

## Power Divider, 4-way, 700-4000MHz, BNC Female, 50Ω

## WM4PD-0.7-4-B



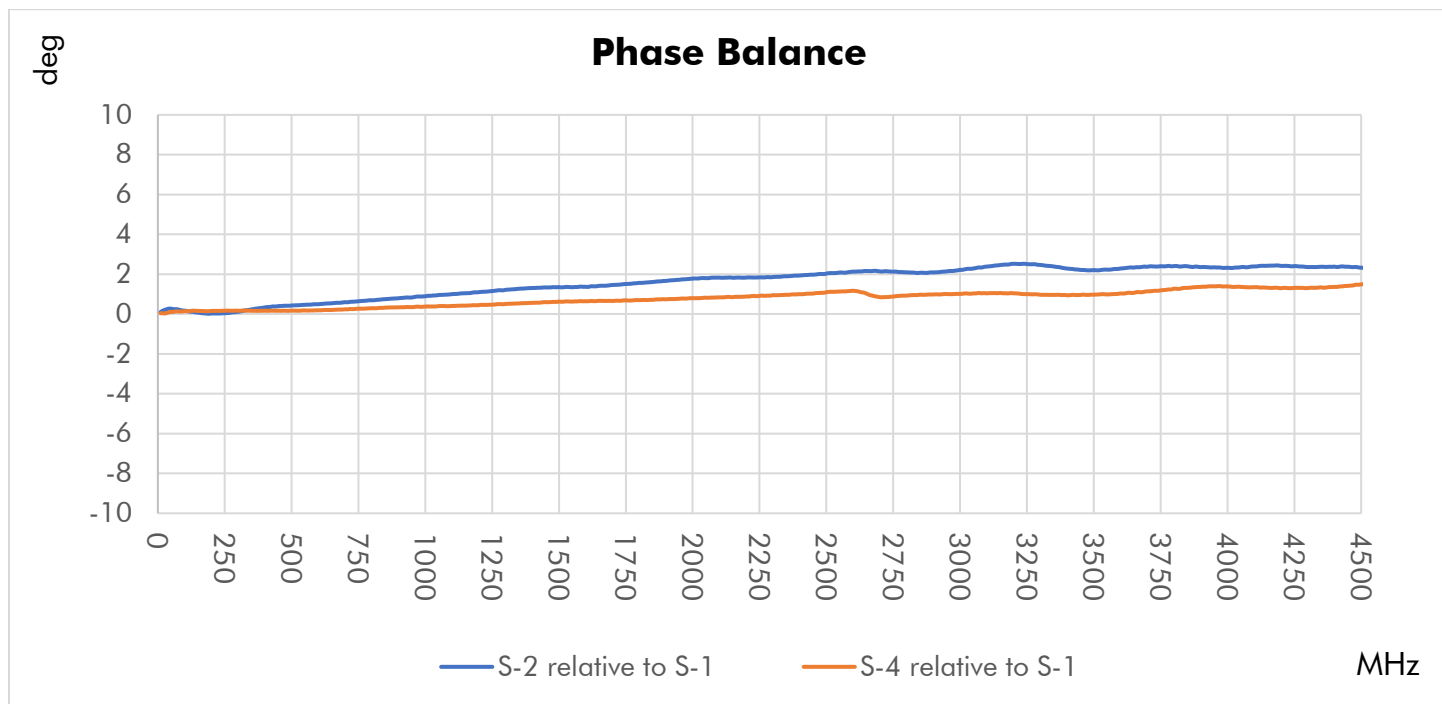
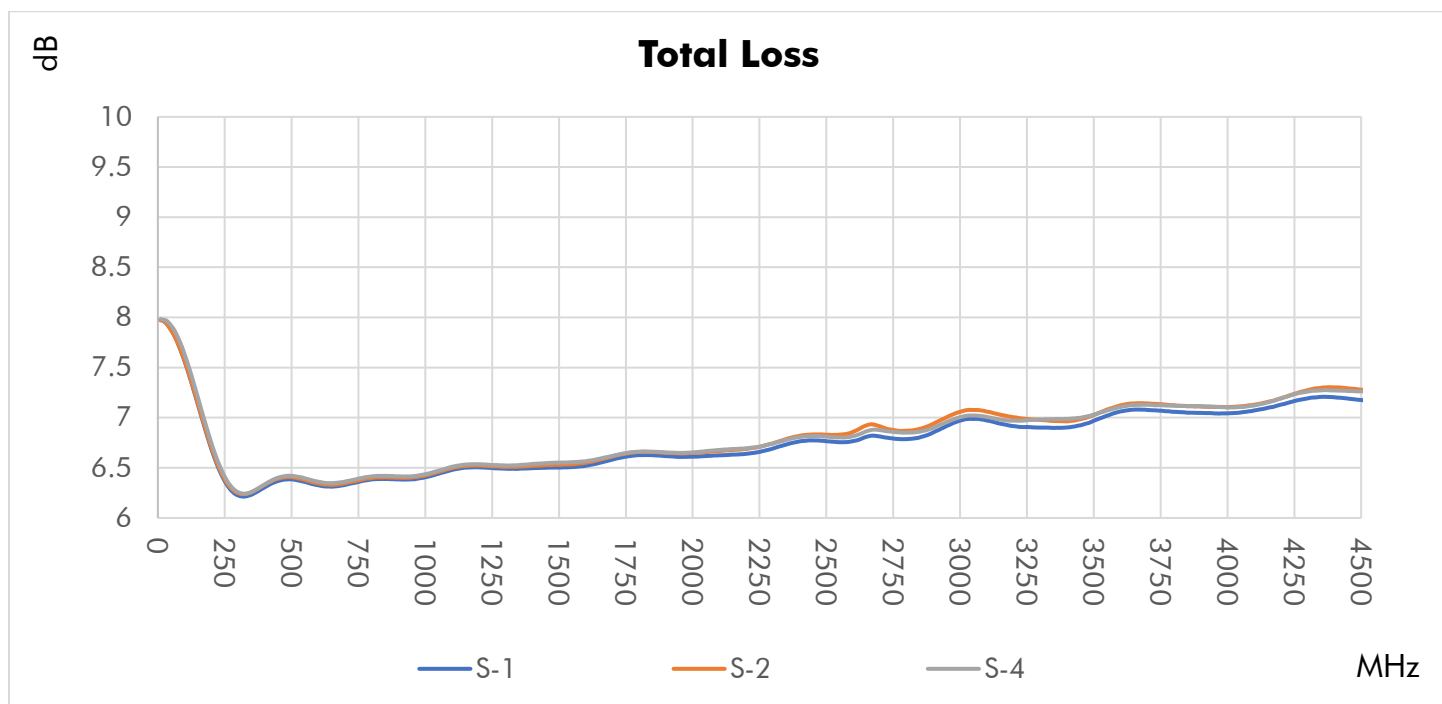
| Parameter                     | Min. | Typ. | Max. | Unit  |
|-------------------------------|------|------|------|-------|
| Frequency Range               | 700  | -    | 4000 | MHz   |
| Impedance                     | 50   |      |      | Ohm   |
| Return Loss (Port S)          | 12   | 14.3 |      | dB    |
| Return Loss (Ports 1-4)       | 13   | 17.5 |      | dB    |
| Insertion Loss (above 6.02dB) |      | 1.2  | 1.5  | dB    |
| Isolation                     | 16   | 22   |      | dB    |
| Amplitude Balance             |      | 0.3  | 0.5  | dB    |
| Phase Balance                 |      | 3    | 6    | Deg   |
| Input Power (CW) <sup>1</sup> | 30   |      |      | Watts |

