

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	5	31.70	27.55	38.5	PASS
GSM850	190	5	31.59	27.44	38.5	PASS
GSM850	251	5	31.64	27.49	38.5	PASS
GSM1900	512	0	27.10	25.90	33	PASS
GSM1900	661	0	27.08	25.88	33	PASS
GSM1900	810	0	26.90	25.70	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	31.47	27.32	38.5	PASS
GPRS850	128	5	2	31.35	27.20	38.5	PASS
GPRS850	128	5	3	29.53	25.38	38.5	PASS
GPRS850	128	5	4	27.26	23.11	38.5	PASS
GPRS850	190	5	1	31.22	27.07	38.5	PASS
GPRS850	190	5	2	31.20	27.05	38.5	PASS
GPRS850	190	5	3	29.39	25.24	38.5	PASS
GPRS850	190	5	4	27.17	23.02	38.5	PASS
GPRS850	251	5	1	31.10	26.95	38.5	PASS
GPRS850	251	5	2	31.05	26.90	38.5	PASS
GPRS850	251	5	3	29.26	25.11	38.5	PASS
GPRS850	251	5	4	27.06	22.91	38.5	PASS
GPRS1900	512	0	1	27.11	25.91	33	PASS
GPRS1900	512	0	2	27.01	25.81	33	PASS
GPRS1900	512	0	3	25.38	24.18	33	PASS
GPRS1900	512	0	4	23.37	22.17	33	PASS
GPRS1900	661	0	1	27.07	25.87	33	PASS
GPRS1900	661	0	2	27.00	25.80	33	PASS
GPRS1900	661	0	3	25.37	24.17	33	PASS
GPRS1900	661	0	4	23.34	22.14	33	PASS
GPRS1900	810	0	1	26.86	25.66	33	PASS
GPRS1900	810	0	2	26.80	25.60	33	PASS
GPRS1900	810	0	3	25.14	23.94	33	PASS
GPRS1900	810	0	4	23.10	21.90	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	25.26	21.11	38.5	PASS
EGPRS850	128	8	2	23.95	19.80	38.5	PASS
EGPRS850	128	8	3	21.47	17.32	38.5	PASS
EGPRS850	128	8	4	19.26	15.11	38.5	PASS
EGPRS850	190	8	1	25.15	21.00	38.5	PASS
EGPRS850	190	8	2	24.11	19.96	38.5	PASS
EGPRS850	190	8	3	21.68	17.53	38.5	PASS
EGPRS850	190	8	4	19.52	15.37	38.5	PASS
EGPRS850	251	8	1	24.96	20.81	38.5	PASS
EGPRS850	251	8	2	23.95	19.80	38.5	PASS
EGPRS850	251	8	3	21.52	17.37	38.5	PASS
EGPRS850	251	8	4	19.36	15.21	38.5	PASS
EGPRS1900	512	2	1	25.28	24.08	33	PASS
EGPRS1900	512	2	2	23.88	22.68	33	PASS
EGPRS1900	512	2	3	21.80	20.60	33	PASS
EGPRS1900	512	2	4	19.83	18.63	33	PASS
EGPRS1900	661	2	1	26.06	24.86	33	PASS
EGPRS1900	661	2	2	24.95	23.75	33	PASS
EGPRS1900	661	2	3	23.00	21.80	33	PASS
EGPRS1900	661	2	4	20.58	19.38	33	PASS
EGPRS1900	810	2	1	25.58	24.38	33	PASS
EGPRS1900	810	2	2	24.58	23.38	33	PASS
EGPRS1900	810	2	3	22.50	21.30	33	PASS
EGPRS1900	810	2	4	19.95	18.75	33	PASS

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

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

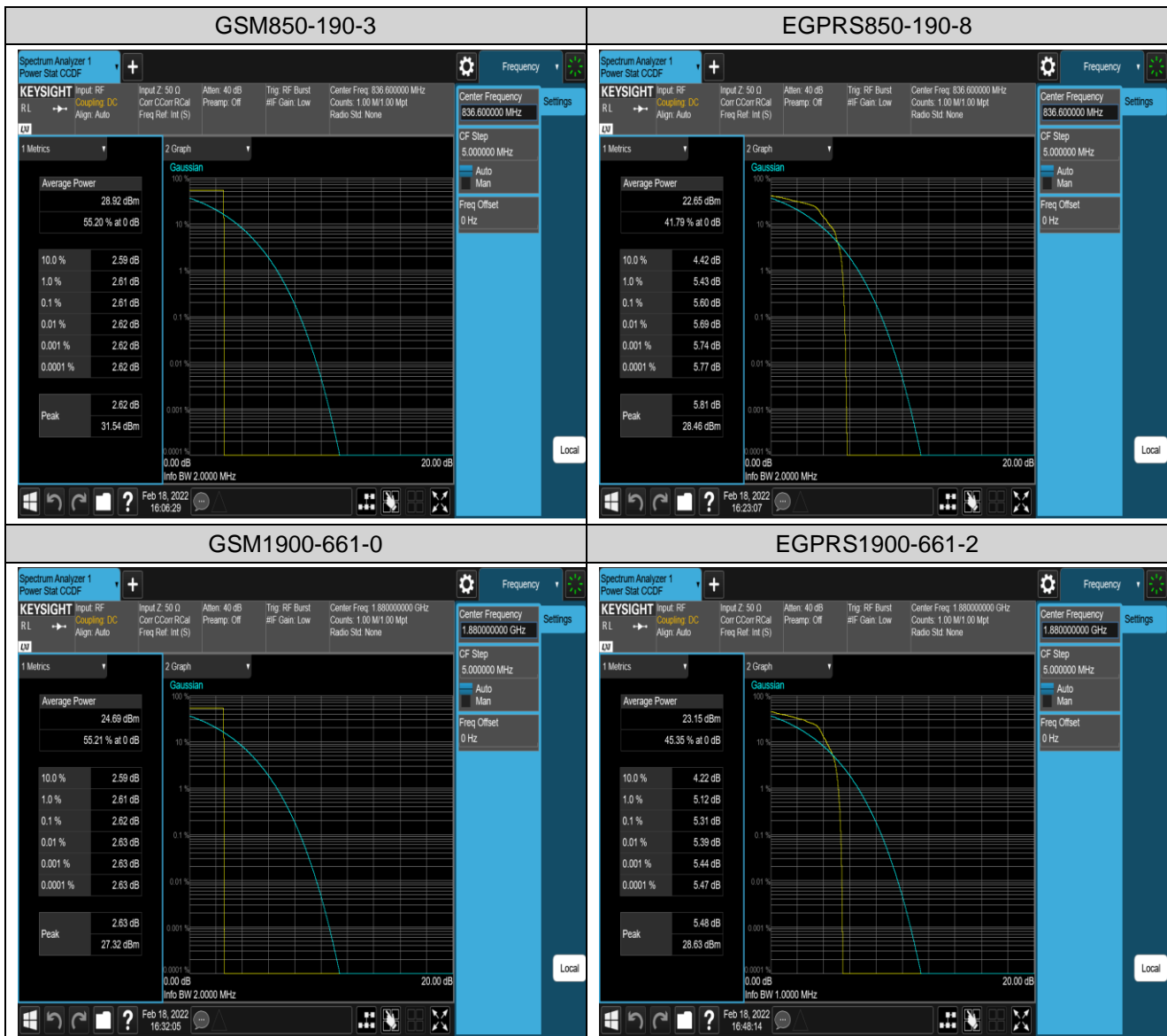
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.61	13	PASS
EGPRS850	190	8	5.6	13	PASS
GSM1900	661	0	2.62	13	PASS
EGPRS1900	661	2	5.31	13	PASS

