



90 Degree Drop-In Hybrid Coupler From 400 MHz to 1,000 MHz Rated To 200 Watts

Hybrids Technical Data Sheet

PE2CP1037

Features

- 200 watts power
- 18.5 dB isolation
- 400 MHz to 1000 MHz Frequency Range
- Gold plated leads
- 1.25:1 VSWR
- 1.35 inch by 0.5 inch package
- Attach to heat sink by two screws

Applications

- Power amplifier
- Mixers
- Power dividers/combiners
- Antenna feeds
- Attenuators
- Switches
- Phase shifters

Description

The PE2CP1037 operates from 400 MHz to 1000 MHz and can handle 200 watts of power with 18.5 dB isolation. The package is 1.35 inch by 0.5 inch package and is attached to the heat sink by two screws. The gold plated leads are soldered to the PCB. This 90 degree hybrid has a VSWR of 1.25:1 and an insertion loss of 0.25 dB.

The PE2CP1037 is part of Pasternack's family of 90 degree hybrid couplers in drop-in packages. These couplers feature small drop-in packages that can handle power up to 1000 watts. They are available in both narrow and broad bandwidths. These quadrature hybrids are excellent for any situation to either equally split an input signal into two paths with a 90 degree phase shift between them or to combine two signals while maintaining high isolation between them.

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------------|---------|---------|---------|---------|
| Frequency Range | 400 | | 1,000 | MHz |
| Impedance | | 50 | | Ohms |
| Phase Difference | | 90 | | Degrees |
| Insertion Loss | | | 0.25 | dB |
| Isolation | 18.5 | | | dB |
| VSWR | | | 1.25:1 | |
| Amplitude Balance | | ±0.65 | | dB |
| Phase Balance | | ±5 | | Degrees |
| Input Power (CW) | | | 200 | Watts |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [90 Degree Drop-In Hybrid Coupler From 400 MHz to 1,000 MHz Rated To 200 Watts PE2CP1037](#)



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Mechanical Specifications

Size

| | |
|--------|--------------------|
| Length | 1.35 in [34.29 mm] |
| Width | 0.13 in [3.3 mm] |
| Height | 0.5 in [12.7 mm] |

Configuration

Mechanical Specification Notes:

Finish per MIL-DTL-5541, Type 2, Rev. F, Class 3

Environmental Specifications

Temperature

Operating Range -55 to 85 deg C

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

RoHS Compliant

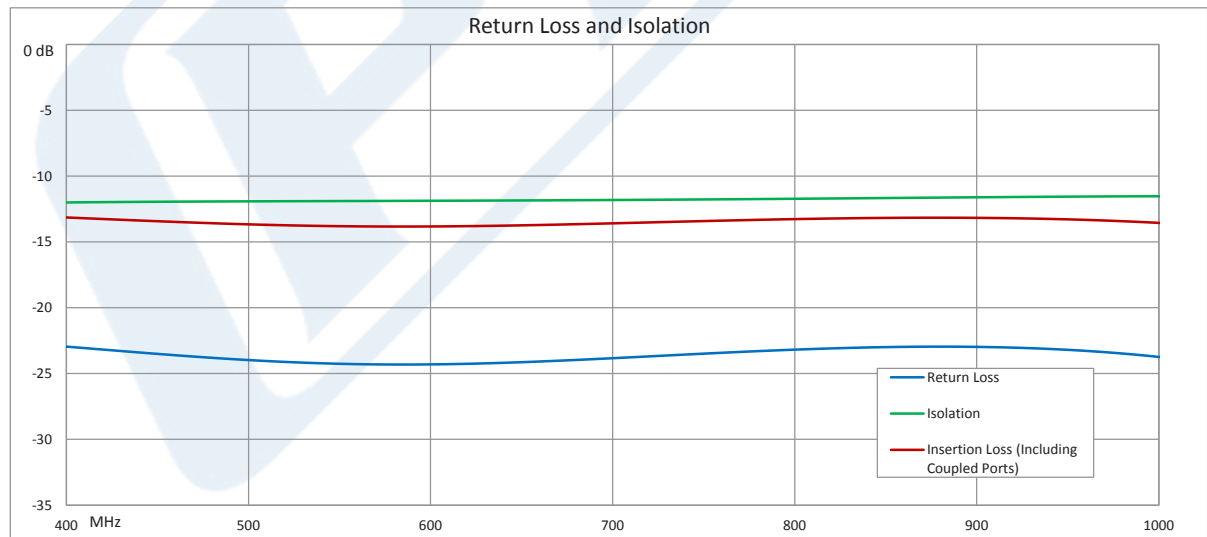
REACH Compliant

12/17/2014

Plotted and Other Data

Notes:

Typical Performance Data



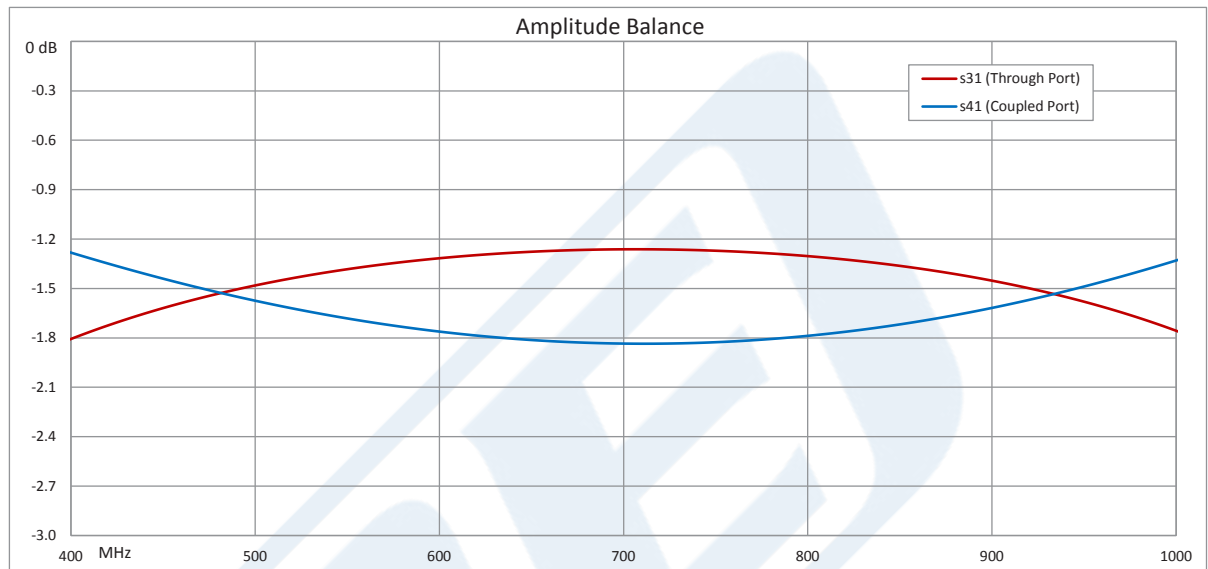
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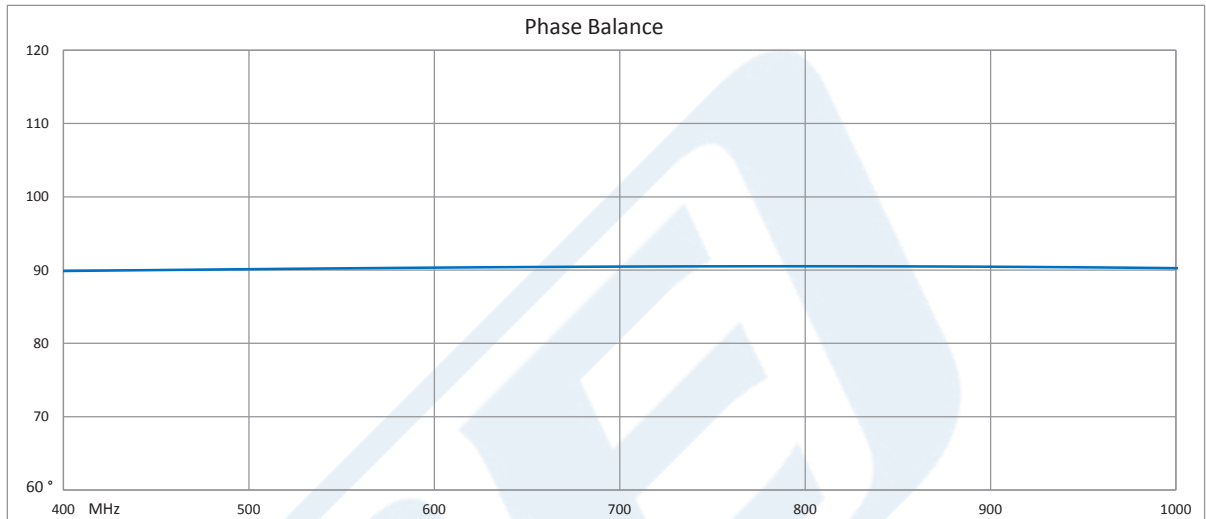
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90 Degree Drop-In Hybrid Coupler From 400 MHz to 1,000 MHz Rated To 200 Watts from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

