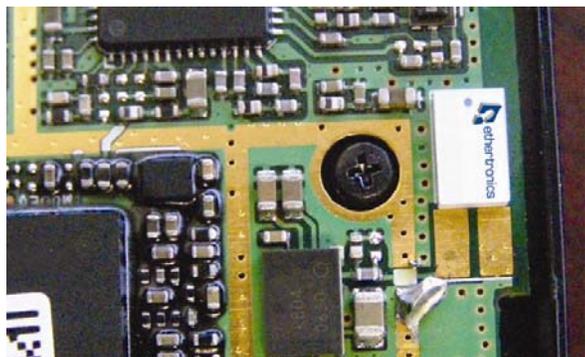


Savvi™ Embedded Ceramic ISM Antennas

868–870, 902–928 MHz

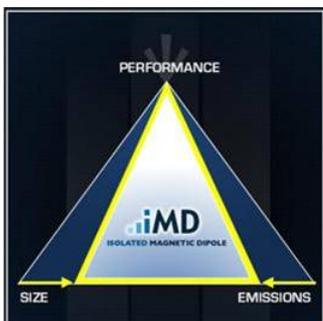


Ethertronics' Savvi series of Isolated Magnetic Dipole™ (IMD) antennas deliver on the key needs of device designers for higher functionality and performance in smaller/thinner designs. These innovative antennas provide compelling advantages for ISM enabled M2M, tracking and smart metering applications.

TECHNOLOGY ADVANTAGES

Real-World Performance and Implementation

Ceramic antennas may look alike on the outside, but the important difference is inside. Other antennas may contain simple PiFA or monopole designs that interact with their surroundings, complicating layout or changing performance with use position. Ethertronics' antennas utilize patented IMD technology to deliver a unique size and performance combination.



Stays in Tune

High RF isolation means IMD antennas resist detuning regardless of usage position. And one standardized part can typically be placed in a variety of locations.

Smallest Effective Size

IMD antennas require a

smaller keep-out area for surrounding components, leading to a smaller effective size.

High Performance

IMD's high efficiency and simple design rules lower development risk and speed time-to-market without sacrificing performance. Plus, high RF selectivity eliminates the cost and space for band-pass circuitry.

More information is available on our Website at www.ethertronics.com/resources/.



KEY BENEFITS

DESIGN ADVANTAGES

Best in Class Performance—Smallest Occupied Volume

- Powerful combination of 66% peak efficiency and simple implementation guidelines.
- Very low component height.
- High selectivity eliminates the cost for additional filters and frees up board space

High Tolerance to Frequency Shifts

- IMD's high RF isolation resists antenna detuning that otherwise impair reception.
- Single part works for various PCB sizes and layouts.

Quicker Time-to-Market

- Fewer design modifications required to pass RF test suite.

RoHS Compliant

- Ethertronics' antennas comply with the European RoHS Directive 2002/95/EC.

END USER ADVANTAGES

Superior Range

- Greater antenna efficiency means longer range for remote applications.

Exceptional Coverage

- Better coverage delivers more reliable wireless connections.

SERVICE AND SUPPORT

Extensive RF Experience

- Our Savvi ceramic antennas are supported by extensive application notes, and when needed, by the expertise of RF engineers who have integrated hundreds of antenna designs into wireless devices.

Global Operations & Design Support

- Ethertronics' global operations encompass an integrated network of design centers that provide local customer support.

PRODUCT: ISM Antenna

Ethertronics' Savvi™ ISM Embedded Antenna Specifications

Ethertronics produces a wide variety of standard and custom antennas to meet user needs.

Below are the typical specs for an ISM application (matching network required).

Electrical Specifications

Typical Characteristics (ISM 868–870 MHz capable with tuning. See Frequency Tuning Guidelines in the Savvi Ceramic Application Notes).

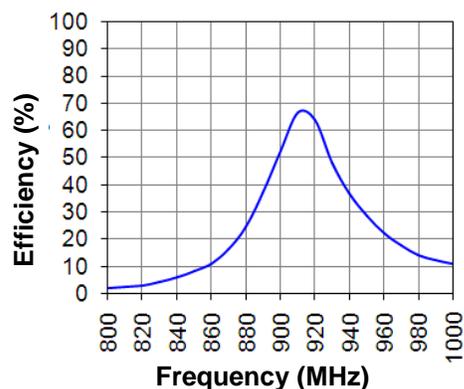
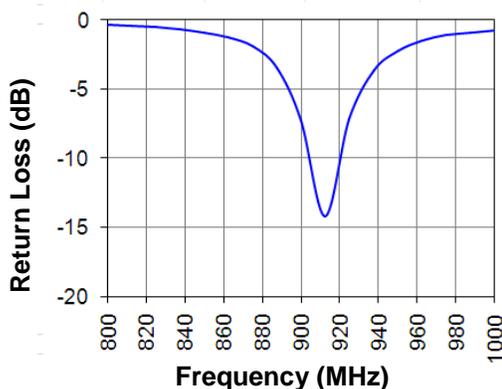
ISM Antenna	902–928 MHz
Peak Gain	2.56 dBi
Average Efficiency	58%
VSWR Match	2.6:1 max
Feed Point Impedance	50 ohms unbalanced
Power Handling	0.5 Watt cw
Polarization	Linear

Mechanical Specifications

Size	6.00x2.00x1.1mm
Mounting	Surface mount
Packaging	Tape & Reel M620710: Minimum Order Quantity of 100,000 pcs. Order multiples of 10,000 pcs. M620710-1K: Minimum Order Quantity of 1,000 pcs. Order multiples of 1,000 pcs.

Typical Return Loss , Efficiency (902–928 MHz)

(Note: the Return Loss plot may change when using capacitors from different vendors due to manufacturing tolerances. See PCB Layout Guidelines in the Savvi Ceramic Application Notes).



Antenna Radiation Patterns (902–928 MHz)

902–928MHz Band

Typical Performance
Ethertronics' Test Board
PCB: 40x100mm

