

Part No. 1001044

GPS Ceramic Patch Antenna

1.575 GHz

Supports: Tracking, Smart Home, Agriculture, Automotive, Healthcare, Digital Signage, Wearables, Industrial Devices



KYOCERA AVX series of GPS Ceramic Patch Antennas deliver on the key needs of device designers for higher functionality and performance in M2M designs. These innovative antennas provide compelling advantages for GPS enabled M2M applications such as vehicle tracking.

Best in Class Performance

Circularly Polarized patch antennas are designed to maintain high efficiency in a variety of device configurations. Minimal ground clearance and component “keep out” area. High selectivity eliminates the need for additional filters and frees up board space

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KEY BENEFITS

Reduced Costs and Time-to-Market

Standard antenna eliminates design fees and cycle time associated with a custom solution; getting products to market faster.

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

Electrical Specifications

Typical Characteristics, on 50 x 50 mm ground plane

Frequency	1.575 GHz
Center Frequency f_0	1575 ± 3.0 MHz
VSWR	2:1
Gain @ Zenith	0.3 dBic
Polarization	R.H.C.P
Impedance	50 ohm
Axial Ratio	< 4 dB

Mechanical Specifications & Ordering Part Number

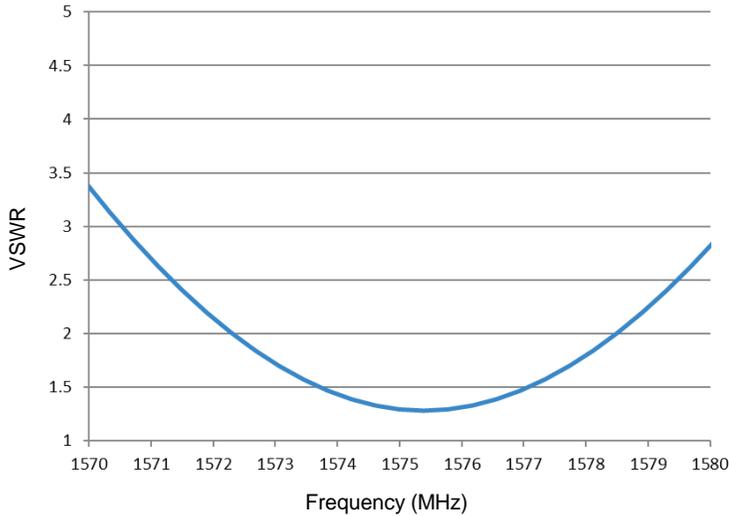
Ordering Part Number	1001044
Size (mm)	12.8 x 12.8 x 4.0
Mounting (mm)	Adhesive & 1 through-hole Soldered Pin
Weight (grams)	5.8
Packaging	Plastic Tray

