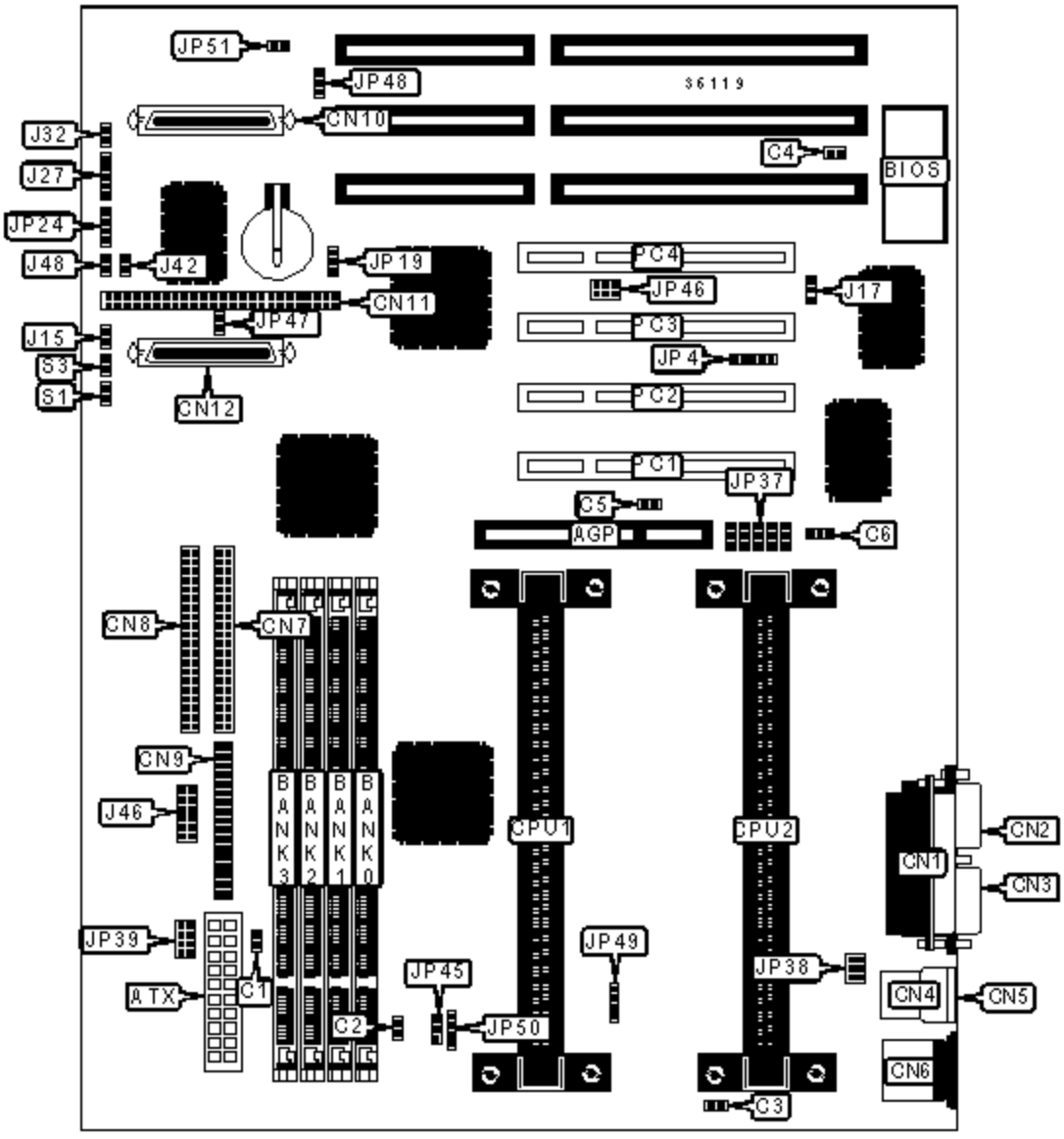


SHUTTLE COMPUTER INTERNATIONAL, INC.