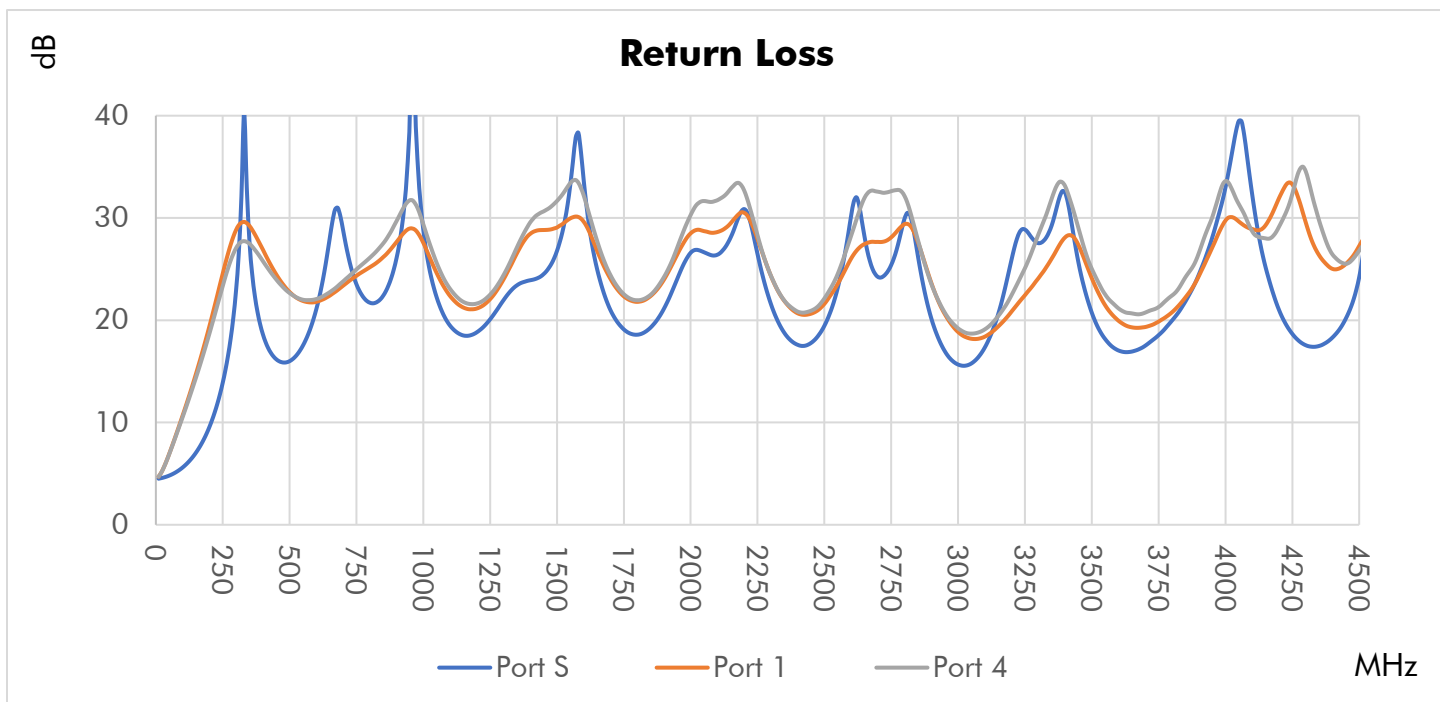
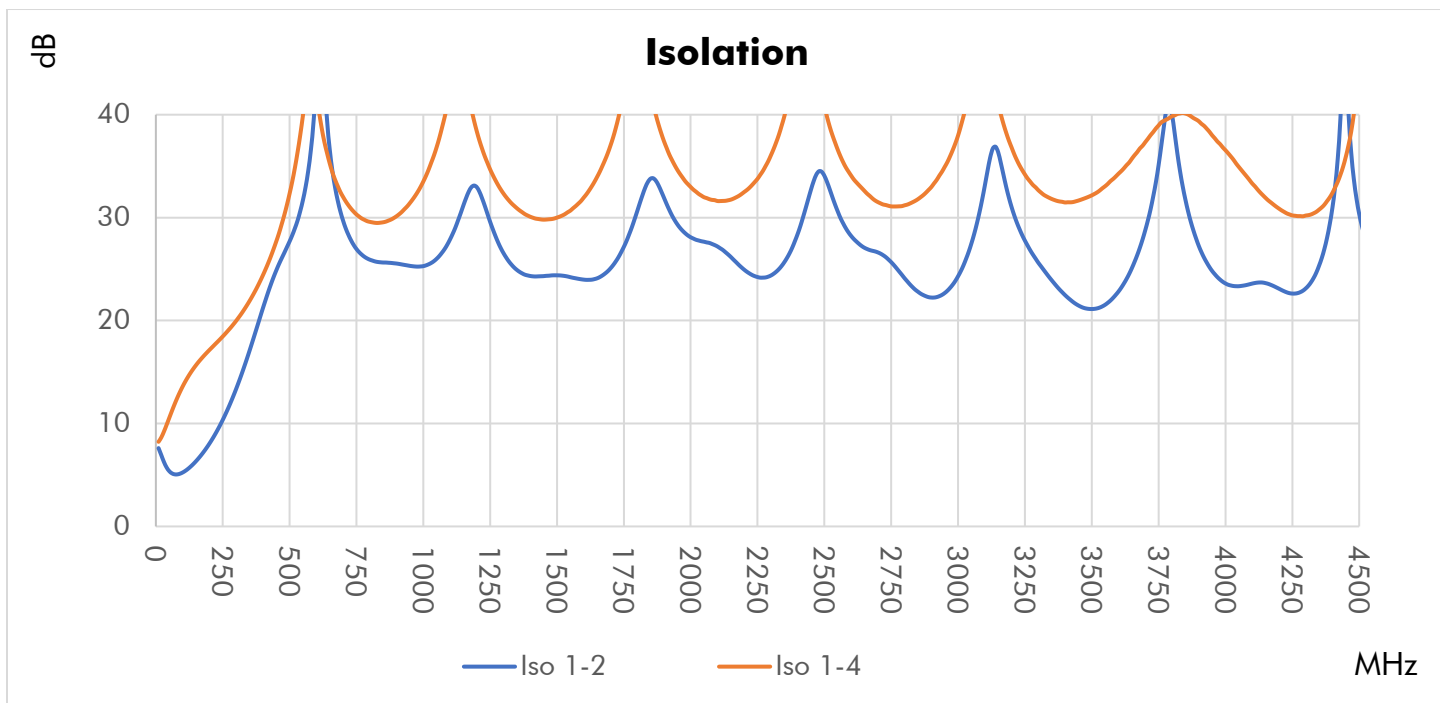
|                                    |                         |
|------------------------------------|-------------------------|
| Connector Interface                | BNC-Female              |
| Operating Temperature <sup>2</sup> | -55 to +85 °C           |
| Storage Temperature                | -55 to +100 °C          |
| Nominal Weight                     | 170 g (6 oz)            |
| Operating Humidity                 | 10-90% (non-condensing) |
| Operating Environment              | Indoor Use Only         |
| HTSUS                              | 8548.00.0000            |
| ECCN                               | EAR99                   |