1.575 GHz KYOCERA AVX Embedded Antenna Specifications.
 KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs.

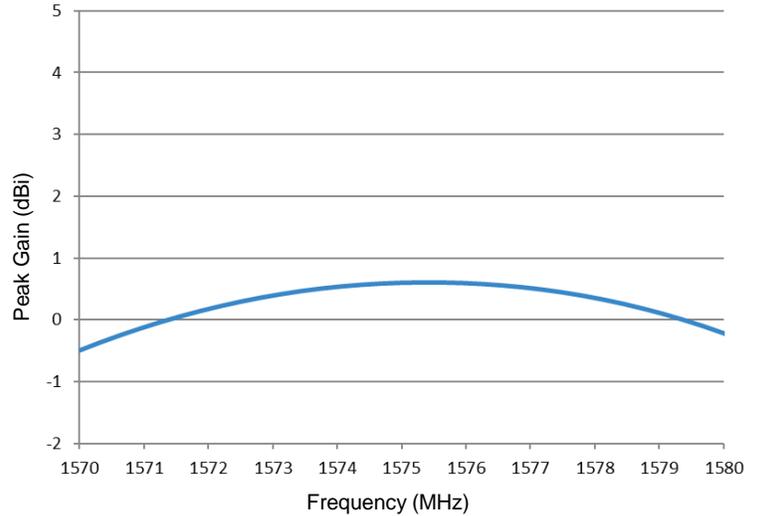
VSWR and Peak Gain Plots

Typical performance on 50 x 50 mm PCB

VSWR



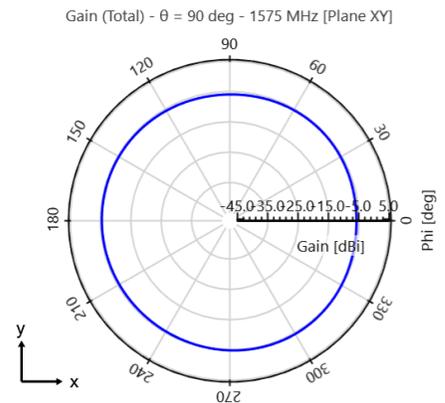
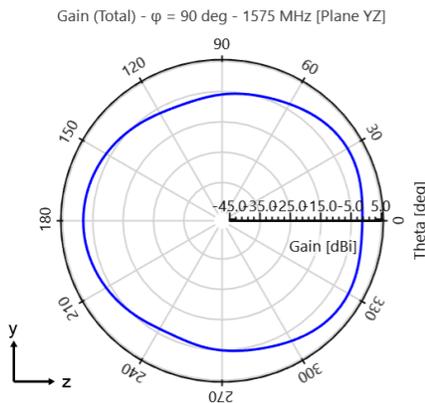
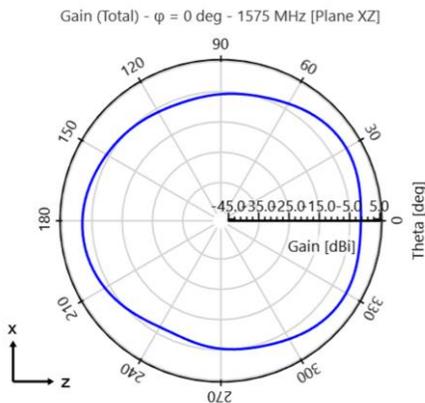
Peak Gain



