



Data Sheet

## DATALynx ATX4

Generation EP3

### 4U / 19inch Vehicle Server

DATALynx, the b-plus series for high performance computing solutions, achieves the next level for in-vehicle applications. With a completely new designed b-plus 100A DC Power Supply and an extremely powerful and fully integrated liquid cooling setup, the DATALynx ATX4 enables maximum CPU and GPU performance from -10 °C to +60 °C operating without throttling.

### Add-on PCIe

With several 1.5U Add-ons, the system can be scaled from a multi-I/O recording setup up to a deep learning and AI configuration with 5 high-power NVIDIA GPUs.

### Add-on xSTORAGE

The dual xSTORAGE extension enables compatibility to BRICK2 and x8-STORAGE solutions up to 96 Gbit/s sustained write performance per device.

## Highlights

- AMD EPYC™ 7002 series
- AMD EPYC™ 7003 series
- 1250 W DC Power Supply with 9 – 32 V IN
- Up to 2250W DC PSU max.
- 1600 W AC Power Supply optional
- Up to 512 GB DDR4-3200 ECC RDIMM
- All storage options exchangeable
- Liquid cooled CPU and Power Supply
- Liquid cooled GPU optional
- 60 °C operating temperature at full load
- µC based System control and monitoring
- Multiple Add-ons for extensions
- b-plus XTSS 802.1AS compatible





## Specifications

<b>Part Number</b>	B16047-DLY-EP3-XXXX
<b>Processor</b>	AMD EPYC™ 7002 (Rome) and AMD EPYC™ 9003 (Milan)
<b>Mainboard</b>	Supermicro H12SSL-i
<b>Memory</b>	8x DDR4-3200 RDIMM ECC, max 512 GB
<b>USB</b>	6x USB 3.0
<b>LAN</b>	2x 1000Base-T
<b>Management</b>	IPMI with 1x LAN, 1x VGA, 1x Serial
<b>3.5in Bay</b>	OS storage swap rack: 2x SATA 2.5" SSD, AHCI, 250 GB – 4 TB
<b>5.25in Bay</b>	Data storage swap rack: 8x 2.5" SATA, 4x U.2 NVMe, XTSS
<b>PCIe Extensions</b>	Industrial NVIDIA Client GeForce RTX series or NVIDIA Workstation and Datacenter GPU Multiple PCIe extensions from Intel, Mellanox, HighPoint, StarCooperation, EB, Solectrix, Vector, Peak, StarTech, Delock, ...
<b>(g)PTP / XTSS</b>	802.1AS/IEEE1588 compatible b-plus Quad-X550 (4x 10GBase-T) with GPS, UART, NMEA and PPS in/out
<b>Base Power Supply</b>	DC12V: 6 - 32 V DC, 9 - 32 V permanent, 1250 W DC48V: 40 – 60V DC, 2300 W (project based only) AC: 100 - 127 V / 60 Hz / 1000W and 200 - 240 V AC / 50 Hz / 1600W
<b>Add-on PSU</b>	DC: optional 6 - 32 V DC, 9 - 32 V permanent, 500 W per Add-on PCIe AC: optional 100 - 127 V / 60 Hz / 750W and 200 - 240 V AC / 50 Hz / 750W per Add-on PCIe
<b>GPIO</b>	Configurable Ignition/Terminal 15 CMOS Reset, 2x GPI trigger input (with Pwr/Rst Button function), 2x 5V/2A out, 2x 12V/1A out
<b>HMI</b>	20x4 character LCD display for system control and monitoring
<b>SIODI</b>	b-plus API and OS Tooling for component monitoring and I/O control incl. environmental sensors µC based system log and diagnostic
<b>OS</b>	Windows 10 and Linux 64bit support
<b>Mechanics</b>	Base: 4U, 19inch, 442 mm (W) x 475 mm (D) x 176 mm (H), ~23 kg without extensions Add-on: 1.5U, 19inch, 442 mm (W) x 475 mm (D) x 66 mm (H), ~ 6.5 kg without extensions
<b>Temperature</b>	-10 °C to +60 °C operating, -35 °C to +85 °C non-operating for DC versions 0 °C to +40 °C operating, -20 °C to +70 °C non-operating for AC versions
<b>IP Class</b>	IP20
<b>Humidity</b>	max. 90% non-condensing
<b>Vibration</b>	Approved according LV124 specification with 6.5 m/s <sup>2</sup> amplitude at full system load
<b>Approvals</b>	CE – EN 55032 (Class A) / EN 55035, RoHS, REACH
<b>AC Variants</b>	EN 61000-3-2, EN 61000-3-3
<b>DC Variants</b>	ISO 7637-2, LV124 partly approved On request: FCC, VCCI, ECE R10, E1, E13

## System Add-ons

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### Add-on GPU



Add-on (top) with integrated liquid cooling, 850W extra DC Power Supply and PCIe 5.0 x16 interface for high power graphics >300W, e.g. RTX 5090 / RTX PRO 6000

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### Add-on xSTORAGE



Add-on (bottom) for two xSTORAGE slots. The add-on is actively cooled and includes a PCIe 3.0 or 4.0 switch,  $\mu$ C based FAN control and power management. It supports cartridge Hot-Plug / Hot-Swap with OS disk services for storage exchange during operation.

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### Add-on PCIe



Add-on (bottom) for PCIe extension cards. The add-on is actively cooled with  $\mu$ C based FAN control and an optional power supply. Possible slot configurations:

- 2x8: 2x dual slot PCIe 4.0 x8      1x Mainboard PCIe x16 BreakOut with 8+8 Bifurcation
- 4x4: 4x single slot PCIe 4.0 x4      1x Mainboard PCIe x16 BreakOut with 4+4+4+4 Bifurcation
- 4x8: 4x single slot PCIe 4.0 x8      2x Mainboard PCIe x16 BreakOut with 8+8 Bifurcation
- 2x16: 2x dual slot PCIe 4.0 x16      1x Mainboard PCIe x16 BreakOut with PCIe 4.0 switch

Optional:

- Extra 500W DC or 750W AC Power Supply