



Directional 20 dB SMA Coupler From 12.4 GHz to 18 GHz Rated to 50 Watts

Couplers Technical Data Sheet

PE2CP1111

Features

- 12.4 to 18 GHz
- 50 Watts CW Max Power
- 20 dB Coupling Value
- Directional SMA Coupler
- Meets Standards for Humidity, Shock, Vibration, Altitude

Applications

- Communications Systems
- CDMA, GSM, LTE
- Amplifier Systems
- Amplifier Power Dividing
- Aviation/Aerospace
- Defense Applications
- Wireless Telecommunications

Description

The PE2CP1111 is an 20 dB RF coupler with 50 ohm SMA connectors operating from 12.4 to 18 GHz with a maximum input power of 50 Watts CW, and peak power handling of 1 kilowatt. The PE2CP1111 has a coupling factor of 1 dB, insertion loss of (excluding coupled power) and a maximum VSWR of 1.35:1. The coupler operates over a temperature range of -55° to 105° 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	12.4		18	GHz
Impedance		50		Ohms
Coupling	19	20	21	dB
Frequency Sensitivity		±0.25	±0.5	dB
Insertion Loss			0.5	dB
Directivity	15	17		dB
Main Line VSWR		1.3:1	1.35:1	
Input Power (CW)			50	Watts
Input Power (Peak)			1	kWatts

Mechanical Specifications

Size

Length 1 in [25.4 mm]
 Width/Dia. 0.38 in [9.65 mm]
 Height 0.5 in [12.7 mm]

Finish Gray
 Housing Material and Plating Aluminum

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 SMA Coupler From 12.4 GHz to 18 GHz Rated to 50 Watts PE2CP1111](#)



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Configuration

Input Connector	SMA Female
Output Connector	SMA Female
Coupled Connectors	SMA Female

Environmental Specifications

Temperature

Operating Range	-55 to +105 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:

Directional 20 dB SMA Coupler From 12.4 GHz to 18 GHz Rated to 50 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 SMA Coupler From 12.4 GHz to 18 GHz Rated to 50 Watts PE2CP1111](#)

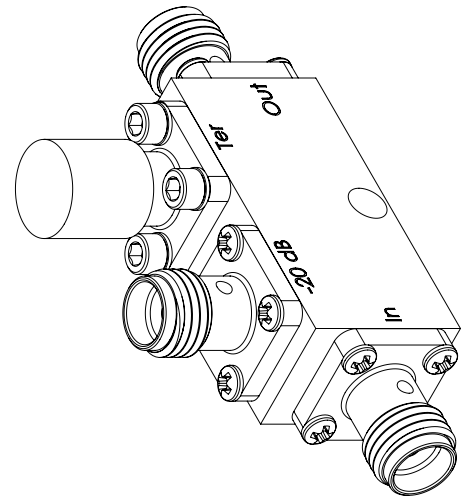
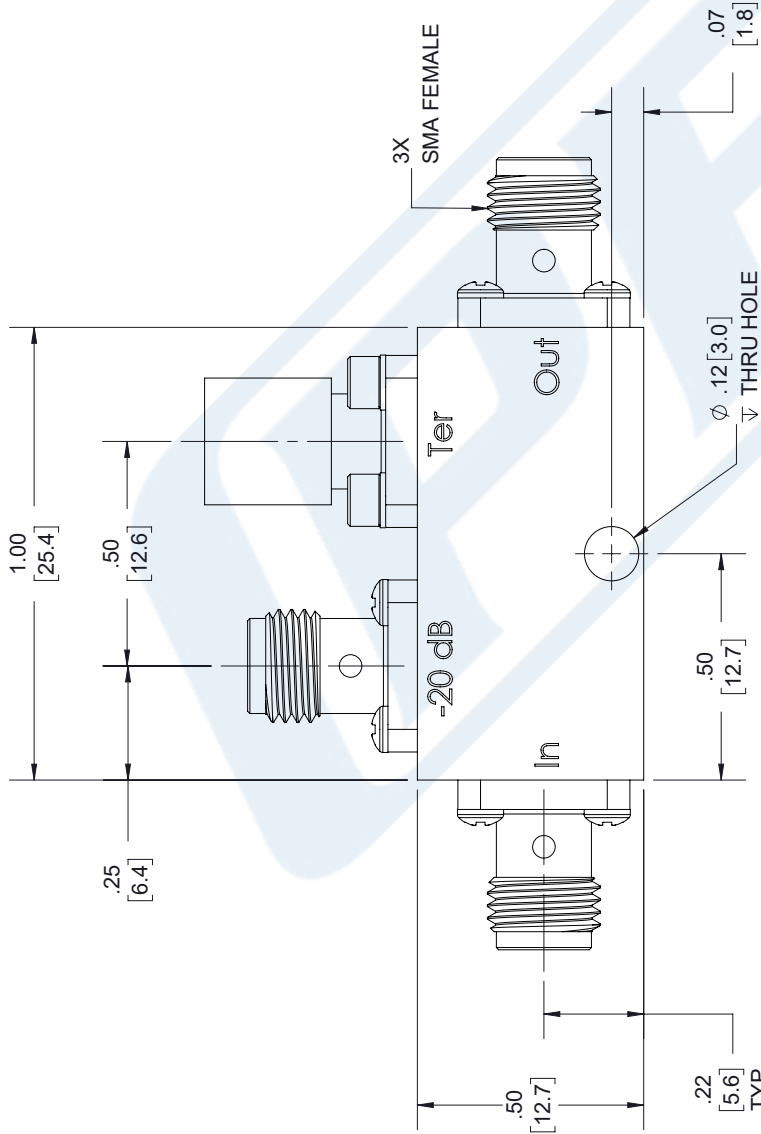
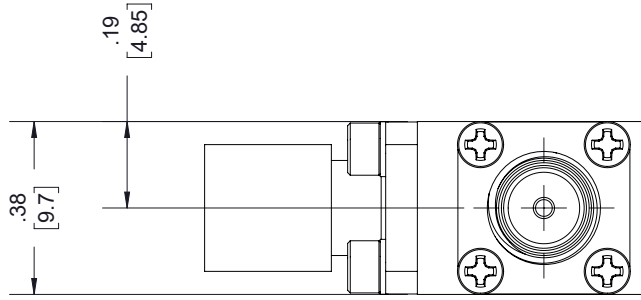
URL: <https://www.pasternack.com/directional-20-db-sma-coupler-18-ghz-pe2cp1111-p.aspx>

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PE2CP1111 CAD Drawing

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	5/18/2020	S. PONG



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

TOLERANCES:

.X = ±.2 [5.08] FRACTIONS ±.1/32
 .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.

PE PASTERNAK
an INFINITI brand

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THIRD-ANGLE PROJECTION

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SHEET 1 OF 1
 SCALE N/A

REV A
 ITEM NO. PE2CP1111

SIZE A
 CAGE CODE 53919
 DRAWN BY K.Dang

LABEL:
 PASTERNAK
 PE2CP1111
 D/C: YYYY

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