

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	32.89	29.54	38.5	PASS
GSM850	190	3	33.01	29.66	38.5	PASS
GSM850	251	3	32.95	29.60	38.5	PASS
GSM1900	512	0	29.39	28.19	33	PASS
GSM1900	661	0	29.44	28.24	33	PASS
GSM1900	810	0	29.26	28.06	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	3	1	32.81	29.46	38.5	PASS
GPRS850	128	3	2	32.10	28.75	38.5	PASS
GPRS850	128	3	3	30.38	27.03	38.5	PASS
GPRS850	128	3	4	29.38	26.03	38.5	PASS
GPRS850	190	3	1	32.96	29.61	38.5	PASS
GPRS850	190	3	2	32.28	28.93	38.5	PASS
GPRS850	190	3	3	30.57	27.22	38.5	PASS
GPRS850	190	3	4	29.58	26.23	38.5	PASS
GPRS850	251	3	1	32.90	29.55	38.5	PASS
GPRS850	251	3	2	32.19	28.84	38.5	PASS
GPRS850	251	3	3	30.47	27.12	38.5	PASS
GPRS850	251	3	4	29.47	26.12	38.5	PASS
GPRS1900	512	0	1	29.34	28.14	33	PASS
GPRS1900	512	0	2	28.58	27.38	33	PASS
GPRS1900	512	0	3	26.82	25.62	33	PASS
GPRS1900	512	0	4	25.74	24.54	33	PASS
GPRS1900	661	0	1	29.41	28.21	33	PASS
GPRS1900	661	0	2	28.66	27.46	33	PASS
GPRS1900	661	0	3	26.87	25.67	33	PASS
GPRS1900	661	0	4	25.80	24.6	33	PASS
GPRS1900	810	0	1	29.23	28.03	33	PASS
GPRS1900	810	0	2	28.48	27.28	33	PASS
GPRS1900	810	0	3	26.69	25.49	33	PASS
GPRS1900	810	0	4	25.62	24.42	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.82	24.47	38.5	PASS
EGPRS850	128	8	2	26.60	23.25	38.5	PASS
EGPRS850	128	8	3	24.46	21.11	38.5	PASS
EGPRS850	128	8	4	23.33	19.98	38.5	PASS
EGPRS850	190	8	1	27.97	24.62	38.5	PASS
EGPRS850	190	8	2	26.78	23.43	38.5	PASS
EGPRS850	190	8	3	24.68	21.33	38.5	PASS
EGPRS850	190	8	4	23.50	20.15	38.5	PASS
EGPRS850	251	8	1	27.63	24.28	38.5	PASS
EGPRS850	251	8	2	26.46	23.11	38.5	PASS
EGPRS850	251	8	3	24.28	20.93	38.5	PASS
EGPRS850	251	8	4	23.15	19.8	38.5	PASS
EGPRS1900	512	2	1	25.38	24.18	33	PASS
EGPRS1900	512	2	2	24.28	23.08	33	PASS
EGPRS1900	512	2	3	22.19	20.99	33	PASS
EGPRS1900	512	2	4	21.13	19.93	33	PASS
EGPRS1900	661	2	1	25.37	24.17	33	PASS
EGPRS1900	661	2	2	24.32	23.12	33	PASS
EGPRS1900	661	2	3	22.22	21.02	33	PASS
EGPRS1900	661	2	4	21.13	19.93	33	PASS
EGPRS1900	810	2	1	25.20	24	33	PASS
EGPRS1900	810	2	2	24.14	22.94	33	PASS
EGPRS1900	810	2	3	22.02	20.82	33	PASS
EGPRS1900	810	2	4	20.96	19.76	33	PASS

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

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

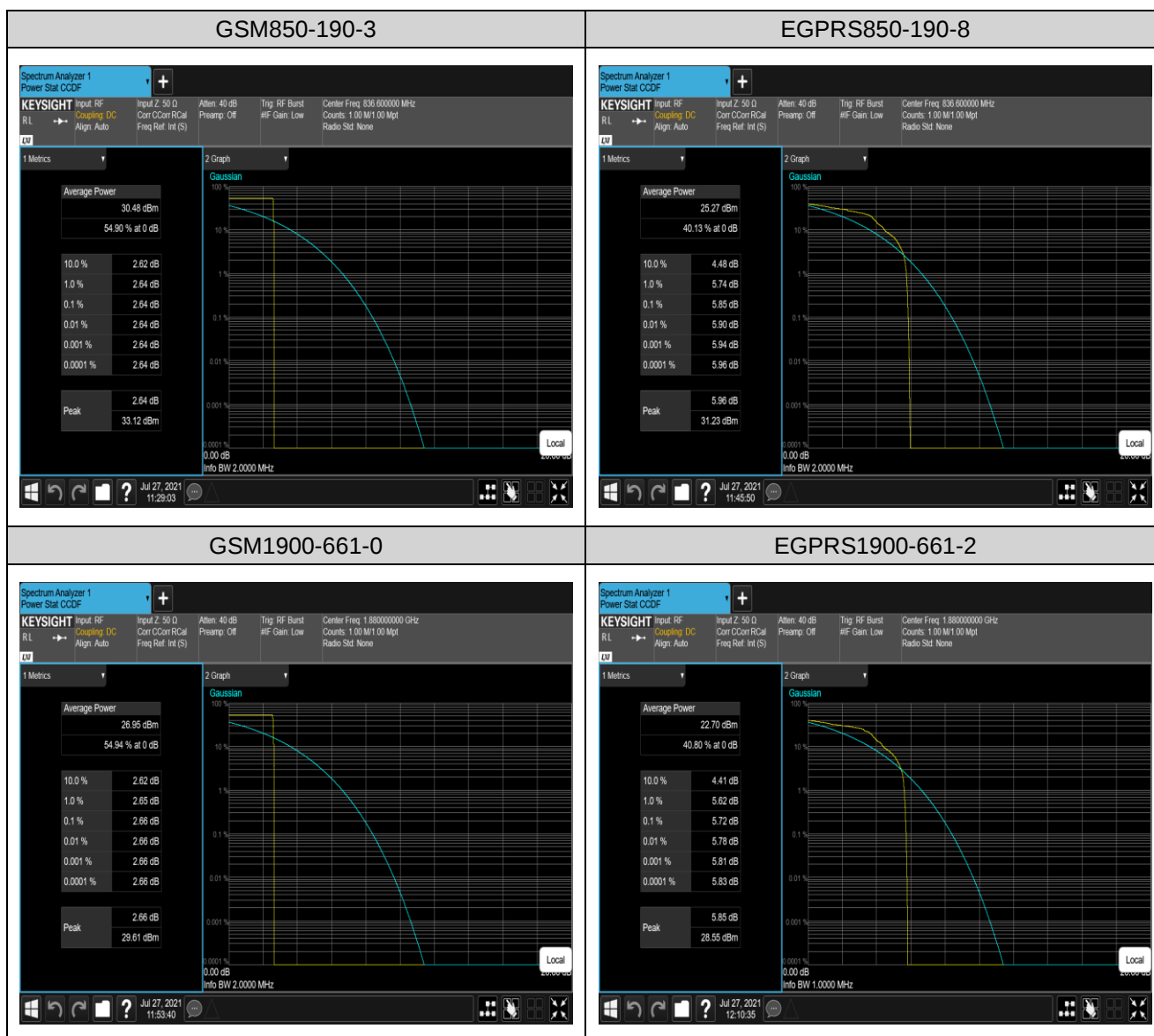
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	3	2.64	13	PASS
EGPRS850	190	8	5.85	13	PASS
GSM1900	661	0	2.66	13	PASS
EGPRS1900	661	2	5.72	13	PASS

