

Appendix for GSM 850 & GSM1900

Product Name: 4G ADAS DMS 2CH Dashcam

Model No: LCD02

Appendix A: Average Power Output Data

Test Result

Band	Channel	Slot	Power(dBm)	Limit(dBm)	Verdict
GPRS850	128	1	32.39	38.45	PASS
GPRS850	128	2	31.67	38.45	PASS
GPRS850	128	3	29.98	38.45	PASS
GPRS850	128	4	28.79	38.45	PASS
GPRS850	190	1	32.58	38.45	PASS
GPRS850	190	2	31.85	38.45	PASS
GPRS850	190	3	30.16	38.45	PASS
GPRS850	190	4	28.98	38.45	PASS
GPRS850	251	1	32.69	38.45	PASS
GPRS850	251	2	32.01	38.45	PASS
GPRS850	251	3	30.36	38.45	PASS
GPRS850	251	4	29.21	38.45	PASS
GPRS1900	512	1	28.55	33.00	PASS
GPRS1900	512	2	27.93	33.00	PASS
GPRS1900	512	3	26.33	33.00	PASS
GPRS1900	512	4	25.22	33.00	PASS
GPRS1900	661	1	28.69	33.00	PASS
GPRS1900	661	2	28.05	33.00	PASS
GPRS1900	661	3	26.44	33.00	PASS
GPRS1900	661	4	25.33	33.00	PASS
GPRS1900	810	1	28.94	33.00	PASS
GPRS1900	810	2	28.34	33.00	PASS
GPRS1900	810	3	26.79	33.00	PASS
GPRS1900	810	4	25.66	33.00	PASS

Band	Channel	Slot	Power(dBm)	Limit(dBm)	Verdict
EGPRS850	128	1	27.35	38.45	PASS
EGPRS850	128	2	26.33	38.45	PASS
EGPRS850	128	3	24.38	38.45	PASS
EGPRS850	128	4	23.20	38.45	PASS
EGPRS850	190	1	26.89	38.45	PASS
EGPRS850	190	2	25.83	38.45	PASS
EGPRS850	190	3	23.91	38.45	PASS
EGPRS850	190	4	22.69	38.45	PASS
EGPRS850	251	1	27.31	38.45	PASS
EGPRS850	251	2	26.29	38.45	PASS
EGPRS850	251	3	24.42	38.45	PASS

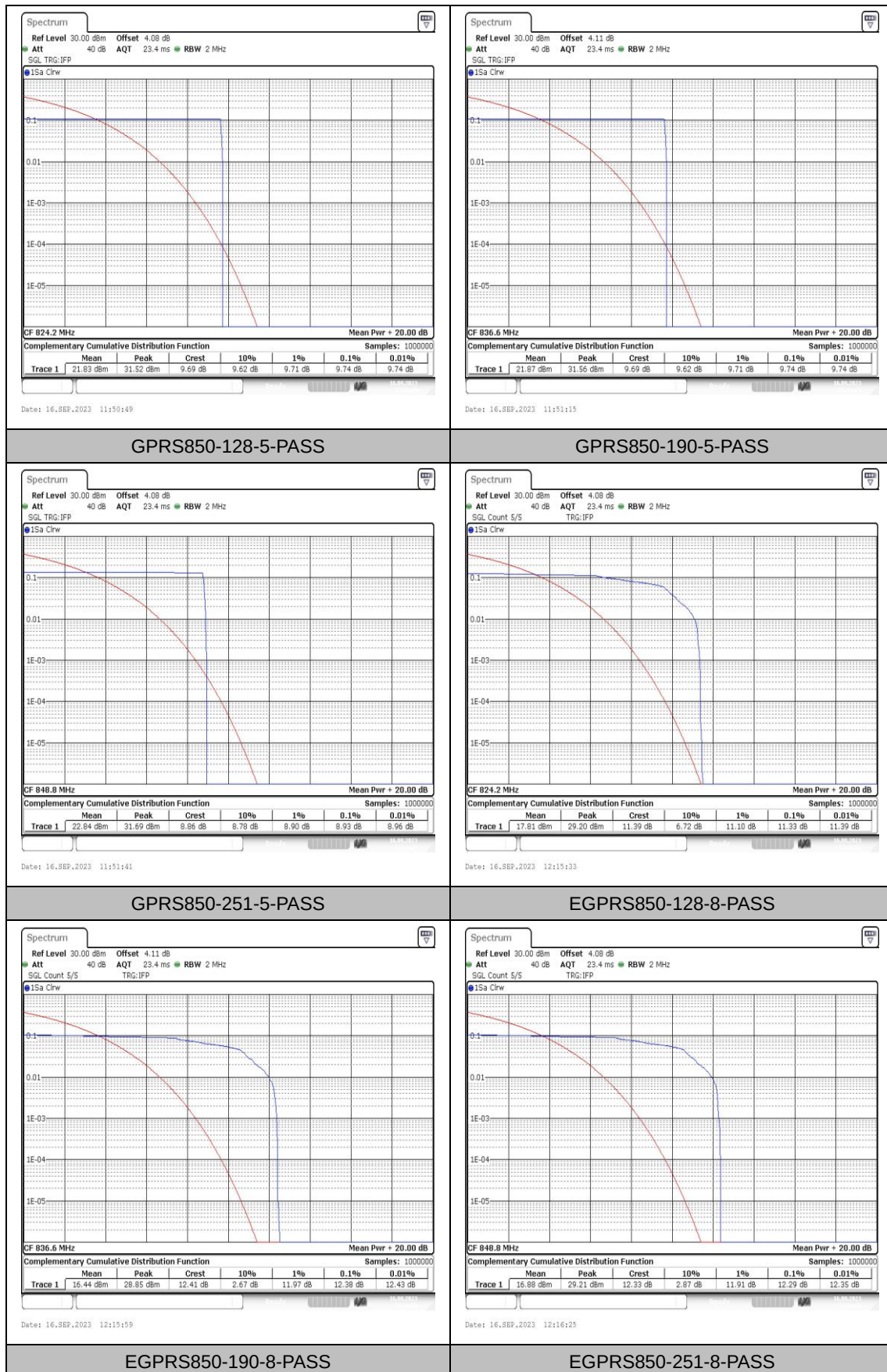
EGPRS850	251	4	23.23	38.45	PASS
EGPRS1900	512	1	25.96	33.00	PASS
EGPRS1900	512	2	24.90	33.00	PASS
EGPRS1900	512	3	22.84	33.00	PASS
EGPRS1900	512	4	21.76	33.00	PASS
EGPRS1900	661	1	25.91	33.00	PASS
EGPRS1900	661	2	24.90	33.00	PASS
EGPRS1900	661	3	22.81	33.00	PASS
EGPRS1900	661	4	21.76	33.00	PASS
EGPRS1900	810	1	25.56	33.00	PASS
EGPRS1900	810	2	24.52	33.00	PASS
EGPRS1900	810	3	22.44	33.00	PASS
EGPRS1900	810	4	21.39	33.00	PASS

Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

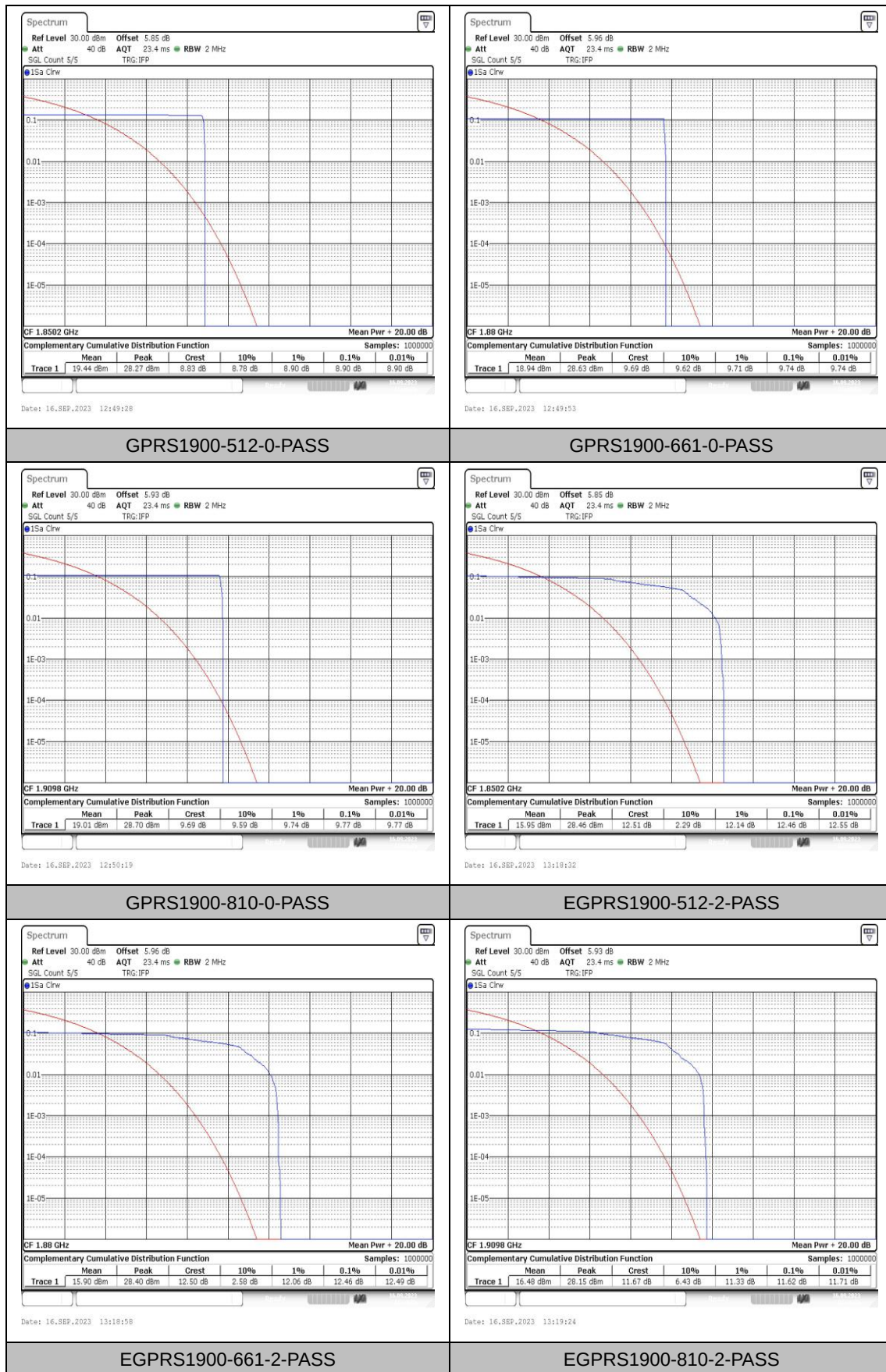
Band	Channel	Result(dB)	Limit(dB)	Verdict
GPRS850	128	9.74	13	PASS
GPRS850	190	9.74	13	PASS
GPRS850	251	8.93	13	PASS
EGPRS850	128	11.33	13	PASS
EGPRS850	190	12.38	13	PASS
EGPRS850	251	12.29	13	PASS
GPRS1900	512	8.9	13	PASS
GPRS1900	661	9.74	13	PASS
GPRS1900	810	9.77	13	PASS
EGPRS1900	512	12.46	13	PASS
EGPRS1900	661	12.46	13	PASS
EGPRS1900	810	11.62	13	PASS

