



Low PIM Directional 20 dB 7/16 DIN Coupler To 2.7 GHz Rated to 200 Watts

Couplers Technical Data Sheet

PE2CP1070

Features

- Low PIM (-155 dBc)
- 200 Watt Rating
- 678 – 2,700 MHz
- 20 dB Coupling Factor
- VSWR 1.23 Maximum
- N Female Connector

Applications

- Indoor/Outdoor Use (IP67)
- Base Station
- 4G/AWS/PCS
- Low PIM
- Distributed Antenna Systems (DAS)
- Wireless Infrastructure

Description

The PE2CP1070 is a 20 dB direction coupler with 7/16 DIN Female connectors rated to 200 watts. Insertion loss is a low 0.25 dB. The total path loss (including accuracy, frequency variations, dissipative loss and theoretical loss due to coupling) is 0.31 dB.

Pasternack's family of Low PIM couplers are tapered designs that cover the 678 to 2,700 MHz frequency range. Offered in a broad range of coupling values to allow flexibility in the design of your low PIM system: 6, 10, 15, 20, and 30 dB. Especially designed and manufactured for the rigors of low PIM systems, this family of couplers is rated at an average power of 200 watts, and have PIM performance of -155 dBc or better. They can be used indoor or outdoor as they meet the moisture requirements of IP67. If higher power is needed please consider Pasternack's unequal tappers. All couplers are available in four different connector types: N, DIN 7-16, MiniDIN 4.3-10, and MiniDIN 4.1-9.5.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.698		2.7	GHz
Impedance		50		Ohms
Coupling		20 ±1.2		dB
Frequency Sensitivity			±0.6	dB
Main Line Loss			0.31	dB
Insertion Loss			0.25	dB
Directivity	20			dB
Main Line VSWR			1.23:1	
Secondary Line VSWR			1.29:1	
Passive Intermodulation 2x20W			-155	dBc
Input Power (CW)			200	Watts

Electrical Specification Notes:
Values at 25°C, sea level.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low PIM Directional 20 dB 7/16 DIN Coupler To 2.7 GHz Rated to 200 Watts PE2CP1070](#)



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Mechanical Specifications

Size

Length	5.58 in [141.73 mm]
Width/Dia.	1 in [25.4 mm]
Height	2.45 in [62.23 mm]
Weight	1.834 lbs [831.89 g]

Configuration

Package Type	Connectorized
Input Connector	7/16 DIN Female
Output Connector	7/16 DIN Female
Coupled Connectors	7/16 DIN Female

Environmental Specifications

Temperature

Operating Range	-20 to +55 deg C
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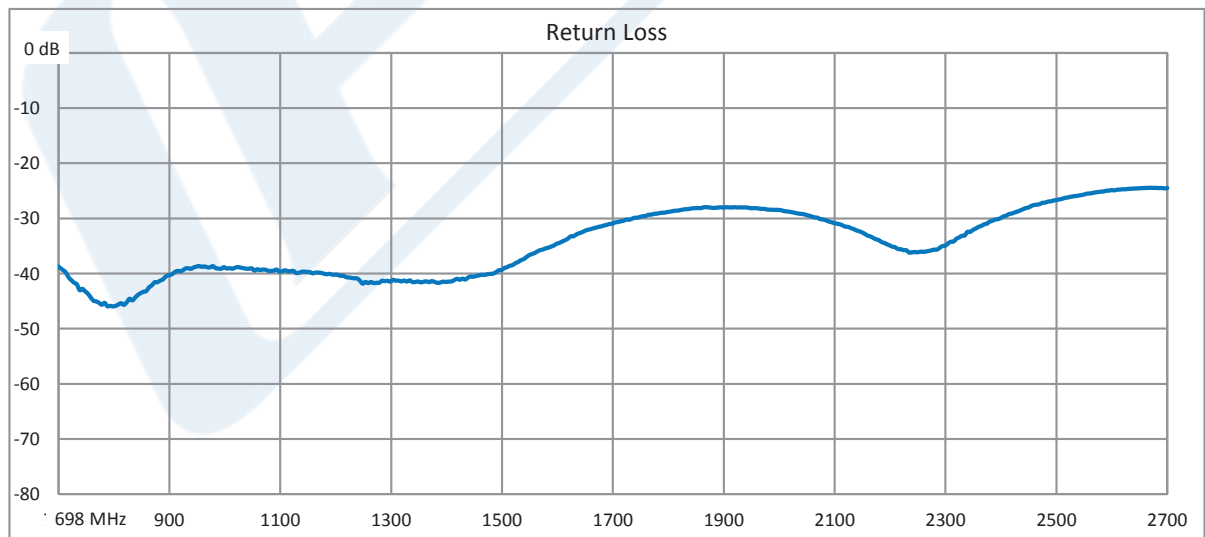
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

