



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	33.04	32.61	38.45	PASS
GSM850	190	5	33.10	32.67	38.45	PASS
GSM850	251	5	33.03	32.6	38.45	PASS
GSM1900	512	0	29.65	31.37	33.00	PASS
GSM1900	661	0	30.30	32.02	33.00	PASS
GSM1900	810	0	30.06	31.78	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.02	32.59	38.45	PASS
GPRS850	128	5	2	32.93	32.5	38.45	PASS
GPRS850	128	5	3	30.88	30.45	38.45	PASS
GPRS850	128	5	4	29.64	29.21	38.45	PASS
GPRS850	190	5	1	33.08	32.65	38.45	PASS
GPRS850	190	5	2	33.02	32.59	38.45	PASS
GPRS850	190	5	3	31.01	30.58	38.45	PASS
GPRS850	190	5	4	29.83	29.4	38.45	PASS
GPRS850	251	5	1	33.00	32.57	38.45	PASS
GPRS850	251	5	2	32.94	32.51	38.45	PASS
GPRS850	251	5	3	30.97	30.54	38.45	PASS
GPRS850	251	5	4	29.81	29.38	38.45	PASS
GPRS1900	512	0	1	29.64	31.36	33.00	PASS
GPRS1900	512	0	2	28.76	30.48	33.00	PASS
GPRS1900	512	0	3	26.80	28.52	33.00	PASS
GPRS1900	512	0	4	25.59	27.31	33.00	PASS
GPRS1900	661	0	1	30.27	31.99	33.00	PASS
GPRS1900	661	0	2	29.42	31.14	33.00	PASS
GPRS1900	661	0	3	27.52	29.24	33.00	PASS
GPRS1900	661	0	4	26.37	28.09	33.00	PASS
GPRS1900	810	0	1	30.04	31.76	33.00	PASS
GPRS1900	810	0	2	29.25	30.97	33.00	PASS
GPRS1900	810	0	3	27.46	29.18	33.00	PASS
GPRS1900	810	0	4	26.37	28.09	33.00	PASS



Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.91	27.48	38.45	PASS
EGPRS850	128	8	2	26.93	26.5	38.45	PASS
EGPRS850	128	8	3	24.79	24.36	38.45	PASS
EGPRS850	128	8	4	23.67	23.24	38.45	PASS
EGPRS850	190	8	1	27.69	27.26	38.45	PASS
EGPRS850	190	8	2	26.66	26.23	38.45	PASS
EGPRS850	190	8	3	24.58	24.15	38.45	PASS
EGPRS850	190	8	4	23.44	23.01	38.45	PASS
EGPRS850	251	8	1	27.84	27.41	38.45	PASS
EGPRS850	251	8	2	26.83	26.4	38.45	PASS
EGPRS850	251	8	3	24.68	24.25	38.45	PASS
EGPRS850	251	8	4	23.58	23.15	38.45	PASS
EGPRS1900	512	2	1	25.59	27.31	33.00	PASS
EGPRS1900	512	2	2	24.40	26.12	33.00	PASS
EGPRS1900	512	2	3	22.24	23.96	33.00	PASS
EGPRS1900	512	2	4	20.99	22.71	33.00	PASS
EGPRS1900	661	2	1	25.82	27.54	33.00	PASS
EGPRS1900	661	2	2	24.64	26.36	33.00	PASS
EGPRS1900	661	2	3	22.46	24.18	33.00	PASS
EGPRS1900	661	2	4	21.17	22.89	33.00	PASS
EGPRS1900	810	2	1	25.11	26.83	33.00	PASS
EGPRS1900	810	2	2	23.93	25.65	33.00	PASS
EGPRS1900	810	2	3	21.79	23.51	33.00	PASS
EGPRS1900	810	2	4	20.43	22.15	33.00	PASS

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

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



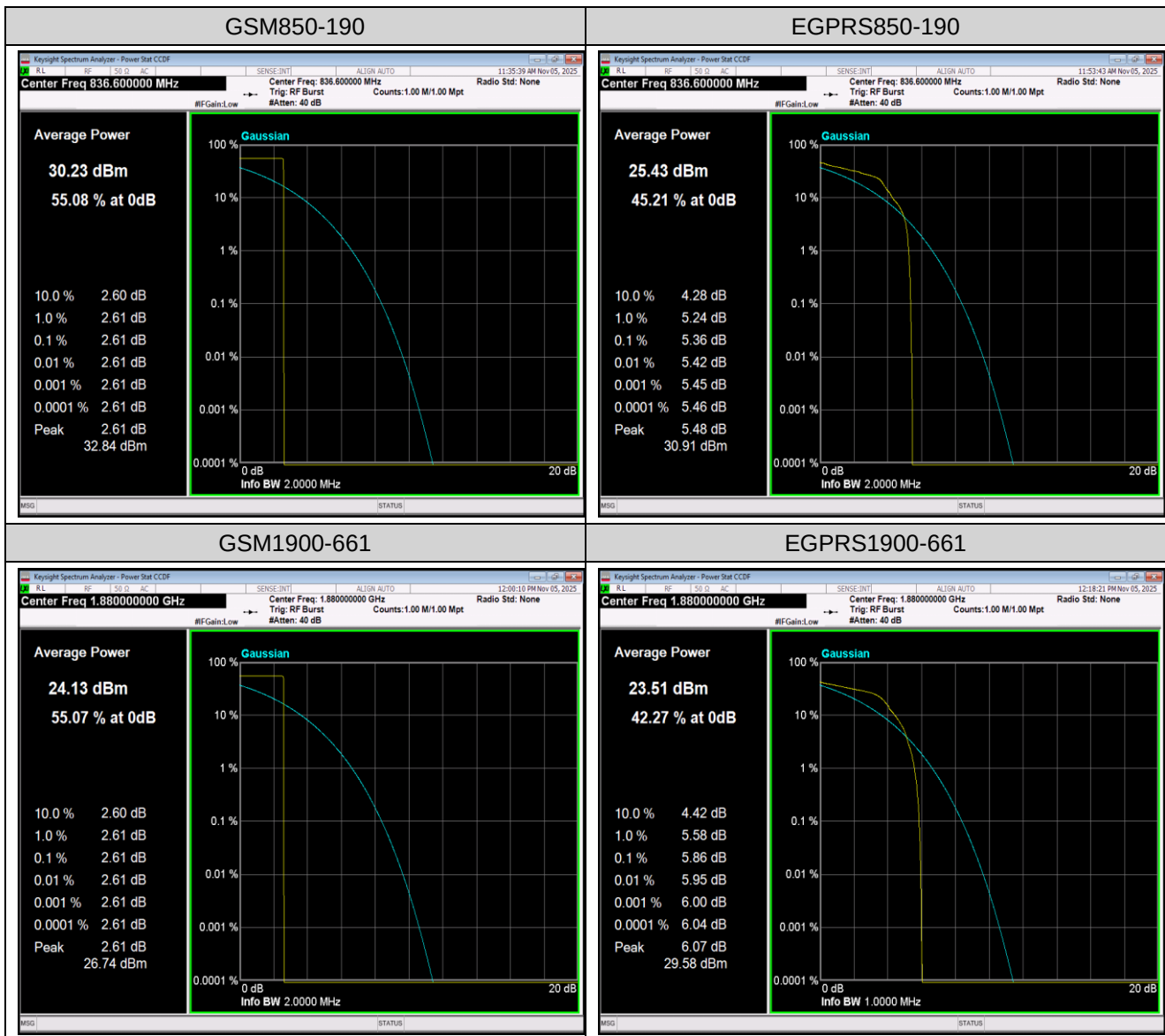
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.61	13	PASS
EGPRS850	190	8	5.36	13	PASS
GSM1900	661	0	2.61	13	PASS
EGPRS1900	661	2	5.86	13	PASS

