

Wideband Power Divider 4-way SMA Female 2 to 18 GHz

4-way SMA Power Divider 2 to 18 GHz

D-4182

Description

Model D-4182 from Werbel Microwave is a wideband 4-way in-line power splitter covering the continuous bandwidth of 2 to 18 GHz in an aluminum enclosure measuring 4.00 x 2.50 x 0.38 inches. The device is RoHS compliant. Excellent VSWR and insertion loss.



Photo is representative.

| Specifications | Min. | Typ. | Max. | Units |
|--|------|------|------|---------|
| Frequency | 2 | | 18 | GHz |
| Impedance | | 50 | | Ohm |
| Return Loss (Port S) | 11 | 13 | | dB |
| Return Loss (Port 1-4) | 14 | 17 | | dB |
| Insertion Loss (above theoretical 6.02 dB) | | 0.8 | 1.8 | dB |
| Isolation | 16 | 18 | | dB |
| Amplitude Balance | | 0.3 | 1.0 | dB |
| Phase Balance | | 3 | 12 | Degrees |
| Input Power (CW) ¹ | | | 30 | Watts |

Mechanical

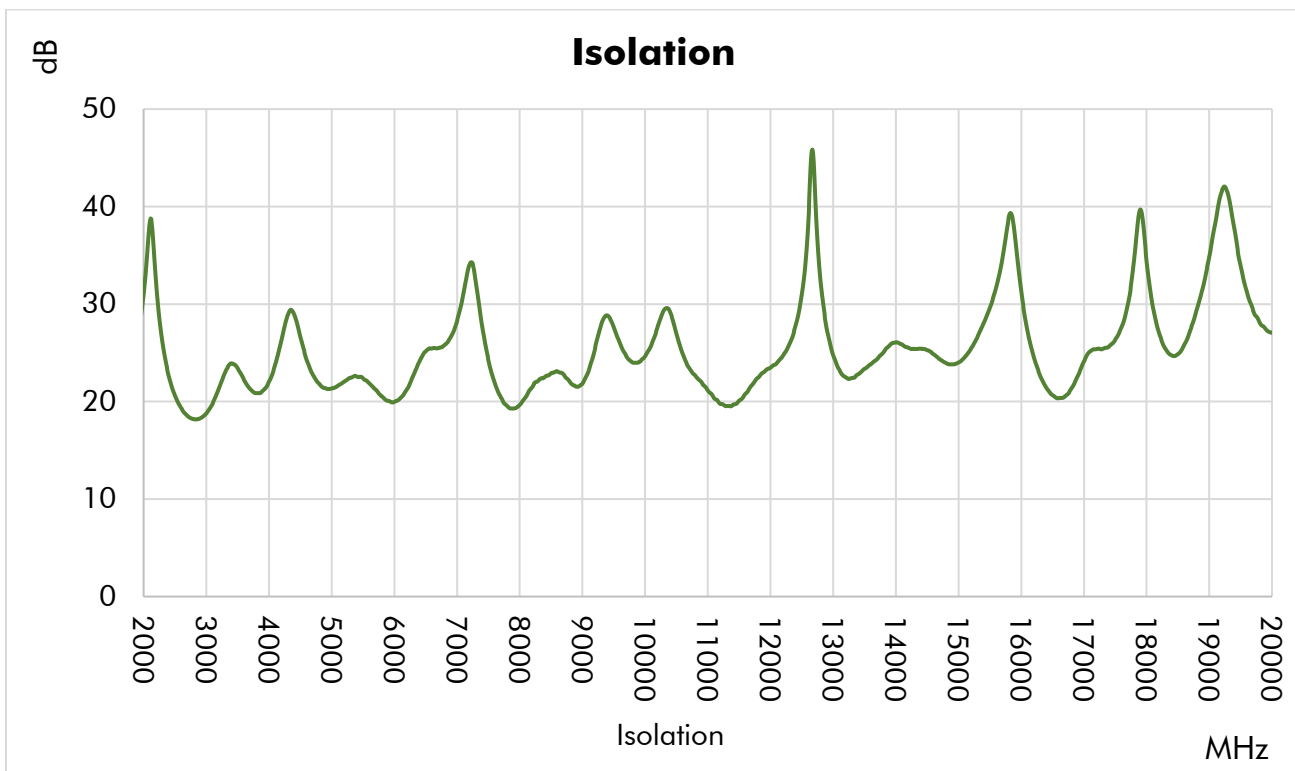
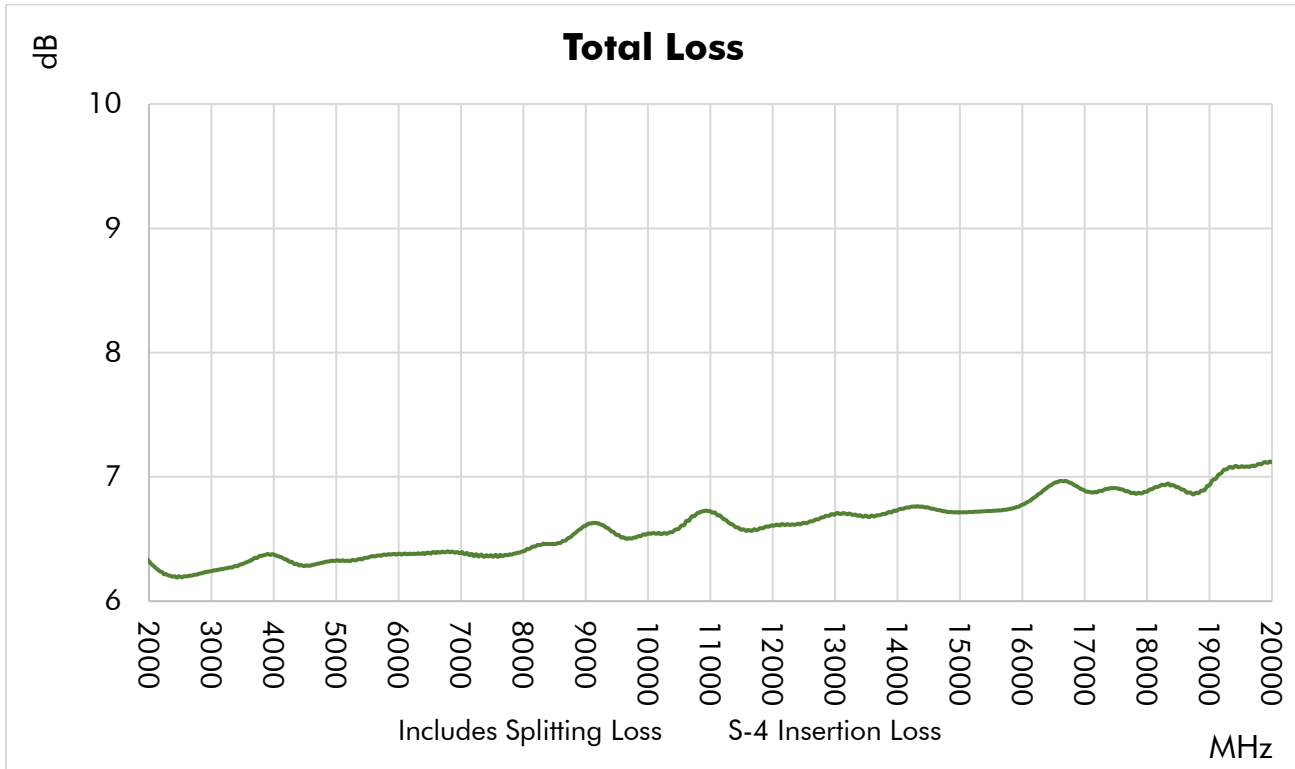
| | |
|------------------------------------|-----------------------|
| Connector Interface | SMA-Female |
| Operating Temperature ² | -55 to +85 °C |
| Storage Temperature | -55 to +100 °C |
| Weight Estimate | 11 oz (312 g) |
| Humidity | 10-90% non-condensing |
| Environment | Indoors Use Only |
| CAGE Code | 78YZ0 |

