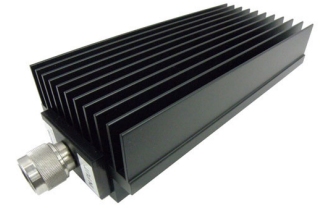


30 dB Fixed Attenuator N Male (Plug) to N Female (Jack) Directional Up to 8.5 GHz Rated to 250 Watts, Heatsink Body, 1.45 VSWR



SA8N250-30

Features

- Directional
- DC to 8.5 GHz Frequency Range
- Attenuation 30±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 SA8N250-30 is a 30 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

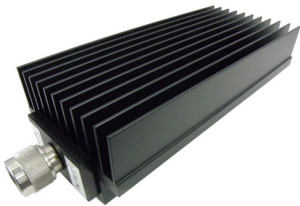
| Description | Minimum | Typical | Maximum | Units |
|---|---------|---------|---------|--------|
| Frequency Range | DC | | 8.5 | GHz |
| Impedance | | 50 | | Ohms |
| Nominal Attenuation | | 30 | | dB |
| Attenuation Accuracy | | 0.75 | | dB |
| VSWR | | | 1.45:1 | |
| Input Power, CW | | | 250 | 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.

30 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



SA8N250-30

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 | 2.787 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

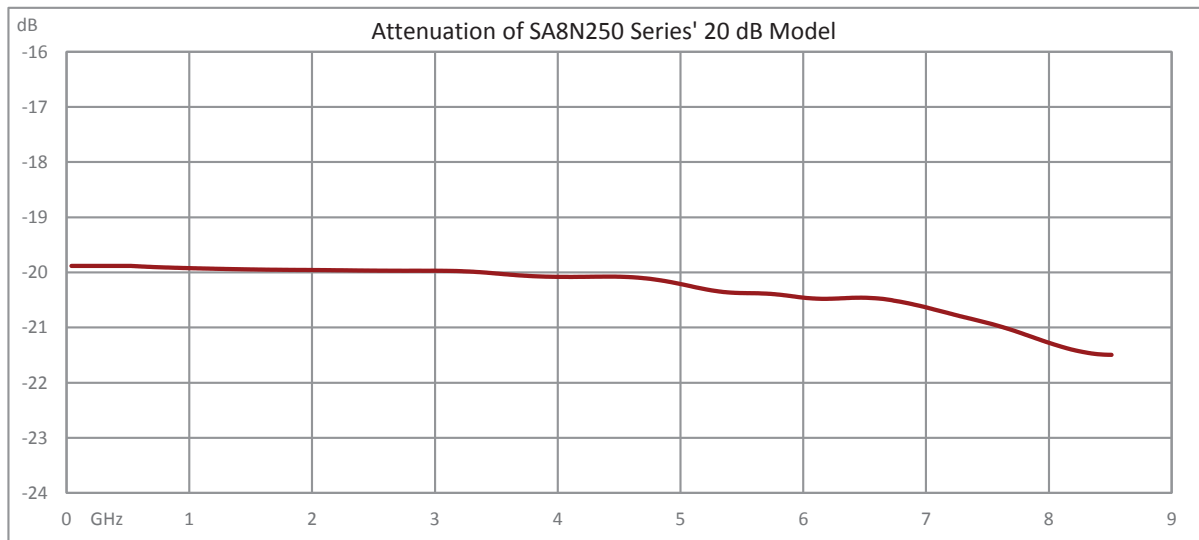
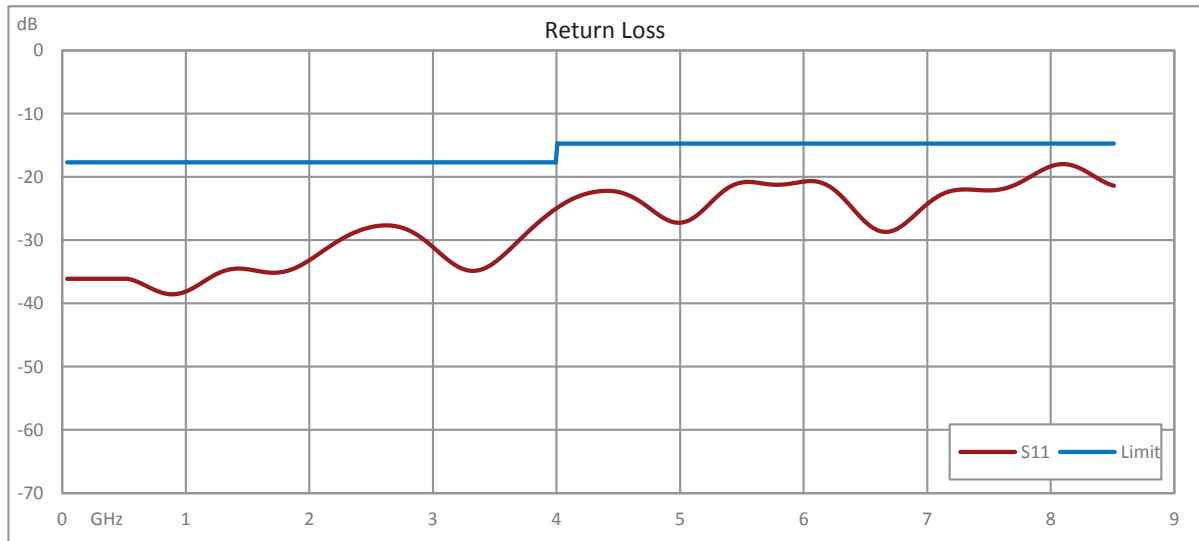
Notes:

30 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



SA8N250-30

Typical Performance Data



30 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



SA8N250-30

30 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: [30 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 SA8N250-30](https://www.fairviewmicrowave.com/30db-fixed-attenuator-n-male-n-female-250-watts-sa8n250-30-p.aspx)

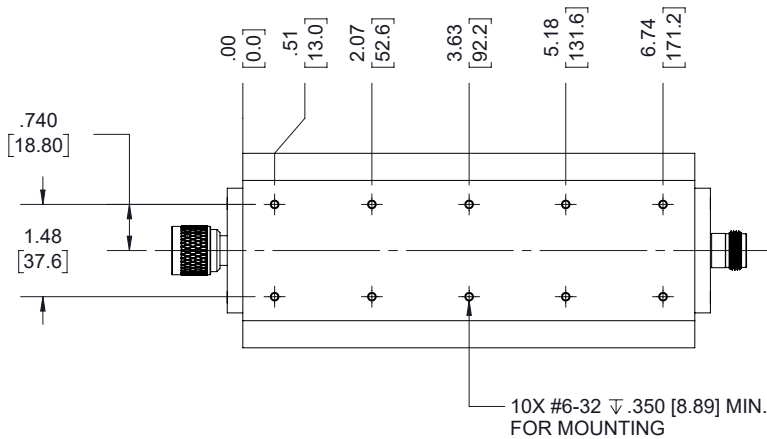
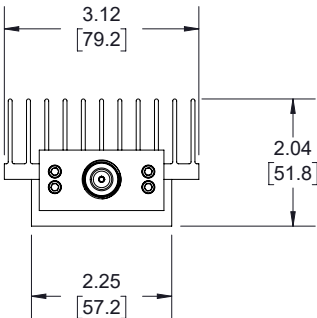
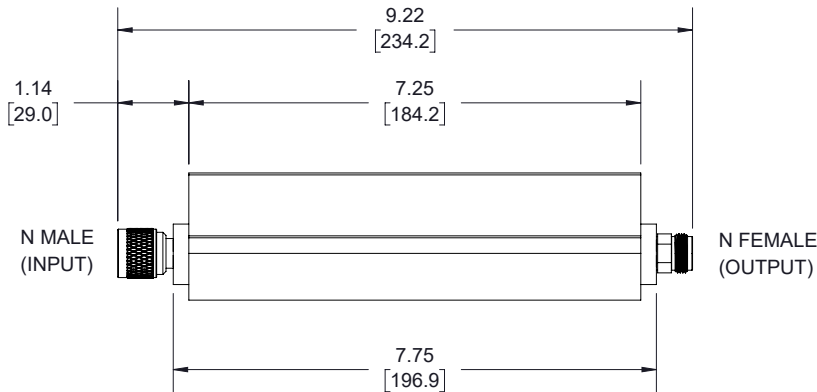
URL: <https://www.fairviewmicrowave.com/30db-fixed-attenuator-n-male-n-female-250-watts-sa8n250-30-p.aspx>

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.

SA8N250-30 CAD Drawing

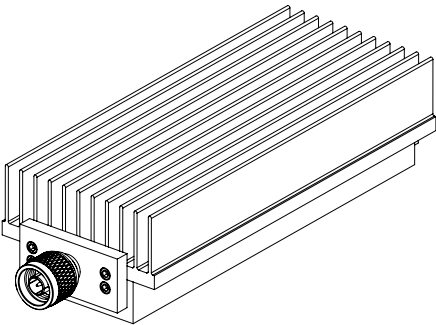
30 dB Fixed Attenuator N Male (Plug) to N Female (Jack) Directional Up to 8.5 GHz Rated to 250 Watts, Heatsink Body, 1.45 VSWR

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



LABEL:

FAIRVIEW MICROWAVE
SA8N250-30
D/C: YYWW



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Fairview Microwave[™]
an INFINITE[®] brand

TITLE

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

TOLERANCES:

.X = $\pm .2$ [5.08] FRACTIONS
.XX = $\pm .02$ [.51] $\pm 1/32$
.XXX = $\pm .005$ [.13] ANGLES $\pm 1^\circ$

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 = $\pm 5\%$ L / -0

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

SCALE N/A

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SIZE
A

CAGE CODE
3FKR5

DRAWN BY
K.DANG

ITEM NO.
SA8N250-30

REV
A