



DATALynx ATX4

Quick Start Guide (Short Information for Use)

V 2.1

b-plus technologies GmbH
www.b-plus.com

Valid for

Part-Number	Description
B16047-DLY-EP2-XXXX	DATALynx ATX4 EP2 with AMD™ EPYC™ 7002
B16047-DLY-EP3-XXXX	DATALynx ATX4 EP3 with AMD™ EPYC™ 7003
B16047-DLY-SX2-XXXX	DATALynx ATX4 SX2 with Dual 2nd Generation Intel® Xeon® scalable



Note

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Bitte beachten Sie, dass die folgenden Informationen in englischer Sprache verfasst wurden. Sofern Sie deutsche Unterstützung benötigen, wenden Sie sich bitte an support@b-plus.com.

General Conditions

These general conditions apply between you ("customer") and b-plus technologies GmbH, Ulrichsberger Straße 17, 94469 Deggendorf ("b-plus"). Conflicting, deviating or additional terms and conditions of the customer are rejected.

- 1 The delivery items shall only be used for research purposes or prototypical applications, at customer's own risk and for customer's own evaluation and development purposes ("authorized use"). The delivery items are not suitable for serial use and may only be used in suitable test environments and by qualified personnel. Neither a certain quality for the purpose of serial use has been agreed upon, nor is a defect-free suitability for such purposes assumed. Any necessary approval or conformity assessments shall be carried out by the customer. The delivery items may only be used in such a way that a danger to body and considerable financial loss is excluded.
- 2 The customer is specifically advised to his special testing obligation, as b-plus cannot test the interaction of the delivery item with the components specifically used by the customer. In this context, the client must carefully and appropriately test the interaction, in particular prior to use in areas which represent a danger to life, limb or property or which can lead to considerable financial losses.



Support

Product Documentation

www.b-plus.com

Download

<https://www.b-plus.com/en/support/download-portal>

Download Information

Login: datalynx-atx4

Password: datalynx-atx4-568

Support

E-Mail support@b-plus.com

Phone +49 991 270302-888

Contact

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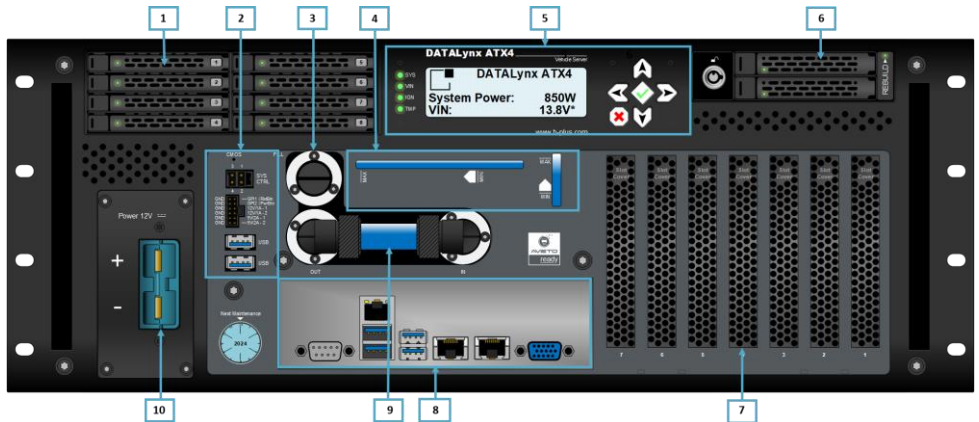
E-Mail services@b-plus.com

Safety



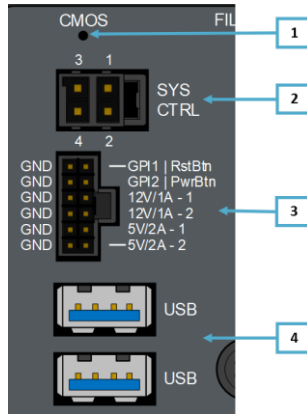
- ▶ Read the safety notes and warning messages before you use the product.
- ▶ For safe and proper operation, obey the instructions in this document which you can find in the shipping unit.

