

**SMA Directional Coupler 10 dB Coupled Port From  
 4 GHz to 12.4 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 MC0412-10 is a 10 dB directional coupler that operates from 4 GHz to 12.4 GHz with 17 dB directivity and can handle up to 50 Watts of CW power. The package interface has SMA inputs on all of the ports.

The MC0412-10 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.

**Electrical Specifications**

Description	Min	Typ	Max	Units
Frequency Range	4		12.4	GHz
Impedance		50		Ohms
Coupling		10 ±1		dB
Insertion Loss		0.5		dB
Directivity		17		dB
Main Line VSWR			1.3:1	
Sec. Line VSWR			1.3:1	
Input Power (CW)			50	Watts
Input Power (Peak)			3	KWatts

Electrical Specification Notes:  
 Values specified at +25°C, sea level.  
 Power rating is specified for a load VSWR of 1.2:1 or better.

**Mechanical Specifications**

<b>Size</b>	
Length	1.22 in [30.99 mm]
Width/Dia.	0.6 in [15.24 mm]
Height	0.4 in [10.16 mm]
Weight	0.0615 lbs [27.9 g]

**Configuration**

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

**Environmental Specifications**

<b>Temperature</b>	
Operating Range	-55 to +85 deg C

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

**Plotted and Other Data**

Notes:



**Features:**

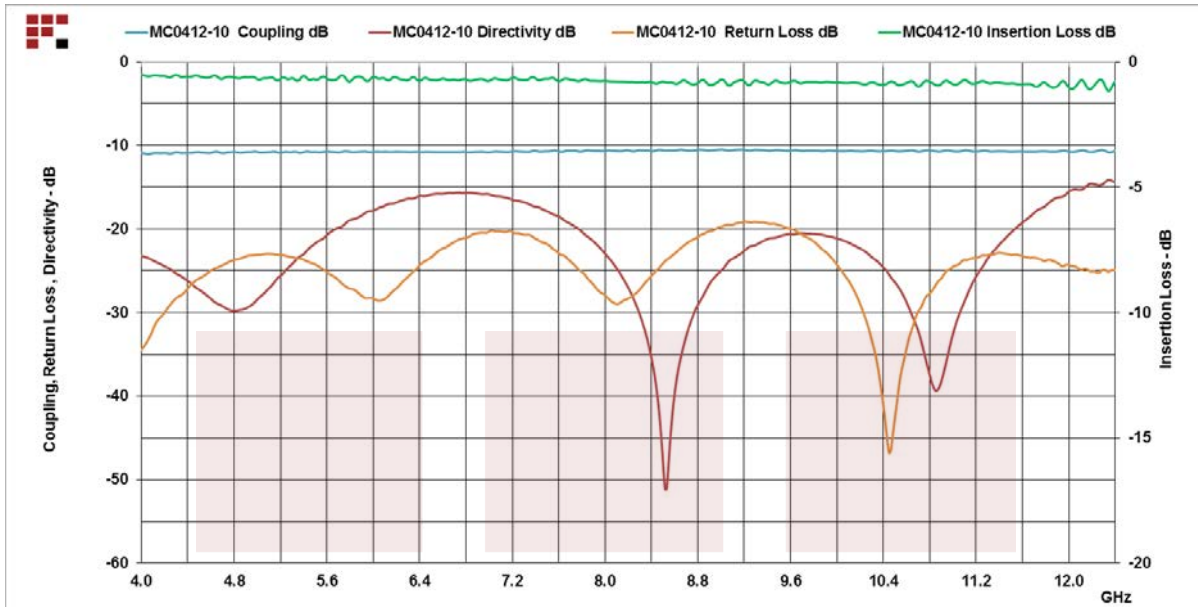
- Directional Coupler
- 4 GHz to 12.4 GHz Frequency Range
- Coupling 10±1 dB
- Directivity 17 dB
- Max Power 50W (CW)

**Applications:**

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

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**Typical Performance Data**

