



## PRODUCT DATA SHEET

C10751

**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: 700 - 4200 MHz  
Power: 1000 W CW  
Coupling:  $60 \pm 1.0$  dB Max.  
Insertion Loss: 0.2 dB Max.  
Flatness:  $\pm 1.0$  dB Max.  
VSWR (ML): 1.35:1 Max.  
Directivity: 18 dB Min.

### Mechanical Specifications:

Type: Connectorized  
Material: Aluminum 6061-T6  
Surface Finish: Chem. Film Per MIL-DTL-5541F  
Type II Class 3 (Clear Iridite)  
RoHS Compliant Available  
Operating Temperature: -55°C to +75°C  
Storage Temperature: -60°C to +85°C  
Humidity: 95% Non-Condensing  
Size: 2.15 x 2.0 x 1.36"

### Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C10751-20	7/16 Female	7/16 Female	N Female	N Female
C10751-22	7/16 Female	7/16 Female	SMA	SMA
C10751-727	7/16 Male	7/16 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.



# WERLATONE

Model C10751

Connectorized Directional Couplers

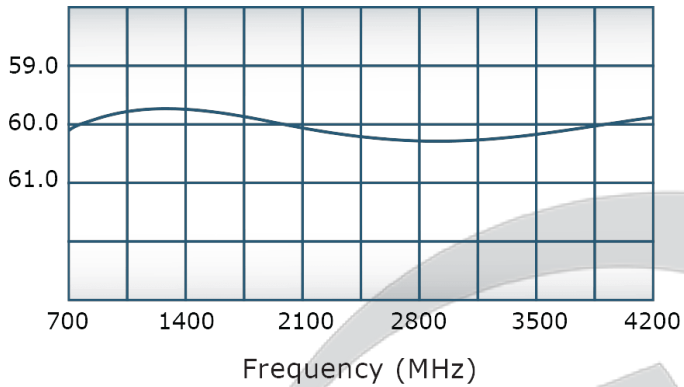


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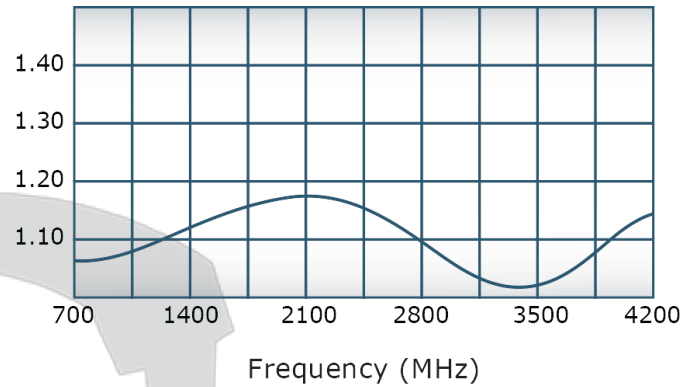
C10751

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

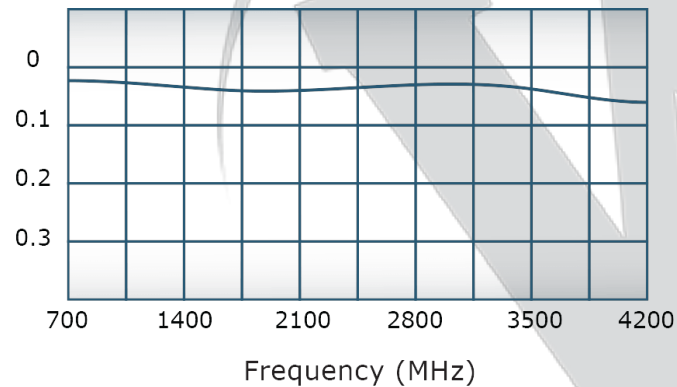
Coupling:



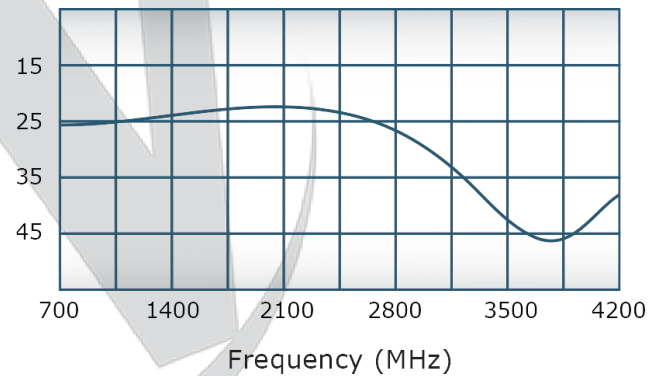
VSWR:



Insertion Loss:



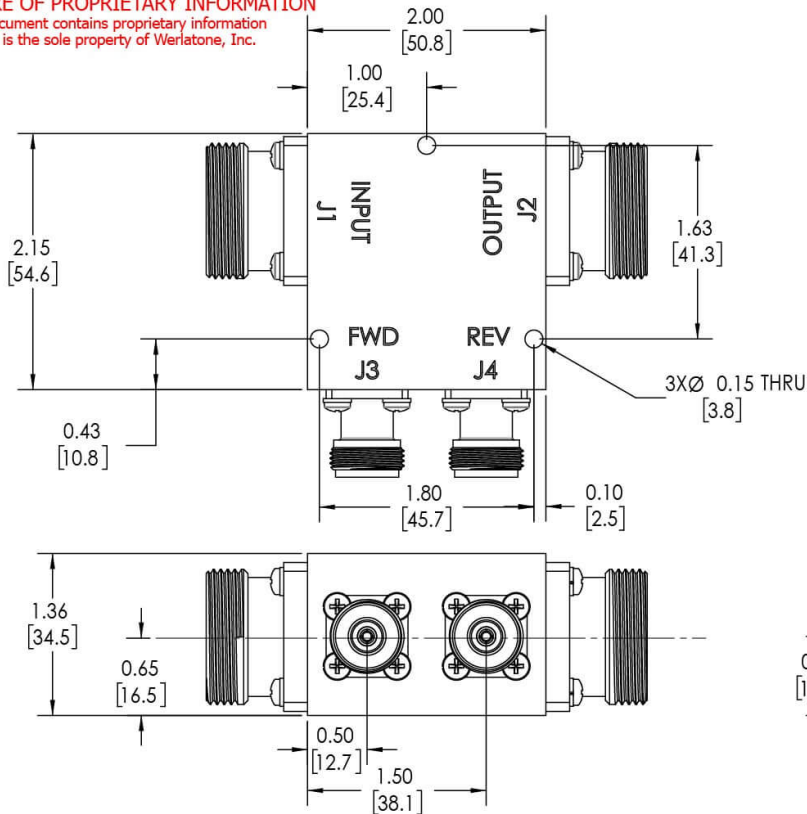
Directivity:



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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
-	INITIAL-RELEASE	5/8/2015	BW
A	ECN 9696	3/25/19	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: 7/16 FEMALE  
J3,J4: N FEMALE

		UNLESS OTHERWISE SPECIFIED		OWN	DATE	 WERLATONE  SINCE 1965		17 Jon Barrett Rd Patterson, NY 12563	
		INTERPRET DRAWING IAW MIL-STD-100		SD	3/25/2019	TITLE		<h1>OUTLINE</h1>	
		DIMENSIONING PER ASME Y14.5M-2009		CHK	DATE				
		PARENTHESES FOR REF ONLY		CS	3/25/2019	ENGR		SIZE CAGE CODE DWG NO	
		DIMENSIONS ARE IN INCHES			DATE				
		DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		INFR	DATE	QA		SCALE	
		TOLERANCES:			DATE				
		ANGLES ± 2°		RLSE	DATE	B 21316-500		REV A	
		3 PL ± .005 [13]							
		2 PL ± .015 [38]				1:1		SHEET 1 OF 1	
		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 					

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