



## PRODUCT DATA SHEET

H2979

**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: 0.3 - 100 MHz  
 Power: 100 W CW  
 Insertion Loss: 1.0 dB Max.  
 VSWR: 1.50:1 Max.  
 Phase Balance:  $180^\circ \pm 5^\circ$  Max.  
 Amplitude Balance:  $\pm 0.3$  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: 2 lbs.  
 Size: 5.0 x 3.0 x 2.25"

### Connector Configurations:

Model	Sum Port (J4)	Diff Port (J2)	Inputs (J3,J4)
H2979-10	N Female	N Female	N Female
H2979-12	N Female	SMA	SMA
H2979-13	N Female	N Female	BNC
H2979-102	SMA	SMA	SMA

**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.

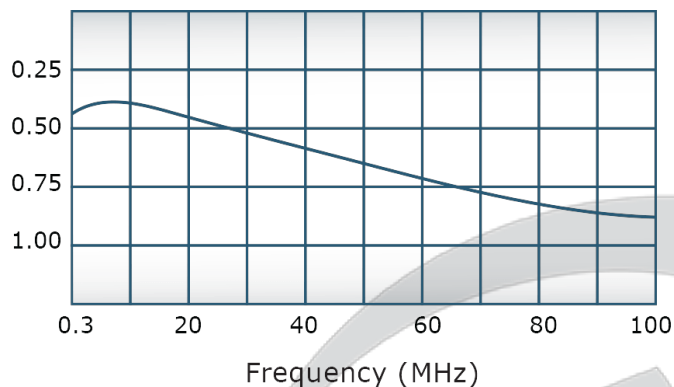


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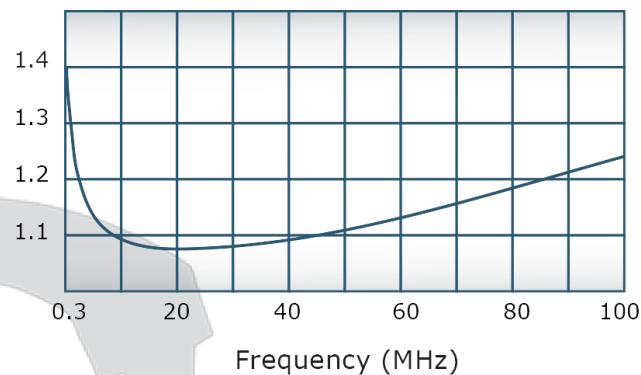
H2979

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

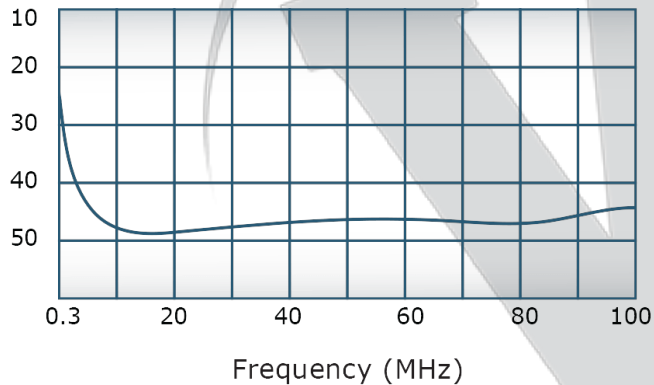
Insertion Loss:



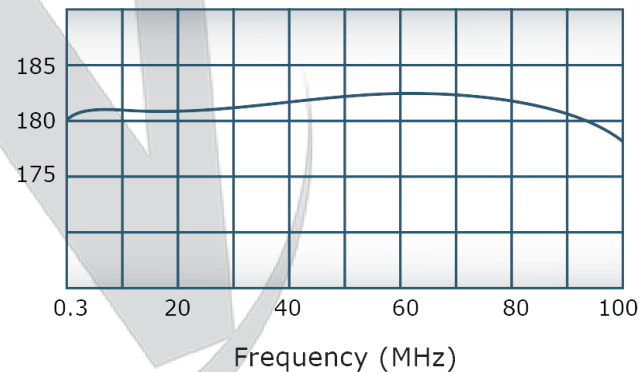
VSWR:



Isolation:



Phase Balance:



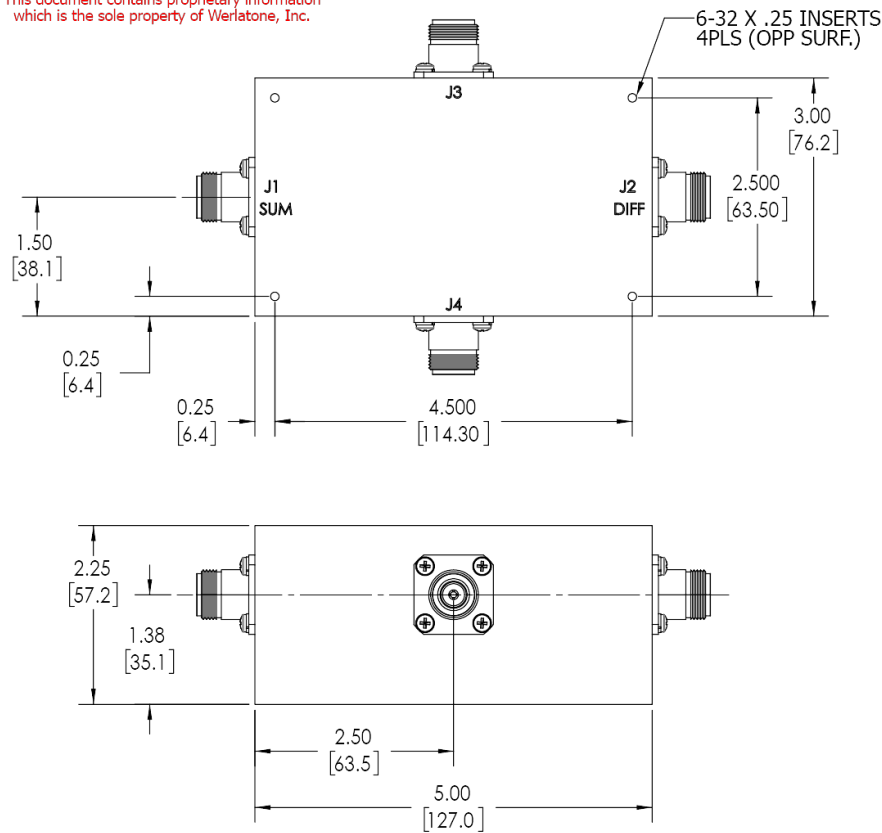
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# REVISION HISTORY

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		SD	DATE	17 Jon Barrett Rd Patterson, NY 12563
INTERPRET DRAWING 1001 MIL-STD-100		CHK	DATE	
DIMENSIONS PER ASME Y14.5M-2009		CS	DATE	TITLE
PARENTHESES FOR REF ONLY		ENGR	DATE	
DIMENSIONS ARE IN INCHES		INFR	DATE	SIZE
DIMENSIONAL LIMITS APPLY BEFORE FINISHES		QA	DATE	
TOLERANCES:		RLSE	DATE	CAGE CODE
ANGLES ± 2°				
3 PL ± .005 [13]				DWG NO
2 PL ± .015 [38]				
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX				REV
CONCENTRICITY MACHINED DIA. .002 FIM				
MACHINE TOOL MISMATCH .003 FIM				SHEET 1 OF 1
THIRD ANGLE PROJECTION				

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