



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Part No. 1002295

Wi-Fi / BT Single Band Stamped Metal Embedded Antenna

2.4 GHz

Supports: Wi-Fi applications, Agriculture, Automotive, Bluetooth, Zigbee, WLAN, Smart Home, Healthcare, Digital Signage



Stamped Metal Wi-Fi/BT Embedded Antenna

2.400 – 2.485 GHz

KEY BENEFITS

Stay-in-Tune

Ethertronics antenna technology provides superior RF field containment, resulting in less interaction with surrounding components.

Quicker Time-to-Market

By optimizing antenna size, performance and emissions, customer and regulatory specifications are more easily met.

Reliability

Products are the latest RoHS version compliant.

APPLICATIONS

- Embedded design
- Cellular, Headsets, Tablets
- Gateway, Access Point
- Handheld
- Telematics
- Tracking
- Healthcare
- M2M, Industrial devices
- Smart Grid
- OBD-II

Ethertronics' Stamped Metal 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 WLAN enabled devices, media players, routers, and other wireless devices.

Greater Flexibility

Ethertronics' first-in-class technology enables you to develop concept designs that are more advanced and that deliver superior performance in reception critical applications.

Electrical Specifications

Typical performance on 75 x 75 mm PCB

Frequency	2.400 - 2.485 GHz
Peak Gain	4.4 dBi
Average Efficiency	79%
VSWR Match	2.0 :1 max
Feed Point Impedance	50 ohms unbalanced
Polarization	Linear
Power Handling	0.5 Watt CW

Mechanical Specifications & Ordering Part Number

Ordering Part #	1002295
Dimensions (mm)	16.1 x 15.7 x 10.55
Mounting Type	SMT (P&P)
Weight (grams)	0.70
Packaging	Tape & Reel, 150 pcs/Reel
Demo Board	1003666-01

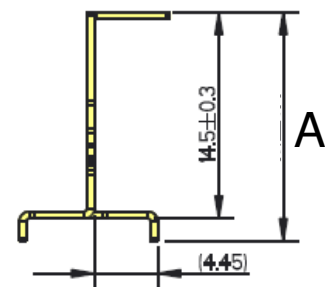
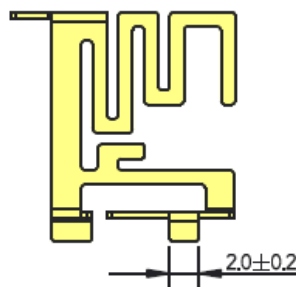
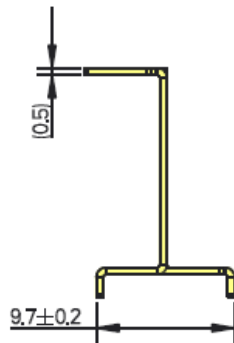
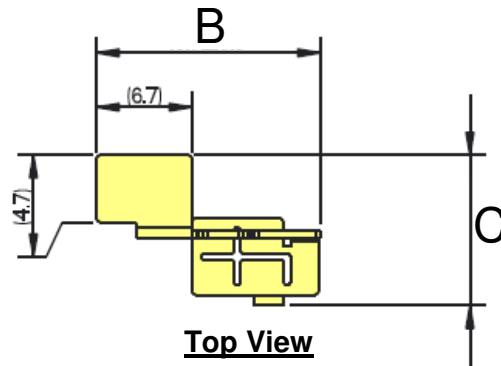
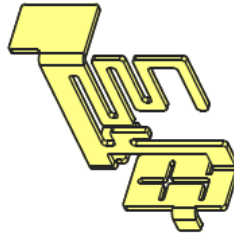


2.4 GHz Stamped Metal Ethertronics' Embedded Antenna Specifications
Ethertronics produces a wide variety of standard and custom antennas to meet user needs.