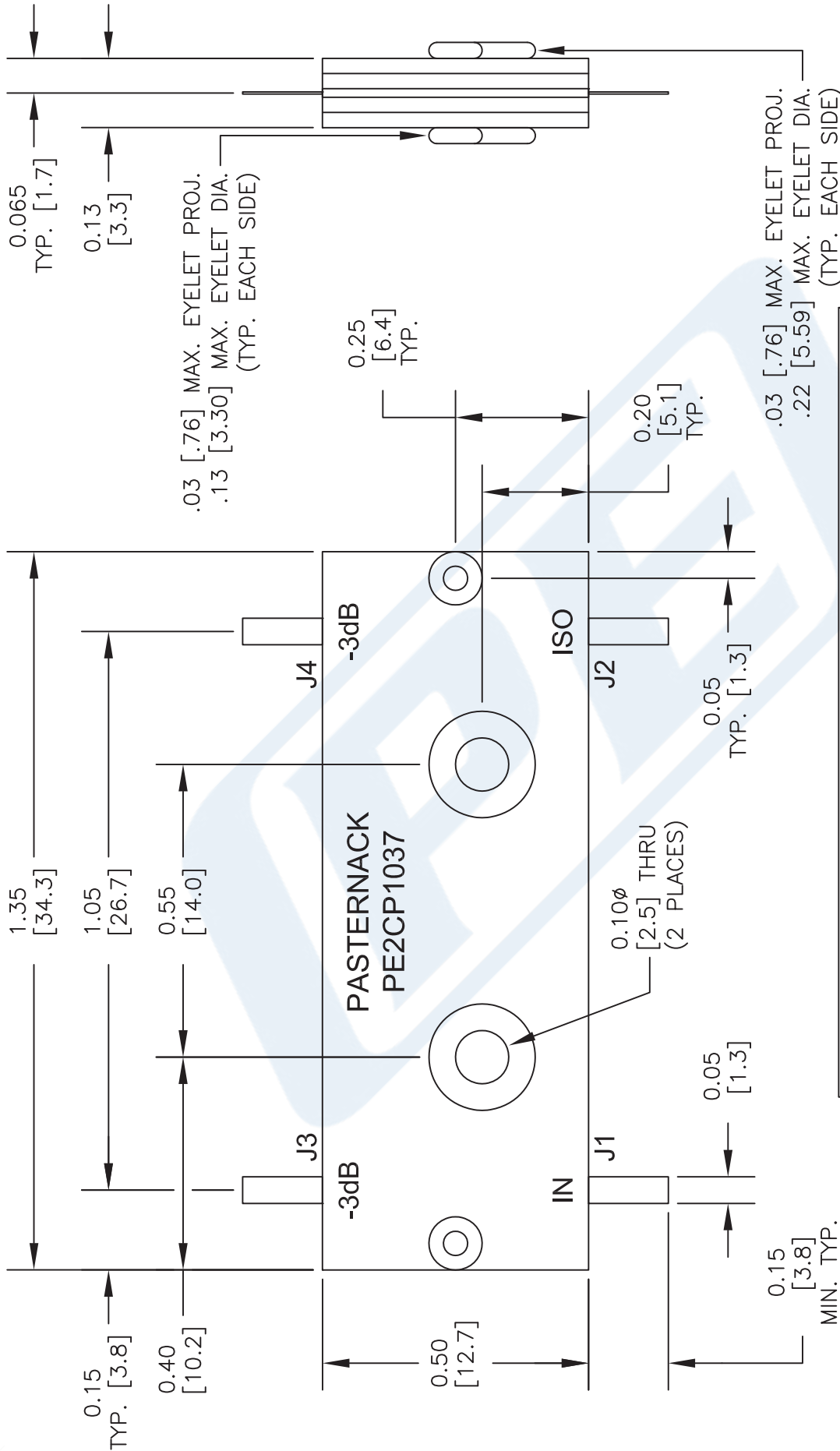
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [90 Degree Drop-In Hybrid Coupler From 400 MHz to 1,000 MHz Rated To 200 Watts PE2CP1037](http://www.pasternack.com/drop-in-coupler-400-1000-mhz-200-watts-pe2cp1037-p.aspx)

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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.

