

MIP520

Complete PC with less than 4W

General Description

MIP520 is a highly integrated industrial single board computer in a PC/104 form factor. All major components to build a complete, sophisticated PC/AT system are implemented on board. It features SVGA interface for LCD and CRT, IDE and FDD port, parallel and four serial ports, keyboard and mouse interface, SSI as well as RTC. Also Ethernet and USB are on board. Depopulated versions are available and can be tailored to customer requirements. Via the PC/104 connector the MIP520 can be expanded to your special needs.

Some Highlights of MIP520

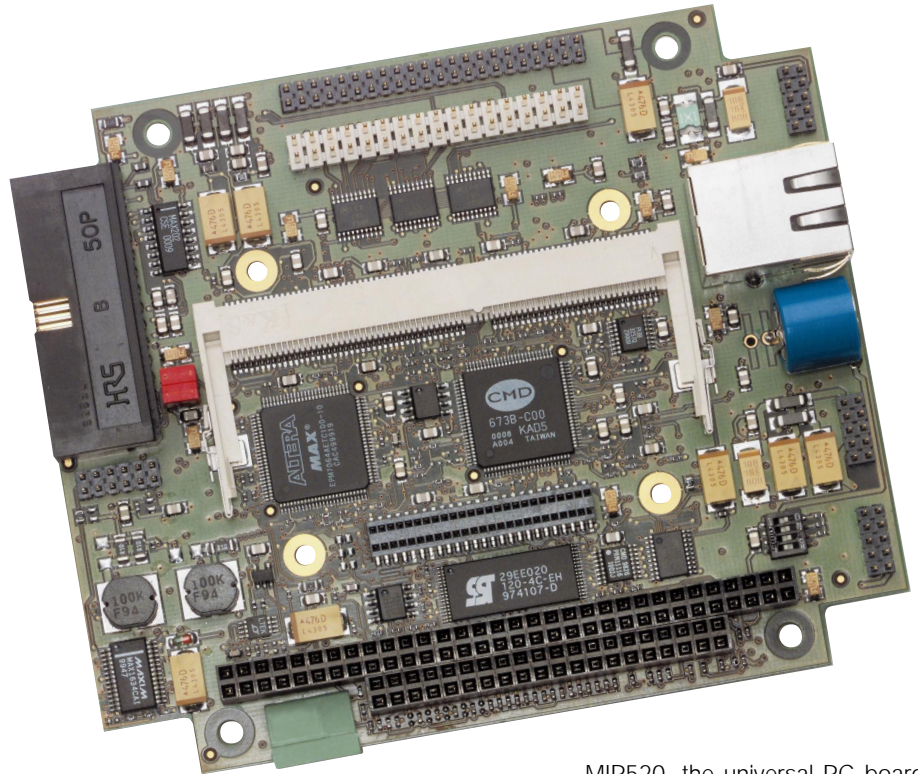
The SSI (Synchronous Serial Interface) allows to communicate with external devices in half or full duplex mode. The MIP520 is the master and drives the clock.

Other non standard features are:

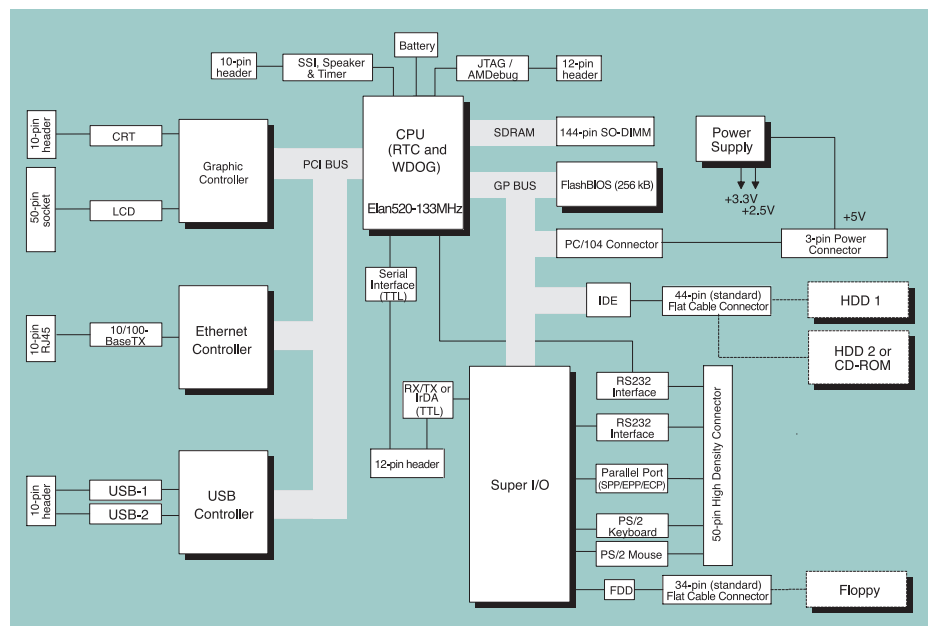
- programmable TTL I/O pin
- 4 serial ports
- possibility to operate a floppy on the parallel port
- possibility to use a serial port as an IrDA Interface
- the unique REMMI* interface

