



## PRODUCT DATA SHEET

C1807

**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:      20 - 100 MHz  
 Power:          750 W CW  
 Coupling:        30 ± 1.0 dB Max.  
 Flatness:        ± 0.5 dB Max.  
 Insertion Loss: 0.2 dB Max.  
 VSWR (ML):    1.15:1 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:             4.0 x 2.0 x 1.88"

### Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C1807-10	N Female	N Female	N Female	N Female
C1807-12	N Female	N Female	SMA	SMA
C1807-13	N Female	N Female	BNC	BNC
C1807-102	SMA	SMA	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.

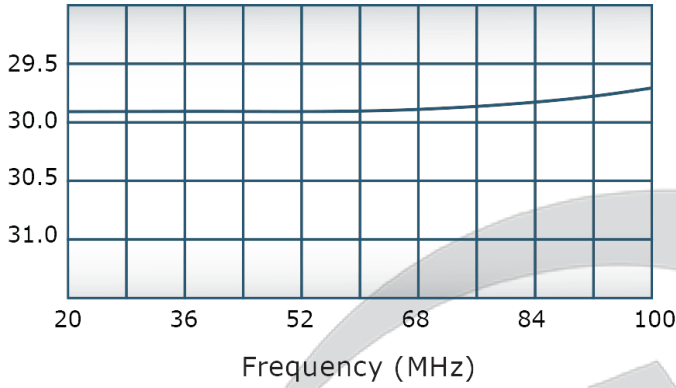
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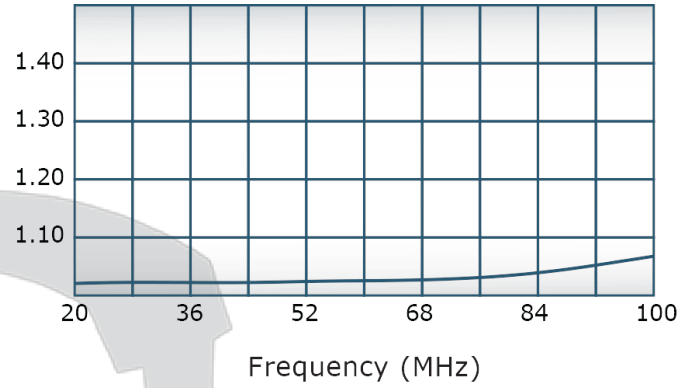


### Performance Data (Specifications subject to change without notice):

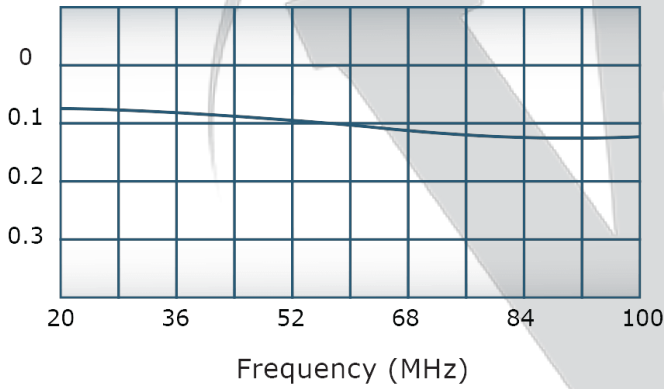
Coupling:



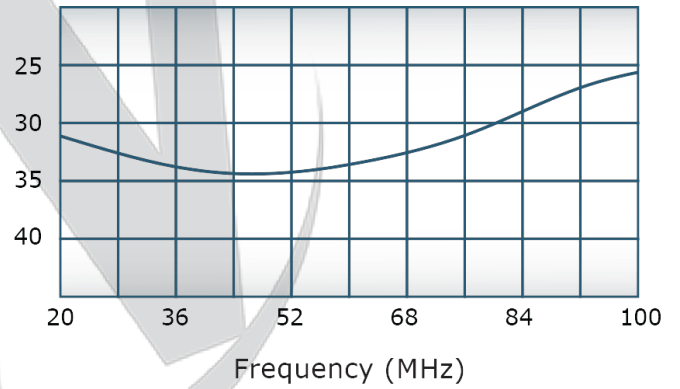
VSWR:



Insertion Loss:

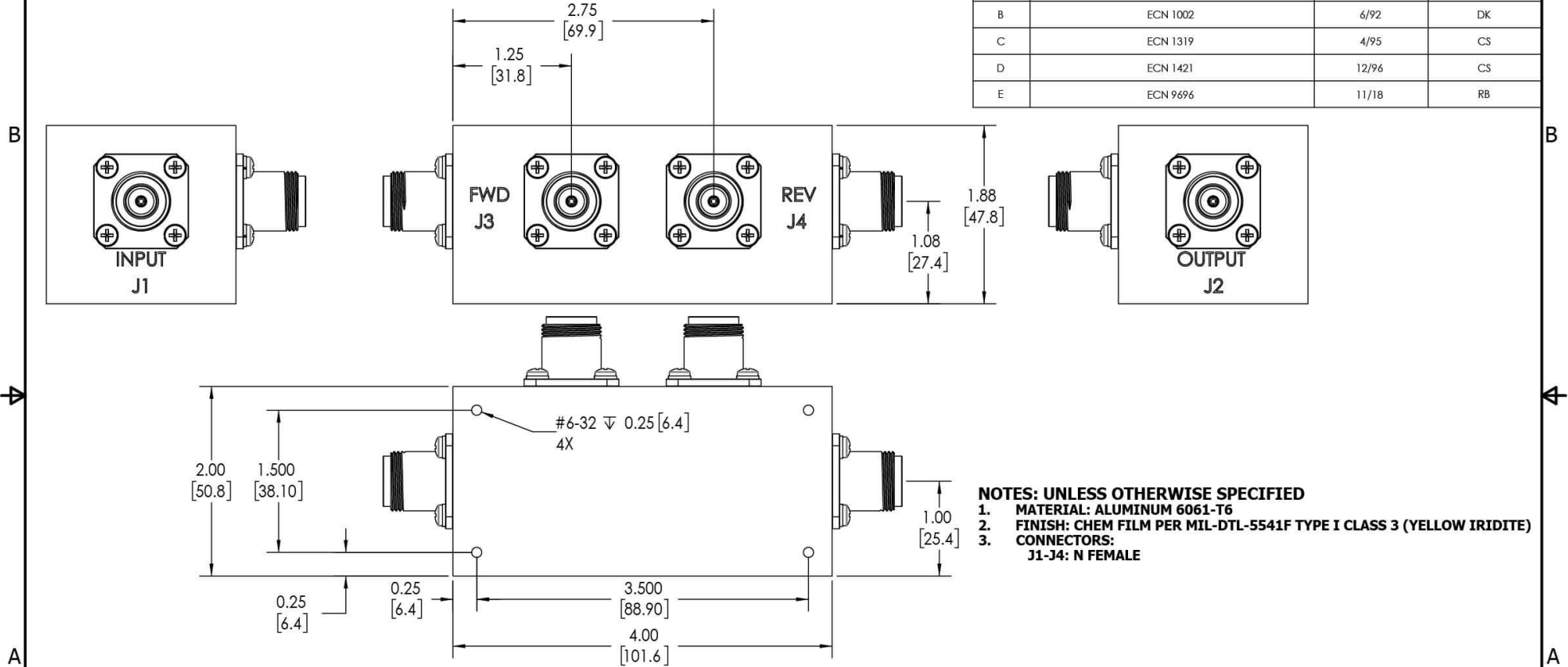


Directivity:



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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 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**
- MATERIAL: ALUMINUM 6061-T6**
  - FINISH: CHEM FILM PER MIL-DTL-5541F TYPE I CLASS 3 (YELLOW IRIDITE)**
  - CONNECTORS:  
J1-J4: N FEMALE**

UNLESS OTHERWISE SPECIFIED		DATE	2/11/2019	WERLATONE SINCE 1965	17 Jon Barrett Rd Patterson, NY 12563
INTERPRET DRAWING IAW MIL-STD-100	SD	DATE			
DIMENSIONS PER ASME Y14.5M-2009	CHK	DATE		TITLE	
PARENTHEICAL INFO FOR REF ONLY	CS	DATE	2/11/2019	OUTLINE	
DIMENSIONS ARE IN INCHES	ENGR	DATE		SIZE	CAGE CODE
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES	INFR	DATE		B	10018-500
TOLERANCES:	QA	DATE		DWG NO	REV
ANGLES ± 2°	RLSE	DATE		10018-500	E
3 PL ± .005 [0.13]				SCALE	
2 PL ± .015 [0.38]				1:1	
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX					
CONCENTRICITY MACHINED DIA: .002 FIM					
MACHINE TOOL MISMATCH .003 MAX					
NEXT ASSY	USED ON				
APPLICATION	THIRD ANGLE PROJECTION				
					SHEET 1 OF 1

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