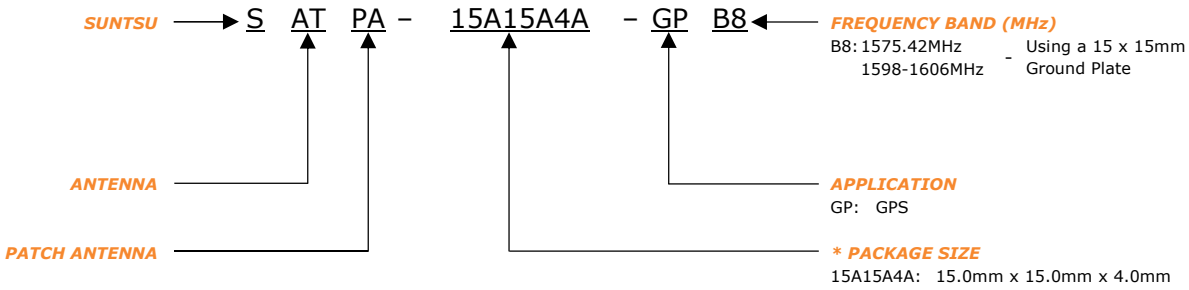
# SATPA-15A15A4A-GPB8

**15.0mm x 15.0mm x 4.0mm PATCH ANTENNA**

| FEATURES | APPLICATIONS |
|---|---|
| - GPS & GLONASS<br>- Low Temperature Coefficient Of Frequency<br>- Stable And Reliable Performance<br>- 1575.42MHz & 1598-1606MHz<br>- Compact Size With Efficient Reception | - Satellite Navigation And Tracking Systems<br>- Vehicle/Vessel Management Systems<br>- Base Station Of Cellular Phone Systems<br>- Smart Hand Held Devices<br>- For Use With A 15mm x 15mm Ground Plate |

## PART NUMBERING GUIDE

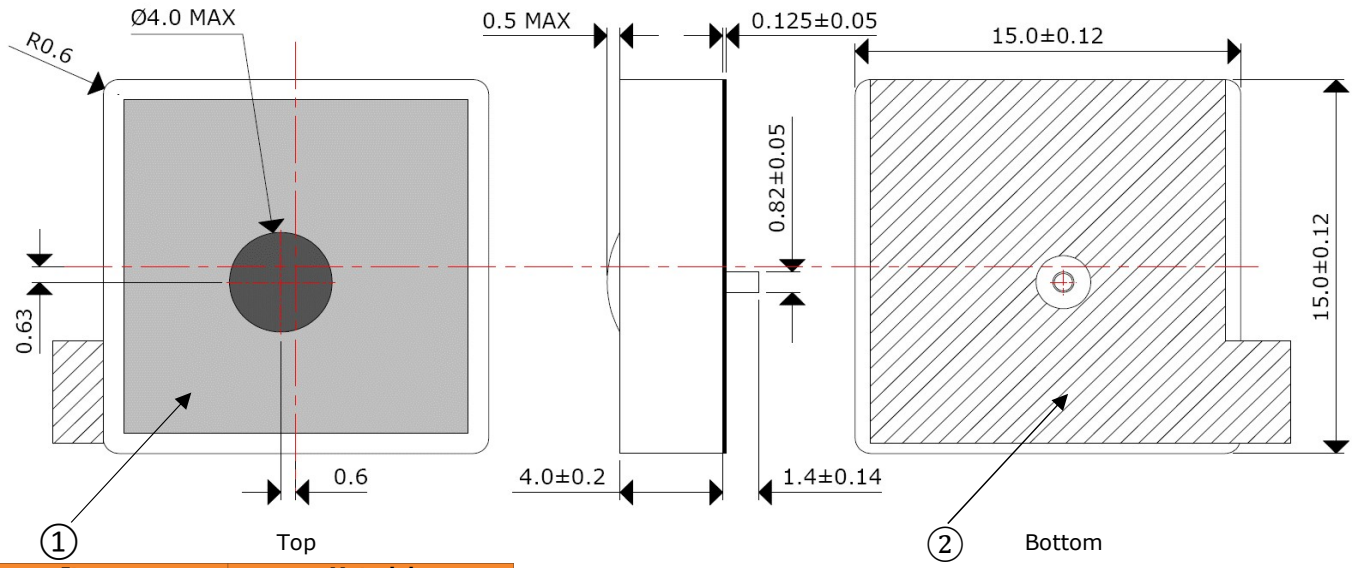



* Where letters denote decimal location A=.0, B=.1, C=.2, etc. Ex: B5=0.15, 3A5=3.05, 9A=9.0
To customize your parameters, contact a Suntsu representative.

