

# Part No. 9000468

## ISM 868 MHz Ceramic Patch Antenna

**ISM868: (863-870) MHz**

Supports: : RFID, Tracking, Industrial Devices, Remote Instrumentation, Control Access



KYOCERA AVX series of ISM 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 ISM 868 MHz enabled M2M applications such as vehicle tracking.

### Electrical Specifications

Typical Characteristics on 70 x 70 mm rectangle PCB

| Frequency            | ISM 868 MHz<br>(863 - 870) MHz   |
|----------------------|--|
| Peak Gain            | 1.0 dBi  |
| Average Efficiency   | 54%  |
| VSWR                 | 2.2:1  |
| Gain @ Zenith        | 0.1 dBi  |
| Axial Ratio          | 5.1 dB ( $\theta=0$ , $\Phi=0$ ),<br>4.9 dB ( $\theta=0$ , $\Phi=90$ ) |
| Power Handling       | 2 Watt CW  |
| Feed Point Impedance | 50 $\Omega$ unbalanced   |
| Polarization         | R.H.C.P  |
| Radiation Pattern    | Omni-Directional   |

### ISM 868 MHz Ceramic Patch Antenna

863-870 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
- Remote instrumentation
- Tracking
- M2M
- Control Access
- Industrial
- Devices

### Mechanical Specifications & Ordering Part Number

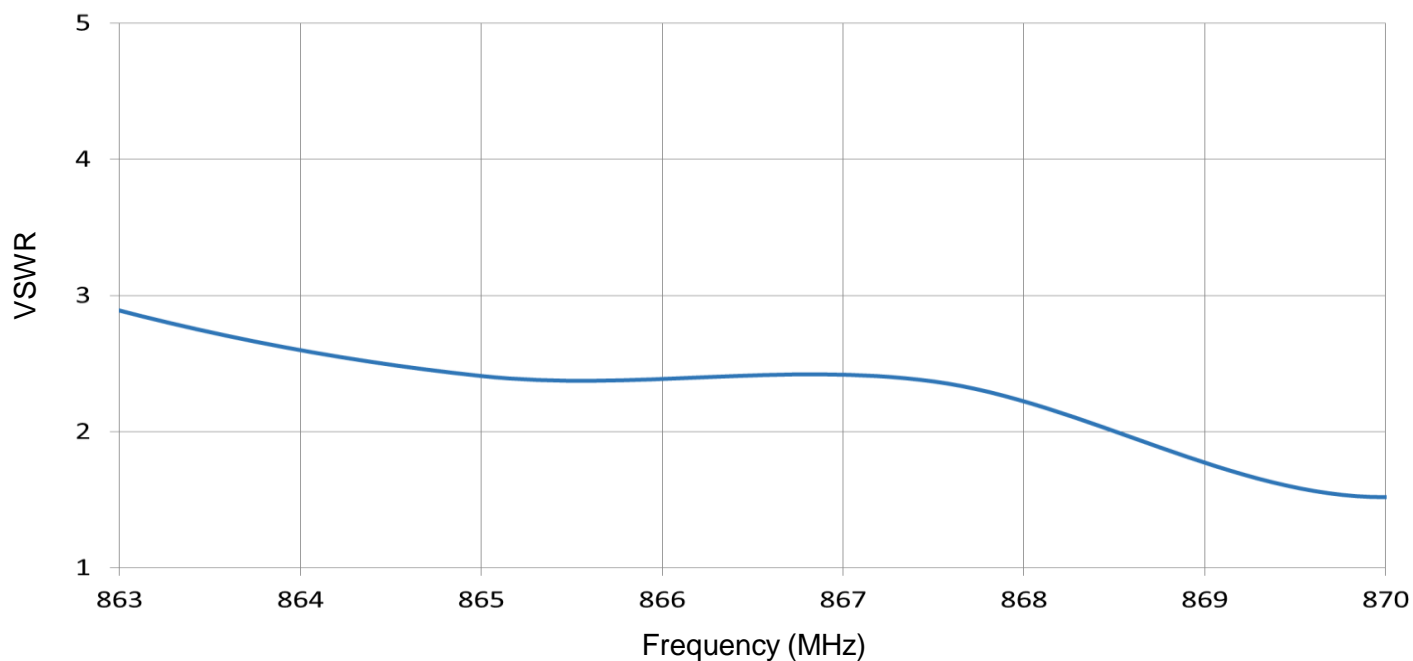
| Ordering Part Number | 9000468           |
|----------------------|-------------------|
| Size (mm)            | 36.0 x 36.0 x 6.0 |
| Mounting             | Adhesive & Pin    |
| Weight (grams)       | 35.9              |
| Packaging            | Tray              |

