



PRODUCT DATA SHEET

C3807

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: | 0.03 - 30 MHz |
| Power: | 5250 W CW |
| Coupling: | 50 ± 1.0 dB Max. |
| Insertion Loss: | 0.05 dB Max. |
| Flatness: | ± 0.5 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: | 5.0 x 3.0 x 2.24" |

Connector Configurations:

| Model | Input (J1) | Output (J2) | Fwd (J3) | Rev (J4) |
|------------|-------------|-------------|------------|------------|
| C3807-10 | N Female | N Female | N Female | N Female |
| C3807-12 | N Female | N Female | SMA | SMA |
| C3807-13 | N Female | N Female | BNC | BNC |
| C3807-20 | 7/16 Female | 7/16 Female | N Female | N Female |
| C3807-23 | 7/16 Female | 7/16 Female | BNC | BNC |
| C3807-30 | LC Female | LC Female | N Female | N Female |
| C3807-64 | HN Female | HN Female | BNC Female | BNC Female |
| C3807-751 | HN Female | HN Male | BNC Female | BNC Female |
| C3807-QC-0 | QC Block | QC Block | N Female | N Female |
| C3807-QC-2 | QC Block | QC Block | SMA | SMA |
| C3807-7501 | SQS Male | SQS Female | N Female | N Female |
| C3807-7503 | SQS Male | SQS Female | BNC | BNC |



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Model C3807

Connectorized Directional Couplers

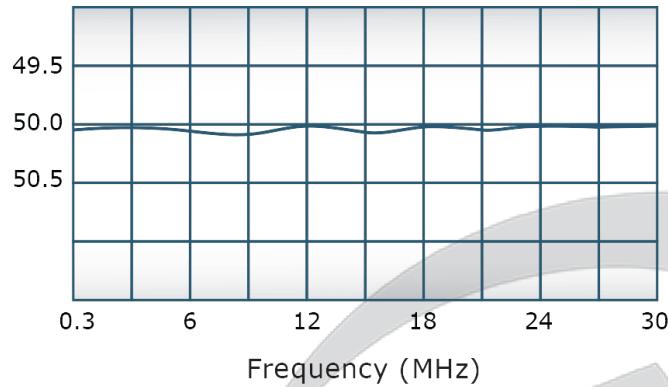


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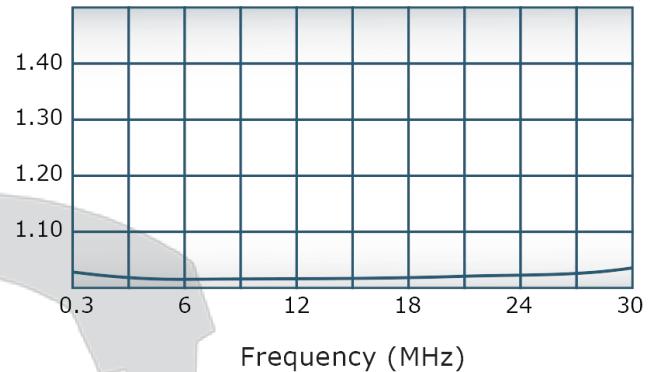
C3807

Performance Data (Specifications subject to change without notice):

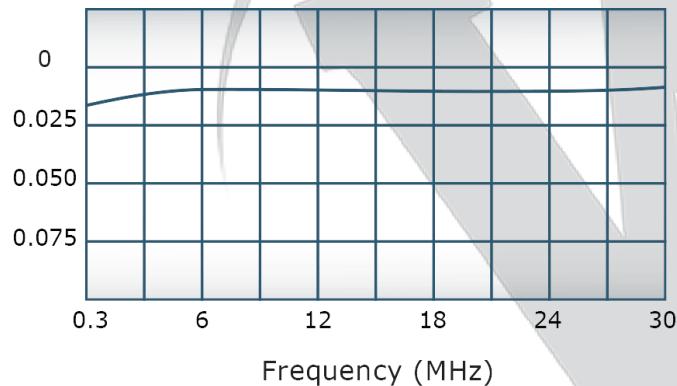
Coupling:



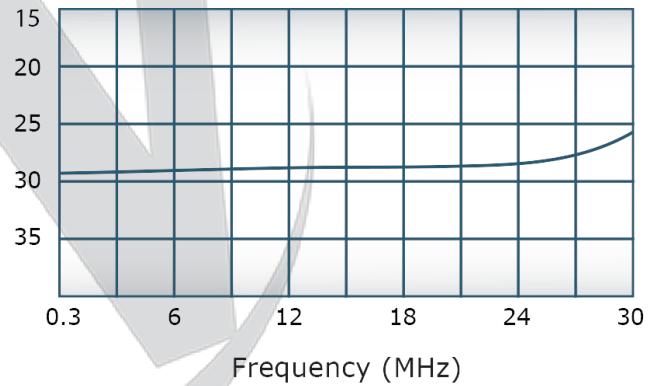
VSWR:



Insertion Loss:



Directivity:



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4

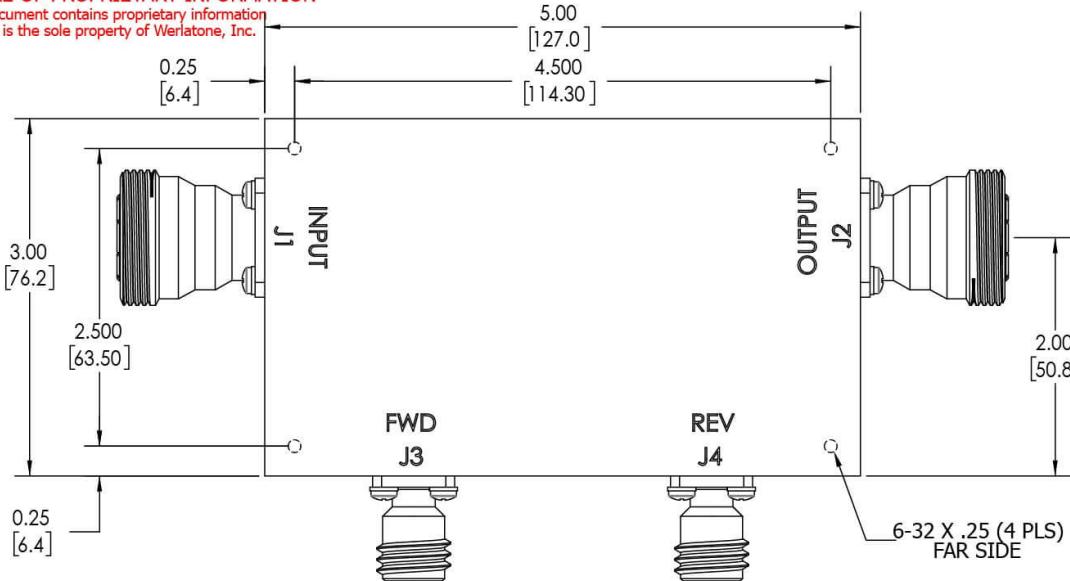
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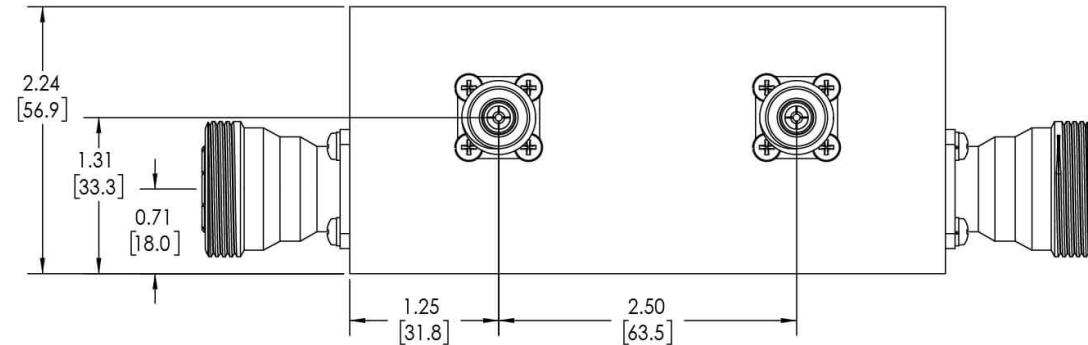


REVISION HISTORY

| REV. | REVISION RECORD | DATE | APPROVED |
|------|-----------------|---------|----------|
| A | ECN 9696 | 3/25/19 | 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,J2: 7/16 FEMALE
J3,J4: N FEMALE



| | | | |
|---|------------------------|-----------|-----------------------|
| UNLESS OTHERWISE SPECIFIED | DN | DATE | 17 Jon Barrett Rd |
| INTERPRET DRAWING JAW MIL-STD-100 | SD | 3/25/2019 | WERLATONE SINCE 1965 |
| UNIFORM DRAWING AS 14-5M-2009 | CHK | DATE | Patterson, NY 12563 |
| PARENTHETICAL TYPE FOR REFERENCE ONLY | CS | 3/25/2019 | |
| DIMENSIONS ARE IN INCHES | ENGR | DATE | |
| DIMENSIONAL LIMITS APPLY BEFORE PROCESSES | MFGR | DATE | |
| TOLERANCES | QA | DATE | |
| ANGLES $\pm 2^\circ$ | RELEASE | DATE | |
| 3 RL $\pm .005$ [1.27] | | | |
| 2 RL $\pm .012$ [3.05] | | | |
| REMOVE ALL BURRS AND SHARP EDGES R.01 MAX | | | |
| CONCENTRICITY MACHINED DIA. .002 FIM | | | |
| MACHINE TOOL MISMATCH .003 MAX | | | |
| NEXT ASSY | USED ON | SIZE | REV |
| APPLICATION | THIRD ANGLE PROJECTION | CAGE CODE | |
| | | DWG NO | |
| | | B | A |
| | | 10602-500 | |
| | | SCALE | |
| | | 1:1 | |
| | | SHEET | |
| | | 1 OF 1 | |

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