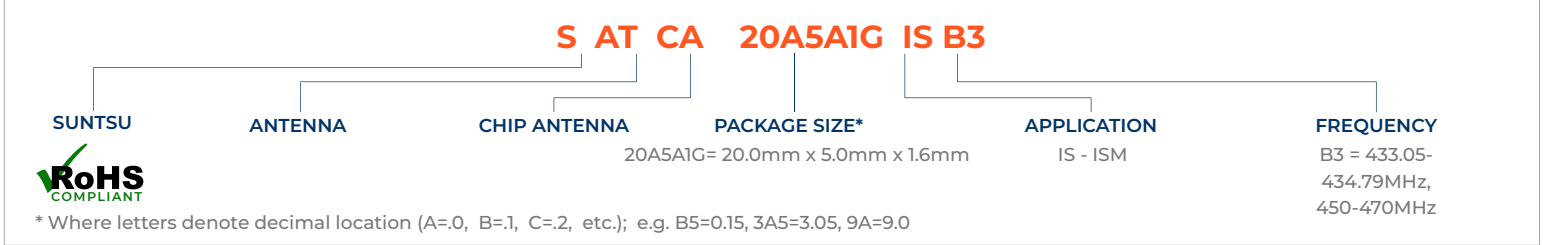


Features
<ul style="list-style-type: none"> <li>ISM</li> <li>Chip Type</li> <li>Stable And Reliable Performance</li> <li>433MHz, 450MHz - 470MHz</li> <li>SMT Process Compatible</li> </ul>

