

FMCP1145-6 DATA SHEET

SMA Dual Directional Coupler 6 dB from 500 MHz to 1000 MHz Rated to 50 Watts

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 FMCP1145-6 is a 6 dB dual-directional coupler that operates from $500 \, \text{to} \, 1,000 \, \text{MHz}$ and can handle up to $50 \, \text{Watts}$ (CW) with $20 \, \text{dB}$ directivity minimum and $1.2:1 \, \text{VSWR}$ maximum. The package interface uses SMA female connectors.

The FMCP1145-6 is part of Fairview Microwave'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	Тур	Max	Units
Frequency Range	500		1,000	MHz
Impedance		50		Ohms
Coupling	4.75	6	7.25	dB
Freq. Sensitivity		±0.7	±0.75	dB
Insertion Loss		3	3.5	dB
Directivity	20	22		dB
Main Line VSWR		1.15:1	1.2:1	
Sec. Line VSWR		1.15:1	1.2:1	
Input Power (CW)			50	Watts
Input Power (Peak)			1	kWatts



Features:

- Dual-Directional Coupler
- SMA Female Connectorized Design
- 500 to 1,000 MHz Frequency Range
- Coupling 6±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

Mechanical Specifications

10% Duty Cycle, 1us PW

Size

 Length
 9.75 in [247.65 mm]

 Width/Dia.
 3.51 in [89.15 mm]

 Height
 1.053 in [26.75 mm]

 Weight
 0.78 lbs [353.8 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

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Shock Vibration Altitude 20G for 11msec half sine wave, 3 axis both directions 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 Dual Directional Coupler 6 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 Dual Directional Coupler 6 dB from 500 MHz to 1000 MHz Rated to 50 Watts FMCP1145-6

URL: https://www.fairviewmicrowave.com/directional-standard-6-db-500-mhz-to-1-ghz-fmcp1145-6-p.aspx

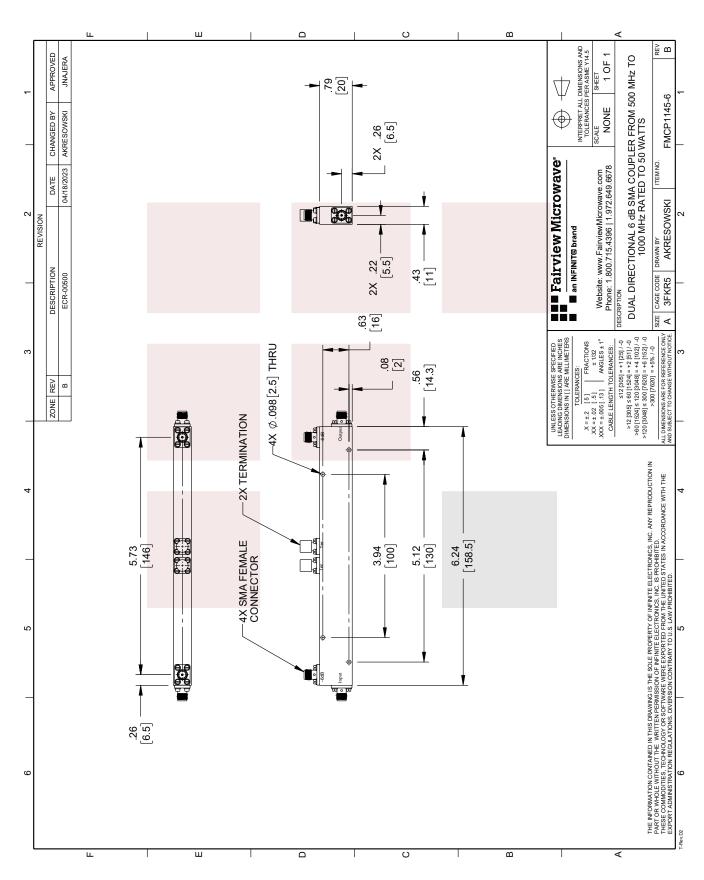
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