



PRODUCT DATA SHEET C5891

**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 simultaneouly 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:**

 $\begin{array}{lll} \mbox{Frequency:} & 2 - 50 \mbox{ MHz} \\ \mbox{Power:} & 100 \mbox{ W CW} \\ \mbox{Coupling:} & 30 \pm 1.0 \mbox{ dB Max.} \\ \mbox{Flatness:} & \pm 0.2 \mbox{ dB Max.} \\ \mbox{Insertion Loss:} & 0.15 \mbox{ dB Max.} \\ \mbox{VSWR (ML):} & 1.10:1 \mbox{ Max.} \\ \mbox{Directivity:} & 25 \mbox{ dB Min.} \\ \end{array}$ 

## **Mechanical Specifications:**

Type: Connectorized Material: Aluminum 6061-T6

Suface 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: 4.0 x 2.0 x 1.88"

## **Connector Configurations:**

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C5891-10	N Female	N Female	N Female	N Female
C5891-12	N Female	N Female	SMA	SMA
C5891-13	N Female	N Female	BNC	BNC
C5891-102	SMA	SMA	SMA	SMA
C5891-200	BNC	BNC	BNC	BNC

**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):

VSWR:

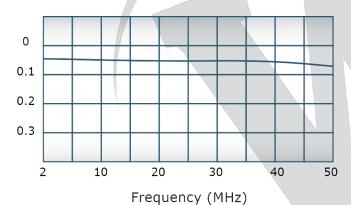
29.5 30.0 30.5 2 10 20 30 40 50

Frequency (MHz)

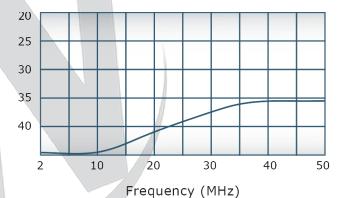
1.40 1.30 1.20 1.10 2 10 20 30 40 50

Frequency (MHz)

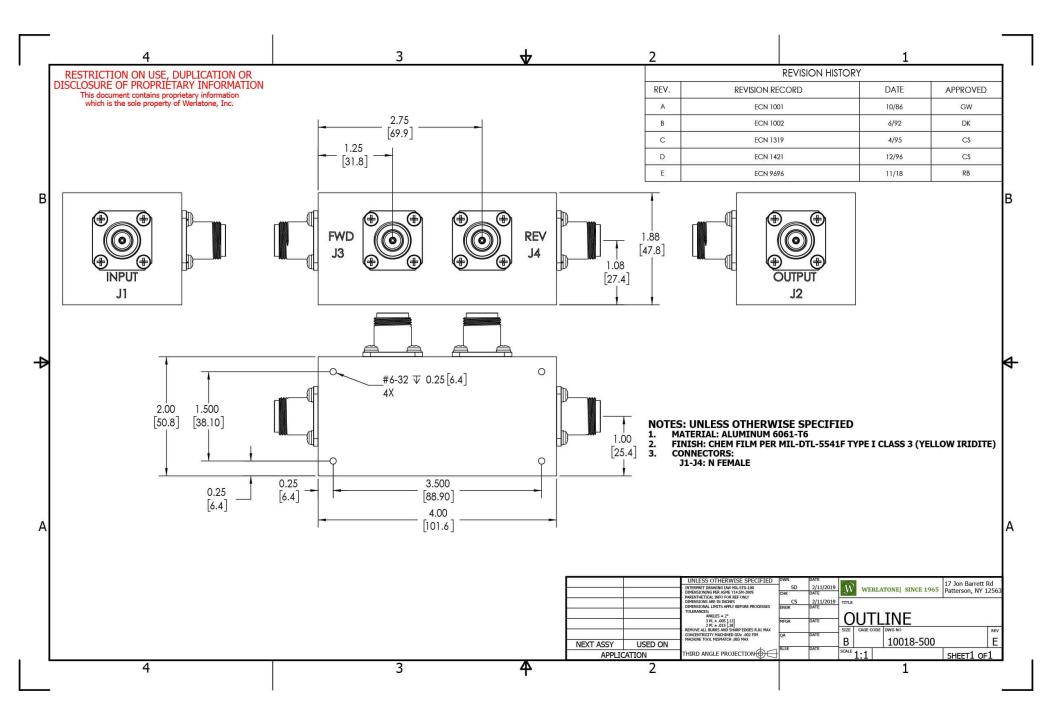
### Insertion Loss:



## Directivity:



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