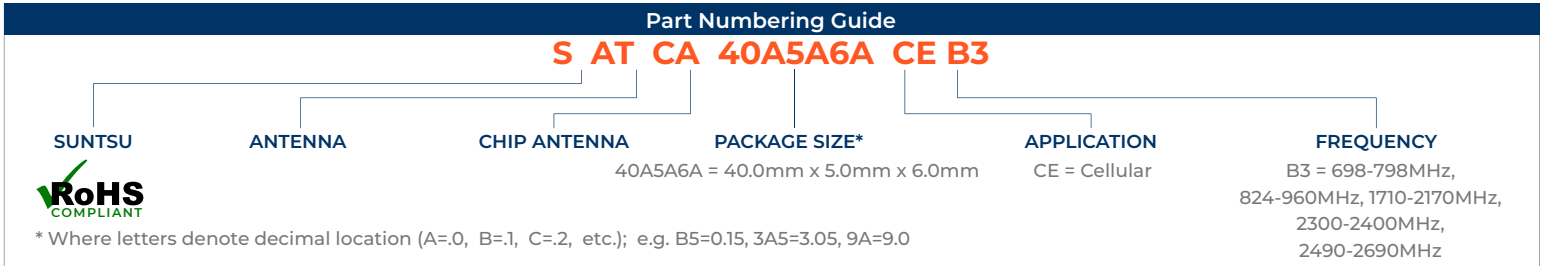
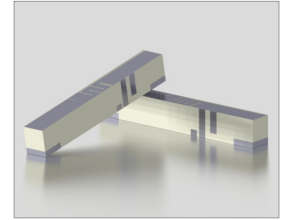


Features
<ul style="list-style-type: none"> <li>LTE Full Band / 3G / 2G</li> <li>Chip Type</li> <li>Stable And Reliable Performance</li> <li>698-798MHz, 824-960MHz, 1710-2170MHz, 2300-2400MHz and 2490-2690MHz</li> </ul>

Applications
<ul style="list-style-type: none"> <li>LTE Full Band / 3G / 2G</li> <li>LTE / GSM / CDMA / DCS / PCS / WCDMA / UMTS</li> <li>HSDPA / GPRS / EDGE / IMT.</li> <li>Machine To Machine Communication</li> </ul>



Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Band	MHz	698		798	
Impedance	$\Omega$		50		
Polarization			Linear		
Peak Gain	dBi		1.4		At 748MHz
Efficiency	%		65		At 748MHz
VSWR			3		At Center Frequency
Operating Temperature	C	-40		85	

Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Band	MHz	824		960	
Impedance	$\Omega$		50		
Polarization			Linear		
Peak Gain	dBi		1.1		At 900MHz
Efficiency	%		61		At 900MHz
VSWR			3		At Center Frequency
Operating Temperature	C	-40		85	

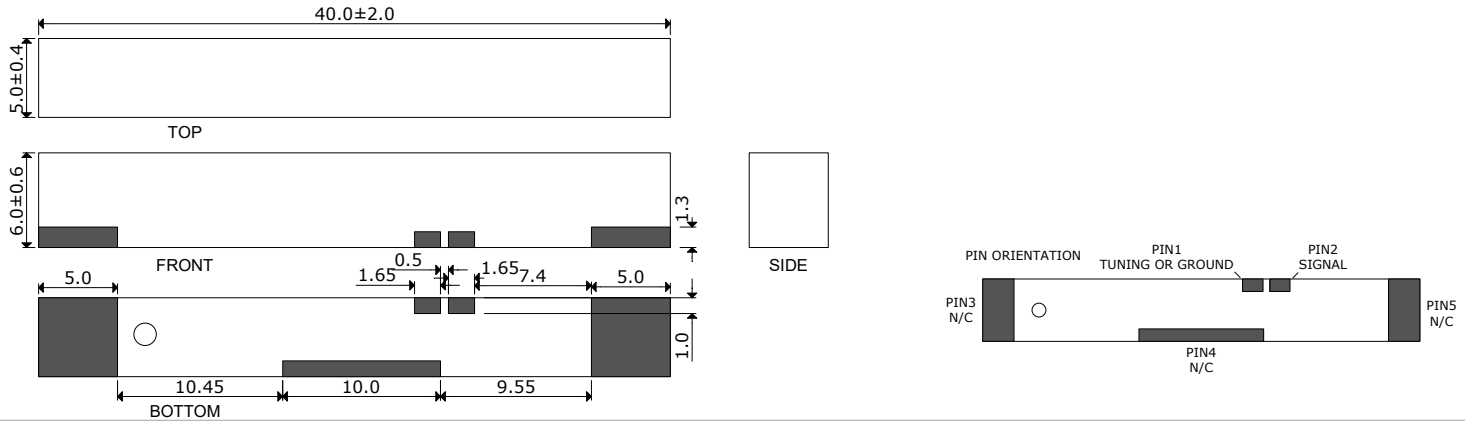
Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Band	MHz	1710		2170	
Impedance	$\Omega$		50		
Polarization			Linear		
Peak Gain	dBi		3.2		At 1950MHz
Efficiency	%		71		At 1950MHz
VSWR			3		At Center Frequency
Operating Temperature	C	-40		85	

Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Band	MHz	2300		2400	
Impedance	$\Omega$		50		
Polarization			Linear		
Peak Gain	dBi		3.8		At 2350MHz
Efficiency	%		67		At 2350MHz
VSWR			3		At Center Frequency
Operating Temperature	C	-40		85	

Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Band	MHz	2490		2690	
Impedance	$\Omega$		50		
Polarization			Linear		
Peak Gain	dBi		4.2		At 868MHz
Efficiency	%		62		At 868MHz
VSWR			3		At Center Frequency
Operating Temperature	C	-40		85	

