

# AA3152

## Universal Toll Antenna

TransCore's AA3152 Universal Toll Antenna (UTA) broadcasts and receives radio frequency (RF) signals in the 902 to 928 MHz frequency band.

For installations requiring a relatively symmetrical, three-dimensional reading area, the UTA offers a broadcast pattern of similar size and shape in both the horizontal and vertical planes. The UTA read area is ideal for toll lane applications because the read area has virtually no side or back lobes, helping to confine antenna coverage to a single lane width.

Only 2.25 inches (5.7 centimeters) in depth, the AA3152 antenna is ideally suited to applications requiring a low-profile antenna. The weatherproof enclosure provides favorable electrical characteristics, resistance to ultraviolet radiation, and maximum corrosion resistance.



### Features

- ▶ Symmetrical broadcast pattern
- ▶ Weatherproof enclosure
- ▶ Low-profile design
- ▶ 902 to 928 MHz frequency band

### Applications

- ▶ Toll
- ▶ Airport Ground Transportation
- ▶ Parking
- ▶ Security Access
- ▶ Electronic Vehicle Registration

# AA3152 Universal Toll Antenna

## COMMUNICATIONS

### Frequency Range

902 to 928 MHz

### Gain

14 dBi

### Polarization

Linear-horizontal

### Cross Polarization (with respect to main beam)

-20 dB

### Side Lobes (with respect to peak of main beam)

< -25 dB (E-plane) and < -17 dB (H-plane)

### VSWR

1.9:1

### Impedance

50 ohms nominal

### Half-Power Beam Width

E-Plane: 36°

H-Plane: 38°

## HARDWARE FEATURES

### Connectors

Type N female

## PHYSICAL CHARACTERISTICS

### Dimensions

**Size:** 31.5 x 2.25 x 20 in (80 x 5.7 x 50.8 cm)

**Weight:** 26 lbs (11.7 kg)

### Mounting Height

15 to 20 ft (4.6 m to 6 m) above lane

16 ft (4.9 m) optimum

### Mounting Method

To support pipe with a maximum outer diameter of 3.0 in. (7.6 cm)

### Enclosure

Weatherproof radome

## ENVIRONMENTAL

### Operating Air Temperature

-40°F to +167°F (-40°C to +75°C)

### Humidity

100% condensing

### Vibration Tolerance

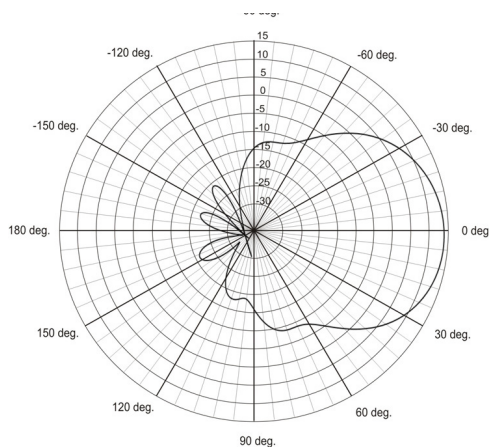
1 G<sub>RMS</sub> 10 to 500 Hz

## OPTIONS

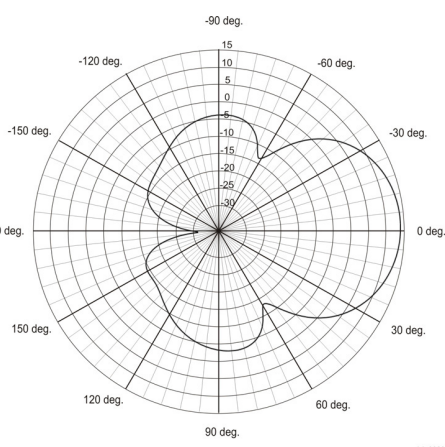
### Check Tag

May be ordered with the AT5720 Check Tag Installed

Antenna Radiation Patterns



Normalized E-Plane (Azimuth) Pattern  
(H-Pol), Gpk = 14 dBi



Normalized H-Plane (Elevation) Pattern  
(H-Pol), Gpk = 14 dBi @915 MHz

## For more information:

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