Test Graphs



Waltek Testing Group (Shenzhen) Co., Ltd.

<http://www.waltek.com.cn>

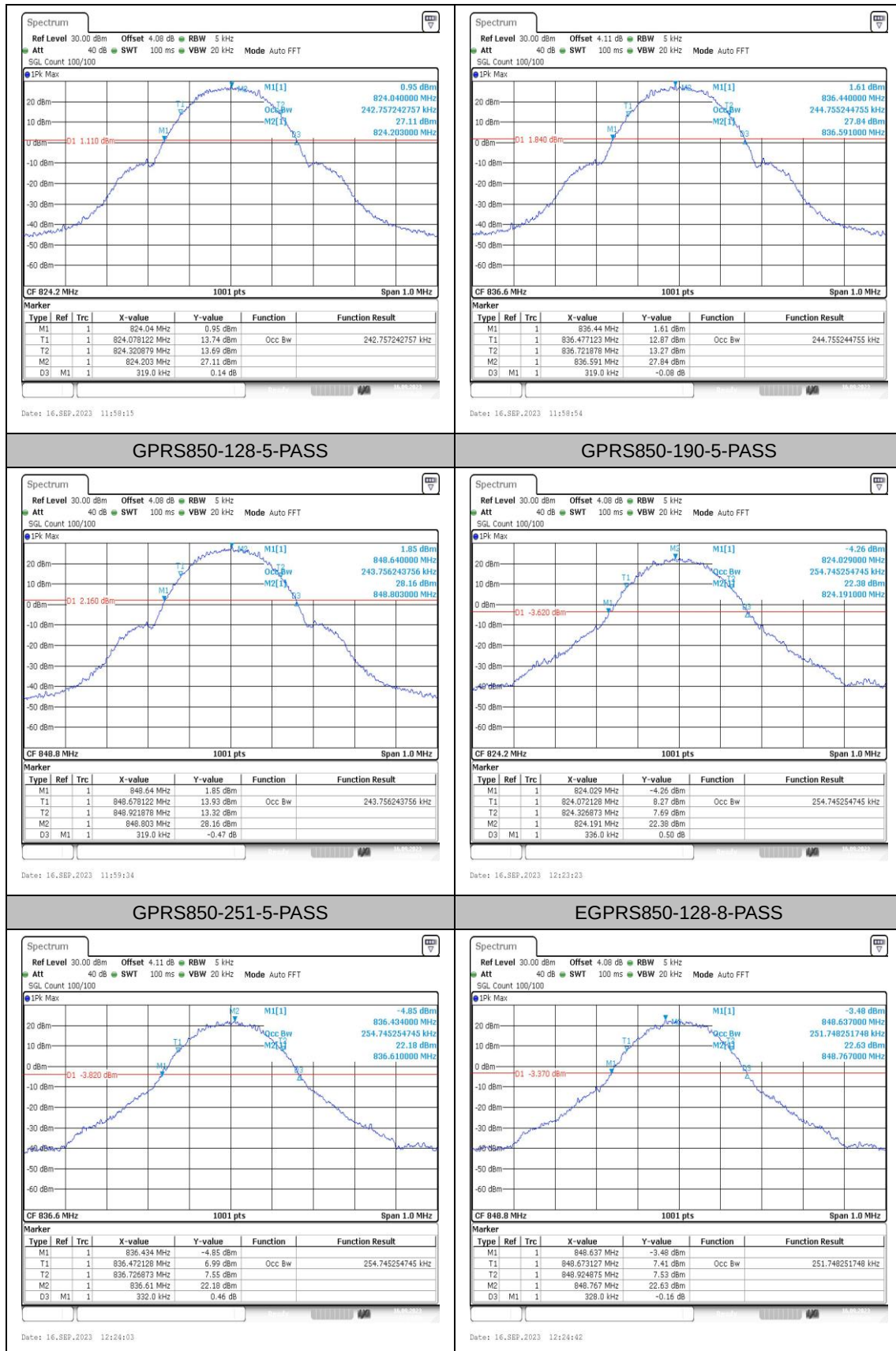


Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

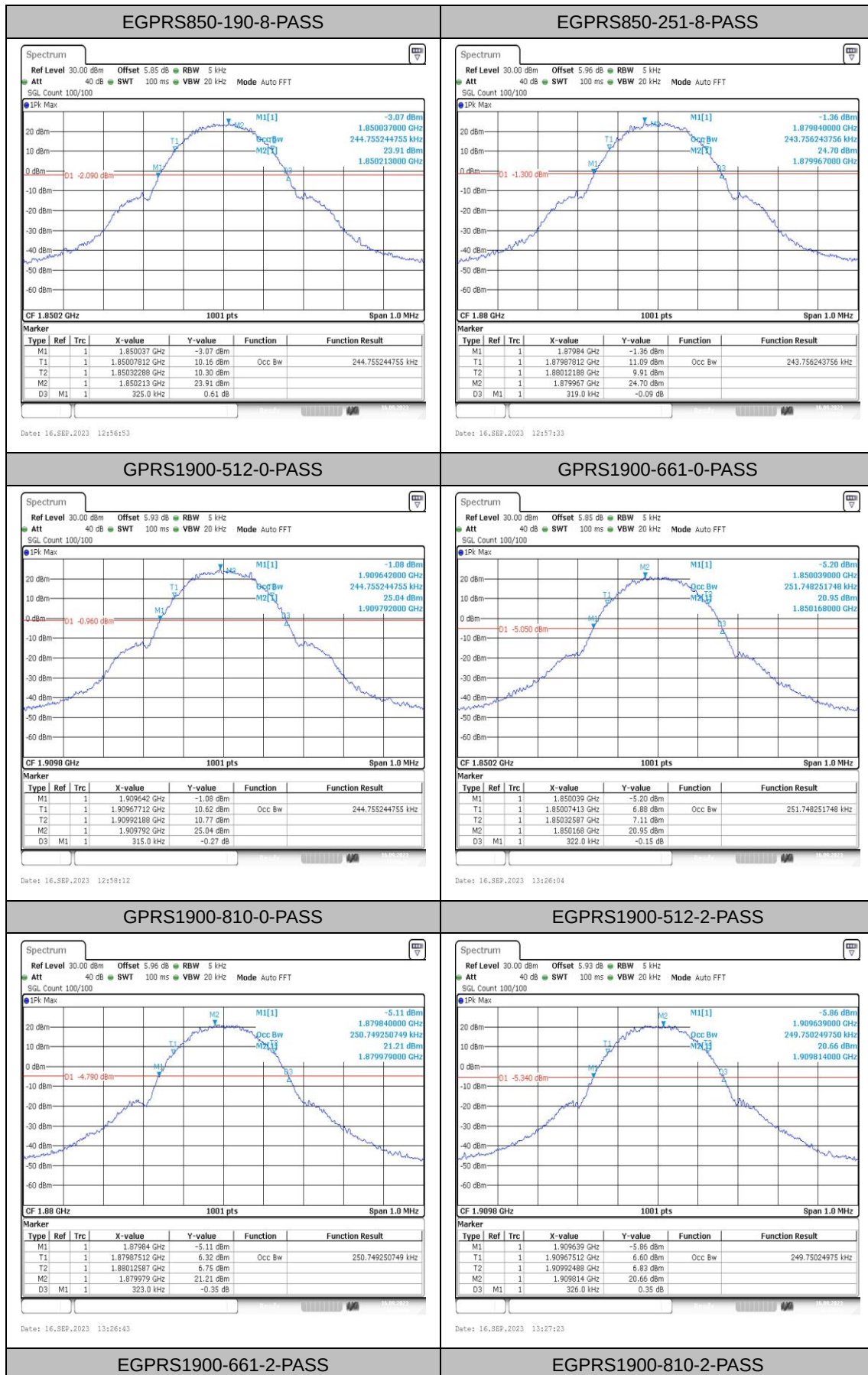
Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GPRS850	128	0.243	0.32	---	PASS
GPRS850	190	0.245	0.32	---	PASS
GPRS850	251	0.244	0.32	---	PASS
EGPRS850	128	0.255	0.34	---	PASS
EGPRS850	190	0.255	0.33	---	PASS
EGPRS850	251	0.252	0.33	---	PASS
GPRS1900	512	0.245	0.33	---	PASS
GPRS1900	661	0.244	0.32	---	PASS
GPRS1900	810	0.245	0.31	---	PASS
EGPRS1900	512	0.252	0.32	---	PASS
EGPRS1900	661	0.251	0.32	---	PASS
EGPRS1900	810	0.25	0.33	---	PASS

Test Graphs



Waltek Testing Group (Shenzhen) Co., Ltd.

