

## PRODUCT DATA SHEET

C8719

**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: 2500 W CW  
 Coupling:  $60 \pm 1.0$  dB Max.  
 Insertion Loss: 0.1 dB Max.  
 Flatness:  $\pm 0.5$  dB Max.  
 VSWR (ML): 1.30:1 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 1.59"

### Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C8719-20	7/16 Female	7/16 Female	N Female	N Female
C8719-22	7/16 Female	7/16 Female	SMA	SMA
C8719-23	7/16 Female	7/16 Female	BNC	BNC
C8719-41	SC Female	SC Female	N Female	N Female
C8719-43	SC Female	SC Female	SMA	SMA
C8719-727	7/16 Male	7/16 Female	N Female	N Female
C8719-728	7/16 Male	7/16 Female	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.

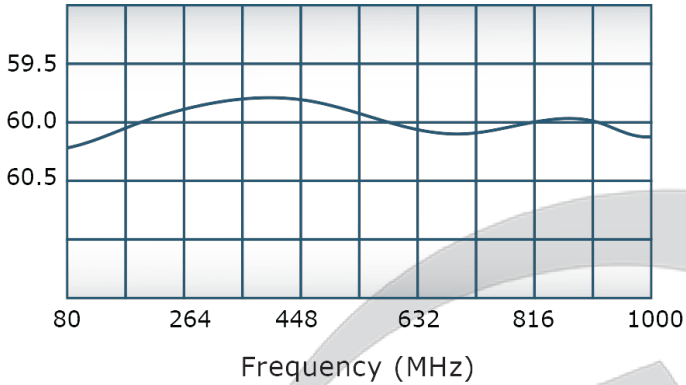


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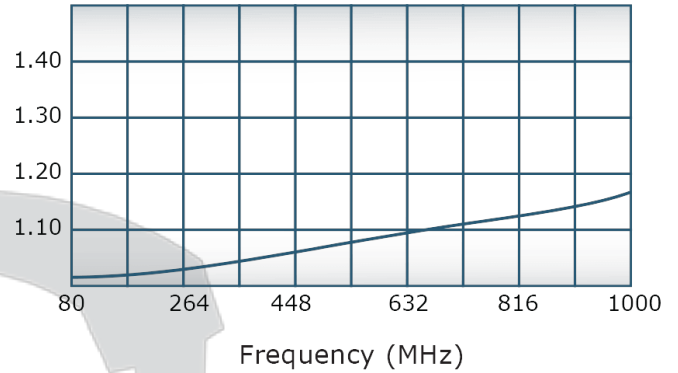
C8719

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

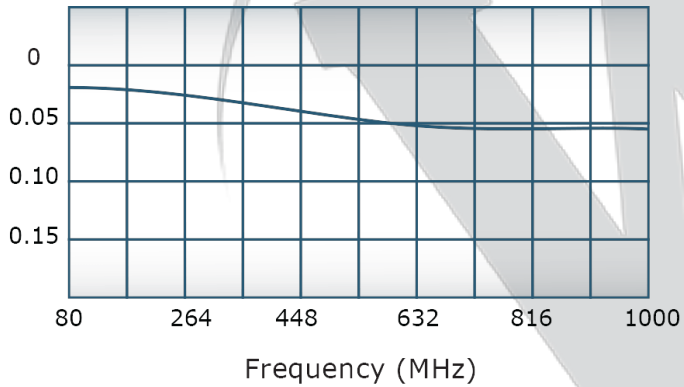
Coupling:



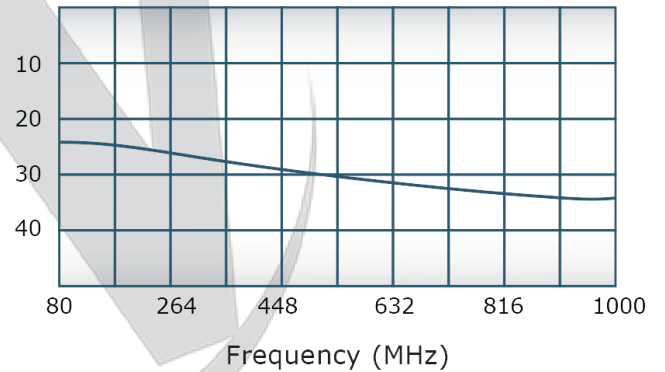
VSWR:



