

Part No. 9001118

V2X Ceramic Patch Antenna

5.9 GHz DSRC Band
Supports: V2V/V2I/V2P



V2X Ceramic Patch Antenna

US – Band 5850 – 5925 MHz
EU – Band 5870 – 5905 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.

Reliability Compliance

Products are the latest RoHS version compliant.

APPLICATIONS

- Vehicle Safety Applications
- Automotive
- Connected car application
- safety driving support
- Embedded system

KYOCERA AVX family of ceramic patch antennas are designed to offer the best performances for a wide range of applications. The 9001118 antenna is specifically designed for Dedicated Short Range Communication systems. This high-performance antenna is ideal for V2X applications to provide the high-secure and high-speed wireless communication between vehicle and Infrastructure

Global Operations & Design Support

KYOCERA AVX's global operations support an integrated network of design centers that can take projects from concept to production.

Electrical Specifications

Typical performance measured with 70 x 70 mm PCB

Frequency (GHz)	5.850 – 5.925
Gain 0° xz plane	4 dB
Average Efficiency	55 %
Return Loss	< -15 dB
Polarization	R.H.C.P
Impedance	50 ohm

Mechanical Specifications & Ordering Part Number

Ordering Part Number	9001118
Dimensions (mm)	13.00 ± 0.20 length 13.00 ± 0.20 width 4.00± 0.20 thickness
Mounting	Adhesive 3M (11x11x0.05) 1 trough-hole Soldered Pin
Weight (grams)	12
Operating Temperature (°C)	-40 to +70

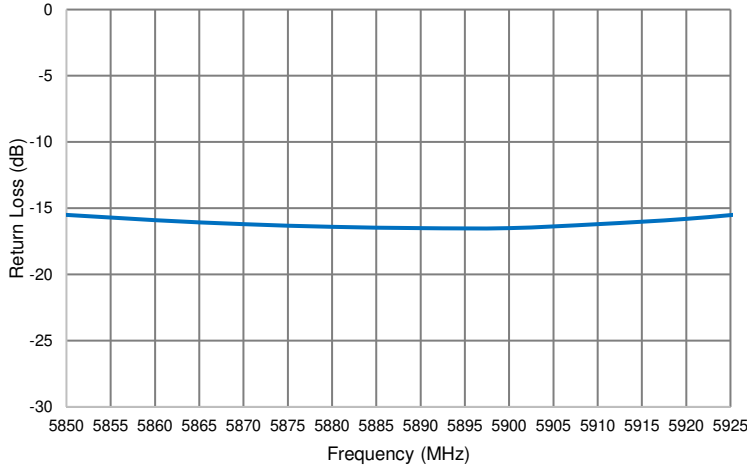
5.9 GHz DSRC Ceramic Patch Antenna Specifications

KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs

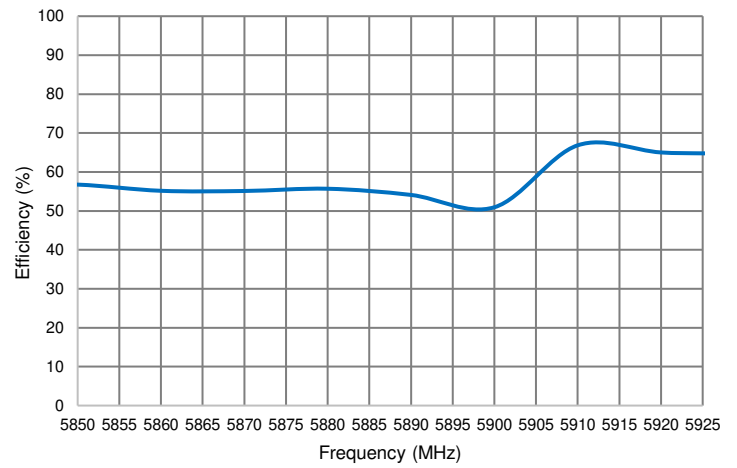
Return Loss, Efficiency, Peak Gain and RHCP Gain Plots

Typical performance measured with 70 x 70 mm PCB

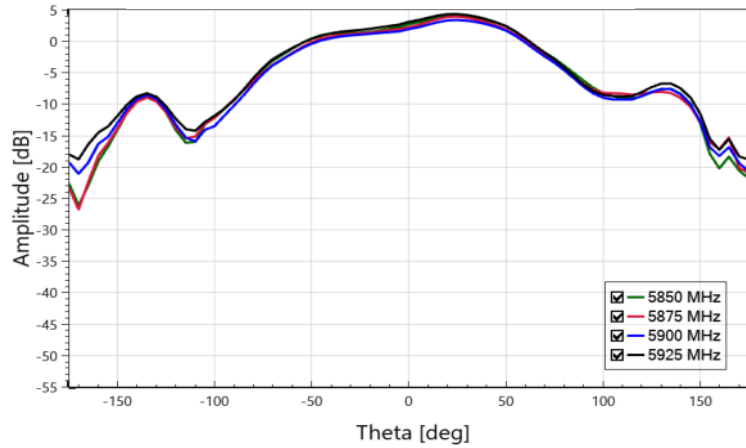
Return Loss (5850 – 5925 MHz)



