

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	3	32.85	31.40	38.5	PASS
GSM850	190	3	32.68	31.23	38.5	PASS
GSM850	251	3	32.53	31.08	38.5	PASS
GSM1900	512	0	29.28	30.38	33	PASS
GSM1900	661	0	29.21	30.31	33	PASS
GSM1900	810	0	29.11	30.21	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	3	1	32.81	31.36	38.5	PASS
GPRS850	128	3	2	31.79	30.34	38.5	PASS
GPRS850	128	3	3	29.71	28.26	38.5	PASS
GPRS850	128	3	4	28.46	27.01	38.5	PASS
GPRS850	190	3	1	32.57	31.12	38.5	PASS
GPRS850	190	3	2	31.61	30.16	38.5	PASS
GPRS850	190	3	3	29.56	28.11	38.5	PASS
GPRS850	190	3	4	28.38	26.93	38.5	PASS
GPRS850	251	3	1	32.51	31.06	38.5	PASS
GPRS850	251	3	2	31.60	30.15	38.5	PASS
GPRS850	251	3	3	29.56	28.11	38.5	PASS
GPRS850	251	3	4	28.41	26.96	38.5	PASS
GPRS1900	512	0	1	29.44	30.54	33	PASS
GPRS1900	512	0	2	28.26	29.36	33	PASS
GPRS1900	512	0	3	25.98	27.08	33	PASS
GPRS1900	512	0	4	24.91	26.01	33	PASS
GPRS1900	661	0	1	29.30	30.40	33	PASS
GPRS1900	661	0	2	28.14	29.24	33	PASS
GPRS1900	661	0	3	25.83	26.93	33	PASS
GPRS1900	661	0	4	24.77	25.87	33	PASS
GPRS1900	810	0	1	29.19	30.29	33	PASS
GPRS1900	810	0	2	28.00	29.10	33	PASS
GPRS1900	810	0	3	25.65	26.75	33	PASS
GPRS1900	810	0	4	24.58	25.68	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.76	25.31	38.5	PASS
EGPRS850	128	8	2	26.65	25.20	38.5	PASS
EGPRS850	128	8	3	26.52	25.07	38.5	PASS
EGPRS850	128	8	4	26.38	24.93	38.5	PASS
EGPRS850	190	8	1	26.63	25.18	38.5	PASS
EGPRS850	190	8	2	26.59	25.14	38.5	PASS
EGPRS850	190	8	3	26.49	25.04	38.5	PASS
EGPRS850	190	8	4	26.38	24.93	38.5	PASS
EGPRS850	251	8	1	26.63	25.18	38.5	PASS
EGPRS850	251	8	2	26.60	25.15	38.5	PASS
EGPRS850	251	8	3	26.51	25.06	38.5	PASS
EGPRS850	251	8	4	26.40	24.95	38.5	PASS
EGPRS1900	512	2	1	24.87	25.97	33	PASS
EGPRS1900	512	2	2	24.89	25.99	33	PASS
EGPRS1900	512	2	3	24.89	25.99	33	PASS
EGPRS1900	512	2	4	24.87	25.97	33	PASS
EGPRS1900	661	2	1	24.75	25.85	33	PASS
EGPRS1900	661	2	2	24.78	25.88	33	PASS
EGPRS1900	661	2	3	24.77	25.87	33	PASS
EGPRS1900	661	2	4	24.75	25.85	33	PASS
EGPRS1900	810	2	1	24.58	25.68	33	PASS
EGPRS1900	810	2	2	24.59	25.69	33	PASS
EGPRS1900	810	2	3	24.58	25.68	33	PASS
EGPRS1900	810	2	4	24.55	25.65	33	PASS

