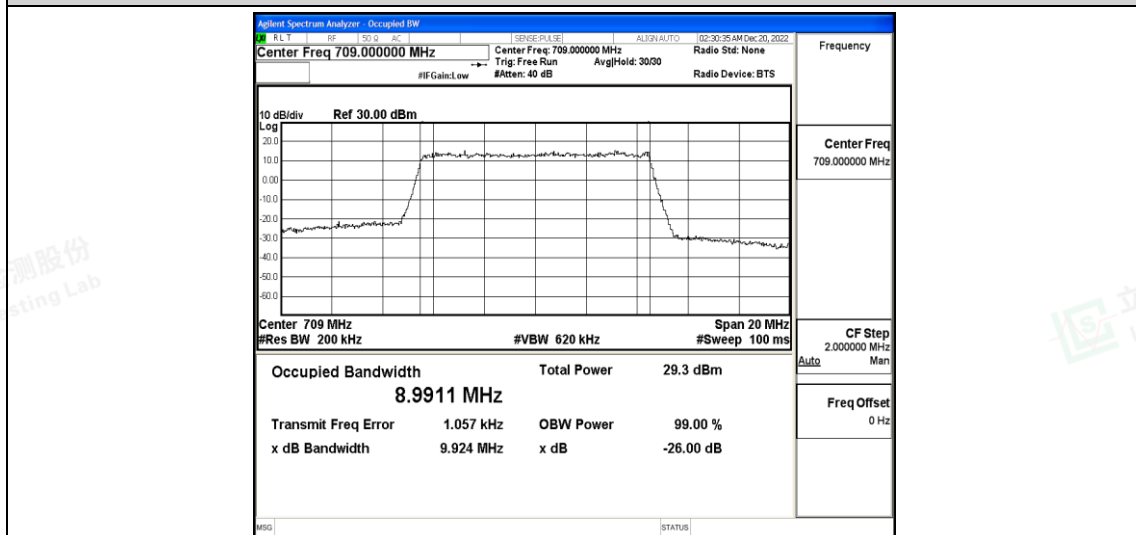


Band17-10MHz-QPSK-23800-50RB#0

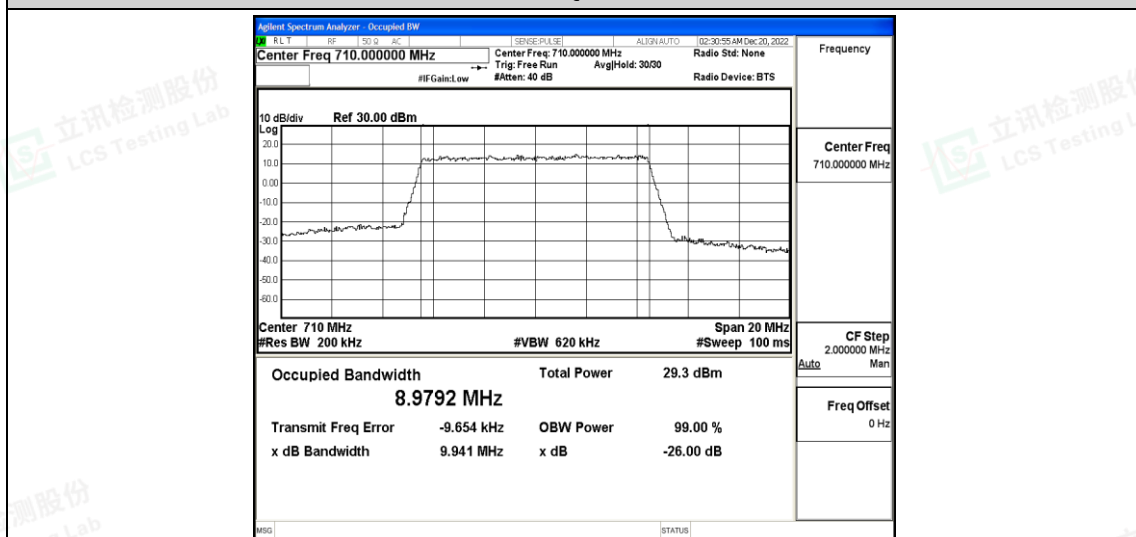




Band17-10MHz-16QAM-23780-50RB#0

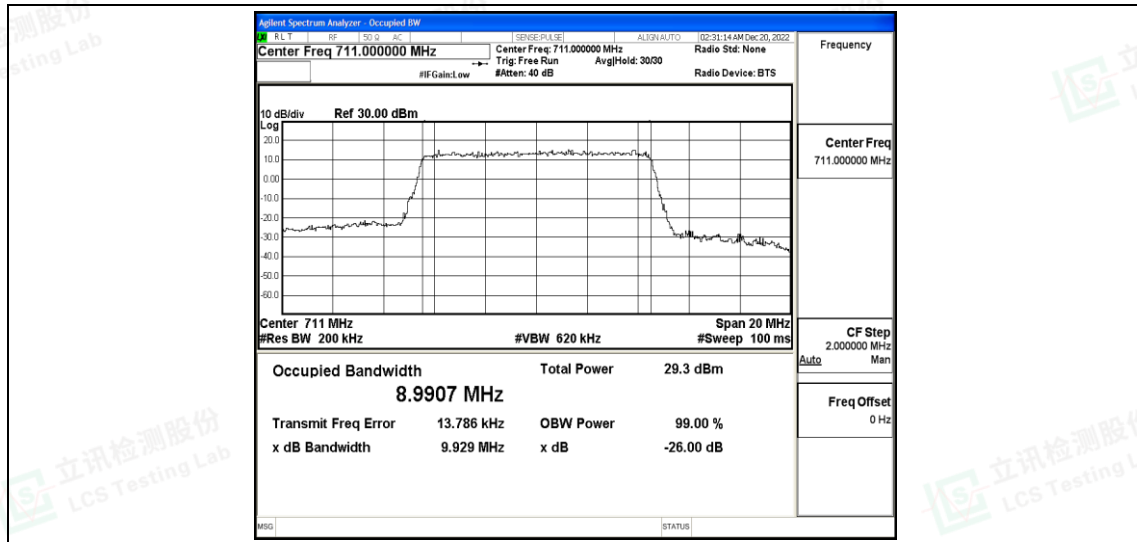


Band17-10MHz-16QAM-23790-50RB#0



Band17-10MHz-16QAM-23800-50RB#0





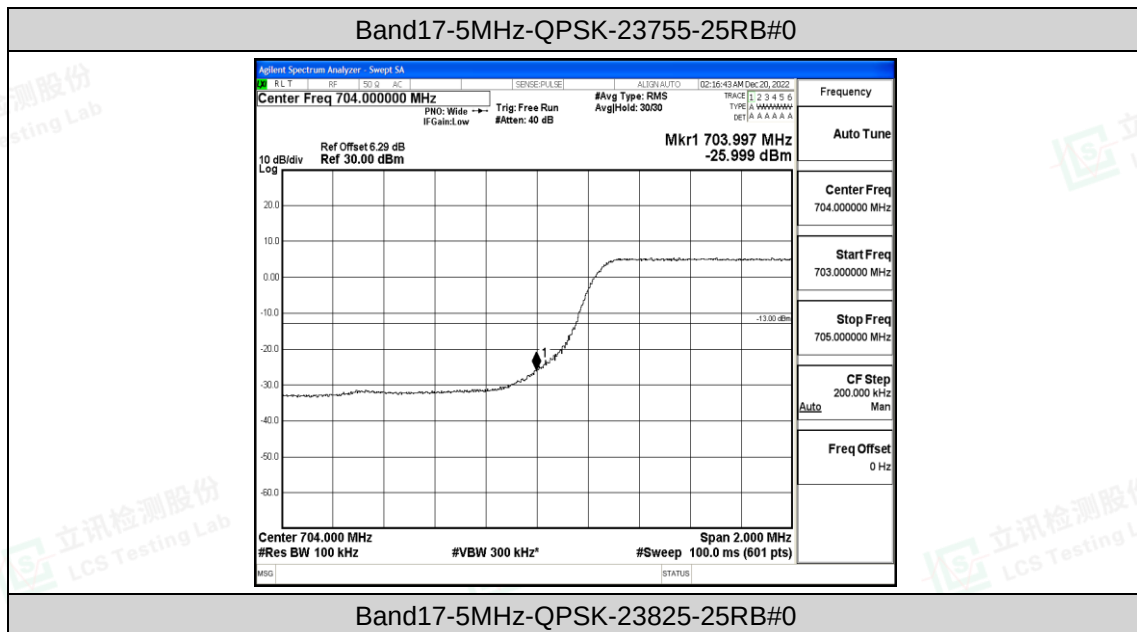


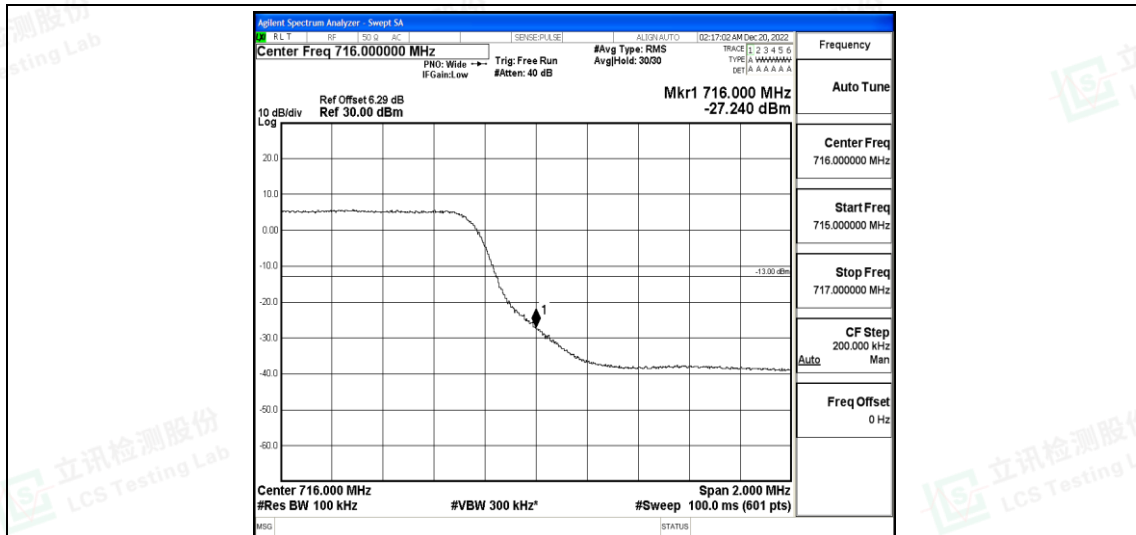
N.4 Band Edge

Test Result

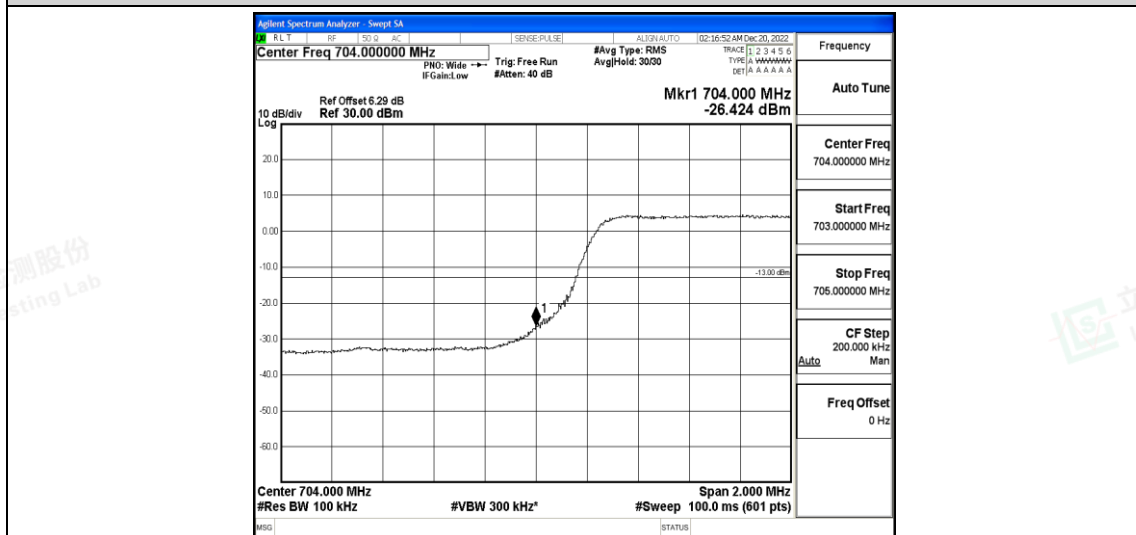
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band17	5MHz	QPSK	23755	25RB#0	-26.00	PASS
Band17	5MHz	QPSK	23825	25RB#0	-27.24	PASS
Band17	5MHz	16QAM	23755	25RB#0	-26.42	PASS
Band17	5MHz	16QAM	23825	25RB#0	-27.90	PASS
Band17	10MHz	QPSK	23780	50RB#0	-28.50,-27.23	PASS
Band17	10MHz	QPSK	23800	50RB#0	-30.29,-32.94	PASS
Band17	10MHz	16QAM	23780	50RB#0	-30.01,-28.72	PASS
Band17	10MHz	16QAM	23800	50RB#0	-31.55,-33.85	PASS

