

# AA3233-002 Rail Antenna with Subway Modification

## Features

- ▶ Constructed for high shock and vibration environments
- ▶ Rugged weatherproof enclosure that provides protection from harsh environmental conditions encountered on railroad tracks
- ▶ Dimensions are compatible with standard rail and rail tie spacings. Its low profile is well below accepted heights for track-mounted equipment.
- ▶ Includes built-in-test feature



The AA3233-002 Rail Antenna is a rugged 915 MHz antenna specifically designed for the rail industry. The antenna is designed for mounting between track rails. The antenna's optimal performance is achieved when used with a TransCore AT5000-series transportation tag mounted to the underside of rail vehicles. The AA3233-002 operates with a TransCore radio frequency (RF) module.

The AA3233-002 has built-in RF circuitry for checktag antenna-to-reader system performance checks. These system built-in-tests can be directed by the host software.

The AA3233-002 is provided with all-weather isolators that dampen shock and vibration. The design features a heavy aluminum back plate and a watertight conduit junction box.

The AA3233-002 has a read pattern that is designed to read an AT5000-series transportation tag at close distances of 45 cm to 90 cm (17.7 in. to 35.4 in.) and at high speeds of 120 km/hr (74.56 mph).

The AA3233-002 is provided with mounting hardware and a full-size mounting template. The installation guide, available at [transcore.com](http://transcore.com), includes detailed installation instructions.

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## COMMUNICATIONS

### Frequency Range

902 to 928 MHz

### Gain

10 dBi

### Polarization

Linear

### VSWR

< 2.0:1

### Impedance

50 ohms nominal

## HARDWARE FEATURES

### Connector

N-type female and jam nut connector inside waterproof box

## PHYSICAL

### Antenna Dimensions

Size: 26.9 x 4.9 x 11.25 in. (68.8 x 12.5 x 28.8 cm)

Overall Length: 34 in. (85.4 cm)

### Junction Box Dimensions

Size: 6.1 x 5.3 x 2.2 in

(15.5 x 13.5 x 5.6 cm)

Size does not include mounting flange

## Enclosure

Weatherproof radome

## ENVIRONMENTAL

### Operating Air Temperature

-40°F to +167°F (-40°C to +75°C)

### Humidity

100% condensing

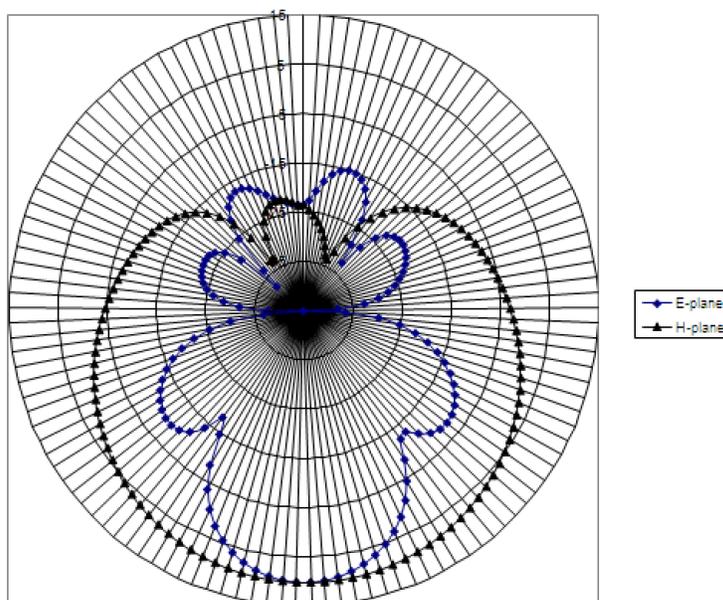
### Vibration Tolerance

4 G<sub>rms</sub>, 5 to 500 Hz, flat random spectrum

### Shock Tolerance

10 G zero to peak x 7 ms

Isolated from 100 G, high-frequency, wheel shocks



Antenna Field Patterns

For more information:

Call **800.923.4824** (Sales Support) **505.856.8007** (Technical Support)

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