M6-750/750S M6-760/760S M6-770/770S

CHARACTERISTICS

Microprocessor	i486 DX2 @ 50 MHz M6-750 M6-750 S i486 DX2 @ 66 MHz M6-760 M6-760 S INTEL DX4 @ 100 MHz M6-770 M6-770 S These are the processor's internal clock rates.
Clock	M6-750 M6-750 S 25 MHz M6-760 M6-760 S 33 MHz M6-770 M6-770 S 33 MHz
Architecture	ISA / PCI
Memory	RAM: minimum 8 MB, maximum 128 MB The motherboard has four sockets arranged in two separate banks capable of accomodating the following SIMMs: **EXM 28-004** N° 1 1MB x 36 (4 MB) SIMM **EXM 28-008** N° 1 2MB x 36 (8 MB) SIMM **EXM 28-016** N° 1 4MB x 36 (16 MB) SIMM **EXM 28-032** N° 1 8MB x 36 (32 MB) SIMM - Two kits are always required. - The banks can host 8 MB, 16 MB, 32 MB or 64 MB. Mixed configurations can be used. - Different SIMMs cannot be used within the same bank.
Memory access	70 ns

Cache	- First level cache:
	  8 KB integrated in the processor
	- Secondary level cache:
	  128 KB or 256 KB capacity
	Depending on the jumper settings, cache memory can work in either write back or write through mode.

Floppy Disks	1.2 MB 5,25" Panasonic JU475-3 / -4 / -5 1.2 MB 5,25" Toshiba ND 08 DE 2.88 MB Sony MP-F40W
Hard Disks	All hard disks are local bus drives: W.D. AC1210 210 MB SEAGATE ST3250 A 210 MB CONNER CFS 210A 210 MB Quantum LPS210 AT 210 MB Quantum LPS 270 A 270 MB CONNER CFA 270 A 270 MB Quantum LPS540 AT 540 MB CONNER CFA 540 A 540 MB SEAGATE ST5660 540 MB
Streaming Tapes	**Irwin 31250A** 80/120 MB Floppy interface **Wangtek 5159ES** 150 MB SCSi interface **Wangtek 5525ES - 5525ES-ACA** 320 MB SCSI interface. Requires the ASC-2 board. **Continues**

5

MOTHERBOARD

BA2080 Pre-production boards only.

BA2123 Chip Set Saturn step B
BA2136 Chip Set Saturn step B with new printed circuit.

BA2154 Chip Set Saturn 2
BA2156 Chip Set Saturn 2 with new printed circuit.

BIOS

The ROM BIOS is a Flash EPROM. The BIOS code is supplied on diskettes and must be copied into the Flash EPROM.

Last level: Rel. 2.03

EXPANSION BUS

TIN BOX	IN 2013 IN 2022
SLIM BOX	IN2029

POWER SUPPLY

TIN BOX Case

ASTEC (SP 200BC)
SP 210 B
AA19100-200

SLIM BOX Case

ASTEC (SP 100SB) SA 100

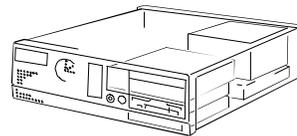|		CASES
Slots on TIN BOX case systems	- The following expansion slots are available on the CARD RISER expansion board: One PCI half-size slot One shared PCI/AT slot Three AT full-size slots - The following expansion slots are available on the motherboard: One PCI slot in which the video controller is installed One AT slot in which the audio subsystem board is installed.	**TIN BOX** M6-750 M6-760 M6-770
Slots on SLIM BOX case systems	- The following expansion slots are available on the CARD RISER expansion board: One PCI half-size slot One shared PCI/AT slot One AT full-size slots - The following expansion slots are available on the motherboard: One PCI slot in which the video controller is installed One AT slot in which the audio subsystem board is installed.	EUR2A **SLIM BOX** M6-750 S M6-760 S M6-770 S
Video controller	One of the following boards can be installed in the motherboard PCI slot: - **VISION-40 (GO2019)** - 1 MB of video RAm expandable to 2 MB. Max. resolution: 1024x768x256 - **REALITY-40 (GO2027 GO2049)** 2 MB of video RAM expandable to 4 MB Max. resolution: 1280x1024x256	EUT9A
Audio subsystem	One of the following boards can be installed in the motherboard At slot: - MOZART AUDIO BOARD - MPC MOZART AUDIO BOARD - MODEM/FAX/AUDIO (MI2047) BOARD	
HDU and FDU controllers	- Floppy disk controller: **SMC 37C665** super I/O controller - Local bus HDu controller: **ACER M5215**	
Mouse	PS/2- and AT-compatible	
Keyboard	101/102-key ANK 27-101/N, ANK 27-102/N Compact keyboard 101/102-key ANK 28-101, ANK 28-102 Super compact keyboard	
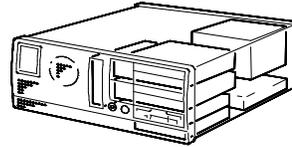
MOTHERBOARD

The same motherboard is used on all these systems. The only difference between the motherboards of the different systems is the type of processor installed in the *Intel OverDrive Ready Socket 3*, and the system clock which can be selected via jumpers.

