

## PRODUCT DATA SHEET

C5948

**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: 0.1 - 10 MHz  
 Power: 1500 W CW  
 Coupling: 30 ± 1.0 dB Max.  
 Insertion Loss: 0.1 dB Max.  
 Flatness: ± 0.25 dB Max.  
 VSWR (ML): 1.25:1 Max. (0.1-0.5 MHz), 1.05:1 Max. (0.5-10 MHz)  
 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: 6.46 x 2.52 x 1.20"

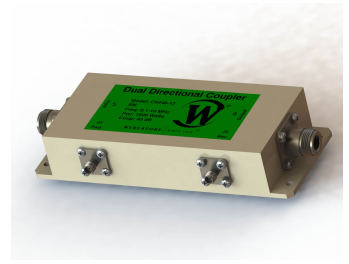
### Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C5948-10	N Female	N Female	N Female	N Female
C5948-12	N Female	N Female	SMA	SMA
C5948-13	N Female	N Female	BNC	BNC
C5948-102	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.

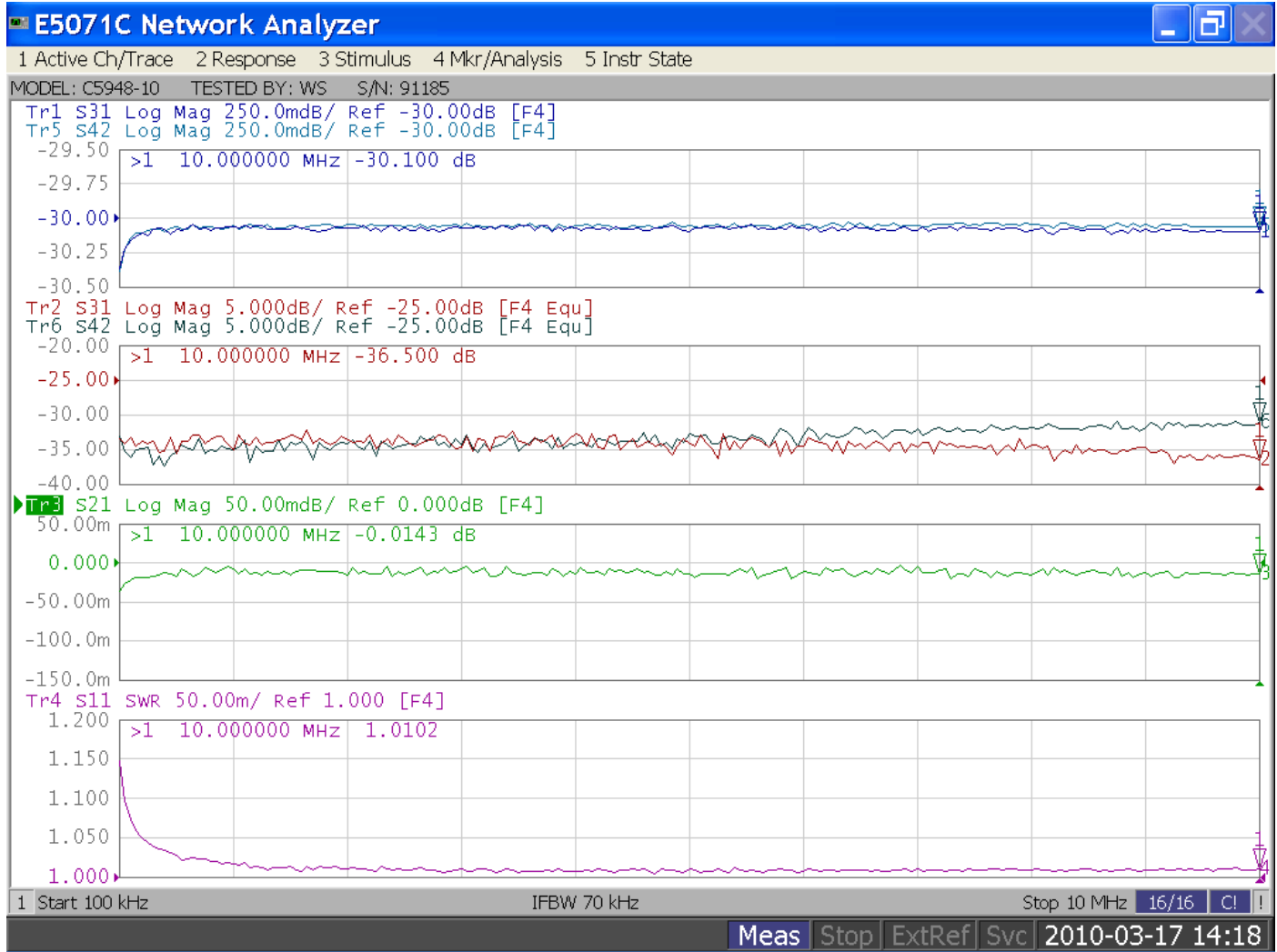
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## Performance Data (Specifications subject to change without notice):

