

Zyla Quick Start Guide - USB 3.0 Models

ANDOR
an Oxford Instruments company



2 Unpacking your Camera and Accessories

1



Zyla sCMOS Camera
(Zyla 5.5 USB 3.0 or
Zyla 4.2 USB 3.0 version)

2

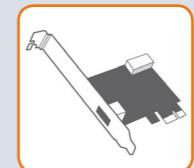


Software or Driver
CD and User
Manual on CD



Anti-Static Strap

2



USB 3.0
PCIe Card



Power Supply
Unit (x1)

3



Country Specific
Power Cord



USB 3.0 Cable



Multi I/O
Timing Cable



Coolant Pipes
Water cooled
models only

1 Preparing your Facility



Handle the camera and accessories with care.
Zyla sCMOS weighs 1.0 kg [2 lb 2 oz].



Observe anti-static precautions when
installing the controller card and camera.



Ensure 100 mm clearance around camera
and power supply vents (Do **not** block
vents when operating on benchtop).



Operation of the camera close to intense
pulsed sources (e.g. plasma and X-ray
sources) may compromise performance.



Keep dry, <70% humidity non-condensing.



Use correct power supply and cables.



Store between -10°C and 50°C.
Zyla 5.5 (all models), Zyla 4.2 (water cooled):
operate between 0°C and 35°C
Zyla 4.2 (air cooled): operate between 0°C
and 27°C



For water cooled models- the coolant system
must be connected and water temperature
set above the dew point before the camera
is switched on. Refer to the dew point
information in the user manual before use.

Refer to the user manual for further information.

3 Installing Software (Solis, SDK3 or iQ)

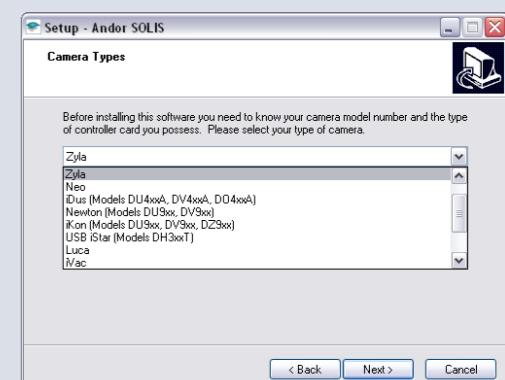
You must have administrator access on your PC to perform this installation.

The same instructions cover the installation procedure for Andor's Solis, SDK or iQ software, which is used in conjunction with third party software. If you are planning to run your camera through a third party interface you will require the Andor Drivers, called SDK3.

Switch on the PC, insert CD and run the **Solis (or SDK) setup .exe** file on the CD or download location.

- Confirm the version of software.
- Follow the on screen prompts.
- Select the installation directory when prompted.
- If prompted for camera type select Zyla.
- On the final window click on “Install”. During the installation a number of other windows will appear as various drivers are installed.
- To complete the installation, when prompted select “Yes, restart the computer now” and click on the finish button.

For more information visit: <http://www.andor.com/scientific-software>



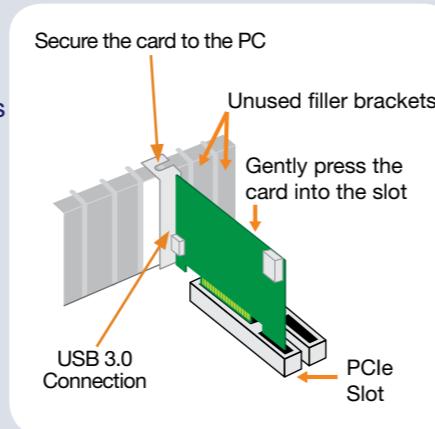
Please turn over

4 Installing the Camera USB 3.0 PCIe Card



Ensure your PC is powered off. Ensure anti-static precautions using anti-static strap provided. Keep all screws safe.

1. Unplug all cables from the rear of the computer.
2. Open the PC enclosure to gain access to the expansion slots.
3. Locate a suitable PCIe slot (x4, x8 x16 PCIe recommended - note that x1 slots may be shared with other devices resulting in reduced system performance). *If you are unsure which slot is correct, please consult the PC user manual.*
4. Remove the filler bracket corresponding to the slot you intend to use.
5. Remove the controller card carefully from its protective ESD packaging and insert the card connector fully into the expansion slot.
6. Ensure the card's mounting bracket is flush with any other mounting or filler brackets to either side of it, then secure the controller card in place.
7. Replace the computer cover and secure with mounting screws if applicable.
8. Reconnect any accessories you were using previously.



