



GSM1900-810-1000~3000MHz



GSM1900-810-3000~18000MHz



GPRS1900-512-0.009~0.15MHz



GPRS1900-512-0.15~30MHz



GPRS1900-512-30~1000MHz



GPRS1900-512-1000~3000MHz



GPRS1900-512-3000~18000MHz



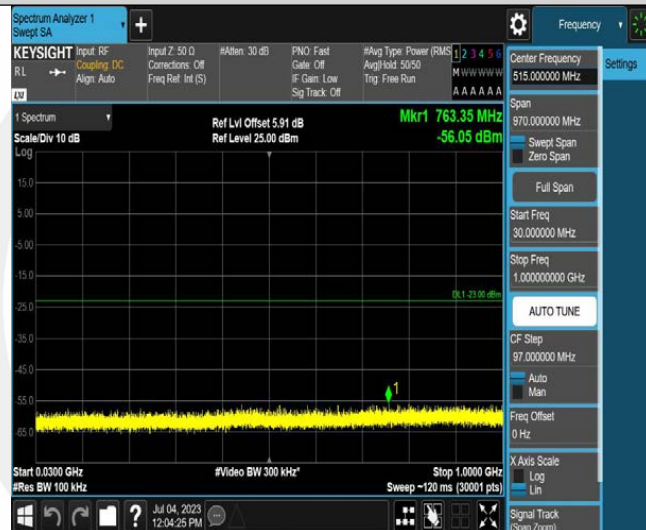
GPRS1900-661-0.009~0.15MHz



GPRS1900-661-0.15~30MHz



GPRS1900-661-30~1000MHz



GPRS1900-661-1000~3000MHz



GPRS1900-661-3000~18000MHz



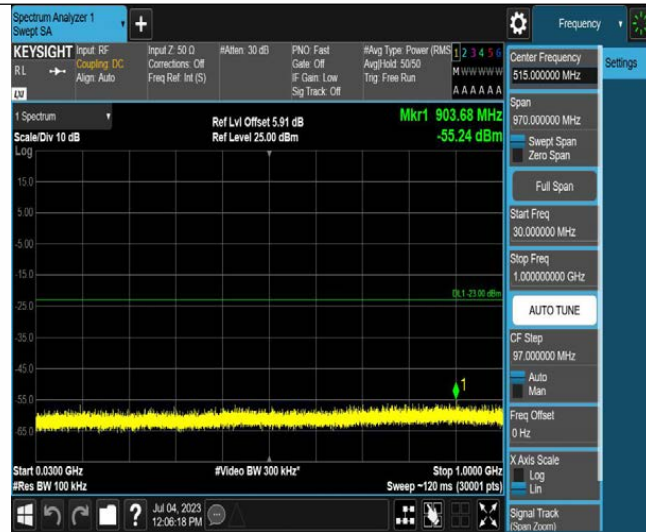
GPRS1900-810-0.009~0.15MHz



GPRS1900-810-0.15~30MHz



GPRS1900-810-30~1000MHz



GPRS1900-810-1000~3000MHz



GPRS1900-810-3000~18000MHz



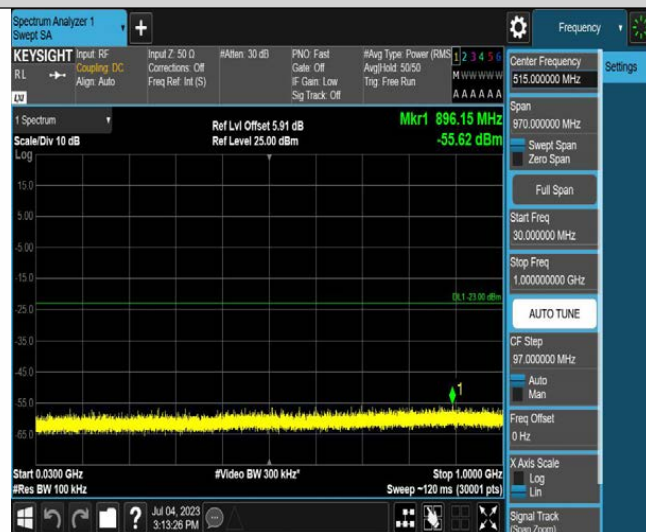
EGPRS1900-512-0.009~0.15MHz



EGPRS1900-512-0.15~30MHz



EGPRS1900-512-30~1000MHz



EGPRS1900-512-1000~3000MHz



EGPRS1900-512-3000~18000MHz



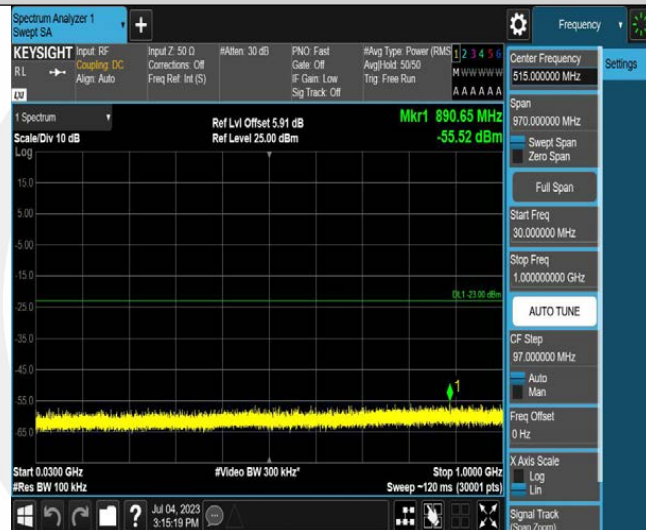
EGPRS1900-661-0.009~0.15MHz



EGPRS1900-661-0.15~30MHz



EGPRS1900-661-30~1000MHz



EGPRS1900-661-1000~3000MHz



EGPRS1900-661-3000~18000MHz



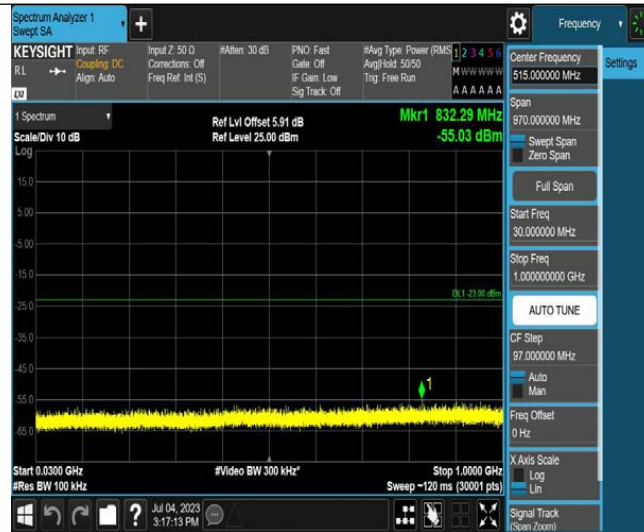
EGPRS1900-810-0.009~0.15MHz



EGPRS1900-810-0.15~30MHz



EGPRS1900-810-30~1000MHz



EGPRS1900-810-1000~3000MHz



EGPRS1900-810-3000~18000MHz



Appendix F: Frequency Stability

Test Result

Voltage								