|                           |                               |
|---------------------------|-------------------------------|
| RoHS Status <sup>3</sup>  | RoHS3 Compliant               |
| REACH Status <sup>3</sup> | REACH Unaffected              |
| Enclosure Material        | Aluminum                      |
| Connectors Material       | Brass, Tri-Alloy Plated       |
| Contacts Material         | Beryllium Copper, Gold Plated |
| Insulators Material       | Virgin PTFE                   |
| Finish                    | Green Paint                   |
| Country of Origin         | United States of America      |

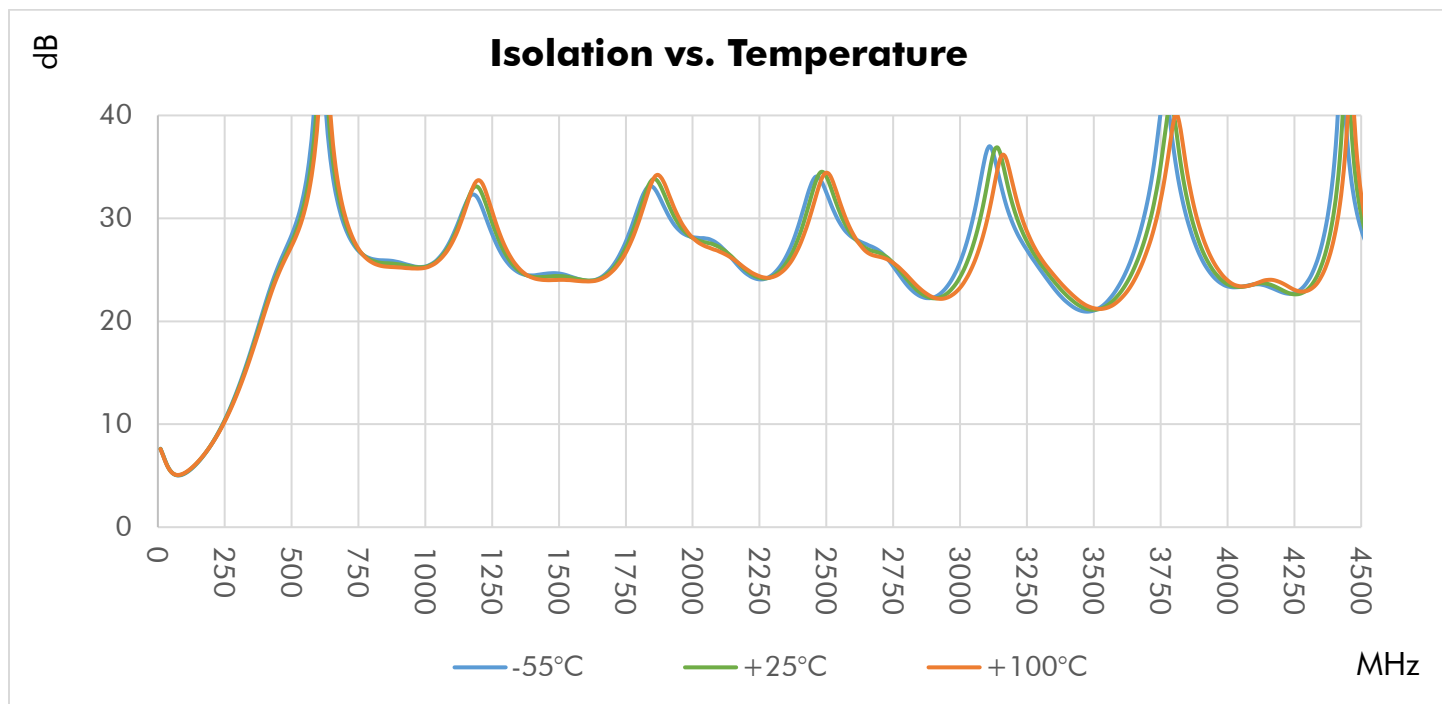
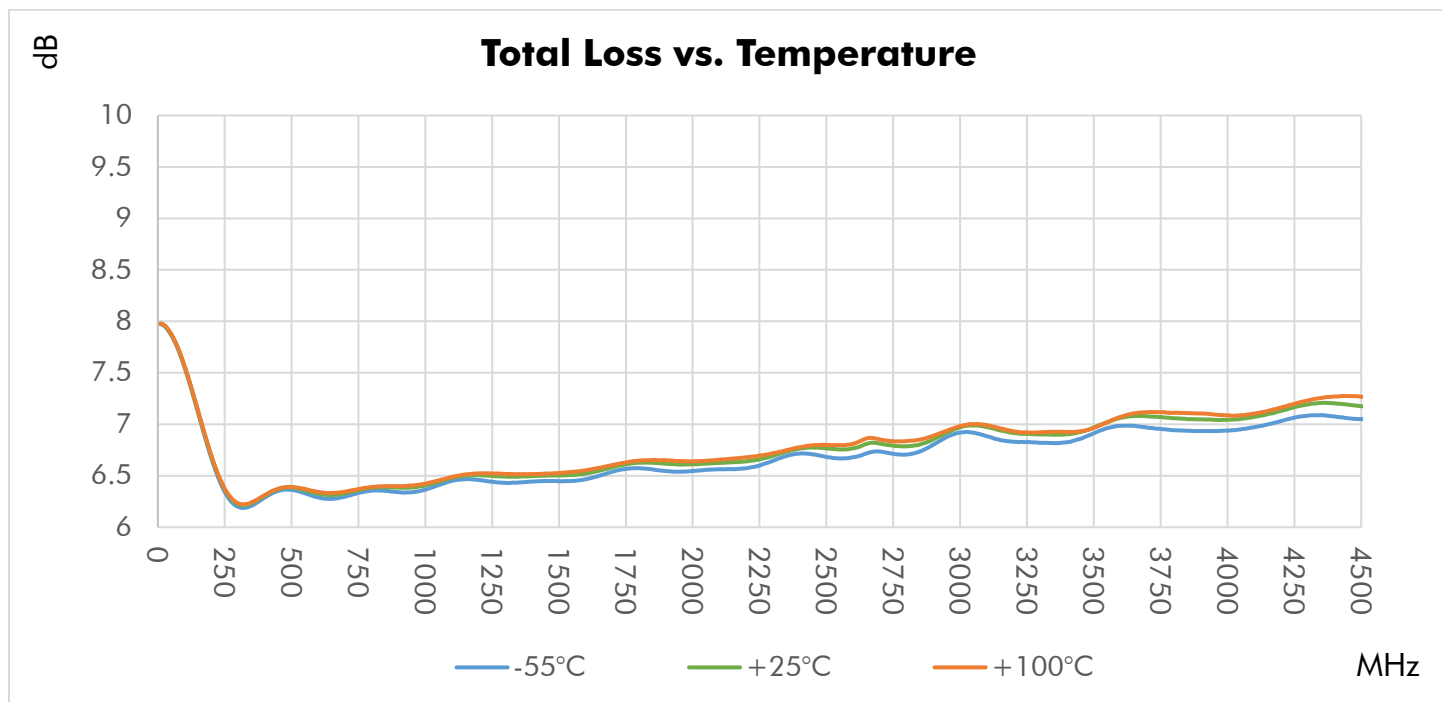
1. All output ports should be terminated in a 50-ohm load with 1.2:1 max VSWR.
2. Electrical specification at +25 °C only.
3. To the best of our knowledge at the time of publication.

