

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	33.43	30.15	38.45	PASS
GSM850	190	5	34.29	31.01	38.45	PASS
GSM850	251	5	32.83	29.55	38.45	PASS
GSM1900	512	0	30.54	31.41	33.00	PASS
GSM1900	661	0	30.43	31.3	33.00	PASS
GSM1900	810	0	30.25	31.12	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.36	30.08	38.45	PASS
GPRS850	128	5	2	32.43	29.15	38.45	PASS
GPRS850	128	5	3	30.81	27.53	38.45	PASS
GPRS850	128	5	4	30.08	26.8	38.45	PASS
GPRS850	190	5	1	34.38	31.1	38.45	PASS
GPRS850	190	5	2	33.31	30.03	38.45	PASS
GPRS850	190	5	3	31.57	28.29	38.45	PASS
GPRS850	190	5	4	30.88	27.6	38.45	PASS
GPRS850	251	5	1	32.95	29.67	38.45	PASS
GPRS850	251	5	2	31.55	28.27	38.45	PASS
GPRS850	251	5	3	29.86	26.58	38.45	PASS
GPRS850	251	5	4	30.13	25.85	38.45	PASS
GPRS1900	512	0	1	30.46	31.33	33.00	PASS
GPRS1900	512	0	2	29.48	30.35	33.00	PASS
GPRS1900	512	0	3	27.77	28.64	33.00	PASS
GPRS1900	512	0	4	26.97	27.84	33.00	PASS
GPRS1900	661	0	1	30.34	31.21	33.00	PASS
GPRS1900	661	0	2	29.39	30.26	33.00	PASS
GPRS1900	661	0	3	27.67	28.54	33.00	PASS
GPRS1900	661	0	4	26.90	27.77	33.00	PASS
GPRS1900	810	0	1	30.20	31.07	33.00	PASS
GPRS1900	810	0	2	29.31	30.18	33.00	PASS
GPRS1900	810	0	3	27.65	28.52	33.00	PASS
GPRS1900	810	0	4	26.88	27.75	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	25.65	22.37	38.45	PASS
EGPRS850	128	8	2	24.55	21.27	38.45	PASS
EGPRS850	128	8	3	22.41	19.13	38.45	PASS
EGPRS850	128	8	4	21.31	18.03	38.45	PASS
EGPRS850	190	8	1	25.76	22.48	38.45	PASS
EGPRS850	190	8	2	24.73	21.45	38.45	PASS
EGPRS850	190	8	3	22.55	19.27	38.45	PASS
EGPRS850	190	8	4	21.42	18.14	38.45	PASS
EGPRS850	251	8	1	25.88	22.6	38.45	PASS
EGPRS850	251	8	2	24.81	21.53	38.45	PASS
EGPRS850	251	8	3	22.73	19.45	38.45	PASS
EGPRS850	251	8	4	21.51	18.23	38.45	PASS
EGPRS1900	512	2	1	23.81	24.68	33.00	PASS
EGPRS1900	512	2	2	22.66	23.53	33.00	PASS
EGPRS1900	512	2	3	20.50	21.37	33.00	PASS
EGPRS1900	512	2	4	19.31	20.18	33.00	PASS
EGPRS1900	661	2	1	24.01	24.88	33.00	PASS
EGPRS1900	661	2	2	22.86	23.73	33.00	PASS
EGPRS1900	661	2	3	20.77	21.64	33.00	PASS
EGPRS1900	661	2	4	19.51	20.38	33.00	PASS
EGPRS1900	810	2	1	23.79	24.66	33.00	PASS
EGPRS1900	810	2	2	22.72	23.59	33.00	PASS
EGPRS1900	810	2	3	20.61	21.48	33.00	PASS
EGPRS1900	810	2	4	19.40	20.27	33.00	PASS