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

Test Graphs



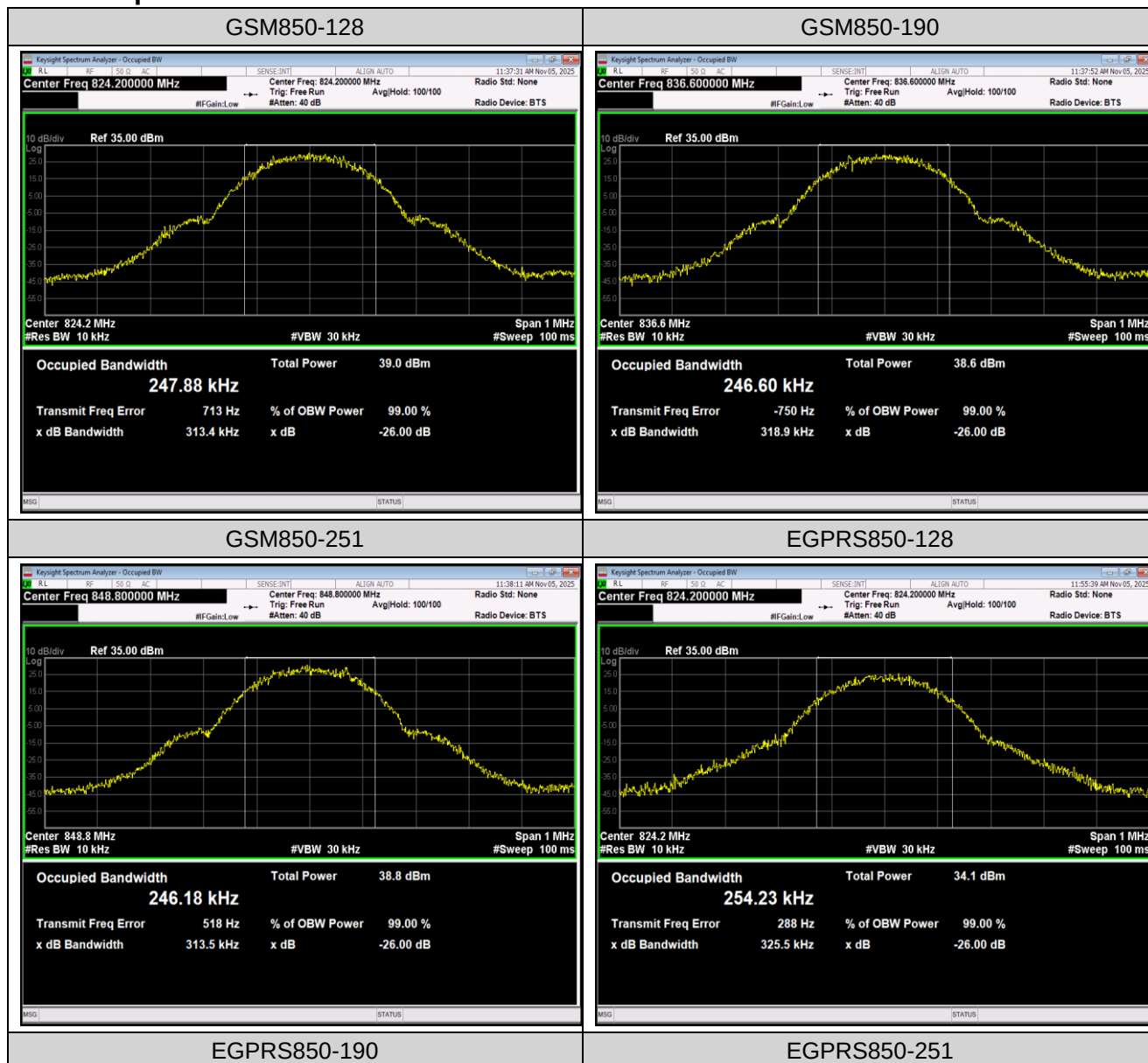
Appendix C: 26dB Bandwidth and Occupied Bandwidth

