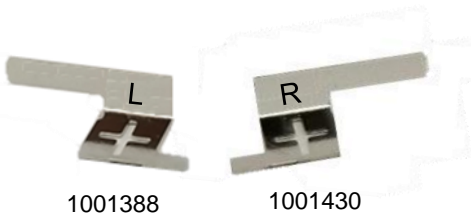


# Part No. 1001388 / 1001430

## 5 GHz Single Band Stamped Metal Embedded Antenna

5 GHz

Supports: Wi-Fi applications, Agriculture, Automotive, WLAN, Smart Home, Healthcare, Digital Signage, MIMO Applications



Ethertronics' 1001388 & 1001430 are the World's SMALLEST 5 GHz High Performance Stamped Metal antennas. These antennas are designed for WLAN MIMO enabled devices including routers, media players, and other mobile communications devices.

### Real-World Performance and Implementation

Ethertronics Stamped metal antennas are designed to produce optimal performance and 3D radiation patterns, offering increased coverage range without compromising on footprint dimensions.

### Greater Flexibility

Ethertronics' first-in-class technology enables the advance concept designs that deliver superior performance in reception critical applications.

### 5 GHz Single Band Stamped Metal Embedded Antenna

4900– 5900 MHz

#### 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

### Electrical Specifications

Typical performance on 75 x 75 mm PCB

Frequency (MHz)	5150 - 5825	5150 - 5825
Part Number #	1001388	1001430
Peak Gain	3.5 dBi	4.5 dBi
Average Efficiency	73%	72%
Return Loss in dB	< -10 dB	
Feed Point Impedance	50 ohms unbalanced	
Polarization	Linear	
Power Handling	2.0 Watt CW	

### Mechanical Specifications & Ordering Part Number

Ordering Part #	1001388	1001430
Dimensions (mm)	8.75 x 4.05 x 2.01	8.75 x 4.05 x 2.01
Mounting Type	SMT	
Weight (grams)	0.025	
Packaging	Tape & Reel, 2K pcs/Reel	
Demo Board	1003666-01	

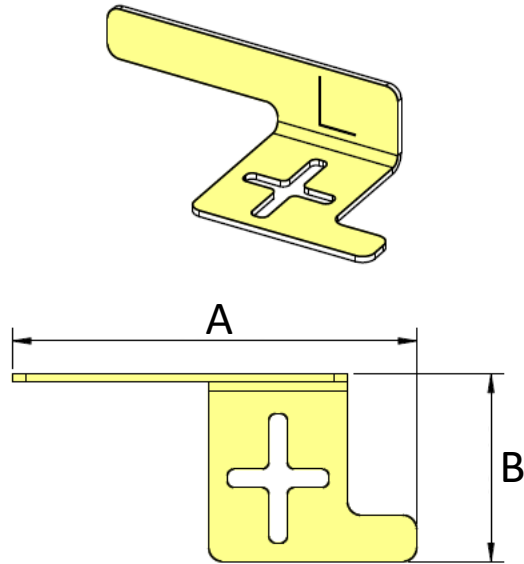


5 GHz Stamped Metal Ethertronics' Embedded Antenna Specifications  
Ethertronics produces a wide variety of standard and custom antennas to meet user needs.

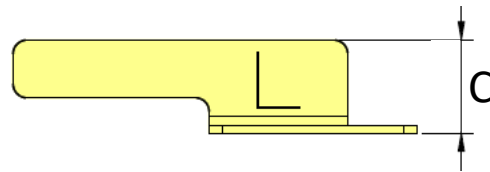
**Antenna Dimensions (1001388)**

Typical antenna dimensions (mm)