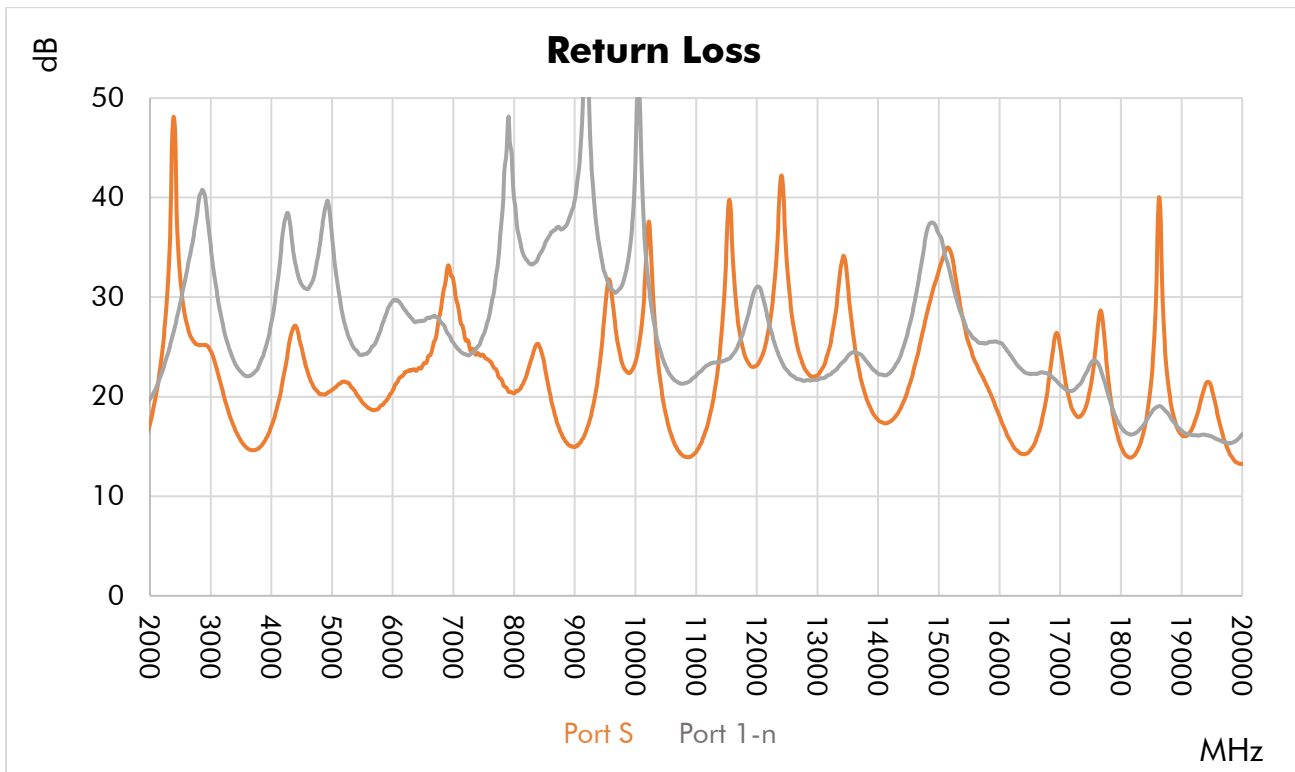
Materials

| | |
|------------------------------|--------------------|
| RoHS Compliant ³ | Yes |
| REACH Compliant ³ | Yes |
| Enclosure | Aluminum |
| Connectors | Stainless Steel |
| Contacts | Be Cu, Gold Plated |
| Insulators | PTFE |
| Finish | Gray Paint |

