SUNTSU

FPCB Antenna

# SATPC-35A7AB5-ISB5

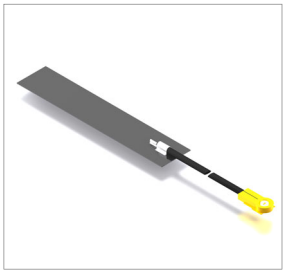
35.0mm x 7.0mm x 0.15mm

## Features

- ISM Band
- FPCB Type
- Stable And Reliable Performance
- 863-870MHz
- Compact Size With Efficient Reception

## Applications

- Industrial Monitoring And Control
- IOT Applications
- Smart Meters
- Wireless Alarm And Security System



## Part Numbering Guide

**S AT PC 35A7AB5 IS B5**

| | | | | | |
|---|---|---|---|---|---|
| SUNTSU | ANTENNA | PCB ANTENNA | PACKAGE SIZE* | APPLICATION | FREQUENCY |
| | | | 35A7AB5 = 35.0mm x 7.0mm x 0.15mm | IS = ISM | B5 = 863-870MHz |

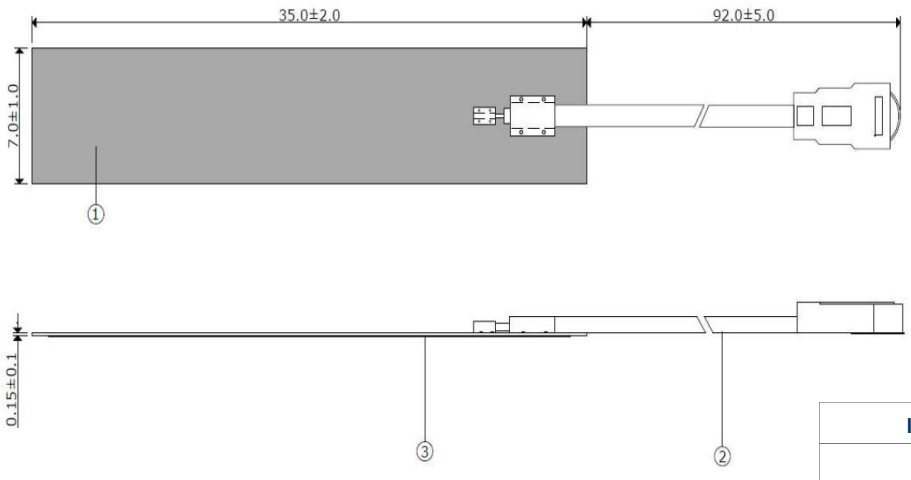
RoHS COMPLIANT

* Where letters denote decimal location (A=.0, B=.1, C=.2, etc.); e.g. B5=0.15, 3A5=3.05, 9A=9.0

| Electrical Parameters | Units | Minimum | Typical | Maximum | Remarks |
|---|---|---|---|---|---|
| Frequency Band | MHz | 863 | | 870 | |
| Impedance | Ω | | 50 | | |
| Polarization | | | RHCP | | |
| Peak Gain | dBi | | 1.9 | | At 868MHz |
| Efficiency | % | | 61.1 | | At 868MHz |
| VSWR | | | | 2 | At Center Frequency |
| Operating Temperature | C | -40 | | 85 | |

## Outline Drawing

All dimensions are in millimeters (mm) unless otherwise noted. Drawings are not to scale.




| Item | Material |
|---|---|
| 1 | FPCB |
| 2 | IPEX Connector and Cable with OD of 1.13 |
| 3 | Adhesive Tape |




