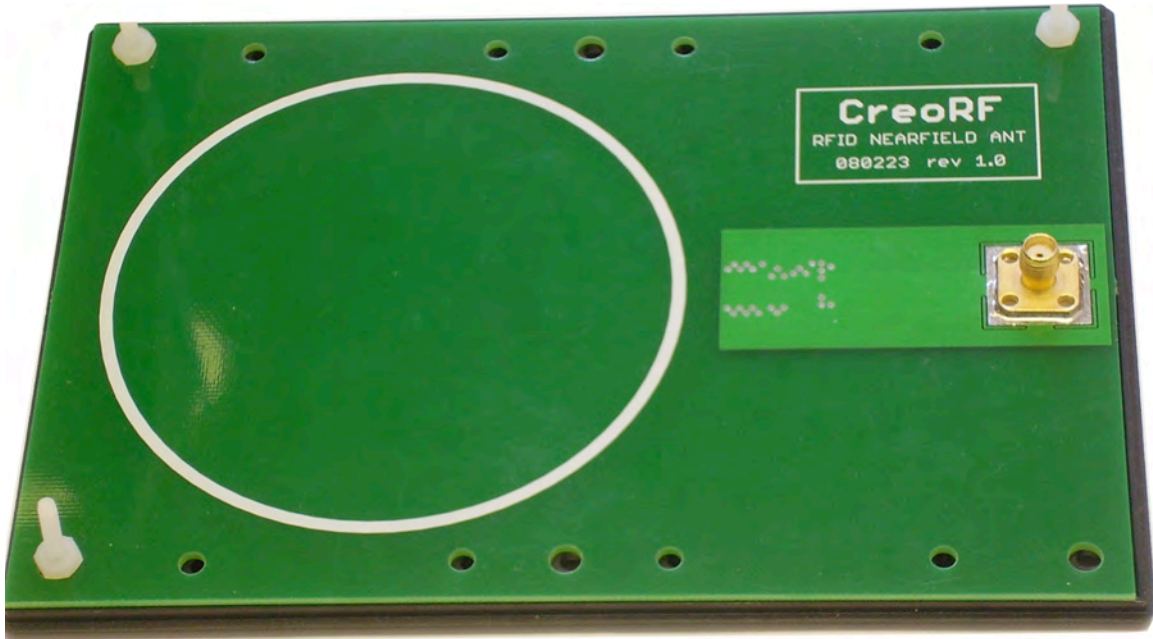


## CREORF NEARFIELD 900-MHZ ISM ANTENNA



The NF-915-23 near-field antenna is optimized for magnetic coupling to nearby loop-type antennas, while minimizing far-field radiation. It is well-suited for use in UHF near-field RFID, or other applications requiring predominantly magnetic coupling at UHF frequencies. Unlike a conventional loop antenna, the NF-915-23 provides maximum magnetic coupling along a vertical axis above the center of the indicator loop, allowing near-field tag read ranges of 6-8 cm with 1 Watt input power.

