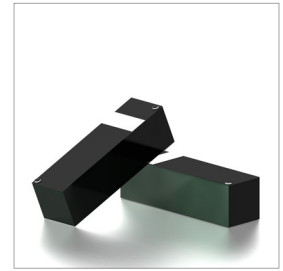
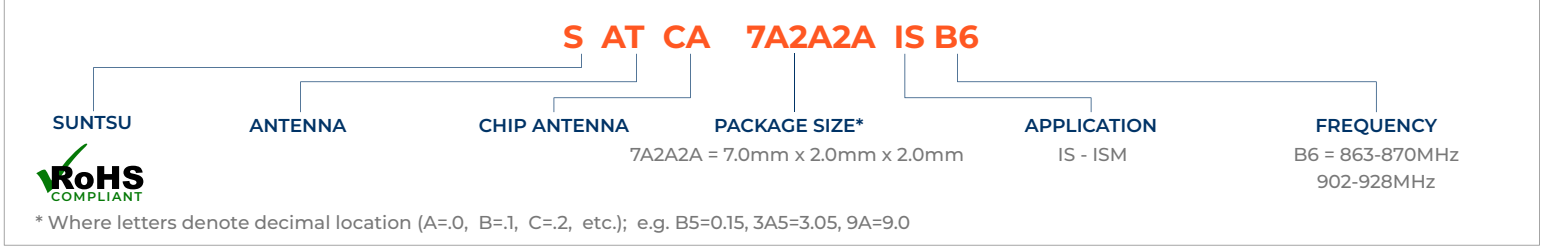


Features
<ul style="list-style-type: none"> <li>ISM</li> <li>Chip Type</li> <li>Stable And Reliable Performance</li> <li>863-870MHz &amp; 902-928MHz</li> <li>SMT Process Compatible</li> </ul>

Applications
<ul style="list-style-type: none"> <li>ISM Band System</li> <li>Wireless Alarm And Security System</li> <li>Smart Meters</li> <li>IOT Applications</li> <li>Machine To Machine Communication</li> </ul>



