
PRODUCT DATA SHEET
QH10828
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 & Surface Mount

Electrical Specifications:

Frequency: 1000 - 8000 MHz
Power: 100 W CW
Insertion Loss: 0.9 dB Max.
VSWR: 1.40:1 Max.
Phase Balance: $\pm 5^\circ$ dB Max.
Amplitude Balance: ± 0.7 dB Max. (1200-8000 MHz) ± 1.5 dB Max. (1000-1200 MHz)
Isolation: 17 dB Min.

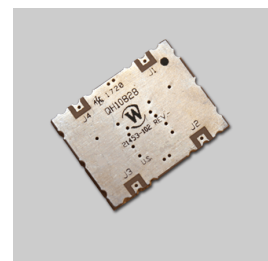
Mechanical Specifications:

Type: Surface Mount
Plating Options: QH10828-Pb: Electrodeposited Tin/Lead
QH10828-Sn: Immersion Tin (RoHS Compliant)
QH10828-Ag: Immersion Silver (RoHS Compliant)
Size: 0.65 x 0.5 x 0.07"

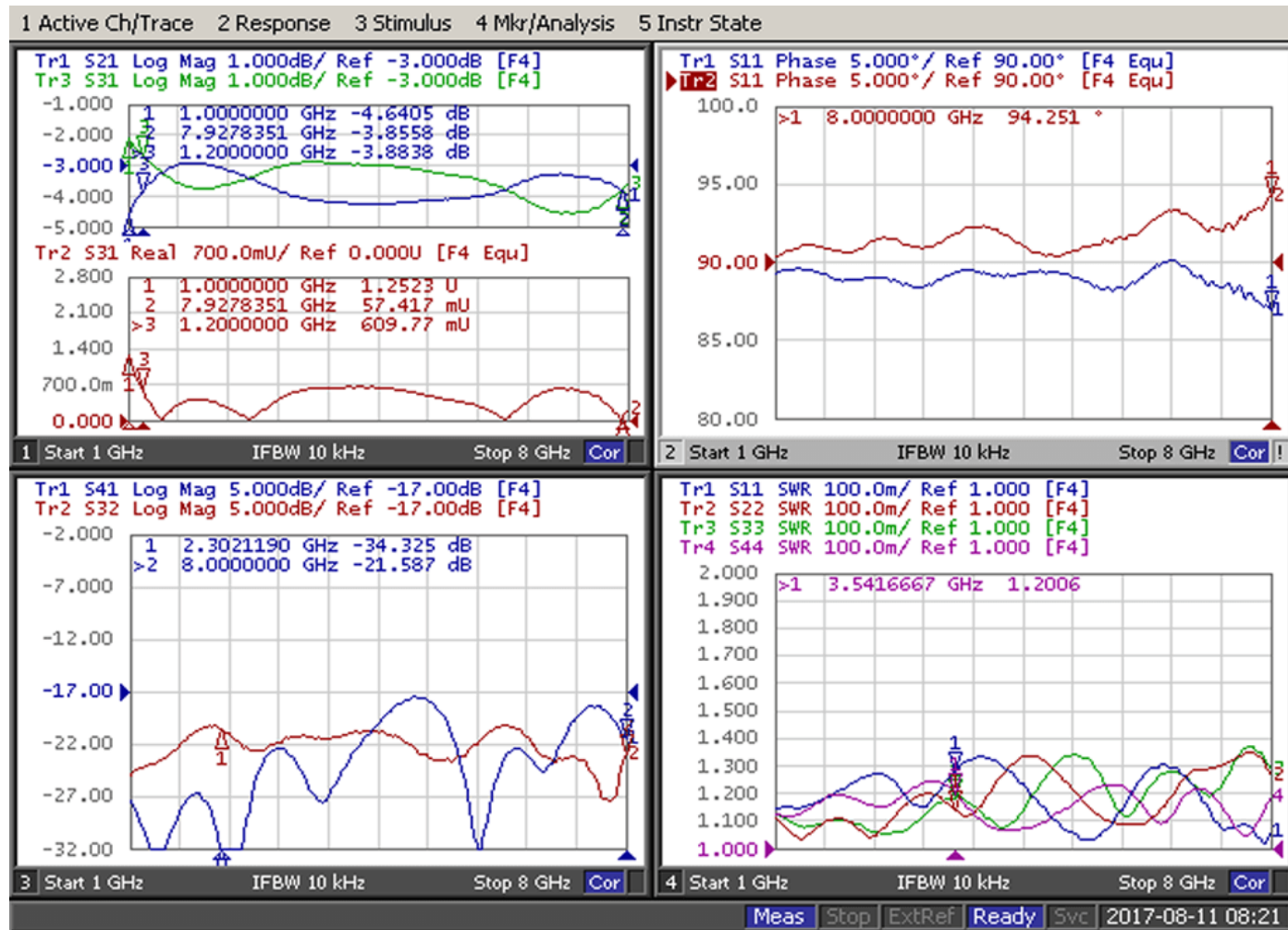
Port Configurations:

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.