ISM 868 MHz Ceramic Patch KYOCERA AVX Embedded Antenna Specifications  
KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs

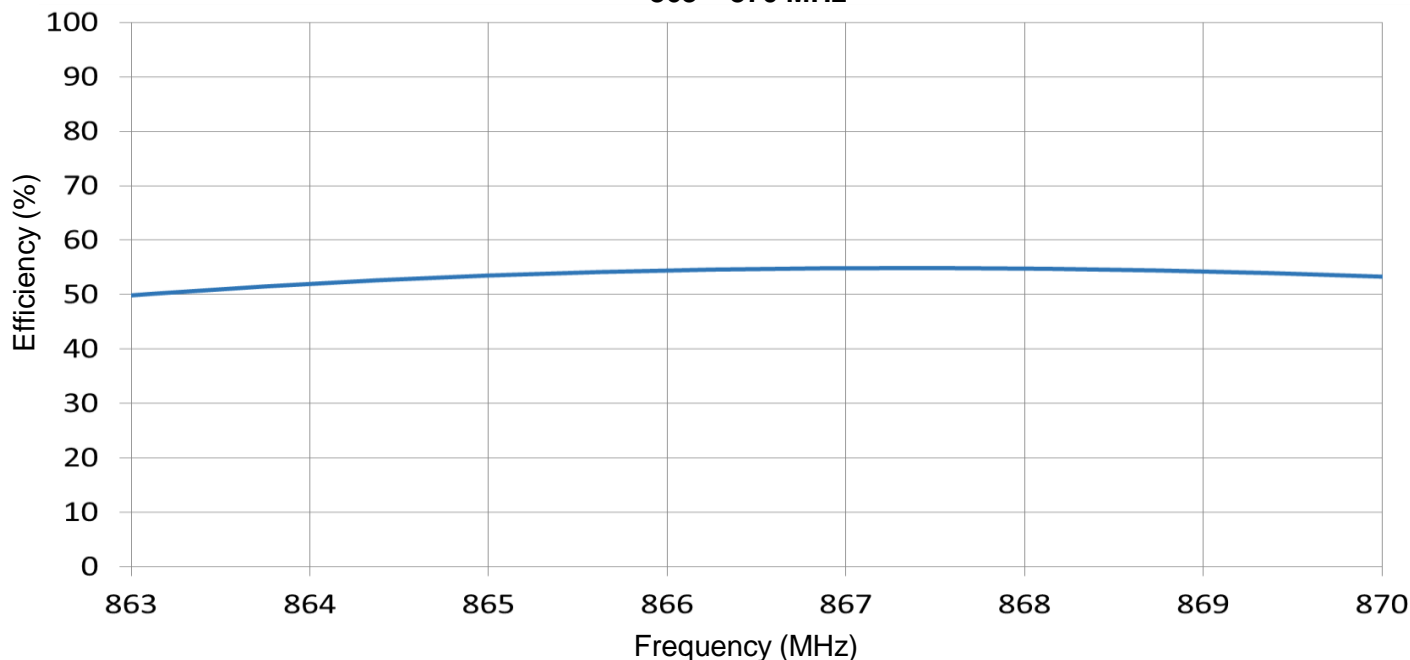
### VSWR and Efficiency Plots

Typical performances on 70 x 70 mm rectangle PCB

