

# 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	3.27	32.124	0.0390	-2.5 to 2.5	Pass
			3.85	30.768	0.0373	-2.5 to 2.5	Pass
			4.43	32.480	0.0394	-2.5 to 2.5	Pass
		-30	3.85	32.770	0.0398	-2.5 to 2.5	Pass
		-20	3.85	32.350	0.0393	-2.5 to 2.5	Pass
		-10	3.85	32.060	0.0389	-2.5 to 2.5	Pass
		0	3.85	31.898	0.0387	-2.5 to 2.5	Pass
		10	3.85	31.931	0.0387	-2.5 to 2.5	Pass
		30	3.85	30.478	0.0370	-2.5 to 2.5	Pass
		40	3.85	30.930	0.0375	-2.5 to 2.5	Pass
	50	3.85	32.641	0.0396	-2.5 to 2.5	Pass	
	836.6	20	3.27	31.866	0.0381	-2.5 to 2.5	Pass
			3.85	32.544	0.0389	-2.5 to 2.5	Pass
			4.43	32.447	0.0388	-2.5 to 2.5	Pass
		-30	3.85	32.254	0.0386	-2.5 to 2.5	Pass
		-20	3.85	31.220	0.0373	-2.5 to 2.5	Pass
		-10	3.85	30.962	0.0370	-2.5 to 2.5	Pass
		0	3.85	31.285	0.0374	-2.5 to 2.5	Pass
		10	3.85	31.963	0.0382	-2.5 to 2.5	Pass
		30	3.85	32.189	0.0385	-2.5 to 2.5	Pass
		40	3.85	29.735	0.0355	-2.5 to 2.5	Pass
	50	3.85	31.156	0.0372	-2.5 to 2.5	Pass	
	848.8	20	3.27	30.090	0.0355	-2.5 to 2.5	Pass
			3.85	28.702	0.0338	-2.5 to 2.5	Pass
			4.43	28.282	0.0333	-2.5 to 2.5	Pass
		-30	3.85	28.315	0.0334	-2.5 to 2.5	Pass
		-20	3.85	28.444	0.0335	-2.5 to 2.5	Pass
		-10	3.85	29.477	0.0347	-2.5 to 2.5	Pass
		0	3.85	27.120	0.0320	-2.5 to 2.5	Pass
		10	3.85	28.412	0.0335	-2.5 to 2.5	Pass
30		3.85	27.960	0.0329	-2.5 to 2.5	Pass	
40		3.85	28.186	0.0332	-2.5 to 2.5	Pass	
50	3.85	30.155	0.0355	-2.5 to 2.5	Pass		
EGPRS	824.2	20	3.27	39.227	0.0476	-2.5 to 2.5	Pass
			3.85	40.034	0.0486	-2.5 to 2.5	Pass
			4.43	38.808	0.0471	-2.5 to 2.5	Pass
		-30	3.85	41.100	0.0499	-2.5 to 2.5	Pass
		-20	3.85	41.520	0.0504	-2.5 to 2.5	Pass
		-10	3.85	37.161	0.0451	-2.5 to 2.5	Pass
		0	3.85	36.580	0.0444	-2.5 to 2.5	Pass
		10	3.85	36.709	0.0445	-2.5 to 2.5	Pass
		30	3.85	39.582	0.0480	-2.5 to 2.5	Pass
		40	3.85	38.388	0.0466	-2.5 to 2.5	Pass
	50	3.85	37.258	0.0452	-2.5 to 2.5	Pass	
	836.6	20	3.27	38.840	0.0464	-2.5 to 2.5	Pass
			3.85	40.357	0.0482	-2.5 to 2.5	Pass
			4.43	39.744	0.0475	-2.5 to 2.5	Pass
-30		3.85	38.356	0.0458	-2.5 to 2.5	Pass	
-20	3.85	40.486	0.0484	-2.5 to 2.5	Pass		

