

**Conical Gain Horn Waveguide Antenna, WR-10,  
77 GHz to 87 GHz, UG-387/U Round Cover Flange,  
10 dBi Nominal Gain**

Waveguide conical gain horn antennas are used in a wide variety of applications due to their high power handling capability, low loss, high directivity, and near constant electrical performance across a broad bandwidth. Fairview Microwave's FMWAN1053 WR-10 waveguide conical gain horn antenna operating from 77 GHz to 87 GHz with a nominal 10 dBi gain is part of our full line of RF components available for same-day shipping. This Fairview Microwave circular horn antenna has a gold plated brass body and a precision tolerance UG-387/U round cover flange. The FMWAN1053 WR-10 waveguide conical gain horn antenna offers low gain variation across its operating frequency range.

**Configuration**

|              |                         |
|--------------|-------------------------|
| Design       | WR-10 Conical Gain Horn |
| Pattern      | Directional             |
| Polarization | Linear                  |

**Electrical Specifications**

| Description               | Min | Typ    | Max | Units |
|---------------------------|-----|--------|-----|-------|
| Frequency Range           | 77  |        | 87  | GHz   |
| Nominal Gain              |     | 10     |     | dBi   |
| Horizontal 3dB Beam Width |     | 58     |     | Deg   |
| Vertical 3dB Beam Width   |     | 53     |     | Deg   |
| VSWR                      |     | 1.15:1 |     |       |

**Mechanical Specifications**

|                |                     |
|----------------|---------------------|
| <b>Size</b>    |                     |
| Length         | 1.16 in [29.46 mm]  |
| Width/Diameter | 0.75 in [19.05 mm]  |
| Height         | 0.75 in [19.05 mm]  |
| Weight         | 0.048 lbs [21.77 g] |

**Waveguide Interface**

|                           |             |
|---------------------------|-------------|
| Waveguide Size            | WR-10       |
| Flange Type               | Round Cover |
| Flange Designation        | UG-387/U    |
| Body Material and Plating | Brass, Gold |



**Features:**

- Circular Waveguide Interface
- 77 GHz to 87 GHz
- 10 dBi Nominal Gain
- UG-387/U Round Cover Flange

**Applications:**

- Antenna Measurements
- Wireless Communication
- Laboratory Use
- Microwave Radio Systems

