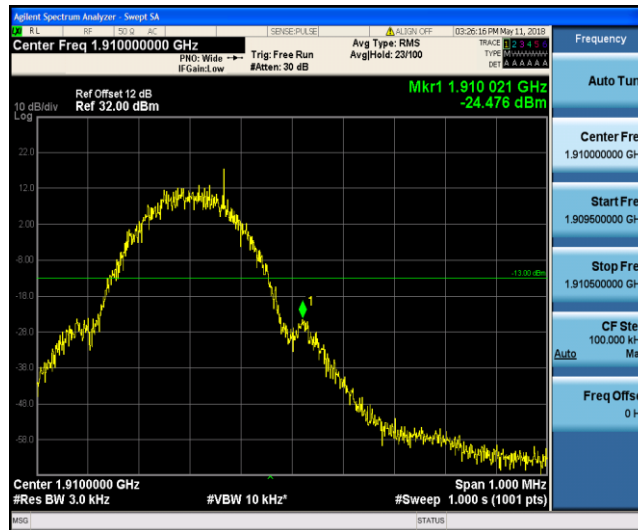
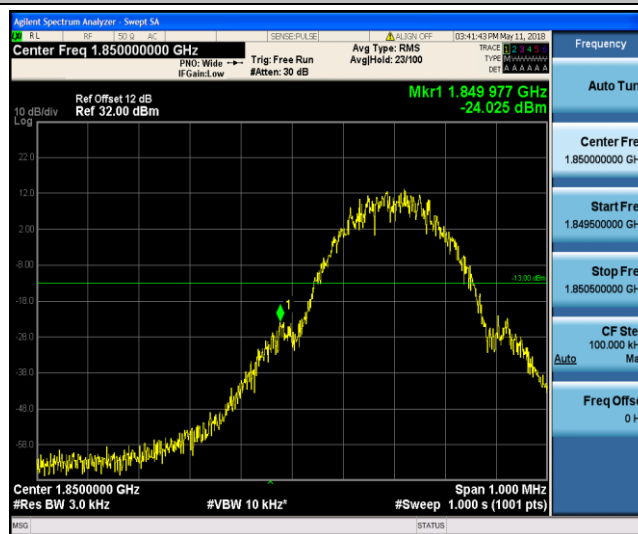


GSM1900\_810



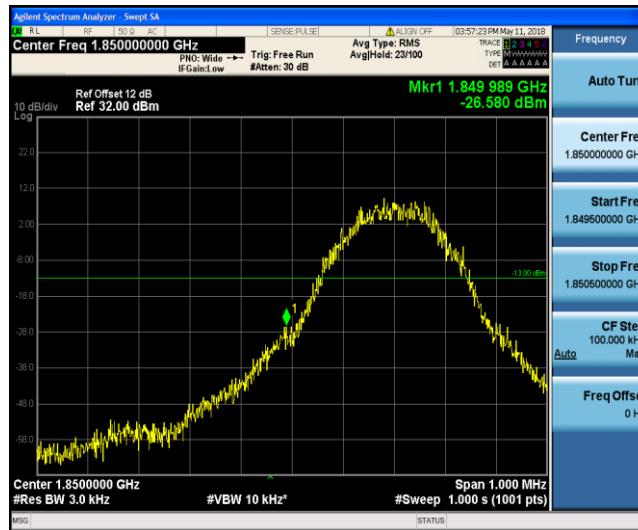
GPRS1900\_512



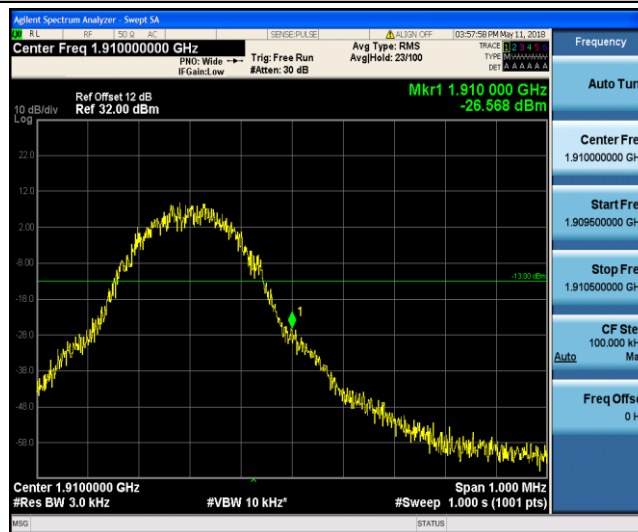
GPRS1900\_810



EGPRS1900\_512



EGPRS1900\_810





## 8.5 Appendix E: Conducted Spurious Emission

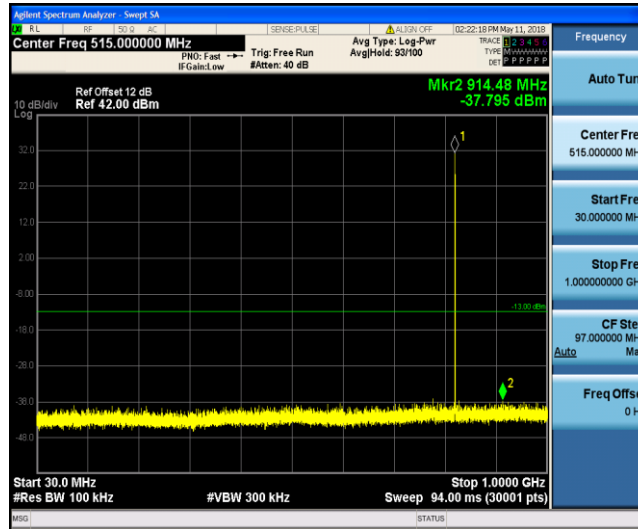
### Test Result

Band	Channel	Frequency Rang(Mhz)	Value(dBm)	Limit(dBm)	Verdict
GSM850	128	30~1000	-37.80	-13	PASS
GSM850	128	1000~10000	-24.33	-13	PASS
GSM850	190	30~1000	-37.73	-13	PASS
GSM850	190	1000~10000	-25.36	-13	PASS
GSM850	251	30~1000	-37.36	-13	PASS
GSM850	251	1000~10000	-25.01	-13	PASS
GPRS850	128	30~1000	-37.26	-13	PASS
GPRS850	128	1000~10000	-25.55	-13	PASS
GPRS850	190	30~1000	-37.02	-13	PASS
GPRS850	190	1000~10000	-24.78	-13	PASS
GPRS850	251	30~1000	-37.85	-13	PASS
GPRS850	251	1000~10000	-24.62	-13	PASS
EGPRS850	128	30~1000	-38.20	-13	PASS
EGPRS850	128	1000~10000	-25.13	-13	PASS
EGPRS850	190	30~1000	-37.54	-13	PASS
EGPRS850	190	1000~10000	-24.62	-13	PASS
EGPRS850	251	30~1000	-37.84	-13	PASS
EGPRS850	251	1000~10000	-25.60	-13	PASS
GSM1900	512	30~1000	-38.25	-13	PASS
GSM1900	512	1000~20000	-18.75	-13	PASS
GSM1900	661	30~1000	-37.59	-13	PASS
GSM1900	661	1000~20000	-19.36	-13	PASS
GSM1900	810	30~1000	-38.03	-13	PASS
GSM1900	810	1000~20000	-19.06	-13	PASS
GPRS1900	512	30~1000	-37.53	-13	PASS
GPRS1900	512	1000~20000	-19.14	-13	PASS
GPRS1900	661	30~1000	-37.59	-13	PASS
GPRS1900	661	1000~20000	-18.96	-13	PASS
GPRS1900	810	30~1000	-38.21	-13	PASS
GPRS1900	810	1000~20000	-19.62	-13	PASS
EGPRS1900	512	30~1000	-37.99	-13	PASS
EGPRS1900	512	1000~20000	-19.23	-13	PASS
EGPRS1900	661	30~1000	-37.46	-13	PASS
EGPRS1900	661	1000~20000	-19.18	-13	PASS
EGPRS1900	810	30~1000	-38.09	-13	PASS
EGPRS1900	810	1000~20000	-18.89	-13	PASS

