

## 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	33.44	30.29	38.45	PASS
GSM850	190	5	33.39	30.24	38.45	PASS
GSM850	251	5	33.43	30.28	38.45	PASS
GSM1900	512	0	29.94	31.04	33.00	PASS
GSM1900	661	0	29.88	30.98	33.00	PASS
GSM1900	810	0	29.61	30.71	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.54	30.39	38.45	PASS
GPRS850	128	5	2	32.58	29.43	38.45	PASS
GPRS850	128	5	3	30.50	27.35	38.45	PASS
GPRS850	128	5	4	29.33	26.18	38.45	PASS
GPRS850	190	5	1	33.46	30.31	38.45	PASS
GPRS850	190	5	2	32.46	29.31	38.45	PASS
GPRS850	190	5	3	30.35	27.20	38.45	PASS
GPRS850	190	5	4	29.19	26.04	38.45	PASS
GPRS850	251	5	1	33.48	30.33	38.45	PASS
GPRS850	251	5	2	32.52	29.37	38.45	PASS
GPRS850	251	5	3	30.45	27.30	38.45	PASS
GPRS850	251	5	4	29.24	26.09	38.45	PASS
GPRS1900	512	0	1	30.01	31.11	33.00	PASS
GPRS1900	512	0	2	28.93	30.03	33.00	PASS
GPRS1900	512	0	3	26.66	27.76	33.00	PASS
GPRS1900	512	0	4	25.48	26.58	33.00	PASS
GPRS1900	661	0	1	29.90	31.00	33.00	PASS
GPRS1900	661	0	2	28.78	29.88	33.00	PASS
GPRS1900	661	0	3	26.54	27.64	33.00	PASS
GPRS1900	661	0	4	25.38	26.48	33.00	PASS
GPRS1900	810	0	1	29.61	30.71	33.00	PASS
GPRS1900	810	0	2	28.46	29.56	33.00	PASS
GPRS1900	810	0	3	26.30	27.40	33.00	PASS
GPRS1900	810	0	4	25.16	26.26	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	31.18	28.03	38.45	PASS
EGPRS850	128	8	2	30.45	27.30	38.45	PASS
EGPRS850	128	8	3	28.88	25.73	38.45	PASS
EGPRS850	128	8	4	27.81	24.66	38.45	PASS
EGPRS850	190	8	1	30.98	27.83	38.45	PASS
EGPRS850	190	8	2	30.23	27.08	38.45	PASS
EGPRS850	190	8	3	28.66	25.51	38.45	PASS
EGPRS850	190	8	4	27.66	24.51	38.45	PASS
EGPRS850	251	8	1	30.88	27.73	38.45	PASS
EGPRS850	251	8	2	30.15	27.00	38.45	PASS
EGPRS850	251	8	3	28.61	25.46	38.45	PASS
EGPRS850	251	8	4	27.54	24.39	38.45	PASS
EGPRS1900	512	2	1	30.58	31.68	33.00	PASS
EGPRS1900	512	2	2	30.01	31.11	33.00	PASS
EGPRS1900	512	2	3	28.68	29.78	33.00	PASS
EGPRS1900	512	2	4	27.76	28.86	33.00	PASS
EGPRS1900	661	2	1	30.61	31.71	33.00	PASS
EGPRS1900	661	2	2	29.96	31.06	33.00	PASS
EGPRS1900	661	2	3	28.55	29.65	33.00	PASS
EGPRS1900	661	2	4	27.53	28.63	33.00	PASS
EGPRS1900	810	2	1	30.45	31.55	33.00	PASS
EGPRS1900	810	2	2	29.80	30.90	33.00	PASS
EGPRS1900	810	2	3	28.27	29.37	33.00	PASS
EGPRS1900	810	2	4	27.27	28.37	33.00	PASS

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

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

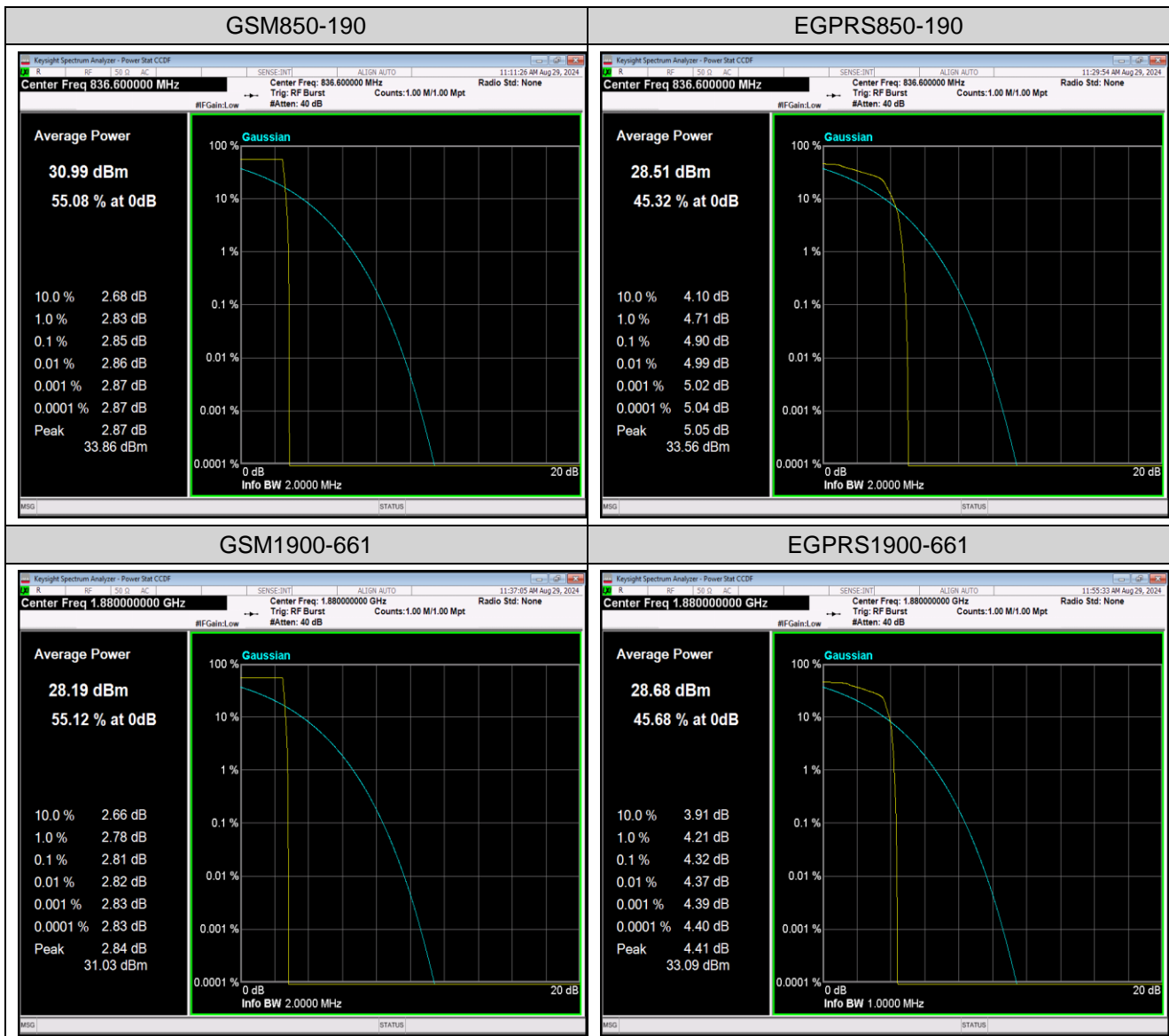
## Appendix B: Peak-to-Average Ratio(CCDF)

### Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.85	13	PASS
EGPRS850	190	8	4.9	13	PASS
GSM1900	661	0	2.81	13	PASS
EGPRS1900	661	2	4.32	13	PASS

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

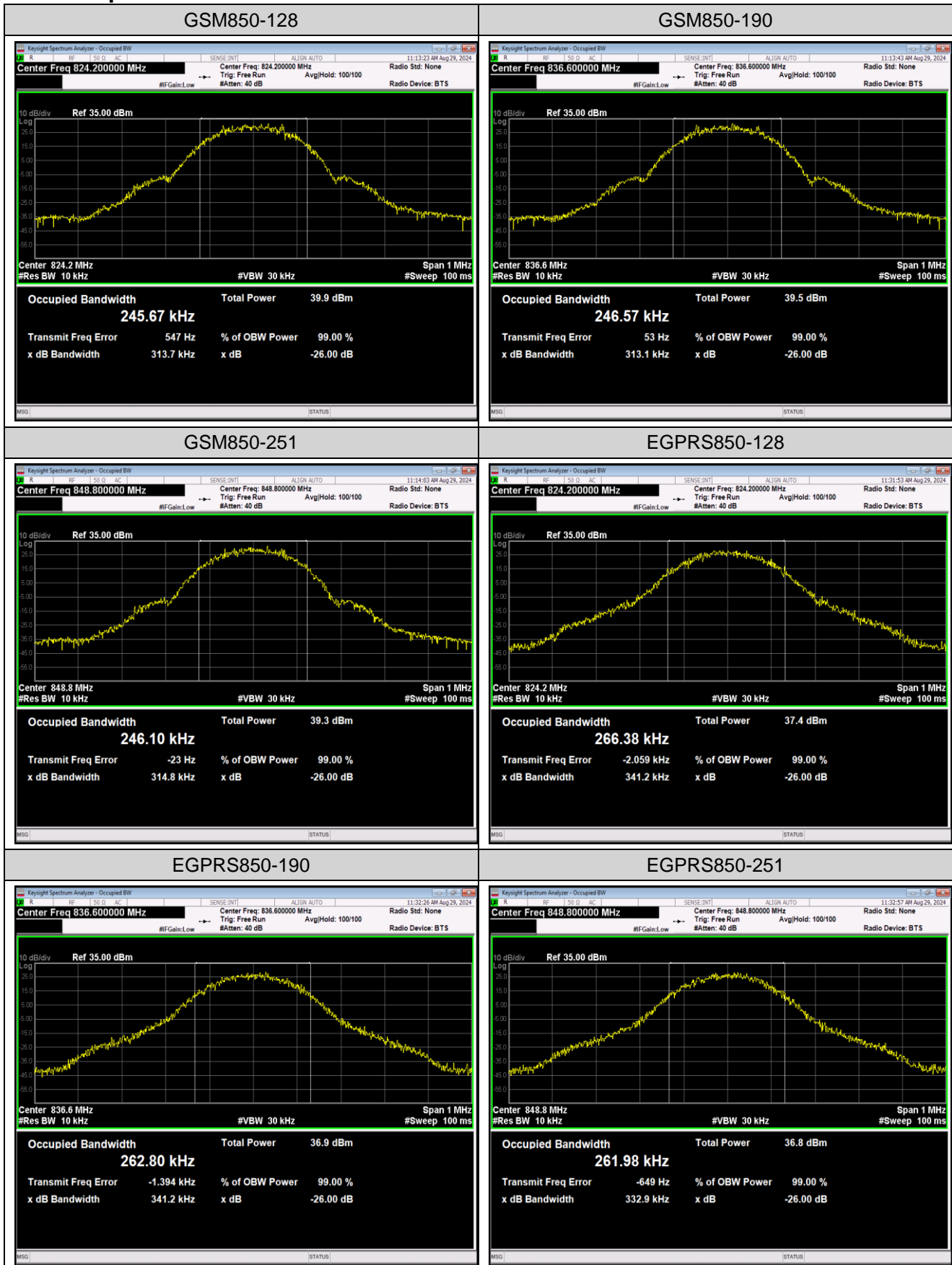
### Test Graphs

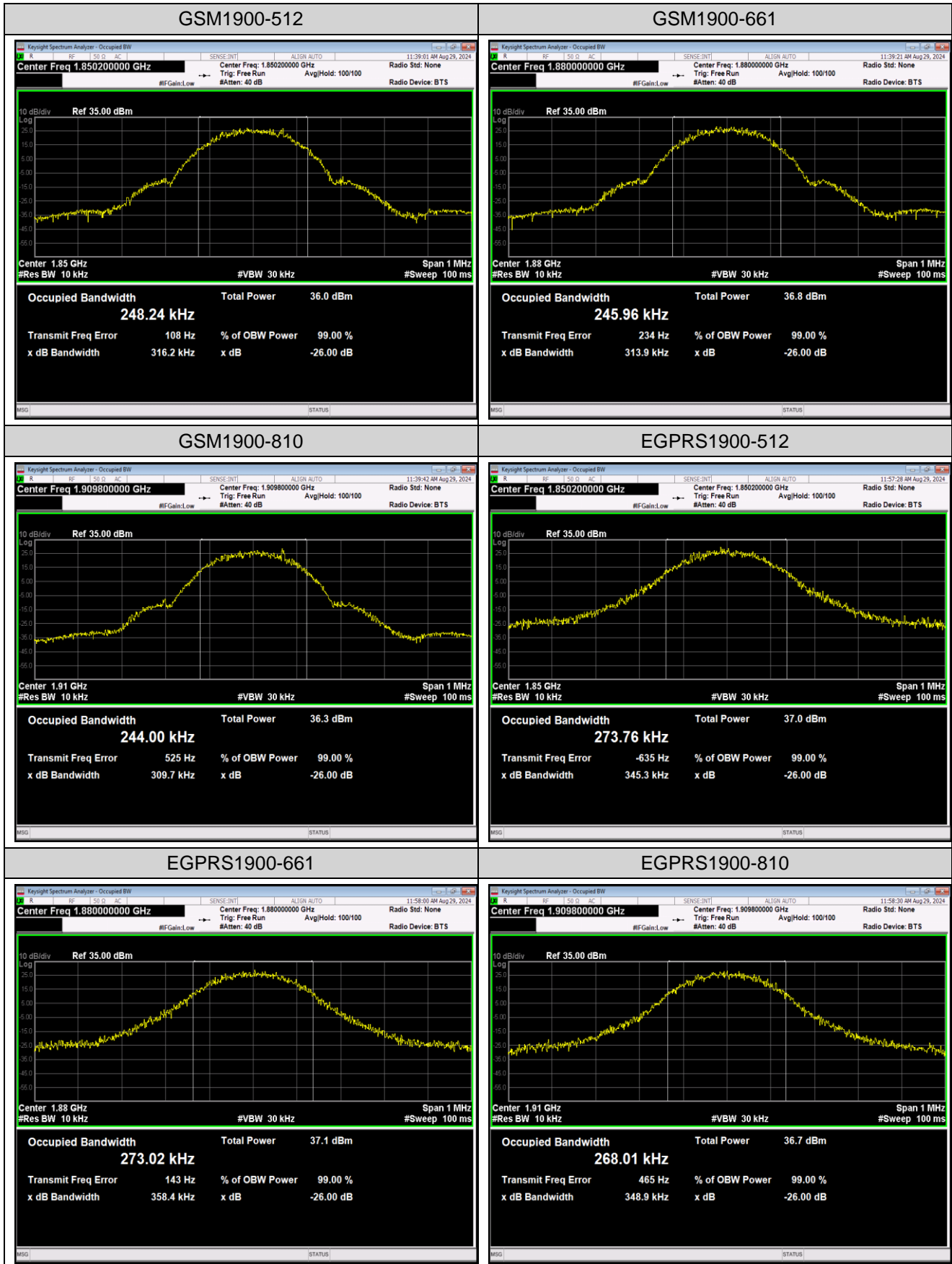


**Appendix C: 26dB Bandwidth and Occupied Bandwidth****Test Result**

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24567	0.3137	---	PASS
GSM850	190	5	0.24657	0.3131	---	PASS
GSM850	251	5	0.24610	0.3148	---	PASS
EGPRS850	128	8	0.26638	0.3412	---	PASS
EGPRS850	190	8	0.26280	0.3412	---	PASS
EGPRS850	251	8	0.26198	0.3329	---	PASS
GSM1900	512	0	0.24824	0.3162	---	PASS
GSM1900	661	0	0.24596	0.3139	---	PASS
GSM1900	810	0	0.24400	0.3097	---	PASS
EGPRS1900	512	2	0.27376	0.3453	---	PASS
EGPRS1900	661	2	0.27302	0.3584	---	PASS
EGPRS1900	810	2	0.26801	0.3489	---	PASS

