

## Surface Mount Quadrature Hybrid, 40 - 80 MHz

Rev. V3

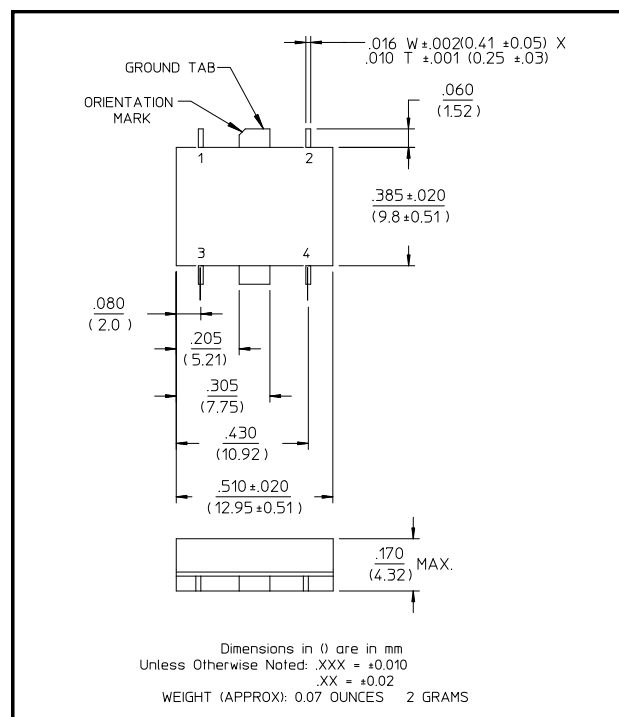
### Features

- Fully Hermetic Package
- 3° Maximum Phase Deviation from 90°
- Low Loss: 0.5 dB Max.
- Impedance: 50 Ohms Nominal
- Input Power: Watts Max. Derated to 1 Watt @ 100°C
- Typical Phase Linearity: 3° from Straight Line
- MIL-STD-202 Screening Available

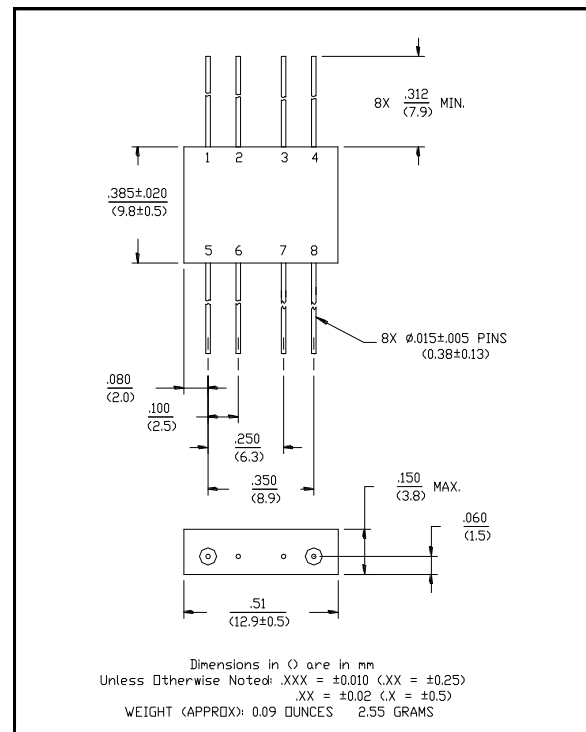
### Description

Ideally suited for Quadrature Combining or performing Summation/Differential Combining.