Test Graphs

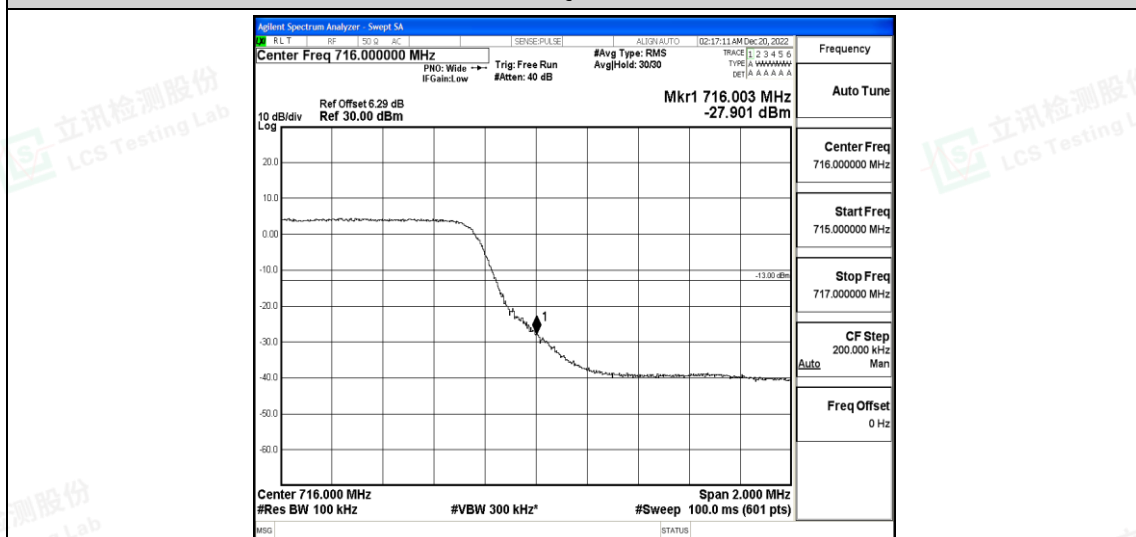




Band17-5MHz-16QAM-23755-25RB#0

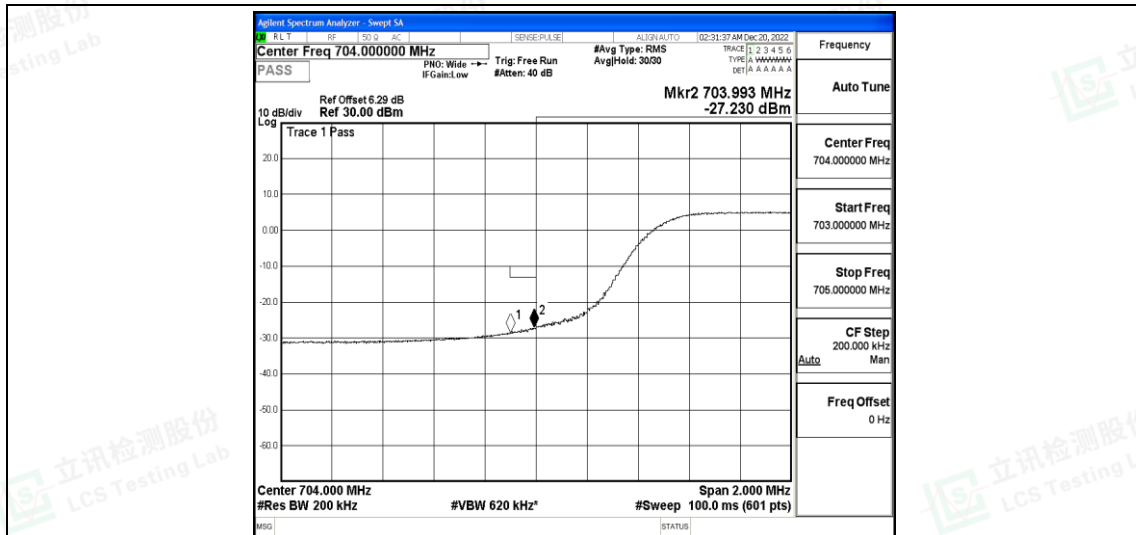


Band17-5MHz-16QAM-23825-25RB#0

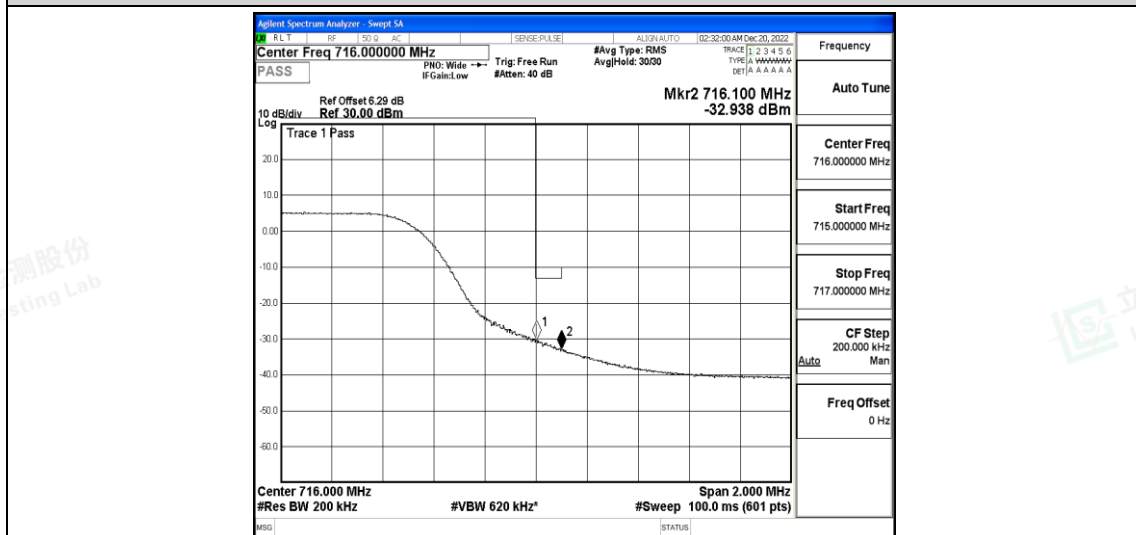


Band17-10MHz-QPSK-23780-50RB#0

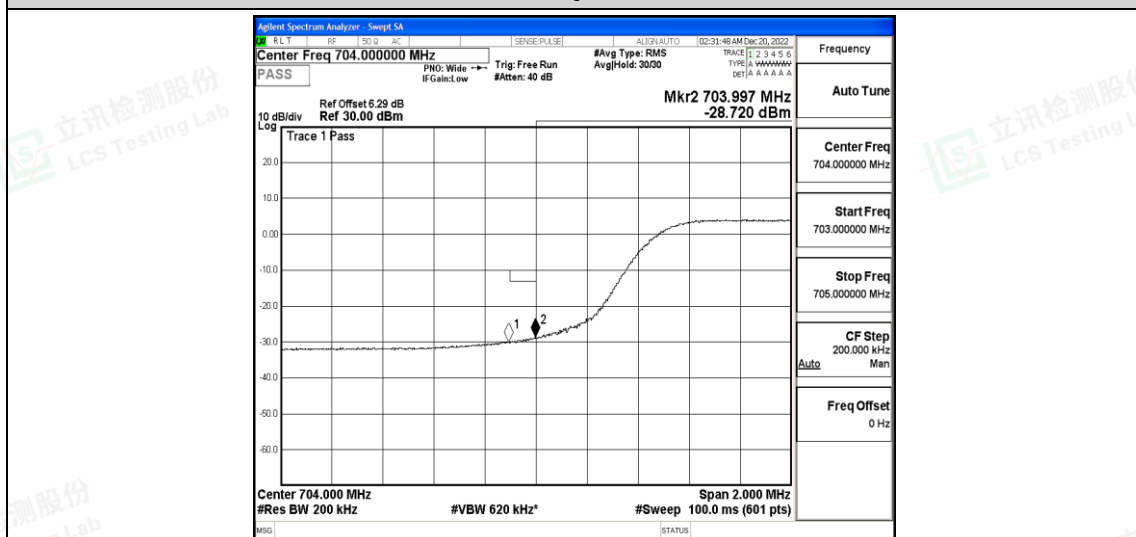




Band17-10MHz-QPSK-23800-50RB#0

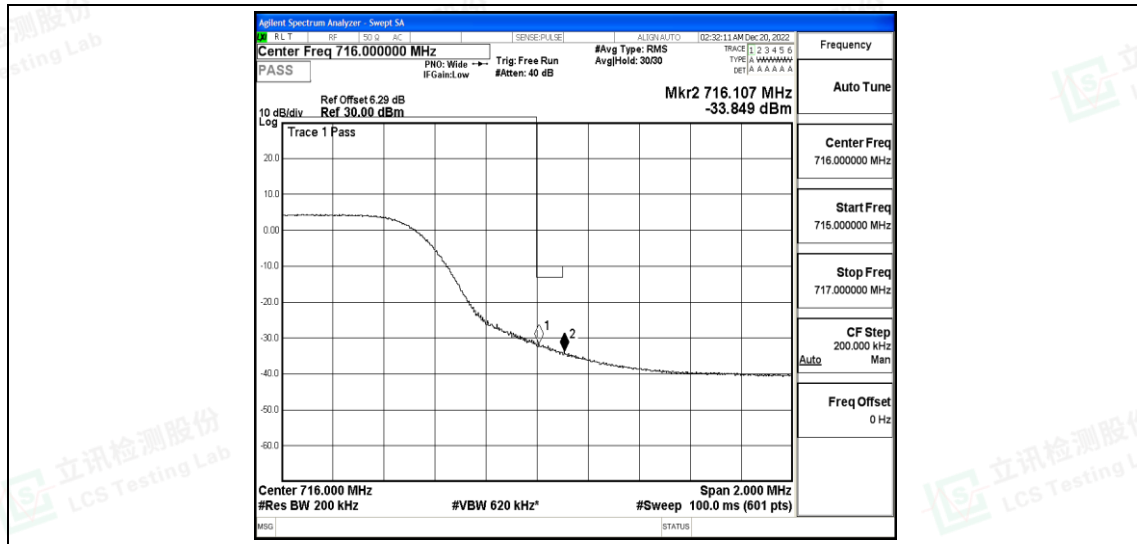


Band17-10MHz-16QAM-23780-50RB#0



Band17-10MHz-16QAM-23800-50RB#0







N.5 Conducted Spurious Emission

Test Result

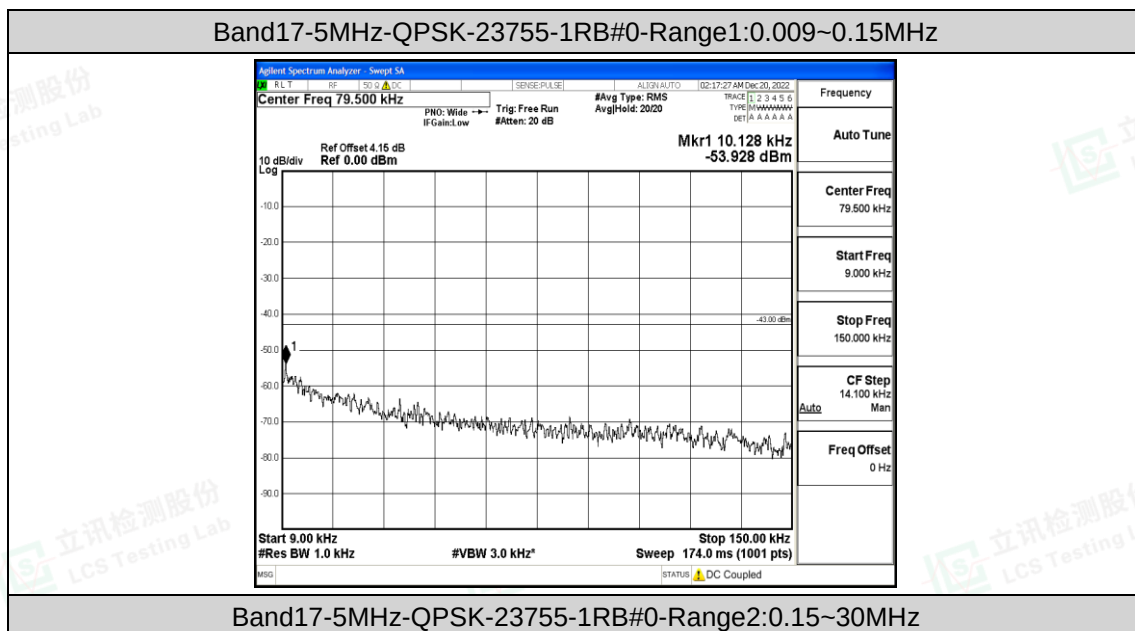
Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band17	5MHz	QPSK	23755	1RB#0	Range1:0.009~0.15MHz	-53.93	PASS
Band17	5MHz	QPSK	23755	1RB#0	Range2:0.15~30MHz	-51.95	PASS
Band17	5MHz	QPSK	23755	1RB#0	Range3:30~1000MHz	-40.84	PASS
Band17	5MHz	QPSK	23755	1RB#0	Range4:1000~10000MHz	-44.81	PASS
Band17	5MHz	QPSK	23790	1RB#0	Range1:0.009~0.15MHz	-55.13	PASS
Band17	5MHz	QPSK	23790	1RB#0	Range2:0.15~30MHz	-51.2	PASS
Band17	5MHz	QPSK	23790	1RB#0	Range3:30~1000MHz	-40.52	PASS
Band17	5MHz	QPSK	23790	1RB#0	Range4:1000~10000MHz	-44.94	PASS
Band17	5MHz	QPSK	23825	1RB#0	Range1:0.009~0.15MHz	-53.63	PASS
Band17	5MHz	QPSK	23825	1RB#0	Range2:0.15~30MHz	-51.87	PASS
Band17	5MHz	QPSK	23825	1RB#0	Range3:30~1000MHz	-41.17	PASS
Band17	5MHz	QPSK	23825	1RB#0	Range4:1000~10000MHz	-44.95	PASS
Band17	5MHz	16QAM	23755	1RB#0	Range1:0.009~0.15MHz	-56.37	PASS
Band17	5MHz	16QAM	23755	1RB#0	Range2:0.15~30MHz	-50.68	PASS
Band17	5MHz	16QAM	23755	1RB#0	Range3:30~1000MHz	-40.53	PASS
Band17	5MHz	16QAM	23755	1RB#0	Range4:1000~10000MHz	-44.84	PASS
Band17	5MHz	16QAM	23790	1RB#0	Range1:0.009~0.15MHz	-55.74	PASS
Band17	5MHz	16QAM	23790	1RB#0	Range2:0.15~30MHz	-50.37	PASS
Band17	5MHz	16QAM	23790	1RB#0	Range3:30~1000MHz	-40.8	PASS
Band17	5MHz	16QAM	23790	1RB#0	Range4:1000~10000MHz	-44.99	PASS
Band17	5MHz	16QAM	23825	1RB#0	Range1:0.009~0.15MHz	-55.54	PASS
Band17	5MHz	16QAM	23825	1RB#0	Range2:0.15~30MHz	-50.38	PASS
Band17	5MHz	16QAM	23825	1RB#0	Range3:30~1000MHz	-39.74	PASS
Band17	5MHz	16QAM	23825	1RB#0	Range4:1000~10000MHz	-44.96	PASS
Band17	10MHz	QPSK	23780	1RB#0	Range1:0.009~0.15MHz	-55.11	PASS
Band17	10MHz	QPSK	23780	1RB#0	Range2:0.15~30MHz	-50.51	PASS
Band17	10MHz	QPSK	23780	1RB#0	Range3:30~1000MHz	-40.03	PASS
Band17	10MHz	QPSK	23780	1RB#0	Range4:1000~10000MHz	-44.77	PASS
Band17	10MHz	QPSK	23790	1RB#0	Range1:0.009~0.15MHz	-55.8	PASS
Band17	10MHz	QPSK	23790	1RB#0	Range2:0.15~30MHz	-51.1	PASS
Band17	10MHz	QPSK	23790	1RB#0	Range3:30~1000MHz	-41.04	PASS
Band17	10MHz	QPSK	23790	1RB#0	Range4:1000~10000MHz	-44.97	PASS
Band17	10MHz	QPSK	23800	1RB#0	Range1:0.009~0.15MHz	-56.74	PASS

