



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: $90^\circ \pm 5^\circ$ Max.
Amplitude Balance: ± 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	Sum Port (J1)	0°,90° (J2,J3)	Iso. Load Port (J4)
QH10319-10	N Female	N Female	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.

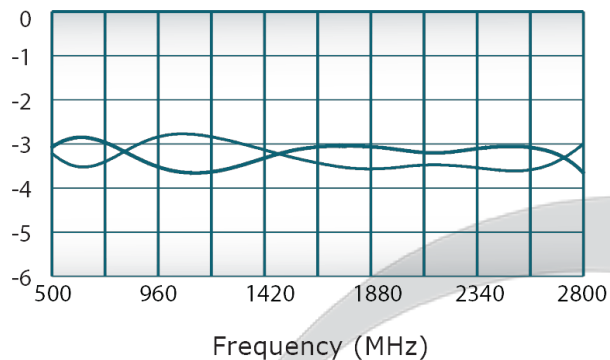


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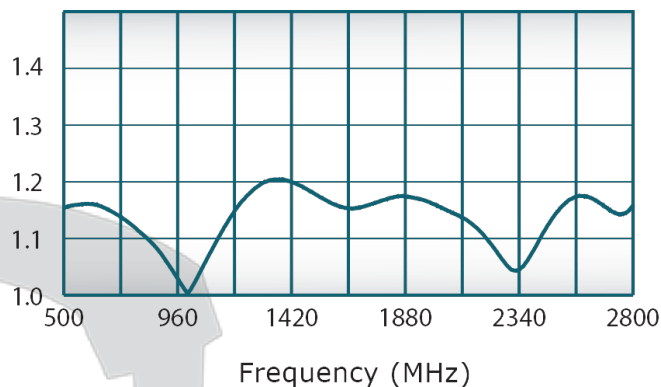
QH10319

Performance Data (Specifications subject to change without notice):

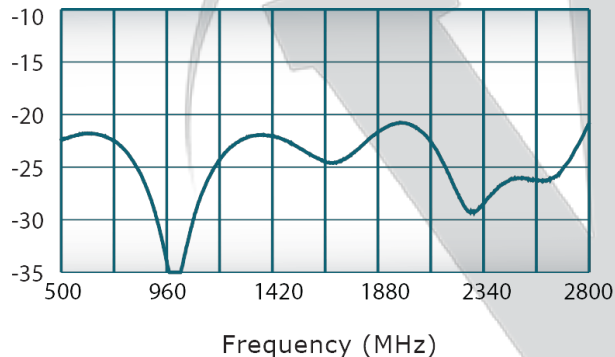
Coupling:



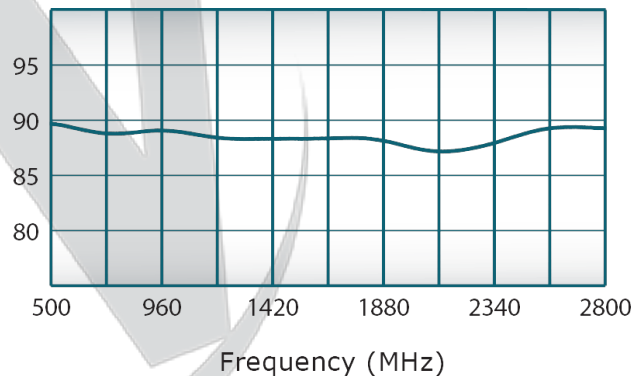
VSWR:



Isolation:



Phase Balance:

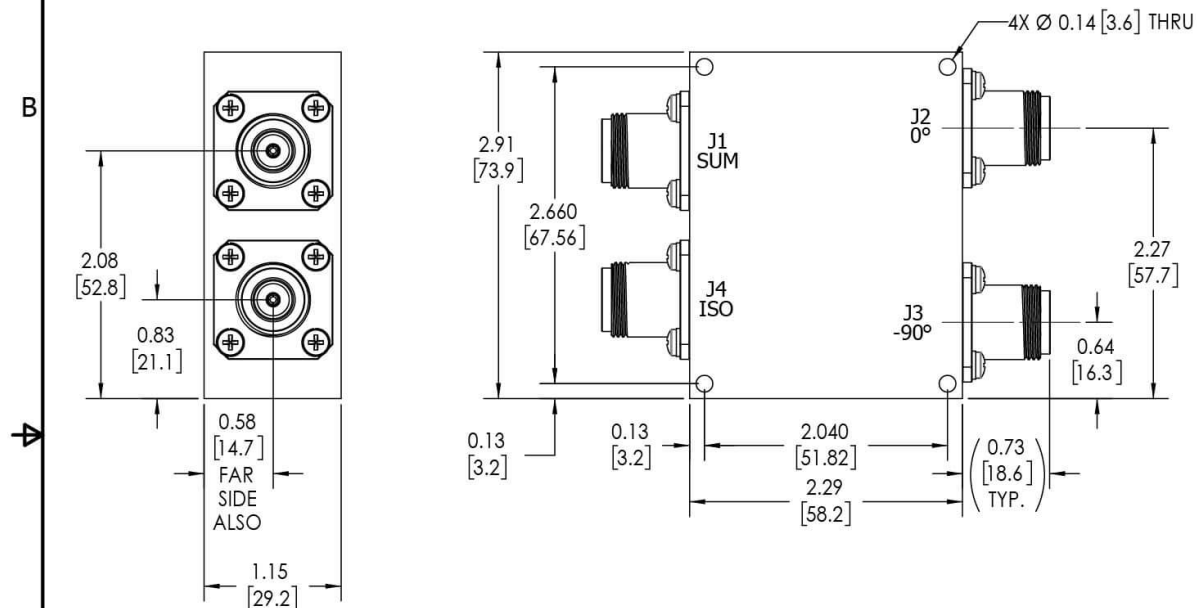


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REVISION HISTORY			
REV.	REVISION RECORD	DATE	APPROVED
-	INITIAL RELEASE	3/5/2015	GP
A	ECN 9696	8/21/2019	RB

NOTES: UNLESS OTHERWISE SPECIFIED

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



		UNLESS OTHERWISE SPECIFIED		OWN	DATE	 WERLATONE SINCE 1965		17 Jon Barrett Rd Patterson, NY 12563	
		INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100		SD	8/21/2019	TITLE		OUTLINE	
		DIMENSIONING FOR ASME Y14.5M-2009		CHK	DATE				
		PARENTHESES FOR REF ONLY		CS	8/21/2019	SIZE CAGE CODE DWG NO		21304-500	
		DIMENSIONS ARE IN INCHES		ENGR	DATE				
		DIMENSIONAL LIMITS APPLY BEFORE PROCESSES		INFR	DATE	SCALE		1:1	
		TOLERANCES:		QA	DATE				
		ANGLES ± 2°		RLSE	DATE	SHEET 1 OF 1		A	
		3 PL ± .005 [13]		THIRD ANGLE PROJECTION					
		2 PL ± .015 [38]							
		REMOVE ALL BURRS AND SHARP EDGES R.01 MAX							
		CONCENTRICITY MACHINED DIA. .002 FIM							
		MACHINE TOOL MISMATCH .003 MAX							
NEXT ASSY		USED ON							
APPLICATION									

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