

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	33.38	28.33	38.5	PASS
GSM850	190	3	33.76	30.71	38.5	PASS
GSM850	251	3	33.66	30.61	38.5	PASS
GSM1900	512	0	30.42	29.52	33	PASS
GSM1900	661	0	30.48	29.58	33	PASS
GSM1900	810	0	30.39	29.49	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	3	1	33.43	28.38	38.5	PASS
GPRS850	128	3	2	32.41	27.36	38.5	PASS
GPRS850	128	3	3	30.39	25.34	38.5	PASS
GPRS850	128	3	4	29.28	24.23	38.5	PASS
GPRS850	190	3	1	33.69	30.64	38.5	PASS
GPRS850	190	3	2	32.73	29.68	38.5	PASS
GPRS850	190	3	3	30.70	27.65	38.5	PASS
GPRS850	190	3	4	29.58	26.53	38.5	PASS
GPRS850	251	3	1	33.59	30.54	38.5	PASS
GPRS850	251	3	2	32.64	29.59	38.5	PASS
GPRS850	251	3	3	30.60	27.55	38.5	PASS
GPRS850	251	3	4	29.49	26.44	38.5	PASS
GPRS1900	512	0	1	30.42	29.52	33	PASS
GPRS1900	512	0	2	29.42	28.52	33	PASS
GPRS1900	512	0	3	27.38	26.48	33	PASS
GPRS1900	512	0	4	26.28	25.38	33	PASS
GPRS1900	661	0	1	30.47	29.57	33	PASS
GPRS1900	661	0	2	29.52	28.62	33	PASS
GPRS1900	661	0	3	27.49	26.59	33	PASS
GPRS1900	661	0	4	26.39	25.49	33	PASS
GPRS1900	810	0	1	30.39	29.49	33	PASS
GPRS1900	810	0	2	29.45	28.55	33	PASS
GPRS1900	810	0	3	27.45	26.55	33	PASS
GPRS1900	810	0	4	26.37	25.47	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	28.18	23.13	38.5	PASS