Antenna Radiation Patterns

Typical performance on 50 x 50 mm PCB

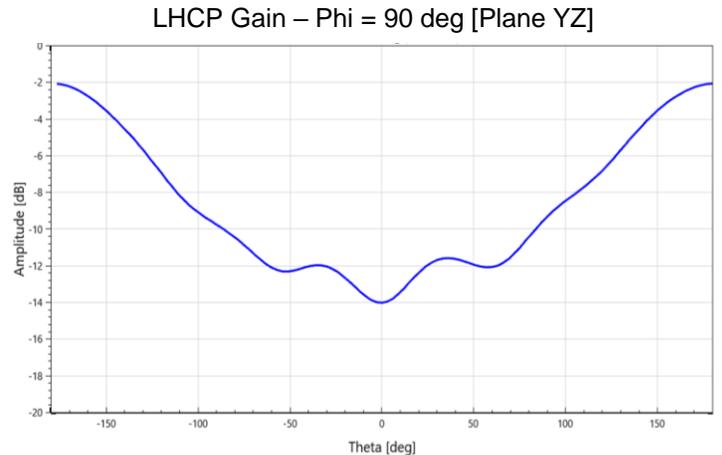
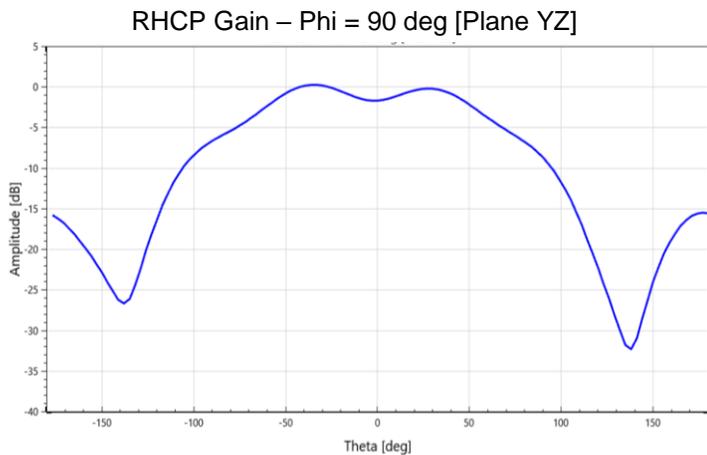
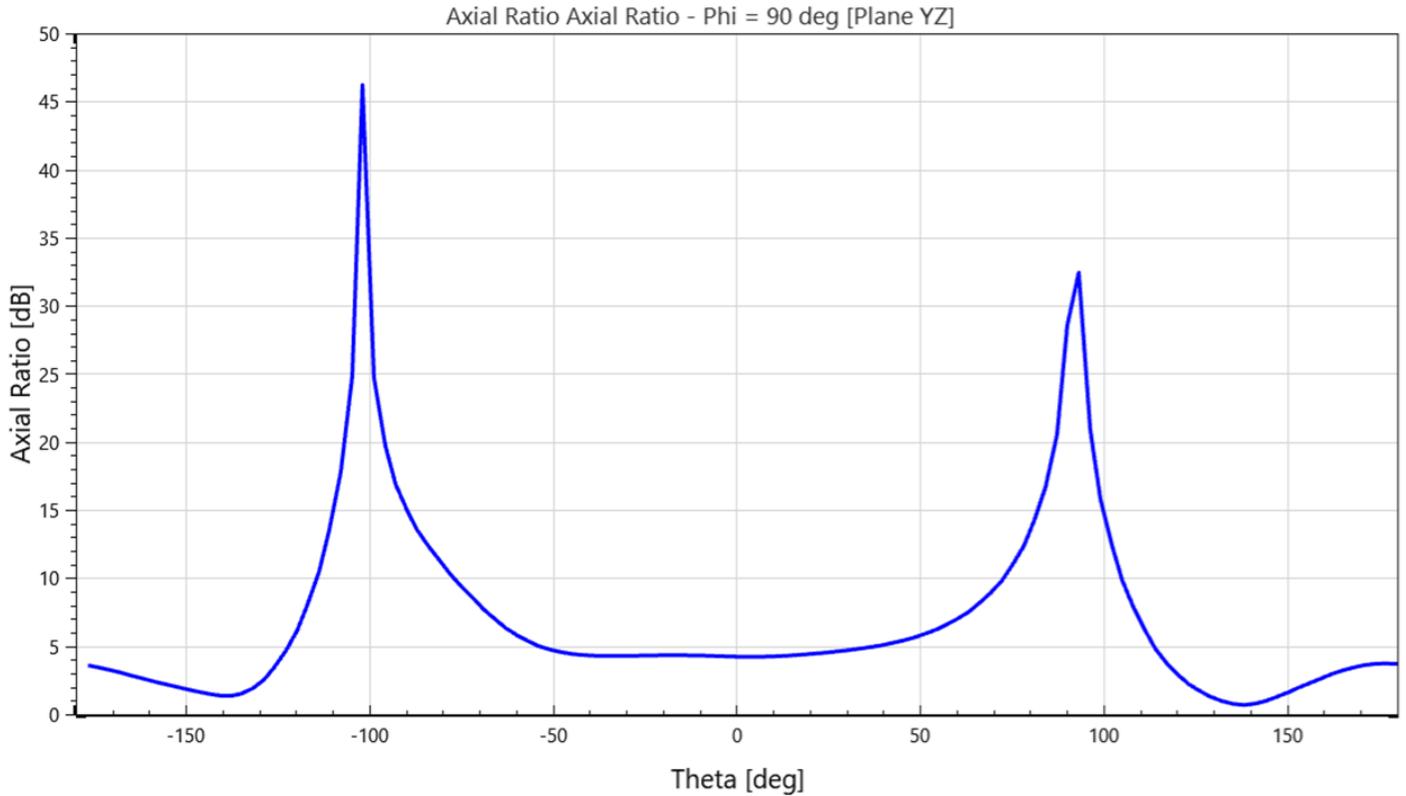
Measured @ 1575 MHz



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Axial Ratio, RHCP, LHCP Plots

