

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	33.30	28.25	38.5	PASS
GSM850	190	3	33.45	28.4	38.5	PASS
GSM850	251	3	33.34	28.29	38.5	PASS
GSM1900	512	0	29.34	28.44	33	PASS
GSM1900	661	0	29.41	28.51	33	PASS
GSM1900	810	0	29.11	28.21	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	3	1	33.28	28.23	38.5	PASS
GPRS850	128	3	2	31.18	26.13	38.5	PASS
GPRS850	128	3	3	29.25	24.2	38.5	PASS
GPRS850	128	3	4	27.09	22.04	38.5	PASS
GPRS850	190	3	1	33.35	28.3	38.5	PASS
GPRS850	190	3	2	31.28	26.23	38.5	PASS
GPRS850	190	3	3	29.33	24.28	38.5	PASS
GPRS850	190	3	4	27.15	22.1	38.5	PASS
GPRS850	251	3	1	33.29	28.24	38.5	PASS
GPRS850	251	3	2	31.24	26.19	38.5	PASS
GPRS850	251	3	3	29.31	24.26	38.5	PASS
GPRS850	251	3	4	27.15	22.1	38.5	PASS
GPRS1900	512	0	1	29.31	28.41	33	PASS
GPRS1900	512	0	2	27.73	26.83	33	PASS
GPRS1900	512	0	3	25.87	24.97	33	PASS
GPRS1900	512	0	4	24.05	23.15	33	PASS
GPRS1900	661	0	1	29.40	28.5	33	PASS
GPRS1900	661	0	2	27.49	26.59	33	PASS
GPRS1900	661	0	3	26.12	25.22	33	PASS
GPRS1900	661	0	4	23.80	22.9	33	PASS
GPRS1900	810	0	1	29.08	28.18	33	PASS
GPRS1900	810	0	2	27.15	26.25	33	PASS
GPRS1900	810	0	3	25.50	24.6	33	PASS
GPRS1900	810	0	4	23.40	22.5	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.65	21.6	38.5	PASS
EGPRS850	128	8	2	25.50	20.45	38.5	PASS
EGPRS850	128	8	3	23.23	18.18	38.5	PASS
EGPRS850	128	8	4	20.89	15.84	38.5	PASS
EGPRS850	190	8	1	26.34	21.29	38.5	PASS
EGPRS850	190	8	2	25.50	20.45	38.5	PASS
EGPRS850	190	8	3	23.25	18.2	38.5	PASS
EGPRS850	190	8	4	21.03	15.98	38.5	PASS
EGPRS850	251	8	1	26.50	21.45	38.5	PASS
EGPRS850	251	8	2	25.58	20.53	38.5	PASS
EGPRS850	251	8	3	23.40	18.35	38.5	PASS
EGPRS850	251	8	4	21.18	16.13	38.5	PASS
EGPRS1900	512	2	1	25.15	24.25	33	PASS
EGPRS1900	512	2	2	23.61	22.71	33	PASS
EGPRS1900	512	2	3	21.56	20.66	33	PASS
EGPRS1900	512	2	4	19.43	18.53	33	PASS
EGPRS1900	661	2	1	25.71	24.81	33	PASS
EGPRS1900	661	2	2	23.87	22.97	33	PASS
EGPRS1900	661	2	3	22.32	21.42	33	PASS
EGPRS1900	661	2	4	19.82	18.92	33	PASS
EGPRS1900	810	2	1	25.51	24.61	33	PASS
EGPRS1900	810	2	2	23.91	23.01	33	PASS
EGPRS1900	810	2	3	22.24	21.34	33	PASS
EGPRS1900	810	2	4	19.40	18.5	33	PASS

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

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

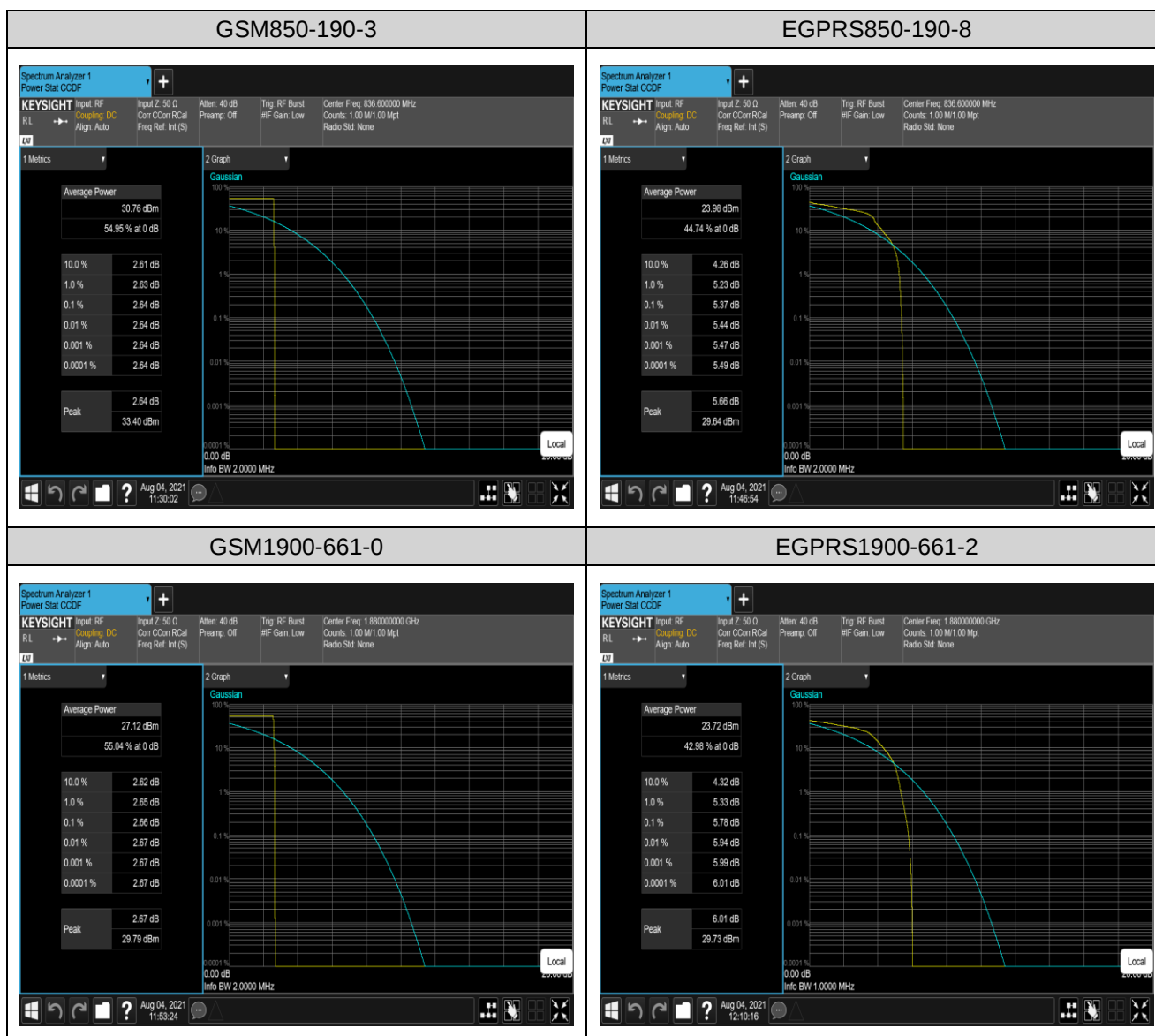
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	3	2.64	13	PASS
EGPRS850	190	8	5.37	13	PASS
GSM1900	661	0	2.66	13	PASS
EGPRS1900	661	2	5.78	13	PASS

