SUNTSU

Chip Antenna

SATCA-6A5AF-UWB1

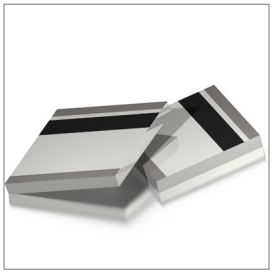
6.0mm x 5.0mm x 0.5mm

Features

- UWB - Ultra Wide Band
- Chip Type
- Stable And Reliable Performance
- 6000-8000MHz
- SMT Process Compatible

Applications

- Automotive Sensors
- Ultra-wideband Radios
- Precision Surveying
- Remote Controls
- Centimeter Level Positioning



Part Numbering Guide

S AT CA 6A5AF UW B1

- **S** — SUNTSU
- **AT** — ANTENNA
- **CA** — CHIP ANTENNA
- **6A5AF** — PACKAGE SIZE*: 6A5AF = 6.0mm x 5.0mm x 0.5mm
- **UW** — APPLICATION: UW = UWB
- **B1** — FREQUENCY: B1 = 6000-8000MHz

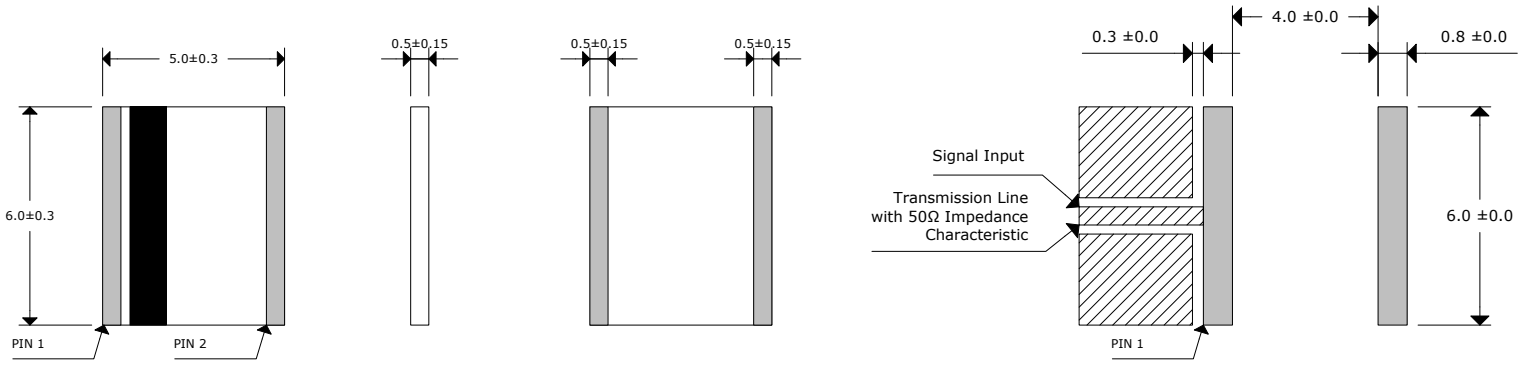
RoHS COMPLIANT

* 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	6000		8000	
Impedance	Ω		50		
Polarization			Linear		
Peak Gain	dBi		4.5		
Efficiency	%		86		
VSWR			2.0		
Operating Temperature	C	-40		85	

