



## PRODUCT DATA SHEET

C10745

**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: 500 - 2500 MHz  
 Power: 500 W CW  
 Coupling:  $50 \pm 1.0$  dB Max.  
 Insertion Loss: 0.2 dB Max.  
 Flatness:  $\pm 1.00$  dB Max.  
 VSWR (ML): 1.35:1 Max.  
 Directivity: 15 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: 2.15 x 2.0 x 1.36"

### Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C10745-20	7/16 Female	7/16 Female	N Female	N Female
C10745-22	7/16 Female	7/16 Female	SMA	SMA
C10745-727	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.

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# WERLATONE

Model C10745

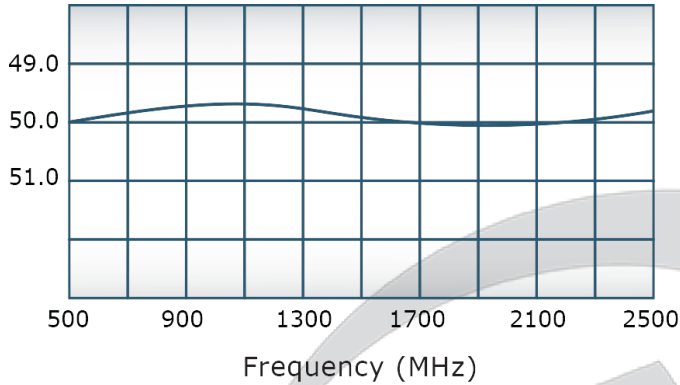


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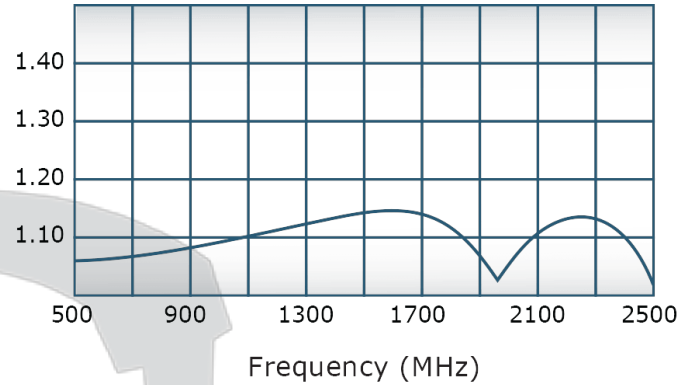
C10745

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

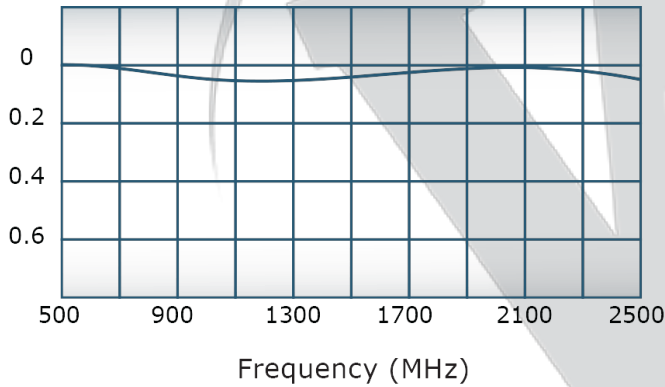
Coupling:



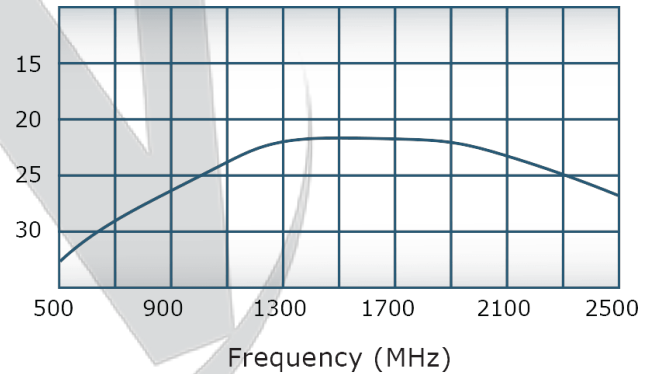
VSWR:



Insertion Loss:



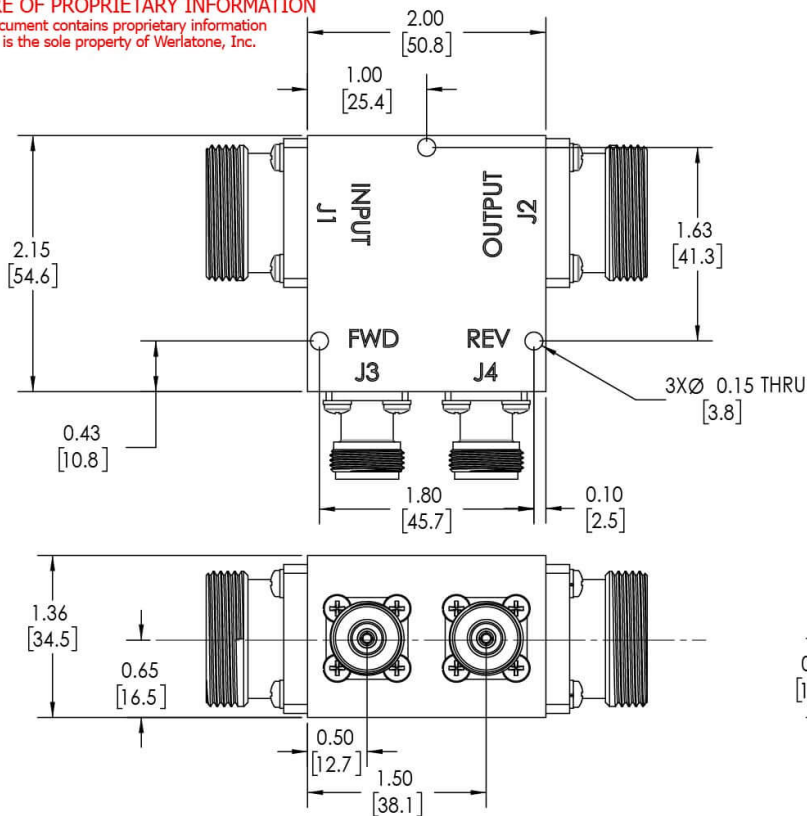
Directivity:



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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		DWN	DATE	 WERLATONE <sup>®</sup> SINCE 1965		17 Jon Barrett Rd Patterson, NY 12563	
		INTERPRET DRAWING IAW MIL-STD-100		SD	3/25/2019	 WERLATONE <sup>®</sup> SINCE 1965			
		DIMENSIONS PER ASME Y14.5M-2009		CHK	DATE				
		PARENTHESES FOR REF ONLY		CS	3/25/2019	TITLE			
		DIMENSIONS ARE IN INCHES		ENGR	DATE	OUTLINE			
		DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		INFR	DATE				
		TOLERANCES:		QA	DATE	SIZE CAGE CODE DWG NO B 21316-500		REV A	
		ANGLES ± 2° 3 PL ± .005 [13] 2 PL ± .015 [38]		RLSE	DATE				
		REMOVE ALL BURRS AND SHARP EDGES R.01 MAX CONCENTRICITY MACHINED DIA. .002 FIM MACHINE TOOL MISMATCH .003 MAX				SCALE 1:1		SHEET 1 OF 1	
NEXT ASSY USED ON		THIRD ANGLE PROJECTION 							
APPLICATION									

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