

Ellipse 2000

2 or 7 GHz Transmit Antenna



Applications

- Electronic News Gathering

Features

- 3 to 4 dB additional gain over the traditional 2A20/7A30 (50% additional range)
- Gain: 23 dB @ 2 GHz, 34 dB @ 7 GHz
- RF switching performed through the latest advancements in solid-state technology—no electro-mechanical switches
- High reliability, lower cost of ownership, less down time than electro-mechanical switch designs
- Smaller, lighter weight feed design
- Dramatically lower DC operating power
- Quad polarization standard
- Excellent front-to-back and sidelobe performance
- Low-profile, offset-fed design
- High degree of integration through the use of custom integrated modules

Overview

The Ellipse 2000 Transmit Antenna is the latest addition to the MRC Broadcast mobile antenna line. It offers 23 dB gain at 2 GHz, and 34 dB gain at 7 GHz, 3 to 4 dB over the standard 2A20/7A30 antenna. The Ellipse 2000 is a low profile, offset-fed antenna. The reflector is compression molded fiberglass construction with an integrated reflective surface. Improved reliability is accomplished by the feed design which features the latest in solid-state switching technology for the polarization selection.

The elimination of all coaxial RF relays also reduces the DC operating power and provides greater isolation. The superior construction and lightweight design of the Ellipse 2000, coupled with its solid-state switching technology and additional gain, make it a solid choice for mobile van applications.

SPECIFICATIONS

GENERAL

Antenna Type: Offset Fed Parabola
 Model: 2 GHz
 6.5/7 GHz
 Operating Frequency: 1.99 to 2.5 GHz, 6.4 to 7.4 GHz
 Gain, nominal*: 23 dBi, 34 dBi
 Beamwidth, typical (-3 dB);
 Azimuth: 9.0°, 2.5°
 Elevation: 16°, 5.0°
 F/B Ratio: 28 dB min, -28 dB min
 Side Lobe Rejection: -20 dB, -20 dB

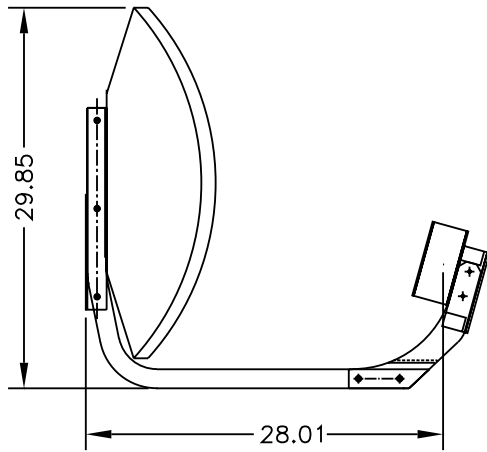
**Gain is for basic antenna, net of switching options*

MECHANICAL CHARACTERISTICS

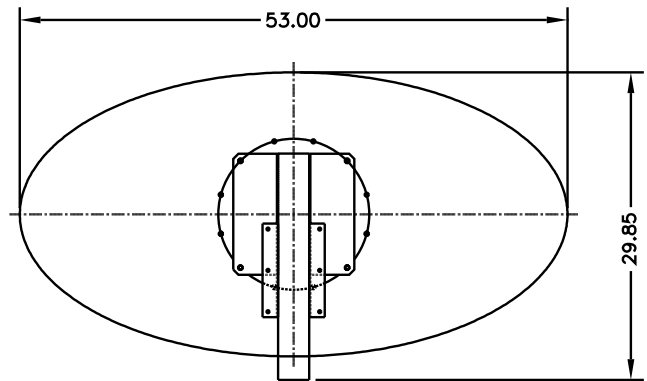
Construction: Compression molded fiberglass
 with integrated reflective surface
 Reflector: 53" x 27.5"
 (135 x 70 cm)
 System Weight: 35 lbs (16 kg)
 Temperature Range: -30°C to +60°C

FEED SPECIFICATIONS

Configurations: 2 GHz, 7 GHz or 2/7 GHz Dual Band
 Polarization: Quad Pol standard, switching between right circular,
 left circular, vertical and horizontal polarization performed through
 the latest advancements in microwave circuitry



*Ellipse 2000:
Side View, dimensions in inches*



*Ellipse 2000:
Rear view, dimensions in inches*

