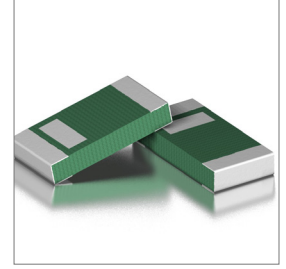


Features

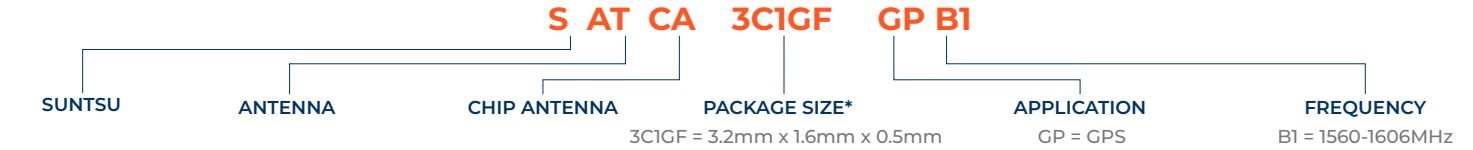
- GNSS
- Chip Type
- Stable And Reliable Performance
- 1560~1606MHz
- SMT Process Compatible

Applications

- Hand-held devices when GPS & BDS & GLONASS & GALILEO functions are needed.
- PDA, Smart Phone, PND



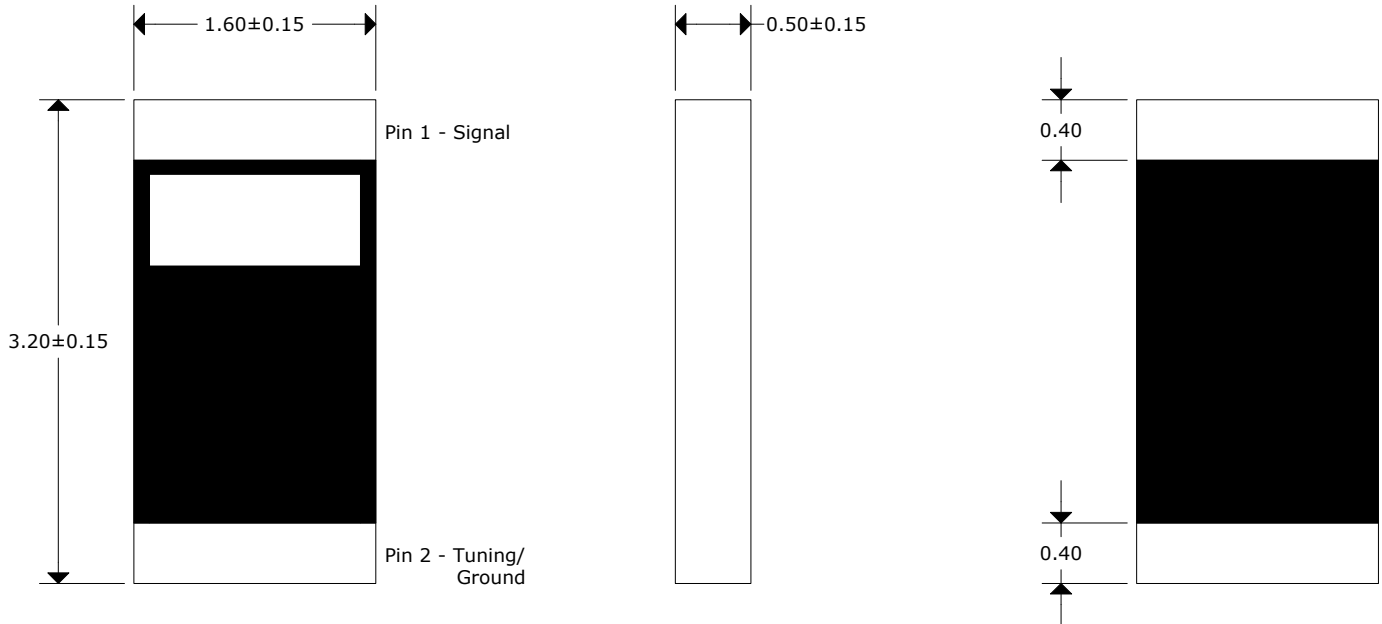
Part Numbering Guide



Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Band	MHz	1560		1606	
Impedance	Ω		50		
Polarization			Linear		
Peak Gain	dBi		1.8		At 1575.42MHz
Efficiency	%		77		At 1575.42MHz
VSWR				2	At Center Frequency
Operating Temperature	C	-40		85	

