



## PRODUCT DATA SHEET

QH8362

### Our patented 3 dB 90° Hybrid Couplers provide:

- Superior component performance starting at 3:1 Bandwidth.
- Thicker center boards for high power and increased repeatability.
- Bonded structures which eliminate any air gaps between substrates.
- More sections per bandwidth for better coupling flatness.
- Electrically shorter and physically smaller RF components.

### Features:

High Power      Wide Bandwidths      Small Size      Connectorized      Drop-In & Surface Mount

### Electrical Specifications:

Frequency: 800 - 4200 MHz  
Power: 150 W CW  
Insertion Loss: 0.55 dB Max.  
VSWR: 1.35:1 Max.  
Phase Balance:  $90^\circ \pm 5^\circ$  Max.  
Amplitude Balance:  $\pm 0.5$  dB Max.  
Isolation: 18 dB Min.

### Mechanical Specifications:

Type: Connectorized  
Material: Aluminum 6061-T6  
Surface Finish: Chem. Film Per MIL-DTL-5541F Type I Class 3 (Yellow Iridite) RoHS Compliant Available  
Operating Temperature:  $-55^\circ\text{C}$  to  $+75^\circ\text{C}$   
Storage Temperature:  $-60^\circ\text{C}$  to  $+85^\circ\text{C}$   
Weight: 2 oz.  
Size: 1.55 x 1.58 x 0.47"

### Connector Configurations:

| Model      | Sum Port (J1) | -90°,0° (J2,J3) | Diff. Port (J4) |
|------------|---------------|-----------------|-----------------|
| QH8362-102 | SMA           | SMA             | SMA             |

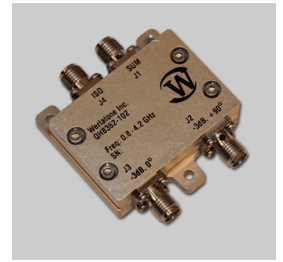
**Werlatone's** breakthrough technology allows us to build our existing line of Broadband 3 dB High Power 90° Hybrid Couplers. Connectorized 3 dB 90° Hybrid Coupler models are available with a choice of connectors. Several of our existing High Power 3 dB 90° RF Couplers are three port designs, wherein the difference port is internally terminated with a high power termination. This eliminates the need for a customer supplied external load for each Hybrid Coupler.



# WERLATONE

Model QH8362

90° Hybrids Connectorized

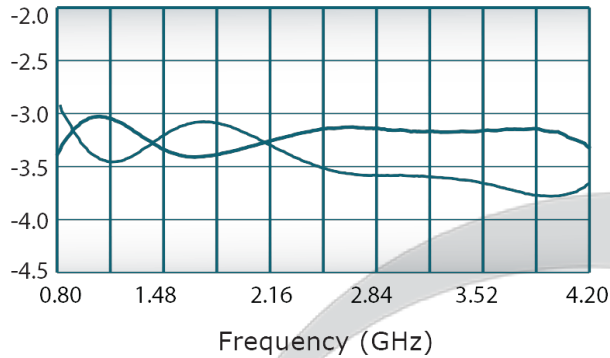


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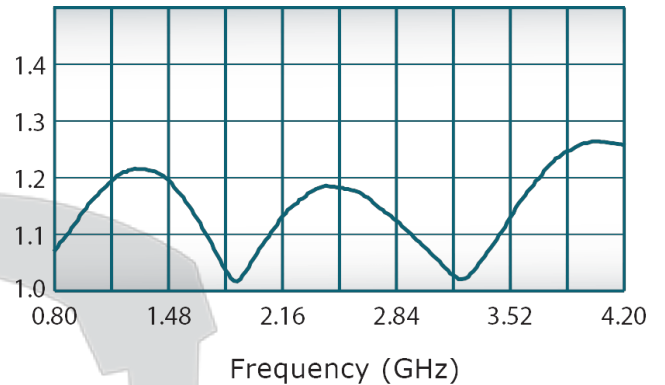
QH8362

### Performance Data (Specifications subject to change without notice):

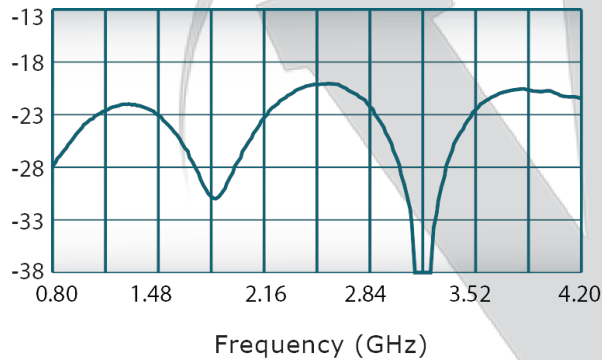
Coupling:



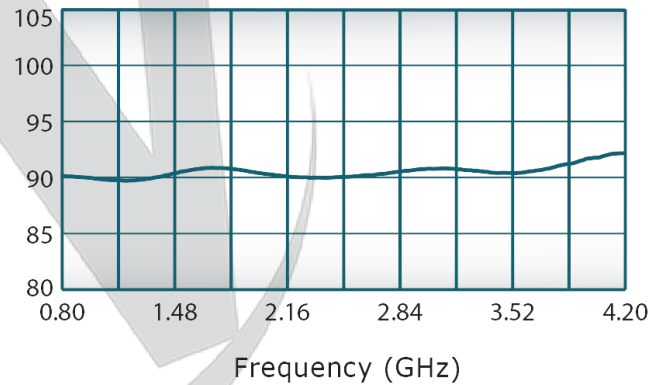
VSWR:



Isolation:



Phase Balance:

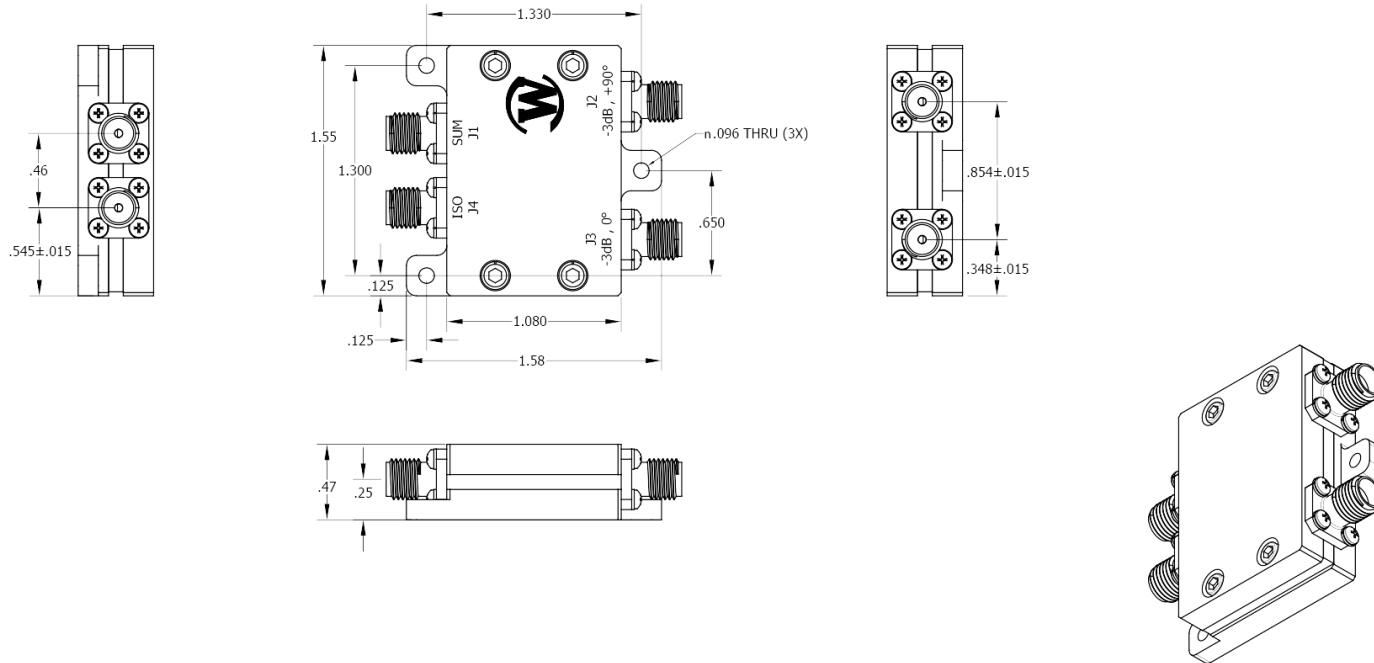


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| REVISION HISTORY |     |                 |        |            |
|------------------|-----|-----------------|--------|------------|
| DATE             | REV | DESCRIPTION     | AUTHOR | CHECKED BY |
| 4/9/2009         | -   | INITIAL RELEASE | GP     | NH         |
| 6/6/2013         | A   | ECN 8214        | GP     | BW         |
|                  |     |                 |        |            |



|             |  |                                                                                                                                                                                                           |  |      |    |      |                                                                                                              |                                          |           |     |
|-------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------|----|------|--------------------------------------------------------------------------------------------------------------|------------------------------------------|-----------|-----|
|             |  | UNLESS OTHERWISE SPECIFIED                                                                                                                                                                                |  | DWN  | GP | DATE |  WERLATONE   SINCE 1965 | 17 Jon Barrett Rd<br>Patterson, NY 12563 |           |     |
|             |  | • INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100<br>• DIMENSIONING PER ASME Y14.5M-2009<br>• PARENTHESES ARE FOR REF ONLY<br>• DIMENSIONS ARE IN INCHES<br>• DIMENSIONAL LIMITS APPLY BEFORE PROCESSING |  | CHK  | CS | DATE |                                                                                                              |                                          |           |     |
|             |  | • TOLERANCES: ANGLE ± 2°<br>3 PL ± .005<br>2 PL ± .015                                                                                                                                                    |  | ENGR | GP | DATE | TITLE                                                                                                        |                                          |           |     |
|             |  |                                                                                                                                                                                                           |  | APVD | BW | DATE | 3dB, 90° Hybrid Coupler                                                                                      |                                          |           |     |
| NEXT ASSY   |  | USED ON                                                                                                                                                                                                   |  | QA   |    | DATE | SIZE                                                                                                         | CAGE CODE                                | DWG NO    | REV |
|             |  |                                                                                                                                                                                                           |  |      |    |      | A                                                                                                            | 28812                                    | 20510-500 | A   |
| APPLICATION |  | THIRD ANGLE PROJECTION                                                                                                                                                                                    |  | RLSE |    | DATE | SCALE                                                                                                        | SHEET 1 OF 1                             |           |     |
|             |  |                                                                                                                                                                                                           |  |      |    |      | 1:1                                                                                                          |                                          |           |     |

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