HOT-649A

Device Type	Mainboard
Processor	Pentium II/Celeron
Processor Speed	233/266/300/333/350/400/450/500MHz
Chip Set	Intel 440BX
Maximum Onboard Memory	1GB (EDO & SDRAM supported)
Cache	0/128/256/512KB (located on the CPU)
BIOS	Award
Dimensions	305mm x 244mm
I/O Options	32-bit PCI slots (4), floppy drive interface, green PC connector, IDE interfaces (2), SCSI interfaces (2), Wide Ultra SCSI interface, parallel port, PS/2 mouse port, serial ports (2), IR connector, USB connectors (2), ATX power connector, AGP slot, SB-link connector, wake on LAN connector



CONNECTIONS			
Purpose	Location	Purpose	Location
AGP slot	AGP	Floppy drive interface	CN9
ATX power connector	ATX	Ultra Wide SCSI interface	CN10

Chassis fan power	C1	SCSI interface	CN11
Chassis fan power	C2	Ultra Wide SCSI interface	CN12
Chassis fan power	C3	SCSI interface LED	J15
Chassis fan power	C4	Power LED & keylock	J27
Chassis fan power	C5	Reset switch	J32
Wake on LAN connector	C6	Green PC connector	J42
Parallel port	CN1	EISCA connector	J46
Serial port 1	CN2	Green PC LED	J48
Serial port 2	CN3	IR connector	JP4
USB connector 1	CN4	Speaker	JP24
USB connector 2	CN5	SB-link connector	JP46
PS/2 mouse port	CN6	32-bit PCI slots	PC1 - PC4
IDE interface 2	CN7	Soft off power supply	S1
IDE interface 1	CN8	IDE interface LED	S3

USER CONFIGURABLE SETTINGS

Function		Label	Position
	Flash BIOS voltage select 12v	J17	Pins 1 & 2 closed
	Flash BIOS voltage select 5v	J17	Pins 2 & 3 closed
»	CMOS memory normal operation	JP19	Pins 1 & 2 closed
	CMOS memory clear	JP19	Pins 2 & 3 closed
»	Factory configured - do not alter	JP45	Unidentified
	Power on select auto soft on	JP48	Pins 2 & 3 closed
	Power on select soft off	JP48	Pins 1 & 2 closed

DIMM CONFIGURATION

Size	Bank 0	Bank 1	Bank 2	Bank 3
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Size	Bank 0	Bank 1	Bank 2	Bank 3
8MB	(1) 1M x 64	None	None	None
16MB	(1) 2M x 64	None	None	None
16MB	(1) 1M x 64	(1) 1M x 64	None	None
24MB	(1) 2M x 64	(1) 1M x 64	None	None
24MB	(1) 1M x 64	(1) 1M x 64	(1) 1M x 64	None
32MB	(1) 4M x 64	None	None	None
32MB	(1) 2M x 64	(1) 2M x 64	None	None
32MB	(1) 1M x 64	(1) 1M x 64	(1) 1M x 64	(1) 1M x 64
40MB	(1) 4M x 64	(1) 1M x 64	None	None
48MB	(1) 4M x 64	(1) 2M x 64	None	None
48MB	(1) 2M x 64	(1) 2M x 64	(1) 2M x 64	None
64MB	(1) 2M x 64	(1) 2M x 64	(1) 2M x 64	(1) 2M x 64
64MB	(1) 8M x 64	None	None	None

DIMM CONFIGURATION (CON'T)				
Size	Bank 0	Bank 1	Bank 2	Bank 3
64MB	(1) 4M x 64	(1) 4M x 64	None	None
72MB	(1) 8M x 64	(1) 1M x 64	None	None
80MB	(1) 8M x 64	(1) 2M x 64	None	None
96MB	(1) 8M x 64	(1) 4M x 64	None	None
96MB	(1) 4M x 64	(1) 4M x 64	(1) 4M x 64	None
128MB	(1) 16M x 64	None	None	None
128MB	(1) 8M x 64	(1) 8M x 64	None	None
128MB	(1) 4M x 64	(1) 4M x 64	(1) 4M x 64	(1) 4M x 64
136MB	(1) 16M x 64	(1) 1M x 64	None	None
144MB	(1) 16M x 64	(1) 2M x 64	None	None
176MB	(1) 16M x 64	(1) 2M x 64	(1) 2M x 64	(1) 2M x 64
192MB	(1) 16M x 64	(1) 2M x 64	(1) 2M x 64	(1) 2M x 64