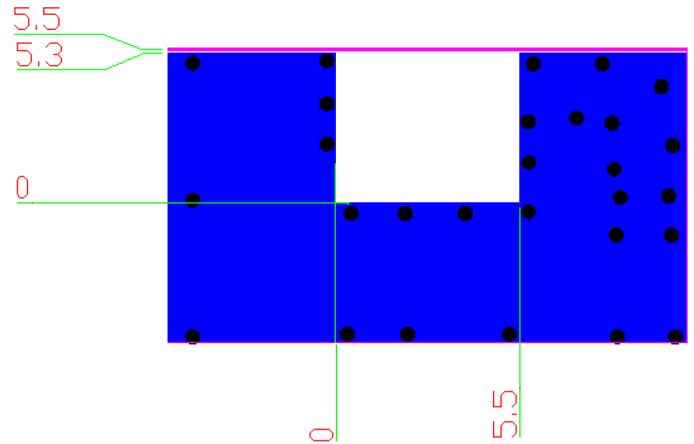
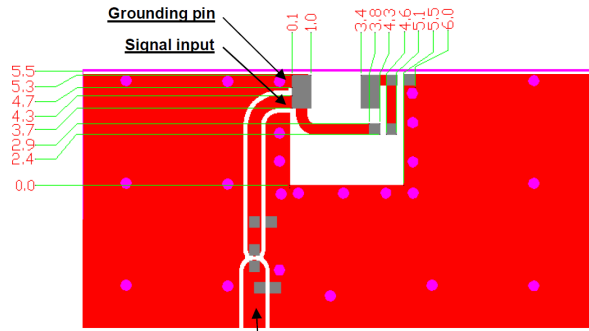
Outline Drawing

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



Recommended Land Pattern & Frequency Tuning Scenario Circuit

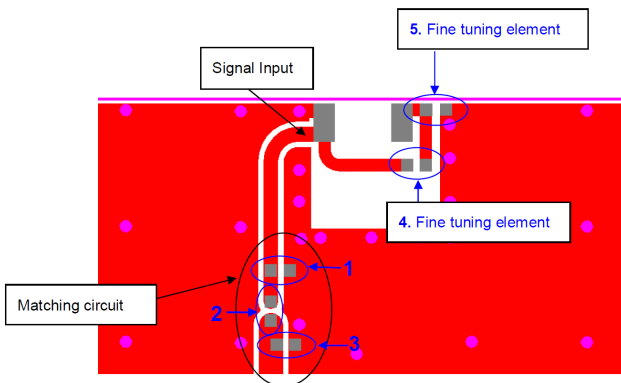
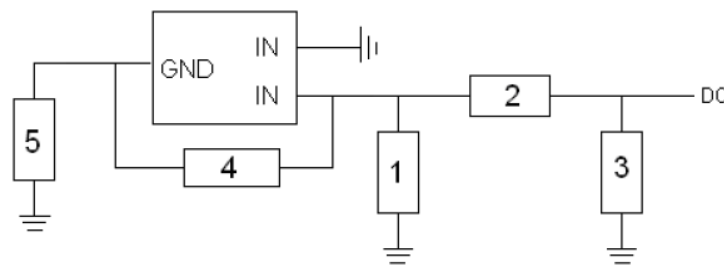
All dimensions are in millimeters (mm) unless otherwise noted. Drawings are not to scale.