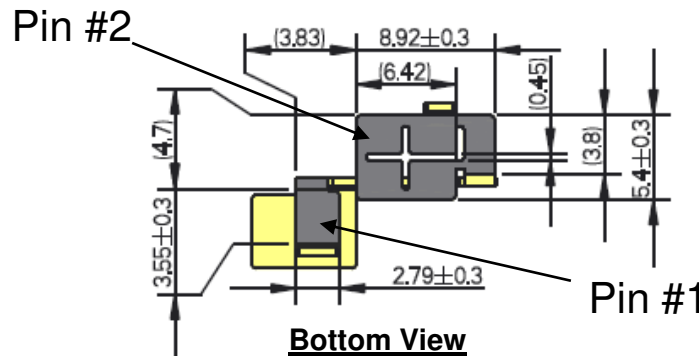
Antenna Dimensions

Typical antenna dimensions (mm)

Part Number	A (mm)	B (mm)	C (mm)
1002295	16.1 ± 0.4	15.7 ± 0.3	10.55 ± 0.4



Pin#	Description
1	Feed
2	Ground

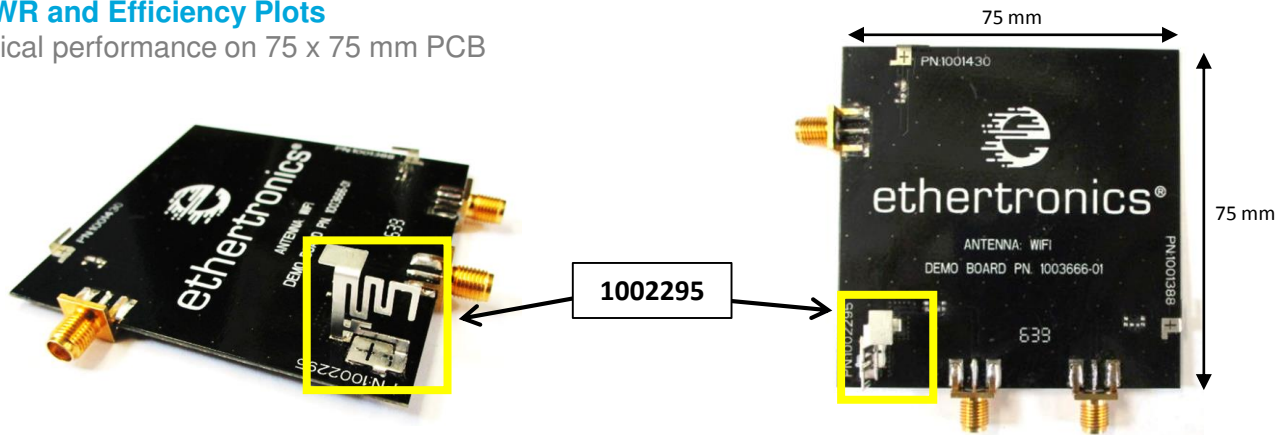




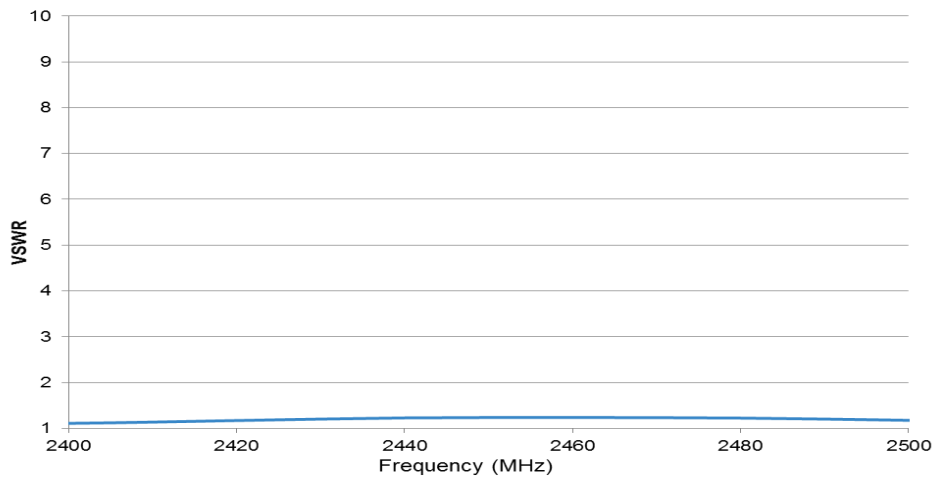
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VSWR and Efficiency Plots