Band	Channel	PCL	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	5	VL	NT	-6.84	-0.008299	±2.5	PASS
GSM850	128	5	VN	NT	-9.94	-0.012060	±2.5	PASS
GSM850	128	5	VH	NT	-15.01	-0.018212	±2.5	PASS
GSM850	190	5	VL	NT	-11.36	-0.013579	±2.5	PASS
GSM850	190	5	VN	NT	-4.16	-0.004973	±2.5	PASS
GSM850	190	5	VH	NT	-13.88	-0.016591	±2.5	PASS
GSM850	251	5	VL	NT	-6.52	-0.007681	±2.5	PASS
GSM850	251	5	VN	NT	-2.52	-0.002969	±2.5	PASS
GSM850	251	5	VH	NT	-12.07	-0.014220	±2.5	PASS
GPRS850	128	5	VL	NT	-7.46	-0.009051	±2.5	PASS
GPRS850	128	5	VN	NT	-3.23	-0.003919	±2.5	PASS
GPRS850	128	5	VH	NT	-12.40	-0.015045	±2.5	PASS
GPRS850	190	5	VL	NT	-3.16	-0.003777	±2.5	PASS
GPRS850	190	5	VN	NT	-2.42	-0.002893	±2.5	PASS
GPRS850	190	5	VH	NT	-3.33	-0.003980	±2.5	PASS
GPRS850	251	5	VL	NT	-9.56	-0.011263	±2.5	PASS
GPRS850	251	5	VN	NT	-5.71	-0.006727	±2.5	PASS
GPRS850	251	5	VH	NT	-6.81	-0.008023	±2.5	PASS
EGPRS850	128	8	VL	NT	-9.14	-0.011090	±2.5	PASS
EGPRS850	128	8	VN	NT	-0.97	-0.001177	±2.5	PASS
EGPRS850	128	8	VH	NT	-0.77	-0.000934	±2.5	PASS
EGPRS850	190	8	VL	NT	7.36	0.008798	±2.5	PASS
EGPRS850	190	8	VN	NT	5.13	0.006132	±2.5	PASS
EGPRS850	190	8	VH	NT	-9.33	-0.011152	±2.5	PASS
EGPRS850	251	8	VL	NT	-2.07	-0.002439	±2.5	PASS

