Part No. 9003276
GNSS SMD Patch Antenna

1575 MHz
Supports: GNSS E1, L1, B1, G1



KYOCERA AVX series of SMD 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.

9003276 is an SMT patch that covers GNSS bands E1, L1, B1, G1. It provides high performance thanks to its 76% efficiency.

GNSS SMD Patch Antenna

1560 – 1610 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

- Embedded design
- Gateway, Access Point
- Handheld
- Telematics
- Tracking
- Healthcare Applications (FDA Class I)
- M2M, Industrial devices
- Smart Grid
- OBD-II

Electrical Specifications

Typical Characteristics, on 40 x 40 mm ground plane

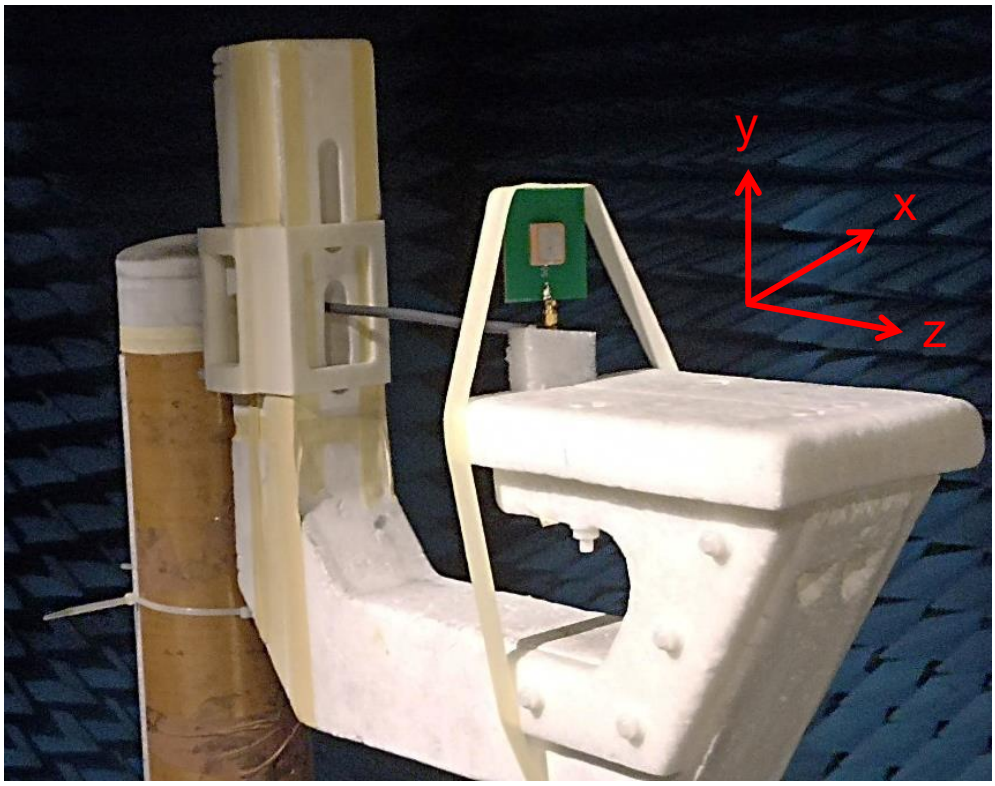
Frequency (MHz)	1560 - 1610
Peak Gain	4.4 dBi
Average Efficiency	76 %
VSWR Match	< 2.5:1
Max Group Delay	2 ns
Polarization	RHCP
Power Handling	2 Watt CW
Feed Point Impedance	50 Ω unbalanced
Radiation Pattern	Directional

Mechanical Specifications & Ordering Part Number

Ordering Part Number	9003276
Size (mm)	25.0 x 25.0 x 4.0
Mounting (mm)	SMT
Weight (grams)	9.0

GNSS SMD Patch Antenna KYOCERA AVX Embedded Antenna Specifications.
KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs.