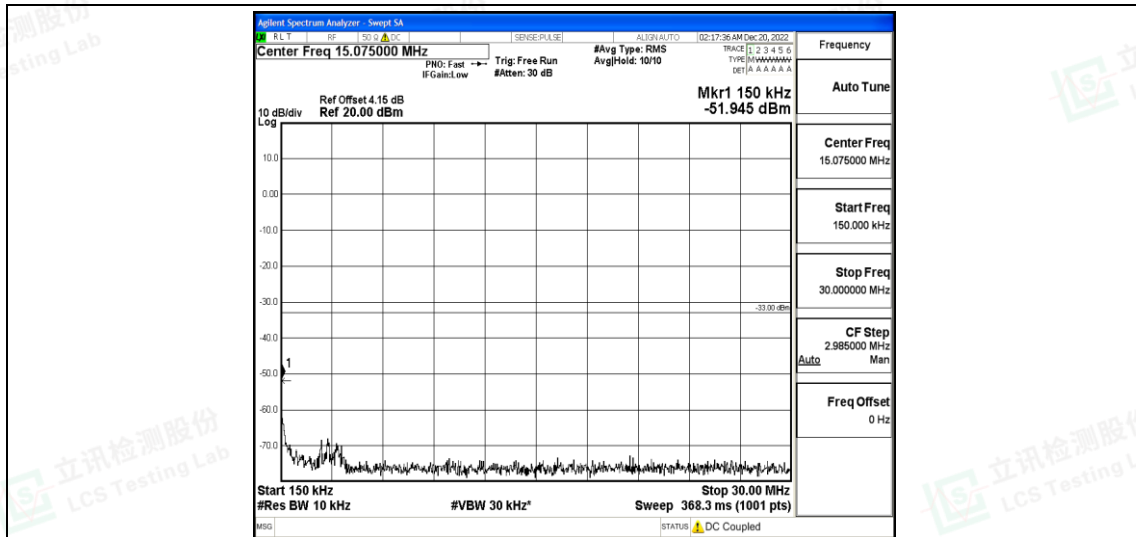




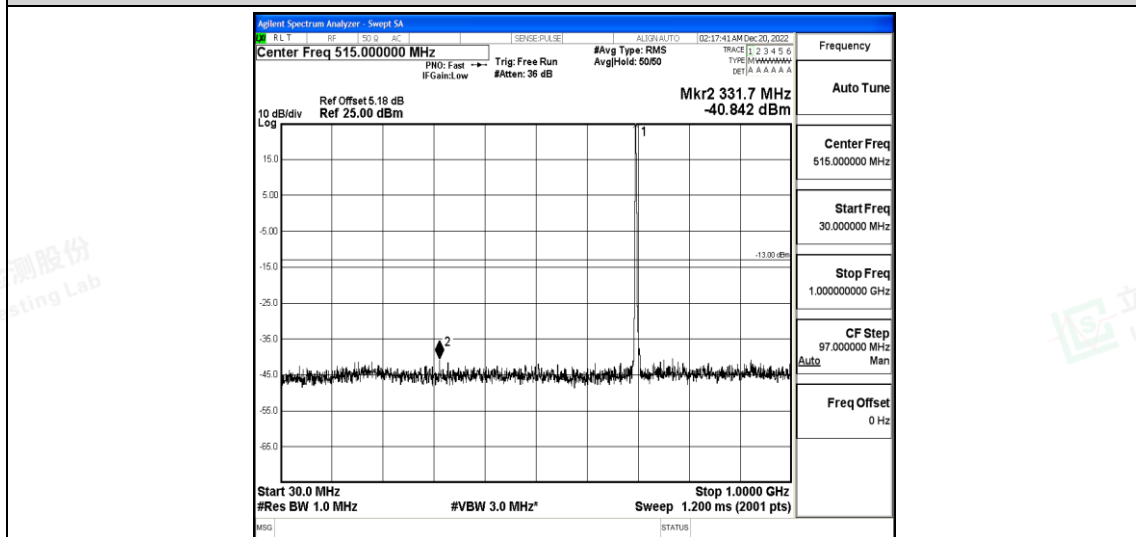
Band17	10MHz	QPSK	23800	1RB#0	Range2:0.15~30MHz	-51.51	PASS
Band17	10MHz	QPSK	23800	1RB#0	Range3:30~1000MHz	-40.42	PASS
Band17	10MHz	QPSK	23800	1RB#0	Range4:1000~10000MHz	-44.88	PASS
Band17	10MHz	16QAM	23780	1RB#0	Range1:0.009~0.15MHz	-56.28	PASS
Band17	10MHz	16QAM	23780	1RB#0	Range2:0.15~30MHz	-51.31	PASS
Band17	10MHz	16QAM	23780	1RB#0	Range3:30~1000MHz	-40.41	PASS
Band17	10MHz	16QAM	23780	1RB#0	Range4:1000~10000MHz	-44.9	PASS
Band17	10MHz	16QAM	23790	1RB#0	Range1:0.009~0.15MHz	-56.26	PASS
Band17	10MHz	16QAM	23790	1RB#0	Range2:0.15~30MHz	-51.93	PASS
Band17	10MHz	16QAM	23790	1RB#0	Range3:30~1000MHz	-40.92	PASS
Band17	10MHz	16QAM	23790	1RB#0	Range4:1000~10000MHz	-45.02	PASS
Band17	10MHz	16QAM	23800	1RB#0	Range1:0.009~0.15MHz	-54.22	PASS
Band17	10MHz	16QAM	23800	1RB#0	Range2:0.15~30MHz	-51.48	PASS
Band17	10MHz	16QAM	23800	1RB#0	Range3:30~1000MHz	-41.12	PASS
Band17	10MHz	16QAM	23800	1RB#0	Range4:1000~10000MHz	-44.82	PASS

