

**803(4)86**

**MAINBOARD**

CAM/33-P9

M458P9A

CAM/50-P9

M45AP9A

CPM/25-P9

M557P9A

CPM/33-P9

M558P9A

TAM/40-P9

M359P90



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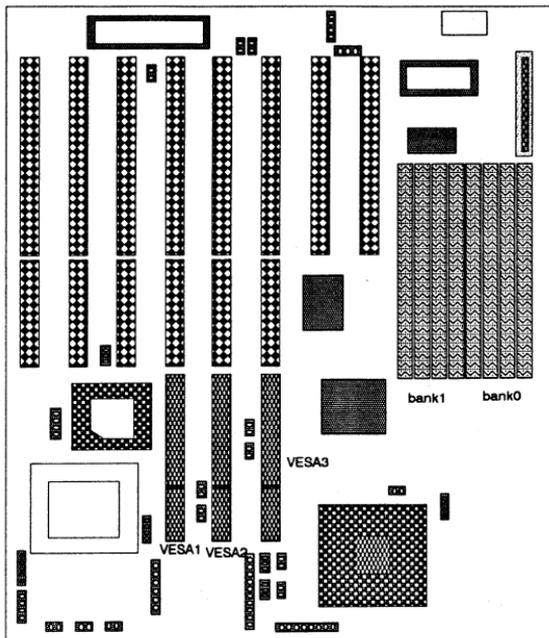
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# SPECIFICATIONS

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CPU	: 80486DX-33 for CAM/33-P9 80486SX-25/33 for CPM/25/33-P9 80386DX-40 for TAM/40-P9
NPU	: 80487SX or 80387
Expansion slots	: 16bit ISAx6, 8bit ISAx2, VESA BUS x 3
PCB size	: 282mm x 223mm, 4 layers
Turbo Switch	: Open - TURBO Short - DETURBO
BIOS	: 64KB AMI BIOS ( 27512x1 )
Chipset	: 82C206, Opti 82C392SX and 82C495SX Compatible with PC/AT Circuitry
Memory	: Various combinations up to 32MB 30-pin SIMM : capacity of each DRAM : 256KB, 1MB, or 4MB
Cache Memory	: 64K,128K and 256K are available

# JUMPERS & CONNECTORS



VESA-Local Bus PAL selection :

	JP21	JP23	JP20	JP27	JP19	JP24	JP9	JP8
WithVL-BUSPAL	open	1-2	open	1-2	open	open	open	open
WithoutVL-BUSPAL	close	2-3	close	2-3	close	close	close	close

Clock source selection :

	JP28	JP29
80MHz	OPEN	OPEN
66MHz	OPEN	CLOSE
50MHz	CLOSE	OPEN

CPU selection :

	CYRIX	INTEL
386		
JP2	OPEN	OPEN
JP6	CLOSE	OPEN
JP7	CLOSE	OPEN

486/386 CLK selection :

	JP25	JP33
486 double CLK	2-3	2-3
single CLK	1-2	1-2
386	2-3	1-2

PAL selection :

PAL	JP9	JP8	JP23	JP27	JP19	JP21	JP14
use	open	open	1-2	1-2	open	open	open
no	close	close	2-3	2-3	close	close	close

CPU speed selection :

VL-BUS		JP26	JP22
CPU SPEED	< = 33MHz	X	OPEN
	> 33MHz	X	CLOSE
HIGH SPEED	0WS	OPEN	X
WRITE	1WS	CLOSE	X

386/486 selection :

	JP5	JP12
386	2-3	OPEN
486	1-2	CLOSE

ATCLK selection :

JP3	OPEN	386	ATCLK = CLK/5
	CLOSE	386	ATCLK = CLK/4

386/486 PQFP selection :

JP17	CLOSE	disable 486PQFP
JP18	CLOSE	disable 386PQFP

JP 1 : 1-2 short : Discharge

2-3 short : Normal

JP 4 : Monitor Type Selection

Open : Mono Monitor

Short : Color Monitor

VESA SLOTS:

VESA1: slave mode only

VESA2 & VESA3: master or slave mode

VESA-local bus 386/486 selection :

VL-BUS	JP34	JP30
386	OPEN	CLOSE
486	CLOSE	OPEN

CPU Speed vs. Recommended Maximum Slots

Speed	VESA1	VESA2	VESA3
< = 33 MHz	Slave	Master/Slave	Master/Slave
40 MHz	Slave	Master/Slave	Not Recommended
> = 50 MHz	Slave	Not Recomm.	Not Recommended

486DX/486SX selection :

	486DX	486SX
JP35	1-2	OPEN
JP36	CLOSE	OPEN
JP37	1-2	2-3

Cache memory selection :

