



## PRODUCT DATA SHEET

C9688

**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: 1 - 1000 MHz  
Power: 800 W CW  
Coupling:  $40 \pm 1.0$  dB Max.  
Insertion Loss: 0.5 dB Max.  
Flatness:  $\pm 1$  dB Max.  
VSWR (ML): 1.20:1 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: 6.0 x 2.2 x 2.2"

### Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C9688-10	N Female	N Female	N Female	N Female
C9688-12	N Female	N Female	SMA	SMA
C9688-13	N Female	N Female	BNC	BNC
C9688-20	7/16 Female	7/16 Female	7/16 Female	7/16 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 C9688

Connectorized Directional Couplers

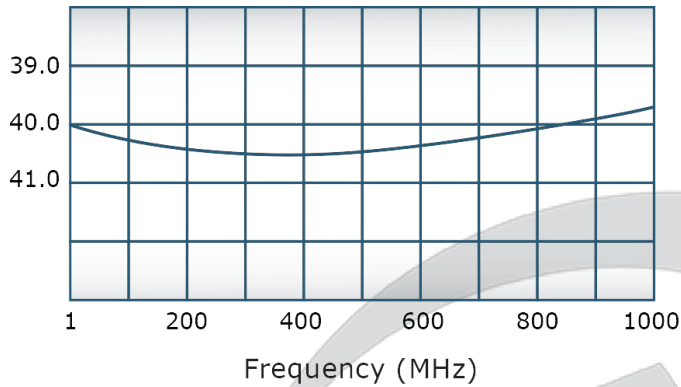


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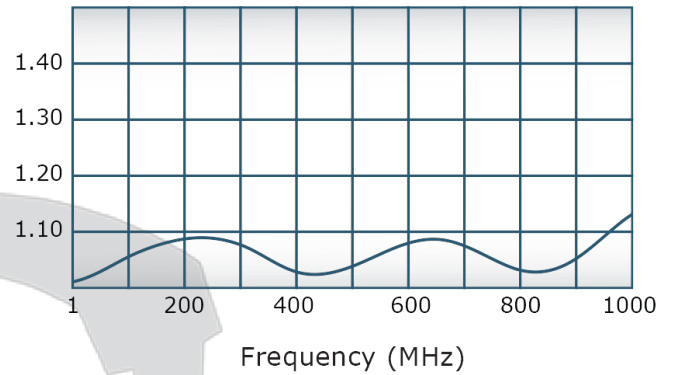
C9688

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

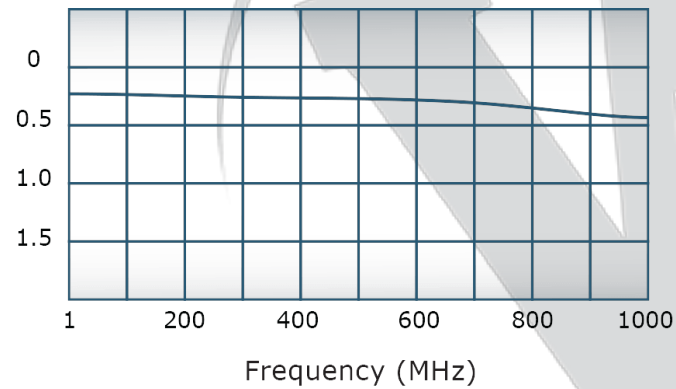
Coupling:



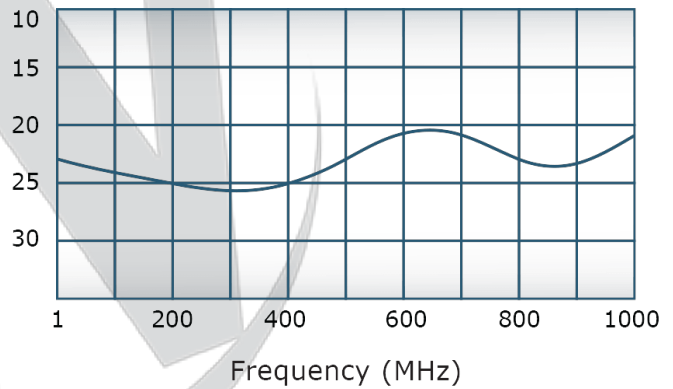
VSWR:



Insertion Loss:



Directivity:

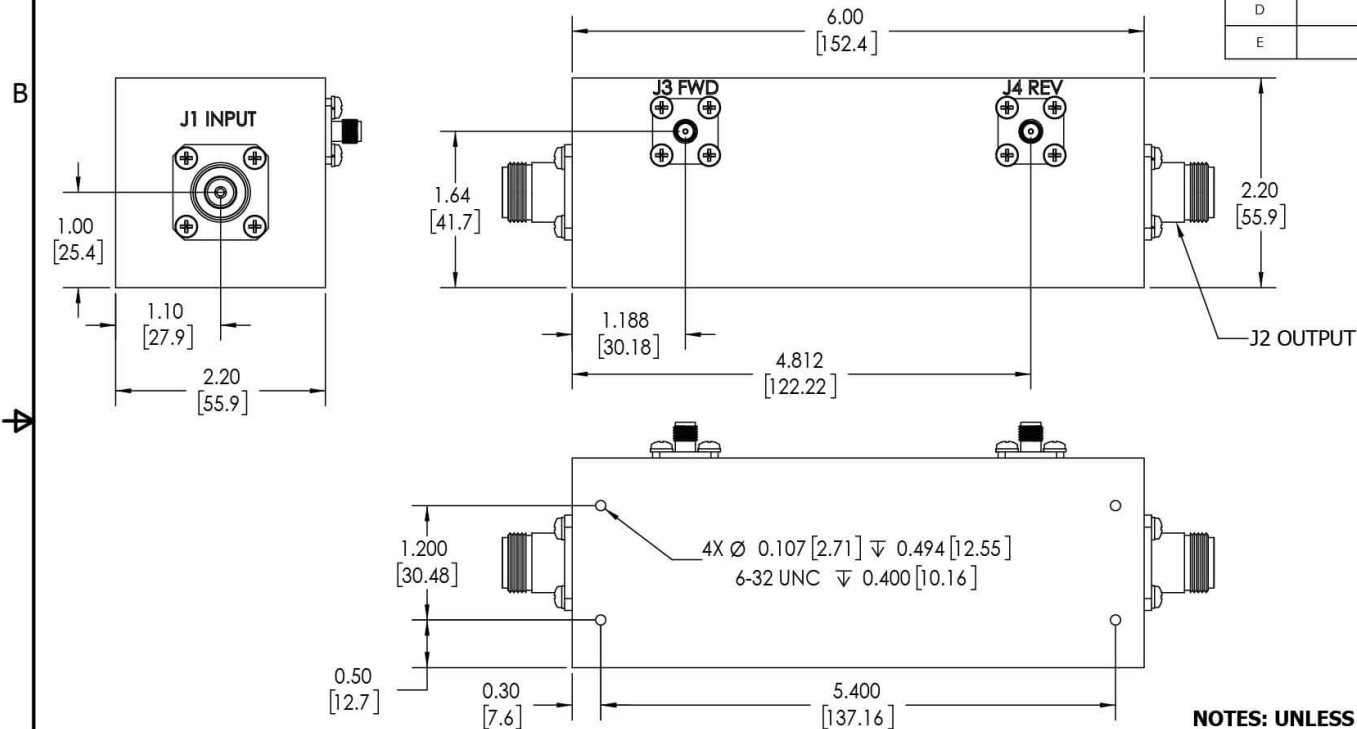


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Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com

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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 3334	6/25/03	RH
B	ECN 4036	8/18/06	MJ
C	ECN 8543	1/31/2014	SC
D	ECN 8618	4/2/2014	SC
E	ECN 9696	5/14/2019	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: SMA FEMALE

UNLESS OTHERWISE SPECIFIED		OWN	DATE		WERLATONE  SINCE 1965	17 Jon Barrett Rd Patterson, NY 12563	
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100 DIMENSIONING PER ASME Y14.5M-2009 PARENTHESES FOR REF ONLY DIMENSIONS ARE IN INCHES DIMENSIONAL LIMITS APPLY BEFORE PROCESSES TOLERANCES: 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		SD	5/14/2019				
		CHK	DATE				
		CS	5/14/2019	TITLE	OUTLINE		
		ENGR	DATE				
		INFR	DATE				
		QA	DATE	SIZE	CAGE CODE	DWG NO	REV
NEXT ASSY				B		10914-500	E
USED ON		RLSE	DATE	SCALE	1:1.25		SHEET 1 OF 1
APPLICATION		THIRD ANGLE PROJECTION 					

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