PERSONAL COMPUTER	PROCESSOR	PROCESSOR VOLTAGE	PROCESSOR INTERNAL CLOCK	SYSTEM CLOCK
M6-750 M6-750 S	i486 DX2	5 V	50 MHz	25 MHz
M6-760 M6-760 S	i486 DX2	5 V	66 MHz	33 MHz
M6-770 M6-770 S	INTEL DX4	3.45 V	100 MHz	33 MHz

The motherboard used on these systems has evolved, as indicated in the following table:

MOTHERBOARD	CHARACTERISTICS
BA2080	Motherboard used on pre-production systems. This board is not equipped with the component that enables it to interface PCI bus hard disk drives.
BA2123	- Equipped with the ACER M5215 component which allows it to interface PCI bus hard disk drives. - Used the Saturn Step B chip set - Requires an adapter so hard disks can be connected.
BA2136	- As BA2123 but with printed circuit modifications. - Jumper J55 is added for CPU type management - Uses the Saturn Step B chip set - Requires an adapter so hard disks can be connected.
BA2154	- As BA2136 but with the Saturn 2 chip set. - Requires an adapter so hard disks can be connected.
BA2156	- New printed circuit integrating the adapter for hard disk connections. - Uses the Saturn 2 chip set.

	LEVEL	D.R.S. CODE	ROM BIOS	NOTES
BA2080	Nasc.		The ROM BIOS is a Flash EPROM. The BIOS code is supplied on diskettes and must be copied into the Flash EPROM.	The following table lists the components available on this board. **NOTE:** The new BIOS releases no longer support this type of board. The BIOS on boards BA2123, BA2136, BA2154 and BA2156 cannot be used on BA2080. Vice versa, the BIOs on board BA2080 cannot be used on the other boards.
BA2123	Nasc.			In order to use the Segate and Quantum hard disks with the new interface chip set, the MI2064 interface adapter must be used. This adapter is located between the motherboard connector and the hard disk cable.
BA2136	Nasc.			Replaces BA2123. New printed circuit board. In order to use the Segate and Quantum hard disks with the new interface chip set, the MI2064 interface adapter must be used. This adapter is located between the motherboard connector and the hard disk cable.
BA2154	Nasc.			Replaces BA2136 to introduce the new Saturn II chip set. In order to use the Segate and Quantum hard disks with the new interface chip set, the MI2064 interface adapter must be used. This adapter is located between the motherboard connector and the hard disk cable.
BA2156	Nasc.	563036 M		Replaces BA2154 in order to integrate the hard disk interface adapter (MI2064).

MOTHERBOARD INTEGTATED CONTROLLERS

MOTHER-BOARD	INTEGRATED CONTROLLERS
BA2080 BA2123 BA2136 BA2154 BA2156	**Intel OverDrive Ready Socket 3**: This socket can host the following processors: i486 DX2 @ 50 MHz - i486 DX2 @ 66 MHz - INTEL DX4

S82424 TX **Memory and cache controller** - This component has the following functions:
- Secondary level cache control
- CPU first level cache control
- System memory control
- Bridging between the CPU local bus and PCI local bus
- RESET logic emulation
- PCI local bus control
- Clock generation

82378 IB **System I/O** - This component has the following functions:
- Bridging between the PCI local bus and AT ISA bus
- Interface between ISA AT and PCI device masters and slaves
- Drives for 10 PCI devices and six ISA AT expansion slots
- Support for 25 MHz and 33 MHz PCI expansion boards
- Support for 6 MHz and 8.33 MHz ISA AT expansion boards
- DMA control
- Data buffering
- System timing
- Bus arbitration for PCI devices
- Bus arbitration for ISA AT devices
- NMI (Non-Maskable Interrupt) generation logic
- Interrupt control

82423 TX **Data path unit** - This component has the following functions:
- 32-bit High Performance memory data path interfacing the CPU local bus and PCI local bus
- Processor burst mode control
- Logic control of memory read and write cycles carried out in burst mode
- Memory parity checking

Socket for the Secondary Level Cache Module

8042 Keyboard and mouse controller

SMC37C665 Super I/O controller - This controller has the following functions:
- Floppy disk control
- Interface for two serial ports
- Interface for the parallel port
- Interface for intelligent hard disks (not used)

DS 12887A This DALLAS component has the following functions:
- Real Time Clock (system date and time)
- CMOS RAM - 128 KB non-volatile RAM powered by an integrated lithium battery which maintains the data during system power off

BIOS Flash EPROM

M5215 This ACER component has the following function:
- Provides an IDE PCI hard disk interface that allows the connection of local bus hard disk drives.

