

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

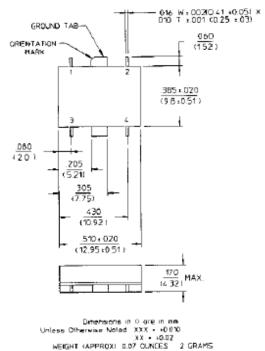
Description

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

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

SF-1



Pin Configuration

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

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

Parameter	Test Conditions	Frequency	Units	Min	Тур	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	0	_	_	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.

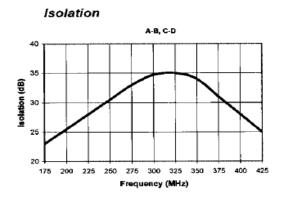
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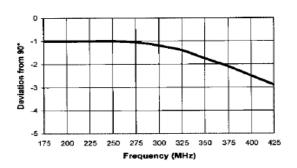
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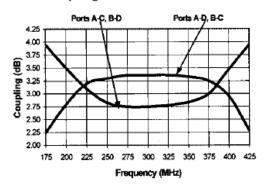
Typical Performance Curves



Deviation from Quadrature



Coupling



Ordering Information

Part Number	Package
JHS-142 PIN	SF-1

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 guard teed.