TOC

Click for Table of Contents (TOC).
From there you can navigate
to the section you need.

PCTEL
simplifying mobility

INFRASTRUCTURE ANTENNAS

TABLE OF CONTENTS **Click on item to navigate to that page**

Infrastructure Antennas

In-Building Antennas: Ceiling Mount Antennas
Dual-band, Ceiling Mount MIMO Omnidirectional Antennas 91
Above Ceiling Mount Diversity Omnidirectional Antennas 92
Ceiling Mount Omnidirectional Diversity Antenna 93
Multi-band Ceiling Mount Omnidirectional Antenna-698 MHz-6GHz 94
Ceiling Mount Omnidirectional Antennas 95
Low Profile Ceiling Mount Omnidirectional Antennas .. 96
Wi-Fi Ceiling Mount Omnidirectional Antennas 97
Miniature Ceiling Mount Antenna 98
Ceiling Mount Bi-directional Antenna 99

In-Building Antennas: Surface Mount Antennas
Mobile Low Profile Vertical Antennas 100
No Ground Plane Low Profile Vertical Antennas 102
Miniature Stud Mount Omnidirectional Antenna for Wi-Fi Applications 104
Enclosure Mounted Multi-Band Low Profile Vertical Antenna 105
Inside Window Glass Mount 106

In-Building Antennas: Portable/Access Point Antennas
MPAMB Series Portable Omnidirectional Antennas 107
Portable Antennas for Data Transfer Applications 108
Wideband Portable Gain Antennas 109

In-Building Antennas: Wall Mount Antennas
Wi-Fi Diversity Directional Panel Antenna 110
Dual-band, Six-Port MIMO Wall Mount Directional Panel Antenna 111
Multi-Band Dual Diversity Directional Panel Antenna 112
Wi-Fi Wall Mount Diversity Omnidirectional Antenna ... 113
Directional Panel Antennas 114

Infrastructure Antennas: Omnidirectional Antennas
Mast Mount Omnidirectional (MMO) Antennas 116
5GHz White PCTEL High Performance Omnidirectional Antennas 117
2.4-2.7GHz White MAXRAD High Performance Omnidirectional Antennas 118
Fiberglass Base Station (MFB) Omnidirectional Antennas 119
PCTEL Carrier Grade VHF/UHF Omnidirectional Base Station Antennas 121
PCTEL Carrier Grade 900MHz Omnidirectional Base Station Antennas 122
800/900 MHz MAXRAD Fiberglass Base Station (MFB) Omnidirectional Antennas 123
746-869 MHz, 3 dB Gain MAXRAD Fiberglass Base Station (MFB) Omnidirectional Antennas 125
VHF/UHF White MAXRAD Fiberglass Base Station (MFB) Omnidirectional Antennas 126

Infrastructure Antennas: Sectorized Antennas
2.4 GHz ISM All Terrain Sectorized Omnidirectional Antenna 128

Infrastructure Antennas: Sector Panel Antennas
4.9-5.9GHz 65° & 90° Sector Panels 129
3.3-3.8GHz 65° & 90° Sector Panel 130
2.3-2.7GHz 65° & 90° Sector Panel 131
2.3-2.7GHz 60° & 90° Sector Panel with Double Null Fill 132
2.3-2.7GHz 60° & 90°Sector Panel with Null Fill 133
4.9-5.9GHz 65°, 90° & 120° Sector Panels 134
Wideband Adjustable Sector Panel 135
Dual Band, Dual Input Sector Panel 136
Adjustable or Fixed Sector Panels 137
ISM Sector Panels 139

Infrastructure Antennas: Directional Panels
Directional Linear Polarized Panel Antennas 141
Directional Panel Antennas for Indoor or Outdoor Applications 142
800/900 MHz and Cellular 3G Directional Panel Antennas 144
WISP Directional Panel Antennas 146

TABLE OF CONTENTS

Click on item to navigate to that page

Infrastructure Antennas: Yagi Antennas

Enclosed Yagi Antenna Series 147
Marathon Yagi Antenas, 800/900 MHz Series 149
Marathon Yagi Antennas, 400 MHz Series..... 151
Bluewave Guardian Yagi Antennas..... 153
Black Optimized Yagi Antennas 154
Aluminum Yagi Antennas..... 156

Infrastructure Antennas: Corner Reflector

MCR Broadband Corner Reflector Antennas Series..... 159

Infrastructure Antennas: Parabolic Reflector

2.3-2.7GHz Parabolic Reflector Antenna Series with Radome 160
3.3-3.8GHz Parabolic Reflector Antenna Series with Radome 161
4.9-6.0GHz Wideband Parabolic Reflector Antenna Series with Radome..... 162
4.9-6.0GHz Wideband Dual Polarized Parabolic Reflector Antenna Series with Radome 163

Infrastructure Antennas: Mounts and Accessories

MBS Series Base Station Adapters 164
Mounts for Omnidirectional Antennas 165
Mounts for Directional Antennas..... 166
Surge Suppressors..... 167
Lightning Arrestor for Bluewave Antenna Series 168
Cable Assembly Parts Number Guide..... 169
High Efficiency, Low Loss Coaxial Cable Specification Chart 170

Infrastructure Antennas: Enclosures

NEMA Enclosure Nomenclature Guide..... 171
IOM Series Enclosure 172

Dual-band, Ceiling Mount MIMO Omnidirectional Antennas

The **PCTCMI2458-6 and PCTCMI2458-3** dual-band MIMO antennas provide diversity coverage of 2.4-2.5 GHz WiFi, 4.9-5.9 GHz Public Safety/ISM/WiFi/ WiMAX broadband wireless frequencies in an attractive, low profile housing. These antennas are designed for in-building ceiling mount installations utilizing 802.11n multi-band wireless LAN access point radios. Two easy to install models are available for use with 6-port or 3-port MIMO radios.

Features

- Multi-band coverage of 2.4-2.5 GHz ISM, 4.9-5.9 GHz broadband wireless frequencies with every element
- Six-port or three-port dual band integrated elements terminated with high performance, low loss Plenum rated cable
- Single (PCTCMI2458-3) or dual (PCTCMI2458-6) stud mount cable exits for quick and simple installation
- Attractive low profile radome addresses in-building aesthetic considerations
- UL 94-V0 listed materials and Plenum rated cable for compliance to strict building safety code specifications

PCTCMI2458-6
(dual stud cable exit)

PCTCMI2458-3
(single stud cable exit)

RF/Electrical Specifications

Model	Frequency Range	Vertical Beamwidth	Nominal Gain	VSWR
PCTCMI2458-6	2.4-2.5 GHz 4.9-5.9 GHz	55° 45°	2.5 dBi (2.4-2.5 GHz) 3.0 dBi (4.9-5.9 GHz)	< 2.0:1
PCTCMI2458-3	2.4-2.5 GHz 4.9-5.9 GHz	55° 45°	2.5 dBi (2.4-2.5 GHz) 3.0 dBi (4.9-5.9 GHz)	< 2.0:1

Mechanical Specifications

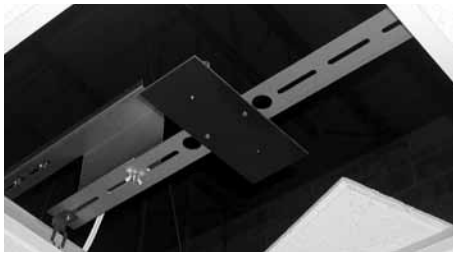
Model	Dimensions	Temperature Range	Cable
PCTCMI2458-6	9.1 L x 6.6 W x 1.6 D inches	-30°C to +70°C	Six (6) 3-feet Plenum RG-58/U CL2P
PCTCMI2458-3	9.1 L x 6.6 W x 1.6 D inches	-30°C to +70°C	Three (3) 3-feet Plenum RG-58/U CL2P

Technical Data

Maximum Power: 25 watts
Nominal Impedance: 50 ohm
Polarization: Vertical, linear
Antenna Housing Material: Off-white PC/ABS Plastic
Connectors: Reverse Polarity SMA Male*
Mounting Method: Ceiling Mount. Single 1.5-inch stud mount cable exit (PCTCMI2458-3) Two 1.5-inch stud mount cable exits (PCTCMI2458-6) 7/8-14 UNF plastic HEX-nuts and flat washers included

*** Standard models. Contact Customer Service to request other connector options.**

UFDD24580303PT



UFODAP1200 installed above ceiling

Above Ceiling Mount Diversity Omnidirectional Antennas

These ultra-flat dual band antennas are designed for above ceiling mount spatial diversity installations. They are terminated with 3 ft. Plenum rated pigtails that can be fitted with various types of connectors. An above ceiling mount MACM (sold separately) is designed to keep the antenna out-of-sight.

Features

- Efficient omnidirectional diversity performance. Provides the excellent performance of two or four omnidirectional antennas in a single low profile design.
- Above ceiling mount (sold separately) makes antenna invisible to occupied areas.
- Utilizes UL94-V0 materials that provide UL's high flame retardant ratings for maximum placement flexibility.
- Plenum rated cable can be installed in many indoor mounting locations.

Technical Data

Maximum Power Input: 25 watts 20 watts (UFOD24003PT only)
Polarization: Vertical, linear
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Radome Housing: No radome
Mounting Method: Adjustable mounting bracket for suspended above ceiling installations (sold separately as part #MACM)
Cable: Four 3 ft Plenum rated RG-58/U (UFDD24580303PT only) Two 3 ft Plenum RG-58/U (UFODAP1200 and UFOD24003)
Connector Options: (add connector part number after the PT prefix) Example: UFOD24003PTNF (model UFOD24003 with N, female connector) N female (part #NF) Reverse Polarity TNC (part #RPC) Reverse Polarity SMA Plug (part #RPMSMA)

RF/Electrical Specifications

Model	Frequency Ranges	Nominal Gain	Isolation Between Antennas	Horizontal Beamwidth	Vertical Beamwidth
UFOD24003PT	2.4-2.5 GHz	3 dBi	> 25 dB	360°	55°
UFODAP1200*	2.4-2.5 GHz	3 dBi	> 25 dB	360°	55°
UFDD24580303PTRPC	2.4-2.5 GHz 4.9-5.9 GHz	3 dBi 3 dBi	> 25 dB > 25 dB	360° 360°	55° 40°

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range
UFOD24003PT	5" L x 10" W x 0.12" H (12.7 x 25.4 x 0.32 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C
UFODAP1200*	36" L x 9" W x 9" H (assembled) 26.5" L x 8.5" W x 3" H (shipped)	3.5 lbs (1.59 kg)	-40°C to +70°C
UFDD24580303PTRPC	9" L x 9" W x 1/8" D	0.75 lbs	-40°C to +70°C

*** This model is a UFOD24003PTRPC and includes MACMAP above ceiling bracket for Cisco AP1200 access points.**

Ceiling Mount Omnidirectional Diversity Antenna

The MCD2400PT combines two flat ceiling mount omnidirectional antennas in a single housing for efficient spatial diversity installations. This antenna is designed to cover frequencies from 2400 to 2485 MHz with a VSWR of less than 1.5:1 and an isolation between two elements of more than 20 dB. A dual stud drop ceiling mount makes for effortless installation. The antenna includes pigtails that can be terminated with various types of connector options.

MCD2400PT

MCD2400PT
with ceiling mount adapter

Features

- Efficient omnidirectional diversity performance. Provides the excellent performance of two omnidirectional antennas in a single low profile housing.
- Attractive, low profile housing. Blends well in office environments and other locations where aesthetic considerations are important.
- UL listed materials and cable. Meets strict safety specifications.
- Dual stud drop ceiling mount. Easy to install on standard ceiling tiles or solid ceiling surfaces.
- Includes side cable exit adapter for solid ceiling mounting.

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain	Isolation	Horizontal Beamwidth	Vertical Beamwidth
MCD2400PT	2.4-2.485 GHz	2.5 dBi	> 20 dB	360°	40°
MCD2400PT36	2.4-2.485 GHz	2.2 dBi	> 20 dB	360°	40°

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range
MCD2400PT	4.25” W x 8.5” L x 0.5” H (10.8 x 21.59 x 1.27 cm)	1 lb (0.45 kg)	-40°C to +80°C
MCD2400PT36	4.25” W x 8.5” L x 0.5” H (10.8 x 21.59 x 1.27 cm)	1 lb (0.45 kg)	-40°C to +80°C

PCTEL

Technical Data

Maximum Power Input:
50 watts

Polarization:
Vertical, linear

Nominal Impedance:
50 ohms

VSWR:
< 1.5:1

Radome Housing:
UL 94-V0 plastic

Mounting Method:
Dual stud mount.
Above ceiling tile mounting bracket is available for applications requiring no visibility of the antenna (sold separately).
Side cable exit adapter for solid ceiling mounting (included).

Cable:
Dual 12” (30.5 cm) Plenum RG-58/U CL2P
MCD2400PT36 includes two 36” (91.4 cm) Plenum RG-58/U CL2P pigtails

Connector Options:
(add connector part number after the PT prefix)

Example: MCD2400PTNF (model MCD2400PT with N, female connector)

N female (part #NF)
Reverse Polarity TNC (part #RPC)
Reverse Polarity Male SMA (part #RPMSMA)

Multi-band Ceiling Mount Omnidirectional Antenna-698 MHz-6GHz

The PCTCMB in-building antenna offers great value for OEMs, VARs and Systems Integrators looking for multi-band coverage, performance reliability and an attractive "consumer oriented" housing at an affordable price. Ideal applications include in-building public safety, retail establishments, enterprise networks, public "hot spots" and facilities management.

Features

- No tune, multi-band platform covers the most widely used in-building frequencies
- N female flange connector termination with jam nuts and washer provides a single cable exit for easier installation and/or antenna replacement
- Aluminum backplate template with drill guiding screw holes for faster, easier installation and labor cost optimization
- Attractive low profile design addresses aesthetic considerations and overhead clearance requirements
- UL 94V-0 plastics and PC boards for compliance with strict building safety code requirements
- Outstanding value: PCTEL world-known antenna quality and reliability, a competitive price; and a single antenna covering multiple frequency applications

Technical Data

Maximum Power: 50 watts
Polarization: Vertical, linear
Nominal Impedance: 50 ohms
VSWR: < 2.0:1 across the band
Housing Material: White, UL 94V-0, UV resistant plastic
Connector Termination: N female bulkhead standard* *Please order cable assembly with mating N male termination separately
Mounting Method Options (included): Screw mount (screws provided) 1.8" L N female bulkhead with two 5/8-24 jam nuts and flat washer (included)

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain	Return Loss
PCTCMB7058NF	698-850 MHz	1.5 dBi	≥9.5dB
	850-960 MHz	2 dBi	≥9.5dB
	1710-2170 MHz	4 dBi	≥9.5dB
	2300-2700 MHz	5 dBi	≥9.5dB
	3400-3700 MHz	5 dBi	≥9.5dB
	4900-6000 MHz	6 dBi	≥9.5dB

Mechanical Specifications

Model	Dimensions (Height x Diameter)	Weight (Mass)	Temperature Range
PCTCMB7058NF	3.2 x 12 inches (82 x 305 millimeters)	1.1 lbs (0.5 kg)	-40°C to 80°C

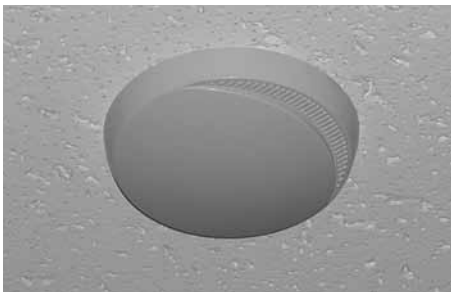
Ceiling Mount Omnidirectional Antennas

The MC series of antennas provide a low profile ceiling mount solution for indoor applications requiring maximum performance with minimum visibility.

They include a Plenum rated pigtail that can be fitted with a wide variety of connector options. They can be easily mounted to drop ceiling tiles or to a solid ceiling surface where cable routing access is available.

Features

- Attractive, low profile housing. Blends well in office environments and other locations where aesthetic considerations are important.
- UL listed materials and cable. Meets strict safety specifications.
- Single hole stud mount or optional side cable exit option. Easy to install on standard ceiling tiles or solid ceiling surfaces.
- Includes side cable exit adapter for solid ceiling mounting.
- Excellent value: superior performance at a competitive price.



The MC antennas are available for various frequency ranges

MC antenna with ceiling mount adapter

RF/Electrical Specifications

Model	Frequency Range	Gain
MC2400PT*	2.3-2.5 GHz	2.5 dBi
MC24580304PT	2.4-2.48 GHz / 4.94-5.85 GHz	3 dBi / 4 dBi
MC4900PT	4.9-5.8 GHz	2.5 dBi

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Cable
MC2400PT*	4.25” OD x 0.5” D 10.8 x 1.27 cm	8 oz. (0.23 kg)	-40˚C to +80˚C	12” (30.5 cm) Plenum RG-58/U
MC24580304PT	4.25” OD x 0.5” D 10.8 x 1.27 cm	10 oz. (0.28 kg)	-40˚C to +80˚C	18” (45.75 cm Plenum RG-58/U
MC4900PT	4.25” OD x 0.5” D 10.8 x 1.27 cm	10 oz. (0.28 kg)	-40˚C to +80˚C	18” (45.75 cm Plenum RG-58/U

PCTEL

Technical Data

Maximum Power Input:
50 watts
25 watts (MC24580304PT only)

Polarization: Vertical, linear

Nominal Impedance: 50 ohms

Nominal VSWR:
< 2.0:1

Radome Housing: 94-V0 plastic

Connector Options:
(add connector part number after the PT prefix)

Example: MC2400PTNF (Model MC2400PT with N, female connector)

N, Female (part #NF)
Female SMA (part #FSMA)
Reverse Polarity TNC Plug (part #MRPC)

Mounting Method:
Stud mount, single hole.
Includes side cable exit adapter for solid ceiling mounting.
Above ceiling tile mounting bracket is available for applications requiring no visibility of the antenna (sold separately as part #MACM).

*** This model also available with a 36 inch pigtail and Reverse Polarity TNC plug (Model MC2400PT36RPC)**

MLPC Series

Low Profile Ceiling Mount Omnidirectional Antennas

The MLPC low profile ceiling mount antennas provide superior pattern coverage for ceiling mount applications using 700 MHz, 800/900 MHz, PCS and WLAN frequencies. They are designed to provide industry leading wideband performance and reliability, with minimum loss and no tuning required. The innovative design of this series comprises an attractive low profile antenna installed on a standard ceiling mount public address (P.A.) speaker baffle that provides a built-in ground plane, and complements the decor in most in-building applications. They come standard with an N female bulkhead connector.

Features

- Wideband coverage. No tuning is required.
- Built-in ground plane. Can be installed on any ceiling tile location without the need to provide a ground plane.
- Attractive low profile. These antennas easily complement the decor in most in-building locations.
- Excellent pattern coverage, outstanding performance and reliability.

Technical Data

Maximum Power Input: 150 watts
Polarization: Vertical, linear
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Mounting Method: Off-white ceiling-mounted P.A. speaker baffle
Cable: Purchase cable assembly separately

RF/Electrical Specifications

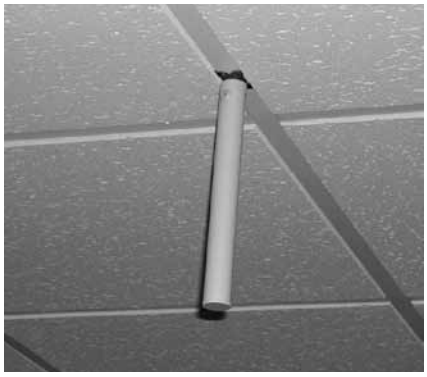
Model	Frequency Range	Gain
MLPC700	740-870 MHz	3.0 dBi
MLPC800	806-960 MHz	3.0 dBi
MLPCDB800/1900	806-960 MHz and 1.7-2.5 MHz	2.0 dBi (at 800 MHz) 3.5 dBi (at 1900-2500 MHz)
MLPC1700	1.7-2.5 GHz	3.5 dBi

Mechanical Specifications

Model	Connector	Dimensions	Weight (Mass)	Temperature Range
MLPC700	N, female	12.87” OD x 2.75” H (32.7 x 6.98 cm)	0.5 lbs (0.23 kg)	-40°C to +85°C
MLPC800	N, female	12.87” OD x 2.75” H (32.7 x 6.98 cm)	0.5 lbs (0.23 kg)	-40°C to +85°C
MLPCDB800/1900	N, female	12.87” OD x 1.87” H (32.7 x 4.76 cm)	0.5 lbs (0.23 kg)	-40°C to +85°C
MLPC1700	N, female	12.87” OD x 1.87” H (32.7 x 4.76 cm)	0.5 lbs (0.23 kg)	-40°C to +85°C

Wi-Fi Ceiling Mount Omnidirectional Antennas

These antennas are designed to cover frequencies from 2400 to 2485 MHz with a VSWR of less than 2.0:1. The broad elevation plane radiation pattern has been shaped to direct energy where it is needed, while suppressing the misdirected upper and lower sidelobe energy. The result is excellent coverage for a variety of in-building applications.



MCO24005PT

Features

- Optimized radiation pattern focuses energy where it is needed while suppressing upper and lower sidelobe energy.
- UL Plenum rated RG-58/U coax cable and UL94-V0 radome. Meet strict safety specifications.
- Include a 1/4-20" insert that allows clipping to standard ceiling rails for simple in-building installations.

RF/Electrical Specifications

Model	Frequency Range	Gain	Horizontal Beamwidth	Vertical Beamwidth
MCO24005PT	2.42.485 GHz	5.5 dBi	360°	32°
MCO24005PT36	2.42.485 GHz	5.2 dBi	360°	32°

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range
MCO24005PT	9.8" L x 1.0" OD (24.8 x 2.54 cm)	8 oz. (0.23 kg)	-30°C to 75°C
MCO24005PT36	9.8" L x 1.0" OD (24.8 x 2.54 cm)	8 oz. (0.23 kg)	-30°C to 75°C

Technical Data

Maximum Power:
5 watts

Polarization:
Vertical, linear

Nominal Impedance:
50 ohms

VSWR:
<2.0:1

Radome Material:
UL 94V-0 plastic

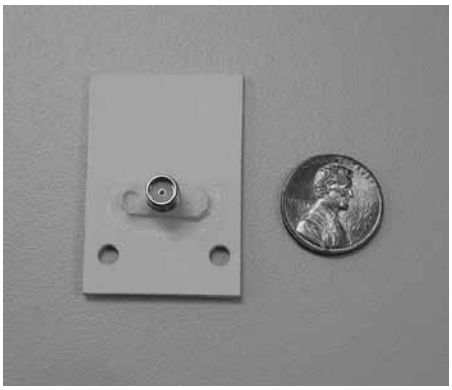
Wind Survival:
125 mph

Cable:
12" (30.5 cm) RG-58/U (MCO24005PT)
36" (91.5 cm) RG-58/U (MCO24005PT36)

Connector Options:
(add connector part number after the PT prefix)

BNC, Male (part #BN)
N, Female (part #NF)
Reverse Polarity SMA Plug (part #RPMSMA)*
Reverse Polarity TNC Plug (part #RPC)
Reverse Polarity BNC (part #RPBN)

Mounting Method:
1/4-20 insert for clipping to a ceiling tile rail



Miniature Ceiling Mount Antenna

The MCMI24003FSMA miniature ceiling mount omnidirectional antenna provides wideband coverage of frequencies from 2.4 to 2.5 GHz without tuning. This antenna's minute housing is designed for minimum visibility in ceiling mount in-building installations.

