

PRODUCT DATA SHEET

C10018

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: 50 - 500 MHz
 Power: 3000 W CW
 Coupling: 50 ± 1.0 dB Max.
 Insertion Loss: 0.1 dB Max.
 Flatness: ± 0.5 dB Max.
 VSWR (ML): 1.15:1 Max.
 Directivity: 25 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: 3.0 x 3.0 x 1.59"

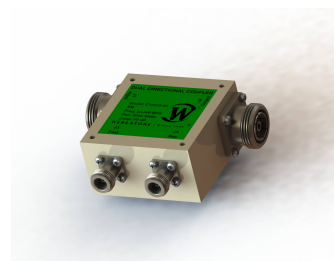
Connector Configurations:

| Model | Input (J1) | Output (J2) | Fwd (J3) | Rev (J4) |
|-----------|-------------|-------------|----------|----------|
| C10018-20 | 7/16 Female | 7/16 Female | N Female | N Female |
| C10018-22 | 7/16 Female | 7/16 Female | SMA | SMA |
| C10018-23 | 7/16 Female | 7/16 Female | BNC | BNC |

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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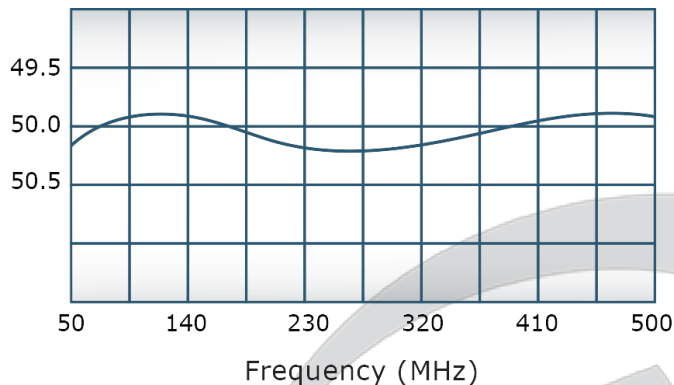


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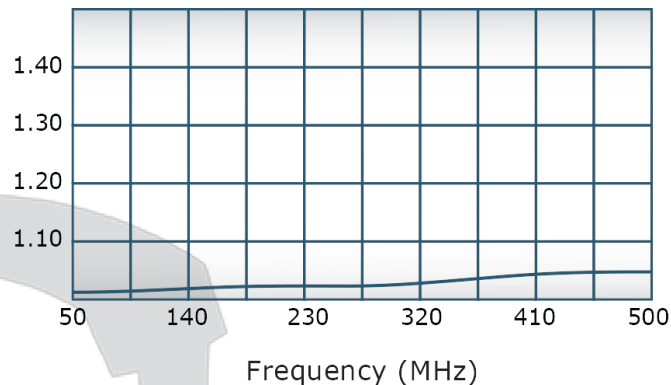
C10018

Performance Data (Specifications subject to change without notice):

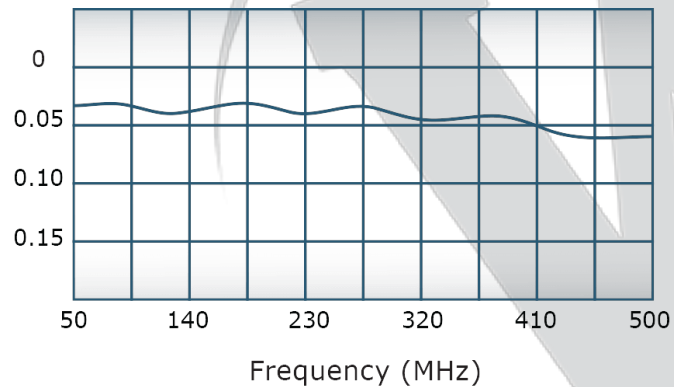
Coupling:



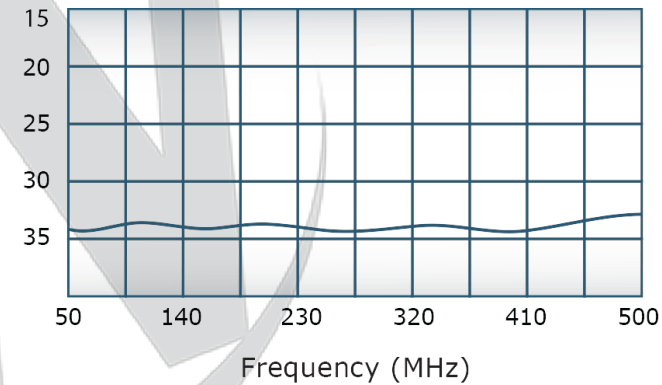
VSWR:



Insertion Loss:



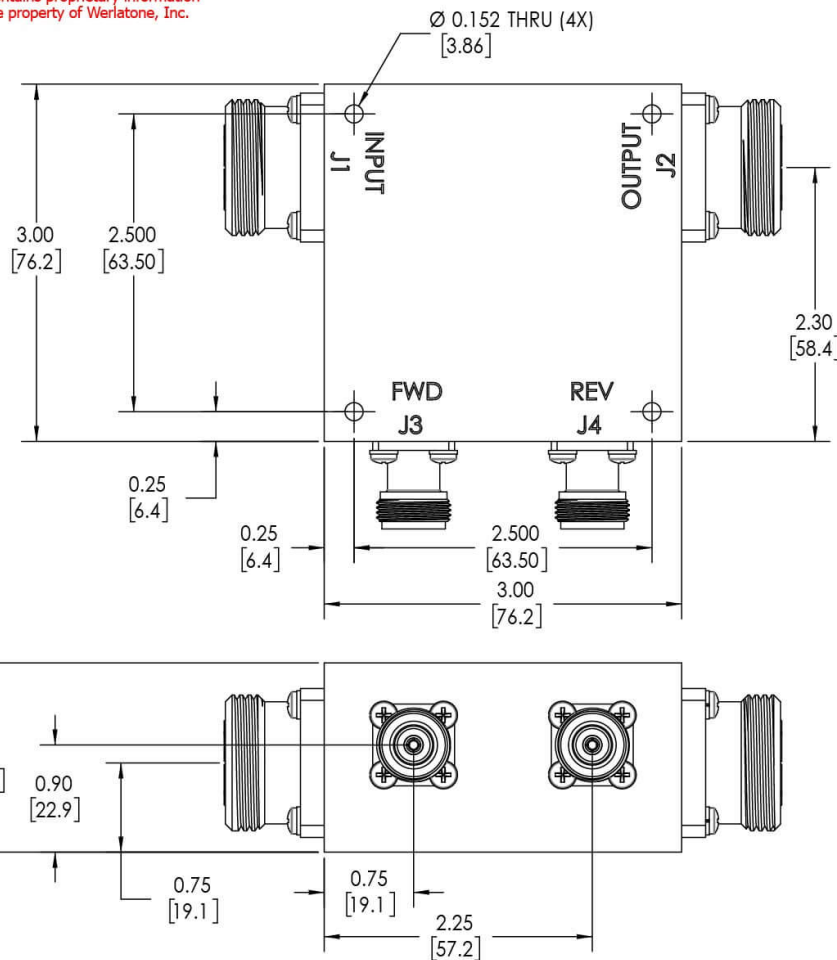
Directivity:



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| REVISION HISTORY | | | |
|------------------|-----------------|-----------|----------|
| REV. | REVISION RECORD | DATE | APPROVED |
| A | ECN 9696 | 5/13/2019 | RB |

NOTES: UNLESS OTHERWISE SPECIFIED

- MATERIAL: ALUMINUM 6061-T6**
- FINISH: CHEM FILM PER MIL-DTL-5541F CLASS I TYPE 3 (YELLOW IRIDITE)**
- CONNECTORS:**
J1, J2: 7/16 FEMALE
J3, J4: N FEMALE

| | | | | |
|--|--|-----------------------|-----------|--|
| <div>UNLESS OTHERWISE SPECIFIED</div> <div>INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100</div> <div>DIMENSIONS FOR ASME Y14.5M-2009</div> <div>PARENTHESES ARE FOR REF ONLY</div> <div>DIMENSIONS ARE IN INCHES</div> <div>DIMENSIONAL LIMITS APPLY BEFORE PROCESSES</div> <div>TOLERANCES:</div> <div>ANGLES ± 2°</div> <div>3 PL ± .005 [13]</div> <div>2 PL ± .015 [38]</div> <div>REMOVE ALL BURRS AND SHARP EDGES R.01 MAX</div> <div>CONCENTRICITY MACHINED DIA. .002 FIM</div> <div>MACHINE TOOL MISMATCH .003 MAX</div> | | OWN | DATE | <div><div><div><div>W</div><div>WERLATONE</div><div>SINCE 1965</div></div></div><div>17 Jon Barrett Rd Patterson, NY 12563</div></div> |
| | | SD | 5/13/2019 | |
| | | CHK | DATE | |
| | | CS | 5/13/2019 | |
| | | ENGR | DATE | |
| | | INFR | DATE | |
| | | QA | DATE | |
| | | RLSE | DATE | |
| | | TITLE | | |
| | | SIZE CAGE CODE DWG NO | | |
| B 10443-501 | | | | |
| SCALE 1:1 | | | | |
| SHEET 1 OF 1 | | | | |
| REV A | | | | |

| | |
|------------------------|---------|
| NEXT ASSY | USED ON |
| APPLICATION | |
| THIRD ANGLE PROJECTION | |

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