Test Graphs

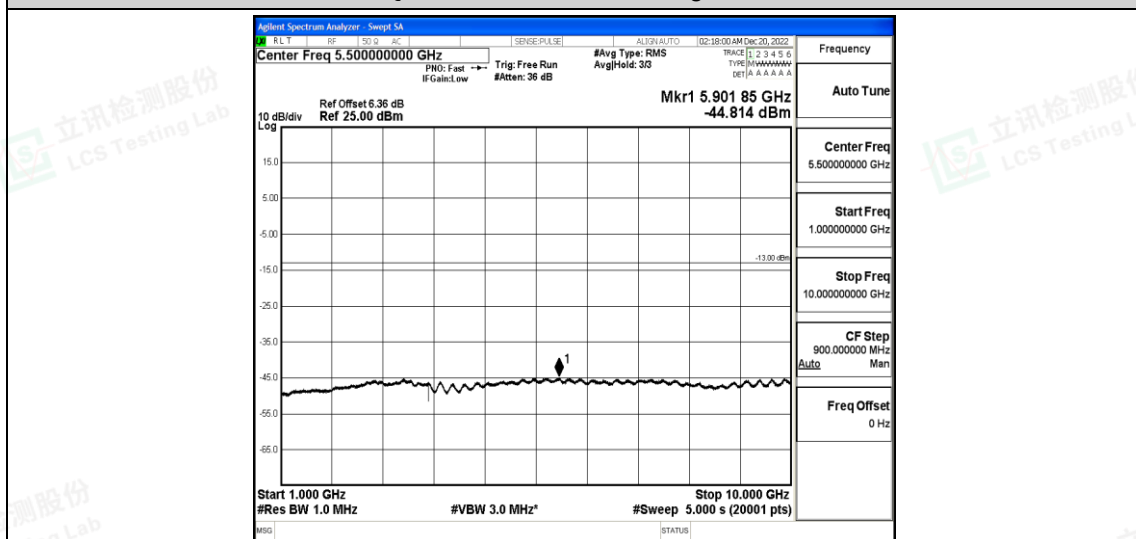




Band17-5MHz-QPSK-23755-1RB#0-Range3:30~1000MHz

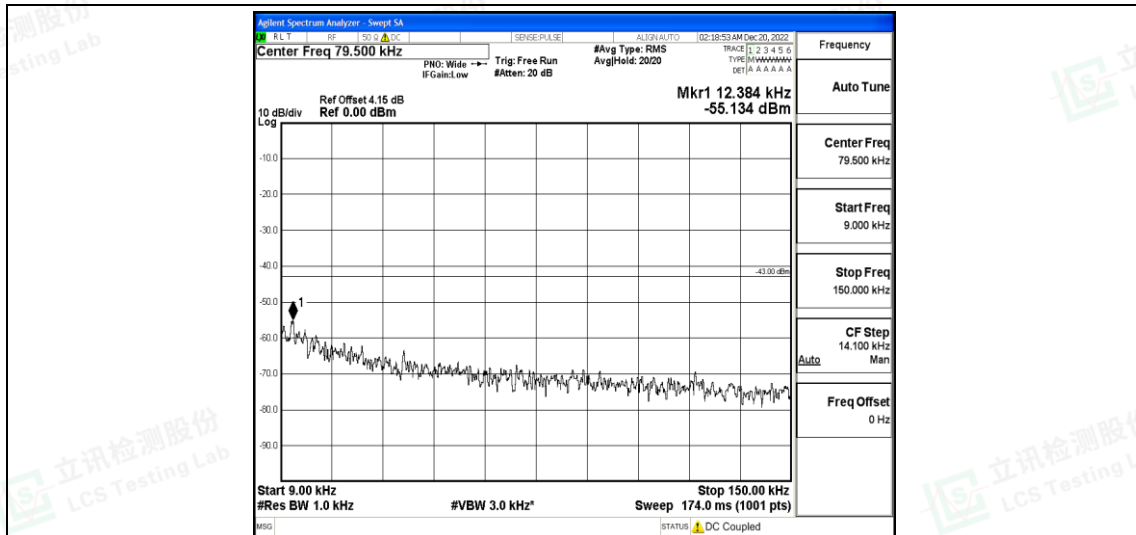


Band17-5MHz-QPSK-23755-1RB#0-Range4:1000~10000MHz

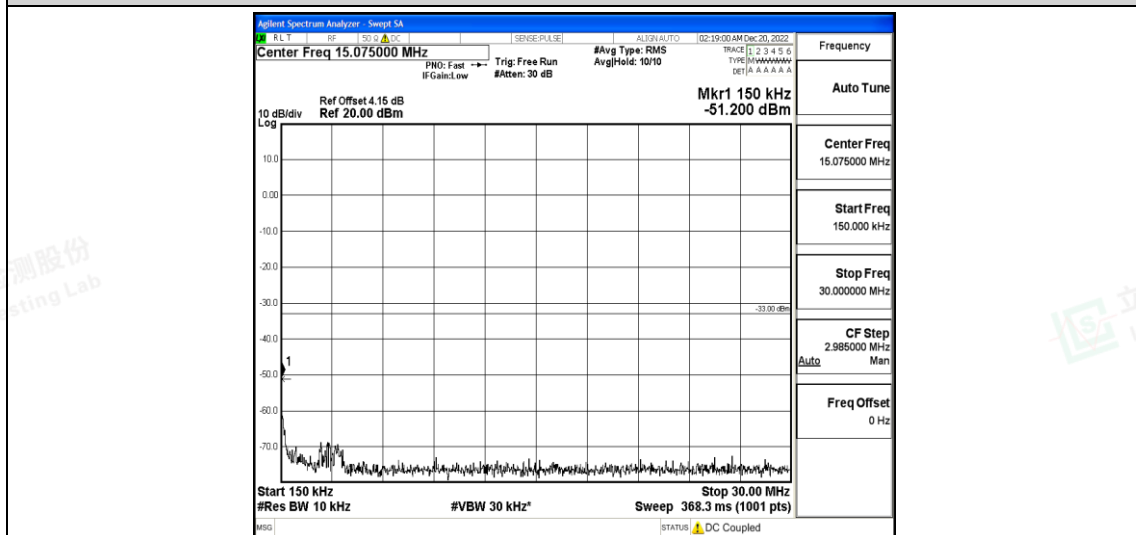


Band17-5MHz-QPSK-23790-1RB#0-Range1:0.009~0.15MHz

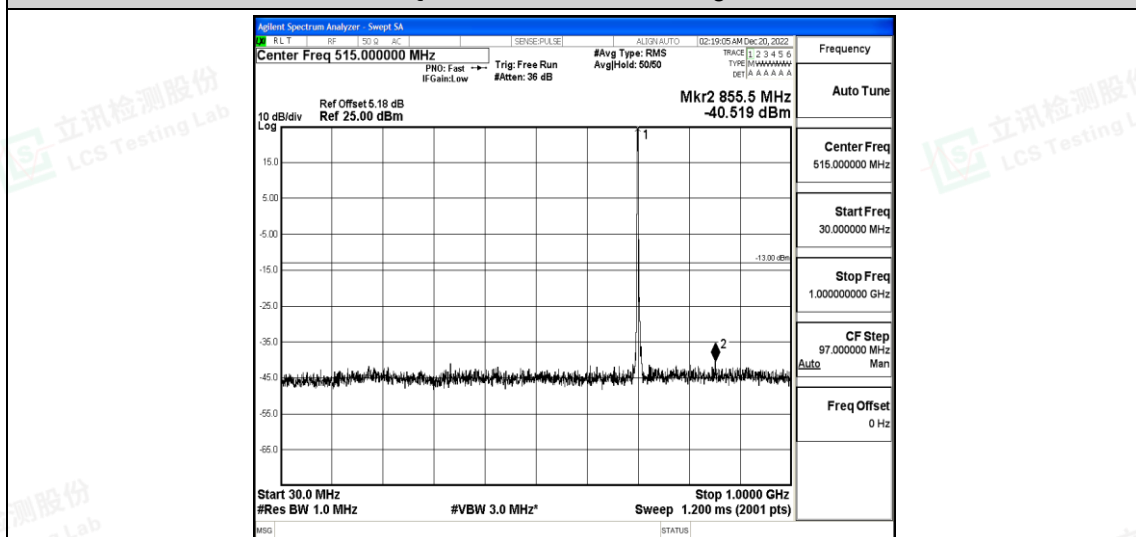




Band17-5MHz-QPSK-23790-1RB#0-Range2:0.15~30MHz

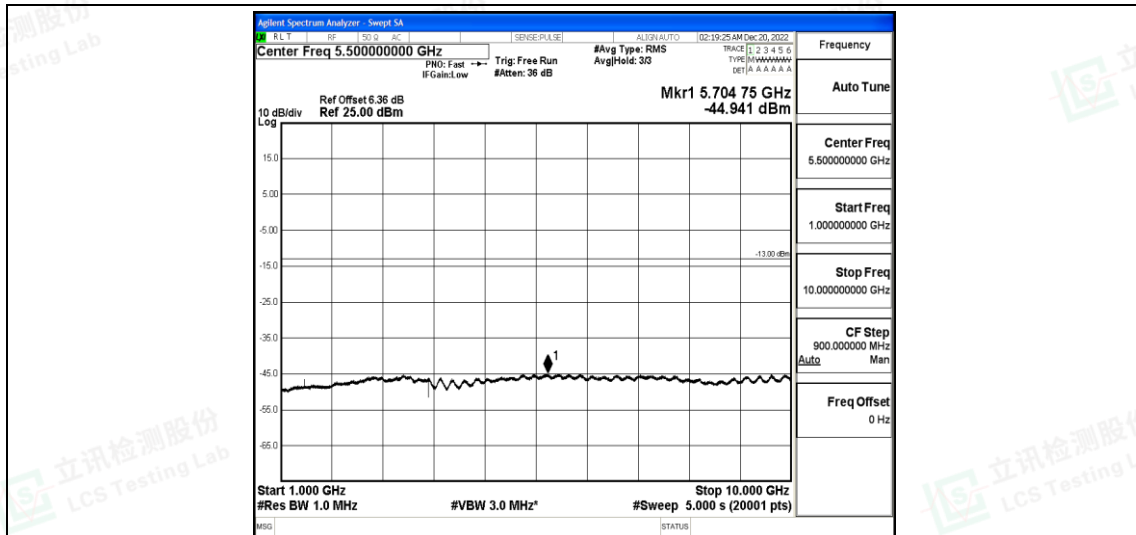


Band17-5MHz-QPSK-23790-1RB#0-Range3:30~1000MHz

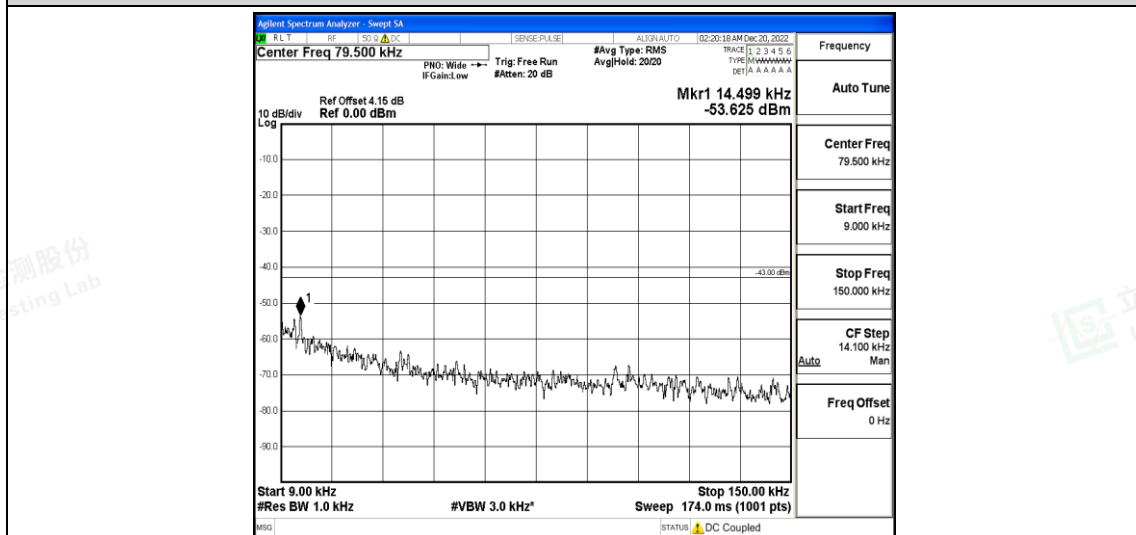


Band17-5MHz-QPSK-23790-1RB#0-Range4:1000~10000MHz

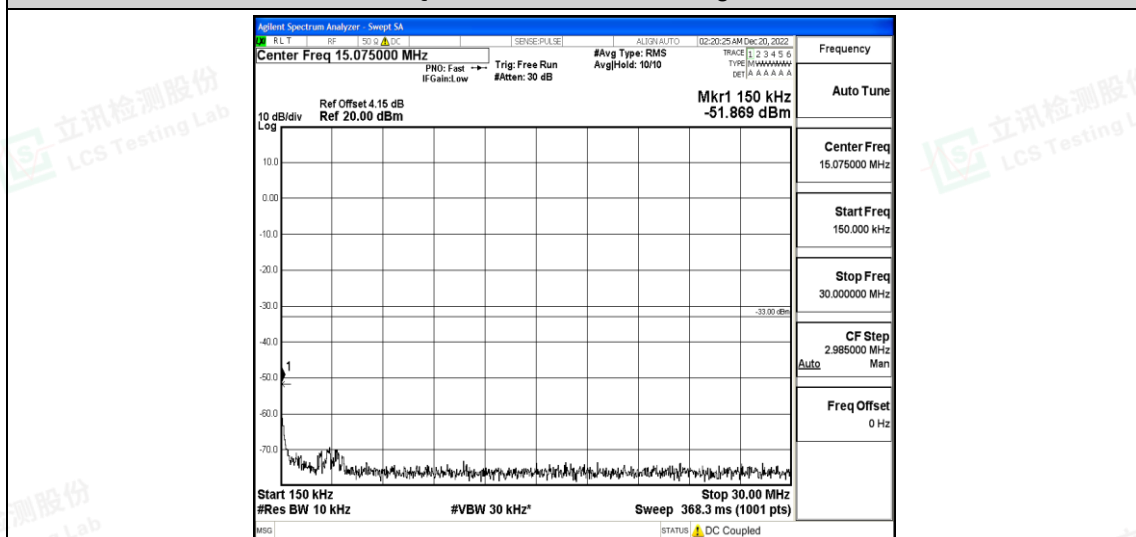




Band17-5MHz-QPSK-23825-1RB#0-Range1:0.009~0.15MHz

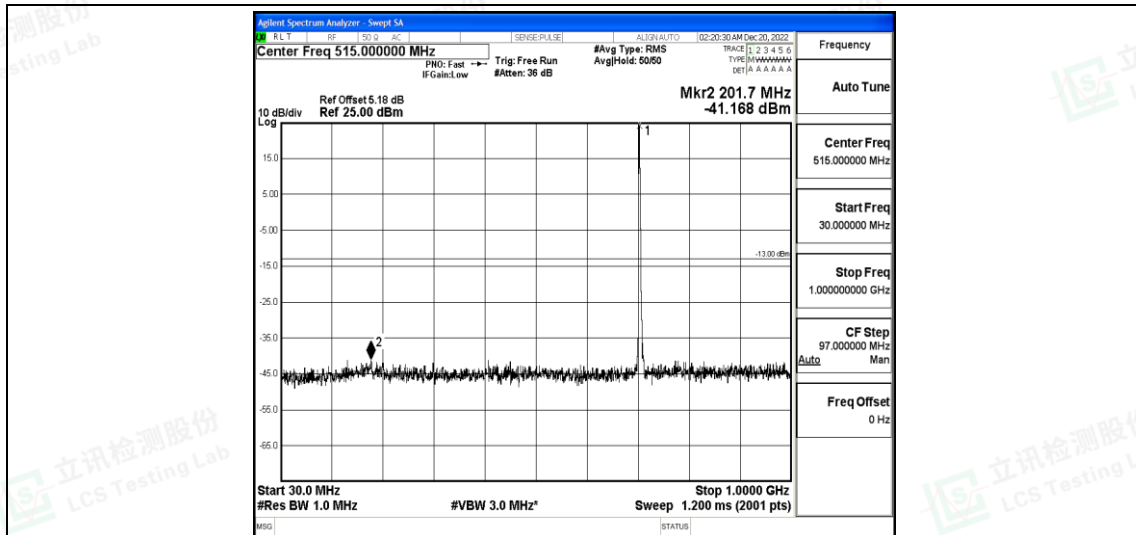


Band17-5MHz-QPSK-23825-1RB#0-Range2:0.15~30MHz

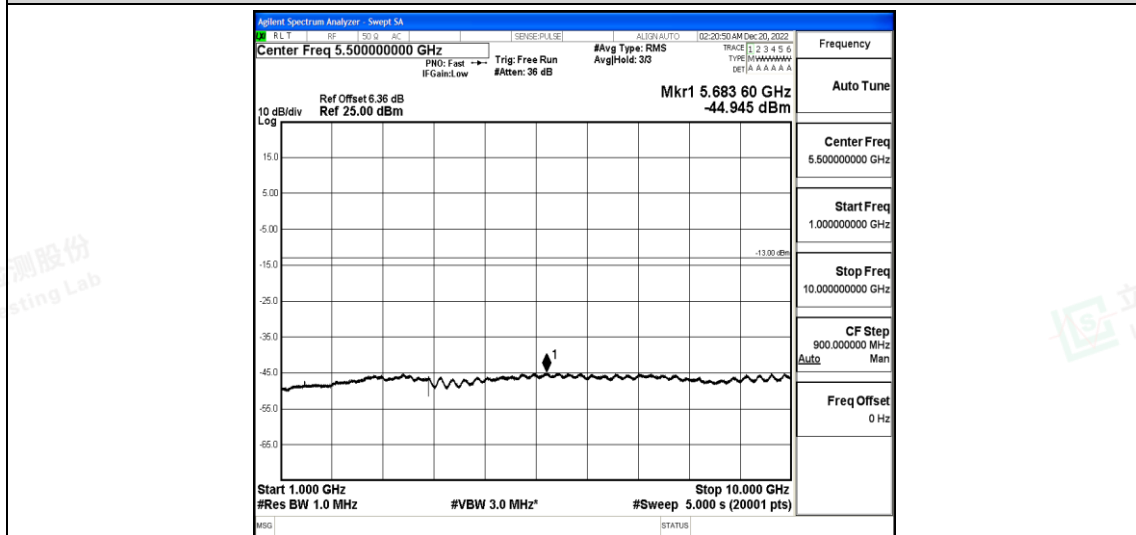


Band17-5MHz-QPSK-23825-1RB#0-Range3:30~1000MHz

