

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	32.91	28.76	38.5	PASS
GSM850	190	3	33.27	29.92	38.5	PASS
GSM850	251	3	32.87	29.52	38.5	PASS
GSM1900	512	0	30.45	29.25	33	PASS
GSM1900	661	0	30.38	29.18	33	PASS
GSM1900	810	0	30.27	29.07	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	3	1	32.88	28.73	38.5	PASS
GPRS850	128	3	2	30.88	26.73	38.5	PASS
GPRS850	128	3	3	28.92	24.77	38.5	PASS
GPRS850	128	3	4	26.78	22.63	38.5	PASS
GPRS850	190	3	1	33.20	29.85	38.5	PASS
GPRS850	190	3	2	31.02	27.67	38.5	PASS
GPRS850	190	3	3	29.07	25.72	38.5	PASS
GPRS850	190	3	4	26.91	23.56	38.5	PASS
GPRS850	251	3	1	32.80	29.45	38.5	PASS
GPRS850	251	3	2	30.64	27.29	38.5	PASS
GPRS850	251	3	3	28.72	25.37	38.5	PASS
GPRS850	251	3	4	26.60	23.25	38.5	PASS
GPRS1900	512	0	1	30.44	29.24	33	PASS
GPRS1900	512	0	2	28.09	26.89	33	PASS
GPRS1900	512	0	3	26.48	25.28	33	PASS
GPRS1900	512	0	4	24.45	23.25	33	PASS
GPRS1900	661	0	1	30.33	29.13	33	PASS
GPRS1900	661	0	2	27.85	26.65	33	PASS
GPRS1900	661	0	3	26.23	25.03	33	PASS
GPRS1900	661	0	4	24.16	22.96	33	PASS
GPRS1900	810	0	1	30.23	29.03	33	PASS
GPRS1900	810	0	2	27.56	26.36	33	PASS
GPRS1900	810	0	3	25.92	24.72	33	PASS
GPRS1900	810	0	4	23.84	22.64	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	25.57	21.42	38.5	PASS
EGPRS850	128	8	2	25.38	21.23	38.5	PASS
EGPRS850	128	8	3	24.20	20.05	38.5	PASS
EGPRS850	128	8	4	21.18	17.03	38.5	PASS
EGPRS850	190	8	1	25.81	22.46	38.5	PASS
EGPRS850	190	8	2	25.84	22.49	38.5	PASS
EGPRS850	190	8	3	24.82	21.47	38.5	PASS
EGPRS850	190	8	4	21.94	18.59	38.5	PASS
EGPRS850	251	8	1	25.39	22.04	38.5	PASS
EGPRS850	251	8	2	25.38	22.03	38.5	PASS
EGPRS850	251	8	3	24.31	20.96	38.5	PASS
EGPRS850	251	8	4	21.42	18.07	38.5	PASS
EGPRS1900	512	2	1	25.46	24.26	33	PASS
EGPRS1900	512	2	2	25.27	24.07	33	PASS
EGPRS1900	512	2	3	23.14	21.94	33	PASS
EGPRS1900	512	2	4	21.59	20.39	33	PASS
EGPRS1900	661	2	1	25.27	24.07	33	PASS
EGPRS1900	661	2	2	25.30	24.1	33	PASS
EGPRS1900	661	2	3	23.15	21.95	33	PASS
EGPRS1900	661	2	4	21.73	20.53	33	PASS
EGPRS1900	810	2	1	25.47	24.27	33	PASS
EGPRS1900	810	2	2	25.43	24.23	33	PASS
EGPRS1900	810	2	3	23.57	22.37	33	PASS
EGPRS1900	810	2	4	22.11	20.91	33	PASS

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

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

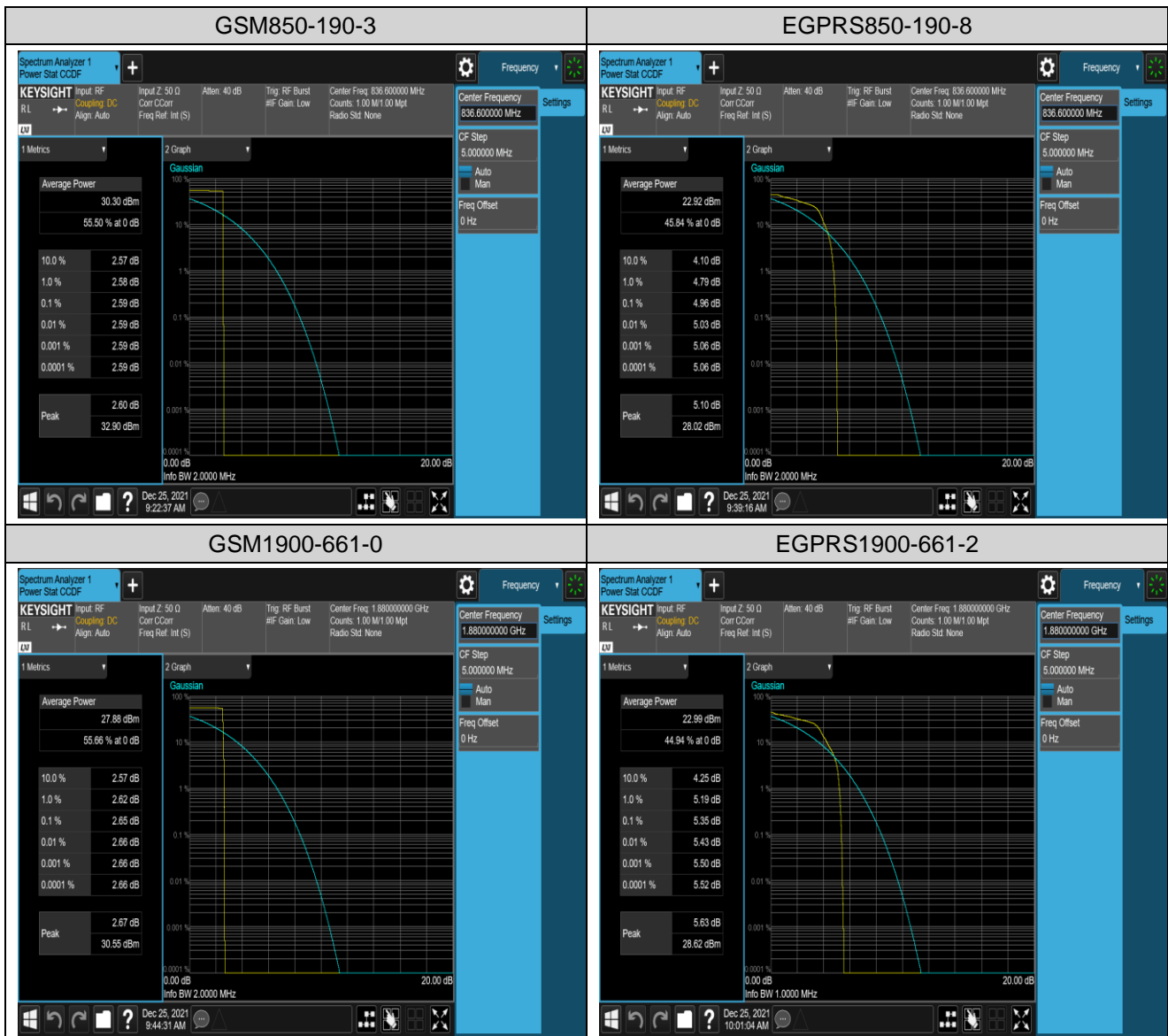
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	3	2.59	13	PASS
EGPRS850	190	8	4.96	13	PASS
GSM1900	661	0	2.65	13	PASS
EGPRS1900	661	2	5.35	13	PASS

