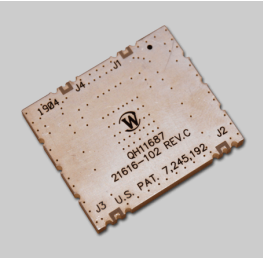
WERLATONE

Model QH11687
90° Hybrids Surface Mount (SMT) & Drop



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:	± 1.5 dB Max.
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:

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

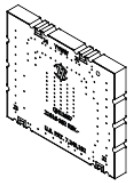
Werlatone's breakthrough technology allows us to build our existing line of Broadband 3 dB High Power 90° Hybrid Couplers. Connectorized 3 dB 90° Hybrid Coupler models are available with a choice of connectors. Several of our existing High Power 3 dB 90° RF Couplers are three port designs, wherein the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

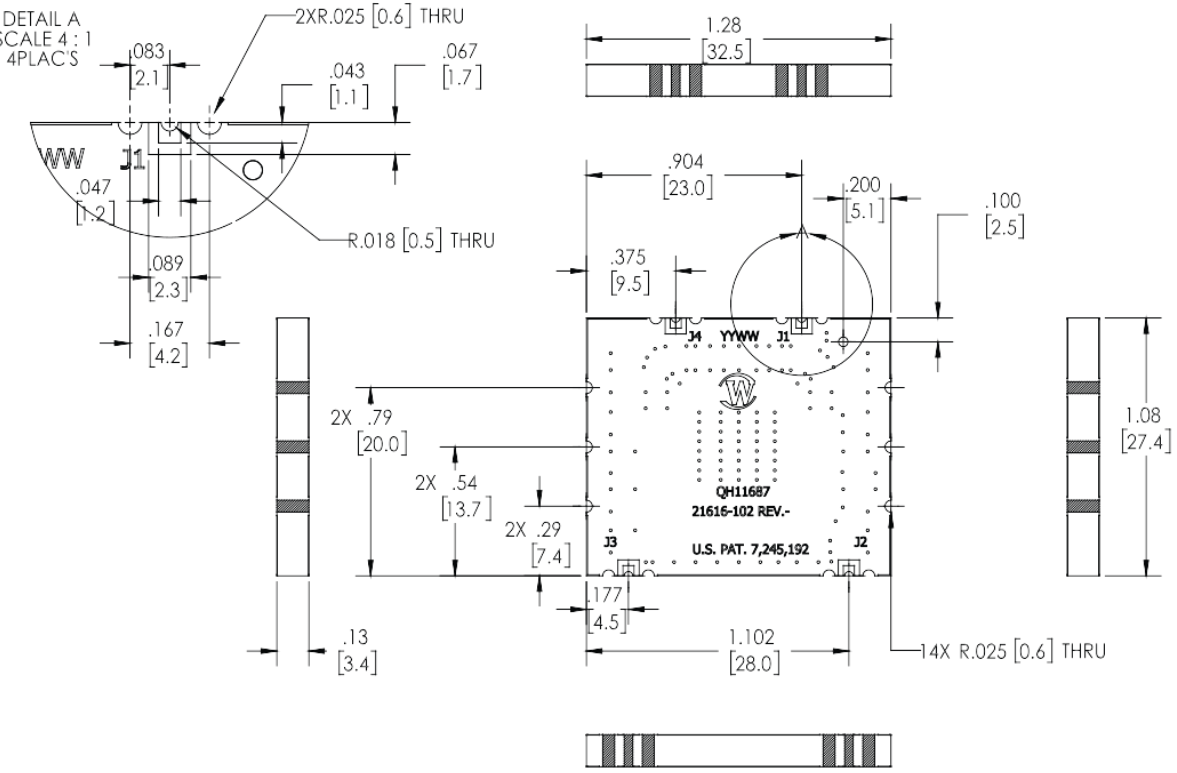
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Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com

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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
-	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

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

	QH11687
NEXT ASSY	USED ON
APPLICATION	

UNLESS OTHERWISE SPECIFIED
- INTERPRET DRAWING IAW MIL-STD-100
- DIMENSIONING PER ASME Y14.5M-2009
- PARENTHETICAL INFO FOR REF ONLY
- DIMENSIONS ARE IN INCHES [mm]
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- TOLERANCES:
  ANGLES ± 2°
  3 Pl. ± .005 [.13]
  2 Pl. ± .015 [.4]
- REMOVE ALL BURRS AND SHARP EDGES R.01 MAX
- CONCENTRICITY MACHINED DIA. .002 FIM
- MACHINE TOOL MISMATCH .003 MAX

THIRD ANGLE PROJECTION

DWN	MB	6/13/2018
CHK	GP	12/7/2018
ENGR	MB	6/13/2018
MFGR		
QA		
RLSE		

WERLATONESINCE 1965
17 Jon Barrett Rd
Patterson, NY 12563

TITLE
OUTLINE

SIZE	CAGE CODE	DWG NO	REV
B	28812	21616-500	B

SCALE 2:1 SHEET 1 OF 1

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