



## PRODUCT DATA SHEET

C1848

**4-Port Dual Directional Coupler** employs two, 3-Port Uni-Directional Couplers, internally connected, in tandem, providing measurement of both forward and reverse power. Ideal for simultaneously monitoring a system's forward and reverse power and for reflectometer measurements. Unlike the Bi-Directional Coupler, the directivity of the Dual Directional Coupler is unaffected by the loads on the coupled ports.

### Features:

High Power      Wide Bandwidths      Small Size      Flat Coupling      Custom Designs Available

### Electrical Specifications:

Frequency: 20 - 100 MHz  
 Power: 1500 W CW  
 Coupling:  $40 \pm 1.0$  dB Max.  
 Insertion Loss: 0.1 dB Max.  
 Flatness:  $\pm 0.5$  dB Max.  
 VSWR (ML): 1.15:1 Max.  
 Directivity: 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  
 Humidity: 95% Non-Condensing  
 Size: 5.0 x 3.0 x 1.87"

### Port Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C1848-10	N Female	N Female	N Female	N Female
C1848-12	N Female	N Female	SMA	SMA
C1848-13	N Female	N Female	BNC	BNC
C1848-20	7/16 Female	7/16 Female	N Female	N Female

**Werlatone®** Broadband Dual, Uni, and Bi Directional RF Couplers are designed to tolerate the most stringent operating conditions associated with military and EMC testing environments. Many of our RF Directional Couplers, designated Mismatch Tolerant®, will operate continuously, at rated power, into a severe load mismatch condition. Our multi-octave Directional Couplers maintain exceptional coupling flatness, directivity, VSWR, and insertion loss.

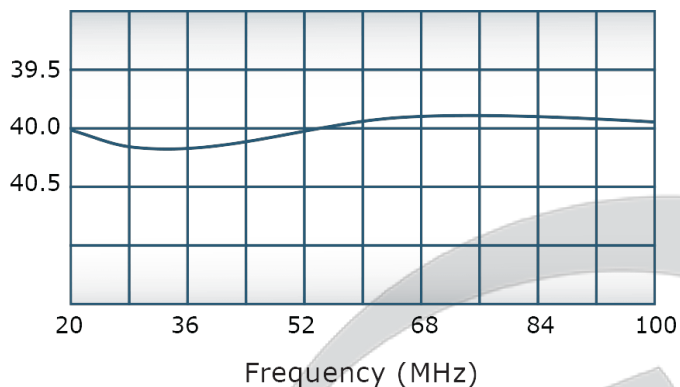


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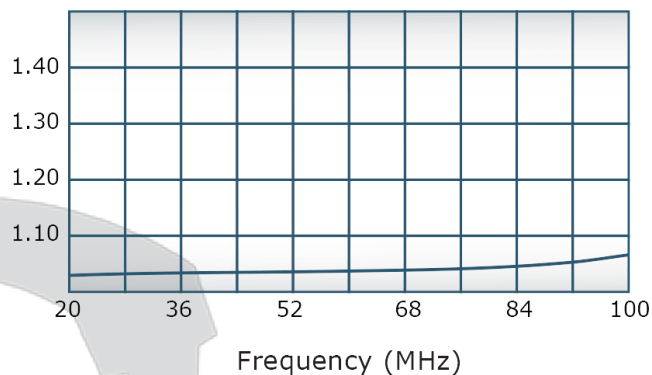
C1848

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

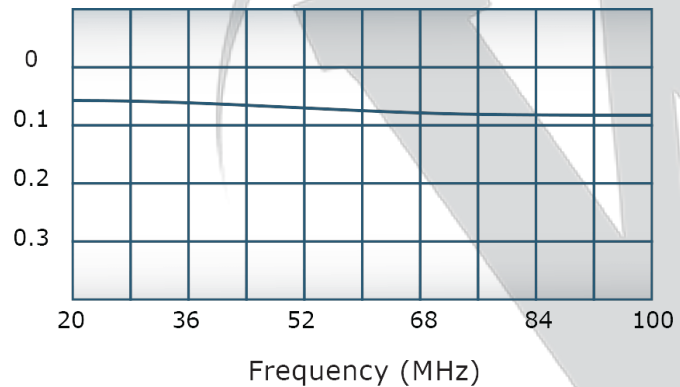
Coupling:



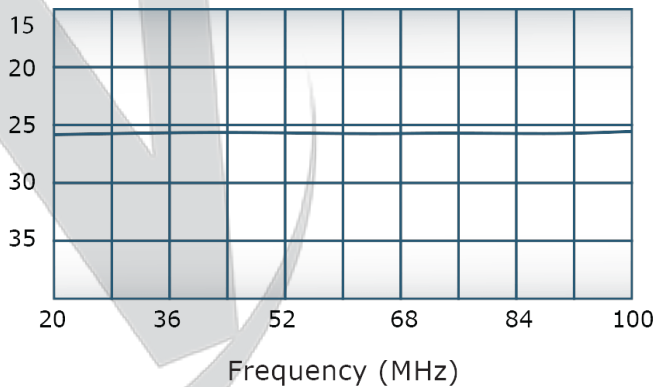
VSWR:



Insertion Loss:



Directivity:

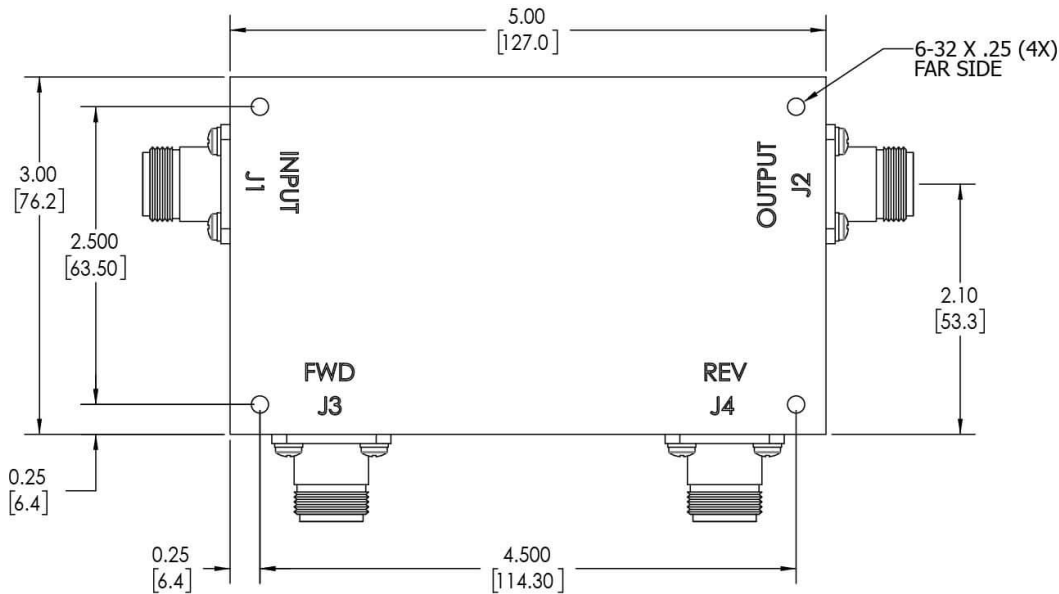


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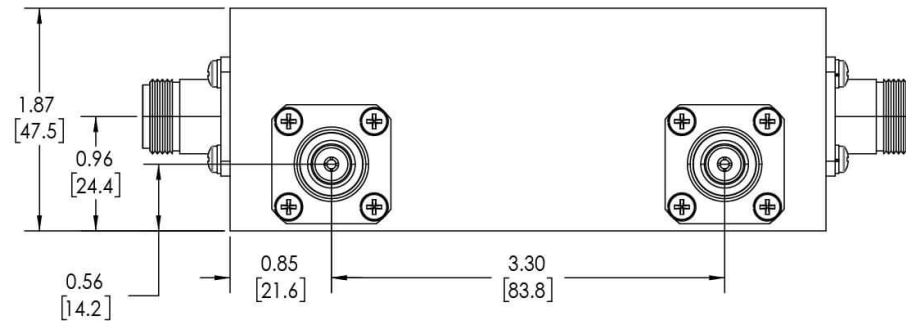
Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com



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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 9696	5/15/2019	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		DWN	DATE	 WERLATONE <sup>®</sup> SINCE 1965	17 Jon Barrett Rd Patterson, NY 12563		
		INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100		SD	5/14/2019				
		DIMENSIONS PER ASME Y14.5M-2009		CHK	DATE				
		PARENTHESES FOR REF ONLY		CS	5/14/2019		TITLE		
		DIMENSIONS ARE IN INCHES		ENGR	DATE		OUTLINE		
		DIMENSIONAL LIMITS APPLY BEFORE FINISHES		INFR	DATE				
		TOLERANCES:							
		ANGLES ± 2°							
		3 PL ± .005 [13]							
		2 PL ± .015 [38]							
		REMOVE ALL BURRS AND SHARP EDGES R.01 MAX							
		CONCENTRICITY MACHINED DIA. .002 FIM		QA	DATE	SIZE	CAGE CODE	DWG NO	REV
		MACHINE TOOL MISMATCH .003 MAX				B		10046-500	A
NEXT ASSY	USED ON			RLSE	DATE	SCALE			
APPLICATION		THIRD ANGLE PROJECTION 							
				SHEET 1 OF 1					

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