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

Test Graphs

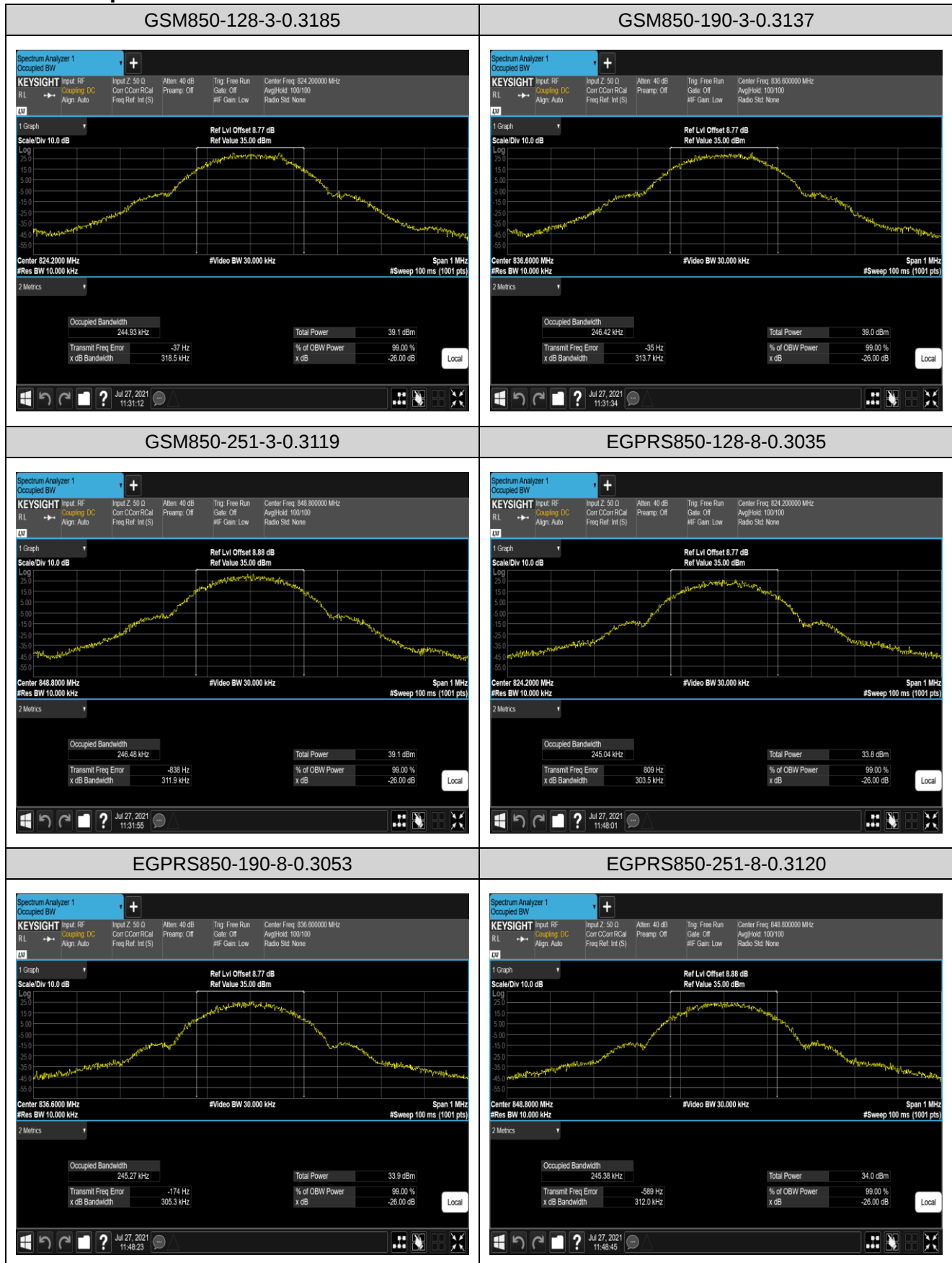


Appendix C: 26dB Bandwidth and Occupied Bandwidth

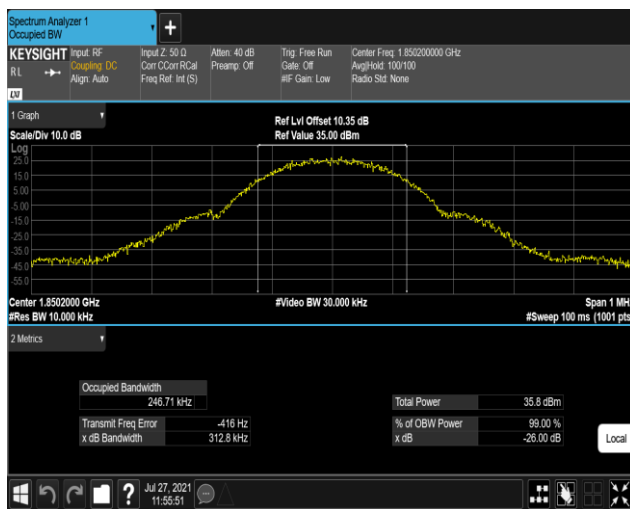
Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	3	0.24493	0.3185	---	PASS
GSM850	190	3	0.24642	0.3137	---	PASS
GSM850	251	3	0.24648	0.3119	---	PASS
EGPRS850	128	8	0.24504	0.3035	---	PASS
EGPRS850	190	8	0.24527	0.3053	---	PASS
EGPRS850	251	8	0.24538	0.3120	---	PASS
GSM1900	512	0	0.24671	0.3128	---	PASS
GSM1900	661	0	0.24638	0.3184	---	PASS
GSM1900	810	0	0.24806	0.3152	---	PASS
EGPRS1900	512	2	0.24574	0.3150	---	PASS
EGPRS1900	661	2	0.24656	0.3063	---	PASS
EGPRS1900	810	2	0.24885	0.3108	---	PASS

