## **XtremeWave MFB Series**

### 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 MFB24011) 1.5 inches (model MFB24011)

#### Mounting Method (sold separately):

MMK1924 - L-bracket mount for wall or pipe mount (all models, except MFB24010 and MFB24011)

- MMK8 Aluminum extruded bracket for mast mounting (all models, except model MFB24011)
- MMK11 Ceiling mount bracket (for MFB24004, MFB24006 and MFB24008 only)
- MMK12 Heavy duty bracket for mast mounting the MFB24011
- MMK14 Light duty mounting clamp for MFB24011

#### Termination:

N female standard with all models, except MFB24011 and MFB58009PTNM N female, reverse polarity and reverse threaded connectors optional 16" RG-213 pigtail with N female connector for model MFB24011 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.

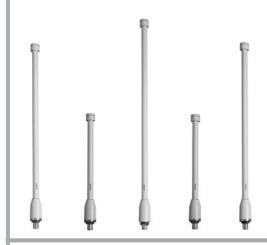
#### Features and Benefits:

- 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 MFB24011 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 MFB24011 which has a pigtail).
- Electrical downtilt options on select models. Provide system planners flexibility in challenging operating environments.





XtremeWave MFB24011



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



# Specifications

### **Electrical Specifications**

	_		Bandwidth @	Vertical Beamwidth		Maximum	
Model #	Frequency Range	Gain	1.5:1 VSWR	@ 1/2 Power	VSWR	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	<b>7</b> °
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	<b>9</b> °	< 1.5:1	25 Watts	N/A
MFB24011	2400-2500 MHz	11 dBi	100 MHz	<b>7</b> °	< 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	<b>7</b> °	< 1.8:1	25 Watts	N/A
MFB58009	5725-5875 MHz	9 dBi	150 MHz	<b>8</b> °	< 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	<b>6</b> °	< 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)
MFB24011	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)



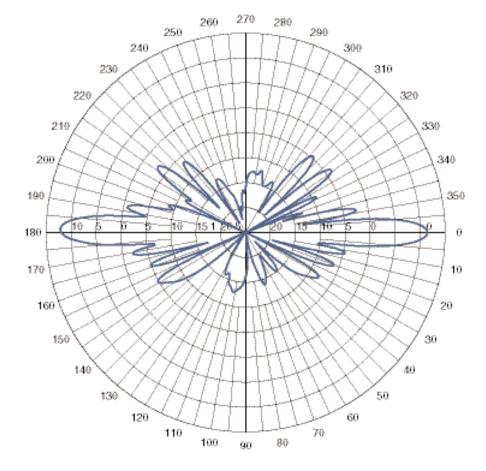






## Patterns





MFB24011 Elevation Plane Radiation Pattern