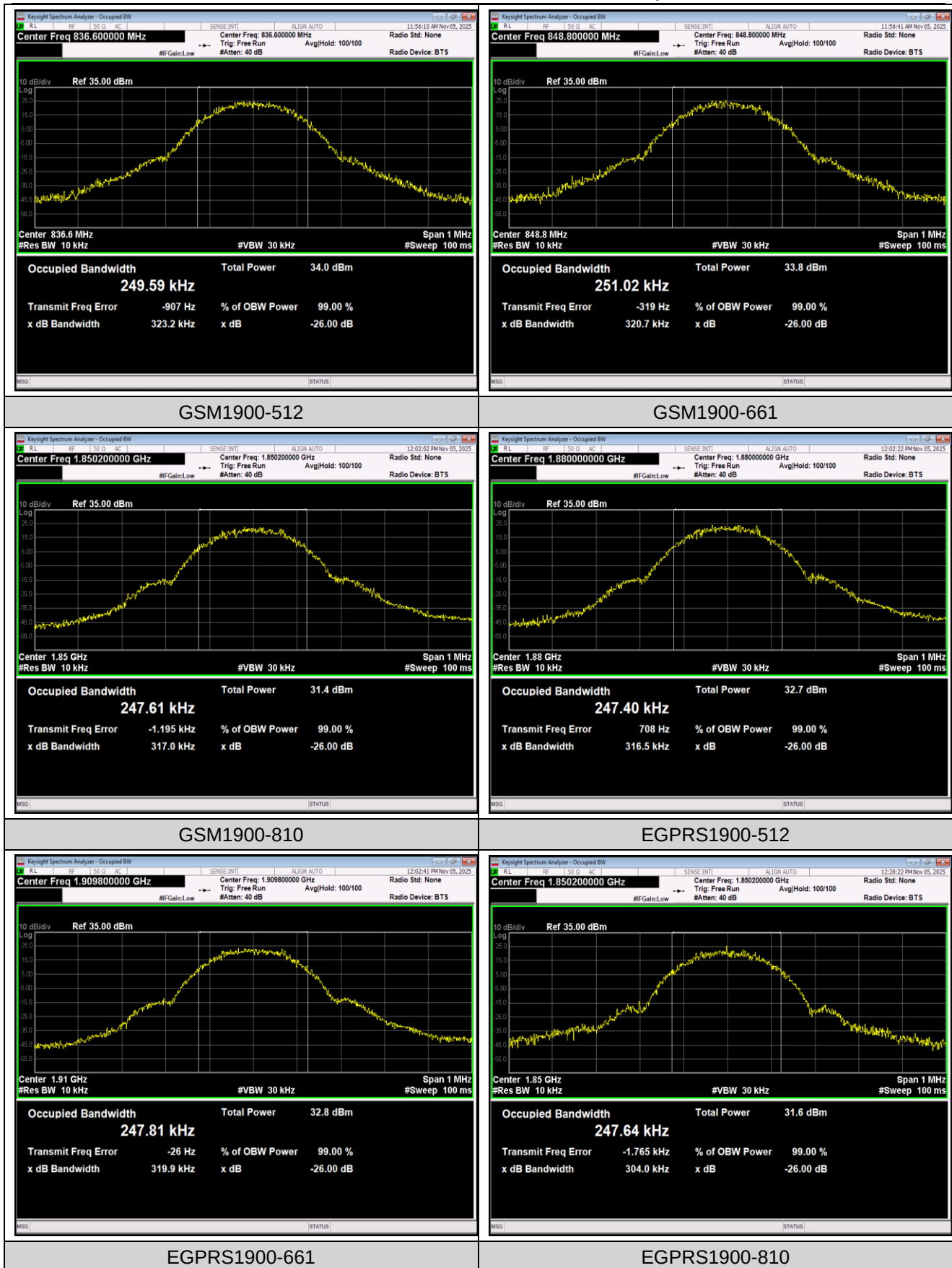
Test Result

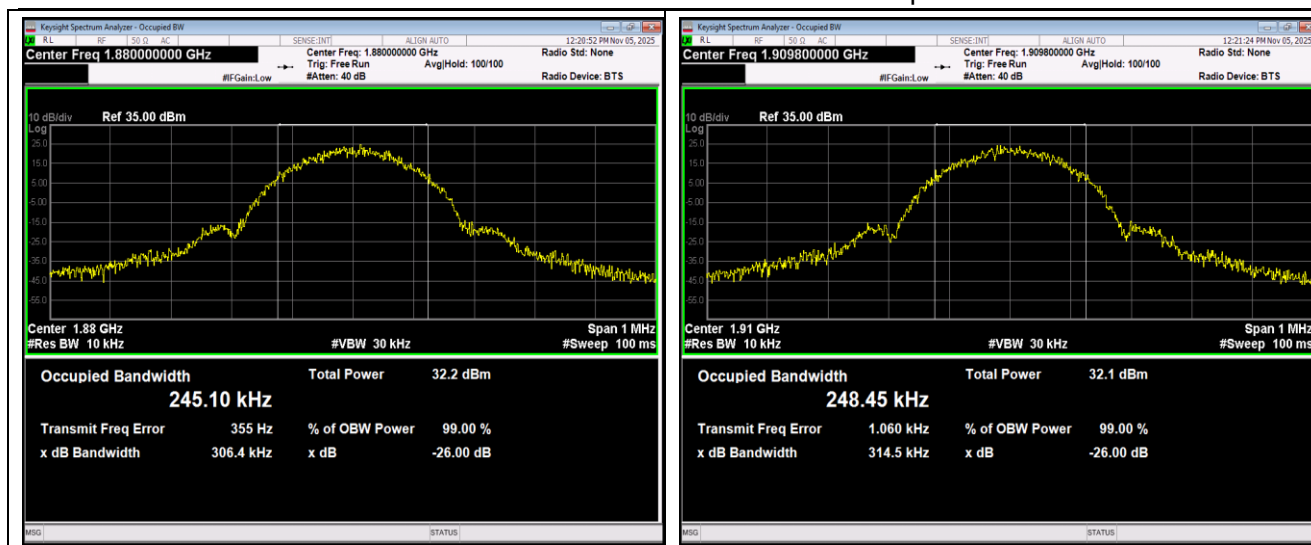
Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24788	0.3134	---	PASS
GSM850	190	5	0.24660	0.3189	---	PASS
GSM850	251	5	0.24618	0.3135	---	PASS
EGPRS850	128	8	0.25423	0.3255	---	PASS
EGPRS850	190	8	0.24959	0.3232	---	PASS
EGPRS850	251	8	0.25102	0.3207	---	PASS
GSM1900	512	0	0.24761	0.3170	---	PASS
GSM1900	661	0	0.24740	0.3165	---	PASS
GSM1900	810	0	0.24781	0.3199	---	PASS
EGPRS1900	512	2	0.24764	0.3040	---	PASS
EGPRS1900	661	2	0.24510	0.3064	---	PASS
EGPRS1900	810	2	0.24845	0.3145	---	PASS



