

**GSM Patch antenna CY-PCB005**

**1 Electrical specifications**

Frequency range (MHz)	850/900/1800/1900
Gain (dBi)	3
Polarization	Vertical
Impedance ( $\Omega$ )	50
Max Power (W)	50
VSWR	$\leq 2.0$

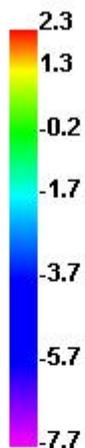
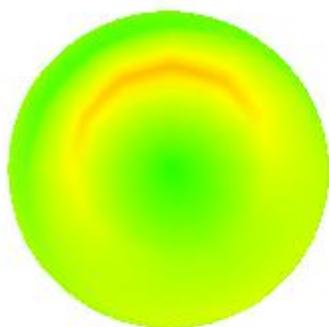
**2 Mechanical specifications**

Connector	UFL
Dimensions(mm)	30x15x1.1
Mounting	Adhesive
Cable-mm	RG1.13/RG1.37
Temperature ( $^{\circ}\text{C}$ )	-40~85
Humidity (%)	5~95

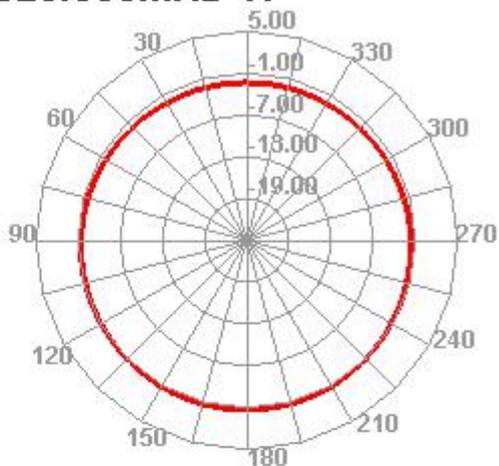


### 3. Radiation Pattern

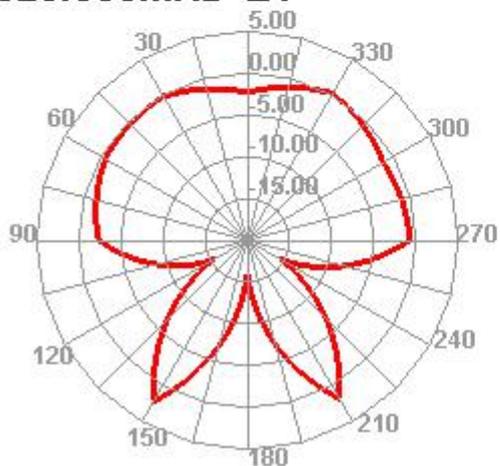
820.000MHz



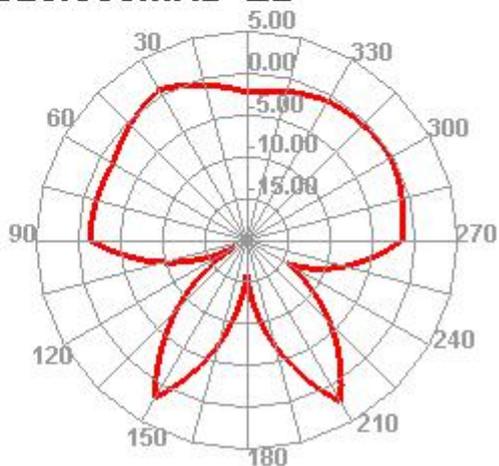
820.000MHz H

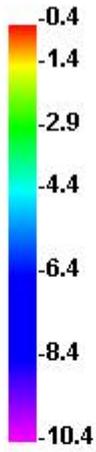
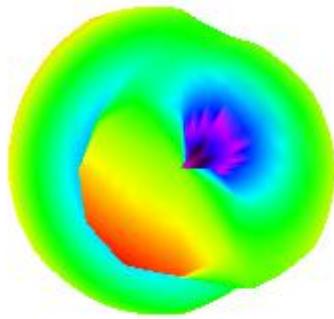
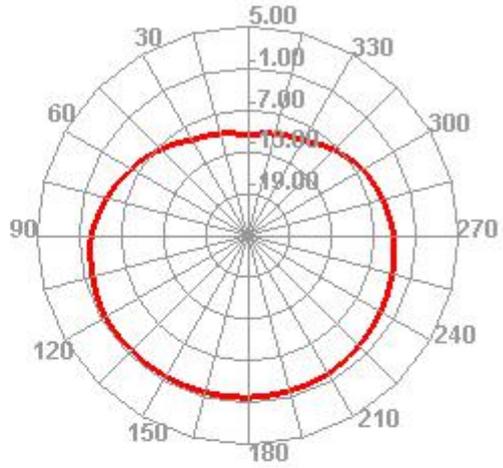
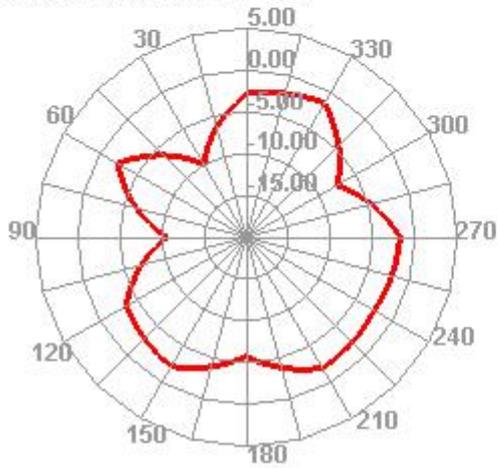
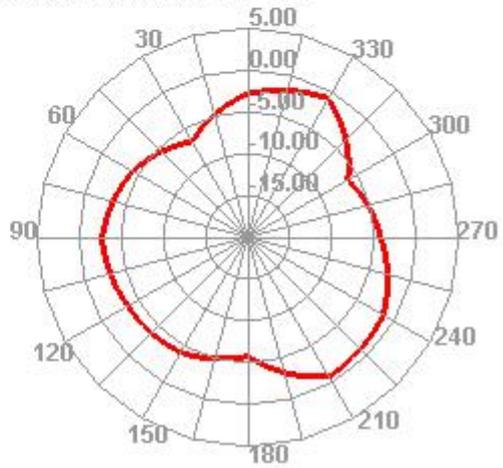


