Model QH11643
90° Hybrids Surface Mount (SMT) & Drop

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° ± 5° 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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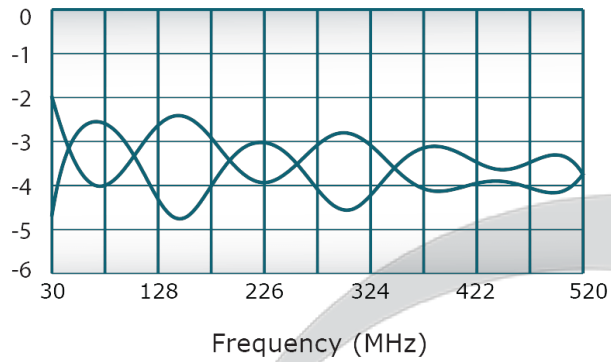
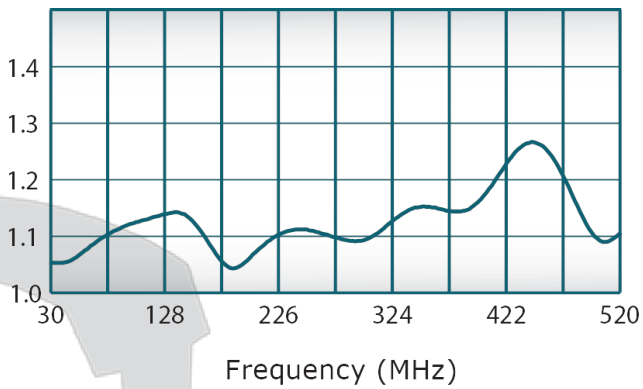
Performance Data (Specifications subject to change without notice):

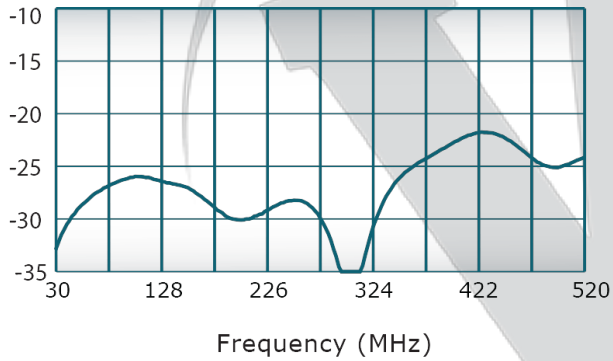
Coupling:



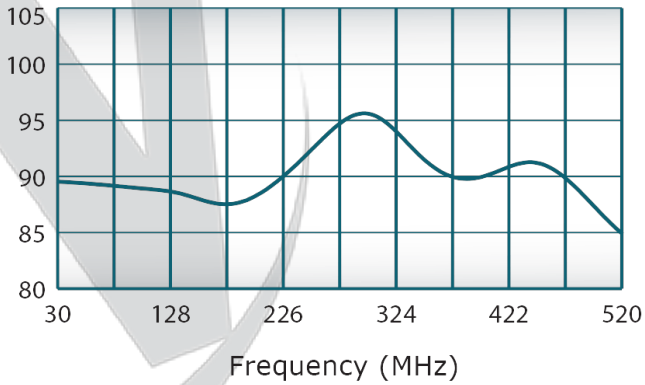
VSWR:



Isolation:



Phase Balance:



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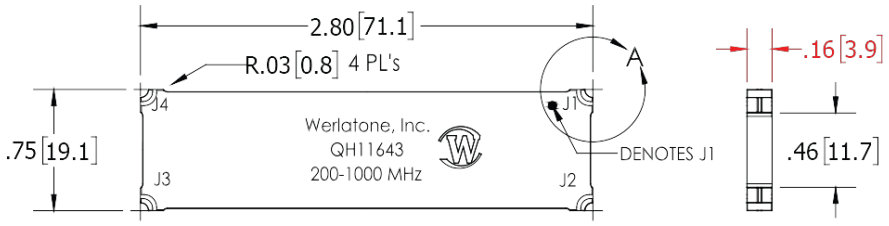
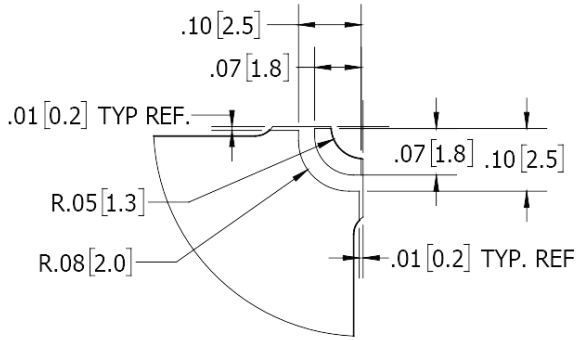
REVISION HISTORY			
REV.	DESCRIPTION	DATE	APPROVED
-	INITIAL RELEASE	3/9/2018	BW
A	ECN 9543	3/30/2018	BW





DETAIL A
SCALE 4 : 1

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

NOTES: UNLESS OTHERWISE SPECIFIED
1. SEE SMT APPLICATION NOTE FOR FURTHER INFORMATION

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

	QH11643
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
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- TOLERANCES:
  ANGLES ± 2°
  3 PL ± .005
  2 PL ± .015
- REMOVE BURRS AND SHARP EDGES R.01 MAX
- CONCENTRICITY MACHINED DIA: .002 FIM
- MACHINE TOOL MISMATCH .003 MAX

THIRD ANGLE PROJECTION

DWN	GP	DATE 3/9/2018
CHK	PR	DATE 3/9/2018
ENGR	GP	DATE 3/9/2018
MFGR		DATE
QA		DATE
RLSE		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	DWG NO	REV
A	28812	21596-500	A

SCALE 1:1 SHEET 1 OF 1

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