LANNER ELECTRONICS, INC.
AP-50IFA

Device Type	Mainboard
Processor	CX 6X86/AM K5/Pentium
Processor Speed	75/90/100/120/133/150/166/180/200MHz
Chip Set	Intel
Video Chip Set	Chips and Technology
Maximum Onboard Memory	128MB (EDO & SDRAM supported)
Maximum Video Memory	2MB
Cache	256/512KB
BIOS	Award
Dimensions	Unidentified
I/O Options	Floppy drive interface, green PC connector, IDE interfaces (2), SCSI interface, Wide Ultra SCSI interface, parallel port, PS/2 mouse port, PS/2 mouse interface, serial ports (2), VGA port, IR connector, USB connectors (2), PC/104 connectors (2), flat panel connectors (2)
NPU Options	None
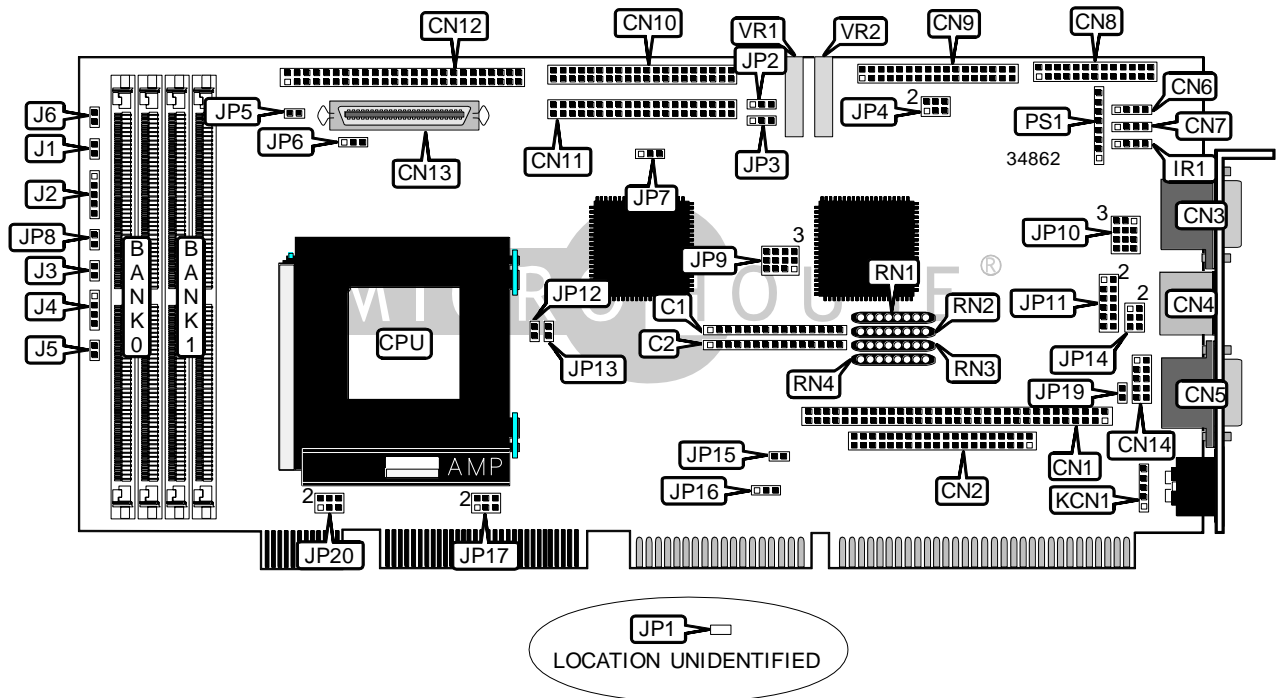
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CONNECTIONS			
Purpose	**Location**	**Purpose**	**Location**
Flat panel connector	C1	SCSI interface	CN12
Flat panel connector	C2	Wide Ultra SCSI interface	CN13
PC/104 connector (8-bit)	CN1	Serial port 2	CN14
PC/104 connector (16-bit)	CN2	IDE interface LED	J1
VGA port	CN3	Power LED & keylock	J2
PS/2 mouse port	CN4	Turbo LED	J3
Serial port 1	CN5	Speaker	J4
USB connector 1	CN6	Reset switch	J5
USB connector 2	CN7	SCSI interface LED	J6
Parallel port	CN8	Green PC connector	JP8
Floppy drive interface	CN9	Auxiliary keyboard connector	KCN1
IDE interface	CN10	PS/2 mouse interface	PS1
IDE interface	CN11	IR connector	IR1

