



WR-112 Waveguide 30 dB Crossguide Coupler,  
 UG-51/U Square Cover Flange, SMA Female  
 Coupled Port, 7.05 GHz to 10 GHz, Bronze

## Waveguide Couplers Assemblies Technical Data

PEWCT1085

The PEWCT1085 is a 30 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 PEWCT1085 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 PEWCT1029. For the four port version of this coupler (no termination, no coax adapter) please see the PEWCP1064.

### Features

- Three Port
- Crossguide Waveguide Coupler
- Terminated
- 30 dB Nominal Coupling Level
- SMA 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		30		dB
Directivity		25		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 30 dB Crossguide Coupler, UG-51/U Square Cover Flange, SMA Female Coupled Port, 7.05 GHz to 10 GHz, Bronze PEWCT1085](#)



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

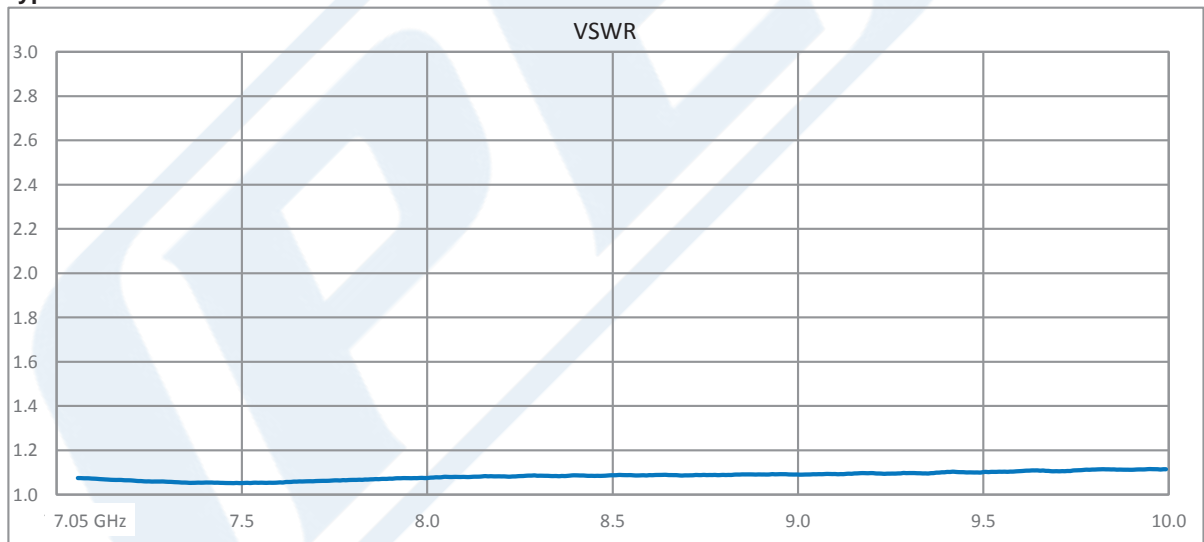
**Environmental Specifications**

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

**Plotted and Other Data**

Notes:

**Typical Performance Data**



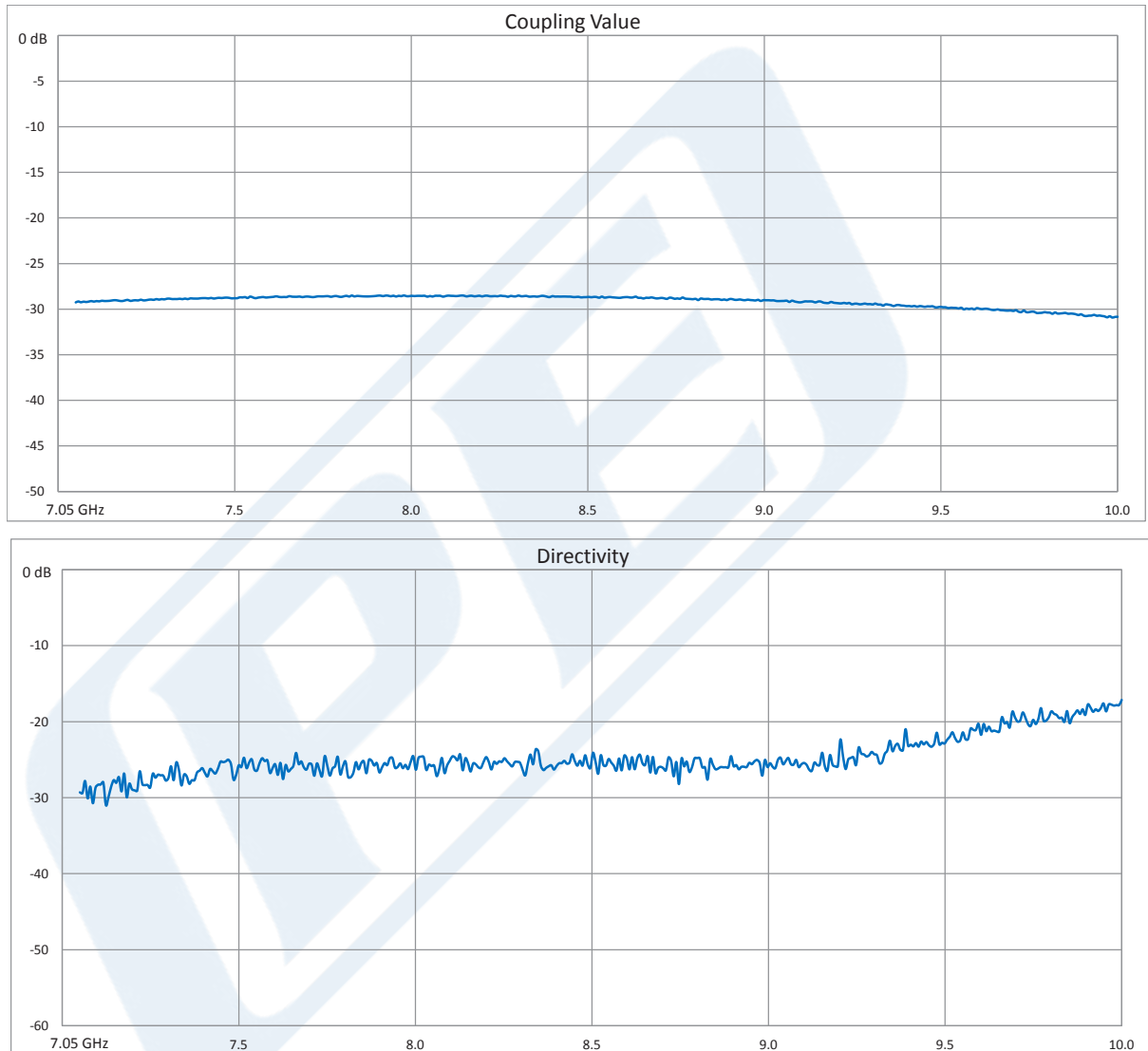
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WR-112 Waveguide 30 dB Crossguide Coupler, UG-51/U Square Cover Flange, SMA Female Coupled Port, 7.05 GHz to 10 GHz, Bronze from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