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

Typical Performance at +25 °C

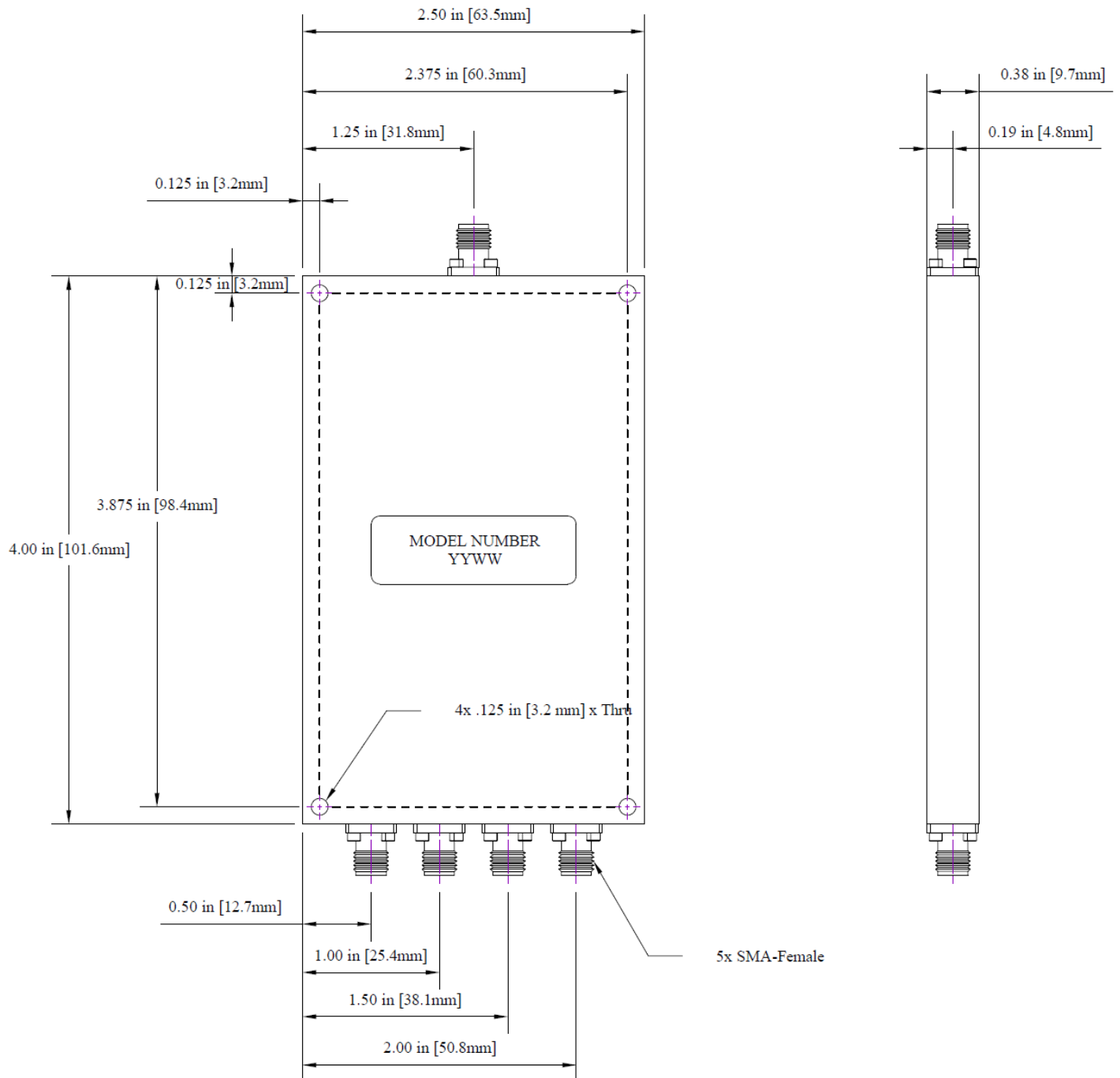




Typical Performance Data

| Frequency (MHz) | Return Loss (dB) | | | Total Loss (dB) | | Isolation (dB) |
|--------------------|---------------------|--------|--------|--------------------|-----|-------------------|
| | Port 5 | Port 1 | Port 4 | S-1 | S-4 | 1-2 |
| 2000 | 18.0 | 20.1 | 18.1 | 6.3 | 6.3 | 32.8 |
| 2500 | 30.2 | 30.5 | 30.1 | 6.2 | 6.2 | 20.1 |
| 3000 | 24.4 | 32.8 | 24.5 | 6.2 | 6.2 | 19.1 |
| 3500 | 15.2 | 22.2 | 15.2 | 6.3 | 6.3 | 23.0 |
| 4000 | 17.5 | 28.5 | 17.5 | 6.3 | 6.2 | 22.4 |
| 4500 | 24.1 | 30.3 | 24.1 | 6.3 | 6.3 | 26.0 |
| 5000 | 20.9 | 33.4 | 21.0 | 6.3 | 6.4 | 21.4 |
| 5500 | 19.3 | 24.2 | 19.2 | 6.3 | 6.3 | 22.2 |
| 6000 | 21.2 | 29.6 | 21.2 | 6.4 | 6.4 | 20.1 |
| 6500 | 23.4 | 27.0 | 23.4 | 6.3 | 6.4 | 25.3 |
| 7000 | 28.9 | 25.6 | 29.0 | 6.5 | 6.5 | 29.1 |
| 7500 | 23.5 | 26.7 | 23.5 | 6.4 | 6.4 | 23.4 |
| 8000 | 20.7 | 37.2 | 20.8 | 6.4 | 6.4 | 19.8 |
| 8500 | 22.2 | 35.7 | 22.3 | 6.4 | 6.5 | 22.9 |
| 9000 | 14.9 | 40.6 | 14.8 | 6.6 | 6.7 | 22.2 |
| 9500 | 31.0 | 32.0 | 30.9 | 6.6 | 6.5 | 27.1 |
| 10000 | 24.1 | 52.7 | 24.2 | 6.5 | 6.6 | 25.0 |