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EGPRS850	251	8	VN	NT	-5.23	-0.006162	±2.5	PASS
EGPRS850	251	8	VH	NT	-3.42	-0.004029	±2.5	PASS
GSM1900	512	0	VL	NT	-35.29	-0.019074	±2.5	PASS
GSM1900	512	0	VN	NT	-27.77	-0.015009	±2.5	PASS
GSM1900	512	0	VH	NT	-22.70	-0.012269	±2.5	PASS
GSM1900	661	0	VL	NT	-17.24	-0.009170	±2.5	PASS
GSM1900	661	0	VN	NT	-26.22	-0.013947	±2.5	PASS
GSM1900	661	0	VH	NT	-32.93	-0.017516	±2.5	PASS
GSM1900	810	0	VL	NT	-25.02	-0.013101	±2.5	PASS
GSM1900	810	0	VN	NT	-20.82	-0.010902	±2.5	PASS
GSM1900	810	0	VH	NT	-14.50	-0.007592	±2.5	PASS
GPRS1900	512	0	VL	NT	-30.64	-0.016560	±2.5	PASS
GPRS1900	512	0	VN	NT	-21.08	-0.011393	±2.5	PASS
GPRS1900	512	0	VH	NT	-29.99	-0.016209	±2.5	PASS
GPRS1900	661	0	VL	NT	-9.81	-0.005218	±2.5	PASS
GPRS1900	661	0	VN	NT	-17.98	-0.009564	±2.5	PASS
GPRS1900	661	0	VH	NT	-16.47	-0.008761	±2.5	PASS
GPRS1900	810	0	VL	NT	-17.53	-0.009179	±2.5	PASS
GPRS1900	810	0	VN	NT	-27.22	-0.014253	±2.5	PASS
GPRS1900	810	0	VH	NT	-38.32	-0.020065	±2.5	PASS
EGPRS1900	512	2	VL	NT	-17.31	-0.009356	±2.5	PASS
EGPRS1900	512	2	VN	NT	-16.69	-0.009021	±2.5	PASS
EGPRS1900	512	2	VH	NT	-10.94	-0.005913	±2.5	PASS
EGPRS1900	661	2	VL	NT	-15.95	-0.008484	±2.5	PASS
EGPRS1900	661	2	VN	NT	-10.36	-0.005511	±2.5	PASS
EGPRS1900	661	2	VH	NT	-16.85	-0.008963	±2.5	PASS
EGPRS1900	810	2	VL	NT	-8.56	-0.004482	±2.5	PASS

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EGPRS19 00	810	2	VN	NT	-10.23	-0.005357	±2.5	PASS
EGPRS19 00	810	2	VH	NT	5.62	0.002943	±2.5	PASS

Temperature								
Band	Channel	PCL	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	5	NV	-30	-1.97	-0.002390	±2.5	PASS
GSM850	128	5	NV	-20	-8.56	-0.010386	±2.5	PASS
GSM850	128	5	NV	-10	-9.01	-0.010932	±2.5	PASS
GSM850	128	5	NV	0	-3.75	-0.004550	±2.5	PASS
GSM850	128	5	NV	10	-6.94	-0.008420	±2.5	PASS
GSM850	128	5	NV	20	-10.11	-0.012266	±2.5	PASS
GSM850	128	5	NV	30	-8.39	-0.010180	±2.5	PASS
GSM850	128	5	NV	40	-17.72	-0.021500	±2.5	PASS
GSM850	128	5	NV	50	-12.88	-0.015627	±2.5	PASS
GSM850	190	5	NV	-30	-10.69	-0.012778	±2.5	PASS
GSM850	190	5	NV	-20	-8.59	-0.010268	±2.5	PASS
GSM850	190	5	NV	-10	-4.81	-0.005749	±2.5	PASS
GSM850	190	5	NV	0	-5.65	-0.006754	±2.5	PASS
GSM850	190	5	NV	10	-2.81	-0.003359	±2.5	PASS
GSM850	190	5	NV	20	-9.94	-0.011881	±2.5	PASS
GSM850	190	5	NV	30	-12.79	-0.015288	±2.5	PASS
GSM850	190	5	NV	40	-7.91	-0.009455	±2.5	PASS
GSM850	190	5	NV	50	-6.33	-0.007566	±2.5	PASS
GSM850	251	5	NV	-30	-10.53	-0.012406	±2.5	PASS
GSM850	251	5	NV	-20	-6.75	-0.007952	±2.5	PASS
GSM850	251	5	NV	-10	-17.11	-0.020158	±2.5	PASS
GSM850	251	5	NV	0	-0.03	-0.000035	±2.5	PASS
GSM850	251	5	NV	10	-6.65	-0.007835	±2.5	PASS
GSM850	251	5	NV	20	-7.30	-0.008600	±2.5	PASS
GSM850	251	5	NV	30	-16.47	-0.019404	±2.5	PASS
GSM850	251	5	NV	40	-9.78	-0.011522	±2.5	PASS
GSM850	251	5	NV	50	-8.36	-0.009849	±2.5	PASS