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>



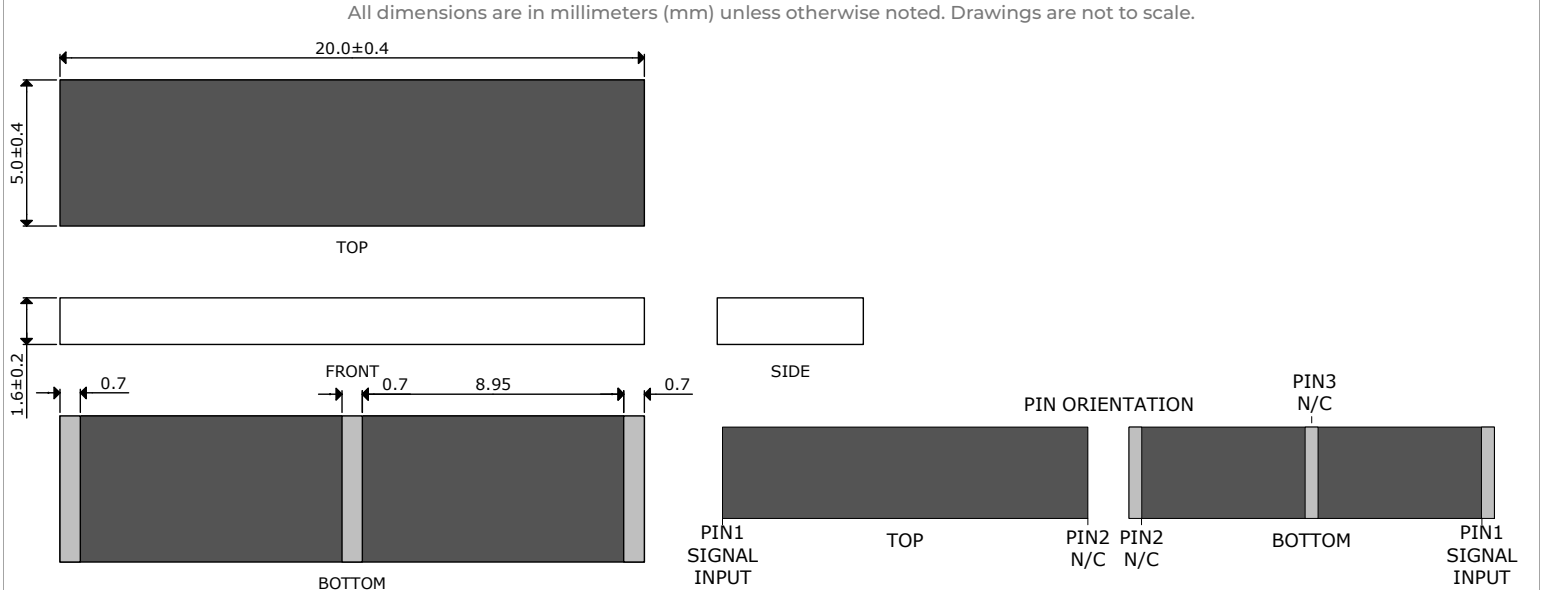
### Part Numbering Guide



Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Band	MHz	433.05		434.79	
Impedance	$\Omega$		50		
Polarization			Linear		
Peak Gain	dBi		-0.2		At 433MHz
Efficiency	%		32		At 433MHz
VSWR				2	At Center Frequency