Features

- Miniature design is virtually invisible for indoor installations with strict aesthetic requirements
- Made of UL94-V0 materials that conform to UL's high flame retardant ratings for maximum placement flexibility
- Simple screw mount installation
- Excellent gain performance with a low VSWR

Technical Data

Maximum Power: 10 watts
Polarization: Vertical, linear
VSWR: < 1.5:1
Nominal Impedance: 50 ohms
Connector: Female SMA
Mounting Method: Holes are provided for mounting to a flat ceiling with plastic screws (included)

RF/Electrical Specifications

Model	Frequency Range	Gain	E-plane Beamwidth	H-plane Beamwidth
MCMI24003FSMA	2.4-2.5 GHz	3 dBi	70°	360°

Mechanical Specifications

Model	Dimension	Weight	Temperature
MCMI24003FSMA	1.13" x 1.65" (2.87 x 4.19 cm)	0.2 oz 0.005 kg)	-40°C to +80°C

Ceiling Mount Bi-directional Antenna

The MHA24580406PT bi-directional indoor antenna is designed for minimum visibility and efficient bi-directional coverage of Wi-Fi and 4.9 GHz Public Safety frequencies. This antenna includes a Plenum rated pigtail that can be terminated with various connector options. Its discrete, bi-directional design makes them ideal for use in hallways and corridors in many types of applications requiring extended wireless coverage in opposite directions.

MHA Antenna

Features

- Point-to-point, bi-directional design. Provides extended wireless coverage in two directions. Ideal for use in long corridors where a more targeted radiated signal is necessary to achieve adequate coverage.
- Attractive, low profile housing. Blends well in office environments and other locations where aesthetic considerations are important.
- UL listed materials and cable. Meets strict UL safety specifications.
- Mounting bracket clips to standard one inch wide suspended ceiling tile rails. Holes provided for screw ceiling mounting (screws not provided).

RF/Electrical Specifications

Model	Frequency Range	Gain	Horizontal Beamwidth	Vertical Beamwidth
MHA24580406PT	2.4-2.48 GHz/ 4.94-5.85 GHz	4 dBi / 6 dBi	70° / 55°	70° / 55°

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Cable
MHA24580406PT	3" W x 2.5" H x 0.45" D (7.6 x 6.35 x 1.14 cm)	2.6 oz (0.07 kg)	-40°C to +70°C	18" (45.72 cm) Plenum RG-58/U

PCTEL

Technical Data

Maximum Power Input: 25 watts
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Radome Material: UL 94V-0 plastic
Connector Options: (add connector part number after the "PT" prefix) Male N (part #NF) Reverse Polarity TNC (part #RPC)
Mounting Method: Mounting bracket clips to standard one inch wide suspended ceiling tile rails. Holes are provided for mounting to a flat ceiling with screws (not included).


BMLPV450


MLPV800


WMLPVDB800/1900S


BMLPV800HD

Mobile Low Profile Vertical Antennas

The MLPV antennas provide superior pattern coverage for mobile and fixed applications from 380 MHz to 5.8 GHz. Their design provides industry leading wideband performance and reliability, with minimum loss and no tuning required. Dual band versions (MLPVDB series) are also available. All models feature an attractive, compact housing environmentally tested for both indoor or outdoor applications.

Features

- Attractive, low profile design for maximum overhead clearance
- Industry leading wideband performance provides outstanding coverage across multiple frequency bands with no tuning required
- Mates with all 1-1/8”-18 thread mounts, including 3/4” mounts
- Wideband, multi-band and no ground plane models available
- Black over chrome base standard. Also available in white over chrome or black over black base
- “Easy grip” HD models available

Mounting

The following mounts are recommended with the MLPV antennas on the next page:

Model	Options
MLFML195C	High performance permanent 3/4” hole, 1-1/8”-18 thread mount. Includes 17 ft of Pro-Flex™ Plus 195 cable. Loose TNC male connector included.
GMLFML195C	High performance permanent 3-1/4” diameter magnetic base, 1-1/8”-18 thread mount. Includes 12 ft of Pro-Flex™ Plus 195 cable terminated with TNC male connector (attached).
MTPM800	5/8” hole, 1-1/8”-18 thread mount for surfaces up to 1/2-inch thick. Terminates in an N, female connector. No cable.*
MVP	5/8” hole, vandal proof mount. No cable.*
MMF	3/4” hole, 1-1/8”-18 mount for frequencies above 1 GHz. Terminates in an SMA, male connector. No cable.*

Technical Data

Maximum Power: 150 watts (all models, except UHF) 100 watts (UHF models)
Polarization: Vertical
Nominal Impedance: 50 Ohm
VSWR: < 1.5:1 < 2.0:1 (dual-band and UHF models)
Ingress Protection: IP66
Color (add to prefix to indicate choice): Black over chrome (prefix not needed), black over black (B) or white over chrome (W).
Mount Method: Compatible with most 1-1/8” - 18 thread mounts, including 3/4” hole mounts

***Order cable assembly separately.**

RF/Electrical Specifications

Model	Frequency Range	Bandwidth	Gain***
MLPV380	380-410 MHz	30 MHz	Unity
MLPV406	406-440 MHz	34 MHz	Unity
MLPV430	430-480 MHz	50 MHz	Unity
MLPV450	450-512 MHz	62 MHz	Unity
MLPV698	698-806 MHz	108 MHz	Unity
MLPV700	740-870 MHz	130 MHz	3 dBi***
MLPV800	806-960 MHz	154 MHz	3 dBi***
BMLPV800HD	806-960 MHz	154 MHz	3 dBi***
BMLPVDB700/2500	698-960 MHz and 1710-2500 MHz	262 MHz and 790 MHz	3 dBi / 4 dBi
MLPVDB800/1900	806-960 MHz and 1710-1990 MHz	154 MHz and 280 MHz	3 dBi/4 dBi
BMLPVDB800/1900HD	806-960 MHz and 1710-1990 MHz	154 MHz and 280 MHz	3 dBi/4 dBi
MLPVDB800/1900S	806-960 MHz and 1710-2500 MHz	154 MHz and 790 MHz	3 dBi/4 dBi
MLPVDB902/2400	902-928 MHz and 2400-2500 MHz	26 MHz and 100 MHz	3 dBi/4 dBi
MLPVDB902/2400S	902-928 MHz and 2400-2500 MHz	26 MHz and 100 MHz	3 dBi/4 dBi
MLPV1700	1700-2700 MHz	1000 MHz	4 dBi***
MLPVDB2458	2.4-2.5 GHz and 4.9-5.9 GHz	1000 MHz	4 dBi
MLPV4900	4.9-5.9 GHz	1000 MHz	4 dBi

Mechanical Specifications

Model (all colors)*	Antenna Dimensions	Weight (Mass)	Temperature Range
MLPV380	3.38” H x 1.5” OD	0.31 lbs (.14 kg)	-40° C to 70° C
MLPV406	3.38” H X 1.5” OD	0.31 lbs (.14 kg)	-40° C to 70° C
MLPV430	3.38” H X 1.5” OD	0.31 lbs (.14 kg)	-40° C to 70° C
MLPV450	3.38” H X 1.5” OD	0.31 lbs (.14 kg)	-40° C to 70° C
MLPV698	3.38” H X 1.5” OD	0.31 lbs (.14 kg)	-40° C to 70° C
MLPV700	2.4” H X 1.5” OD	0.29 lbs (0.13 kg)	-40° C to 70° C
MLPV800	2.4” H X 1.5” OD	0.29 lbs (0.13 kg)	-40° C to 70° C
BMLPV800HD	2.4” H x 1.5” W x 1.7” D (at the base)	0.44 lbs (0.19 kg)	-40° C to 70° C
BMLPVDB700/2500	2.4” H x 1.5” OD	0.29 lbs (0.13 kg)	-40° C to 70° C
MLPVDB800/1900	2.4” H X 1.5” OD	0.29 lbs (0.13 kg)	-40° C to 70° C
BMLPV800/1900HD	2.4” H x 1.5” W x 1.7” D (at the base)	0.44 lbs (0.19 kg)	-40° C to 70° C
MLPVDB800/1900S	1.79” H x 1.5” OD	0.29 lbs (0.13 kg)	-40° C to 70° C
MLPVDB902/2400	2.4” H X 1.5” OD	0.29 lbs (0.13 kg)	-40° C to 70° C
MLPVDB902/2400S	1.79” H x 1.5” OD	0.29 lbs (0.13 kg)	-40° C to 70° C
MLPV1700	1.79” H x 1.5” OD	0.34 lbs (0.15 kg)	-40° C to 70° C
MLPVDB2458	1.79” H x 1.5” OD (at the base)	0.34 lbs (0.15 kg)	-40° C to 70° C
MLPV4900**	1.79” H x 1.5” OD (at the base)	0.34 lbs (0.15 kg)	-40° C to 70° C

*** To order black over black version, add the prefix “B” to the part number. To order the white over chrome version, add the prefix “W” to the part number. Not all models are available in black or white. Call Customer Service for availability.**
***** Measured on a 4 foot diameter ground plane. Gain is ground plane dependent.**

BMLPV900NGP or BMLPV2400NGP

BMLPV900NGPVP or BMLPV2400NGPVP

MLPV4900NGP antenna

MLPV4900NGP connector interface

No Ground Plane Low Profile Vertical Antennas

These low profile antennas provide superior pattern coverage for mobile and fixed applications up to 5GHz. The no ground plane design provides industry leading performance and reliability, with minimum loss and no tuning required. This antenna series features an attractive, compact housing ideal for both indoor or outdoor applications. Antennas can be purchased separately, or as a kit assembly with the MVP mount for permanent installations.

Features

- Attractive, low profile design for maximum overhead clearance
- Industry leading performance provides outstanding coverage across multiple frequency bands without a ground plane
- Mates with all 1-1/8”-18 thread mounts, including 3/4” mounts

Mounting

The following mounts are recommended for the MLPV4900NGP only:

Model	Options
MTPMHF	High frequency 5/8” hole, 1-1/8”-18 thread mount for surfaces up to 1-inch thick. N female connector. No cable.*
MVPHF	High frequency 5/8” hole, 1-1/8”-18 thread. Vandal proof mount for surfaces 1/2 to 1-inch thick. M to N female connector. No cable.*
MHFML195C	High performance permanent 3/4” hole, 1-1/8”-18 thread mount. Includes 17 ft of Pro-Flex™ Plus 195 cable. TNC male connector included (loose).
GMHFML195C	High performance 3-1/4” diameter magnetic base, 1-1/8”-18 thread mount. Includes 12 ft of Pro-Flex™ Plus 195 cable terminated with TNC male connector (attached).

The following mounts are recommended for the MLPV2400NGP and MLPV900NPG:

Model	Options
MLFML195C	Permanent mount for frequencies from 800 MHz to 3.0 GHz, 1-1/8”-18 thread. Includes 17 ft of Pro-Flex™ Plus 195 cable. TNC male connector included (loose).
MVP	5/8” hole, vandal proof mount. No cable.*

Technical Data

Maximum Power: 100 watts
Polarization: Vertical
Nominal Impedance: 50 Ohm
VSWR: < 2.0:1
Ingress Protection: IP66
Color: Black over black
Mount Method: Compatible with most 1-1/8” - 18 thread mounts, including 3/4” hole mounts

***Order cable assembly separately.**

RF/Electrical Specifications

Model	Frequency Range	Bandwidth	Gain**
BMLPV900NGP	902-928 MHz	26 MHz	Unity
MLPV2400NGP	2.4-2.5 GHz	100 MHz	3 dBi
MLPV4900NGP	4.9-5.0 GHz	100 MHz	3 dBi

Mechanical Specifications

Model (all colors)	Antenna Dimensions	Weight (Mass)	Temperature Range
BMLPV900NGP	3.38” H x 1.5” OD	0.31 lbs (.14 kg)	-40° C to 70° C
MLPV2400NGP	3.38” H x 1.5” OD	0.31 lbs (.14 kg)	-40° C to 70° C
MLPV4900NGP	2.4” H X 1.5” OD	0.29 lbs (0.13 kg)	-40° C to 70° C

*** Measured on a 4 foot diameter ground plane.**

Note: to order antenna with built-in permanent mount, please add suffix “VP” to the antenna part number. For example, BMLPV900NGPVP indicates a 900 MHz NGP antenna with built-in permanent N female bulkhead mount.

Miniature Stud Mount Omnidirectional Antenna for Wi-Fi Applications

The MMSO2300 miniature omnidirectional antenna covers frequencies from 2300-2500 MHz with a VSWR of less than 1.5:1. This ground-plane dependent antenna is designed to go virtually undetected while providing dependable Wi-Fi data throughput. It utilizes a bulkhead stud mount and hardware for secure permanent installations and includes a 3" RG-188A/U pigtail. 12 inch cable option also available. This antenna can be used both outdoors and indoors.

Features

- Miniature 1.3 inch housing. Provides minimum visibility for areas prone to theft or vandalism.
- Bulkhead stud mount secures the antenna for permanent installations, reducing the probability that the antenna will be stolen.
- Excellent performance with a VSWR of less than 1.5:1 for dependable wireless data coverage in a very low profile design.
- Designed to support permanent installations both outdoors and indoors.

Technical Data

Maximum Power: 10 watts
Polarization: Vertical, linear
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Color: Black
Radome Housing: Delrin, UV resistant
Cable: 3" (76.2 mm) RG-188A/U flying lead (Model MMSO2300) 12" (304.8 mm) RG-188A/U coax (Model MMSO2300PT) Shorter cable options available with MMSO2300PT models.
Connector Options: For MMSO2300PT models add connector part number after the PT prefix. Example: MMSO2300PTMMCX indicates MMCX termination SMA plug (part #MSMA) MMCX (part #MMCX) Right Angle MMCX (part #RAMMCX)
Mounting Method: 1/4-28 stud mount, lock washer, jam nut and o-ring seal provided mounts to surfaces up to 0.25" thick

RF/Electrical Specifications

Model	Frequency Range	Gain
MMSO2300	2.3-2.5 GHz	Unity
MMSO2300PT	2.3-2.5 GHz	Unity

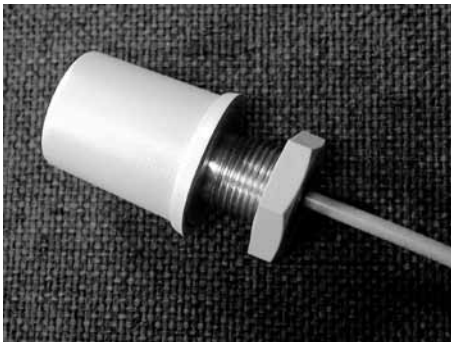
Mechanical Specifications

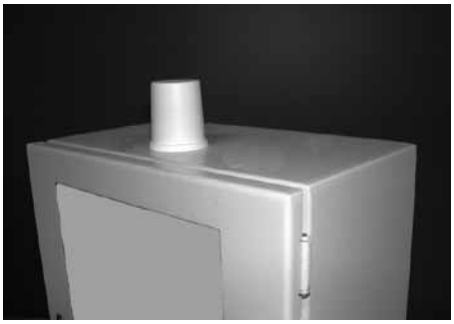
Model	Dimensions	Weight (Mass)	Temperature Range
MMSO2300	1.34 " H x 0.75" OD base with 0.63" flats (34.04 x 19.05 x 16.02 mm)	0.4 oz (0.015 kg)	-30° to +80 °C
MMSO2300PT	1.34 " H x 0.75" OD base with 0.63" flats (34.04 x 19.05 x 16.02 mm)	0.4 oz (0.015 kg)	-30° to +80 °C

Note: if your connector preference is not listed, please contact Customer Service for availability.

Enclosure Mounted Multi-Band Low Profile Vertical Antenna

The WMLPVIDB244958PTRPC provides superior pattern coverage for fixed applications operating in 2400-2500 MHz, as well as 4900 to 5825 MHz. This design provides industry leading wideband performance and reliability, with minimum loss and no tuning required. It features an attractive, compact package that is ideal for indoor applications requiring minimum visibility.





RF/Electrical Specifications

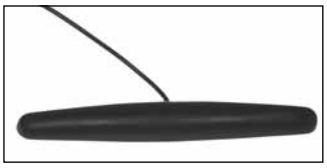
Model	Frequency Range	Nominal Gain	H-Plane Beamwidth	E-Plane Beamwidth
WMLPVIDB244958PTRPC	2.4-2.5 GHz/ 4.9-5.825 GHz	4 dBi/ 4 dBi	360°	35° Nominal/ 20° Nominal

Mechanical Specifications

Cable	Dimensions	Weight (Mass)
16” Plenum rated RG-58/U PL	1.75” x 1.63” OD	6.5 oz

Technical Data

General Specifications: Multi-band low profile antenna
Maximum Power: 10 watts
VSWR: < 2.0
Nominal Impedance: 50 ohms
Polarization: Vertical, linear
Radome Material: UL 94V-0 PC/ABS
Connector Options: Reverse Polarity TNC plug
Mounting Method: Through hole 15/16 dia (0.94) 7/8-14 UNF plastic Hex-Nut



APDM5920U, vertical installation. The antenna can also be installed horizontally.

Inside Window Glass Mount

This vertical or horizontal polarization antenna is designed for inside glass mount installations operating in the 800 MHz cellular, 900 MHz trunking, 1800 MHz DCS and 1900 MHz PCS bands without the need for tuning. Its tape mount easily attaches to glass surfaces making the antenna ideal for public safety or other applications requiring an unobtrusive design.

Features

- Quad Band — covers 800 MHz cellular, 900 MHz trunking, 1800 MHz DCS, and 1900 MHz PCS
- Low Profile — for minimum exposure to theft or vandalism
- Efficient — simple mounting method allows installation in minutes without holes
- Economical — one antenna serves the function of four, minimizing installation and inventory requirements
- Antenna can be oriented vertically or horizontally for maximum installation flexibility

RF/Electrical Specifications

Model	Frequency Range	Gain	Bandwidth
APDM5920U	824-960/1710-1990 MHz	Unity	136/280 MHz

Mechanical Specifications

Model	Antenna Dimensions
APDM5920U	0.5” D x 5.9” L

Technical Data

Maximum Power: 10 watts
Polarization: Linear, horizontal or vertical
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Radiator Material: ABS
Coax Cable: 10 ft RG-174/U cable (bottom fed)
Connector SAP (female FME)
Mounting Method: Normount® Z500 tape

MPAMB Series Portable Omnidirectional Antennas

The MPAMB portable antennas are designed for indoor wireless applications requiring multiple band coverage. Each rugged antenna features a compact "blade" style design and 0-90° articulating knuckle. A no knuckle model is also available.

MPAMB series with knuckle

MPAMB8062170NK

Features

- Multi-band performance.
- Ground plane independent design provides added installation flexibility.
- Rugged polycarbonate housing provides added durability for 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 MPAMB806217ONKMSMA.)

RF/Electrical Specifications

Model	Frequency Range	Gain
MPAMB8062170	806-960 MHz / 1.71-2.17 GHz	0 dBi (all frequencies)
MPAMB8062170NKMSMA	806-960 MHz / 1.71-2.17 GHz	0 dBi (all frequencies)
BMPAMB8062170RPTNC	806-960 MHz / 1.71-2.17 GHz	0 dBi (all frequencies)
BMPA3637C	3.6-3.7 GHz	3 dBi
MPAMB24495804	2.4-2.5 GHz / 4.94 - 5.85 GHz	2.14 dBi / 4 dBi
MPAMB515804	5.15 - 5.85 GHz	3 dBi (all frequencies)

Mechanical Specifications

Model	Antenna Height	Temperature Range	Knuckle Movement	Color
MPAMB8062170	7-5/8" (19.4 cm)	-30°C to +70°C	180° swivel, 0°-90° knuckle	Gray
MPAMB8062170NKMSMA	6.5" (16.5 cm)	-40°C to +85°C	n/a	Gray
BMPAMB8062170RPTNC	7-5/8" (19.4 cm)	-30°C to +70°C	180° swivel, 0°-90° knuckle	Black
BMPA3637C	6" (15.2 cm)	-40°C to +85°C	180° swivel, 0°-90° knuckle	Black
MPAMB24495804	6" (15.2 cm)	-40°C to +85°C	180° swivel, 0°-90° knuckle	Black
MPAMB515804	5.3" (13.4 cm)	-40°C to +85°C	180° swivel, 0°-90° knuckle	Black

Technical Data

Maximum Power:
5 watts

Polarization:
Vertical, linear

Nominal Impedance:
50 ohms

VSWR:
< 2.0:1

Connector Type:
TNC male (MPAMB8062170 and BMPA3637C only)
Male SMA (MPAMB8062170NKMSMA only)
Reverse Polarity TNC (All other models)

MEXR902TN MEXE902RPSM

Portable Antennas for Data Transfer Applications

These portable rubber duck antennas are designed to cover multiple data frequencies for 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).

RF/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	2.3-2.5 GHz	2450 MHz	2.0 dBi
MHWS2400MTNCRP	2.3-2.5 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

PCTEL

Technical Data

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

Wideband Portable Gain Antennas

These wideband portable antennas are designed for various broadband wireless 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

- Wideband coverage with no field tuning reduces number of antennas required at installation site
- High gain performance
- Ground plane independent design for added installation flexibility
- Flexible design provides added durability
- Articulating knuckle provides 0°-90° pivot and 180° swivel movement allowing vertical orientation of the antenna

MHWS24007 antenna (left); bottom view (right)

RF/Electrical Specifications

Model	Frequency Range	E-plane Beamwidth	Gain
MHWS240007RPMSMA	2.4-2.5 GHz	40°	9 dBi
MHWS240007RPC	2.4-2.5 GHz	40°	9 dBi

Mechanical Specifications

Model	Antenna Height	Connector Type	Temperature Range
MHWS240007RPMSMA	Approximately 15”	Reverse Polarity SMA Plug	-40°C to +85°C
MHWS240007RPC	Approximately 15”	Reverse Polarity TNC Plug	-40°C to +85°C

PCTEL

Technical Data

General Specifications: Portable Omnidirectional Antenna
Maximum Power: 50 watts
Polarization: Vertical, linear
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Wave Length: 1/2 wave

MPD24006XFPT on MPAB11 mount

Wi-Fi Diversity Directional Panel Antenna

The MPD24006XFPT diversity panel antenna covers 2.4 GHz frequencies with a VSWR of less than 1.5:1. This diversity antenna is designed to obtain maximum gain and performance across the band. The printed circuit design is housed in an attractive, low profile radome made with UL94-V0 materials that meet strict safety specifications.

Features

- UL94-V0 plastic and PC board. Provides UL's high flame retardant rating allowing maximum placement flexibility. Meets stringent building fire rating codes.
- Attractive, low profile housing. Blends well with indoor and outdoor environments where aesthetic considerations are important.
- Adjustable mounting brackets for indoor and outdoor mounting. Provide maximum flexibility for indoor or outdoor installations.

RF/Electrical Specifications

Model	Frequency Range	Gain	3 dB Horizontal Beamwidth	3 dB Vertical Beamwidth	Typical Port to Port Isolation
MPD24006XFPT	2.3-2.5 GHz	6.5 dBi	90°	70°	20 dB
MPD24006XFPT72RPC	2.3-2.5 GHz	6.0 dBi	90°	70°	20 dB

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Wind Loading (frontal) @100 mph Wind
MPD24006XFPT	5.1" x 4.7" x 1.5" (12.0 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	9.3 lbs
MPD24006XFPT72RPC	5.1" x 4.7" x 1.5" (12.0 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	9.3 lbs

Technical Data

Maximum Power Input:
20 watts

Polarization:
Linear, vertical

Nominal Impedance:
50 ohms

VSWR:
< 1.5:1

Front-to-Back Ratio:
> 15 dB

Radome Housing:
UL 94V-0 plastic

Cable:
36" (91 cm) RG-58/U (MPD24006XFPT)
72" (183 cm) RG-58/U (MPD24006XFP-T72RPC)

Connector Options:
Reverse Polarity TNC standard (part #RPC)
N Female (part #NF)
Reverse Polarity SMA Plug (part #RPMSMA)

Mounting Brackets (sold separately):
MPAB11 short adjustable bracket for wall or pipe mount
MPAB12 long adjustable corner mount
MPAB14 die cast articulating mount with ±25° uptilt/downtilt adjustment (included). Wall or 1.5" OD max. mast installations

Dual-band, Six-Port MIMO Wall Mount Directional Panel Antenna

The MPMI2458RPC-6 directional MIMO antenna provides six-port diversity coverage of 2.4-2.5 GHz WiFi and 4.9-5.9 GHz Public Safety/ISM/WiFi/WiMAX broadband wireless frequencies in an attractive, low profile package. It is designed for indoor or outdoor installations.

Features

- Multi-band coverage of 2.4-2.5 GHz ISM and 4.9-5.9 GHz broadband wireless frequencies
- Three 2.4-2.5 GHz and three 4.9-5.9 GHz integrated elements terminated with high performance, low loss cable
- Attractive low profile radome addresses strict aesthetic requirements
- UL 94-V0 listed plastic and PC boards address strict building safety code specifications
- Includes heavy duty articulating mount for wall or mast mount installations

MPMI2458RPC-6 RF/Electrical Specifications

Frequency Range	Gain	Horizontal Beamwidth	Vertical Beamwidth	Front-to-Back Ratio
2.4-2.5 GHz	4 dBi	75°	69°	16 dB
4.9-5.9 GHz	4 dBi	82°	69°	22 dB

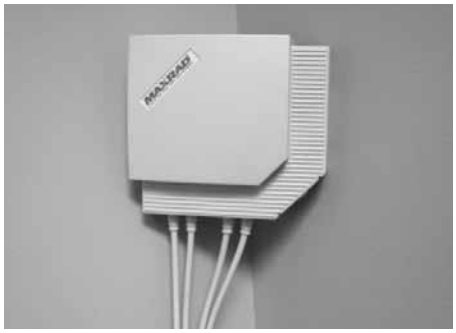
Mechanical Specifications

Dimensions	Weight (Mass)	Temperature Range	Wind Loading (Frontal) @ 100 mph Wind
8.8” x 8.1” x 1.6” (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-30°C to +70°C	27.9 lbs

PCTEL

Technical Data

Maximum Power Input: 20 watts
Polarization: Linear, vertical
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Radome Material: UL 94-V0 plastic
Cable: Six RG-58PLW cables
Connector: Reverse Polarity TNC male (standard)
Mounting Method MPAB14 die cast articulating mount with ±25° uptilt/downtilt adjustment (included). Wall or 1.5” OD max. mast installations



MPDD245807PTRPC

Multi-Band Dual Diversity Directional Panel Antenna

The MPDD245807PTRPC provides dual diversity coverage of 2.4-2.5 GHz and 4.9-5.9 GHz frequencies with 7 dBi gain performance. This compact directional panel antenna includes four cable terminations for use with dual band, dual diversity Wi-Fi radios. The antenna includes an adjustable wall/mast mount.

Features

- Provides the performance of two multi-band 2.4/5.8 GHz quad-band antennas in an attractive, low profile package
- UL94-V0 plastic and PC board for compliance with UL's high flame retardant standard
- Attractive, low profile housing. Blends well with indoor environments where aesthetic considerations are important
- Adjustable mounting brackets for indoor and outdoor mounting (included)

Technical Data

Maximum Power Input: 20 watts
Polarization: Linear, vertical
Nominal Impedance: 50 ohms
VSWR: < 1.5:1 (2.4 GHz) < 2.0:1 (5.0 GHz)
Front-to-Back Ratio: > 15 dB
Radome Housing: UL 94V-0 plastic
Cable: Four (4) 36" RG-58A/U, white
Connector: Reverse Polarity TNC standard Other connector options feasible
Mounting Method: MPAB11 short adjustable bracket for wall or pipe mount (included) MPAB12 long adjustable corner mount (sold separately) MPAB14 die cast articulating mount with ±25° uptilt/downtilt adjustment (included). Wall or 1.5" OD max. mast installations

RF/Electrical Specifications

Model	Frequency Range	Gain	3 dB Horizontal Beamwidth	3 dB Vertical Beamwidth	Typical Port to Port Isolation
MPDD245807PTRPC	2.4-2.5 GHz/ 4.9-5.9 GHz	7 dBi 7 dBi	90° 85°	60° 60°	25 dB 30 dB

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Wind Loading (frontal) @100 mph Wind
MPDD245807PTRPC	5.1" x 4.7" x 1.5" (12.0 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	9.3 lbs

Wi-Fi Wall Mount Diversity Omnidirectional Antenna

This diversity wall mounted omnidirectional antenna is designed to cover frequencies from 2400 to 2485 MHz with a VSWR of less than 2:1. The broad elevation plane radiation pattern has been shaped to direct energy where it is needed, while suppressing the misdirected upper and lower sidelobe energy. This antenna is ideal for a wide variety of indoor antenna applications.

MDO24005PT

Features

- UL listed 94-V0 plastic and Plenum rated RG-58/U cable. Meets strict safety specifications.
- Includes articulating wall mount bracket for added installation flexibility.

RF/Electrical Specifications

Model	Frequency Range	Gain	H-plane Beamwidth	E-plane Beamwidth	Connector
MDO24005PTRPC	2.4-2.485 GHz	5.2 dBi each	360°	27°	Reverse Polarity TNC Plug

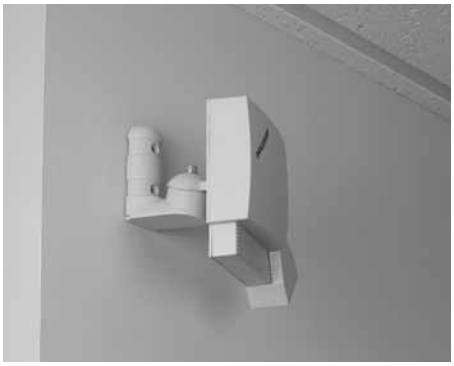
Mechanical Specifications

Model	Temperature Range	Dimensions	Weight (Mass)
MDO24005PTRPC	-30°C to 75°C	11” H x 5” W x 1” D (27.9 x 12.7 x 2.6 cm)	19 oz. (0.54 kg)

Technical Data

Power Input: 5 watts
Polarization: Vertical, linear
Nominal Impedance: 50 ohms
VSWR: < 2.0:1
Radome Housing: Off-White UV resistant UL 94V-0 rated plastic with ecru/off-white fabric cover
Cable: Dual 36” white Plenum rated coax
Mounting Method: Universal wall and pipe adjustable mounting bracket (included)

MP24008XFPT



MP24580809PT
on MPAB11 Mount

MP24013XFPT
on MPAB12 Corner Mount

Directional Panel Antennas

These directional panel antennas are designed to cover various frequencies with a VSWR of less than 1.5:1, obtaining maximum gain with an attractive, low-profile package. All models provide efficient and stable performance across the band and can be mounted indoors or outdoors.

Features

- PCB design. Provides best performance-to-price ratio.
- UL94-V0 plastic and PC board conform to UL's high flame retardant rating, allowing maximum placement flexibility. Meets stringent building code requirements.
- Attractive, low profile housing. Blends well with indoor and outdoor environments where aesthetic considerations are important.
- Corner exit RG-58/U pigtail design. Permits the panel to be mounted in vertical or horizontal polarity.
- Adjustable mounting brackets for indoor installation are included. Indoor corner mounting bracket and heavy duty outdoor mounting brackets are also available. These provide maximum flexibility for indoor our outdoor installations.

PCTEL

Technical Data

Maximum Power Input: 20 watts (25 watts for dual-band models)
Polarization: Vertical or horizontal, linear Left hand circular (MP9026CPLXFPT only) Right hand circular (MP9026CPRXFPT only)
Nominal Impedance: 50 ohms
Radome Material: UL94-V0 plastic
Lightning Protection: DC grounded
Connector Options: N female (part #NF) is standard. Please consult factory for other connector options.
Mounting Method: Adjustable azimuth/elevation MPAB11 mount is included with 5.1" x 4.7" x 1.5" housing panels.
Mounting Brackets (sold separately): MPAB11 short adjustable bracket for wall or pipe mount MPAB12 long adjustable corner mount MPAB14 die cast articulating mount with ±25° uptilt/downtilt adjustment (included). Wall or 1.5" OD max. mast installations

***Plenum cable optional (special order item)**

RF/Electrical Specifications

Model	Frequency Range	Gain	VSWR	3 dB Horizontal Beamwidth	3 dB Vertical Beamwidth	Front-to-Back Ratio
MP8066XFPTNF	806-960 MHz	8.1 dBi	< 1.5:1	70°	60°	> 17 dB
MP9027XFPT	902-928 MHz	9.1 dBi	< 1.5:1	65°	65°	> 17 dB
MP9026CPLXFPT	902-928 MHz	8.5 dBic	< 1.5:1	65°	65°	> 20 dB
MP9026CPRXFPT	902-928 MHz	8.5 dBic	< 1.5:1	65°	65°	> 20 dB
MPMB80621MPTC	806-960 MHz 1710-2170 MHz	5 dBi 7.5 dBi	< 2.0:1 < 2.0:1	70° 75°	67° 55°	> 15 dB > 20 dB
MP24008XFPT	2.3-2.5 GHz	8.5 dBi	< 1.5:1	60°	60°	> 15 dB
MP24580809PTNF	2.4-2.48 / 4.94-5.85 GHz	8 dBi / 9 dBi	< 2.0:1 / < 2.0:1	60° / 50°	60° / 40°	> 22 dB / > 15 dB

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Cable
MP8066XFPTNF	8.8” x 8.1” x 1.6” (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	12” RG-58/U
MP9027XFPT	8.8” x 8.1” x 1.6” (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	12” RG-58/U
MP9026CPLXFPT	8.8” x 8.1” x 1.6” (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	12” RG-58/U
MP9026CPRXFPT	8.8” x 8.1” x 1.6” (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	12” RG-58/U
MPMB80621MPTC	8.8” x 8.1” x 1.6” (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	3’ (91.4 cm) RG-58/U
MP24008XFPT	5.1” x 4.7” x 1.5” (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	12” (30.5 cm) RG-58/U*
MP24580809PTNF	5.1” x 4.7” x 1.5” (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	12” (30.5 cm) Plenum Rated ML195

Mast Mount Omnidirectional (MMO) Antennas

The MMO series base antenna provides outstanding coverage in a rugged U.V. stable, plastic radome with an aluminum base that is ideal for indoor or outdoor applications.

Multiple band MMO24580608 omnidirectional antenna

Features

- Elevation radiation pattern shaped to direct energy where it is needed, while suppressing the misdirected upper and lower sidelobe energy.
- Pipe mount is included for added convenience.
- Multiple band coverage supports 2.4 GHz and 5.15-5.8 GHz broadband networks, eliminating the need for a second or third antenna in POP locations where mounting space is limited or costly. (MMO24580608 model).

Technical Data

Maximum Power: 25 watts
Polarization: Vertical linear
Normal Impedance: 50 ohms
VSWR: < 2.0:1
Wind Survival: 125 mph
Radome Material: White UV stable plastic
Connector: N female or N male. 12” or 36” RG-58/U pigtail with RP-TNC plug connector (MMO24005 series only). Other connector options available (MMO24005 series only).
Mounting Method: Pipe mount (included).

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain	H-plane Beamwidth	E-plane Beamwidth
MMO24005PTNF	2.4-2.485 GHz	5.5 dBi +/-0.5	360°	32°
MMO24005PTRPC	2.4-2.485 GHz	5.5 dBi +/-0.5	360°	32°
MMO24005PT36RPBN	2.4-2.485 GHz	5.5 dBi +/-0.5	360°	32°
MMO24005PT36RPC	2.4-2.485 GHz	5.5 dBi +/-0.5	360°	32°
MMO24580608NF	2.4-2.48/ 5.15-5.85 GHz	6 dBi/ 8 dBi	360°	22°/ 15°

Mechanical Specifications

Model	Antenna Height	Weight (Mass)	Bending Moment at Rated Wind	Lateral Thrust at Rated Wind	Equivalent Flat Plane Area
MMO24005PTNF	11.3” (287 mm)	0.5 lbs (0.23 kg)	2.2 ft-lbs	4.6 lbs	0.5 ft^2
MMO24005PTRPC	11.3” (287 mm)	0.5 lbs (0.23 kg)	2.2 ft-lbs	4.6 lbs	0.5 ft^2
MMO24005PT36RPBN	11.3” (287 mm)	0.5 lbs (0.23 kg)	2.2 ft-lbs	4.6 lbs	0.5 ft^2
MMO24005PT36RPC	11.3” (287 mm)	0.5 lbs (0.23 kg)	2.2 ft-lbs	4.6 lbs	0.5 ft^2
MMO24580608NF	26” (660.4 mm)	0.50 lbs (0.226 kg)	11.5 ft-lbs	10.6 lbs	0.12 ft^2

5GHz White PCTEL High Performance Omnidirectional Antennas

These omnidirectional antennas are high performance low profile base station antennas in a rugged housing. These antennas are designed to cover frequencies in the 5 GHz bands for broadband access applications. With its integral N-Male or N-Female connector at the base, this antenna can be directly mounted on the radio equipment or can be mounted to a mast.

Features

- Low profile rugged housing
- Innovative vented design with aerated cap and base drain hole
- White UV resistant radome. Protects the antenna from environmental factors

MHO58010NF & NM Omnidirectional Antenna (left); Connector Views (right)

RF/Specifications

Model	Frequency Range	Nominal Gain	H-plane Beamwidth	E-plane Beamwidth	VSWR
MHO495907NF	4.94-5.875 GHz	7 dBi	360° (omni)	12°	< 2.0
MHO495907NM	4.94-5.875 GHz	7 dBi	360° (omni)	12°	< 2.0
MHO52007NM	5.15-5.875 GHz	7 dBi	360° (omni)	15°	< 2.0
MHO58010NF	5.15-5.875 GHz	10 dBi	360° (omni)	10°	< 2.0
MHO58010NM	5.15-5.875 GHz	10 dBi	360° (omni)	10°	< 2.0

Mechanical Specifications

Model	Wind Survival	Equivalent Flat Plane Area	Lateral Thrust @ Rated Wind	Bending Moment @ Rated Wind	Height	Weight
MHO495907NF	125 mph	0.04 ft^2	3.1 lbs.	1.1 ft-lbs.	10.2”	0.3 lbs (.14 kg)
MHO495907NM	125 mph	0.04 ft^2	3.1 lbs.	1.1 ft-lbs.	10.2”	0.3 lbs (.14 kg)
MHO52007NM	125 mph	0.04 ft^2	3.1 lbs.	1.1 ft-lbs.	10.2”	0.3 lbs (.14 kg)
MHO58010NF	125 mph	0.08 ft^2	6.8 lbs.	5.6 ft-lbs.	18.38”	0.35 lbs (.16 kg)
MHO58010NM	125 mph	0.08 ft^2	6.8 lbs.	5.6 ft-lbs.	18.38”	0.35 lbs (.16 kg)

Technical Data

General Specifications: Omnidirectional Base Station Antenna
Maximum Input Power: 25 watts
Radome Material UV Stable Plastic
Nominal Impedance: 50 Ohms
Polarization: Vertical Linear
Termination: Type N-Male (NM) & N-Female (NF)

Omnidirectional Antenna, Side View (top); Bottom View (bottom)

2.4-2.7GHz White MAXRAD High Performance Omnidirectional Antennas

These omnidirectional antennas provide a high performance low profile base station antenna in a rugged housing. The antenna series is designed to cover frequencies from 2.4 to 2.7 GHz for Wi-Fi – Mesh applications. With its integral N-Male connector at the base, this antenna series can be directly mounted on the radio equipment.

Features

- Slender rugged housing
- Innovative vented design with aerated cap and base drain system
- White UV resistant radome. Protects the antenna from environmental factors

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain	H-plane Beamwidth	E-plane Beamwidth	VSWR
MHO24004NM	2.4-2.5 GHz	4 dBi	360° (omni)	30°	< 2.0
MHO24006NM	2.4-2.5 GHz	6 dBi	360° (omni)	20°	< 2.0
MHO24008NM	2.4-2.5 GHz	8 dBi	360° (omni)	13°	< 2.0
MHO242705NM	2.4-2.7GHz	5 dBi	360° (omni)	25°	< 2.0
MHO242705NF	2.4-2.7GHz	5 dBi	360° (omni)	25°	< 2.0

Mechanical Specifications

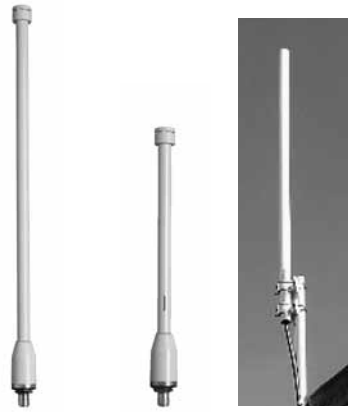
Model	Wind Survival	Equivalent Flat Plane Area	Lateral Thrust @ Rated Wind	Bending Moment @ Rated Wind	Height	Weight
MHO24004NM	125 mph	0.04 ft^2	3.1 lbs.	1.1 ft-lbs.	8.5”	0.3 lbs (.14 kg)
MHO24006NM	125 mph	0.05 ft^2	4.4 lbs.	2.2 ft-lbs.	12”	0.3 lbs (.14 kg)
MHO24008NM	125 mph	0.08 ft^2	7.1 lbs	5.7 ft-lbs.	19.3”	0.3 lbs (.14 kg)
MHO242705NM	125 mph	0.04 ft^2	3.1 lbs.	1.1 ft-lbs.	10.2”	0.3 lbs (.14 kg)
MHO242705NF	125 mph	0.04 ft^2	3.1 lbs.	1.1 ft-lbs.	10.2”	0.3 lbs (.14 kg)

Technical Data

General Specifications: Omnidirectional Base Station Antenna
Maximum Input Power: 25 watts
Radome Material UV Stable Plastic
Nominal Impedance: 50 Ohms
Polarization: Vertical Linear
Termination: Type N Male (NM) or N Female (NF)

Fiberglass Base Station (MFB) Omnidirectional Antennas

These wireless broadband omnidirectional antennas are designed to provide maximum performance and reliability under the toughest weather conditions. The antennas feature a UV stable, vented radome that provides ultimate protection against weather elements. They can be mast or wall mounted.



MFB49009 MFB58009 MFB24012

Features

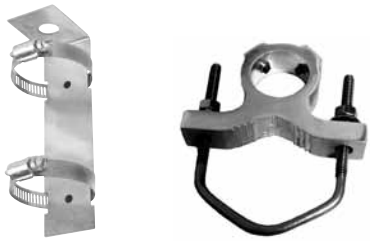
- UV stable, pultruded fiberglass radome. Allows outdoor installation even in harsh climates.
- Vented system design (all models except MFB24012), provides reliable performance by protecting the electrical design against extreme moisture and/or temperatures.
- Thread relief on connector (all models, except MFB24012 which has a pigtail). Improved accessibility for taping reduces installation time and improves overall effectiveness.
- Internal o-ring seal in the base of the antenna with integrated connector at the base. Assures a watertight seal to prevent water from migrating into the antenna connector (all models, except MFB24012 which has a pigtail).
- Electrical downtilt options on select models, provide system planners flexibility in challenging operating environments.

Vented System

PCTEL

Technical Data

Maximum Power: 25 watts
Polarization: Vertical
Normal Impedance: 50 ohms
VSWR: < 2.0:1 (for MFB23009 and MFB25009 models only) < 1.6:1 (for DC grounded models) < 1.5:1 (all other models)
Radome Material: UV resistant pultruded fiberglass
ESD Protection: Some models available with DC grounding. Contact factory for more details.
Termination: N female 16” RG-213 pigtail with N female connector (for model MFB24012 only.)
Mounting Base Diameter: 1.25 inches (all models except MFB24012) 1.5 inches (model MFB24012)
Mounting Method: MMK1924 — L bracket mount for wall or pipe mount (except MFB24010 and MFB24012) MMK8A - Aluminum extruded bracket for mast mounting (except model MFB24012)



MMK1924 MMK8A

Omnidirectional MFB Series

RF/Electrical Specifications

Model	Frequency Range	Gain	Bandwidth @ 1.5:1 VSWR	Vertical Beamwidth @ 1/2 Power
MFB19006A	1.85-1.99 GHz	6 dBi	140 MHz	24°
MFB19008A	1.85-1.99 GHz	8 dBi	140 MHz	12°
MFB23009	2.3-2.5 GHz	9 dBi	200 MHz	9°
MFB24004	2.4-2.484 GHz	4 dBi	100 MHz	30°
MFB24006	2.4-2.484 GHz	6 dBi	100 MHz	20°
MFB24008	2.4-2.484 GHz	8 dBi	100 MHz	13°
MFB24008NM	2.4-2.484 GHz	8 dBi	100 MHz	13°
MFB24008NMDC	2.4-2.484 GHz	8 dBi	100 MHz	13°
MFB24008RPN	2.4-2.484 GHz	8 dBi	100 MHz	13°
MFB24008DT7	2.4-2.484 GHz	8 dBi	100 MHz	13°
MFB24008DT12	2.4-2.484 GHz	8 dBi	100 MHz	13°
MFB24010	2.4-2.484 GHz	10 dBi	100 MHz	9°
MFB24012	2.4-2.5 GHz	12 dBi	100 MHz	7°
MFB25007	2.5-2.7 GHz	7 dBi	200 MHz	13°
MFB25009	2.5-2.7 GHz	9 dBi	200 MHz	9°
MFB49009	4.9-5.0 GHz	9 dBi	100 MHz	8°
MFB51510	5.15-5.35 GHz	10 dBi	200 MHz	7°
MFB58009	5.725-5.875 GHz	9 dBi	150 MHz	8°
MFB58010	5.725-5.825 GHz	10 dBi	100 MHz	6°

Mechanical Specifications

Model	Height	Weight (Mass)	Bending Moment at Rated Wind	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area	Wind Survival
MFB19006A	11.6” (295 mm)	0.38 lbs (0.172 kg)	1.4 ft-lbs	3.0 lbs	.04 ft²	125 mph
MFB19008A	24.0” (601 mm)	0.70 lbs (0.318 kg)	5.7 ft-lbs	5.9 lbs	.07 ft²	125 mph
MFB23009	30” (762 mm)	0.65 lbs (0.295 kg)	14.7 ft-lbs	10.1 lbs	.11 ft²	125 mph
MFB24004	8.1” (206 mm)	0.34 lbs (0.154 kg)	0.7 ft-lbs	2.1 lbs	.02 ft²	125 mph
MFB24006	11.6” (295 mm)	0.38 lbs (0.172 kg)	1.4 ft-lbs	3.0 lbs	.04 ft²	125 mph
MFB24008	20.2” (513mm)	0.50 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft²	125 mph
MFB24008NM	20.2” (513mm)	0.50 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft²	125 mph
MFB24008NMDC	20.2” (513mm)	0.50 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft²	125 mph
MFB24008RPN	20.2” (513mm)	0.50 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft²	125 mph
MFB24008DT7	20.2” (513 mm)	0.50 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft²	125 mph
MFB24008DT12	20.2” (513 mm)	0.50 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft²	125 mph
MFB24010	36.0” (914 mm)	0.65 lbs (0.295 kg)	14.7 ft-lbs	10.1 lbs	.11 ft²	125 mph
MFB24012	44.0” (1,118 mm)	3.00 lbs (1.400 kg)	41 ft-lbs	22.4 lbs	.25 ft²	125 mph
MFB25007	20.2” (513 mm)	0.5 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft²	125 mph
MFB25009	30” (762 mm)	0.65 lbs (0.295 kg)	14.7 ft-lbs	10.1 lbs	.11 ft²	125 mph
MFB49009	20.2” (513 mm)	0.5 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft²	125 mph
MFB51510	20.2” (513 mm)	0.5 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft²	125 mph
MFB58009	15.7” (399 mm)	0.43 lbs (0.195 kg)	2.7 ft-lbs	4.1 lbs	.046 ft²	125 mph
MFB58010	20.2” (513 mm)	0.5 lbs (0.226 kg)	4.4 ft-lbs	5.2 lbs	.06 ft²	125 mph

PCTEL Carrier Grade VHF/UHF Omnidirectional Base Station Antennas

The BOA VHF/UHF omnidirectional base station antenna series consist of a linear array, encapsulated in a heavy duty fiberglass radome with a thick walled 6061-T6 aluminum mounting base for reliable long term use. The rugged design allows the BOA series to withstand harsh environments and is ideal for Industrial Wireless applications. The series is DC grounded and is UPS shippable.

Features

- UV Stable Light Gray Fiberglass Radome
- Hard-Coat Anodized Mounting Base
- Galvanized Mounting Hardware
- Removable Drain Plug for Upright or Inverted Mounting

BAM1005 mount (bottom left); MMK5 mount (bottom right)

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain	Return Loss	SWR	E-Plane Beamwidth
BOA2175	215-225 MHz	5 dBi/3 dBd	>10 dB	<2.0	18°
BOA2177	217-222 MHz	7.1 dBi/5 dBd	>10 dB	<2.0	18°
BOA4409	440-460 MHz	9.1 dBi/7 dBd	>12 dB	<1.7	11°
BOA4357	430-470MHz	7.1 dBi/5 dBd	>12 dB	<1.7	18°

Mechanical Specifications

Model	Weight (Mass)	Height	Bending Moment at Rated Wind	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area
BOA2175	10 lbs	122”	685 ft-lbs	74 lbs	1.7 ft^2
BOA2177	12 lbs	151”	965 ft-lbs	88 lbs	2.10 ft^2
BOA4409	12 lbs	151”	965 ft-lbs	88 lbs	2.10 ft^2
BOA4357	7.0 lbs	83”	250 ft-lbs	45 lbs	1.125 ft^2

Technical Data

Maximum Power: 250 watts
Nominal Impedance: 50 ohms
Radome Material: Pultruded Fiberglass (2” Outside Diameter)
ESD Protection: DC grounded
Rated Wind: 125 mph
Termination: N female bulkhead
Mounting Hardware: BAM1005 or MMK5 (Included)

BAM1005 mount (bottom left);
MMK5 mount (bottom right)

PCTEL Carrier Grade 900MHz Omnidirectional Base Station Antennas

The BOA 900MHz omnidirectional base station antennas consist of a linear array, encapsulated in a heavy duty fiberglass radome with a thick walled 6061-T6 aluminum mounting base for reliable long term use. This rugged design allows the antennas to withstand harsh environments and is ideal for Industrial Wireless and SCADA applications. The BOA series is DC grounded and is UPS shippable.

Features

- UV Stable Light Gray Fiberglass Radome
- Hard-Coat Anodized Mounting Base
- Galvanized Mounting Hardware
- Removable Drain Plug for Upright or Inverted Mounting

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain	Return Loss	SWR	E-Plane Beamwidth
BOA9025	902-928MHz	5.1 dBi/3 dBd	> 14 dB	< 1.5	25°
BOA9028	902-928MHz	8.1 dBi/6 dBd	> 14 dB	< 1.5	13°
BOA90211	902-928MHz	11.1 dBi/9 dBd	> 14 dB	< 1.5	6°

Mechanical Specifications

Model	Weight	Height	Bending Moment at Rated Wind	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area
BOA9025	5.0 lbs	55”	106 ft-lbs	29 lbs	0.77 ft^2
BOA9028	6.0 lbs	68”	178 ft-lbs	38 lbs	0.95 ft^2
BOA90211	10.0 lbs	122”	685 ft-lbs	74 lbs	1.7 ft^2

Technical Data

Maximum Power: 250 watts
Nominal Impedance: 50 ohms
Radome Material: Pultruded fiberglass (2” outside diameter)
ESD Protection: DC grounded
Rated Wind: 125 mph
Termination: N female bulkhead
Mounting Hardware: BAM1005 or MMK5 (Included)

800/900 MHz MAXRAD Fiberglass Base Station (MFB) Omnidirectional Antennas

The MFB 900/800 MHz series are base matched half wave antennas encapsulated in heavy duty fiberglass radomes with a thick walled aluminum mounting base for reliable long term use. All models are DC grounded and UPS shippable.

Features

- White ultra-violet resistant pultruded fiberglass radome
- Thick walled aluminum mounting base
- Unity/3 dB/5 dB/7 dB models
- UPS shippable
- Factory tuned

MFB9155

PCTEL

Technical Data

Maximum Power: 150 watts
Normal Impedance: 50 ohms
Radome Material: 1.0” OD pultruded white fiberglass
Radiator Material: Coated steel wire
ESD Protection: DC grounded
Wind Survival: 100 mph
Termination: Unity and 3 dB models, N Female
Mounting Base Diameter: 1-5/16”
Mounting Method: Mast or wall mounted. Mounting hardware is sold separately. MMK1: light duty mast mount for antennas under 30” MMK3: light duty mast mount for antennas over 30” MMK4: heavy duty mast mount MMK9: Aluminum mast mount for 1-5/16” OD antennas MBSWM: wall mounting bracket for antennas over 30” (two are required) MMK12: heavy duty mount bracket

MMK3

MMK1

MMK4

MMK9

MBSWM

MMK12

RF/Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Bandwidth @ 1.5:1 VSWR	Vertical Beamwidth @ 1/2 Power
MFB8133	806-866 MHz	813 MHz	3 dB	30 MHz	40°
MFB8135	806-866 MHz	813 MHz	5 dB	20 MHz	22°
MFB8583	806-866 MHz	858 MHz	3 dB	30 MHz	40°
MFB8585	806-866 MHz	858 MHz	5 dB	20 MHz	22°
MFB8353	824-896 MHz	835 MHz	3 dB	30 MHz	40°
MFBW8903	890-960 MHz	N/A	3 dB	70 MHz	40°
MFBW8905	890-960 MHz	N/A	5 dB	70 MHz	22°
MFB8963	896-940 MHz	898 MHz	3 dB	30 MHz	40°
MFB8965(NF)	896-940 MHz	898 MHz	5 dB	20 MHz	22°
MFB9387	896-940 MHz	938 MHz	7 dB	20 MHz	17°
MFB8967(NF)	896-940 MHz	898 MHz	7 dB	20 MHz	17°
MFB9153	902-928 MHz	915 MHz	3 dB	20 MHz	40°
MFB9155(NF)	902-928 MHz	915 MHz	5 dB	20 MHz	22°
MFB9155RPC	902-928 MHz	915 MHz	5 dB	20 MHz	22°
MFB9157(NF)*	902-928 MHz	915 MHz	7 dB	20 MHz	17°

Mechanical Specifications

Model	Height	Weight (Mass)	Bending Moment at Rated Wind	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area
MFB8133	26”	1.25 lbs	4.7 ft-lbs	4.3 lbs	.12 sq ft
MFB8135*	48”	1.75 lbs	14.2 ft-lbs	8.0 lbs	.22 sq ft
MFB8583	26”	1.25 lbs	4.7 ft-lbs	4.3 lbs	.12 sq ft
MFB8585*	48”	1.75 lbs	14.2 ft-lbs	8.0 lbs	.22 sq ft
MFB8353	26”	1.25 lbs	4.7 ft-lbs	4.3 lbs	.12 sq ft
MFBW8903	23”	1.25 lbs	4.7 ft-lbs	4.3 lbs	.12 sq ft
MFBW8905	48”	1.75 lbs	14.2 ft-lbs	8.0 lbs	.22 sq ft
MFB8963	26”	1.25 lbs	4.7 ft-lbs	4.3 lbs	.12 sq ft
MFB8965*	48”	1.75 lbs	14.2 ft-lbs	8.0 lbs	.22 sq ft
MFB9387*	96”	4.00 lbs	62.5 ft-lbs	15.8 lbs	.44 sq ft
MFB8967*	96”	4.00 lbs	62.5 ft-lbs	15.8 lbs	.44 sq ft
MFB9153	23.25”	1.25 lbs	4.7 ft-lbs	4.3 lbs	.12 sq ft
MFB9155(NF)**	48”	1.75 lbs	14.2 ft-lbs	8.0 lbs	.22 sq ft
MFB9155RPC	48”	1.75 lbs	14.2 ft-lbs	8.0 lbs	.22 sq ft
MFB9157 (NF)*	96”	4.00 lbs	62.5 ft-lbs	15.8 lbs	.44 sq ft

746-869 MHz, 3 dB Gain MAXRAD Fiberglass Base Station (MFB) Omnidirectional Antennas

This is an omnidirectional base station antenna that provides 3 dB gain within the specified frequency. It is designed for mast mounting.

Features

- N female connector
- Thick walled aluminum mounting base
- White fiberglass radome

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain	Vertical Beamwidth at Half Power	Horizontal Beamwidth at Half Power
MFBW7463	746-869 MHz	3 dB	40°	360°

Mechanical Specifications

Model	Antenna Length	Weight (Mass)	Temperature Range
MFBW7463	27”	1.5 lbs	-40°C to +70°C

Model	Lateral Thrust at Rated Wind with 1/2” of Ice	Equivalent Flat Plate Area with 1/2” of Ice	Wind Survival with 1/2” of Ice
MFBW7463	20 lbf	.22 ft^2	125 mph

PCTEL

Technical Data

General Specifications: 746-869 MHz omnidirectional antenna
Maximum Power: 50 watts
Normal Impedance: 50 ohms
Polarization: Vertical
VSWR: < 1.8:1
Termination: N female

MFB4505

MFB VHF Unity Model 3 dB version includes exposed whip

VHF/UHF White MAXRAD Fiberglass Base Station (MFB) Omnidirectional Antennas

The white fiberglass antenna series consists of base matched half wave antennas encapsulated in a heavy duty fiberglass radomes with a thick walled aluminum mounting base for reliable long term use. All models are DC grounded and UPS shippable.

Features

- Effective "J" pole design requires no radials or ground plane
- White ultra-violet resistant pultruded fiberglass radome
- Thick-walled aluminum mounting base
- Unity, 3 dB models and 5 dB models
- UPS shippable

MMK3

MMK4

MMK9

MBSWM

MMK12

Technical Data

Maximum Power: 250 watts
Normal Impedance: 50 ohms
VSWR: < 1.5:1 VSWR
Radome Material: Pultruded white fiberglass
Radiator Material: Coated steel wire
ESD Protection: DC grounded
Wind Survival: 100 mph
Termination: N male with 16" jumper
Mounting Base Diameter: 1-5/16"
Mounting Options (Sold separately): MMK3: light duty mast mounting MMK4: heavy duty mast mounting MMK9: Aluminum mast mount for 1-5/16" OD antennas (two required with the 10" sleeve antenna models) MMK12: heavy duty mount bracket MBSWM: wall mounting bracket (2 required)

RF/Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Bandwidth @ 1.5:1 VSWR	Vertical Beamwidth @ 1/2 Power
MFB1443	144-150 MHz	144 MHz	3 dB*	3.5 MHz	29°
MFB1500	150-156 MHz	153 MHz	Unity	3.0 MHz	80°
MFB1503	150-156 MHz	150 MHz	3 dB*	3.5 MHz	29°
MFB1560	156-162 MHz	159 MHz	Unity	3.0 MHz	80°
MFB1563	156-162 MHz	156 MHz	3 dB*	3.5 MHz	29°
MFB1683	168-174 MHz	168 MHz	3 dB*	3.5 MHz	29°
MFB4065	406-416 MHz	411 MHz	5 dB	10 MHz	27°
MFB4500	450-460 MHz	455 MHz	Unity	10 MHz	90°
MFB4503	450-460 MHz	455 MHz	3 dB	10 MHz	38°
MFB4505	450-460 MHz	455 MHz	5 dB	10 MHz	27°
MFB4600	460-470 MHz	465 MHz	Unity	10 MHz	90°
MFB4603	460-470 MHz	465 MHz	3 dB	10 MHz	38°
MFB4605(NF)	460-470 MHz	465 MHz	5 dB	10 MHz	27°
MFB4705	470-480 MHz	475 MHz	5 dB	10 MHz	27°

Mechanical Specifications

Model	Height	Weight (Mass)	Bending Moment at Rated Wind	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area
MFB1443	129”	4 lbs	62.5 ft-lbs	15.8 lbs	.44 ft^2
MFB1500	71”	3 lbs	29.2 ft-lbs	10.8 lbs	.30 ft^2
MFB1503	129”	4 lbs	62.5 ft-lbs	15.8 lbs	.44 ft^2
MFB1560	71”	3 lbs	29.2 ft-lbs	10.8 lbs	.30 ft^2
MFB1563	129”	4 lbs	62.5 ft-lbs	15.8 lbs	.44 ft^2
MFB1683	129”	4 lbs	62.5 ft-lbs	15.8 lbs	.44 ft^2
MFB4065	77”	4.5 lbs	40.4 ft-lbs	12.6 lbs	.35 ft^2
MFB4500	30”	1.0 lbs	5.2 ft-lb	5 lbs	.11 sq ft
MFB4503	71”	4.0 lbs	29.0 ft-lb	10.8 lbs	.30 sq ft
MFB4505	77”	4.5 lbs	40.4 ft-lb	12.6 lbs	.35 sq ft
MFB4600	30”	1.0 lbs	5.2 ft-lb	5 lbs	.11 sq ft
MFB4603	71”	4.0 lbs	29.0 ft-lb	10.8 lbs	.30 sq ft
MFB4605(NF)	77”	4.5 lbs	40.4 ft-lb	12.6 lbs	.35 sq ft
MFB4705	77”	4.5 lbs	40.4 ft-lb	12.6 lbs	.35 sq ft

***Note: 3 dB gain antennas are factory tuned to the lowest side of the frequency range. Field tuning to the desired frequency is required. Mount sold separately. For SO-239 connector, please add $27.00; for N female connector, please add $10.00.**

The MSO24014PTNF's mount design allows mast or tower leg mounting for greater flexibility when tower space availability is limited.

2.4 GHz ISM All Terrain Sectorized Omnidirectional Antenna

The MSO24014 all-terrain adjustable omnidirectional antenna allows sector adjustments of up to +/- 15 degrees, permitting installers to contour the coverage area according to the specific geographic conditions of the territory. For applications with more specific coverage demands this antenna offers various azimuth (horizontal plane beamwidth) pattern options optimized to address differing coverage, cost control and tower space limitation challenges. As the subscriber base grows, they can accommodate increased throughput capacity without the need to replace the antenna.

Features

- Increased system capacity
- Superior isolation
- Electrical and mechanical beamtilt adjustments
- Pattern selectivity
- Mounting flexibility
- Downtime reduction

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain	Bandwidth @ 1.5:1 VSWR	Power Divider
MSO24014NF	2.4-2.5 GHz	14 dBi***	16°	3-way equal split

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Wind Survival
MSO24014NF	19.75" x 5" OD (501 L x 127 mm OD)	8 lbs (3.6 kg)	-42°C to +75°C	125 mph (200 km/hr)

Technical Data

General Specifications: 2. 4 GHz ISM sectorized omnidirectional antennas
Maximum Power: 50 watts*
Polarization: Vertical
Normal Impedance: 50 ohms
VSWR: < 1.5:1
Radome Material: ASA-ABS, UV resistant
ESD Protection: DC grounded
Cable: 18" Pro-Flex™ Plus 195
Termination: N, female connector at power divider input
Mounting Method: Center pipe mount (1.25" OD pipe included) or direct tower leg mount

*** Power limitation of power divider 10 watts.**
**** Optional patterns require use of one radio.**
*****Antenna gain is specified when sectors are fed individually.**

4.9-5.9GHz 65° & 90° Sector Panels

This WiMAX antenna is designed to cover frequencies from 4.9 to 5.9 GHz. It offers excellent port to port isolation of 30 dB typical, with a VSWR of less than 1.5 in a rugged, off-white UV resistant radome.

Features

- Outstanding port to port isolation of 30 dB typical
- VSWR of less than 1.5
- Great upper side lobe suppression
- Adjustable scissors-style pipe mount bracket with 0-10° downtilt

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain	Azimuth Beamwidth	Elevation Beamwidth
SP4959-17XP65	4.9-5.4 GHz 5.4-5.9 GHz	17.5 dBi 16.5 dBi	65° +/- 10% 65° +/- 10%	5° 5°
SP4959-16XP90	4.9-5.4 GHz 5.4-5.9 GHz	16.5 dBi 15.5 dBi	90° +/- 10% 90° +/- 10%	5° 5°

Mechanical Specifications

Model	Temperature Range	Dimensions (L X W X D)	Weight (Mass)	Wind Survivability
SP4959-17XP65	-40°C to 65°C storage / -40°C to 65°C operating	28” x 6.7” x 3.5” (711 x 171 x 90 mm)	7 lbs (3.1 kg)	125 mph (200 km/h)
SP4959-16XP90	-40°C to 65°C storage / -40°C to 65°C operating	28” x 6.7” x 3.5” (711 x 171 x 90 mm)	7 lbs (3.1 kg)	125 mph (200 km/h)

Technical Data

Polarization: Linear dual slant +/- 45°
Nominal Impedance: 50 ohms
VSWR: < 1.5
Front to Back Ratio: > 25 dB
Port to Port Isolation: 30 dB typical
Upper Side Lobe Suppression: 30 degrees above horizon: > -15 dB
Radome Material: Gray UV resistant plastic
Connector: Type N female
Mounting Method: Adjustable pipe mount bracket (included)
Mount Material: Nickel Zinc Trivalent Plated Steel (RoHS Compliant)

3.3-3.8GHz 65° & 90° Sector Panel

This WiMAX antenna is designed to cover frequencies from 3300 to 3800 MHz. It offers excellent port to port isolation of 30 dB typical, with a VSWR of less than 1.5 in a rugged, off-white UV resistant radome.

Features

- Outstanding port to port isolation of 30 dB typical
- VSWR of less than 1.5
- Great upper side lobe suppression
- Adjustable scissors-style pipe mount bracket with 0-10° downtilt

PCTEL

Technical Data

Polarization: Linear dual slant +/- 45°
Nominal Impedance: 50 ohms
VSWR: < 1.5
Front to Back Ratio: > 25 dB
Port to Port Isolation: 30 dB typical
Upper Side Lobe Suppression: 30 degrees above horizon: > -15 dB
Radome Material: Gray UV resistant plastic
Connector: Type N female
Mounting Method: Adjustable pipe mount bracket (included)
Mount Material: Nickel Zinc Trivalent Plated Steel (RoHS Compliant)

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain	Azimuth Beamwidth	Elevation Beamwidth
SP3338-17XP65	3300-3500 MHz 3500-3800 MHz	16.5 dBi 17.0 dBi	65° +/- 5° 65° +/- 5°	7° 7°
SP3338-16XP90	3300-3500 MHz 3500-3800 MHz	15.5 dBi 16.0 dBi	90° +/- 5° 90° +/- 5°	7° 7°

Mechanical Specifications

Model	Temperature Range	Dimensions (L X W X D)	Weight (Mass)	Wind Survivability
SP3338-17XP65	-40°C to 65°C storage / -40°C to 65°C operating	28” x 6.7” x 3.5” (711 x 171 x 90 mm)	7 lbs (3.1 kg)	125 mph (200 km/h)
SP3338-16XP90	-40°C to 65°C storage / -40°C to 65°C operating	28” x 6.7” x 3.5” (711 x 171 x 90 mm)	7 lbs (3.1 kg)	125 mph (200 km/h)

2.3-2.7GHz 65° & 90° Sector Panel

This WiMAX antenna is designed to cover frequencies from 2300 to 2700 MHz. It offers excellent port to port isolation of 30 dB typical, with a VSWR of less than 1.5 in a rugged, off-white UV resistant radome.

