



## PRODUCT DATA SHEET

C3824

**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: 1.5 - 80 MHz  
Power: 500 W CW  
Coupling:  $60 \pm 1.0$  dB Max.  
Insertion Loss: 0.15 dB Max.  
Flatness:  $\pm 0.5$  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: 4.0 x 2.0 x 1.88"

### Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C3824-10	N Female	N Female	N Female	N Female
C3824-12	N Female	N Female	SMA	SMA
C3824-13	N Female	N Female	BNC	BNC
C3824-102	SMA	SMA	SMA	SMA
C3824-200	BNC	BNC	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.



# WERLATONE

Model C3824

Connectorized Directional Couplers

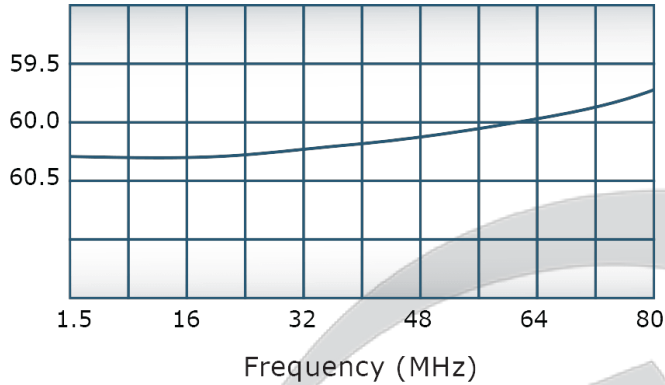


## PRODUCT DATA SHEET

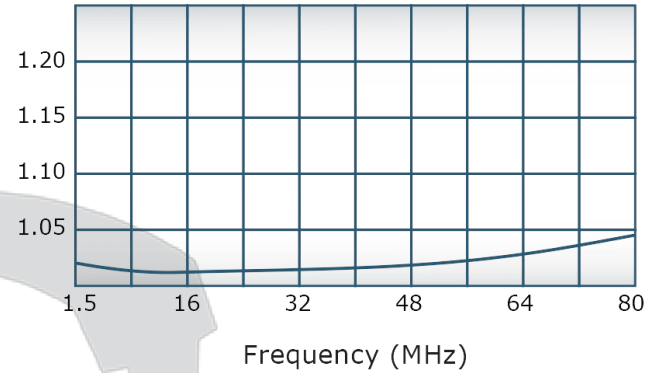
C3824

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

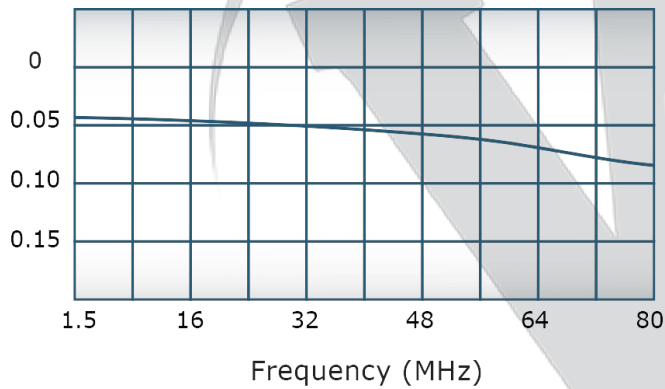
Coupling:



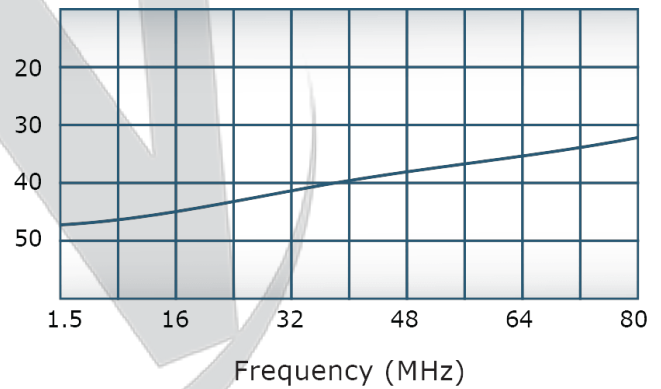
VSWR:



Insertion Loss:



Directivity:

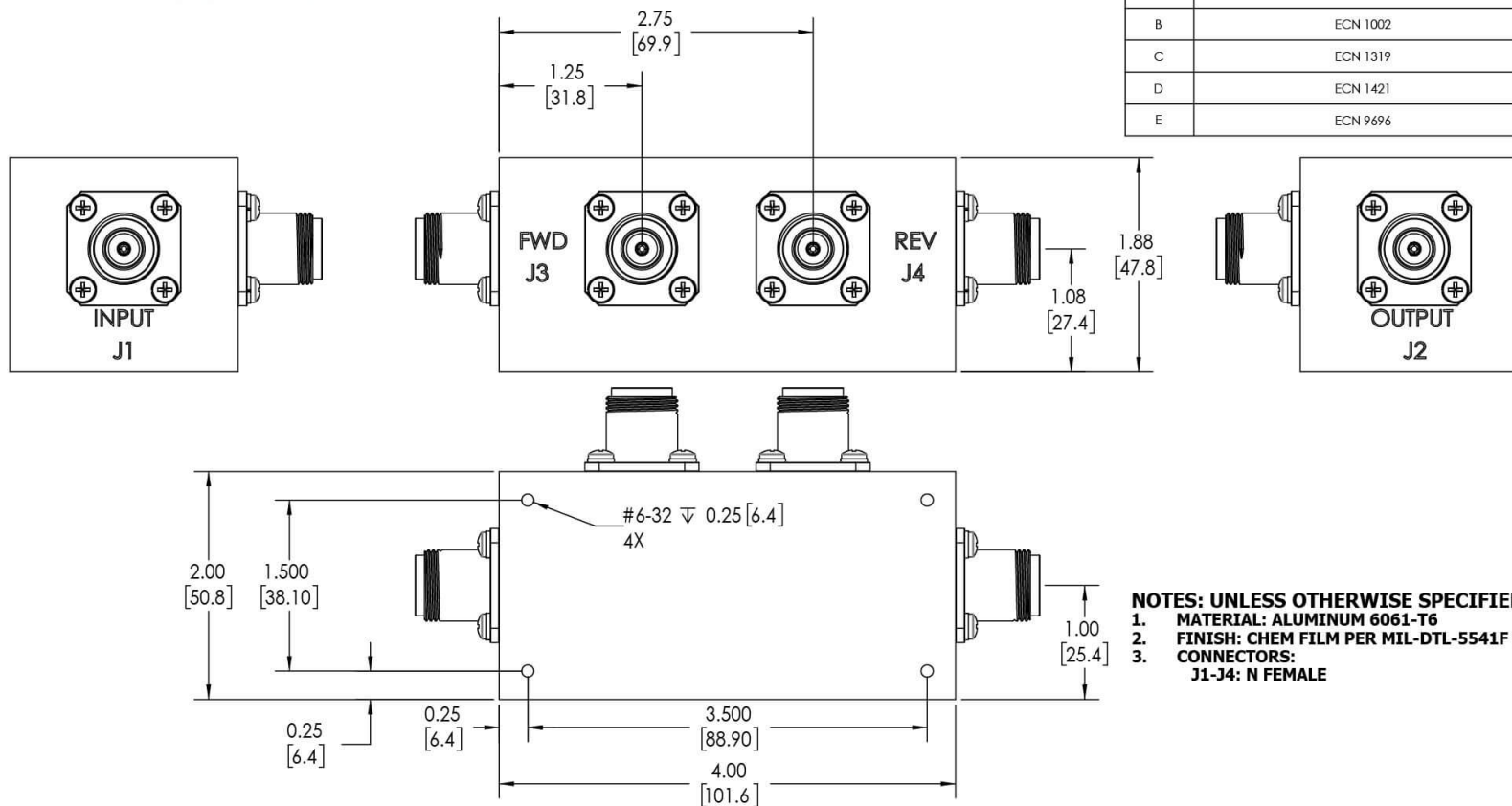


Restriction on use, duplication, or disclosure of proprietary information. This document contains proprietary information which is the sole property of Werlatone, Inc.

Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com



**RESTRICTION ON USE, DUPLICATION OR DISCLOSURE OF PROPRIETARY INFORMATION**  
This document contains proprietary information which is the sole property of Werlatone, Inc.

REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 1001	10/86	GW
B	ECN 1002	6/92	DK
C	ECN 1319	4/95	CS
D	ECN 1421	12/96	CS
E	ECN 9696	11/18	RB



**NOTES: UNLESS OTHERWISE SPECIFIED**

1. MATERIAL: ALUMINUM 6061-T6  
2. FINISH: CHEM FILM PER MIL-DTL-5541F TYPE I CLASS 3 (YELLOW IRIDITE)  
3. CONNECTORS:  
J1-J4: N FEMALE

		UNLESS OTHERWISE SPECIFIED		DWN	DATE	 WERLATONE   SINCE 1965	17 Jon Barrett Rd Patterson, NY 12563			
		INTERPRET DRAWING IN ACC. WITH MIL-STD-100		SD	2/11/2019					
		DIMENSIONS PER ASME Y14.5-2009		CHR	DATE					
		PARENT/CHILD UNITS FOR BEST FIT ONLY		CS	2/11/2019					
		DIMENSIONS ARE IN INCHES		ENGR	DATE	TITLE				
		DIMENSIONAL UNITS APPLY BEFORE PROCESSES		MPGR		OUTLINE				
		TOLERANCES:		QA	DATE		SIZE	GAGE CODE	DWGS NO	REV
		ANGLES = F 3 PL. = .005 [13] 2 PL. = .015 [30]		RLSE	DATE		10018-500			E
		REMOVE ALL BURRS AND SHARP EDGES 8.01 MAX								
		CONCENTRICITY MACHINED DIA. .002 FIM								
		MACHINE TOOL PROJECTION .001 MAX								
NEXT ASSY		USED ON		THIRD ANGLE PROJECTION 						
APPLICATION		SCALE 1:1								
		SHEET 1 OF 1								

**Restriction on use, duplication, or disclosure of proprietary information.** This document contains proprietary information which is the sole property of Werlatone, Inc.  
Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com