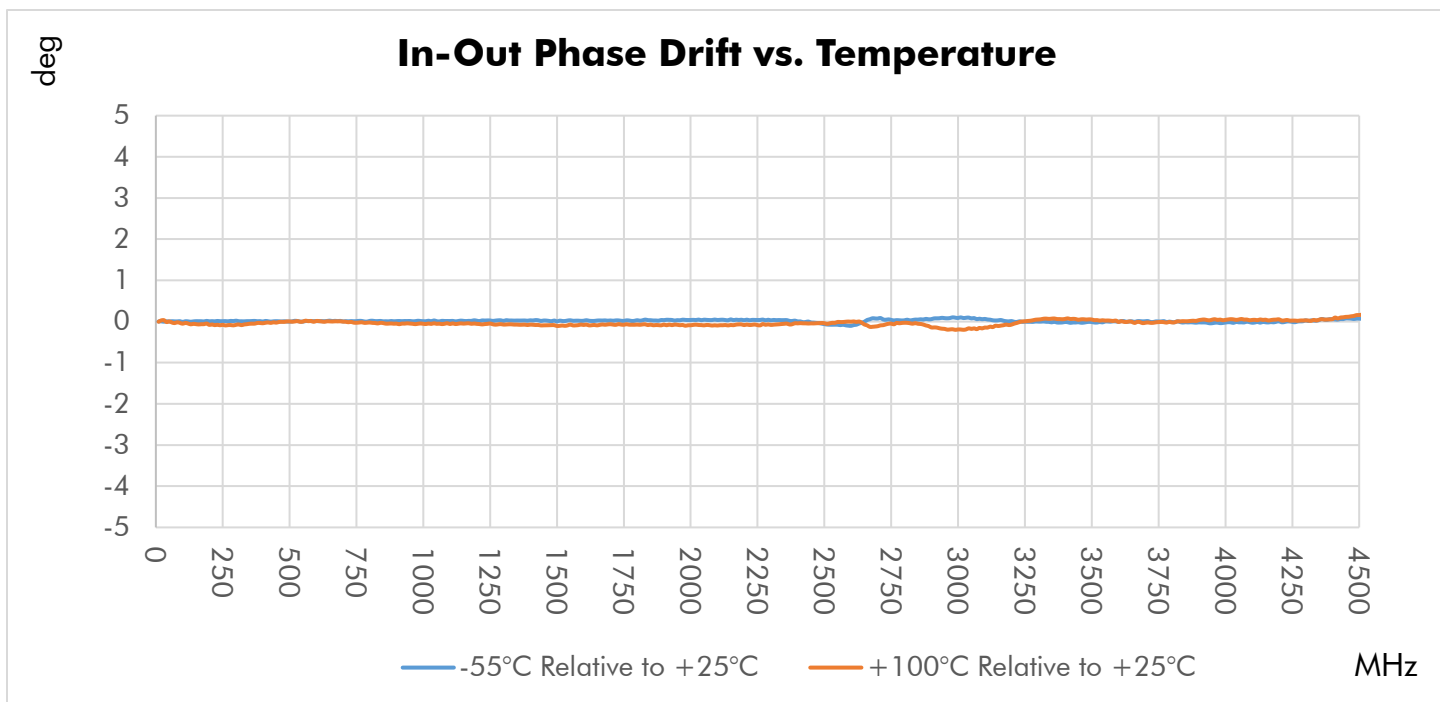
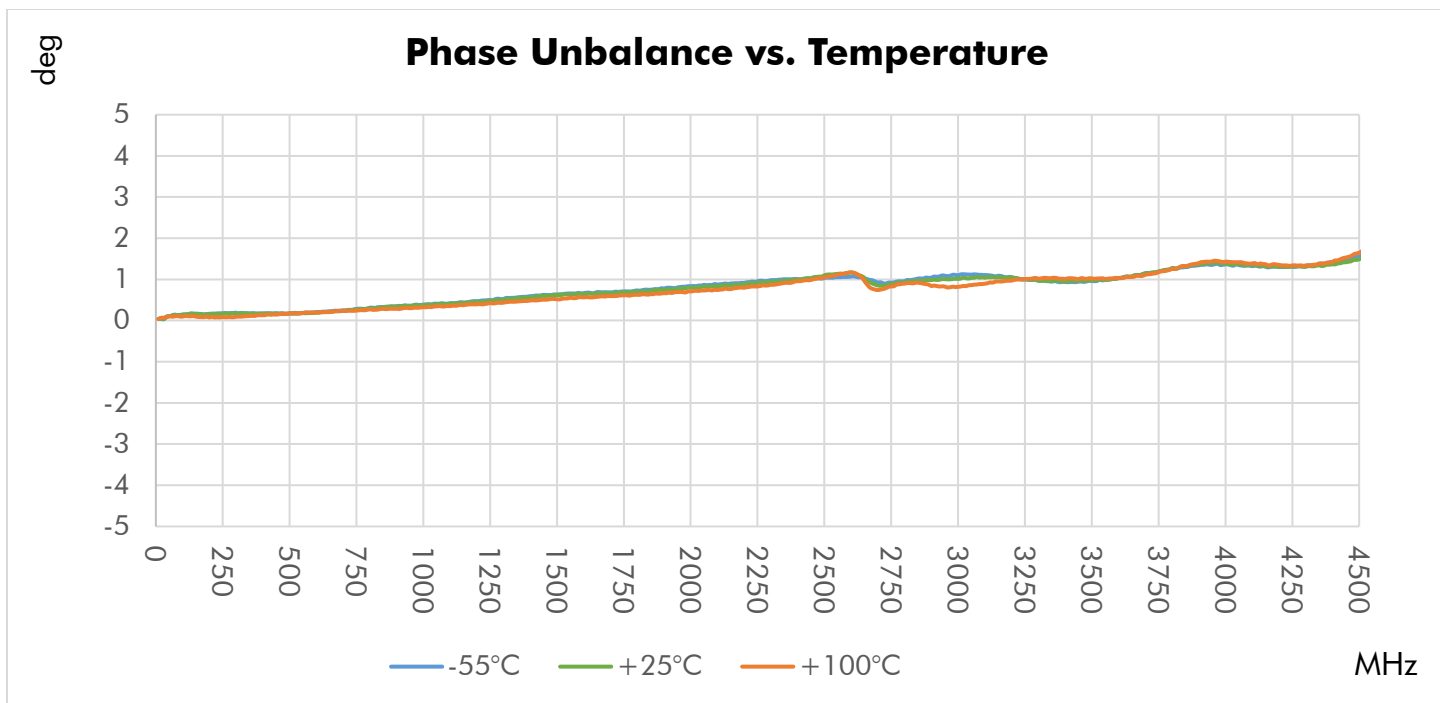
## Typical Performance at +25 °C