PE2CP1037 CAD Drawing

90 Degree Drop-In Hybrid Coupler From 400 MHz to 1,000 MHz Rated To 200 Watts



| PORT CONFIGURATION | | | | |
|--------------------|-------------|-------------|-------------|-------------|
| INPUT | J1 | J2 | J3 | J4 |
| J1 | --- | ISOLATION | -3dB<0 DEG | -3dB<90 DEG |
| J2 | ISOLATION | --- | -3dB<90 DEG | -3dB<0 DEG |
| J3 | -3dB<0 DEG | -3dB<90 DEG | --- | ISOLATION |
| J4 | -3dB<90 DEG | -3dB<0 DEG | ISOLATION | --- |

TOLERANCE
IN [mm]
.XX \pm .02 [.50]
.XXX \pm .005 [.127]
ANG. \pm 1/2°

* THESE DIMENSIONS AND TOLERANCES
SUPERSEDE NOTE #1 ON TITLE BLOCK.

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
PE2CP1037

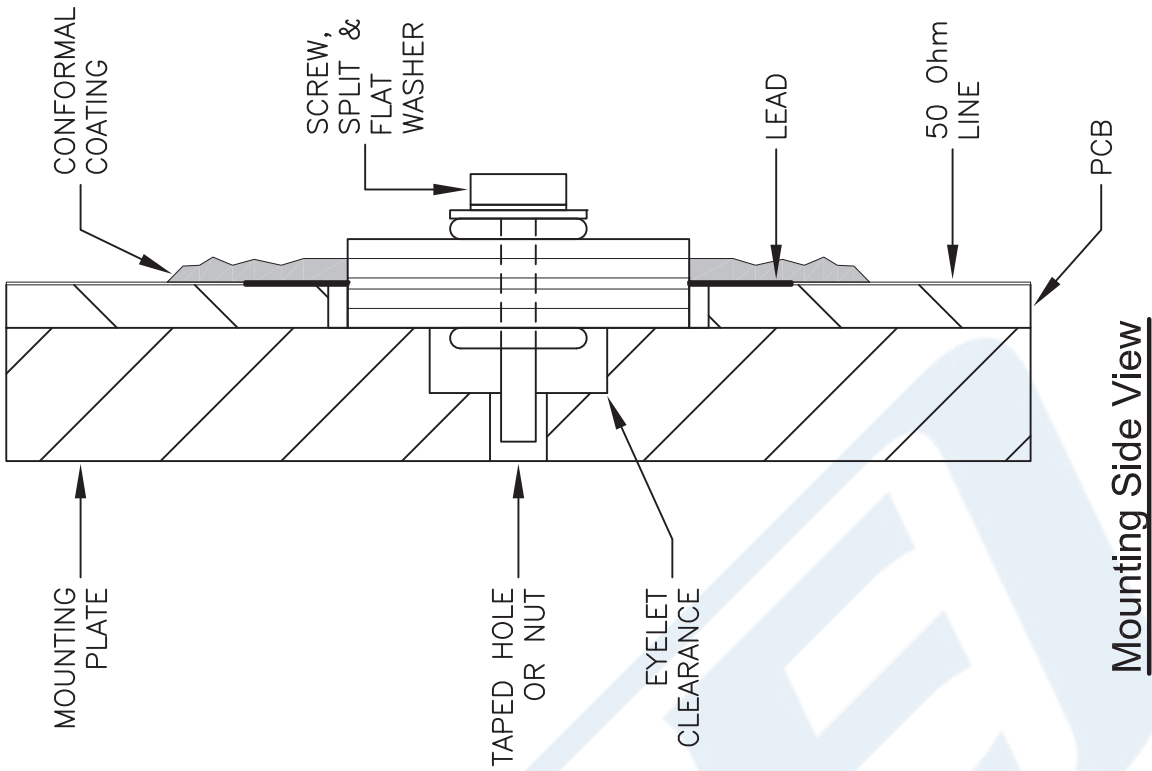
