

FEATURES	APPLICATIONS
<ul style="list-style-type: none"> <li>- 3G/GSM</li> <li>- PCB Type</li> <li>- Stable And Reliable Performance</li> <li>- 824-960MHz &amp; 1710-2170MHz</li> <li>- Compact Size With Efficient Reception</li> </ul>	<ul style="list-style-type: none"> <li>- GSM/3G Position Routers &amp; Tracking Systems</li> <li>- Automotive Sensors</li> <li>- Smart Outdoor Devices</li> <li>- Machine To Machine Wireless Communication</li> <li>- Mobile Systems</li> </ul>



### PART NUMBERING GUIDE

**SUNTSU** → **S** **AT** **PC** - **75A8FF** - **CE** **B4** ←

**ANTENNA** → **AT**

**PCB ANTENNA** → **PC**

**FREQUENCY BAND (MHz)**

B4 824-960MHz  
1710-2170MHz

**APPLICATION**

CE: Cellular

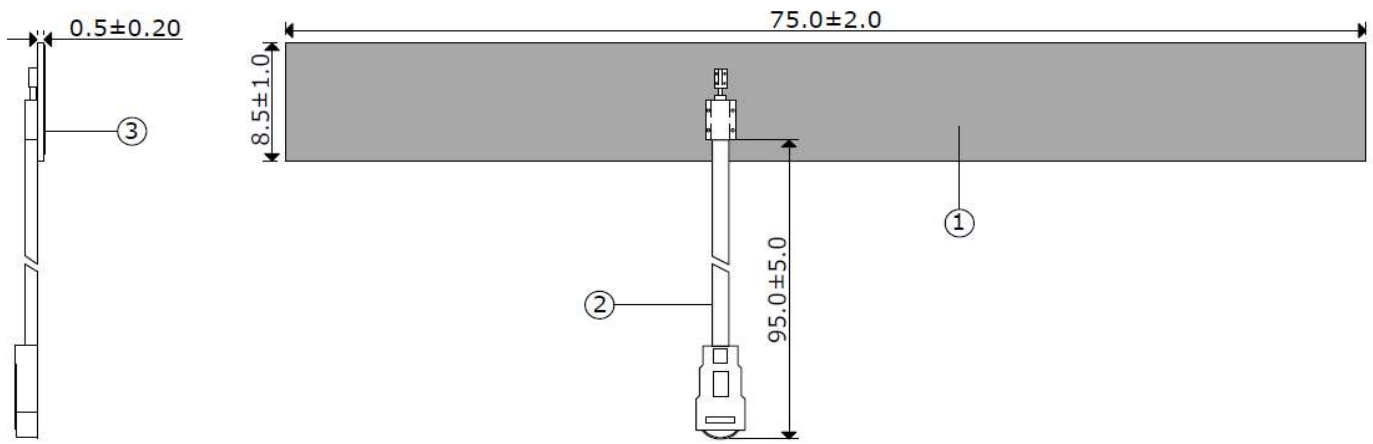
**\* PACKAGE SIZE**

75A8FB5: 75.0mm x 8.5mm x 0.5mm

\* Where letters denote decimal location A=.0, B=.1, C=.2, etc. Ex: B5=0.15, 3A5=3.05, 9A=9.0  
To customize your parameters, contact a Suntsu representative.

ELECTRICAL PARAMETERS (At 25°C)	UNITS	MIN.	TYP.	MAX	REMARKS
Frequency Band	MHz	824		960	
Impedance	ohms		50		
Polarization			Linear		
Peak Gain	dBi		0.6		At 890MHz
Efficiency	%		40		At 890MHz
VSWR				3	At Center Frequency
Operating Temperature	°C	-40		85	
Frequency Band	MHz	1710		2170	
Impedance	ohms		50		
Polarization			Linear		
Peak Gain	dBi		3.9		At 1950MHz
Efficiency	%		67		At 1950MHz
VSWR				3	At Center Frequency
Operating Temperature	°C	-40		85	

