

PIP5

Power Performance

General Description

The PIP5 is a highly integrated and robust Packaged Industrial PC with the low power processor ELAN™ SC520 from AMD. The CPU core (5x86-133 MHz) includes also a PCI bridge, a SDRAM controller and a RTC. The PIP5 represents a unique solution for today's demanding industrial needs. The PIPs are available in various options and features. All are built into a special designed compact EMI/RFI sealed aluminum chassis. The PIP family has the ability to be operated under extreme as well as under normal conditions without the need of fans.



PIP5 dimensions: 270 x 162 x 62 mm

Weight: 2.2 kg, rugged aluminum housing with best EMI/RFI protection (inside chromated externally powder coated or eloxated)

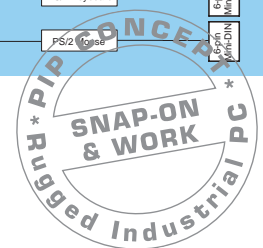
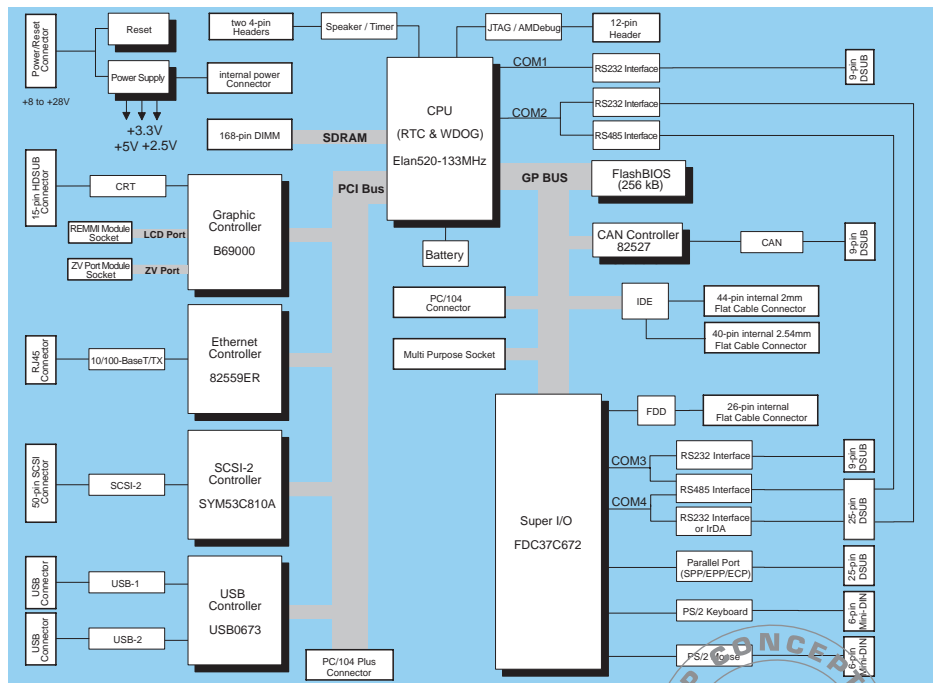
The PIP5 Specialties

are among many others the extreme low power consumption as little as 6 Watts. The solution has a complete set of PC/AT features as well as special industrial features like 4 serial ports, USB, CAN, LAN, a 8-28 VDC Power Supply and more. Other unique features are

- Fanless operation
- RS232 / 422 / 485 half & full duplex
- Operation of Floppy on Parallel port
- Multi purpose socket for SRAM, FLASH or EPROM
- Space for HDD, Floppy, PC/104+ ...

Those features make

the PIP5 to the ideal solution for any application where high quality, low power consumption, ruggedness, small size or an expandable Industrial PC is needed. The PIP5 is an economical solution for mobile applications, transportation systems, medicine, telecom or industry.



Technical Features PIP5

Electrical

Processor	AMD Elan™SC520 32-Bit, low power CPU, integrated PCI host bridge SDRAM controller and RTC	Industry-standard Am5x86-133 MHz 100/133 MHz operating frequency, 16 kbytes write-back/through cache
BIOS	256 kB Flash EEPROM, easy updateability	MPL engineered BIOS (General Software)
Memory	Up to 256 MB SDRAM	168-pin DIMM socket for one module
Multi Purpose Socket	Supports SRAM, FLASH, EPROM	28 & 32-pin DIL, up to 512kB memory size
RTC	backed with on-board battery, field exchangeable	CMOS setup can be saved in EEPROM
Graphic	Resolution up to 1280 x 1024 flexible panel support for STN and TFT	15-pin D-SUB, refresh rate up to 85 Hz 50-pin remote MMI module socket
4 x Serial Ports	2 ports can be modified optionally to RS422/485 half & full duplex, electrically fully isolated	2 x 9-pin D-SUB and 1 x 25-pin D-SUB connector
2 x USB Interface	USB 1.1 (up to 12 Mb/s)	2 x Type A connectors
1 x Ethernet	10BaseT /100BaseTX Fast 10/100Mbit/s	RJ45 supports IEEE802.3 auto negotiation
1 x SCSI Interface	Fast SCSI-2 compatible	50-pin SCSI connector
Parallel Port	SPP, EPP, ECP (IEEE1284)	25-pin D-SUB connector
E-IDE Port	ANSI Standard mode 0, 1 and 2; up to 4 drives	Standard 44-pin & 40-pin header
FDD Port	One port for up to 2 drives	Connection for internal or external device
CAN Bus	Opto-isolated CAN Bus interface (CAN Spec. 2.0)	9-pin D-SUB connector
Expansions	Full 16-bit PC/104 and 32-bit PC/104+ interface	
Keyboard	PS/2 interface	6-pin mini DIN connector
Mouse	PS/2 interface	6-pin mini DIN connector
Watchdog	distinct keyed write sequence	Programmable time-out
Timer	Two 16/32-bit TTL Timer output signal	available over 4-pin header
Indicator	6 activity LED's + 2 user definable	Power, Reset, HDD, SCSI, LAN, LAN100
Speaker port	Easy connection of speaker	Available over 4-pin header
Reset Button	On chassis (protected) and a remote reset button	

Physical / Power

Chassis	Rugged chromated aluminum with EMI protection	DIN-rail, flange mounting, no ventilation holes
Size & Weight	270 x 162 mm, with PIPPCI 440 x 162 mm	Height depending on needs 62/83/120 mm / 2.2kg
Power	8 – 28VDC input range	Consumption typically < 7 Watt
Temperature range	-20°C up to +60°, optional -40° up to +75°C	No fan, no openings, values at full CPU load
Humidity	5% - 95% non condensing	Optional coating available

Standard Compliance

The PIP5 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

PIP5 versions

- PIP5-1 fully equipped in standard temperature range
- PIP5-2 without SCSI
- Extended temperature range
- Coated
- PIP5-Cx depopulated (less features) and/or other color, customer label...

Internal PIP Expansions, Options and Operating Systems

- Over the PC/104 & PC/104-Plus
 - Digital & Analog I/O's
 - Fieldbus (CAN, PROFIBUS...)
 - Or any other PC/104 Module
- Hard Disks, Flash Disks, CF
- CD-ROM, PCCARD
- PCI and PMC expansions
- 6,5" LCD and Touch built in PIP-chassis
- 12" - 19" Panel PCs in special aluminum or stainless steel case (fanless, IP65/NEMA4)
- Operating systems:
PIP's are 100% PC/AT compatible therefore any PC operating system (Windows, LINUX, RTOS ...) can be used

