

500 Watt 90° *HYBR-LINE* Coupler



50-110 MHz

Model: HBL-50-110-R5B



| | |
|---------------------------|------------------------------|
| Frequency: | 50 - 110 MHz |
| Amplitude Balance: | ±0.50 dB Max. |
| Power: | 500 Watts CW |
| Phase Balance: | ± 1.5° Typical |
| Insertion Loss: | 0.20 dB Max. |
| Isolation: | 23 dB Min. |
| VSWR: | 1.15:1 Max. All Ports |

HBL Series Drop-In Hybrid couplers provide High Power dividing or combining while exhibiting excellent phase and amplitude balance over continuous broad-band operation. Solid compact designs are able to operate in a wide variety of environments, which include Medical, Industrial, Commercial wireless, Military, and Space. The **P₃** library of designs allows for modifications of standard designs to be made quickly and inexpensively to meet specific requirements with short delivery times. Please consult the factory for any special requirements or frequency ranges.

NOTES:

Material: Aluminum Alloy. 6061-T651
 Finish: Chem-Film, Clear Irridite MIL-DTL-5541F
 Operating Temperature: -55°C to +85°C

Specifications subject to change without notice

Technical drawing showing dimensions and specifications for the HBL-50-110-R5B coupler. Dimensions include overall length (5.000), lead spacing (1.000, 2.000, 3.000, 4.000), and lead width (0.120). Lead length is 0.200. The drawing also shows the location of the IN and ISO ports and the placement of 10 .100 DIA THRU holes. A side view shows a lead width of .11 and a .030 MAX. EYELET PROJECTION.

NOTES:

- TOLERANCE IS ±.020, (UNLESS OTHERWISE SPECIFIED)
- LEAD WIDTH: .120" TYP.
- LEAD LENGTH: .200" TYP.
- LEAD MATERIAL: 99.99% PURE SILVER (.005" THK.)

| PHASE RELATIONSHIP FOR 90° HYBRIDS | | | | |
|------------------------------------|-------------|-------------|-------------|-------------|
| INPUT | OUTPUT | | | |
| | A | B | C | D |
| A | --- | Termination | 0° | -90° |
| B | Termination | --- | -90° | 0° |
| C | 0° | -90° | --- | Termination |
| D | -90° | 0° | Termination | --- |