

High Power Dual Directional Coupler, 80-1,000MHz WMHPDDC-80-1000M-40dB-N

Description

Model WMHPDDC-80-1000M-40dB-N from Werbel Microwave is a dual directional coupler that covers 80 MHz to 1 GHz. This catalog model features 40dB coupling factor in both forward and reverse directionals. The catalog model ships with N Female connectors at all ports. Custom configurations of dB values and connector types are available. Consult the factory with your requirements.

The forward and reverse coupled outputs are independently isolated, which means that a mismatch on one coupled port will not affect the other. This is a useful characteristic in amplifier power monitoring applications where a good VSWR cannot always be guaranteed at the detector input.



Photo is representative.

| Specifications | L | M | H | Units |
|----------------------------------|--------|---------|----------|----------|
| Frequency | 80-130 | 130-520 | 520-1000 | MHz |
| Impedance | -- | 50 | -- | Ohm |
| Coupling | -- | 40 | -- | dB, typ. |
| Frequency Sensitivity (Flatness) | -- | ± 3.5 | -- | dB, max. |
| Mainline Loss ¹ | 0.1 | 0.2 | 0.3 | dB, max. |
| Directivity | 25 | 20 | 18 | dB, min. |
| Return Loss (In and Out) | 21 | 21 | 21 | dB, min. |
| Input Power (CW) ² | 500 | 200 | 60 | Watts |