- Values at 25°C, sea level.

Typical Performance Data



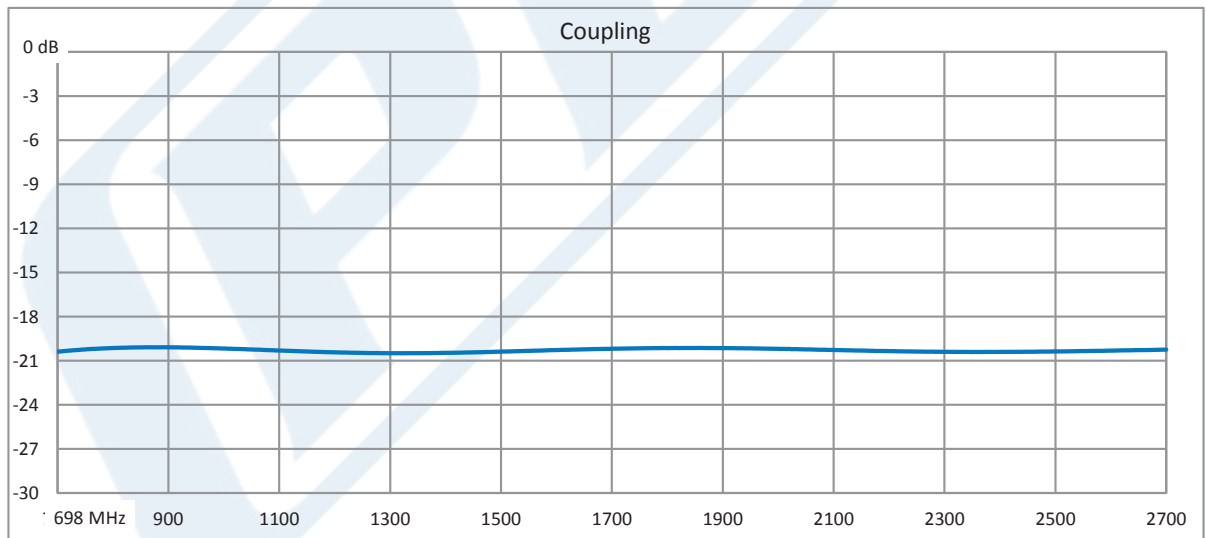
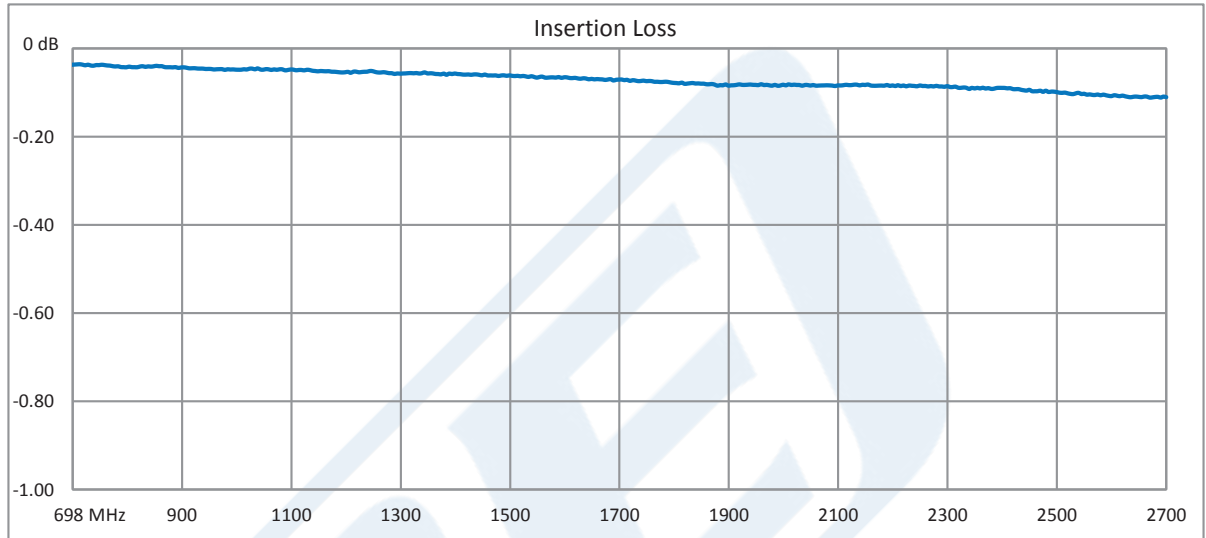
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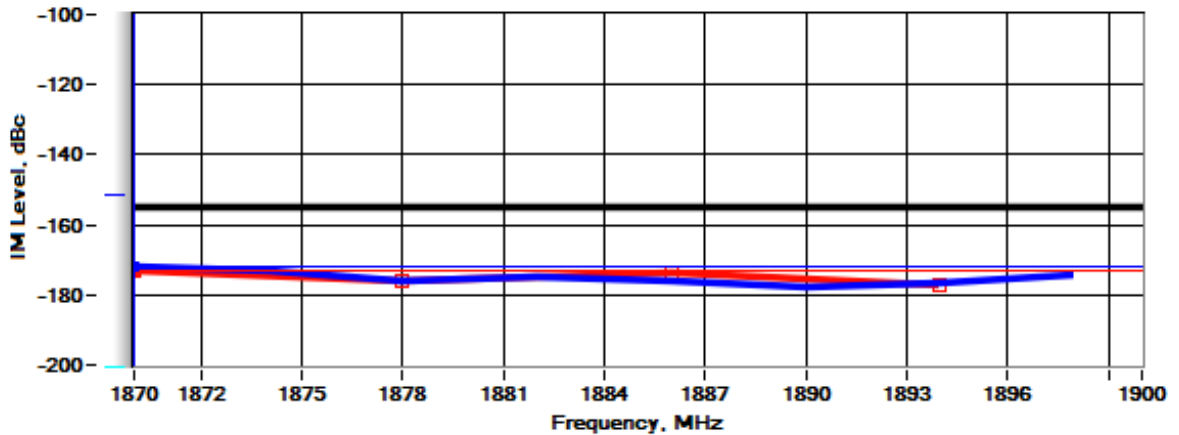
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F2 Down — F1=1930.0 MHz, F2=1990.0 MHz; IM3=-171.8 dBc at 1870.0
F1 Up — F1=1930.0 MHz, F2=1990.0 MHz; IM3=-173.2 dBc at 1870.0