<http://www.waltek.com.cn>

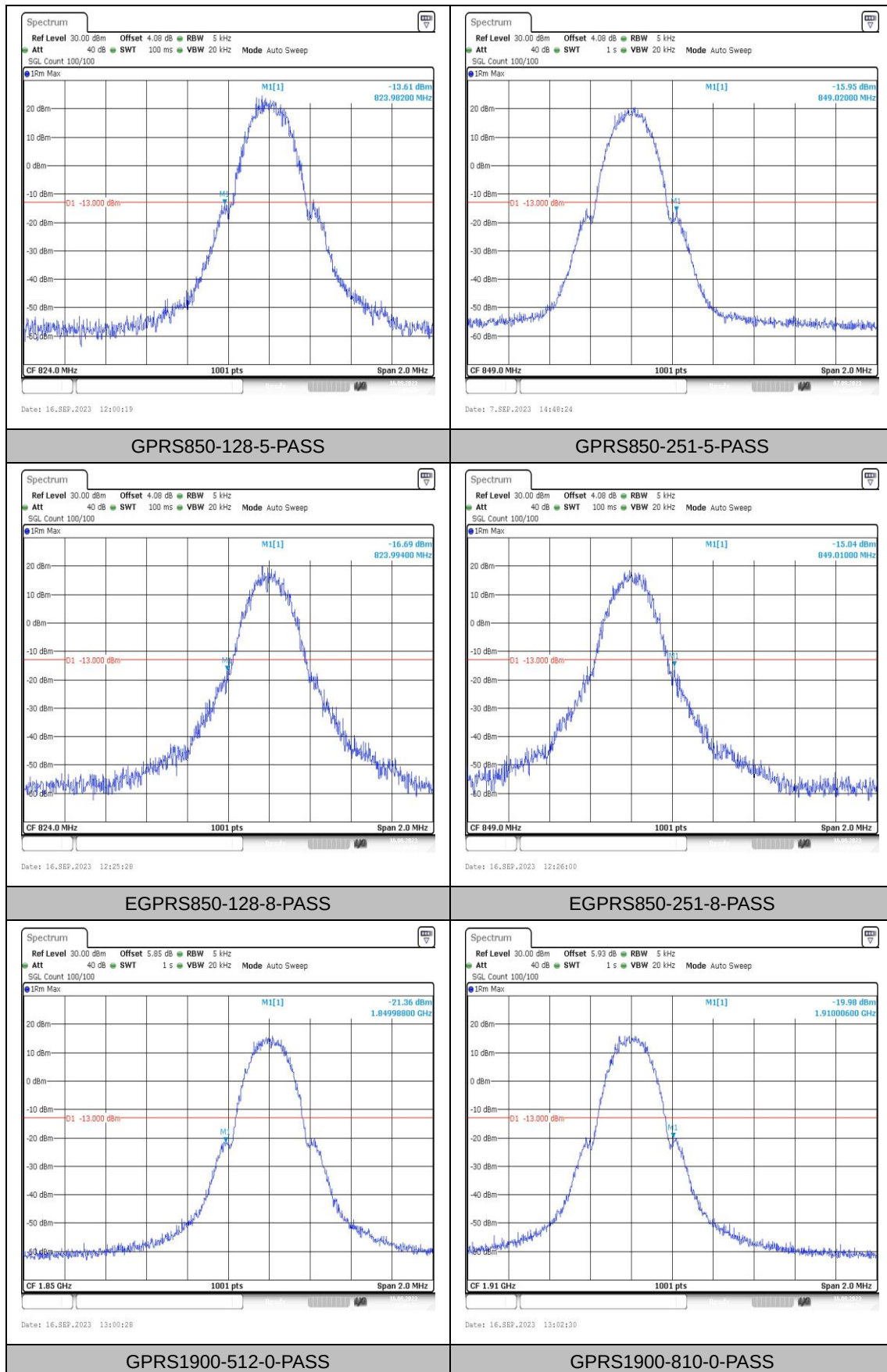


Appendix D: Band Edge

Test Result

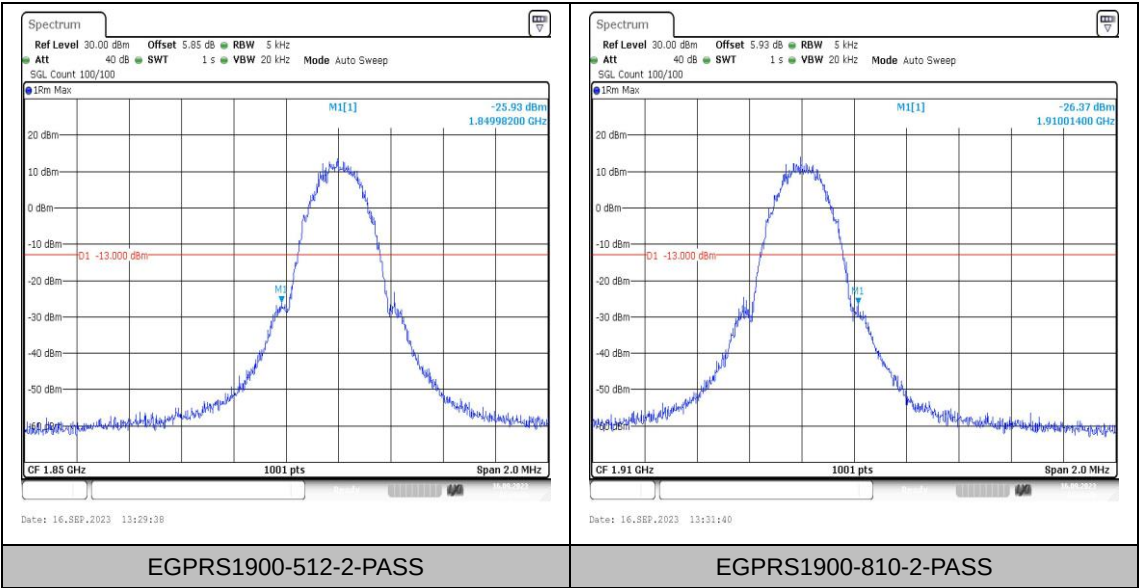
Band	Channel	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GPRS850	128	823.98	-13.61	-13	PASS
GPRS850	251	849.02	-11.38	-13	PASS
EGPRS850	128	823.99	-16.69	-13	PASS
EGPRS850	251	849.01	-15.04	-13	PASS
GPRS1900	512	1849.99	-21.36	-13	PASS
GPRS1900	810	1910.01	-19.98	-13	PASS
EGPRS1900	512	1849.98	-25.93	-13	PASS
EGPRS1900	810	1910.01	-26.37	-13	PASS

Test Graphs



Waltek Testing Group (Shenzhen) Co., Ltd.