**VSWR**  
**863 – 870 MHz**



**Efficiency**  
**863 – 870 MHz**

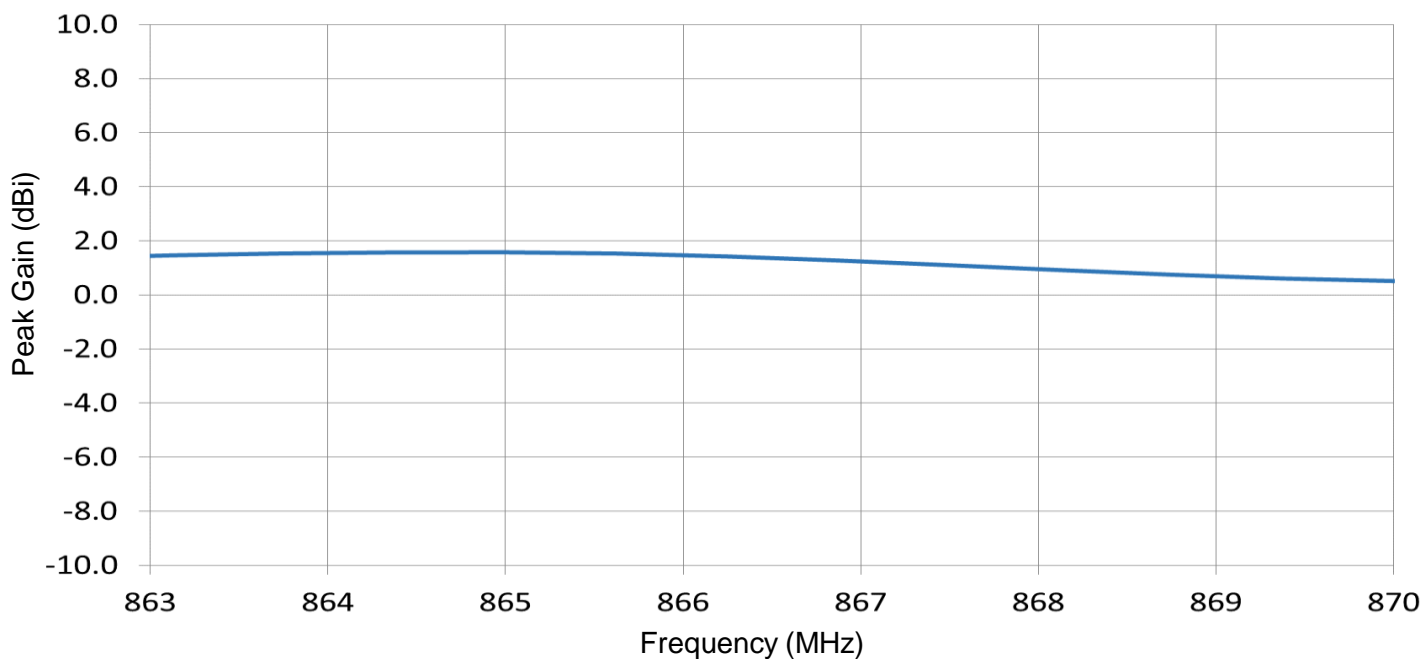


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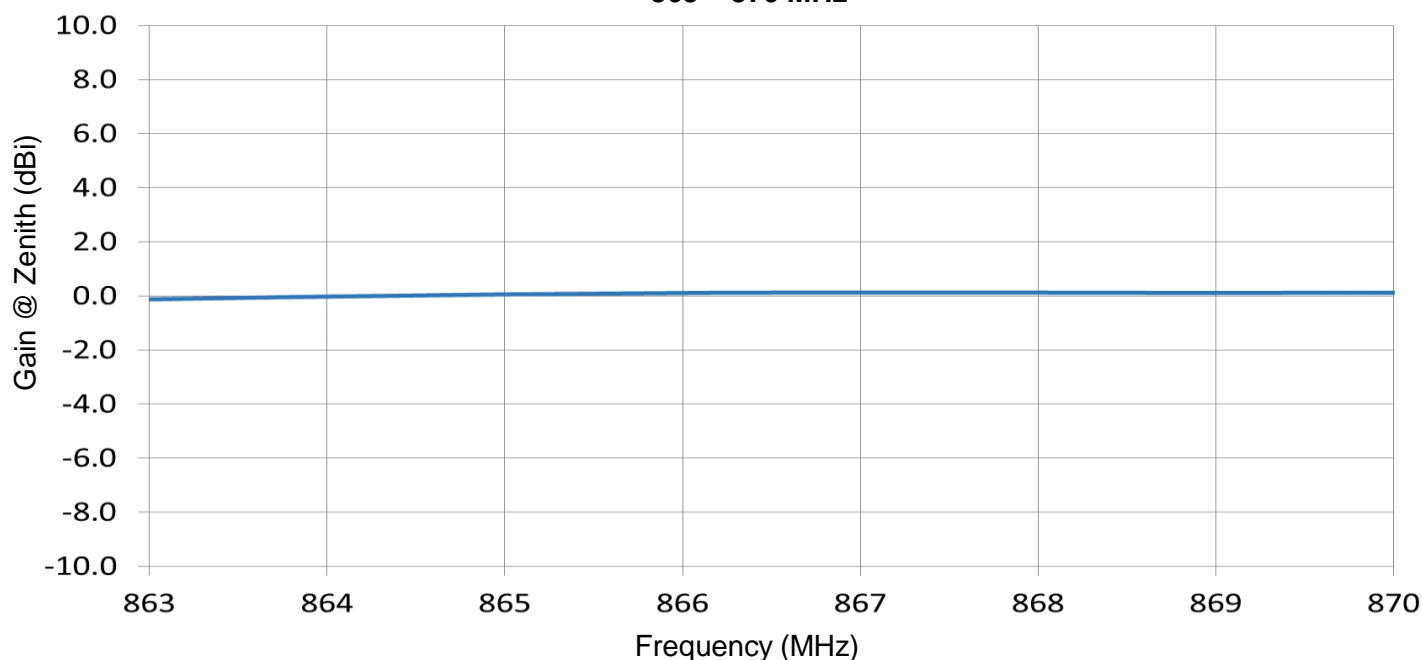
### Peak Gain and Gain at Zenith Plot

