



PRODUCT DATA SHEET

QH8193

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: 2000 - 6000 MHz
Power: 100 W CW
Insertion Loss: 0.25 dB Max.
VSWR: 1.30:1 Max.
Phase Balance: $\pm 5^\circ$ dB Max.
Amplitude Balance: 2.0 GHz: ± 0.9 dB Max.
4.0 GHz: ± 0.75 dB Max.
6.0 GHz: ± 0.75 dB Max.
Isolation: 20 dB Min.

Mechanical Specifications:

Type: Surface Mount
Plating Options: QH8193-Sn: Immersion Tin (RoHS)
QH8193-Ag: Immersion Silver (RoHS)
QH8193-Au: ENIG (RoHS)
QH8193-Pb: Electrodeposited Tin/Lead
Size: 0.85 x 0.33 x 0.14"
Weight: 1.5 grams

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

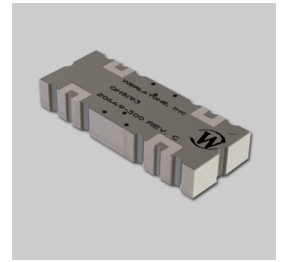
Werlatone's breakthrough technology allows us to build our existing line of Broadband 3 dB High Power 90° Hybrid Couplers. Connectorized 3 dB 90° Hybrid Coupler models are available with a choice of connectors. Several of our existing High Power 3 dB 90° RF Couplers are three port designs, wherein the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



WERLATONE

Model QH8193

90° Hybrids Surface Mount (SMT) & Drop

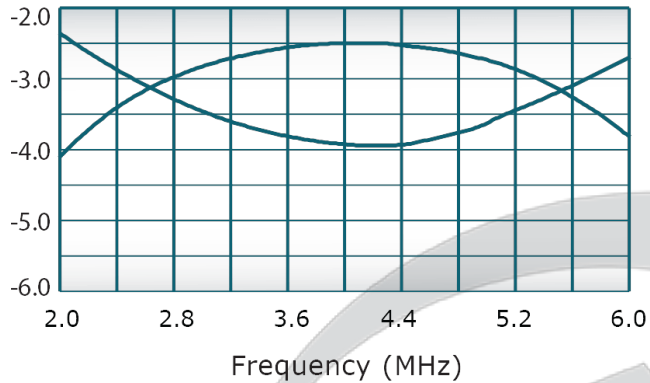


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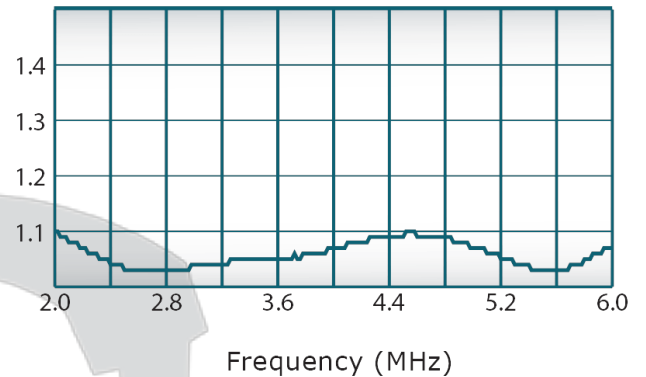
QH8193

Performance Data (Specifications subject to change without notice):

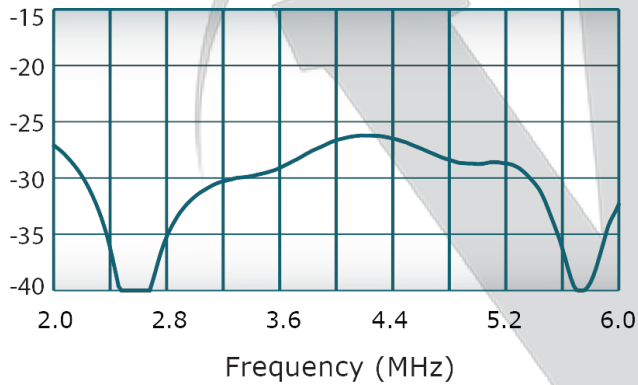
Coupling:



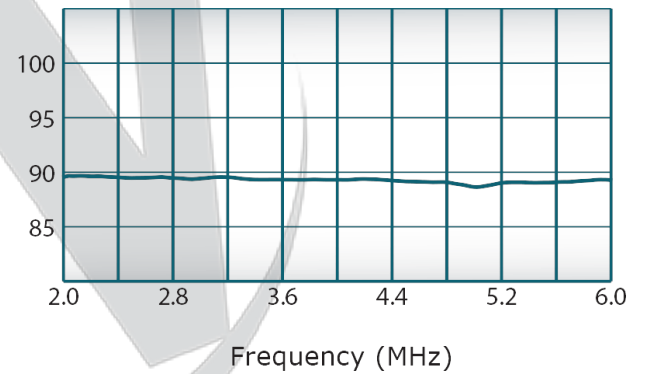
VSWR:



Isolation:



Phase Balance:



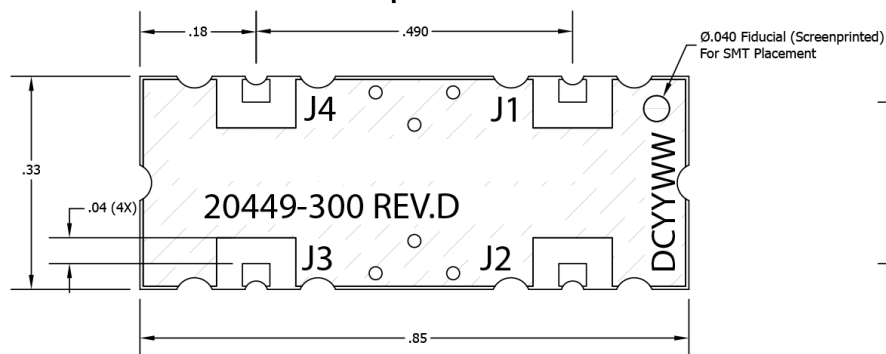
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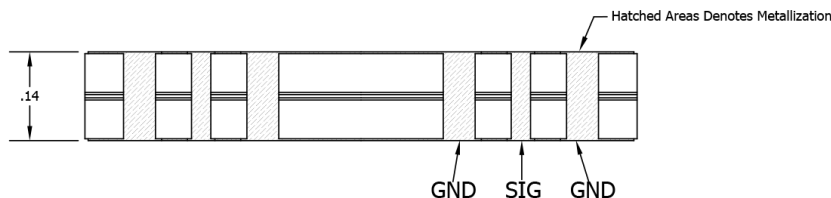
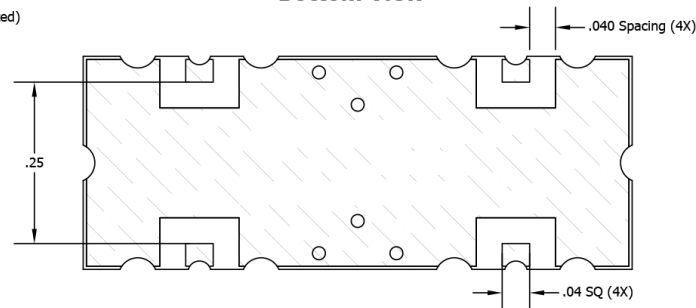
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DATE	SYM	REVISION RECORD	AUTH	DR	CK
7/23/2008	A	ECN 4567	GP	GP	NH
8/26/2008	B	ECN 4595	GP	GP	NH
5/7/2009	C	ECN 4882	GP	GP	NH
11/3/2009	D	ECN 5000	CS	CS	TC
6/23/2015	E	ECN 8845	GP	GP	BW

Top View



Bottom View



<div>UNLESS OTHERWISE SPECIFIED</div> <div>● INTERPRET DRAWING IAW MIL-STD-100</div> <div>● DIMENSIONING PER ASME Y14.5M-2009</div> <div>● PARANTHETICAL INFO FOR REF ONLY</div> <div>● DIMENSIONS ARE IN INCHES</div> <div>● TOLERANCES: ANGLE ± 2°</div> <div>3 PL DECIMALS ± .005</div> <div>2 PL DECIMALS ± .015</div>	DWN	GP	DATE	6/12/08	<div><div>W</div><div>WERLATONE SINCE 1965</div></div>	2095 Route 22 Brewster, NY 10509			
	CHK	NH	DATE	5/7/09					
	ENGR	BW	DATE	5/7/09	TITLE				
	QA		DATE		USED ON				
	RLSE		DATE		SIZE		CAGE CODE	DWG NO	REV
					A		28812	20449-500	E
THIRD ANGLE PROJECTION	<div><div><div></div><div></div></div><div></div></div>		SCALE	4:1	SHEET 1 OF 1				

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