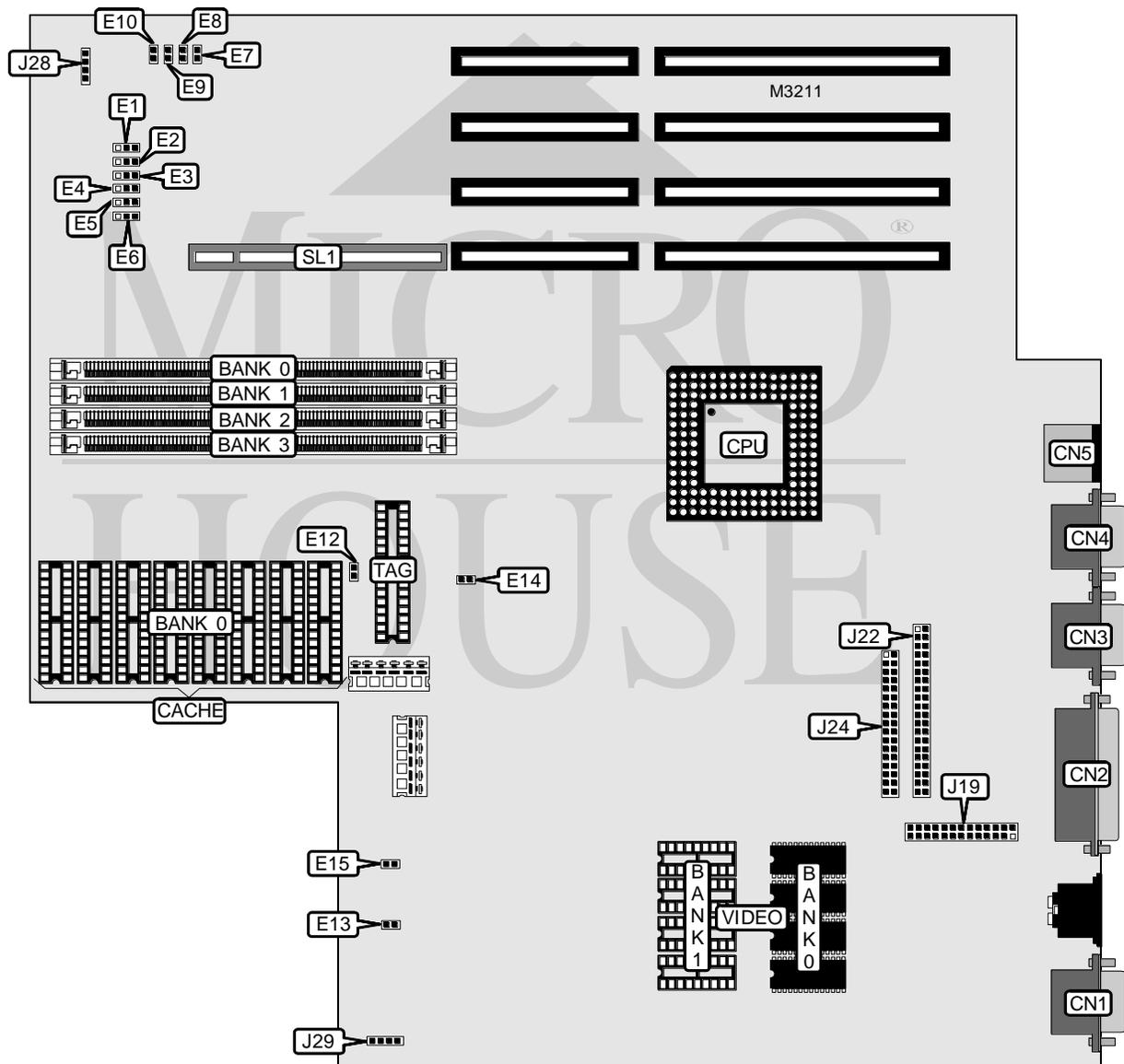


# AST RESEARCH, INC.

## ADVANTAGE! PRO 486

(202643-110, 202688-103)