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

Test Graphs

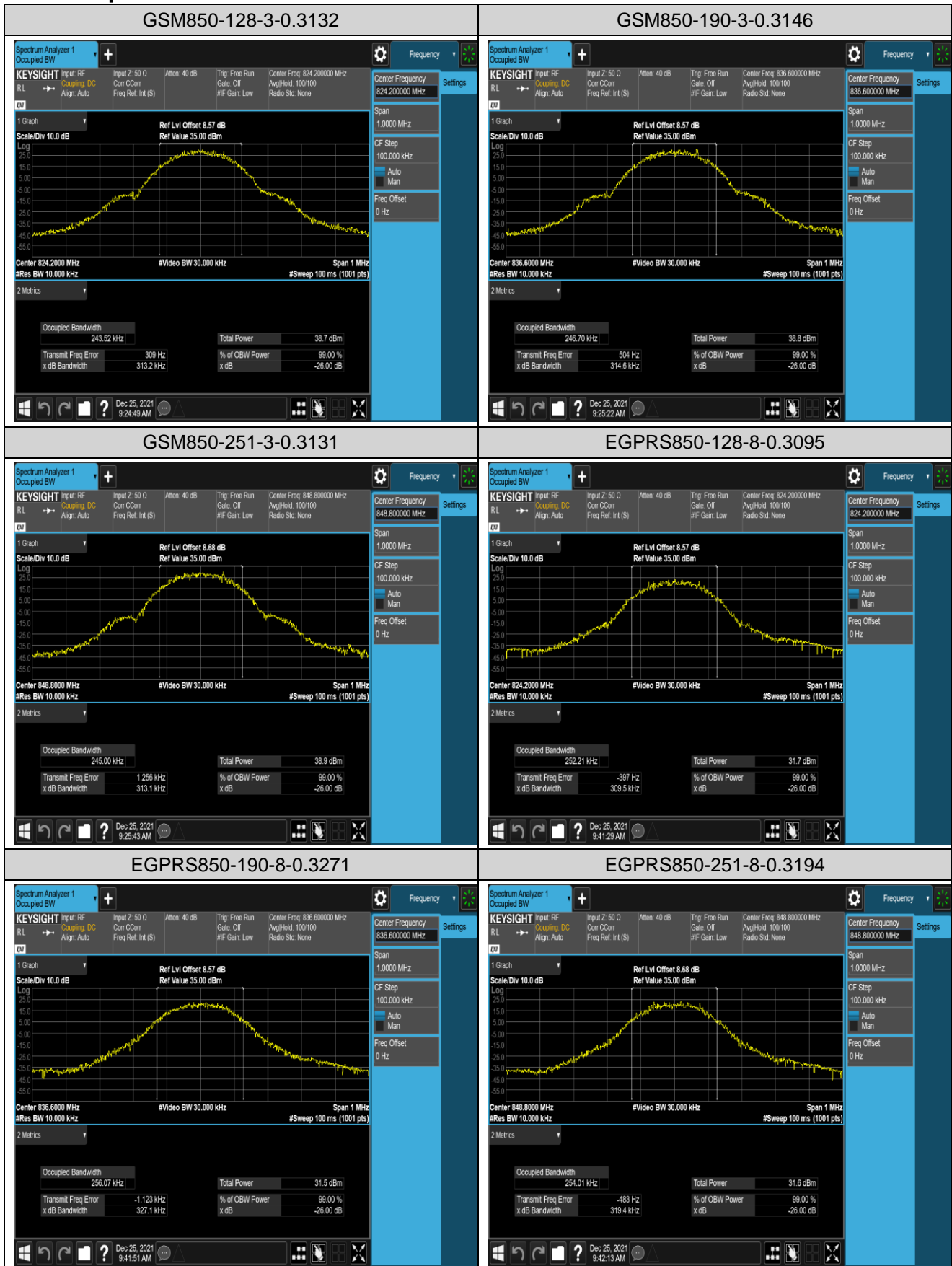


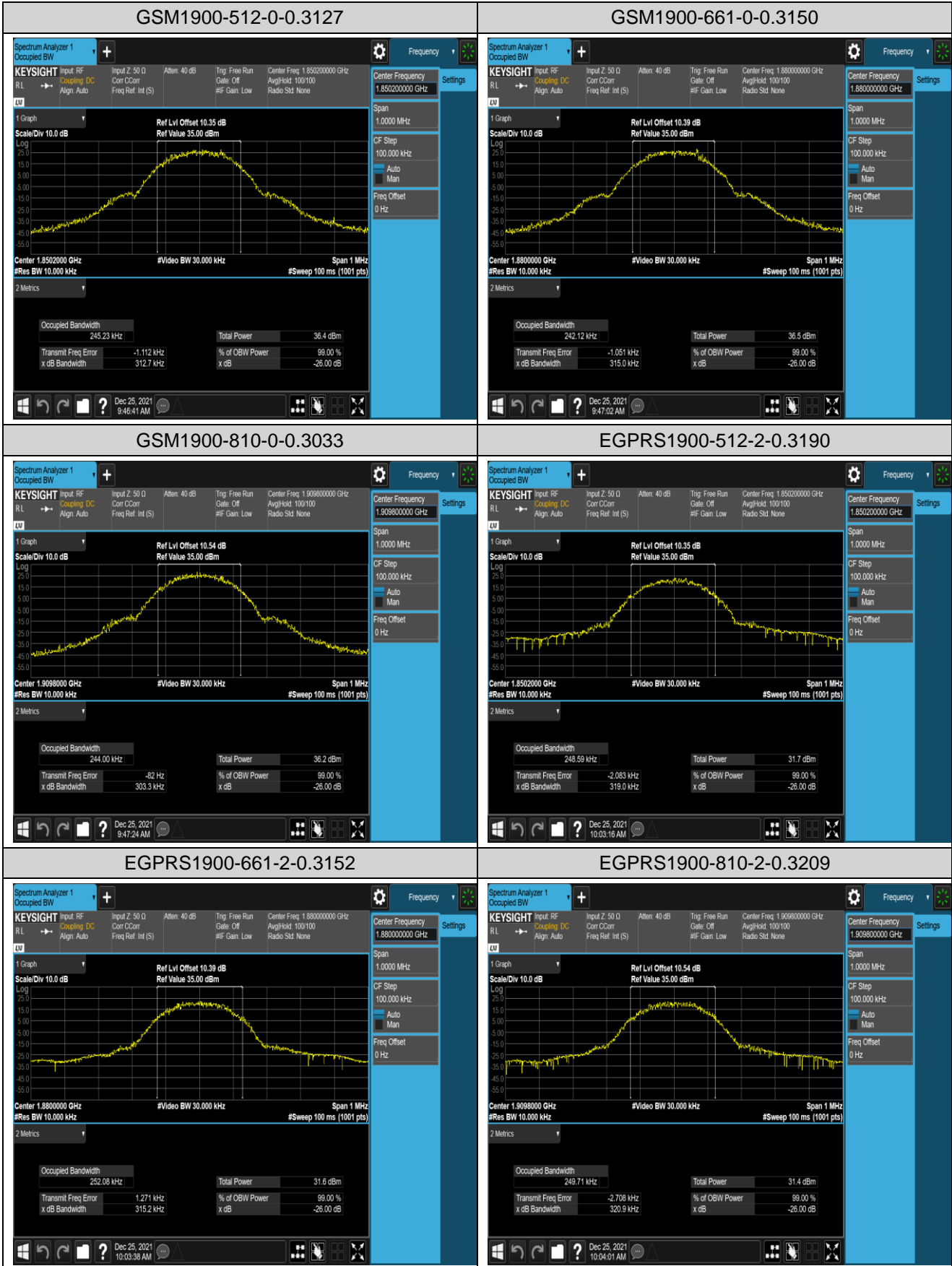
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	3	0.24352	0.3132	---	PASS
GSM850	190	3	0.24670	0.3146	---	PASS
GSM850	251	3	0.24500	0.3131	---	PASS
EGPRS850	128	8	0.25221	0.3095	---	PASS
EGPRS850	190	8	0.25607	0.3271	---	PASS
EGPRS850	251	8	0.25401	0.3194	---	PASS
GSM1900	512	0	0.24523	0.3127	---	PASS
GSM1900	661	0	0.24212	0.3150	---	PASS
GSM1900	810	0	0.24400	0.3033	---	PASS
EGPRS1900	512	2	0.24859	0.3190	---	PASS
EGPRS1900	661	2	0.25208	0.3152	---	PASS
EGPRS1900	810	2	0.24971	0.3209	---	PASS

