



The new second-generation Intel® processors, Intel® Core™ i3, i5 and i7, are integrated into the various Industrial PC series and in the new CX2000 Embedded PC series from Beckhoff.

Beckhoff integrates latest Intel® 'Sandy Bridge' processor generation from the 32-nm series into its Industrial PC portfolio

Leap in performance with second-generation Intel® processors

The new Intel® processor generation from the 32-nm series, codenamed 'Sandy Bridge', which is better known as the second generation Intel® Core™ i3, Core™ i5 and Core™ i7, is making inroads into new Industrial PC technology from Beckhoff.

With improved on-board graphics and a new CPU architecture, the processors offer even greater computing power. Beckhoff is equipping both its Industrial PC series and the Embedded PCs from the CX2000 series with the new Intel® processors and, in doing so, is laying the foundation for a further increase in the efficiency of PC-based control technology. The multi-core processors can be used exceptionally well in combination with TwinCAT 3.

By integrating the second Intel® processor generation, Beckhoff is utilizing state of the art technology. The processors' power reserves and modular multi-core architecture help expand the functionality of the automation platform to new heights. The new Sandy Bridge processors with 32-nm internal feature size are characterized by low power losses. In contrast to the first generation, the CPUs have a new internal CPU architecture, a higher second-level cache, a faster on-board graphic card and faster DDR3 memory. Beckhoff is focusing exclusively on the processors from the Embedded line to ensure long-term availability.

Beckhoff is introducing the Sandy Bridge processors 'across the board' in its Industrial PC series with ATX motherboards, such as the C5102, C61xx, C62xx and C66xx control cabinet Industrial PCs, the CP65xx built-in Panel PCs and the C33xx and C36xx Panel PCs. In the series with 3½-inch main board, the C65xx, C69xx and C5210 Control Cabinet IPCs, the CP62xx and CP72xx 'economy' built-in Panel PCs and the new CP22xx multi-touch built-in Panel PCs are being equipped with the latest processor generation. The new Intel®

processors are also making inroads into Embedded devices from the CX2000 series, so that multi-core processor technology is now also available in a DIN rail-mounted format.

The basis for the new IPC series with second-generation Intel® processors is formed by the Beckhoff-built industrial motherboards: CB1056 (ATX), CB3056 (3½-inch) and CB4055 (PC/104).

The multi-core technology is ideal for automation, since the vast majority of machines work by nature in parallel and the associated control programs can therefore also be easily parallelized. Motion Control, CNC, measurement technology and robotic functions are implemented in software and executed on a central CPU in addition to the classic PLC functions. Beckhoff has coined the phrase 'Scientific Automation' for this convergence of different technologies. This means that expensive external solutions can be increasingly replaced by software modules and integrated into the central, PC-based controller.

TwinCAT 3 represents the corresponding software platform for Scientific Automation. The successful utilization of these enormous multi-core CPU resources will become decisive for the competitiveness of the world's leading machine manufacturers in the future.

Further Information:

www.beckhoff.com/IPC