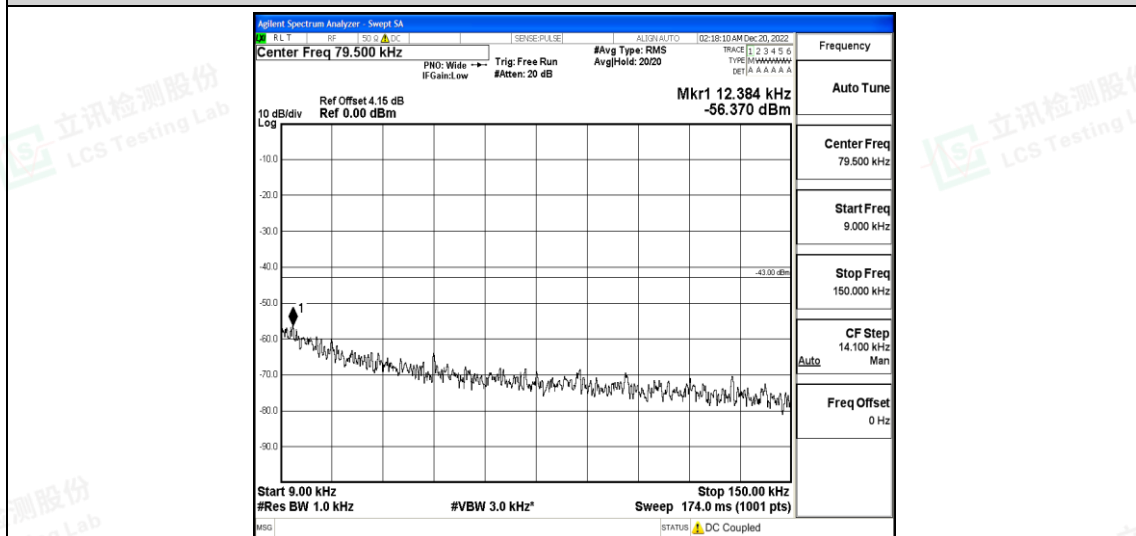




Band17-5MHz-QPSK-23825-1RB#0-Range4:1000~10000MHz

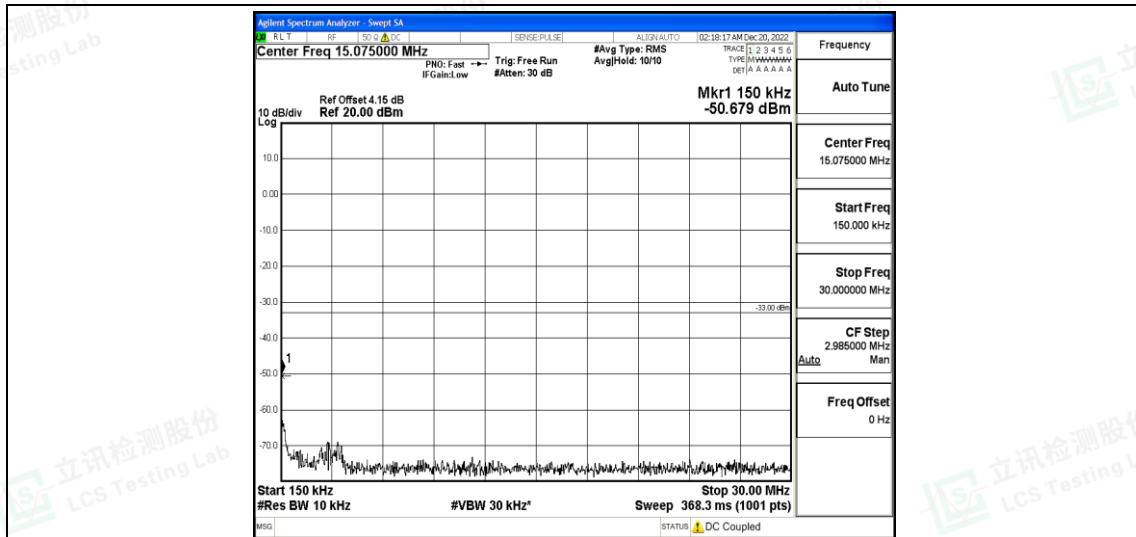


Band17-5MHz-16QAM-23755-1RB#0-Range1:0.009~0.15MHz

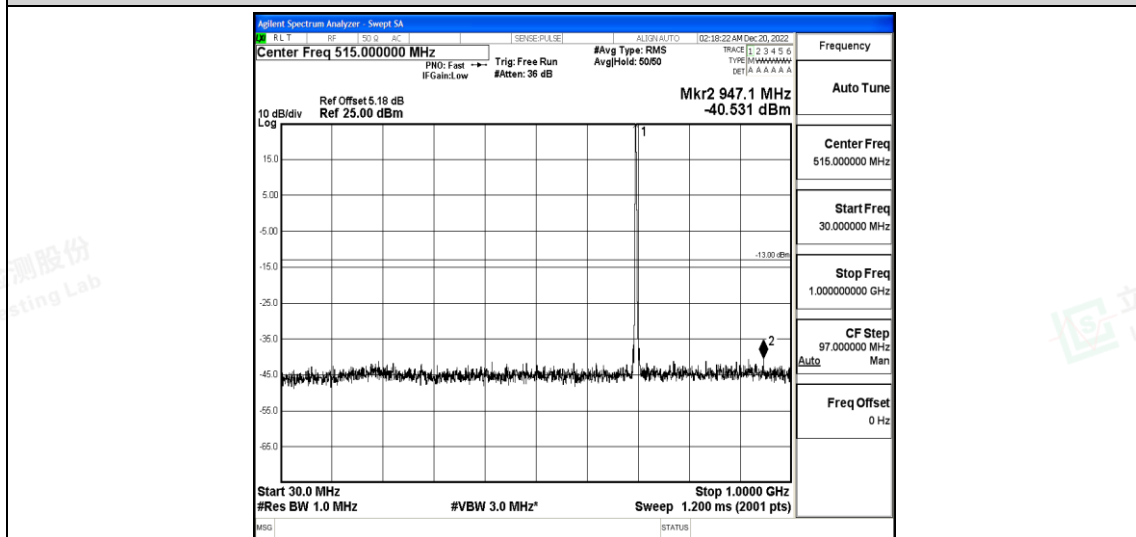


Band17-5MHz-16QAM-23755-1RB#0-Range2:0.15~30MHz

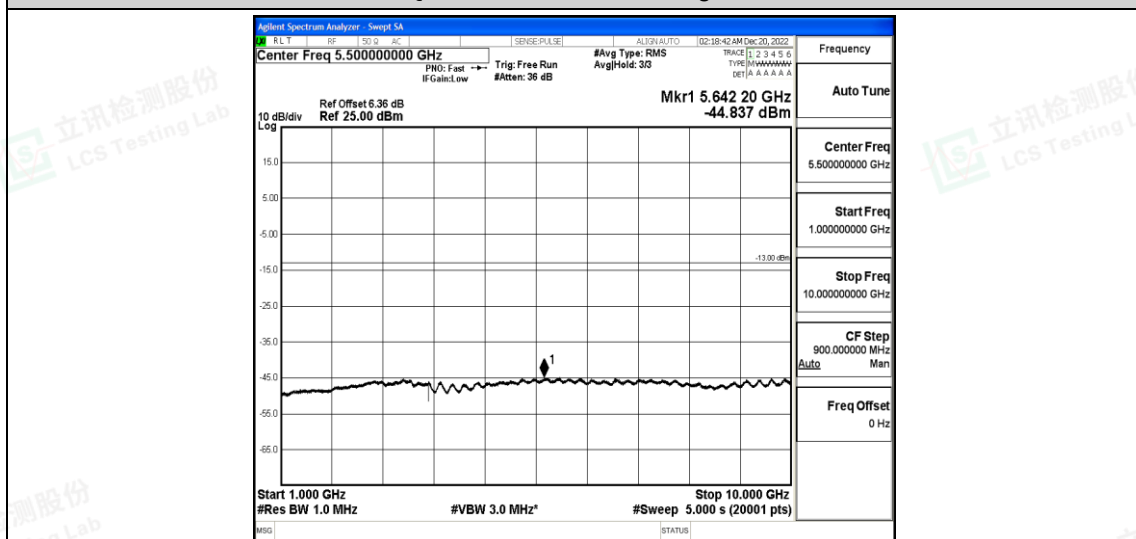




Band17-5MHz-16QAM-23755-1RB#0-Range3:30~1000MHz

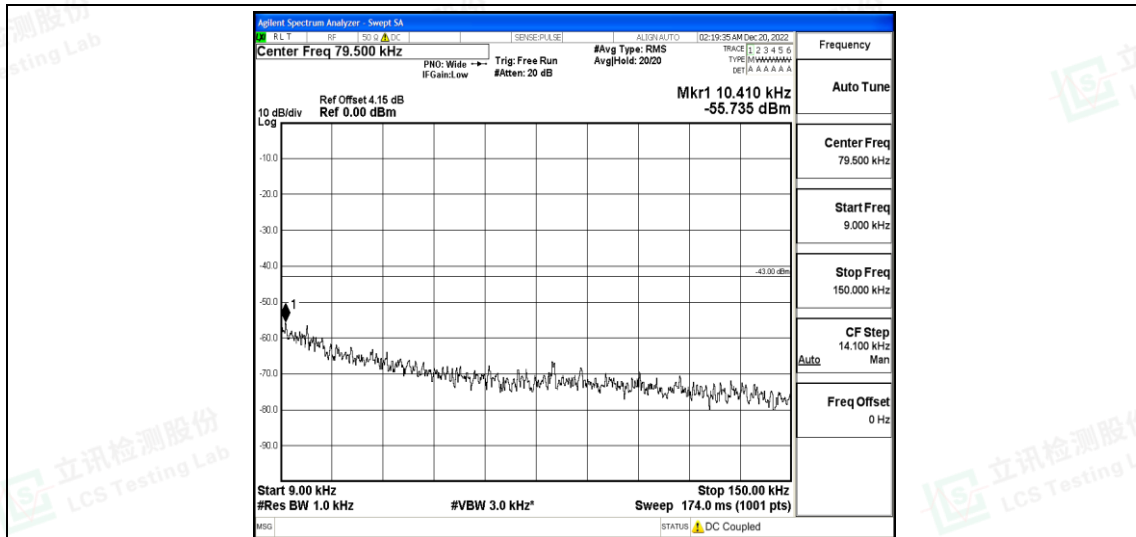


Band17-5MHz-16QAM-23755-1RB#0-Range4:1000~10000MHz

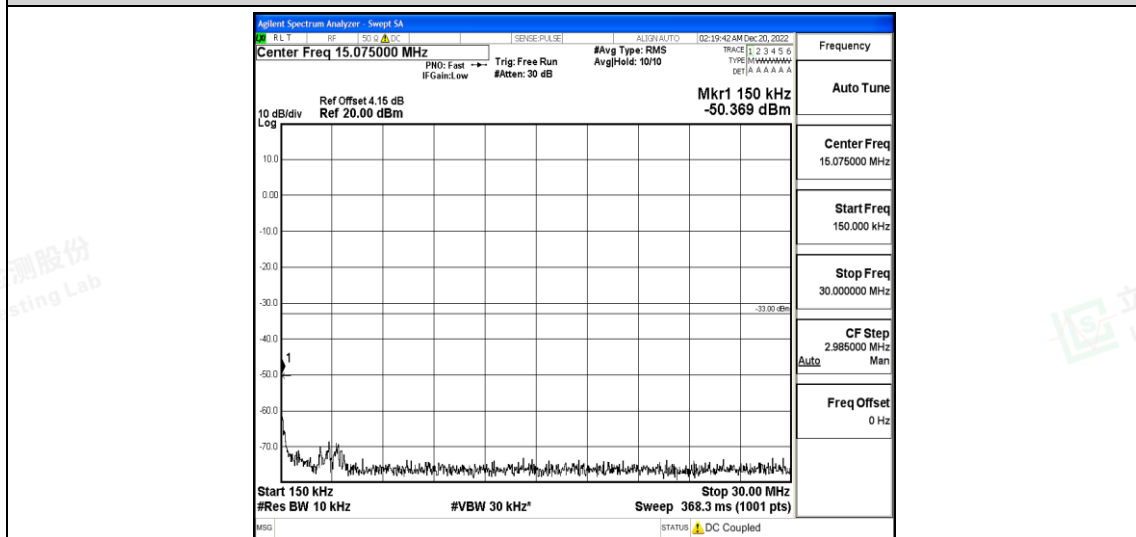


Band17-5MHz-16QAM-23790-1RB#0-Range1:0.009~0.15MHz

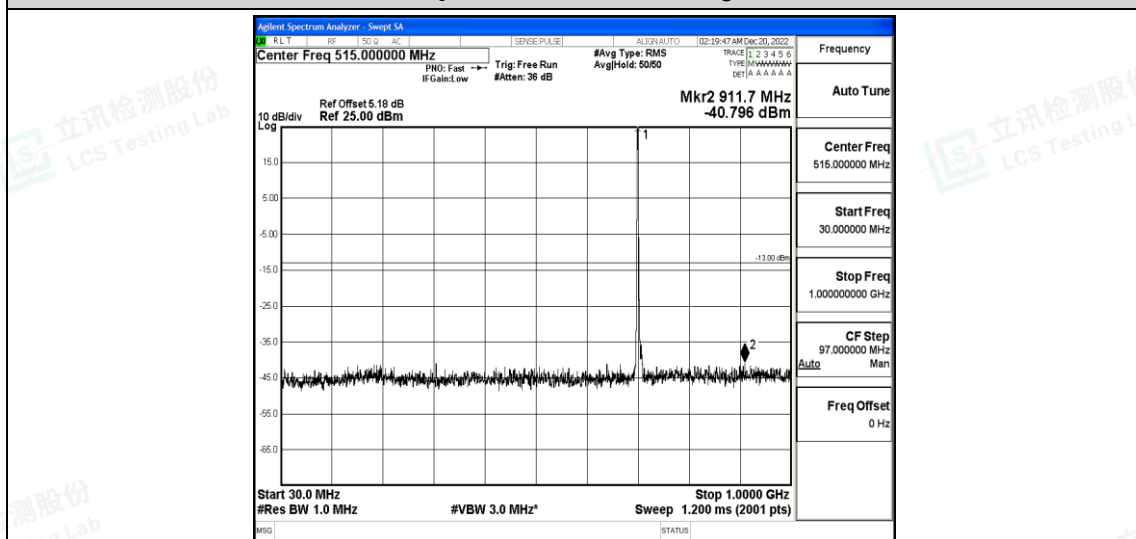




Band17-5MHz-16QAM-23790-1RB#0-Range2:0.15~30MHz

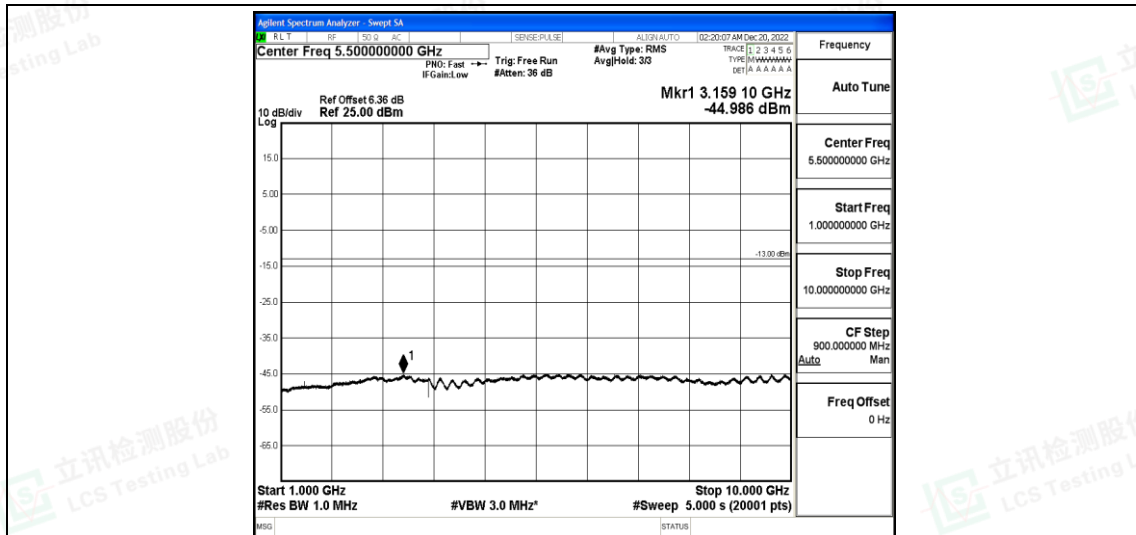


Band17-5MHz-16QAM-23790-1RB#0-Range3:30~1000MHz

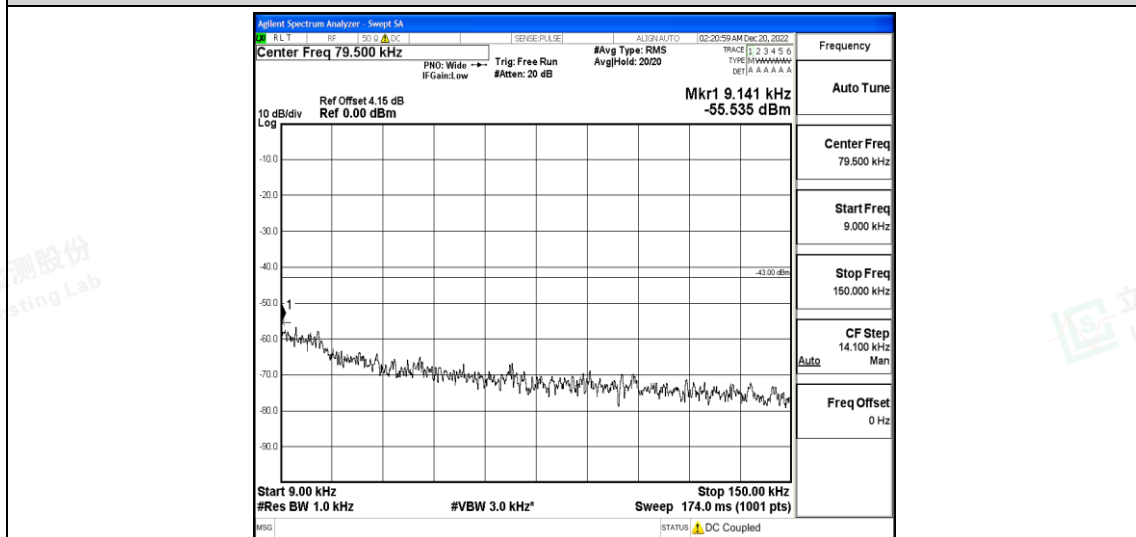