Transmission Line with 50Ω Impedance Characteristic

Top View

Bottom View

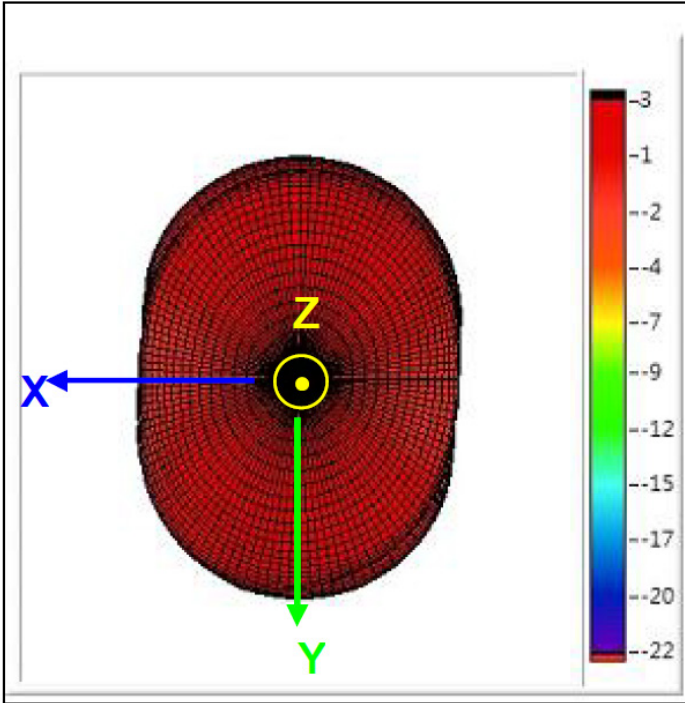


System Matching Circuit Components			
Location	Description	Vendor	Tolerance
1	1.5pF	Murata (0402)	±0.05pF
2	0Ω	-	-
3	3.3pF	Murata (0402)	±0.05pF
4	Fine Tuning Element	Murata (0402)	±0.05pF
5	Fine Tuning Element	Murata (0402)	±0.05pF

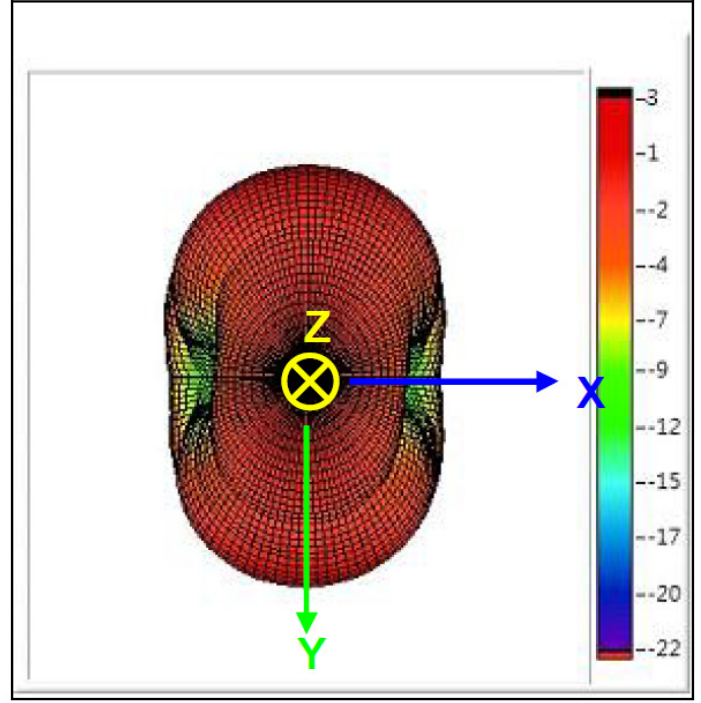
For these suggested values for the matching and tuning of components the center frequency will be 1575.42MHz on a standard 80 x 40mm² Evaluation board.

Please note, these are reference values which may need to be changed when different circuit boards or manufactures are used.

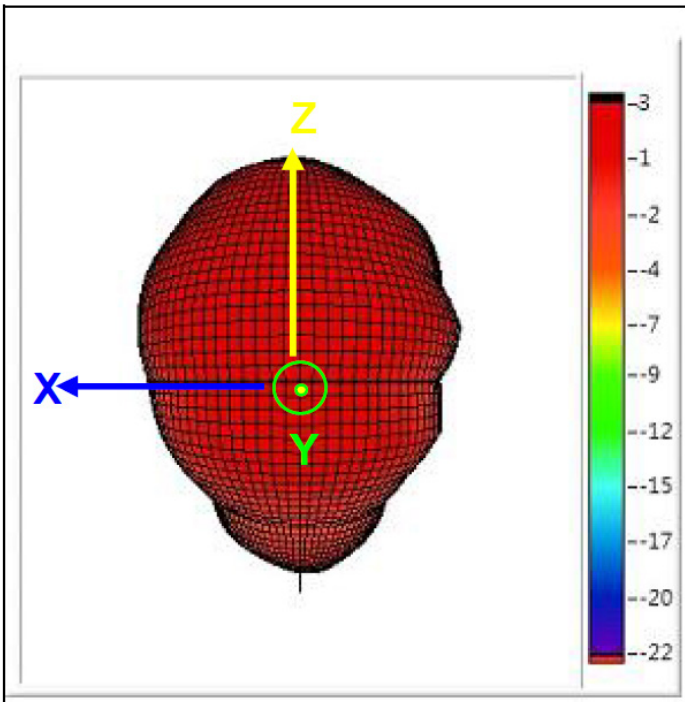
Radiation Pattern For Single Signal Mode
 1561MHz GPS Band



