

SMA Directional Coupler 20 dB from 500 MHz to 1000 MHz Rated to 50 Watts

Directional couplers are indispensable components for isolating, separating and combining signals. For example, they provide a simple way of sampling microwave signals. They also can make accurate attenuator measurements since reflections are eliminated. The PE2CP1137-20 is a 20 dB directional coupler that operates from 500 to 1000 MHz and can handle up to 50 Watts (CW) with 25 dB directivity minimum and 1.1:1 VSWR maximum. The package interface uses SMA female connectors.

The PE2CP1137-20 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	500		1,000	MHz
Impedance		50		Ohms
Coupling	18.75	20	21.25	dB
Freq. Sensitivity			±0.75	dB
Coupled Loss			0.05	dB
Insertion Loss			0.2	dB
Directivity	25			dB
Main Line VSWR			1.1:1	
Sec. Line VSWR			1.1:1	
Input Power (CW)			50	Watts
Input Power (Peak)			3	kWatts

Mechanical Specifications

Size	
Length	3.042 in [77.27 mm]
Width/Dia.	0.78 in [19.81 mm]
Height	0.351 in [8.92 mm]
Weight	0.26 lbs [117.93 g]
Housing Material and Plating	Aluminum

Configuration

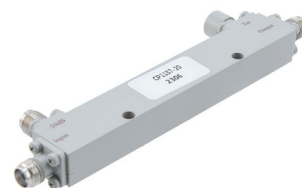
Input Connector	SMA Female
Output Connector	SMA Female
Coupled Connectors	SMA Female

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Storage Range	-50 to +105 deg C

Humidity	100% RH at 35°C, 95%RH at 40°C
Shock	20G for 11msec half sine wave, 3 axis both directions



Features:

- Directional Coupler
- SMA Female Connectorized Design
- 500 to 1000 MHz Frequency Range
- Coupling 20±1.25 dB
- Directivity > 25 dB
- VSWR < 1.1:1
- Max Power 50 Watts (CW)

Applications:

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

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Vibration
Altitude

25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
30,000 ft.

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

Plotted and Other Data

Notes:

SMA Directional Coupler 20 dB from 500 MHz to 1000 MHz Rated to 50 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA Directional Coupler 20 dB from 500 MHz to 1000 MHz Rated to 50 Watts FMCP1137-20](#)

URL: <https://www.fairviewmicrowave.com/directional-standard-20-db-500-mhz-to-1-ghz-fmcp1137-20-p.aspx>

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