

Part No. P822602

Universal Broadband Embedded LTE Antenna

700 / 750 / 850 / 900 / 1800 / 1900 / 2100 / 2700 MHz



Ethertronics' Prestta series of Isolated Magnetic Dipole™ (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

IMD antenna technology provides superior RF field containment, resulting in less interaction with surrounding components. Ethertronics IMD antennas resist detuning; providing a robust radio link regardless of the usage position.

M2M / Automotive / IoT

700 – 1000 MHz
1700 - 2700 MHz

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

Measurements taken with a matching circuit on a 140 x 50 mm ground plane.

LTE Cellular Bands (MHz)	700 ~ 746	746 ~ 787	824 ~ 896	880 ~ 960	1710 - 1880	1850 ~ 1990	1920 ~ 2170	2500 ~ 2700
Peak Gain	1.1 dBi	1.7 dBi	1.8 dBi	2.2 dBi	3.9 dBi	3.8 dBi	3.4 dBi	3.6 dBi
Average Efficiency	56 %	67%	68%	68%	75%	68%	72%	54%
VSWR Match	VSRW < 2.5:1 over the whole frequency range							
Power Consumption	2 Watt CW							
Feed Point Impedance	50 Ohms unbalanced							

KEY BENEFITS

Reduced Costs and Time-to-Market

Standard antenna eliminates design fees, redesign cycle time and minimize risk associated with a customer solution. Quicker time to market.

Greater Flexibility with Unique Form Factors

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

RoHS Compliant

Comply with latest RoHS requirements

APPLICATIONS

- M2M
- Automotive
- Healthcare
- Point of Sale
- Tracking
- NB-IoT
- Sigfox
- LoRa
- Cellular LPWA
- RPMA
- LTE CAT-M

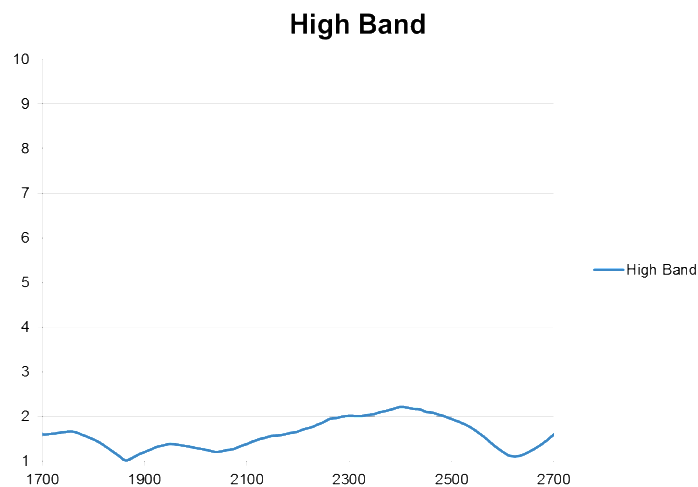
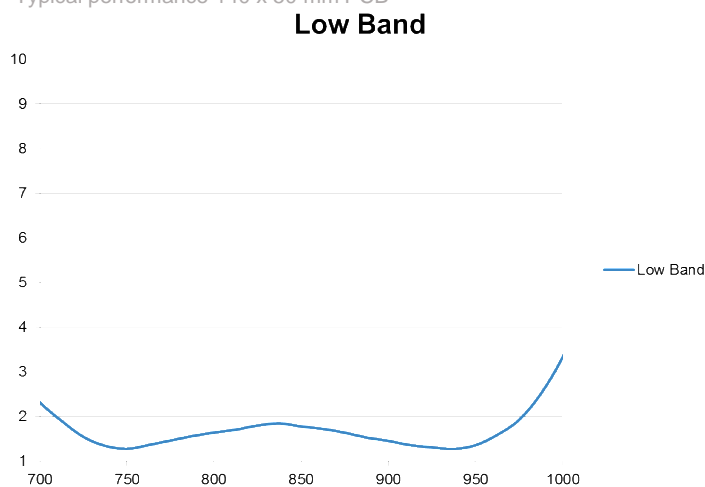
Mechanical Specifications

