Multi-core processors for controllers in the medium performance range

With the introduction of the CX5100 Embedded PC series based on the latest Intel® Atom™ CPUs, multi-core technology is now also available for controllers in the medium performance class. The 22 nm technology with the new Atom™ processors results in higher performance while maintaining the same exceptional thermal balance. All devices from the CX5100 series are fanless and are characterized by low power consumption and a compact housing format.

The DIN rail-mountable CX5100 controllers use processors of the latest Intel® Atom™ generation ("Bay Trail"). The CX5100 series features three different types of devices with different processors and housing sizes:
- CX5120: Intel® Atom™ CPU, 1.46 GHz, single-core
- CX5130: Intel® Atom™ CPU, 1.75 GHz, dual-core
- CX5140: Intel® Atom™ CPU, 1.91 GHz, quad-core

The CX5100 devices supplement the existing CX5010 and CX5020 series of devices which are based on processors of the first generation of Intel® Atom™ CPUs. By comparison, these new processors offer significantly higher performance, since they feature out-of-order command execution. This means that users who have also implemented the TwinCAT 3 automation software suite can now benefit from the full availability of multi-core processors and from the optimized distribution of different program sections to individual cores, even with Intel® Atom™-based devices.

The basic interface equipment corresponds to that of the popular CX5000 devices: automatic recognition of K-Bus or EtherCAT Terminals, two independent Gigabit-capable Ethernet interfaces, four USB 2.0 ports, a DVI-I interface and a "multi-option" interface that can be equipped to support a great variety of fieldbus systems. The extended operating temperature range from -25 to +60 °C enables the use of the CX5100 Embedded PCs in climatically demanding environments.

The new CX5100 controllers are positioned in terms of both price and performance between the devices from the CX5000 series and the modular CX2000 series.

Further Information:
www.beckhoff.com/CX5100