

19.5 dB Bi-Directional Couplers,  
0.5 - 400 MHz

Rev. V4

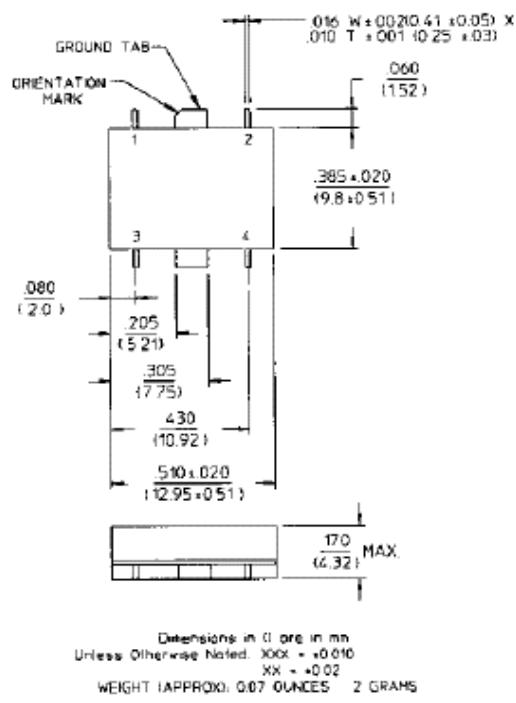
## Features

- Low Cost
- Convenient Plug-In Mounting
- Fully Hermetic Package (CHS-137)
- MIL-STD-202 Screening Available

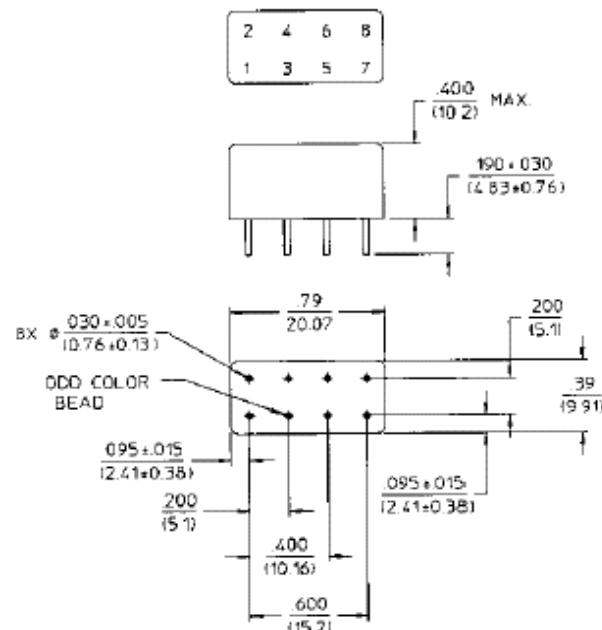
## Description

Bi-Directional Couplers offer the ability to couple the power in two directions while maintaining directivity.

## SF-1 (CHS-137)



## RH-1 (CH-137)



## Pin Configuration (CH-137)

Pin No.	Function	Pin No.	Function
1		5	GND
2	GND	6	
3		7	GND
4	D	8	GND

## Pin Configuration (CHS-137)

Pin No.	Function	Pin No.	Function
1	C	3	A
2	B	4	D

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### Electrical Specifications<sup>1</sup>: $T_A = -55^{\circ}\text{C}$ to $+85^{\circ}\text{C}$