**Suntsu Electronics, Inc.**
142 TECHNOLOGY DR., SUITE 150
IRVINE, CA 92618

**Call: +1-949-783-7300 | Fax: +1-949-783-7301**

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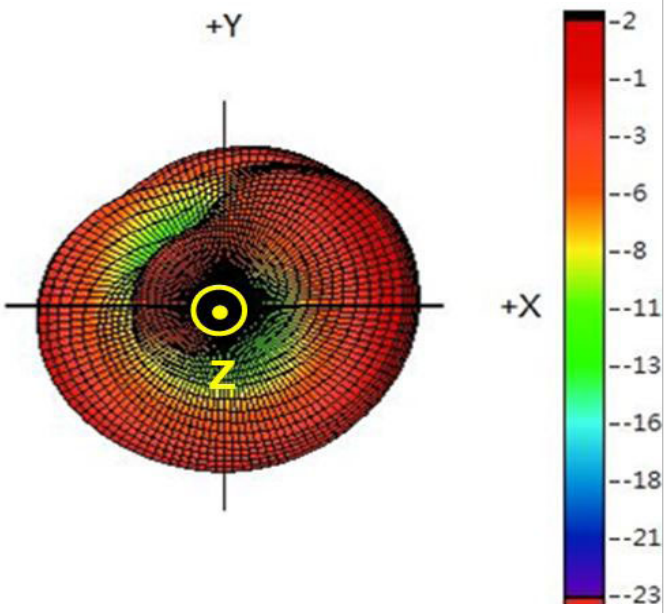
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35.0mm x 7.0mm x 0.15mm