Features

- Outstanding port to port isolation of 30 dB typical
- VSWR of less than 1.5
- Great upper side lobe suppression
- Adjustable scissors-style pipe mount bracket with 0-10° downtilt

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain	Azimuth Beamwidth	Elevation Beamwidth
SP2327-16XP65	2300-2500 MHz 2500-2700 MHz	16.0 dBi 16.5 dBi	65° +/- 5° 65° +/- 5°	9° 9°
SP2327-15XP90	2300-2500 MHz 2500-2700 MHz	15.0 dBi 15.5 dBi	90° +/- 5° 90° +/- 5°	9° 9°
SP4959-16XP90	4.9-5.4 GHz 5.4-5.9 GHz	16.5 dBi 15.5 dBi	90° +/- 10% 90° +/- 10%	5° 5°

Mechanical Specifications

Model	Temperature Range	Dimensions (L X W X D)	Weight (Mass)	Wind Survivability
SP2327-16XP65	-40°C to 65°C storage / -40°C to 65°C operating	28” x 6.7” x 3.5” (711 x 171 x 90 mm)	7 lbs (3.1 kg)	125 mph (200 km/h)
SP2327-15XP90	-40°C to 65°C storage / -40°C to 65°C operating	28” x 6.7” x 3.5” (711 x 171 x 90 mm)	7 lbs (3.1 kg)	125 mph (200 km/h)
SP4959-16XP90	40°C to 65°C storage / -40°C to 65°C operating	28” x 6.7” x 3.5” (711 x 171 x 90 mm)	7 lbs (3.1 kg)	125 mph (200 km/h)

Technical Data

Polarization: Linear dual slant +/- 45°
Nominal Impedance: 50 ohms
VSWR: < 1.5
Front to Back Ratio: > 25 dB
Port to Port Isolation: 30 dB typical
Upper Side Lobe Suppression: 30 degrees above horizon: > -15 dB
Radome Material: Gray UV resistant plastic
Connector: Type N female
Mounting Method: Adjustable pipe mount bracket (included)
Mount Material: Nickel Zinc Trivalent Plated Steel (RoHS Compliant)

2.3-2.7GHz 60° & 90° Sector Panel with Double Null Fill

This WiMAX antenna is designed to cover frequencies from 2300 to 2700 MHz. It offers excellent port to port isolation of > 30 dB with a VSWR of less than 1.5 in a rugged, off-white UV resistant radome.

Features

- Outstanding port to port isolation of 30 dB typical
- VSWR of less than 1.5
- Double null fill
- Adjustable scissors-style pipe mount bracket with 0-10° downtilt

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain	Azimuth Beamwidth	Elevation Beamwidth
SP2327-16XP60NUF	2300-2500 MHz 2500-2700 MHz	16.0 dBi 16.5 dBi	60° +/- 5° 60° +/- 5°	9° 9°
SP2327-15XP90NUF	2300-2500 MHz 2500-2700 MHz	14.5 dBi 15.0 dBi	90° +/- 5° 90° +/- 5°	9° 9°

Technical Data

Polarization: Linear dual slant +/- 45°
Nominal Impedance: 50 ohms
VSWR: < 1.5
Front to Back Ratio: > 25 dB
Port to Port Isolation: 30 dB typical
Null Fill: 1st Sidelobe: -15dB 2nd Sidelobe: -18dB
Radome Material: Gray UV resistant plastic
Connector: Type N female
Mounting Method: Adjustable pipe mount bracket (included)
Mount Material: Nickel Zinc Trivalent Plated Steel (RoHS Compliant)

Mechanical Specifications

Model	Temperature Range	Dimensions (L X W X D)	Weight (Mass)	Wind Survivability
SP2327-16XP60NUF	-40°C to 65°C storage / -40°C to 65°C operating	28" x 6.7" x 3.5" (711 x 171 x 90 mm)	7 lbs (3.1 kg)	125 mph (200 km/h)
SP2327-15XP90NUF	-40°C to 65°C storage / -40°C to 65°C operating	28" x 6.7" x 3.5" (711 x 171 x 90 mm)	7 lbs (3.1 kg)	125 mph (200 km/h)

Model	Frontal Wind Load*	Side Wind Load*
SP2327-16XP60NUF	132.3 lbf [588.4N]	37.2 lbf [165.7 N]
SP2327-15XP90NUF	132.3 lbf [588.4N]	37.2 lbf [165.7 N]

*Wind load based on EIA-222, 100 MPH 1/2" radial ice, 30 feet elevation

2.3-2.7GHz 60° & 90° Sector Panel with Null Fill

This WiMAX cross polarized antenna is designed to cover frequencies from 2300 to 2700 MHz. It offers excellent front-to-back ratio of > 32 dB with a VSWR of less than 1.5 in a rugged, off-white UV resistant radome.

Features

- Outstanding port to port isolation of 30 dB typical
- VSWR of less than 1.5
- Null fill
- Great upper side lobe suppression
- Adjustable scissors-style pipe mount bracket with 0-10° downtilt

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain	Azimuth Beamwidth	Elevation Beamwidth
SP2327-18XP60NUF	2300-2500 MHz 2500-2700 MHz	17.5 dBi 18.0 dBi	60° +/- 5° 60° +/- 5°	6° 6°
SP2327-17XP90NUF	2300-2500 MHz 2500-2700 MHz	16.0 dBi 16.5 dBi	90° +/- 5° 90° +/- 5°	6° 6°

Mechanical Specifications

Model	Temperature Range	Dimensions (L X W X D)	Weight (Mass)	Wind Survivability
SP2327-18XP60NUF	-40°C to 70°C storage / -40°C to 70°C operating	48" x 6.7" x 3.5" (1232 x 171 x 90 mm)	8.8 lbs (4.0 kg)	125 mph (200 km/h)
SP2327-17XP90NUF	-40°C to 70°C storage / -40°C to 70°C operating	48" x 6.7" x 3.5" (1232 x 171 x 90 mm)	8.8 lbs (4.0 kg)	125 mph (200 km/h)

PCTEL

Technical Data

Polarization: Linear dual slant +/- 45°
Nominal Impedance: 50 ohms
VSWR: < 1.5
Front to Back Ratio: > 32 dB
Port-to-Port Isolation: 30 dB typical
Null Fill: -15dB
Upper Side Lobe Suppression: 30 degrees above horizon: >-18 dB
Radome Material: Gray UV resistant plastic
Connector: Type N female
Mounting Method: Adjustable pipe mount bracket (included)
Mount Material: Nickel Zinc Trivalent Plated Steel (RoHS Compliant)

4.9-5.9GHz 65°, 90° & 120° Sector Panels

This WiMAX antenna is designed to cover frequencies from 4.9 to 5.9 GHz. It offers excellent front to back ratio of > 25 with a VSWR of less than 1.7 in a rugged, light gray, UV resistant radome.

Features

- Exceptional performance in a compact package
- Outstanding front to back ratio of > 25 dB
- VSWR of less than 1.7 across the band
- Fully adjustable pipe or wall mount

Technical Data

Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: < 1.7
Front to Back Ratio: > 25 dB
Upper Side Lobe Suppression: 30 degrees horizon: > -15 dB
Radome Material: UV resistant ASA plastic
Connector: N, Female Bulkhead
Mounting Method: Adjustable pipe mount bracket (included)
Mounting Material: Plated steel

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain	Azimuth Beamwidth	Elevation Beamwidth
SPVL4959-17VP65	4.9-5.9 GHz	16.5 dBi	65° +/- 5°	6°
SPVL4959-16VP90	4.9-5.9 GHz	15.5 dBi	90° +/- 5°	6°
SPVL4959-15P120	4.9-5.9 GHz	14.5 dBi	120° +/- 5°	6°

Mechanical Specifications

Model	Temperature Range	Dimensions (L X W X D)	Weight (Mass)	Wind Survivability
SPVL4959-17VP65	-30°C to 75°C storage / -30°C to 75°C operating	22" x 3.1" x 3" (558.8 x 78.7 x 76 mm)	8.8 lbs (1.13 kg)	125 mph (200 km/h)
SPVL4959-16VP90	-30°C to 75°C storage / -30°C to 75°C operating	22" x 3.1" x 3" (558.8 x 78.7 x 76 mm)	8.8 lbs (1.13 kg)	125 mph (200 km/h)
SPVL4959-15VP120	-30°C to 75°C storage / -30°C to 75°C operating	22" x 3.1" x 3" (558.8 x 78.7 x 76 mm)	8.8 lbs (1.13 kg)	125 mph (200 km/h)

Wideband Adjustable Sector Panel

The MAXRAD sector panel antennas cover frequencies of 4.9-6.0 GHz and are designed for use in sectorized WISP applications using a single sector or multiple sector antennas and multiple radios. They offer cost conscious antennas and system's engineers an alternative to wall mounted omnidirectional antennas that can be susceptible to multipath interference and reduced coverage caused by wall-obstructed radiated signals. These sector antennas are ideal for use in apartment complexes, offices, medical facilities, schools, industrial parks and shopping centers.

WISP4959018MBV

Features

- The antennas offer a choice of 45°, 60°, 90° or 120° single beamwidth sector. Multiple antennas can be utilized to cover several geographical sectors using additional radios. Great for use in place of an obstructed wall mounted omni.
- Industry leading front-to-back ratios. Ensure that the radiated energy is focused towards its target, and not to the back or sides of the antennas.
- Attractive, streamline design reduces wind loading for easier handling during installation.
- Includes adjustable pipe mount that permits uptilt or downtilt adjustment for more precise coverage of the geographic area.

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain (+/- 0.5)	Horizontal Plane Beamwidth
WISP4959018MBV	4.9 GHz to 6.0 GHz	18 dBi @ 45° 16 dBi @ 60° 15 dBi @ 90° 14 dBi @ 120°	45°, 60°, 90° or 120° (adjustable)

E-Plane Beamwidth	Front-to-Back Ratio	Typical Cross Poll Discrimination
8°	> 32 dB	> 20 dB

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range
WISP4959018MBV	24" L x 6" W x 3" D (609 L x 152 W x 76 mm D)	4.5 lbs (2.1 Kg)	-30°C to 75° C

Rated Wind Velocity	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area
125 mph	60 lbf without flaps 120 lbf with flaps	.44 ft² without flaps 1.36 ft² with flaps

Technical Data

General Specifications: 2.4 GHz sector panel antennas
Maximum Power Input: 10 watts
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: < 1.7:1
Color: White
Radome Material: UV resistant ASA plastic
Lighting Protection: DC grounded
Mounting Method: Adjustable pipe mount (included) +/- 15° of uptilt or downtilt (WISP2800 & WISP4900 models)

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

Dual Band, Dual Input Sector Panel

The MSPDBDI244914NF sector panel antenna provides coverage of 2.4 GHz to 2.5 GHz and 4.9 GHz to 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 to 2.5 GHz and 4.9 to 5.9 GHz frequencies with excellent VSWR performance.
- Outstanding front-to-back ratio and controlled sidelope radiation ensures that the radiated energy is targeted towards the area of coverage.
- Included adjustable pipe mount permits uptilt, downtilt or vertical adjustment of +/-15 degrees 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° apart).

Technical Data

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

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain	Nominal Isolation (radially spaced 120° apart)
MSPDBDI244914NF	2.4-2.5 GHz 4.925-5.925 GHz	14 dBi +/- 0.5 14 dBi +/- 0.5	- 68 dB - 68 dB

Model	Frequency Range	Horizontal Plane Beamwidth	E-Plane Beamwidth	Front-to-Back Ratio
MSPDBDI244914NF	2.4-2.5 GHz 4.925-5.925 GHz	90° 120°	15° 8°	> 32 dB > 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 (13.2 kg)

Temperature Range	Rated Wind Velocity	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area
-30°C to +75°C	125 mph	67 lbf	0.68 ft^2

Adjustable or Fixed Sector Panels

The MSP series sector panel covers the 2.4 GHz ISM band and provides field adjustable horizontal beamwidths of 45°, 60°, 90° or 120°. This unique design allows a system installer to stock a single antenna and field adjust it to the desired beamwidth, making it useful for wireless broadband applications where coverage of a geographical sector is desired. The panel can also be ordered with fixed beamwidths. This line also includes a compact 90° sector model that measures less than 8 inches long, for installations where space is very limited.

In many applications, sector panels are used to provide omnidirectional coverage by using, for example, three radios and three 120° sector antennas to provide 360° coverage. This results in a stronger and more focused signal than that of a single omnidirectional antenna. It also provides a more robust design. The MSP24013MB features industry leading front-to-back ratios of more than 42 dB at 45°, 60° and 90° and over 32 dB at 120° with excellent cross pole discrimination.

The MSP24013MB allows horizontal beamwidth adjustments without having to replace the antenna. Its overall design is one of the most compact currently available on the market.

Features

- Adjustable multiple beamwidth sectors. A single antenna can be utilized to cover several geographical sectors.
- Three sectors with three data radios can be installed as an array for omnidirectional coverage. Provides a stronger, more focused signal than that of a standard omnidirectional antenna.
- Industry leading front-to-back ratios. Ensures that the radiated energy is focused towards its target, and not to the back or sides of the antenna.

MSP24013MB

Technical Data

General Specifications: 2.4 GHz sector panel antennas
Maximum Power Input: 50 watts
Polarization: Vertical
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radome Material: Off white ASA plastic with UV resistance
Lighting Protection: DC grounded
Connector Options: Type N, female. Other connector options available
Mounting Method: Adjustable stainless steel bracket, +/- 11° of uptilt or downtilt Pipe diameter: 0.75 thru 2.4" OD (19-60 mm)

Sector panel on adjustable bracket

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain	Horizontal Plane Beamwidth	E-Plane Beamwidth	Front-to-Back Ratio	Typical Cross Poll Discrimination
MSP24013MB	2.4-2.5 GHz	13 dB @ 120° 14 dBi @ 90° 16 dBi @ 60° 17 dBi @ 45°	120°, 90°, 60° and 45°	16°	> 32 dB @ 120° > 42 dB @ 90° > 42 dB @ 60° > 42 dB @ 45°	270°-0°, 0°-90° = -20 dB 235°-270°, 90°-135° = -28 dB 180°-235°, 135°-180° = -32 dB
MSP24013-120	2.4-2.5 GHz	13 dBi	120°	16°	> 32 dB	(all models) 270°-0°, 0°-90° = -20 dB 235°-270°, 90°-135° = -28 dB 180°-235°, 135°-180° = -32 dB
MSP24014-90	2.4-2.5 GHz	14 dBi	90°	16°	> 42 dB	

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Rated Wind Velocity	Lateral Thrust at Rated Wind
MSP24013MB	21.5” L x 6.5” W x 2.8” D (546 x 16.5 x 7.2 mm)	4 lbs (1.8 kg)	-30°C to +75°C	125 mph (200 km/h)	43 lbs (19.5 kg)
MSP24013-120	21.5” L x 6.5” W x 2.8” D (546 x 16.5 x 7.2 mm)	4 lbs (1.8 kg)	-30°C to +75°C	125 mph (200 km/h)	43 lbs (19.5 kg)
MSP24014-90	21.5” L x 6.5” W x 2.8” D (546 x 16.5 x 7.2 mm)	4 lbs (1.8 kg)	-30°C to +75°C	125 mph (200 km/h)	43 lbs (19.5 kg)

ISM Sector Panels

The WISP sector panel provides coverage of 2.4 GHz to 2.5 GHz frequencies with a VSWR performance of less than 1.5:1. Its design provides superior front-to-back ratio performance that ensures that the radiated energy is focused towards its coverage area.

The WISP24017MBH provides vertical or horizontal polarization options, featuring field adjustable horizontal beamwidths of 60° or 90.° Its efficient gain performance and compact UV resistant housing provide outstanding coverage and maximum installation flexibility where tower space is limited. In addition, it includes an adjustable pipe mount that permits +/-15° uptilt or downtilt of the antenna to adjust to the requirements of the coverage area.

Features

- Adjustable multiple beamwidth sectors of 45°, 60°, 90° and/or 120°
- Outstanding front-to-back ratio ensures that the radiated energy is targeted towards the area of coverage, and not out of it where it could be prone to interference.
- Included adjustable pipe mount permits uptilt or downtilt adjustment of +/-15° for more precise coverage of the geographic area.
- Models are available for vertical and horizontal polarization.
- Industry leading front-to-back ratios. Ensure that the radiated energy is focused towards its target, and not to the back or sides of the antennas.
- Attractive, streamline design reduces wind loading for easier handling during installation.

The WISP model antennas horizontally polarized sector panel antenna allows horizontal beamwidth adjustments of 45°, 60°, 90° and 120° without having to replace the antenna.

WISP24013120PTNF

WISP2401490PTNF

Technical Data

General Specifications: Horizontal polarization sector panel antenna User adjustable beamwidth. Optional 45° director flaps sold separately.
Maximum Power Input: 20 watts (WISP24017MBH only) 30 watts (All models except WISP24017MBH)
Polarization: Horizontal (WISP24017MBH) Vertical (WISP240149OPTNF and WISP24013120PTNF)
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Radome Material: Gray UV resistant plastic
Lighting Protection: DC grounded
Backplane: High strength aluminum extrusion
Termination: N, female bulkhead
Mounting Method: Adjustable pipe mount (included)

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain +/- .5	Horizontal Plane Beamwidth	E-Plane Beamwidth	Front-to-Back Ratio	Typical Cross Poll Discrimination	Polarization
WISP24017MBH	2.4-2.5 GHz	13, 14, 16 or 17 dBi user selectable	120°, 90°, 60°, 45°	15°	> 30 dB @ 120°, 90°, 60° > 26 dB @ 45°	> 26 dB	Horizontal
WISP2401490PTNF	2.4-2.48 GHz	14 dBi	90°	14°	> 23 dB	> 20 dB	Horizontal
WISP24013120PTNF	2.4-2.48 GHz	13 dBi	120°	16°	> 23 dB	> 20 dB	Vertical

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Rated Wind Velocity	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area
WISP24017MBH	24” L x 7” W x 3” D (609 x 178 x 76 mm)	4.5 lbs (2.1 Kg)	-30°C to 75° C	125 mph	60 lbf without flaps 120 lbf with flaps	.44 ft^2 without flaps 1.36 ft^2 with flaps
WISP2401490PTNF	19.8” L x 3.1” W x 1.5” D	2.5 lbs	-30°C to 75° C	125 mph	25.4 lbf @ 125 mph	0.28 ft^2
WISP24013120PTNF	19.8” L x 3.1” W x 2.2” D	2.5 lbs	-30°C to 75° C	125 mph	25.4 lbf @ 125 mph	0.28 ft^2

Directional Linear Polarized Panel Antennas

The FP directional panel antenna series is designed to cover various frequencies, obtaining maximum gain with an attractive, low profile package. All of the models provide efficient and stable performance across the band and can be mounted indoors or outdoors.

FRONT VIEW

MOUNT VIEW

Features

- UL94-V0 ASA radome and PC board conform to UL's high flame retardant rating, allowing maximum installation flexibility. Meets stringent building code requirements.
- Attractive, low profile housing. Blends well with indoor and outdoor environments where aesthetic considerations are important.
- Adjustable mounting brackets for outdoor installation.
- Panel mounted type N female connector.

RF/Electrical Specifications

Model	Frequency Range	Gain	3 dB Horizontal Beamwidth	3 dB Vertical Beamwidth
FP8241850-10VP	824-960 MHz 1710-2170 MHz	10 dBi 11 dBi	40° 30°	52° 66°
FP3637-18VP	3.6-3.75 GHz	18 dBi	18°	18°
FP4959-22VP	4.9-5.9 GHz	22 dBi	9°	9°

Mechanical Specifications

Model	Dimensions	Antenna Weight (Mass)	Temperature Range
FP8241850-10VP	14.5" x 14.5" x 1.75" (340 x 340 x 30 mm)	3.5 lbs (1.6 kg)	-40°C to +85°C
FP3637-18VP	14.5" x 14.5" x 1.75" (340 x 340 x 30 mm)	3.5 lbs (1.6 kg)	-40°C to +85°C
FP4959-22VP	14.5" x 14.5" x 1.75" (340 x 340 x 30 mm)	3.5 lbs (1.6 kg)	-40°C to +85°C

Technical Data

Maximum Power:
20 watts

Polarization:
Vertical Linear

Nominal Impedance:
50 ohms

VSWR:
< 2.0 (FP8241850-10VP only)
< 1.5 (all models except FP8241850-10VP)

Front to Back Ratio:
≥ 25

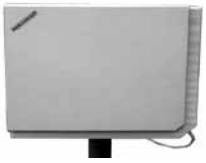
Radome Material:
UL94-V0 ASA radome

Mounting Method:
Adjustable mount is included.
Suitable for pipe or wall installation.

Small housing panels are 5.1" H x 4.7" W x 1.5" D

13 dBi panel on MPAB12 corner wall mount

Small housing panel on MPAB11 wall mount



MP24581820PT

PCTEL

Directional Panel Antennas for Indoor or Outdoor Applications

These directional panel antennas are designed to cover PCS, 4.9 GHz Public Safety band, 2.4 GHz and 5.8 GHz ISM frequencies, obtaining maximum gain in an attractive, low-profile package. All models provide efficient and stable performance across their specified bands and can be mounted indoors or outdoors. Multi-band models covering public safety and 802.11a/b/g standards are available.

Features

- Printed circuit board design provides the best performance-to-price ratio.
- UL94-V0 plastic and PC board. Provides UL's high flame retardant rating allowing maximum placement flexibility and meeting stringent building fire rating codes.
- Attractive, low profile housing. Blends well with indoor and outdoor environments where aesthetic considerations are important.
- Corner exit RG-58/U pigtail design (PCS and 2.4 GHz models), .141 semi-rigid (5.1 and 5.8 GHz models), and high performance Plenum Rated ML195 (dual band models). Permits the linear polarized panel to be mounted in vertical or horizontal polarity with a wide variety of connectors.
- Optional UL 910 rated Plenum cable. Allows the cable to be installed in any indoor mounting location, including air ducts.
- Adjustable mounting brackets for indoor and outdoor mounting. Provide maximum flexibility for indoor or outdoor installations.