Mechanical

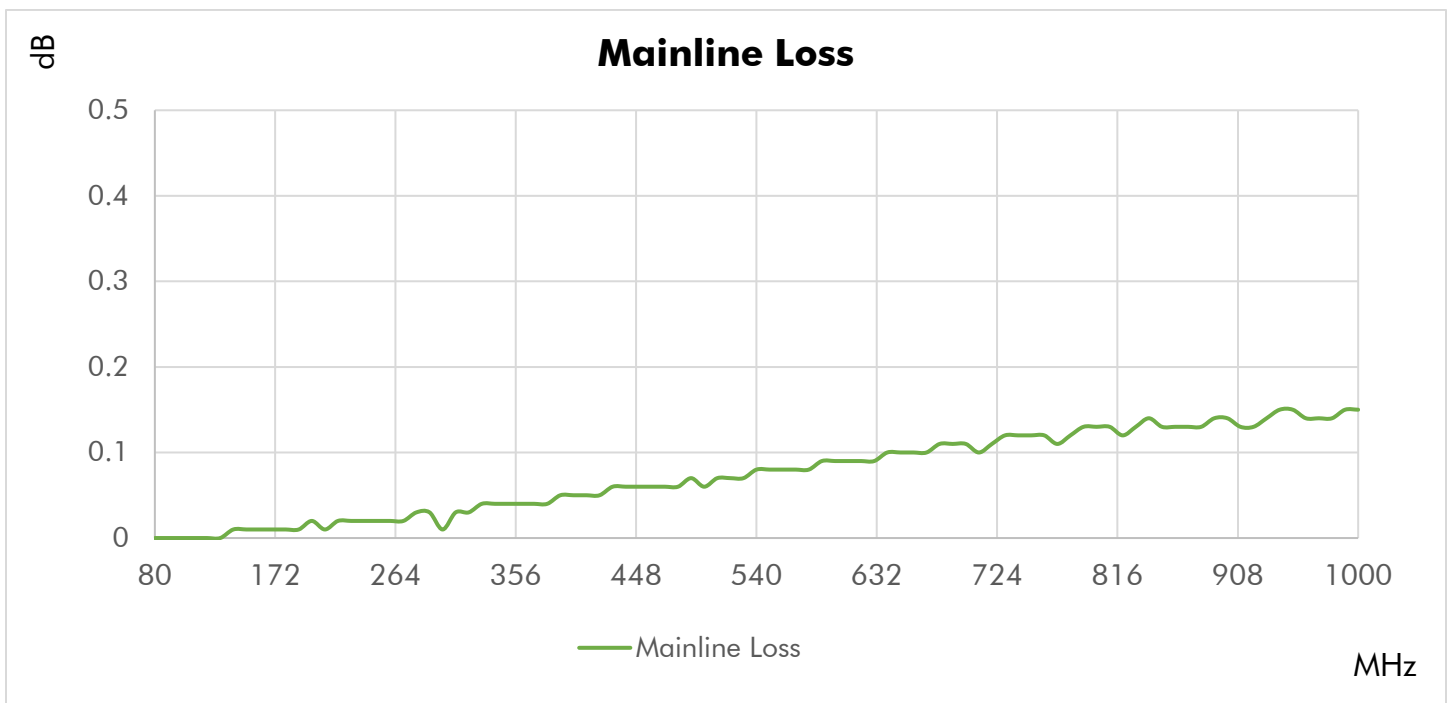
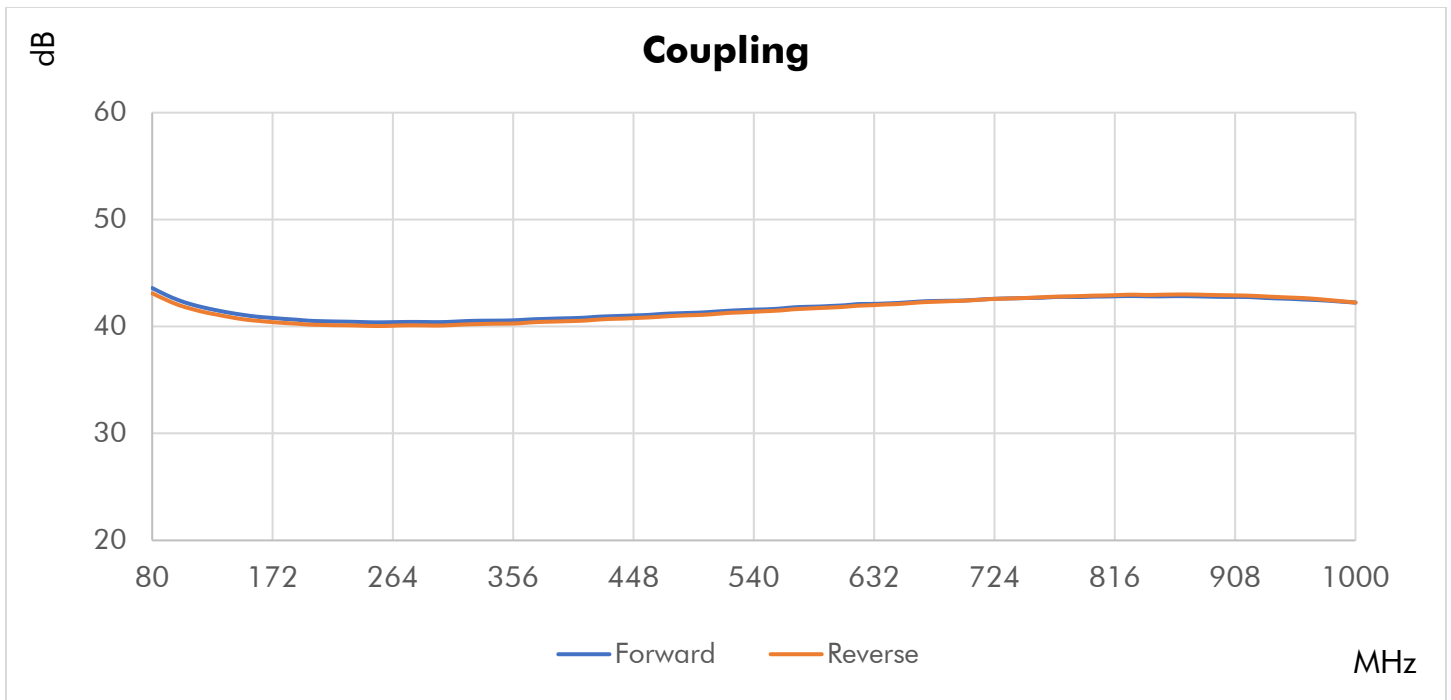
| | |
|--|-----------------------|
| Connector Interface | N-Female |
| Operating Temperature ³ | -10 to +65 °C |
| Thermal compound between mounting surface and base plate is recommended. | |
| Storage Temperature | -55 to +100 °C |
| Weight | 10.5 oz (298 g) |
| Humidity | 10-90% non-condensing |
| Environment | Indoors Use Only |

