# JH- / JHS-121

### Quadrature Hybrid, 100 - 200 MHz



- Octave Bandwidth
- Low VSWR: 1.2:1
- Impedance: 50 Ohms Nominal
- Input Power: 4 Watts Max.@ 25°C, Derated to 1 Watt @ 85°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-121)



## Pin Configuration (JHS-121)

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

<sup>1</sup> 

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#### FP-2 (JH-121)



## Pin Configuration (JH-121)

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

North America Tel: 800.366.2266
 Europe Tel: +353.21.244.6400
 India Tel: +91.80.4155721
 China Tel: +86.21.2407.1588

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Rev. V3

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

Parameter	Test Conditions	Frequency	Units	Min	Тур	Max
Insertion Loss <sup>2</sup>	Less Coupling	100 - 200 MHz	dB	_	_	0.75
Isolation	_	100 - 200 MHz	dB	20		—
Amplitude Balance	—	100 - 200 MHz	dB	—	_	1.0
VSWR	_	100 - 200 MHz	Ratio	—		1.3:1
Deviation from Quadrature	—	100 - 200 MHz	o		_	3

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

2. Average of coupled output less 3 dB.

This product contains elements protected by United States Patent Number 3,484,724

#### **Phasing Diagram**

2

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

#### **Typical Performance Curves**



Deviation from Quadrature



VSWR



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#### Transmission Phase



### **Ordering Information**

Part Number	Package
JH-121 PIN	FP-2
JHS-121 PIN	SF-1

Coupling



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