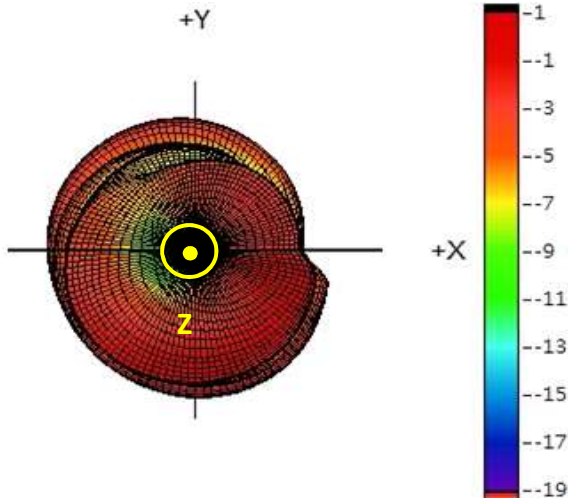
### OUTLINE DRAWING (NOTE: All dimensions are in millimeters [mm], unless otherwise noted. Drawings are not to scale.)



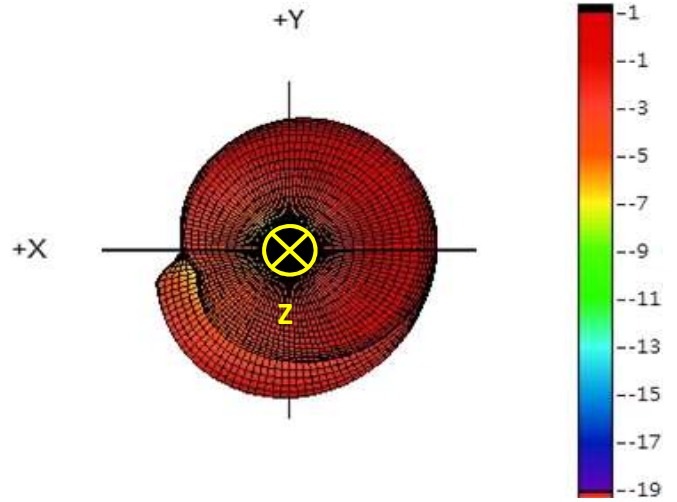
Item	Material
1	FR4 PCB
2	IPEX Connector and Cable with OD of 1.13
3	Adhesive Tape