Insertion Loss:



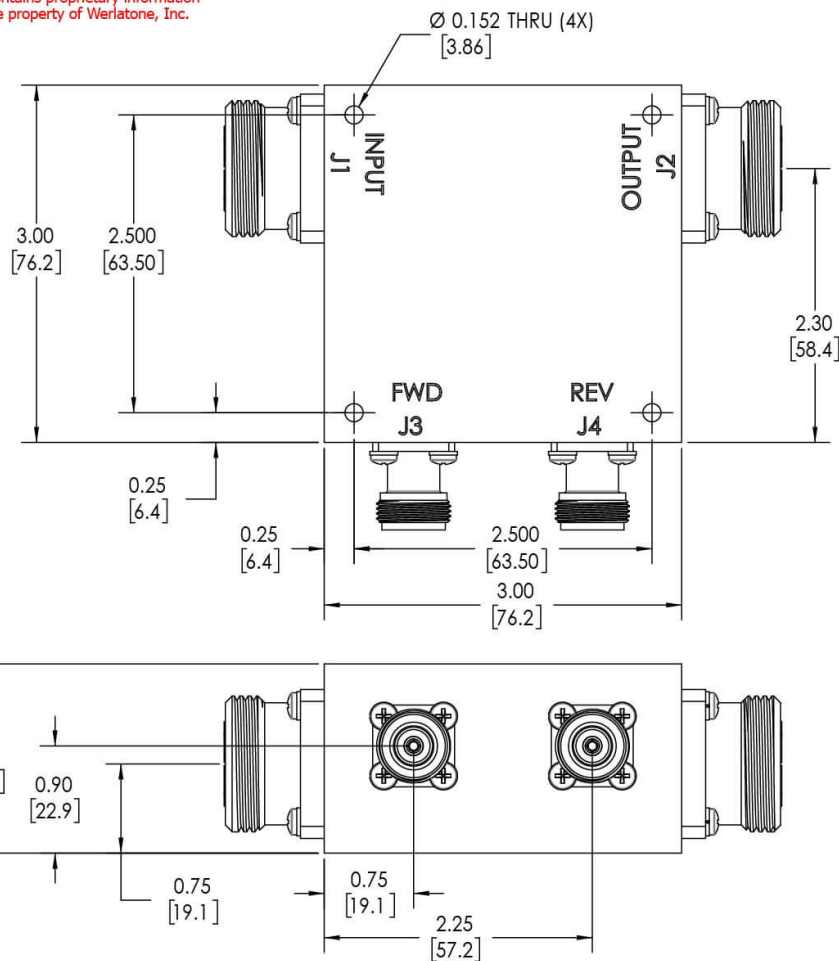
Directivity:



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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 9696	5/13/2019	RB

**NOTES: UNLESS OTHERWISE SPECIFIED**

- MATERIAL: ALUMINUM 6061-T6**
- FINISH: CHEM FILM PER MIL-DTL-5541F CLASS I TYPE 3 (YELLOW IRIDITE)**
- CONNECTORS:**  
J1, J2: 7/16 FEMALE  
J3, J4: N FEMALE

<div>NEXT ASSY</div> <div>USED ON</div> <div>APPLICATION</div>		UNLESS OTHERWISE SPECIFIED		DWN	DATE	<div> WERLATONE SINCE 1965</div> <div>17 Jon Barrett Rd Patterson, NY 12563</div>	
		INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100		SD	5/13/2019		
		DIMENSIONING PER ASME Y14.5M-2009		CHK	DATE		
		PARENT/CHILD LISTS FOR REF ONLY		CS	5/13/2019		
<div>REMOVE ALL BURRS AND SHARP EDGES R.01 MAX</div> <div>CONCENTRICITY MACHINED DIA. .002 FIM</div> <div>MACHINE TOOL MISMATCH .003 MAX</div>		DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		ENGR	DATE	<div>TITLE</div> <div>OUTLINE</div> <div>SIZE CAGE CODE DWG NO</div> <div>B 10443-501</div> <div>SCALE 1:1</div>	
		TOLERANCES:		MFRGR	DATE		REV A
		ANGLES ± 2°		QA	DATE		
		3 PL ± .005 [13]		RLSE	DATE		
2 PL ± .015 [38]		REMOVE ALL BURRS AND SHARP EDGES R.01 MAX		SHEET 1 OF 1			

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