

Brass WR-51 Waveguide Pressure Window with UG Cover and UG Grooved Flanges

Waveguide pressure windows are used to isolate pressurized components from non-pressurized components within a waveguide system. They can also provide protection against contaminants (debris, moisture and dust) from entering the waveguide system and degrading its RF performance. The FMWGP1011 is a WR-51 waveguide pressure windows that operates in the frequency range of 14.5 GHz to 22 GHz. This WR-51 waveguide termination has a Max VSWR of 1.25:1. This waveguide pressure window is made of annealed copper and incorporates UG Cover and UG Grooved flange interface. In addition to waveguide pressure window product line, Fairview Microwave also offers a wide range of waveguide products which are available in stock and ready for same-day shipment.

Electrical Specifications*

| Description | Min | Typ | Max | Units |
|-----------------|------|-----|--------|-------|
| Frequency Range | 14.5 | | 22 | GHz |
| VSWR | | | 1.25:1 | |
| Insertion Loss | | | 0.25 | dB |
| Input Power | | | 500 | Watts |

Mechanical Specifications

| | |
|---------------|---------------------|
| Body Material | Copper Brass |
| Body Finish | Passivation |
| Length | 1.311 in [33.3 mm] |
| Width | 1.311 in [33.3 mm] |
| Height | 0.787 in [19.99 mm] |
| Weight | 0.22 lbs [99.79 g] |

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

Brass WR-51 Waveguide Pressure Window with UG Cover and UG Grooved Flanges 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 Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Brass WR-51 Waveguide Pressure Window with UG Cover and UG Grooved Flanges FMWGP1011](#)

URL: <https://www.fairviewmicrowave.com/fmwgp1011-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.



Features:

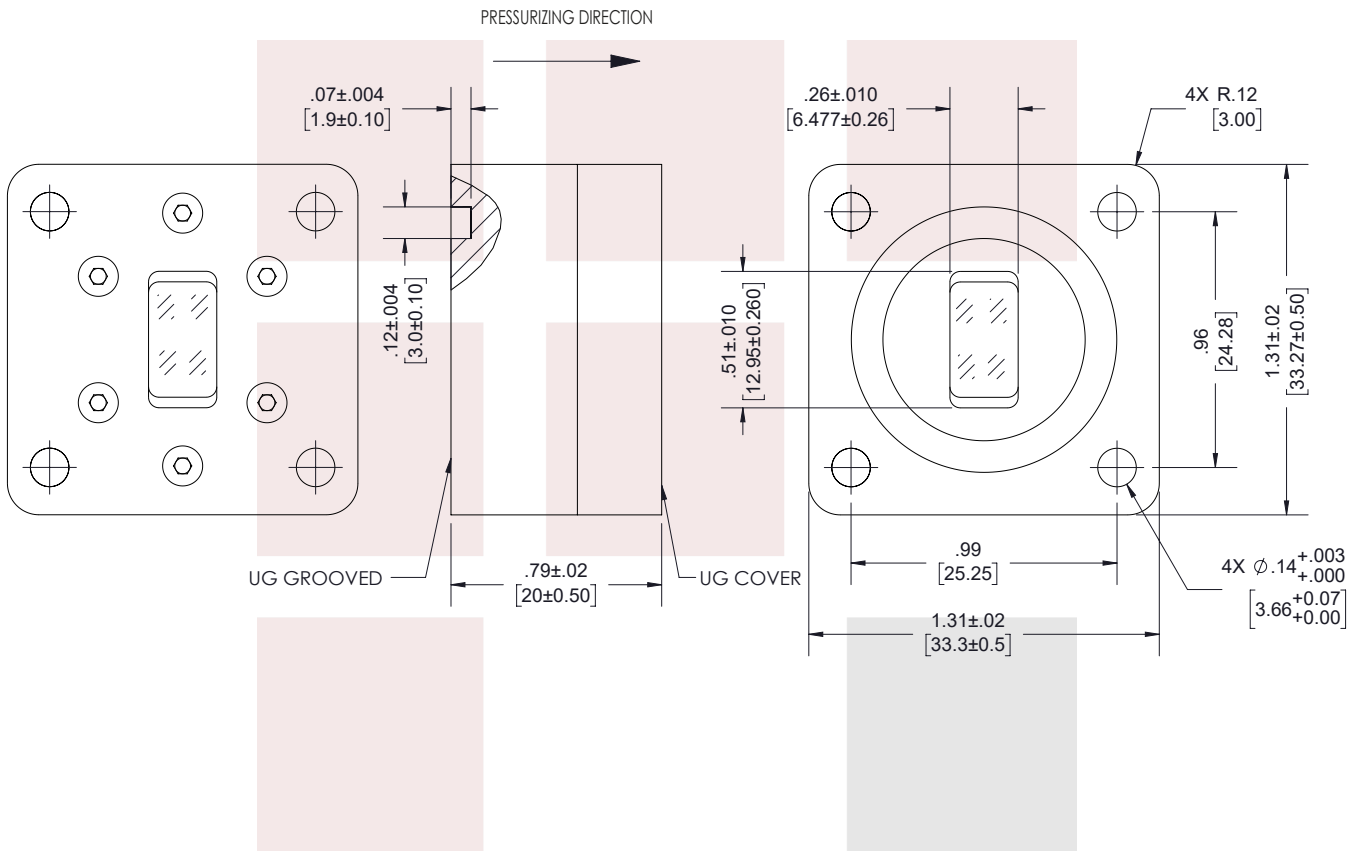
- WR-51 Waveguide
- Operating Frequency Range from 14.5 GHz to 22 GHz
- UG Cover and UG Grooved Flanges
- 1.25:1 Max VSWR
- 500 Watts (CW) Max Power Handling
- Insertion loss: 0.25 dB Max
- Thickness: 0.79 inches
- PTFE window material
- Pressure Handling Capability: 29 PSI Max

Applications:

- Radar Systems
- Military and Space
- Wireless Radio Systems
- Communication Systems
- R&D Labs
- Microwave Radio Systems

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| REVISIONS | | | |
|-----------|-----------------|------------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| A | INITIAL RELEASE | 15-04-2021 | SPONG |



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TITLE
Brass WR-51 Waveguide Pressure Window with UG Cover and UG Grooved Flanges

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES: CABLE LENGTH (L) TOLERANCES:

| | | |
|--------------------|-------------|---|
| .X = ±.2 [5.08] | FRACTIONS | L ≤ 12 [305] = +1 [25] / -0 |
| .XX = ±.02 [.51] | ± 1/32 | 12 [305] < L ≤ 60 [1524] = +2 [51] / -0 |
| .XXX = ±.005 [.13] | ANGLES ± 1° | 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0 |
| | | 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0 |
| | | 300 [7620] < L = +5%L / -0 |

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

| | | | | |
|-----------|--------------------|------------------------|-----------------------|----------|
| SIZE A | CAGE CODE 3FKR5 | DRAWN BY MVEERAPPAN | ITEM NO. FMWGP1011 | REV A |
|-----------|--------------------|------------------------|-----------------------|----------|

T-Rev.D