

Appendix A: Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Channel	PCL	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GSM850	128	5	33.30	27.77	38.45	PASS
GSM850	190	5	33.49	27.96	38.45	PASS
GSM850	251	5	33.25	27.72	38.45	PASS
GSM1900	512	0	32.07	31.31	33.00	PASS
GSM1900	661	0	31.90	31.14	33.00	PASS
GSM1900	810	0	31.69	30.93	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.58	28.05	38.45	PASS
GPRS850	128	5	2	32.89	27.36	38.45	PASS
GPRS850	128	5	3	31.27	25.74	38.45	PASS
GPRS850	128	5	4	30.25	24.72	38.45	PASS
GPRS850	190	5	1	33.76	28.23	38.45	PASS
GPRS850	190	5	2	33.06	27.53	38.45	PASS
GPRS850	190	5	3	31.43	25.90	38.45	PASS
GPRS850	190	5	4	30.39	24.86	38.45	PASS
GPRS850	251	5	1	33.49	27.96	38.45	PASS
GPRS850	251	5	2	32.81	27.28	38.45	PASS
GPRS850	251	5	3	31.16	25.63	38.45	PASS
GPRS850	251	5	4	30.12	24.59	38.45	PASS
GPRS1900	512	0	1	32.07	31.31	33.00	PASS
GPRS1900	512	0	2	30.50	29.74	33.00	PASS
GPRS1900	512	0	3	27.81	27.05	33.00	PASS
GPRS1900	512	0	4	26.62	25.86	33.00	PASS
GPRS1900	661	0	1	31.88	31.12	33.00	PASS
GPRS1900	661	0	2	30.56	29.80	33.00	PASS
GPRS1900	661	0	3	27.96	27.20	33.00	PASS
GPRS1900	661	0	4	26.76	26.00	33.00	PASS
GPRS1900	810	0	1	31.67	30.91	33.00	PASS
GPRS1900	810	0	2	30.56	29.80	33.00	PASS
GPRS1900	810	0	3	28.01	27.25	33.00	PASS
GPRS1900	810	0	4	26.82	26.06	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.71	22.18	38.45	PASS
EGPRS850	128	8	2	26.66	21.13	38.45	PASS
EGPRS850	128	8	3	24.66	19.13	38.45	PASS
EGPRS850	128	8	4	23.51	17.98	38.45	PASS
EGPRS850	190	8	1	27.74	22.21	38.45	PASS
EGPRS850	190	8	2	26.79	21.26	38.45	PASS
EGPRS850	190	8	3	24.78	19.25	38.45	PASS
EGPRS850	190	8	4	23.74	18.21	38.45	PASS
EGPRS850	251	8	1	27.60	22.07	38.45	PASS
EGPRS850	251	8	2	26.65	21.12	38.45	PASS
EGPRS850	251	8	3	24.65	19.12	38.45	PASS
EGPRS850	251	8	4	23.55	18.02	38.45	PASS
EGPRS1900	512	2	1	26.05	25.29	33.00	PASS
EGPRS1900	512	2	2	25.26	24.50	33.00	PASS
EGPRS1900	512	2	3	23.66	22.90	33.00	PASS
EGPRS1900	512	2	4	22.68	21.92	33.00	PASS
EGPRS1900	661	2	1	26.29	25.53	33.00	PASS
EGPRS1900	661	2	2	25.48	24.72	33.00	PASS
EGPRS1900	661	2	3	23.88	23.12	33.00	PASS
EGPRS1900	661	2	4	22.85	22.09	33.00	PASS
EGPRS1900	810	2	1	26.25	25.49	33.00	PASS
EGPRS1900	810	2	2	25.44	24.68	33.00	PASS
EGPRS1900	810	2	3	23.75	22.99	33.00	PASS
EGPRS1900	810	2	4	22.72	21.96	33.00	PASS

Remark: EIRP (dBm) = Conducted power (dBm) + Antenna Gain (dBi). (For GSM1900)

ERP (dBm) = EIRP (dBm) - 2.15 (dB). (For GSM850)

