

ANTENNAS FOR PCTEL[®] SCANNING RECEIVERS

**mmWave and Sub-10 GHz Antennas
for Drive and Walk Testing**



INDOOR/OUTDOOR mmWAVE ANTENNAS

Our indoor/outdoor mmWave antennas provide excellent performance across 5G FR2 bands. These antennas supports both drive testing¹ and walk testing.²



Unamplified Antenna for HBflex™ Scanning Receiver

OP313

4.5 – 40 GHz
Thread Mount with
Attachable Magnetic Mount



Unamplified Antenna for Gflex® Scanning Receiver

OP315

4.5 – 50 GHz
Thread Mount with
Attachable Magnetic Mount



Amplified Antenna for HBflex™ Scanning Receiver

OP326

24 – 40 GHz
Thread Mount with
Attachable Magnetic Mount,
2.92 mm Adapter, and USB
Power Cable



Amplified Antenna for Gflex® Scanning Receiver

OP324

24 – 48 GHz
Thread Mount with
Attachable Magnetic Mount
and USB Power Cable



Specifications

	OP313	OP315	OP324	OP326
Frequency range	4.5 GHz – 40 GHz	4.5 GHz – 50 GHz	24 GHz – 48 GHz	24 GHz – 40 GHz
VSWR	<2.7:1 (20 to 40 GHz)	<2.7:1 (20 to 50 GHz)	<2.7:1 (24 to 48 GHz)	<2.7:1 (24 to 40 GHz)
Nominal impedance	50 Ω	50 Ω	50 Ω	50 Ω
Antenna dimensions	3.9" H x 2.1" OD 100 mm H x 55 mm OD	2.8" H x 2.1" OD 72 mm H x 55 mm OD	2.8" H x 4.23" L x 2.1" D 72 mm H x 107.5 mm L x 55 mm D	2.8" H x 4.23" L x 2.1" D 72 mm H x 107.5 mm L x 55 mm D
Cabling length	3.3 feet (1 m) ²	3.3 feet (1 m) ²	3.3 feet (1 m) ²	3.3 feet (1 m) ²
Mount dimensions	3.31" OD 84 mm OD	3.31" OD 84 mm OD	3.31" OD 84 mm OD	3.31" OD 84 mm OD
Connector type	2.92 mm male	2.4 mm male	2.4 mm male	2.92 mm male with included adapter

Cable Accessories

OP301-1

3.3-foot (1 m) extension cable
for OP313

OP316-1

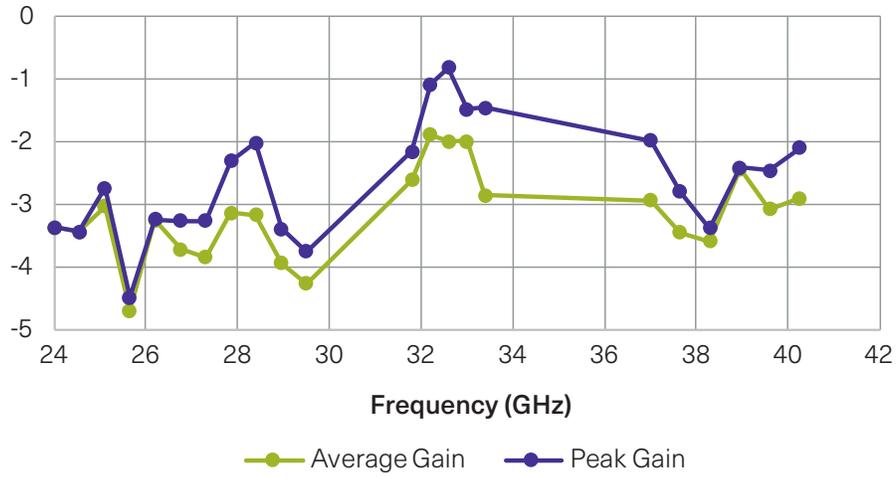
3.3-foot (1 m) extension cable
for OP315, OP324, and
OP326