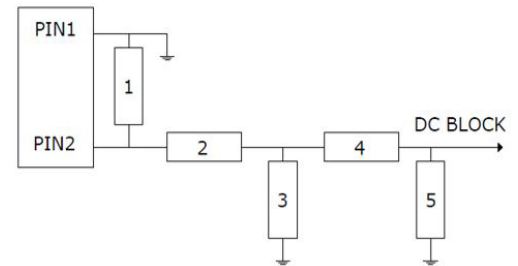
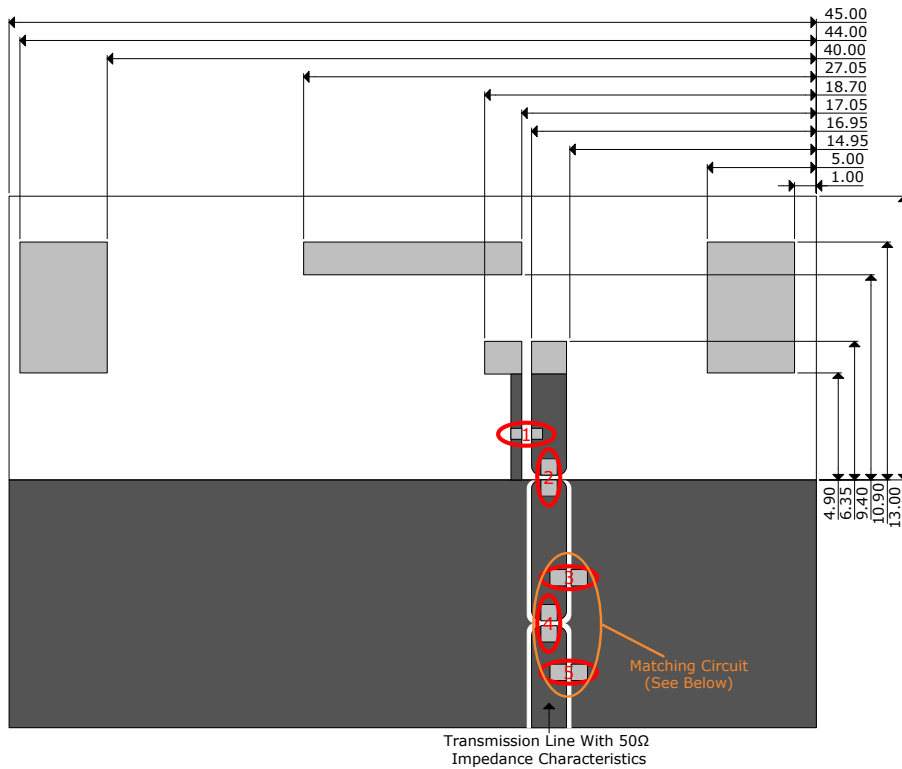
### Outline Drawing

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.

