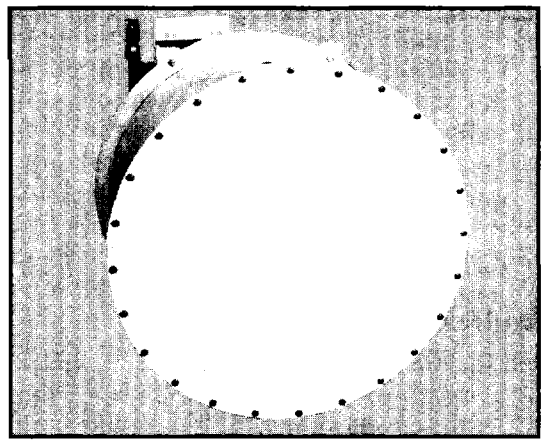
Series 8800 Commercial Antennas

Features

- Operating Frequency Range from 17.7 GHz to 19.7 GHz
- Lightweight 2-foot Aperture with FCC Category "A" Performance
- 4-Foot and 6-Foot Apertures for Higher Gain are Available
- High Aperture Efficiency and Controlled Sidelobes
- Rapid Installation Capability
- Quick Changeover from Vertical to Horizontal Polarization



Description

The Series 8800 commercial telecommunications antenna takes advantage of the new Alpha-Feed to offer a 2-foot diameter antenna assembly with FCC category "A" performance between 17.7 GHz and 19.7 GHz. This small, lightweight antenna has been successfully reduced to only one-half the size of the category "A" 4-foot assembly that is typically used in commercial radio applications for this frequency band.

The Alpha-Feed reduces aperture size to offer a compact, lightweight system that is easy to mount and rugged enough to withstand high winds and harsh environments. A unique combination of improved performance in a low cost package, the Alpha-Feed features high efficiency, high gain, low sidelobes, and equal E and H-plane beamwidths. With these performance advantages, the Series 8800 telecommunications antenna requires less critical pointing accuracy between radio sites for quick and accurate antenna alignment. To convert the vertical polarization to horizontal polarization, the mounting assembly allows the antenna to be rotated 90 degrees. A 90 degree twist is installed at the antenna flange as part of the antenna/radome subsystem.

With the mechanical mounting bracket, the antenna can be slewed $\pm$ 8 degrees in azimuth and -5 degrees to +55 degrees in elevation. For easy mounting, screw nuts and clamps are used to secure the unit in place. A circular clamp with a loose sliding fit that can be hand-tightened is provided to install the mechanical assembly on a mounting pole. A radome is also included with the antenna assembly on a mounting pole. A radome is also included with the antenna assembly and full environmental protection is ensured.

Typical Performance Specifications

Model Number	Diameter Rating	Feet	Gain (dBi)	Beamwidth (Degrees)
8802A	A	2	38.0	1.8
8802B	B	2	38.0	1.8
8804A	A	4	45.0	0.9
8804B	B	4	45.0	0.9
8806A	A	6	48.5	0.6
8806B	B	6	48.5	0.6

Sidelobes Performance Specifications

Sidelobes (dB)	Azimuth/Elevation
–25	5–10°
–29	10–15°
–33	15–20°
–36	20–30°
–42	30–100°
–55	100–180°

Mechanical Specifications

Radome:	Opaque radome will not permit light to heat up or degrade material or assembly.
Input Flange:	WR42
Total Positioning Capability:	360°
Fine Azimuth Adjustment:	+8 °
Fine Elevation Adjustment:	–8 to +55°

Outline Drawing