

Part No. 1004322

GPS/GLONASS/Beidou/Galileo Patch Antenna

1.561, 1.575, 1.603 GHz

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.

These antennas provide compelling advantages for a GNSS enabled handheld devices, media players and other mobile devices.

This ceramic patch antenna covers GPS, GLONASS, Beidou and Galileo.

GPS / GLONASS / Beidou / Galileo Patch Antenna

1.559 – 1.610 GHz

KEY BENEFITS

Reduced Costs & Time-to-Market

Standard antennas eliminate design fees, redesign cycle time and minimize risk associated with customer solution. Quicker time to market.

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

- Embedded design
- Headsets, Tablets
- Gateway, Access Point
- Telematics
- Tracking
- Healthcare (FDA Class I)
- IoT, Industrial devices
- Smart Grid

Electrical Specifications

Typical characteristics measured on a 70 x 70 mm PCB ground plane.

Frequency (GHz)	1.559 – 1.563	1.575	1.559 – 1.591	1.593 – 1.610
GNSS Bands	Beidou	GPS	Galileo	Glionass
Peak Gain (dBi)	3.89	3.12	4.06	3.92
Center Frequency f_0 (GHz)	1.561	1.575	1.575	1.603
Average Efficiency	54%	58%	51%	59%
Average VSWR	1:3.5	1:2.8	1:3.8	1:2.2
Feed Point Impedance	50 Ω unbalanced			

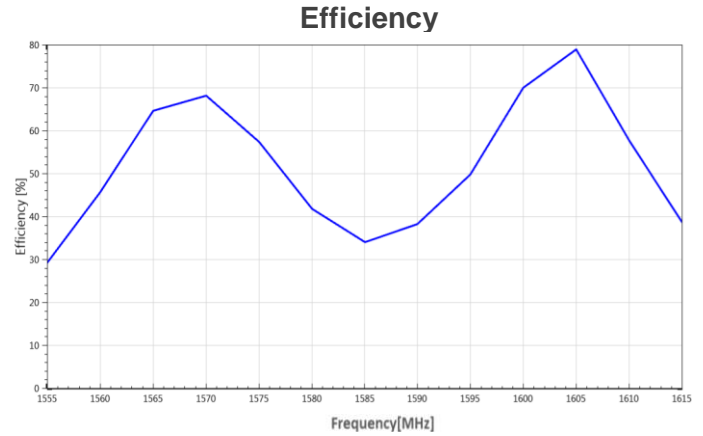
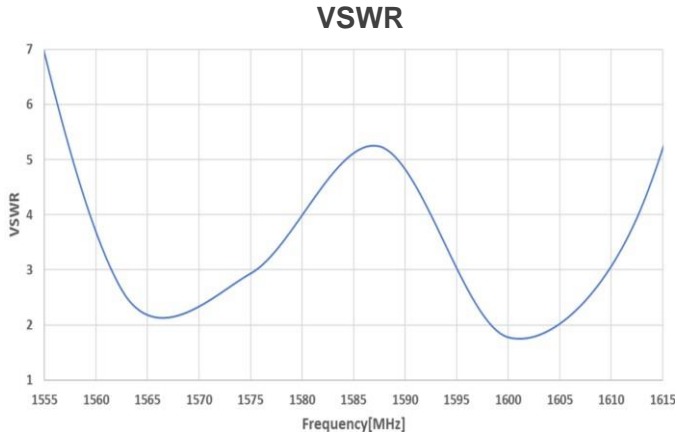
Mechanical Specifications & Ordering Part Number

Ordering Part Number	1004322
Size (mm)	18.0 x 18.0 x 4.7
Mounting (mm)	Adhesive (Nitto 5000NS 15 x 15 x 0.16) & 1 through-hole Solder Pin
Packaging	Plastic Tray
Weight (grams)	6.2
Additional Resources	Download 3D FIT File

GPS / GLONASS / Galileo / Beidou Patch KYOCERA AVX Embedded Antenna Specifications
 KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs.

