


PRODUCT DATA SHEET
C5091

4-Port Dual Directional Coupler employs two, 3-Port Uni-Directional Couplers, internally connected, in tandem, providing measurement of both forward and reverse power. Ideal for simultaneously monitoring a system's forward and reverse power and for reflectometer measurements. Unlike the Bi-Directional Coupler, the directivity of the Dual Directional Coupler is unaffected by the loads on the coupled ports.

Features:

High Power Wide Bandwidths Small Size Flat Coupling Custom Designs Available

Electrical Specifications:

Frequency: 0.01 - 250 MHz
 Power: 100 W CW
 Coupling: 30 ± 1.0 dB Max.
 Insertion Loss: 0.8 dB Max.
 Flatness: ± 0.8 dB Max.
 VSWR (ML): 1.25:1 Max.
 Directivity: 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
 Humidity: 95% Non-Condensing
 Size: 5.2 x 2.67 x 1.69"

Connector Configurations:

| Model | Input (J1) | Output (J2) | Fwd (J3) | Rev (J4) |
|-----------|------------|-------------|----------|----------|
| C5091-10 | N Female | N Female | N Female | N Female |
| C5091-12 | N Female | N Female | SMA | SMA |
| C5091-13 | N Female | N Female | BNC | BNC |
| C5091-102 | SMA | SMA | SMA | SMA |
| C5091-200 | BNC | BNC | BNC | BNC |

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.

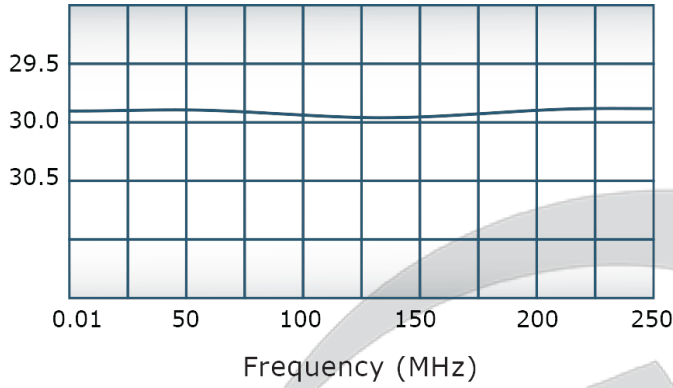


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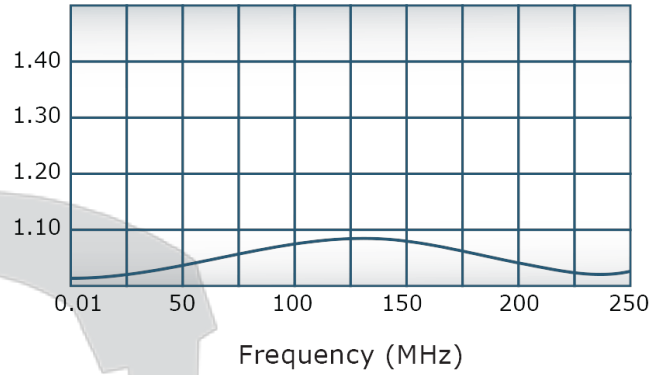
C5091

Performance Data (Specifications subject to change without notice):

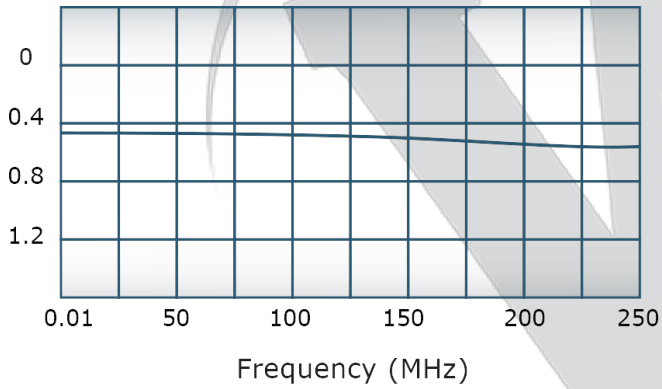
Coupling:



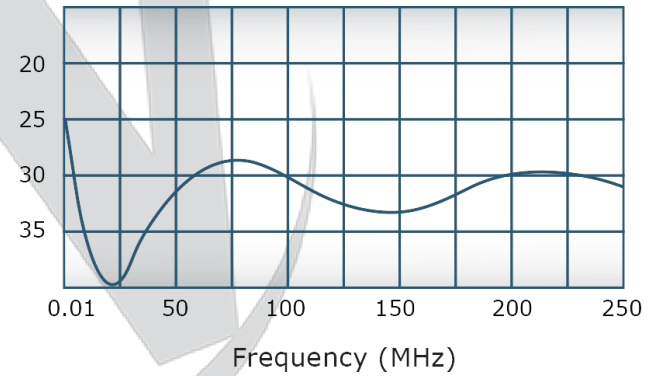
VSWR:



Insertion Loss:



Directivity:



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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

