

# 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	3.23	-5.935	-0.0072	-2.5 to 2.5	Pass
			3.80	-3.818	-0.0046	-2.5 to 2.5	Pass
			4.37	-9.211	-0.0112	-2.5 to 2.5	Pass
		-30	3.80	-10.546	-0.0128	-2.5 to 2.5	Pass
		-20	3.80	-4.629	-0.0056	-2.5 to 2.5	Pass
		-10	3.80	-12.950	-0.0157	-2.5 to 2.5	Pass
		0	3.80	-6.966	-0.0085	-2.5 to 2.5	Pass
		10	3.80	-6.428	-0.0078	-2.5 to 2.5	Pass
		30	3.80	-1.180	-0.0014	-2.5 to 2.5	Pass
		40	3.80	-2.163	-0.0026	-2.5 to 2.5	Pass
	50	3.80	-13.428	-0.0163	-2.5 to 2.5	Pass	
	836.6	20	3.23	-8.250	-0.0099	-2.5 to 2.5	Pass
			3.80	-1.607	-0.0019	-2.5 to 2.5	Pass
			4.37	-10.313	-0.0123	-2.5 to 2.5	Pass
		-30	3.80	-9.086	-0.0109	-2.5 to 2.5	Pass
		-20	3.80	-11.015	-0.0132	-2.5 to 2.5	Pass
		-10	3.80	0.424	0.0005	-2.5 to 2.5	Pass
		0	3.80	-4.196	-0.0050	-2.5 to 2.5	Pass
		10	3.80	-13.871	-0.0166	-2.5 to 2.5	Pass
		30	3.80	4.420	0.0053	-2.5 to 2.5	Pass
		40	3.80	-2.771	-0.0033	-2.5 to 2.5	Pass
	50	3.80	-10.415	-0.0124	-2.5 to 2.5	Pass	
	848.8	20	3.23	-5.863	-0.0069	-2.5 to 2.5	Pass
			3.80	-3.822	-0.0045	-2.5 to 2.5	Pass
			4.37	-6.144	-0.0072	-2.5 to 2.5	Pass
		-30	3.80	-5.481	-0.0065	-2.5 to 2.5	Pass
		-20	3.80	5.914	0.0070	-2.5 to 2.5	Pass
		-10	3.80	-0.804	-0.0009	-2.5 to 2.5	Pass
		0	3.80	-11.912	-0.0140	-2.5 to 2.5	Pass
		10	3.80	-7.180	-0.0085	-2.5 to 2.5	Pass
30		3.80	-13.739	-0.0162	-2.5 to 2.5	Pass	
40		3.80	4.857	0.0057	-2.5 to 2.5	Pass	
50	3.80	2.133	0.0025	-2.5 to 2.5	Pass		
EGPRS	824.2	20	3.23	-2.334	-0.0028	-2.5 to 2.5	Pass
			3.80	-2.815	-0.0034	-2.5 to 2.5	Pass
			4.37	-0.814	-0.0010	-2.5 to 2.5	Pass
		-30	3.80	-2.379	-0.0029	-2.5 to 2.5	Pass
		-20	3.80	-0.690	-0.0008	-2.5 to 2.5	Pass
		-10	3.80	-2.476	-0.0030	-2.5 to 2.5	Pass
		0	3.80	-8.616	-0.0105	-2.5 to 2.5	Pass
		10	3.80	-1.112	-0.0013	-2.5 to 2.5	Pass
		30	3.80	-0.133	-0.0002	-2.5 to 2.5	Pass
		40	3.80	-2.643	-0.0032	-2.5 to 2.5	Pass
	50	3.80	-6.109	-0.0074	-2.5 to 2.5	Pass	
	836.6	20	3.23	4.621	0.0055	-2.5 to 2.5	Pass
			3.80	-2.879	-0.0034	-2.5 to 2.5	Pass