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

Test Graphs

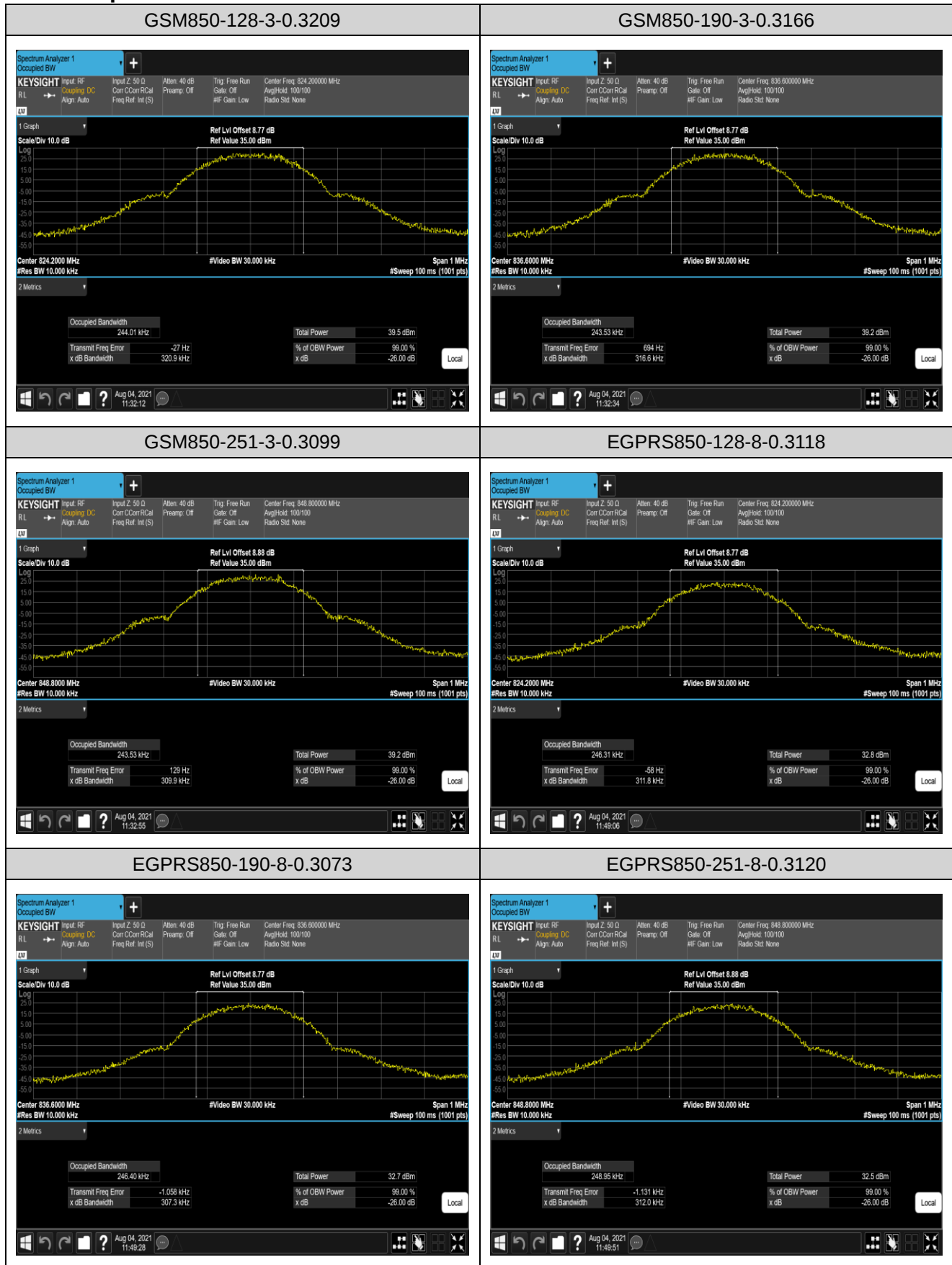


Appendix C: 26dB Bandwidth and Occupied Bandwidth

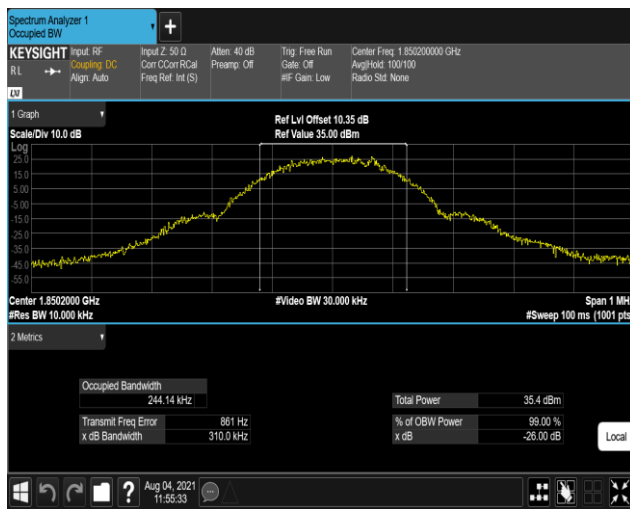
Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	3	0.24401	0.3209	---	PASS
GSM850	190	3	0.24353	0.3166	---	PASS
GSM850	251	3	0.24353	0.3099	---	PASS
EGPRS850	128	8	0.24631	0.3118	---	PASS
EGPRS850	190	8	0.24640	0.3073	---	PASS
EGPRS850	251	8	0.24895	0.3120	---	PASS
GSM1900	512	0	0.24414	0.3100	---	PASS
GSM1900	661	0	0.24416	0.3141	---	PASS
GSM1900	810	0	0.24374	0.3186	---	PASS
EGPRS1900	512	2	0.24560	0.3152	---	PASS
EGPRS1900	661	2	0.24420	0.3148	---	PASS
EGPRS1900	810	2	0.24316	0.3127	---	PASS

