



## PRODUCT DATA SHEET

C8991

**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 - 1000 MHz  
Power: 50 W CW  
Coupling:  $30 \pm 1.0$  dB Max.  
Insertion Loss: 1.2 dB Max.  
Flatness:  $\pm 0.5$  dB Max.  
VSWR (ML): 1.10:1 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 2.28 x 1.69"

### Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C8991-10	N Female	N Female	N Female	N Female
C8991-12	N Female	N Female	SMA	SMA
C8991-13	N Female	N Female	BNC	BNC
C8991-102	SMA	SMA	SMA	SMA
C8991-10STS	Stainless Steel N Female	Stainless Steel N Female	Stainless Steel N Female	Stainless Steel 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.



# WERLATONE

Model C8991

Connectorized Directional Couplers

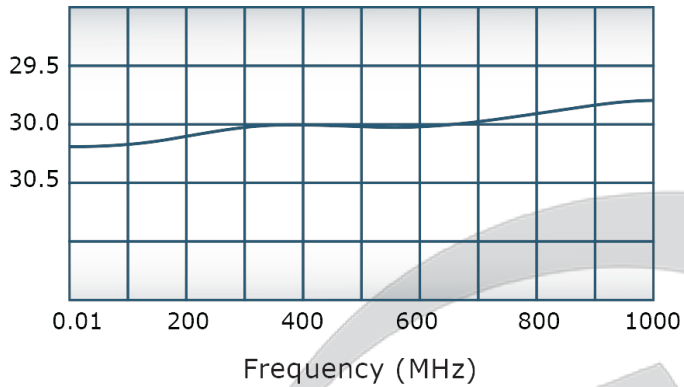


## PRODUCT DATA SHEET

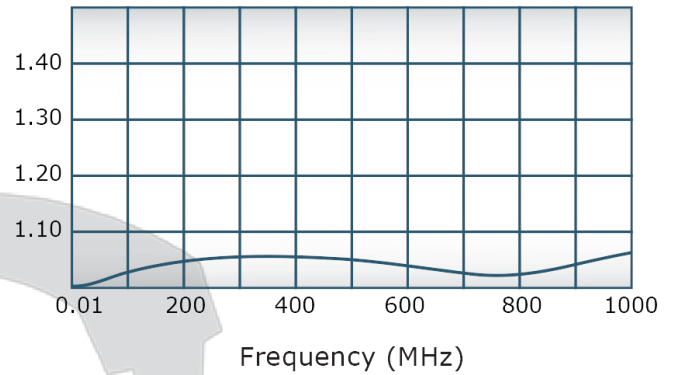
C8991

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

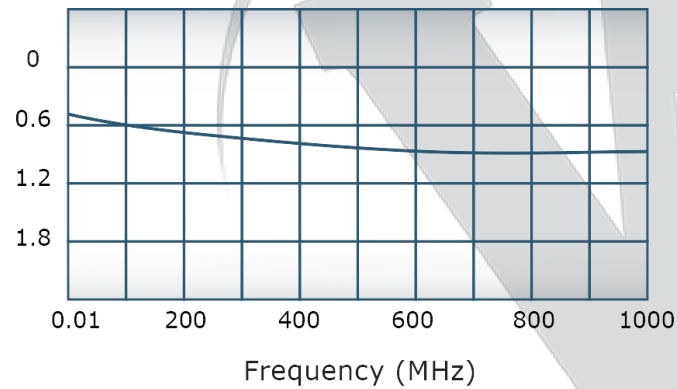
Coupling:



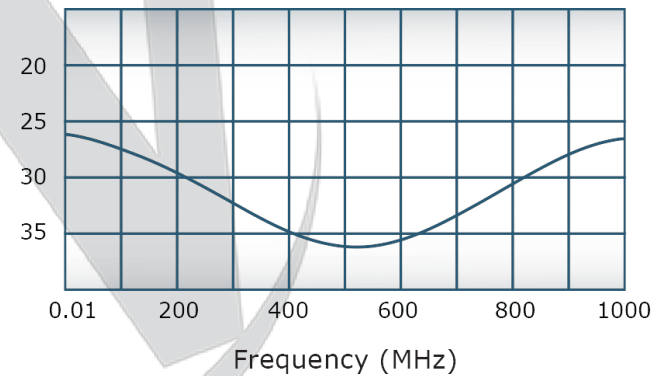
VSWR:



Insertion Loss:



Directivity:

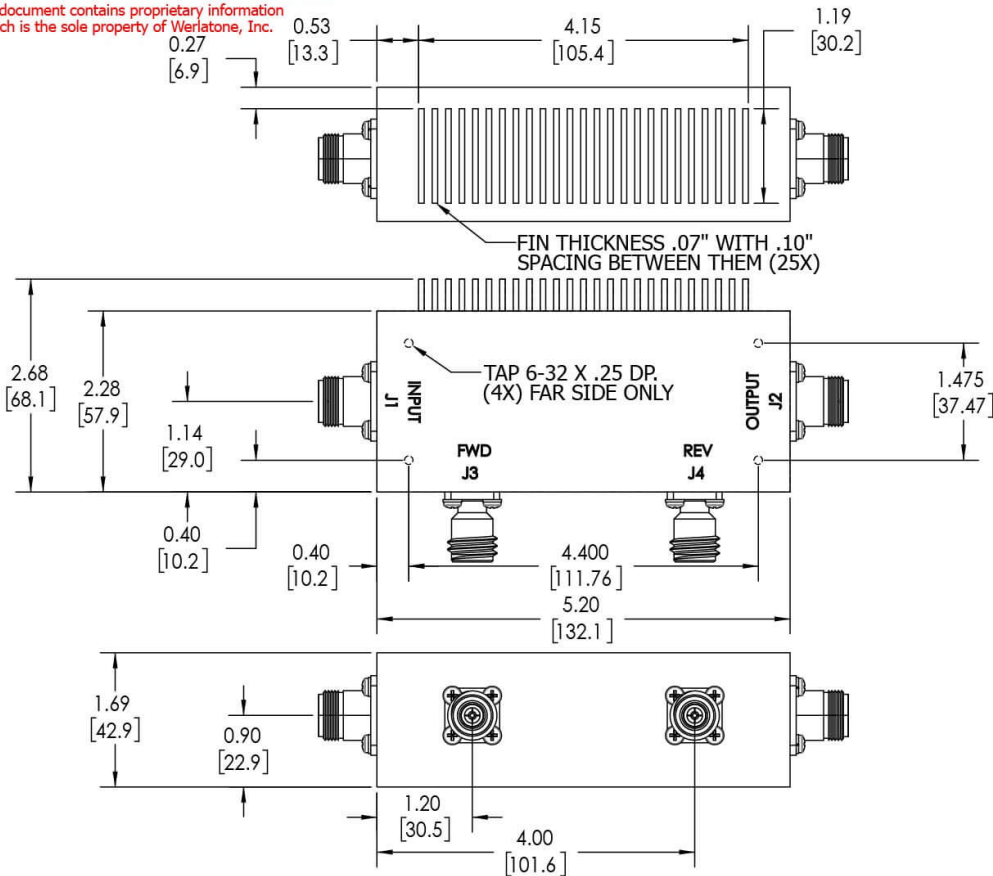


Restriction on use, duplication, or disclosure of proprietary information. This document contains proprietary information which is the sole property of Werlatone, Inc.

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

**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	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, J2: N FEMALE  
J3, J4: N FEMALE

UNLESS OTHERWISE SPECIFIED		OWN	DATE	 WERLATONE  SINCE 1965	17 Jon Barrett Rd Patterson, NY 12563		
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100		SD	2/11/2019		TITLE	OUTLINE	
DIMENSIONS PER ASME Y14.5M-2009		CHK	DATE				
PARENTHESES INFO FOR REF ONLY		CS	2/11/2019				
DIMENSIONS ARE IN INCHES		ENGR	DATE				
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		CS	2/27/2002	SIZE	CAGE CODE	DWG NO	REV
TOLERANCES:		INFR	DATE	B		10407-505	A
ANGLES ± 2°		QA	DATE	SCALE	1:1.5		
3 PL ± .005 [13]		RLSE	DATE	SHEET 1 OF 1			
2 PL ± .015 [38]							
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX							
CONCENTRICITY MACHINED DIA. .002 FIM							
MACHINE TOOL MISMATCH .003 MAX							
NEXT ASSY		USED ON		APPLICATION			
		THIRD ANGLE PROJECTION					

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