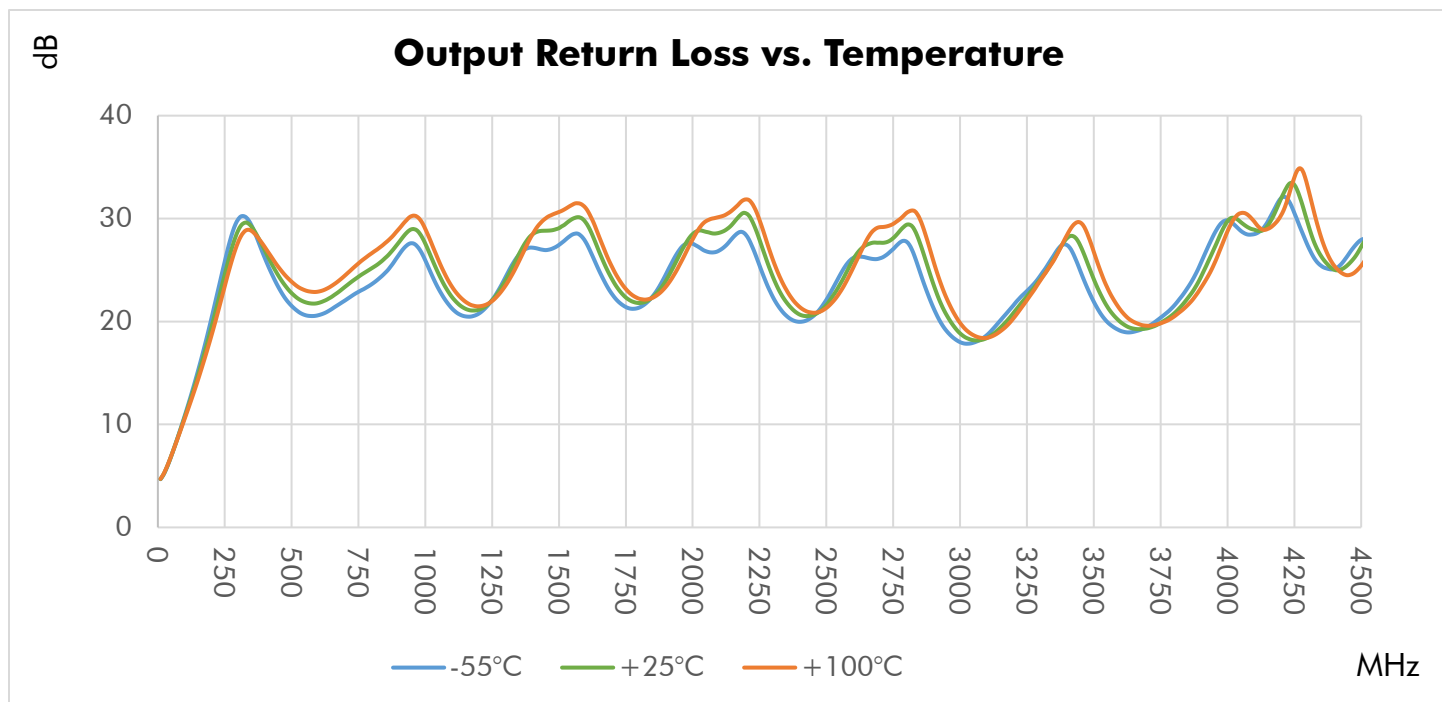
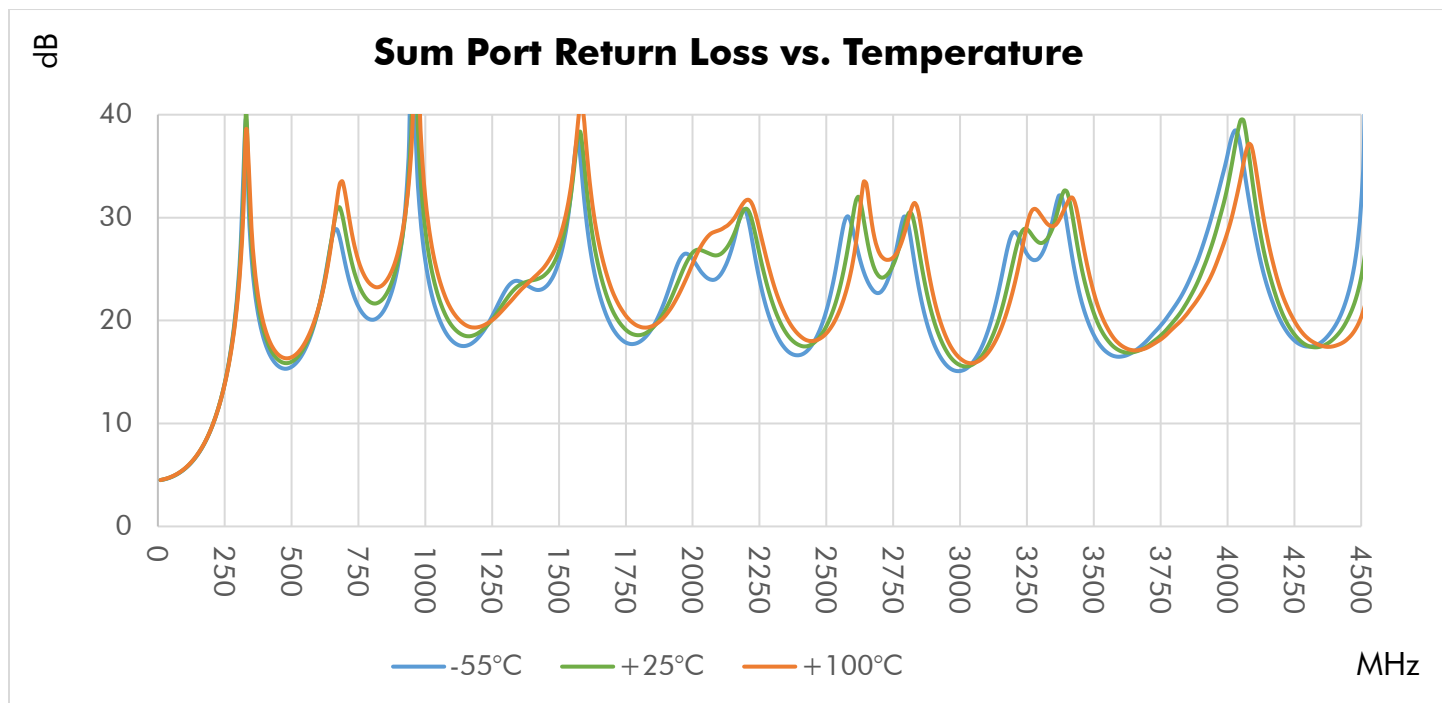




