

M4-Pxx i

CHARACTERISTICS

Microprocessor	Pentium 75 (75 MHz - 50 MHz system) Pentium 90 (90 MHz - 60 MHz system) Pentium 100 (100 MHz - 66 MHz system) Pentium 133 (133 MHz - 66 MHz system) Pentium 166 (166 MHz - 66 MHz system)	<p>MOTHERBOARD</p> <p>ATLANTIS (BA2267) Kit ISA/PCI:</p> <p>210828E: audio and 8 MB of RAM 210829F: audio and 16 MB of RAM 210859M: audio and 8/16 MB of RAM)</p> <p>210921T: no audio and 8 MB of RAM 210922U: no audio and 16 MB of RAM 210885Y: no audio and 8/16 MB of RAM</p> <p>BIOS</p> <p>The ROM BIOS is a FLASH EEPROM. The BIOS code can be updated from diskette. Supported features: Plug&Play, APM.</p> <p>Last level: Rev. 1.00.04.CLO</p> <p>POWER SUPPLY</p> <p>SP 200 BBN (ASTEC SA 201-3451-200, LITE ON PA-4022-6F) 180 W / 120 - 240 V</p> <p>SP 145 (ASTEC SA 145-3490-200, EVER POWER SG145PN) 145 W / 90 - 180 V)</p>
Architecture	ISA/PCI	
Case	TIN BOX	
Processor socket	Overdrive Ready Socket 7	
Memory	Min. 8 MB, max. 128 MB with 8-16-32 MB increments. On the motherboard there are four sockets for the installation of the following SIMMs: (Fast Page Mode) EXM 40-004 Two 1 MBx32 (8 MB) SIMMs EXM 40-008 Two 2 MBx32 (16 MB) SIMMs EXM 40-016 Two 4 MBx32 (32 MB) SIMMs (EDO DRAM) EXM 54-008 One 2 MBx32 (8 MB) SIMM EXM 54-016 One 4 MBx32 (16MB) SIMM EXM 54-032 One 8 MBx32 (32 MB) SIMM EXM 54-064 One 16 MBx32 (64 MB) SIMM	
Memory access rate	Fast Page Mode: 70 ns EDO DRAM: 60 ns (70 ns for 50/60 MHz system CPU)	
Memory cache	1 st level: integrated in the processor 2 nd level: 256 KB on a CELP socket (133/166 MHz CPU only)	
Floppy Disk	First floppy disk drive: Panasonic JU-257A 1.44 MB Mitsubishi MF-355 1.44 MB Sony MP-F17W 1.44 MB Sony MPF420-1 1.44 MB Epson SMD 1040-418 1.44 MB Mitsumi D359T3 1.44 MB TEAC FD235HF 1.44 MB Y-E DATA YD-702B/YD-702D 1.44 MB Second floppy disk drive (optional): Toshiba ND08 DE 1.2 MB Panasonic JU 475-3/4/5 1.2 MB	

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Hard Disk	IDE hard disk: Quantum FR 640 AT 640 MB Quantum TR 850 AT 850 MB FUJITSU M1614TA 1 GB Quantum FR 1280 AT 1.2 GB IBM DJAA-31700 1.6 GB SEAGATE ST 32140A 2 GB SCSI hard disk: SEAGATE ST 31230N 1 GB (with AHA2940 SCSI controller)
CD-ROM	IDE CD-ROM: SONY CDU 76 E 656 MB GOLDSTAR GCD R 540B 656 MB PANASONIC CR 581 656 MB MITSUMI CRMC-FX400D 656 MB SCSI CD-ROM SONY CDU 76 S 650 MB (with AHA2940 SCSI controller)
Streaming Tape	Floppy disk interface: Irwin 31250A 80-120 MB Conner CTM420 250-420 MB SCSI interface (with AHA2940 controller): Wangtek 5150ES 150 MB Wangtek 5525ES/ES-ACA 320 MB Wangtek 51000HT 1-1,2 GB DAT HP35470A/35480A 1.3-2 GB
Expansion slots	- 2 ISA - 3 PCI - 1 ISA/PCI (shared)
Video controller	- Component ATI Mach64-CT with 1 MB or 2 MB of video memory, integrated on the motherboard, and the DPMS, DDC1 features - Board IN2052 with video connector output
Audio subsystem	- Component Codec Crystal CS4232 + Yamaha OPL3 FM synthesizer, integrated on the motherboard (optional) - Board GO2095 with audio connector outputs
IDE interface	Two independent IDE interfaces
SCSI interface	Optional interface provided by a SCSI controller (AHA2940) in a PCI slot
Mouse	Standard PS/2 interface
Keyboard	Standard PS/2 interface Compact 101/102-key keyboard: ANK 27-101/N, ANK 27-102/N Super compact 101/102-key keyboard: ANK 28-101, ANK 28-102