Part Number	A (mm)	B (mm)	C (mm)
1001388	8.75 ± 0.3	4.05 ± 0.3	2.01 ± 0.3

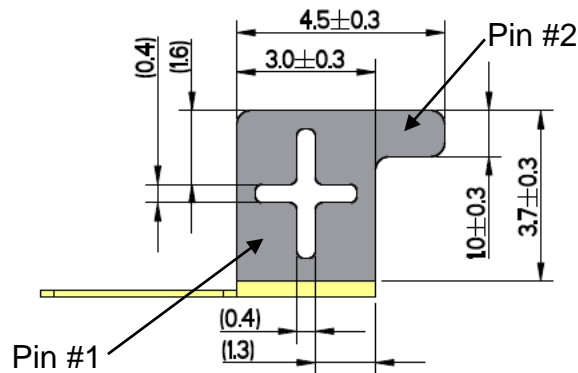


**Top View**



**Height**

Pin#	Description
1	Feed
2	Ground



**Bottom View**

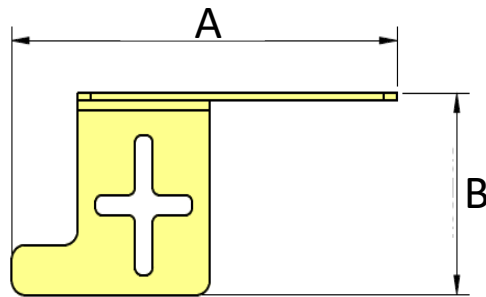
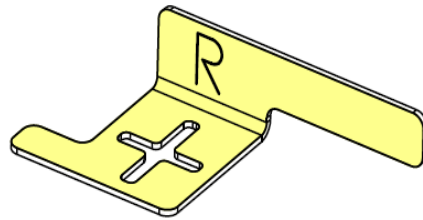


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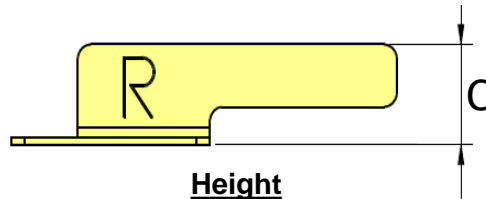
**Antenna Dimensions (1001430)**

Typical antenna dimensions (mm)

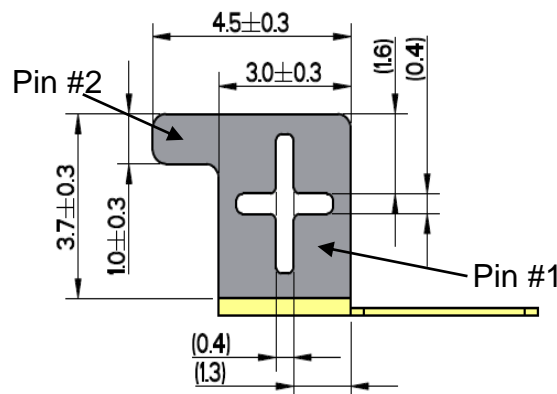
Part Number	A (mm)	B (mm)	C (mm)
1001430	8.75 ± 0.3	4.05 ± 0.3	2.01 ± 0.3



**Top View**



**Height**



**Bottom View**

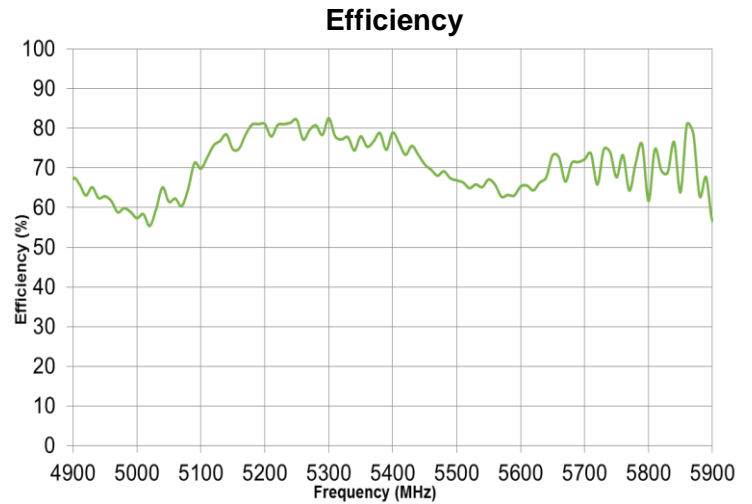
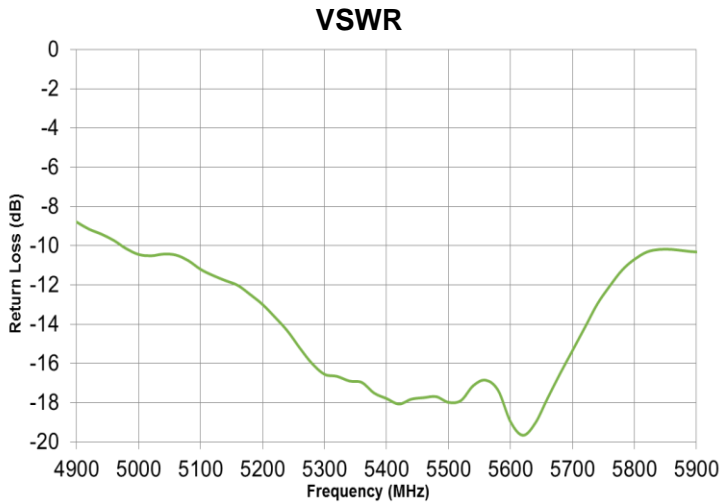
Pin#	Description
1	Feed
2	Ground



