



Directional 20 dB 1.85mm Coupler From 1 GHz to 67 GHz Rated to 20 Watts

Couplers Technical Data Sheet

PE2CP1127-20

Features

- 1 GHz to 67 GHz
- 20 Watts CW Max Power
- 20 dB Coupling Value
- Directional 1.85mm 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 PE2CP1127-20 is an 20 dB RF coupler with 50 ohm 1.85mm connectors operating from 1 GHz to 67 GHz with a maximum input power of 20 Watts CW, and peak power handling of 300 watt. The PE2CP1127-20 has a coupling factor of 20 dB, insertion loss of 1 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		67	GHz
Impedance		50		Ohms
Coupling	19	20	23.5	dB
Frequency Sensitivity		±0.7	±1	dB
Insertion Loss		0.8	1	dB
Directivity	8	16		dB
Main Line VSWR		1.5:1	1.6:1	
Secondary Line VSWR		1.5:1	1.6:1	
Input Power (CW)			20	Watts
Input Power (Peak)			300	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 1.85mm Coupler From 1 GHz to 67 GHz Rated to 20 Watts PE2CP1127-20](#)

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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	1 to 18	18 to 40	40 to 67			GHz
Insertion Loss, Typ	1.2	2	3.1			dB
Main Line VSWR, Typ	1.3:1	1.4:1	1.5:1			
Main Line VSWR, Max	1.5:1	1.6:1	1.7:1			
Secondary Line VSWR, Typ	1.3:1	1.4:1	1.5:1			
Secondary Line VSWR, Max	1.5:1	1.6:1	1.7:1			
Directivity, Min	15	10	8			dB
Directivity, Typ	16	12	10			dB
Coupling, Typ	20.5	21	22			dB
Frequency Sensitivity, Typ	±1	±0.7	±1			dB

Mechanical Specifications

Weight 0.134 lbs [60.78 g]
 Housing Material and Plating Aluminum

Configuration

Package Type Connectorized
 Input Connector 1.85mm Female
 Output Connector 1.85mm Female
 Coupled Connectors 1.85mm 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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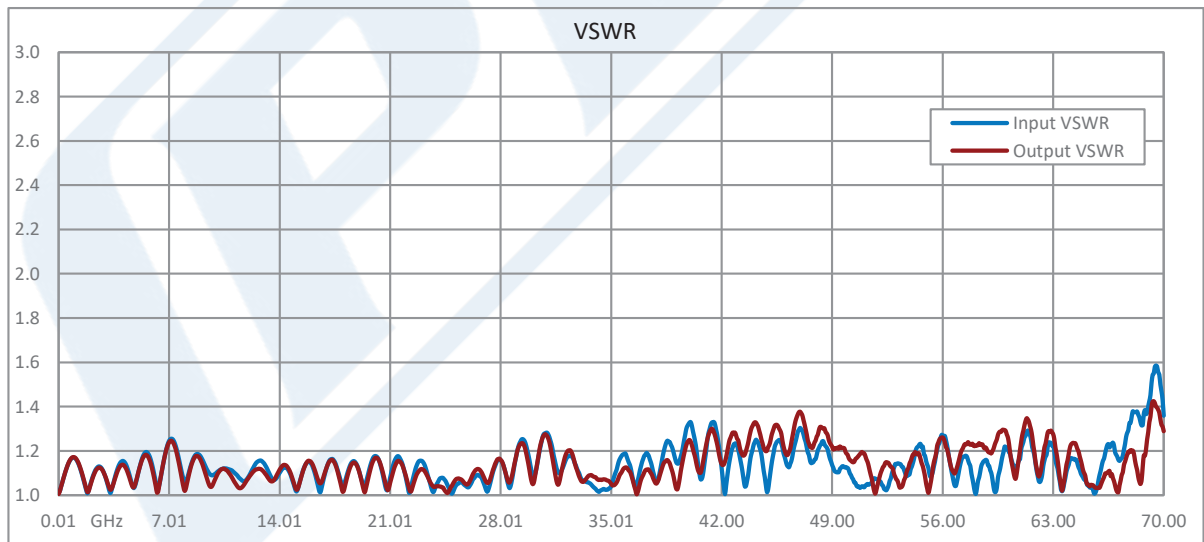
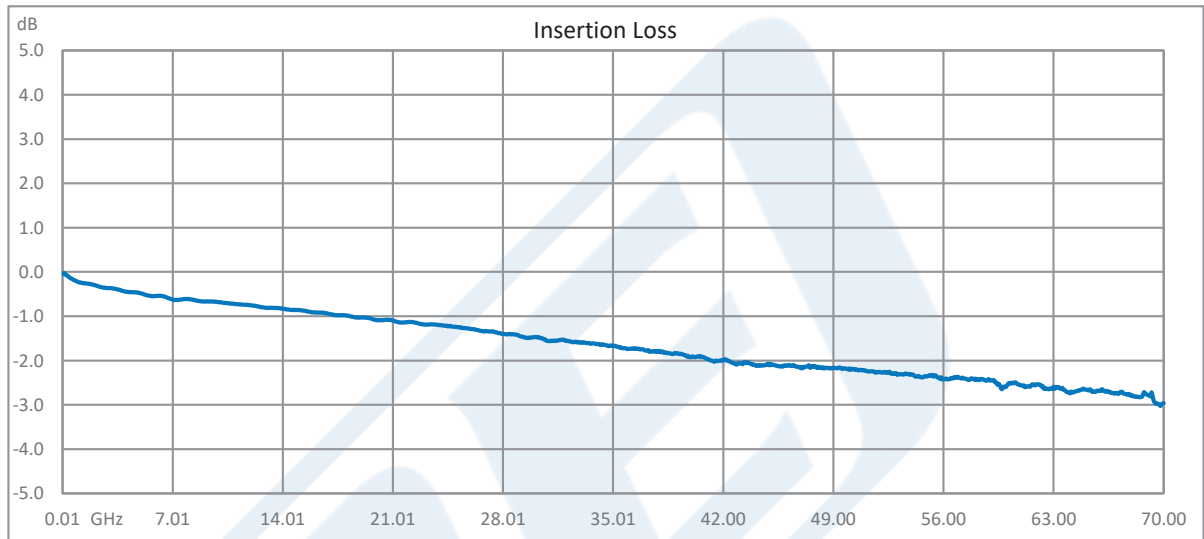


