



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 |

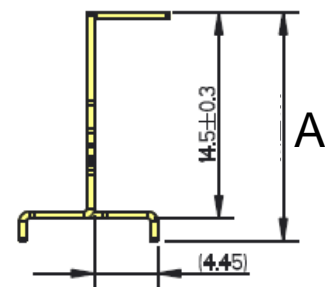
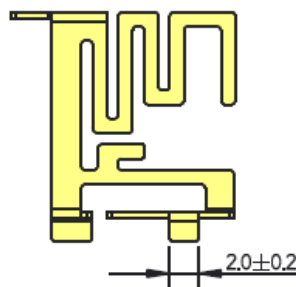
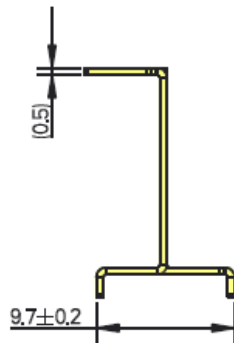
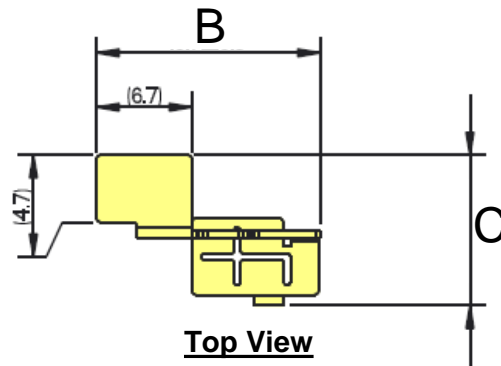
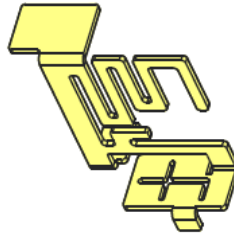


2.4 GHz Stamped Metal Ethertronics' Embedded Antenna Specifications
Ethertronics produces a wide variety of standard and custom antennas to meet user needs.

