

QUICK START

HDG3000 Series Function/Arbitrary Waveform Generator includes the following models.

Model	Channel	Max.Frequency	CH1/CH2 Sampling Rate	CH3 Sampling Rate
HDG3012B	2	15MHz	300MS/s	-
HDG3022B	2	25MHz	300MS/s	-
HDG3042B	2	40MHz	300MS/s	-
HDG3062B	2	60MHz	300MS/s	-
HDG3082B	2	80MHz	300MS/s	-
HDG3102B	2	100MHz	300MS/s	-
HDG3013C	3	15MHz	300MS/s	150MSa/s
HDG3023C	3	25MHz	300MS/s	150MSa/s
HDG3043C	3	40MHz	300MS/s	150MSa/s
HDG3063C	3	60MHz	300MS/s	150MSa/s
HDG3083C	3	80MHz	300MS/s	150MSa/s
HDG3083C	3	100MHz	300MS/s	150MSa/s

General Inspection

Please check the instrument as following steps after receiving a generator:

Check the shipping container for damage:

Keep the damaged shipping container or cushioning material until the contents of the shipment have been checked for completeness and the instrument has been checked mechanically and electrically.

Check the accessories:

Accessories supplied with the instrument are listed in "Accessories" in this manual. If the contents are incomplete or damaged, please notify the franchiser.

Check the instrument:

In case there is any mechanical damage or defect, or the instrument does not operate properly or fails performance tests, please notify the franchiser.

Summary of General Safety Matters

Read the following safety precautions to avoid injury and prevent damage to this product or any products connected to it. To evade potential hazards, use this product only as specified.

Only qualified personnel should perform maintenance.

Avoid fire or personal injury. Use suitable power cord. Use only the power cord specified for this product and certified for the country of use.

Connect and disconnect properly. Connect a probe with the instrument before it is connected to measured circuits; disconnect the probe from the instrument after it is disconnected from measured circuits.

Ground the product. This product is grounded through the grounding conductor of the power cord. To avoid electric shock, the grounding conductor must be connected to earth ground. Before making connections to the input or output terminals of the product, ensure that the product is properly grounded.

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Connect the probe in a right way. The probe ground lead is at ground potential. Do not connect the ground lead to an elevated voltage.

Check all terminal ratings. To avoid fire or shock hazard, check all ratings and markings on the product. Refer to the product manual for detailed information about ratings before making connections to the product.

Do not operate without covers. Do not operate this product with covers or panels removed.

Avoid exposed circuitry. Do not touch exposed connections and components when power is present.

Do not operate with suspected failures. If you suspect there is damage to this product, have it inspected by qualified service personnel.

Assure good ventilation.


Do not operate in wet/damp environments.

Do not operate in an explosive atmosphere.

Keep product surfaces clean and dry.

Connect to AC Power Supply

This instrument can accept the power supply of 100-120VAC ($\pm 10\%$), 45-440 Hz or 120-240VAC ($\pm 10\%$), 45-66Hz. Please use the power cord supplied with the accessories to connect the instrument to the power supply.

After the power is properly connected, press the power switch  on the front panel to turn on the generator. The instrument performs initialization during the boot process. When finished, the screen enters the default interface.

Product Introduction

HDG3000 series function/arbitrary waveform generator is a multifunction waveform generator that integrates function generator, arbitrary waveform generator, noise generator, pulse generator, harmonic generator, analog/digital modulator, frequency meter and other functions.

The Front Panel



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No.	Description	No.	Description
1	The power button	7	The knob
2	The softkey	8	The number keypad
3	The function key	9	The LCD display
4	CH1 and CH2 output	10	Default button
5	Channel output switch	11	Help button
6	The direction key	12	USB HOST

The Rear Panel



No.	Description	No.	Description
1	CH1/CH2 SYNC output	5	Counter Input
2	CH3 SYNC output	6	USB DEVICE
3	CH3 output	7	Safety lock hole
4	10MHz In/Out terminal	8	AC power socket

The User Interface



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No.	Description	No.	Description
1	Display Channel	4	Channel configuration
2	Channel parameters	5	The menu
3	Selected Waveform	--	--

Set the System Language

The waveform generator supports Chinese and English menus. Press **[Utility] > Language** to select the desired language.

Use the Built-in Help System

The HDG3000 series generator provides help information for each function button on the front panel as well as the current display interface. The user can view the help information at any time during the operation of the instrument.

- 1 Press the **[?]** button on the front panel, and then press the button or soft key that you need to get help, the instrument interface will display the help information of this key.
- 2 If there are indexes of other topics in the content view, the user can rotate the knob to select any index and press the knob to enter the corresponding topic content.
- 3 Press **[?]** button again to exit the help.

Remote Control

The HDG3000 series generator can communicate with the computer through the USB interface to achieve remote control. Remote control is based on the SCPI (Standard Commands for Programmable Instruments) command set.

Software installation

Users can download the application software package on the official website of Hantek:

<http://hantek.com/products/detail/17187>

Double-click the Setup.exe file and install it according to the installation wizard.

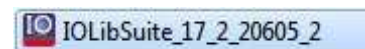
After the installation is complete, the software icon will be displayed on the computer desktop.

Keysight IO Libraries Suite setup

Please download latest IO Libraries Suite from the website:

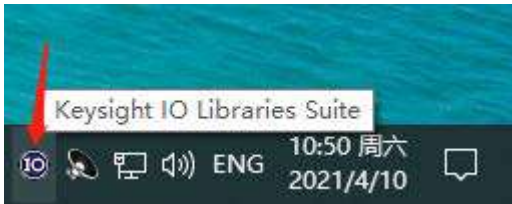
[http://www.keysight.com/main/software.jsp?Ckey = 2175637 & lc = chi&cc = CN&nid = - 11143.0.00 & id = 2175637](http://www.keysight.com/main/software.jsp?Ckey=2175637&lc=chi&cc=CN&nid=-11143.0.00&id=2175637)

Also you can download the application software package on the official website of Hantek. Double click IO Libraries Suite program and install it. According to the installation information, please install it step by step. The installation maybe takes several minutes.

