

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.

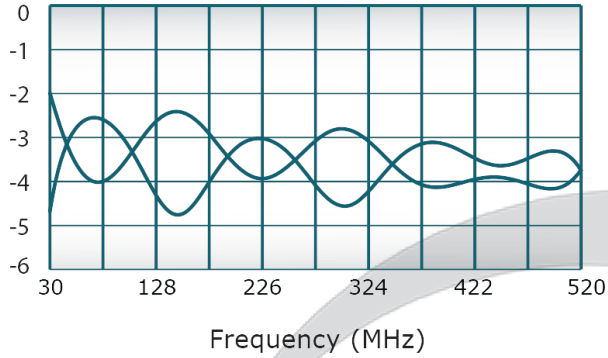


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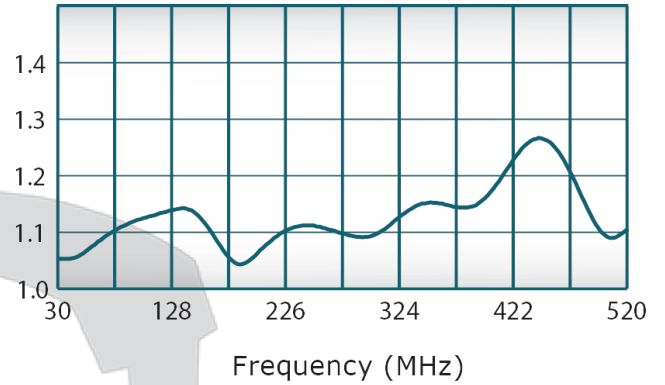
QH11643

Performance Data (Specifications subject to change without notice):

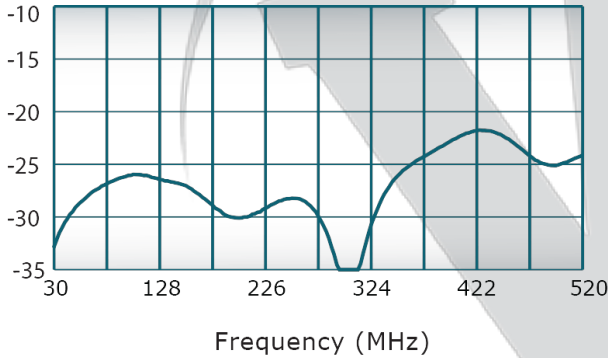
Coupling:



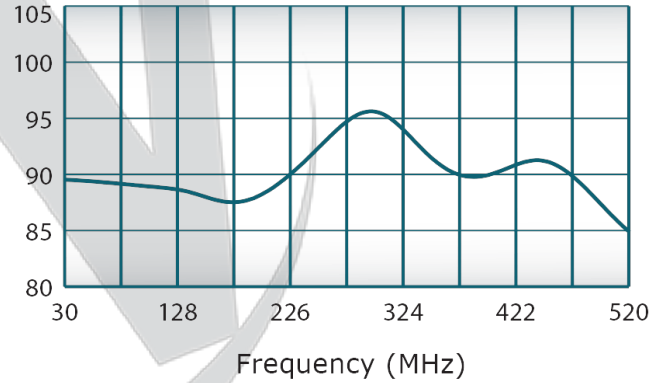
VSWR:



Isolation:



Phase Balance:

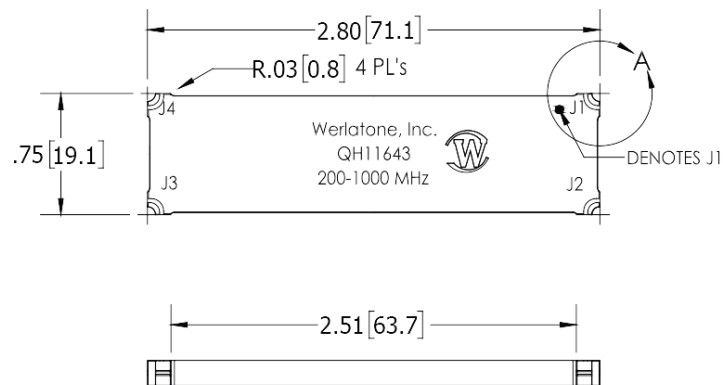


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Werlatone, Inc.
QH11643
200-1000 MHz

DENOTES J1

REVISION HISTORY

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

DETAIL A
SCALE 4 : 1

NOTES: UNLESS OTHERWISE SPECIFIED

- SEE SMT APPLICATION NOTE FOR FURTHER INFORMATION

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

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