LDA-908V Lab Brick® High Resolution Digital Attenuator

200 – 8000 MHz Frequency | 90 dB Attenuation Range | 0.1 Step Size

Features/Benefits

- Reliable and Repeatable solid state digital attenuation
- Includes Windows GUI and SDK, macOS GUI and SDK, Linux SDK, LabVIEW driver, Python examples and more
- USB and Ethernet Interfaces
- Configurable Static IP or DHCP
- Password protected Ethernet interface
- Programmable attenuation ramp and fading profiles
- Operate multiple devices directly from a PC or self powered hub
- Easily portable USB powered device

Applications

- WiFi, WiFi6E, 3G, 4G, 5G, LTE, Microwave Radio Fading Simulators
- Engineering/Production Test Labs
- Automated Test Equipment (ATE)

The Lab Brick LDA series of Digital Attenuators bring affordability, functionality, reliability and simplicity to the microwave test bench. The LDA products range from 6 MHz to 40 GHz with input level tolerance to 2 Watts and step size as small as 0.1 dB.

The LDA-908V offers both USB and Ethernet interfaces. The USB port uses a native HID interface to avoid the difficulties inherent in using older serial or IEEE-488 interfaces implemented over USB. As a result, Lab Brick users can get to work faster without having to install kernel level drivers, and Lab Brick devices can be easily used on any system that supports USB HID devices, including low cost embedded computers using Linux or similar operating systems. The Ethernet interface is configurable for Static IP or DHCP with the ability to assign the HTTP port for extra security.

The LDA-908V Digital Attenuator is a highly accurate, bidirectional, 50 Ohm step attenuator. The LDA-908V provides calibrated attenuation from 200 to 8000 MHz with an amazing step size of 0.1 dB and typical accuracy <0.25 dB over 90 dB of control range. The attenuators are easily programmable for fixed attenuation, swept attenuation ramps and fading profiles directly from the included Graphical User Interface (GUI). Alternatively, for users wishing to develop their own interface, Vaunix supplies LabVIEW drivers, Windows API DLL files, macOS .dylib files, Linux drivers, Python examples and much more.

vaunix

7 New Pasture Road
Newburyport, MA 01950
978-662-7839
www.Vaunix.com
Revision A2 10/31/23

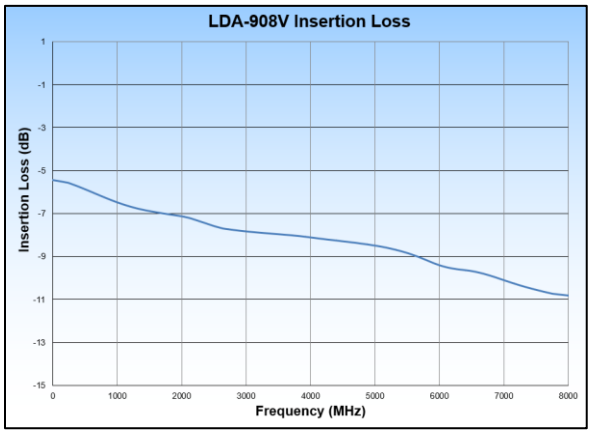
LDA-908V Specifications

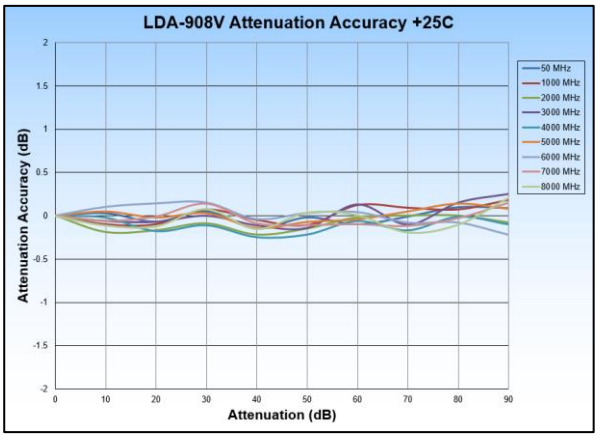
Parameter	*Test Conditions*	*Min*	*Typ*	*Max*
Frequency Range (MHz)		200		8000
Impedance (Ω)			50	
Attenuation Range (dB)		90		
Step Size (dB)		0.1		
Insertion Loss (dB)	< 2 GHz		5	7.5
	< 4 GHz		7.5	8.5
	< 8 GHz		10	11
Attenuation Accuracy (dB)	+25 °C		0.25	1.5
	-30 °C to +70 °C		1	3
Switching Speed (µs)			15	
Maximum Input Level (dBm)			23	
Input IP3 (dBm)		38	45	
VSWR			1.5:1	

