# Precision Fixed Attenuator 

$50 \Omega \quad 5 \mathrm{~W} \quad 10 \mathrm{~dB} \quad \mathrm{DC}$ to 18000 MHz

## Maximum Ratings

Operating Temperature $\qquad$ $-55^{\circ} \mathrm{C}$ to $100^{\circ} \mathrm{C}$
Storage Temperature $-55^{\circ} \mathrm{C}$ to $100^{\circ} \mathrm{C}^{* *}$
${ }^{* *}$ With mated connectors. Unmated, $85^{\circ} \mathrm{C}$ max.
Permanent damage may occur if any of these limits are exceeded.


| B | D | E | wt |
| ---: | ---: | ---: | ---: |
| .61 | 1.20 | .312 | grams |
| 15.49 | 30.48 | 7.92 | 9.1 |

## Electrical Schematic



## Outline Dimensions $\binom{\mathrm{inch}}{\mathrm{mm}}$

## Features

- DC to 18000 MHz
- precise attenuation
- excellent VSWR, 1.20 typ.
- stainless steel SMA male and female connectors


## Applications

## - matching

- instrumentation
- test set-ups 2. VSWR from 12.4 to $18 \mathrm{GHz}, 1.6: 1$ typ.

BW-S10W5+


CASE STYLE: DC737

| Connectors | Model |
| :--- | :--- |
| SMA Female-SMA Male | BW-S10W5+ |

+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Electrical Specifications

| FREQ. RANGE (MHz) | ATTENUATION ${ }^{1}$ (dB) |  | VSWR² <br> (:1) |  |  | MAX. INPUT POWER ${ }^{3}$ <br> (W) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{array}{r} \text { DC-4 } \\ \text { GHz } \end{array}$ | $\begin{aligned} & \text { 4-8 } \\ & \mathrm{GHz} \end{aligned}$ | $\begin{gathered} 8-12.4 \\ G H z \end{gathered}$ |  |
| $\mathrm{f}_{\mathrm{L}-\mathrm{f}} \mathrm{f}$ | Nom. | ACCURACY | Max. | Max. | Max. |  |
| DC-18000 | 10 | $\pm 0.60$ | 1.20 | 1.25 | 1.30 | 5 |

1. At $25^{\circ} \mathrm{C}$, accuracy includes frequency and power variations. Temperature coefficient for attenuation: $.0004 \mathrm{~dB} / \mathrm{dB} /{ }^{\circ} \mathrm{C}$ typ.
2. Average power at $25^{\circ} \mathrm{C}$ ambient, derate linearly to 2 W at $100^{\circ} \mathrm{C}$. Peak Power 125 W max. $5 \mu \mathrm{sec}$ pulse width, 100 Hz PRF.

Typical Performance Data

| Frequency <br> $(\mathbf{M H z})$ | Attenuation <br> $(\mathbf{d B})$ | VSWR <br> $(: 1)$ |
| :---: | :---: | :---: |
|  |  |  |
| 100 | 9.83 | 1.01 |
| 2000 | 9.88 | 1.04 |
| 4000 | 9.87 | 1.07 |
| 6000 | 9.95 | 1.12 |
| 8000 | 9.92 | 1.05 |
| 10000 | 9.92 | 1.24 |
| 12000 | 9.94 | 1.13 |
| 14000 | 9.99 | 1.13 |
| 16000 | 9.95 | 1.28 |
| 18000 | 10.14 | 1.20 |




Notes
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Flectrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instran
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.

## X-ON Electronics

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| R | R413806115 | R413808000 | R413810115 | R413850115 | R414510000 | R414701000 | R415303000 | BNC-13 R41 | 800121 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| R411801121 | R412412124 | R412450000 | R413800000 | R413805000 | R413830000 | R413840115 | R414730000 | R415420000 | R415703000 |
| R416010000 | R420003110 | R411801000 | R411815121 | R413305000 | R413801000 | R414520000 | R411808121 | R412500124 | R412414124 |
| $\underline{\text { R412501124 }}$ | HMC-C584 | R413802000 | R412400124 | R411700124 | R417310130 | R411801119 | R412419124 | R411703124 | R412401124 |
| R443131000 | R417130110 | R414700000 | R414505000 | R411802119 | R417720128 | R420706110 | R413811000 | R413803115 | $\underline{\mathrm{R} 414501000}$ |