VSWR and Efficiency Plots

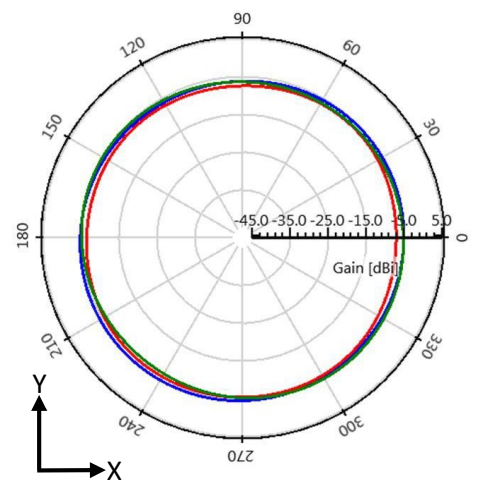
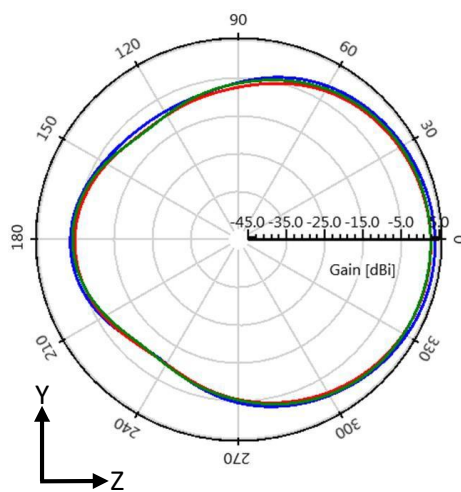
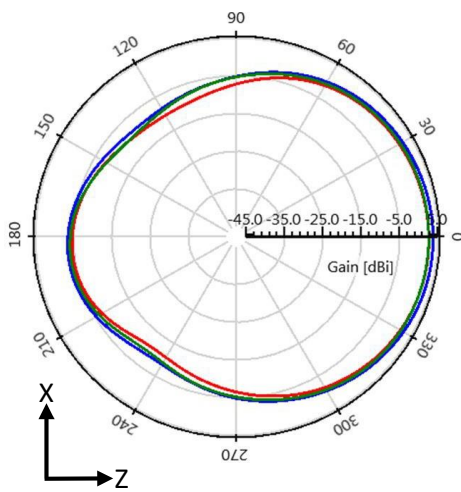
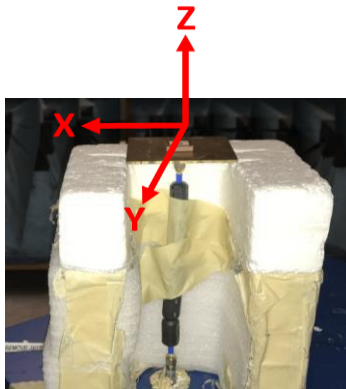
Typical performance on 70 x 70 mm PCB



Radiation Patterns

Typical performance on 70 x 70 mm PCB
 measured @ 1.560, 1.575, 1.605 GHz

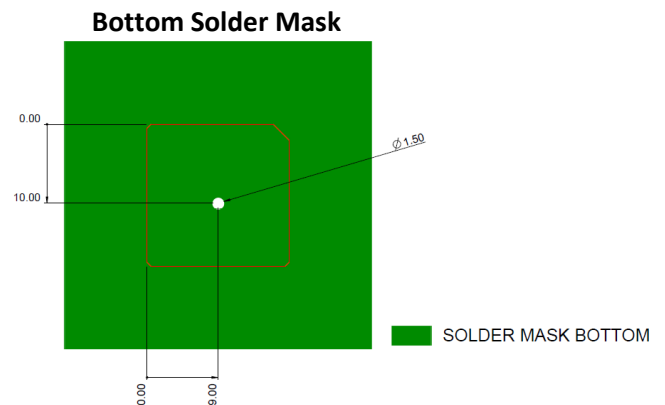
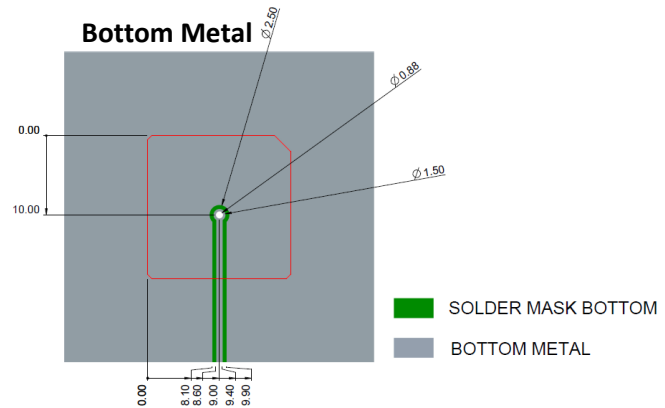
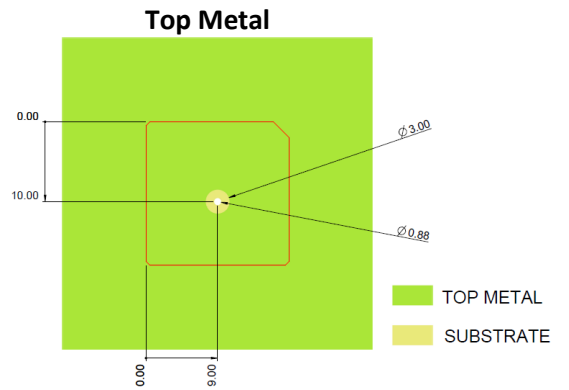
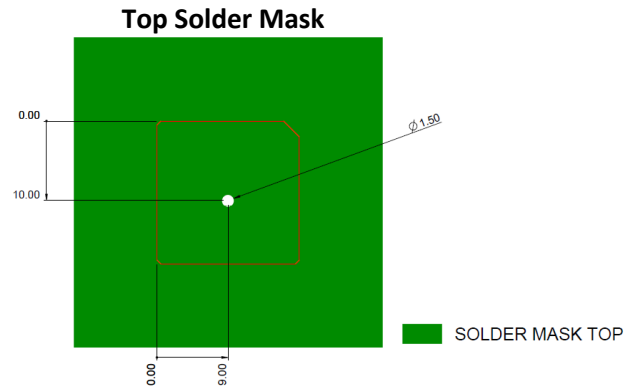
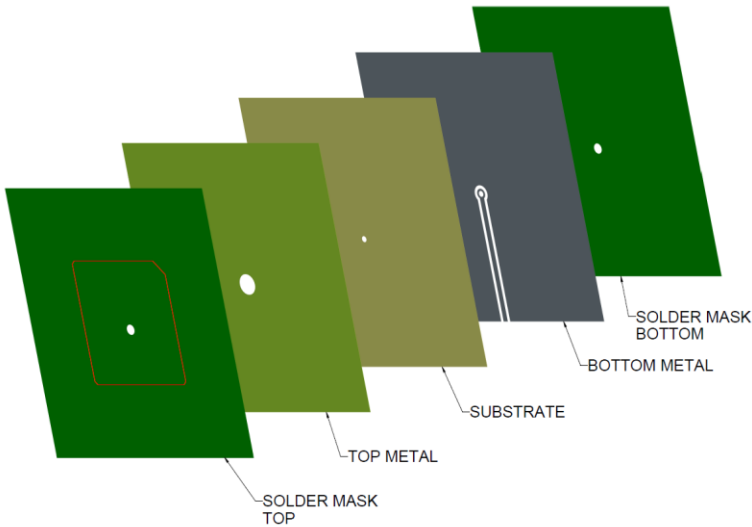
- 1.560 GHz
- 1.575 GHz
- 1.605 GHz