| ELECTRICAL PARAMETERS (FOR GPS MODE) | UNITS | MIN. | TYP. | MAX | REMARKS |
|---|---|---|---|---|---|
| Frequency Band | MHz | | 1575.42 | | |
| Impedance | Ω | | 50 | | |
| Polarization | | | RHCP | | |
| Peak Gain | dBi | | -2.3 | | At 1575.42MHz |
| Frequency Temperature Coefficient | ppm/ºC | | | 0 ±20 | |
| VSWR | | | | 2 | At Center Frequency |
| Operating Temperature | ºC | -40 | | 85 | |

| ELECTRICAL PARAMETERS (FOR GLONASS MODE) | UNITS | MIN. | TYP. | MAX | REMARKS |
|---|---|---|---|---|---|
| Frequency Band | MHz | 1598 | | 1606 | |
| Impedance | Ω | | 50 | | |
| Polarization | | | RHCP | | |
| Peak Gain | dBi | | -1.7 | | At Center Frequency |
| Frequency Temperature Coefficient | ppm/ºC | | | 0 ±20 | |
| VSWR | | | | 2 | At Center Frequency |
| Operating Temperature | ºC | -40 | | 85 | |

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




| Item | Material |
|---|---|
| 1 | Patch Antenna |
| 2 | Adhesive Tape |

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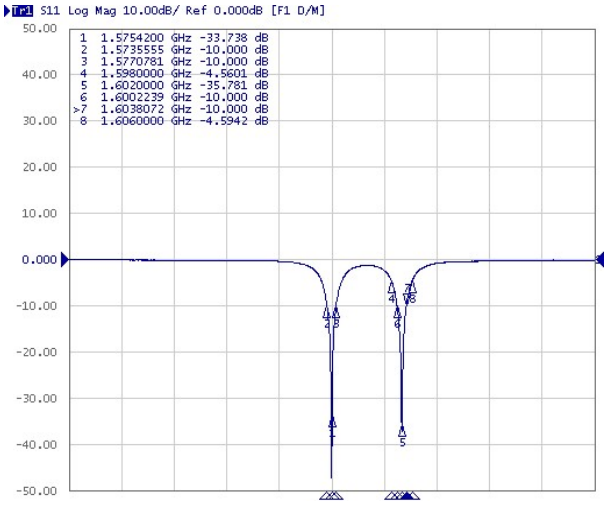
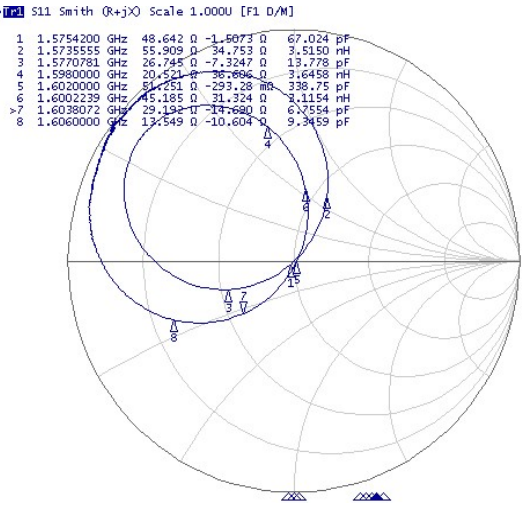
## ELECTRICAL TEST