### Part Numbering Guide

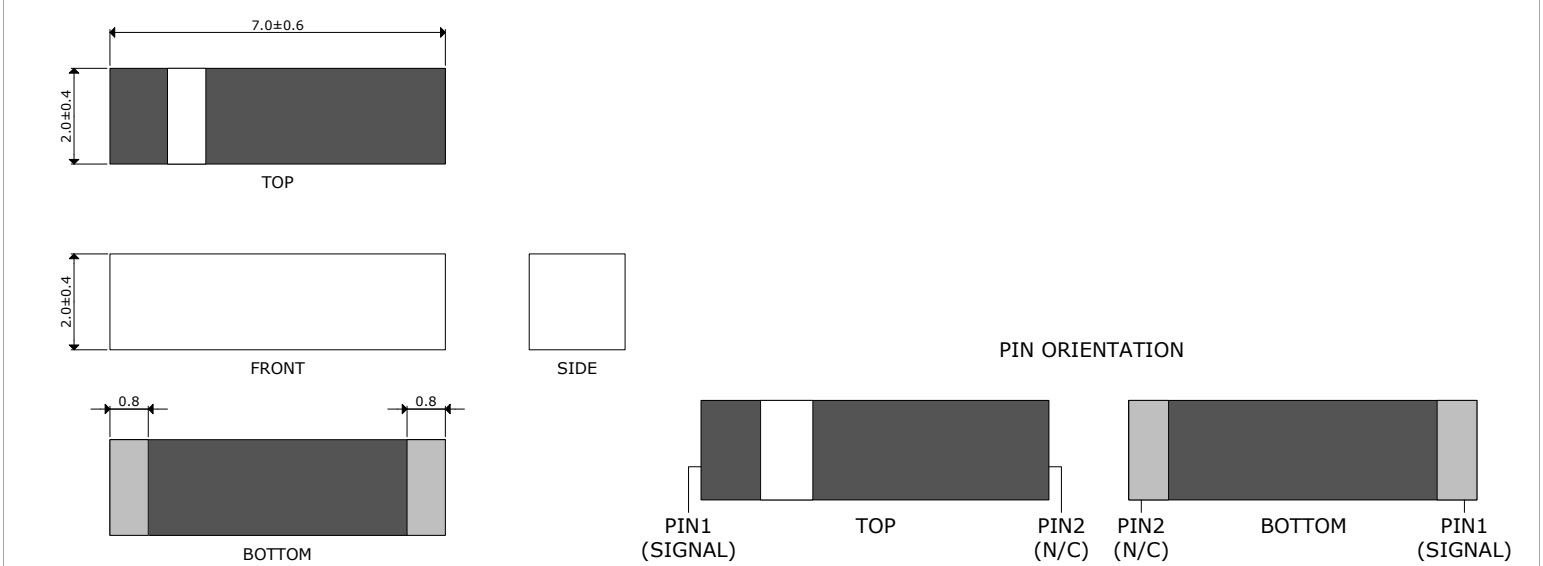


Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Band	MHz	863		870	
Impedance	$\Omega$		50		
Polarization			Linear		
Peak Gain	dBi		-9.2		At 868MHz
Efficiency	%		1.4		At 868MHz
VSWR				2	At Center Frequency
Operating Temperature	C	-40		85	

Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Band	MHz	5150		5800	
Impedance	$\Omega$		50		
Polarization			Linear		
Peak Gain	dBi		-8.5		At 915MHz
Efficiency	%		13		At 915MHz
VSWR				2	At Center Frequency
Operating Temperature	C	-40		85	