Test Graphs



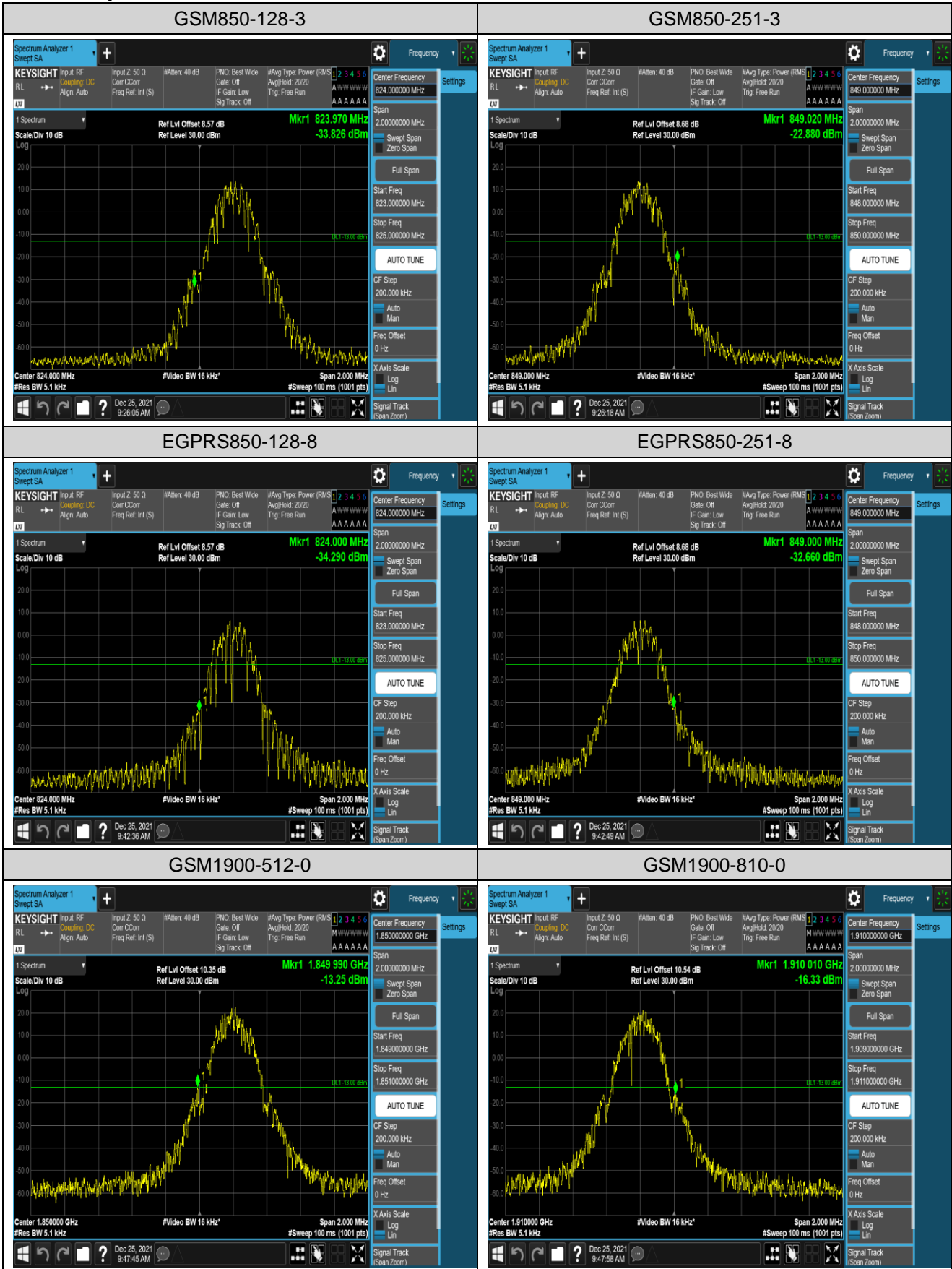


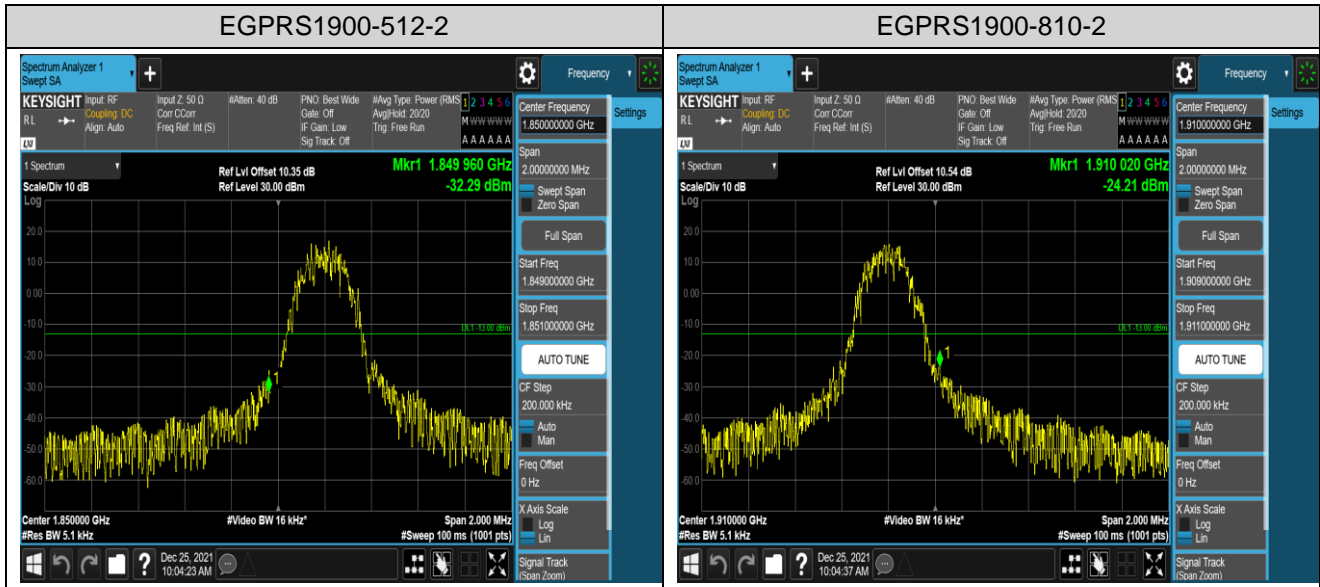
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	3	823.97	-33.826	-13	PASS
GSM850	251	3	849.02	-22.880	-13	PASS
EGPRS850	128	8	824.00	-34.290	-13	PASS
EGPRS850	251	8	849.00	-32.660	-13	PASS
GSM1900	512	0	1849.99	-13.250	-13	PASS
GSM1900	810	0	1910.01	-16.330	-13	PASS
EGPRS1900	512	2	1849.96	-32.290	-13	PASS
EGPRS1900	810	2	1910.02	-24.210	-13	PASS