## Test Graphs

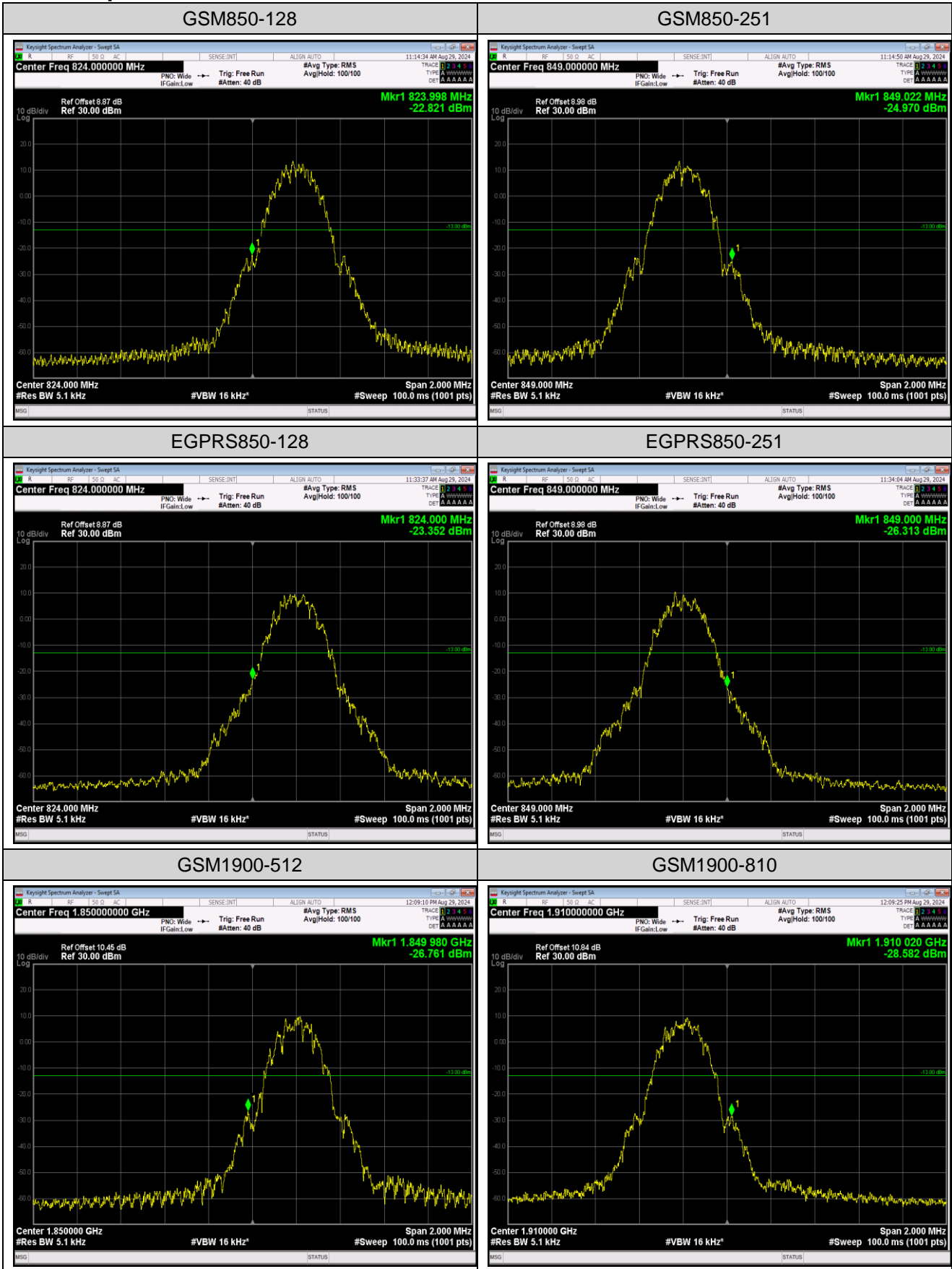




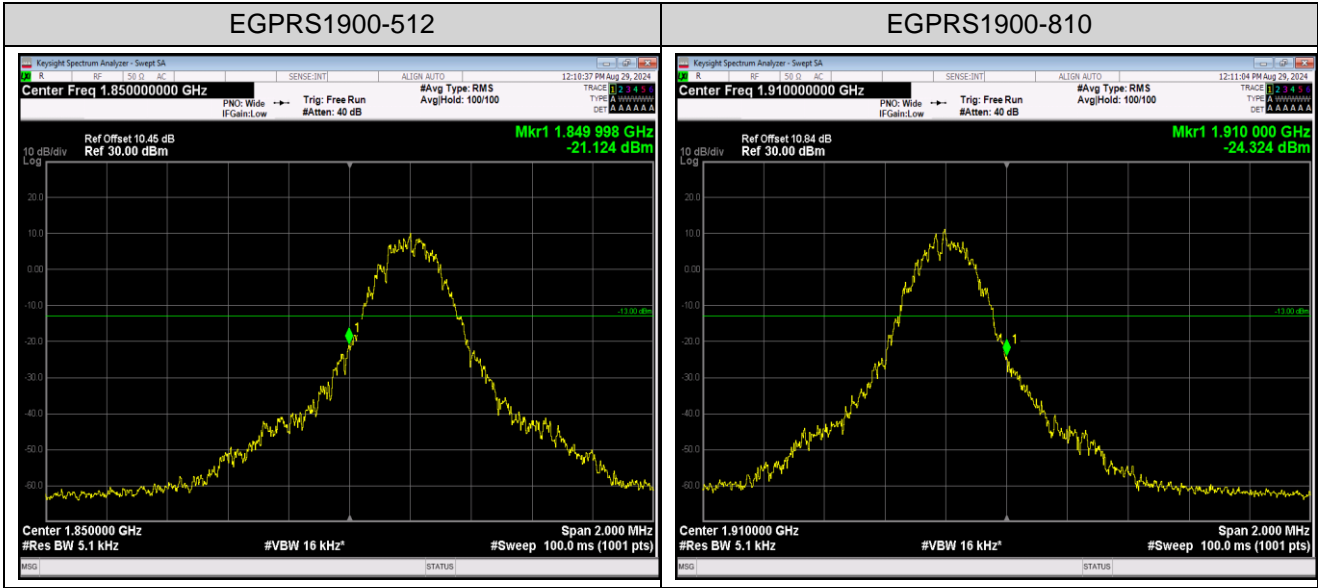
**Appendix D: Band Edge****Test Result**

