

PRODUCT DATA SHEET
QH9103
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: 80 - 1000 MHz
Power: 100 W CW
Insertion Loss: 1.0 dB Max.
VSWR: 1.40:1 Max.
Phase Balance: 90° ± 5° Max.
Amplitude Balance: ± 1.0 dB Max.
Isolation: 16 dB Min.

Mechanical Specifications:

Type: Connectorized
Material: Aluminum 6061-T6
Surface Finish: Chem. Film Per MIL-DTL-5541F Type II
Class 3 (Clear Iridite) RoHS Compliant
Available
Operating Temperature: -55°C to +75°C
Storage Temperature: -60°C to +85°C
Weight: 5.65 oz.
Size: 3.1 x 1.7 x 0.84"

Connector Configurations:

Model	Sum Port (J1)	0°, +90° (J2,J3)	ISO Port (J4)
QH9103-102	SMA	SMA	SMA

"QH9103R-102" indicates a RoHS Compliant design.

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.

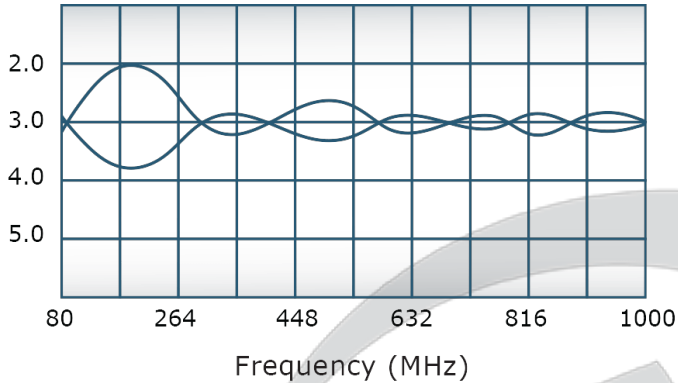


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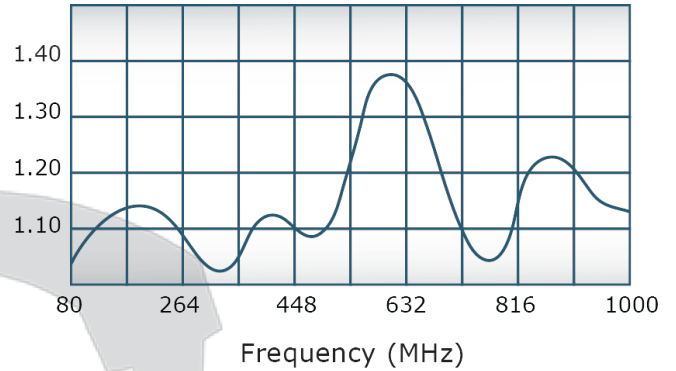
QH9103

Performance Data (Specifications subject to change without notice):

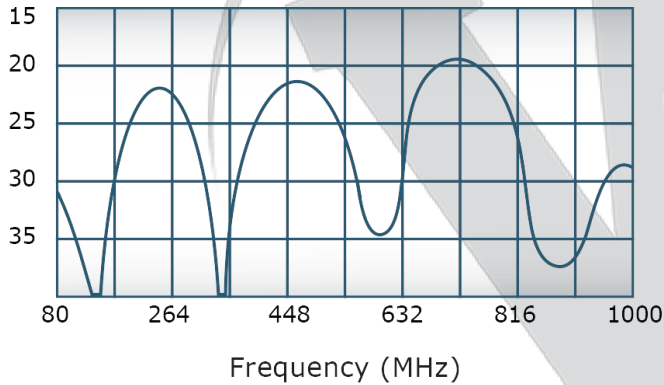
Coupling:



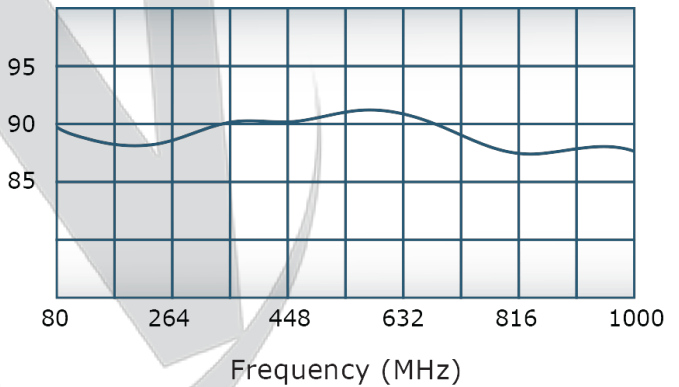
VSWR:



Isolation:



Phase Balance:

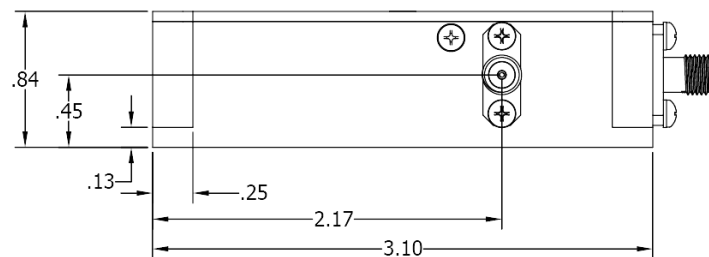
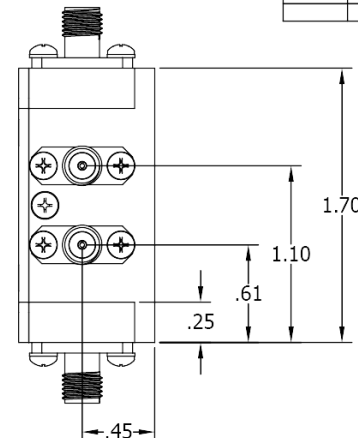
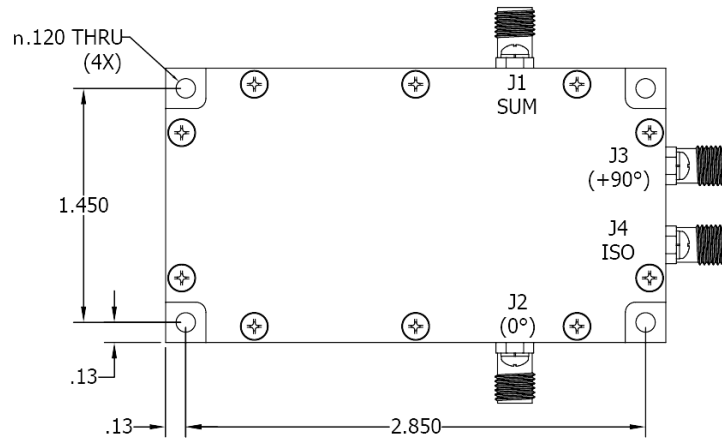


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REVISION HISTORY			
REV	REVISION RECORD	DATE	APPROVED
-	INITIAL RLS	8/23/2011	BW
A	ECN 10037	5/11/2021	BW



NOTES:

1. MAT'L: ALUMINUM 6061-T6
2. FINISH: CHEM FILM PER MIL-DTL-5541F TYPE 1 CLASS 3 (YELLOW IRIDITE)
3. CONNECTORS: ALL SMA (Female)

UNLESS OTHERWISE SPECIFIED: • INTERPRET DRAWING 1AW MIL-STD-100 • DIMENSIONING PER ASME Y14.5M-2009 • PARENTHECTICAL INFO FOR REF ONLY • DIMENSIONS ARE IN INCHES • DIMENSIONAL LIMITS APPLY BEFORE PROCESSES • TOLERANCES: ANGLES ± 2° .00X ± .005 .0X ± .015 • HOLE TOLERANCES: ± .004/- .001 • REMOVE ALL BURRS AND SHARP EDGES R.01 MAX • CONCENTRICITY MACHINED DIA: .002 FIM • MACHINE TOOL MISMATCH .003 MAX QHY913		DWN		DATE		W WERLATONE SINCE 1965 17 Jon Barrett Rd Patterson, NY 12563	
		NH		8/23/2011			
		CHK		DATE			
		BW		8/23/2011			
		ENGR		DATE		TITLE OUTLINE SIZE CAGE CODE DWG NO REV	
		BW		8/23/2011			
		MFGR		DATE			
		QA		DATE			
NEXT ASSY		USED ON		APPLICATION		THIRD ANGLE PROJECTION 	
		RLSE		DATE		SCALE	
						SHEET 1 OF 1	

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