



## PRODUCT DATA SHEET

H2052

**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: 100 W CW  
Insertion Loss: 0.5 dB Max.  
VSWR: 1.30:1 Max.  
Phase Balance:  $180^\circ \pm 5^\circ$  Max.  
Amplitude Balance:  $\pm 0.3$  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: 1.75 lbs.  
Size: 3.0 x 5.0 x 2.25"

### Connector Configurations:

Model	Sum Port (J1)	Diff. Port (J2)	Inputs (J3,J4)
H2052-10	N Female	N Female	N Female
H2052-102	SMA	SMA	SMA
H2052-300	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 H2052  
180° Hybrids Connectorized

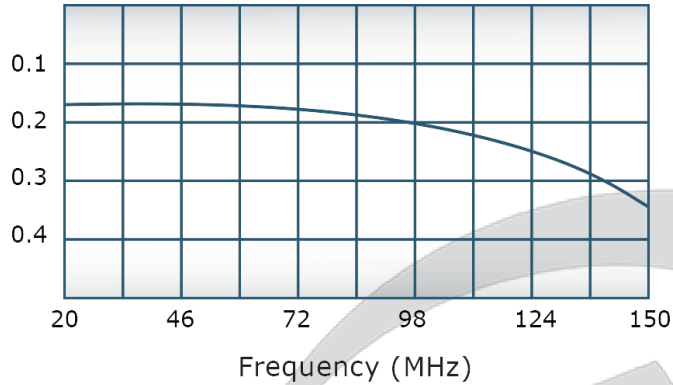


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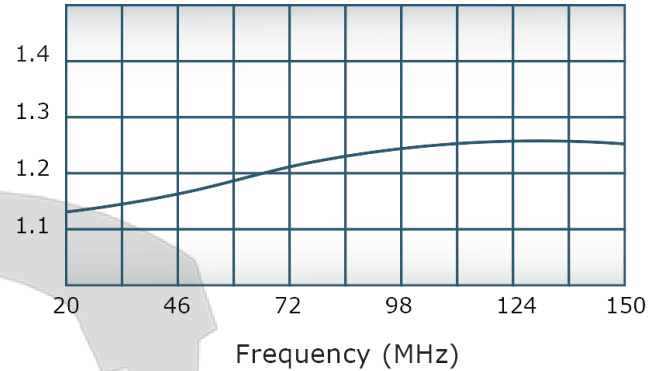
H2052

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

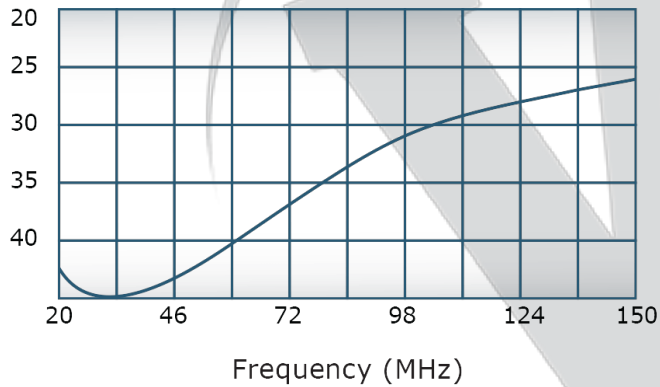
Insertion Loss:



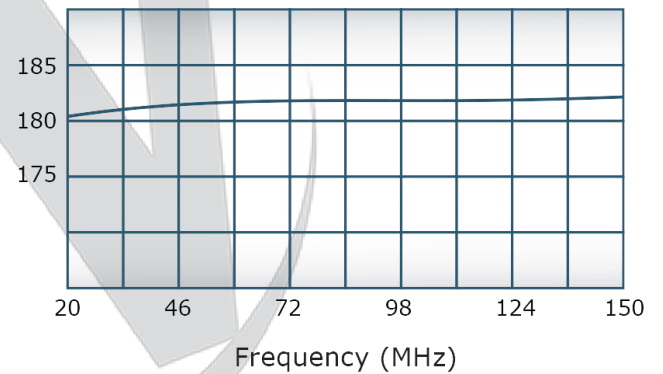
VSWR:



Isolation:



Phase Balance:



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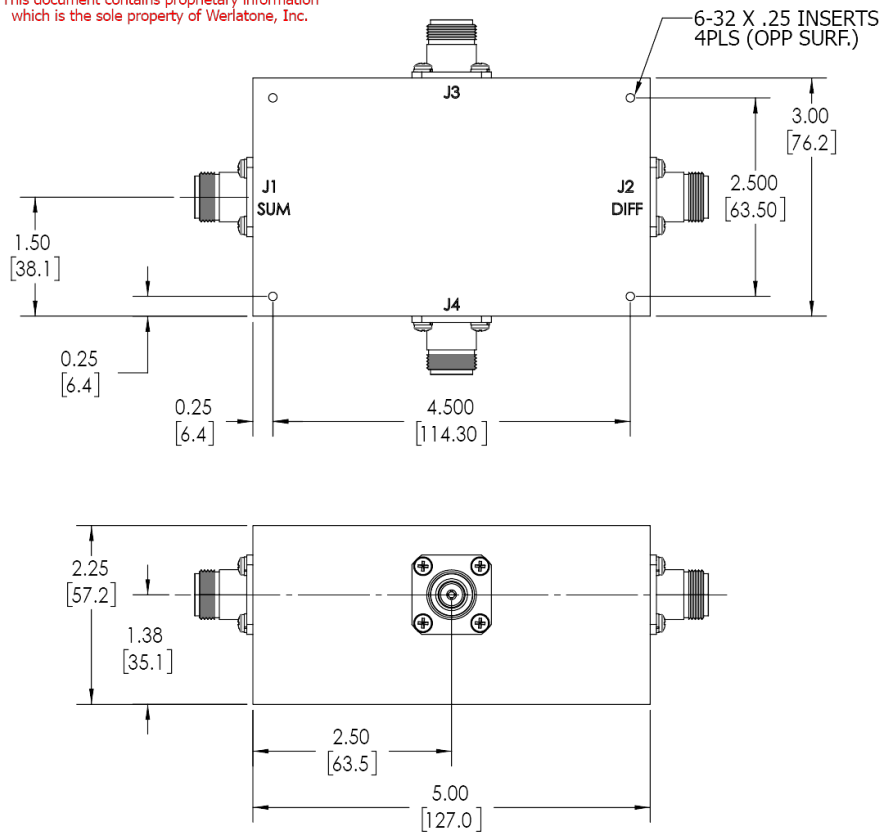
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# REVISION HISTORY

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		SD	11/25/2019	 WERLATONE  SINCE 1965			
		DIMENSIONS PER ASME Y14.5M-2009		CHK	DATE				
		PARENTHESES FOR REF ONLY		CS	11/25/2019	TITLE			
		DIMENSIONS ARE IN INCHES		ENGR	DATE	<h1>OUTLINE</h1>			
		DIMENSIONAL LIMITS APPLY BEFORE FINISHES		INPR	DATE				
		TOLERANCES:		QA	DATE	SIZE: B		CAGE CODE: 10135-500	
		ANGLES ± 2°		RLSE	DATE	DWG NO: 10135-500		REV: B	
		3 PL ± .005 [13]				SCALE: 1:1.5		SHEET 1 OF 1	
		2 PL ± .015 [38]							
		REMOVE ALL BURRS AND SHARP EDGES R.01 MAX							
		CONCENTRICITY MACHINED DIA. .002 FIM							
		MACHINE TOOL MISMATCH .003 FIM							
NEXT ASSY		USED ON							
APPLICATION		THIRD ANGLE PROJECTION							

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