

TECHNICAL FEATURE FEATURES

- 1700 - 2000 MHz
- High Isolation
- Multiple Plating Options
- Tape & Reel Available
- Low Loss
- Space Qualified
- Surface Mount

PRINCIPAL SPECIFICATIONS

| Model Number | Frequency Range MHz | Insertion Loss dB Max. | Amplitude Balance dB Max. | Phase Balance Max. | VSWR, Max. All Ports | Isolation dB Min. | Input Power Max. |
|-----------------|---------------------|------------------------|---------------------------|--------------------|----------------------|-------------------|------------------|
| QHD-2X-1.95G SQ | 1700 - 1800 | 0.25 | ± 0.40 dB | 90 ± 3° | 1.28:1 | 18 | 30 |
| | 1800 - 2000 | | ± 0.30 dB | | | | |

GENERAL NOTES

The Multi-Mix® QHDZ series provides a 3 dB 90° coupling with low insertion loss, low VSWR, and high isolation. Accurate phase and amplitude balance make this series ideal for use in IQ networks, power amplifiers, radio transceivers, receiver multi-couplers and RF signal distribution and processing equipment.

QHD quad hybrids are fusion bonded multilayer stripline devices. The fusion bonding process yields a homogeneous monolithic dielectric structure with reliability, ruggedness, and electrical performance that is superior to conventional adhesive bonding techniques.

Parts, materials and processes are in accordance with Merrimac document CENG-0001 "Standard Design Requirements for Space Qualified Devices".

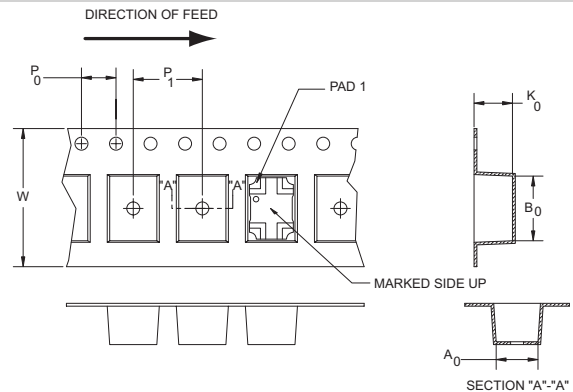
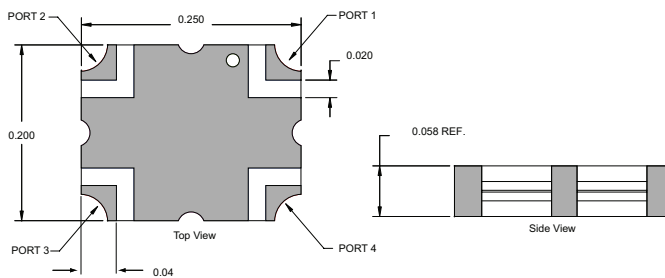
GENERAL SPECIFICATIONS

Size 0.25" x 0.20" x 0.058"
 Weight, max 0.006 oz. (0.156 g)
 RF Interface Leadless Surface Mount
 Operating Temperature -55° to +95° C

TRUTH TABLE

| | 1 | 2 | 3 | 4 |
|---|-------|-------|-------|-------|
| 1 | Input | Iso | -90° | 0° |
| 2 | Iso | Input | 0° | -90° |
| 3 | -90° | 0° | Input | Iso |
| 4 | 0° | -90° | Iso | Input |

PACKAGE OUTLINE / TAPE & REEL ORIENTATION

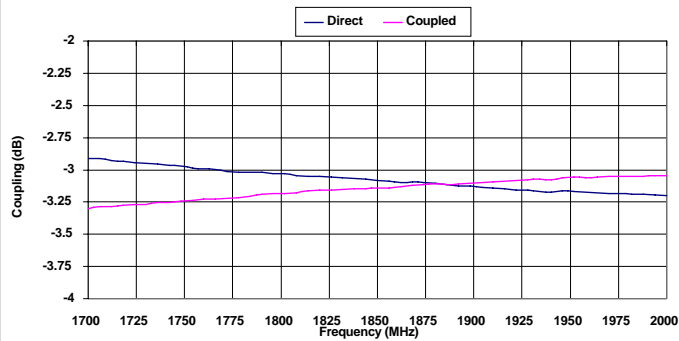


NOTES: Dimensional tolerance unless otherwise specified shall be: +/- .005"
 Thickness tolerance: +/- .006"
 Individual units will not be marked, but tape and reel packaging will include the Merrimac part # and date code. Individual units will have an index mark etched as shown on the data sheets.

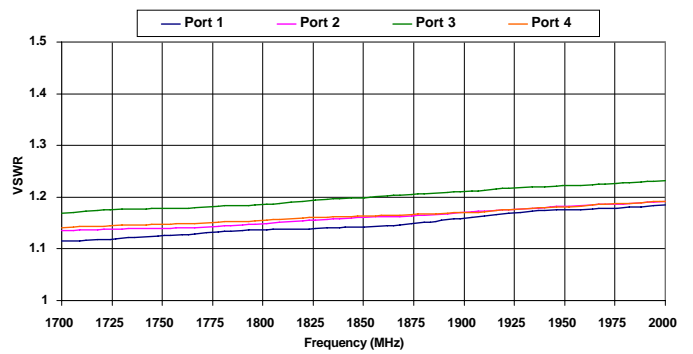
| | W | P ₁ | P ₀ | A ₀ | B ₀ | K ₀ |
|--------------|--------|----------------|----------------|----------------|----------------|----------------|
| ENGLISH (in) | 0.6299 | 0.3150 | 0.1575 | 0.213 | 0.2708 | 0.0649 |
| METRIC (mm) | 16.00 | 8.00 | 4.00 | 5.41 | 6.88 | 1.65 |

QUAD HYBRID - QHD-2X-1.95G SQ

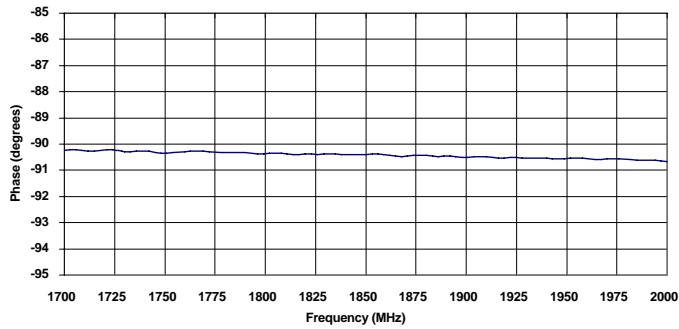
COUPLING



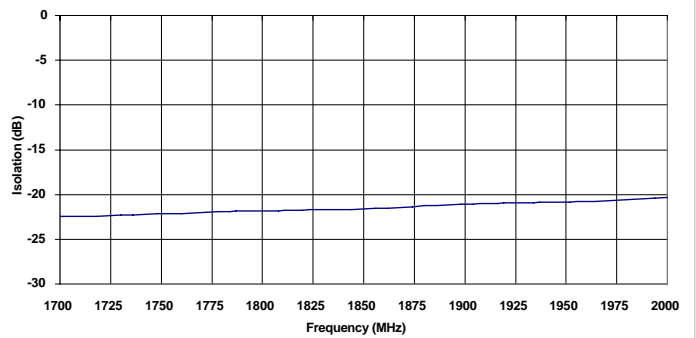
VSWR



PHASE BALANCE



ISOLATION



MOUNTING GUIDELINES