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

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

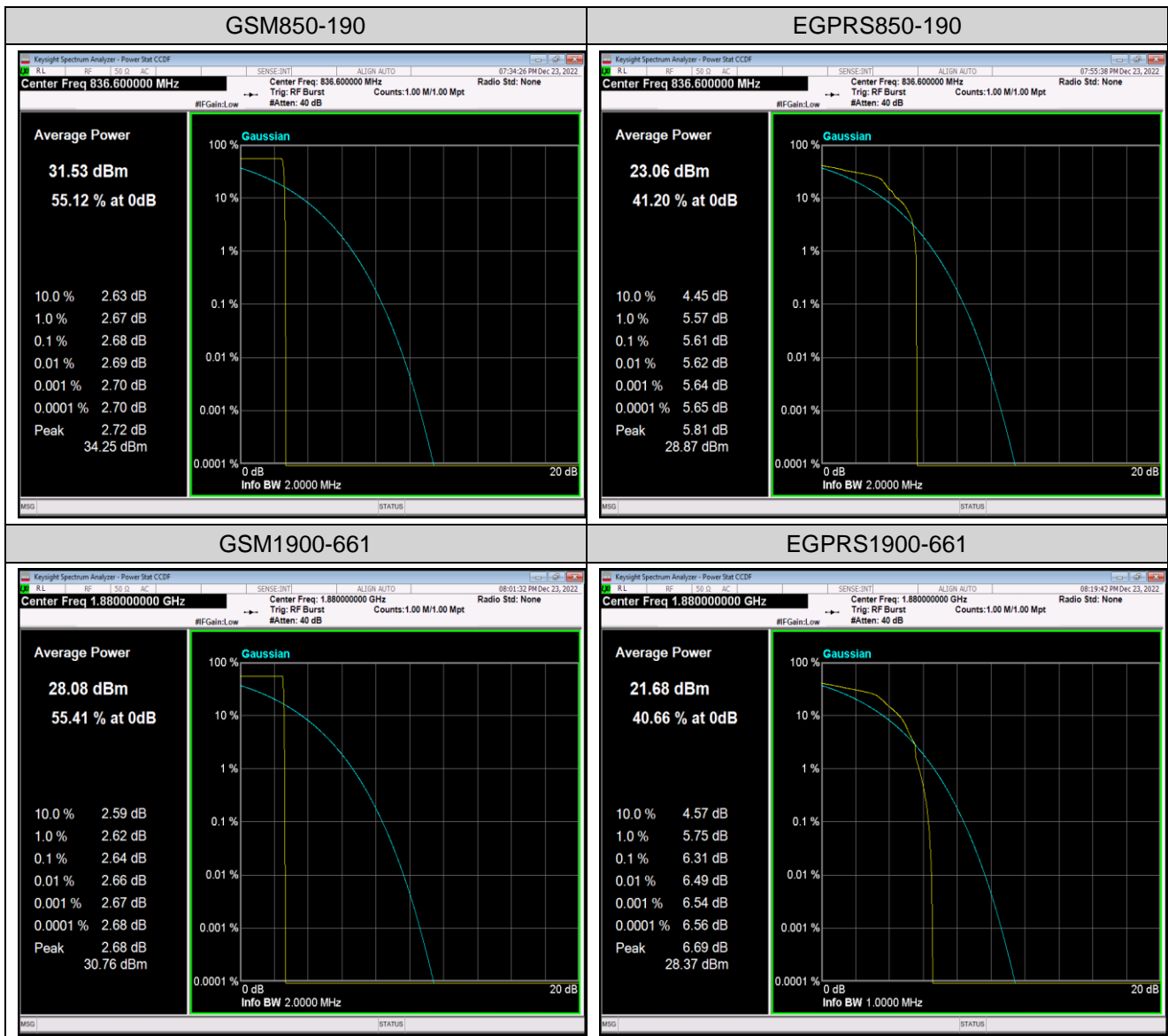
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.68	13	PASS
EGPRS850	190	8	5.61	13	PASS
GSM1900	661	0	2.64	13	PASS
EGPRS1900	661	2	6.31	13	PASS