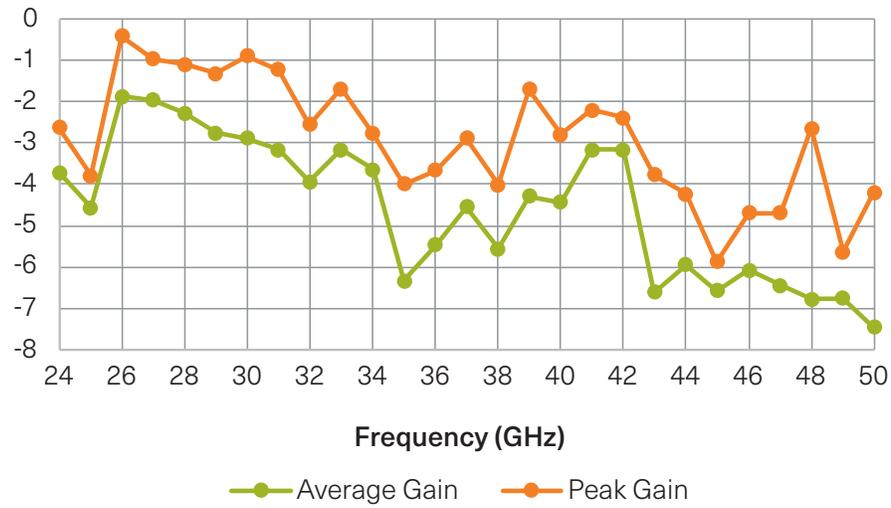
¹ Walk testing requires a PCTEL mmWave walk test kit. See PCTEL Walk Test Kit Brochure for details.

