

## 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	33.24	28.19	38.5	PASS
GSM850	190	5	33.32	28.27	38.5	PASS
GSM850	251	5	33.20	28.15	38.5	PASS
GSM1900	512	0	29.92	29.02	33	PASS
GSM1900	661	0	30.09	29.19	33	PASS
GSM1900	810	0	30.00	29.10	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.33	28.28	38.5	PASS
GPRS850	128	5	2	32.32	27.27	38.5	PASS
GPRS850	128	5	3	30.26	25.21	38.5	PASS
GPRS850	128	5	4	29.12	24.07	38.5	PASS
GPRS850	190	5	1	33.31	28.26	38.5	PASS
GPRS850	190	5	2	32.36	27.31	38.5	PASS
GPRS850	190	5	3	30.28	25.23	38.5	PASS
GPRS850	190	5	4	29.15	24.10	38.5	PASS
GPRS850	251	5	1	33.22	28.17	38.5	PASS
GPRS850	251	5	2	32.28	27.23	38.5	PASS
GPRS850	251	5	3	30.23	25.18	38.5	PASS
GPRS850	251	5	4	29.10	24.05	38.5	PASS
GPRS1900	512	0	1	29.94	29.04	33	PASS
GPRS1900	512	0	2	28.95	28.05	33	PASS
GPRS1900	512	0	3	26.93	26.03	33	PASS
GPRS1900	512	0	4	25.82	24.92	33	PASS
GPRS1900	661	0	1	30.10	29.20	33	PASS
GPRS1900	661	0	2	29.16	28.26	33	PASS
GPRS1900	661	0	3	27.15	26.25	33	PASS
GPRS1900	661	0	4	26.04	25.14	33	PASS
GPRS1900	810	0	1	30.01	29.11	33	PASS
GPRS1900	810	0	2	29.08	28.18	33	PASS
GPRS1900	810	0	3	27.10	26.20	33	PASS
GPRS1900	810	0	4	25.98	25.08	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	28.04	22.99	38.5	PASS
EGPRS850	128	8	2	26.75	21.70	38.5	PASS
EGPRS850	128	8	3	24.48	19.43	38.5	PASS
EGPRS850	128	8	4	23.23	18.18	38.5	PASS
EGPRS850	190	8	1	27.59	22.54	38.5	PASS
EGPRS850	190	8	2	26.50	21.45	38.5	PASS
EGPRS850	190	8	3	24.25	19.20	38.5	PASS
EGPRS850	190	8	4	23.06	18.01	38.5	PASS
EGPRS850	251	8	1	27.68	22.63	38.5	PASS
EGPRS850	251	8	2	26.60	21.55	38.5	PASS
EGPRS850	251	8	3	24.36	19.31	38.5	PASS
EGPRS850	251	8	4	23.15	18.10	38.5	PASS
EGPRS1900	512	2	1	26.09	25.19	33	PASS
EGPRS1900	512	2	2	24.99	24.09	33	PASS
EGPRS1900	512	2	3	23.11	22.21	33	PASS
EGPRS1900	512	2	4	22.14	21.24	33	PASS
EGPRS1900	661	2	1	25.82	24.92	33	PASS
EGPRS1900	661	2	2	24.83	23.93	33	PASS
EGPRS1900	661	2	3	22.87	21.97	33	PASS
EGPRS1900	661	2	4	21.85	20.95	33	PASS
EGPRS1900	810	2	1	25.56	24.66	33	PASS
EGPRS1900	810	2	2	24.64	23.74	33	PASS
EGPRS1900	810	2	3	22.72	21.82	33	PASS
EGPRS1900	810	2	4	21.68	20.78	33	PASS

