


**PRODUCT DATA SHEET**
**C10070**

**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: 5 - 1000 MHz  
Power: 300 W CW  
Coupling:  $40 \pm 1.0$  dB Max.  
Insertion Loss: 0.5 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: 5.2 x 2.67 x 1.69"

**Connector Configurations:**

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C10070-10	N Female	N Female	N Female	N Female
C10070-12	N Female	N Female	SMA	SMA
C10070-13	N Female	N Female	BNC	BNC
C10070-714	N Male	N Female	N Female	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.

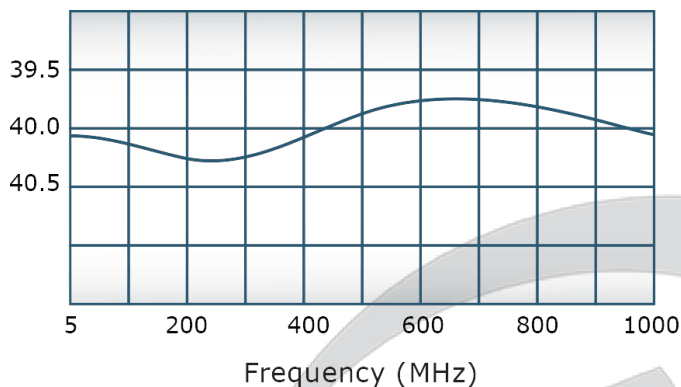


## PRODUCT DATA SHEET

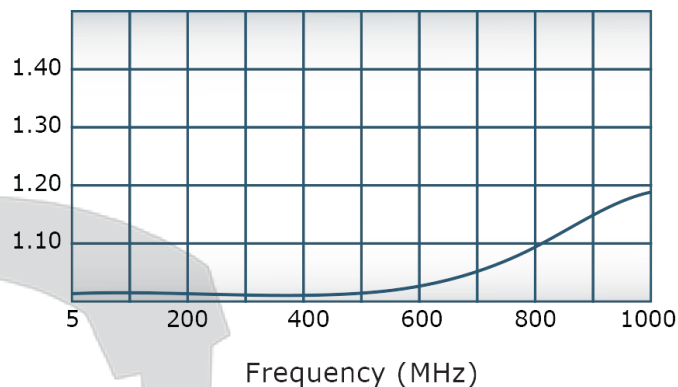
C10070

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

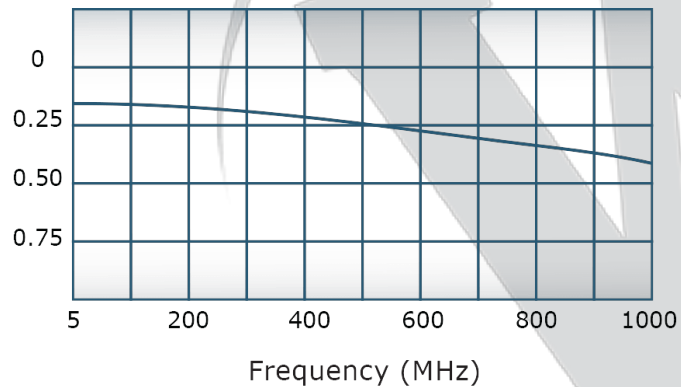
Coupling:



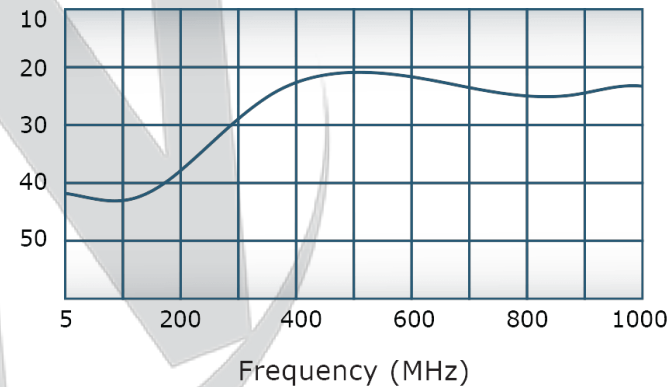
VSWR:



Insertion Loss:



Directivity:



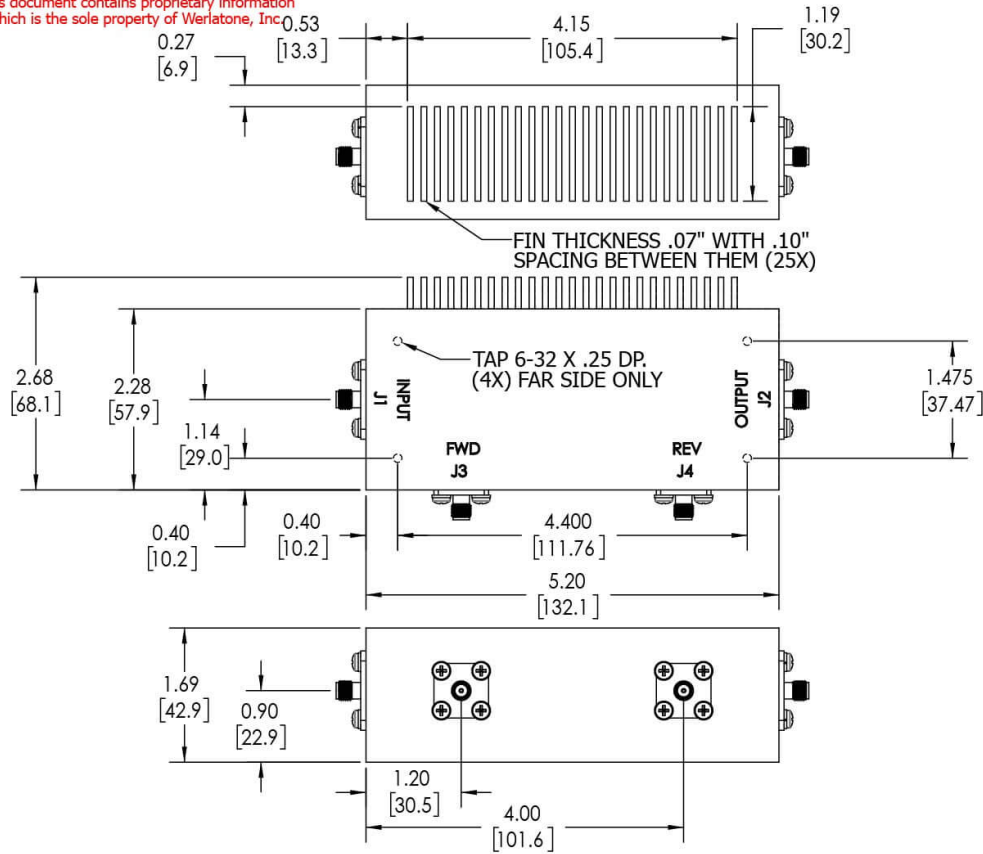
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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 9696	11/28/18	RB

**NOTES: UNLESS OTHERWISE SPECIFIED**

- MATERIAL: ALUMINUM 6061-T6**
- FINISH: CHEM FILM PER MIL-DTL-5541F TYPE I CLASS 3 (YELLOW IRIDITE)**
- CONNECTORS:**  
**J1-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		SD	2/11/2019				
		DIMENSIONS FOR ASME Y14.5M-2009		CHK	DATE				
		PARENTHESES ARE IN INCHES		CS	2/11/2019	TITLE			
		DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		ENGR	DATE	OUTLINE			
		TOLERANCES:		BW	9/13/1996				
		ANGLES ± 2°		INFR	DATE	SIZE CAGE CODE DWG NO		REV	
		3 PL ± .005 [13]		QA	DATE				
		2 PL ± .015 [38]		RLSE	DATE	B 10407-501		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: 1:1.5					
				SHEET 1 OF 1					

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