

Quadrature Hybrid, 80 - 160 MHz

Rev. V3

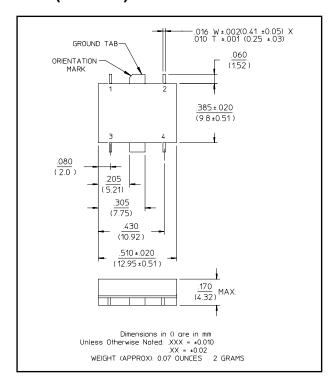
Features

- Fully Hermetic Package
- Octave Bandwidth
- Low VSWR: 1.3:1
- Impedance: 50 Ohms Nominal
- Input Power: 4 Watts Max.@ 25°C, Derated to 1 Watt @ 85°C
- MIL-STD-202 Screening Available

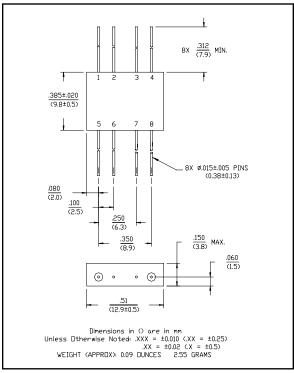
Description

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-119)



FP-2 (JH-119)



Pin Configuration (JH-119)

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

Pin Configuration (JHS-119)

Commitment to produce in volume is not guaranteed.

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



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

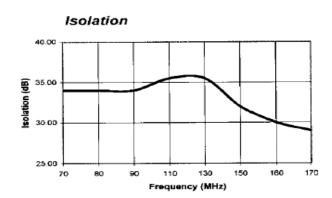
Parameter	Test Conditions	Frequency	Units	Min	Тур	Max
Insertion Loss ²	Less Coupling	80 - 160 MHz	dB	_	_	0.75
Isolation	_	80 - 160 MHz	dB	20	_	_
Amplitude Balance	_	80 - 160 MHz	dB	_	_	1.0
VSWR	_	80 - 160 MHz	Ratio	_	_	1.3:1
Deviation from Quadrature	_	80 - 160 MHz	o	_	_	3

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

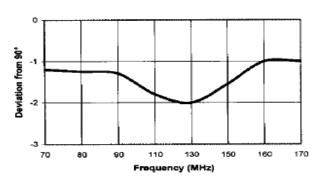
Phasing Diagram

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

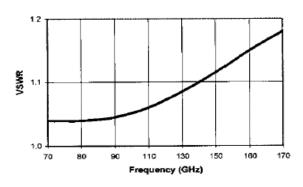
Typical Performance Curves



Deviation from Quadrature



VSWR



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

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

^{2.} Average of coupled output less 3 dB.

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

JH-/JHS-119

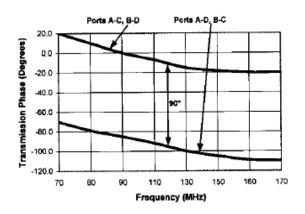


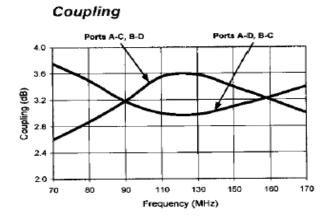
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Typical Performance Curves

Transmission Phase





Ordering Information

Part Number	Package
JH-119 PIN	FP-2
JHS-119 PIN	SF-1