EMAC, INC.

SBC-554V, SBC-555

Device Type Single Board Computer

Processor CX 6X86/IBM 6X86/AM K5/AM K6/Pentium/Pentium MMX

Processor Speed 75/90/100/120/133/150/166/180/200/225/233MHz

Chip Set SIS

Video Chip Set Chips and Technology

Maximum Onboard Memory 128MB (EDO supported)

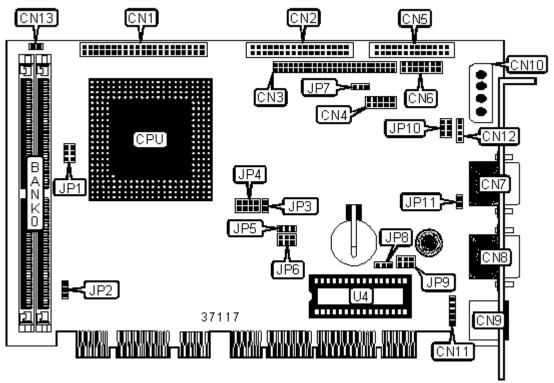
Maximum Video Memory2MBCache512KBBIOSAward

Dimensions 185mm x 122mm

I/O Options Flat panel connector, Floppy drive interface, IDE interface, Inverter connector,

IR connector, Parallel interface, Power connector, PS/2 mouse/AT keyboard port, Serial interface, Serial port, Solid-state disk socket, USB interface, VGA

port



	CONNE	CCTIONS	
Purpose	Location	Purpose	Location
IDE interface	CN1	PS/2 mouse/AT keyboard port	CN9
Floppy drive interface	CN2	Power connector	CN10
Flat panel connector	CN3	Inverter connector	CN11
USB interface	CN4	IR connector (optional)	CN12
Parallel interface	CN5	IDE interface LED	CN13
Serial interface	CN6	Reset switch	JP11

Serial port	CN7	Solid-state disk socket (DOC)	U4
VGA port	CN8		

	USER CONFIGURABL	E SETTINGS	
	Function	Label	Position
»	DRAM voltage select 5V	JP2	Pins 1 & 2 closed
	DRAM voltage select 3.3V	JP2	Pins 2 & 3 closed
»	CPU I/O voltage select 3.3V	JP3	Closed
	CPU I/O voltage select 3.5V	JP3	Open
»	PCI clock select synchronous mode (25/30/33MHz)	JP5	Pins 2 & 3 closed
	PCI clock select asynchronous mode (33MHz)	JP5	Pins 1 & 2 closed
»	Flat panel voltage select 5V	JP7	Pins 1 & 2 closed
	Flat panel voltage select 3.3V	JP7	Pins 2 & 3 closed
»	CMOS memory normal operation	JP8	Pins 1 & 2 closed
	CMOS memory clear	JP8	Pins 2 & 3 closed

Note: Synchronous PCI clock is equal to half of the CPU external clock. Asynchronous PCI clock is fixed at 33MHz. Note: Pin 1 locations of JP3, JP5, JP7 and JP8 are unidentified.

SIMM CONFIGURATION								
Size	Bank 0							
8MB	(2) 1M x 32							
16MB	(2) 2M x 32							
32MB	(2) 4M x 32							
64MB	(2) 8M x 32							
128MB	(2) 16M x 32							
Note: Board supports EDO memory.								

	CPU SPEED SELECTION (CX 6X86)									
CPU Speed	Clock Speed	Multiplier	JP1/ Pins 1	JP1/ Pins 3	JP1/ Pins 5	JP6/ Pins 1	JP6/ Pins 3	JP6/ Pins 5		

			& 2	& 4	& 6	& 2	& 4	& 6
120MHz	60MHz	2.0x	Open	Open	Closed	Open	Closed	Closed
133MHz	66MHz	2.0x	Open	Open	Closed	Closed	Open	Closed
150MHz	60MHz	2.0x	Open	Open	Closed	Open	Closed	Closed
166MHz	66MHz	2.0x	Open	Open	Closed	Closed	Open	Closed
						I		

Note: Pin 1 locations of JP1 & JP6 are unidentified.