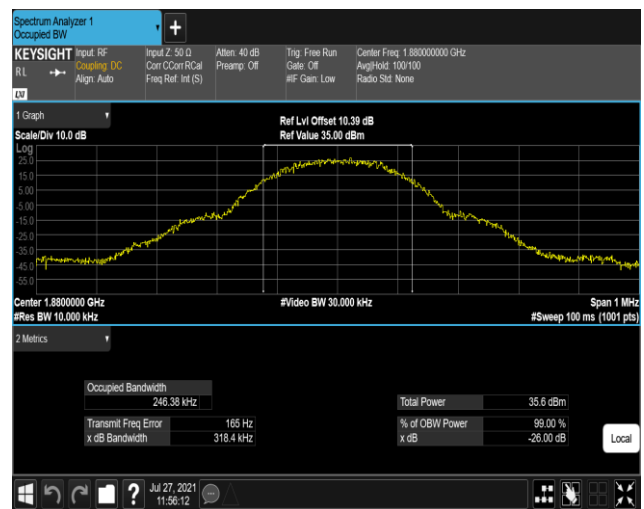
Test Graphs



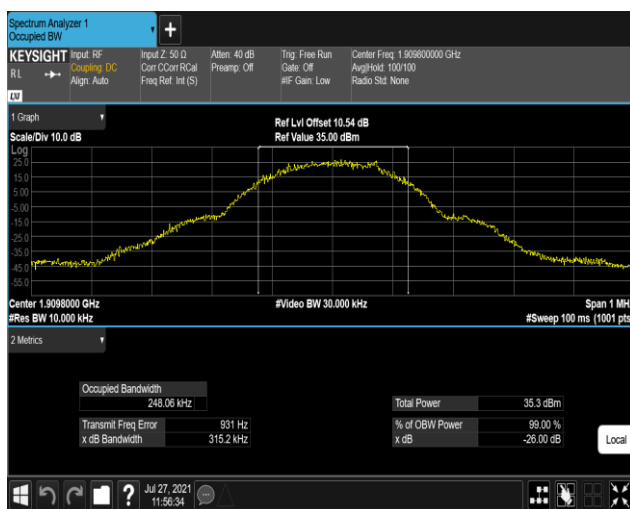
GSM1900-512-0-0.3128



GSM1900-661-0-0.3184



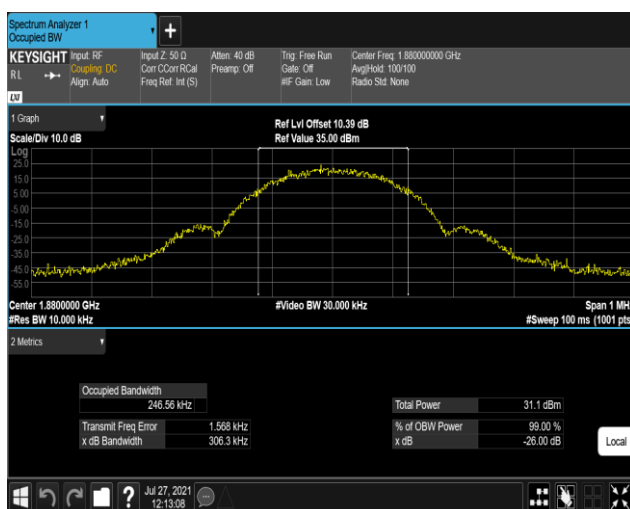
GSM1900-810-0-0.3152



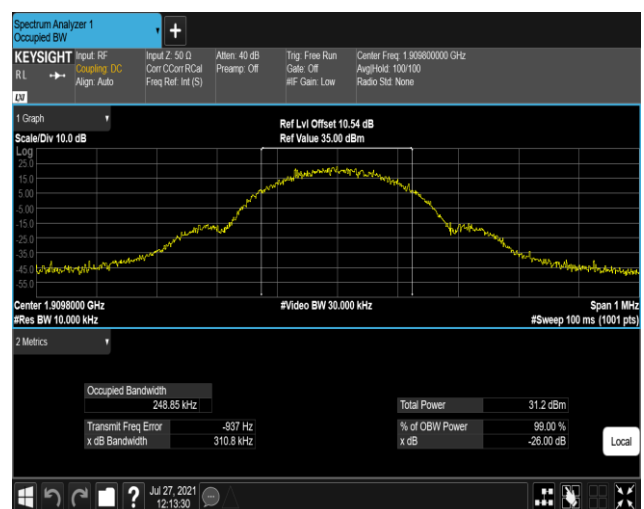
EGPRS1900-512-2-0.3150



EGPRS1900-661-2-0.3063



EGPRS1900-810-2-0.3108

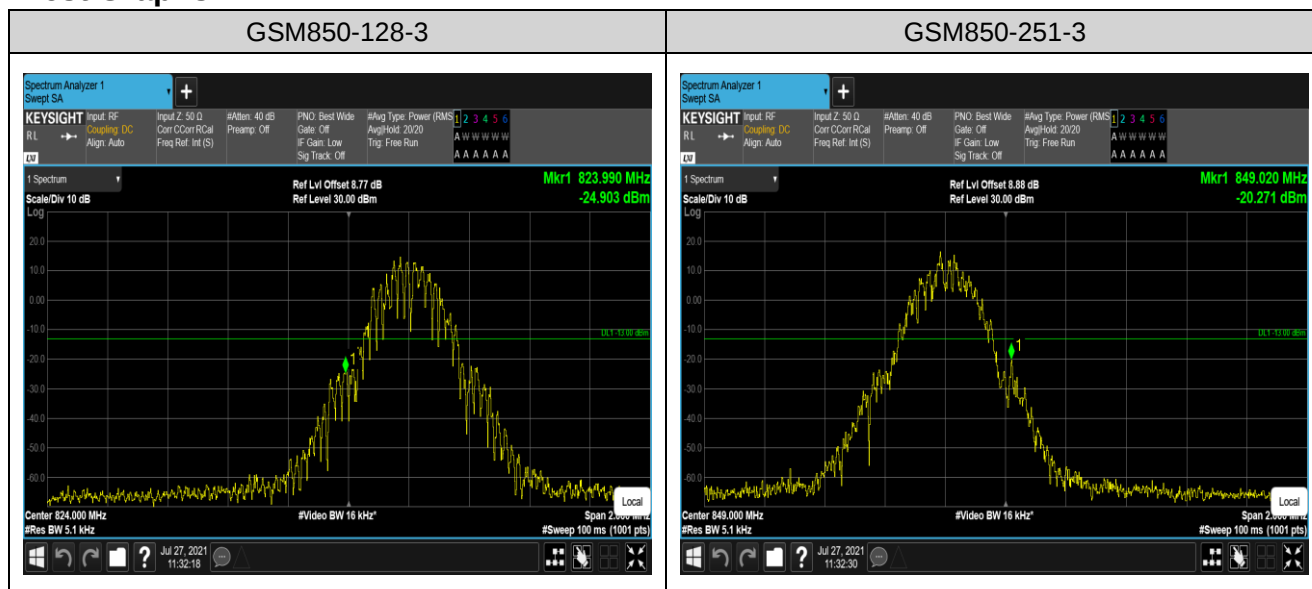


Appendix D: Band Edge

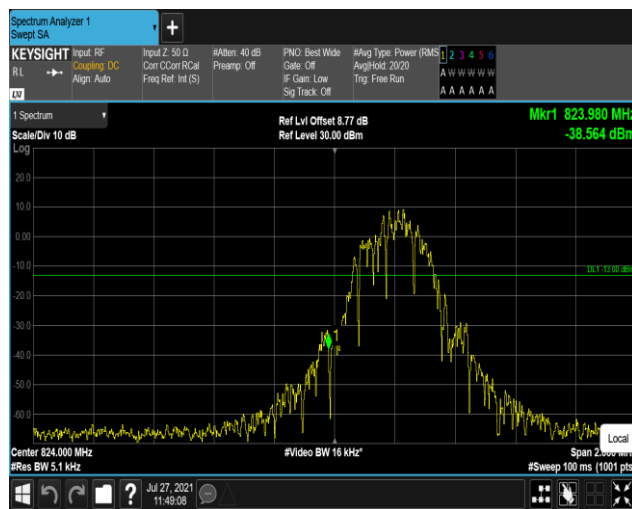
Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	3	823.99	-23.94	-13	PASS
GSM850	251	3	849.02	-20.27	-13	PASS
EGPRS850	128	8	823.98	-31.68	-13	PASS
EGPRS850	251	8	849.00	-28.70	-13	PASS
GSM1900	512	0	1849.99	-14.48	-13	PASS
GSM1900	810	0	1910.02	-16.95	-13	PASS
EGPRS1900	512	2	1849.98	-23.45	-13	PASS
EGPRS1900	810	2	1910.04	-23.41	-13	PASS

