

PRODUCT DATA SHEET

QH8105

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: 800 - 4200 MHz
Power: 150 W CW
Insertion Loss: 0.55 dB Max.
VSWR: 1.35:1 Max.
Phase Balance: $\pm 5^\circ$ dB Max.
Amplitude Balance: ± 0.5 dB Max.
Isolation: 18 dB Min.

Mechanical Specifications:

Type: Surface Mount
Plating Options: QH8105-Sn: Immersion Tin (RoHS)
QH8105-Ag: Immersion Silver (RoHS)
QH8105-Au: ENIG (RoHS)
QH8105-Pb: ED Tin/Lead
Size: 1.5 x 1.08 x 0.09"
Weight: 5 grams

Port Configurations:

J1	J2	J3	J4
Sum Port	90° Port	0° Port	Isolated Port

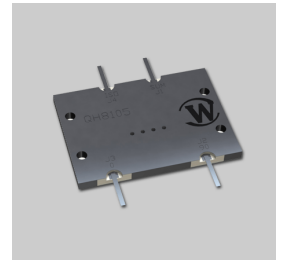
Werlatone's breakthrough technology allows us to build our existing line of Broadband 3 dB High Power 90° Hybrid Couplers. Connectorized 3 dB 90° Hybrid Coupler models are available with a choice of connectors. Several of our existing High Power 3 dB 90° RF Couplers are three port designs, wherein the difference port is internally terminated with a high power termination. This eliminates the need for a customer supplied external load for each Hybrid Coupler.



WERLATONE

Model QH8105

90° Hybrids Surface Mount (SMT) & Drop

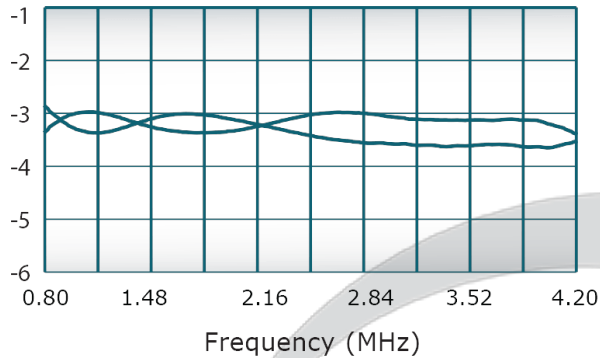


PRODUCT DATA SHEET

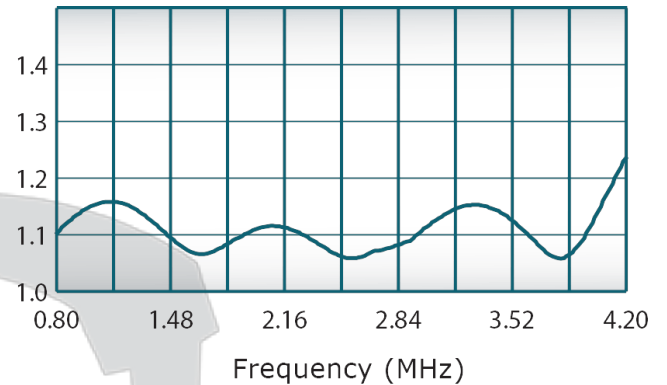
QH8105

Performance Data (Specifications subject to change without notice):

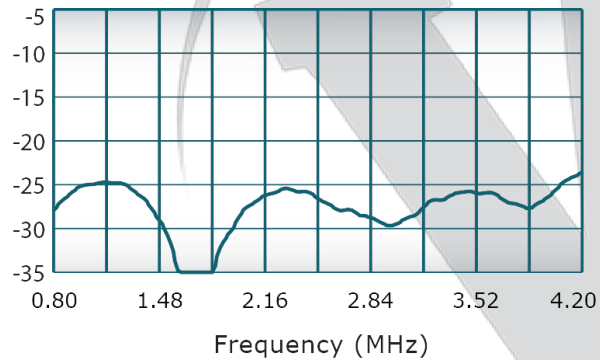
Coupling:



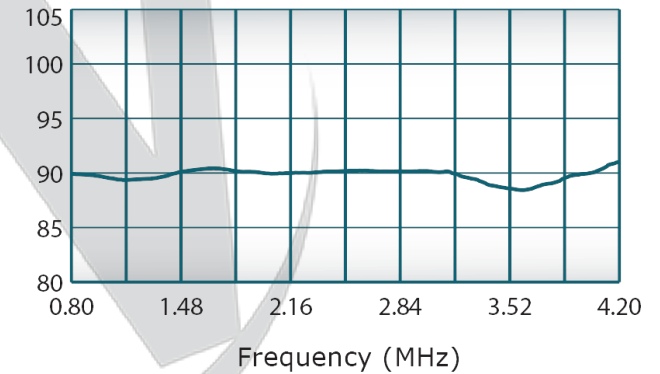
VSWR:



Isolation:



Phase Balance:

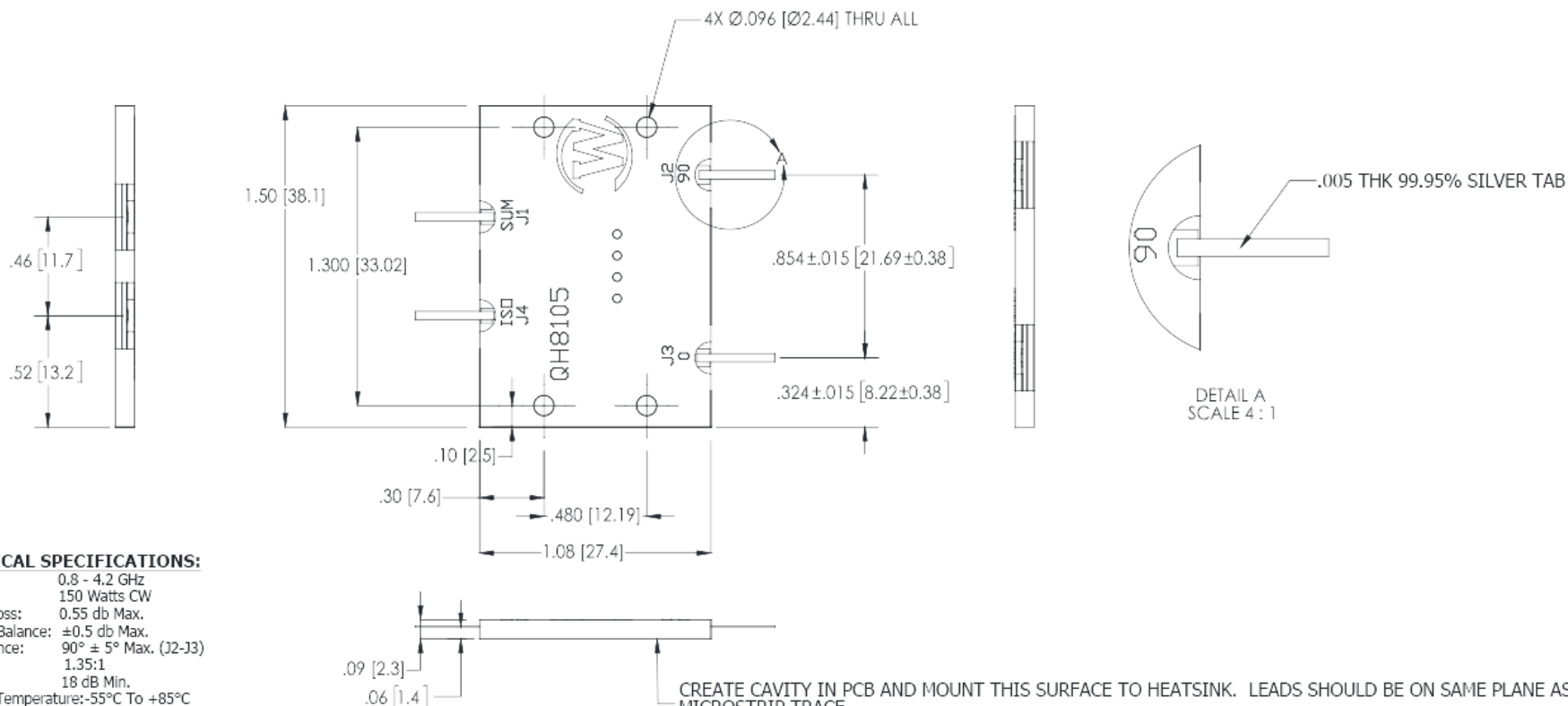


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Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com

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REVISIONS			
REV.	REVISION RECORD	DATE	APPROVED
-	INITIAL RELEASE	10/19/2012	GP
A	ECN 7577	10/19/2012	GP
B	ECN 8213	6/6/2013	BW
C	ECN 10009	3/5/2021	BW



ELECTRICAL SPECIFICATIONS:

Frequency: 0.8 - 4.2 GHz
Power: 150 Watts CW
Insertion Loss: 0.55 db Max.
Amplitude Balance: ± 0.5 db Max.
Phase Balance: $90^\circ \pm 5^\circ$ Max. (J2-J3)
VSWR: 1.35:1
Isolation: 18 dB Min.
Operating Temperature: -55°C To $+85^\circ\text{C}$


NOTES: UNLESS OTHERWISE SPECIFIED

1. 4X LEADS/TABS SHOULD BE SOLDERED TO 50 OH TRANSMISSION LINES.
2. BODY OF PART IS GND AND IS A SOLDERABLE SURFACE.
3. ORDERING INFORMATION:
QH8105-PB-T

—Surface Finish

Pb: ED Tin/Lead
Ag: Immersion Silver
Sn: Immersion Tin
Au: ENIG

—T: RF TABS / LEADS
BLANK: NO TABS. SOLDER PAD.

		UNLESS OTHERWISE SPECIFIED		DRAWN	DATE			17 Jon Barrett Rd Patterson, NY 12568	
		<ul style="list-style-type: none"> INTEREST DRAWING DIM-MET STD 303 DIMENSIONING PER ASME Y14.36-2003 PROJECTIONAL THIRD ANGLE ONLY DIMENSIONS ARE IN INCHES DIMENSIONAL LIMITS APPLY BEFORE FINISHES TOLERANCES: <ul style="list-style-type: none"> ANGLES ± 1° 3/16 & .002 3/16 & .015 REMOVE ALL BURRS AND SHARP EDGES R.1 MAX CONCENTRICITY MACHINED DIA. AND GRO MACHINE TOOL WEAR/NOT .001 MAX 		GP	10/10/2012	 WERLANTON SINCE 1963			
				CHK	DATE	TITLE			
				ENGR	DATE	QH8105 -3dB Hybrid Coupler			
				MFR	DATE	SIZE			
				QA	DATE	B 28812 20406-500			
NEXT ASSY USED ON		THIRD ANGLE PROJECTION		FILE	DATE	SCALE			
APPLICATION						2:1		SHEET 1 of 1	

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