



## PRODUCT DATA SHEET

C7940

**4-Port Bi-Directional Coupler:** Similar to the 3-Port Uni-Directional Coupler, except that both ends of the coupled line serve as coupled ports. Convenient for simultaneously monitoring both forward and reverse power. The directivity of this coupler design is, however, dependent upon well matched 50 Ohm loads on the coupled ports.

### Features:

High Power      Wide Bandwidths      Small Size      Flat Coupling      Custom Designs Available

### Electrical Specifications:

Frequency: 450 - 2500 MHz  
Power: 100 W CW  
Coupling:  $20 \pm 1.0$  dB Max.  
Insertion Loss: 0.3 dB Max.  
Flatness:  $\pm 0.7$  dB Max.  
VSWR (ML): 1.25:1 Max.  
Directivity: 17 dB Min.

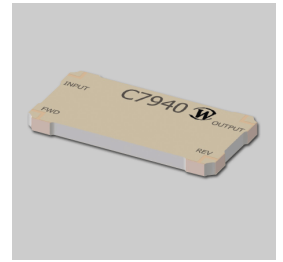
### Mechanical Specifications:

Type: Surface Mount  
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  
Humidity: 95% Non-Condensing  
Size: 1.3 x 0.65 x 0.09"

### Port Configurations:

| Input (J1) | Output (J2) | Fwd (J3) | Rev (J4) |
|------------|-------------|----------|----------|
| J1         | J2          | J3       | J4       |

**Werlatone®** Broadband Dual, Uni, and Bi Directional RF Couplers are designed to tolerate the most stringent operating conditions associated with military and EMC testing environments. Many of our RF Directional Couplers, designated Mismatch Tolerant®, will operate continuously, at rated power, into a severe load mismatch condition. Our multi-octave Directional Couplers maintain exceptional coupling flatness, directivity, VSWR, and insertion loss.

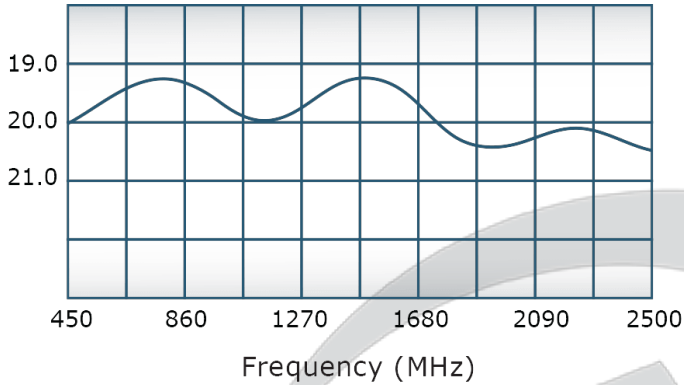


## PRODUCT DATA SHEET

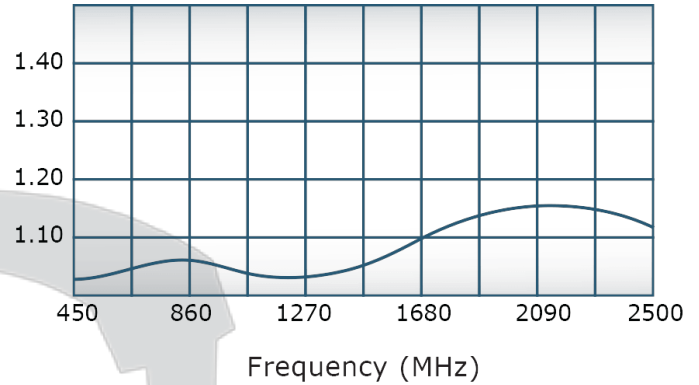
C7940

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

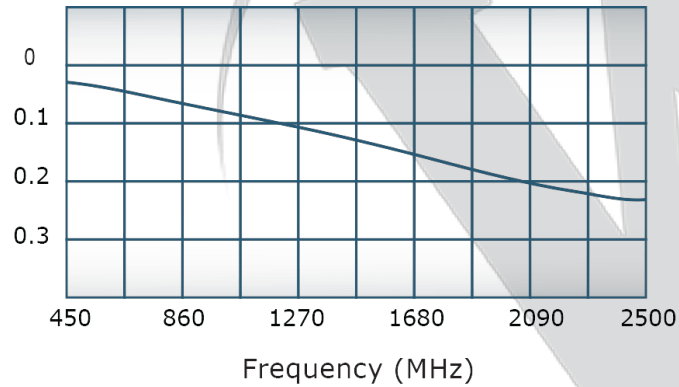
Coupling:



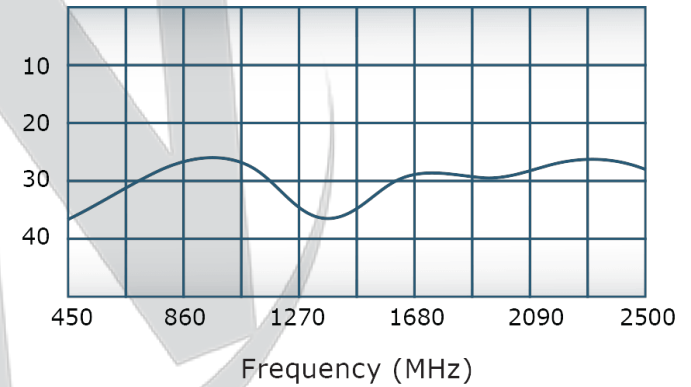
VSWR:



Insertion Loss:

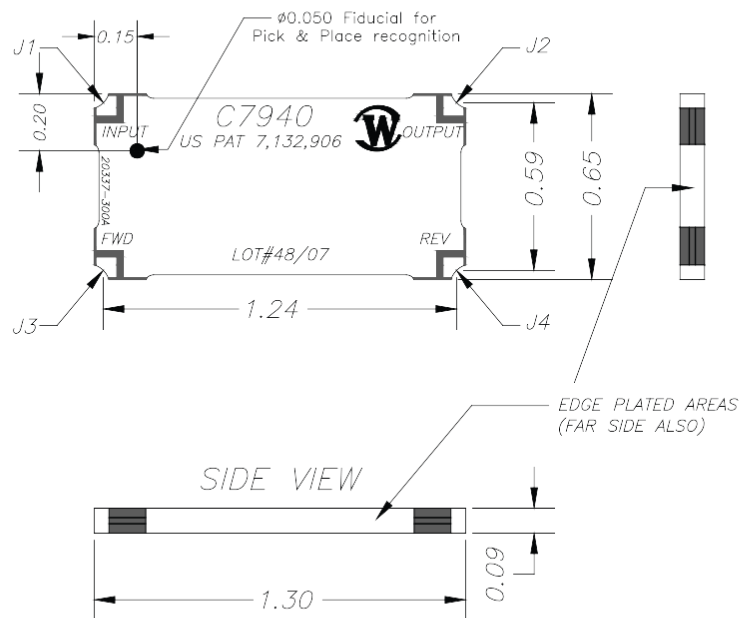


Directivity:

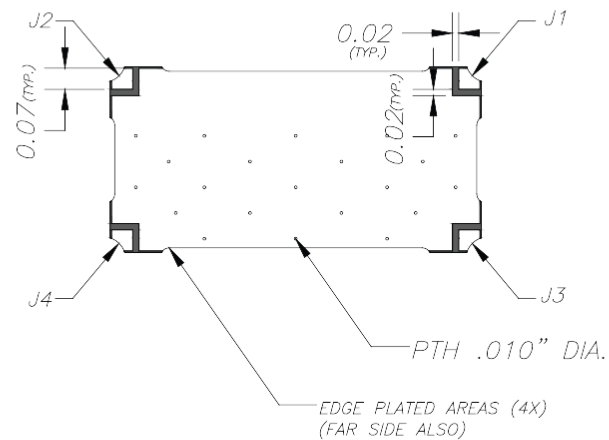


| DATE | SYM | REVISION RECORD | AUTH | DR | CK |
|------|-----|-----------------|------|----|----|
|      |     |                 |      |    |    |
|      |     |                 |      |    |    |
|      |     |                 |      |    |    |
|      |     |                 |      |    |    |

TOP VIEW (NEAR SIDE)



BOTTOM VIEW (FAR SIDE)



FINISH: ELECTROLYTIC TIN

■ NON-METALLIC REGIONS

THIS DRAWING CONTAINS INFORMATION  
PROPRIETARY TO WERLATONE INC. AND  
MAY NOT BE USED OR COPIED WITHOUT  
THE WRITTEN CONSENT OF WERLATONE INC.

| TOLERANCE                       | WERLATONE INC.           |                |                             |
|---------------------------------|--------------------------|----------------|-----------------------------|
| XX $\pm$ .015<br>XXX $\pm$ .005 | USED ON:<br><b>C7940</b> | SCALE          | DRAWN BY : NH<br>APPVD BY : |
|                                 | TITLE :                  | <b>OUTLINE</b> |                             |
|                                 | DATE:<br>09/27/07        | DRAWING NO:    | <b>20337-500</b>            |

**Restriction on use, duplication, or disclosure of proprietary information.** This document contains proprietary information which is the sole property of Werlatone, Inc.  
Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com