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

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

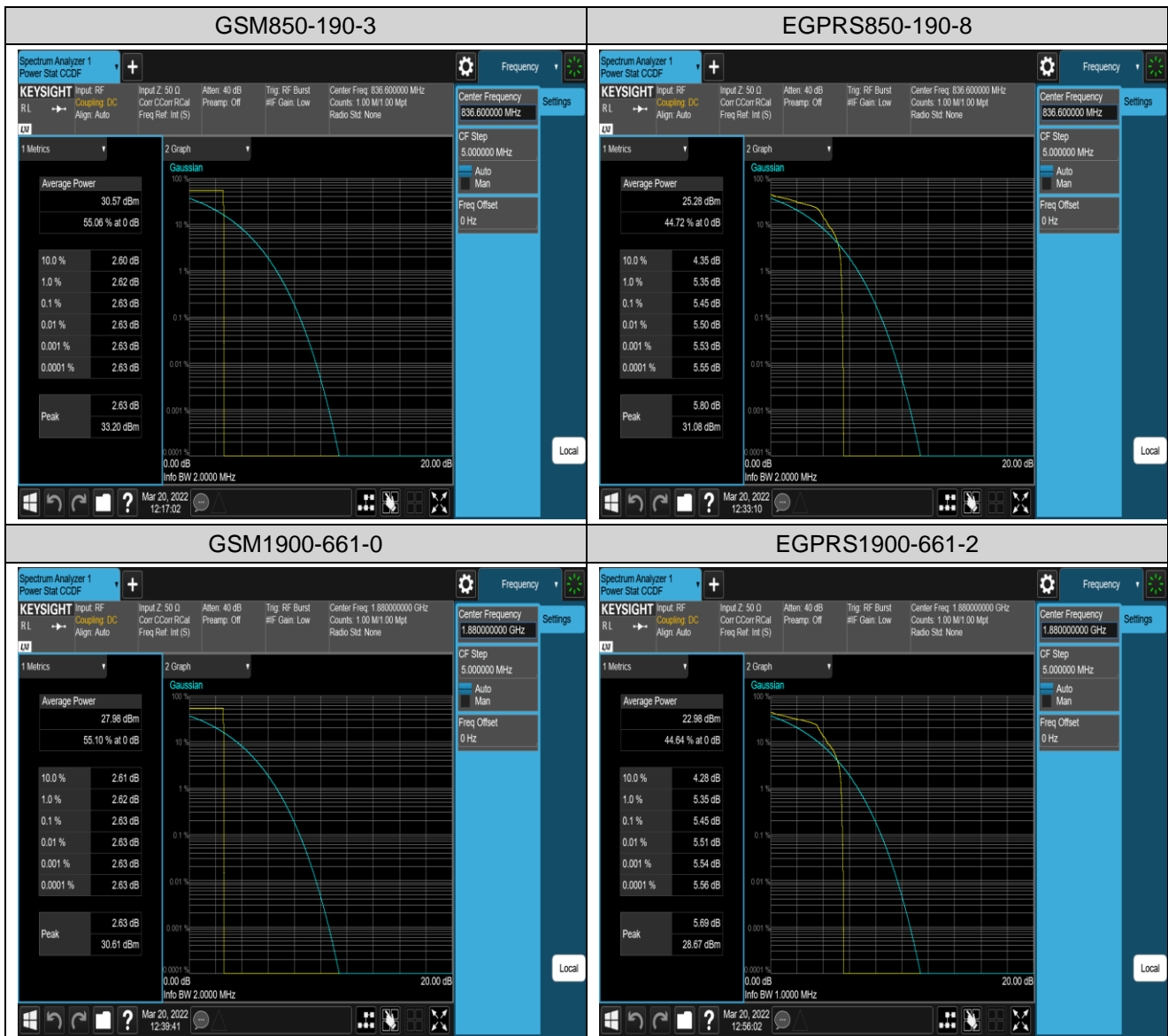
## Appendix B: Peak-to-Average Ratio(CCDF)

### Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.63	13	PASS
EGPRS850	190	8	5.45	13	PASS
GSM1900	661	0	2.63	13	PASS
EGPRS1900	661	2	5.45	13	PASS