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

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

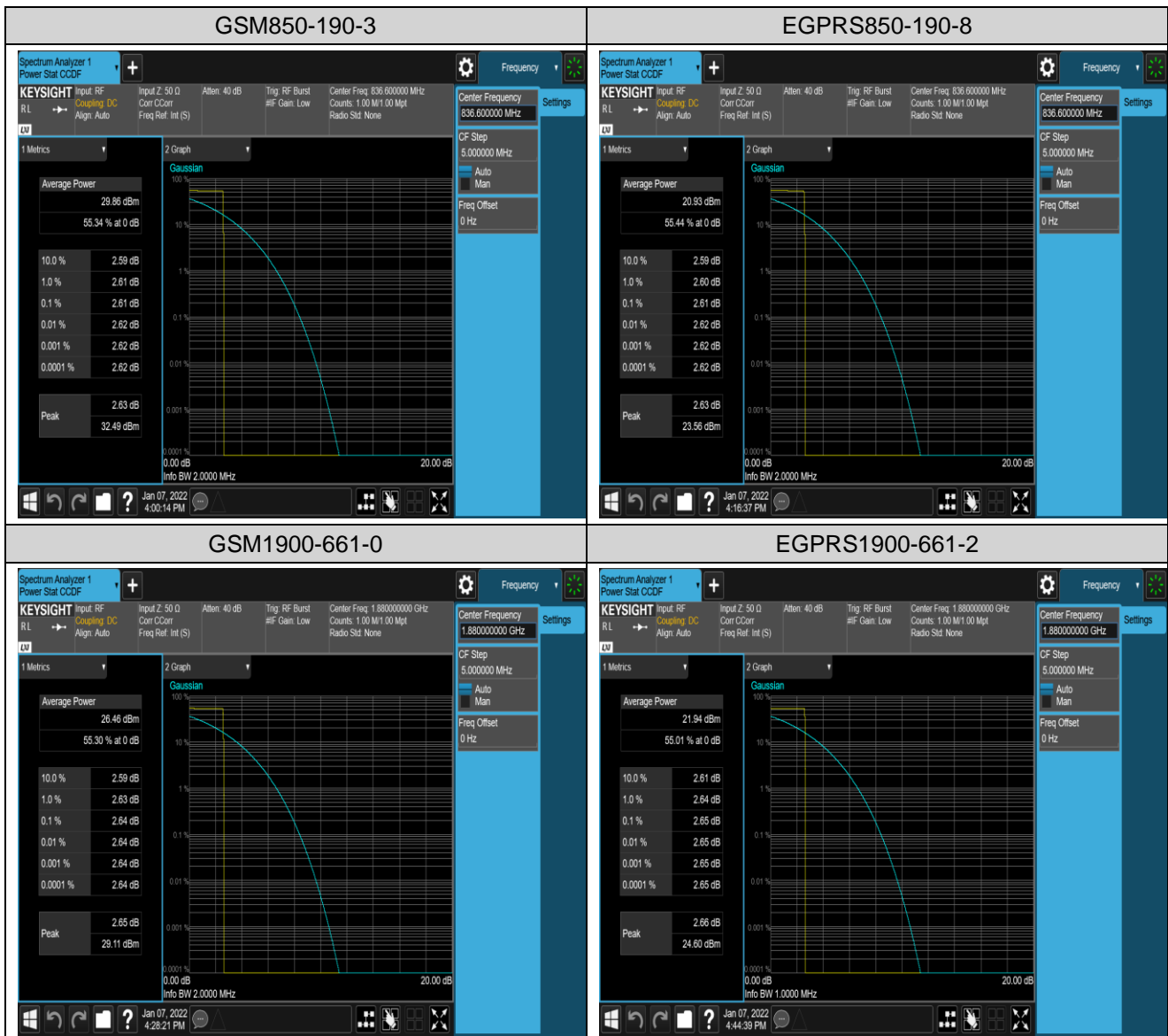
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	3	2.61	13	PASS
EGPRS850	190	8	2.61	13	PASS
GSM1900	661	0	2.64	13	PASS
EGPRS1900	661	2	2.65	13	PASS