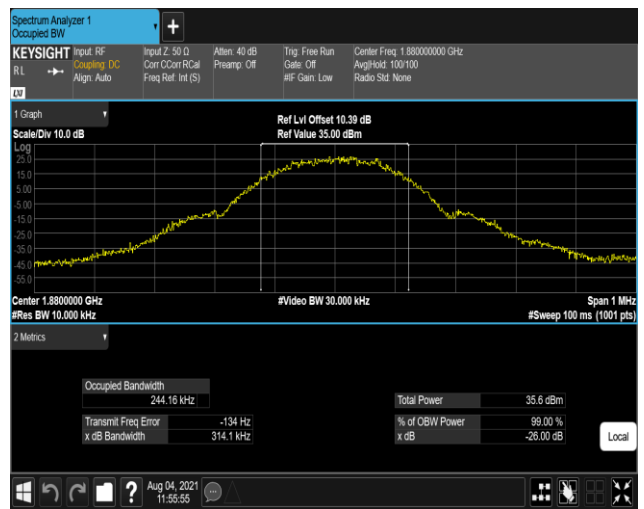
Test Graphs



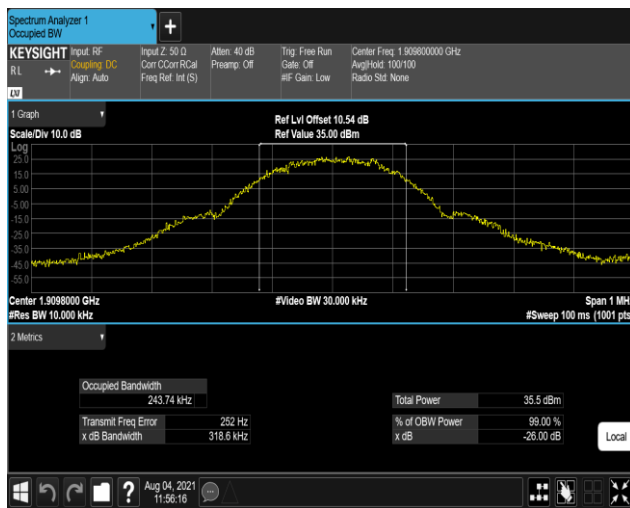
GSM1900-512-0-0.3100



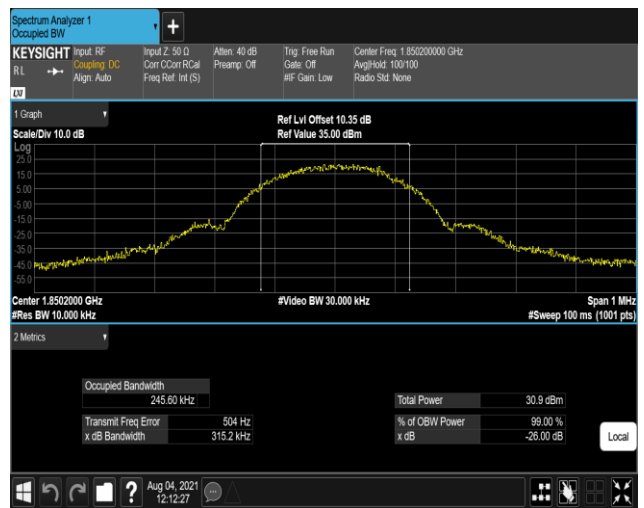
GSM1900-661-0-0.3141



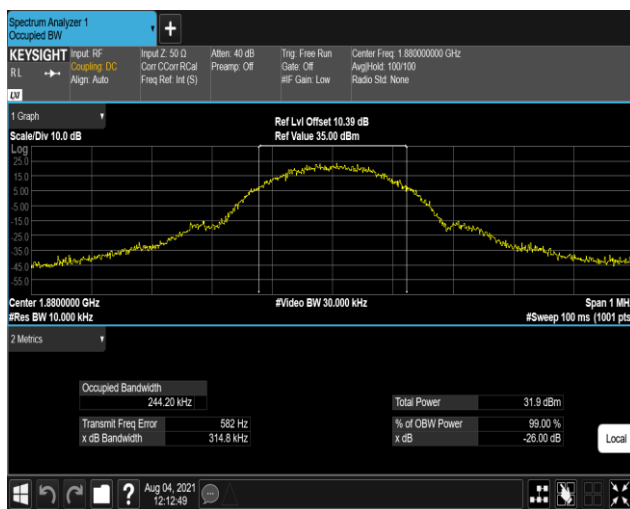
GSM1900-810-0-0.3186



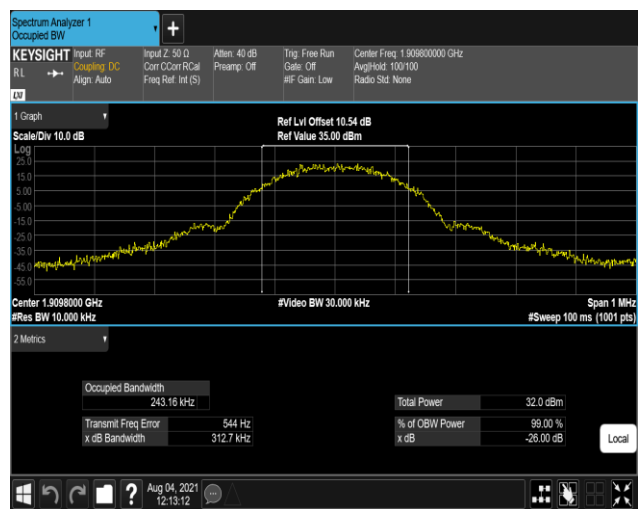
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EGPRS1900-661-2-0.3148



