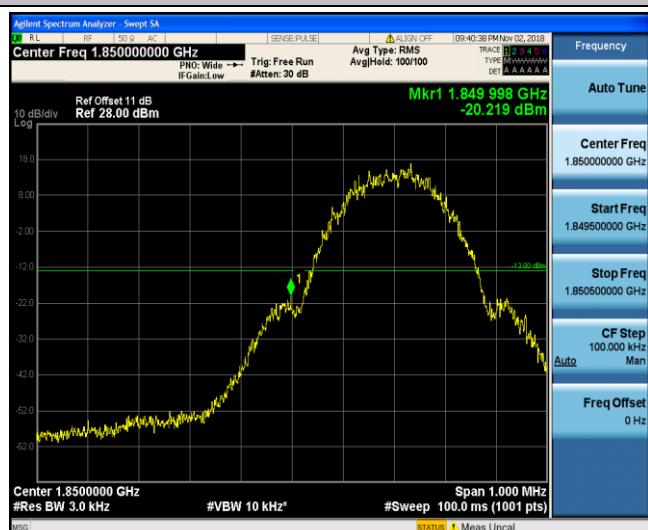




GSM1900_512



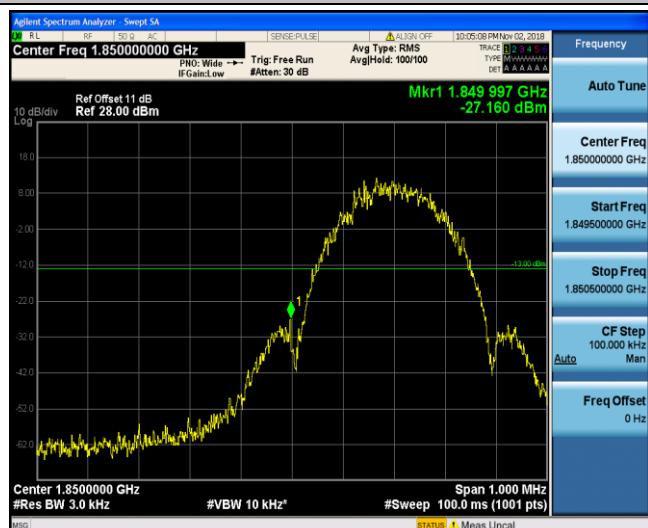
GSM1900_810



GPRS1900_512



GPRS1900_810



EGPRS1900_512



EGPRS1900_810



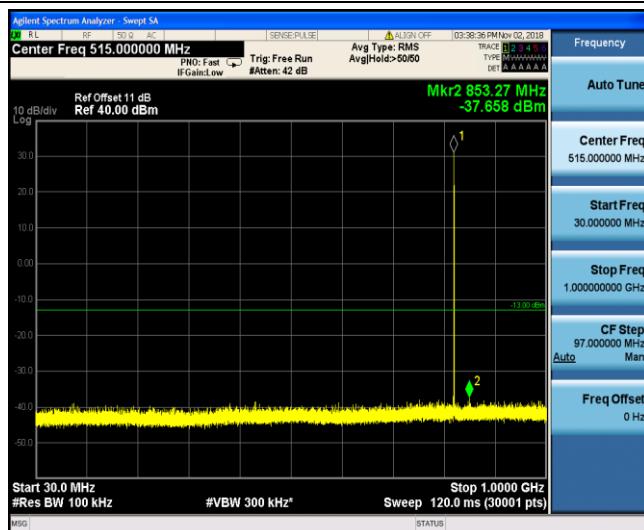
8.5 Appendix E: Conducted Spurious Emission

Test Result

Band	Channel	Frequency Rang(Mhz)	Value(dBm)	Limit(dBm)	Verdict
GSM850	128	30~1000	-37.66	-13	PASS
GSM850	128	1000~10000	-34.33	-13	PASS
GSM850	190	30~1000	-37.74	-13	PASS
GSM850	190	1000~10000	-34.23	-13	PASS
GSM850	251	30~1000	-36.82	-13	PASS
GSM850	251	1000~10000	-34.26	-13	PASS
GPRS850	128	30~1000	-37.45	-13	PASS
GPRS850	128	1000~10000	-34.25	-13	PASS
GPRS850	190	30~1000	-37.93	-13	PASS
GPRS850	190	1000~10000	-34.30	-13	PASS
GPRS850	251	30~1000	-37.27	-13	PASS
GPRS850	251	1000~10000	-34.45	-13	PASS
EGPRS850	128	30~1000	-38.07	-13	PASS
EGPRS850	128	1000~10000	-34.21	-13	PASS
EGPRS850	190	30~1000	-37.86	-13	PASS
EGPRS850	190	1000~10000	-34.44	-13	PASS
EGPRS850	251	30~1000	-37.88	-13	PASS
EGPRS850	251	1000~10000	-34.27	-13	PASS
GSM1900	512	30~1000	-37.20	-13	PASS
GSM1900	512	1000~20000	-27.68	-13	PASS
GSM1900	661	30~1000	-37.45	-13	PASS
GSM1900	661	1000~20000	-27.53	-13	PASS
GSM1900	810	30~1000	-37.97	-13	PASS
GSM1900	810	1000~20000	-27.64	-13	PASS
GPRS1900	512	30~1000	-37.39	-13	PASS
GPRS1900	512	1000~20000	-27.64	-13	PASS
GPRS1900	661	30~1000	-37.74	-13	PASS
GPRS1900	661	1000~20000	-27.82	-13	PASS
GPRS1900	810	30~1000	-37.56	-13	PASS
GPRS1900	810	1000~20000	-27.61	-13	PASS
EGPRS1900	512	30~1000	-37.26	-13	PASS
EGPRS1900	512	1000~20000	-27.70	-13	PASS
EGPRS1900	661	30~1000	-37.86	-13	PASS
EGPRS1900	661	1000~20000	-27.71	-13	PASS
EGPRS1900	810	30~1000	-37.44	-13	PASS
EGPRS1900	810	1000~20000	-27.60	-13	PASS