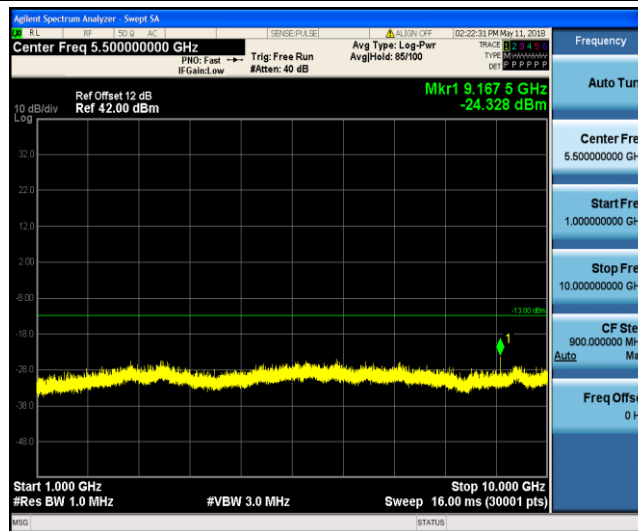


Test Graphs

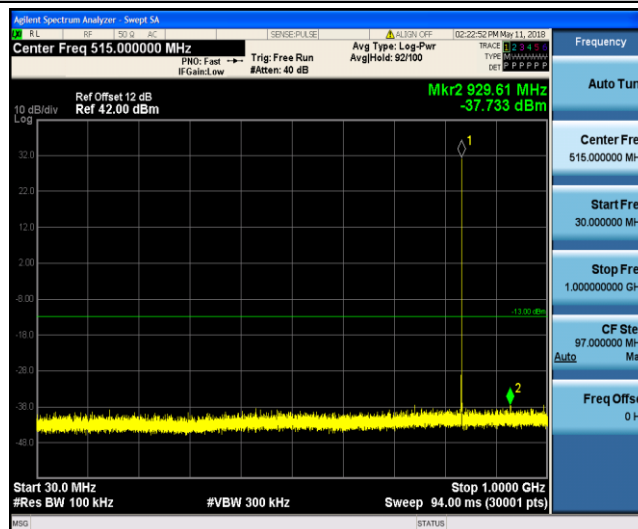
GSM850\_128



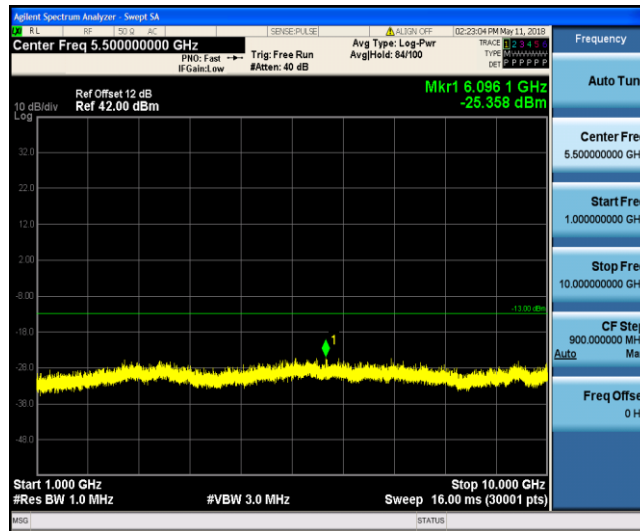
GSM850\_128



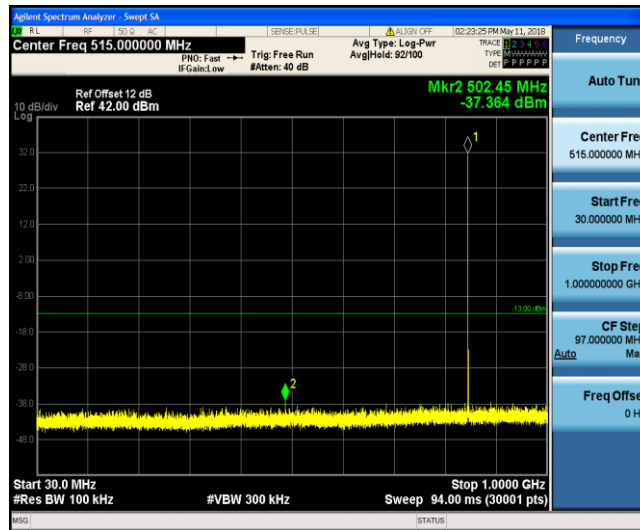
GSM850\_190



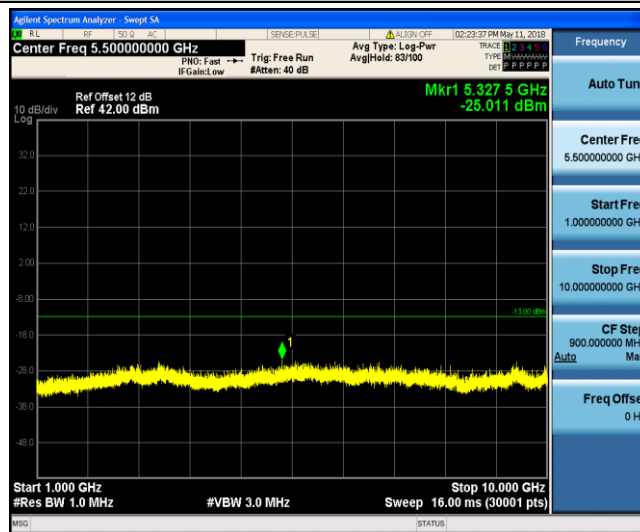
GSM850\_190



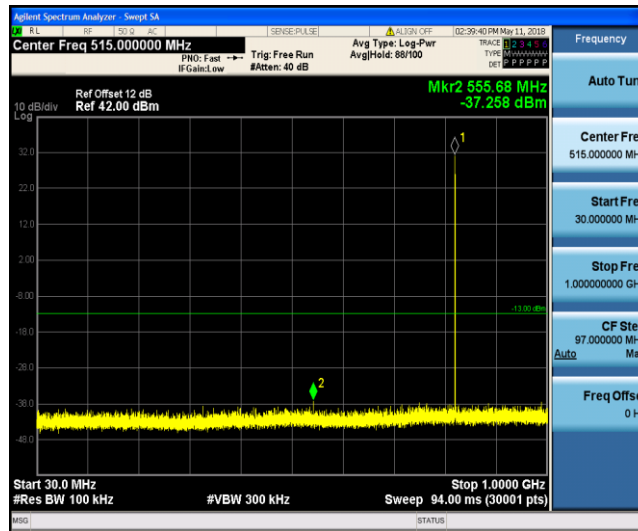
GSM850\_251



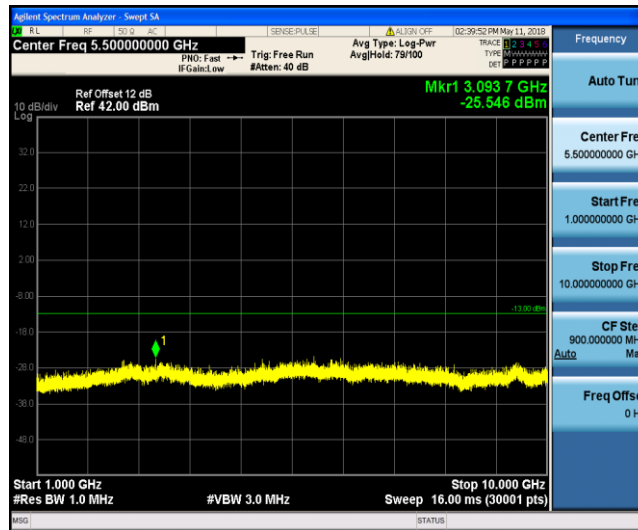
GSM850\_251



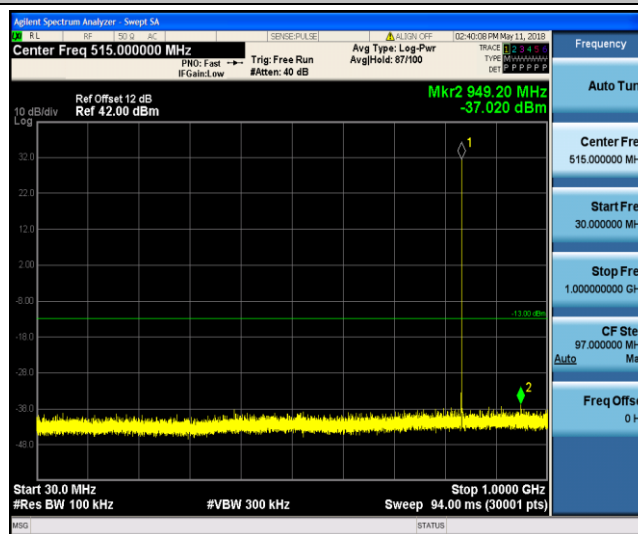
GPRS850\_128



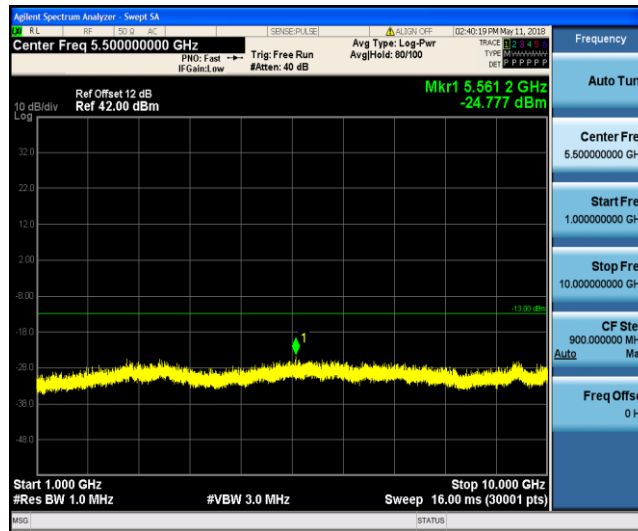
GPRS850\_128



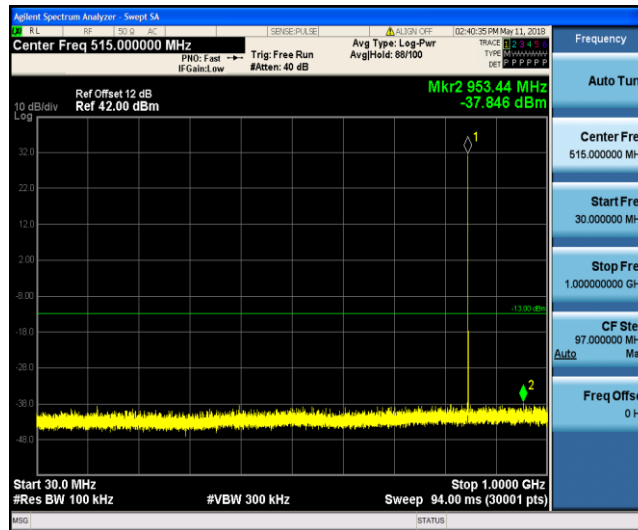
GPRS850\_190



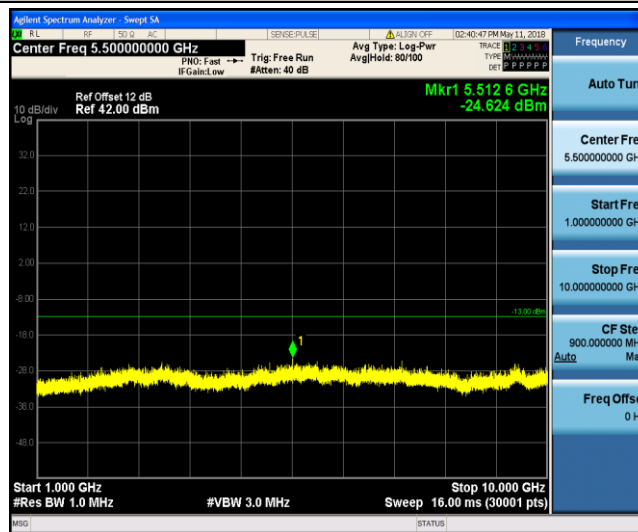
GPRS850\_190



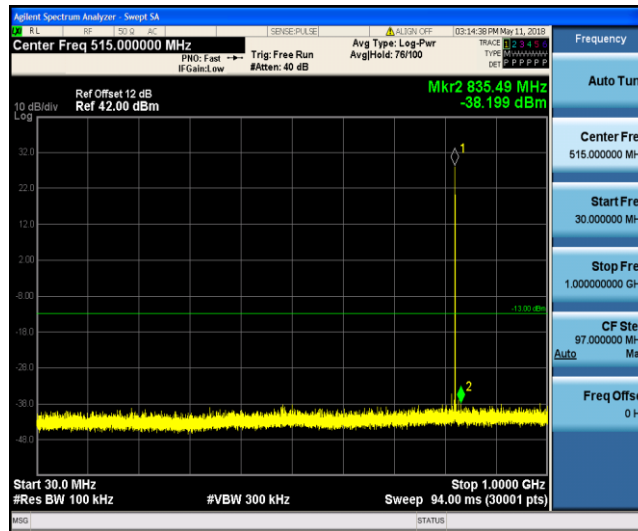
GPRS850\_251



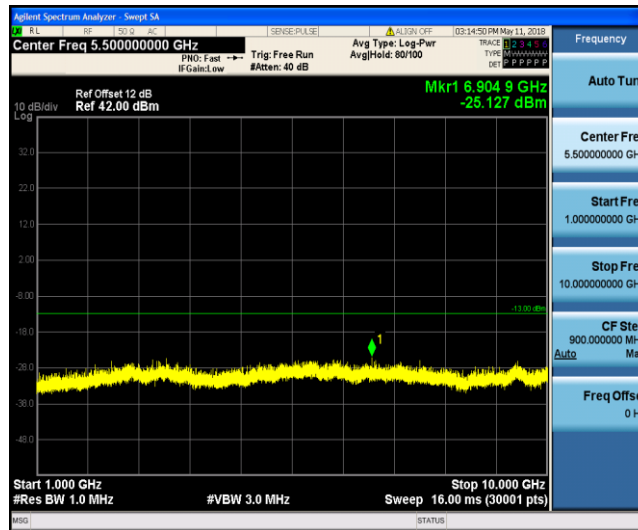
GPRS850\_251



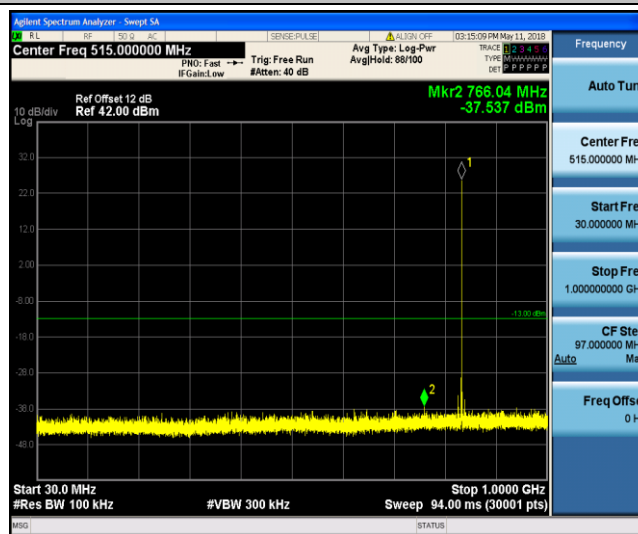
EGPRS850\_128



EGPRS850\_128

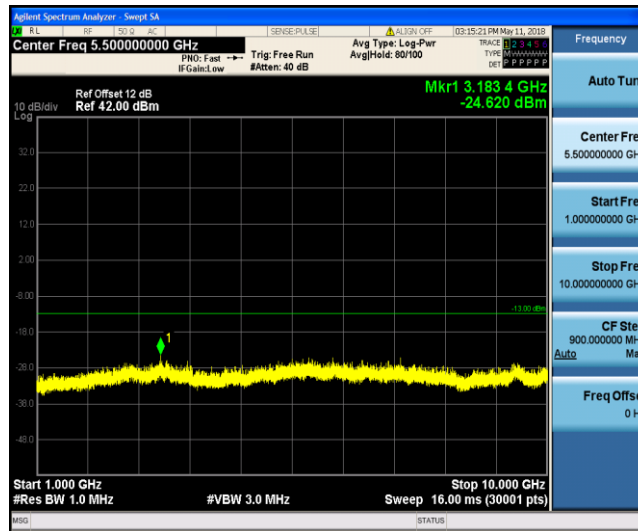


EGPRS850\_190

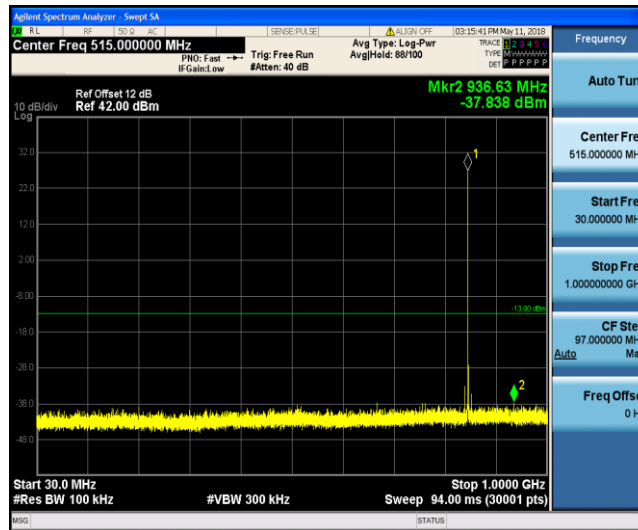


EGPRS850\_190

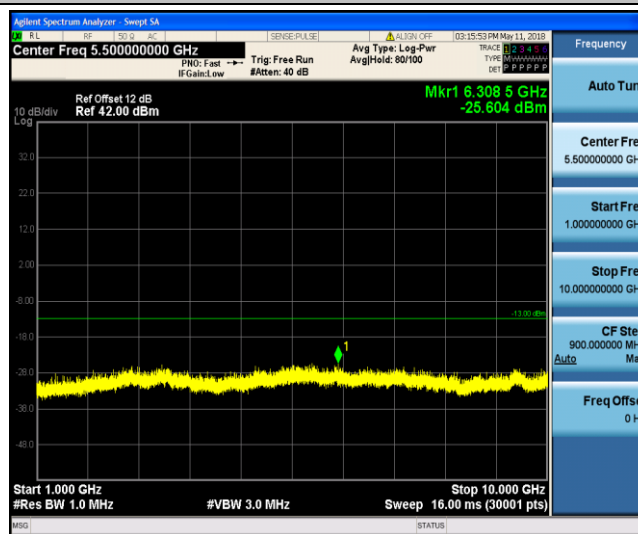




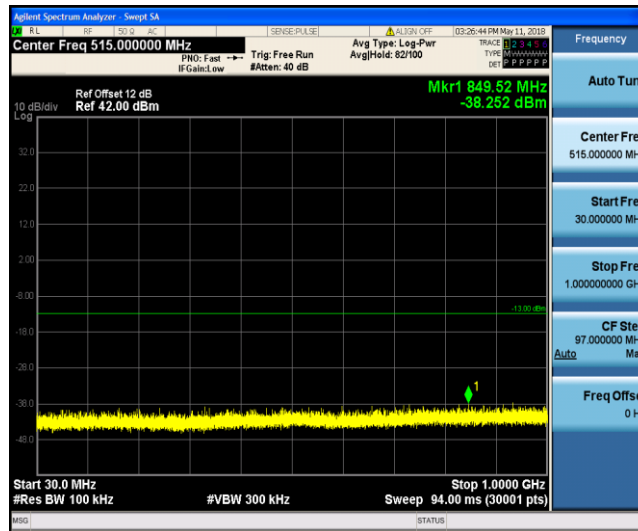
EGPRS850\_251



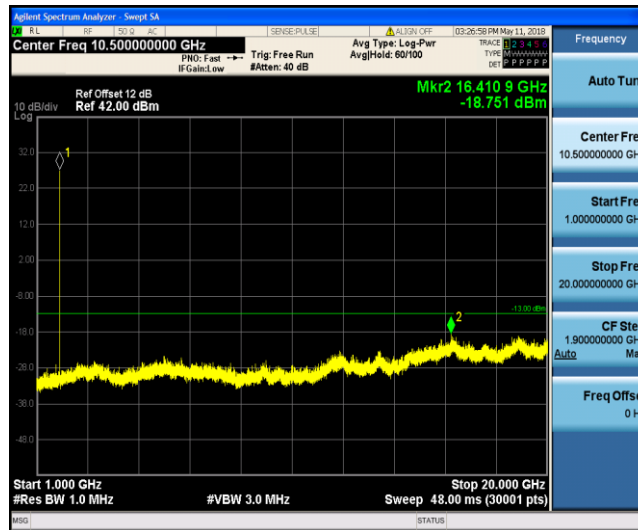
EGPRS850\_251



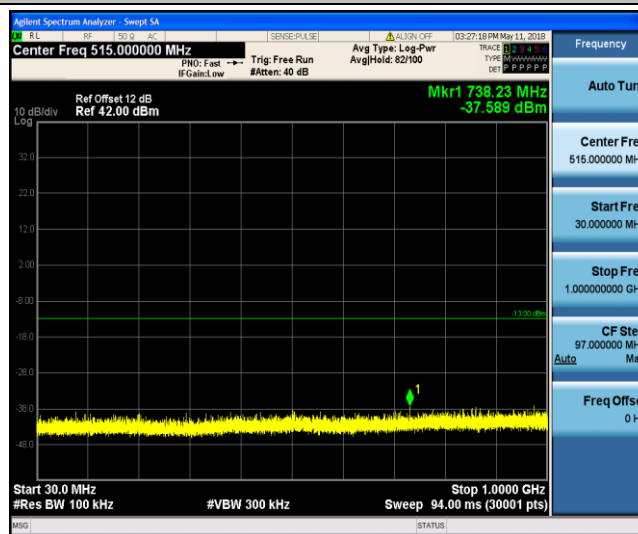
