

JDS6600 Dual-Channel Signal Generator



1. GENERAL INFORMATION

Dear customer,

thank you for purchasing our product. In the following, we have listed what you should consider during commissioning.

Should you encounter any unexpected problems during use, please do not hesitate to contact us.



difference of phase between CH1 and CH2

WAVE	Configuration of wave form
MEAS	Configuration of measuring mode
MOD	Activation of the modulation mode
SYS	System settings
ОК	Control of the output from CH1 and CH2 - It is used in other menus as control and confirmation (on / off)
	Moving the position of the cursor
CH1	Selection of channel 1 - Hold down to set channel 1 as the main channel
CH2	Selection of channel 2 - Hold down to set channel 2 as the main channel

4. PARAMETER SETTINGS IN THE MAIN INTERFACE

Press OK to enable or disable simultaneously the output of both channels.

Use the buttons CH1 and CH2 to switch between each channel. By pressing it again while you are in one channel, you activate or deactivate the according output. Hold down the according channel button to place the channel in the main interface.

Press the WAVE button to activate the waveform. While the waveform is active, the form can be changed quickly with the rotary button. The arrows keys can be used to switch between the waveforms and the presettings.

Use the multifunctional button 1 ($\[FREQ]$) to highlight the frequency parameter. Then use the arrow keys to move the cursor to the value which should be edited. Press the rotary button to edit the according value. Hold down the multifunctional button to change the unit (μ Hz, mHz, Hz, KHz, MHz).

To call up the set values again automatically at the next start, press and hold \bigcirc OK for approx. 1 second until you hear a sound.

Press the MEAS button and after that the multifunctional button FUNC in the measuring mode to switch between the measuring function and the counting function.

It can be measured the input frequency, period, positive pulse width, duty cycle and other parameters. The measuring frequency range is between 1 Hz and 100 MHz. The measuring signal amplitude range is between 2 Vpp and 20 Vpp. The input interface is ext. IN.

Coupling settings:

Press the multifunctional button COUP the DC mode.

to change between the AC and

Gate time settings:

Press the multifunctional button GATE to set the gate time (0.01 - 10 S). Move the cursor with the arrow keys to the value which should be edited. Use the rotary button to adjust the value.

Measuring mode:

Press the multifunctional button MODE ting frequency and the counting period.

to change between the coun-

to

Measurement parameters:

Frequency, period, positive pulse width, negative pulse width, duty cycle

After you have set all parameters, you can use the multifunctional button to start the counting function. The multifunctional button can stop the function.

6. MODULATION MODE

Press the button MOD to start the modulation mode. Press the multifunctional button FUNC to switch between the sweep function (channel CH1 / CH2), the pulse function (channel CH1) and the burst function (channel CH1).

Sweep function:

You can set any starting and ending frequency of the signal generator. The possible time is between 0.1 and 999.9 s.

In the sweep mode, press the multifunctional buttons

set the starting and ending frequency, as well as time, direction and mode. After selecting the respective setting, the arrow keys and the rotary button can be used for adjustment.

Pulse function:

With this option, it is possible to configure the pulse wave width and the pulse time.

Press the multifunctional buttons within the pulse function to select the pulse width, period, offset and amplitude. As soon as a parameter is highlighted, you can adjust it with the arrow keys. The pulse width and time can be set using the rotary button. You can switch between ns and μ s with the button OK

Burst function:

The pulse sequence can be set on the output from 1 to 108575 periods. The burst mode is devided in internal CH2 channel bursts, external input bursts and manual bursts. The time of a period from a burst is smaller than the time of a period from a burst signal.

Press the multifunctional buttons

within the burst function (channel CH1) to select the pulse number and the burst mode. The arrow keys can be used to set each parameter.

After all settings are adjusted, you can use the multifunctional button ON to start each function and to end it. OFF

7. SYSTEM CONFIGURATION

Press the button SYS to open the setup menu. Use the multifunctional buttons to navigate. The following settings can be made:

Save & load, sound settings, configuration of brightness, language settings, synchronization, setting of the arbitrary wave display

After you have opened the according setting, you can adjust them with the rotary button. Press the multifunctional button SAVE to save the according configuration.

