## 20 dB Fixed Attenuator N Male To N Female Directional Up To 18 GHz Rated To 200 Watts With Black Aluminum Heatsink Body

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 SA18N200WA-20 is a 20 dB Fixed Attenuator that operates from DC to 18 GHz and is rated to 200 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 | 20 |  | dB |  |
| VSWR |  | $1.5: 1$ |  |  |
| Input Power, CW <br> rated at $+25^{\circ} \mathrm{C}$, derated linearly to 20 W at $+100^{\circ} \mathrm{C}$ | 200 | Watts |  |  |

Input Power, Peak 1
$5 \mu$ s pulse, $3.5 \%$ duty cycle

Specifications by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Range | DC to 8 | 8 to 18 |  |  |  | GHz |
| Atten Accuracy, Typ | $\pm 2$ | $\pm 3$ |  |  |  | dB |

Electrical Specification Notes:
Values at $+25^{\circ} \mathrm{C}$, sea level.

## Mechanical Specifications

## Size

Length
Width/Diameter
Weight
Body Material and Plating

## Configuration

Design
Package Style
14.28 in [362.71 mm]
2.5 in [63.5 mm]
2.055 lbs [932.13 g]

Black Anodized Aluminum Heatsink

Fixed, Directional
Connectorized Module


## Features:

- Directional
- DC to 18 GHz Frequency Range
- Attenuation $20 \pm 3 \mathrm{~dB}$
- Max Power 200 Watts (CW)
- VSWR < 1.5:1


## Applications:

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

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Connectors

| Description | Connector $\mathbf{1}$ | 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 | Stainless Steel | Stainless Steel |

## Environmental Specifications

## Temperature

Operating Range $\quad-55$ to +100 deg C

## Compliance Certifications (see product page for current document)

## Plotted and Other Data

Notes:
Typical Performance Data


20 dB Fixed Attenuator N Male To N Female Directional Up To 18 GHz Rated To 200 Watts With Black Aluminum Heatsink Body 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 Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: 20 dB Fixed Attenuator N Male To N Female Directional Up To 18 GHz Rated To 200 Watts With Black Aluminum Heatsink Body SA18N200WA-20

URL: https://www.fairviewmicrowave.com/20db-fixed-attenuator-n-male-n-female-200-watts-sa18n200wa-20-p.aspx

[^0]SA18N200WA-20
DATA SHEET


\section*{STANDARD TOLERANCES DECIMAL <br> | .$X X$ | $\pm 0.01$ |
| :--- | :--- |
| .$X X X$ | $\pm 0.003$ |}

STANDARD TOLERANCES APPIY
ONLY TO DIMENSIONS IN INCHES

| FAIRVIEW MICROWAVE INC. <br> ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM | NOTES: <br> 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. <br> 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. <br> 3. DIMENSIONS ARE IN INCHES [mm]. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 20 dB Fixed Attenuator N Male To N Female | SA18N200WA |  | CAGE | 3FKR5 |  |
| Black Aluminum Heatsink Body | CAD FILE 032516 | SHEET | SCALE N/A | Size A | 3045 |


[^0]:    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.

