



## PRODUCT DATA SHEET

C9685

**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:	51 - 61 MHz
Power:	2000 W CW
Coupling:	40 ± 1.0 dB Max.
Insertion Loss:	0.1 dB Max.
Flatness:	± 0.25 dB Max.
VSWR (ML):	1.15:1 Max.
Directivity:	25 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 3.0 x 1.87"

### Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C9685-10	N Female	N Female	N Female	N Female
C9685-12	N Female	N Female	SMA	SMA
C9685-13	N Female	N Female	BNC	BNC

**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.

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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

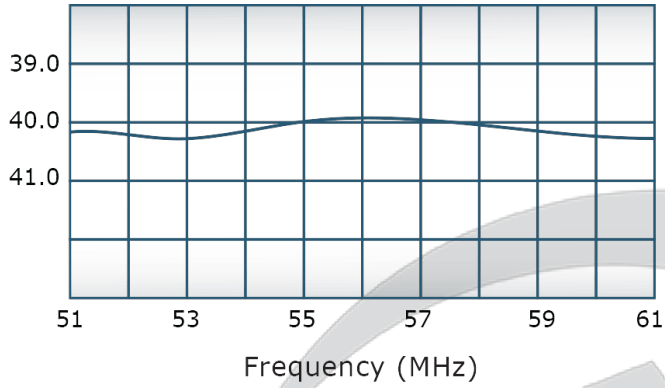


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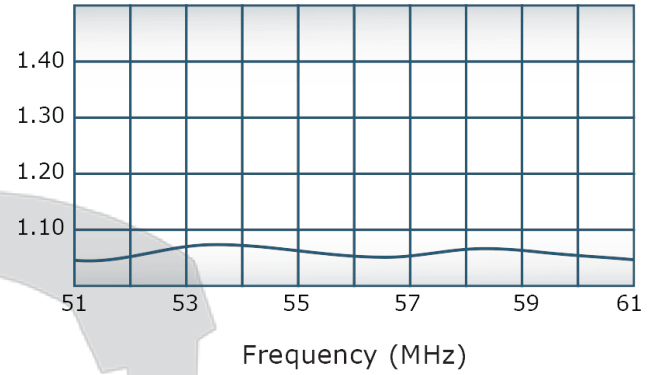
C9685

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

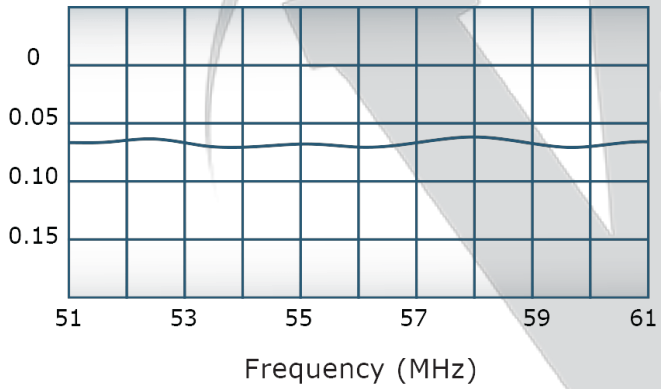
Coupling:



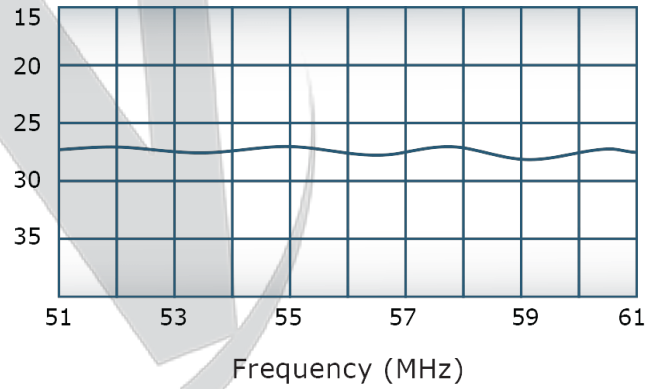
VSWR:



Insertion Loss:



Directivity:



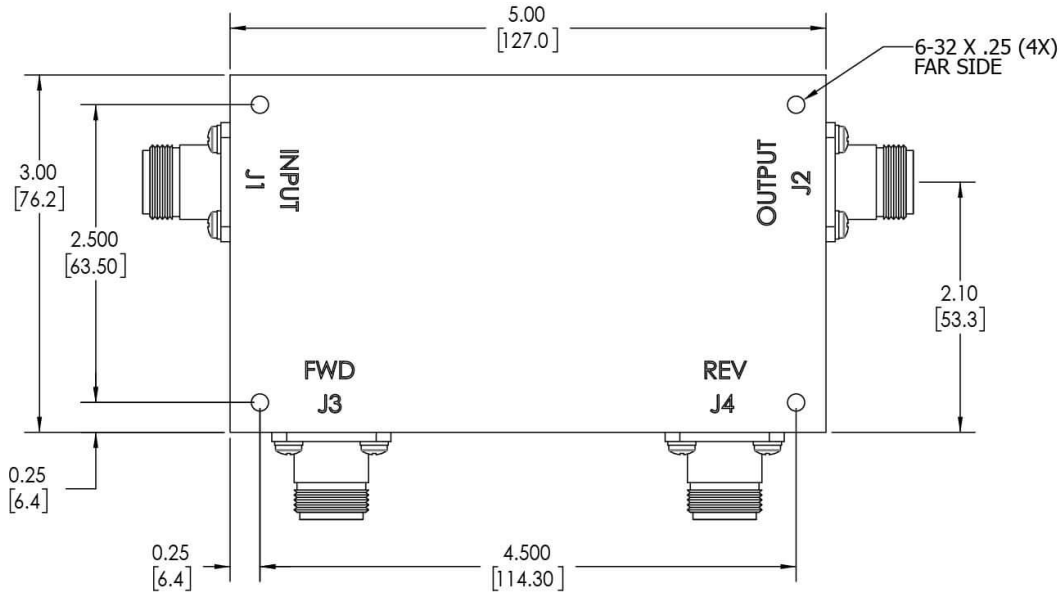
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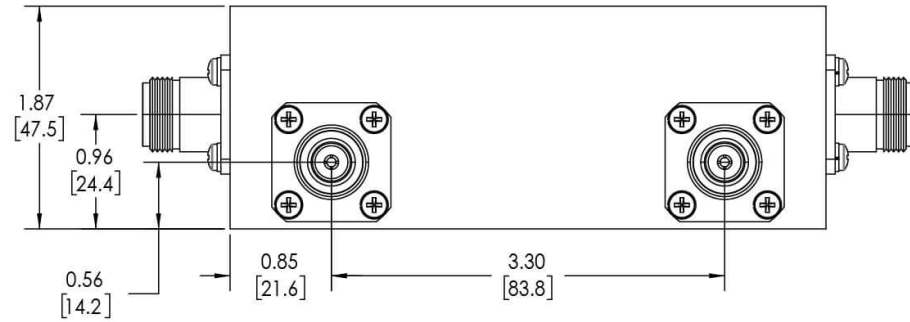
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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 9696	5/15/2019	RB



**NOTES: UNLESS OTHERWISE SPECIFIED**

1. MATERIAL: ALUMINUM 6061-T6
2. FINISH: CHEM FILM PER MIL-DTL-5541F TYPE I CLASS 3 (YELLOW IRIDITE)
3. CONNECTORS:  
 J1-J4: N FEMALE



UNLESS OTHERWISE SPECIFIED		DWN	DATE	WERLATONE SINCE 1965	17 Jon Barrett Rd Patterson, NY 12563
INTERPRET DRAWING IAW MIL-STD-100		SD	5/14/2019		
DIMENSIONS PER ASME Y14.5M-2009		CHK	DATE	TITLE	
PARENTHEetical INFO FOR REF ONLY		CS	5/14/2019		
DIMENSIONS ARE IN INCHES		ENGR	DATE	<b>OUTLINE</b>	
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		INFR	DATE		
TOLERANCES:		QA	DATE	SIZE	CAGE CODE
ANGLES ± 2°		RLSE	DATE	B	10046-500
3 PL ± .005 [13]				DWG NO	REV
2 PL ± .015 [38]				1	A
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX				SCALE	SHEET 1 OF 1
CONCENTRICITY MACHINED DIA: .002 FIM				1:1	
MACHINE TOOL MISMATCH .003 MAX.					

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