### XtremeWave™ MFB Series



An ISO-9001: 2000 Registered Company

# PCS, 2.4 GHz ISM, MMDS and 5.8 GHz ISM/UNII Omnidirectional Base Station Antenna Series

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

#### **General Specifications:**

#### Radome Material:

UV resistant pultruded fiberglass

#### Polarization:

Vertical

#### **Lightning Protection:**

Not standard, but all models can be ordered with DC grounding. Add a "DC" suffix to the part number to choose the DC grounded version of the antenna.

#### Nominal Impedance:

50 Ohms

#### Mounting Base Diameter:

1.25 inches (all models except MFB24012)

1.5 inches (model MFB24012)

#### Mounting Method (sold separately):

MMK1924 - L-bracket mount for wall or pipe mount (all models, except MFB24010 and MFB24012)

MMK8 - Aluminum extruded bracket for mast mounting (all models, except model MFB24012)

MMK11 - Ceiling mount bracket (for MFB24004, MFB24006 and MFB24008 only)

MMK12 - Heavy duty bracket for mast mounting the MFB24012

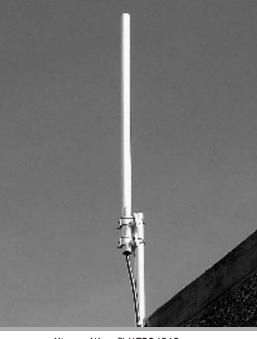
MMK14 - Light duty mounting clamp for MFB24012

#### Termination:

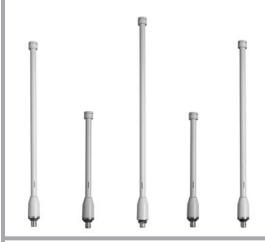
N female standard with all models, except MFB24012 and MFB58009PTNM N female, reverse polarity and reverse threaded connectors optional 16" RG-213 pigtail with N female connector for model MFB24012 only 5' LMR400 pigtail with N male connector for model MFB58009PTNM only N male connector option available with models MFB58009, MFB24010, MFB24008, MFB24006 and MFB19008. To order, add "NM" to part number.

#### Features and Benefits:

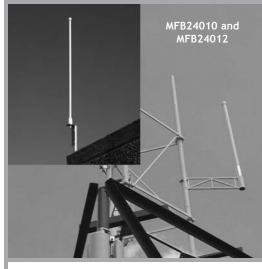
- UV stable, pultruded fiberglass radome. Allows outdoor installation even in harsh climates. Vented system design. Provides reliable performance by protecting the electrical design against extreme moisture and/or temperatures.
- Thread relief on connector (all models, except MFB24012 and MFB58009PTNM which have pigtails). 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.



XtremeWave™ MFB24012



XtremeWave™ Models 25007 (MMDS), MFB58009 (5.8 GHz ISM) and MFB19008A (PCS), MFB24006 and MFB24008 (2.4 GHz ISM) Antennas



## Specifications

#### **Electrical Specifications**

				Vertical			
Model #	Frequency Range	Gain	Bandwidth @ 1.5:1 VSWR	Beamwidth @ 1/2 Power	VSWR	Maximum Power	Downtilt
MFB19008A	1850-1990 MHz	8 dBi	140 MHz	12°	< 1.5:1	25 Watts	N/A
MFB24004	2400-2483.5 MHz	4 dBi	100 MHz	30°	< 1.5:1	25 Watts	N/A
MFB24006	2400-2483.5 MHz	6 dBi	100 MHz	20°	< 1.5:1	25 Watts	N/A
MFB24008	2400-2483.5 MHz	8 dBi	100 MHz	13°	< 1.5:1	25 Watts	N/A
MFB24008DT3	2400-2483.5 MHz	8 dBi	100 MHz	13°	< 1.5:1	25 Watts	3°
MFB24008DT5	2400-2483.5 MHz	8 dBi	100 MHz	13°	< 1.5:1	25 Watts	5°
MFB24008DT7	2400-2483.5 MHz	8 dBi	100 MHz	13°	< 1.5:1	25 Watts	7°
MFB24008DT12	2400-2483.5 MHz	8 dBi	100 MHz	13°	< 1.5:1	25 Watts	12°
MFB24010	2400-2483.5 MHz	10 dBi	100 MHz	9°	< 1.5:1	25 Watts	N/A
MFB24012	2400-2500 MHz	12 dBi	100 MHz	7°	< 1.5:1	25 Watts	N/A
MFB25007	2500-2700 MHz	7 dBi	200 MHz	13°	< 1.5:1	25 Watts	N/A
MFB25007DT3	2500-2700 MHz	7 dBi	200 MHz	13°	< 1.5:1	25 Watts	3°
MFB51510	5150-5350 MHz	10 dBi	200 MHz	7°	< 1.8:1	25 Watts	N/A
MFB58009	5725-5875 MHz	9 dBi	150 MHz	8°	< 1.5:1	25 Watts	N/A
MFB58009PTNM	5725-5825 MHz	9 dBi	100 MHz	6°	< 1.5:1	25 Watts	N/A
MFB58010	5725-5825 MHz	10 dBi	100 MHz	6°	< 1.5:1	25 Watts	N/A

