

Quadrature Hybrid, 7 - 14 MHz

Rev. V3

#### **Features**

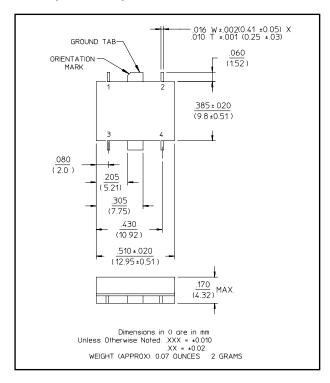
Octave Bandwidth Low VSWR: 1.2:1 Low Loss: 0.5 dB Max.

Impedance: 50 Ohms Nominal Input Power: 4 Watts Max.@ 25°C 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 combining or performing summation/differential combining.

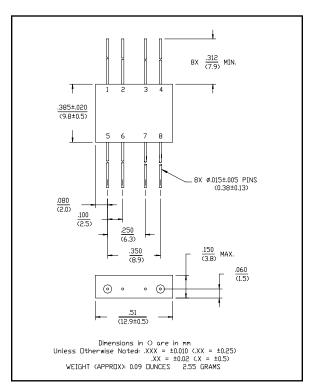
#### SF-1 (JHS-113)



# **Pin Configuration (JHS-113)**

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

#### FP-2 (JH-113)



## **Pin Configuration (JH-113)**

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

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.

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• India Tel: +91.80.4155721

• China Tel: +86.21.2407.1588 Visit www.macomtech.com for additional data sheets and product information.



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# Electrical Specifications<sup>1</sup>: $T_A = -55$ °C to +85°C

Parameter	Test Conditions	Frequency	Units	Min	Тур	Max
Insertion Loss <sup>2</sup>	Less Coupling	7 - 14 MHz	dB	_	_	0.5
Isolation	_	7 - 14 MHz	dB	20	_	_
Amplitude Balance	_	7 - 14 MHz	dB	_	_	0.75
VSWR	_	7 - 14 MHz	Ratio	_	_	1.2:1
Deviation from Quadrature	_	7 - 14 MHz	٥	_	_	3

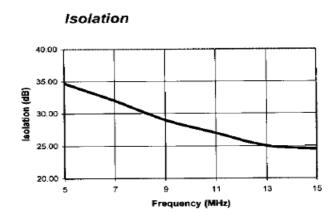
- 1. All specifications apply with 50 ohm source and load impedance.
- 2. Average of coupled output less 3 dB.

#### **Phasing Diagram**

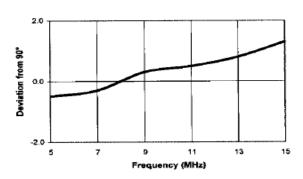
OUT N	A	В	С	D
Α	$\times$	ISO	0°	-90°
В	ISO	X	-90°	0°
С	0°	90°	$\times$	ISO
D	-90°	0°	ISO	$\times$

All other pins and case are ground.

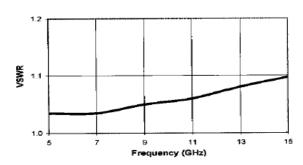
## **Typical Performance Curves**



#### Deviation from Quadrature



#### VSWR (All Ports)



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

Commitment to produce in volume is not g

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# JH-/JHS-113

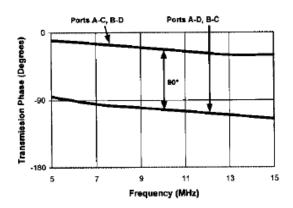


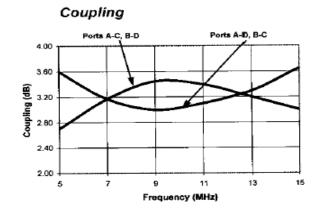
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## **Typical Performance Curves**

#### Transmission Phase





## **Ordering Information**

Part Number	Package
JH-113 PIN	FP-2
JHS-113 PIN	SF-1

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Commitment to produce in volume is not gui