Test Graphs



GSM850_128



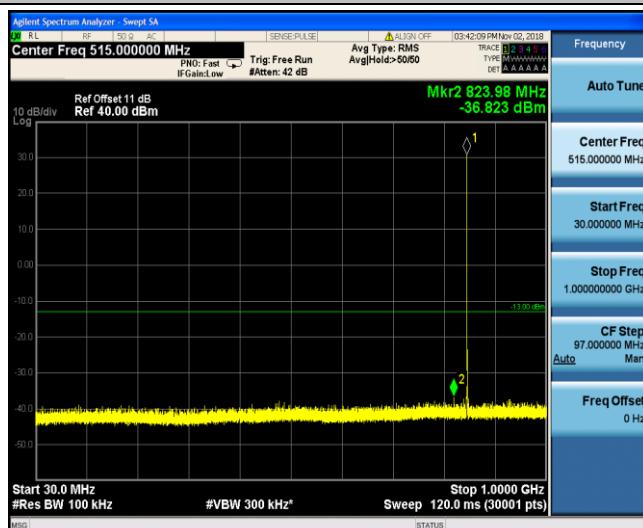
GSM850_128



GSM850_190



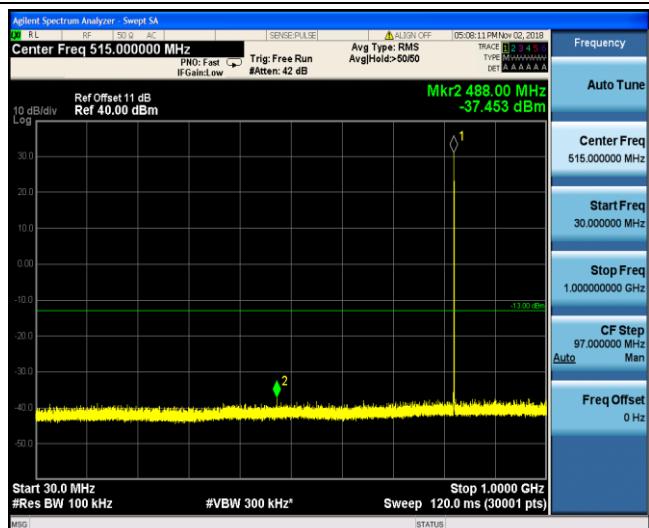
GSM850_190



GSM850_251



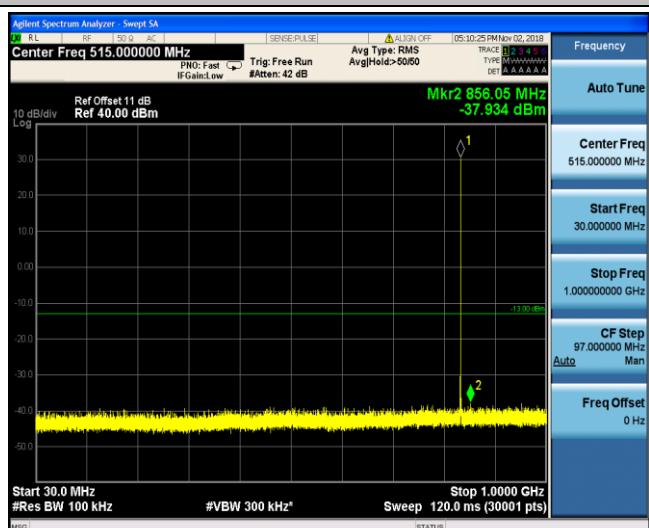
GSM850_251



GPRS850_128



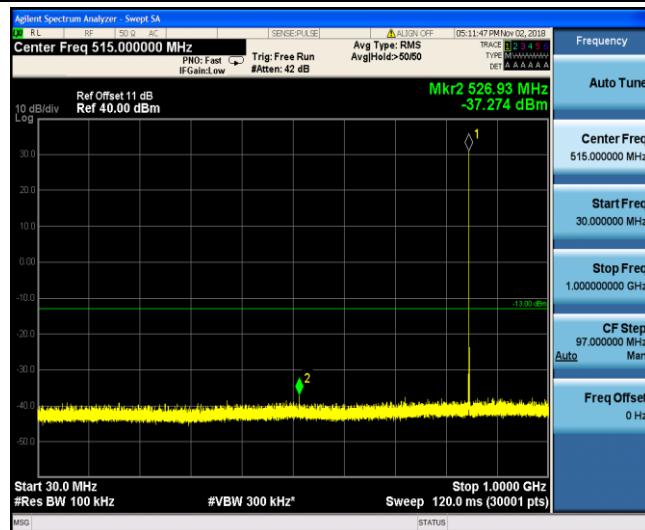
GPRS850_128



GPRS850_190



