

## PRODUCT DATA SHEET

C5100

**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: 500 W CW  
 Coupling:  $40 \pm 1.0$  dB Max.  
 Insertion Loss: 0.4 dB Max.  
 Flatness:  $\pm 0.75$  dB Max.  
 VSWR (ML): 1.25:1 Max.  
 Directivity: 20 dB Min.

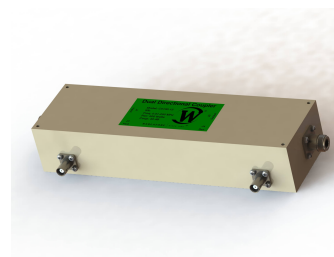
### Mechanical Specifications:

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: 10.5 x 3.0 x 2.0"

### Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C5100-10	N Female	N Female	N Female	N Female
C5100-12	N Female	N Female	SMA	SMA
C5100-13	N Female	N Female	BNC	BNC
C5100-20	7/16 Female	7/16 Female	N Female	SMA
C5100-614	N Female	7/16 Female	SMA	SMA
C5100-727	7/16 Male	7/16 Female	N Female	N Female

**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.

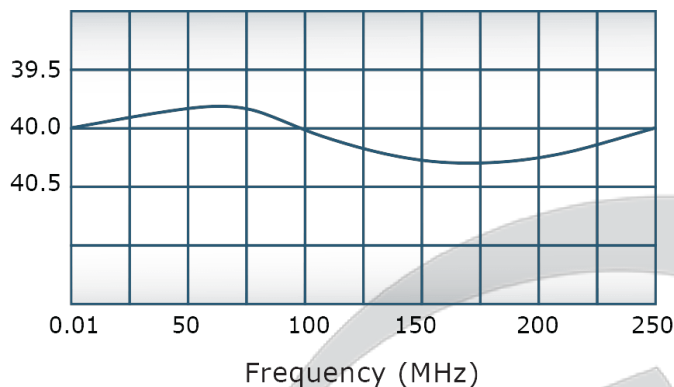


## PRODUCT DATA SHEET

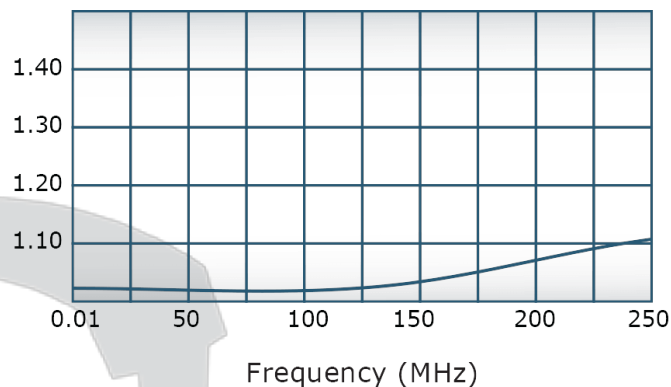
C5100

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

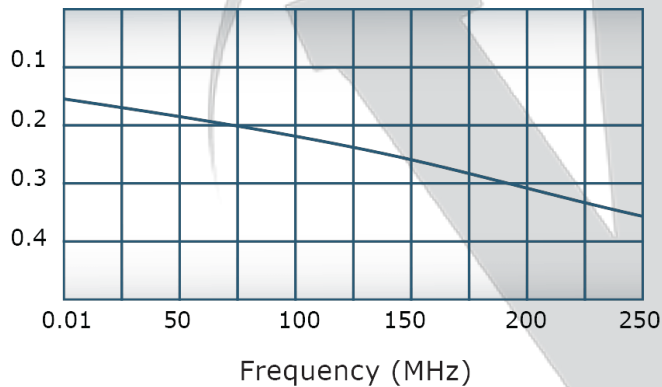
Coupling:



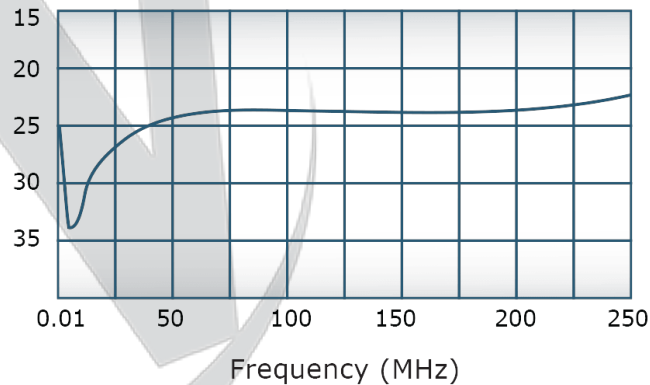
VSWR:



Insertion Loss:



Directivity:

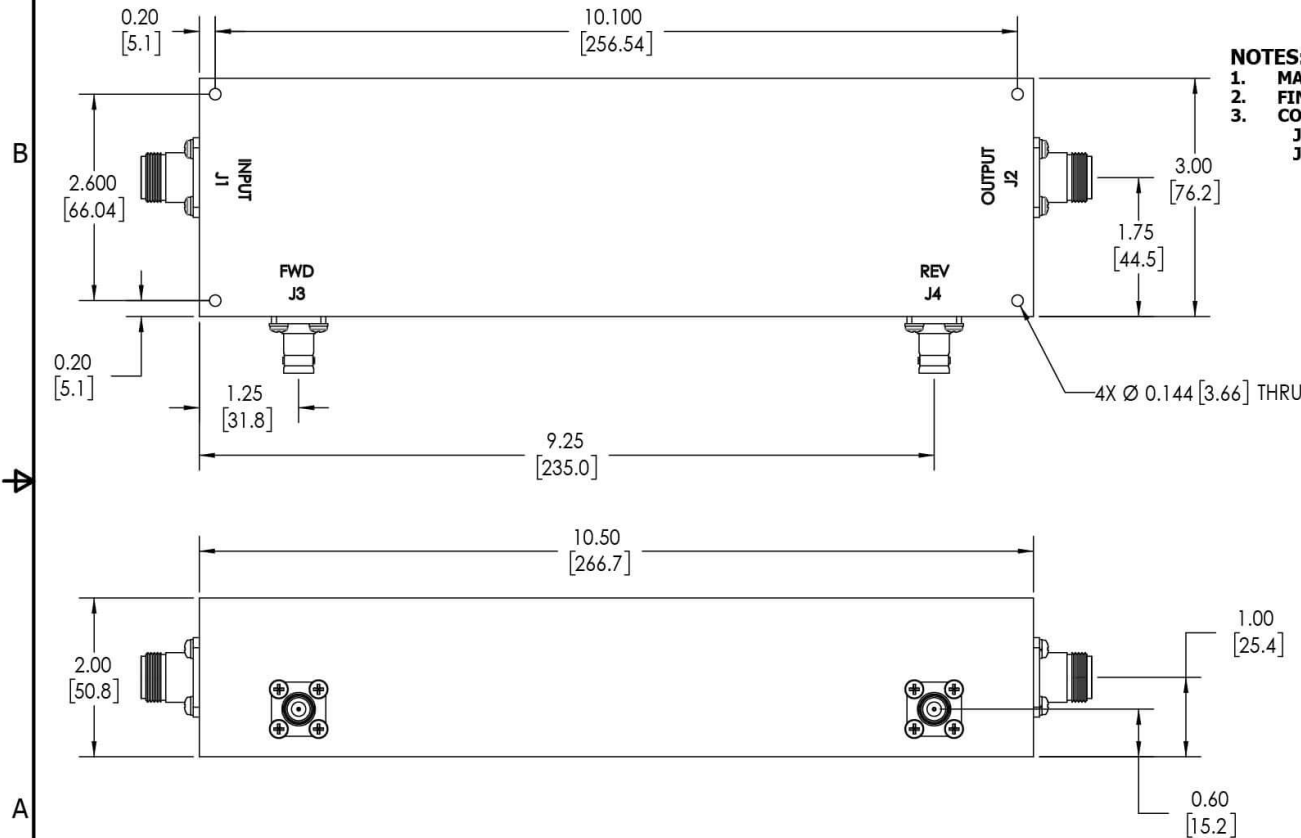



**RESTRICTION ON USE, DUPLICATION OR DISCLOSURE OF PROPRIETARY INFORMATION**  
This document contains proprietary information which is the sole property of Werlatone, Inc.

REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 9696	5/13/2019	RB

**NOTES: UNLESS OTHERWISE SPECIFIED**

- MATERIAL: ALUMINUM 6061-T6**
- FINISH: CHEM FILM PER MIL-DTL-5541F TYPE I CLASS 3 (YELLOW IRIDITE)**
- CONNECTORS:**  
J1-J2: N FEMALE  
J3-J4: BNC FEMALE



UNLESS OTHERWISE SPECIFIED		OWN	DATE	17 Jon Barrett Rd Patterson, NY 12563	
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100		CHK	DATE	 <b>WERLATONE</b> SINCE 1965	
DIMENSIONS FOR ASME Y14.5M-2009		CS	DATE		
PARENTHESES FOR REF ONLY		ENGR	DATE	<b>OUTLINE</b>	
DIMENSIONS ARE IN INCHES		INFR	DATE		
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		QA	DATE	SIZE CAGE CODE DWG NO <b>B 10449-500</b>	
TOLERANCES:		RLSE	DATE		
ANGLES ± 2° 3 PL ± .005 [13] 2 PL ± .015 [38] REMOVE ALL BURRS AND SHARP EDGES R.01 MAX CONCENTRICITY MACHINED DIA. .002 FIM MACHINE TOOL MISMATCH .003 MAX		THIRD ANGLE PROJECTION		SCALE: <b>1:1.5</b>	
NEXT ASSY USED ON		APPLICATION		SHEET 1 OF 1	

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