

SMA Directional Coupler 10 dB Coupled Port From 500 MHz to 3 GHz 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 MC053S-10 is a 10 dB directional coupler that operates from 0.5 to 3 GHz and can handle up to 50 Watts (CW) with 18 dB directivity minimum and 1.3:1 VSWR maximum. The package interface uses SMA female connectors, and is also REACH and RoHS compliant.

The MC053S-10 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	Typ	Max	Units
Frequency Range	0.5		3	GHz
Impedance		50		Ohms
Coupling		10 ±1.5		dB
Insertion Loss			1.5	dB
Directivity	18			dB
Main Line VSWR			1.3:1	
Sec. Line VSWR			1.3:1	
Input Power (CW)			50	Watts

Electrical Specification Notes:
Values at 25°C, sea level.

Mechanical Specifications

Size	
Length	4.72 in [119.89 mm]
Width/Dia.	0.4 in [10.16 mm]
Height	1.18 in [29.97 mm]
Weight	0.25 lbs [113.4 g]
Housing Material and Plating	Aluminum

Configuration

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

Environmental Specifications

Temperature

Operating Range	-30 to +85 deg C
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Compliance Certifications (visit www.FairviewMicrowave.com for current document)

RoHS Compliant	Yes
REACH Compliant	12/17/2015



Features:

- Directional Coupler
- 0.5 to 3 GHz Frequency Range
- Coupling 10±1.5 dB
- Directivity > 18 dB
- VSWR < 1.3:1
- Max Power 50 Watts (CW)

Applications:

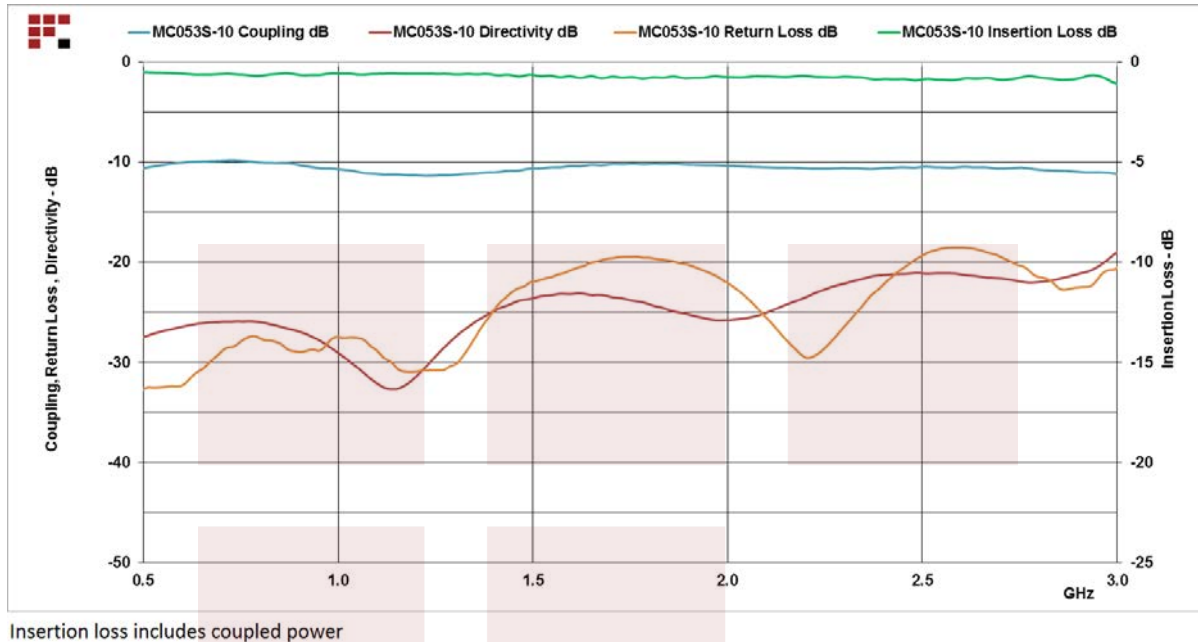
- Test and Measurement
- Military Communications
- Commercial Communications
- Wireless Communications
- SATCOM

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Plotted and Other Data

Notes:

Typical Performance Data

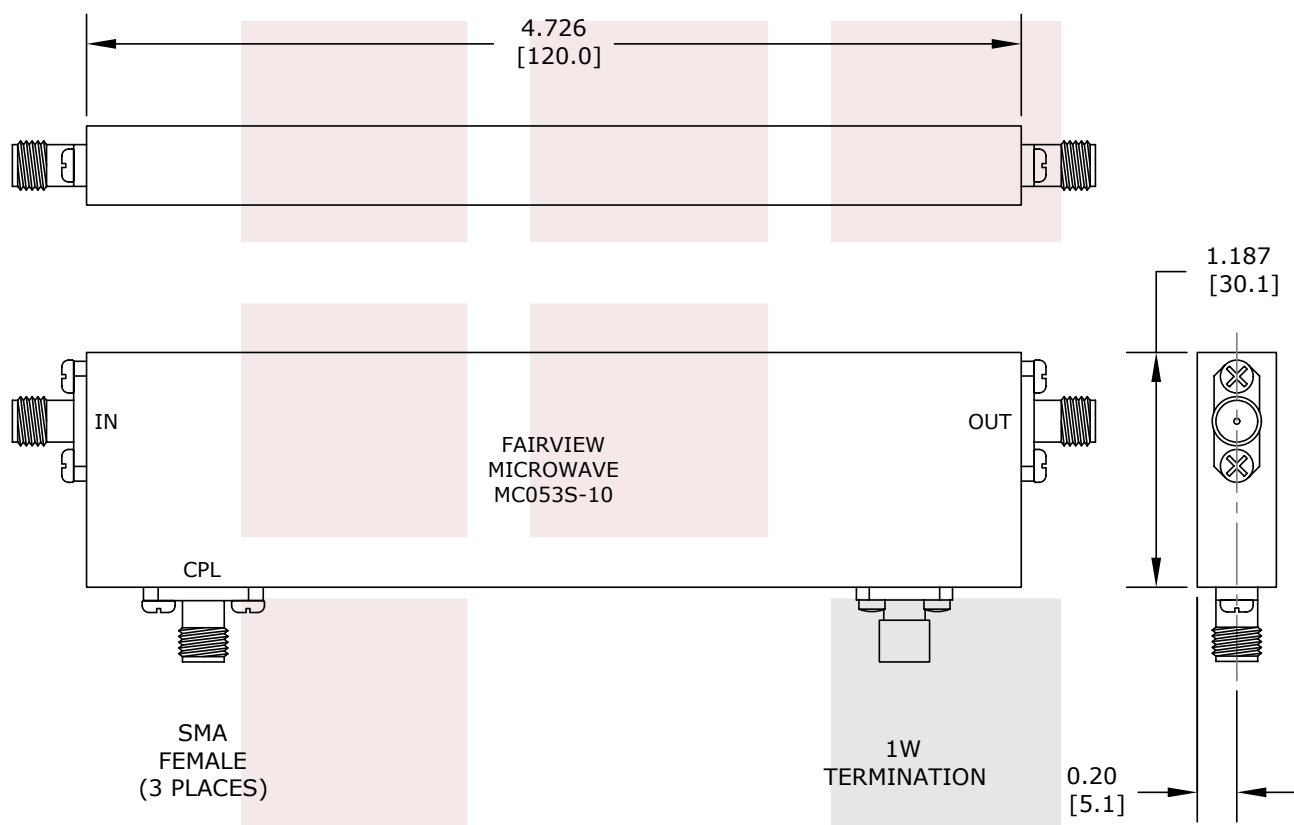


SMA Directional Coupler 10 dB Coupled Port From 500 MHz to 3 GHz Rated To 50 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA Directional Coupler 10 dB Coupled Port From 500 MHz to 3 GHz Rated To 50 Watts MC053S-10](http://www.fairviewmicrowave.com/sma-directional-coupler-10-db-3-ghz-50-watts-mc053s-10-p.aspx)

URL: <http://www.fairviewmicrowave.com/sma-directional-coupler-10-db-3-ghz-50-watts-mc053s-10-p.aspx>

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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].

DWG NO

MC053S-10

CAGE CODE

3FKR5

CAD FILE

041416

SHEET

SCALE N/A

SIZE A

3045