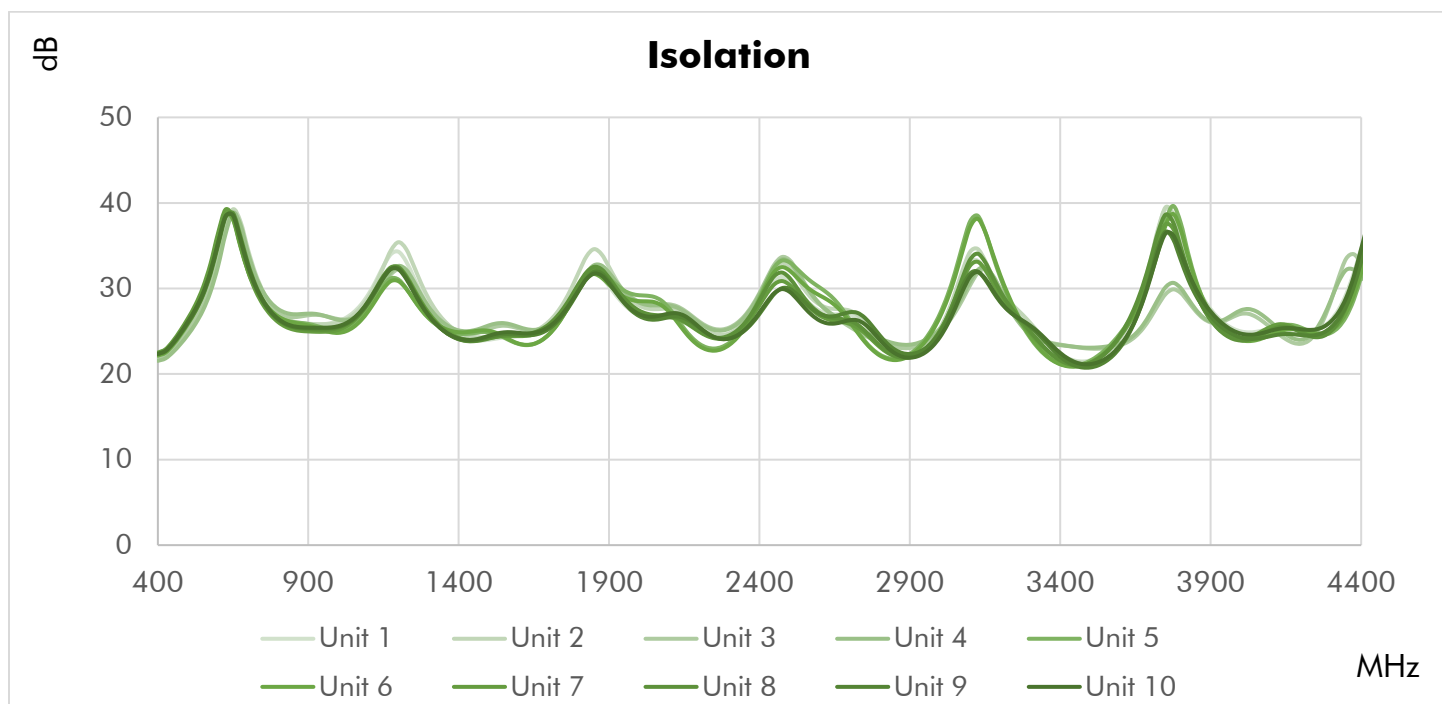
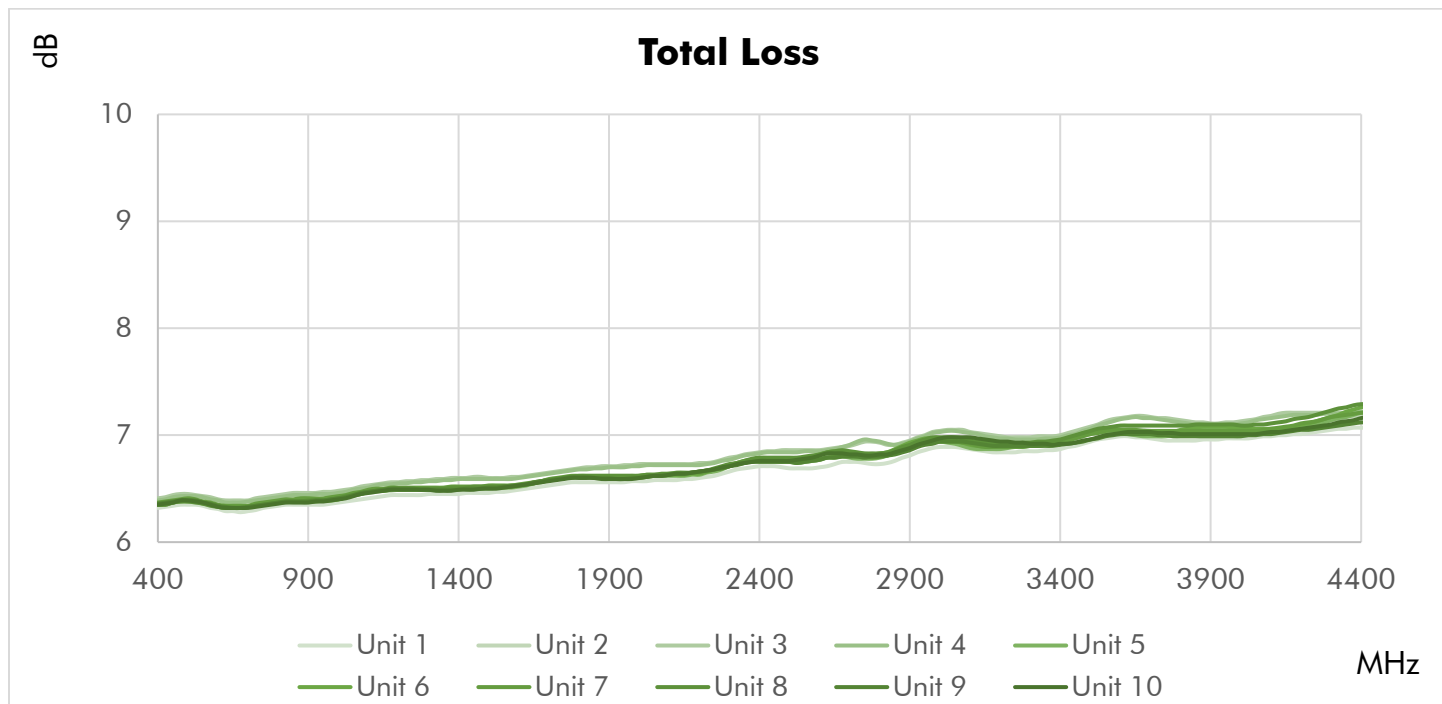
## Typical Performance Over Temperature