GSM1900\_512



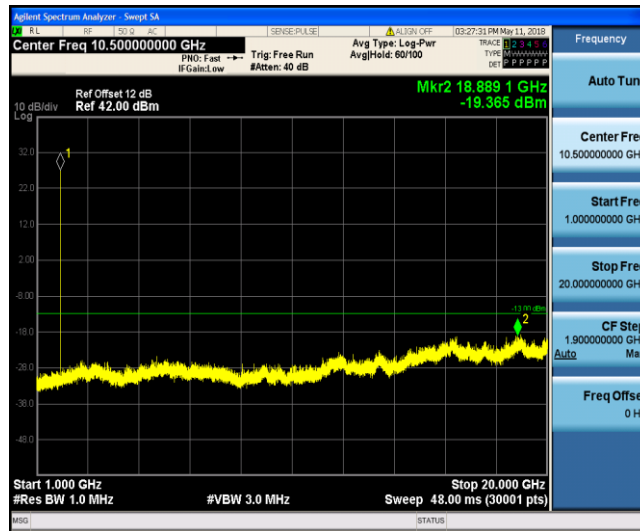
GSM1900\_512



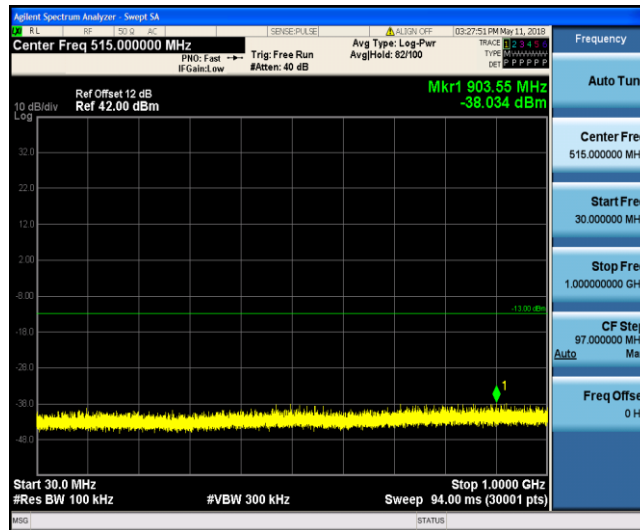
GSM1900\_661



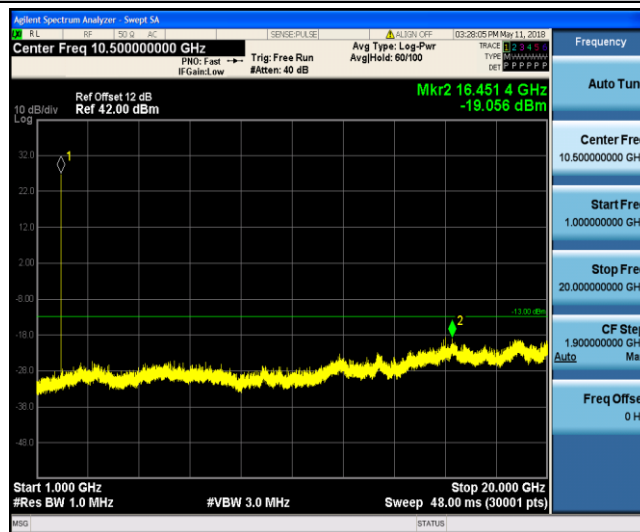
GSM1900\_661



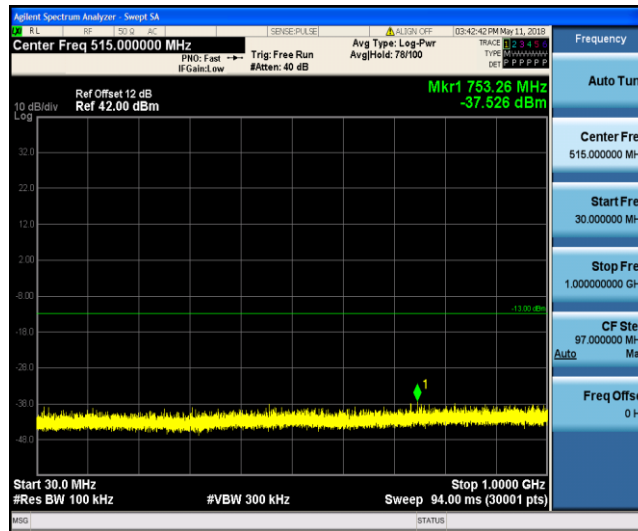
GSM1900\_810



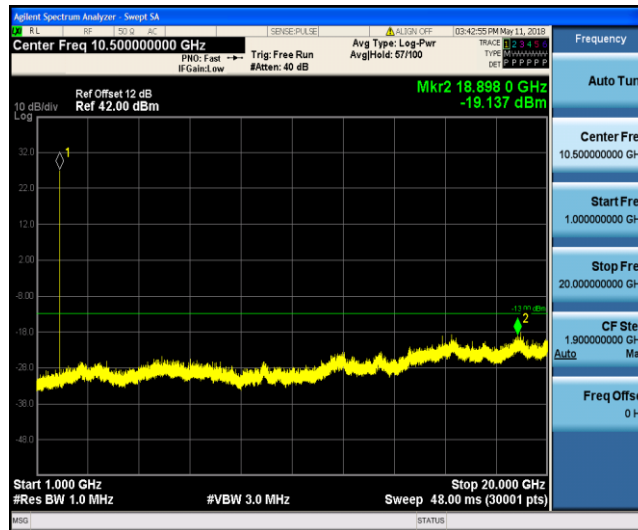
GSM1900\_810



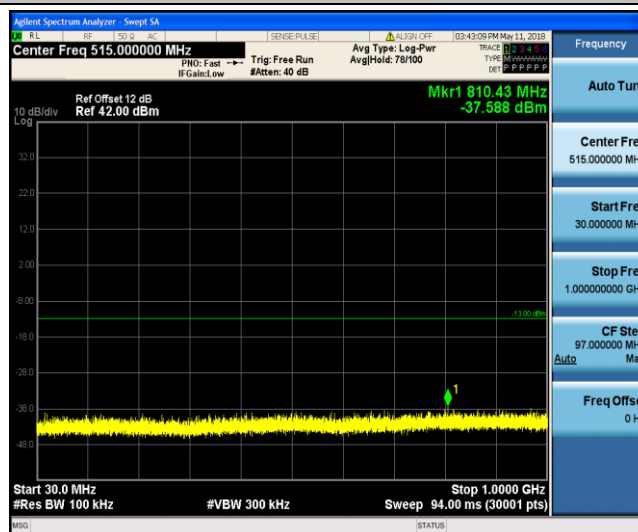
GPRS1900\_512



GPRS1900\_512



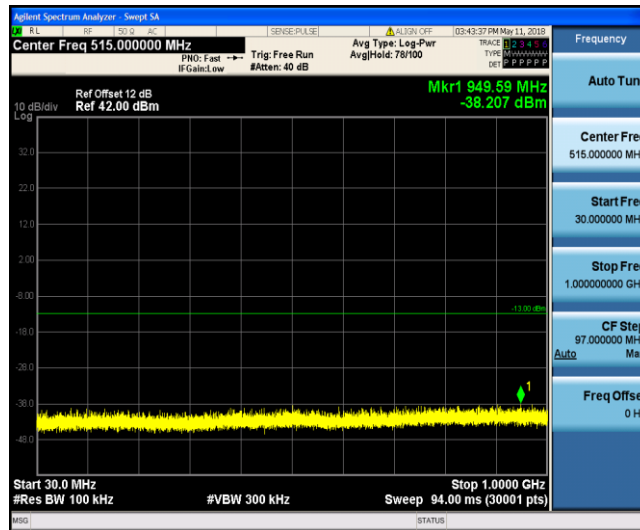
GPRS1900\_661



GPRS1900\_661



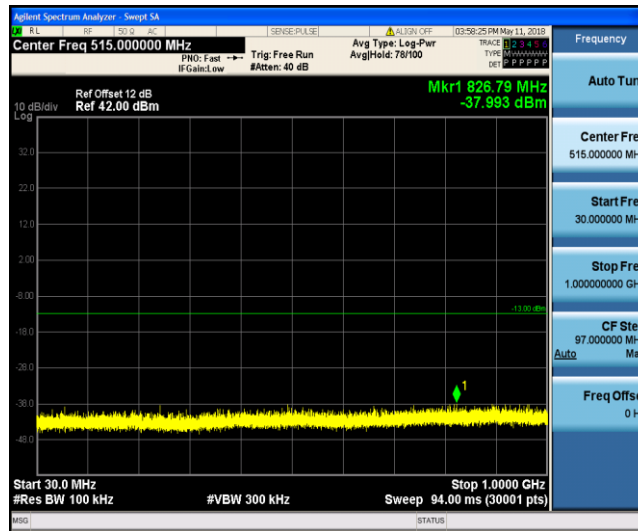
GPRS1900\_810



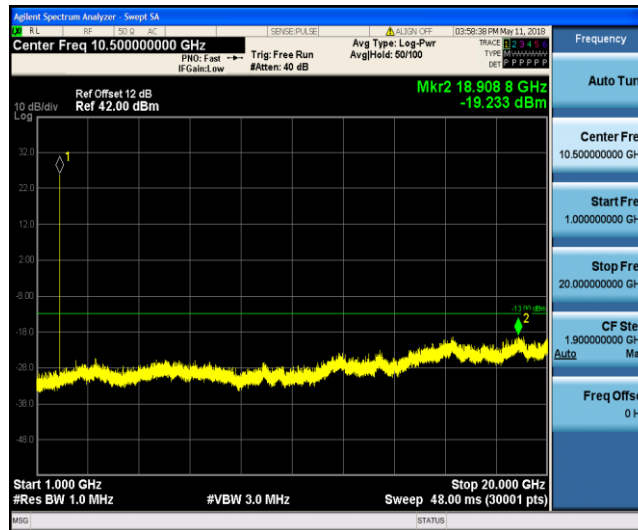
GPRS1900\_810



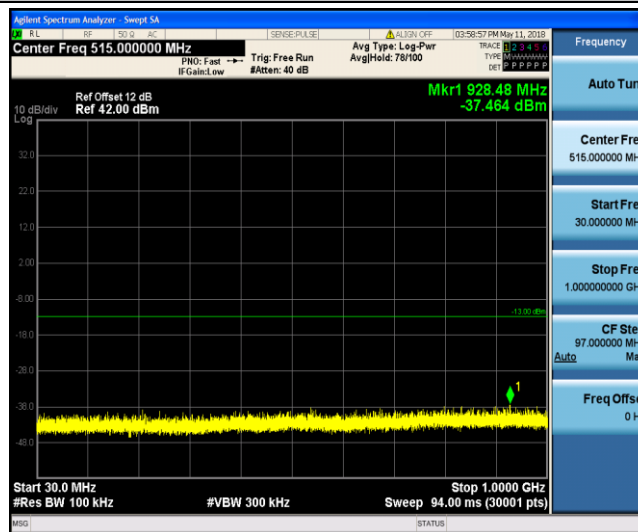
EGPRS1900\_512



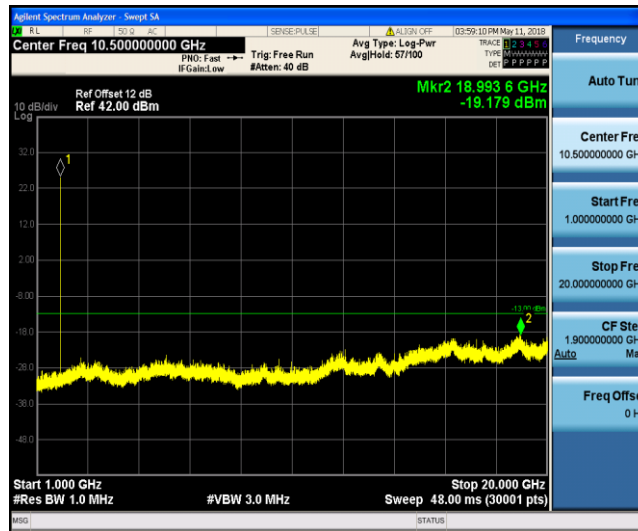
EGPRS1900\_512



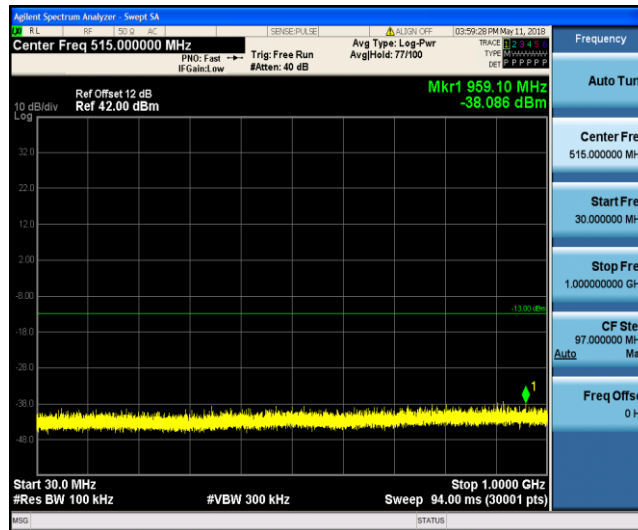
EGPRS1900\_661



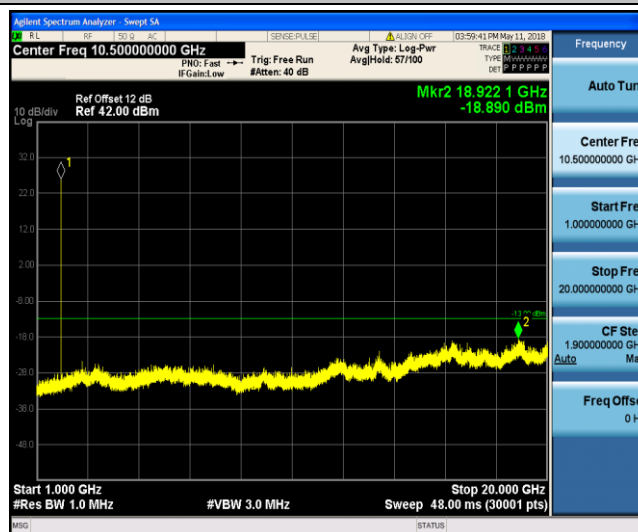
EGPRS1900\_661



EGPRS1900\_810



EGPRS1900\_810



**8.6 Appendix F: Frequency Stability**

## Test Result

Voltage							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	VL	TN	-3.65	-0.004426	2.5	PASS
GSM850	128	VN	TN	4.29	0.005210	2.5	PASS
GSM850	128	VH	TN	-2.16	-0.002625	2.5	PASS
GSM850	190	VL	TN	-2.78	-0.003319	2.5	PASS