Test Setup



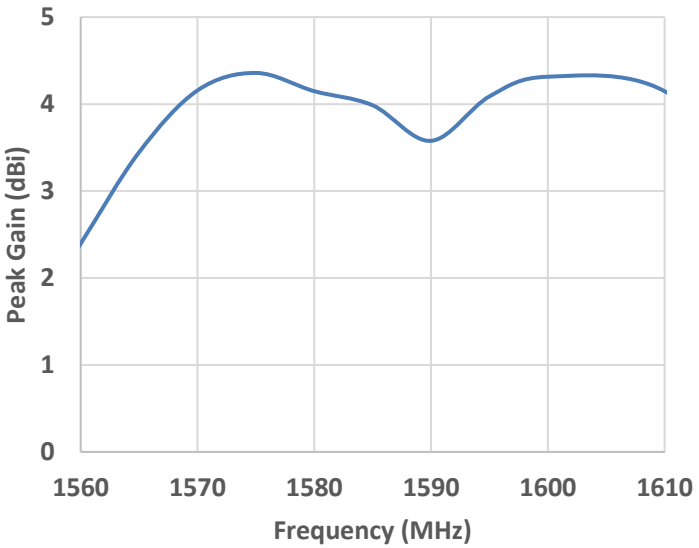
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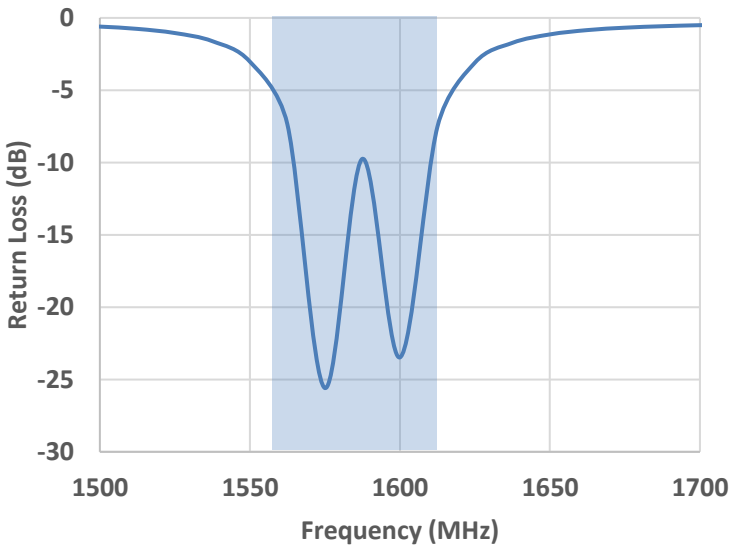
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Peak Gain, VSWR and Efficiency

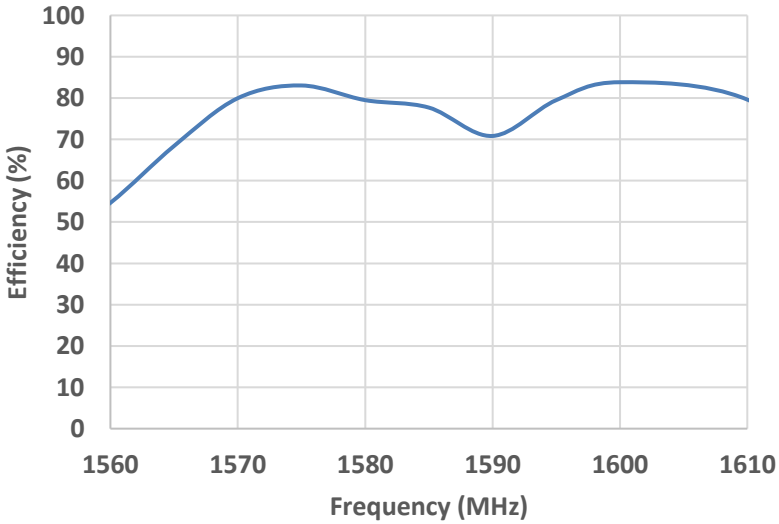
Peak Gain (1560 – 1610 MHz)