Dimensions	50.0 x 8.0 x 3.2 mm (L x W x T)
Variant	P822601 : Mirrored version of P822602
RF & Mechanical Mounting	RF and Ground feed pads are SMT attached to main PCB
Weight	2.63 grams
Packaging	Tape & Reel, P822602 - 1,500 pieces per reel

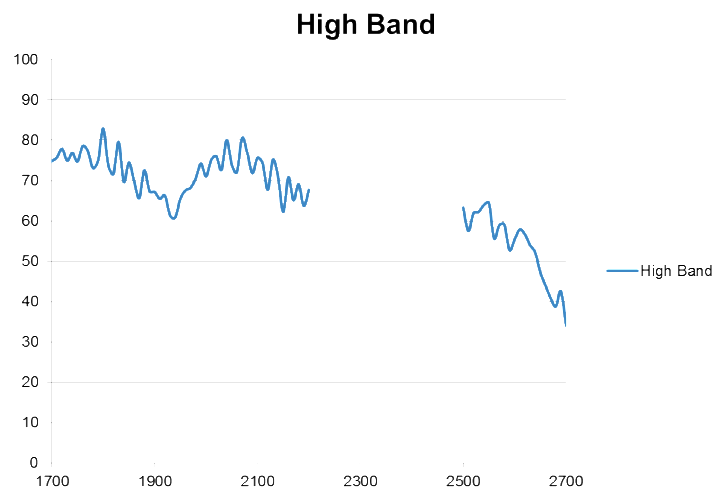
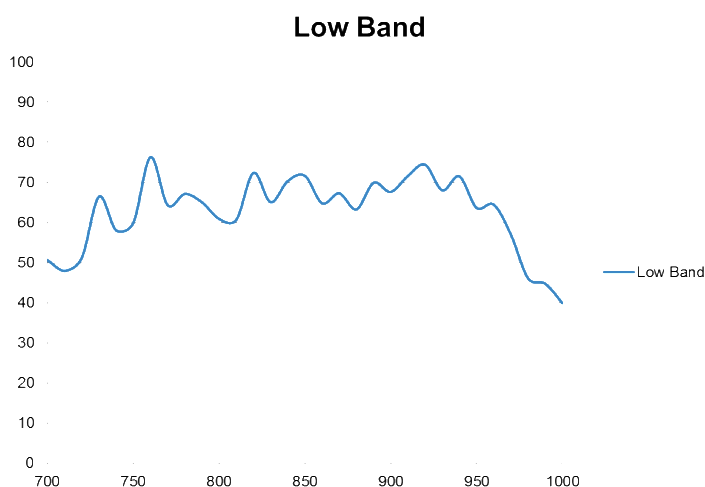
Antenna dimensions

Technical drawing of the P822602 component. The top view shows a rectangular component with a width of 49.60 and a height of 8.00. The side view shows a component with a height of 3.2 ± 0.32. The drawing includes the text "ethertronics®" and "P822602".

