XtremeWave™ MSP24013MB

MAXRAD™
An ISO-9001 Registered Company

BACK

2.4 GHz ISM
Adjustable Sector Panel Antenna

The MAXRAD XtremeWave™ 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 for applications where space is very limited. This fixed beamwidth antenna measures less than 8 inches long.

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 antenna 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.

General Specifications:
2.4 GHz sector panel antennas

Radome Material:
Off white ASA plastic with UV resistance

Termination:
Type N, female. Other connector options available

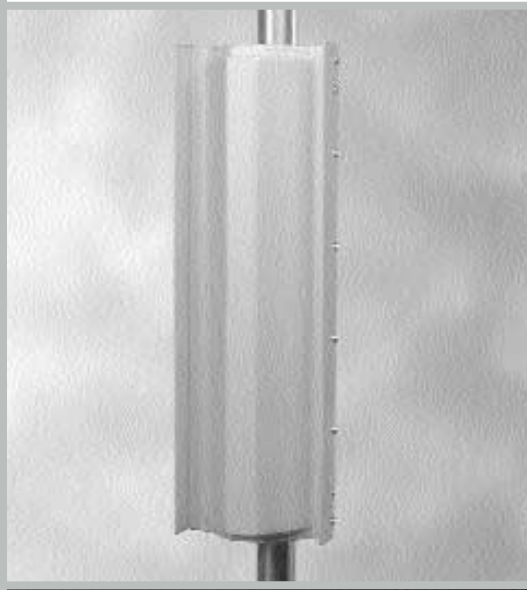
Polarization:
Vertical

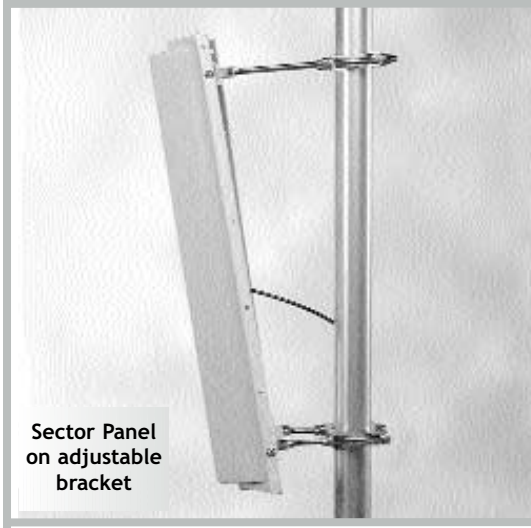
Lighting Protection:
DC grounded

Mounting Method:
Adjustable stainless steel bracket, +/- 11 degrees of uptilt or downtilt
Pipe diameter: 0.75 thru 2.4” OD (19-60 mm)

Nominal Impedance:
50 Ohms

Feature and Benefits
- 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.