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-22.82	-13	PASS
GSM850	251	5	849.02	-24.97	-13	PASS
EGPRS850	128	8	824.00	-23.35	-13	PASS
EGPRS850	251	8	849.00	-26.31	-13	PASS
GSM1900	512	0	1849.98	-26.76	-13	PASS
GSM1900	810	0	1910.02	-28.58	-13	PASS
EGPRS1900	512	2	1850.00	-21.12	-13	PASS
EGPRS1900	810	2	1910.00	-24.32	-13	PASS

## Test Graphs







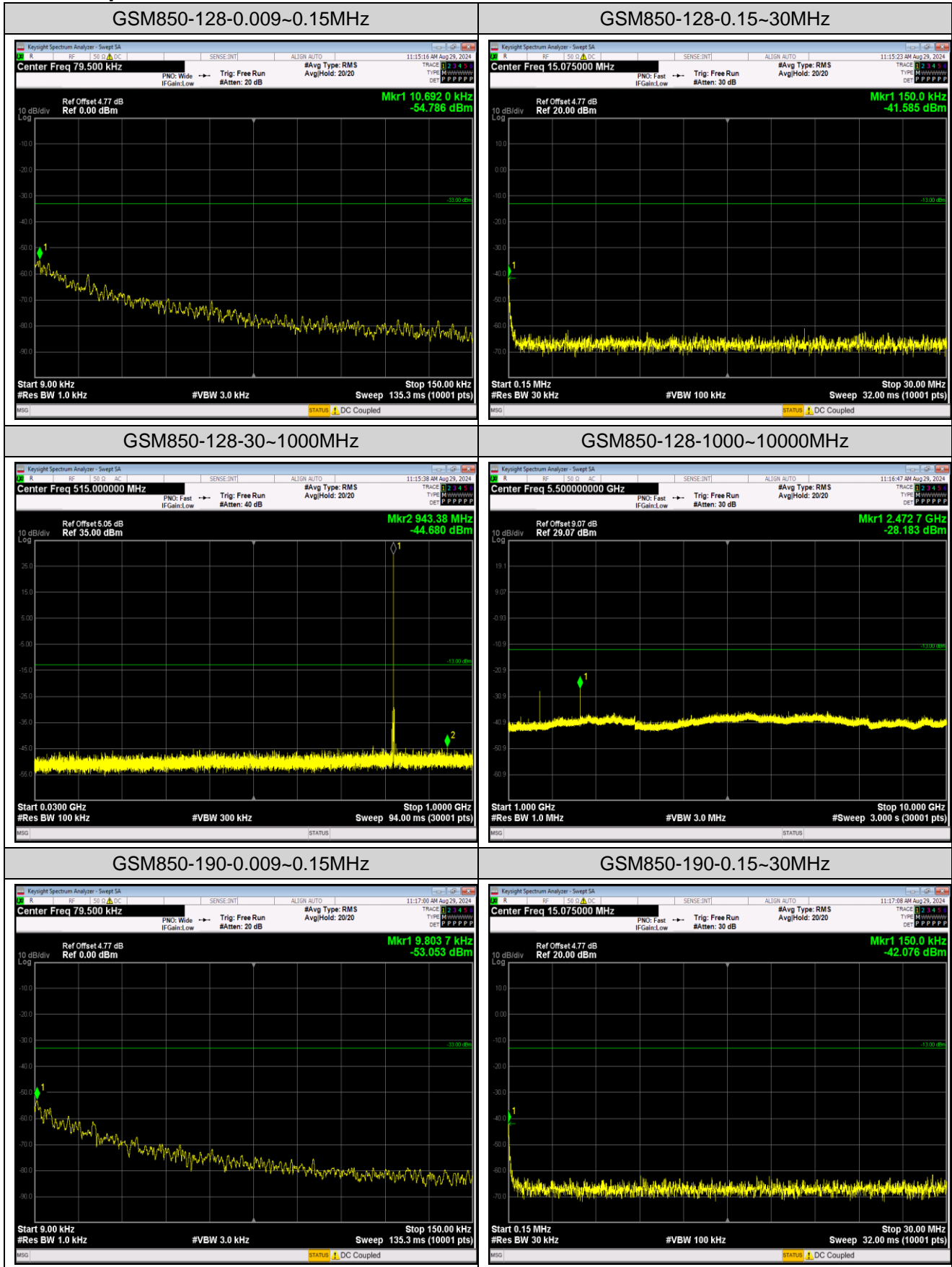
## Appendix E: Conducted Spurious Emission