Test Graphs





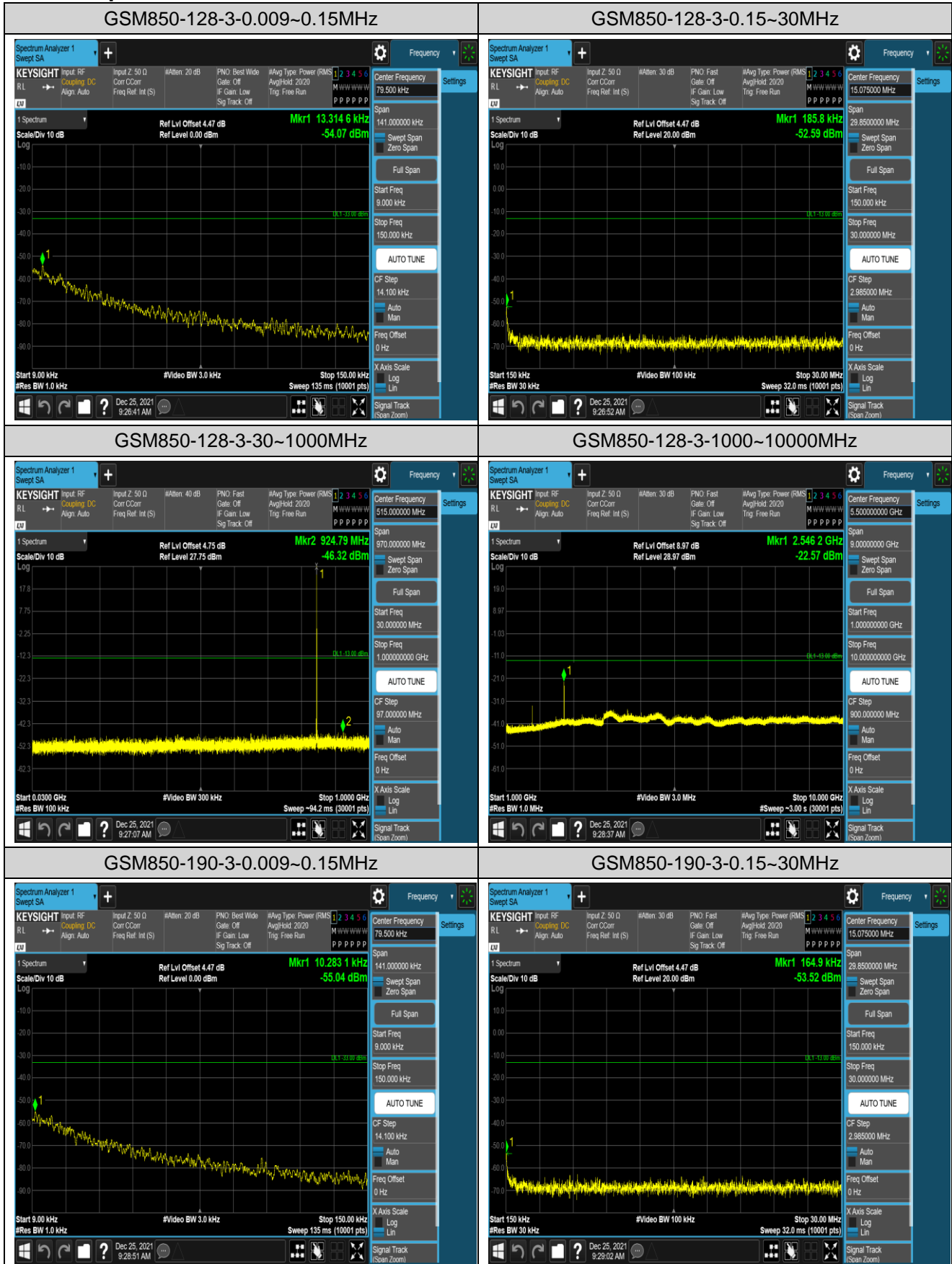
Appendix E: Conducted Spurious Emission

Test Result

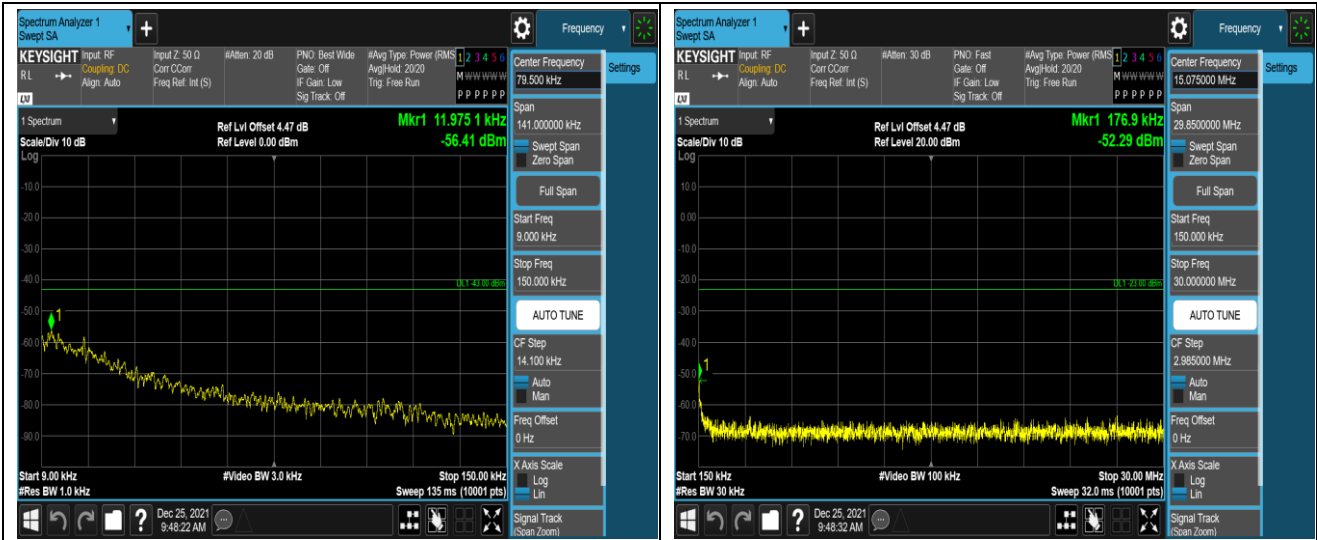
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	3	0.009~0.15MHz	0.01	-54.07	-33	PASS
GSM850	128	3	0.15~30MHz	0.19	-52.59	-13	PASS
GSM850	128	3	30~1000MHz	924.79	-46.32	-13	PASS
GSM850	128	3	1000~10000MHz	2546.2	-22.57	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.01	-55.04	-33	PASS
GSM850	190	3	0.15~30MHz	0.16	-53.52	-13	PASS
GSM850	190	3	30~1000MHz	690.86	-46.36	-13	PASS
GSM850	190	3	1000~10000MHz	2546.2	-22.49	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-53.14	-33	PASS
GSM850	251	3	0.15~30MHz	0.15	-52.45	-13	PASS
GSM850	251	3	30~1000MHz	740.59	-46	-13	PASS
