

## Starter Kits for the C166 Microcontroller Family SK-161/SK-163/SK-164/SK-167



The Siemens C166-family Starter Kits are a perfect platform with which to evaluate and implement solutions powered by Siemens C166-family microcontrollers. From complete technical documentation through special applications and development tools to high-performance development

boards, Starter Kits contain everything designers need to evaluate a Siemens 16-bit microcontroller. Up to now, four different Starter Kits are available which cover nearly the complete range of C166 derivatives existing today.

### Hardware Features

Applications can easily be developed and executed on a high performance Evalboard. All peripheral hardware needed for immediate power-up is on-board, including at least one RS-232 interface and a regulated power connector. All controller signals and ports are accessible at a pin connector. SK-164 and SK-167 additionally include one

CAN interface. The Evalboard is easily programmable. Ready to run applications can be programmed into the on-board Flash memory or downloaded into the on-board SRAM memory and executed under control of a HLL debugger program. SK-163 and SK-164 also support programming of the on-chip Flash and OTP memory.

### Documentation

The documentation consists of printed manuals like User Manuals, Data Sheets, Instruction Set Manuals, Evaluation Board Hardware Manual and Getting Started Manual. All documents are also available in electronic PDF format.

Starter Kit	MCU Derivative	CPU clock internal/external	On-chip memory	On-board memory	Interface
SK-161	C161O	16 MHz/16 MHz	2 kByte IRAM	64 kByte SRAM 256 kByte FLASH	2 x RS-232
SK-163	C163-16F	20 MHz/5 MHz	1 kByte IRAM 128 kByte FLASH	64 kByte SRAM 256 kByte FLASH	2 x RS-232
SK-164	C164CI	20 MHz/5 MHz	2 kByte IRAM 64 kByte OTP	64 kByte SRAM 256 kByte FLASH	1 x RS-232 1 x CAN
SK-167	C167CR	20 MHz/5 MHz	4 kByte IRAM	64 kByte SRAM 256 kByte FLASH	2 x RS-232 1 x CAN

### Development Software

Included demo applications can easily be modified or complete new applications can be generated with the powerful tool chains from Tasking, Keil and HighTec. C++, C and Assembler evaluation versions are included which have the same powerful features like the commercial third party products. In contrast to the full products, Starter Kit

development software has code-size restrictions and certain limitations. The applications can be tested with HLL debuggers included in the tool chains and with the PLS, Hitex and Lauterbach ROM monitor solutions. Monitor programs can be programmed in the external Flash memory or downloaded to the Evalboard with the C166 internal bootstrap loader mechanism.

Communication between Evalboard and PC is established with a serial interface cable. SK-164 and SK-167 include CAN libraries from STZP and I+ME. Windows based integrated development environments, including all manuals online, result in a fast development cycle.

**TASKING**



**pls**



**KEIL SOFTWARE**



**LAUTERBACH**



**HIGH TEC**



**hitex**



### Application Software

The complete set of applications notes and code examples for programming Siemens C166 microcontrollers is included in the Starter Kits. The application notes cover programming of the powerful peripherals of the C166 derivatives. Development software for programming the internal OTP or Flash memory with a convenient windows user interface program is included. Hands-on-training examples explain step by step how to develop applications from the selection of the peripherals to executing the executable code on the Evalboard. Generation of initialization code for the core and the peripherals can be easily performed with DAVE, our Digital Application Engineer.

DAVE is the CD-ROM hosted digital application engineer. He offers easy and intuitive access to the complete standard documentation for all Siemens microcontrollers, helps the developer configure the chip for his application, and automatically generates the appropriate device drivers that glue the application software to the hardware.

### Ordering Info

Starter Kits are available from Siemens distributors and from Siemens directly:

Siemens AG, LZF-Semiconductor Book Shop, PO. 2352, D-90713 Fürth-Bislohe, Germany

SK-161	price: 299,- DM excl. VAT	ordering number: B158-H7008-X-X-7600
SK-163	price: 299,- DM excl. VAT	ordering number: B158-H7064-X-X-7600
SK-164	price: 299,- DM excl. VAT	ordering number: B158-H7063-X-X-7600
SK-167	price: 299,- DM excl. VAT	ordering number: B158-H7065-X-X-7600

More information available at:  
URL: <http://www.siemens.de/semiconductor/starterkit>