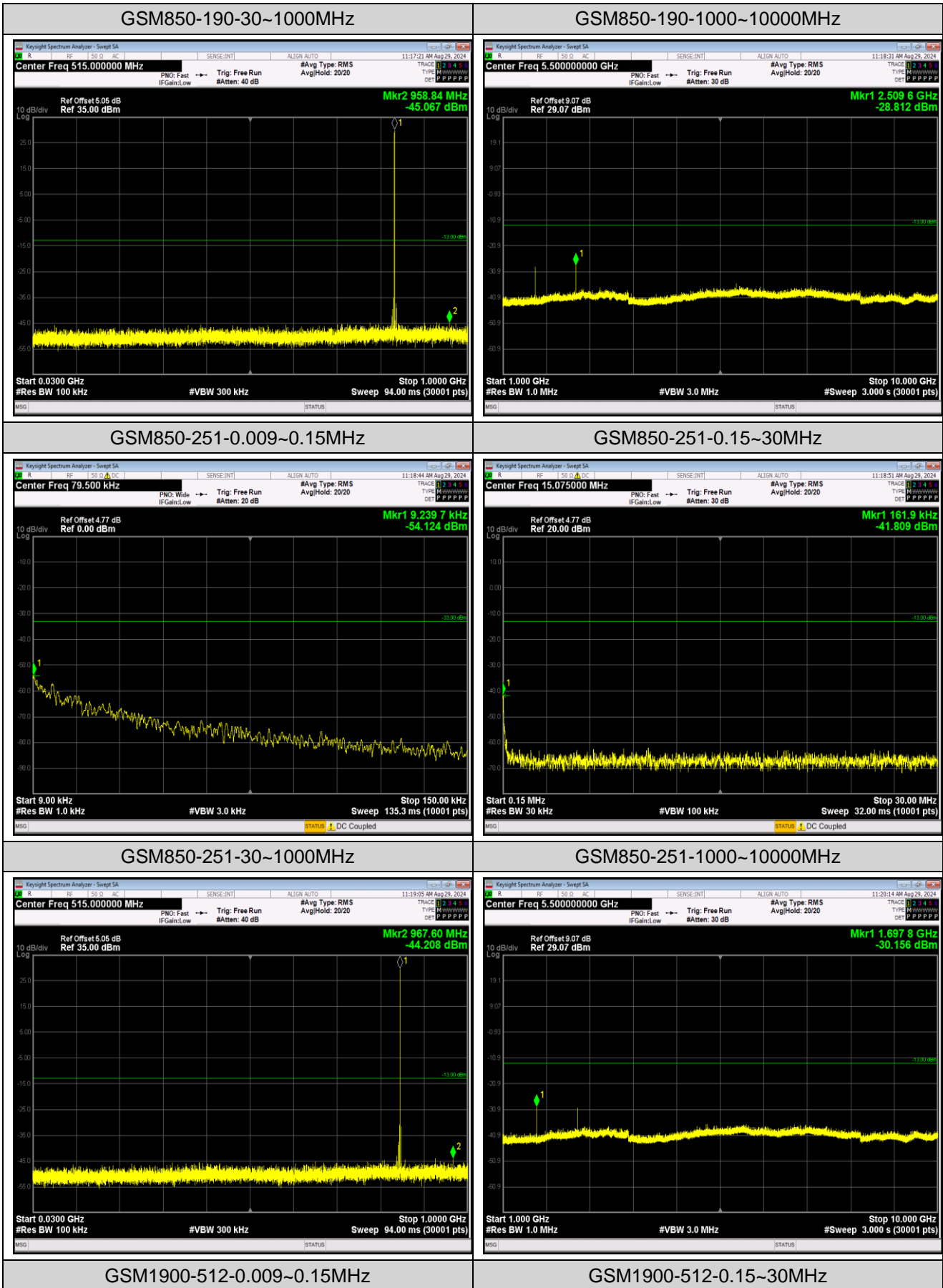
### Test Result

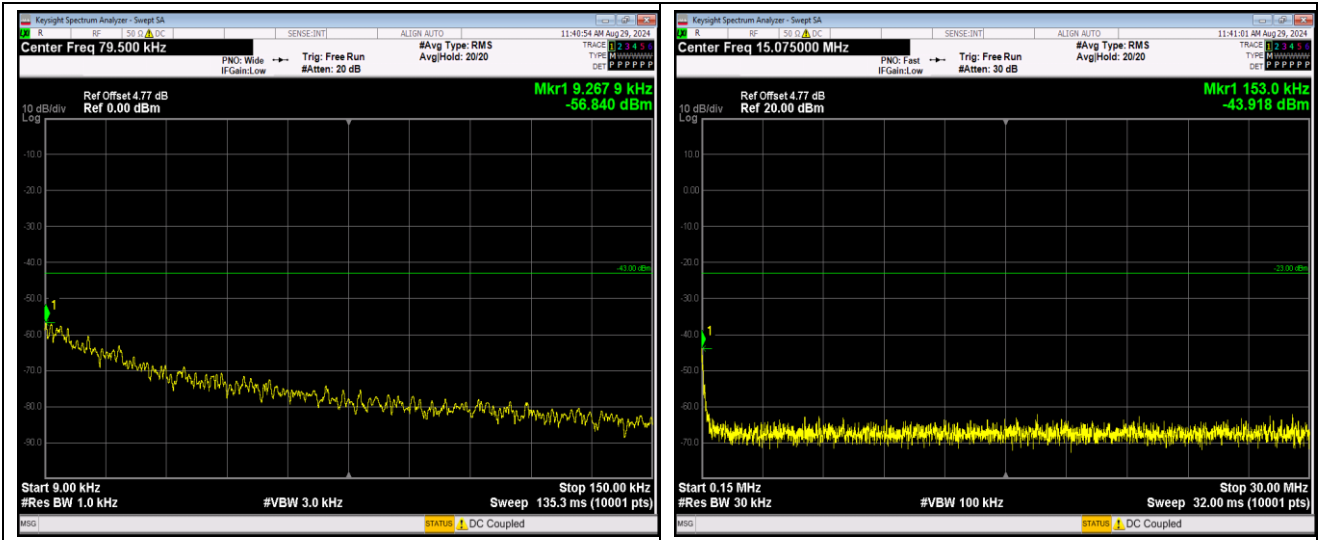
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-54.79	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-41.59	-13	PASS
GSM850	128	5	30~1000MHz	943.38	-44.68	-13	PASS
GSM850	128	5	1000~10000MHz	2472.7	-28.18	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-53.05	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-42.08	-13	PASS
GSM850	190	5	30~1000MHz	958.84	-45.07	-13	PASS
GSM850	190	5	1000~10000MHz	2509.6	-28.81	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-54.12	-33	PASS
GSM850	251	5	0.15~30MHz	0.16	-41.81	-13	PASS
GSM850	251	5	30~1000MHz	967.6	-44.21	-13	PASS
GSM850	251	5	1000~10000MHz	1697.8	-30.16	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-56.84	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-43.92	-23	PASS
GSM1900	512	0	30~1000MHz	392.17	-45.26	-13	PASS
GSM1900	512	0	1000~18000MHz	17024.2	-22.05	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-54.81	-43	PASS
GSM1900	661	0	0.15~30MHz	0.16	-43.16	-23	PASS
GSM1900	661	0	30~1000MHz	735.45	-44.28	-13	PASS
GSM1900	661	0	1000~18000MHz	16995.87	-21.87	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-55.98	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-42.59	-23	PASS
GSM1900	810	0	30~1000MHz	929.61	-45.33	-13	PASS
GSM1900	810	0	1000~18000MHz	16208.77	-21.73	-13	PASS

