

## Antenna Summary

<b>Antenna Type</b>	<b>Antenna Manufacturer</b>	<b>Antenna Part Number</b>	<b>Antenna Gain</b>	<b>Itron Part Number</b>	<b>Connector Type</b>
Dipole	PCTEL	MEXE902RPSM	2	MSE-0131-001	RPSMA
Dual ½ wave over a ¼ wave	PCTEL	MAX9075	5	MSE-0370-003	RPSMA

## IN-BUILDING ANTENNAS

### Portable Duck Antennas



MEXR902TN

MEXE902RPSM



### Technical Data

<b>General Specifications:</b> Portable Antennas
<b>Special Features:</b> 360° swivel, 0°-90° knuckle (all models except MEXE902RPSM)
<b>Maximum Power:</b> 50 watts
<b>Polarization:</b> Vertical, linear
<b>Nominal Impedance:</b> 50 ohms
<b>VSWR at Resonance:</b> < 1.5:1
<b>Wave Length:</b> 1/2 wave 1/4 wave (MEXE902RPSM only)

For detailed specifications, visit <http://antenna.pctel.com>.

## Portable Antennas for Data Transfer Applications

These portable rubber duck antennas are designed to cover multiple data frequencies, including 902-928 MHz ISM, 2400-2483.5 MHz and 5725-5825 MHz Wi-Fi applications. Their rugged, flexible design makes them suitable for use in a wide variety of applications, including office LAN environments, factory floors, remote telemetry and other harsh environments.

### Features

- Ground plane independent, half-wave coaxial dipole design. Provides improved antenna performance, higher gain and installation flexibility.
- Flexible design provides added durability that allows use in demanding wireless environments.
- Articulating knuckle provides 0°-90° pivot and 180° swivel movement allowing vertical orientation of the antenna, regardless of the orientation or position of the wireless device. (All models except MEXE902RPSM).

### Antenna Electrical Specifications

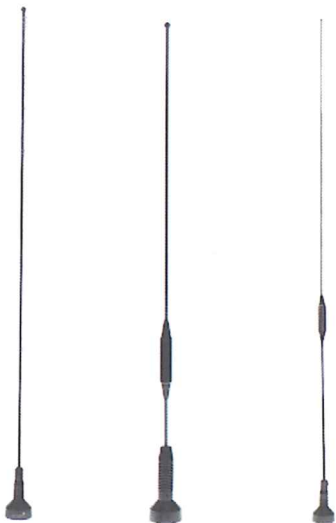
Model	Frequency Range	Factory Tuned Frequency	Gain
MEXE902RPSM	902-960 MHz	915 MHz	2.0 dBi
MEXR902TN	902-960 MHz	915 MHz	2.5 dBi
MHWS2400MSMA	2.4-2.4835 GHz	2450 MHz	2.0 dBi
MHWS2400MTNCRP	2.4-2.4835 GHz	2450 MHz	2.0 dBi

### Mechanical Specifications

Model	Connector Type	Antenna Height	Temperature Range
MEXE902RPSM	Reverse Polarity SMA Plug	9.5" (241.3 mm)	-40 °C to +85 °C
MEXR902TN	TNC Plug	9.5 (241.3 mm)	-40 °C to +85 °C
MHWS2400MSMA	SMA Plug	4.5" (114.3 mm)	-40 °C to +85 °C
MHWS2400MTNCRP	Reverse Polarity TNC Plug	5.7" (144.8 mm)	-40 °C to +85 °C

## MOBILE ANTENNAS

### MAX Base Antennas



(B)MAXMFT (B)MAX150/450 (B)MAX455



(B)MAXSCAN1000

BMAX824/1850

BMAX8155S



BMAXC233805



BMAXC Antennas

## Molded Base Antennas

These antennas feature a rugged molded polymer base, plated spring-loaded contact pin and .100" diameter stainless steel whip for long-lasting, trouble-free operation. Models are available with open or closed coil rod, and can be ordered in all black finish. This series offers models for many types of wireless applications, including WiFi and WiMAX mobility, VHF and UHF land mobile radio, 700 Public Safety, 800 MHz and 900 MHz digital radio and AMPS/PCS voice/data support.

### Features

- Molded polymer base provides ruggedness and durability in harsh mobile environments.
- Wideband performance (Wi-Fi and WiMAX models) provide coverage of 2.2 GHz to 2.9 GHz frequencies without tuning. WiMAX model covers 2.3-3.8 GHz frequencies.
- 3 dB or 5 dB models available for most frequency ranges
- Most models available in bright chrome or black finish
- Antenna is ready to install; no rod cutting is required (unless otherwise noted)
- Designed to mate with all 1-1/8"-18 thread mounts, including 3/4" mounts
- Spring-loaded gold plated contact pin



### Technical Data

<b>Maximum Power:</b> 200 watts (VHF models) 150 watts (UHF models) 100 watts (all other models)
<b>Polarization:</b> Vertical
<b>Nominal Impedance:</b> 50 ohms
<b>VSWR at Resonance:</b> < 1.5:1 (Most models, except as noted below) < 1.9:1 (MAX7635S only) < 2.0:1 [(B)MAX150/450(S) and (B)MAX140/440(S)]
<b>Radiator Material:</b> .100" OD stainless steel; bright (MAXC) or black finish (BMAXC) .062" diameter black stainless steel
<b>Spring:</b> Stainless steel; bright or black finish (not all options available with every model)
<b>Base Coil Housing:</b> Molded polymer with a plated insert ring and a spring-loaded contact pin
<b>Phasing Coil Housing:</b> Molded polymer jacket with copper, nickel and chrome plated bushing
<b>Rod Ferrule:</b> 5/16" -24 thread; bright or black chrome plated finish
<b>Mount Method:</b> Mates with all 1-1/8"-18 thread mounts, including 3/4" mounts