5

AUDIO BOARD

BOARD	LEVEL	NOTES
Mozart Audio Board	Nasc.	Audio board
MPC Mozart Audio Board	Nasc.	Audio board with joystick interface
Audio / Modem / Fax Board (MI2047)	Nasc. Lev. 01	To avoid noise disturbance, the connectors have been replaced on the DAA adapter of the modem/fax board.

VIDEO CONTROLLER BOARD

BOARD	LEVEL	NOTES
VISION-40 (GO2019)	Nasc.	ATI board
	Lev. 01	The following components are mounted to improve EMI margins: - One 100 pF capacitor - One 75 Ohm resistor
	Lev. 02	To improve the board's EMI margins, the following modifications have been made for SLIM BOX cases: - Ferrites have been installed at locations R1001 - R8 - R33 - The 0 Ohm resistor at location R74 has been replaced by a 100 Ohm resistor - The track on pin 18 of the ATI18813 component at location U1 has been cut.
REALITY-40 (GO2027)	Nasc.	MATROX board
	Lev. 01	New MATROX Rev. 3.4B BIOS
REALITY-40 (GO2049)	Nasc.	This board replaces GO 2027.
	Lev. 01	To correct the crosstalking between the ADBUS and DBUS in VGA mode, and the problems concerning the Setup of the 50 MHz clock, the following modifications are made: - The following resistors are moved: R70 to R69; R50 to R49 - The following capacitors are added: 33 pF capacitor between pins 17 and 20 of the component at location A25; 33 pF capacitor between pins 1 and 16of the component at location A25; 33 pF capacitor between pins 13 and 20 of the component at location A23.

USER DISKETTE

LEVEL	NOTES
Rev. 1.01	Must be used with BIOS 1.14 or later. This System Test version has the following problems: - At times the PIC subtest of the CPU test does not work correctly due to problems with the Mozart audio board. - The Mozart board needes to be installed in the system for Program Manager to work correctly. - Problems with the joystick port. The X coordinate is not in the center. - The Matrox board does not support the TrueColor, Graphics Cursor and Accelerator Graphics tests. - If the cache is set in Write Back mode, the cache subtest of the CPU test issues the "not done" message.
Rev. 1.07	This version requires BIOS 2.01 at least. With respect to the previous version, this revision includes the following modifications: - The tests on the Mozart board have been modified. Now the system no longer crashes when selecting this test and the Mozart board is not installed. The game port subtest has also been modified. - The HDU test now also supports 1 GB hard disks. - Modifications were made to the game port configuration utility. - The mouse test has been modified. - The parallel port test has been modified - The video test has been modified to also be able to test the MATROX board. - The CPU tests have been modified. The cache subtest works correctly even if the cache is in the write back mode. The PIC subtest has also been modified. - The floppy disk test has been modified. - The memory test has been modified. - The keyboard test has been modified.

5

SYSTEM TEST

LEVEL	NOTES
Lev. 1.03	Must be used with BIOS 1.14 or later. This System Test version has the following problems: - At times the PIC subtest of the CPU test and the Interrupt subtest of the parallel port test do not work correctly due to problems with the Mozart audio board. - The Mozart board needes to be installed in the system for Program Manager to work correctly. - Problems with the joystick port. The X coordinate is not in the center. - The Matrox board does not support the TrueColor, Graphics Cursor and Accelerator Graphics tests. - If the cache is set in Write Back mode, the "cache actions" parameter is not in the memory tests list.
Rev. 1.07	This version requires BIOS 2.01 at least. With respect to the previous version, this revision includes the following modifications: - The tests on the Mozart board have been modified. Now the system no longer crashes when selecting this test and the Mozart board is not installed. The game port subtest has also been modified. - The HDU test now also supports 1 GB hard disks. - Modifications were made to the game port configuration utility. - The mouse test has been modified. - The parallel port test has been modified - The video test has been modified to also be able to test the MATROX board. - The CPU tests have been modified. The cache subtest works correctly even if the cache is in the write back mode. A subtest on hiddent registers is also added. - The floppy disk test has been modified. - The memory test has been modified. - The keyboard test has been modified.

POWER SUPPLY

POWER SUPPLY	LEVEL	DESCRIPTION

ASTEC (SP 200BC) SP 210 B
AA19100-200
D.R.S. Code: 588066 V
	Nasc.
	
	Lev. 01
		200 W power supply for TIN BOX cases.
		
		- To correct the power supply from not powering off when short circuits on the 3.3 V occur, the value of resistor R229 has been changed from 3.3 KOhm to 6.8 KOhm.
		- The following modifications have been made to impove the fan speed regulation circuitry and reduce the fan's operating noise:
		  - The thermistor has been moved from the board to the side of the fan box near the air flow window opening.
		  - The fan speed regulation circuitry has been modified by the addition of components R307 - R309 - R310 - Q302 and by the variation of the value of resistors R311 - R312 - R308 (the printed circuit was already preset for these modifications).