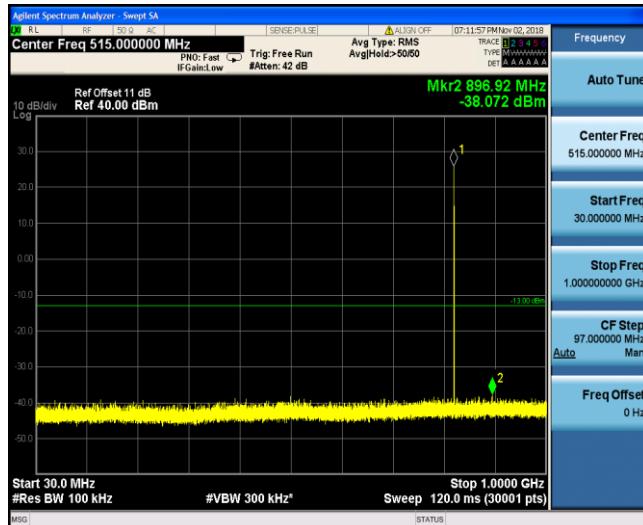
GPRS850_190



GPRS850_251



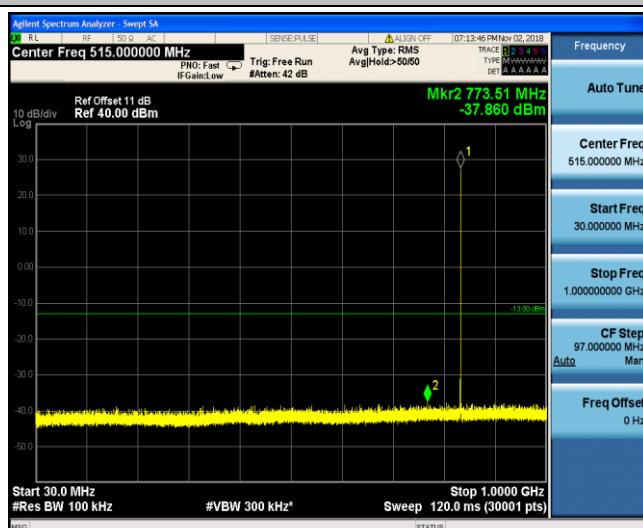
GPRS850_251



EGPRS850_128



EGPRS850_128



EGPRS850_190



EGPRS850_190



EGPRS850_251



EGPRS850_251

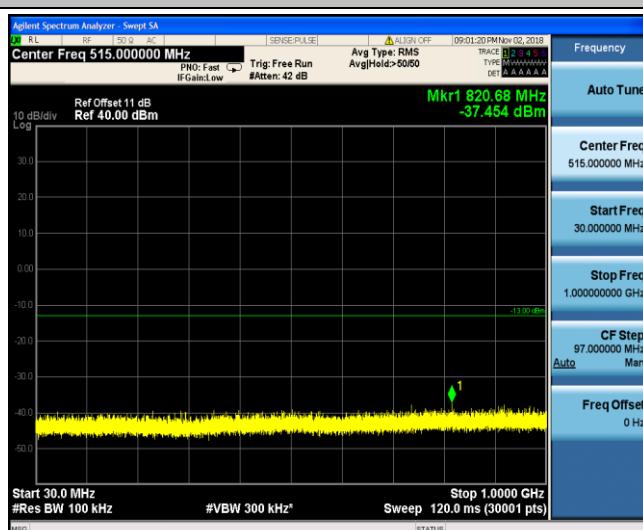
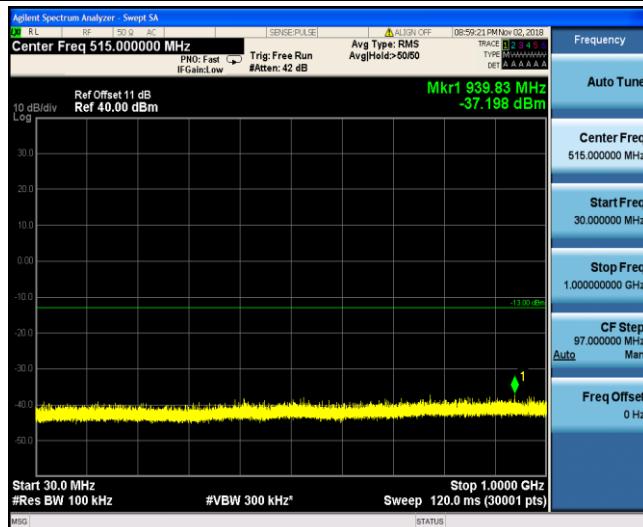


