


**PRODUCT DATA SHEET**
**C6981**

**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:            10 - 100 MHz  
 Power:                5000 W CW  
 Coupling:             50 ± 1.0 dB Max.  
 Insertion Loss:      0.1 dB Max.  
 Flatness:              ± 0.5 dB Max.  
 VSWR (ML):         1.10:1 Max.  
 Directivity:            25 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)
C6981-20	7/16 Female	7/16 Female	N Female	N Female
C6981-30	LC Female	LC Female	N Female	N Female
C6981-33	LC Female	LC Female	BNC	BNC
C6981-391	LC Male	LC Female	N Female	N Female
C6981-503	SQS Female	SQS Female	BNC	BNC
C6981-7503	SQS Male	SQS Female	BNC	BNC
C6981-QC-4	QC Block	SQS 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.

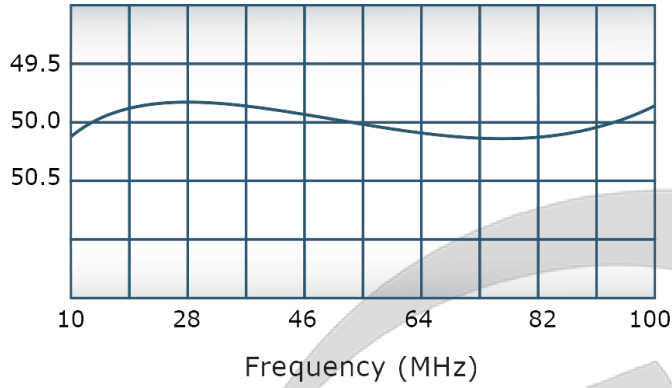


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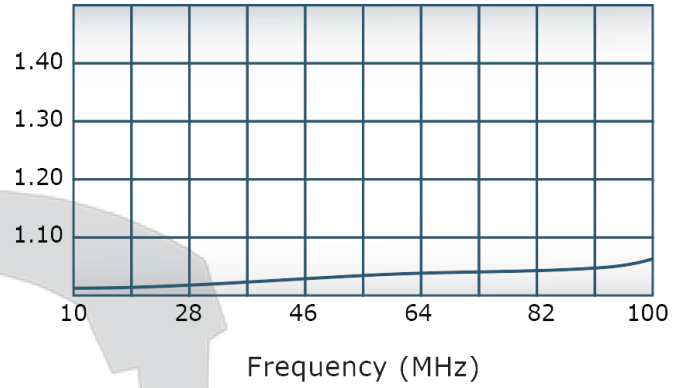
C6981

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

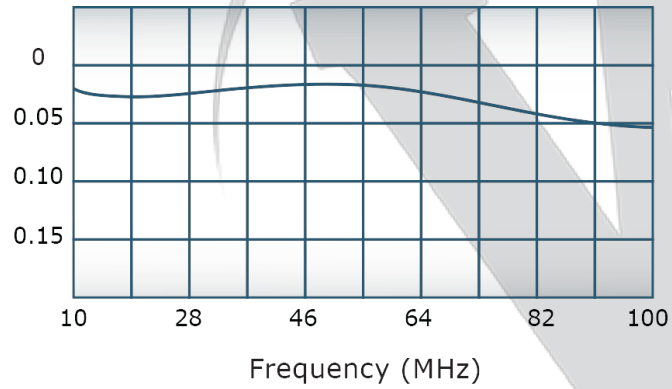
Coupling:



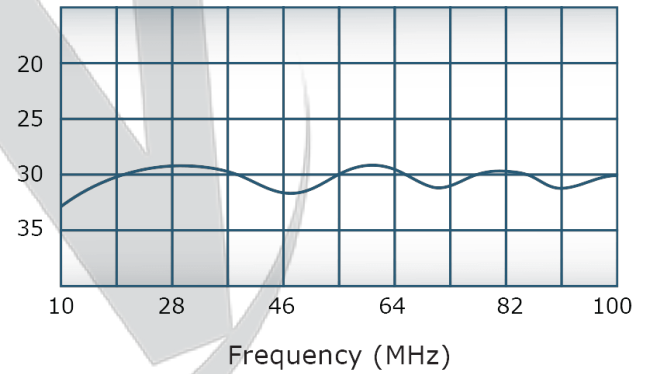
VSWR:



Insertion Loss:



Directivity:



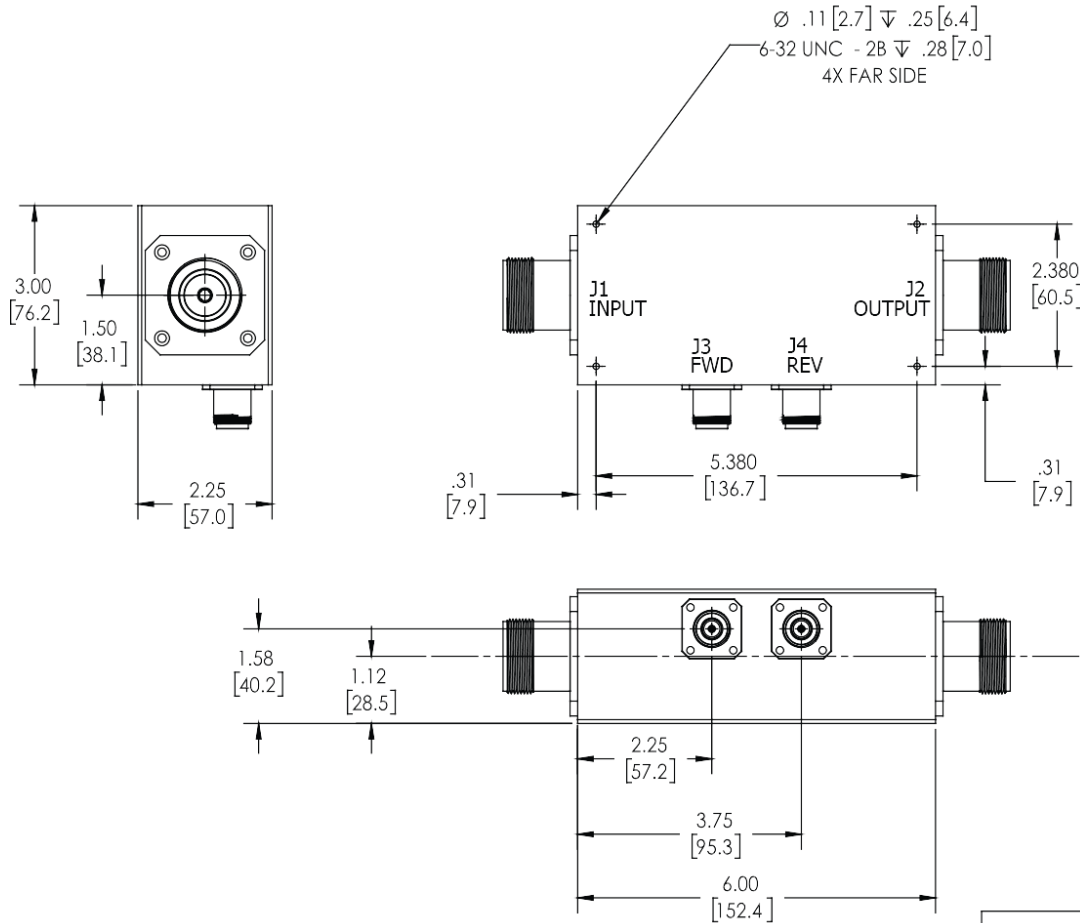
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Werlatone, Inc.

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



UNLESS OTHERWISE SPECIFIED		OWN	DATE	WERLATONE SINCE 1965 17 Jon Barrett Rd Patterson, NY 12563
<ul style="list-style-type: none"> <li>• INTERPRET DRAWING JAW MIL-STD-100</li> <li>• DIMENSIONING PER ASME Y14.3M-2009</li> <li>• PRESENTED TOTAL DIMS FOR REF ONLY</li> <li>• DIMENSIONS ARE IN INCHES (mm)</li> <li>• DIMENSIONAL UNITS APPLY BEFORE PROCESSES</li> <li>• TOLERANCES:               <ul style="list-style-type: none"> <li>ANGLES ± 2°</li> <li>2 PL ± .005 (1:1)</li> <li>2 PL ± .015 (4:1)</li> </ul> </li> <li>• REMOVE ALL BURRS AND SHARP EDGES R.02 MAX</li> <li>• CONCENTRICITY MACHINED DIA: .002 FIM</li> <li>• MACHINE TOOL REPAIR/CH .003 MAX</li> </ul>		PLP	10/25/2018	
		CHK	DATE	TITLE
		CS	10/29/2018	
		ENGR	DATE	SIZE CASE CODE DWG NO
				B 28812 10396-500
		MFR	DATE	REV
		QA	DATE	-
		RLSE	DATE	SCALE
				1:2
APPLICATION		THIRD ANGLE PROJECTION		SHEET 1 OF 1

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