EGPRS850	128	8	2	26.98	21.93	38.5	PASS
EGPRS850	128	8	3	24.57	19.52	38.5	PASS
EGPRS850	128	8	4	23.34	18.29	38.5	PASS
EGPRS850	190	8	1	27.93	24.88	38.5	PASS
EGPRS850	190	8	2	26.88	23.83	38.5	PASS
EGPRS850	190	8	3	24.47	21.42	38.5	PASS
EGPRS850	190	8	4	23.25	20.2	38.5	PASS
EGPRS850	251	8	1	28.06	25.01	38.5	PASS
EGPRS850	251	8	2	27.02	23.97	38.5	PASS
EGPRS850	251	8	3	24.71	21.66	38.5	PASS
EGPRS850	251	8	4	23.30	20.25	38.5	PASS
EGPRS1900	512	2	1	25.90	25	33	PASS
EGPRS1900	512	2	2	24.91	24.01	33	PASS
EGPRS1900	512	2	3	22.98	22.08	33	PASS
EGPRS1900	512	2	4	21.97	21.07	33	PASS
EGPRS1900	661	2	1	26.02	25.12	33	PASS
EGPRS1900	661	2	2	25.04	24.14	33	PASS
EGPRS1900	661	2	3	23.17	22.27	33	PASS
EGPRS1900	661	2	4	22.12	21.22	33	PASS
EGPRS1900	810	2	1	26.23	25.33	33	PASS
EGPRS1900	810	2	2	25.31	24.41	33	PASS
EGPRS1900	810	2	3	23.38	22.48	33	PASS
EGPRS1900	810	2	4	22.32	21.42	33	PASS

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

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

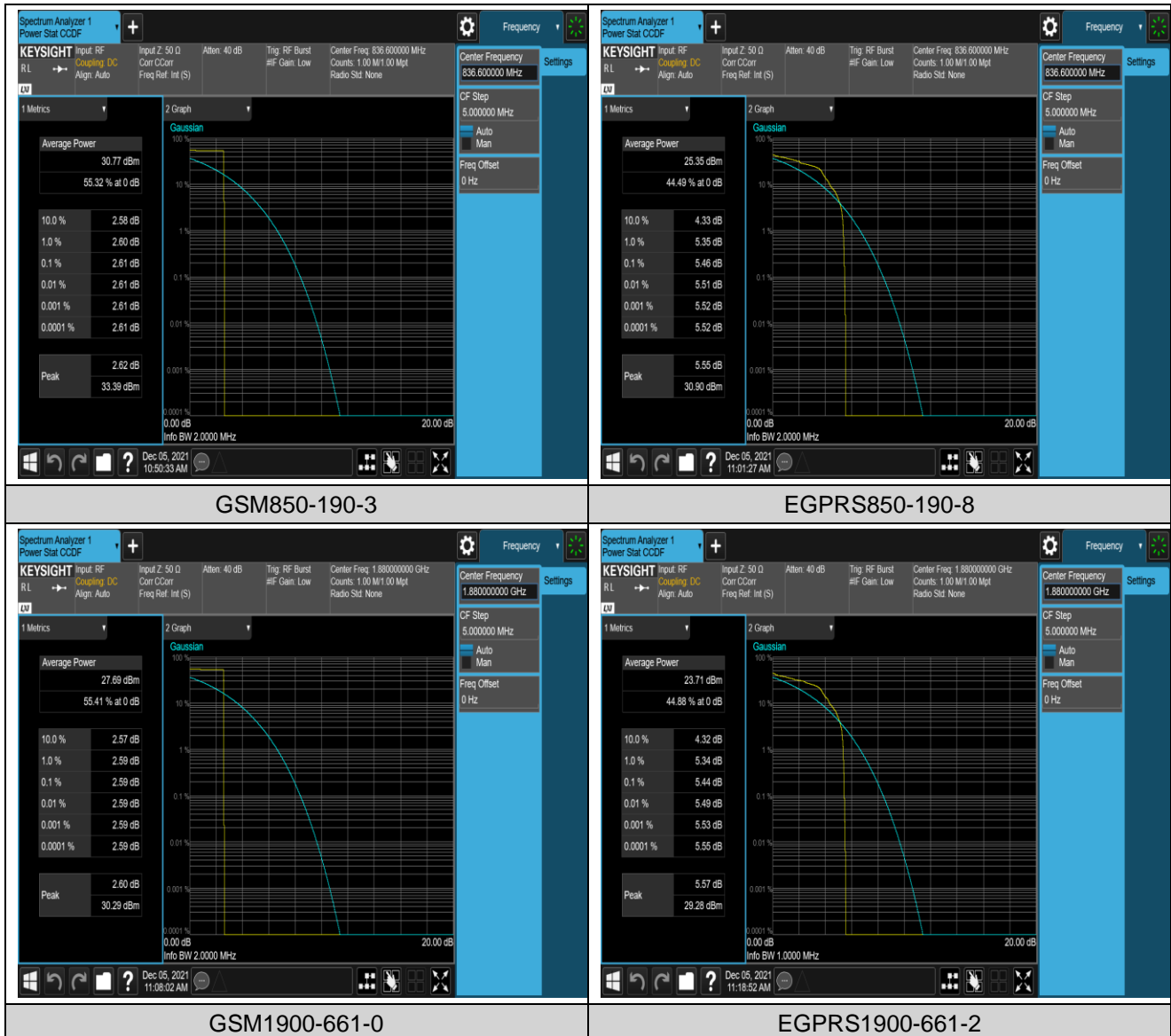
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	3	2.61	13	PASS
EGPRS850	190	8	5.46	13	PASS
GSM1900	661	0	2.59	13	PASS
EGPRS1900	661	2	5.44	13	PASS