<http://www.waltek.com.cn>



Appendix E: Conducted Spurious Emission

Test Result

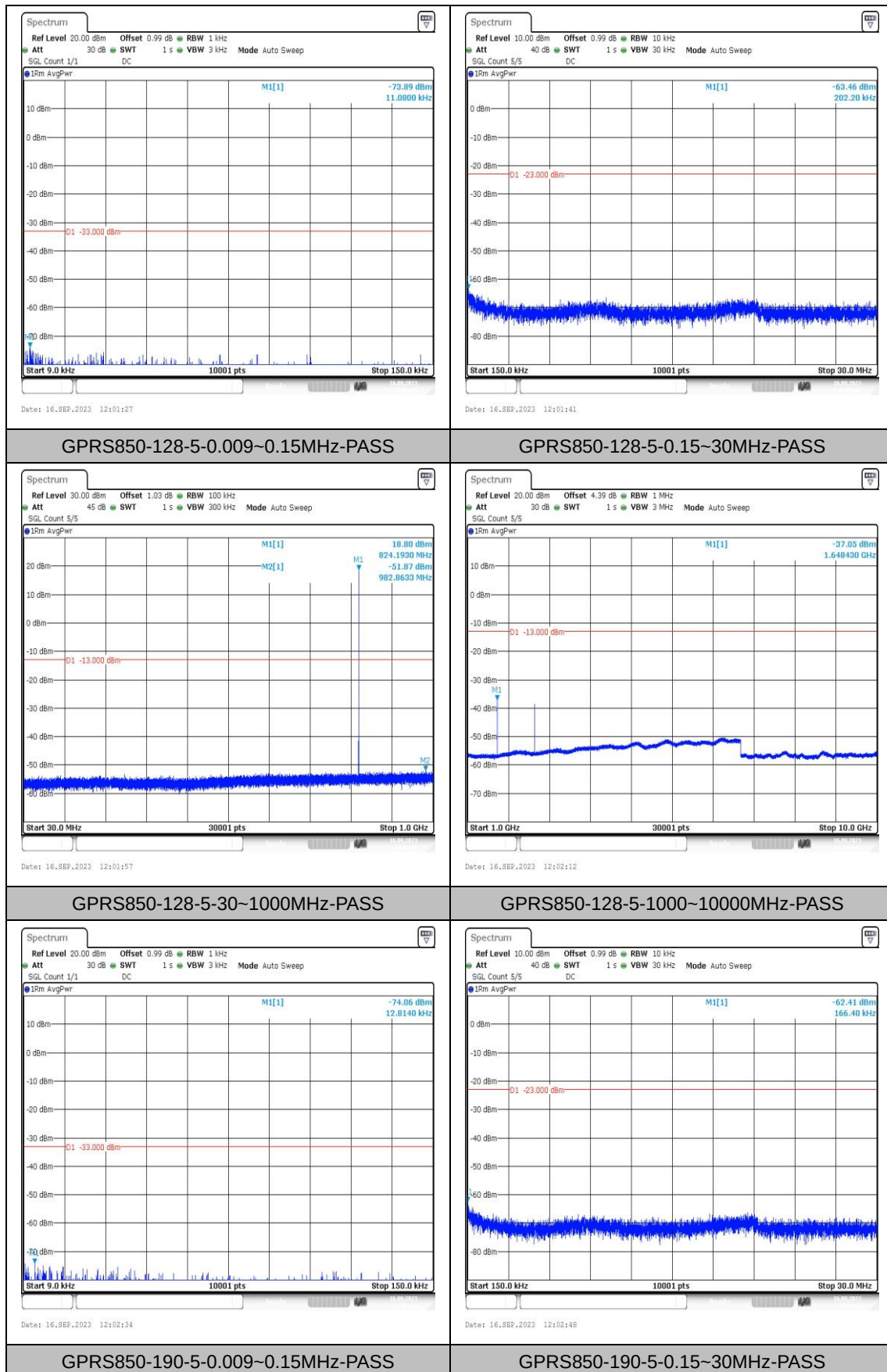
Band	Channel	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GPRS850	128	0.009~0.15MHz	0.01	-73.89	-33	PASS
GPRS850	128	0.15~30MHz	0.2	-63.46	-23	PASS
GPRS850	128	30~1000MHz	982.86	-51.87	-13	PASS
GPRS850	128	1000~10000MHz	1648.43	-37.05	-13	PASS
GPRS850	190	0.009~0.15MHz	0.01	-74.06	-33	PASS
GPRS850	190	0.15~30MHz	0.17	-62.41	-23	PASS
GPRS850	190	30~1000MHz	943.74	-51.97	-13	PASS
GPRS850	190	1000~10000MHz	2509.7	-35.74	-13	PASS
GPRS850	251	0.009~0.15MHz	0.01	-73.44	-33	PASS
GPRS850	251	0.15~30MHz	0.18	-63.57	-23	PASS
GPRS850	251	30~1000MHz	984.77	-52.11	-13	PASS
GPRS850	251	1000~10000MHz	2546.3	-35.74	-13	PASS
EGPRS850	128	0.009~0.15MHz	0.01	-74.34	-33	PASS
EGPRS850	128	0.15~30MHz	0.16	-63.37	-23	PASS
EGPRS850	128	30~1000MHz	991.53	-52.07	-13	PASS
EGPRS850	128	1000~10000MHz	1648.13	-41.75	-13	PASS
EGPRS850	190	0.009~0.15MHz	0.01	-73.59	-33	PASS
EGPRS850	190	0.15~30MHz	0.15	-62.22	-23	PASS
EGPRS850	190	30~1000MHz	958.35	-52.12	-13	PASS
EGPRS850	190	1000~10000MHz	2509.7	-49.34	-13	PASS
EGPRS850	251	0.009~0.15MHz	0.01	-74.56	-33	PASS
EGPRS850	251	0.15~30MHz	0.16	-62.42	-23	PASS
EGPRS850	251	30~1000MHz	970.06	-51.99	-13	PASS
EGPRS850	251	1000~10000MHz	6559.26	-50.21	-13	PASS
GPRS1900	512	0.009~0.15MHz	0.01	-70.67	-43	PASS
GPRS1900	512	0.15~30MHz	0.16	-64.13	-33	PASS
GPRS1900	512	30~1000MHz	986.89	-49.12	-13	PASS
GPRS1900	512	1000~3000MHz	2988.2	-38.13	-13	PASS
GPRS1900	512	3000~18000MHz	6613.63	-47.26	-13	PASS
GPRS1900	661	0.009~0.15MHz	0.01	-69.66	-43	PASS
GPRS1900	661	0.15~30MHz	0.16	-63.35	-33	PASS
GPRS1900	661	30~1000MHz	965.1	-49.15	-13	PASS
GPRS1900	661	1000~3000MHz	2983.07	-38.19	-13	PASS
GPRS1900	661	3000~18000MHz	5640.16	-43.36	-13	PASS
GPRS1900	810	0.009~0.15MHz	0.01	-69.07	-43	PASS
GPRS1900	810	0.15~30MHz	0.18	-64	-33	PASS

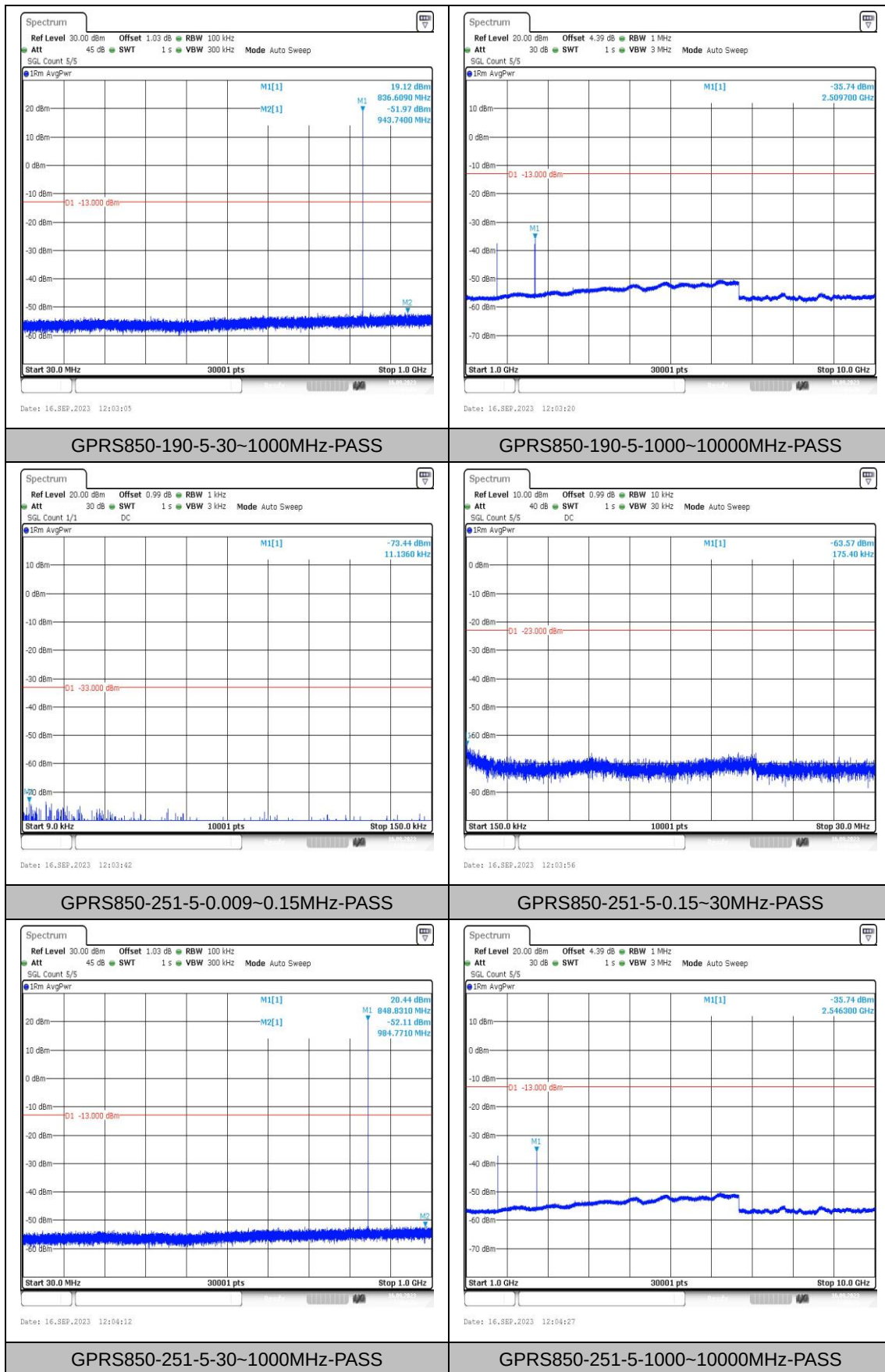
Waltek Testing Group (Shenzhen) Co., Ltd.

