


**PRODUCT DATA SHEET**
**C10049**

**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 - 11 MHz  
Power: 5000 W CW  
Coupling:  $70 \pm 1.0$  dB Max.  
Insertion Loss: 0.05 dB Max.  
Flatness:  $\pm 0.75$  dB Max.  
VSWR (ML): 1.10:1 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 3.0 x 2.24"

**Connector Configurations:**

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C10049-20	7/16 Female	7/16 Female	N Female	N Female
C10049-22	7/16 Female	7/16 Female	SMA	SMA
C10049-23	7/16 Female	7/16 Female	BNC	BNC
C10049-30	LC Female	LC Female	N Female	N Female
C10049-33	LC Female	LC 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.

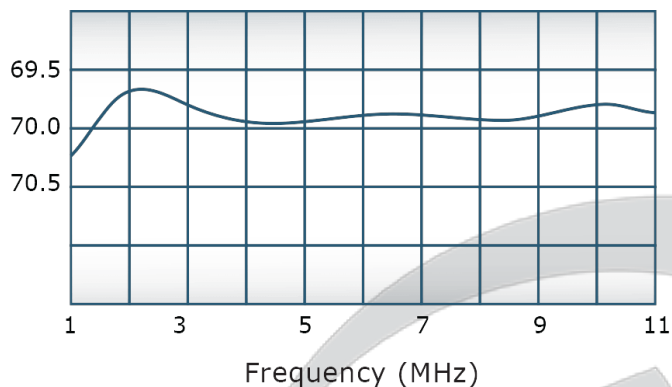


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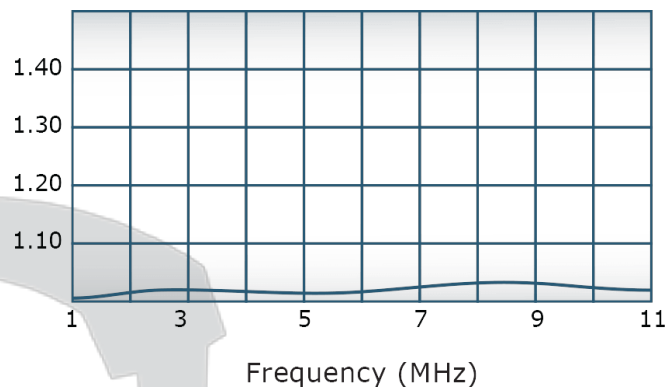
C10049

### Performance Data (Specifications subject to change without notice):

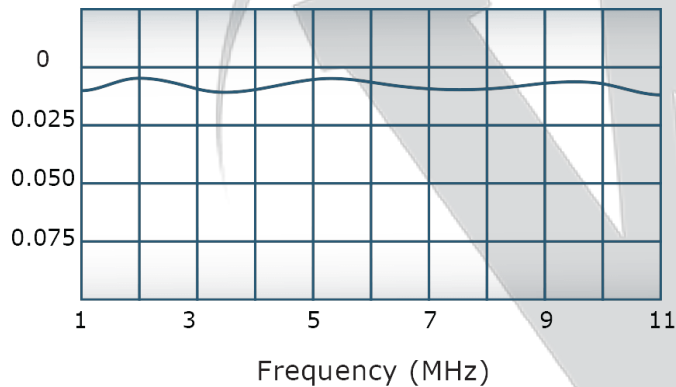
Coupling:



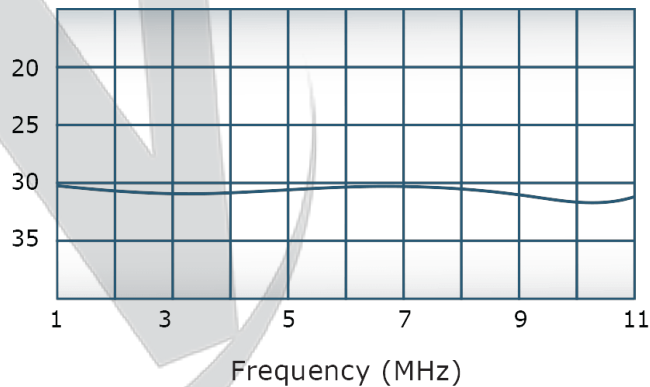
VSWR:



Insertion Loss:

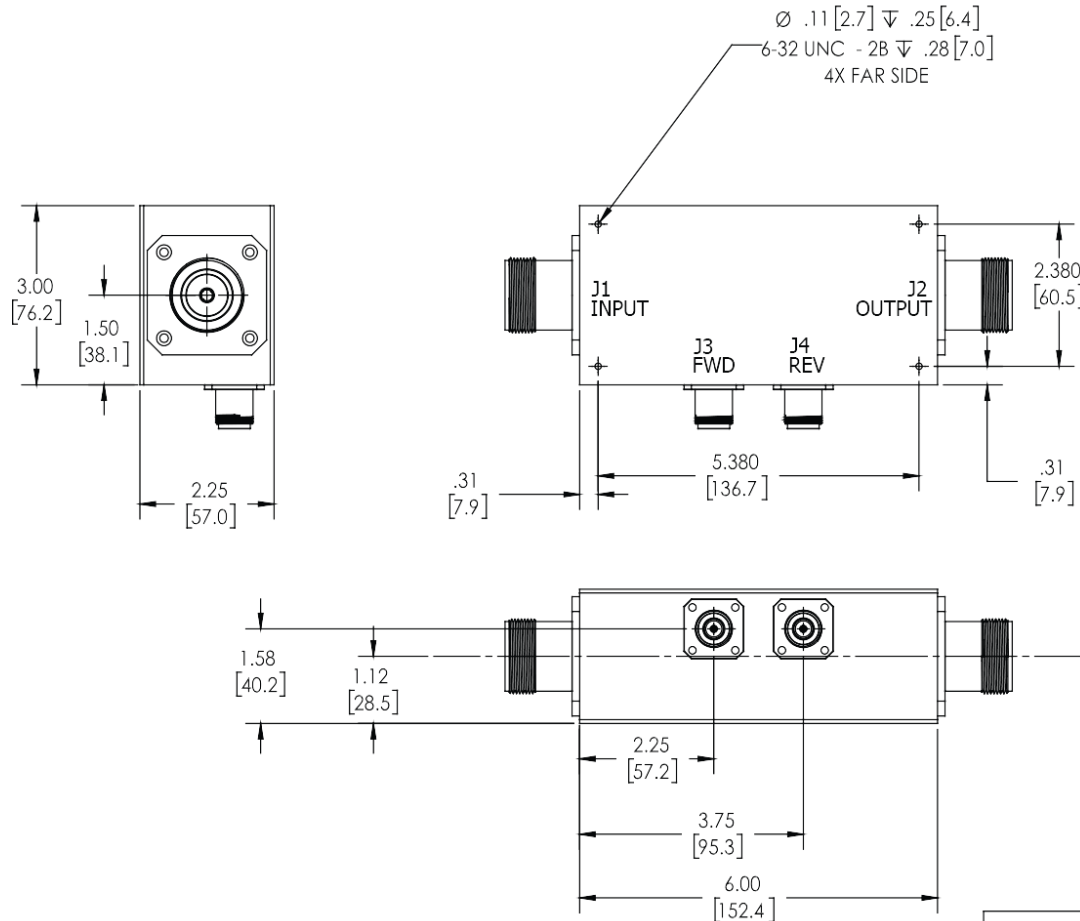


Directivity:



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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
-	INITIAL RELEASE	10/29/2018	CS



		UNLESS OTHERWISE SPECIFIED		OWN	DATE	17 Jon Barrett Rd Patterson, NY 12563	
		• INTERPRET DRAWING JAW MIL-STD-100		PLP	10/25/2018	WERLATON SINCE 1965	
		• DIMENSIONING PER ASME Y14.5M-2009		CHK	DATE		
		• PRELIMINARY DIMS FOR REF ONLY		CS	10/29/2018	TITLE	
		• DIMENSIONS ARE IN INCHES (mm)		ENGR	DATE	SIZE CAGE CODE DWG NO	
		• DIMENSIONAL UNITS APPLY BEFORE PROCESSES		INFR	DATE		
		• TOLERANCES:		QA	DATE	B 28812 10396-500	
		ANGLES: ± 2°		RLSE	DATE		
		2 PL ± .005 (1.3)					
		2 PL ± .015 (4)					
		• REMOVE ALL BURRS AND SHARP EDGES R.03 MAX					
		• CONCENTRICITY MACHINED DIA: .002 FIM					
		• MACHINE TOOL REPAIR: .003 MAX					
		THIRD ANGLE PROJECTION					
NEXT ACTION		USED ON				REV -	
APPLICATION						SCALE 1:2	
						SHEET 1 OF 1	

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