Sector Panel on adjustable bracket

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

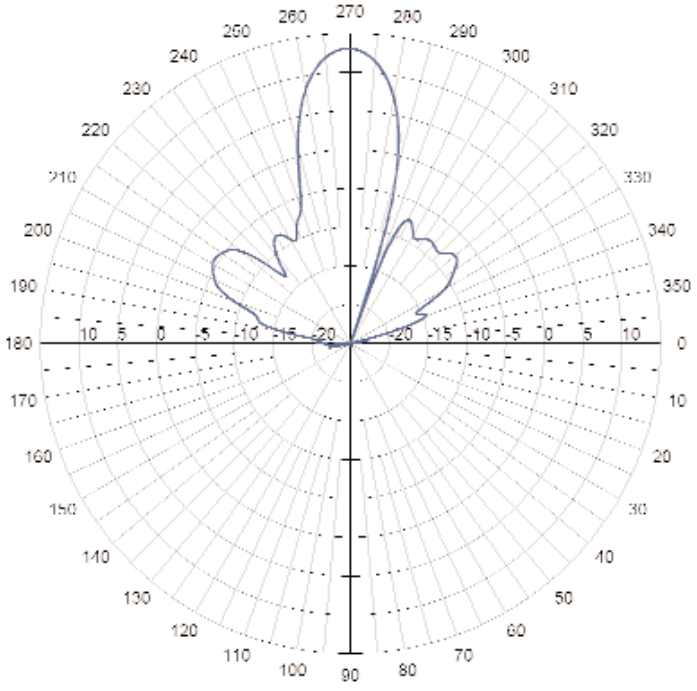
Specs and Patterns

Electrical Specifications

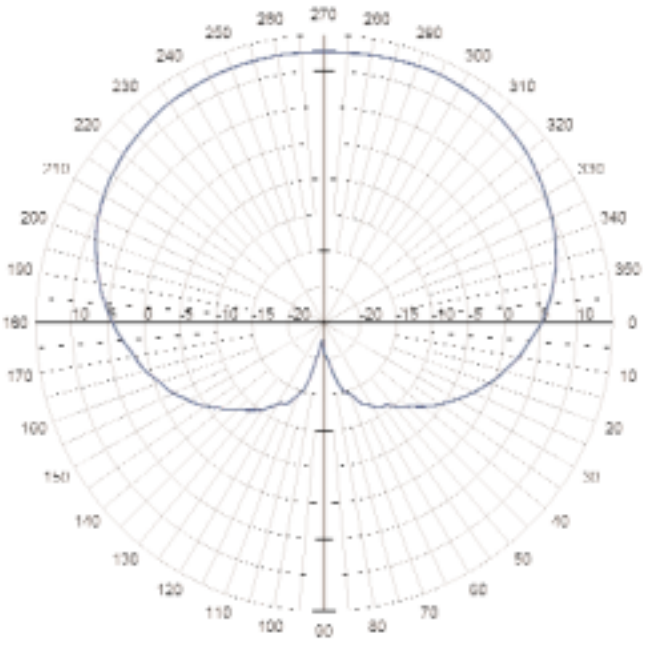
Model #	Frequency Range	Nominal Gain	Front-to-Back Ratio	Horizontal Plane Beamwidth	E-Plane Beamwidth	Typical Cross Poll Discrimination	VSWR	Max. Power Input
MSP24013MB	2400-2500 MHz	13 dBi at 120° 14 dBi at 90° 16 dBi at 60° 17 dBi at 45°	> 32 dB at 120° > 42 dB at 90° > 42 dB at 60° > 42 dB at 45°	120°, 90°, 60° and 45°	16°	270°-0°, 0°-90° = -20 dB 235°-270°, 90°-135° = -28 dB 180°-235°, 135°-180° = -32 dB	< 1.5:1	50 W
MSP24013-120	2400-2500 MHz	13 dBi	> 32 dB	120°	16°		< 1.5:1	50 W
MSP24014-90	2400-2500 MHz	14 dBi	> 42 dB	90°	16°	270°-0°, 0°-90° = -20 dB 235°-270°, 90°-135° = -28 dB 180°-235°, 135°-180° = -32 dB	< 1.5:1	50 W
MSP24016-60	2400-2500 MHz	16 dBi	> 42 dB	60°	16°		< 1.5:1	50 W
MSP24017-45	2400-2500 MHz	17 dBi	> 42 dB	45°	16°		< 1.5:1	50 W
MSP2401090PT	2400-2486 MHz	10 dBi	> 32 dB	90°	35°	>20 dB	< 1.5:1	50 W