Front View



Pos.	Designation
1	5.25" Slot with swappable drive option
2	Control Board with System Control Connector (Ignition), CMOS Reset Button, GPIO Connector, 2 x USB 3.0
3	Re-fill Opening
4	Liquid Fill Status
5	User HMI and Display for System Control
6	3.5" Slot with OS Drive(s)
7	Mainboard PCIe Slots
8	Mainboard Rear-Panel (see specifications)
9	Connectors for Liquid Cooling Extension
10	Power Connector Panel (DC or AC)

Description of the Control Board



Number	Name	Description of the Control Board
1	CMOS Reset Button	<ul style="list-style-type: none"> Easy BIOS Reset with Mainboard CMOS Reset Button <p>i Procedure to reset the BIOS configuration:</p> <ol style="list-style-type: none"> 1 Disconnect the device from the power supply. 2 Press the reset button for 4-10 sec.
2	4-pin b-plus SYSCTRL	<ul style="list-style-type: none"> 1 CAN_HIGH (internal use only) 2 Ignition Input: IGN_IN, Thresholds: On >6 V, Off < 3 V, Umax 32 V 3 CAN_LOW (internal use only) 4 Not connected
3	I/O Connector (μ C based, 12 pin)	<ul style="list-style-type: none"> GPI1 or Mainboard Reset Button GPI2 or Mainboard Power Button 2x SIODI switchable 12 V – 1 A Power Output 2x SIODI switchable 5 V - 2 A Power Output
4	USB 3.0 Hub with external ports	<ul style="list-style-type: none"> 2x USB 3.0 Type A



Scope of Delivery

- DATALynx ATX4
 - Quick Start Guide (this Short Information for Use) with safety and warning information
 - Internal power cables (3 aux power cables and 2 GPU power cables)
 - Connectors (SYS CTRL, GPIO)
 - AC Power cord (only AC variants) or DC Power connector for AWG2 cable cross section (only DC variants)
 - Production test report
- » You can find the description of the cables and the related connectors in the manual.

Specifications and Approvals

- » See the data sheet or manual DATALynx ATX4 in the download portal for more information.

Initial Operation

Description

Figure

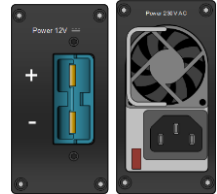
1 Connect power

Power Supply

DC: 6 – 32 V DC max. (9 – 32 V DC permanent), up to 1250 W
+ 2x 500 W depending on the configuration

or

AC: AC: 100 - 127 V (1000 W) oder 200 - 240 V (1600 W), 50 - 60 Hz
+ 2x 750 W depending on the configuration

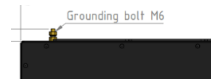


- ✓ The LED of the User HMI flashes orange after the connection of the power supply.

Only use cables with the correct cross section and length:

- minimum 35 mm² for DC power cables
- minimum 3x 1.5 mm² for AC power cables
- maximum length 3 m

- 2 For DC variants: Make sure that you connect the grounding bolt at the rear side to the chassis ground of your test carrier.



3 Set Ignition to High Level

Ignition / Terminal 15 High Level (Pin 2) = DC Voltage IN

- ON/Off:** The threshold to ignite the device is 6 V.
To turn off the device, the voltage has to be < 3 V.
The deadzone is between 3 V and 6 V.



4 Alternative to step 3:

- ▶ Press the green OK button of the User HMI to switch on the display.
- ▶ Press the green OK button of the User HMI again to power on the system.



Safety Notes and Warning Messages



ATTENTION Damage by transport or incorrect storage possible

The product has undergone a comprehensive final check to make sure that it leaves the production location in a perfect condition. Transport or incorrect storage can cause damage to the product.

- ▶ Examine the product for damage before initial operation.
- ▶ If the product is damaged, do not start the operation.



CAUTION Injury possible by heavy product

The product has a weight of 23 kg or more and is not easy to lift. Products that fall can cause injuries or permanent damage of the devices.

- ▶ Deploy 2 persons to lift the product at the front and at the rear side.



WARNING Injury possible by heavy products which are not fastened

The drawer has a weight of approximately 23 kg or more.

Heavy products which are not fastened can move and hit persons, e.g., in an test carrier environment. This can cause serious injuries and permanent damage of the product.

- ▶ Fasten the product with suitable straps and fixation during installation and transportation.
- ▶ Use the front 19" mounting holes and M4/M5 threads at the rear side to fasten the product.



