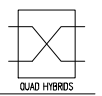


# QHS-6 Series 90° POWER DIVIDERS / COMBINERS

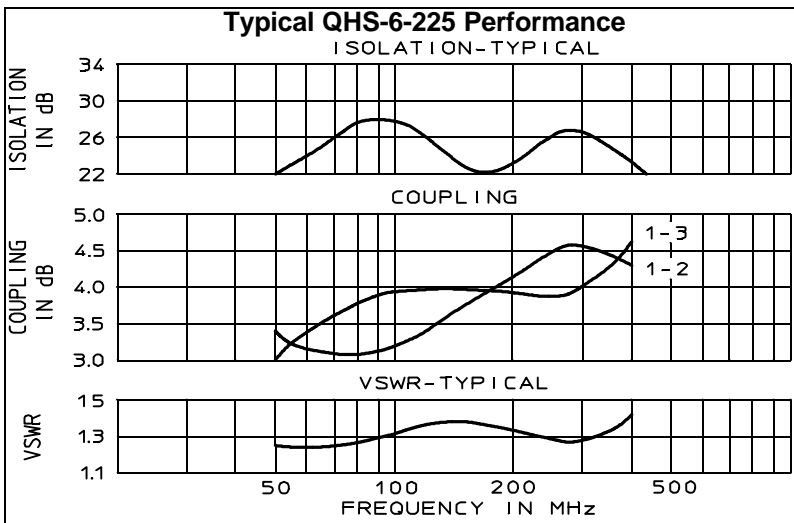
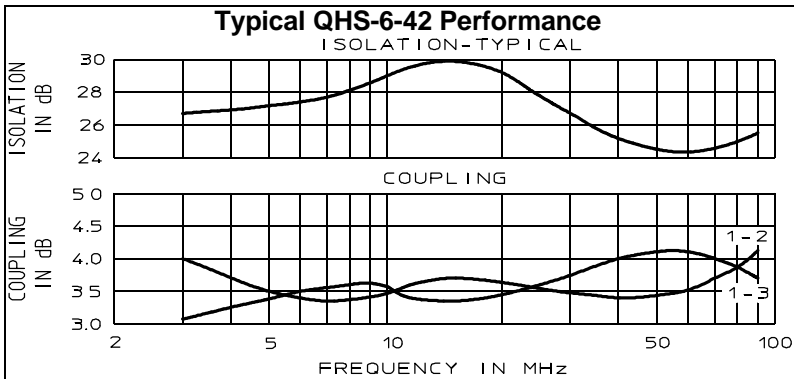
2 to 400 MHz / Ultra-Wide Bandwidth / Low Insertion Loss / Low Ripple / High Isolation / PC Mount



| Phasing Diagram - C |       |       |       |       |
|---------------------|-------|-------|-------|-------|
|                     | 1     | 2     | 3     | 4     |
| 1                   |       | ref.  | +90°  | Isol. |
| 2                   | ref.  |       | Isol. | -90°  |
| 3                   | -90°  | Isol. |       | ref.  |
| 4                   | Isol. | +90°  | ref.  |       |

## PRINCIPAL SPECIFICATIONS

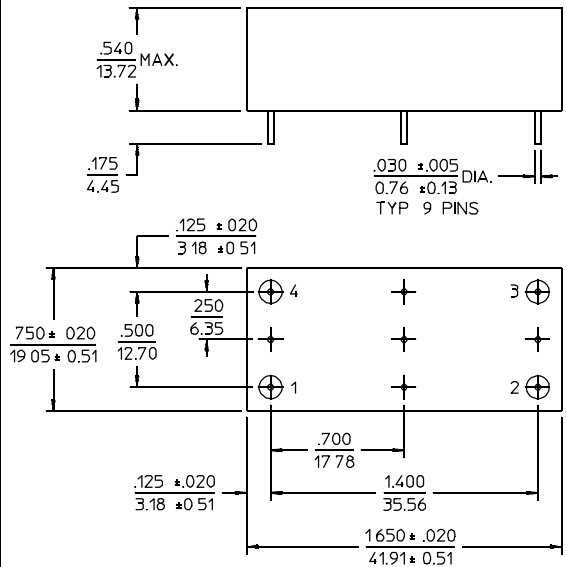
| Model Number | Frequency Range, MHz | Bandwidth Ratio | Amplitude Balance, dB, |      | Insertion Loss, dB, |      | Isolation, dB, Min. | Phase Tolerance | VSWR, Max. |
|--------------|----------------------|-----------------|------------------------|------|---------------------|------|---------------------|-----------------|------------|
|              |                      |                 | Max.                   | Typ. | Max.                | Typ. |                     |                 |            |
| QHS-6-17     | 2 - 32               | 16:1            | 1.0                    | 1.0  | 1.5                 | 20   | 90° ± 3°            | 1.30:1          |            |
| QHS-6-42     | 3.5 - 80             | 23:1            | 1.0                    | 1.0  | 1.5                 | 20   | 90° ± 3°            | 1.35:1          |            |
| QHS-6-165    | 30 - 300             | 10:1            | 1.0                    | 1.0  | 1.5                 | 18   | 90° ± 3°            | 1.40:1          |            |
| QHS-6-225    | 50 - 400             | 8:1             | 1.0                    | 1.0  | 1.5                 | 15   | 90° ± 5°            | 1.50:1          |            |



## GENERAL SPECIFICATIONS

Coupling: - 3 dB nom.  
 Impedance: 50 Ω nom.  
 CW Input: 1 Watt max.  
 Weight, nominal: 1.1 oz (31 g)  
 Operating Temperature: -55° to +85°C

## Package Outline



NOTES: 1. Tolerance on 3 place decimals ±.010(.25) except as noted.  
 2. Dimensions in inches over millimeters.

20Feb96

**General Notes:**  
 The QHS-6 series of multi-section wideband quadrature hybrids covers 2 to 400 MHz using a special lumped element design to minimize size while preserving its excellent electrical performance characteristics.