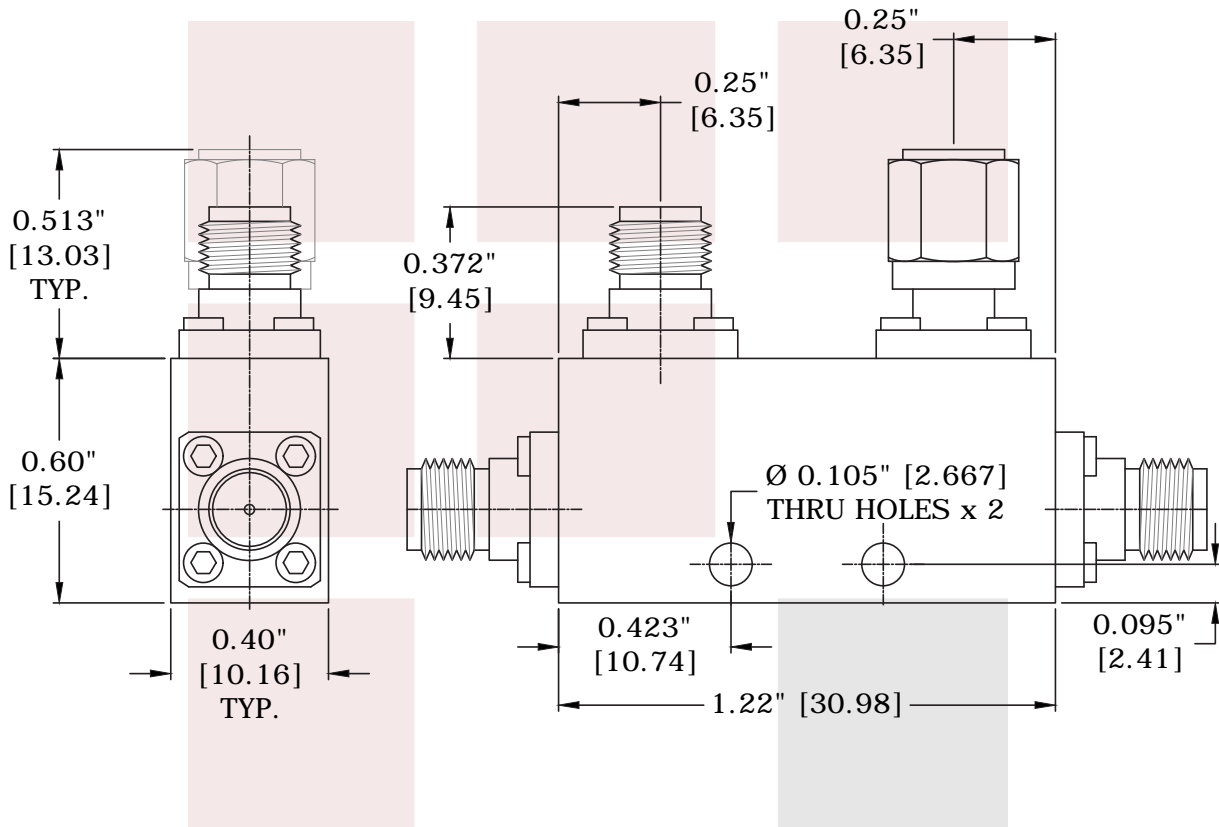


SMA Directional Coupler 10 dB Coupled Port From 4 GHz to 12.4 GHz Rated To 50 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA Directional Coupler 10 dB Coupled Port From 4 GHz to 12.4 GHz Rated To 50 Watts MC0412-10](https://www.fairviewmicrowave.com/sma-directional-coupler-10-db-12.4-ghz-50-watts-mc0412-10)

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TITLE SMA Directional Coupler 10 dB Coupled Port From 4 GHz to 12.4 GHz Rated To 50 Watts		DWG NO MC0412		CAGE CODE 3FKR5	
CAD FILE	052716	SHEET	SCALE	N/A	SIZE A 5568