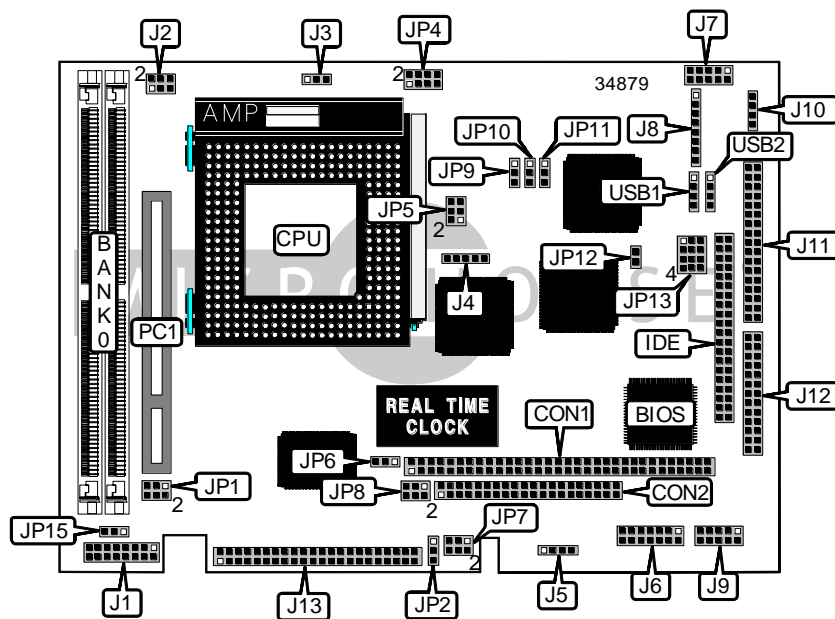


# LANNER ELECTRONICS, INC.

## EM - 500

<b>Device Type</b>	Single board computer
<b>Processor</b>	CX 6X86/CX M2/AM K5/AM K6/Pentium
<b>Processor Speed</b>	75/90/100/120/133/150/166/200/233MHz
<b>Chip Set</b>	Intel
<b>Video Chip Set</b>	Unidentified
<b>Maximum Onboard Memory</b>	128MB
<b>Maximum Video Memory</b>	Unidentified
<b>Cache</b>	512KB
<b>BIOS</b>	Award
<b>Dimensions</b>	203mm x 146mm
<b>I/O Options</b>	32-bit PCI slot, Ethernet 100BaseT connector, floppy drive interface, IDE interface, IDE parallel port, PS/2 mouse interface, serial ports (2), VGA interface, IR connector, USB connectors (2), PC/104 connectors (2), flat panel connector, green PC connector
<b>NPU Options</b>	None



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CONNECTIONS			
Purpose	Location	Purpose	Location
PC/104 connector (8-bit)	CON1	PS/2 mouse interface	J8/pins 1 - 4
PC/104 connector (16-bit)	CON2	Auxiliary keyboard connector	J8/pins 5 - 8
IDE interface	IDE	Serial port 1	J9
VGA interface	J1	Power connector	J10
IDE interface LED	J2/pins 1 & 2	Floppy drive interface	J11
Power LED	J2/pins 3 & 4	Parallel port	J12
Reset switch	J2/pins 5 & 6	Flat panel connector	J13
CPU fan power	J3	Green PC connector	JP12
IR connector	J4	USB connector 1	USB1
Power connector	J5	USB connector 2	USB2
Serial port 2	J6	32-bit PCI slot	PC1
Ethernet 100 base-T connector	J7		

USER CONFIGURABLE SETTINGS		
Function	Label	Position
í Factory configured - do not alter	JP2	Unidentified
í Factory configured - do not alter	JP6	Pins 1 & 2 closed
í Flat panel voltage select 5v	JP15	Pins 1 & 2 closed
Flat panel voltage select 3.3v	JP15	Pins 2 & 3 closed

SIMM CONFIGURATION	
Size	Bank 0
8MB	(2) 1M x 36
16MB	(2) 2M x 36
32MB	(2) 4M x 36
64MB	(2) 8M x 36
128MB	(2) 16M x 36

**CACHE CONFIGURATION**  
Note: 512KB cache is factory installed and is not configurable. The location is unidentified.

**VIDEO MEMORY CONFIGURATION**  
Note: The size of the video memory is unidentified. The location is unidentified.

CPU SPEED SELECTION (CX 6X86)						
CPU speed	Clock speed	Multiplier	JP5	JP9	JP10	JP11
120MHz	50MHz	2x	1 & 2	2 & 3	2 & 3	2 & 3
133MHz	55MHz	2x	1 & 2	1 & 2	2 & 3	2 & 3
150MHz	60MHz	2x	1 & 2	2 & 3	2 & 3	1 & 2
166MHz	66MHz	2x	1 & 2	2 & 3	1 & 2	2 & 3

Note: Pins designated should be in the closed position.

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CPU SPEED SELECTION (CX M2)						
CPU speed	Clock speed	Multiplier	JP5	JP9	JP10	JP11
200MHz	66MHz	2x	1 & 2	2 & 3	1 & 2	2 & 3
233MHz	75MHz	2x	1 & 2	1 & 2	2 & 3	1 & 2

Note: Pins designated should be in the closed position.