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

Test Graphs

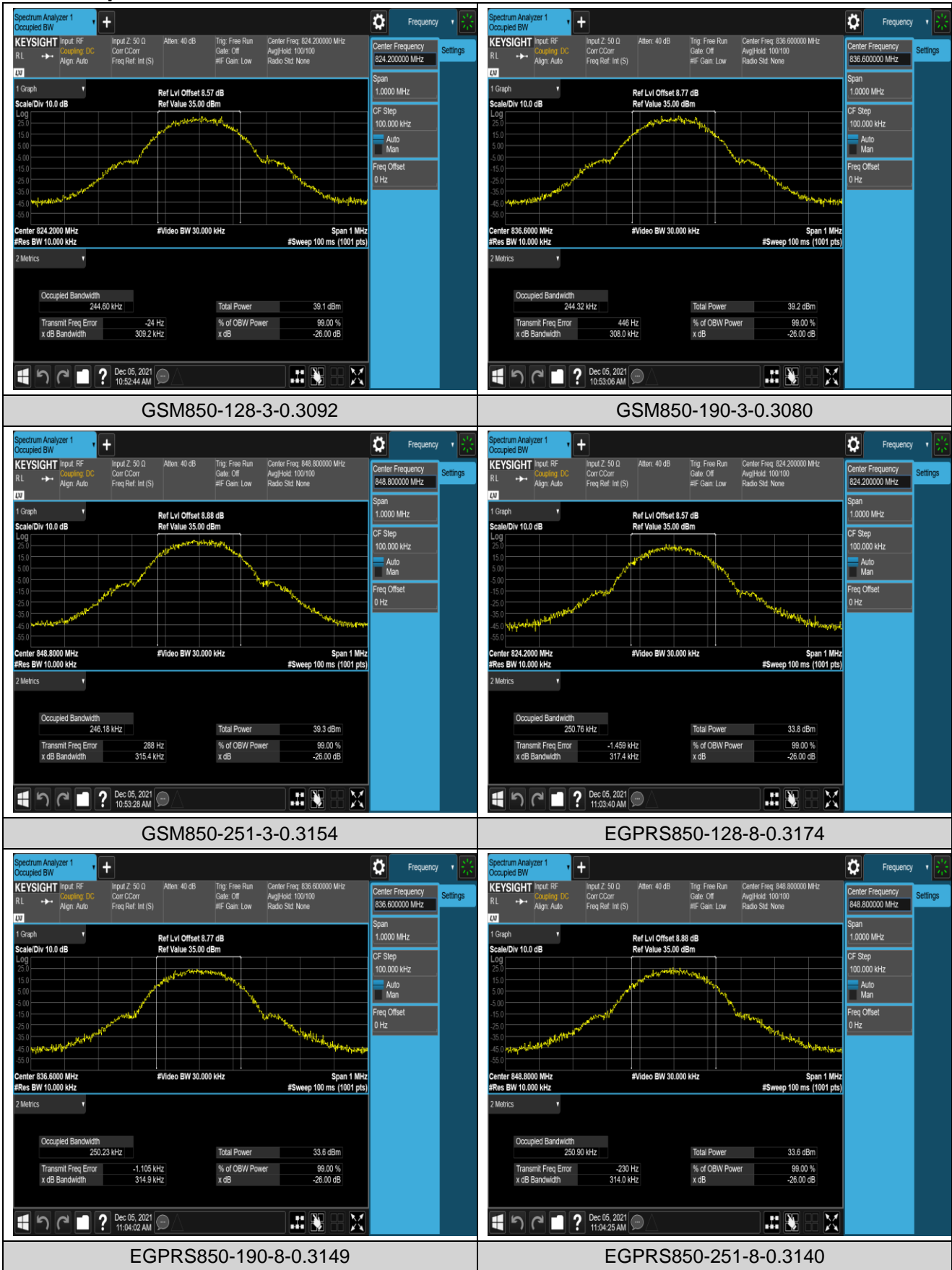


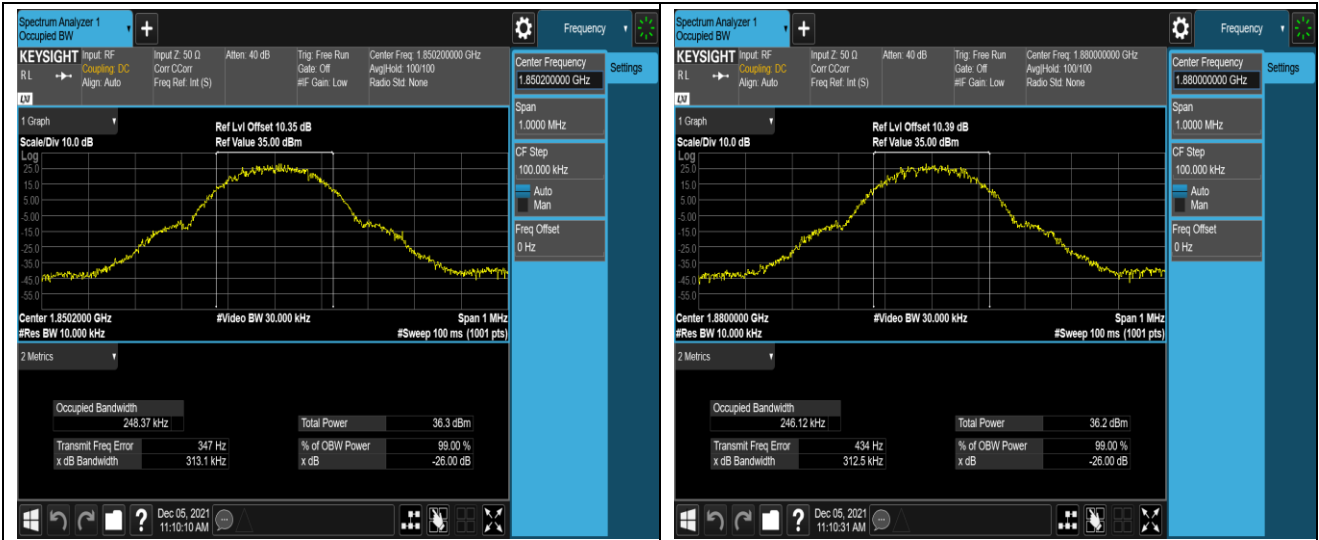
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	3	0.24460	0.3092	---	PASS
GSM850	190	3	0.24432	0.3080	---	PASS
GSM850	251	3	0.24618	0.3154	---	PASS
EGPRS850	128	8	0.25076	0.3174	---	PASS
EGPRS850	190	8	0.25023	0.3149	---	PASS
EGPRS850	251	8	0.25090	0.3140	---	PASS
GSM1900	512	0	0.24837	0.3131	---	PASS
GSM1900	661	0	0.24612	0.3125	---	PASS
GSM1900	810	0	0.24523	0.3069	---	PASS
EGPRS1900	512	2	0.24382	0.3137	---	PASS
EGPRS1900	661	2	0.24758	0.3162	---	PASS
EGPRS1900	810	2	0.24934	0.3233	---	PASS