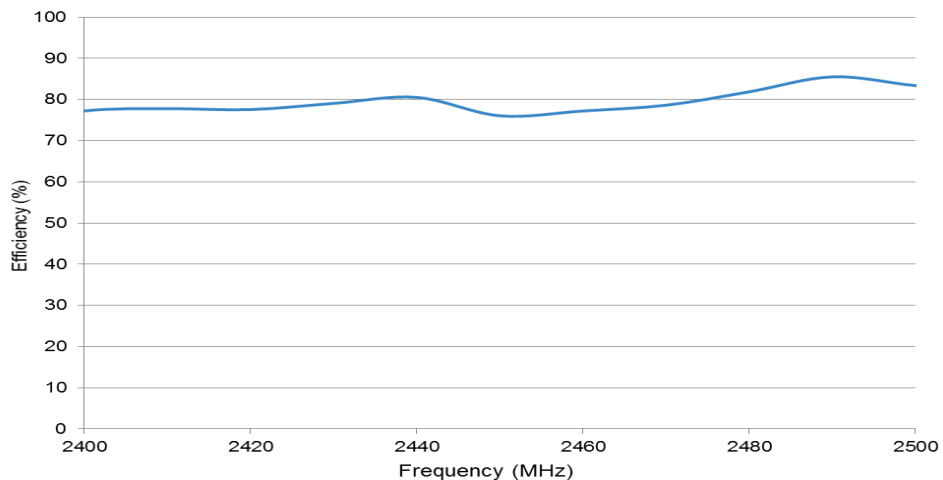
Typical performance on 75 x 75 mm PCB



VSWR



Efficiency

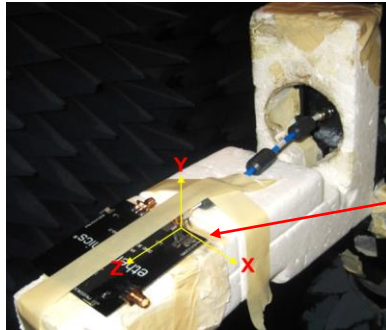




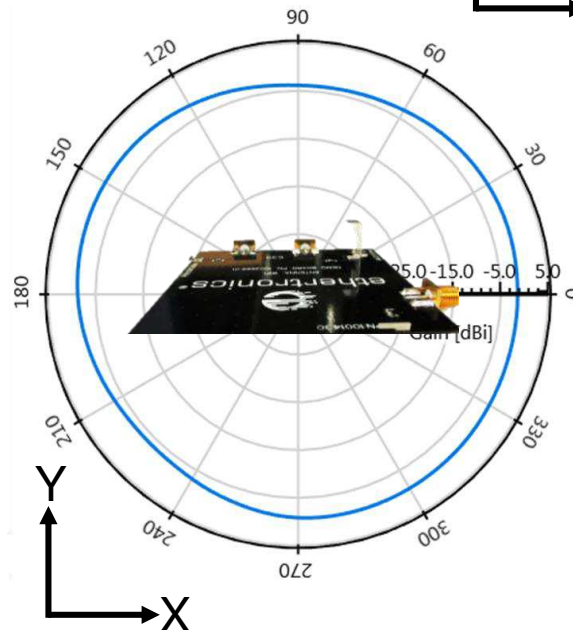
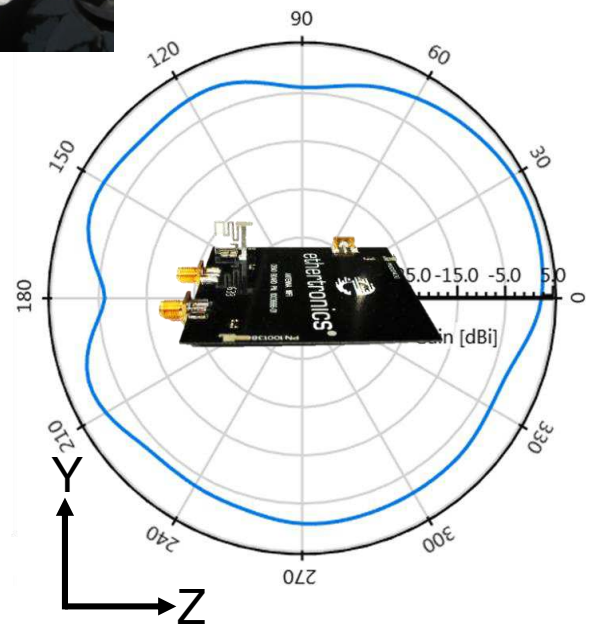
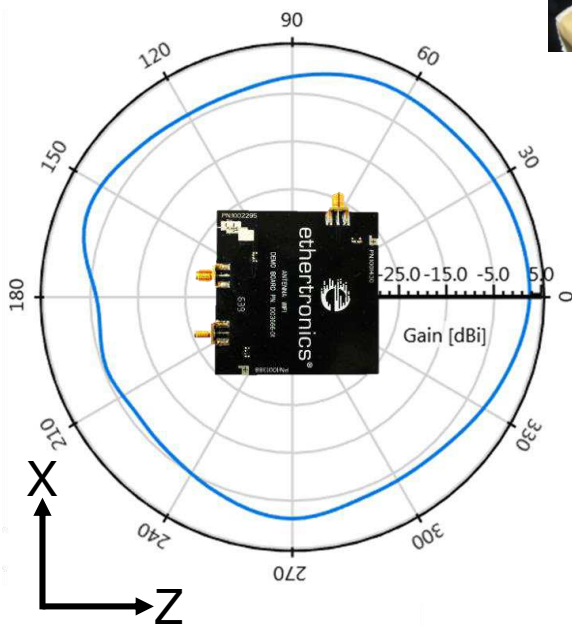
