


**PRODUCT DATA SHEET**
**C10746**

**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: 2000 - 6500 MHz  
Power: 500 W CW  
Coupling:  $50 \pm 1.0$  dB Max.  
Insertion Loss: 0.2 dB Max.  
Flatness:  $\pm 1.0$  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)
C10746-20	7/16 Female	7/16 Female	N Female	N Female
C10746-22	7/16 Female	7/16 Female	SMA	SMA
C10746-727	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.

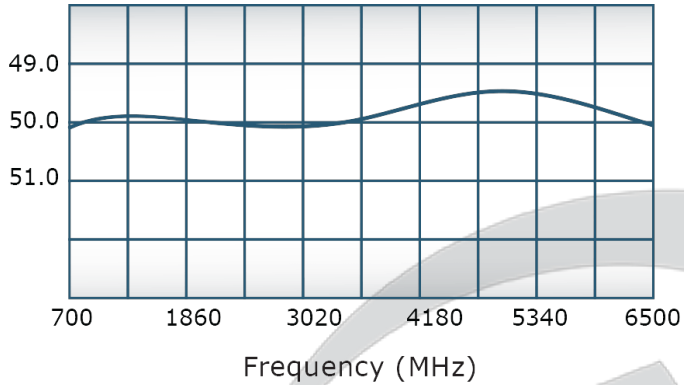


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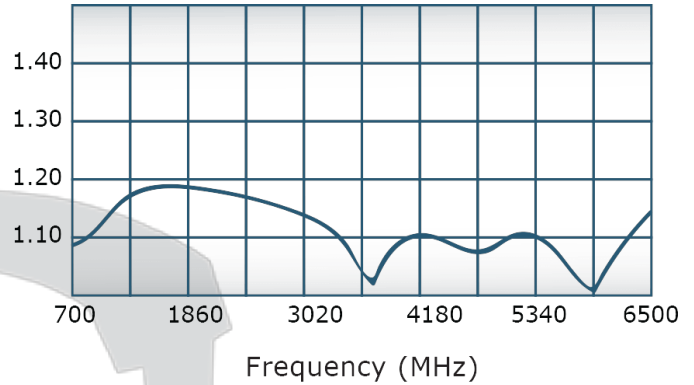
C10746

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

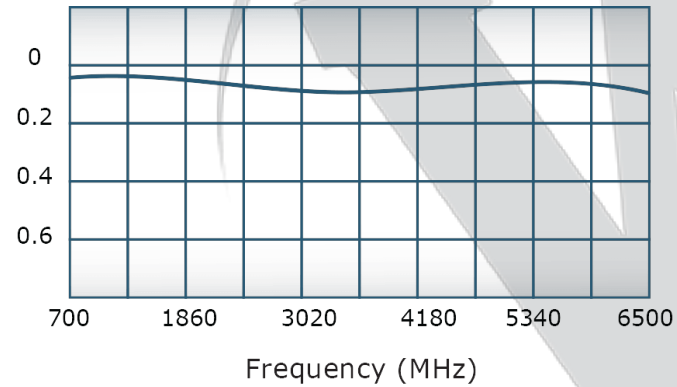
Coupling:



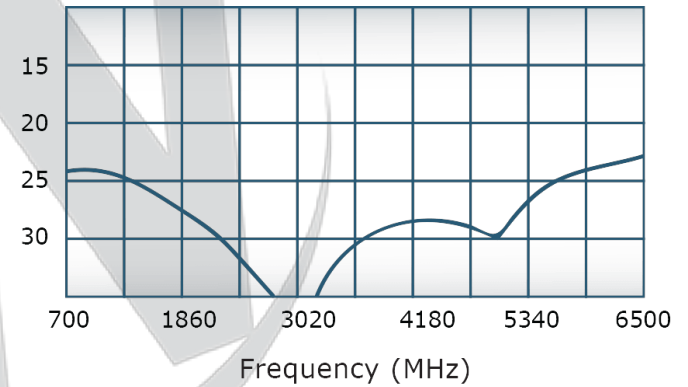
VSWR:



Insertion Loss:



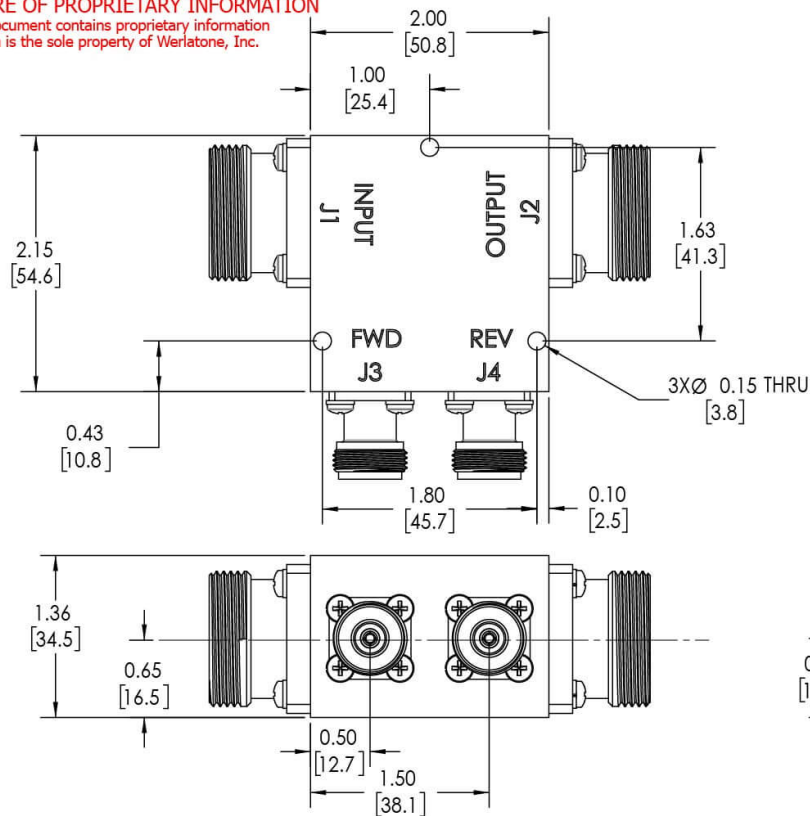
Directivity:



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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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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
-	INITIAL-RELEASE	5/8/2015	BW
A	ECN 9696	3/25/19	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,J2: 7/16 FEMALE  
J3,J4: N FEMALE

		UNLESS OTHERWISE SPECIFIED		DOWN	DATE	 <b>WERLANTHE  SINCE 1965</b>	17 Jon Barrett Rd Patterson, NY 12563			
		INTERPRET DRAWING IN ACC. WITH NIST-STD-100		SD	3/25/2019		<div><div>OUTLINE</div><div>SIZE</div><div>CAGE CODE</div><div>DWG NO</div></div>	REV		
		DIMENSIONS PER ASME Y14.5-2009		CHK	3/25/2019				<div><div>21316-500</div><div>B</div></div>	A
		DIMENSIONAL INFO FOR REF ONLY		CS	3/25/2019					
		DIMENSIONS ARE IN INCHES		ENGR	DATE					
		CONCENTRIC LIMITS APPLY BEFORE PROCESSES		INFR	DATE					
		TOLERANCES:		QA	DATE					
		ANGLES = 2°		RLSE	DATE					
		3 PL ± .005 [13]								
		2 PL ± .015 [38]								
		REMOVE ALL BURRS AND SHARP EDGES R.01 MAX								
		CONCENTRICITY MACHINED DIA. .002 FIM								
		MACHINE TOOL, MESHABO, .004 MAX								
NEXT ASSY	USED ON	APPLICATION		THIRD ANGLE PROJECTION						

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