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

Test Graphs

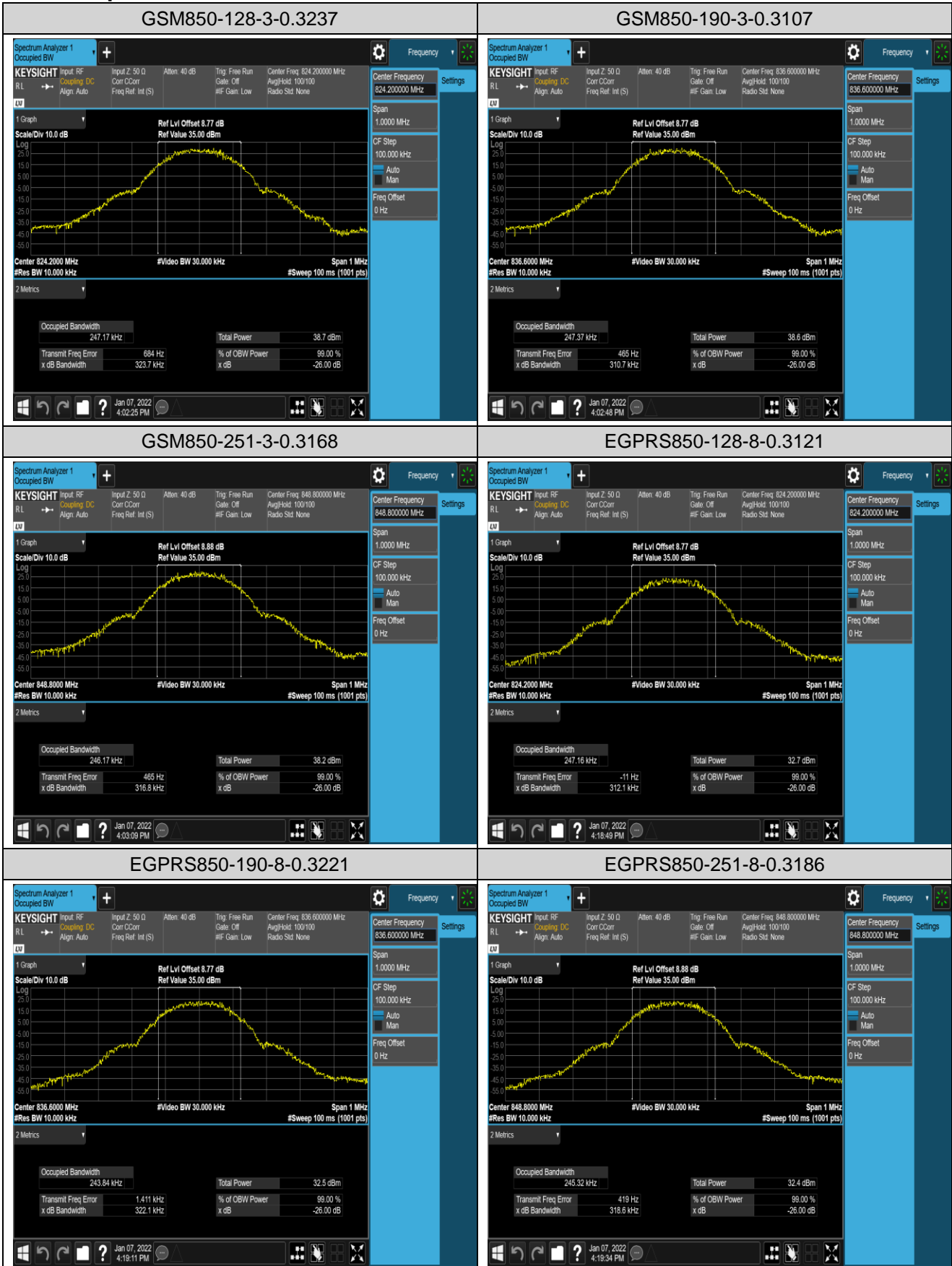


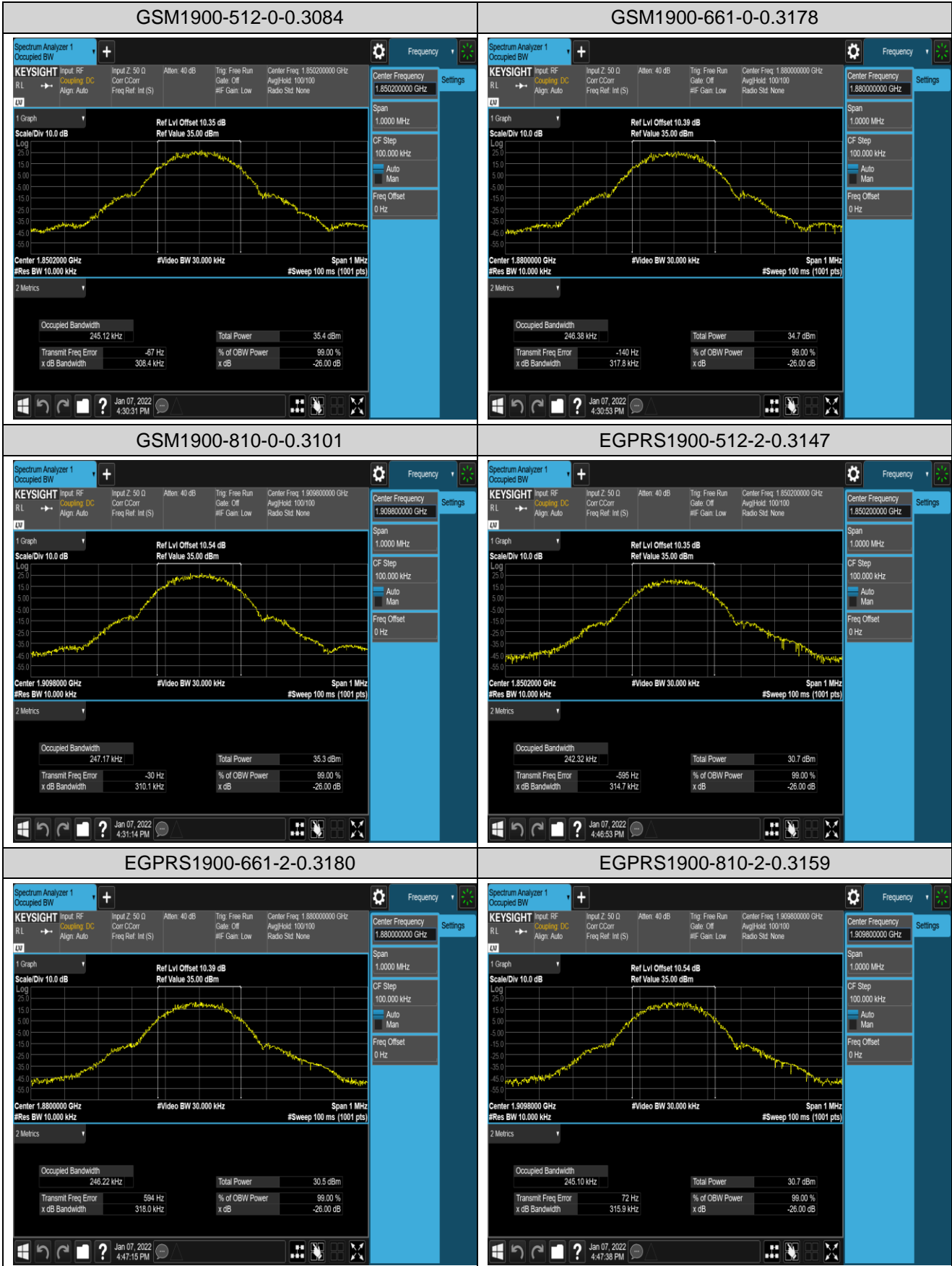
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	3	0.24717	0.3237	---	PASS
GSM850	190	3	0.24737	0.3107	---	PASS
GSM850	251	3	0.24617	0.3168	---	PASS
EGPRS850	128	8	0.24716	0.3121	---	PASS
EGPRS850	190	8	0.24384	0.3221	---	PASS
EGPRS850	251	8	0.24532	0.3186	---	PASS
GSM1900	512	0	0.24512	0.3084	---	PASS
GSM1900	661	0	0.24638	0.3178	---	PASS
GSM1900	810	0	0.24717	0.3101	---	PASS
EGPRS1900	512	2	0.24232	0.3147	---	PASS
EGPRS1900	661	2	0.24622	0.3180	---	PASS
EGPRS1900	810	2	0.24510	0.3159	---	PASS