	CPU SPEED SELECTION (IBM 6X86)											
CPU Speed	Clock Speed	Multiplier	JP1/ Pins 1 & 2	JP1/ Pins 3 & 4	JP1/ Pins 5 & 6	JP6/ Pins 1 & 2	JP6/ Pins 3 & 4	JP6/ Pins 5 & 6				
120MHz	60MHz	2.0x	Open	Open	Closed	Open	Closed	Closed				
133MHz	66MHz	2.0x	Open	Open	Closed	Closed	Open	Closed				
150MHz	60MHz	2.0x	Open	Open	Closed	Open	Closed	Closed				
166MHz	66MHz	2.0x	Open	Open	Closed	Closed	Open	Closed				

Note: Pin 1 locations of JP1 & JP6 are unidentified.

CPU SPEED SELECTION (AM K5)										
Clock Speed	Multiplier	JP1/ Pins 1 & 2	JP1/ Pins 3 & 4	JP1/ Pins 5 & 6	JP6/ Pins 1 & 2	JP6/ Pins 3 & 4	JP6/ Pins 5 & 6			
50MHz	1.5x	Open	Open	Open	Closed	Closed	Closed			
66MHz	1.5x	Open	Open	Open	Closed	Open	Closed			
60MHz	1.5x	Open	Open	Open	Open	Closed	Closed			
66MHz	1.5x	Open	Open	Open	Closed	Open	Closed			
60MHz	2.5x	Open	Closed	Closed	Open	Closed	Closed			
66MHz	2.5x	Open	Closed	Closed	Closed	Open	Closed			
	50MHz 66MHz 60MHz 66MHz 60MHz	Clock Speed Multiplier 50MHz 1.5x 66MHz 1.5x 60MHz 1.5x 66MHz 1.5x 66MHz 2.5x	Clock SpeedMultiplierJP1/Pins 1 & 250MHz1.5xOpen66MHz1.5xOpen60MHz1.5xOpen66MHz1.5xOpen60MHz2.5xOpen	Clock SpeedMultiplierJP1/Pins 1 & 2JP1/Pins 3 & 450MHz1.5xOpenOpen66MHz1.5xOpenOpen60MHz1.5xOpenOpen66MHz1.5xOpenOpen66MHz1.5xOpenOpen60MHz2.5xOpenClosed	Clock SpeedMultiplierJP1/Pins 1 & 2JP1/Pins 3 & 4JP1/Pins 5 & 650MHz1.5xOpenOpenOpen66MHz1.5xOpenOpenOpen60MHz1.5xOpenOpenOpen66MHz1.5xOpenOpenOpen66MHz1.5xOpenOpenOpen60MHz2.5xOpenClosedClosed	Clock SpeedMultiplierJP1/Pins 1 & 2JP1/Pins 3 & 4JP1/Pins 5 & 6JP6/Pins 1 & 250MHz1.5xOpenOpenOpenClosed66MHz1.5xOpenOpenOpenClosed60MHz1.5xOpenOpenOpenOpen66MHz1.5xOpenOpenOpenClosed60MHz2.5xOpenClosedClosedOpen	Clock SpeedMultiplierJP1/Pins 1 & JP1/Pins 3 & 4JP1/Pins 5 & 4JP6/Pins 1 & JP6/Pins 3 & 450MHz1.5xOpenOpenOpenClosedClosed66MHz1.5xOpenOpenOpenClosedOpen60MHz1.5xOpenOpenOpenOpenClosed66MHz1.5xOpenOpenOpenClosedOpen60MHz1.5xOpenOpenOpenClosedOpen60MHz2.5xOpenClosedClosedOpenClosed			

Note: Pin 1 locations of JP1 & JP6 are unidentified.

	CPU SPEED SELECTION (AM K6)									
CPU Spee	ed Clock Speed	Multiplier	JP1/ Pins 1	JP1/ Pins 3	JP1/ Pins 5	JP6/ Pins 1	JP6/ Pins 3	JP6/ Pins 5		

			& 2	& 4	& 6	& 2	& 4	& 6
166MHz	66MHz	2.5x	Open	Closed	Closed	Closed	Open	Closed
200MHz	66MHz	3.0x	Open	Closed	Open	Closed	Open	Closed
233MHz	60MHz	3.5x	Open	Open	Open	Closed	Open	Closed

Note: Pin 1 locations of JP1 & JP6 are unidentified.