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

Test Graphs

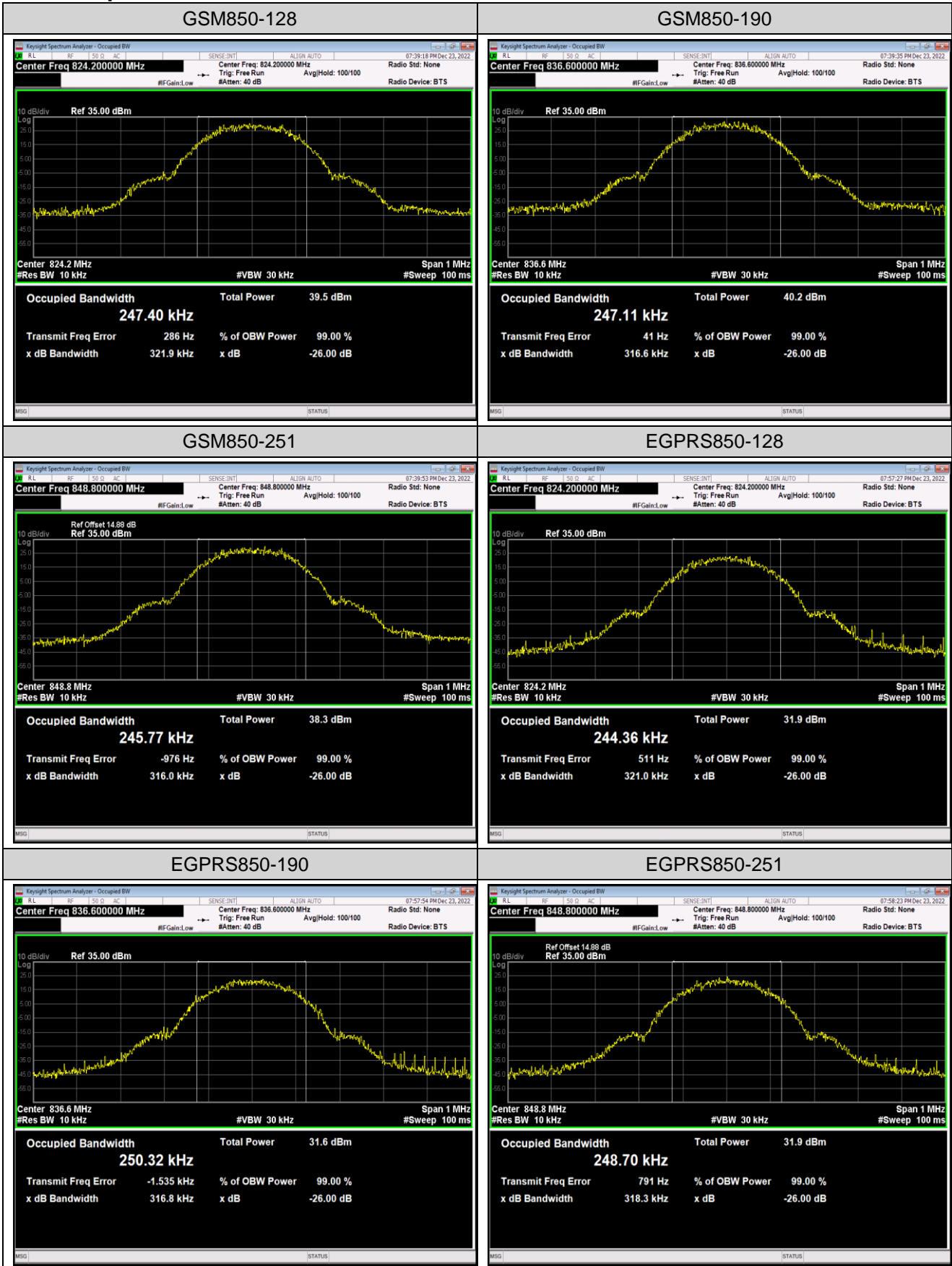


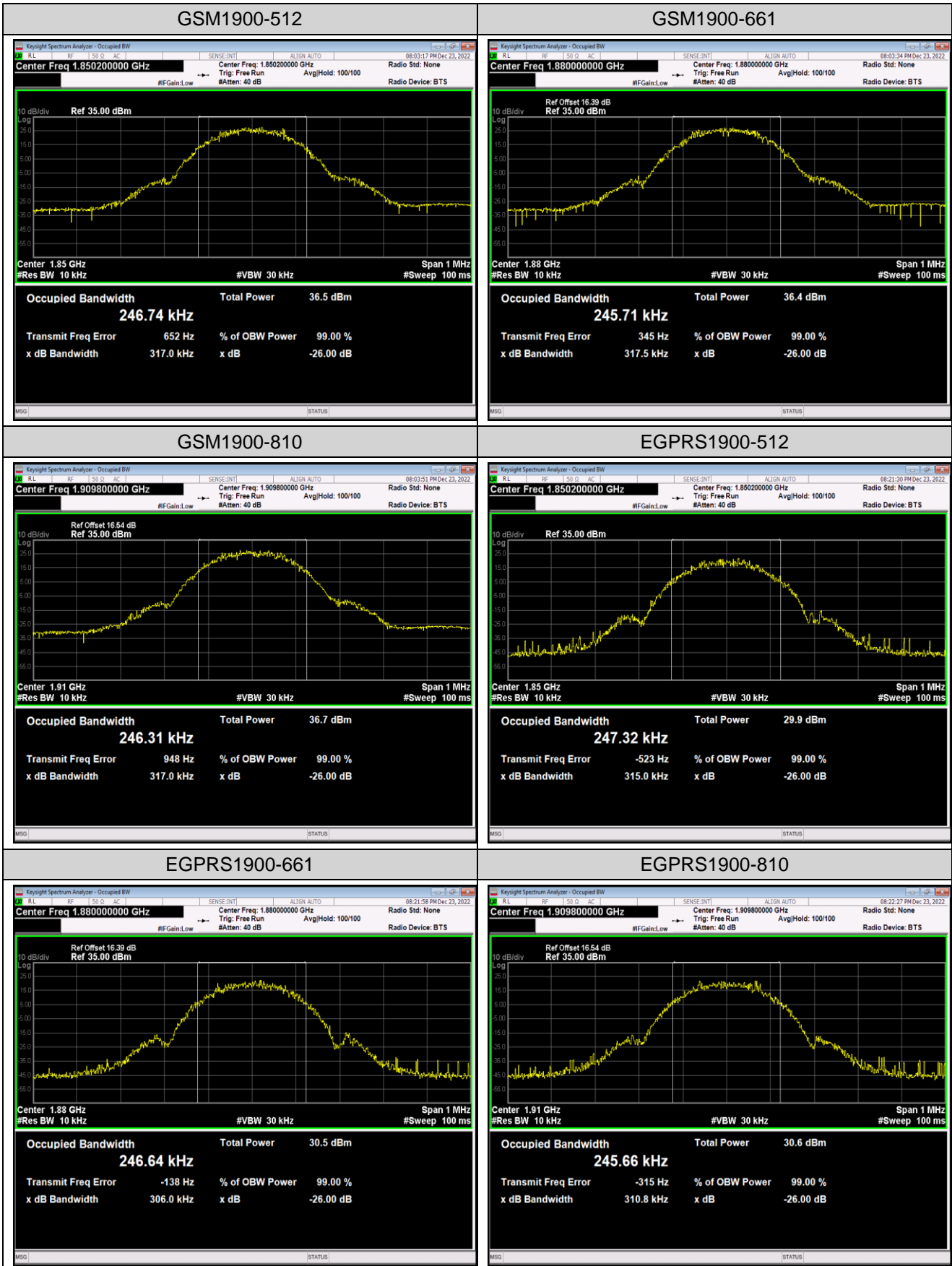
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24740	0.3219	---	PASS
GSM850	190	5	0.24711	0.3166	---	PASS
GSM850	251	5	0.24577	0.3160	---	PASS
EGPRS850	128	8	0.24436	0.3210	---	PASS
EGPRS850	190	8	0.25032	0.3168	---	PASS
EGPRS850	251	8	0.24870	0.3183	---	PASS
GSM1900	512	0	0.24674	0.3170	---	PASS
GSM1900	661	0	0.24571	0.3175	---	PASS
GSM1900	810	0	0.24631	0.3170	---	PASS
EGPRS1900	512	2	0.24732	0.3150	---	PASS
EGPRS1900	661	2	0.24664	0.3060	---	PASS
EGPRS1900	810	2	0.24566	0.3108	---	PASS

