

## eBox 5.0 Expansion Solutions



### Features

- PCIe 5.0 x16 architecture
- up to 850W power
- 4U 19" rack - 16 slot
- Up to 8 add in cards

### Efficient. Flexible. Built for Expansion.

The eBox Expansion solution offers a cost-effective platform for PCIe 5.0 device integration, powered by a standard ATX power supply. Designed to deliver essential performance and expandability, it supports the latest PCIe 5.0 peripherals with up to 850W of available power.

At its core is the reliable Microchip Switchtec® PCIe 5.0 PFX switch, enabling fast, consistent communication across connected devices. With support for up to 5 PCIe 5.0 add-in cards, this chassis is ideal for compact high-performance systems requiring high bandwidth and low latency.

Whether you're working on AI modelling, FPGA prototyping, or GPU-assisted computing, the eBox provides a practical solution. Its streamlined architecture ensures reliable performance and adaptability—perfect for developers, researchers, and edge deployments seeking power without excess.

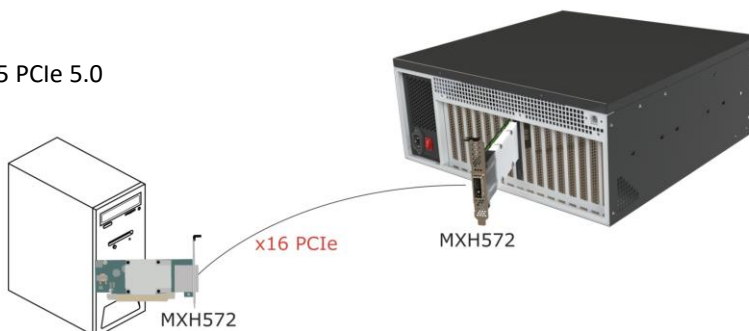
### Highly configurable

The eBox can be configured with active, passive, or a mix of both backplanes within the same unit. It also supports multiple uplinks and can be tailored to meet the unique demands of your application

## Topology Examples

### Single-Node expansion:

Cabled PCIe expansion systems with up to 5 PCIe 5.0 x16 IO devices



## Specifications preliminary

Mechanical Dimensions	4U * 19" * 18"
Weight	10 kg
Cooling	3 x 120mm fan
Power options	Standard power: <ul style="list-style-type: none"><li>- ATX 850W</li></ul>
Active Backplane configuration	MXB585 <ul style="list-style-type: none"><li>- 1x single-width PCIe 5.0 x 16 FHFL Target / Uplink card</li><li>- 4x dual-width PCIe 5.0 x16 FHFL Add-In cards</li></ul>
Passive Backplane configuration	IBPG5X16-2 <ul style="list-style-type: none"><li>- 1x single-width PCIe 5.0 x 16 FHFL upstream slot</li><li>- 1x dual-width PCIe 5.0 x16 FHFL downstream slots</li></ul> IBPG5X16-3 <ul style="list-style-type: none"><li>- 1x single-width PCIe 5.0 x 16 FHFL upstream slot</li><li>- 2x dual-width PCIe 5.0 x8 FHFL downstream slots</li></ul> IBPG5X16-5 <ul style="list-style-type: none"><li>- 1x single-width PCIe 5.0 x 16 FHFL upstream slot</li><li>- 4x dual-width PCIe 5.0 x4 FHFL downstream slots</li></ul>
PCIe version	Base Specification 5.0 Card Electromechanical Specification 5.0 CopprLink 1.0
Operating Environment	Operating Temperature: 0°C - 35°C (32°F - 95°F) Relative Humidity: 10% - 90% (non- condensing)
Regulatory approvals	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
PCIe 5.0 Dolphin cables	<ul style="list-style-type: none"><li>- up to 3 meters Copper</li><li>- up to 100 meters Fiber</li></ul>

## Ordering options

SKU	Description
MXE5201x	Active Backplane configuration with MXB585 ATX 850W AC power supply
MXE520Ax	Passive Backplane configuration with IBP-G5X16-2 ATX 850W AC power supply
MXE520Cx	Passive Backplane configuration with IBP-G5X16-3 ATX 850W AC power supply
MXE520Dx	Passive Backplane configuration with IBP-G5X16-5 ATX 850W AC power supply

x in SKU denotes uplink selected from table below

For other configuration contact Dolphin sales at [sales@dolphinics.com](mailto:sales@dolphinics.com) or your local representative..  
The eBox series is configurable and flexible, not all combination are listed above.

## Uplink card options (x)

Chassis SKU	Standalone adapter SKU	Description
x=0	-	No uplinks mounted in chassis
x=1	MXH532	Adapter card with 4 x SFF-8614 PCIe 5.0 x16
x=2	MXH572	Adapter card with 1 CDFP PCIe 5.0 x16
x=3	MXH542	Adapter card with Samtec Firefly™ and MPO connector x16 PCIe 5.0