ModBlox7™ Ecosystem

ModBlox7 already has a healthy and growing ecosystem of manufacturers with new designs to support the specification - shown here is a list of participants that continues to grow.

The combined experience of these companies and beyond are contributing to a reliable, scalable industrial PC standard that provides an innovative technology ecosystem.

Ci4Rail	EKF	ELMA Your Solution Partner
ELTEC systems	EMBECK	ept connectors
Fastwel	HEITEC	HRS HIROSE ELECTRIC CO.,LTD.
nVent SCHROFF	PHOENIX CONTACT	samtec
SEALEVEL	TEWS TECHNOLOGIES	UBER SUBRACK · CASE & PANEL

Contact

Do you have any further questions? Does your company want to participate in the new ModBlox7 standard? Please contact Jess Isquith, PICMG, or the ModBlox7 Working Group Chair Bernd Kleeberg, EKF.

jess@picmg.org *kle@ekf.de*

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ModBlox7

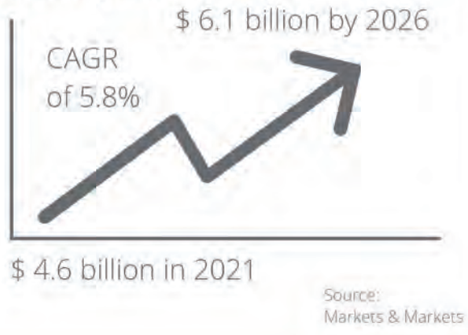
Standardizing Modular Industrial PCs

The Need for Industrial PCs

As some market observations confirm, the demand for industrial PCs is incredibly high, and will continue to grow over the next few years.
No wonder; industrial PCs are used in a wide range of state-of-theart applications such as industrial automation, AI, IIoT, cloud and edge computing.

Currently, there is an almost endless number of different manufacturers with equally different products in terms of performance, interfaces, market qualification, and mechanics. These are often proprietary within their own product family. Customers therefore must select and stay with a specific product for many years, binding themselves to a single manufacturer.

Growing Market Size



Source:
Markets & Markets

Widely Spread Applications

- Process & Control
- Communication
- Data Acquisition & Diagnosis
- Edge Computing & IIoT

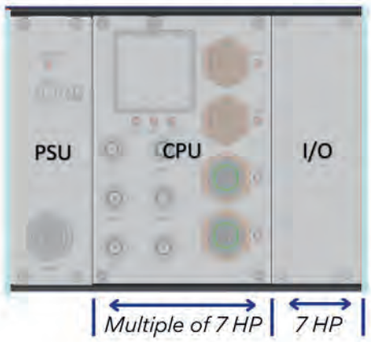
Game Changer

Standardizing Modular Industrial PCs

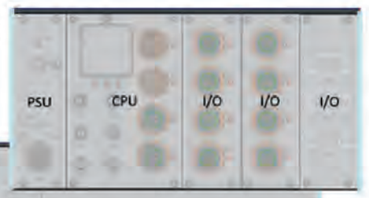
Industrial PCs are increasingly demanding optimized space, weight, power and cost (SWaPc), yet have a lack of interoperability and flexibility from current offerings. This formed the motivation to create a new open specification - ModBlox7.
Leveraging the advantages of other modular architectures like CPCI and AMC, ModBlox7 is intentionally designed for applications where highly integrated BoxPCs are used.

Based on a modular and flexible IPC system, every functional unit - power supply, CPU and I/O - are built in multiples of 7 HP.
When combined, they can create a system (up to 12 x 7 HP) specifically tailored to individual needs using cost-effective standard modules.
The system is based on standardized mechanical and electrical interconnection between units and can be mounted multiple ways, such as wall, DIN rail, panel or 19" rackmount.
The unique mechanical and electrical modular approach means no additional expensive components like backplanes or shelf controllers are needed.

Expandable System Widths



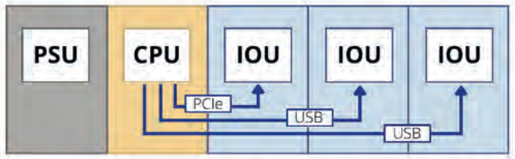
6 Slot (6x 7 HP)



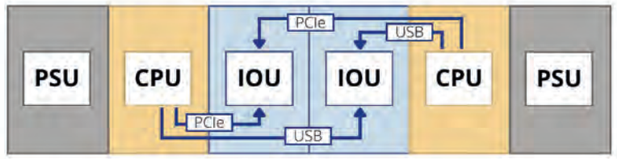
Up to 12 Slots possible (12x 7 HP; 84 HP)

Architecture Examples

There are many different architectures possible. The two examples below show, that high availability solutions with redundant architectures can be easily realized.



- *USB3.0 & USB2.0 & PCIe as communication interfaces*
- *Each unit distributes all interfaces minus consumed ones to neighbor board*



- *Allows for redundant architectures*

Benefits

- ***Meets Growing IPC Market Needs***
- ***Modular AND Cost Effective***
- ***Scalable in Small Space Constraints***
- ***Interoperability Across Suppliers and Users***
- ***Enables Small Quantity Tailoring***
- ***Only Pay for What You Need***