EGPRS1900-810-2-0.3127

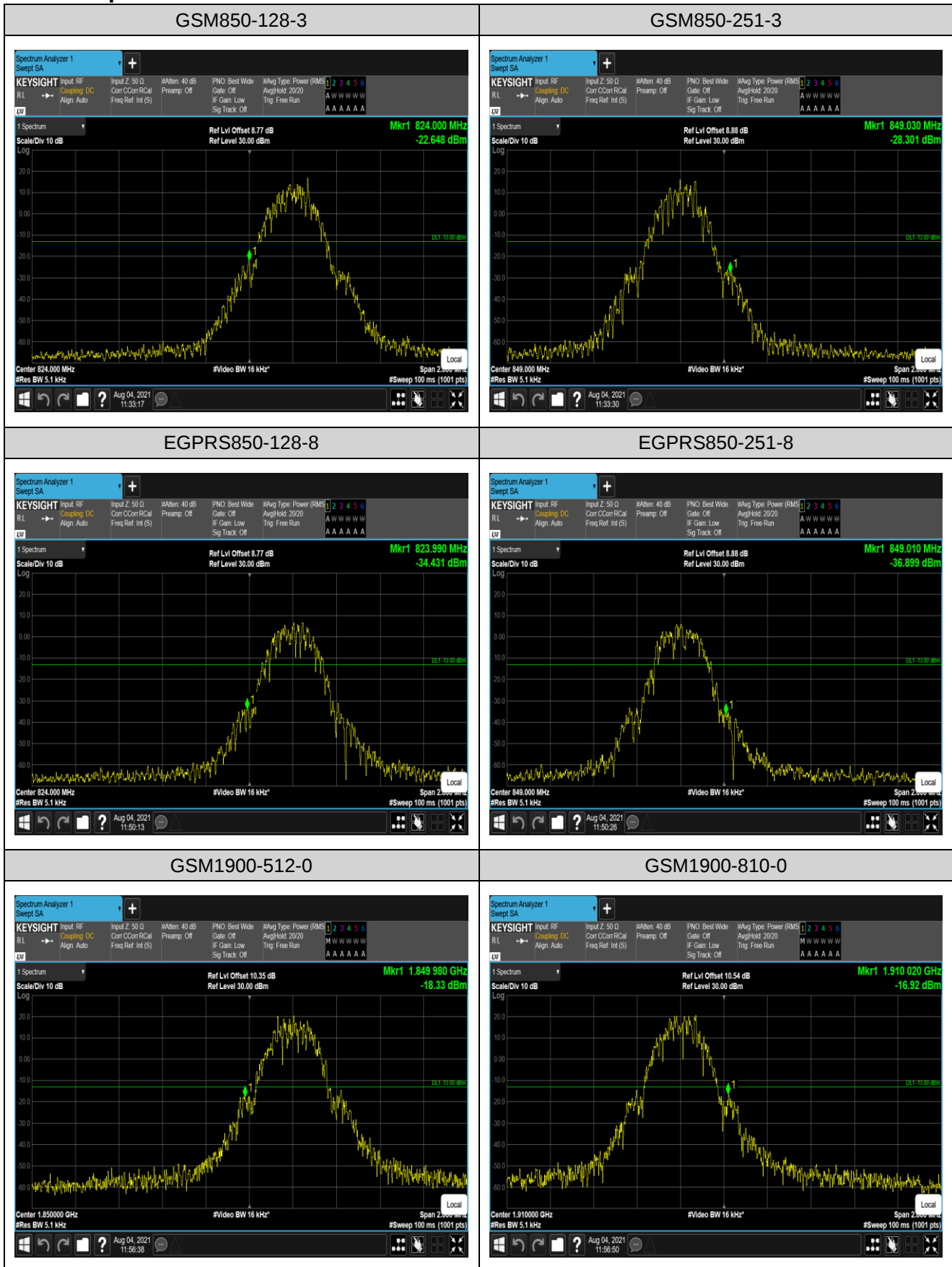


Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	3	824.00	-20.74	-13	PASS
GSM850	251	3	849.03	-25.96	-13	PASS
EGPRS850	128	8	823.99	-32.12	-13	PASS
EGPRS850	251	8	849.01	-35.07	-13	PASS
GSM1900	512	0	1849.98	-15.58	-13	PASS
GSM1900	810	0	1910.02	-16.04	-13	PASS
EGPRS1900	512	2	1849.98	-24.93	-13	PASS
EGPRS1900	810	2	1910.02	-21.09	-13	PASS