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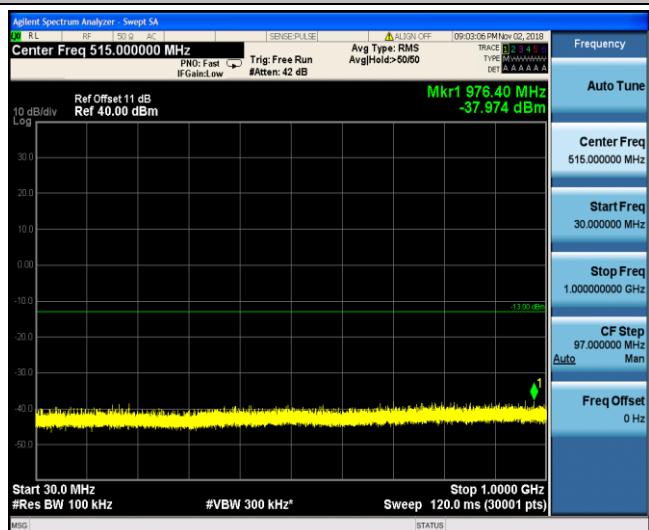
Issued:

2018-11-14





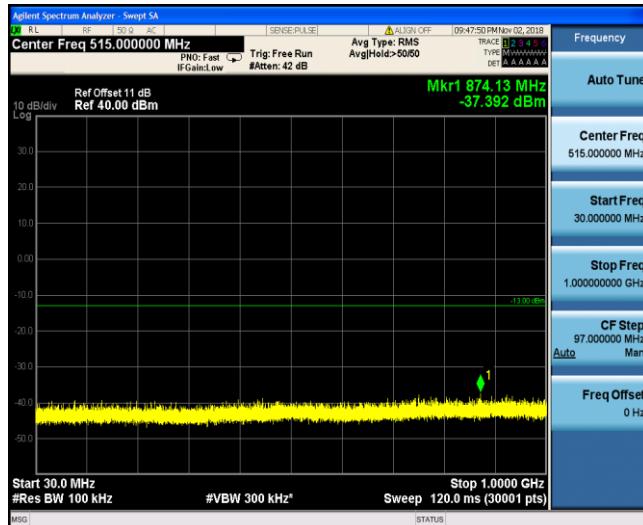
GSM1900_661



GSM1900_810



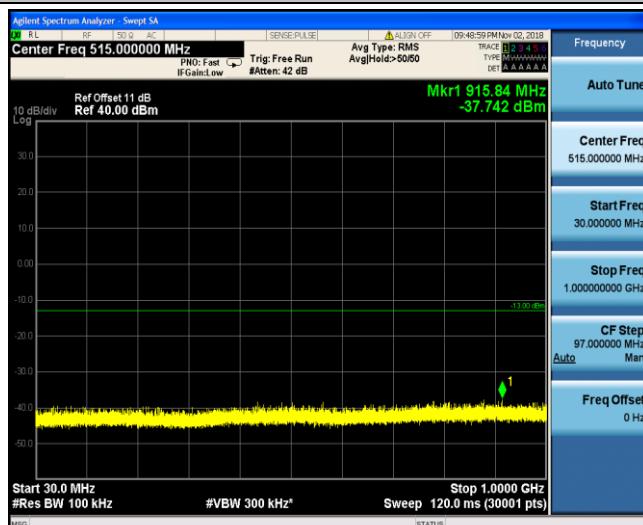
GSM1900_810



GPRS1900_512



GPRS1900_512



GPRS1900_661



Report No.:

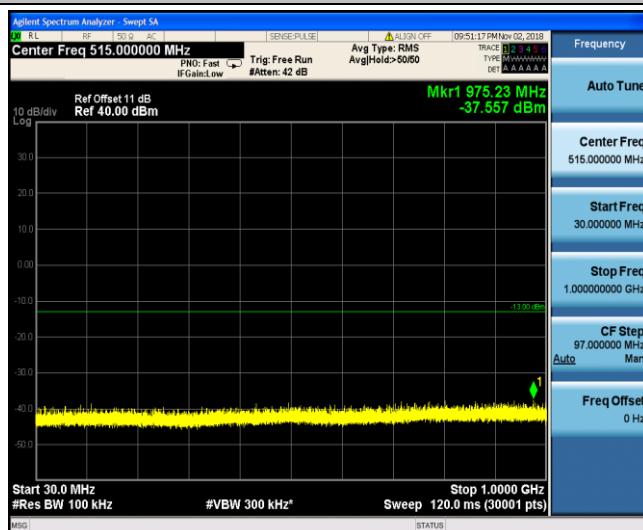
TRE1810019101

Issued:

2018-11-14



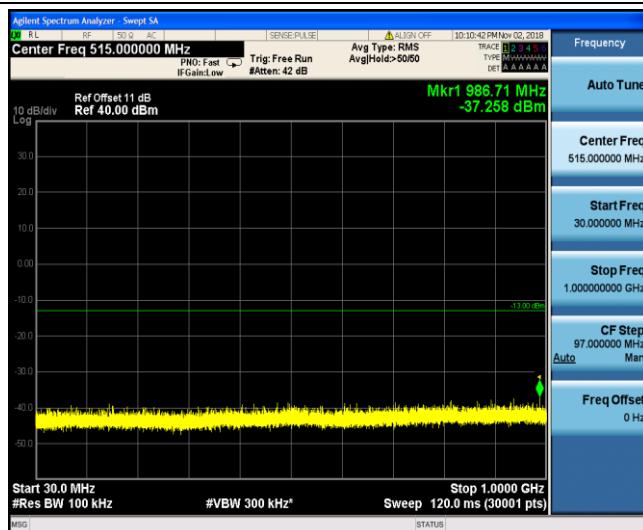
GPRS1900_661



GPRS1900_810



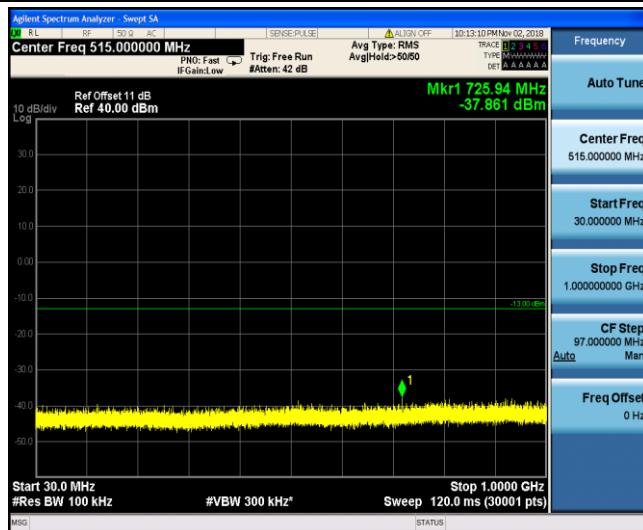
GPRS1900_810



EGPRS1900_512



EGPRS1900_512



EGPRS1900_661



EGPRS1900_661



EGPRS1900_810



EGPRS1900_810



8.6 Appendix F: Frequency Stability

Test Result

Band	Channel	Voltage						Verdict
		Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)		
GSM850	128	VL	TN	3.87	0.004701	2.5	PASS	
GSM850	128	VN	TN	4.29	0.005210	2.5	PASS	
GSM850	128	VH	TN	4.00	0.004857	2.5	PASS	
GSM850	190	VL	TN	10.78	0.012890	2.5	PASS	
GSM850	190	VN	TN	8.07	0.009648	2.5	PASS	
GSM850	190	VH	TN	7.68	0.009185	2.5	PASS	
GSM850	251	VL	TN	10.78	0.012704	2.5	PASS	
GSM850	251	VN	TN	7.75	0.009129	2.5	PASS	
GSM850	251	VH	TN	10.17	0.011982	2.5	PASS	
GPRS850	128	VL	TN	6.13	0.007443	2.5	PASS	
GPRS850	128	VN	TN	6.88	0.008344	2.5	PASS	
GPRS850	128	VH	TN	4.68	0.005680	2.5	PASS	
GPRS850	190	VL	TN	5.29	0.006329	2.5	PASS	
GPRS850	190	VN	TN	6.65	0.007950	2.5	PASS	
GPRS850	190	VH	TN	9.91	0.011848	2.5	PASS	
GPRS850	251	VL	TN	6.59	0.007760	2.5	PASS	
GPRS850	251	VN	TN	8.30	0.009776	2.5	PASS	
GPRS850	251	VH	TN	4.75	0.005591	2.5	PASS	
EGPRS850	128	VL	TN	10.04	0.012183	2.5	PASS	
EGPRS850	128	VN	TN	8.43	0.010224	2.5	PASS	
EGPRS850	128	VH	TN	8.94	0.010851	2.5	PASS	
EGPRS850	190	VL	TN	5.91	0.007062	2.5	PASS	
EGPRS850	190	VN	TN	7.07	0.008452	2.5	PASS	
EGPRS850	190	VH	TN	5.42	0.006483	2.5	PASS	
EGPRS850	251	VL	TN	4.13	0.004869	2.5	PASS	
EGPRS850	251	VN	TN	6.46	0.007607	2.5	PASS	
EGPRS850	251	VH	TN	2.10	0.002472	2.5	PASS	
GSM1900	512	VL	TN	20.70	0.011185	2.5	PASS	
GSM1900	512	VN	TN	22.05	0.011918	2.5	PASS	
GSM1900	512	VH	TN	15.98	0.008638	2.5	PASS	
GSM1900	661	VL	TN	26.05	0.013859	2.5	PASS	
GSM1900	661	VN	TN	25.02	0.013309	2.5	PASS	
GSM1900	661	VH	TN	27.35	0.014546	2.5	PASS	
GSM1900	810	VL	TN	32.09	0.016804	2.5	PASS	
GSM1900	810	VN	TN	26.25	0.013744	2.5	PASS	
GSM1900	810	VH	TN	31.28	0.016381	2.5	PASS	
GPRS1900	512	VL	TN	14.63	0.007905	2.5	PASS	
GPRS1900	512	VN	TN	15.72	0.008498	2.5	PASS	
GPRS1900	512	VH	TN	20.24	0.010941	2.5	PASS	
GPRS1900	661	VL	TN	24.34	0.012949	2.5	PASS	
GPRS1900	661	VN	TN	22.34	0.011884	2.5	PASS	
GPRS1900	661	VH	TN	15.40	0.008192	2.5	PASS	
GPRS1900	810	VL	TN	26.99	0.014133	2.5	PASS	
GPRS1900	810	VN	TN	18.76	0.009822	2.5	PASS	
GPRS1900	810	VH	TN	22.02	0.011529	2.5	PASS	
EGPRS1900	512	VL	TN	11.14	0.006020	2.5	PASS	
EGPRS1900	512	VN	TN	14.08	0.007608	2.5	PASS	
EGPRS1900	512	VH	TN	11.46	0.006195	2.5	PASS	