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Typical Performance Data



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Directional 20 dB 1.85mm Coupler From 1 GHz to 67 GHz Rated to 20 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 1.85mm Coupler From 1 GHz to 67 GHz Rated to 20 Watts PE2CP1127-20](https://www.pasternack.com/directional-20-db-1.85mm-coupler-67-ghz-pe2cp1127-20-p.aspx)

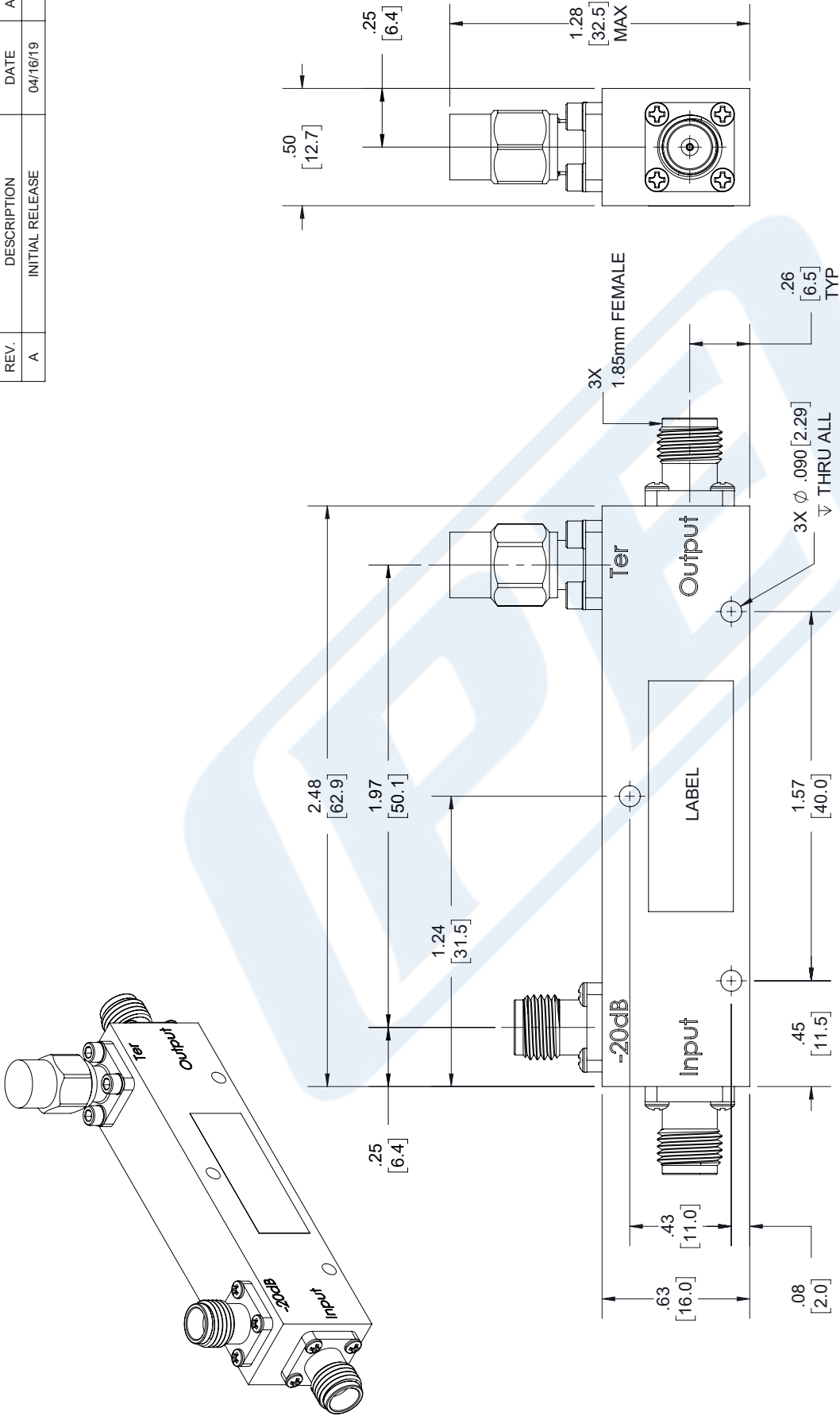
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PE2CP1127-20 CAD Drawing

Directional 20 dB 1.85mm Coupler From 1 GHz to 67 GHz Rated to 20 Watts

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



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

TOLERANCES:
 X±.2 [5.08] FRACTIONS
 .XX±.01 [.25] ±.132
 .XXX±.005 [.13] ANGLES ± 1°

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.
 THIRD-ANGLE PROJECTION

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SHEET 1 OF 1
 SCALE N/A

SIZE A CAGE 53919 DRAWN BY K.DANG PART NUMBER PE2CP1127-20 REV A

PASTERNAK
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 D/C: XXXX

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