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Warning

To ensure the reliability of the computer. **NEVER** reconfigure the board while the power is ON.

If you wish to reconfigure the board at any time. Ensure that the power to the system is turned OFF before changing any hardware settings. Such as DIP switches or jumpers.

Checklist

Your 386DX 33/40 Cache package contains the following:

- * One 386DX 33/40 Cache Mother Board
- * One user manual.

Specification:

- * Using Intel 80386DX-33/40 PGA or PQFP.
Intel 80387-33 MHz, IIT 387-40MHz.
Cyrix 486DLC-33 MHz
- * 100% IBM PC/AT compatible.
- * 128KB direct mapped cache.
- * Support up to 32MB memory on board, using 256K, 1MB 4MB SIMM module.
- * Page mode memory architecture.
- * Shadow RAM function for SYSTEM and VIDEO BIOS.
- * Hardware/Software switchable turbo/normal system speed.
- * Programmable bus speed
(1/3, 1/4, 1/5, 1/6 of system clock)

Dimensions:

The 386DX 33/40 Mother Board measures approximately 6.6 inches by 8.6 inches (17.0cm by 22.0cm)

Performance:

AMD 386DX-33MHz

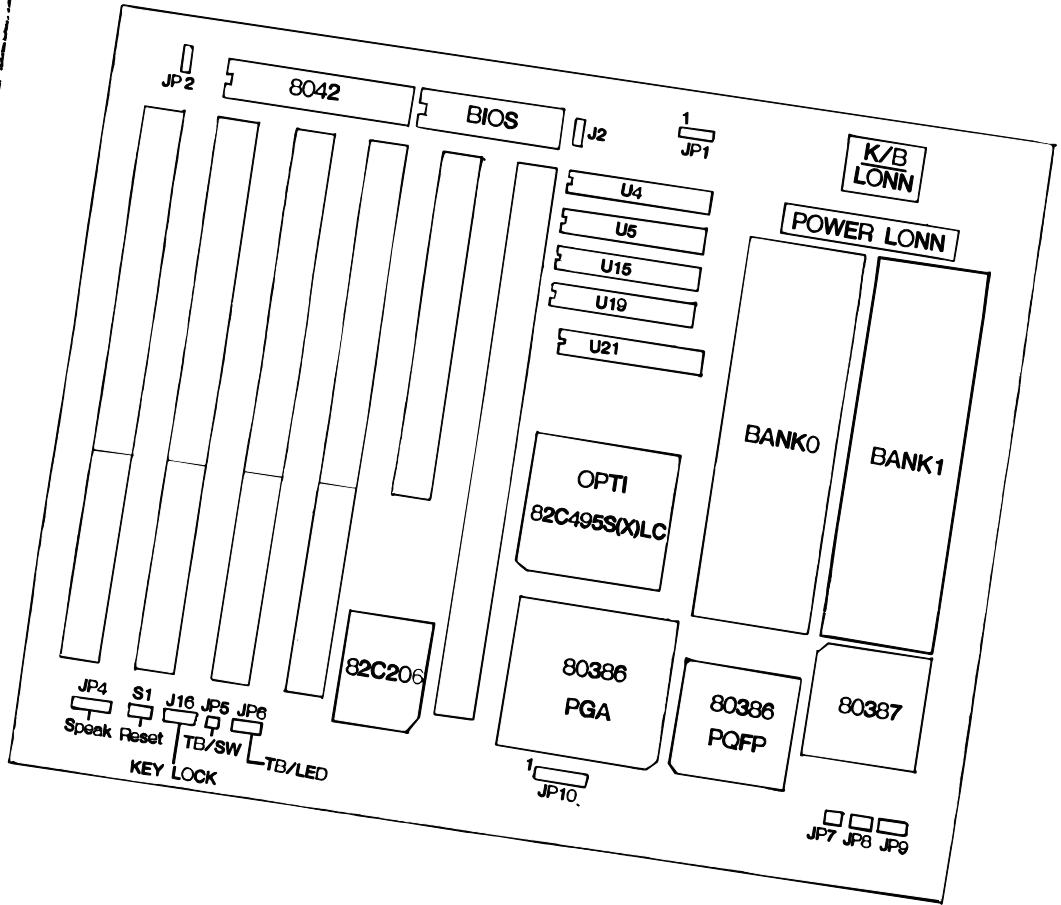
System Speed 33 MHz
Landmark Speed (V2.00) 50.3 MHz
Power Meter (V1.7) 7.8 MIPS

