

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.
Isolation	65	60	58	dB, typ.
Return Loss (In and Out)	21	21	21	dB, min.
Input Power (CW) ²	500	200	60	Watts

Mechanical

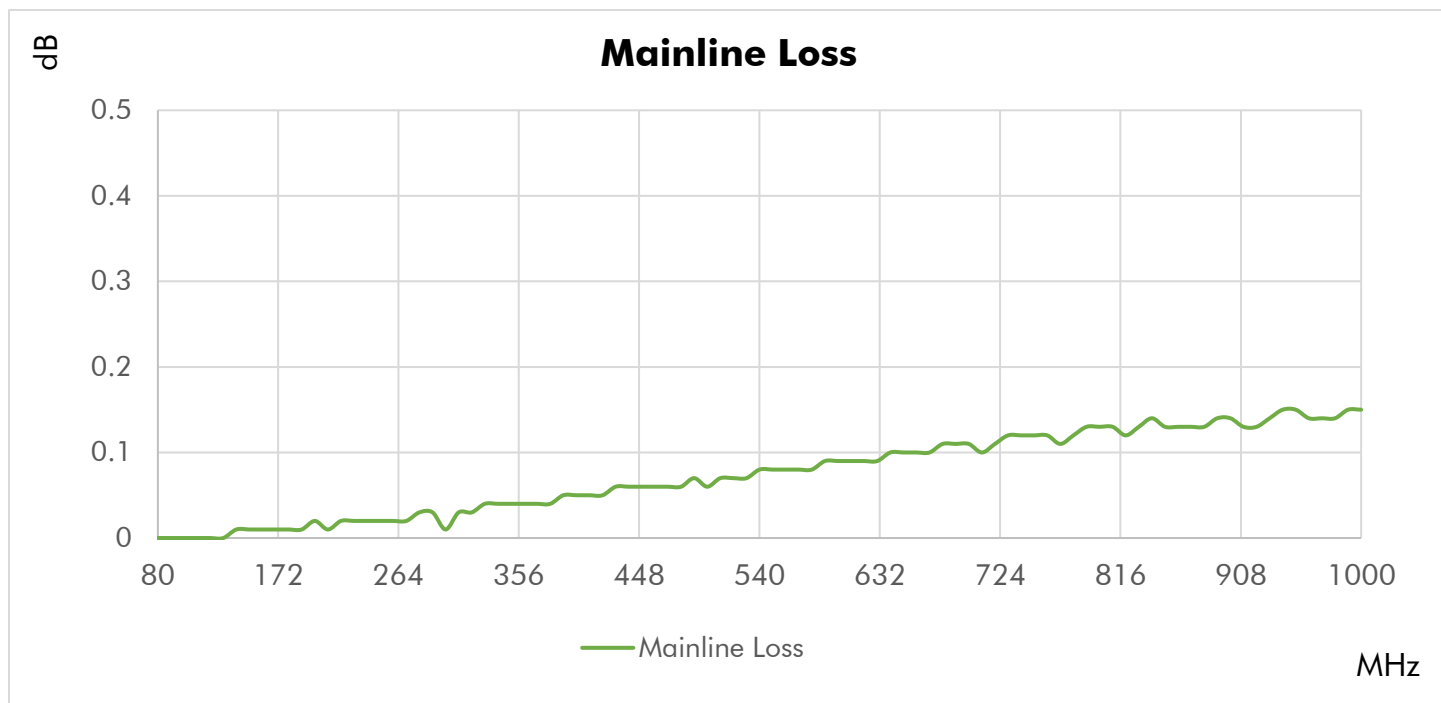
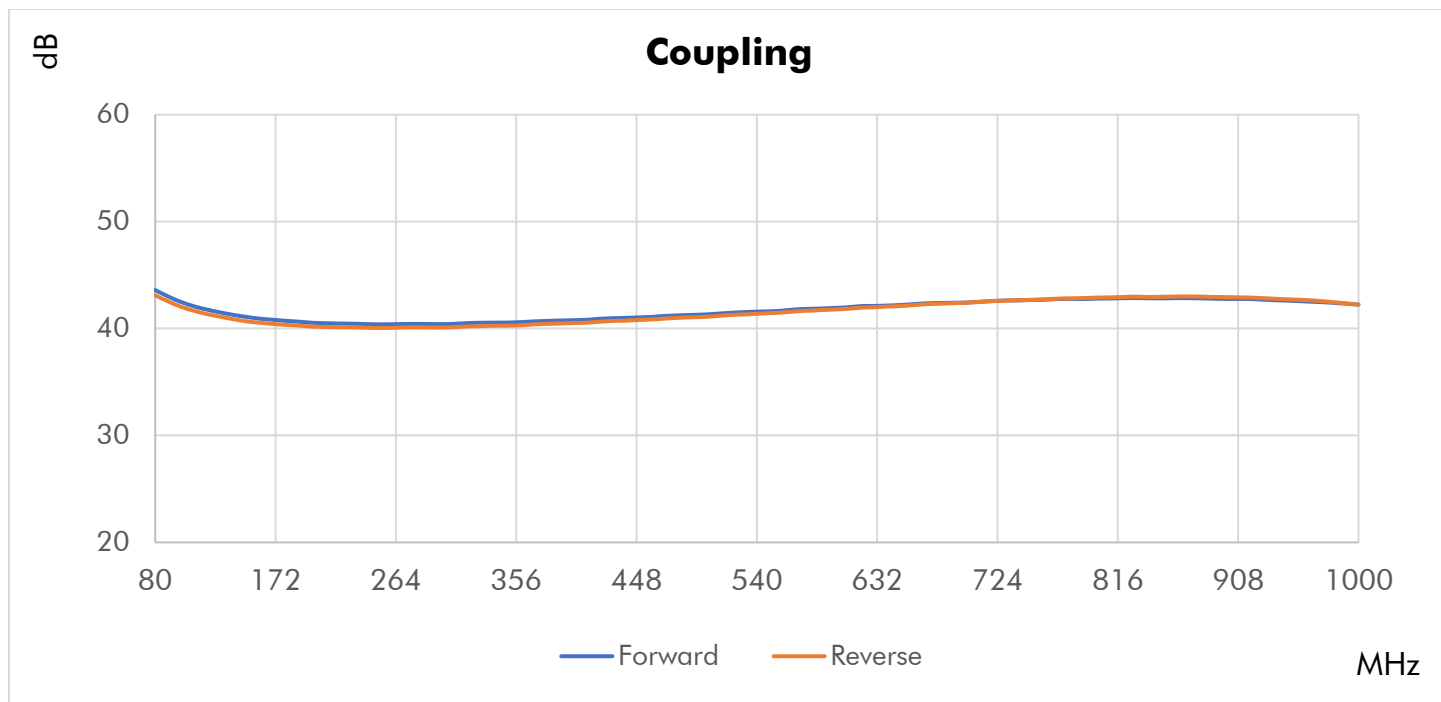
Connector Interface	N-Female
Operating Temperature ³	-10 to +65 °C
Thermal compound between mounting surface and base plate is recommended.	
Storage Temperature	-55 to +100 °C
Weight	10.5 oz (298 g)
Humidity	10-90% non-condensing
Environment	Indoors Use Only

