

## SMA Directional Coupler 10 dB 2.2 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 MC2025-10 is a 10 dB directional coupler that operates from 0.8 to 2.2 GHz with 18 dB directivity minimum and 1.25:1 VSWR maximum. The package interface uses SMA female connectors, and is also REACH and RoHS compliant.

The MC2025-10 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	0.8		2.2	GHz
Impedance		50		Ohms
Coupling	8.5	10 ±1	11.5	dB
Freq. Sensitivity		±0.3	±0.5	dB
Insertion Loss		0.6	1	dB
Directivity	20	25		dB
Main Line VSWR		1.15:1	1.3:1	
Sec. Line VSWR		1.15:1	1.3:1	
Input Power (CW)			50	Watts
Input Power (Peak)			1	kWatts

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

### Mechanical Specifications

<b>Size</b>	
Length	3.35 in [85.09 mm]
Width/Dia.	0.94 in [23.88 mm]
Height	0.5 in [12.7 mm]
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	-45 to +85 deg C
Storage Range	-55 to +125 deg C

Humidity	100% RH at 35°C, 95% RH at 40°C
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### Features:

- Directional Coupler
- 0.8 to 2.2 GHz Frequency Range
- Coupling 10±1 dB
- Directivity > 18 dB
- VSWR < 1.25:1
- Max Power 50 Watts (CW)

### Applications:

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

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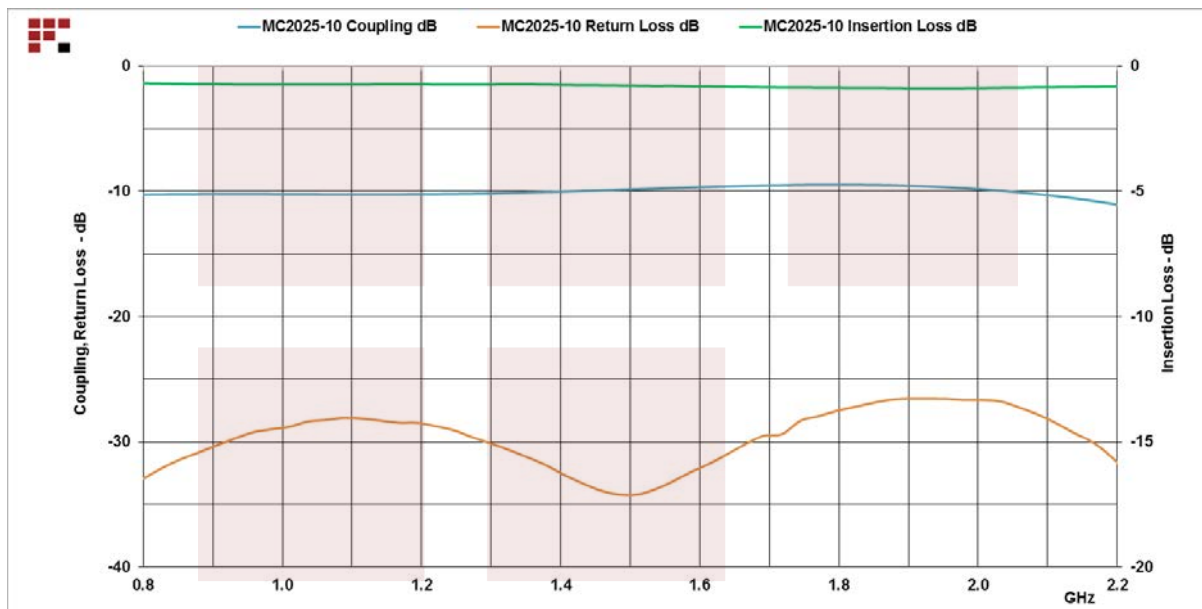
Shock 20G for 11 msec half sine wave, 3 axis both directions  
Vibration 25g RMS (15 degrees 2KHz) endurance, 1 hour per axis  
Altitude 30,000 ft (Epoxy Sealed Controlled environment)

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

## Plotted and Other Data

Notes:

### Typical Performance Data

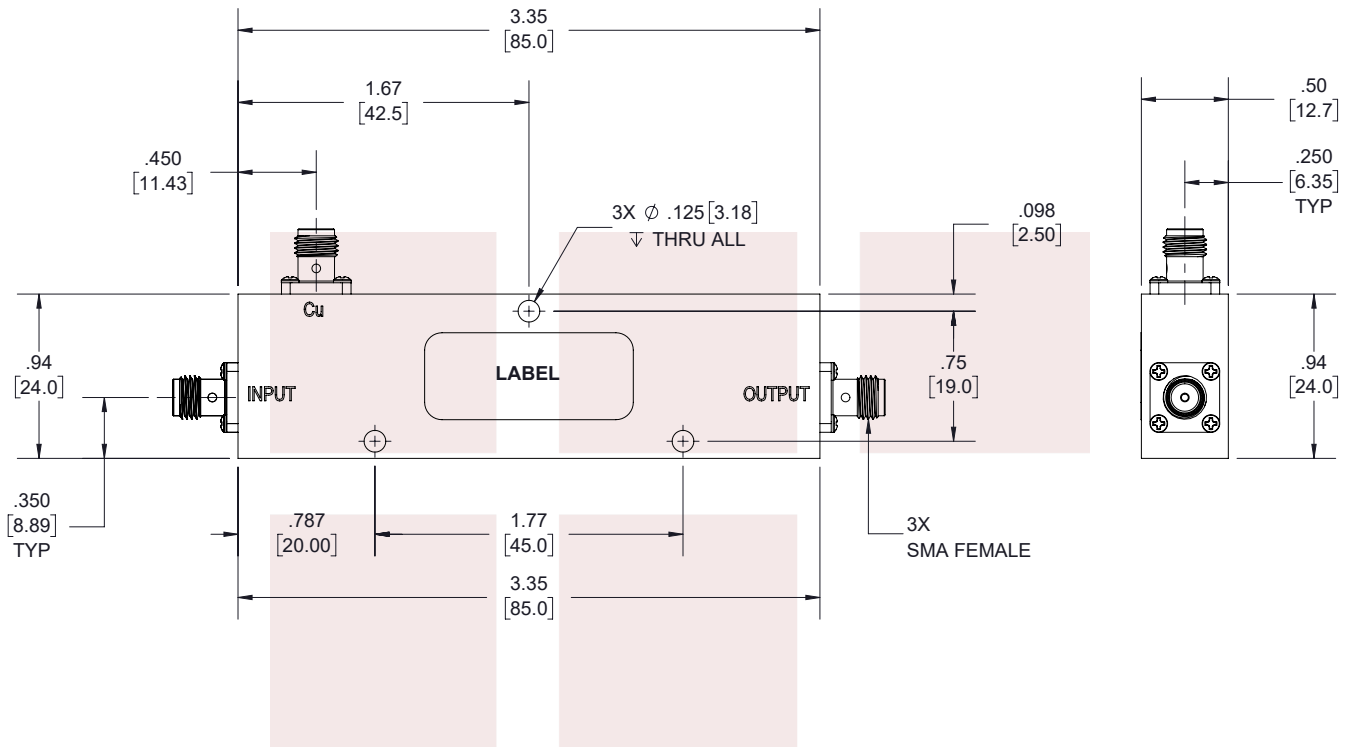


SMA Directional Coupler 10 dB 2.2 GHz Rated to 50 Watts from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA Directional Coupler 10 dB 2.2 GHz Rated to 50 Watts MC2025-10](#)

URL: <https://www.fairviewmicrowave.com/sma-directional-coupler-10-db-2.2-ghz-mc2025-10-p.aspx>

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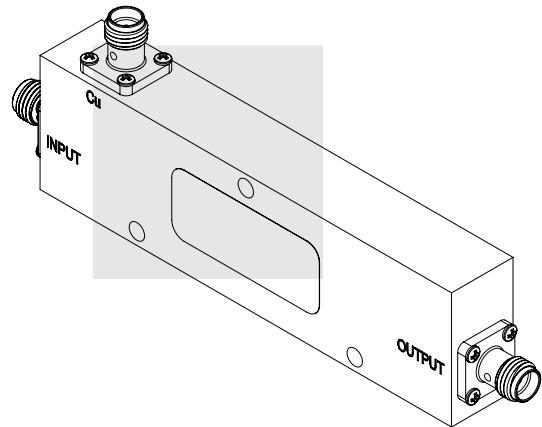
**LABEL**

**Fairview Microwave**  
RF COMPONENTS ON DEMAND. *Done!*  
www.FAIRVIEWMICROWAVE.com  
**MC2025-10**  
F: 0.8 ~ 2.2 GHz  
SN: XXXXXXXXX

**STANDARD TOLERANCES**

.X ±0.2  
.XX ±0.01  
.XXX ±0.005

\*STANDARD TOLERANCES APPLY  
ONLY TO DIMENSIONS IN INCHES



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 2.2 GHz Rated to 50 Watts	DWG NO MC2025-10		CAGE CODE 3FKR5			
	CAD FILE 10/26/18	SHEET 1 OF 1	SCALE N/A	SIZE A	7361	