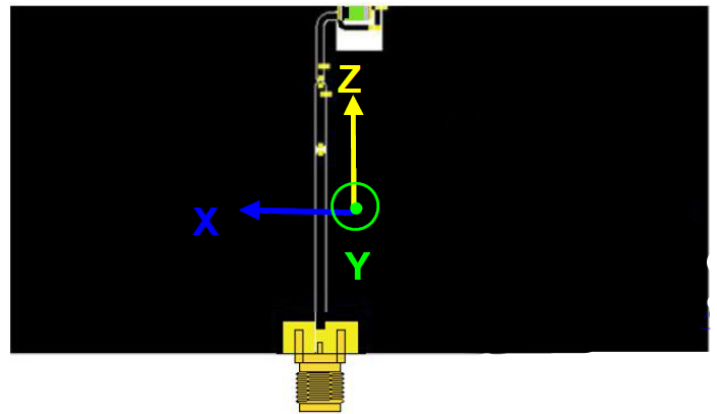
Radiation Pattern For Single Signal Mode
 1561MHz GPS Band



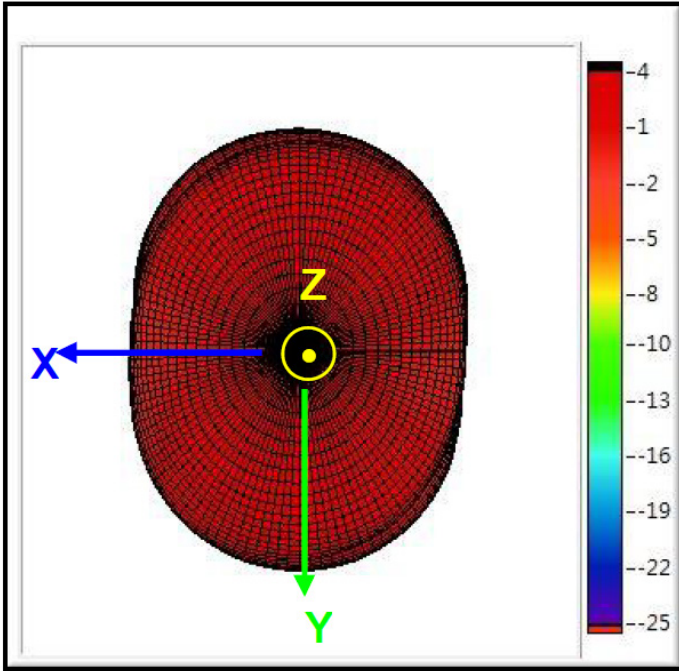
Radiation Pattern For Single Signal Mode
 1561MHz GPS Band