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

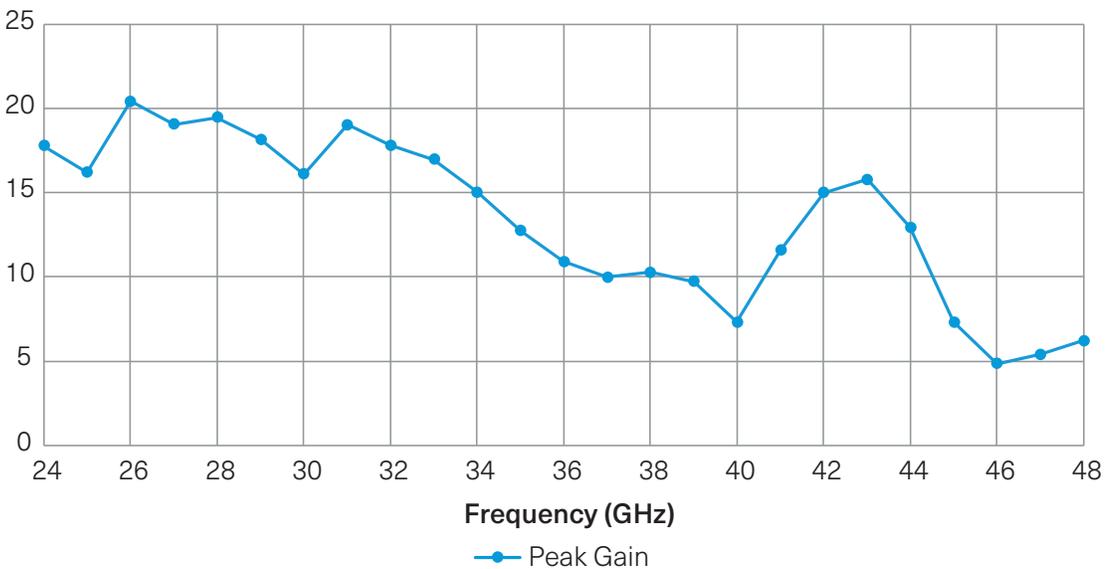
OP313 Antenna Gain (dB)³



OP315 Antenna Gain (dB)³

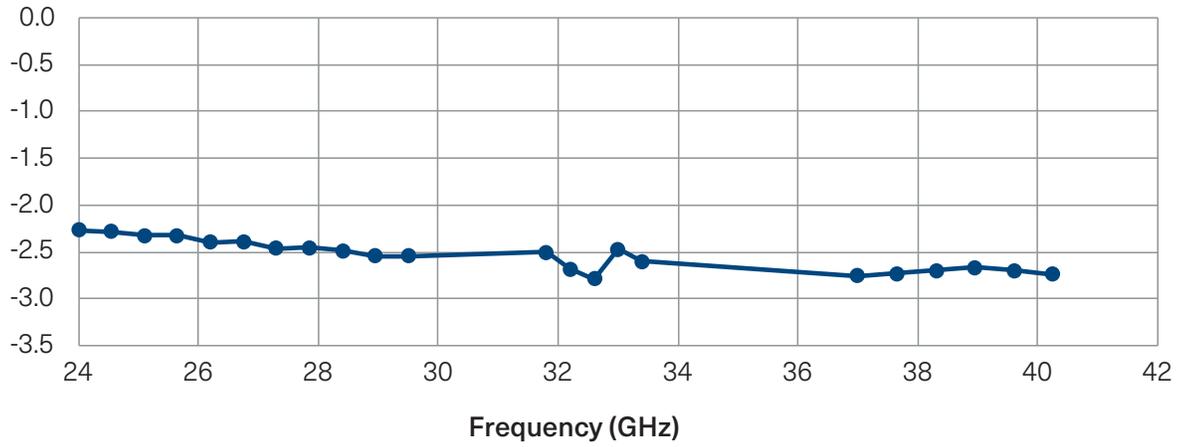


OP324/OP326 Antenna Gain (dB)³

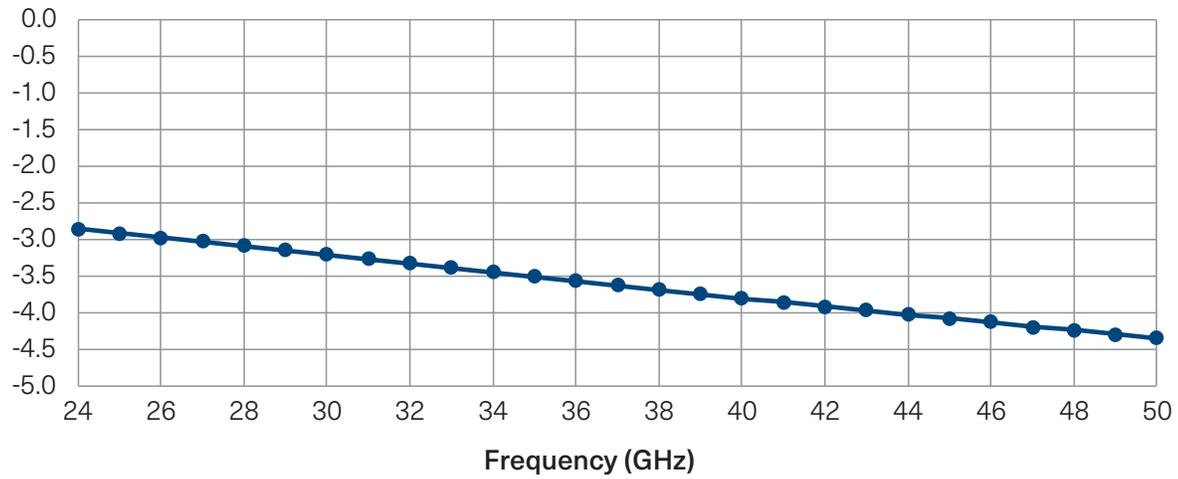


³ Includes 1 meter cable. Measured without ground plane. Average gain is typically approximately 1.5 dB lower than peak gain.

OP301-1 Extension Cable Loss (dB)



OP316-1 Extension Cable Loss (dB)



INDOOR ANTENNAS

Our indoor antennas provide excellent coverage across cellular, public safety, and private radio bands. These antennas are also suitable for outdoor walk testing.

