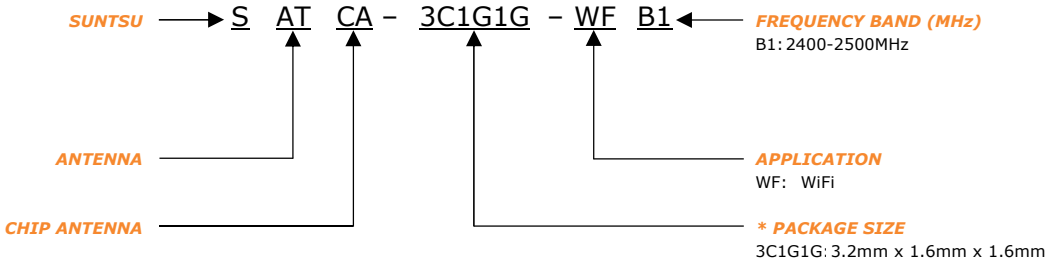
SATCA-3C1G1G-WFB1

3.2mm x 1.6mm x 1.6mm CHIP ANTENNA

FEATURES	APPLICATIONS
- WiFi/ZigBee/Bluetooth - Chip Type - Stable And Reliable Performance - 2400-2500MHz - SMT Process Compatible	- ISM 2.4 GHz Applications - ZigBee/BLE Applications - Bluetooth Earphone Systems - Smart Hand Held Devices - Machine To Machine Communication

