


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 ± 1.0 dB Max.
Insertion Loss: 1.2 dB Max.
Flatness: ± 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

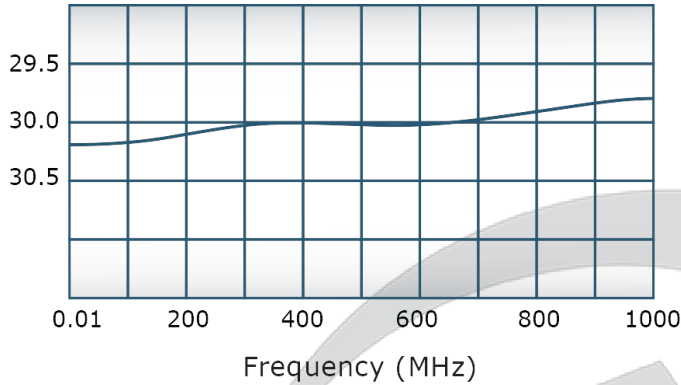


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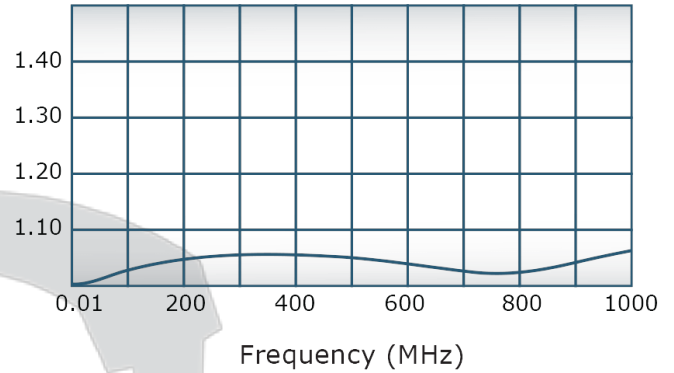
C8991

Performance Data (Specifications subject to change without notice):

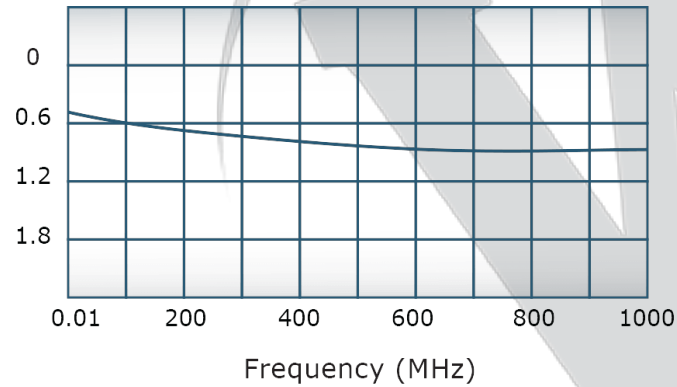
Coupling:



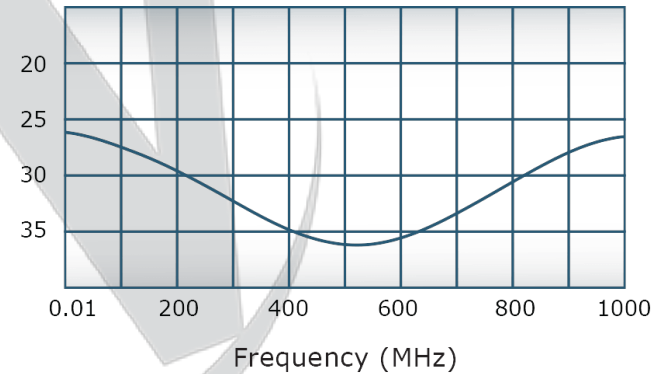
VSWR:



Insertion Loss:



Directivity:

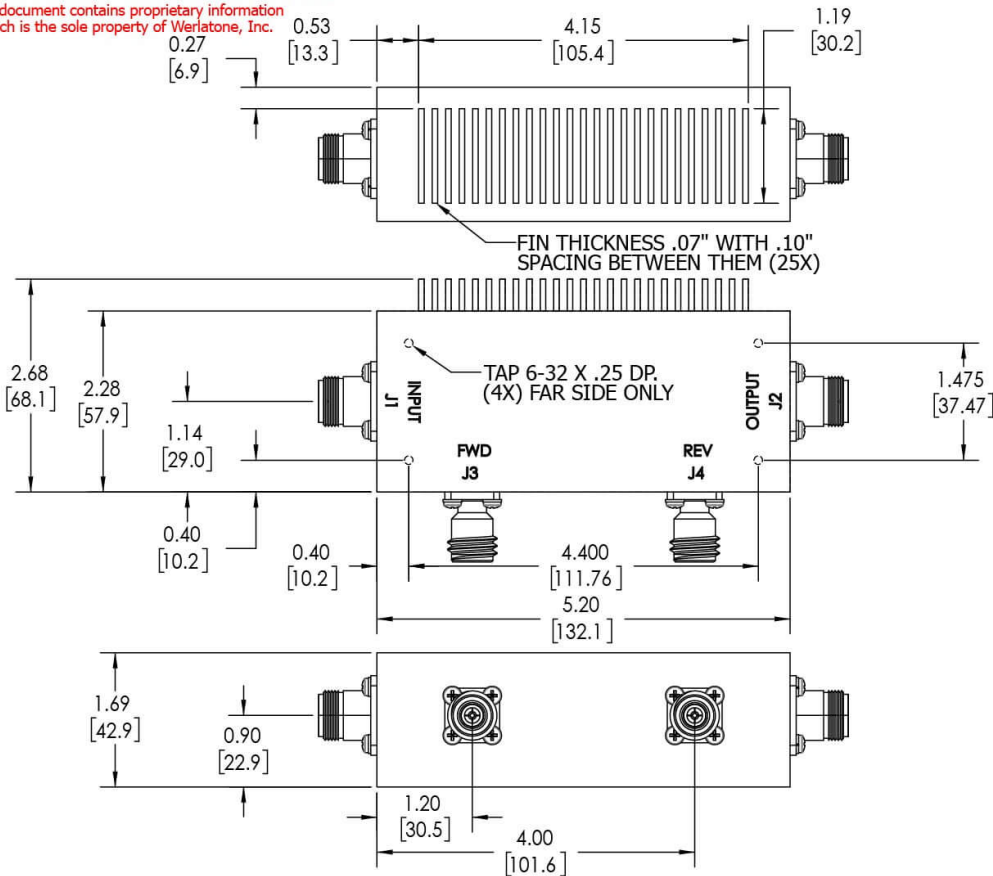


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REVISION HISTORY

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: 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				
		DIMENSIONS PER ASME Y14.5M-2009		CHK	DATE				
		PARENTHESES FOR REF ONLY		CS	2/11/2019	TITLE			
		DIMENSIONS ARE IN INCHES		ENGR	DATE	OUTLINE			
		DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		CS	2/27/2002				
		TOLERANCES:		INFR	DATE				
		ANGLES ± 2°		QA	DATE	SIZE		REV	
		3 PL ± .005 [13]		RLSE	DATE	CAGE CODE		DWG NO	
		2 PL ± .015 [38]				10407-505		A	
		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 				SCALE		SHEET 1 OF 1	
						1:1.5			

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