ASTEC (SP 100SB) SA 100 D.R.S. Code: 563031 Q	Nasc.	100 W power supply for SLIM BOX cases.

5

SOFTWARE DRIVERS

DRIVER	NOTES

EVD for the ATI GO2019 - Ver. 1.06 video controller	This package includes the video drivers for: AutoDesk, Autocad, IBM OS/2, Lotus 1-2-3, Word, Microstation, Windows 3.1, Windows NT. However, it gives the following problems:
	1- This package cannot be used in the Windows NT environment to set the operating parameters for the video and for the EEPROM on the video controller board.
	2 - When using the PC in complex environments (with different SW drivers loaded into memory, such as mouse, networks, share, doskey, SCSI), the video subsystem test programs cannot be used. The "No adapter present" error message is displayed.
	3 - The system randomly crashes when exiting system configuration program after setting the video subsystem operating parameters.
	4 - The testing program does not work correctly (for example, you must press the ESC key to run the 24-bpp tests otherwise this test's execution option is not displayed).
	5 - Problems given with the pre-AutoDesk - Autocad 11 / 12 / AutoShade / 3D Studio / Renderman drivers:
	  - There is inconsistency between the table indicated in the documentation and the table in the program with which the user must select the resolution to adopt. The correct table is the one in the documentation.
	  - Limitations in the AutoCad 12 environment: the Bit Plane color of the Rendering function must be coherent with the Device Display Color Bit Plane.
	6 - The Microstation 4.0 drivers do not work (error number 910: Product not licensed for this hardware).
	7 - It is suggested to avoid using the Crystal Fonts with Windows 3.1 / Windows for WorkGroups 3.1 / 3.11 given the restrictions indicated by the supplier.
	8 - Under Windows NT, the user must adopt the resolutions provided with the standard Windows NT package. Resolutions with more than 256 colors DO NOT work in this environment.

EVD for the ATI GO2019 - Ver. 1.07 video controller	The part concerning Windows NT has changed with respect to the previous version. This video driver gives the following problem: the PC randomly crashes when attempting to exit Windows through the Mozart board control panel in open-screen or icon format.
EVD for the ATI GO2019 - Ver. 1.08 video controller	The part concerning Microstation has been modified with respect to the previous version. This video driver gives the following problem: incorrect colors are diaplayed when using the "640x480x16.7 MI " resolution, whereas everything is correct when using the "640x480x16.7 MI BGR" resolution. The problem given by the Mozart board's control panel has not been corrected.
EVD for the ATI GO2019 - Ver. 1.09 video controller	The documentation concerning Microstation has been added along with new Olivetti monitors.
EVD for the MATROX GO2049 / GO2027 - Ver. 1.03 video controller	The INSTALL.EXE and BCK_DSK.EXE programs have been corrected.

BIOS

LEVEL	NOTES
Rel. 1.14	
Rel. 1.16	
Rel. 1.18	
Rel. 2.00	
Rel. 2.01	
Rel. 2.02	
Rel. 2.03	

BUS EXPANSION BOARD

NOME	D.R.S. CODE	LEVEL	NOTES
IN 2013			For TIN BOX cases.
IN 2022	588367 F		For TIN BOX cases. Replaces the previous board as it improves PCI interrupt management.
IN2029	588808 B		For SLIM BOX cases.