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

Test Graphs

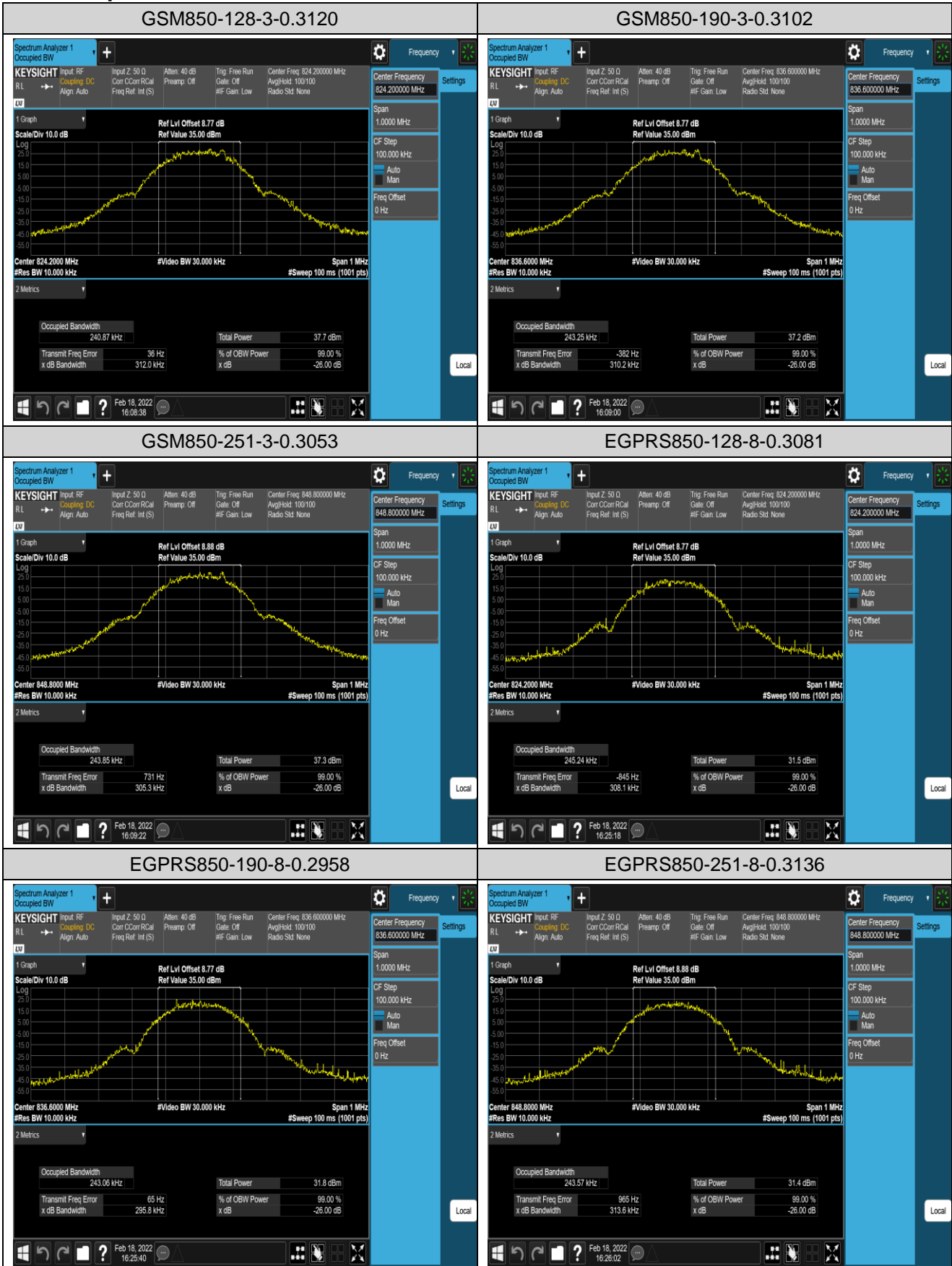


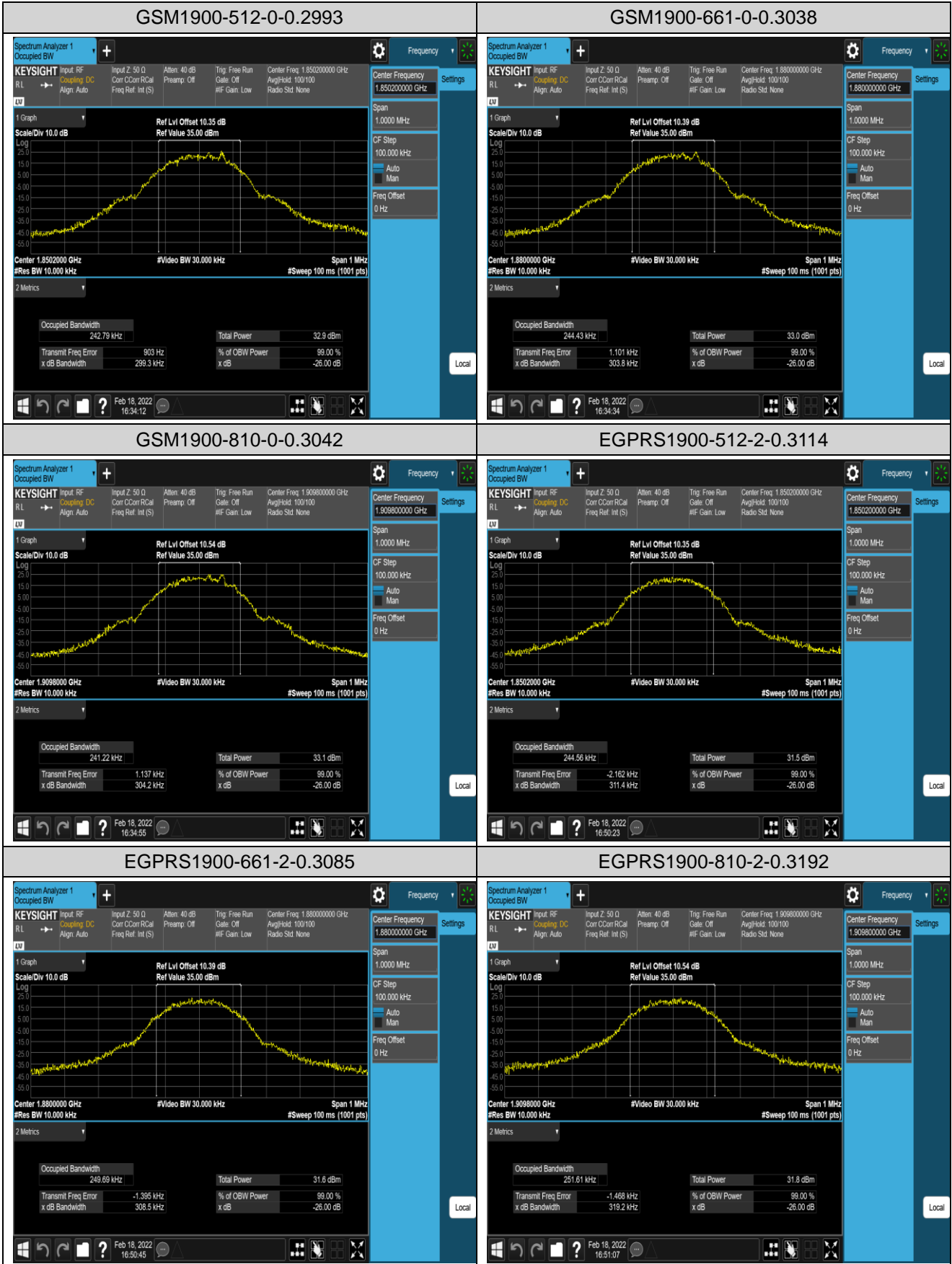
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24087	0.3120	---	PASS
GSM850	190	5	0.24325	0.3102	---	PASS
GSM850	251	5	0.24385	0.3053	---	PASS
EGPRS850	128	8	0.24524	0.3081	---	PASS
EGPRS850	190	8	0.24306	0.2958	---	PASS
EGPRS850	251	8	0.24357	0.3136	---	PASS
GSM1900	512	0	0.24279	0.2993	---	PASS
GSM1900	661	0	0.24443	0.3038	---	PASS
GSM1900	810	0	0.24122	0.3042	---	PASS
EGPRS1900	512	2	0.24456	0.3114	---	PASS
EGPRS1900	661	2	0.24969	0.3085	---	PASS
EGPRS1900	810	2	0.25161	0.3192	---	PASS