			4.37	-2.445	-0.0029	-2.5 to 2.5	Pass	
		-30	3.80	-2.192	-0.0026	-2.5 to 2.5	Pass	
		-20	3.80	-12.601	-0.0151	-2.5 to 2.5	Pass	
		-10	3.80	-11.305	-0.0135	-2.5 to 2.5	Pass	
		0	3.80	-2.548	-0.0030	-2.5 to 2.5	Pass	
		10	3.80	-4.862	-0.0058	-2.5 to 2.5	Pass	
		30	3.80	-8.833	-0.0106	-2.5 to 2.5	Pass	
		40	3.80	-3.514	-0.0042	-2.5 to 2.5	Pass	
	50	3.80	-0.749	-0.0009	-2.5 to 2.5	Pass		
	848.8	20		3.23	0.723	0.0009	-2.5 to 2.5	Pass
				3.80	-6.516	-0.0077	-2.5 to 2.5	Pass
				4.37	-8.589	-0.0101	-2.5 to 2.5	Pass
			-30	3.80	-2.724	-0.0032	-2.5 to 2.5	Pass
			-20	3.80	-13.267	-0.0156	-2.5 to 2.5	Pass
			-10	3.80	-7.707	-0.0091	-2.5 to 2.5	Pass
			0	3.80	-13.970	-0.0165	-2.5 to 2.5	Pass
			10	3.80	-15.368	-0.0181	-2.5 to 2.5	Pass
			30	3.80	-9.021	-0.0106	-2.5 to 2.5	Pass
			40	3.80	-5.739	-0.0068	-2.5 to 2.5	Pass
			50	3.80	-8.572	-0.0101	-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	3.23	-14.392	-0.0078	-2.5 to 2.5	Pass
			3.80	-37.680	-0.0204	-2.5 to 2.5	Pass
			4.37	-34.042	-0.0184	-2.5 to 2.5	Pass
		-30	3.80	-19.107	-0.0103	-2.5 to 2.5	Pass
		-20	3.80	-30.469	-0.0165	-2.5 to 2.5	Pass
		-10	3.80	-24.253	-0.0131	-2.5 to 2.5	Pass
		0	3.80	-48.122	-0.0260	-2.5 to 2.5	Pass
		10	3.80	-31.896	-0.0172	-2.5 to 2.5	Pass
		30	3.80	-30.522	-0.0165	-2.5 to 2.5	Pass
	40	3.80	-26.076	-0.0141	-2.5 to 2.5	Pass	
	50	3.80	-31.765	-0.0172	-2.5 to 2.5	Pass	
	1880	20	3.23	-5.437	-0.0029	-2.5 to 2.5	Pass
			3.80	-11.754	-0.0063	-2.5 to 2.5	Pass
			4.37	-31.975	-0.0170	-2.5 to 2.5	Pass
		-30	3.80	-5.803	-0.0031	-2.5 to 2.5	Pass
		-20	3.80	-23.832	-0.0127	-2.5 to 2.5	Pass
		-10	3.80	-38.221	-0.0203	-2.5 to 2.5	Pass
		0	3.80	-9.360	-0.0050	-2.5 to 2.5	Pass
		10	3.80	-16.981	-0.0090	-2.5 to 2.5	Pass
		30	3.80	-11.228	-0.0060	-2.5 to 2.5	Pass
	40	3.80	-11.680	-0.0062	-2.5 to 2.5	Pass	
	50	3.80	-14.995	-0.0080	-2.5 to 2.5	Pass	
	1909.8	20	3.23	-6.658	-0.0035	-2.5 to 2.5	Pass
			3.80	-36.255	-0.0190	-2.5 to 2.5	Pass
			4.37	-31.388	-0.0164	-2.5 to 2.5	Pass
		-30	3.80	-27.610	-0.0145	-2.5 to 2.5	Pass
		-20	3.80	-32.420	-0.0170	-2.5 to 2.5	Pass
		-10	3.80	-29.795	-0.0156	-2.5 to 2.5	Pass
		0	3.80	-29.944	-0.0157	-2.5 to 2.5	Pass
		10	3.80	-24.247	-0.0127	-2.5 to 2.5	Pass
30		3.80	-29.110	-0.0152	-2.5 to 2.5	Pass	
40	3.80	-14.264	-0.0075	-2.5 to 2.5	Pass		
50	3.80	-31.393	-0.0164	-2.5 to 2.5	Pass		
EGPRS	1850.2	20	3.23	-4.662	-0.0025	-2.5 to 2.5	Pass
			3.80	-14.347	-0.0078	-2.5 to 2.5	Pass
			4.37	-10.935	-0.0059	-2.5 to 2.5	Pass
		-30	3.80	-12.153	-0.0066	-2.5 to 2.5	Pass
		-20	3.80	-19.971	-0.0108	-2.5 to 2.5	Pass
		-10	3.80	-23.601	-0.0128	-2.5 to 2.5	Pass
		0	3.80	4.846	0.0026	-2.5 to 2.5	Pass
		10	3.80	-29.346	-0.0159	-2.5 to 2.5	Pass
		30	3.80	-18.014	-0.0097	-2.5 to 2.5	Pass
40	3.80	-8.452	-0.0046	-2.5 to 2.5	Pass		
50	3.80	-7.872	-0.0043	-2.5 to 2.5	Pass		

	1880	20	3.23	-18.095	-0.0096	-2.5 to 2.5	Pass
			3.80	-11.263	-0.0060	-2.5 to 2.5	Pass
			4.37	-10.697	-0.0057	-2.5 to 2.5	Pass
		-30	3.80	-5.064	-0.0027	-2.5 to 2.5	Pass
		-20	3.80	-5.029	-0.0027	-2.5 to 2.5	Pass
		-10	3.80	-18.782	-0.0100	-2.5 to 2.5	Pass
		0	3.80	-33.594	-0.0179	-2.5 to 2.5	Pass
		10	3.80	5.573	0.0030	-2.5 to 2.5	Pass
		30	3.80	-24.734	-0.0132	-2.5 to 2.5	Pass
		40	3.80	-18.588	-0.0099	-2.5 to 2.5	Pass
	50	3.80	-8.167	-0.0043	-2.5 to 2.5	Pass	
	1909.8	20	3.23	-7.688	-0.0040	-2.5 to 2.5	Pass
			3.80	-4.532	-0.0024	-2.5 to 2.5	Pass
			4.37	1.165	0.0006	-2.5 to 2.5	Pass
		-30	3.80	-16.273	-0.0085	-2.5 to 2.5	Pass
		-20	3.80	-10.926	-0.0057	-2.5 to 2.5	Pass
		-10	3.80	-14.571	-0.0076	-2.5 to 2.5	Pass
		0	3.80	-26.281	-0.0138	-2.5 to 2.5	Pass
		10	3.80	-12.341	-0.0065	-2.5 to 2.5	Pass
		30	3.80	-10.722	-0.0056	-2.5 to 2.5	Pass
40		3.80	-18.303	-0.0096	-2.5 to 2.5	Pass	
50	3.80	-23.907	-0.0125	-2.5 to 2.5	Pass		