

20 dB Fixed Attenuator N Male To N Female
Directional Up To 8 GHz Rated To 150 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 SA8N150-20 is a 20 dB Fixed Attenuator that operates from DC to 8 GHz and is rated to 150 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.



Features:

- Directional
- DC to 8 GHz Frequency Range
- Attenuation 20±2 dB
- Max Power 150 Watts (CW)
- VSWR < 1.5:1

Applications:

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

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	DC		8	GHz
Impedance		50		Ohms
Nominal Attenuation		20		dB
VSWR			1.5:1	
Input Power, CW derated linearly to 15W at +125°C			150	Watts
Input Power, Peak 5µs pulse, 0.1% duty cycle			2.5	KWatts

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Range	DC to 2	2 to 4	4 to 6	6 to 8		GHz
VSWR, Max	1.2:1	1.3:1	1.4:1	1.5:1		
Atten Accuracy, Typ	±0.75	±0.75	±1.25	±2		dB

Mechanical Specifications

Size	
Length	6.39 in [162.31 mm]
Width/Diameter	5.8 in [147.32 mm]
Height	4.21 in [106.93 mm]
Weight	2.595 lbs [1.18 Kg]
Body Material and Plating	Black Anodized Aluminum Heatsink

Configuration

Design	Fixed, Directional
Package Style	Connectorized Module

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Connectors

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

Mechanical Specification Notes:
 Connector interface in accordance with MIL-STD-348 and MIL-PRF-39012