Test Graphs



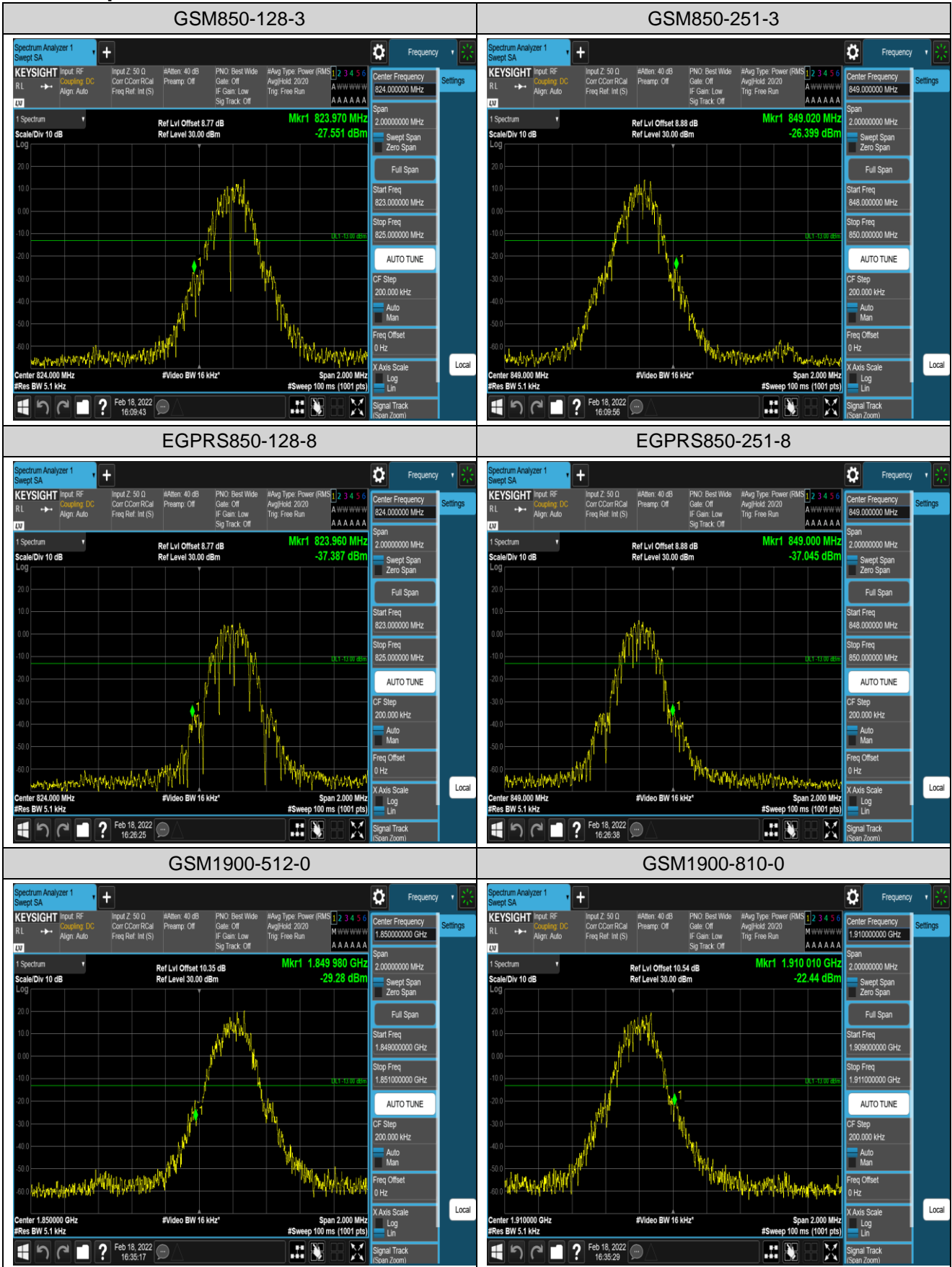


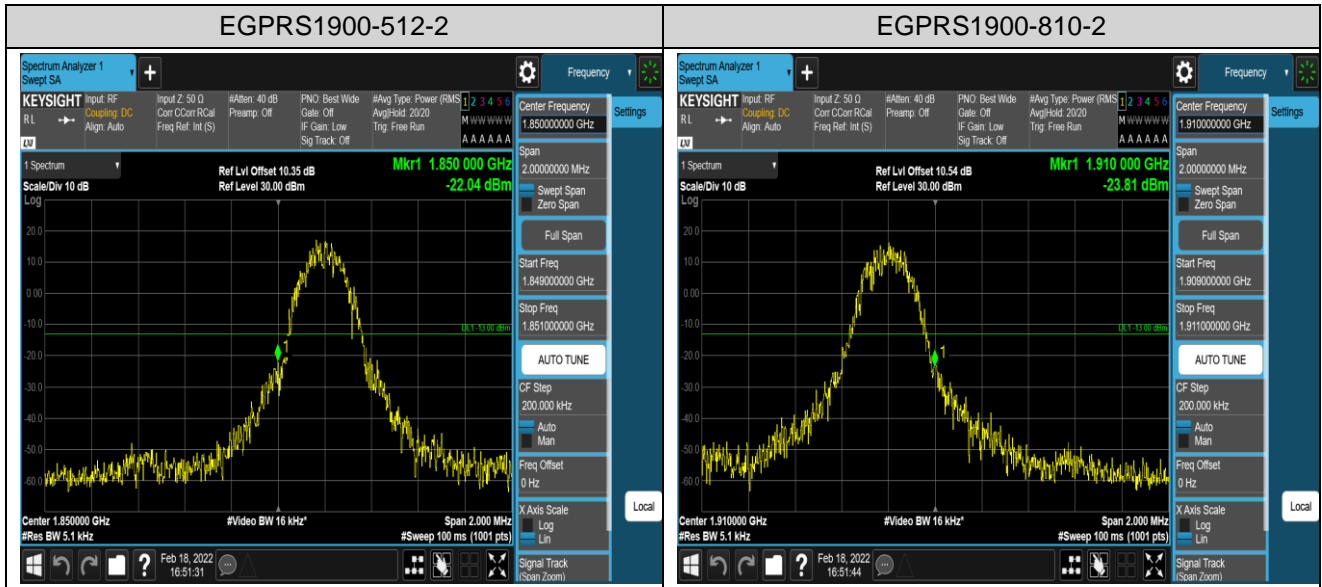
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.97	-27.551	-13	PASS
GSM850	251	5	849.02	-26.399	-13	PASS
EGPRS850	128	8	823.96	-37.387	-13	PASS
EGPRS850	251	8	849.00	-37.045	-13	PASS
GSM1900	512	0	1849.98	-29.28	-13	PASS
GSM1900	810	0	1910.01	-22.44	-13	PASS
EGPRS1900	512	2	1850.00	-22.04	-13	PASS
EGPRS1900	810	2	1910.00	-23.81	-13	PASS