## Antenna Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Rod Type
(B)MAXMFT(S)*	118-940 MHz	Field Tunable	Unity	Straight
(B)MAX150D(S)*	150-174 MHz	160 MHz	Unity	Collinear/Open
BMAX150/450(S)*	150-174 MHz/450-470 MHz	160/460 MHz	Unity	Collinear/Closed
MAXSCAN1000(S)*	150-174 MHz/450-470 MHz/800-840 MHz	160 MHz/460 MHz/ n/a	Unity	Collinear/Closed
BMAXSCAN1000	150-174 MHz/450-470 MHz/800-840 MHz	160 MHz/460 MHz/ n/a	Unity	Collinear/Closed
MAX455	450-470 MHz	Field Tunable	5 dB	Collinear/Closed
(B)MAX7603S*	760-870 MHz	815 MHz	3 dB	Collinear/Open
BMAX7633S*	760-870 MHz	815 MHz	3 dB	Collinear/Closed
(B)MAX7635S*	760-870 MHz	Broadband**	5 dB	Trilinear/Closed
(B)MAX8055(S)*	806-866 MHz	815 MHz	5 dB	Trilinear/Closed
MAX8135	806-866 MHz	815 MHz	5 dB	Trilinear/Open
BMAX8033(S)*	806-896 MHz	835 MHz	3 dB	Collinear/Closed
MAX8033	806-896 MHz	835 MHz	3 dB	Collinear/Closed
(B)MAX8053(S)*	806-896 MHz	835 MHz	3 dB	Collinear/Open
BMAX8155S*	806-896 MHz	Broadband**	4.5 dB	Collinear/Closed
BMAX824/1850*	824-896 MHz/1850-1990 MHz	Broadband**	2.2 dBi/4 dBi	Collinear/Open
(B)MAX8355(S)*	825-896 MHz	835 MHz	5 dB	Trilinear/Open
MAX8375	825-896 MHz	835 MHz	5 dB	Trilinear/Closed
BMAX9105(S)*	870-950 MHz	898 MHz	5 dB	Trilinear/Closed
MAX9105	870-950 MHz	898 MHz	5 dB	Trilinear/Closed
BMAX9155S*	890-945 MHz	Broadband**	4.0 dB	Collinear/Closed
MAX9053	896-940 MHz	896 MHz	3 dB	Collinear/Open
MAX9075	896-940 MHz	896 MHz	5 dB	Trilinear/Open
(B)MAX9085S*	896-940 MHz	896 MHz	5 dB	Trilinear/Closed
(B)MAXC24503*	2.2-2.9 GHz	Broadband**	3 dBi	Collinear/Closed
(B)MAXC24505*	2.2-2.9 GHz	Broadband**	5 dBi	Collinear/Closed
BMAXC233805*	2.3-3.8 GHz	Broadband**	5 dBi	Collinear/Closed

\* Prefix "B" indicates black. Suffix "S" indicates spring.  
\*\* Optimized across the entire specified frequency range.

## MOBILE ANTENNAS

### MAX Base Antennas

#### Mechanical Specifications

Model	Antenna Height at lowest frequency	Antenna Type
(B)MAXMFT(S)	Approximately 26"	1/4 wave
(B)MAX150D(S)	Approximately 17"	1/4 wave
BMAX150/450(S)	Approximately 20"	1/4 wave/Collinear array
MAXSCAN1000(S)	Approximately 21"	1/4 wave or Collinear array
(B)MAXSCAN1000	Approximately 21"	1/4 wave or Collinear array
MAX455	Approximately 33"	5/8 wave over a 1/2 wave
(B)MAX7603S	Approximately 14"	Wideband collinear
BMAX7633S	Approximately 14"	Wideband collinear
(B)MAX7635S	Approximately 25"	Dual 1/2 wave over a 1/4 wave
(B)MAX8055(S)	Approximately 24"	Dual 1/2 wave over a 1/4 wave
MAX8135	Approximately 24"	Dual 1/2 wave over a 1/4 wave
BMAX8033(S)	Approximately 13"	5/8 wave over a 1/4 wave
MAX8033	Approximately 13"	5/8 wave over a 1/4 wave
(B)MAX8053(S)	Approximately 13"	5/8 wave over a 1/4 wave
BMAX8155S	Approximately 13"	Collinear array
BMAX824/1850	Approximately 12"	Dual Band Collinear
(B)MAX8355(S)	Approximately 24"	Dual 1/2 wave over a 1/4 wave
MAX8375	Approximately 13"	5/8 wave over a 1/4 wave
BMAX9105(S)	Approximately 23"	Dual 1/2 wave over a 1/4 wave
MAX9105	Approximately 23"	Dual 1/2 wave over a 1/4 wave
BMAX9155S	Approximately 13"	Collinear array
MAX9053	Approximately 11"	5/8 wave over a 1/4 wave
MAX9075(S)	Approximately 23"	Dual 1/2 wave over a 1/4 wave
MAX9085(S)	Approximately 23"	Dual 1/2 wave over a 1/4 wave
(B)MAXC24503	5.25" (133.35 mm)	ISM mobile and WLAN
(B)MAXC24505	7.50" (190.50 mm)	ISM mobile and WLAN
BMAXC233805	4.75" (12.06 cm)	WiMAX mobile