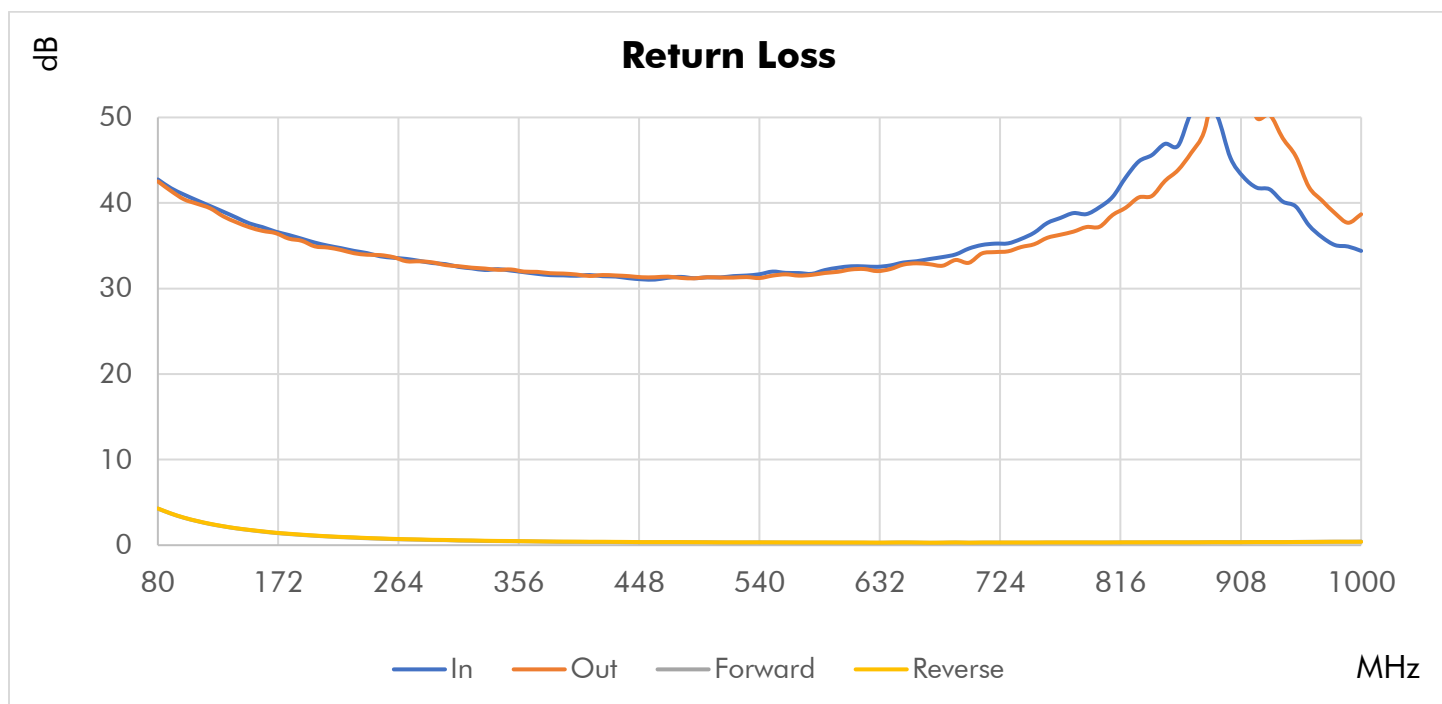
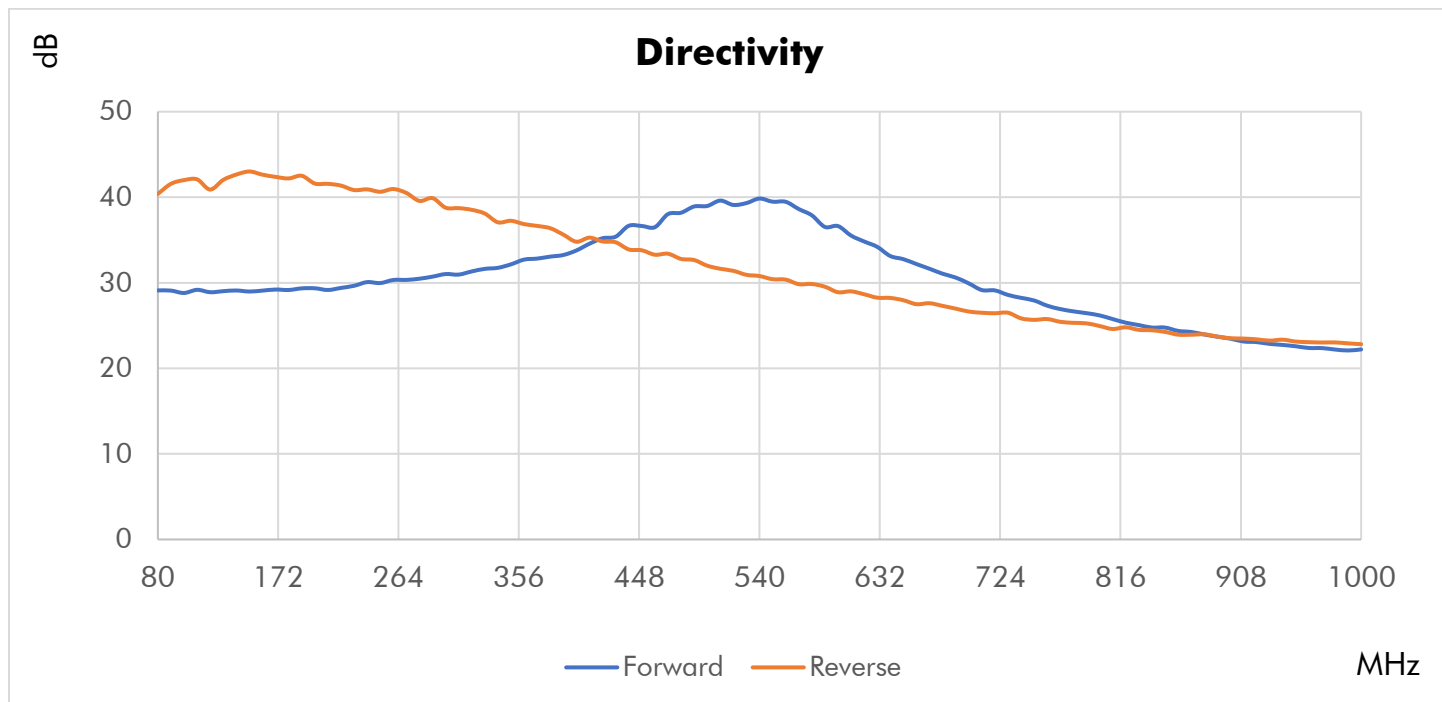
1. Mainline loss includes coupling loss.
2. All output ports should be terminated in a 50-ohm load with 1.2:1 max VSWR.
3. Electrical specifications at +25 °C.
4. To the best of our knowledge at time of publication.