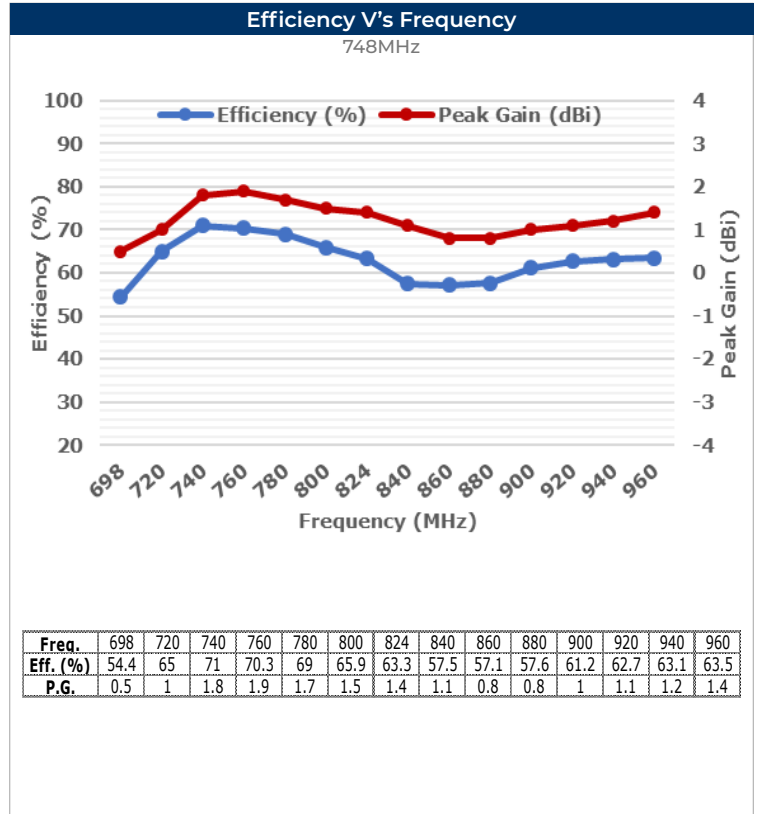
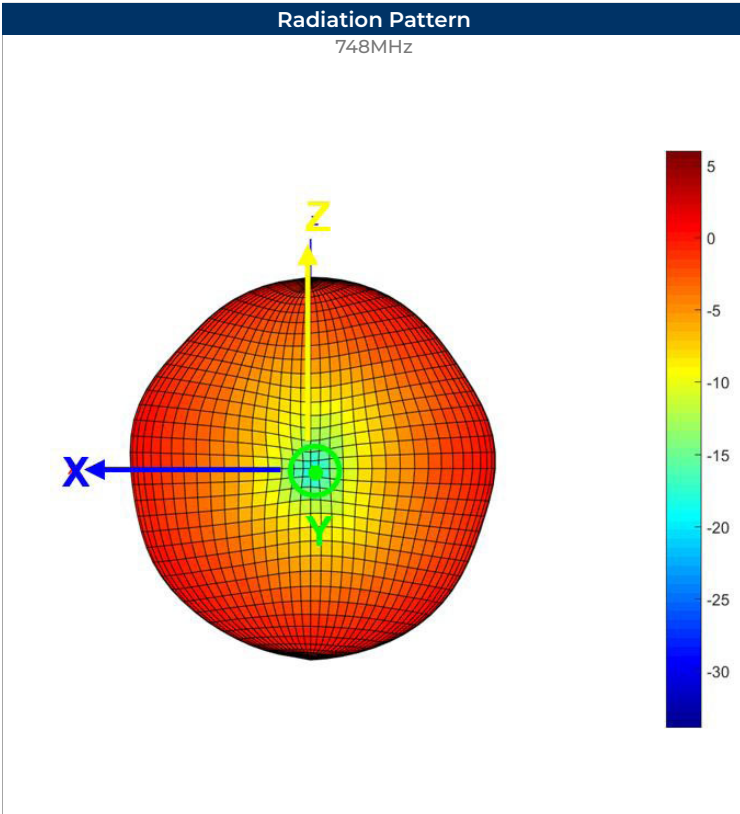
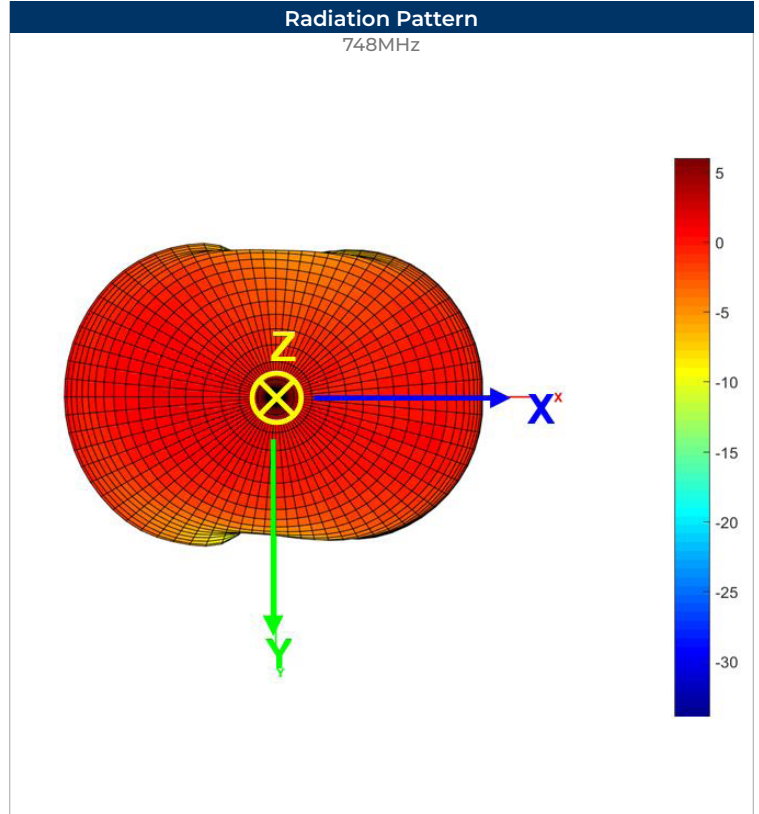
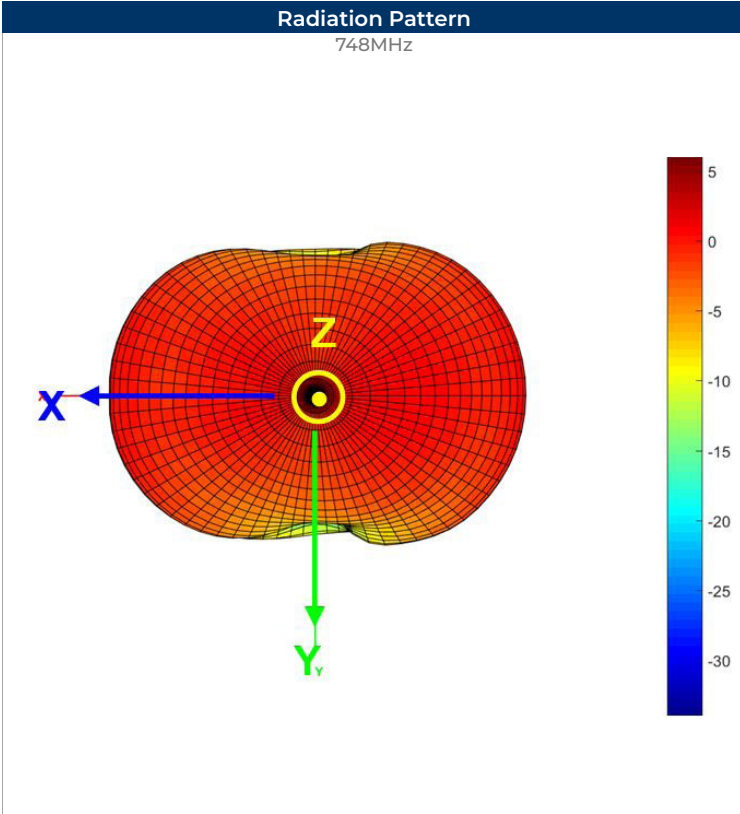