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Antenna Radiation Patterns

Typical performance on 75 x 75 mm PCB
Measured at 2450 MHz



1002295

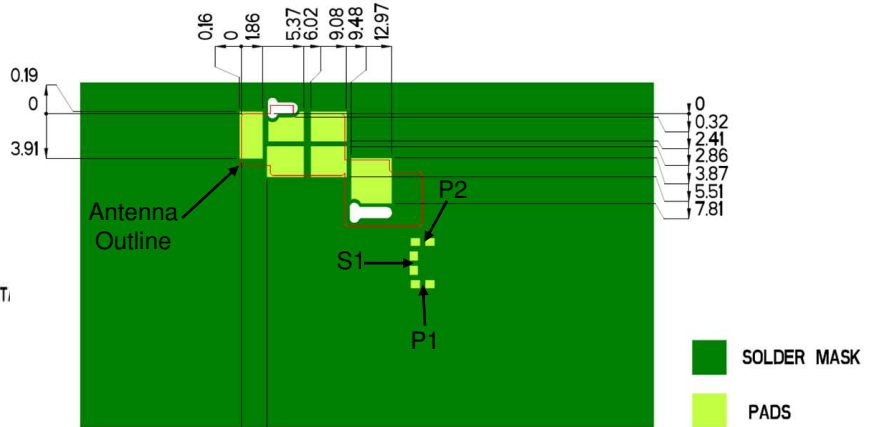
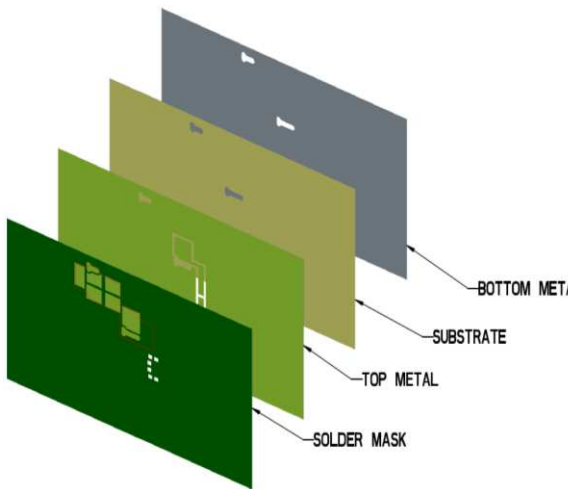




