

**Intel VX
Pentium
System Board
AVB55C**

Rev. B

AMD 5K86/K6

Cyrix 6x86/M2

Intel P54C/P55C (MMX)

Single & Dual Voltage CPU

User's Manual

Chapter 1

Introduction:

This Pentium VX integrated system board offers the latest technology interface and supports the high performance Intel Pentium P54C/P55C (MMX), Cyrix 6x86 and AMD K5/K6 (MMX) processors operating from 75MHz to 200MHz. The Socket 7 interface supports a variety of CPU using ZIF (Zero insertion force) socket seven for easy installation and system upgrading.

The Intel chipset 82371SB and 82437/38VX controls the high technology functions which are available on this integrated solution board. New features embracing the most recent technology are standard equipment on this interface. The infrared port and two universal serial bus ports provide connectivity for High-Technology peripherals.

Enhanced Input/ Output functions are controlled by the LG Prime 3C controller chipset. The two on board connectors provide support up to PIO mode 4 for four Hard Disk Drive and PCI IDE devices and CD-ROM Drive. Connectors for two RS232 fast serial ports (16550) and one Bi-directional multi-mode parallel port with enhanced parallel and extended capability functions (EPP/ECP) compliment the extensive specification.

The AWARD BIOS with deep green power management functions, plug & play auto configuration and board support up to 128MB of memory will maximize the latest operating software applications.

System Performance:

CPU Type	P120	P133	P150	P166	P180	P200
Landmark 2.0	692.2	766.1	865.8	957.6	1038.3	1154.1
Power Meter 1.7	82.3	90.6	102.6	111.4	122.1	135.1

Features:

CPU:

Supports Intel Pentium P54C / P55C (MMX), 75-266MHz
Supports Cyrix 6x86-P90-200MHz
Supports AMD 5K86-75-200MHz, K6PR-166-233MHz
On board 2.8V/3.0V/3.2V voltage for Intel P55C (MMX),
Intel P55CT CPU, Cyrix M1-L/M2 & AMD K6 CPU.

Chipset:

System Main Chipset: Intel 82371SB, Intel 82437VX, Intel 82438VX
Enhanced I/O Chipset: LG Prime 3C (SMC669) / RS232 for 2.88MB FDD, Enhanced I/O 16550/ECP/EPP bi-direction and one Infrared port

Memory:

64-bit Memory. Support 4x72-pin SIMM, Bank 0 & Bank 1.
Support Synchronies DRAM (SDRAM) for Bank 0
At least, two 72-pins SIMM or one SDRAM installed.
Support Single side or double side SIMM two banks.
4MB to 32MB SIMM, 8MB up to 128MB memory. for 72-pin SIMM, and 8MB to 64MB SDRAM memory.

External Cache (L2 Cache):