	JP10	JP11	JP13	JP15
64K	2-3	OPEN	OPEN	OPEN
128K	1-2	CLOSE	CLOSE	OPEN
256K	2-3	CLOSE	CLOSE	CLOSE

J1 : External Battery Connector

PIN	DESCRIPTION
1	BATTERY +6V DC
2	KEY
3	GROUND
4	GROUND

J19 : Keylock and Power LED Connector

PIN	DESCRIPTION
1	LED POWER
2	KEY
3	GROUND
4	KEYBOARD INHIBITOR
5	GROUND

J20 : Speaker connector

SW1 : Hardware Reset

JP31 : Turbo Switch

JP32 : Turbo LED

## **MEMORY CONFIGURATION**

The memory on this mainboard is divided into two banks : bank 0, and bank 1, as shown in the following diagram:

<b>BANK0</b>	<b>BANK1</b>	<b>TOTAL</b>
256K	empty	1M
256K	256K	2M
1M	empty	4M
256K	1M	5M
1M	1M	8M
4M	empty	16M
1M or 4M	1M or 4M	20M
4M	4M	32M

## **BIOS SETUP DEFAULTS**

With the defaults setting shown following Figure, the computer performs the best running speed tested by LANDMARK PROGRAM. Unless you completely understand the meaning of the entry, we recommend you don't change the default value anyway.

AMIBIOS SETUP PROGRAM - ADVANCED CMOS SETUP (C)1992 American Megatrends Inc., All Rights Reserved			
Typematic Rate Programming	:Disabled	Video ROM Shadow C000,16K	: Enabled
Typematic Rate Delay (msec)	: 500	Video ROM Shadow C400,16K	: Enabled
Typematic Rate (Chars/Sec)	: 15	Adaptor ROM Shadow C800,16K	: Disabled
Above 1MB Memory Test	: Disabled	Adaptor ROM Shadow CC00,16K	: Disabled
Memory Test Tick Sound	: Enabled	Adaptor ROM Shadow D000,16K	: Disabled
Memory Parity Error Check	: Enabled	Adaptor ROM Shadow D400,16K	: Disabled
Hit <DEL> Message Display	: Enabled	Adaptor ROM Shadow D800,16K	: Disabled
Hard Disk Type 47 RAM Area	: 0:300	Adaptor ROM Shadow DC00,16K	: Disabled
Wait For <F1> If Any Error	: Enabled	Adaptor ROM Shadow E000,16K	: Disabled
System Boot Up Num Lock	: On	Adaptor ROM Shadow E400,16K	: Disabled
Numeric Processor Test	: Enabled	Adaptor ROM Shadow E800,16K	: Disabled
Floppy Drive Seek At Boot	: Disabled	Adaptor ROM Shadow EC00,16K	: Disabled
System Boot Up Sequence	: A., C:	Adaptor ROM Shadow F000,64K	: Enabled
System Boot Up CPU Speed	: High	BootSector Virus Protection	: Disabled
External Cache Memory	: Enabled		
Internal Cache Memory	: Enabled		
Turbo Switch Function	: Enabled		
Password Checking Option	: Setup		
Esc:Exit ↓→↑←:Sel (Ctrl)Pu/Pd:Modify F1:Help F2/F3:Color			
F5:Old Values F6:BIOS Setup Defaults F7:Power-On Defaults			

AMI BIOS Setup Defaults (ADVANCED)

AMIBIOS SETUP PROGRAM - ADVANCED CHIPSET SETUP (C)1992 American Megatrends Inc., All Rights Reserved			
AUTO Config Function	: Enabled	Non-Cacheable Block-2 Size	: Disabled
Hidden Refresh	: Disabled	Non-Cacheable Block-2 Base	: 0 KB
Slow Refresh	: Disabled	Cacheable RAM Address Range	: 64 MB
Single ALE Enable	: No	Video BIOS Area Cacheable	: No
Keyboard Reset Control	: Enabled		
Master Mode Byte Swap	: Disabled		
AT Cycle Wait State	: Disabled		
AT BUS Clock Selection	: CLKI/4		
Fast Decode Enabled	: Disabled		
Memory Read Wait State	: 2 W/S		
Memory Write Wait State	: 1 W/S		
Cache Read Wait State	: 3-2-2-2		
Cache Write Wait State	: 1 W/S		
ATalk Source Optional	: CLK		
READY Generate Select	: Disabled		
I/O Delay On Back to Back	: Disabled		
Non-Cacheable Block-1 Size	: Disabled		
Non-Cacheable Block-1 Base	: 0 KB		
Esc:Exit ↓↑←→.Sel (Ctrl)Pu/Pd.Modify F1:Help F2/F3:Color			
F5:Old Values F6:BIOS Setup Defaults F7:Power-On Defaults			

### AMI BIOS Defaults (CHIPSET)

Note: AT BUS Clock Selection:  
 CLKI/4 for 33MHz CPU  
 CLKI/5 for 40MHz CPU  
 CLKI/6 for 50MHz CPU

CPU Speed	DRAM read	DRAMwrite	SRAM read	SRAM write
25MHz	0W/W	0W/S	2-1-1-1	1W/S
33MHz	2W/W	1W/S	3-2-2-2	1W/S
40MHz	2W/W	3W/S	2-2-2-2	1W/S
50MHz	2W/W	3W/S	3-2-2-2	1W/S

DRAM & SRAM wait state setup for BIOS