Save & load:

In save & load you can save (SAVE) the adjusted values in data groups (0 - 99) and if needed you can load them again on your device (LOAD). You can clear data groups with the multifunctional button CLR

Sound setting:

The sound can be activated or rather deactivated with the multifunctional buttons (ON) and OFF

Configuration of brightness:

You can adjust the brightness in 12 different levels.

Language settings:

The English, German and French languages are available.

Synchronization:

The channel CH1 is used as the target during the synchronization. The parameters of the channel CH2 will change according to the parameters of CH1. If the synchronization point is highlighted, presst the buttons to select the point which has to be synchronized.

Use the multifunctional button	ON	to select and	OFF	to quit
the process.				

Settings of the arbitrary wave display:

The amount of wave forms in the main interface can be adjusted via the rotary button (1 - 60) very quickly.

8. PC SOFTWARE INSTALLATION

You can download the latest version of the PC software on our Website.

Start the installation by opening the file **JDS6600.exe**.

Press **Next >>** in the now opening window.

NI-VISA 5.4 Runtime	_		×
		ni.com/v	/isa
NI-VISA [™]			
National Instruments VISA Software			
Exit all applications before running this installer. Disabling virus scanning applications may improve installation speed. This program is subject to the accompanying License Agreement(s). National Instruments Corporation is an authorized distributor of Microso	oft Silverlight.		
© 1995–2013 National Instruments. All rights reserved.		ATIONAL ISTRUME	NTS.
<< Back	Next>>	Cano	el

Next, enter the installation path and confirm with **Next >>**.

VISA 5.4 Runtime	-	
Destination Directory Select the primary installation directory.		ATIONAL STRUMEN
National Instruments software will be installed in a subfolder of the followin cifferent folder, click the Browse button and select another.	ng. Toinstall into a	1
Destination Directory		
Destination Directory C:\Program Files (x86)\National Instruments\	Br	owse
Destination Directory C:\Program Files (x86)\National Instruments\	Br	owse

The selection of the modules to be installed must also be confirmed with **Next >>**.

🐙 NI-VISA 5.4 Runtime		_		×
Features Select the features to install.			ATIONAL STRUMENTS	
Image: WI-VISA 5.4 I	National Instrume provides an API fo and other types of This feature will r	nts VISA driver ve or controlling VXI, f instruments.	rsion 5.4. VISA GPIB, Serial, PX	I
Directory for NI-VISA 5.4 C:\Program Files (x86)\IVI Foundation\VISA\			Browse	
Restore Feature Defaults Disk Cost	<< Back	Next >>	Cancel	

If you do not want the automatic search for updates enabled, you can now disable it by unchecking the option. Then continue with **Next >>** again.

NIL VISA 5.4 Puntime				
REVISA 3.4 Runume		-	-	\times
Product Notifications Please read the following information about the selected.	e configuration you ha	ive 🏹	NATIONAL NSTRUMEN	ILL I
Colored.				
Search for important messages and updates on the	National Instruments	products you ar	e installing. To	
perform this search, your IP address will be collected Privacy Policy	d in accordance with	the National Ins	truments	
Note: You will be given the opportunity to	select the update	s vou want to	install	
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The system quick start introduced in Windows 8 occasionally causes problems in connection with the installation and removal of new hardware and should therefore be disabled. Confirm the deactivation with **Next** >>. Alternatively, you can leave the system quick start enabled at your own risk. To do so, simply uncheck the appropriate box.

🐙 NI-VISA 5.4 Runtime		_		×
Disable Windows Fast Startup Disable Windows fast startup to prevent probler hardware.	ms with installing or r	emoving VIN	IATIONAL ISTRUMEN	TS.
The fast startup capability introduced in Microsoft or removing hardware. National Instruments recom more information about fast startup, click the follow Code WinFastStartup.	Windows 8 may cau Imends disabling Wi ving link or visit ni.co	use problems with i ndows fast startup pm/info and enter l	installing). For the Info	
Windows Fast Startup Information				
Disable Windows fast startup to prevent proble	ems with installing or	removing hardwar	re.	
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The installation program now performs the corresponding installations. After successful installation, you can exit the installer.

