



WR-112 Waveguide 20 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

PEWCT1084

The PEWCT1084 is a 20 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 PEWCT1084 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 PEWCT1028. For the four port version of this coupler (no termination, no coax adapter) please see the PEWCP1063.

Features

- Three Port
- Crossguide Waveguide Coupler
- Terminated
- 20 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 |
| Coupler | | | | |
| Nominal Coupling Level | | 20 | | dB |
| Directivity | | 45 | | dB |
| Insertion Loss | | 0.1 | | dB |
| Main Line VSWR | | 1.05:1 | | |
| Termination | | | | |
| Input Power (CW) | | | 5 | Watts |
| Waveguide to Coax Adapters | | | | |
| 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 20 dB Crossguide Coupler, UG-51/U Square Cover Flange, SMA Female Coupled Port, 7.05 GHz to 10 GHz, Bronze PEWCT1084](#)



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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 |

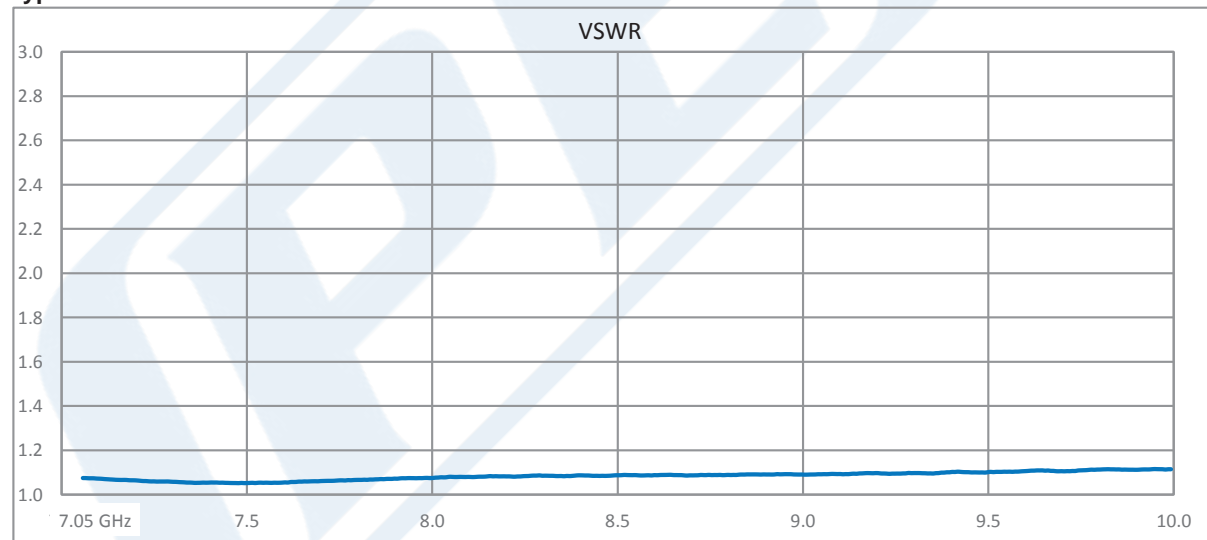
Environmental Specifications

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

Plotted and Other Data

Notes:

Typical Performance Data



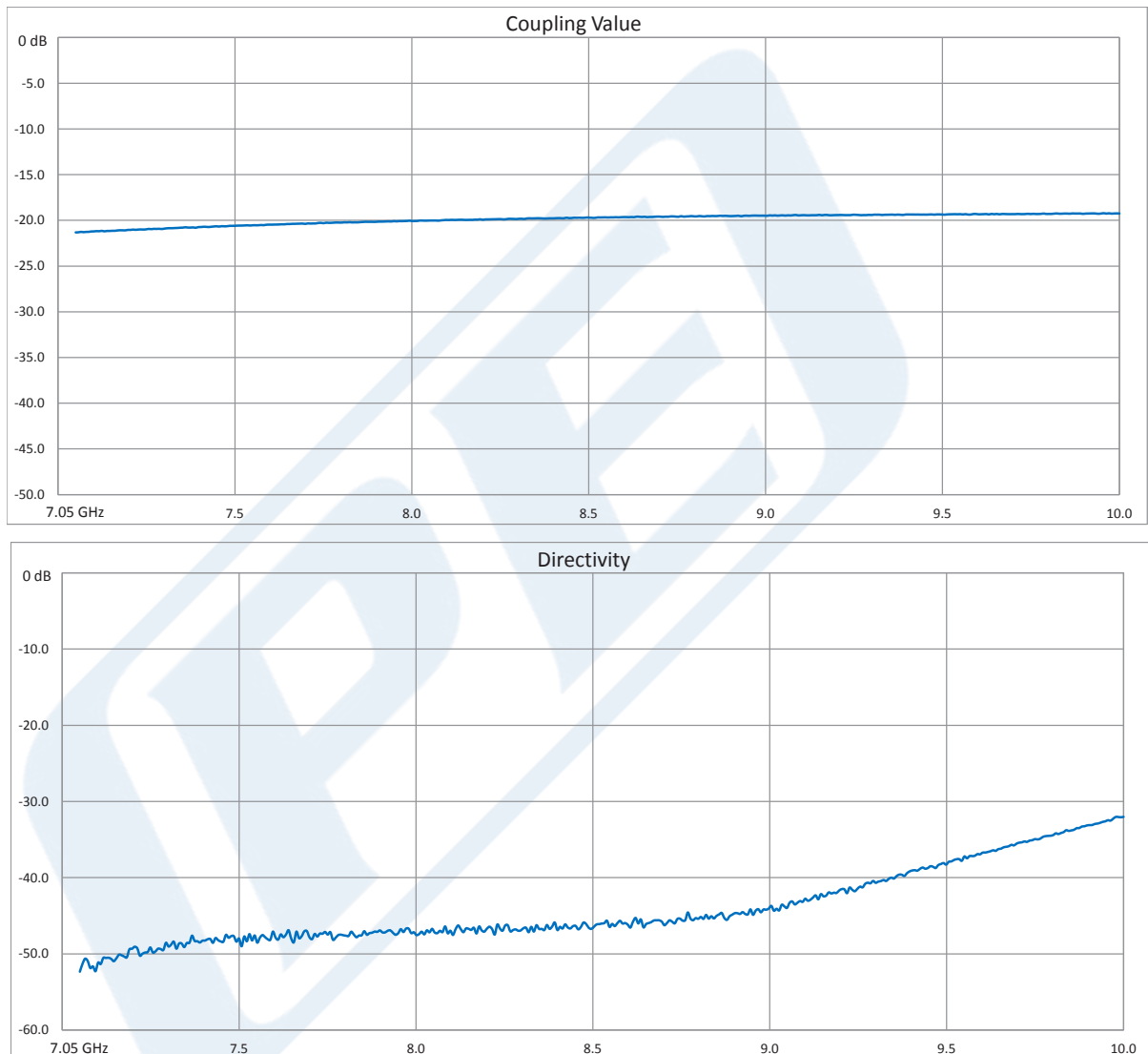
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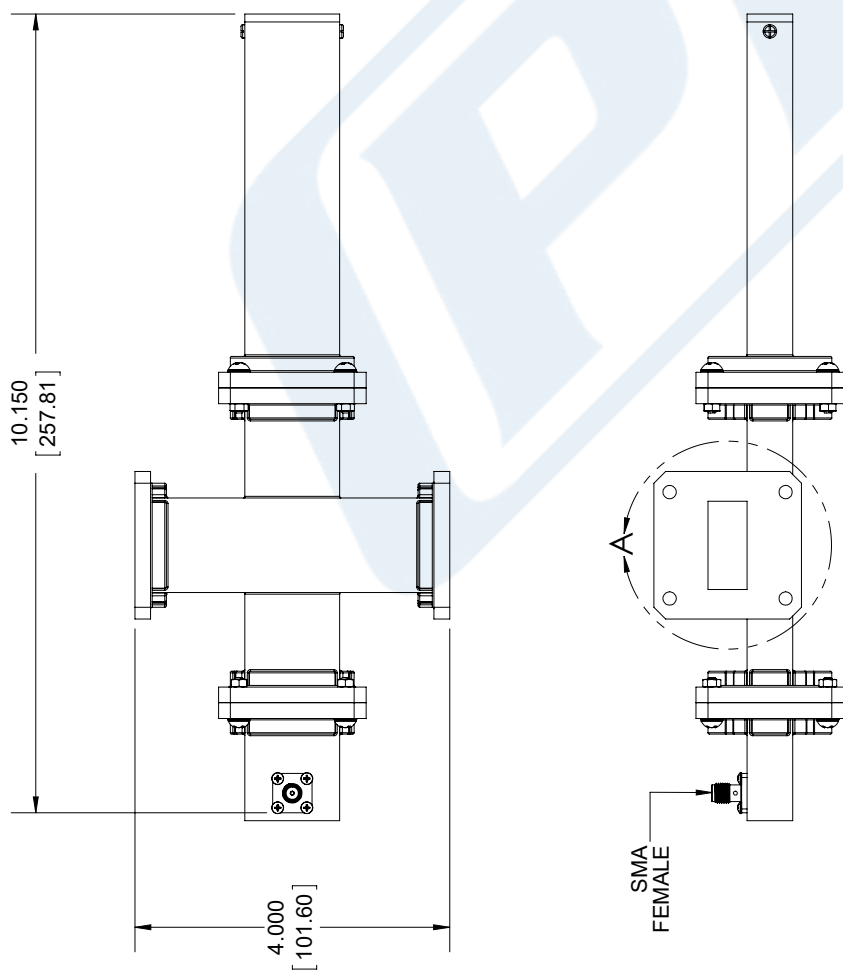
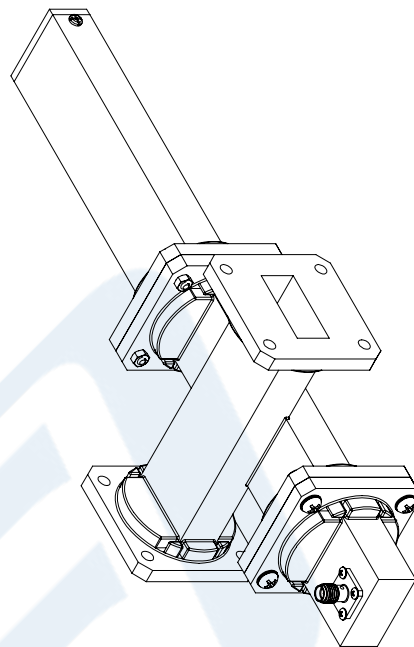
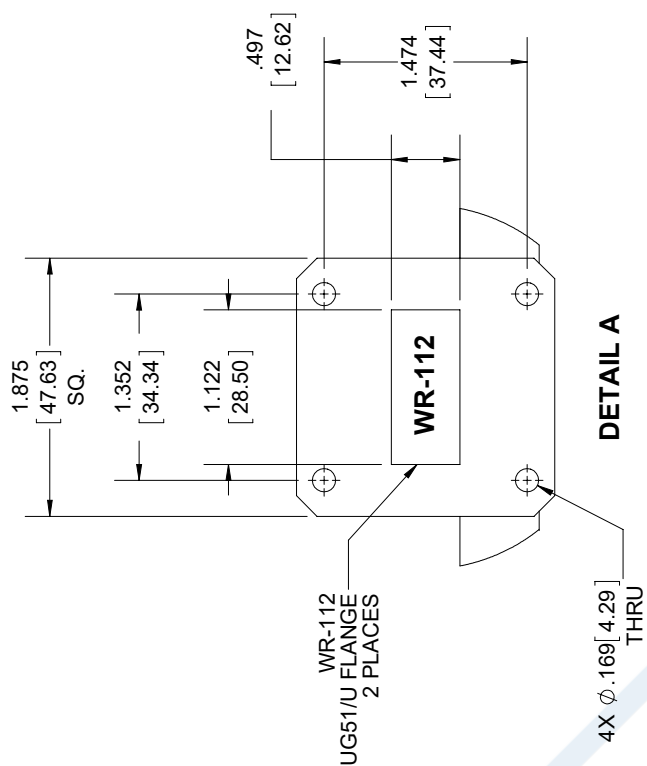
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WR-112 Waveguide 20 dB Crossguide Coupler, UG-51/U Square Cover
Flange, SMA Female Coupled Port, 7.05 GHz to 10 GHz, Bronze

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| <u>STANDARD TOLERANCES</u> | |
|----------------------------|-------------|
| .X | ± 0.2 |
| .XX | ± 0.01 |
| XXX | ± 0.005 |

*STANDARD TOLERANCES APPLY
ONLY TO DIMENSIONS IN INCHES



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DWG TITLE

PEWCT1084

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

SIZE A

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