

## PRODUCT DATA SHEET

C8059

**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:	80 - 1000 MHz
Power:	1000 W CW
Coupling:	40 ± 1.0 dB Max.
Insertion Loss:	0.2 dB Max.
Flatness:	± 0.5 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:	6.0 x 3.0 x 1.09"

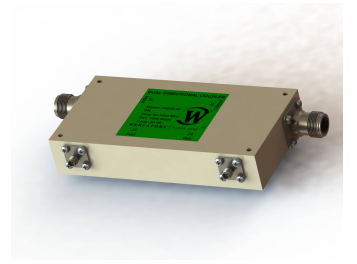
### Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C8059-10	N Female	N Female	N Female	N Female
C8059-12	N Female	N Female	SMA	SMA
C8059-13	N Female	N Female	BNC	BNC
C8059-20	7/16 Female	7/16 Female	N Female	N Female
C8059-41	SC Female	SC Female	N Female	N Female
C8059-43	SC Female	SC Female	SMA	SMA
C8059-714	N Male	N Female	N Female	N Female
C8059-727	7/16 Male	7/16 Female	N Female	N Female

**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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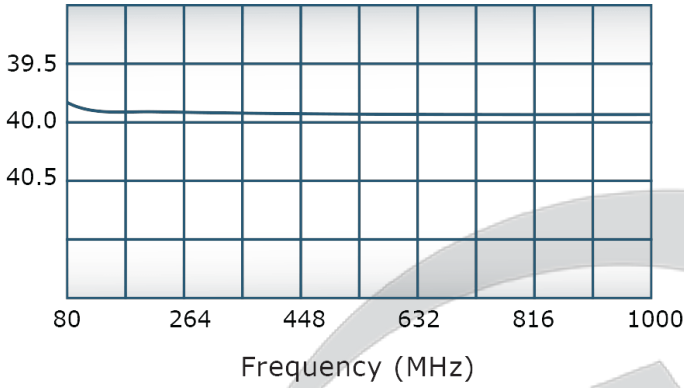


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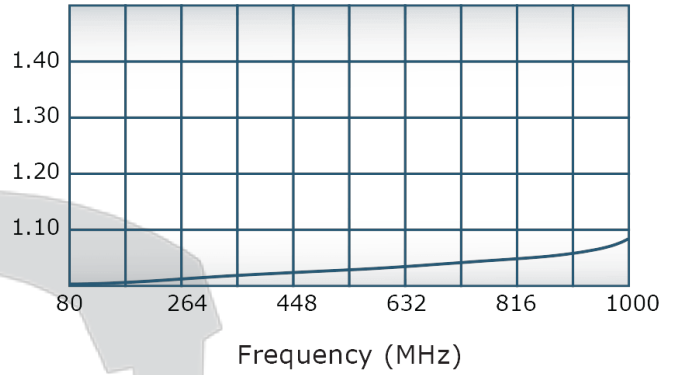
C8059

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

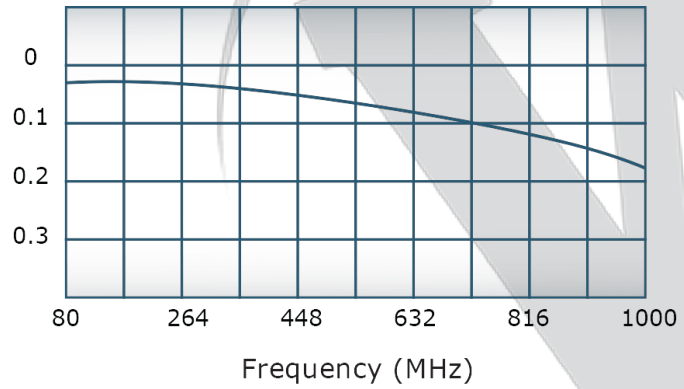
Coupling:



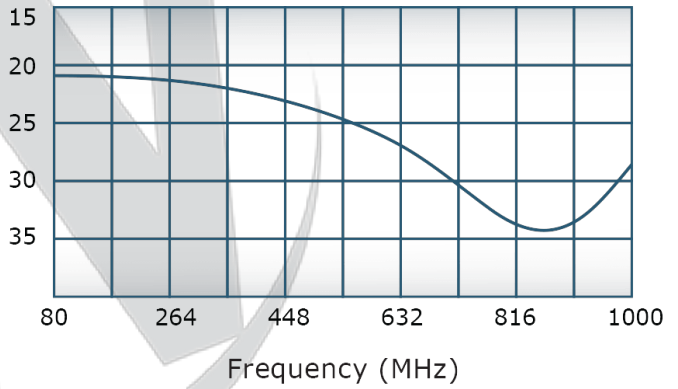
VSWR:



Insertion Loss:



Directivity:



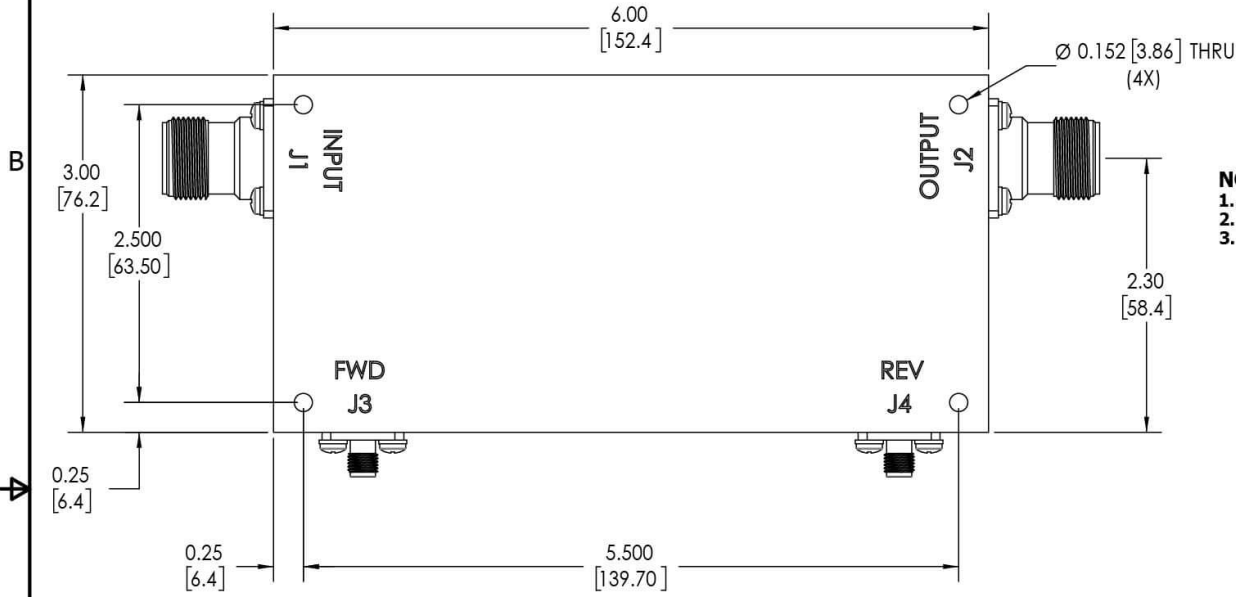
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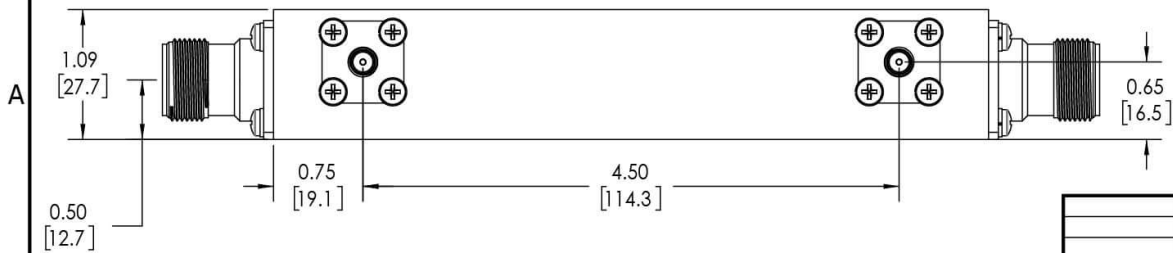
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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 9696	6/12/2019	RB



**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-J2: SC FEMALE  
 J3-J4: SMA FEMALE



UNLESS OTHERWISE SPECIFIED		OWN	DATE	WERLATONE SINCE 1965	17 Jon Barrett Rd Patterson, NY 12563
INTERPRET DRAWING IAW MIL-STD-100	SD	6/12/2019			
DIMENSIONS PER ASME Y14.5M-2009	CHK	6/12/2019			
PARENTHEetical INFO FOR REF ONLY	CS	6/12/2019			
DIMENSIONS ARE IN INCHES	ENGR				
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES	INFR				
TOLERANCES:	QA				
ANGLES ± 2°	RLSE				
3 PL ± .005 [13]					
2 PL ± .015 [38]					
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	SCALE	1:1	SIZE	B	CAGE CODE	10499-501	DWG NO	A	REV	A
SHEET 1 OF 1													

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