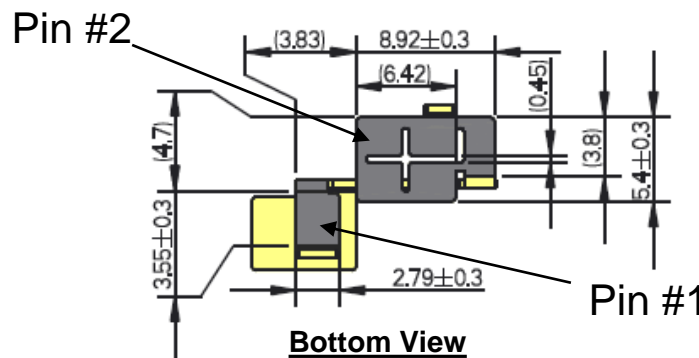
Antenna Dimensions

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 |

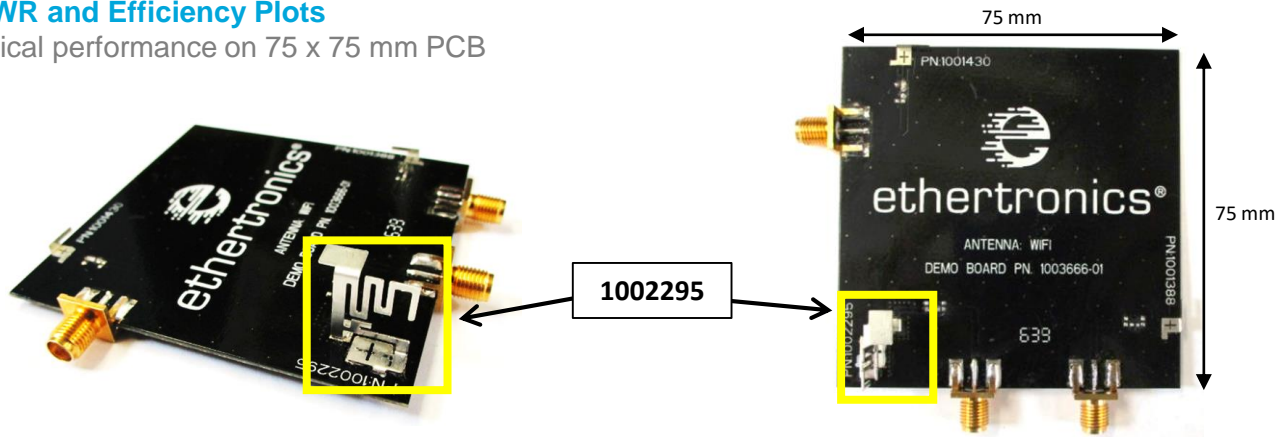




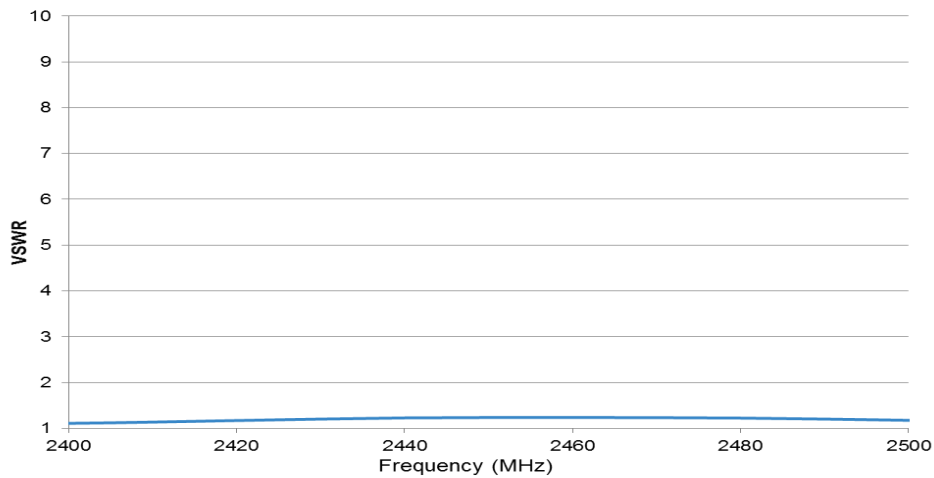
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VSWR and Efficiency Plots