MOTHERBOARD

NAME	LEVEL	NOTES
ATLANTIS (BA2267)	Lev. Nasc.	ISA/PCI motherboard

ONBOARD CONTROLLERS

MOTHERBOARD	INTEGRATED CONTROLLERS
ATLANTIS (BA2267)	<p>Intel Overdrive Ready Socket 7: This socket can accommodate the following processors:</p> <ul style="list-style-type: none"> - Pentium 75 @ 75/50 MHz - Pentium 90 @ 90/60 MHz - Pentium 100 @ 100/66 MHz - Pentium 133 @ 133/66 MHz - Pentium 166 @ 166/66 MHz <p>2nd level cache Component installed in a CELP socket.</p> <p>82437FX (Triton System Controller); Chip set component integrating the following functions:</p> <ul style="list-style-type: none"> - Cache and DRAM control - Control over the transfers between CPU, cache, memory and PCI bus. <p>82438FX Two chip set components integrating a data path between the CPU and memory.</p> <p>PIIX 82371FB Chip set component integrating the following functions:</p> <ul style="list-style-type: none"> - Bridge between PCI bus and ISA bus - Fast IDE interface for connection to up to four IDE devices (HDUs and CD-ROMs) - Interrupt and DMA control - Timer - System Power Management <p>PC87306 Component integrating the following functions:</p> <ul style="list-style-type: none"> - Floppy disk control (two drives) - Interface for a parallel port - Interface for two serial ports - Keyboard and mouse control - Real Time Clock - CMOS RAM <p>ATI Mach64-CT Video controller.</p> <p>Codec Crystal CS4232 Audio controller (optional).</p> <p>Flash EEPROM The system BIOS is contained in a 128 KB 28F001BX-T Flash EEPROM</p>

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POWER SUPPLY

NAME	LEVEL	NOTES
SP 200 BBN (ASTEC SA 201-3451-200, LITE ON PA-4022-6F)	Lev. Nasc.	180 W power supply.
SP 145 (ASTEC SA 145-3490-200, EVER POWER SG-145PN)	Lev. Nasc.	145 W power supply.

BIOS

LEVEL	NOTES
Rev. 1.00.04.CL0	The "Flash Memory Update Ver. 3.2" Utility is used to update the BIOS.

DRIVER SOFTWARE

DRIVER	LEVEL	NOTES
EVD ATI Mach64	Ver. 2.02	Video drivers for: Windows 3.11, Windows NT 3.51, Windows 95, OS/2 Warp.
Audio Subsystem Crystal Drivers	Ver. 1.00	Audio drivers for: Windows 3.11, Windows 95, OS/2 Warp.