Operating Temperature	C	-40		85	

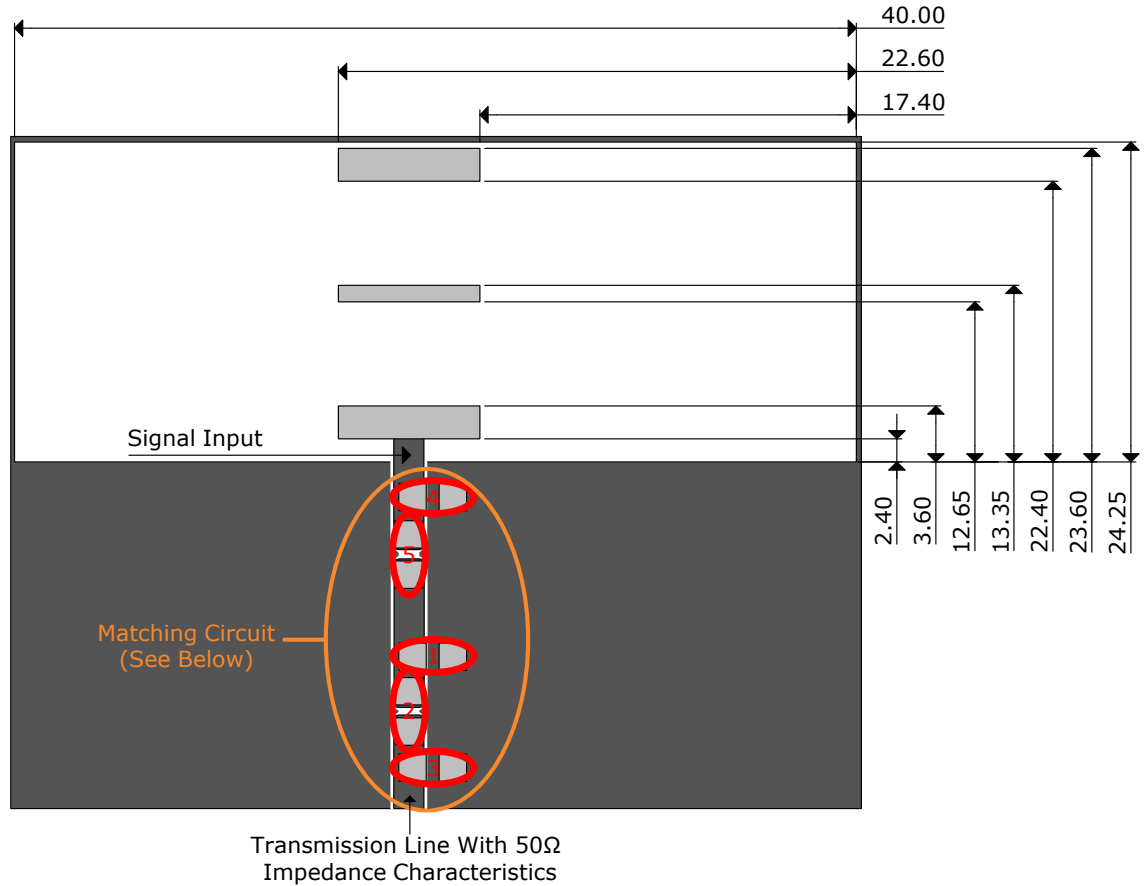
Electrical Parameters	Units	Minimum	Typical	Maximum	Remarks
Frequency Band	MHz	450		470	
Impedance	$\Omega$		50		
Polarization			Linear		
Peak Gain	dBi		-0.2		At 460MHz
Efficiency	%		35		At 460MHz
VSWR				2.5	At Center Frequency
Operating Temperature	C	-40		85	

