

## 1. Frequency Stability

### 1.1 GSM850

#### 1.1.1 Test Result

Network	Frequency (MHz)	Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Band: GSM850		Verdict		
					Result	Limit			
GSM	824.2	20	3.23	-16.463	-0.0200	-2.5 to 2.5	Pass		
			3.8	-13.800	-0.0167	-2.5 to 2.5	Pass		
			4.37	-13.371	-0.0162	-2.5 to 2.5	Pass		
			-30	3.8	-16.663	-0.0202	-2.5 to 2.5	Pass	
			-20	3.8	-14.879	-0.0181	-2.5 to 2.5	Pass	
			-10	3.8	-17.313	-0.0210	-2.5 to 2.5	Pass	
			0	3.8	-17.077	-0.0207	-2.5 to 2.5	Pass	
			10	3.8	-15.158	-0.0184	-2.5 to 2.5	Pass	
			30	3.8	-10.416	-0.0126	-2.5 to 2.5	Pass	
			40	3.8	-11.045	-0.0134	-2.5 to 2.5	Pass	
		50	3.8	-14.533	-0.0176	-2.5 to 2.5	Pass		
	836.6		3.23	-11.056	-0.0132	-2.5 to 2.5	Pass		
			20	3.8	-9.000	-0.0108	-2.5 to 2.5	Pass	
			4.37	-16.944	-0.0203	-2.5 to 2.5	Pass		
			-30	3.8	-11.812	-0.0141	-2.5 to 2.5	Pass	
			-20	3.8	-12.242	-0.0146	-2.5 to 2.5	Pass	
			-10	3.8	-8.027	-0.0096	-2.5 to 2.5	Pass	
			0	3.8	-15.085	-0.0180	-2.5 to 2.5	Pass	
			10	3.8	-13.477	-0.0161	-2.5 to 2.5	Pass	
			30	3.8	-6.508	-0.0078	-2.5 to 2.5	Pass	
			40	3.8	-15.566	-0.0186	-2.5 to 2.5	Pass	
	848.8		50	3.8	-13.319	-0.0159	-2.5 to 2.5	Pass	
	20	3.23	-15.214	-0.0179	-2.5 to 2.5	Pass			
		3.8	-2.881	-0.0034	-2.5 to 2.5	Pass			
		4.37	-12.956	-0.0153	-2.5 to 2.5	Pass			
		-30	3.8	-14.203	-0.0167	-2.5 to 2.5	Pass		
	-20	3.8	-7.931	-0.0093	-2.5 to 2.5	Pass			
		-10	3.8	-10.455	-0.0123	-2.5 to 2.5	Pass		
		0	3.8	-5.608	-0.0066	-2.5 to 2.5	Pass		
		10	3.8	-15.841	-0.0187	-2.5 to 2.5	Pass		
		30	3.8	-6.129	-0.0072	-2.5 to 2.5	Pass		
	-40	3.8	0.507	0.0006	-2.5 to 2.5	Pass			
		50	3.8	-13.882	-0.0164	-2.5 to 2.5	Pass		
GPRS	824.2	20	3.23	-11.070	-0.0134	-2.5 to 2.5	Pass		
			3.8	1.424	0.0017	-2.5 to 2.5	Pass		
			4.37	1.356	0.0016	-2.5 to 2.5	Pass		
			-30	3.8	-1.753	-0.0021	-2.5 to 2.5	Pass	
			-20	3.8	-8.817	-0.0107	-2.5 to 2.5	Pass	
			-10	3.8	-10.182	-0.0124	-2.5 to 2.5	Pass	
			0	3.8	-5.831	-0.0071	-2.5 to 2.5	Pass	
			10	3.8	-10.919	-0.0132	-2.5 to 2.5	Pass	
			30	3.8	-2.079	-0.0025	-2.5 to 2.5	Pass	
			40	3.8	-5.598	-0.0068	-2.5 to 2.5	Pass	
	836.6	20	50	3.8	-1.614	-0.0020	-2.5 to 2.5	Pass	
			3.23	-5.883	-0.0070	-2.5 to 2.5	Pass		