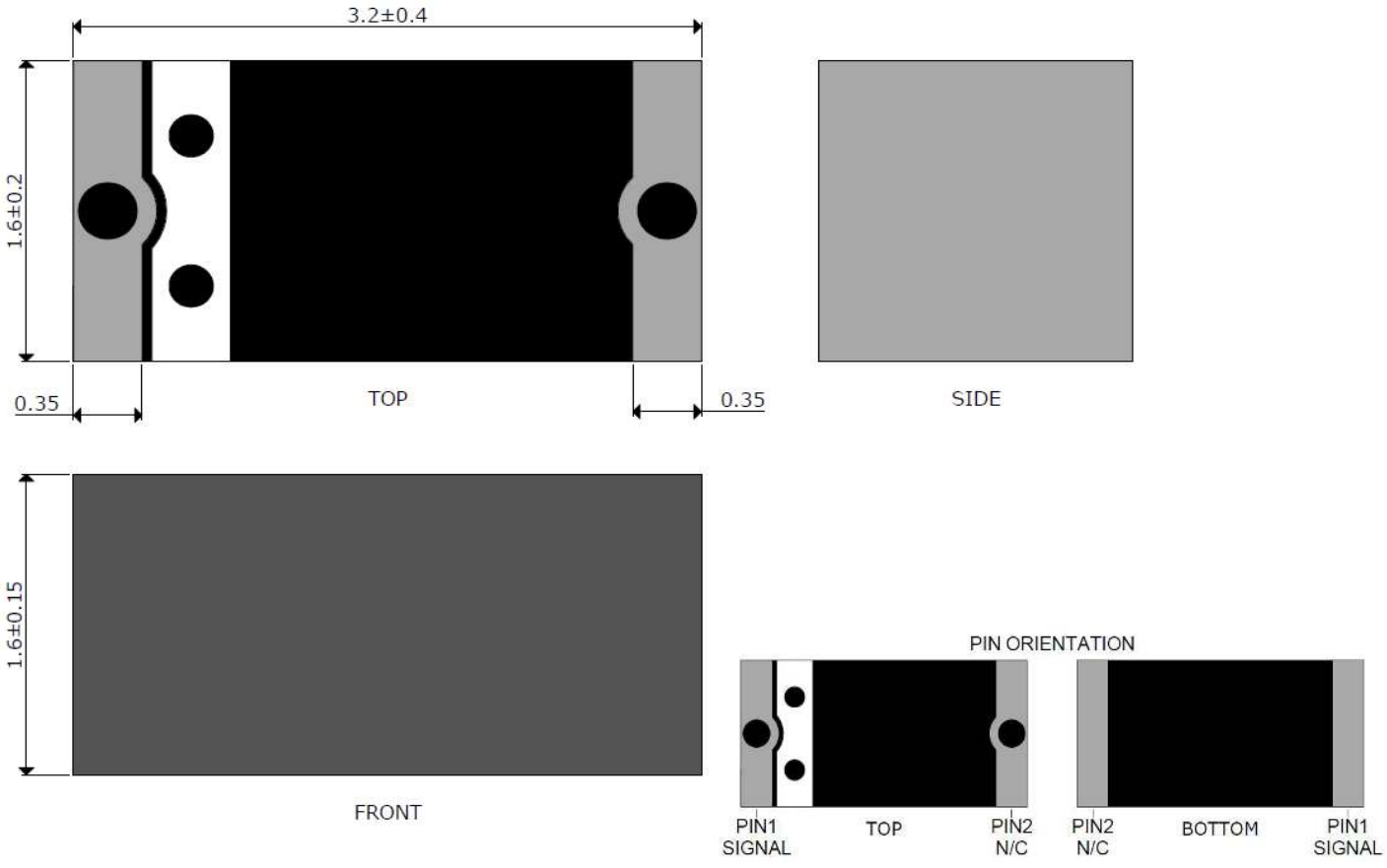
PART NUMBERING GUIDE



* 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.

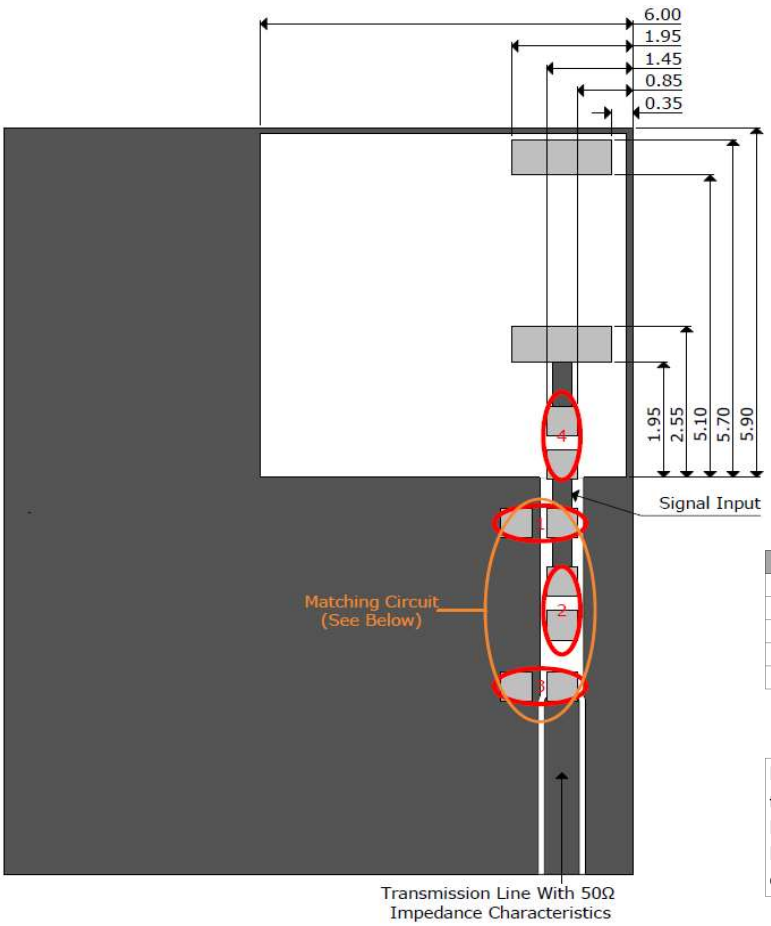
ELECTRICAL PARAMETERS (At 25ºC)	UNITS	MIN.	TYP.	MAX	REMARKS
Frequency Band	MHz	2400		2500	
Impedance	Ω		50		
Polarization			Linear		
Peak Gain	dBi		1.9		At 2442MHz
Efficiency	%		61		At 2442MHz
VSWR				2	At Center Frequency
Operating Temperature	ºC	-40		85	

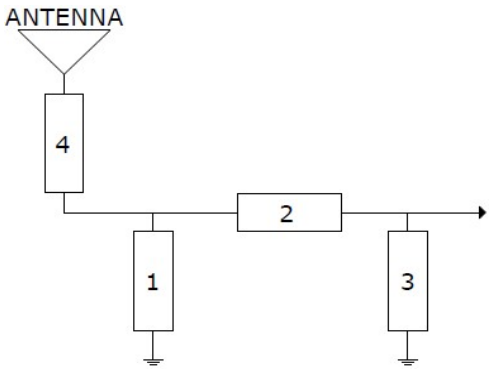
OUTLINE DRAWING (NOTE: All dimensions are in millimeters [mm], unless otherwise noted. Drawings are not to scale.)



