

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 |

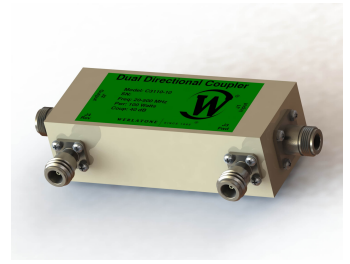
Werlatone® Broadband Dual, Uni, and Bi Directional RF Couplers are designed to tolerate the most stringent operating conditions associated with military and EMC testing environments. Many of our RF Directional Couplers, designated Mismatch Tolerant®, will operate continuously, at rated power, into a severe load mismatch condition.



WERLATONE

Model C3110

Connectorized Directional Couplers

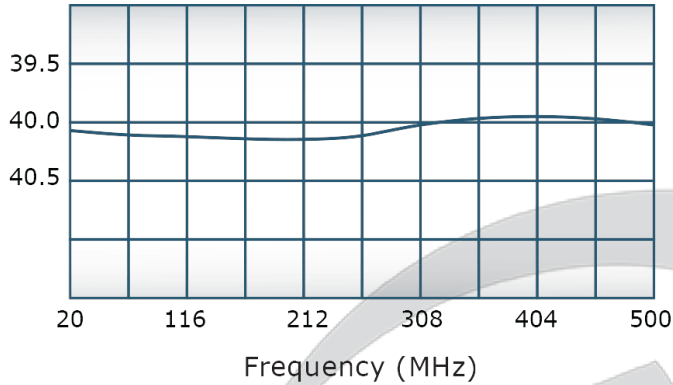


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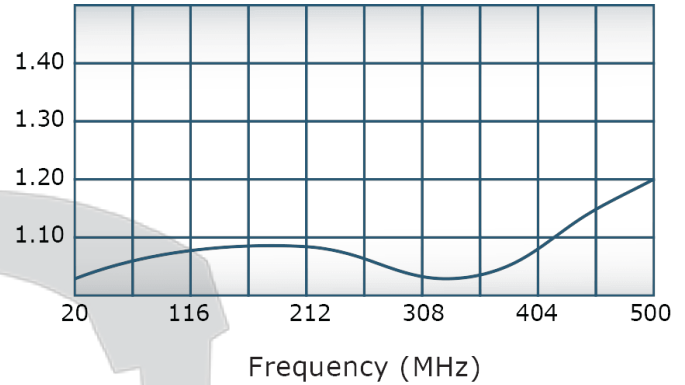
C3110

Performance Data (Specifications subject to change without notice):

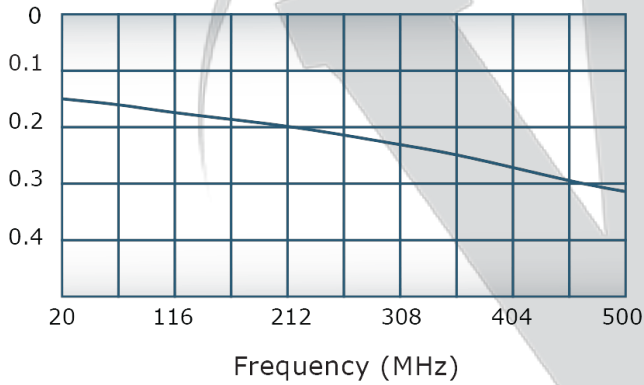
Coupling:



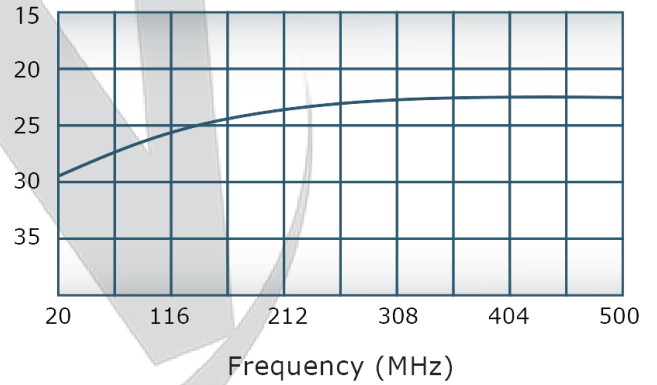
VSWR:



Insertion Loss:



Directivity:



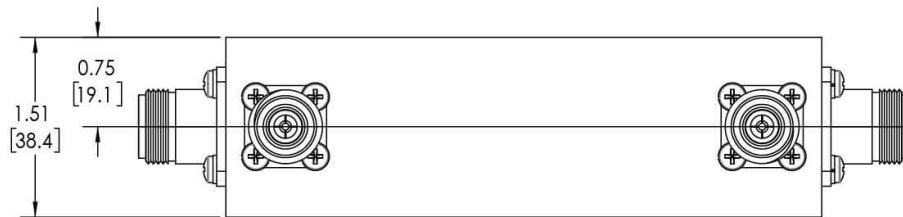
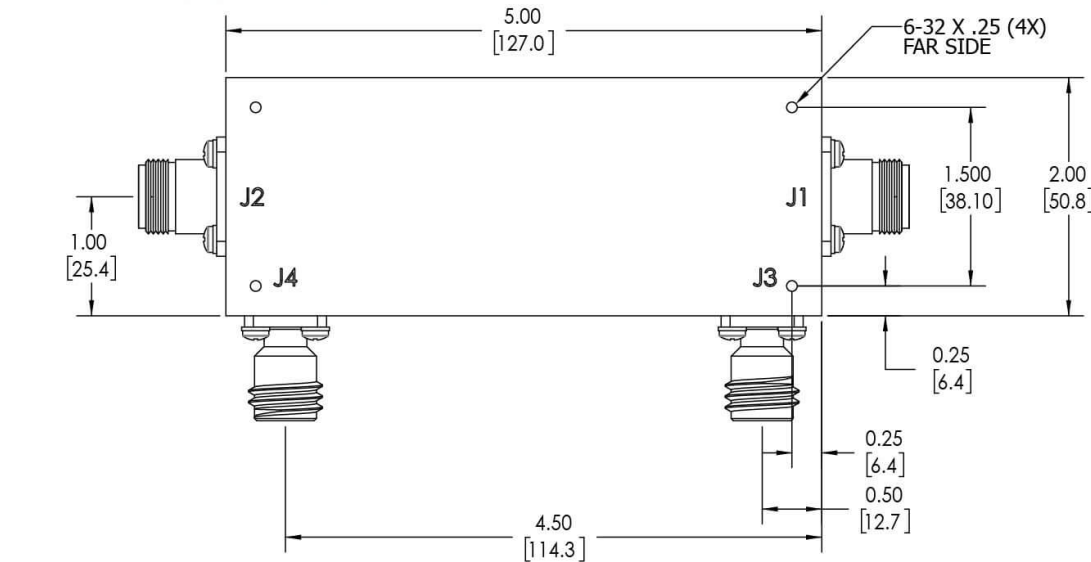
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| REVISION HISTORY | | | |
|------------------|-----------------|-----------|----------|
| REV. | REVISION RECORD | DATE | APPROVED |
| C | ECN 3567 | 10/5/2004 | JE |
| D | ECN 4139 | 1/15/2007 | JE |
| E | ECN 9696 | 5/15/2019 | RB |

- NOTES: UNLESS OTHERWISE SPECIFIED**
- MATERIAL: ALUMINUM 6061-T6**
 - FINISH: CHEM FILM PER MIL-DTL-5541F TYPE I CLASS 3 (YELLOW IRIDITE)**
 - CONNECTORS:**
J1-J4: N FEMALE
J1-INPUT; J2-OUTPUT
J3-FWD; J4-REV



| | | | | |
|--|---------|------|-----------|--------------|
| UNLESS OTHERWISE SPECIFIED | | SD | DATE | 5/14/2019 |
| INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100 | | CHK | DATE | 5/14/2019 |
| DIMENSIONS FOR ASME Y14.5M-2009 | | CS | DATE | 5/14/2019 |
| PARENTHESES FOR REF ONLY | | ENGR | DATE | |
| DIMENSIONS ARE IN INCHES | | INFR | DATE | |
| DIMENSIONAL LIMITS APPLY BEFORE PROCESSES | | QA | DATE | |
| TOLERANCES: | | RLSE | DATE | |
| ANGLES ± 2° | | | | |
| 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 | | | | |
| THIRD ANGLE PROJECTION | | | | |
| NEXT ASSY | USED ON | | | |
| APPLICATION | | | | |
| TITLE | | SIZE | CAGE CODE | DWG NO |
| OUTLINE | | B | 20676-500 | REV E |
| SCALE | | 1:1 | | SHEET 1 OF 1 |

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