


**PRODUCT DATA SHEET**
**C6413**

**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 - 50 MHz  
Power: 20,000 W CW  
Coupling: 70 ± 1.0 dB Max.  
Insertion Loss: 0.05 dB Max.  
Flatness: ± 0.5 dB Max.  
VSWR (ML): 1.10:1 Max.  
Directivity: 25 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: 6.0 x 3.0 x 2.24"

**Connector Configurations:**

Model	Input (J1)	Output (J2)	Fwd (J3)	Rev (J4)
C6413-30	LC Female	LC Female	N Female	N Female
C6413-32	LC Female	LC Female	SMA Female	SMA Female
C6413-33	LC Female	LC Female	BNC	BNC
C6413-501	SQS Female	SQS Female	N Female	N Female
C6413-503	SQS Female	SQS Female	BNC	BNC
C6413-730	LC Male	LC Male	N Female	N Female
C6413-7501	SQS Male	SQS Female	N Female	N Female
C6413-7503	SQS Male	SQS Female	BNC	BNC
C6413-7505	SQS Female	SQS Male	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.

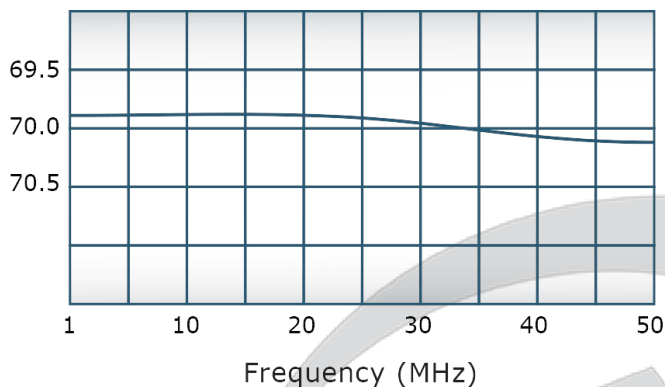


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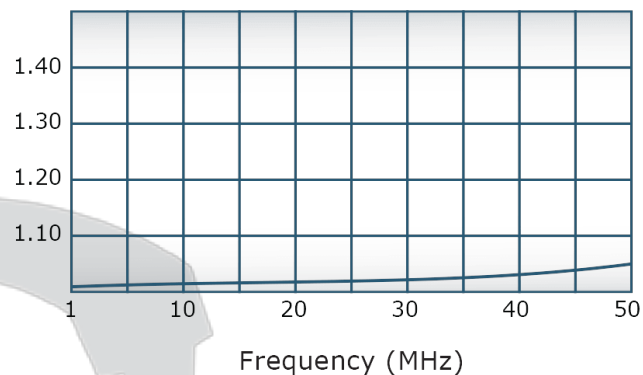
C6413

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

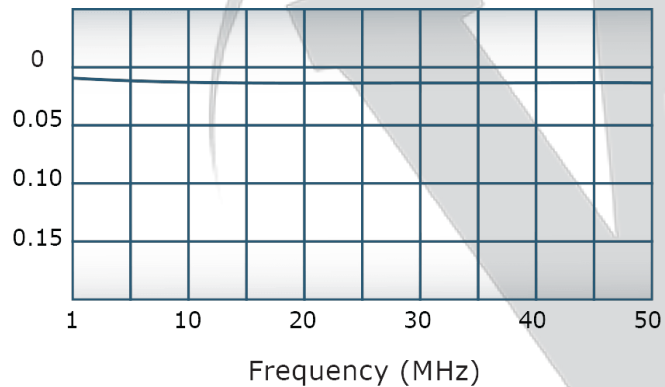
Coupling:



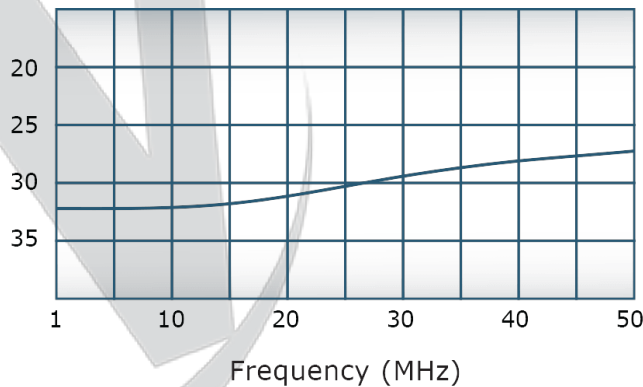
VSWR:



Insertion Loss:



Directivity:

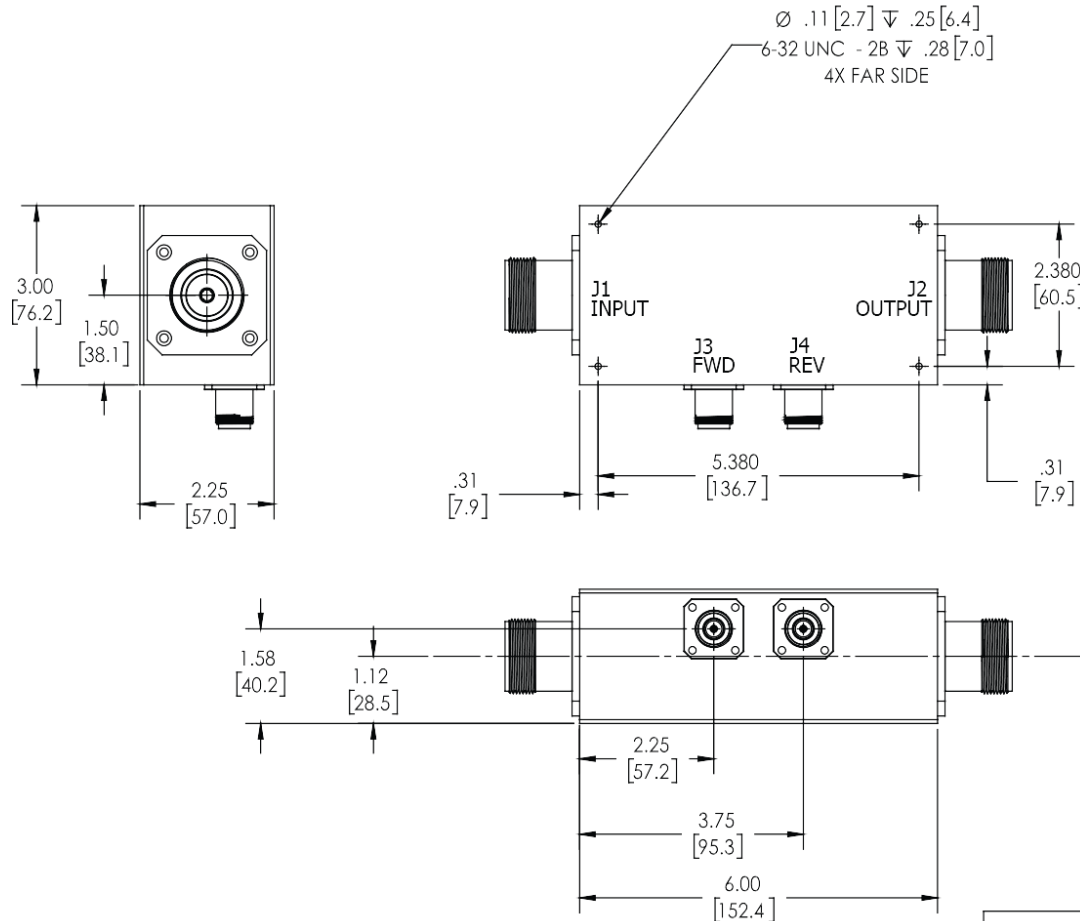


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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
-	INITIAL RELEASE	10/29/2018	CS



UNLESS OTHERWISE SPECIFIED		OWN	DATE	17 Jon Barrett Rd Patterson, NY 12563	
• INTERPRET DRAWING JAW MIL-STD-100	PLP	DATE	10/25/2018	WERLATONE SINCE 1965	
• DIMENSIONING PER ASME Y14.5M-2009	CHK	DATE	10/25/2018		
• PRELIMINARY DIMS FOR REF ONLY	CS	DATE	10/25/2018	TITLE	
• DIMENSIONS ARE IN INCHES (mm)	ENGR	DATE			
• DIMENSIONAL UNITS APPLY BEFORE PROCESSES	INFR	DATE		SIZE CASE CODE DWG NO	
• TOLERANCES:	QA	DATE			
• ANGLES: ± 2°	RLSE	DATE		SCALE	
• 2 PL ± .005 (1.3)					
• 2 PL ± .015 (4)				SHEET 1 OF 1	
• REMOVE ALL BURRS AND SHARP EDGES R.02 MAX					
• CONCENTRICITY MACHINED DIA: .002 FIM				APPLICATION	
• MACHINE TOOL REPAIR: .003 MAX					

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