Test Graphs

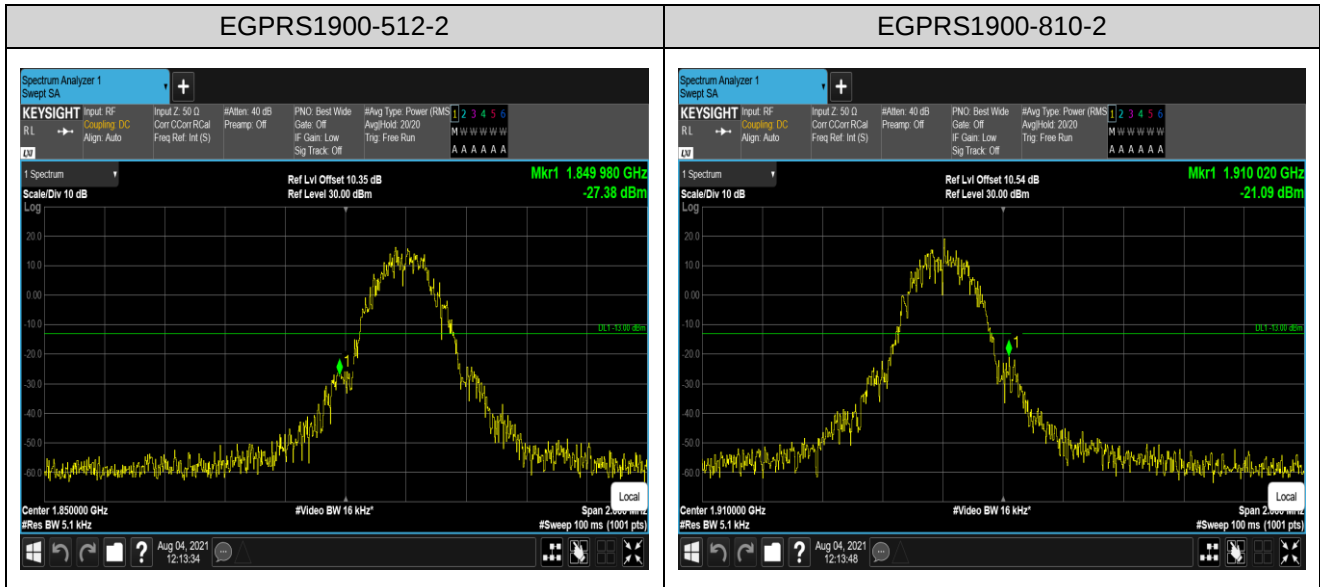


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Project No.: JYTSZE2108017



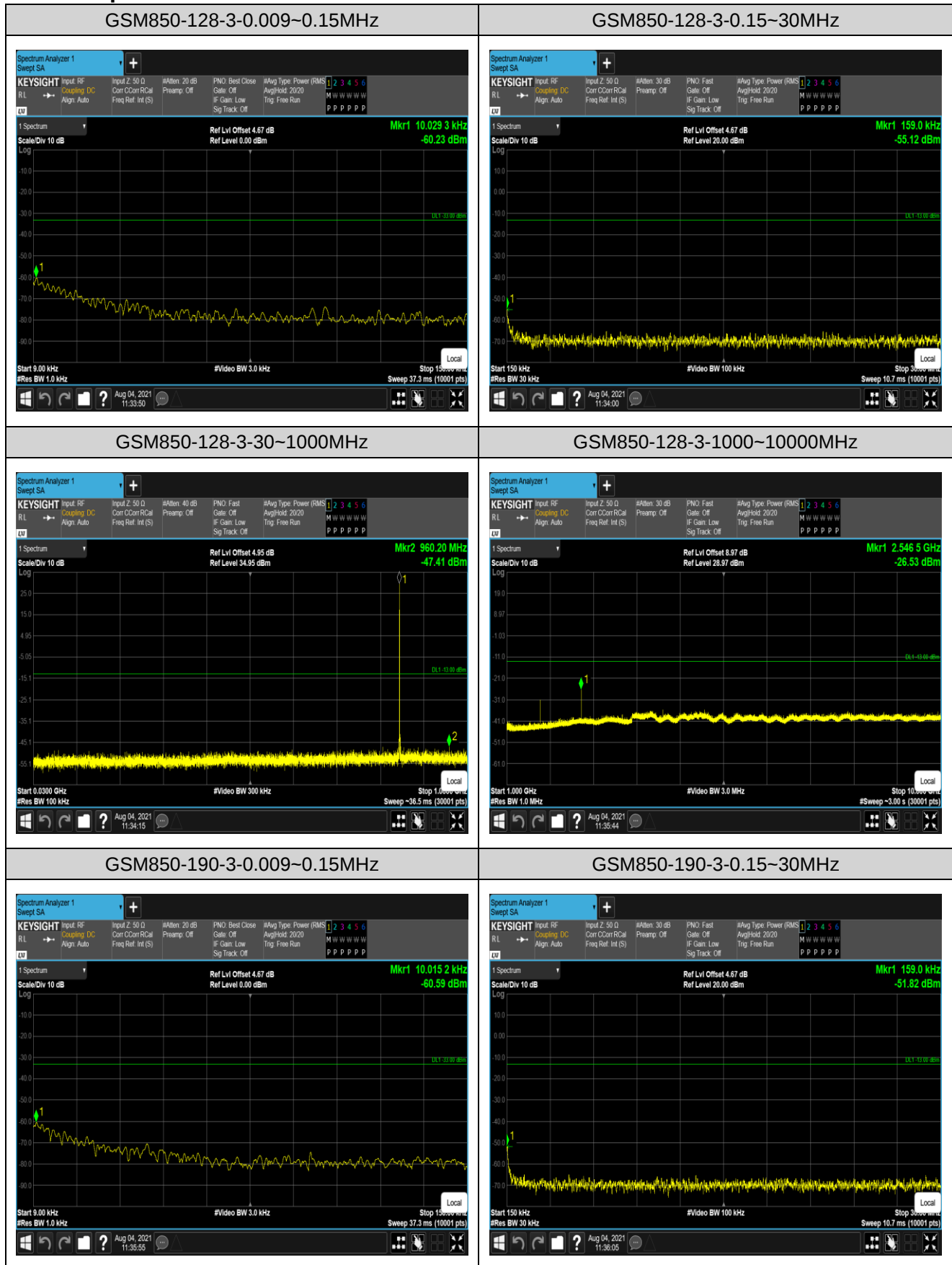
Appendix E: Conducted Spurious Emission

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	-60.23	-33	PASS
GSM850	128	3	0.15~30MHz	0.16	-55.12	-13	PASS
GSM850	128	3	30~1000MHz	960.2	-47.41	-13	PASS
GSM850	128	3	1000~10000MHz	2546.5	-26.54	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.01	-60.59	-33	PASS
GSM850	190	3	0.15~30MHz	0.16	-51.82	-13	PASS
GSM850	190	3	30~1000MHz	993.57	-48.36	-13	PASS
GSM850	190	3	1000~10000MHz	2546.5	-26.77	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-60.17	-33	PASS
GSM850	251	3	0.15~30MHz	0.15	-53.73	-13	PASS
GSM850	251	3	30~1000MHz	994.37	-47.86	-13	PASS
GSM850	251	3	1000~10000MHz	2546.8	-27.29	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-72.49	-43	PASS
GSM1900	512	0	0.15~30MHz	0.18	-50.75	-23	PASS
GSM1900	512	0	30~1000MHz	946.39	-47.44	-13	PASS
GSM1900	512	0	1000~18000MHz	15362.17	-36	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-70.43	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-53.18	-23	PASS
GSM1900	661	0	30~1000MHz	932.52	-47.75	-13	PASS
GSM1900	661	0	1000~18000MHz	14764.9	-35.1	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-72.36	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-54.22	-23	PASS
GSM1900	810	0	30~1000MHz	906.56	-47.4	-13	PASS
GSM1900	810	0	1000~18000MHz	4005.03	-35.71	-13	PASS

