Pasternack's PEWAN1116 is a WR-19 dual polarized scalar feed horn antenna that operates in the frequency range of 40 GHz to 60 GHz. PEWAN1116 features an integrated orthomode transducer that provides high port isolation and cross-polarization cancellation and a broad band scalar feed horn that provides low sidelobe levels. The antenna supports either vertical or horizontal polarized waveguide forms with a typical 30 dB cross polarization rejections, 13 dBi nominal gain at center frequency, typical 35 dB port isolation between horizontal and vertical ports, typical half power beamwidth of 40 degrees, and -25 dB sidelobe levels. The input of this antenna is a WR-19 waveguide with UG-383/U-M threaded flange.

**Configuration**

- **Design**: WR-19 Dual Polarized Scalar Feed Horn
- **Polarization**: Linear/Circular

**Electrical Specifications**

<table>
<thead>
<tr>
<th>Description</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>40</td>
<td>60</td>
<td>GHz</td>
<td></td>
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<tr>
<td>Nominal Gain</td>
<td>13</td>
<td></td>
<td>dBi</td>
<td></td>
</tr>
<tr>
<td>Horizontal Half Power Beam Width</td>
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<td></td>
<td>Degrees</td>
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<tr>
<td>Vertical Half Power Beam Width</td>
<td>40</td>
<td></td>
<td>Degrees</td>
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<tr>
<td>VSWR</td>
<td>1.4:1</td>
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</tr>
</tbody>
</table>

**Mechanical Specifications**

- **Size**
  - Length: 3.4 in [86.36 mm]
  - Width: 1.2 in [30.48 mm]
  - Height: 1.2 in [30.48 mm]
  - Weight: 0.4435 lbs [201.17 g]

- **Waveguide Interface**
  - Waveguide Size: WR-19
  - Flange Designation: UG-383/U-Mod
  - Body Material and Plating: Aluminum, Gold

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: [WR-19 Waveguide Dual Polarized Scalar Feed Horn Antenna, 40 GHz to 60 GHz Frequency Range, 13 dBi Gain, UG-383/U-Mod Flange PEWAN1116](#)
WR-19 Waveguide Dual Polarized Scalar Feed Horn Antenna, 40 GHz to 60 GHz Frequency Range, 13 dBi Gain, UG-383/U-Mod Flange

Environmental Specifications
Temperature
Operating Range: -40 to 85 deg C

Compliance Certifications (see product page for current document)

Plotted and Other Data

Typical Performance Data

Gain

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WR-19 Waveguide Dual Polarized Scalar Feed Horn Antenna, 40 GHz to 60 GHz Frequency Range, 13 dBi Gain, UG-383/U-Mod Flange

Waveguide Antennas Technical Data Sheet

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: WR-19 Waveguide Dual Polarized Scalar Feed Horn Antenna, 40 GHz to 60 GHz Frequency Range, 13 dBi Gain, UG-383/U-Mod Flange PEWAN1116

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Waveguide Antennas Technical Data Sheet

WR-19 Waveguide Dual Polarized Scalar Feed Horn Antenna, 40 GHz to 60 GHz Frequency Range, 13 dBi Gain, UG-383/U-Mod Flange

Antenna Pattern @ 40 GHz

Antenna Pattern @ 50 GHz

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Waveguide Antennas Technical Data Sheet

Antenna Pattern @ 60 GHz

3dB Beamwidth

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Waveguide Antennas Technical Data Sheet

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