GSM850	190	VN	TN	2.32	0.002779	2.5	PASS
GSM850	190	VH	TN	3.58	0.004284	2.5	PASS
GSM850	251	VL	TN	1.97	0.002320	2.5	PASS
GSM850	251	VN	TN	-3.36	-0.003956	2.5	PASS
GSM850	251	VH	TN	1.16	0.001369	2.5	PASS
GPRS850	128	VL	TN	-3.81	-0.004622	2.5	PASS
GPRS850	128	VN	TN	-1.52	-0.001841	2.5	PASS
GPRS850	128	VH	TN	-4.65	-0.005641	2.5	PASS
GPRS850	190	VL	TN	2.49	0.002972	2.5	PASS
GPRS850	190	VN	TN	1.78	0.002123	2.5	PASS
GPRS850	190	VH	TN	-0.10	-0.000116	2.5	PASS
GPRS850	251	VL	TN	1.29	0.001521	2.5	PASS
GPRS850	251	VN	TN	2.91	0.003423	2.5	PASS
GPRS850	251	VH	TN	-4.10	-0.004831	2.5	PASS
EGPRS850	128	VL	TN	-3.65	-0.004426	2.5	PASS
EGPRS850	128	VN	TN	-3.91	-0.004740	2.5	PASS
EGPRS850	128	VH	TN	-1.32	-0.001606	2.5	PASS
EGPRS850	190	VL	TN	-1.71	-0.002045	2.5	PASS
EGPRS850	190	VN	TN	-2.49	-0.002972	2.5	PASS
EGPRS850	190	VH	TN	2.26	0.002701	2.5	PASS
EGPRS850	251	VL	TN	-2.94	-0.003461	2.5	PASS
EGPRS850	251	VN	TN	-0.48	-0.000571	2.5	PASS
EGPRS850	251	VH	TN	2.39	0.002815	2.5	PASS
GSM1900	512	VL	TN	1.97	0.001064	2.5	PASS
GSM1900	512	VN	TN	0.42	0.000227	2.5	PASS
GSM1900	512	VH	TN	-5.13	-0.002775	2.5	PASS
