



## PRODUCT DATA SHEET

C10748

**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: 2000 - 6500 MHz  
 Power: 500 W CW  
 Coupling:  $60 \pm 1.0$  dB Max.  
 Insertion Loss: 0.2 dB Max.  
 Flatness:  $\pm 1.0$  dB Max.  
 VSWR (ML): 1.35:1 Max.  
 Directivity: 15 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: 2.15 x 2.0 x 1.36"

**Connector Configurations:**

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C10748-20	7/16 Female	7/16 Female	N Female	N Female
C10748-22	7/16 Female	7/16 Female	SMA	SMA
C10748-727	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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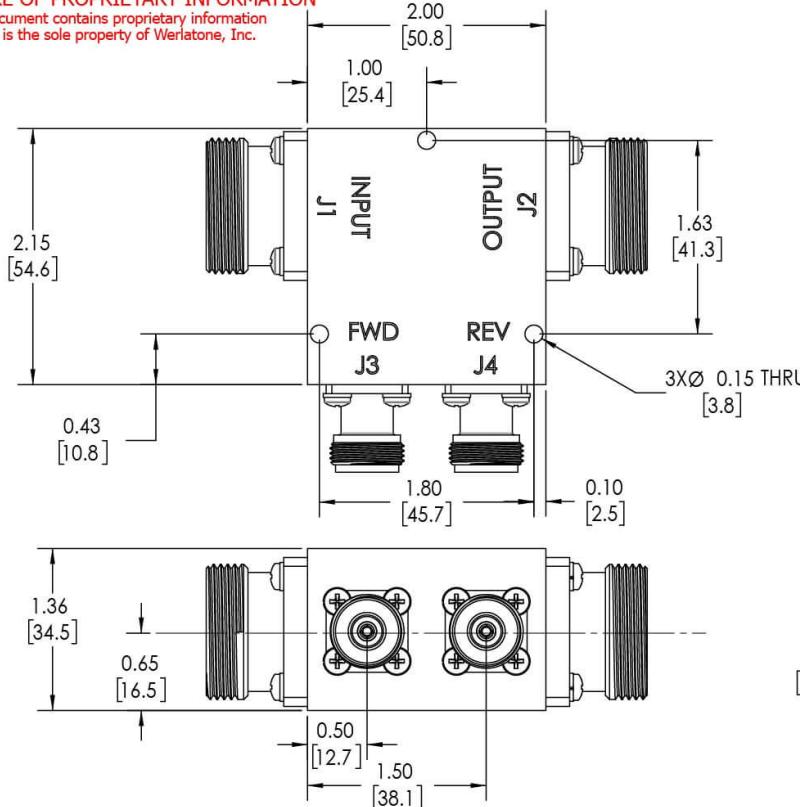
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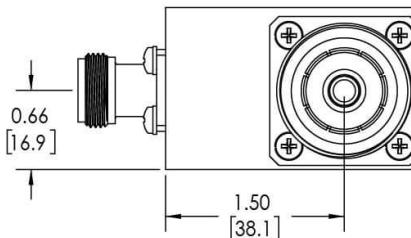


**REVISION HISTORY**

REV.	REVISION RECORD	DATE	APPROVED
-	INITIAL-RELEASE	5/8/2015	BW
A	ECN 9696	3/25/19	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: 7/16 FEMALE  
J3,J4: N FEMALE



		UNLESS OTHERWISE SPECIFIED	OWN	DATE	3/25/2019	W	WERLATONE  SINCE 1965	17 Jon Barrett Rd
		INTERPRET DRAWING JAW MIL-STD-100	SD	DATE				Patterson, NY 12563
		UNIVERSAL DRAWING ASME Y14.5M-2009	CHK	DATE				
		PARENTHETICAL: THIS IS FOR REFERENCE ONLY	CS	DATE				
		DIMENSIONAL LIMITS ARE IN INCHES	ENGR	DATE				
		TOLERANCES	MFGR	DATE				
		ANGLES $\pm 2^\circ$	QA	DATE				
		3 RL $\pm .005$ [1.27]	RELEASE	DATE				
		2 RL $\pm .012$ [3.05]						
		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							

**OUTLINE**

SIZE	CAGE CODE	DWG NO.	REV.
B		21316-500	A

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