Telephone • 949.305.0220
Facsimile • 949.305.0221

RECOMMENDED LAND PATTERN & FREQUENCY TUNING SCENARIO CIRCUIT (NOTE: All dimensions are in mm, unless otherwise noted. Drawings are not to scale.)



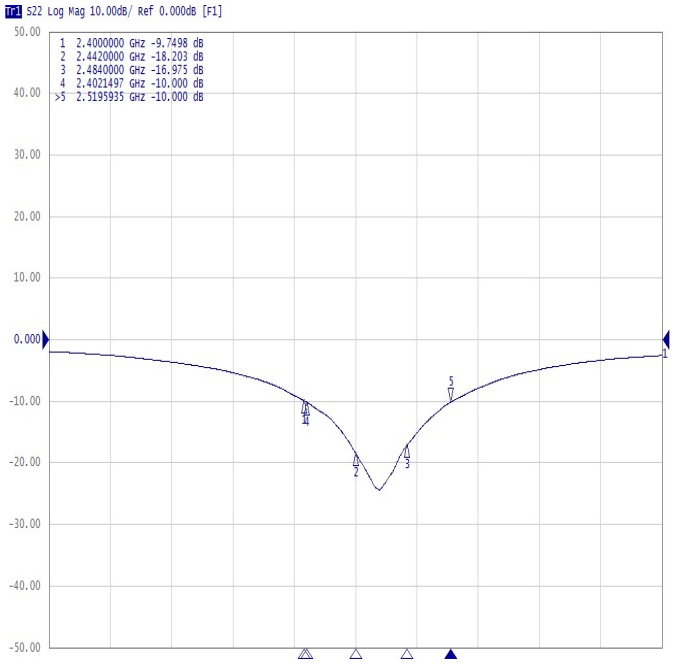


System Matching Circuit Components			
Location	Description	Vendor	Tolerance
1	N/A	-	-
2	0Ω, (0402)	-	-
3	0.4pF, (0402)	MURATA	±0.05pF
4 (Fine Tuning)	8.2nH, (0402)	MURATA	±2%

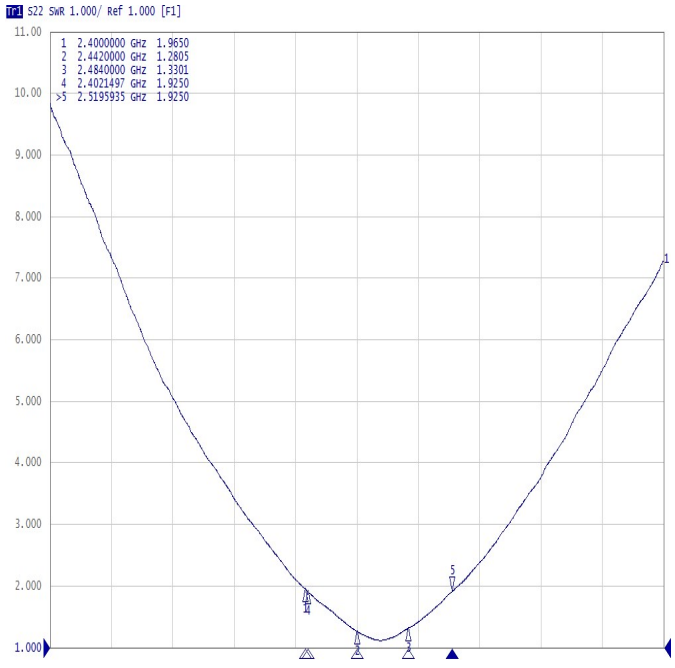
For these suggested values for the matching and tuning of components, the average frequency will be 2442MHz on a standard 40 x 40mm^2 Evaluation board.
Please note, these are average reference values which may need to be changed when different circuit boards or manufactures are used.