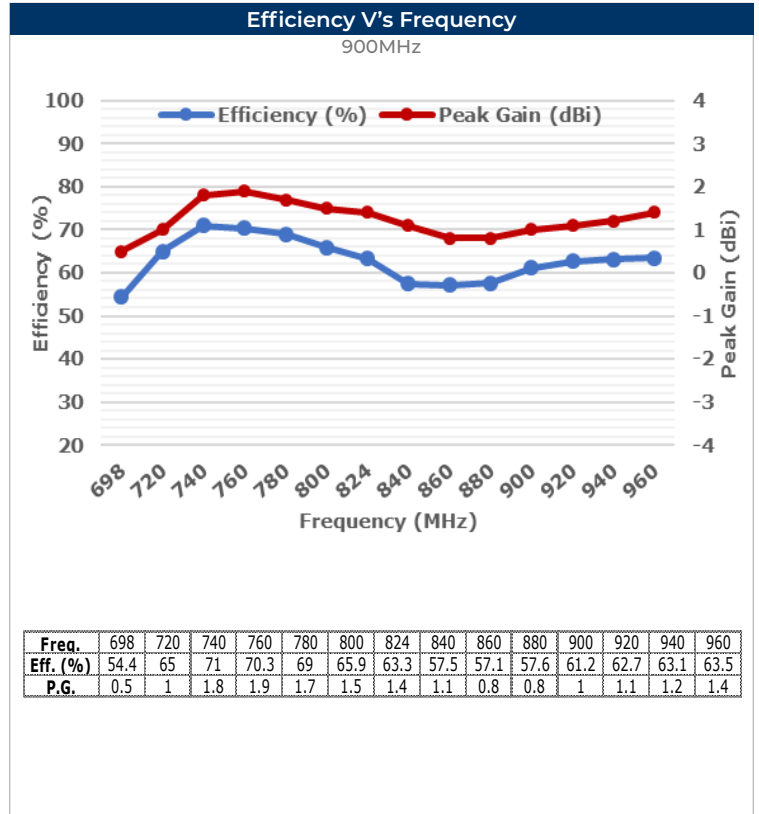
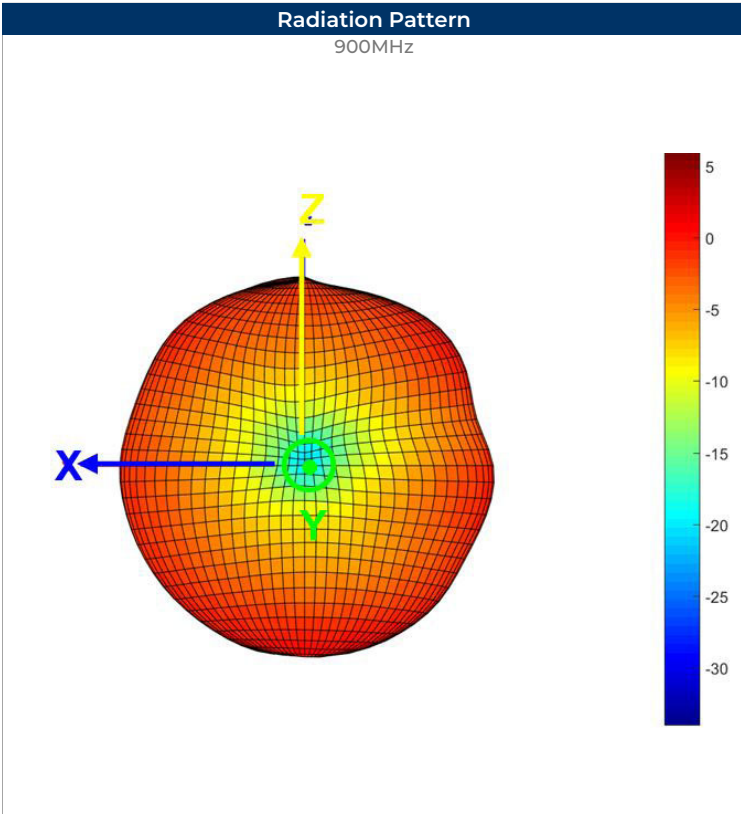
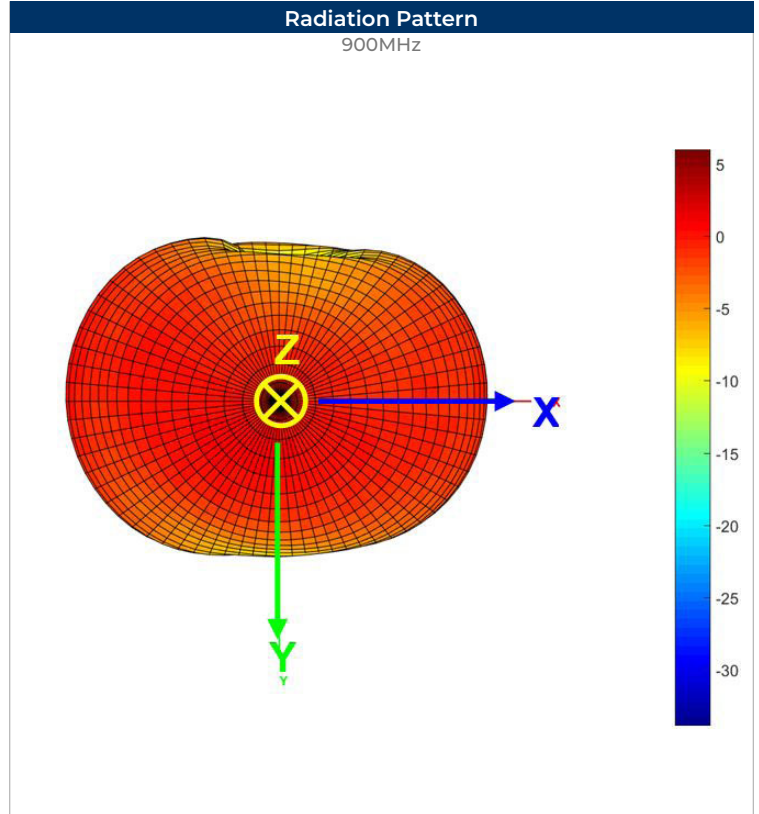
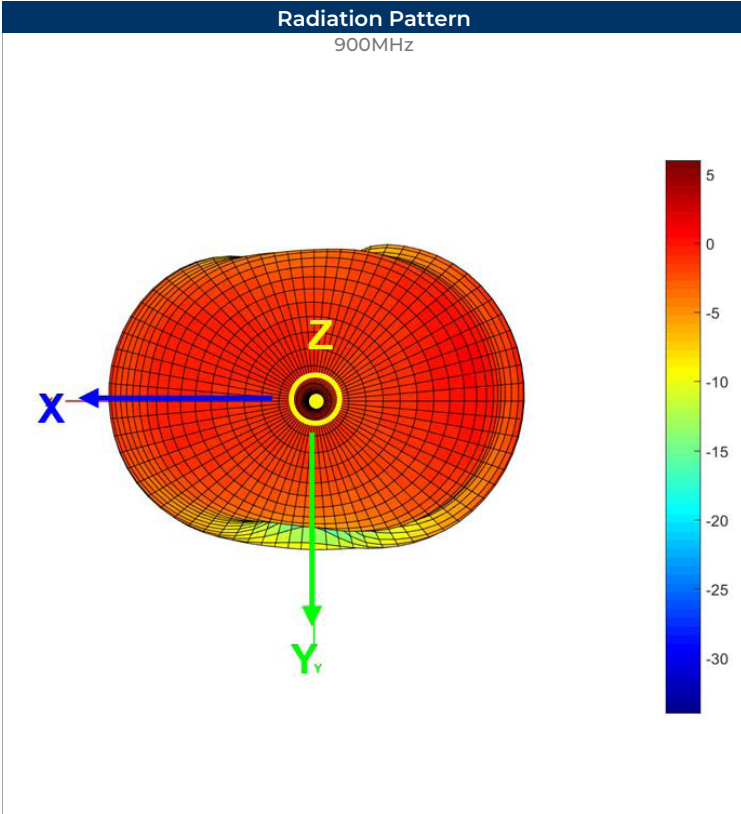
#### System Matching Circuit Components

