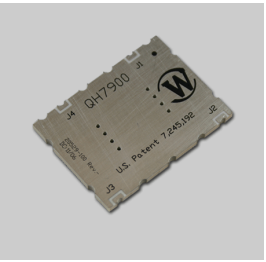
WERLATONE

Model QH7900
90° Hybrids Surface Mount (SMT) & Drop



PRODUCT DATA SHEET **QH7900**

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 Excellent Amplitude Balance

Electrical Specifications:

Frequency:	450 - 2800 MHz
Power:	125 W CW
Insertion Loss	0.55 dB Max.
VSWR:	1.35:1 Max.
Phase Balance:	90° ± 5° dB Max.
Amplitude Balance:	± 0.45 dB Max.
Isolation:	18 dB Min.

Mechanical Specifications:

Type:	Surface Mount
Plating Options:	QH7900-Pb: Electrodeposited Tin/Lead QH7900-Sn: Immersion Tin (RoHS Compliant) QH7900-Ag: Immersion Silver (RoHS Compliant) QH7900-Au (ENIG)
Weight:	6 grams
Size:	1.5 x 1.1 x 0.095''

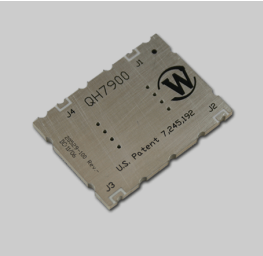
Port Configurations:

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

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.

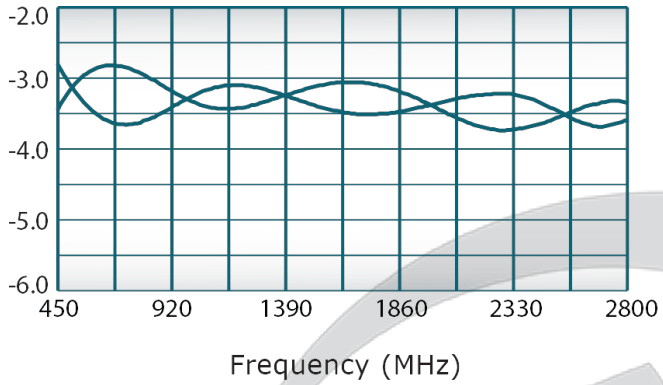
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Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com

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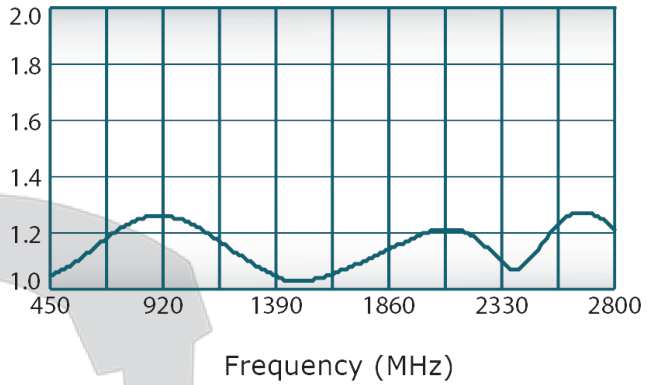


Performance Data (Specifications subject to change without notice):

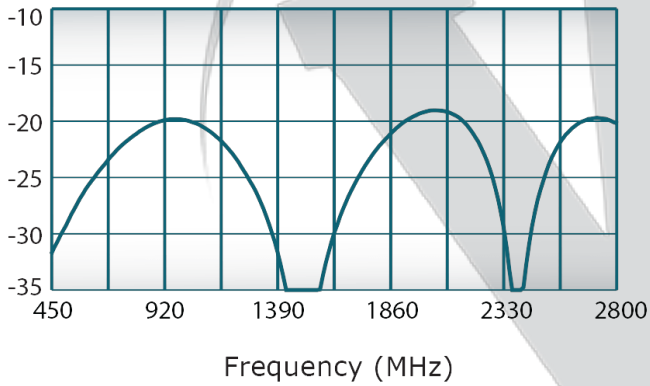
Coupling:



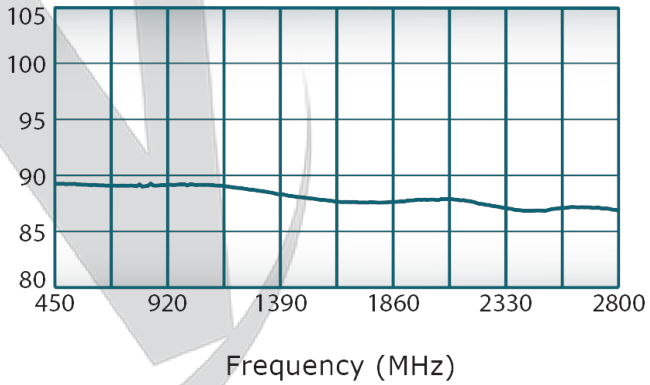
VSWR:



Isolation:



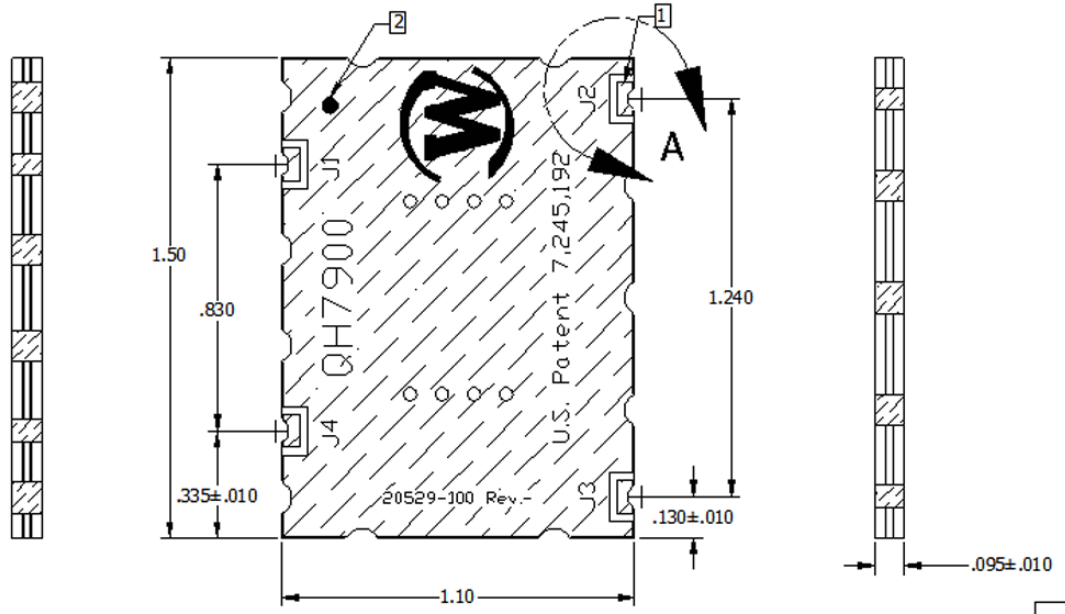
Phase Balance:

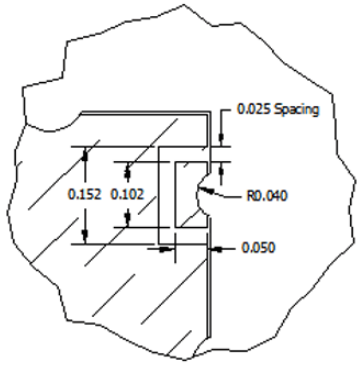


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REVISION HISTORY				
DATE	REV	REVISION RECORD	AUTH	APPV
6/22/2009	-	INITIAL RELEASE	GP	BW
9/8/2010	A	ECN 5223	GP	BW
3/13/2014	B	ECN 8586	GP	BW
11/18/2019	C	ECN 9885	BW	BW





DETAIL A (4X)
SCALE 4:1

ELECTRICAL SPECIFICATIONS

Frequency:	450 - 2800 MHz
Power:	125 Watts CW
Insertion Loss:	0.55 db Max.
Amplitude Balance:	± 0.45 db Max.
Phase Balance:	90° ± 5° Max.
VSWR:	1.35:1
Isolation:	18 dB Min.
Temperature:	-55°C To +85°C

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. Ports (4X) are Ø.080 Plated Castellation (4X)
2. Ø.050 Printed Fiducial for Orientation
3. Hatched Areas Denote Metallization
4. SMT Component. Reference Tech Note for Mounting Recommendations.
5. Plating Options:
   - QH7900-Pb : Electrodeposited Tin/Lead
   - QH7900-Sn : Immersion Tin
   - QH7900-Ag : Immersion Silver
   - QH7900-Au : ENIG
   - QH7900-Ha : HASL Tin/Lead

UNLESS OTHERWISE SPECIFIED
• INTERPRET DRAWING IAW MIL-STD-100
• DIMENSIONING PER ASME Y14.5M-2009
• PARANTHETICAL INFO FOR REF ONLY
• DIMENSIONS ARE IN INCHES
• TOLERANCES: ANGLE ± 2°
2 PL DECIMALS ± .025
3 PL DECIMALS ± .015
THIRD ANGLE PROJECTION

DWN	GP	6/22/2009
CHK	NH	6/22/2009
ENGR		
QA		
RLSE		

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

TITLE: QH7900 -3 dB Hybrid Coupler
USED ON: QH7900
SIZE: A | CAGE CODE: 28812 | DWG NO: 20529-500 | REV: C
SCALE: 2:1 | SHEET 1 OF 1

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