Outline Drawing and Land Pattern

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



PIN	FUNCTION
1	Signal
2	N/A

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

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

SUNTSU

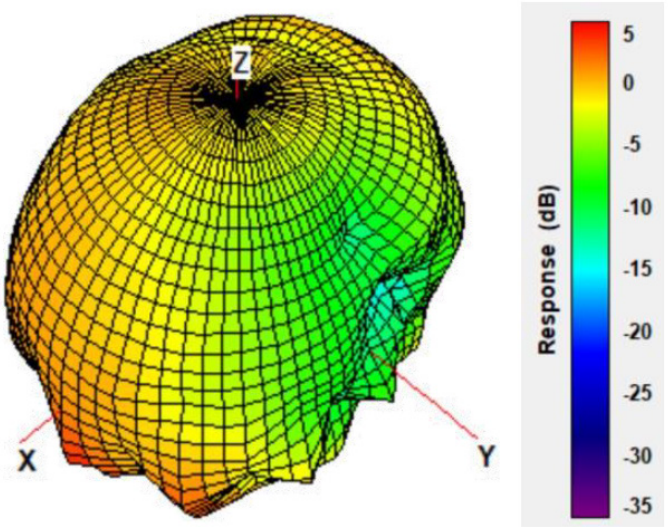
Chip Antenna

SATCA-6A5AF-UWB1

6.0mm x 5.0mm x 0.5mm

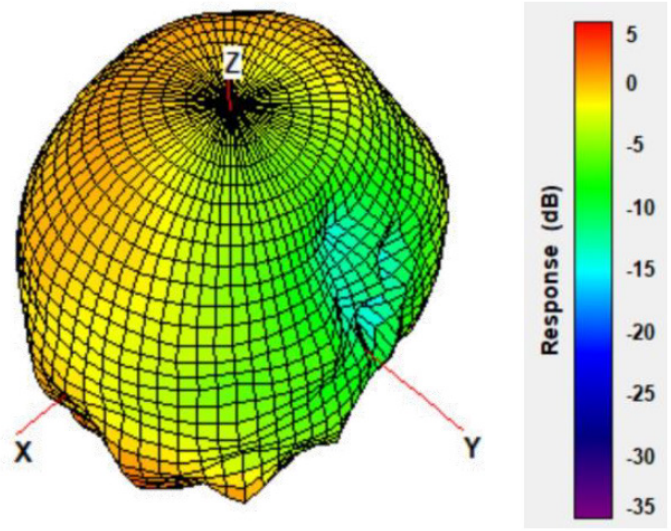
Radiation Pattern

6000MHz



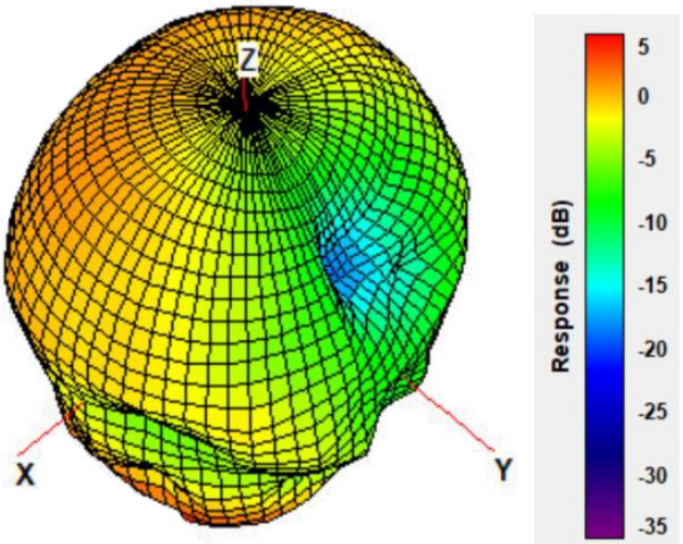
Radiation Pattern

7000MHz

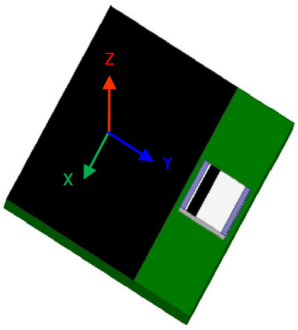


Radiation Pattern

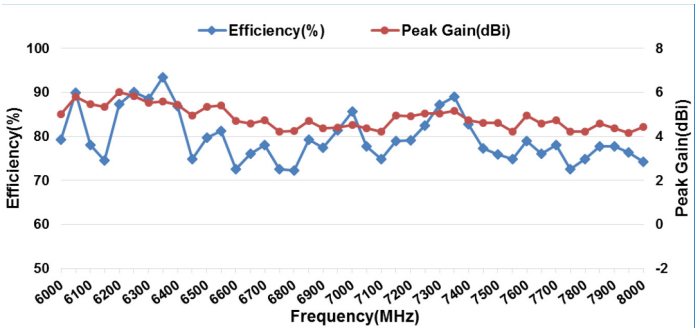
8000MHz



3D Radiation Gain Pattern



Efficiency vs. Peak Gain



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

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

