


PRODUCT DATA SHEET
C7646

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 - 500 MHz
Power: 30 W CW
Coupling: 20 ± 1.0 dB Max.
Insertion Loss: 3.0 dB Max.
Flatness: ± 1.0 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: 5.2 x 2.67 x 1.69"

Connector Configurations:

| Model | Input (J1) | Output (J2) | Fwd (J3) | Rev (J4) |
|-----------|------------|-------------|----------|----------|
| C7646-10 | N Female | N Female | N Female | N Female |
| C7646-12 | N Female | N Female | SMA | SMA |
| C7646-13 | N Female | N Female | BNC | BNC |
| C7646-102 | SMA | SMA | SMA | SMA |
| C7646-200 | BNC | BNC | BNC | BNC |

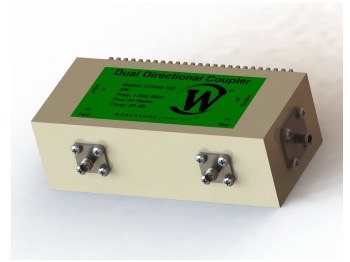
* Insertion Loss includes 0.08 dB Coupling Loss.

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 C7646

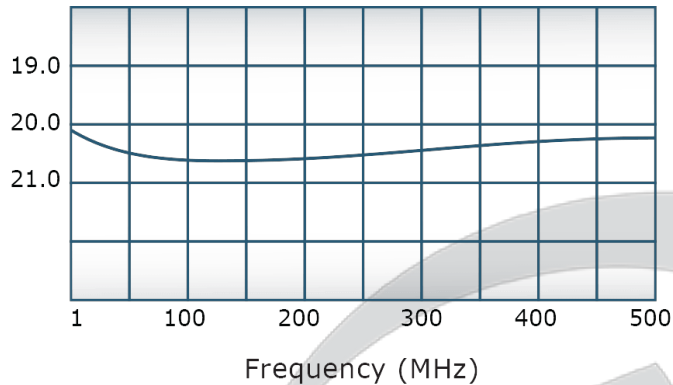


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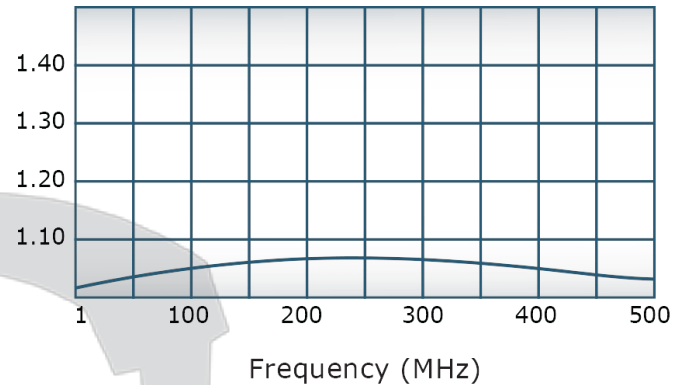
C7646

Performance Data (Specifications subject to change without notice):

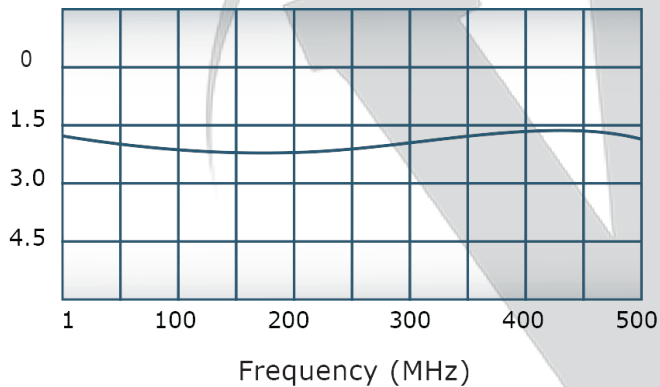
Coupling:



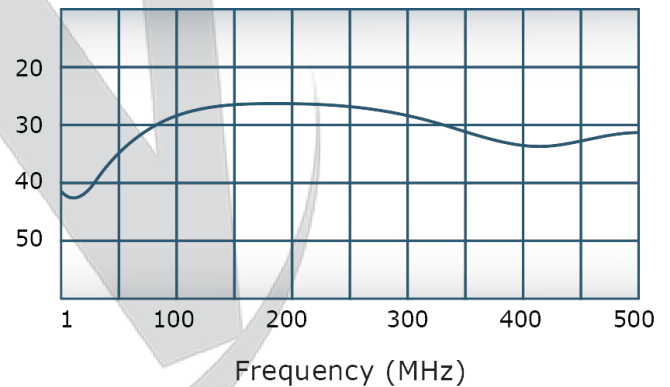
VSWR:



Insertion Loss:



Directivity:



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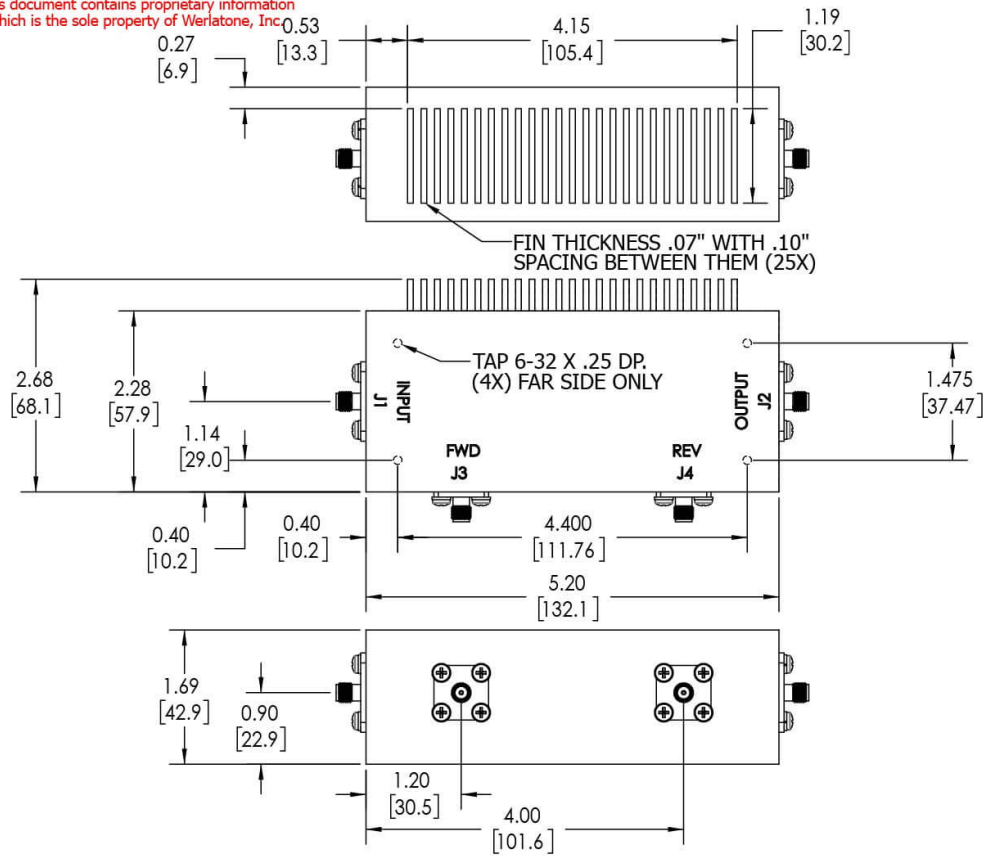
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| REVISION HISTORY | | | |
|------------------|-----------------|----------|----------|
| REV. | REVISION RECORD | DATE | APPROVED |
| A | ECN 9696 | 11/28/18 | RB |

NOTES: UNLESS OTHERWISE SPECIFIED

- MATERIAL: ALUMINUM 6061-T6**
- FINISH: CHEM FILM PER MIL-DTL-5541F TYPE I CLASS 3 (YELLOW IRIDITE)**
- CONNECTORS:**
J1-J4: SMA FEMALE



| | | | | | | | |
|--|--|------------------------|-----------|---|--|--------------|-----|
| UNLESS OTHERWISE SPECIFIED | | OWN | DATE |  WERLATONE SINCE 1965 | 17 Jon Barrett Rd Patterson, NY 12563 | | |
| INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100 | | SD | 2/11/2019 | | | | |
| DIMENSIONS PER ASME Y14.5M-2009 | | CHK | DATE | | | | |
| PARENTHESES ARE IN INCHES | | CS | 2/11/2019 | | | | |
| DIMENSIONAL LIMITS APPLY BEFORE PROCESSES | | ENGR | DATE | | | | |
| TOLERANCES: | | BW | 9/13/1996 | OUTLINE | | | |
| ANGLES ± 2° | | INFR | DATE | | | | |
| 3 PL ± .005 [13] | | QA | DATE | | | | |
| 2 PL ± .015 [38] | | RLSE | DATE | | | | |
| REMOVE ALL BURRS AND SHARP EDGES R.01 MAX | | | | | | | |
| CONCENTRICITY MACHINED DIA. .002 FIM | | | | SIZE | CAGE CODE | DWG NO | REV |
| MACHINE TOOL MISMATCH .003 MAX | | | | SCALE | 10407-501 | | A |
| NEXT ASSY | | USED ON | | 1:1.5 | | SHEET 1 OF 1 | |
| APPLICATION | | THIRD ANGLE PROJECTION | | | | | |

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