Band17-5MHz-16QAM-23790-1RB#0-Range4:1000~10000MHz

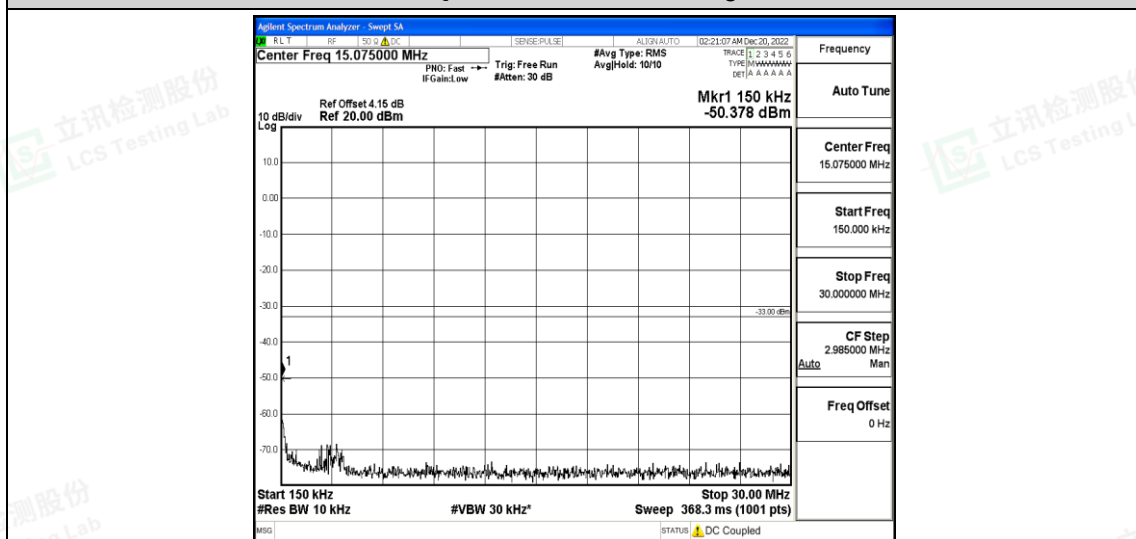




Band17-5MHz-16QAM-23825-1RB#0-Range1:0.009~0.15MHz

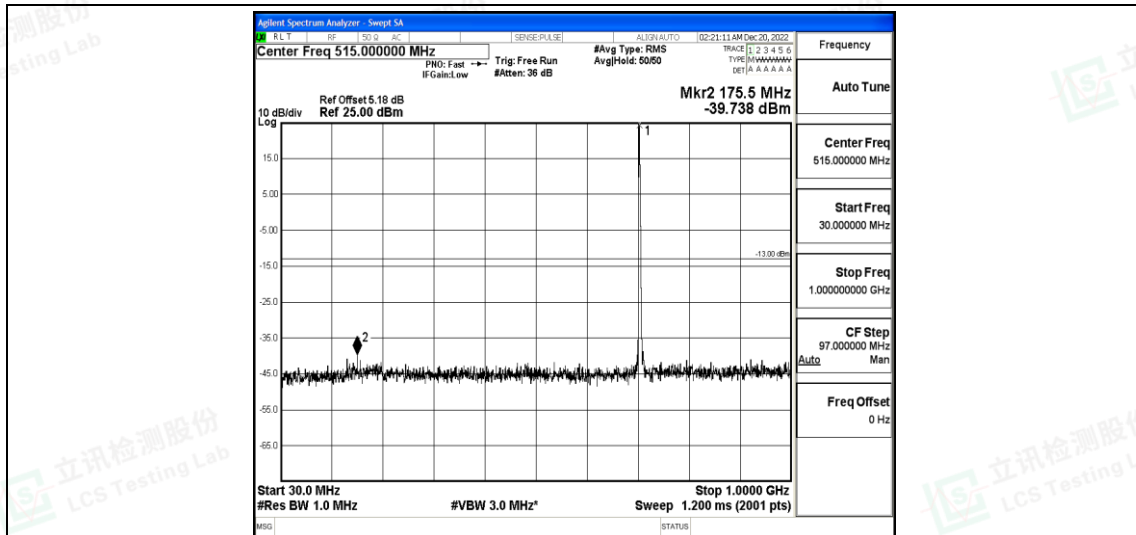


Band17-5MHz-16QAM-23825-1RB#0-Range2:0.15~30MHz

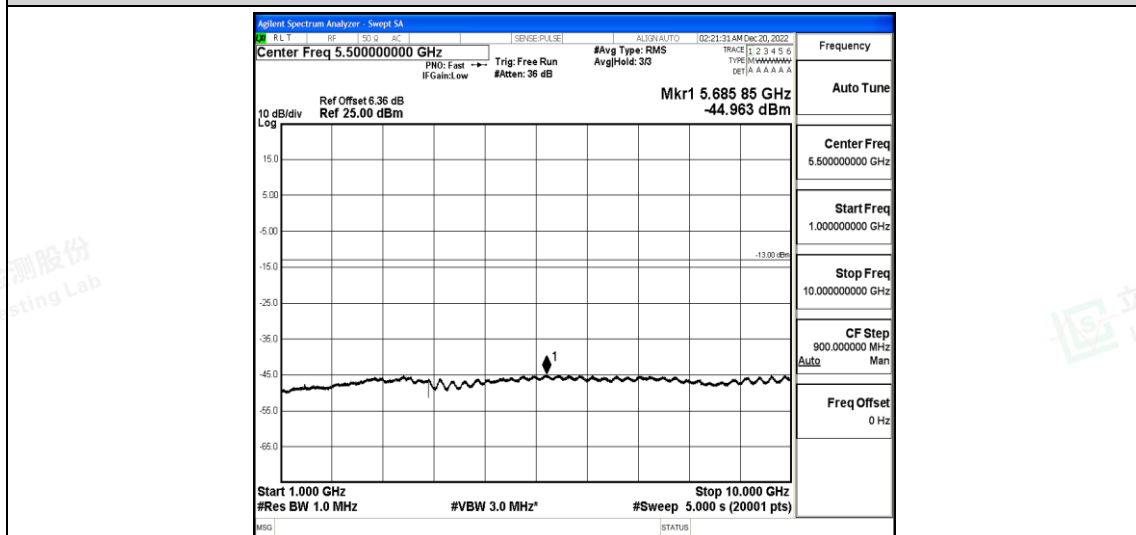


Band17-5MHz-16QAM-23825-1RB#0-Range3:30~1000MHz

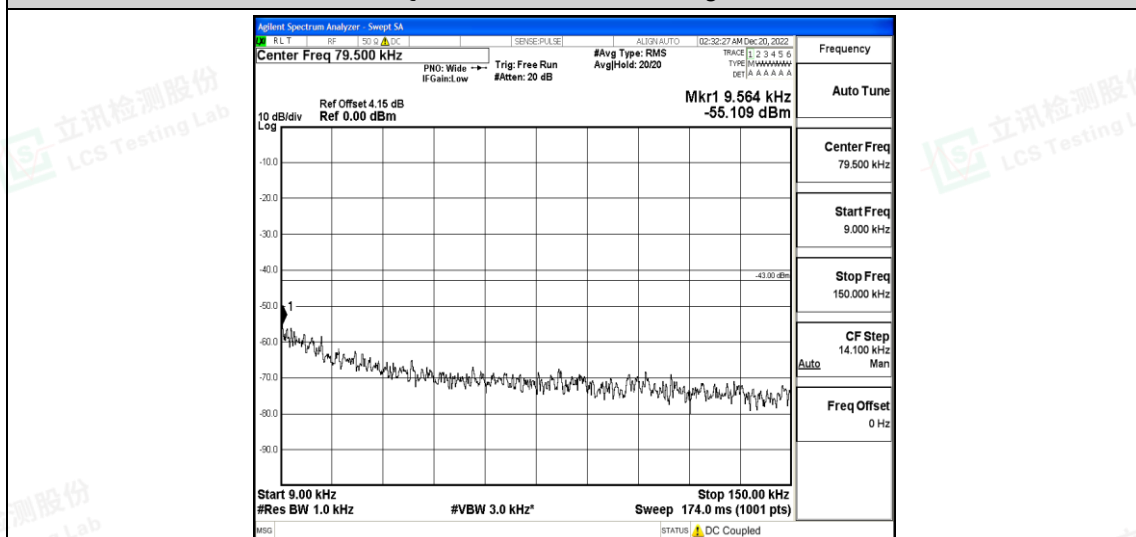




Band17-5MHz-16QAM-23825-1RB#0-Range4:1000~10000MHz

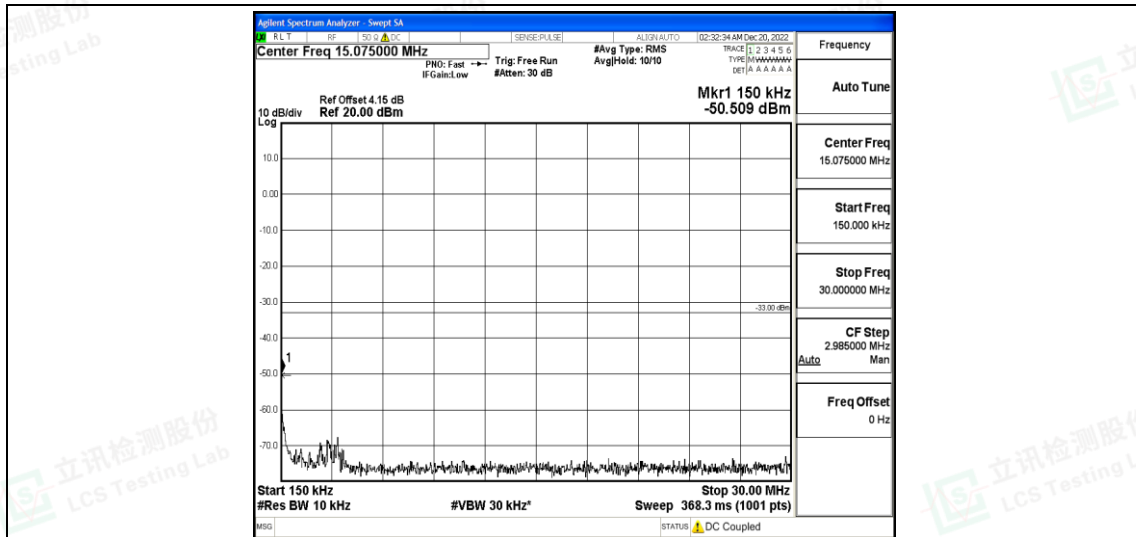


Band17-10MHz-QPSK-23780-1RB#0-Range1:0.009~0.15MHz

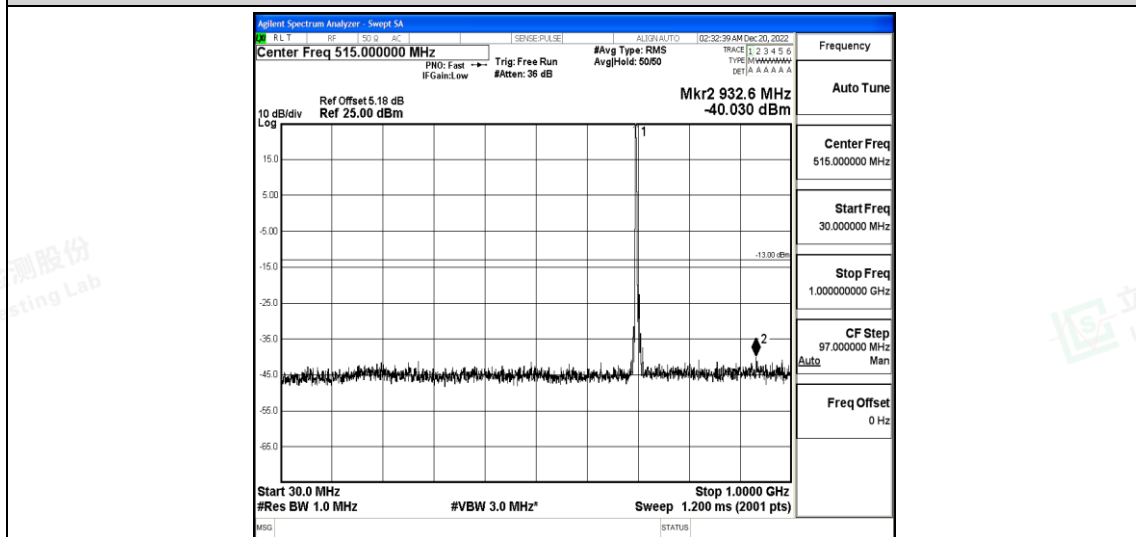


Band17-10MHz-QPSK-23780-1RB#0-Range2:0.15~30MHz

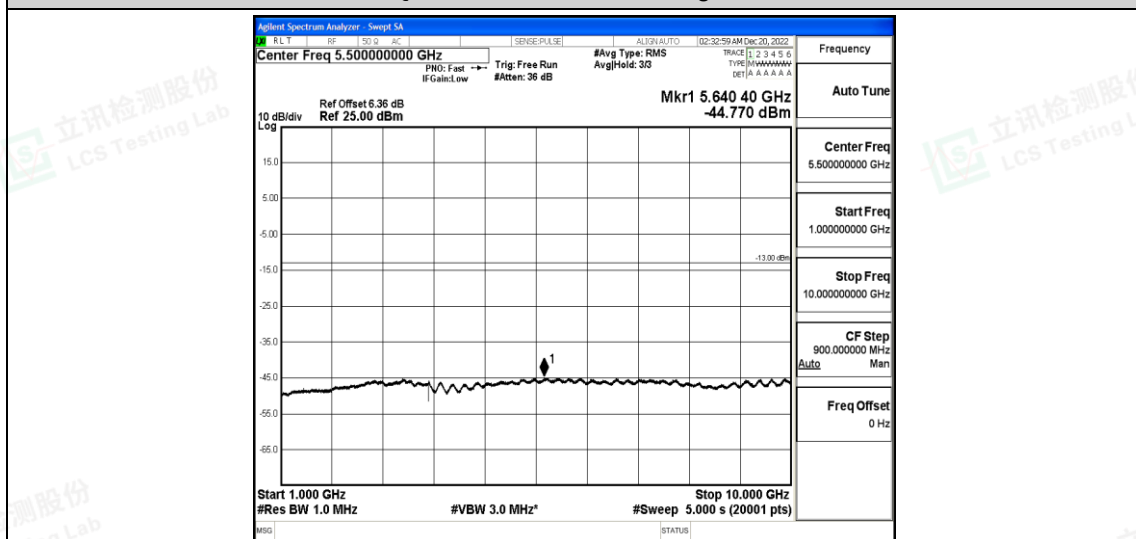




Band17-10MHz-QPSK-23780-1RB#0-Range3:30~1000MHz

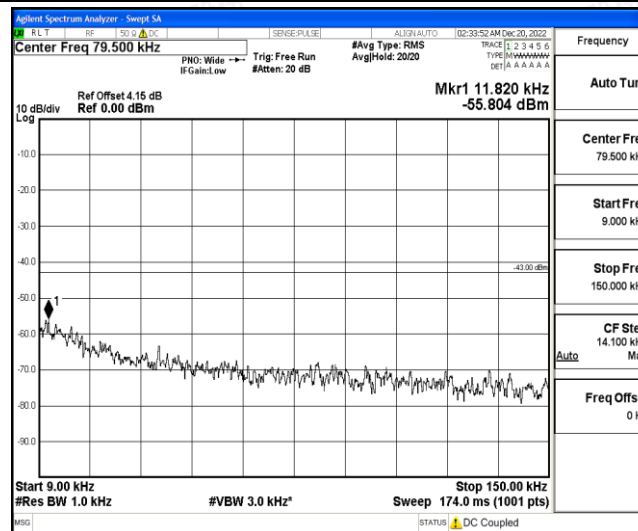


Band17-10MHz-QPSK-23780-1RB#0-Range4:1000~10000MHz

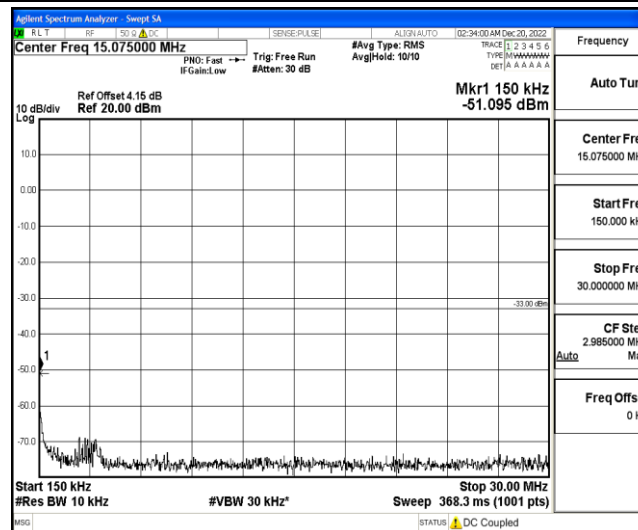


Band17-10MHz-QPSK-23790-1RB#0-Range1:0.009~0.15MHz

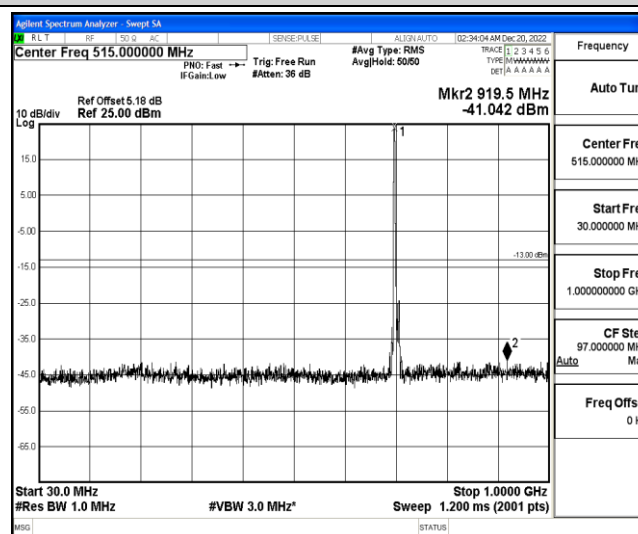




Band17-10MHz-QPSK-23790-1RB#0-Range2:0.15~30MHz

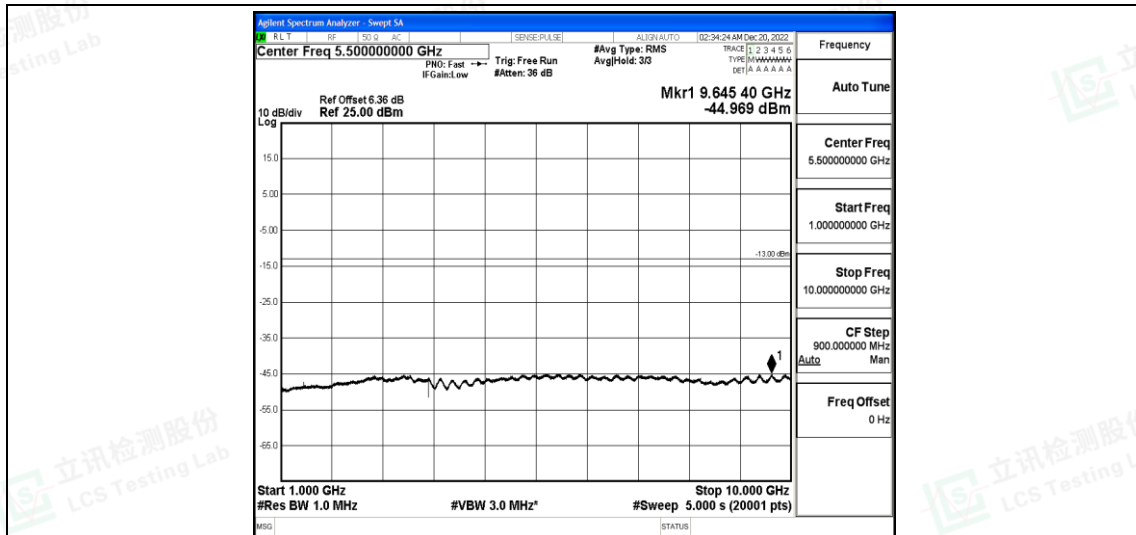


Band17-10MHz-QPSK-23790-1RB#0-Range3:30~1000MHz

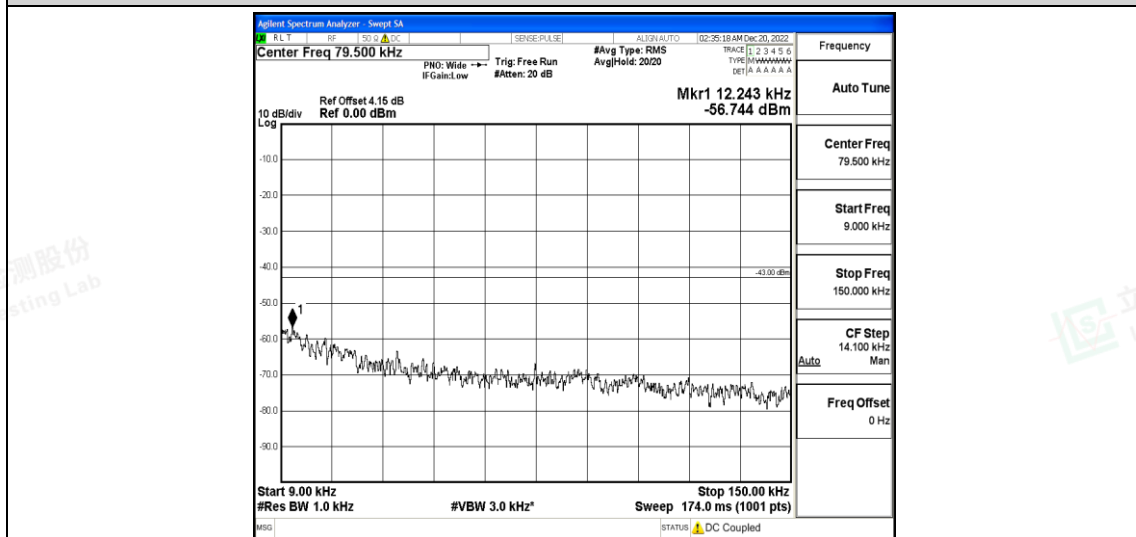


Band17-10MHz-QPSK-23790-1RB#0-Range4:1000~10000MHz

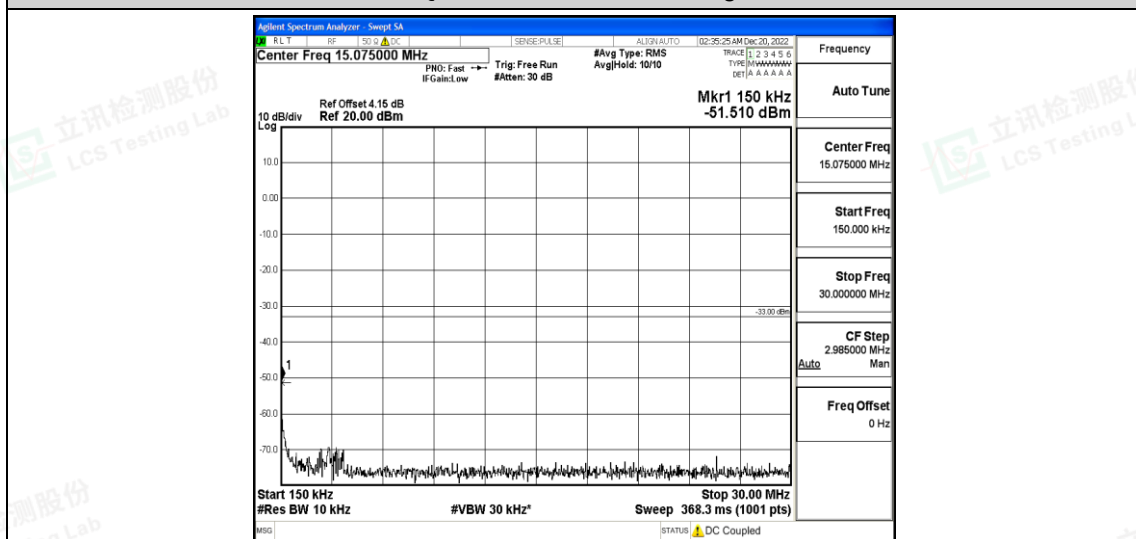




Band17-10MHz-QPSK-23800-1RB#0-Range1:0.009~0.15MHz

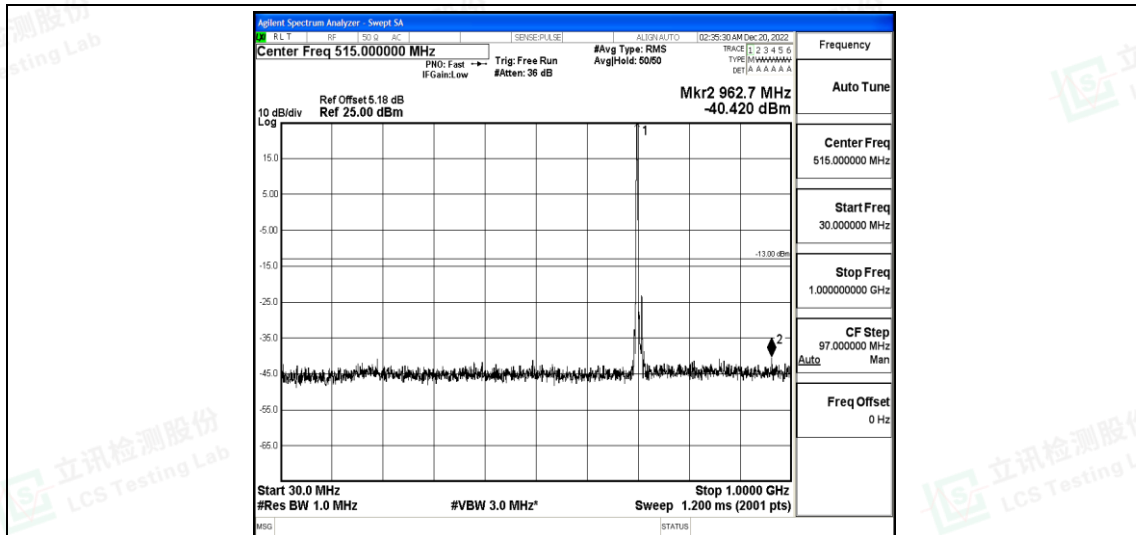


Band17-10MHz-QPSK-23800-1RB#0-Range2:0.15~30MHz

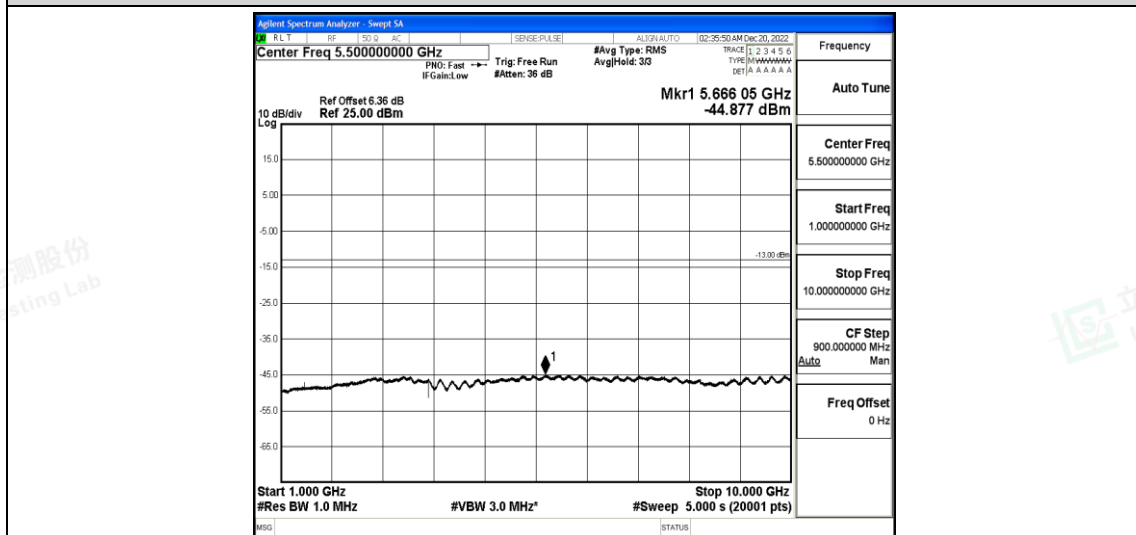


Band17-10MHz-QPSK-23800-1RB#0-Range3:30~1000MHz

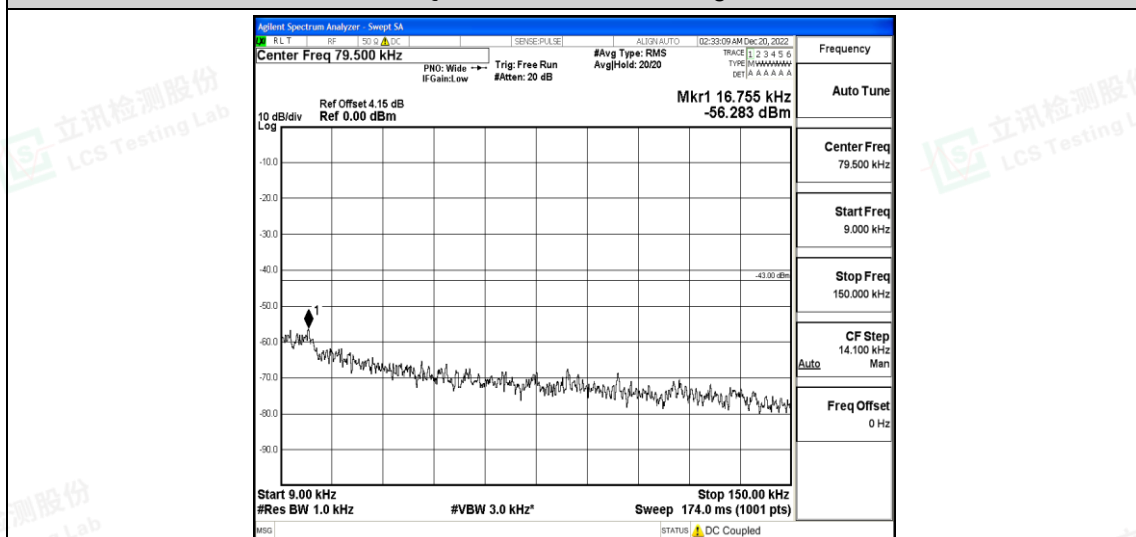




Band17-10MHz-QPSK-23800-1RB#0-Range4:1000~10000MHz

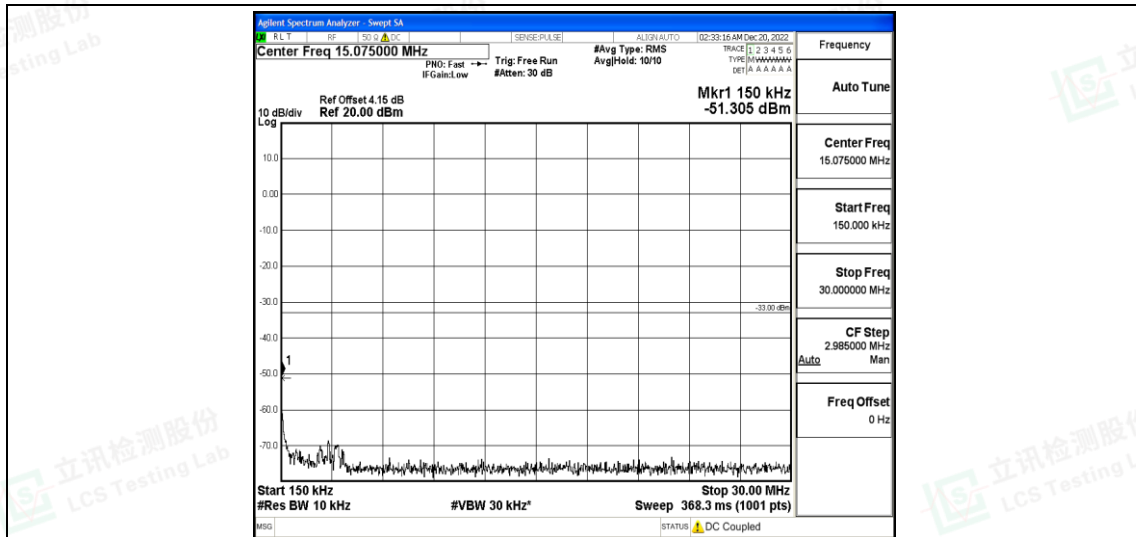


Band17-10MHz-16QAM-23780-1RB#0-Range1:0.009~0.15MHz

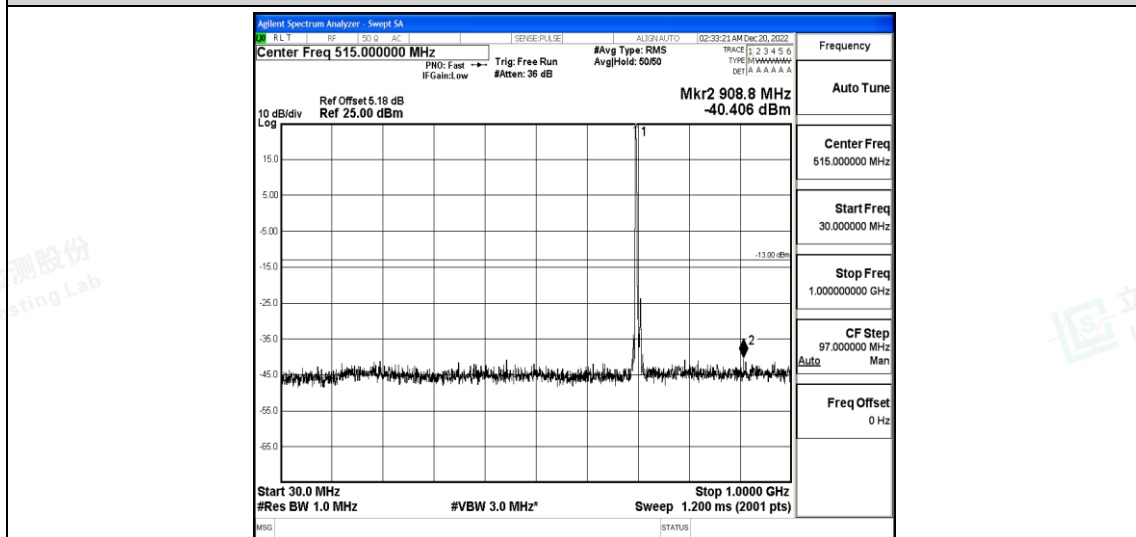


