

PRODUCT DATA SHEET

QH10900

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: 380 - 2500 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: ± 0.6 dB Max.
Isolation: 18 dB Min.

Mechanical Specifications:

Type: Drop-In
Plating Options: QH10900-Ag: Immersion Silver (RoHS)
Size: 1.3 x 1.3 x 0.15"

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

Unit can be ordered with or without Solder Tabs. Add "-T" after plating code for Tabbed unit.

See 90° Drop-In Application Note for more information.

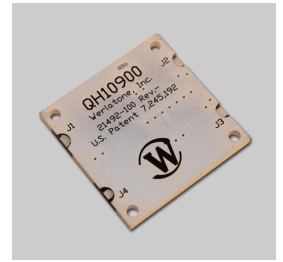
Werlatone's breakthrough technology allows us to build our existing line of Broadband 3 dB High Power 90° Hybrid Couplers. Connectorized 3 dB 90° Hybrid Coupler models are available with a choice of connectors. Several of our existing High Power 3 dB 90° RF Couplers are three port designs, wherein the 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 QH10900

90° Hybrids Surface Mount (SMT) & Drop

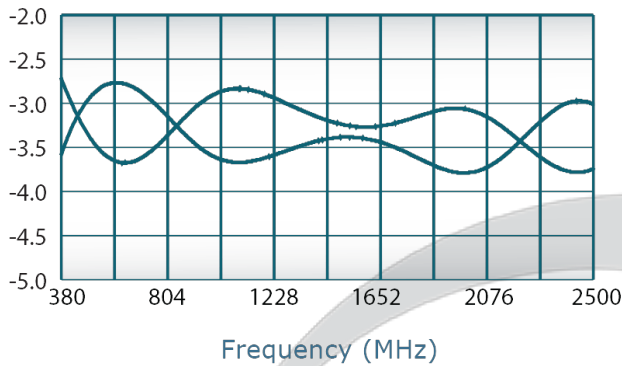


PRODUCT DATA SHEET

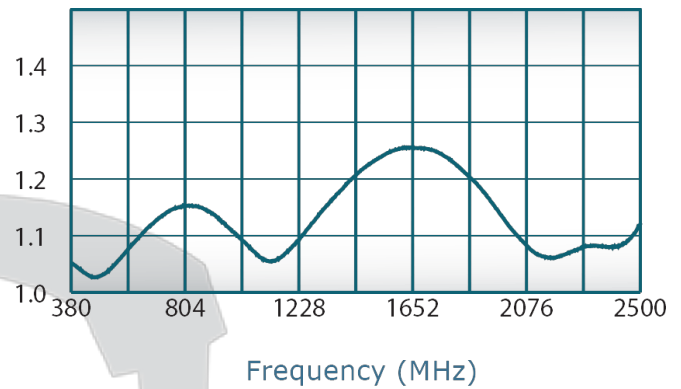
QH10900

Performance Data (Specifications subject to change without notice):

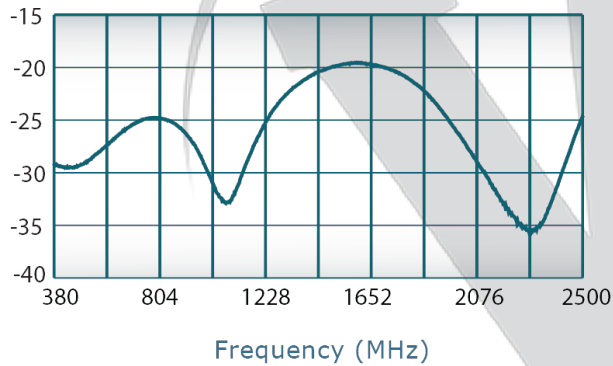
Coupling:



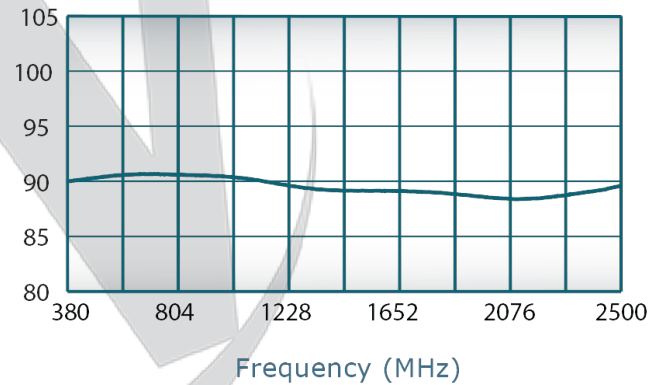
VSWR:



Isolation:



Phase Balance:



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Technical drawing of a PCB layout. The drawing includes a top view and a side view. The top view shows a rectangular board with dimensions 1.300 x 1.300. It features a central component labeled "QH10900" with "Marlboro, Inc." and "U.S. Patent 7,845,198" printed below it. A large "W" logo is at the bottom center. Dimensions for various features are provided: .514 (2 PL's) for the top edge plating, .343 (2 PL's) for the bottom edge plating, .100 for the side edge plating, and .100 TYP. (4X) for the top edge plating. A note indicates "HATCHED AREAS DENOTE EDGE PLATING". The side view shows a .059 TRACE HEIGHT (2 PL's) and a .100 S PL's dimension.

1. MOUNT COUPLER WITH SURFACE "A" CONTACTING ADEQUATE HEATSINK.
2. STRIPLINE COUPLER HAS 4 EXPOSED COPPER PADS. PCB SHOULD HAVE A CUTOUT TO ACCOMMODATE PART. ALIGN 50 ? LANDS WITH PAD AND MAKE SOLDER JOINT WITH LEAD (NOT SUPPLIED).
3. Surface Finish: Immersion Silver (RhS)

UNLESS OTHERWISE SPECIFIED		DATE	DATE		 VERLATONE SINCE 1965		17 Jon Barrett Road Patterson, NY 12563	
* INTERPRET DRAWING IN ACCORDANCE WITH: DIMENSIONS PER ASME Y14.5M-2009 PARALLEL THROAT FOR REF ONLY CONFORMING ASHTO T-406 DIMENSIONAL LIMITS APPLY BEFORE PROCESSING * TOLERANCES - ANGLES ± .1° 3 PL DECIMALS ± .01 2 PL DECIMALS ± .05		GP	10/27/2016	 VERLATONE SINCE 1965		17 Jon Barrett Road Patterson, NY 12563		
		QAC	DATE	TITLE		2-WAY 90° HYBRID COUPLER		
		QCAL	DATE	USED ON		QH10900		
		QA	DATE	SIZE		CAGE CODE	DWG NO	REV
		QEE	DATE	A		28812		21492-509
THIS DRAWING IS NOT TO BE USED FOR FABRICATION				SCALE		1:1		SHEET 1 OF 1

QH10900 Rev.-