

## PRODUCT DATA SHEET

**H8151**

**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: 20 - 1000 MHz  
Power: 20 W CW  
Insertion Loss: 1.3 dB Max.  
VSWR: 1.40:1 Max.  
Phase Balance:  $180^\circ \pm 5^\circ$  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 I Class 3 (Yellow Iridite) RoHS Compliant Available  
Operating Temperature: -55°C to +75°C  
Storage Temperature: -60°C to +85°C  
Size: 4.0 x 1.6 x 0.8"

### Connector Configurations:

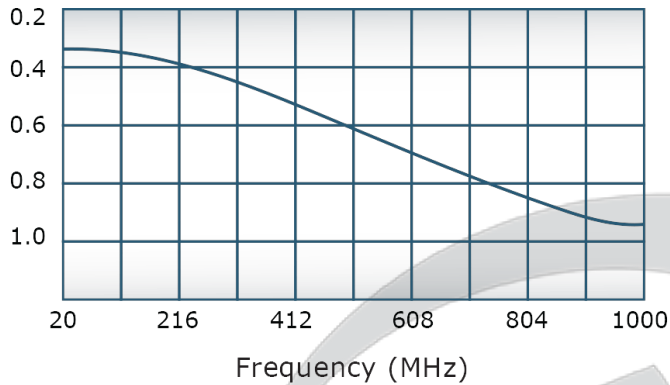
| Model     | Sum Port (J1) | Inputs/Outputs (J2,J3) |
|-----------|---------------|------------------------|
| H8151-102 | SMA           | SMA                    |

**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.

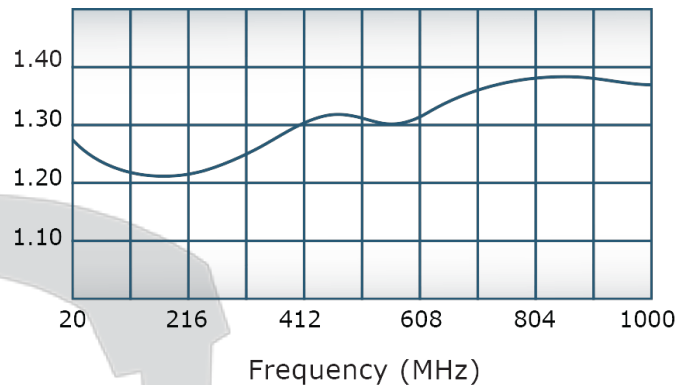


## Performance Data (Specifications subject to change without notice):

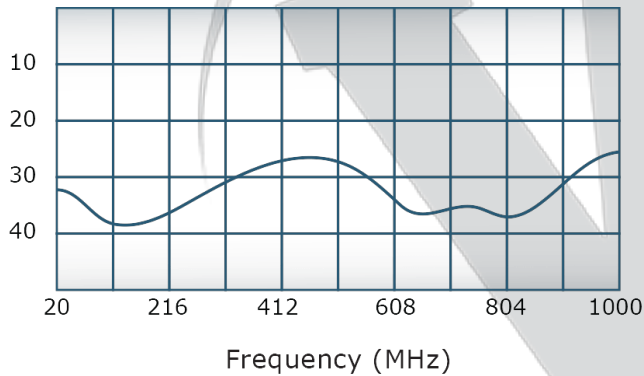
Insertion Loss:



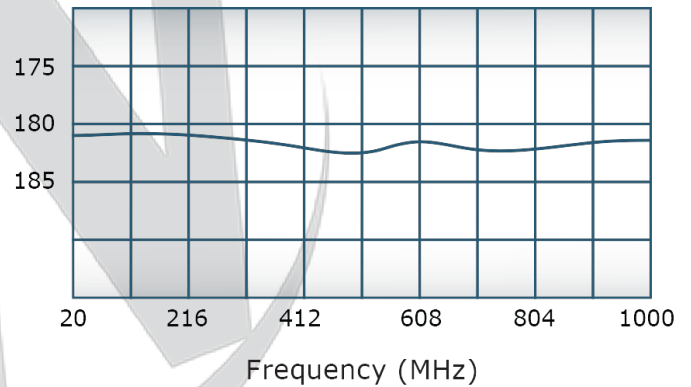
VSWR:



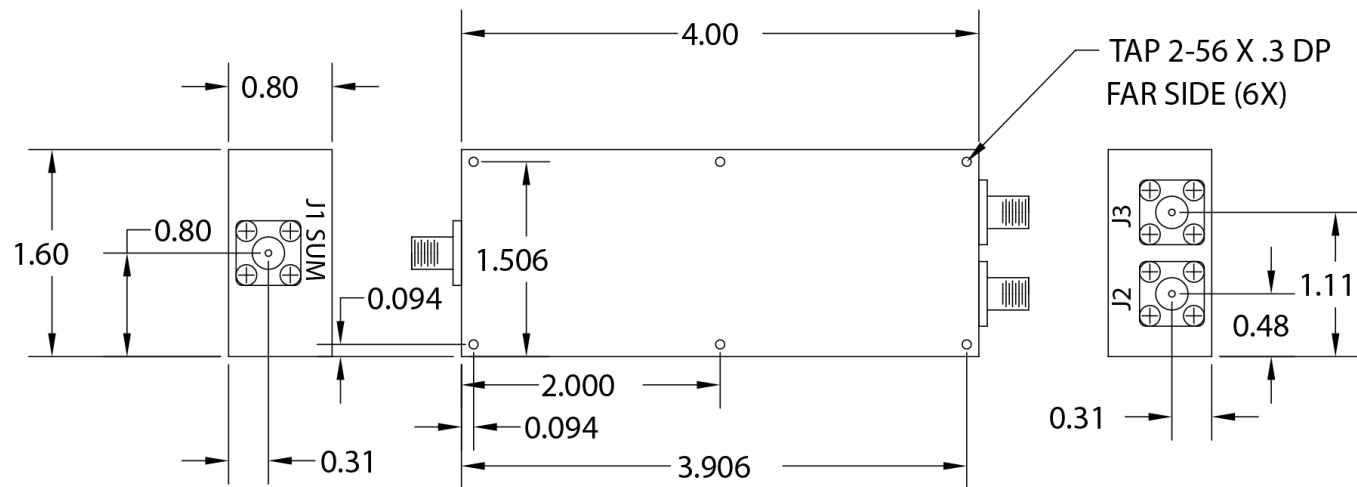
Isolation:



Phase Balance:



| DATE | SYM | REVISION RECORD | AUTH | DR | CK |
|------|-----|-----------------|------|----|----|
|      |     |                 |      |    |    |
|      |     |                 |      |    |    |
|      |     |                 |      |    |    |
|      |     |                 |      |    |    |



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|                             |                      |                             |              |              |
|-----------------------------|----------------------|-----------------------------|--------------|--------------|
| TOLERANCE                   | WERLATONE INC.       |                             |              |              |
| XX +/- .015<br>XXX +/- .005 | USED ON:             | SCALE                       | DRAWN BY: RH | APPVD BY: CS |
|                             | TITLE <b>OUTLINE</b> |                             |              |              |
|                             | DATE<br>3/5/04       | DRAWING NUMBER<br>10963-500 |              |              |

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