Passive IM Response



Low PIM Directional 20 dB 7/16 DIN Coupler To 2.7 GHz 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 99.4% availability and are part of the broadest selection in the industry.

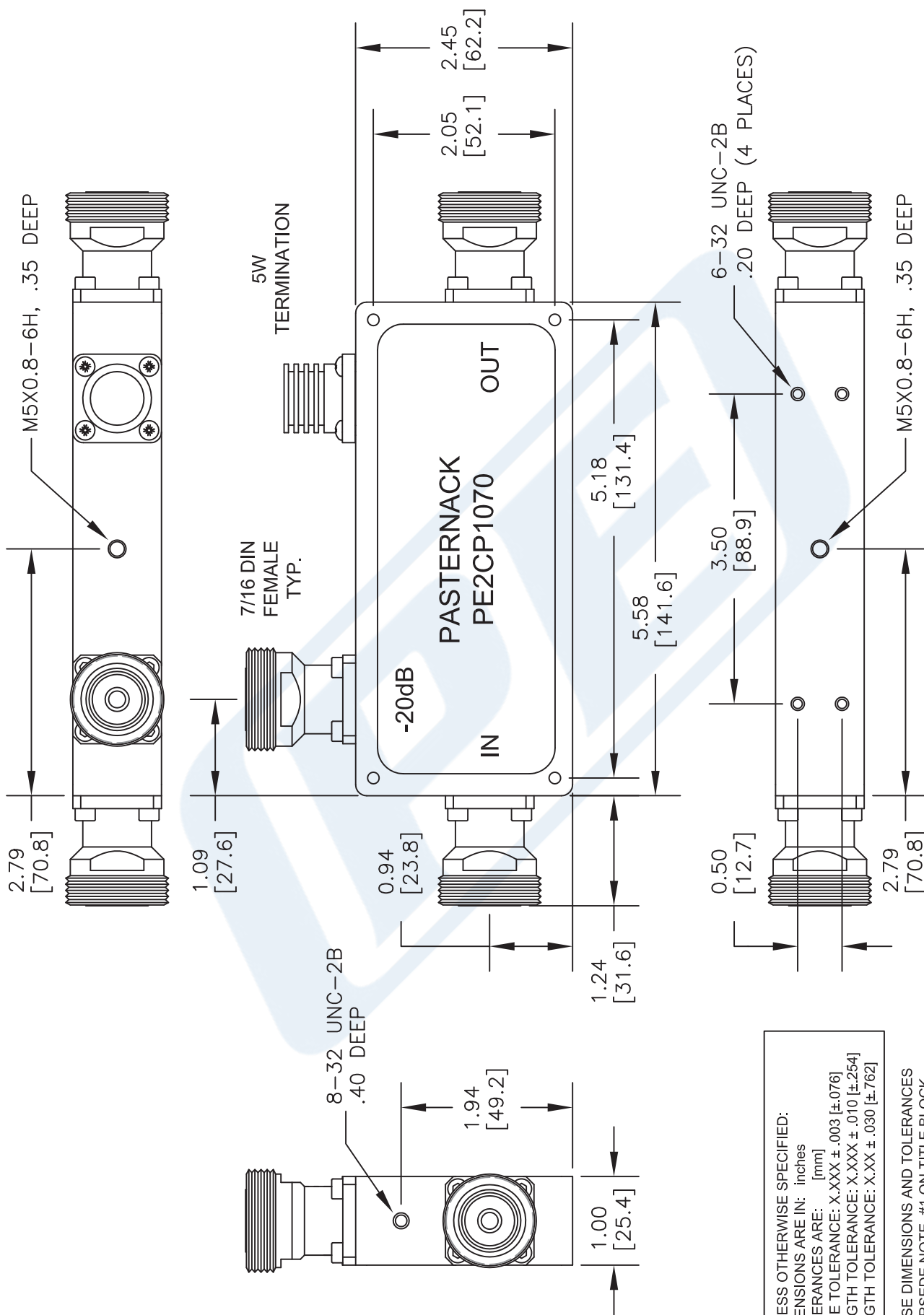
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low PIM Directional 20 dB 7/16 DIN Coupler To 2.7 GHz Rated to 200 Watts PE2CP1070](https://www.pasternack.com/directional-20-db-7-16-din-coupler-698-mhz-2.7-ghz-200-watts-pe2cp1070-p.aspx)

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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.

PE2CP1070 CAD Drawing

Low PIM Directional 20 dB 7/16 DIN Coupler To 2.7 GHz Rated to 200 Watts



UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN: inches
 TOLERANCES ARE: [mm]
 HOLE TOLERANCE: X.XXX ± .003 [±.076]
 LENGTH TOLERANCE: X.XXX ± .010 [±.254]
 LENGTH TOLERANCE: X.XX ± .030 [±.762]

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



PASTERNAK
 THE ENGINEER'S RF SOURCE
 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
PE2CP1070

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].

FSCM NO. 53919

CAD FILE 060216

SCALE N/A

SIZE A

2233