MOTHERBOARD COMPONENTS AND JUMPERS
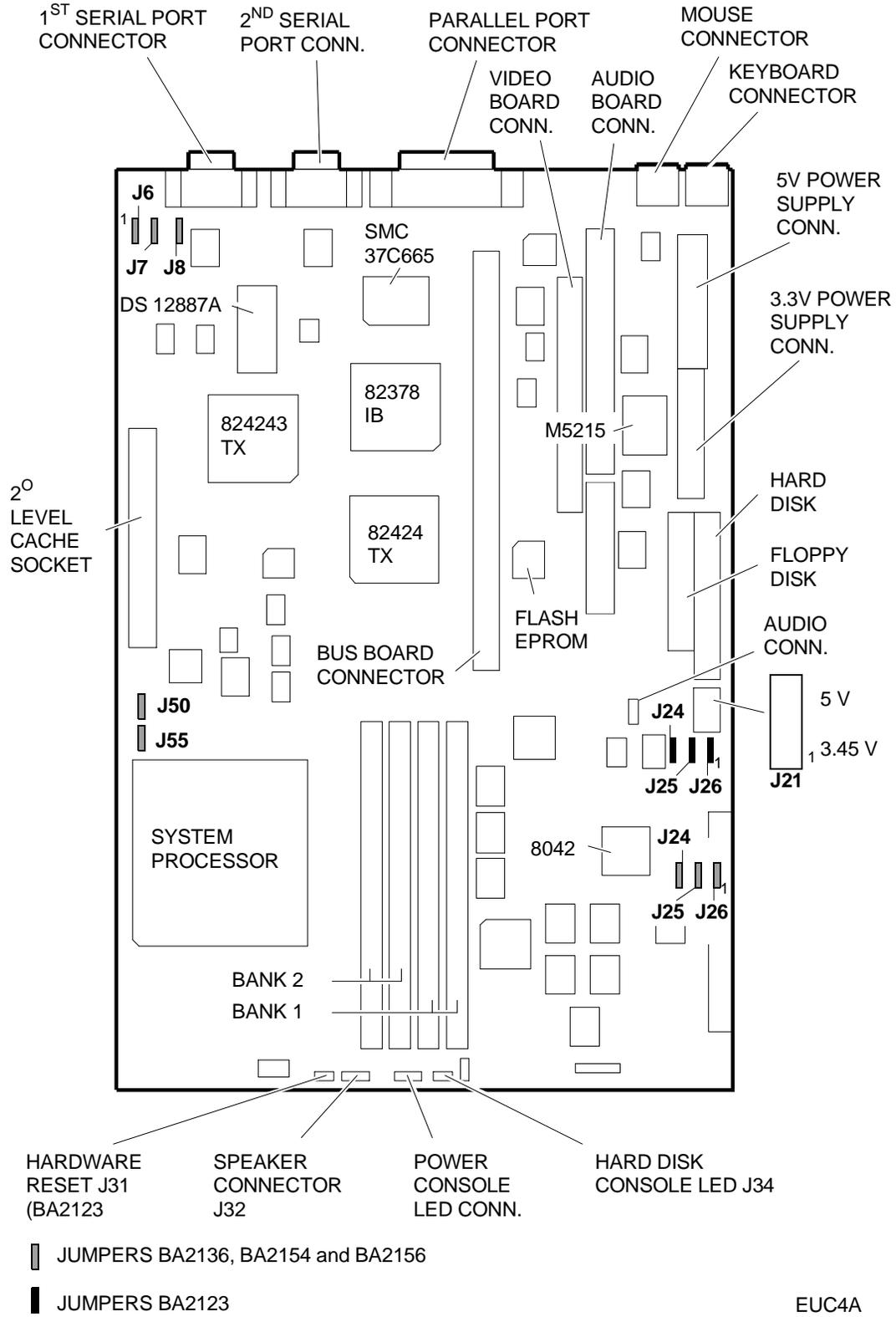
MOTHERBOARD JUMPERS

Jumper J25 - System configuration enable
1-2   Disables acess to the configuration utilities
2-3   Enables access to the configuration utilities (Default)

Jumper J7 - Enable/disable serial port 1 functions
Jumper J8 -Enable/disable serial port 2 functions
1-2   Disables serial port 1 functions
2-3   Enables serial port 1 functions (Default)

1-2   Disables serial port 2 functions
2-3   Enables serial port 2 functions (Default)

NOTE: The ports are enabled or disabled together. It is not possible to have COM1 enabled while COM2 is disabled.

Jumper J26 - Floppy disk write enable
1-2   Disables floppy disk writes
2-3   Enables floppy disk writes (Default)

Jumper J24 - BIOS EEPROM write enable
1-2   Disables BIOS EEPROM writes
2-3   Enables BIOS EEPROm writes (Default)

Jumper J6 - Motherboard clock select
1-2   33 MHz clock (CPU 66 MHz)
2-3   25 MHz clock (CPU 50 MHz)

Jumpers J50 & J55 - Cache mode of operation (BA2136)

PROCESSOR	INTERNAL CACHE	EXTERNAL CACHE *	JUMPER J50	JUMPER J55
i486 DX / i486 DX2 / i486 DX4	Write Through	Write Back	OUT	OUT
P24D / P24T / P24CT	Write Back	Disabled	IN	IN
P24D / P24T / P24CT	Write Through	Write Back	OUT	IN

*   The operations of the external cache do not depend on the jumper settings. These operations (disabled, write-back, write-through) can be selected by means of the system configuration program

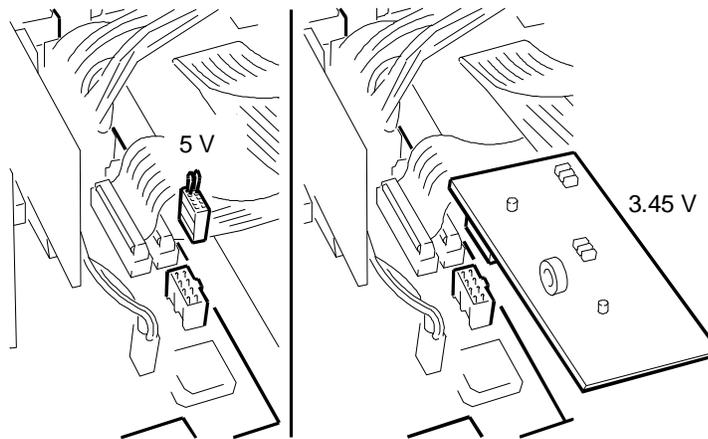**Jumper J50 - Cache mode of operation (BA2123)**

PROCESSOR	INTERNAL CACHE	EXTERNAL CACHE	JUMPER J50
i486 DX / i486 DX2 / i486 DX4	Write Through	Write Back	OUT
P24D / P24T / P24CT	Write Back	Write Through	IN

Processor power supply voltage selection connector J21
Position 3.45 V   Intel 486 DX4
Position 5 V   Other processors

For a 3.45 V supply, the adapter must replace the jumpered connector for 5 V - See the following figure.