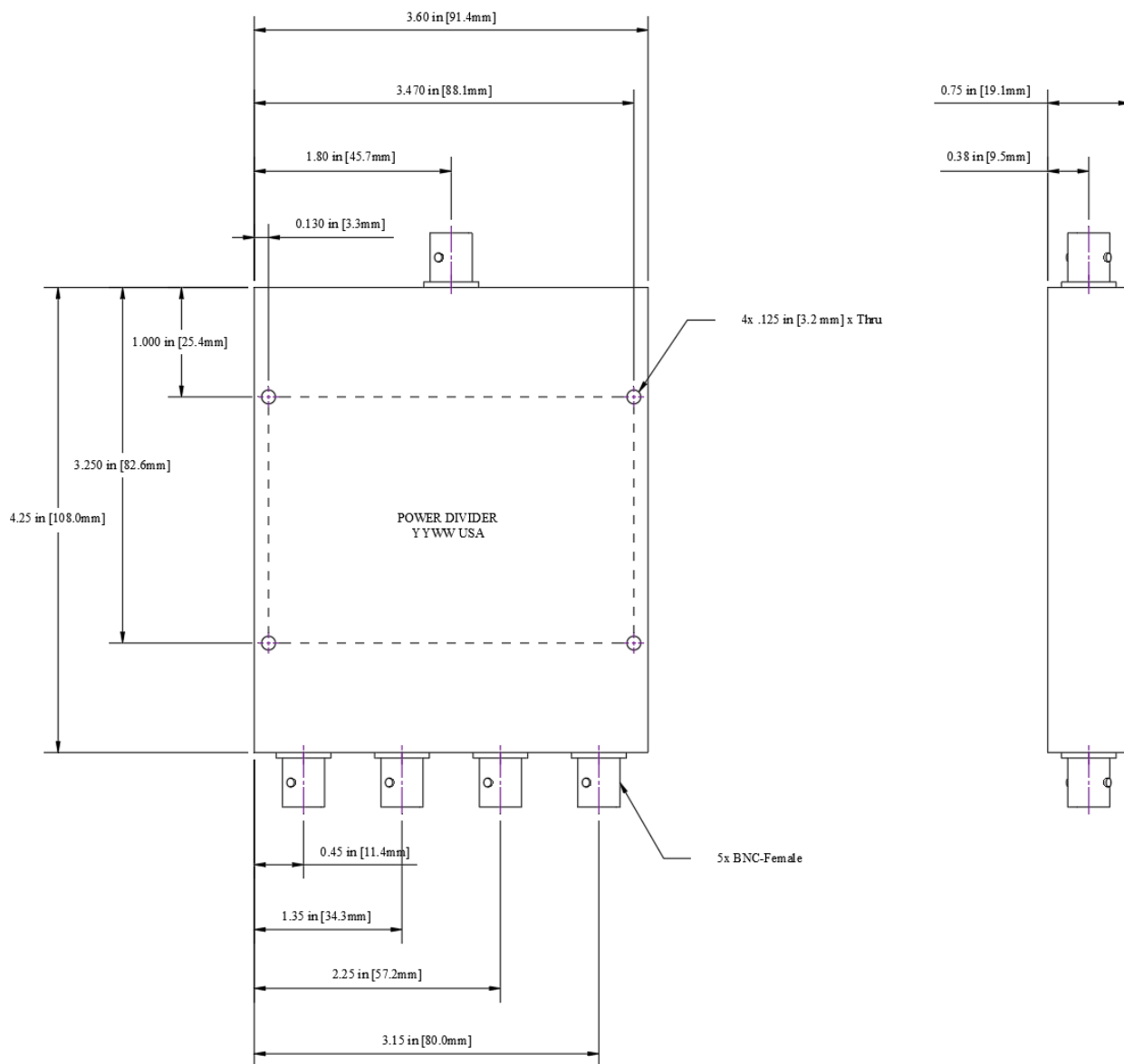
## Repeatability in Production



## Typical Performance Data

| Frequency<br>(MHz) | Return Loss<br>(dB) |        |        | Total Loss<br>(dB) |      | Isolation<br>(dB) |      |
|--------------------|---------------------|--------|--------|--------------------|------|-------------------|------|
|                    | Port S              | Port 1 | Port 4 | S-1                | S-4  | 1-2               | 1-4  |
| 400                | 18.0                | 26.2   | 25.0   | 6.32               | 6.39 | 22.5              | 22.2 |
| 450                | 15.6                | 24.4   | 23.6   | 6.34               | 6.41 | 23.8              | 23.3 |
| 500                | 15.3                | 23.1   | 22.9   | 6.35               | 6.43 | 26.3              | 25.4 |
| 550                | 16.7                | 22.3   | 22.4   | 6.34               | 6.41 | 29.8              | 28.2 |
| 600                | 19.9                | 22.6   | 22.9   | 6.31               | 6.38 | 35.6              | 33.4 |
| 650                | 25.8                | 23.2   | 23.7   | 6.29               | 6.35 | 38.1              | 39.3 |
| 700                | 30.8                | 25.1   | 25.8   | 6.29               | 6.35 | 32.3              | 34.5 |
| 750                | 25.4                | 26.0   | 26.9   | 6.32               | 6.38 | 28.4              | 29.6 |
| 800                | 23.0                | 27.2   | 28.5   | 6.34               | 6.39 | 26.4              | 27.2 |
| 850                | 23.5                | 28.1   | 29.9   | 6.35               | 6.40 | 25.7              | 26.1 |
| 900                | 26.8                | 29.2   | 31.6   | 6.35               | 6.41 | 25.6              | 25.9 |
| 950                | 38.7                | 30.9   | 34.0   | 6.35               | 6.41 | 25.8              | 25.8 |
| 1000               | 31.0                | 30.1   | 32.3   | 6.37               | 6.43 | 26.2              | 26.0 |
