# XtremeWave™ MPR Wideband Parabolic Reflector Series

### MAXRAD

## 4.6 to 6.0 GHz Wideband Parabolic Reflector Antennas

The XtremeWave™ prime focus parabolic reflector antennas utilize leading edge technology that suppresses extraneous sidelobe and cross-polarized energy and directs the radiated signal towards its target area of coverage. The result is outstanding coverage with high gain and minimum interference. These antennas provide wideband coverage of frequencies ranging from 4.9 GHz to 6 GHz without additional tuning. They can be mounted for vertical or horizontal polarization and feature a micro fine azimuth and elevation adjustment mechanism for easy path alignment.

#### **General Specifications:**

Prime focus, wideband parabolic reflector antennas

#### Polarization:

Vertical or horizontal, linear (installer selectable)

#### Nominal Impedance:

50 Ohms

#### Mounting Method:

Accommodates 1.25" to 2.38" pipe OD Can be tower leg or wall mounted

#### Termination:

N, female bulkhead (MPRW49027, MPRW49029, MPRW49031) N, male cable jumper optional

#### Features and Benefits:

- Leading edge technology suppresses unnecessary sidelobes and directs all energy towards its target area of coverage thus minimizing interference and providing outstanding data throughput.
- Wideband coverage allows the use of one antenna to cover all frequencies ranging form 4.9 GHz to 6.0 GHz.
- Extremely robust mounting structure. Mount is bolted to the dish in an
  eight star pattern that provides the optimum number of mounting points
  to firmly secure the dish. This design prevents reflector distortion and
  oscillation due to windy conditions thus providing better signal throughput.
- Micro adjustable azimuth and elevation mechanism. Allows user to properly align the antenna to ensure maximum performance and signal throughput.
- Compact and light weight, high grade spun aluminum reflector. Provides maximum parabola accuracy for more consistent and reliable antenna performance. Its compact design permits pipe, wall or tower leg mounting even in locations where space is limited.
- Extremely durable design. Larger roll on the edge of the dish vastly increases strength and prevents bending when vertical pressure is applied.
- UPS shippable. Shipping box dimensions are 27.5" x 27.5" x 10.5", totalling less than 108" girth and width for reduced shipping and storage costs (24" parabolic dish only).



The MPRW series of parabolic reflector antennas provide wideband coverage in frequencies ranging from 4.9 GHz to 6.0 GHz.



The MPR's compact and light weight spun aluminum reflector provides maximum parabola accuracy for more consistent and reliable antenna performance. Its robust mounting structure prevents bending and oscillation that can cause signal degradation.

### Specifications

| Electrical Specifications |                    |         |                                |  |   |  |   |                                    |                              |                  |  |  |  |
|---------------------------|--------------------|---------|--------------------------------|--|---|--|---|------------------------------------|------------------------------|------------------|--|--|--|
| Model #                   | Frequency<br>Range | VSWR    | Front-<br>to-<br>Back<br>Ratio | Nominal<br>Gain at<br>4.9 GHz<br>(+/5 dBi) | Nominal<br>Gain at<br>5.25 GHz<br>(+/5 dBi) | Nominal<br>Gain at<br>5.8 GHz<br>(+/5 dBi) | Vertical and<br>Horizontal<br>Beamwidth<br>(+/3°) | Typical<br>Cross-Pol<br>@ Boresite | Maximum<br>Sidelobe<br>Level | Maximum<br>Power |  |  |  |
| MPRW49027                 | 4.9 - 6.0 GHz      | < 1.5:1 | -35 dB                         | 27 dBi                                     | 28 dBi                                      | 29 dBi                                     | 5.9°  | > -28                              | -18 dB                       | 5 Watts          |  |  |  |
| MPRW49029                 | 4.9 - 6.0 GHz      | < 1.5:1 | -35 dB                         | 29 dBi                                     | 30 dBi                                      | 31 dBi                                     | 4.7°  | > -28                              | -23 dB                       | 5 Watts          |  |  |  |
| MPRW49031                 | 4.9 - 6.0 GHz      | < 1.5:1 | -35 dB                         | 31 dBi                                     | 32 dBi                                      | 33 dBi                                     | 4.0°  | > -28                              | -20 dB                       | 5 Watts          |  |  |  |

#### Mechanical Specifications

| Model #   | Wind<br>Survival with<br>1/2" of ice | Lateral Thrust<br>at Rated Wind | Equivalent<br>Flat Plate<br>Area | Temperature<br>Range | Cable             | Diameter     | Weight            |
|-----------|--------------------------------------|---------------------------------|----------------------------------|----------------------|-------------------|--------------|-------------------|
| MPRW49027 | 110 mph                              | 327 lbs                         | 3.6 ft <sup>2</sup>              | -40°C to +80°C       | N female bulkhead | 24" (609 mm) | 8.5 lbs (3.8 kg)  |
| MPRW49029 | 110 mph                              | 396 lbs                         | 5.7 ft <sup>2</sup>              | -30°C to +60°C       | N female bulkhead | 29" (736 mm) | 9.0 lbs (4.08 kg) |
| MPRW49031 | 110 mph                              | 738 lbs                         | 8.2 ft <sup>2</sup>              | -40°C to +80°C       | N female bulkhead | 36" (914 mm) | 9.5 lbs (4.08 kg) |

