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### Features
- Full V Band Operations
- Linear and Circular Operations
- High Port Isolation
- High Cross Polarization Rejection

### Applications
- IEEE 802.11ab WiGig
- Radar Systems
- Communication Systems
- Circular and Linear Waveform Separation and Combination

### Description
Pasternack’s PEWAN1139 is a full band, dual polarized, WR-15 horn antenna assembly that operates in the frequency range of 50 GHz to 75 GHz. The antenna features an integrated orthomode transducer that provides high port isolation. PEWAN1139 supports either vertical or horizontal polarized waveguide forms with a typical 35 dB cross polarization rejection, 15 dBi nominal gain at center frequency, typical 45 dB port isolation between the horizontal and vertical ports, typical half power beamwidth of 28 degrees on the E-plane, typical half power beamwidth of 33 degrees on the H-plane, and -15 dB sidelobe levels. The input of this antenna is a WR-15 waveguide with UG-387/U threaded flange.

### Configuration
- **Design**: WR-12 Dual Polarized Horn
- **Polarization**: Linear/Circular

### Electrical Specifications

<table>
<thead>
<tr>
<th>Description</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>50</td>
<td>75</td>
<td></td>
<td>GHz</td>
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<tr>
<td>Nominal Gain</td>
<td></td>
<td></td>
<td>15</td>
<td>dBi</td>
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<tr>
<td>Horizontal Half Power Beam Width</td>
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<td>Degrees</td>
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<tr>
<td>Vertical Half Power Beam Width</td>
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<td></td>
<td>28</td>
<td>Degrees</td>
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<td>VSWR</td>
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<tr>
<td>V and H Port Isolation</td>
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<td></td>
<td>45</td>
<td>dB</td>
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<tr>
<td>Cross Polarization Rejection</td>
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<td>35</td>
<td>dB</td>
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<tr>
<td>Port Return Loss</td>
<td></td>
<td></td>
<td>15</td>
<td>dB</td>
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</tbody>
</table>

### Mechanical Specifications

<table>
<thead>
<tr>
<th>Size</th>
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<tbody>
<tr>
<td>Length</td>
<td>2.05 in [52.07 mm]</td>
</tr>
<tr>
<td>Width</td>
<td>0.8 in [20.32 mm]</td>
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<tr>
<td>Height</td>
<td>0.8 in [20.32 mm]</td>
</tr>
<tr>
<td>Weight</td>
<td>0.086 lbs [39.01 g]</td>
</tr>
</tbody>
</table>

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications: WR-12 Waveguide Dual Polarized Horn Antenna, 50 GHz to 75 GHz Frequency Range, 15 dBi Gain, UG-385/U Flange PEWAN1139
WR-12 Waveguide Dual Polarized Horn Antenna, 50 GHz to 75 GHz Frequency Range, 15 dBi Gain, UG-385/U Flange

Waveguide Antennas Technical Data Sheet  
PEWAN1139

Waveguide Interface
Waveguide Size  WR-12
Flange Type  Square Cover
Flange Designation  UG-385/U
Body Material and Plating  Aluminum, Gold

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

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WR-12 Waveguide Dual Polarized Horn Antenna, 50 GHz to 75 GHz Frequency Range, 15 dBi Gain, UG-385/U Flange

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WR-15 WAVEGUIDE UG-385/U COMPATIBLE FLANGE

WR-15 WAVEGUIDE UG-385/U COMPATIBLE FLANGE

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