

20 dB Fixed Attenuator N Male (Plug) to N Female (Jack) Directional Up to 8.5 GHz Rated to 250 Watts, Heatsink Body, 1.45 VSWR



SA8N250-20

Features

- Directional
- DC to 8.5 GHz Frequency Range
- Attenuation 20±0.75 dB
- Max Power 250 Watts (CW)
- VSWR < 1.45:1

Applications

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

Description

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 SA8N250-20 is a 20 dB Fixed Attenuator that operates from DC to 8.5 GHz and is rated to 250 Watts. The versatile coaxial package uses type N male to type N female connectors. The Black Anodized Aluminum Heatsink body allows for efficient heat dissipation under high power usage conditions.

Electrical Specifications

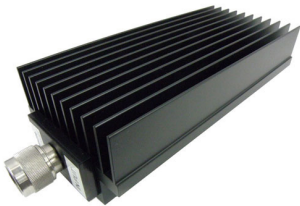
Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		8.5	GHz
Impedance		50		Ohms
Nominal Attenuation		20		dB
Attenuation Accuracy		0.75		dB
VSWR			1.45:1	
Input Power, CW			250	Watts
rated at +25°C, derated linearly to 25W at +125°C				
Input Power, Peak			5	kWatts
5µs pulse, 1.5% duty cycle				

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 4	4 to 8.5				GHz
VSWR, Max	1.3:1	1.45:1				

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

20 dB Fixed Attenuator N Male (Plug) to N Female (Jack) Directional Up to 8.5 GHz Rated to 250 Watts, Heatsink Body, 1.45 VSWR



SA8N250-20

Mechanical Specifications

Size	
Length	9.22 in [234.19 mm]
Width/Diameter	2.04 in [51.82 mm]
Height	3.12 in [79.25 mm]
Weight	2.7855 lbs [1.26 kg]
Body Material and Plating	Black Anodized Aluminum Heatsink
Configuration	
Design	Fixed, Directional
Package Style	Connectorized Module

Connectors

Description	Connector 1	Connector 2
Type	N Male	N Female
Connector Specification	MIL-STD-348A	MIL-STD-348A
Body Material and 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

