
**PRODUCT DATA SHEET**
**C5977**

**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:                600 W CW  
 Coupling:            40 ± 1.0 dB Max.  
 Insertion Loss:      0.2 dB Max.  
 Flatness:            ± 0.3 dB Max.  
 VSWR (ML):        1.20:1 Max.  
 Directivity:          20 dB Min.

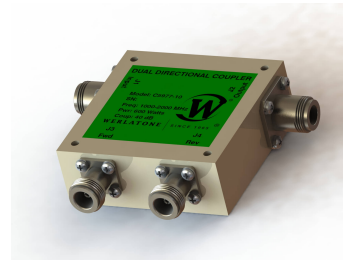
**Mechanical Specifications:**

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:                    3.0 x 3.0 x 1.09"

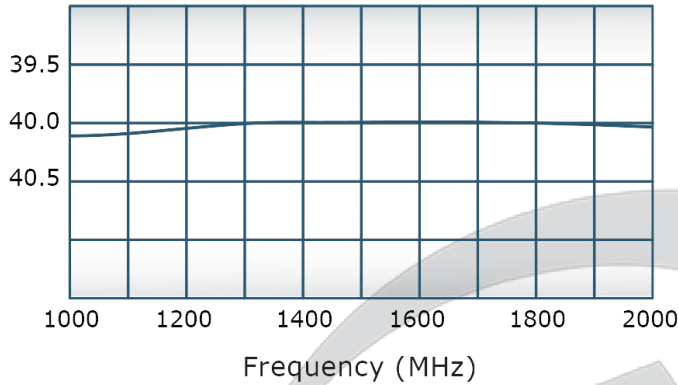
**Connector Configurations:**

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C5977-10	N Female	N Female	N Female	N Female
C5977-12	N Female	N Female	SMA	SMA
C5977-13	N Female	N Female	BNC	BNC
C5977-43	SC Female	SC Female	SMA	SMA
C5977-302	TNC	TNC	SMA	SMA

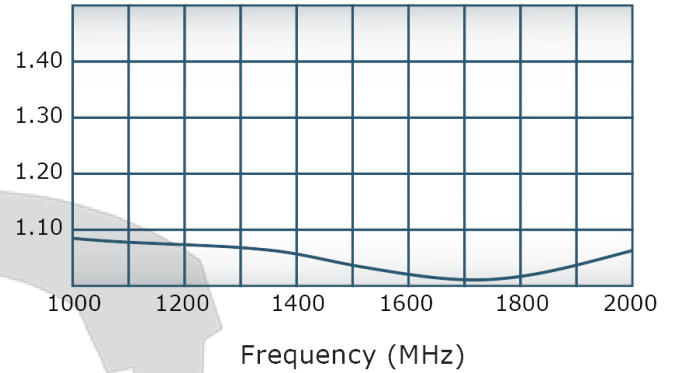
**Werlatone®** Broadband Dual, Uni, and Bi Directional RF Couplers are designed to tolerate the most stringent operating conditions associated with military and EMC testing environments. Many of our RF Directional Couplers, designated Mismatch Tolerant®, will operate continuously, at rated power, into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


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

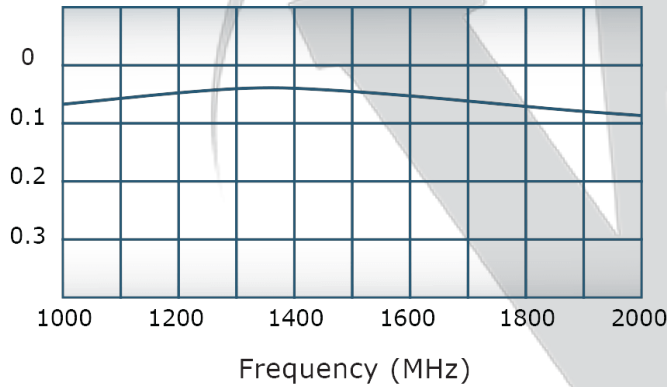
Coupling:



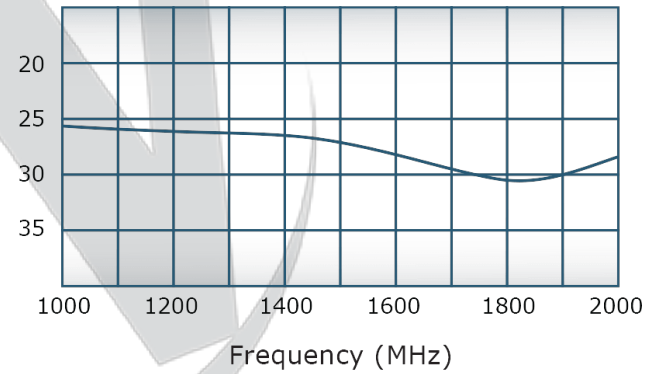
VSWR:



Insertion Loss:



Directivity:



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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 9696	11/27/18	RB

- NOTES: UNLESS OTHERWISE SPECIFIED**
- MATERIAL: ALUMINUM 6061-T6**
  - FINISH: CHEM FILM PER MIL-DTL\_5541F TYPE I CLASS 3 (YELLOW IRIDITE)**

UNLESS OTHERWISE SPECIFIED		OWN	DATE	<b>WERLATONE SINCE 1965</b> 17 Jon Barrett Rd Patterson, NY 12563
• INTERPRET DRAWING JAW MIL-STD-100 • DIMENSIONING PER ASME Y14.5M-2009 • PARENTHESES INFO FOR REF ONLY • DIMENSIONS ARE IN INCHES • DIMENSIONAL UNITS APPLY BEFORE PROCESSES • TOLERANCES: ANGLES: ± 2° 3 PL. ± .005 (1.3) 2 PL. ± .015 (1.3) • REMOVE ALL BURRS AND SHARP EDGES R.01 MAX • CONCENTRICITY MACHINED DIA: .002 FIM • MACHINE TOOL IMPACT: .003 MAX		CHK	DATE	
NEXT ASSY		ENGR	DATE	TITLE
USED ON		MJ	7/5/2001	<b>OUTLINE</b>
APPLICATION		MFR	DATE	SIZE
THIRD ANGLE PROJECTION		QA	DATE	CAGE CODE
		RELSE	DATE	DAWG NO
				REV
				<b>B</b>
				10379-505
				SCALE
				<b>1:1</b>
				SHEET 1 OF 1

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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