Typical performances on 70 x 70 mm rectangle PCB

**Peak Gain**  
**863 – 870 MHz**



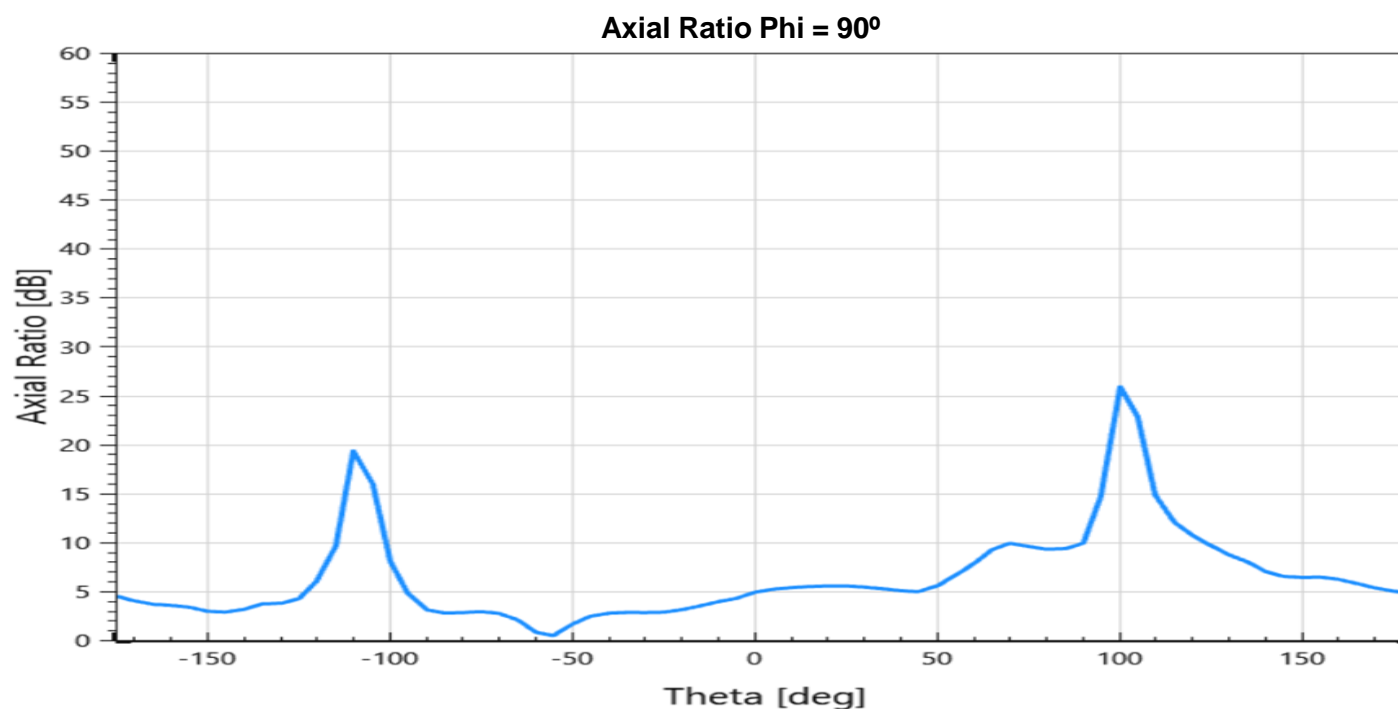
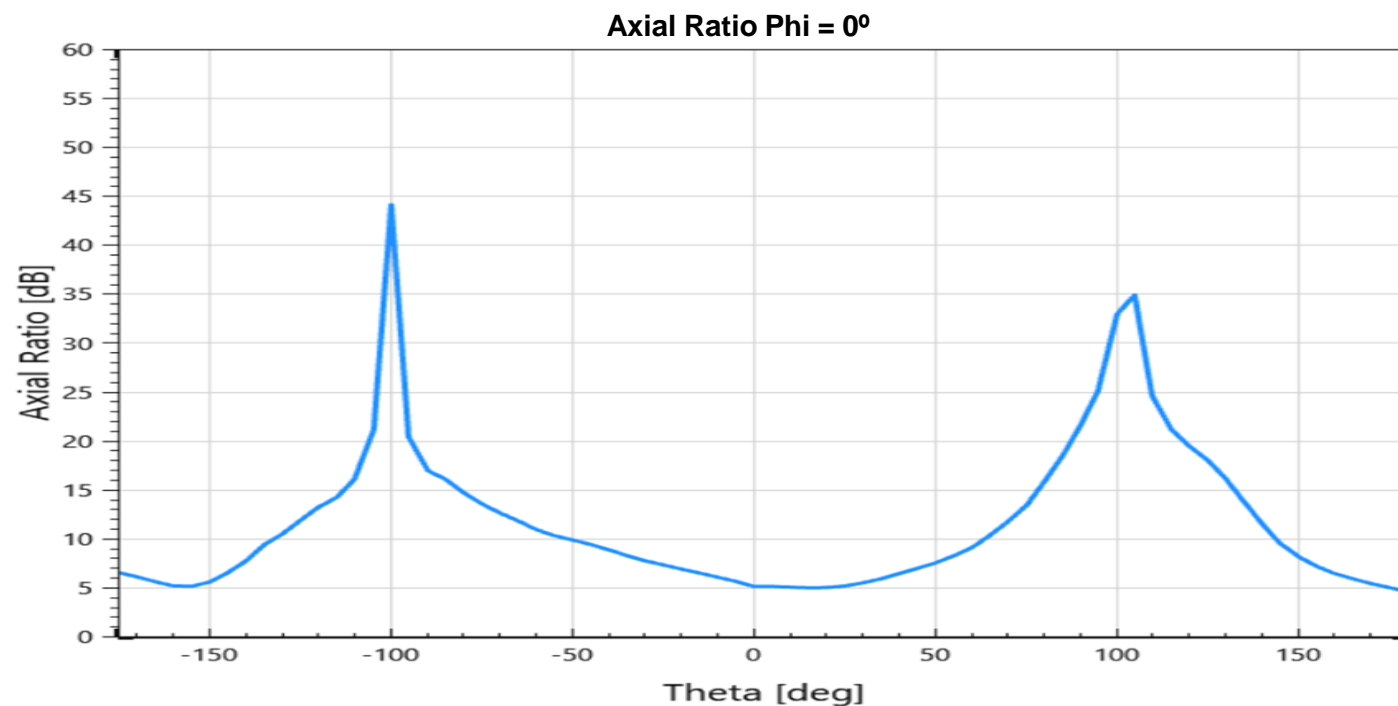
**Gain @ Zenith**  
**863 – 870 MHz**



