



## PRODUCT DATA SHEET

C3720

**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:      10 - 1000 MHz  
 Power:          50 W CW  
 Coupling:        30 ± 1.0 dB Max.  
 Flatness:        ± 0.5 dB Max.  
 Insertion Loss: 1.0 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:             5.0 x 2.0 x 1.51"

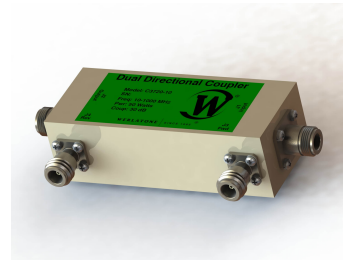
### Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C3720-10	N Female	N Female	N Female	N Female
C3720-12	N Female	N Female	SMA	SMA
C3720-13	N Female	N Female	BNC	BNC
C3720-102	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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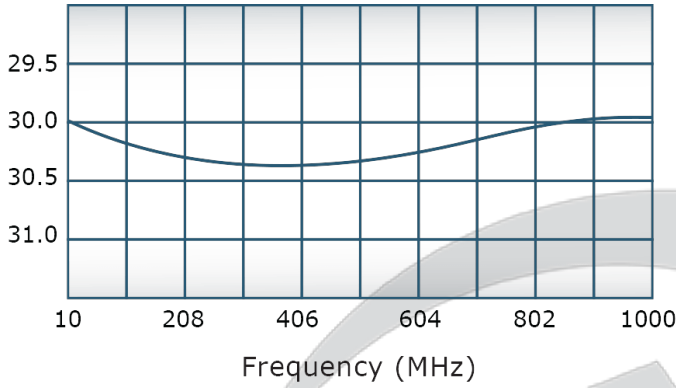


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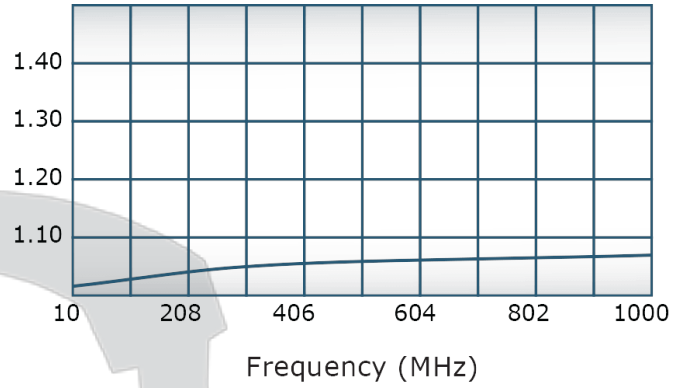
C3720

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

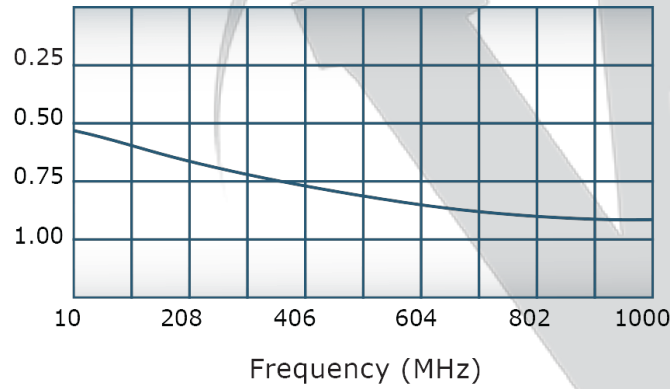
Coupling:



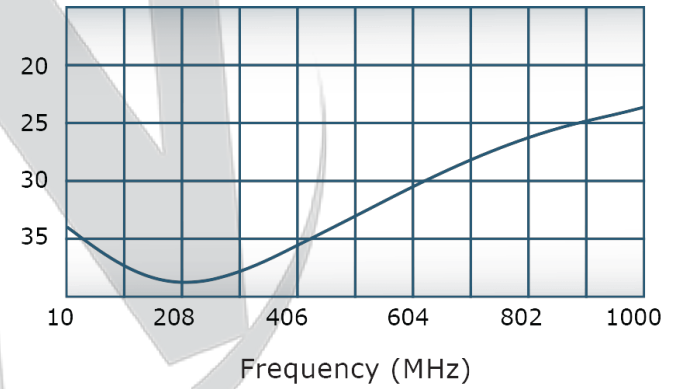
VSWR:



Insertion Loss:



Directivity:

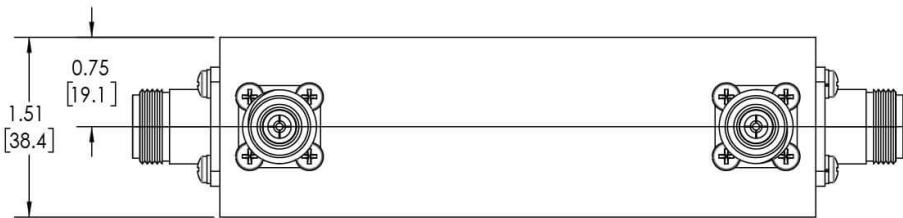
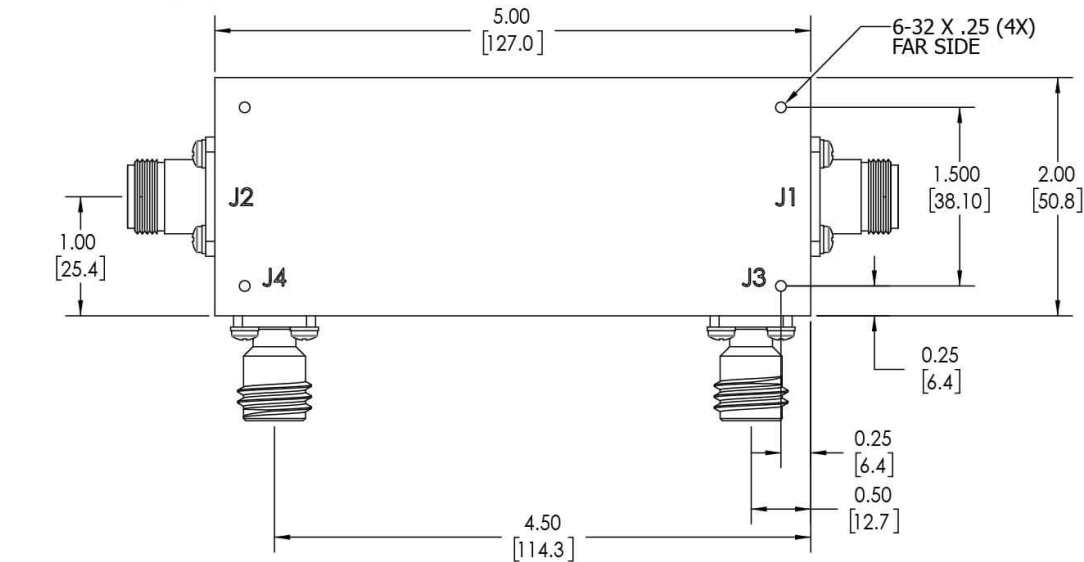


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REVISION HISTORY

REV.	REVISION RECORD	DATE	APPROVED
C	ECN 3567	10/5/2004	JE
D	ECN 4139	1/15/2007	JE
E	ECN 9696	5/15/2019	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  
 J1-INPUT; J2-OUTPUT  
 J3-FWD; J4-REV

UNLESS OTHERWISE SPECIFIED		DWN	DATE	5/14/2019	WERLATONE SINCE 1965 17 Jon Barrett Rd Patterson, NY 12563
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100		SD	DATE	5/14/2019	
DIMENSIONS PER ASME Y14.5M-2009		CHK	DATE	5/14/2019	<b>OUTLINE</b> TITLE SIZE CAGE CODE DWG NO B 20676-500 SCALE 1:1 SHEET 1 OF 1
PARENTHESES FOR REF ONLY		CS	DATE	5/14/2019	
DIMENSIONS ARE IN INCHES		ENGR	DATE		
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		INFR	DATE		
TOLERANCES:		QA	DATE		REV E
ANGLES = 2°		RLSE	DATE		
3 PL ± .005 [13]		THIRD ANGLE PROJECTION			
2 PL ± .015 [38]		APPLICATION			
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX		NEXT ASSY	USED ON		
CONCENTRICITY MACHINED DIA: .002 FIM					
MACHINE TOOL MISMATCH .003 MAX					

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