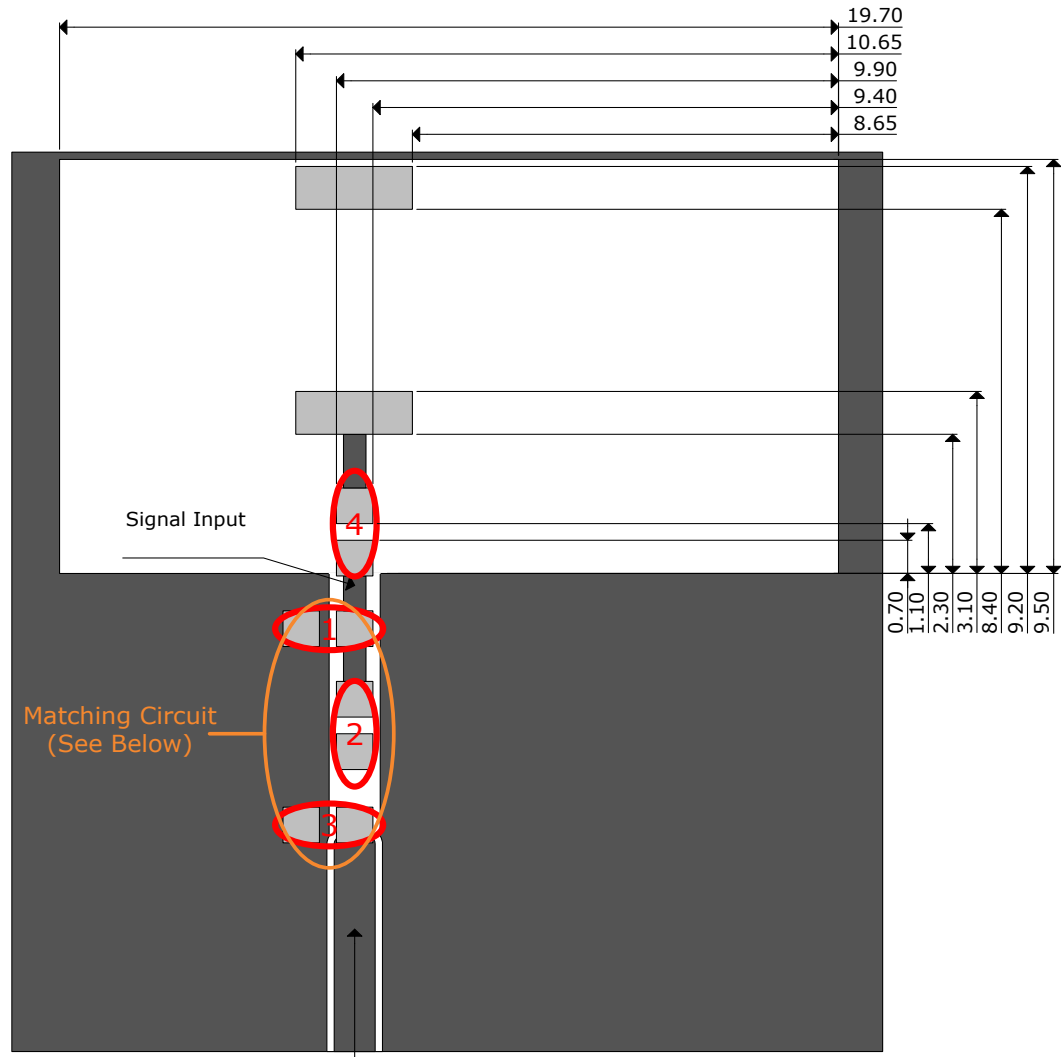
### Outline Drawing

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.



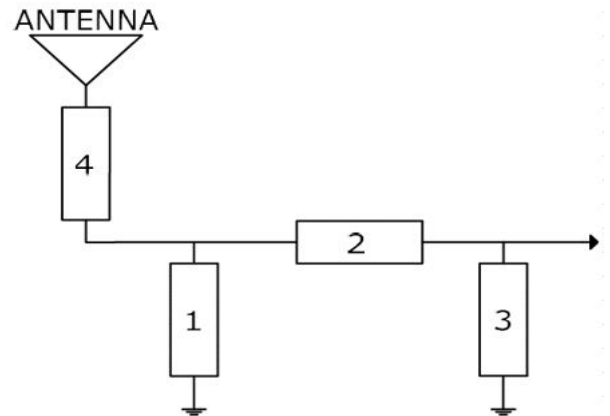
For these suggested values for the matching and tuning of components, the average frequency will be 868 & 915MHz on a standard 49.5 x 20mm<sup>2</sup> Evaluation board.

