

## PRODUCT DATA SHEET

C9693

**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 - 100 MHz  
 Power: 100 W CW  
 Coupling:  $40 \pm 1.0$  dB Max.  
 Insertion Loss: 0.35 dB Max.  
 Flatness:  $\pm 0.5$  dB Max.  
 VSWR (ML): 1.15:1 Max.  
 Directivity: 20 dB Min.

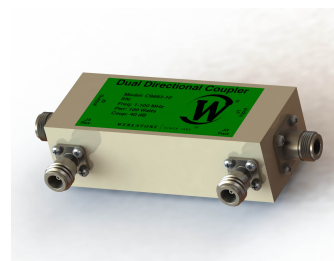
### Mechanical Specifications:

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: 5.0 x 2.0 x 1.51"

### Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C9693-10	N Female	N Female	N Female	N Female
C9693-12	N Female	N Female	SMA	SMA
C9693-13	N Female	N Female	BNC	BNC
C9693-102	SMA	SMA	SMA	SMA

**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.

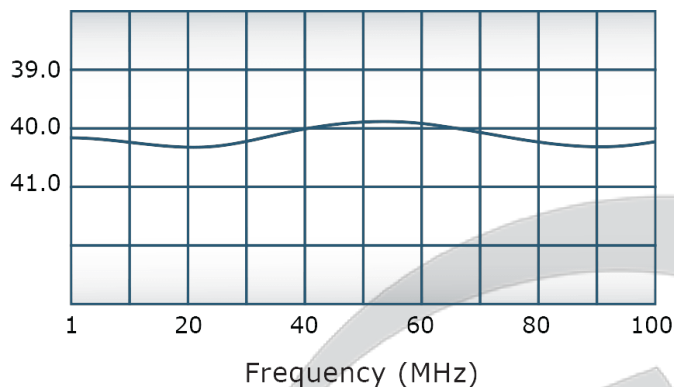


## PRODUCT DATA SHEET

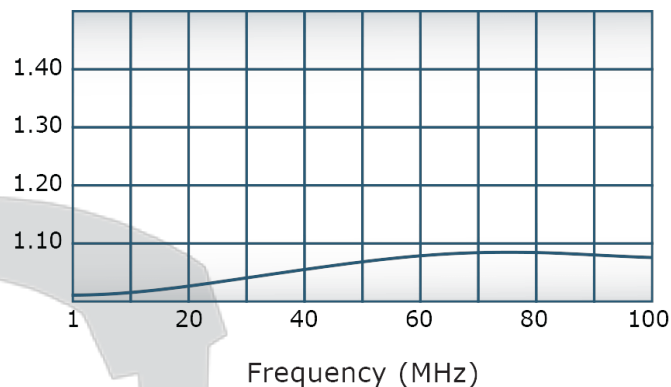
C9693

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

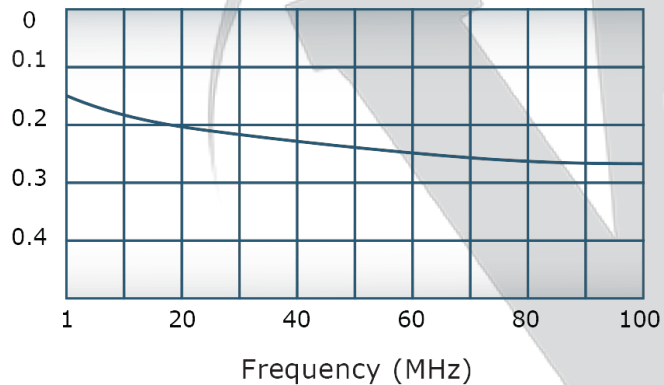
Coupling:



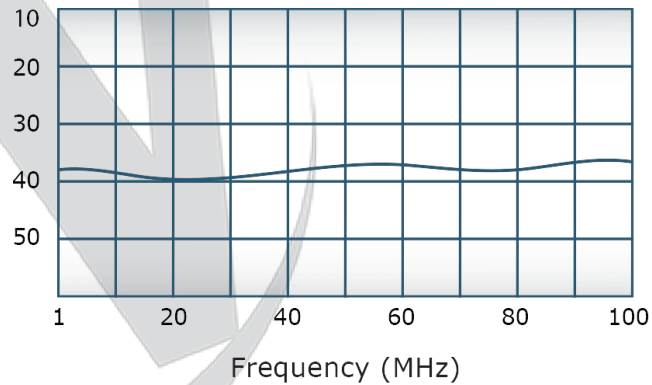
VSWR:



Insertion Loss:



Directivity:



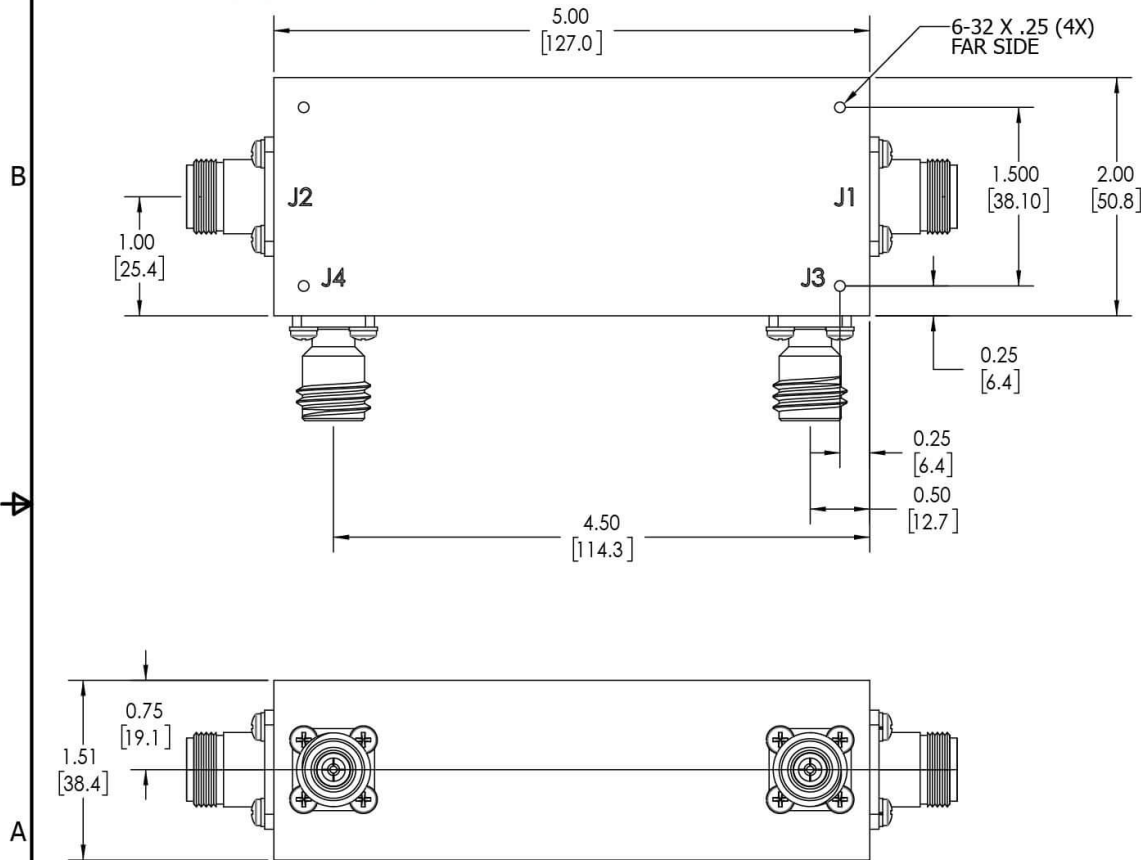
**Restriction on use, duplication, or disclosure of proprietary information.** This document contains proprietary information which is the sole property of Werlatone, Inc.

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
C	ECN 3567	10/5/2004	JE
D	ECN 4139	1/15/2007	JE
E	ECN 9696	5/15/2019	RB

- NOTES: UNLESS OTHERWISE SPECIFIED**
- MATERIAL: ALUMINUM 6061-T6**
  - FINISH: CHEM FILM PER MIL-DTL-5541F TYPE I CLASS 3 (YELLOW IRIDITE)**
  - CONNECTORS:**  
J1-J4: N FEMALE  
J1-INPUT; J2-OUTPUT  
J3-FWD; J4-REV



UNLESS OTHERWISE SPECIFIED		SD	DATE	5/14/2019
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100		CHK	DATE	5/14/2019
DIMENSIONS FOR ASME Y14.5M-2009		CS	DATE	5/14/2019
PARENTHESES FOR REF ONLY		ENGR	DATE	
DIMENSIONS ARE IN INCHES		INFR	DATE	
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		QA	DATE	
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				
NEXT ASSY	USED ON			
APPLICATION				

 WERLATONE SINCE 1965		17 Jon Barrett Rd Patterson, NY 12563	
TITLE			
OUTLINE			
SIZE	CAGE CODE	DWG NO	REV
B		20676-500	E
SCALE	1:1		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