SUNTSU

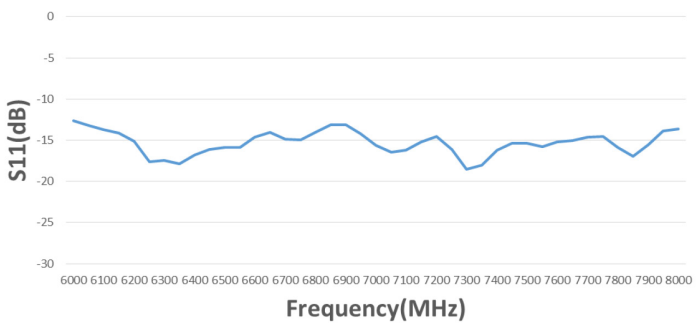
Chip Antenna

SATCA-6A5AF-UWB1

6.0mm x 5.0mm x 0.5mm

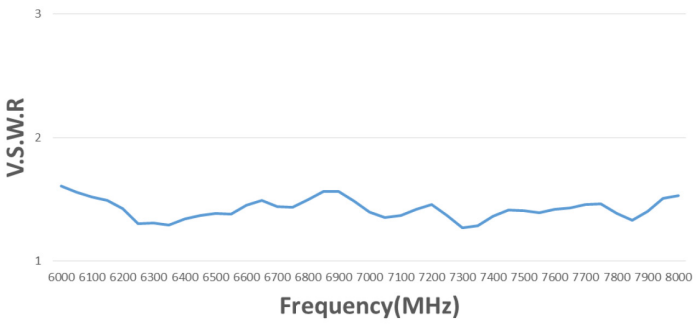
Electrical Test

Return Loss



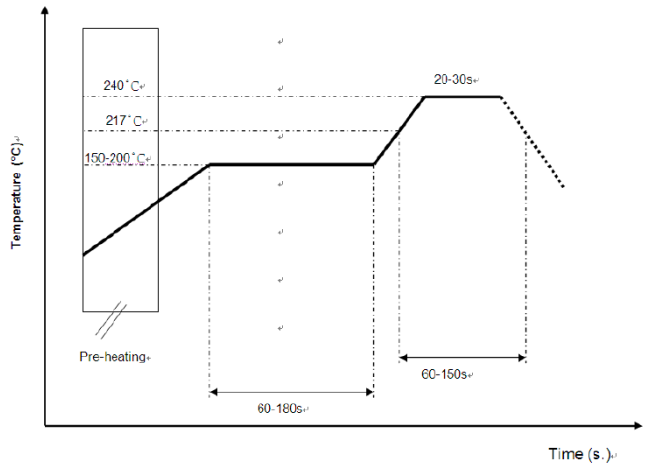
Electrical Test

VSWR



Soldering Conditions

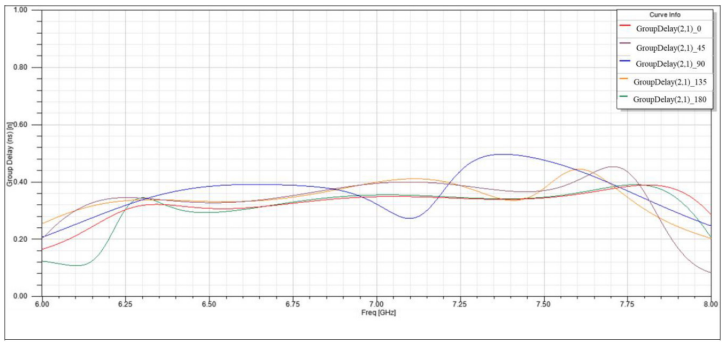
Typical Soldering Profile For Lead-Free Process



*Recommended solder paste alloy: SAC305 (Sn96.5 /Ag3 /Cu0.5) Lead Free solder paste.

Electrical Test

Group Delay vs. Frequency



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%RH 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.

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

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