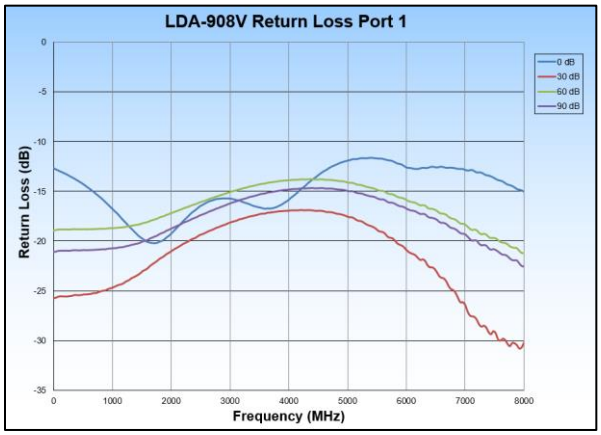
Parameter	*Test Conditions/Notes*	
Power Requirements	From the USB connection	+5 VDC 75 mA
Environmental	Operating Temperature	-30 °C to +70 °C
	Relative Humidity (non-condensing)	<95%
Physical Connections	Power	USB Type C – female
	Control	USB/Ethernet
	RF Connectors	SMA – female
Operating Modes	Manual Attenuation Control Swept Attenuation – uni/bi directional – one time/repeat Profile	
Mechanical	Size	4.27 x 1.97 x 0.86 inches 108.5 x 50 x 21.8 millimeters
	Weight	0.4 pounds 0.182 kilograms

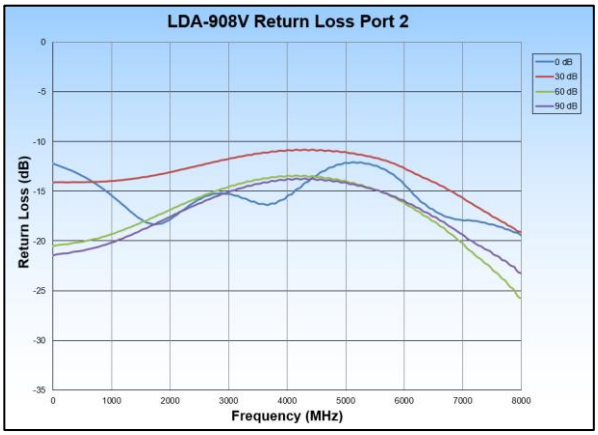
7 New Pasture Road
Newburyport, MA 01950
978-662-7839
www.Vaunix.com