### Outline Drawing



**Recommended Land Pattern & Frequency Tuning Scenario Circuit**

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

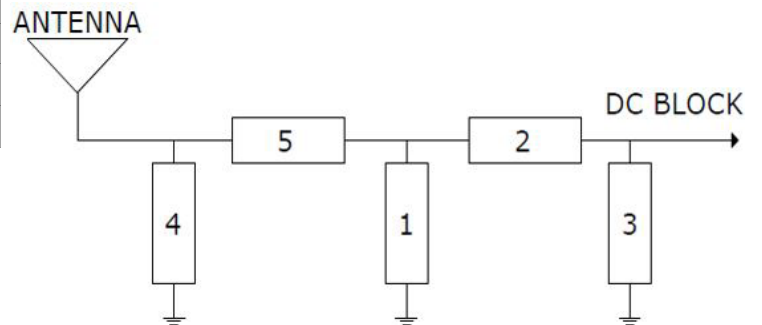


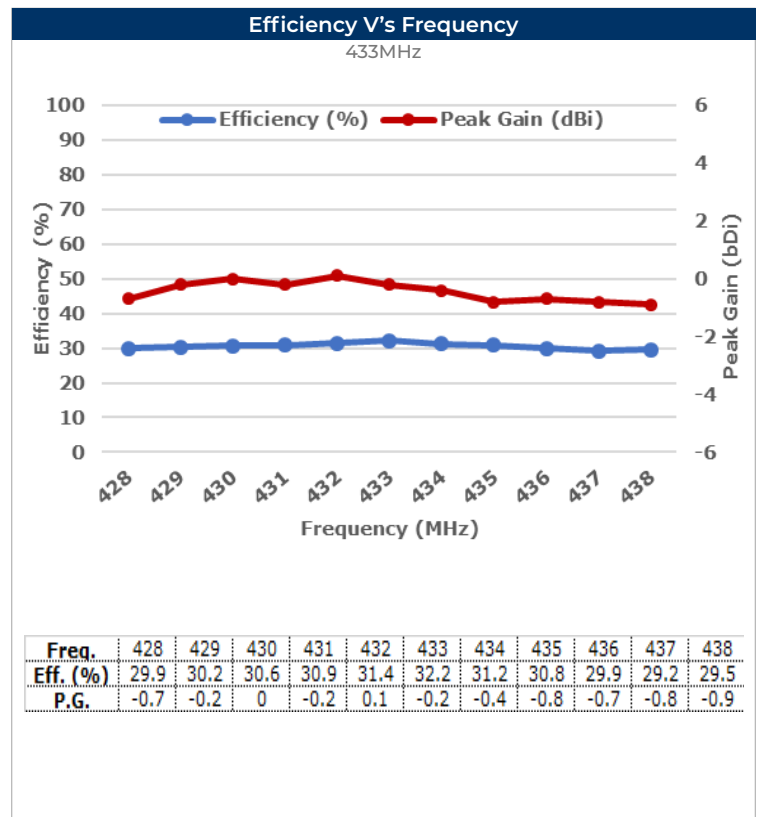
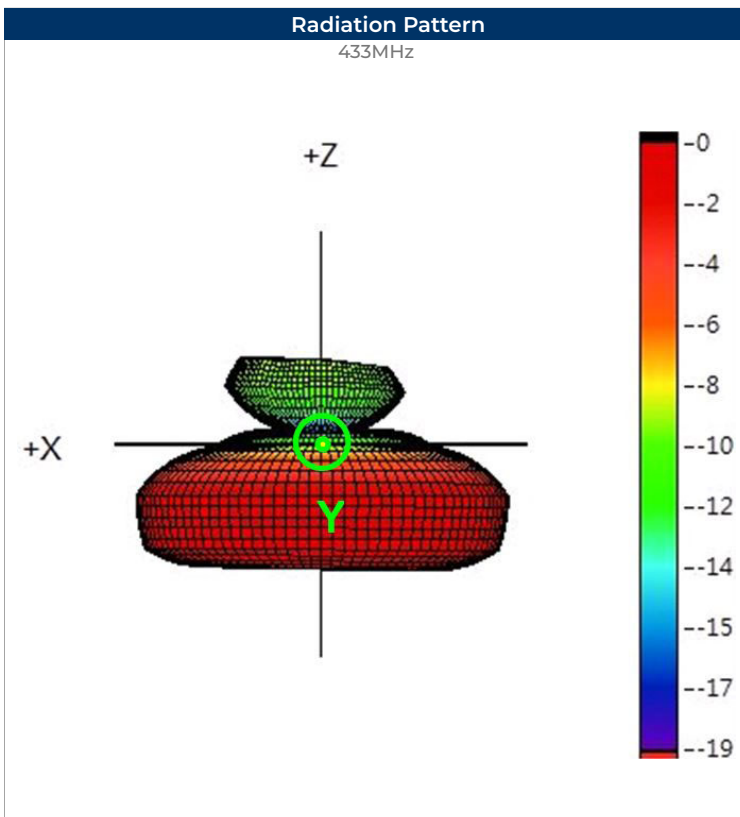