Test Graphs





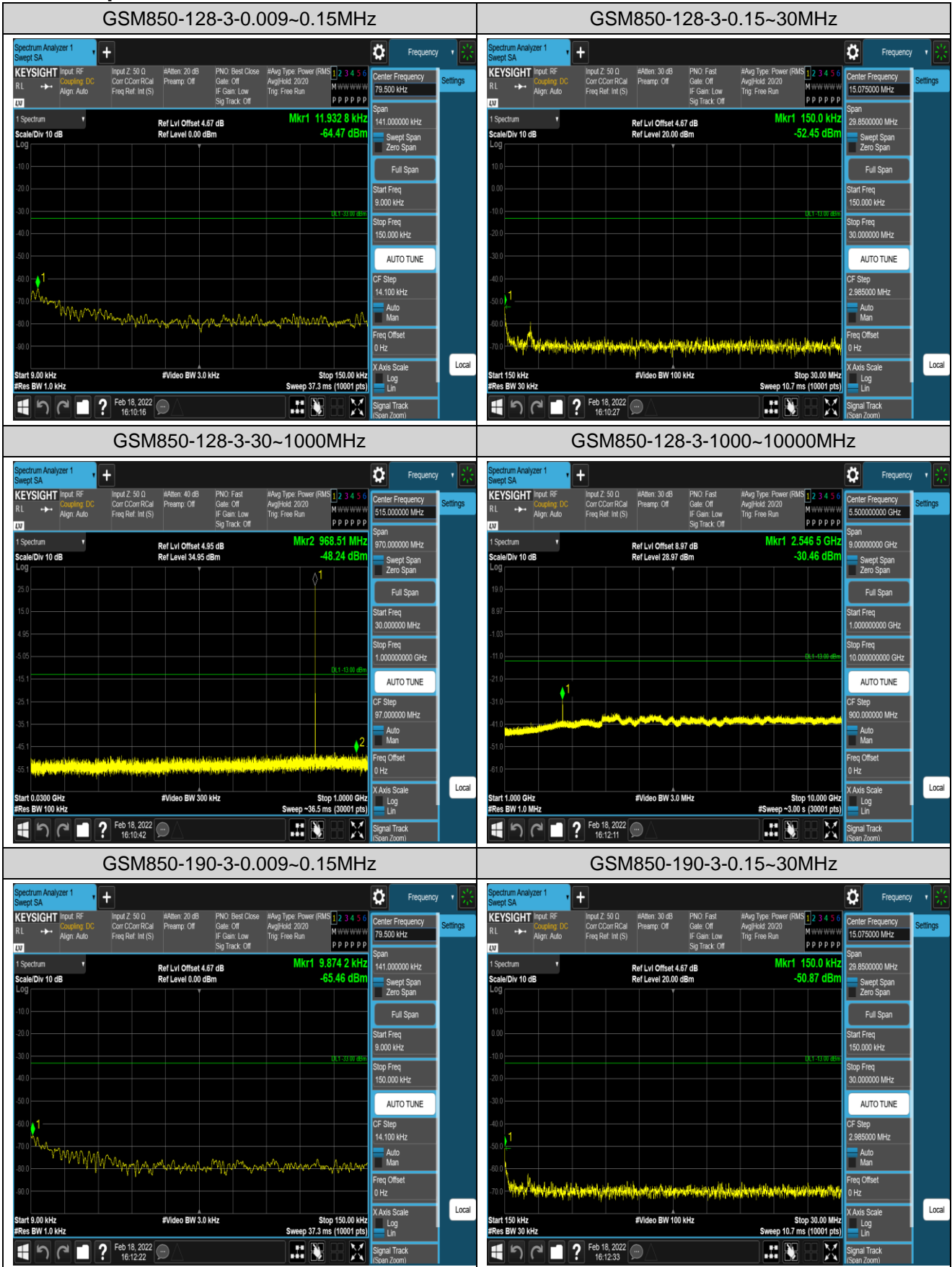
Appendix E: Conducted Spurious Emission

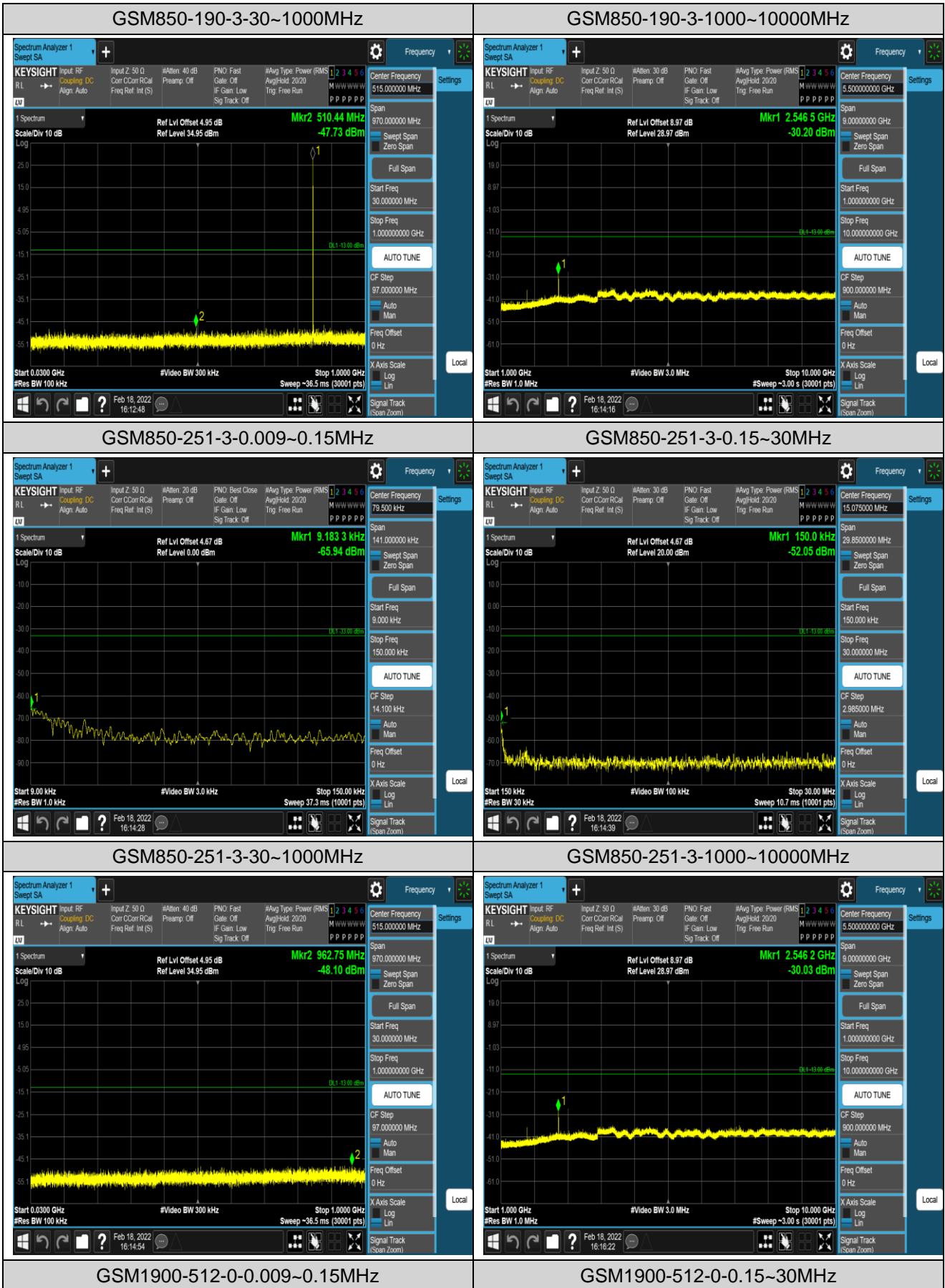
Test Result

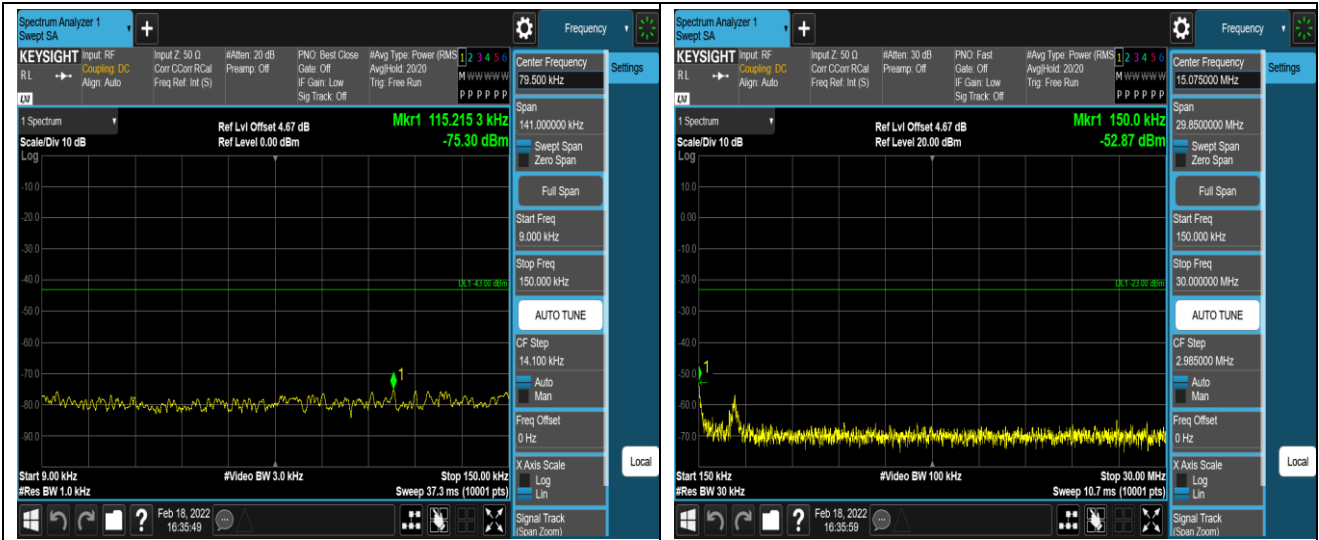
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	3	0.009~0.15MHz	0.01	-64.47	-33	PASS
GSM850	128	3	0.15~30MHz	0.15	-52.45	-13	PASS
GSM850	128	3	30~1000MHz	968.51	-48.24	-13	PASS
GSM850	128	3	1000~10000MHz	2546.5	-30.46	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.01	-65.46	-33	PASS
GSM850	190	3	0.15~30MHz	0.15	-50.87	-13	PASS
GSM850	190	3	30~1000MHz	510.44	-47.73	-13	PASS
GSM850	190	3	1000~10000MHz	2546.5	-30.2	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-65.94	-33	PASS
GSM850	251	3	0.15~30MHz	0.15	-52.05	-13	PASS
GSM850	251	3	30~1000MHz	962.75	-48.1	-13	PASS
GSM850	251	3	1000~10000MHz	2546.2	-30.03	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.12	-75.3	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-52.87	-23	PASS
GSM1900	512	0	30~1000MHz	911.18	-47.05	-13	PASS
GSM1900	512	0	1000~18000MHz	14646.47	-35.3	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-74.4	-43	PASS
GSM1900	661	0	0.15~30MHz	0.16	-53.18	-23	PASS
GSM1900	661	0	30~1000MHz	900.32	-47.97	-13	PASS
GSM1900	661	0	1000~18000MHz	3974.43	-34.81	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-73.15	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-54.74	-23	PASS
GSM1900	810	0	30~1000MHz	779.49	-47.01	-13	PASS
GSM1900	810	0	1000~18000MHz	17641.87	-35.65	-13	PASS

