

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.



WERLATONE

Model H7814
180° Hybrids Connectorized

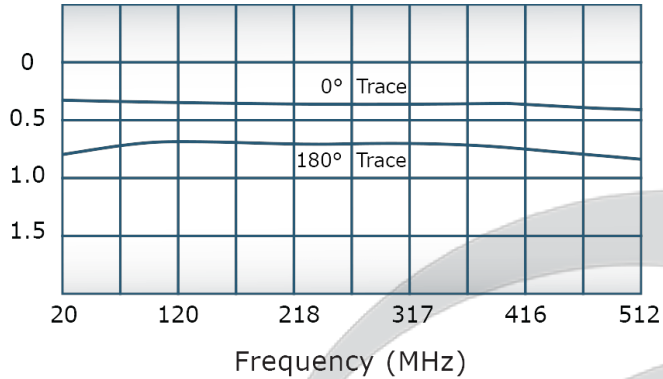


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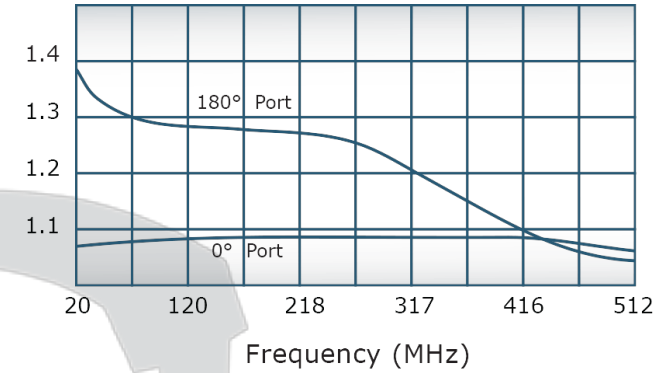
H7814

Performance Data (Specifications subject to change without notice):

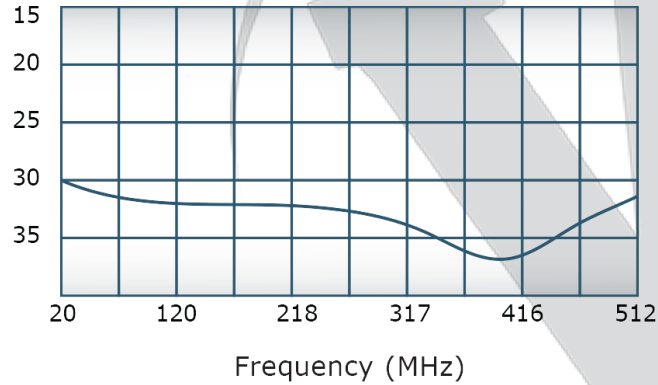
Insertion Loss:



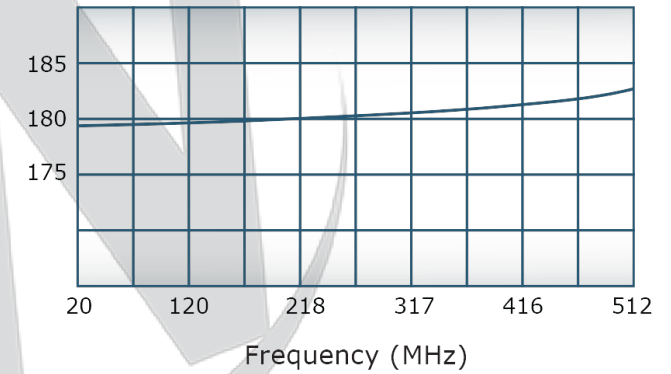
VSWR:



Isolation:



Phase Balance:



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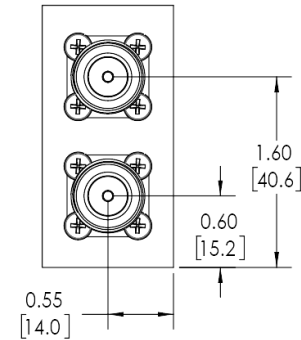
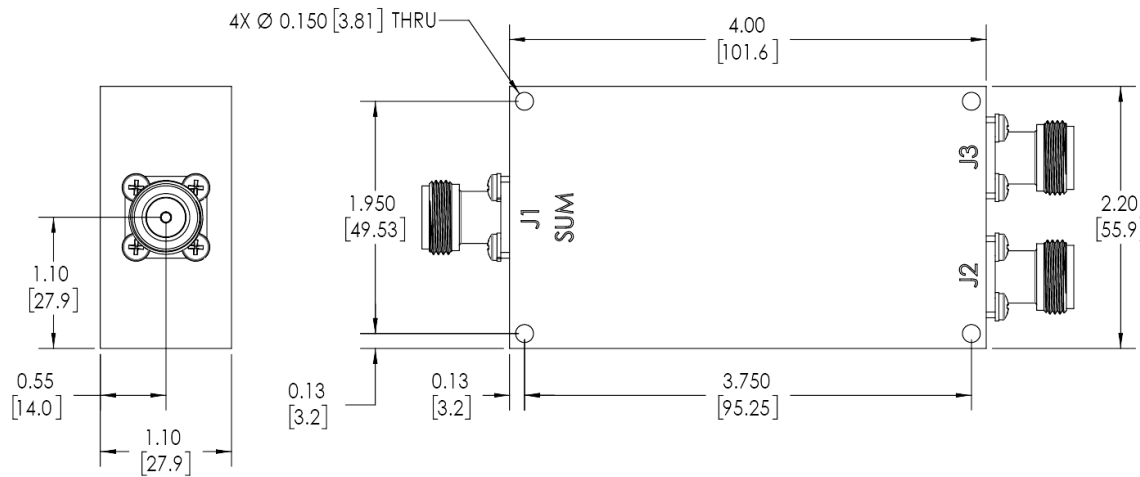
Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com

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

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