Plot 1: Coupling, Plot 2: Directivity, Plot 3: Insertion Loss, Plot 4: VSWR



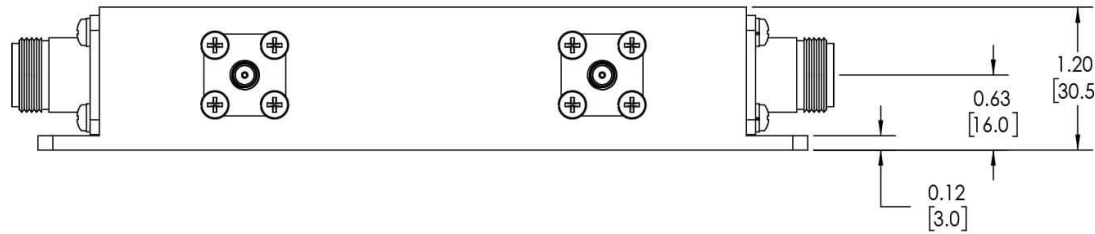
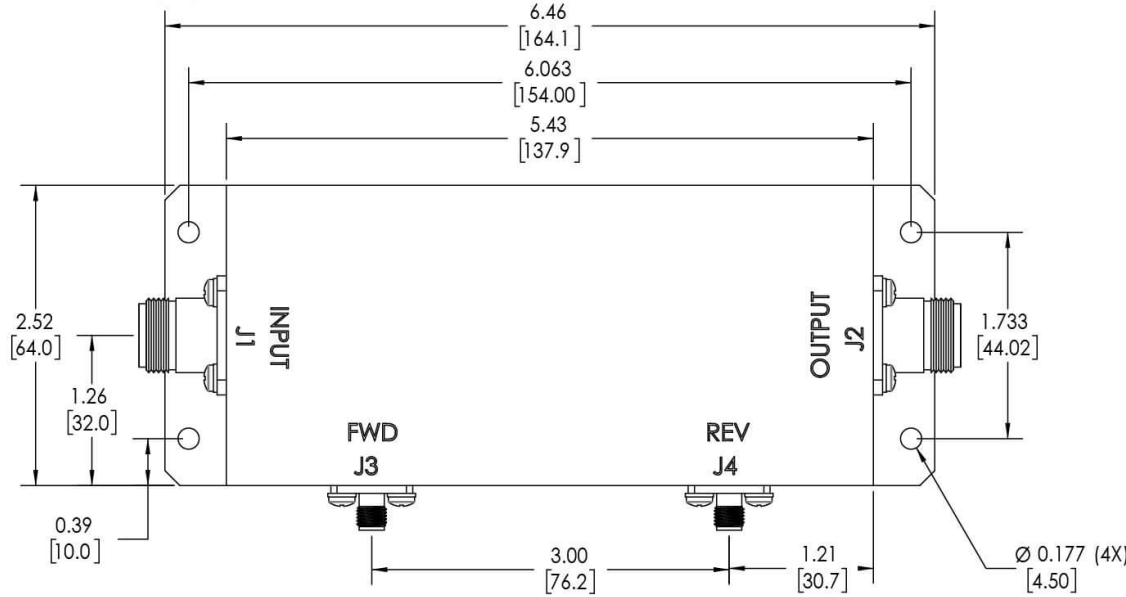
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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 1968	3/7/01	BW
B	ECN 9696	3/25/19	RB

- NOTES: UNLESS OTHERWISE SPECIFIED**
- MATERIAL: ALUMINUM 6061-T6**
  - FINISH: CHEM FILM PER MIL-DTL-5541F TYPE I CLASS 3 (YELLOW IRIDITE)**
  - CONNECTORS:**  
 J1,J2: N FEMALE  
 J3,J4: SMA FEMALE



UNLESS OTHERWISE SPECIFIED		DWN	DATE	WERLATONE SINCE 1965	17 Jon Barrett Rd Patterson, NY 12563
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100		SD	3/25/2019		
DIMENSIONS PER ASME Y14.5M-2009		CHK	DATE	TITLE	
PARENTHEetical INFO FOR REF ONLY		CS	3/25/2019	OUTLINE	
DIMENSIONS ARE IN INCHES		ENGR	DATE	SIZE	CAGE CODE
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		INFR	DATE	B	10194-500
TOLERANCES:		QA	DATE	DWG NO	REV
ANGLES $\pm 2^\circ$		RLSE	DATE	B	B
3 PL $\pm .005$ [0.13]		SCALE			
2 PL $\pm .015$ [0.38]		1:1			
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX		SHEET 1 OF 1			
CONCENTRICITY MACHINED DIA: .002 FIM					
MACHINE TOOL MISMATCH .003 MAX					

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