Test Graphs







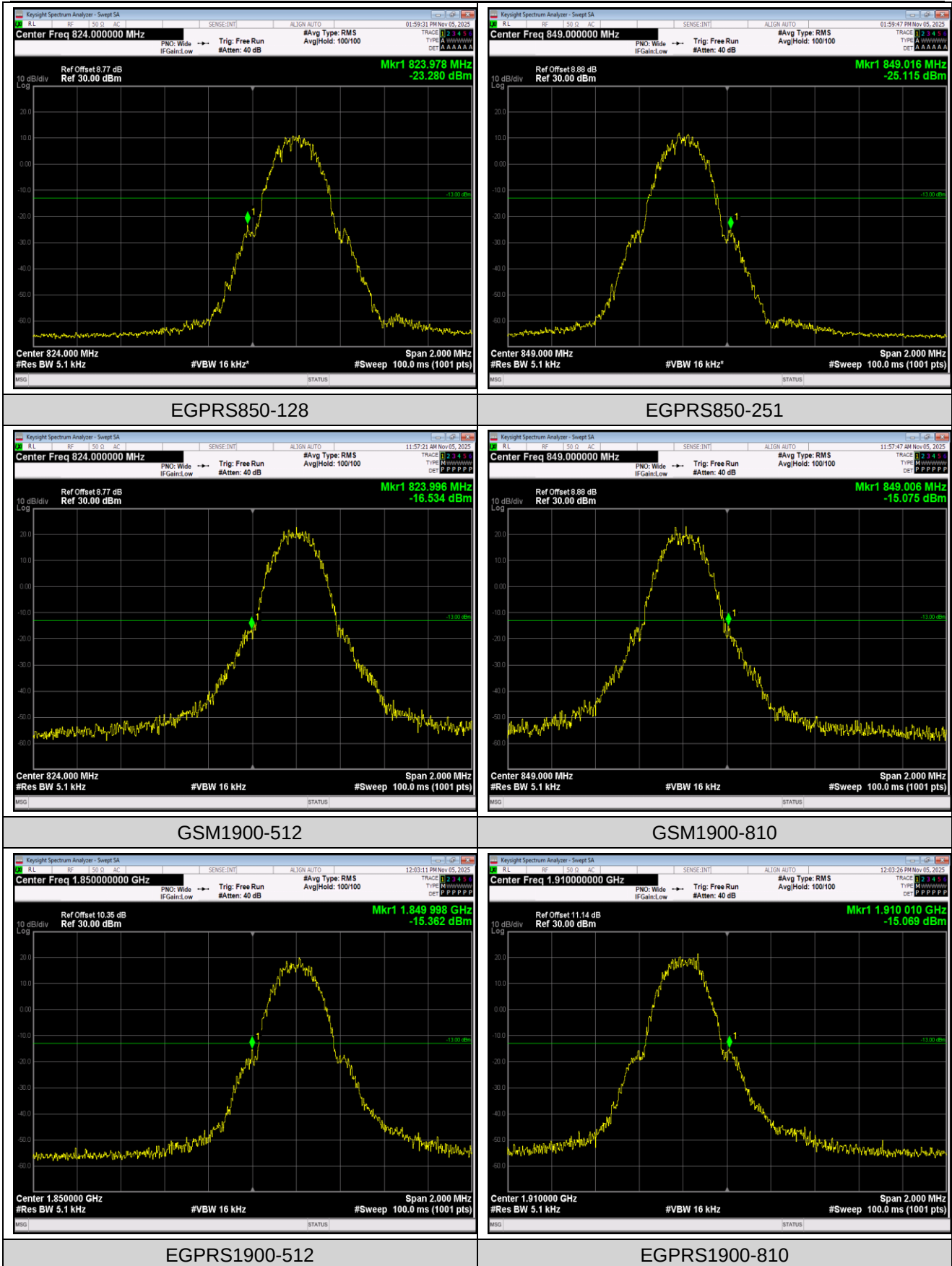
Appendix D: Band Edge

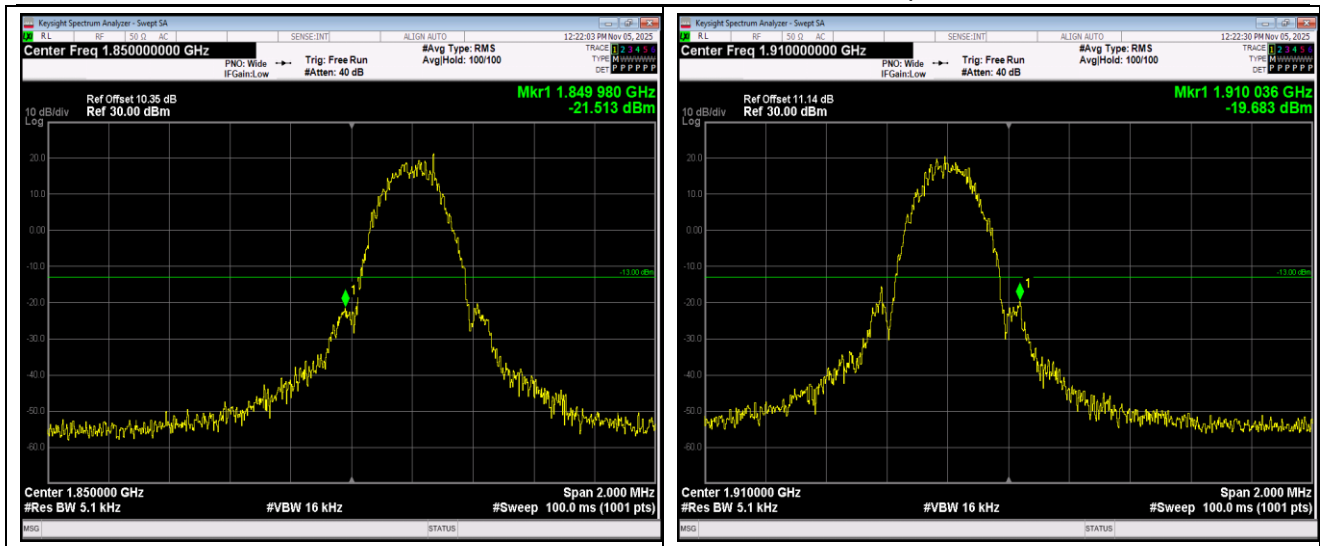
Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-23.28	-13	PASS
GSM850	251	5	849.02	-25.11	-13	PASS
EGPRS850	128	8	824.00	-16.53	-13	PASS
EGPRS850	251	8	849.01	-15.07	-13	PASS
GSM1900	512	0	1850.00	-15.36	-13	PASS
GSM1900	810	0	1910.01	-15.07	-13	PASS
EGPRS1900	512	2	1849.98	-21.51	-13	PASS
EGPRS1900	810	2	1910.04	-19.68	-13	PASS

Test Graphs

GSM850-128	GSM850-251
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Appendix E: Conducted Spurious Emission