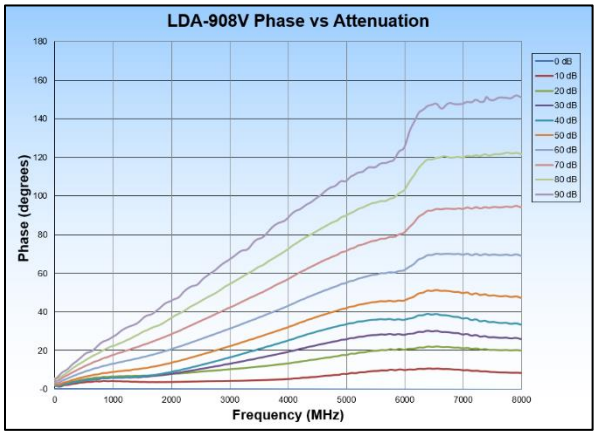
LDA-908V Performance Plots





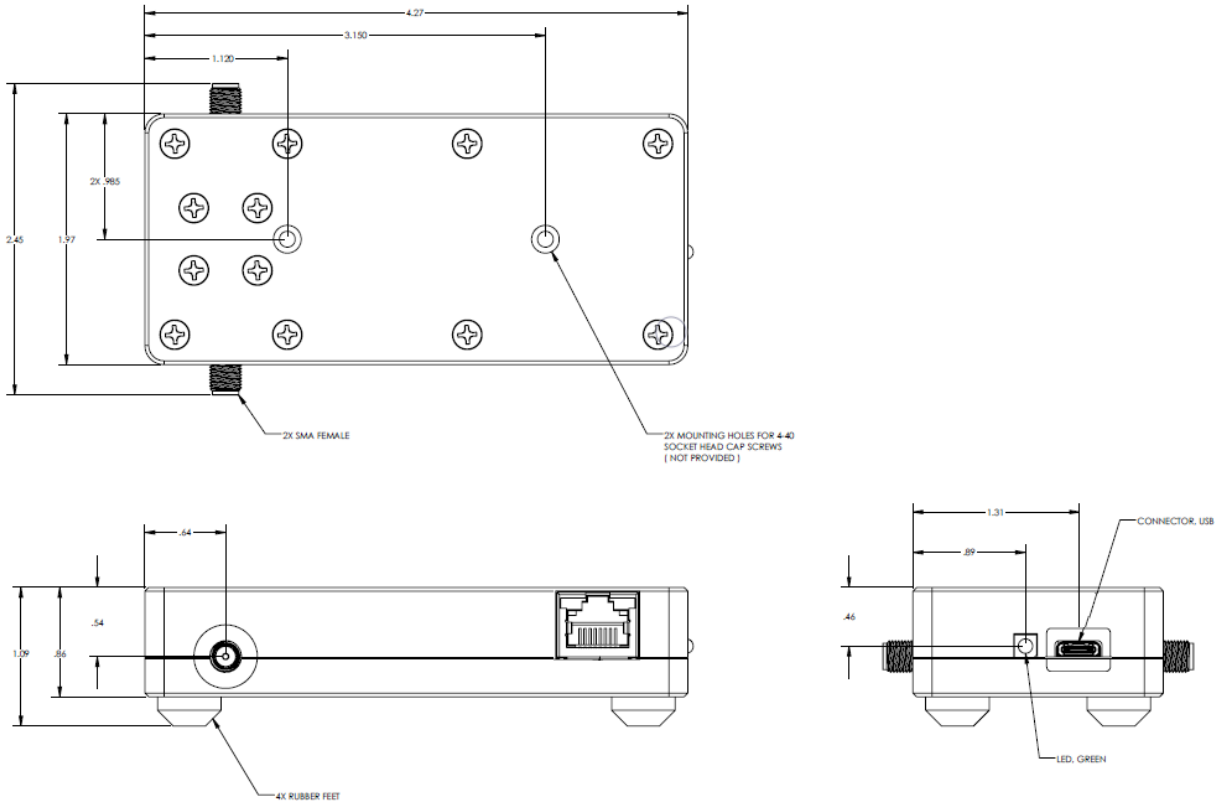




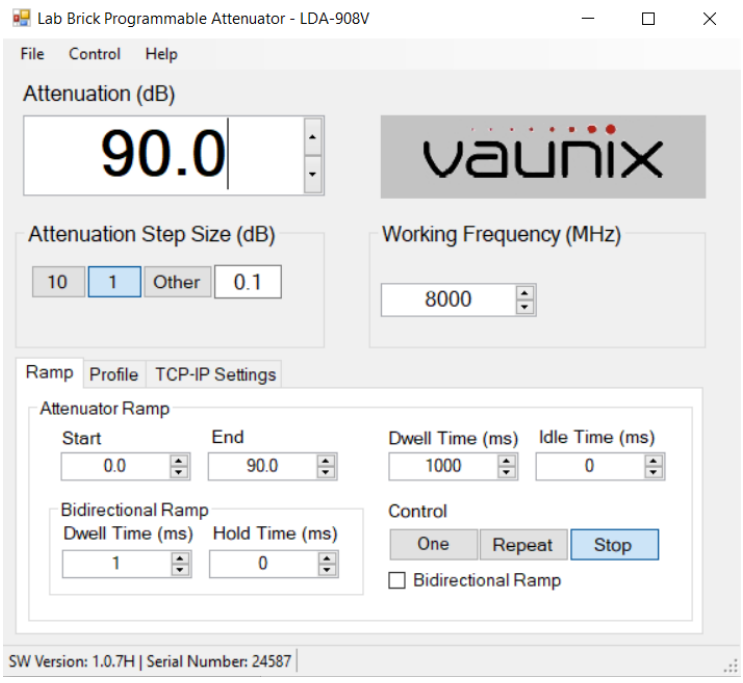


7 New Pasture Road
Newburyport, MA 01950
978-662-7839
www.Vaunix.com

LDA-908V Mechanical Outline