9. USING THE SOFTWARE

You can connect the signal generator to your computer either with a USB cable or with a USB-TTL cable.

Now start the JDS6600 software. Here you can first select the port where you have connected the signal generator to your computer. If you are not sure which COM port you have connected your signal generator to, open the Device Manager and check the connection in the Connections tab (COM & LPT).

JDS6600					×
Configuration	Control Panel	Extend Function	Arbitrary		EXIT
	sdr <	S Signal Genera	tor Contro	ol Panel	_
		Port: Model:		Connect	
					Serial Number:

Then establish the connection with **Connect**. In the **Control Panel**, which you can reach via the tab at the top of the software, you can output the standard waveforms and function signals.

JDS6600					×
Configuration	Control Panel	Extend Function	Arbitrary		EXIT
Frequency	Unit Sin 0,00 Hz V Offset 4 -10,00 V % X-Axis(dots) 2048 •	e • • • • • • • • • • • • • • • • • • •	ine 500 1000 1500 2048 500 X-Axis(dots) Sync 2048	Frequency Amplitude D,000 V Y-Axis(Ampl) Auto	Unit 00 Hz Y Offset 4 -10,00 V Duty 4 0,0 %
	Adjust Item Frequency Step Value 10	Wave form CH1 Amplitude Offset Sp 00,00 Hz Duty Sy	sync Adju sync Step Value nc 100	ust Items equency • 00,00 Hz	

At **Extend Function** you will find the measuring, counting, burst, sweep and pulse functions.



In **Abitrary**, you can create various custom waveforms and store up to 15 on the device.

JDS6600					×
Configuration	Control Panel	Extend Function	Arbitrary		EXIT
1- 90,5- -0,5- -1- 0,5- -0,5- -1- 0,5- -1- -0,5- -1- -0,5- -1- -0,5- -1- -0,5- -1- -0,5- -1- -0,5- -1- -0,5	1000 1500 2047 -Points 1000 1500 2047 -Points	1- 0.8- 0.6- 0.4- 902- 0.2- -0.4- -0.2- -0.4- -0.6- -0.8- -1- 1 200 400 600	800 1000 1200 14 X-Points	00 1600 1800 2049	Standard waveform Sine X0 X0 Y0 C C C C C C C C C C C C C C C C C C
Option Type	Math	Phase shifter	Reset Mirror	Open Save	Storage Location

10. FURTHER INFORMATION

Our information and redemption obligation according to the electro-law (ElektroG)

Symbol on electrial and electronic products :

This crossed-out bin means that electrical and electronic products do not belong into the household waste. You must hand over your old appliance to a registration office. Before you can hand over the old appliance, you must remove used batteries and accumulators which are not enclosed by the device.

Return options :

As the end user, you can hand over with the purchase of a new device your old appliance (which has essentially the same functions as the new one) free of charge for disposal. Small devices which do not have outer dimensions greater than 25 cm can be submitted independently of the purchase of a new product in normal household quantities.

Possibility of restitution at our company location during our opening hours :

SIMAC Electronics GmbH, Pascalstr. 8, D-47506 Neukirchen-Vluyn

Possibility of restitution nearby :

We send you a parcel stamp with which you can send us your old appliance free of charge. For this possibility, you must contact us via e-mail at service@joy-it.net or via telephone.

Information about packaging:

Please package your old appliance safe during transport. Should you not have a suitable packaging material or you do not want to use your own material, you can contact us and we will send you an appropriate package.

11. SUPPORT

If any questions remain open or problems arise after your purchase, we are available by e-mail, telephone and with a ticket support system to answer these.

E-Mail: <u>service@joy-it.net</u> Ticket-System: <u>https://support.joy-it.net</u> Telephone: +49 (0)2845 9360 – 50

For further information visit our website: <u>www.joy-it.net</u>

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