



WR-112 Waveguide 40 dB Crossguide Coupler, UG-51/U Square Cover Flange, N Female Coupled Port, 7.05 GHz to 10 GHz, Bronze

## Waveguide Couplers Assemblies Technical Data

PEWCT1094

The PEWCT1094 is a 40 dB WR-112 four port crossguide coupler with one coupled port terminated (making it a three port coupler) and a coax adapter on the opposite coupled port. This coupler can be mounted directly into the waveguide signal path, connected via coax to allow signal sampling /monitoring. The coupler has a typical VSWR of 1.05:1 and are made of bronze with brass UG-51/U Square Cover flanges. The PEWCT1094 is part of a family of cross guide couplers offered by Pasternack with coupling values ranging from 20 to 50 dB. There is also a full family of top wall (broad wall) couplers. For the three port version of this coupler (terminated but no coax adapter) please see the PEWCT1030. For the four port version of this coupler (no termination, no coax adapter) please see the PEWCP1065.

### Features

- Three Port
- Crossguide Waveguide Coupler
- Terminated
- 40 dB Nominal Coupling Level
- N Female Coax Adapter
- 7.05 GHz to 10 GHz Frequency Range
- Waveguide Body made of Bronze with Brass Flanges
- Low VSWR

### Applications

- Test Benches
- Radar
- Satellite
- Microwave Radio
- Attenuation Measurements
- Power Measurements
- Source Leveling

### Electrical Specifications

| Description                       | Minimum | Typical | Maximum | Units |
|-----------------------------------|---------|---------|---------|-------|
| Frequency Range                   | 7.05    |         | 10      | GHz   |
| Impedance                         |         | 50      |         | Ohms  |
| <b>Coupler</b>                    |         |         |         |       |
| Nominal Coupling Level            |         | 40      |         | dB    |
| Directivity                       |         | 20      |         | dB    |
| Insertion Loss                    |         | 0.1     |         | dB    |
| Main Line VSWR                    |         | 1.05:1  |         |       |
| <b>Termination</b>                |         |         |         |       |
| Input Power (CW)                  |         |         | 5       | Watts |
| <b>Waveguide to Coax Adapters</b> |         |         |         |       |
| VSWR                              |         | 1.25:1  |         |       |

### Mechanical Specifications

#### Interface

Waveguide Size WR-112

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-112 Waveguide 40 dB Crossguide Coupler, UG-51/U Square Cover Flange, N Female Coupled Port, 7.05 GHz to 10 GHz, Bronze PEWCT1094](#)



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|                                       |              |
|---------------------------------------|--------------|
| Flange Type                           | Square Cover |
| Flange Designation                    | UG-51/U      |
| Flange Material and Plating           | Brass        |
| RF Connector Type                     | N Female     |
| Coupler Body Material and Plating     | Bronze       |
| Termination Body Material and Plating | Bronze       |

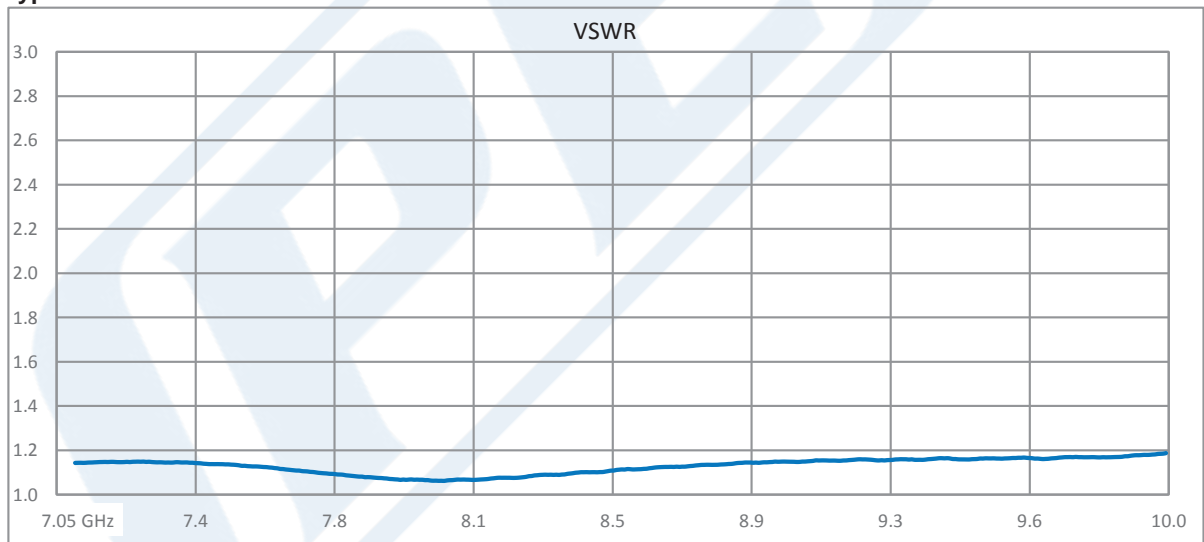
**Environmental Specifications**

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

**Plotted and Other Data**

Notes:

**Typical Performance Data**



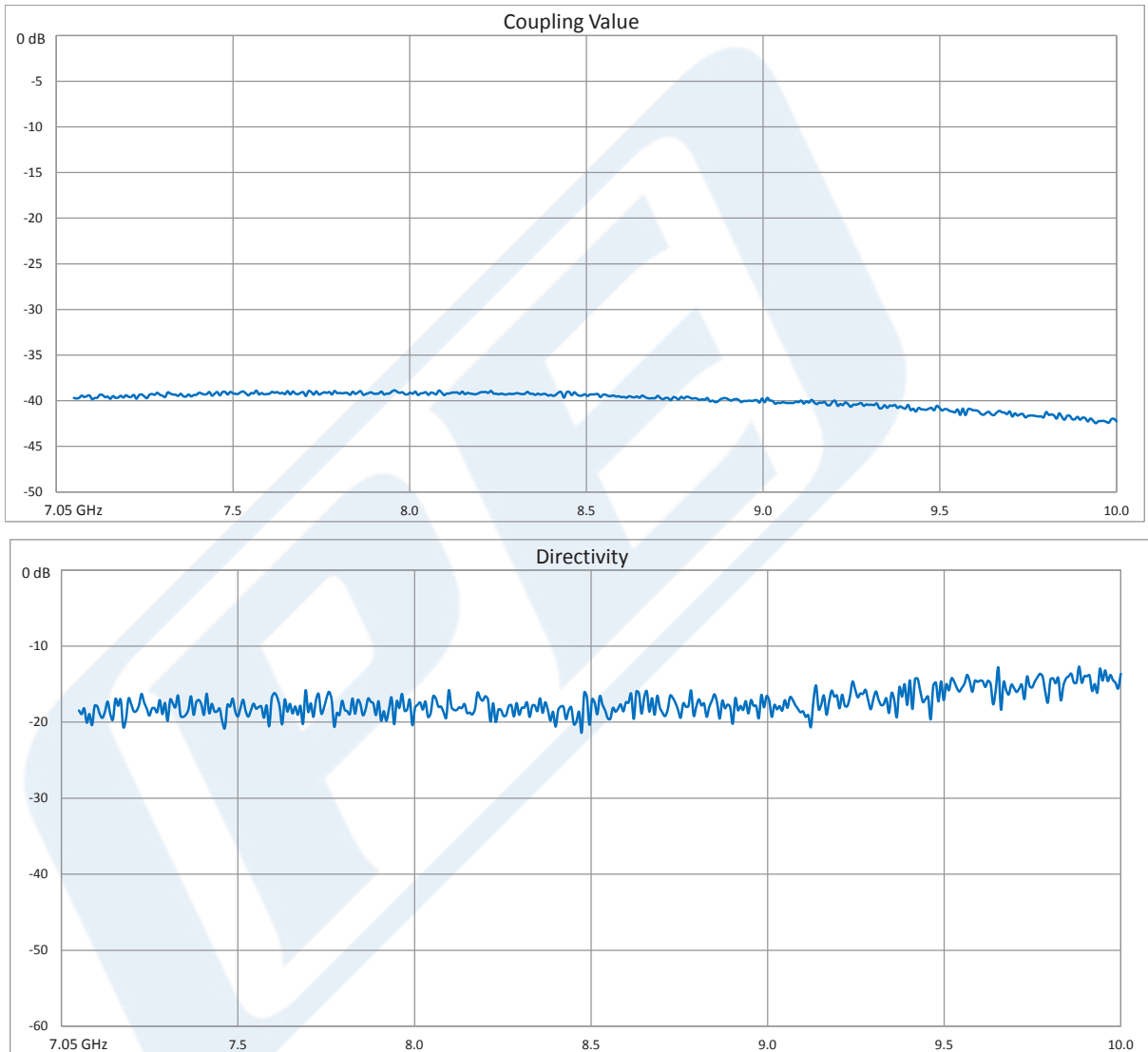
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WR-112 Waveguide 40 dB Crossguide Coupler, UG-51/U Square Cover Flange, N Female Coupled Port, 7.05 GHz to 10 GHz, Bronze from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