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

Test Graphs

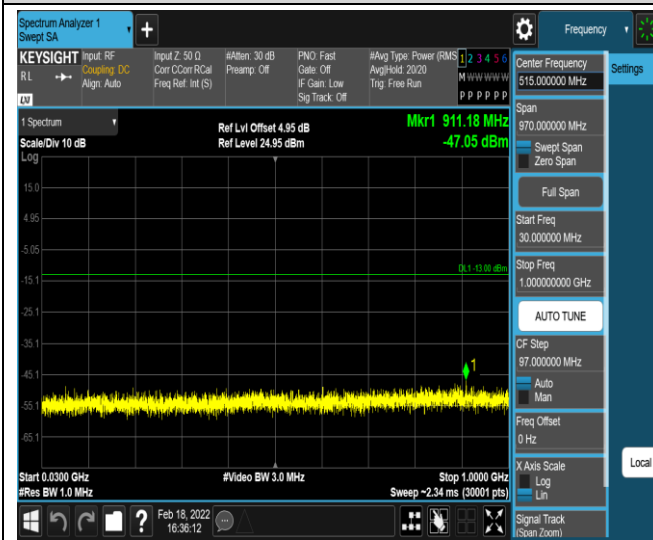






GSM1900-512-0-30~1000MHz

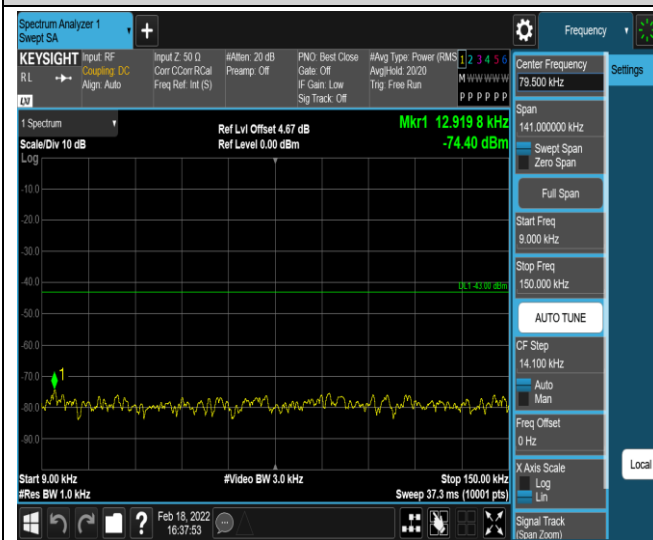
GSM1900-512-0-1000~18000MHz



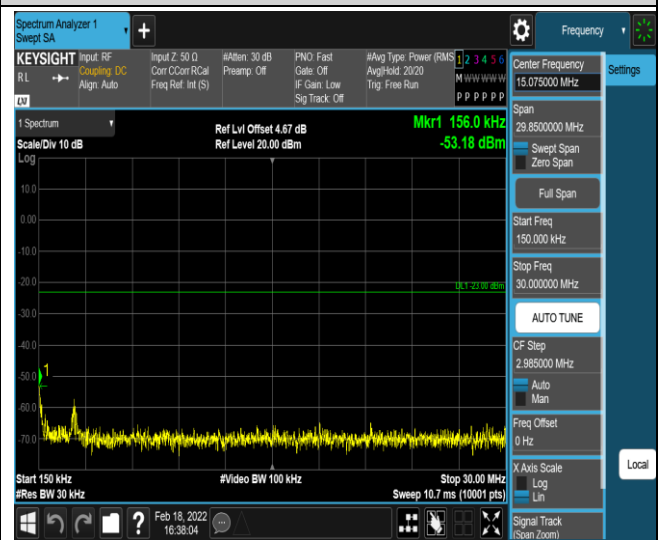
GSM1900-661-0-0.009~0.15MHz



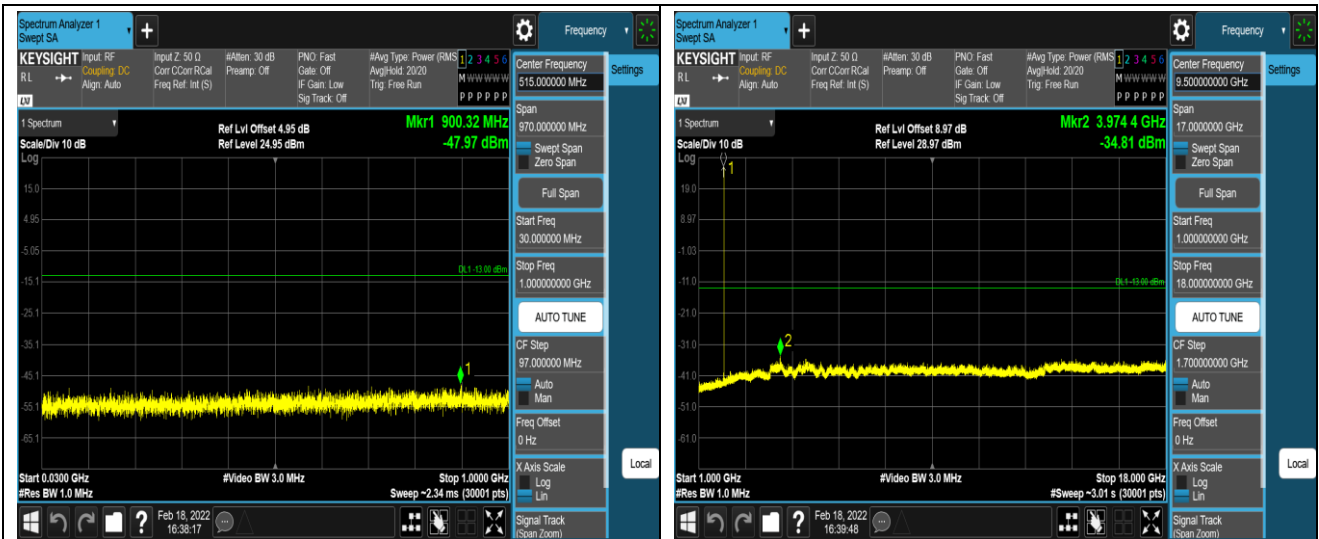
GSM1900-661-0-0.15~30MHz



GSM1900-661-0-30~1000MHz

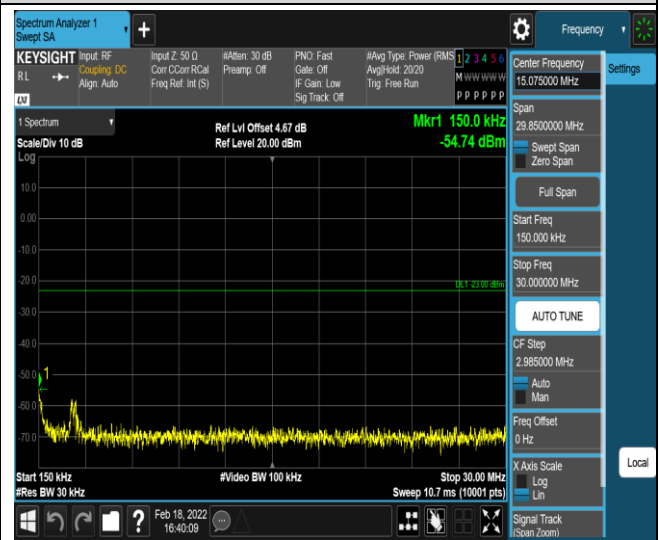


GSM1900-661-0-1000~18000MHz



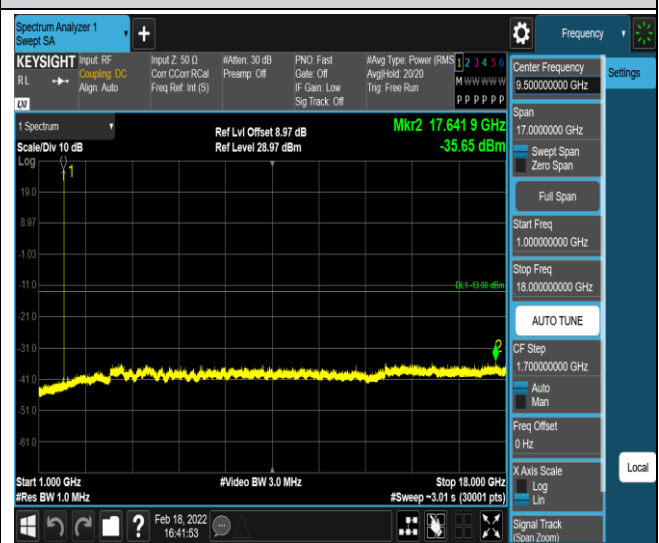
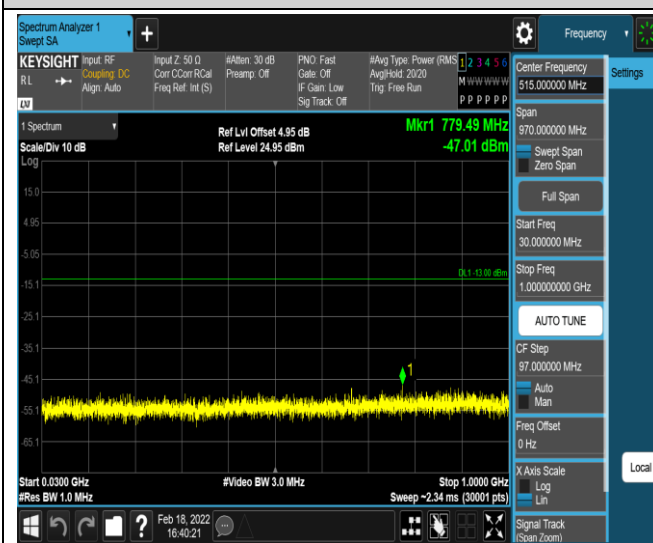
GSM1900-810-0-0.009~0.15MHz

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		
3.80	-30	2.42	0.002893	±2.5	Pass
	-20	1.55	0.001853		
	-10	5.78	0.006909		
	0	6.72	0.008033		
	10	6.39	0.007638		
	20	4.29	0.005128		
	30	5.71	0.006825		
	40	4.16	0.004973		
	50	5.55	0.006634		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-0.81	-0.000968	±2.5	Pass
	3.80	0.71	0.000849		
	4.37	3.55	0.004243		
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		
3.80	-30	18.40	0.021994	±2.5	Pass
	-20	17.21	0.020571		
	-10	20.60	0.024623		
	0	27.80	0.033230		
	10	21.31	0.025472		
	20	23.08	0.027588		
