

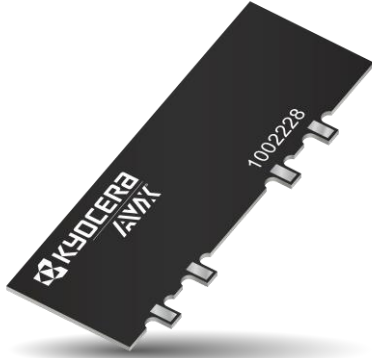


Part No. 1002228

Dual-Feed ISM & BT/Wi-Fi Vertical FR4 antenna

868/915 MHz & 2400-2485 MHz

Supports: , Agriculture, Tracking, Smart Home, Healthcare, Digital Signage, ISM, LoRa, Sigfox



KYOCERA AVX 1002228 FR4 antenna delivers the device designers' key needs for higher functionality and performance in smaller/thinner designs. This innovative antenna provides compelling advantages for all ISM enabled devices.

Real-World Performance and Implementation

Antennas may look alike on the outside, but the important difference is inside. Other antennas may contain simple PIFA or monopole designs that interact with their surroundings, complicating layout or changing performance with use position. KYOCERA AVX antennas utilize patented Isolated Magnetic Dipole (IMD) technology to deliver a unique size and performance combination.

Dual-Feed ISM & BT/Wi-Fi Vertical FR4 antenna

ISM Bands: 868 MHz and 915 MHz
 BT/Wi-Fi Bands: 2400 - 2485 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.

Greater Flexibility with Unique Form Factors

KYOCERA AVX' technology helps you deliver more advanced ergonomic designs without adverse impact on product performance.

Environmental Compliance

Comply with latest RoHS requirements

APPLICATIONS

- Embedded design
- Gateway, Access Point
- Handheld
- Telematics
- Tracking
- Healthcare
- M2M, Industrial devices
- SmartGrid
- Smart Cities
- IoT Sensors

Electrical Specifications

Typical 1002228 performance 65 x 110 mm PCB

Frequency	868 MHz	915 MHz	2400 MHz
Peak Gain	-1.0 dBi	0.0 dBi	4.0 dBi
Average Efficiency	40%	55%	70%
Return Loss	≤ -5 dB	≤ -15 dB	≤ -12 dB
Polarization	Linear		
Power Handling	2 Watt CW		
Isolation	-17dB @868MHz, -11dB @915MHz, -14dB @2400MHz		
Feed Point Impedance	50 Ω unbalanced		

Mechanical Specifications & Ordering Part Number

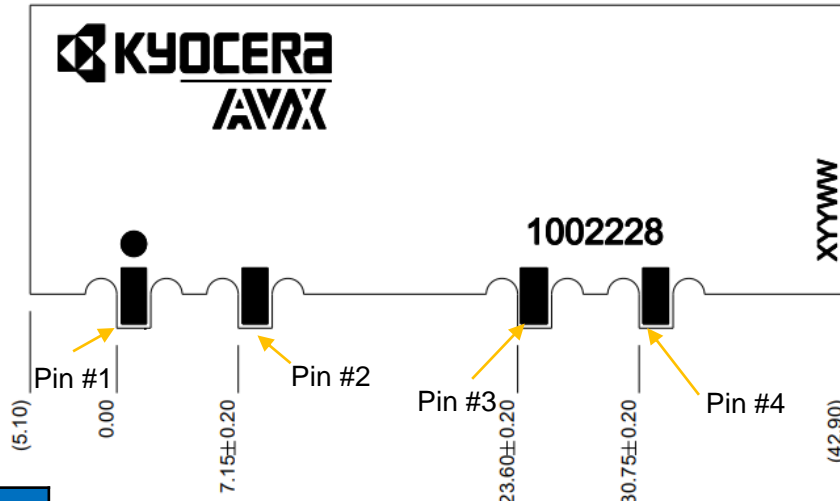
Ordering Part #	1002228
Dimensions (mm)	48.0 x 17.0 x 1.6
Mounting Type	Hand place & Hand solder
Packaging	Vacuum Sealed Bags (400 pieces)
Storage Temperature/ Humidity (Sealed shipping package)	+5°C to +35°C 45~75%
Operating Temperature	-40 to +85 C

Dual-Feed ISM & BT/Wi-Fi Vertical FR4 KYOCERA AVX Embedded Antenna Specifications.
KYOCERA AVX produces a wide variety of standard and custom antennas to meet user needs.