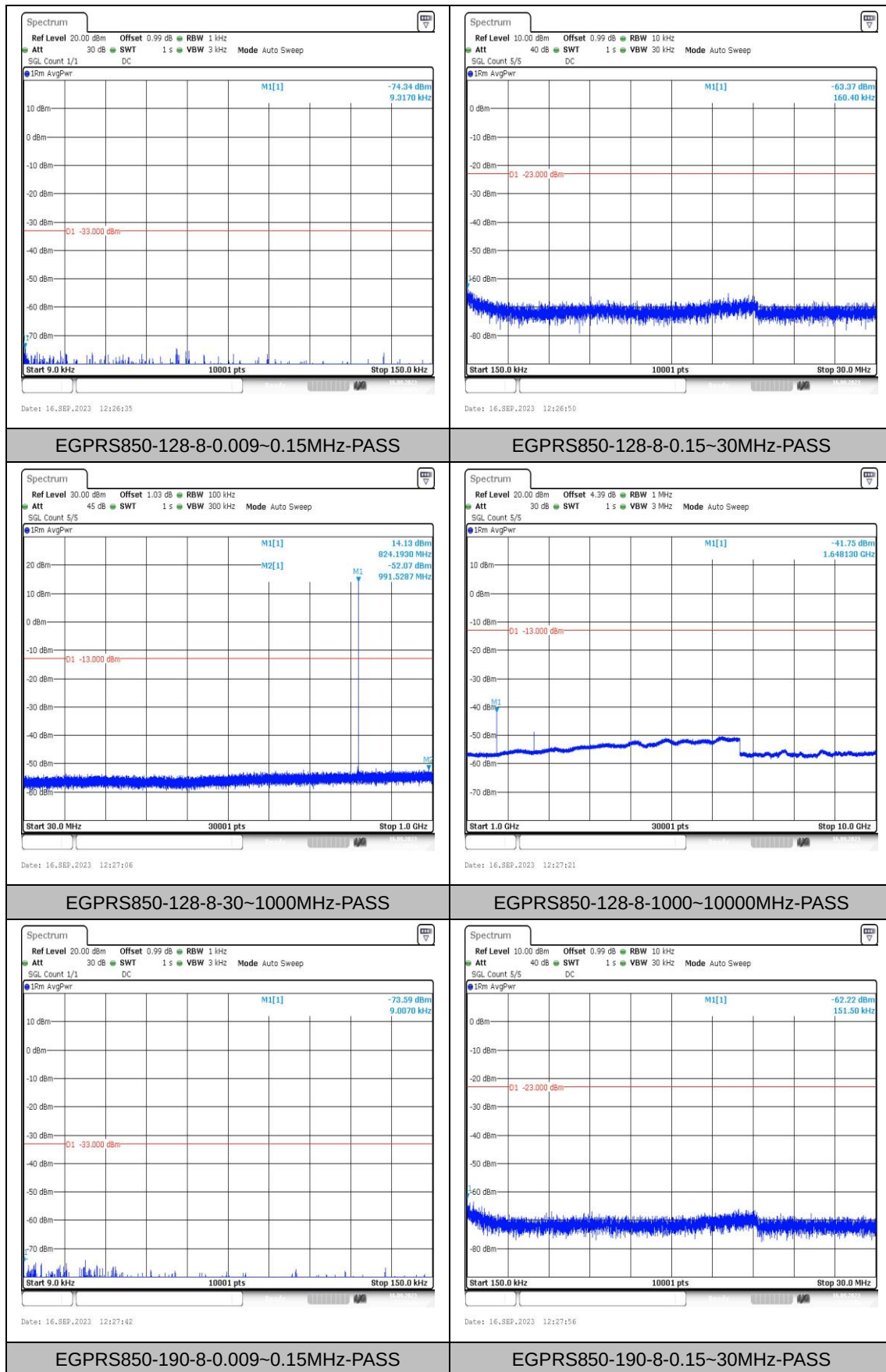
<http://www.waltek.com.cn>

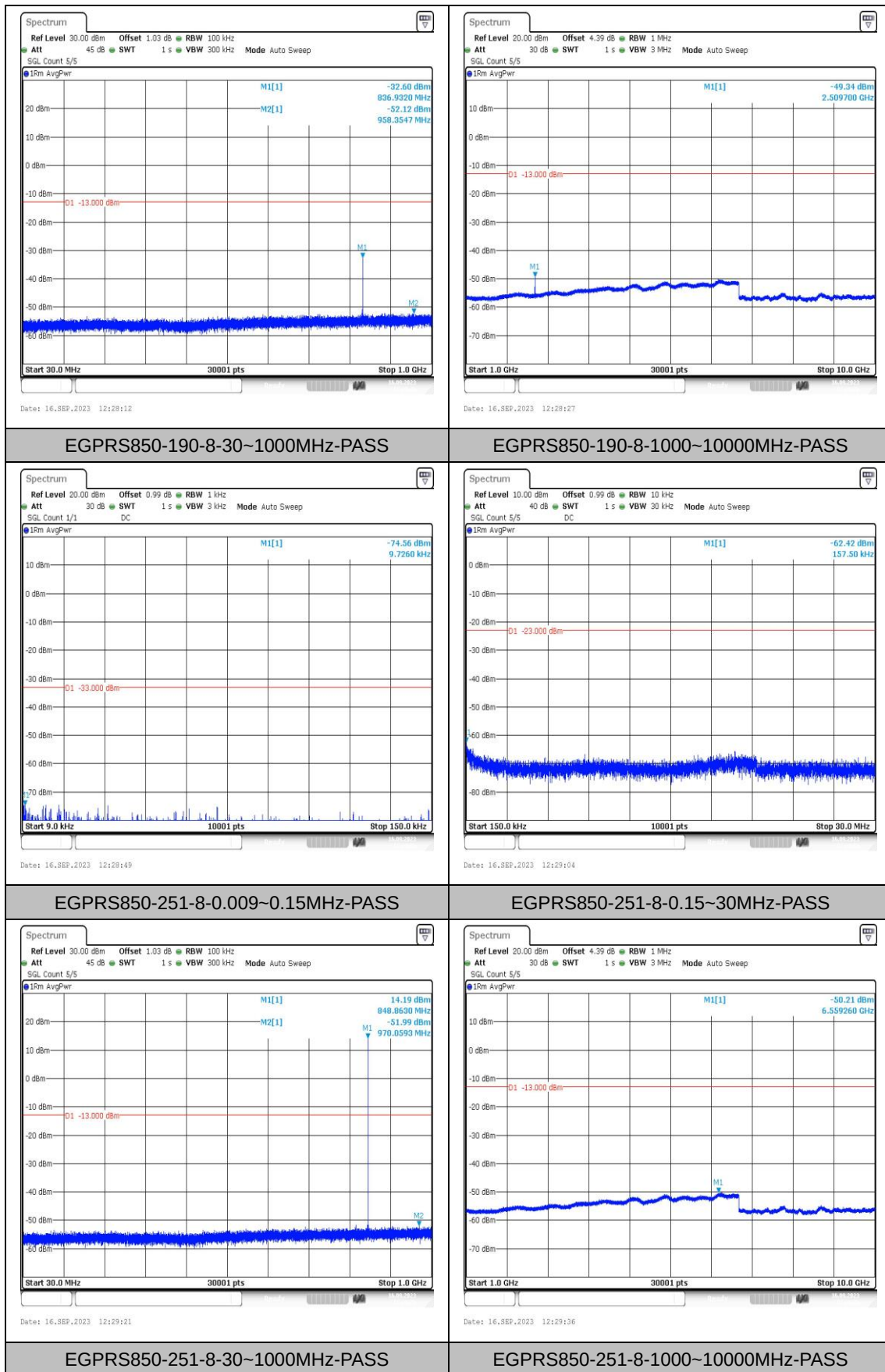
GPRS1900	810	30~1000MHz	981.07	-48.99	-13	PASS
GPRS1900	810	1000~3000MHz	2930.73	-38.17	-13	PASS
GPRS1900	810	3000~18000MHz	5729.16	-44.38	-13	PASS
EGPRS1900	512	0.009~0.15MHz	0.02	-68.65	-43	PASS
EGPRS1900	512	0.15~30MHz	0.23	-63.11	-33	PASS
EGPRS1900	512	30~1000MHz	932.02	-49.03	-13	PASS
EGPRS1900	512	1000~3000MHz	2999.13	-38.11	-13	PASS
EGPRS1900	512	3000~18000MHz	6617.63	-47.3	-13	PASS
EGPRS1900	661	0.009~0.15MHz	0.01	-68.92	-43	PASS
EGPRS1900	661	0.15~30MHz	0.2	-63.36	-33	PASS
EGPRS1900	661	30~1000MHz	983.07	-48.98	-13	PASS
EGPRS1900	661	1000~3000MHz	2988.47	-38.01	-13	PASS
EGPRS1900	661	3000~18000MHz	6611.63	-47.3	-13	PASS
EGPRS1900	810	0.009~0.15MHz	0.01	-68.96	-43	PASS
EGPRS1900	810	0.15~30MHz	0.17	-63.61	-33	PASS
EGPRS1900	810	30~1000MHz	909.62	-49.06	-13	PASS
EGPRS1900	810	1000~3000MHz	2922.73	-37.99	-13	PASS
EGPRS1900	810	3000~18000MHz	3819.72	-41.41	-13	PASS

