

## PRODUCT DATA SHEET

QH8849

### 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:	80 - 1000 MHz
Power:	250 W CW
Insertion Loss:	0.65 dB Max.
VSWR:	1.40:1 Max.
Phase Balance:	90° ± 5° dB Max.
Amplitude Balance:	± 1.0 dB Max.
Isolation:	16 dB Min.

### Mechanical Specifications:

Type:	Surface Mount
Plating Options:	QH8849-Ag: Immersion Silver (RoHS Compliant)
Weight:	2.7 oz.
Size:	2.9 x 2.1 x 0.31"

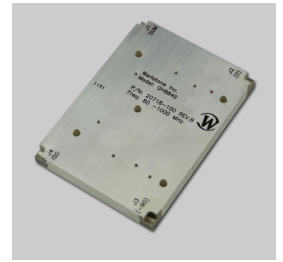
### Port Configurations:

<b>J1</b>	<b>J2</b>	<b>J3</b>	<b>J4</b>
Sum	0°	90°	Isolated Port

**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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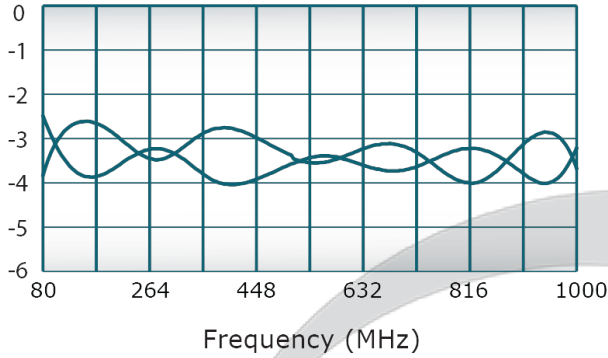


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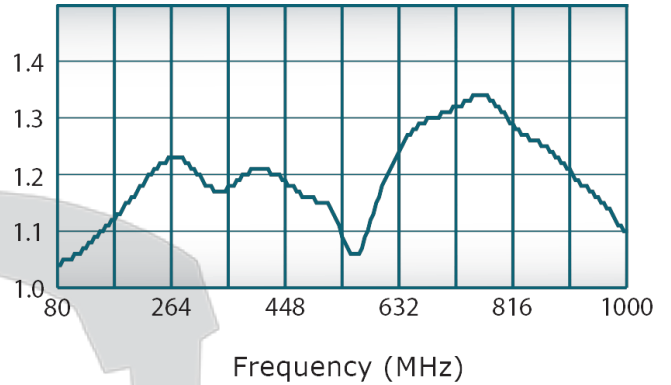
QH8849

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

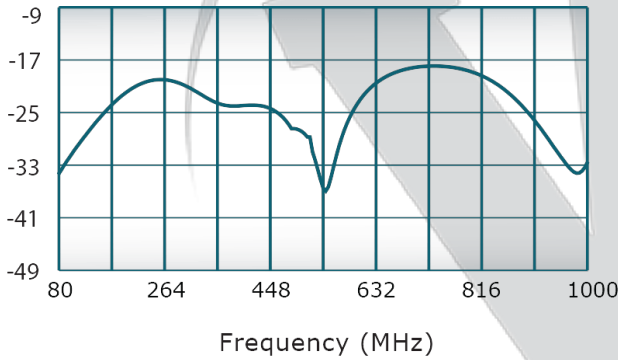
Coupling:



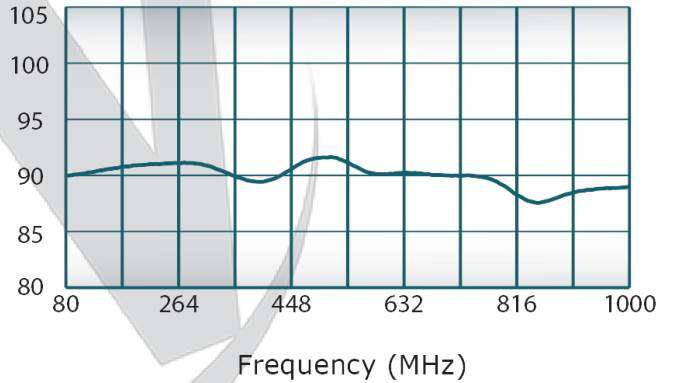
VSWR:



Isolation:



Phase Balance:



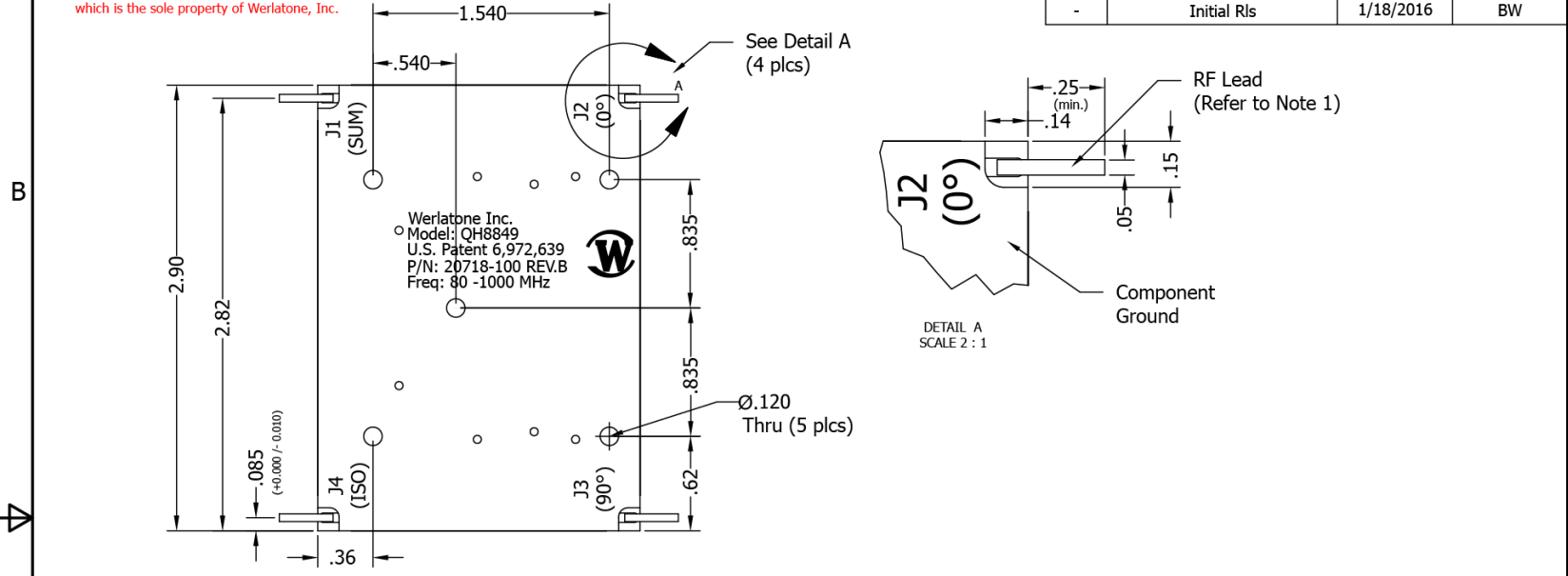
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REVISION HISTORY			
REV	REVISION RECORD	DATE	APPROVED
-	Initial Rls	1/18/2016	BW



Werlatone Inc.  
 Model: QH8849  
 U.S. Patent 6,972,639  
 P/N: 2D718-100 REV.B  
 Freq: 80 -1000 MHz

**ELECTRICAL SPECIFICATIONS**

Frequency:	80 - 1000 MHz
Power:	250 Watts CW
Insertion Loss:	0.65 dB
Amplitude Balance:	± 1.0 dB
Phase Balance:	90° ± 5° Max.
VSWR:	1.4:1
Isolation:	16 dB Min.
Operating Temperature:	-55°C To +85°C

**NOTES: UNLESS OTHERWISE SPECIFIED**

- RF LEAD MATERIAL: 99.95% PURE SILVER. .005 THICK. LEAD IS RESISTANCE WELDED TO EXPOSED COPPER STRIPLINE TRACE.
- Component Surface Finish: Immersion Silver
- Non-Operating Storage Temperature -55C to +100 C

21396-300	QH8849-Ag-T
NEXT ASSY	USED ON
APPLICATION	

UNLESS OTHERWISE SPECIFIED  
 • INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100  
 • DIMENSIONING PER ASME Y14.5M-2009  
 • PARENTHESES ARE IN INCHES  
 • DIMENSIONAL LIMITS APPLY BEFORE PROCESSES  
 • TOLERANCES: ANGLES ± 2°  
 3 PL ± .005  
 2 PL ± .015  
 THIRD ANGLE PROJECTION

DWN	DATE	<b>WERLATONE   SINCE 1965</b>	17 Jon Barrett Rd Patterson, NY 12563		
NH	01/18/16				
CHK	DATE	<b>Outline</b>			
GP	01/18/16				
ENGR	DATE	SIZE	CAGE CODE	DWG NO	REV
BW	01/18/16	A	28812	21396-500	-
MFGR	DATE	SCALE	SHEET 1 OF 1		
QA	DATE				
RLSE	DATE				

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