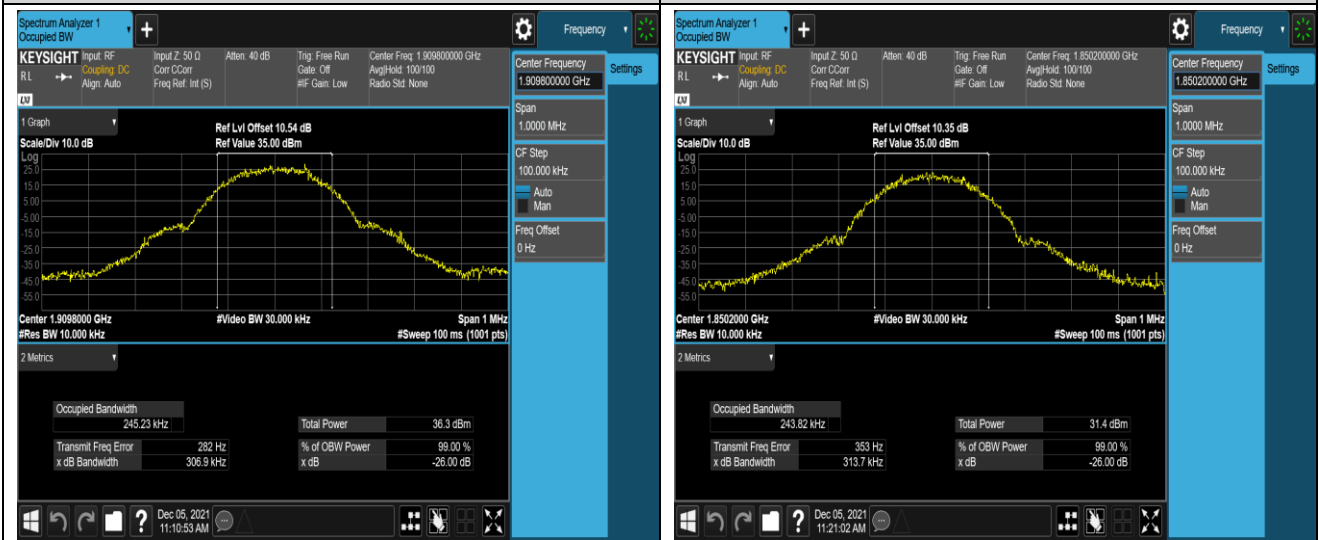
Test Graphs





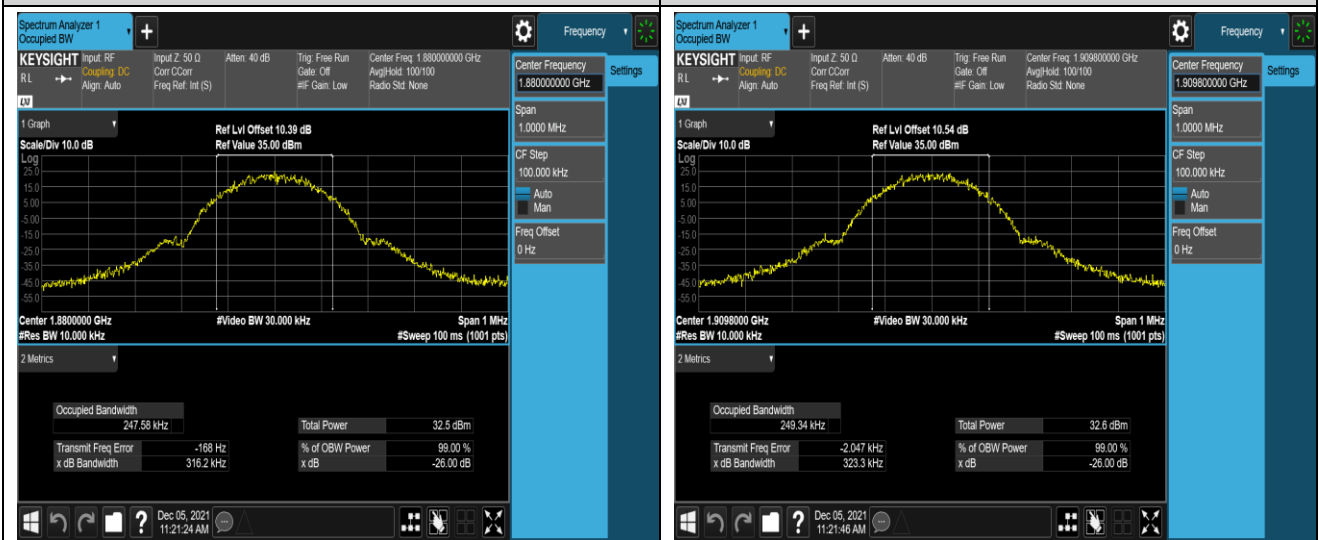
GSM1900-512-0-0.3131

GSM1900-661-0-0.3125



GSM1900-810-0-0.3069

EGPRS1900-512-2-0.3137



EGPRS1900-661-2-0.3162

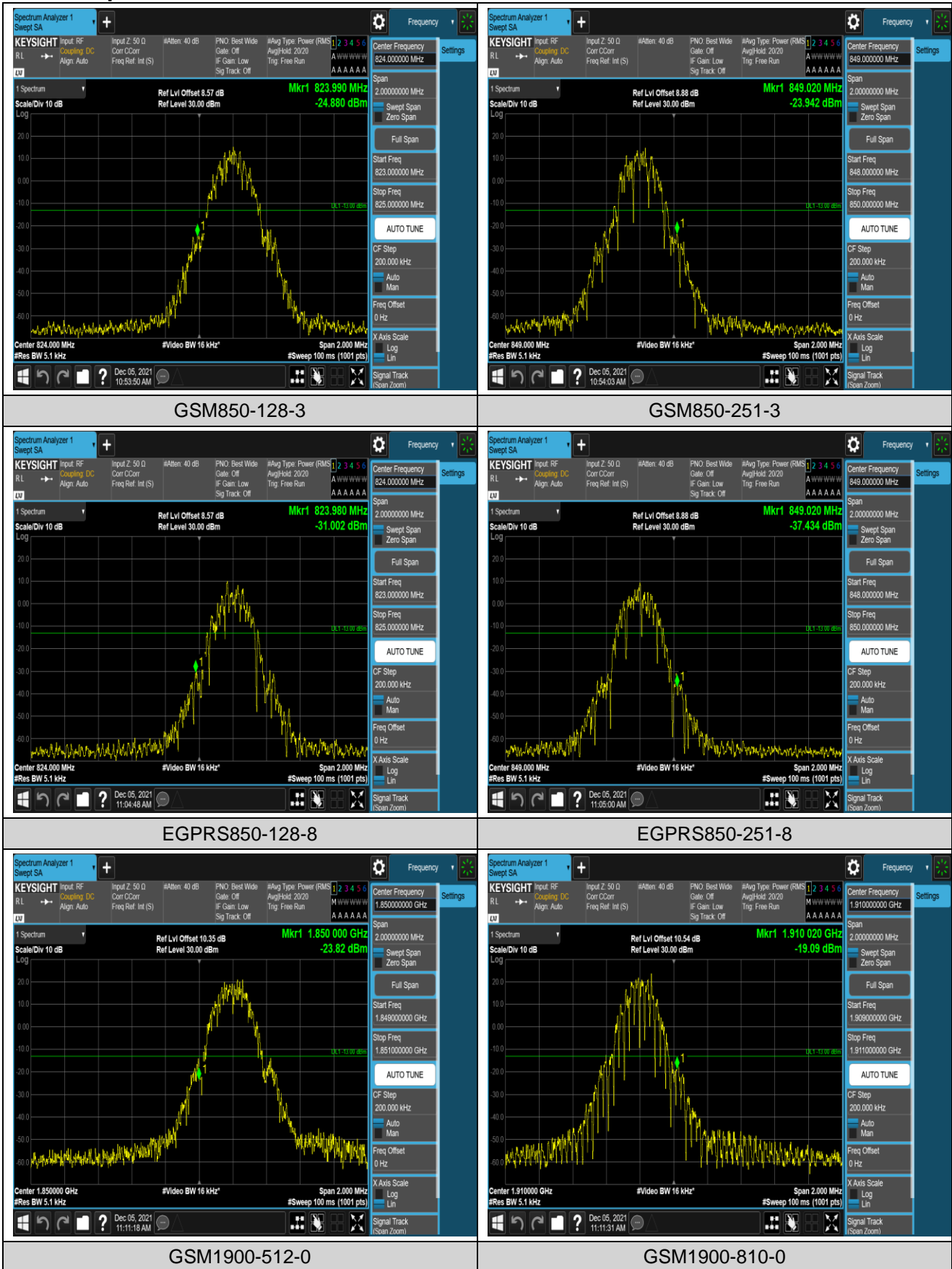
EGPRS1900-810-2-0.3233

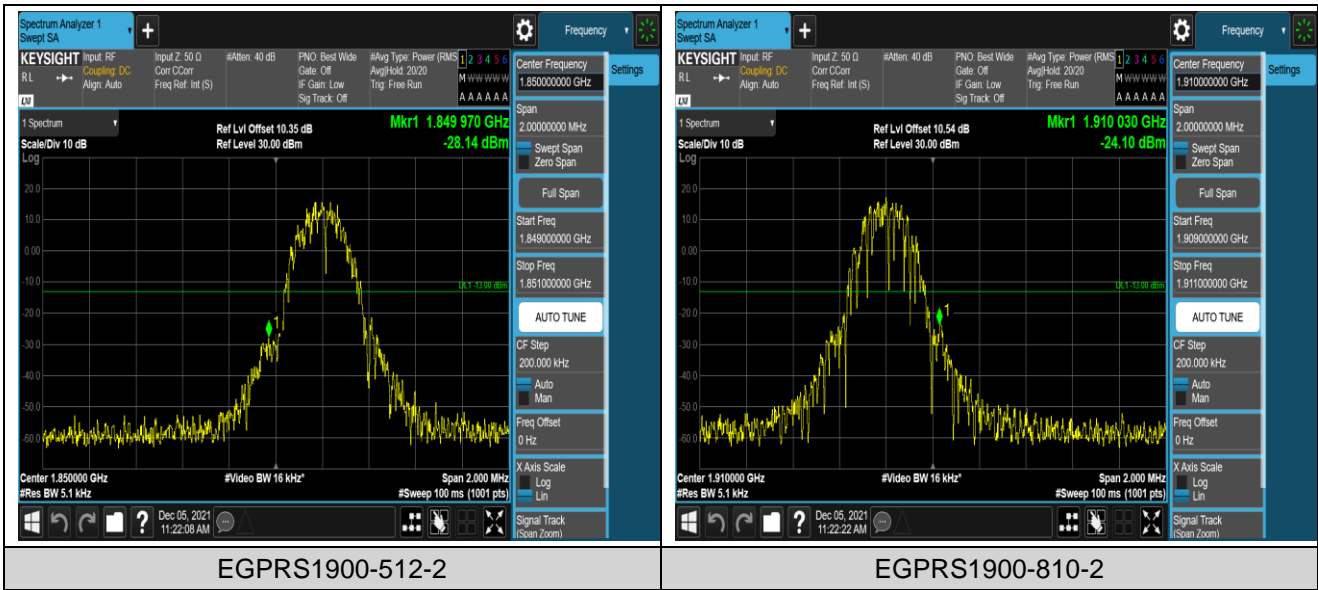
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	3	823.99	-24.19	-13	PASS
GSM850	251	3	849.02	-22.95	-13	PASS
EGPRS850	128	8	823.98	-29.86	-13	PASS
EGPRS850	251	8	849.02	-31.05	-13	PASS
GSM1900	512	0	1850.00	-14.17	-13	PASS
GSM1900	810	0	1910.02	-16.06	-13	PASS
EGPRS1900	512	2	1849.97	-28.14	-13	PASS
EGPRS1900	810	2	1910.03	-21.72	-13	PASS