Test Graphs

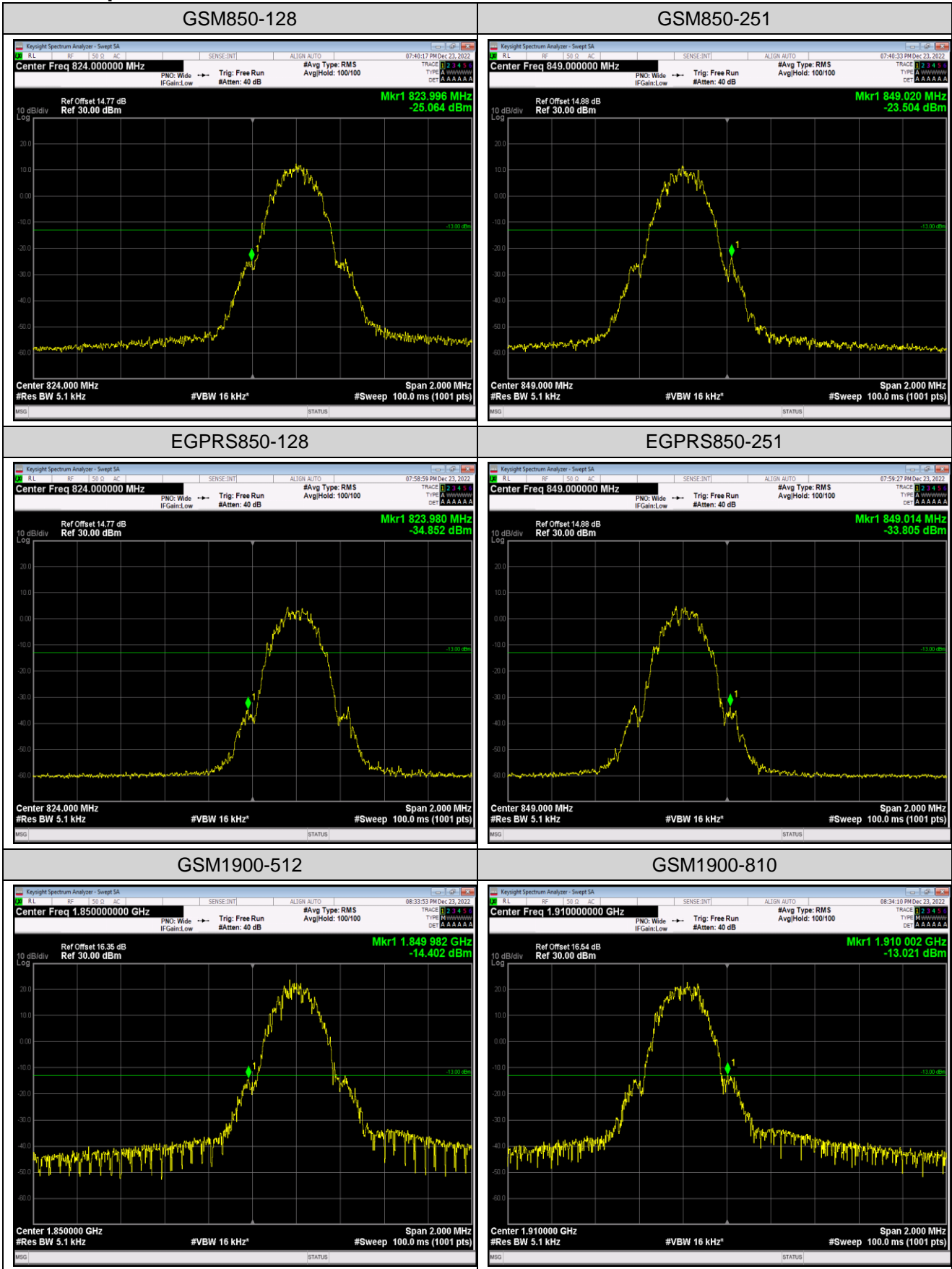


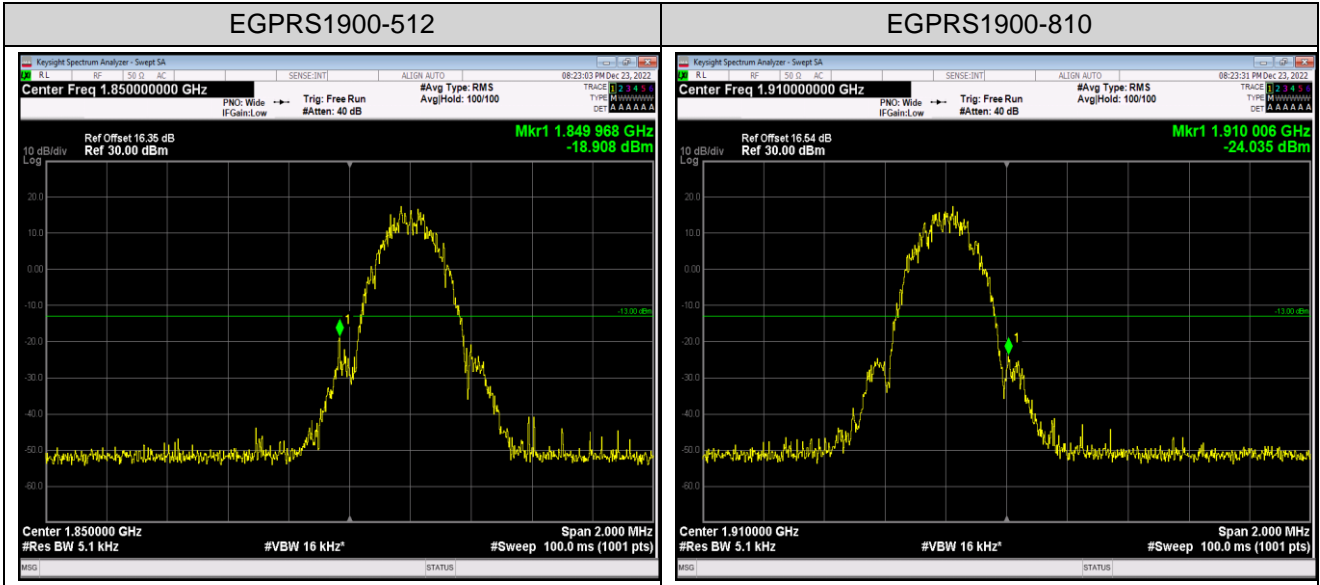


Appendix D: Band Edge**Test Result**

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-25.06	-13	PASS
GSM850	251	5	849.02	-23.50	-13	PASS
EGPRS850	128	8	823.98	-34.85	-13	PASS
EGPRS850	251	8	849.01	-33.81	-13	PASS
GSM1900	512	0	1849.98	-14.40	-13	PASS
GSM1900	810	0	1910.00	-13.02	-13	PASS
EGPRS1900	512	2	1849.97	-18.91	-13	PASS
EGPRS1900	810	2	1910.01	-24.03	-13	PASS

