

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	33.36	32.71	38.5	PASS
GSM850	190	3	33.59	32.94	38.5	PASS
GSM850	251	3	33.53	31.78	38.5	PASS
GSM1900	512	0	30.41	30.81	33	PASS
GSM1900	661	0	30.33	30.73	33	PASS
GSM1900	810	0	30.44	30.84	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	3	1	33.33	32.68	38.5	PASS
GPRS850	128	3	2	32.91	32.26	38.5	PASS
GPRS850	128	3	3	31.55	30.9	38.5	PASS
GPRS850	128	3	4	30.34	29.69	38.5	PASS
GPRS850	190	3	1	33.41	32.76	38.5	PASS
GPRS850	190	3	2	33.03	32.38	38.5	PASS
GPRS850	190	3	3	31.55	30.9	38.5	PASS
GPRS850	190	3	4	30.33	29.68	38.5	PASS
GPRS850	251	3	1	33.33	31.58	38.5	PASS
GPRS850	251	3	2	33.01	31.26	38.5	PASS
GPRS850	251	3	3	31.59	29.84	38.5	PASS
GPRS850	251	3	4	30.39	28.64	38.5	PASS
GPRS1900	512	0	1	30.39	30.79	33	PASS
GPRS1900	512	0	2	30.00	30.4	33	PASS
GPRS1900	512	0	3	28.76	29.16	33	PASS
GPRS1900	512	0	4	27.36	27.76	33	PASS
GPRS1900	661	0	1	30.28	30.68	33	PASS
GPRS1900	661	0	2	29.93	30.33	33	PASS
GPRS1900	661	0	3	28.57	28.97	33	PASS
GPRS1900	661	0	4	27.09	27.49	33	PASS
GPRS1900	810	0	1	30.32	30.72	33	PASS
GPRS1900	810	0	2	30.03	30.43	33	PASS
GPRS1900	810	0	3	28.75	29.15	33	PASS
GPRS1900	810	0	4	27.33	27.73	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.72	27.07	38.5	PASS
EGPRS850	128	8	2	26.72	26.07	38.5	PASS
EGPRS850	128	8	3	24.76	24.11	38.5	PASS
EGPRS850	128	8	4	23.75	23.1	38.5	PASS
EGPRS850	190	8	1	27.54	26.89	38.5	PASS
EGPRS850	190	8	2	26.61	25.96	38.5	PASS
EGPRS850	190	8	3	24.59	23.94	38.5	PASS
EGPRS850	190	8	4	23.60	22.95	38.5	PASS
EGPRS850	251	8	1	27.37	25.62	38.5	PASS
EGPRS850	251	8	2	26.37	24.62	38.5	PASS
EGPRS850	251	8	3	24.39	22.64	38.5	PASS
EGPRS850	251	8	4	23.36	21.61	38.5	PASS
EGPRS1900	512	2	1	27.08	27.48	33	PASS
EGPRS1900	512	2	2	26.15	26.55	33	PASS
EGPRS1900	512	2	3	24.33	24.73	33	PASS
EGPRS1900	512	2	4	23.23	23.63	33	PASS
EGPRS1900	661	2	1	26.86	27.26	33	PASS
EGPRS1900	661	2	2	25.94	26.34	33	PASS
EGPRS1900	661	2	3	24.12	24.52	33	PASS
EGPRS1900	661	2	4	23.03	23.43	33	PASS
EGPRS1900	810	2	1	26.54	26.94	33	PASS
EGPRS1900	810	2	2	25.63	26.03	33	PASS
EGPRS1900	810	2	3	23.67	24.07	33	PASS
EGPRS1900	810	2	4	22.66	23.06	33	PASS

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

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

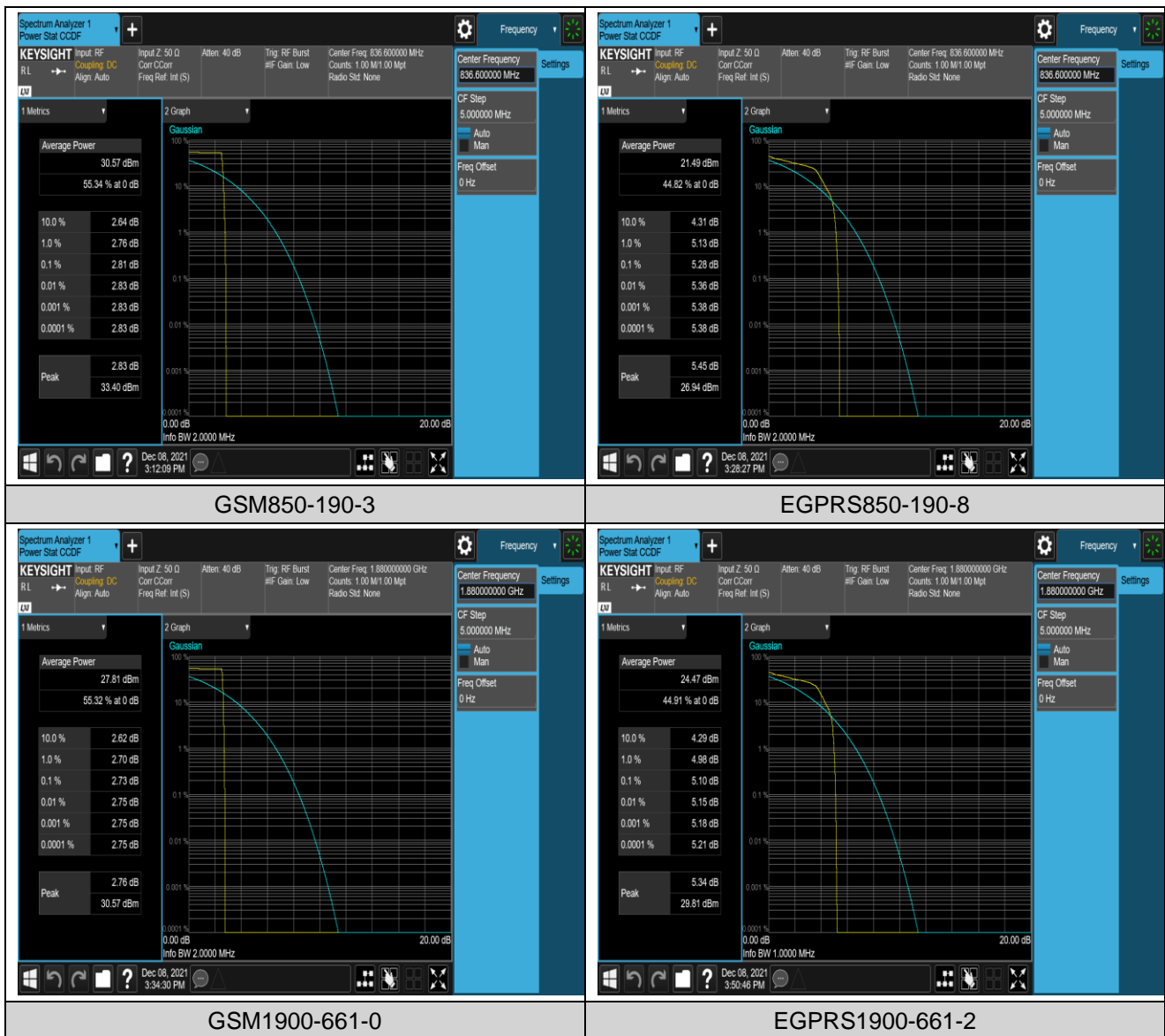
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	3	2.81	13	PASS
EGPRS850	190	8	5.28	13	PASS
GSM1900	661	0	2.73	13	PASS
EGPRS1900	661	2	5.1	13	PASS