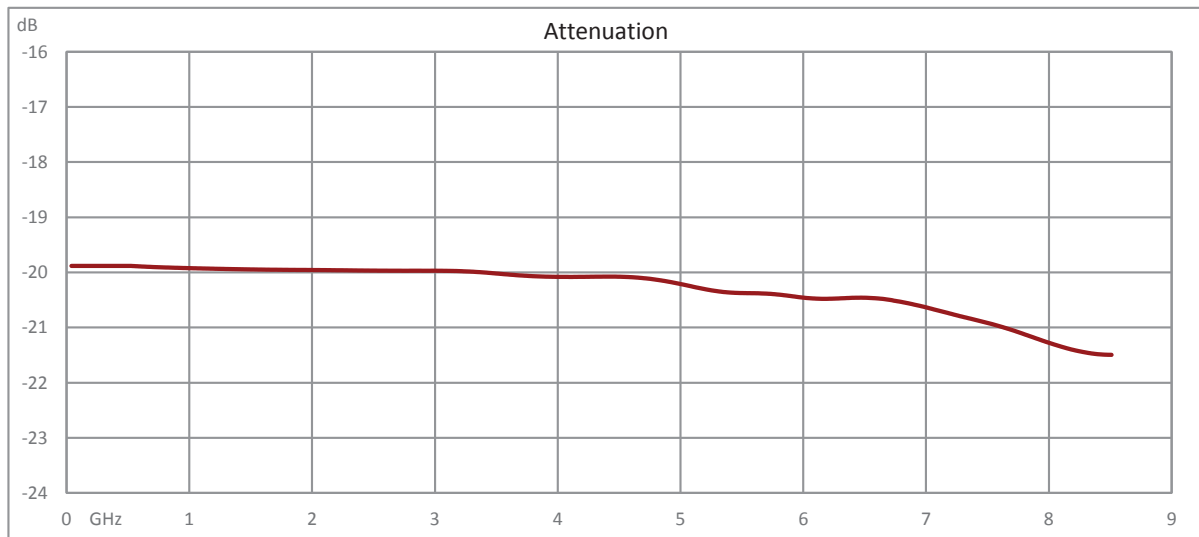
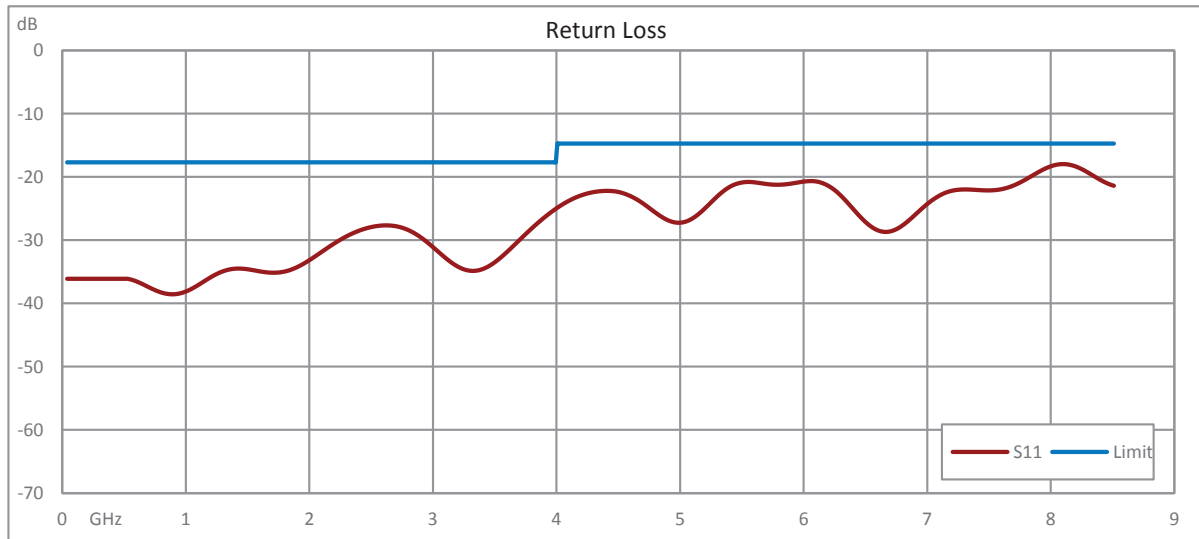
Notes:

20 dB Fixed Attenuator N Male (Plug) to N Female (Jack) Directional Up to 8.5 GHz Rated to 250 Watts, Heatsink Body, 1.45 VSWR

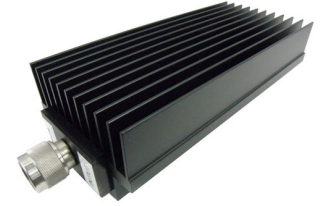


SA8N250-20

Typical Performance Data



20 dB Fixed Attenuator N Male (Plug) to N Female (Jack) Directional Up to 8.5 GHz Rated to 250 Watts, Heatsink Body, 1.45 VSWR



SA8N250-20

20 dB Fixed Attenuator N Male (Plug) to N Female (Jack) Directional Up to 8.5 GHz Rated to 250 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: [20 dB Fixed Attenuator N Male \(Plug\) to N Female \(Jack\) Directional Up to 8.5 GHz Rated to 250 Watts, Heatsink Body, 1.45 VSWR SA8N250-20](https://www.fairviewmicrowave.com/20db-fixed-attenuator-n-male-n-female-250-watts-sa8n250-20-p.aspx)

