

SMA Directional Coupler 10 dB Coupled Port From 2 GHz to 8 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 MC2047-10 is a 10 dB directional coupler that operates from 2 to 8 GHz with 20 dB directivity minimum and 1.2:1 VSWR maximum. The package interface uses SMA female connectors, and is also RoHS compliant.

The MC2047-10 is part of Fairview Microwave's family of directional/dual-directional couplers that offer coupling ratio 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.



Features:

- Directional Coupler
- 2 to 8 GHz Frequency Range
- Coupling 10±1 dB
- Directivity > 20 dB
- VSWR < 1.2:1
- Max Power 50 Watts (CW)

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	2		8	GHz
Impedance		50		Ohms
Coupling		10 ±1		dB
Freq. Sensitivity			1	dB
Insertion Loss		0.5		dB
Directivity	20			dB
Main Line VSWR			1.2:1	
Input Power (CW)			50	Watts

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

Mechanical Specifications

Size	
Length	1.69 in [42.93 mm]
Width/Dia.	0.59 in [14.99 mm]
Height	0.43 in [10.92 mm]
Weight	0.07231 lbs [32.8 g]

Configuration

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

Environmental Specifications

Temperature

Operating Range	-55 to +85 deg C
Storage Range	-55 to +100 deg C

Compliance Certifications (visit www.FairviewMicrowave.com for current document)

RoHS Compliant	Yes
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Applications:

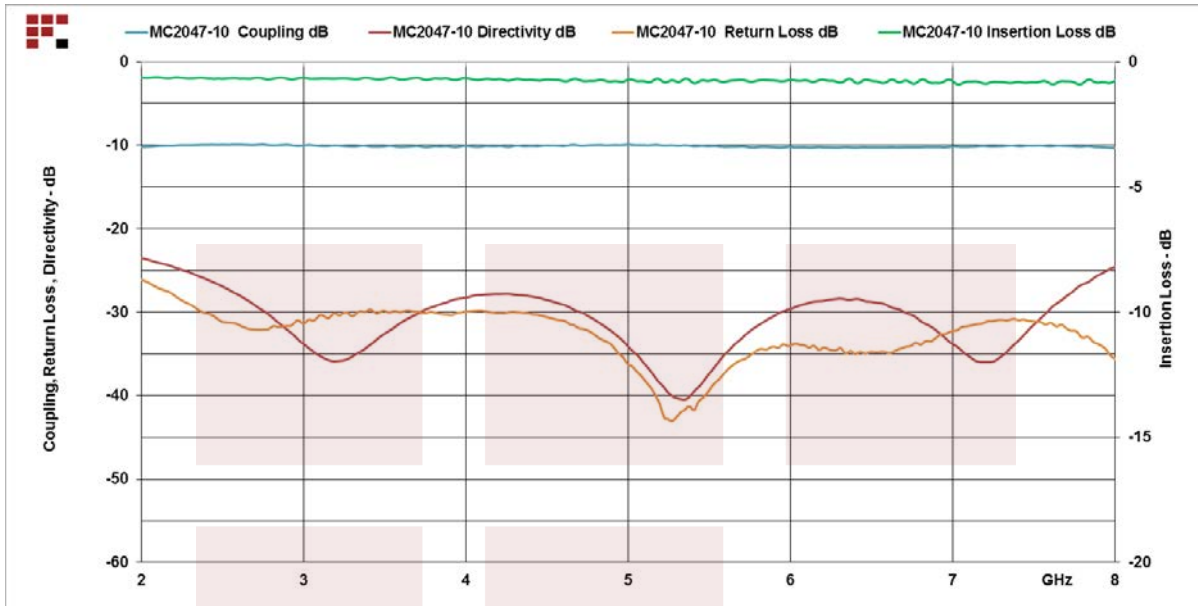
- Test and Measurement
- Military Communications
- Commercial Communications
- Wireless Communications
- SATCOM

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Plotted and Other Data

Notes:

Typical Performance Data



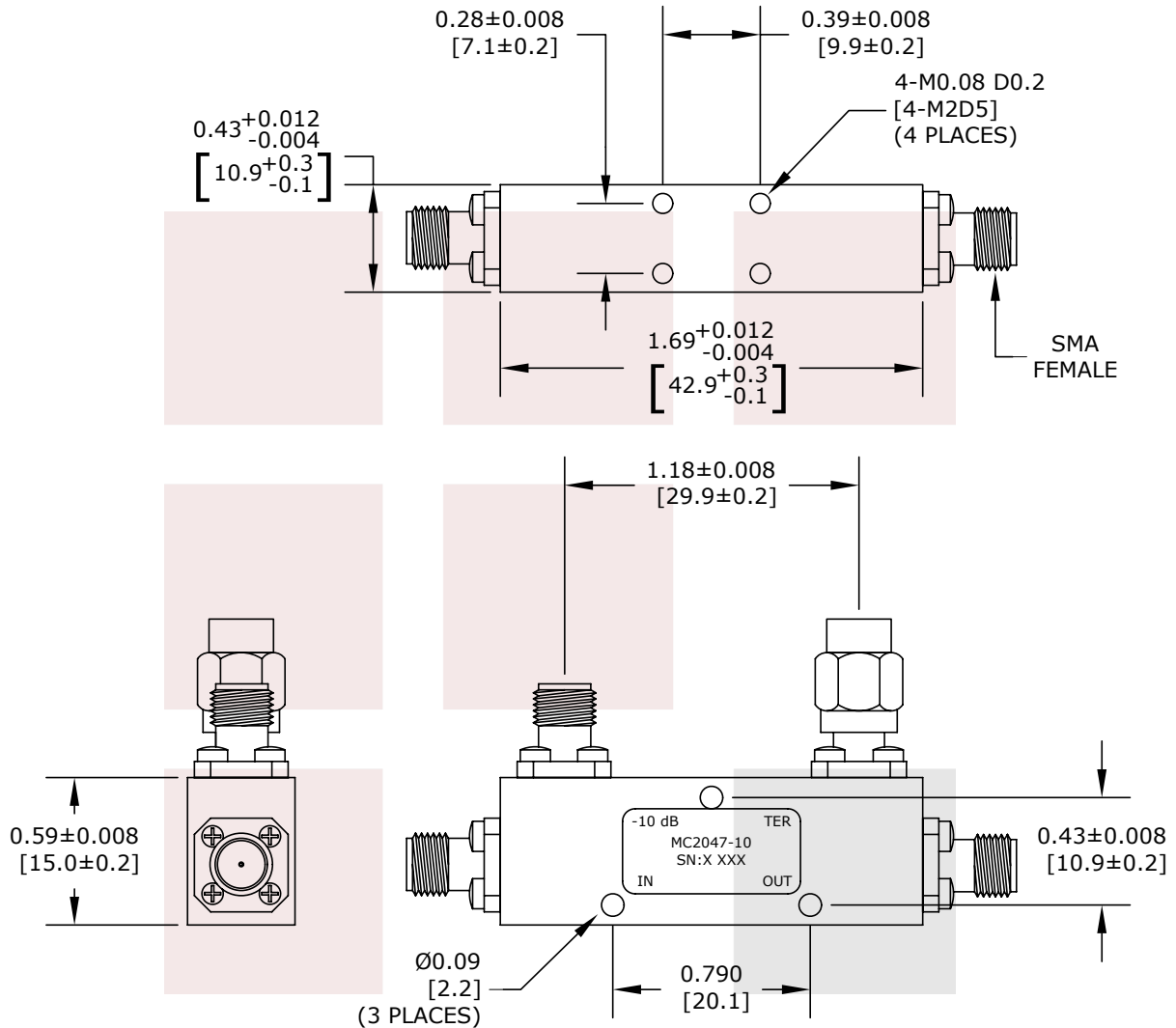
Insertion loss includes coupled power

SMA Directional Coupler 10 dB Coupled Port From 2 GHz to 8 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 2 GHz to 8 GHz Rated To 50 Watts MC2047-10](#)

URL: <http://www.fairviewmicrowave.com/sma-directional-coupler-10-db-8-ghz-50-watts-mc2047-10-p.aspx>

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



STANDARD TOLERANCES	
.X	±0.2
.XX	±0.1
.XXX	±0.05

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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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].

TITLE	SMA Directional Coupler 10 dB Coupled Port From 2 GHz to 8 GHz Rated To 50 Watts		DWG NO	MC2047-10	CAGE CODE	3FKR5		
	CAD FILE	041316	SHEET		SCALE	N/A	SIZE	A 3045