OP452

136 – 870 MHz
with SMA male to
SMA male flex adapter



OP558

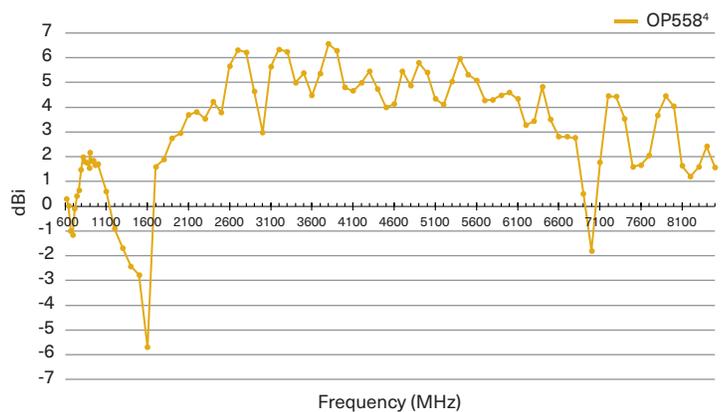
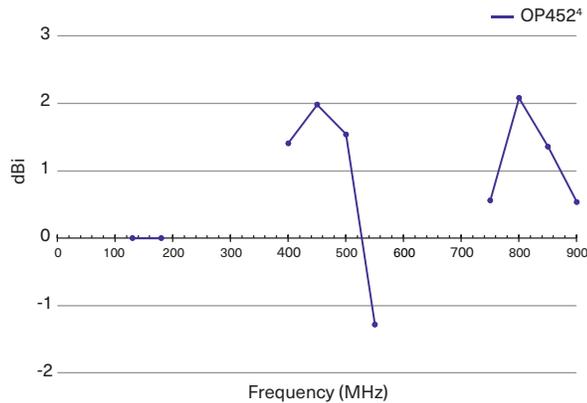
600 MHz – 8.5 GHz



Specifications

	OP452	OP558
Frequency ranges	136 – 174 MHz 380 – 520 MHz 764 – 870 MHz	600 MHz – 8.5 GHz
VSWR	<1.0:1	<3.0:1
Nominal impedance	50 Ω	50 Ω
Antenna dimensions	7.9" H x 0.6" OD (8.7" H w/ adapter) 200 mm H x 15 mm OD (220 mm H w/ adapter)	8.8" H x 1.2" x 0.8" 223 mm H x 30 mm x 20 mm
Connector type	SMA male with included flex adapter (OP469)	SMA male
Flex adapter loss (OP469)	Maximum: 1 dB Typical: 0.75 dB	N/A

Peak Antenna Gain



Accessories

OP469

Spare Connector – SMA male to
SMA male flex adapter for OP452



⁴ Measured connected directly to 1Bflex® scanning receiver, which provides a ground plane of 4.4" x 1.55" (112 mm x 39 mm). See specifications for adapter gain/loss.

MOBILE OUTDOOR ANTENNAS

Vertically Polarized – for All Networks

PCTEL's vertically polarized sub-10 GHz high-performance outdoor antennas are designed to provide wide band coverage of full spectrum VHF, TETRA/UHF and 450 MHz to 10 GHz frequencies. Permanent mount options are available upon request.

OP294

600 MHz – 10 GHz
Magnetic Mount



OP451

450 MHz – 6 GHz
Magnetic Mount



OP721

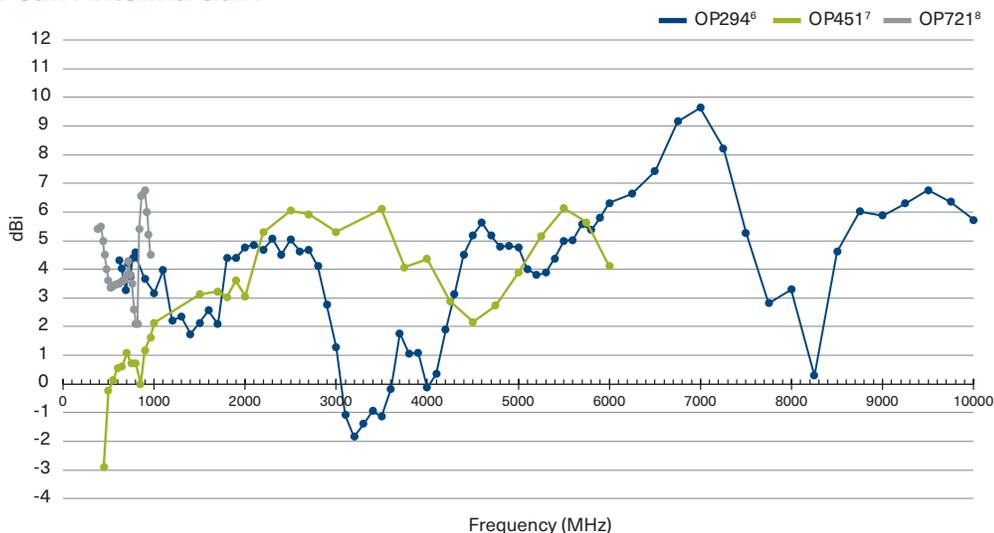
136 – 175 MHz
380 – 960 MHz
Extra Strength Magnetic Mount⁵



