



## PRODUCT DATA SHEET

**H9395R**

**Werlatone®** High Power 180° RF Hybrid Combiners/Dividers balance traditional technologies with disruptive microwave techniques. The outcome is a microwave component which provides an order of magnitude improvement over current capabilities. Our newest line of high power, patented 180° RF Hybrid Combiners/Dividers provides an incredible 5:1 bandwidth, while exhibiting exceptionally low loss and superior port-to-port isolation.

### Features:

High Power      Wide Bandwidths      Small Size      Excellent Amplitude Balance

### Electrical Specifications:

Frequency: 350 - 1000 MHz  
Power: 250 W CW  
Insertion Loss: 0.3 dB Max.  
VSWR: 1.30:1 Max.  
Phase Balance:  $180^\circ \pm 7^\circ$  Max.  
Amplitude Balance:  $\pm 0.4$  dB Max.  
Isolation: 20 dB Min.

### Mechanical Specifications:

Type: Connectorized  
Material: Aluminum 6061-T6  
Surface Finish: Chem. Film Per MIL-DTL-5541F Type II Class 3 (RoHS Compliant)  
Operating Temperature: -55°C to +75°C  
Storage Temperature: -60°C to +85°C  
Size: 3.5 x 4.28 x 1.06"

### Connector Configurations:

| Model     | Sum Port (J1) | Inputs/Outputs (J2,J3) | Diff. Port (J4) |
|-----------|---------------|------------------------|-----------------|
| H9395R-10 | N Female      | N Female               | N Female        |

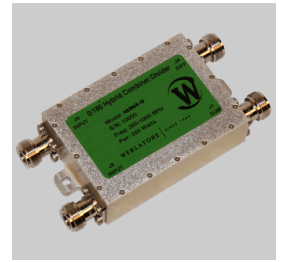
"R" references a fully RoHS Compliant Design

**Werlatone's** standard line of High Power 180° RF Hybrid Combiners/Dividers covers multiple octaves within a microwave device. Low frequency 180° Hybrid Combiner/Dividers employ proprietary ferrite transmission line techniques, similar to our 0° Combiners/Dividers. Insertion loss in both sum and difference ports is minimal, allowing the hybrid to handle high power over its frequency range. Custom requirements are welcome.



# WERLATONE

Model H9395R  
180° Hybrids Connectorized

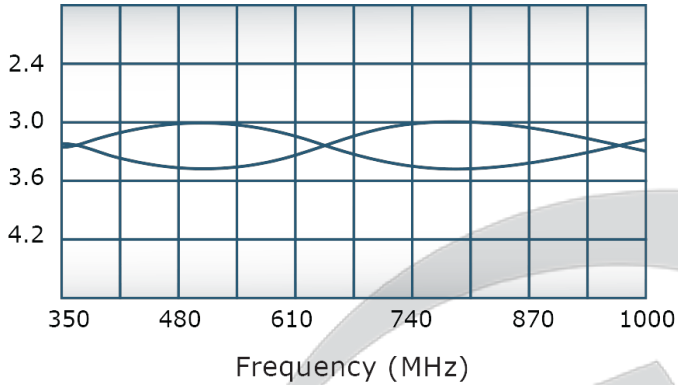


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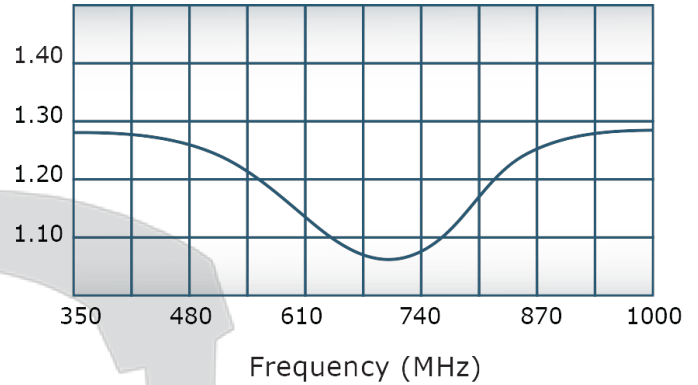
H9395R

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

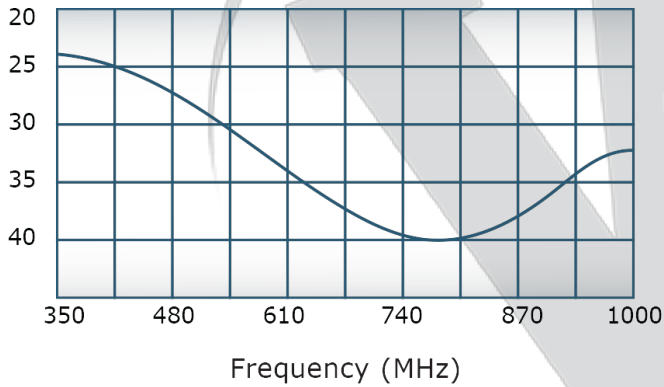
Coupling:



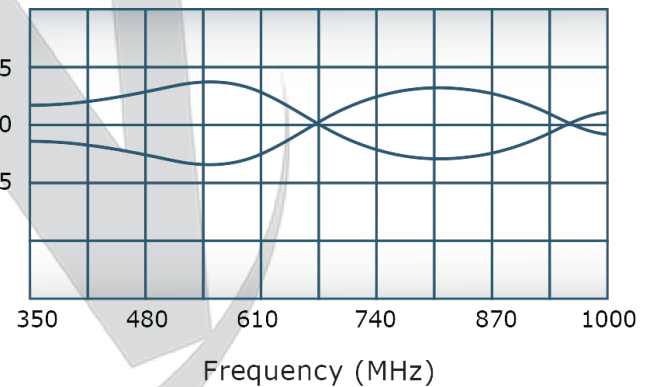
VSWR:



Isolation:



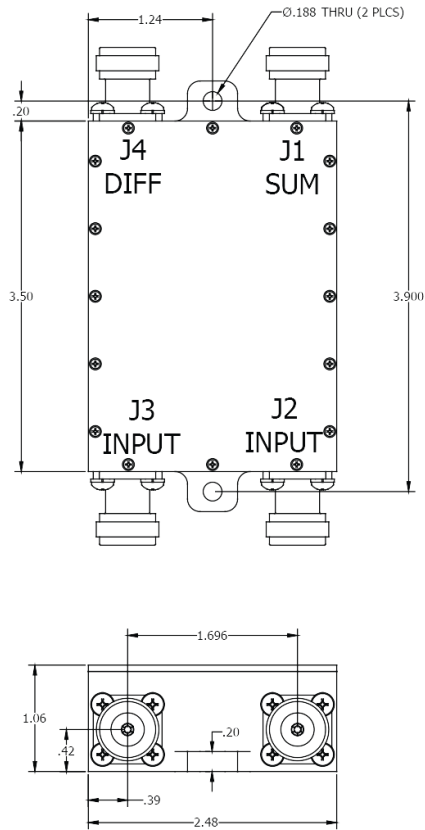
Phase Balance:



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Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com

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**NOTES: UNLESS OTHERWISE SPECIFIED**

1. MAT'L: ALUMINUM 6061-T6
2. FINISH: CHEM FILM PER-DTL-5541F TYPE 2 CLASS 3 (RoHS COMPLIANT)
3. CONNECTORS: N (FEMALE)

|   | A                | B               | C         | D        |
|---|------------------|-----------------|-----------|----------|
| 1 | REVISION HISTORY |                 |           |          |
| 2 | REV              | REVISION RECORD | DATE      | APPROVED |
| 3 | -                | INITIAL RLS     | 5/23/2012 | BW       |
| 4 |                  |                 |           |          |
| 5 |                  |                 |           |          |
| 6 |                  |                 |           |          |

|                                                                                                                                                                                                                                                        |  |       |          |                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------|----------|---------------------------------------------------------------------------|
| UNLESS OTHERWISE SPECIFIED                                                                                                                                                                                                                             |  | DWN   | DATE     | <b>WERLATONE   SINCE 1965</b><br>17 Jon Barrett Rd<br>Patterson, NY 12563 |
| • INTERPRET DRAWING IAW MIL-STD-100<br>• DIMENSIONING PER ASME Y14.5M-2009<br>• PARENTHEICAL INFO FOR REF ONLY<br>• DIMENSIONS ARE IN INCHES<br>• DIMENSIONAL LIMITS APPLY BEFORE PROCESSES<br>• TOLERANCES: ANGLES ± 2°<br>2 PL ± .005<br>2 PL ± .015 |  | NH    | 05/23/12 |                                                                           |
|                                                                                                                                                                                                                                                        |  | CHK   | DATE     | TITLE                                                                     |
|                                                                                                                                                                                                                                                        |  | BW    | 05/23/12 |                                                                           |
|                                                                                                                                                                                                                                                        |  | ENGR  | DATE     | <b>OUTLINE</b><br>SIZE CAGE CODE DWG NO<br>A 28812 20904-500              |
|                                                                                                                                                                                                                                                        |  | BW    | 05/23/12 |                                                                           |
|                                                                                                                                                                                                                                                        |  | MFGR  | DATE     | REV                                                                       |
|                                                                                                                                                                                                                                                        |  | QA    | DATE     |                                                                           |
|                                                                                                                                                                                                                                                        |  | RLSE  | DATE     | -                                                                         |
| THIRD ANGLE PROJECTION                                                                                                                                                                                                                                 |  | SCALE | 1:2      | SHEET 1 OF 1                                                              |

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