



## PRODUCT DATA SHEET

C7881

**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 - 500 MHz  
 Power: 25 W CW  
 Coupling:  $30 \pm 1.0$  dB Max.  
 Insertion Loss: 0.75 dB Max.  
 Flatness:  $\pm 1.0$  dB Max.  
 VSWR (ML): 1.20:1 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: 2.7 x 1.5 x 1.1"

### Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C7881-10	N Female	N Female	N Female	N Female
C7881-12	N Female	N Female	SMA	SMA
C7881-102	SMA	SMA	SMA	SMA

**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.

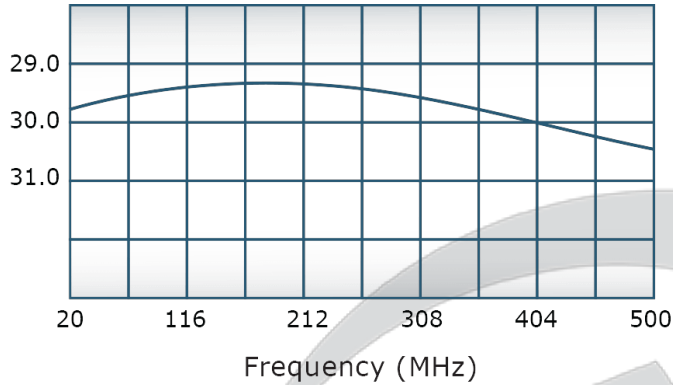


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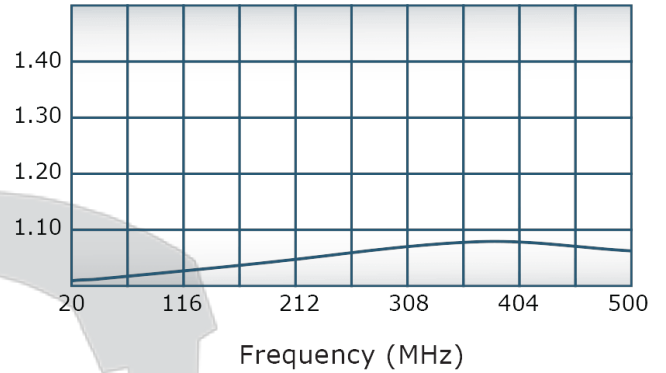
C7881

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

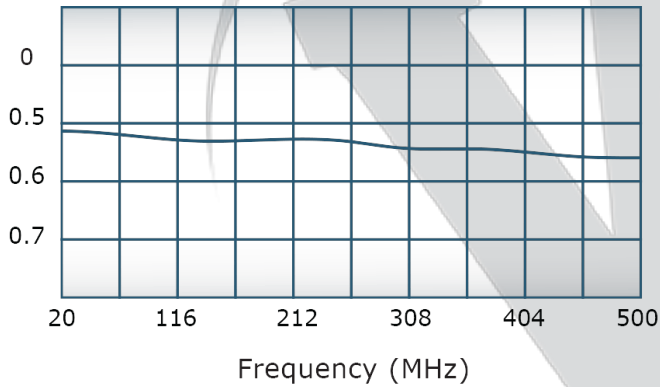
Coupling:



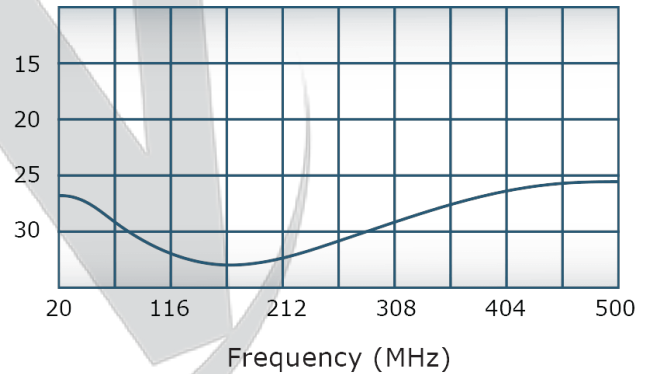
VSWR:



Insertion Loss:



Directivity:



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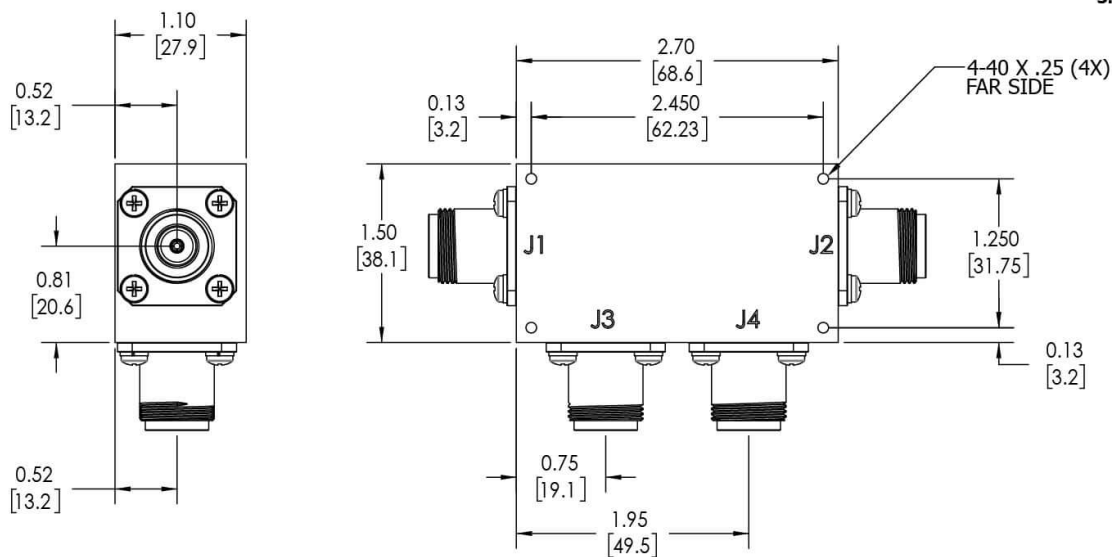
Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com


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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 9696	5/14/2019	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**  
**J1-INPUT; J2-OUTPUT**  
**J3-FWD; J4-REV**



		UNLESS OTHERWISE SPECIFIED		DWN	DATE	 <b>WERLATONE</b> SINCE 1965		17 Jon Barrett Rd Patterson, NY 12563	
		INTERPRET DRAWING IAW MIL-STD-100		SD	5/14/2019				
		DIMENSIONING PER ASME Y14.5M-2009		CHK	DATE	<b>OUTLINE</b>		SIZE CAGE CODE DWG NO	
		PARENTHESES INFO FOR REF ONLY		CS	5/14/2019				
		DIMENSIONS ARE IN INCHES		ENGR	DATE	<b>10685-500</b>		REV <b>A</b>	
		DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		INFR	DATE				
		TOLERANCES:		QA	DATE	<b>1:1</b>		<b>SHEET 1 OF 1</b>	
		ANGLES ± 2° 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		RLSE	DATE				
NEXT ASSY		USED ON		THIRD ANGLE PROJECTION					
APPLICATION									

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