



WERLATONE

Model QH10319

90° Hybrids Connectorized



PRODUCT DATA SHEET

QH10319

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:	500 - 2800 MHz
Power:	350 W CW
Insertion Loss:	0.45 dB Max.
VSWR:	1.35:1 Max.
Phase Balance:	90° \pm 5° Max.
Amplitude Balance:	\pm 0.6 dB Max.
Isolation:	20 dB Min.

Mechanical Specifications:

Type:	Connectorized
Material:	Aluminum 6061-T6
Surface Finish:	Chem. Film Per MIL-DTL-5541F Type I Class 3 (Yellow Iridite) RoHS Compliant Available
Operating Temperature:	-55°C to +75°C
Storage Temperature:	-60°C to +85°C
Size:	2.91 x 2.29 x 1.15"

Connector Configurations:

Model
QH10319-10

Sum Port (J1)
N Female

0°,90° (J2,J3)
N Female

Iso. Load Port (J4)
N Female

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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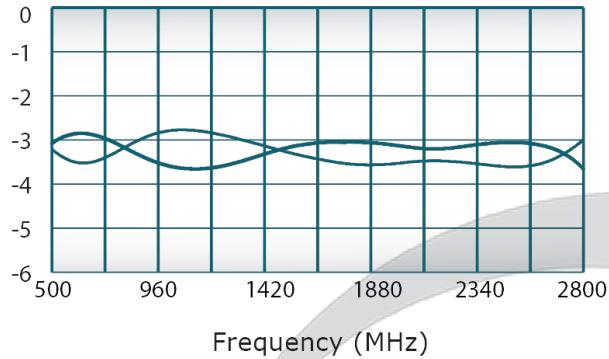


PRODUCT DATA SHEET

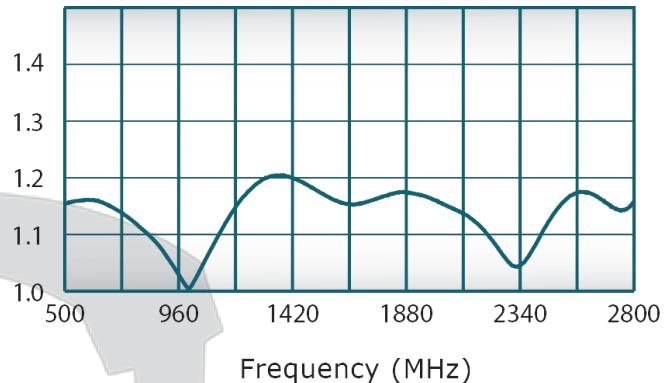
QH10319

Performance Data (Specifications subject to change without notice):

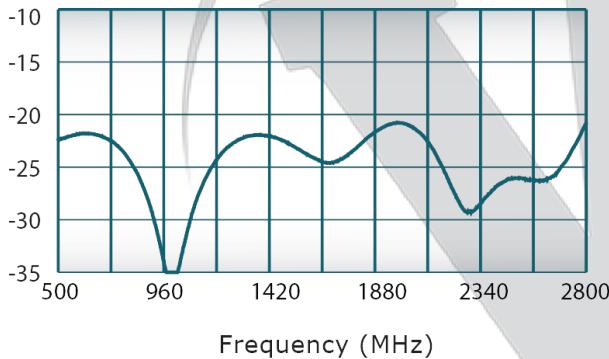
Coupling:



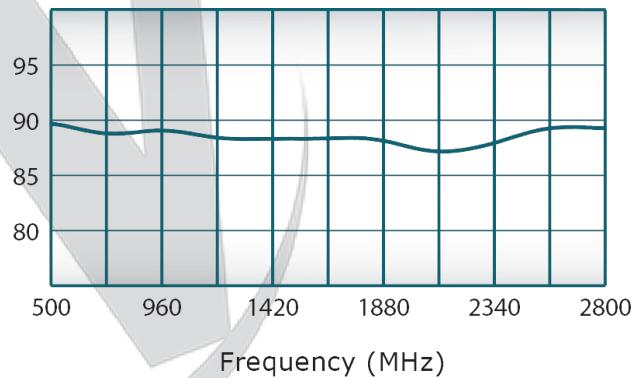
VSWR:



Isolation:



Phase Balance:



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4

3

2

1

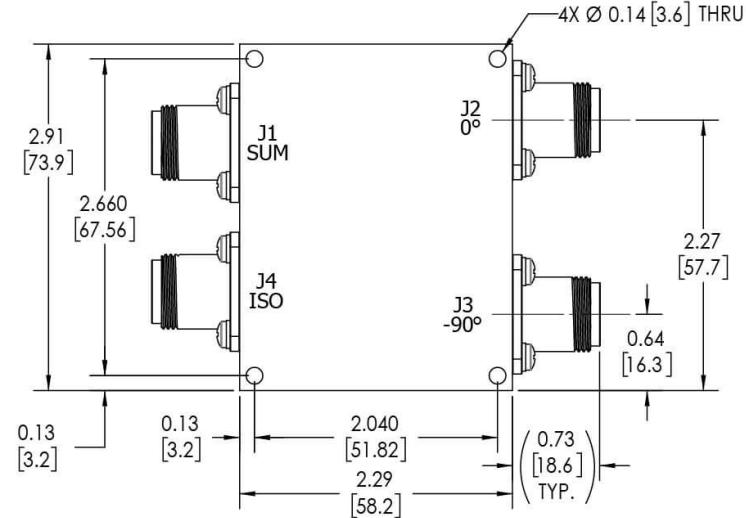
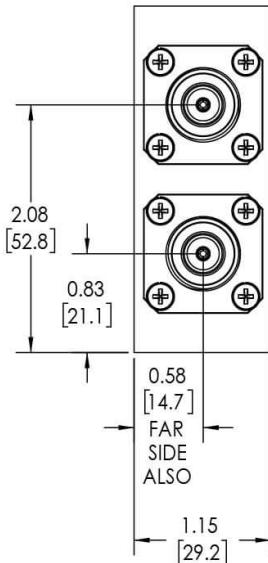
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REVISION HISTORY

REV.	REVISION RECORD	DATE	APPROVED
-	INITIAL RELEASE	3/5/2015	GP
A	ECN 9696	8/21/2019	RB

NOTES: UNLESS OTHERWISE SPECIFIED

1. MATERIAL: ALUMINUM 6061-T6
2. FINISH: CHEM FILM PER MIL-DTL-5541F TYPE I CLASS 3 (YELLOW IRIDITE)
3. CONNECTORS:
J1-J4: N FEMALE



UNLESS OTHERWISE SPECIFIED	DN	DATE	17 Jon Barrett Rd
INTERPRET DRAWING JAW MIL-STD-100	SD	8/21/2019	WERLATONE SINCE 1965
UNLESS OTHERWISE SPECIFIED AS 114-SM-2009	CHK	8/21/2019	17 Jon Barrett Rd
PARENTHETICAL DATA FOR REFERENCE ONLY	CS	DATE	Patterson, NY 12563
DIMENSIONAL LIMITS ARE IN INCHES	ENGR	DATE	
TOLERANCES	MFGR	DATE	
ANGLES $\pm 2^\circ$	QA	DATE	
3 RL $\pm .005$ [1.27]	RELEASE	DATE	
2 RL $\pm .012$ [3.05]			
REMOVE ALL BURRS AND SHARP EDGES R.01 MAX			
CONCENTRICITY MACHINED DIA. .002 FIM			
MACHINE TOOL MISMATCH .003 MAX			
NEXT ASSY	USED ON	SIZE	REV
APPLICATION	THIRD ANGLE PROJECTION	CAGE CODE	
		DWG NO	
		B	A
		21304-500	
		SCALE	
		1:1	
		SHEET	
		1 OF 1	

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