Band17-10MHz-16QAM-23780-1RB#0-Range2:0.15~30MHz

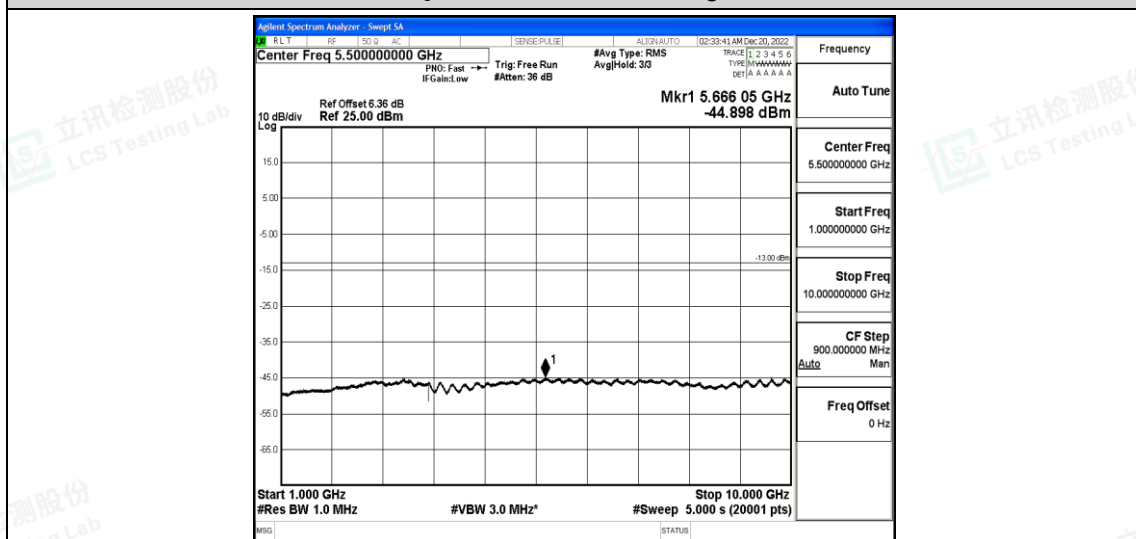




Band17-10MHz-16QAM-23780-1RB#0-Range3:30~1000MHz

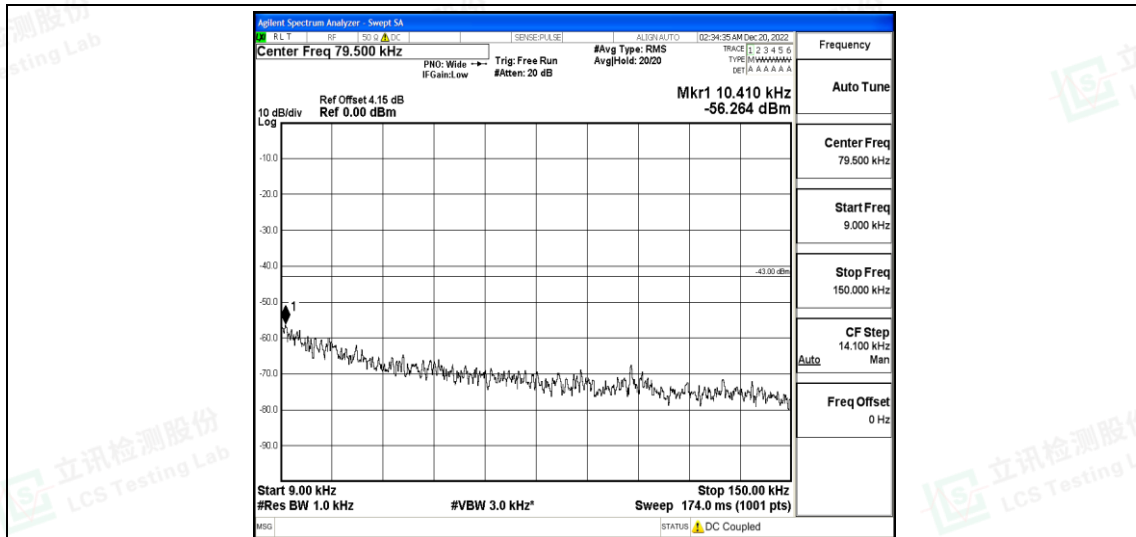


Band17-10MHz-16QAM-23780-1RB#0-Range4:1000~10000MHz

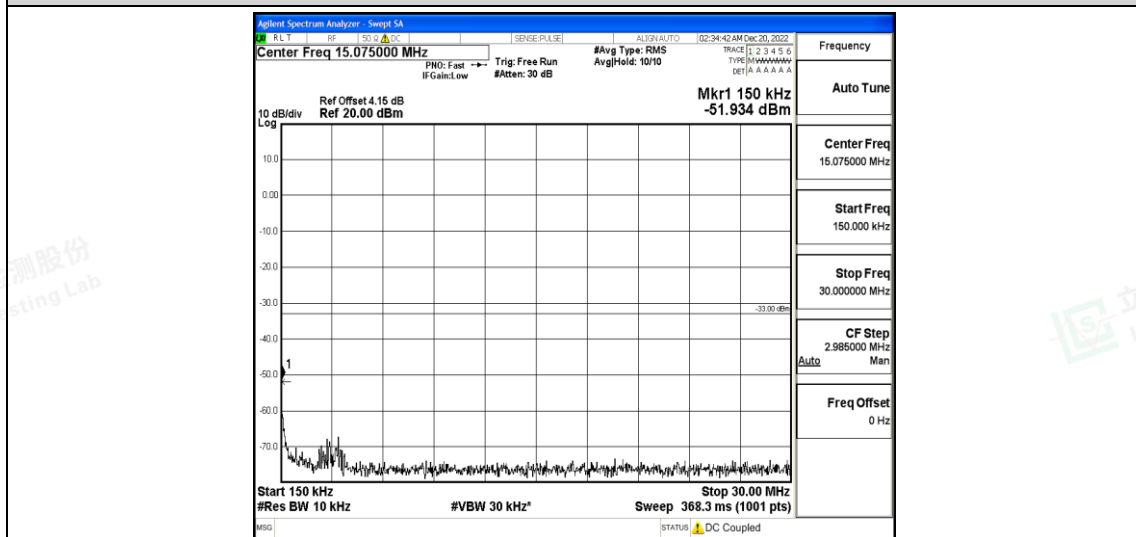


Band17-10MHz-16QAM-23790-1RB#0-Range1:0.009~0.15MHz

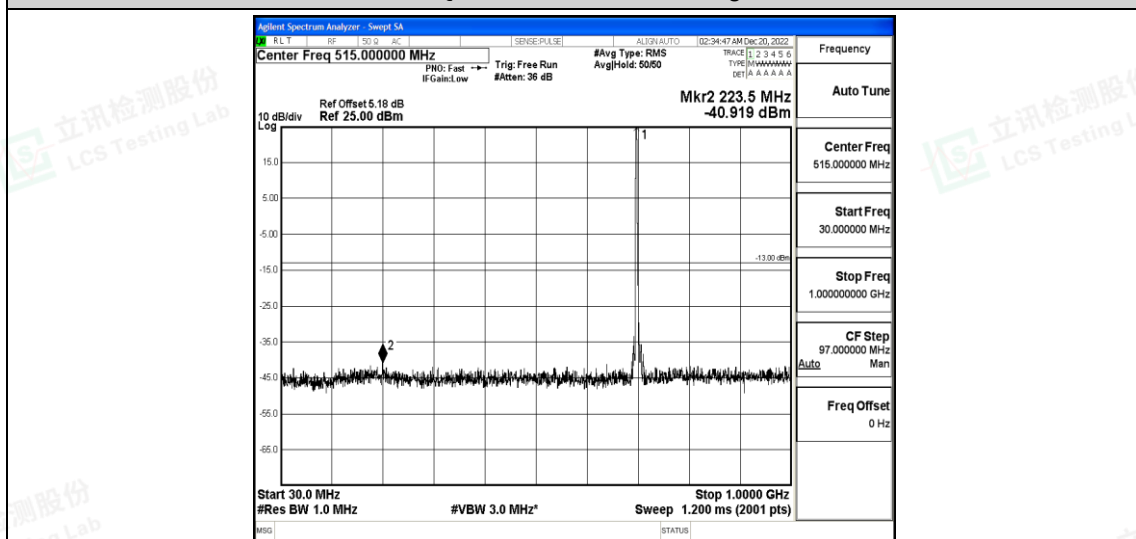




Band17-10MHz-16QAM-23790-1RB#0-Range2:0.15~30MHz

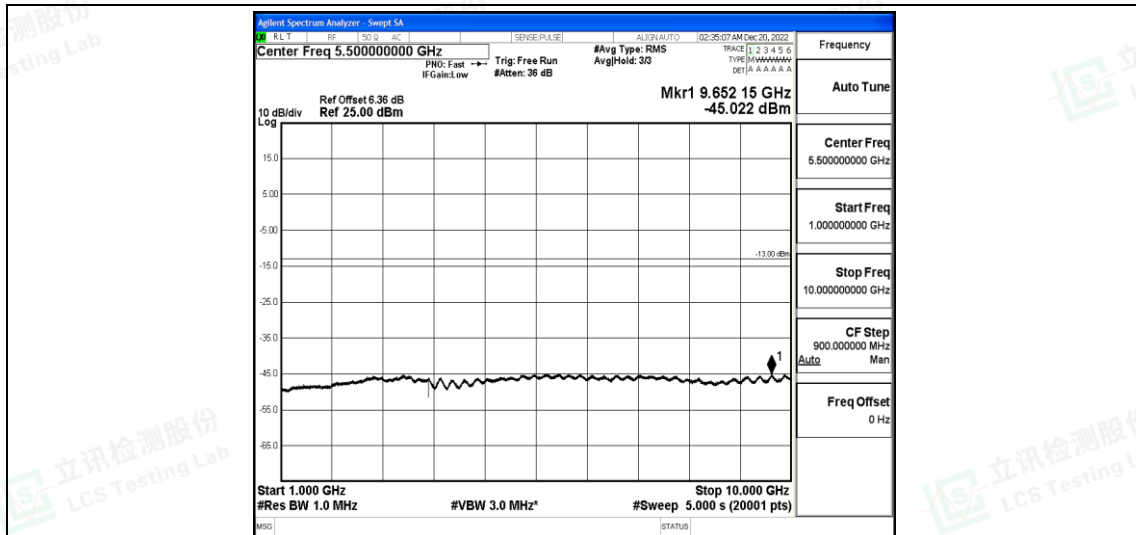


Band17-10MHz-16QAM-23790-1RB#0-Range3:30~1000MHz

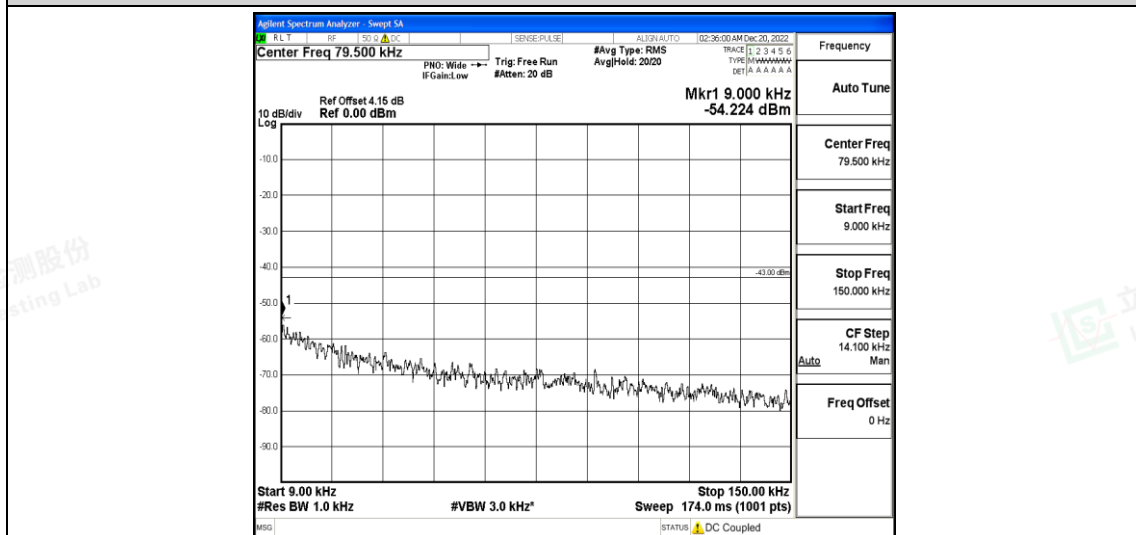


Band17-10MHz-16QAM-23790-1RB#0-Range4:1000~10000MHz

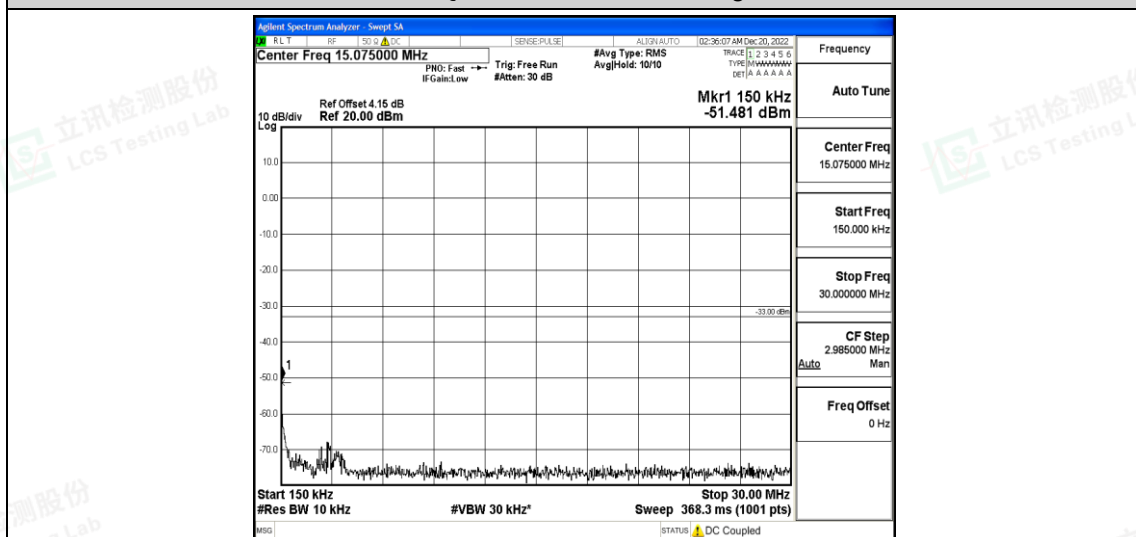




Band17-10MHz-16QAM-23800-1RB#0-Range1:0.009~0.15MHz



Band17-10MHz-16QAM-23800-1RB#0-Range2:0.15~30MHz



Band17-10MHz-16QAM-23800-1RB#0-Range3:30~1000MHz