192MB	(1) 16M x 64	(1) 8M x 64	None	None
192MB	(1) 8M x 64	(1) 8M x 64	(1) 8M x 64	None
256MB	(1) 32M x 64	None	None	None
256MB	(1) 16M x 64	(1) 16M x 64	None	None
256MB	(1) 8M x 64	(1) 8M x 64	(1) 8M x 64	(1) 8M x 64
272MB	(1) 16M x 64	(1) 16M x 64	(1) 1M x 64	(1) 1M x 64
280MB	(1) 32M x 64	(1) 1M x 64	(1) 1M x 64	(1) 1M x 64
288MB	(1) 16M x 64	(1) 16M x 64	(1) 2M x 64	(1) 2M x 64
320MB	(1) 16M x 64	(1) 16M x 64	(1) 4M x 64	(1) 4M x 64
384MB	(1) 16M x 64	(1) 16M x 64	(1) 16M x 64	None
448MB	(1) 32M x 64	(1) 8M x 64	(1) 8M x 64	(1) 8M x 64
512MB	(1) 32M x 64	(1) 32M x 64	None	None
512MB	(1) 16M x 64	(1) 16M x 64	(1) 16M x 64	(1) 16M x 64
640MB	(1) 32M x 64	(1) 16M x 64	(1) 16M x 64	(1) 16M x 64
768MB	(1) 32M x 64	(1) 32M x 64	(1) 32M x 64	None
1024MB	(1) 32M x 64	(1) 32M x 64	(1) 32M x 64	(1) 32M x 64
Note: Board accepts SDRAM memory.				

CACHE CONFIGURATION

Note: 256KB/512KB cache is located on the Pentium II CPU. 128KB cache is located on the Celeron 300A & 333 CPU.

CPU SPEED SELECTION

CPU speed	Clock speed	Multiplier	JP39/pins	JP39/pins	JP39/pins	JP39/pins
			1 & 2	3 & 4	5 & 6	7 & 8
233MHz	66MHz	3.5x	Open	Open	Closed	Closed
266MHz	66MHz	4x	Open	Open	Closed	Closed
300MHz	66MHz	4.5x	Open	Open	Closed	Closed
333MHz	66MHz	5x	Open	Open	Closed	Closed

350MHz	100MHz	3.5x	Open	Open	Open	Closed
400MHz	100MHz	4x	Open	Open	Open	Closed
450MHz	100MHz	4.5x	Open	Open	Open	Closed
500MHz	100MHz	5x	Open	Open	Open	Closed

CPU SPEED SELECTION, CON'T

CPU speed	Clock speed	Multiplier	JP37A	JP37B	JP37C	JP37D	JP37E
BIOS select	N/A	N/A	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2
233MHz	66MHz	3.5x	Open	2 & 3	Open	2 & 3	Open
266MHz	66MHz	4x	Open	Open	2 & 3	2 & 3	2 & 3
300MHz	66MHz	4.5x	Open	Open	2 & 3	2 & 3	Open
333MHz	66MHz	5x	Open	Open	Open	2 & 3	2 & 3
350MHz	100MHz	3.5x	Open	2 & 3	Open	2 & 3	Open
400MHz	100MHz	4x	Open	Open	2 & 3	2 & 3	2 & 3
450MHz	100MHz	4.5x	Open	Open	2 & 3	2 & 3	Open
500MHz	100MHz	5x	Open	Open	Open	2 & 3	2 & 3

Note: Pins designated should be in the closed position.

CPU V CORE FINE TUNE SELECTION

Voltage		JP49	JP50
»	Normal V core	Open	Open
	Pull up 1%	Pins 3 & 4 closed	Pins 3 & 4 closed
	Pull up 2%	Pins 1 & 2 closed	Pins 1 & 2 closed
	Pull up 10%	Pins 1 & 2, 3 & 4 closed	Pins 1 & 2, 3 & 4 closed

SCSI TERMINATION SELECTION

Setting	JP47	JP51

Enabled through BIOS	Closed	Open
Disabled through BIOS	Open	Open
Enabled	Closed	Closed

KEYBOARD/MOUSE POWER ON SELECTION	
Setting	JP38
Power on disabled	Pins 1 & 3, 2 & 4 closed
Power on enabled	Pins 3 & 5, 4 & 6 closed
Mouse power on enabled	Pins 2 & 4, 3 & 5 closed
Keyboard power on enabled	Pins 1 & 3, 4 & 6 closed