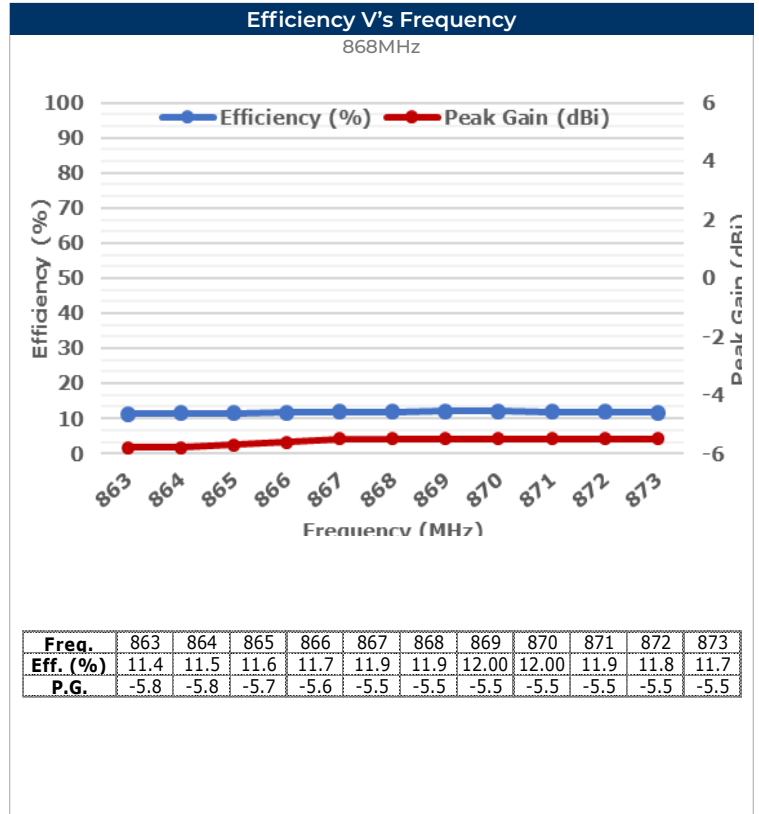
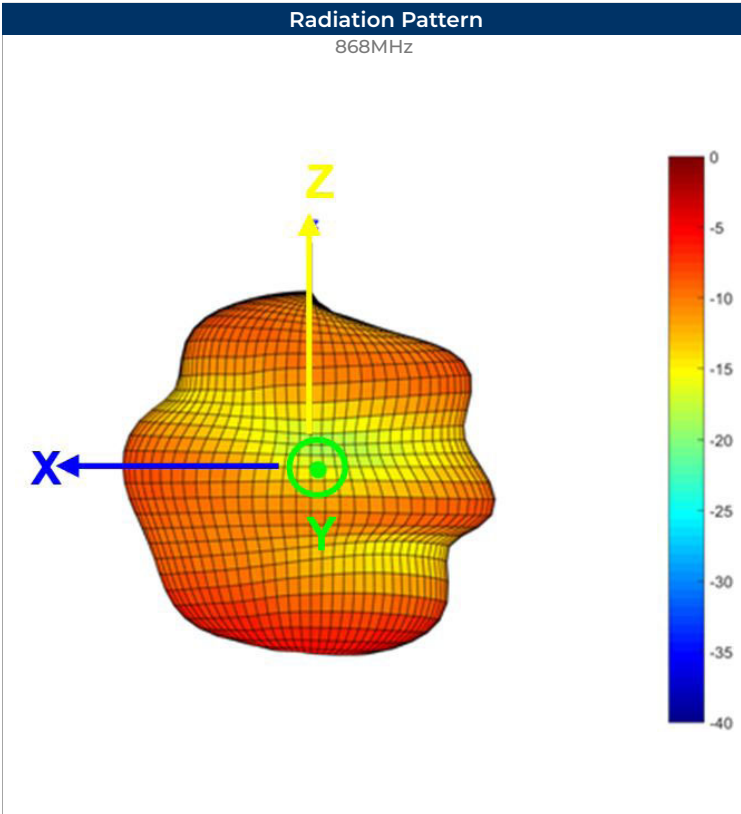
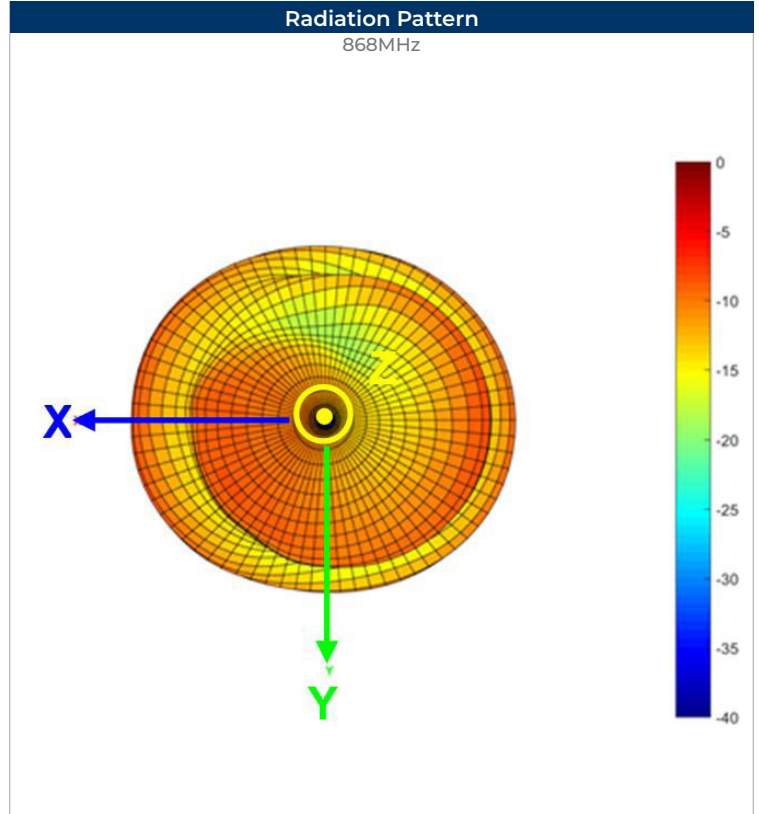
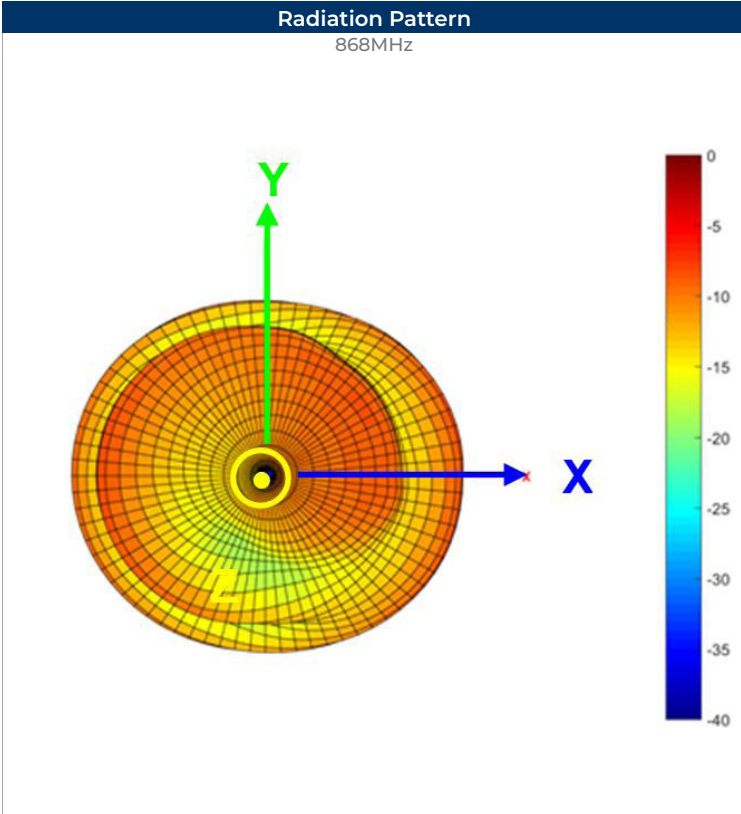
Please note, these are average reference values which may need to be changed when different circuit boards or manufactures are used.