GSM850	251	3	1000~10000MHz	2546.2	-22.33	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-56.41	-43	PASS
GSM1900	512	0	0.15~30MHz	0.18	-52.29	-23	PASS
GSM1900	512	0	30~1000MHz	713.59	-47.13	-13	PASS
GSM1900	512	0	1000~18000MHz	3773.27	-35.15	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-55.31	-43	PASS
GSM1900	661	0	0.15~30MHz	0.17	-53.18	-23	PASS
GSM1900	661	0	30~1000MHz	772.11	-47.14	-13	PASS
GSM1900	661	0	1000~18000MHz	3814.63	-34.94	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-53.12	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-53.15	-23	PASS
GSM1900	810	0	30~1000MHz	856.86	-46.3	-13	PASS
GSM1900	810	0	1000~18000MHz	3802.73	-34.55	-13	PASS

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

Test Graphs

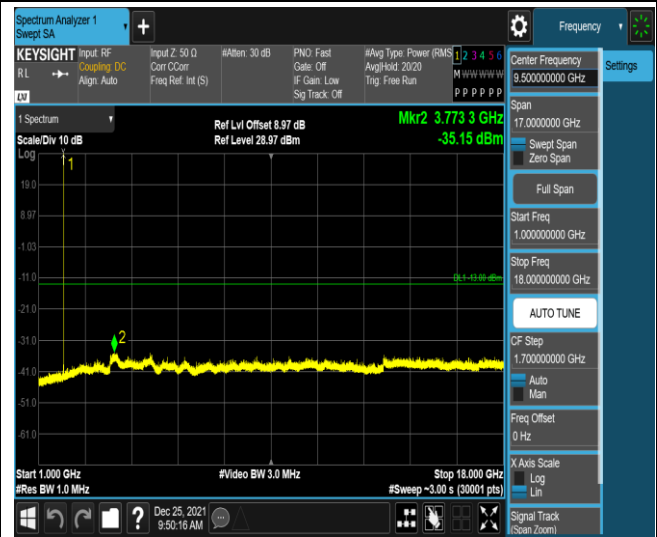
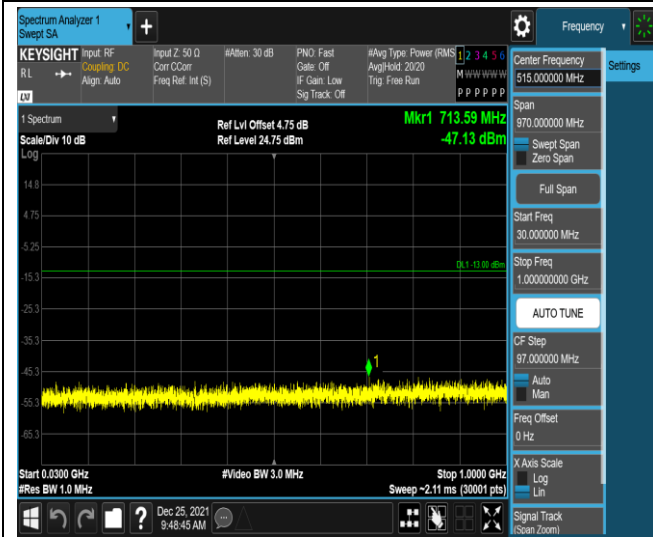