EUT1A

SOFTWARE COMPATIBILITY

OPERATING SYSTEMS	WORD PROCESSING PRODUCTS
DR-DOS, Version 7.00 IBM PC-DOS 5.0 IBM PC-DOS, Version 6.1	ARTS & LETTERS, Version 3.1 LOTUS AMI PRO for OS/2, Version 3.0 DISPLAYWRITE 4 for DOS, Version 1.5 DISPLAYWRITE 5/2 for OS/2, Version 1.0 MS-WORD for DOS, Version 6.0 MS-WORD for OS/2, Version 5.5 WORD PERFECT for DOS, Version 5.1 WORD PERFECT for OS/2, Version 5.1 WORDSTAR, Version 7.0
WINDOWING APPLICATION	
ALDUS PAGEMAKER, Version 5.0 AMI PRO for Windows, Version 2.0 COREL DRAW for Windows, Version 4.0 LOTUS 1-2-3 for Windows, Version 4.01 LOTUS FREELANCE for Windows, Version 2.01 MS EXCEL, Version 4.0 MS WINDOWS, Version 3.1 ****1** MS WINDOWS for WORKGROUP, Version 3.10 MS WORD for Windows, Version 2.0 MS WORD for Windows Version 6.0 MS WORKS for Windows, Version 2.0	MS POWERPOINT, Version 3.00 WORDPERFECT for Windows, Version 5.1 VENTURA PUBLISHER for Windows 3.0 and 3.1, Version 3.0 ****2** **1 Windows does not start in standard mode when the drivers are used in high resolution mode. **2 Video flickering occurs when the menu bar of the Toolbox application environment is used to import a file.
GRAPHICS PRODUCTS	
AUTOCAD, Version 11 AUTOCAD for DOS, Version 12.0 ****1** AUTOCAD for WINDOWS, Version 12.0 AUTODESK 3D STUDIO, Version 3.0 CHARISMA, Version 2.1 DR. HALO IV, Version 1.0 HARVARD GRAPHICS, Version 3.0 LOTUS FREELANCE for OS/2, Version 2.0 LOTUS FREELANCE PLUS, Version 4.0	MICROGRAFX DESIGNER Version 3.1 MICROGRAFX DESIGNER Version 4.0 MS CHART, Version 3.00 PC PAINTBRUSH V PLUS, Version 1.0 **1 This package does not work if the Reality video controller board is used with the HRG drivers.

DPT PRODUCTS	
ALDUS PAGEMAKER for Windows, Version 4.0 ALDUS PAGEMAKER for OS/2, Version 3.01	GEM/3 DESKTOP PUBLISHER, Version 2.0 VENTURA PUBLISHER DOS/GEM Edition, Version 3.0

HARDWARE COMPATIBILITY

MODEM PRODUCTS	GRAPHICS PRODUCTS
HAYES SMART MODEM, 2400 B INTEL SatiFAXtion Modem/200 INTEL SatiFAXtion Modem/300 DIGICOM MODEM FAX Mod. SNM41 PC AT&T 2224 CEO MODEM ROBOTICS World Port 1200	ATI MACH 64 V Graphics Acceleretor INFOTRONIC XGC MATROX HIPER VGA CAD MATROX MGA PCI MATROX MGA Impression /3Z ORCHID KELVIN 64 PCI
MOUSE PRODUCTS	**DISPLAY PRODUCTS**
IBM PS/2 MOUSE LOGITECH BUS MOUSE Version P7-3F LOGITECH RADIO MOUSE MS BALL POINT MOUSE MS-BUS MOUSE, Version 1.0 MS SERIAL MOUSE (PS/2)	NEC MULTISYNC 4FG NEC MULTISYNC 5FG NEC MULTISYNC 6FG SONY Multiscan CPD 1430 SONY Multiscan CPD 1730 SONY Multiscan GDM 2038
INTELLIGENT MULTIPORT PRODUCTS	**CONTROLLER DEVICES**
CHASE AT 16 Serial I/O Controller SPECIALIX SI/8 DIGIBOARD DigiChannel Multiport Serial I/O - Controller	ADAPTEC 1540C SCSI HOST ADAPTER ADAPTEC 1540CF SCSI HOST ADAPTER ** ADAPTEC 1542B SCSI HOST ADAPTER ADAPTEC AHA-2940 SCSI PCI (Lance) SONY COR-334 KIT SONY OPA-474 KIT TRANTOR Miniscsi (Parallel to Scsi Host - Adapter) T 338 ** The secondary level cache write through operating mode must be disabled when launching the board configuration program.
NETWORK and LAN PRODUCTS	
BANYAN VINES Version 5.53 DEC PATHWORKS FOR OS/2, Version 2.0 IBM PC LAN PROGRAM, Version 1.30 IBM PC LAN SUPPORT PROGRAM, Ver. 1.2	IBM OS/2 LAN SERVER Program, Version 3.0 INTEL LANDESK MANAGER, Version 1.5 MS LAN MANAGER for OS/2, Version 2.1 PROLOGUE 5, Version 5.1B
NETWORK and LAN PRODUCT HARDWARE ISA	
COM ETHERLINK ADAPTER (3C501) COM ETHERLINK II ADAPTER (3C503) COM ETHERLINK PLUS ADAPTER (3C505) COM ETHERLINK 16 ADAPTER (3C507) COM ETHERLINK III ADAPTER (3C509) COM TOKENLINK PLUS ADAPTER (3C603) DEC ETHERWORKS TURBO TP ADAPTER DEC ETHERWORKS TURBO ADAP. DE200 D-LINK DT-220 ADAPTER IBM TOKEN RING 16/4 ADAPTER IBM TOKEN RING PC ADAPTER II	INTEL ETHER EXPRESS 16 ETHERNET ADAPTER (EPCLA8120) ** INTEL TOKEN EXPRESS ISA 16S TOKEN RING ADAPTER MADGE AT RING NODE ADAPTER NOVELL NE1000 LAN ADAPTER NOVELL NE2000 ETHERNET ADAPTER NOVELL NE2000 PLUS ETHERNET ADAPTER ** Video BIOS version 3.4B is required when using the Matrox video controller.

