

# 1. Frequency Stability

## 1.1 GSM850

### 1.1.1 Test Result

Band: GSM850							
Network	Frequency (MHz)	Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
					Result	Limit	
GPRS	824.2	20	3.3	-4.466	-0.0054	-2.5 to 2.5	Pass
			3.6	-9.916	-0.0120	-2.5 to 2.5	Pass
			4.2	-4.924	-0.0060	-2.5 to 2.5	Pass
		-30	3.6	-10.745	-0.0130	-2.5 to 2.5	Pass
		-20	3.6	-5.961	-0.0072	-2.5 to 2.5	Pass
		-10	3.6	-4.692	-0.0057	-2.5 to 2.5	Pass
		0	3.6	-5.102	-0.0062	-2.5 to 2.5	Pass
		10	3.6	-3.618	-0.0044	-2.5 to 2.5	Pass
		30	3.6	0.234	0.0003	-2.5 to 2.5	Pass
		40	3.6	-3.976	-0.0048	-2.5 to 2.5	Pass
		50	3.6	-9.232	-0.0112	-2.5 to 2.5	Pass
	836.6	20	3.3	-7.641	-0.0091	-2.5 to 2.5	Pass
			3.6	-3.292	-0.0039	-2.5 to 2.5	Pass
			4.2	-6.464	-0.0077	-2.5 to 2.5	Pass
		-30	3.6	-7.559	-0.0090	-2.5 to 2.5	Pass
		-20	3.6	-4.000	-0.0048	-2.5 to 2.5	Pass
		-10	3.6	1.882	0.0022	-2.5 to 2.5	Pass
		0	3.6	-2.867	-0.0034	-2.5 to 2.5	Pass
		10	3.6	1.076	0.0013	-2.5 to 2.5	Pass
		30	3.6	-5.541	-0.0066	-2.5 to 2.5	Pass
		40	3.6	-0.974	-0.0012	-2.5 to 2.5	Pass
		50	3.6	-4.624	-0.0055	-2.5 to 2.5	Pass
	848.8	20	3.3	-2.067	-0.0024	-2.5 to 2.5	Pass
			3.6	-7.783	-0.0092	-2.5 to 2.5	Pass
			4.2	-8.793	-0.0104	-2.5 to 2.5	Pass
		-30	3.6	-5.316	-0.0063	-2.5 to 2.5	Pass
		-20	3.6	-4.401	-0.0052	-2.5 to 2.5	Pass
		-10	3.6	-6.432	-0.0076	-2.5 to 2.5	Pass
		0	3.6	-8.085	-0.0095	-2.5 to 2.5	Pass
		10	3.6	-0.361	-0.0004	-2.5 to 2.5	Pass
		30	3.6	-7.863	-0.0093	-2.5 to 2.5	Pass
		40	3.6	-4.055	-0.0048	-2.5 to 2.5	Pass
		50	3.6	-4.712	-0.0056	-2.5 to 2.5	Pass
EGPRS	824.2	20	3.3	-12.854	-0.0156	-2.5 to 2.5	Pass
			3.6	-13.510	-0.0164	-2.5 to 2.5	Pass
			4.2	-14.953	-0.0181	-2.5 to 2.5	Pass
		-30	3.6	-11.594	-0.0141	-2.5 to 2.5	Pass
		-20	3.6	-10.922	-0.0133	-2.5 to 2.5	Pass
		-10	3.6	-9.551	-0.0116	-2.5 to 2.5	Pass
		0	3.6	-13.610	-0.0165	-2.5 to 2.5	Pass
		10	3.6	-11.940	-0.0145	-2.5 to 2.5	Pass
		30	3.6	-11.896	-0.0144	-2.5 to 2.5	Pass
		40	3.6	-13.105	-0.0159	-2.5 to 2.5	Pass
	836.6	20	3.6	-8.085	-0.0098	-2.5 to 2.5	Pass
			3.3	-14.260	-0.0170	-2.5 to 2.5	Pass
			3.6	-16.529	-0.0198	-2.5 to 2.5	Pass

			4.2	-2.237	-0.0027	-2.5 to 2.5	Pass
		-30	3.6	-9.543	-0.0114	-2.5 to 2.5	Pass
		-20	3.6	-12.924	-0.0154	-2.5 to 2.5	Pass
		-10	3.6	-10.964	-0.0131	-2.5 to 2.5	Pass
		0	3.6	-16.624	-0.0199	-2.5 to 2.5	Pass
		10	3.6	-14.736	-0.0176	-2.5 to 2.5	Pass
		30	3.6	-12.000	-0.0143	-2.5 to 2.5	Pass
		40	3.6	-11.303	-0.0135	-2.5 to 2.5	Pass
		50	3.6	-13.241	-0.0158	-2.5 to 2.5	Pass
	848.8	20	3.3	-18.378	-0.0217	-2.5 to 2.5	Pass
			3.6	-11.570	-0.0136	-2.5 to 2.5	Pass
			4.2	-13.228	-0.0156	-2.5 to 2.5	Pass
		-30	3.6	-17.831	-0.0210	-2.5 to 2.5	Pass
		-20	3.6	-16.071	-0.0189	-2.5 to 2.5	Pass
		-10	3.6	-8.109	-0.0096	-2.5 to 2.5	Pass
		0	3.6	-12.236	-0.0144	-2.5 to 2.5	Pass
		10	3.6	-13.355	-0.0157	-2.5 to 2.5	Pass
		30	3.6	-15.247	-0.0180	-2.5 to 2.5	Pass
		40	3.6	-14.576	-0.0172	-2.5 to 2.5	Pass
		50	3.6	-20.895	-0.0246	-2.5 to 2.5	Pass

