



PRODUCT DATA SHEET

C7646

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: 1 - 500 MHz
Power: 30 W CW
Coupling: 20 ± 1.0 dB Max.
Insertion Loss: 3.0 dB Max.
Flatness: ± 1.0 dB Max.
VSWR (ML): 1.30:1 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 2.67 x 1.69"

Connector Configurations:

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C7646-10	N Female	N Female	N Female	N Female
C7646-12	N Female	N Female	SMA	SMA
C7646-13	N Female	N Female	BNC	BNC
C7646-102	SMA	SMA	SMA	SMA
C7646-200	BNC	BNC	BNC	BNC

* Insertion Loss includes 0.08 dB Coupling Loss.

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.



WERLATONE

Model C7646

Connectorized Directional Couplers

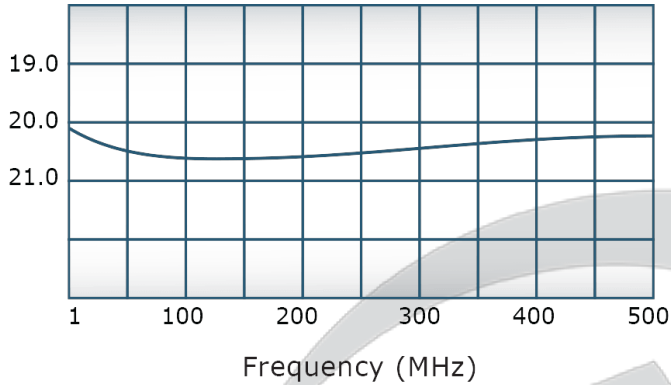


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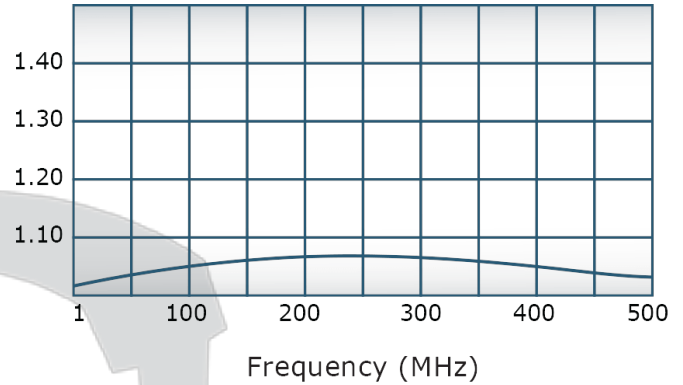
C7646

Performance Data (Specifications subject to change without notice):

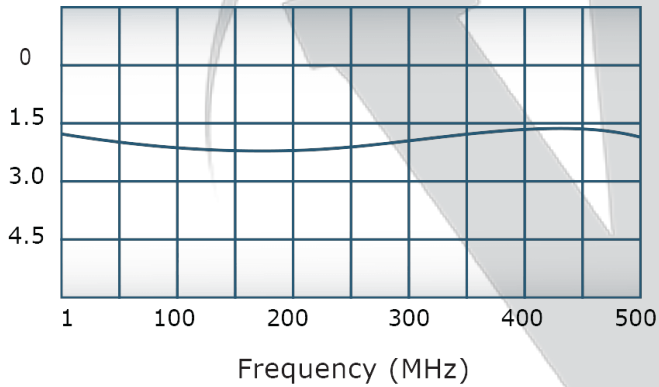
Coupling:



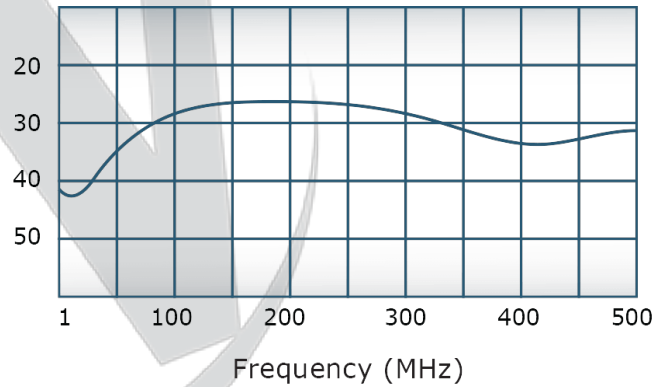
VSWR:



Insertion Loss:



Directivity:



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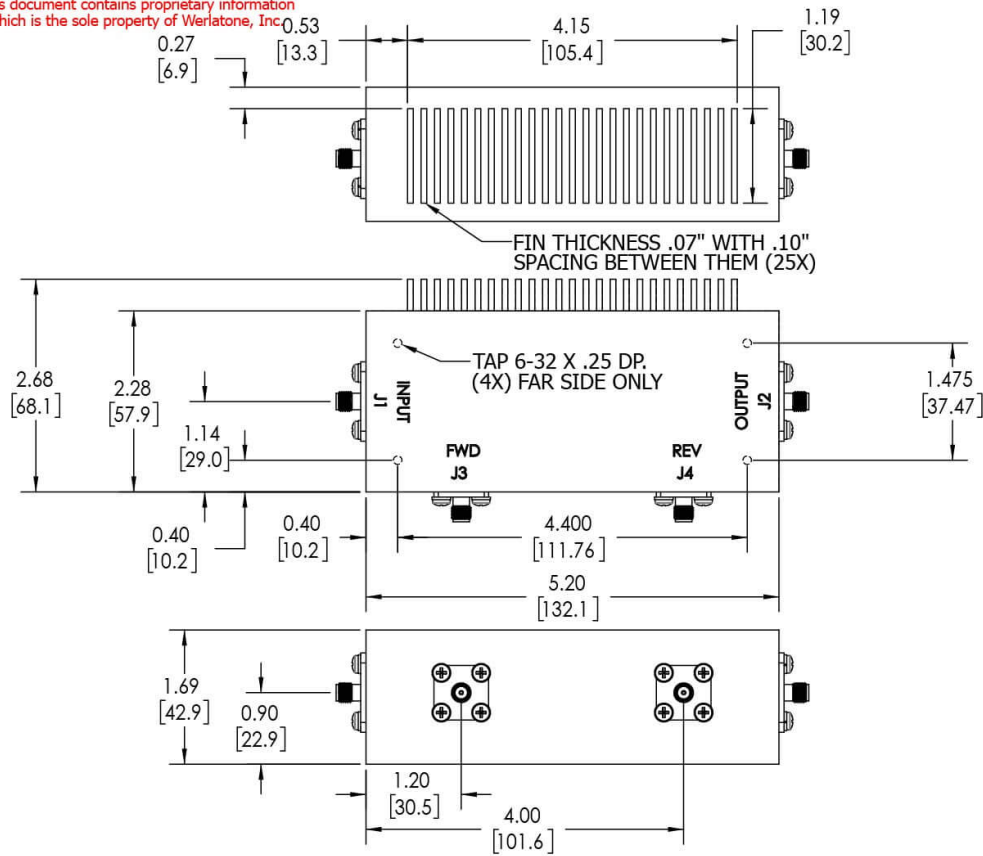
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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
A	ECN 9696	11/28/18	RB

NOTES: UNLESS OTHERWISE SPECIFIED

- MATERIAL: ALUMINUM 6061-T6**
- FINISH: CHEM FILM PER MIL-DTL-5541F TYPE I CLASS 3 (YELLOW IRIDITE)**
- CONNECTORS:**
J1-J4: SMA FEMALE



		UNLESS OTHERWISE SPECIFIED		OWN	DATE	 WERLATONE [®] SINCE 1965		17 Jon Barrett Rd Patterson, NY 12563	
		INTERPRET DRAWING IN ACC. WITH MIL-STD-100		SD	2/11/2019	 WERLATONE [®] SINCE 1965		17 Jon Barrett Rd Patterson, NY 12563	
		DIMENSIONS PER ASME Y14.5M-2009		CHK	DATE				
		PARENTHESES ARE IN INCHES		CS	2/11/2019	TITLE			
		DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		ENGR	DATE	 WERLATONE [®] SINCE 1965		17 Jon Barrett Rd Patterson, NY 12563	
		TOLERANCES:		BW	9/13/1996				
		ANGLES ± 2°		INFR	DATE	 WERLATONE [®] SINCE 1965		17 Jon Barrett Rd Patterson, NY 12563	
		3 PL ± .005 [13]		QA	DATE				
		2 PL ± .015 [38]		RLSE	DATE	 WERLATONE [®] SINCE 1965		17 Jon Barrett Rd Patterson, NY 12563	
		REMOVE ALL BURRS AND SHARP EDGES R.01 MAX		CS	2/11/2019				
		CONCENTRICITY MACHINED DIA. .002 FIM		ENGR	DATE	 WERLATONE [®] SINCE 1965		17 Jon Barrett Rd Patterson, NY 12563	
		MACHINE TOOL MISMATCH .003 MAX		BW	9/13/1996				
		THIRD ANGLE PROJECTION		INFR	DATE	 WERLATONE [®] SINCE 1965		17 Jon Barrett Rd Patterson, NY 12563	
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