5

NETWORK and LAN PRODUCT HARDWARE PCI
Z'NYX 32 BIT ETHERNET LAN ADAPTER ZX312 ADAPTER

MULTIMEDIA ENVIRONMENT SOFTWARE
AIMTEK ICON AUTHOR, Version 5.0 ALDUS PHOTO STYLER VER. 1.1 ASYMMETRIC TOOL BOOK, Version 1.53 AUTHOWARE STAR for Windows, Version 1.0a MICROSOFT CD SPEED, Version 1.0 IM-AGE, Version 3.0 MS VIDEO for Windows, Version 1.0 MS WINDOWS SOUND SYSTEM, Ver. 1.0 ** MS WINDOWS SOUND SYSTEM, Ver. 2.0 ** MS Windows Sound System does not work correctly after installing Windows for Workgroups. Correct operation is restored by removing the Mozart board from the system.

MULTIMEDIA ENVIRONMENT DVO/DVI
ACTIONMEDIA II CAPTURE MODULE **1 FAST SCREEN MACHINE (ISA) Mod. 1 LIFE VIEW VIDEO SUPER MOTION COMPRESSION (N.M.G.) - CM ver. 1.3B (ISA) **2 VIDEO BLASTER **3 VIDEOLOGIC DVA 4000/ISA WIN / TV ** After installing the board in the system and connecting the monitor to this board, no image is displayed when the system is powered on. The board will work correctly after cancelling the Mozart audio board drivers from the following files: Config.sys, Autoexec.bat and System.ini. **1 The following error message is displayed under Windows after the board management software is installed: "No S.V.W. board is active". To correct this problem, when installing the board select I/O address range Bxx using the Setup Utilities. **2 When using a system equipped with the Reality video controller board, spoiled colors will appear during the board test. When the Vision video controller is used, the board does not work in the 8514/A video mode. The VGA video mode must therefore be selected.

MPC BOARDS
LOGITECH AUDIOMAN **1 PRO AUDIO SPECTRUM 16-SDLC **2 PRO AUDIO SPECTRUM PAS2 **2 PRO AUDIO SPECTRUM PAS 16 **2 SOUND BLASTER PRO 2 **2 SOUND BLASTER 16 APS **2 SOUND BLASTER 16 SCSI 2 **2 SOUND GALAXY NX PRO **2 **1 The board will work properly if the Mozart audio board drivers are cancelled from the following files: Config.sys, Autoexec.bat, System.ini. **2 The board will not work if the Mozart audio board is installed. This is because both boards use the same resources.

CD ROM	
PHILIPS CD-WRITER CDD521 SONY CD ROM DRIVER, Version CDU 33A SONY CD ROM DRIVER, Version CDU 541	SONY CD ROM DRIVER, Version CDU 561 SONY CD ROM DRIVER, Version CDU 7305 SONY CD ROM DRIVER, Version CDU 7811

ACUSTIC DEVICE	VIDEO DEVICE
SONY SRS 170 SONY SRS 77G	PIONEER LASER DISC CLD-V2300D PIONEER LASER DISC V4300D SONY LASER DISC PLAYER LDP3600D.End Table C.

