

PRODUCT DATA SHEET

QH11643

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: 200 - 1000 MHz
Power: 200 W CW
Insertion Loss: 0.4 dB Max.
VSWR: 1.30:1 Max.
Phase Balance: $90^\circ \pm 5^\circ$ dB Max.
Amplitude Balance: ± 0.7 dB Max.
Isolation: 18 dB Min.

Mechanical Specifications:

Type: Surface Mount
Plating Options: QH11643-Pb: Electrodeposited Tin/Lead
QH11643-Sn: Immersion Tin (RoHS Compliant)
QH11643-Ag: Immersion Silver (RoHS Compliant)
Size: 2.8 x 0.75 x 0.16"

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.

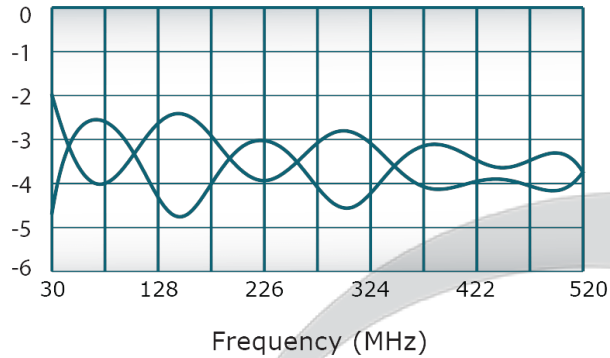


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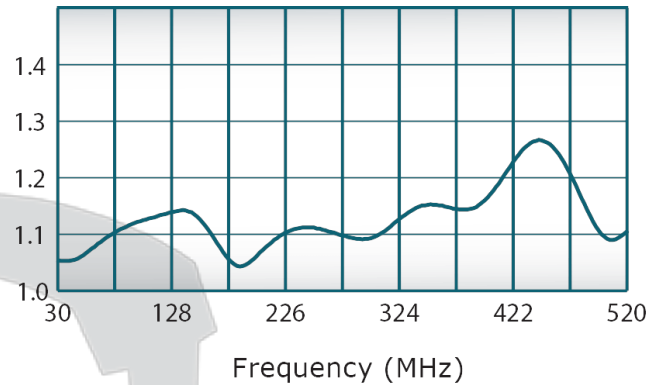
QH11643

Performance Data (Specifications subject to change without notice):

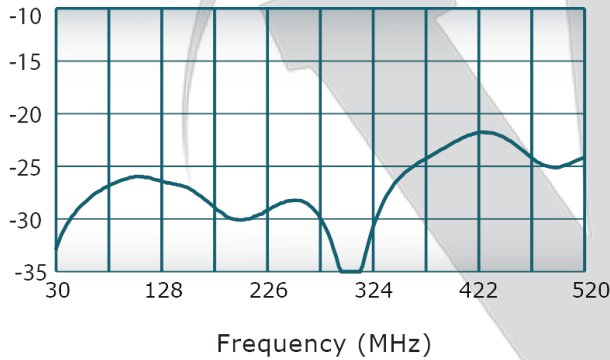
Coupling:



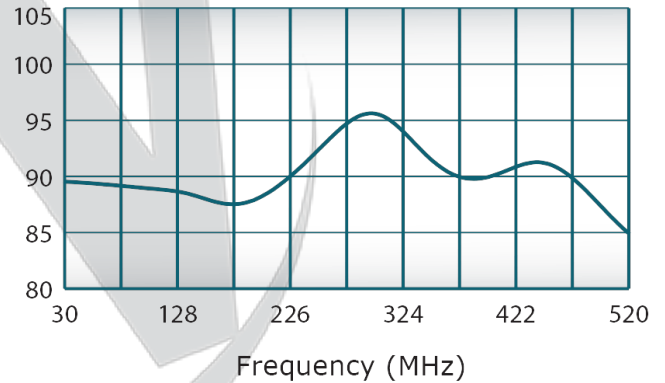
VSWR:



Isolation:



Phase Balance:



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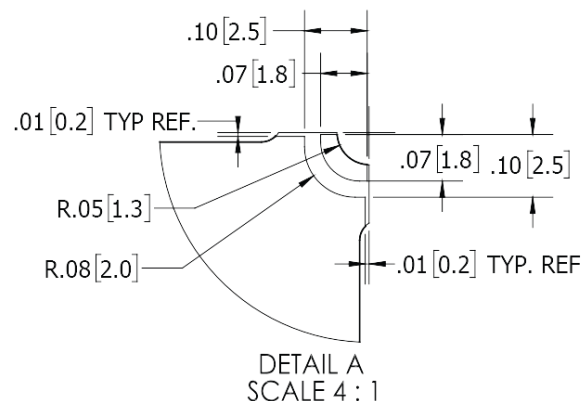
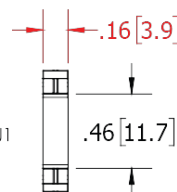
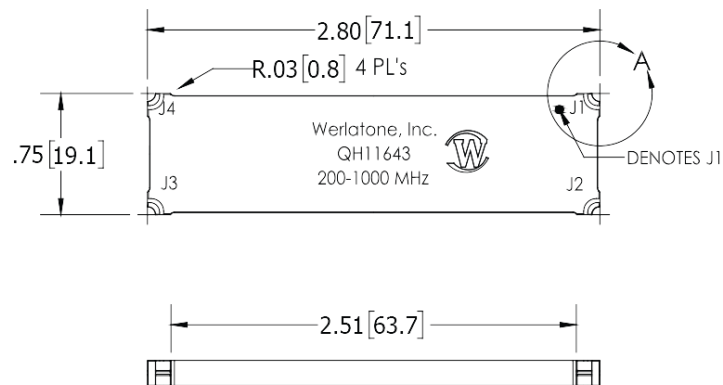
Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com

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REVISION HISTORY

REV.	DESCRIPTION	DATE	APPROVED
-	INITIAL RELEASE	3/9/2018	BW
A	ECN 9543	3/30/2018	BW



NOTES: UNLESS OTHERWISE SPECIFIED

- SEE SMT APPLICATION NOTE FOR FURTHER INFORMATION

P/N	FINISH TYPE
QH11643-Ag	RoHS Imm. Silver
QH11643-Au	RoHS Nickel Gold
QH11643-Pb	ED Tin/Lead
QH11643-Sn	RoHS Imm. Tin

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

		UNLESS OTHERWISE SPECIFIED		DWN	DATE	 WERLATONE SINCE 1965		17 Jon Barrett Rd Patterson, NY 12563	
		• INTERPRET DRAWING IAW MIL-STD-100		GP	3/9/2018			TITLE OUTLINE, QH11643 90° HYBRID COUPLER, 200-1000 MHz, 200 W	
		• DIMENSIONING PER ASME Y14.5M-2009		CHK	DATE				
		• PARENTHEetical INFO FOR REF ONLY		PR	3/9/2018				
		• DIMENSIONS ARE IN INCHES		ENGR	DATE				
		• DIMENSIONAL LIMITS APPLY BEFORE PROCESSING		GP	3/9/2018	SIZE A 28812		DWG NO 21596-500	
		• TOLERANCES:		MFGR	DATE				
		• ANGLES ± 2°		QA	DATE				
		3 PL ± .005		RLSE	DATE				
		2 PL ± .015				SCALE 1:1		SHEET 1 OF 1	
		• REMOVE BURRS AND SHARP EDGES R.01 MAX							
		• CONCENTRICITY MACHINED DIA: .002 FIM							
		• MACHINE TOOL MISMATCH .003 MAX							
NEXT ASSY		QH11643						REV A	
USED ON									
APPLICATION		THIRD ANGLE PROJECTION 							

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