

**Quadrature Hybrid,
175 - 350 MHz**

**JH-/JHS-136
V3**

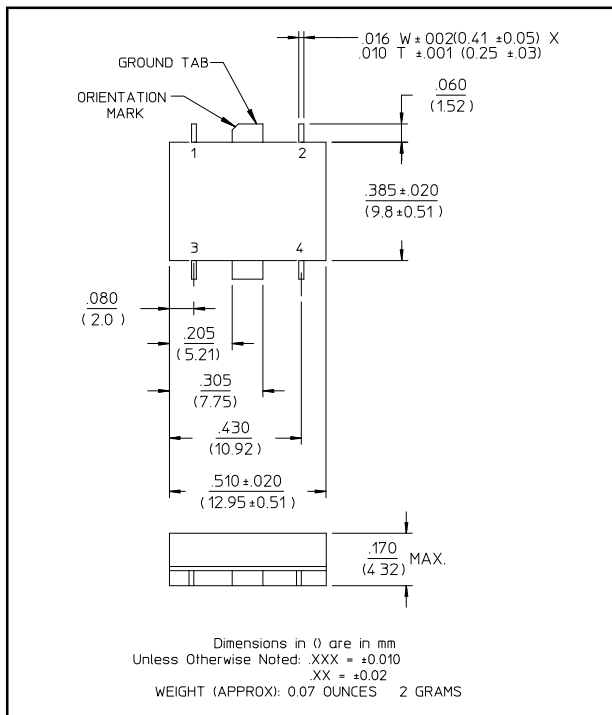
Features

- Fully Hermetic Package
- Octave Bandwidth
- Low VSWR: 1.2:1 Typical
- Impedance: 50 Ohms Nominal
- Input Power: 4 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.

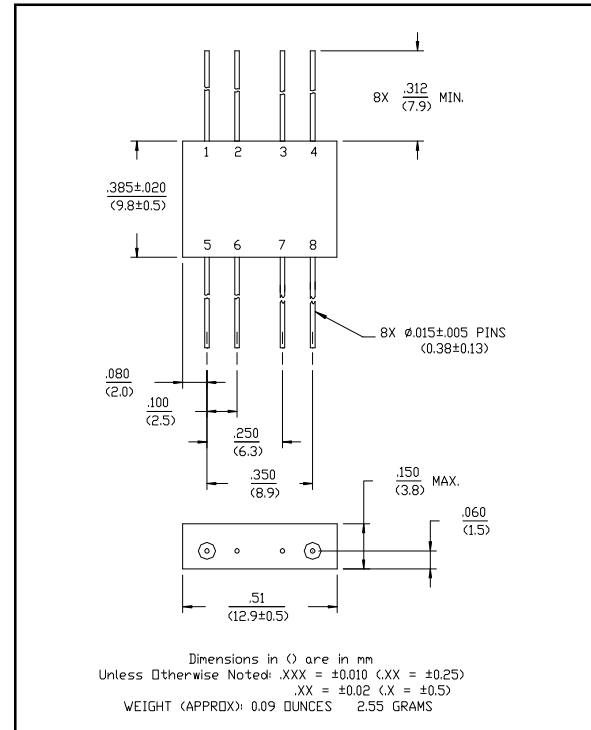
SF-1 (JHS-136)



Pin Configuration (JHS-136)

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

FP-2 (JH-136)



Pin Configuration (JH-136)