Mounting Method

Model/Mount	MPAB7	MPAB8	MPAB11	MPAB12	MPAB14
MP24008XFPT	N/A	N/A	included	optional	optional
MP24580809XFPT	N/A	N/A	N/A	optional	optional
MP24581820PT	optional	optional	N/A	N/A	optional
MP495913XFPT	N/A	N/A	included	optional	optional
Mount Description	Heavy duty outdoor adjustable mount with +/-35° uptilt/ downtilt. If used with MP24018XFPT the mount provides +/-18° uptilt/downtilt. Same as MPAB8 but bracket is longer.	Heavy duty outdoor adjustable mount with 17° uptilt/ downtilt. If used with MP24018XFPT the mount provides +/-9° uptilt/ downtilt.	Short adjustable indoor mount. It may be used outdoors with small housing panels only.	Long adjustable indoor corner mount.	Heavy duty adjustable swivel mount for outdoor applications. All metal, sand cast version of the MPAB12 mount

Technical Data

General Specifications: Directional panel antennas
Maximum Power Input: See Electrical Specifications
Polarization: Linear, vertical/horizontal
Nominal Impedance: 50 ohms
VSWR: See Electrical Specifications
Radome Material: UL 94-V0 plastic
Cable: See Mechanical Specifications
Connector Options: N female (part #NF) standard. Other connector options are available. Consult factory.

RF/Electrical Specifications

Model	Frequency Range	Gain	3 dB Horizontal Beamwidth	3 dB Vertical Beamwidth	Front-to-Back Ratio	Max. Power Input	VSWR
MP24008XFPT	2.30-2.50 GHz	8.5 dBi	60°	60°	> 15 dB	20 watts	< 1.5:1
MP24580809PT	2.40-2.48/ 4.94-5.85 GHz	8 dBi/ 9 dBi	60°/50°	60°/40°	> 22 dB/ > 15 dB	25 watts	< 2.0:1/ < 2.0:1
MP24581820PT	2.40-2.48/ 4.94-5.85 GHz	18 dBi/ 20 dBi	21°/9°	21°/9°	> 30 dB/ > 25 dB	25 watts	< 2.0:1/ < 2.0:1
MP495913XFPT	4.9-5.9 GHz	13 dBi	40°	27°	> 25 dB	25 watts	< 1.5:1

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Wind Loading (Frontal) @100 mph Wind	Cable
MP24008XFPT	5.1” x 4.7” x 1.5” (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	9.3 lbs	12” (30.5 cm) RG58/U**
MP24580809PT	5.1” x 4.7” x 1.5” (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	9.3 lbs	12” (30.5 cm) ML195*
MP24581820PT	15.1” x 13.9” x 1.9” (38.4 x 35.3 x 4.8 cm)	3.9 lbs (1.8 kg)	-40°C to +70°C	85 lbs	12” (30.5 cm) .141 semi-rigid*
MP495913XFPT	5.1” x 4.7” x 1.5” (12.9 x 11.9 x 3.8 cm)	0.5 lbs (0.23 kg)	-40°C to +70°C	9.3 lbs	6” (15.25 cm) .141 seim-rigid*

* Plenum Rated cable
** UL910 Plenum Rated cable optional for these models

MP series antenna

MP8066XFPT on MPAB12 mount

MP8066XFPT on
MPAB8 heavy duty bracket

800/900 MHz and Cellular 3G Directional Panel Antennas

These directional panel antennas are designed to cover 800/900 MHz frequencies with a VSWR of less than 1.5:1, obtaining maximum gain with an attractive, low-profile package. All models provide efficient and stable performance across the band and can be mounted indoors or outdoors.

Features

- Highly efficient antenna element provides high performance in an attractive, compact housing.
- UL94-V0 plastic and PC board. Provides UL's high flame retardant rating allowing maximum placement flexibility. Meets stringent building fire rating codes.
- Attractive, low profile housing. Blends well with indoor and outdoor environments where aesthetic considerations are important.
- Corner exit RG-58/U pigtail design. Permits the linear polarized panel to be mounted in vertical or horizontal polarity with a wide variety of connectors.
- Optional UL 910 rated Plenum cable. Allows the cable to be installed in the strictest indoor mounting locations, including air ducts.
- Optional adjustable mounting brackets for indoor and outdoor mounting. Provide maximum flexibility for indoor or outdoor installations.

Technical Data

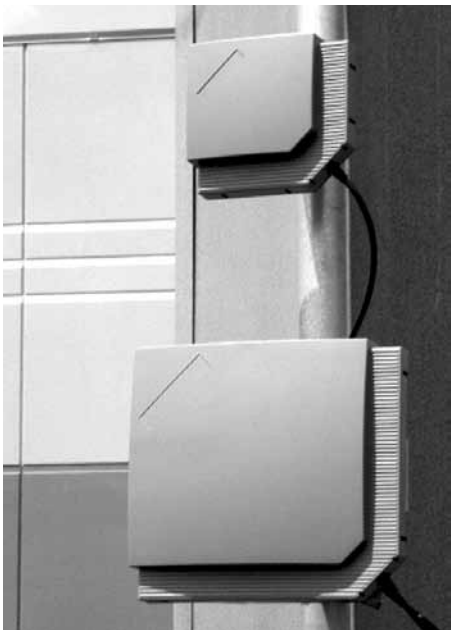
Maximum Power Input: 20 watts
Polarization: Linear, vertical/horizontal (all models but MP9026CPLXFPT and MP9026CPRXFPT) Left hand circular (MP9026CPLXFPT only) Right hand circular (MP9026CPRXFPT only)
Nominal Impedance: 50 ohms
VSWR: < 1.5:1 (except MPMB80921MPTC model) < 2.0:1 (MPMB80921MPTC model only)
Radome Material: UL 94-V0 plastic
Cable: 12" (30.5 cm) RG-58/U (UL910 rated cable optional) for all models except MPMB9021MPTC 3' (91.4 cm) RG-58/U for MPMB89021MPTC model
Connector: N female (except MPMB80921MPTC model) TNC male (MPMB80921MPTC model only)
Mounting Options: MPAB11 short adjustable indoor mount MPAB7 heavy duty outdoor adjustable mount with +/-35° uptilt/downtilt adjustment MPAB8 heavy duty outdoor adjustable mount with 17° uptilt/downtilt adjustment

RF/Electrical Specifications

Model	Frequency Range	Gain	3 dB Horizontal Beamwidth	3 dB Vertical Beamwidth	Front-to-Back Ratio
MPMB80621MPTC	806-960 MHz/ 1.71-2.17 GHz	7 dBi 7.5 dB	70° 75°	67° 55°	> 15 dB > 20 dB
MP8066XFPTNF	806-960 MHz	6 dB	70°	60°	> 17 dB
MP9027XFPTNF	902-928 MHz	7 dB	65°	65°	> 17 dB
MP9026CPLXFPTNF	902-928 MHz	6.4 dBdc	65°	65°	> 20 dB
MP9026CPRXFPTNF	902-928 MHz	6.4 dBdc	65°	65°	> 20 dB

Mechanical Specifications

Model	Dimensions	Weight (Mass)	Temperature Range	Wind Loading (Frontal) @ 100 mph Wind
MPMB80621MPTC	8.8” x 8.1” x 1.6” (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	27.9 lbs
MP8066XFPTNF	8.8” x 8.1” x 1.6” (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	27.9 lbs
MP9027XFPTNF	8.8” x 8.1” x 1.6” (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	27.9 lbs
MP9026CPLXFPTNF	8.8” x 8.1” x 1.6” (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	27.9 lbs
MP9026CPRXFPTNF	8.8” x 8.1” x 1.6” (22.4 x 20.6 x 4.06 cm)	1.2 lbs (0.54 kg)	-40°C to +70°C	27.9 lbs



WISP Directional Panels

WISP Directional Panel Antennas

The directional panel antennas are designed to provide maximum gain at 2.4 GHz frequencies. With a VSWR of less than 1.8:1, all models provide efficient and stable performance across the band. These robust antennas are designed for outdoor applications.

Features

- Patented printed circuit board design. Best performance-to-price ratio.
- Attractive, low profile UV stable housing. Blends well with indoor and outdoor environments where aesthetic considerations are important.
- Corner exit RG-58/U pigtail design. Permits the panel to be mounted in vertical or horizontal polarity.
- Adjustable mounting brackets for outdoor mounting. Provide maximum flexibility for outdoor installations.

RF/Electrical Specifications

Model	Frequency Range	Gain	3 dB Horizontal Beamwidth	3 dB Vertical Beamwidth	Front-to-Back Ratio
WISP24009PTNF	2.3-2.7 GHz	9.0 dBi	60°	60°	> 15 dB
WISP24013PTNF	2.3-2.7 GHz	13.0 dBi	35°	35°	> 18 dB
WISP24018PTNF	2.3-2.7 GHz	18.0 dBi	18°	19°	> 25 dB

Mechanical Specifications

Model	Dimensions Range	Weight (Mass)	Temperature Range	Frontal Wind Loading @100 mph
WISP24009PTNF	5.1” x 4.7” x 1.5”	0.5 lbs	-40°C to +70°C	9.3 lbs
WISP24013PTNF	8.8” x 8.1” x 1.6”	1.2 lbs	-40°C to +70°C	27.9 lbs
WISP24018PTNF	15.1” x 13.9” x 1.9”	3.9 lbs	-40°C to +70°C	85 lbs

Mounting Method

Model	Included Mount
WISP24009PTNF	Indoor/outdoor articulating mount
WISP24013PTNF	Heavy duty outdoor adjustable mount
WISP24018PTNF	Heavy duty outdoor adjustable mount

Technical Data

General Specifications: Directional panel antennas
Maximum Power Input: 20 watts
Polarization: Linear, vertical/horizontal
Nominal Impedance: 50 ohms
VSWR: < 1.8:1
Radome Material: UV stable plastic
Cable: 12” RG58/U with attached female N connector
Temperature Range: -40°C to +70°C

Enclosed Yagi Antenna Series

PCTEL's directional yagis can be used as bridge antennas between two networks or for point-to-point communications. They are field adjustable for vertical or horizontal polarization with matched principal plane beamwidths for optimum performance in either orientation. This design also provides improved front-to-back ratio and sidelobe suppression that reduces interference. All models feature a robust mounting structure for consistent performance regardless of weather conditions.

Features

- Field adjustable to allow vertical or horizontal polarity. Eliminates co-channel interference from neighboring radiators. Polarity markings molded on the antenna ensure installation in the correct orientation.
- Optional, articulating mount. Allows precise adjustment of the antenna both vertically and horizontally.
- All antennas include a robust mast mount bracket designed to withstand 125 mph wind.
- Matched principal plane beamwidths with excellent sidelobe suppression and cross-polarization rejection of more than 20 dB. Provides superior signal quality with enhanced gain performance and minimal interference from neighboring radiators.
- 30 dB front-to-back ratio permits less physical separation on the tower thus adding mounting flexibility at installation sites where space is limited.
- Attractive weather-proof radome constructed of UV resistant material. Provides robust and trouble-free use in harsh outdoor environments.

MYP24015PTNF or WISP24015PTNF

MYP24010PTNF

MYK18

Technical Data

General Specifications: 2.4 GHz ISM enclosed yagi antenna series
Maximum Power: 5 watts
Polarization: Vertical or horizontal, linear (user adjustable)
Nominal Impedance: 50 ohms
VSWR: < 1.5:1
Termination: N, female is standard, NM optional
Mounting Method: Heavy duty yagi mounting bracket (included) permits mast mounting on masts up to 2" O.D. MYK18 adjustable wall/pipe mount allows 180° (included angle) azimuth and elevation adjustment (sold separately.) Stacking harnesses available to stack two yagis (sold separately.)

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain	Horizontal Beamwidth @ 1/2 Power	Vertical Beamwidth @ 1/2 Power	Front-to-Back Ratio
MYP24010PTNF	2.4-2.485 GHz	10 dBi	55°	55°	23 dB
MYP24014PTNF	2.4-2.485 GHz	14 dBi	30°	30°	30 dB
MYP24015PTNF	2.3-2.7 GHz	10 dBi	30°	30°	30 dB
MYP24015PTNM	2.3-2.7 GHz	10 dBi	30°	30°	30 dB
WISP24015PTNF	2.4-2.48 GHz	15 dBi	30°	30°	30 dB

Mechanical Specifications

Model	Length	Weight (Mass)	Lateral Thrust at Rated Wind	Equivalent Flat Plate Area	Wind Survival	Cable
MYP24010PTNF	4.5” L x 3” OD (114 x 76 mm)	1 lb (0.5 kg)	5.8 lbs	0.060 ft^2	125 mph	3’ (914.4 mm) coax
MYP24014PTNF	14” x 3” OD (356 x 76 mm)	1 lb (0.5 kg)	18.3 lbs	0.20 ft^2	125 mph	36” (914 mm) coax
MYP24015PTNF	14” x 3” OD (356 x 76 mm)	1 lb (0.5 kg)	18.3 lbs	0.20 ft^2	125 mph	18” (457 mm) coax
MYP24015PTNM	14” x 3” OD (356 x 76 mm)	1 lb (0.5 kg)	18.3 lbs	0.20 ft^2	125 mph	18” (457 mm) coax
WISP24015PTNF	14” x 3” OD	1 lb (0.5 kg)	18.3 lbs	0.20 ft^2	125 mph	18” (457 mm) coax

Marathon Yagi Antenas, 800/900 MHz Series

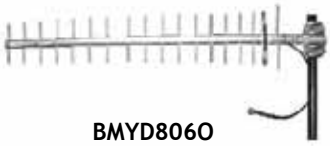
The Bluewave Marathon 800 MHz yagi series has engineered to meet the requirements of a high gain, broadband, premium quality antenna. The Bluewave yagi series is manufactured using high strength 6061-T6 aluminum to withstand heavy ice, high wind and other harsh conditions. All elements are welded to the boom and the dipole design has an integral feed line welded to the boom for extra strength and electrical conductivity. This eliminates misalignment or fastener problems. The entire antenna is anodized for appearance and corrosion resistance. A heavy duty clamp is supplied which easily permits horizontal or vertical polarization.

Features

- Elements and boom are manufactured from aircraft quality 6061-T6 aluminum for optimum strength
- Antenna is anodized for corrosion resistance
- Antenna is supplied with a 2' pigtail (RG213) and N female connector

BMYD806K

BMY806M



BMYD806O

BMYD806G

BWC1001(A) mount

RF/Electrical Specifications

Model	Frequency Range	-3 dB Horizonal Beamwidth	-3 dB Vertical Beamwidth	Front to Back Ratio	Nominal Gain
BMYD806G	806-896 MHz	100°	62°	15 dB	6.5 dBd
BMYD806K	806-896 MHz	60°	46°	20 dB	10 dBd
BMYD806M	806-896 MHz	44°	38°	20 dB	12 dBd
BMYD806O	806-896 MHz	36°	30°	25 dB	14 dBd
BMYD890G	890-960 MHz	100°	62°	15 dB	6.5 dBd
BMYD890K	890-960 MHz	56°	46°	20 dB	10 dBd
BMYD890M	890-960 MHz	40°	34°	20 dB	12 dBd
BMYD890O	890-960 MHz	32°	26°	25 dB	14 dBd

Technical Data

Maximum Power: 200 watts
Nominal Impedance: 50 ohms
Radiator Material: Aluminum 6061-T6
Mounting Method: Includes mounting hardware BWC1001

*** Dimension does not include antenna cable**
****120 mph with 1/2" radial ice (mph)**

Mechanical Specifications

Model	Dimensions[1] (L x W)	Weight (Mass)	Cross Sectional Area	Lateral Thrust @ 100 mph	Rated Wind Velocity	Elements	Cable Type	Cable Length	Connector Type
BMYD806G	13” x 6.8”	1.5 lbs	0.12 ft^2	3 lbs	125 mph	3	RG213	2 ft	N female
BMYD806K	24” x 6.8”	2 lbs	0.24 ft^2	6	125 mph	7	RG213	2 ft	N female
BMYD806M	37” x 6.8”	2.5 lbs	0.38 ft^2	9.5 lbs	125 mph	11	RG213	2 ft	N female
BMYD806O	60” x 7.3”	3.5 lbs	0.67 ft^2	16.75 lbs	125 mph	18	RG213	2 ft	N female
BMYD890G	13” x 6.8”	2.0 lbs	0.12 ft^2	3 lbs	125 mph	3	RG213	2 ft	N female
BMYD890K	24” x 6.8”	6.8 lbs	0.24 ft^2	6 lbs	125 mph	7	RG213	2 ft	N female
BMYD890M	37” x 6.6”	2.5 lbs	0.35 ft^2	8.75 lbs	125 mph	11	RG213	2 ft	N female
BMYD890O	63” x 6.6”	3.5 lbs	0.67 ft^2	16.75 lbs	125 mph	18	RG213	2 ft	N female

[1] Dimension does not include antenna cable
[2] 120 mph with 1/2” radial ice (mph)
[3] 80 mph with 1/2” radial ice (mph)

Marathon Yagi Antennas, 400 MHz Series

The Bluewave Marathon 400 MHz frequency series has been engineered to meet the requirements of a high gain, broadband, premium quality antenna. The Bluewave yagi series is manufactured using high strength 6061-T6 aluminum to withstand heavy ice, high wind and other harsh conditions. All elements are welded to the boom and the dipole design has an integral feed line welded to the boom for extra strength and electrical conductivity. This eliminates mis-alignment or fastener problems. The entire antenna is anodized for appearance and corrosion resistance. A heavy duty clamp is supplied which easily permits horizontal or vertical polarization.

Features

- Elements and boom are manufactured from aircraft quality 6061-T6 aluminum for optimum strength
- Antenna is anodized for corrosion resistance
- Antenna is supplied with a 2' pigtail (RG213) and N female connector

BMYD450G

BMYD451K

BMYD451M

BWC1001(A)

RF/Electrical Specifications

Model	Frequency Range	-3 dB Horizonal Beamwidth	-3 dB Vertical Beamwidth	Front to Back Ratio	Nominal Gain
BMYD403G	403-430 MHz	104°	62°	15 dB	6.5 dBd
BMYD403K	403-430 MHz	52°	46°	20 dB	10 dBd
BMYD450G	450-470 MHz	104°	65°	15 dB	6.5 dBd
BMYD450K	450-470 MHz	50°	45°	20 dB	10 dBd
BMYD451K	450-490 MHz	52°	45°	20 dB	10 dBd
BMYD451M	450-490 MHz	44°	39°	20 dB	12 dBd

Technical Data

Maximum Power: 250 watts
Nominal Impedance: 50 ohms
Radiator Material: Aluminum 6061-T6
Mounting Method (included): BWC1001 (for BMYD403G, BMYD403K and BMYD450G models) BWC1001A (for BMYD450G, BMYD450K, BMYD451K and BMYD451M models)

Mechanical Specifications

Model	Dimensions[1] (L x W)	Weight (Mass)	Cross Sectional Area	Lateral Thrust @ 100 mph	Rated Wind Velocity	Elements	Cable Type	Cable Length	Connector Type
BMYD403G	18” x 18.8”	2 lbs	0.23 ft²	5.75 lbs	125 mph[2]	3	RG213	2 ft	N Female
BMYD403K	44” x 14.3”	3.5 lbs	0.53 ft²	20.84 lbs	100 mph[3]	7	RG213	2 ft	N female
BMYD450G	18” x 13”	2 lbs	0.21 ft²	5.25 lbs	125 mph[2]	3	RG213	2 ft	N female
BMYD450K	42” x 11.8”	3 lbs	0.46 ft²	11.5 lbs	150 mph[3]	7	RG213	2 ft	N female
BMYD451K	42” x 11.8”	3 lbs	0.46 ft²	11.5 lbs	150 mph[3]	7	RG213	2 ft	N female
BMYD451M	72” x 13”	4 lbs	0.85 ft²	21.25 lbs	100 mph[3]	11	RG213	2 ft	N female

[1] Dimension does not include antenna cable
[2] 120 mph with 1/2” radial ice (mph)
[3] 80 mph with 1/2” radial ice (mph)

Bluewave Guardian Yagi Antennas

The Bluewave Guardian series has been engineered to provide high gain broad-band performance. Solid 3/8" aluminum elements complement the fully welded dipole on the boom. The black powder coat BGYD890M comes with an integral low loss 2' RG213 feed line with a standard N-Female connector. High strength mounting clamp is supplied for vertical or horizontal polarization.

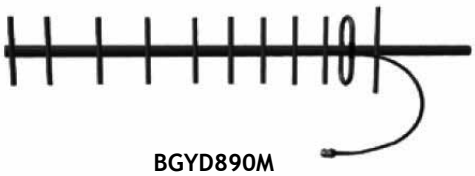
Features

- Dipole fully-welded to boom
- Black powder coat over stainless steel antenna assembly
- Mounting clamp included
- Antenna is supplied with a 2' pigtail (RG213) and N female connector

BGYD450K

BGYD890G

BGYD890K



BGYD890M

BWC1001 mount

BWC1022 mount

RF/Electrical Specifications

Model	Frequency Range	-3 dB Horizonal Beamwidth	-3 dB Vertical Beamwidth	Front to Back Ratio	Nominal Gain
BGYD450K	450-470 MHz	0°	45°	20 dB	10 dBd
BGYD806K	806-896 MHz	60°	46°	20 dB	10 dBd
BGYD890G	890-960 MHz	110°	62°	15 dB	6.5 dBd
BGYD890K	890-960 MHz	56°	46°	20 dB	10 dBd
BGYD890M	890-960 MHz	40°	34°	20 dB	12 dBd

Mechanical Specifications

Model	Dimensions[1] (L x W)	Weight (Mass)	Cross Sectional Area	Lateral Thrust @ 100 mph	Rated Wind Velocity
BGYD450K	42" x 11.8"	3 lbs	0.46 ft²	11.5 lbs	150 mph[2]
BGYD806K	24" x 6.8"	2 lbs	0.24 ft²	6 lbs	125 mph[3]
BGYD890G	14" x 6.8"	1.5 lbs	0.12 ft²	3 lbs	125 mph[3]
BGYD890K	24" x 6.8"	2 lbs	0.24 ft²	6 lbs	125 mph[3]
BGYD890M	37" x 6.6"	2.5 lbs	0.35 ft²	8.75 lbs	125 mph[3]

Model	Elements	Cable Type	Cable Length	Connector Type
BGYD450K	7	RG213	2 ft	N female
BGYD806K	7	RG213	2 ft	N female
BGYD890G	3	RG213	2 ft	N female
BGYD890K	7	RG213	2 ft	N female
BGYD890M	11	RG213	2 ft	N female

[1] Dimension does not include antenna cable
[2] 80 mph with 1/2" radial ice (mph)
[3] 120 mph with 1/2" radial ice (mph)

Technical Data

Maximum Power: 250 watts (BGYD450K) 200 watts
Nominal Impedance: 50 ohms
Radiator Material: Aluminum
Mounting Method: BWC1001 (BGYD1450K only) BWC1022 (all other models)

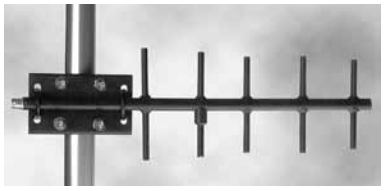
The BMOY UHF models are available in 3 element and 5 element versions. Each version includes models covering 406-440 MHz, 430-460 MHz, and 440-480 MHz. The line also includes a 5 element model covering 470-512 MHz.