		-10	3.85	38.937	0.0465	-2.5 to 2.5	Pass
		0	3.85	39.227	0.0469	-2.5 to 2.5	Pass
		10	3.85	38.743	0.0463	-2.5 to 2.5	Pass
		30	3.85	39.163	0.0468	-2.5 to 2.5	Pass
		40	3.85	40.099	0.0479	-2.5 to 2.5	Pass
	50	3.85	38.130	0.0456	-2.5 to 2.5	Pass	
	848.8	20	3.27	37.581	0.0443	-2.5 to 2.5	Pass
			3.85	38.743	0.0456	-2.5 to 2.5	Pass
			4.43	38.808	0.0457	-2.5 to 2.5	Pass
		-30	3.85	38.452	0.0453	-2.5 to 2.5	Pass
		-20	3.85	37.613	0.0443	-2.5 to 2.5	Pass
		-10	3.85	38.872	0.0458	-2.5 to 2.5	Pass
		0	3.85	37.258	0.0439	-2.5 to 2.5	Pass
		10	3.85	34.933	0.0412	-2.5 to 2.5	Pass
		30	3.85	34.772	0.0410	-2.5 to 2.5	Pass
		40	3.85	35.353	0.0417	-2.5 to 2.5	Pass
		50	3.85	37.355	0.0440	-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	3.27	21.341	0.0115	-2.5 to 2.5	Pass
			3.85	19.307	0.0104	-2.5 to 2.5	Pass
			4.43	22.955	0.0124	-2.5 to 2.5	Pass
		-30	3.85	22.374	0.0121	-2.5 to 2.5	Pass
		-20	3.85	22.084	0.0119	-2.5 to 2.5	Pass
		-10	3.85	22.923	0.0124	-2.5 to 2.5	Pass
		0	3.85	20.663	0.0112	-2.5 to 2.5	Pass
		10	3.85	19.791	0.0107	-2.5 to 2.5	Pass
		30	3.85	19.242	0.0104	-2.5 to 2.5	Pass
		40	3.85	18.016	0.0097	-2.5 to 2.5	Pass
	50	3.85	17.660	0.0095	-2.5 to 2.5	Pass	
	1880	20	3.27	19.501	0.0104	-2.5 to 2.5	Pass
			3.85	24.150	0.0128	-2.5 to 2.5	Pass
			4.43	24.828	0.0132	-2.5 to 2.5	Pass
		-30	3.85	25.603	0.0136	-2.5 to 2.5	Pass
		-20	3.85	24.085	0.0128	-2.5 to 2.5	Pass
		-10	3.85	24.892	0.0132	-2.5 to 2.5	Pass
		0	3.85	25.667	0.0137	-2.5 to 2.5	Pass
		10	3.85	21.083	0.0112	-2.5 to 2.5	Pass
		30	3.85	23.246	0.0124	-2.5 to 2.5	Pass
		40	3.85	22.632	0.0120	-2.5 to 2.5	Pass
	50	3.85	22.826	0.0121	-2.5 to 2.5	Pass	
	1909.8	20	3.27	22.180	0.0116	-2.5 to 2.5	Pass
			3.85	20.954	0.0110	-2.5 to 2.5	Pass
			4.43	22.503	0.0118	-2.5 to 2.5	Pass
		-30	3.85	18.435	0.0097	-2.5 to 2.5	Pass
		-20	3.85	21.761	0.0114	-2.5 to 2.5	Pass
		-10	3.85	21.890	0.0115	-2.5 to 2.5	Pass
		0	3.85	19.888	0.0104	-2.5 to 2.5	Pass

EGPRS		10	3.85	16.434	0.0086	-2.5 to 2.5	Pass
		30	3.85	18.597	0.0097	-2.5 to 2.5	Pass
		40	3.85	17.047	0.0089	-2.5 to 2.5	Pass
		50	3.85	18.887	0.0099	-2.5 to 2.5	Pass
	1850.2	20	3.27	18.468	0.0100	-2.5 to 2.5	Pass
			3.85	19.178	0.0104	-2.5 to 2.5	Pass
			4.43	23.924	0.0129	-2.5 to 2.5	Pass
		-30	3.85	21.954	0.0119	-2.5 to 2.5	Pass
		-20	3.85	19.662	0.0106	-2.5 to 2.5	Pass
		-10	3.85	23.278	0.0126	-2.5 to 2.5	Pass
		0	3.85	26.668	0.0144	-2.5 to 2.5	Pass
		10	3.85	25.280	0.0137	-2.5 to 2.5	Pass
		30	3.85	23.052	0.0125	-2.5 to 2.5	Pass
		40	3.85	21.180	0.0114	-2.5 to 2.5	Pass
	50	3.85	26.991	0.0146	-2.5 to 2.5	Pass	
	1880	20	3.27	25.183	0.0134	-2.5 to 2.5	Pass
			3.85	31.576	0.0168	-2.5 to 2.5	Pass
			4.43	28.541	0.0152	-2.5 to 2.5	Pass
		-30	3.85	31.576	0.0168	-2.5 to 2.5	Pass
		-20	3.85	28.412	0.0151	-2.5 to 2.5	Pass
		-10	3.85	28.024	0.0149	-2.5 to 2.5	Pass
		0	3.85	28.444	0.0151	-2.5 to 2.5	Pass
		10	3.85	29.638	0.0158	-2.5 to 2.5	Pass
		30	3.85	28.218	0.0150	-2.5 to 2.5	Pass
		40	3.85	28.315	0.0151	-2.5 to 2.5	Pass
	50	3.85	28.928	0.0154	-2.5 to 2.5	Pass	
	1909.8	20	3.27	29.445	0.0154	-2.5 to 2.5	Pass
			3.85	25.700	0.0135	-2.5 to 2.5	Pass
			4.43	22.568	0.0118	-2.5 to 2.5	Pass
		-30	3.85	22.891	0.0120	-2.5 to 2.5	Pass
		-20	3.85	21.858	0.0114	-2.5 to 2.5	Pass
		-10	3.85	22.019	0.0115	-2.5 to 2.5	Pass
		0	3.85	25.086	0.0131	-2.5 to 2.5	Pass
		10	3.85	23.666	0.0124	-2.5 to 2.5	Pass
		30	3.85	22.858	0.0120	-2.5 to 2.5	Pass
		40	3.85	25.861	0.0135	-2.5 to 2.5	Pass
50	3.85	24.796	0.0130	-2.5 to 2.5	Pass		