

PRODUCT DATA SHEET
QH9139
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: 1000 - 2500 MHz
Power: 250 W CW
Insertion Loss: 0.2 dB Max.
VSWR: 1.25:1 Max.
Phase Balance: $\pm 5^\circ$ dB Max.
Amplitude Balance: 0.65dB Max.
Isolation: 20 dB Min.

Mechanical Specifications:

Type: Surface Mount
Plating Options: QH9139-Pb: Electrodeposited Tin/Lead
QH9139-Sn: Immersion Tin (RoHS Compliant)
QH9139-Ag: Immersion Silver (RoHS Compliant)
Size: 0.56 x 0.35 x 0.98"

Port Configurations:

J1	J2	J3	J4
Input	-3 dB, 0°	-3 dB, -90°	Isolated
-3 dB, 0°	-3 dB, 90°	Isolated	-3 dB, -90°
-3 dB, -90°	Isolated	Input	-3 dB, 0°
Isolated	-3 dB, -90°	-3 dB, 0°	Input

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.

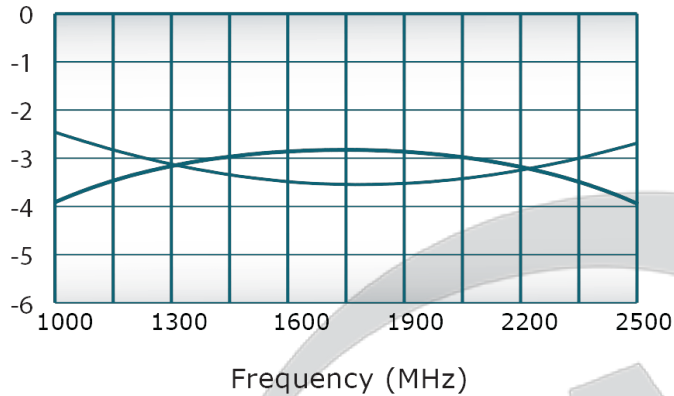


PRODUCT DATA SHEET

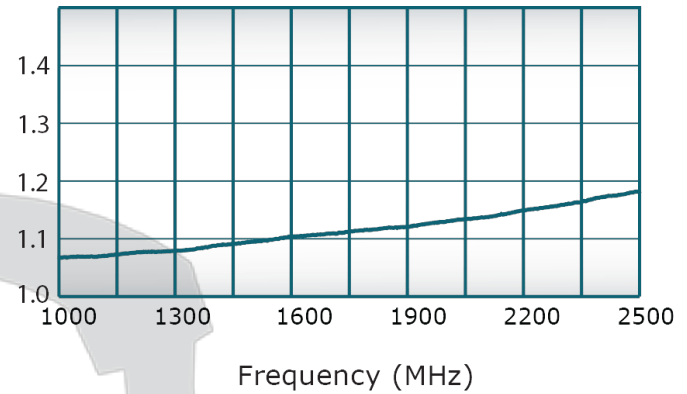
QH9139

Performance Data (Specifications subject to change without notice):

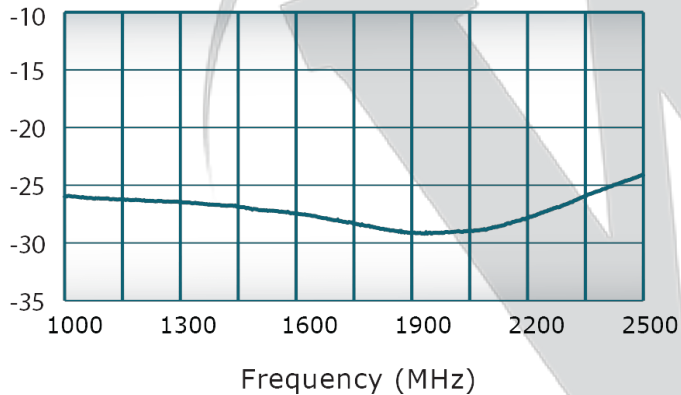
Coupling:



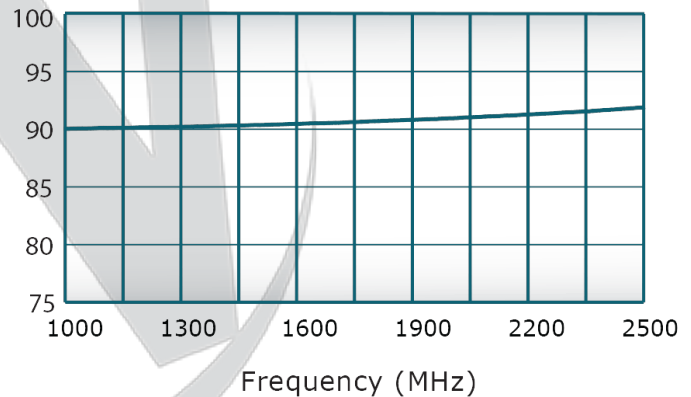
VSWR:



Isolation:



Phase Balance:

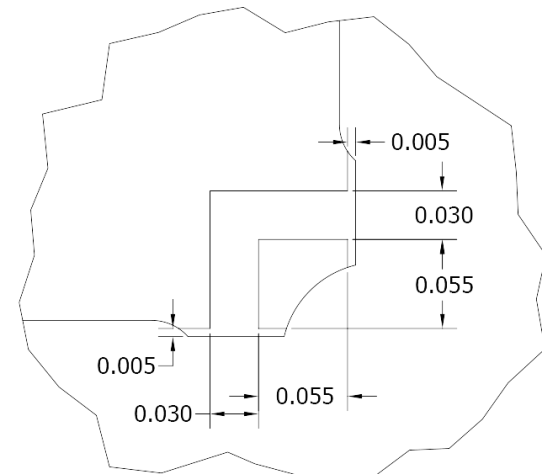
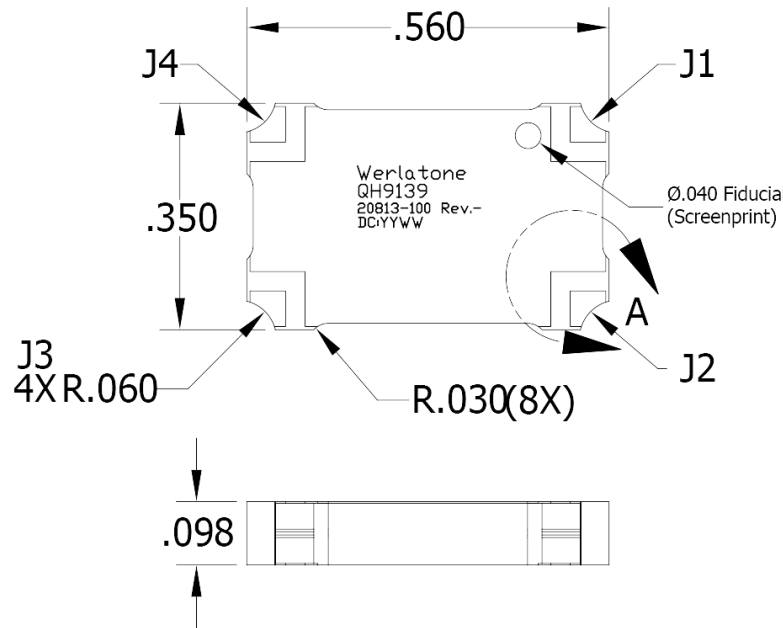


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REVISION HISTORY			
REV	REVISION RECORD	DATE	APPROVED
-	PRE-RELEASE	10/13/2011	BW





**DETAIL A
SCALE 10:1**

Port Configurations

J1	J2	J3	J4
Input	-3 dB, 0°	-3 dB, -90°	Isolated
-3 dB, 0°	Input	Isolated	-3 dB, -90°
-3 dB, -90°	Isolated	Input	-3 dB, 0°
Isolated	-3 dB, -90°	-3 dB, 0°	Input

NOTES: UNLESS OTHERWISE SPECIFIED

- SMT Component. Reference Tech Note for Mounting Recommendations.
- Plating Options:
 QH9139-Pb : Electrodeposited Tin/Lead
 QH9139-Sn : Immersion Tin (ROHS COMPLIANT)
 QH9139-Ag : Immersion Silver (ROHS COMPLIANT)
 QH9139-Au : ENIG (ROHS COMPLIANT)

UNLESS OTHERWISE SPECIFIED		DWN	DATE	 WERLATONE SINCE 1965	17 Jon Barrett Rd Patterson, NY 12563		
• INTERPRET DRAWING IAW MIL-STD-100 • DIMENSIONING PER ASME Y14.5M-2009 • PARENTHEetical INFO FOR REF ONLY • DIMENSIONS ARE IN INCHES • DIMENSIONAL LIMITS APPLY BEFORE PROCESSES • TOLERANCES: ANGLES ± 2 3 PL ± .005 2 PL ± .015		GP	10/13/2011				
THIRD ANGLE PROJECTION 		CHK	DATE	TITLE			
		NH	10/13/2011				
		ENGR	DATE				
		BW	10/13/2011	QH9139 3dB 90° Hybrid Coupler			
		MFGR	DATE				
		QA	DATE	SIZE	CAGE CODE	DWG NO	REV
		RLSE	DATE	A	28812	20813-500	-
					SCALE	4:1	
					SHEET 1 OF 1		

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