

## 6 dB Fixed Attenuator N Male (Plug) to N Female (Jack) Up to 18 GHz Rated to 100 Watts, Heatsink Body, 1.45 VSWR

Fairview Microwave carries a broad selection of fixed attenuators with a wide range of attenuation levels, frequency ranges, and power dissipation ranges. Also known as RF pads, RF microwave attenuators lower the amplitude of a signal (or attenuate) a known amount. These attenuator pads can be used in a wide variety of applications including reducing a signal level to protect measurement equipment or other circuitry, extending the range of power meters and amplifiers, and impedance matching circuits by reducing the VSWR seen by adjacent components. RF attenuators can prevent signal overload in amplifiers, receivers and detectors, adjusting the signal level to a range that is optimal.

Few RF components are as commonly used as fixed coaxial attenuators, and Fairview Microwave carries one of the largest in-stock varieties and ships them same day. The SA18N100-06 is a 6 dB Fixed Attenuator that operates from DC to 18 GHz and is rated to 100 Watts. The versatile coaxial package uses type N male to type N female connectors and is also REACH and RoHS compliant. The Black Anodized Aluminum Heatsink body allows for efficient heat dissipation under high power usage conditions.

### Electrical Specifications

| Description  | Min | Typ | Max    | Units  |
|--|-----|-----|--------|--------|
| Frequency Range  | DC  |     | 18     | GHz    |
| Impedance  |     | 50  |        | Ohms   |
| Nominal Attenuation  |     | 6   |        | dB     |
| Attenuation Accuracy   |     | 1   |        | dB     |
| VSWR   |     |     | 1.45:1 |        |
| Input Power, CW<br>rated at +25°C, derated linearly to 10W at +125°C |     |     | 100    | Watts  |
| Input Power, Peak<br>5μs pulse, 2.5% duty cycle                      |     |     | 1      | kWatts |

### Specifications by Frequency

| Description | F1      | F2        | F3         | F4 | F5 | Units |
|-------------|---------|-----------|------------|----|----|-------|
| Range       | DC to 8 | 8 to 12.4 | 12.4 to 18 |    |    | GHz   |
| VSWR, Max   | 1.25:1  | 1.35:1    | 1.45:1     |    |    |       |

Electrical Specification Notes:  
Values at +25°C, sea level.

### Mechanical Specifications

| Size                      |                                  |
|---------------------------|----------------------------------|
| Length                    | 5.61 in [142.49 mm]              |
| Width/Diameter            | 2.5 in 63.5 mm                   |
| Height                    | 2.5 in 63.5 mm                   |
| Weight                    | 0.756 lbs [342.92 g]             |
| Body Material and Plating | Black Anodized Aluminum Heatsink |



### Features:

- Bidirectional
- DC to 18 GHz Frequency Range
- Attenuation 6dB Typical
- Max Power 100 Watts (CW)
- VSWR < 1.45:1

### Applications:

- Instrumentation
- Precision measurements
- Prototyping and characterization
- Production systems

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**Configuration**

Design Fixed, Bidirectional  
Package Style Connectorized Module

**Connectors**

| Description                | Connector 1                | Connector 2                |
|----------------------------|----------------------------|----------------------------|
| Type                       | N Male                     | N Female                   |
| Connector Spec.            | MIL-STD-348A               | MIL-STD-348A               |
| Contact Material & Plating | Beryllium Copper, Gold     | Beryllium Copper, Gold     |
| Body Material & Plating    | Passivated Stainless Steel | Passivated Stainless Steel |

**Environmental Specifications**

**Temperature**

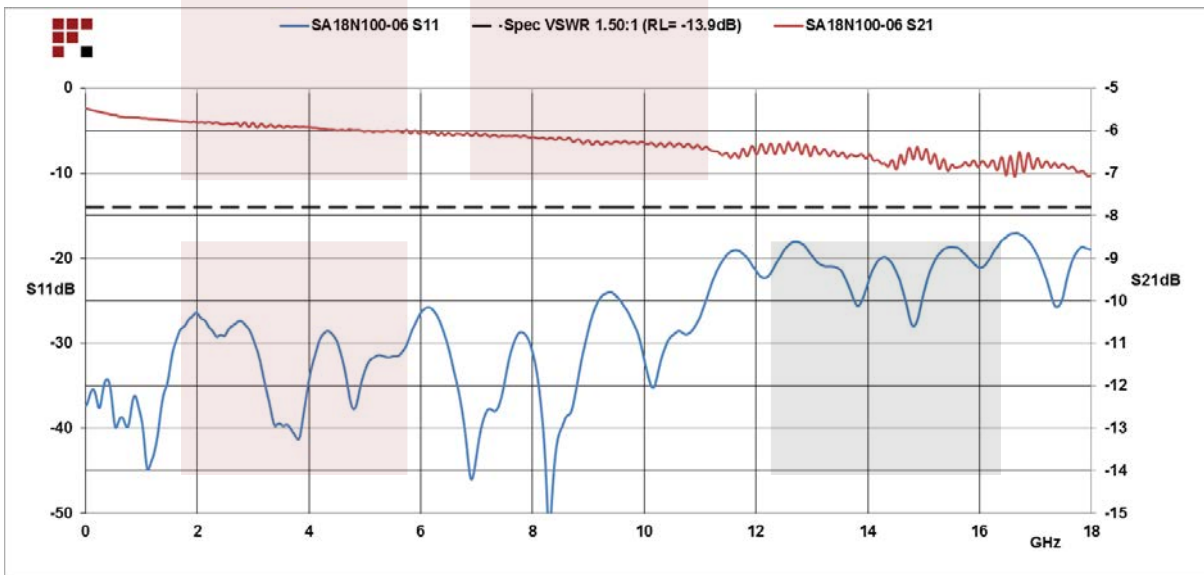
Operating Range -55 to +125 deg C

**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

Notes:

**Typical Performance Data**



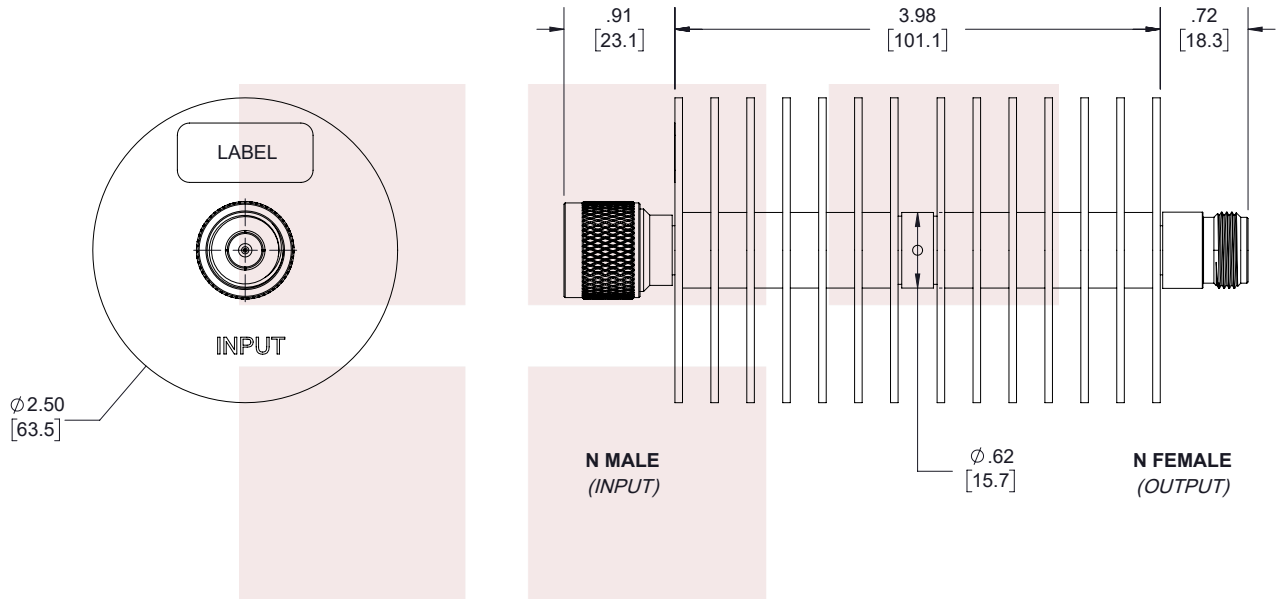
6 dB Fixed Attenuator N Male (Plug) to N Female (Jack) Up to 18 GHz Rated to 100 Watts, Heatsink Body, 1.45 VSWR from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [6 dB Fixed Attenuator N Male \(Plug\) to N Female \(Jack\) Up to 18 GHz Rated to 100 Watts, Heatsink Body, 1.45 VSWR SA18N100-06](#)

URL: <https://www.fairviewmicrowave.com/6db-fixed-attenuator-n-male-n-female-100-watts-sa18n100-06-p.aspx>

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 the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.





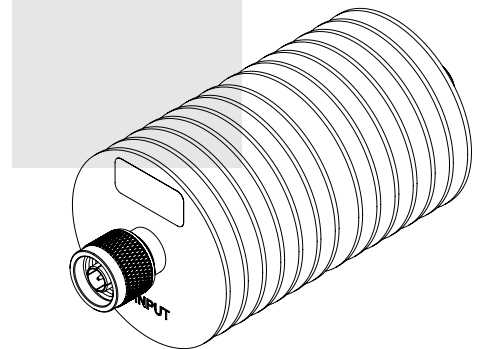
**LABEL**

FAIRVIEW MICROWAVE  
SA18N100-06  
D/C: YYWW

**STANDARD TOLERANCES**

.X ±0.2  
.XX ±0.01  
.XXX ±0.005

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



NOTES:  
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.  
3. DIMENSIONS ARE IN INCHES [mm].

TITLE  
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|          |             |           |        |       |     |      |   |      |
|----------|-------------|-----------|--------|-------|-----|------|---|------|
| DWG NO   | SA18N100-06 | CAGE CODE | 3FKR5  |       |     |      |   |      |
| CAD FILE | 09/26/19    | SHEET     | 1 OF 1 | SCALE | N/A | SIZE | A | 7361 |