Specifications

	OP294	OP451	OP721
Frequency range	600 MHz – 10 GHz	450 MHz – 6 GHz	136 – 174 MHz / 380 – 960 MHz
VSWR	< 3.0:1	< 2.0:1	< 2.0:1
Nominal impedance	50 Ω	50 Ω	50 Ω
Antenna dimensions	3.38" H x 1.43" OD 86 mm H x 36 mm OD	4.2" H x 5.1" OD 107 mm H x 130 mm OD (Magnetic mount is integrated into the antenna)	22.0" H x 2.0" OD 559 mm H x 51 mm OD
Cabling length	12 feet (3.7 m)	12 feet (3.7 m)	12 feet (3.7 m)
Mount dimensions	3.31" OD 84 mm OD	See Antenna dimensions	3.31" OD 84 mm OD
Connector type	SMA male	SMA male	SMA male

Peak Antenna Gain



⁵ A required extra strength magnetic mount is included with the antenna.

⁶ Includes 12 foot (3.7 m) cable and connector. Measured on 3 foot (0.91 m) ground plane.

⁷ Includes 12 foot (3.7 m) cable and connector. Measured on 2 foot (0.61 m) ground plane.

⁸ Does not include cable loss. Measured on 4 foot (1.22 m) ground plane. Unity gain for 136-174 MHz.

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. Their unique design provides high performance omnidirectional coverage.

OP717

3.3 – 4.2 GHz
Magnetic Mount



OP723

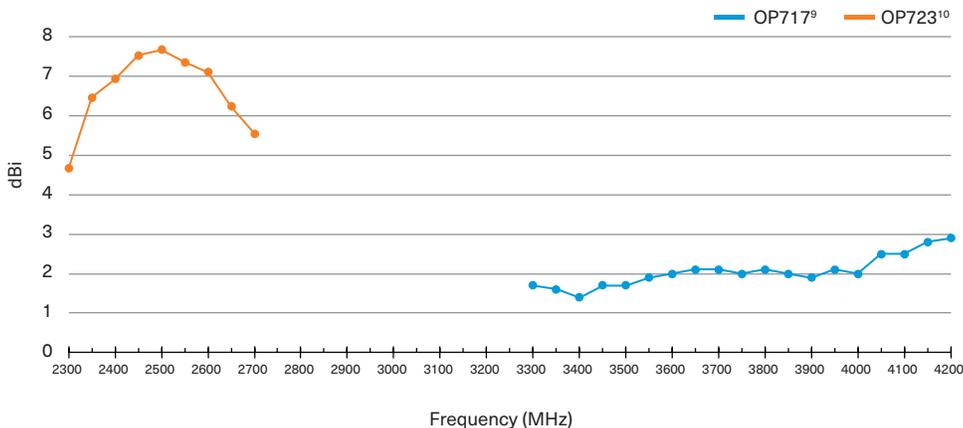
2.3 – 2.7 GHz
Magnetic Mount



Specifications

	OP717	OP723
Frequency range	3.3 – 4.2 GHz	2.3 – 2.7 GHz
VSWR	<1.9:1	<2:1
Nominal impedance	50 Ω	50 Ω
Antenna dimensions	5.6" H x 1.3" OD 142 mm H x 32 mm OD	12.6" H x 1.3" OD 321 mm H x 32 mm OD
Cabling length	15 feet (4.6 m)	15 feet (4.6 m)
Mount dimensions	3.46" OD 88 mm OD	3.46" OD 88 mm OD
Connector type	SMA male	SMA male

Peak Antenna Gain



⁹ Includes 15 foot (4.6 m) cable and connector. Measured on 2 foot (0.61 m) ground plane.

¹⁰ Does not include cable loss. Includes 15 foot (4.6 m) cable and connector. Measured on 2 foot (0.61 m) ground plane.

For more information about
PCTEL test and measurement
solutions, contact your sales
representative or visit

➤ pctel.com/test-measurement



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