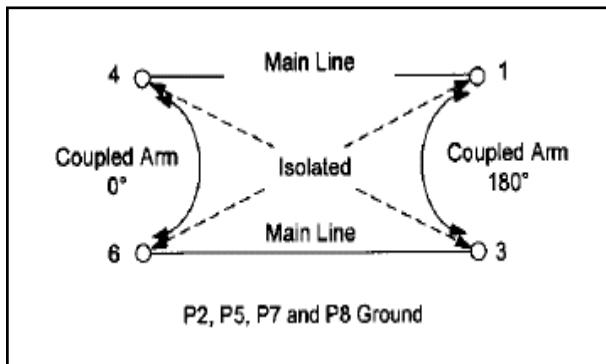
Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Coupling	Input to Output	0.5 - 200 MHz 200 - 400 MHz	dB dB	19.0 19.0	19.5 20.0	20.0 21.0
VSWR	All Ports	5 - 200 MHz 0.5 - 400 MHz	Ratio Ratio	— —	— —	1.2:1 1.5:1
Directivity	Both Directions	0.5 - 50 MHz 50 - 200 MHz 200 - 400 MHz	dB dB dB	30 20 15	— — —	— — —
Main Line Loss <sup>2</sup>	—	0.5 - 50 MHz 50 - 200 MHz 200 - 400 MHz	dB dB dB	— — —	— — —	0.5 0.4 0.6
Input Power	—	—	Watt	— — —	— — —	3.0

1. All specifications apply with 50 ohm source and load impedance.

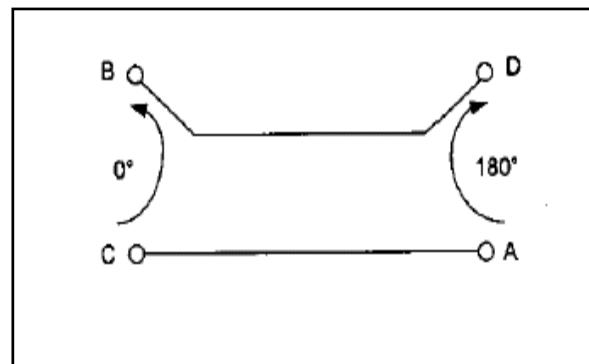
2. Includes theoretical power split.

This product contains elements protected by United States Patent number 3,426,298.

### Functional Diagram (CH-137)



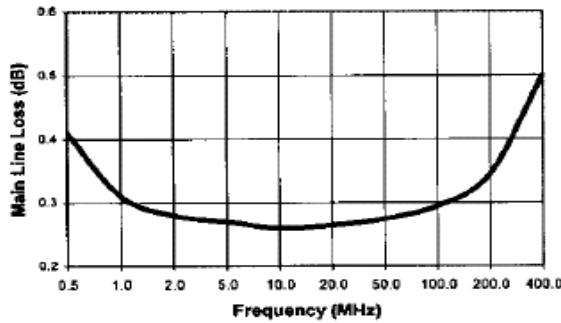
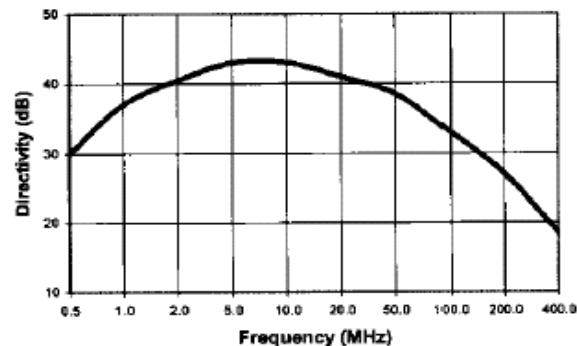
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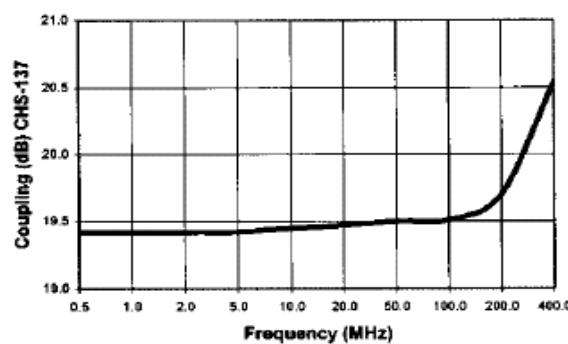
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## Typical Performance Curves

**Main Line Loss**

**Directivity**


## Ordering Information

Part Number	Package
CH-137 PIN	RH-1
CHS-137 PIN	SF-1

**Coupling**


# Mouser Electronics

Authorized Distributor

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