



## PRODUCT DATA SHEET

QH9141

### Our patented 3 dB 90° Hybrid Couplers provide:

- Superior component performance starting at 3:1 Bandwidth.
- Thicker center boards for high power and increased repeatability.
- Bonded structures which eliminate any air gaps between substrates.
- More sections per bandwidth for better coupling flatness.
- Electrically shorter and physically smaller RF components.

### Features:

High Power      Wide Bandwidths      Small Size      Connectorized      Drop-In & Surface Mount

### Electrical Specifications:

Frequency: 150 - 2000 MHz  
Power: 150 W CW  
Insertion Loss: 0.85 dB Max.  
VSWR: 1.40:1 Max.  
Phase Balance:  $90^\circ \pm 5^\circ$  Max.  
Amplitude Balance:  $\pm 0.75$  dB Max.  
Isolation: 18 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  
Weight: 8 oz.  
Size: 2.0 x 2.0 x 1.06"

### Connector Configurations:

Model	Sum Port (J1)	0°, 90° (J2,J3)	Ext. Load Port
QH9141-10	N Female	N Female	N Female
QH9141-12	N Female	SMA	SMA
QH9141-102	SMA	SMA	SMA
QH9141-300	TNC	TNC	TNC

**Werlatone's** breakthrough technology allows us to build our existing line of Broadband 3 dB High Power 90° Hybrid Couplers. Connectorized 3 dB 90° Hybrid Coupler models are available with a choice of connectors. Several of our existing High Power 3 dB 90° RF Couplers are three port designs, wherein the difference port is internally terminated with a high power termination. This eliminates the need for a customer supplied external load for each Hybrid Coupler.



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# WERLATONE

Model QH9141

90° Hybrids Connectorized

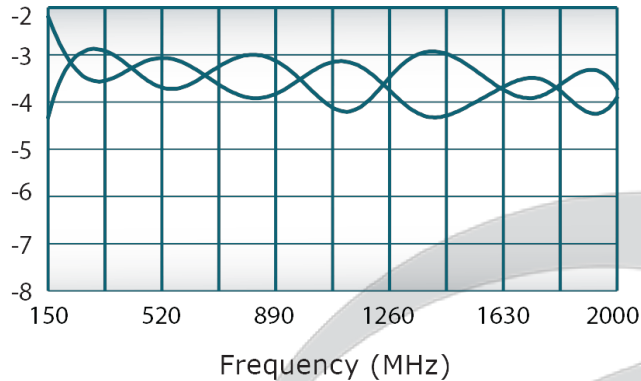


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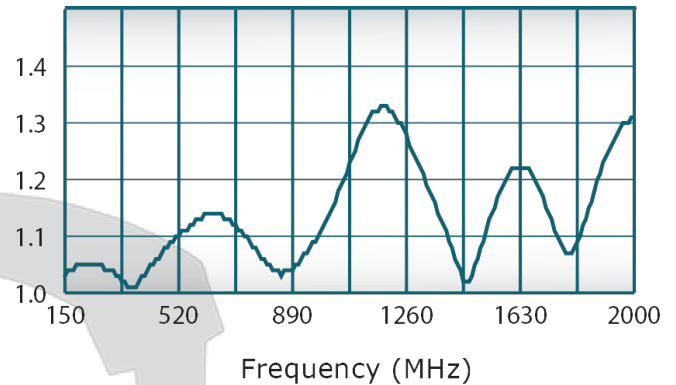
QH9141

