

LDA-602Q

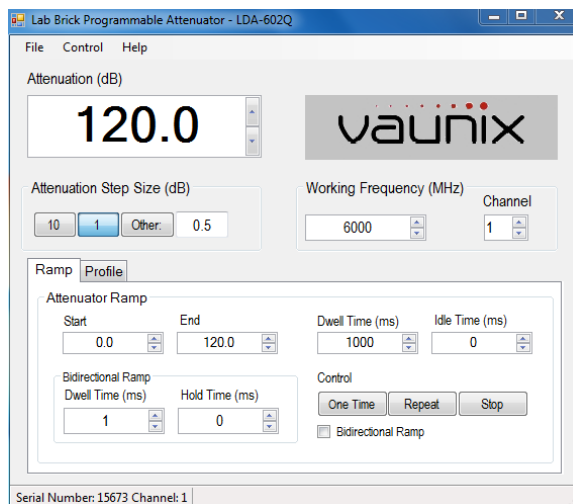
Lab Brick® 4 Channel Digital Attenuator

Features/Benefits

- > Reliable and Repeatable solid state digital attenuation
- > Includes GUI, Windows and Linux SDK, LabVIEW driver
- > Programmable attenuation ramp and fading profiles
- > Operate multiple devices directly from a PC or self powered hub
- > Easily portable USB powered device
- > Sized to fit into a single rack unit for ATE applications

Applications

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



Overview

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 20 GHz with input level tolerance to 2 Watts and step size as small as 0.1 dB.

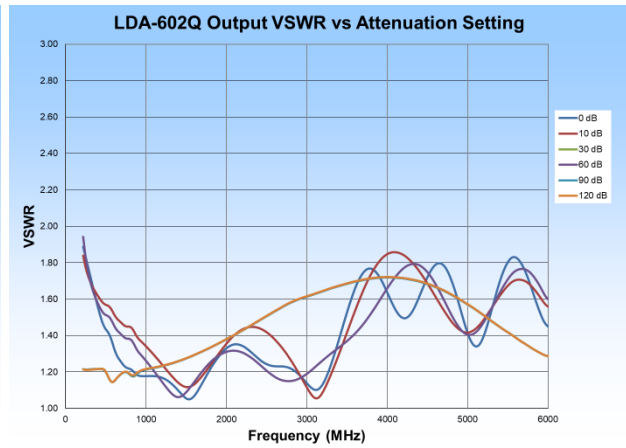
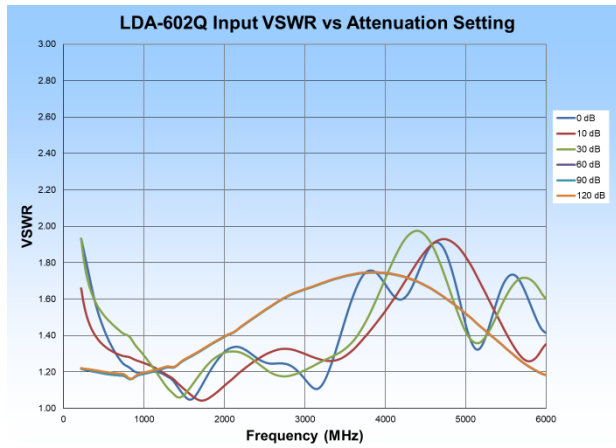
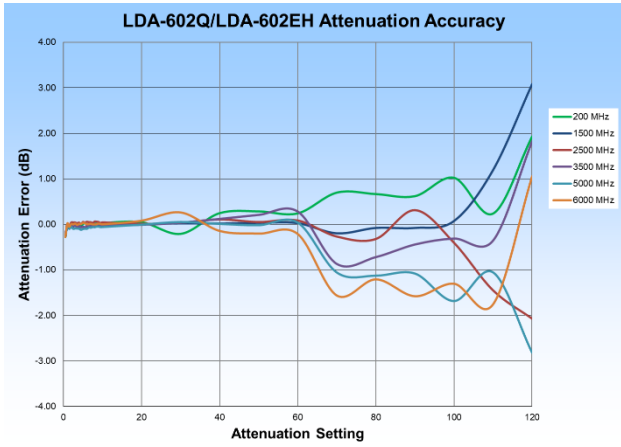
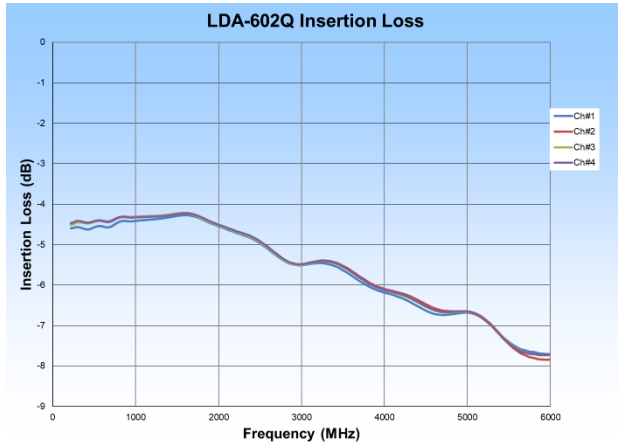
Lab Bricks use a native USB HID interface to avoid the difficulties inherent in using older serial or IEEE-488 interfaces implemented over USB. As a result, Lab Brick users can get to work faster without having to install kernel level drivers, and Lab Brick devices can be easily used on any system that supports USB HID devices, including low cost embedded computers using Linux or similar operating systems.

The LDA-602Q Digital Attenuator is a bidirectional, 4 channel, 50 Ohm step attenuator. The LDA-602Q offers 120 dB of control range from 200 to 6000 MHz with an amazing step size of 0.1 dB. 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 and a Linux driver with instruction manuals.

Specifications

Parameter	Test Conditions/Notes	Min	Typ	Max	Units
Frequency Range		200		6000	MHz
Impedance			50		Ohms
Attenuation Range		120			dB
Step Size		0.1			dB
Insertion Loss	< 2 GHz		4.5	5.5	dB
	< 4 GHz		6.5	7.5	
	< 6 GHz		8.5	9.5	
Attenuation Accuracy	< 30 dB		0.2	0.5	dB
	<60 dB		0.4	1.5	
	<90 dB		0.6	2.0	
	<110 dB		1.0	2.5	
	<120 dB		2.0	4.5	
Switching Speed			15		us
Maximum Input Level			+28		dBm
Input IP3			+55		dBm
VSWR			1.3:1		
Operating Modes	Manual Attenuation Control Swept Attenuation – uni/bi directional – one time/repeat Profile				
Power Requirements	From the USB connection	+4.75	+5.0 65	+5.25	VDC mA
Environmental	Operating Temperature Relative Humidity (non-condensing)	-10		+50 <95	C %
Mechanical	Dimensions Weight	7.3 x 2.5 x 0.95 185.4 x 63.5 x 24.1 1.3 0.6			In. mm. lb. Kg
Physical Connections	Power and Control RF Connectors Mounting : Counter-bore holes	USB Type B – female SMA – female (x8) #6 Socket Head (x2)			

Graphs



Mechanical Outline