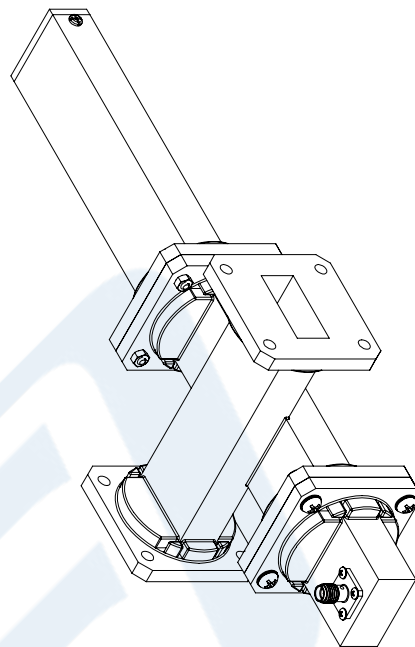
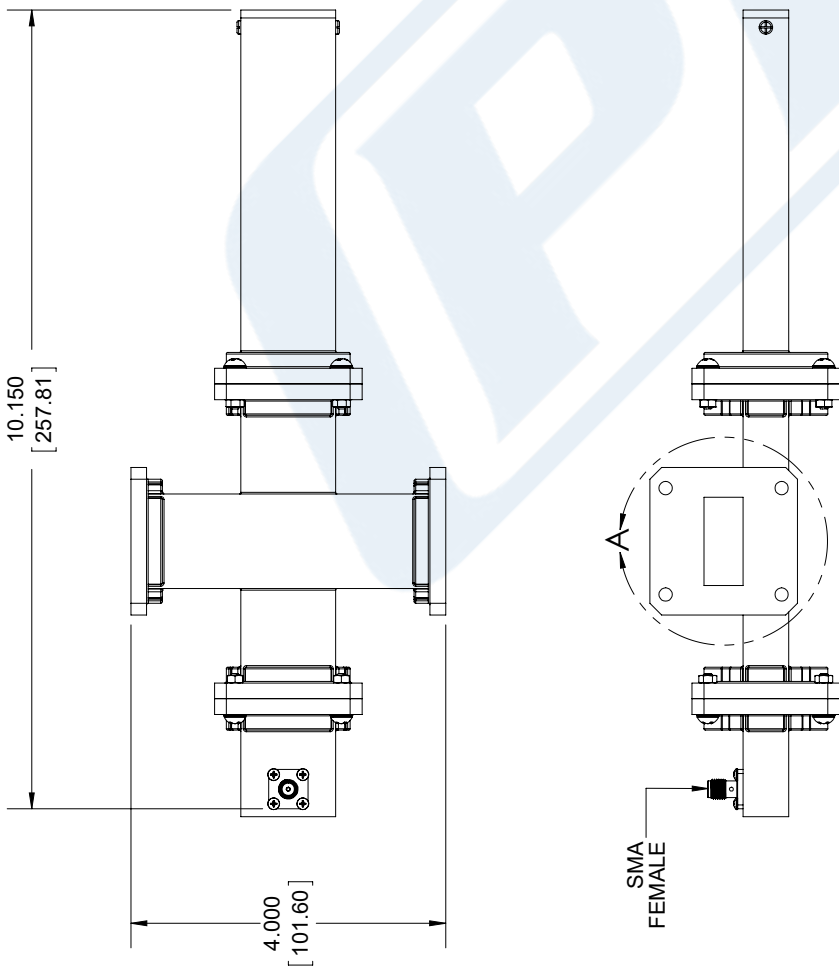
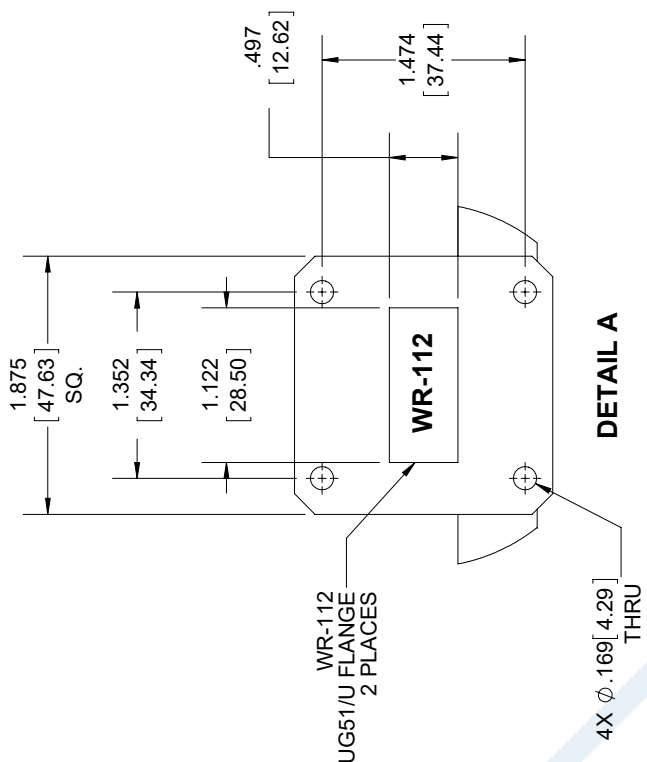
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-112 Waveguide 30 dB Crossguide Coupler, UG-51/U Square Cover Flange, SMA Female Coupled Port, 7.05 GHz to 10 GHz, Bronze PEWCT1085](https://www.pasternack.com/wr112-waveguide-30db-crossguide-coupler-ug-51-square-sma-10-ghz-pewct1085-p.aspx)

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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.

# PEWCT1085 CAD Drawing

WR-112 Waveguide 30 dB Crossguide Coupler, UG-51/U Square Cover Flange, SMA Female Coupled Port, 7.05 GHz to 10 GHz, Bronze



### STANDARD TOLERANCES

.X ±0.2  
.XX ±0.01  
.XXX ±0.005

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



Pasternack Enterprises, Inc.  
P.O. Box 16759 | Irvine | CA | 92623

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

DWG TITLE

PEWCT1085

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].

CAGE CODE 53919

CAD FILE 062617

SCALE N/A

SIZE A

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