

## Directional Coupler 15 dB N-Female from 130 MHz to 520 MHz

### Directional Couplers Technical Data Sheet

**C-1352-15**

#### Description

Directional couplers are important components for use in isolating, separating, replicating, and combining microwave signals. They can serve as accurate attenuator measurements as they eliminate reflections. They are incredibly useful in sampling RF signals for use in detectors, gain control and feedback loops.

The C-1352-15 is part of Werbel Microwave's catalog of single and dual directional couplers that offer a wide range of coupling values and frequency ranges. Available with N female connectors.



| Specification   | Min | Typ.     | Max          | Units |
|---|-----|----------|--------------|-------|
| Frequency   | 130 |          | 520          | MHz   |
| Impedance   |     | 50       |              | Ohm   |
| Coupling  |     | 15 ± 1.5 |              | dB    |
| Frequency Sensitivity (Flatness)  |     |          | ± 1.20       | dB    |
| Insertion Loss Measured at Highest Frequency<br>(above theoretical coupling/splitting loss) |     |          | 0.5<br>(0.2) | dB    |
| Directivity   | 20  | 25       |              | dB    |
| Main Line VSWR  |     | 1.10     | 1.30         | :1    |
| Secondary Line VSWR   |     | 1.20     | 1.30         | :1    |
| Input Power (CW) into max load VSWR   |     |          | 200          | Watts |
| Reverse Power (CW) into max load VSWR   |     |          | 200          | Watts |
| Termination   |     |          | 1            | Watts |

#### Mechanical

|                        |                       |
|------------------------|-----------------------|
| Connector Interface    | N-Female              |
| Operating Temperature* | -55 to +85 °C         |
| Storage Temperature    | -55 to +100 °C        |
| Weight                 | 20 oz (570 g)         |
| Humidity               | 10-90% non-condensing |
| Environment            | Indoors Use Only      |

#### Materials

##### RoHS and REACH Compliant

|            |                        |
|------------|------------------------|
| Enclosure  | Aluminum               |
| Connectors | Brass, Tri-Alloy Plate |
| Contacts   | Be Cu, Gold Plated     |
| Insulators | PTFE                   |
| Finish     | Clear Chem Film        |

\* Design to meet based on materials. Production-tested at +25 °C. External heatsink and convection cooling recommended to maintain body temperature below +50 °C.



