
PRODUCT DATA SHEET
C10270

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: 1000 - 2000 MHz
 Power: 5000 W CW
 Coupling: 50 ± 1.0 dB Max.
 Insertion Loss: 0.2 dB Max.
 Flatness: ± 0.5 dB Max.
 VSWR (ML): 1.30:1 Max.
 Directivity: 20 dB Min.

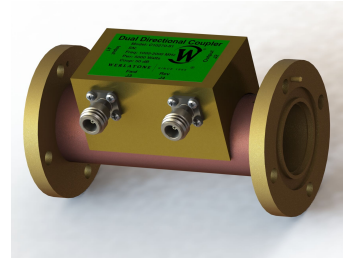
Mechanical Specifications:

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" Line Section

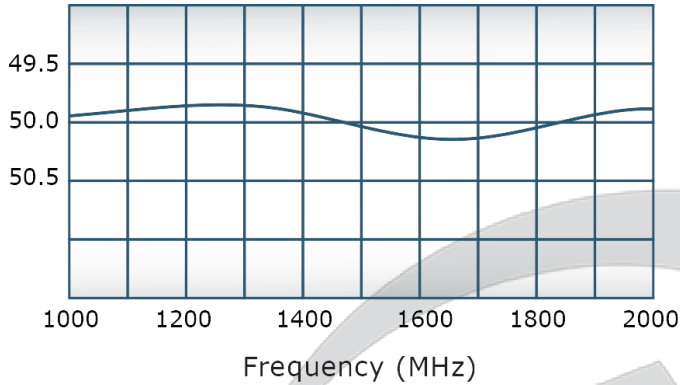
Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C10270-81	1 5/8" EIA	1 5/8" EIA	N Female	N Female
C10270-83	1 5/8" EIA	1 5/8" EIA	SMA	SMA
C10270-84	1 5/8" EIA	1 5/8" EIA	BNC	BNC

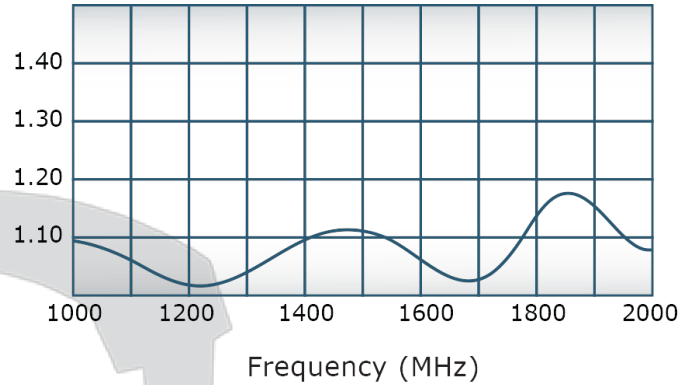
Werlatone® Broadband Dual, Uni, and Bi Directional RF Couplers are designed to tolerate the most stringent operating conditions associated with military and EMC testing environments. Many of our RF Directional Couplers, designated Mismatch Tolerant®, will operate continuously, at rated power, into a severe load mismatch condition. Our multi-octave Directional Couplers maintain exceptional coupling flatness, directivity, VSWR, and insertion loss.


Performance Data (Specifications subject to change without notice):

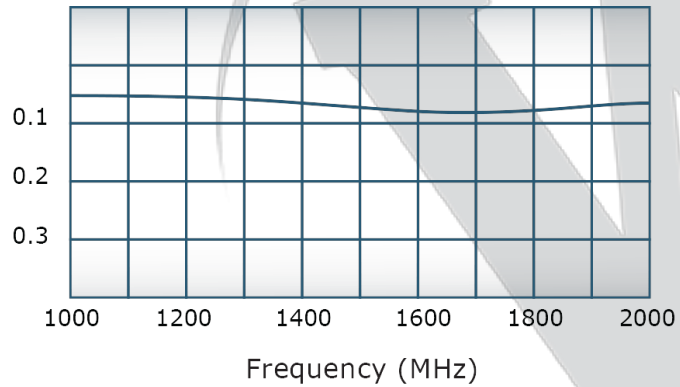
Coupling:



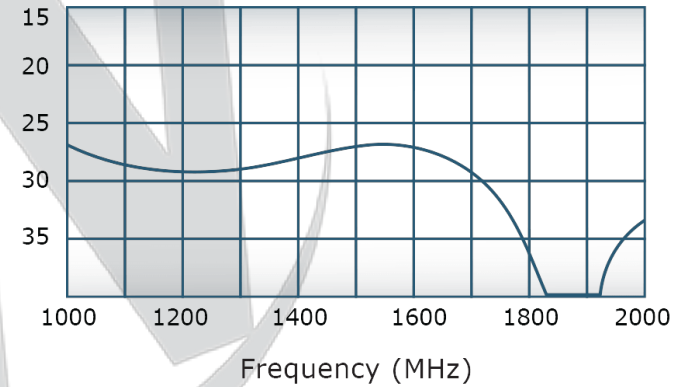
VSWR:



Insertion Loss:

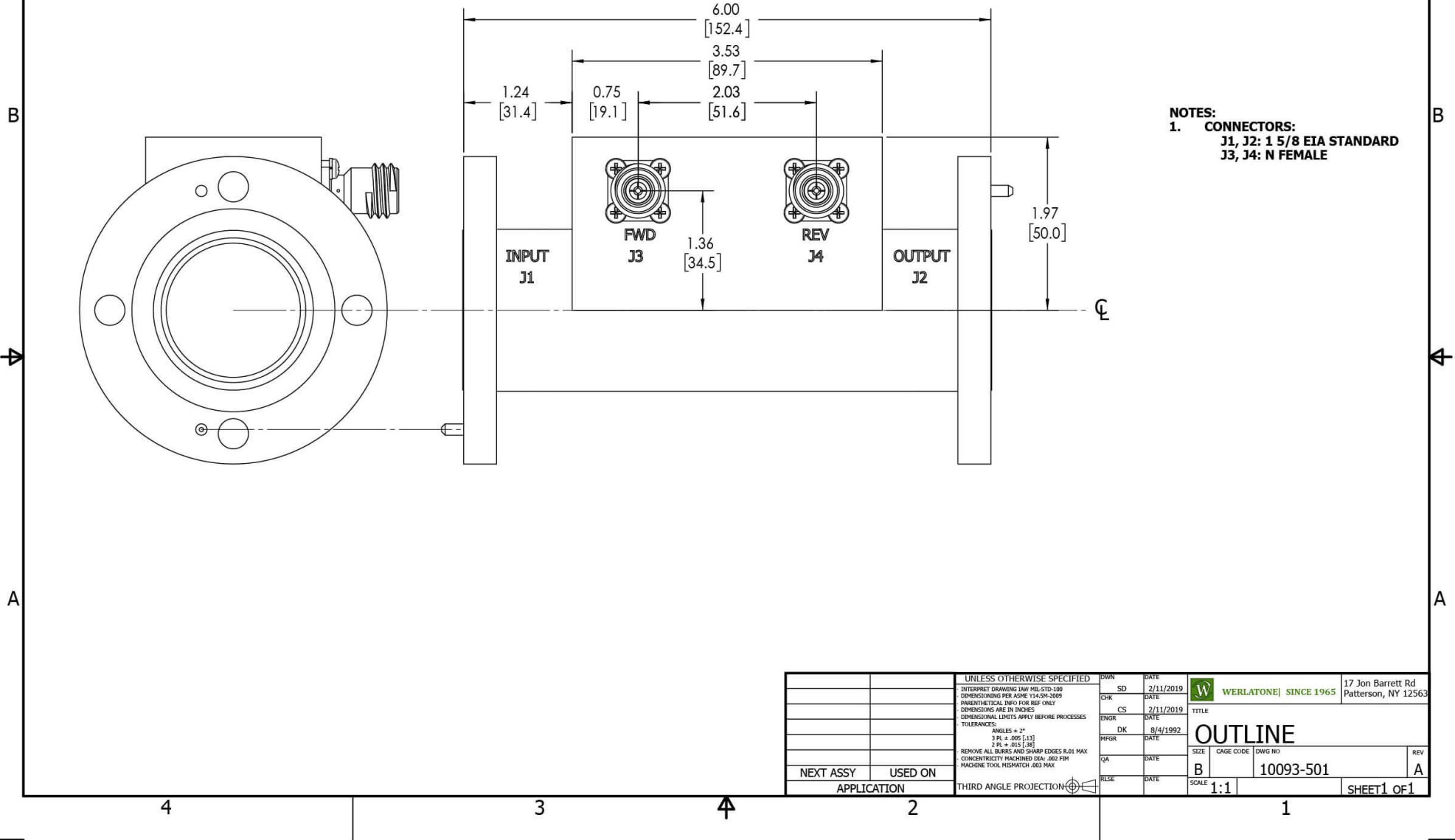


Directivity:



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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 9696	11/29/18	RB



NOTES:
 1. **CONNECTORS:**
 J1, J2: 1 5/8 EIA STANDARD
 J3, J4: N FEMALE

UNLESS OTHERWISE SPECIFIED		DWN	DATE	WERLATONE SINCE 1965 17 Jon Barrett Rd Patterson, NY 12563
INTERPRET DRAWING IAW MIL-STD-100		SD	2/11/2019	
DIMENSIONS FOR ASME Y14.5M-2009		CHK	DATE	TITLE
PARENTHEetical INFO FOR REF ONLY		CS	2/11/2019	
DIMENSIONS ARE IN INCHES		ENGR	DATE	OUTLINE
DIMENSIONAL LINES APPLY BEFORE PROCESSES		DK	8/4/1992	
TOLERANCES:		INFR	DATE	SIZE
ANGLES ± 2°		QA	DATE	CAGE CODE
3 PL ± .005 [13]		RLSE	DATE	DWG NO
2 PL ± .015 [38]				REV
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX				B
CONCENTRICITY MACHINED DIA: .002 FIM				10093-501
MACHINE TOOL MISMATCH .003 MAX.				A
NEXT ASSY	USED ON	THIRD ANGLE PROJECTION		SCALE
				1:1
APPLICATION				SHEET 1 OF 1

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