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

Test Graphs



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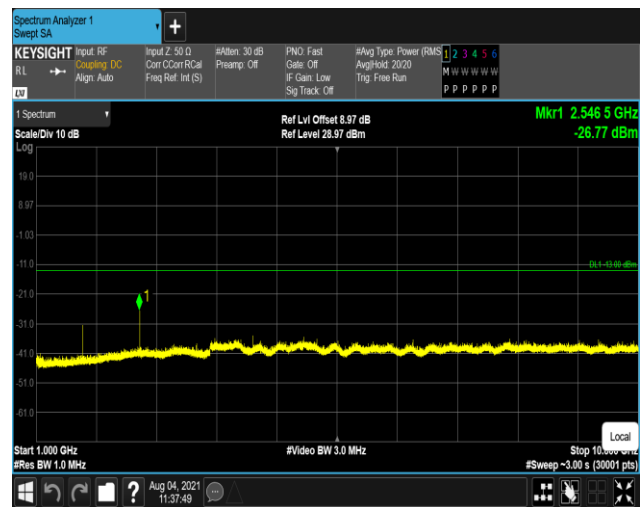
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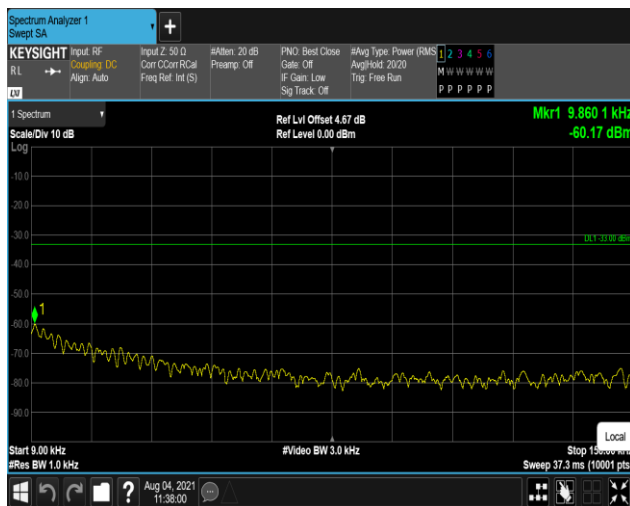
GSM850-190-3-30~1000MHz



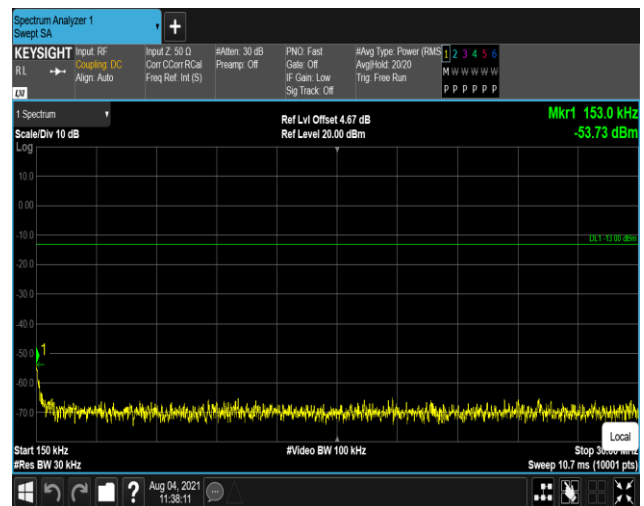
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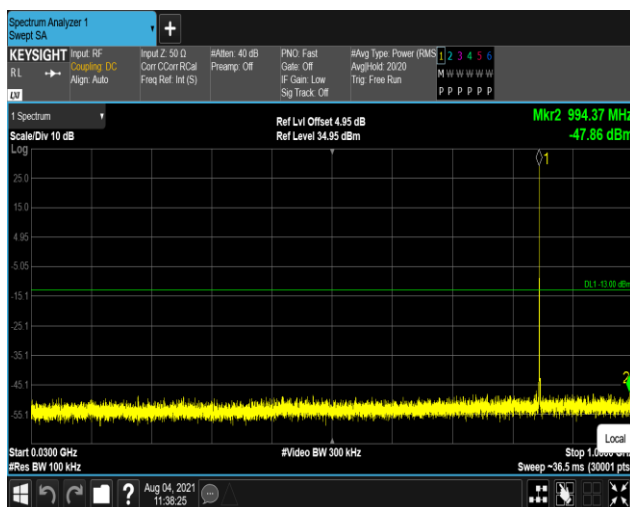
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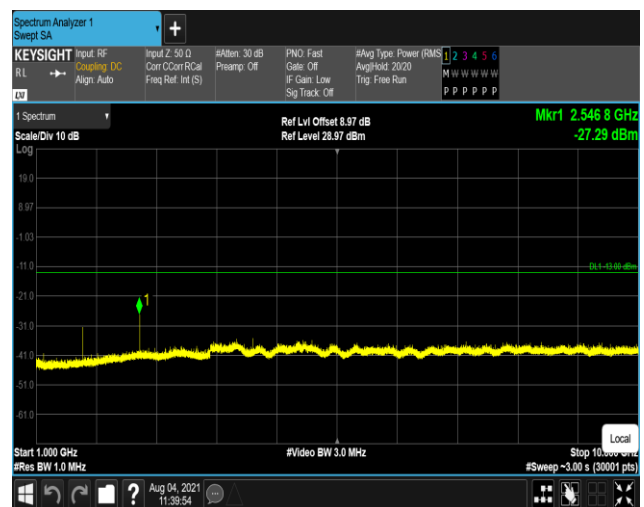
GSM850-251-3-0.15~30MHz



