



DATASHEET Part No. P522304 Product: Cellular / LTE IMD Antennas

# Part No. P522304

# Prestta<sup>TM</sup> Standard Penta-Band Cellular Embedded Antenna 850/900/1800/1900/2100 MHz



# Prestta<sup>™</sup> IMD Antennas M2M / Automotive / IoT

Cellular / LTE EU Band

#### **KEY BENEFITS**

#### Reduced Costs and Time-to-Market

Standard antenna eliminates design fees and cycle time associated with a custom solution; getting products to market faster.

#### **Greater Flexibility with Unique Form Factors**

Ethertronics' IMD technology helps you deliver more advanced ergonomic designs without adverse impact on product performance.

# **RoHS Compliant**

Ethertronics' antennas are fully compliant with the European RoHS Directive 2002/95/EC.

#### **APPLICATIONS**

- M2M
- Automotive
- Healthcare
- Point of Sale
- Tracking

Ethertronics' Prestta series of Isolated Magnetic Di-pole™ (IMD) embedded antennas address the challenges facing today's product designers. IMD's high performance and isolation characteristics offer better connectivity and minimal interference.

#### **Stays in Tune**

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.

Prestta antennas use patented IMD technology in a stamped metal configuration to provide high performance. IMD antennas requires a smaller design keep-out area, carry lower program development risk which yields a quicker time-to-market, without sacrificing RF performance.

# **Electrical Specifications**

Typical Characteristics, on 40x100mm PCB, frequency of operation depends on tuning

	824 - 894 MHz	880 - 960 MHz	1710 - 2170 MHz
Peak Gain	0 dBi	0 dBi	0.7 dBi
Average Efficiency	62 %		55 %
VSWR Match	2.5:1 max		
Feed Point Impedance	50 ohms unbalanced (other if required)		
Polarization	Linear		
Power Handling	2 Watts CW		

# **Mechanical Specifications**

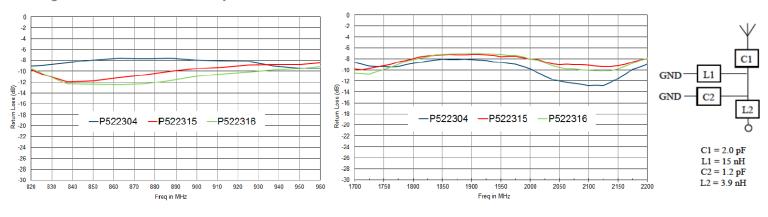
Size	35.0 x 9.0 x 3.2 mm	
Variant	P522315 : PPAP documentation available P522316 : Halogen free with PPAP documentation	
RF Mounting	RF and Ground feed pads are SMD attached to main PCB	



Cellular / LTE EU Band Ethertronics' Penta-Band Internal (Embedded) Antenna Specifications. Ethertronics produces a wide variety of standard and custom antennas to meet user needs. Below are the typical performances.

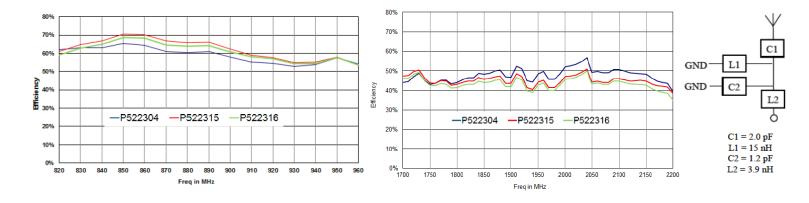
#### **Typical Return Loss**

Tuning values for references only



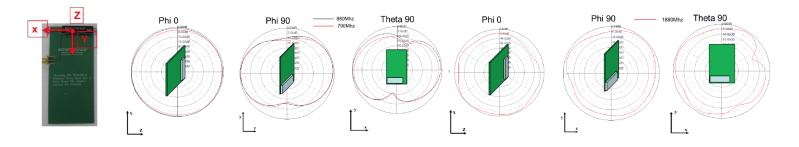
# **Typical Efficiency**

Tuning values for references only



# **Antenna Radiation Patterns**

Typical Performances on Ethertronics' 50x110 PCB Test Board, using P522304



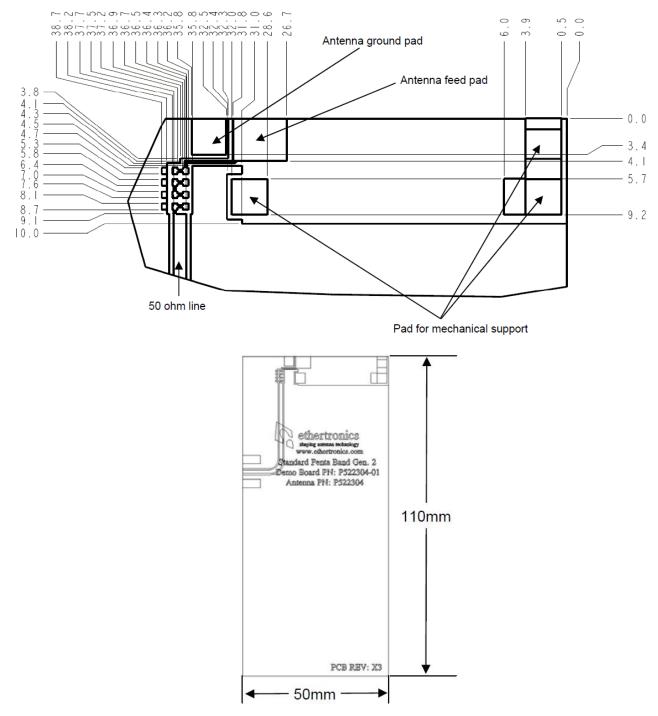
\*All dimensions provided in this document are for informational purposes only.



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#### Mechanical dimensions and pads layout

All dimensions provided are in mm



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