WARNING Contact with harmful liquid during leakage possible

Defects or opening of the cooling system can cause leakage of the cooling liquid.

The harmful liquid can cause damage to organs through prolonged or repeated exposure.

- ▶ Do not touch or swallow the cooling liquid.
- ▶ Wear protective clothing.
- ▶ Visit <http://www.b-plus.com> to download the material data safety sheet of the cooling liquid for more information.

⚠ CAUTION Fire by incorrect cable connectors and cross sections possible (DC variant)

The DC variants of the product use high currents. Incorrect cable connectors or cross sections can cause shortage, cable fire, and high temperatures.

The cable fire can cause smoke poisoning. Skin contact can cause burns. Damage of the product can occur.

- ▶ Use the cables and the correct connectors which are in the shipping unit and which b-plus recommends.
- ▶ Only use cables with the correct cross section.
- ▶ Connect the grounding bolt at the rear side to the ground of your test carrier.

⚠ WARNING Injury possible by defective cables and insulation faults (AC variant)

The AC variants of the product use high voltages. The correct supply voltage for the AC variant is 100 – 127 V (1000 W) or 200 – 240 V AC (1600 W), 50 – 60 Hz.

Incorrect opening of the device or the use of incorrect cables or connectors can cause contact at live components and cables. This can cause paralysis of heart and breathing activity.

The use of the product outside of the power voltage range can cause damage to the product.

- ▶ Only use power cords, power adapters, and accessories which b-plus recommends.
- ▶ Only use certified, not damaged power cord cables and connectors.
- ▶ Only open the product if you have the instruction to do so by b-plus personnel or by appropriate instructions in the product documentation.

⚠ CAUTION High temperatures of the housing possible

High system loads and high environmental temperatures can cause hot surfaces on the housing.

Contact with hot surfaces can cause mild burns.

- ▶ Do not touch the hot surface.
- ▶ Cool the product before you touch it.
- ▶ Use the product in the specified environmental temperatures.
- ▶ Wear protective gloves if you cannot avoid contact.

 **WARNING** Injury possible by incorrect handling of the battery

The product contains a lithium-ion CMOS battery which is not rechargeable. There is risk of heat or explosion by incorrect handling.


Fire can cause smoke poisoning. Skin contact can cause burns. Damage of the product can occur.

- ▶ Only trained, qualified, and experienced persons are permitted to use the product.
- ▶ Do not charge the battery.

 **ATTENTION** Electromagnetic fields by long cables possible


All connectable cables are specified to be shorter than 3 meters. Electromagnetic fields can cause disturbances and incorrect operation of the product and near devices.

- ▶ Only use cables with a length less than 3 meters.

 **ATTENTION** Damage by use outside of the power voltage range (DC variant)

The correct supply voltage for the DC variant is 6 – 32 V DC max. (9 – 32 V DC permanent). The use outside of this range can cause permanent damage of the product.


- ▶ Use a power supply in the specified range (12 – 24 V).
- ▶ Do not connect the device directly to an alternating current supply voltage, e.g., 110 – 240 VAC.
- ▶ Use a DC power supply with sufficient power (> 1000 W).

 **ATTENTION** Connect the correct polarity (DC variant)

Polarity reversal can cause permanent damage of the product.


- ▶ Make sure that the connection to the power supply has the correct polarity.

Installation

 **ATTENTION** Use protection against overcurrent (DC variant)

Overcurrent can occur by, e.g., a bolt of lightning. This can cause damage of the product or cable fire.

- ▶ Use a suitable fuse for overcurrent protection.

 **ATTENTION** Damage by incorrect position possible

The product contains an internal liquid cooling system. Other positions than horizontal and vertical position can cause damage or incorrect operation of the liquid cooling system.


- ▶ Only install the product in the horizontal and vertical position.



horizontal



vertical

 **ATTENTION** Avoid unwanted material in the product

Unwanted material, e.g., liquids, foreign objects, or dust, can cause damage to the product.

- ▶ Keep unwanted materials out of the product by correct position or storage.


 **ATTENTION** Sufficient air flow necessary

Overtemperature can cause damage to the product.