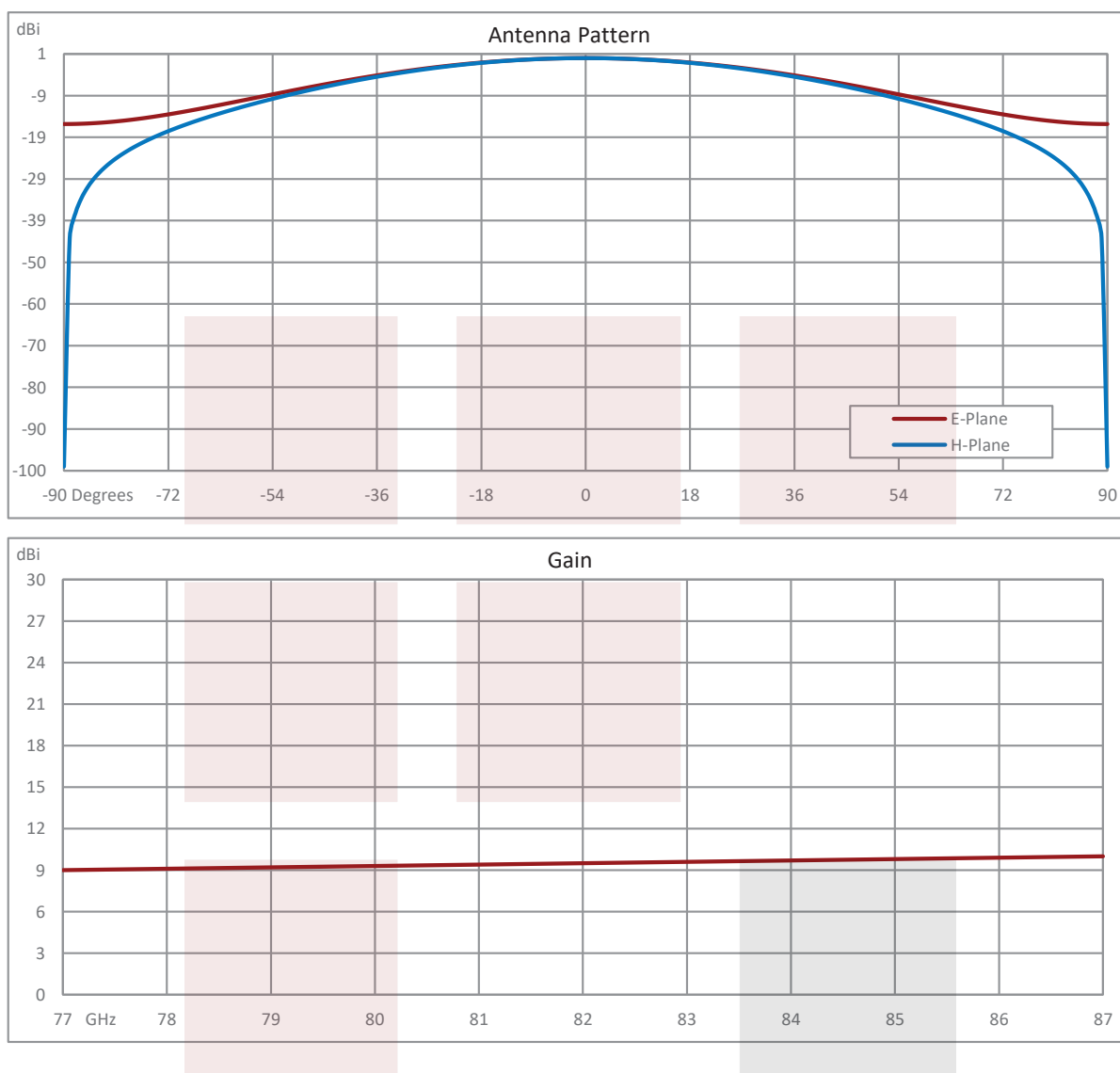
**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

Notes:

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## Typical Performance Data

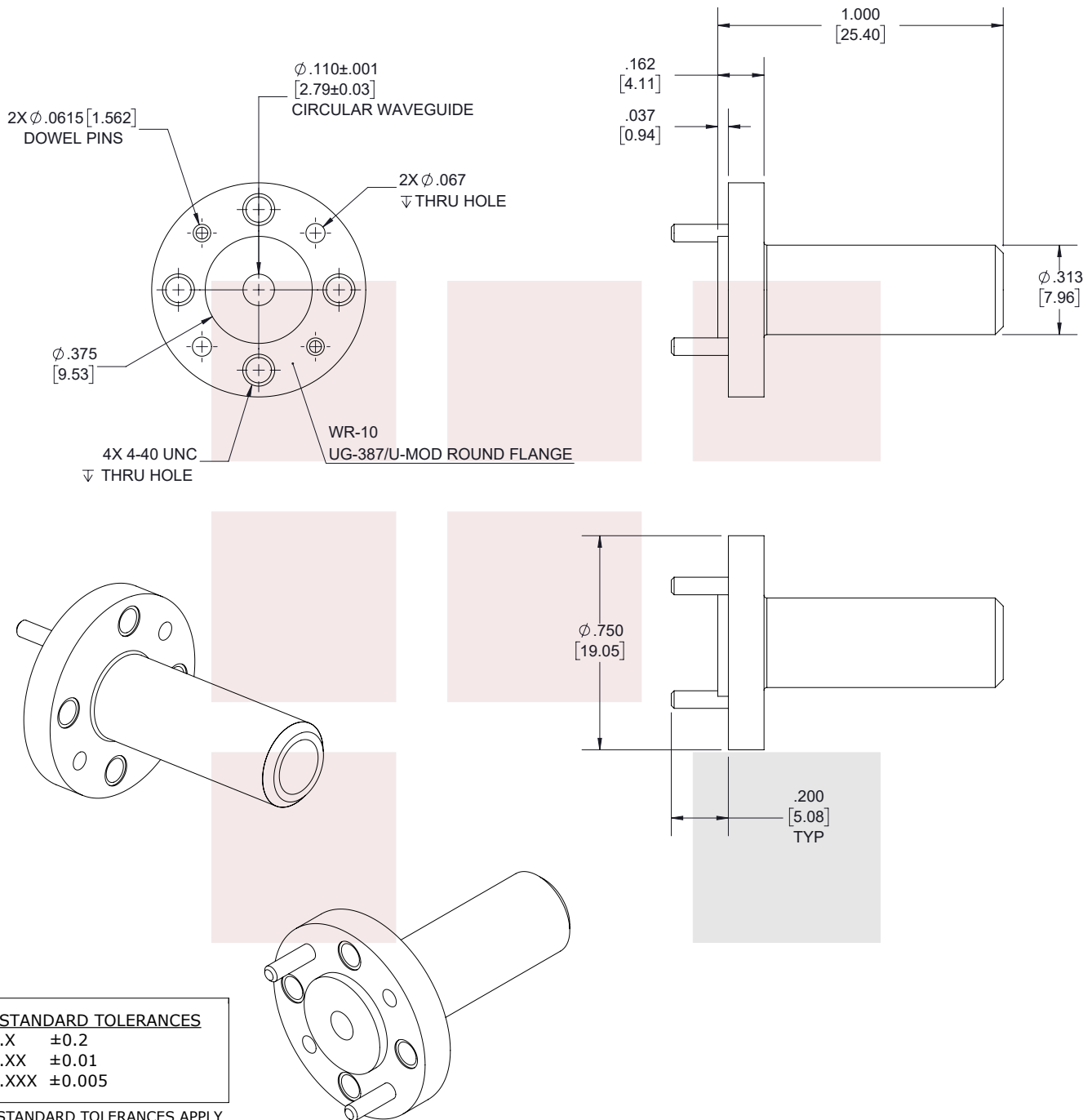


Conical Gain Horn Waveguide Antenna, WR-10, 77 GHz to 87 GHz, UG-387/U Round Cover Flange, 10 dBi Nominal Gain from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Conical Gain Horn Waveguide Antenna, WR-10, 77 GHz to 87 GHz, UG-387/U Round Cover Flange, 10 dBi Nominal Gain FMWAN1053](https://www.fairviewmicrowave.com/wr-10-waveguide-standard-gain-horn-10-dbi-ug-387-fmwan1053-p.aspx)

URL: <https://www.fairviewmicrowave.com/wr-10-waveguide-standard-gain-horn-10-dbi-ug-387-fmwan1053-p.aspx>

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**STANDARD TOLERANCES**

.X  $\pm 0.2$   
.XX  $\pm 0.01$   
.XXX  $\pm 0.005$

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



NOTES:  
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.  
3. DIMENSIONS ARE IN INCHES [mm].

|  |                            |          |                           |        |       |     |
|--|----------------------------|----------|---------------------------|--------|-------|-----|
| <b>TITLE</b><br>Conical Gain Horn Waveguide Antenna, WR-10, 77 GHz to 87 GHz, UG-387/U Round Cover Flange, 10 dBi Nominal Gain | <b>DWG NO</b><br>FMWAN1053 |          | <b>CAGE CODE</b><br>3FKR5 |        |       |     |
|  | CAD FILE                   | 02/22/19 | SHEET                     | 1 OF 1 | SCALE | N/A |
|  |                            |          | SIZE                      | A      | 7361  |     |