Environmental Specifications

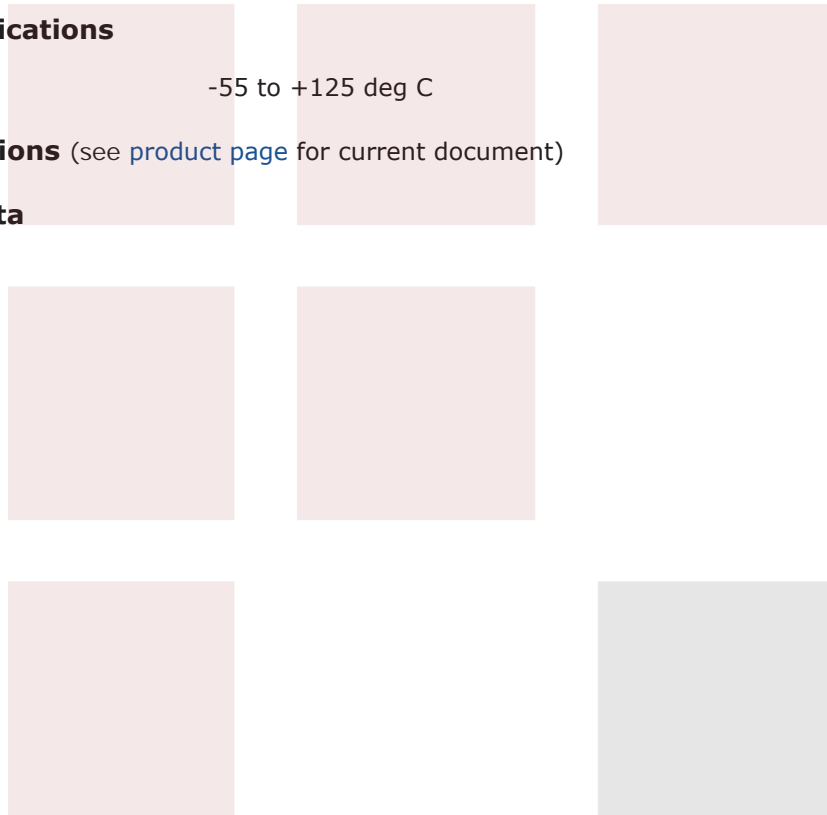
Temperature

Operating Range -55 to +125 deg C

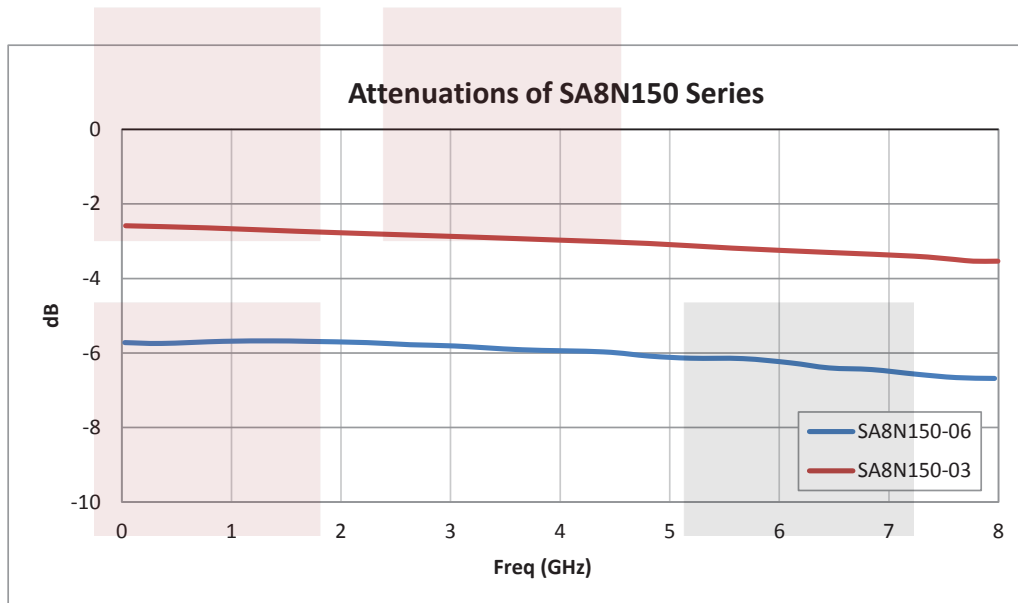
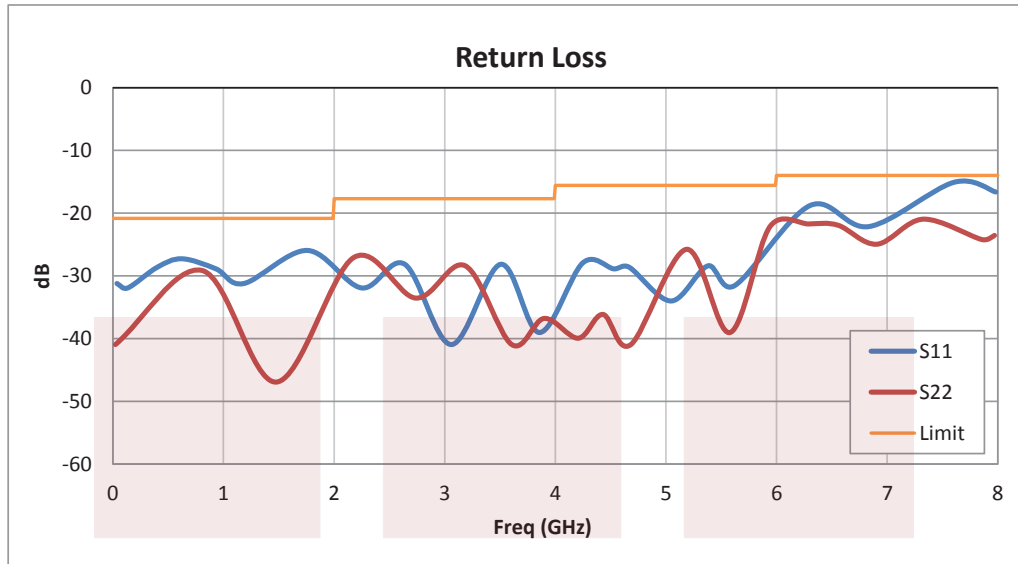
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:



Typical Performance Data

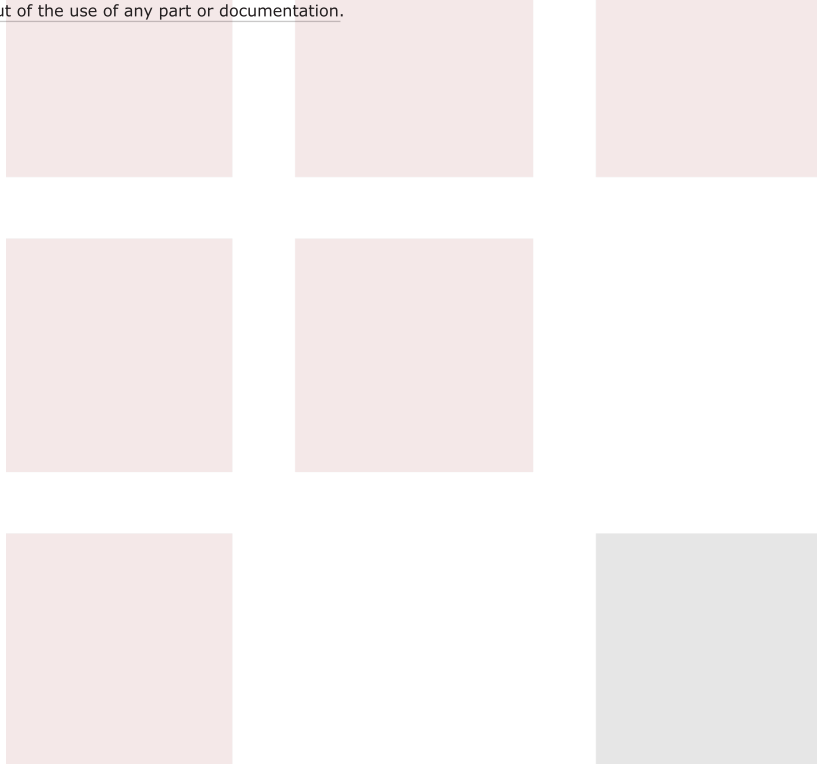


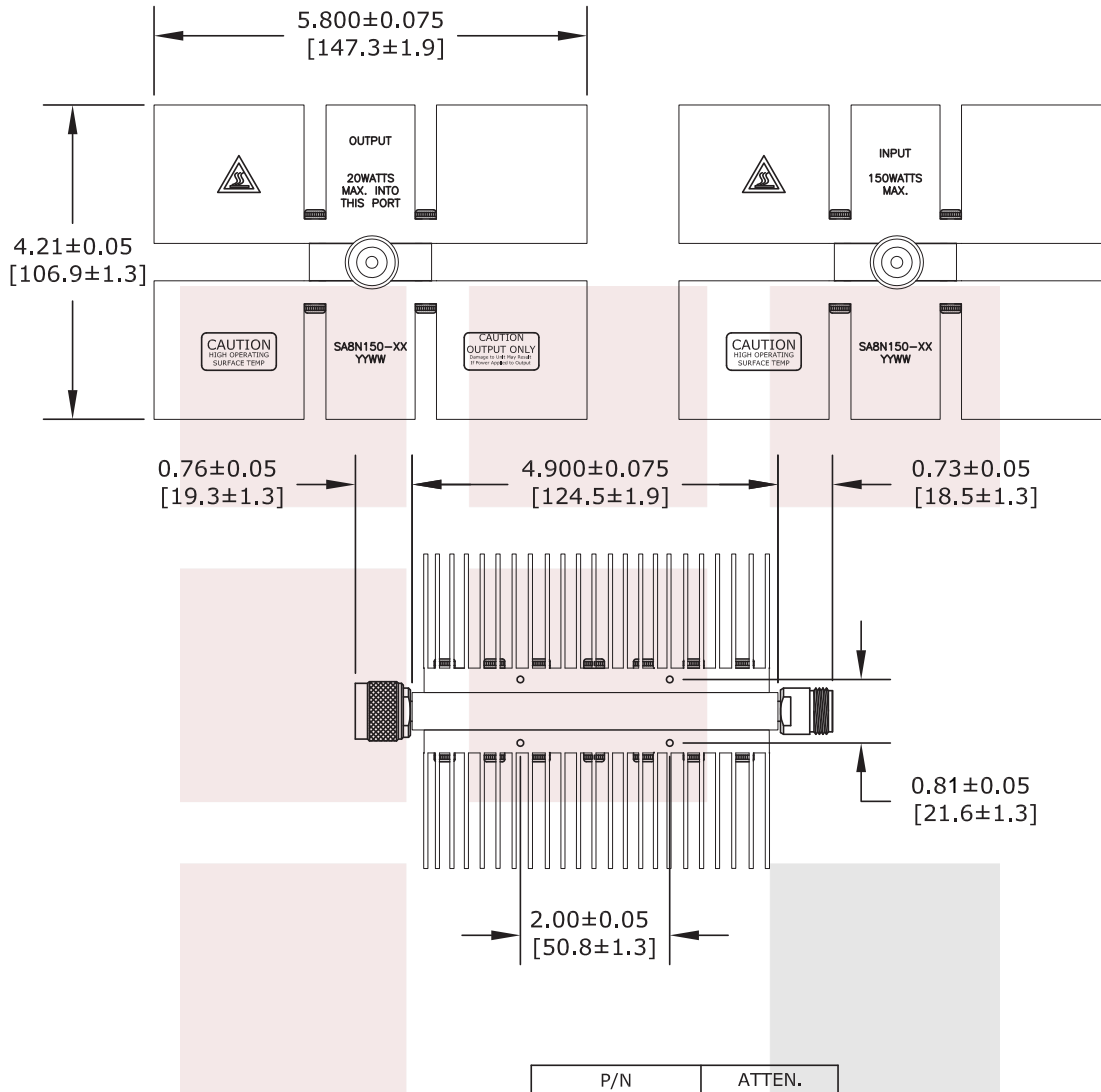
20 dB Fixed Attenuator N Male To N Female Directional Up To 8 GHz Rated To 150 Watts With Black Aluminum Heatsink Body from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, 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 8 GHz Rated To 150 Watts With Black Aluminum Heatsink Body SA8N150-20](#)

URL: <https://www.fairviewmicrowave.com/20db-fixed-attenuator-n-male-n-female-150-watts-sa8n150-20-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.





STANDARD TOLERANCES	
.X	±0.05"
.XX	±0.03"
.XXX	±0.010"

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

P/N	ATTEN.
SA8N150-03	3 dB
SA8N150-06	6 dB
SA8N150-10	10 dB
SA8N150-20	20 dB
SA8N150-30	30 dB
SA8N150-40	40 dB

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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
20 dB Fixed Attenuator N Male To N Female Directional
Up To 8 GHz Rated To 150 Watts With Black Aluminum
Heatsink Body

DWG NO	SA8N150	CAGE CODE	3FKR5		
CAD FILE	031616	SHEET	SCALE	N/A	SIZE A 3045