

# Part No. 1005621 GPS L1 & L5 Ceramic Patch Antenna

1575 MHz & 1176 MHz

Supports: GNSS systems, Global antenna embedded systems, Satellite positioning systems



KYOCERA AVX antennas deliver on the key needs of device designers for higher functionality and performance in smaller/thinner designs. This antenna is mounted using double sided adhesive and through-hole solder pin. These innovative antennas provide compelling advantages for GPS L1 & L5 enabled devices.

## GPS L1 & L5 Ceramic Patch Antenna

1575 MHz & 1176 MHz

### 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.

#### Environmental Compliance

Products are the latest RoHS version compliant.

### APPLICATIONS

- M2M / IoT devices
- Security (Defense, Marine)
- Telematics devices
- Agriculture
- Geo-tracking
- Autonomous Vehicles
- Vehicle tracking/fleet management systems,
- Navigation devices
- Fitness trackers

## Electrical Specifications

Typical Characteristics, on 70 x 70 mm ground plane

Frequency	GPS L1 1575 ± 2 MHz	GPS L5 1176 ± 2 MHz
Center Frequency $f_0$	1584 MHz	1176 MHz
Return Loss	< -10 dB	< -10 dB
Zenith Gain	4.8 dBic	2.8 dBic
Axial Ratio	< 2 dB	< 3 dB
Polarization	R.H.C.P	
Impedance	50 $\Omega$	