GPRS850	128	5	NV	-30	-4.97	-0.006030	±2.5	PASS
GPRS850	128	5	NV	-20	-0.90	-0.001092	±2.5	PASS
GPRS850	128	5	NV	-10	-3.49	-0.004234	±2.5	PASS
GPRS850	128	5	NV	0	-5.94	-0.007207	±2.5	PASS
GPRS850	128	5	NV	10	-5.88	-0.007134	±2.5	PASS
GPRS850	128	5	NV	20	-5.42	-0.006576	±2.5	PASS
GPRS850	128	5	NV	30	-8.36	-0.010143	±2.5	PASS
GPRS850	128	5	NV	40	-12.14	-0.014729	±2.5	PASS
GPRS850	128	5	NV	50	-7.97	-0.009670	±2.5	PASS
GPRS850	190	5	NV	-30	-7.17	-0.008570	±2.5	PASS
GPRS850	190	5	NV	-20	-3.36	-0.004016	±2.5	PASS
GPRS850	190	5	NV	-10	-0.48	-0.000574	±2.5	PASS
GPRS850	190	5	NV	0	2.94	0.003514	±2.5	PASS
GPRS850	190	5	NV	10	-10.23	-0.012228	±2.5	PASS
GPRS850	190	5	NV	20	-7.39	-0.008833	±2.5	PASS
GPRS850	190	5	NV	30	-7.23	-0.008642	±2.5	PASS
GPRS850	190	5	NV	40	-11.72	-0.014009	±2.5	PASS
GPRS850	190	5	NV	50	1.42	0.001697	±2.5	PASS
GPRS850	251	5	NV	-30	-7.39	-0.008706	±2.5	PASS
GPRS850	251	5	NV	-20	-6.49	-0.007646	±2.5	PASS
GPRS850	251	5	NV	-10	-7.30	-0.008600	±2.5	PASS
GPRS850	251	5	NV	0	-5.26	-0.006197	±2.5	PASS
GPRS850	251	5	NV	10	-13.43	-0.015822	±2.5	PASS
GPRS850	251	5	NV	20	1.00	0.001178	±2.5	PASS
GPRS850	251	5	NV	30	-10.46	-0.012323	±2.5	PASS
GPRS850	251	5	NV	40	-16.85	-0.019852	±2.5	PASS
GPRS850	251	5	NV	50	-9.91	-0.011675	±2.5	PASS
EGPRS850	128	8	NV	-30	-6.17	-0.007486	±2.5	PASS
EGPRS850	128	8	NV	-20	-5.17	-0.006273	±2.5	PASS
EGPRS850	128	8	NV	-10	-8.68	-0.010531	±2.5	PASS
EGPRS850	128	8	NV	0	-8.59	-0.010422	±2.5	PASS
EGPRS850	128	8	NV	10	0.32	0.000388	±2.5	PASS

