



## PRODUCT DATA SHEET

C8896

**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: 20 - 1000 MHz  
Power: 500 W CW  
Coupling:  $50 \pm 1.0$  dB Max.  
Insertion Loss: 0.35 dB Max.  
Flatness:  $\pm 0.5$  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 2.68 x 1.69"

### Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C8896-10	N Female	N Female	N Female	N Female
C8896-12	N Female	N Female	SMA	SMA
C8896-13	N Female	N Female	BNC	BNC
C8896-712	N Male	N Female	SMA	SMA
C8896-714	N Male	N Female	N Female	N Female

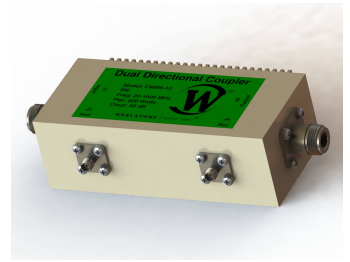
**Werlatone®** Broadband Dual, Uni, and Bi Directional RF Couplers are designed to tolerate the most stringent operating conditions associated with military and EMC testing environments. Many of our RF Directional Couplers, designated Mismatch Tolerant®, will operate continuously, at rated power, into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



# WERLATONE

Model C8896

Connectorized Directional Couplers

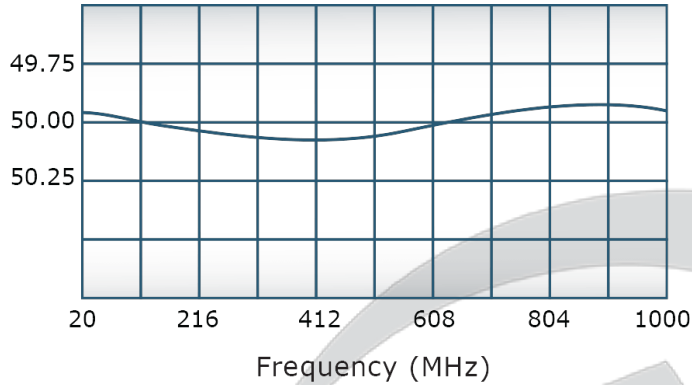


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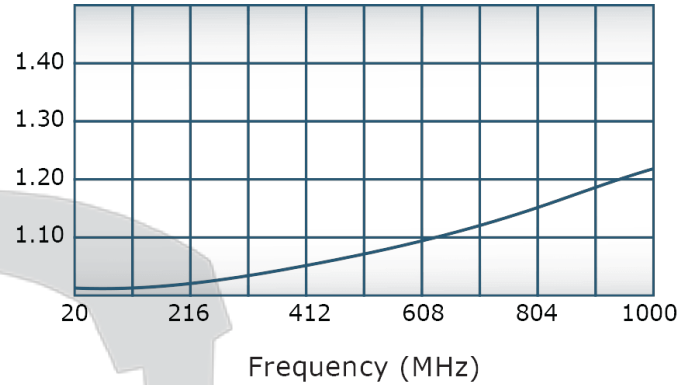
C8896

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

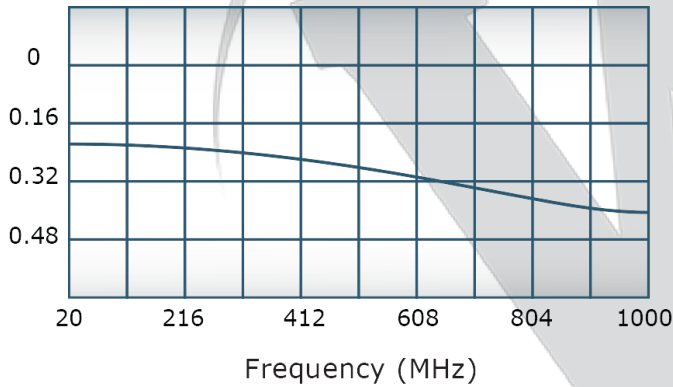
Coupling:



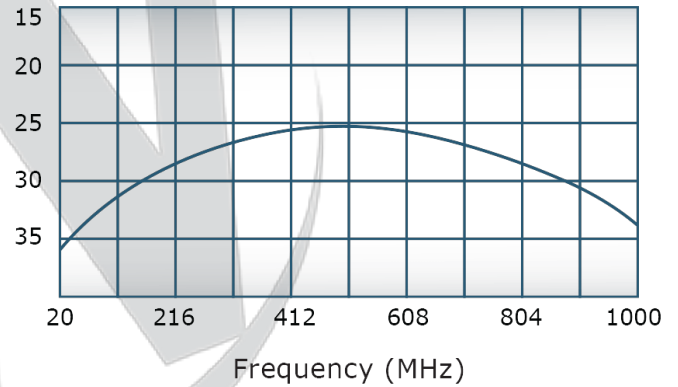
VSWR:



Insertion Loss:



Directivity:

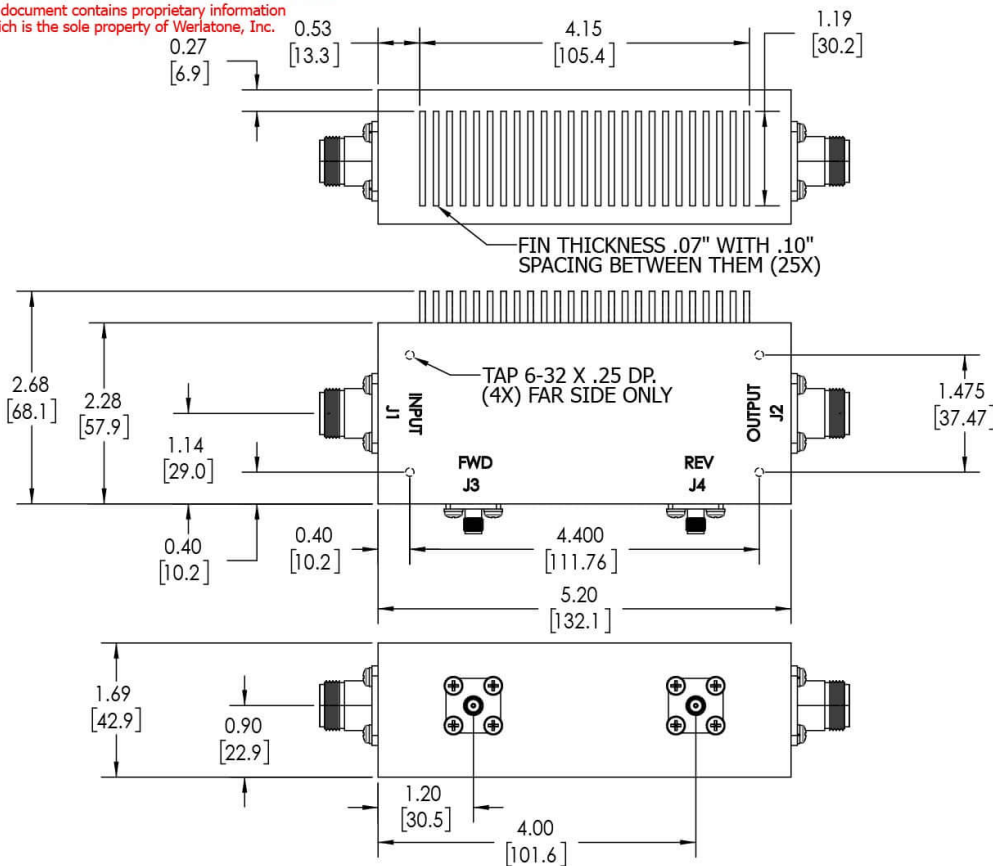


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**REVISION HISTORY**

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, J2: N FEMALE  
J3, J4: SMA FEMALE

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

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