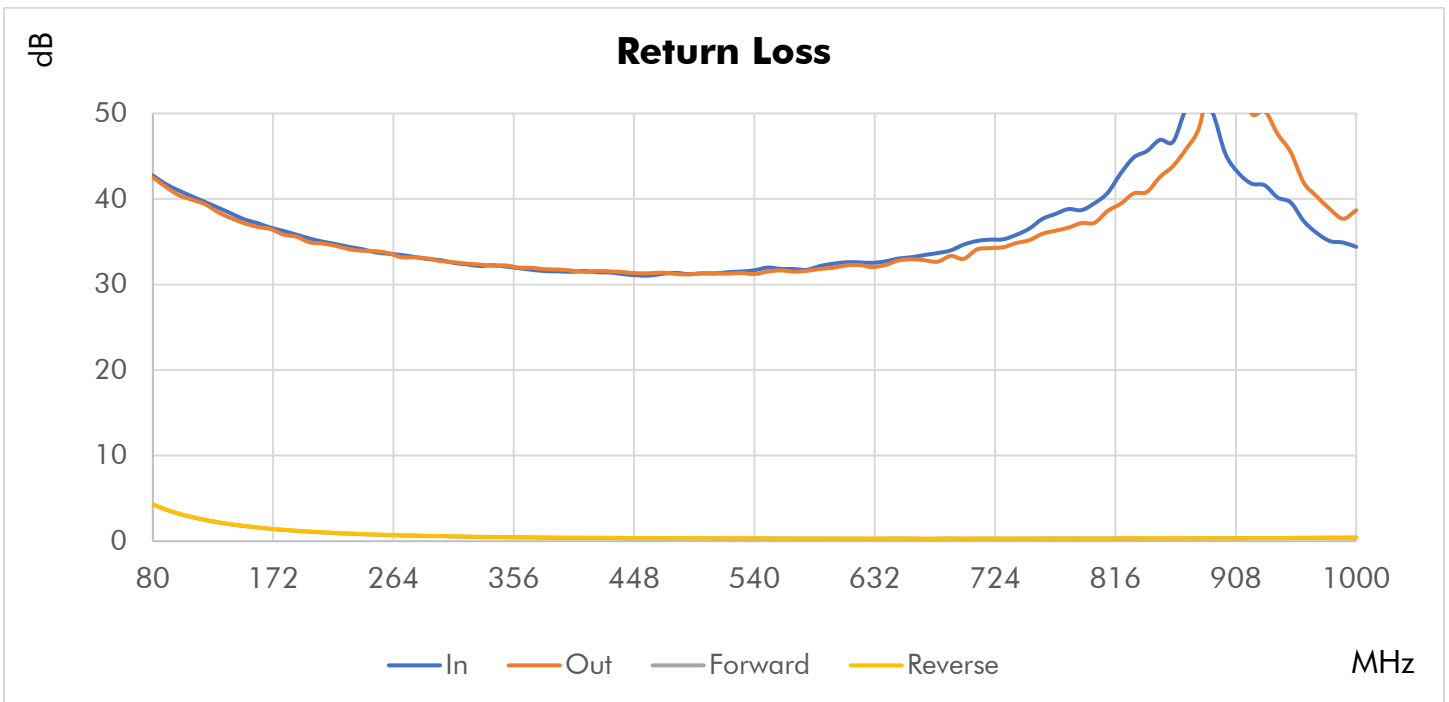
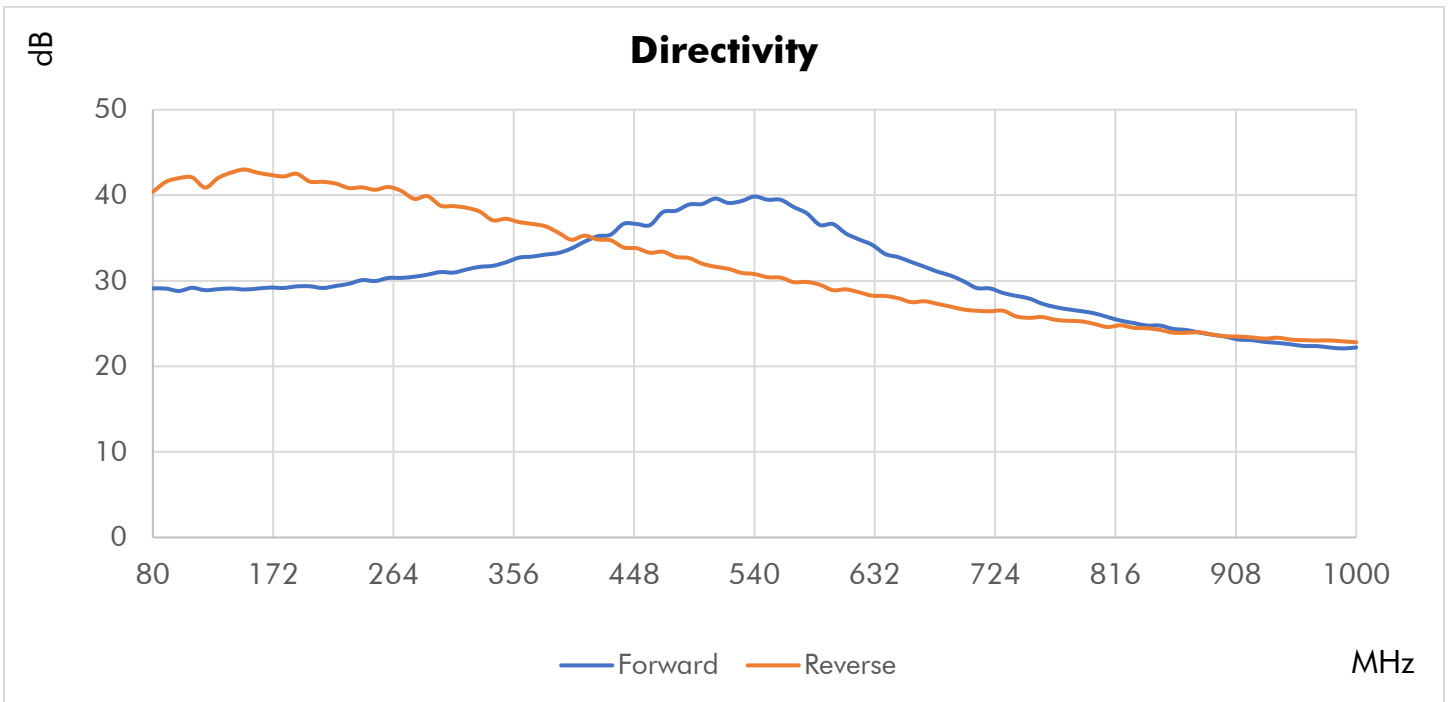
1. Mainline loss includes coupling loss.
2. All output ports should be terminated in a 50-ohm load with 1.2:1 max VSWR.
3. Electrical specifications at +25 °C.
4. To the best of our knowledge at time of publication.