Materials

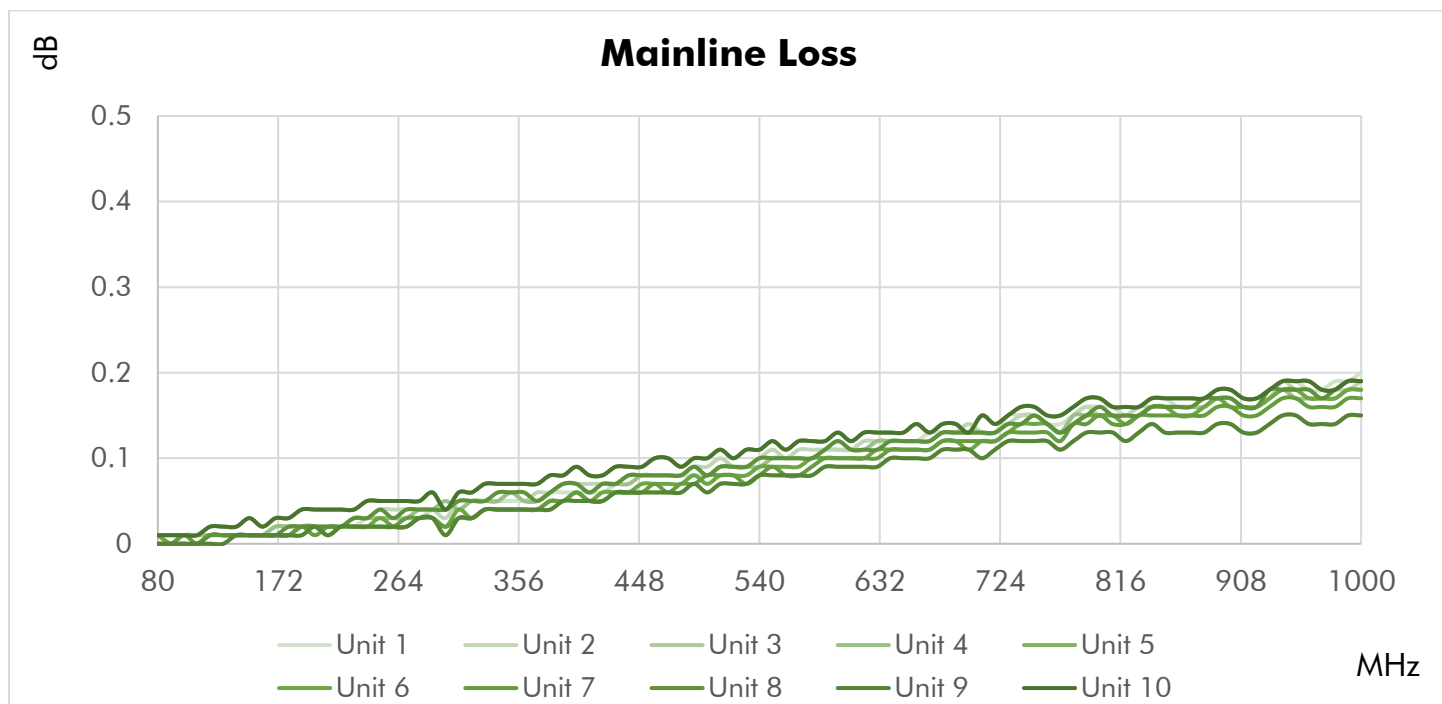
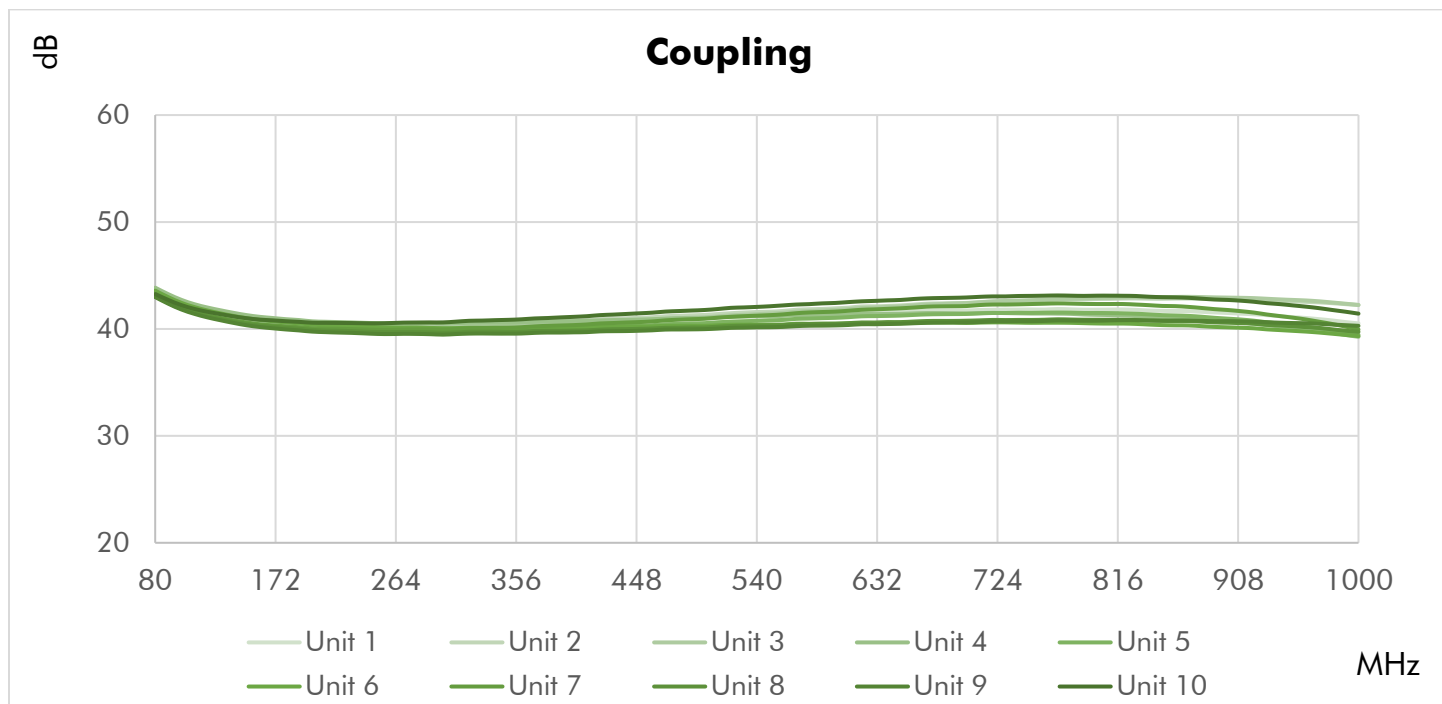
RoHS and REACH Compliant ⁴	
Enclosure	Aluminum
Connectors	Stainless Steel
Contacts	Be Cu, Gold Plated
Insulators	PTFE
Finish (Outer)	Green Paint
Finish (Mounting Surface)	Clear Conversion Film

