



WR-51 30 dB Waveguide Crossguide Coupler,
Square Cover Flange, 15 GHz to 22 GHz

TECHNICAL DATA SHEET

PEWCP1044

The PEWCP1044 is a WR-51 crossguide waveguide coupler that operates in the frequency range of 15 to 22 GHz. This Waveguide component has a typical VSWR of 1.05:1. These designs are made of painted copper alloy and incorporate a cross wall configuration that result in a mid-band nominal coupling value of 20, 30, 40 or 50 dB. Common applications for this component would be where power measurements are required within a system for measuring/sampling power or frequency monitoring with minimal signal loss to the main transmission line. This WR-51 waveguide coupler uses standard square cover flanges. Pasternack offers a complete family of waveguide Crossguide and Top wall couplers that are in-stock and ship same day.

Features

- Crossguide Waveguide Coupler
- 30 dB Nominal Coupling Level
- 15 GHz to 22 GHz Frequency Range
- Body and Flanges made of Copper Alloy
- Low VSWR

Applications

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

Electrical Specifications (Values at 25°C, sea level)

| Description | Minimum | Typical | Maximum | Units |
|------------------------|---------|---------|---------|-------|
| Frequency Range | 15 | | 22 | GHz |
| Directivity | | 30 | | dB |
| Insertion Loss | | 0.1 | | dB |
| Main Line VSWR | | 1.05:1 | | |
| Nominal Coupling Level | | 30 | | dB |

Mechanical Specifications

| | |
|-------------|---------------------|
| Size | |
| Length | 2.5 in [63.5 mm] |
| Width/Dia. | 2.5 in [63.5 mm] |
| Weight | 0.61 lbs [276.69 g] |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-51 30 dB Waveguide Crossguide Coupler, Square Cover Flange, 15 GHz to 22 GHz PEWCP1044](#)



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Configuration

Design Crossguide
Size WR-51

| Description | Input Flange | Output Flange | Coupled Flange(s) |
|-------------|--------------|---------------|-------------------|
| Flange Type | Square Cover | Square Cover | Square Cover |
| Material | Copper Alloy | Copper Alloy | Copper Alloy |

Compliance Certifications (visit www.Pasternack.com for current document)

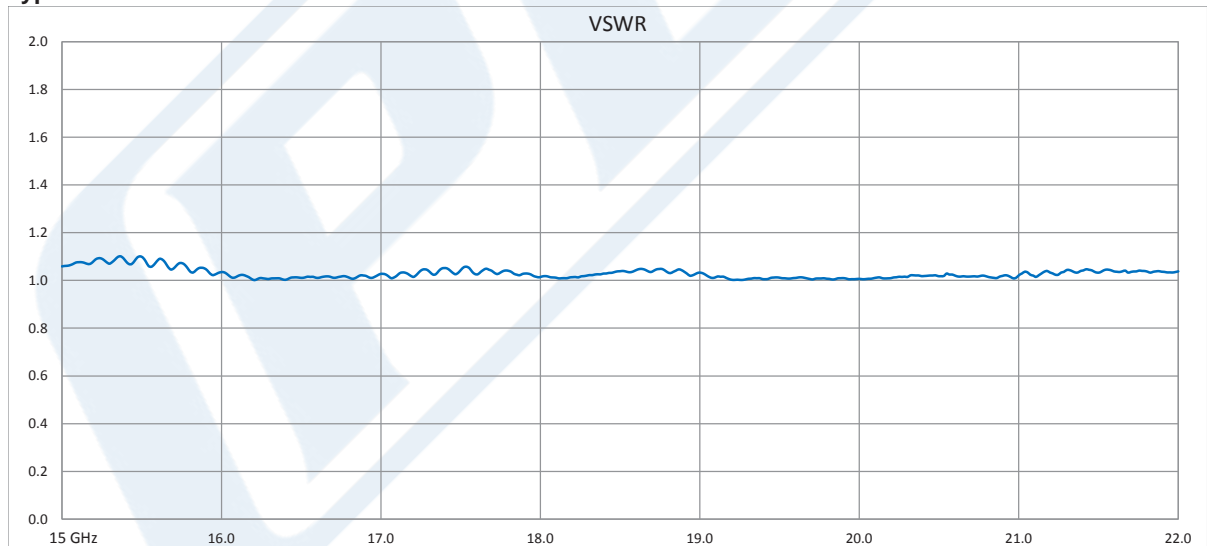
RoHS Compliant
REACH Compliant 12/17/2015

