

Information Sheet: IPC@CHIP® DK61 Development Kit

The Development Kit for the IPC@CHIP® SC123 and SC143 Embedded Controller



The IPC@CHIP® DK61 Development Kit is a complete development system for the new IPC@CHIP® SC123 and SC143 Embedded Controllers.

In addition to the DK60 Development Board it also contains the Paradigm C/C++ Compiler with the IPC@CHIP® RTOS Debugger and many other tools required for creating C applications on the SC123 and SC143 Embedded Controllers.

Despite the powerful hardware features of the Development Board, providing all the interfaces of the SC123 and SC143, commissioning can be carried out easily in a few minutes thanks to the pre-installed RTOS and the supplied "First Steps" guide.

The extensive hardware and software features enable customized applications to be developed quickly and efficiently.

Programming and debugging are carried out via Ethernet as standard, and are also possible via RS232 or USB.

The DK61 contains the CoDeSys IEC61131-3 software development kit for developing custom IEC61131-3 PLC applications on the SC123/SC143.

IEC 61850Li (Lite implementation) integrated

The IEC 61850-compliant PIS-10 software stack can be launched as a client and as a server. Both applications can coexist at the same time on the IPC@CHIP®. The stack supports IEC 61850 services including GOOSE and sampled values.

DK61 Development Kit

The DK61 contains all the hardware and software components required for the fast development of custom applications:

- DK60 Development Board
- Paradigm C/C++ Compiler (Beck IPC edition for IPC@CHIP®), RTOS Remote Debugger and other tools
- CoDeSys IEC61131-3 SDK for SC123/SC143
- IEC 61850 stack (Client/Server, GOOSE) and a configuration Tool based on SCL
- 100-240V / 24V plug-in power supply unit for DK60 (with adapters for international use)
- 2 PC programming cable (RS232 and USB)
- Ethernet patch cable und cross over cable
- SD card
- Practical systainer



DK60 Development Board

The development board provides on a double Eurocard all the functions required for working with the SC123/SC143 Embedded Controllers:

- SC143-IEC Embedded Controller (96 MHz, 8 MB RAM, 8 MB Flash)
- 2 x RS232 (Sub-D socket)
- 2 x RS232/TTL (connector)
- 1 x USB1.1 (can be configured as host or device)
- 2 x CAN 2.0b
- 2 x Ethernet 100Base-T
- MMC/SD and Compact Flash socket
- Extension port for custom hardware expansions
- Directly programmable I/O pins with LED indication
- Power Fail and Reset buttons
- Power supply, 24 VDC input
- Binding of real data to IEC 61850 models by CID file loaded to controller

Read more about the IPC@CHIP® product range at: <http://www.beck-ipc.com>