			3.8	4.435	0.0053	-2.5 to 2.5	Pass		
			4.37	-1.527	-0.0018	-2.5 to 2.5	Pass		

	848.8	-30	3.8	-12.460	-0.0149	-2.5 to 2.5	Pass
		-20	3.8	-10.124	-0.0121	-2.5 to 2.5	Pass
		-10	3.8	4.965	0.0059	-2.5 to 2.5	Pass
		0	3.8	-4.154	-0.0050	-2.5 to 2.5	Pass
		10	3.8	-0.976	-0.0012	-2.5 to 2.5	Pass
		30	3.8	-7.617	-0.0091	-2.5 to 2.5	Pass
		40	3.8	-6.023	-0.0072	-2.5 to 2.5	Pass
		50	3.8	-8.744	-0.0105	-2.5 to 2.5	Pass
			3.23	-0.445	-0.0005	-2.5 to 2.5	Pass
		20	3.8	-9.682	-0.0114	-2.5 to 2.5	Pass
			4.37	-2.417	-0.0028	-2.5 to 2.5	Pass
		-30	3.8	-1.901	-0.0022	-2.5 to 2.5	Pass
		-20	3.8	-6.089	-0.0072	-2.5 to 2.5	Pass
		-10	3.8	-3.044	-0.0036	-2.5 to 2.5	Pass
		0	3.8	2.069	0.0024	-2.5 to 2.5	Pass
		10	3.8	-6.583	-0.0078	-2.5 to 2.5	Pass
		30	3.8	-5.682	-0.0067	-2.5 to 2.5	Pass
		40	3.8	-0.498	-0.0006	-2.5 to 2.5	Pass
		50	3.8	-4.052	-0.0048	-2.5 to 2.5	Pass
EGPRS	824.2		3.23	-7.505	-0.0091	-2.5 to 2.5	Pass
		20	3.8	-1.345	-0.0016	-2.5 to 2.5	Pass
			4.37	0.743	0.0009	-2.5 to 2.5	Pass
		-30	3.8	8.258	0.0100	-2.5 to 2.5	Pass
		-20	3.8	-4.963	-0.0060	-2.5 to 2.5	Pass
		-10	3.8	-0.436	-0.0005	-2.5 to 2.5	Pass
		0	3.8	-6.896	-0.0084	-2.5 to 2.5	Pass
		10	3.8	-0.980	-0.0012	-2.5 to 2.5	Pass
		30	3.8	-5.097	-0.0062	-2.5 to 2.5	Pass
		40	3.8	-1.688	-0.0020	-2.5 to 2.5	Pass
		50	3.8	0.359	0.0004	-2.5 to 2.5	Pass
			3.23	-6.668	-0.0080	-2.5 to 2.5	Pass
		20	3.8	-7.625	-0.0091	-2.5 to 2.5	Pass
			4.37	0.541	0.0006	-2.5 to 2.5	Pass
	836.6	-30	3.8	3.923	0.0047	-2.5 to 2.5	Pass
		-20	3.8	1.391	0.0017	-2.5 to 2.5	Pass
		-10	3.8	4.533	0.0054	-2.5 to 2.5	Pass
		0	3.8	-5.930	-0.0071	-2.5 to 2.5	Pass
		10	3.8	-5.231	-0.0063	-2.5 to 2.5	Pass
		30	3.8	-6.867	-0.0082	-2.5 to 2.5	Pass
		40	3.8	1.421	0.0017	-2.5 to 2.5	Pass
		50	3.8	2.370	0.0028	-2.5 to 2.5	Pass
			3.23	-5.877	-0.0069	-2.5 to 2.5	Pass
		20	3.8	-10.086	-0.0119	-2.5 to 2.5	Pass
			4.37	-3.087	-0.0036	-2.5 to 2.5	Pass
		-30	3.8	-3.671	-0.0043	-2.5 to 2.5	Pass
		-20	3.8	0.998	0.0012	-2.5 to 2.5	Pass
		-10	3.8	2.856	0.0034	-2.5 to 2.5	Pass
		0	3.8	8.618	0.0102	-2.5 to 2.5	Pass
		10	3.8	-0.643	-0.0008	-2.5 to 2.5	Pass
		30	3.8	-3.516	-0.0041	-2.5 to 2.5	Pass
		40	3.8	-2.249	-0.0026	-2.5 to 2.5	Pass