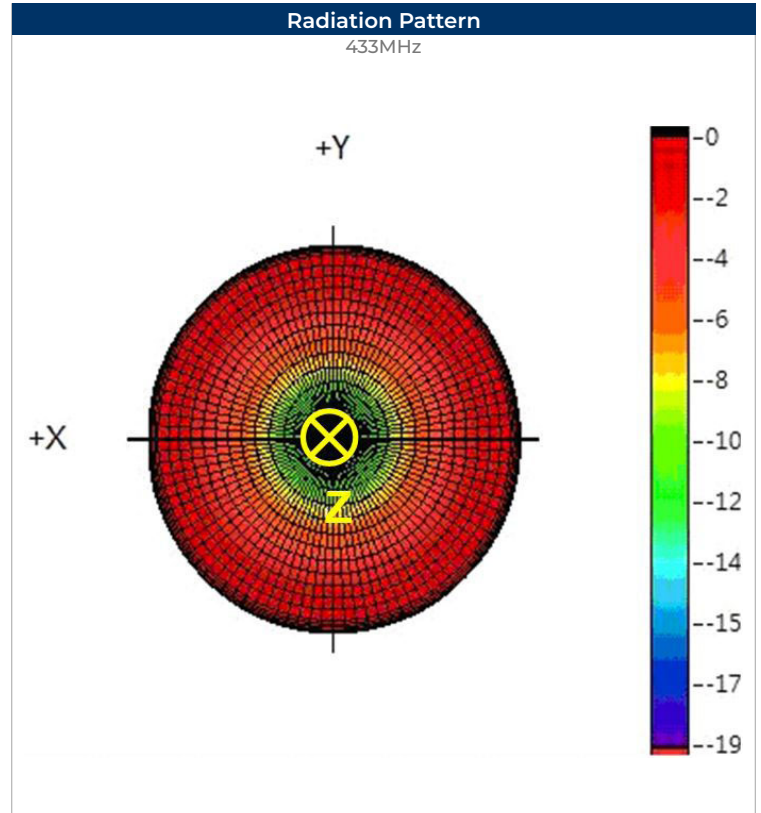
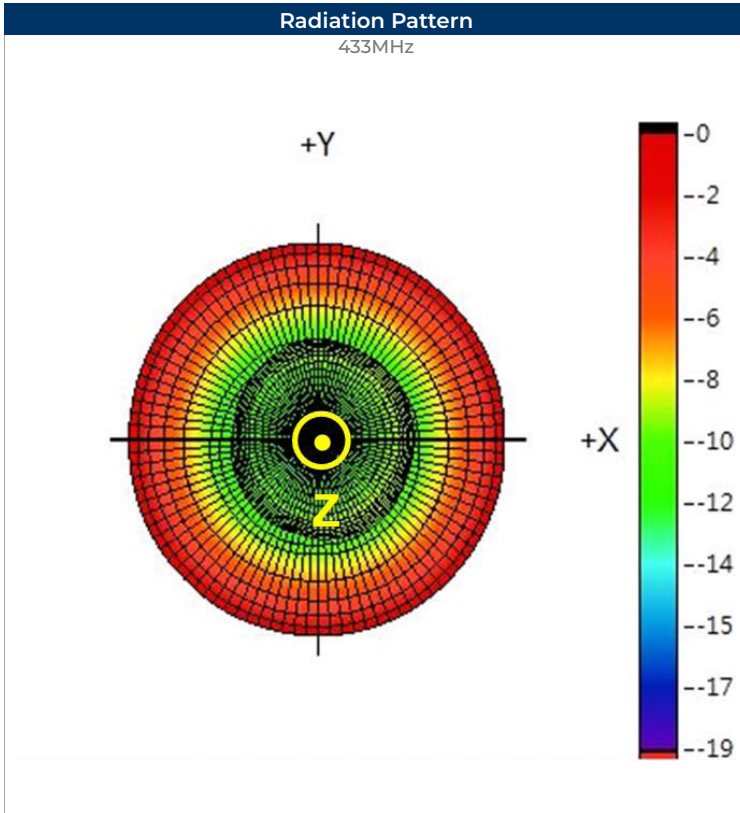
For these suggested values for the matching and tuning of components, the average frequency will be 433MHz on a standard 80 x 40mm<sup>2</sup> Evaluation board.