Test Graphs





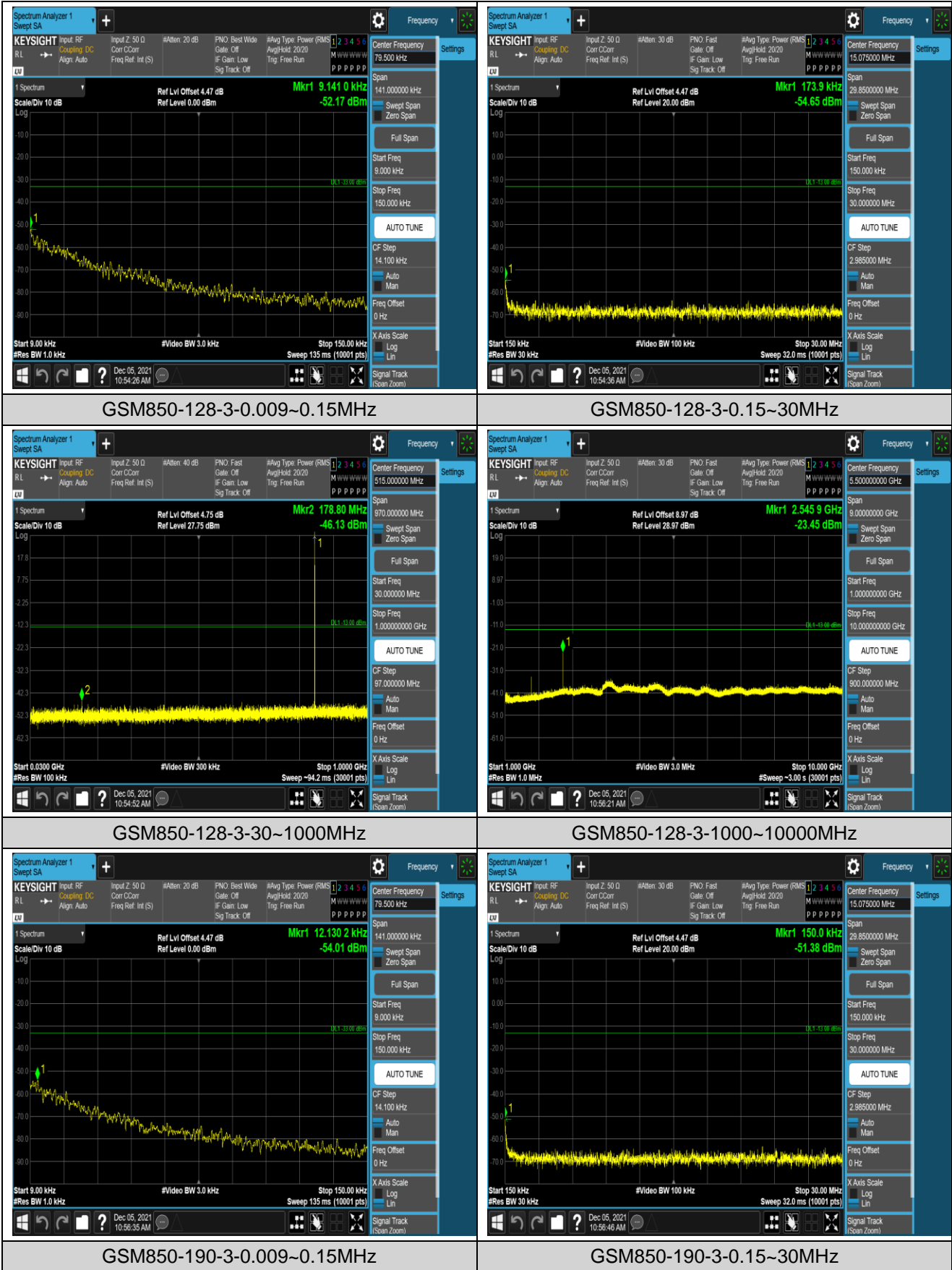
Appendix E: Conducted Spurious Emission

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	-52.17	-33	PASS
GSM850	128	3	0.15~30MHz	0.17	-54.65	-13	PASS
GSM850	128	3	30~1000MHz	178.8	-46.13	-13	PASS
GSM850	128	3	1000~10000MHz	2545.9	-23.45	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.01	-54.01	-33	PASS
GSM850	190	3	0.15~30MHz	0.15	-51.38	-13	PASS
GSM850	190	3	30~1000MHz	424.37	-46.34	-13	PASS
GSM850	190	3	1000~10000MHz	2546.5	-22.43	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-53.62	-33	PASS
GSM850	251	3	0.15~30MHz	0.15	-1000	-13	PASS
GSM850	251	3	30~1000MHz	975.23	-46.46	-13	PASS
GSM850	251	3	1000~10000MHz	2546.5	-22.86	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-57.29	-43	PASS
GSM1900	512	0	0.15~30MHz	0.17	-52.69	-23	PASS
GSM1900	512	0	30~1000MHz	762.58	-46.58	-13	PASS
GSM1900	512	0	1000~18000MHz	13368.63	-34.71	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-57.25	-43	PASS
GSM1900	661	0	0.15~30MHz	0.16	-52.46	-23	PASS
GSM1900	661	0	30~1000MHz	500.45	-46.98	-13	PASS
GSM1900	661	0	1000~18000MHz	13369.2	-34.3	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-56.19	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-52.61	-23	PASS
GSM1900	810	0	30~1000MHz	784.79	-46.82	-13	PASS
GSM1900	810	0	1000~18000MHz	3774.97	-34	-13	PASS

