### LANNER ELECTRONICS, INC.

### AP-540

**Device Type** Single board computer

 Processor
 CX 6X86/CX M2/AM K5/AM K6/Pentium

 Processor Speed
 75/90/100/120/133/150/166/180/200MHz

Chip SetIntelVideo Chip SetS3

Maximum Onboard Memory 128MB (EDO & SDRAM supported)

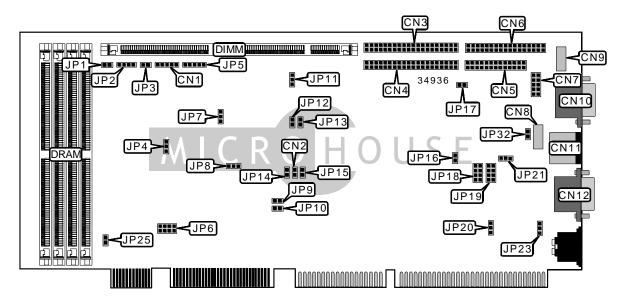
Maximum Video Memory2MBCache512KBBIOSAward

**Dimensions** 337mm x 122mm

I/O Options Floppy drive interface, IDE interfaces (2), parallel port, PS/2 mouse port, serial

ports (2)

NPU Options None



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CONNECTIONS							
Purpose	Location	Purpose	Location				
Auxiliary keyboard connector	CN1	PS/2 mouse port	CN11				
IDE interface 1	CN3	Serial port 1	CN12				
IDE interface 2	CN4	Reset switch	JP1				
Parallel port	CN5	Speaker	JP2				
Floppy drive interface	CN6	IDE interface LED	JP3				
Serial port 2	CN7	Power LED & keylock	JP5				
VGA port	CN10						

USER CONFIGURABLE SETTINGS						
Function	Label	Position				
í Factory configured - do not alter	CN2	Unidentified				
í Factory configured - do not alter	CN8	Unidentified				
í Factory configured - do not alter	CN9	Unidentified				
í Factory configured - do not alter	JP4	Unidentified				
í Factory configured - do not alter	JP7	Unidentified				
í Factory configured - do not alter	JP11	Unidentified				
í Factory configured - do not alter	JP14	Unidentified				
í Factory configured - do not alter	JP15	Unidentified				
í PS/2 mouse IRQ select IRQ12 enabled	JP16	Closed				
PS/2 mouse IRQ select IRQ12 disabled	JP16	Open				
í Factory configured - do not alter	JP17	Unidentified				
í Factory configured - do not alter	JP20	Unidentified				
í Factory configured - do not alter	JP21	Unidentified				
í CPU temperature alarm enabled	JP25	Closed				
CPU temperature alarm disabled	JP25	Open				
í Factory configured - do not alter	JP32	Unidentified				

SIMM CONFIGURATION						
Size Bank 0 Bank 1						
2MB	(2) 256K x 36	None				
4MB	(2) 512K x 36	None				
4MB	(2) 256K x 36	(2) 256K x 36				
6MB	(2) 512K x 36	(2) 256K x 36				
8MB	(2) 1M x 36	None				

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Size	Bank 0	Bank 1
8MB	(2) 512K x 36	(2) 512K x 36
10MB	(2) 1M x 36	(2) 256K x 36
12MB	(2) 1M x 36	(2) 512K x 36
16MB	(2) 2M x 36	None
16MB	(2) 1M x 36	(2) 1M x 36
18MB	(2) 2M x 36	(2) 256K x 36
20MB	(2) 2M x 36	(2) 512K x 36
24MB	(2) 2M x 36	(2) 1M x 36
32MB	(2) 4M x 36	None
32MB	(2) 2M x 36	(2) 2M x 36
34MB	(2) 4M x 36	(2) 256K x 36
36MB	(2) 4M x 36	(2) 512K x 36
40MB	(2) 4M x 36	(2) 1M x 36
48MB	(2) 4M x 36	(2) 2M x 36
64MB	(2) 8M x 36	None
64MB	(2) 4M x 36	(2) 4M x 36
66MB	(2) 8M x 36	(2) 256K x 36
68MB	(2) 8M x 36	(2) 512K x 36
72MB	(2) 8M x 36	(2) 1M x 36
80MB	(2) 8M x 36	(2) 2M x 36
96MB	(2) 8M x 36	(2) 4M x 36
128MB	(2) 8M x 36	(2) 8M x 36

DIMM CONFIGURATION						
Size Bank 0						
8MB	(1) 1M x 64					
16MB	(1) 2M x 64					
32MB	(1) 4M x 64					
64MB	(1) 8M x 64					
128MB	(1) 16M x 64					
Note: Board accepts SDRAM memory.						