Plotted and Other Data

Notes:

- Values at 25 °C, sea level

Typical Performance Data



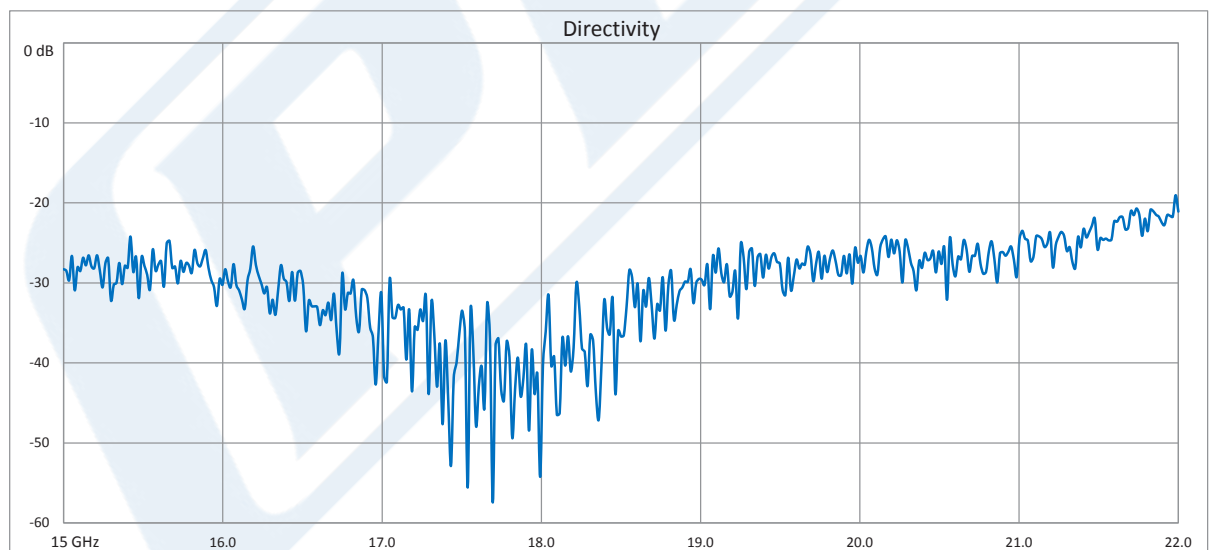
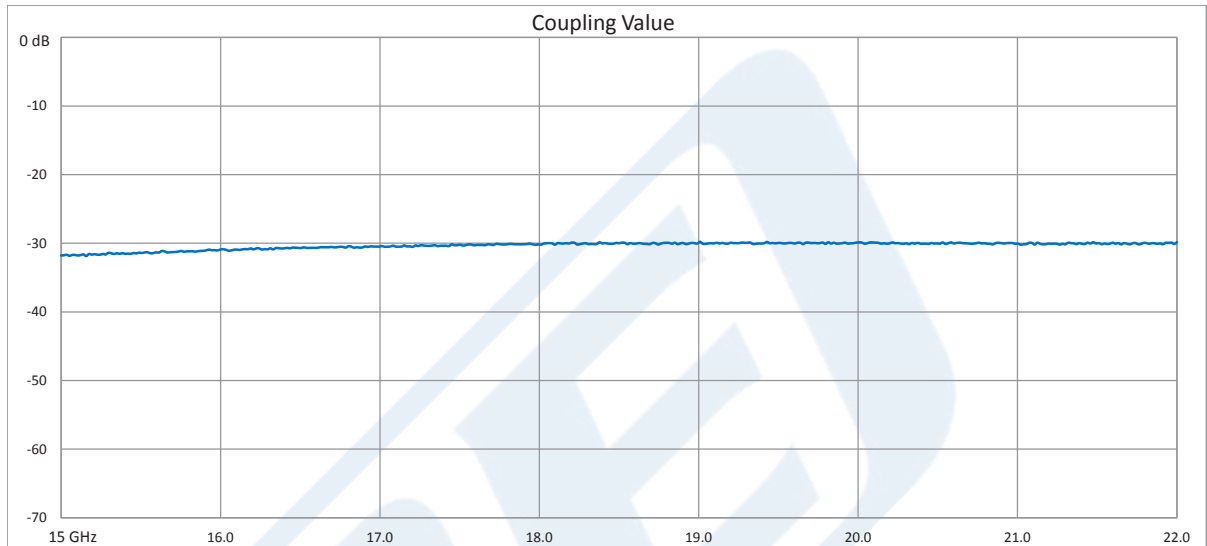
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WR-51 30 dB Waveguide Crossguide Coupler, Square Cover Flange, 15 GHz to 22 GHz from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