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

**Quadrature Hybrid,
175 - 350 MHz**

**JH-/JHS-136
V3**

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

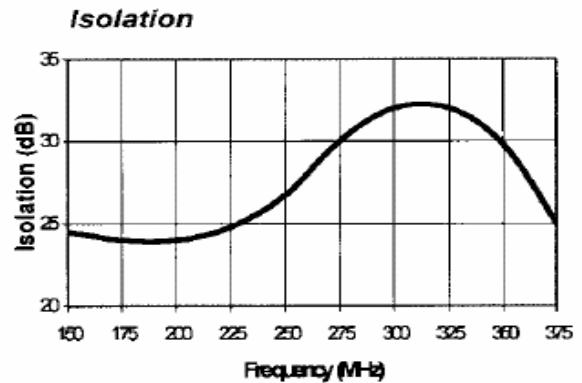
Parameter	Test Conditions	Frequency	Units	Min	Typ	Max
Insertion Loss ²	Less Coupling	175 - 350 MHz	dB	—	—	0.5
Isolation	—	175 - 350 MHz	dB	20	—	—
Amplitude Balance	—	175 - 350 MHz	dB	—	—	0.75
VSWR	—	175 - 350 MHz	Ratio	—	—	1.3:1
Deviation from Quadrature	—	175 - 350 MHz	°	—	—	4

- All specifications apply with 50 ohm source and load impedance.
 - Average of coupled output less 3 dB.
- This product contains elements protected by United States Patent Number 3,484,724

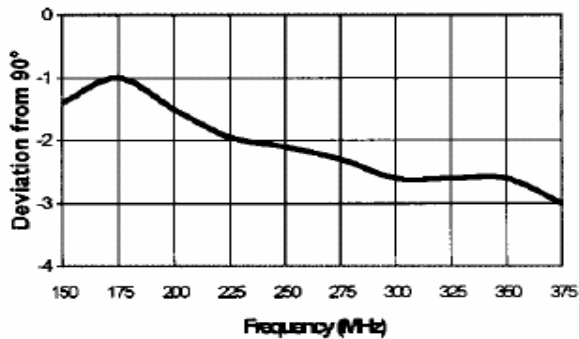
Phasing Diagram

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

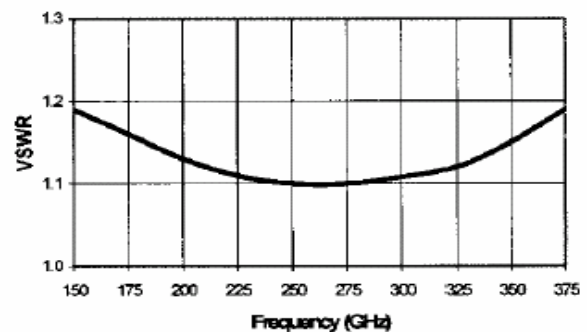
Typical Performance Curves



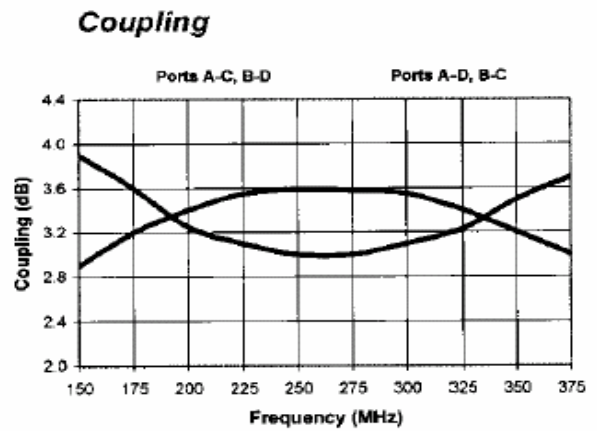
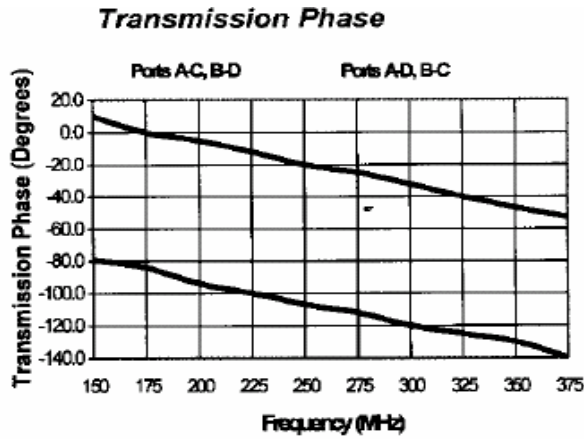
Deviation from Quadrature



VSWR



Typical Performance Curves



Ordering Information

Part Number	Package
JH-136 PIN	FP-2
JHS-136 PIN	SF-1