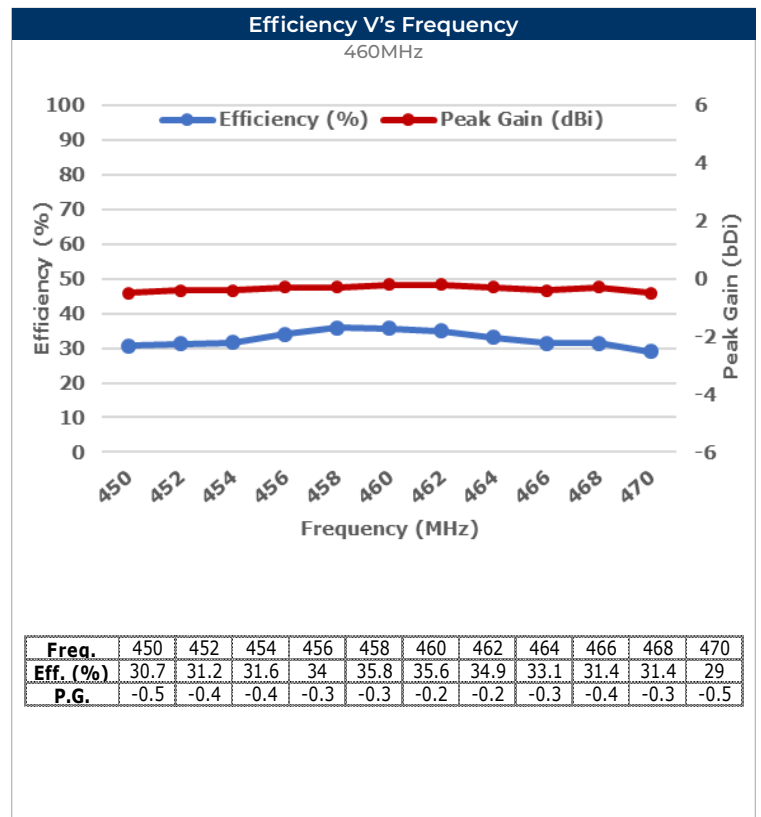
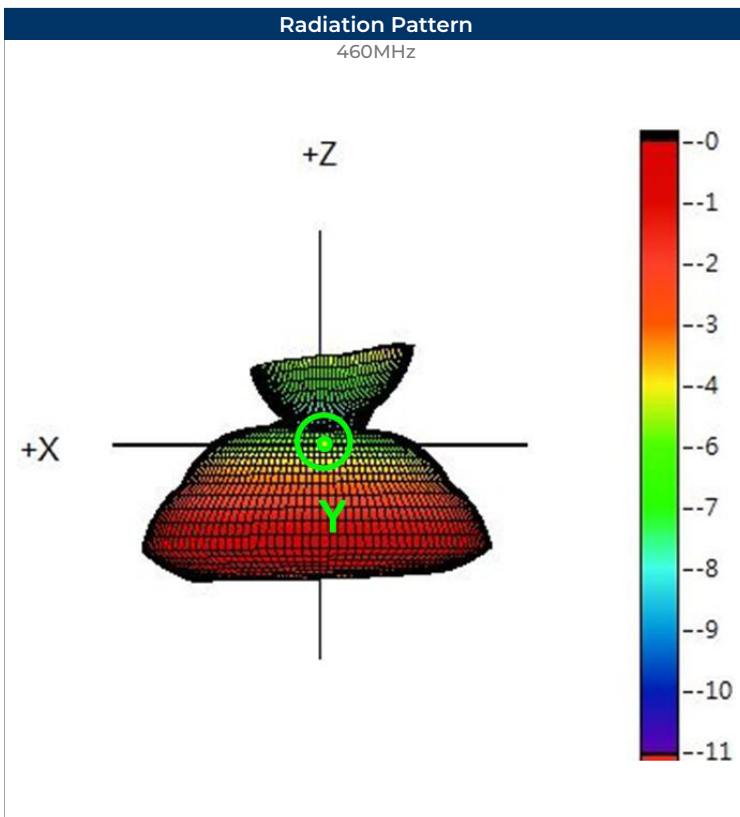
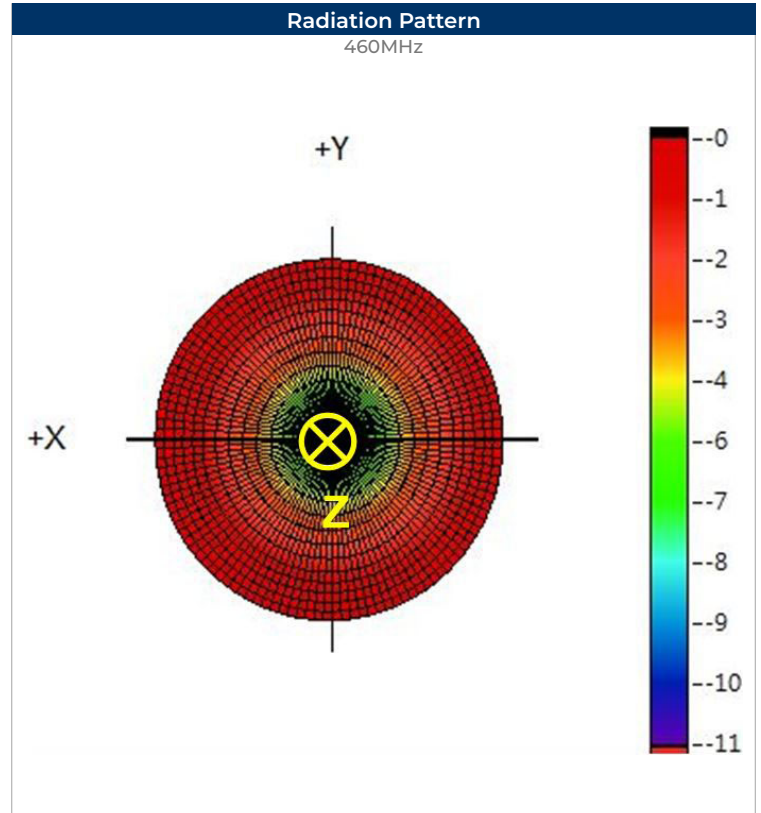
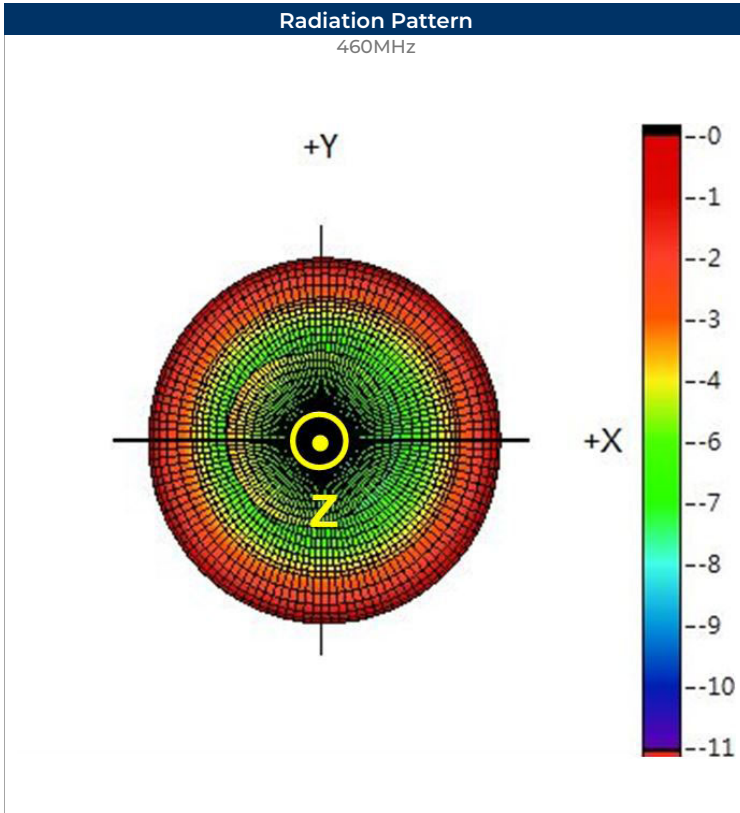
Please note, these are average reference values which may need to be changed when different circuit boards or manufactures are used.