Antenna Dimensions

Typical antenna dimensions (mm)

Part Number	A	B	C
1002228	48.0 ± 0.20	17.0 ± 0.20	1.6

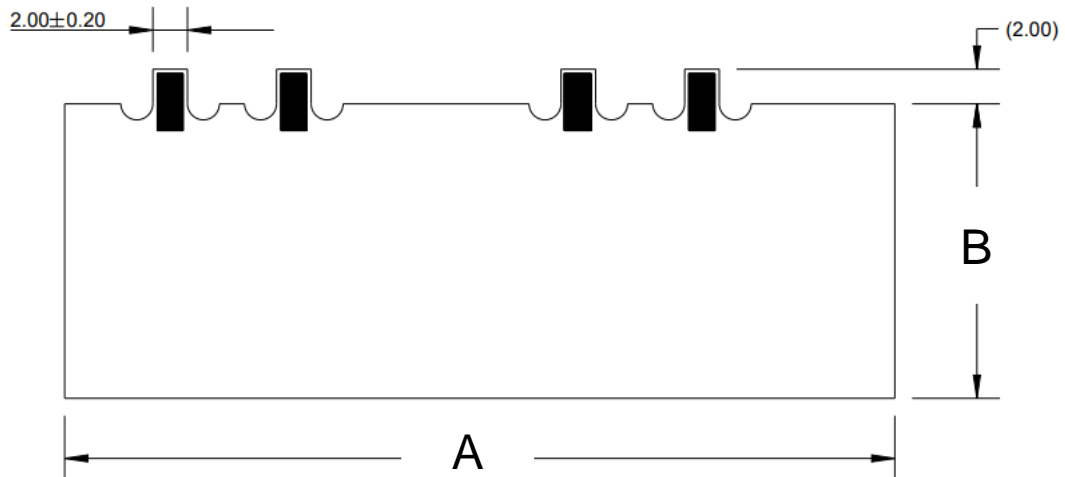


Top View

Pin#	Description
1	2.4 GHz Feed
2	GND
3	GND
4	868/915 MHz Feed



Front View/Height



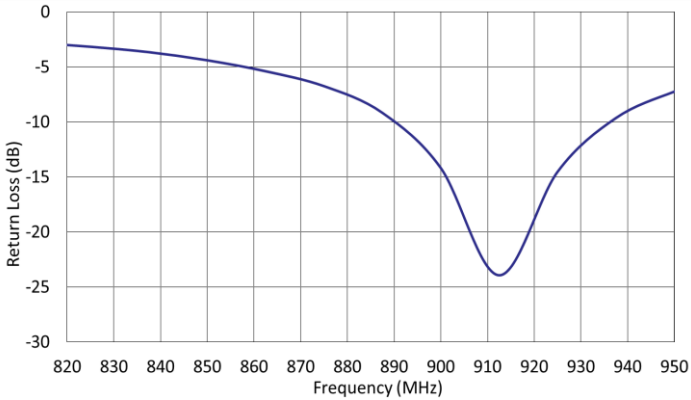
Bottom View

Dual-Feed ISM & BT/Wi-Fi Vertical FR4 KYOCERA AVX Embedded Antenna Specifications.
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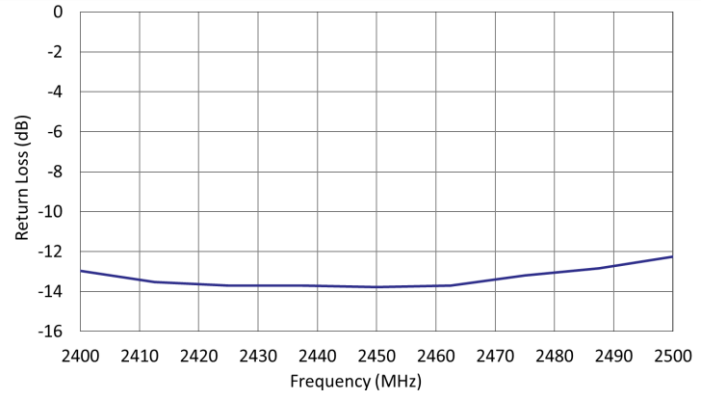
Return Loss, Efficiency, and Peak Gain Plots