**General specifications:** 902-928 MHz US ISM-band near-field operation.

**Termination:** SMA female.

**Nominal impedance:** 50 ohms.

## Electrical Specifications

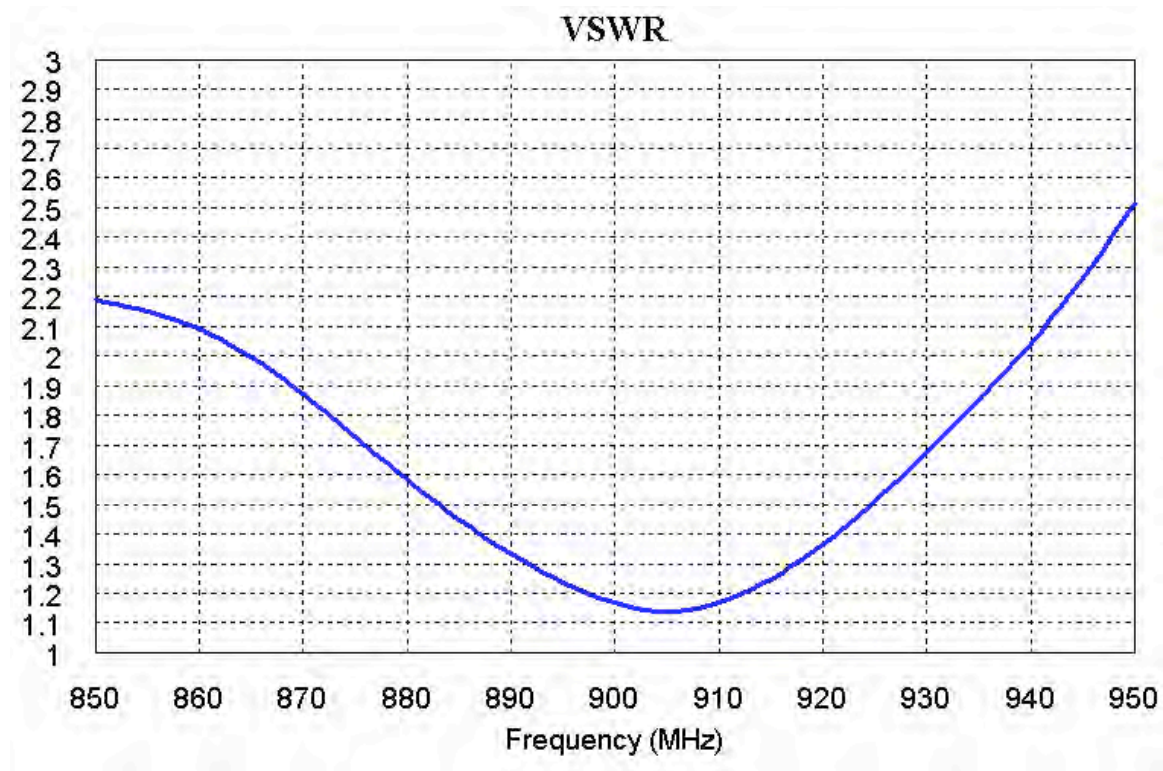
Frequency (MHz)	Return loss (dB)	Axial coupling at 10 cm (dB)	Maximum input power (W)	Far-field directivity (dB)
902-928	< -10	TBD	10	TBD

## Mechanical Specifications

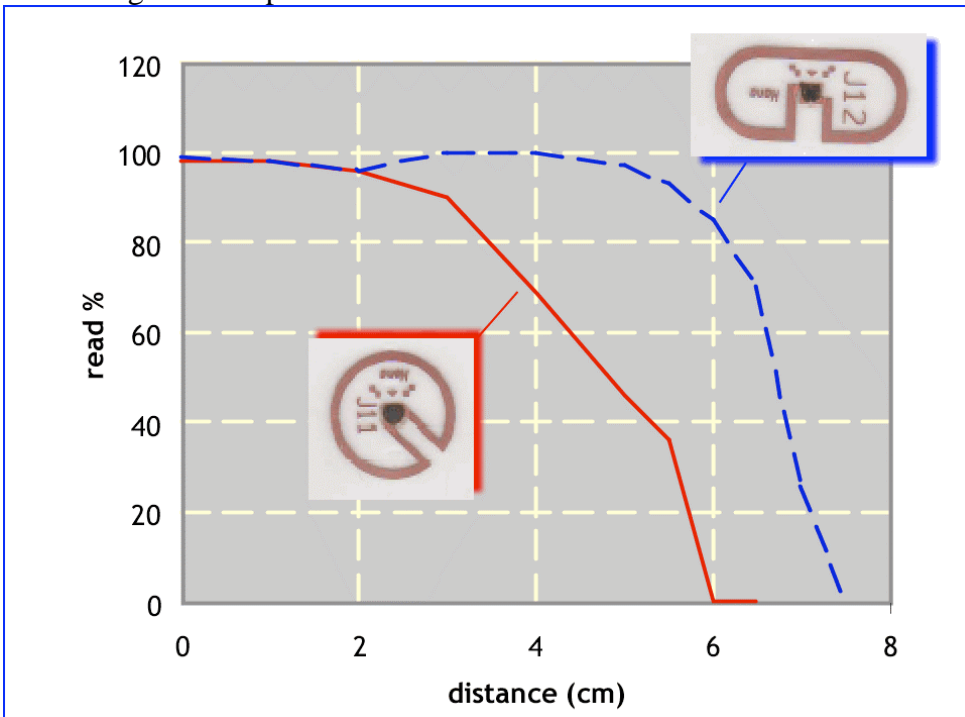
Lateral dimensions (mm)	Lateral dimensions (in)	Thickness (mm/mil)	Recommended enclosure
170x118	6.692x4.645	1.574 / 62	SERPAK 071