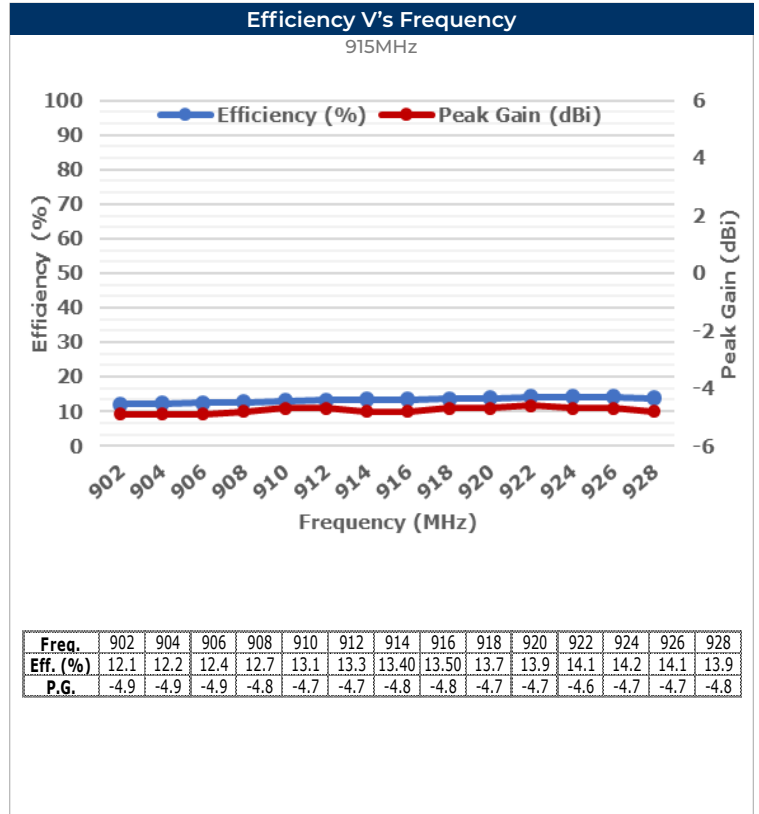
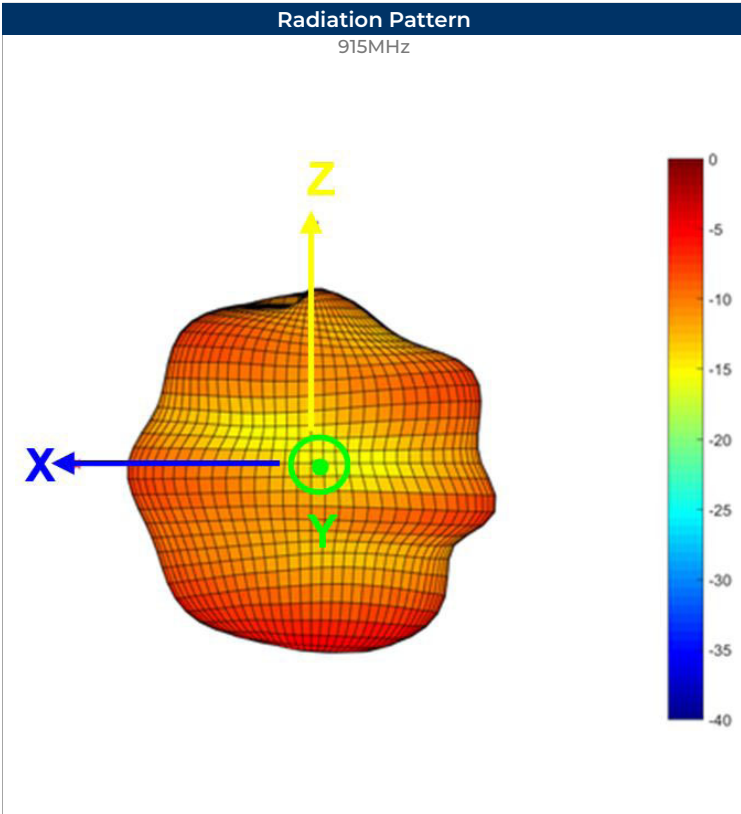
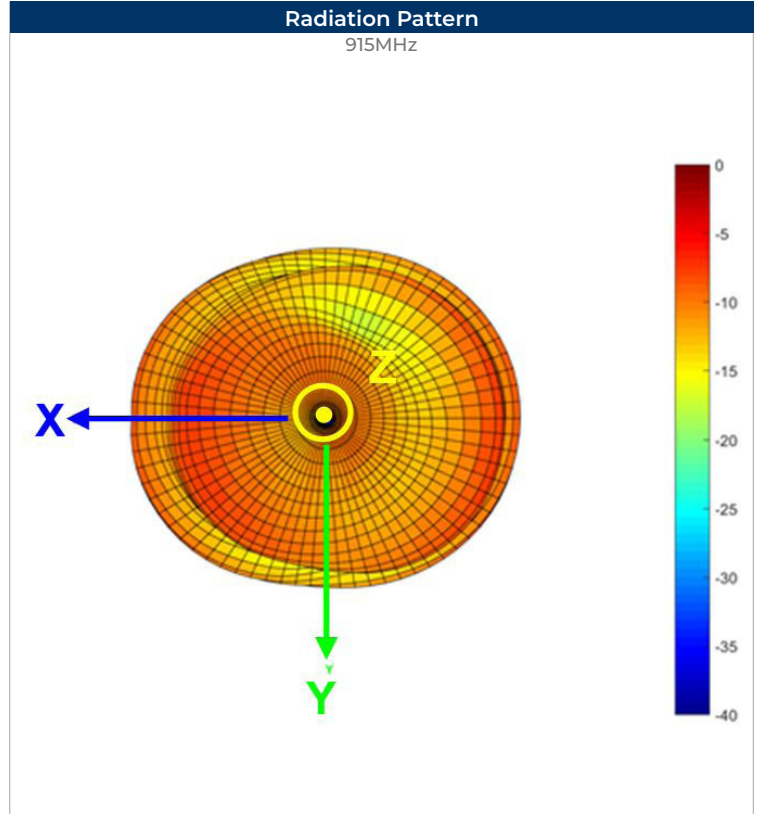
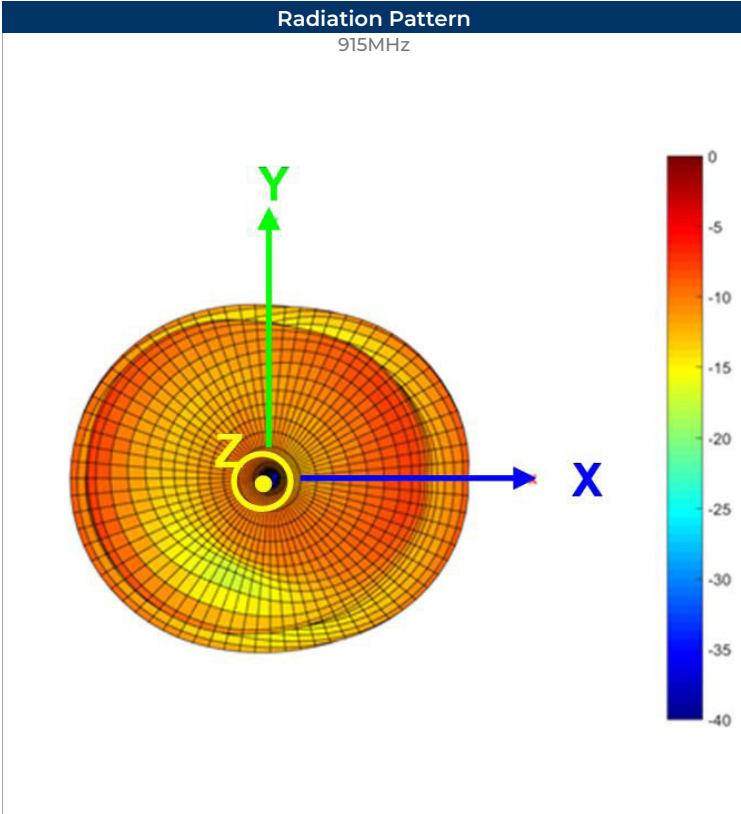
Matching Circuit  
 (See Below)

