

## PRODUCT DATA SHEET

C10270

**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: 1000 - 2000 MHz  
Power: 5000 W CW  
Coupling:  $50 \pm 1.0$  dB Max.  
Insertion Loss: 0.2 dB Max.  
Flatness:  $\pm 0.5$  dB Max.  
VSWR (ML): 1.30:1 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" Line Section

### Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C10270-81	1 5/8" EIA	1 5/8" EIA	N Female	N Female
C10270-83	1 5/8" EIA	1 5/8" EIA	SMA	SMA
C10270-84	1 5/8" EIA	1 5/8" EIA	BNC	BNC

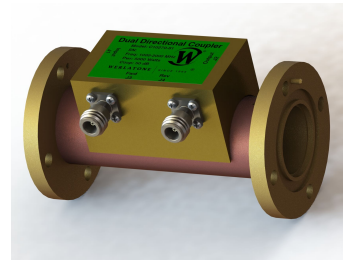
**Werlatone®** Broadband Dual, Uni, and Bi Directional RF Couplers are designed to tolerate the most stringent operating conditions associated with military and EMC testing environments. Many of our RF Directional Couplers, designated Mismatch Tolerant®, will operate continuously, at rated power, into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



# WERLATONE

Model C10270

Connectorized Directional Couplers

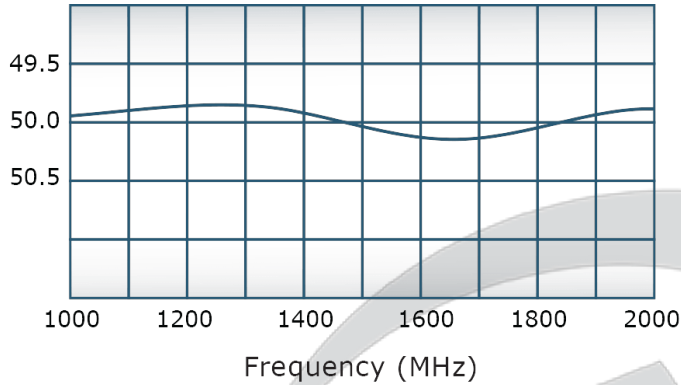


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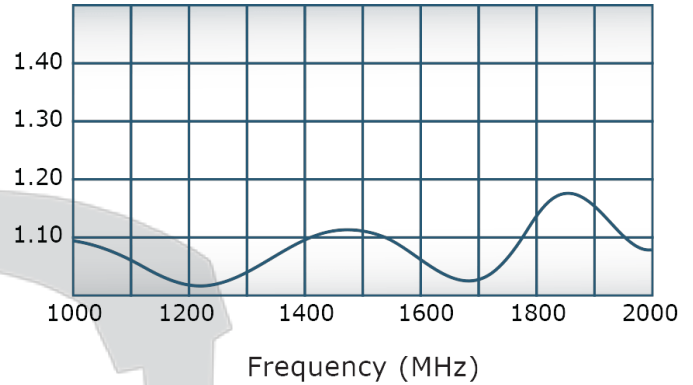
C10270

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

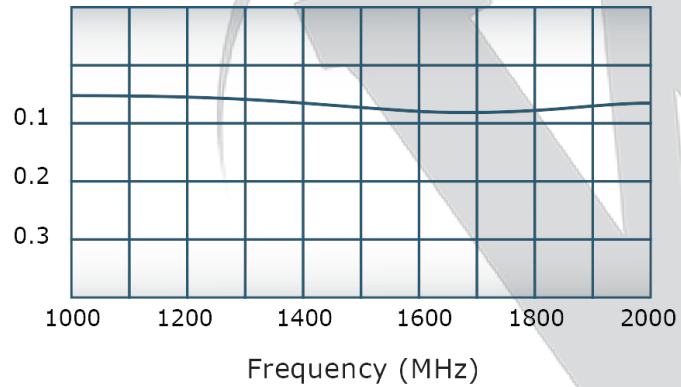
Coupling:



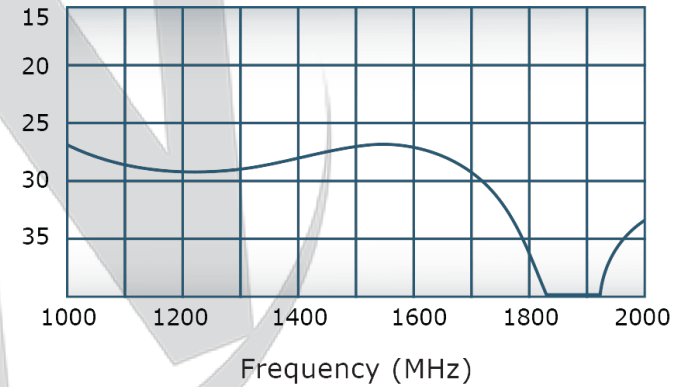
VSWR:



Insertion Loss:



Directivity:



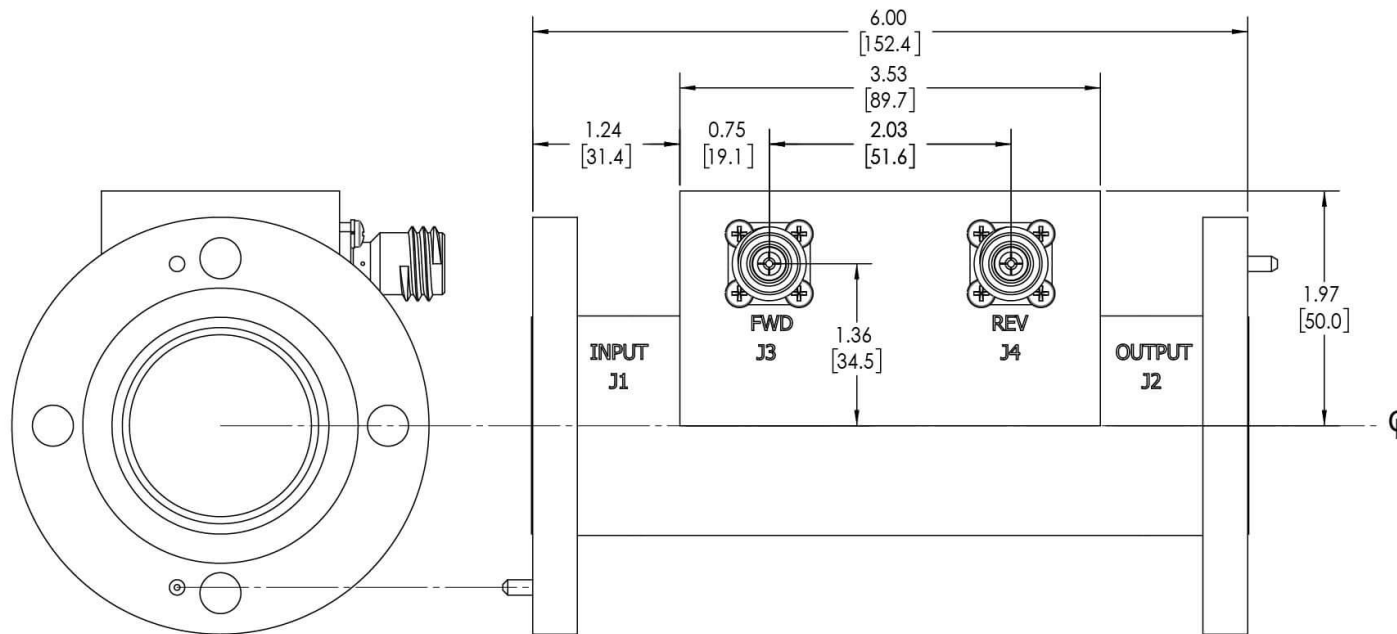
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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 9696	11/29/18	RB

**NOTES:**  
1. **CONNECTORS:**  
J1, J2: 1 5/8 EIA STANDARD  
J3, J4: N FEMALE



UNLESS OTHERWISE SPECIFIED		OWN	DATE	 <b>WERLATONE</b> SINCE 1965         17 Jon Barrett Rd Patterson, NY 12563	
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100		SD	2/11/2019		
DIMENSIONS FOR ASME Y14.5M-2009		CHK	DATE	TITLE	
PARENTHESES FOR REF ONLY		CS	2/11/2019		
DIMENSIONS ARE IN INCHES		ENGR	DATE	<b>OUTLINE</b>	
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		DK	8/4/1992		
TOLERANCES:		INFR	DATE	SIZE CAGE CODE DWG NO <b>B</b> 10093-501	
ANGLES ± 2°		QA	DATE		
3 PL ± .005 [13]		RLSE	DATE	SCALE 1:1 SHEET 1 OF 1	
2 PL ± .015 [38]					
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX				APPLICATION	
CONCENTRICITY MACHINED DIA. .002 FIM					
MACHINE TOOL MISMATCH .003 MAX				THIRD ANGLE PROJECTION	
NEXT ASSY USED ON					

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