INTERRUPT LEVELS

LEVEL	NAME	CONTROLLER	FUNCTION
1	IRQ0	1	Channel 0 timer OUT
2	IRQ1	1	Keyboard
3 to 10 *	IRQ2	1	Interrupt issued from controller 2 to controller 1
3	IRQ8	2	Real time clock
4	IRQ9	2	Used by the audio subsystem (CD-ROM AT)
5	IRQ10	2	Used by the audio subsystem (Audio board)
6	IRQ11	2	Free (PCI) **
7	IRQ12	2	Mouse
8	IRQ13	2	Coprocessor
9	IRQ14	2	Hard disk controller
10	IRQ15	2	Free (PCI) **
11	IRQ3	1	Serial port 2
12	IRQ4	1	Serial port 1
13	IRQ5	1	Parallel port 2
14	IRQ6	1	Floppy disk controller
15	IRQ7	1	Parallel port 1

*   The priority level depends on the interrupt selected. For example, if interrupt IRQ11 is selected the priority level is 6, or if interrupt IRQ15 is selected the priority level is 10.

**   Interrupts IRQ11 and IRQ15 are used by the motherboard for devices which need to work with interrupts.

DMA CHANNELS

CHANNEL	NUMBER OF BITS	FUNCTION
0	8	Reserved for the audio subsystem (if present)
1	8	Reserved for the audio subsystem (if present)
2	8	Floppy disk transfers
3	8	IDE hard disks (if DMA mode is selected)
4	16	Used for the cascade connection of DMA1
5	16	Free
6	16	Free
7	16	Free

I/O ADDRESS MAP

ADDRESS	FUNCTION	ADDRESS	FUNCTION
0000 - 000F h	DMA controller 1	0380 - 038F h	Reserved
0020 - 0021 h	Interrupt controller 1	03A0 - 03AF h	Reserved
0040 - 0043 h	Timer 1	03B4 - 03B5 h	Video controller
0048 - 004B h	Timer 2	03BC - 03BE h	Parallel port 1
0060 h	Keyboard data controller	03C0 - 03D5 h	Video controller
0061 h	Port B	03E8 - 03EF h	Serial port 3
0064 h	Keyboard commands controller	03F0 - 03F7 h	Floppy controller
0070 - 0071 h	RTC and CMOS RAM	03F8 - 03FF	Motherboard serial port 1
0078 - 007B h	BIOS timer	040 A	Scatter/Gather PCI interrupt register
0080 - 0090 h	DMA page register	040 B	First DMA controller extended mode register
0092 h	Port 92	0410 - 043F h	Scatter/Gather PCI transfer register
0094 - 009F h	DMA page register	0481 - 048B h	DMA page registers
00A0 - 0A1 h	Interrupt controller 2	0CF8 h	PCI configuration area enable
00C0 - 00DE h	DMA controller 2	0CF9 h	*Deturbo* mode enable
00F0 h	Math error reset	0CFA h	Forward register
00F1 h	-	04D6 h	Second DMA controller extended mode register
00F4h - 00F8h - 00FC h	M5215 fast IDE hard disk interface	0533 h *	Audio subsystem mute control
01F0 - 01F7 h	Hard disk controller	0530 - 0537 h	Audio subsystem, in alternative to 0604 - 060B
0200 - 0207 h	Reserved	0607 h *	Audio subsystem mute control
0278 - 027F h	Parallel port 2	0604 - 060B h	Audio subsystem, in alternative to 0530 - 0537 h
0280 - 02C7 h	Reserved	x2E8 - x2EF h	VGA video controller **
02E0 - 02EF	Reserved	x6E8 h	VGA video controller **
02F8 - 02FF h	Motherboard serial port 2	x6EE - x6EF	VGA video controller **
0300 - 031F h	Reserved	xAE8	VGA video controller **
0360 - 036F h	Reserved	xAEE - xAEF h	VGA video controller **
0378 - 037F h	Parallel port 2	xEE8 h	VGA video controller **
* = Thes ports are mutually exclusive ** = x : Any digit between 1 h and F h		xEEE - xEEF	VGA video controller **

SYSTEM MEMORY MAP

	000 KB	00000 h
512 KB		
		USER DATA AREA
	511 KB	7FFFF h
	512 KB	80000 h
127 KB		BUS BOARDS WITH ON-BOARD MEMORY
		9FBFF h
	638 KB	BIOS DATA EXTENSION 9FC00 h
1 KB	639 KB	9FFFF h
	640 KB	A0000 h
		DOS UPPER MEMORY AVAILABLE
300 KB		RESERVED FOR THE BIOS
	947 KB	ECFFF h
	948 KB	LOGO (If there is no logo, this area is used as HIMEM) ED000 h
4 KB	951 KB	EDFFF h
	952 KB	EE000 h
8 KB		EEPROM BOOTSTRAP BLOCK
	959 KB	EFFFF h
	960 KB	F0000 h
64 KB		SYSTEM BIOS
	1023 KB	FFFFF h
	1024 KB	100000 h
		EXTENDED SYSTEM MEMORY

5

■