<b>Processor</b>	80486SX/SL80486DX/SL80486DX2/80486DX4/Pentium Overdrive
<b>Processor Speed</b>	25/33/50(internal)/66(internal)/75(internal)/100(internal)MHz
<b>Chip Set</b>	Unidentified
<b>Max. Onboard DRAM</b>	64MB
<b>Cache</b>	64/256KB
<b>BIOS</b>	Unidentified
<b>Dimensions</b>	355mm x 305mm
<b>I/O Options</b>	32-bit VESA local bus slot, floppy drive interface, IDE interface, parallel port, PS/2 mouse port, serial ports (2), 8514 video pass through connector, VGA port
<b>NPU Options</b>	None



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CONNECTIONS			
Purpose	Location	Purpose	Location
VGA port	CN1	IDE interface	J22
Parallel port	CN2	Floppy drive interface	J24
Serial port	CN3	Speaker	J27
Serial port	CN4	Chassis fan power	J28
PS/2 mouse port	CN5	Front panel connector	J29
VGA feature connector	J19	32-bit VESA local bus slot	SL1
Note: The location of J27 is unidentified.			

USER CONFIGURABLE SETTINGS		
Function	Jumper	Position
í Parallel port IRQ select IRQ7	E2	pins 1 & 2 closed
Parallel port IRQ select IRQ5	E2	pins 2 & 3 closed
í On board video enabled	E7	Closed
On board video disabled	E7	Open
í Monitor type select color	E8	Closed
Monitor type select monochrome	E8	Open
í Factory configured - do not alter	E9	Closed
í Password enabled	E10	Closed
Password disabled	E10	Open
í Factory configured - do not alter	E11	Open
í Factory configured - do not alter	E16	Open
Note: The locations of E11 & E16 are unidentified.		

DRAM CONFIGURATION				
Size	Bank 0	Bank 1	Bank 2	Bank 3
1MB	(1) 256K x 32	NONE	NONE	NONE
2MB	(1) 256K x 32	(1) 256K x 32	NONE	NONE
3MB	(1) 256K x 32	(1) 256K x 32	(1) 256K x 32	NONE
4MB	(1) 1M x 32	NONE	NONE	NONE
4MB	(1) 256K x 32			
5MB	(1) 1M x 32	(1) 256K x 32	NONE	NONE
6MB	(1) 1M x 32	(1) 256K x 32	(1) 256K x 32	NONE
7MB	(1) 1M x 32	(1) 256K x 32	(1) 256K x 32	(1) 256K x 32
8MB	(1) 1M x 32	(1) 1M x 32	NONE	NONE
9MB	(1) 1M x 32	(1) 1M x 32	(1) 256K x 32	NONE
10MB	(1) 1M x 32	(1) 1M x 32	(1) 256K x 32	(1) 256K x 32
12MB	(1) 1M x 32	(1) 1M x 32	(1) 1M x 32	NONE
13MB	(1) 1M x 32	(1) 1M x 32	(1) 1M x 32	(1) 256K x 32
16MB	(1) 4M x 32	NONE	NONE	NONE
16MB	(1) 1M x 32			
17MB	(1) 4M x 32	(1) 256K x 32	NONE	NONE
18MB	(1) 4M x 32	(1) 256K x 32	(1) 256K x 32	NONE

