

New!

# SolidCard II

Low power PC with coprocessor and PCI-bus-interface

## New ultracompact PC

This new powerful embedded PC-card, a member of our **SolidCard** family with Elan SC520 in size of a cheque card (54 mm x 85 mm) represents a complete PC.

The increase of performance in relation to its predecessor results from the combination of one to 133 MHz clocked processor core, the duplication of the cache size, integration of a mathematical coprocessor and use of a PCI bus interface.

The energy dissipation amounts nevertheless typically less than 2 Watts!

The memory is based on modern, fast SDRAM, which is firmly integrated on the card. Depending upon project requirement is rigged 16, 32 or 64 MByte. Optionally can be integrated up to 16 MByte flash disk onboard. For communication the standard PC interfaces, like LPT, COM, floppy disk and IDE port are available.

For extensions the **SolidCard II** offers a 16 bit wide ISA bus and a complete PCI bus (multi master capability) at its two 160 pin-connectors. Furthermore the PC module is equipped with a serial EEPROM, in which user specific data can be permanently stored.

## Software concept up-to-date with "HyperBoot" and LINUX

The demand for boot times under one second, the often expressed desire for a customized arranged start page, as well as high BIOS and operating system license costs caused us to the search for new passable ways for our embedded PCs.

Operating system hierarchies and BIOS requirements from passed PC days which become unnecessary could be now replaced by "open" software structures. Our new tool "HyperBoot" works successfully in connection with each open operating system, so e.g. the scalable embedded Linux also without BIOS. Your OS will start already after 300 milliseconds (after reset).

Your system is running e.g. under embedded Linux starting up with 2 MByte of memory. The operating system as well as your programs will automatically loaded by flash disk, unpacked and started.



## Quick start for your development

Our basic cards in connection with our free support hotline help for a problem-free implementation of your application on members of the **SolidCard** family. Available peripheral devices are completed by usual PC components in the development environment.

The PCI and ISA bus signals are available across PC104plus-connector. 10/100 MByte Ethernet, USB endpoint and IrDA interface are integrated as, like status indications for post code and 8 freely available I/O lines.

By using a second graphic controller a parallel operation of two displays is possible. Special applications with and without touch operation are more easily testable. The debugging are simplified and the development phase will be crucially shortened.

More highlights of the basic board are a video-input (FBAS, Y/C) for image processing inclusively a highend de-interlacer for high-quality representation of various formats and standards on flat displays.

The complete evaluation kit II contains the **SolidCard II** with suitable basic card, alternatively a CSTN flat screen (quarter VGA) or TFT flat screen (quarter VGA to SXGA), an IDE San disk, needed sets of cables and appropriate power pack.

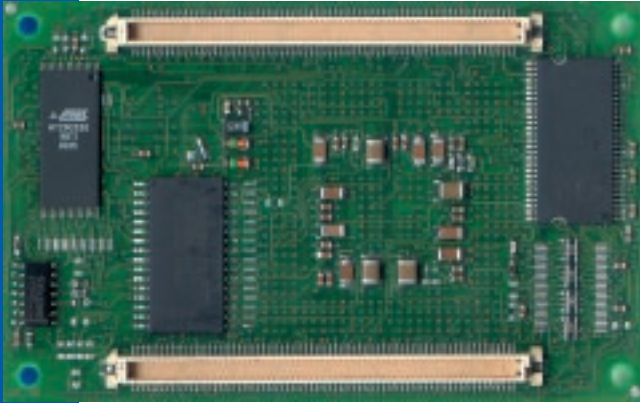
All interfaces are led out on standard PC plugs.

For your problem-free software implementation on the available PC system it contains size-optimizes structured embedded Linux as well as the ultra fast "HyperBoot"-loader.

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## The short way to your customized layout

The available hardware platform with processor core and various graphic / peripheral devices was already structured modular on connection diagram level.

In this way we can generate most flexible low-priced customized layouts. Normally used plug systems will be cancelled.

Constructing on this modular concept and "rapid prototyping" now for us it is the first time possible synchronously to your software development to offer you optimized customized hardware designs with immediate function warranty.

In this way the "time to market" cycle can be crucially shortened.

## Technical data

- AMD Elan SC520, compatible 486DX CPU with clock rate up to 133 MHz
- 16 KByte first level cache (write back)
- 16, 32 or 64 MByte SDRAM soldered versions
- 512 kByte SRAM (optional)
- Up to 256 kByte flash memory for "HyperBoot"-loader
- Flash updateable during operation
- 8 MByte flash disk onboard (M-Systems TSOP), 16 MByte (optional)
- 4 serial interfaces with 5V or 3.3V levels, thereof one configurable as IrDA.
- Port for up to two floppy disk drives
- Prepared IDE interface for up to two IDE devices (fixed disks, CD ROM)
- Parallel port (EPP 1.7/1.9)
- PCI bus in conformance with Rev. 2.1 (3.3V level, 5V tolerant)
- 16 bits ISA bus (3.3V level, 5V tolerant)
- 8 Chip-Select outputs, free programmable in address space
- I<sup>2</sup>C or SSI interface
- Optionally PS/2 compatible keyboard and mouse interface
- Prepared for user specific matrix keyboard
- Real-time clock (will be buffered with external battery)
- 3,3V voltage monitoring
- Watchdogtimer (variable delay)
- 2 kBit (258x8) serial EEPROM
- Card size 85 mm x 54 mm
- Overall height with 4 mm connectors (optional 6 mm) including components 11 mm (and/or 13 mm)
- Power supply:
  - 2.5V + / - 5%, max. 800 mA
  - 3.3V + / - 5%, max. 500 mA
  - 5.0V + / - 5%, max. 200 mA
- Operating temperature range 0°C to 70°C

Reserve to technical modifications

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