### Return Loss

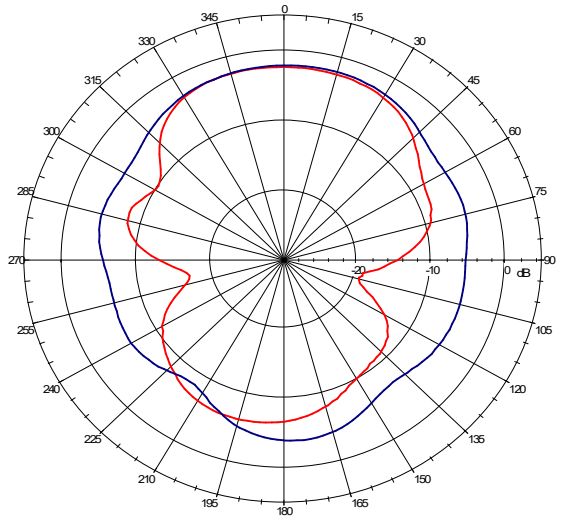



### SMITH CHART

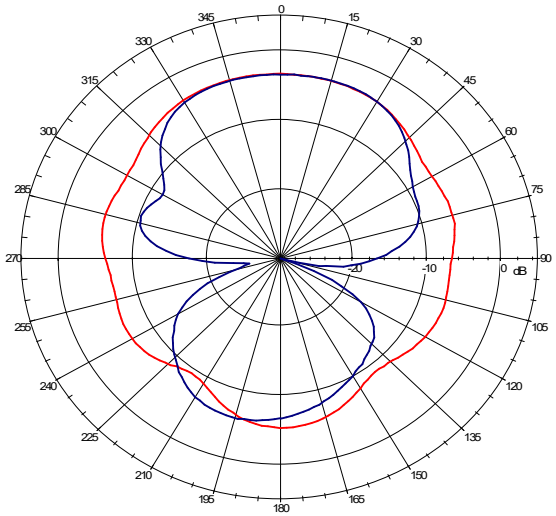



## RADIATION PATTERN (UNIT: dBi)

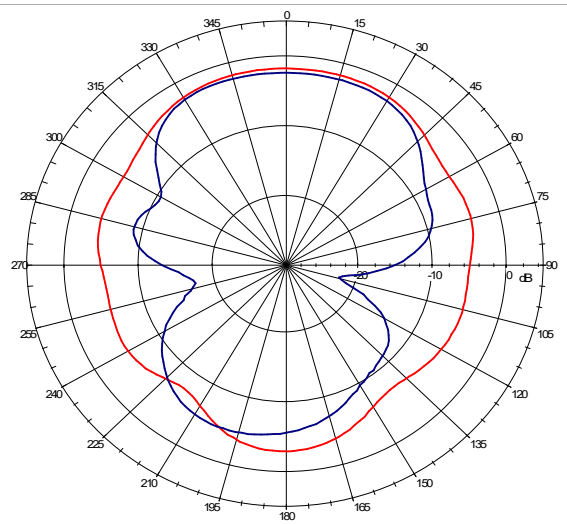
### 1575.42MHz



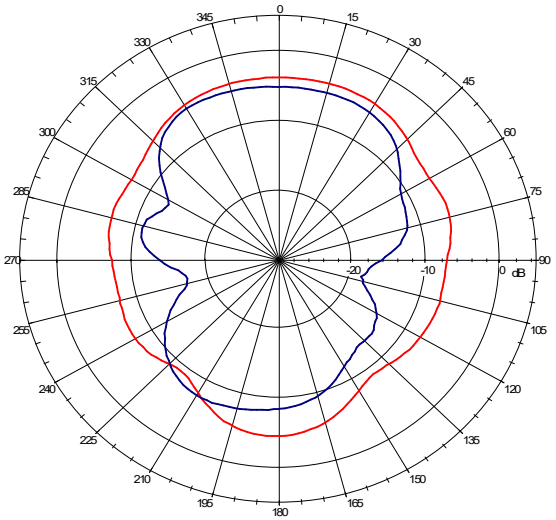

### 1598MHz



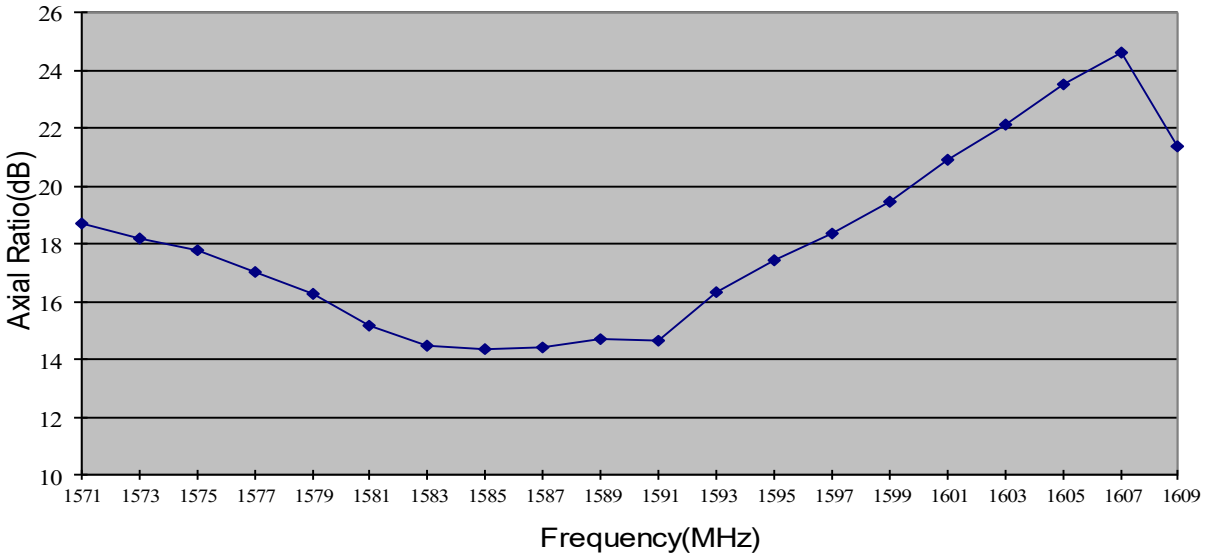

### 1602MHz




### 1606MHz



## AXIAL RATIO (15MM X 15MM GROUND PLANE)




## ENVIRONMENTAL & MECHANICAL SPECIFICATIONS

| | |
|---|---|
| High Temperature Test | 85°C for 240 hours, and then to normal temperature/humidity for 24hours. |
| Low Temperature Test | -30°C for 240 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. |