

**N Directional Coupler 20 dB Coupled Port From
 700 MHz to 2.7 GHz Rated To 60 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 SMC4037-20 is a 20 dB directional coupler that operates from 0.7 to 2.7 GHz with 20 dB directivity minimum and 1.25:1 VSWR maximum. The package interface uses N female connectors, and is also RoHS compliant.

The SMC4037-20 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
- 0.7 to 2.7 GHz Frequency Range
- Coupling 20±1 dB
- Directivity > 20 dB
- VSWR < 1.25:1
- Max Power 60 Watts (CW)

Applications:

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

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	0.7		2.7	GHz
Impedance		50		Ohms
Coupling		20 ±1		dB
Freq. Sensitivity			0.7	dB
Insertion Loss		0.4		dB
Directivity	20			dB
Main Line VSWR			1.25:1	
Input Power (CW)			60	Watts

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

Mechanical Specifications

Size	
Length	4.13 in [104.9 mm]
Width/Dia.	0.83 in [21.08 mm]
Height	1.18 in [29.97 mm]
Weight	0.41315 lbs [187.4 g]

Configuration

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

Environmental Specifications

Temperature

Operating Range	-20 to +70 deg C
Storage Range	-40 to +70 deg C

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

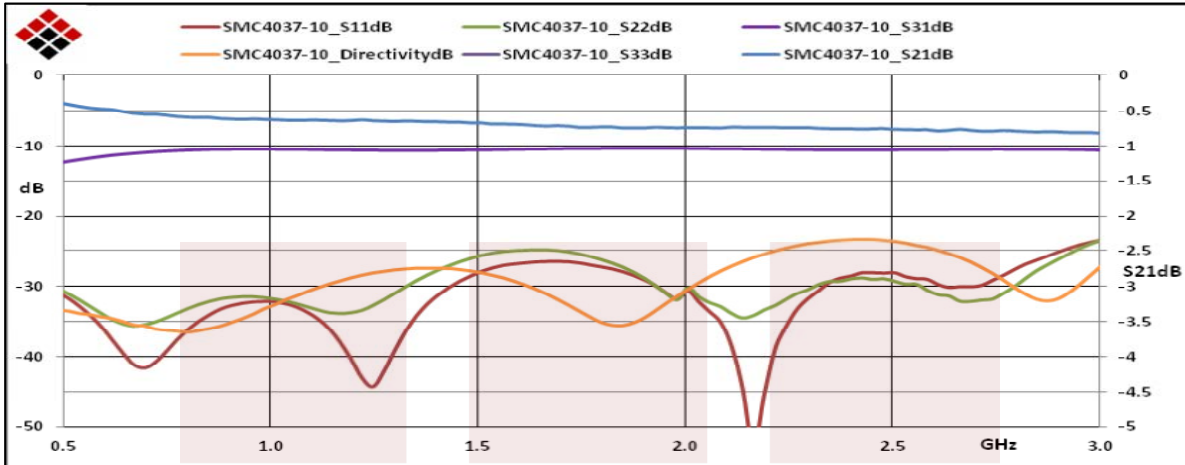
RoHS Compliant	Yes
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Plotted and Other Data

Notes:

Typical Performance Data



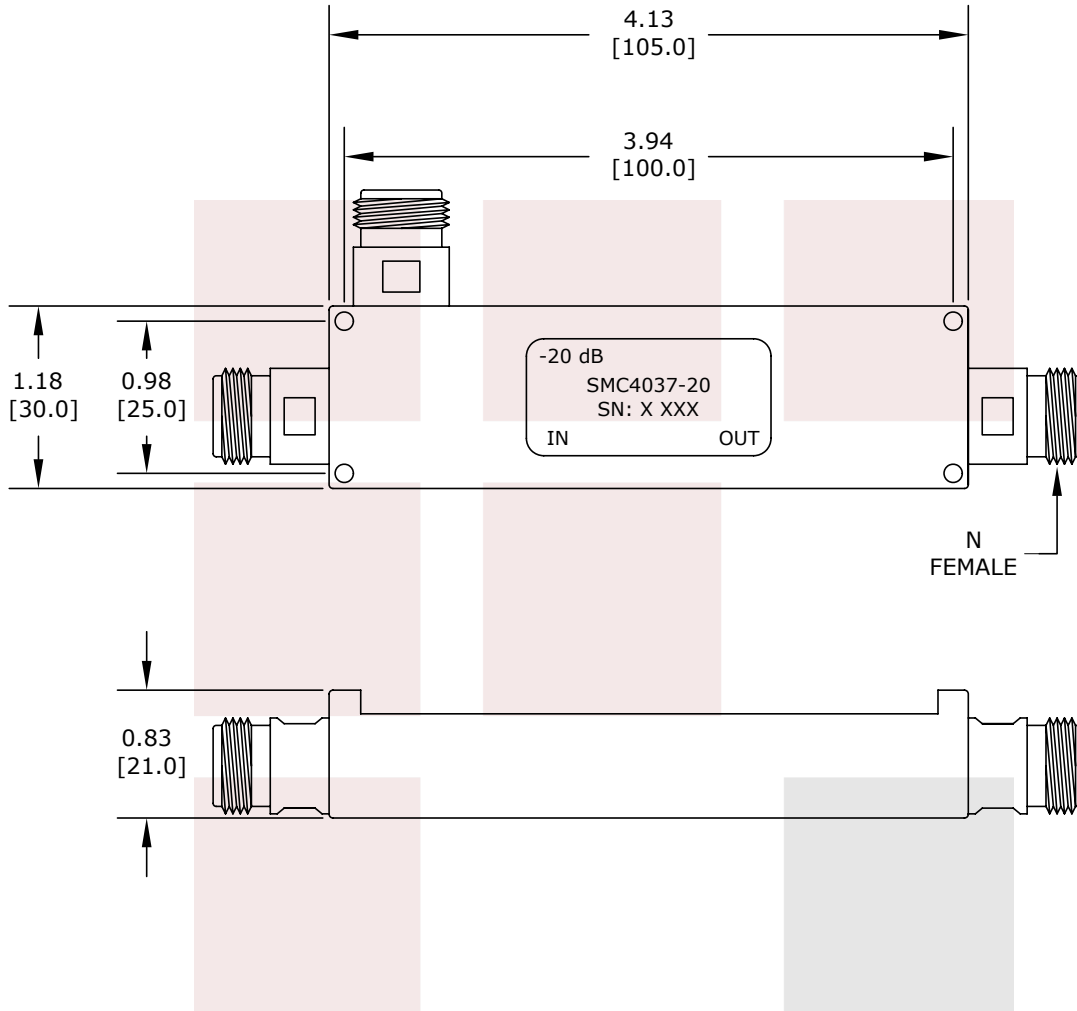
Typical performance of SMC4037 series' 10 dB coupler

N Directional Coupler 20 dB Coupled Port From 700 MHz to 2.7 GHz Rated To 60 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: [N Directional Coupler 20 dB Coupled Port From 700 MHz to 2.7 GHz Rated To 60 Watts SMC4037-20](http://www.fairviewmicrowave.com/n-directional-coupler-20-db-2.7-ghz-60-watts-smc4037-20)

URL: <http://www.fairviewmicrowave.com/n-directional-coupler-20-db-2.7-ghz-60-watts-smc4037-20-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

FAIRVIEW MICROWAVE INC. ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM		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 N Directional Coupler 20 dB Coupled Port From 700 MHz to 2.7 GHz Rated To 60 Watts		DWG NO SMC4037-20		CAGE CODE 3FKR5	
CAD FILE	041316	SHEET	SCALE	N/A	SIZE A 3045