| 1250               | 21.6                | 23.2   | 23.1   | 6.44               | 6.50 | 31.4              | 32.7 |
| 1500               | 29.7                | 34.2   | 33.3   | 6.46               | 6.52 | 24.0              | 24.4 |
| 1750               | 20.1                | 23.3   | 24.9   | 6.55               | 6.61 | 28.0              | 28.4 |
| 2000               | 26.0                | 32.8   | 31.8   | 6.57               | 6.62 | 26.9              | 28.0 |
| 2250               | 24.7                | 28.4   | 33.0   | 6.62               | 6.70 | 24.3              | 24.7 |
| 2500               | 21.8                | 22.6   | 23.4   | 6.69               | 6.76 | 30.9              | 32.5 |
| 2750               | 27.3                | 30.5   | 32.3   | 6.74               | 6.82 | 25.8              | 26.1 |
| 3000               | 16.0                | 18.7   | 19.9   | 6.89               | 6.90 | 25.3              | 25.3 |
| 3250               | 29.3                | 24.0   | 24.3   | 6.84               | 6.89 | 27.4              | 27.8 |
| 3500               | 18.5                | 24.0   | 24.6   | 6.94               | 6.96 | 21.6              | 21.5 |
| 3750               | 21.8                | 21.4   | 20.7   | 6.95               | 7.02 | 39.3              | 39.5 |
| 4000               | 25.0                | 27.9   | 26.8   | 6.97               | 7.02 | 25.0              | 24.6 |
| 4250               | 24.4                | 30.2   | 28.8   | 7.03               | 7.10 | 25.2              | 24.5 |
| 4500               | 25.4                | 27.5   | 24.7   | 7.07               | 7.17 | 34.9              | 37.2 |

## Outline Dimensions



Outline drawing: OL-4047

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

Tolerances on 2-pl decimals:  $\pm 0.03$ . 3-pl decimals:  $\pm 0.015$ .

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.