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EGPRS1900	661	VL	TN	15.50	0.008243	2.5	PASS
EGPRS1900	661	VN	TN	14.82	0.007883	2.5	PASS
EGPRS1900	661	VH	TN	15.88	0.008449	2.5	PASS
EGPRS1900	810	VL	TN	16.69	0.008740	2.5	PASS
EGPRS1900	810	VN	TN	17.63	0.009230	2.5	PASS
EGPRS1900	810	VH	TN	11.91	0.006238	2.5	PASS



Band	Channel	Voltage (Vdc)	Temperature				
			Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	VN	-30	6.72	0.008148	2.5	PASS
GSM850	128	VN	-20	8.23	0.009989	2.5	PASS
GSM850	128	VN	-10	10.91	0.013240	2.5	PASS
GSM850	128	VN	0	2.03	0.002468	2.5	PASS
GSM850	128	VN	10	-1.78	-0.002154	2.5	PASS
GSM850	128	VN	20	-5.68	-0.006894	2.5	PASS
GSM850	128	VN	30	-3.36	-0.004074	2.5	PASS
GSM850	128	VN	40	-2.74	-0.003330	2.5	PASS
GSM850	128	VN	50	2.13	0.002585	2.5	PASS
GSM850	190	VN	-30	12.69	0.015167	2.5	PASS
GSM850	190	VN	-20	11.75	0.014047	2.5	PASS
GSM850	190	VN	-10	12.91	0.015437	2.5	PASS
GSM850	190	VN	0	8.07	0.009648	2.5	PASS
GSM850	190	VN	10	1.81	0.002161	2.5	PASS
GSM850	190	VN	20	-2.07	-0.002470	2.5	PASS
GSM850	190	VN	30	-1.45	-0.001737	2.5	PASS
GSM850	190	VN	40	1.00	0.001196	2.5	PASS
GSM850	190	VN	50	0.77	0.000926	2.5	PASS
GSM850	251	VN	-30	11.46	0.013503	2.5	PASS
GSM850	251	VN	-20	13.92	0.016394	2.5	PASS
GSM850	251	VN	-10	9.52	0.011221	2.5	PASS
GSM850	251	VN	0	9.04	0.010650	2.5	PASS
GSM850	251	VN	10	6.10	0.007189	2.5	PASS
GSM850	251	VN	20	3.39	0.003994	2.5	PASS
GSM850	251	VN	30	3.42	0.004032	2.5	PASS
GSM850	251	VN	40	7.91	0.009319	2.5	PASS
GSM850	251	VN	50	5.00	0.005896	2.5	PASS
GPRS850	128	VN	-30	2.26	0.002742	2.5	PASS
GPRS850	128	VN	-20	9.04	0.010968	2.5	PASS
GPRS850	128	VN	-10	2.52	0.003055	2.5	PASS
GPRS850	128	VN	0	7.07	0.008579	2.5	PASS
GPRS850	128	VN	10	3.20	0.003878	2.5	PASS
GPRS850	128	VN	20	9.36	0.011360	2.5	PASS
GPRS850	128	VN	30	7.65	0.009284	2.5	PASS
GPRS850	128	VN	40	7.75	0.009401	2.5	PASS
GPRS850	128	VN	50	10.33	0.012535	2.5	PASS
GPRS850	190	VN	-30	3.78	0.004515	2.5	PASS
GPRS850	190	VN	-20	5.13	0.006136	2.5	PASS
GPRS850	190	VN	-10	6.04	0.007217	2.5	PASS
GPRS850	190	VN	0	9.94	0.011886	2.5	PASS
GPRS850	190	VN	10	5.13	0.006136	2.5	PASS
GPRS850	190	VN	20	12.20	0.014588	2.5	PASS
GPRS850	190	VN	30	10.30	0.012311	2.5	PASS
GPRS850	190	VN	40	13.27	0.015861	2.5	PASS
GPRS850	190	VN	50	12.91	0.015437	2.5	PASS
GPRS850	251	VN	-30	10.72	0.012628	2.5	PASS
GPRS850	251	VN	-20	9.14	0.010764	2.5	PASS
GPRS850	251	VN	-10	6.10	0.007189	2.5	PASS
GPRS850	251	VN	0	2.71	0.003195	2.5	PASS
GPRS850	251	VN	10	5.75	0.006771	2.5	PASS
GPRS850	251	VN	20	11.30	0.013313	2.5	PASS



