



Data Sheet

DATALynx ATX4

Generation EP5

4U / 19inch Vehicle Server

DATALynx, the b-plus series for high performance computing solutions with integrated datacenter technology for recording, processing and data ingest.

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™ 9004 series
- AMD EPYC™ 9005 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 1024 GB DDR5-5600+ 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

Part Number	B16047-DLY-EP5-XXXX
Processor	AMD EPYC™ 9004 (Genoa/Bergamo) and AMD EPYC™ 9005 (Turin)
Mainboard	ASRock GENOAD8X-2T/BCM
Memory	8x DDR5-5600+ RDIMM ECC, max 1024 GB
USB	4x USB 3.2 Gen1
LAN	2x 10GBase-T, Broadcom BCM57416
Management	IPMI with 1x LAN, 1x VGA, 1x Serial
3.5in Bay	OS storage swap rack: 1x NVMe SSD, 480 GB – 7.68 TB PCIe 4.0 M.2
5.25in Bay	Data storage swap rack: 8x 2.5" SATA, 4x U.2 NVMe, 4x M.2 NVMe, XTSS
PCIe Extensions	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, ...
(g)PTP / XTSS	802.1AS/IEEE1588 compatible b-plus Quad-X550 (4x 10GBase-T) with GPS, UART, NMEA and PPS in/out
Base Power Supply	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
Add-on PSU	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
GPIO	Configurable Ignition/Terminal 15 CMOS Reset, 2x GPI trigger input (with Pwr/Rst Button function), 2x 5V/2A out, 2x 12V/1A out
HMI	20x4 character LCD display for system control and monitoring
SIODI	b-plus API and OS Tooling for component monitoring and I/O control incl. environmental sensors µC based system log and diagnostic
OS	Windows 11 and Linux 64bit support
Mechanics	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
Temperature	-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
IP Class	IP20
Humidity	max. 90% non-condensing
Vibration	Approved according LV124 specification with 6.5 m/s ² amplitude at full system load
Approvals	CE – EN 55032 (Class A) / EN 55035, RoHS, REACH
AC Variants	EN 61000-3-2, EN 61000-3-3
DC Variants	ISO 7637-2, LV124 partly approved On request: FCC, VCCI, ECE R10, E1, E13

System Add-ons

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

Add-on xSTORAGE



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

Add-on PCIe



Add-on (bottom) for PCIe extension cards. The add-on is actively cooled with μ 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