		50	3.8	-6.768	-0.0080	-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		
GSM	1850.2	20	3.23	11.391	0.0062	-2.5 to 2.5	Pass	
			3.8	-8.586	-0.0046	-2.5 to 2.5	Pass	
			4.37	-24.340	-0.0132	-2.5 to 2.5	Pass	
			-30	3.8	-19.647	-0.0106	-2.5 to 2.5	Pass
			-20	3.8	-4.902	-0.0026	-2.5 to 2.5	Pass
			-10	3.8	-5.629	-0.0030	-2.5 to 2.5	Pass
			0	3.8	1.382	0.0007	-2.5 to 2.5	Pass
			10	3.8	-22.572	-0.0122	-2.5 to 2.5	Pass
			30	3.8	-17.797	-0.0096	-2.5 to 2.5	Pass
			40	3.8	-1.464	-0.0008	-2.5 to 2.5	Pass
		1880	50	3.8	-29.397	-0.0159	-2.5 to 2.5	Pass
			3.23	-4.571	-0.0024	-2.5 to 2.5	Pass	
			3.8	-5.887	-0.0031	-2.5 to 2.5	Pass	
			4.37	-7.120	-0.0038	-2.5 to 2.5	Pass	
			-30	3.8	-8.722	-0.0046	-2.5 to 2.5	Pass
GPRS	1909.8	20	-20	3.8	-17.167	-0.0091	-2.5 to 2.5	Pass
			-10	3.8	-10.919	-0.0058	-2.5 to 2.5	Pass
			0	3.8	-8.499	-0.0045	-2.5 to 2.5	Pass
			10	3.8	-7.781	-0.0041	-2.5 to 2.5	Pass
			30	3.8	0.830	0.0004	-2.5 to 2.5	Pass
			40	3.8	-15.801	-0.0084	-2.5 to 2.5	Pass
			50	3.8	-12.641	-0.0067	-2.5 to 2.5	Pass
			3.23	-22.022	-0.0115	-2.5 to 2.5	Pass	
			3.8	-4.115	-0.0022	-2.5 to 2.5	Pass	
			4.37	-24.357	-0.0128	-2.5 to 2.5	Pass	
		1850.2	-30	3.8	-14.480	-0.0076	-2.5 to 2.5	Pass
			-20	3.8	-24.296	-0.0127	-2.5 to 2.5	Pass
			-10	3.8	-6.431	-0.0034	-2.5 to 2.5	Pass
			0	3.8	-16.472	-0.0086	-2.5 to 2.5	Pass
			10	3.8	-18.349	-0.0096	-2.5 to 2.5	Pass
		1880	30	3.8	2.803	0.0015	-2.5 to 2.5	Pass
			40	3.8	-20.066	-0.0105	-2.5 to 2.5	Pass
			50	3.8	-3.610	-0.0019	-2.5 to 2.5	Pass
			3.23	-19.883	-0.0107	-2.5 to 2.5	Pass	
			20	3.8	-2.212	-0.0012	-2.5 to 2.5	Pass
			4.37	11.219	0.0061	-2.5 to 2.5	Pass	
			-30	3.8	-12.367	-0.0067	-2.5 to 2.5	Pass
			-20	3.8	-5.772	-0.0031	-2.5 to 2.5	Pass
			-10	3.8	-11.587	-0.0063	-2.5 to 2.5	Pass
			0	3.8	-9.691	-0.0052	-2.5 to 2.5	Pass
			10	3.8	-8.944	-0.0048	-2.5 to 2.5	Pass
			30	3.8	-8.160	-0.0044	-2.5 to 2.5	Pass
			40	3.8	8.166	0.0044	-2.5 to 2.5	Pass
			50	3.8	8.486	0.0046	-2.5 to 2.5	Pass
			3.23	2.256	0.0012	-2.5 to 2.5	Pass	
			20	3.8	1.885	0.0010	-2.5 to 2.5	Pass
			4.37	-2.088	-0.0011	-2.5 to 2.5	Pass	
			-30	3.8	-12.164	-0.0065	-2.5 to 2.5	Pass