GSM850-251-3-30~1000MHz



GSM850-251-3-1000~10000MHz

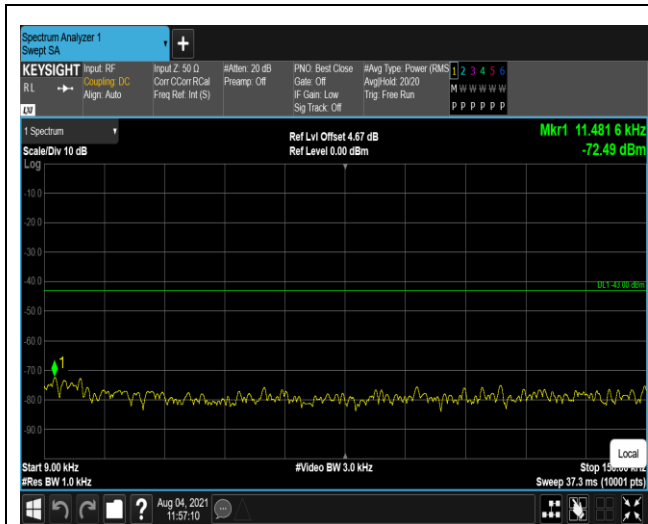


GSM1900-512-0-0.009~0.15MHz

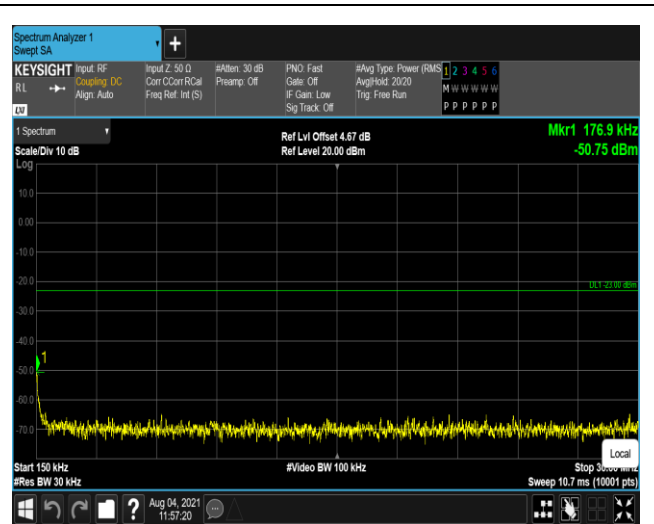
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GSM1900-512-0-0.15~30MHz

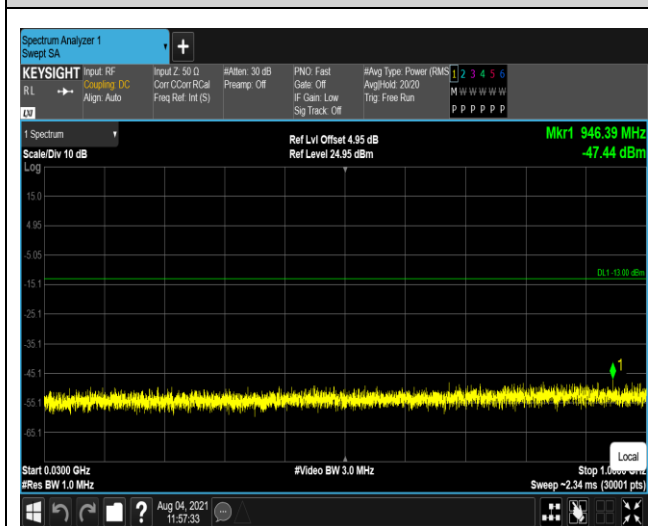
Project No.: JYTSZE2108017



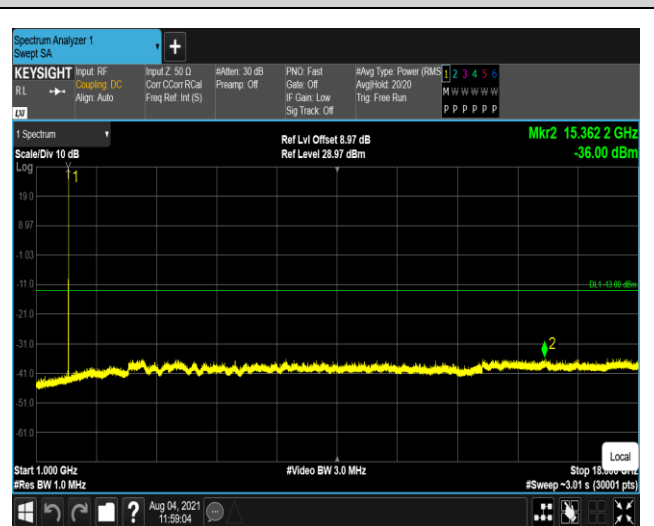
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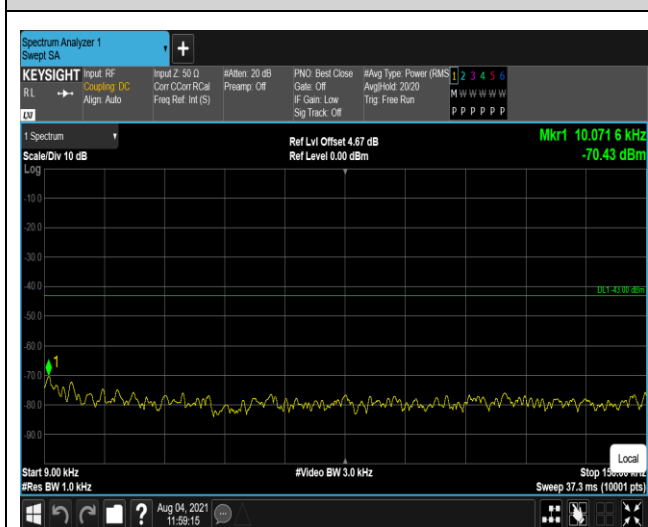
GSM1900-512-0-1000~18000MHz