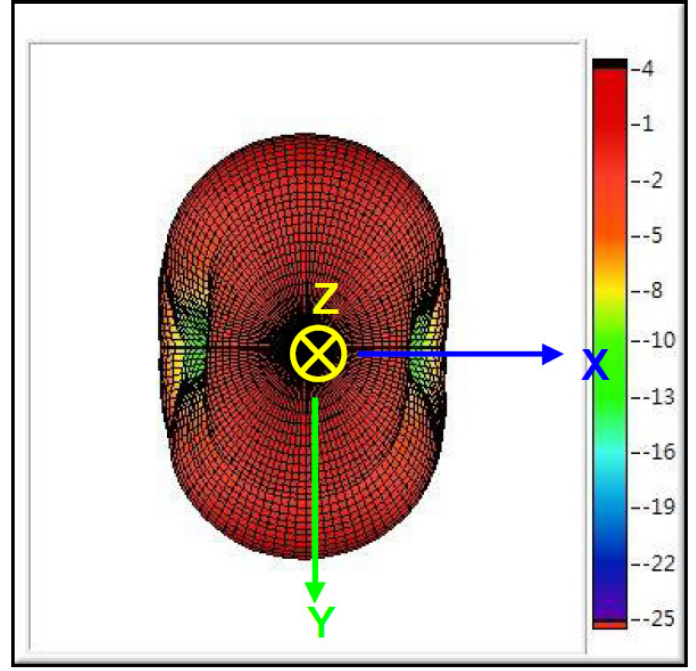
Evaluation Board
 1561MHz GPS Band



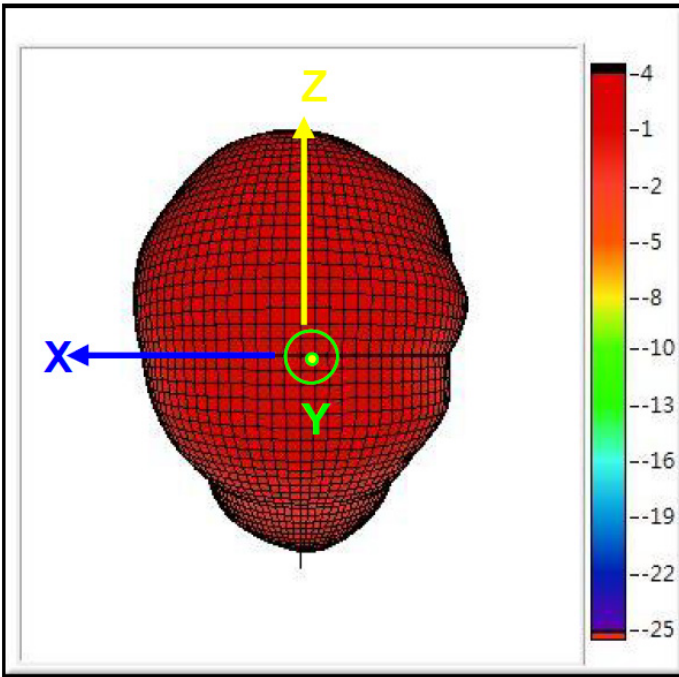
Radiation Pattern For Single Signal Mode
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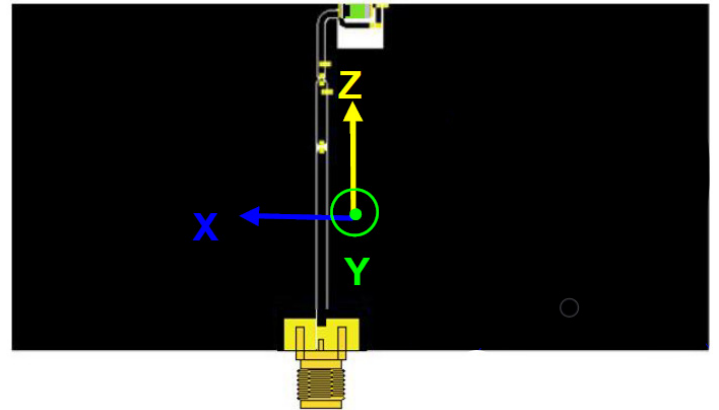
Radiation Pattern For Single Signal Mode
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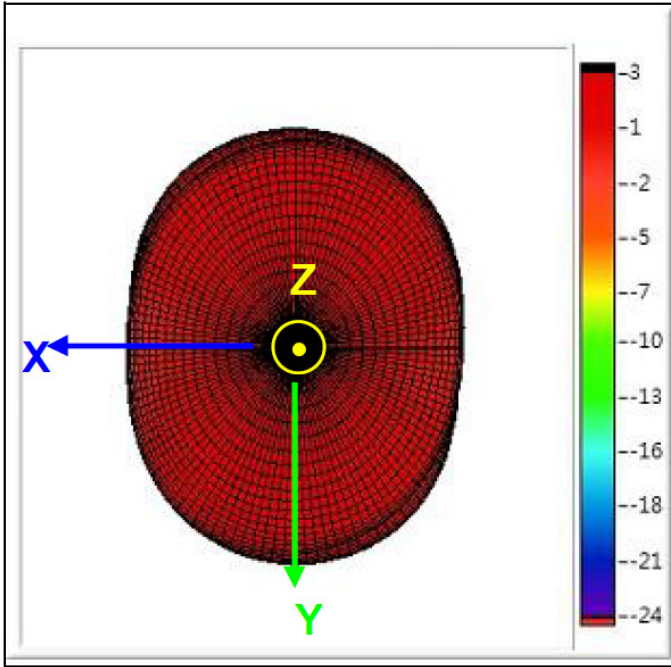
Radiation Pattern For Single Signal Mode
 1575.42MHz GPS Band