Typical 1002228 performance 65 x 110 mm PCB

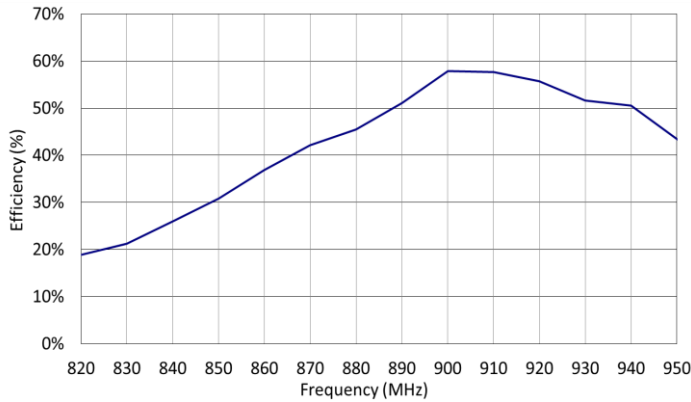
868 MHz / 915 MHz Return Loss



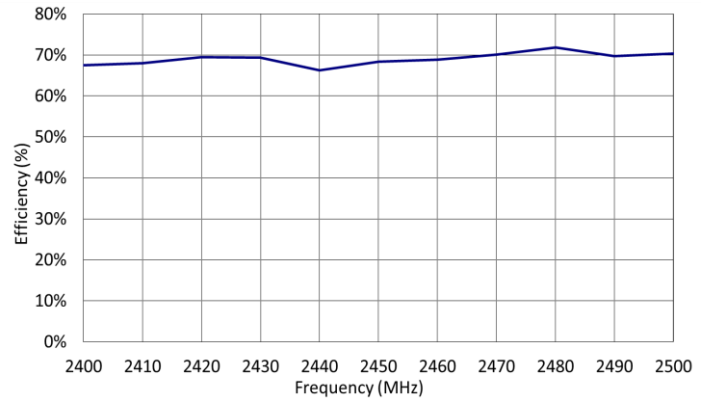
2400 MHz Return Loss



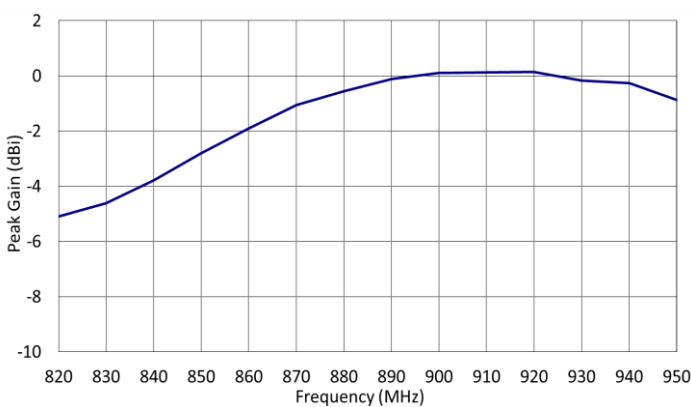
868 MHz / 915 MHz Efficiency



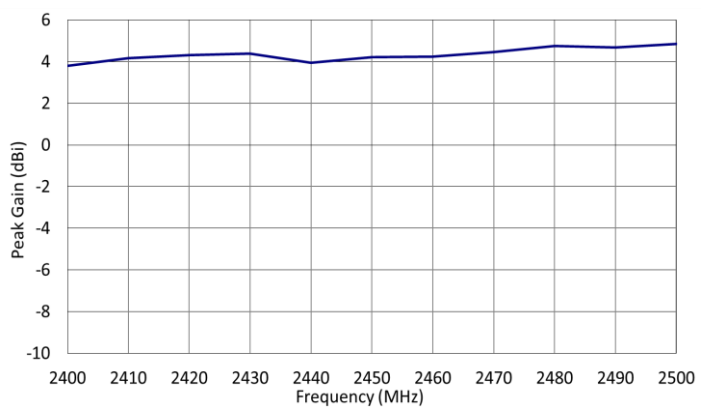
2400 MHz Efficiency



868 MHz / 915 MHz Peak Gain



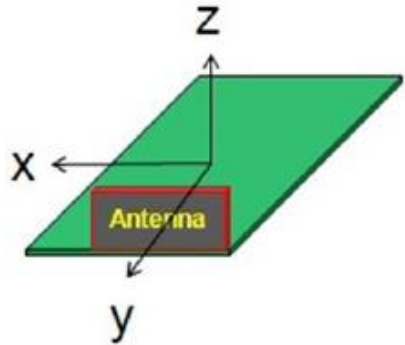
2400 MHz Peak Gain



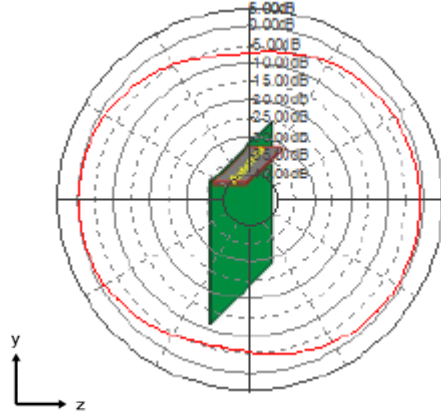
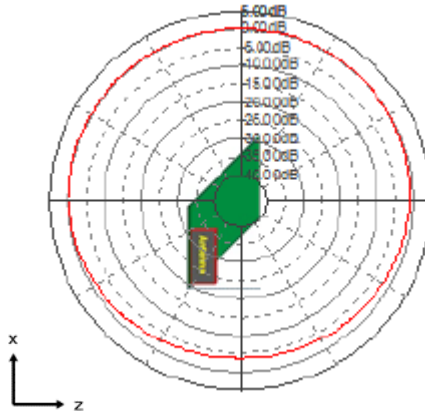
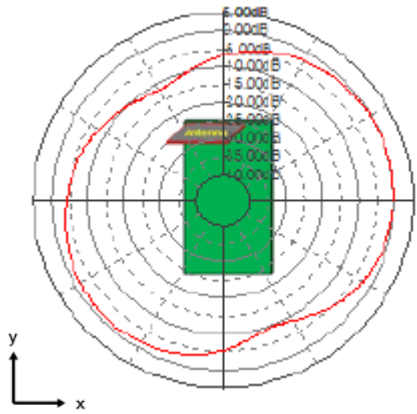
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Antenna Radiation Patterns

Typical 1002228 performance 65 x 110 mm PCB



Measured at
915 MHz



Measured at
2450 MHz