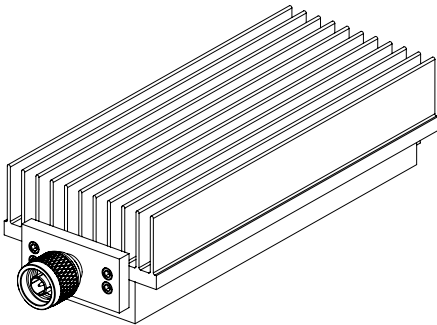
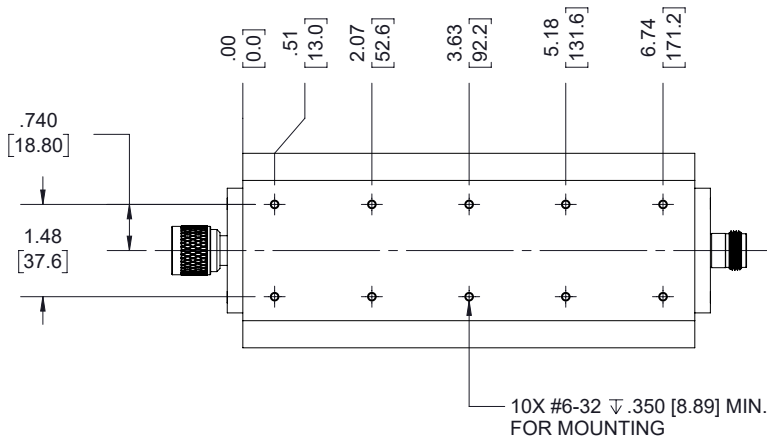
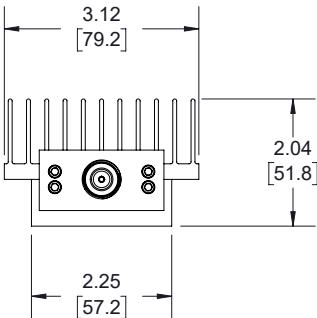
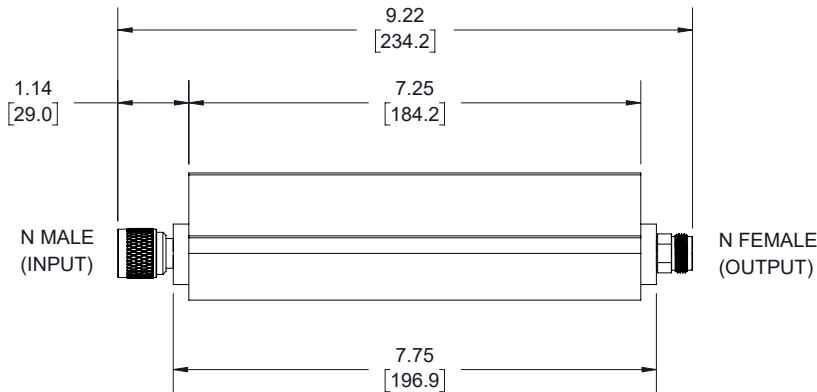
URL: <https://www.fairviewmicrowave.com/20db-fixed-attenuator-n-male-n-female-250-watts-sa8n250-20-p.aspx>

The information contained within 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 liability arising out of the use of any part or document.

SA8N250-20 CAD Drawing

20 dB Fixed Attenuator N Male (Plug) to N Female (Jack) Directional Up to 8.5 GHz Rated to 250 Watts, Heatsink Body, 1.45 VSWR

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	1/30/2020	S.PONG



LABEL:

FAIRVIEW MICROWAVE
SA8N250-20
D/C: YYWW

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.



Fairview Microwave™
an INFINITE® brand

TITLE

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:

.X = ±.2 [5.08] FRACTIONS
.XX = ±.02 [.51] ± 1/32
.XXX = ±.005 [.13] ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:

L ≤ 12 [305] = +1 [25] / -0
12 [305] < L ≤ 60 [1524] = +2 [51] / -0
60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
300 [7620] < L = +5%L / -0

THIRD-ANGLE PROJECTION



THE INFORMATION AND
DESIGN IN THIS DOCUMENT
IS THE PROPERTY OF
FAIRVIEW MICROWAVE CORPORATION.
ALL RIGHTS RESERVED.

SHEET 1 OF 1

SCALE N/A

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	3FKR5	K.DANG	SA8N250-20	A

T-Rev.D