Typical performance on 50 x 50 mm PCB
Measured @ 1575 MHz



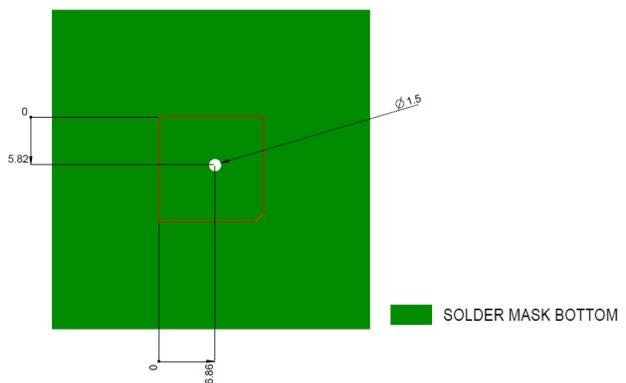
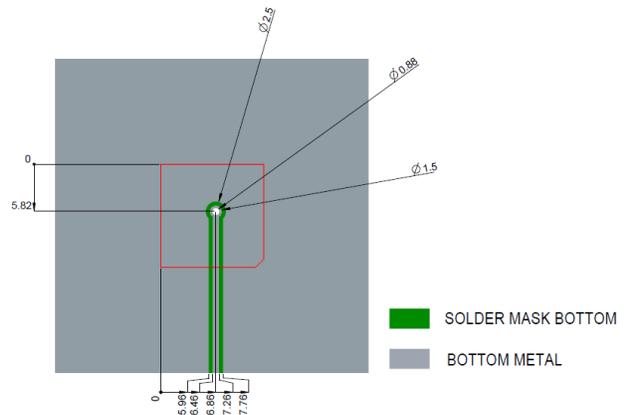
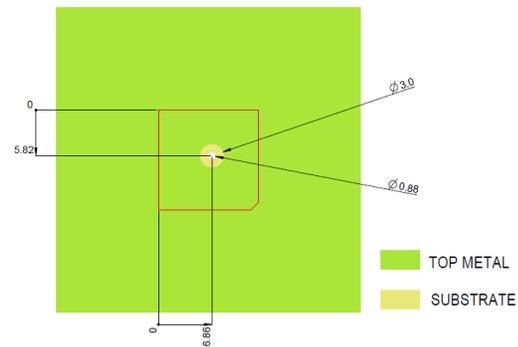
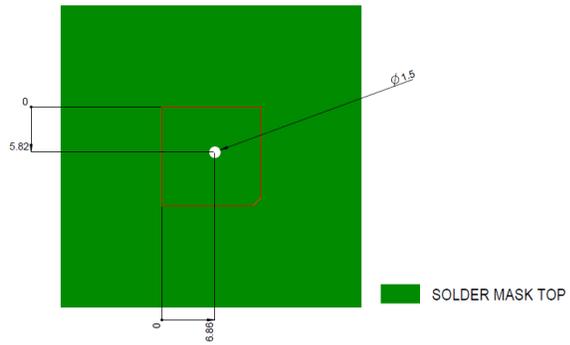
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Antenna Layout

Typical Layout Dimensions (mm)



* VIAS: Diam. 0.2mm, (no vias on transmission lines).
 Via holes must be covered by solder mask

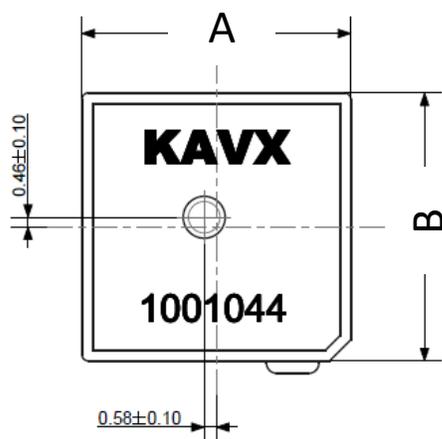


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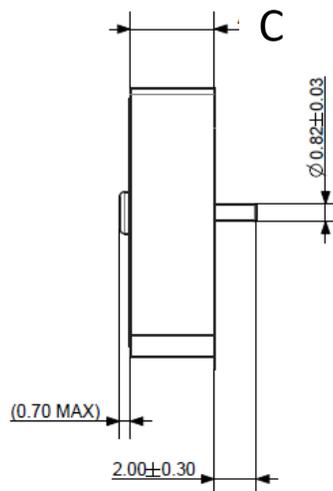
Mechanical Dimensions

Typical antenna dimensions, in mm.

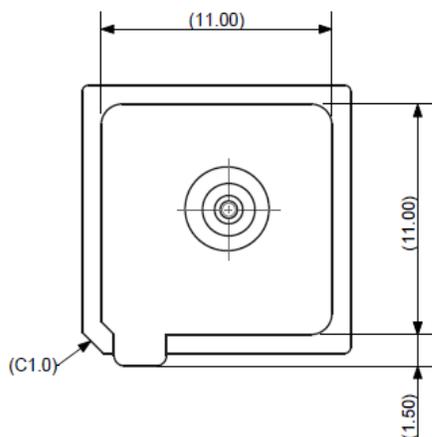
Part Number	A (mm)	B (mm)	C (mm)
1001044	12.80	12.80	4.00



Top View



Side View



Bottom View