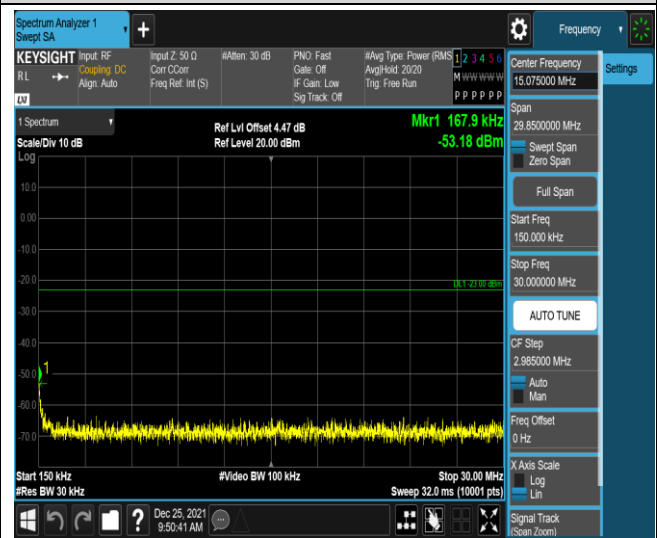
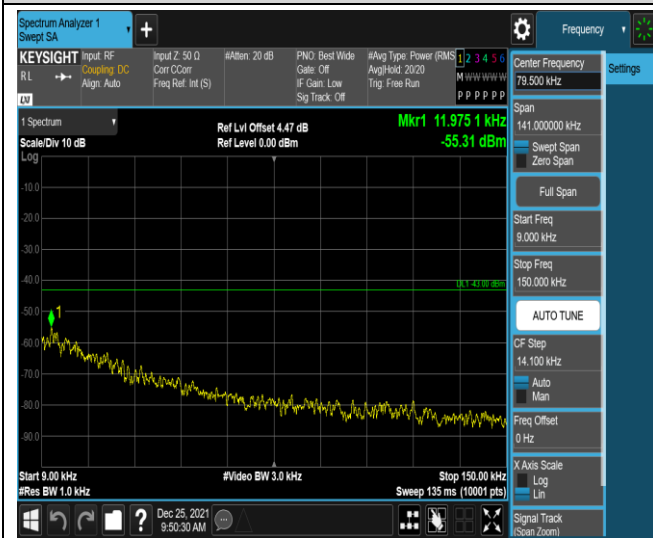
GSM1900-512-0-30~1000MHz

