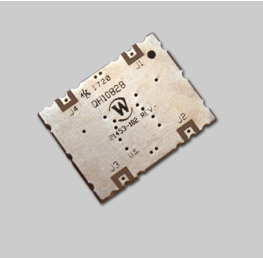
WERLATONE

Model QH10828
90° Hybrids Surface Mount (SMT) & Drop



PRODUCT DATA SHEET **QH10828**

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:	1000 - 8000 MHz
Power:	100 W CW
Insertion Loss	0.9 dB Max.
VSWR:	1.40:1 Max.
Phase Balance:	± 5° dB Max.
Amplitude Balance:	± 0.7 dB Max. (1200-8000 MHz) ± 1.5 dB Max. (1000-1200 MHz)
Isolation:	17 dB Min.

Mechanical Specifications:

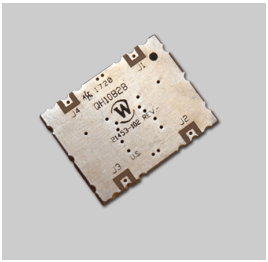
Type:	Surface Mount
Plating Options:	QH10828-Pb: Electrodeposited Tin/Lead QH10828-Sn: Immersion Tin (RoHS Compliant) QH10828-Ag: Immersion Silver (RoHS Compliant)
Size:	0.65 x 0.5 x 0.07''

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.

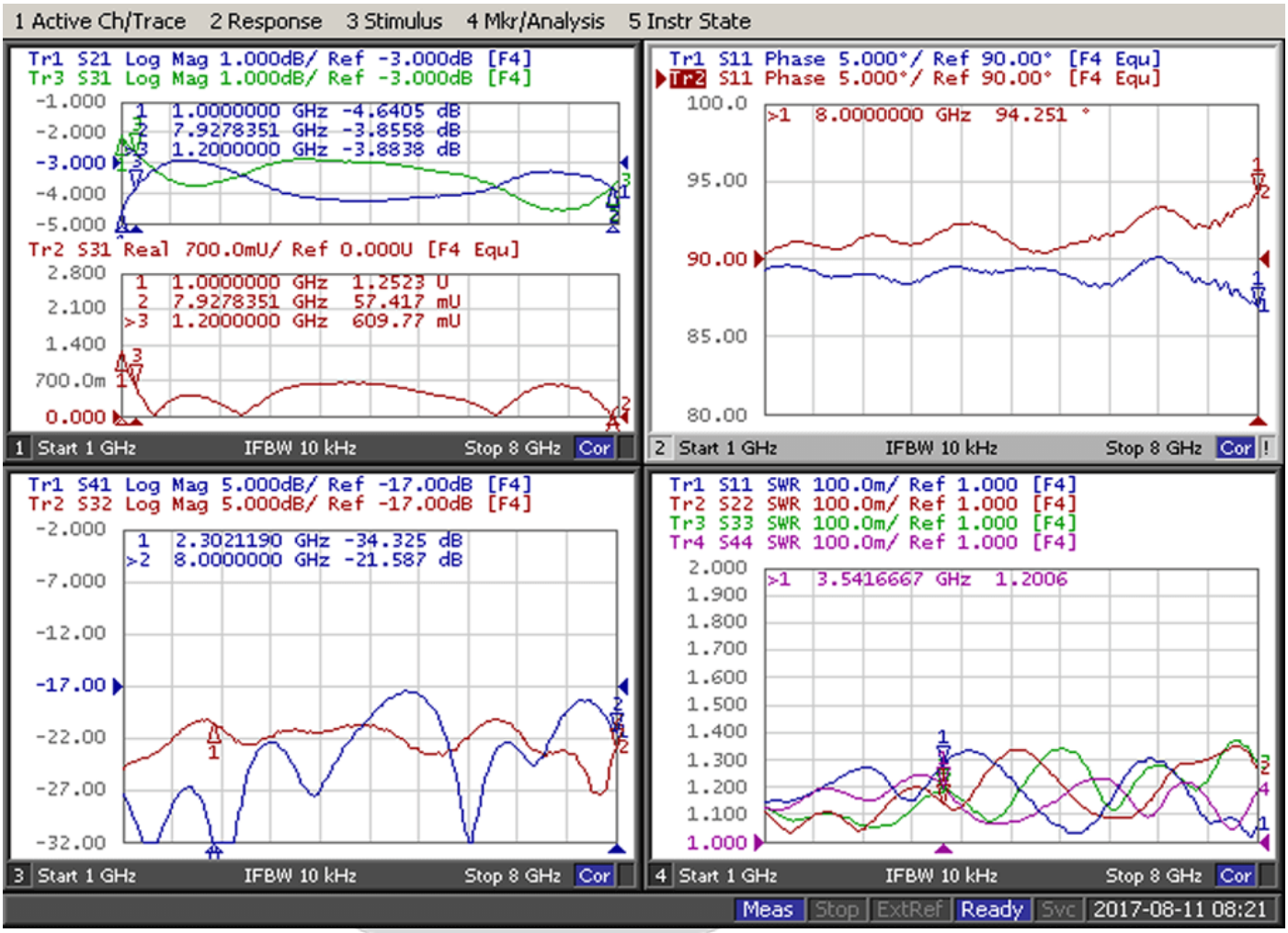
Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com