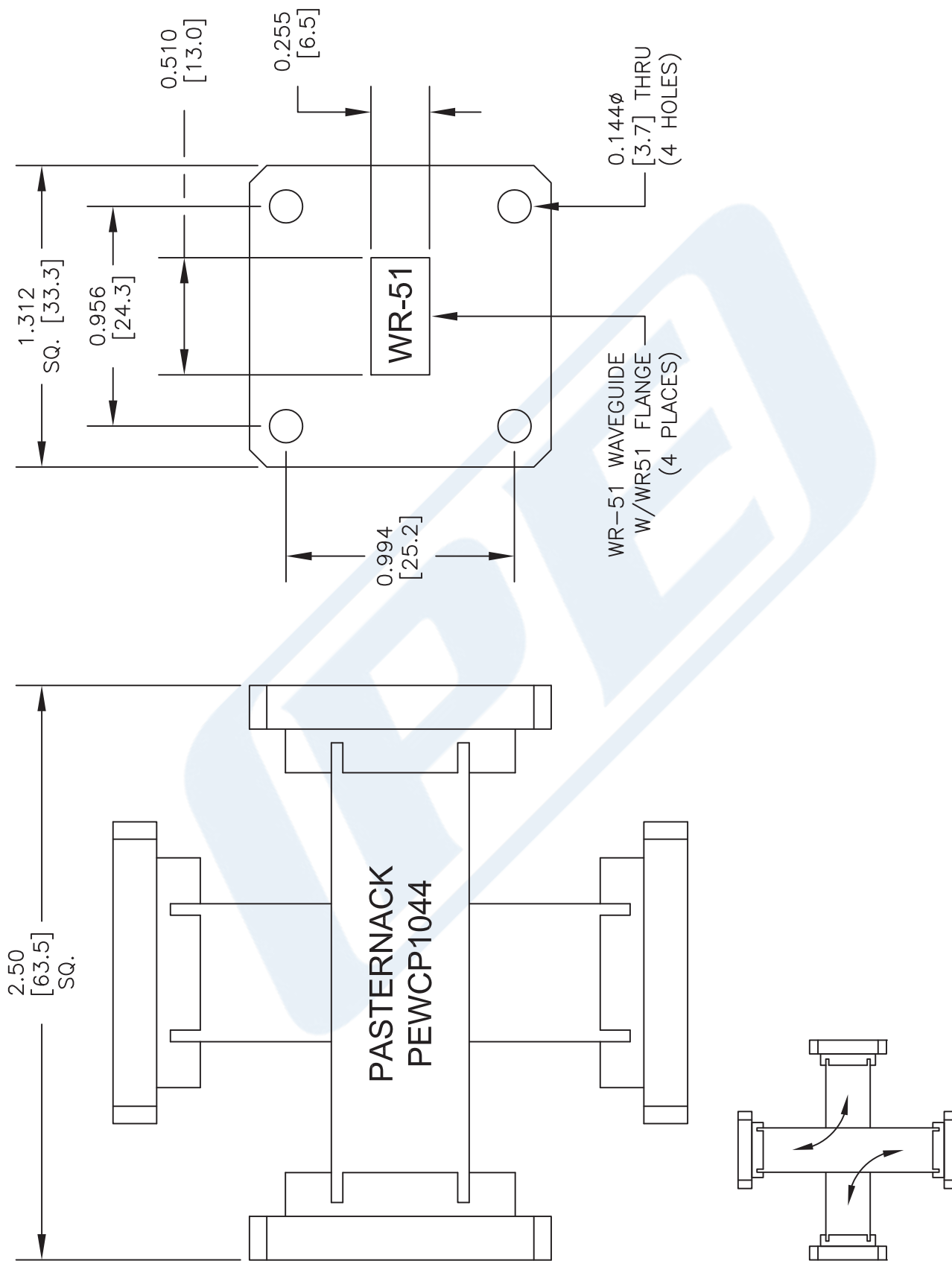
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. 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.

PEWC1044 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
PEWC1044

CAD FILE 042916 SCALE N/A SIZE A 2233

FSCM NO. 53919

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