



90 Degree Drop-In Hybrid Coupler From 20 MHz to 1,000 MHz Rated to 150 Watts

## Hybrids Technical Data Sheet

**PE2CP1027**

### Features

- High Power
- 16 dB Isolation
- 20 MHz to 1,000 MHz Frequency Range
- Gold Plated Silver Leads
- 2.2 Inch by 3 Inch package
- Clear Chem Film Per MIL-DTL-5541

### Applications

- Test and measurement
- Military Communications
- Commercial Communications
- Wireless Communications
- SATCOM
- Military Electronic Systems

### Description

The PE2CP1027 operates from 20 MHz to 1,000 MHz and can handle 150 watts of power with 16 dB isolation. The package is 2.2 inch by 3 inch with gold plated silver leads and can be attached to a heat sink and PCB by screws. Gold plated leads are resistant to oxidation for ease of soldering and ensuring superior electrical performance of 1.3:1 VSWR and an insertion loss of 0.9 dB.

The PE2CP1027 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 1,000 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 signals while maintaining high isolation between them.

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	20		1,000	MHz
Impedance		50		Ohms
Phase Difference		90		Degrees
Insertion Loss			0.9	dB
Isolation			16	dB
VSWR			1.3:1	
Amplitude Balance		0.25		dB
Phase Balance		12		Degrees
Input Power (CW)			150	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 20 MHz to 1,000 MHz Rated to 150 Watts PE2CP1027](#)

90 Degree Drop-In Hybrid Coupler From 20 MHz to 1,000 MHz Rated to 150 Watts



## Hybrids Technical Data Sheet

**PE2CP1027**

### Mechanical Specifications

#### Size

Length  
Width  
Height  
Weight

2.2 in [55.88 mm]  
0.94 in [23.88 mm]  
3 in [76.2 mm]  
0.413 lbs [187.33 g]

#### Configuration

RF Connector Type  
Contact Material and Plating

Pin  
Silver, Gold

### Environmental Specifications

Temperature  
Operating Range

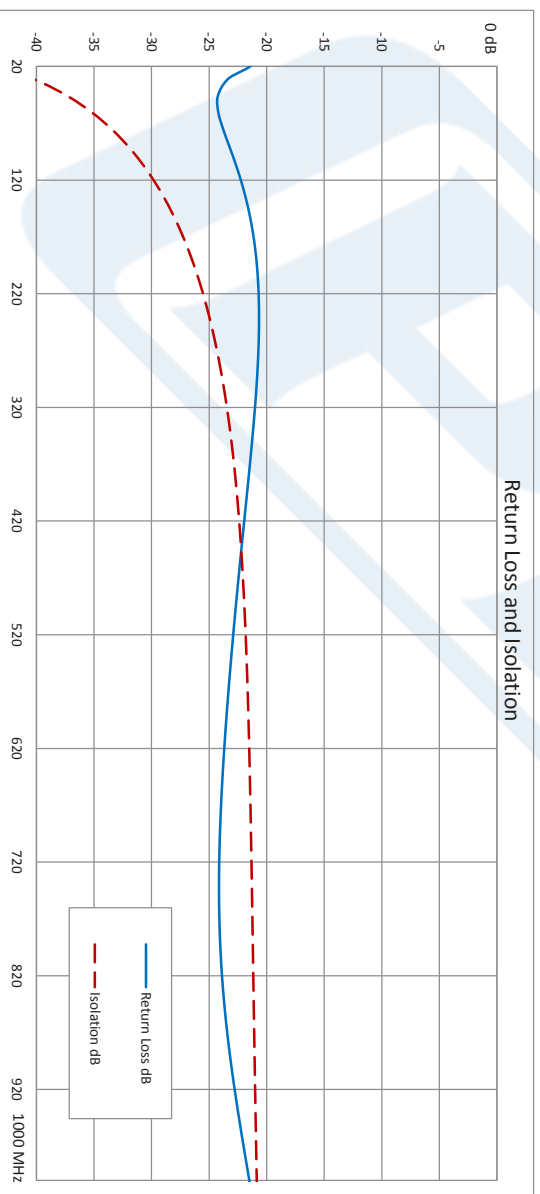
-55 to +85 deg C

**Compliance Certifications** (see product page for current document)

### Plotted and Other Data

Notes:

#### Typical Performance Data



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 20 MHz to 1,000 MHz Rated to 150 Watts PE2CP1027

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623  
**Phone:** (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451

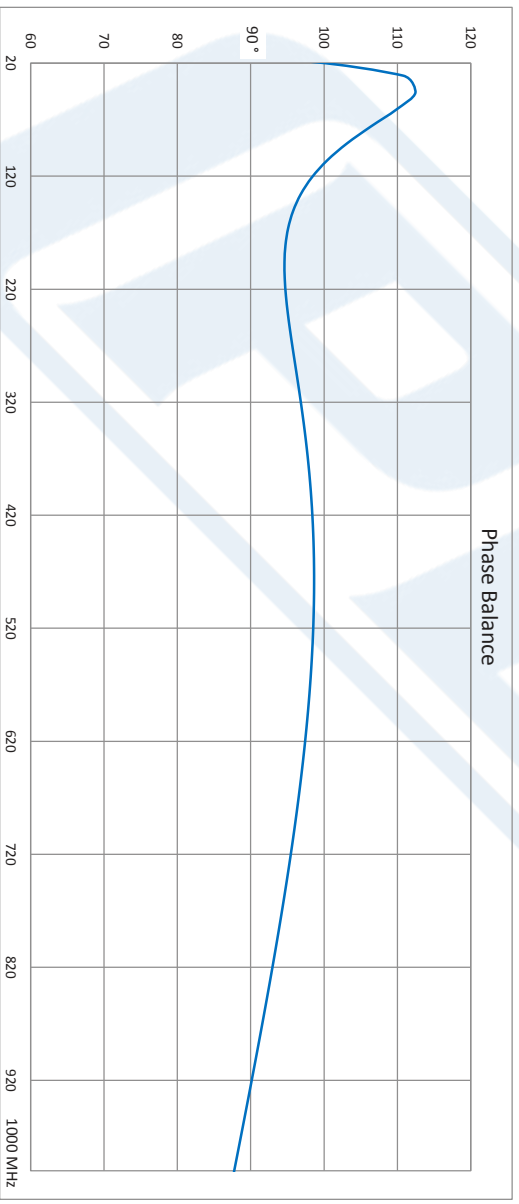
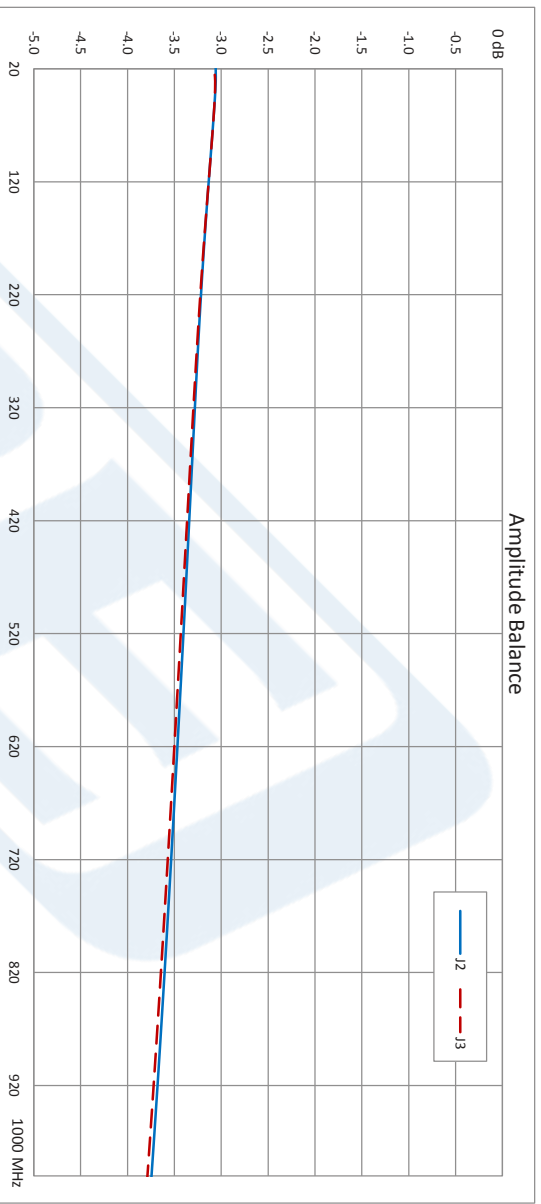
[Sales@Pasternack.com](mailto:Sales@Pasternack.com) • [Techsupport@Pasternack.com](mailto:Techsupport@Pasternack.com)



90 Degree Drop-In Hybrid Coupler From 20 MHz to 1,000 MHz Rated to 150 Watts

## Hybrids Technical Data Sheet

**PE2CP1027**



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 20 MHz to 1,000 MHz Rated to 150 Watts PE2CP1027](#)

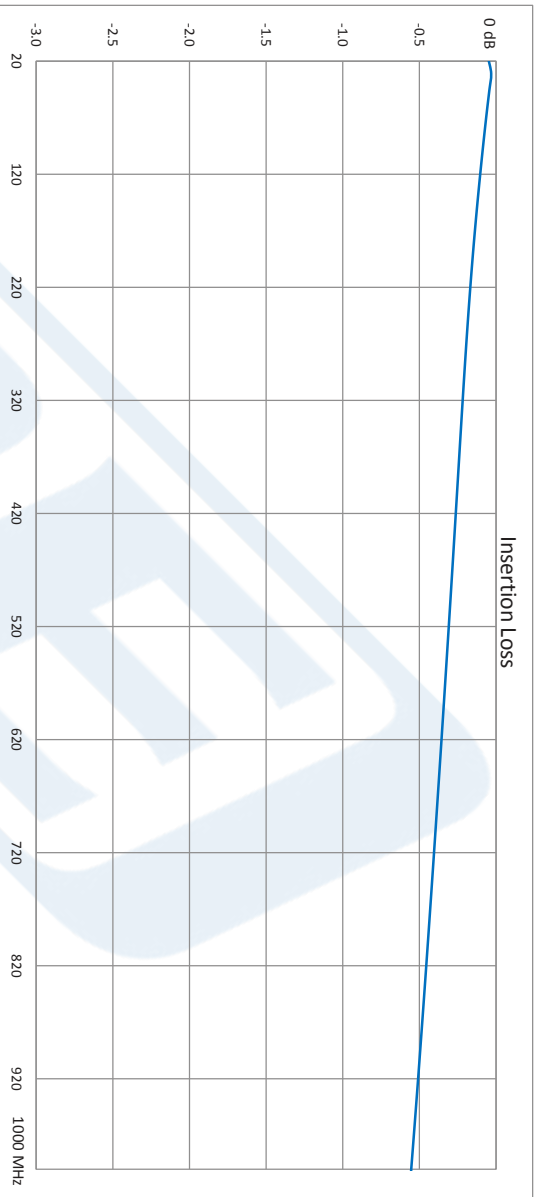
Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623  
**Phone:** (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451  
**Sales@Pasternack.com** • **Techsupport@Pasternack.com**



90 Degree Drop-In Hybrid Coupler From 20 MHz to 1,000 MHz Rated to 150 Watts

## Hybrids Technical Data Sheet

**PE2CP1027**



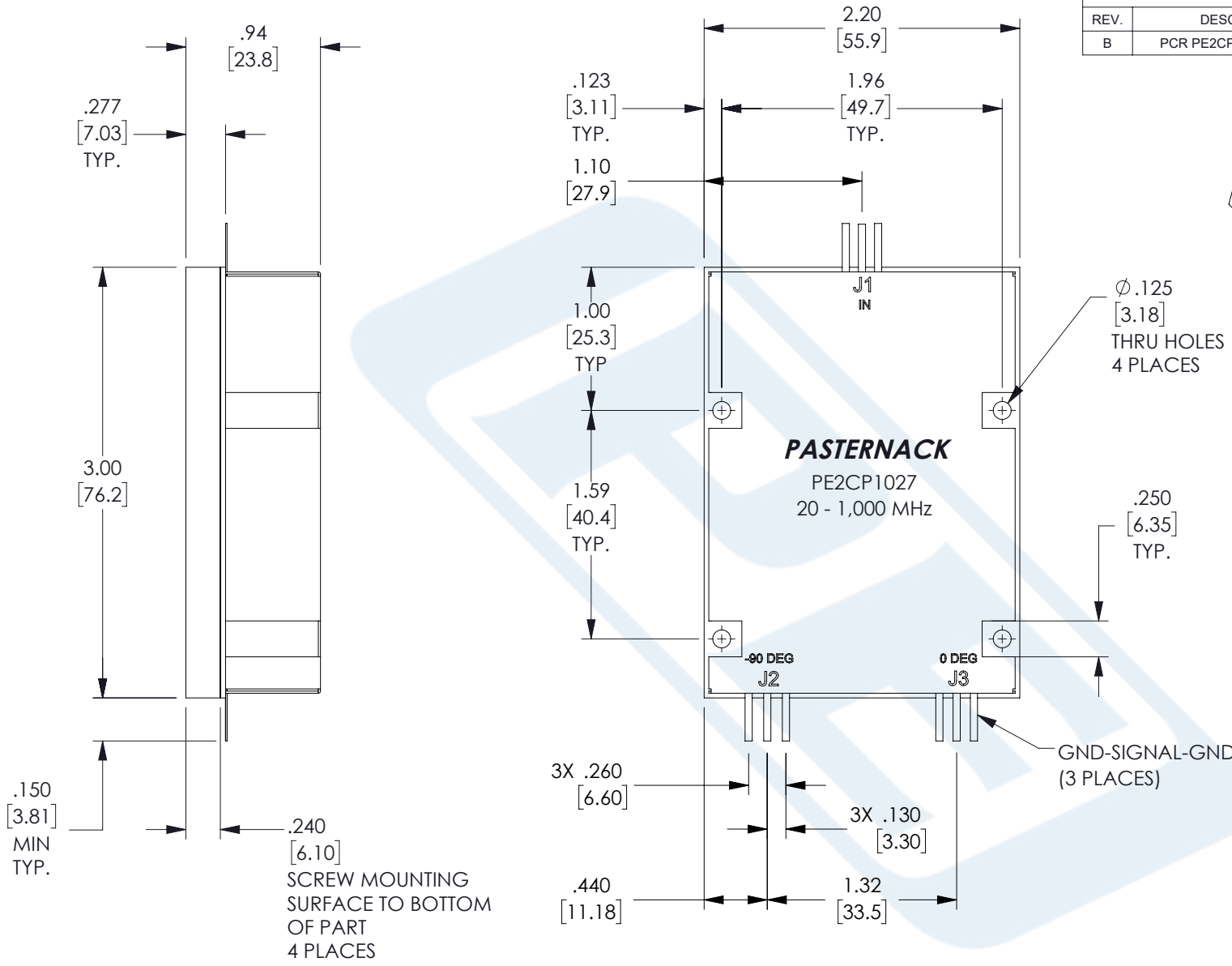
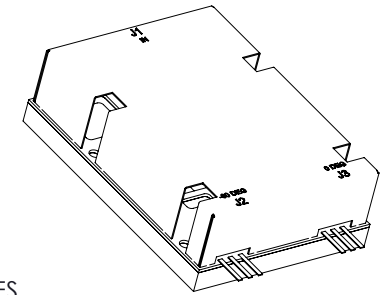
90 Degree Drop-In Hybrid Coupler From 20 MHz to 1,000 MHz Rated to 150 Watts from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: 90 Degree Drop-In Hybrid Coupler From 20 MHz to 1,000 MHz Rated to 150 Watts PE2CP1027