		CPU SI	PEED SELE	CTION (PE	NTIUM)			
CPU Speed	Clock Speed	Multiplier	JP1/ Pins 1 & 2	JP1/ Pins 3 & 4	JP1/ Pins 5 & 6	JP6/ Pins 1 & 2	JP6/ Pins 3 & 4	JP6/ Pins 5 & 6
75MHz	50MHz	1.5x	Open	Open	Open	Closed	Closed	Closed
90MHz	60MHz	1.5x	Open	Open	Open	Open	Closed	Closed
100MHz	66MHz	1.5x	Open	Open	Open	Closed	Open	Closed
120MHz	60MHz	2.0x	Open	Open	Closed	Open	Closed	Closed
133MHz	66MHz	2.0x	Open	Open	Closed	Closed	Open	Closed
150MHz	60MHz	2.5x	Open	Closed	Closed	Open	Closed	Closed
166MHz	66MHz	2.5x	Open	Closed	Closed	Closed	Open	Closed
180MHz	60MHz	3.0x	Open	Closed	Open	Open	Closed	Closed
200MHz	66MHz	3.0x	Open	Closed	Open	Closed	Open	Closed
	66MHz			Closed	Open	Closed	Open	Close

Note: Pin 1 locations of JP1 & JP6 are unidentified.

	CPU SPEED SELECTION (PENTIUM MMX)											
CPU Speed	Clock Speed	Multiplier	JP1/ Pins 1 & 2	JP1/ Pins 3 & 4	JP1/ Pins 5 & 6	JP6/ Pins 1 & 2	JP6/ Pins 3 & 4	JP6/ Pins 5 & 6				
166MHz	66MHz	2.5x	Open	Closed	Closed	Closed	Open	Closed				
200MHz	66MHz	3.0x	Open	Closed	Open	Closed	Open	Closed				
233MHz	60MHz	3.5x	Open	Open	Open	Closed	Open	Closed				

Note: Pin 1 locations of JP1 & JP6 are unidentified.

	Voltage	JP4/Pins 1 & 2	JP4/Pins 3 & 4	JP4/Pins 5 & 6	JP4/Pins 7 & 8
	2.0V	Open	Open	Open	Open
	2.1V	Closed	Open	Open	Open
	2.2V	Open	Closed	Open	Open
	2.3V	Closed	Closed	Open	Open
	2.4V	Open	Open	Closed	Open
	2.5V	Closed	Open	Closed	Open
	2.6V	Open	Closed	Closed	Open
	2.7V	Closed	Closed	Closed	Open
»	2.8V	Open	Open	Open	Closed
	2.9V	Closed	Open	Open	Closed
	3.0V	Open	Closed	Open	Closed
	3.1V	Closed	Closed	Open	Closed
	3.2V	Open	Open	Closed	Closed
	3.3V	Open	Closed	Closed	Closed
	3.4V	Closed	Closed	Closed	Closed

Note: Pin 1 location of JP4 is unidentified.

SOLID-STATE DISK (DOC) ADDRESS SELECTION						
Address		JP9/Pins 1 & 2 JP9/Pins 3 & 4		JP9/Pins 5 & 6		
	CC000	Open	Open	Open		
	D0000	Open	Open	Closed		
	D4000	Open	Closed	Open		
»	D8000	Open	Closed	Closed		
	DC000	Closed	Open	Open		
Note: Pin 1 location of JP9 is unidentified.						

SERIAL INTERFACE 2 SELECTION								
Setting		JP10/Pins 1 & 2	JP10/Pins 3 & 4	JP10/Pins 5 & 6				
»	RS-232	Closed	Open	Open				
	RS-422	Open	Closed	Open				
	RS-485	Open	Open	Closed				

Note: Pin 1 location of JP10 is unidentified.

MISCELLANEOUS TECHNICAL NOTES

The SBC-554V board utilizes a PISA bus whereas the SBC-555 board utilizes an ISA bus.