GSM1900	661	VL	TN	4.36	0.002318	2.5	PASS
GSM1900	661	VN	TN	-5.91	-0.003143	2.5	PASS
GSM1900	661	VH	TN	-0.39	-0.000206	2.5	PASS
GSM1900	810	VL	TN	-10.01	-0.005241	2.5	PASS
GSM1900	810	VN	TN	-10.40	-0.005444	2.5	PASS
GSM1900	810	VH	TN	-9.98	-0.005224	2.5	PASS
GPRS1900	512	VL	TN	-10.01	-0.005409	2.5	PASS
GPRS1900	512	VN	TN	-1.42	-0.000768	2.5	PASS
GPRS1900	512	VH	TN	-9.30	-0.005026	2.5	PASS
GPRS1900	661	VL	TN	-8.56	-0.004551	2.5	PASS
GPRS1900	661	VN	TN	-8.52	-0.004534	2.5	PASS
GPRS1900	661	VH	TN	-5.04	-0.002679	2.5	PASS
GPRS1900	810	VL	TN	-0.19	-0.000101	2.5	PASS
GPRS1900	810	VN	TN	-1.03	-0.000541	2.5	PASS
GPRS1900	810	VH	TN	-21.41	-0.011208	2.5	PASS
EGPRS1900	512	VL	TN	-30.06	-0.016246	2.5	PASS
EGPRS1900	512	VN	TN	-24.89	-0.013454	2.5	PASS
EGPRS1900	512	VH	TN	-20.95	-0.011325	2.5	PASS





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EGPRS1900	661	VL	TN	-17.08	-0.009085	2.5	PASS
EGPRS1900	661	VN	TN	-14.50	-0.007711	2.5	PASS
EGPRS1900	661	VH	TN	-16.69	-0.008879	2.5	PASS
EGPRS1900	810	VL	TN	-20.02	-0.010481	2.5	PASS
EGPRS1900	810	VN	TN	-15.21	-0.007962	2.5	PASS
