

# Lab Brick<sup>®</sup> Signal Generator

## **General Description**

Lab Brick Signal Generators are RF signal sources with operation up to 6 GHz. These units require connection to a USB port for control and power. No other external DC supply voltage is required. Lab Brick Signal Generators are easily programmable for fixed frequency or frequency stepping directly from the included GUI.

## **Features/Benefits**

- > USB powered and controlled
- > Includes easy to install and use GUI
- > Programmable frequency stepping
- > Operate multiple devices directly from a PC or self powered USB hub
- > Easily programmable for ATE applications
- > Robust aluminum construction



## **Applications**

- > Automated Test Equipment (ATE)
- > Engineering Lab
- > Production Test

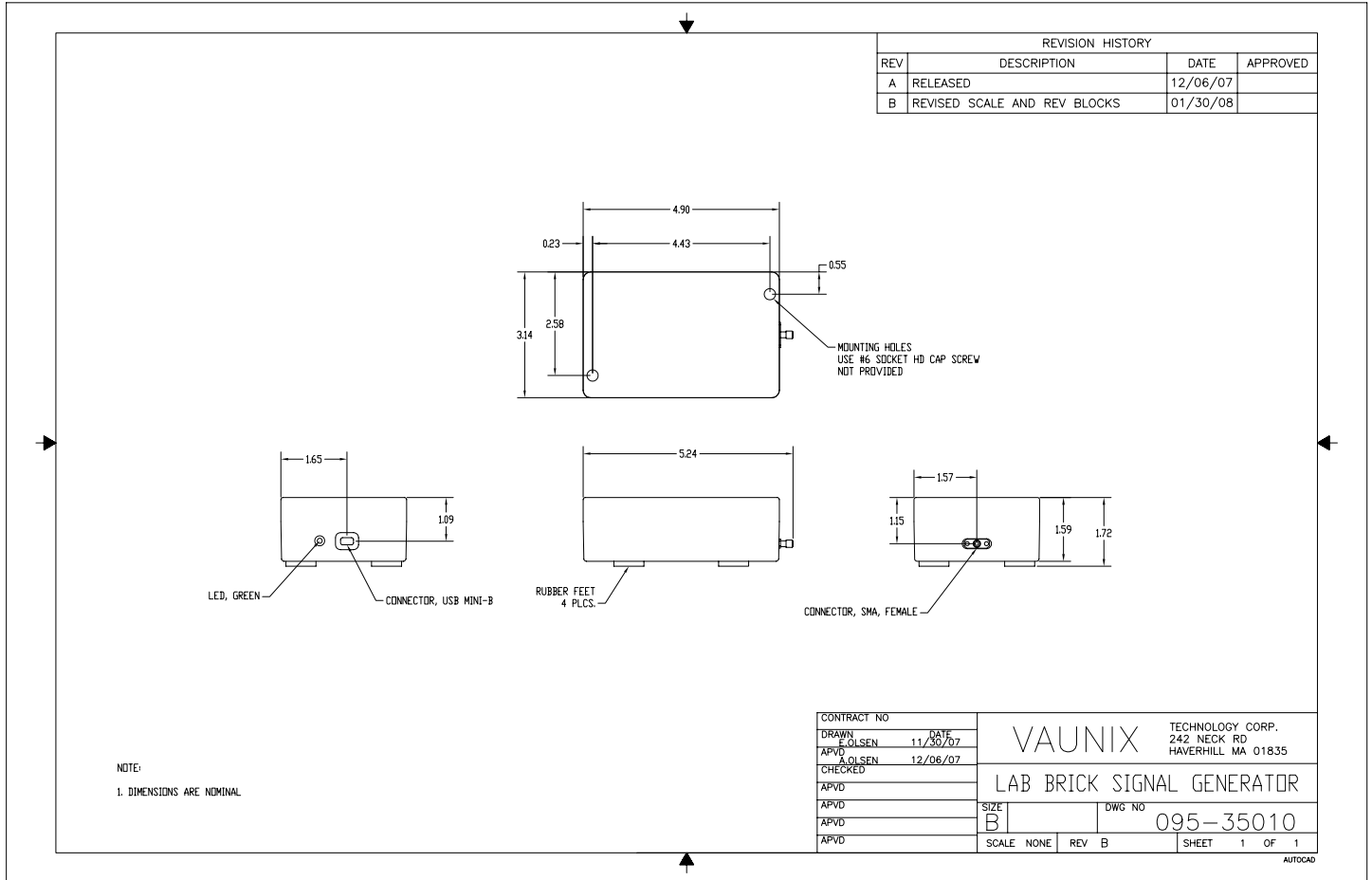


Model Number	LSG-251	LSG-152	LSG-222	LSG-402	LSG-602
<b>Electrical</b>					
Frequency Range (MHz)	50 to 250	250 to 1500	500 to 2200	1000 to 4000	1500 to 6000
Frequency Resolution	100 kHz	100 kHz	100 kHz	100 kHz	100 kHz
Frequency Accuracy <sup>2</sup>	± 2 PPM	± 2 PPM	± 2 PPM	± 2 PPM	± 2 PPM
Guaranteed Output Power	+10 dBm	+10 dBm	+10 dBm	+10 dBm	+10 dBm
Output Power Setting Range	55 dB min	55 dB min	55 dB min	55 dB min	50 dB min
Output Power Setting Resolution	0.5 dB	0.5 dB	0.5 dB	0.5 dB	0.5 dB
Output Power Accuracy	+1.5/-0.5 dB	+1.5/-0.5 dB	+1.5/-0.5 dB	+1.5/-0.5 dB	+1.5/-0.5 dB
SSB Phase Noise @ 10kHz offset - typical	-105 dBc/Hz	-95 dBc/Hz	-90 dBc/Hz	-85 dBc/Hz	-75 dBc/Hz
SSB Phase Noise @ 100kHz offset - typical	-125 dBc/Hz	-115 dBc/Hz	-110 dBc/Hz	-105 dBc/Hz	-95 dBc/Hz
Harmonic Level	-10 dBc max	-10 dBc max	-10 dBc max	-10 dBc max	-10 dBc max
Non-harmonic Spurious Level	-70 dBc max -80 dBc typ	-70 dBc max -80 dBc typ	-70 dBc max -80 dBc typ	-70 dBc max -80 dBc typ	-70 dBc max -80 dBc typ
