



PRODUCT DATA SHEET

C7090

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: 1 - 100 MHz
 Power: 1000 W CW
 Coupling: 50 ± 1.0 dB Max.
 Insertion Loss: 0.2 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)
C7090-10	N Female	N Female	N Female	N Female
C7090-12	N Female	N Female	SMA	SMA
C7090-13	N Female	N Female	BNC	BNC

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.



WERLATONE

Model C7090

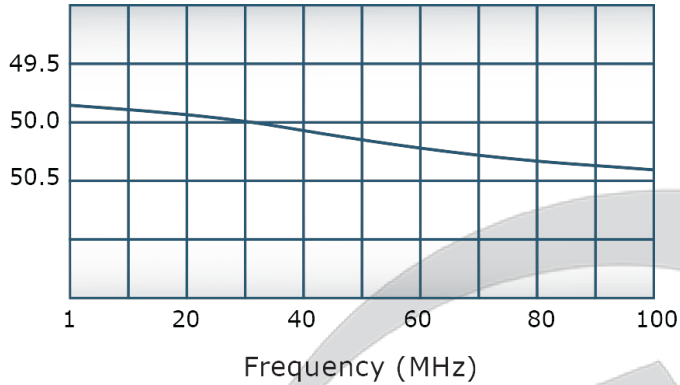


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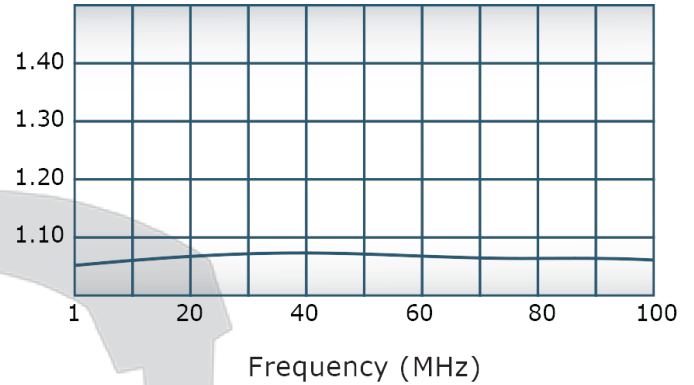
C7090

Performance Data (Specifications subject to change without notice):

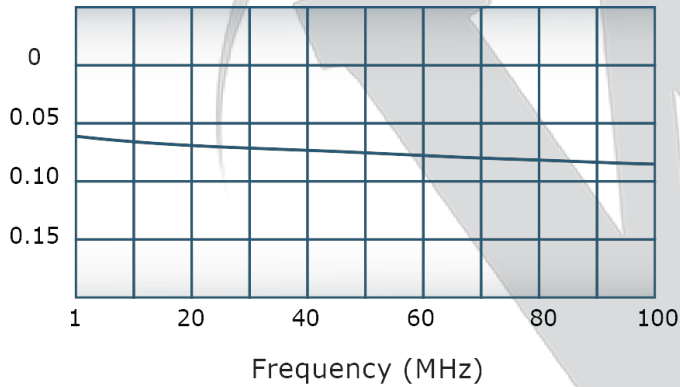
Coupling:



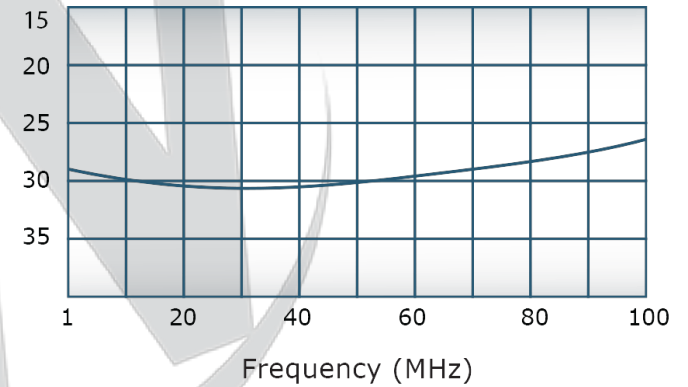
VSWR:



Insertion Loss:



Directivity:

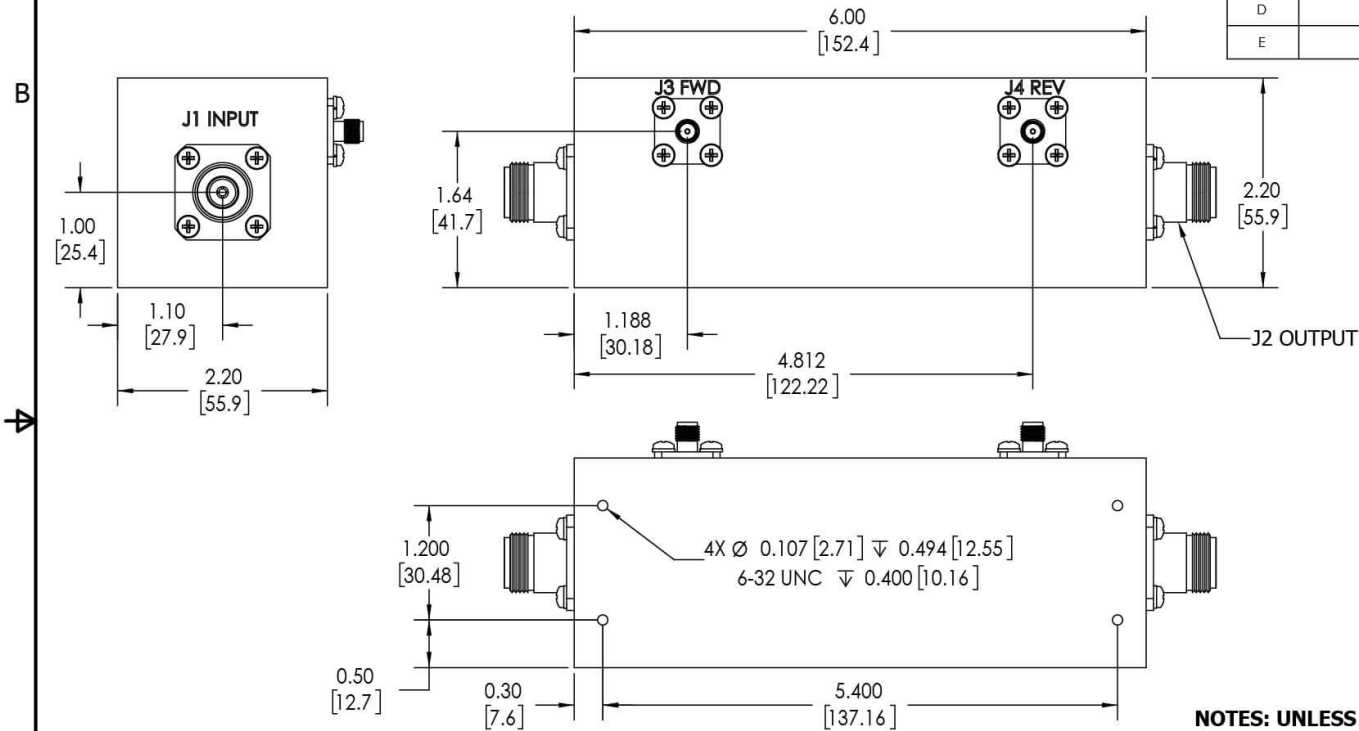


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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 3334	6/25/03	RH
B	ECN 4036	8/18/06	MJ
C	ECN 8543	1/31/2014	SC
D	ECN 8618	4/2/2014	SC
E	ECN 9696	5/14/2019	RB



- 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		WERLATONE SINCE 1965	17 Jon Barrett Rd Patterson, NY 12563		
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100		SD	5/14/2019					
DIMENSIONING PER ASME Y14.5M-2009		CHK	DATE	TITLE				
PARENTHESES FOR REF ONLY		CS	5/14/2019					
DIMENSIONS ARE IN INCHES		ENGR	DATE	OUTLINE				
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		INFR	DATE					
TOLERANCES:		QA	DATE	SIZE		CAGE CODE	DWG NO	REV
ANGLES ± 2°		RLSE	DATE	SCALE		10914-500		E
3 PL ± .005 [13]		THIRD ANGLE PROJECTION 						
2 PL ± .015 [38]								
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX								
CONCENTRICITY MACHINED DIA. .002 FIM								
MACHINE TOOL MISMATCH .003 MAX								
NEXT ASSY	USED ON							
APPLICATION								

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