EGPRS1900	810	VH	TN	-11.04	-0.005782	2.5	PASS



Temperature							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	VN	-30	-1.87	-0.002272	2.5	PASS
GSM850	128	VN	-20	-0.29	-0.000353	2.5	PASS
GSM850	128	VN	-10	0.81	0.000979	2.5	PASS
GSM850	128	VN	0	-1.84	-0.002233	2.5	PASS
GSM850	128	VN	10	-2.65	-0.003212	2.5	PASS
GSM850	128	VN	20	-4.65	-0.005641	2.5	PASS
GSM850	128	VN	30	-1.07	-0.001293	2.5	PASS
GSM850	128	VN	40	-1.23	-0.001489	2.5	PASS
GSM850	128	VN	50	-0.10	-0.000118	2.5	PASS
GSM850	190	VN	-30	-1.68	-0.002007	2.5	PASS
GSM850	190	VN	-20	5.07	0.006059	2.5	PASS
GSM850	190	VN	-10	1.74	0.002084	2.5	PASS
GSM850	190	VN	0	-1.84	-0.002200	2.5	PASS
GSM850	190	VN	10	0.84	0.001003	2.5	PASS
GSM850	190	VN	20	1.87	0.002238	2.5	PASS
GSM850	190	VN	30	2.55	0.003049	2.5	PASS
GSM850	190	VN	40	2.45	0.002933	2.5	PASS
GSM850	190	VN	50	-2.07	-0.002470	2.5	PASS
GSM850	251	VN	-30	-2.39	-0.002815	2.5	PASS
GSM850	251	VN	-20	-3.49	-0.004108	2.5	PASS
GSM850	251	VN	-10	0.29	0.000342	2.5	PASS
GSM850	251	VN	0	-2.13	-0.002510	2.5	PASS
GSM850	251	VN	10	-3.13	-0.003690	2.5	PASS
GSM850	251	VN	20	-2.03	-0.002396	2.5	PASS
GSM850	251	VN	30	-3.39	-0.003994	2.5	PASS