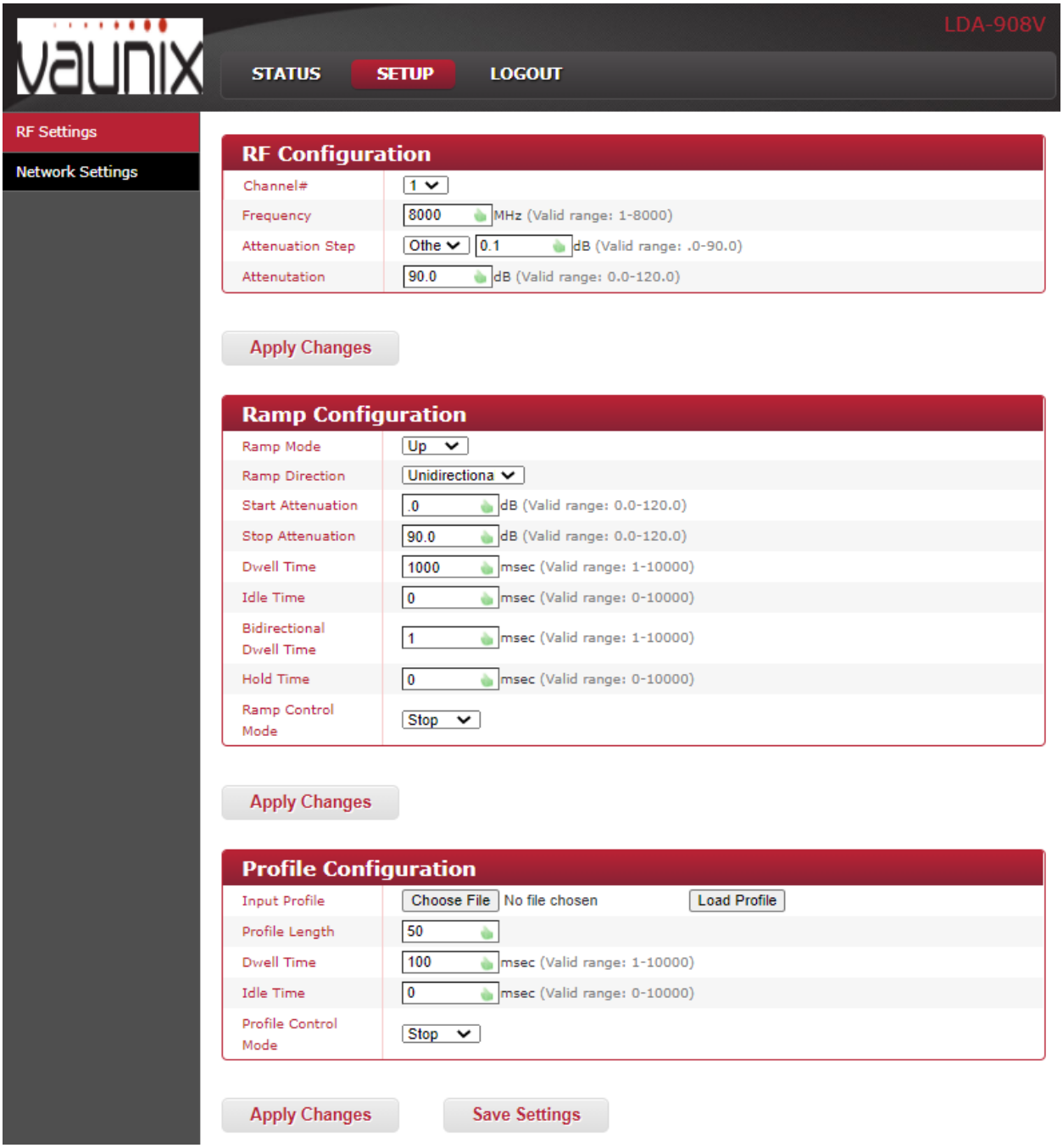


LDA-908V USB Software Interface



7 New Pasture Road
Newburyport, MA 01950
978-662-7839
www.Vaunix.com

LDA-908V Ethernet Web Interface



7 New Pasture Road
Newburyport, MA 01950
978-662-7839
www.Vaunix.com