

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	33.48	27.30	38.5	PASS
GSM850	190	5	33.64	27.46	38.5	PASS
GSM850	251	5	33.55	27.37	38.5	PASS
GSM1900	512	0	30.06	30.16	33	PASS
GSM1900	661	0	30.11	30.21	33	PASS
GSM1900	810	0	30.02	30.12	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.45	27.27	38.5	PASS
GPRS850	128	5	2	32.48	26.30	38.5	PASS
GPRS850	128	5	3	30.46	24.28	38.5	PASS
GPRS850	128	5	4	29.32	23.14	38.5	PASS
GPRS850	190	5	1	33.53	27.35	38.5	PASS
GPRS850	190	5	2	32.60	26.42	38.5	PASS
GPRS850	190	5	3	30.55	24.37	38.5	PASS
GPRS850	190	5	4	29.44	23.26	38.5	PASS
GPRS850	251	5	1	33.47	27.29	38.5	PASS
GPRS850	251	5	2	32.55	26.37	38.5	PASS
GPRS850	251	5	3	30.51	24.33	38.5	PASS
GPRS850	251	5	4	29.42	23.24	38.5	PASS
GPRS1900	512	0	1	30.05	30.15	33	PASS
GPRS1900	512	0	2	29.04	29.14	33	PASS
GPRS1900	512	0	3	26.97	27.07	33	PASS
GPRS1900	512	0	4	25.85	25.95	33	PASS
GPRS1900	661	0	1	30.09	30.19	33	PASS
GPRS1900	661	0	2	29.15	29.25	33	PASS
GPRS1900	661	0	3	27.16	27.26	33	PASS
GPRS1900	661	0	4	26.06	26.16	33	PASS
GPRS1900	810	0	1	30.01	30.11	33	PASS
GPRS1900	810	0	2	29.11	29.21	33	PASS
GPRS1900	810	0	3	27.17	27.27	33	PASS
GPRS1900	810	0	4	26.09	26.19	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	28.08	21.90	38.5	PASS
EGPRS850	128	8	2	26.80	20.62	38.5	PASS
EGPRS850	128	8	3	24.39	18.21	38.5	PASS
EGPRS850	128	8	4	23.14	16.96	38.5	PASS
EGPRS850	190	8	1	27.66	21.48	38.5	PASS
EGPRS850	190	8	2	26.59	20.41	38.5	PASS
EGPRS850	190	8	3	24.24	18.06	38.5	PASS
EGPRS850	190	8	4	23.05	16.87	38.5	PASS
EGPRS850	251	8	1	27.66	21.48	38.5	PASS
EGPRS850	251	8	2	26.63	20.45	38.5	PASS
EGPRS850	251	8	3	24.24	18.06	38.5	PASS
EGPRS850	251	8	4	22.94	16.76	38.5	PASS
EGPRS1900	512	2	1	26.93	27.03	33	PASS
EGPRS1900	512	2	2	25.82	25.92	33	PASS
EGPRS1900	512	2	3	23.93	24.03	33	PASS
EGPRS1900	512	2	4	22.89	22.99	33	PASS
EGPRS1900	661	2	1	26.55	26.65	33	PASS
EGPRS1900	661	2	2	25.73	25.83	33	PASS
EGPRS1900	661	2	3	23.83	23.93	33	PASS
EGPRS1900	661	2	4	22.74	22.84	33	PASS
EGPRS1900	810	2	1	26.16	26.26	33	PASS
EGPRS1900	810	2	2	25.34	25.44	33	PASS
EGPRS1900	810	2	3	23.46	23.56	33	PASS
EGPRS1900	810	2	4	22.40	22.50	33	PASS

