

# QHS-6 SERIES – 90° POWER DIVIDERS/COMBINERS

## TECHNICAL FEATURE

### FEATURES

- 2 to 32 MHz
- Ultra-Wide Bandwidth
- Low Insertion Loss
- Low Ripple
- High Isolation
- PC

| <b><u>PRINCIPAL SPECIFICATIONS</u></b> |                      |                 |                             |                               |                     |                 |            |  |
|--|----------------------|-----------------|-----------------------------|-------------------------------|---------------------|-----------------|------------|--|
| Model Number                           | Frequency Range, MHz | Bandwidth Ratio | Amplitude Balance, dB, Max. | Insertion Loss, dB, Typ. Max. | Isolation, dB, Min. | Phase Tolerance | VSWR, Max. |  |
| QHS-6-17                               | 2 - 32               | 16:1            | 1.0                         | 1.0 1.5                       | 20                  | 90° ± 3°        | 1.30:1     |  |

| <b><u>GENERAL SPECIFICATIONS</u></b> |                |
|--------------------------------------|----------------|
| 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 |

**General Notes:**  
 The QHS-6 series of multi-section wideband quadrature hybrids covers 2 to 32 MHz using a special lumped element design to minimize size while preserving its excellent electrical performance characteristics.

| <b>Phasing Diagram - C</b> |       |       |       |       |
|----------------------------|-------|-------|-------|-------|
|                            | 1     | 2     | 3     | 4     |
| 1                          |       | ref.  | +90°  | Isol. |
| 2                          | ref.  |       | Isol. | – 90° |
| 3                          | – 90° | Isol. |       | ref.  |
| 4                          | Isol. | +90°  | ref.  |       |