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

## Test Graphs

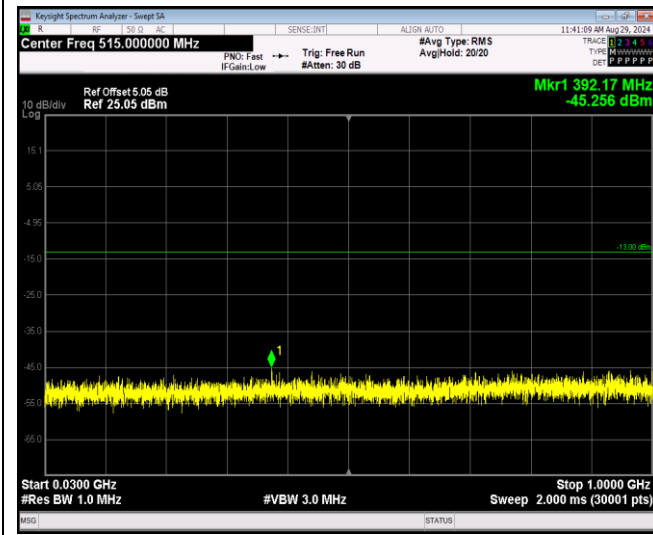




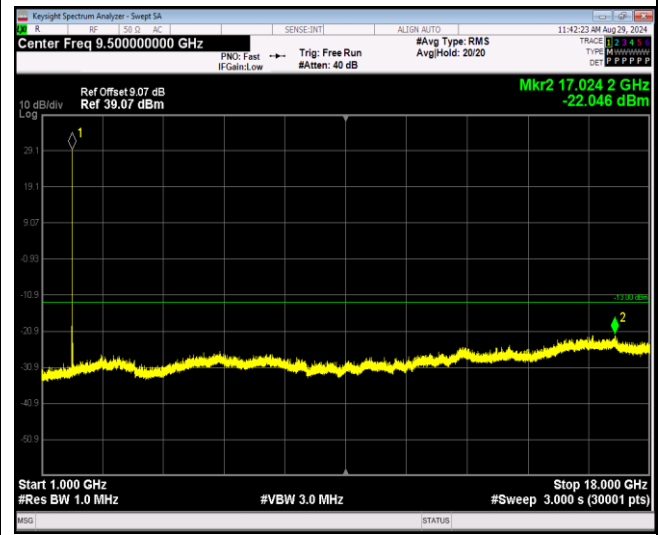


GSM1900-512-30~1000MHz

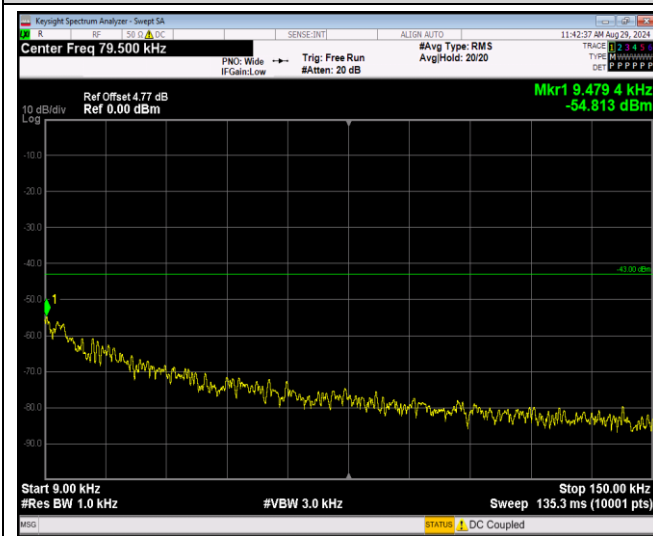
GSM1900-512-1000~18000MHz



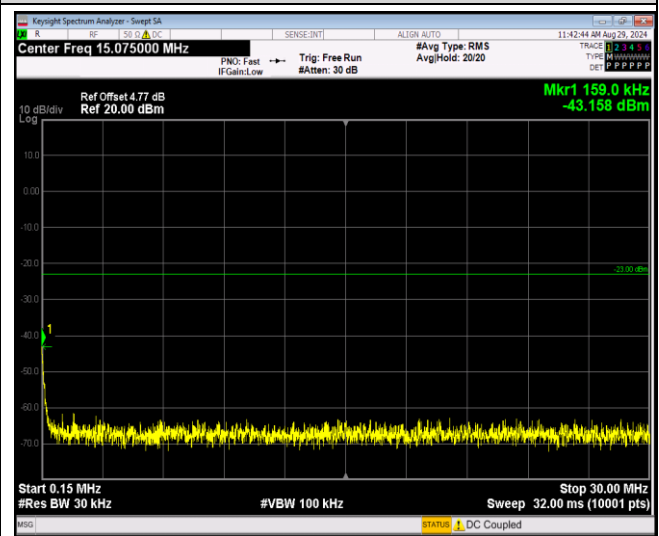
GSM1900-661-0.009~0.15MHz



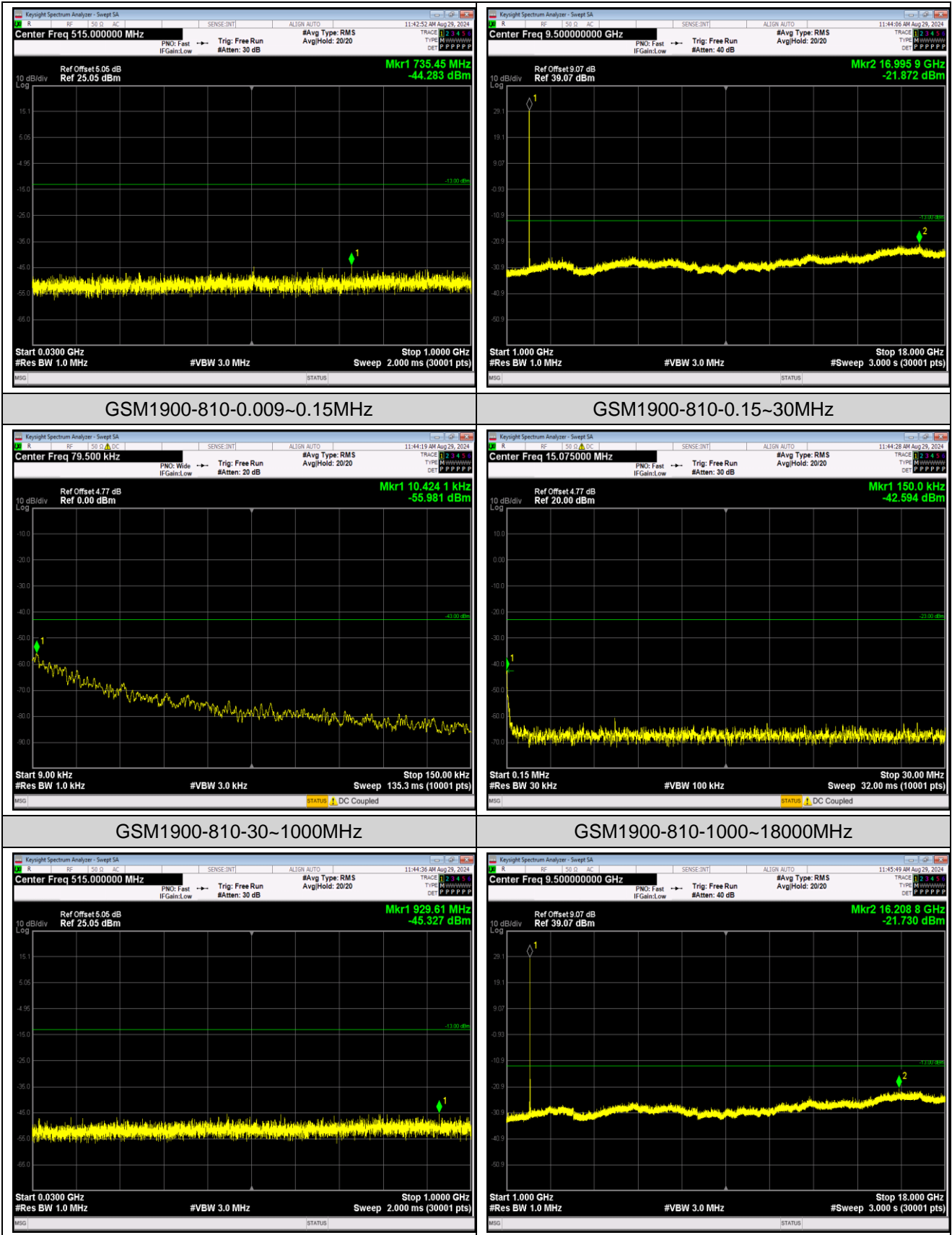
GSM1900-661-0.15~30MHz



GSM1900-661-30~1000MHz



GSM1900-661-1000~18000MHz



## 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	32.48	0.038824	±2.5	Pass
	-20	34.22	0.040904		
	-10	32.77	0.039170		
	0	37.10	0.044346		
	10	33.32	0.039828		
	20	30.45	0.036397		
	30	32.45	0.038788		
	40	32.77	0.039170		
	50	32.90	0.039326		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	32.90	0.039326	±2.5	Pass
	3.85	34.71	0.041489		
	4.40	33.48	0.040019		
<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	25.89	0.030947	±2.5	Pass
	-20	26.60	0.031795		
	-10	23.21	0.027743		
	0	25.28	0.030218		
	10	30.90	0.036935		
	20	30.77	0.036780		
	30	27.31	0.032644		
	40	29.70	0.035501		
	50	30.70	0.036696		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	25.12	0.030026	±2.5	Pass
	3.85	25.70	0.030720		
	4.40	25.34	0.030289		
<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	127.40	0.067766	Within authorized band for PCS 1900	Pass
	-20	122.07	0.064931		
	-10	124.82	0.066394		
	0	123.95	0.065931		
	10	121.33	0.064537		
	20	122.01	0.064899		
	30	122.52	0.065170		
	40	131.02	0.069691		
	50	129.18	0.068713		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	136.25	0.072473	Within authorized band for PCS 1900	Pass
	3.85	125.08	0.066532		
	4.40	127.63	0.067888		
<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	113.48	0.060362	Within authorized band for PCS 1900	Pass
	-20	120.26	0.063968		
	-10	122.82	0.065330		
	0	120.88	0.064298		
	10	126.85	0.067473		
	20	129.34	0.068798		
	30	132.24	0.070340		
	40	117.88	0.062702		
	50	120.39	0.064037		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	122.07	0.064931	Within authorized band for PCS 1900	Pass
	3.85	114.91	0.061122		
	4.40	127.08	0.067596		
<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

