Hantek 6022BE- zadig's driver installation in Windows 10.1909 64 bit

1. Ensure the oscilloscope device has no driver attached:

🛓 Computer Management	
File Action View Help	
← ⇒ 2 ☶ 🔄 🛛 🖬 🖳 💺 🗙 🕒	Select device
 LFIN013HCGNV2 Audio inputs and outputs Batteries Bluetooth Computer Computer Disk drives Computer Disk drives Display adapters Firmware Firmware Firmware IDE ATA/ATAPI controllers Keyboards Memory technology device Mice and other pointing device 	Devices: DDS120 DEMO DSO-6022BE DSO- DSO-6022BE Connection failed! UploadFirmware: Couldn't open device: Ope
 Monitors Network adapters Network adapters Other devices Unknown device Print queues Processors Security devices 	

- a. If it has, from Device Manager select Driver -> Uninstall device -> check "Delete the driver software for this device" -> Uninstall -> disconnect and reconnect the oscilloscope -> repeat if any other driver is still found
 - Once my Windows 10 (1909x64) refused to delete the driver from Device Manager (it always came back upon reconnection), but it did from Windows 10 -> Settings -> Devices -> Bluetooth & other devices -> "Your Device" -> Remove device (here I didn't have any "Delete driver" but then Windows "forgot" the driver so probably removed it successfully):

Settings	
යි Home	Bluetooth & other devices
Find a setting	PCI to PCI Bridge
Devices	PCI to PCI Bridge
Bluetooth & other devices	Realtek USB GbE Family Cont Connected to USB 3.0 Are you sure you want to remove this
🛱 Printers & scanners	device?
() Mouse	Unknown Device Driver is unavailable
🖅 Touchpad	Remove device
📟 Typing	USB Root Hub (USB 3.0)

 If you start "OpenHantek.exe" should tell you that "Connection failed!" message. Ignore it for now, you are on stage 0 (04B4/6022 device with no driver).

Select device		\times
DEVICES: DD5120 DEVIC D50-00228E D50-00228E D50-2020		~
030-00220		*
Connection failed!		
UploadFirmware: Couldn't open device: Operation not supported or unimplemented on this platform		
Demo Mode		
OK Close	Hel	•
Sit Close	- nei	

3. Start "zadig-2.5.exe"

a. If the device has no driver should be picked up automatically:

🖾 Zadig	– 🗆 🗙
Device Options Help Unknown Device #1	✓ ☐ Edit
Driver (NONE) USB ID 04B4 6022 WCID ² X	More Information WinUSB (libusb) libusb-win32 libusbK WinUSB (Microsoft)
1 device found.	Zadig 2.5.730

i. If it's not, then try from menu Options->List All Devices and choose your 04B4/6022 device
 b. Select Install Driver and wait around 1 minute:



4. But now in Device Manager I have the 04B4/6022 device listed as "Unknown Device #1"

Cisco AnyConnect Secure Mobilit	ity Client Virtual Miniport Adapter for Windows x64	_
🖵 Intel(R) Wireless-AC 9260 160MF	Unknown Device #1 Properties	×
🚽 Realtek USB GbE Family Control		
🕎 VirtualBox Host-Only Ethernet A	General Driver Details Events	
🕎 WAN Miniport (IKEv2)		
🚽 WAN Miniport (IP)	Unknown Device #1	
🖵 WAN Miniport (IPv6)		
🖵 WAN Miniport (L2TP)	Driver Provider: libwdi	
🖵 WAN Miniport (Network Monito	Driver Date: 09/09/2019	
💭 WAN Miniport (PPPOE)		
🚽 WAN Miniport (PPTP)	Driver Version: 6.1.7600.16385	
🚽 WAN Miniport (SSTP)	Digital Signer: USB\VID_04B4&PID_6022 (libwdi	
> 🚍 Print queues	autogenerated)	
> Processors	Driver Details View details about the installed driver files	
Security devices	view details about the installed driver fies.	
> P Software components	Undate Driver Undate the driver for this device	
> Software devices	opuace the driver for this device.	
> 🐐 Sound, video and game controllers	Roll Back Driver, If the device fails after updating the driver, r	roll
> 🍇 Storage controllers	back to the previously installed driver.	
> 🏣 System devices		
> 🏺 Universal Serial Bus controllers	Disable Device Disable the device.	
Universal Serial Bus devices		
Unknown Device #1	Uninstall Device Uninstall the device from the system (Advar	nced).
> 🏺 USB Connector Managers		
-		and a
	OK Ca	incei

5. Restart "OpenHantek.exe". It should change the firmware of the oscilloscope which will appear again with exclamation mark as "DSO-6022BE" but with new "VID_04B5&PID_6022" ID:

	050
🗸 🚅 Network adapters	
Circo AnyConnect	

Cisco AnyConnect	DSO-6022BE Properties	
Realtek USB GbE Fa	General Driver Details Events	
WAN Miniport (IKE WAN Miniport (IP)	DSO-6022BE	
WAN Miniport (L2T WAN Miniport (L2T WAN Miniport (Net	Driver Provider: Unknown Driver Date: Not available Driver Version: Not available	
✓ WAN Minipole (PP ✓ WAN Minipole (SST ✓ ✓ ✓ Other devices ✓ ✓ DSO-60228E	Digital Signer: Not digitally signed Driver Details View details about the installed driver files.	
Print queues Processors	Update Driver Update the driver for this device.	
Software components Software devices	Roll Back Driver If the device fails after updating the driver, roll back to the previously installed driver.	
 A Sound, video and game Storage controllers 	Disable Device Disable the device.	
 > I System devices > Universal Serial Bus cor > USB Connector Manag 	Uninstall Device Uninstall the device from the system (Advanced).	
-	OK Cancel	

Note: "OpenHantek.exe" should still tell you the "Connection failed!" message. Ignore it again, you are on stage 1 (04B4/6022 device with driver but 04B5/6022 device with no driver).

🔛 Select device		×
Devices: DDS120 DEMO DSO-6022BE DSO-6022BL DSO-2020		
DSO-6022BE		\sim
Connection failed		
Couldn't open device: Operation not supported or unimplemented on this platform		
Demo Mode		
OK Close	Hel	р

7. Start "zadig-2.5.exe" again!

a. If the device has no driver should be picked up again automatically:

Zadig	– 🗆 🗙
Device Options Help DSO-6022BE	✓ ☐ Edit
Driver (NONE) WinUSB (v6.1.7600.16385) USB ID 0485 6022 WCID ² Install Driver	More Information WinUSB (libusb) libusb-win32 libusbK WinUSB (Microsoft)
1 device found.	Zadig 2.5.730

i. If it's not, then try from menu Options->List All Devices and choose your 04B5/6022 device
 b. Select Install Driver and wait around 1 minute:



8. In Device Manager now there is a driver for 04B5/6022 device too:

DSO-6022BE Properties		×
General Driver Details	Events	
DSO-6022BE		
Driver Provider:	libwdi	
Driver Date:	09/08/2018	
Driver Version:	6.1.7600.16385	
Digital Signer:	USB\VID_04B5&PID_6022 (libwdi autogenerated)	
Driver Details	View details about the installed driver files.	
U <u>p</u> date Driver	Update the driver for this device.	
<u>R</u> oll Back Driver	If the device fails after updating the driver, roll back to the previously installed driver.	
<u>D</u> isable Device	Disable the device.	
<u>U</u> ninstall Device	Uninstall the device from the system (Advanced).
	OK Cancel	

- 9. You are now on **stage 2** (both 04B4/6022 and 04B5/6022 devices with drivers installed).
- 10. Disconnect and reconnect the oscilloscope or simply restart the "OpenHantek.exe" and the "OpenHantek.exe" should start working:

Elle Export Yiew Qscilloscope Help Image: CH1 / 1.80 V 28% / 800 ns1500 ns/ (52%) 10 kS on screen 10 MS/s 100 µs/dV Image: CH1 / 1.80 V 28% / 800 ns1500 ns/ (52%) 10 kS on screen 100 MS/s 100 µs/dV Image: CH1 / 1.80 V 28% / 800 ns1500 ns/ (52%) 10 kS on screen 100 MS/s 100 µs/dV Image: CH1 / 1.80 V 28% / 800 ns1500 ns/ (52%) 10 kS on screen 100 MS/s 100 µs/dV Image: CH1 / 1.80 V 28% / 800 ns1500 ns/ (52%) 10 kS on screen 100 MS/s 100 µs/dV Image: CH1 / 1.80 V 28% / 800 ns1500 ns/ (52%) 10 kS on screen 100 MS/s 100 µs/dV Image: CH1 / 1.80 V 28% / 800 ns1500 ns/ (52%) 10 kS on screen 100 MS/s 100 µs/dV Image: CH1 / 1.80 V 28% / 800 ns1500 ns/ (52%) 10 kS on screen 100 µs/dV 10 kV Image: CH1 / 1.80 V 28% / 800 ns1500 ns/ (52%) 10 km/s 100 µs/dV 10 km/s Image: CH1 / 1.80 V 28% / 800 ns/ (52%) 11 km/s 11 km/s 11 km/s Image: CH2 / 1.80 /	W	OpenHa	antek60	022 (3. ⁻	l.2) - Device	e DSO-60	22BE (FW(0207)							- 🗆	×	
Image: CH1 / 1.80 V 28% /800 ns/500 ns/ (52%) 10 kS on screen 10 MS/s 100 µs/dv Voltage 6 10 kS on screen 10 MS/s 100 µs/dv CH1 10 v 10 v 10 v 10 v CH1 10 v 10 v 10 v 10 v CH1 10 v 10 v 10 v 10 v CH1 10 v 10 v 10 v 10 v CH1 10 v 10 v 10 v 10 v CH1 10 v 10 v 10 v 10 v CH1 10 v 10 v 10 v 10 v CH1 10 v 10 v 10 v 10 v CH1 10 v 10 v 10 v 10 v CH1 10 v 10 v 10 v 10 v CH1 10 v 10 v 10 v 10 v 10 v CH1 10 v 10 v 10 v 10 v 10 v 10 v CH1 10 v 10	<u>F</u> ile	<u>E</u> xpo	rt <u>V</u> ie	ew <u>C</u>	<u>)</u> scilloscope	: <u>H</u> elp											
$\begin{array}{c} \bigcirc \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $		TR	СН1 /	1.80 V	28% /800 n	ns\500 ns/	/ (62%)			10 kS on sa	reen	10 MS/s	100 µs/div	Voltage		8 ×	
CH1 □ CH2 10 V □ MA]H 2 V □ MA]H 2 V □ Invert X10 • DC □ Inve	C							Ĩ			-	•		CH <u>1</u>	10 V x10 🗘	~ DC ~	
•••••••••••••••••••••••••••••	^~ -≓:			+ + - - - -			· · · + ·			+				CH <u>2</u>	10 V ×10 🗘	~ DC ~	
CH2 Image: I	€ £	СН <u>1</u>		· + ·	· · · + · · ·	· · + ·	· · · · + · · · ·			+	•••••	••••		MA <u>T</u> H	2 V CH1 + CH	~ 2 ~	
CH2 100 µs ✓ Samplerate 100 µs ✓ Frequencybase 50 Hz ÷ Format T-Y ✓ CH2 1 HH2 ÷ Markers Time: 153 µs 320 µs, Δt: 167 µs (6.00 kH2) 1 Z V/ms							· · · + ·							Horizontal	100.00	E ×	
CH2 FrequencyDase 30 Hz Format T-Y Calibration out 1 kHz Trigger B Markers Time: 153 μs 320 μs, Δt: 167 μs (6.00 kHz) Mode 127 μmg CH1 Spectrum SP1 20 dB Spectrum SP1 Spectrum SP1 Spectrum SP2 20 dB SP2							+ + + + + +	++++					+ + + -	Samplerate	100 µs	• •	
CH2 Calibration out 1kHz Trigger E Mode Normal Source CH1 Markers Time: 153 μs 320 μs, Δt: 167 μs (6.00 kHz) Spectrum CH1 Spectrum SP1 20 dB Spectrum Spectrum SP1 20 dB							, , , , , + ,							Format	T - Y	·	
Mode Normal Mode Normal Source CH1 Markers Time: 153 μs 320 μs, Δt: 167 μs (6.00 kHz) Spectrum E Spectrum Spectrum Spectrum <		040												Calibration ou Trigger	t 1 kHz	÷ ₽×	
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Markers Time: 153 μs 320 μs, Δt; 167 μs (6.00 kHz) Spectrum B CH1 DC 10.0 V/div 898 mHm 1.75 Vm 1.4 2 dB 4.000 MHm							· · · + ·							Source Slope	CH1 /	~	
Markers Time: 153 μs 320 μs, Δt: 167 μs (6.00 kHz)							:	÷	2					Spectrum		8×	
CH1 DC 10.0 V/div 909 mVpp 1.77 Vrma 1.76 V 104 mV/m 14.2 dB 4.000 MHz		Marke	ers Time	e: 153 j	us 320 µs,	, ∆t: 167	µs (6.00 k	Hz)						SP1	20 dB 20 dB	~	
CH1 DC 10.0 V/div 308 mVpp 1.79 Vm is 1.78 V= 14.3 dis 4.000 Vm/z 20 dB 20 d			CH1 CH2	DC	10.0 V/d 10.0 V/d	liv Ev	808 404	mVpp 1. mVpp 41	77 Vrms 0 mVrms	1.76 V= 408 mV=	194 mV~ 40.2 mV~	-14.3 dB -27.9 dB	4.000 MHz 2.105 kHz	SPM	20 dB	~	