Transmission Line With 50Ω Impedance Characteristics

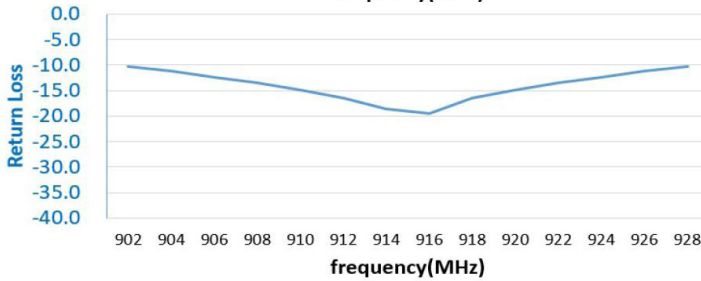
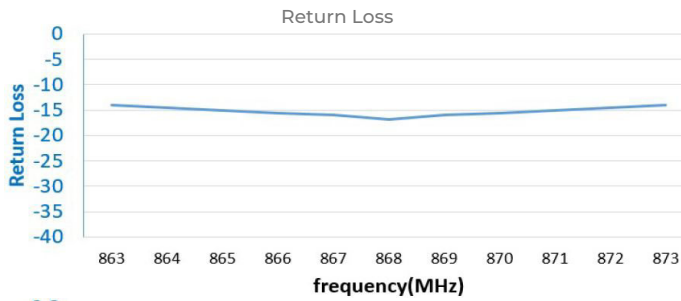
System Matching Circuit Components (868MHz Band)			
Location	Description	Vendor	Tolerance
1	N/A	-	-
2	2.2nH, (0402)	MURATA	±0.1nF
3	0.8pF, (0402)	MURATA	±0.05pF
4 (Fine Tuning)	68nH, (0402)	MURATA	±5%
System Matching Circuit Components (915MHz Band)			
Location	Description	Vendor	Tolerance
1	N/A	-	-
2	10nH, (0402)	MURATA	±5%
3	1pF, (0402)	MURATA	±0.05pF
4 (Fine Tuning)	56nH, (0402)	MURATA	±5%



