

# 1. Frequency Stability

## 1.1 GSM850

### 1.1.1 Test Result

Network	Frequency (MHz)	Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict		
					Result	Limit			
GPRS	824.2	20	3.4	-13.818	-0.0168	-2.5 to 2.5	Pass		
			3.85	-15.755	-0.0191	-2.5 to 2.5	Pass		
			4.40	-9.201	-0.0112	-2.5 to 2.5	Pass		
			-30	3.85	-11.720	-0.0142	-2.5 to 2.5	Pass	
			-20	3.85	-9.621	-0.0117	-2.5 to 2.5	Pass	
			-10	3.85	-10.428	-0.0127	-2.5 to 2.5	Pass	
			0	3.85	-8.459	-0.0103	-2.5 to 2.5	Pass	
			10	3.85	-13.205	-0.0160	-2.5 to 2.5	Pass	
			30	3.85	-10.105	-0.0123	-2.5 to 2.5	Pass	
			40	3.85	-6.360	-0.0077	-2.5 to 2.5	Pass	
		50	3.85	-8.717	-0.0106	-2.5 to 2.5	Pass		
	836.6		3.4	-17.015	-0.0203	-2.5 to 2.5	Pass		
			3.85	-14.367	-0.0172	-2.5 to 2.5	Pass		
			4.40	-14.399	-0.0172	-2.5 to 2.5	Pass		
			-30	3.85	-12.850	-0.0154	-2.5 to 2.5	Pass	
			-20	3.85	-12.269	-0.0147	-2.5 to 2.5	Pass	
			-10	3.85	-12.527	-0.0150	-2.5 to 2.5	Pass	
			0	3.85	-7.878	-0.0094	-2.5 to 2.5	Pass	
			10	3.85	-19.178	-0.0229	-2.5 to 2.5	Pass	
			30	3.85	-11.009	-0.0132	-2.5 to 2.5	Pass	
			40	3.85	-12.301	-0.0147	-2.5 to 2.5	Pass	
			50	3.85	-12.139	-0.0145	-2.5 to 2.5	Pass	
EGPRS	848.8	20	3.4	-5.424	-0.0064	-2.5 to 2.5	Pass		
			3.85	-13.786	-0.0162	-2.5 to 2.5	Pass		
			4.40	-9.201	-0.0108	-2.5 to 2.5	Pass		
			-30	3.85	-9.072	-0.0107	-2.5 to 2.5	Pass	
			-20	3.85	-13.786	-0.0162	-2.5 to 2.5	Pass	
			-10	3.85	-10.105	-0.0119	-2.5 to 2.5	Pass	
			0	3.85	-10.751	-0.0127	-2.5 to 2.5	Pass	
			10	3.85	-9.750	-0.0115	-2.5 to 2.5	Pass	
			30	3.85	-9.912	-0.0117	-2.5 to 2.5	Pass	
			40	3.85	-3.616	-0.0043	-2.5 to 2.5	Pass	
			50	3.85	-10.105	-0.0119	-2.5 to 2.5	Pass	
		824.2	3.4	-13.366	-0.0162	-2.5 to 2.5	Pass		
			20	3.85	-14.625	-0.0177	-2.5 to 2.5	Pass	
			4.40	-18.435	-0.0224	-2.5 to 2.5	Pass		
			-30	3.85	-14.270	-0.0173	-2.5 to 2.5	Pass	
			-20	3.85	-13.043	-0.0158	-2.5 to 2.5	Pass	
			-10	3.85	-12.139	-0.0147	-2.5 to 2.5	Pass	
			0	3.85	-13.302	-0.0161	-2.5 to 2.5	Pass	
			10	3.85	-14.981	-0.0182	-2.5 to 2.5	Pass	
			30	3.85	-15.013	-0.0182	-2.5 to 2.5	Pass	
			40	3.85	-15.336	-0.0186	-2.5 to 2.5	Pass	
			50	3.85	-16.756	-0.0203	-2.5 to 2.5	Pass	
	836.6	20	3.4	-17.208	-0.0206	-2.5 to 2.5	Pass		
			3.85	-19.533	-0.0233	-2.5 to 2.5	Pass		
			4.40	-22.148	-0.0265	-2.5 to 2.5	Pass		
			-30	3.85	-19.694	-0.0235	-2.5 to 2.5	Pass	
			-20	3.85	-10.783	-0.0129	-2.5 to 2.5	Pass	

		-10	3.85	-18.177	-0.0217	-2.5 to 2.5	Pass
		0	3.85	-18.887	-0.0226	-2.5 to 2.5	Pass
		10	3.85	-10.913	-0.0130	-2.5 to 2.5	Pass
		30	3.85	-17.596	-0.0210	-2.5 to 2.5	Pass
		40	3.85	-17.144	-0.0205	-2.5 to 2.5	Pass
		50	3.85	-13.205	-0.0158	-2.5 to 2.5	Pass
	848.8		3.4	-15.659	-0.0184	-2.5 to 2.5	Pass
		20	3.85	-9.750	-0.0115	-2.5 to 2.5	Pass
			4.40	-15.433	-0.0182	-2.5 to 2.5	Pass
		-30	3.85	-12.979	-0.0153	-2.5 to 2.5	Pass
		-20	3.85	-11.365	-0.0134	-2.5 to 2.5	Pass
		-10	3.85	-18.984	-0.0224	-2.5 to 2.5	Pass
		0	3.85	-16.337	-0.0192	-2.5 to 2.5	Pass
		10	3.85	-15.497	-0.0183	-2.5 to 2.5	Pass
		30	3.85	-15.045	-0.0177	-2.5 to 2.5	Pass
		40	3.85	-16.272	-0.0192	-2.5 to 2.5	Pass
		50	3.85	-13.076	-0.0154	-2.5 to 2.5	Pass

