
**PRODUCT DATA SHEET**
**C10117**

**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: 250 W CW  
Coupling:  $40 \pm 1.0$  dB Max.  
Insertion Loss: 0.2 dB Max.  
Flatness:  $\pm 1.0$  dB Max.  
VSWR (ML): 1.30:1 Max.  
VSWR (CP): 2.0:1 Max.  
Directivity: 15 dB Min. (20 dB Typical)

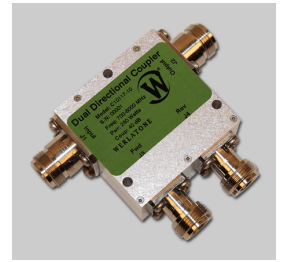
**Mechanical Specifications:**

Type: Connectorized  
Material: Aluminum 6061-T6  
Surface Finish: Chem. Film Per MIL-DTL-5541F  
Type II Class 3 (Clear Iridite)  
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)
C10117-10	N Female	N Female	N Female	N Female
C10117-12	N Female	N Female	SMA	SMA
C10117-14	N Female	N Female	BNC	BNC
C10117-610	N Female	N Male	N Female	N Female
C10117-612	N Female	N Male	SMA	SMA
C10117-714	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.

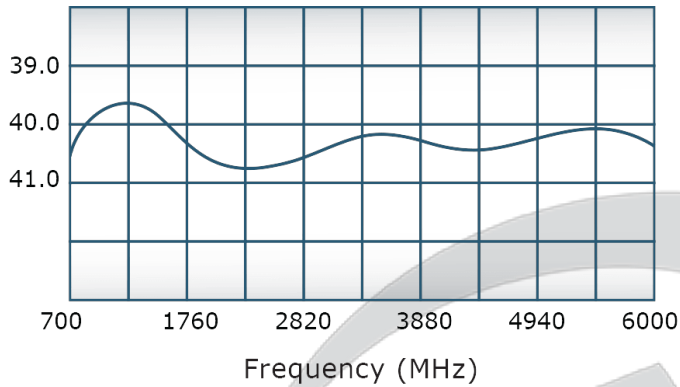


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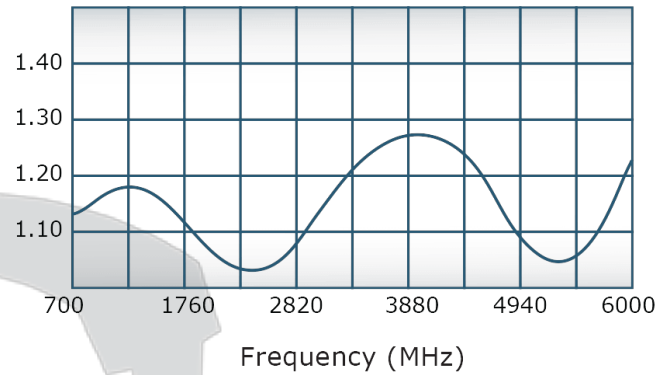
C10117

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

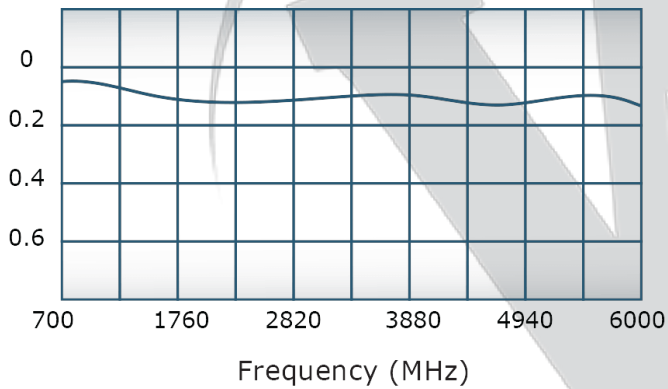
Coupling:



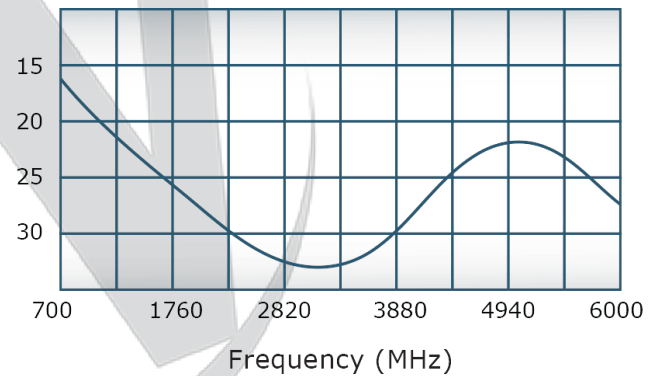
VSWR:



Insertion Loss:



Directivity:

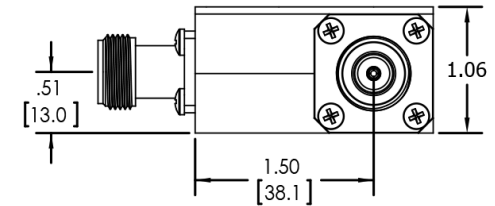
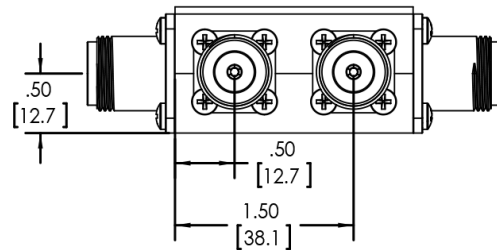
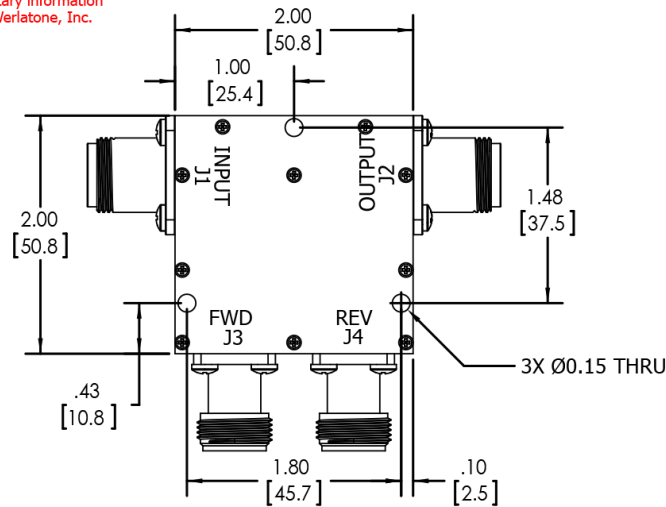


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Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com

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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
	PRE-RELEASE		



UNLESS OTHERWISE SPECIFIED INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100 DIMENSIONS ARE IN INCHES (mm) DIMENSIONS ARE IN INCHES (mm) DIMENSIONAL LIMITS APPLY BEFORE FINISHES TOLERANCES: ANGLES ± 2° 3 PL ± .005 (13) 2 PL ± .015 (4) REMOVE ALL BURRS AND SHARP EDGES R.01 MAX CONCENTRICITY MACHINED DIA. .002 FIM MACHINE TOOL MATCH .003 MAX		OWN	DATE	<b>WERLATONE SINCE 1965</b> 17 Jon Barrett Rd Patterson, NY 12563
		SC	9/30/2014	
		CHK	DATE	
		CS	9/30/2014	
TITLE <b>OUTLINE</b> SIZE CAGE CODE DWG NO B 28812 21250-500 SCALE 1:1 SHEET 1 OF 1		ENGR	DATE	REV
		BW	9/30/2014	
		APPR	DATE	
		QA	DATE	
APPLICATION		RELSE	DATE	

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