#### **Mechanical Specifications**

	Wind	Equivalent Flat Plate	Lateral Thrust	Bending Moment @		
Model #	Survival	Area	@ Rated Wind	Rated Wind	Height	Weight
MFB19008A	125 mph	.07 ft <sup>2</sup>	5.9 lbs	5.7 ft-lbs	24.0" (609.6 mm)	0.70 lbs (0.318 kg)
MFB24004	125 mph	.02 ft <sup>2</sup>	2.1 lbs	0.7 ft-lbs	8.1" (205.7 mm)	0.34 lbs (0.154 kg)
MFB24006	125 mph	.04 ft <sup>2</sup>	3.0 lbs	1.4 ft-lbs	11.6" (294.6 mm)	0.38 lbs (0.172 kg)
MFB24008	125 mph	.06 ft <sup>2</sup>	5.2 lbs	4.4 ft-lbs	20.2" (513.1 mm)	0.50 lbs (0.226 kg)
MFB24008DT3	125 mph	.06 ft <sup>2</sup>	5.2 lbs	4.4 ft-lbs	20.2" (513.1 mm)	0.50 lbs (0.226 kg)
MFB24008DT5	125 mph	.06 ft <sup>2</sup>	5.2 lbs	4.4 ft-lbs	20.2" (513.1 mm)	0.50 lbs (0.226 kg)
MFB24008DT7	125 mph	.06 ft <sup>2</sup>	5.2 lbs	4.4 ft-lbs	20.2" (513.1 mm)	0.50 lbs (0.226 kg)
MFB24008DT12	125 mph	.06 ft <sup>2</sup>	5.2 lbs	4.4 ft-lbs	20.2" (513.1 mm)	0.50 lbs (0.226 kg)
MFB24010	125 mph	.11 ft <sup>2</sup>	10.1 lbs	14.7 ft-lbs	36.0" (914.4 mm)	0.65 lbs (0.295 kg)
MFB24012	125 mph	.25 ft <sup>2</sup>	22.4 lbs	41 ft-lbs	44.0" (1,118 mm)	3.00 lbs (1.400 kg)
MFB25007	125 mph	.06 ft <sup>2</sup>	5.2 lbs	4.4 ft-lbs	20.2" (513.1 mm)	0.50 lbs (0.226 kg)
MFB25007DT3	125 mph	.06 ft <sup>2</sup>	5.2 lbs	4.4 ft-lbs	20.2" (513.1 mm)	0.50 lbs (0.226 kg)
MFB51510	125 mph	.06 ft <sup>2</sup>	5.2 lbs	4.4 ft-lbs	20.2" (513.1 mm)	0.50 lbs (0.226 kg)
MFB58009	125 mph	.046 ft <sup>2</sup>	4.1 lbs	2.7 ft-lbs	15.7" (398.8 mm)	0.43 lbs (0.195 kg)
MFB58009PTNM	125 mph	.06 ft <sup>2</sup>	5.2 lbs	4.4 ft-lbs	20.2" (513.1 mm)	0.50 lbs (0.226 kg)
MFB58010	125 mph	.06 ft <sup>2</sup>	5.2 lbs	4.4 ft-lbs	20.2" (513.1 mm)	0.50 lbs (0.226 kg)







