

## 20 dB Fixed Attenuator SMA Male to SMA Female Directional Up to 18 GHz Rated to 100 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 SA18S100-20 is a 20 dB Fixed Attenuator that operates from DC to 18 GHz and is rated to 100 Watts. The versatile coaxial package uses SMA male to SMA 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.



### Features:

- Directional
- DC to 18 GHz Frequency Range
- Attenuation 20dB Typical
- Max Power 100 Watts (CW)
- VSWR < 1.35:1

### Applications:

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

### Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	DC		18	GHz
Impedance		50		Ohms
Nominal Attenuation		20		dB
Attenuation Accuracy		±1		dB
VSWR			1.35:1	
Input Power, CW rated at +25°C, derated linearly to 10W at +125°C			100	Watts
Input Power, Peak 5µs pulse, 2.5% duty cycle			1	kWatts

### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
VSWR, Max	1.2:1	1.25:1	1.35:1			

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

### Mechanical Specifications

<b>Size</b>	
Length	4.78 in [121.41 mm]
Width/Diameter	2.5 in [63.5 mm]
Weight	0.6432 lbs [291.75 g]
Body Material and Plating	Black Anodized Aluminum Heatsink

### Configuration

Design	Fixed, Directional
Package Style	Connectorized Module

Fairview Microwave  
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Lewisville, TX 75056  
Tel: 1-800-715-4396 / (972) 649-6678  
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[www.fairviewmicrowave.com](http://www.fairviewmicrowave.com)  
[sales@fairviewmicrowave.com](mailto:sales@fairviewmicrowave.com)

**Connectors**

Description	Connector 1	Connector 2
Type	SMA Male	SMA 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**

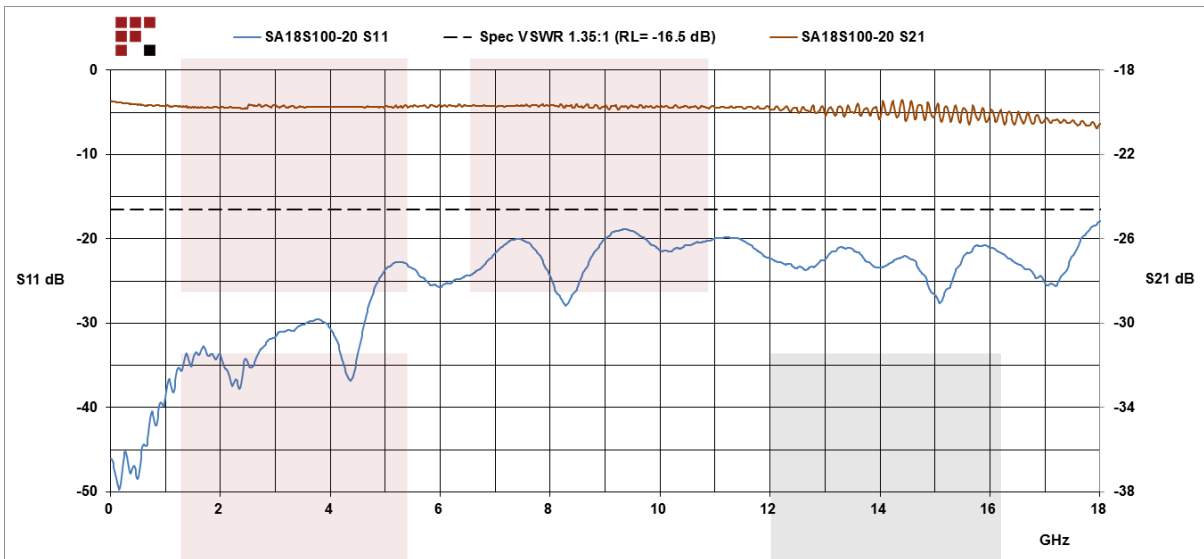
Operating Range -55 to +125 deg C

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

**Plotted and Other Data**

Notes:

**Typical Performance Data**

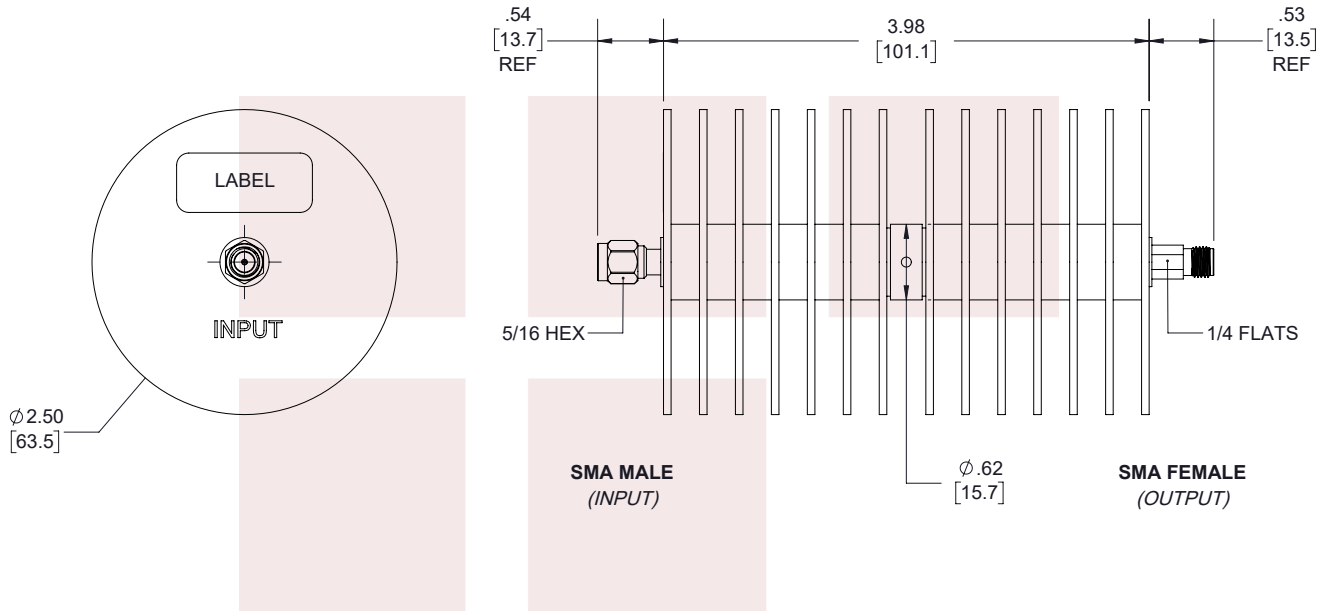


20 dB Fixed Attenuator SMA Male to SMA Female Directional Up to 18 GHz Rated to 100 Watts with Black Aluminum Heatsink Body from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [20 dB Fixed Attenuator SMA Male to SMA Female Directional Up to 18 GHz Rated to 100 Watts with Black Aluminum Heatsink Body SA18S100-20](#)

URL: <https://www.fairviewmicrowave.com/20db-fixed-attenuator-sma-male-sma-female-100-watts-sa18s100-20-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.



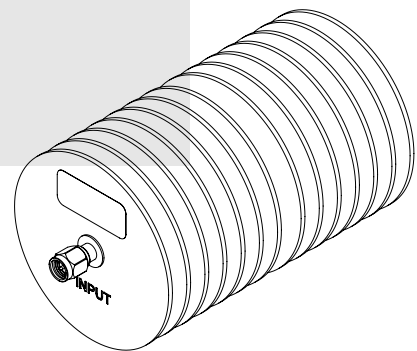
**LABEL**

FAIRVIEW MICROWAVE  
SA18S100-20  
D/C: YYWW

**STANDARD TOLERANCES**

.X  $\pm 0.2$   
.XX  $\pm 0.01$   
.XXX  $\pm 0.005$

\*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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Directional Up to 18 GHz Rated to 100 Watts with  
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DWG NO	SA18S100-20	CAGE CODE	3FKR5					
CAD FILE	09/26/19	SHEET	1 OF 1	SCALE	N/A	SIZE	A	7361