

# YSRSA10-6-121-1A4

Rotary Step Attenuator, 10 W, DC-6 GHz, 0-121 dB

## Key Features

- Broadband Operation (DC-6 GHz)
- High Precision Attenuation Control
- High Power Handling up to 10 W
- Flexible Connector Options
- Rugged & Reliable Mechanical Design

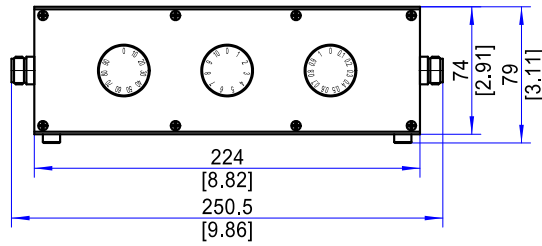
## Applications

- RF & Microwave Test Systems
- Signal Simulation & Calibration
- Receiver Protection
- EMC / EMI Testing
- System Integration & Lab Use

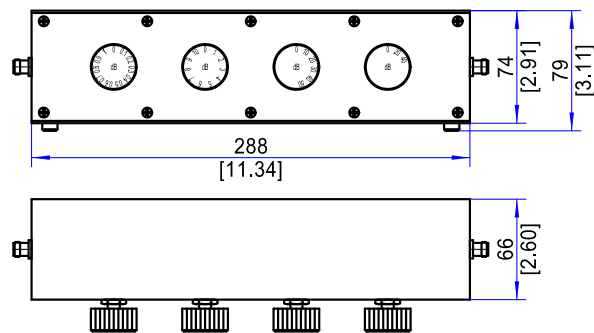
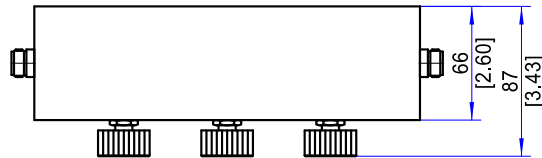
| Electrical Specifications           |   |           |             |                          |  |
|-------------------------------------|---|-----------|-------------|--------------------------|--|
| Impedance                           | 50 $\Omega$   |           |             |                          |  |
| Average Power                       | 2 W, 10 W   |           |             |                          |  |
| Peak Power                          | 100 W (pulse width: 5 $\mu$ s, duty cycle: 2%)  |           |             |                          |  |
| Freq. (GHz)                         | Attenuation   |           | VSWR (Max.) | Insertion Loss (dB.Max.) | Accuracy(dB)   |
|                                     | Range   | Step Size |             |                          |  |
| DC~2.5                              | 0~71 dB   | 0.1 dB    | 1.50        | 1.5                      | $\pm 0.3$ (<1 dB)  |
| DC~3                                |   |           | 1.60        | 1.7                      | $\pm 0.5$ (1-10 dB)  |
| DC~4.3                              |   |           | 1.70        | 2.0                      | $\pm 0.8$ or 3% (10.1-69.9 dB)                                     |
| DC~6                                |   |           | 1.75        | 2.5                      | $\pm 3.5\%$ ( $\geq 70$ dB)  |
| DC~0.03 <sup>1</sup><br>(Outline B) | 0~101 dB  | 0.1 dB    | 1.1         | 0.8                      | $\pm 0.09$ dB( $\leq 15$ dB)<br>$\pm(0.5\%A^2+0.02)$ dB( $>15$ dB) |
| DC~2.5                              |   |           | 1.50        | 1.5                      | $\pm 0.3$ (<1 dB)<br>$\pm 0.5$ (1-10 dB)                           |
| DC~3                                |   |           | 1.60        | 1.7                      | $\pm 0.8$ or 3% (10.1-69.9dB)<br>$\pm 3.5\%$ ( $\geq 70$ dB)       |
| DC~6                                | 0~95 dB   | 1 dB      | 1.75        | 2.5                      | $\pm 0.5$ dB ( $\leq 10$ dB)                                       |
|                                     | 0~110 dB  | 1 dB      |             |                          | $\pm 0.8$ dB or 3% (11-69 dB)                                      |
|                                     | 0~121dB   | 1 dB      |             |                          | $\pm 6\%$ (70-99 dB)<br>$\pm 7\%$ (100-121 dB)                     |
| Environmental Specifications        |   |           |             |                          |  |
| Operating Temperature               | -20°C to +85°C  |           |             |                          |  |
| Mechanical Specifications           |   |           |             |                          |  |
| Connectors                          | N-Type Female   |           |             |                          |  |
| Body Material                       | Aluminum  |           |             |                          |  |
| Dimension                           | Outline A: 250.5×87×79 mm / [9.86×3.43×3.11 in]<br>Outline B: 288×79×66 mm / [11.34×3.43×2.60 in] |           |             |                          |  |
| Weight                              | Outline B: Approx. 1630 g, Outline B: Approx. 2020 g  |           |             |                          |  |

Note 1: The DC–0.03 GHz version is a precision type, available with an average power rating of 2 W only.  
Connector options include N, BNC, and SMA.

Note 2:A represents the attenuation value

**Outline Drawing** (Units: mm/[inch], Tolerance:  $\pm 0.5$  mm)


Outline A



Outline B: DC~0.03GHz

**Ordering Information:**

 Model: **YRSAXX-YY-ZZ-CC**

XX = Power Handling

YY = Frequency Range in GHz

ZZ = Attenuation Range in dB (e.g. 70-R1 = 0-71 dB range with 0.1 dB step size)

CC = Connector Type (N=N-Type Female)

 Example: 6 GHz, 2 W, 0~71 dB in 0.1 dB Steps, N-Female → **YRSA2-6-71-R1A4-N**