


PRODUCT DATA SHEET
C10166

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: 700 - 4200 MHz
 Power: 2000 W CW
 Coupling: 60 ± 1.0 dB Max.
 Insertion Loss: 0.2 dB Max.
 Flatness: ± 1.0 dB Max.
 VSWR (ML): 1.35:1 Max.
 Directivity: 18 dB Min.

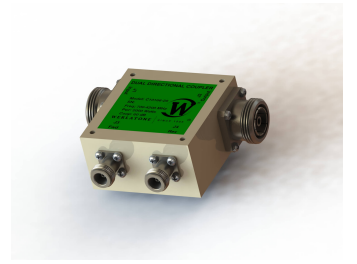
Mechanical Specifications:

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: 3.0 x 3.0 x 1.59"

Connector Configurations:

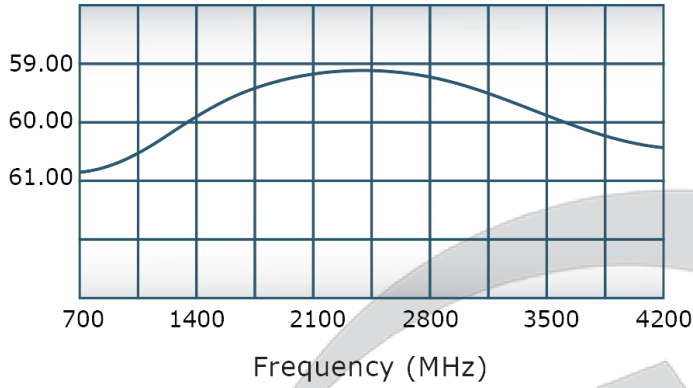
Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C10166-20	7/16 Female	7/16 Female	N Female	N Female
C10166-22	7/16 Female	7/16 Female	SMA	SMA
C10166-23	7/16 Female	7/16 Female	BNC	BNC
C10166-627	7/16 Female	7/16 Male	N Female	N Female
C10166-727	7/16 Male	7/16 Female	N Female	N Female
C10166-728	7/16 Male	7/16 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.

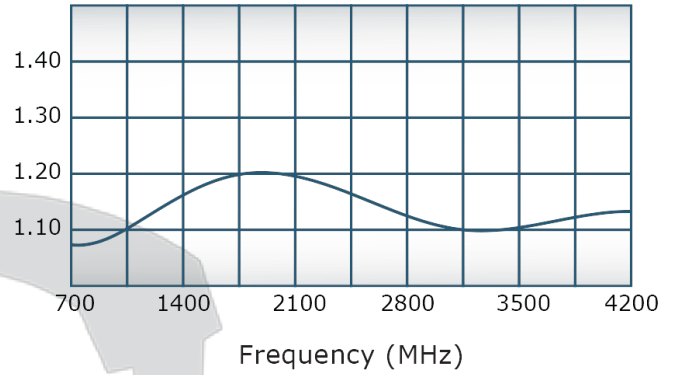


Performance Data (Specifications subject to change without notice):

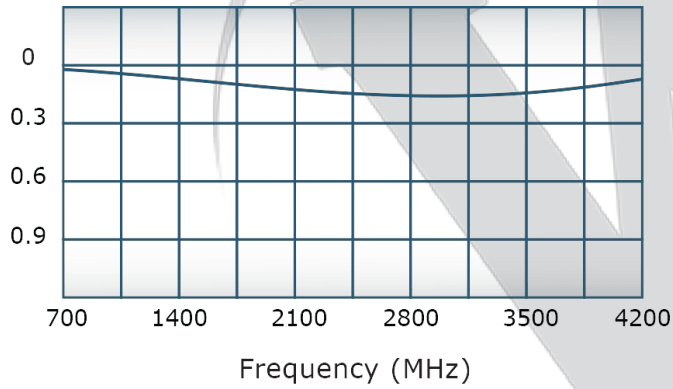
Coupling:



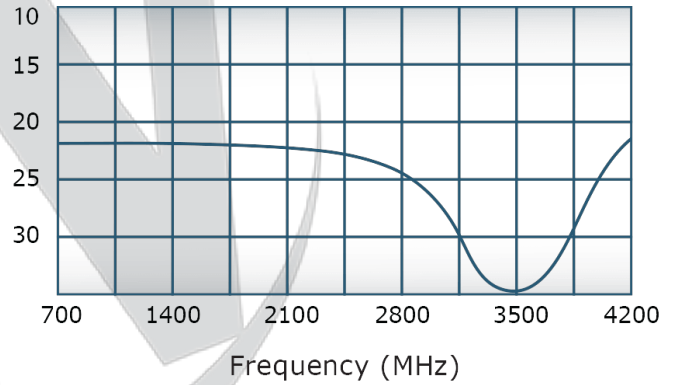
VSWR:



Insertion Loss:



Directivity:



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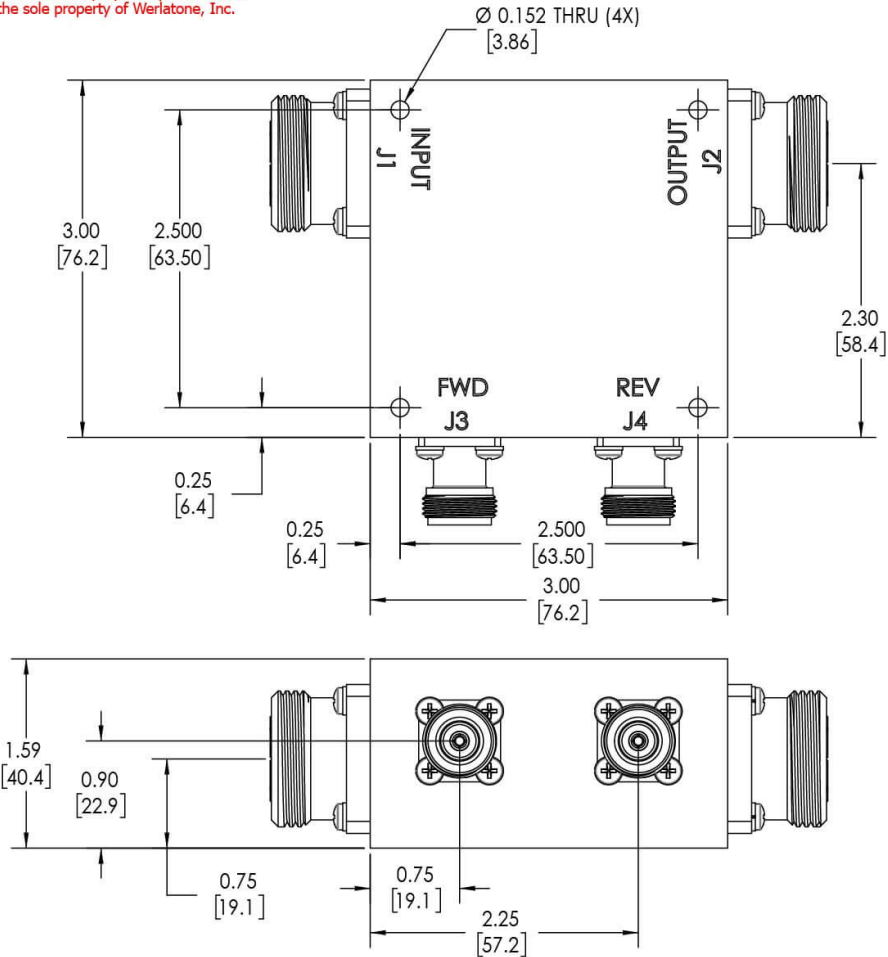
Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com

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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 9696	5/13/2019	RB

NOTES: UNLESS OTHERWISE SPECIFIED

- MATERIAL: ALUMINUM 6061-T6**
- FINISH: CHEM FILM PER MIL-DTL-5541F CLASS I TYPE 3 (YELLOW IRIDITE)**
- CONNECTORS:
 J1, J2: 7/16 FEMALE
 J3, J4: N FEMALE**



UNLESS OTHERWISE SPECIFIED		DATE	17 Jon Barrett Rd
INTERPRET DRAWING IAW MIL-STD-100	SD	5/13/2019	Patterson, NY 12563
DIMENSIONS PER ASME Y14.5M-2009	CHK	DATE	
PARENTHEetical INFO FOR REF ONLY	CS	5/13/2019	
DIMENSIONS ARE IN INCHES	ENGR	DATE	TITLE
DIMENSIONAL LINES APPLY BEFORE PROCESSES	INFR	DATE	OUTLINE
TOLERANCES:	QA	DATE	SIZE CAGE CODE DWG NO
ANGLES ± 2°	RLSE	DATE	B 10443-501 A
3 PL ± .005 [13]			SCALE 1:1
2 PL ± .015 [38]			SHEET 1 OF 1
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX			
CONCENTRICITY MACHINED DIA: .002 FIM			
MACHINE TOOL MISMATCH .003 MAX.			

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