

# QHF-22A SERIES – 90° POWER DIVIDERS/COMBINERS

## TECHNICAL FEATURE

### FEATURES

- 5 to 300 MHz
- Communications Bandwidths
- Low Insertion Loss
- Low Profile Hermetic Package

### PRINCIPAL SPECIFICATIONS

Model Number	Center Frequency, $f_0$	Frequency Performance
QHF-22A-***B	5 to 300 MHz	30% of $f_0$
For complete model number, replace *** with center frequency in MHz		

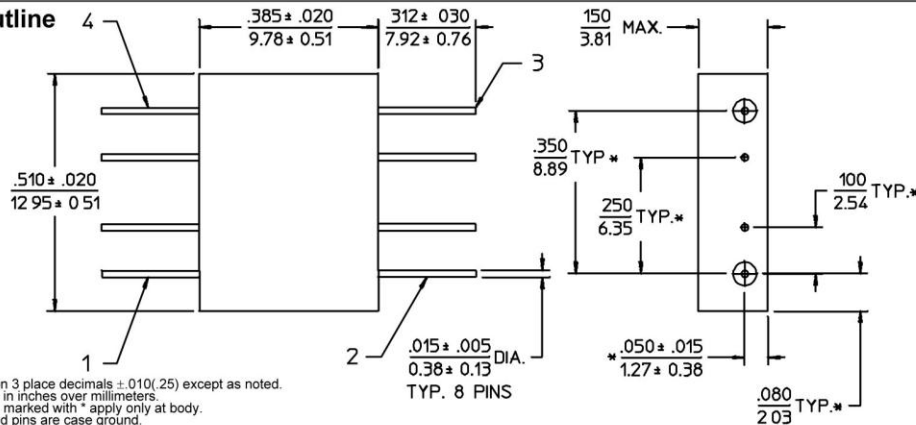
### GENERAL SPECIFICATIONS

Coupling:	– 3 dB nom.
Impedance:	50 $\Omega$ nom.
Isolation:	20 dB min. 25 dB typ.
Insertion Loss:	0.75 dB max. 0.3 dB typ.
Phase Tolerance:	90° $\pm$ 2° max.
Amplitude Balance:	0.5 dB max. 0.25 dB typ.
VSWR (In/Out):	1.3:1 max.
Input Level:	4W max. (1.2:1 VSWR <sub>out</sub> ) (@ 25°C; derated to 1 W @ 85°C)
Weight, nominal:	0.1 oz (2.8 g)
Operating Temp:	– 55° to +85°C

### Phasing Diagram - B

	1	2	3	4
1		– 90°	0°	Isol
2	– 90°		Isol	0°
3	0°	Isol		– 90°
4	Isol	0°	– 90°	

### A-Flatpack Outline



- NOTES:
1. Tolerance on 3 place decimals  $\pm$  0.10(.25) except as noted.
  2. Dimensions in inches over millimeters.
  3. Dimensions marked with \* apply only at body.
  4. All unmarked pins are case ground.

#### General Notes:

1. The QHF-22A series covers 5 to 300 MHz using a special lumped element design to minimize package size and cost. This series features a low 0.15" profile package suitable for applications where an ultra-miniature package is essential. The 0.385" by 0.5" flatpack which houses these 3 dB Quadrature Hybrids is suited to both terrestrial and aerospace applications where inherent package reliability and hermeticity are essential.

22Feb96

#### Crane Aerospace & Electronics

Microwave Solutions – Merrimac Industries  
 41 Fairfield Place, West Caldwell, NJ 07006  
 + 1.973.575.1300 ext. 1309 • [mw@crane-eg.com](mailto:mw@crane-eg.com)  
[www.craneeae.com/mw](http://www.craneeae.com/mw)

QHF22A.doc. This revision supersedes all previous releases. All technical information is believed to be accurate, but no responsibility is assumed for errors. We reserve the right to make changes in products or specifications without notice. Copyright © 2013 Crane Electronics, Inc. All rights reserved.