ELECTRICAL TEST

Return Loss

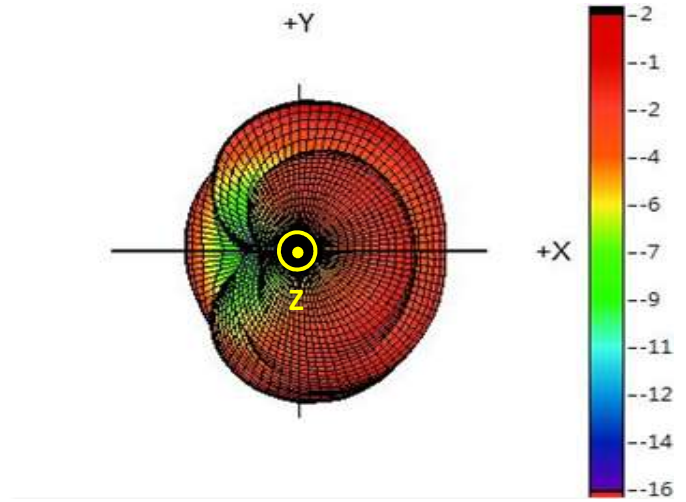


VSWR

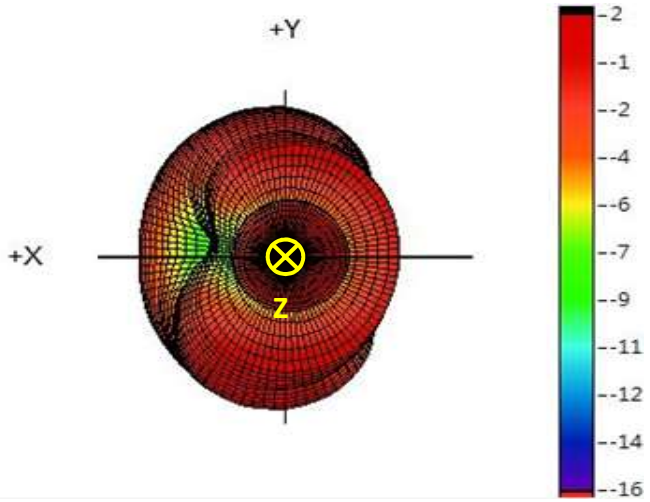


3D RADIATION PATTERN (UNIT: dBi) AND EFFICIENCY vs FREQUENCY

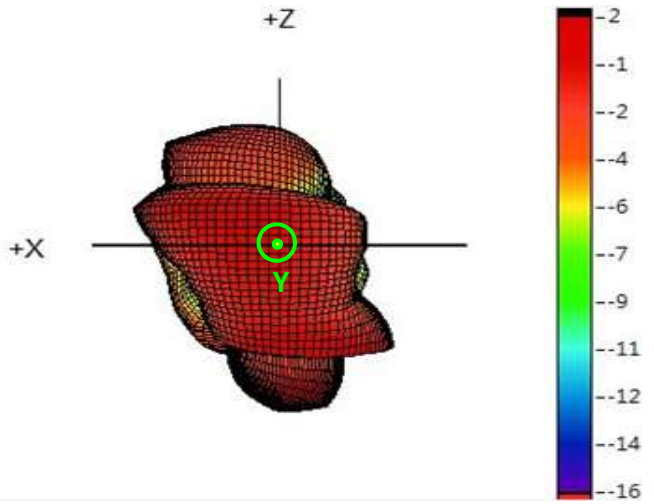
2442MHz



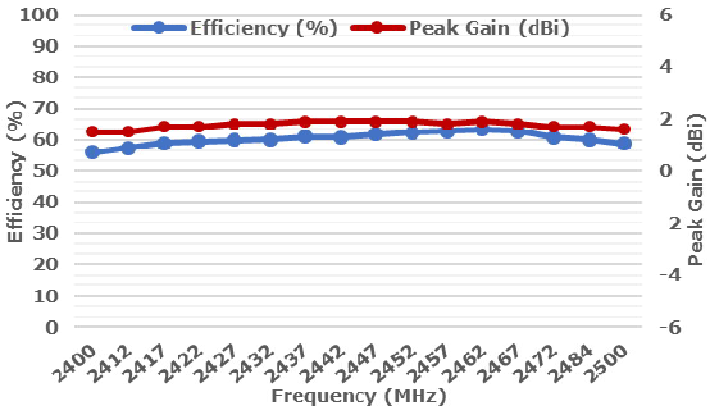
2442MHz



2442MHz



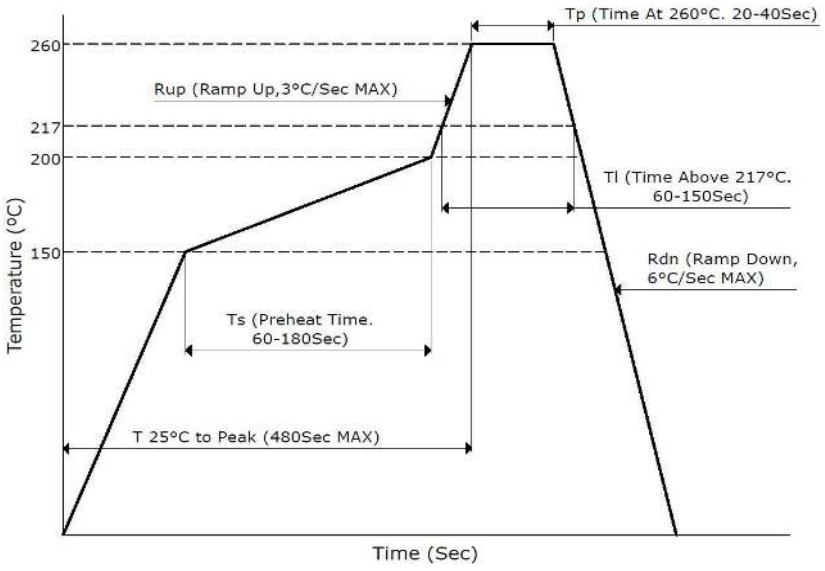
2442MHz



Freq.	2400	2412	2417	2422	2427	2432	2437	2442	2447	2452	2457	2462	2467	2472	2484	2500
Eff. (%)	56	57.4	58.9	59.4	59.8	60.1	61.1	60.8	61.8	62.4	62.8	63.4	62.8	60.8	60	58.7