NOTES:

- Use only the USB 3.0 cable supplied by Andor.
- Do not connect any other device to the USB 3.0 PCIe card as this may interfere with normal camera operation or performance.
- Camera operation with USB 3.0 PCIe cards not supplied by Andor cannot be guaranteed.
- Windows 10 will install its own driver that works with the Startech card- versions prior to this must have drivers installed manually (see Section 5).

6 Connecting your Camera and Switching it on



Ensure that the Camera ON/OFF switch is in the OFF position AND your PC is switched OFF.

- For **Water Cooled** models, ensure the coolant system is connected before the camera is switched on- *please refer to the user manual.*
- Insert the 12V DC power cable into the power connector at the rear of the camera, ensure the orientation is correct. **NEVER** forcibly insert the connector.
- Connect the supplied USB 3.0 cable between the USB 3.0 connector on the camera and the corresponding slot on the Framegrabber PCIe card.
- If required, connect the I/O expander cable to the I/O 15 way D type connector.
- Switch the camera ON using the ON/OFF switch. You should hear an audible confirmation (a long beep).
- Turn ON the PC.
- Start your software.
- View and adjust the acquisition settings as required.
- Start acquiring data.

NOTES:

- If you need to adjust the C-mount, refer to the Zyla user manual.

Zyla USB 3.0 version Connections



5 Installing the Card Driver and Disabling Power Management



Restart your PC

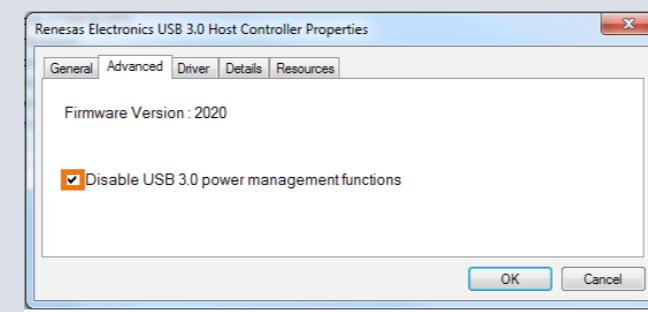
Installing the USB 3.0 PCIe Card Driver (not required for Windows 10)

- USB 3.0 PCIe card drivers must be installed manually for PCs running versions prior to Windows 10. Refer to the instructions on the driver CD supplied with the USB 3.0 Card.
- Check Startech's website for the latest drivers & firmware:
 1. Go to <http://www.startech.com/Downloads>
 2. Enter product code PEXUSB3S25 and hit Search
 3. If a later driver version is available, then download and install.
 4. If a later Firmware version is available, then download and install.

Disable Power Management for the Renesas USB 3.0 Host Controller

In a multi-camera system, power management must be disabled for all USB 3.0 cards, or every port, if using a quad USB 3.0 Card.

1. Navigate to 'Renesas USB 3.0 Host Controller' properties menu in Device Manager (Control Panel>Device Manager> Universal Serial Bus Controllers).
2. Select the Advanced tab.
3. Check the Disable USB 3.0 power management functions checkbox.



Troubleshooting

Camera buzzer does not sound on start-up

- The camera buzzer should be audible momentarily (a long beep) when the camera is switched to ON.
- If this does not occur, ensure that power is connected to the camera and the ON/OFF switch is set to ON.

Camera is not recognized by PC

- Ensure camera is switched to ON (The camera must be powered up before the software is initiated).
- Check that the camera cable(s) are securely and correctly connected between the camera and the PCIe card in the PC (shown in step 6).
- Check that the PCIe card and drivers have been installed properly (Control Panel – System – Hardware – Device Manager – Imaging Devices).

Image Data not sent to PC

- Check that Power Management for the USB 3.0 Host Controller has been disabled (see Section 5)
- Ensure that this is done for each card or port used in a multi-camera system.



For additional troubleshooting information please refer to the user manual
For further technical information about the Andor Zyla series go to: andor.com/Zyla
You can find the latest user manuals on MyAndor (<http://my.andor.com/login.aspx>)