Return Loss (1500 – 1700 MHz)



Efficiency (1560 – 1610 MHz)



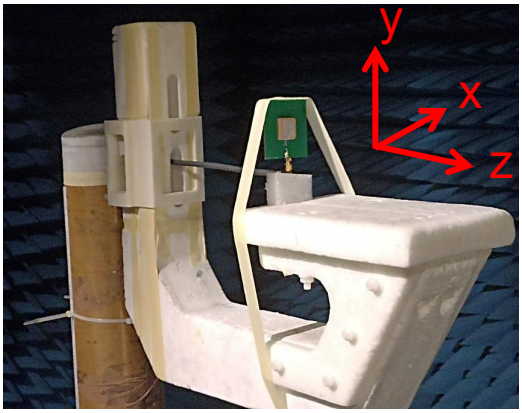
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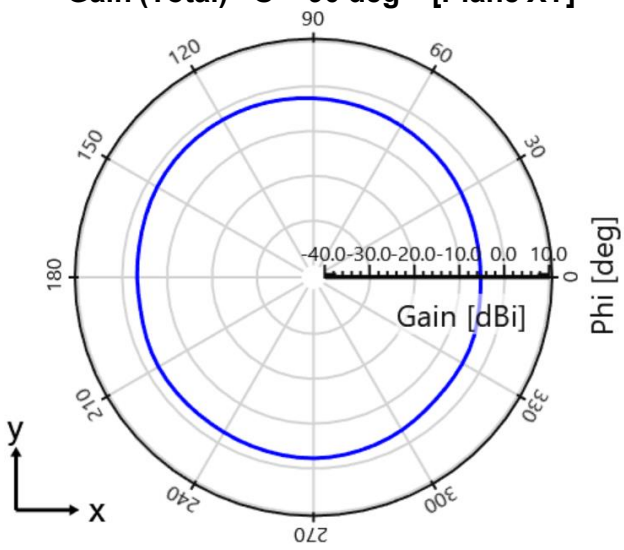
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Antenna Radiation Patterns

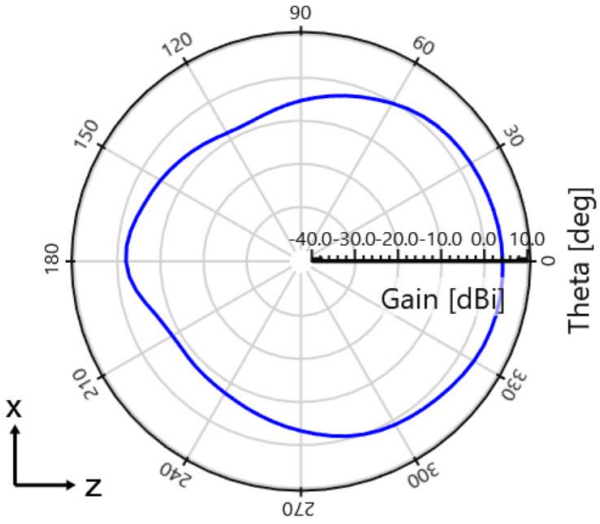
Measured at 1575 MHz



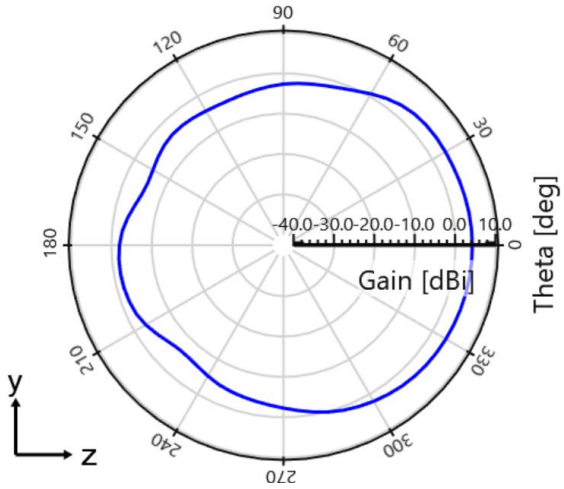
Gain (Total) - Θ = 90 deg – [Plane XY]



