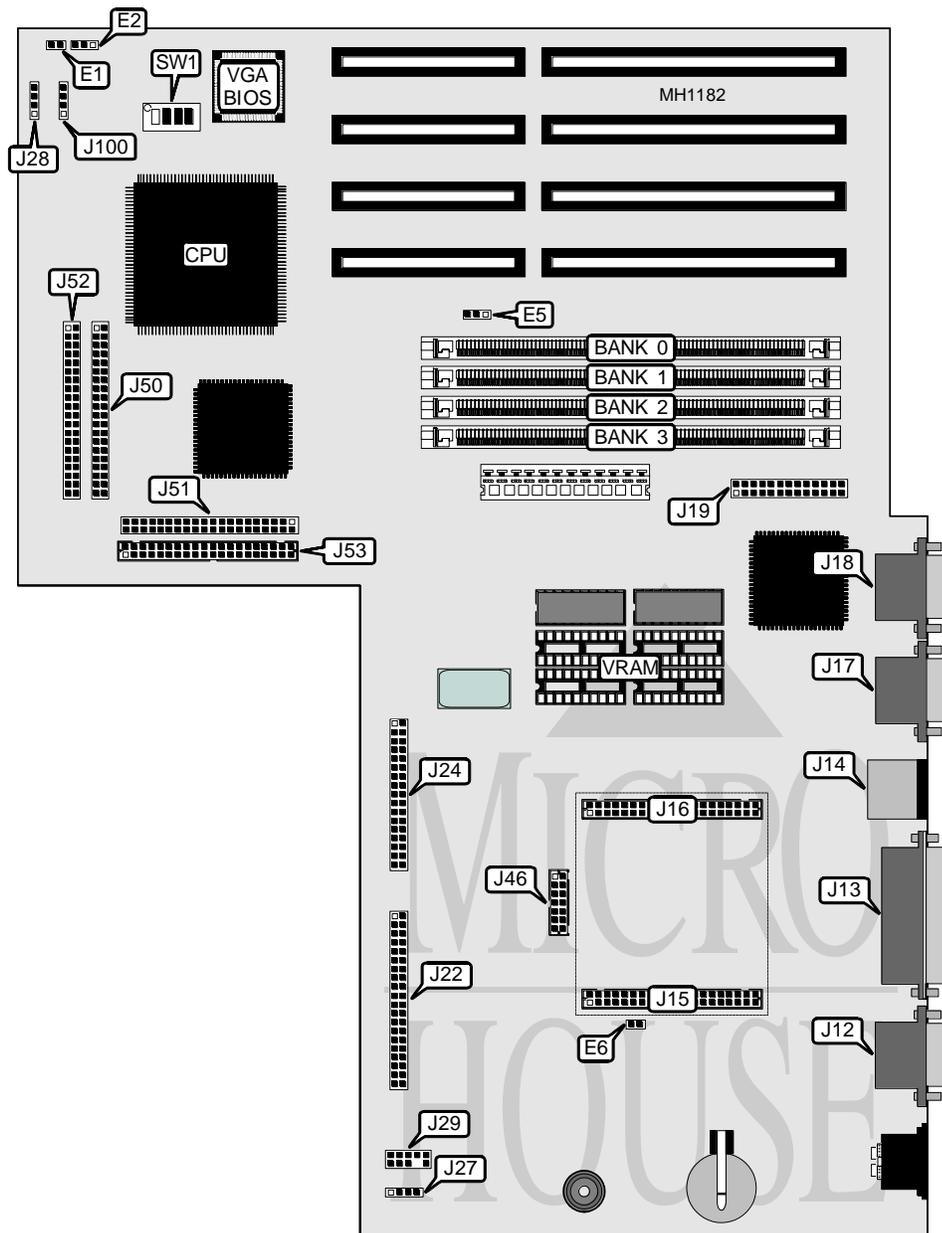


# AST RESEARCH, INC. BRAVO LC 4/33

<b>Processor</b>	80486SX/80486DX(on external CPU/Cache module)
<b>Processor Speed</b>	25/33MHz(only with external CPU/Cache module)
<b>Chip Set</b>	AST
<b>Max. Onboard DRAM</b>	64MB
<b>SRAM Cache</b>	None
<b>BIOS</b>	AST
<b>Dimensions</b>	254mm x 338mm
<b>I/O Options</b>	Bus mouse port, CPU/Cache upgrade module, floppy drive interface, IDE interface, LAN module, parallel port, serial port (2), VGA port
<b>NPU Options</b>	None