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### Axial Ratio Plots

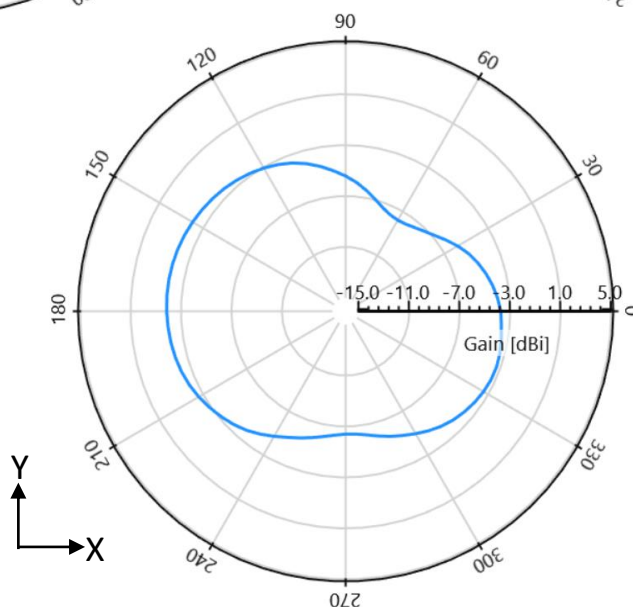
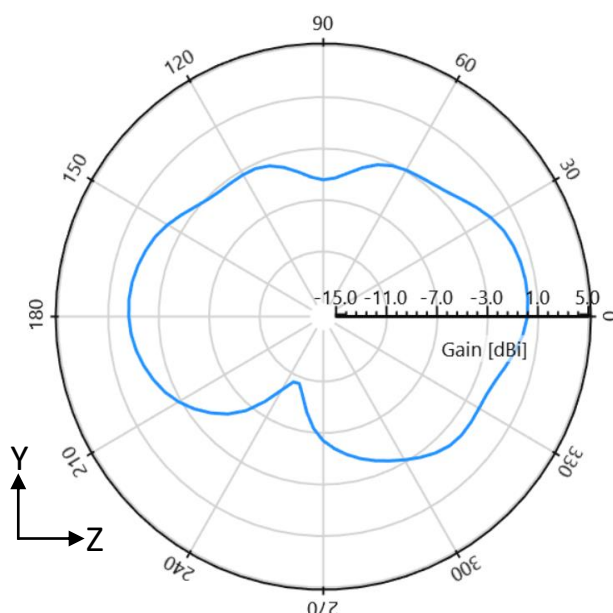
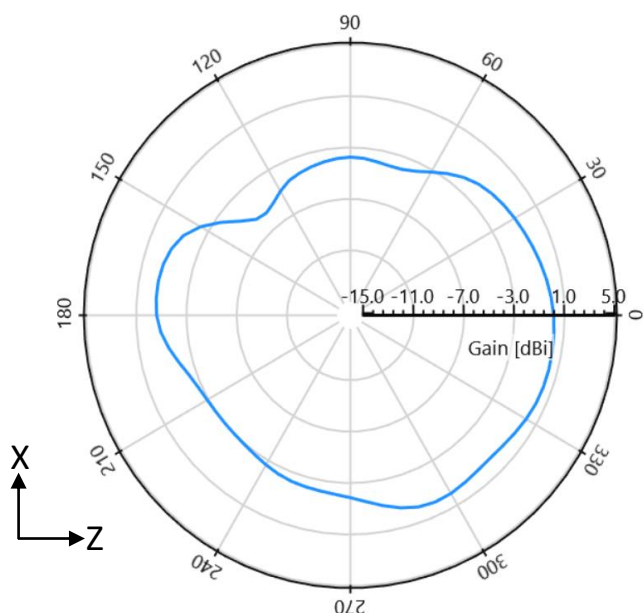
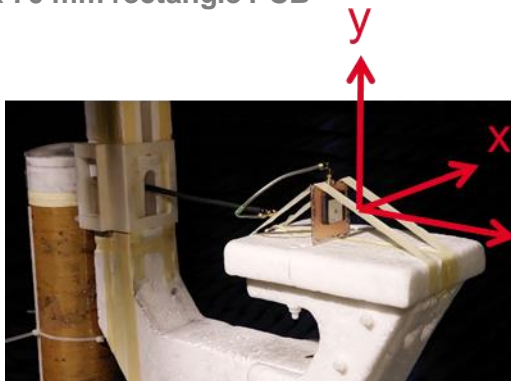
Typical performances on 70 x 70 mm rectangle PCB



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### Antenna Radiation Patterns

