

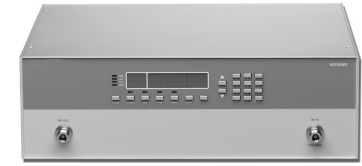
# High Power Programmable Attenuators

100 Watt Hot Switching Capability



## Features

- Provides a flexible, easy to program, low cost solution for your bench test/calibration setups and subsystem applications.
- Available in 0-15 dB or 0-31 dB Configurations.
- Lower Insertion Loss
- Relative vs. Nominal attenuation step function.
- DC to 12.0 GHz Operation
- High Accuracy & Repeatability
- Power Handling up to 100 Watts average
- Designed to interface with industry standard communication interfaces:
  - TCP/Telnet/RESTful HTTP/Serial/USB
- Available in Front, Rear and Through configurations
- **Rack Configurable:** A Rack Mounting Kit is included for easily mounting into any rack or cabinet that is designed per EIA RS-310 or MIL-STD-189.



Generic photo used for illustration purposes only.

## Applications

- 4G LTE/5G Base Station Radio testing
- Ideal for Automated Test Equipment (ATE)
- Engineering / Production Test Lab Environments

## Description

This product is a high-power, hot switching, broadband programmable attenuator. When the the controller requests a new attenuation level the input switch terminates the input signal into a 50 Ohm load. (See Figure 1) This input switch is hot switchable at 100 Watts of input power. This will remove the high power signal from the main signal path. With no signal connected to the attenuator path the controller then commands the series of relays to configure the attenuator for the requested attenuation value. Then the input switch reconnects the input signal to the attenuator path. The system can be operated with either a remote controller or through front panel control.

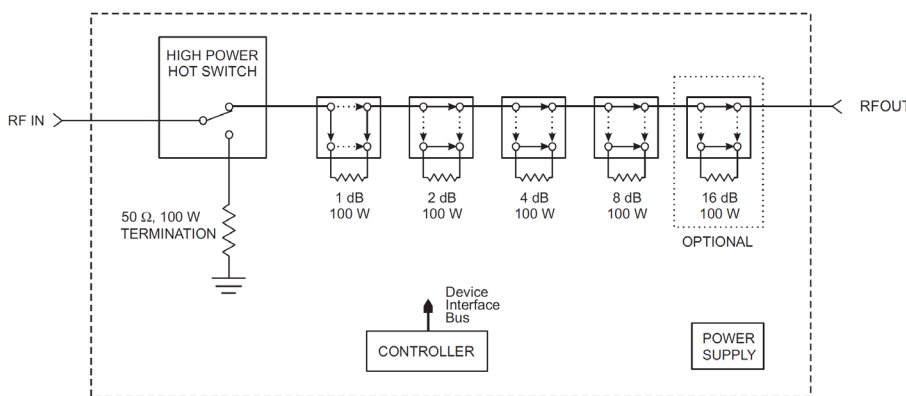
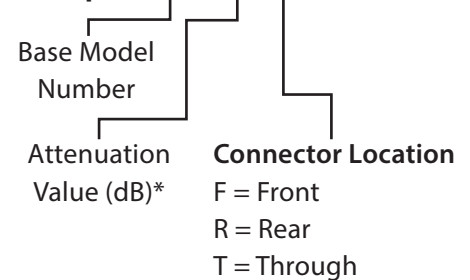


Figure 1. Model 8343 Block Diagram

## Model Number Description:

Example: 8343 - XX - X



\* Available in 0-15 dB and 0-31 dB configurations only!

Note: If power failure should occur, the unit will remain in the last selected attenuation state.

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SPECIFICATION	DESCRIPTION																		
Input Power Requirements	AC: 100 to 240 Vac, 50/60 Hz, 50 Watts																		
Control	Connector: TCP/Telnet/RESTful HTTP/Serial/USB Protocols: Message-based IEEE 488.2 compatible																		
RF Characteristics	Connectors: Type N, Female Frequency Range: DC - 12 GHz Impedance: 50Ω SWR: DC - 4 GHz: 1.60:1 (Maximum) 4 GHz - 12 GHz: 2.30:1 (Maximum) Attenuation Range: 15 dB/1 dB steps (8343-15-F) 31 dB/1 dB steps (8343-31-F) RF Power Rating: DC MHz - 4 GHz: 100 Watts (Maximum) 4 GHz - 12 GHz: 50 Watts (Maximum) Attenuation Settings: 100,000 selections (minimum) Attenuation Update Rate: 1 second (Typical) Incremental Accuracy: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Frequency</th> <th>1-15 dB</th> <th>16-31 dB</th> </tr> </thead> <tbody> <tr> <td>DC - 4 GHz:</td> <td>±0.6 dB</td> <td>±0.8 dB</td> </tr> <tr> <td>4 GHz - 12 GHz:</td> <td>±2.5 dB</td> <td>±3.0 dB</td> </tr> </tbody> </table> Insertion Loss (dB): <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Frequency Range</th> <th>8343-15-X</th> <th>8343-31-X</th> </tr> </thead> <tbody> <tr> <td>DC - 4 GHz:</td> <td>2.5</td> <td>3.0</td> </tr> <tr> <td>4 GHz - 12 GHz:</td> <td>4.0</td> <td>4.5</td> </tr> </tbody> </table>	Frequency	1-15 dB	16-31 dB	DC - 4 GHz:	±0.6 dB	±0.8 dB	4 GHz - 12 GHz:	±2.5 dB	±3.0 dB	Frequency Range	8343-15-X	8343-31-X	DC - 4 GHz:	2.5	3.0	4 GHz - 12 GHz:	4.0	4.5
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Environmental	Operating Temperature: 0 to +50°C Storage Temperature: 67° to +167 °F (-55° to +75°C) Humidity: 96% Altitude: 40,000' (12,192M)																		