

# Series 876 Circular Conical Feed Horns

## Features

- ▶ Illuminate Cassegrain Antennas with a Subtended Angle of 30 degrees
- ▶ Efficiency of Approximately 55%
- ▶ Nominal Sidelobes of -17 dB in E-Plane and -20 dB in H-Plane



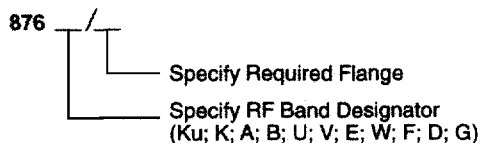
## Description

The Series 876 is circularly symmetrical in its mechanical configuration although E and H-plane radiation characteristics differ. The small end of the horn is machined to a small circular waveguide which allows it to be used with any of the circular mode components described later in this section.

The Series 876 circular conical feed horn is standard for all of Alpha's Series 822, 823, 832, and 833 Cassegrain antennas with effective diameters up to 48 inches. The feed is designed to illuminate a Cassegrain antenna with a subreflector that subtends an angle of approximately 30 degrees.

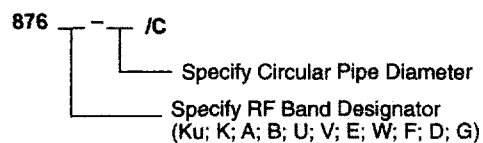
## Ordering Information

Linear Mode:



For Example: Model number 876W/387 is a conical feed horn operating in W-band with a 387 type flange.

Circular Mode:



For example: Model number 876A-250/C is a conical feed horn operating in A-band at 35 GHz with a circular mode capability.

The center frequency should be specified when ordering these antennas. Principal plane radiation patterns are supplied with each antenna at the specified design frequency up to 220 GHz.

# Typical Antenna Patterns