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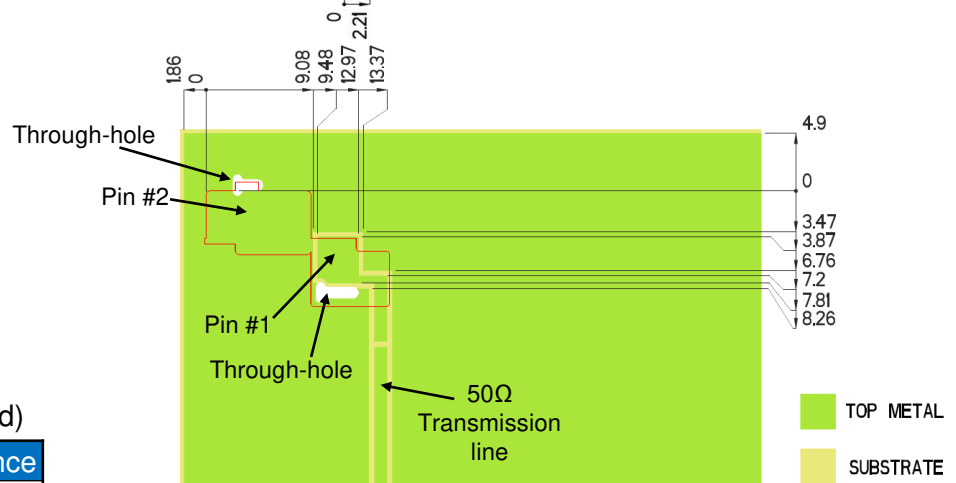
Antenna Layout

Typical layout dimensions (mm)



Pin Descriptions

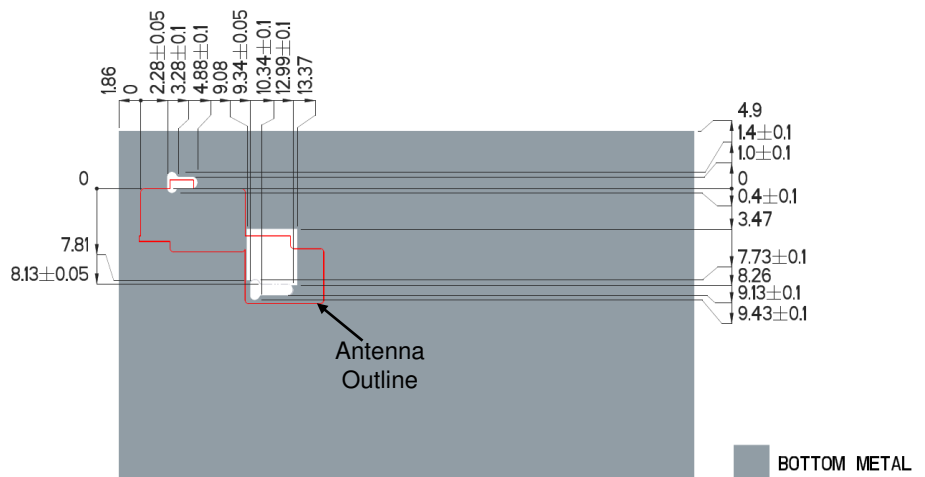
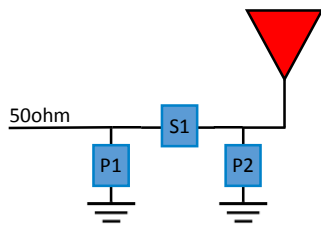
Pin#	Description
1	Feed
2	Ground