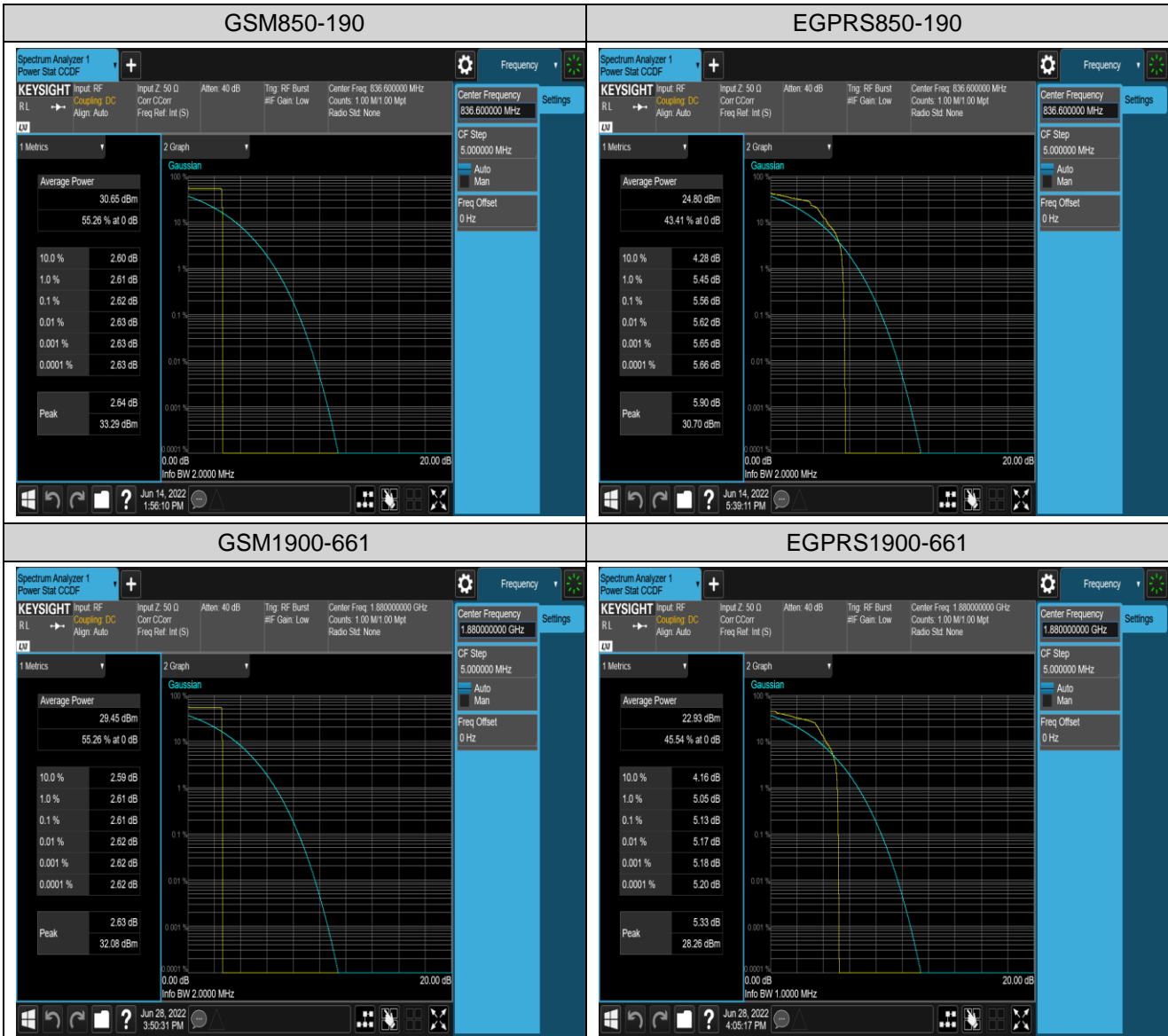
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.62	13	PASS
EGPRS850	190	8	5.56	13	PASS
GSM1900	661	0	2.61	13	PASS
EGPRS1900	661	2	5.13	13	PASS

Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs

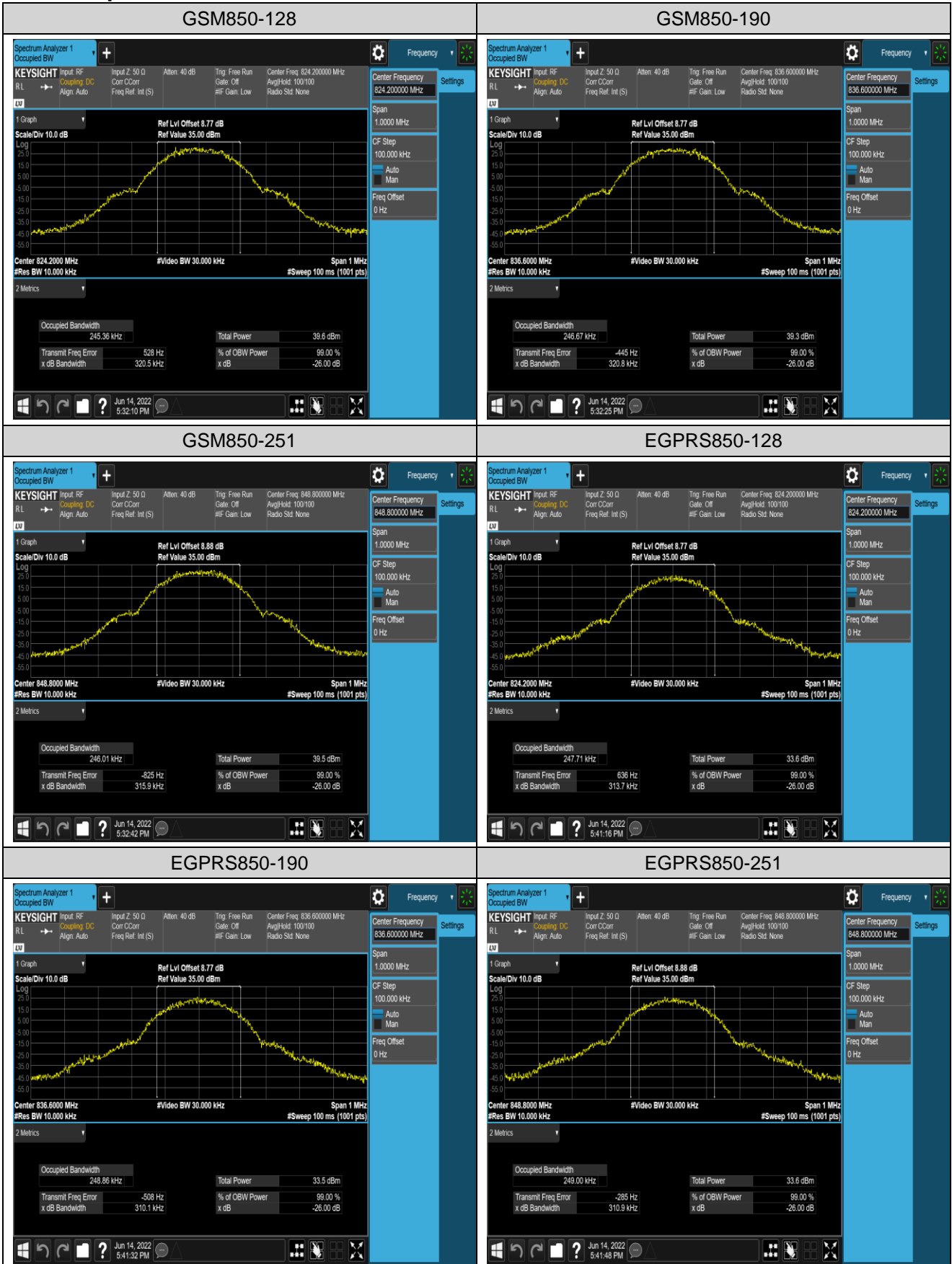


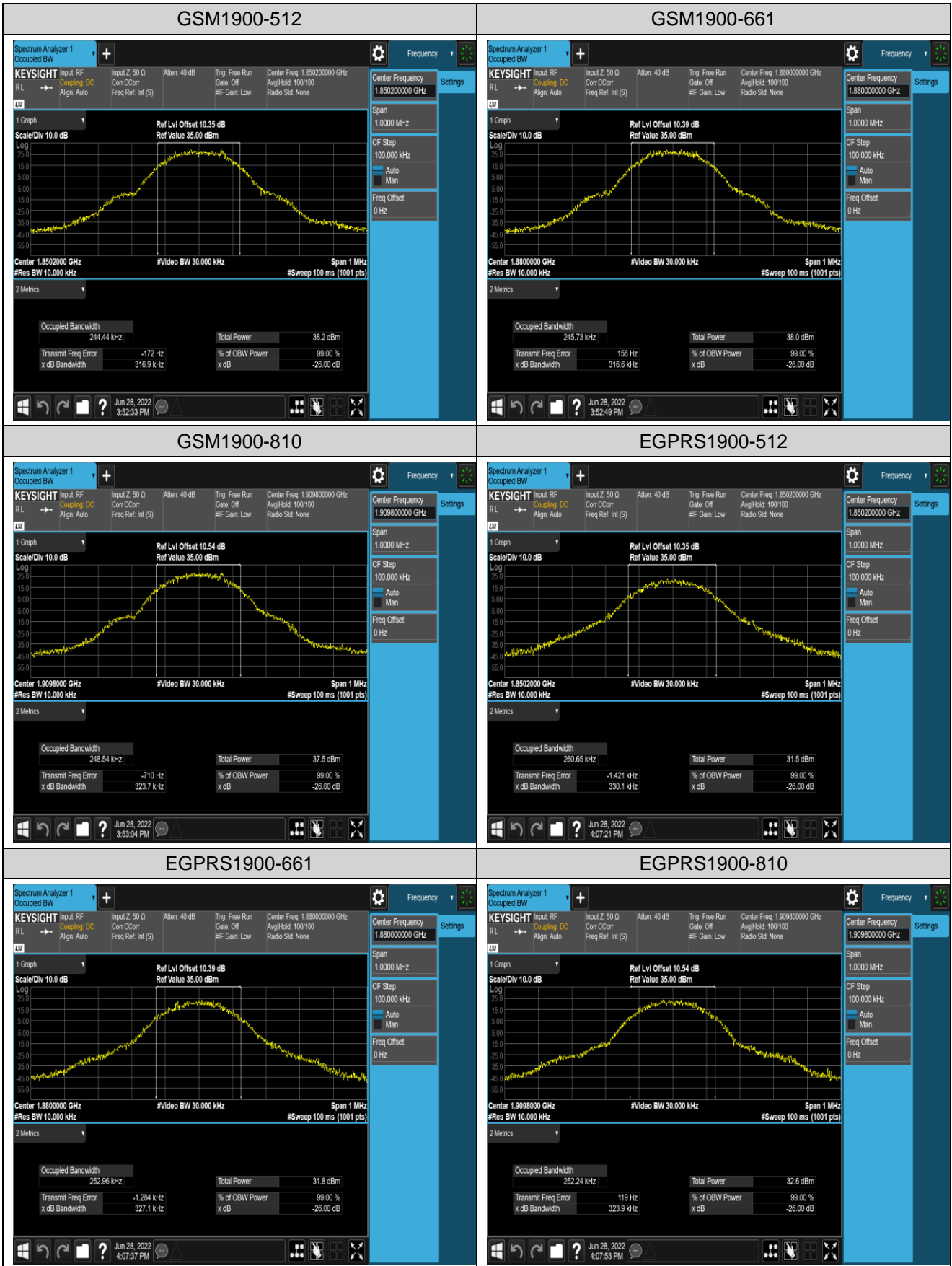
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24536	0.3205	---	PASS
GSM850	190	5	0.24667	0.3208	---	PASS
GSM850	251	5	0.24601	0.3159	---	PASS
EGPRS850	128	8	0.24771	0.3137	---	PASS
EGPRS850	190	8	0.24886	0.3101	---	PASS
EGPRS850	251	8	0.24900	0.3109	---	PASS
GSM1900	512	0	0.24444	0.3169	---	PASS
GSM1900	661	0	0.24573	0.3166	---	PASS
GSM1900	810	0	0.24854	0.3237	---	PASS
EGPRS1900	512	2	0.26065	0.3301	---	PASS
EGPRS1900	661	2	0.25296	0.3271	---	PASS
EGPRS1900	810	2	0.25224	0.3239	---	PASS