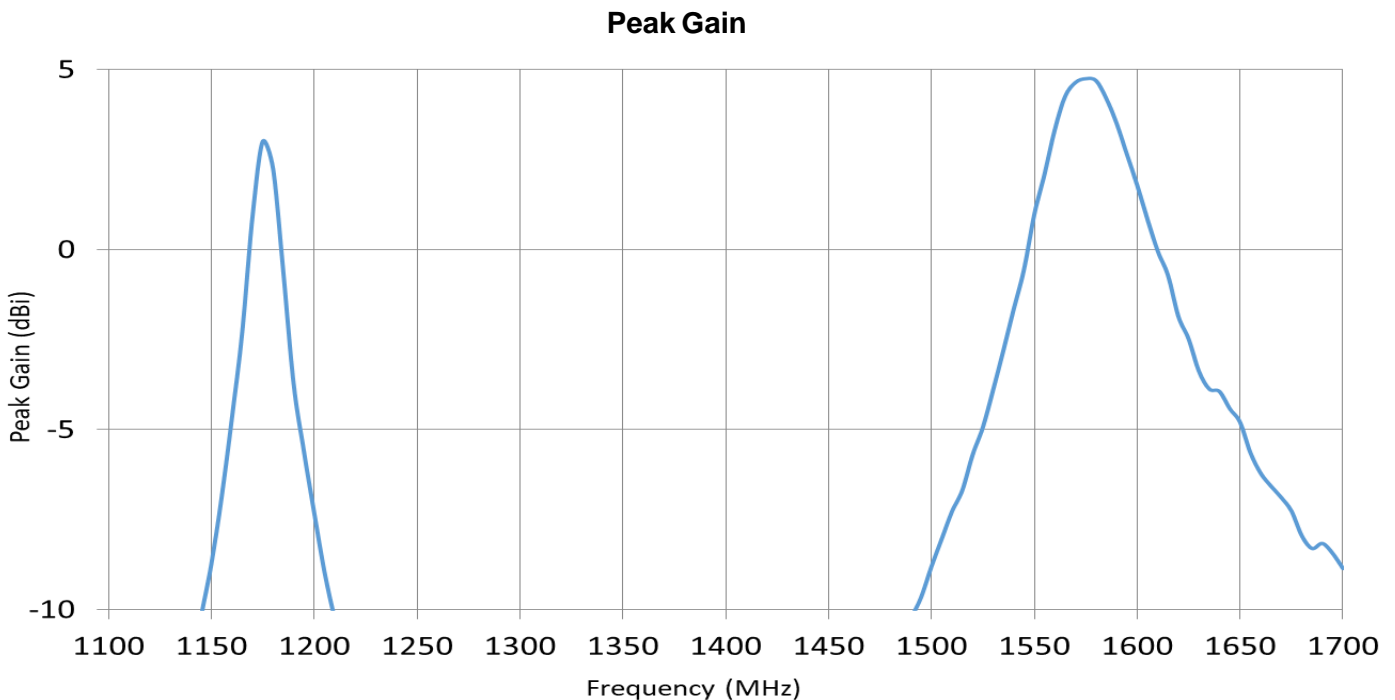
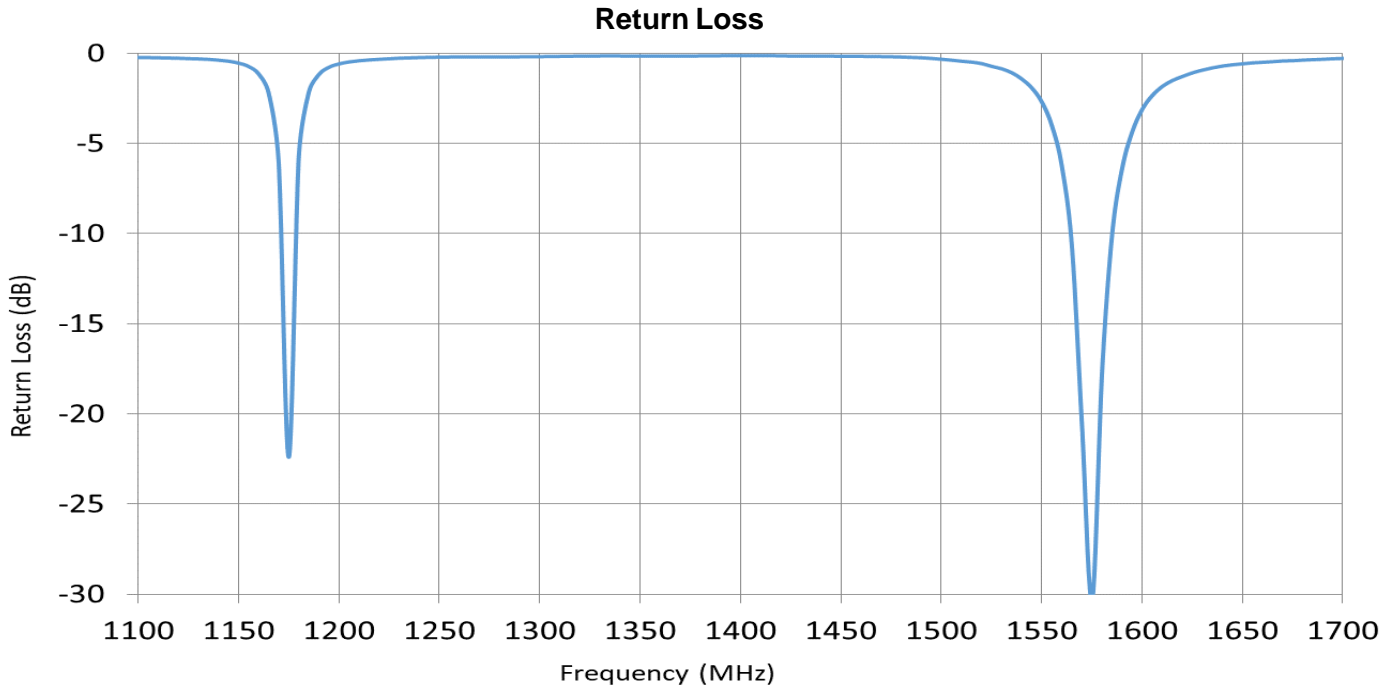
## Mechanical Specifications & Ordering Part Number

Ordering Part Number	1005621
Size (mm)	25.0 x 25.0 x 8.16 (Overall) 18.0 x 18.0 x 4.0 (Top Patch)
Mounting	Adhesive tape and solder pin
Weight (grams)	17.8
Packaging	Plastic Tray

GPS L1 & L5 Ceramic Patch Antenna Specifications.  
 KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs

**Return Loss and Peak Gain Plots**

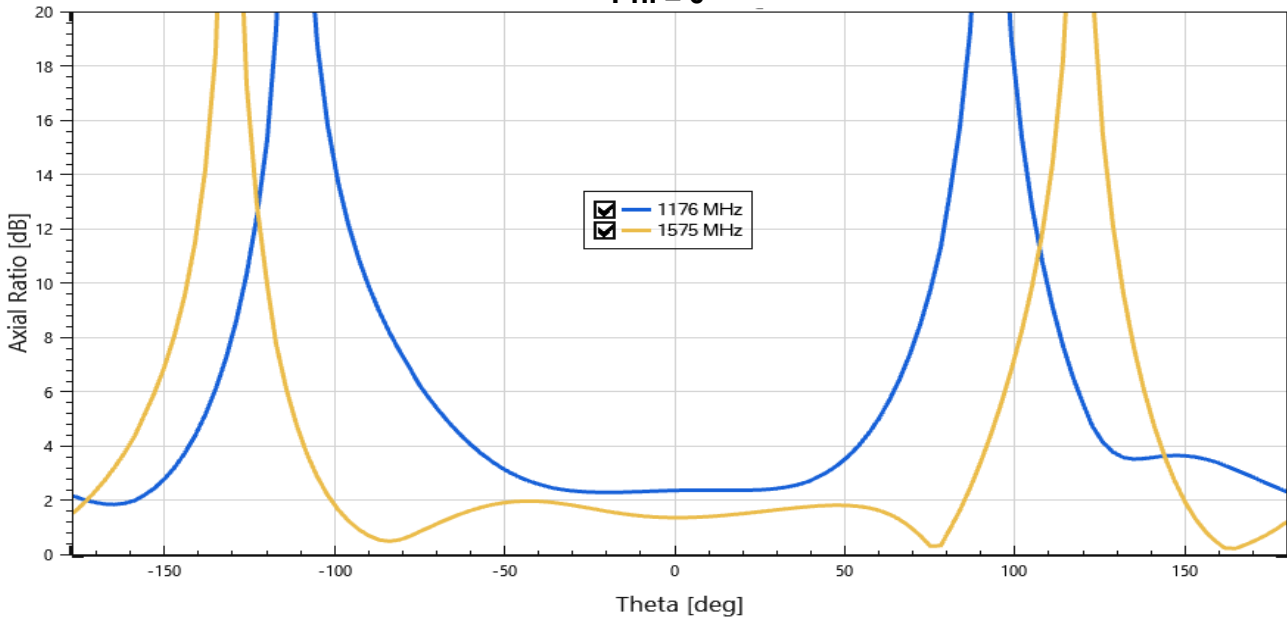
Typical performance on 70 x 70 mm PCB



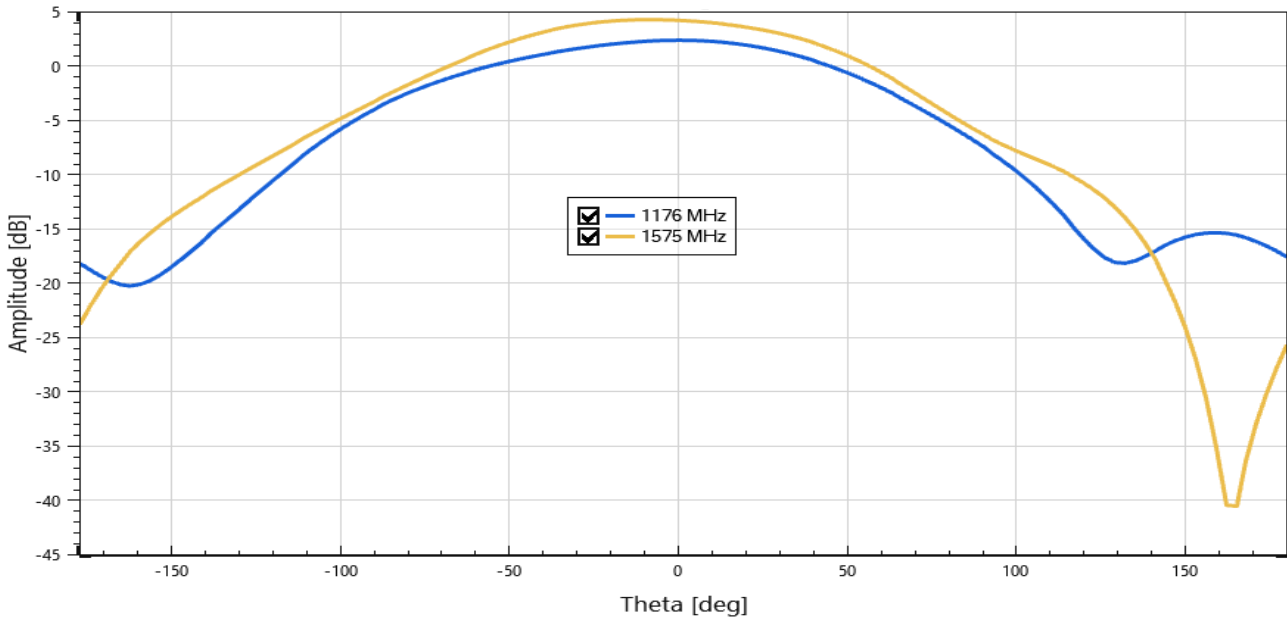
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**Axial Ratio, R.H.C.P Plots**  
 Typical performance on 70 x 70 mm PCB  
 Measured @ 1176 MHz and 1575 MHz

