

# ZL41 Quick Start Guide - Camera Link Models



ANDOR

For ZL41 Cell and ZL41 Wave models with air or liquid cooling



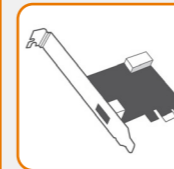
## 2 Unpack the Camera

Camera



ZL41 5.5 or 4.2 sCMOS Camera (Camera Link version)

Essentials



Camera Link PCIe Card



Coolant Pipes water cooled models only



Hex Key (1.5 mm)

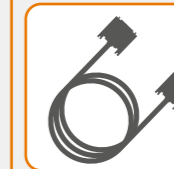


Documentation scan or visit: [andor.oxinst.com/welcome](http://andor.oxinst.com/welcome)

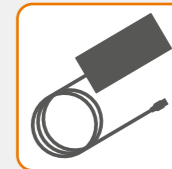


Software (copy supplied)

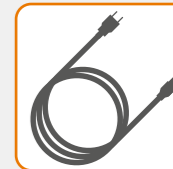
Cables



Camera Link Cables (x2)



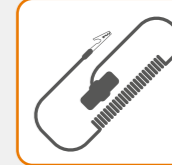
Power Supply



Country Specific Power Cord



Multi I/O Timing Cable



Anti-Static Strap

## 1 Prepare your Facility



Handle the camera and accessories with care.



Use correct power supply and cables.



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



Store between -10°C and 50°C.



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



ZL41 5.5 (all models), ZL41 4.2 (water cooled): operate between 0°C and 35°C  
ZL41 4.2 (air cooled): operate between 0°C and 27°C



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

For water cooled models the coolant system must be connected and water temperature set above the dew point before the camera is switched on.



Keep dry, <70% humidity non-condensing.

Refer to the user manual for further information

## 3 Install Software (Solis or SDK)

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

These instructions cover installation of both Andor Solis and Andor SDK if ordered. A copy of the software is provided within the camera box. Additionally, the latest software files are available to download on request, please sign in or create an account at [andor.oxinst.com/downloads](http://andor.oxinst.com/downloads)

Windows: Switch on the PC, run the setup exe from the supplied copy or the downloaded file: e.g. AndorSDK3Setup-<version>.exe.

1. Confirm the version of software (minimum is v3.14.x).
2. Follow the on screen prompts.
3. Select the installation directory when prompted.
4. If prompted for camera type select **Zyla**.
5. On the final window click on **"Install"**. Continue to follow the on screen prompts.
6. To complete the installation, when prompted select **"Yes, restart the computer now"** and click on the finish button.

**Linux:**

For detailed instructions on how to install the SDK3 drivers on Linux please refer to Section 1.5.2 in the Andor Software Development Kit Manual, available at [andor.oxinst.com/downloads](http://andor.oxinst.com/downloads).

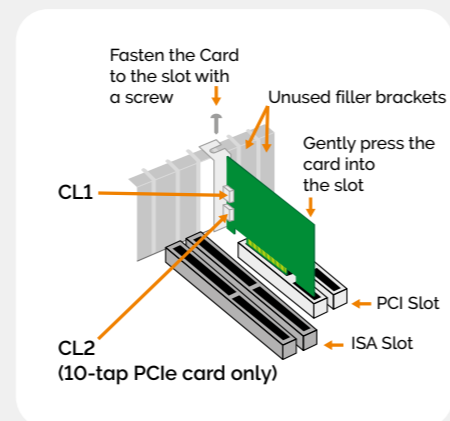


## 4 Install the Camera Controller (PCIe) Card

 Ensure your PC is powered off.

 Ensure anti-static precautions and use the anti-static strap provided to prevent potential ESD damage. 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:
  - **ZL41 5.5 and ZL41 4.2 10-tap** PCIe card: use x16 or x8 PCIe slots **ONLY**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.
9. For PCs not supplied by Andor, refer to Setting & Checking BIOS options section.



### Notes:


- Do not connect any other device to the PCIe card as this may interfere with normal camera operation or performance.
- Camera operation with PCIe cards not supplied by Andor cannot be guaranteed.

### Check & Set BIOS options (for PCs not supplied by Andor)

Enter the BIOS menu when starting PC. For Dell workstations, press F12 at start-up and select System Setup in the One Time Boot Menu. For Dell workstations 3 options in the Performance menu of the BIOS need to be checked/ set:

- C-States Control – Disable C-States.
- Intel Speed-step – Disable Speed-step.
- Memory Node Interleaving – Set from NUMA to SMP. Note: This option is only available on larger workstations with 2 physical processors and may have a different name- ensure that NUMA is disabled.

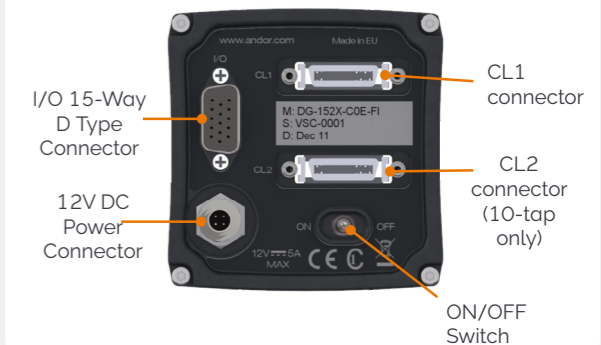
## 5 Connect the Camera and Switch it on

 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 12 V DC power cable into the power connector at the rear of the camera, ensure the orientation is correct. NEVER forcibly insert the connector.
- Insert Camera Link Cable CL1 connector labelled 'CL1 CAM' into camera connector CL1.
- Insert the other end of the cable labelled 'CL1 PC' into PCIe card connector CL1.
- Also insert Camera Link Cable CL2 connectors labelled 'CL2 CAM' and 'CL 2 PC' into the CL2 connectors of the camera and PCIe card respectively.
- Please refer to diagrams in both Steps 4 and 6 to identify the locations of the CL1 and CL2 connectors.
- 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 short beep followed by a long beep).
- Turn ON the PC.
- Start your software.
- View and adjust the acquisition settings as required.
- Start acquiring data.

**Note: If you need to adjust the C-mount, refer to the ZL41 user manual.**

### ZL41 Camera Link version Connections



## ? Troubleshoot

### Camera buzzer does not sound on start-up

- The camera buzzer should be audible momentarily (as a short beep followed by 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 head and the PCIe card in the PC (shown in step 4).
- Check that the PCIe card and drivers have been installed properly (Control Panel – System – Hardware – Device Manager – Imaging Devices).

Please see the Hardware Guide for further information on Troubleshooting.

Online access to technical documentation and software downloads is available at:

[andor.oxinst.com/downloads](http://andor.oxinst.com/downloads)