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

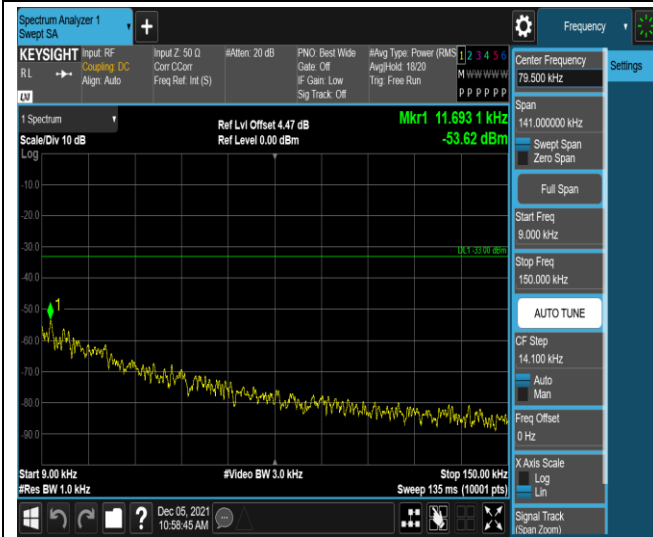
Test Graphs





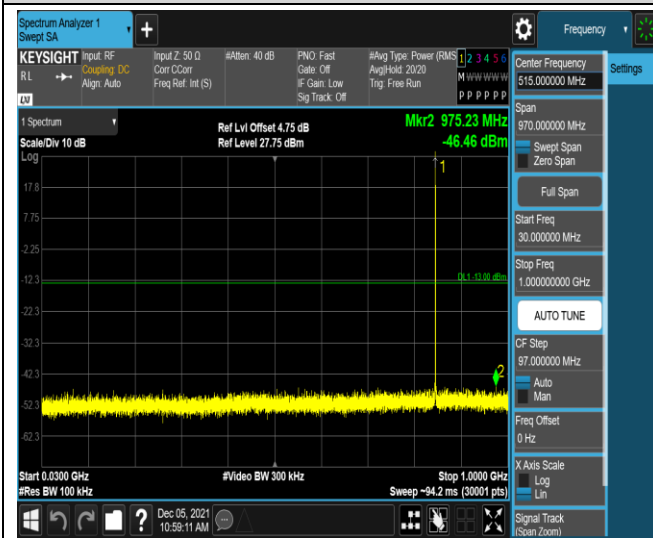
GSM850-190-3-30~1000MHz

GSM850-190-3-1000~10000MHz



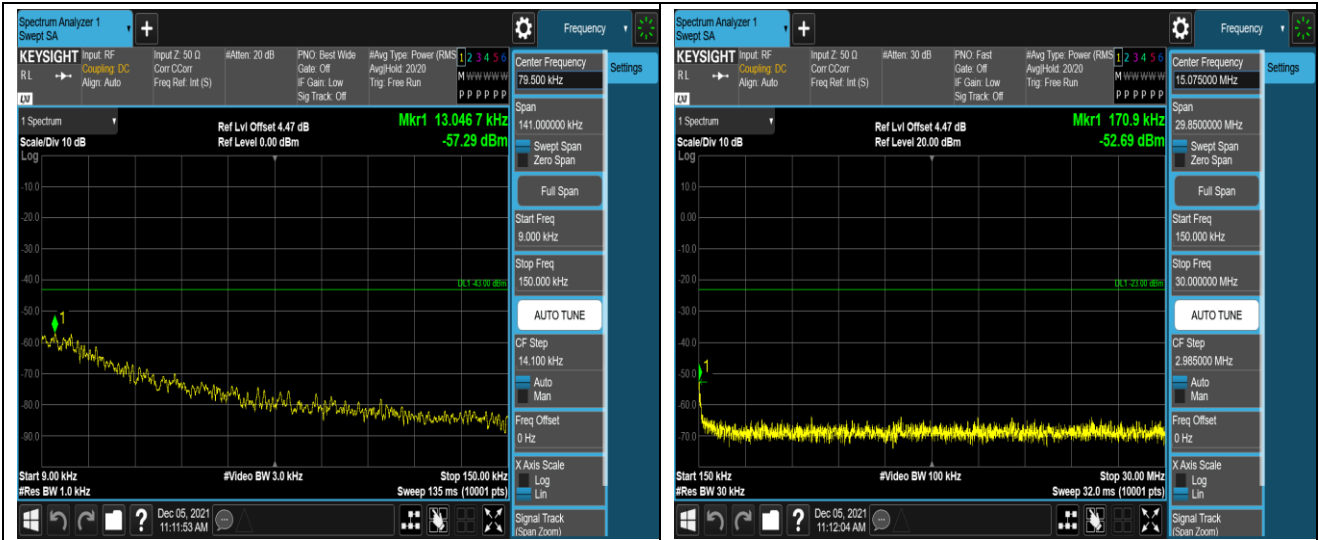
GSM850-251-3-0.009~0.15MHz

GSM850-251-3-0.15~30MHz



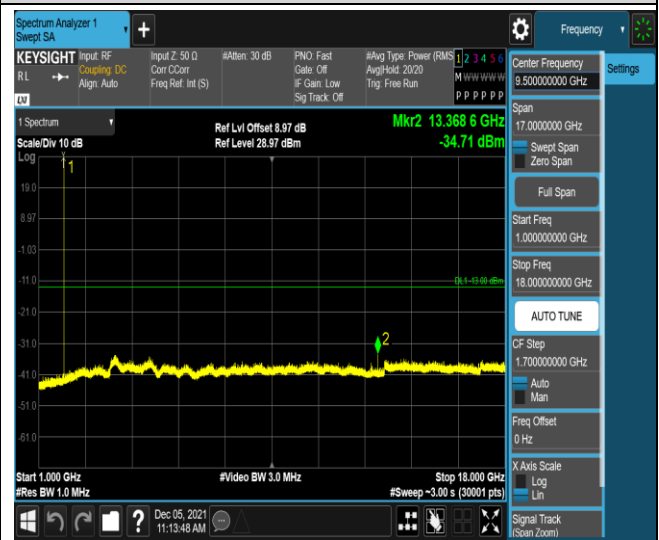
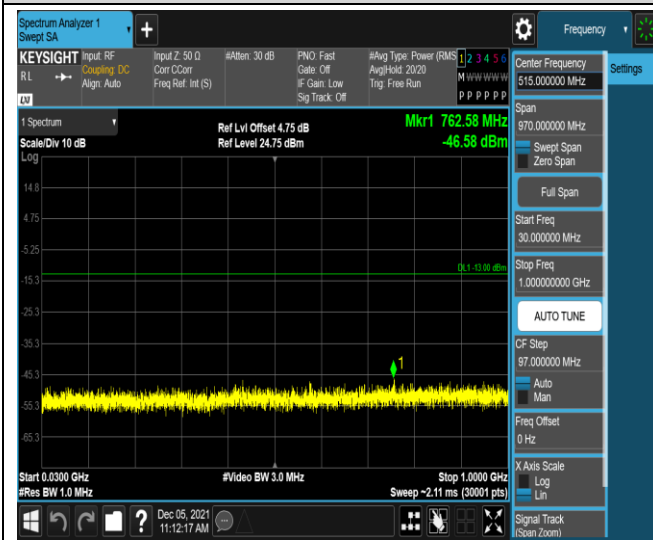
GSM850-251-3-30~1000MHz