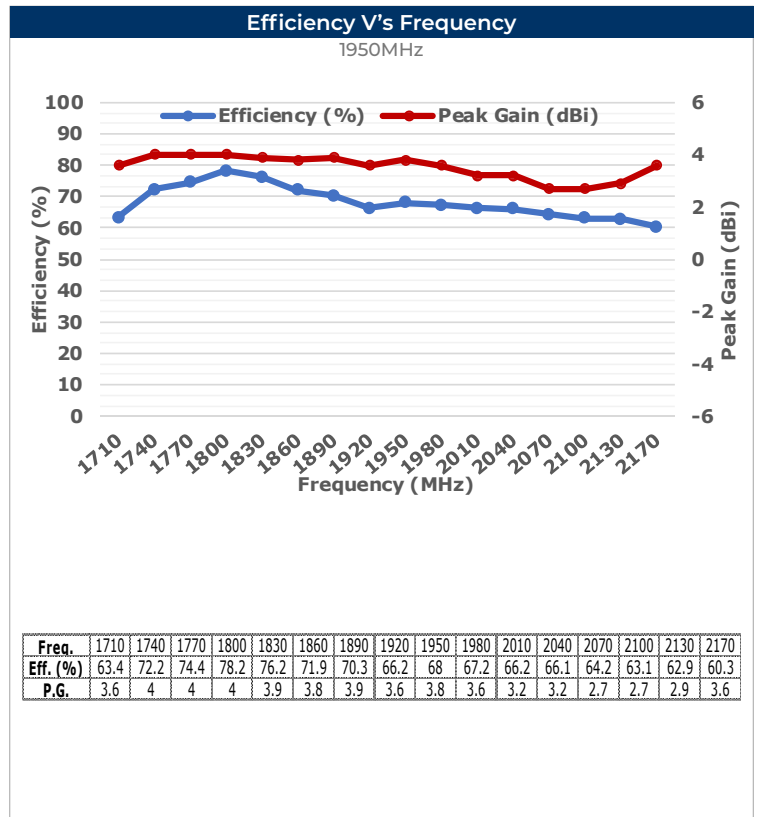
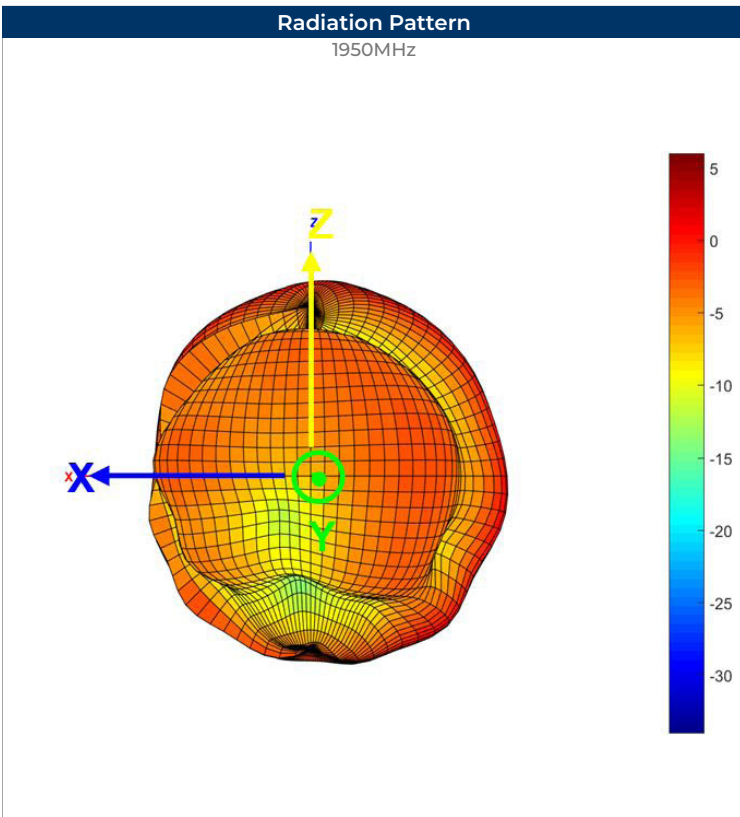
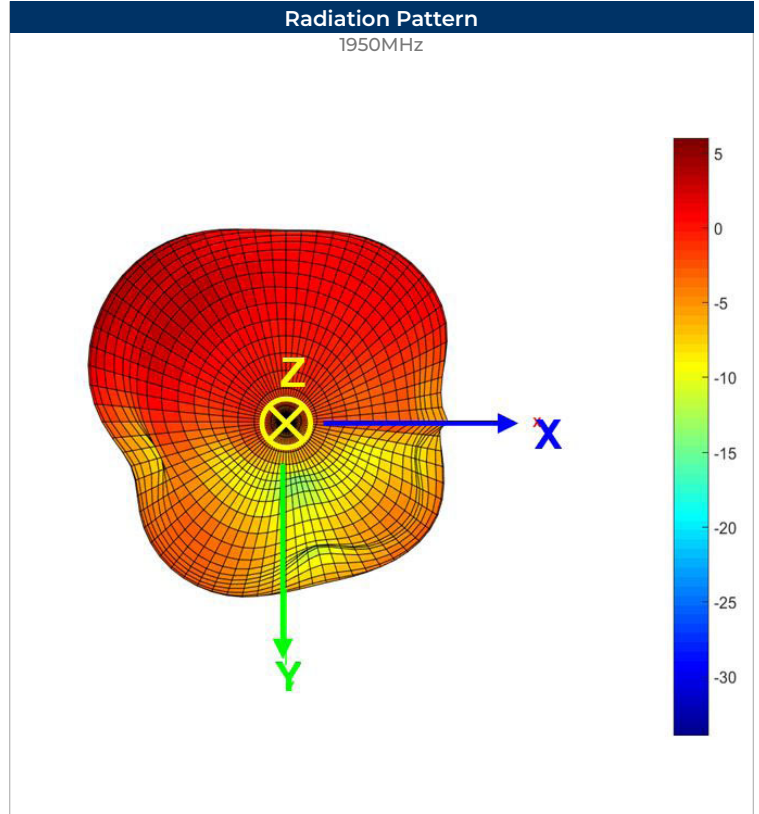
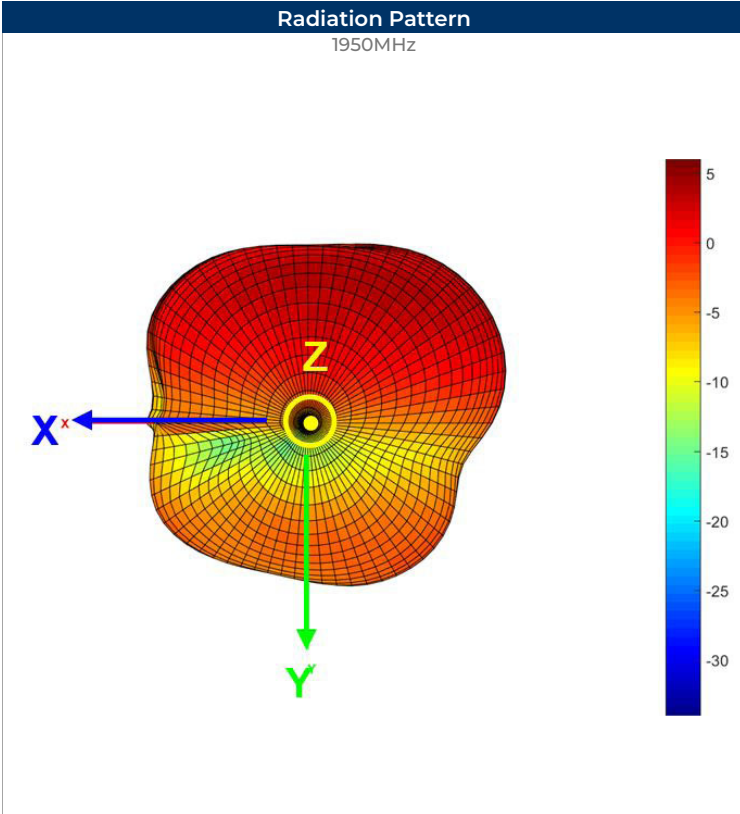
Location	Description	Vendor	Tolerance
1 (Fine Tuning)	5.6nH (0402)	MURATA	±0.1nH
2 (Fine Tuning)	3.6pF, (0402)	MURATA	±0.05pF
3	N/A	-	-
4	0Ω, (0402)	-	-
5	N/A	-	-