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

### Test Graphs

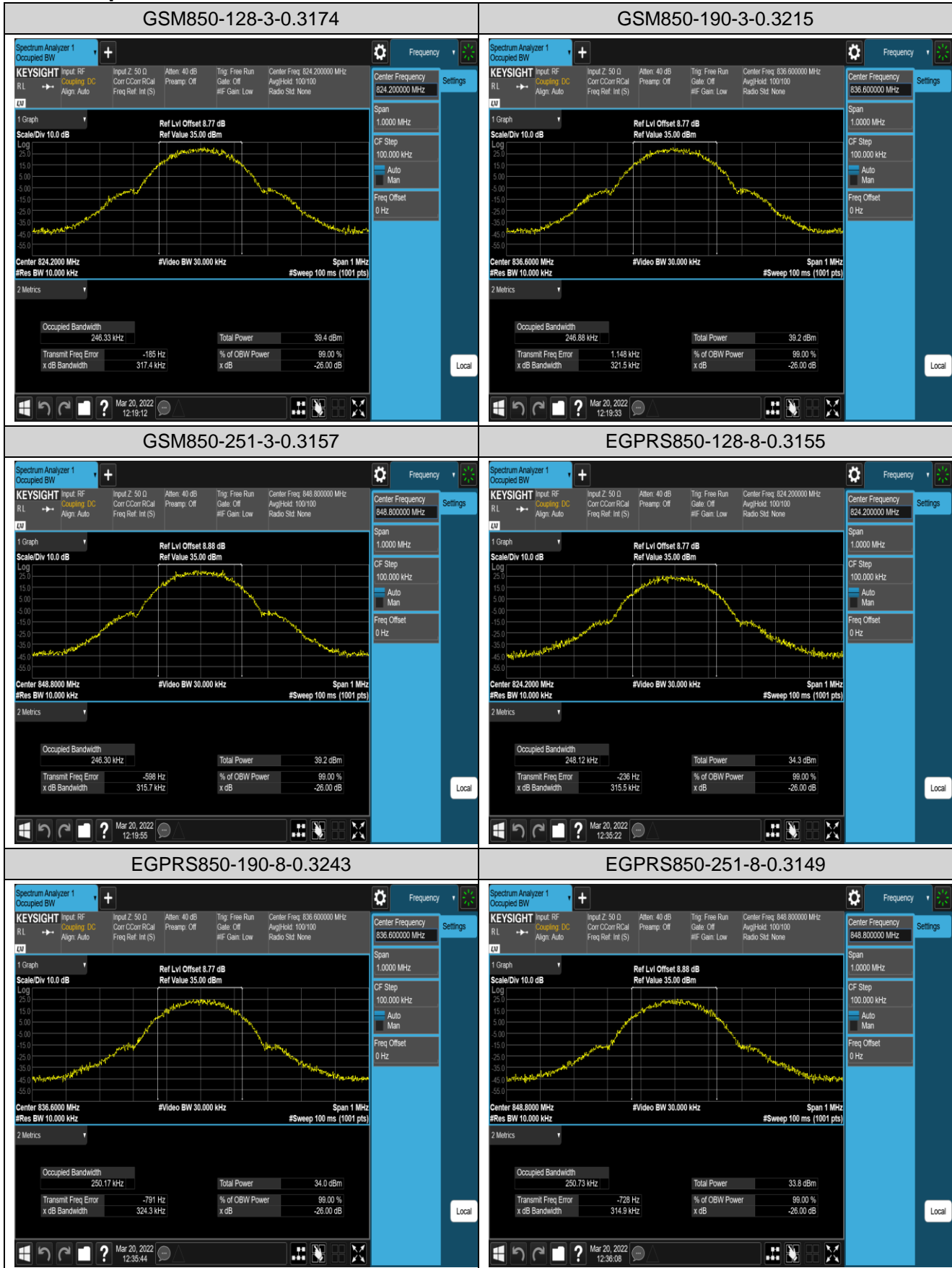


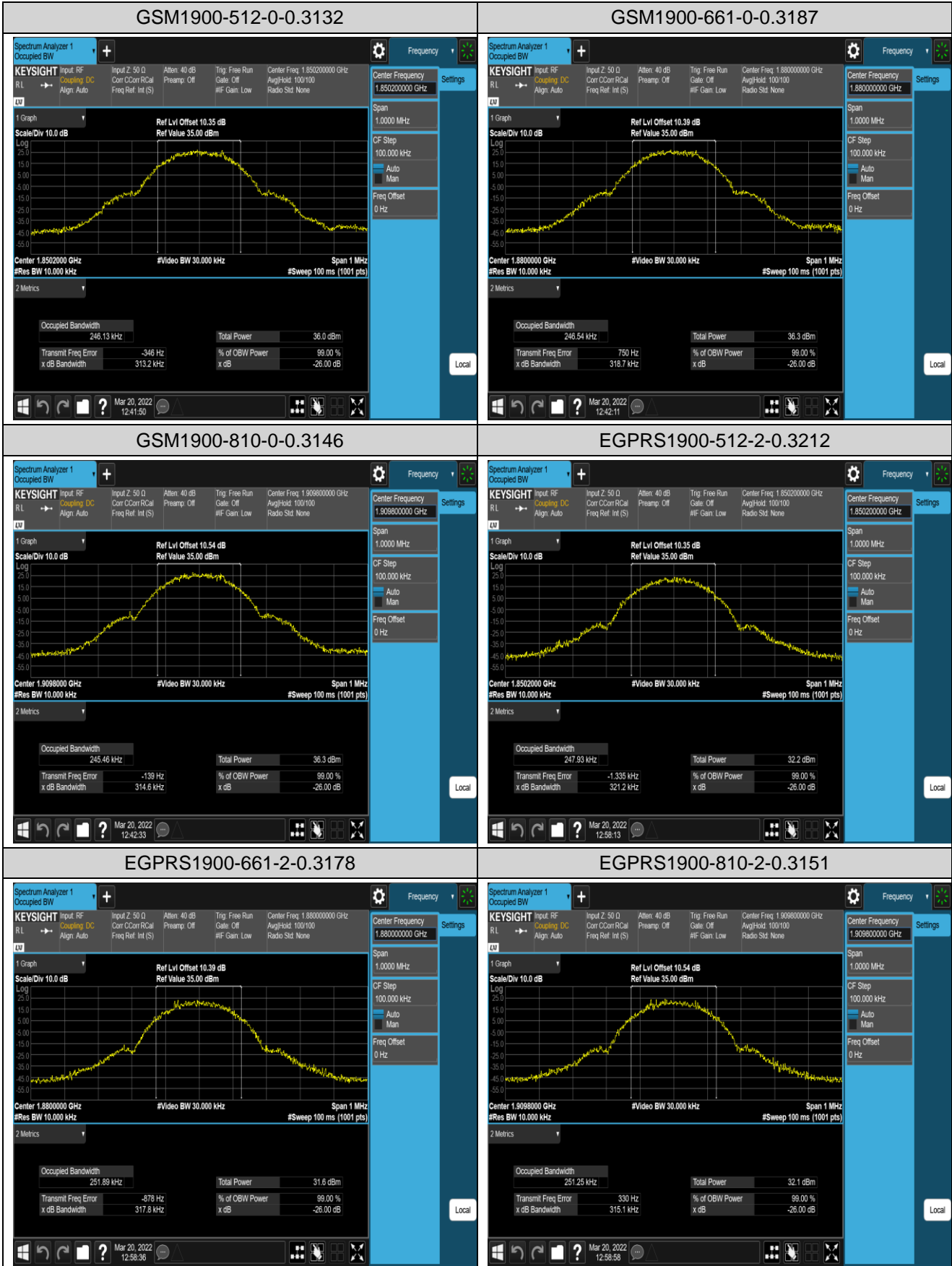
## Appendix C: 26dB Bandwidth and Occupied Bandwidth

### Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24633	0.3174	---	PASS
GSM850	190	5	0.24688	0.3215	---	PASS
GSM850	251	5	0.24630	0.3157	---	PASS
EGPRS850	128	8	0.24812	0.3155	---	PASS
EGPRS850	190	8	0.25017	0.3243	---	PASS
EGPRS850	251	8	0.25073	0.3149	---	PASS
GSM1900	512	0	0.24613	0.3132	---	PASS
GSM1900	661	0	0.24654	0.3187	---	PASS
GSM1900	810	0	0.24546	0.3146	---	PASS
EGPRS1900	512	2	0.24793	0.3212	---	PASS
EGPRS1900	661	2	0.25189	0.3178	---	PASS
EGPRS1900	810	2	0.25125	0.3151	---	PASS

Test Graphs



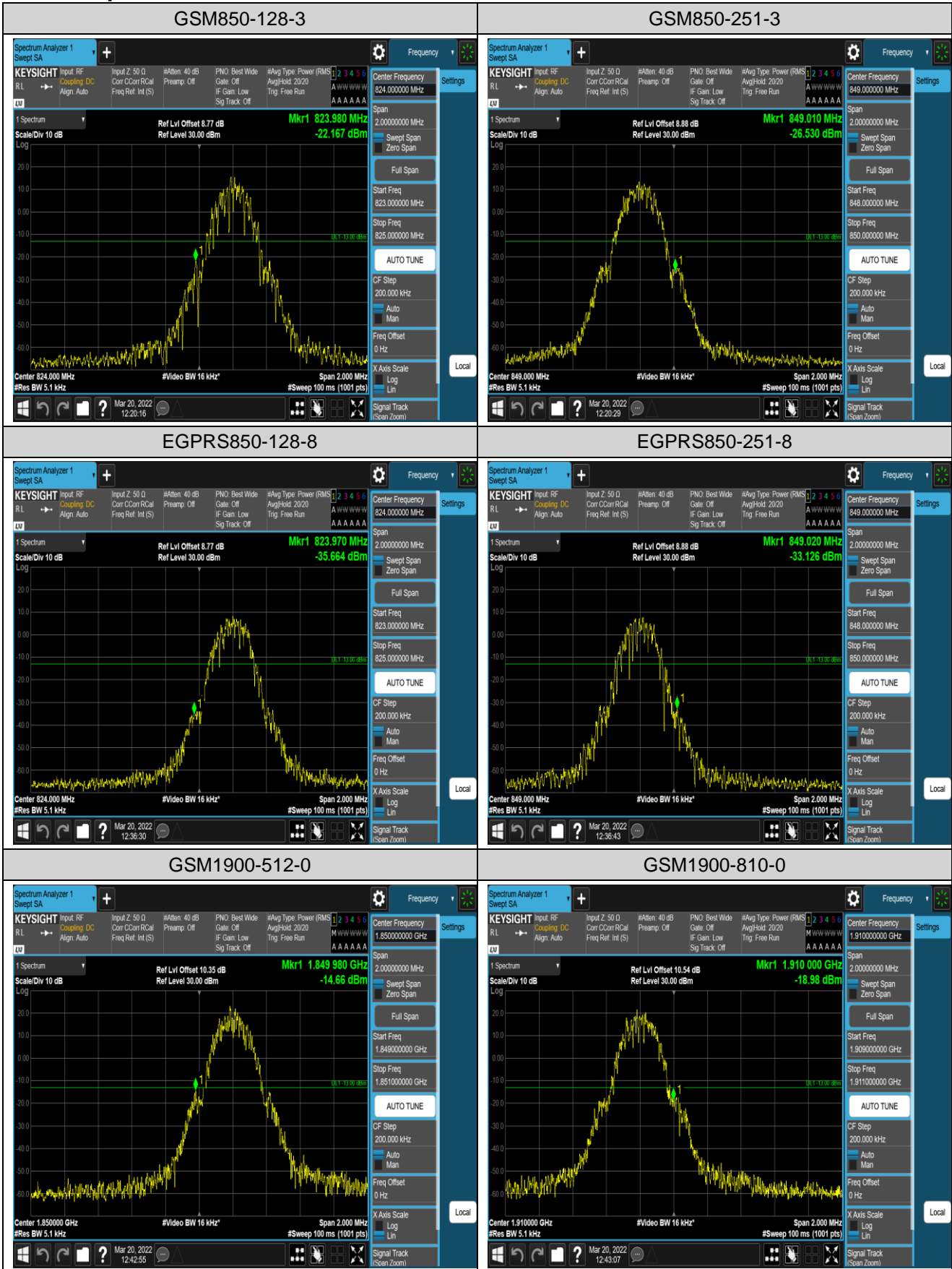


## Appendix D: Band Edge

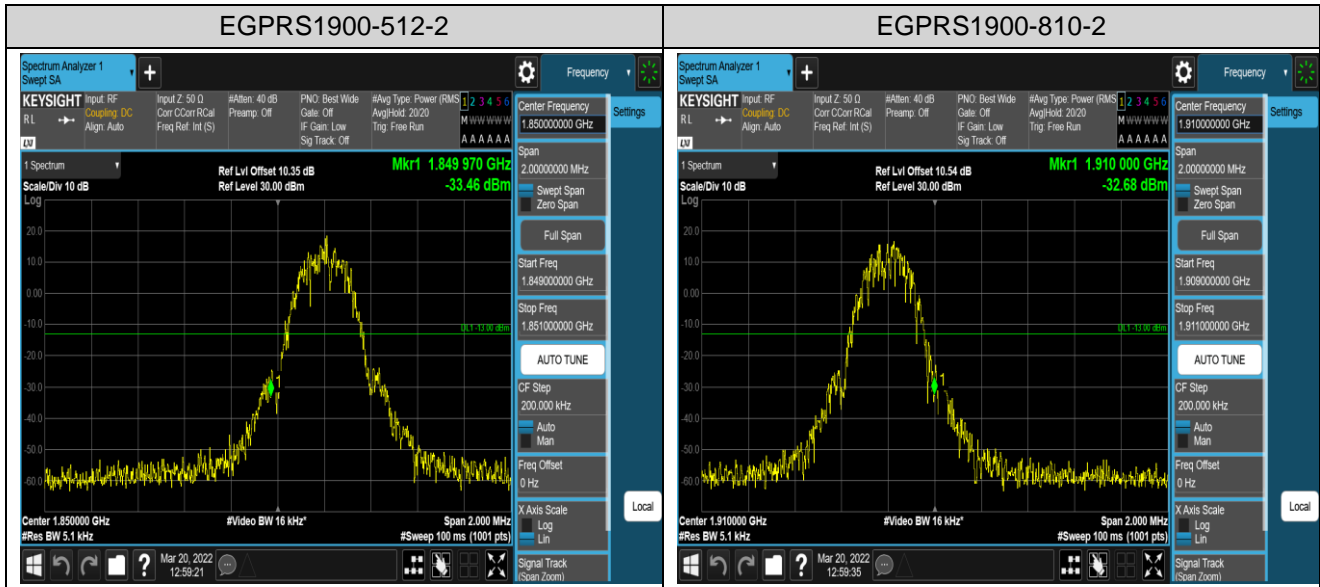
### Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-22.167	-13	PASS
GSM850	251	5	849.01	-26.53	-13	PASS
EGPRS850	128	8	823.97	-35.664	-13	PASS
EGPRS850	251	8	849.02	-33.126	-13	PASS
GSM1900	512	0	1849.98	-14.66	-13	PASS
GSM1900	810	0	1910.00	-18.98	-13	PASS
EGPRS1900	512	2	1849.97	-33.46	-13	PASS
EGPRS1900	810	2	1910.00	-32.68	-13	PASS

Test Graphs







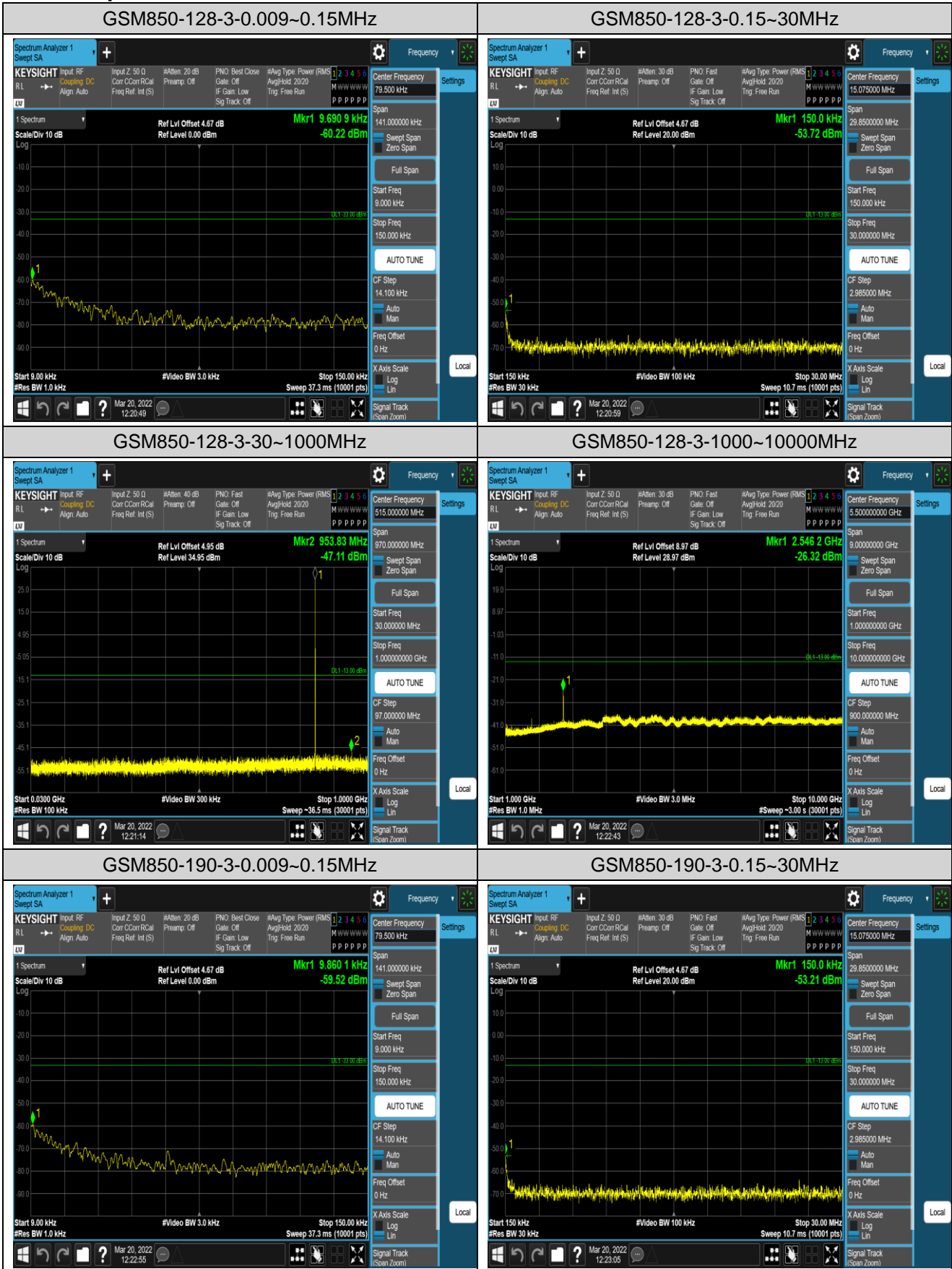
## Appendix E: Conducted Spurious Emission

