
**PRODUCT DATA SHEET**
**C10870**

**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 - 6000 MHz  
 Power:                400 W CW  
 Coupling:            50 ± 1.0 dB Max.  
 Insertion Loss:      0.2 dB Max.  
 Flatness:             ± 1.0 dB Max.  
 VSWR (ML):        1.30:1 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:                    2.0 x 2.0 x 1.06"

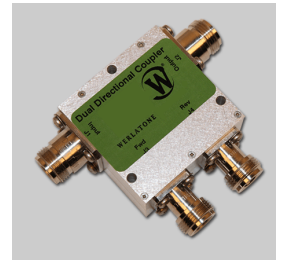
**Connector Configurations:**

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C10870-10	N Female	N Female	N Female	N Female
C10870-12	N Female	N Female	SMA	SMA
C10870-612	N Female	N Male	SMA	SMA
C10870-714	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.

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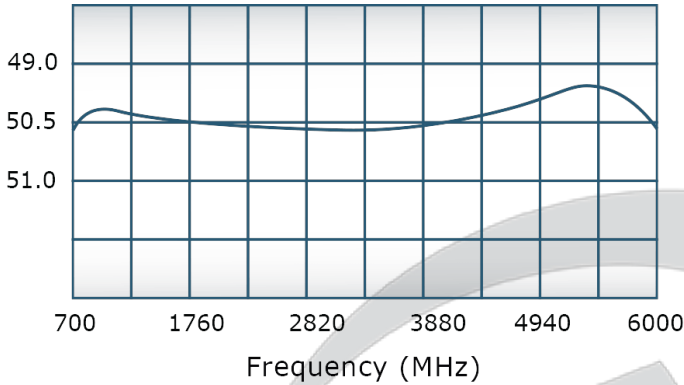


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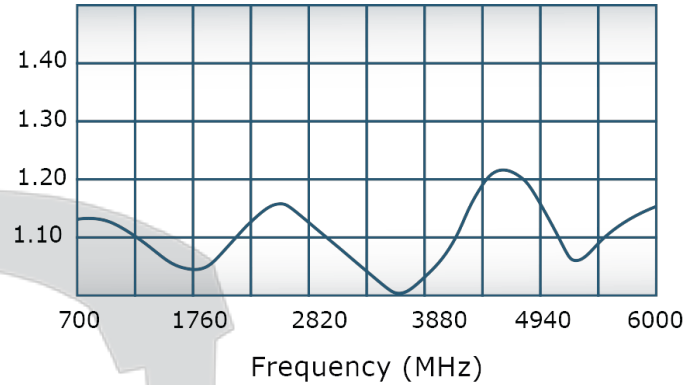
C10870

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

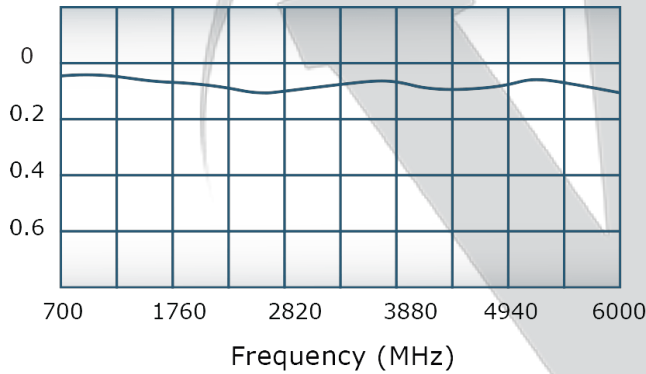
Coupling:



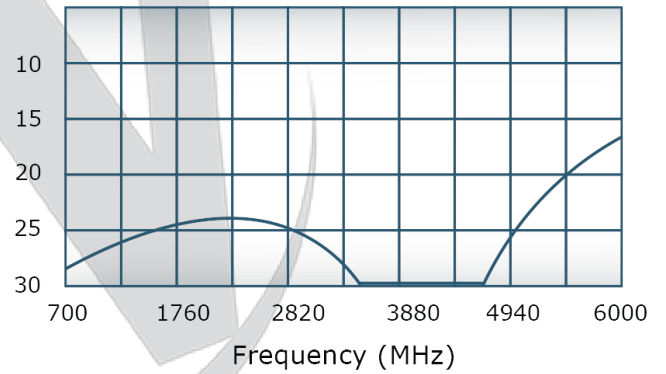
VSWR:



Insertion Loss:



Directivity:



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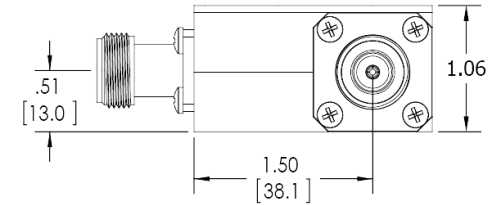
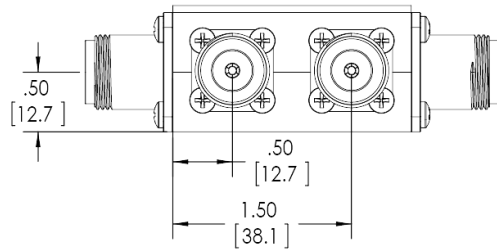
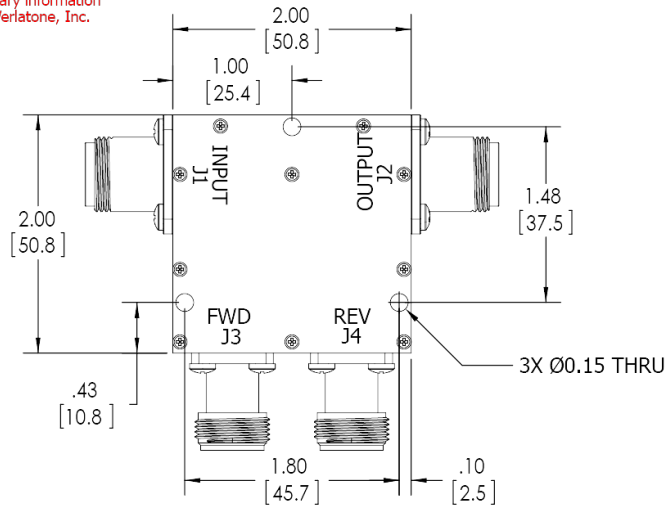
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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
-	INITIAL RELEASE	3 2 2015	CS



**NOTES: UNLESS OTHERWISE SPECIFIED**

- MATERIAL: ALUMINUM**
- SURFACE FINISH: CHEM FILM PER MIL-DTL-5541F TYPE II CLASS 3 (CLEAR)**
- CONNECTORS: ALL N FEMALE**

UNLESS OTHERWISE SPECIFIED		DWN	DATE	<b>WERLATONE SINCE 1965</b> 17 Jon Barrett Rd Patterson, NY 12563
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100 DIMENSIONS PER ASME Y14.5M-2009 PARENTHEetical INFO FOR REF ONLY DIMENSIONS ARE IN INCHES (mm) DIMENSIONAL LIMITS APPLY BEFORE FINISHES		SC	9/30/2014	
		CHK	DATE	<b>OUTLINE</b> SIZE CAGE CODE DWG NO <b>B 28812 21250-500</b>
		ENGR	9/30/2014	
		DATE		REV -
		DATE		
		DATE		SCALE <b>1:1</b>
		DATE		
		DATE		SHEET 1 OF 1
		DATE		
NEXT ASSY	USED ON	THIRD ANGLE PROJECTION		
APPLICATION				

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