
**PRODUCT DATA SHEET**
**H7972**

**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:	100 - 1000 MHz
Power:	50 W CW
Insertion Loss:	1.3 dB Max.
VSWR:	1.30:1 Max.
Phase Balance:	180° ± 5° Max.
Amplitude Balance:	± 0.4 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
Size:	4.0 x 2.2 x 1.1"

**Connector Configurations:**

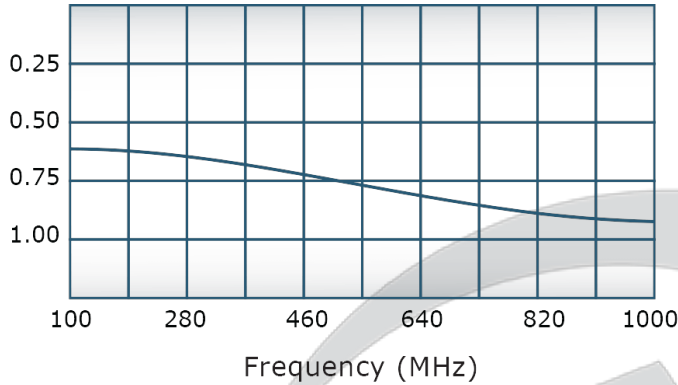
<b>Model</b>	<b>Sum Port (J1)</b>	<b>Inputs (J2,J3)</b>
H7972-10	N Female	N Female
H7972-12	N Female	SMA
H7972-102	SMA	SMA

**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.

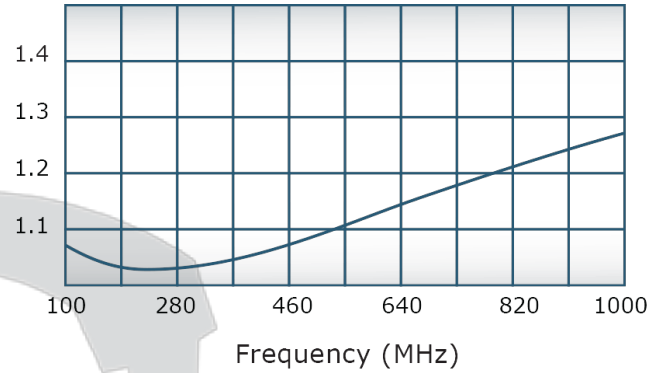


## Performance Data (Specifications subject to change without notice):

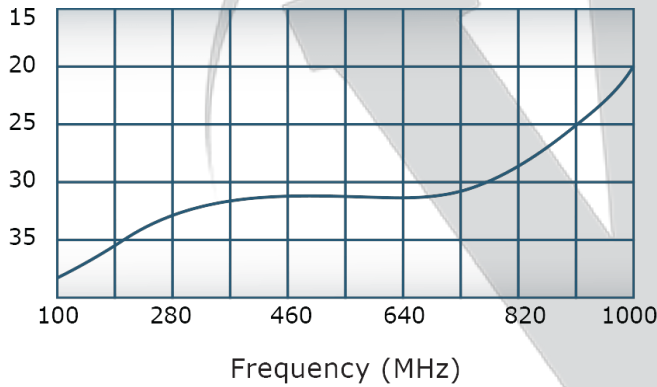
Insertion Loss:



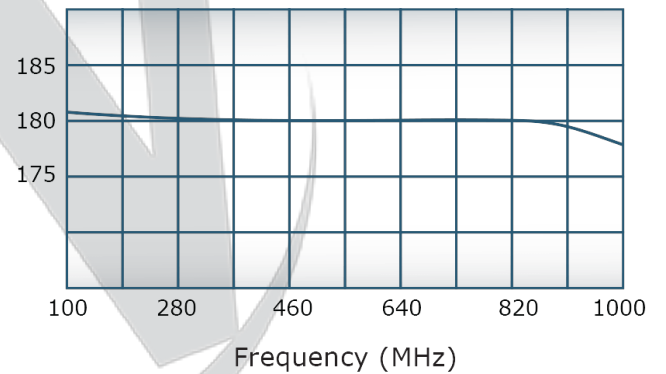
VSWR:



Isolation:



Phase Balance:



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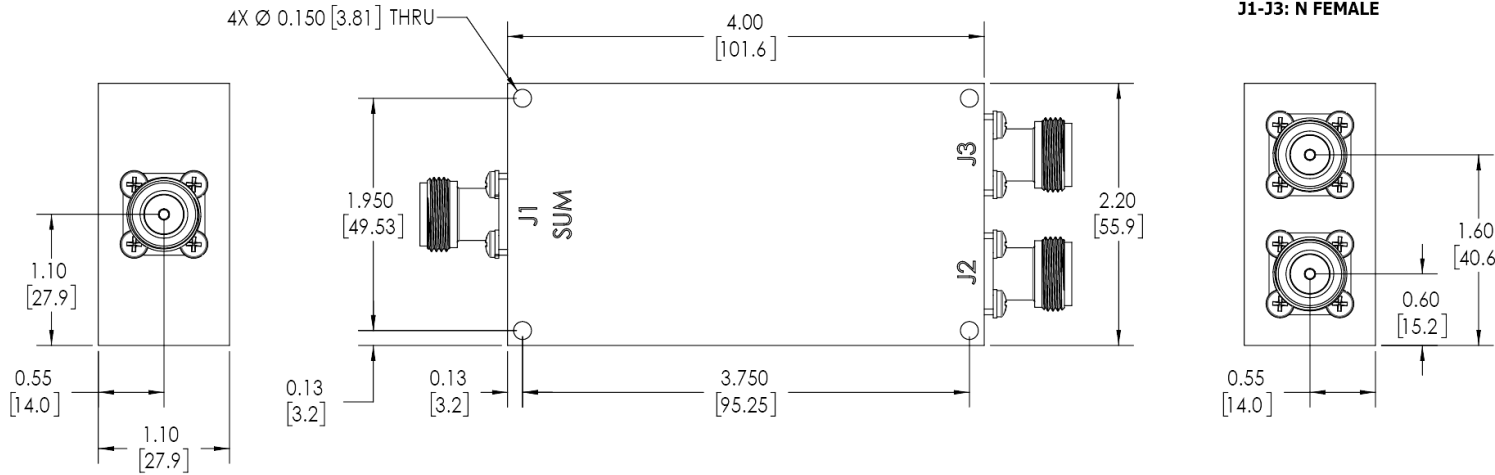
Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com

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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 9696	12/2/2019	RB

**NOTES: UNLESS OTHERWISE SPECIFIED**

- MATERIAL: ALUMINUM 6061-T6**
- FINISH: CHEM FILM PER MIL-DTL-5541F TYPE I CLASS 3 (YELLOW IRIDITE)**
- CONNECTORS: J1-J3: N FEMALE**



UNLESS OTHERWISE SPECIFIED	DWN	DATE	17 Jon Barrett Rd Patterson, NY 12563
INTERPRET DRAWING IAW MIL-STD-100	SD	12/2/2019	W WERLATONE SINCE 1965
DIMENSIONS PER ASME Y14.5M-2009	CHK	DATE	
PARENTHEetical INFO FOR REF ONLY	CS	12/2/2019	TITLE
DIMENSIONS ARE IN INCHES	ENGR	DATE	OUTLINE
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES	INFR	DATE	SIZE CAGE CODE DWG NO
TOLERANCES:	QA	DATE	B 20215-500
ANGLES = 2°	RLSE	DATE	REV
3 PL ± .005 (.13)			A
2 PL ± .015 (.38)			
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX			
CONCENTRICITY MACHINED DIA: .002 FIM			
MACHINE TOOL MISMATCH .003 MAX			
APPLICATION	THIRD ANGLE PROJECTION	SCALE	SHEET 1 OF 1
		1:1	

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