

# eBox 4 Expansion System



## Key Features

- 4U Rack-Mount Chassis
  - Modular 1000W ATX power supply
  - Front to rear cooling with 3 fans
  - Optional Rack Slides
- PCIe External Cabling
  - Copper cables up to 5 meters
  - Optical cables up to 200 meters
- Mounting for 1 or 2 passive backplanes
  - 1 slot x16 + uplink x16
  - 2 slot x8 + uplink x16
  - 4 slot x4 + uplink x16
- SmartIO – Hot-Add Ready
  - Windows and Linux
  - NTB Host Adapter Required

## Powerful. Flexible. Designed for Expansion.

- The Dolphin eBox 4 is a low-cost 4U PCIe expansion platform, ideal for prototyping, proof of concept, development, and test/measurement applications.
- The eBox 4 has been engineered to provide additional PCIe I/O expansion slots up to 200 meters away from the host system.
- PCIe I/O cards in the eBox 4 expansion chassis will perform as if they were installed in the host system, no special software is required.
- With SmartIO Hot-Add, when the eBox 4 is connected to a running host system, Dolphin’s SmartIO will re-enumerate the PCIe fabric add the new endpoints device tree. Available for Linux and Windows with Dolphin NTB host adapter.

## Highly Configurable

The eBox 4 is available with Dolphin’s PCIe 5.0 passive backplanes with PCIe 3.0, PCIe 4.0 and PCIe 5.0 host adapters and uplink adapters. Multiple backplanes (each with it’s own uplink) can be installed in the same eBox enclosure providing x4, x8, and x16 expansion slots as needed.



MXE520A0



MXE520C0



MXE52DA0



MXE52DD0

## Specifications preliminary

Mechanical Dimensions 4U, 19-inch rack-mountable chassis 17" x 18" x 7" (440mm x 458mm x 176mm) (WxDxH)

Weight Weight 32 lbs. (14.6 Kg)

Cooling Three Fans – Front to Rear Cooling – Foam Air Filter

Power	ATX 1000 Watt	MAX LOAD	MAX OUTPUT
	Input voltage: 90-264Vac	+3.3V	20A
	Input frequency: 47-63Hz	+5V	20A
	Input current: 115 Vac @ 13A, 230 Vac @ 6A	+12V	83.33A
		+5VSB	3A

PCIe version Base Specification 5.0

Operating Environment Operating Temperature: 0°C - 40°C (32°F - 131°F)  
Relative Humidity: 5% -95% non-condensing

Regulatory approvals (pending) CE Mark  
FCC Class A  
RoHS compliant  
UL94V-0 compliant  
KCC

Regulatory EMC and safety tests (pending) EN 62368-1:2014 + A11:2017  
EN 55032:2012  
EN 55035:2017  
EN 61000-3-2:2014  
EN 61000-3-3:2013  
47 CFR Part 15, Subpart B (Clause 15.107 and 15.109) in conjunction with ANSI C63.4:2014  
CISPR 35:2016 Edition 1.0 (CISPR/I/412/CDV) Korean Harmonized standard, KN 35

P/N SKU Number

- MXE520A0 - ATX 1000W – Single 2 Slot PCIe 5.0 Passive Backplane – No Uplink Adapter
- MXE520C0 - ATX 1000W – Single 3 Slot PCIe 5.0 Passive Backplane – No Uplink Adapter
- MXE520D0 - ATX 1000W– Single 5 Slot PCIe 5.0 Passive Backplane – No Uplink Adapter
- MXE52DD0 - ATX 1000W – Dual 5 Slot PCIe 5.0 Passive Backplanes – No Uplink Adapters
- MXE52AD0 - ATX 1000W – 2 Slot and 5 Slot PCIe 5.0 Passive Backplanes – No Uplink Adapters

Contact Dolphin for eBox 4 system configuration options: Uplink, Backplanes, Power Supply, Rack Slides

## Uplink and Host Adapters preliminary

Target PCIe 3.0: MXH952  
PCIe 4.0 : MXH932 – MXH942  
PCIe 5.0 : MXH532 – MXH572

Host PCIe 3.0: PXH822 - MXH952 - MXH950  
PCIe 4.0: MXH930 - MXH932  
PCIe 4.0 PXIe: MXP924 - MXP908 - MXP909  
PCIe 4.0 CPCI-s: MXC962 – MXC960  
PCIe 5.0: MXH970 – MXH972  
PXIe 5.0: MXP526 – MXP508 – MXP509

Cabling PCIe 3.0 & 4.0

- Copper to 5 meters – SFF-8644
- Fiber to 100 meters – SFF-8644
- FireFly + Patch cable to 200 meters - MPO

PCIe 5.0

- Copper to 3 meters – SFF-8614 and CDFP
- Fiber to 50 meters – CDFP