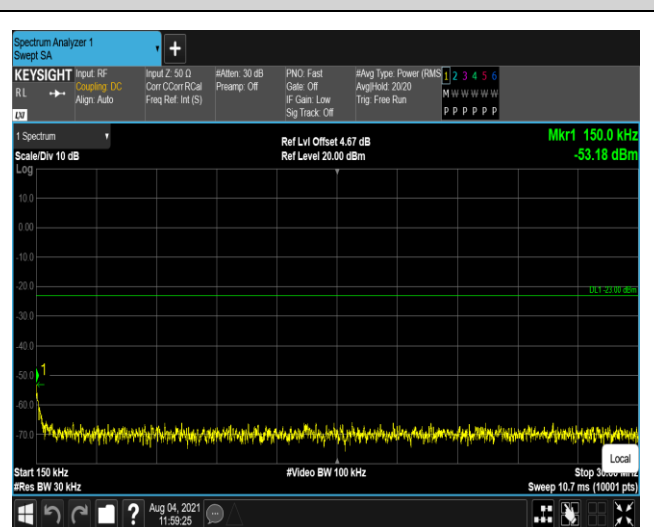
GSM1900-661-0-0.009~0.15MHz



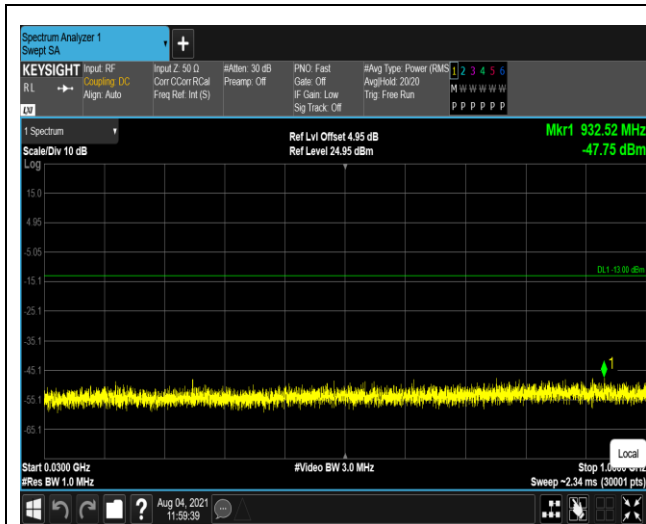
GSM1900-661-0-0.15~30MHz



GSM1900-661-0-30~1000MHz



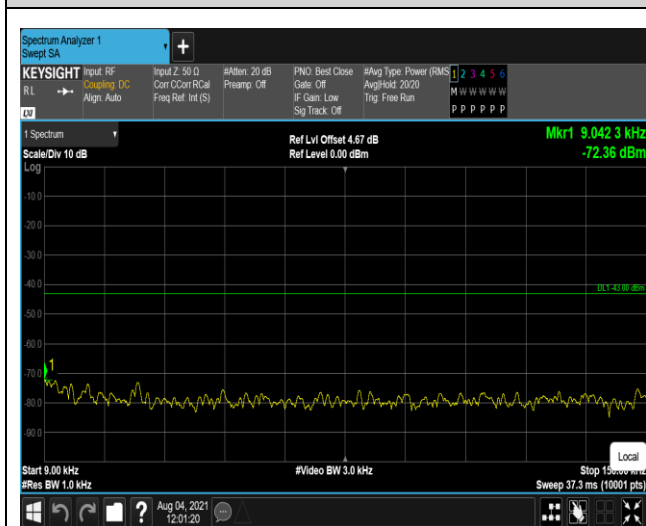
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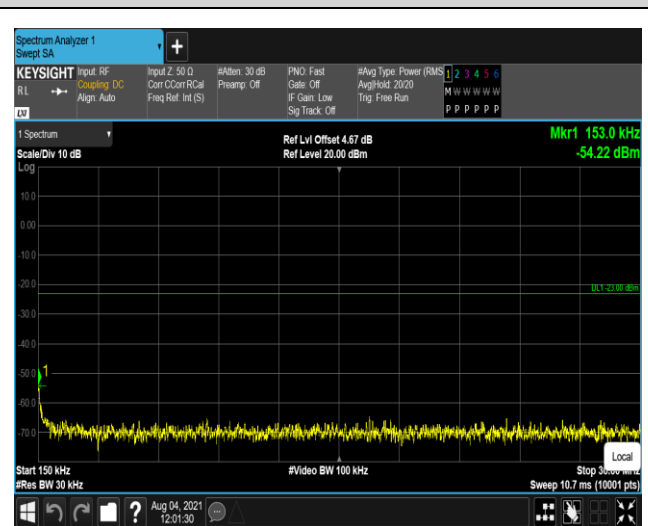
GSM1900-810-0-0.009~0.15MHz



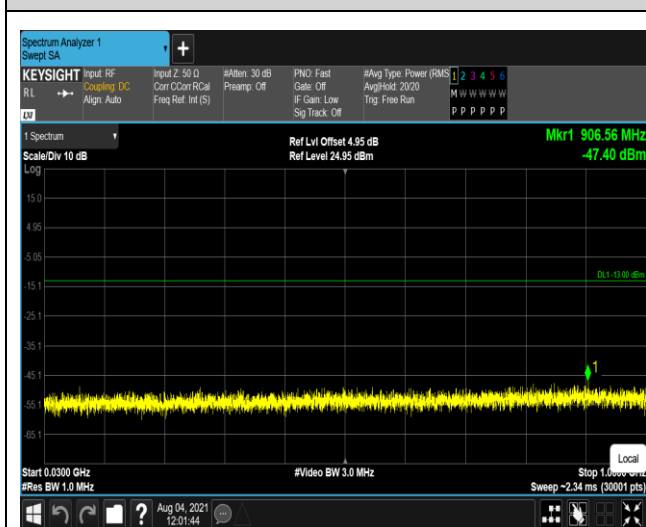
GSM1900-810-0-0.15~30MHz



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	-7.36	-0.008798	±2.5	Pass
	-20	-1.58	-0.001889		
	-10	-9.04	-0.010806		
	0	-4.26	-0.005092		
	10	-3.84	-0.004590		
	20	-3.03	-0.003622		
	30	-5.81	-0.006945		
	40	-6.97	-0.008331		
	50	-3.81	-0.004554		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.27	-7.46	-0.008917	±2.5	Pass
	3.85	-8.91	-0.010650		
	4.43	-4.65	-0.005558		
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	3.29	0.003933	±2.5	Pass
	-20	4.42	0.005283		
	-10	5.29	0.006323		
	0	4.23	0.005056		
	10	5.00	0.005977		
	20	7.62	0.009108		
	30	5.71	0.006825		
	40	10.75	0.012850		
	50	6.68	0.007985		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.27	2.32	0.002773	±2.5	Pass
	3.85	5.07	0.006060		
	4.43	4.29	0.005128		
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	1.36	0.000723	Within authorized band for PCS 1900	Pass
	-20	0.29	0.000154		
	-10	3.52	0.001872		
	0	1.68	0.000894		
	10	-6.39	-0.003399		
	20	-5.84	-0.003106		
	30	-9.30	-0.004947		
	40	-7.62	-0.004053		
	50	-1.78	-0.000947		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.27	0.55	0.000293	Within authorized band for PCS 1900	Pass
	3.85	-7.17	-0.003814		
	4.43	-1.97	-0.001048		
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	4.04	0.002149	Within authorized band for PCS 1900	Pass
	-20	-5.07	-0.002697		
	-10	-8.04	-0.004277		
	0	-10.30	-0.005479		
	10	-1.68	-0.000894		
	20	3.52	0.001872		
	30	5.20	0.002766		
	40	-8.98	-0.004777		
	50	-13.46	-0.007160		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.27	5.23	0.002782	Within authorized band for PCS 1900	Pass
	3.85	-9.56	-0.005085		
	4.43	-3.75	-0.001995		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

AppendixG: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