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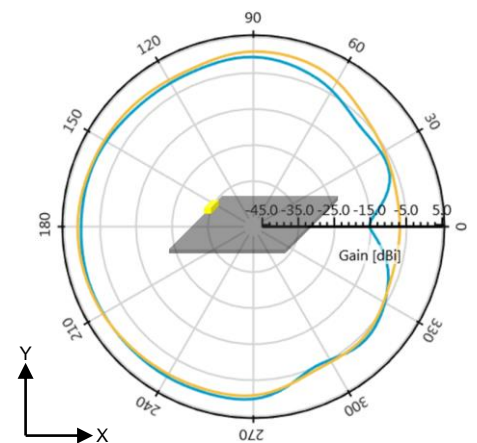
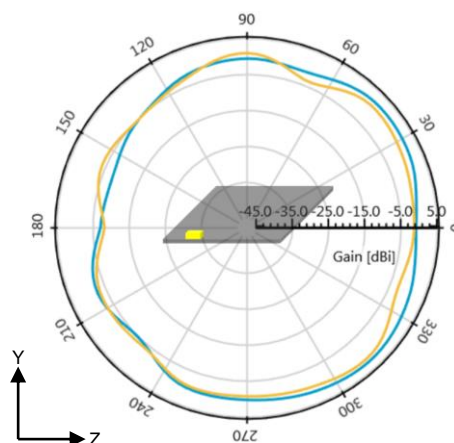
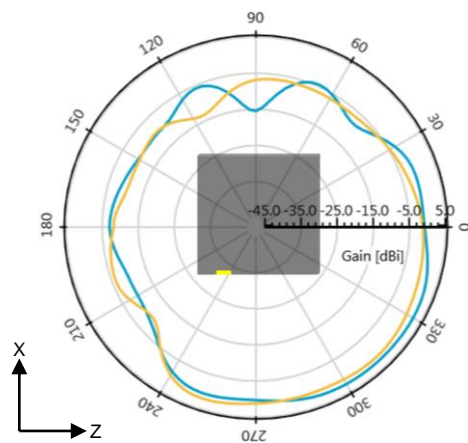
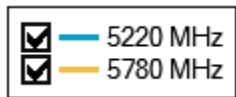
Return Loss and Efficiency Plots (1001388)

Typical performance on 75 x 75 mm PCB



Antenna Radiation Patterns (1001388)

