

UB8 Antenna

UHF Satellite Antenna



Description:

The UB8 Satellite Antenna is designed to be used with UHF satellite transmitters and receivers. Typical application is NOAA's GOES Data Collection System working at 402 MHz. Its 8 dB gain allows the maximum EIRP of 48 dBm on the GOES HDR signal to be obtained with 12 watt transmitters allowing for 1 dB cable loss. To obtain the rated 41 dBm EIRP for GOES CS2 standard only 2 watts transmit power is required.



The wide band matching and integral ground plane prevent the antenna from being detuned by nearby objects unlike common narrow band antennas. The wide gain pattern permits simultaneous illumination of two or more GOES satellites.

Two of the outstanding characteristics of the UB8 are its low profile and rugged design. It is easily mounted either external or internal (non-metal roof) to sensor shelters. When combined with Microcom's mounting bracket, site installation is quick and simple.

The UB8 mounting bracket also includes a provision to mount a GPS bullet antenna, which further simplifies site setup. Each

bracket comes with two custom V-bolts that simplifies mounting to pipe/tubing of varying diameters (1¼" to 3½" OD).

The radome is extruded UV resistant 1/8 inch ABS plastic material. It is salt water resistant and readily sheds snow and rain. An optional hydrophobic coating further improves water shedding. The UB8 is not affected by rain, snow, or freezing rain.

All exposed metal of the antenna is an aluminum alloy with a corrosion resistant finish. The optional mounting bracket is constructed from heavy duty stainless steel.

Specifications:

Typical Gain: 8.5 dB

Minimum Gain: 8.0 dB

Polarization: RHCP

Center Frequency: 402 Mhz

Beamwidth: -3 dB +/- 35 Degrees

Typical Axial Ratio: 2 dB

Maximum Axial Ratio: 3 dB

Typical VSWR: 1.2:1

Maximum VSWR: 1.5:1

Maximum Power: 100 Watts

Cover Size: 6 inches x 13.5 inches

Backplane size: 16 inches (diameter)

Weight: 9 lbs

Connector: N Female

Options:

- Stainless steel mounting bracket with V-bolts
- Hydrophobic coating

Antenna Gain Pattern:

The antenna radiation pattern shown below is a simulation over an infinite, perfect ground plane at 402 MHz. The theoretical gain of the UB8 is 9.0 dBi with a 3 dB beamwidth of just over 70 degrees.