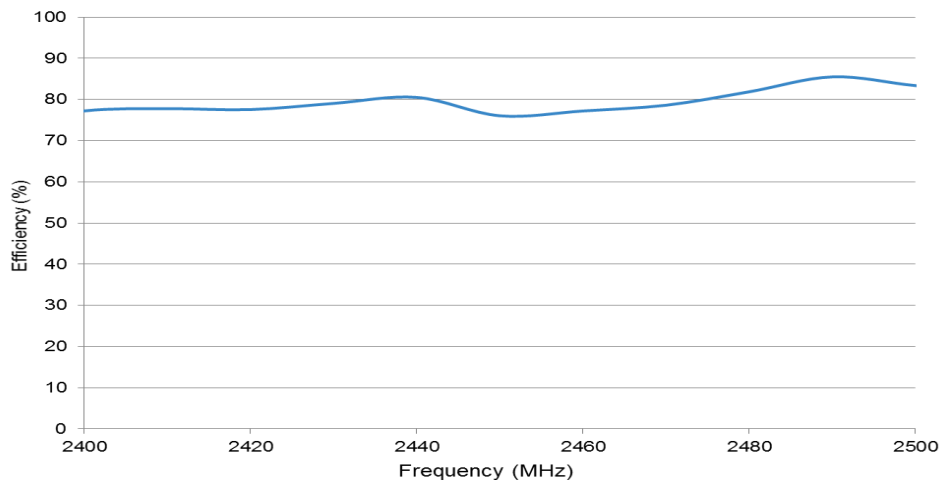
Typical performance on 75 x 75 mm PCB



VSWR



Efficiency

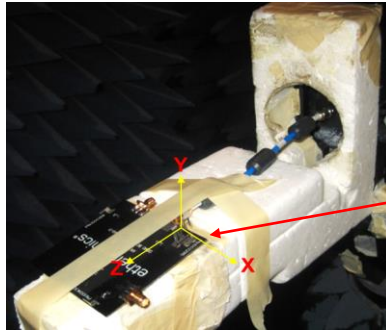




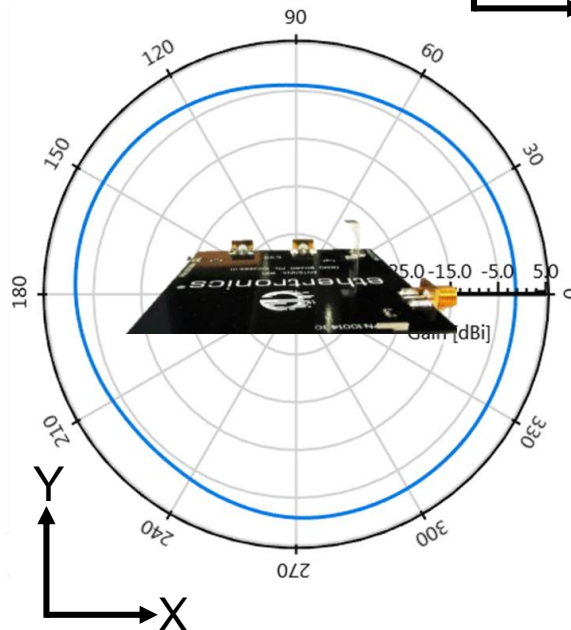
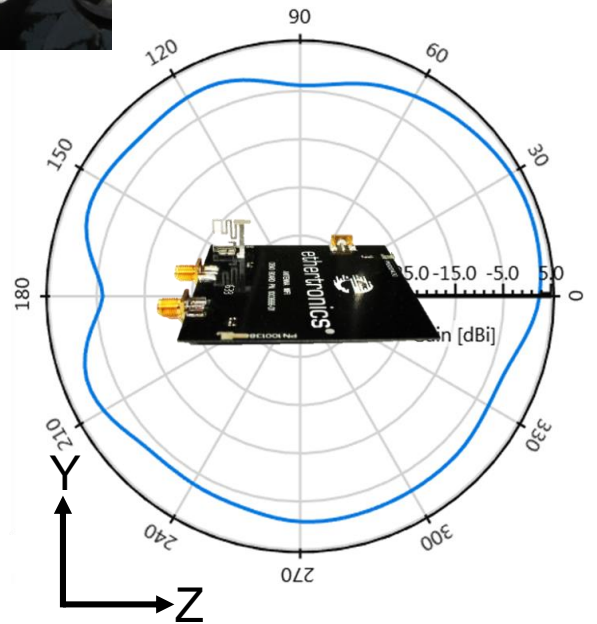
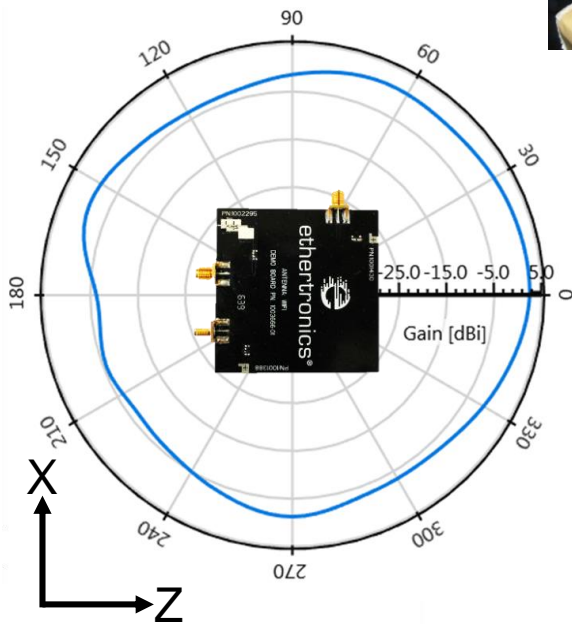
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Antenna Radiation Patterns

