


PRODUCT DATA SHEET
C10049

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: 1 - 11 MHz
Power: 5000 W CW
Coupling: 70 ± 1.0 dB Max.
Insertion Loss: 0.05 dB Max.
Flatness: ± 0.75 dB Max.
VSWR (ML): 1.10:1 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: 6.0 x 3.0 x 2.24"

Connector Configurations:

| Model | Input (J1) | Output (J2) | Fwd (J3) | Rev (J4) |
|-----------|-------------|-------------|----------|----------|
| C10049-20 | 7/16 Female | 7/16 Female | N Female | N Female |
| C10049-22 | 7/16 Female | 7/16 Female | SMA | SMA |
| C10049-23 | 7/16 Female | 7/16 Female | BNC | BNC |
| C10049-30 | LC Female | LC Female | N Female | N Female |
| C10049-33 | LC Female | LC 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.

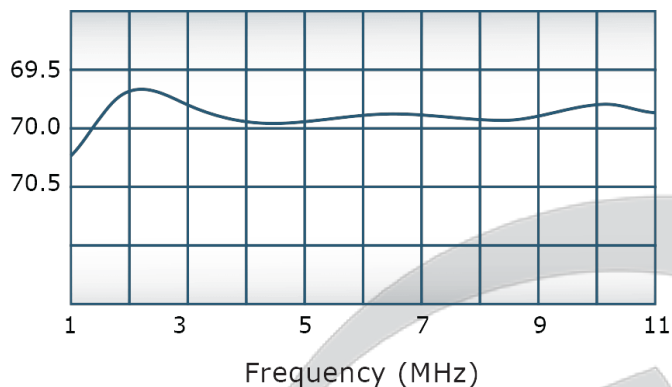


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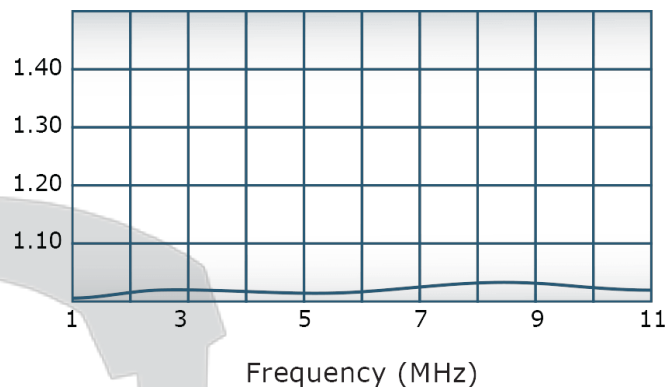
C10049

Performance Data (Specifications subject to change without notice):

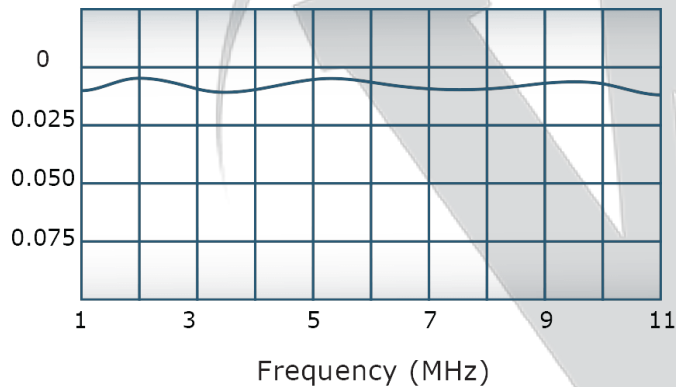
Coupling:



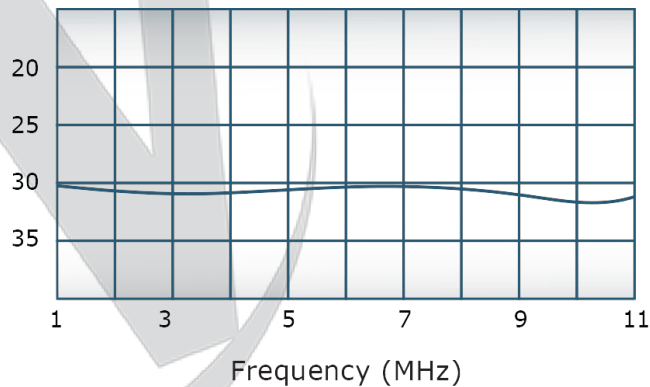
VSWR:



Insertion Loss:



Directivity:

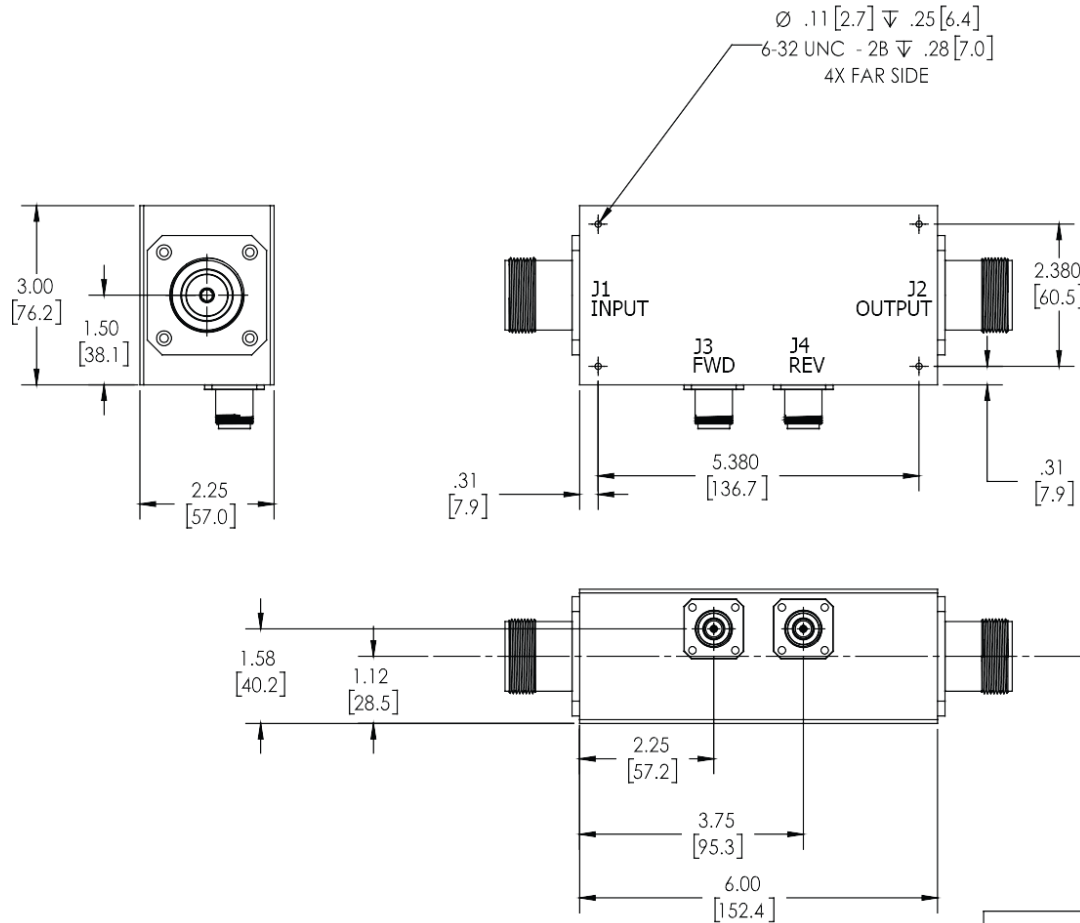


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| REVISION HISTORY | | | |
|------------------|-----------------|------------|----------|
| REV. | REVISION RECORD | DATE | APPROVED |
| - | INITIAL RELEASE | 10/29/2018 | CS |



| | | | | | |
|---|--|------|------------|--|--|
| UNLESS OTHERWISE SPECIFIED | | OWN | DATE | 17 Jon Barrett Rd Patterson, NY 12563 | |
| • INTERPRET DRAWING JAW MIL-STD-100 | | PLP | 10/25/2018 | WERLATONE SINCE 1965 | |
| • DIMENSIONING PER ASME Y14.5M-2009 | | CHK | DATE | | |
| • PRELIMINARY DIMS FOR REF ONLY | | CS | 10/29/2018 | TITLE | |
| • DIMENSIONS ARE IN INCHES (mm) | | ENGR | DATE | SIZE | |
| • DIMENSIONAL UNITS APPLY BEFORE PROCESSES | | INPR | DATE | CAGE CODE | |
| • TOLERANCES: | | QA | DATE | DWG NO | |
| ANGLES: ± 2° | | RLSE | DATE | REV | |
| 2 PL ± .005 (1.3) | | | | B 28812 | |
| 2 PL ± .015 (4) | | | | 10396-500 | |
| • REMOVE ALL BURRS AND SHARP EDGES R.03 MAX | | | | SCALE | |
| • CONCENTRICITY MACHINED DIA: .002 FIM | | | | 1:2 | |
| • MACHINE TOOL REPAIR: .003 MAX | | | | SHEET 1 OF 1 | |
| THIRD ANGLE PROJECTION | | | | | |

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