Test Graphs





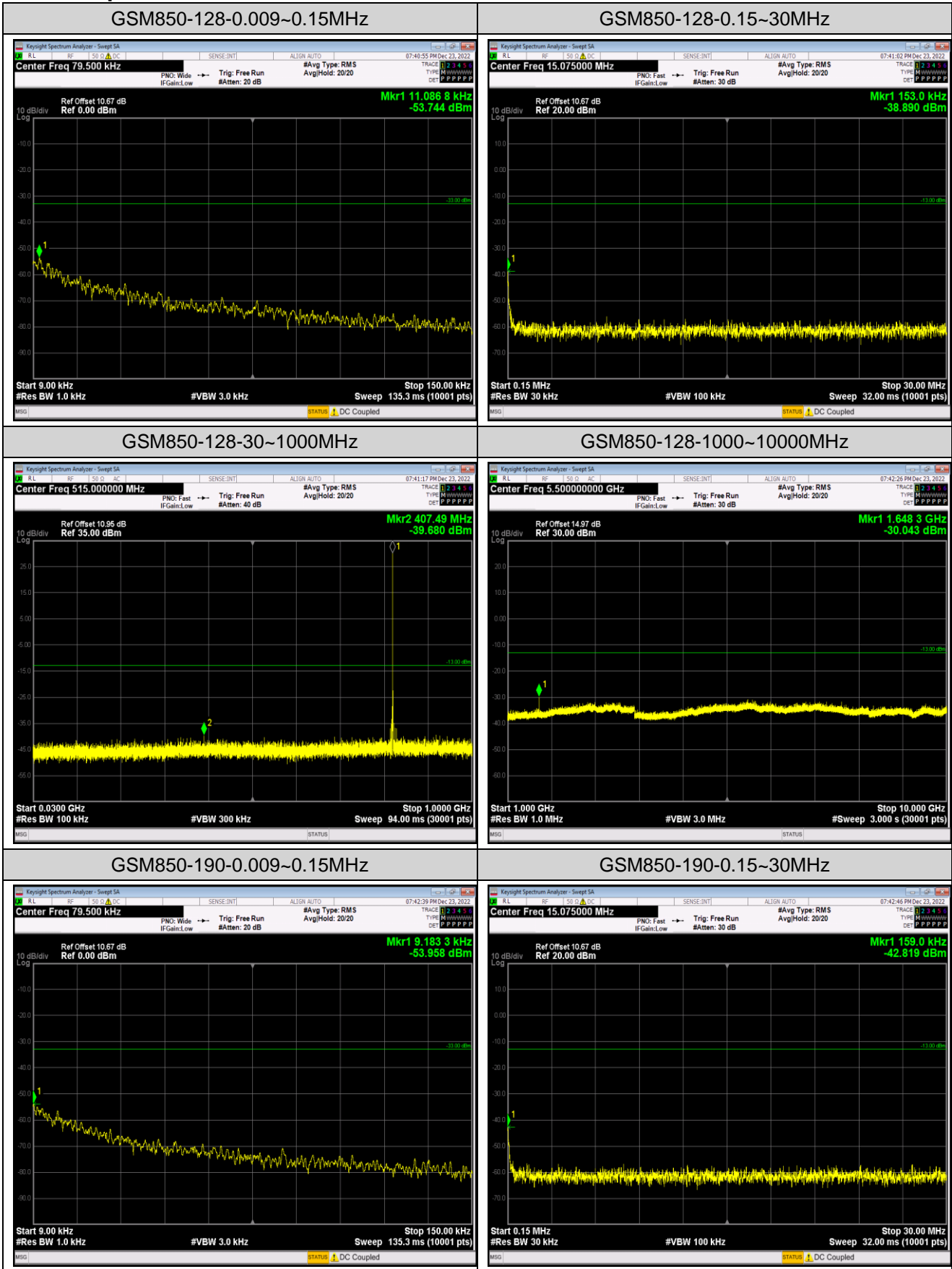
Appendix E: Conducted Spurious Emission

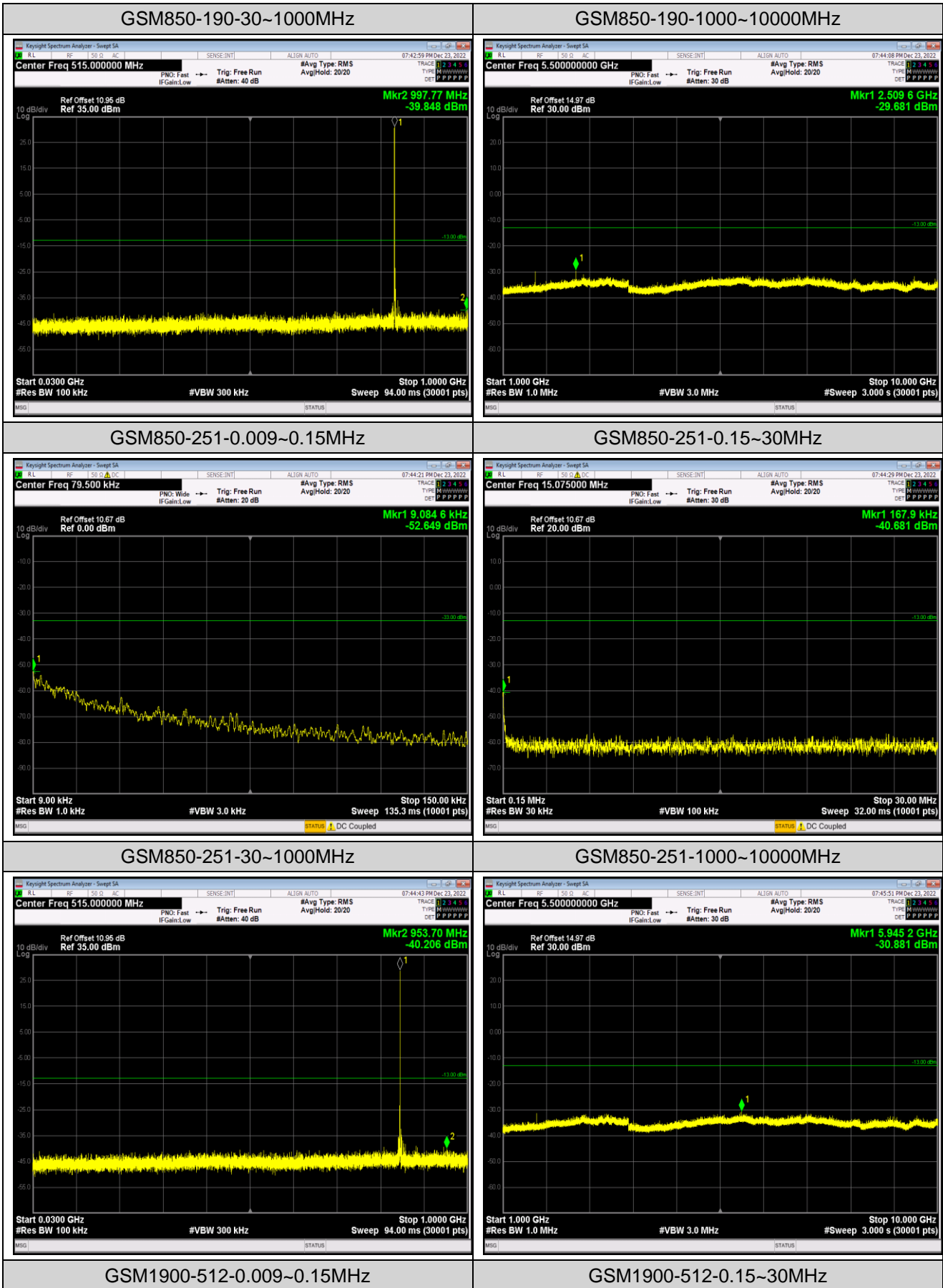
Test Result

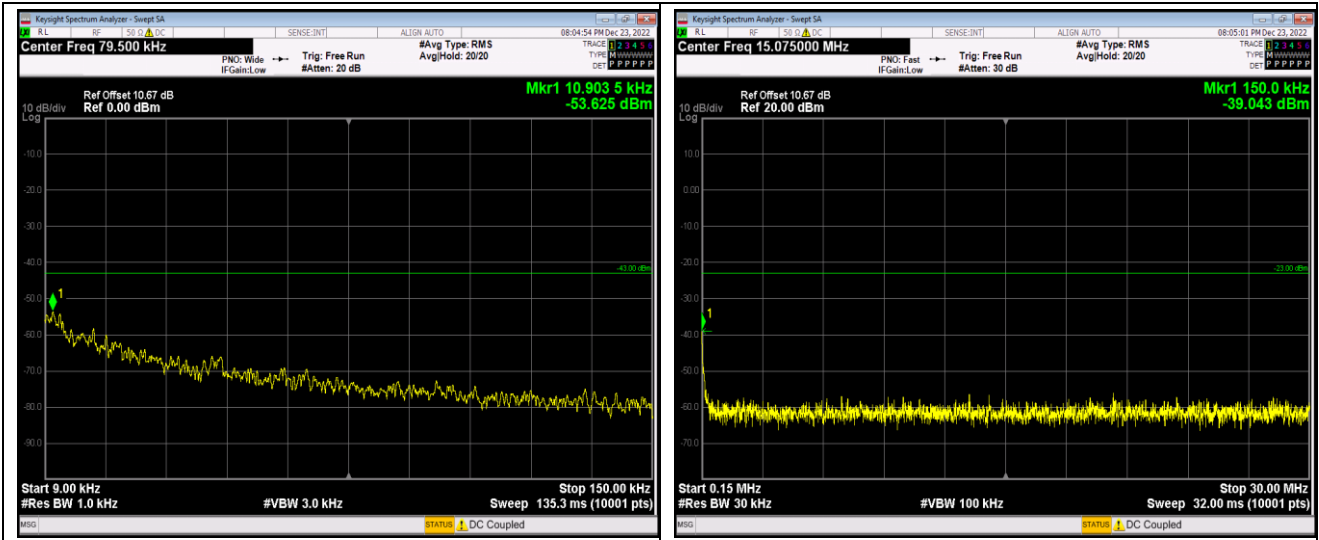
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-53.74	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-38.89	-13	PASS
GSM850	128	5	30~1000MHz	407.49	-39.68	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-30.04	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-53.96	-33	PASS
GSM850	190	5	0.15~30MHz	0.16	-42.82	-13	PASS
GSM850	190	5	30~1000MHz	997.77	-39.85	-13	PASS
GSM850	190	5	1000~10000MHz	2509.6	-29.68	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-52.65	-33	PASS
GSM850	251	5	0.15~30MHz	0.17	-40.68	-13	PASS
GSM850	251	5	30~1000MHz	953.7	-40.21	-13	PASS
GSM850	251	5	1000~10000MHz	5945.2	-30.88	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-53.63	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-39.04	-23	PASS
GSM1900	512	0	30~1000MHz	680.58	-39.46	-13	PASS
GSM1900	512	0	1000~18000MHz	17492.83	-26.42	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-53.48	-43	PASS
GSM1900	661	0	0.15~30MHz	0.18	-43.64	-23	PASS
GSM1900	661	0	30~1000MHz	443.58	-40.79	-13	PASS
GSM1900	661	0	1000~18000MHz	16765.23	-25.68	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-53.7	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-41.07	-23	PASS
GSM1900	810	0	30~1000MHz	787.57	-40.01	-13	PASS
GSM1900	810	0	1000~18000MHz	16395.2	-26.16	-13	PASS