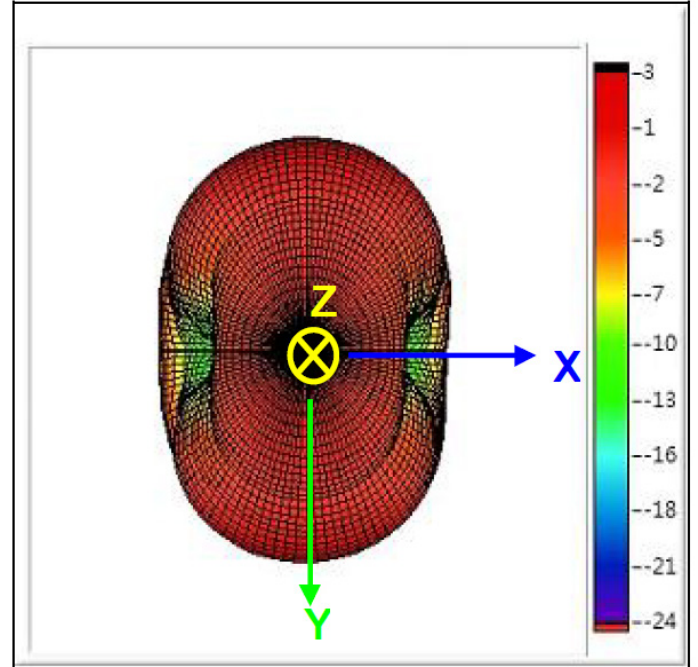
Evaluation Board
 1575.42MHz GPS Band



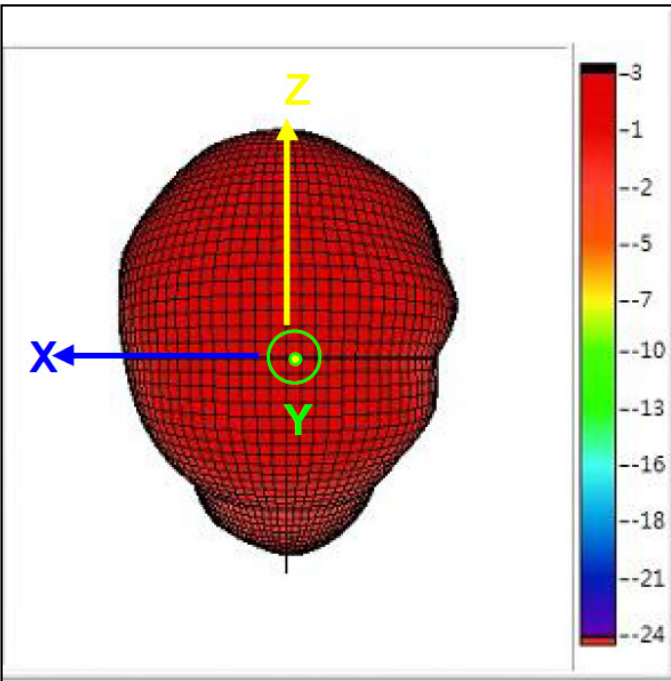
Radiation Pattern For Single Signal Mode
 1590MHz GPS Band



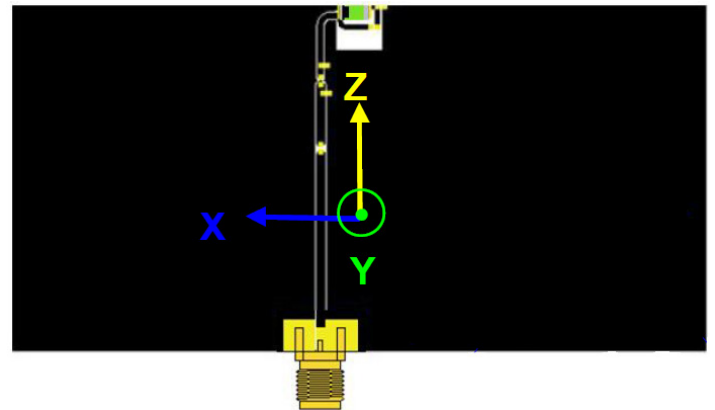
Radiation Pattern For Single Signal Mode
 1590MHz GPS Band



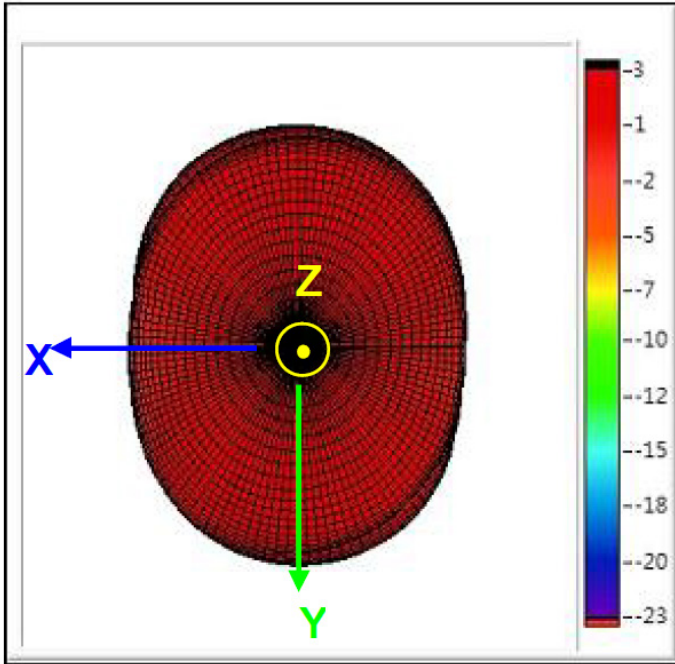
Radiation Pattern For Single Signal Mode
 1590MHz GPS Band