P.G.(dBi)	1.5	1.5	1.7	1.7	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.9	1.8	1.7	1.7	1.6

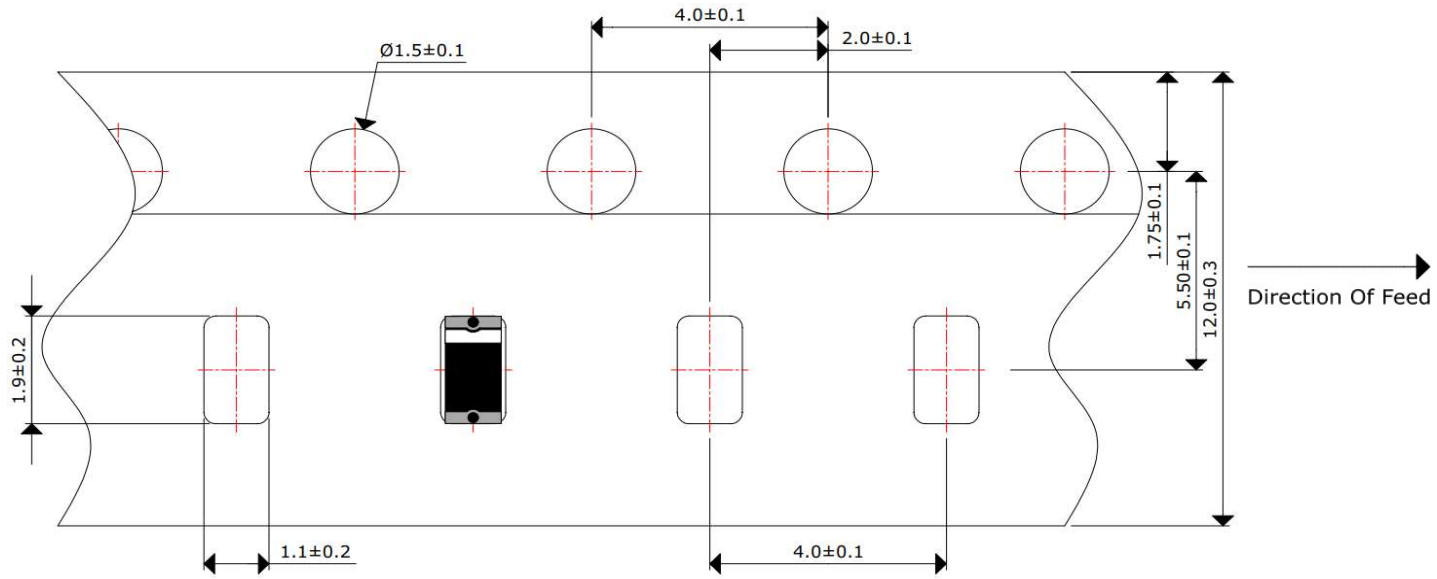
SOLDERING CONDITIONS

Typical Soldering Profile For Lead-Free Process



PACKAGING - TAPE AND REEL (NOTE: All dimensions are in mm, unless otherwise noted. Drawings are not to scale.)

2,000pcs / 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% 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.