Test Graphs



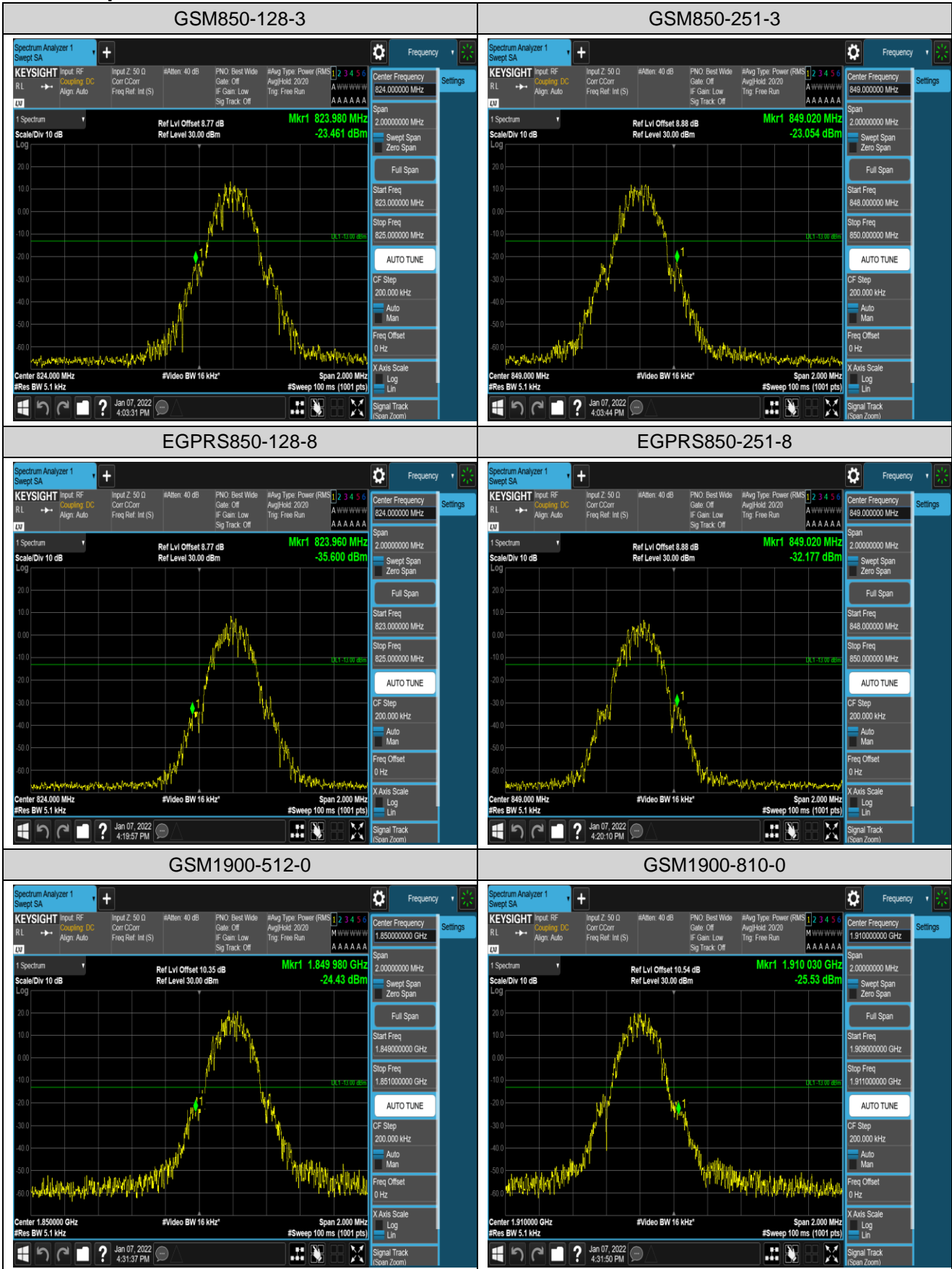


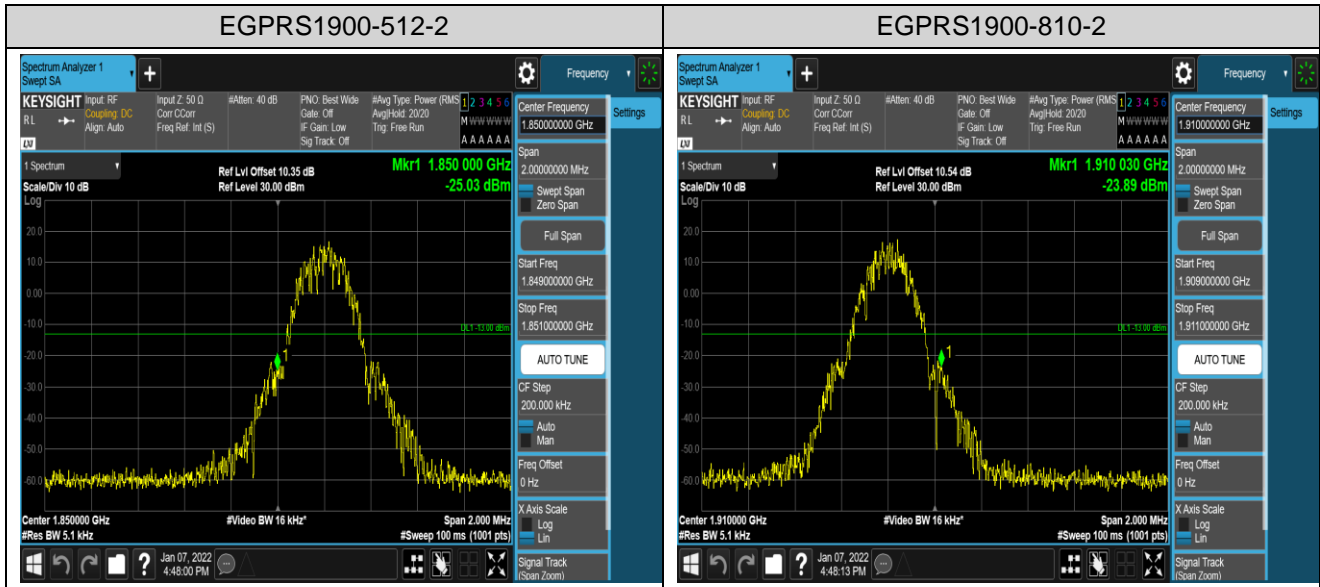
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	3	823.98	-23.46	-13	PASS
GSM850	251	3	849.02	-23.05	-13	PASS
EGPRS850	128	8	823.96	-35.60	-13	PASS
EGPRS850	251	8	849.02	-32.18	-13	PASS
GSM1900	512	0	1849.98	-24.43	-13	PASS
GSM1900	810	0	1910.03	-25.53	-13	PASS
EGPRS1900	512	2	1850.00	-25.03	-13	PASS
EGPRS1900	810	2	1910.03	-23.89	-13	PASS