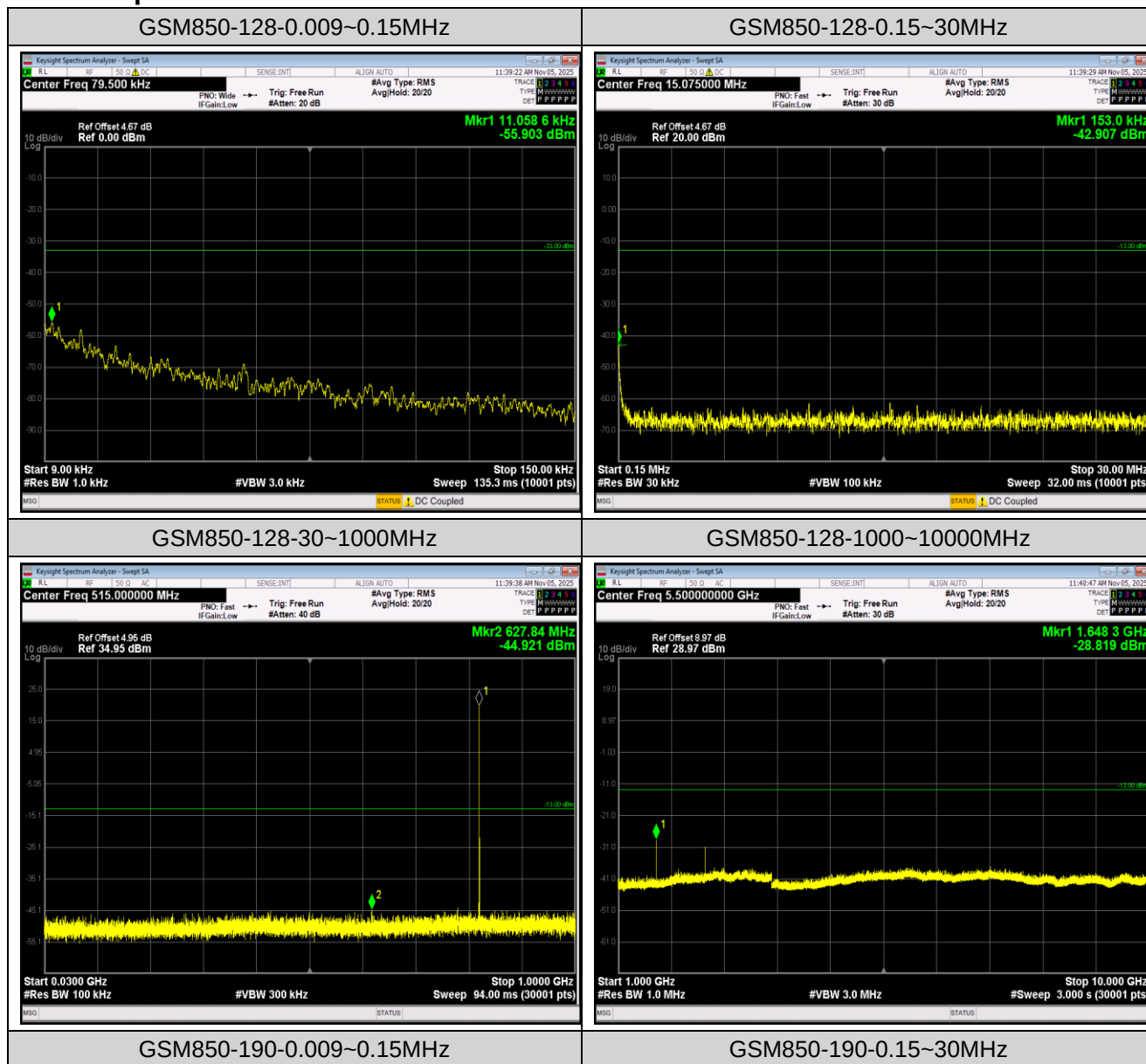
Test Result

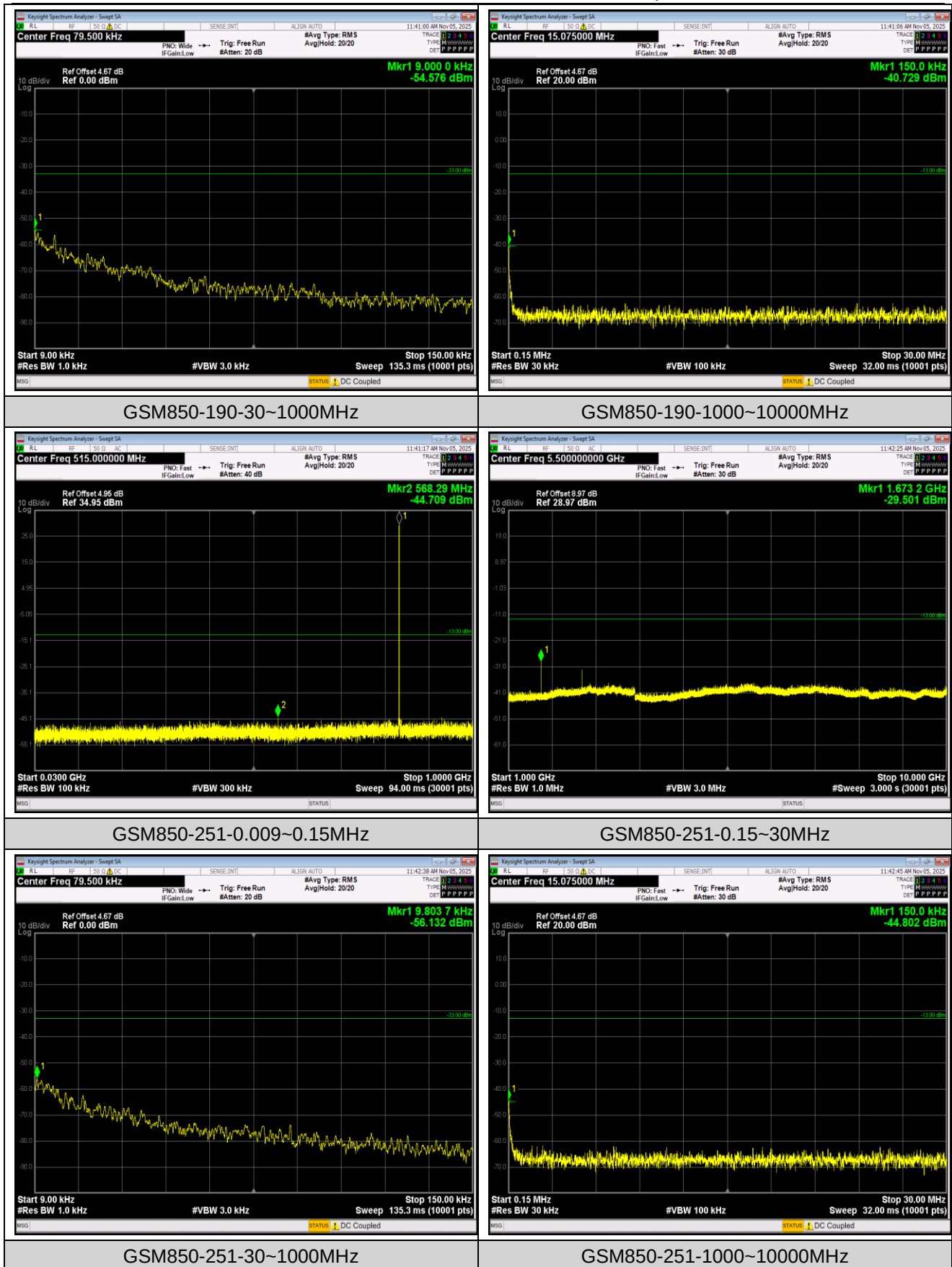
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-55.9	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-42.91	-13	PASS
GSM850	128	5	30~1000MHz	627.84	-44.92	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-28.82	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-54.58	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-40.73	-13	PASS
GSM850	190	5	30~1000MHz	568.29	-44.71	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-29.5	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-56.13	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-44.8	-13	PASS
GSM850	251	5	30~1000MHz	987.1	-45.03	-13	PASS
GSM850	251	5	1000~10000MHz	2545.9	-32.44	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-56.02	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-43.32	-23	PASS
GSM1900	512	0	30~1000MHz	819.29	-44.84	-13	PASS
GSM1900	512	0	1000~18000MHz	16734.07	-22.1	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-57.72	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-41.09	-23	PASS
GSM1900	661	0	30~1000MHz	59.81	-45.64	-13	PASS
GSM1900	661	0	1000~18000MHz	17011.17	-22.49	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-57.16	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-40.7	-23	PASS
GSM1900	810	0	30~1000MHz	954.86	-45.34	-13	PASS
GSM1900	810	0	1000~18000MHz	16492.67	-22.32	-13	PASS