Typical performance on 75 x 75 mm PCB  
Measured @ 5220, 5780 MHz

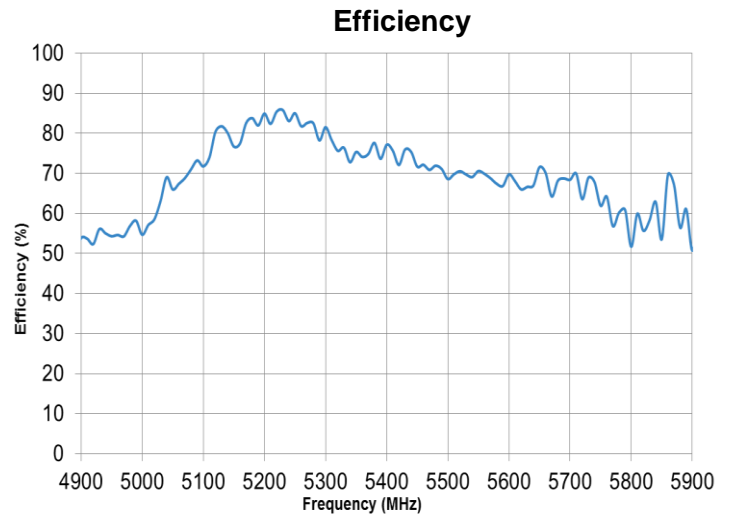
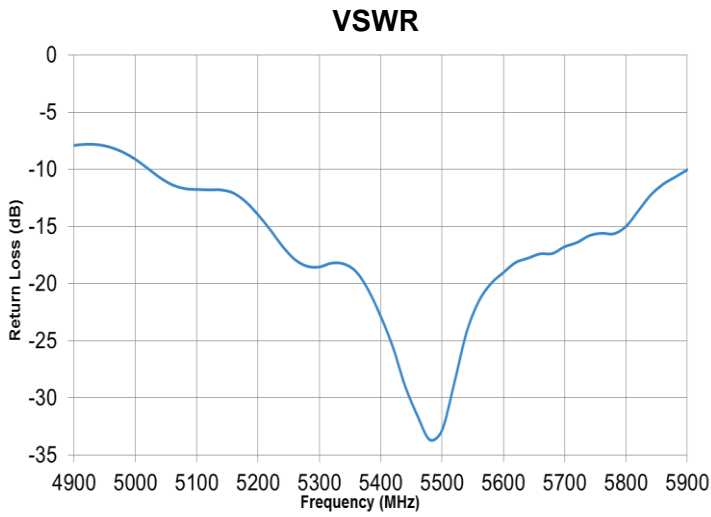




**5 GHz Stamped Metal Ethertronics' Embedded Antenna Specifications**  
Ethertronics produces a wide variety of standard and custom antennas to meet user needs.

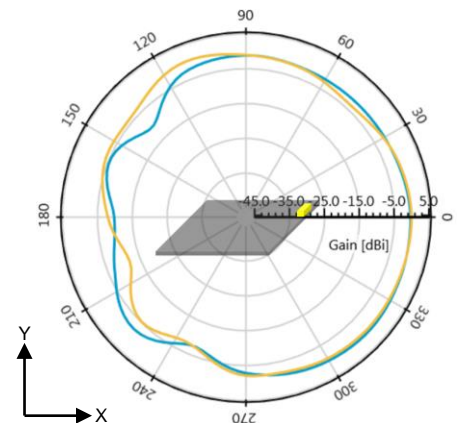
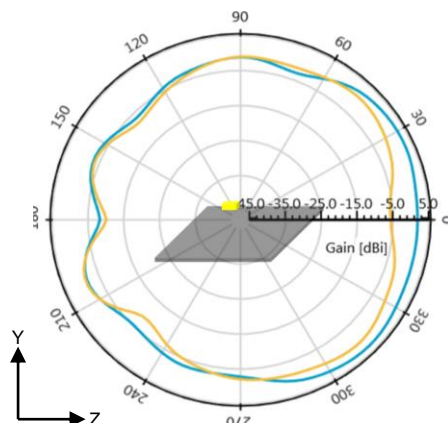
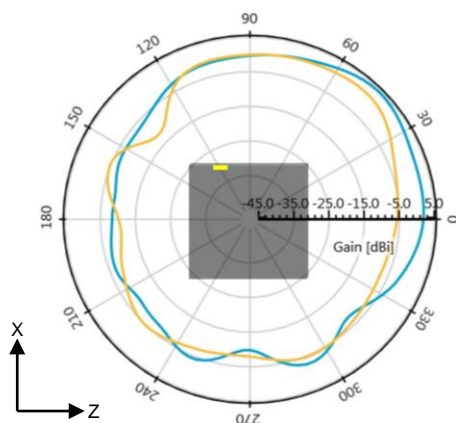
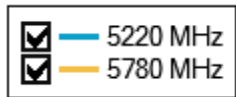
**Return Loss and Efficiency Plots (1001430)**