**Axial Ratio**  
**Phi = 0**



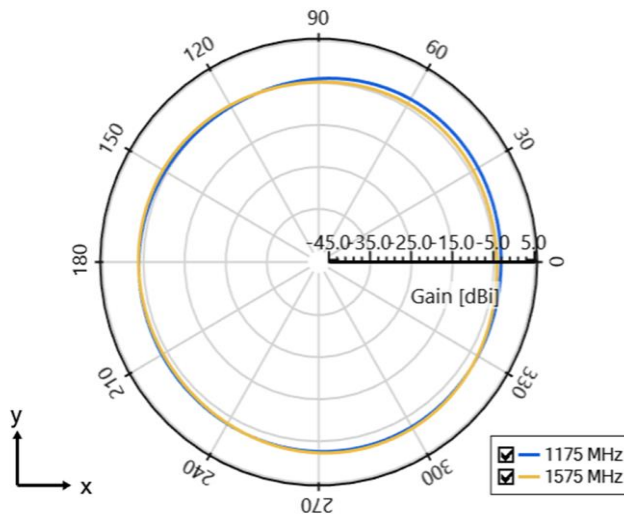
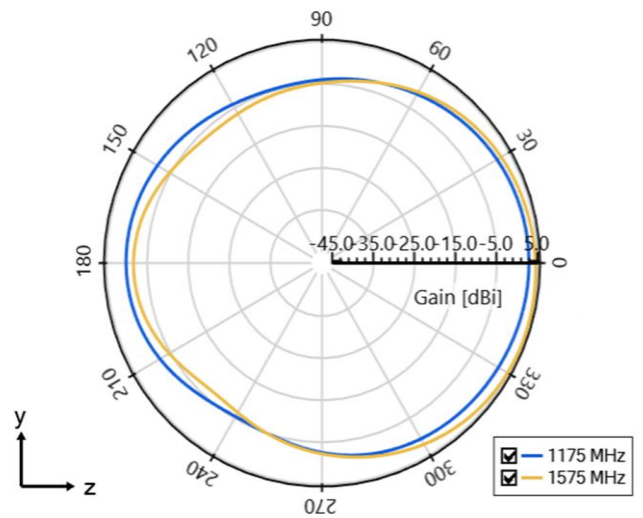
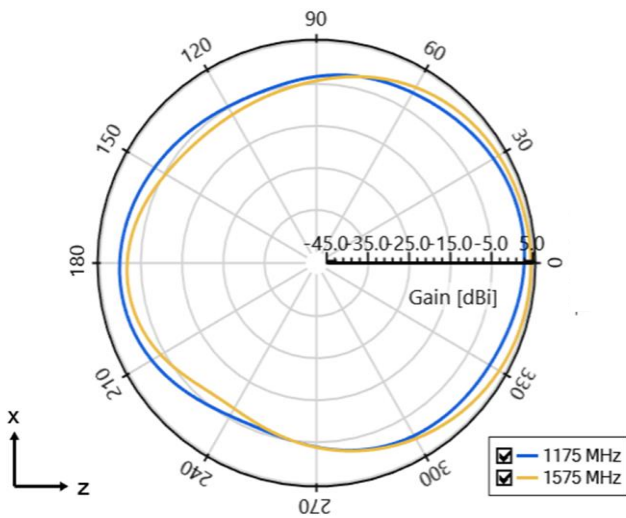
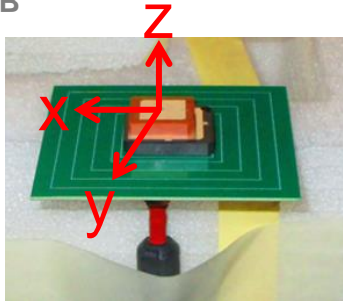
**R.H.C.P.**