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**BRAVO LC 4/33**

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CONNECTIONS			
Purpose	Location	Purpose	Location
Serial port 2 (COM2)	J12	Floppy drive interface	J24
Parallel port	J13	External speaker	J27
Bus mouse port	J14	Fan power	J28
LAN module	J15 & J16	Front panel switches & LEDs	J29
Serial port 1 (COM1)	J17	Feature connector	J46
VGA port	J18	CPU/Cache upgrade module	J50, J51, J52, J53
VGA pass-through	J19	IDE interface LED	J100
IDE interface	J22		

USER CONFIGURABLE SETTINGS		
Function	Jumper/Switch	Position
í Factory configured - do not alter	E1	open
í Factory configured - do not alter	E2	pins 2 & 3 closed
í Parallel port interrupt select IRQ7	E5	pins 2 & 3 closed
Parallel port interrupt select IRQ5	E5	pins 1 & 2 closed
í CMOS memory normal operation	E6	open
CMOS memory clear	E6	closed
í VGA port enabled	SW1/switch 1	closed
VGA port disabled	SW1/switch 1	open
í Password check enabled	SW1/switch 2	open
Password check disabled	SW1/switch 2	closed
í Factory configured - do not alter	SW1/switch 3	open
í Factory configured - do not alter	SW1/switch 4	open

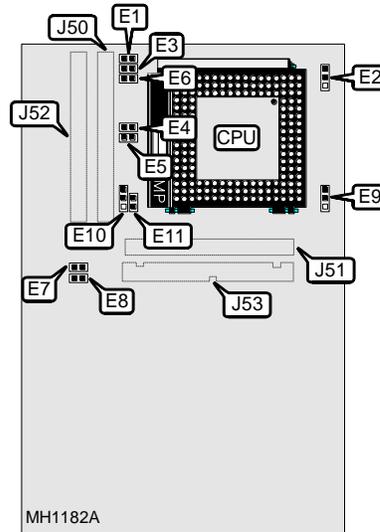
DRAM CONFIGURATION				
Size	Bank 0	Bank 1	Bank 2	Bank 3
2MB	(1) 256K x 36	(1) 256K x 36	NONE	NONE
4MB	(1) 256K x 36			
4MB	(1) 1M x 36	NONE	NONE	NONE
8MB	(1) 1M x 36	(1) 1M x 36	NONE	NONE
16MB	(1) 1M x 36			
16MB	(1) 4M x 36	NONE	NONE	NONE
32MB	(1) 4M x 36	(1) 4M x 36	NONE	NONE
64MB	(1) 4M x 36			

VRAM CONFIGURATION	
Size	VRAM
512KB	(4) 44256

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BRAVO LC 4/33  
PROCESSOR MODULE

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CONNECTIONS	
Purpose	Location
CPU/Cache upgrade module	J50, J51, J52, J53
Note: Connections are on the back side of the module and correspond to the connector with the same label on the motherboard.	

CPU/CACHE MODULE TYPE CONFIGURATION				
Module Type	Jumper E4	Jumper E5	Jumper E7	Jumper E8
í CPU only	open	closed	closed	closed
Cache only	closed	open	open	open
CPU and Cache	closed	closed	open	open
Note: These settings are given for information only and should not be changed.				

CPU SPEED CONFIGURATION				
Internal	External	Jumper E1	Jumper E3	Jumper E6
25MHz	25MHz	closed	closed	open
í 33MHz	33MHz	open	closed	open
50MHz	25MHz	closed	closed	open
66MHz	33MHz	open	closed	open
Note: These settings are given for information only and should not be changed.				

CPU TYPE CONFIGURATION				
CPU Type	Jumper E2	Jumper E9	Jumper E10	Jumper E11
80486DX2	pins 2 & 3 closed	pins 2 & 3 closed	pins 2 & 3 closed	closed
ODP486SX	pins 1 & 2 closed	pins 2 & 3 closed	pins 1 & 2 closed	closed
í 80486DX	pins 2 & 3 closed	pins 2 & 3 closed	pins 2 & 3 closed	closed
80487SX	pins 1 & 2 closed	pins 2 & 3 closed	pins 2 & 3 closed	closed
80486SX	pins 1 & 2 closed	pins 2 & 3 closed	pins 2 & 3 closed	open
None	open	open	open	open
Note: These settings are given for information only and should not be changed.				