

## Bi-Directional Couplers, 10 - 500 MHz

Rev. V3

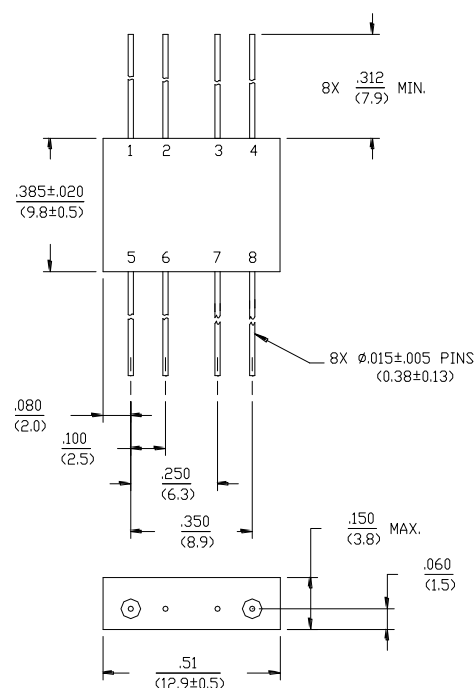
### Features

- Constant Coupling - within  $\pm 0.5$  dB max.
- MIL-STD-202 Screening Available

### Description

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

### FP-2 (CH-134)

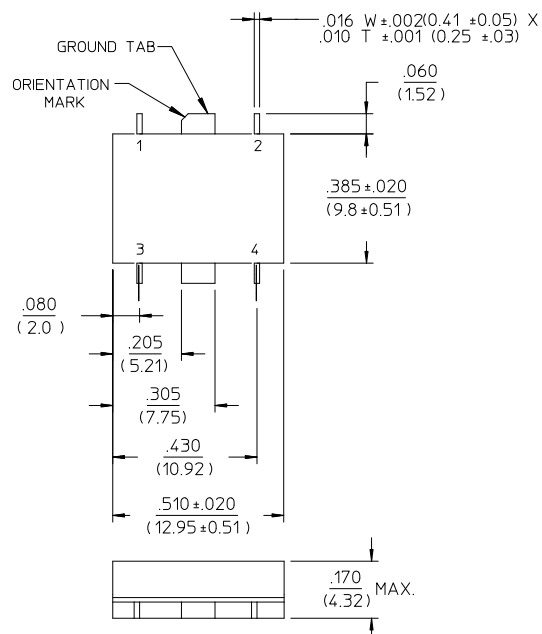


Dimensions in ( ) are in mm  
Unless Otherwise Noted: .XXX =  $\pm 0.010$  (XX =  $\pm 0.25$ )  
.XX =  $\pm 0.02$  (X =  $\pm 0.5$ )  
WEIGHT (APPROX): 0.09 OUNCES 2.55 GRAMS

### Pin Configuration

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

### SF-1 (CHS-134)



Dimensions in ( ) are in mm  
Unless Otherwise Noted: .XXX =  $\pm 0.010$   
.XX =  $\pm 0.02$   
WEIGHT (APPROX): 0.07 OUNCES 2 GRAMS

### Pin Configuration

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

### Ordering Information

Part Number	Package
CH-134-PIN	FP-2 (flat pack)
CHS-134-PIN	SF-1 (surface mount)

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

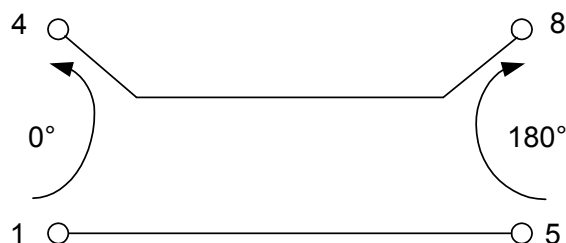
Parameter	Test Conditions	Units	Min.	Typ.	Max.
Coupling	Input to Output	dB	10.1	10.8	11.5
Coupling Flatness	—	dB	—	—	$\pm 0.5$
VSWR	All Ports 10 - 500 MHz 25 - 200 MHz	Ratio	—	—	1.8:1 1.5:1
Directivity	Both Directions	dB	20	—	—
Main Line Loss <sup>2</sup>	—	dB	—	—	1.6
Input Power	—	W	—	—	1.0

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

2. Includes theoretical power split.

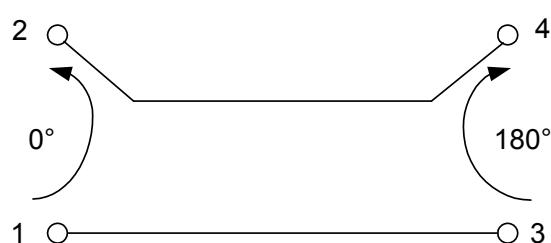
This product contains elements protected by United States Patent number 3,426,298.

## Functional Diagram (CH-134)



Case P2, P3, P6 and P7 Ground

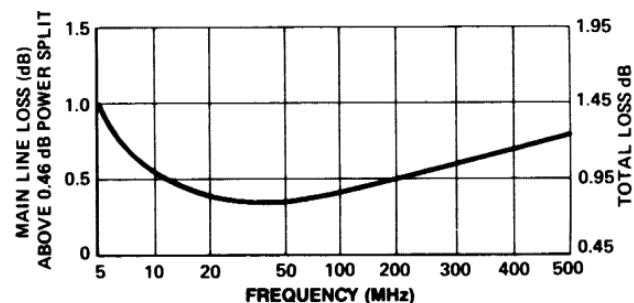
## Functional Diagram (CHS-134)



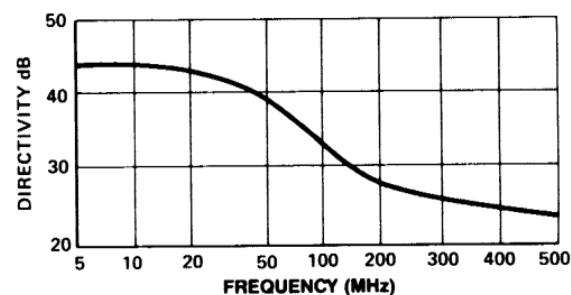
Case Ground

### Typical Performance Curves

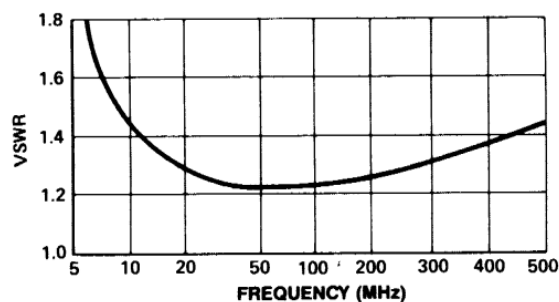
*Main Line Loss*



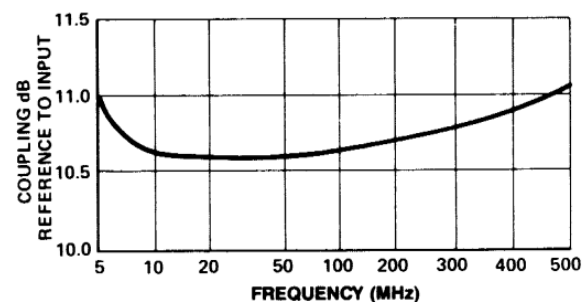
*Directivity*



*VSWR*



*Coupling*



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