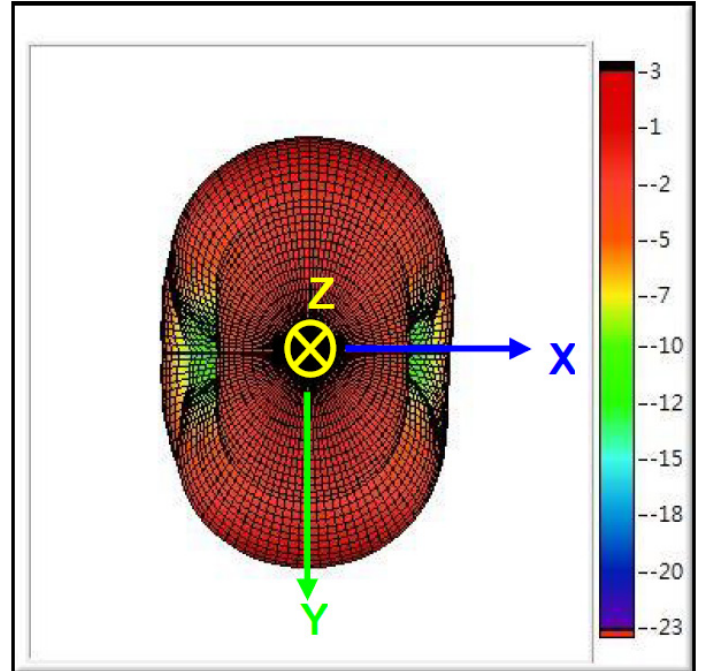
Evaluation Board
 1590MHz GPS Band



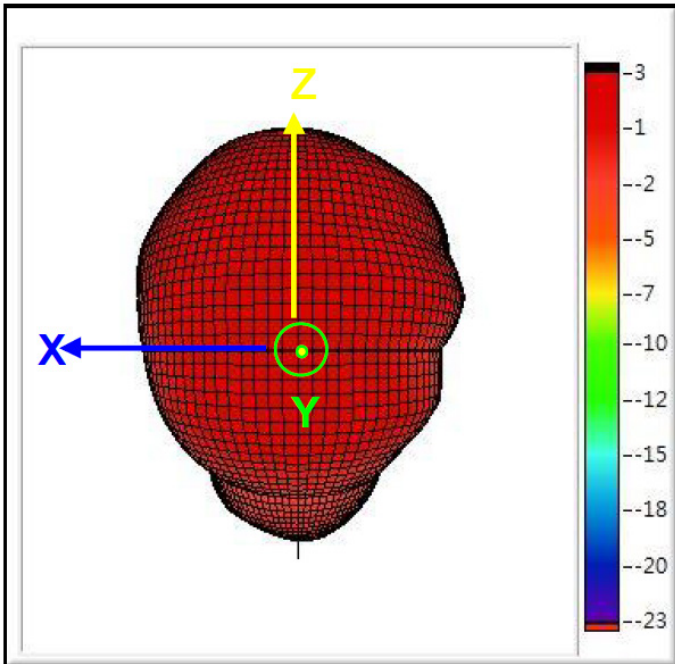
Radiation Pattern For Single Signal Mode
 1602MHz GPS Band



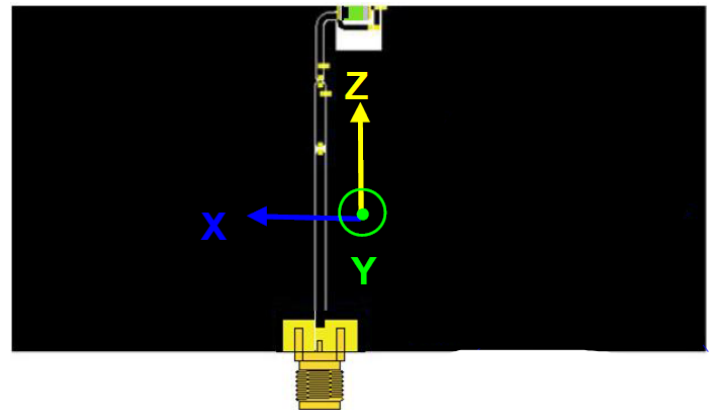
Radiation Pattern For Single Signal Mode
 1602MHz GPS Band