Typical performances on 70 x 70 mm rectangle PCB  
Measured @ 868 MHz

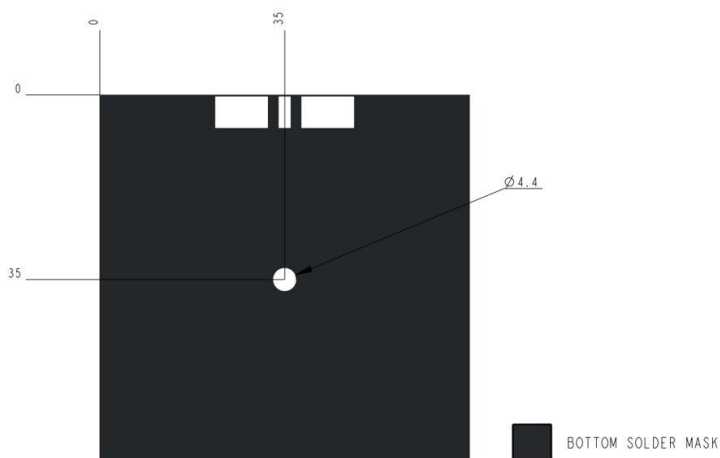
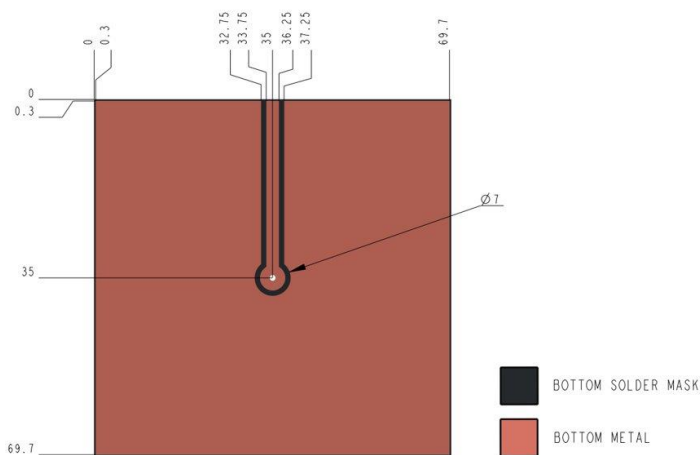
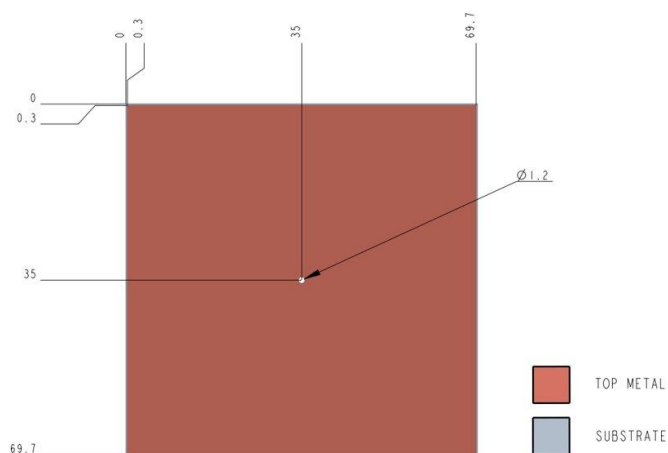
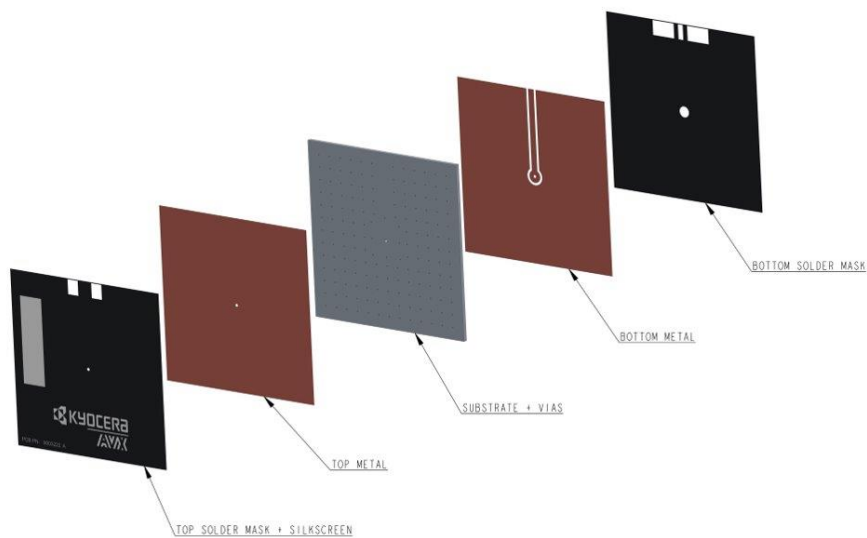


# ISM 868 MHz Ceramic Patch KYOCERA AVX Embedded Antenna Specifications

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

## Antenna Layout

Typical Layout Dimensions (mm)