PRODUCT DATA SHEET **QH10828**

Performance Data (Specifications subject to change without notice):

Plot 1: Coupling & Insertion Loss, Plot 2: Phase Balance, Plot 3: Isolation, Plot 4: VSWR



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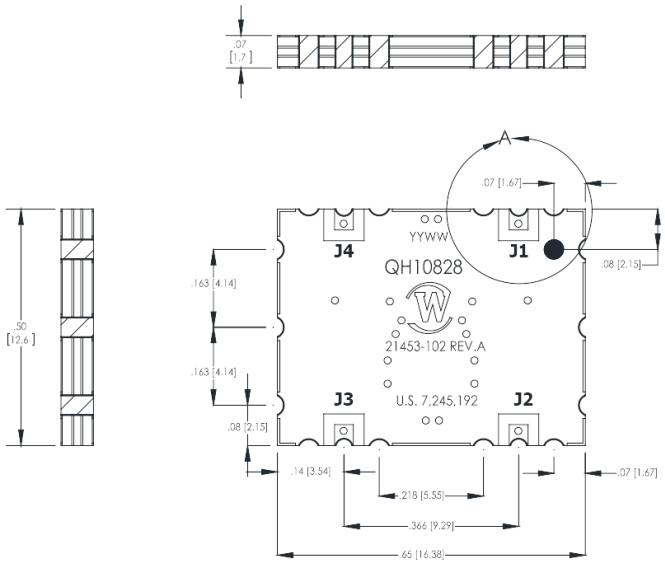
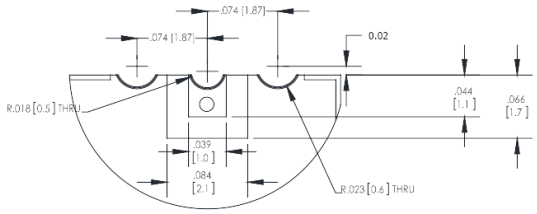
REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
-	PRE-RELEASE	2/1/2017	CS
A	ECN9328	6/1/2017	CS
B	ECN10098	9/16/21	CS





DETAIL A
SCALE 8 : 1

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

ELECTRICAL SPECIFICATIONS

Frequency:	1000 - 8000 MHz
Power:	60 Watts CW
Insertion Loss:	0.9 dB Max.
Amplitude Balance:	±0.7 dB Max. 1200-8000 MHz
	±1.5 dB Max. 1000 - 1200 MHz
Phase Balance:	± 5° Max.
VSWR:	1.4 :1
Isolation:	17 dB Min.

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.**

	QH10828
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]

THIRD ANGLE PROJECTION

DWN	MB	2/1/2017
CHK	BW	2/1/2017
ENGR	MB	2/1/2017
MFGR		
QA		
RLSE		

WERLATONE SINCE 1965
17 Jon Barrett Rd
Patterson, NY 12563

TITLE: OUTLINE

SIZE	CAGE CODE	DWG NO	REV
B	28812	21453-500	B

SCALE 4:1 SHEET 1 OF 1