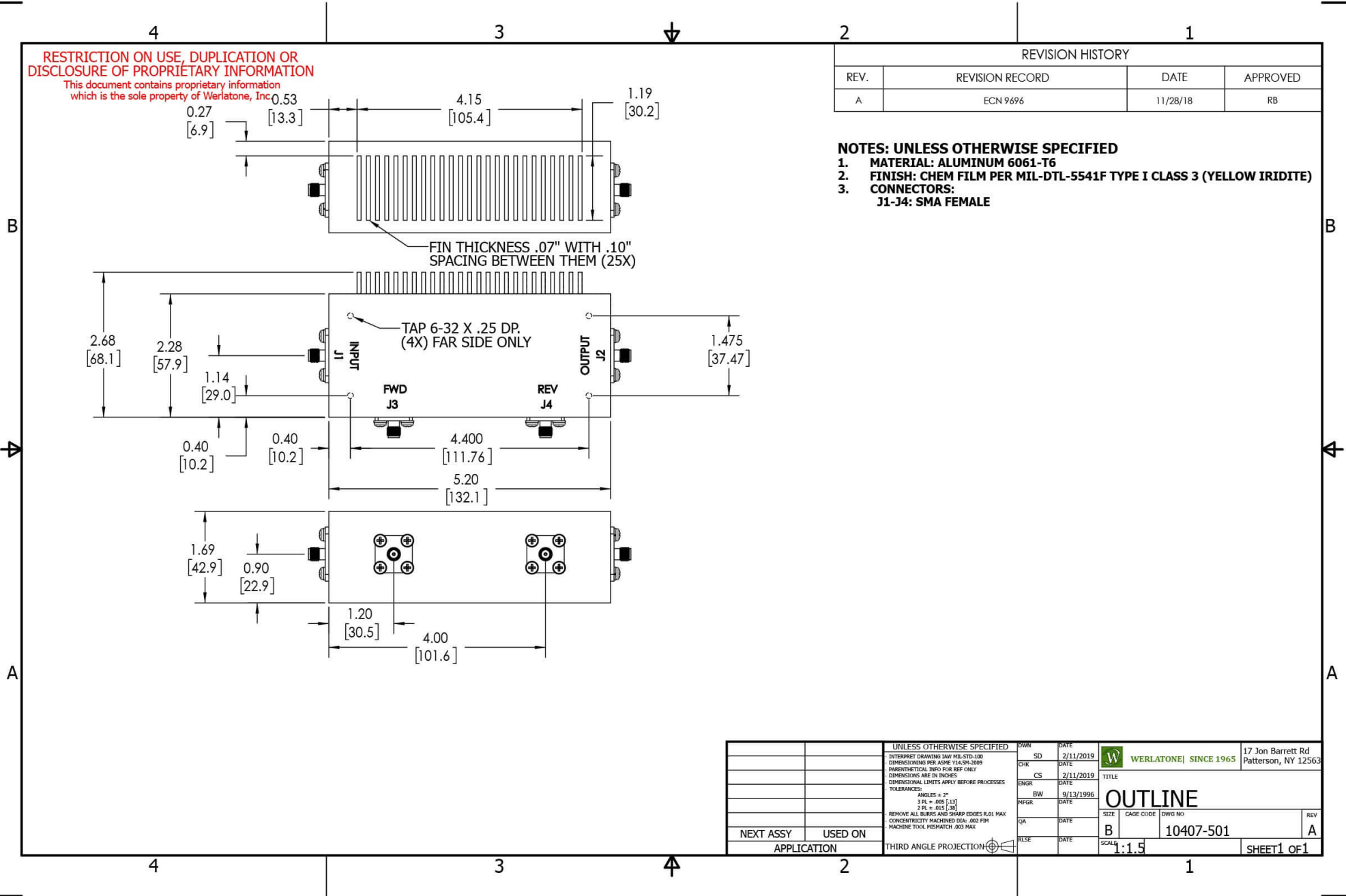
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| REVISION HISTORY | | | |
|------------------|-----------------|----------|----------|
| REV. | REVISION RECORD | DATE | APPROVED |
| A | ECN 9696 | 11/28/18 | RB |

NOTES: UNLESS OTHERWISE SPECIFIED

- MATERIAL: ALUMINUM 6061-T6**
- FINISH: CHEM FILM PER MIL-DTL-5541F TYPE I CLASS 3 (YELLOW IRIDITE)**
- CONNECTORS: J1-J4: SMA FEMALE**



| | | | |
|---|---------|------------------------|--|
| UNLESS OTHERWISE SPECIFIED | | DATE | 17 Jon Barrett Rd Patterson, NY 12563 |
| INTERRUPT DRAWING IAW MIL-STD-100 | SD | 2/11/2019 | W WERLATONE SINCE 1965 |
| DIMENSIONS PER ASME Y14.5M-2009 | CHK | DATE | |
| PARENTHEetical INFO FOR REF ONLY | CS | 2/11/2019 | TITLE |
| DIMENSIONS ARE IN INCHES | ENGR | DATE | OUTLINE |
| DIMENSIONAL LINES APPLY BEFORE PROCESSES | BW | 9/13/1996 | SIZE CAGE CODE DWG NO |
| TOLERANCES: | QA | DATE | B 10407-501 |
| ANGLES ± 2° | RLSE | DATE | SCALE 1:1.5 |
| 3 PL ± .005 [13] | | | REV A |
| 2 PL ± .015 [38] | | | SHEET 1 OF 1 |
| REMOVE ALL BURRS AND SHARP EDGES R.01 MAX | | | |
| CONCENTRICITY MACHINED DIA: .002 FIM | | | |
| MACHINE TOOL MISMATCH .003 MAX | | | |
| NEXT ASSY | USED ON | THIRD ANGLE PROJECTION | |
| APPLICATION | | | |

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