AMD 386DX-40MHz

System Speed 40 MHz
Landmark Speed (V2.00) 60.4 MHz
Power Meter (V1.7) 9.4 MIPS

CHAPTER 2 Configuration and Layout

Physical Layout:



Memory Configuration:

BANK 0	BANK 1	Memory Size
256K		1M
256K	256K	2M
1M		4M
1M	256K	5M
256K	1M	5M
1M	1M	8M
4M		16M
1M	4M	20M
4M	1M	20M
4M	4M	32M

Connector Description

Power Supply Connectors

If you are installing the 386DX 33/40 yourself, the final step is attaching the power supply cable to the motherboard at connector POWER CON. which are located in the upper right quadrant of the board. There are some cables on the power supply.

The table below lists the voltages provided to the motherboard by the power supply output connectors.

Pin No.	Output Voltages
1	Power Good
2	+5V
3	+12V
4	-12V
5	GND
6	GND
1	GND
2	GND
3	-5V
4	+5V
5	+5V
6	+5V

Keyboard Connector

The 386DX 33/40 motherboard has a standard keyboard connection port at the rear of the board.

Pin configurations and signal assignments are shown in the figures below:

Pin No.	Signal Name
1	Clock
2	Data
3	NC
4	GND
5	VCC (+5V)

External Battery Connector: (J2)

J2 on the motherboard is the connector used for the external battery pack. The battery pack connected should range from +4.5V to +6V DC and should never be less than +3.5V DC for proper operation.

The pinouts for the connector are listed below:

Pin No.	Assignment
1	DC Input
2	NC
3	GND
4	GND

Keylock Connector (J16)

J16 is used to connect the keylock connector on the front panel of the case.

Pin assignments are as follows:

Pin No.	Assignment
1	Power Led Anode
2	NC
3	GND
4	Keylock
5	GND

Speaker Connector (JP4)

Speaker connector JP4 is used to connect the speaker to the speaker to the system board.

Pin assignments are as follows:

Pin No.	Assignment
1	Speaker Out
2	NC
3	NC
4	+5V

Clock Selection (JP7 & JP8 & JP9)

Clock Jump	25MHz	33MHz	40MHz
JP7	Open	Open	CLOSE
JP8	Open	CLOSE	CLOSE
JP9	CLOSE	Open	Open

Turbo Switch(JP5) & Turbo Led(JP6)

This feature enables and disables a toggle switch within the system which is able to change the system speed. When the switch is ON, the system speed is in the fast Turbo Mode. When the switch is OFF it is in the Normal Mode.

Turbo Switch	Turbo LED	Speed
Short	Light On	Turbo
Open	Light Off	Normal

Reset Connector (S1)

Reset Switch S1 is used to connect the reset switch to restart the system.

Pin assignments are as follows:

Pin No.	Assignment
1	Reset strobe
2	GND

CMOS RAM Discharge Jumper (JP1)

The factory setting shorts pin2 and pin3 of jumper JP1 for Battery Charge Mode.

JP1	Battery
2-3	Charge
1-2	Discharge

Monitor Display Setting (JP2)

JP2	Monitor
On	Color
Off	Monochrome

Chapter 3 BIOS Setup Guide

The Basic Input/Output System (BIOS) is a set of permanently recorded program routines in the Read only Memory chips which give the system its fundamental operational characteristics. The 386DX 33/40 mother Board has an American Megatrends Inc. BIOS installed.

The different options in the BIOS setup program are shown in the Figure below:

BIOS SETUP PROGRAM-AMI BIOS SETUP UTILITIES (C) 1990 American Megatrends, Inc., All Rights Reserved
STANDARD CMOS SETUP ADVANCED CMOS SETUP ADVANCED CHIPSET SETUP AUTO CONFIGURATION WITH BIOS DEFAULTS AUTO CONFIGURATION WITH POWER-ON DEFAULTS CHANGE PASSWORD AUTO DETECT HARD DISK HARD DISK UTILITY WRITE TO CMOS AND EXIT DO NOT WRITE TO CMOS AND EXIT
Advanced CMOS Setup for Configuring System Options
ESC:Exit ↓ → ↑ ← :Select F2/F3 color F10: Save & Exit

BIOS Setup Options

Setup Warning Message

The user is given a warning message before.