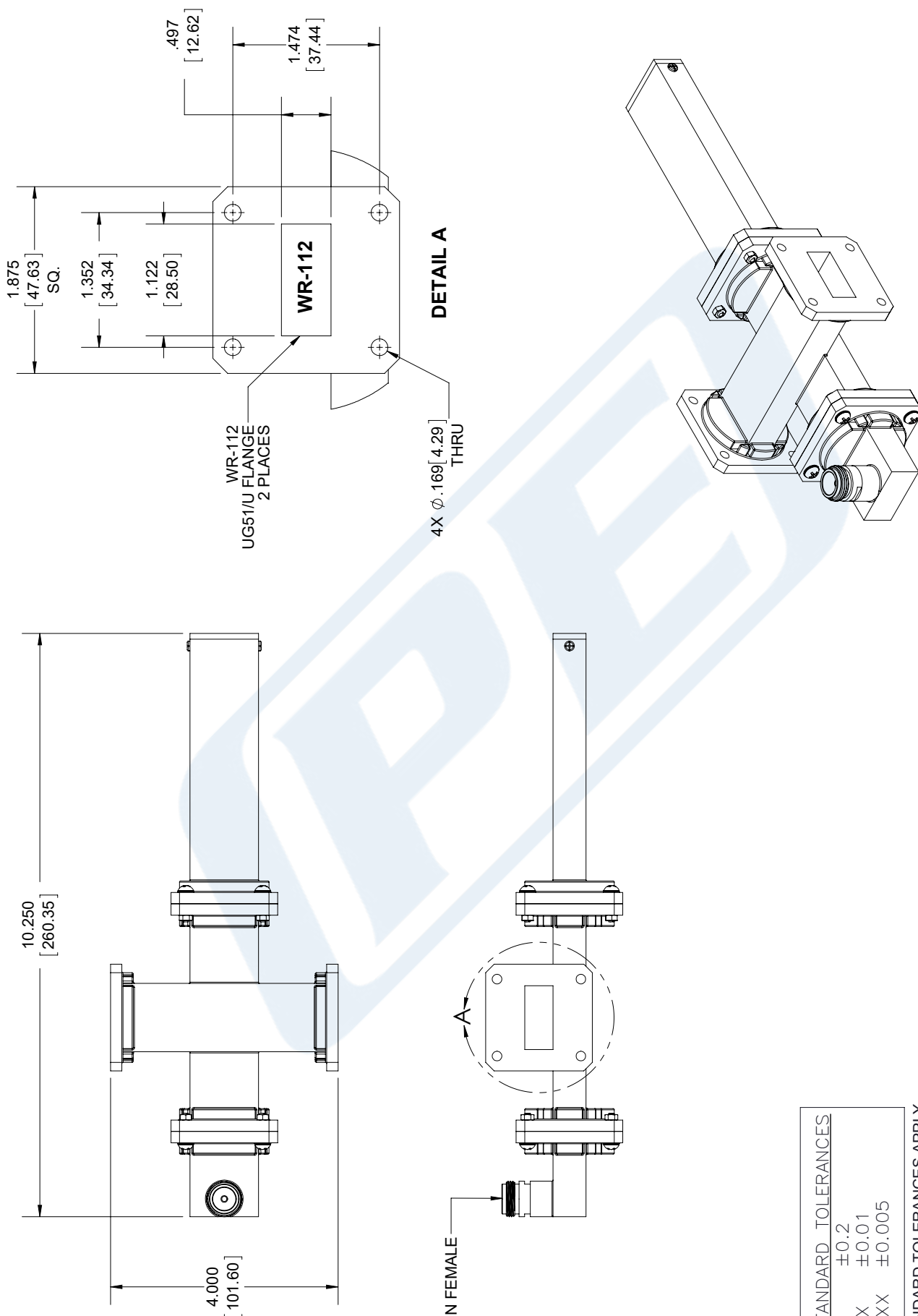
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements.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

# PEWCT1094 CAD Drawing

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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].

DWG TITLE  
 PEWCT1094

CAGE CODE 53919

Phone: (949) 261-1920 | Fax: (949) 261-7451  
 Website: www.pasternack.com | E-Mail: sales@pasternack.com

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 THE ENGINEER'S RF SOURCE  
 Pasternack Enterprises, Inc.  
 P.O. Box 16759 | Irvine | CA | 92623

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SIZE A

SCALE N/A

CAD FILE 062617