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

Test Graphs

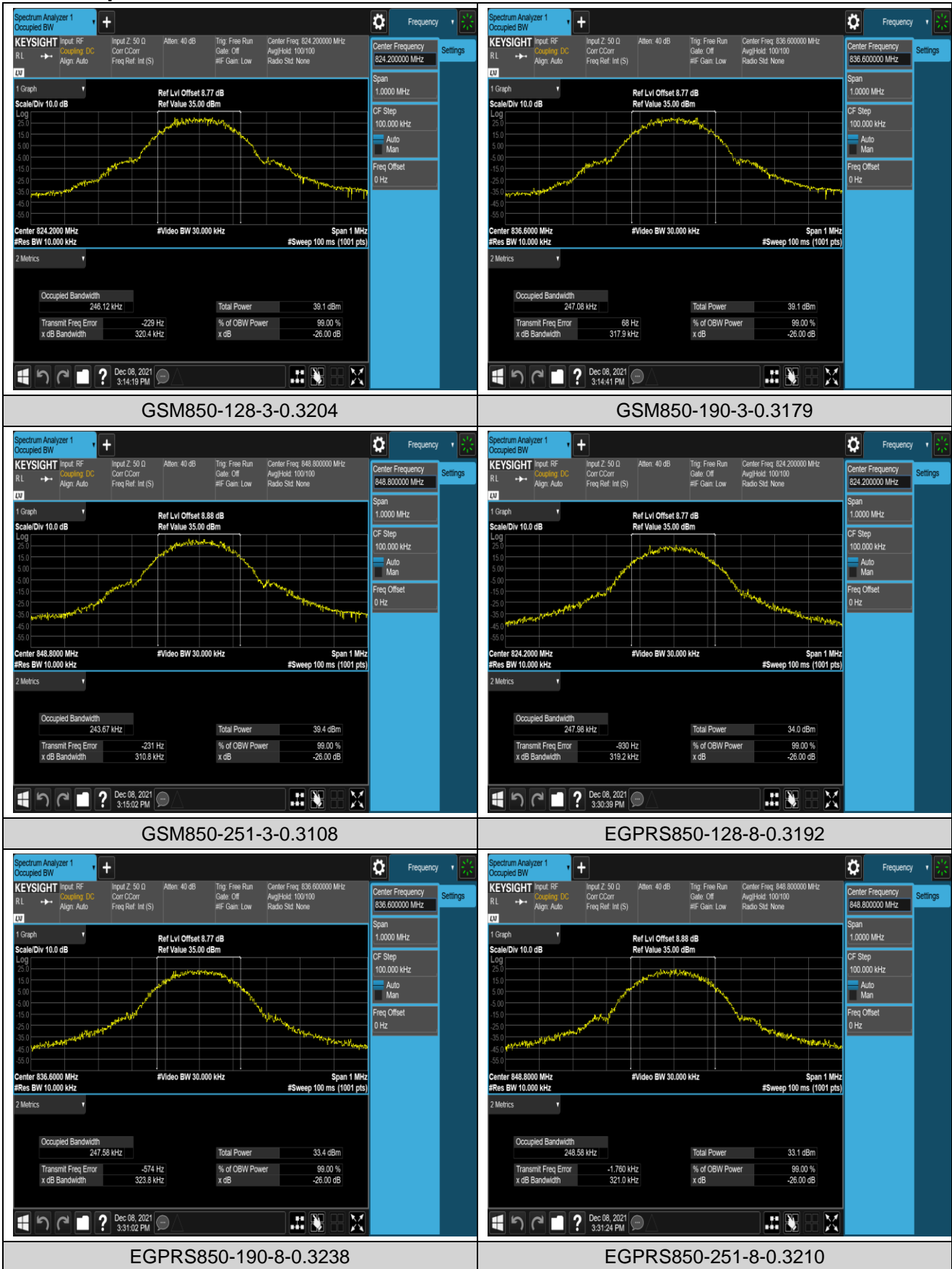


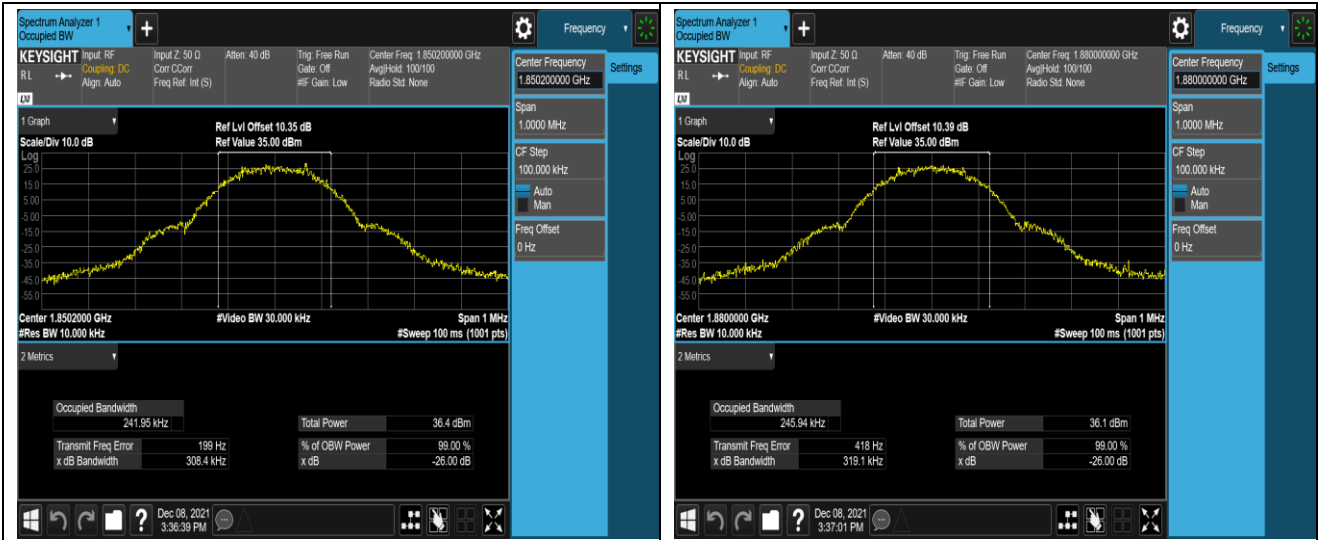
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	3	0.24612	0.3204	---	PASS
GSM850	190	3	0.24708	0.3179	---	PASS
GSM850	251	3	0.24367	0.3108	---	PASS
EGPRS850	128	8	0.24798	0.3192	---	PASS
EGPRS850	190	8	0.24758	0.3238	---	PASS
EGPRS850	251	8	0.24858	0.3210	---	PASS
GSM1900	512	0	0.24195	0.3084	---	PASS
GSM1900	661	0	0.24594	0.3191	---	PASS
GSM1900	810	0	0.24481	0.3110	---	PASS
EGPRS1900	512	2	0.24756	0.3154	---	PASS
EGPRS1900	661	2	0.24935	0.3151	---	PASS
EGPRS1900	810	2	0.24804	0.3094	---	PASS

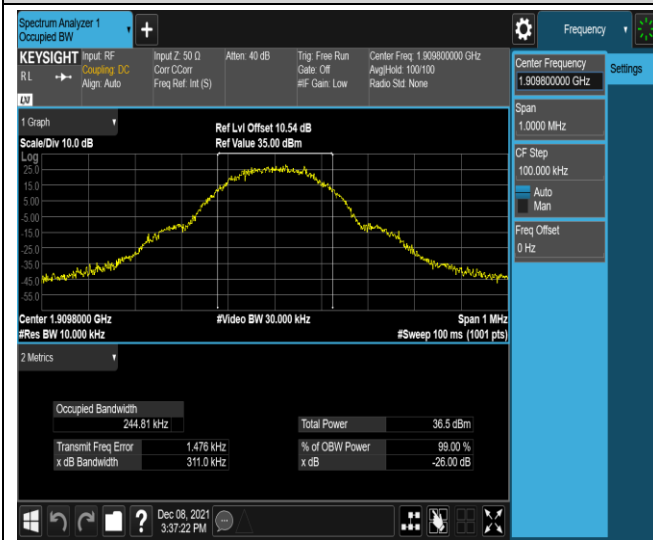
Test Graphs



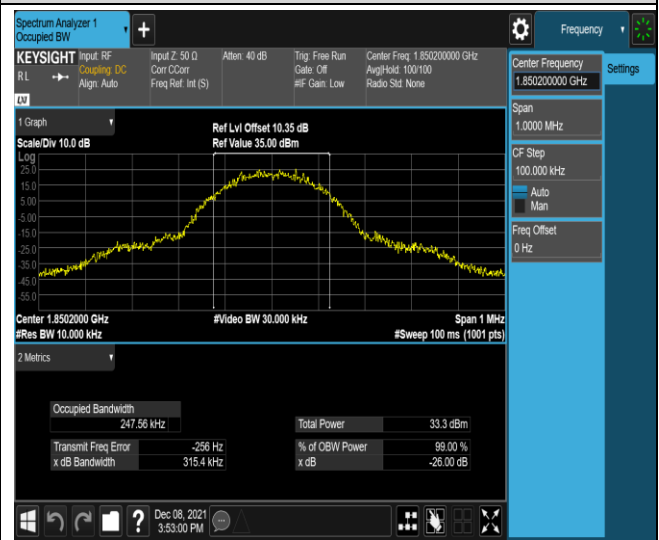


GSM1900-512-0-0.3084

GSM1900-661-0-0.3191



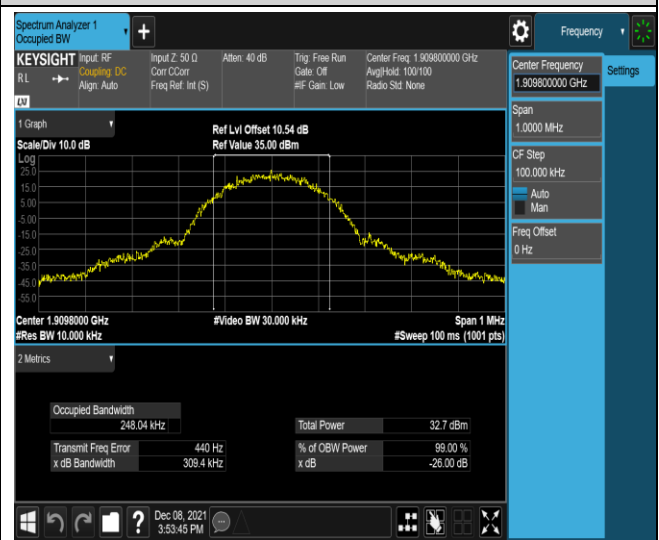
GSM1900-810-0-0.3110



EGPRS1900-512-2-0.3154



EGPRS1900-661-2-0.3151



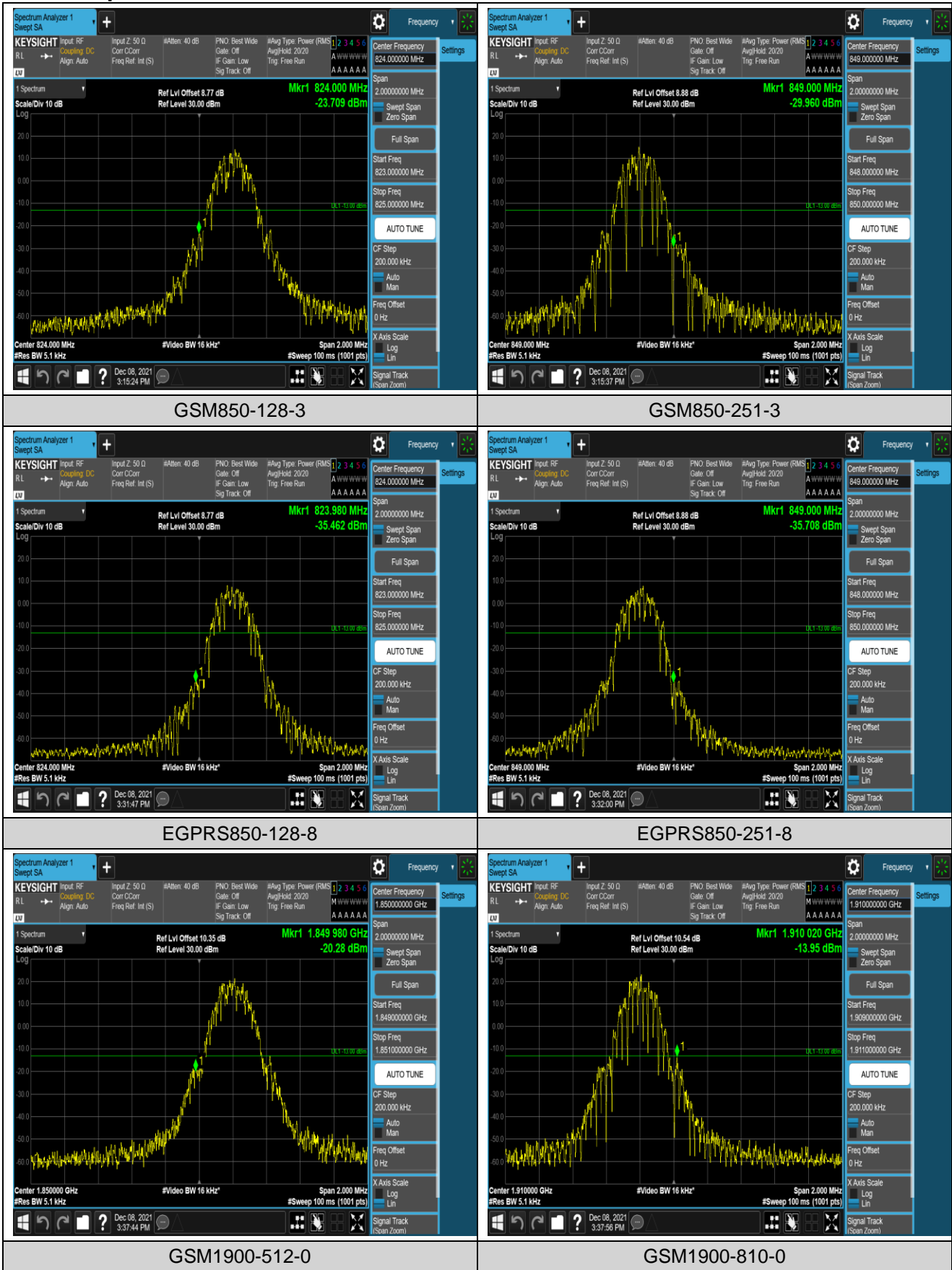
EGPRS1900-810-2-0.3094

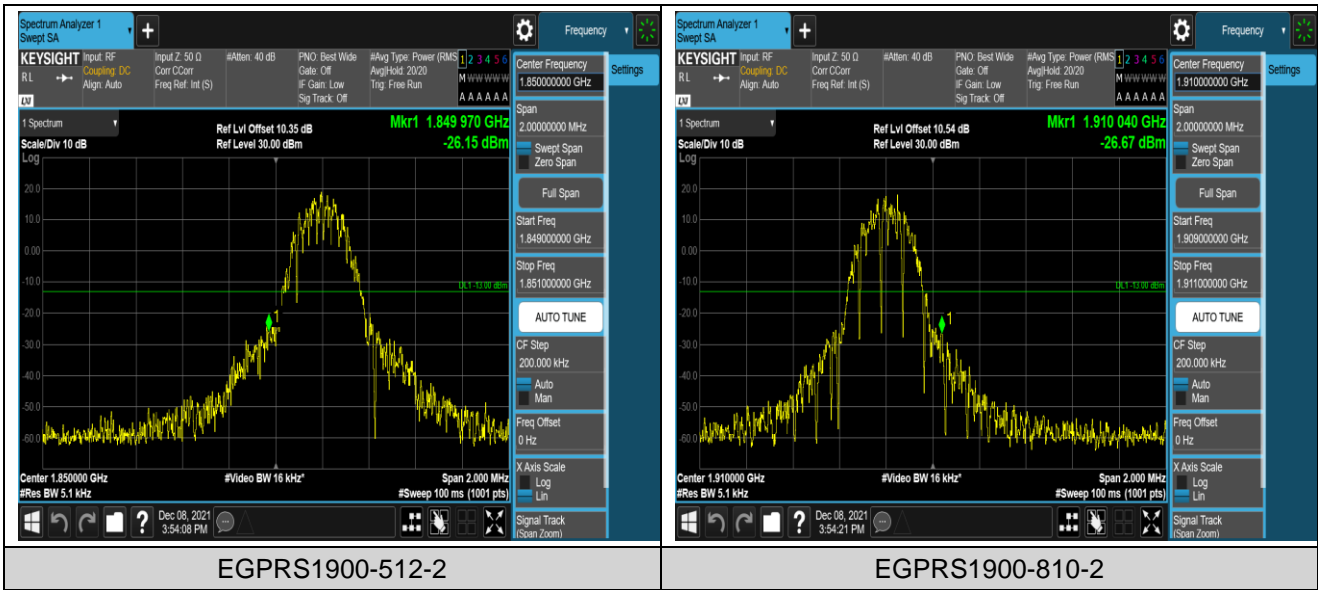
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	3	824.00	-23.71	-13	PASS
GSM850	251	3	849.00	-23.90	-13	PASS
EGPRS850	128	8	823.98	-33.45	-13	PASS
EGPRS850	251	8	849.00	-32.57	-13	PASS
GSM1900	512	0	1849.98	-16.19	-13	PASS
GSM1900	810	0	1910.02	-13.95	-13	PASS
EGPRS1900	512	2	1849.97	-23.39	-13	PASS
EGPRS1900	810	2	1910.04	-23.18	-13	PASS

