

FrameGrabber 4 PCIe Card

Windows Driver installation guide

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1.Introduction

This document describes steps for installation of Windows Driver intended for following hardware:

• DQ FG4 PCIe Card

These versions of MS Windows are currently supported:

- MS Windows 11 64bit#
- MS Windows 10 64bit
- MS Windows 10 32bit
- MS Windows 8 64bit *
- MS Windows 8 32bit *
- MS Windows 7 64bit *
- MS Windows 7 32bit *

(*) Please note that root-signing certificate expired, and no new certificate would be available. Driver could be installed and works. During installation on affected systems user must confirm that a driver is not signed.

(#) 32bit release of Windows 11 is not available.

Windows driver is available for download on Digiteq Automotive FrameGrabber 4 Product Download Site:

<u>https://fg4.digiteqautomotive.com/windriver</u>

Installation steps are divided into two sections:

- **Standard Installation** in case the "Multimedia Video Card" is detected in Windows Device Manager
- **Troubleshooting Installation** in case the "Multimedia Video Card" is not detected in Windows Device Manager

NOTE 1: In case of multiple DQ FG4 PCIe cards are present in system, Windows Device Manager may show multiple instances of "DQ FG4 PCIe Card" in the "Sound, video and game controllers" section.

NOTE 2: In case you follow instructions described in "**Troubleshooting Installation**", remove any redundant instances (if present) of "DQ FG4 PCIe Card" which may be labeled by yellow warning symbol.

2.Installation Steps

2.1. Standard Installation

- 1. Prepare FG4 PCIe card:
 - a. Loosen screws (see picture below point 1.)
 - b. Remove module (see picture below point 2.)



- 2. Turn the PC off and insert the DQ FG4 PCIe card into an empty PCIe slot (PCIe x4, PCIe x8 or PCIe x16) on motherboard.
- 3. Plug Module into the card and tighten screws
- 4. Power on the PC when DQ FG4 PCIe card is properly inserted.
- 5. Create a folder and unzip the DQ FG4 PCIe Windows Driver into that folder.
- 6. Start Windows Device Manager.
- 7. The "Multimedia Video Card" device should be detected in the "Other devices" section of Windows Device manager.

Check the "Sound, video and game controllers" section if the "Multimedia Video Card" device is not present in the "Other devices" section.

If the device is not present in either of those sections, please follow the steps from chapter "Troubleshooting Installation".

NOTE: If you already proceeded with these installation steps anytime in the past and the driver is still present in OS, it might happen that Windows automatically detects a new hardware and automatically installs the driver. In that case the device "DQ FG4 PCIe Card" is already present in "Sound, video and game controllers" section.



8. Right click on "Multimedia Video Card" and select "Update Driver".

🛃 Device Manager	-		×		
File Action View Help					
 DESKTOP-2NSIO4K Audio inputs and outputs Computer Disk drives Display adapters DVD/CD-ROM drives DVD/CD-ROM drives DVD/CD-ROM drives Muman Interface Devices Monitors Monitors Monitors Network adapters Mutimedia Video C Multimedia Video C Portable Devices Portable Devices Ports (COM & LPT) Processors Software devices Software device					

9. The pop-up window "Update Drivers – Multimedia Video Controller" appears. Select "Browse my computer for drivers".

low do you want to search for drivers?	
→ Search automatically for drivers	
Windows will search your computer for the best available driver and install it on you device.	r
→ Browse my computer for drivers	
Locate and install a driver manually.	

10. Browse in your computer to locate ".inf" file in the folder with unzipped driver from in previous steps. Choose subfolder according to your Windows OS version and press "OK".





11. Select "OK" and Windows Driver is installed.

		×
~	Update Drivers - DQ FG4 PCIe Card	
	Windows has successfully updated your drivers	
	Windows has finished installing the drivers for this device:	
	DQ FG4 PCIe Card	
		Close

12. The "DQ FG4 PCIe Card" device appears in "Sound, video and game controllers" section of Device Manager.



File Action Yiew Help Image: Straight of the str	🛃 Device Manager – 🗆						
 DESKTOP-2NSIO4K Audio inputs and outputs Computer Disk drives Display adapters DVD/CD-ROM drives DVD/CD-ROM drives DVD/CD-ROM drives IDE ATA/ATAPI controllers IDE ATA/ATAPI controllers Keyboards Mice and other pointing devices Monitors Network adapters Ports (COM & LPT) Print queues Print queues Software devices Software devices Monthigh Definition Audio Device Doug FG4 PCle Card High Definition Audio Device Sorrage controllers Sorrage controllers 	File Action View Help						
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> I System devices	> 🏣 System devices						
> 🏺 Universal Serial Bus controllers	> 🏺 Universal Serial Bus controllers						

13. The driver is installed and ready to use. If the device is labeled with a yellow warning symbol, please restart your computer.



14. Even when a driver itself works fine, the property page is sometimes not registered

Please execute register.bat from admin account. Property registration step can be done at any time.





The driver is installed and ready to use. If the device is labeled with a yellow warning symbol, please restart your computer.

2.2. Troubleshooting Installation

Troubleshooting installation guide is applicable in case when no device called "Multimedia Video Adapter" is present in MS Windows Device Manager prior to DQ FG4 PCIe Card Windows Driver installation.

- 1. Create a folder and unzip the DQ FG4 PCIe Windows Driver into that folder.
- 2. Start Windows Device Manager.
- 3. Check the "Multimedia Video Adapter" device is not present in the "Other Devices" section.



4. In Windows Device Manager click on menu "Action" and select "Add legacy hardware"



5. The "Add Hardware" Wizard will appear. Click on "Next" button.





6. On next screen, choose "Install the hardware that I manually select from a list (Advanced)".



7. On next screen, choose "Show All Devices" and click "Next".

Add Hardware					
From the list below, select the type of hardware you are installing					
If you do not see the hardware category you want, click S	how All Devices	5.			
Common barduara tanasi					
Common nardware types.					
Show All Devices			^		
(Cameras					
Compute accelerators					
🛫 Digital Media Devices					
lisplay adapters					
Generic Remote Desktop devices					
The ATA/ATAPI controllers					
EEE 1284.4 compatible printers					
FIEEE 1284.4 devices					
EFFF 1204 hast southallows			~		
	< <u>B</u> ack	<u>N</u> ext >	Cancel		



8. On next screen, choose "Have Disk".



9. Pop-up screen "Install From Disk" appears.

Install Fr	om Disk	×
	Insert the manufacturer's installation disk, and then make sure that the correct drive is selected below.	OK Cancel
	Copy manufacturer's files from:	Browse



10. Browse in your computer to locate ".inf" file in the folder with unzipped driver from in previous steps. Choose subfolder according to your Windows OS version. Select the ".inf" file located in this folder and press "Open".

Look in:	WIN10	~	G 🗊 📂 🗔 •	
Quick access	Name win32 win64	Ainf	Date modified 1/26/2021 1:52 PM 1/26/2021 1:52 PM 1/26/2021 1:41 PM	Type File File Setu
Desktop Libraries This PC		Type: Setup Information Size: 5.11 KB Date modified: 1/26/2021 1:41 PM		
Network	۲			>
	File <u>n</u> ame:	DQ_FG4.inf	~	Open
	Files of type:	Setup Information (*.inf)		Cancel

11. Select hardware "DQ FG4 PCIe Card" and click "Next".

Add Hardware
Select the device driver you want to install for this hardware.
Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.
Model
DQ FG4 PCIe Card
This driver is digitally signed.
Tell me why driver signing is important
< Back Next > Cancel



12. Confirm the installation of the driver for associated hardware.

Add Hardware			
The wizard is ready to install your hardware			
Hardware to install:			
DQ FG4 PCIe Card			
To start installing your new hardware, click Next.			
		[]	
	< <u>B</u> ack	<u>N</u> ext >	Cancel

13. Driver for DQ FG4 PCIe Card is installed.

Add Hardware	
	Completing the Add Hardware Wizard
	The following hardware was installed: DQ FG4 PCIe Card
	The software for this device is now installed, but may not work correctly.
	This device cannot start. (Code 10)
	View or change resources for this hardware (Advanced)
	To close this wizard, click Finish.
	< Back Finish Cancel

14. Please ensure that the FG4 card is physically inserted in PC. If the card is not inserted yet, please turn off your computer, insert a card and turn on again. Open Windows Device Manager, right click on the root of the device tree and select "Scan for hardware changes".





15. The "DQ FG4 PCIe Card" device should appear in the "Sound, video and game controllers" section of Device Manager.

In case that "DQ FG4 PCIe Card" appears in the "Sound, video and game controllers" section of Windows Device Manager twice (if only one HW of DQ FG4 PCIe Card is present in system), delete the second record which shows the yellow warning symbol. Select the device with warning symbol and press a delete key.

device Manager	_	×
<u>F</u> ile <u>A</u> ction <u>V</u> iew <u>H</u> elp		
V 🛃 DESKTOP-2NSIO4K		
Audio inputs and outputs		
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> 🙌 Human Interface Devices		
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> Keyboards		
Mice and other pointing devices		
> Monitors		
> Provide Adapters		
Portable Devices		
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> 🚍 Print queues		
> Processors		
> Security devices		
Software devices		
Sound, video and game controllers		
AMD High Definition Audio Device		
DQ FG4 PCIe Card		
DQ FG4 PCIe Card		
High Definition Audio Device		
Storage controllers		
> System devices		
P Universal Serial Bus controllers		



16. Pop-up menu appears. Ensure that "Delete the driver software for this device" checkbox is NOT selected and press "Uninstall".



17. The driver is installed and ready to use. Windows Device manager shows only one instance of "DQ FG4 PCIe Card" in the "Sound, video and game controllers" section (if only one HW of DQ FG4 PCIe Card is present in system).