Black Optimized Yagi Antennas

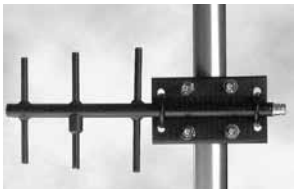
The BMOY yagis have been optimized using a genetic algorithm to achieve superior performance over the entire 800/900 MHz and UHF frequency bands. These antennas feature solid 3/8" elements attached to a seamless aluminum boom with 360° welds, and are finished with a black polyester powder coating. Each antenna has a type N termination located at the end of the boom, with a fully sealed driven element for complete protection against humidity, acid rain, or salt spray. A solid aluminum mounting bracket allows for either vertical or horizontal polarization. The BMOY's sturdy construction and advanced engineering design provides outstanding durability and superior performance in all weather conditions.

Features

- Broadband performance covering all 800/900 MHz frequencies and no tuning required. Provides optimal performance, minimizes inventory requirements, and reduces installation time.
- 360° welds at element and boom interface provide complete protection of the antenna's internal mechanism against moisture.
- Solid aluminum mounting clamps with stainless steel hardware. Ensures a robust installation and allows the antenna to be mounted for horizontal or vertical polarization.
- End-fed type N connector. Makes connector accessible for easier installations and protects the electrical connection from moisture and other extreme weather influences.
- Fully enclosed low loss feed system. No exposed gamma match to corrode or deteriorate.
- Black polyester powder-coated finish. Provides an added layer of protection, maximizing performance and durability under the toughest weather conditions.
- No tuning required. Allows faster, more reliable installations (UHF models).



BMOY8905



BMOY8903

End fed connector facilitates installation

360° welded elements and black powder coating provide maximum durability

PCTEL

Technical Data

Maximum Power: 150 watts
Nominal Impedance: 50 ohms
Radiator Material: 3/8" solid 6061-T6 aluminum
ESD Protection: DC grounded
Wind Survival: 200 mph with no ice. It will survive up to 110 mph with 0.5" radial ice build-up.
Termination: N female
Maximum Mounting Pipe Diameter: 1.9" OD (with MYK17 factory supplied mount) 2.68" OD (with MYK14 optional heavy duty mount)
Mounting Method: MYK17 mast mount bracket (included)

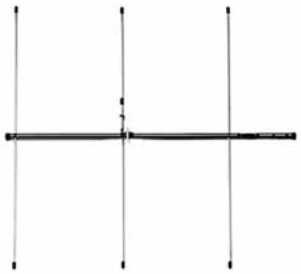
RF/Electrical Specifications

Model	Frequency Range	Gain	Bandwidth @ 1.5:1 VSWR	Horizontal Beamwidth @ 1/2 Power	Vertical Beamwidth @ 1/2 Power	Front-to-Back Ratio
BMOY4065	406-440 MHz	9.0 dBd	34 MHz	52°	45°	> 15 dB
BMOY4063	406-440 MHz	6.5 dBd	34 MHz	71°	62°	> 15 dB
BMOY4405	440-480 MHz	9.0 dBd	40 MHz	52°	45°	> 15 dB
BMOY4403	440-480 MHz	6.5 dBd	40 MHz	71°	62°	> 15 dB
BMOY4705	470-512 MHz	9.0 dBd	42 MHz	52°	45°	> 15 dB
BMOY8065	806-869 MHz	9.0 dBd	60 MHz	52°	45°	15 dB
BMOY8905	890-960 MHz	9.0 dBd	70 MHz	52°	45°	15 dB
BMOY8903	890-960 MHz	6.4 dBd	70 MHz	100°	54°	20 dB

Mechanical Specifications

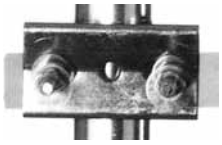
Model	Weight (Mass)	Elements	Bending Moment @ 125 mph Wind	Lateral Thrust @ 125 mph Wind	Equivalent Flat Plate Area	Boom Length	Boom Diameter
BMOY4065	2 lbs	5	32.4 ft-lbs	24.2 lbs	.31 ft^2	34”	.75”
BMOY4063	1.2 lbs	3	12.7 ft-lbs	14.8 lbs	.19 ft^2	22”	.75”
BMOY4405	2 lbs	5	32.4 ft-lbs	24.2 lbs	.31 ft^2	34”	.75”
BMOY4403	1.2 lbs	3	12.7 ft-lbs	14.8 lbs	.19 ft^2	22”	.75”
BMOY4705	2 lbs	5	32.4 ft-lbs	24.2 lbs	.31 ft^2	34”	.75”
BMOY8065	0.9 lbs	5	9.5 ft-lbs	12.6 lbs	.16 ft^2	20.5”	.75”
BMOY8905	0.9 lbs	5	9.5 ft-lbs	12.6 lbs	.16 ft^2	20.5”	.75”
BMOY8903	0.7 lbs	3	3.9 ft-lbs	7.9 lbs	.10 ft^2	14”	.75”

Aluminum Yagi Antennas



MYA2203KHDN

MYA1503K



MYK1

MYK2

The MYA UHF yagis are unsurpassed in their price to performance ratio. All models feature rugged 6061-T6 seamless aluminum construction, stainless steel hardware, and through boom mounting of all elements for years of reliable service. Elements are DC grounded to the boom. Select models are available in black finish. These antennas are UPS shippable.

Features

- Stainless steel hardware
- Available field tunable (add suffix “K”) or factory tuned
- Field tunable (FT) version has telescoping elements with stainless steel lock clamps for easy adjustment
- Stacking harness available for phasing two or more antennas Black finish available on select models
- 3 element yagi boom available with 7/8” double wall (add suffix “HD”)
- 6 element yagi boom is a 2 piece assembly
- Heavy-duty, double-walled aluminum boom
- Black finish available on select models

PCTEL

Technical Data

Maximum Power: 300 watts (UHF series) 250 watts (VHF series) 500 watts (MYA1403 only) 1000 watts (lowband series)
Nominal Impedance: 50 ohms
Radiator Material: 3/8” solid 6061-T6 aluminum
ESD Protection: DC grounded
Wind Survival: 100 mph, 125 mph (MYA43012 only)
Termination: SO239 standard, N female is optional

RF/Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Bandwidth @ 1.5:1 VSWR	Horizontal Beamwidth @ 1/2 Power	Vertical Beamwidth @ 1/2 Power	Front-to-Back Ratio
MYA723K(N)	66-88 MHz	Specify frequency when ordering or add suffix "K" for field or factory tuned option. Add suffix "FT" for telescopic elements option	9.2 dBi	.7/1.7 MHz	72°	57°	15 dB
MYA1403K	130-150 MHz		9.2 dBi	0.7 MHz	72°	57°	17 dB
MYA1403N*	132-150 MHz		9.2 dBi	0.7 MHz	72°	57°	17 dB
MYA1503K(N)	150-174 MHz		9.2 dBi	0.7 MHz	72°	57°	17 dB
MYA1505K(N)	150-174 MHz		11.3 dBi	1.3 MHz	56°	48°	20 dB
MYA1506N	150-174 MHz		12.3 dBi	1.5 MHz	42°	40°	20 dB
MYA2203KHDN	220-250 MHz		9.2 dBi	3.0 MHz	72°	57°	17 dB
MYA4063	406-420 MHz	413 MHz	9.2 dBi	15 MHz	72°	57°	17 dB
MYA4065N	406-420 MHz	413 MHz	11.3 dBi	15 MHz	56°	48°	20 dB
MYA4205N	420-440 MHz	430 MHz	11.3 dBi	20 MHz	56°	48°	20 dB
MYA4303	430-450 MHz	440 MHz	9.2 dBi	20 MHz	72°	57°	17 dB
MYA45012(N)	450-470 MHz	460 MHz	14.3 dBi	20 MHz	36°	34°	25 dB
MYA4503(N)	450-470 MHz	460 MHz	9.2 dBi	20 MHz	72°	57°	17 dB
MYA4505(N)	450-470 MHz	460 MHz	11.3 dBi	20 MHz	56°	48°	20 dB
MYA4506(N)	450-470 MHz	460 MHz	12.3 dBi	20 MHz	42°	40°	20 dB
MYA4706	470-490 MHz	480 MHz	12.3 dBi	20 MHz	42°	40°	20 dB
MYA7106	710-746 MHz	728 MHz	11.1 dBi	36 MHz	55°	45°	15 dB
MYA80612	806-866 MHz	813 MHz	13.1 dBi	60 MHz	36°	34°	20 dB
MYA8063	806-866 MHz	813 MHz	8.1 dBi	60 MHz	72°	57°	15 dB
MYA8066	806-866 MHz	813 MHz	11.1 dBi	60 MHz	42°	40°	16 dB
MYA82512	824-896 MHz	835 MHz	13.1 dBi	73 MHz	36°	34°	20 dB
MYA8253	824-896 MHz	835 MHz	8.1 dBi	73 MHz	72°	57°	15 dB
MYA8256	824-896 MHz	835 MHz	11.1 dBi	73 MHz	42°	40°	16 dB
MYA91512	896-940 MHz	915 MHz	13.1 dBi	45 MHz	40°	42°	20 dB
MYA9153	896-940 MHz	915 MHz	8.1 dBi	75 MHz	72°	57°	15 dB
MYA9156	896-940 MHz	915 MHz	11.1 dBi	45 MHz	48°	56°	20 dB
MYA93012	896-970 MHz	930 MHz	13.1 dBi	75 MHz	40°	42°	20 dB
MYA9303	896-970 MHz	930 MHz	8.1 dBi	50 MHz	72°	57°	15 dB
MYA9306	896-970 MHz	930 MHz	11.1 dBi	75 MHz	48°	56°	20 dB
MYA9309	896-970 MHz	930 MHz	12.1 dBi	75 MHz	52°	43°	20 dB

*** Must specify frequency when ordering; add $3.00 for "N" connector. Suffix "N" indicates "N" connector. Add suffix "K" for field or factory tuned option. Add suffix "FT" for telescopic elements option.**

Mechanical Specifications

Model	Weight (Mass)	Elements	Bending Moment at Rated Wind	Lateral Thrust @ Rated Wind	Equivalent Flat Plate Area	Boom Length	Boom Diameter
MYA723K(N)	7 lbs	3	155 ft-lbs	48.9 lbs	1.26 sq ft	92”	1-1/2” (double walled)
MYA1403K	3 lbs	3	25.3 ft-lbs	14.5 lbs	.36 sq ft	42”	7/8”
MYA1403N*	3 lbs	3	25.3 ft-lbs	14.5 lbs	.36 sq ft	42”	7/8”
MYA1503K(N)	3 lbs	3	25.3 ft-lbs	14.5 lbs	.36 sq ft	42”	7/8”
MYA1505K(N)	4 lbs	5	82.7 ft-lbs	27.6 lbs	.71 sq ft	72”	1-1/4”
MYA1506N*	5 lbs	6	160.6 ft-lbs	37.1 lbs	.96 sq ft	104”	1-1/4”
MYA2203KHDN	3 lbs	3	16 ft-lbs	9.1 lbs	.21 ft^2	42”	7/8”
MYA4063	1.5 lbs	3	5.9 ft-lbs	6.1 lbs	.15 ft^2	23”	7/8”
MYA4065N	2.0 lbs	5	12.6 ft-lbs	9.3 lbs	.23 ft^2	35.5”	7/8”
MYA4205(N)	2.0 lbs	5	12.6 ft-lbs	9.3 lbs	.23 ft^2	35.5”	7/8”
MYA4303	1.5 lbs	3	5.9 ft-lbs	6.1 lbs	.15 ft^2	23”	7/8”
MYA45012(N)	5.0 lbs	12	74.6 ft-lbs	24.9 lbs	.62 ft^2	72”	1-1/4”
MYA4503(N)	1.5 lbs	3	5.9 ft-lbs	6.1 lbs	.15 ft^2	23”	7/8”
MYA4505(N)	2.0 lbs	5	12.6 ft-lbs	9.3 lbs	.23 ft^2	35.5”	7/8”
MYA4506(N)	2.5 lbs	6	21.4 ft-lbs	12.2 lbs	.29 ft^2	42”	7/8”
MYA4706	2.5 lnb	6	21.4 ft-lbs	12.2 lbs	.29 ft^2	42”	7/8”
MYA7106	2 lbs	6	12.5 ft-lbs	10.7 lbs	.17 sq ft	28”	7/8”
MYA80612	2.5 lbs	12	17.8 ft-lbs	20.8 lbf	.27 ft^2	48”	7/8”
MYA8063	1.5 lbs	3	4.6 ft-lbs	6.5 lbs	.10 sq ft	17”	7/8”
MYA8066	2 lbs	6	12.5 ft-lbs	10.7 lbs	.17 sq ft	28”	7/8”
MYA82512	2.5 lbs	12	17.8 ft-lbs	.29 sq ft	.29 sq ft	48”	7/8”
MYA8253	1.5 lbs	3	4.6 ft-lbs	6.5 lbs	.10 sq ft	17”	7/8”
MYA8256	2 lbs	6	12.5 ft-lbs	10.7 lbs	.17 sq ft	28”	7/8”
MYA91512	2.5 lbs	12	23.3 ft-lbs	16.6 lbs	.27 sq ft	48”	7/8”
MYA9153	1.5 lbs	3	4.2 ft-lbs	5.9 lbs	.09 sq ft	17”	7/8”
MYA9156	1.5 lbs	6	10.6 ft-lbs	9.1 lbs	.16 sq ft	23”	7/8”
MYA93012	2.5 lbs	12	23.3 ft-lbs	16.6 lbs	.27 sq ft	48”	7/8”
MYA9303	1.5 lbs	3	4.2 ft-lbs	5.9 lbs	.09 sq ft	17”	7/8”
MYA9306	1.5 lbs	6	10.6 ft-lbs	9.1 lbs	.16 sq ft	23”	7/8”
MYA9309	1.5 lbs	9	12.7 ft-lb	10.3 lbs	.18 sq ft	23”	7/8”

*** Must specify frequency when ordering; add $3.00 for “N” connector. Suffix “N” indicates “N” connector. Add suffix “K” for field or factory tuned option. Add suffix “FT” for telescopic elements option.**

MCR Broadband Corner Reflector Antennas Series

With a higher front-to-back ratio (unwanted signal rejection) the MCR806 delivers superior performance in areas of concentrated RF signals.

MCR806

Features

- 8.5 dB forward gain to aim signal in desired direction.
- Covers the entire band without tuning.
- RG-213/U cable with male connector.
- Rugged construction.

MCR806 RF/Electrical Specifications

Frequency Range	Factory Tuned Frequency	Gain	Bandwidth @ 1.5:1 VSWR	Horizontal Beamwidth @ 1/2 Power	Vertical Beamwidth @ 1/2 Power	Front-to-Back Ratio
806-960 MHz	835 MHz	8.5 dB	90 MHz	45°	56°	23 dB

Mechanical Specifications

Dimensions	Weight (Mass)	Equivalent Flat Plate Area	Lateral Thrust @ Rated Wind	Bending Moment at Rated Wind
14” H x 14” W (355.6 x 355.6 mm)	3.8 lbs (1.7 kg)	1.92 ft^2	71 lbs	41.4 ft-lbs

Technical Data

Maximum Power: 100 watts
Nominal Impedance: 50 ohms
Construction Material: 6061-T6 aluminum panels
ESD Protection: DC grounded
Wind Survival: 100 mph
Termination: 24” jumper with N male connector
Mounting Hardware: 1-1/4” U bolts (supplied)
Maximum Mount Pipe Diameter: 1-1/4”

2.3-2.7GHz Parabolic Reflector Antenna Series with Radome

The MPRC prime focus parabolic reflector antenna series suppresses extraneous sidelobe and cross-polarized energy. These antennas feature a micro fine elevation and azimuth adjustment kit. The MPRC series is provided with a radome as a standard feature.

Features

- Availability in two and three foot diameter sizes
- Radome comes standard and installed
- Rear mounted feed – radome never has to be removed
- Continuous polarization adjustment
- Fine adjustment mechanism for elevation and azimuth
- Assembled and attached offset mount allows easy access to connector
- Double saddle mounting brackets will accommodate pipe attachments ranging from 1.625” to 4.5” OD
- Robust mounting structure. Three point mount attachment improves stability and prevents reflector distortion and mechanical oscillation
- 2 foot versions are UPS shippable

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain (+/- 0.5 dB at mid band)	3 dB Beamwidth, Nominal
MPRC2423	2.3 - 2.7 GHz	21.5 dBi	12.4°
MPRC3623	2.3 - 2.7 GHz	24.5 dBi	9.0°

Mechanical Specifications

Model	Wind Survival with 1/2” of radial ice	Temperature Range	Diameter
MPRC2423	125 mph	-40°C to +80°C	26”
MPRC3623	125 mph	-40°C to +80°C	36”

Technical Data

General Specifications: Prime Focus Parabolic Reflector Antenna
Maximum Power: 5 watts
Nominal Impedance: 50 ohms
SWR/return loss: < 1.5 / >13.9 dB
Polarization: Linear, continuously adjustable
Front-to-back Ratio: 28 dB (MPRC2423) 29 dB (MPRC3623)
Interface Connector: Type N female
Mount Interface: Accommodates 1.625” to 4.5” pipe OD

3.3-3.8GHz Parabolic Reflector Antenna Series with Radome

The MPRC prime focus parabolic reflector antenna series suppresses extraneous sidelobe and cross-polarized energy. These antennas feature a micro fine elevation and azimuth adjustment kit. The MPRC series is provided with a radome as a standard feature.

Features

- Availability in two and three foot diameter sizes
- Radome comes standard and installed
- Rear mounted feed – radome never has to be removed
- Continuous polarization adjustment
- Fine adjustment mechanism for elevation and azimuth
- Assembled and attached offset mount allows easy access to connector
- Double saddle mounting brackets will accommodate pipe attachments ranging from 1.625” to 4.5” OD
- Robust mounting structure. Three point mount attachment improves stability and prevents reflector distortion and mechanical oscillation
- 2 foot versions are UPS shippable

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain (+/- 0.5 dB at mid band)	3 dB Beamwidth, Nominal
MPRC2434	3.3 - 3.8 GHz	25.0 dBi	8.7°
MPRC3634	3.3 - 3.8 GHz	27.8 dBi	6.3°

Mechanical Specifications

Model	Wind Survival with 1/2” of radial ice	Temperature Range	Diameter
MPRC2434	125 mph	-40°C to +80°C	26”
MPRC3634	125 mph	-40°C to +80°C	36”

PCTEL

Technical Data

General Specifications: Prime Focus Parabolic Reflector Antenna
Maximum Power: 5 watts
Nominal Impedance: 50 ohms
SWR/return loss: < 1.5 / >13.9 dB
Polarization: Linear, continuously adjustable
Front-to-back Ratio: 32 dB (MPRC2434) 33 dB (MPRC3634)
Interface Connector: Type N female
Mount Interface: Accommodates 1.625” to 4.5” OD

4.9-6.0GHz Wideband Parabolic Reflector Antenna Series with Radome

The MPRC prime focus parabolic reflector antenna series suppresses extraneous sidelobe and cross-polarized energy. These antennas feature a micro fine elevation and azimuth adjustment kit. The MPRC series is provided with a radome as a standard feature.

Features

- Availability in two and three foot diameter sizes
- Radome comes standard and installed
- Rear mounted feed – radome never has to be removed
- Linear, continuous polarization adjustment
- Fine adjustment mechanism for elevation and azimuth
- Assembled and attached offset mount allows easy access to connector
- Double saddle mounting brackets will accommodate pipe attachments ranging from 1.625” to 4.5” OD
- Robust mounting structure. Three point mount attachment improves stability and prevents reflector distortion and mechanical oscillation
- 2 foot versions are UPS shippable

Technical Data

General Specifications: Prime Focus Parabolic Reflector Antenna
Maximum Power: 5 watts
Nominal Impedance: 50 ohms
SWR/return loss: < 1.5 / >13.9 dB
Polarization: Linear, continuously adjustable
Front-to-back Ratio: 36 dB (MPRC2449) 43 dB (MPRC3649)
Interface Connector: Type N female
Mount Interface: Accommodates 1.625” to 4.5” pipe OD

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain (+/- 0.5 dB at mid band)	3 dB Beamwidth, Nominal
MPRC2449	4.9 - 6.0 GHz	27.7 dBi at 4.9 GHz 28.5 dBi at 5.25 GHz 29.0 dBi at 5.8 GHz	6°
MPRC3649	4.9 - 6.0 GHz	30.4 dBi at 4.9 GHz 31.2 dBi at 5.25 GHz 32.0 dBi at 5.8 GHz	4°

Mechanical Specifications

Model	Wind Survival with 1/2” of radial ice	Temperature Range	Diameter
MPRC2449	125 mph	40°C to +80°C	26” (66 cm)
MPRC3649	125 mph	40°C to +80°C	36” (91 cm)

4.9-6.0GHz Wideband Dual Polarized Parabolic Reflector Antenna Series with Radome

The MPRD prime focus parabolic reflector antenna suppresses extraneous sidelobe and cross-polarized energy. These antennas feature a micro fine elevation and azimuth adjustment kit. The MPRD series is provided with a radome as a standard feature.

Features

- Availability in two and three foot diameter sizes
- Radome comes standard and installed
- Rear mounted feed – radome never has to be removed
- Linear, continuous polarization adjustment
- Fine adjustment mechanism for elevation and azimuth
- Assembled and attached offset mount allows easy access to connector
- Double saddle mounting brackets will accommodate pipe attachments ranging from 1.625” to 4.5” OD
- Robust mounting structure. Three point mount attachment improves stability and prevents reflector distortion and mechanical oscillation
- 2 foot versions are UPS shippable

RF/Electrical Specifications

Model	Frequency Range	Nominal Gain (+/- 0.5 dB)	3 dB Beamwidth, Nominal
MPRD2449	4.9-6.0 GHz	27.5 dBi @ 4.9 GHz 28.1 dBi at 5.15 GHz 29.4 dBi at 5.875 GHz	6˚
MPRD3649	4.9-6.0 GHz	29.8 dBi @ 4.9 GHz 31.0 dBi at 5.15 GHz 32.0 dBi at 5.875 GHz	4˚

Mechanical Specifications

Model	Wind Survival with 1/2” of radial ice	Temperature Range	Diameter
MPRD2449	125 mph	-40˚C to +80˚C	26” (66 cm)
MPRD3649	125 mph	-40˚C to +80˚C	36” (91 cm)

PCTEL

Technical Data

General Specifications: Prime Focus Parabolic Reflector Antenna
Maximum Power: 25 watts
Nominal Impedance: 50 ohms
SWR/return loss: < 1.5 / >13.9 dB for 5.15-6.0 GHz operation < 1.7/ >12 dB for 4.9-5.15 GHz operation
Polarization: Dual linear, continuously adjustable
Front-to-back Ratio: 36 dB (MPRD2449) 43 dB (MPRD3649)
Interport Isolation: > 35 dB
Cross Polarization Discrimination: > 30 dB
Interface Connector: Type N female
Mount Interface: Accommodates 1.625” to 4.5” pipe OD

MBS Series Base Station Adapters

The MBS VHF/UHF/800 MHz series is ideal for temporary installations. The MBS adapter allows a mobile VHF, UHF or 800 MHz antenna to be used as a base station. By providing radials, the antenna can be used in areas where a ground plane is not available.