Test Graphs





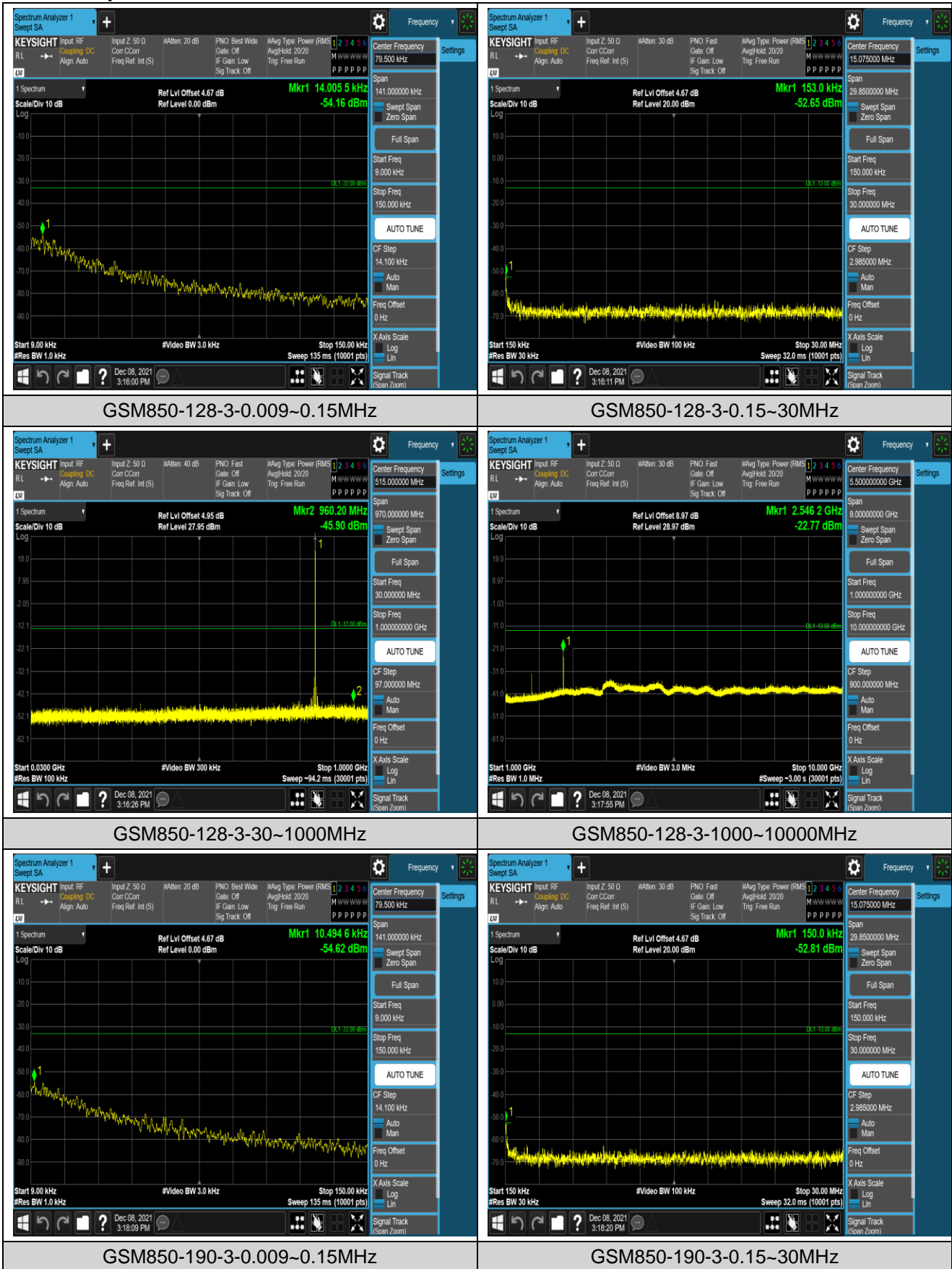
Appendix E: Conducted Spurious Emission

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	-54.16	-33	PASS
GSM850	128	3	0.15~30MHz	0.15	-52.65	-13	PASS
GSM850	128	3	30~1000MHz	960.2	-45.9	-13	PASS
GSM850	128	3	1000~10000MHz	2546.2	-22.78	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.01	-54.62	-33	PASS
GSM850	190	3	0.15~30MHz	0.15	-52.81	-13	PASS
GSM850	190	3	30~1000MHz	969.38	-45.83	-13	PASS
GSM850	190	3	1000~10000MHz	2546.2	-22.71	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-54.05	-33	PASS
GSM850	251	3	0.15~30MHz	0.15	-52.49	-13	PASS
GSM850	251	3	30~1000MHz	971.42	-45.41	-13	PASS
GSM850	251	3	1000~10000MHz	2546.2	-22.8	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-57.26	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-53.3	-23	PASS
