



Cassegrain Antenna

18-220GHz, Split Bands



Features:

- ❖ Compact and Low Profile
- ❖ High Gain
- ❖ Low VSWR
- ❖ Diameter: 0.5 to 4.0 Feet
(0.152m to 1.22m)
- ❖ Lightweight, Durable
Fiberglass Reflector

Cassegrain reflector antennas are available in diameters ranging from 0.5 to 4 feet (0.152m to 1.22m) for any frequency in the 18-220 GHz range. They operate over a fairly wide frequency range which is limited only by the circular waveguide bandwidth. Gain is determined by antenna diameter, frequency of operation and feed illumination. These antennas are typically more efficient than the prime focus antennas, as the feed line losses are eliminated and a better match is obtained.

The main reflector is parabolic in shape and machined very accurately of either aluminum or a composite material. The subreflector is optimally designed and adjusted for best performance. The subreflector and support structure create minimal blockage and hence produce reasonably low sidelobe levels, generally below 16 dB.

The feed horns are selected to produce optimal illumination for low sidelobes and high gain. The interface to these antennas is a circular waveguide of suitable diameter for the center frequency. However, an integral circular-to-rectangular waveguide transition is available as well as a variety of other options, including a detachable circular-to-rectangular transition, orthomode transducer (OMT), circular polarizer (fixed or adjustable) and mountable bore-sighted telescope. Typical weight of these units is around 15 lbs, depending on configuration.