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

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

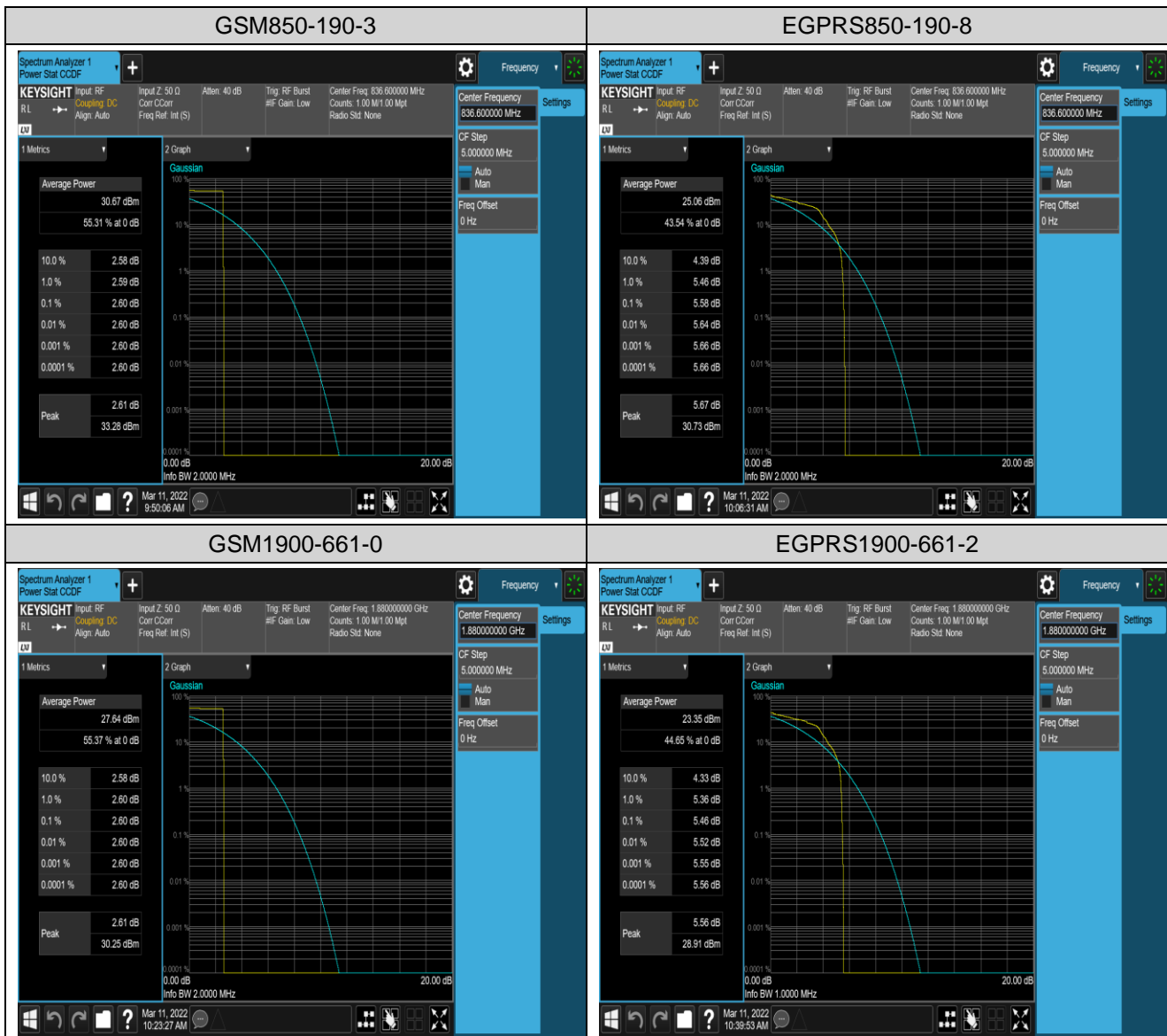
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.6	13	PASS
EGPRS850	190	8	5.58	13	PASS
GSM1900	661	0	2.6	13	PASS
EGPRS1900	661	2	5.46	13	PASS