GPRS850	251	VN	30	8.98	0.010574	2.5	PASS
GPRS850	251	VN	40	11.24	0.013237	2.5	PASS
GPRS850	251	VN	50	9.36	0.011031	2.5	PASS
EGPRS850	128	VN	-30	2.74	0.003330	2.5	PASS
EGPRS850	128	VN	-20	5.71	0.006934	2.5	PASS
EGPRS850	128	VN	-10	7.30	0.008853	2.5	PASS
EGPRS850	128	VN	0	5.62	0.006816	2.5	PASS
EGPRS850	128	VN	10	10.30	0.012496	2.5	PASS
EGPRS850	128	VN	20	15.85	0.019234	2.5	PASS
EGPRS850	128	VN	30	14.11	0.017118	2.5	PASS
EGPRS850	128	VN	40	14.27	0.017314	2.5	PASS
EGPRS850	128	VN	50	13.01	0.015786	2.5	PASS
EGPRS850	190	VN	-30	4.94	0.005905	2.5	PASS
EGPRS850	190	VN	-20	8.30	0.009918	2.5	PASS
EGPRS850	190	VN	-10	10.04	0.012002	2.5	PASS
EGPRS850	190	VN	0	0.84	0.001003	2.5	PASS
EGPRS850	190	VN	10	5.88	0.007024	2.5	PASS
EGPRS850	190	VN	20	12.62	0.015089	2.5	PASS
EGPRS850	190	VN	30	15.08	0.018022	2.5	PASS
EGPRS850	190	VN	40	12.82	0.015321	2.5	PASS
EGPRS850	190	VN	50	12.07	0.014433	2.5	PASS
EGPRS850	251	VN	-30	10.04	0.011830	2.5	PASS
EGPRS850	251	VN	-20	10.98	0.012933	2.5	PASS
EGPRS850	251	VN	-10	6.81	0.008026	2.5	PASS
EGPRS850	251	VN	0	9.07	0.010688	2.5	PASS
EGPRS850	251	VN	10	12.11	0.014264	2.5	PASS
EGPRS850	251	VN	20	14.66	0.017269	2.5	PASS
EGPRS850	251	VN	30	10.94	0.012895	2.5	PASS
EGPRS850	251	VN	40	6.78	0.007988	2.5	PASS
EGPRS850	251	VN	50	11.14	0.013123	2.5	PASS
GSM1900	512	VN	-30	25.76	0.013925	2.5	PASS
GSM1900	512	VN	-20	21.73	0.011744	2.5	PASS
GSM1900	512	VN	-10	20.63	0.011151	2.5	PASS
GSM1900	512	VN	0	14.08	0.007608	2.5	PASS
GSM1900	512	VN	10	10.23	0.005532	2.5	PASS
GSM1900	512	VN	20	11.72	0.006334	2.5	PASS
GSM1900	512	VN	30	13.92	0.007521	2.5	PASS
GSM1900	512	VN	40	8.91	0.004816	2.5	PASS
GSM1900	512	VN	50	18.63	0.010069	2.5	PASS
GSM1900	661	VN	-30	21.37	0.011369	2.5	PASS
GSM1900	661	VN	-20	24.31	0.012932	2.5	PASS
GSM1900	661	VN	-10	27.67	0.014718	2.5	PASS
GSM1900	661	VN	0	24.21	0.012880	2.5	PASS
GSM1900	661	VN	10	13.95	0.007419	2.5	PASS
GSM1900	661	VN	20	15.50	0.008243	2.5	PASS
GSM1900	661	VN	30	13.95	0.007419	2.5	PASS
GSM1900	661	VN	40	13.72	0.007299	2.5	PASS
GSM1900	661	VN	50	14.30	0.007608	2.5	PASS
GSM1900	810	VN	-30	27.73	0.014522	2.5	PASS
GSM1900	810	VN	-20	34.80	0.018224	2.5	PASS
GSM1900	810	VN	-10	34.87	0.018258	2.5	PASS
GSM1900	810	VN	0	20.63	0.010803	2.5	PASS
GSM1900	810	VN	10	16.72	0.008757	2.5	PASS
GSM1900	810	VN	20	21.89	0.011462	2.5	PASS
GSM1900	810	VN	30	22.60	0.011834	2.5	PASS