🛃 Device Manager	-		×			
<u>File Action View H</u> elp						
I I I I I I I						
V 🛃 DESKTOP-2NSIO4K						
> 💐 Audio inputs and outputs						
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AMD High Definition Audio Device						
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High Definition Audio Device						
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> 🍢 System devices						
> 🏺 Universal Serial Bus controllers						



2.3. Checking installed driver

If you are in doubts whether driver works correctly, you can use tool TestLib32 and TestLib64. This tool is bundled together with a driver.

```
C:\PCIe_Video\windows-driver\floppy\examples\win32>TestLib32.exe
```

<<<TestLib32>>> Testing functionality of FG4 driver r:1.1 (c) 2020-2024 Digiteq automotive, programmed by J.Fojtik Direct kernel call opened handle for FG4: **OK** FG4Service.dll opened handle for FG4: **OK** Access to device properties **succeeded**

You should test both TestLib32 and TestLib64 on 64-bit systems.

3. Driver update

In case that you have successfully installed driver in the past. It is possible to update it without full reinstallation.

1. Open Device manager and right click on DQ FG4 PCIe Card for more properties. Then

choose update driver.



NOTE: Sometimes from unknown reason, Windows refuses to update driver and claim that the

best driver is already installed. In this case you will need to uninstall driver and try to install it again.

		×
←	Update Drivers - DQ FG4 PCIe Card	
	The best drivers for your device are already installed	
	Windows has determined that the best driver for this device is already installed. There may be better drivers on Windows Update or on the device manufacturer's website.	
	DQ FG4 PCle Card	
	→ Search for updated drivers on Windows Update	
		Close



2. On the next screen choose Browse my computer for drivers.

ur -

3. Then select a location of a new driver.

←	Update Drivers - DQ FG4 PCIe Card	^
	Browse for drivers on your computer	
	Search for drivers in this location:	
	I\FG4_Driver\WIN10 Y Browse	
	☑ Include subfolders	
	→ Let me pick from a list of available drivers on my computer This list will show available drivers compatible with the device, and all drivers in the same category as the device.	
	Next Cano	el

4. Click Browse in your computer to locate ".inf" file in the folder with unzipped driver (desired



version).

Deale				
	.op InoDrive			
> OneDrive				
т П	his PC			
> 1	3D Objects			
>	Desktop			
> 📑	Documents			
> 🚽	Downloads			
> Music				
>	Pictures			
> 🖪	Videos			
~ 🛓	Local Disk (C:)			
>	\$WinREAgent			
>	AMD			
	PerfLogs			
>	Program Files			
>	Program Files (x86)			
>	ProgramData			
~	temp			
	 WIN10 			
	win32			
	win64			
>	Users			
>	Windows	~		

- 5. Confirm your choice with button OK.
- 6. The driver is installed and ready to use.

~	Update Drivers - DQ FG4 PCIe Card		
	Windows has successfully updated your d	rivers	
	Windows has finished installing the drivers for this device	e:	
	DQ FG4 PCIe Card		

7. Please check device manager If FG4 device is not labeled with a yellow warning symbol. If so please restart your computer.

Close

4. Driver removing / uninstall

- 1. Please execute *unreg.bat* from admin account. If you plan to install another version of FG4 driver this step is not necessary.
- 2. Open Device manager and right click on DQ FG4 PCIe Card for more properties. Then



choose Uninstall device.

3. Check for Delete driver software for this device



Click on Uninstall button and it is all.



5. Windows 10/11 & memory integrity

Memory integrity is supported from driver version 1.19. This option must be turned off for all older drivers.



When you have already memory integrity switched on, the installation of older driver (before 1.19) fails with cryptic error 39:





5.1. Turning memory integrity on

Another situation occurs when you have memory integrity off and you would like to turn it on from whatever reason.

If you do not have any incompatible driver in cache everything works fine.

NOTE: Please note that **memory integrity decreases performance roughly 10%**. If you are using demanding video processing, this performance drop might be unwanted.

5.2. Boosting security more by closing auxiliary interface

On the other side, if you really need high security you are advised to run a tool SecureUp.exe, that is bundled with driver from release 1.19.1.

Driver has auxiliary interface for maintenance e.g. firmware update, memory test and for special tasks. Closing this interface causes that all these tasks are disabled in exchange of heightened security.

This is a result of closing auxiliary interface:

Driver intentionally does not support re-opening its interface. This action could be undone by erasing registry key in area accessible only to administrators. This is described in user manual.



Changes

Version	Date	Change description	Changed by	Approved by
1.00	02.02.2021	First release version	RSA	
1.01	27.10.2021	2.1 installation updated, added chapter 3.	MAJ	
1.03	27.3.2025	Claimed compatibility with Windows 11	JFT	
1.04	25.4.2025	Windows 10/11 - memory integrity	JFT	