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



1002295

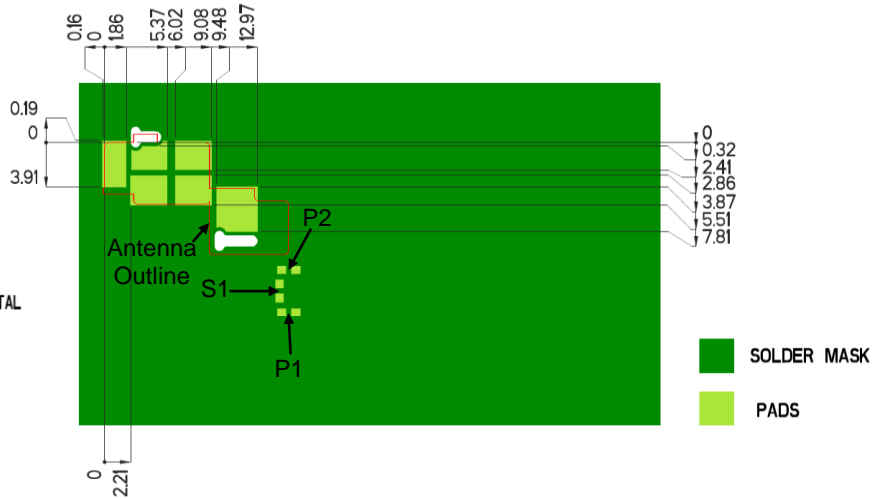
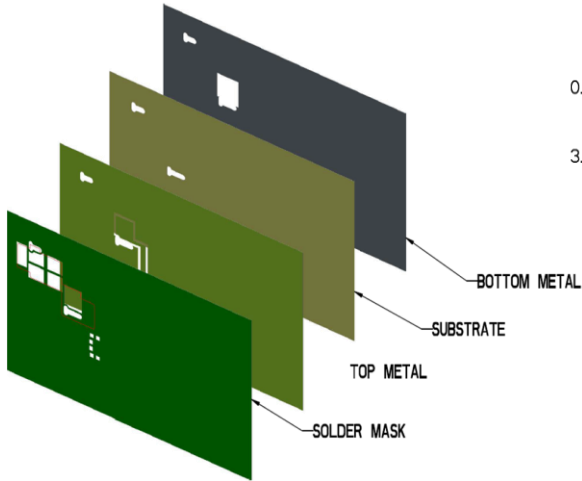




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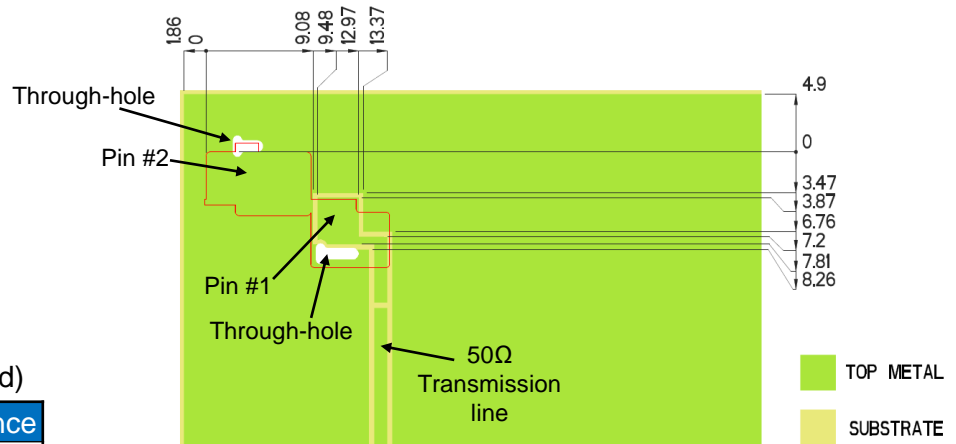
Antenna Layout

Typical layout dimensions (mm)