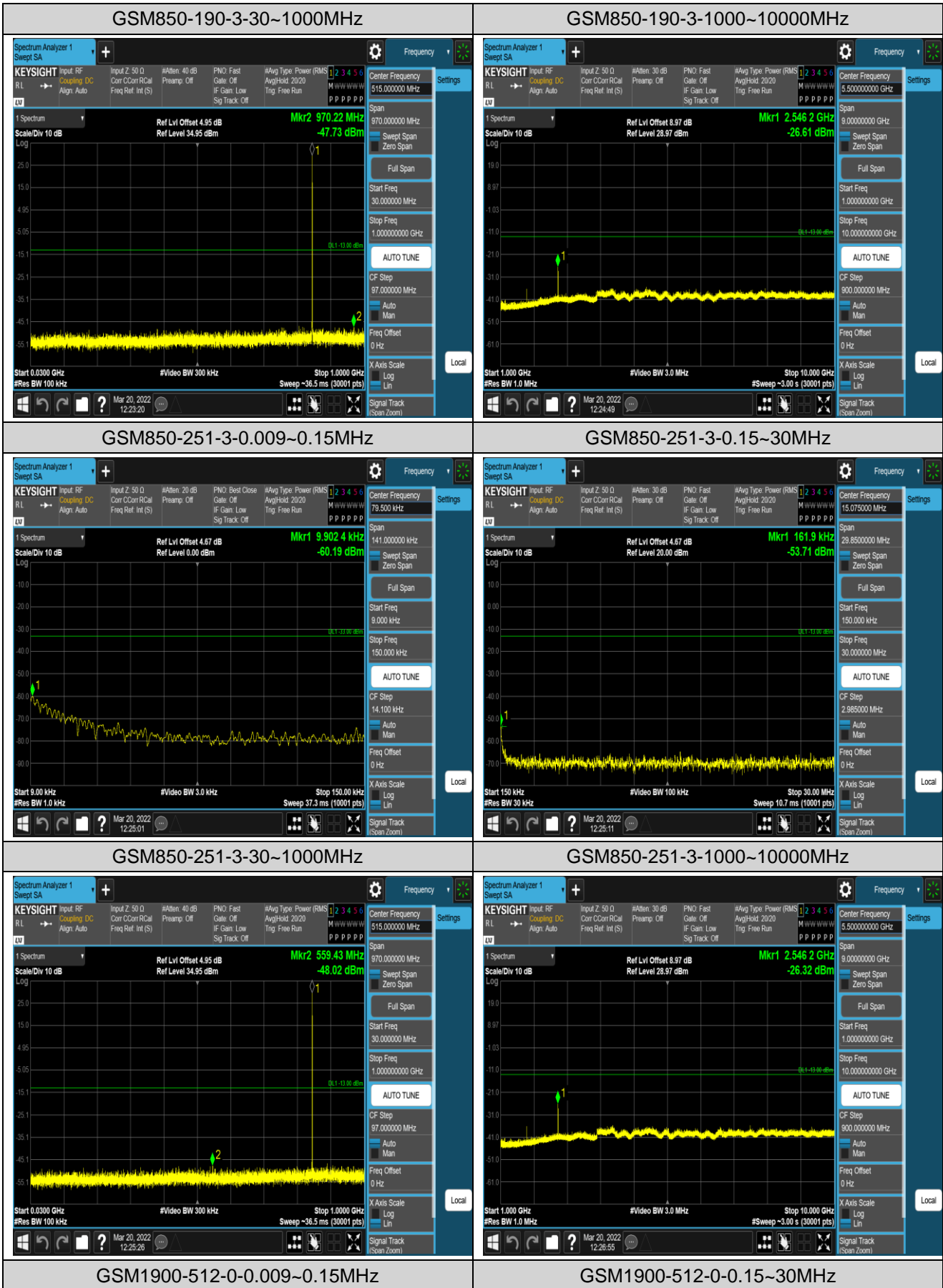
### Test Result

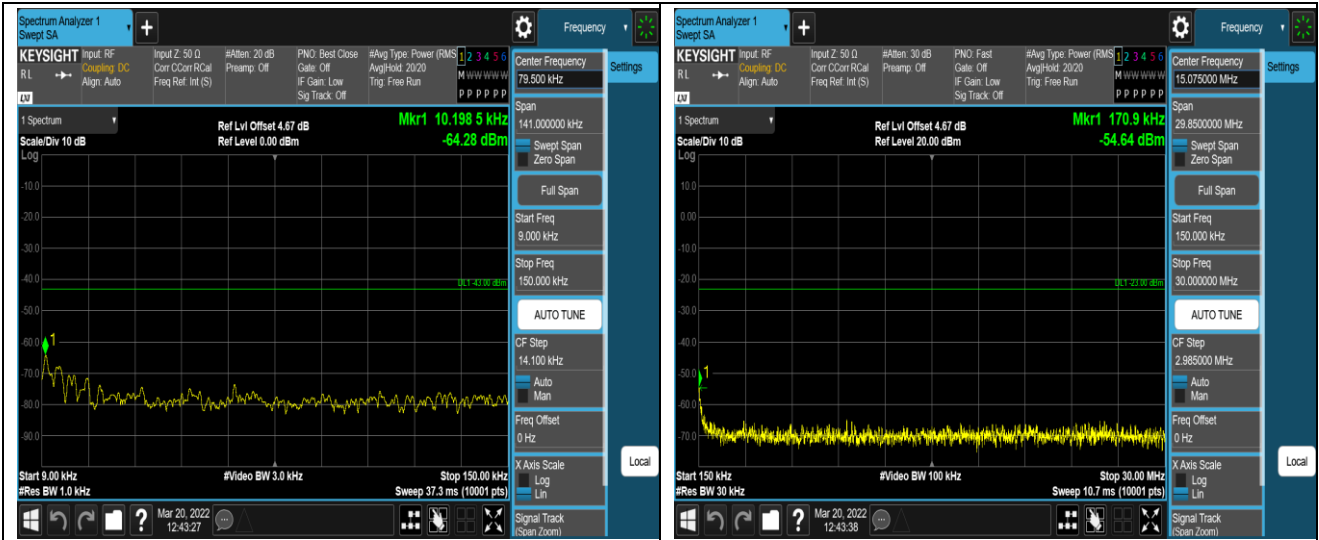
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-60.22	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-53.72	-13	PASS
GSM850	128	5	30~1000MHz	953.83	-47.11	-13	PASS
GSM850	128	5	1000~10000MHz	2546.2	-26.32	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-59.52	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-53.21	-13	PASS
GSM850	190	5	30~1000MHz	970.22	-47.73	-13	PASS
GSM850	190	5	1000~10000MHz	2546.2	-26.61	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-60.19	-33	PASS
GSM850	251	5	0.15~30MHz	0.16	-53.71	-13	PASS
GSM850	251	5	30~1000MHz	559.43	-48.02	-13	PASS
GSM850	251	5	1000~10000MHz	2546.2	-26.32	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-64.28	-43	PASS