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

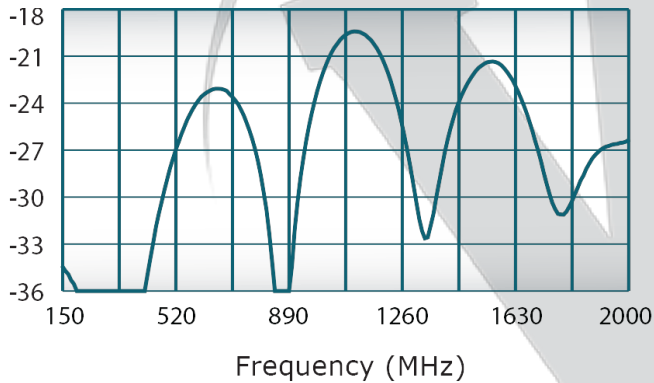
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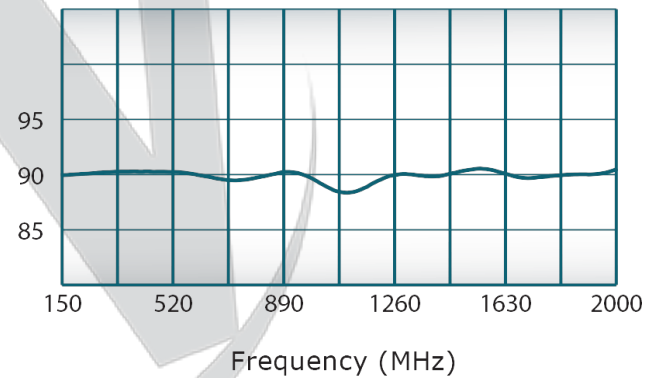
VSWR:



Isolation:



Phase Balance:

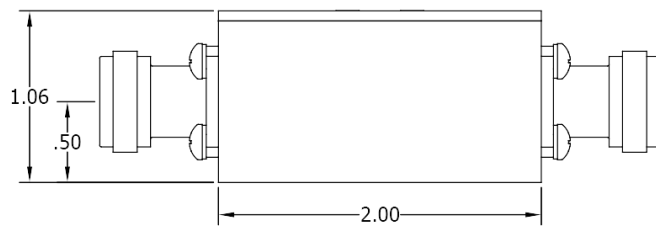
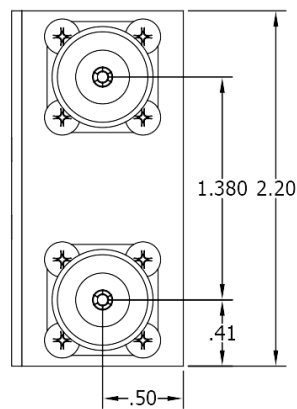
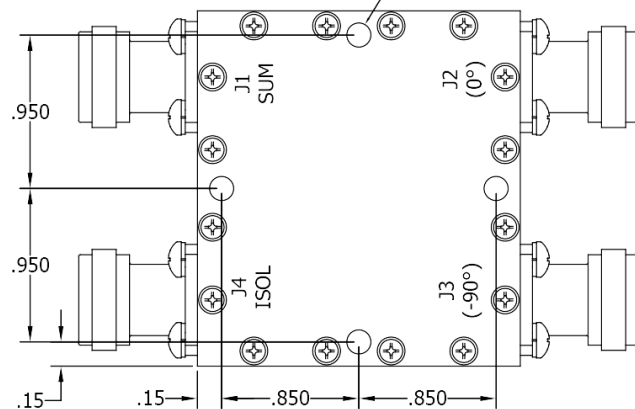


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n.149 THRU (4X)



REVISION HISTORY			
REV	REVISION RECORD	DATE	APPROVED
-	INITIAL RLS	10/7/2011	BW

		UNLESS OTHERWISE SPECIFIED		DWN	DATE	 <b>WERLATONE</b>   SINCE 1965		17 Jon Barrett Rd Patterson, NY 12563				
		• INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100		NH	10/6/2011	<b>TITLE</b>		<b>OUTLINE</b>		REV		
		• DIMENSIONING PER ASME Y14.5M-2009		CHK	DATE							
		• PARENTHESES INFO FOR REF ONLY		BW	10/7/2011	SIZE					CAGE CODE	DWG NO
		• DIMENSIONS ARE IN INCHES		ENGR	DATE	A					28812	20810-500
		• DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		BW	10/7/2011	SCALE				SHEET 1 OF 1		
		• TOLERANCES: ANGLES ± 2°		MFGR	DATE							
		• .XXX ± .005		QA	DATE							
		• .XX ± .015		RLSE	DATE							
		• HOLE TOLERANCES ± .004/- .001										
		• REMOVE ALL BURRS AND SHARP EDGES R.01 MAX										
		• CONCENTRICITY MACHINED DIA: .002 FIM										
		• MACHINE TOOL MISMATCH .003 MAX										
QH9141		THIRD ANGLE PROJECTION 										
NEXT ASSY		USED ON APPLICATION										

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