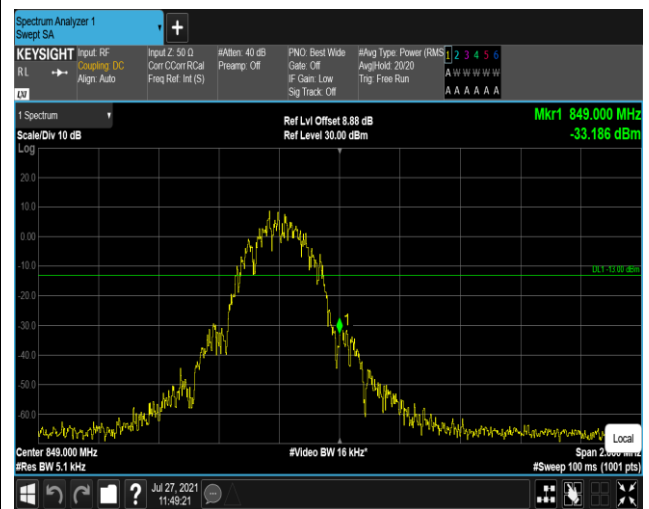
Test Graphs



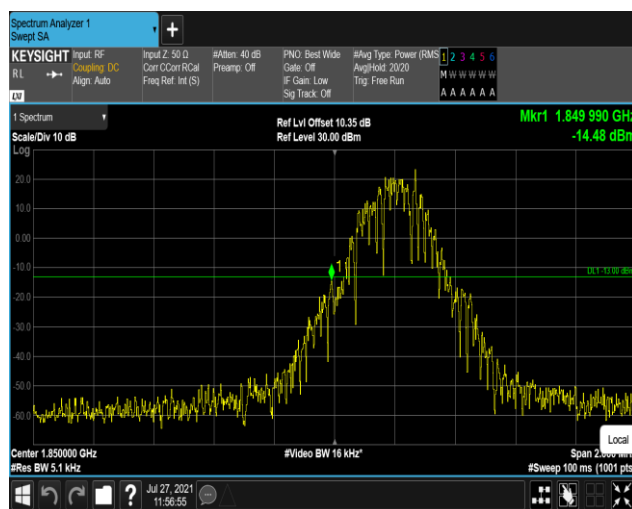
EGPRS850-128-8



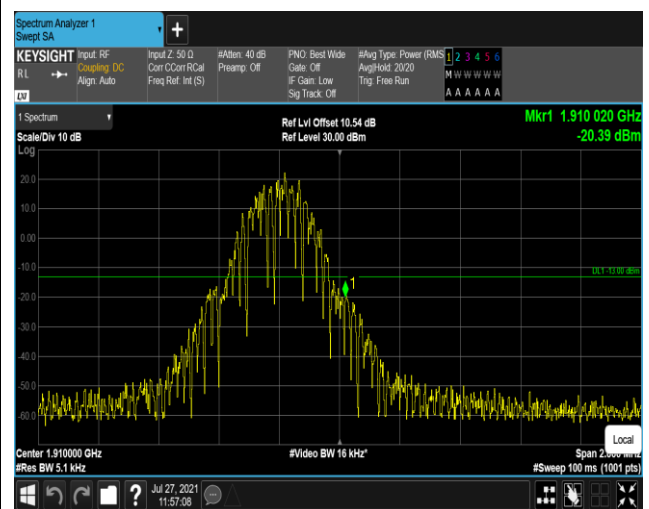
EGPRS850-251-8



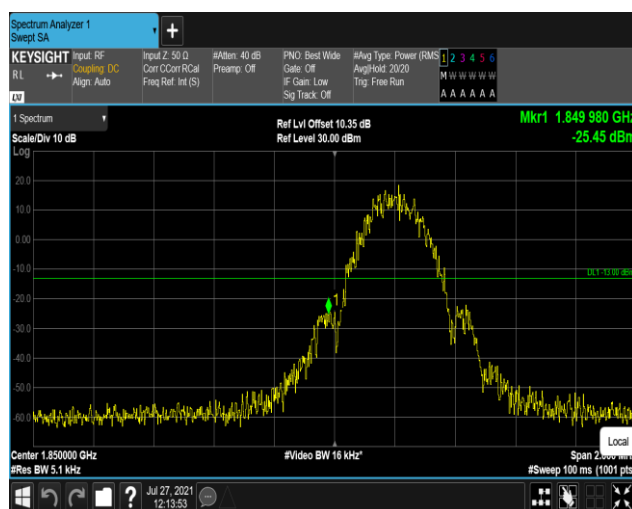
GSM1900-512-0



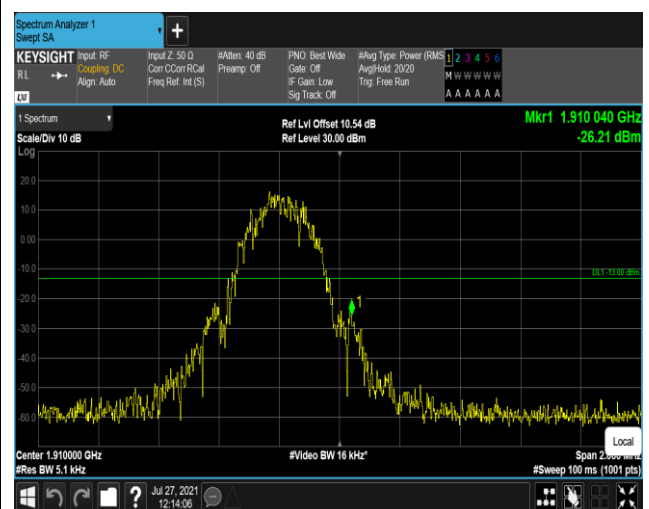
GSM1900-810-0



EGPRS1900-512-2



EGPRS1900-810-2



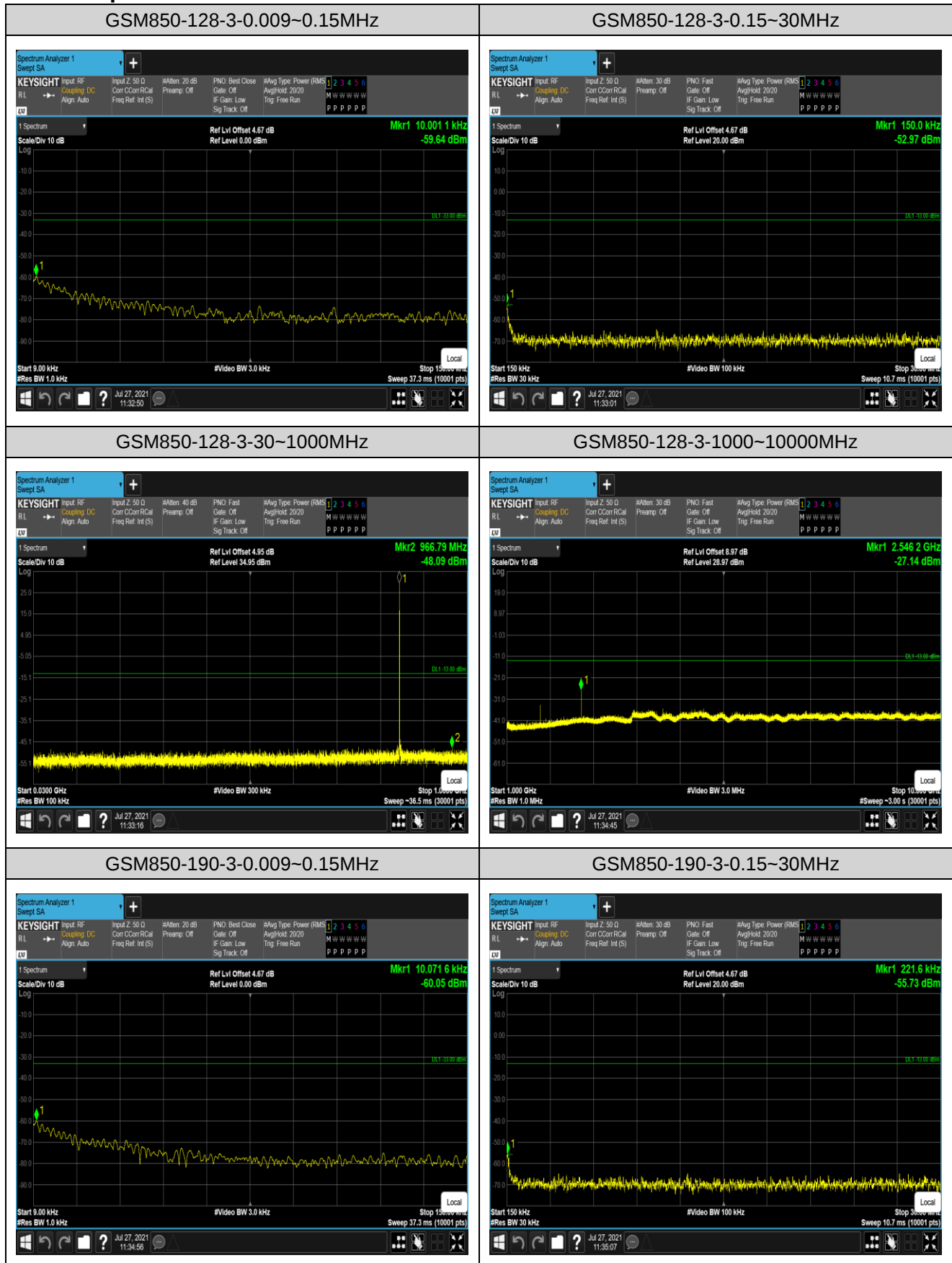
Appendix E: Conducted Spurious Emission

Test Result

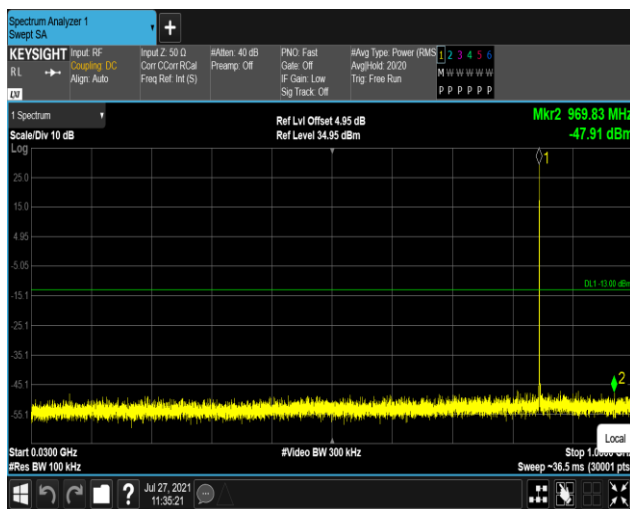
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	3	0.009~0.15MHz	0.01	-59.65	-33	PASS
GSM850	128	3	0.15~30MHz	0.15	-52.97	-13	PASS
GSM850	128	3	30~1000MHz	966.79	-48.09	-13	PASS
GSM850	128	3	1000~10000MHz	2546.2	-27.14	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.01	-60.05	-33	PASS
GSM850	190	3	0.15~30MHz	0.22	-55.73	-13	PASS
GSM850	190	3	30~1000MHz	969.83	-47.91	-13	PASS
GSM850	190	3	1000~10000MHz	2546.2	-27.27	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-60.16	-33	PASS
GSM850	251	3	0.15~30MHz	0.17	-54.96	-13	PASS
GSM850	251	3	30~1000MHz	955.61	-47.2	-13	PASS
GSM850	251	3	1000~10000MHz	2546.5	-27.42	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-67.37	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-52.8	-23	PASS
GSM1900	512	0	30~1000MHz	876.55	-47.95	-13	PASS
GSM1900	512	0	1000~18000MHz	13889.97	-35.25	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-66.68	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-53.24	-23	PASS
GSM1900	661	0	30~1000MHz	816.51	-47.26	-13	PASS
GSM1900	661	0	1000~18000MHz	5426.23	-35.38	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-67.84	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-52.85	-23	PASS
GSM1900	810	0	30~1000MHz	948.46	-47.48	-13	PASS
GSM1900	810	0	1000~18000MHz	16199.7	-35.52	-13	PASS