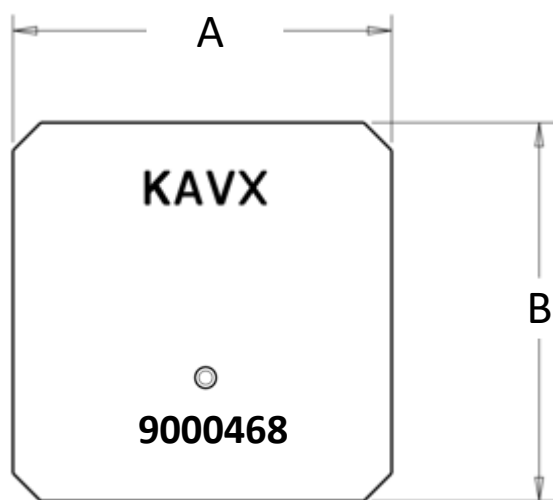


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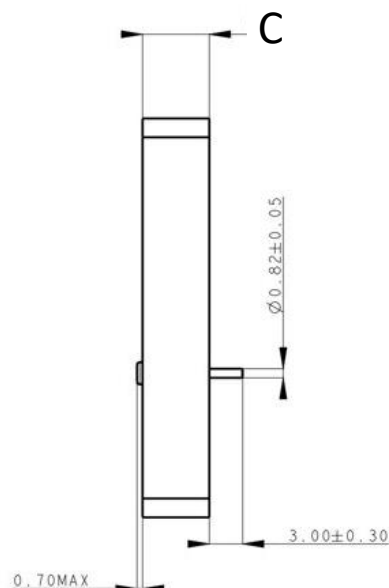
## Mechanical Dimensions

Typical antenna dimensions (mm)

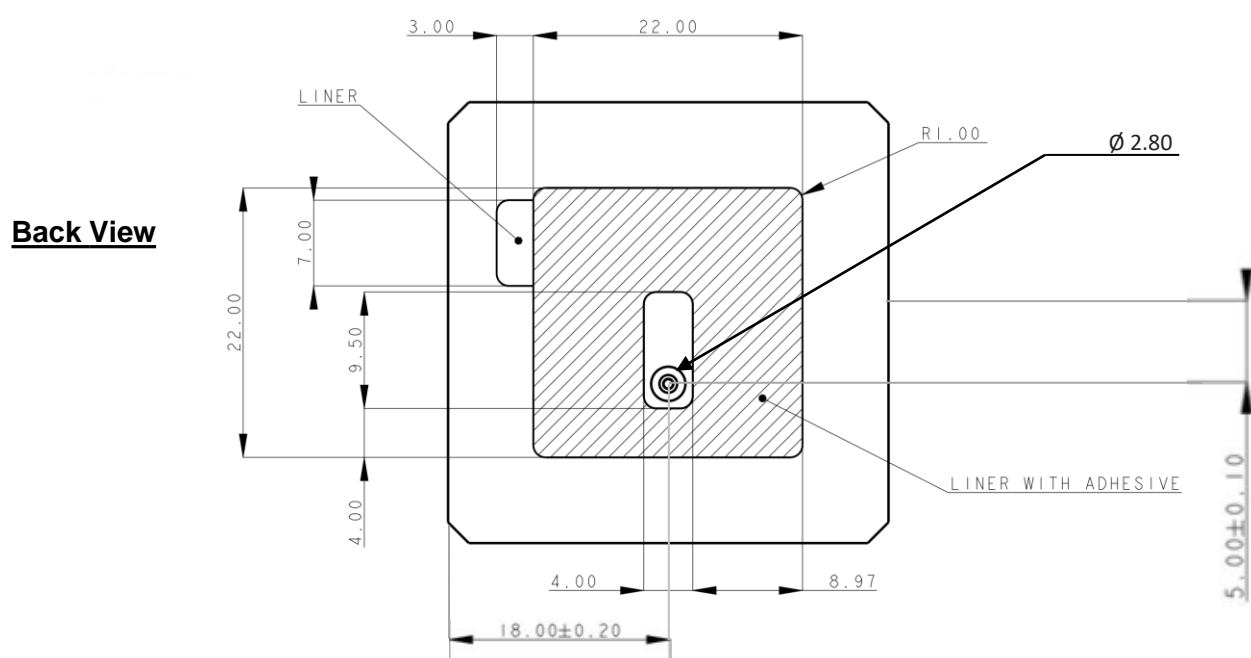
| Part Number | A              | B              | C           |
|-------------|----------------|----------------|-------------|
| 9000468     | $36.0 \pm 0.4$ | $36.0 \pm 0.4$ | $6.0 \pm 2$ |



**Top View**



**Side View**



**Back View**