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Antenna Layout

Typical Layout Dimensions (mm)

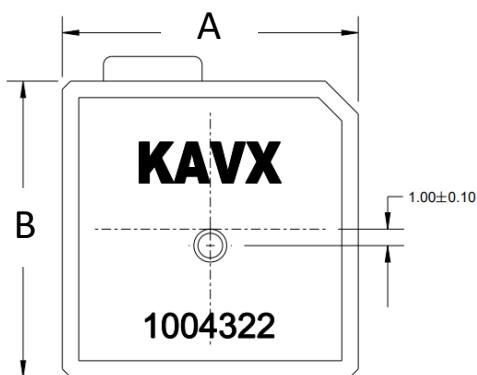


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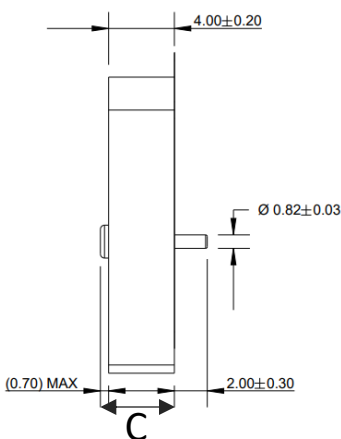
Mechanical Dimensions

Typical antenna dimensions (mm)

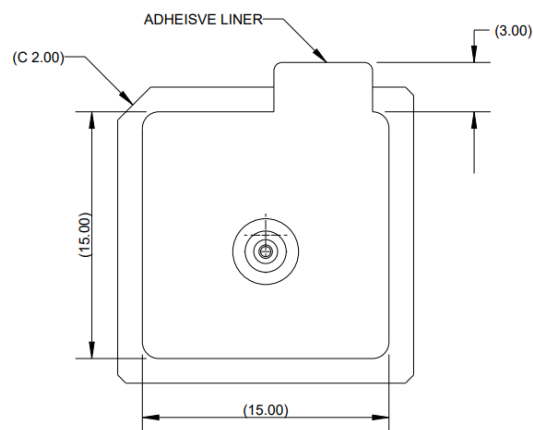
Part Number	A	B	C
1004322	18.0 ± 0.2	18.0 ± 0.2	4.7 ± 0.2



Top View



Side View



Bottom View

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Additional Resources – 1004322

3D FIT File:

https://www.kyocera-avx.com/download/antennas/ME-FIT/1004322_ME_fit.zip