Gain (Total) - φ = 0 deg – [Plane XZ]



Gain (Total) - φ = 90 deg – [Plane YZ]



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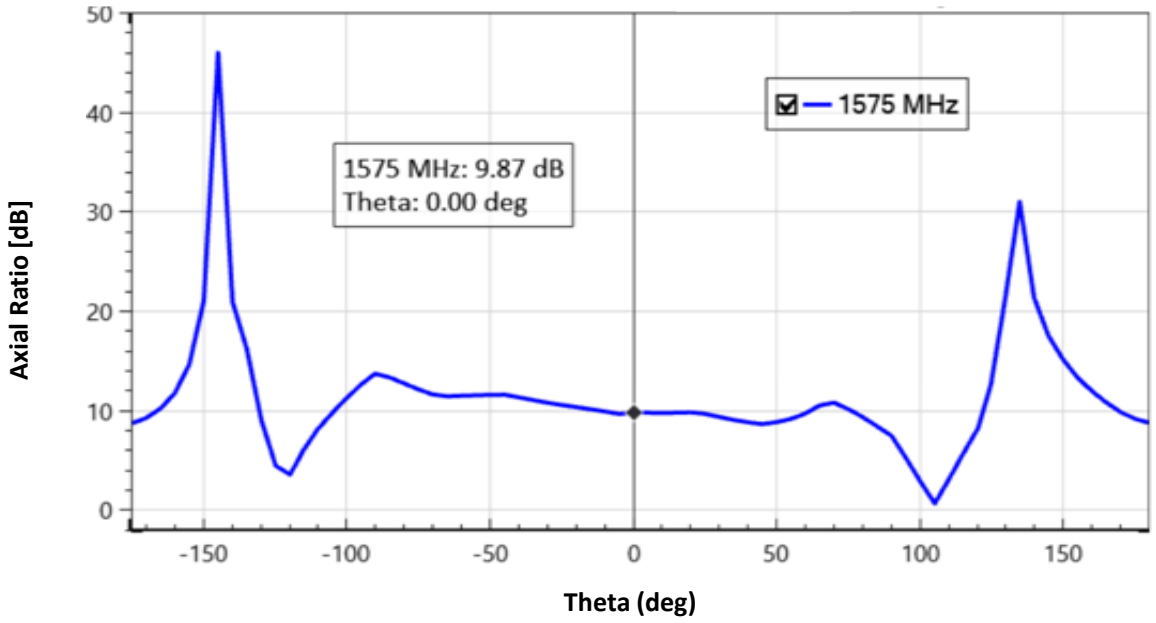
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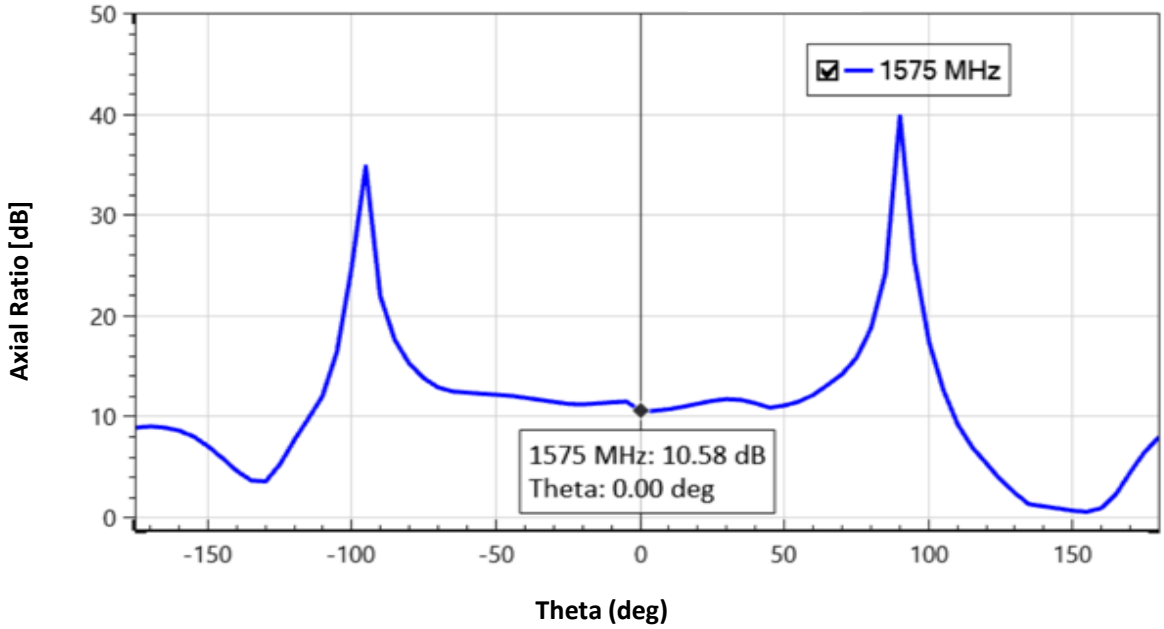
Axial Radio Plots

