



PRODUCT DATA SHEET

C8686

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: 20-1000 MHz
Power: 500 W CW
Coupling: 40 ± 1.0 dB Max.
Insertion Loss: 0.35 dB Max.
Flatness: ± 0.5 dB Max.
VSWR (ML): 1.25:1 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: 5.2 x 2.68 x 1.69"

Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C8686-10	N Female	N Female	N Female	N Female
C8686-12	N Female	N Female	SMA	SMA
C8686-13	N Female	N Female	BNC	BNC
C8686-712	N Male	N Female	SMA	SMA
C8686-714	N Male	N Female	N Female	N Female

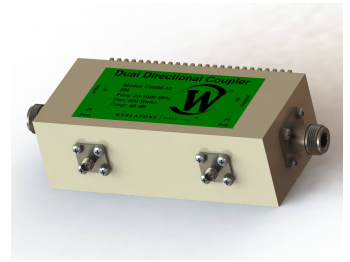
Werlatone® Broadband Dual, Uni, and Bi Directional RF Couplers are designed to tolerate the most stringent operating conditions associated with military and EMC testing environments. Many of our RF Directional Couplers, designated Mismatch Tolerant®, will operate continuously, at rated power, into a severe load mismatch condition. Our multi-octave Directional Couplers maintain exceptional coupling flatness, directivity, VSWR, and insertion loss.



WERLATONE

Model C8686

Connectorized Directional Couplers

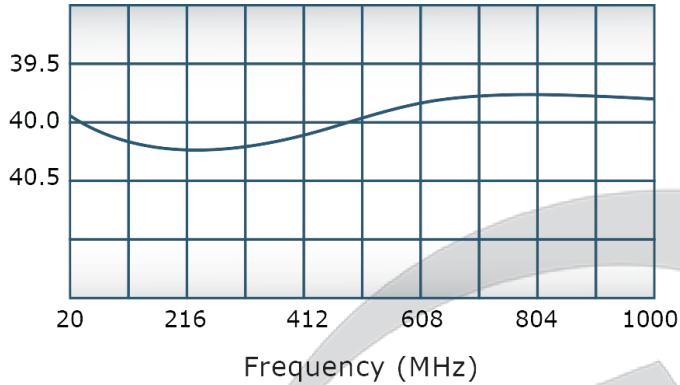


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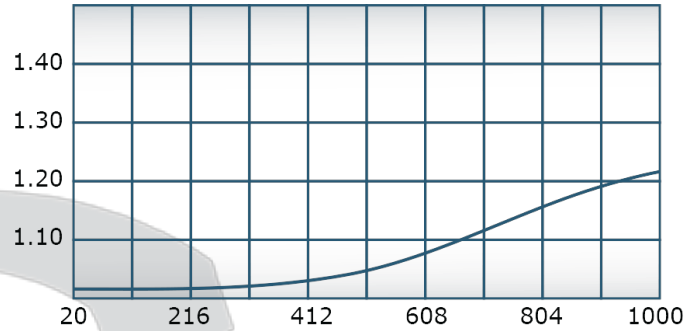
C8686

Performance Data (Specifications subject to change without notice):

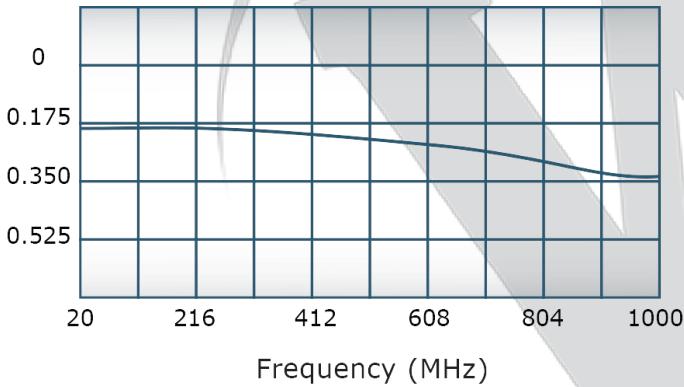
Coupling:



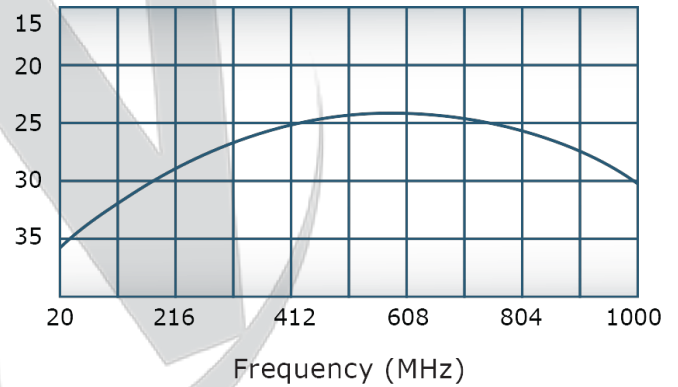
VSWR:



Insertion Loss:



Directivity:

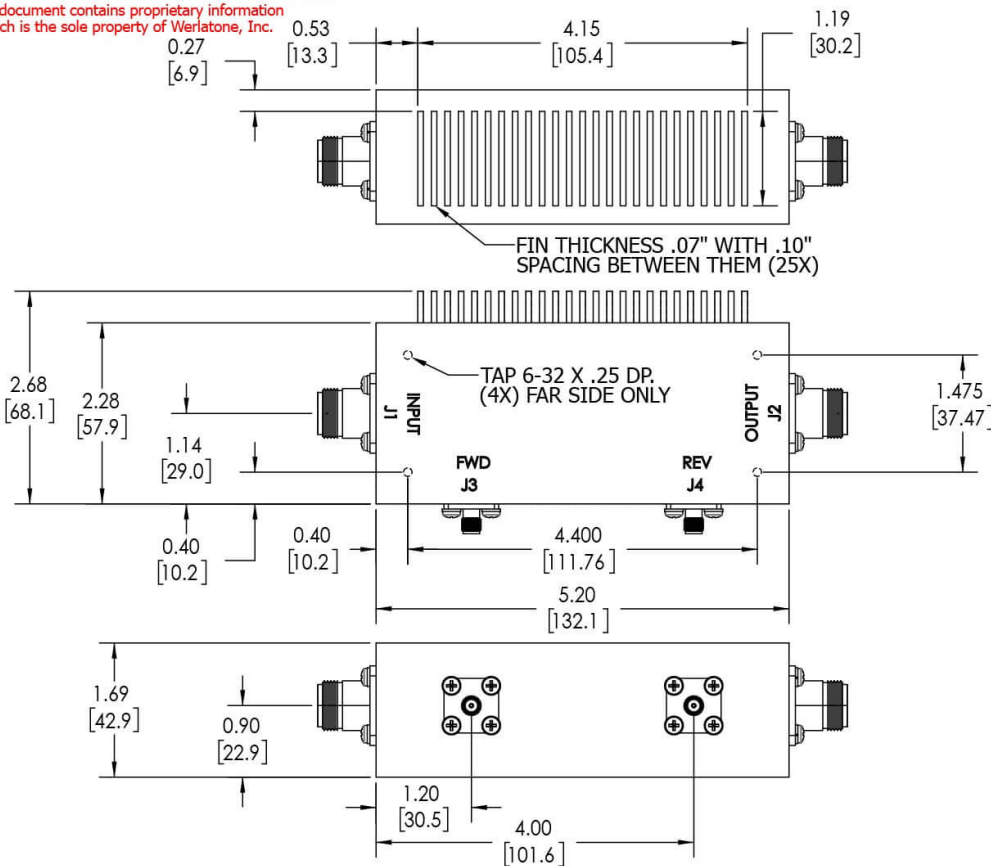


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REVISION HISTORY

REV.	REVISION RECORD	DATE	APPROVED
A	ECN 9696	11/28/18	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		OWN	DATE		WERLATONE SINCE 1965		17 Jon Barrett Rd Patterson, NY 12563		
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100		SD	2/11/2019	CHK	DATE		TITLE				
DIMENSIONS PER ASME Y14.5M-2009		CS	2/11/2019	ENGR	DATE		BW		5/28/2008		
DIMENSIONAL INFO FOR REF ONLY		ENGR	DATE	INFR	DATE		QA		DATE		
DIMENSIONS ARE IN INCHES		TOLERANCES:		ANGLES ± .2°		SIZE		CAGE CODE		DWG NO	
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		3 PL ± .005 [13]		2 PL ± .015 [38]		SCALE		10407-502		REV	
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX		CONCENTRICITY MACHINED DIA. .002 FIM		MACHINE TOOL MISMATCH .003 MAX		RLSE		DATE		A	
NEXT ASSY		USED ON		THIRD ANGLE PROJECTION		B		1:1.5		SHEET 1 OF 1	
APPLICATION											

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