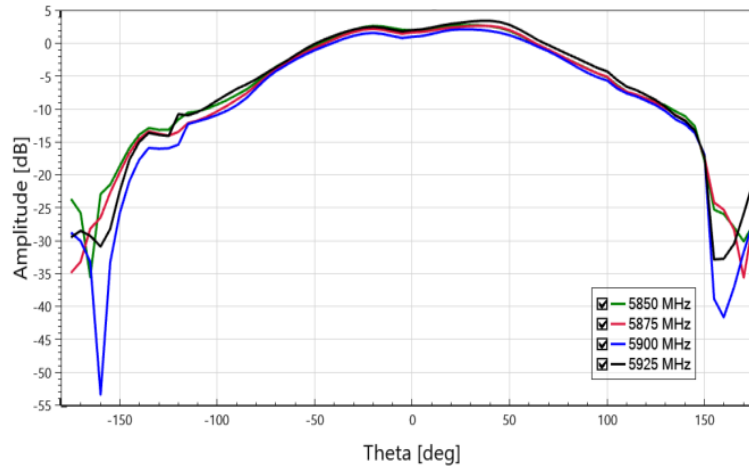
Efficiency (5850 – 5925 MHz)



RHCP Gain Phi = 90 deg YZ Plane



RHCP Gain Phi = 0 deg XZ Plane

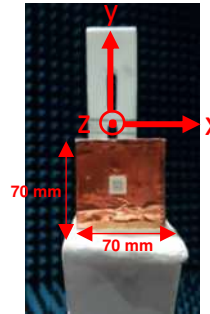
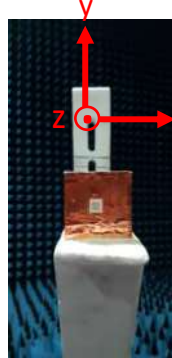


5.9 GHz DSRC Ceramic Patch Antenna Specifications

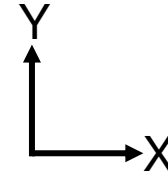
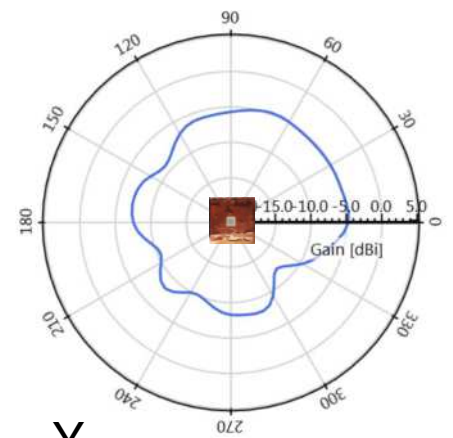
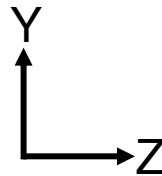
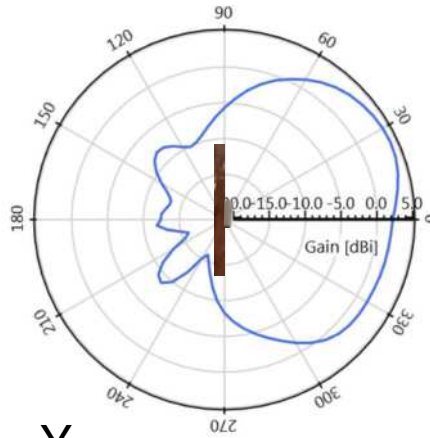
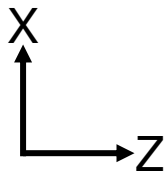
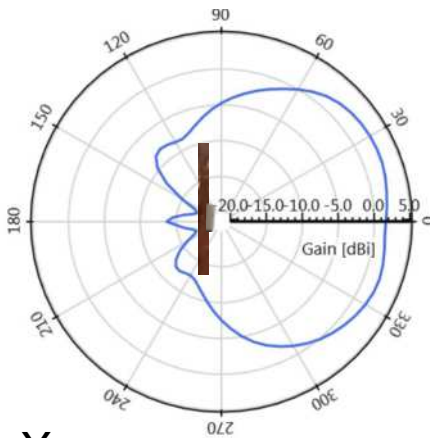
KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs

Antenna Radiation Patterns and Axial Ratio

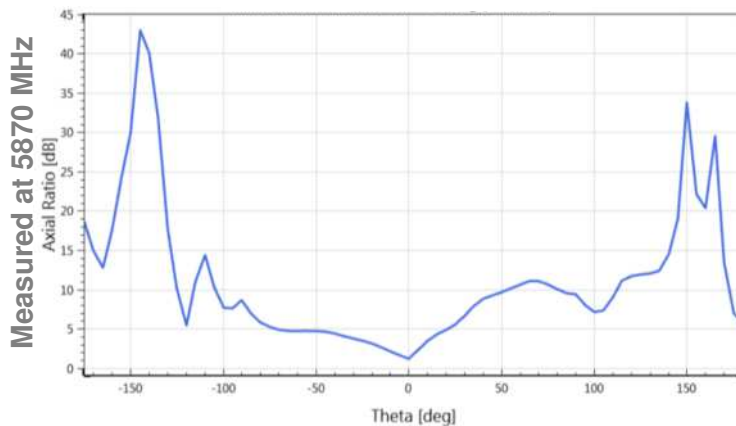
Typical performance measured with 70 x 70 mm PCB
Measured at 5870



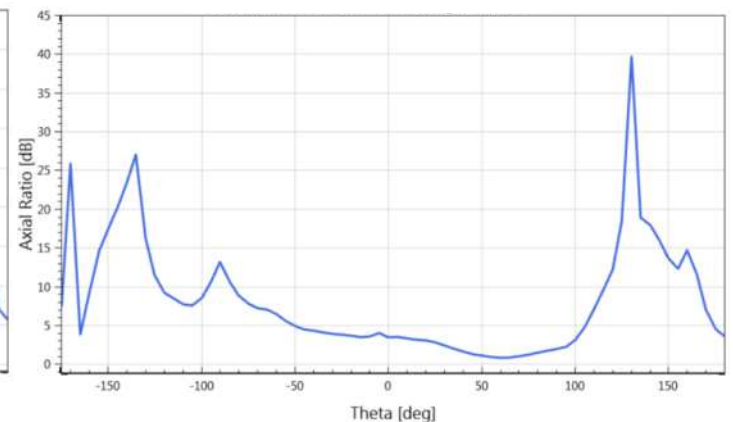
Measured at 5870 MHz



Phi=90 °



Phi=0 °

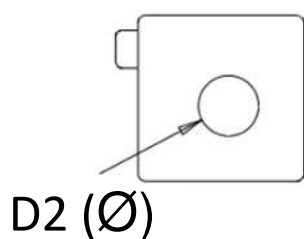


5.9 GHz DSRC Ceramic Patch Antenna Specifications
KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs

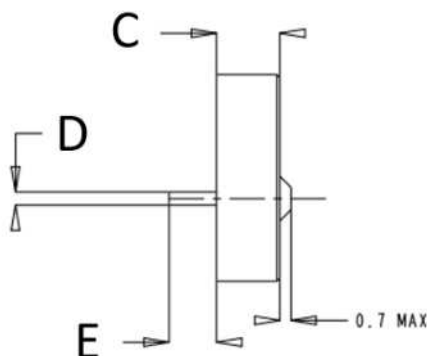
Mechanical Dimensions

Typical antenna dimensions (mm)

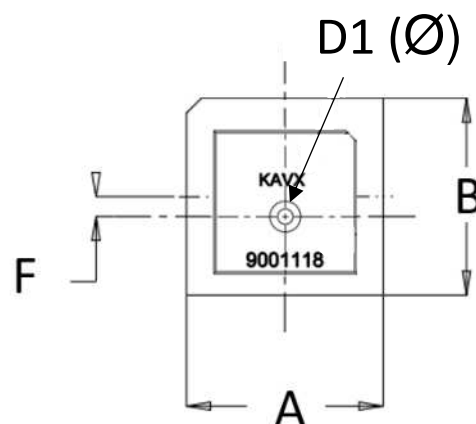
Part Number	A (mm)	B (mm)	C(mm)	D (mm)	D1 (mm)	D2 (mm)	E(mm)	F (mm)
9001118	13.00 ± 0.20	13.00 ± 0.20	4.00 ± 0.20	0.81 ± 0.03	1.42 ± 0.10	2.80 ± 0.20	3.00 ± 0.30	1.30 ± 0.10



BOTTOM VIEW



SIDE VIEW



TOP VIEW