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

Test Graphs

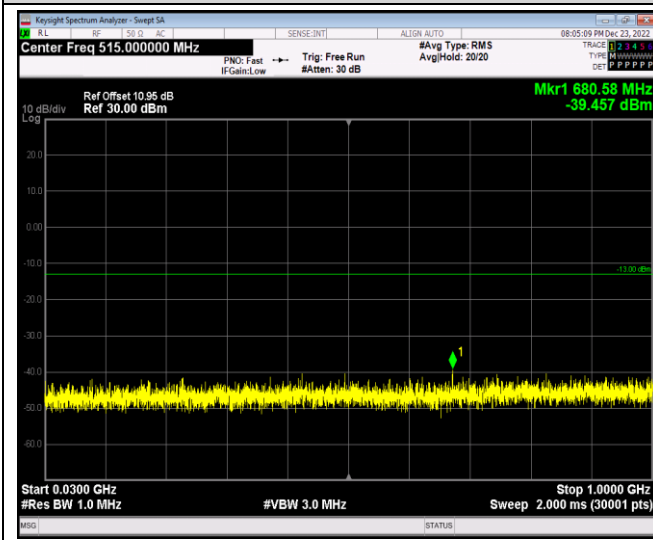




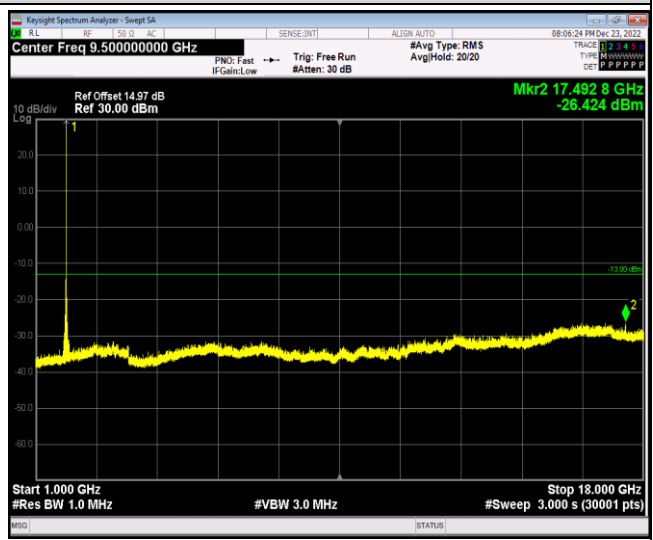


GSM1900-512-30~1000MHz

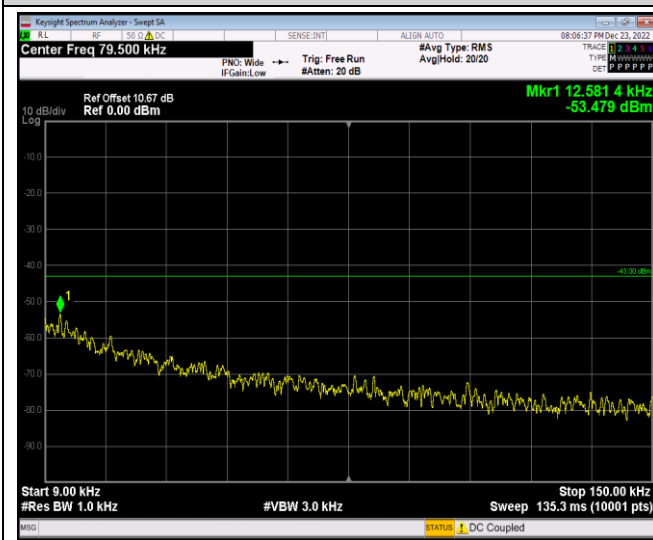
GSM1900-512-1000~18000MHz



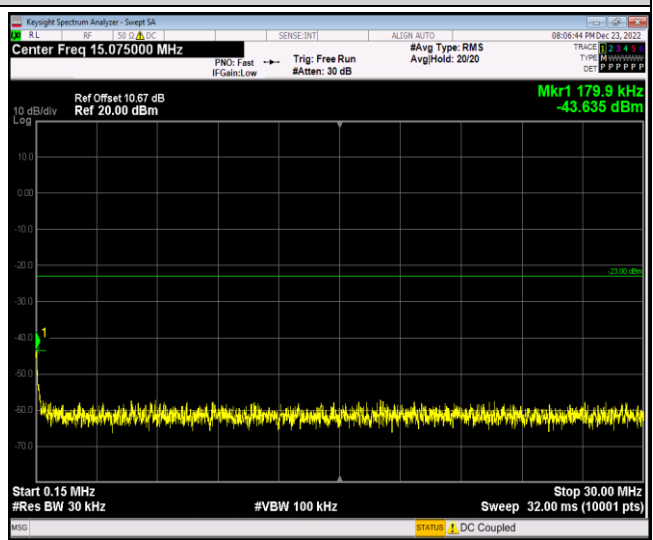
GSM1900-661-0.009~0.15MHz



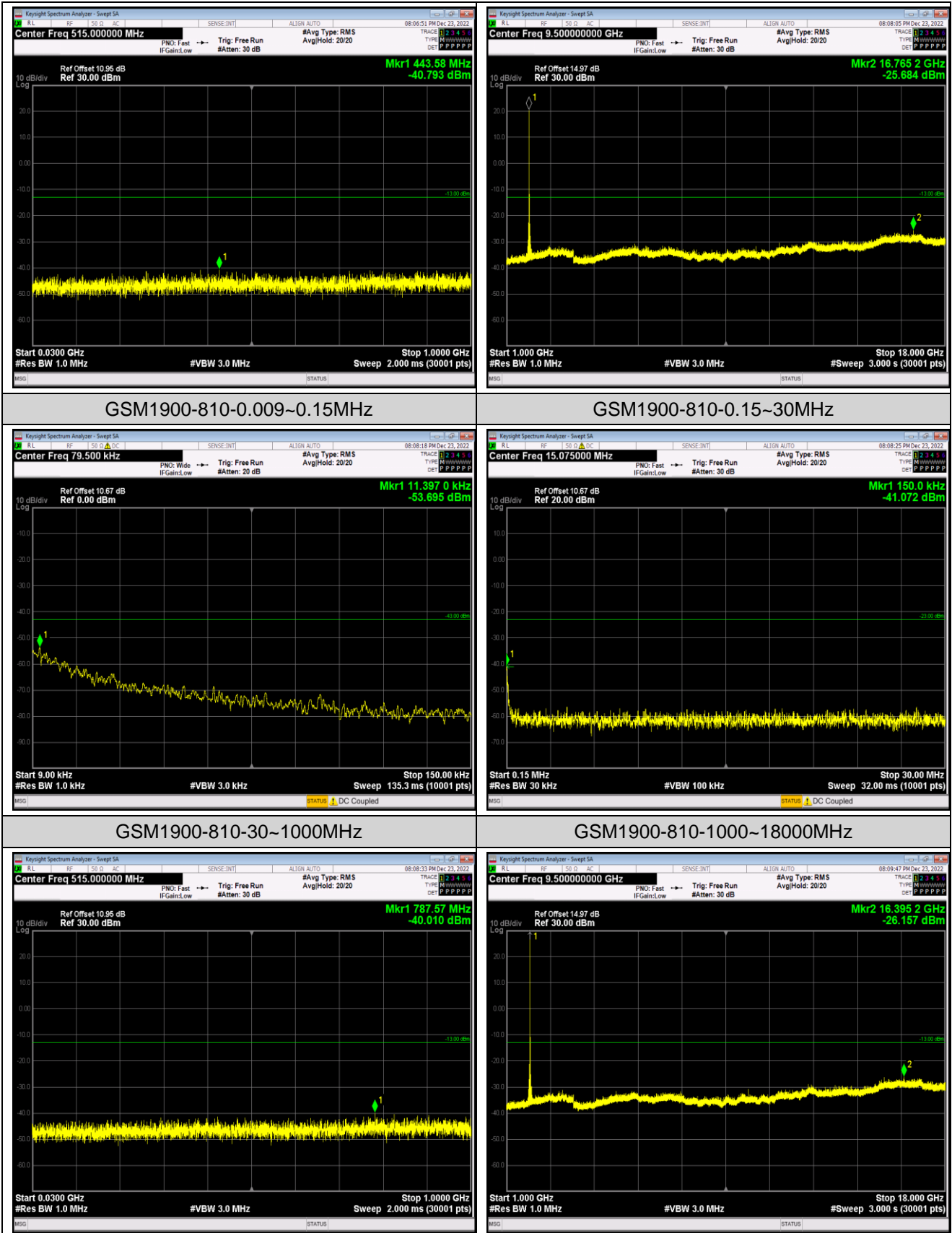
GSM1900-661-0.15~30MHz



GSM1900-661-30~1000MHz



GSM1900-661-1000~18000MHz



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		
3.80	-30	8.88	0.010614	±2.5	Pass
	-20	4.33	0.005176		
	-10	6.97	0.008331		
	0	6.04	0.007220		
	10	7.43	0.008881		
	20	3.75	0.004482		
	30	5.39	0.006443		
	40	1.10	0.001315		
	50	-0.10	-0.000120		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	7.81	0.009335	±2.5	Pass
	3.80	3.68	0.004399		
	4.35	6.49	0.007758		
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	6.46	0.007722	±2.5	Pass
	-20	3.16	0.003777		
	-10	3.55	0.004243		
	0	5.84	0.006981		
	10	11.04	0.013196		
	20	7.01	0.008379		
	30	10.85	0.012969		
	40	10.94	0.013077		
	50	11.91	0.014236		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	6.10	0.007291	±2.5	Pass
	3.80	3.97	0.004745		
	4.35	7.68	0.009180		
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	35.29	0.018771	Within authorized band for PCS 1900	Pass
	-20	38.84	0.020660		
	-10	37.65	0.020027		
	0	23.60	0.012553		
	10	29.02	0.015436		
	20	23.92	0.012723		
	30	33.42	0.017777		
	40	30.15	0.016037		
	50	34.58	0.018394		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	24.47	0.013016	Within authorized band for PCS 1900	Pass
	3.80	24.47	0.013016		
	4.35	35.32	0.018787		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

Reference Frequency: EGPRS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.80	-30	18.85	0.010027	Within authorized band for PCS 1900	Pass
	-20	17.79	0.009463		
	-10	13.88	0.007383		
	0	11.30	0.006011		
	10	27.80	0.014787		
	20	14.92	0.007936		
	30	26.22	0.013947		
	40	36.97	0.019665		
	50	26.02	0.013840		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	22.76	0.012106	Within authorized band for PCS 1900	Pass
	3.80	14.95	0.007952		
	4.35	15.37	0.008176		
<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