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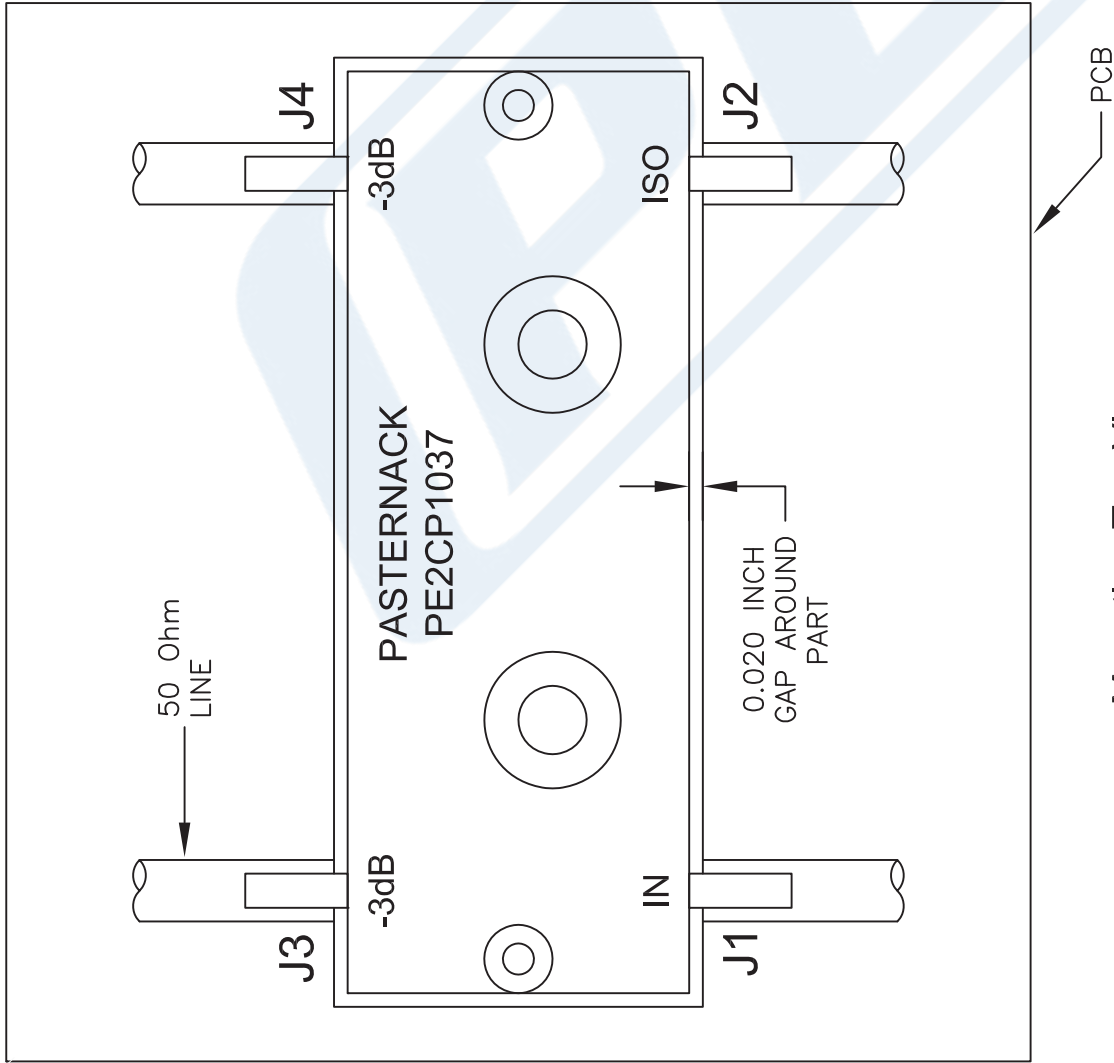
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2233

PE2CP1037 CAD Drawing

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Mounting Side View



Mounting Top View

NOTE:
1. CONFORMAL COATING IS RECOMMENDED AT THE LEAD / 50 Ohm LINE INTERFACE FOR HIGH POWER APPLICATIONS TO PREVENT VOLTAGE ARCING.
2. TO INSURE PROPER GROUNDING THE BOTTOM PLATE OF COUPLER MUST LAY FLAT ON MOUNTING SURFACE. PLEASE ALLOW CLEARANCE FOR ALL EYELET PROJECTIONS IN BASE PLATE.
3. SOLDER LEADS TO 50 Ohm LINES USING LEAD FREE OR Sn63 ALLOY.
4. TORQUE STAINLESS STEEL SCREW, SPLIT AND FLAT WASHER TO 2.5 in-lbs.

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