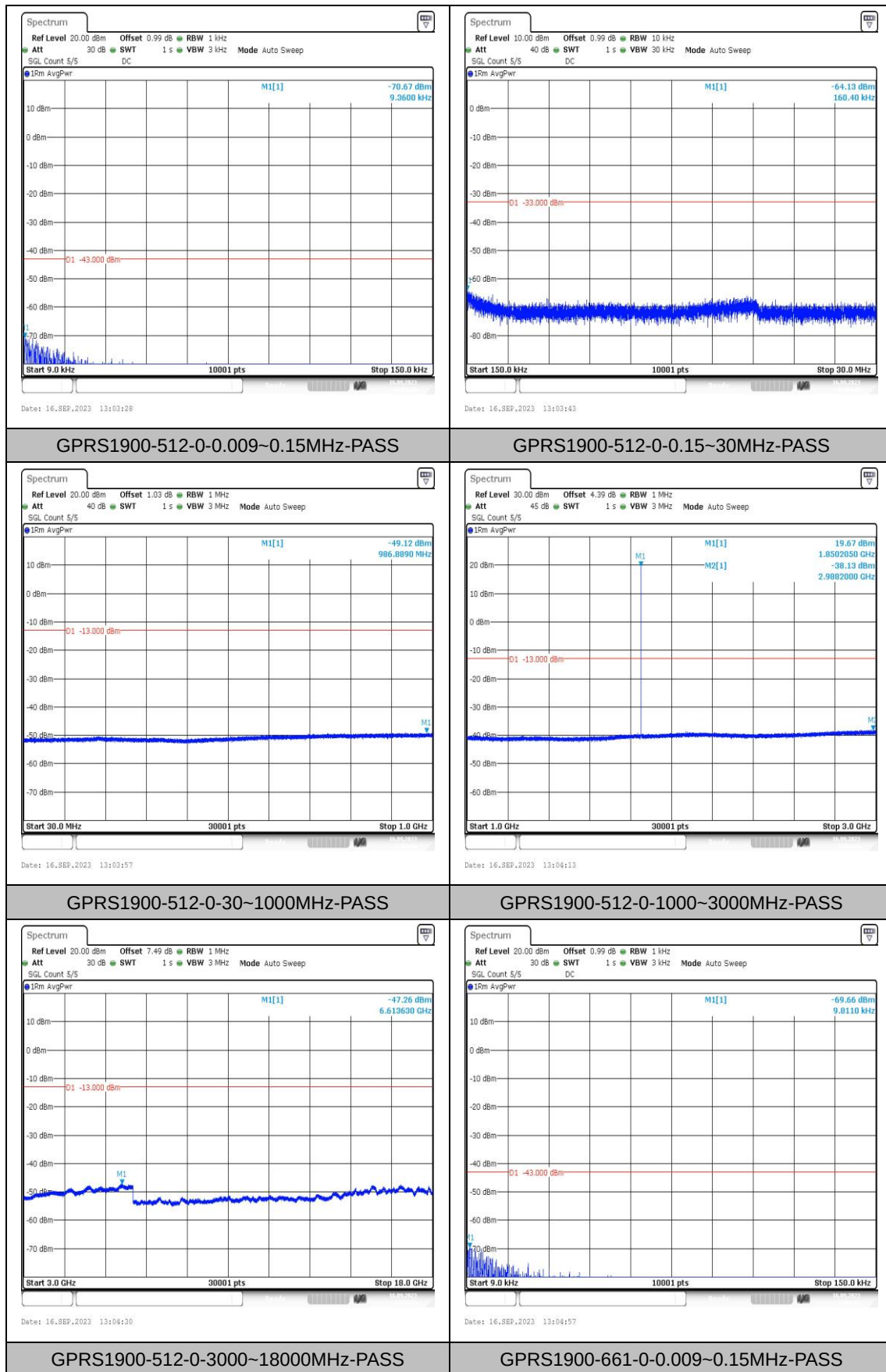
Test Graphs

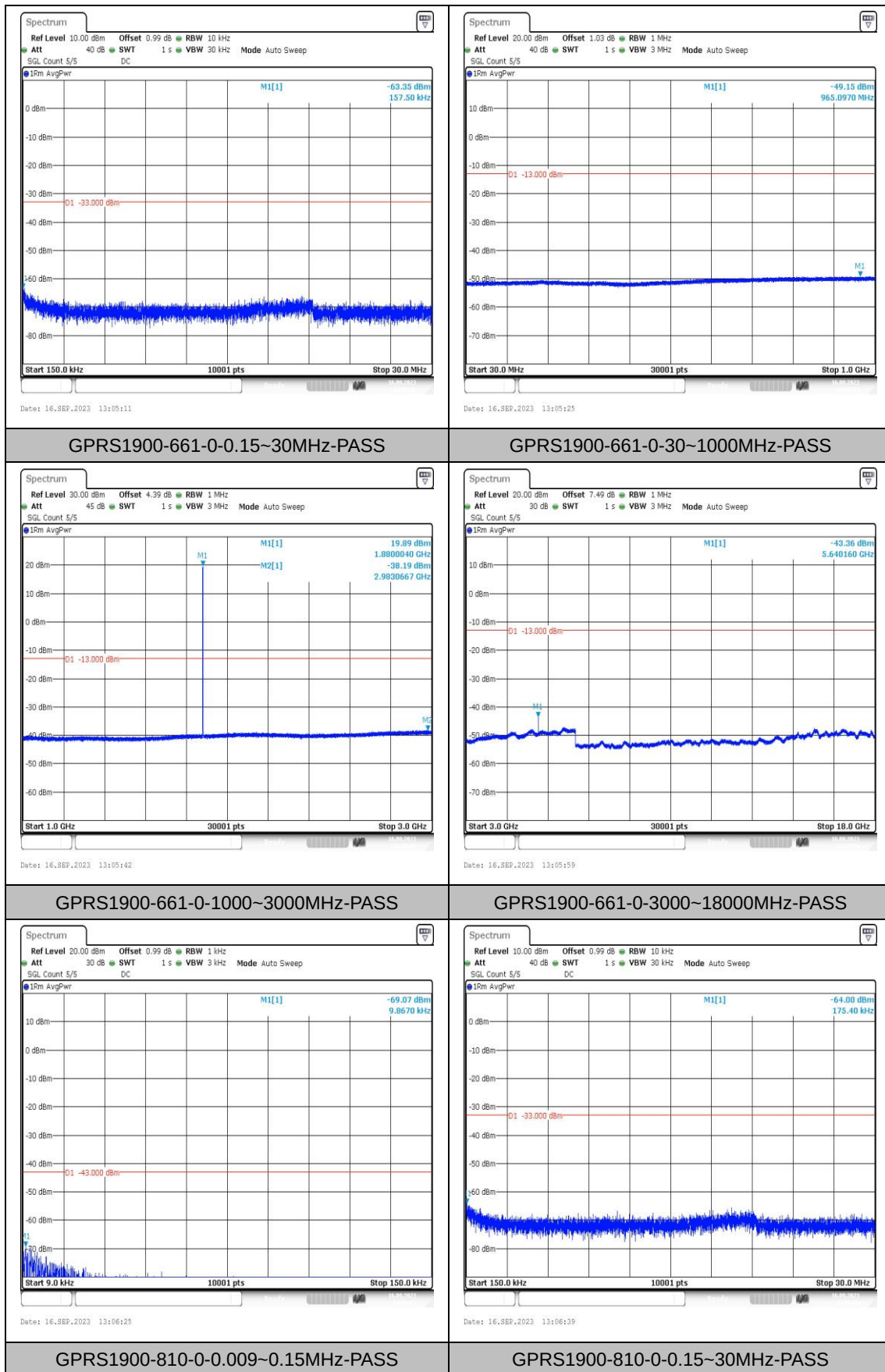


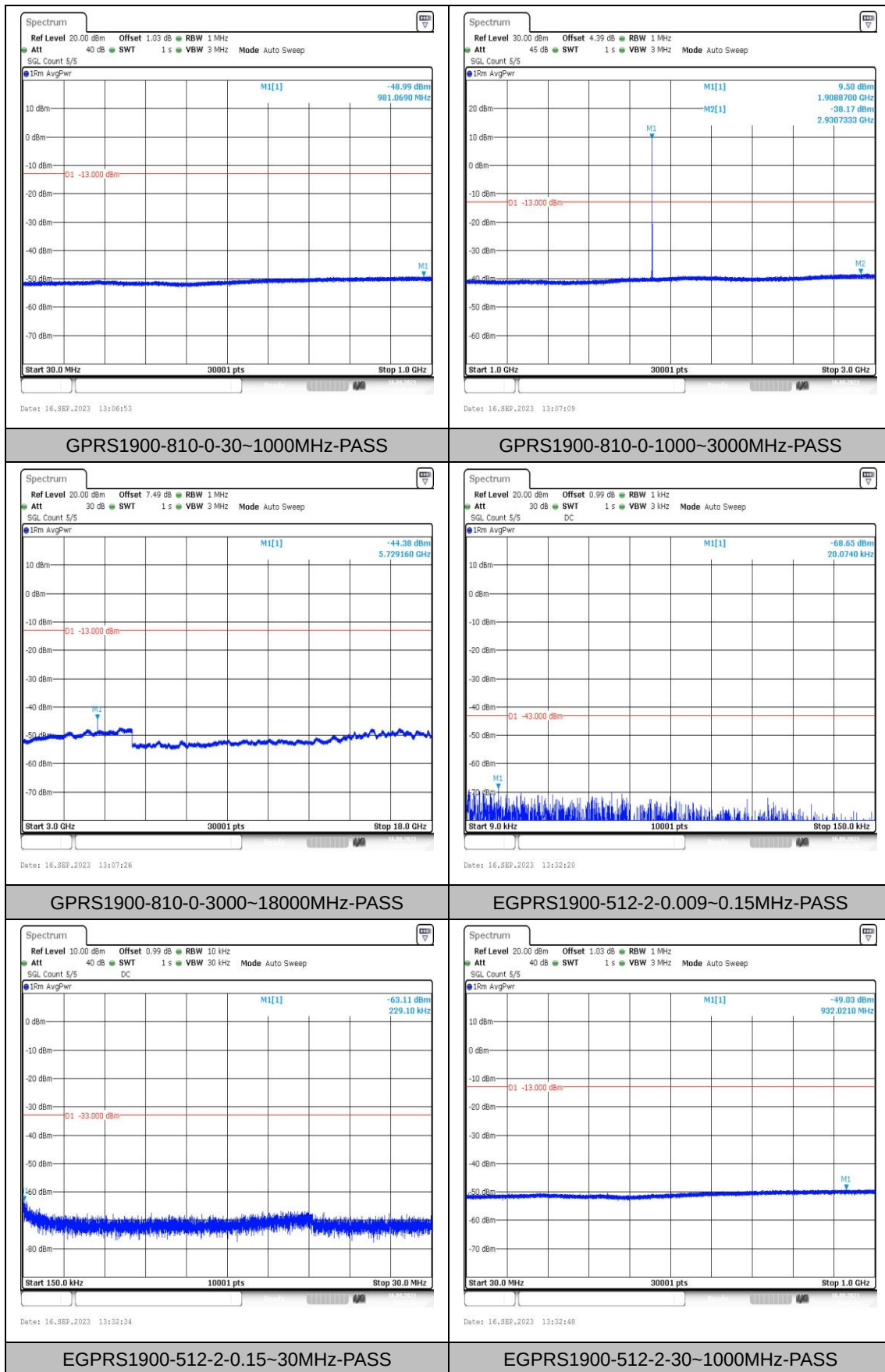


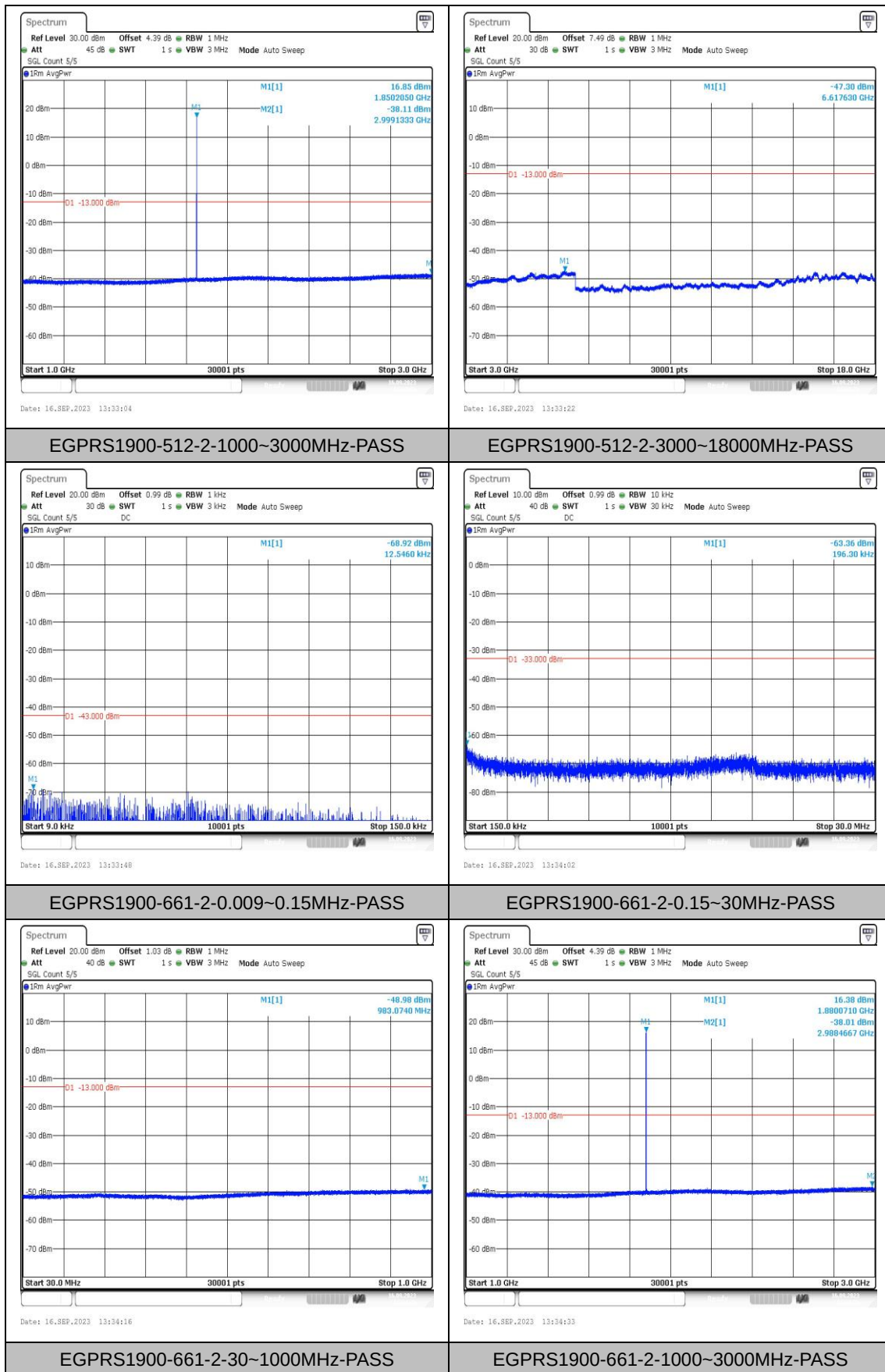


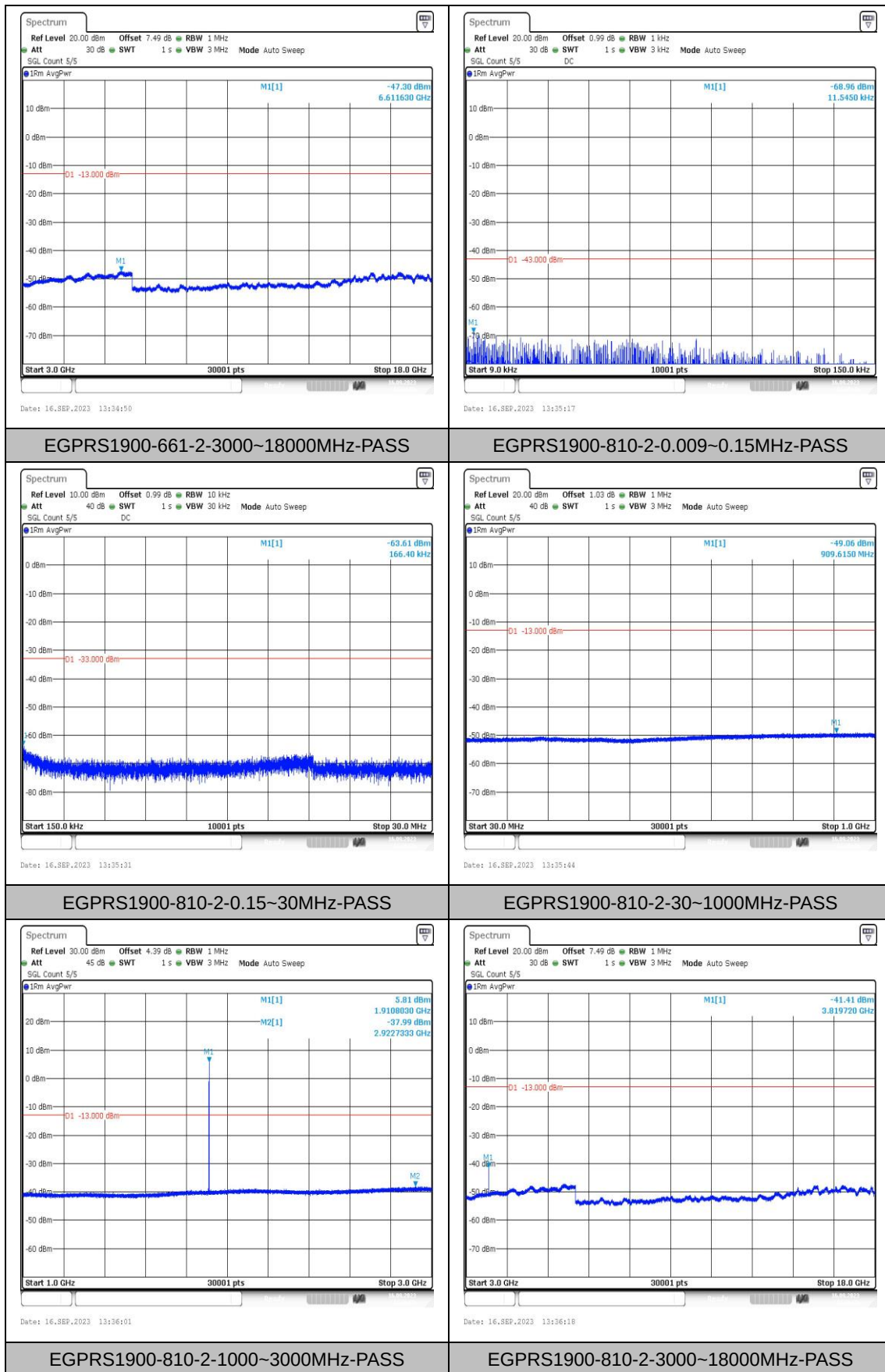












Appendix F: Frequency Stability

Test Result

Voltage							
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GPRS850	128	VN	NT	-0.19	-0.000231	±2.5	PASS
GPRS850	128	VL	NT	-0.45	-0.000546	±2.5	PASS
GPRS850	128	VH	NT	1.32	0.001602	±2.5	PASS
GPRS850	190	VN	NT	1.39	0.001661	±2.5	PASS
GPRS850	190	VL	NT	-2.74	-0.003275	±2.5	PASS
GPRS850	190	VH	NT	0.74	0.000885	±2.5	PASS
GPRS850	251	VN	NT	-0.94	-0.001107	±2.5	PASS
GPRS850	251	VL	NT	0.29	0.000342	±2.5	PASS
GPRS850	251	VH	NT	0.87	0.001025	±2.5	PASS
EGPRS850	128	VN	NT	-6.75	-0.008190	±2.5	PASS
EGPRS850	128	VL	NT	-3.36	-0.004077	±2.5	PASS
EGPRS850	128	VH	NT	-5.55	-0.006734	±2.5	PASS
