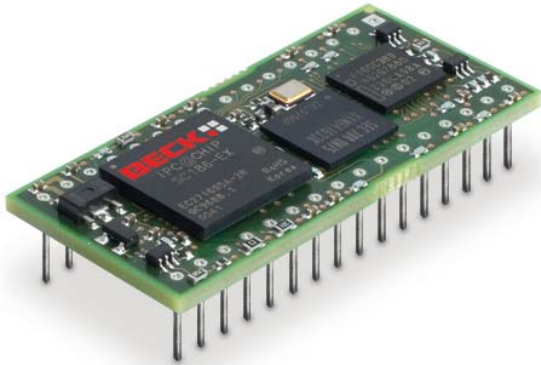# Information Sheet: New IPC@CHIP® SC23 / SC24 in the Module Housing

As well as performance and the features of an embedded controller, easy handling with small and medium-sized quantities is a key factor for many applications.

The IPC@CHIP® SC23/SC24, which with its DIL32 module housing continues the success of the IPC@CHIP® SC12, is designed to target these applications as well as featuring the state-of-the-art technology of the latest SC123/SC143 controller at the same time.

The SC23/SC24 is designed for use in a DIL32 socket in exactly the same way as the SC12 and SC13, and can therefore be easily exchanged during production and service.

High performance and convenient memory features

The SC23/SC24 combines the CPU performance and memory capabilities of the SC13 with the tried and tested module housing of the SC12 and SC13. With its powerful 96 MHz processor, 8 MB RAM memory and 2 MB (SC23) / 8 MB (SC23) Flash memory it offers sufficient resources for state-of-the-art control and communication applications.

Convenient range of interfaces

The fast hardware SPI and I^2C interfaces of the SC123/SC243 were also implemented, allowing the connection local expansions such as AD/DA converters and additional I/Os.

Up to 17 universal GPIOs are provided for the direct control of local I/Os.

As well as the I00Mbit/s Ethernet and up to three serial interfaces, the SC23/SC24 comes with two CAN2.0b and one USB host/device interface for communication and fieldbus connections.

The external Flash memory is connected via MMC/SD cards using the SPI interface.

Add-ons already available for SC123/SC143, such as the WL01 wireless LAN module, can be connected via the SPI interface.

Software compatible with SC12 and SC123

The SC23/SC24 is fully software compatible with SC123/SC143. All hardware and software functions can be used via the software API of the IPC@CHIP® RTOS in the usual manner.

Projects that were created for SC12 and SC13 with the Borland compiler have to be recompiled with the Paradigm C/C++ compiler and adapted to the different I/O interface as required.

A suitable CoDeSys SP runtime system and a SC23/SC24 variant with integrated CoDeSys runtime license are naturally also provided for IEC61131-3 programming.

Fast entry with the DK55 development system

Like for all IPC@CHIP® series, a suitable development system is also available for the SC23/SC24 which also contains the necessary software development environment in the form of the Paradigm C/C++ compiler as well as the development board.

Further information is available at www.beck-ipc.com.

IPC@CHIP® SC23 / SC24

» SC186-EX with 96 MHz
» 8 MB DRAM
» 2 MB Flash (SC23) / 8 MB Flash (SC24)
» 1 x 10/100 MBit/Ethernet with PHY
» 3 RS232/TTL serial interfaces
» 2 x CAN2.0b with optional CANopen stack
» 1 x USB1.1 Host or Device
» 1 x hardware SPI, 1 x hardware I^2C
» 17 GPIO lines, 3 interrupt inputs, 2 prog. hardware timers
» Fast hardware SPI and hardware I2C for I/O and memory expansion
» Supply voltage 3.3V / <1.5 Watt
» Industrial temperature range -25..+85° C
» DIL32 module housing for DIL32 socket
» IPC@CHIP® RTOS, TCP/IP, web server and C-API
» CoDeSys SP Full runtime system 2.3