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EGPRS85 0	128	8	NV	20	-6.97	-0.008457	±2.5	PASS
EGPRS85 0	128	8	NV	30	-9.36	-0.011356	±2.5	PASS
EGPRS85 0	128	8	NV	40	-8.72	-0.010580	±2.5	PASS
EGPRS85 0	128	8	NV	50	-7.14	-0.008663	±2.5	PASS
EGPRS85 0	190	8	NV	-30	-11.91	-0.014236	±2.5	PASS
EGPRS85 0	190	8	NV	-20	-6.01	-0.007184	±2.5	PASS
EGPRS85 0	190	8	NV	-10	-2.26	-0.002701	±2.5	PASS
EGPRS85 0	190	8	NV	0	-7.88	-0.009419	±2.5	PASS
EGPRS85 0	190	8	NV	10	-3.20	-0.003825	±2.5	PASS
EGPRS85 0	190	8	NV	20	-2.55	-0.003048	±2.5	PASS
EGPRS85 0	190	8	NV	30	-0.55	-0.000657	±2.5	PASS
EGPRS85 0	190	8	NV	40	-4.97	-0.005941	±2.5	PASS
EGPRS85 0	190	8	NV	50	2.55	0.003048	±2.5	PASS
EGPRS85 0	251	8	NV	-30	-3.45	-0.004065	±2.5	PASS
EGPRS85 0	251	8	NV	-20	-0.29	-0.000342	±2.5	PASS
EGPRS85 0	251	8	NV	-10	-4.84	-0.005702	±2.5	PASS
EGPRS85 0	251	8	NV	0	-7.17	-0.008447	±2.5	PASS
EGPRS85 0	251	8	NV	10	-3.84	-0.004524	±2.5	PASS

EGPRS85 0	251	8	NV	20	-1.45	-0.001708	±2.5	PASS
EGPRS85 0	251	8	NV	30	-9.81	-0.011557	±2.5	PASS
EGPRS85 0	251	8	NV	40	-5.23	-0.006162	±2.5	PASS
EGPRS85 0	251	8	NV	50	-7.01	-0.008259	±2.5	PASS
GSM1900	512	0	NV	-30	-23.28	-0.012582	±2.5	PASS
GSM1900	512	0	NV	-20	-29.80	-0.016106	±2.5	PASS
GSM1900	512	0	NV	-10	-29.64	-0.016020	±2.5	PASS
GSM1900	512	0	NV	0	-26.12	-0.014117	±2.5	PASS
GSM1900	512	0	NV	10	-18.05	-0.009756	±2.5	PASS
GSM1900	512	0	NV	20	-26.31	-0.014220	±2.5	PASS
GSM1900	512	0	NV	30	-23.37	-0.012631	±2.5	PASS
GSM1900	512	0	NV	40	-34.87	-0.018847	±2.5	PASS
GSM1900	512	0	NV	50	-29.22	-0.015793	±2.5	PASS
GSM1900	661	0	NV	-30	-18.60	-0.009894	±2.5	PASS
GSM1900	661	0	NV	-20	-43.55	-0.023165	±2.5	PASS
GSM1900	661	0	NV	-10	-28.57	-0.015197	±2.5	PASS
GSM1900	661	0	NV	0	-15.21	-0.008090	±2.5	PASS
GSM1900	661	0	NV	10	-28.25	-0.015027	±2.5	PASS
GSM1900	661	0	NV	20	-36.74	-0.019543	±2.5	PASS
GSM1900	661	0	NV	30	-25.02	-0.013309	±2.5	PASS
GSM1900	661	0	NV	40	-39.49	-0.021005	±2.5	PASS
GSM1900	661	0	NV	50	-12.98	-0.006904	±2.5	PASS
GSM1900	810	0	NV	-30	-3.97	-0.002079	±2.5	PASS
GSM1900	810	0	NV	-20	-17.21	-0.009011	±2.5	PASS
GSM1900	810	0	NV	-10	-10.14	-0.005309	±2.5	PASS
GSM1900	810	0	NV	0	-26.99	-0.014132	±2.5	PASS
GSM1900	810	0	NV	10	-25.54	-0.013373	±2.5	PASS
GSM1900	810	0	NV	20	-7.04	-0.003686	±2.5	PASS
GSM1900	810	0	NV	30	-21.66	-0.011342	±2.5	PASS
GSM1900	810	0	NV	40	-8.17	-0.004278	±2.5	PASS
GSM1900	810	0	NV	50	0.74	0.000387	±2.5	PASS
GPRS1900	512	0	NV	-30	-37.48	-0.020257	±2.5	PASS