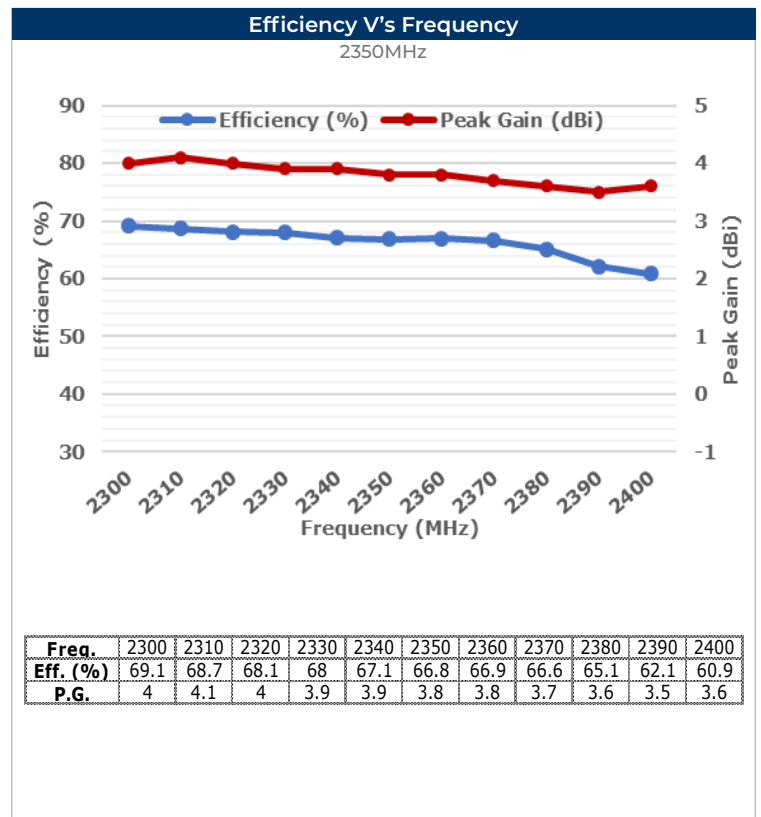
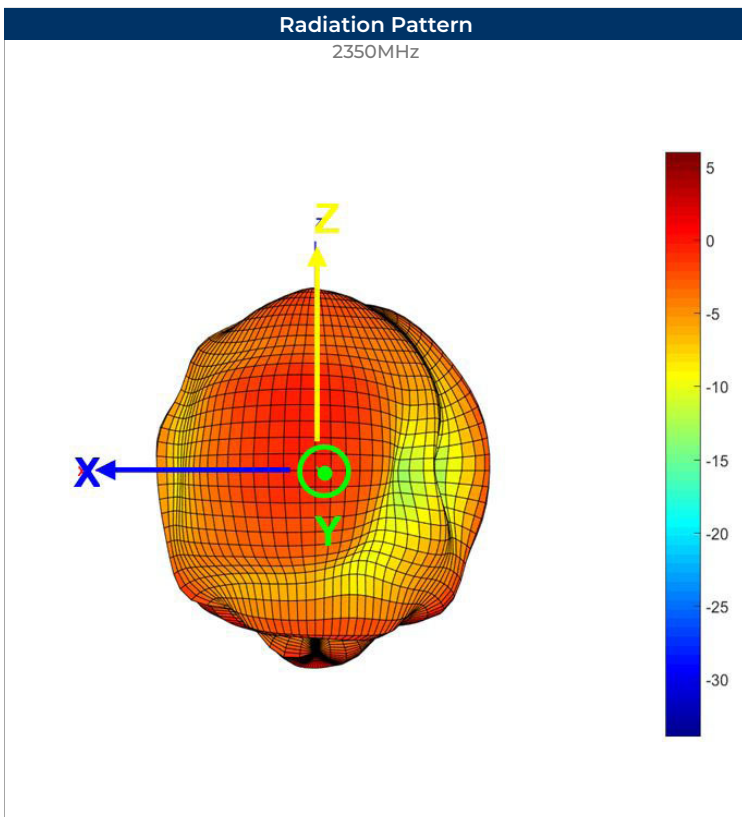
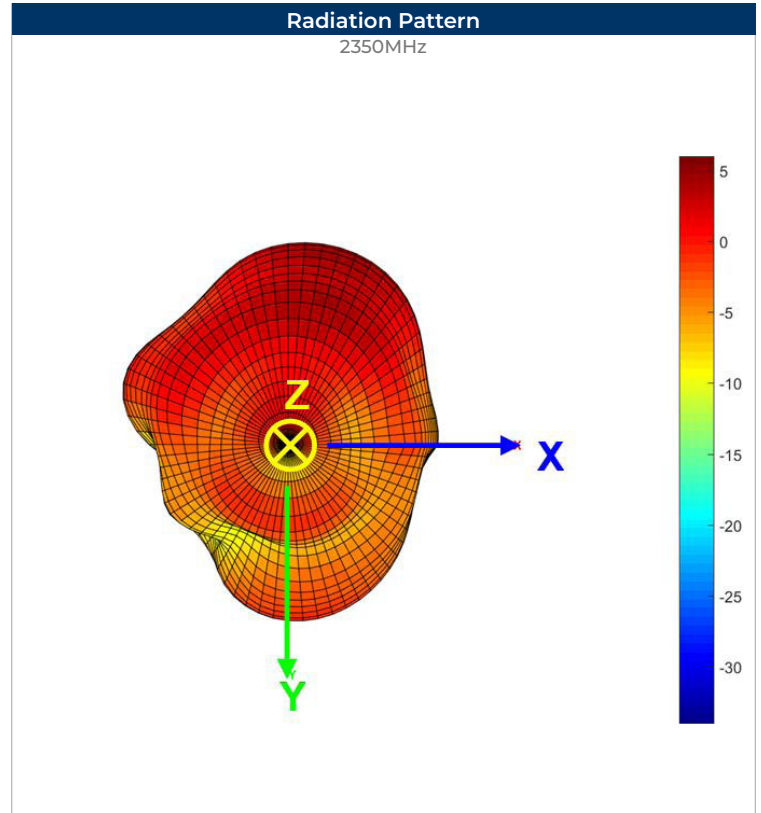
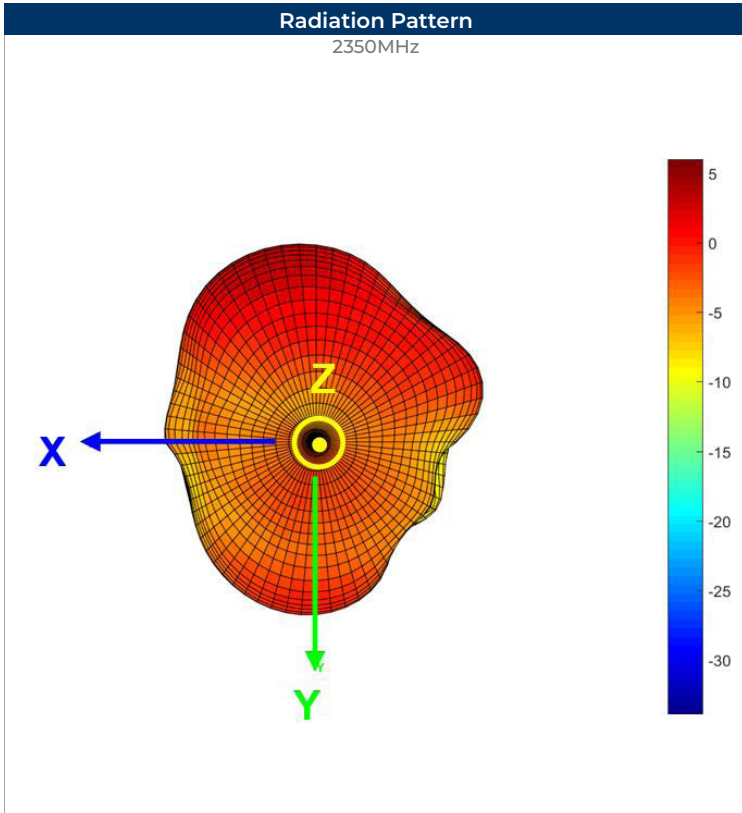
For these suggested values for the matching and tuning of components, the average frequency will be 698-690MHz & 1710-2690MHz on a standard 120 x 45mm<sup>2</sup> Evaluation board.