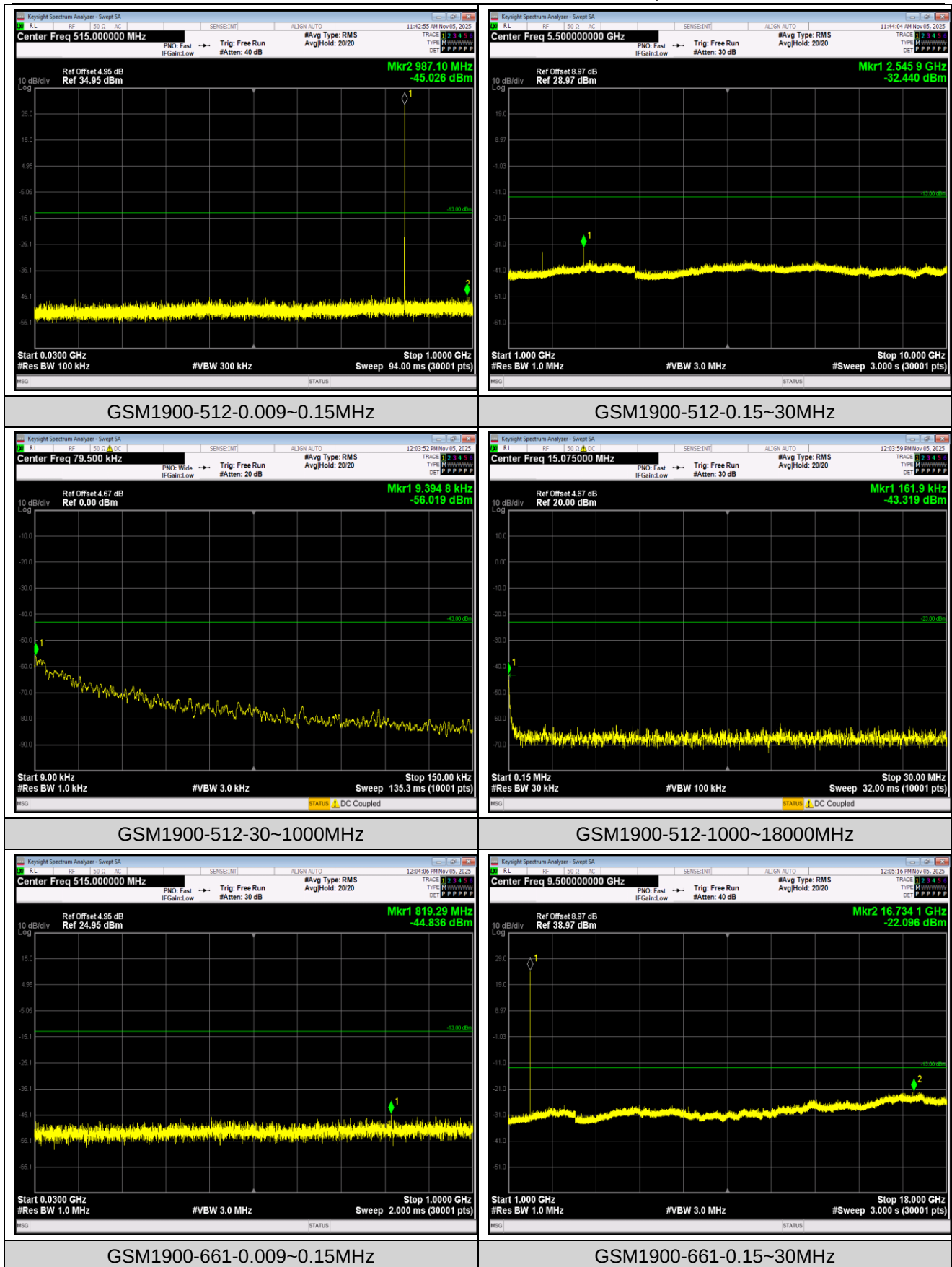
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