Matching Pi Network (Demo Board)

Component	Value	Tolerance
P1	0.5pF	±0.05pF
S1	1nH	±0.1nH
P2	DNI	DNI

*Actual matching values depend on customer design



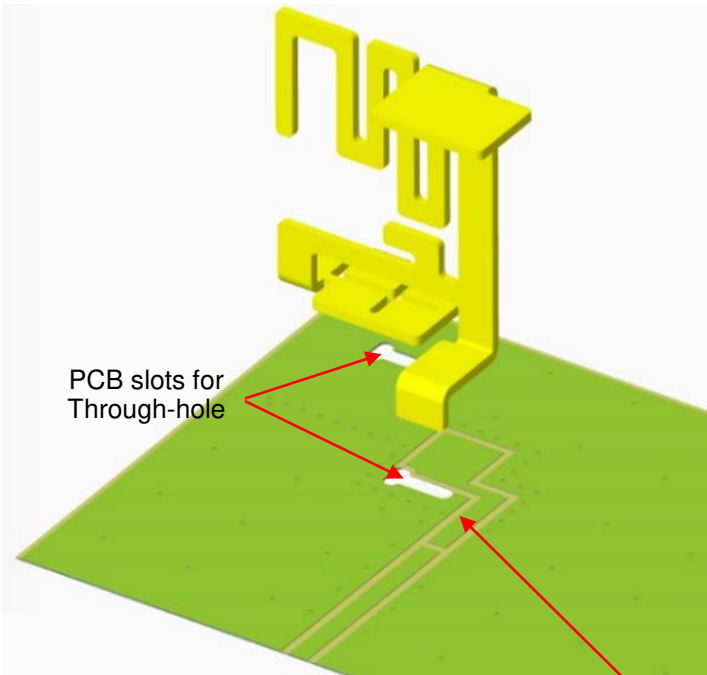


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Antenna Layout cont. (SMT Mounting, Through-hole for Stabilization)

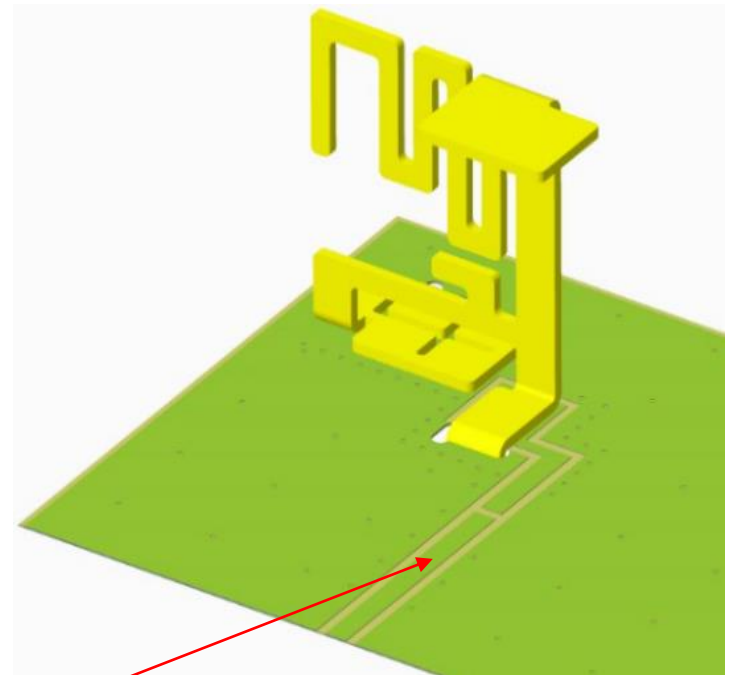
Typical layout dimensions (mm)

Exploded View



PCB slots for
Through-hole

Assembled View



A 50 ohm transmission line needs to be
designed and connected at this location

Bottom View





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Antenna Demo Board

Typical layout dimensions (mm)

Part Number	A (mm)	B (mm)	C (mm)	D (mm)
1000366-01	75.0	75.0	4.9	1.86