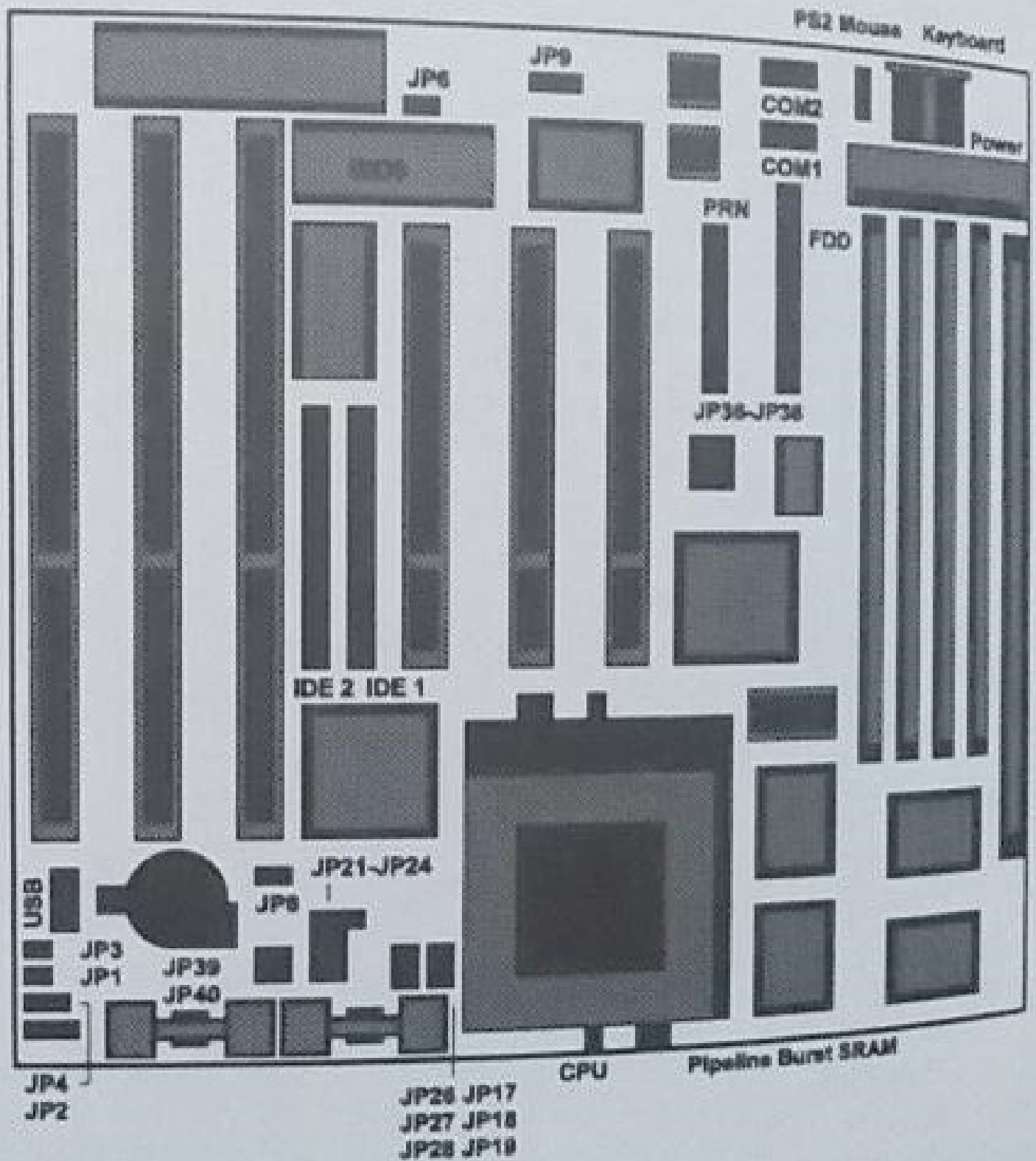
Supports 256KB / 512KB pipeline burst SRAM onboard

Expansion Slots:

Three 16-bit ISA slots
Three 64-bit PCI version 2.1 master slots

Chapter 2

Layout and Positions



CPU Installation

Install the CPU

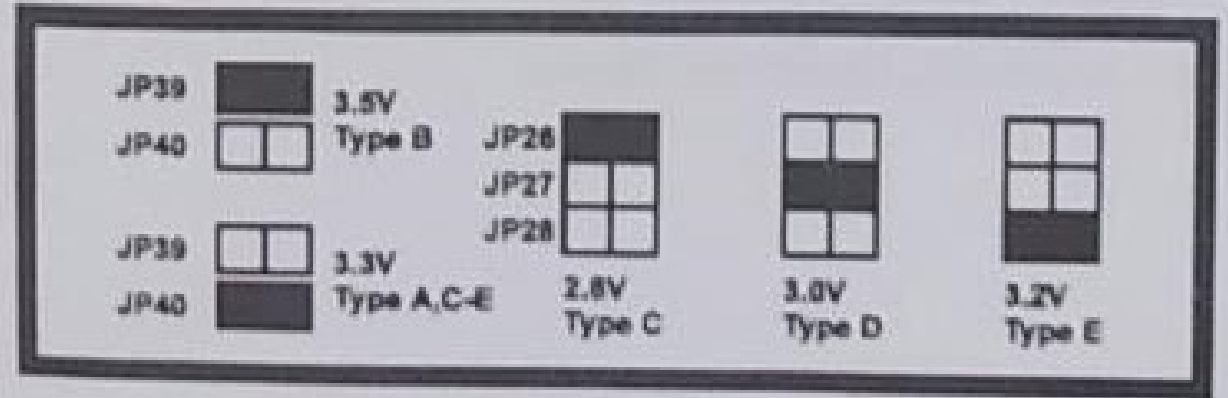
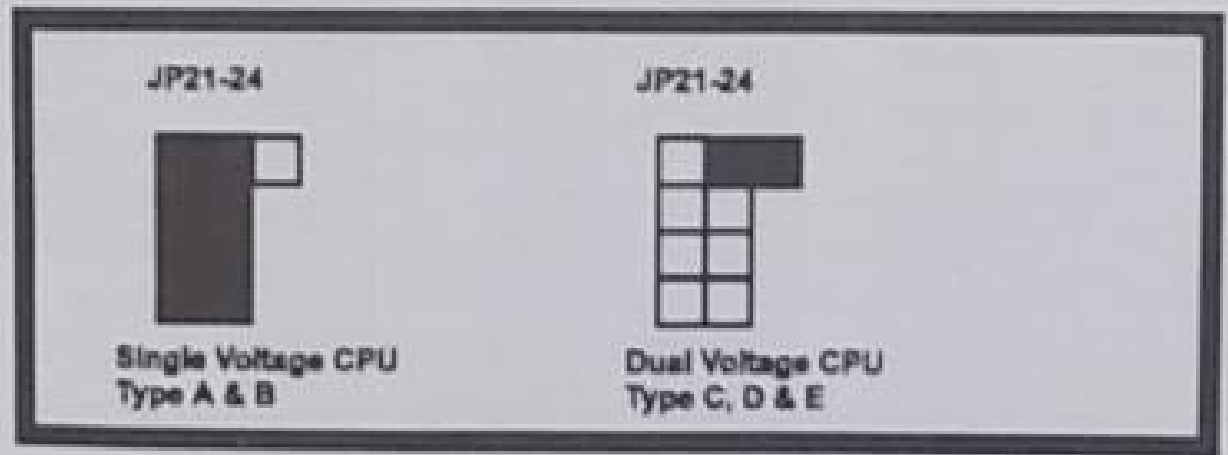
Locate the 321-pin ZIF Socket. Raise the ZIF Socket retaining arm to the open position. Pin Coordinates' A-1 will be the arm corner. Position the notched corner of CPU over the notched corner of the ZIF Socket and align the pins of CPU over the Socket. Carefully insert the CPU into the ZIF Socket and press firmly. After CPU inserted, press ZIF retaining arm downwards. Examine the installed CPU to ensure it is install in the correct direction and pin aligned properly.

Single Voltage CPU

I/O & Core Voltage	JP22- JP24	JP21	JP39	JP40	JP26- JP28
3.3V - A	Short	1-2	Open	Short	X
3.5V - B	Short	1-2	Short	Open	X

Dual Voltage CPU

Core Voltage	JP22- JP24	JP21	JP39	JP40	JP26	JP27	JP28
2.8V - C	Open	2-3	Open	Short	Short	Open	Open
3.0V - D	Open	2-3	Open	Short	Open	Short	Open
3.2V - E	Open	2-3	Open	Short	Open	Open	Short



Set the CPU Clock

CPU Type	Clock	Multiplier	Voltage
Intel P54C P-90 AMD K5 PR-90/120	60MHz	x 1.5	A
Intel P54C P-100 AMD K5 PR-100/133	66MHz	x 1.5	A B
Cyrix 6x86 P-120+	50MHz	x 2	A
Cyrix 6x86 P-133+	55MHz	x 2	A
Intel P54C P-120 Cyrix 6x86 P-150+	60MHz	x 2	A A
Intel P54C P-133 Cyrix 6x86 P-166+ Cyrix 6x86L P-166+	66MHz	x 2	A A C
Intel P54C P-150 Cyrix 6x86 P-200+ Cyrix 6x86L P-200+	50MHz 75MHz	x 3 x 2	A A C
Intel P54C P-166 Intel P55C P-166 AMD K5 PR-166 AMD K6 PR2-166	66MHz	x 2.5	A C B D
Intel P54C P-200 Intel P55C P-200 AMD K6 PR2-200	66MHz	x 3	A C D

Set the CPU Multiplier

CPU Clock Multiplier	JP17	JP18	JP19
x 1.5	Open	Open	Open
x 2	Close	Open	Open
x 2.5	Close	Close	Open
x 3	Open	Close	Open

Set the CPU Bus Clock (IMD)

CPU Bus Clock	JP36	JP37	JP38
50MHz	2-3	2-3	1-2
55MHz	1-2	2-3	1-2
60MHz	2-3	1-2	1-2
66MHz	1-2	1-2	1-2
75MHz	1-2	1-2	2-3