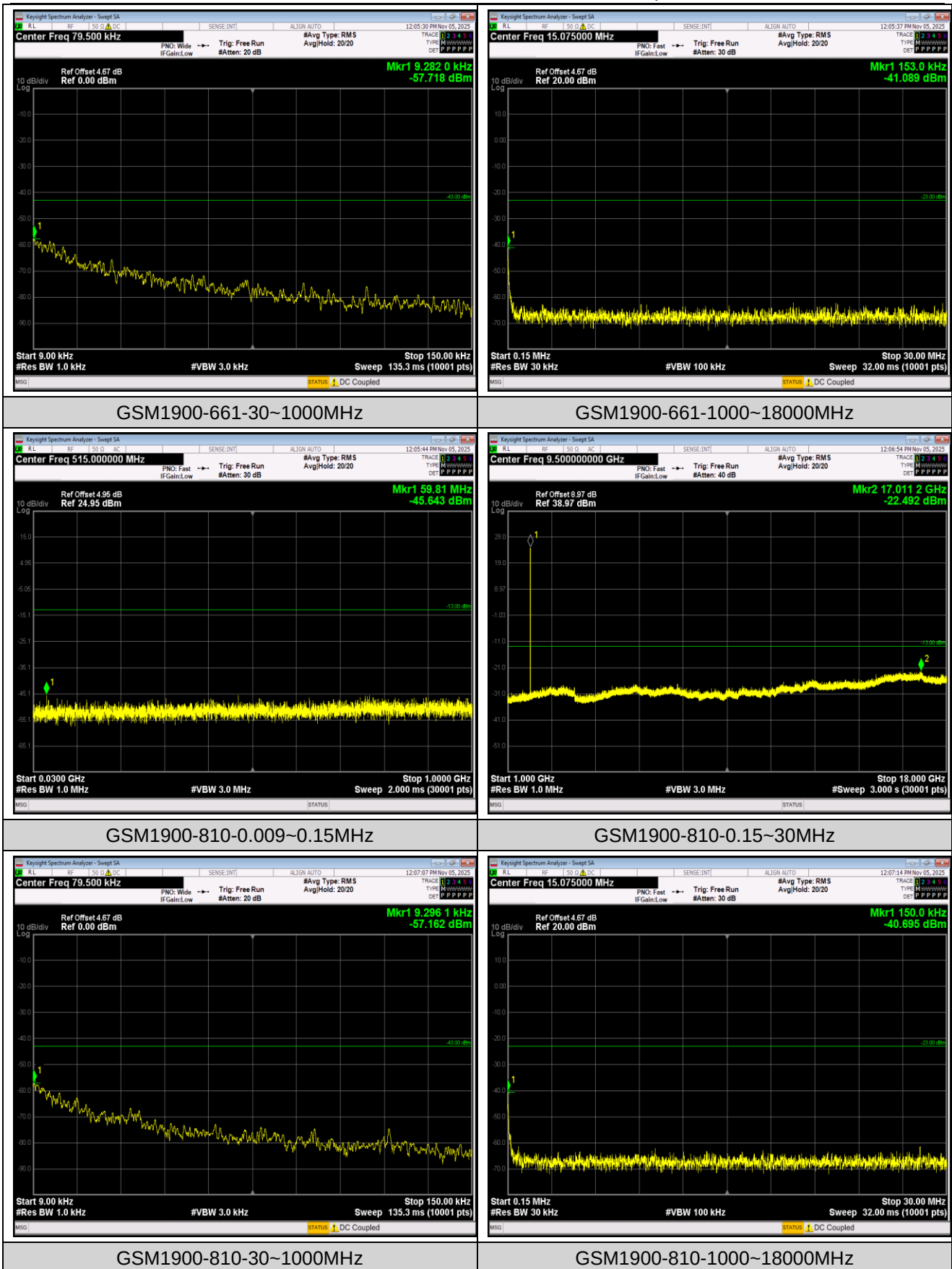


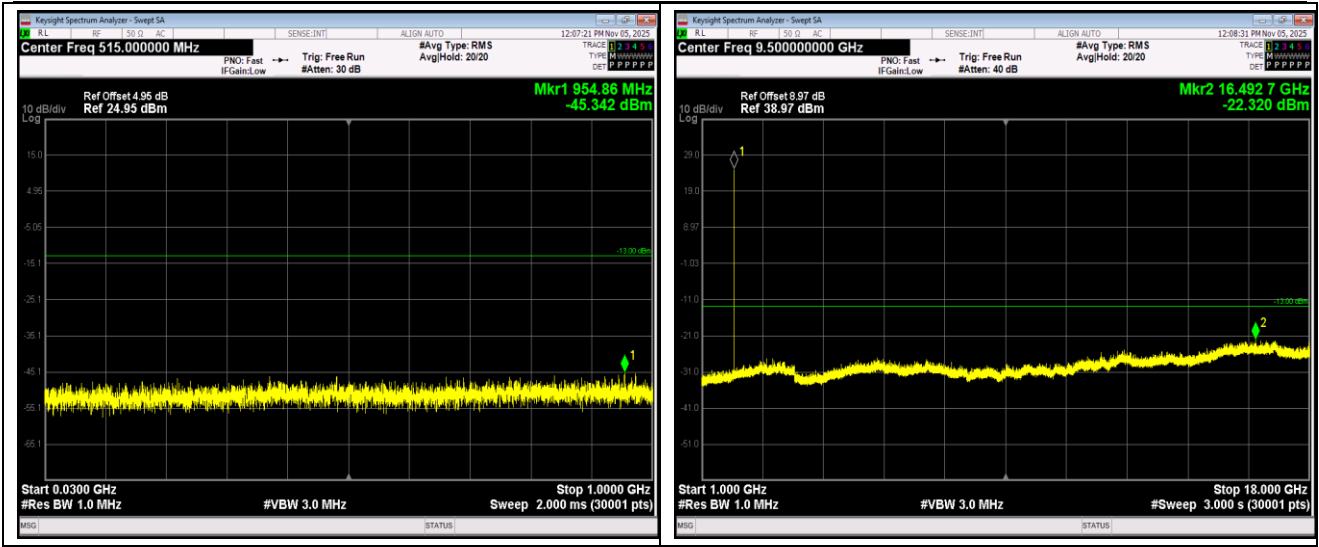
Test Graphs











Appendix F: Frequency Stability

Reference Frequency: GSM850 Middle channel=190 Frequency=836.6MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	-0.81	-0.000968	±2.5	Pass
	-20	1.74	0.002080		
	-10	-2.65	-0.003168		
	0	-0.68	-0.000813		
	10	1.45	0.001733		
	20	-1.16	-0.001387		
	30	2.49	0.002976		
	40	3.07	0.003670		
	50	2.10	0.002510		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	1.39	0.001661	±2.5	Pass
	3.80	-0.19	-0.000227		
	4.35	-0.90	-0.001076		
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		
3.80	-30	-5.78	-0.006909	±2.5	Pass
	-20	-0.81	-0.000968		
	-10	-0.97	-0.001159		
	0	-2.84	-0.003395		
	10	-2.20	-0.002630		
	20	-4.58	-0.005475		
	30	-6.42	-0.007674		
	40	-4.68	-0.005594		
	50	-2.16	-0.002582		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-2.87	-0.003431	±2.5	Pass
	3.80	-0.16	-0.000191		
	4.35	-2.29	-0.002737		
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		
3.80	-30	20.44	0.010872	Within authorized band for PCS 1900	Pass
	-20	13.43	0.007144		
	-10	24.34	0.012947		
	0	13.85	0.007367		
	10	23.37	0.012431		
	20	21.60	0.011489		
	30	28.19	0.014995		
	40	23.89	0.012707		
	50	16.82	0.008947		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	27.57	0.014665	Within authorized band for PCS 1900	Pass
	3.80	17.76	0.009447		
	4.35	23.31	0.012399		
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		
3.80	-30	-3.49	-0.001856	Within authorized band for PCS 1900	Pass
	-20	-5.75	-0.003059		
	-10	-2.00	-0.001064		
	0	-4.42	-0.002351		
	10	2.49	0.001324		
	20	4.52	0.002404		
	30	8.01	0.004261		
	40	4.55	0.002420		
	50	-0.52	-0.000277		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	4.97	0.002644	Within authorized band for PCS 1900	Pass
	3.80	-4.46	-0.002372		
	4.35	-2.23	-0.001186		
Remark: All channel had been tested, but only the worst case data displayed in this report.					



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

