


PRODUCT DATA SHEET
H7814

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 - 512 MHz
 Power: 50 W CW
 Insertion Loss: 0.8 dB Max.
 VSWR: 1.40:1 Max.
 Phase Balance: 180° ± 5° Max.
 Amplitude Balance: ± 0.4 dB Max.
 Isolation: 25 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"

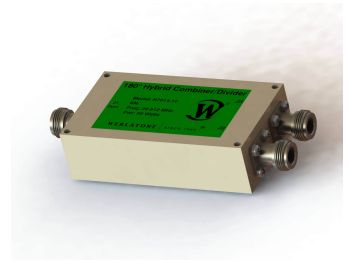
Connector Configurations:

Model	Sum Port (J1)	0°, 180° (J2,J3)
H7814-10	N Female	N Female
H7814-12	N Female	SMA
H7814-13	N Female	BNC

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.

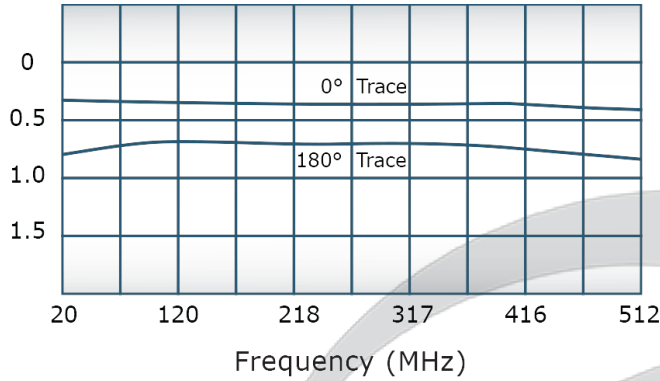
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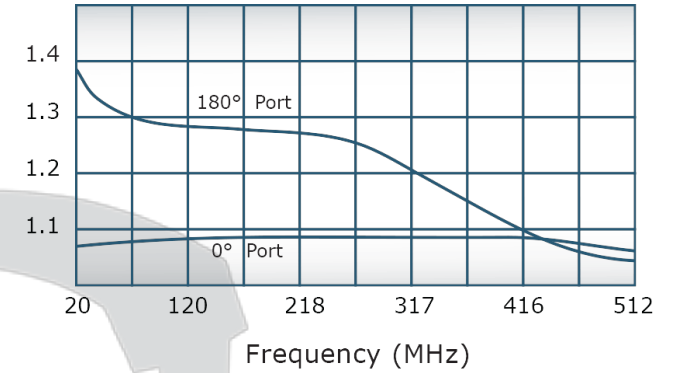


Performance Data (Specifications subject to change without notice):

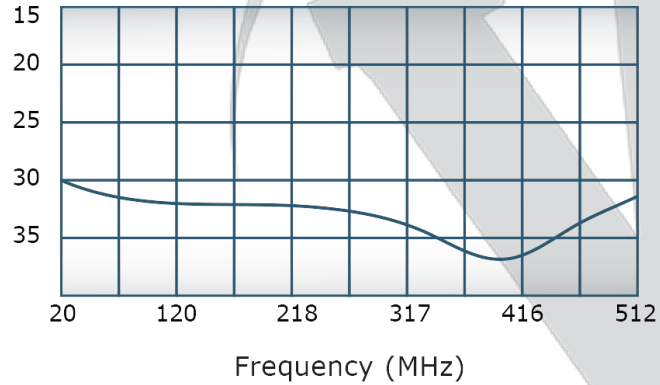
Insertion Loss:



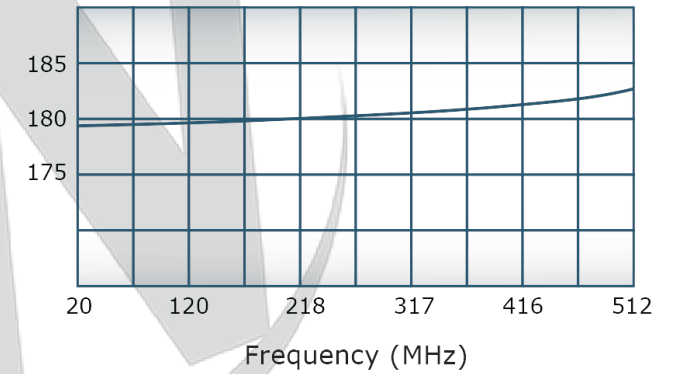
VSWR:



Isolation:



Phase Balance:



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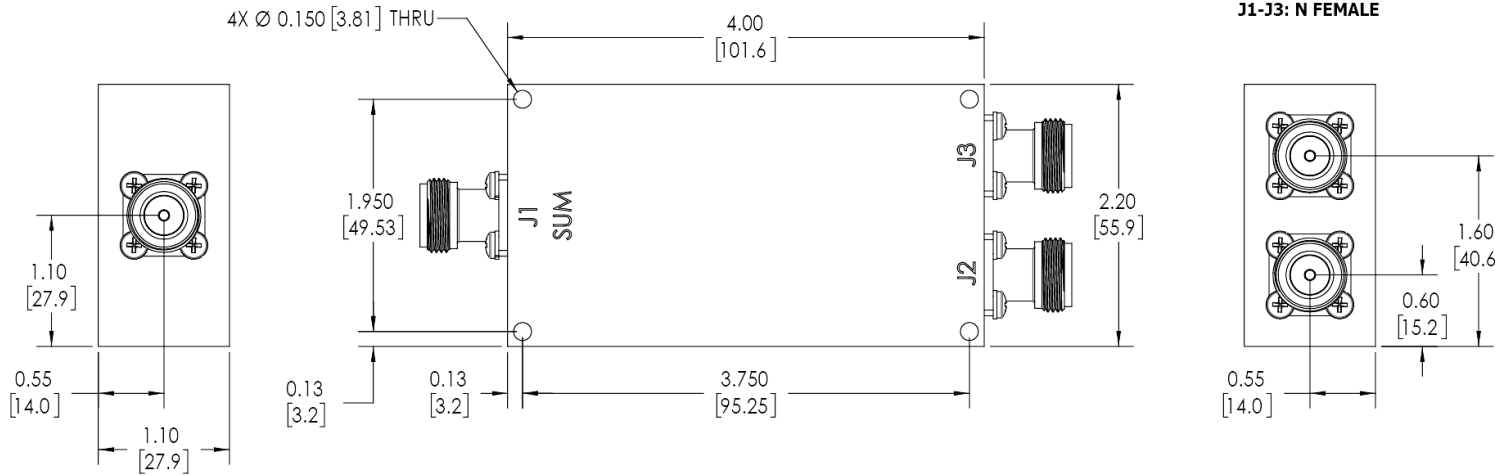
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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 9696	12/2/2019	RB

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

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