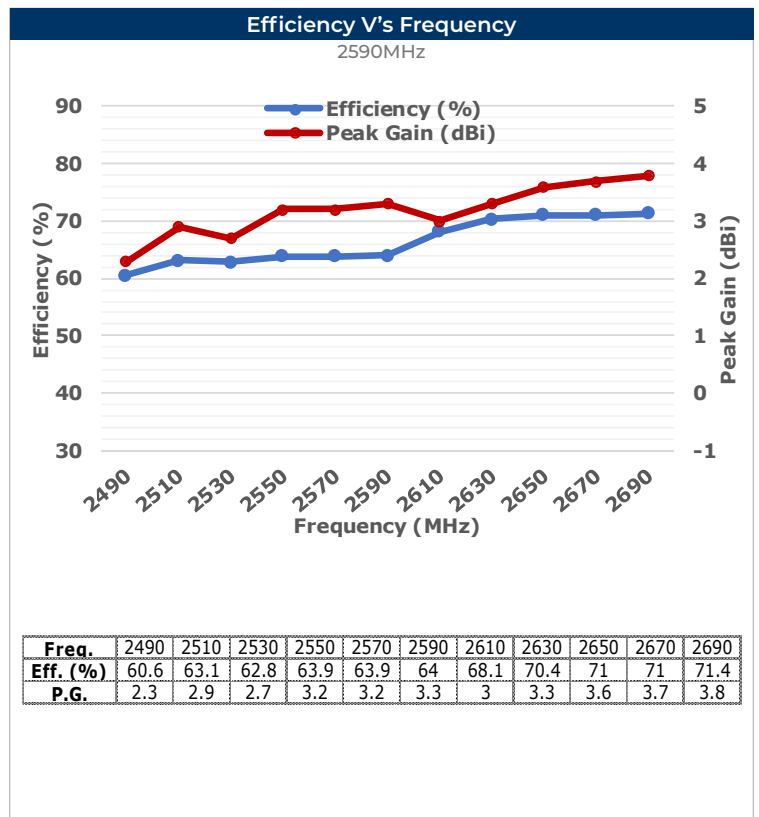
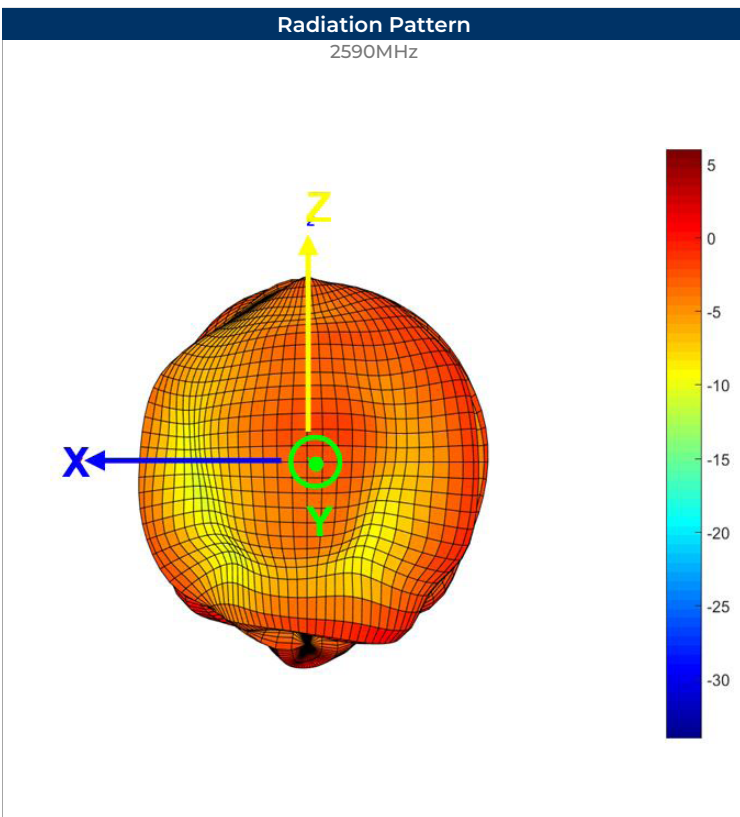
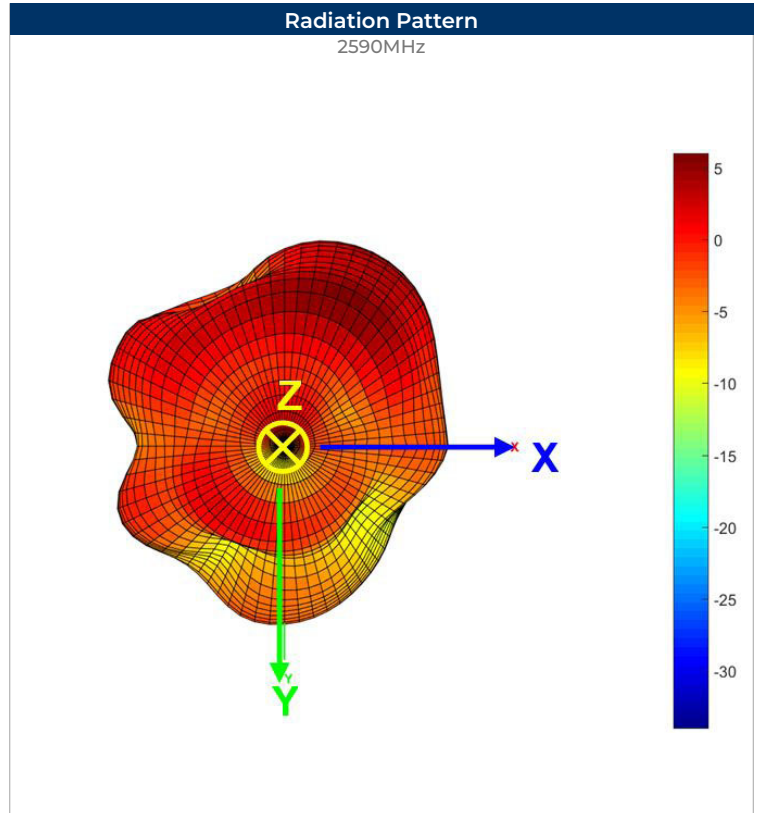
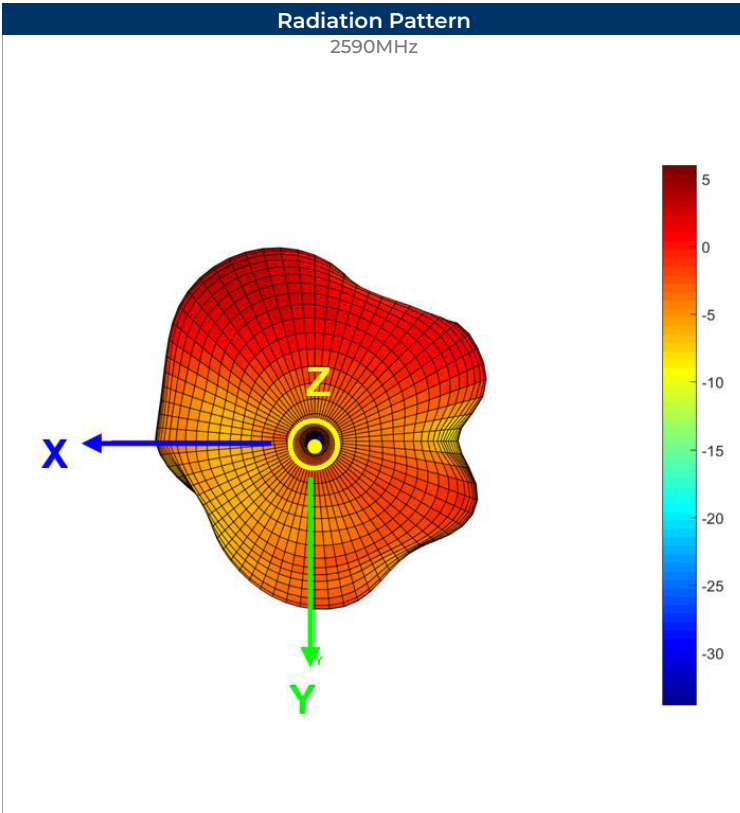
Please note, these are average reference values which may need to be changed when different circuit boards or manufactures are used.