Typical performance on 75 x 75 mm PCB



**Antenna Radiation Patterns (1001430)**

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Measured @ 5220, 5780 MHz

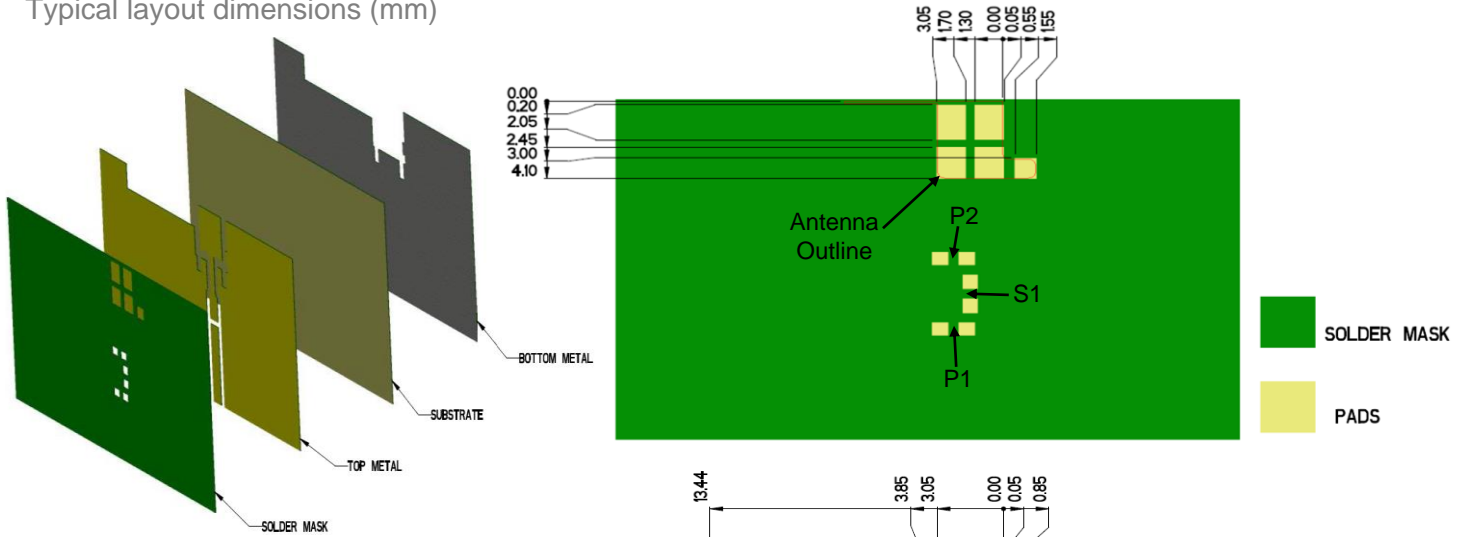




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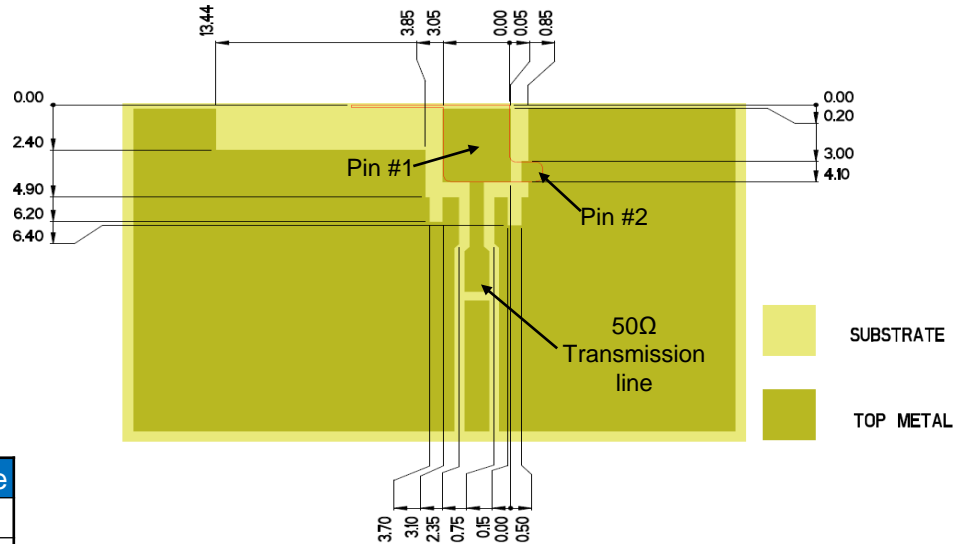
Antenna Layout (1001388)

Typical layout dimensions (mm)