## 2. Frequency Stability

### 2.1 PCS1900

#### 2.1.1 Test Result

Band: PCS1900							
Network	Frequency (MHz)	Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
					Result	Limit	
GPRS	1850.2	20	3.3	-8.249	-0.0045	-2.5 to 2.5	Pass
			3.6	-2.998	-0.0016	-2.5 to 2.5	Pass
			4.2	-10.205	-0.0055	-2.5 to 2.5	Pass
		-30	3.6	-13.069	-0.0071	-2.5 to 2.5	Pass
		-20	3.6	-4.555	-0.0025	-2.5 to 2.5	Pass
		-10	3.6	2.922	0.0016	-2.5 to 2.5	Pass
		0	3.6	6.872	0.0037	-2.5 to 2.5	Pass
		10	3.6	-6.003	-0.0032	-2.5 to 2.5	Pass
		30	3.6	6.467	0.0035	-2.5 to 2.5	Pass
		40	3.6	11.630	0.0063	-2.5 to 2.5	Pass
		50	3.6	6.238	0.0034	-2.5 to 2.5	Pass
	1880	20	3.3	-2.233	-0.0012	-2.5 to 2.5	Pass
			3.6	-8.560	-0.0046	-2.5 to 2.5	Pass
			4.2	-3.855	-0.0021	-2.5 to 2.5	Pass
		-30	3.6	-1.411	-0.0008	-2.5 to 2.5	Pass
		-20	3.6	3.325	0.0018	-2.5 to 2.5	Pass
		-10	3.6	-3.422	-0.0018	-2.5 to 2.5	Pass
		0	3.6	-0.698	-0.0004	-2.5 to 2.5	Pass
		10	3.6	6.672	0.0035	-2.5 to 2.5	Pass
		30	3.6	-0.619	-0.0003	-2.5 to 2.5	Pass
		40	3.6	8.255	0.0044	-2.5 to 2.5	Pass
		50	3.6	8.045	0.0043	-2.5 to 2.5	Pass
	1909.8	20	3.3	-11.811	-0.0062	-2.5 to 2.5	Pass
			3.6	4.256	0.0022	-2.5 to 2.5	Pass

			4.2	-9.017	-0.0047	-2.5 to 2.5	Pass
		-30	3.6	0.333	0.0002	-2.5 to 2.5	Pass
		-20	3.6	2.311	0.0012	-2.5 to 2.5	Pass
		-10	3.6	1.647	0.0009	-2.5 to 2.5	Pass
		0	3.6	3.587	0.0019	-2.5 to 2.5	Pass
		10	3.6	-3.579	-0.0019	-2.5 to 2.5	Pass
		30	3.6	-7.706	-0.0040	-2.5 to 2.5	Pass
		40	3.6	-5.071	-0.0027	-2.5 to 2.5	Pass
		50	3.6	-5.058	-0.0026	-2.5 to 2.5	Pass
EGPRS	1850.2	20	3.27	-6.880	-0.0037	-2.5 to 2.5	Pass
			3.85	1.328	0.0007	-2.5 to 2.5	Pass
			4.43	-4.163	-0.0023	-2.5 to 2.5	Pass
		-30	3.85	-0.466	-0.0003	-2.5 to 2.5	Pass
		-20	3.85	-0.042	0.0000	-2.5 to 2.5	Pass
		-10	3.85	2.615	0.0014	-2.5 to 2.5	Pass
		0	3.85	-7.175	-0.0039	-2.5 to 2.5	Pass
		10	3.85	-2.705	-0.0015	-2.5 to 2.5	Pass
		30	3.85	4.690	0.0025	-2.5 to 2.5	Pass
		40	3.85	4.812	0.0026	-2.5 to 2.5	Pass
		50	3.85	0.676	0.0004	-2.5 to 2.5	Pass
	1880	20	3.27	-3.109	-0.0017	-2.5 to 2.5	Pass
			3.85	-0.353	-0.0002	-2.5 to 2.5	Pass
			4.43	-8.256	-0.0044	-2.5 to 2.5	Pass
		-30	3.85	-6.807	-0.0036	-2.5 to 2.5	Pass
		-20	3.85	0.361	0.0002	-2.5 to 2.5	Pass
		-10	3.85	-20.612	-0.0110	-2.5 to 2.5	Pass
		0	3.85	-23.481	-0.0125	-2.5 to 2.5	Pass
		10	3.85	2.650	0.0014	-2.5 to 2.5	Pass
		30	3.85	-20.292	-0.0108	-2.5 to 2.5	Pass
		40	3.85	-25.910	-0.0138	-2.5 to 2.5	Pass
		50	3.85	-18.695	-0.0099	-2.5 to 2.5	Pass
	1909.8	20	3.27	-0.239	-0.0001	-2.5 to 2.5	Pass
			3.85	-3.342	-0.0017	-2.5 to 2.5	Pass
			4.43	-23.861	-0.0125	-2.5 to 2.5	Pass
		-30	3.85	-16.414	-0.0086	-2.5 to 2.5	Pass
		-20	3.85	-17.141	-0.0090	-2.5 to 2.5	Pass
		-10	3.85	-12.727	-0.0067	-2.5 to 2.5	Pass
		0	3.85	-16.706	-0.0087	-2.5 to 2.5	Pass
		10	3.85	-20.301	-0.0106	-2.5 to 2.5	Pass
		30	3.85	-18.603	-0.0097	-2.5 to 2.5	Pass
		40	3.85	-9.474	-0.0050	-2.5 to 2.5	Pass
		50	3.85	-9.931	-0.0052	-2.5 to 2.5	Pass