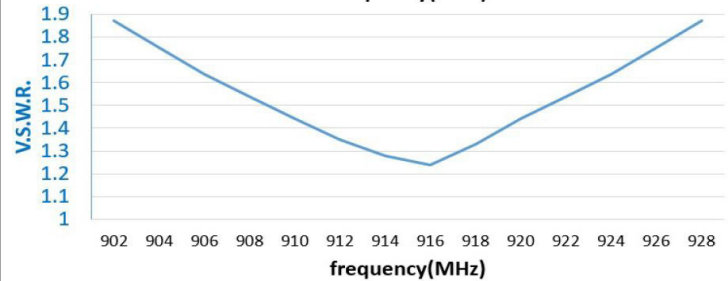
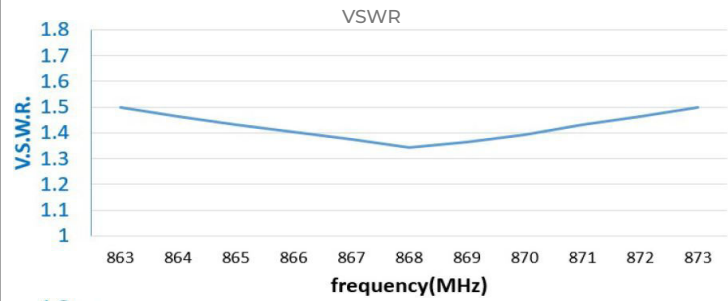




**Electrical Test**

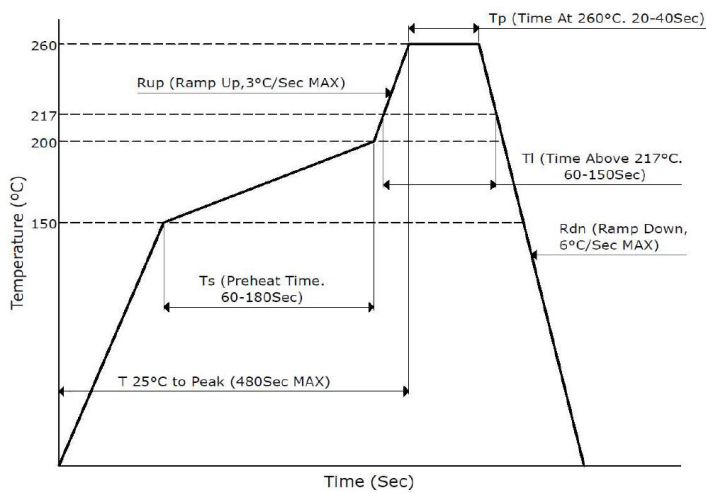


**Electrical Test**



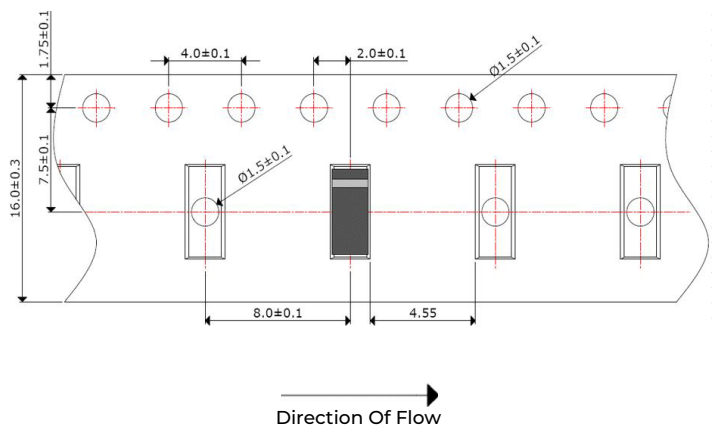
**Soldering Conditions**

Typical Soldering Profile For Lead-Free Process



**Packaging - Tape And Reel**

900Pcs / 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.