Features

- Will accept any antenna that utilizes 1-1/8”-18 thread mounts
- Mounts on 1” - 1.75” outside diameter masts
- Converts any 136-940 MHz mobile antenna into a base station

RF/Electrical Specifications

Model	Frequency Range	Factory Tuned Frequency	Gain	Bandwidth @ 1.5:1 VSWR	Insertion Loss at Highest Frequency
MBS	132-512 MHz	Dependent upon the antenna			.1 dB
MBSUHF	406-512 MHz	Dependent upon the antenna			.1 dB
MBS800	806-940 MHz	Dependent upon the antenna			.2 dB

Technical Data

Maximum Power: 250 watts (MBS) 200 watts (MBSUHF) 100 watts (MBS800)
Construction Material: Stainless steel
Termination: MBS: SO-239; N female MBSUHF: N female MBS800: N female

Mounts for Omnidirectional Antennas

Model	Description	Application	Qty per Assembly
MMK1	3-groove backing plate	For mounting a 1-5/16” outer diameter antenna to a 1-1/4” maximum outer diameter mast.	1
MMK1924	Stainless steel “L” bracket mount for wall or pipe mount	For mounting an omnidirectional antenna to a 2” maximum diameter mast. Bracket is 6” long with a 5/8” diameter hole for mounting the antenna.	1
MMK2	1-1/2” stainless steel “L” bracket	For mounting an antenna with a base connector to a 2” maximum diameter mast. Bracket is 9” long with a 5/8” diameter hole for mounting the antenna.	1
MMK3	Base station mount bracket	For mounting a 1-5/16” outer diameter antenna to a 1-1/4” maximum outer diameter mast.	2
MMK4	Heavy duty fiberglass base station mount	For mounting an antenna with 2-2/2” maximum diameter onto a 2-1/2” maximum outer diameter mast.	2
MMK8A	Aluminum MFB mount bracket	For mounting a 1-1/4” diameter antenna to a 2-1/2” maximum diameter mast.	1
MMK9	Aluminum MFB mount bracket	For mounting a 1-5/16” diameter antenna to a 2-1/2” maximum diameter mast.	1
MMK12	Heavy duty sand cast mount bracket	For mounting yagi or omnidirectional antenna up to 3.00” maximum diameter mast.	
BAM1005	Light duty parallel or perpendicular pipe to pipe clamp.	Mounts to legs, towers, accessories with 1.5 - 2.4” OD pipe.	1

MMK1

MMK1924

MMK2

MMK3

MMK4

MMK8A

MMK9

MMK12

MMA1

BAM1005

Mounts for Directional Antennas

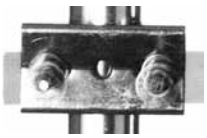
Model	Description	Application	Qty per Assembly
MBSWM	Wall mount	For wall mounting antennas of up to 2-1/4" in diameter.	1
MPAB7	Heavy duty outdoor adjustable mount with +/-35° uptilt/downtilt adjustment	Adjustable outdoor mounting bracket for MP XF 800/900 MHz directional panel antennas. One 6" and one 8" bracket.	2
MPAB8	Heavy duty outdoor adjustable mount with 17° uptilt/downtilt adjustment	Adjustable outdoor mounting bracket for MPXF 800/900 MHz directional panel antennas. Two 6" brackets.	2
MPAB8W	Heavy duty outdoor adjustable mount with 17° uptilt	Downtilt adjustment / Adjustable outdoor mounting bracket for MPXF 800/900 MHz directional panel antennas. Two 6" galvanizing brackets.	1
MPAB14	Heavy duty outdoor cast aluminum adjustable hose clamp	Adjustable outdoor hose clamp for XF series panel antennas for mounting up to 1.6" maximum diameter	1
MYK1	Mount kit for 7/8" boom yagis	For mounting 7/8" diameter boom yagis to a 1-5/8" maximum diameter mast.	1
MYK2	Mount kit for 1-1/4" boom yagis	For mounting 1-1/4" diameter boom yagis to a 2" maximum diameter mast.	1
MYK3	Heavy duty mount for 7/8" boom yagis	For mounting 7/8" diameter boom yagis to a 2" maximum diameter mast.	1
MYK4	Mounting kit for bottom dipole fiberglass base station antennas	For mounting to a 2" maximum diameter mast.	1
MYK10	Heavy duty cast yagi bracket	For mounting a 7/8" OD yagi to a 2-1/2" maximum OD mast. Adjustable for vertical or horizontal polarization.	1
BWC1001	Yagi clamp	Fits mast OD of 0.5 - 0.84". Mounts to legs, towers, accessories with 1.25 - 2.4" OD	1
BWC1001A	Yagi clamp	Fits mast OD of 0.75 - 1". Mounts to legs, towers, accessories with 1.25 - 2.4" OD	1
BWC1015	Rotational perpendicular yagi clamp	Fits mast OD of 0.5 - .84". Mounts 90° to legs, towers, accessories with 6.5 - 15" OD	1

MBSWM

MPAB7

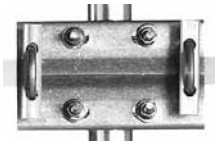
MPAB8

MPAB14



MYK1

MYK2 (front)



MYK3

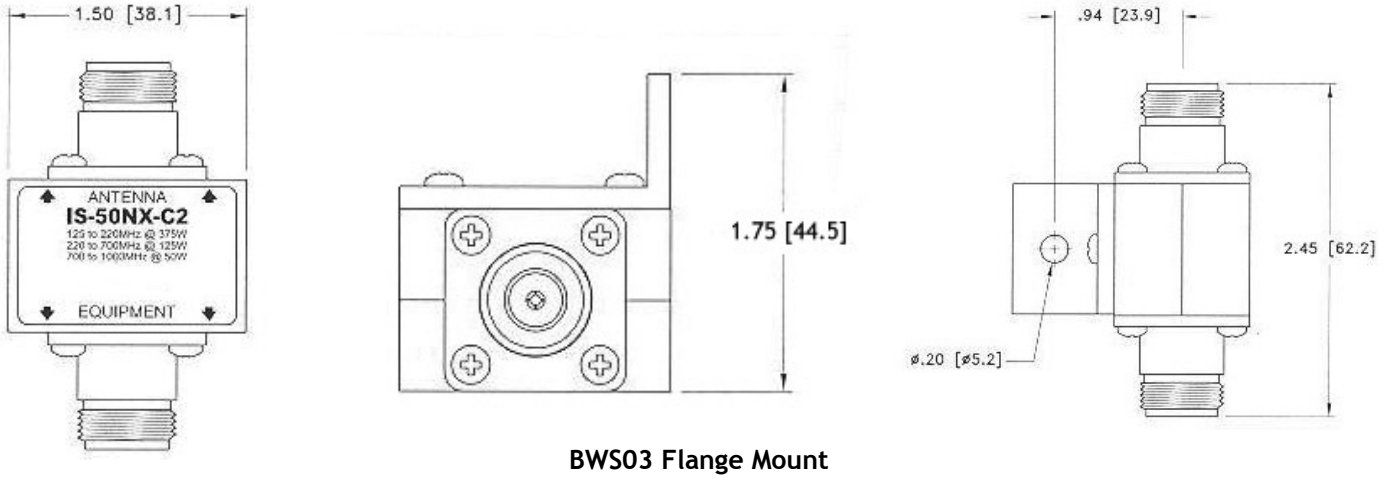
MYK4 (front)

MYK10

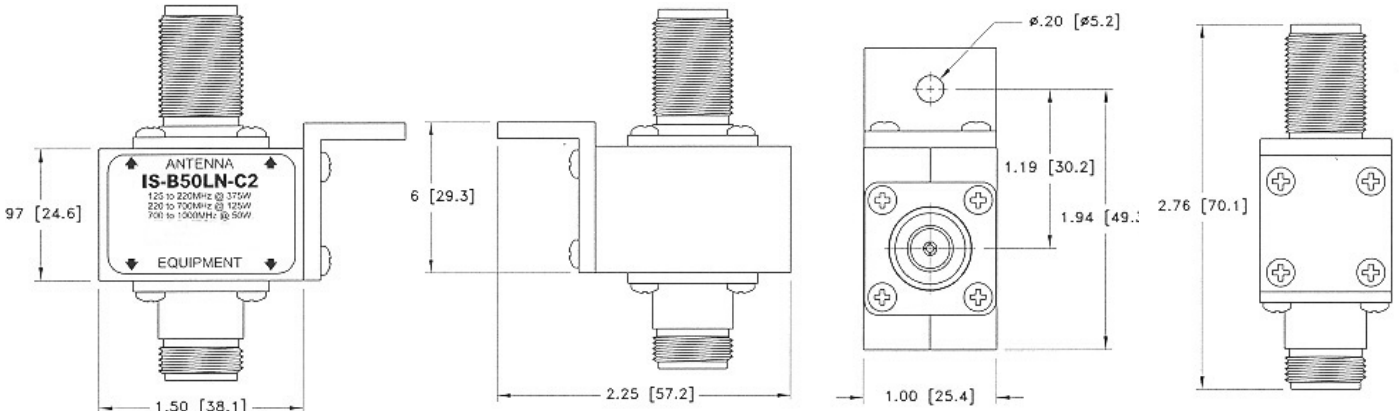
BWC1001(A)

BWC1015

Surge Suppressors



BWS03 Flange Mount



BWS07 Bulkhead Mount

Mechanical Specifications

Model	Frequency Range	VSWR	Insertion Loss	Turn-on
BWS03	125 - 1000 MHZ	<1.1 over frequency range	<0.1 db over frequency range	600fb Vdc ± 20%
BWS07	125 - 1000 MHz	<1.1 over frequency range	<0.1 db over frequency range	600fb Vdc ± 20%

Model	Throughput Energy	Operating Temperature	Relative Humidity	Vibration
BWS03	<220uJ for 8/20 s waveform	-45°C to +50°C	90% at 40°C	1G at 5Hz to 100Hz
BWS07	<220uJ for 8/20 s waveform	-45°C to +50°C	90% at 40°C	1G at 5Hz to 100Hz

PCTEL

Technical Data

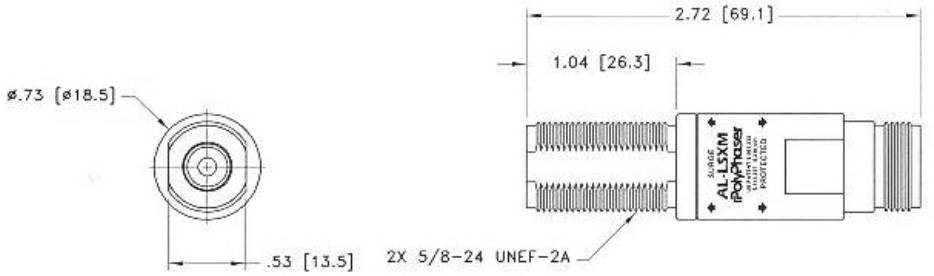
Maximum Power:
375W @ 125MHz decreasing to 50W @ 1GHz

Connector:
NF to NF

Lightning Arrestor for Bluewave Antenna Series

Patented protection for single or multi-channel transmitters and/or receivers. One of the industry's BEST RF performance, fully weatherized, compact integrated connector housing, Industry's lowest throughput energy, maintenance free, and multi-strike compatible for 2.0-6.0 GHz. Weatherproof when installed.

The BWS26 is UL approved and listed (UL497B).



Technical Data

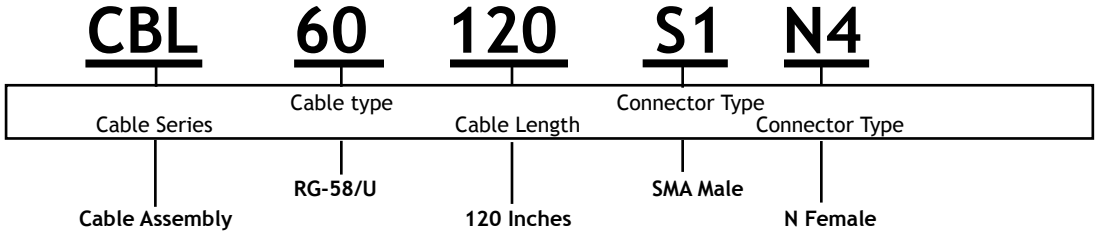
Application: DC Blocked RF
Maximum Power: 10 watts
Unit Impedance: 50 Ω
Thoroughput Energy: ≤ 0.5000 µJ
Connector: NF to NF
Mounting: Bulkhead

Mechanical Specifications

Model	Frequency Range	VSWR	Insertion Loss
BWS26	2.0-6.0 GHz	1.3:1	0.1 dB

Cable Assembly Parts Number Guide

PCTEL's cable assemblies can be made in various lengths and connector options. Please refer to this template to determine available cable and connector options and to determine your configurator part number.



SERIES
CBL = Cable Assembly

CABLE TYPE
01 = LMR 100
02 = LMR 195
11 = Pro-Flex Plus 100
12 = Pro-Flex Plus 195
13 = Pro-Flex Plus 195A/U
14 = Pro-Flex Plus 195 (white)
20 = LMR240
30 = LMR400
31 = LMR400 Direct Burial
44 = LMR600
52 = RG-58A/U
53 = RG-142/U
54 = RG-174/U
55 = RG-213/U
60 = RG-58/U
61 = RG-58 Teflon (white)
62 = RG-316
74 = LMR900

CABLE LENGTH
** Cable is available in length by inch. Longer cable will lead to higher potential loss.
ex. 010 = 10 Inches
ex. 150 = 14 ft 6 in (150 in.)
ex. 300 = 25 ft. (300 in.)

CONNECTOR TYPE
B = BNC
N = N
F = FME
S = SMA
P = PL259
M = Mini-UHF
T = TNC
U = SMB
X = MCX
Z = MMCX

CONNECTOR TYPE
1 = Male
2 = Male reverse polarity
3 = Male right angle
4 = Female
5 = Female reverse polarity
6 = Female right angle
7 = Male soldered
8 = Female soldered

CONNECTOR COMPATIBILITY
Connectors are not necessarily compatible with every cable type. Please inquire to customer service as to what configurations and inventory are available.

**Product cable length will be within +/- 2 inches of order

High Efficiency, Low Loss Coaxial Cable Specification Chart

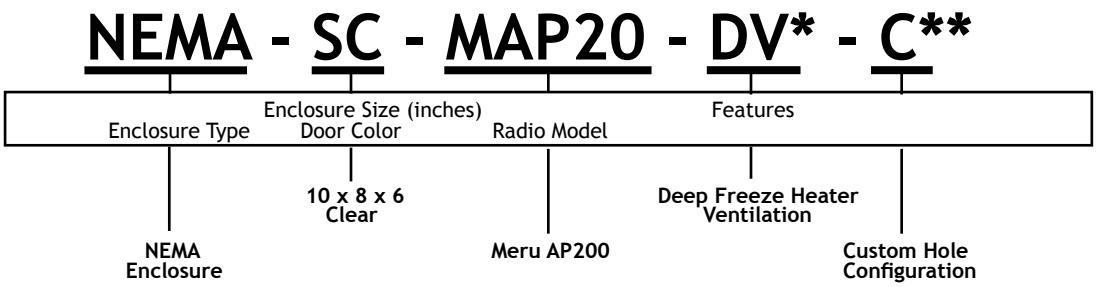
Cable Type	Inner Conductor	Outer Jacket	OD	Dielectric Material	Attenuation** (dB/100 ft)					
					200 MHz	700 MHz	900 MHz	2.4 GHz	4.9 GHz	5.8 GHz
Pro-Flex™ Plus 100A	Solid	Black PVC	0.110”	Solid Polyethylene	10.4	20	22.8	39	58	64
Pro-Flex™ Plus 195	Solid	Black PVC	0.195”	Solid Polyethylene	5.1	9.8	11.1	19	28	32
Pro-Flex™ Plus 195, White	Solid	White PVC	0.195”	Solid Polyethylene	5.1	9.8	11.1	19	28	32
Pro-Flex™ Plus 195, A/U	Stranded	Black PVC	0.195”	Solid Polyethylene	6	12	13	22	32	36
Pro-Flex™ Plus 400	Solid	Black PVC	0.405”	Foam Polyethylene	1.8	3.4	3.9	7	10	11
Pro-Flex™ Plus 240	Solid	Black PVC	0.240”	Foam Polyethylene	3.4	6.6	7.5	12.6	18	20
Pro-Flex™ Plenum	Solid	Teflon	0.195”	White Teflon	5	9.6	11	19	28	32
LMR®-100	Solid	Black PVC	0.110”	Foam Polyethylene	10.4	20	22.8	39	58	64
LMR®-195	Solid	Black PVC	0.195”	Foam Polyethylene	5.1	9.8	11.1	19	28	32
LMR®-240	Solid	Black PVC	0.240”	Foam Polyethylene	3.4	6.6	7.5	12.6	18	20
LMR®-240 Ultraflex	Stranded	Black PVC	0.240”	Foam Polyethylene	4.2	7.9	9	15.2	22	24
LMR®-400	Solid	Black PVC	0.400”	Foam Polyethylene	1.8	3.4	3.9	7	10	11

Coaxial Cable Specification Chart

Cable Type	Inner Conductor	Outer Jacket	OD	Dielectric Material	Attenuation** (dB/100 ft)				
					100 MHz	450 MHz	900 MHz	1.6 GHz	2.4 GHz
RG-58/U	Solid	Black PVC	0.195”	Solid Polyethylene	4.5	10	16	22	28
RG-58A/U	Stranded	Black PVC	0.195”	Solid Polyethylene	4.9	11.5	20	27	36
RG-58 Teflon	Stranded	White Teflon	0.160”	White Teflon	3.1	8.1	12.3	21	27
RG-174	Solid	Black PVC	0.110”	Solid Polyethylene	8.4	20	29.5	41	52
RG-316	Stranded	Brown Teflon	0.110”	White Teflon	8	17	25	33	41
RG-213	Stranded	Black PVC	0.405”	Solid Polyethylene	2.2	4.7	8	13	17

NEMA Enclosure Nomenclature Guide

Sparco's NEMA Enclosures use the following model to generate configured product codes. This structure outlines the radio type and features of each configured enclosure.



ENCLOSURE TYPE
NEMA = NEMA Enclosure

ENCLOSURE SIZE (INCHES)
T = X-Small (8 x 6 x 5)
S = Small (10 x 8 x 6)
M = Medium (12 x 10 x 6)
L = Large (14 x 12 x 6)
X = X-Large (16 x 14 x 6)

DOOR ATTRIBUTE (COLOR)
C = Clear
O = Opaque

RADIO MODEL
CIS24 = Cisco 1220/1230/1240
CIS50 = Cisco 1250
MAP15 = Meru AP150
MAP20 = Meru AP200
MAP35 = Meru AP350
SYM3I = Symbol AP300 (Internal)
SYM3E = Symbol AP300 (External)
SYM51 = Symbol 5131
UNVRL = Universal (Velcro)

FEATURES
D = Deep freeze heater
F = Fan & Filter
H = Heater
J = Heater, Fan & Filter
L = Lock & Key
M = Mast Mount Kit
O = POE Fan
P = POE Heater
Q = POE Fan & Heater
V = Ventilation

FEATURE COMPATIBILITY
*For additional feature enhancement, please include as many options as fit your application. Certain features may not be mutually inclusive, please contact Sparco Customer Service for compatible configuration options.

CUSTOM DRILL-HOLE CONFIGURATION
**C = Custom (Optional)
For custom hole configurations, please reference Sparco's configuration template document

For Sparco Technologies' Customer Service, call 800.890.1359.

IOM Series Enclosure

Designed for use as an insulated enclosure to protect radio frequency access devices in wet, dusty, and corrosive environments. Clear cover provides easy visual inspection of interior components. Lightweight design is easy to ship and install. Enclosures also designed to prevent theft and tampering of radio equipment.

Features

- Body is impact-resistant engineered thermoplastic.
- Opaque and Clear covers are impact-resistant engineered thermoplastic.
- Seamless foam-in-place gasket assures watertight and dust-tight seal
- Mounting Feet for easy field installation included with each shipment
- Mounting plate for easy install of Bridge/AP
- Engineered Plastic quick release latch with external locking loop
- The engineered thermoplastic enclosures have dramatically better impact resistance. For example, the IOM Series has an impact resistance of over 900 lb/in, while fiberglass typically has an impact resistance of less than 220 lb/in.
- UL-50 Type 3R, 4, 4X, 12, NEMA 4X
- Universal Mounting bracket can be adjusted to accommodate most manufactures' radio products.
- Clear or Opaque door options available – standard is Clear so that radio status lights can be viewed easily.
- Hinges and Mounts are Engineered Plastic and are good for wash-down areas, outdoor environments and marine applications.
- Wall Mounting Foot Kit included with each shipment.
- Mast Mounting Kit available.
- Diversity 'jumper' cables included with each shipment (Standard is Reverse TNC – others easily available).
- Sealed Grommet installed for Data Cable
- Enclosures are non-corrosive and perfect for Marine applications as well as other outdoor and wash-down environments.
- Mounting Plate works with Cisco, Proxim, Symbol, FireTide, Linksys, Dlink, Zyxel and more.

Dimensions (inches)

Enclosures	A x B	C	D	E	F	G	H	I
8 x 6 x 4	6.25 x 4.25	8.75	6.75	9.4	5.7	8.3	5	6.3
10 x 8 x 4	8.25 x 6.25	10.75	8.75	11.4	6.2	10.3	5.5	8.3
12 x 10 x 6	10.25 x 8.25	12.75	10.75	13.4	7.7	12.3	7	10.3
14 x 12 x 6	12.25 x 10.25	14.75	12.75	15.4	7.7	14.3	7	12.3
16 x 14 x 8	14.25 x 12.25	16.75	14.75	17.4	9.7	16.3	9	14.3