Test Graphs





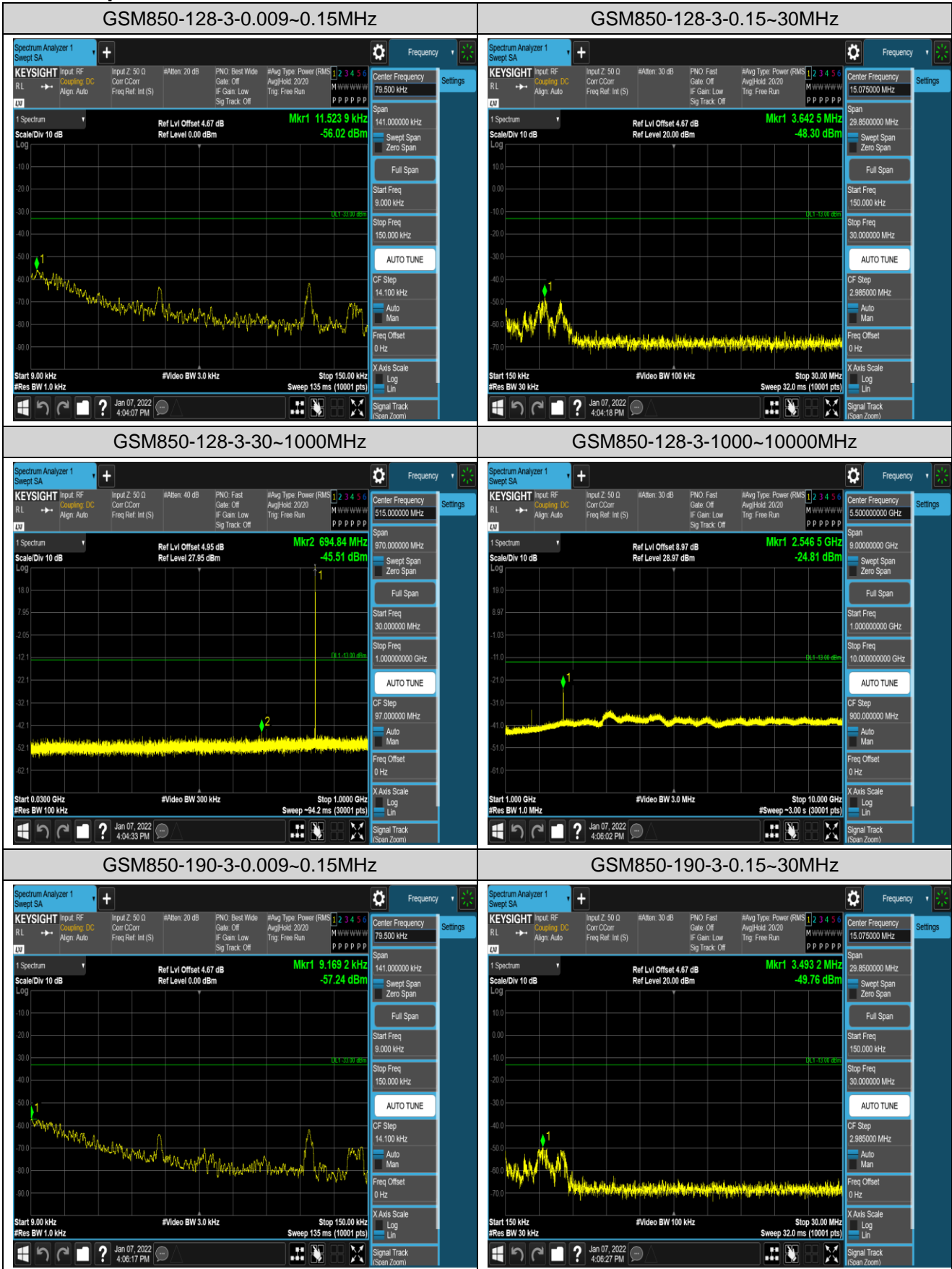
Appendix E: Conducted Spurious Emission

Test Result

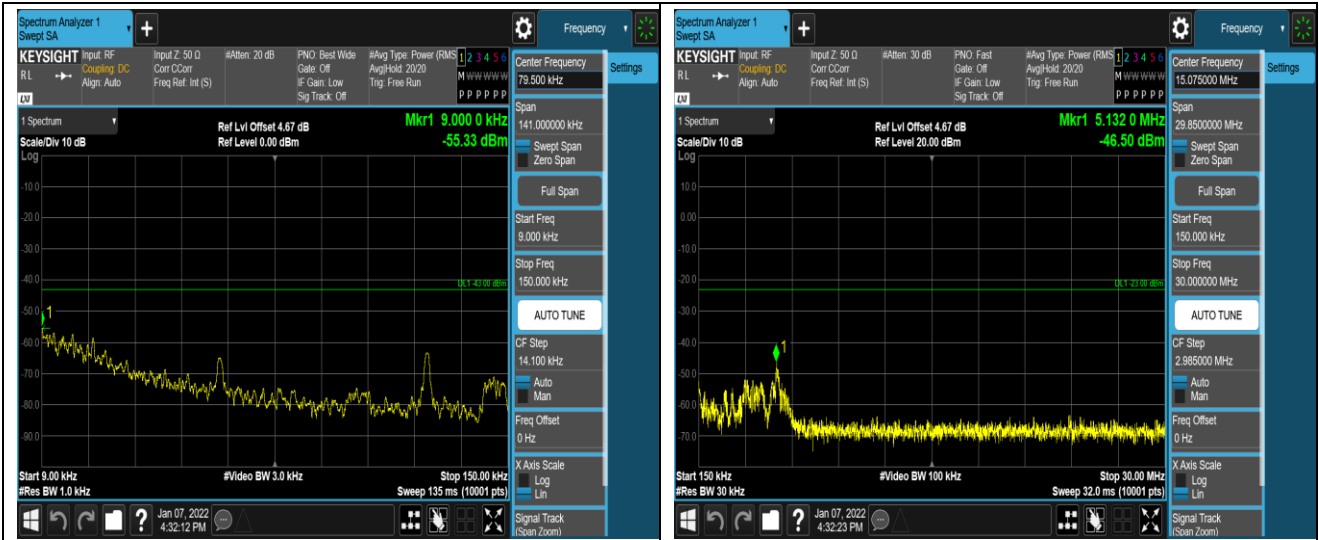
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	3	0.009~0.15MHz	0.01	-56.02	-33	PASS
GSM850	128	3	0.15~30MHz	3.64	-48.3	-13	PASS
GSM850	128	3	30~1000MHz	694.84	-45.51	-13	PASS
GSM850	128	3	1000~10000MHz	2546.5	-24.81	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.01	-57.24	-33	PASS
GSM850	190	3	0.15~30MHz	3.49	-49.76	-13	PASS
GSM850	190	3	30~1000MHz	720.32	-45.68	-13	PASS
GSM850	190	3	1000~10000MHz	2546.5	-25.23	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-55.94	-33	PASS
GSM850	251	3	0.15~30MHz	5.12	-47.82	-13	PASS
GSM850	251	3	30~1000MHz	956.9	-46	-13	PASS
GSM850	251	3	1000~10000MHz	2546.2	-25.09	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-55.33	-43	PASS
GSM1900	512	0	0.15~30MHz	5.13	-46.5	-23	PASS
GSM1900	512	0	30~1000MHz	833.61	-45.47	-13	PASS
GSM1900	512	0	1000~18000MHz	3872.43	-34.55	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-56.3	-43	PASS
GSM1900	661	0	0.15~30MHz	5.14	-49.16	-23	PASS
GSM1900	661	0	30~1000MHz	935.2	-47.01	-13	PASS
GSM1900	661	0	1000~18000MHz	3769.3	-34.06	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-53.79	-43	PASS
GSM1900	810	0	0.15~30MHz	5.36	-47.64	-23	PASS
GSM1900	810	0	30~1000MHz	881.63	-46.64	-13	PASS
GSM1900	810	0	1000~18000MHz	3748.9	-34.67	-13	PASS

