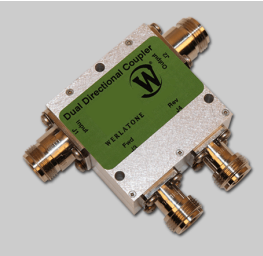
WERLATONE

Model C10870
Connectorized Directional Couplers



PRODUCT DATA SHEET **C10870**

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:	700 - 6000 MHz
Power:	400 W CW
Coupling:	50 ± 1.0 dB Max.
Insertion Loss:	0.2 dB Max.
Flatness:	± 1.0 dB Max.
VSWR (ML):	1.30:1 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:	2.0 x 2.0 x 1.06''

Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C10870-10	N Female	N Female	N Female	N Female
C10870-12	N Female	N Female	SMA	SMA
C10870-612	N Female	N Male	SMA	SMA
C10870-714	N Male	N 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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Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com

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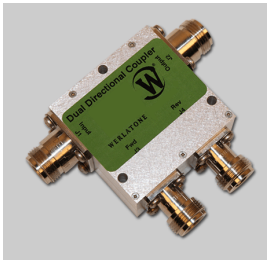
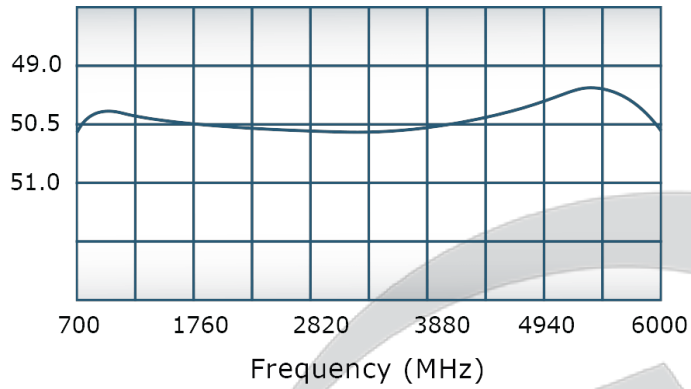
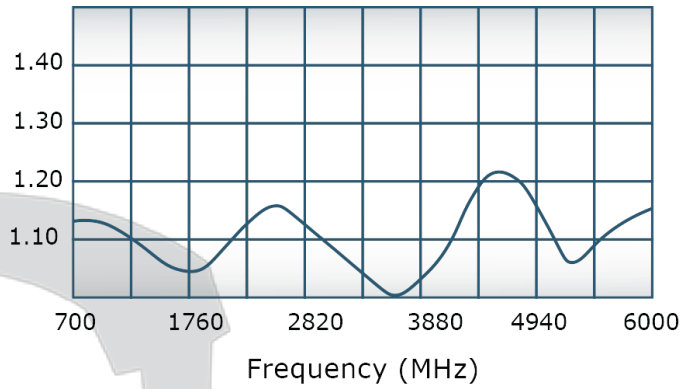


Performance Data (Specifications subject to change without notice):

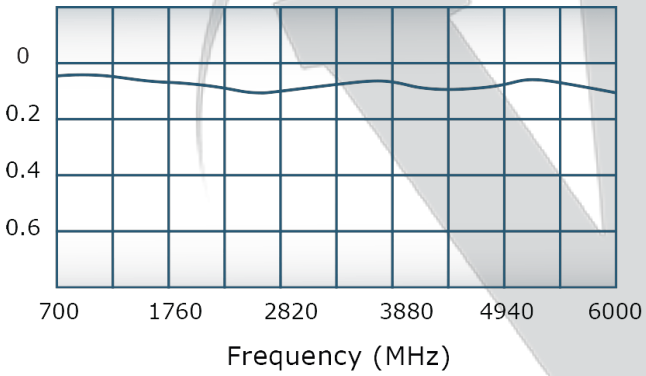
Coupling:



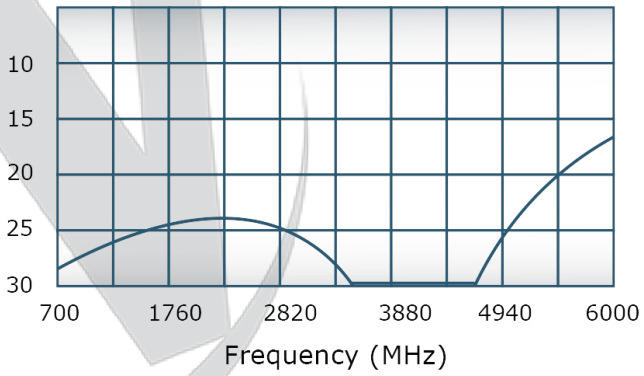
VSWR:



Insertion Loss:



Directivity:



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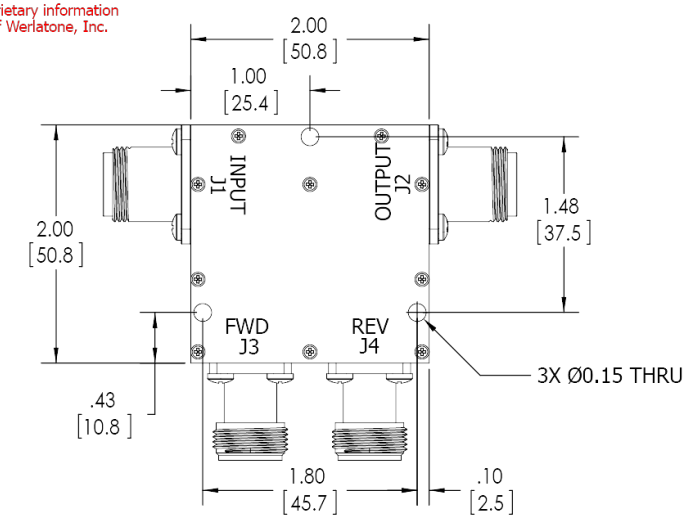
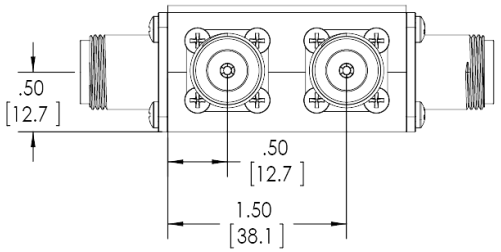
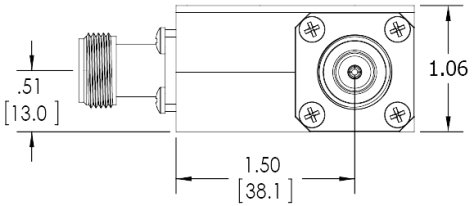
REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
-	INITIAL RELEASE	3 2 2015	CS







NOTES: UNLESS OTHERWISE SPECIFIED
1. **MATERIAL: ALUMINUM**
2. **SURFACE FINISH: CHEM FILM PER MIL-DTL-5541F TYPE II CLASS 3 (CLEAR)**
3. **CONNECTORS: ALL N FEMALE**

NEXT ASSY	USED ON
APPLICATION	

UNLESS OTHERWISE SPECIFIED
INTERPRET DRAWING IAW MIL-STD-100
DIMENSIONING PER ASME Y14.5M-2009
PARENTHETICAL INFO FOR REF ONLY
DIMENSIONS ARE IN INCHES [mm]
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
TOLERANCES:
ANGLES ± 2°
3 PL ± .005 [.13]
2 PL ± .015 [.4]
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX
CONCENTRICITY MACHINED DIA: .002 FIM
MACHINE TOOL MISMATCH .003 MAX

THIRD ANGLE PROJECTION

		DATE
DWN	SC	9/30/2014
CHK		DATE
	CS	9/30/2014
ENGR		DATE
	BW	9/30/2014
MFGR		DATE
QA		DATE
RLSE		DATE

WERLATONE SINCE 1965
17 Jon Barrett Rd
Patterson, NY 12563

TITLE
OUTLINE

SIZE	CAGE CODE	DWG NO	REV
B	28812	21250-500	-

SCALE 1:1 SHEET 1 OF 1

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