USER CONFIGURABLE SETTINGS		
Function	**Label**	**Position**
í Factory configured - do not alter	JP1	Unidentified
Contrast voltage enabled	JP2	Pins 1 & 2 closed
VEE voltage enabled	JP2	Pins 2 & 3 closed
VEE voltage select -12v - -34v	JP3	Pins 1 & 2 closed
VEE voltage select +12v - +35v	JP3	Pins 2 & 3 closed
SCSI termination enabled	JP5	Open
SCSI termination disabled	JP5	Closed
í Factory configured - do not alter	JP7	Unidentified
í Factory configured - do not alter	JP10	Pins 2 & 3, 5 & 6, 8 & 9 closed
í Factory configured - do not alter	JP11	Pins 1 & 2, 3 & 4, 5 & 6, 7 & 8, 9 & 10, 11 & 12 closed
í Factory configured - do not alter	JP14	Open
í Flash BIOS voltage select 5v	JP15	Open
Flash BIOS voltage select 12v	JP15	Closed
í PS/2 mouse IRQ12 enabled	JP19	Closed
PS/2 mouse IRQ12 disabled	JP19	Open
í Factory configured - do not alter	RN1	Unidentified
í Factory configured - do not alter	RN2	Unidentified
í Factory configured - do not alter	RN3	Unidentified
í Factory configured - do not alter	RN4	Unidentified
í Factory configured - do not alter	VR1	Unidentified
í Factory configured - do not alter	VR1	Unidentified

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DRAM CONFIGURATION		
Size	**Bank 0**	**Bank 1**
8MB	(2) 1M x 36	None
16MB	(2) 2M x 36	None
16MB	(2) 1M x 36	(2) 1M 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
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
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
Note: Board accepts EDO memory.		

CACHE CONFIGURATION
Note: Board accepts 256KB/512KB cache. The location is unidentified.

VIDEO MEMORY CONFIGURATION
Note: Board accepts 1MB/2MB video memory. The location is unidentified.

CPU SPEED SELECTION (CYRIX)					
CPU speed	**Clock speed**	**Multiplier**	**JP12**	**JP13**	**JP17**
120MHz	50MHz	2x	Open	Closed	3 & 4
150MHz	60MHz	2x	Open	Closed	5 & 6
166MHz	66MHz	2x	Open	Closed	Open
Note: Pins designated should be in the closed position.					

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CPU SPEED SELECTION (AMD)					
CPU speed	**Clock speed**	**Multiplier**	**JP12**	**JP13**	**JP17**
75MHz	50MHz	1.5x	Open	Open	3 & 4
90MHz	60MHz	1.5x	Open	Open	5 & 6
100MHz	66MHz	1.5x	Open	Open	Open
120MHz	60MHz	2x	Open	Closed	5 & 6
133MHz	66MHz	2x	Open	Closed	Open
150MHz	60MHz	2.5x	Closed	Closed	5 & 6
166MHz	66MHz	2.5x	Closed	Closed	Open
180MHz	60MHz	3x	Closed	Open	5 & 6
200MHz	66MHz	3x	Closed	Open	Open
Note: Pins designated should be in the closed position.					

CPU SPEED SELECTION (INTEL)					
CPU speed	**Clock speed**	**Multiplier**	**JP12**	**JP13**	**JP17**
75MHz	50MHz	1.5x	Open	Open	3 & 4
90MHz	60MHz	1.5x	Open	Open	5 & 6
100MHz	66MHz	1.5x	Open	Open	Open
120MHz	60MHz	2x	Open	Closed	5 & 6
133MHz	66MHz	2x	Open	Closed	Open
150MHz	60MHz	2.5x	Closed	Closed	5 & 6
166MHz	66MHz	2.5x	Closed	Closed	Open
180MHz	60MHz	3x	Closed	Open	5 & 6
200MHz	66MHz	3x	Closed	Open	Open
Note: Pins designated should be in the closed position.					

CPU VOLTAGE SELECTION	
Voltage	**JP6**
í3.4v	Pins 1 & 2 closed
3.52v	Pins 2 & 3 closed

CPU CORE VOLTAGE SELECTION	
Voltage	**JP20**
í Single voltage	Open
2.8v	Pins 1 & 2, 3 & 4, 5 & 6 closed

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FLAT PANEL SELECTION	
Setting	**JP4**
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

WATCHDOG TIMER ACTIVE SELECTION	
Time out	**JP9**
.5 sec	Pins 2 & 3 closed
1 sec	Pins 5 & 6 closed
2 sec	Pins 8 & 9 closed
í 4 sec	Pins 11 & 12 closed
8 sec	Pins 10 & 11 closed
16 sec	Pins 7 & 8 closed
32 sec	Pins 4 & 5 closed
64 sec	Pins 1 & 2 closed

WATCHDOG TIMER ACTIVE SELECTION	
Time out	**JP16**
í Reset system	Pins 1 & 2 closed
NMI system	Pins 2 & 3 closed
Disabled	Open