

Low-Frequency Sine-Wave Source

FEATURES

Low frequency *Sine Wave Generator*

- Amplitude : 0 - 80 V peak to peak
- Frequency range : 0 - 20kHz
- DC offset : ± 5 V
- Dimensions 94mmx32mmx20mm
- Weight 80gr
- USB +5V powered, low consumption
- Internal rechargeable battery (8hrs autonomy)
- USB-programmable

DESCRIPTION

The HOA-20K is a low frequency sine wave generator specifically designed to drive devices with capacitance impedance (e.g., liquid crystal cells, piezoelectric devices).

The frequency range goes from DC to 20kHz. The maximum amplitude is 80 V peak to peak. The parameters are easily programmable by a graphical interface.

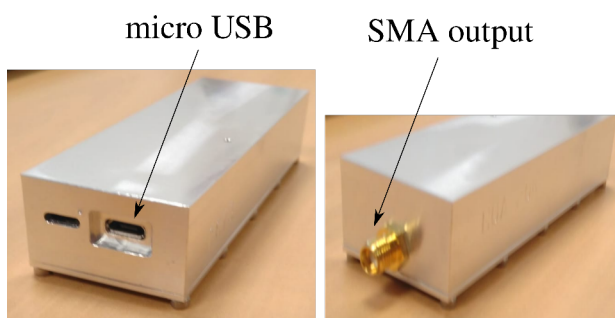
All electronics components are low noise. For increased stability an internal rechargeable battery allows operation without sector voltage.

The battery autonomy is 8 hours in ON state

APPLICATIONS

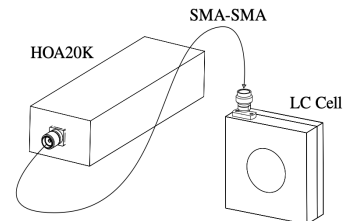
- Electrical driver for Liquid Crystal cells
- OASLM electrical driver
- Electrical driver for piezoelectric components

VIEWS

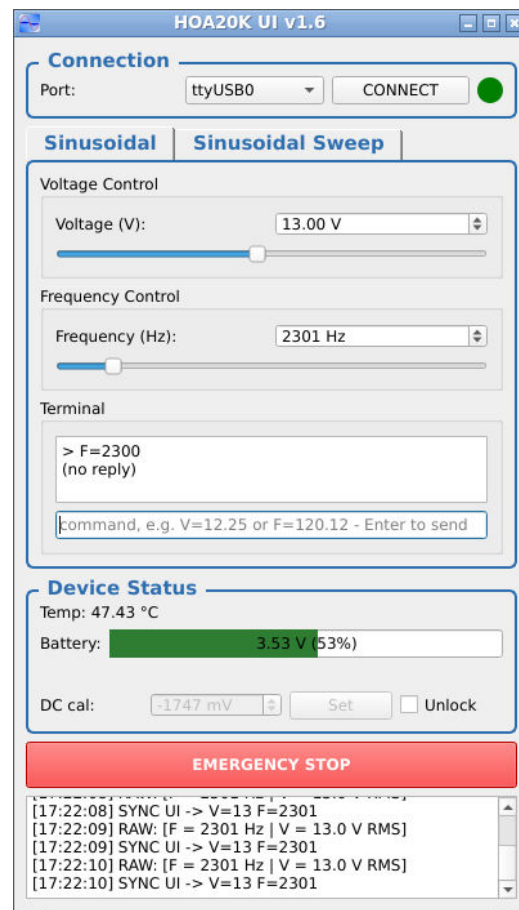


Example

Driving a LC cell with the HOA-20K.



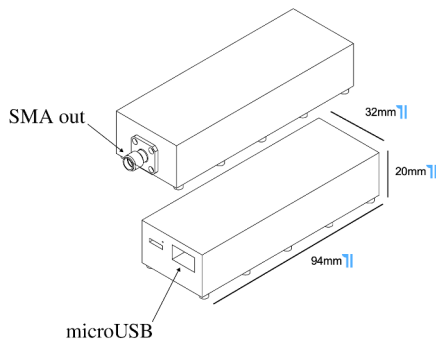
Connect the SMA cable to the controlled device. Connect the USB cable to the computer and install the supplied software. Operating parameters can be set via the graphical interface.



The HOA-20K can be programmed in all operating systems. Examples of codes in C/C++ are supplied.

Low-Frequency Sine-Wave Source

MECHANICAL DRAWING



CHARACTERISTICS

Item	HOA - 20K
Frequency range	0 : 20 kHz
Voltage range	0 : 80 V peak to peak
Voltage offset	-5000 : +5000 mV

Programming the HOA-20K

Plug the micro-USB port to communicate (Serial over USB) with the HOA-20K. A set of commands is predefined to control the sine waveform generated by the HOA-20k.

LIST OF COMMANDS

Syntax	Parameter Range	Description
B=?		Return the battery voltage (for voltages > 4 V the battery is 90% fully charged)
T=?		Return the maximum internal temperature in degrees Celsius
f=?		Return the frequency of the output voltage in Hertz
f=X	X 0<X<20E3	Set the frequency of the output sine wave to the value X in Hertz
V=?		Return the RMS voltage of the output sine wave in Volts
V=X	0<X<28	Set the RMS voltage of the output sine wave to the value X in Volts
CAL=X	-5E3<X<5E3	Add an offset of value X in mV
Start		Start to generate the sequence buffer waveforms
Stop		Stop to run the sequence buffer waveforms
Reset		Clear the sequence buffer waveforms
set(F,V,T)	0<F<20E3 0<V<28 1<T<200	Add to the sequence buffer waveform a sine wave of : - Duration T in seconds - Frequency F in Hertz - Amplitude V in Volts RMS
ON (OFF)		Turn ON (OFF) the output