GSM1900	512	0	30~1000MHz	800.92	-46.78	-13	PASS
GSM1900	512	0	1000~18000MHz	3742.67	-34.61	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-55.52	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-53.73	-23	PASS
GSM1900	661	0	30~1000MHz	813.02	-46.59	-13	PASS
GSM1900	661	0	1000~18000MHz	3804.43	-34.61	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-56.25	-43	PASS
GSM1900	810	0	0.15~30MHz	0.16	-52.84	-23	PASS
GSM1900	810	0	30~1000MHz	840.31	-46.71	-13	PASS
GSM1900	810	0	1000~18000MHz	3888.3	-34.95	-13	PASS

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

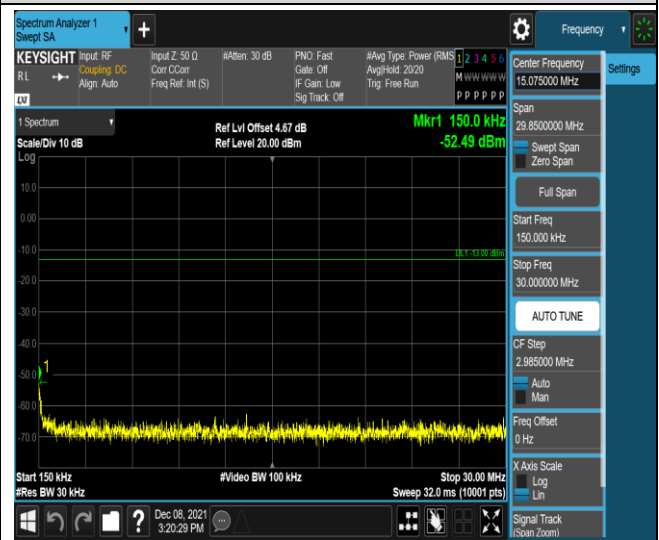
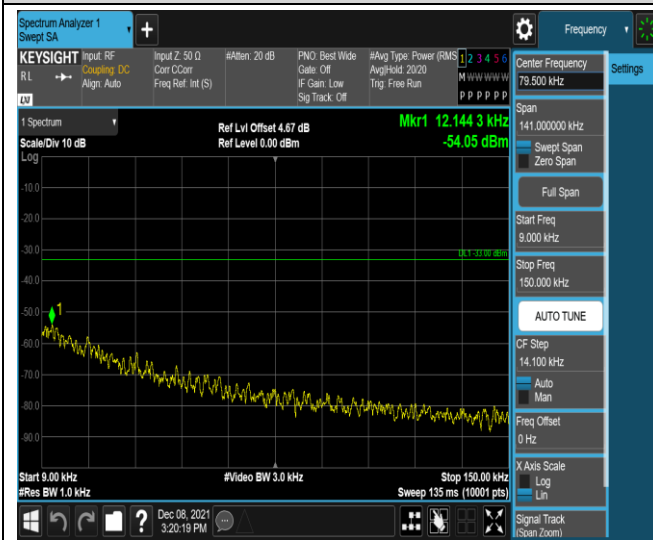
Test Graphs