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Performance Data (Specifications subject to change without notice):

Plot 1: Coupling & Insertion Loss, Plot 2: Phase Balance, Plot 3: Isolation, Plot 4: VSWR

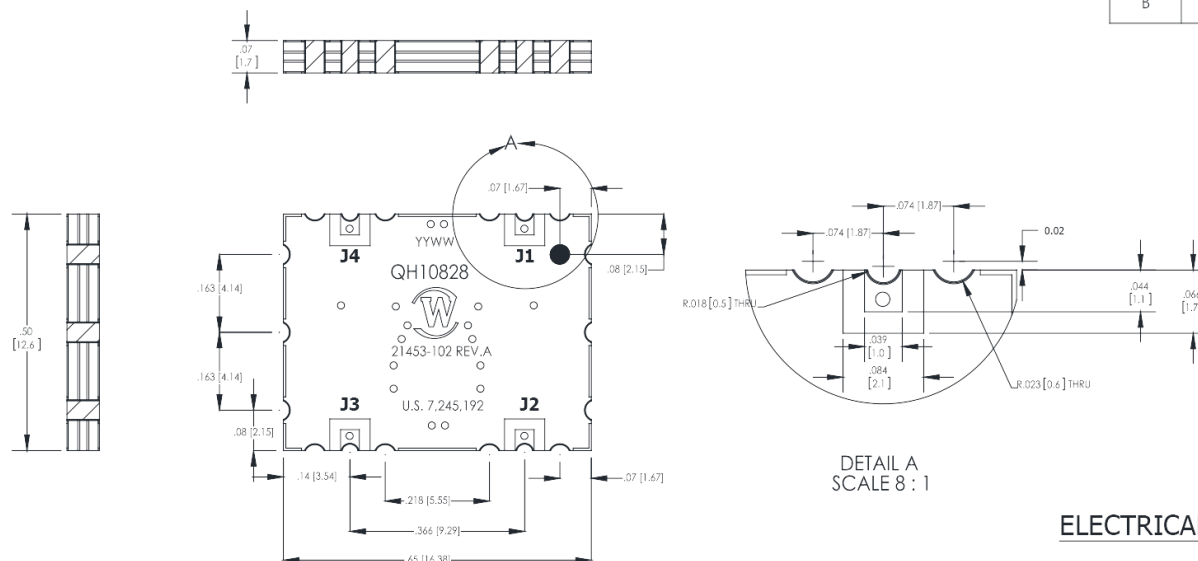


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Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com

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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
-	PRE-RELEASE	2/1/2017	CS
A	ECN9328	6/1/2017	CS
B	ECN10098	9/16/21	CS



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

ELECTRICAL SPECIFICATIONS

Frequency: 1000 - 8000 MHz
Power: 60 Watts CW
Insertion Loss: 0.9 dB Max.
Amplitude Balance: ± 0.7 dB Max. 1200-8000 MHz
 ± 1.5 dB Max. 1000 - 1200 MHz
Phase Balance: $\pm 5^\circ$ Max.
VSWR: 1.4 :1
Isolation: 17 dB Min.

NOTES: UNLESS OTHERWISE SPECIFIED

- SURFACE MOUNT UNIT**
- SURFACE FINISH: IMMERSION SILVER (RoHS Compliant).**
OTHER SURFACE FINISHES AVAILABLE UPON REQUEST.
- SEE SURFACE MOUNT TECH NOTE FOR INSTALLATION GUIDELINES.**

		UNLESS OTHERWISE SPECIFIED		OWN	DATE	WERLATONE SINCE 1965 17 Jon Barrett Rd Patterson, NY 12563	OUTLINE SIZE: CAGE CODE: DWG NO: B 28812 21453-500	REV: B
		<ul style="list-style-type: none"> • INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100 • DIMENSIONS UNLESS OTHERWISE SPECIFIED PER ASME Y14.5M-2009 • DIMENSIONS ARE IN INCHES (mm) • DIMENSIONAL UNITS APPLY BEFORE PROCESSES • TOLERANCES: <ul style="list-style-type: none"> ANGLES: $\pm 5^\circ$ 3 PL: $\pm .005$ [.13] 2 PL: $\pm .015$ [.4] 		CHK	DATE			
				ENGR	DATE			
				MFG	DATE			
				QA	DATE			
NEXT ASSY		QH10828 USED ON		RLSE	DATE			
APPLICATION		THIRD ANGLE PROJECTION				SCALE	4:1	SHEET 1 OF 1

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