## 2. Frequency Stability

### 2.1 PCS1900

#### 2.1.1 Test Result

Network	Frequency (MHz)	Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Band: PCS1900		Verdict
					Result	Limit	
GPRS	1850.2	20	3.4	-6.554	-0.0035	-2.5 to 2.5	Pass
			3.85	3.035	0.0016	-2.5 to 2.5	Pass
			4.40	-15.594	-0.0084	-2.5 to 2.5	Pass
			-30	3.85	-5.037	-0.0027	-2.5 to 2.5
			-20	3.85	-8.362	-0.0045	-2.5 to 2.5
			-10	3.85	-2.228	-0.0012	-2.5 to 2.5
			0	3.85	-5.811	-0.0031	-2.5 to 2.5
			10	3.85	0.743	0.0004	-2.5 to 2.5
			30	3.85	-15.207	-0.0082	-2.5 to 2.5
			40	3.85	-0.969	-0.0005	-2.5 to 2.5
			50	3.85	-4.617	-0.0025	-2.5 to 2.5
	1880	20	3.4	-11.074	-0.0059	-2.5 to 2.5	Pass
			3.85	4.585	0.0024	-2.5 to 2.5	Pass
			4.40	-7.523	-0.0040	-2.5 to 2.5	Pass
			-30	3.85	-2.518	-0.0013	-2.5 to 2.5
			-20	3.85	-6.037	-0.0032	-2.5 to 2.5
			-10	3.85	-14.077	-0.0075	-2.5 to 2.5
			0	3.85	6.651	0.0035	-2.5 to 2.5
			10	3.85	-2.938	-0.0016	-2.5 to 2.5
			30	3.85	7.781	0.0041	-2.5 to 2.5
			40	3.85	-3.842	-0.0020	-2.5 to 2.5
	1909.8	20	3.4	7.813	0.0041	-2.5 to 2.5	Pass
			3.85	-6.005	-0.0031	-2.5 to 2.5	Pass
			4.40	-5.876	-0.0031	-2.5 to 2.5	Pass
			-30	3.85	5.489	0.0029	-2.5 to 2.5
			-20	3.85	-1.033	-0.0005	-2.5 to 2.5
	1909.8	0	-10	3.85	-0.097	-0.0001	-2.5 to 2.5
			0	3.85	-7.458	-0.0039	-2.5 to 2.5

	EGPRS		10	3.85	-5.392	-0.0028	-2.5 to 2.5	Pass
			30	3.85	-11.009	-0.0058	-2.5 to 2.5	Pass
			40	3.85	-19.242	-0.0101	-2.5 to 2.5	Pass
			50	3.85	-16.272	-0.0085	-2.5 to 2.5	Pass
		1850.2	20	3.4	-12.688	-0.0069	-2.5 to 2.5	Pass
			20	3.85	-11.365	-0.0061	-2.5 to 2.5	Pass
			20	4.40	-9.105	-0.0049	-2.5 to 2.5	Pass
			-30	3.85	-6.974	-0.0038	-2.5 to 2.5	Pass
			-20	3.85	-8.717	-0.0047	-2.5 to 2.5	Pass
			-10	3.85	-13.140	-0.0071	-2.5 to 2.5	Pass
			0	3.85	-6.425	-0.0035	-2.5 to 2.5	Pass
			10	3.85	-7.490	-0.0040	-2.5 to 2.5	Pass
			30	3.85	-10.654	-0.0058	-2.5 to 2.5	Pass
			40	3.85	-12.107	-0.0065	-2.5 to 2.5	Pass
			50	3.85	-12.462	-0.0067	-2.5 to 2.5	Pass
		1880	20	3.4	-18.661	-0.0099	-2.5 to 2.5	Pass
			20	3.85	-9.363	-0.0050	-2.5 to 2.5	Pass
			20	4.40	-8.556	-0.0046	-2.5 to 2.5	Pass
			-30	3.85	-9.331	-0.0050	-2.5 to 2.5	Pass
			-20	3.85	-12.365	-0.0066	-2.5 to 2.5	Pass
			-10	3.85	-12.462	-0.0066	-2.5 to 2.5	Pass
			0	3.85	2.195	0.0012	-2.5 to 2.5	Pass
			10	3.85	3.358	0.0018	-2.5 to 2.5	Pass
			30	3.85	3.099	0.0016	-2.5 to 2.5	Pass
			40	3.85	-2.421	-0.0013	-2.5 to 2.5	Pass
			50	3.85	6.037	0.0032	-2.5 to 2.5	Pass
		1909.8	20	3.4	-4.229	-0.0022	-2.5 to 2.5	Pass
			20	3.85	-6.328	-0.0033	-2.5 to 2.5	Pass
			20	4.40	-4.681	-0.0025	-2.5 to 2.5	Pass
			-30	3.85	1.840	0.0010	-2.5 to 2.5	Pass
			-20	3.85	-7.587	-0.0040	-2.5 to 2.5	Pass
			-10	3.85	-8.330	-0.0044	-2.5 to 2.5	Pass
			0	3.85	-5.941	-0.0031	-2.5 to 2.5	Pass
			10	3.85	-7.103	-0.0037	-2.5 to 2.5	Pass
			30	3.85	-4.036	-0.0021	-2.5 to 2.5	Pass
			40	3.85	-1.291	-0.0007	-2.5 to 2.5	Pass
			50	3.85	-0.872	-0.0005	-2.5 to 2.5	Pass