SOFTWARE COMPATIBILITY

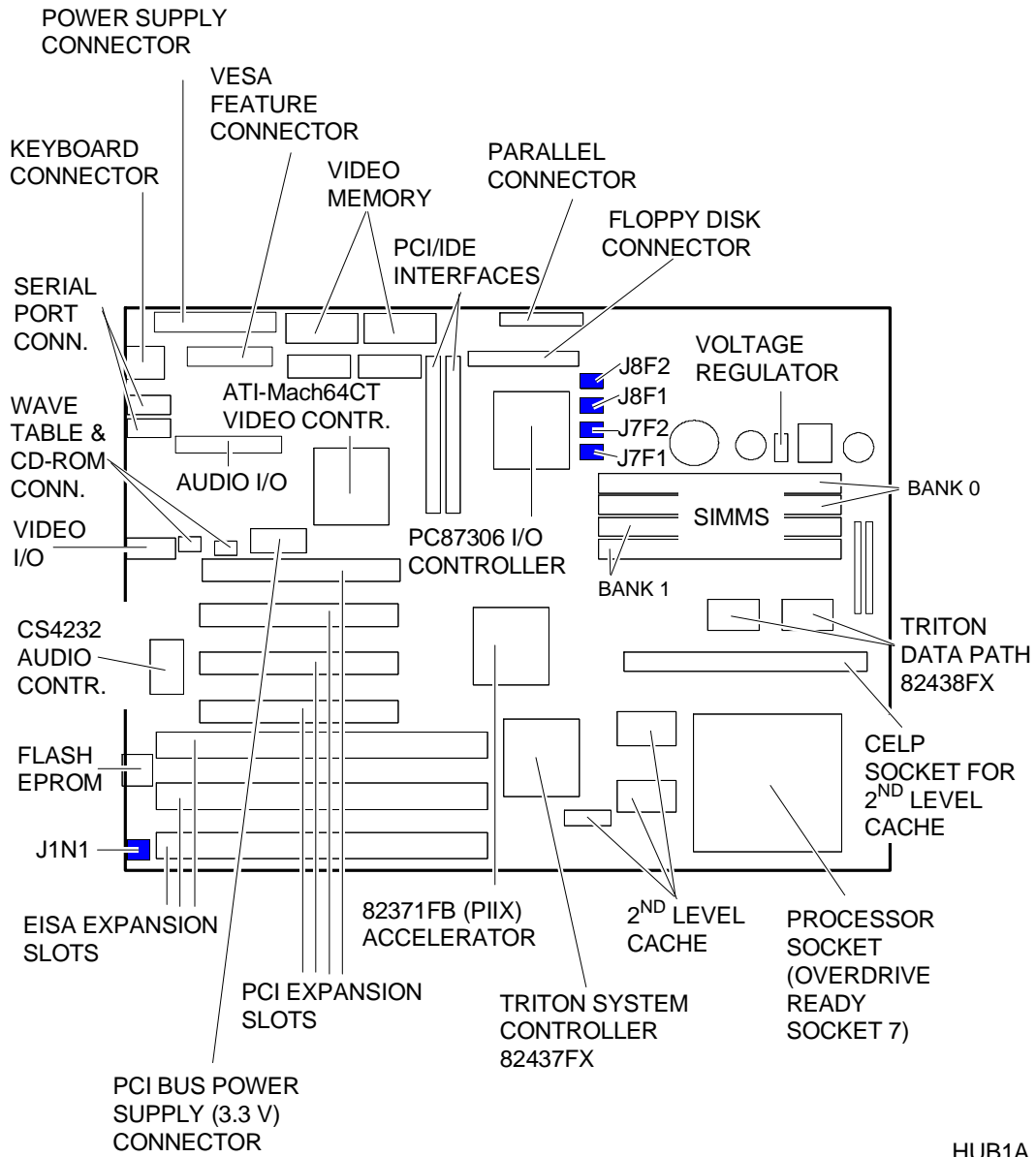
OPERATING SYSTEMS	NETWORKING & LAN PRODUCTS
Banyan VINES, version 6.00 IBM OS/2, version 2.11GA IBM OS/2 Warp, version 3.0 LANTASTIC, version 6.0 MS-DOS, versions 5.00A / 6.22 NOVELL NETWARE, versions 3.12 / 4.10 SCO UNIX, version 3.2 SCO UNIX Open Desktop, version 3.0 SUN OS, version 5.1 UNIX, version 4.2MP	BANYAN VINES, version 6.00 IBM OS/2 Warp LAN SERVER, ver. 3.0 / 4.0 NOVELL NETWARE 386, versions 3.12 / 4.10 Microsoft Windows NT Advanced Server, ver. 3.51
	WINDOWS
	MS-WINDOWS, version 3.11 MS-WINDOWS for workgroups, ver. 3.11 WINDOWS 95
WINDOWS APPLICATIONS	GRAPHICS APPLICATIONS
ALDUS PHOTO STYLER, version 2.0 CLARIS FILEMAKER PRO, version 2.1 COREL DRAW for Windows, version 5.0 EXCEL for Windows, version 4.0 Grammatik for Windows, version 2.0 LOTUS 1-2-3 for Windows, versions 1.0 / 4.0 / 4.01 MS-WORD for Windows, versions 2.0 / 6.0 MS-WORKS for Windows, version 2.0 MS-POWERPOINT, versions 3.0 / 4.0 PAGEMAKER for Windows, version 4.0 PHOTOMAGIC, version 1.0 PHOTOSHOP, version 3.0 PICTURES PUBLISHER, version 5.00 PREMIERE for Windows, version 1.1 PROJECT for Windows, version 1.0 WINDOWS DRAW, version 3.00 WORD PERFECT for Windows, versions 5.1 / 6.1 Xerox Ventura Publisher for Windows, ver. 4.1.1	AUTOCAD, versions 11 / 12 AUTOCAD for Windows, version 12 AUTOCAD LITE for Windows AUTODESK 3D STUDIO, version 3.0 CHARISMA for Windows, version 4.0 Harward Graphics, ver. 2.13 / 2.3 LOTUS Freelance Graphics for Windows, ver. 2.01 LOTUS Freelance PLUS, version 4.0 MICROGRAFX DESIGNER, version 4.1 OBJECT VISION PRO for Windows, ver. 2.1
	WORD PROCESSOR
	MS-WORD for DOS, version 6.0 WORD PERFECT, versions 5.1 / 6.0a WORDSTAR Professional, version 7.0

* Compatibility depends on whether specific operations have been carried out, as indicated in the related "Compatibility Guide".