Typical performance 140 x 50 mm PCB



Typical performance 140 x 50 mm PCB

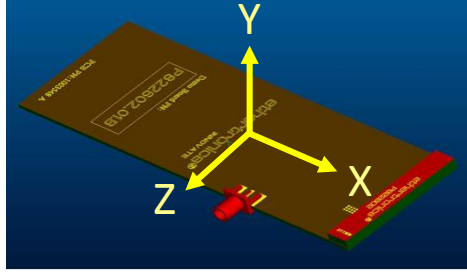


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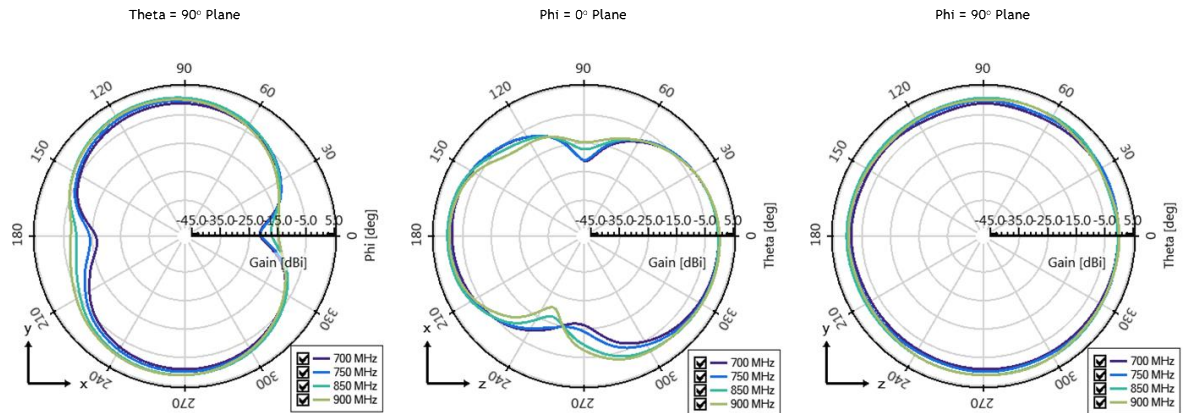
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Universal Broadband Embedded LTE Antenna Specifications
Antenna Radiation Patterns

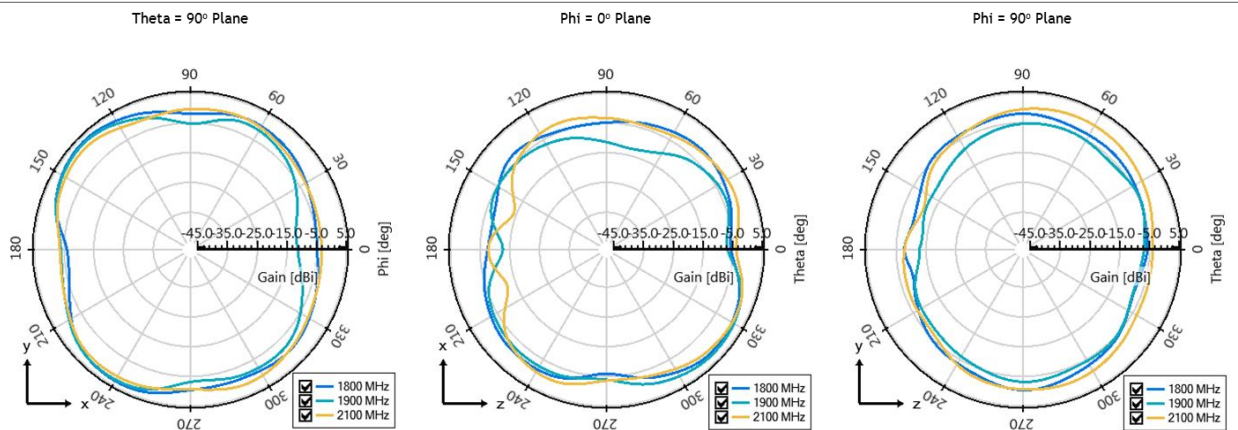
Typical Performance
Ethertronics® Test Board
PCB: 140 x 50 mm