GSM850-190-3-30~1000MHz

GSM850-190-3-1000~10000MHz



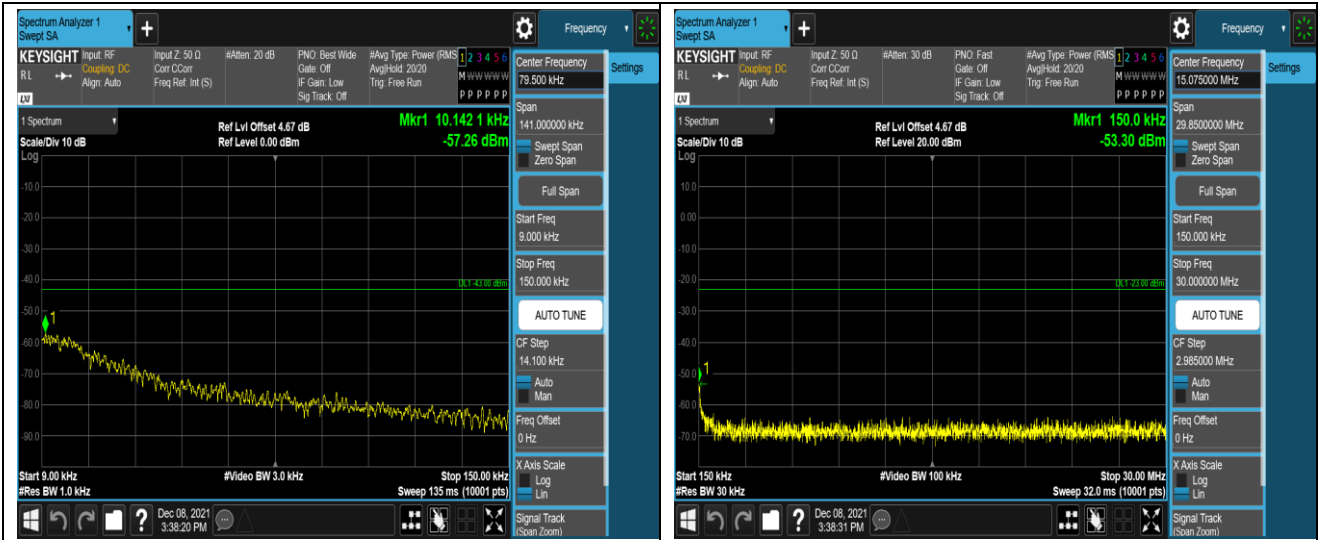
GSM850-251-3-0.009~0.15MHz

GSM850-251-3-0.15~30MHz



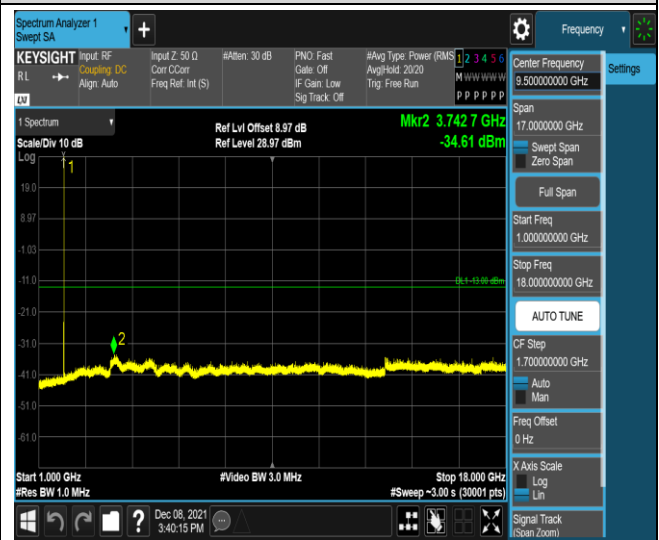
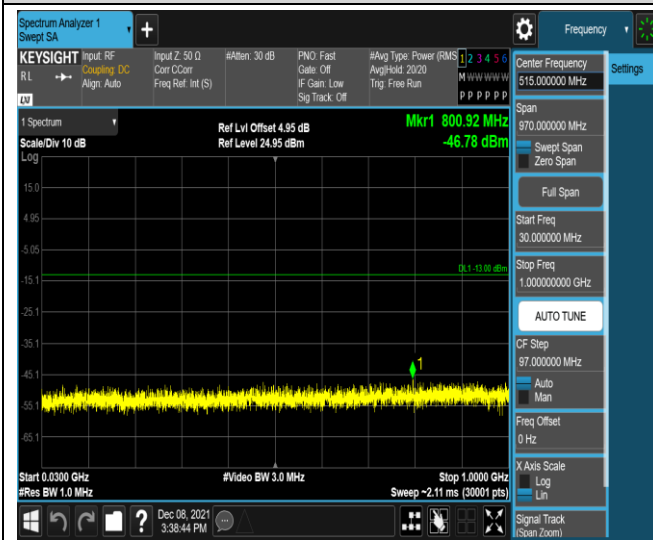
GSM850-251-3-30~1000MHz

GSM850-251-3-1000~10000MHz



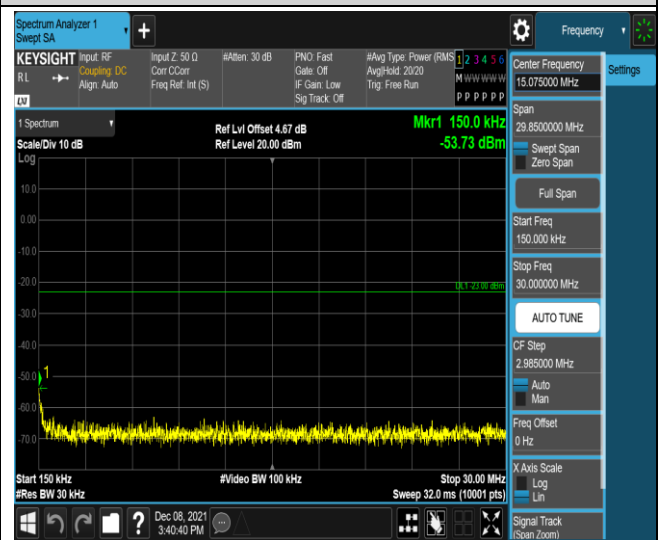
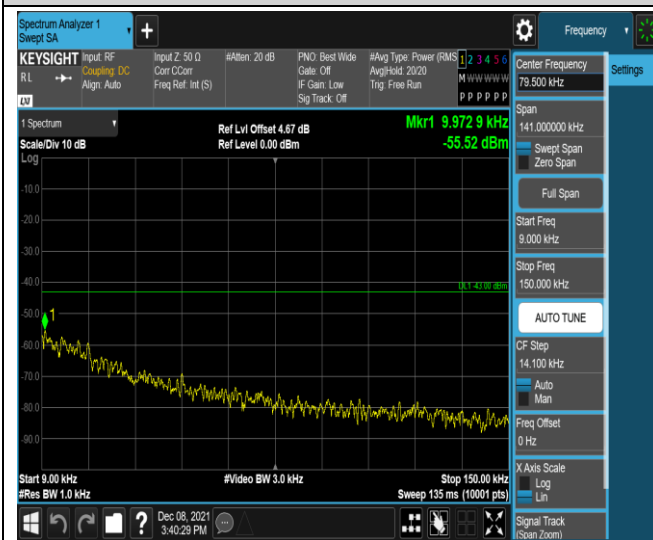
GSM1900-512-0-0.009~0.15MHz