GSM850	251	VN	40	1.97	0.002320	2.5	PASS
GSM850	251	VN	50	3.45	0.004070	2.5	PASS
GPRS850	128	VN	-30	1.00	0.001214	2.5	PASS
GPRS850	128	VN	-20	1.13	0.001371	2.5	PASS
GPRS850	128	VN	-10	-2.52	-0.003055	2.5	PASS
GPRS850	128	VN	0	0.32	0.000392	2.5	PASS
GPRS850	128	VN	10	-1.26	-0.001528	2.5	PASS
GPRS850	128	VN	20	-1.74	-0.002115	2.5	PASS
GPRS850	128	VN	30	-2.45	-0.002977	2.5	PASS
GPRS850	128	VN	40	1.71	0.002076	2.5	PASS
GPRS850	128	VN	50	-4.20	-0.005092	2.5	PASS
GPRS850	190	VN	-30	0.58	0.000695	2.5	PASS
GPRS850	190	VN	-20	-0.06	-0.000077	2.5	PASS
GPRS850	190	VN	-10	-0.26	-0.000309	2.5	PASS
GPRS850	190	VN	0	3.91	0.004670	2.5	PASS
GPRS850	190	VN	10	1.00	0.001196	2.5	PASS
GPRS850	190	VN	20	-1.32	-0.001582	2.5	PASS
GPRS850	190	VN	30	3.13	0.003743	2.5	PASS
GPRS850	190	VN	40	2.07	0.002470	2.5	PASS
GPRS850	190	VN	50	3.97	0.004747	2.5	PASS
GPRS850	251	VN	-30	-1.84	-0.002168	2.5	PASS
GPRS850	251	VN	-20	-0.77	-0.000913	2.5	PASS
GPRS850	251	VN	-10	3.00	0.003537	2.5	PASS
GPRS850	251	VN	0	2.81	0.003309	2.5	PASS
GPRS850	251	VN	10	-1.97	-0.002320	2.5	PASS
GPRS850	251	VN	20	-2.20	-0.002587	2.5	PASS