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DRAM CONFIGURATION (CON'T)				
Size	Bank 0	Bank 1	Bank 2	Bank 3
19MB	(1) 4M x 32	(1) 256K x 32	(1) 256K x 32	(1) 256K x 32
20MB	(1) 4M x 32	(1) 1M x 32	NONE	NONE
21MB	(1) 4M x 32	(1) 1M x 32	(1) 256K x 32	NONE
22MB	(1) 4M x 32	(1) 1M x 32	(1) 256K x 32	(1) 256K x 32
24MB	(1) 4M x 32	(1) 1M x 32	(1) 1M x 32	NONE
25MB	(1) 4M x 32	(1) 1M x 32	(1) 1M x 32	(1) 256K x 32
28MB	(1) 4M x 32	(1) 1M x 32	(1) 1M x 32	(1) 1M x 32
32MB	(1) 4M x 32	(1) 4M x 32	NONE	NONE
33MB	(1) 4M x 32	(1) 4M x 32	(1) 256K x 32	NONE
34MB	(1) 4M x 32	(1) 4M x 32	(1) 256K x 32	(1) 256K x 32
36MB	(1) 4M x 32	(1) 4M x 32	(1) 1M x 32	NONE
37MB	(1) 4M x 32	(1) 4M x 32	(1) 1M x 32	(1) 256K x 32
40MB	(1) 4M x 32	(1) 4M x 32	(1) 1M x 32	(1) 1M x 32
48MB	(1) 4M x 32	(1) 4M x 32	(1) 4M x 32	NONE
49MB	(1) 4M x 32	(1) 4M x 32	(1) 4M x 32	(1) 256K x 32
52MB	(1) 4M x 32	(1) 4M x 32	(1) 4M x 32	(1) 1M x 32
64MB	(1) 4M x 32	(1) 4M x 32	(1) 4M x 32	(1) 4M x 32

CACHE CONFIGURATION		
Size	Bank 0	TAG
64KB	(8) 8K x 8	(1) 8K x 9
256KB	(8) 32K x 8	(1) 32K x 9

CACHE JUMPER CONFIGURATION		
Size	E12	E14
None	Open	Open
64KB	Open	Open
256KB	Closed	Closed

CACHE CONFIGURATION			
Type	E1	E6	E20
Write through	pins 1 & 2 closed	pins 1 & 2 closed	Open
Write back	pins 2 & 3 closed	pins 2 & 3 closed	Closed
Note: Jumper E20 may not be present on all boards.			

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CPU TYPE CONFIGURATION				
Type	E3	E4	E5	E13
80486SX(PQFP)	pins 2 & 3 closed	pins 2 & 3 closed	pins 2 & 3 closed	Open
80486SX(PGA)	pins 1 & 2 closed	pins 1 & 2 closed	pins 1 & 2 closed	Closed
SL-series CPU's	pins 2 & 3 closed	pins 2 & 3 closed	pins 2 & 3 closed	Closed
P24T	pins 2 & 3 closed	pins 1 & 2 closed	pins 2 & 3 closed	Closed

CPU TYPE CONFIGURATION (1995 MANUFACTURE DATE ONLY)			
Type	E17	E18	E19
Cyrix	pins 2 & 3 closed	pins 2 & 3 closed	pins 2 & 3 closed
Intel	pins 1 & 2 closed	pins 1 & 2 closed	pins 1 & 2 closed

Note: If above jumpers are not present, the mainboard will only support the CPU supplied by the factory.

CPU SPEED CONFIGURATION	
Speed	E15
25MHz	Closed
33MHz	Open
50iMHz	Closed
66iMHz	Open
75iMHz	Closed
100iMHz	Open

VIDEO MEMORY CONFIGURATION (1994 MANUFACTURE DATE)		
Size	Bank 0	Bank 1
512KB	(4) 256K x 4	NONE
1MB	(4) 256K x 4	(4) 256K x 4

VIDEO MEMORY CONFIGURATION (1995 MANUFACTURE DATE)		
Size	Bank 0	Bank 1
512KB	(1) 256K x 16	NONE
1MB	(1) 256K x 16	(1) 256K x 16

MISCELLANEOUS TECHNICAL NOTE
Board shown is 1994 manufacture date. 1994 boards only accept Intel processors. 1995 boards support Intel or Cyrix processors.