WERLATONE

Model QH9139
90° Hybrids Surface Mount (SMT) & Drop

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° 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.

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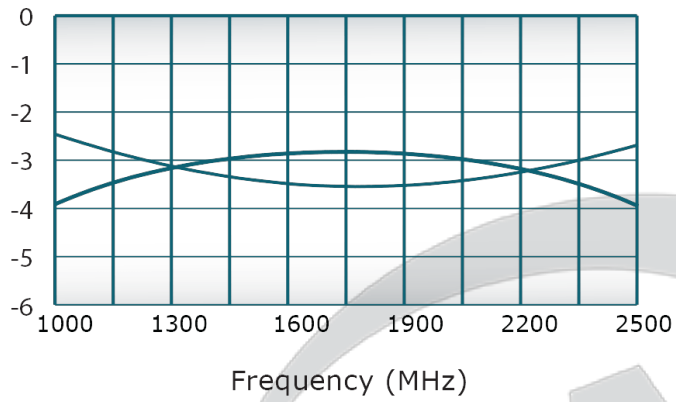
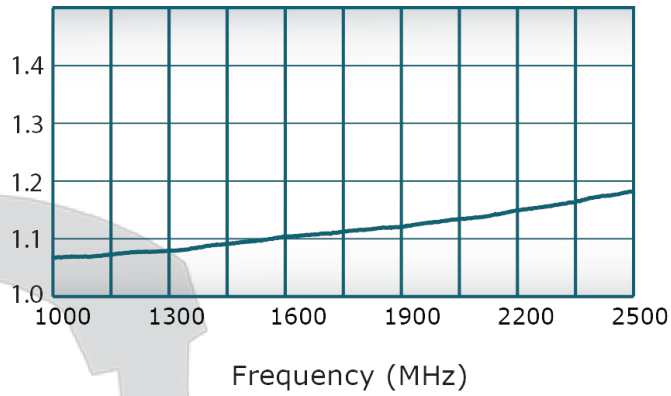
Performance Data (Specifications subject to change without notice):

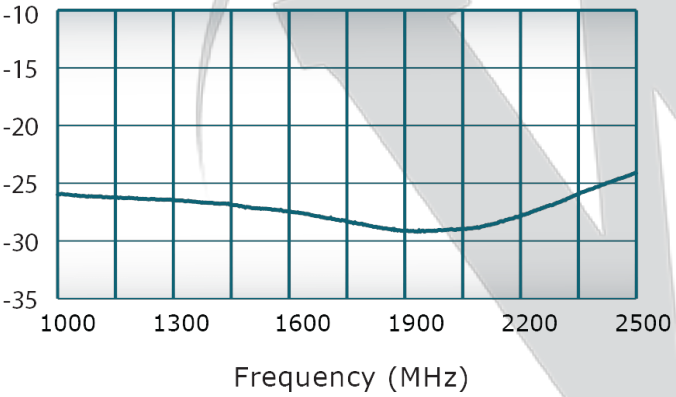
Coupling:



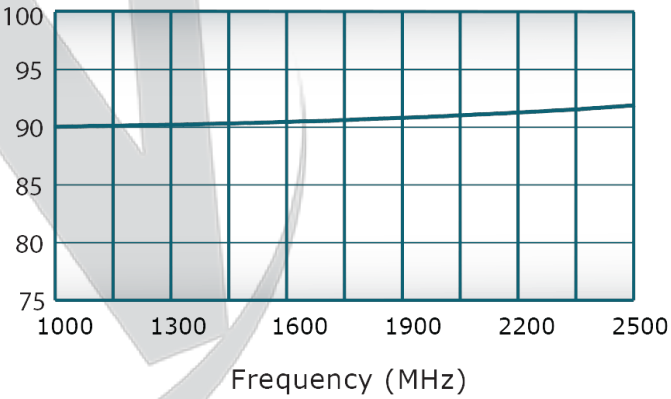
VSWR:



Isolation:



Phase Balance:



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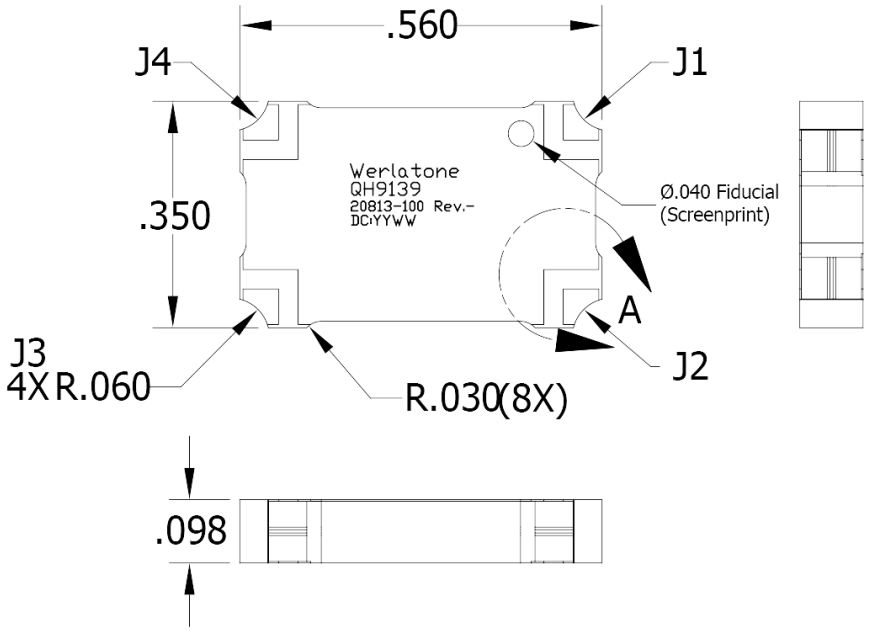
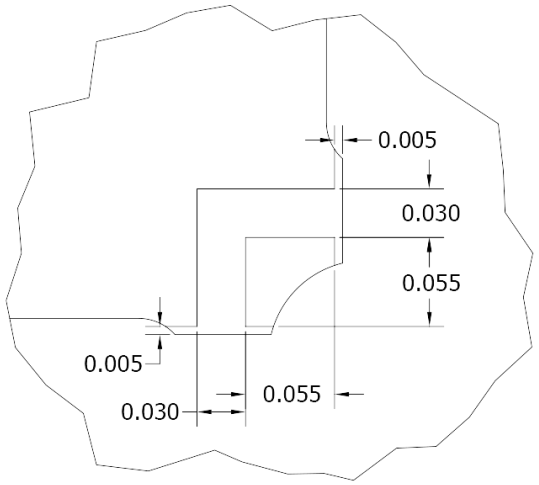
REVISION HISTORY			
REV	REVISION RECORD	DATE	APPROVED
-	PRE-RELEASE	10/13/2011	BW





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

1. SMT Component. Reference Tech Note for Mounting Recommendations.
2. 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
- INTERPRET DRAWING IAW MIL-STD-100
- DIMENSIONING PER ASME Y14.5M-2009
- PARENTHETICAL INFO FOR REF ONLY
- DIMENSIONS ARE IN INCHES
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- TOLERANCES: ANGLES ± 2
  3 PL ± .005
  2 PL ± .015

THIRD ANGLE PROJECTION

DWN	GP	DATE 10/13/2011
CHK	NH	DATE 10/13/2011
ENGR	BW	DATE 10/13/2011
MFGR		DATE
QA		DATE
RLSE		DATE

WERLATONE | SINCE 1965
17 Jon Barrett Rd
Patterson, NY 12563

TITLE
QH9139 3dB 90° Hybrid Coupler

SIZE	CAGE CODE	DWG NO	REV
A	28812	20813-500	-

SCALE 4:1 SHEET 1 OF 1

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