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

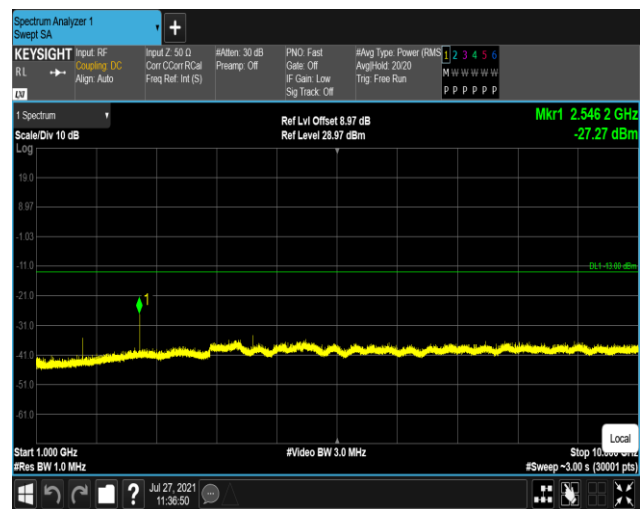
Test Graphs



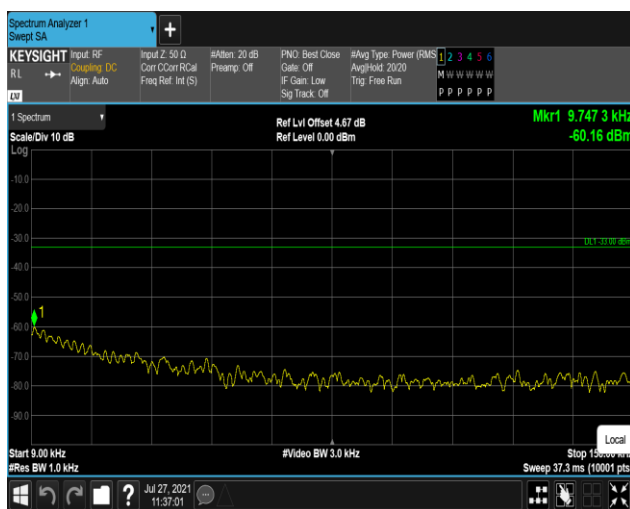
GSM850-190-3-30~1000MHz



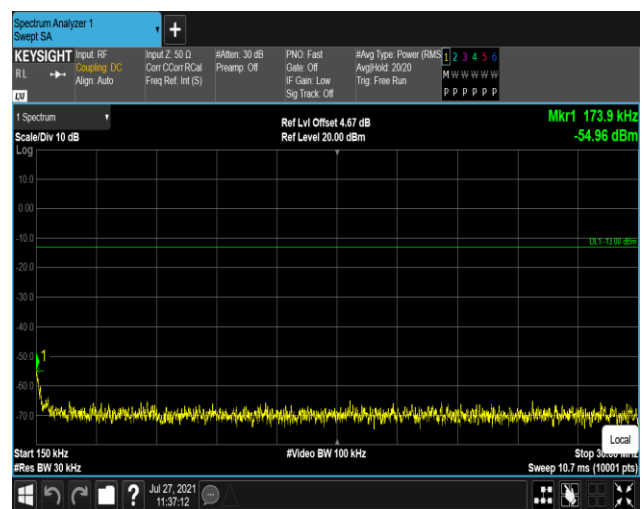
GSM850-190-3-1000~10000MHz



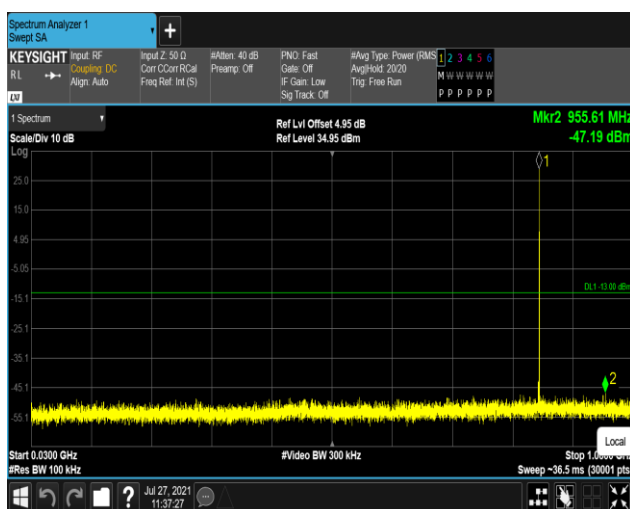
GSM850-251-3-0.009~0.15MHz



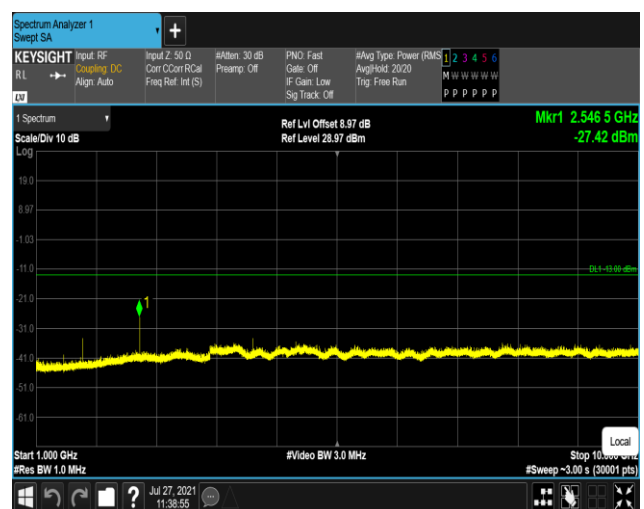
GSM850-251-3-0.15~30MHz



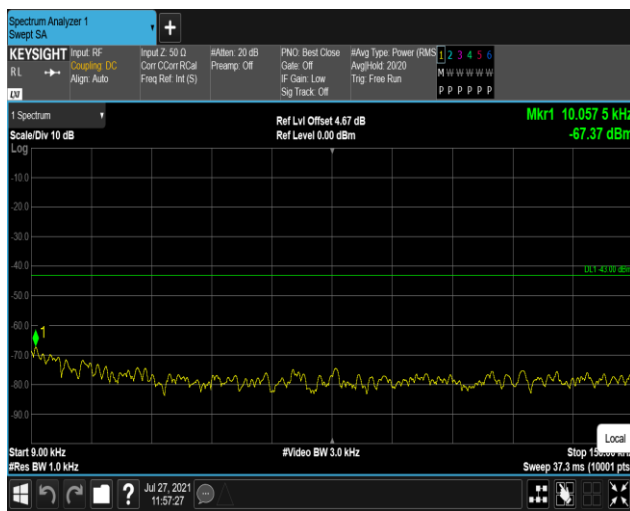
GSM850-251-3-30~1000MHz



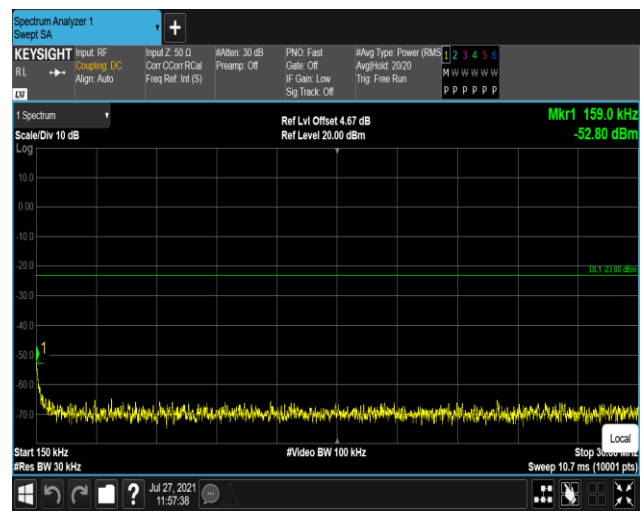
GSM850-251-3-1000~10000MHz



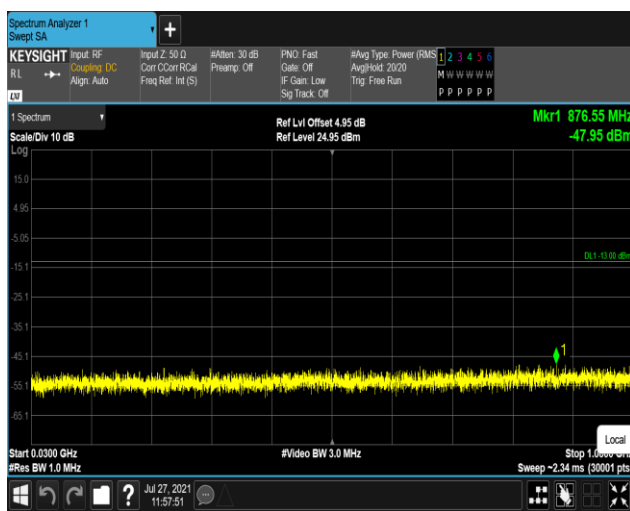
GSM1900-512-0-0.009~0.15MHz



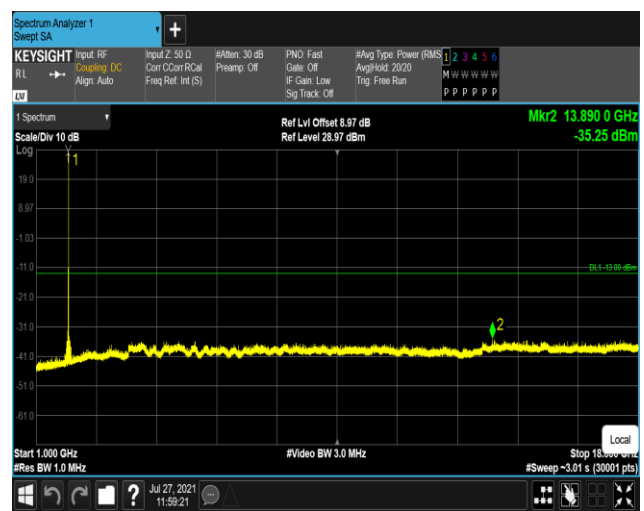
GSM1900-512-0-0.15~30MHz



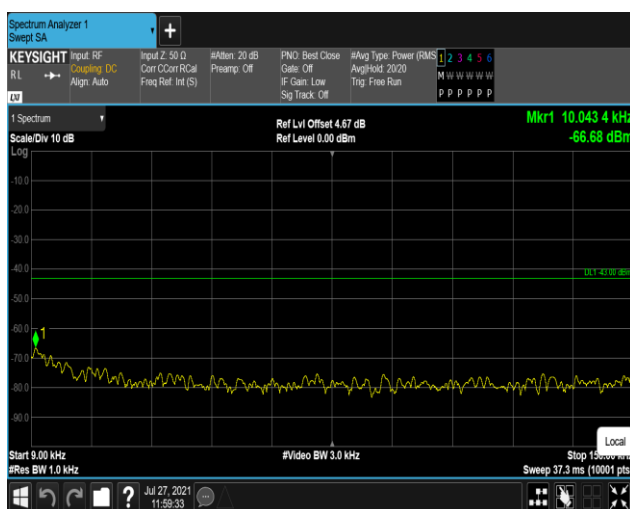
GSM1900-512-0-30~1000MHz



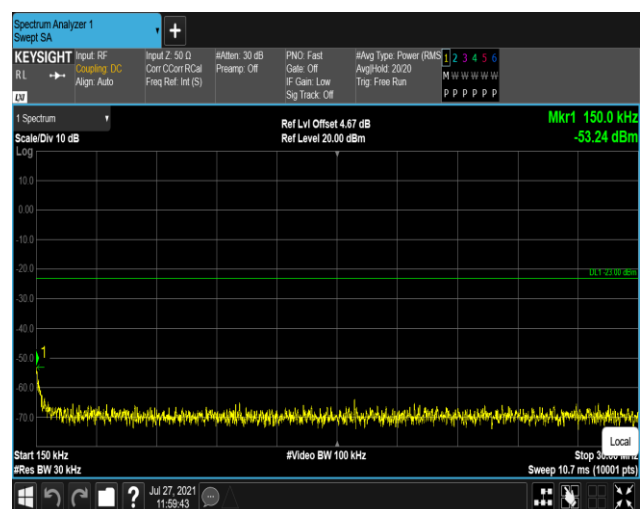
GSM1900-512-0-1000~18000MHz



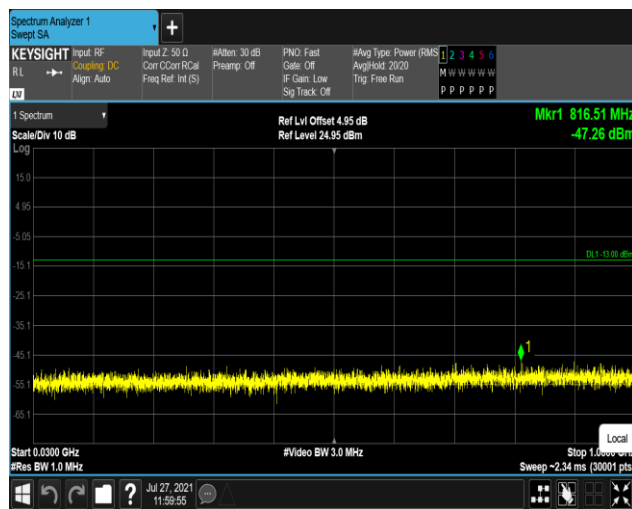
GSM1900-661-0-0.009~0.15MHz



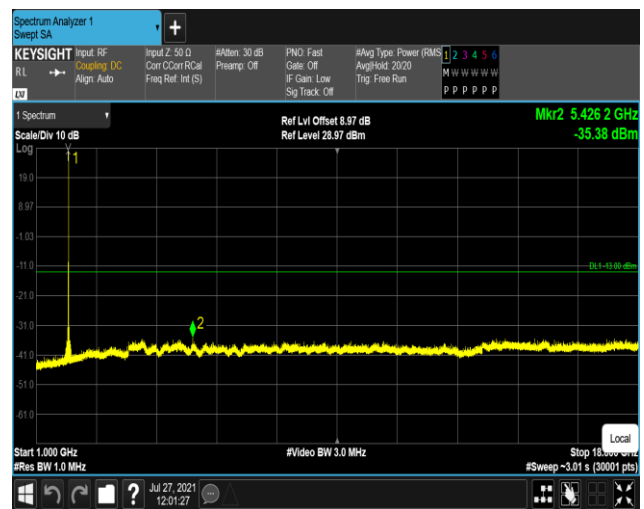
GSM1900-661-0-0.15~30MHz



