
**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)

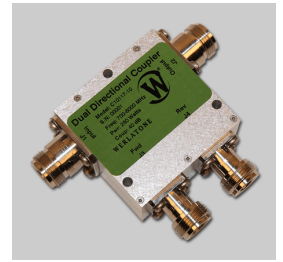
**Mechanical Specifications:**

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:**

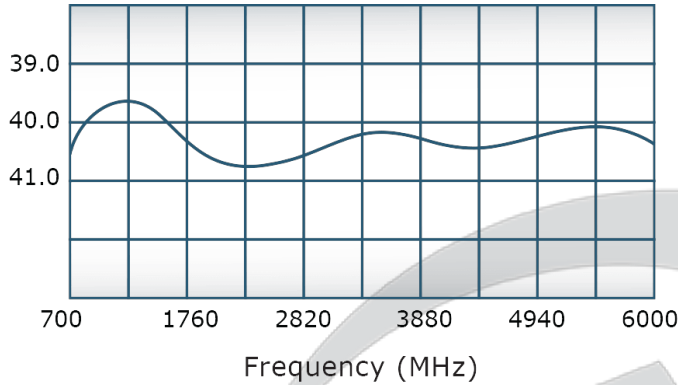
Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C10117-10	N Female	N Female	N Female	N Female
C10117-12	N Female	N Female	SMA	SMA
C10117-14	N Female	N Female	BNC	BNC
C10117-610	N Female	N Male	N Female	N Female
C10117-612	N Female	N Male	SMA	SMA
C10117-714	N Male	N Female	N Female	N Female

**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.

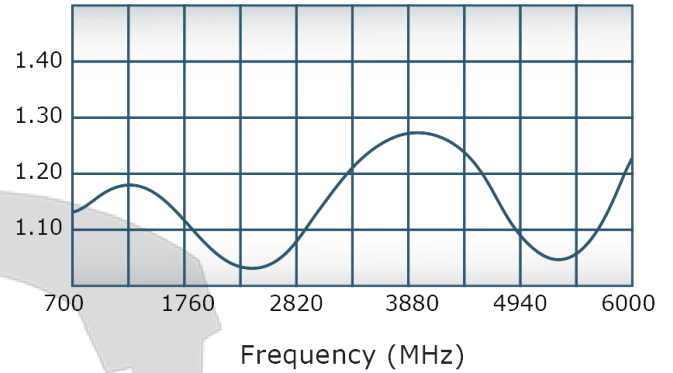


## Performance Data (Specifications subject to change without notice):

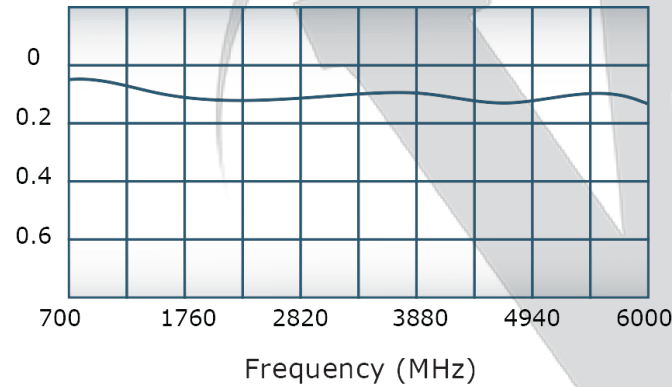
Coupling:



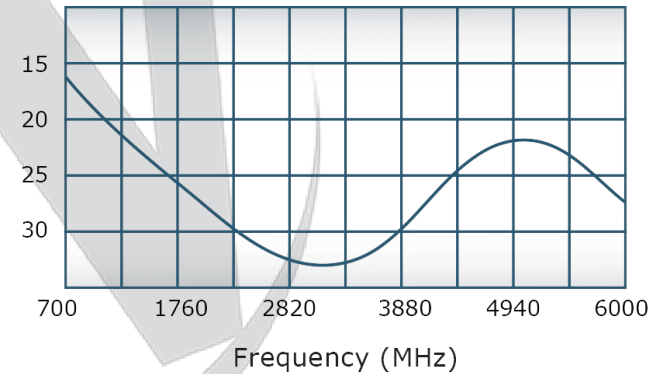
VSWR:



Insertion Loss:



Directivity:



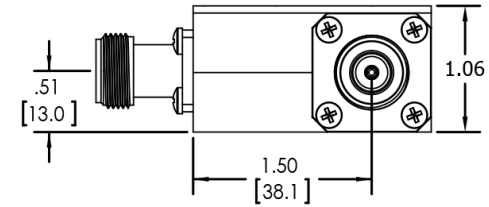
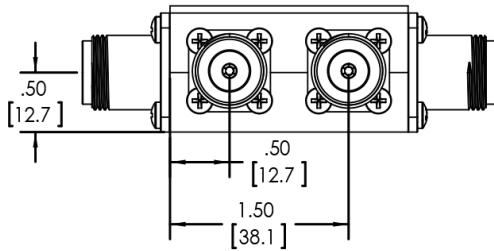
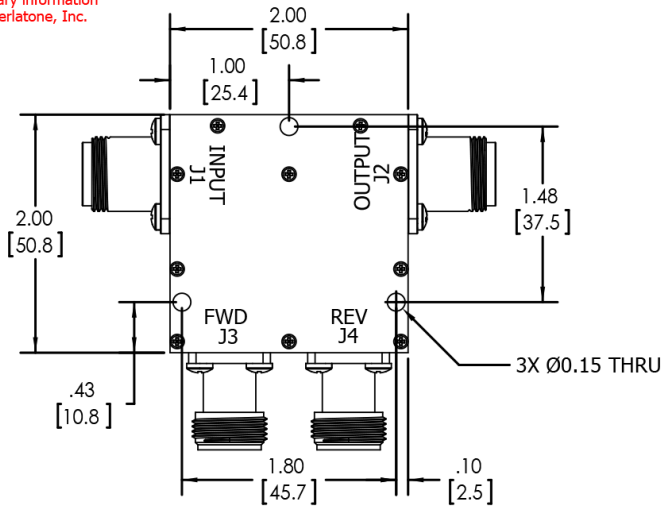
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Werlatone, Inc.

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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
	PRE-RELEASE		



UNLESS OTHERWISE SPECIFIED		DATE	9/30/2014	17 Jon Barrett Rd Patterson, NY 12563
INTERPRET DRAWING IAW MIL-STD-100	DATE	9/30/2014		
DIMENSIONING PER ASME Y14.5M 2009	DATE	9/30/2014		
PARENTHEetical INFO FOR REF ONLY	DATE			
DIMENSIONS ARE IN INCHES (mm)	DATE			
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES	DATE			
TOLERANCES:	DATE			
ANGLES ± 2°	DATE			
3 PL ± .005 (L3)	DATE			
2 PL ± .015 (L4)	DATE			
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX	DATE			
CONCENTRICITY MACHINED DIA. .002 FIM	DATE			
MACHINE TOOL HIGHMATCH .003 MAX	DATE			
APPLICATION	THIRD ANGLE PROJECTION	SCALE	1:1	SHEET 1 OF 1

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