EGPRS850	190	VN	NT	-6.30	-0.007530	±2.5	PASS
EGPRS850	190	VL	NT	-6.59	-0.007877	±2.5	PASS
EGPRS850	190	VH	NT	-6.91	-0.008260	±2.5	PASS
EGPRS850	251	VN	NT	-6.39	-0.007528	±2.5	PASS
EGPRS850	251	VL	NT	-4.16	-0.004901	±2.5	PASS
EGPRS850	251	VH	NT	-8.27	-0.009743	±2.5	PASS
GPRS1900	512	VN	NT	5.55	0.003000	±2.5	PASS
GPRS1900	512	VL	NT	2.97	0.001605	±2.5	PASS
GPRS1900	512	VH	NT	4.55	0.002459	±2.5	PASS
GPRS1900	661	VN	NT	5.75	0.003059	±2.5	PASS
GPRS1900	661	VL	NT	7.62	0.004053	±2.5	PASS
GPRS1900	661	VH	NT	7.68	0.004085	±2.5	PASS
GPRS1900	810	VN	NT	4.10	0.002147	±2.5	PASS
GPRS1900	810	VL	NT	5.75	0.003011	±2.5	PASS
GPRS1900	810	VH	NT	3.23	0.001691	±2.5	PASS
EGPRS1900	512	VN	NT	1.49	0.000805	±2.5	PASS
EGPRS1900	512	VL	NT	1.97	0.001065	±2.5	PASS
EGPRS1900	512	VH	NT	-0.23	-0.000124	±2.5	PASS
EGPRS1900	661	VN	NT	5.88	0.003128	±2.5	PASS
EGPRS1900	661	VL	NT	4.26	0.002266	±2.5	PASS

