

# Coaxlink

1629 Coaxlink Duo PCIe/104-EMB  
3300 HD26F I/O module for Coaxlink Duo PCIe/104  
3301 Thermal drain (Model 1) for Coaxlink Duo PCIe/104  
3302 DIN1.0/2.3 Coaxial cable for Coaxlink Duo PCIe/104



**CoaxPress**

# 1. 1629 Coaxlink Duo PCIe/104-EMB Installation Guide

## 1.1. Disclaimer

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## 1.2. Declarations



### Notice for Europe

This product is in conformity with the Council Directive 2014/30/EU

This equipment has been tested and found to comply with Class B EN55022/CISPR22 and Class B EN55024/CISPR24.

This product has been tested in a typical class B compliant host system. It is assumed that this product will also achieve compliance in any class B compliant unit.

To meet EC requirements, shielded cables must be used to connect a peripheral to the card.



### Notice for USA

Compliance Information Statement (Declaration of Conformity Procedure) DoC FCC Part 15

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation or when the equipment is operated in a commercial environment.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



This product is in conformity with the European Union RoHS 2011/65/EU Directive, that stands for "the restriction of the use of certain hazardous substances in electrical and electronic equipment".



According the European directive 2012/19/EU, the product must be disposed of separately from normal household waste. It must be recycled according to the local regulations.

## 1.3. Precautions for Use of Board Products

### Electrostatic Sensitive Device

Boards may be damaged by electrostatic discharges. Follow the procedure hereby described and apply any general procedure aimed at reducing the risk associated with electrostatic discharge. Damage caused by improper handling is not covered by the manufacturer's warranty.

### Electromagnetic Compatibility

Euresys boards are compliant with electromagnetic compatibility regulatory requirements. To ensure this compliance, the card bracket must be secured with the relevant screw in accordance with the procedure described herein.

### Risk of Electrical Shock

Do not operate the computer with any enclosure cover removed. During the hardware installation, ensure the AC power cord is unplugged before touching any internal part of the computer.

#### Heating Device

It is normal for a board to dissipate some heat during operation. All enclosure covers, including blank brackets, must be fitted correctly to ensure that the fan cools the computer adequately.

#### Hot Plugging Forbidden

Uncontrolled plugging and unplugging of equipment may damage a board. Always switch off the computer and any relevant system device when connecting or disconnecting a cable at the frame grabber or auxiliary board bracket. Failure to do so may damage the card and will void the warranty.

#### Poor Grounding Protection

The computer and the camera can be located in distant areas with individual ground connections. Poor ground interconnection, ground loop or ground fault may induce unwanted voltage between equipment, causing excessive current in the interconnecting cables. This faulty situation can damage the frame grabber or the camera electrical interface. The user must follow proper equipment grounding practices at all ends of the interconnecting cables. In addition, the use of cable assemblies with overall shield solidly connected to the conductive shell of all connectors is recommended. Besides the beneficial effect of cable shielding on electromagnetic compatibility, the shield connection can increase the protection level against grounding problems by temporarily absorbing unwanted fault current.

### 1.4. PCI Express/104 Card Stacking Requirements

The Host PC must be equipped with one stack-DOWN connector of the following types:

- Type 2 PCIe/104 with 2 PCI Express Gen 2 x4 links providing at least four active lanes.
- Type 1 PCIe/104 with 1 PCI Express x16 link configured to operate as 2 x8 links providing at least four active lanes per link.

### 1.5. PCI Express/104 Module Installation Procedure

1. Switch off the computer and all connected peripherals (monitor, printer...).
2. Discharge any static electricity that could be accumulated by your body. You can achieve this by touching an unpainted metal part of the enclosure of your computer with a bare hand. Make sure that the computer is linked to the AC power outlet with proper earth connection.
3. Disconnect all cables from your computer, including AC power.
4. Unwrap the Coaxlink module(s) packing, take the board and carefully hold it. Avoid any contact of the board with unnecessary items, including your clothes.
5. For each module, install a thermal drain. For instance: 3301 Thermal drain (Model 1) for Coaxlink Duo PCIe/104.
6. Install the first module directly under the Host PC. Secure it using 4 spacers (not supplied).
7. **Optional.** Repeat the operation to install a second module under the first one.
8. For each module, attach 2 coaxial cables to the enclosure and plugs it into the CoaXPress Host A and CoaXPress Host B connectors. For instance:3302 DIN1.0/2.3 Coaxial cable for Coaxlink Duo PCIe/104.
9. **Optional.** For each module, attach one I/O module to the enclosure and plug the cable to the Extension connector.
10. Terminate the installation of the thermal drain. For instance:3300 HD26F I/O module for Coaxlink Duo PCIe/104
11. **Optional.** When the camera(s) is (are) powered through the CoaXPress cable, connect a 24 V DC power source to the Camera Power Input connector using a 4-pin 0.1-in Molex KK7478 female plug.
12. **Optional.** When synchronized acquisition is required for cameras attached to different Coaxlink cards, establish the card-to-card link interconnections.

### 1.6. Coaxlink Driver Installation Procedure

The Coaxlink driver is distributed on the support section of the Euresys website: <http://www.euresys.com/support/>.

**Note:** *The Euresys website download area may require user authentication. The user ID and password are not obtained, they are chosen by the user. Access is free and unrestricted.*

1. Select the Coaxlink product series to display the file list corresponding to the latest available Coaxlink driver release.
2. Select the setup file corresponding to your operating system and your processor architecture

```
coaxlink-<OS>- [<ARCH>-] <MA.MI.RE.BU>.<EXT>
```

- The <OS> field designates the operating system: linux, macos, win, win10
- The <ARCH> optional field designates the processor architecture: aarch64, x86, x86\_64
- The <MA.MI.RE.BU> designates respectively the major and minor version numbers, the revision and the build numbers of the driver package
- <The EXT> field designates the file type: exe, tar .gz, pkg

**Important:** *For an installation on Windows 10, use the coaxlink-win10- [<ARCH>-] <MA.MI.RE.BU>.exe setup file with drivers signed by Microsoft!*

3. Launch the installer tool to install the driver files and software tools on your PC.

**Note:** If you have an existing Coaxlink driver already installed, the installer tool prompts you to uninstall it before being able to continue. Otherwise, it prompts you for the selection of the destination folder.

## 1.7. Firmware Update Procedure

The Coaxlink driver comes with all the firmware variants for all the Coaxlink products.

1. Determine the firmware variant that fulfills the functional requirements of your application: e.g. '1-camera', '1-camera, line-scan', '2-camera' ...

**Note:** Refer to the *Firmware Variants per Product* section of the Coaxlink driver release notes for the firmware variants that are applicable to your Coaxlink card.

2. Launch the Coaxlink Firmware Manager tool to perform a firmware **update** or to **install** a specific firmware variant on your Coaxlink card(s) using the Coaxlink Firmware Manager tool in **GUI mode** or in **command-line mode**:

- a. In GUI mode, to **update** or **install** a variant:

Select the card to update

Select the firmware variant to install

Proceed with the installation

- b. In command-line mode, to **update** a variant:

```
coaxlink-firmware update
```

- c. In command-line mode, to **install** another firmware variant:

```
coaxlink-firmware install '<variant-name>'
```

3. Wait until completion of the firmware update

**Important:** Avoid turning off your PC during the firmware update procedure!

4. Repeat the procedure on all your Coaxlink cards

5. **Power off completely your PC** and restart it to activate the newly loaded firmware.

**Important:** The above procedure requires a Coaxlink driver version 10.0.0 or higher to be executed on Coaxlink cards having a Serial Number 10,000 or higher!