



PRODUCT DATA SHEET

H2977

Werlatone® High Power 180° RF Hybrid Combiners/Dividers balance traditional technologies with disruptive microwave techniques. The outcome is a microwave component which provides an order of magnitude improvement over current capabilities. Our newest line of high power, patented 180° RF Hybrid Combiners/Dividers provides an incredible 5:1 bandwidth, while exhibiting exceptionally low loss and superior port-to-port isolation.

Features:

High Power Wide Bandwidths Small Size Excellent Amplitude Balance

Electrical Specifications:

Frequency: 20 - 150 MHz
 Power: 200 W CW
 Insertion Loss: 0.5 dB Max.
 VSWR: 1.30:1 Max.
 Phase Balance: $180^\circ \pm 5^\circ$ Max.
 Amplitude Balance: ± 0.2 dB Max.
 Isolation: 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
 Weight: 1 lb. 8 oz.
 Size: 3.0 x 5.0 x 2.25"

Connector Configurations:

| Model | Sum Port (J1) | Diff. Port (J2) | Inputs (J3,J4) |
|-----------|---------------|-----------------|----------------|
| H2977-10 | N Female | N Female | N Female |
| H2977-102 | SMA | SMA | SMA |
| H2977-300 | TNC Female | TNC Female | TNC Female |

Werlatone's standard line of High Power 180° RF Hybrid Combiners/Dividers covers multiple octaves within a microwave device. Low frequency 180° Hybrid Combiner/Dividers employ proprietary ferrite transmission line techniques, similar to our 0° Combiners/Dividers. Insertion loss in both sum and difference ports is minimal, allowing the hybrid to handle high power over its frequency range. Custom requirements are welcome.



WERLATONE

Model H2977

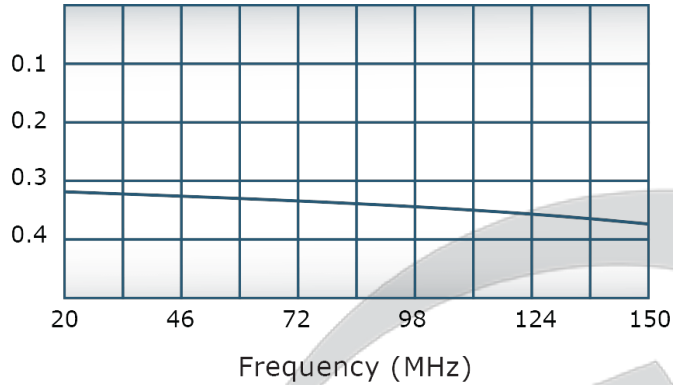


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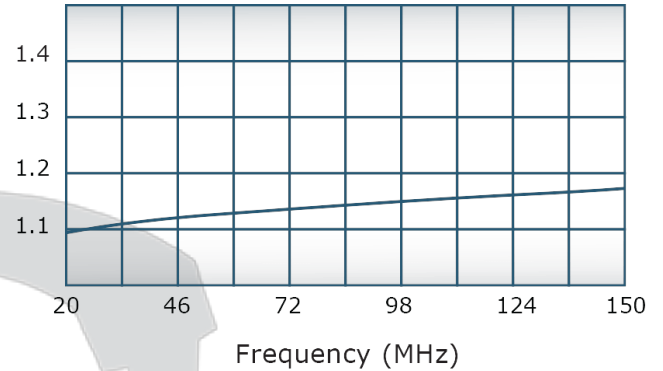
H2977

Performance Data (Specifications subject to change without notice):

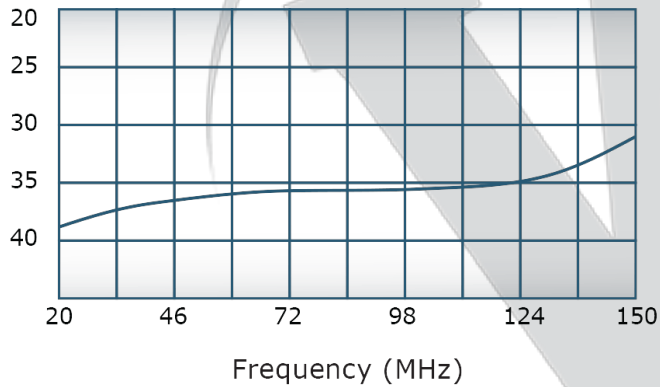
Insertion Loss:



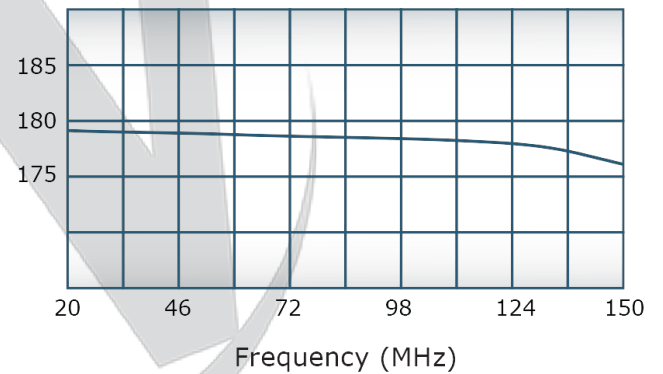
VSWR:



Isolation:



Phase Balance:



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Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com

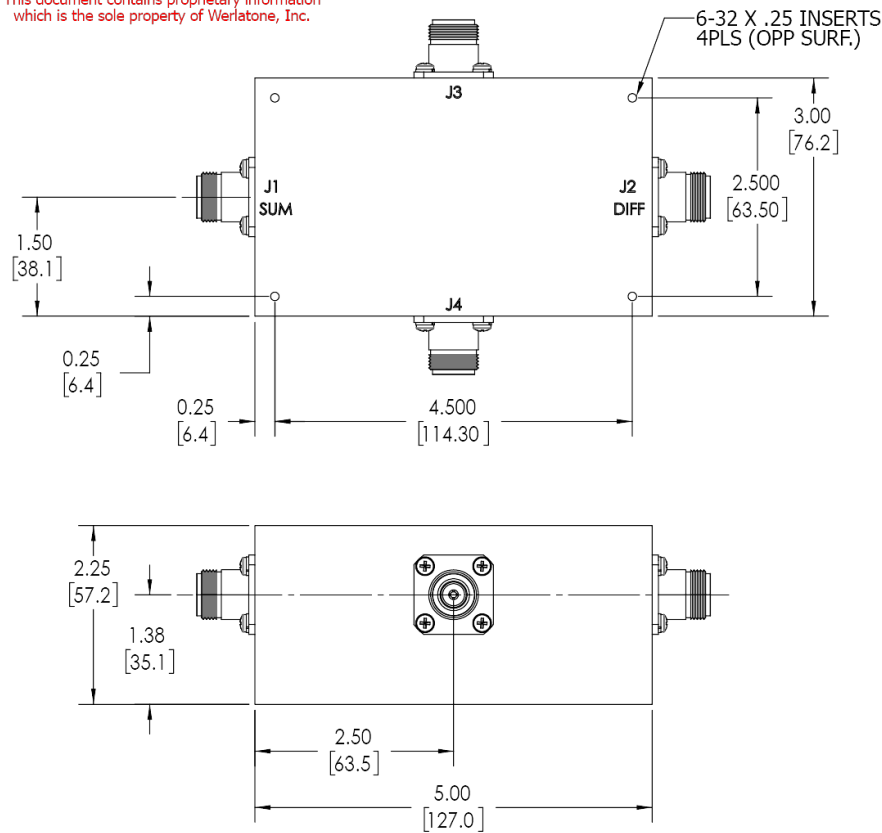
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REVISION HISTORY

| REV. | REVISION RECORD | DATE | APPROVED |
|------|-----------------|------------|----------|
| A | ECN 5376 | 5/6/11 | PR |
| B | ECN 9696 | 11/25/2019 | 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



| | | | | | | | | | | |
|-------------|--|--|--|---|------------|---|--|------------------|-----------|------|
| | | UNLESS OTHERWISE SPECIFIED | | DOWN | DATE |  WERLATONE [®] SINCE 1965 | 17 Jon Barrett Rd Patterson, NY 12563 | | | |
| | | INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100 DIMENSIONS PER ASME Y14.5M-2009 PARENTHESES FOR REF ONLY DIMENSIONS ARE IN INCHES DIMENSIONAL LIMITS APPLY BEFORE FINISHES TOLERANCES: 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 FIM | | SD | 11/25/2019 | | DATE | | | |
| | | | | CHK | DATE | TITLE | | <h1>OUTLINE</h1> | | |
| | | | | CS | 11/25/2019 | | | | DATE | |
| | | | | ENGR | DATE | SIZE | | CAGE CODE | DWG NO. | REV |
| | | | | INPR | DATE | B | | | 10135-500 | B |
| | | | | QA | DATE | SCALE | | 1:1.5 | | |
| NEXT ASSY | | USED ON | | RLSE | DATE | SHEET | | 1 | | OF 1 |
| APPLICATION | | THIRD ANGLE PROJECTION | |  | | | | | | |

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