



WERLATONE

Model C7881

Connectorized Directional Couplers



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 ± 1.0 dB Max.

Insertion Loss: 0.75 dB Max.

Flatness: ± 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

C7881-10

C7881-12

C7881-102

Input (J1)

N Female

N Female

SMA

Output (J2)

N Female

N Female

SMA

Fwd (J3)

N Female

SMA

SMA

Rev (J4)

N Female

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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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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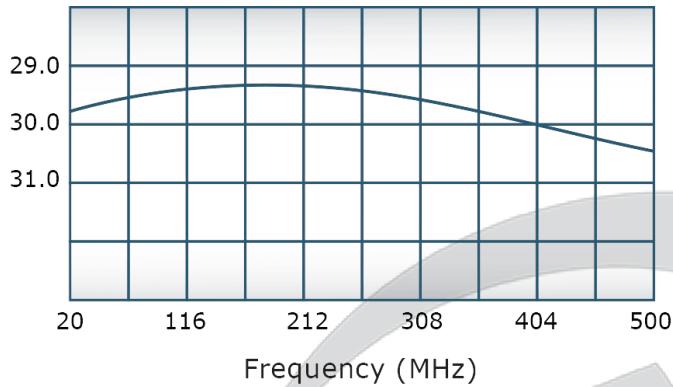


PRODUCT DATA SHEET

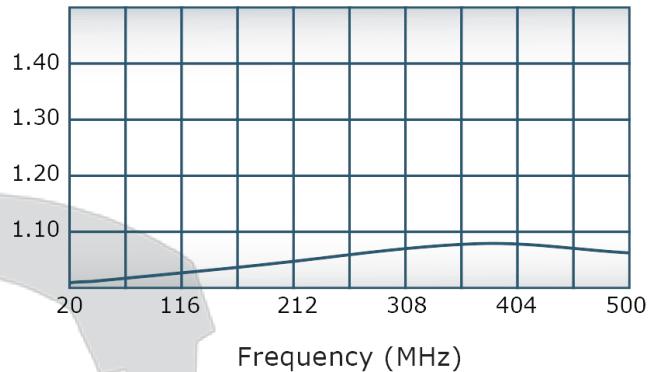
C7881

Performance Data (Specifications subject to change without notice):

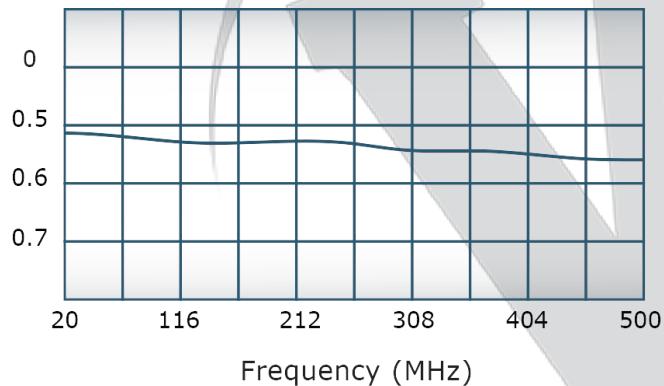
Coupling:



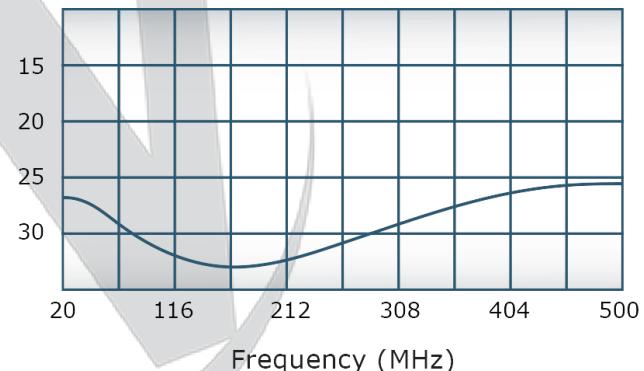
VSWR:



Insertion Loss:



Directivity:



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4

3

2

1

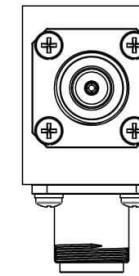
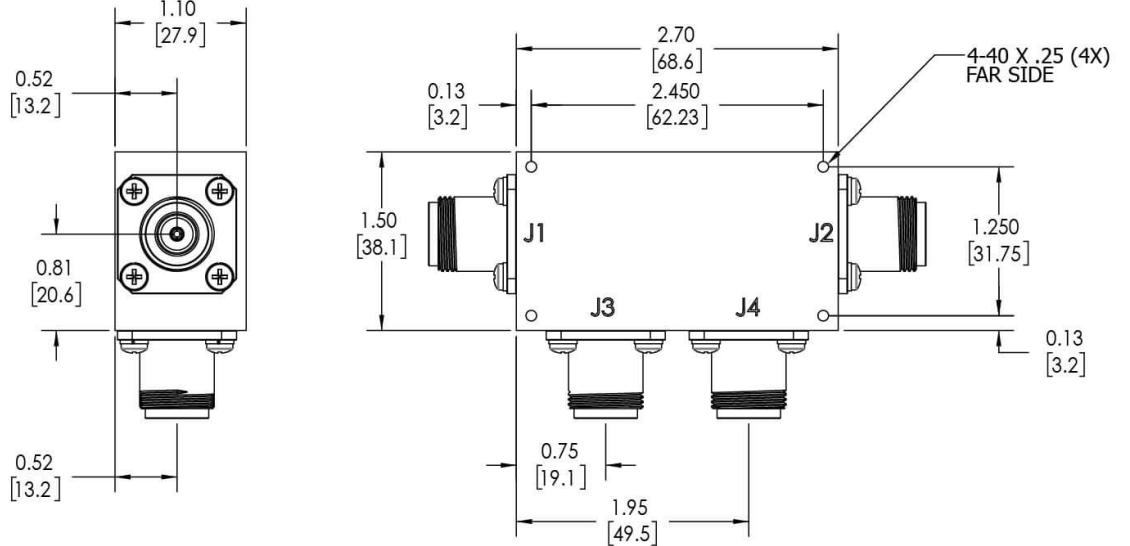
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REVISION HISTORY

REV.	REVISION RECORD	DATE	APPROVED
A	ECN 9696	5/14/2019	RB

NOTES: UNLESS OTHERWISE SPECIFIED

1. MATERIAL: ALUMINUM 6061-T6
2. FINISH: CHEM FILM PER MIL-DTL-5541F TYPE I CLASS 3 (YELLOW IRIDITE)
3. CONNECTORS:
J1-J4: N FEMALE
J1-INPUT; J2-OUTPUT
J3-FWD; J4-REV



		UNLESS OTHERWISE SPECIFIED	OWN	DATE		
		INTERPRET DRAWING JAW MIL-STD-100	SD	5/14/2019		
		UNLESS OTHERWISE SPECIFIED AS 1145M-2009	CHK	DATE		
		PARENTHETICAL DIM. FOR REFERENCE ONLY	CS	5/14/2019		
		DIMENSIONAL LIMITS ARE IN INCHES	ENGR	DATE		
		TOLERANCES	MFGR	DATE		
		ANGLES $\pm 2^\circ$	QA	DATE		
		3 RL $\pm .005$ [1.27]	RELEASE	DATE		
		2 RL $\pm .012$ [3.05]				
		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					

OUTLINE

SIZE	CAGE CODE	DWG NO.	REV.
B		10685-500	A

SCALE 1:1

SHEET 1 OF 1

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