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

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#### VIDEO MEMORY CONFIGURATION

Note: 2MB video memory is factory installed and is not configurable. The location is unidentified.

CPU SPEED SELECTION (CX 6X86)							
CPU speed	Clock speed	Multiplier	JP9	JP10	JP12	JP13	
120MHz	50MHz	2x	Closed	Closed	Open	Open	
133MHz	55MHz	2x	Open	Closed	Closed	Open	
150MHz	60MHz	2x	Closed	Open	Closed	Open	
166MHz	66MHz	2x	Open	Open	Closed	Open	

CPU SPEED SELECTION (CX M2)						
CPU speed Clock speed Multiplier JP9 JP10 JP12 JP13						JP13
166MHz	66MHz	2x	Open	Open	Closed	Open
200MHz	66MHz	2x	Open	Open	Closed	Open

CPU SPEED SELECTION (AM K5)							
CPU speed	Clock speed	Multiplier	JP9	JP10	JP12	JP13	
75MHz	50MHz	1.5x	Closed	Closed	Open	Open	
90MHz	60MHz	1.5x	Closed	Open	Open	Open	
100MHz	66MHz	1.5x	Open	Open	Open	Open	
120MHz	60MHz	2x	Closed	Open	Closed	Open	
133MHz	66MHz	2x	Open	Open	Closed	Open	
150MHz	60MHz	2.5x	Closed	Open	Closed	Closed	
166MHz	66MHz	2.5x	Open	Open	Closed	Closed	

CPU SPEED SELECTION (AM K6)						
CPU speed Clock speed Multiplier JP9 JP10 JP12 JP13						JP13
166MHz	66MHz	2.5x	Open	Open	Closed	Closed
200MHz	66MHz	3x	Open	Open	Open	Closed

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CPU SPEED SELECTION (INTEL)						
CPU speed	Clock speed	Multiplier	JP9	JP10	JP12	JP13
75MHz	50MHz	1.5x	Closed	Closed	Open	Open
90MHz	60MHz	1.5x	Closed	Open	Open	Open
100MHz	66MHz	1.5x	Open	Open	Open	Open
120MHz	60MHz	2x	Closed	Open	Closed	Open
133MHz	66MHz	2x	Open	Open	Closed	Open
150MHz	60MHz	2.5x	Closed	Open	Closed	Closed
166MHz	66MHz	2.5x	Open	Open	Closed	Closed
180MHz	60MHz	3x	Closed	Open	Open	Closed
200MHz	66MHz	3x	Open	Open	Open	Closed

CPU SPEED SELECTION (INTEL MMX)						
CPU speed Clock speed Multiplier JP9 JP10 JP12 JP13						JP13
166MHz	66MHz	2.5x	Open	Open	Closed	Closed
200MHz	66MHz	3x	Open	Open	Open	Closed

CPU TYPE SELECTION			
Туре	JP8		
í Single voltage	Pins 2 & 3 closed		
Dual voltage	Pins 1 & 2 closed		

CPU VOLTAGE SELECTION			
Voltage	JP6		
2.5v	Pins 7 & 8 closed		
2.9v	Pins 5 & 6 closed		
3.3v	Open		
í 3.4v	Pins 1 & 2 closed		
3.5v	Pins 3 & 4 closed		

WATCHDOG TIMER SELECTION				
Setting	JP23			
í System reset	Pins 1 & 2 closed			
Active NMI	Pins 2 & 3 closed			
Diabled	Open			

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WATCHDOG TIME OUT SELECTION				
Setting	JP19/pins 1 & 2	JP19/pins 3 & 4	JP19/pins 5 & 6	JP19/pins 7 & 8
1 sec	Open	Open	Closed	Open
2 sec	Open	Open	Closed	Closed
10 sec	Open	Closed	Open	Open
20 sec	Open	Closed	Open	Closed
110 sec	Closed	Open	Open	Open
220 sec	Closed	Open	Open	Closed

DISK ON CHIP SELECTION				
Setting	JP18			
í D000	Pins 1 & 2 closed			
D8000	Pins 3 & 4 closed			
E000	Pins 5 & 6 closed			
E800	Pins 7 & 8 closed			