Output VSWR	1.5:1 max.	1.5:1 max.	1.5:1 max.	1.5:1 max.	1.5:1 max.
DC Power	via USB	via USB	via USB	via USB	via USB
GUI Compatibility	Windows™ 2000/XP/Vista	Windows™ 2000/XP/Vista	Windows™ 2000/XP/Vista	Windows™ 2000/XP/Vista	Windows™ 2000/XP/Vista
<b>Mechanical</b>					
Dimension - inches (mm)	4.90x3.14x1.59 (124x80x40)	4.90x3.14x1.59 (124x80x40)	4.90x3.14x1.59 (124x80x40)	4.90x3.14x1.59 (124x80x40)	4.90x3.14x1.59 (124x80x40)
Weight - lbs (Kgs)	<1.0 (<0.45)	<1.0 (<0.45)	<1.0 (<0.45)	<1.0 (<0.45)	<1.0 (<0.45)
RF Output	SMA - female	SMA - female	SMA - female	SMA - female	SMA - female
USB Port	Mini-B female	Mini-B female	Mini-B female	Mini-B female	Mini-B female
USB Cable - Type A male/Mini-B male	Included	Included	Included	Included	Included
<b>Mounting Holes (clear) - 2 places Hardware not included</b>	#6 Socket Head Cap Screw or equivalent	#6 Socket Head Cap Screw or equivalent	#6 Socket Head Cap Screw or equivalent	#6 Socket Head Cap Screw or equivalent	#6 Socket Head Cap Screw or equivalent
<b>Operating Modes</b>					
	Continuous Frequency Frequency Stepping Single Sweep Frequency Stepping Continuous Sweep				

Notes

1. These specifications are subject to change without notice.
2. Customized models are available tailored to specific performance requirements.
3. The GUI software is included with the purchase of each Lab Brick Digital Attenuator.
4. A 6' USB cable is included with the purchase of each Lab Brick Digital Attenuator.

**Mechanical Outline**



**Ordering Information**

For price, delivery and order placement please contact Vaunix Technology Corporation:  
 242 Neck Road Haverhill, MA 01835 Phone: 978-662-7839 Fax: 978-662-7842  
 or visit [www.labbrick.com](http://www.labbrick.com) to order online