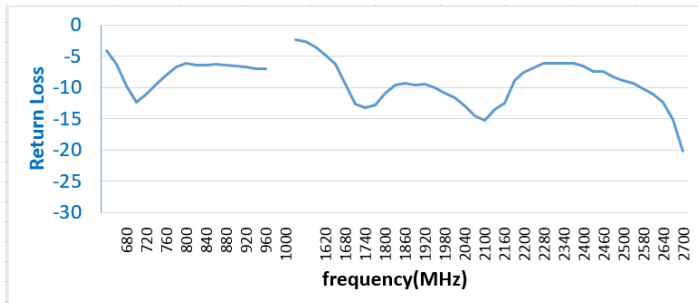






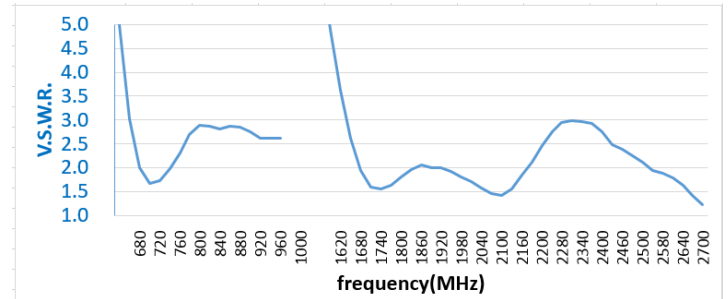
**Electrical Test**

Return Loss



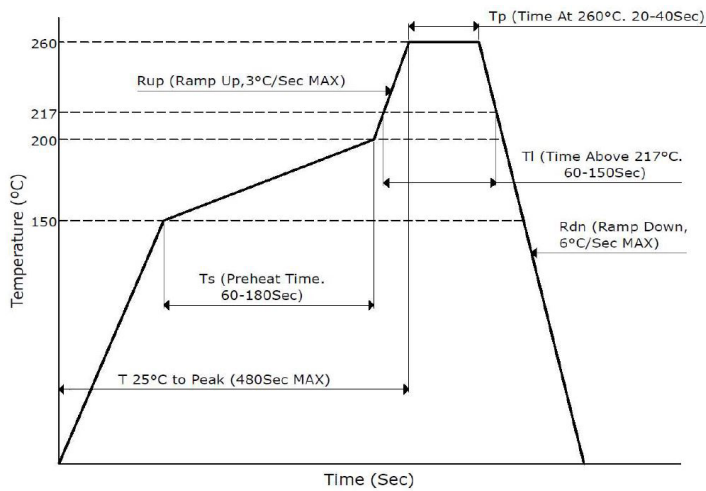
**Electrical Test**

VSWR



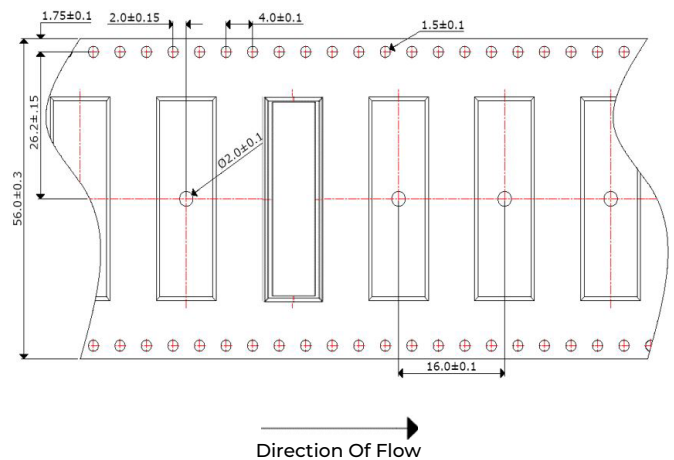
**Soldering Conditions**

Typical Soldering Profile For Lead-Free Process



**Packaging - Tape And Reel**

600Pcs / 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.