

Characteristics

- ◆ Customized Beam Patterns in both Planes
- ◆ Optimum Gain Characteristics



Product Description

QuinStar Series QSF Sectoral Horn Antennas are custom products designed and manufactured to meet specific broad beam patterns in one of the planes, and relatively narrow beam in the other orthogonal plane. These antennas are offered for frequencies from 18 to 110 GHz. The horn geometry and mechanical features are designed to create a precise beam shape to match the application requirement in both planes. Broad beam (fan beam) pattern can be offered in either polarization, oriented in either azimuth or elevation plane with the narrower beam

in the other plane. Several standard products are also offered to suit a majority of system applications.

The directional gain of the antenna may be estimated using the following formula:

$$\text{Gain} = 27000 / (\text{Beamwidth in Azimuth Plane} \times \text{Beamwidth in Elevation plane})$$

Beamwidths are in degrees, full width at half power points.

Specifications

Frequency range and Bandwidth	Range of Beamwidths in Broad Beam Plane	Range of Beamwidths in Narrow Beam Plane
18-110 GHz		
10 % of Center Frequency	30 to 120 degrees	2 to 20 degrees

Ordering Information

Model Number **QSF -**

A BCD EFG H

waveguide band designator

K = K-band V = V-band
A = Ka-band E = E-band
Q = Q-band W = W-band
U = U-band

polarization

V= Vertical
H= Horizontal

beam width in azimuth plane, in degrees

beam width in elevation plane, in degrees