	30	14.50	0.017332		
	40	15.21	0.018181		
	50	17.76	0.021229		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	21.11	0.025233	±2.5	Pass
	3.80	23.12	0.027636		
	4.37	24.44	0.029213		
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		
3.80	-30	3.16	0.001681	Within authorized band for PCS 1900	Pass
	-20	1.68	0.000894		
	-10	-1.65	-0.000878		
	0	13.59	0.007229		
	10	-10.07	-0.005356		
	20	-4.42	-0.002351		
	30	-6.62	-0.003521		
	40	-2.23	-0.001186		
	50	-2.74	-0.001457		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.60	8.10	0.004309	Within authorized band for PCS 1900	Pass
	3.80	2.74	0.001457		
	4.35	-2.55	-0.001356		
<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		
3.80	-30	-1.74	-0.000926	Within authorized band for PCS 1900	Pass
	-20	-1.71	-0.000910		
	-10	-19.31	-0.010271		
	0	0.03	0.000016		
	10	1.58	0.000840		
	20	-12.66	-0.006734		
	30	-5.94	-0.003160		
	40	-1.68	-0.000894		
	50	1.49	0.000793		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.60	-7.55	-0.004016	Within authorized band for PCS 1900	Pass
	3.80	1.42	0.000755		
	4.35	-9.07	-0.004824		
<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