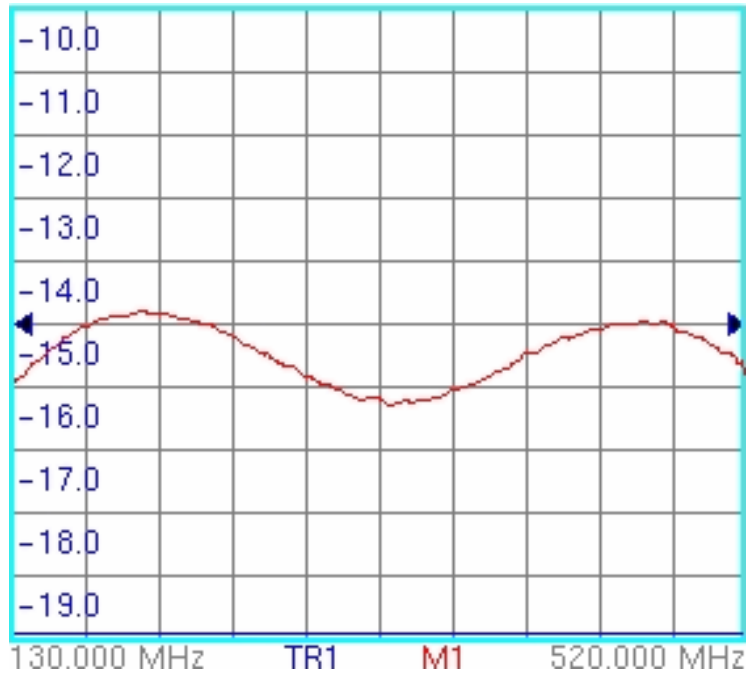
**MADE IN USA**

**ISO 9001:2015**

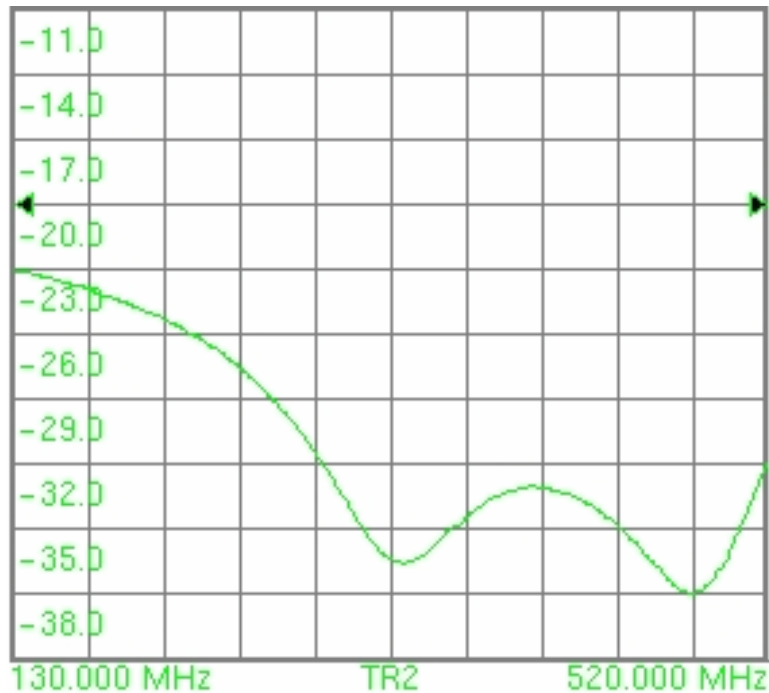
**Certified Company**

## Typical Performance at +25 °C

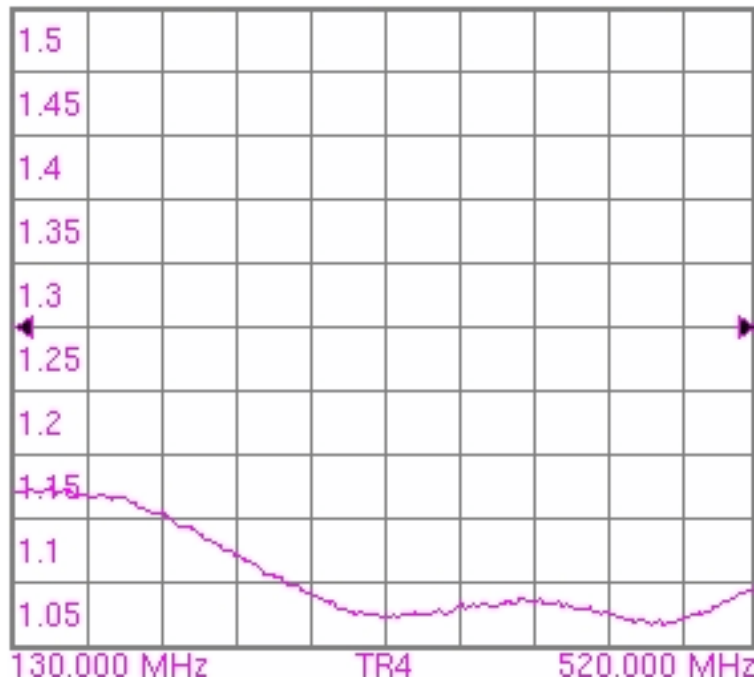
### Coupling Value and Flatness



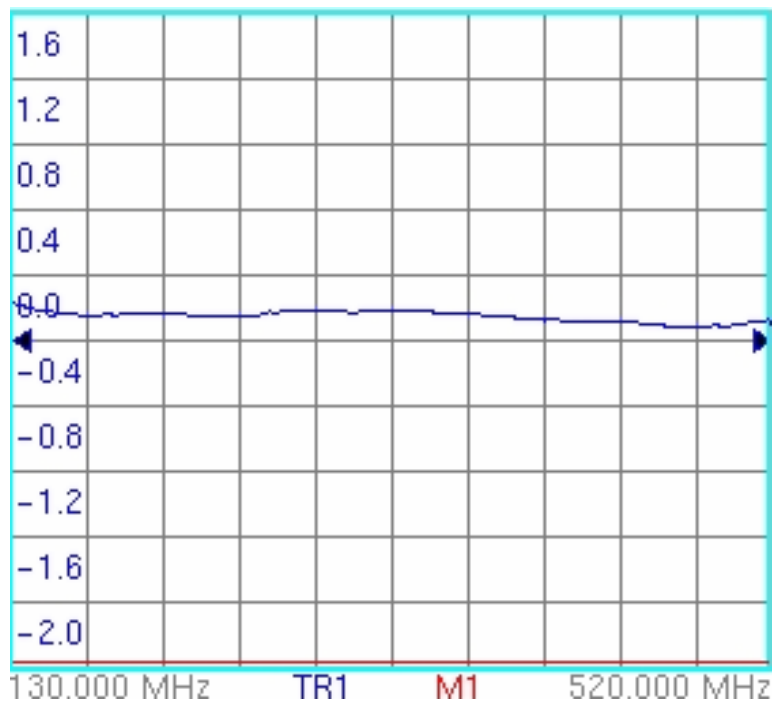
