



## PRODUCT DATA SHEET

C9828

**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: 0.1 - 30 MHz  
Power: 1000 W CW  
Coupling: 50 ± 1.0 dB Max.  
Insertion Loss: 0.15 dB Max.  
Flatness: ± 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: 6.0 x 2.2 x 2.2"

### Connector Configurations:

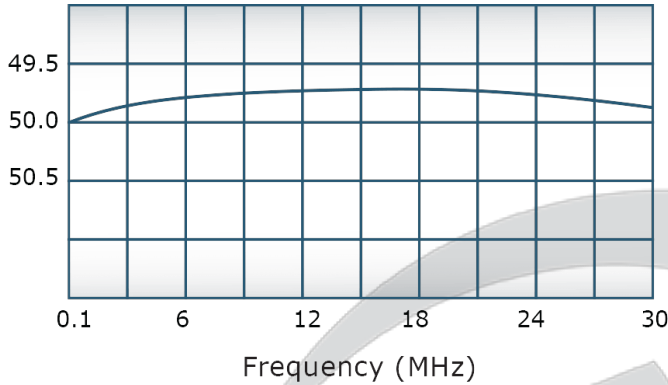
Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C9828-10	N Female	N Female	N Female	N Female
C9828-12	N Female	N Female	SMA	SMA
C9828-13	N Female	N Female	BNC	BNC
C9828-20	7/16 Female	7/16 Female	N Female	N Female

**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.

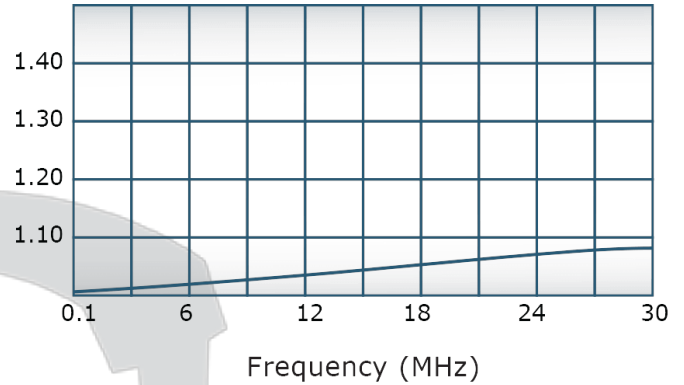


## Performance Data (Specifications subject to change without notice):

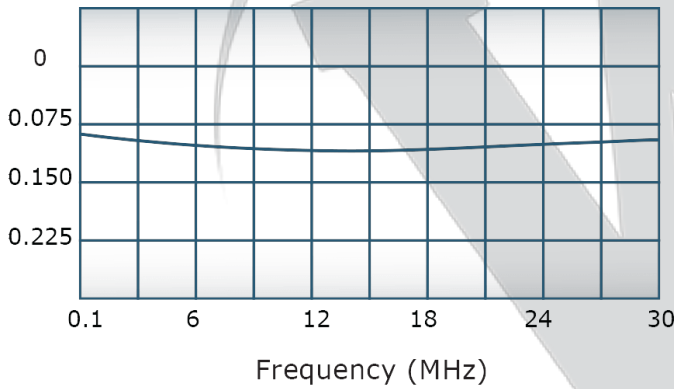
Coupling:



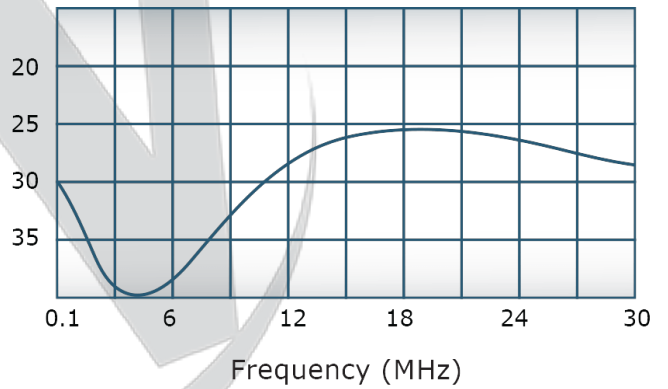
VSWR:



Insertion Loss:

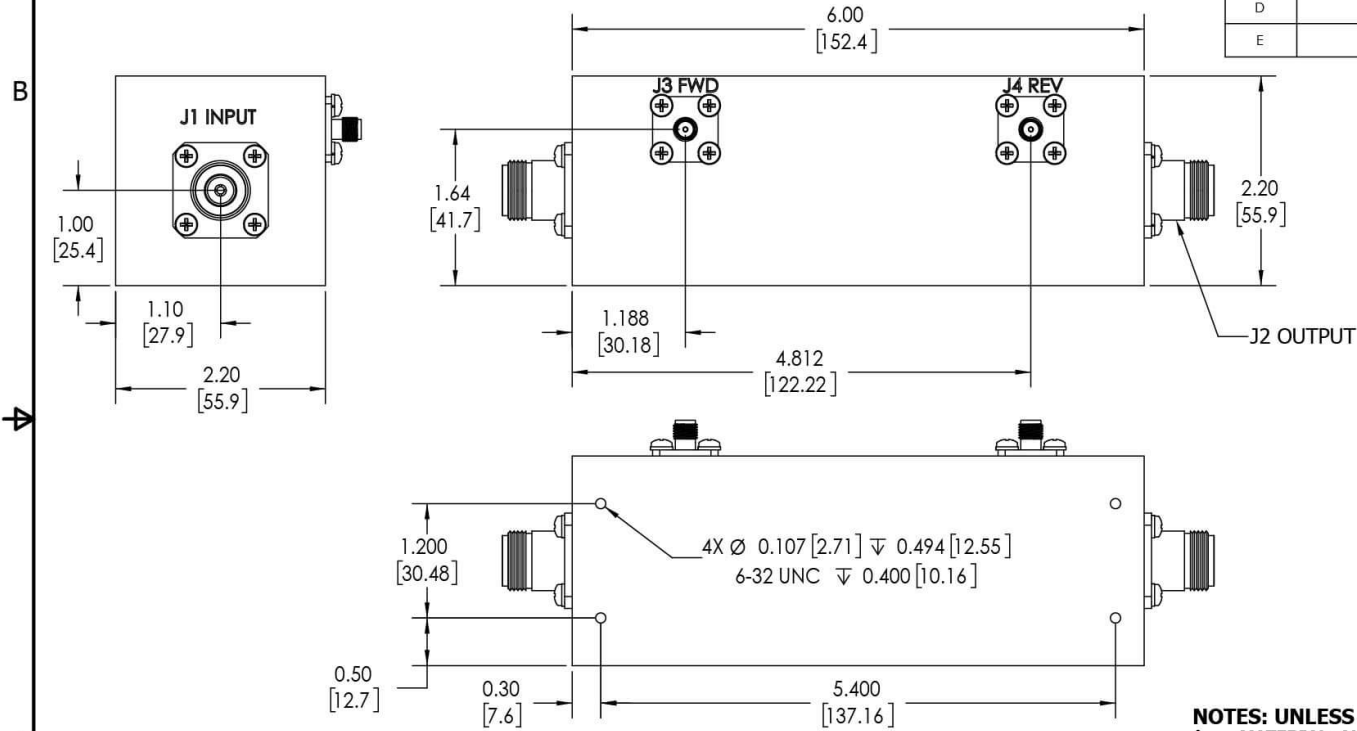


Directivity:



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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 3334	6/25/03	RH
B	ECN 4036	8/18/06	MJ
C	ECN 8543	1/31/2014	SC
D	ECN 8618	4/2/2014	SC
E	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-J2: N FEMALE  
 J3-J4: SMA FEMALE**

UNLESS OTHERWISE SPECIFIED		DWN	DATE	5/14/2019	WERLATONE SINCE 1965	17 Jon Barrett Rd Patterson, NY 12563
INTERPRET DRAWING IAW MIL-STD-100		SD	DATE	5/14/2019		
DIMENSIONS PER ASME Y14.5M-2009		CHK	DATE	5/14/2019	TITLE	
PARENTHEetical INFO FOR REF ONLY		CS	DATE	5/14/2019	OUTLINE	
DIMENSIONS ARE IN INCHES		ENGR	DATE		SIZE	CAGE CODE
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		INFR	DATE		DWG NO	REV
TOLERANCES:		QA	DATE		B	10914-500
ANGLES = 2°		RLSE	DATE		SCALE	SHEET 1 OF 1
3 PL ± .005 [1.3]					1:1.25	
2 PL ± .015 [3.8]						
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX						
CONCENTRICITY MACHINED DIA: .002 FIM						
MACHINE TOOL MISMATCH .003 MAX.						
NEXT ASSY	USED ON	THIRD ANGLE PROJECTION				
APPLICATION						

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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