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

Test Graphs







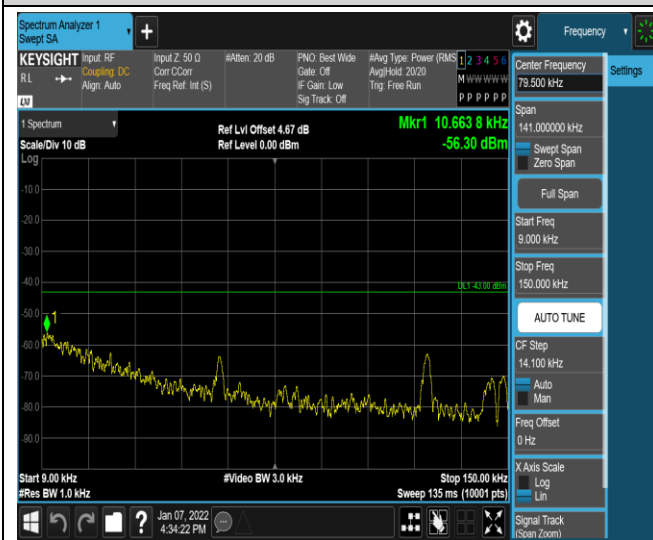
GSM1900-512-0-30~1000MHz

GSM1900-512-0-1000~18000MHz



GSM1900-661-0-0.009~0.15MHz

GSM1900-661-0-0.15~30MHz



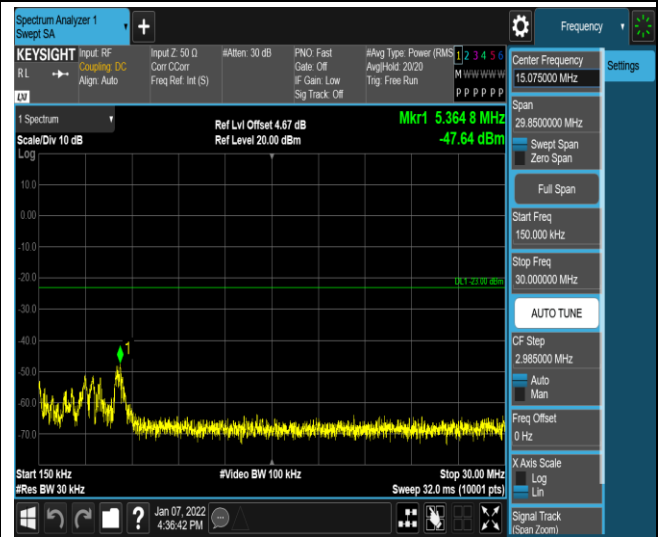
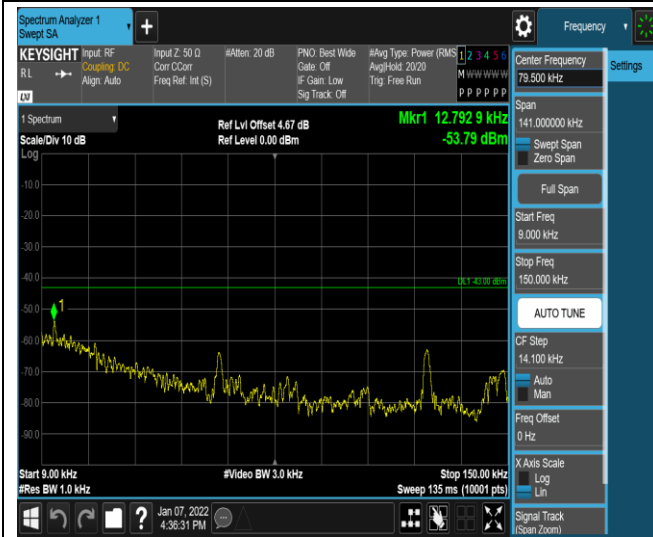
GSM1900-661-0-30~1000MHz