URL: <https://www.pasternack.com/drop-in-coupler-20-1000-mhz-150-watts-pe2cp1027-p.aspx>

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.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
B	PCR PE2CP1027 2022/8/25	09/02/2022	SPONG



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

UNLESS OTHERWISE SPECIFIED  
 LEADING DIMENSIONS ARE INCHES  
 DIMENSIONS IN [ ] ARE MILLIMETERS  
**TOLERANCES:**  
 .X = ±.2 [5.08] FRACTIONS  
 .XX = ±.02 [.51] ± 1/32  
 .XXX = ±.005 [.13] ANGLES ± 1°  
**CABLE LENGTH (L) TOLERANCES:**  
 L ≤ 12 [305] = +1 [25] / -0  
 12 [305] < L ≤ 60 [1524] = +2 [51] / -0  
 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0  
 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0  
 300 [7620] < L = +5%L / -0  
 ALL DIMENSIONS SHOWN  
 ARE FOR REFERENCE ONLY.

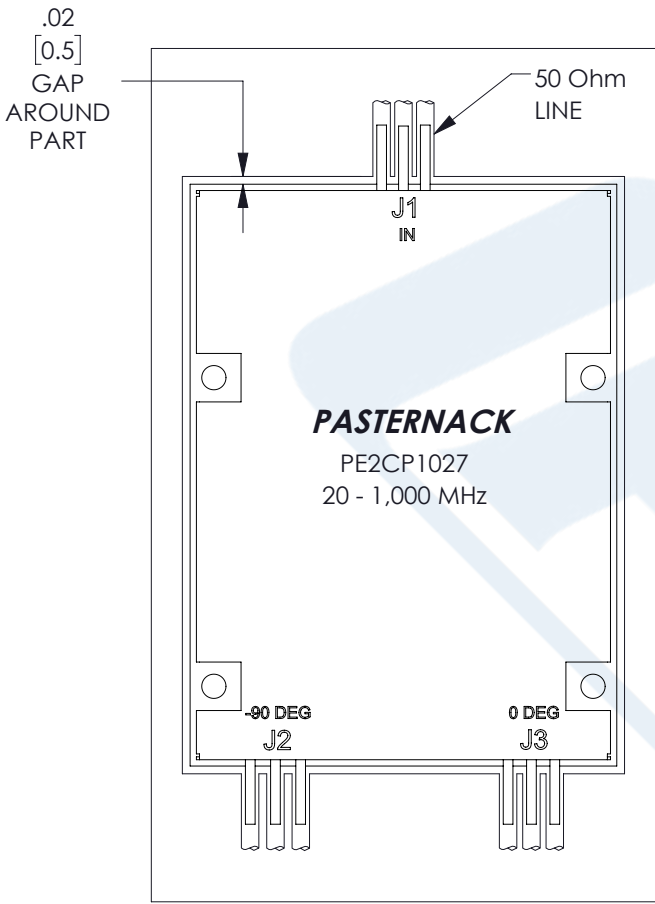
Pasternack Enterprises, Inc.  
 P.O.Box 16759, Irvine, CA 92623.  
 Phone: 1.949.261.1920 | 1.866.727.8376  
 Fax: 1.949.261.7451  
 Website: www.pasternack.com  
 E-mail: sales@pasternack.com

THIRD-ANGLE PROJECTION  
  
 THE INFORMATION AND  
 DESIGN IN THIS DOCUMENT  
 IS THE PROPERTY OF  
 PASTERNAK CORPORATION  
 ALL RIGHTS RESERVED.