GSM1900	512	0	0.15~30MHz	0.17	-54.64	-23	PASS
GSM1900	512	0	30~1000MHz	757.69	-47.14	-13	PASS
GSM1900	512	0	1000~18000MHz	4894.7	-35.64	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-65.41	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-53.13	-23	PASS
GSM1900	661	0	30~1000MHz	865.46	-47.76	-13	PASS
GSM1900	661	0	1000~18000MHz	3819.73	-35.14	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-64.76	-43	PASS
GSM1900	810	0	0.15~30MHz	0.17	-53.85	-23	PASS
GSM1900	810	0	30~1000MHz	985.97	-46.8	-13	PASS
GSM1900	810	0	1000~18000MHz	3819.73	-35.35	-13	PASS

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

Test Graphs

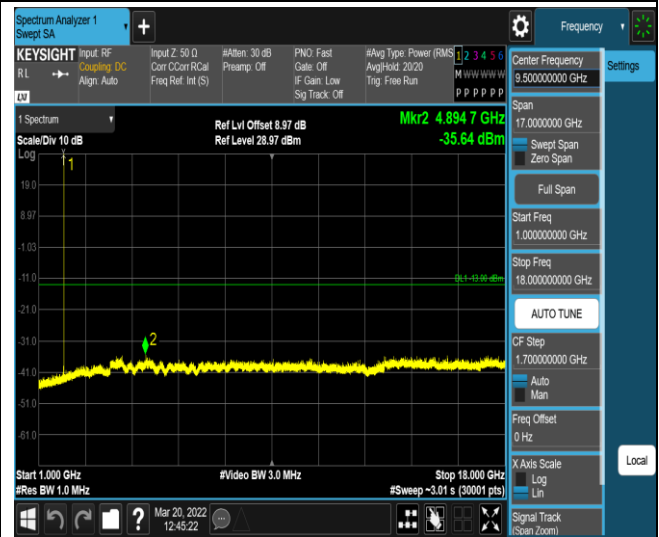
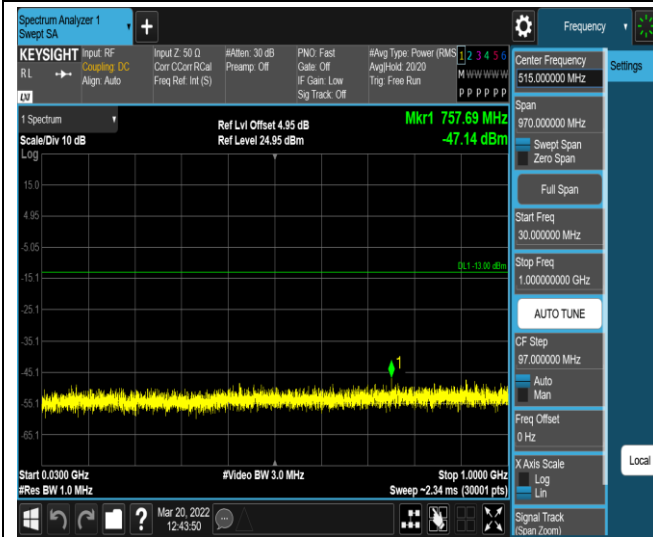