			-20	3.8	-14.017	-0.0075	-2.5 to 2.5	Pass

	1909.8	-10	3.8	-3.888	-0.0021	-2.5 to 2.5	Pass	
		0	3.8	1.897	0.0010	-2.5 to 2.5	Pass	
		10	3.8	-11.647	-0.0062	-2.5 to 2.5	Pass	
		30	3.8	8.893	0.0047	-2.5 to 2.5	Pass	
		40	3.8	-20.669	-0.0110	-2.5 to 2.5	Pass	
		50	3.8	-20.691	-0.0110	-2.5 to 2.5	Pass	
		20	3.23	-13.657	-0.0072	-2.5 to 2.5	Pass	
			3.8	-4.348	-0.0023	-2.5 to 2.5	Pass	
			4.37	3.601	0.0019	-2.5 to 2.5	Pass	
			-30	3.8	-13.938	-0.0073	-2.5 to 2.5	Pass
			-20	3.8	-33.256	-0.0174	-2.5 to 2.5	Pass
			-10	3.8	0.309	0.0002	-2.5 to 2.5	Pass
			0	3.8	0.763	0.0004	-2.5 to 2.5	Pass
			10	3.8	-21.976	-0.0115	-2.5 to 2.5	Pass
			30	3.8	-0.121	-0.0001	-2.5 to 2.5	Pass
			40	3.8	-16.611	-0.0087	-2.5 to 2.5	Pass
		50	3.8	-12.250	-0.0064	-2.5 to 2.5	Pass	
			3.23	-26.259	-0.0142	-2.5 to 2.5	Pass	
			3.8	-13.744	-0.0074	-2.5 to 2.5	Pass	
			4.37	-14.781	-0.0080	-2.5 to 2.5	Pass	
			-30	3.8	-10.565	-0.0057	-2.5 to 2.5	Pass
			-20	3.8	-3.485	-0.0019	-2.5 to 2.5	Pass
			-10	3.8	-14.230	-0.0077	-2.5 to 2.5	Pass
			0	3.8	-21.030	-0.0114	-2.5 to 2.5	Pass
			10	3.8	-14.372	-0.0078	-2.5 to 2.5	Pass
			30	3.8	-22.317	-0.0121	-2.5 to 2.5	Pass
EGPRS	1880	20	3.8	-18.029	-0.0097	-2.5 to 2.5	Pass	
			50	3.8	-3.844	-0.0021	-2.5 to 2.5	Pass
			3.23	-4.064	-0.0022	-2.5 to 2.5	Pass	
			3.8	-34.432	-0.0183	-2.5 to 2.5	Pass	
			4.37	1.598	0.0009	-2.5 to 2.5	Pass	
			-30	3.8	-1.803	-0.0010	-2.5 to 2.5	Pass
			-20	3.8	-4.227	-0.0022	-2.5 to 2.5	Pass
			-10	3.8	-10.999	-0.0059	-2.5 to 2.5	Pass
			0	3.8	-19.558	-0.0104	-2.5 to 2.5	Pass
			10	3.8	-7.253	-0.0039	-2.5 to 2.5	Pass
		50	30	3.8	-13.902	-0.0074	-2.5 to 2.5	Pass
			40	3.8	-4.371	-0.0023	-2.5 to 2.5	Pass
			50	3.8	-6.250	-0.0033	-2.5 to 2.5	Pass
			3.23	-19.724	-0.0103	-2.5 to 2.5	Pass	
			20	3.8	-19.990	-0.0105	-2.5 to 2.5	Pass
			4.37	-24.820	-0.0130	-2.5 to 2.5	Pass	
1909.8	1909.8	20	-30	3.8	-1.333	-0.0007	-2.5 to 2.5	Pass
			-20	3.8	-16.055	-0.0084	-2.5 to 2.5	Pass
			-10	3.8	-24.630	-0.0129	-2.5 to 2.5	Pass
			0	3.8	5.862	0.0031	-2.5 to 2.5	Pass
			10	3.8	1.137	0.0006	-2.5 to 2.5	Pass
		50	30	3.8	-22.571	-0.0118	-2.5 to 2.5	Pass
			40	3.8	-15.928	-0.0083	-2.5 to 2.5	Pass
			50	3.8	1.678	0.0009	-2.5 to 2.5	Pass