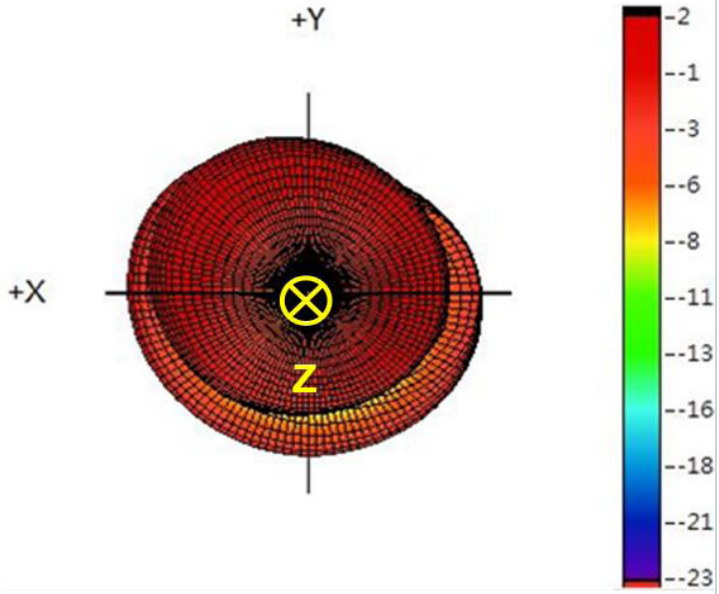
## Radiation Pattern

868MHz



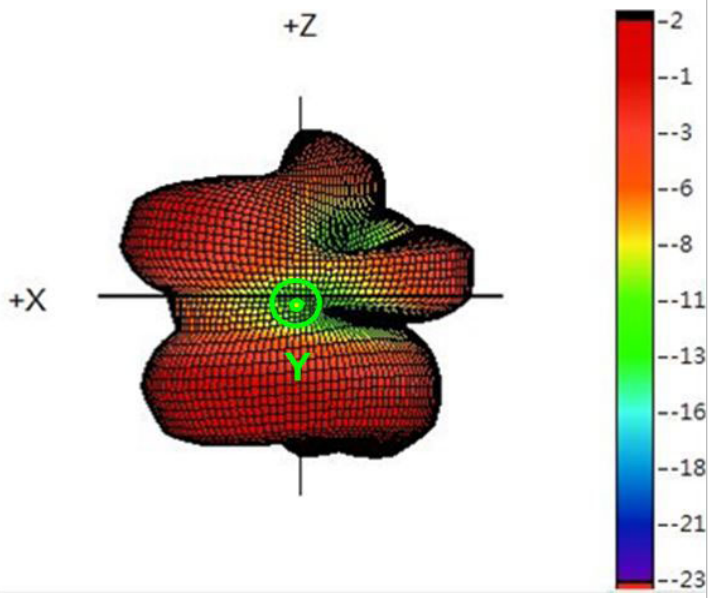

## Radiation Pattern

868MHz



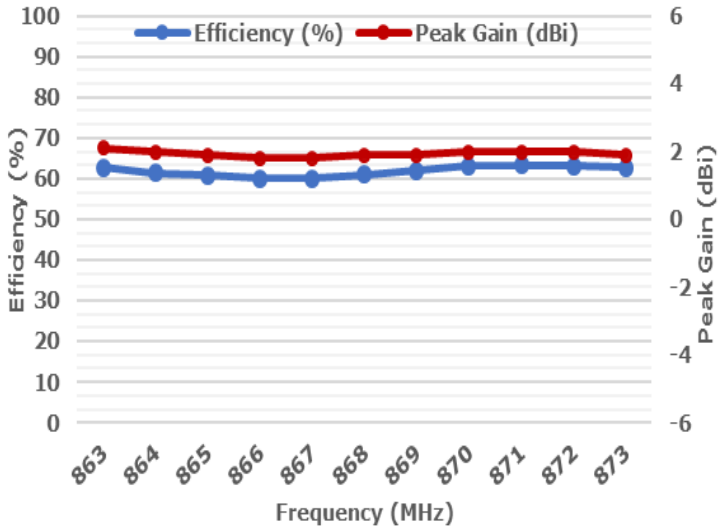

## Radiation Pattern

868MHz




## Efficiency V's Frequency

868MHz




| Freq. | 863 | 864 | 865 | 866 | 867 | 868 | 869 | 870 | 871 | 872 | 873 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Eff. (%) | 62.8 | 61.4 | 60.9 | 60.1 | 60.1 | 61.1 | 61.90 | 63.10 | 63.4 | 63.1 | 62.7 |
| P.G. | 2.1 | 2 | 1.9 | 1.8 | 1.8 | 1.9 | 1.9 | 2 | 2 | 2 | 1.9 |




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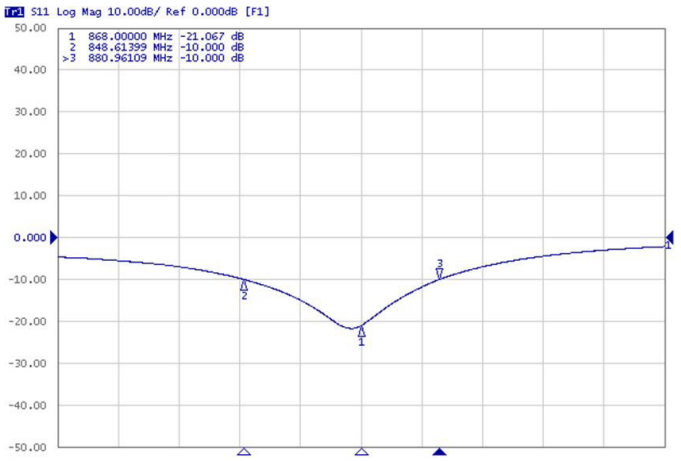
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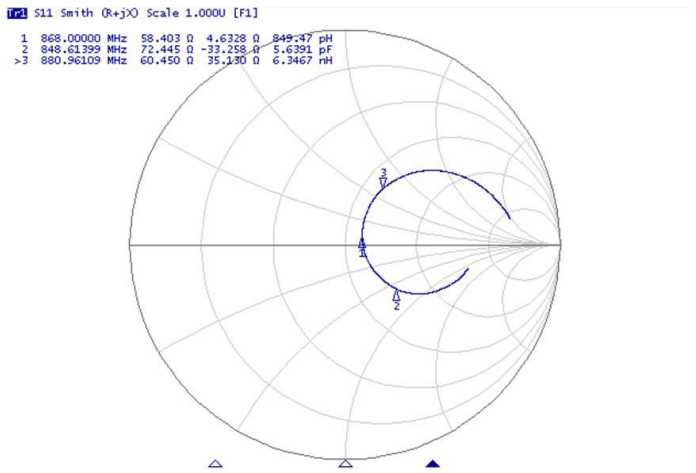
## Electrical Test

Return Loss




## Electrical Test

VSWR




## Environmental & Mechanical Specifications

| | |
|---|---|
| High Temperature Test | 85°C for 240 hours, and then to normal temperature/humidity High Temperature Test for 24hours. |
| Low Temperature Test | -30°C for 240 hours, and then to normal temperature/humidity for 24hours. |
| Humidity Test | 85°C / 90-95%RH for 48 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. |




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