



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



KYOCERA AVX's 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 | re -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<br>(mm)           | SMA compatible connector |
| Mounting                    | Screw Mount              |
| Storage<br>Temperature (°C) | -40 to +85               |
| Packaging                   | PE bags                  |

\*Additional variations available with different connectors.

### UWB PCB Embedded Antenna

6000 - 8500 MHz

## **KEY BENEFITS**

#### Stay-in-Tune

**KYOCERA AVX's 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.
- Radar
- Industrial Gateway, devices Access Point • Smart Grid
- Handheld OBD-II
- Telematics
- Tracking

Proprietary

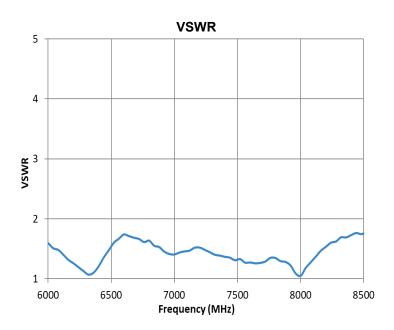


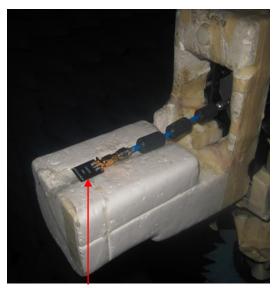
DATASHEET | Part No. 1005193

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

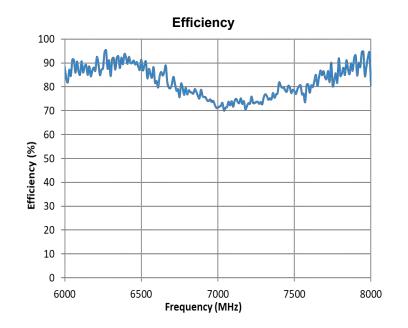
## **Typical VSWR, Efficiency and Peak Gain plots**

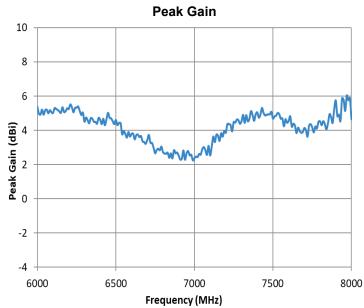
Typical Performance using antenna with SMA connector in Free-space.





1005193





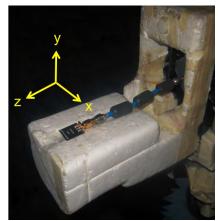


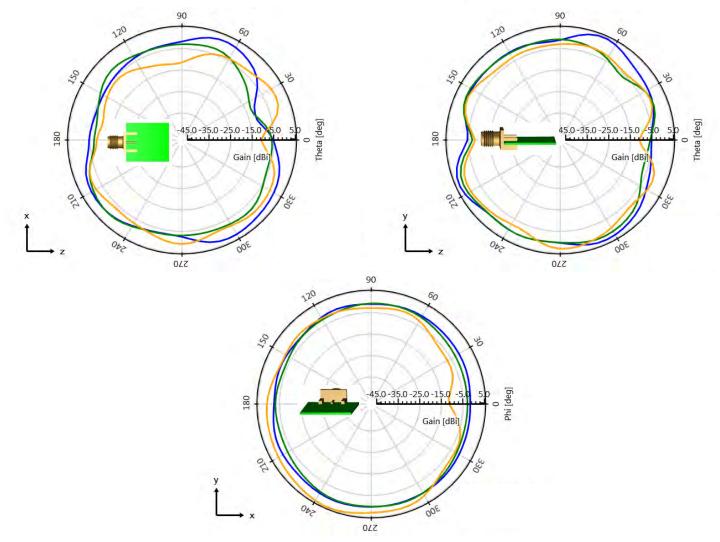
#### UWB PCB antenna with SMA connector Specifications KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs.

#### **Radiation Patterns Plots**

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







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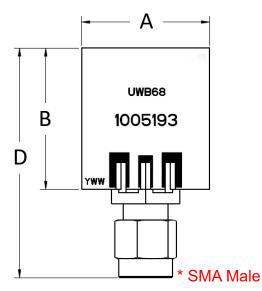
UWB PCB antenna with SMA connector Specifications KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs.

# **Mechanical Dimensions**

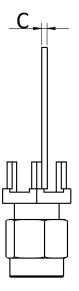
Typical antenna dimensions (mm)

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

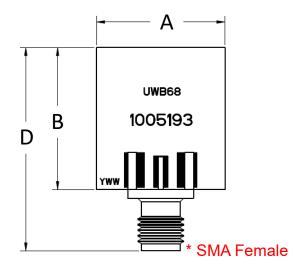
\*Additional variations available with different connectors.



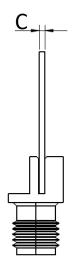




Side View



**Top View** 



**Side View**