820.000MHz E1



820.000MHz E2



**1950.000MHz**

**1950.000MHz H**

**1950.000MHz E1**

**1950.000MHz E2**




## Gain Data

Passive Test For 1700-2200										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
1700	20.5	-6.88	-3.8	-5.95	12.277	8.219	-3.8	-15.12	46.12	46.26
1725	22.08	-6.56	-3.64	-5.79	13.195	8.886	-3.64	-12.09	45.64	45.58
1750	29.84	-5.25	-1.51	-3.66	18.08	11.755	-1.51	-10.04	45.86	45.62
1775	35.35	-4.52	-0.18	-2.33	20.963	14.387	-0.18	-9.78	45.35	45.02
1800	42.37	-3.73	0.97	-1.18	25.689	16.676	0.97	-11.28	45.04	44.67
1825	46.98	-3.28	1.6	-0.55	29.215	17.764	1.6	-15.97	44.78	44.46
1850	48.87	-3.11	0.67	-1.48	27.09	21.783	0.67	-12.32	45.03	45.02
1875	56.84	-2.45	0.22	-1.93	29.967	26.875	0.22	-6.38	45.1	45.13
1900	50.59	-2.96	-0.11	-2.26	26.62	23.974	-0.11	-5.85	45.43	45.43
1925	49.62	-3.04	-0.52	-2.67	24.513	25.108	-0.52	-7.4	45.82	45.75
1950	45.15	-3.45	-0.36	-2.51	19.259	25.896	-0.36	-15.04	46.31	46.26
1975	50.76	-2.94	0.74	-1.41	20.493	30.271	0.74	-12.25	46.78	46.8
2000	49.41	-3.06	1.74	-0.41	19.074	30.333	1.74	-12.89	46.86	46.94
2025	59.17	-2.28	2.98	0.83	20.343	38.822	2.98	-10.98	46.96	46.97
2050	75.91	-1.2	3	0.85	24.823	51.088	4	-8.94	47.14	47.19
2075	66.12	-0.17	3.51	1.36	31.97	64.154	4.51	-7.87	47.83	47.87
2100	62.52	-0.34	2.95	0.8	32.792	59.731	3.95	-9.14	47.98	47.91
2125	55.32	-2.57	1.74	-0.41	21.094	34.227	1.74	-12.04	46.53	46.36
2150	50.5	-2.97	1.56	-0.59	19.448	31.048	1.56	-12.13	46.38	46.22
2175	48.92	-3.11	1.39	-0.76	18.095	30.824	1.39	-13.74	46.74	46.51
2200	53.24	-2.74	2.09	-0.06	19.123	34.119	2.09	-13.79	46.79	46.6

## Efficiency

Passive Test For 820-960										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
820	71.43	-1.46	2.3	0.15	40.685	30.742	2.3	-18.31	39.56	39.33
840	61.27	-2.13	1.63	-0.52	36.904	24.37	1.63	-19.68	39.35	39.26
860	61.18	-2.13	1.15	-1	37.825	23.36	1.15	-14.21	39.26	39.41
880	60.14	-2.21	0.68	-1.47	37.055	23.086	0.68	-12.43	39.25	39.38
900	52.75	-2.78	0.32	-1.83	30.982	21.766	0.32	-14.3	39.28	39.21
920	44.08	-3.56	0.02	-2.13	24.011	20.07	0.02	-11.49	39.26	39.38
940	38	-4.2	-0.28	-2.43	18.772	19.231	-0.28	-9.48	39.24	39.56
960	35.47	-4.5	0.16	-1.99	15.594	19.88	0.16	-8.96	39.69	40.2

Passive Test For 820-960										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
820	71.43	-1.46	2.3	0.15	40.685	30.742	2.3	-18.31	39.56	39.33
840	61.27	-2.13	1.63	-0.52	36.904	24.37	1.63	-19.68	39.35	39.26
860	61.18	-2.13	1.15	-1	37.825	23.36	1.15	-14.21	39.26	39.41
880	60.14	-2.21	0.68	-1.47	37.055	23.086	0.68	-12.43	39.25	39.38
900	52.75	-2.78	0.32	-1.83	30.982	21.766	0.32	-14.3	39.28	39.21
920	44.08	-3.56	0.02	-2.13	24.011	20.07	0.02	-11.49	39.26	39.38
940	38	-4.2	-0.28	-2.43	18.772	19.231	-0.28	-9.48	39.24	39.56
960	35.47	-4.5	0.16	-1.99	15.594	19.88	0.16	-8.96	39.69	40.2