Measured at 1575 MHz

Phi = 0



Phi = 90



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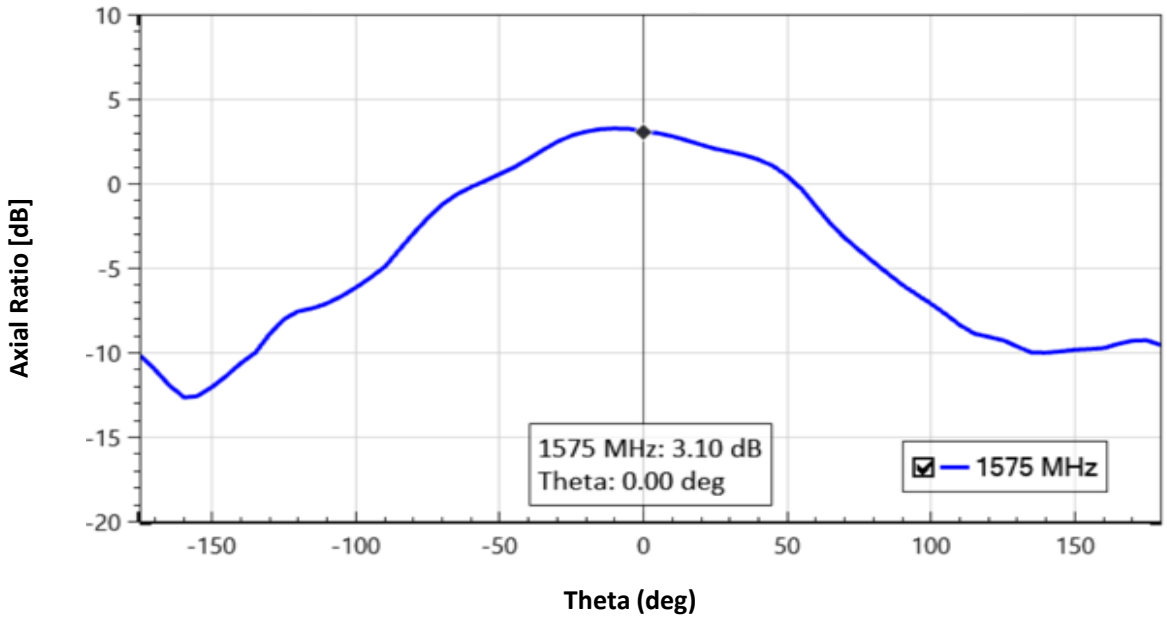
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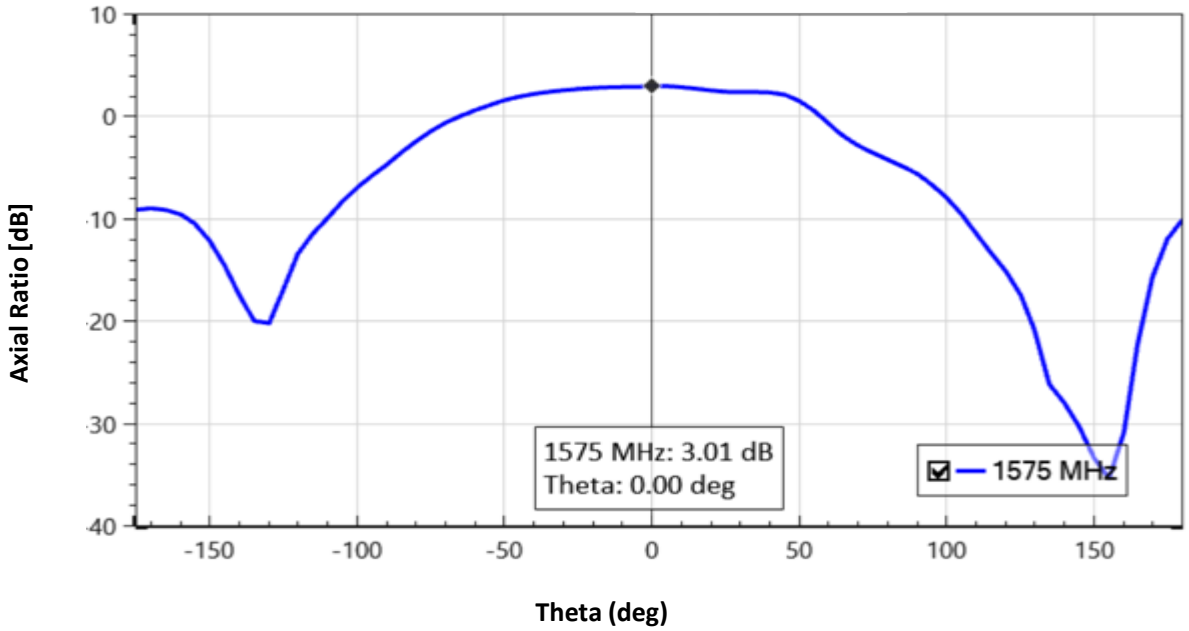
RHCP Plots

