

7617V Remote: 4mm 915MHz Helical Spring antenna

This is a copper spring antenna designed for a wireless communication system for frequency 915MHz. It has good VSWR, stable performance and good anti vibration.

Specifications:

- Frequency range: $915MHz \pm 20MHz$
- VSWR: <=1.5
- Input impedance: 15+j45.
- Maximum power: 5W
- Gain: 0dBi
- Polarization: Vertical polarization
- Height: 11mm
- Interface: Welded directly.
- Color: Silver.
- Dimensions:
 - Spring Diameter: 0.36mmm
 - Pitch: 0.8mm.
 - Number of Turns: 10.5T ± 0.125T





Return Loss

Return loss represents the loss in power at the antenna due to reflected signals. Like VSWR, a lower return loss value indicates better antenna performance at a given frequency.



Average Gain

Average gain, is the average of all antenna gain in 3-dimensional space at each frequency, providing an indication of overall performance without expressing antenna directionality.



Radiation Efficiency

Radiation efficiency shows the ratio of power delivered to the antenna relative to the power radiated at the antenna, expressed as a percentage, where a higher percentage indicates better performance at a given frequency.



Radiation Patterns 902MHZ to 930MHZ (915MHZ)

Radiation patterns provide information about the directionality and 3-dimensional gain performance of the antenna by plotting gain at specific frequencies in three orthogonal planes. Antenna radiation patterns for an edge straight orientation are shown in Figure below using polar plots covering 360 degrees.

