

# Directional 20 dB 2.92mm Coupler From 1 GHz to 40 GHz Rated to 30 Watts



## Couplers Technical Data Sheet

PE2CP1122-20

### Features

- 1 GHz to 40 GHz
- 30 Watts CW Max Power
- 20 dB Coupling Value
- Directional 2.92mm Coupler
- Meets Standards for Humidity, Shock, Vibration, Altitude

### Applications

- Communications Systems
- GSM, LTE, 5G
- Amplifier Systems
- Point-to-Point Radio
- Automotive Radar
- Defense Applications
- Wireless Telecommunications

### Description

The PE2CP1122-20 is an 20 dB RF coupler with 50 ohm 2.92mm connectors operating from 1 GHz to 40 GHz with a maximum input power of 30 Watts CW, and peak power handling of 500 watt. The PE2CP1122-20 has a coupling factor of 20 dB, insertion loss of 2.2 dB maximum and a maximum VSWR of 1.6:1. The coupler operates over a temperature range of -45 to 85° C and meets environmental standard for humidity, shock, vibration, and altitude. Couplers have many Applications and perform several functions within the RF/Microwave industry such as circuit feedback and signal sampling for measurement or monitoring.

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	1		40	GHz
Impedance		50		Ohms
Coupling	19	20	21.5	dB
Frequency Sensitivity		±0.7	±1	dB
Insertion Loss		2	2.2	dB
Main Line VSWR		1.4:1	1.6:1	
Secondary Line VSWR		1.4:1	1.6:1	
Input Power (CW)			30	Watts
Input Power (Peak)			500	Watts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Directional 20 dB 2.92mm Coupler From 1 GHz to 40 GHz Rated to 30 Watts PE2CP1122-20](#)

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**Performance by Frequency**

Description	F1	F2	F3	F4	F5	Units
Frequency Range	1 to 18	18 to 40				GHz
Insertion Loss, Typ	1.2	2				dB
Main Line VSWR, Typ	1.3:1	1.4:1				
Main Line VSWR, Max	1.5:1	1.6:1				
Secondary Line VSWR, Typ	1.3:1	1.4:1				
Secondary Line VSWR, Max	1.5:1	1.6:1				
Directivity, Min	12	10				dB
Directivity, Typ	14	12				dB
Coupling, Typ	20	20				dB
Frequency Sensitivity, Typ	±0.7	±0.7				dB

**Mechanical Specifications**

Weight 0.1155 lbs [52.39 g]  
Housing Material and Plating Aluminum

**Configuration**

Package Type Connectorized  
Input Connector 2.92mm Female  
Output Connector 2.92mm Female  
Coupled Connectors 2.92mm Female

**Environmental Specifications**

**Temperature**

Operating Range -45 to +85 deg C  
Storage Range -55 to +125 deg C

Humidity 100% RH at 35°C, 95% RH at 40°C  
Shock 20G for 11msec half sine wave, 3 axis both directions  
Vibration 25g RMS (15 degrees 2KHz) endurance, 1 hour per axis  
Altitude 30,000 ft. (Epoxy Sealed Controlled environment)

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

**Plotted and Other Data**

Notes:

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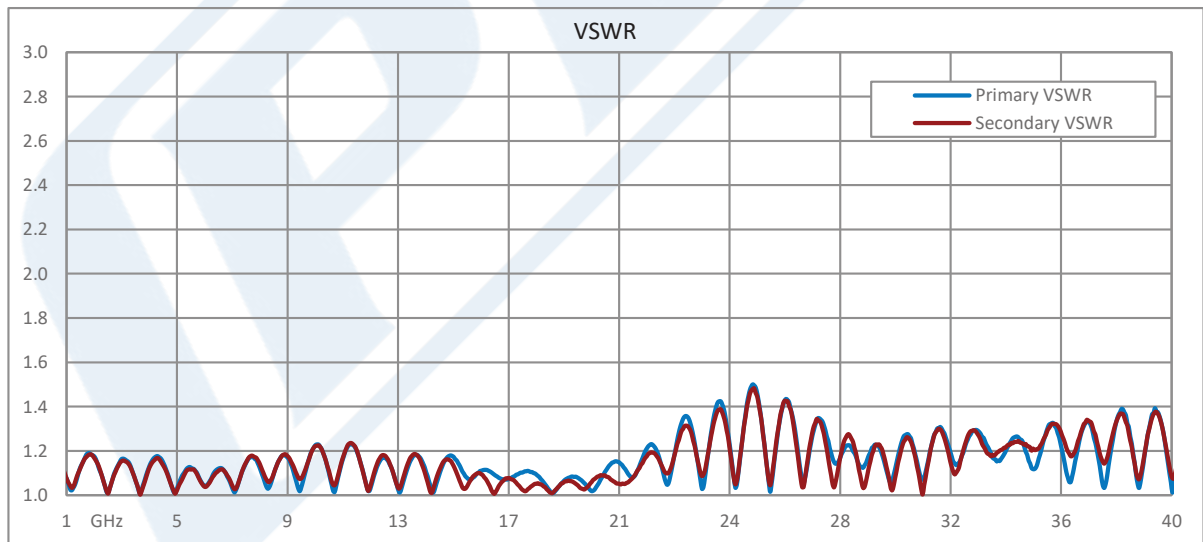
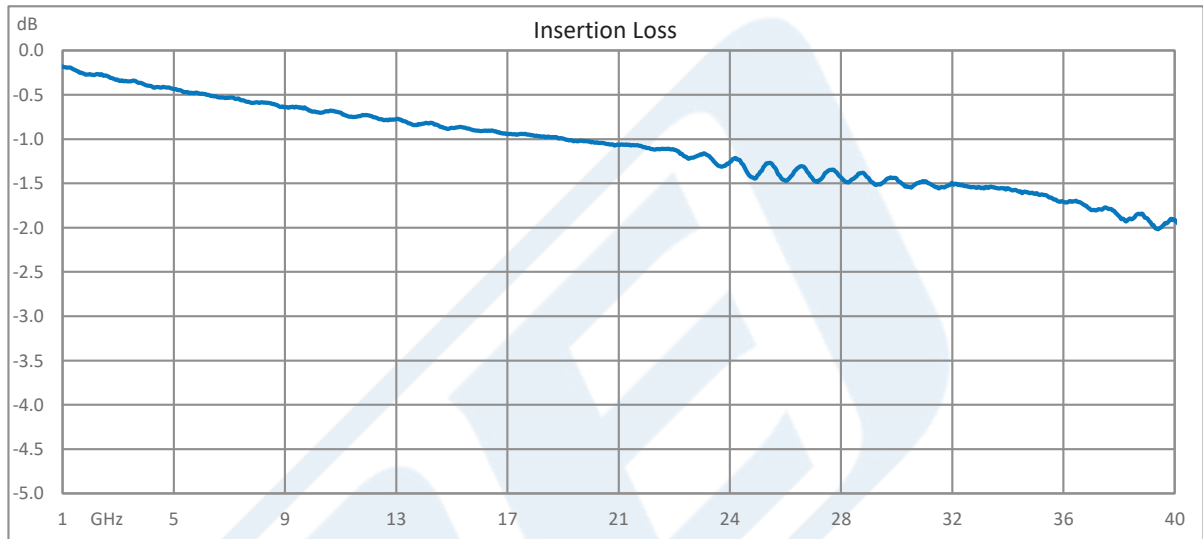


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Typical Performance Data



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Directional 20 dB 2.92mm Coupler From 1 GHz to 40 GHz Rated to 30 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: [Directional 20 dB 2.92mm Coupler From 1 GHz to 40 GHz Rated to 30 Watts PE2CP1122-20](https://www.pasternack.com/directional-20-db-2.92mm-coupler-40-ghz-pe2cp1122-20-p.aspx)

