

Surface Mount Quadrature Hybrid, 200 - 400 MHz

Rev. V3

Features

- Fully Hermetic
- Octave Bandwidth
- Low VSWR: 1.1:1 Typical
- Impedance: 50 Ohms Nominal
- Input Power: 5 Watts Max @ +25°C, Derated to 1 Watt @ +85°C
- Typical Phase Linearity: 3° from straight line
- MIL-STD-202 Screening Available

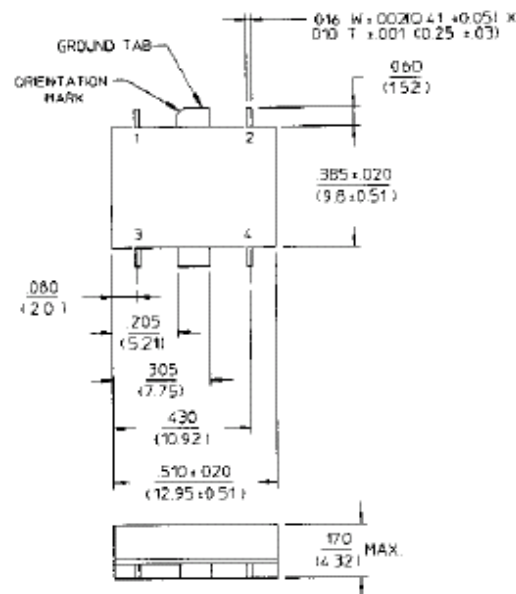
SF-1

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

IN \ OUT	A	B	C	D
A		ISO	-90°	0°
B	ISO		0°	-90°
C	-90°	0°		ISO
D	0°	-90°	ISO	



Pin Configuration

Pin No.	Function	Pin No.	Function
1	A	3	D
2	B	4	C

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

Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Insertion Loss ²	Less Coupling	200– 400 MHz	dB	—	—	0.5
Isolation	—	200– 400 MHz	dB	18	—	—
Amplitude Balance	—	200– 400 MHz	dB	—	—	1.0
VSWR	—	200– 400 MHz	Ratio	—	—	1.3:1
Deviation from Quadrature	—	200– 400 MHz	°	—	—	4

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.

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 and/or test data may be available. Commitment to produce in volume is not guaranteed.

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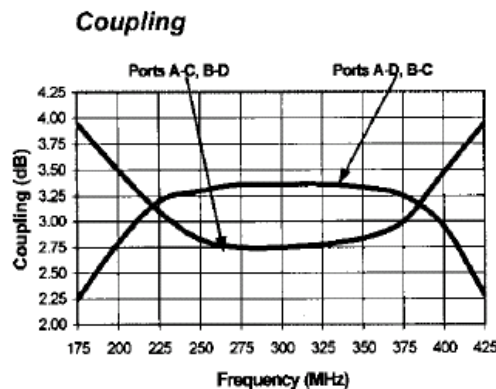
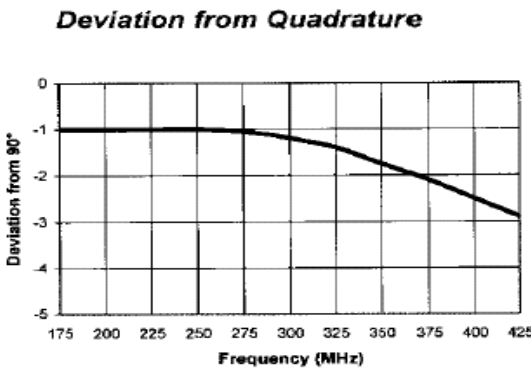
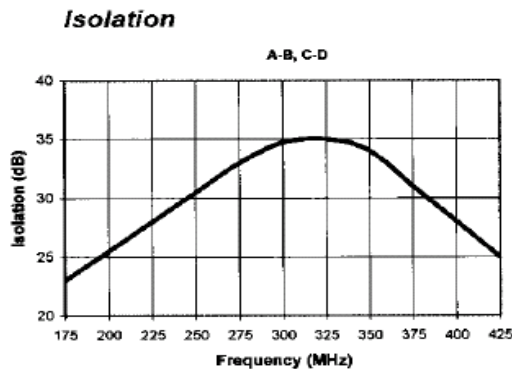
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Visit www.macomtech.com for additional data sheets and product information.

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Typical Performance Curves



Ordering Information

Part Number	Package
JHS-142 PIN	SF-1