GSM1900	810	VN	40	20.57	0.010769	2.5	PASS
GSM1900	810	VN	50	23.37	0.012239	2.5	PASS
GPRS1900	512	VN	-30	16.79	0.009074	2.5	PASS
GPRS1900	512	VN	-20	19.92	0.010767	2.5	PASS
GPRS1900	512	VN	-10	20.31	0.010976	2.5	PASS
GPRS1900	512	VN	0	19.95	0.010784	2.5	PASS
GPRS1900	512	VN	10	15.85	0.008568	2.5	PASS
GPRS1900	512	VN	20	21.24	0.011482	2.5	PASS
GPRS1900	512	VN	30	14.08	0.007608	2.5	PASS
GPRS1900	512	VN	40	5.78	0.003124	2.5	PASS
GPRS1900	512	VN	50	3.78	0.002042	2.5	PASS
GPRS1900	661	VN	-30	22.50	0.011970	2.5	PASS
GPRS1900	661	VN	-20	17.47	0.009291	2.5	PASS
GPRS1900	661	VN	-10	13.11	0.006972	2.5	PASS
GPRS1900	661	VN	0	19.98	0.010630	2.5	PASS
GPRS1900	661	VN	10	23.60	0.012554	2.5	PASS
GPRS1900	661	VN	20	20.05	0.010665	2.5	PASS
GPRS1900	661	VN	30	23.67	0.012588	2.5	PASS
GPRS1900	661	VN	40	24.83	0.013206	2.5	PASS
GPRS1900	661	VN	50	21.08	0.011214	2.5	PASS
GPRS1900	810	VN	-30	16.43	0.008605	2.5	PASS
GPRS1900	810	VN	-20	23.50	0.012307	2.5	PASS
GPRS1900	810	VN	-10	17.05	0.008926	2.5	PASS
GPRS1900	810	VN	0	24.21	0.012679	2.5	PASS
GPRS1900	810	VN	10	23.73	0.012425	2.5	PASS
GPRS1900	810	VN	20	25.34	0.013271	2.5	PASS
GPRS1900	810	VN	30	23.47	0.012290	2.5	PASS
GPRS1900	810	VN	40	11.95	0.006255	2.5	PASS
GPRS1900	810	VN	50	4.46	0.002333	2.5	PASS
EGPRS1900	512	VN	-30	20.53	0.011098	2.5	PASS
EGPRS1900	512	VN	-20	14.08	0.007608	2.5	PASS
EGPRS1900	512	VN	-10	11.69	0.006317	2.5	PASS
EGPRS1900	512	VN	0	8.17	0.004415	2.5	PASS
EGPRS1900	512	VN	10	12.82	0.006928	2.5	PASS
EGPRS1900	512	VN	20	18.85	0.010191	2.5	PASS
EGPRS1900	512	VN	30	20.92	0.011308	2.5	PASS
EGPRS1900	512	VN	40	32.03	0.017310	2.5	PASS
EGPRS1900	512	VN	50	29.19	0.015775	2.5	PASS
EGPRS1900	661	VN	-30	12.27	0.006526	2.5	PASS
EGPRS1900	661	VN	-20	18.63	0.009909	2.5	PASS
EGPRS1900	661	VN	-10	20.18	0.010733	2.5	PASS
EGPRS1900	661	VN	0	12.11	0.006440	2.5	PASS
EGPRS1900	661	VN	10	13.30	0.007075	2.5	PASS
EGPRS1900	661	VN	20	25.67	0.013653	2.5	PASS
EGPRS1900	661	VN	30	25.57	0.013601	2.5	PASS
EGPRS1900	661	VN	40	26.76	0.014237	2.5	PASS
EGPRS1900	661	VN	50	24.21	0.012880	2.5	PASS
EGPRS1900	810	VN	-30	15.98	0.008368	2.5	PASS
EGPRS1900	810	VN	-20	18.82	0.009856	2.5	PASS
EGPRS1900	810	VN	-10	17.31	0.009061	2.5	PASS
EGPRS1900	810	VN	0	8.49	0.004446	2.5	PASS
EGPRS1900	810	VN	10	11.95	0.006255	2.5	PASS
EGPRS1900	810	VN	20	15.01	0.007861	2.5	PASS
EGPRS1900	810	VN	30	18.21	0.009535	2.5	PASS
EGPRS1900	810	VN	40	17.95	0.009399	2.5	PASS



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EGPRS1900	810	VN	50	21.99	0.011513	2.5	PASS
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-----End of the Report -----