### Directionality



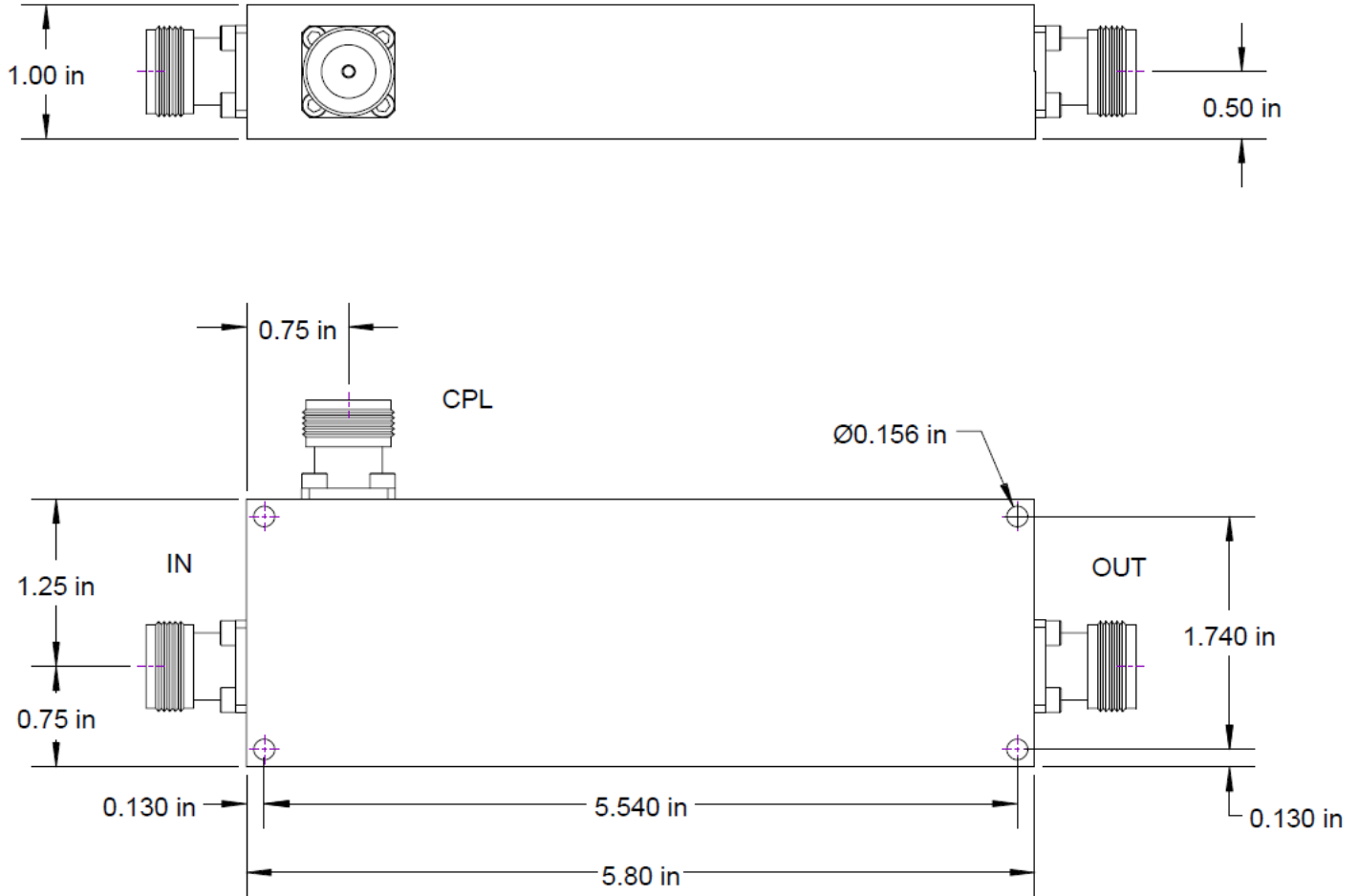
## Return Loss



## Insertion Loss



## Outline Dimensions



Outline # OL-1352-N

Dimensions are in inches, [mm] shown for convenience.

Tolerances on 2-pl decimals:  $\pm .03$ . 3-pl decimals:  $\pm .015$ .

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