


**PRODUCT DATA SHEET**
**C3110**

**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:      20 - 500 MHz  
 Power:          100 W CW  
 Coupling:        40 ± 1.0 dB Max.  
 Insertion Loss: 0.35 dB Max.  
 Flatness:        ± 0.25 dB Max.  
 VSWR (ML):    1.30:1 Max.  
 Directivity:     20 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:              5.0 x 2.0 x 1.51"

**Port Configurations:**

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C3110-10	N Female	N Female	N Female	N Female
C3110-12	N Female	N Female	SMA	SMA
C3110-13	N Female	N Female	BNC	BNC
C3110-102	SMA	SMA	SMA	SMA
C3110-200	BNC	BNC	BNC	BNC
C3110-712	N Male	N Male	SMA	SMA
C3110-714	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.

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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

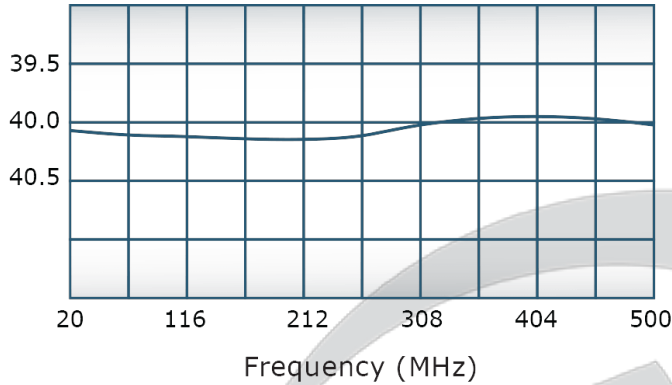


## PRODUCT DATA SHEET

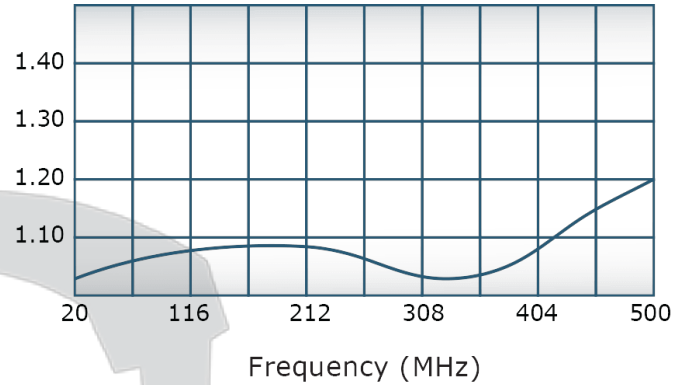
C3110

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

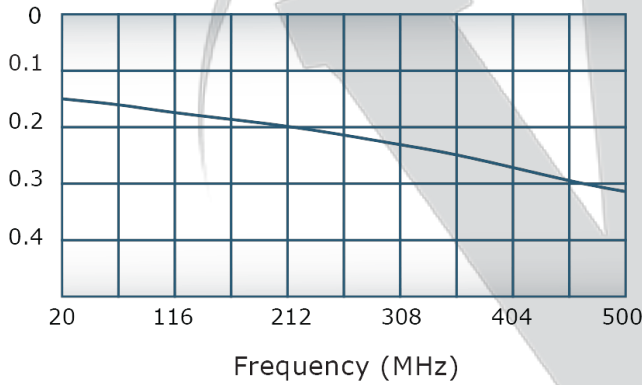
Coupling:



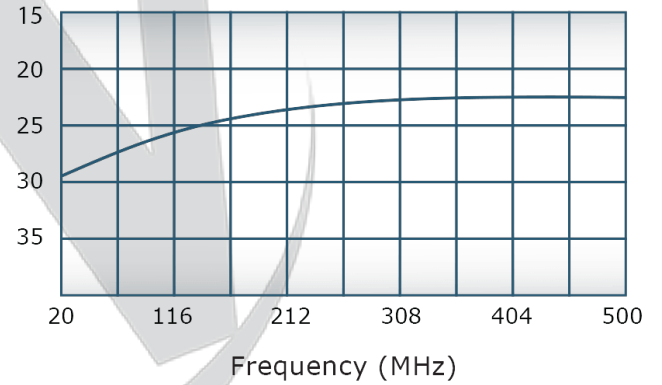
VSWR:



Insertion Loss:



Directivity:



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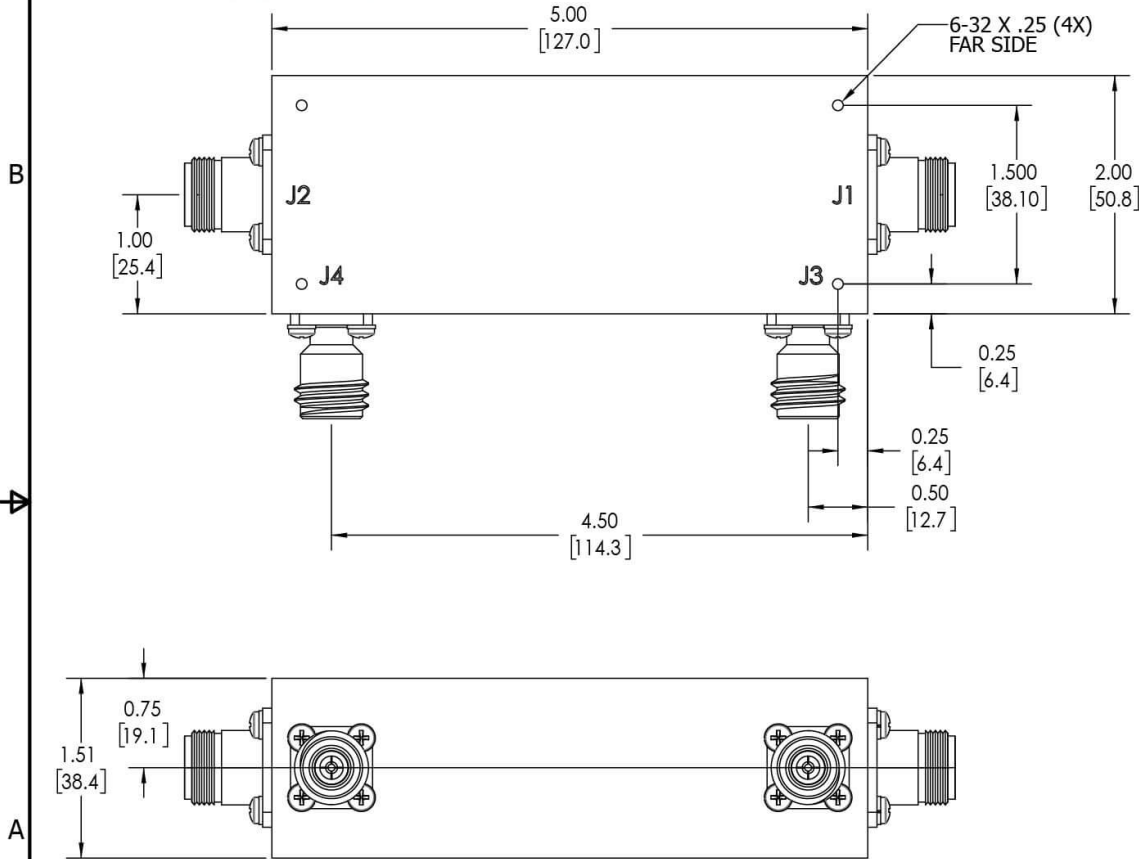
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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
C	ECN 3567	10/5/2004	JE
D	ECN 4139	1/15/2007	JE
E	ECN 9696	5/15/2019	RB

- 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-J4: N FEMALE  
 J1-INPUT; J2-OUTPUT  
 J3-FWD; J4-REV



UNLESS OTHERWISE SPECIFIED		DWN	DATE	17 Jon Barrett Rd
INTERPRET DRAWING IAW MIL-STD-100		SD	5/14/2019	Patterson, NY 12563
DIMENSIONS PER ASME Y14.5M-2009		CHK	DATE	
PARENTHEetical INFO FOR REF ONLY		CS	5/14/2019	
DIMENSIONS ARE IN INCHES		ENGR	DATE	
DIMENSIONAL LINES 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 MISMATCH .003 MAX				

NEXT ASSY	USED ON	APPLICATION	THIRD ANGLE PROJECTION

SIZE	CAGE CODE	DWG NO	REV
B		20676-500	E
SCALE	1:1		SHEET 1 OF 1

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