

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.



WERLATONE

Model C10166

Connectorized Directional Couplers

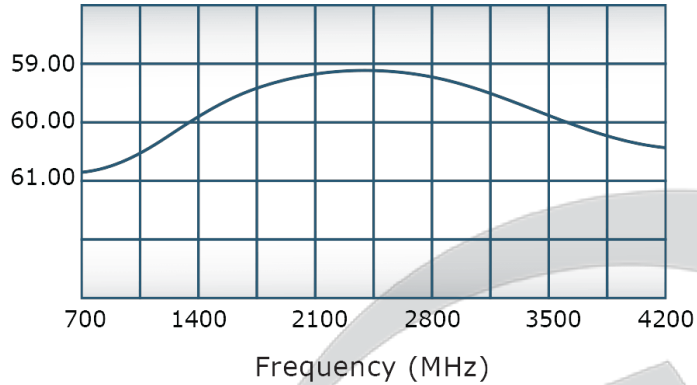


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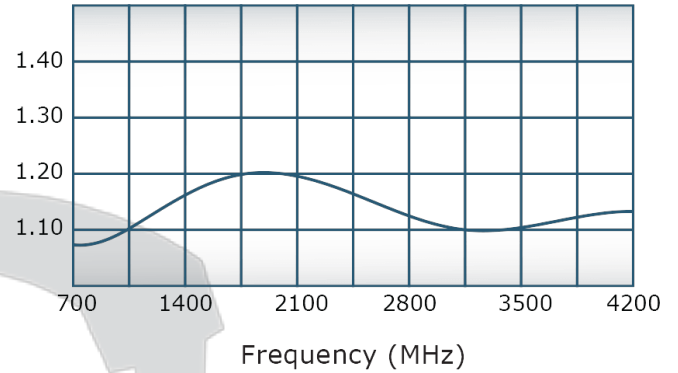
C10166

Performance Data (Specifications subject to change without notice):

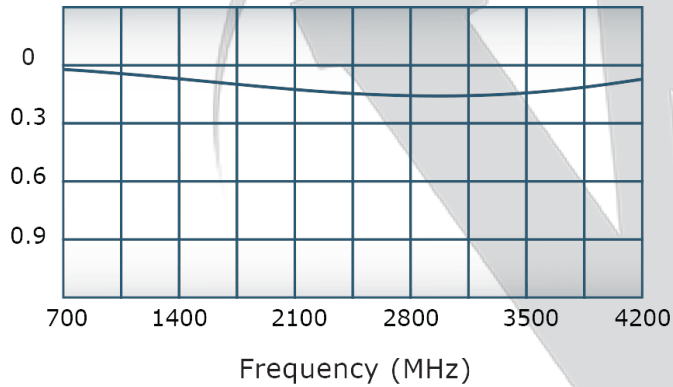
Coupling:



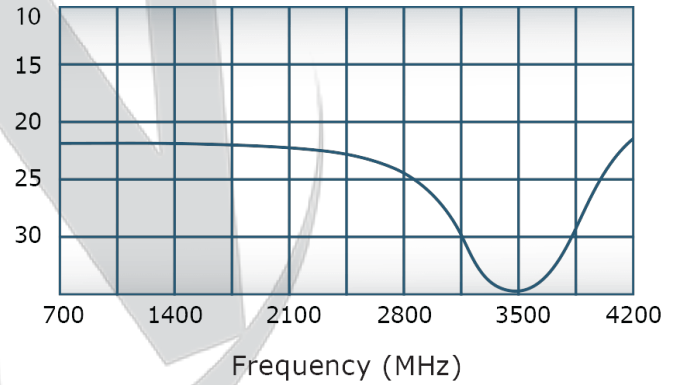
VSWR:



Insertion Loss:



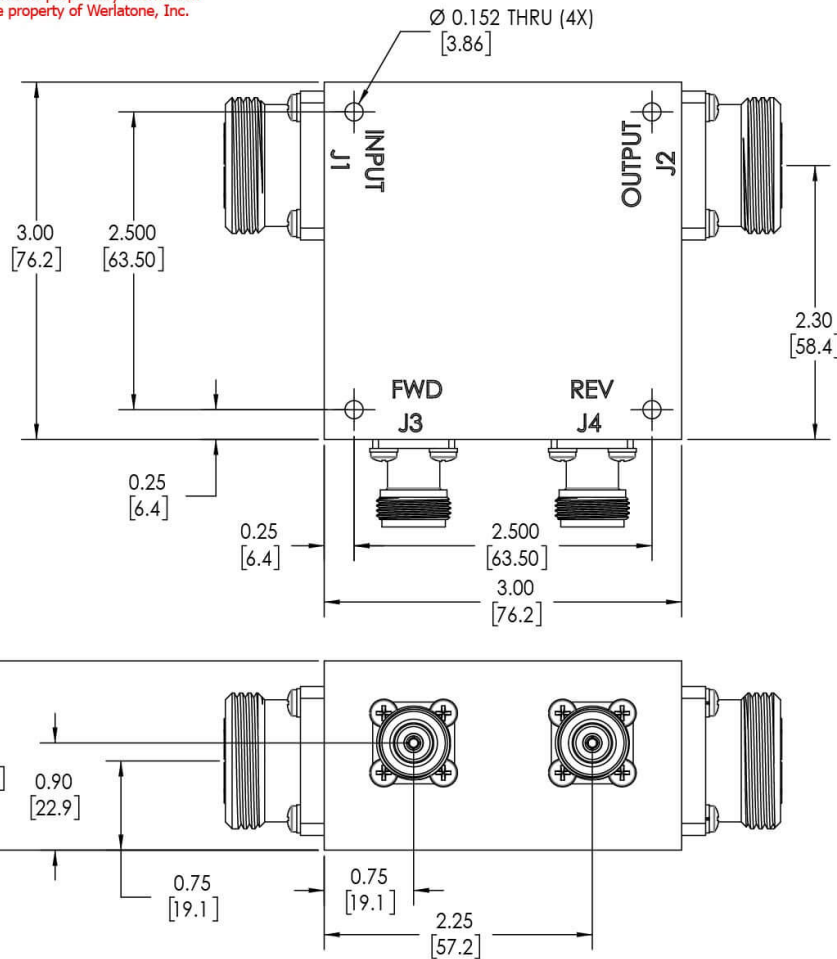
Directivity:



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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 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

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

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