

## PRODUCT DATA SHEET

H7815

**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: 30 - 512 MHz  
Power: 20 W CW  
Insertion Loss: 0.8 dB Max.  
VSWR: 1.40:1 Max.  
Phase Balance: 180° ± 5° Max.  
Amplitude Balance: ± 0.3 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: 1.5 lbs.  
Size: 4.0 x 2.2 x 1.1"

### Connector Configurations:

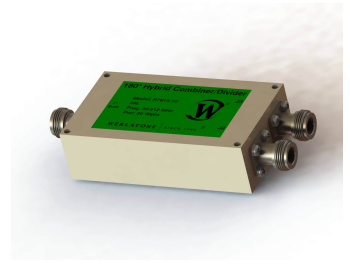
Model	Sum Port (J1)	0°, 180° (J2,J3)
H7815-10	N Female	N Female
H7815-12	N Female	SMA
H7815-13	N Female	BNC

**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 H7815  
180° Hybrids Connectorized

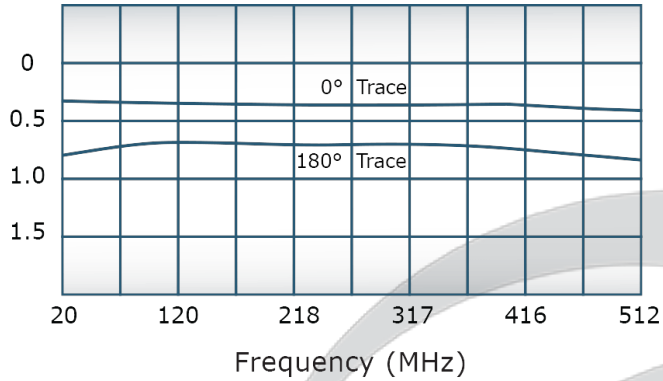


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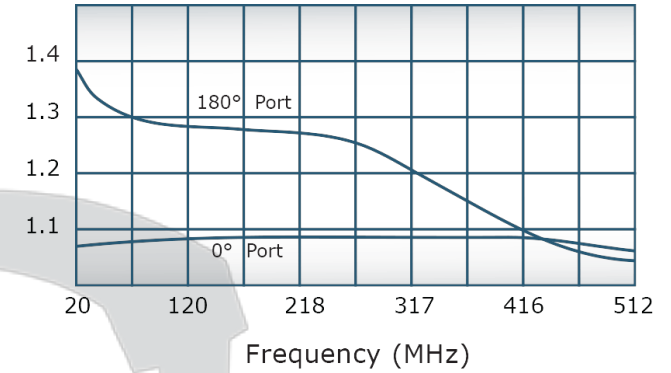
H7815

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

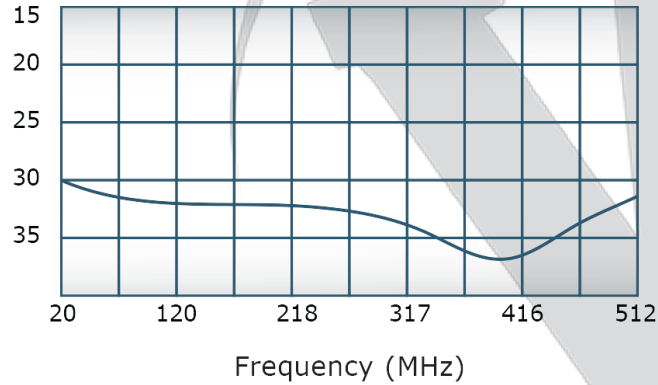
Insertion Loss:



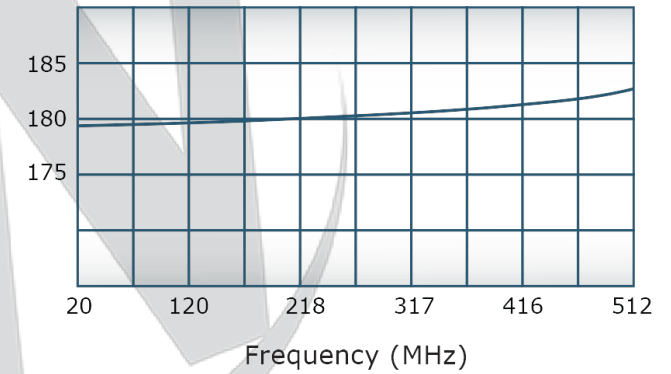
VSWR:



Isolation:



Phase Balance:



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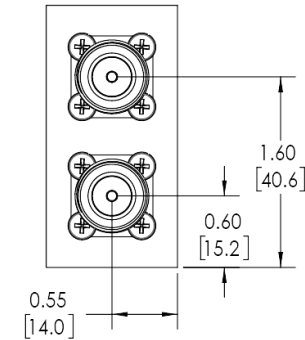
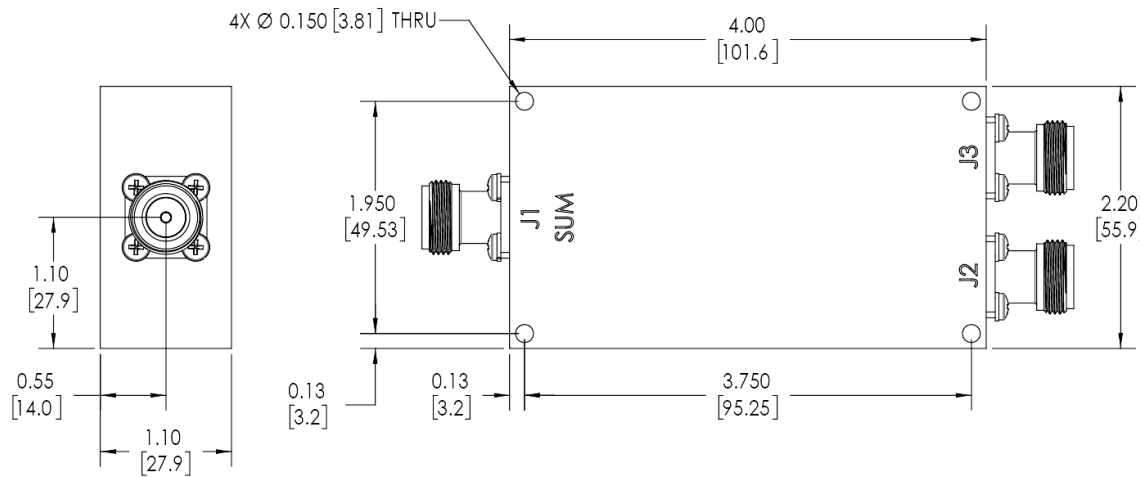
Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com


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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		OWN	DATE	17 Jon Barrett Rd Patterson, NY 12563	
		INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100		SD	12/2/2019	WERLATONE SINCE 1965	
		DIMENSIONS PER ASME Y14.5M-2009		CHK	DATE		
		PARENTHESES FOR REFERENCE ONLY		CS	12/2/2019	TITLE	
		DIMENSIONS ARE IN INCHES		ENGR	DATE	OUTLINE	
		DIMENSIONAL LIMITS APPLY BEFORE FINISHES		INPR	DATE	SIZE CAGE CODE DWG NO	
		TOLERANCES:		MGR	DATE	B 20215-500	
		ANGLES ± 2°		QA	DATE	REV	
		3 PL ± .005 [13]		RLSE	DATE	A	
		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		THIRD ANGLE PROJECTION					
APPLICATION				SCALE 1:1			
				SHEET 1 OF 1			

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