


PRODUCT DATA SHEET
C5091

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: 0.01 - 250 MHz
Power: 100 W CW
Coupling: 30 ± 1.0 dB Max.
Insertion Loss: 0.8 dB Max.
Flatness: ± 0.8 dB Max.
VSWR (ML): 1.25:1 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: 5.2 x 2.67 x 1.69"

Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C5091-10	N Female	N Female	N Female	N Female
C5091-12	N Female	N Female	SMA	SMA
C5091-13	N Female	N Female	BNC	BNC
C5091-102	SMA	SMA	SMA	SMA
C5091-200	BNC	BNC	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 C5091

Connectorized Directional Couplers

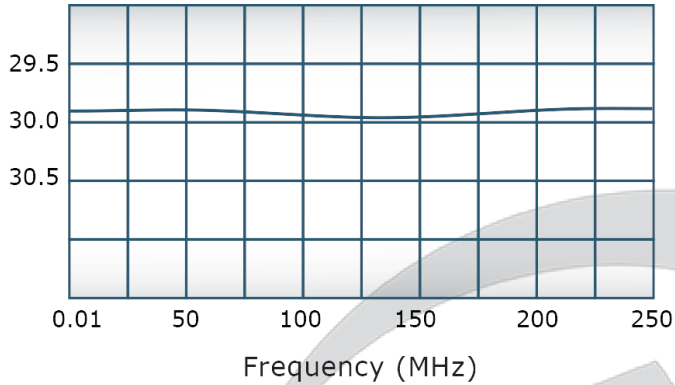


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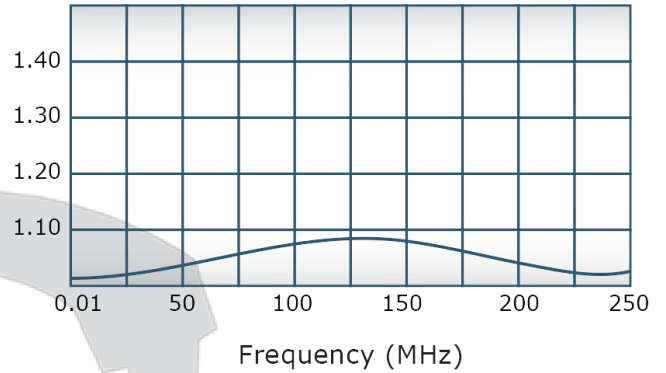
C5091

Performance Data (Specifications subject to change without notice):

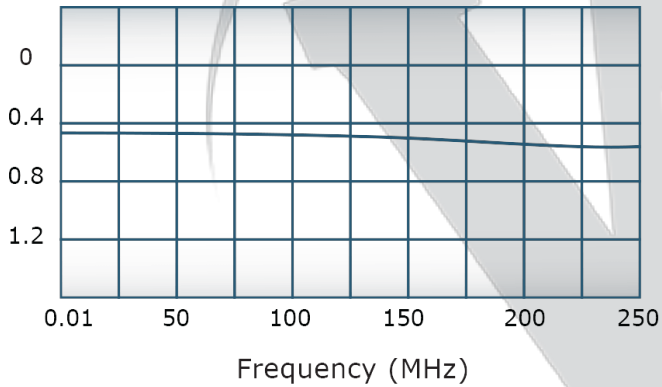
Coupling:



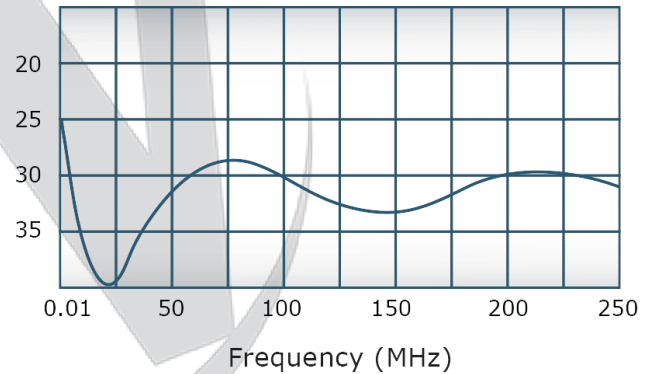
VSWR:



Insertion Loss:



Directivity:



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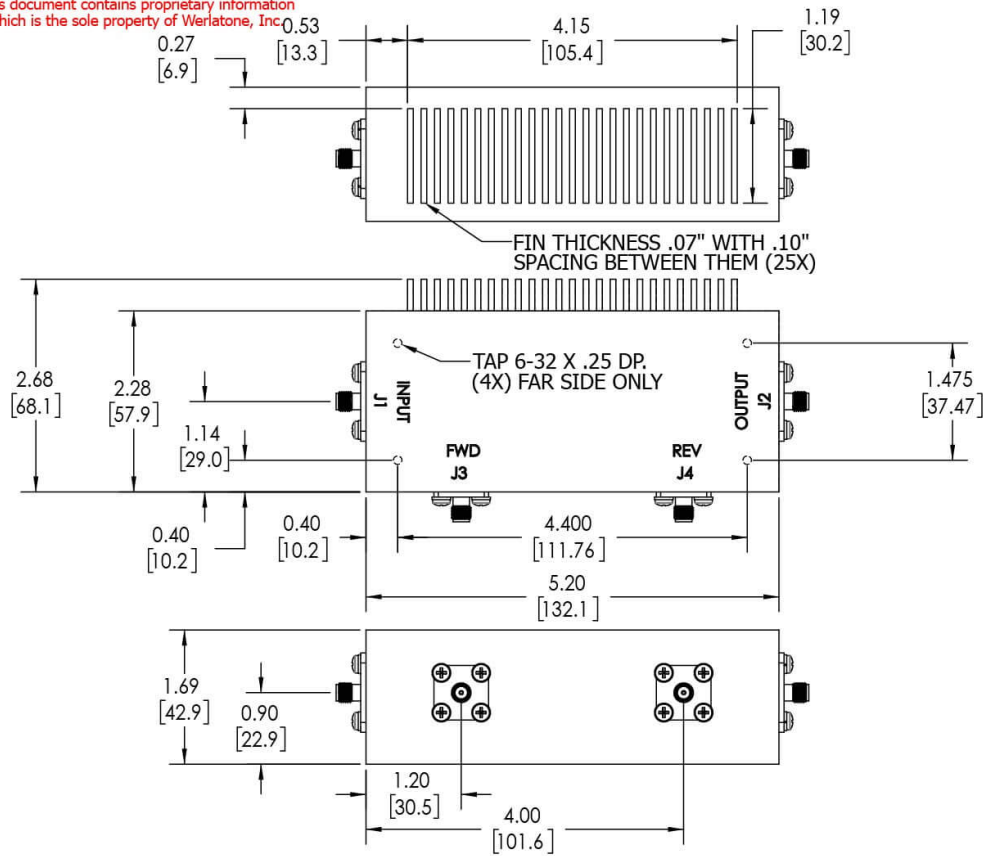
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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 9696	11/28/18	RB

NOTES: UNLESS OTHERWISE SPECIFIED

- MATERIAL: ALUMINUM 6061-T6**
- FINISH: CHEM FILM PER MIL-DTL-5541F TYPE I CLASS 3 (YELLOW IRIDITE)**
- CONNECTORS:**
J1-J4: 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	2/11/2019				
DIMENSIONS PER ASME Y14.5M-2009		CHK	DATE				
PARENTHESES ARE IN INCHES		CS	2/11/2019				
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		ENGR	DATE				
TOLERANCES:		BW	9/13/1996	OUTLINE			
ANGLES ± 2°		INFR	DATE				
3 PL ± .005 [13]		QA	DATE				
2 PL ± .015 [38]		RLSE	DATE				
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX							
CONCENTRICITY MACHINED DIA. .002 FIM				SIZE	CAGE CODE	DWG NO	REV
MACHINE TOOL MISMATCH .003 MAX				SCALE	10407-501		A
NEXT ASSY		USED ON		1:1.5		SHEET 1 OF 1	
APPLICATION		THIRD ANGLE PROJECTION					

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