Mechanical Specifications

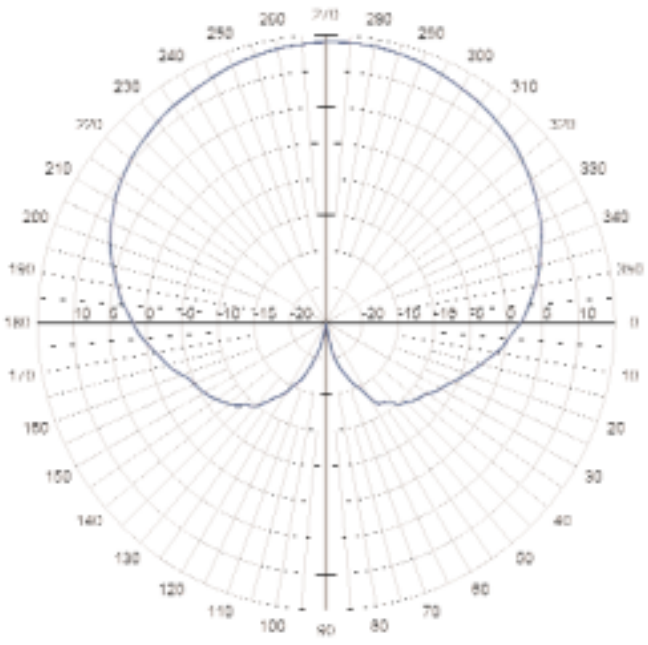
Model #	Rated Wind Velocity	Horizontal Thrust at Rated Wind	Temperature Range	Dimensions	Weight
MSP24013MB MSP24013-120 MSP24014-90 MSP24016-60	125 mph 200 km/h	43 lb 19.5 kg	-22°F to 167°F -30°C to +75°C	21.5" L x 6.5" W x 2.8" D 546 mm L x 16.5 mm W x 7.2 mm D	4 lbs 1.8 kg
MSP24017-45 MSP2401090PT	125 mph 200 km/h	43 lb 19.5 kg	-30°C to +75°C	8.0" L x 6.5" W x 2.8" D 203 mm L x 16.5 mm W x 7.2 mm D	3 lbs 1.3 kg



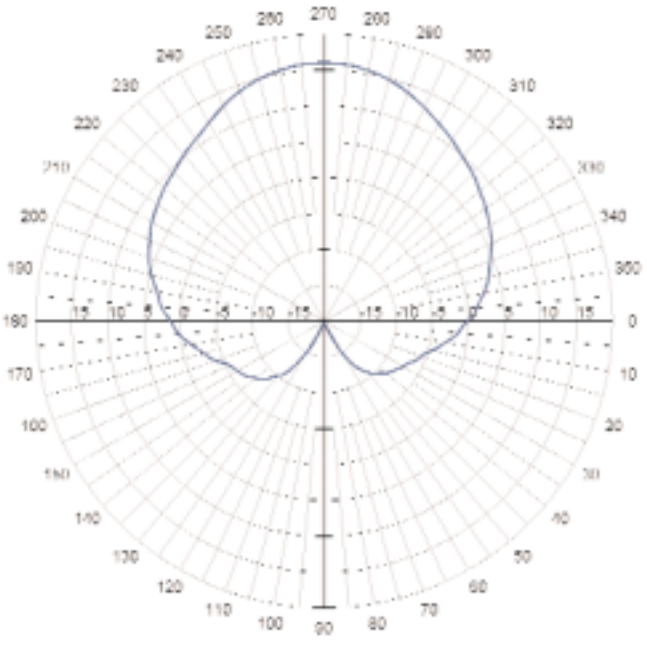
Elevation Beamwidth
45°, 60°, 90° and 120° Sectors



