

## PRODUCT DATA SHEET

C10559

**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 - 4200 MHz  
Power: 500 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.  
Directivity: 15 dB Min.

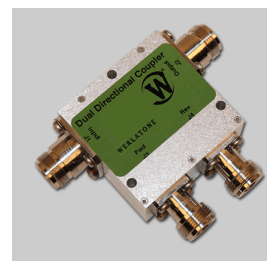
### Mechanical Specifications:

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)
C10559-10	N Female	N Female	N Female	N Female
C10559-12	N Female	N Female	SMA	SMA
C10559-714	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.

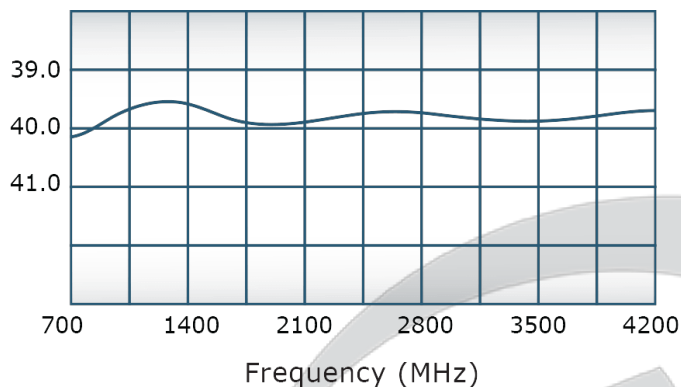


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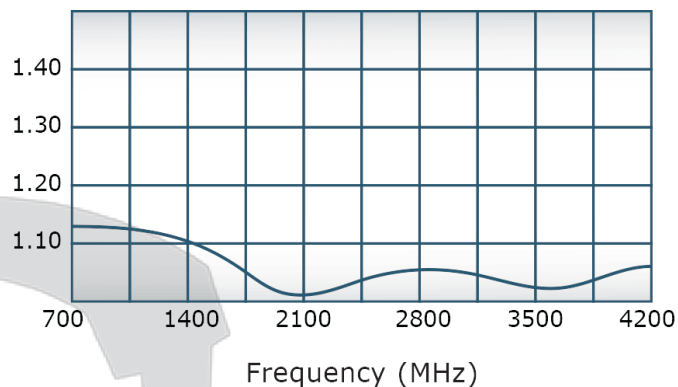
C10559

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

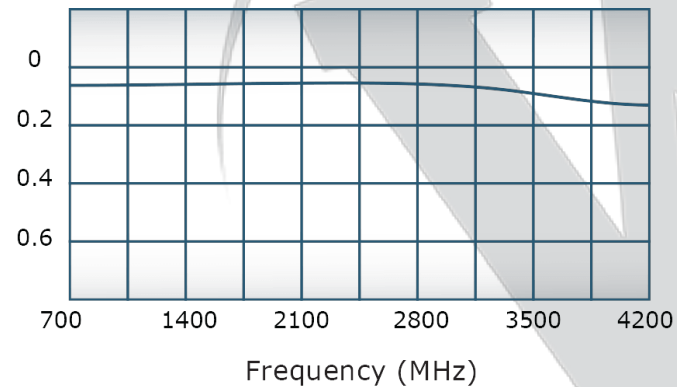
Coupling:



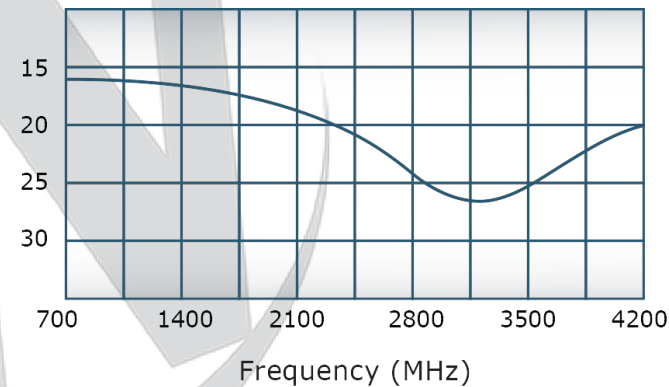
VSWR:



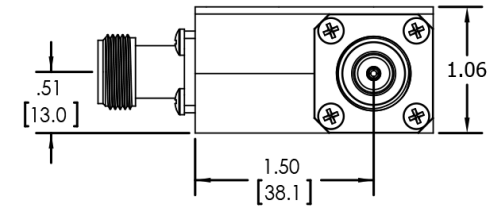
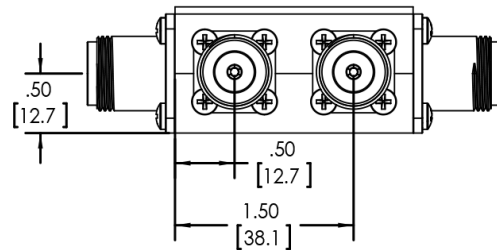
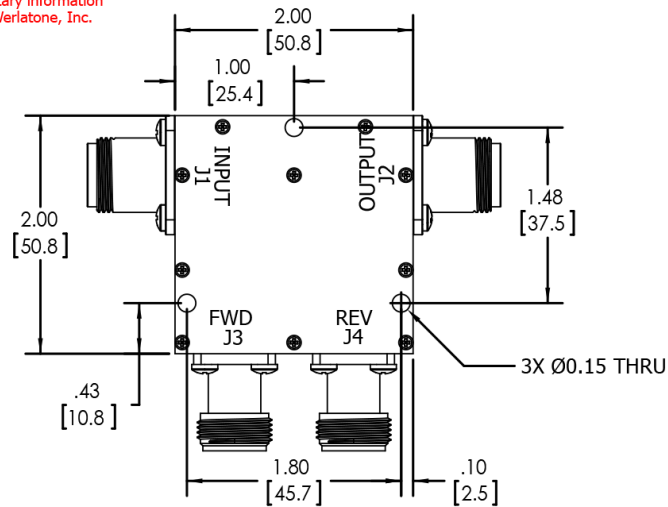
Insertion Loss:



Directivity:



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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 IN ACCORDANCE WITH ASME Y14.5M-2009	DATE	9/30/2014	TITLE	WERLATONE SINCE 1965
PARENTHESES ARE IN INCHES (mm)	DATE	9/30/2014	SIZE	CAGE CODE DWG NO
DIMENSIONS ARE IN INCHES (mm)	DATE	9/30/2014	SCALE	1:1
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES	DATE	9/30/2014	REV	-
TOLERANCES:	DATE	9/30/2014	REV	-
ANGLES ± .2°	DATE	9/30/2014	REV	-
3 PL ± .005 (.13)	DATE	9/30/2014	REV	-
2 PL ± .015 (.4)	DATE	9/30/2014	REV	-
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX	DATE	9/30/2014	REV	-
CONCENTRICITY MACHINED DIA. .002 FIM	DATE	9/30/2014	REV	-
MACHINE TOOL MISMATCH .003 MAX	DATE	9/30/2014	REV	-
THIRD ANGLE PROJECTION	DATE	9/30/2014	REV	-
APPLICATION	DATE	9/30/2014	REV	-
USED ON	DATE	9/30/2014	REV	-
C10117	DATE	9/30/2014	REV	-
NEXT ASSY	DATE	9/30/2014	REV	-
28812	DATE	9/30/2014	REV	-
21250-500	DATE	9/30/2014	REV	-
SHEET 1 OF 1	DATE	9/30/2014	REV	-

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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