HH- / HHS-110 / HH-127



Hybrid Junction, 10 - 500 MHz

Rev. V3

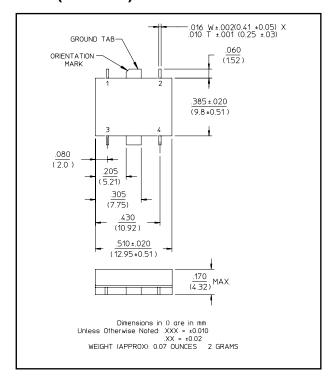
Features

- **Broad Frequency Range**
- Fully Hermetic Package (HHS-110)
- High Isolation: Typically 30 dB
- Impedance: 50 Ohms Nominal
- Input Power: 1 Watt Maximum
- MIL-STD-202 Screening Available

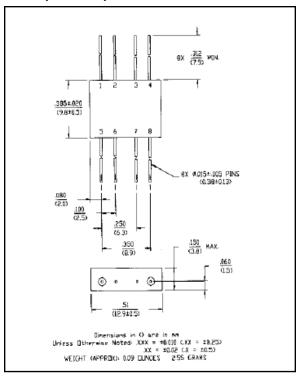
Description

3 dB Hybrids are ideal for dividing a signal into two signals of equal amplitude and a constant 90° or phase differential and for Quadrature or performing summation/differential combining combining.

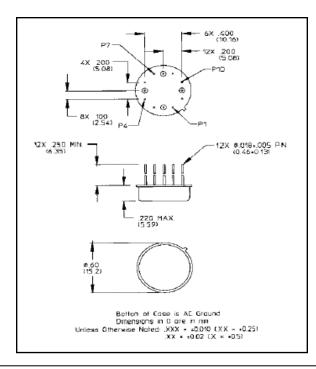
SF-1 (HHS-110)



FP-2 (HH-110)



TO-8-2 (HH-127)



ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed. PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available.

Commitment to produce in volume is not guaranteed.

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Pin Configuration (HH-110)

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

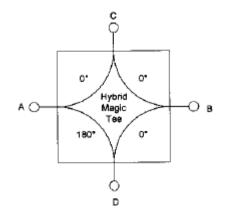
Pin Configuration (HHS-110)

Pin No.	Function	Pin No.	Function
1	Α	3	В
2	С	4	D

Pin Configuration (HH-127)

Pin No.	Function	Pin No.	Function
1	GND	7	GND
2	С	8	В
3	GND	9	GND
4	GND	10	GND
5	А	11	D
6	GND	12	GND

Functional Diagram



HH- / HHS-110 / HH-127



Hybrid Junction, 10 - 500 MHz

Rev. V3

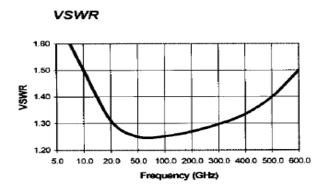
Electrical Specifications¹: $T_A = -55$ °C to +85°C

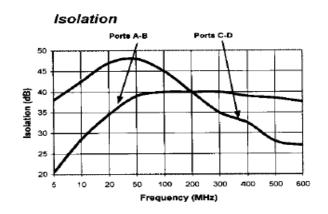
Parameter	Test Conditions	Frequency	Units	Min	Тур	Max
Insertion Loss	Less Coupling	10 - 500 MHz 25 - 200 MHz	dB dB	_	_	1.4 1.0
Isolation		10 - 500 MHz 25 - 200 MHz	dB dB	20 30	_	
Amplitude Balance	_	10 - 500 MHz 25 - 200 MHz	dB dB	_	_	0.6 0.4
VSWR	_	10 - 500 MHz 25 - 200 MHz	Ratio Ratio	_	_	2.0:1 1.6:1
Phase Balance	_	10 - 500 MHz 25 - 200 MHz	0	_	_	7 5

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

Typical Performance Curves

Insertion Loss Insertion Loss (dB) 0 50.0 100.0 200.0 300.0 400.0 500.0 600.0 Frequency (MHz)





Ordering Information

Part Number	Package
HH-110 PIN	FP-2
HHS-110	SF-1
HH-127 PIN	TO-8-2

Commitment to produce in volume is not guaranteed.

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Visit www.macomtech.com for additional data sheets and product information.

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H-81-4-N HH-109-PIN