

Electronics

Quadrature Hybrid, 7 - 14 MHz

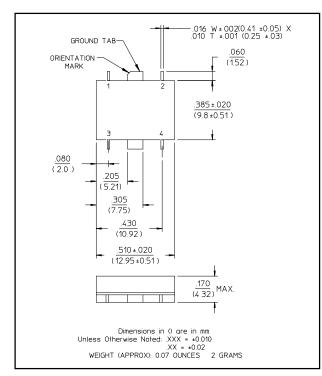
Features

- 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 180° phase differential and for Quadrature combining or performing summation/differential combining.

SF-1 (JHS-113)



Pin Configuration (JHS-113)

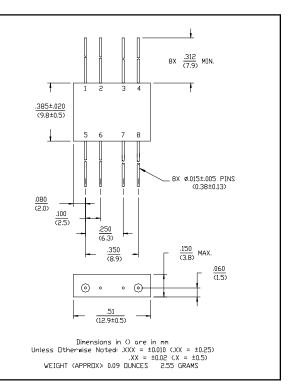
Pin No.	Function	Pin No.	Function
1	А	3	D
2	В	4	С

¹

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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

• North America Tel: 800.366.2266 / Fax: 978.366.2266

- Europe Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- Asia/Pacific Tel: 81.44.844.8296 / Fax: 81.44.844.8298

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





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JH-/JHS-113 V3

Electrical Specifications¹: $T_A = -55^{\circ}C$ to +85°C

Parameter	Test Conditions	Frequency	Units	Min	Тур	Мах
Insertion Loss ²	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	0	—	—	3

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

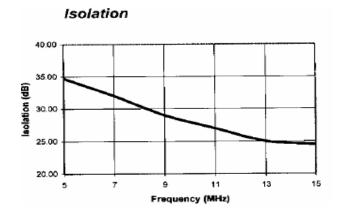
2. Average of coupled output less 3 dB.

Phasing Diagram

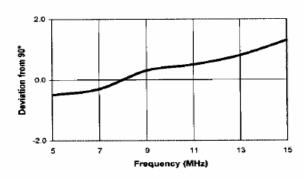
	A	В	С	D
А	\times	ISO	0°	-90°
В	ISO	\times	-90°	0°
С	0°	90°	\times	ISO
D	-90°	0°	ISO	\times

All other pins and case are ground.

Typical Performance Curves



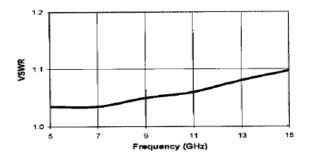
Deviation from Quadrature



²

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VSWR (All Ports)



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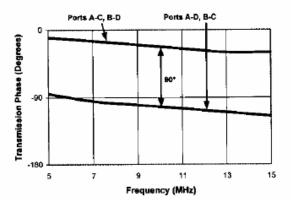


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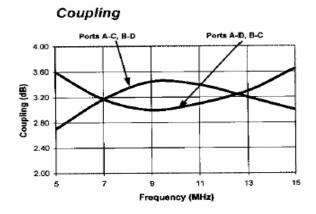
Typical Performance Curves

Transmission Phase



Ordering Information

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



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