### SF-1 (JHS-115)



### FP-2 (JH-115)



### Pin Configuration (JH-115)

Pin No.	Function	Pin No.	Function
1	A	5	D
2	GND	6	GND
3	GND	7	GND
4	B	8	C

### Pin Configuration (JHS-115)

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

### Electrical Specifications<sup>1</sup>: $T_A = -55^{\circ}\text{C}$ to $+85^{\circ}\text{C}$

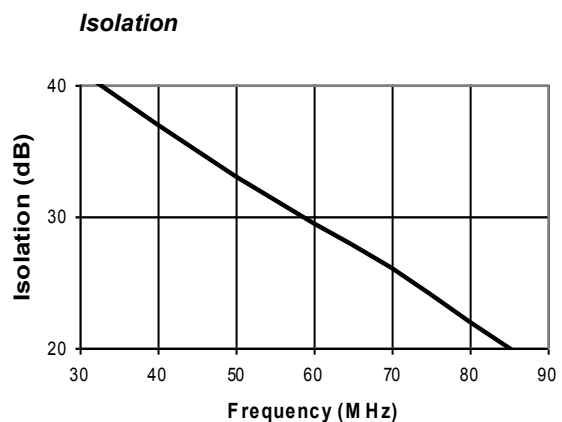
Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Insertion Loss <sup>2</sup>	Less Coupling	40 - 80 MHz	dB	—	—	0.5
Isolation	—	40 - 80 MHz	dB	20	—	—
Amplitude Balance	—	40 - 80 MHz	dB	—	—	0.8
VSWR	—	40 - 80 MHz	Ratio	—	—	1.2:1
Deviation from Quadrature	—	40 - 80 MHz	$^{\circ}$	—	—	3

- All specifications apply with 50 ohm source and load impedance.
- Average of coupled output less 3 dB.

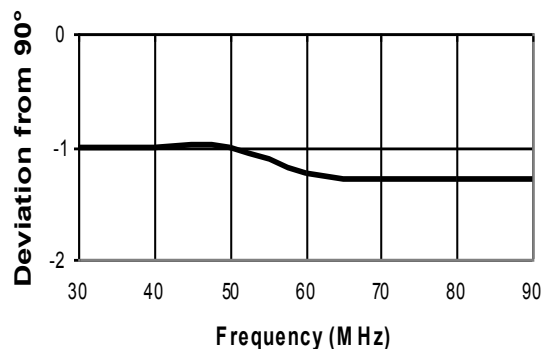
### Phasing Diagram

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

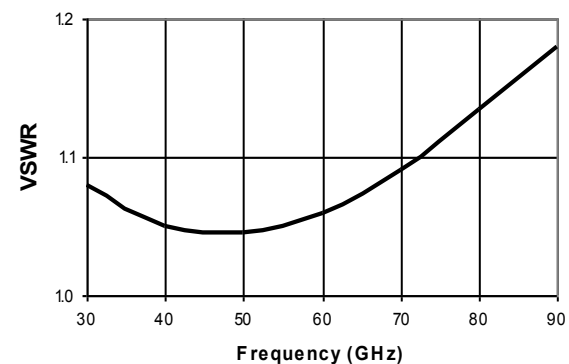
### Typical Performance Curves



**Deviation from Quadrature**

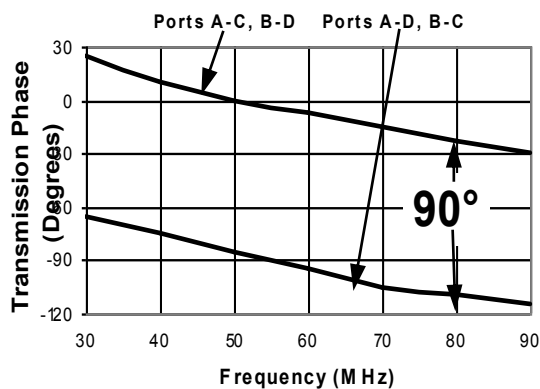


**VSWR**

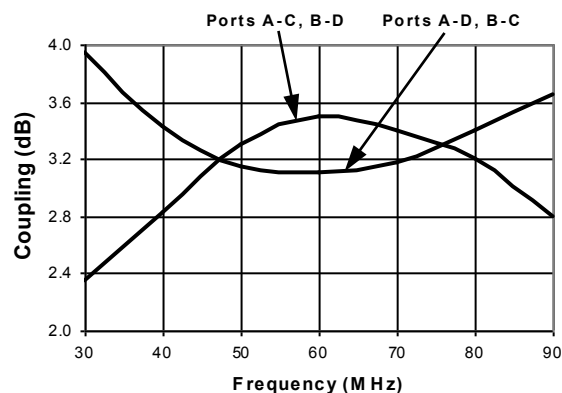


## Typical Performance Curves

**Transmission Phase**



**Coupling**



## Ordering Information

Part Number	Package
JH-115 PIN	FP-2
JHS-115 PIN	SF-1