**System Matching Circuit Components**

Location	Description	Vendor	Tolerance
1	N/A	-	-
2	0Ω, (0402)	-	-
3	N/A	-	-
4 (Fine Tuning)	0.4pF, (0402)	MURATA	±0.05pF
5 (Fine Tuning)	56NH, (0402)	MURATA	±3%

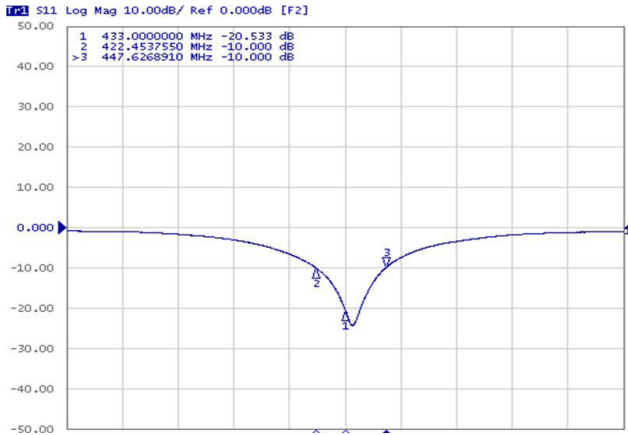






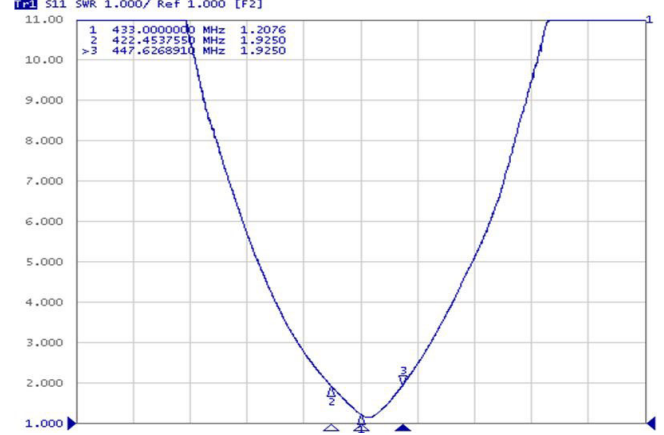
**Electrical Test**

Return Loss For 433MHz Band



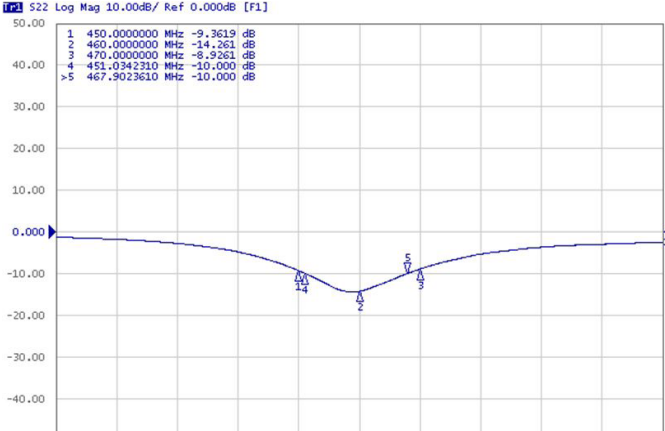
**Electrical Test**

VSWR For 433MHz Band



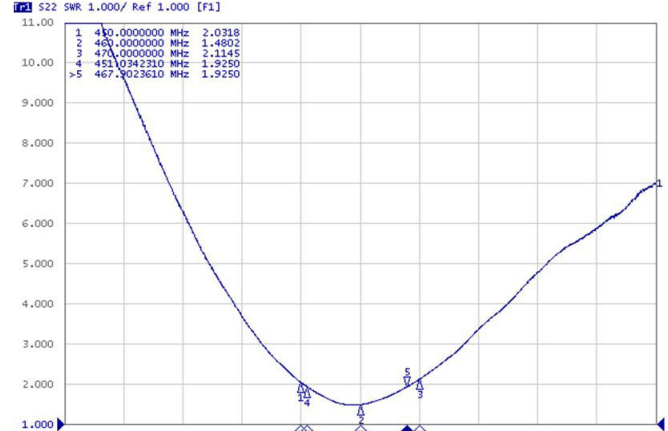
**Electrical Test**

Return Loss For 450-470MHz Band



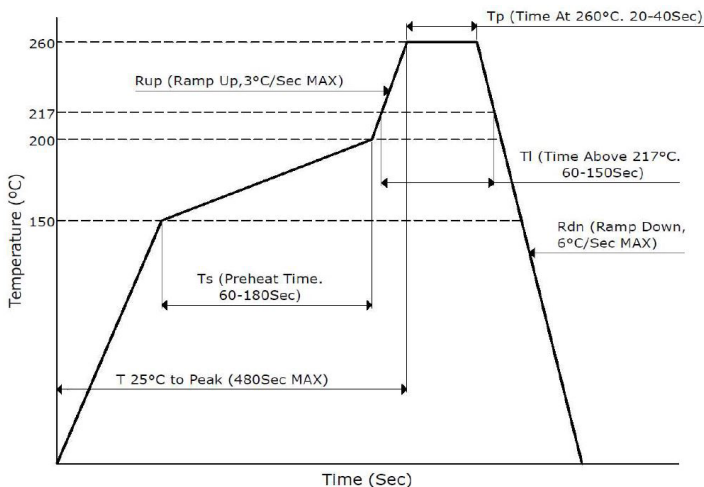
**Electrical Test**

VSWR For 450-470MHz Band



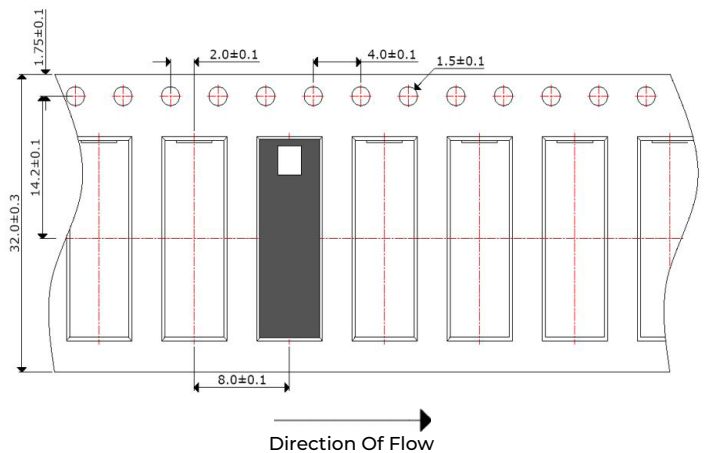
**Soldering Conditions**

Typical Soldering Profile For Lead-Free Process



**Packaging - Tape And Reel**

3500Pcs / 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.