Materials

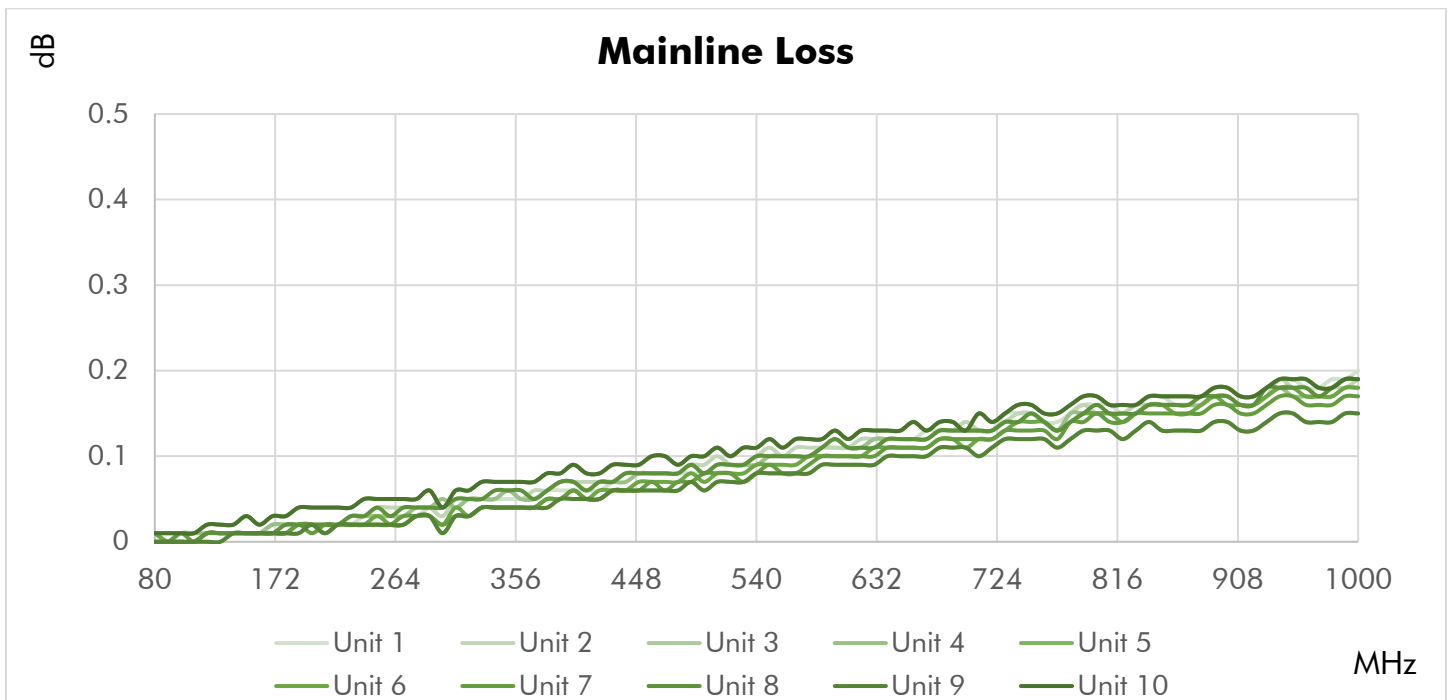
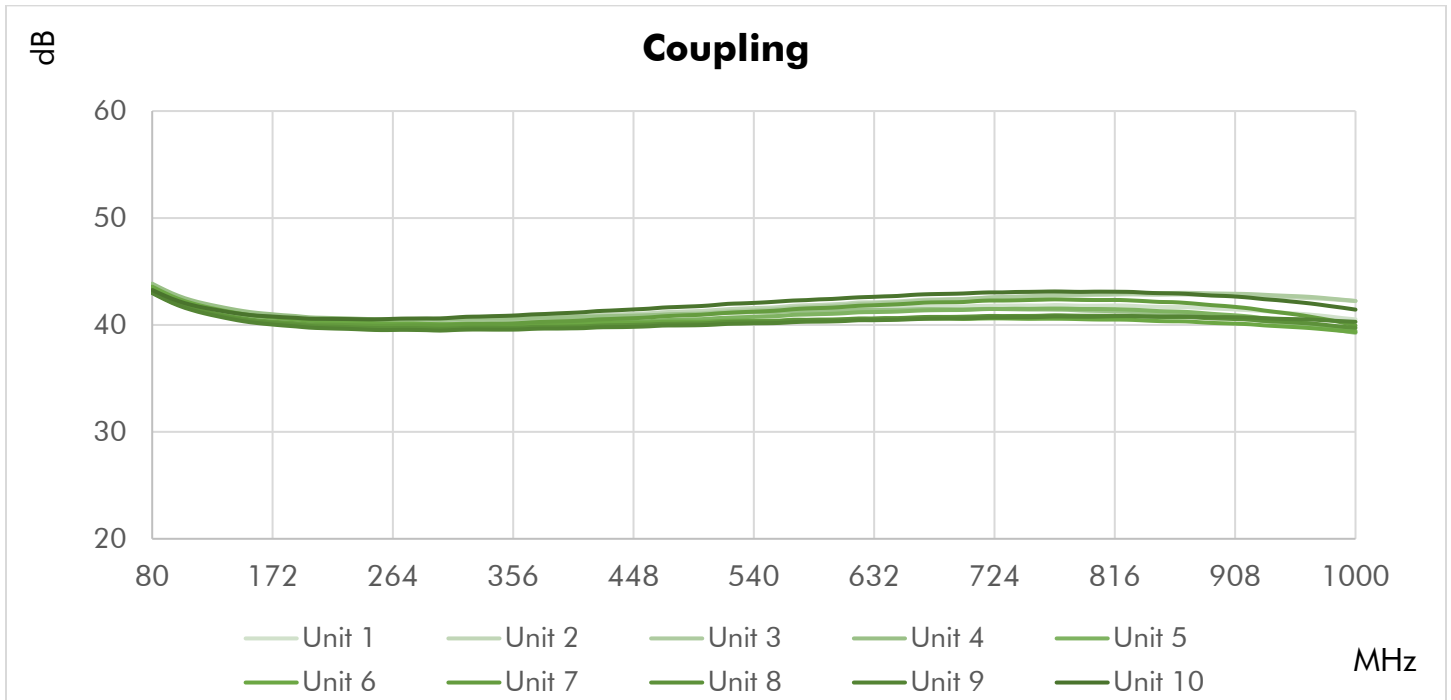
| | |
|---------------------------------------|-----------------------|
| RoHS and REACH Compliant ⁴ | |
| Enclosure | Aluminum |
| Connectors | Stainless Steel |
| Contacts | Be Cu, Gold Plated |
| Insulators | PTFE |
| Finish (Outer) | Green Paint |
| Finish (Mounting Surface) | Clear Conversion Film |