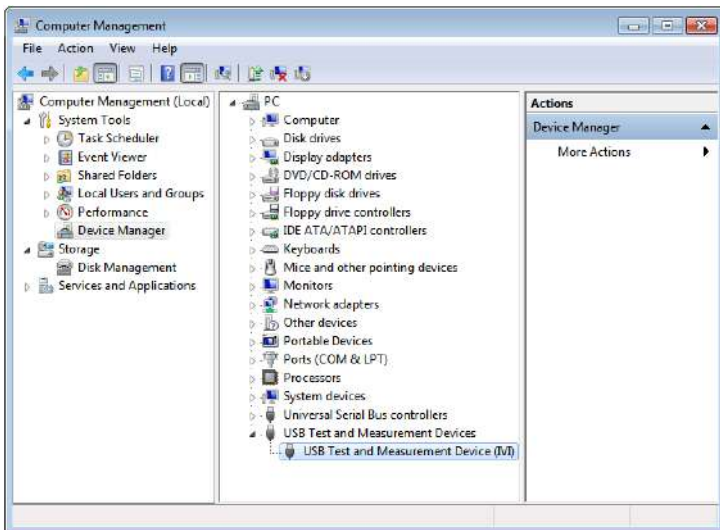


After the installation is complete, you can see the IO program running in the bottom right corner of the screen.

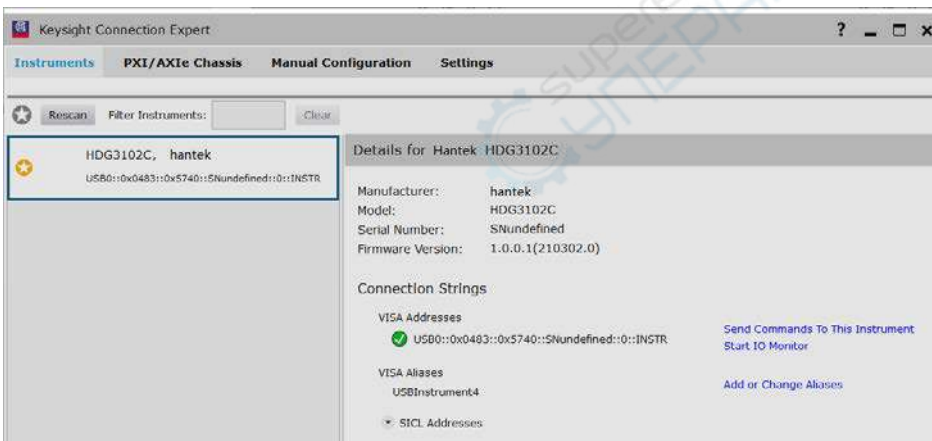
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1. Power on. Connect HDG to PC via USB cable. The driver will install automatically. After installing successfully, users can see the driver information in Device Manager:



2. Click Keysight IO Libraries Suite icon in the bottom right corner and select "Connection Expert". Now users can see the device information.



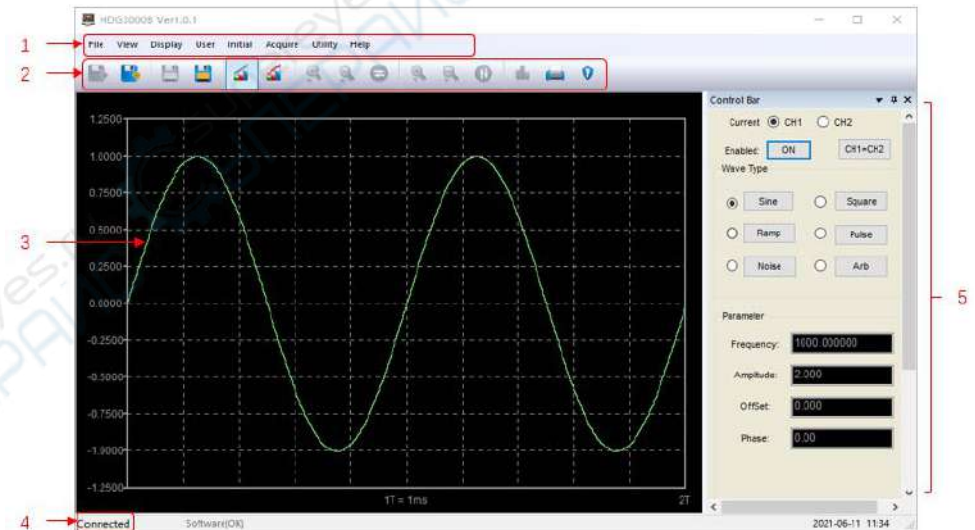
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3. If installing unsuccessfully, right click to update the driver manually, and choice the correct route: C:\Program Files\IVI Foundation\IVISA\IVI USB Staging\b841aa80\Windows

4. Double click "HDG-xxxx" shortcut on desktop to open the software of HDG device. The device is connected with PC successfully. You can see "Connected" tip in status column.

User Interface of PC

Doubleclick the software icon on the desktop after you finished the software setting and equipment connecting. Then a user interface will be showed as follows:



No.	Description	No.	Description
1	The menu bar	4	Connection status
2	The toolbar	5	The control bar
3	Waveform	--	--

Obtain Device Information

Press **[Utility] >System Info** to get the device information, including model, serial number, and software version.