

Surface Mount Quadrature Hybrid, 200 - 400 MHz

Rev. V3

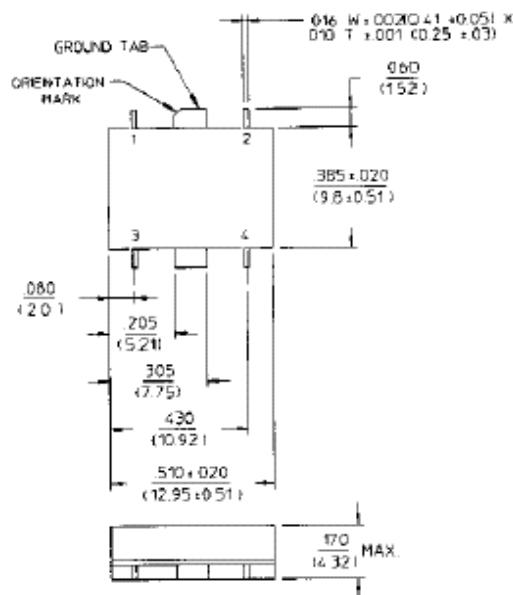
Features

- 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.

SF-1



Dimensions in 0 are in mm
Unless Otherwise Noted: XXX = +0.010
XX = +0.02
WEIGHT (APPROX) 0.07 OUNCES 2 GRAMS

Phasing Diagram

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

Pin Configuration

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

Electrical Specifications¹: Freq. = 200 - 400 MHz, T_A = -55°C to +85°C

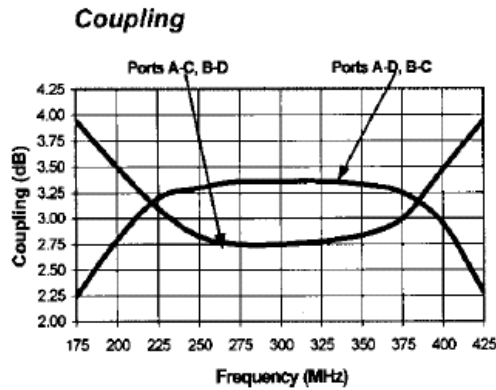
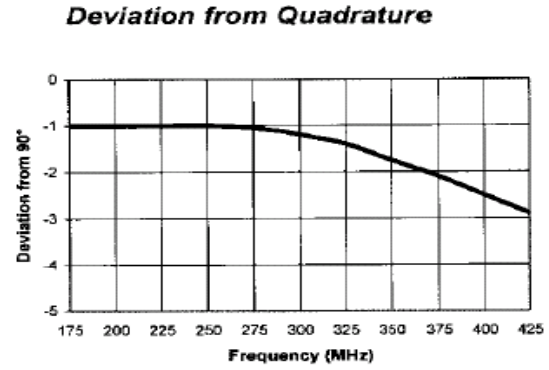
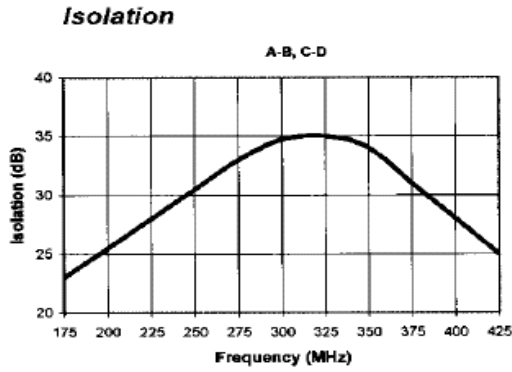
| Parameter | Test Conditions | Units | Min | Typ | Max |
|-----------------------------|-----------------|-------|-----|-----|-------|
| Insertion Loss ² | Less Coupling | dB | — | — | 0.5 |
| Isolation | — | dB | 18 | — | — |
| Amplitude Balance | — | dB | — | — | 1.0 |
| VSWR | — | Ratio | — | — | 1.3:1 |
| Deviation from Quadrature | — | ° | — | — | 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.

Typical Performance Curves



Ordering Information

| Part Number | Package |
|-------------|---------|
| JHS-142 PIN | SF-1 |

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