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° ± 5° 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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Werlatone, Inc. 17 Jon Barrett Road Patterson, NY 12563 T:(845)278-2220 F:(845)278-3440 sales@werlatone.com www.werlatone.com

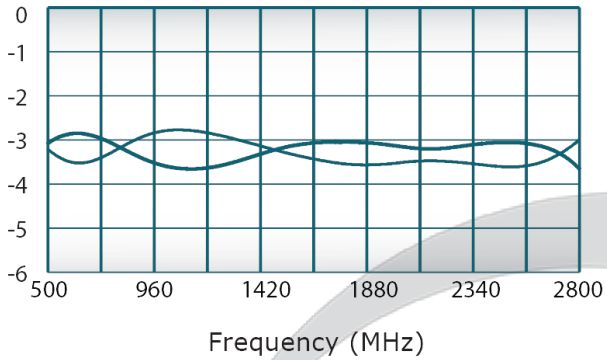
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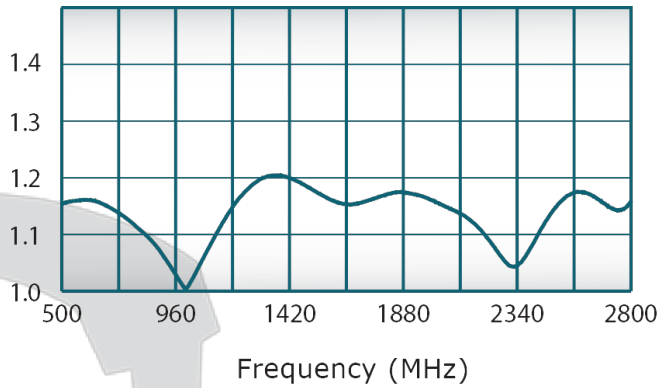


## Performance Data (Specifications subject to change without notice):

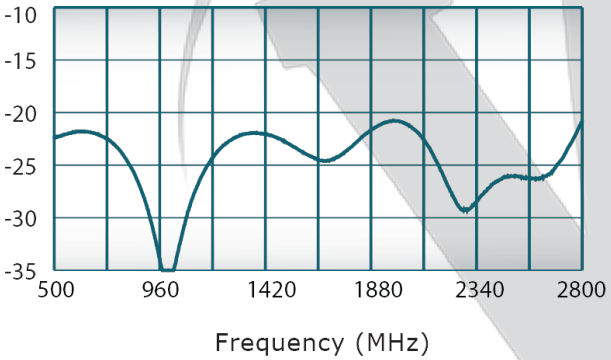
Coupling:



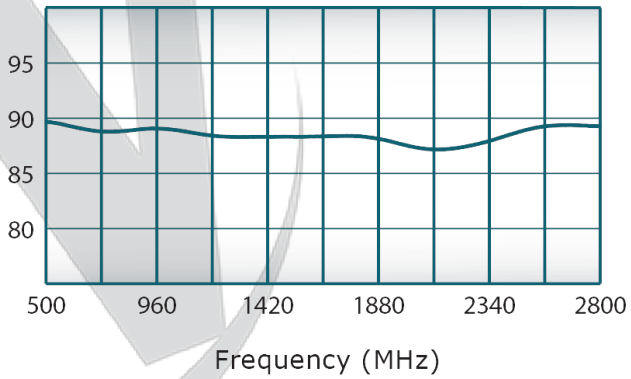

VSWR:




Isolation:




Phase Balance:

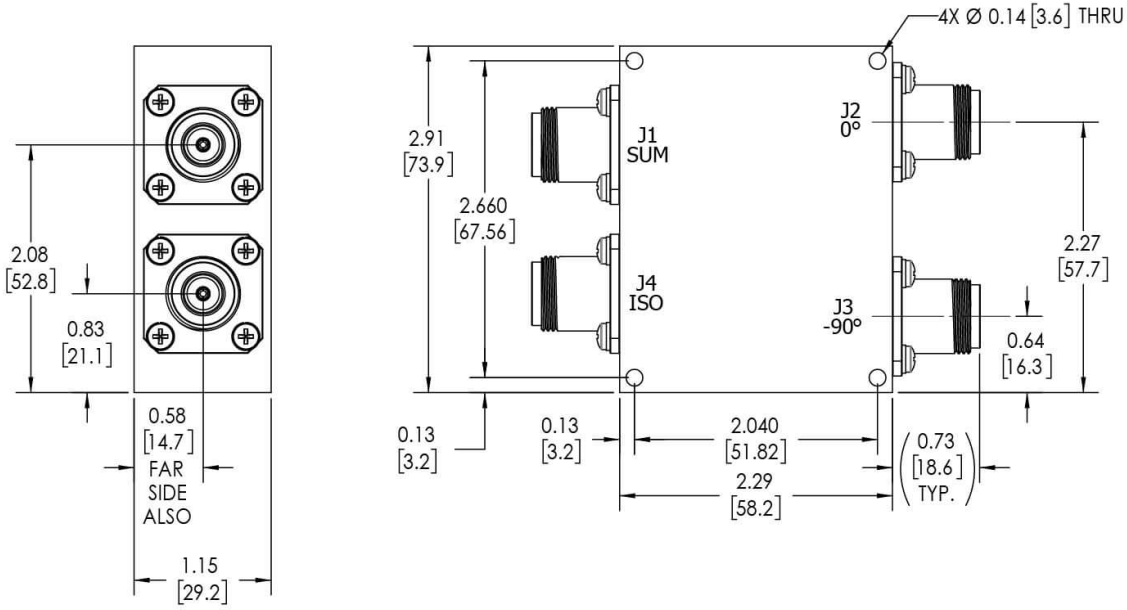



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| REVISION HISTORY | | | |
|---|---|---|---|
| REV. | REVISION RECORD | DATE | APPROVED |
| - | INITIAL RELEASE | 3/5/2015 | GP |
| A | ECN 9696 | 8/21/2019 | RB |

**NOTES: UNLESS OTHERWISE SPECIFIED**
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**




| | | | | | |
|---|---|---|---|---|---|
| NEXT ASSY | USED ON | 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 [.13], 2 PL ± .015 [.38]; REMOVE ALL BURRS AND SHARP EDGES R.01 MAX; CONCENTRICITY MACHINED DIA: .002 FIM; MACHINE TOOL MISMATCH .003 MAX | DWN SD 8/21/2019 | WERLATONE\| SINCE 1965 | 17 Jon Barrett Rd Patterson, NY 12563 |
| APPLICATION | | | CHK CS 8/21/2019 | TITLE: OUTLINE | |
| | | THIRD ANGLE PROJECTION | ENGR | SIZE B | CAGE CODE | DWG NO 21304-500 | REV A |
| | | | MFGR | SCALE 1:1 | | SHEET 1 OF 1 | |
| | | | QA | | | | |
| | | | RLSE | | | | |

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