

Dual Directional 20 dB SMA Coupler From 2 GHz to 4 GHz Rated to 50 Watts



PE2219-20

Features

- Dual Directional Coupler
- 2 to 4 GHz Frequency Range
- Coupling 20±1.25 dB
- Directivity > 20 dB
- Low VSWR < 1.2:1
- Max Power 50 Watts (CW)

Applications

- Test and Measurement
- Military Communications
- Commercial Communications
- Wireless Communications
- SATCOM

Description

Dual directional couplers are indispensable components for building a reflectometer as they can provide power measurements in both forward and reverse direction simultaneously. The PE2219-20 is a 20 dB dual directional coupler that operates from 2 to 4 GHz and can handle up to 50 Watts (CW) with 20 dB directivity minimum and 1.2:1 VSWR maximum. The package interface uses SMA female connectors, and is also REACH and RoHS compliant.

The PE2219-20 is part of Pasternack's family of directional/dual-directional couplers that offer coupling ratios up to 50 dB with excellent performance featuring high directivity, low insertion loss and VSWR. They are available in both narrow and broad bandwidths and can be used in a wide variety of applications including signal sampling, VSWR measurements, power combining and distribution.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	2		4	GHz
Impedance		50		Ohms
Coupling		20 ±1.25		
Freq. Sensitivity			±0.8	dB
Insertion Loss			0.5	dB
Directivity	20			dB
Main Line VSWR			1.2:1	
Sec. Line VSWR			1.2:1	
Input Power (CW)			50	Watts

Electrical Specification Notes:

Values at 25°C, sea level.

Insertion loss does not include coupled power.

Max input power rated for load VSWR better than 1.20:1.

Mechanical Specifications

Size

Length	2.42 in [61.47 mm]
Width/Dia.	0.38 in [9.65 mm]
Height	1.2 in [30.48 mm]
Weight	0.102 lbs [46.27 g]

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Configuration

Package Type	Connectorized
Input Connector	SMA Female
Output Connector	SMA Female
Coupled Connectors	SMA Female

Environmental Specifications

Temperature

Operating Range	-25 to +80 deg C
Storage Range	-55 to +150 deg C
Humidity	MIL-STD-202, Method 106 (90% relative humidity, +65°C)
Shock	MIL-STD-202, Method 213/I (100 G's, 6 ms)
Vibration	MIL-STD-202, Method 204/D (10 to 2,000 Hz, 20 G's, 12 hours)
Altitude	MIL-STD-202, Method 105/E (150,000 feet)
Thermal Shock	MIL-STD-202, Method 107/B (-55°C to +85°C)

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

Plotted and Other Data

Notes:

Dual Directional 20 dB SMA Coupler From 2 GHz to 4 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.

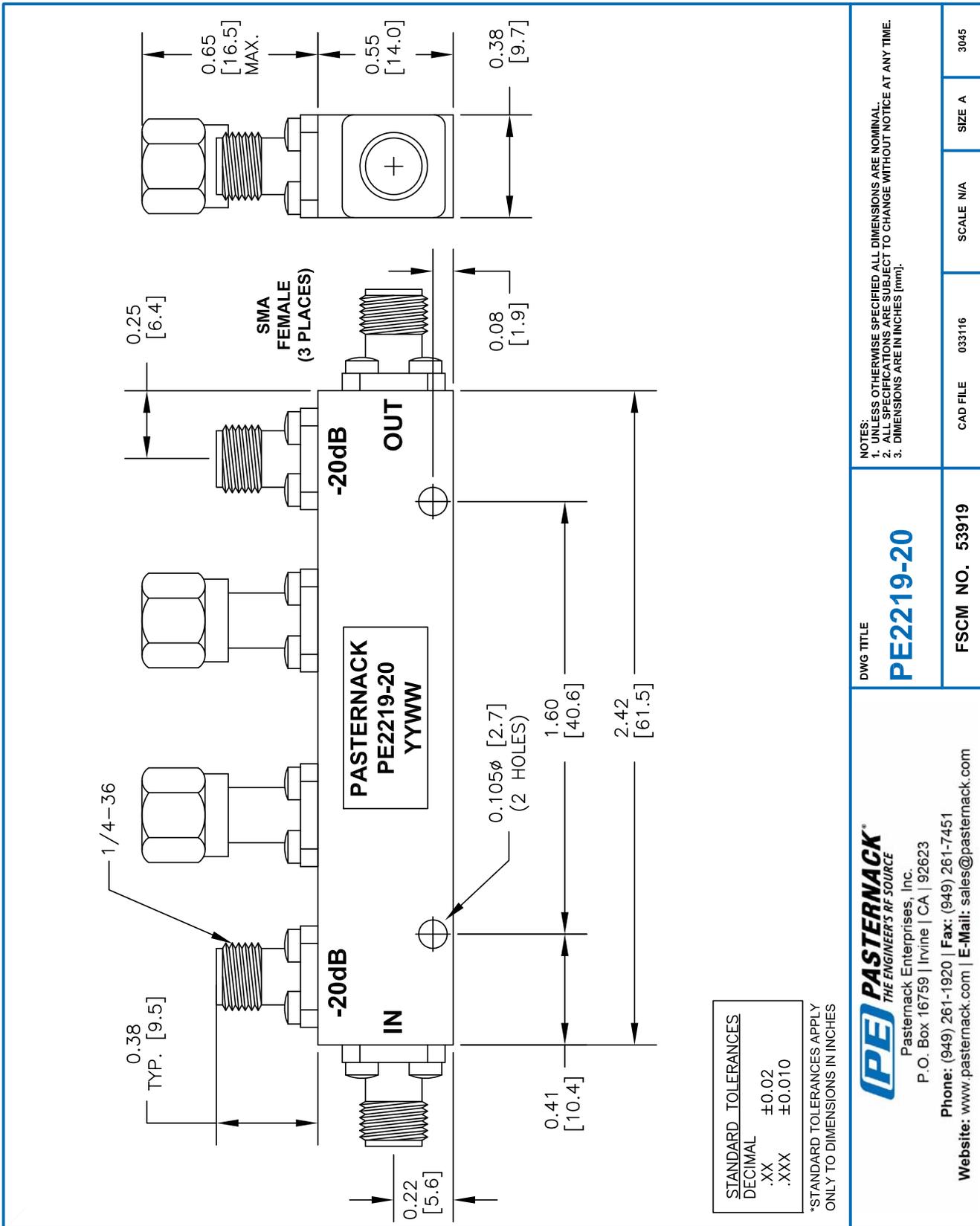
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Dual Directional 20 dB SMA Coupler From 2 GHz to 4 GHz Rated to 50 Watts PE2219-20](#)

URL: <https://www.pasternack.com/dual-directional-20-db-sma-coupler-2-4-ghz-10-watts-pe2219-20-p.aspx>

The information contained within 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 Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

PE2219-20 CAD Drawing

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STANDARD TOLERANCES
 DECIMAL ±0.02
 .XX ±0.02
 .XXX ±0.010

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

DWG TITLE

PE2219-20

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 033116

SCALE N/A

SIZE A

3045



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