### 3D RADIATION PATTERN (UNIT: dBi) AND EFFICIENCY vs FREQUENCY

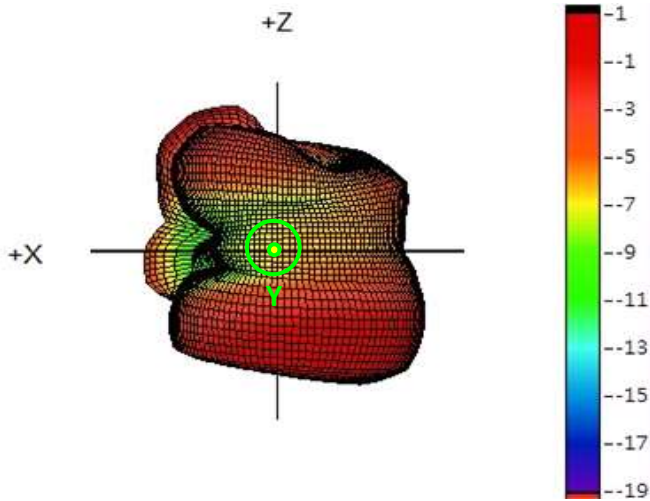
890MHz



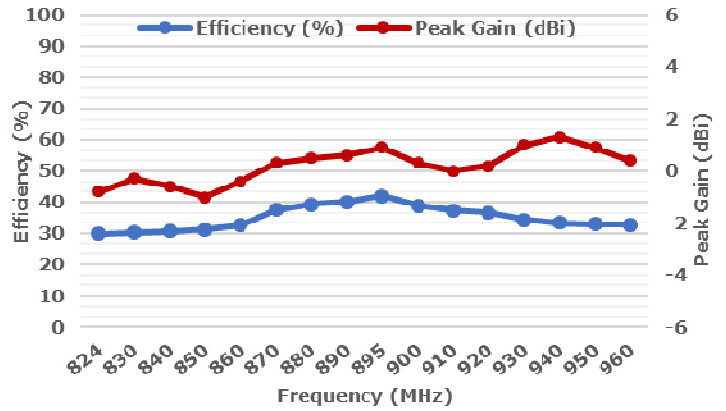
890MHz



890MHz

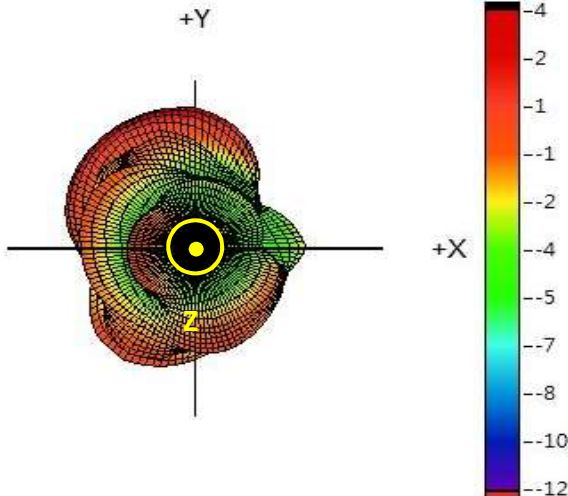


890MHz

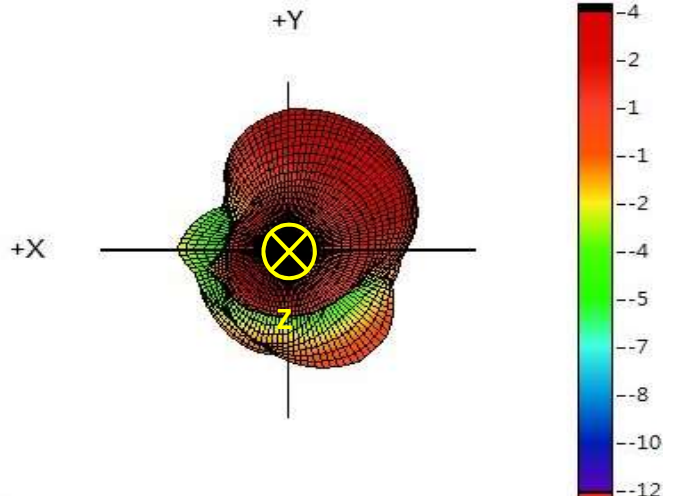


Freq.	824	830	840	850	860	870	880	890	895	900	910	920	930	940	950	960
Eff. (%)	30	30.4	30.7	31.3	32.7	37.6	39.30	40.10	42	39	37.4	36.6	34.4	33.4	33	32.9
P.G.	-0.8	-0.3	-0.6	-1	-0.4	0.3	0.5	0.6	0.9	0.3	0	0.2	1	1.3	0.9	0.4