Pin Descriptions

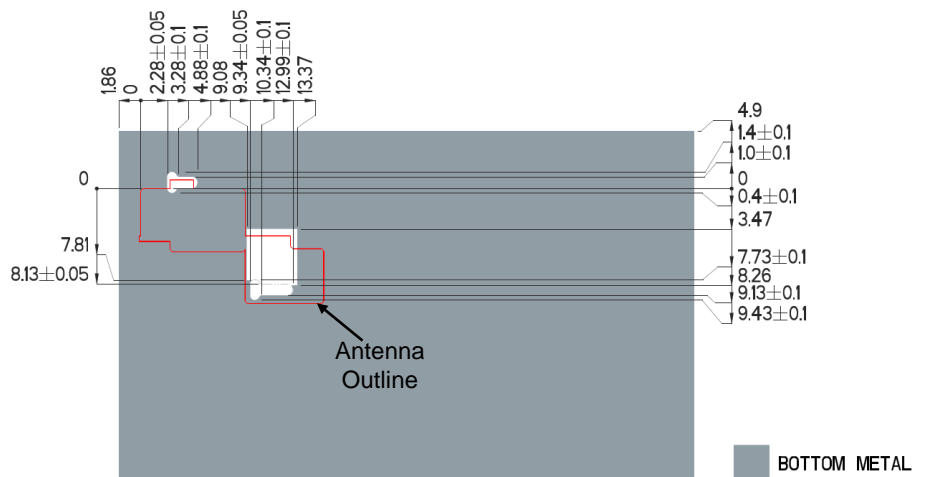
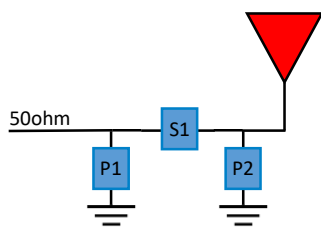
| Pin# | Description |
|------|-------------|
| 1 | Feed |
| 2 | Ground |



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



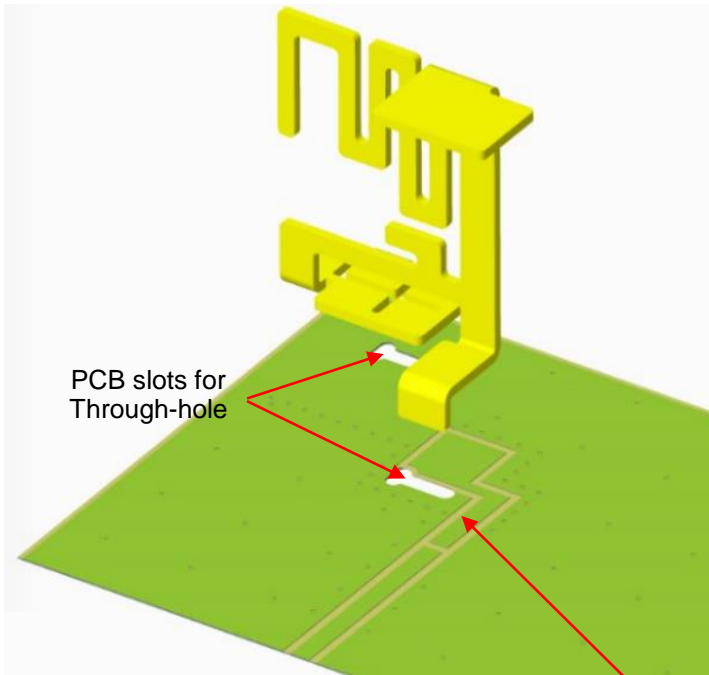


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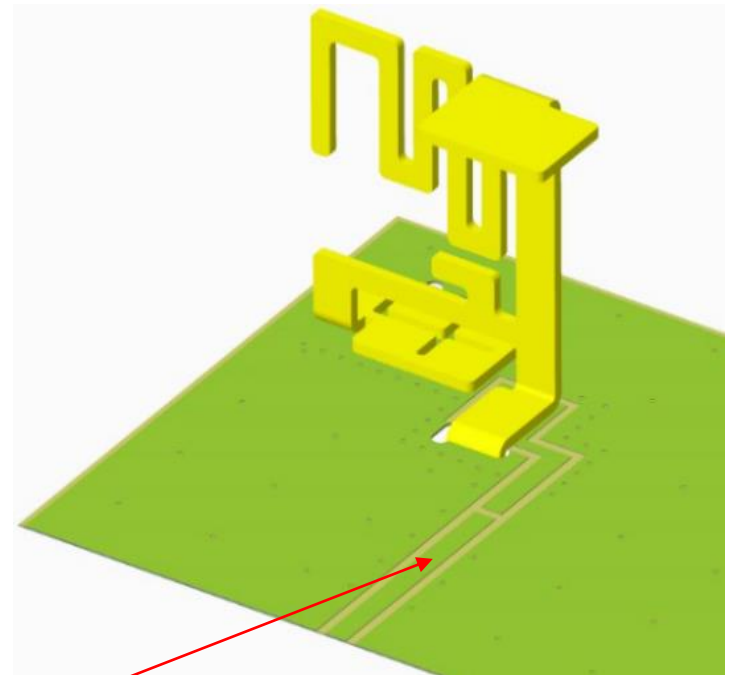
Antenna Layout cont. (SMT Mounting, Through-hole for Stabilization)