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

Test Graphs

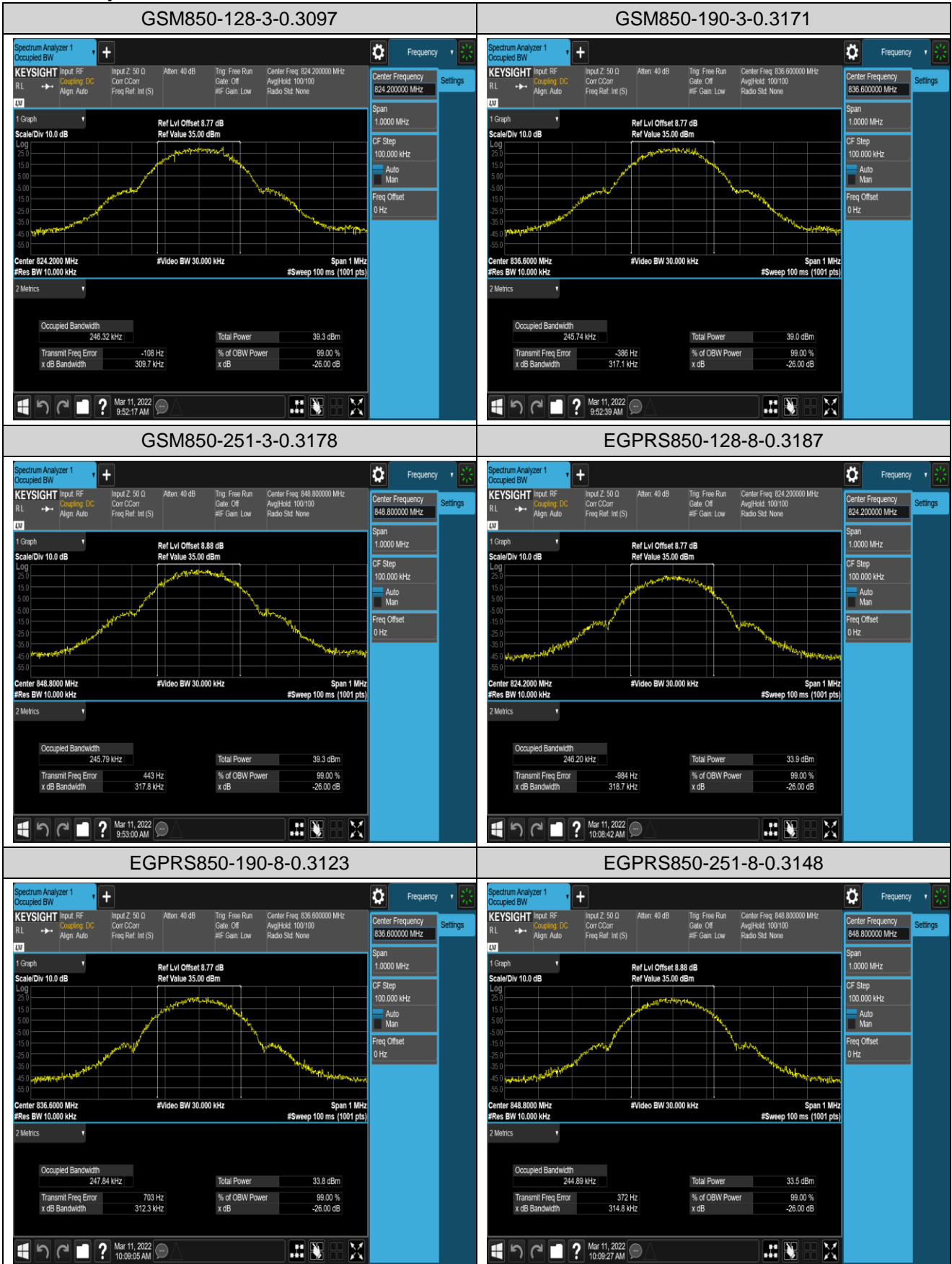


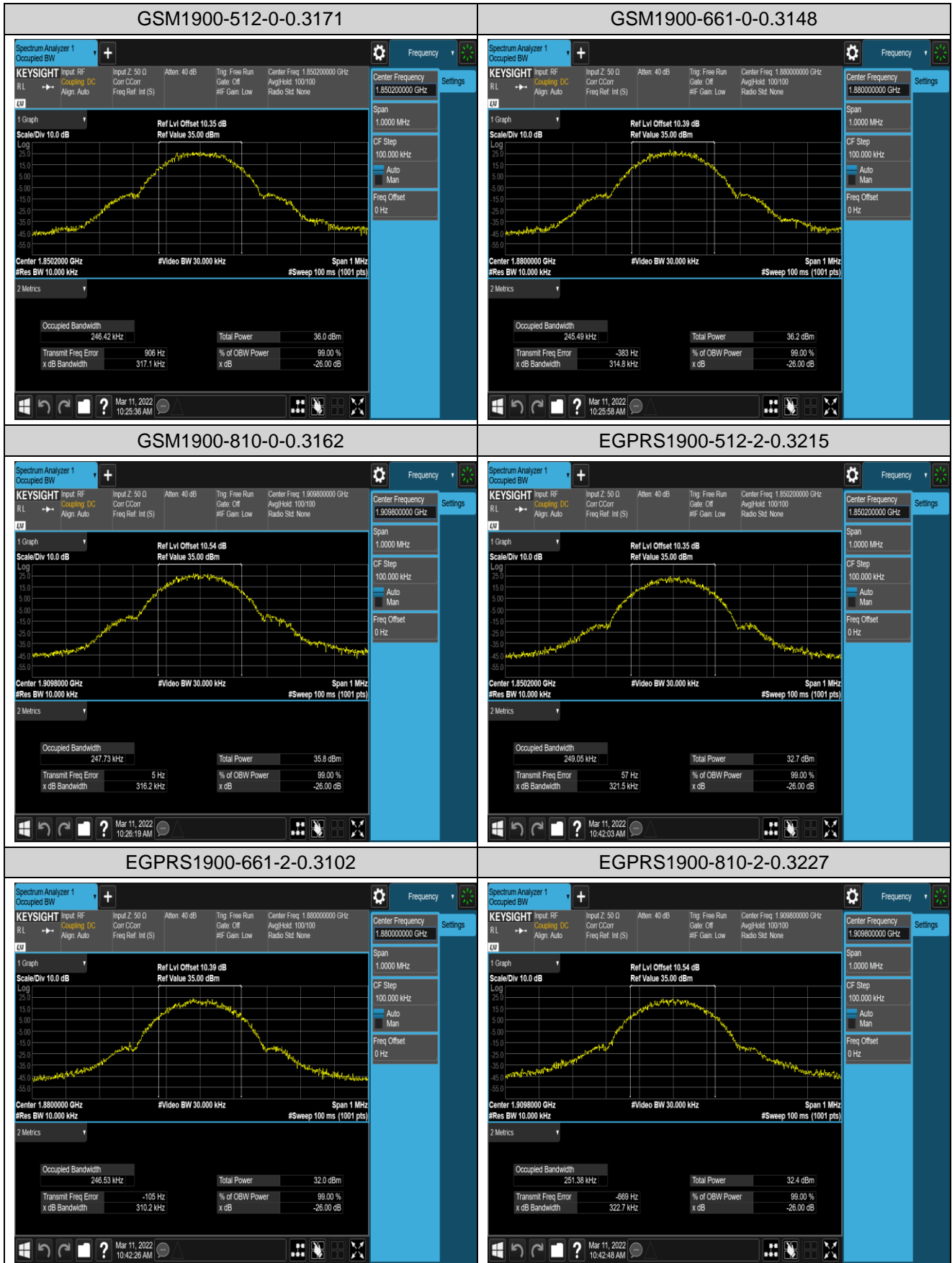
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24632	0.3097	---	PASS
GSM850	190	5	0.24574	0.3171	---	PASS
GSM850	251	5	0.24579	0.3178	---	PASS
EGPRS850	128	8	0.24620	0.3187	---	PASS
EGPRS850	190	8	0.24784	0.3123	---	PASS
EGPRS850	251	8	0.24489	0.3148	---	PASS
GSM1900	512	0	0.24642	0.3171	---	PASS
GSM1900	661	0	0.24549	0.3148	---	PASS
GSM1900	810	0	0.24773	0.3162	---	PASS
EGPRS1900	512	2	0.24905	0.3215	---	PASS
EGPRS1900	661	2	0.24653	0.3102	---	PASS
EGPRS1900	810	2	0.25138	0.3227	---	PASS

