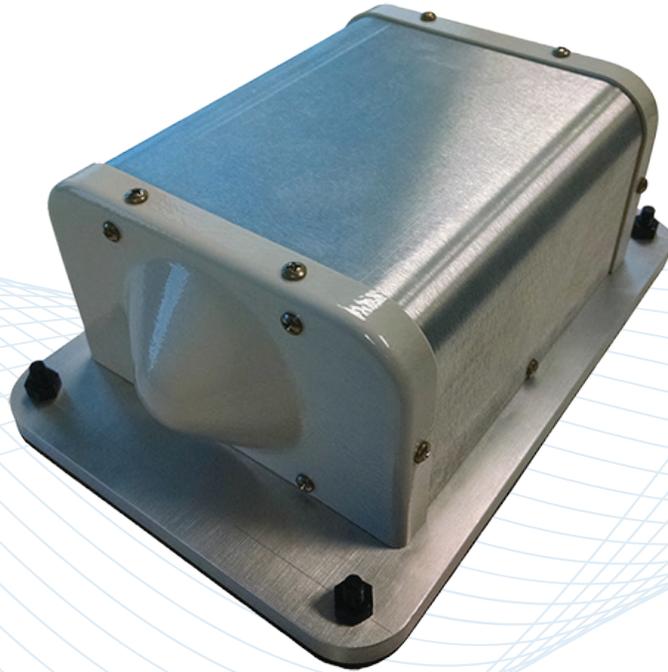


# Bi-Directional Train Top Antenna

## Rail Antenna

PCT-RSABD-DP



### Description

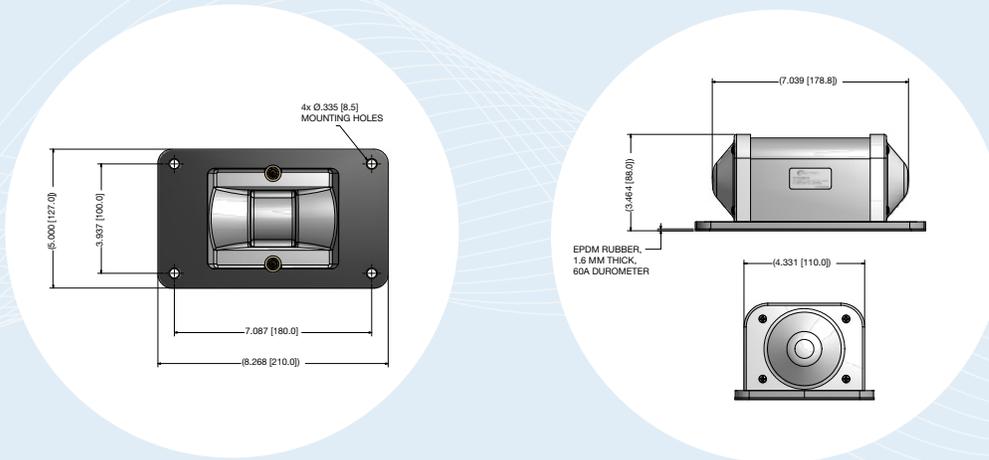
Rugged and tough bi-directional antenna designed for high vibration rail and metro conditions

### Frequencies

- 4.9-5.9 GHz

### Features

- Dual feed, dual slant  $\pm 45^\circ$ , linear polarization
- Extremely rugged purpose built for rail and metro applications
- Meets EN50155 & AAR certification requirements
- Symmetrical patterns maintain same pattern performance over each polarization
- Designed for metallic or non-metallic roof mounting, no ground plane required



## Bi-Directional Train Top Antenna

### Rail Antenna

Designed to survive high vibration rail and metro conditions, the PCT-RSABD-DP bi-directional antenna can be roof-mounted on locomotive and passenger cars. It features high port-to-port isolation and dual feed, dual slant  $\pm 45^\circ$ , linear polarization with symmetrical patterns.

#### Features

- High port-to-port performance correlation – Dual feed, dual slant  $\pm 45^\circ$ , linear polarization
- Extremely rugged – purpose-built for rail and metro applications; meets EN50155 & AAR certification requirements
- Consistent – Symmetrical patterns maintain same pattern performance over each polarization
- Versatile – Designed for metallic or non-metallic roof mounting, no ground plane required

#### Applications

- High vibration rail installations
- Rail and metro applications
- Roof mounting on locomotives and passenger cars

#### Certifications



# Bi-Directional Train Top Antenna

## Rail Antenna

### Standard Configuration

Model	Cable	Connector	Mount
PCT-RSABD-DP	Sold separately	QMA Female	Through-hole stud mounting for 1-inch holes

### Electrical Specifications – RF Antenna

Model	Frequency Range	Gain*	Typical VSWR	Beamwidth (Free Space, Non-Metallic Ground Plane)	Beamwidth (Ground Plane Mounted Performance)	Port-to-Port Isolation	Nominal Impedance	Polarization
PCT-RSA-160	4.9-5.9 GHz	10-13 dBi	< 2:1 (max 2.5:1)	H-Plane 42° E-Plane 28°	H-Plane 39° E-Plane 21°	> 22 dB	50 ohms	Dual Slant 45°, Linear

### Mechanical and Environmental Specifications

#### Model PCT-RSABD-DP

Dimensions (L x H)	8.3 x 5.5 x 3.3 inches (210 x 140 x 85 mm)
Weight	2.7 lbs (1.25 kg)
Temperature Range	-40°C to +85°C
Antenna Material	Aluminum, hard coat anodized
Ingress Protection	IP56

\*Gain is ground plane dependent; more gain can be achieved with larger ground plane.

**CONTACT US**

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this product contact your  
sales representative or visit  
> [pctel.com/antenna-products](https://pctel.com/antenna-products)**

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