## Performance Data

Voltage Standing Wave Ratio

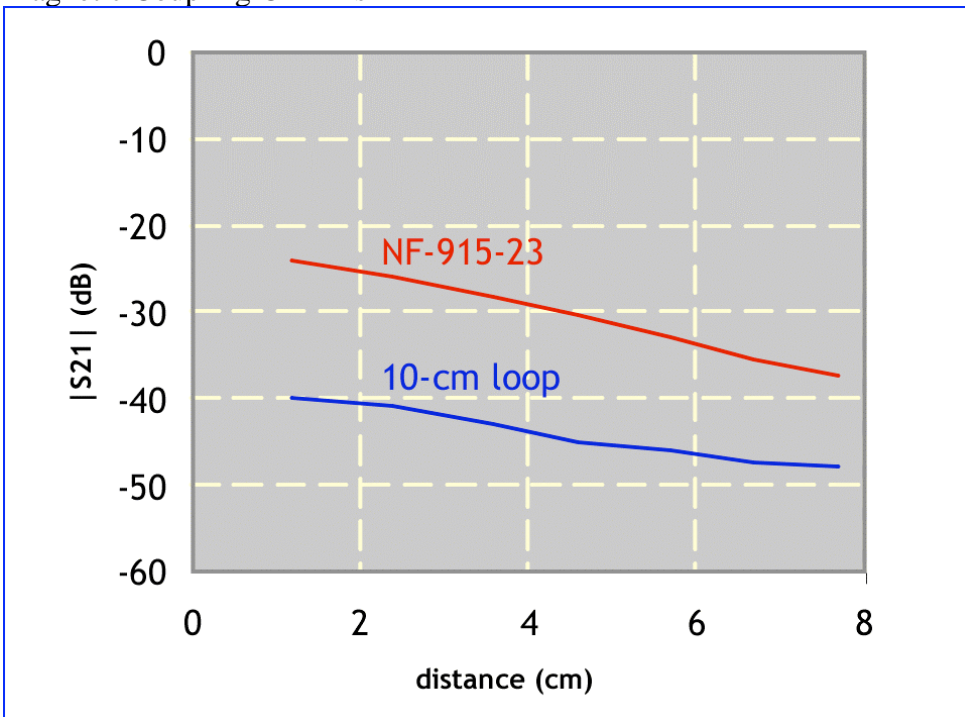


Read Range On Loop Axis



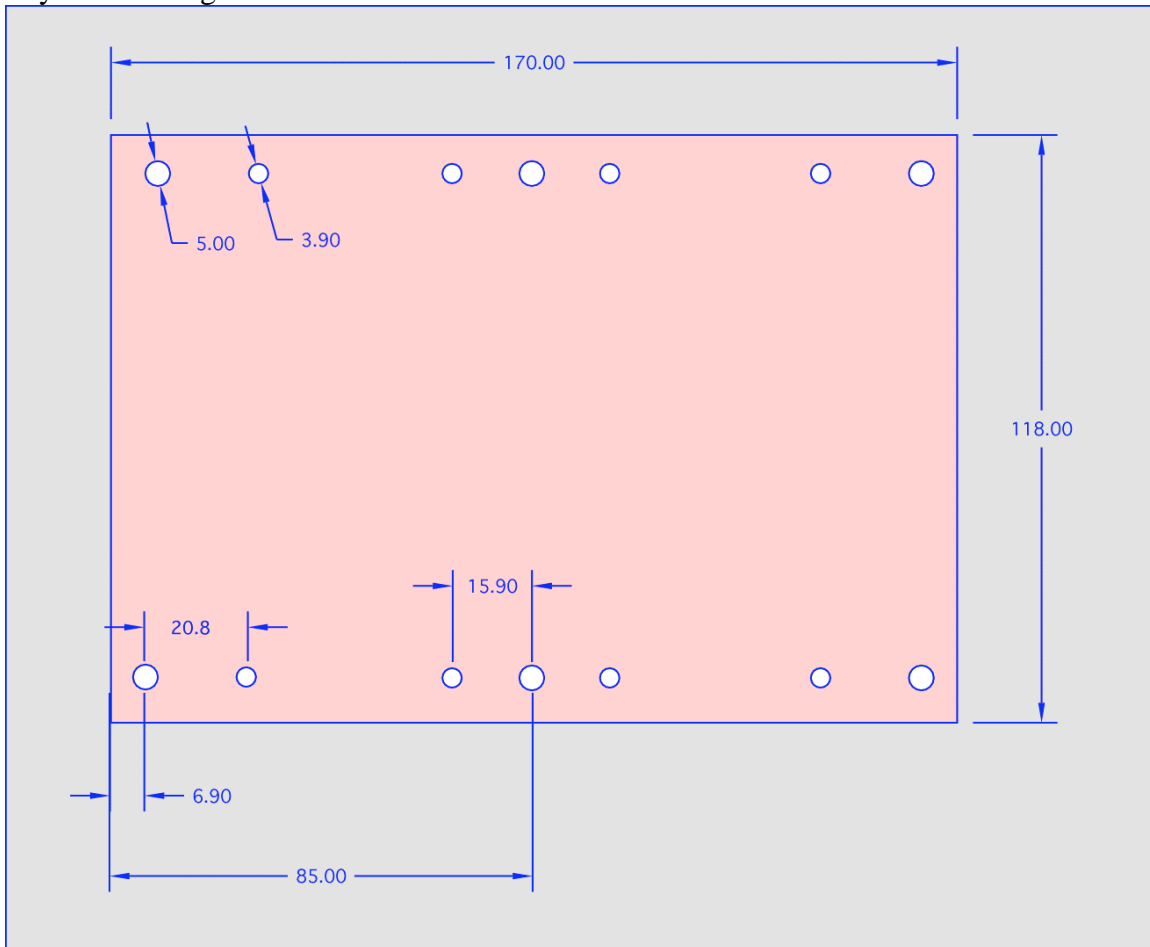
Nearfield tags, plane parallel to antenna plane. Antenna supported 2.5 cm above wooden table. WJ Communications MPR5000, 27 dBm, % reads in 100 inventory attempts.

Magnetic Coupling On Axis



Coupling to 1 cm matched loop antenna, on axis, parallel to plane of NF-915-23 . Antenna supported 4 cm above anti-static table, 915 MHz.

## Layout Drawing



dimensions in mm

## Notes:

- Maximum nearfield RFID tag read range is obtained on-axis above the center of the read zone marking.
- The NF-915-23 should be mounted to the housing using plastic screws. A non-conductive housing should be used. For best performance, the antenna should not be placed on a conductive surface (metal table, anti-static bench or table) when in use.
- Designs can be customized for European (865 MHz) operation, or other bands. Contact the factory for more information.

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