Typical Performance at +25 °C

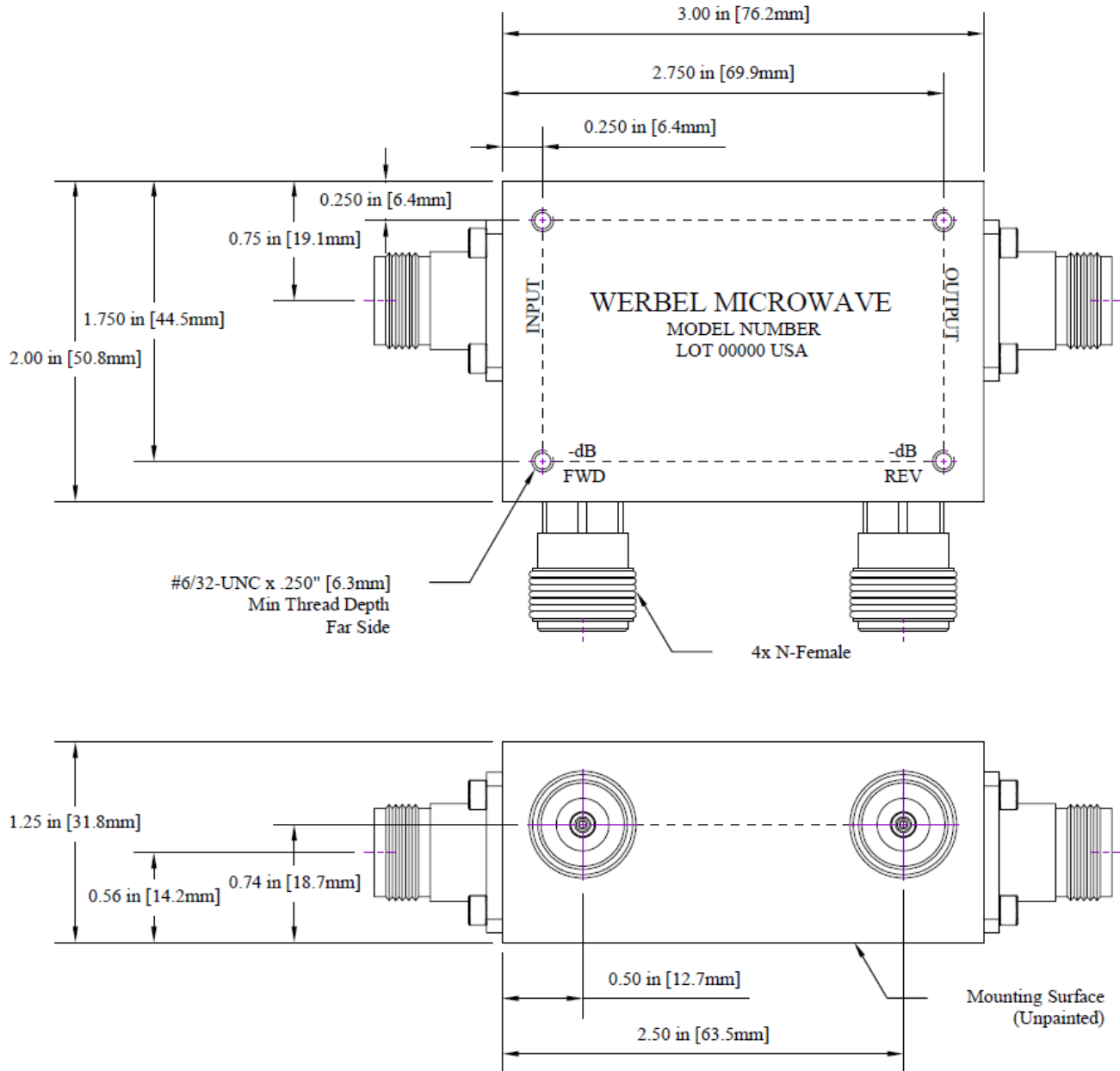




Repeatability in Production



Outline Dimensions



Outline # OL-5018-N

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

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

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or documentation of the part, in order to implement improvements. Werbel Microwave LLC reserves the right to make such changes as required without notice. Unless otherwise stated, all specifications and dimensions are nominal. Werbel Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Werbel Microwave LLC does not assume any liability arising out of the use of any part of documentation. This document gives only a description of the product(s) and shall not form part of any contract. Please contact a Werbel Microwave LLC Applications Engineer for the most current specification drawing.