


**PRODUCT DATA SHEET**
**C6416**

**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:      0.5 - 32MHz  
 Power:          50 W CW  
 Coupling:       30 ± 1.0 dB Max.  
 Flatness:       ± 0.25 dB Max.  
 Insertion Loss: 0.15 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)
C6416-10	N Female	N Female	N Female	N Female
C6416-12	N Female	N Female	SMA	SMA
C6416-13	N Female	N Female	BNC	BNC
C6416-102	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.

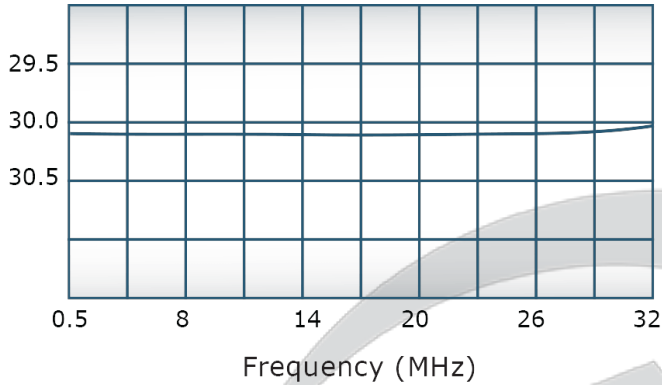


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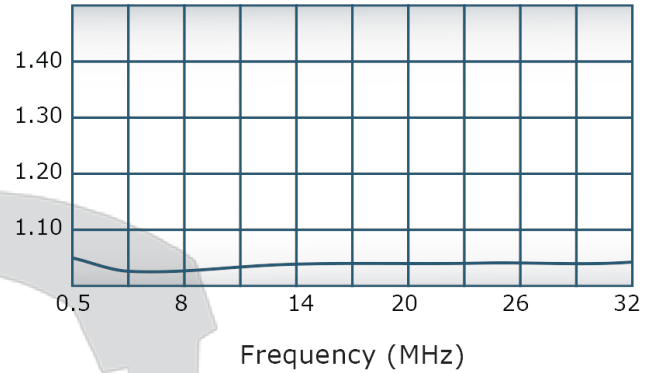
C6416

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

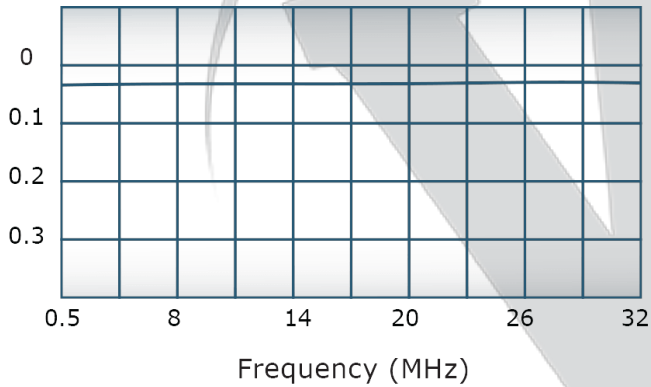
Coupling:



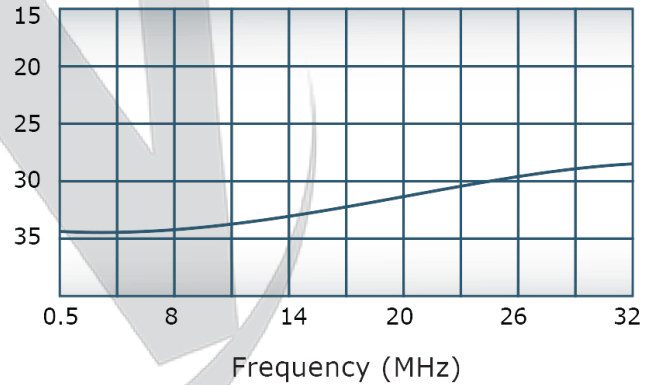
VSWR:



Insertion Loss:



Directivity:



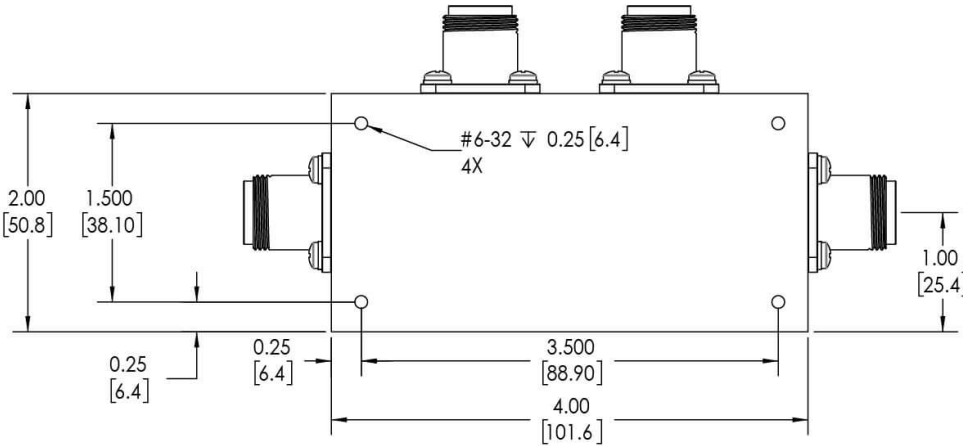
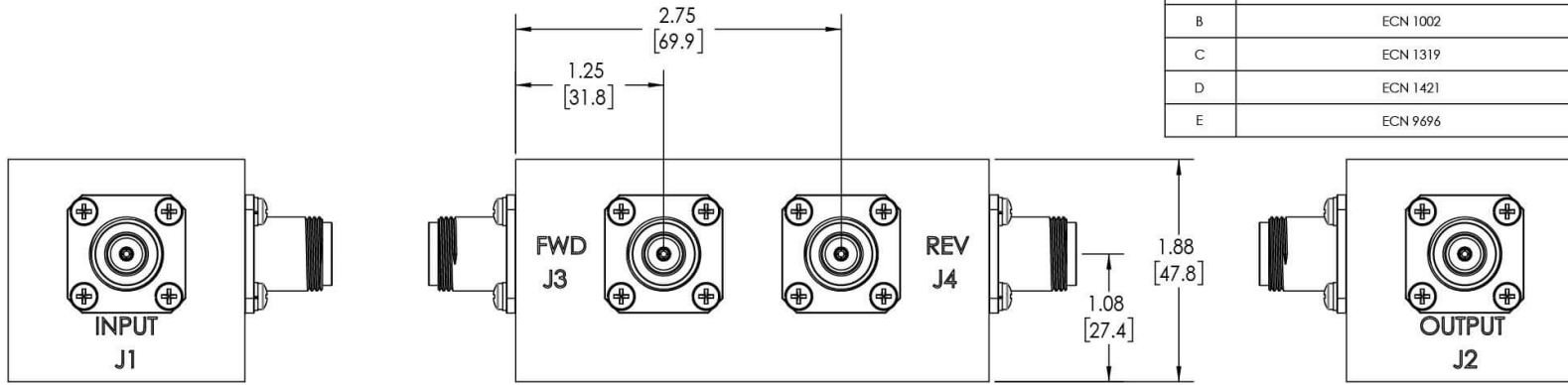
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Werlatone, Inc.

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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
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	<b>WERLATONE</b> 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		<b>OUTLINE</b> TITLE			
PARENTHEetical INFO FOR REF ONLY	CS	DATE	2/11/2019				
DIMENSIONS ARE IN INCHES	ENGR	DATE		SIZE	CAGE CODE	DWG NO	REV
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES	INFR	DATE		B		10018-500	E
TOLERANCES:	QA	DATE		SCALE	1:1		SHEET 1 OF 1
ANGLES ± 2°	RLSE	DATE					
3 PL ± .005 [1.3]							
2 PL ± .015 [3.8]							
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						

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