Pin Descriptions

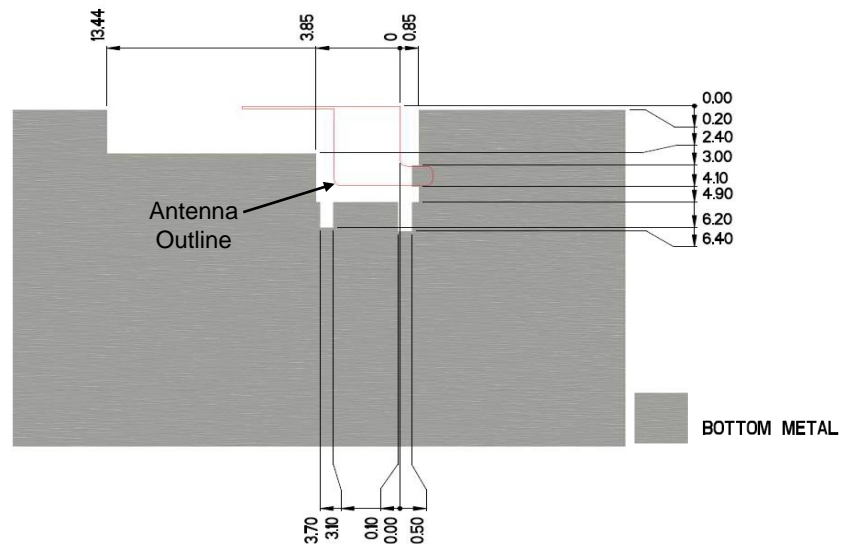
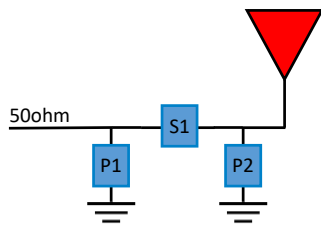
Pin#	Description
1	Feed
2	Ground



Matching Pi Network (Demo Board)

Component	Value	Tolerance
P1	DNI	DNI
S1	0Ω	N/A
P2	DNI	DNI

\*Actual matching values depend on customer design

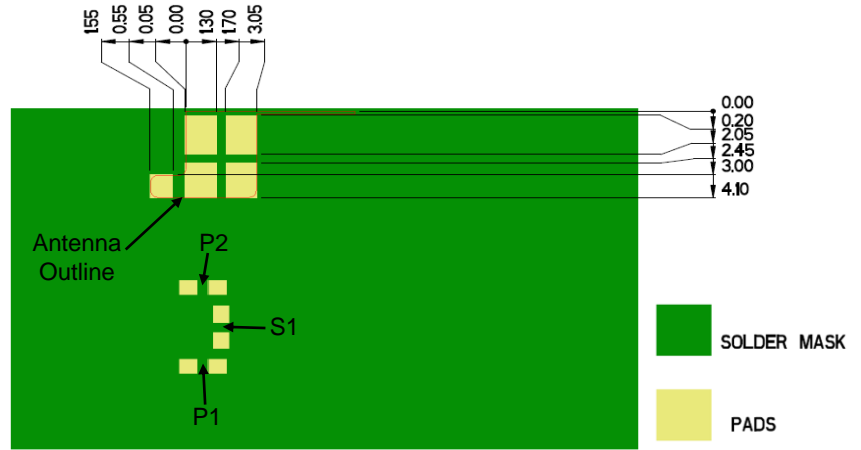
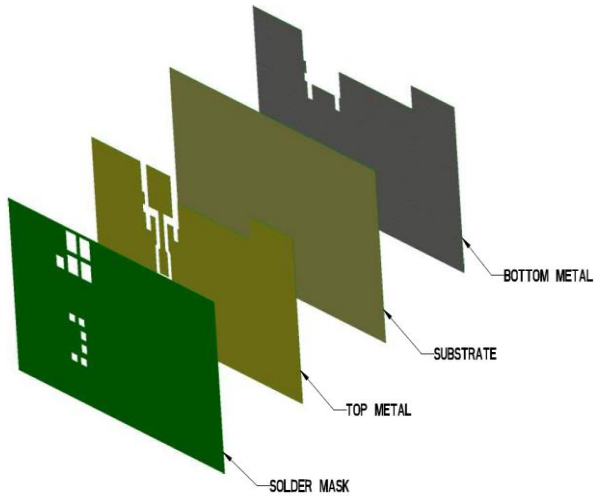