MIP520 - is the Best Choice for

many applications where fully PC/AT compatible, high quality, very rugged, small size, universal Industrial PC features are required. The MIP520 can be used in medicine, transportation systems, mobile devices or any other industrial application where a reliable quality product is required.



MIP520, the universal PC board on PC/104 form factor



Technical Features MIP520

Board Key Data

Processor	AMD Élan™SC520 32-Bit, lower power CPU, integrated PCI host bridge, SDRAM controller and RTC	Industry-standard Am5x86-133MHz 133MHz operating frequency, 16kbytes write-back/through cache
BIOS	256kB Flash EEPROM, easy updateability	MPL BIOS based on GS source
SDRAM	144-pin SO-DIMM socket for one module	Up to 128MB SDRAM
RTC & CMOS	Backed with on-board battery	CMOS setup can be saved in EEPROM
Graphic	Resolution up to 1280 x 1024 Flexible panel support for STN and TFT	10-pin header, refresh rate up to 85Hz 50-pin socket, can be used with REMMI*
4 x Serial Ports	2 ports with RS232 signaling (COM 1 + 3) 2 ports with TTL signaling (COM 2 + 4)	Available over 50-pin connector Available over 12-pin header
Synchronous Serial Interface (SSI)	Half or full duplex operation Programmable clock speed from 64k to 8MHz	Available over 10-pin header Configurable clock idle state and phase
2 x USB Interface	USB 1.1 (up to 12Mb/s)	10-pin header
Parallel Port	SPP, EPP, ECP (IEEE1284)	Available over 50-pin header
E-IDE Port	ANSI standard modes 0, 1, and 2	44-pin header, usable for Flash Module/Disk
FDD Port	One port for up to 2 drives	Standard 34-pin header
Keyboard	Serial PS/2 interface	Available over 50-pin header
Mouse	Serial PS/2 interface	Available over 50-pin header
Ethernet	10BaseT /100BaseTX Fast 10/100Mbit/s	RJ45 Support IEEE802.3 auto negotiation
Timer	One 16 or 32bit TTL timer output signal One 16 bit TTL timer input signal	Available over 10-pin header
Speaker port	Easy connection of speaker	Available over 10-pin header
Watchdog	Distinct keyed write sequence	Programmable time-out 0,5ms – 32s
Reset button	Remote button	Connection over power connector
Expansions	Via the 16-bit PC/104 interface	MIP520 is a stack through module

Physical / Power

Size (l x w x h)	95.9 mm x 90.2 mm (+ 2 x 12.7 mm) x 14 mm	3.775" x 3.550 (+ 2 x 0.495") x 0.551"
Weight	110 g	0.242 lbs
Input power	+5VDC ±5%	typically 4.0 Watts
Temperature Range	-20°C up to 60°C, optional -40°C up to 75°C	Without a heat sink
Humidity	5% - 95% non condensing	Optional coating available

Standard Compliance

The MIP520 is designed to meet or exceed the most common standards. Particular references are:

EMC	EN 55022, EN 55024, EN 61000, MIL-STD-461E
Shock & Vibration	EN 60068
Environmental & Safety	EN 50155, MIL-STD-810-F, EN 60601, EN 60950
Approval Lists	CE, EN 60945, IACS E10

MIP520 versions

- Complete version
- Depopulated versions
 - w/o Ethernet
 - w/o Graphic
 - customer specific

Expansions & Options

- Any PC/104 card
- Cable kits for easy connection
- REMMI*
- * Remote MMI option for LCDs

Operation systems

100% PC/AT compatible and can be operated with DOS, Windows, (NT, 2000, 95, 98, ME), QNX or any other PC compatible operation system. Linux distributions are available.

The MIP520 is fully developed, designed and produced by MPL AG in Switzerland.
For other requirements contact MPL.

MPL AG is an ISO9001 certified company



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