Scalar Feed Horns

FEATURES:
❖ Low VSWR
❖ Wide Bandwidths
❖ Narrow Beamwidths
❖ Polarization Insensitive

APPLICATIONS:
❖ Feeds for Scalar Lens and Cassegrain Antennas

DESCRIPTION:
*Cernexwave’s CFH series* scalar feed horn has been designed to be used in lens illumination such as scalar lens antennas and cassegrain antennas. Low sidelobes are inherent in this type of feed. Please consult Cernex for other available beamwidths.

SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Waveguide Band</th>
<th>X</th>
<th>X/Ku</th>
<th>Ku</th>
<th>K</th>
<th>Ka</th>
<th>Q</th>
<th>U</th>
<th>V</th>
<th>E</th>
<th>W</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range (GHz)</td>
<td>8.2 to 12.4</td>
<td>10.0 to 15</td>
<td>12.4 to 18</td>
<td>18 to 26.5</td>
<td>26.5 to 40</td>
<td>33 to 50</td>
<td>40 to 60</td>
<td>50 to 75</td>
<td>60 to 90</td>
<td>75 to 110</td>
<td>90 to 140</td>
</tr>
<tr>
<td>Bandwidth (GHz) Typ</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>7</td>
<td>7</td>
<td>7 to 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A in</td>
<td>-</td>
<td>-</td>
<td>5.00</td>
<td>3.50</td>
<td>2.75</td>
<td>2.50</td>
<td>2.25</td>
<td>1.75</td>
<td>1.62</td>
<td>1.50</td>
<td>---</td>
</tr>
<tr>
<td>mm</td>
<td>-</td>
<td>-</td>
<td>127.0</td>
<td>88.9</td>
<td>69.9</td>
<td>63.5</td>
<td>57.2</td>
<td>44.5</td>
<td>41.2</td>
<td>38.1</td>
<td>---</td>
</tr>
<tr>
<td>B in</td>
<td>-</td>
<td>-</td>
<td>3.12</td>
<td>2.15</td>
<td>1.52</td>
<td>1.25</td>
<td>1.12</td>
<td>0.88</td>
<td>0.75</td>
<td>0.62</td>
<td>---</td>
</tr>
<tr>
<td>mm</td>
<td>-</td>
<td>-</td>
<td>79.3</td>
<td>54.6</td>
<td>38.6</td>
<td>31.8</td>
<td>28.5</td>
<td>22.4</td>
<td>19.0</td>
<td>15.8</td>
<td>---</td>
</tr>
</tbody>
</table>

Typical Electrical Specifications

3dB Beamwidth: E-Plane 22 Deg
H-Plane 26 Deg
Sidelobes: E-Plane –25dB
H-Plane –25dB

CONTACT THE FACTORY FOR SPECIAL REQUIREMENTS

HOW TO ORDER:
Specify Model Number CFH – WG LF HF-- XX

WG: Waveguide
LF: Low End Frequency
HF: High End Frequency
XX: To be specified by the factory

Example: To order a Wide Angle Scalar Feed Horn with a flange size of 19 and a frequency range of 40-60 GHz, specify CFH-194060-XX.

CERNEXWAVE RESERVE THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE