

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.

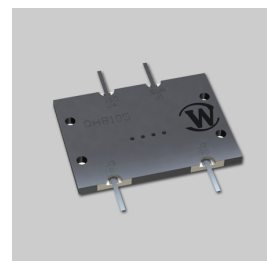
Mechanical Specifications:

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.

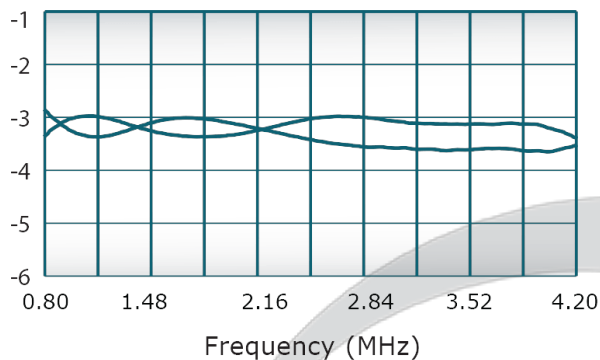


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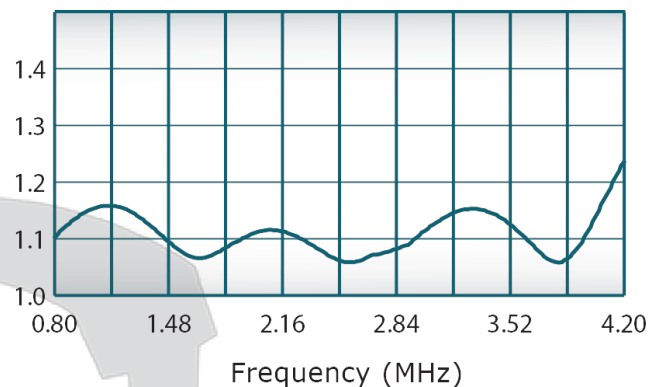
QH8105

Performance Data (Specifications subject to change without notice):

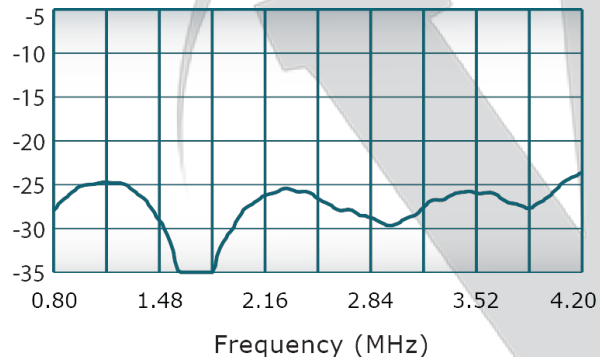
Coupling:



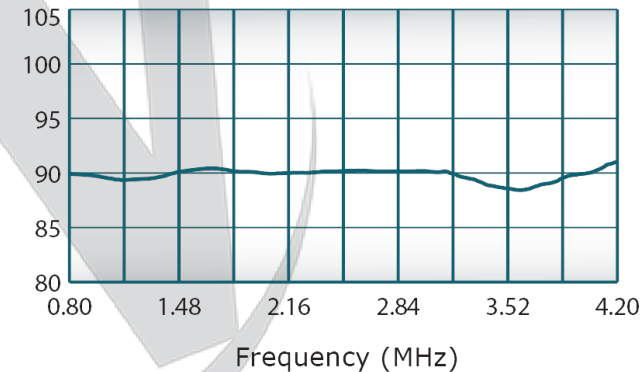
VSWR:



Isolation:

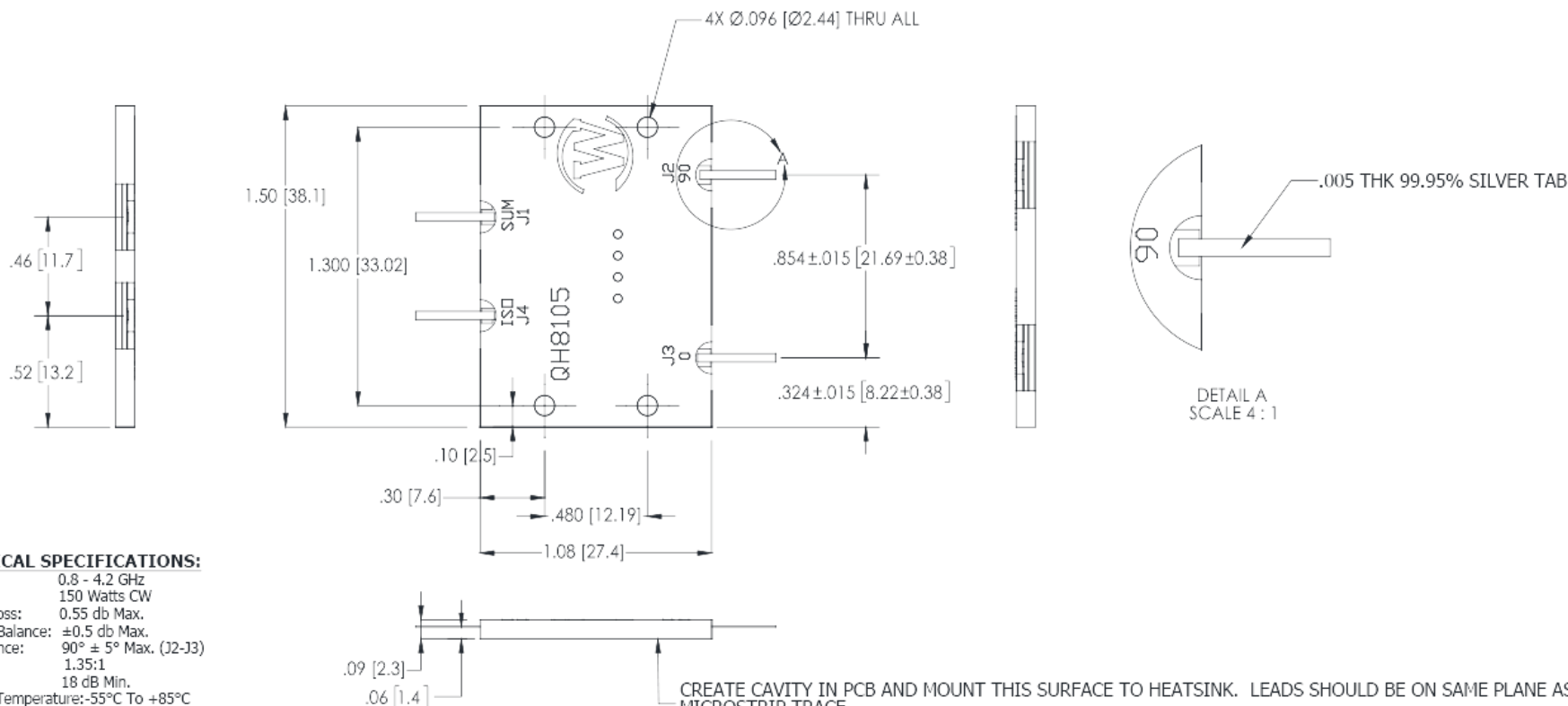


Phase Balance:



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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



UNLESS OTHERWISE SPECIFIED		DRAWN	DATE	W		17 Jon Barrett Rd
• INTERPRET DRAWING (AWI) 910-820		GP	10/19/2012	WERLATONE SINCE 1965		Patterson, NY 12563
• DIMENSIONING PER ASME Y14.3M-2009		CHK	DATE	TITLE		
• PROTECTIVE COATING FOR REF ONLY		ENGR	DATE	QH8105 -3dB Hybrid Coupler		
• DIMENSIONS ARE IN INCHES		WFR	DATE	SIZE	CAGE CODE	DWG NO
• DIMENSIONAL LIMITS APPLY BEFORE PROCESSING		QA	DATE	B	28812	20406-500
• TOLERANCES:		FILE	DATE	SCALE	2:1	SHEET 1 OF 1
• ANGLES $\pm 2^\circ$						
• 2 PL & 0.015						
• REMOVE ALL BURRS AND SHARP EDGES 0.015 MAX						
• CONCENTRICITY MAXIMUM DIA. AND FOR						
• MACHINE TOOL. MAXIMUM 0.005 MAX						

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