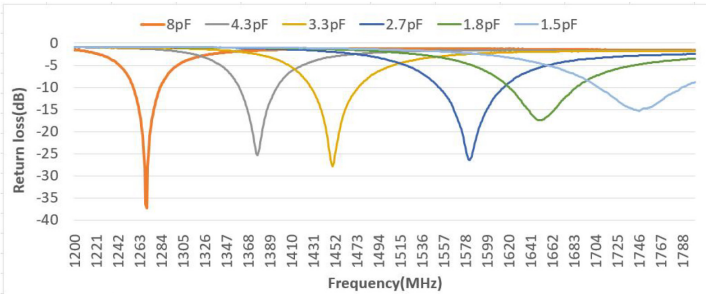
Radiation Pattern For Single Signal Mode
 1602MHz GPS Band



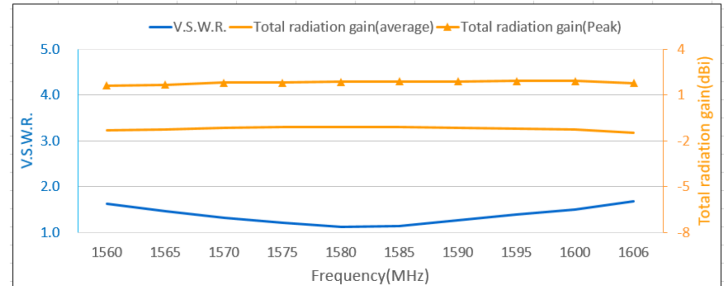
Evaluation Board
 1602MHz GPS Band



Frequencies vs Capacitance of Tuning Element

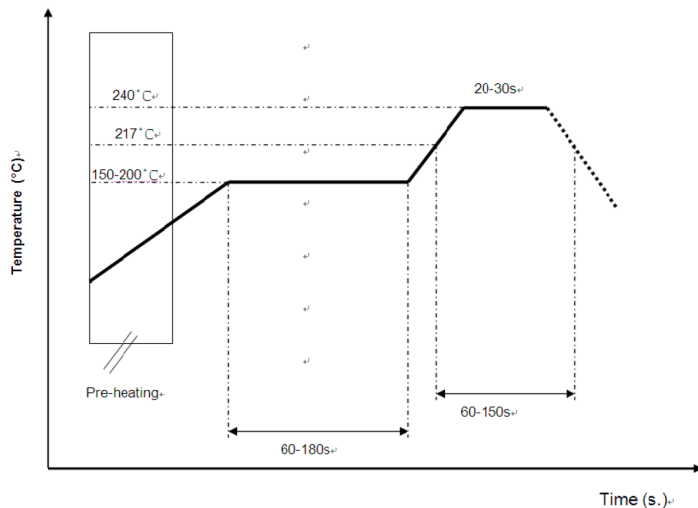


Frequency vs VSWR and Total Radiation Gain



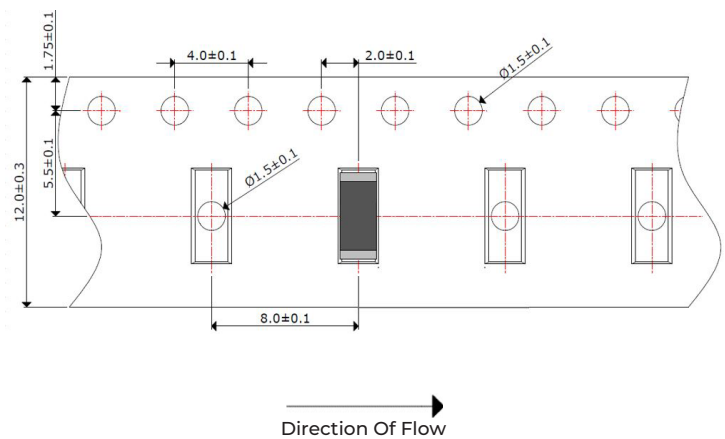
Soldering Conditions

Typical Soldering Profile For Lead-Free Process



Packaging - Tape And Reel

5000Pcs / Reel



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.
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.