Test Graphs

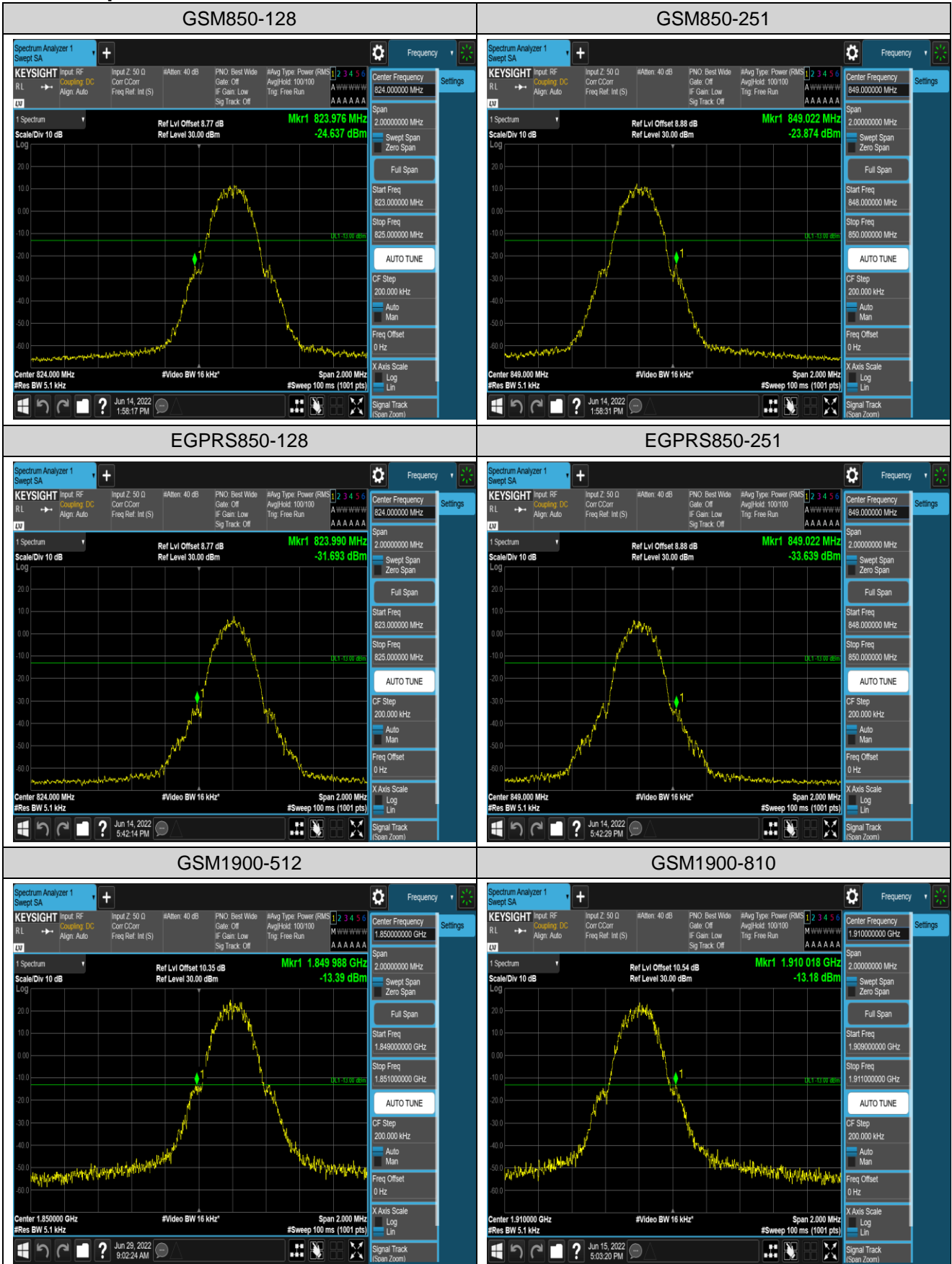


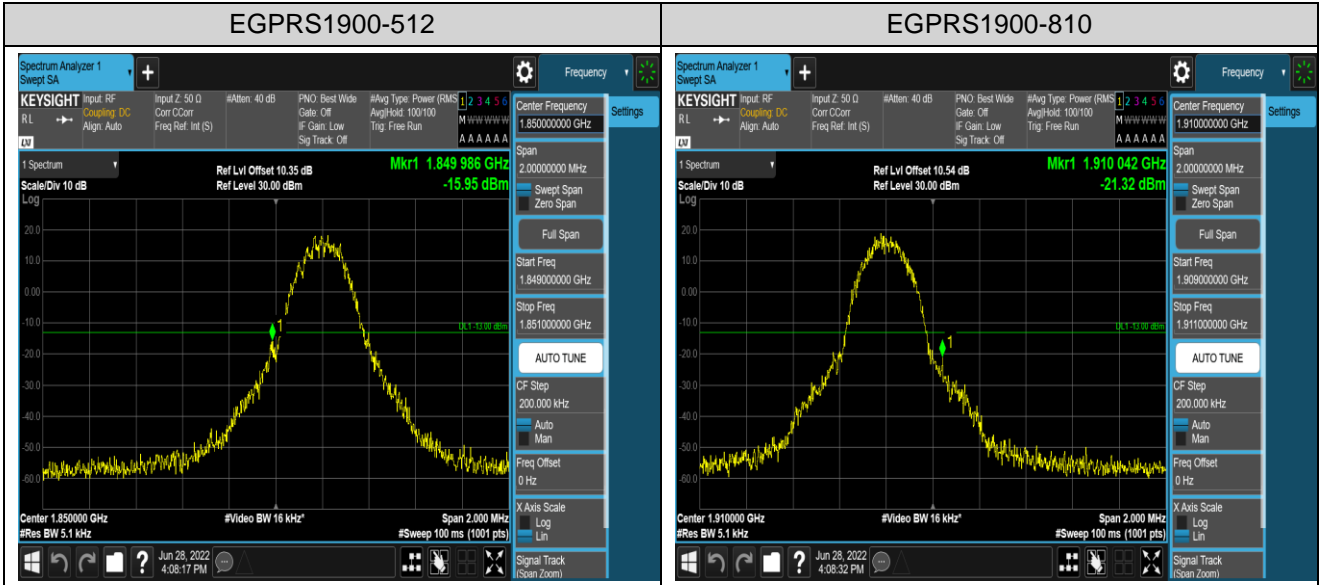


Appendix D: Band Edge**Test Result**

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-24.64	-13	PASS
GSM850	251	5	849.02	-23.87	-13	PASS
EGPRS850	128	8	823.99	-31.69	-13	PASS
EGPRS850	251	8	849.02	-33.64	-13	PASS
GSM1900	512	0	1849.99	-13.39	-13	PASS
GSM1900	810	0	1910.00	-13.18	-13	PASS
EGPRS1900	512	2	1849.99	-15.95	-13	PASS
EGPRS1900	810	2	1910.04	-21.32	-13	PASS

