

Bi-Directional Couplers, 10 - 500 MHz

Rev. V3

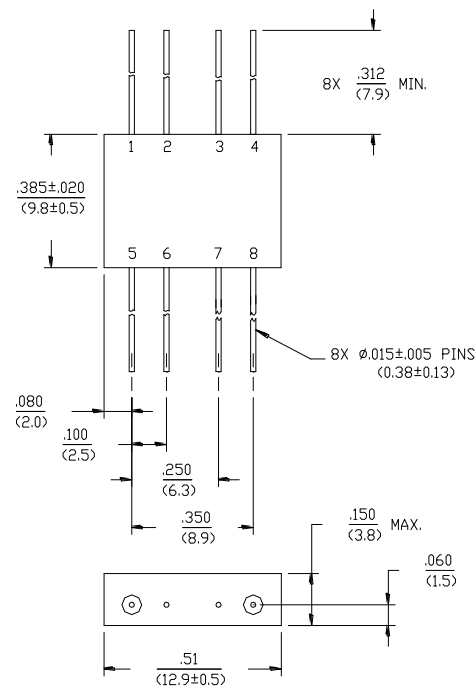
Features

- Constant Coupling - within ± 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)

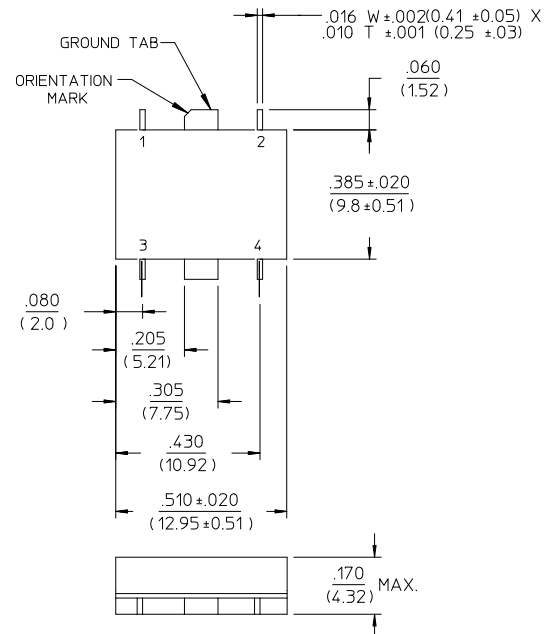


Dimensions in () are in mm
Unless Otherwise Noted: .XXX = ± 0.010 (XX = ± 0.25)
.XX = ± 0.02 (X = ± 0.5)
WEIGHT (APPROX): 0.09 OUNCES 2.55 GRAMS

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 = ± 0.010
.XX = ± 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 Specifications¹: $T_A = -55^{\circ}\text{C}$ to $+85^{\circ}\text{C}$

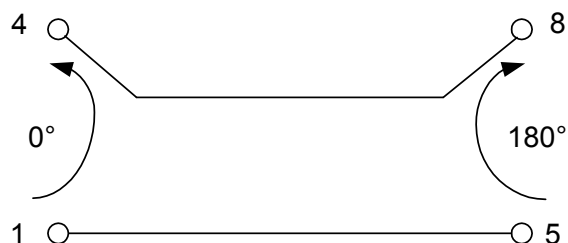
Parameter	Test Conditions	Units	Min.	Typ.	Max.
Coupling	Input to Output	dB	10.1	10.8	11.5
Coupling Flatness	—	dB	—	—	± 0.5
VSWR	All Ports 10 - 500 MHz 25 - 200 MHz	Ratio	—	—	1.8:1 1.5:1
Directivity	Both Directions	dB	20	—	—
Main Line Loss ²	—	dB	—	—	1.6
Input Power	—	W	—	—	1.0

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

2. Includes theoretical power split.

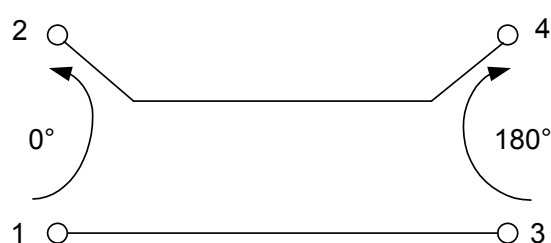
This product contains elements protected by United States Patent number 3,426,298.

Functional Diagram (CH-134)



Case P2, P3, P6 and P7 Ground

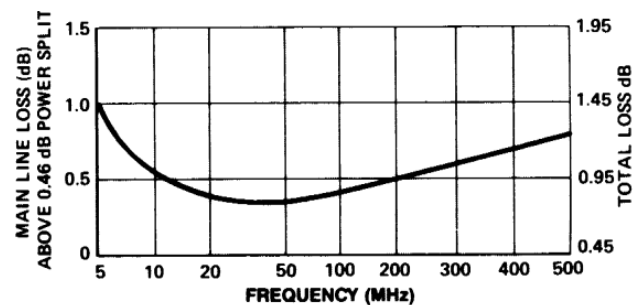
Functional Diagram (CHS-134)



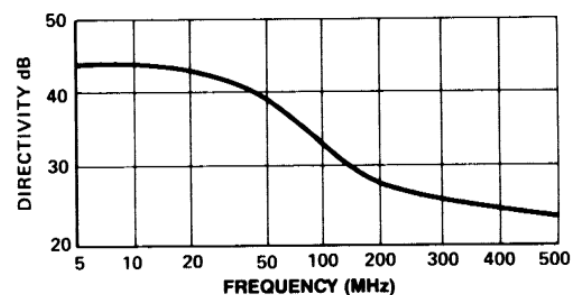
Case Ground

Typical Performance Curves

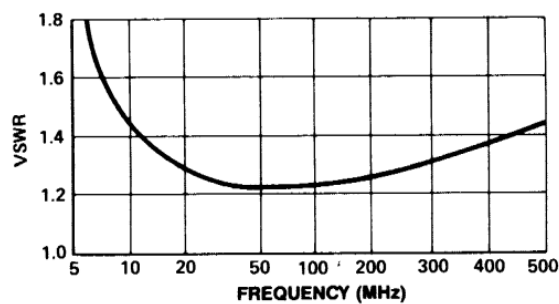
Main Line Loss



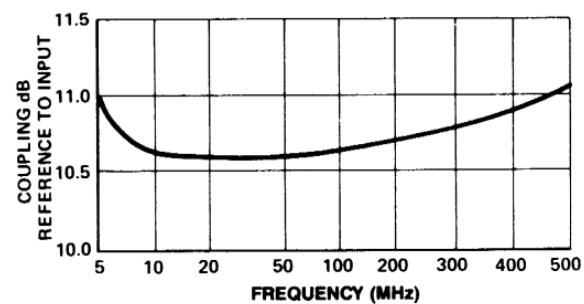
Directivity



VSWR



Coupling



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