GSM1900-512-0-1000~18000MHz



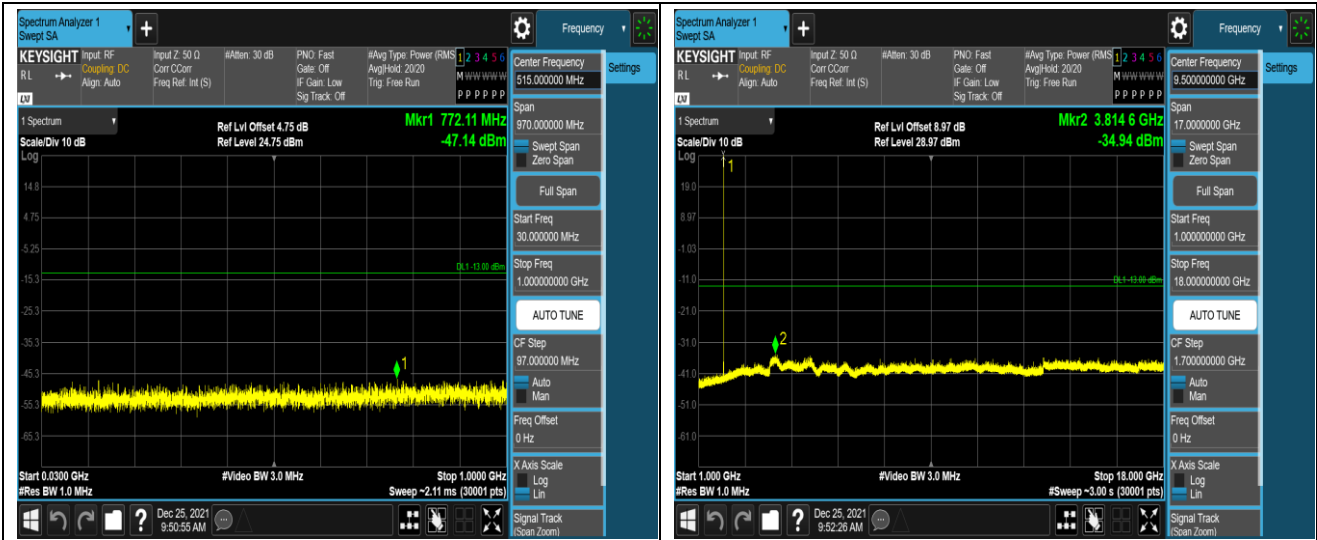
GSM1900-661-0-0.009~0.15MHz

GSM1900-661-0-0.15~30MHz



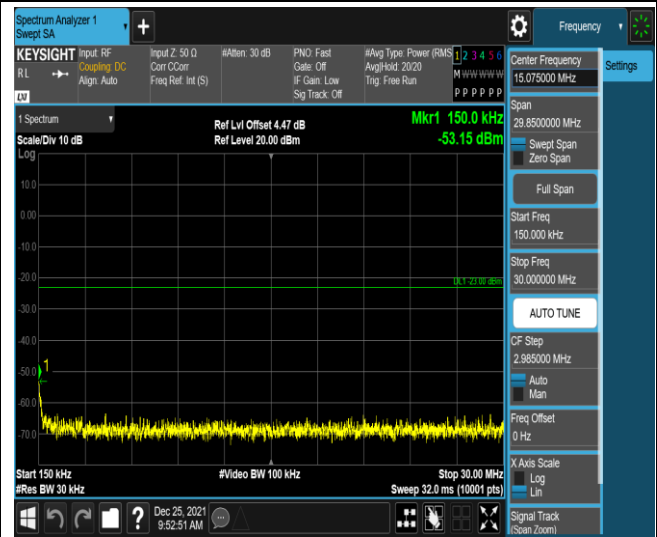
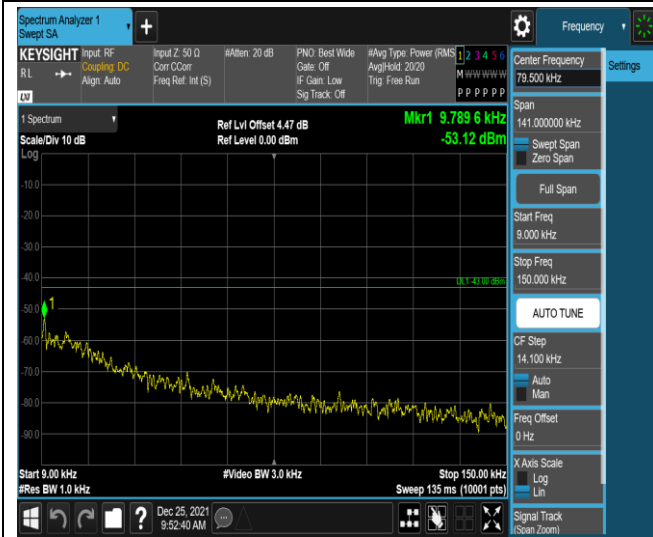
GSM1900-661-0-30~1000MHz

GSM1900-661-0-1000~18000MHz



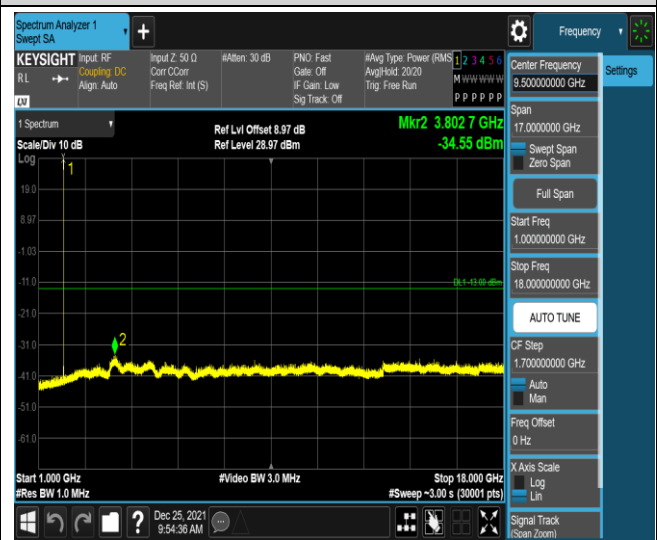
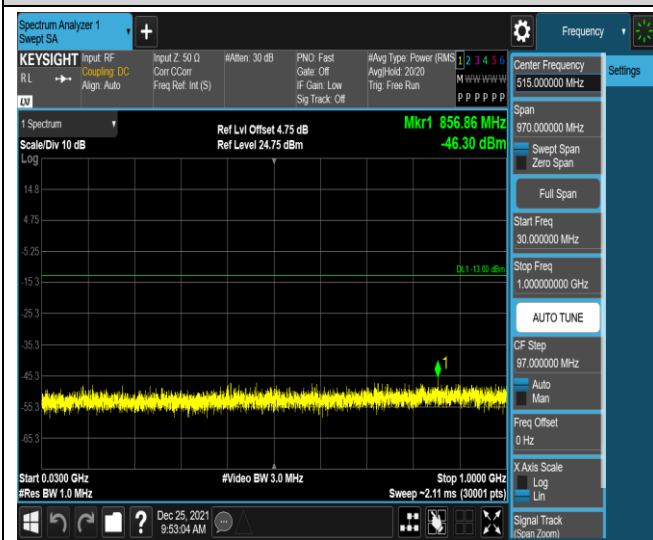
GSM1900-810-0-0.009~0.15MHz

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	12.37	0.014786	±2.5	Pass
	-20	14.21	0.016985		
	-10	12.53	0.014977		
	0	8.20	0.009802		
	10	6.04	0.007220		
	20	7.07	0.008451		
	30	11.43	0.013662		
	40	9.40	0.011236		
	50	9.43	0.011272		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	11.95	0.014284	±2.5	Pass
	3.85	6.94	0.008295		
	4.24	10.78	0.012885		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

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	19.18	0.022926	±2.5	Pass
	-20	5.81	0.006945		
	-10	12.82	0.015324		
	0	6.52	0.007793		
	10	7.43	0.008881		
	20	10.98	0.013125		
	30	7.01	0.008379		
	40	10.46	0.012503		
	50	5.52	0.006598		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	11.36	0.013579	±2.5	Pass
	3.85	7.49	0.008953		
	4.24	13.82	0.016519		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

Reference Frequency: PCS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	8.04	0.004277	Within authorized band for PCS 1900	Pass
	-20	8.59	0.004569		
	-10	10.72	0.005702		
	0	10.40	0.005532		
	10	14.46	0.007691		
	20	8.14	0.004330		
	30	5.97	0.003176		
	40	3.00	0.001596		
	50	3.10	0.001649		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	4.20	0.002234	Within authorized band for PCS 1900	Pass
	3.85	4.26	0.002266		
	4.24	-5.39	-0.002867		
<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	0.77	0.000410	Within authorized band for PCS 1900	Pass
	-20	3.23	0.001718		
	-10	1.00	0.000532		
	0	2.78	0.001479		
	10	7.52	0.004000		
	20	6.20	0.003298		
	30	1.84	0.000979		
	40	7.91	0.004207		
	50	-0.42	-0.000223		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	0.61	0.000324	Within authorized band for PCS 1900	Pass
	3.85	11.27	0.005995		
	4.24	6.33	0.003367		
<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