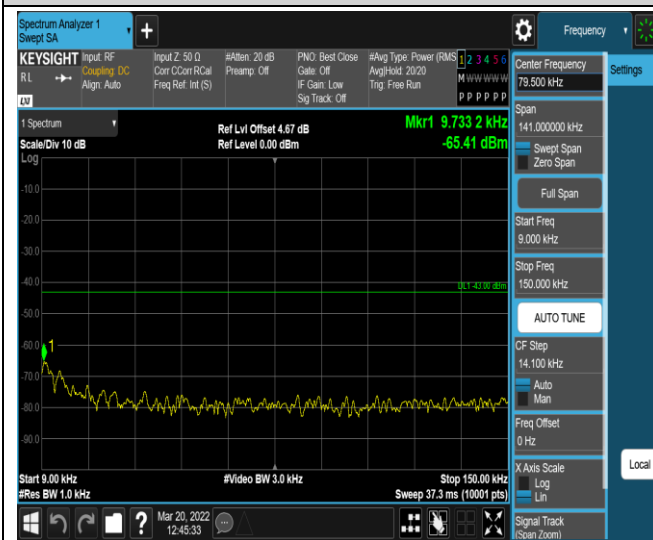
GSM1900-512-0-30~1000MHz

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



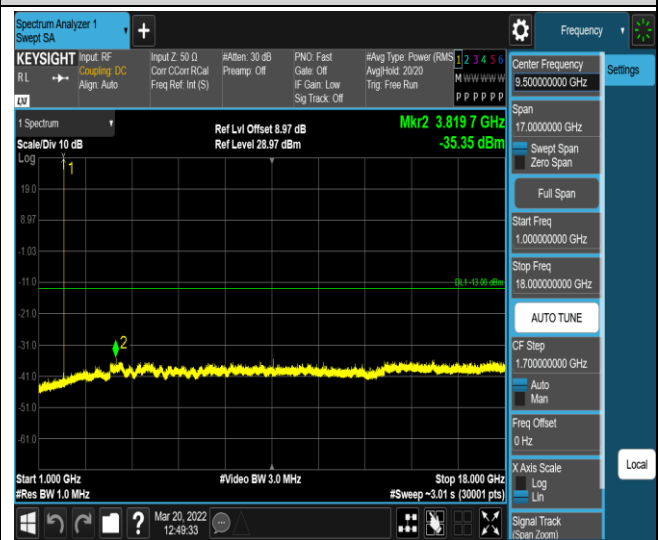
GSM1900-810-0-0.009~0.15MHz

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	4.65	0.005558	±2.5	Pass
	-20	4.13	0.004937		
	-10	2.00	0.002391		
	0	3.16	0.003777		
	10	1.23	0.001470		
	20	1.87	0.002235		
	30	3.42	0.004088		
	40	4.29	0.005128		
	50	1.87	0.002235		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	5.33	0.006371	±2.5	Pass
	3.85	1.87	0.002235		
	4.40	5.97	0.007136		
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	-2.45	-0.002929	±2.5	Pass
	-20	-4.23	-0.005056		
	-10	3.49	0.004172		
	0	4.75	0.005678		
	10	4.00	0.004781		
	20	2.68	0.003203		
	30	1.16	0.001387		
	40	1.42	0.001697		
	50	0.00	0.000000		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-6.01	-0.007184	±2.5	Pass
	3.85	-8.39	-0.010029		
	4.40	-8.10	-0.009682		
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	34.03	0.018101	Within authorized band for PCS 1900	Pass
	-20	24.41	0.012984		
	-10	26.15	0.013910		
	0	28.61	0.015218		
	10	21.37	0.011367		
	20	29.38	0.015628		
	30	23.76	0.012638		
	40	24.18	0.012862		
	50	26.93	0.014324		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	22.92	0.012191	Within authorized band for PCS 1900	Pass
	3.85	24.09	0.012814		
	4.40	23.50	0.012500		
<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	17.14	0.009117	Within authorized band for PCS 1900	Pass
	-20	23.76	0.012638		
	-10	28.57	0.015197		
	0	29.35	0.015612		
	10	30.51	0.016229		
	20	31.09	0.016537		
	30	28.77	0.015303		
	40	35.90	0.019096		
	50	32.58	0.017330		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	21.57	0.011473	Within authorized band for PCS 1900	Pass
	3.85	19.89	0.010580		
	4.40	16.66	0.008862		
<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

