

# ANTENNAS FOR PCTEL® SCANNING RECEIVERS

**mmWave and Sub-6 GHz Antennas  
for Drive and Walk Testing**



# INDOOR/OUTDOOR mmWAVE ANTENNAS

Our indoor/outdoor mmWave antennas provide excellent performance across 5G FR2 bands. This antenna supports both drive testing<sup>1</sup> and walk testing.<sup>2</sup>



## OP313

4.5 – 40 GHz  
Thread Mount with  
Attachable Magnetic Mount



## Specifications

OP313	
Frequency range	4.5 GHz – 40 GHz
Peak gain	Refer to Antenna Gain graph below
VSWR	<2.7:1 (20 to 40 GHz)
Nominal impedance	50 Ω
Antenna dimensions	3.9" H x 2.1" OD 100 mm H x 54.5 mm OD
Cabling length	3.3 feet (1 m)
Mount dimensions	3.31" OD 84 mm OD

## Mounting and Cable Accessories

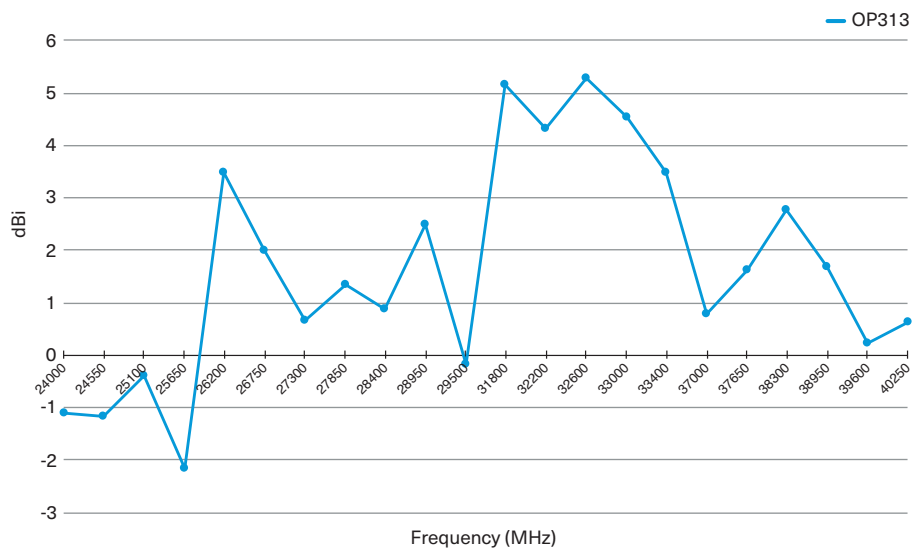
### OP308

Replacement Magnetic Mount Base for OP313.

### OP301-1

3.3-foot (1 m) extension cable for OP313

## Peak Antenna Gain



<sup>1</sup> Walk testing requires a PCTEL mmWave walk test kit. See PCTEL Walk Test Kit Brochure for details.

<sup>2</sup> Drive testing may require a cable extension if the 1 meter pigtail on the OP313 is not long enough. Drive test antenna packages include the 1 meter extension cable.

# SUB-6 GHz MOBILE OUTDOOR ANTENNAS

## Vertically Polarized – for All Networks

PCTEL's vertically polarized sub-6 GHz high-performance magnetic and permanent mount outdoor antennas are designed to provide wide band coverage of full spectrum VHF, TETRA/UHF and 450 to 6000 MHz frequencies.

### OP278H

698 – 3800 MHz  
Magnetic Mount



### OP286H

698 – 3800 MHz  
Permanent Mount



### OP451

450 MHz – 6 GHz  
Magnetic Mount



### OP697

136 – 175 MHz  
380 – 960 MHz  
Extra Strength  
Magnetic Mount<sup>3</sup>



## Specifications

	OP278H	OP286H	OP451	OP697
<b>Frequency range</b>	698 MHz – 3800 MHz	698 MHz – 3800 MHz	450 MHz – 6 GHz	136 – 174 MHz / 380 – 960 MHz
<b>Peak gain</b>	Refer to Antenna Gain graph below <sup>4</sup>	Refer to Antenna Gain graph below <sup>4</sup>	Refer to Antenna Gain graph below <sup>4</sup>	Refer to Antenna Gain graph below; Unity gain for 136-174 MHz <sup>5</sup>
<b>VSWR</b>	< 2.0:1	< 2.3:1	< 2.0:1	< 2.0:1 typical
<b>Nominal impedance</b>	50 Ω	50 Ω	50 Ω	50 Ω
<b>Physical antenna</b>	2.4" H x 1.5" OD 61 mm H x 38 mm OD	2.4" H x 1.5" OD 61 mm H x 38 mm OD	4.2" H x 5.1" OD 107 mm H x 130 mm OD (Magnetic mount is integrated into the antenna)	22" H x 2" OD 50.8 x 558.8 mm H x 50.8 mm OD
<b>Cabling length</b>	12 feet (3.7 m)	12 feet (3.7 m)	12 feet (3.7 m)	12 feet (3.7 m)
<b>Physical mount</b>	3.31" OD 84 mm OD	Requires 0.75" (19 mm) hole	See Physical Antenna	3.31" OD 84 mm OD