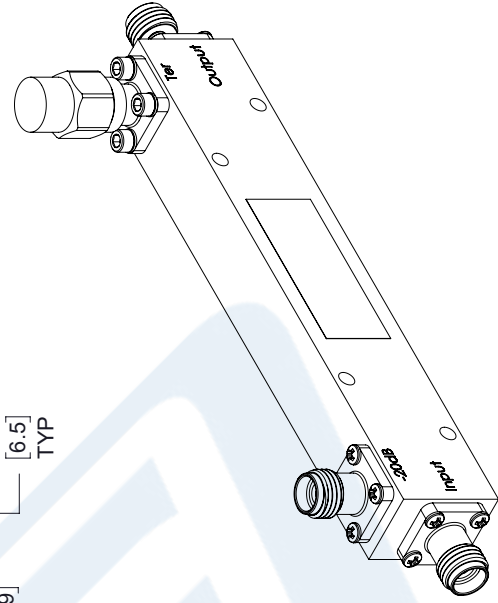
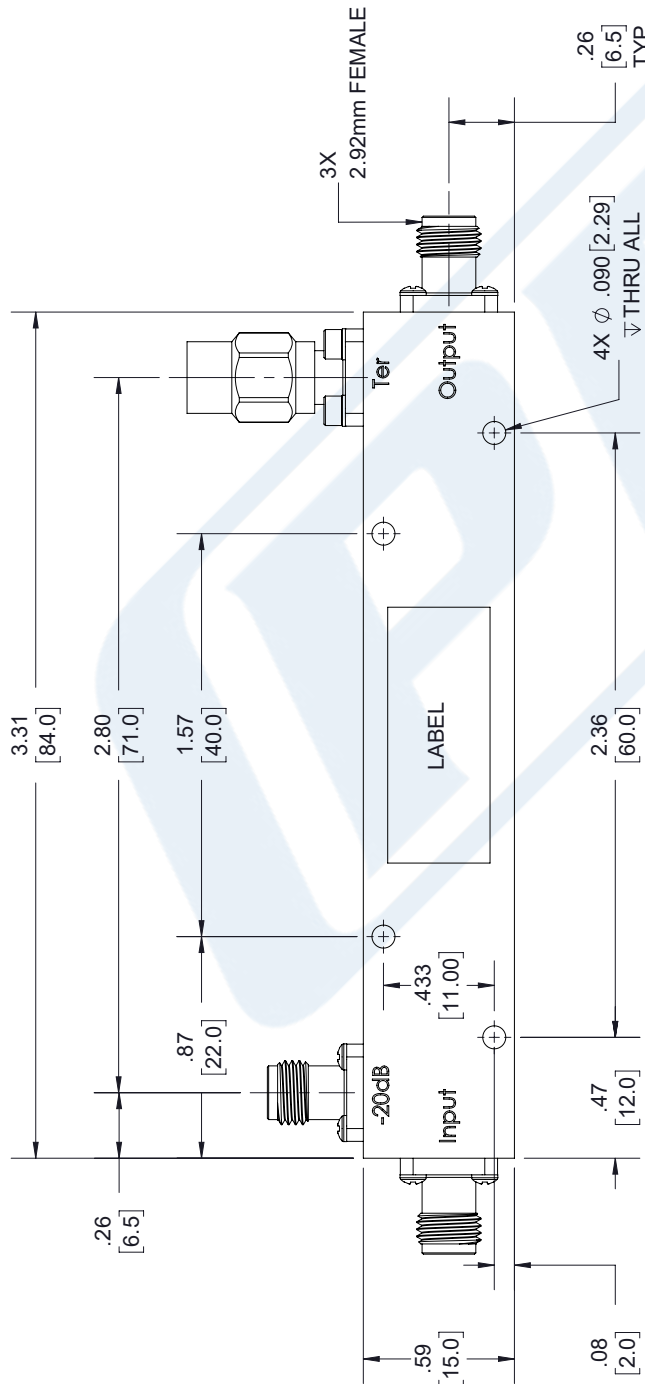
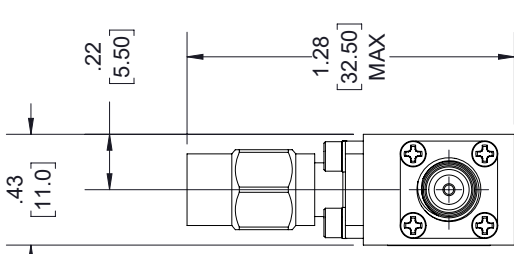
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# PE2CP1122-20 CAD Drawing

Directional 20 dB 2.92mm Coupler From 1 GHz to 40 GHz Rated to 30 Watts

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	04/16/19	S.PONG



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

TOLERANCES:  
X±.2 [5.08] FRACTIONS  
XX±.01 [25] ±.132  
.XXX±.005 [1.27] ±.132

ALL DIMENSIONS SHOWN  
ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

**PE PASTERNAK**  
an INFINITO brand

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SIZE [CAGE] DRAWN BY PART NUMBER REV  
A 53919 K.DANG PE2CP1122-20 A

**PASTERNAK**  
PE2CP1122-20  
D/C: XXXX

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