GPRS1900	512	0	NV	-20	-34.84	-0.018830	±2.5	PASS
GPRS1900	512	0	NV	-10	-17.01	-0.009194	±2.5	PASS
GPRS1900	512	0	NV	0	-24.21	-0.013085	±2.5	PASS
GPRS1900	512	0	NV	10	-35.93	-0.019420	±2.5	PASS
GPRS1900	512	0	NV	20	-30.51	-0.016490	±2.5	PASS
GPRS1900	512	0	NV	30	-22.31	-0.012058	±2.5	PASS
GPRS1900	512	0	NV	40	-23.25	-0.012566	±2.5	PASS
GPRS1900	512	0	NV	50	-41.13	-0.022230	±2.5	PASS
GPRS1900	661	0	NV	-30	-28.22	-0.015011	±2.5	PASS
GPRS1900	661	0	NV	-20	-31.90	-0.016968	±2.5	PASS
GPRS1900	661	0	NV	-10	-22.34	-0.011883	±2.5	PASS
GPRS1900	661	0	NV	0	-22.05	-0.011729	±2.5	PASS
GPRS1900	661	0	NV	10	-21.31	-0.011335	±2.5	PASS
GPRS1900	661	0	NV	20	-13.11	-0.006973	±2.5	PASS
GPRS1900	661	0	NV	30	-19.37	-0.010303	±2.5	PASS
GPRS1900	661	0	NV	40	-13.14	-0.006989	±2.5	PASS
GPRS1900	661	0	NV	50	-26.60	-0.014149	±2.5	PASS
GPRS1900	810	0	NV	-30	-14.01	-0.007336	±2.5	PASS
GPRS1900	810	0	NV	-20	-17.43	-0.009127	±2.5	PASS
GPRS1900	810	0	NV	-10	-9.59	-0.005021	±2.5	PASS
GPRS1900	810	0	NV	0	-38.45	-0.020133	±2.5	PASS
GPRS1900	810	0	NV	10	-11.98	-0.006273	±2.5	PASS
GPRS1900	810	0	NV	20	-17.66	-0.009247	±2.5	PASS
GPRS1900	810	0	NV	30	-14.50	-0.007592	±2.5	PASS
GPRS1900	810	0	NV	40	-13.08	-0.006849	±2.5	PASS
GPRS1900	810	0	NV	50	-24.18	-0.012661	±2.5	PASS
EGPRS1900	512	2	NV	-30	-32.80	-0.017728	±2.5	PASS
EGPRS1900	512	2	NV	-20	4.36	0.002357	±2.5	PASS
EGPRS1900	512	2	NV	-10	-8.59	-0.004643	±2.5	PASS
EGPRS1900	512	2	NV	0	-20.18	-0.010907	±2.5	PASS
EGPRS1900	512	2	NV	10	-9.52	-0.005145	±2.5	PASS

EGPRS19 00	512	2	NV	20	-0.13	-0.000070	±2.5	PASS
EGPRS19 00	512	2	NV	30	-4.20	-0.002270	±2.5	PASS
EGPRS19 00	512	2	NV	40	-11.36	-0.006140	±2.5	PASS
EGPRS19 00	512	2	NV	50	-5.49	-0.002967	±2.5	PASS
EGPRS19 00	661	2	NV	-30	-25.96	-0.013809	±2.5	PASS
EGPRS19 00	661	2	NV	-20	-18.60	-0.009894	±2.5	PASS
EGPRS19 00	661	2	NV	-10	-26.51	-0.014101	±2.5	PASS
EGPRS19 00	661	2	NV	0	-26.47	-0.014080	±2.5	PASS
EGPRS19 00	661	2	NV	10	-30.83	-0.016399	±2.5	PASS
EGPRS19 00	661	2	NV	20	-19.69	-0.010473	±2.5	PASS
EGPRS19 00	661	2	NV	30	-8.23	-0.004378	±2.5	PASS
EGPRS19 00	661	2	NV	40	-11.62	-0.006181	±2.5	PASS
EGPRS19 00	661	2	NV	50	-13.72	-0.007298	±2.5	PASS
EGPRS19 00	810	2	NV	-30	-28.02	-0.014672	±2.5	PASS
EGPRS19 00	810	2	NV	-20	-15.46	-0.008095	±2.5	PASS
EGPRS19 00	810	2	NV	-10	-11.01	-0.005765	±2.5	PASS
EGPRS19 00	810	2	NV	0	-13.98	-0.007320	±2.5	PASS
EGPRS19 00	810	2	NV	10	1.07	0.000560	±2.5	PASS
EGPRS19	810	2	NV	20	-2.62	-0.001372	±2.5	PASS

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EGPRS19 00	810	2	NV	30	-29.09	-0.015232	±2.5	PASS
EGPRS19 00	810	2	NV	40	-10.46	-0.005477	±2.5	PASS
EGPRS19 00	810	2	NV	50	-18.95	-0.009923	±2.5	PASS

