
**PRODUCT DATA SHEET**
**QH9972**
**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 &amp; Surface Mount

**Electrical Specifications:**

Frequency:	30 - 520 MHz
Power:	400 W CW
Insertion Loss	0.85 dB Max.
VSWR:	1.30:1 Max.
Phase Balance:	90° ± 7° Max.
Amplitude Balance:	± 1.25 dB Max. (35-520 MHz)
	± 1.35 dB Max. (30-35 MHz)
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:	1 lb. 8 oz.
Size:	5.0 x 3.5 x 1.1"

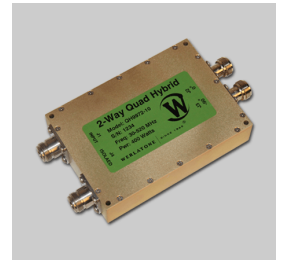
**Connector Configurations:**

Model	Sum Port (J1)	0°, 90° (J2,J3)	Ext. Load Port (J4)
QH9972-10	N Female	N Female	N Female
QH9972-12	N Female	SMA	SMA
QH9972-102	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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Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com

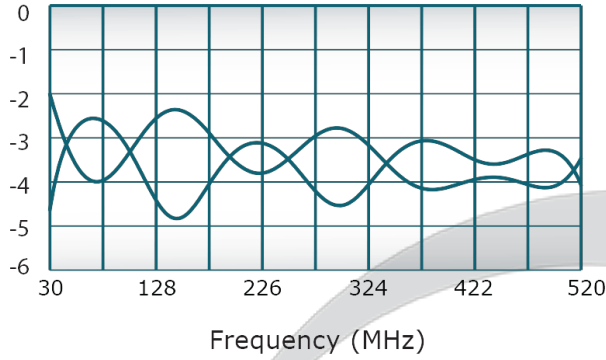


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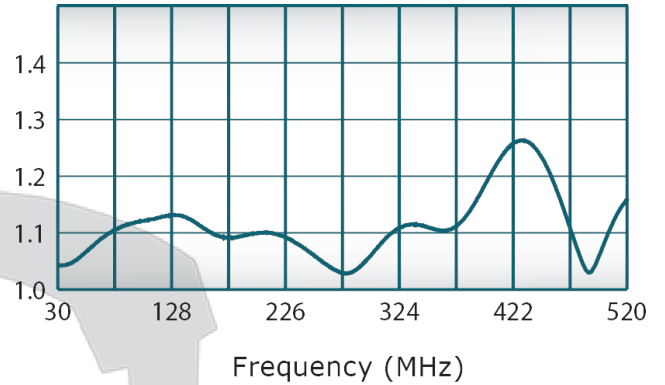
QH9972

**Performance Data (Specifications subject to change without notice):**

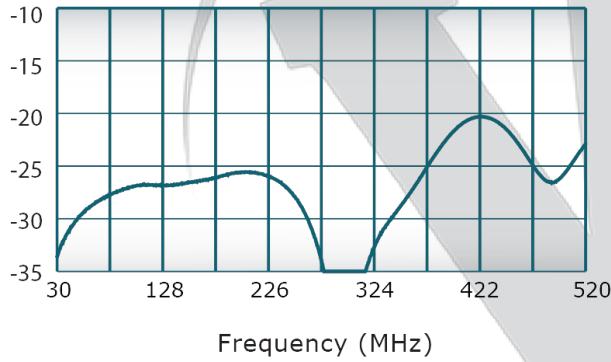
Coupling:



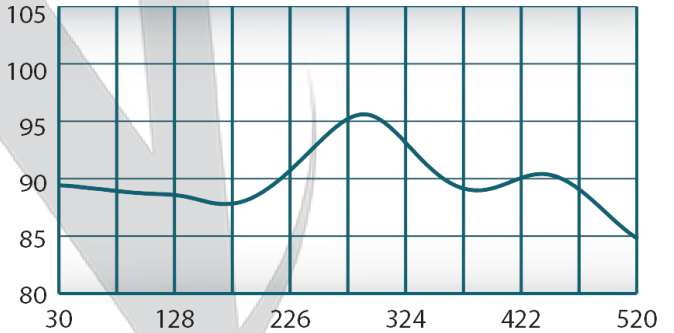
VSWR:



Isolation:



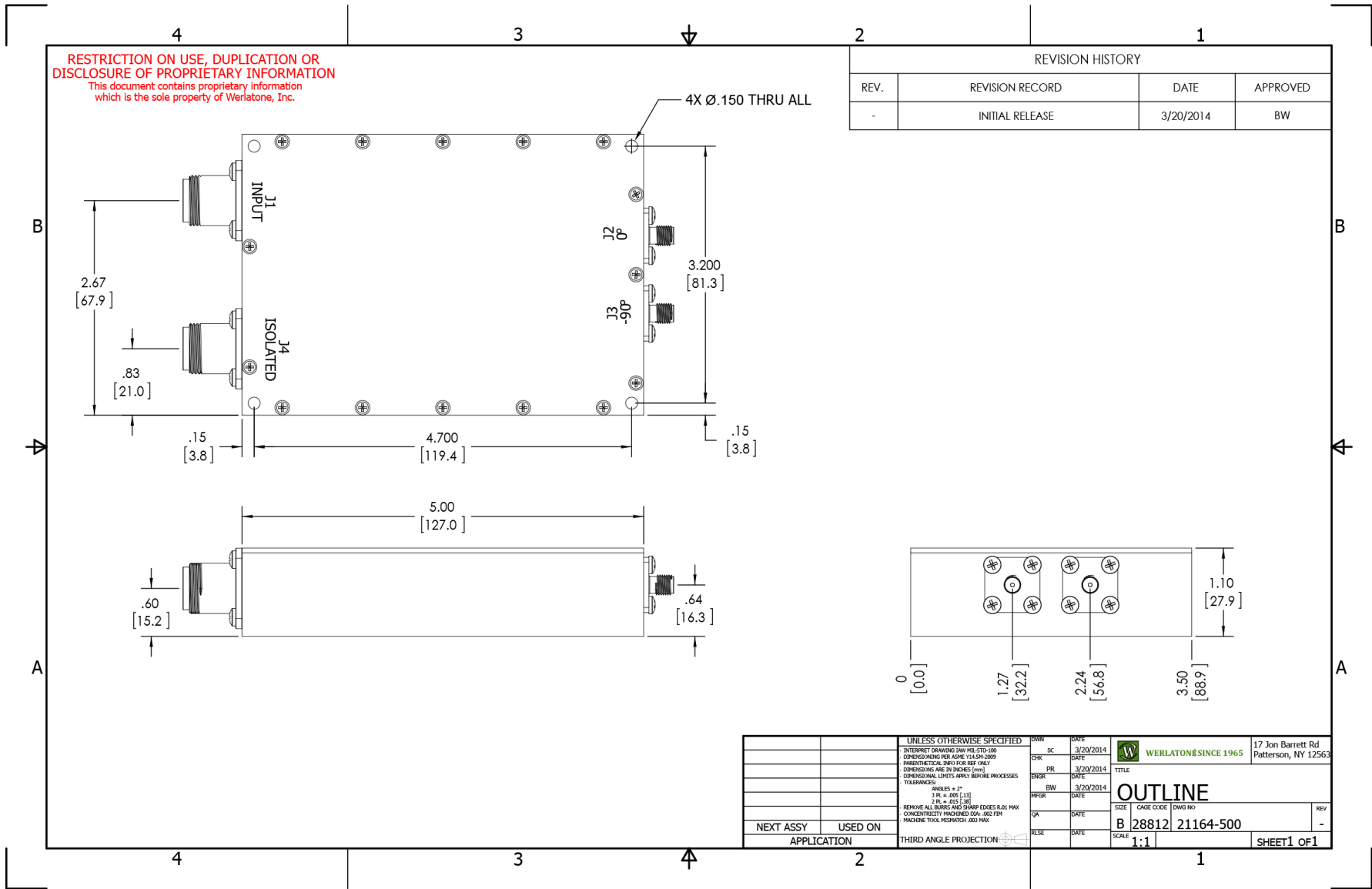
Phase Balance:



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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
-	INITIAL RELEASE	3/20/2014	BW

UNLESS OTHERWISE SPECIFIED		DATE	3/20/2014	<b>WERLATONE SINCE 1965</b> 17 Jon Barrett Rd Patterson, NY 12563
INTERSPRT DRAWING (AW MIL-STD-100)	CHK	DATE	3/20/2014	
DIMENSIONING PER ASME Y14.5M-2009	PR	DATE	3/20/2014	TITLE
PARAMETRICAL INFO FOR REF ONLY	ENG	DATE	3/20/2014	OUTLINE
DIMENSIONS ARE IN INCHES (mm)	BW	DATE	3/20/2014	SIZE
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES	MPGR	DATE	3/20/2014	CAGE CODE
TOLERANCES:	QA	DATE		DWG NO
ANGLES = 3°	RELE	DATE		B 28812
3 RL ± .005 (13)				21164-500
2 RL ± .015 (38)				
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX				
CONCENTRICITY FACHED (DA- .002 FPM)				
MACHINE TOOL MISMATCH .003 MAX				
NEXT ASSY	USED ON	SCALE	1:1	SHEET 1 OF 1
APPLICATION	THIRD ANGLE PROJECTION			

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