GSM850-251-3-1000~10000MHz



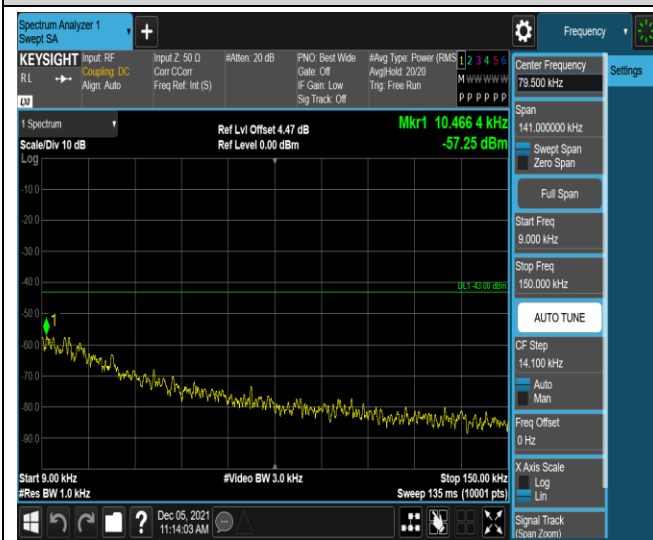
GSM1900-512-0-0.009~0.15MHz

GSM1900-512-0-0.15~30MHz



GSM1900-512-0-30~1000MHz

GSM1900-512-0-1000~18000MHz



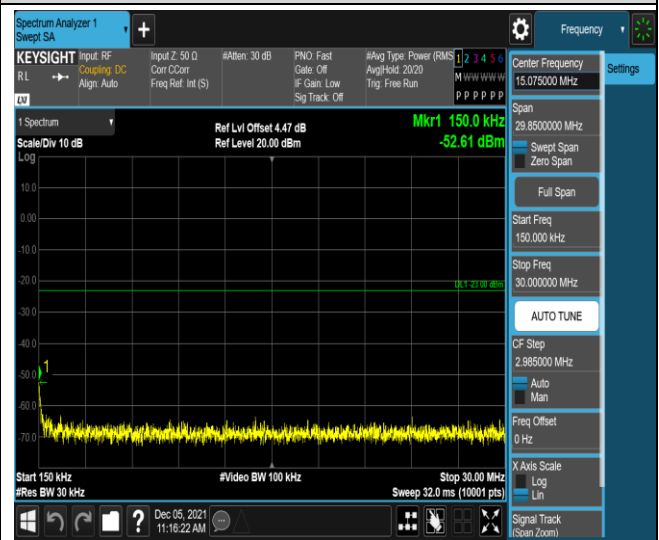
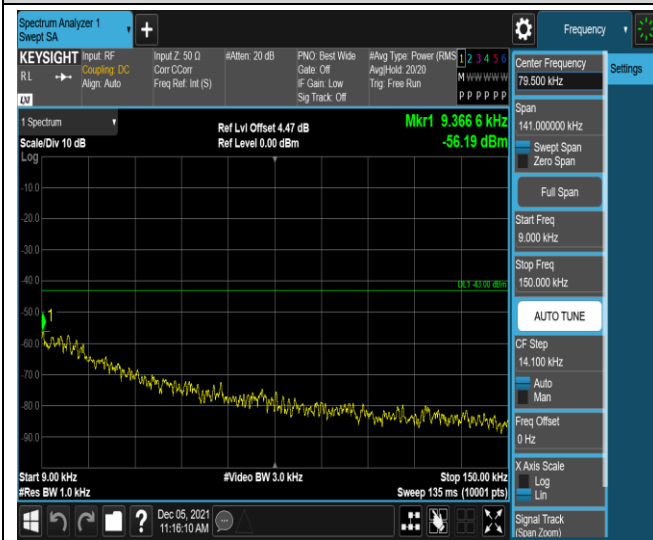
GSM1900-661-0-0.009~0.15MHz

GSM1900-661-0-0.15~30MHz



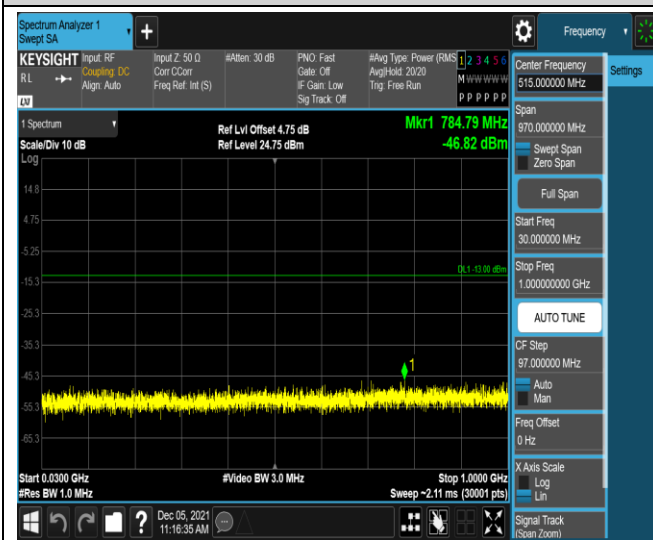
GSM1900-661-0-30~1000MHz

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	-7.01	-0.008379	±2.5	Pass
	-20	-6.78	-0.008104		
	-10	-10.36	-0.012383		
	0	-10.65	-0.012730		
	10	-6.30	-0.007530		
	20	-4.55	-0.005439		
	30	-7.94	-0.009491		
	40	-6.46	-0.007722		
	50	-3.03	-0.003622		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-8.30	-0.009921	±2.5	Pass
	3.85	-4.68	-0.005594		
	4.40	-8.07	-0.009646		
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	-14.63	-0.017487	±2.5	Pass
	-20	-9.72	-0.011618		
	-10	-7.30	-0.008726		
	0	-7.10	-0.008487		
	10	-9.23	-0.011033		
	20	-6.26	-0.007483		
	30	-5.55	-0.006634		
	40	-10.85	-0.012969		
	50	-7.59	-0.009072		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-9.33	-0.011152	±2.5	Pass
	3.85	-10.33	-0.012348		
	4.40	-11.62	-0.013890		
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	19.76	0.010511	Within authorized band for PCS 1900	Pass
	-20	10.33	0.005495		
	-10	14.24	0.007574		
	0	16.63	0.008846		
	10	16.34	0.008691		
	20	18.05	0.009601		
	30	18.56	0.009872		
	40	29.02	0.015436		
	50	14.82	0.007883		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	12.37	0.006580	Within authorized band for PCS 1900	Pass
	3.85	21.99	0.011697		
	4.40	18.21	0.009686		
<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	16.18	0.008606	Within authorized band for PCS 1900	Pass
	-20	16.11	0.008569		
	-10	26.54	0.014117		
	0	30.09	0.016005		
	10	27.57	0.014665		
	20	27.67	0.014718		
	30	26.44	0.014064		
	40	35.13	0.018686		
	50	21.73	0.011559		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	20.76	0.011043	Within authorized band for PCS 1900	Pass
	3.85	22.44	0.011936		
	4.40	20.66	0.010989		
<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