HARDWARE COMPATIBILITY

MODEMS	MOUSE
INTEL 14.4/14.4 Faxmodem INTEL SatisFAXtion Modem/400 SUPRAFAXMODEM 288I EXT SUPRAFAXMODEM 288I INT	LOGITECH BUS MOUSE LOGITECH PS/2 Cordless mouse LOGITECH PS/2 Ergo mouse LOGITECH PS/2 Trackball MICROSOFT Ergo PS/2 mouse MICROSOFT Home Serial mouse
INTELLIGENT MULTIPOINTS	NETWORKING & LAN (ISA) PRODUCTS
COMPUTONE 16 Multiport Serial I/O Controller CHASE AT I/O PRO SPECIALIX SI/8	BANYAN ICA Adapter 3COM ETHERLINK III Adapter (3C509) Combo 3COM ETHERLINK III Adapter (3C579) - EISA 3COM TOKENLINK III Adapter IBM TOKEN RING 16/4 Adapter IBM TOKEN RING II 16/4 Adapter INTEL Etherexpress 16 Ethernet Adapter INTEL TOKEN EXPRESS 16/4S Adapter INTEL TOKENEXPRESS PRO Adapter MADGE SMART 16/4 AT RING NODE Adapter NOVELL EAGLE NTR2000 Adapter OLICOM PC AT Adapter SMC ELITE 16C Ultra SMC PC600FS SMC TOKEN ELITE THOMAS-CONRAD TC6242 INTEL ETHEREXPRESS 16
GRAPHICS PRODUCTS	
MATROX MGA 2 + PCI (PCI) MATROX IMPRESSION PLUS (PCI) ORCHID KELVIN 64 (PCI)	
MPC BOARDS	
GRAVIS ULTRASOUND GRAVIS ULTRASOUND MAX LOGITECH SOUNDMAN WAVE ONBOARD CRYSTAL CS4232 PRO AUDIOSTUDIO 16 SOUND BLASTER AWE 32 SOUND BLASTER 16 Multi-CD SOUND BLASTER PRO II SOUND BLASTER 16 Value TURTLE BEACH MONTEREY	
MULTIMEDIA DEVICES (DVO/DVI)	NETWORKING & LAN (PCI) PRODUCTS
PROSHARE VC200, version 1.6 REEL MAGIC LITE MPEG CARD REVEAL TV500 SMART VIDEO RECORDER WIN/TV	AMD PCnet Adapter COGENT eMaster + EM964 PCI INTEL Etherexpress PRO/100 PCI Adapter INTEL TOKENEXPRESS II Adapter RACAL INTERLAN T2 SMC ETHERPOWER PCI THOMAS-CONRAD TC5048-T/2 Z'NYX 32 Bit LAN Ethernet ZX312 Combo Ad.

COMPONENTS AND JUMPERS ON THE ATLANTIS (BA2267) MOTHERBOARD



HUB1A

JUMPERS ON THE ATLANTIS (BA2267) BOARD

Jumpers J8F2 and J1N1 - Ratio Between the CPU Internal and External Clocks

J8F2	J1N1	CPU CLOCK MULTIPLIER
1-2	4-5	x 1.5
2-3	4-5	x 2
2-3	5-6	x 2.5
1-2	5-6	Reserved

Jumper J8F1 - CPU External Clock

J8F1	EXTERNAL BUS CLOCK
1-2 5-6	50 MHz
1-2 4-5	60 MHz
2-3 5-6	66 MHz
2-3 4-5	Reserved

Jumpers J8F1, J8F2 and J1N1 - CPU Speed

J8F1	J8F2	J1N1	EXTERNAL CLOCK	CLOCK MULTIPLIER	INTERNAL CLOCK
1-2 5-6	1-2	4-5	50 MHz	x 1.5	75 MHz
1-2 4-5	1-2	4-5	60 MHz	x 1.5	90 MHz
2-3 5-6	1-2	4-5	66 MHz	x 1.5	100 MHz
1-2 4-5	2-3	4-5	60 MHz	x 2	120 MHz
2-3 5-6	2-3	4-5	66 MHz	x 2	133 MHz
1-2 4-5	2-3	5-6	60 MHz	x 2.5	Reserved
2-3 5-6	2-3	5-6	66 MHz	x 2.5	Reserved

Jumper J8F2 - Voltage Regulator Output

Position 4-5 Standard voltage (3.3 V)
 Position 5-6 VRE voltage (3.5 V).