- ▶ Make sure that the airflow is sufficient.
- ▶ Keep at least 200 mm installation distance from the front and the rear side.
- ▶ Keep at least 1 unit (1,75 ") installation distance on top of the product.
- ▶ Obey the additional instructions in the manual.



Operation

 **CAUTION** Product contains moving parts

Moving parts, e.g., fans, can cause personal injury.

- ▶ Do not touch the fans with your fingers or other body parts.



ATTENTION Data loss by incorrect handling of the BRICK2 STORAGE

Within the Add-On B2S, you can disconnect (hot-remove) and insert (hot-add) a BRICK 2 STORAGE during system operation.

Incorrect handling of the BRICK2 STORAGE during operation can cause data loss.

- ▶ Make sure that the BRICK2 STORAGE is connected during system power on / initial start-up.
- ▶ Make sure SIODI Service is installed and in operation.
- ▶ Make sure the newest firmware releases are installed which support B2S hot-add/hot-remove.



ATTENTION Remove additional media before OS reinstallation

- ▶ Do not start the recovery which is described in the manual if you have installed more than one storage medium.
- ▶ First remove all removable media besides the OS-SSD.




ATTENTION SIODI Service 3.11.0 or newer necessary

DATALynx ATX4 requires SIODI Service Version 3.11 or newer in combination with Control Board Version 2.0.0.

The system does not support former versions or combinations.



Maintenance

 **CAUTION** Maintenance, service, and repair of the product only by b-plus

Incorrect handling of the product during maintenance, service, and repair can lead to electric shock, fire, permanent damage of the product, and/or personal injury.

- ▶ Do not remove of identification numbers, repair work by yourself or modify the product.
- ▶ Do not open the product, if you have not been instructed to do so by b-plus personnel.
- ▶ Do not try to service the product by yourself if you have not been instructed to do so by b-plus personnel.
- ▶ Contact b-plus or an authorized service provider of b-plus who is permitted to repair the particular product.



ATTENTION Damage by incorrect configuration possible

DATALynx ATX4 is a complex system with high performance components in a verified configuration.

If you add or replace components, an unreleased configuration can cause damage of the product and results in loss of warranty.

- ▶ Contact b-plus before you modify the supplied product.
- ▶ Only use components which b-plus recommends.
- ▶ Note that the approvals are only valid for the supplied configuration.



ATTENTION Unserviceable product by update interruption possible

For example, power loss can make the product unserviceable.

- ▶ Make sure that the update procedure is not interrupted.

Transport and Storage



ATTENTION Damage by incorrect handling and storage

If you bring the product from an environment with low temperature to an environment with high temperature, condensation can occur.

This condensation can lead to permanent damage of the product if you power the product immediately on.

▶ Therefore, store the product in the new environment for at least 2 hours before you power it on.

The weight of devices on top of each other can lead to housing damage.

▶ Do not stack more than 2 devices on top of each other.

Disposal



Waste Regulation for Electrical & Electronic Equipment

- ▶ Refer to the European WEEE directive to dispose electrical and electronic equipment.
- ▶ Do not dispose electrical and electronic equipment with consumer waste. Its components must be recycled or disposed apart from each other. Otherwise, contaminative and hazardous substances can pollute our environment.
- ▶ You as a user are committed by law to dispose electrical and electronic products to the producer, the dealer, or public collecting points at the end of the product lifetime for free.
- » See the support section of b-plus.com for more information about the RMA handling.

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Correct Disposal of Batteries in This Product

Applicable in the European Union and other European countries with separate battery return systems.

- ▶ Where marked, the chemical symbols Hg, Cd, or Pb indicate that the battery contains mercury, cadmium, or lead above the reference levels in newest EC Directive. If batteries are not properly disposed of, these substances can cause harm to human health or the environment.
- ▶ The marking on the battery, manual, or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life.
- ▶ To protect natural resources and to promote material re-use, separate batteries from other types of waste and recycle them through your local, free battery return system.
- ▶ Only trained, qualified, and experienced persons are permitted to open the housing and remove the used CMOS battery which is on the mainboard. Contact support@b-plus.com for more information.
- ▶ Dispose used batteries and rechargeable batteries according to the manufacturer's instructions. When you dispose batteries, comply with local laws, ordinances, and regulations.
- » See the support section of b-plus.com for more information about the RMA handling.

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