| 10500 | 17.5 | 22.6 | 17.5 | 6.8 | 6.8 | 26.3 |
| 11000 | 14.7 | 22.5 | 14.8 | 6.5 | 6.5 | 20.8 |
| 11500 | 39.6 | 23.7 | 39.8 | 6.6 | 6.6 | 20.2 |
| 12000 | 23.3 | 31.3 | 23.4 | 6.7 | 6.7 | 23.7 |
| 12500 | 31.0 | 22.4 | 31.1 | 6.6 | 6.6 | 32.2 |
| 13000 | 22.2 | 21.7 | 22.3 | 6.9 | 6.9 | 24.3 |
| 13500 | 29.3 | 24.4 | 29.6 | 6.6 | 6.6 | 23.4 |
| 14000 | 17.5 | 22.2 | 17.5 | 6.8 | 6.9 | 26.1 |
| 14500 | 21.4 | 27.6 | 21.4 | 6.7 | 6.8 | 25.2 |
| 15000 | 33.4 | 36.0 | 33.6 | 6.7 | 6.8 | 24.1 |
| 15500 | 24.7 | 26.1 | 24.8 | 6.7 | 6.8 | 30.2 |
| 16000 | 17.5 | 25.5 | 17.5 | 6.8 | 6.9 | 29.8 |
| 16500 | 14.8 | 22.2 | 14.8 | 7.1 | 7.2 | 20.6 |
| 17000 | 24.0 | 21.1 | 24.2 | 6.8 | 6.9 | 24.5 |
| 17500 | 22.0 | 23.6 | 22.0 | 6.8 | 6.9 | 26.6 |
| 18000 | 14.6 | 16.6 | 14.6 | 7.1 | 7.2 | 32.8 |
| 18500 | 23.6 | 18.7 | 23.5 | 6.8 | 6.9 | 25.0 |
| 19000 | 16.0 | 16.4 | 16.1 | 7.0 | 7.1 | 35.9 |
| 19500 | 20.0 | 15.9 | 20.1 | 7.1 | 7.2 | 33.0 |
| 20000 | 13.3 | 16.5 | 13.3 | 7.2 | 7.3 | 27.1 |

Outline Dimensions



Outline drawing: OL-4182

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

Tolerances on 2-pl decimals: ±.03. 3-pl decimals: ± .015.

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