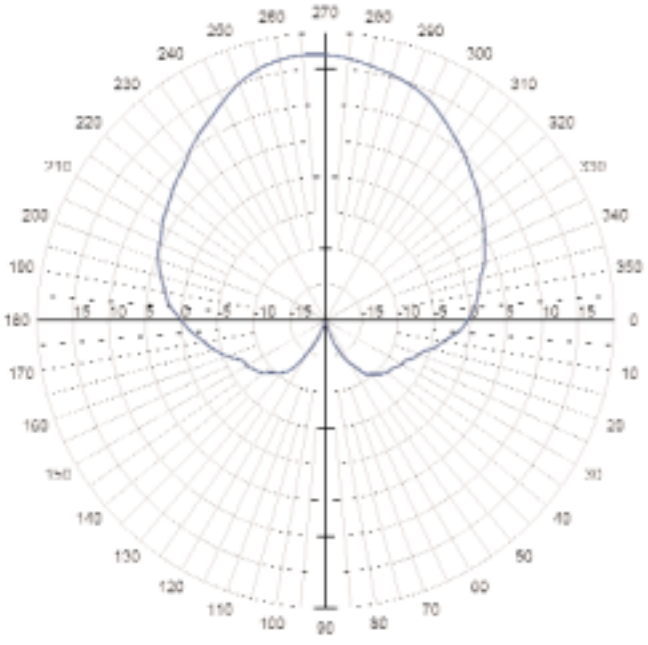
120° Azimuth Cut



90° Azimuth Cut

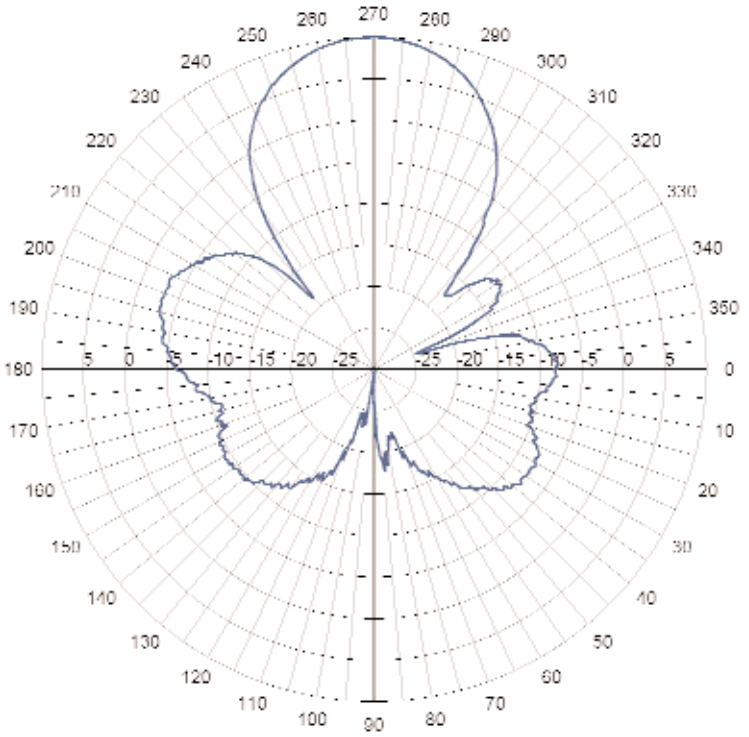


60° Azimuth Cut

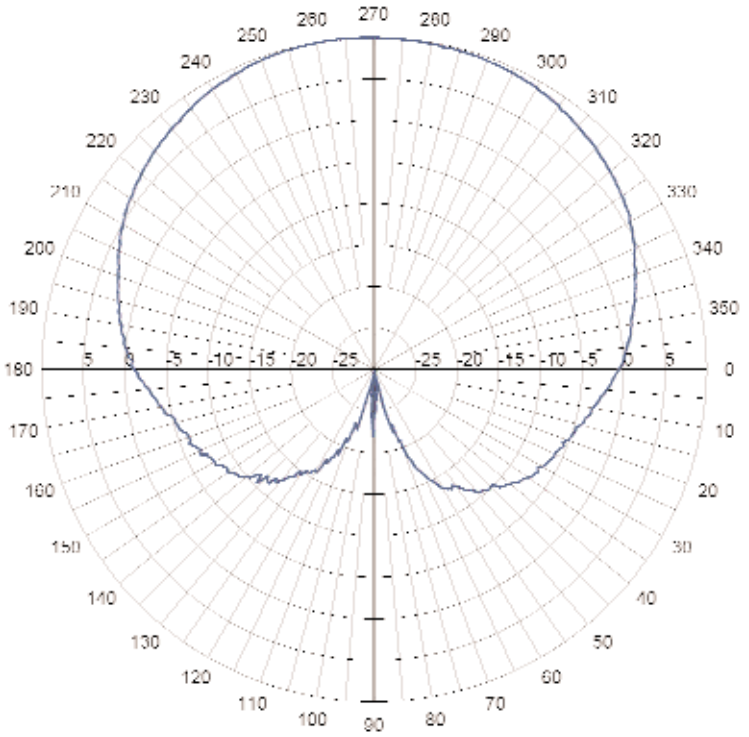


45° Azimuth Cut

Patterns



MSP2401090 Elevation Cut



MSP2401090 Azimuth Cut