CPU SPEED SELECTION (AM K5)						
CPU speed	Clock speed	Multiplier	JP5	JP9	JP10	JP11
75MHz	50MHz	1.5x	Open	2 & 3	2 & 3	2 & 3
90MHz	60MHz	1.5x	Open	2 & 3	2 & 3	1 & 2
100MHz	66MHz	1.5x	Open	2 & 3	1 & 2	2 & 3
120MHz	60MHz	2x	1 & 2	2 & 3	2 & 3	1 & 2
133MHz	66MHz	2x	1 & 2	2 & 3	1 & 2	2 & 3
150MHz	60MHz	2.5x	1 & 2, 3 & 4	2 & 3	2 & 3	1 & 2
166MHz	66MHz	2.5x	1 & 2, 3 & 4	2 & 3	1 & 2	2 & 3
200MHz	66MHz	3x	3 & 4	2 & 3	1 & 2	2 & 3

Note: Pins designated should be in the closed position.

CPU SPEED SELECTION (AM K6)						
CPU speed	Clock speed	Multiplier	JP5	JP9	JP10	JP11
166MHz	66MHz	2.5x	1 & 2, 3 & 4	2 & 3	1 & 2	2 & 3
200MHz	66MHz	3x	3 & 4	2 & 3	1 & 2	2 & 3
233MHz	66MHz	3.5x	Open	2 & 3	1 & 2	2 & 3

Note: Pins designated should be in the closed position.

CPU SPEED SELECTION (INTEL)						
CPU speed	Clock speed	Multiplier	JP5	JP9	JP10	JP11
75MHz	50MHz	1.5x	Open	2 & 3	2 & 3	2 & 3
90MHz	60MHz	1.5x	Open	2 & 3	2 & 3	1 & 2
100MHz	66MHz	1.5x	Open	2 & 3	1 & 2	2 & 3
120MHz	60MHz	2x	1 & 2	2 & 3	2 & 3	1 & 2
133MHz	66MHz	2x	1 & 2	2 & 3	1 & 2	2 & 3
150MHz	60MHz	2.5x	1 & 2, 3 & 4	2 & 3	2 & 3	1 & 2
166MHz	66MHz	2.5x	1 & 2, 3 & 4	2 & 3	1 & 2	2 & 3
200MHz	66MHz	3x	3 & 4	2 & 3	1 & 2	2 & 3

Note: Pins designated should be in the closed position.

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CPU SPEED SELECTION (INTEL MMX)						
CPU speed	Clock speed	Multiplier	JP5	JP9	JP10	JP11
166MHz	66MHz	2.5x	1 & 2, 3 & 4	2 & 3	1 & 2	2 & 3
200MHz	66MHz	3x	3 & 4	2 & 3	1 & 2	2 & 3
233MHz	66MHz	3.5x	Open	2 & 3	1 & 2	2 & 3

Note: Pins designated should be in the closed position.

CPU VOLTAGE SELECTION	
Voltage	JP4
2.5v	Pins 3 & 4, 7 & 8 closed
2.6v	Pins 1 & 2, 7 & 8 closed
2.7v	Pins 7 & 8 closed
2.8v	Pins 1 & 2, 3 & 4, 5 & 6 closed
2.9v	Pins 3 & 4, 5 & 6 closed
3.0v	Pins 1 & 2, 5 & 6 closed
3.1v	Pins 5 & 6 closed
3.2v	Pins 1 & 2, 3 & 4 closed
3.3v	Pins 3 & 4 closed
3.4v	Pins 1 & 2 closed
3.5v	Open

SERIAL PORT 2 SELECTION	
Type	JP7
RS-232	Pins 1 & 2 closed
RS-422	Pins 3 & 4 closed
RS-485	Pins 5 & 6 closed

FLASH DISK ADDRESS SELECTION	
Address	JP8
C800	Pins 1 & 2 closed
D000	Pins 3 & 4 closed
D800	Pins 5 & 6 closed

FLAT PANEL SELECTION	
Type	JP1
1024 x 768 DSTN	Pins 1 & 2, 3 & 4, 5 & 6 closed
1280 x 1024 TFT	Pins 3 & 4, 5 & 6 closed
640 x 480 DSTN	Pins 1 & 2, 5 & 6 closed
800 x 600 DSTN	Pins 5 & 6 closed
640 x 480 Sharp TFT	Pins 1 & 2, 3 & 4 closed
640 x 480 18-bit TFT	Pins 3 & 4 closed
1024 x 768 TFT	Pins 1 & 2 closed

800 x 600 TFT

Open

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WATCHDOG TIMER SELECTION	
Time out	JP13
.5 sec	Pins 1 & 5 closed
1 sec	Pins 2 & 6 closed
2 sec	Pins 3 & 7 closed
4 sec	Pins 4 & 8 closed
8 sec	Pins 8 & 12 closed
16 sec	Pins 7 & 11 closed
32 sec	Pins 6 & 10 closed
64 sec	Pins 5 & 9 closed