Test Graphs





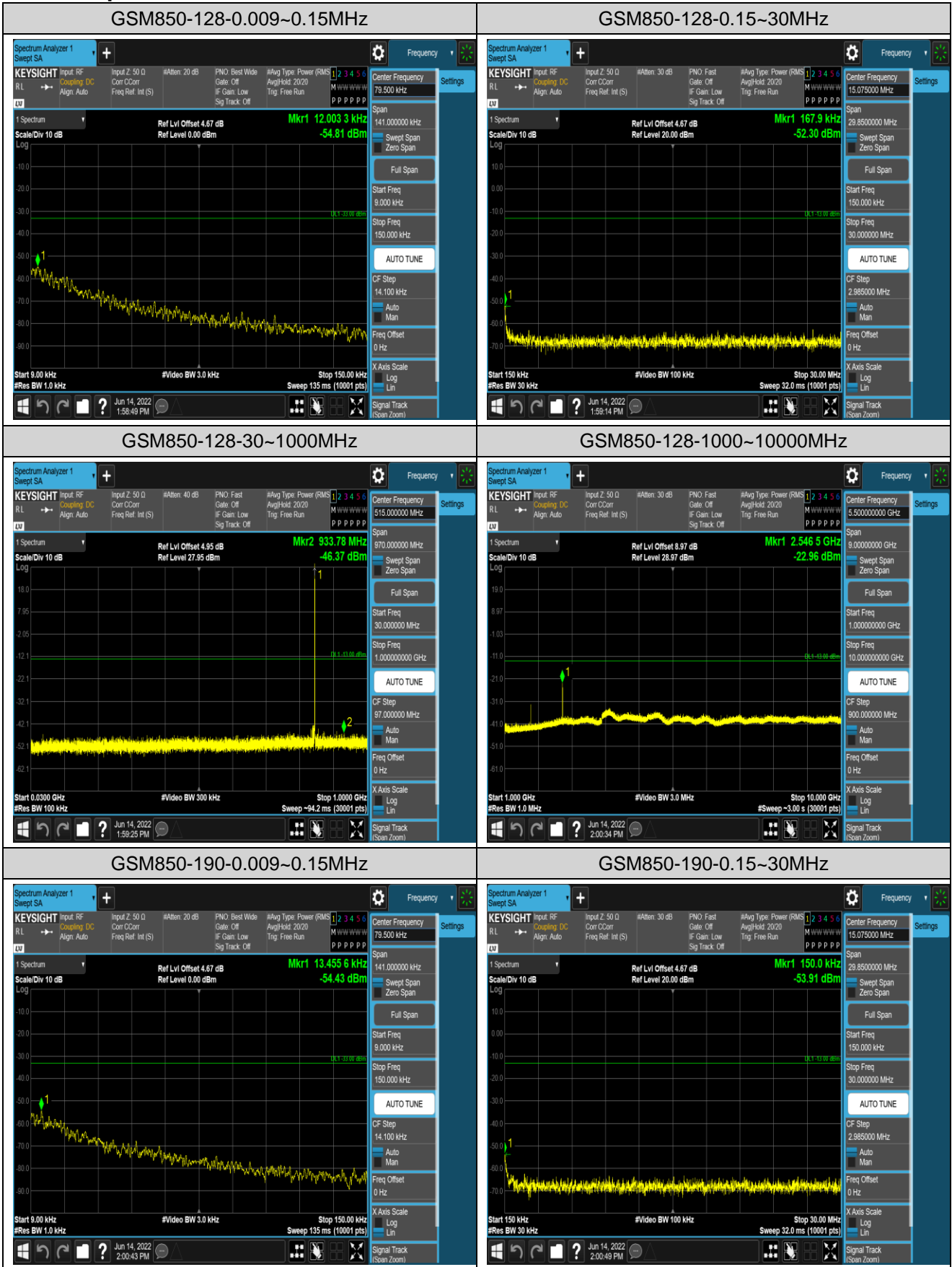
Appendix E: Conducted Spurious Emission

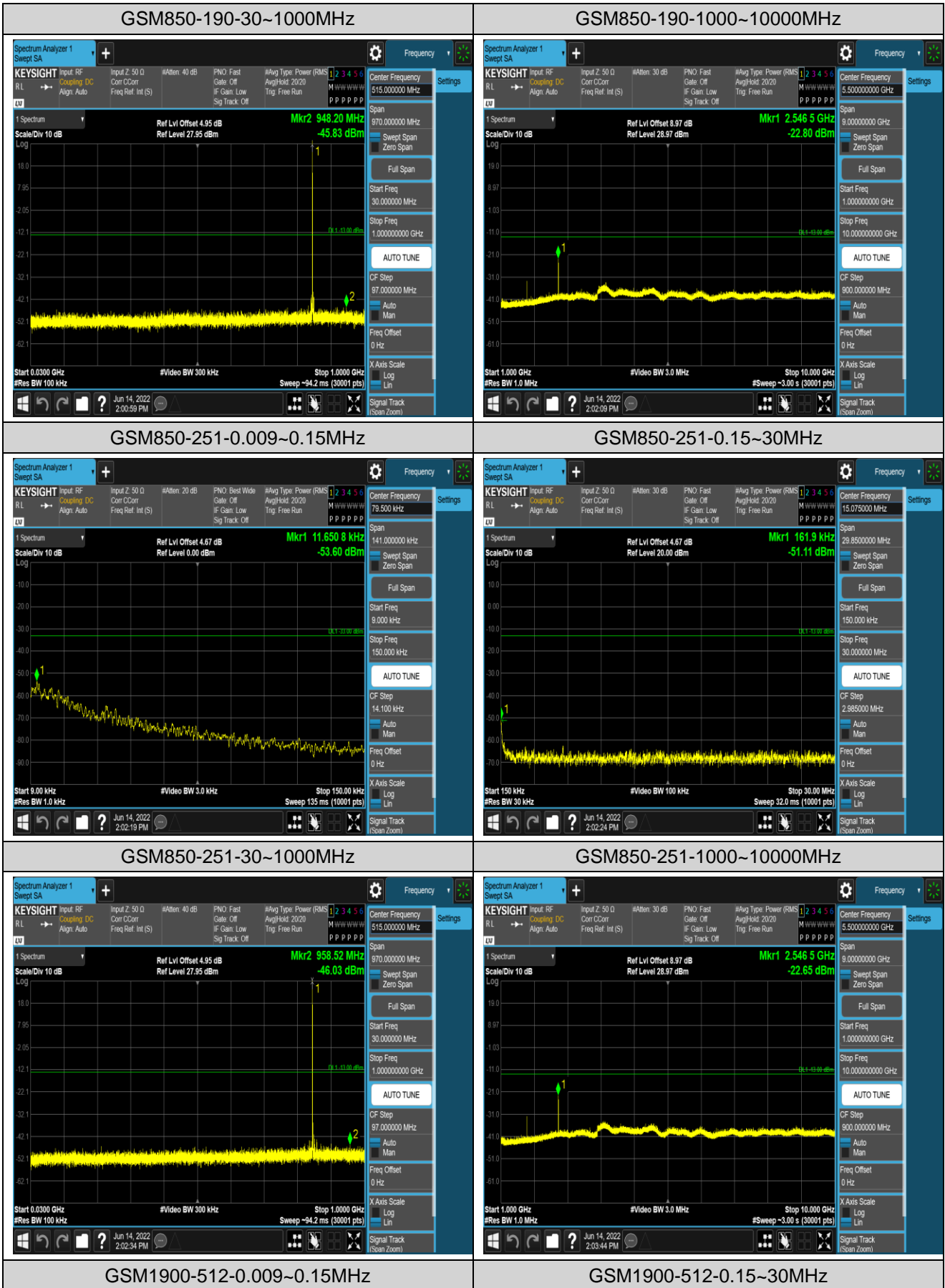
Test Result

Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-54.81	-33	PASS
GSM850	128	5	0.15~30MHz	0.17	-52.3	-13	PASS
GSM850	128	5	30~1000MHz	933.78	-46.37	-13	PASS
GSM850	128	5	1000~10000MHz	2546.5	-22.96	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-54.43	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-53.91	-13	PASS
GSM850	190	5	30~1000MHz	948.2	-45.83	-13	PASS
GSM850	190	5	1000~10000MHz	2546.5	-22.8	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-53.6	-33	PASS
GSM850	251	5	0.15~30MHz	0.16	-51.11	-13	PASS
GSM850	251	5	30~1000MHz	958.52	-46.03	-13	PASS
GSM850	251	5	1000~10000MHz	2546.5	-22.65	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-55.53	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-51.99	-23	PASS
GSM1900	512	0	30~1000MHz	714.82	-46.5	-13	PASS
GSM1900	512	0	1000~18000MHz	3730.77	-33.66	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.02	-56.37	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-53.76	-23	PASS
GSM1900	661	0	30~1000MHz	783.85	-45.49	-13	PASS
GSM1900	661	0	1000~18000MHz	3838.43	-34.22	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-55.52	-43	PASS
GSM1900	810	0	0.15~30MHz	0.17	-52.7	-23	PASS
GSM1900	810	0	30~1000MHz	679.12	-46.87	-13	PASS
GSM1900	810	0	1000~18000MHz	3819.73	-34.58	-13	PASS

Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs

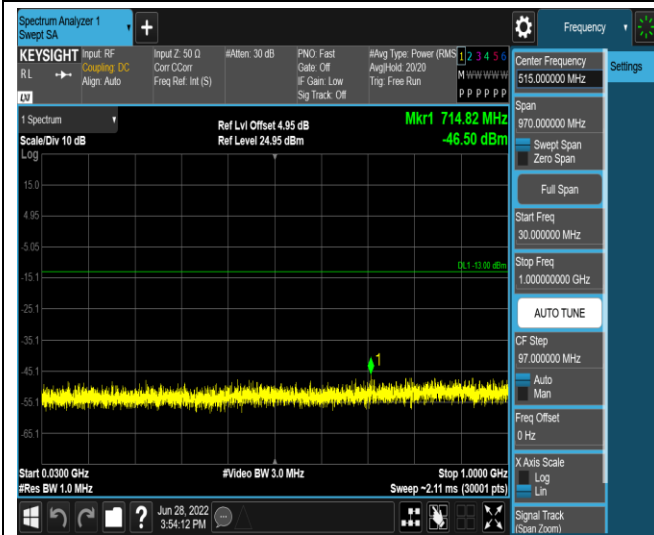




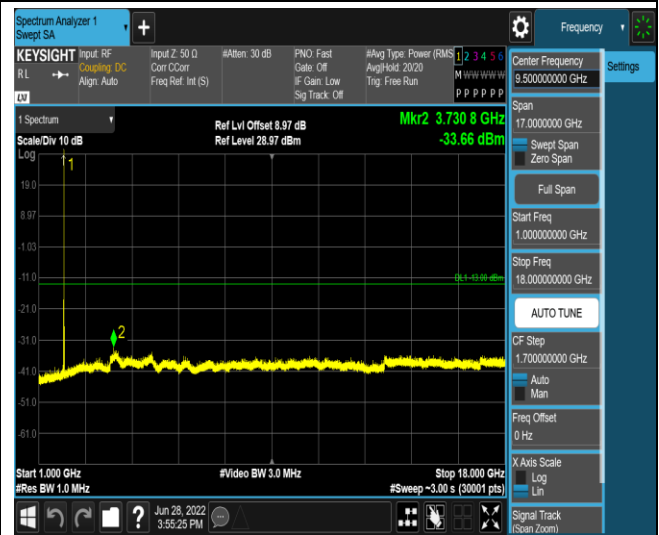


GSM1900-512-30~1000MHz

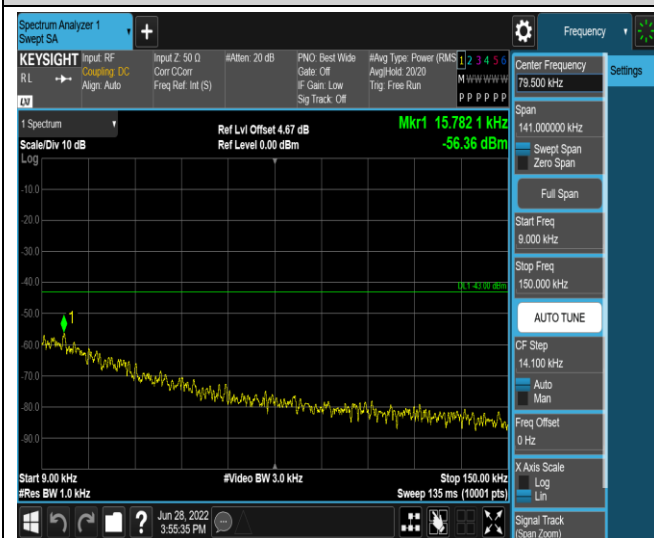
GSM1900-512-1000~18000MHz



GSM1900-661-0.009~0.15MHz



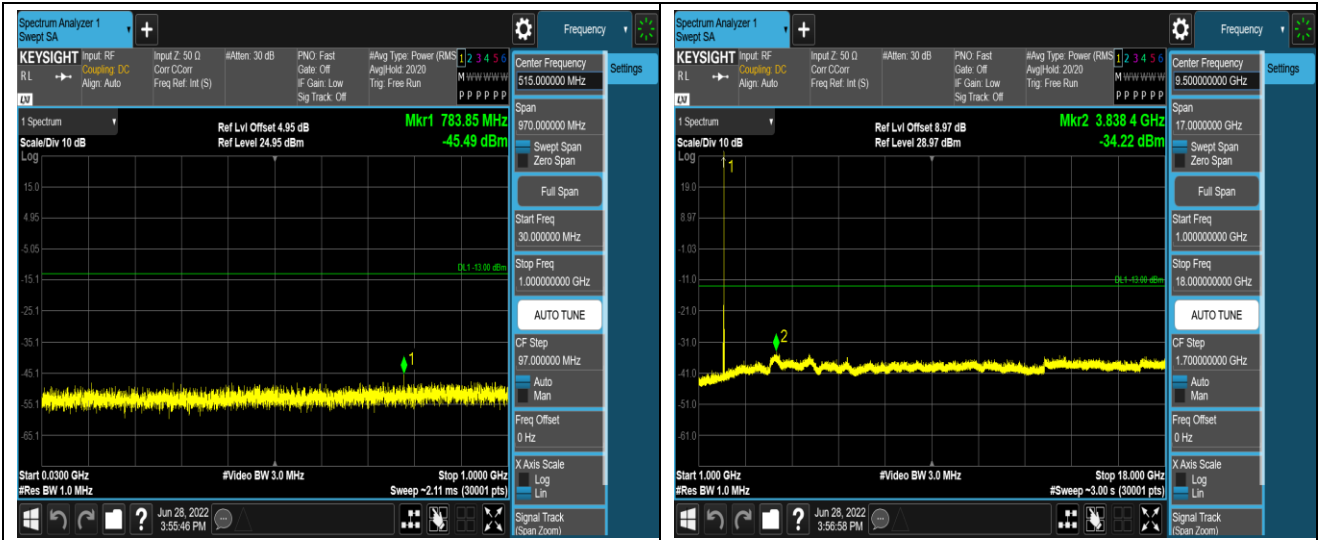
GSM1900-661-0.15~30MHz



GSM1900-661-30~1000MHz

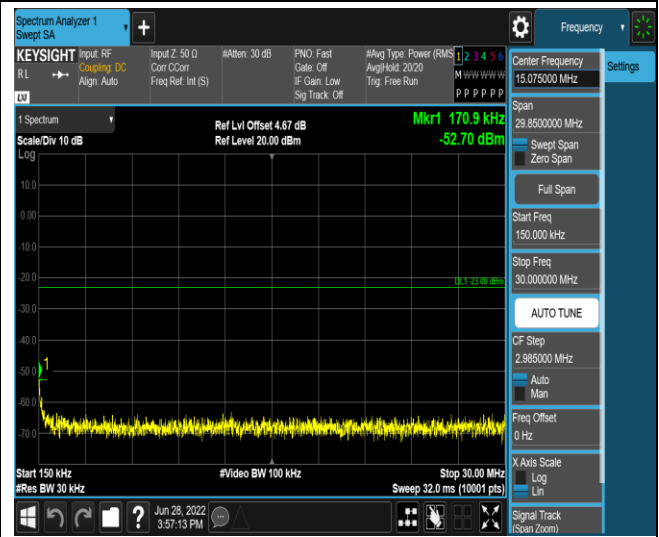
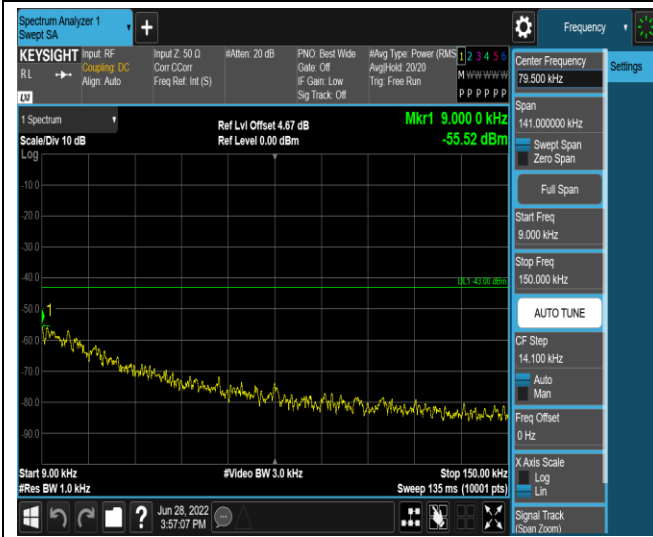


GSM1900-661-1000~18000MHz



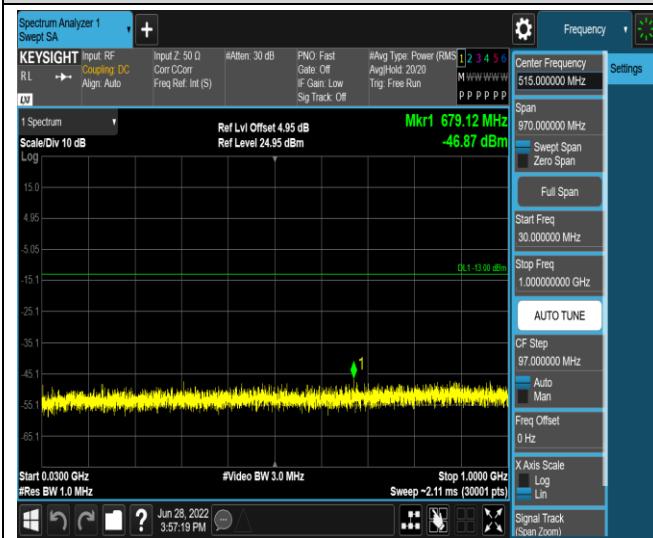
GSM1900-810-0.009~0.15MHz

GSM1900-810-0.15~30MHz



GSM1900-810-30~1000MHz

GSM1900-810-1000~18000MHz



Appendix F: Frequency Stability

Test Result

Reference Frequency: GSM850 Middle channel=190 Frequency=836.6MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.87	-30	-12.46	-0.014894	±2.5	Pass
	-20	-10.94	-0.013077		
	-10	-11.11	-0.013280		
	0	-9.46	-0.011308		
	10	-9.81	-0.011726		
	20	-10.43	-0.012467		
	30	-8.91	-0.010650		
	40	-11.49	-0.013734		
	50	-9.98	-0.011929		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-9.81	-0.011726	±2.5	Pass
	3.87	-7.10	-0.008487		
	4.45	-9.85	-0.011774		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

Reference Frequency: EGPRS850 Middle channel=190 Frequency=836.6MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.87	-30	0.65	0.000777	±2.5	Pass
	-20	1.00	0.001195		
	-10	6.78	0.008104		
	0	6.07	0.007256		
	10	4.07	0.004865		
	20	2.62	0.003132		
	30	2.71	0.003239		
	40	2.03	0.002426		
