


**PRODUCT DATA SHEET**
**C9790**

**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: 30 - 520 MHz  
Power: 600 W CW  
Coupling:  $30 \pm 1.0$  dB Max.  
Flatness:  $\pm 0.8$  dB Max.  
Insertion Loss: 0.8 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 +60°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)
C9790-10	N Female	N Female	N Female	N Female
C9790-12	N Female	N Female	SMA	SMA
C9790-20	7/16 Female	7/16 Female	N Female	N Female
C9790-22	7/16 Female	7/16 Female	SMA	SMA

**Must be mounted to a heat spreader capable of maintaining a unit base plate temperature of less than or equal to +60° C.**

**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.

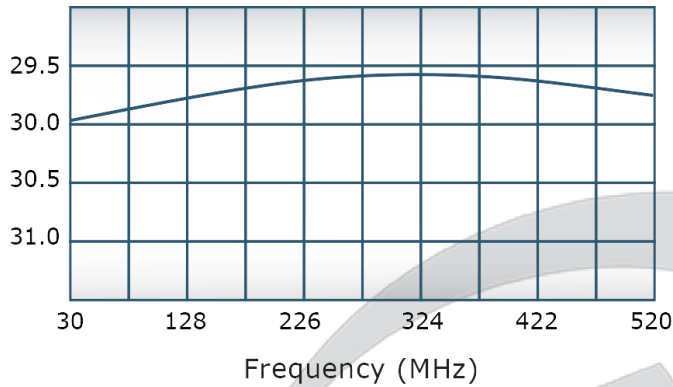


## PRODUCT DATA SHEET

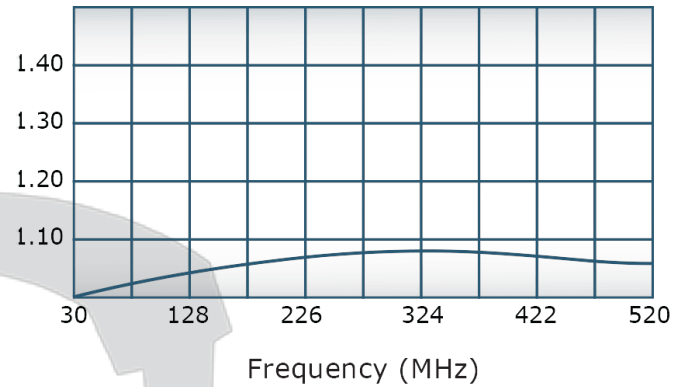
C9790

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

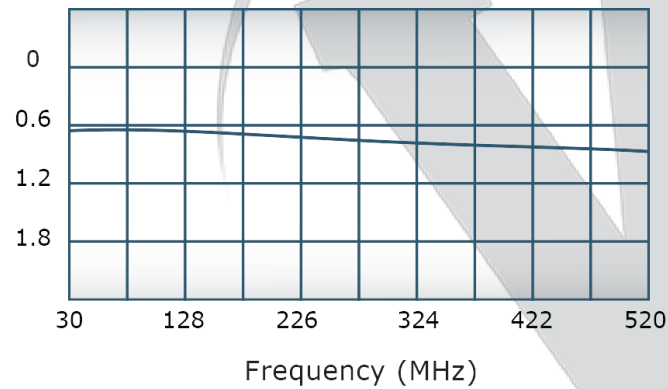
Coupling:



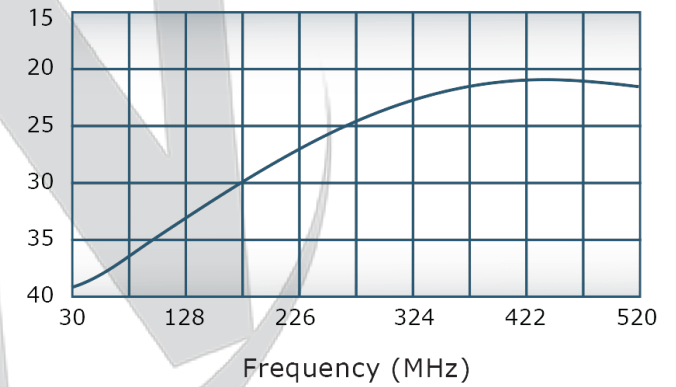
VSWR:



Insertion Loss:



Directivity:

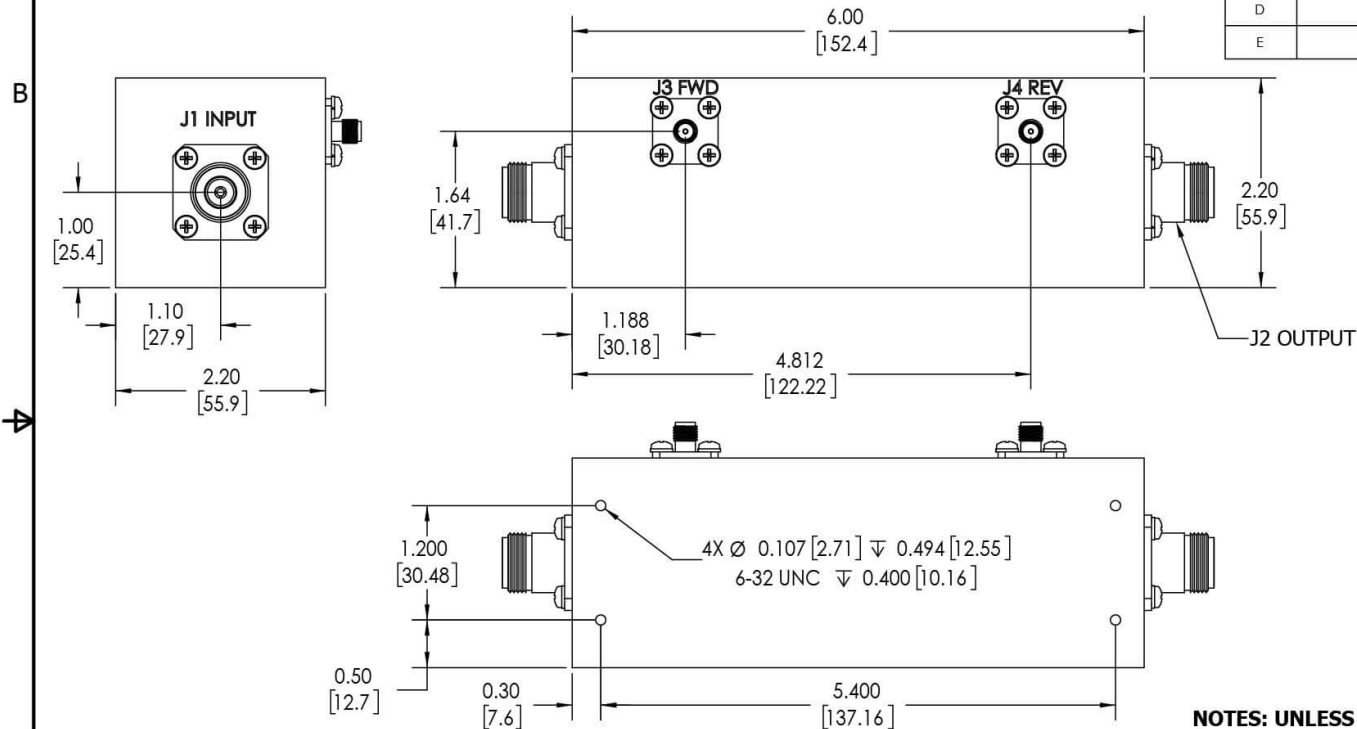


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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 3334	6/25/03	RH
B	ECN 4036	8/18/06	MJ
C	ECN 8543	1/31/2014	SC
D	ECN 8618	4/2/2014	SC
E	ECN 9696	5/14/2019	RB



- 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		OWN	DATE	17 Jon Barrett Rd Patterson, NY 12563	
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100		SD	5/14/2019	WERLATONE SINCE 1965	
DIMENSIONS FOR ASSEMBLY PER MIL-STD-100		CHK	DATE		
PARENTHESES FOR REF ONLY		CS	5/14/2019	TITLE	
DIMENSIONS ARE IN INCHES		ENGR	DATE		
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		INFR	DATE	OUTLINE	
TOLERANCES:		QA	DATE		
ANGLES ± 2°		RLSE	DATE	SIZE CAGE CODE DWG NO	
3 PL ± .005 [13]					
2 PL ± .015 [38]				REV	
REMOVE ALL BURRS AND SHARP EDGES R1.01 MAX					
CONCENTRICITY MACHINED DIA. .002 FIM				SCALE	
MACHINE TOOL MISMATCH .003 MAX					
THIRD ANGLE PROJECTION				SHEET 1 OF 1	
APPLICATION					
NEXT ASSY				1:1.25	
USED ON					
				10914-500	

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