GSM1900-512-0-0.15~30MHz



GSM1900-512-0-30~1000MHz

GSM1900-512-0-1000~18000MHz



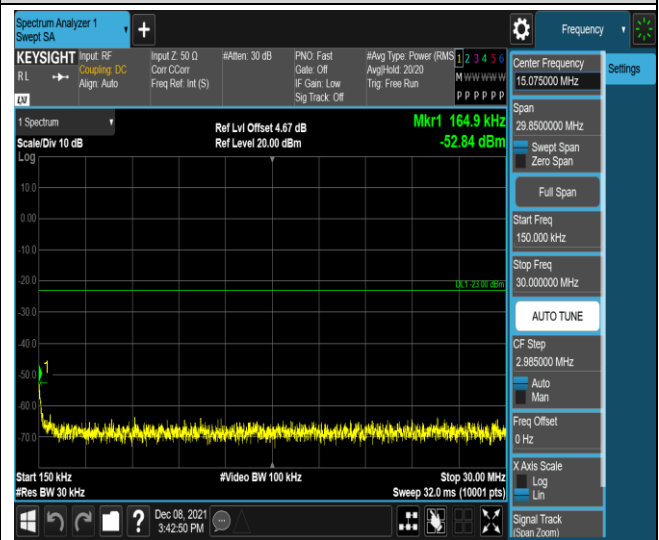
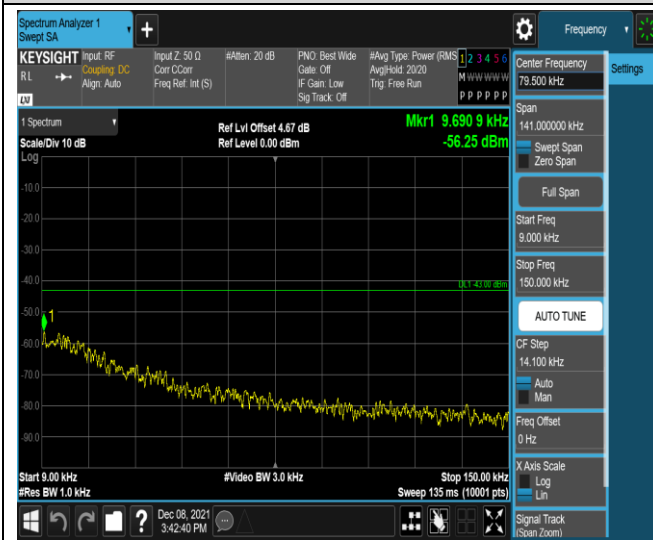
GSM1900-661-0-0.009~0.15MHz

GSM1900-661-0-0.15~30MHz



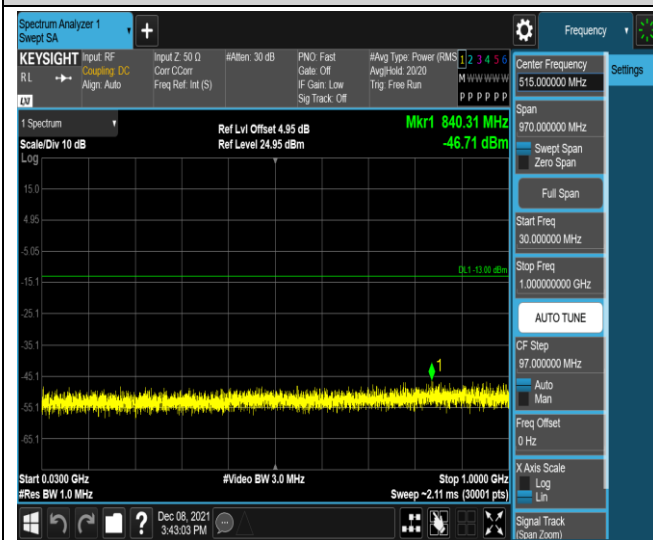
GSM1900-661-0-30~1000MHz

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	6.3	0.00753	±2.5	Pass
	-20	7.78	0.0093		
	-10	8.72	0.010423		
	0	8.52	0.010184		
	10	11.62	0.01389		
	20	10.98	0.013125		
	30	13.62	0.01628		
	40	13.3	0.015898		
	50	13.3	0.015898		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	7.39	0.008833	±2.5	Pass
	3.85	5.91	0.007064		
	4.40	6.01	0.007184		
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	5.62	0.006718	±2.5	Pass
	-20	11.46	0.013698		
	-10	2.74	0.003275		
	0	0.58	0.000693		
	10	-0.55	-0.000657		
	20	-1.13	-0.001351		
	30	12.95	0.015479		
	40	2.2	0.00263		
	50	-1.52	-0.001817		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	4.71	0.00563	±2.5	Pass
	3.85	3.68	0.004399		
	4.40	5.36	0.006407		
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	22.86	0.01216	Within authorized band for PCS 1900	Pass
	-20	29.99	0.015952		
	-10	23.92	0.012723		
	0	33.77	0.017963		
	10	27.09	0.01441		
	20	38.84	0.02066		
	30	38	0.020213		
	40	35.16	0.018702		
	50	26.44	0.014064		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	26.38	0.014032	Within authorized band for PCS 1900	Pass
	3.85	29.96	0.015936		
	4.40	26.41	0.014048		
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		
3.85	-30	23.25	0.012367	Within authorized band for PCS 1900	Pass
	-20	8.2	0.004362		
	-10	-8.59	-0.004569		
	0	-9.33	-0.004963		
	10	-10.85	-0.005771		
	20	-7.85	-0.004176		
	30	1.87	0.000995		
	40	2.1	0.001117		
	50	8.72	0.004638		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	18.95	0.01008	Within authorized band for PCS 1900	Pass
	3.85	22.05	0.011729		
	4.40	23.57	0.012537		
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