Test Graphs



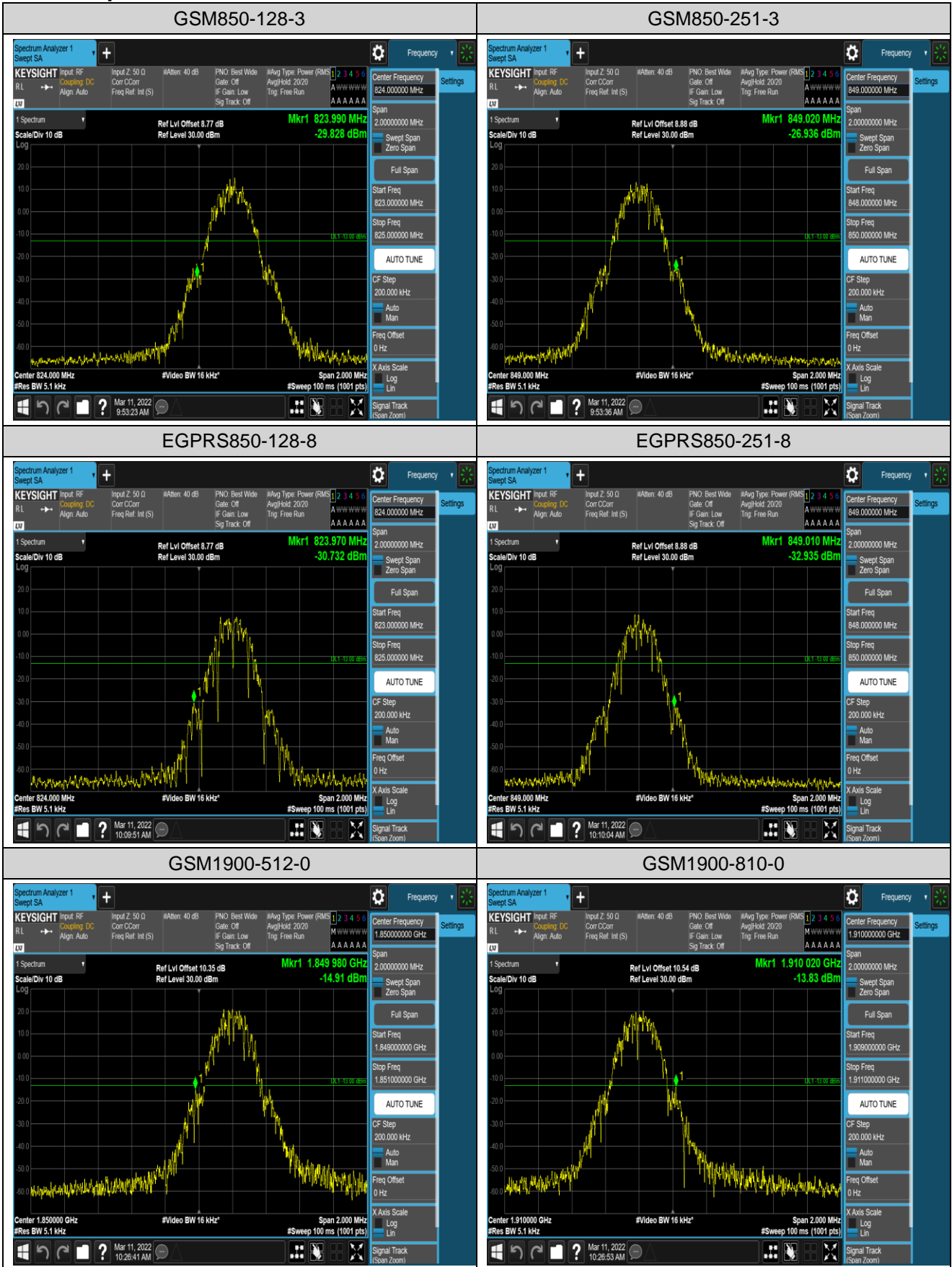


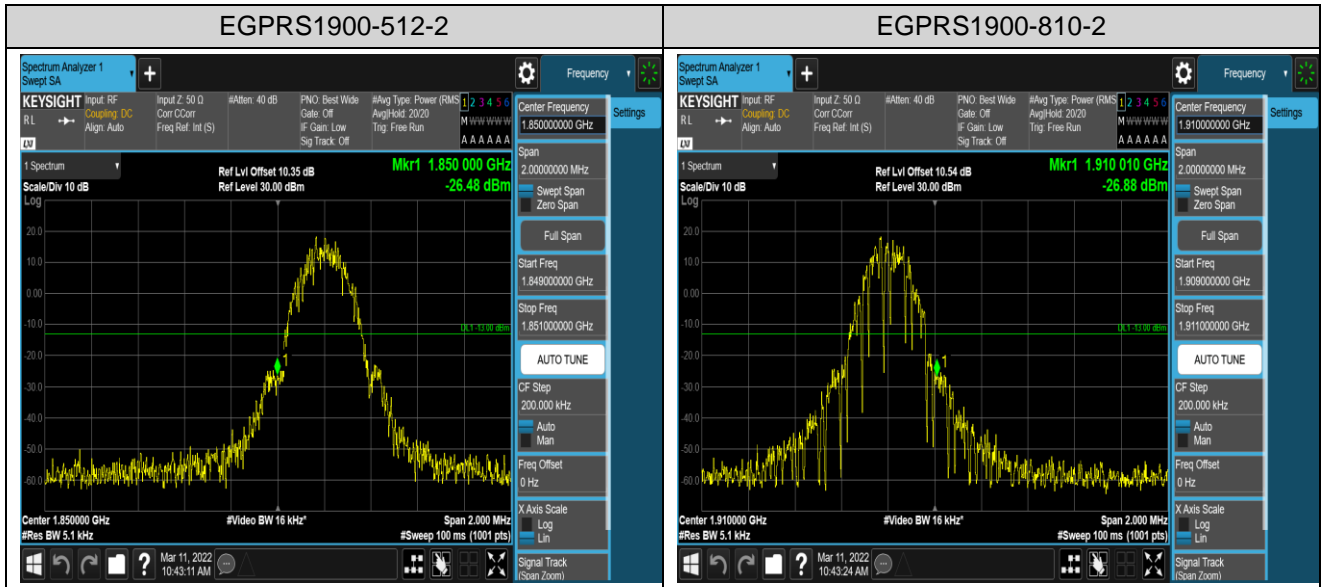
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.99	-29.828	-13	PASS
GSM850	251	5	849.02	-26.936	-13	PASS
EGPRS850	128	8	823.97	-30.732	-13	PASS
EGPRS850	251	8	849.01	-32.955	-13	PASS
GSM1900	512	0	1849.98	-14.91	-13	PASS
GSM1900	810	0	1910.02	-13.83	-13	PASS
EGPRS1900	512	2	1850.00	-26.48	-13	PASS
EGPRS1900	810	2	1910.01	-26.88	-13	PASS