EGPRS1900	661	VH	NT	3.68	0.001957	±2.5	PASS
EGPRS1900	810	VN	NT	1.87	0.000979	±2.5	PASS
EGPRS1900	810	VL	NT	-2.65	-0.001388	±2.5	PASS
EGPRS1900	810	VH	NT	-2.55	-0.001335	±2.5	PASS

Temperature							
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GPRS850	128	NV	-30	-0.61	-0.000740	±2.5	PASS
GPRS850	128	NV	-20	3.07	0.003725	±2.5	PASS
GPRS850	128	NV	-10	0.87	0.001056	±2.5	PASS
GPRS850	128	NV	0	3.16	0.003834	±2.5	PASS
GPRS850	128	NV	10	2.36	0.002863	±2.5	PASS
GPRS850	128	NV	20	2.42	0.002936	±2.5	PASS
GPRS850	128	NV	30	2.26	0.002742	±2.5	PASS
GPRS850	128	NV	40	2.32	0.002815	±2.5	PASS
GPRS850	128	NV	50	2.00	0.002427	±2.5	PASS
GPRS850	190	NV	-30	1.97	0.002355	±2.5	PASS
GPRS850	190	NV	-20	-0.45	-0.000538	±2.5	PASS
GPRS850	190	NV	-10	0.16	0.000191	±2.5	PASS
GPRS850	190	NV	0	1.78	0.002128	±2.5	PASS
GPRS850	190	NV	10	2.23	0.002666	±2.5	PASS
GPRS850	190	NV	20	3.39	0.004052	±2.5	PASS
GPRS850	190	NV	30	3.97	0.004745	±2.5	PASS
GPRS850	190	NV	40	3.10	0.003705	±2.5	PASS
GPRS850	190	NV	50	2.91	0.003478	±2.5	PASS
GPRS850	251	NV	-30	2.03	0.002392	±2.5	PASS
GPRS850	251	NV	-20	0.90	0.001060	±2.5	PASS
GPRS850	251	NV	-10	1.68	0.001979	±2.5	PASS
GPRS850	251	NV	0	1.32	0.001555	±2.5	PASS
GPRS850	251	NV	10	-0.19	-0.000224	±2.5	PASS
GPRS850	251	NV	20	2.20	0.002592	±2.5	PASS
GPRS850	251	NV	30	-0.71	-0.000836	±2.5	PASS
GPRS850	251	NV	40	-1.29	-0.001520	±2.5	PASS
GPRS850	251	NV	50	2.68	0.003157	±2.5	PASS
EGPRS850	128	NV	-30	-7.20	-0.008736	±2.5	PASS
EGPRS850	128	NV	-20	-8.88	-0.010774	±2.5	PASS
EGPRS850	128	NV	-10	-10.46	-0.012691	±2.5	PASS
EGPRS850	128	NV	0	-9.27	-0.011247	±2.5	PASS
EGPRS850	128	NV	10	-9.75	-0.011830	±2.5	PASS
EGPRS850	128	NV	20	-7.46	-0.009051	±2.5	PASS

EGPRS850	128	NV	30	-9.98	-0.012109	±2.5	PASS
EGPRS850	128	NV	40	-8.81	-0.010689	±2.5	PASS
EGPRS850	128	NV	50	-9.10	-0.011041	±2.5	PASS
EGPRS850	190	NV	-30	-6.78	-0.008104	±2.5	PASS
EGPRS850	190	NV	-20	-4.04	-0.004829	±2.5	PASS
EGPRS850	190	NV	-10	-7.46	-0.008917	±2.5	PASS
EGPRS850	190	NV	0	-1.71	-0.002044	±2.5	PASS
EGPRS850	190	NV	10	-5.71	-0.006825	±2.5	PASS
EGPRS850	190	NV	20	-6.68	-0.007985	±2.5	PASS
EGPRS850	190	NV	30	-3.75	-0.004482	±2.5	PASS
EGPRS850	190	NV	40	-4.39	-0.005247	±2.5	PASS
EGPRS850	190	NV	50	-5.81	-0.006945	±2.5	PASS
EGPRS850	251	NV	-30	-5.20	-0.006126	±2.5	PASS
EGPRS850	251	NV	-20	-3.68	-0.004336	±2.5	PASS
EGPRS850	251	NV	-10	-5.94	-0.006998	±2.5	PASS
EGPRS850	251	NV	0	-6.59	-0.007764	±2.5	PASS
EGPRS850	251	NV	10	-3.36	-0.003959	±2.5	PASS
EGPRS850	251	NV	20	-5.36	-0.006315	±2.5	PASS
EGPRS850	251	NV	30	-9.14	-0.010768	±2.5	PASS
EGPRS850	251	NV	40	-6.78	-0.007988	±2.5	PASS
EGPRS850	251	NV	50	-7.01	-0.008259	±2.5	PASS
GPRS1900	512	NV	-30	5.39	0.002913	±2.5	PASS
GPRS1900	512	NV	-20	9.01	0.004870	±2.5	PASS
GPRS1900	512	NV	-10	8.78	0.004745	±2.5	PASS
GPRS1900	512	NV	0	8.65	0.004675	±2.5	PASS
GPRS1900	512	NV	10	9.04	0.004886	±2.5	PASS
GPRS1900	512	NV	20	7.30	0.003946	±2.5	PASS
GPRS1900	512	NV	30	7.97	0.004308	±2.5	PASS
GPRS1900	512	NV	40	7.26	0.003924	±2.5	PASS
GPRS1900	512	NV	50	6.17	0.003335	±2.5	PASS
GPRS1900	661	NV	-30	1.45	0.000771	±2.5	PASS
GPRS1900	661	NV	-20	5.00	0.002660	±2.5	PASS
GPRS1900	661	NV	-10	8.88	0.004723	±2.5	PASS
GPRS1900	661	NV	0	9.78	0.005202	±2.5	PASS
GPRS1900	661	NV	10	8.59	0.004569	±2.5	PASS
GPRS1900	661	NV	20	8.72	0.004638	±2.5	PASS
GPRS1900	661	NV	30	9.20	0.004894	±2.5	PASS
GPRS1900	661	NV	40	9.43	0.005016	±2.5	PASS
GPRS1900	661	NV	50	8.78	0.004670	±2.5	PASS
GPRS1900	810	NV	-30	1.97	0.001032	±2.5	PASS
GPRS1900	810	NV	-20	3.75	0.001964	±2.5	PASS

GPRS1900	810	NV	-10	7.23	0.003786	±2.5	PASS
GPRS1900	810	NV	0	5.59	0.002927	±2.5	PASS
GPRS1900	810	NV	10	6.84	0.003582	±2.5	PASS
GPRS1900	810	NV	20	6.33	0.003314	±2.5	PASS
GPRS1900	810	NV	30	6.88	0.003602	±2.5	PASS
GPRS1900	810	NV	40	6.01	0.003147	±2.5	PASS
GPRS1900	810	NV	50	7.46	0.003906	±2.5	PASS
EGPRS1900	512	NV	-30	2.71	0.001465	±2.5	PASS
EGPRS1900	512	NV	-20	5.91	0.003194	±2.5	PASS
EGPRS1900	512	NV	-10	3.84	0.002075	±2.5	PASS
EGPRS1900	512	NV	0	2.29	0.001238	±2.5	PASS
EGPRS1900	512	NV	10	1.87	0.001011	±2.5	PASS
EGPRS1900	512	NV	20	-0.90	-0.000486	±2.5	PASS
EGPRS1900	512	NV	30	4.26	0.002302	±2.5	PASS
EGPRS1900	512	NV	40	-1.49	-0.000805	±2.5	PASS
EGPRS1900	512	NV	50	4.97	0.002686	±2.5	PASS
EGPRS1900	661	NV	-30	4.29	0.002282	±2.5	PASS
EGPRS1900	661	NV	-20	1.87	0.000995	±2.5	PASS
EGPRS1900	661	NV	-10	-0.97	-0.000516	±2.5	PASS
EGPRS1900	661	NV	0	3.55	0.001888	±2.5	PASS
EGPRS1900	661	NV	10	4.91	0.002612	±2.5	PASS
EGPRS1900	661	NV	20	1.26	0.000670	±2.5	PASS
EGPRS1900	661	NV	30	3.45	0.001835	±2.5	PASS
EGPRS1900	661	NV	40	-1.97	-0.001048	±2.5	PASS
EGPRS1900	661	NV	50	4.04	0.002149	±2.5	PASS
EGPRS1900	810	NV	-30	1.00	0.000524	±2.5	PASS
EGPRS1900	810	NV	-20	1.00	0.000524	±2.5	PASS
EGPRS1900	810	NV	-10	-2.16	-0.001131	±2.5	PASS
EGPRS1900	810	NV	0	-1.74	-0.000911	±2.5	PASS
EGPRS1900	810	NV	10	-3.00	-0.001571	±2.5	PASS
EGPRS1900	810	NV	20	-2.23	-0.001168	±2.5	PASS
EGPRS1900	810	NV	30	-3.55	-0.001859	±2.5	PASS
EGPRS1900	810	NV	40	-1.32	-0.000691	±2.5	PASS
EGPRS1900	810	NV	50	1.87	0.000979	±2.5	PASS

Appendix G: Modulation Characteristics

Test Result

Band	Channel	Result	Verdict
GPRS850	128	PASS	PASS
GPRS850	190	PASS	PASS
GPRS850	251	PASS	PASS
EGPRS850	128	PASS	PASS
EGPRS850	190	PASS	PASS
EGPRS850	251	PASS	PASS
GPRS1900	512	PASS	PASS
GPRS1900	661	PASS	PASS
GPRS1900	810	PASS	PASS
EGPRS1900	512	PASS	PASS
EGPRS1900	661	PASS	PASS
EGPRS1900	810	PASS	PASS