

PRODUCT DATA SHEET
QH8281
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: 500 - 3000 MHz
Power: 200 W CW
Insertion Loss: 0.7 dB Max.
VSWR: 1.35:1 Max.
Phase Balance: $90^\circ \pm 5^\circ$ Max.
Amplitude Balance: ± 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: 3.5 oz.
Size: 2.1 x 1.49 x 0.75"

Connector Configurations:

Model	Sum Port (J1)	0°, 90° (J2,J3)	Iso. Port (J4)
QH8281-102	SMA	SMA	SMA

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.

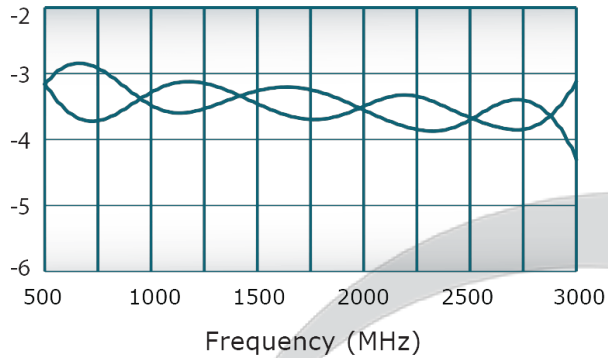


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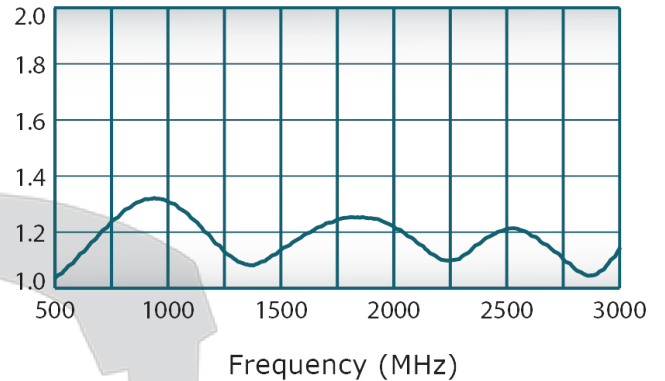
QH8281

Performance Data (Specifications subject to change without notice):

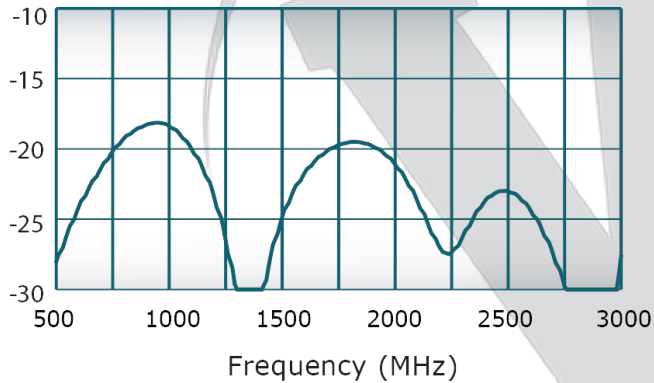
Coupling:



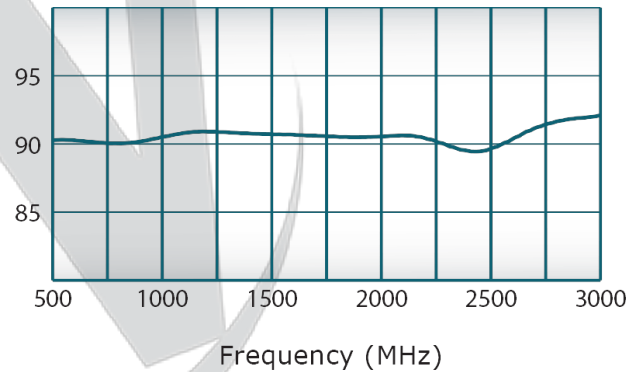
VSWR:



Isolation:



Phase Balance:

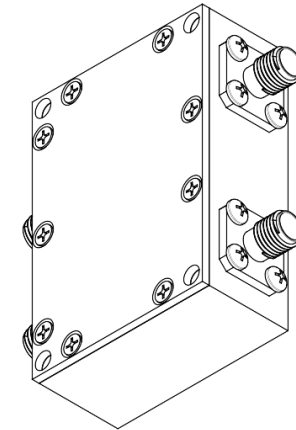
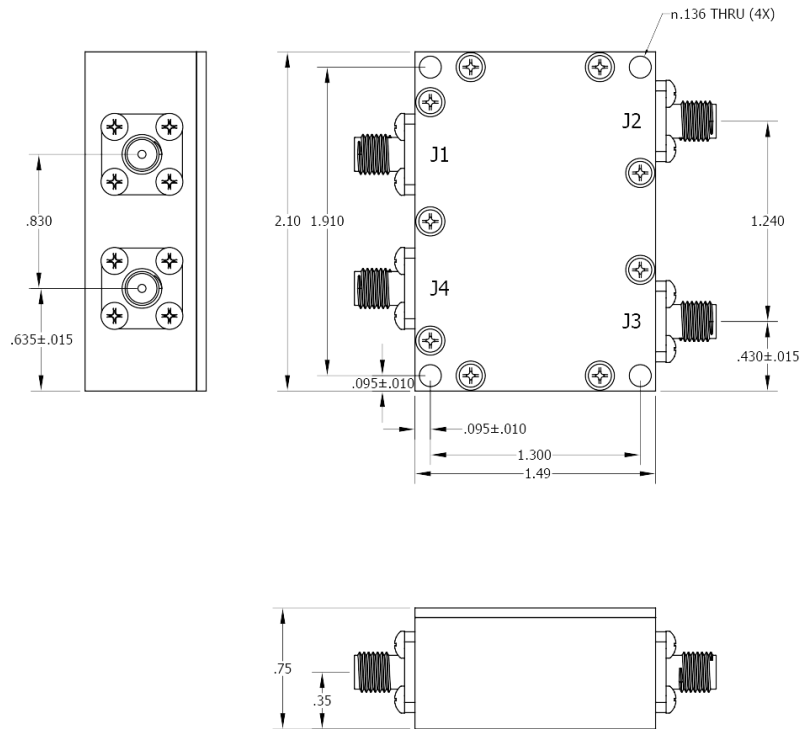




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REVISION HISTORY					
DATE	REV	REVISION RECORD	AUTH	CHK	APPV
1/14/10	-	INITIAL RELEASE	GP	NH	BW
8/11/11	A	ECN 5440	GP	NH	BW
9/15/17	B	ECN 9410	GP		BW



UNLESS OTHERWISE SPECIFIED		DWN	DATE	 WERLATONE SINCE 1965		17 Jon Barrett Rd Patterson, NY 12563	
• INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100 • DIMENSIONS/NOTES PER ASME Y14.5M-2009 • PARENTHETICAL DIMENSIONS FOR REF ONLY • DIMENSIONS ARE IN INCHES • DIMENSIONAL LIMITS APPLY BEFORE PROCESSING		GP	1/14/2010				
• TOLERANCES: ANGLE ± 2° 3 PL ± .005 2 PL ± .015		CHK	DATE	TITLE		QH8281-102 3dB Hybrid Coupler	
• REMOVE ALL BURRS AND SHARP EDGES • .01 R MAX • CONCENTRICITY MACHINED DIA: .002 FIM • MACHINE TOOL MESHATCH .003 MAX		ENGR	DATE				
THIRD ANGLE PROJECTION 		APVD	DATE				
		QA	DATE	SIZE	CAGE CODE	DWG NO	REV
		RLSE	DATE	A	28812	20585-500	B
				SCALE			
				1:1			
						SHEET 1 OF 1	

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