Test Graphs





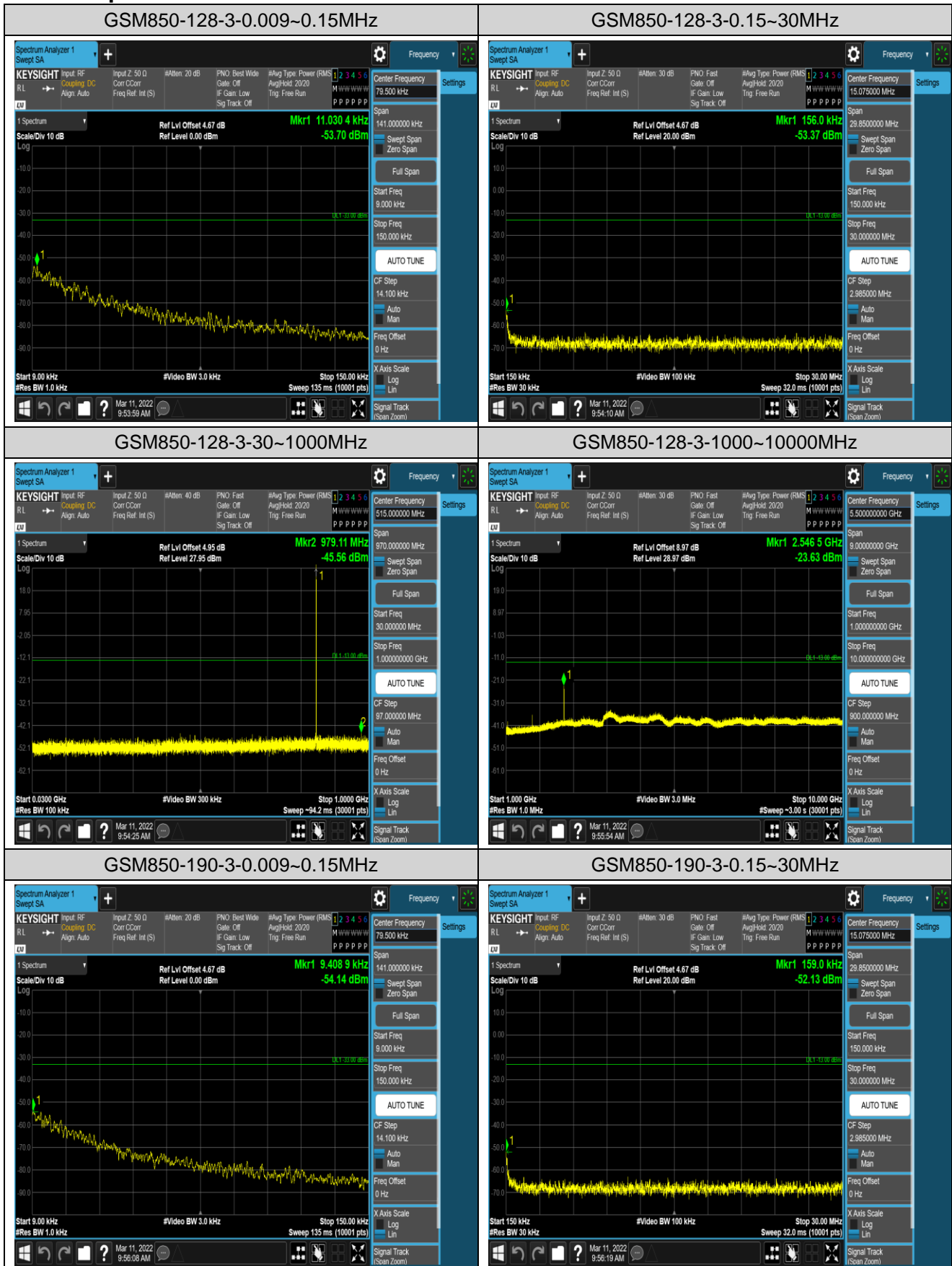
Appendix E: Conducted Spurious Emission

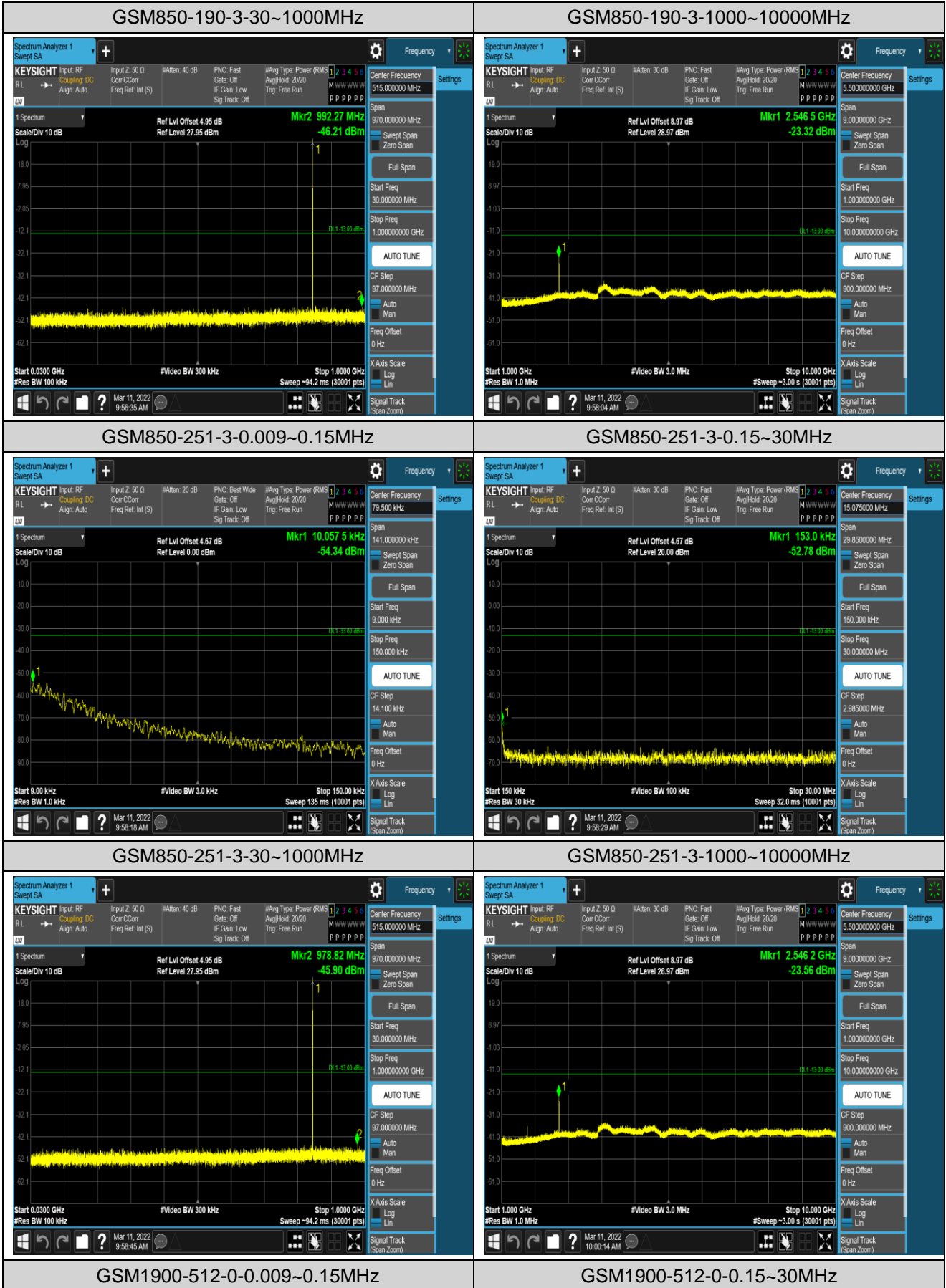
Test Result

Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-53.7	-33	PASS
GSM850	128	5	0.15~30MHz	0.16	-53.37	-13	PASS
GSM850	128	5	30~1000MHz	979.11	-45.56	-13	PASS
GSM850	128	5	1000~10000MHz	2546.5	-23.63	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-54.14	-33	PASS
GSM850	190	5	0.15~30MHz	0.16	-52.13	-13	PASS
GSM850	190	5	30~1000MHz	992.27	-46.21	-13	PASS
GSM850	190	5	1000~10000MHz	2546.5	-23.32	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-54.34	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-52.78	-13	PASS
GSM850	251	5	30~1000MHz	978.82	-45.9	-13	PASS
GSM850	251	5	1000~10000MHz	2546.2	-23.56	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-55.63	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-51.03	-23	PASS
GSM1900	512	0	30~1000MHz	808.46	-45.57	-13	PASS
GSM1900	512	0	1000~18000MHz	3819.73	-30.85	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-57	-43	PASS
GSM1900	661	0	0.15~30MHz	0.17	-51.56	-23	PASS
GSM1900	661	0	30~1000MHz	778.81	-46.36	-13	PASS
GSM1900	661	0	1000~18000MHz	3820.3	-31.5	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-55.96	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-52.21	-23	PASS
GSM1900	810	0	30~1000MHz	882.86	-44.75	-13	PASS
GSM1900	810	0	1000~18000MHz	3819.73	-31.98	-13	PASS

