

**PRODUCT DATA SHEET**

**QH11687**

**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:                    500 - 6000 MHz  
 Power:                        150 W CW  
 Insertion Loss                0.75 dB Max.  
 VSWR:                        1.40:1 Max.  
 Phase Balance:              90° ± 5° dB Max.  
 Amplitude Balance:        ± 1.0 dB (500-6000 MHz) 0.7 dB Max. (600-6000 MHz)  
 Isolation:                    17 dB Min.

**Mechanical Specifications:**

Type:                         SMT  
 Plating Options:            QH11687-Ag: Immersion Silver (RoHS)  
 Size:                         1.28 x 1.08 x 0.13"

**Port Configurations:**

<b>J1</b>	<b>J2</b>	<b>J3</b>	<b>J4</b>
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.

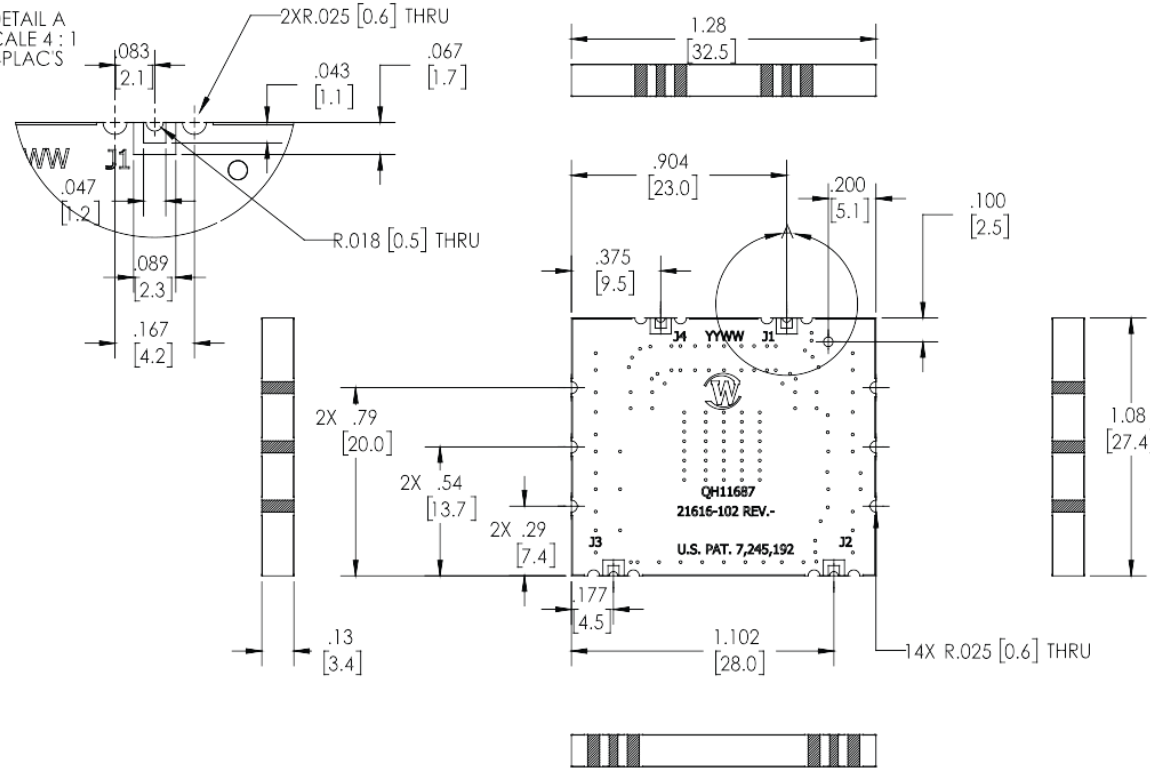
**Restriction on use, duplication, or disclosure of proprietary information.** This document contains proprietary information which is the sole property of Werlatone, Inc.

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

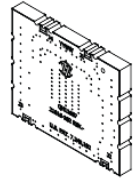
**RESTRICTION ON USE, DUPLICATION OR DISCLOSURE OF PROPRIETARY INFORMATION**

This document contains proprietary information which is the sole property of Werlatone, Inc.

DETAIL A  
SCALE 4 : 1  
4PLACS



REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
-	INITIAL RELEASE	9/14/2018	CS
A	ECN9709	12/7/2018	CS
B	ECN9744	1/29/2019	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

**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, NV 12563
• INTERPRET DRAWING IAW MIL-STD-100 • DIMENSIONING PER ASME Y14.5M 2009 • PRACTICAL DIMENSIONS FOR REF ONLY • DIMENSIONS ARE IN INCHES (mm) • DIMENSIONAL LIMITS APPLY BEFORE PROCESSES • TOLERANCES: ANGLES ± 2° 3 PL. ± .005 (1:1) 2 PL. ± .013 (1:1) • REMOVE ALL BURRS AND SHARP EDGES & .01 MAX • CONCENTRICITY MACHINED DIA. AND RIM • MACHINE TOOL MARKING .003 MAX		MB	6/13/2018	
		CHK	DATE	TITLE <b>OUTLINE</b> SIZE CASE CODE DWG NO B 28812 21616-500
		GP	12/7/2018	
		ENGR	DATE	REV B
		MB	6/13/2018	
		DRGR	DATE	SCALE 2:1
		QA	DATE	
		RELSE	DATE	SHEET 1 OF 1
NEXT ASSY USED ON		APPLICATION		

Restriction on use, duplication, or disclosure of proprietary information. This document contains proprietary information which is the sole property of Werlatone, Inc.  
 Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com