Measured at 1575 MHz

Phi = 0



Phi = 90



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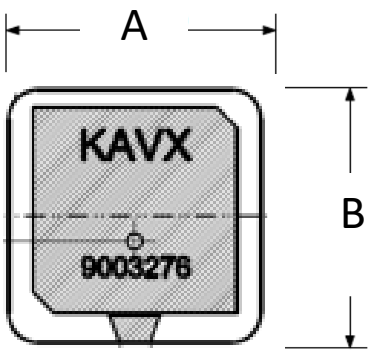
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Mechanical Dimensions

Typical antenna dimensions, in mm.

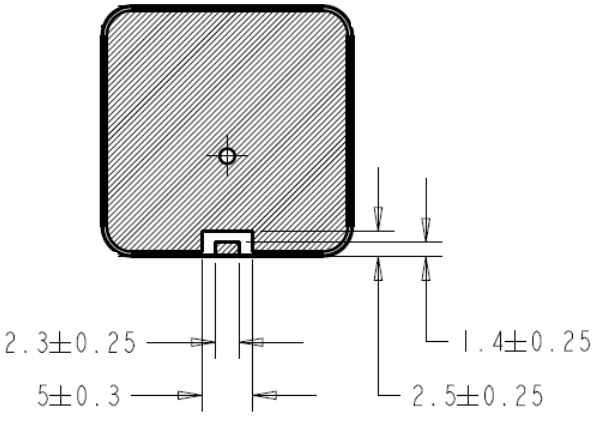
Part Number	A	B	C
9003276	25.0 ± 0.3	25.0 ± 0.3	4.00 ± 0.2



Top View



Side View



Bottom View

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