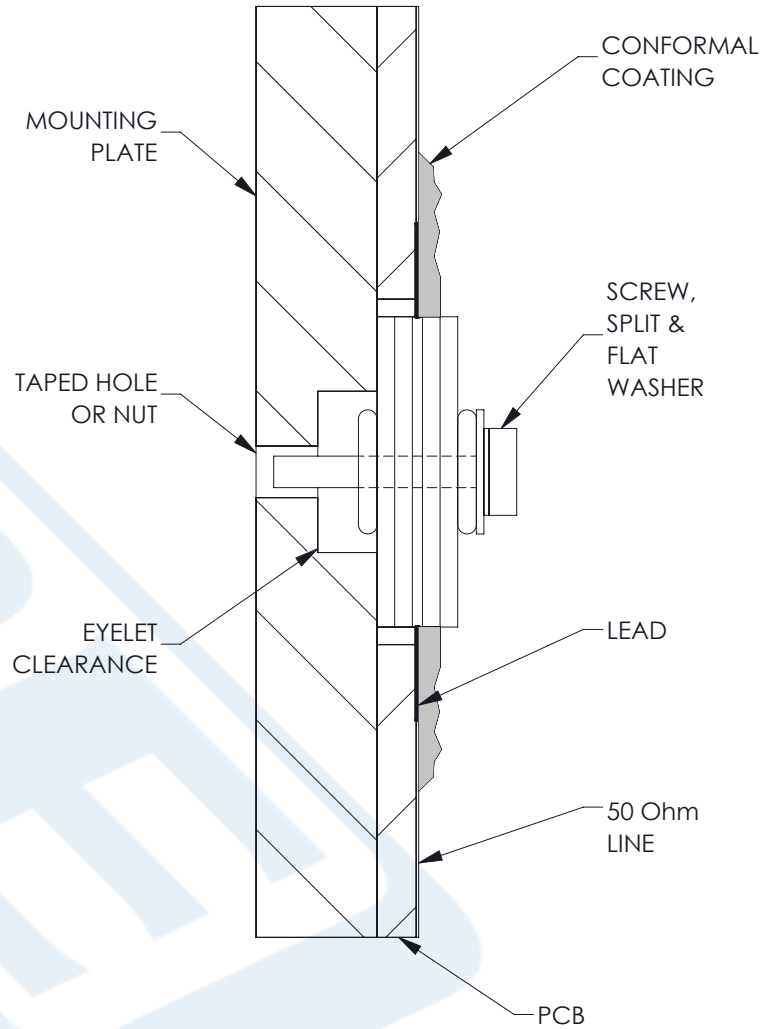
SHEET	1	OF	2
SCALE	N/A		

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV.
A	53919	KGLEBOVA	PE2CP1027	B

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE  
 WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.



**MOUNTING TOP VIEW  
FOR REFERENCE ONLY**



**MOUNTING SIDE VIEW  
FOR REFERENCE ONLY**

UNLESS OTHERWISE SPECIFIED  
 LEADING DIMENSIONS ARE INCHES  
 DIMENSIONS IN [ ] ARE MILLIMETERS

**TOLERANCES:**

.X = ±.2 [5.08]	FRACTIONS
.XX = ±.02 [.51]	± 1/32
.XXX = ±.005 [.13]	ANGLES ± 1°

**CABLE LENGTH (L) TOLERANCES:**

L ≤ 12 [305] = +1 [25] / -0
12 [305] < L ≤ 60 [1524] = +2 [51] / -0
60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
300 [7620] < L = +5%L / -0

ALL DIMENSIONS SHOWN  
 ARE FOR REFERENCE ONLY.

Pasternack Enterprises, Inc.  
 P.O.Box 16759, Irvine, CA 92623.  
 Phone: 1.949.261.1920 | 1.866.727.8376  
 Fax: 1.949.261.7451  
 Website: www.pasternack.com  
 E-mail: sales@pasternack.com

THIRD-ANGLE PROJECTION

THE INFORMATION AND  
 DESIGN IN THIS DOCUMENT  
 IS THE PROPERTY OF  
 PASTERNAK CORPORATION  
 ALL RIGHTS RESERVED.

SHEET	2	OF	2
SCALE	N/A		

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	53919	KGLEBOVA	PE2CP1027	B