



Lab Brick® LMS Signal Generators

- USB powered and controlled
- Includes easy to install and use GUI
- Fast switching to 20 GHz
- Selectable internal/external 10 MHz reference
- Phase continuous frequency sweep (LFM)
- High-speed internal and external pulse modulation
- Autonomous operation from USB hub or battery pack
- Robust aluminum construction
- API DLL and LabVIEW compatible drivers available

The Lab Brick LMS Signal Generators cover frequencies from 0.5 MHz to 20 GHz with low phase noise, fast 100 microsecond switching time, and fine 100 Hz frequency resolution. They require no additional DC supply voltage and offer advanced features such as phase continuous linear frequency sweeping, internal/external 10 MHz reference, and optional pulse modulation. GUI software can track and control several connected signal generators, simplifying multiple-signal test setups. Each device stores settings in internal memory, allowing it to power up in a specific instrument state.

Applications include:

- Automated Test Equipment (ATE)
- Portable LO Source
- Engineering/Production Test Lab

Model	Description	Phase Noise @ 10/100kHz offset	Output Power (dBm)
LMS-271D	.5 to 270 MHz	-97/-103	+10 to -45
LMS-451D	70 to 450 MHz	-97/-103	+10 to -45
LMS-152D	.25 to 1.5 GHz	-95/-101	+10 to -45
LMS-232D	.5 to 2.3 GHz	-92/-99	+10 to -45
LMS-322D	.6 to 3.2 GHz	-90/-97	+10 to -45
LMS-402D	1 to 4 GHz	-85/-94	+10 to -45
LMS-602D	1.5 to 6 GHz	-85/-94	+10 to -45
LMS-802	4 to 8 GHz	-81/-89	+10 to -40
LMS-103	5 to 10 GHz	-81/-89	+10 to -40
LMS-123	8 to 12 GHz	-77/-86	+10 to -40
LMS-163	8 to 16 GHz	-75/-83	+10 to -30
LMS-203	10 to 20 GHz	-75/-83	+10 to -30

Frequency

Resolution	100 Hz
Accuracy	±2 PPM
Switching	100 µs

Spurious

Typical	-80 dBc
Maximum	-70 dBc

VSWR

1.5:1

Harmonics

Typical	-40 dBc
Maximum	-15 dBc

SubHarmonics

LMS-802, LMS-103, LMS-123	-60 dBm
LMS-163, LMS-203	-25 dBc

Selectable Internal/External Reference

Frequency	10 MHz
Input Level	500 mV to 3V peak to peak

Phase Continuous Linear Frequency Sweep (LFM)

Sweep Time	1 ms to 1000 seconds
Sweep Direction	Up, down, bidirectional

Optional Pulse Modulation

Pulse Depth

LMS-163, LMS-203	-45 dBc typical, -35 dBc min
All Other Models	-70 dBc typical, -60 dBc min

Rise/Fall Time

30 ns typical

Internal/External Pulse Mode

Pulse Width	100 ns min
PRI	100 ns plus pulse width min
Resolution	100 ns
Trigger Input/Output	0 to 5 Volts

RF Connector

SMA-female

USB Connector

B-female

Dimensions

4.90 x 3.14 x 1.59 in.
(124 x 80 x 40 mm)

Weight

< 1.0 lbs. (< .45 kg)

Available Options

Opt 003	Pulse modulation
Opt 004	External Frequency Sweep Trigger

Included Accessories

USB Flash Drive with GUI Software & User Manual/Programming Guide
3' USB Cable

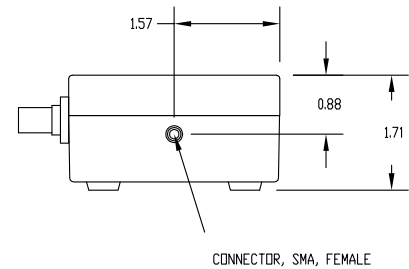
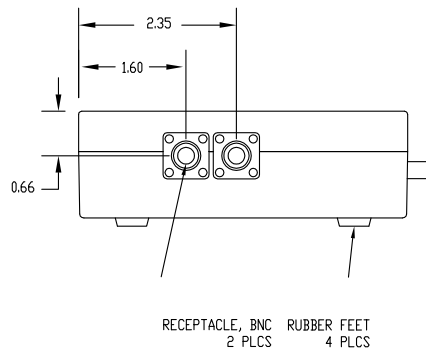
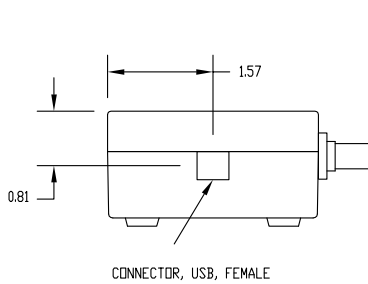
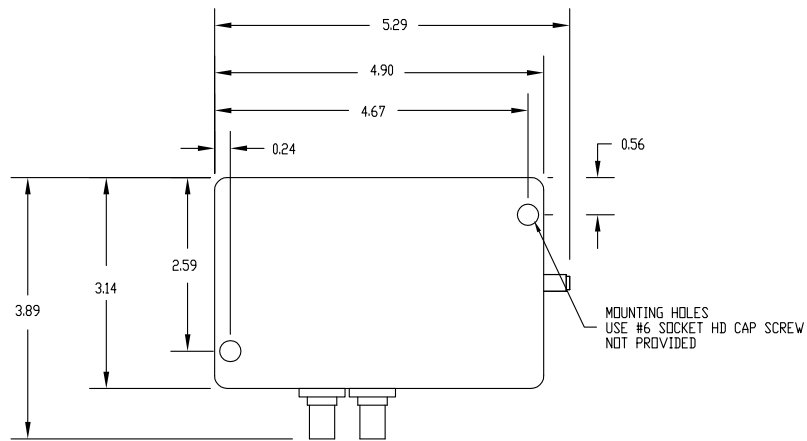
1. Customized models are available tailored to specific performance requirements. Specifications are subject to change without notice.



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See performance graphs online at www.vaunix.com



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