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**Antenna Radiation Patterns**

Typical performance on 70 x 70 mm PCB  
 Measured @ 1175 MHz and 1575 MHz

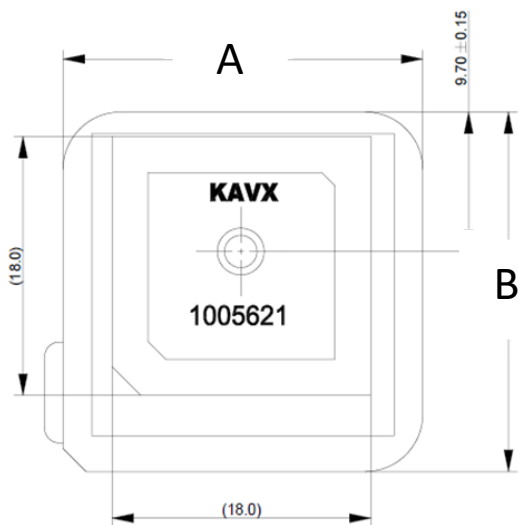


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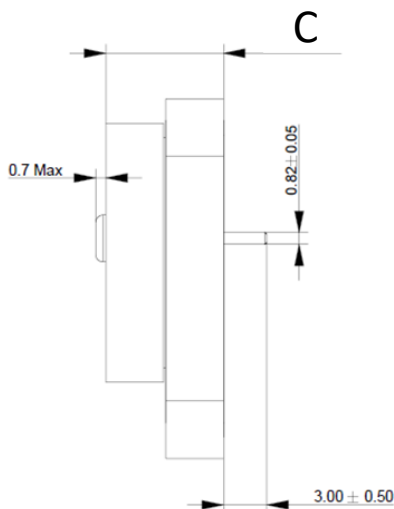
**Mechanical Dimensions**

Typical antenna dimensions (mm)

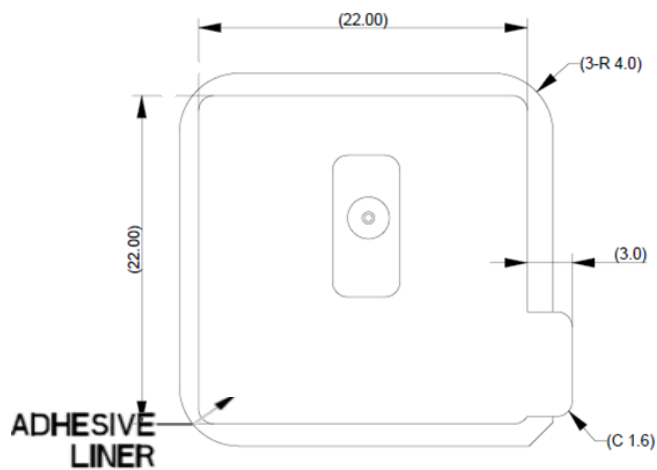
Part Number	A	B	C
1005621	25.00 ± 0.20	25.00 ± 0.20	8.16 ± 0.50



**Top View**



**Side View**



**Adhesive Liner View**  
**(Bottom)**