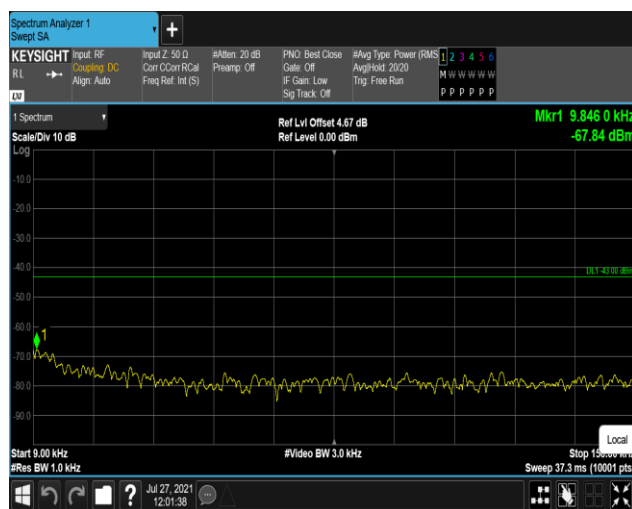
GSM1900-661-0-30~1000MHz



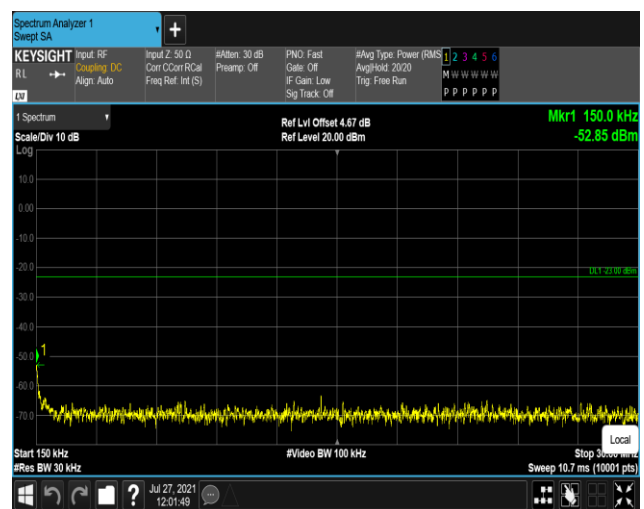
GSM1900-661-0-1000~18000MHz



GSM1900-810-0-0.009~0.15MHz



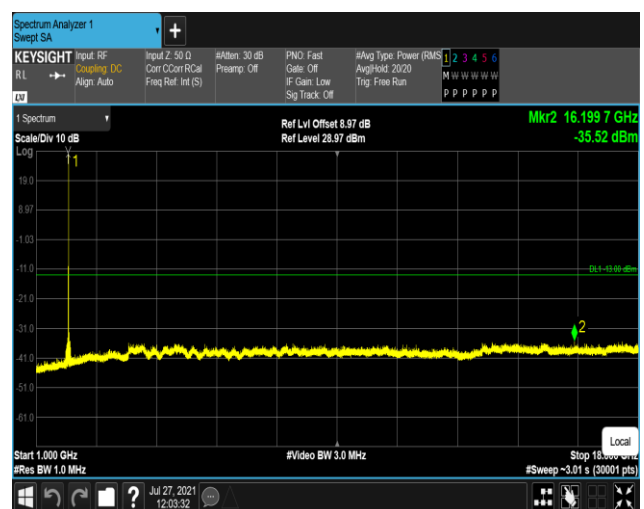
GSM1900-810-0-0.15~30MHz



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	-3.00	-0.003586	±2.5	Pass
	-20	-5.10	-0.006096		
	-10	-7.72	-0.009228		
	0	-3.20	-0.003825		
	10	-2.62	-0.003132		
	20	-0.71	-0.000849		
	30	-0.45	-0.000538		
	40	-0.97	-0.001159		
	50	-1.03	-0.001231		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-5.04	-0.006024	±2.5	Pass
	3.85	-2.10	-0.002510		
	4.40	-5.13	-0.006132		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	-1.10	-0.001315	±2.5	Pass
	-20	3.58	0.004279		
	-10	2.26	0.002701		
	0	4.52	0.005403		
	10	4.75	0.005678		
	20	2.84	0.003395		
	30	-0.71	-0.000849		
	40	2.49	0.002976		
	50	0.97	0.001159		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	2.58	0.003084	±2.5	Pass
	3.85	-2.29	-0.002737		
	4.40	2.10	0.002510		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	-11.49	-0.006112	Within authorized band for PCS 1900	Pass
	-20	3.20	0.001702		
	-10	-5.55	-0.002952		
	0	10.43	0.005548		
	10	-9.98	-0.005309		
	20	3.20	0.001702		
	30	-0.03	-0.000016		
	40	2.71	0.001441		
	50	3.10	0.001649		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-3.55	-0.001888	Within authorized band for PCS 1900	Pass
	3.85	2.55	0.001356		
	4.40	6.72	0.003574		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	8.10	0.004309	Within authorized band for PCS 1900	Pass
	-20	1.90	0.001011		
	-10	14.01	0.007452		
	0	7.43	0.003952		
	10	19.34	0.010287		
	20	2.00	0.001064		
	30	19.98	0.010628		
	40	10.56	0.005617		
	50	21.05	0.011197		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	5.84	0.003106	Within authorized band for PCS 1900	Pass
	3.85	7.36	0.003915		
	4.40	6.75	0.003590		
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