Typical layout dimensions (mm)

Exploded View



Assembled View



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

Bottom View



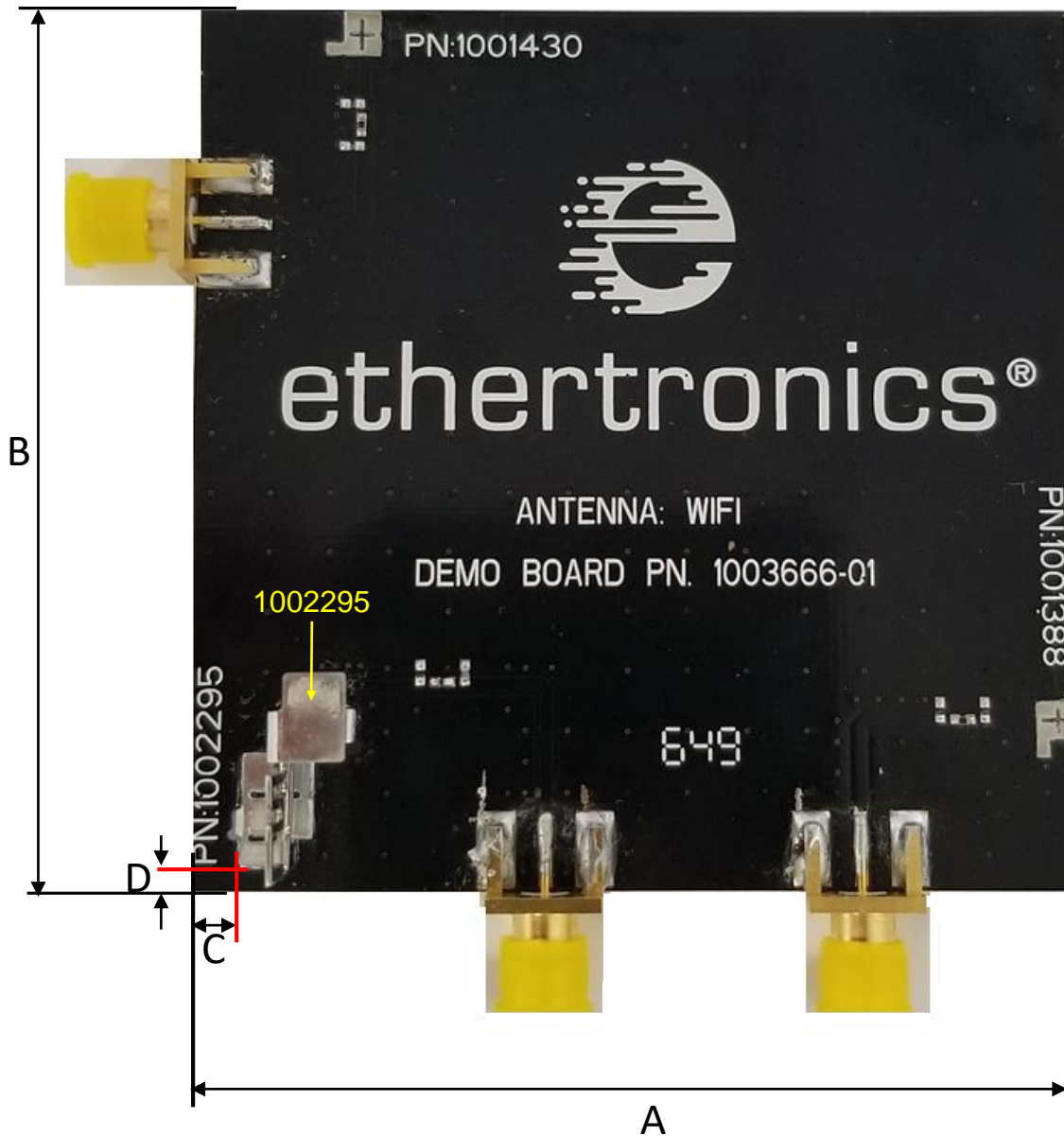


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Antenna Demo Board

Typical layout dimensions (mm)

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



Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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