1950MHz

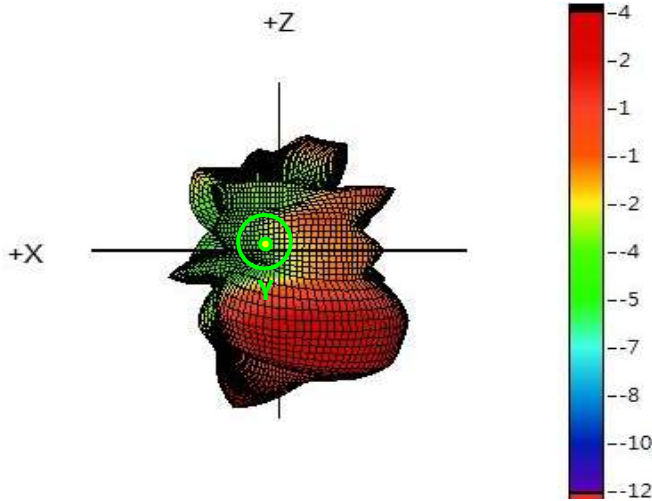


1950MHz

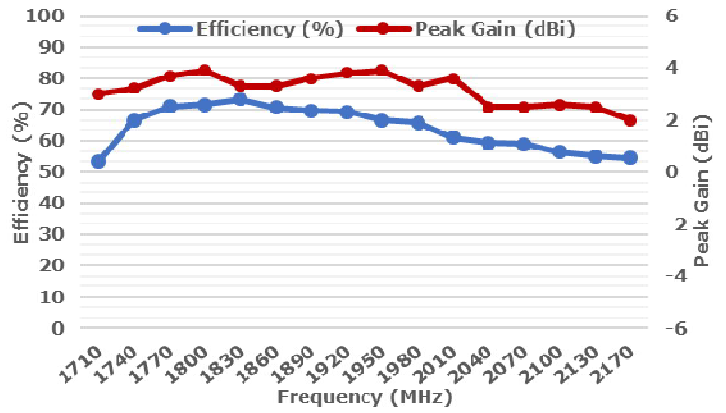


## 3D RADIATION PATTERN (UNIT: dBi) AND EFFICIENCY vs FREQUENCY

1950MHz



1950MHz

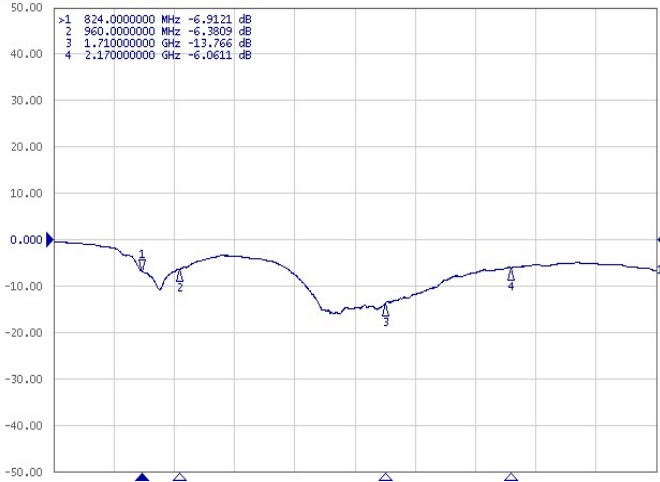


Freq.	1710	1740	1770	1800	1830	1860	1890	1920	1950	1980	2010	2040	2070	2100	2130	2170
Eff. (%)	53.6	66.5	71	71.5	73.3	70.6	69.70	69.30	66.5	65.9	61	59.2	59	56.4	55	54.5
P.G.	3	3.2	3.7	3.9	3.3	3.3	3.6	3.8	3.9	3.3	3.6	2.5	2.5	2.6	2.5	2

## ELECTRICAL TEST

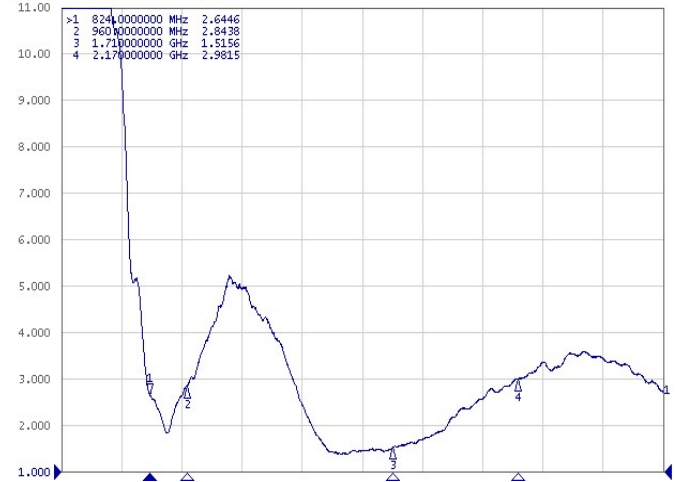
### RETURN LOSS

[1] S11 Log Mag 10.00dB/ Ref 0.000dB [F2]



### VSWR

[1] S11 SWR 1.000/ Ref 1.000 [F2]



## ENVIRONMENTAL & MECHANICAL SPECIFICATIONS

High Temperature Test	85°C for 500 hours, and then to normal temperature/humidity for 24hours.
Low Temperature Test	-30°C for 500 hours, and then to normal temperature/humidity for 24hours.
Humidity Test	85°C / 90-95% for 96 hours, and then to normal temperature/humidity for 24hours.
Thermal Shock Test	-30°C for 30 min and +85°C for 30 min. 5 cycles, then expose to normal temperature/humidity for 24 hours or more.
Vibration Test	5 to 200 to 5Hz, swept in 10min, 4.5G at max(2mm amplitude), in X and Y directions for 2 hours each and in Z direction for 4 hours.