GSM1900-661-0-1000~18000MHz



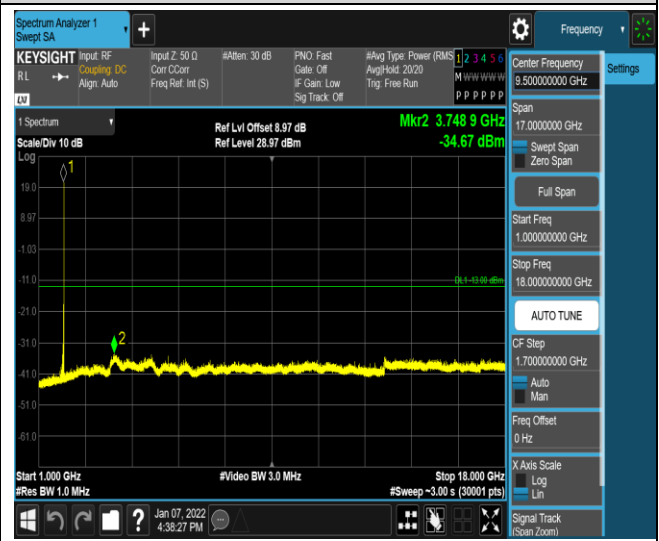
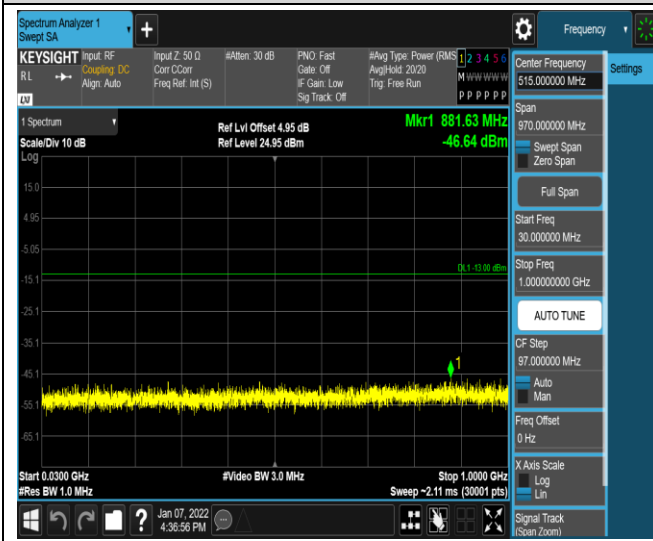
GSM1900-810-0-0.009~0.15MHz

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		
3.85	-30	16.63	0.019878	±2.5	Pass
	-20	17.66	0.021109		
	-10	12.37	0.014786		
	0	11.01	0.01316		
	10	11.53	0.013782		
	20	13.4	0.016017		
	30	6.78	0.008104		
	40	10.59	0.012658		
	50	9.94	0.011881		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	17.43	0.020834	±2.5	Pass
	3.85	10.78	0.012885		
	4.43	16.05	0.019185		
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		
3.85	-30	7.39	0.008833	±2.5	Pass
	-20	15.24	0.018217		
	-10	19.08	0.022807		
	0	13.62	0.01628		
	10	14.59	0.01744		
	20	14.27	0.017057		
	30	7.49	0.008953		
	40	20.73	0.024779		
	50	17.24	0.020607		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	10.01	0.011965	±2.5	Pass
	3.85	8.46	0.010112		
	4.43	7.72	0.009228		
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		
3.85	-30	46.98	0.024989	Within authorized band for PCS 1900	Pass
	-20	38.26	0.020351		
	-10	31.96	0.017		
	0	23.92	0.012723		
	10	28.41	0.015112		
	20	29.48	0.015681		
	30	32.41	0.017239		
	40	16.66	0.008862		
	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
	3.85	17.34	0.009223		
	4.43	39.36	0.020936		
<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		
3.85	-30	23.67	0.01259	Within authorized band for PCS 1900	Pass
	-20	28.28	0.015043		
	-10	41.33	0.021984		
	0	46.59	0.024782		
	10	50.91	0.02708		
	20	42.07	0.022378		
	30	41.26	0.021947		
	40	43.2	0.022979		
	50	28.48	0.015149		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	21.21	0.011282	Within authorized band for PCS 1900	Pass
	3.85	22.96	0.012213		
	4.43	25.86	0.013755		
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
-999	-999	PASS	PASS

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

Test Graphs

