



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.

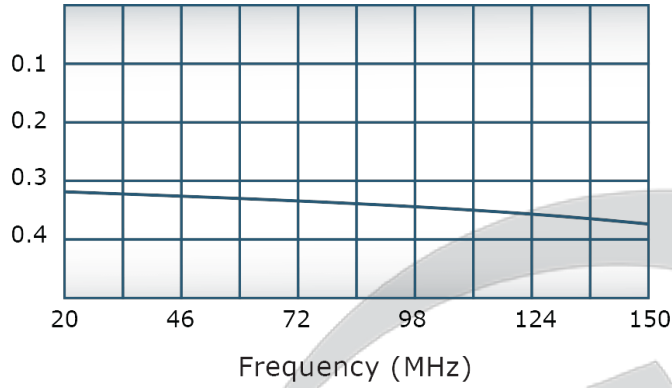
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Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com

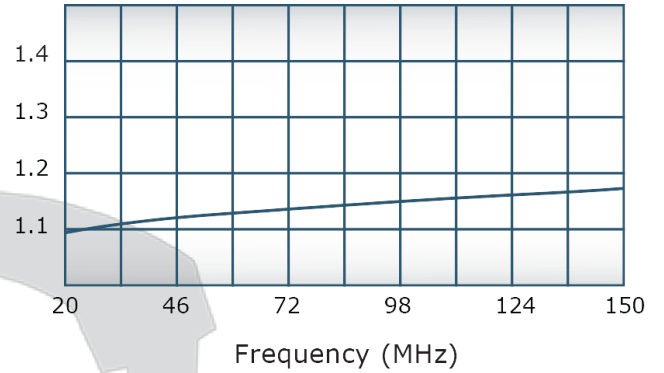


Performance Data (Specifications subject to change without notice):

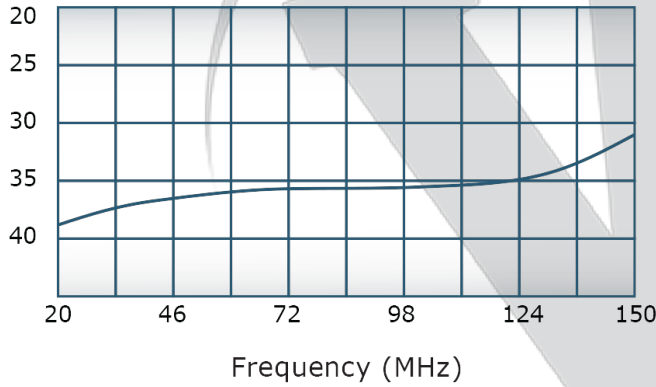
Insertion Loss:



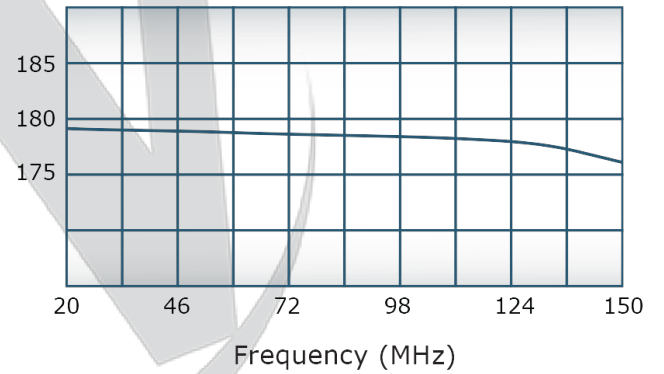
VSWR:



Isolation:



Phase Balance:



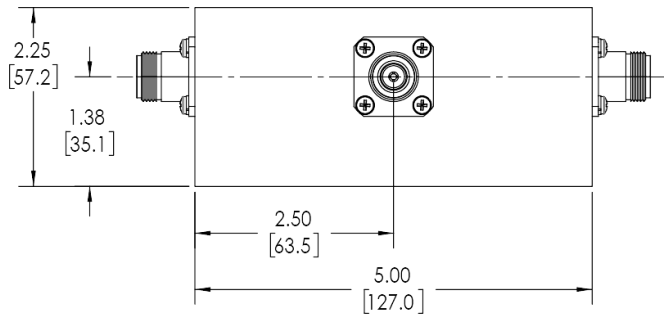
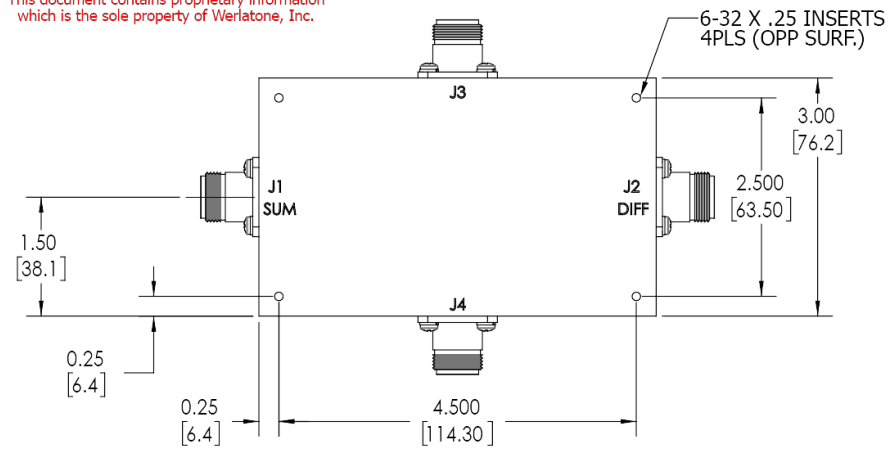
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REVISION HISTORY

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		
DIMENSIONS PER ASME Y14.5M-2009	CHK	DATE		TITLE OUTLINE
PARENTHEetical INFO FOR REF ONLY	CS	11/25/2019		
DIMENSIONS ARE IN INCHES	ENGR	DATE		SIZE CAGE CODE DWG NO B 10135-500
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES	INFR	DATE		
TOLERANCES:	QA	DATE		REV B
ANGLES = 2°	RLSE	DATE		
3 PL ± .005 (.13)				SCALE 1:1.5
2 PL ± .015 (.38)				
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX				SHEET 1 OF 1
CONCENTRICITY MACHINED DIA: .002 FIM				
MACHINE TOOL MISMATCH .003 FIM				

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