The is allowed to change any of the setup parameters:

<p>BIOS SETUP PROGRAM WARNING INFORMATION (C) 1990 American Megatrends, Inc., All Rights Reserved</p>
<p>Improper Use of Setup may Cause Problems!!</p> <p>If System Hangs, Reboot System and Enter Setup by Pressing the "ESC" key</p> <p>Do any of the following After Entering Setup</p> <ul style="list-style-type: none">(i) After Options to make System Work(ii) Load BIOS Setup Defaults(iii) Load Power-On Defaults <p>Hit "ESC" to Stop now. Any other Key to continue</p>

BIOS Setup Warning Message

Standard CMOS Setup

This option is used to configure the following options:

- * Date: Month, Date and Year
- * Time: Hour, Minute and Second
- * Daylight Saving: Disabled or Enabled
- * Hard Disk C: and Hard Disk D: The user can choose any of the standard hard disk types from 1 to 46 or he can choose type 47 which is the user definable type. The user must enter the hard disk parameters if he wants to choose the user-definable hard disk type per drive, i.e., type 47 may be different for drive C: and for drive D:.
- * Floppy drive A: and Floppy drive B: 360 KB 5 1/4", 1.2 MB 5 1/4", 720 KB 3 1/2", 1.44MB 3 1/2", 2.88MB 3 1/2", Not Installed.
- * Primary Display: Monochrome, Color 40x25, VGA/PGA/EGA, Color 80x25, Not Installed
- * Keyboard: Installed or Not Installed

BIOS SETUP PROGRAM - AMI BIOS SETUP UTILITES
(C) 1990 American Megatrends, Inc., All Rights Reserved

Date(mn/date/year): Sun, Nov 11 1990	Base memory : 640 KB
Time(hour/min/sec): 13: 54: 42	Ext. memory : 3872 KB
Daylight saving : Disabled	
Hard disk C: type : 47=User Type	Cylin Head W/pcan L/zone Sec Size
Hard disk D: type : Not Installed	0 0 0 0 0 0 MB
Floppy drive A: : 1.2 MB, 5 1/4"	
Floppy drive B: : Not Installed	
Primary display : VGA/PGA/EGA	
Keyboard : Installed	

Month : Jan, Feb,.....Dec	<table border="1" style="font-size: small;"> <thead> <tr> <th>Sun</th><th>Mon</th><th>Tue</th><th>Wed</th><th>Thu</th><th>Fri</th><th>Sat</th> </tr> </thead> <tbody> <tr> <td>28</td><td>29</td><td>30</td><td>31</td><td>1</td><td>2</td><td>3</td> </tr> <tr> <td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td> </tr> <tr> <td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td> </tr> <tr> <td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td> </tr> <tr> <td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>1</td> </tr> <tr> <td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td> </tr> </tbody> </table>	Sun	Mon	Tue	Wed	Thu	Fri	Sat	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7	8
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2	3	4	5	6	7	8																																												
Date : 01, 02, 03,.....31																																																		
Year : 1981, 1982,.....2099																																																		

ESC:Exit F10:Save F2/F3:color PU/PD:Modify

Standard CMOS Setup Screen

Advanced CMOS Setup

BIOS SETUP PROGRAM – ADVANCE CMOS SETUP (C)1990 American Megatrends Inc., All Right Reserved	
Above 1 MB Memory Test : Disabled Hard Disk Type 47 RAM Area : 0:300 Numeric Processor Test : Enabled Floppy Drive Seek at Boot : Enabled System Boot Up Sequence : A:, C: External Cache Memory : Enabled Fast Gate A20 Option : Enabled Password Checking Option : Setup Boot Sector Virus Protection :Disable	
ESC:Exit ↓→↑←:Sel (Ctrl)PgUp/PgDn:Modify F1:Help F2/F3:Color F5:Old Value F6:BIOS Setup Defaults F7:Power-On Defaults	

Advanced Chipset Setup

BIOS SETUP PROGRAM – ADVANCE CMOS SETUP (C)1990 American Megatrends Inc., All Right Reserved	
Hidden Refresh	: Enable
At Bus Clock Selection	: CLKI/4
Memory Read Wait State	: 2W/S
Memory Write Wait State	: 3W/S
Cache Read Cycle	: 2-1-1-1
Cache Write Cycle	: 1W/S

ESC:Exit ↓→↑← : Sel (Ctrl) PgUp/PgDn:Modify F1:Help F2/F3:Color
F5: Old Values F6:BIOS Setup Defaults F7:Power-On Defaults