

## Dual-Band, Dual Input Sector Panel

PCTEL's MSPDBDI244914NF sector panel antenna provides coverage of 2.4-2.5 GHz and 4.9-5.9 GHz frequencies in a single antenna housing. Its dual N female bulkhead inputs permit simultaneous operation of 4.9 GHz Public Safety, 802.11a, b, g and WiMAX radio devices. This antenna features a rugged UV resistant housing and includes a pipe mount for outdoor installations.

### Features

- Covers 2.4-2.5 GHz and 4.9-5.9 GHz frequencies with excellent VSWR performance
- Outstanding front-to-back ratio and controlled sidelobe radiation ensures that the radiated energy is targeted towards the area of coverage
- Included adjustable pipe mount permits uptilt, downtilt or vertical adjustment of  $\pm 15^\circ$  for more precise coverage of the geographic area
- Slim, low profile housing and included pipe mount provide added mounting flexibility for locations where space availability is limited
- High isolation design - outstanding for both bands; 68 dB is typical when antennas are radially spaced and used for omnidirectional coverage (typically 3 antennas are used radially spaced,  $120^\circ$  apart)



This antenna is designed to cover frequencies from 2.4-2.5 GHz and 4.9-5.9 GHz. Its slim, low profile housing and pipe mount provide added mounting flexibility for locations where space availability is limited.

### RF/Electrical Specifications

Model	Frequency Range	Nominal Gain	Nominal Isolation (radially spaced $120^\circ$ apart)
MSPDBDI244914NF	2.4-2.5 GHz	14 dBi $\pm$ 0.5	-68 dB
	4.925-5.925 GHz	14 dBi $\pm$ 0.5	-68 dB

Model	Frequency Range	Horizontal Plane Beamwidth	E-Plane Beamwidth	Front-to-Back Ratio
MSPDBDI244914NF	2.4-2.5 GHz	$90^\circ$	$15^\circ$	> 32 dB
	4.925-5.925 GHz	$120^\circ$	$8^\circ$	> 32 dB

### Mechanical Specifications

Model	Dimensions	Weight (Mass)
MSPDBDI244914NF	36" L x 5.5" W x 3" D (91.4 x 13.9 x 7.6 cm)	6 lbs (2.72 kg)

Temperature Range	Rated Wind Velocity	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area
$-30^\circ\text{C}$ to $+75^\circ\text{C}$	125 mph	67 lbf	0.68 sq ft

### Technical Data

<b>General Specifications:</b> Dual-band, dual input sector panel antenna
<b>Polarization:</b> Vertical
<b>Nominal Impedance:</b> 50 ohms
<b>VSWR:</b> < 1.5:1 (2.4-2.5 GHz) < 1.7:1 (4.925-5.925 GHz)
<b>Radome Material:</b> Sky Gray UV resistant plastic
<b>ESD Protection:</b> Each input DC grounded
<b>Termination:</b> 2.4-2.5 GHz: N female bulkhead 4.9-5.9 GHz: N female bulkhead
<b>Mounting Method:</b> Adjustable mount Pipe mount included