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

Test Graphs







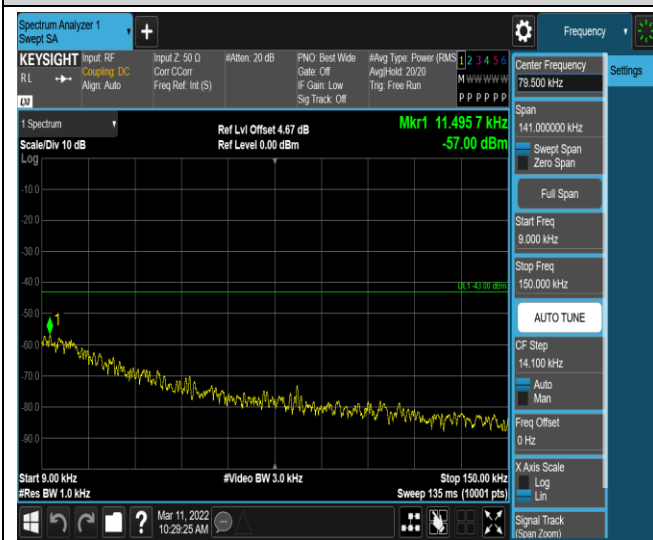
GSM1900-512-0-30~1000MHz

GSM1900-512-0-1000~18000MHz



GSM1900-661-0-0.009~0.15MHz

GSM1900-661-0-0.15~30MHz



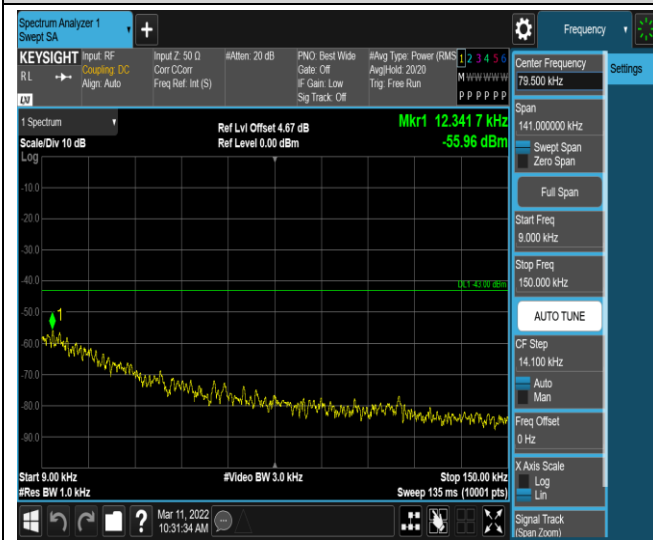
GSM1900-661-0-30~1000MHz

GSM1900-661-0-1000~18000MHz

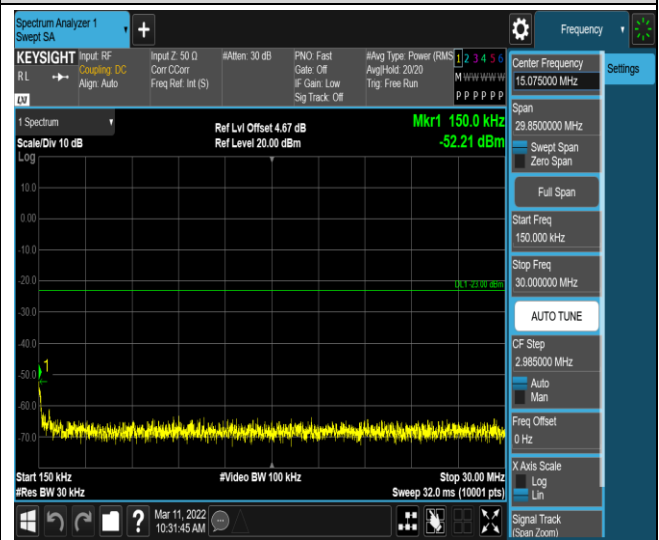


GSM1900-810-0-0.009~0.15MHz

GSM1900-810-0-0.15~30MHz



GSM1900-810-0-30~1000MHz



GSM1900-810-0-1000~18000MHz



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	-9.52	-0.011379	±2.5	Pass
	-20	-7.20	-0.008606		
	-10	-8.85	-0.010579		
	0	-8.62	-0.010304		
	10	-10.78	-0.012885		
	20	-1.81	-0.002164		
	30	-5.65	-0.006754		
	40	-4.81	-0.005749		
	50	-7.75	-0.009264		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-7.88	-0.009419	±2.5	Pass
	3.87	-2.07	-0.002474		
	4.45	-8.94	-0.010686		
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	-7.65	-0.009144	±2.5	Pass
	-20	-3.62	-0.004327		
	-10	-2.81	-0.003359		
	0	2.52	0.003012		
	10	3.20	0.003825		
	20	4.78	0.005714		
	30	-2.81	-0.003359		
	40	-5.13	-0.006132		
	50	-6.97	-0.008331		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-7.39	-0.008833	±2.5	Pass
	3.87	-6.13	-0.007327		
	4.45	-9.88	-0.011810		
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	31.93	0.016984	Within authorized band for PCS 1900	Pass
	-20	25.70	0.013670		
	-10	20.40	0.010851		
	0	21.86	0.011628		
	10	28.80	0.015319		
	20	16.66	0.008862		
	30	19.08	0.010149		
	40	25.47	0.013548		
	50	20.11	0.010697		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	24.73	0.013154	Within authorized band for PCS 1900	Pass
	3.87	27.73	0.014750		
	4.45	21.53	0.011452		
<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		
3.87	-30	14.59	0.007761	Within authorized band for PCS 1900	Pass
	-20	18.11	0.009633		
	-10	51.11	0.027186		
	0	46.59	0.024782		
	10	39.29	0.020899		
	20	27.67	0.014718		
	30	37.29	0.019835		
	40	35.19	0.018718		
	50	25.86	0.013755		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	23.02	0.012245	Within authorized band for PCS 1900	Pass
	3.87	19.08	0.010149		
	4.45	19.02	0.010117		
<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