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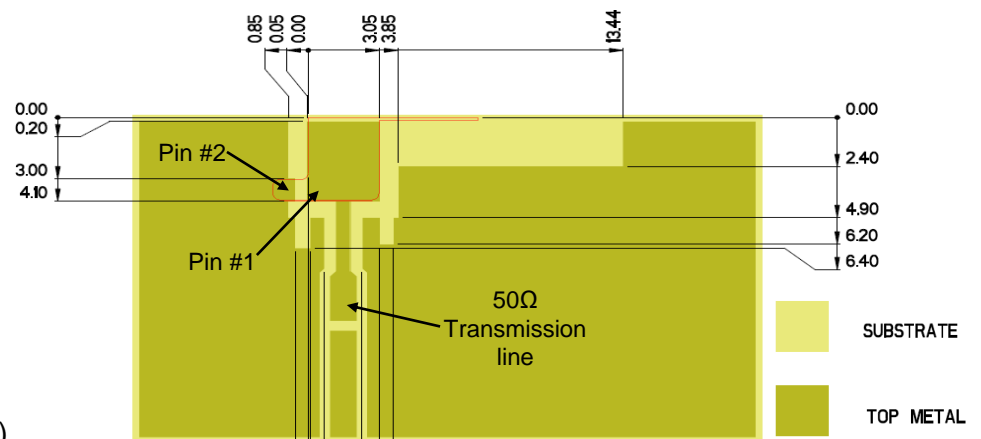
Antenna Layout (1001430)

Typical layout dimensions (mm)



Pin Descriptions

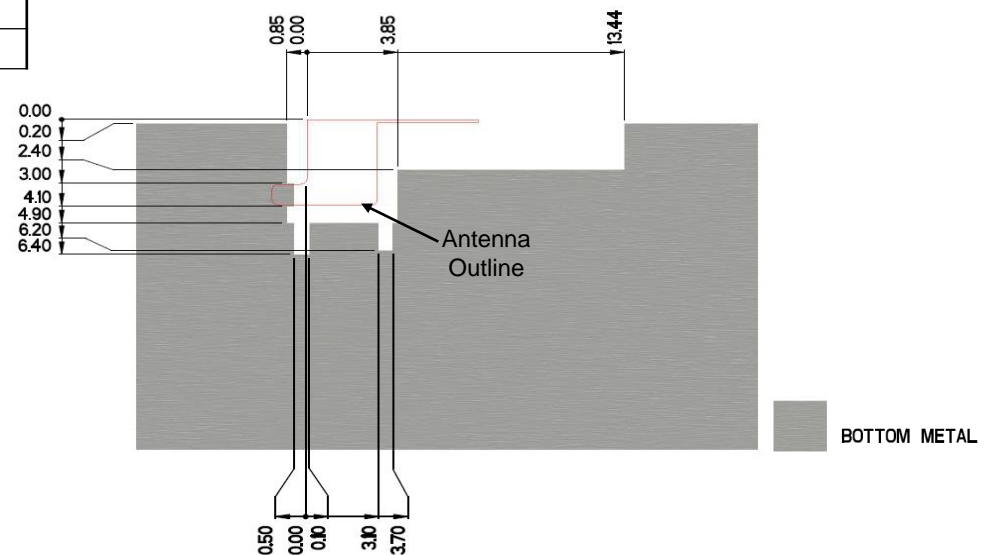
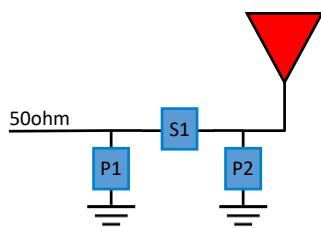
Pin#	Description
1	Feed
2	Ground



Matching Pi Network (Demo Board)

Component	Value	Tolerance
P1	DNI	DNI
S1	0Ω	N/A
P2	DNI	DNI

\*Actual matching values depend on customer design





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

### Antenna Demo Board

Typical layout dimensions (mm)

Part Number	A (mm)	B (mm)	C1 (mm)	C2 (mm)
1003666-01	75.0	75.0	10.5	10.5