GPRS850	251	VN	30	2.32	0.002739	2.5	PASS
GPRS850	251	VN	40	2.62	0.003081	2.5	PASS
GPRS850	251	VN	50	0.42	0.000494	2.5	PASS
EGPRS850	128	VN	-30	-4.68	-0.005680	2.5	PASS
EGPRS850	128	VN	-20	-2.97	-0.003604	2.5	PASS
EGPRS850	128	VN	-10	1.94	0.002350	2.5	PASS
EGPRS850	128	VN	0	1.94	0.002350	2.5	PASS
EGPRS850	128	VN	10	-4.26	-0.005171	2.5	PASS
EGPRS850	128	VN	20	-2.23	-0.002703	2.5	PASS
EGPRS850	128	VN	30	-6.07	-0.007364	2.5	PASS
EGPRS850	128	VN	40	-2.45	-0.002977	2.5	PASS
EGPRS850	128	VN	50	3.42	0.004152	2.5	PASS
EGPRS850	190	VN	-30	-3.36	-0.004014	2.5	PASS
EGPRS850	190	VN	-20	0.77	0.000926	2.5	PASS
EGPRS850	190	VN	-10	-0.68	-0.000810	2.5	PASS
EGPRS850	190	VN	0	-3.97	-0.004747	2.5	PASS
EGPRS850	190	VN	10	-5.78	-0.006908	2.5	PASS
EGPRS850	190	VN	20	-0.55	-0.000656	2.5	PASS
EGPRS850	190	VN	30	-5.26	-0.006290	2.5	PASS
EGPRS850	190	VN	40	-0.61	-0.000733	2.5	PASS
EGPRS850	190	VN	50	-7.65	-0.009146	2.5	PASS
EGPRS850	251	VN	-30	-3.45	-0.004070	2.5	PASS
EGPRS850	251	VN	-20	-6.10	-0.007189	2.5	PASS
EGPRS850	251	VN	-10	2.45	0.002891	2.5	PASS
EGPRS850	251	VN	0	-0.58	-0.000685	2.5	PASS
EGPRS850	251	VN	10	0.32	0.000380	2.5	PASS
EGPRS850	251	VN	20	-0.23	-0.000266	2.5	PASS
EGPRS850	251	VN	30	-2.16	-0.002548	2.5	PASS
EGPRS850	251	VN	40	4.81	0.005668	2.5	PASS
EGPRS850	251	VN	50	3.45	0.004070	2.5	PASS
GSM1900	512	VN	-30	-4.13	-0.002234	2.5	PASS
GSM1900	512	VN	-20	0.71	0.000384	2.5	PASS
GSM1900	512	VN	-10	7.36	0.003979	2.5	PASS
GSM1900	512	VN	0	-7.91	-0.004275	2.5	PASS
GSM1900	512	VN	10	-6.65	-0.003595	2.5	PASS
GSM1900	512	VN	20	-10.17	-0.005497	2.5	PASS
GSM1900	512	VN	30	-0.29	-0.000157	2.5	PASS
GSM1900	512	VN	40	-7.91	-0.004275	2.5	PASS
GSM1900	512	VN	50	-0.06	-0.000035	2.5	PASS
GSM1900	661	VN	-30	-0.45	-0.000240	2.5	PASS
GSM1900	661	VN	-20	0.55	0.000292	2.5	PASS
GSM1900	661	VN	-10	1.58	0.000841	2.5	PASS
GSM1900	661	VN	0	1.84	0.000979	2.5	PASS
GSM1900	661	VN	10	2.49	0.001322	2.5	PASS
GSM1900	661	VN	20	-6.65	-0.003538	2.5	PASS
GSM1900	661	VN	30	-0.16	-0.000086	2.5	PASS
GSM1900	661	VN	40	4.10	0.002181	2.5	PASS
GSM1900	661	VN	50	-8.01	-0.004259	2.5	PASS
GSM1900	810	VN	-30	-10.01	-0.005241	2.5	PASS
GSM1900	810	VN	-20	-15.37	-0.008047	2.5	PASS
GSM1900	810	VN	-10	-9.98	-0.005224	2.5	PASS
GSM1900	810	VN	0	-14.37	-0.007523	2.5	PASS
GSM1900	810	VN	10	-13.01	-0.006813	2.5	PASS
GSM1900	810	VN	20	-10.01	-0.005241	2.5	PASS
GSM1900	810	VN	30	-7.55	-0.003956	2.5	PASS



GSM1900	810	VN	40	-11.11	-0.005815	2.5	PASS
GSM1900	810	VN	50	-6.91	-0.003618	2.5	PASS
GPRS1900	512	VN	-30	-9.75	-0.005270	2.5	PASS
GPRS1900	512	VN	-20	-5.71	-0.003089	2.5	PASS
GPRS1900	512	VN	-10	-9.98	-0.005392	2.5	PASS
GPRS1900	512	VN	0	-9.91	-0.005357	2.5	PASS
GPRS1900	512	VN	10	-10.91	-0.005898	2.5	PASS
GPRS1900	512	VN	20	-6.91	-0.003734	2.5	PASS
GPRS1900	512	VN	30	-1.16	-0.000628	2.5	PASS
GPRS1900	512	VN	40	-1.45	-0.000785	2.5	PASS
GPRS1900	512	VN	50	-2.55	-0.001379	2.5	PASS
GPRS1900	661	VN	-30	-10.27	-0.005461	2.5	PASS
GPRS1900	661	VN	-20	0.87	0.000464	2.5	PASS
GPRS1900	661	VN	-10	-0.10	-0.000052	2.5	PASS
GPRS1900	661	VN	0	-0.74	-0.000395	2.5	PASS
GPRS1900	661	VN	10	-0.10	-0.000052	2.5	PASS
GPRS1900	661	VN	20	-2.42	-0.001288	2.5	PASS
GPRS1900	661	VN	30	-3.91	-0.002078	2.5	PASS
GPRS1900	661	VN	40	-4.65	-0.002473	2.5	PASS
GPRS1900	661	VN	50	3.78	0.002009	2.5	PASS
GPRS1900	810	VN	-30	-21.79	-0.011411	2.5	PASS
GPRS1900	810	VN	-20	-22.28	-0.011665	2.5	PASS
GPRS1900	810	VN	-10	2.03	0.001065	2.5	PASS
GPRS1900	810	VN	0	1.16	0.000609	2.5	PASS
GPRS1900	810	VN	10	2.55	0.001336	2.5	PASS
GPRS1900	810	VN	20	0.65	0.000338	2.5	PASS
GPRS1900	810	VN	30	0.55	0.000287	2.5	PASS
GPRS1900	810	VN	40	-1.07	-0.000558	2.5	PASS
GPRS1900	810	VN	50	-1.97	-0.001031	2.5	PASS
EGPRS1900	512	VN	-30	-22.60	-0.012215	2.5	PASS
EGPRS1900	512	VN	-20	-20.18	-0.010906	2.5	PASS
EGPRS1900	512	VN	-10	-27.93	-0.015094	2.5	PASS
EGPRS1900	512	VN	0	-29.86	-0.016141	2.5	PASS
EGPRS1900	512	VN	10	-9.36	-0.005060	2.5	PASS
EGPRS1900	512	VN	20	-18.69	-0.010104	2.5	PASS
EGPRS1900	512	VN	30	-23.96	-0.012948	2.5	PASS
EGPRS1900	512	VN	40	-9.65	-0.005218	2.5	PASS
EGPRS1900	512	VN	50	-22.76	-0.012302	2.5	PASS
EGPRS1900	661	VN	-30	-16.89	-0.008982	2.5	PASS
EGPRS1900	661	VN	-20	-16.92	-0.008999	2.5	PASS
EGPRS1900	661	VN	-10	-22.28	-0.011850	2.5	PASS
EGPRS1900	661	VN	0	-4.07	-0.002164	2.5	PASS
EGPRS1900	661	VN	10	-20.08	-0.010682	2.5	PASS
EGPRS1900	661	VN	20	-18.34	-0.009754	2.5	PASS
EGPRS1900	661	VN	30	-15.37	-0.008175	2.5	PASS
EGPRS1900	661	VN	40	-8.23	-0.004379	2.5	PASS
EGPRS1900	661	VN	50	-20.99	-0.011163	2.5	PASS
EGPRS1900	810	VN	-30	-12.30	-0.006441	2.5	PASS
EGPRS1900	810	VN	-20	-14.98	-0.007844	2.5	PASS
EGPRS1900	810	VN	-10	-12.24	-0.006407	2.5	PASS
EGPRS1900	810	VN	0	-13.56	-0.007100	2.5	PASS
EGPRS1900	810	VN	10	-13.59	-0.007117	2.5	PASS
EGPRS1900	810	VN	20	-17.18	-0.008994	2.5	PASS
EGPRS1900	810	VN	30	-15.40	-0.008064	2.5	PASS
EGPRS1900	810	VN	40	-17.76	-0.009298	2.5	PASS



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EGPRS1900	810	VN	50	-15.66	-0.008199	2.5	PASS
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