	50	1.68	0.002008		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	0.71	0.000849	±2.5	Pass
	3.87	-6.62	-0.007913		
	4.45	-0.87	-0.001040		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

Reference Frequency: PCS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.87	-30	-9.75	-0.005186	Within authorized band for PCS 1900	Pass
	-20	-6.26	-0.003330		
	-10	-6.55	-0.003484		
	0	-7.01	-0.003729		
	10	-11.46	-0.006096		
	20	0.61	0.000324		
	30	-12.11	-0.006441		
	40	-5.36	-0.002851		
	50	-15.17	-0.008069		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-1.16	-0.000617	Within authorized band for PCS 1900	Pass
	3.87	-9.33	-0.004963		
	4.45	-6.75	-0.003590		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

Reference Frequency: EGPRS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.87	-30	-7.30	-0.003883	Within authorized band for PCS 1900	Pass
	-20	-13.04	-0.006936		
	-10	-5.04	-0.002681		
	0	-5.39	-0.002867		
	10	-5.13	-0.002729		
	20	-7.75	-0.004122		
	30	-11.69	-0.006218		
	40	-8.17	-0.004346		
	50	-12.66	-0.006734		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-8.27	-0.004399	Within authorized band for PCS 1900	Pass
	3.87	-12.01	-0.006388		
	4.45	-12.56	-0.006681		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

Appendix G: Modulation Characteristics

Test Result

Band	Channel	Result	Verdict
GSM850	190	PASS	PASS
EGPRS850	190	PASS	PASS
GSM1900	661	PASS	PASS
EGPRS1900	661	PASS	PASS

Remark: All channel had been tested, but only the worst case data displayed in this report.

Test Graphs