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Jumper J7F2 - Setup Program Enable/Disable

Position 1-2 Enables access to the Setup program (Default)
 Position 2-3 Disables access to the Setup program.

Jumper J7F2 - CMOS RAM Reset

Position 4-5 Normal operation
 Position 5-6 CMOS RAM reset.

Jumper J7F1 - ISA Bus Clock

J7F1	SYSTEM BUS CLOCK	ISA BUS CLOCK
1-2* or 2-3	50 MHz	8.33 MHz
1-2*	60 MHz	7.5 MHz
2-3		10 MHz
1-2*	66 MHz	8.25 MHz
2-3		11 MHz

* = Default

Jumper J7F1 - Password Cancellation

Position 4-5 Normal operation
Position 5-6 Cancels the password.

INTERRUPT LEVELS

IRQ	SYSTEM RESOURCES
NMI	I/O channel control
0	Reserved, interval timer
1	Reserved, keyboard buffer full
2	Reserved, cascade interrupt from slave PIC
3	Serial port 2
4	Serial port 1
5	Onboard audio (default)
6	Floppy
7	Parallel port 1
8	Real Time Clock
9	Free
10	Free
11	Free
12	Onboard mouse port (free when a PS/2 mouse is not present)
13	Reserved, math coprocessor
14	Primary IDE
15	Secondary IDE

DMA Channels

DMA CHANNEL	DATA WIDTH	DEVICE OR FUNCTION
0	8 or 16 bits	Onboard audio (default)
1	8 or 16 bits	Onboard audio (default)
2	8 or 16 bits	Floppy
3	8 or 16 bits	Parallel port (for ECP/EPP configurations)
4		Reserved - Cascade channel
5	16 bits	Open
6	16 bits	Open
7	16 bits	Open

I/O ADDRESSES

I/O PORT (h)	DIMENSIONS	DEVICE OR FUNCTION
0000 - 000F	16 bytes	PIIX - DMA 1
0020 - 0021	2 bytes	PIIX - Interrupt controller 1
0040 - 0043	4 bytes	PIIX - Timer 1
0048 - 004B	4 bytes	PIIX - Timer 2
0060	1 byte	Keyboard controller data byte
0061	1 byte	PIIX - NMI, speaker control
0064	1 byte	Keyboard controller, CMD/STAT byte
0070, bit 7	1 bit	PIIX - NMI enable
0070, bit 6:0	7 bits	87306-Real Time Clock, address
0071	1 byte	87306-Real Time Clock, data
0078	1 byte	Reserved - Configuration
0079	1 byte	Reserved - Configuration
0080 - 008F	16 bytes	PIIX - DMA page register
00A0 - 00A1	2 bytes	PIIX - Interrupt controller 2
00C0 - 00DE	31 bytes	PIIX - DMA 2
00F0	1 byte	Numeric error reset
0170 - 0177	8 bytes	Secondary IDE channel

SYSTEM MEMORY MAP

ADDRESS RANGE (DECIMAL)	ADDRESS RANGE (HEX)	SIZE	DESCRIPTION
1024K-131072K	100000-8000000	127M	Extended memory
960K-1023K	F0000-FFFFFF	64K	AMI system BIOS
952K-959K	EE000-EFFFF	8K	FLASH boot block (available as UMB)
948K-951K	ED000-EDFFF	4K	ESCD (Plug and Play configuration area)
944-947K	EC000-ECFFF	4K	Manufacturer logo (available as UMB)
896K-943K	E0000-EBFFF	48K	Reserved for the BIOS (currently available as UMB)
800-895K	C8000-DFFFF	96K	DOS high memory available (open to the ISA and PCI buses)
640K-799K	A0000-C7FFF	160K	DOS high memory available (usually reserved for the video)
639K	9FC00-9FFFF	1K	BIOS data extended memory (transferred from QEMM, 386MAX)
512K-638K	80000-9FBFF	127K	Conventional extended memory
0K-511K	00000-7FFFF	512K	Conventional memory

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