


**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° ± 5° 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.

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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

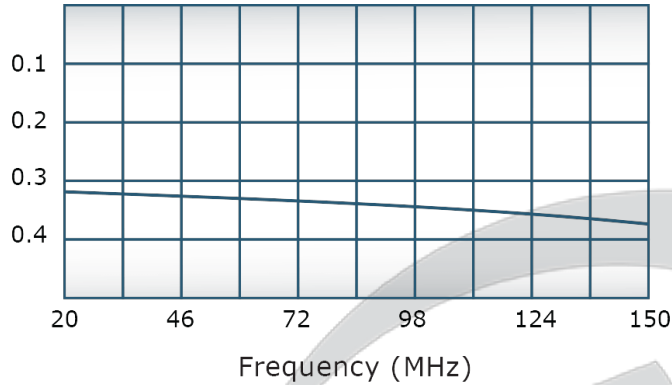


## PRODUCT DATA SHEET

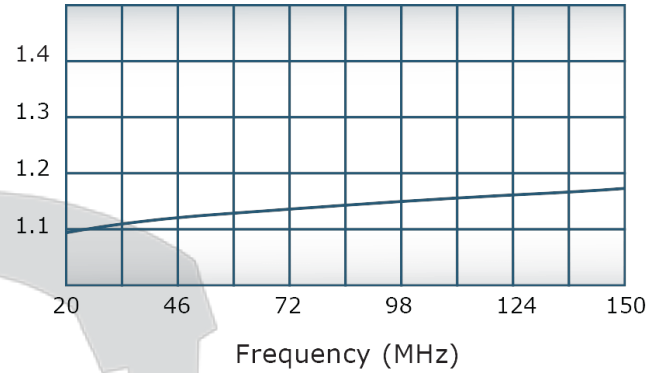
H2977

### Performance Data (Specifications subject to change without notice):

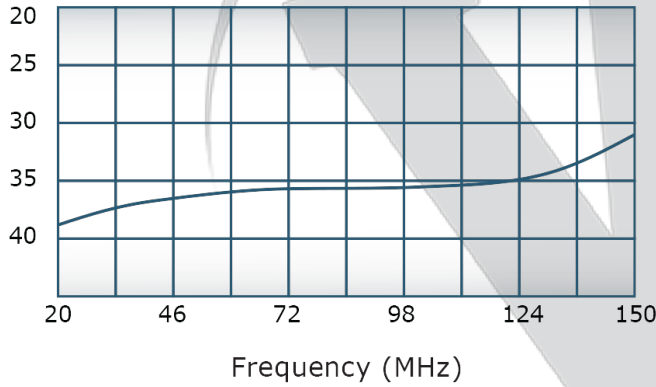
Insertion Loss:



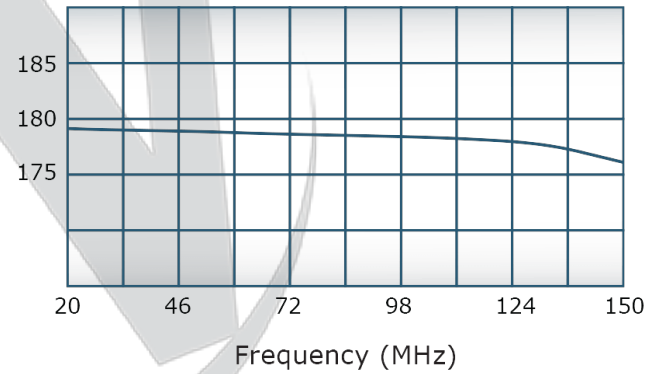
VSWR:



Isolation:



Phase Balance:

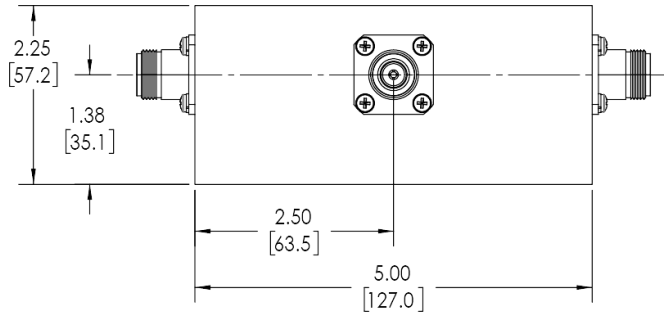
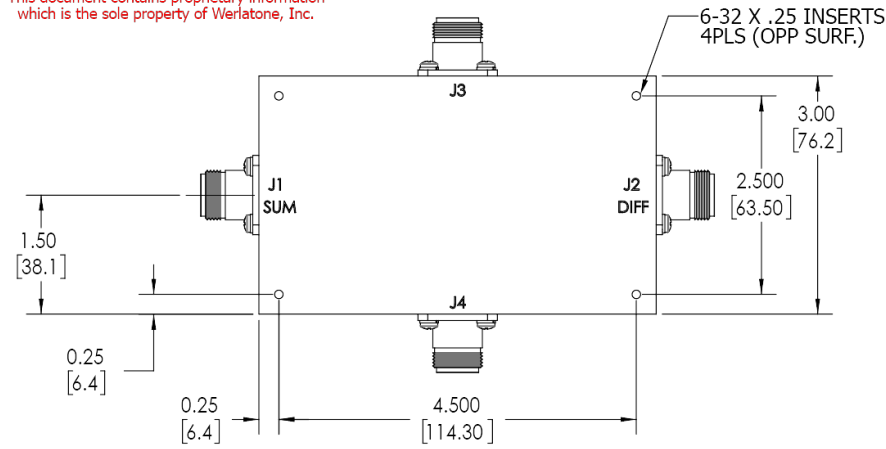


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REVISION HISTORY

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		OWN	DATE	WERLATONE SINCE 1965 17 Jon Barrett Rd Patterson, NY 12563
INTERPRET DRAWING IAW MIL-STD-100	SD	11/25/2019	DATE	
DIMENSIONS PER ASME Y14.5M-2009	CHK	DATE	DATE	TITLE
PARENTHEetical INFO FOR REF ONLY	CS	11/25/2019	DATE	
DIMENSIONS ARE IN INCHES	ENGR	DATE	DATE	<b>OUTLINE</b> SIZE CAGE CODE DWG NO B 10135-500
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES	INFR	DATE	DATE	
TOLERANCES:	QA	DATE	DATE	REV
ANGLES = 2°	RLSE	DATE	DATE	B
3 PL ± .005 (.13)				1
2 PL ± .015 (.38)				B
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX				
CONCENTRICITY MACHINED DIA: .002 FIM				
MACHINE TOOL MISMATCH .003 FIM				
NEXT ASSY	USED ON	SCALE		SHEET 1 OF 1
APPLICATION	THIRD ANGLE PROJECTION	1:1.5		

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