

High Frequency Quadrature Hybrid, 500 - 1000 MHz

Rev. V3

Features

Octave Bandwidth

Low VSWR: 1.2:1 Typical

• Miniature Size: 1/2" x 3/8" Flatpack

• Impedance: 50 Ohms Nominal

• Input Power: 25 Watts Max @ +25°C, Derated to

1 Watt @ +85°C

• MIL-STD-202 Screening Available

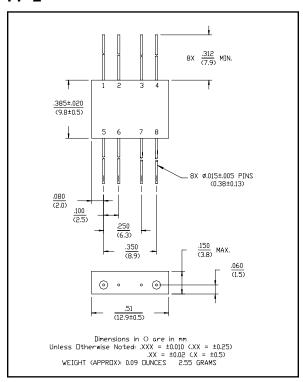
Description

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.

Phasing Diagram

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

FP-2



Pin Configuration

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

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

Parameter	Test Conditions	Frequency	Units	Min	Тур	Max
Insertion Loss ²	Less Coupling	500 - 1000 MHz	dB	_	_	0.3
Isolation	_	500 - 1000 MHz	dB	18	_	_
Amplitude Balance	_	500 - 1000 MHz	dB	_	_	1.0
VSWR	_	500 - 1000 MHz	Ratio	_	_	1.3:1
Deviation from Quadrature	_	500 - 1000 MHz	0	_	_	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.

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

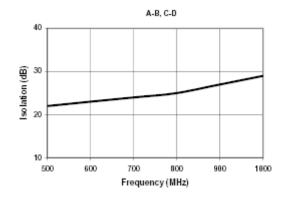


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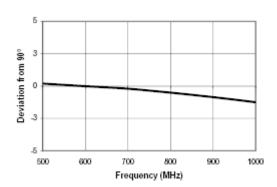
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Typical Performance Curves

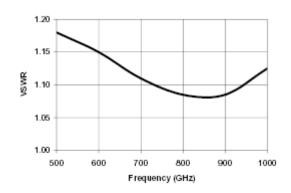
Isolation



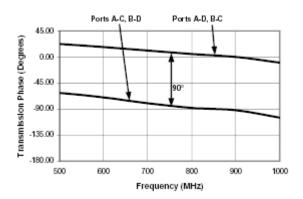
Deviation from Quadrature



VSWR

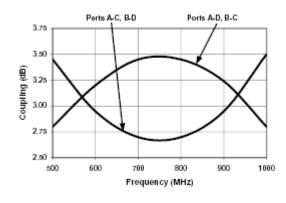


Transmission Phase



Coupling

2



Ordering Information

Part Number	Package	
JH-140 PIN	FP-2	

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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 du

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