



DATASHEET Part No. 1005193 Product: UWB PCB Antenna with SMA Connector

# Part No. 1005193 UWB PCB Antenna with SMA Connector

6.0 – 8.5 GHz

Supports: Smart Home, Agriculture, Tracking, Radar, Automotive, Healthcare, Digital Signage, Telematics



#### **UWB PCB Embedded Antenna**

6000 - 8500 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
  Healthcare
  design
  M2M,
- designRadar
  - Radar Industrial Gateway, devices
- Access Point Smart Grid Handheld • OBD-II
- Telematics
- Tracking

Ethertronics' 1005193 is a versatile off-board UWB PCB antenna optimized for applications spanning 6.0 – 8.5 GHz where off-board implementation is advantageous and necessary. The 1005193 antenna incorporates a rigid mounting structure through an SMA connection allowing for ease of assembly to any device.

#### **Electrical Specifications**

Typical Performance using antenna with SMA connector in Free-space.

Frequency	6.0 – 8.5 GHz			
Peak Gain	6.0 dBi			
Average Efficiency	80%			
VSWR Match	2.0 :1 max			
Feed Point Impedance	50 ohms unbalanced			
Polarization	Linear			
Operation Temperature	-40 to +85 °C			
Power Handling	10 Watt			

# Mechanical Specifications & Ordering Part Number

Ordering Part #	1005193
Dimensions (mm)	18.6 x 20.6 x 0.8
Weight (grams)	2.7 ~ 4.3
Connector (mm)	SMA compatible connector
Mounting	Screw Mount
Storage Temperature (°C)	-40 to +85
Packaging	PE bags

\*Additional variations available with different connectors.

1/7/2020

Proprietary

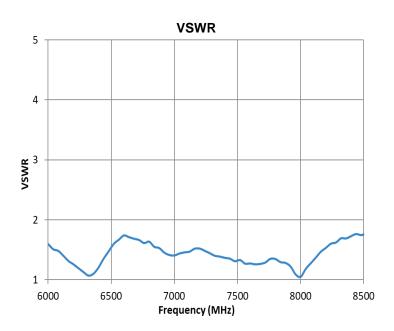
www.ethertronics.com

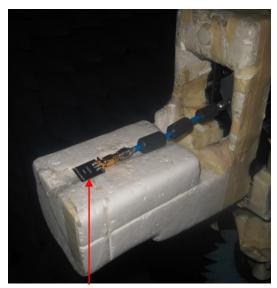


UWB PCB antenna with SMA connector Specifications Ethertronics produces a wide variety of standard and custom antennas to meet user needs.

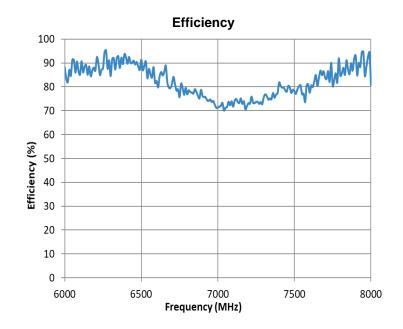
## **Typical VSWR, Efficiency and Peak Gain plots**

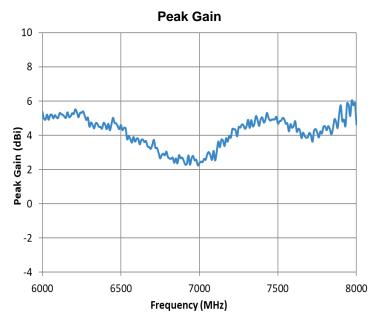
Typical Performance using antenna with SMA connector in Free-space.





1005193



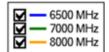


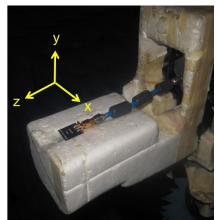


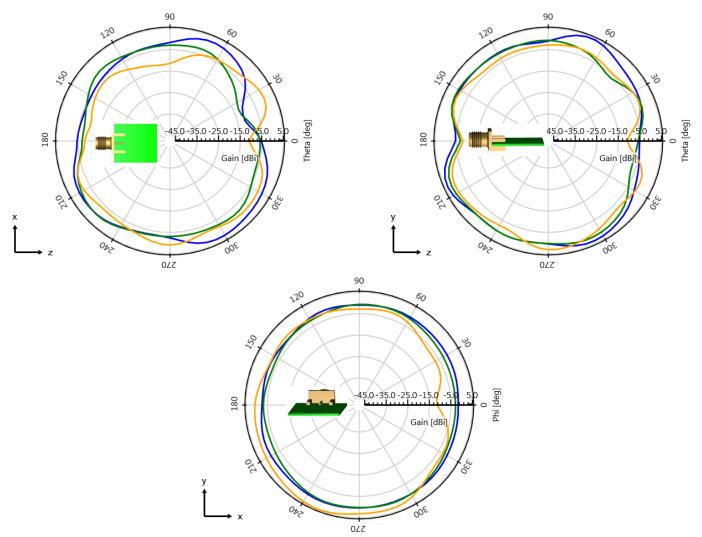
UWB PCB antenna with SMA connector Specifications Ethertronics produces a wide variety of standard and custom antennas to meet user needs.

#### **Radiation Patterns Plots**

Typical Performance using antenna with SMA connector in Free-space. Typical Performance @ 6500, 7000, 8000 MHZ









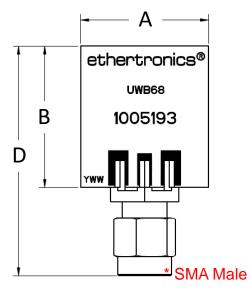
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## **Mechanical Dimensions**

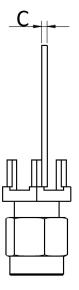
Typical antenna dimensions (mm)

Part Number	A (mm)	B (mm)	C (mm)	D (mm)	*Connector Type
1005193-A01	18.6 ± 0.2	$20.6 \pm 0.2$	0.8	33.46	SMA Male
1005193-B02	18.6 ± 0.2	$20.6 \pm 0.2$	0.8	29.49	SMA Female

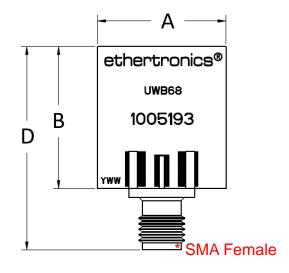
\*Additional variations available with different connectors.



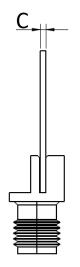




**Side View** 



**Top View** 



**Side View** 

tel +(1) 858.550.3820 | fax +(1) 858.550.3821 email: eth.info@avx.com 5501 Oberlin Drive, Suite 100 San Diego, CA 92121 - USA

# **Mouser Electronics**

Authorized Distributor

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Kyocera AVX: <u>1005193-B02</u> <u>1005193-A01</u>