

## READTENNA<sup>TM</sup> 900

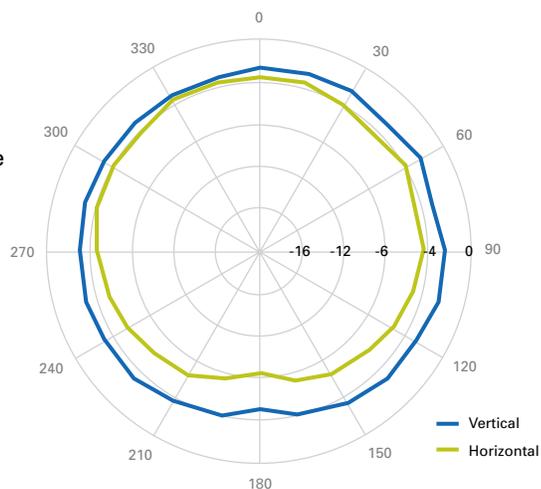
Able to read arbitrarily oriented RFID tags, the Readtenna<sup>TM</sup> 900 antenna from Fractal Antenna Systems delivers high performance to handheld or fixed RFID readers.

- 75 x 75 x 1.6 mm patch
- 902 - 928 MHz
- +1 dBiC average gain\*
- VSWR better than 2:1
- Circular/Elliptical polarization
- 3D cardioid pattern
- 50W feed (customizable)
- No loading components

The Readtenna<sup>TM</sup> 900 antenna is a circularly polarized state-of-the-art fractal antenna for UHF (902-928 MHz) RFID readers. This innovative antenna is compact, thin, and can be directly incorporated into handheld or fixed readers. With outstanding efficiency, bandwidth, and pattern, the low-cost antenna can be impedance and frequency matched to customer requirements.

Compared to a traditional patch antenna design, the Readtenna is three times smaller in area. This means you can pack excellent performance into handheld readers, or make much smaller fixed reader antennas that lower cost and increase placement options.

Readtenna 900 antennas are available for purchase in evaluation quantities and high volumes. For very high volumes, the design can be licensed for manufacturing by your company.



\*Readtenna<sup>TM</sup> 900 has excellent azimuthal pattern and average gain of -2dB relative to a dipole. Note that an ideal circularly polarized antenna is -3dB relative to a dipole.

## OTHER PRODUCTS

### UGS™ Antenna

Unattended ground sensor (UGS) nodes must be low profile, lightweight, and have the widest bandwidth, highest gain antenna possible. That's no easy task, yet Fractal Antenna Systems has the answer.

Integrating a single fractal antenna into an UGS node results in an easily deployed lightweight package that is less than a yard tall. Innovative raised phase center design minimizes ground losses while improving radiation pattern and launch angle. Excellent omnidirectional long-range performance means fewer nodes need to be deployed to effectively cover an area. The UGS fractal antenna is an excellent solution to the extreme RF challenges of unattended ground sensors.

### RFsabre™

With outstanding lower frequency gain and less than 3:1 VSWR over a very wide frequency range, the RFsabre antenna delivers great performance in a distinctly compact form factor. The vehicle-mounted version can survive impacts with solid objects at speeds up to 25 MPH. Geared for security, communications, signal gathering, and high power transmit applications. New hanging tripod mounted versions available.

### Custom Antennas

Fractal Antenna Systems offers custom antenna development for applications where small size, unusual form factor, and wideband or multiband performance is needed. Tell us what you need and we'll tell you what we can do. You will be amazed. The antenna shown here was developed for telemetry of in-car video from Indy Racing League cars.

## ABOUT FRAC TAL ANTENNA SYSTEMS

Fractal Antenna Systems, Inc. (Fractal Antenna) develops and builds the most compact, highest performance wideband/multiband antennas in the world. Our antennas are typically two to four times smaller than traditional aeriels, while achieving unique frequency coverage and excellent gains and power patterns.

Fractal Antenna's patented geometric approach and design methodology are based on decades of experience and lead to innovative antennas not possible using conventional techniques. FRAGO, our proprietary evolutionary optimization tool, allows rapid analysis of millions of possible antenna candidates to assure the best solution.

Fractal Antenna's products have been proven in the toughest commercial, military, and government applications. In the military sector, we provide practical solutions for communications, intelligence, and electronic warfare. Fractal Antenna has been awarded contracts from DARPA, USAF, USMC, and USA-CECOM, among others. We provide OEM, custom, and off-the-shelf antennas that push the limits of gain, bandwidth, and size. Please contact us today to discuss your antenna needs.

**Fractal Antenna Systems, Inc.**  
 130 Third Avenue  
 Waltham, MA 02451 USA  
 781-275-2300  
[www.fractenna.com](http://www.fractenna.com)