Typical Performance at +25 °C

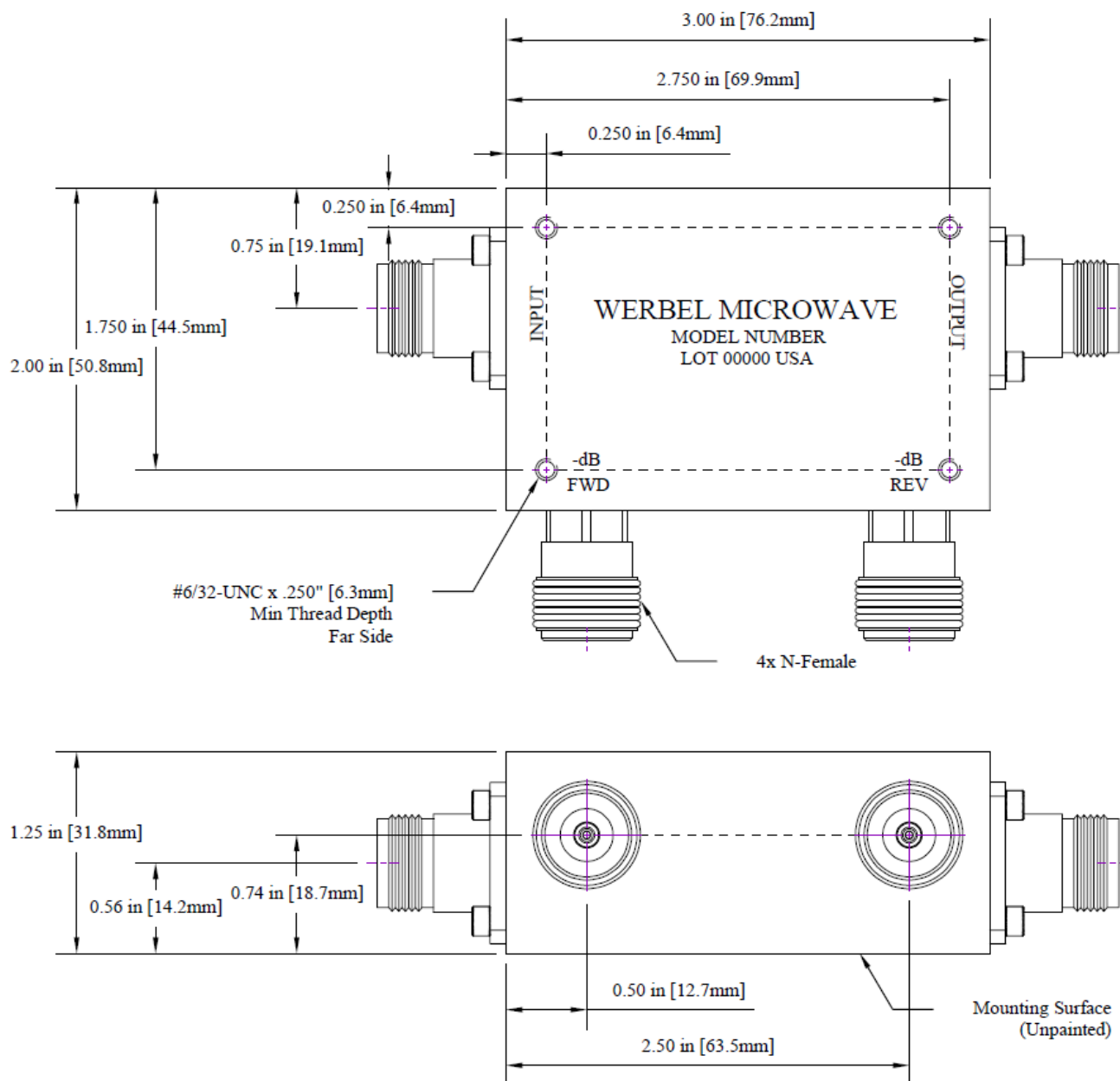




Repeatability in Production



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 product described herein at the date of publication. It may be necessary to make modifications to the product and/or documentation of the product. 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 LLC does not make any representation or warranty regarding the suitability of the product described herein for any particular purpose or application, 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.

Reliability testing was performed as an internal requalification of the product to substantiate the published specifications, which were previously arrived at by calculation and/or similarity to existing products. The results of these tests are provided as a courtesy and shall not form part of a contract or warranty. While reliability tests may depict the product being tested beyond the published specification ratings for the purpose of stress testing the product, this does not imply that the product should be operating above the rated limits for any length of time. Specifications related to reliability

(e.g., performance over temperature, power handling, DC current, HI-POT) are "designed to meet" and are not individually tested in production of commercially available products. Please contact a Werbel Microwave LLC Applications Engineer if specific reliability testing is needed on a particular product.