Low Band

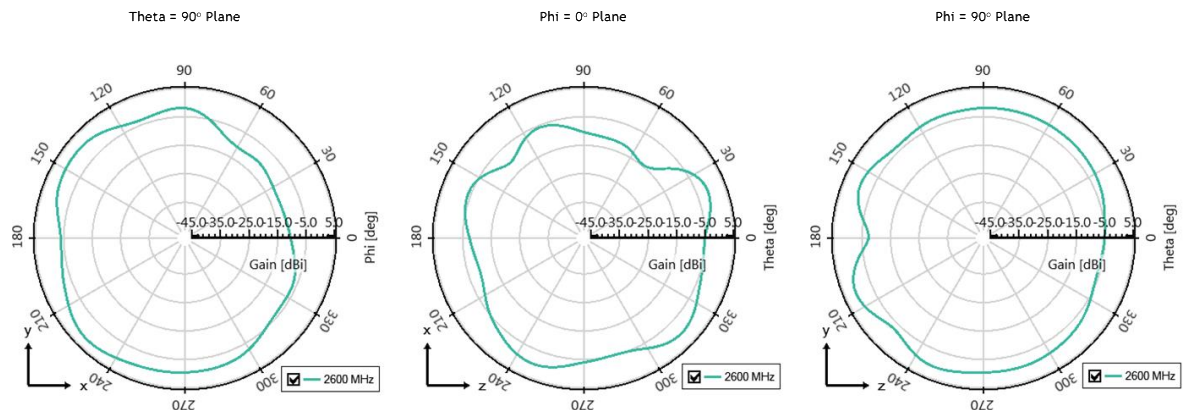
700 MHz
750 MHz
850 MHz
900 MHz


High Band

1800 MHz
1900 MHz
2100 MHz


High Band

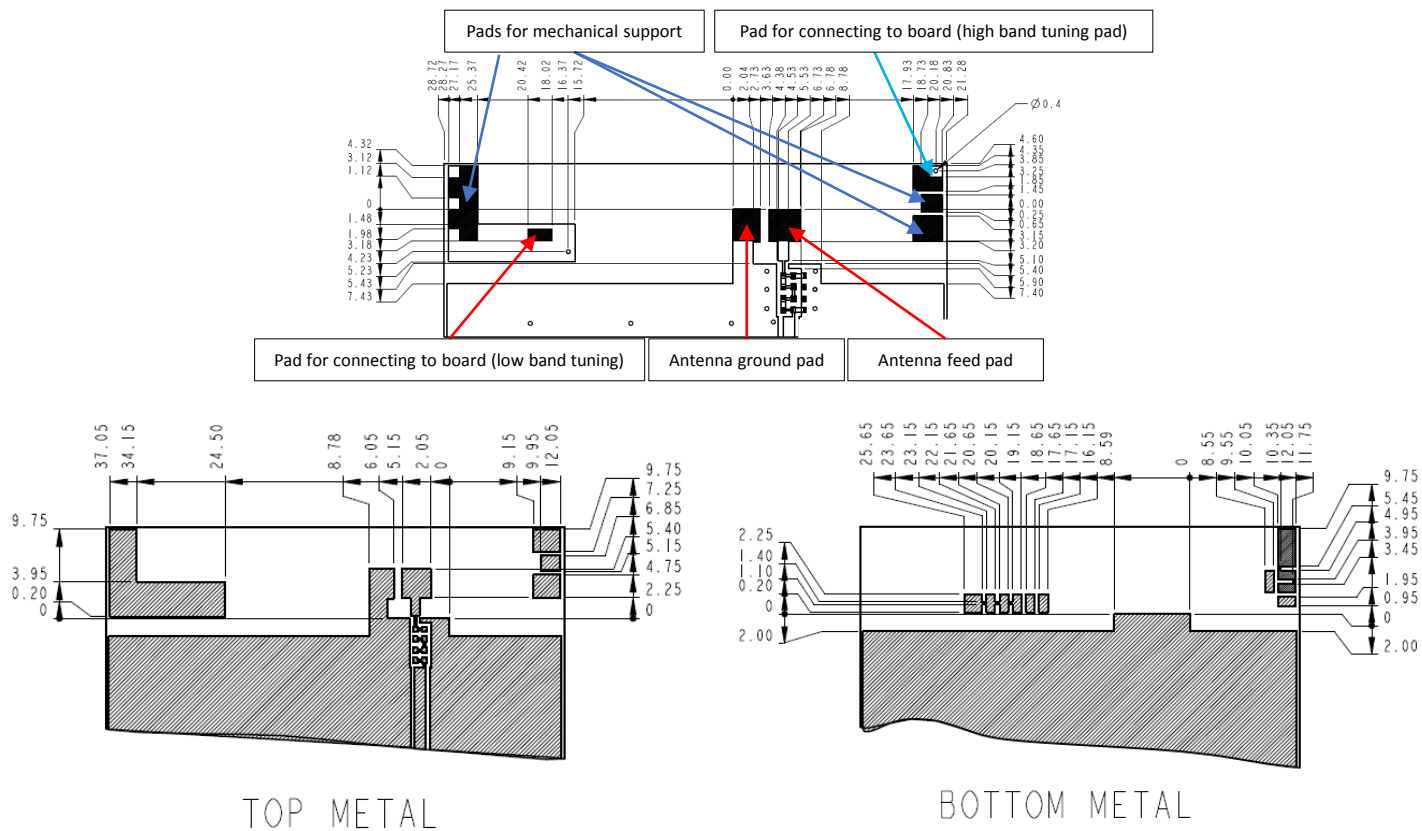
2600 MHz



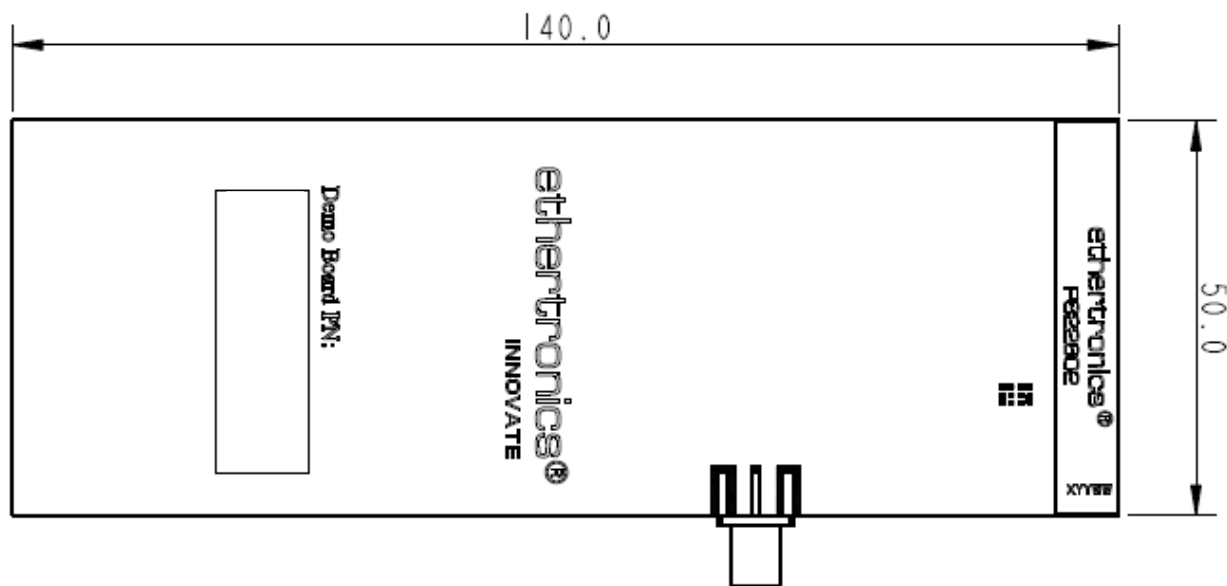
*All dimensions provided in this document are for informational purposes only.

Universal Broadband Embedded LTE Antenna Specifications.
Mechanical Pad layout

For references only (mm)


Demo Board Photo

For references only (mm)



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