## Mounting Accessories

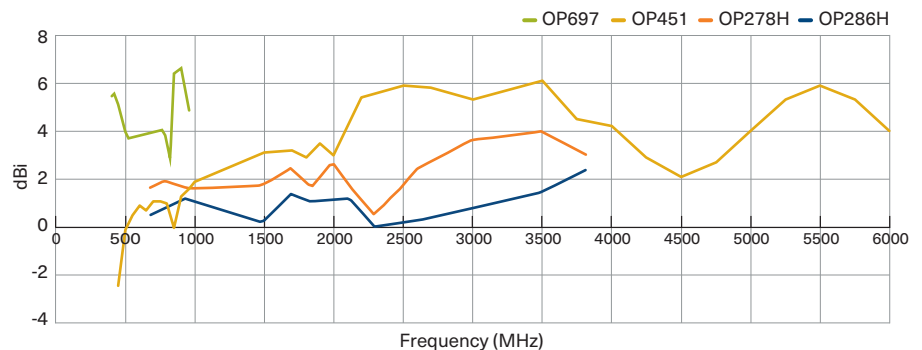
### OP087

Replacement Magnetic Mount Base for OP278H with 12-foot (3.7 m) cable

### OP212H

Replacement Magnetic Mount Base for OP278H with 12-foot (3.7 m) cable

## Peak Antenna Gain



<sup>3</sup> A required extra strength magnetic mount is included with the antenna

<sup>4</sup> Includes 12 foot cable and connector. Measured on 2 foot ground plane.

<sup>5</sup> Does not include cable loss. Measured on 4 foot ground plane.

# SUB-6 GHz MOBILE OUTDOOR ANTENNAS

## Horizontally Polarized – for Networks With Dual Polarization Beamforming

PCTEL's horizontally polarized antennas are specifically designed to support accurate testing of dual polarization beamforming when paired with our vertically polarized antennas. PCTEL's unique design provides high performance omnidirectional coverage.

### OP717

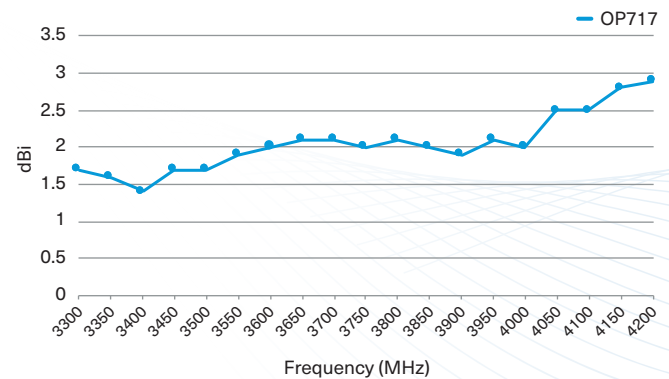
3.3 – 4.2 GHz  
Magnetic Mount



### Specifications

	OP717
Frequency range	3.3 – 4.2 GHz
Peak gain	Refer to Antenna Gain graph (right) <sup>6</sup>
VSWR	<1.9:1
Nominal impedance	50 Ω
Antenna dimensions	5.6" H x 1.3" OD 142 mm H x 33 mm OD
Cabling length	15 feet (4.6 m)
Mount dimensions	3.4" OD 87 mm OD

### Peak Antenna Gain



### Mounting and Cable Accessories

#### OP308

Replacement Magnetic Mount Base for OP717 with 15-foot (4.6 m) cable

### Solving Complex Wireless Challenges

PCTEL is a leading global provider of wireless technology, including purpose-built Industrial IoT devices, antenna systems, and test and measurement solutions. Trusted by our customers for over 25 years, we solve complex wireless challenges to help organizations stay connected, transform, and grow.

For more information, contact your sales representative or visit

[pctel.com/scanning-receivers](https://pctel.com/scanning-receivers)



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<sup>6</sup> Includes 15 foot (4.6 m) cable and connector. Measured on 2 foot ground plane.

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