



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:

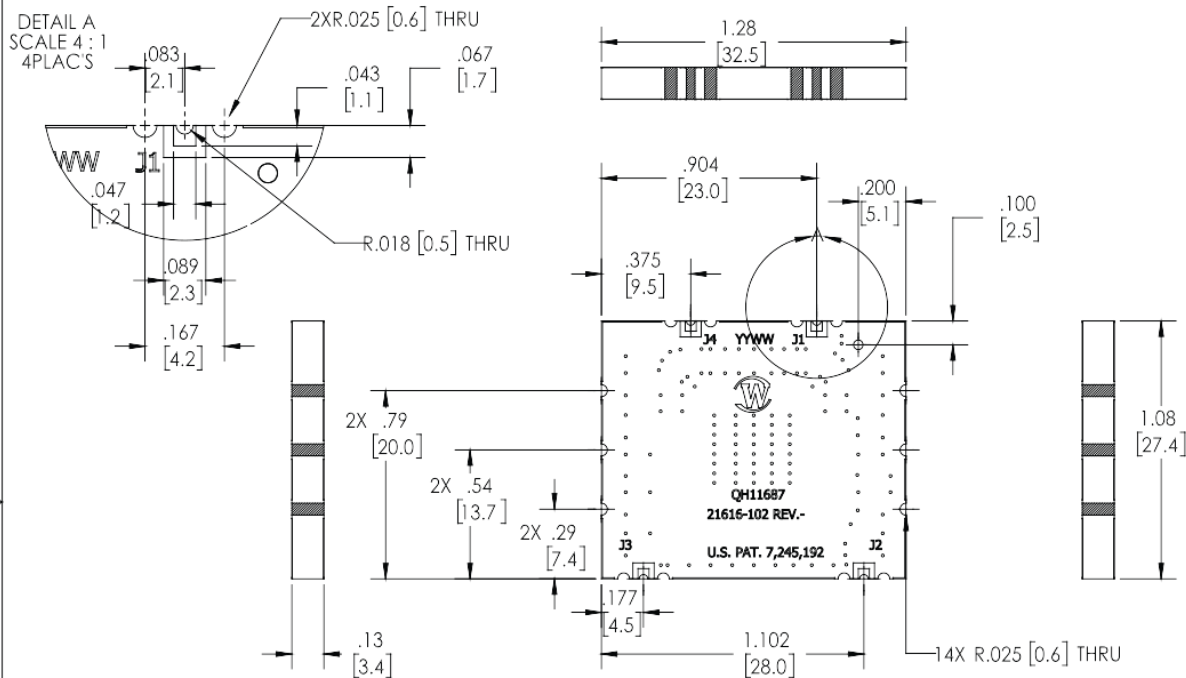
Type: SMT
 Plating Options: QH11687-Ag: Immersion Silver (RoHS)
 Size: 1.28 x 1.08 x 0.13"

Port Configurations:

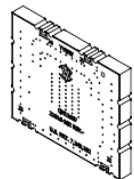
J1	J2	J3	J4
Input	-3 dB, 0°	-3 dB, -90°	Isolated
-3 dB, 0°	Input	Isolated	-3 dB, -90°
-3 dB, -90°	Isolated	Input	-3 dB, 0°
Isolated	-3 dB, -90°	-3 dB, 0°	Input

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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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			
INTERPRET DRAWING IN ACCORDANCE WITH ISO 1502	DATE	6/13/2018	MB
DIMENSIONS ARE IN INCHES (mm)	DATE	12/7/2018	GP
DIMENSIONAL LIMITS APPLY BEFORE PROCESSES	DATE	6/13/2018	MB
TOLERANCES:	DATE	6/13/2018	MB
ANGLES: ± 2°	DATE	6/13/2018	MB
3 PL. ± .005 (1.3)	DATE	6/13/2018	MB
2 PL. ± .015 (1.3)	DATE	6/13/2018	MB
REMOVE ALL BURRS AND SHARP EDGES .01 MAX	DATE	6/13/2018	MB
CONCENTRICITY MACHINED DIA. .002 FIM	DATE	6/13/2018	MB
MACHINE TOOL WEAR .002 MAX	DATE	6/13/2018	MB
APPLICATION	DATE	6/13/2018	MB
THIRD ANGLE PROJECTION	DATE	6/13/2018	MB

W	WERLATONE SINCE 1965	17 Jon Barrett Rd Patterson, NY 12563
SIZE	CAGE CODE	DAWG NO
B	28812	21616-500
SCALE	2:1	SHEET 1 OF 1

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