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Foreword
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This manual is designed to provide the basic necessary information for the end user to understand and properly use the MP058 mainboard. The mainboard ensures superlative performance and complete compatibility with industry standards, which incorporating many technical enhancements.

Trademarks
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Checklist
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- Your MP058 Cache package contains the following:
- * MP058 Cache mainboard
 - * User's Manual.
 - * HDD/FDD Cable
 - * Com1 & Com2 Cable
 - * Printer Cable

page 1-2

Precautions
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Make sure you ground yourself before handling the mainboard or other system

components. Electrostatic discharge will damage mainboard. Note that you must take special precaution when handling the mainboard in dry or air-conditioned environments.

The precaution below is to protect the mainboard from electrostatic discharge.

- * Do not remove the anti-static packaging until you are ready to install the mainboard and other system components.
- * Ground yourself before removing any system component from its protective anti-static packaging. To ground yourself, grasp the expansion slot covers or other unpainted portion computer chassis.
- * Frequently ground yourself while working ,or use a grounding strap.
- * Handle the mainboard by the edges and avoid touching its components.

page 1-3

Mainboard Features

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- * Intel Triton PCI chipset: 82437 (TSC)/82438(TDP)/82371FB (PIIX)
- * Support P54C/P55C Microprocessor, system running up to 180 Mhz
- * Support High performance 32 bits PCI local bus and provide four PCI bus master
- * Support four 16 bits ISA system bus I/O slot
- * Cache Optional up to 512KB , using DIP type SRAM (Asynchronous mode) or cache module Synchronous pipeline burst (burst mode)
- * Direct mapped organization with write through / write back selection
- * Main memory (DRAM) support from 4MB to 128MB, using standard page mode or EDO mode DRAM
- * Support Enhance IDE onboard
- * PnP (Plug & Play) compatible L/O (Serial port, Parallel port, FDC) onboard

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Jumper and Connectors Reference

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Before installing the mainboard, make sure that the jumper setting are properly set for your configuration. The function of different jumpers are respectively as follows:

CPU Internal Clock Multiplier	JP31, JP32
CPU Clock Frequency Selector	JP17, JP18
CPU Voltage Selector	JP36, JP37
Cache Option	JP20
SRAM Voltage Selector	JP29, JP30
Flash ROM Voltage Selector	JP14
Printer Port ECP function Selector	JP5, JP6
CMOS Charge / Discharge	JP13
AT Bus Speed Selector	JP15
CPU Internal Cache Write Back / Write Through Select.....	JP23

Mainboard Connectors:

Onboard HDD LED Connector	J3
Reset Switch Connector.....	J2
Speaker Connector	J1
Keylock and Power LED Connector.....	J4
PS/2 mouse Connector	MS2
Keyboard Connector	KB1
Power Supply Connector	PW1
Turbo Switch Connector (T/SW)	TB/SW
Turbo LED Connector (T/LED)	TB/LED

Jumper Caps reference :

Red	Jumper for	Voltage Selector
White	Jumper for	CPU Type
Yellow	Jumper for	Clock Selector
Blue	Jumper for	Cache Option
Black	Jumper for	Other

Mainboard Setup
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P54C CPU JUMPER SETTING
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When you look for jumper setting for H/W configuration. Please refer to page 2-4 the MP058 Mainboard placement chart.

CPU SPEED	CPU	Clock Selector		CPU Internal Clock Selector		
		Yellow Jumper Cap		Yellow Jumper Cap		
		JP18	JP17	JP31	JP32	
P54C-75	Mhz	CLOSE	CLOSE (50 Mhz)	1-2	1-2	(x1.5)
P54C-90	Mhz	CLOSE	OPEN (60Mhz)	1-2	1-2	(x1.5)
P54C-100	Mhz	CLOSE	CLOSE (50 Mhz)	1-2	2-3	(x2)
		OPEN	CLOSE (66.6Mhz)	1-2	1-2	(x1.5)
P54C-120	Mhz	CLOSE	OPEN (60Mhz)	1-2	2-3	(x2)
P54C-133	Mhz	OPEN	CLOSE (66.6Mhz)	1-2	2-3	(x2)
P54C-150	Mhz	CLOSE	OPEN (60Mhz)	2-3	2-3	(x2.5)
P54C-166	Mhz	OPEN	CLOSE (66.6Mhz)	2-3	2-3	(x2.5)
P54C-180	Mhz	CLOSE	OPEN (60Mhz)	2-3	1-2	(x3)
P54CST-200Mhz		OPEN	CLOSE (66.6Mhz)	2-3	1-2	(x3)

CYRIX 6x86 CPU JUMPER SETTING
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CPU SPEED	CPU	Clock Selector		CPU Internal Clock Selector		
		Yellow Jumper Cap		Yellow Jumper Cap		
		JP18	JP17	JP31	JP32	
6x86-P120	(100 Mhz)	CLOSE	CLOSE (50Mhz)	1-2	2-3	(x2)
6x86-P150	(120 Mhz)	CLOSE	OPEN (60Mhz)	1-2	2-3	(x2)
6x86-P166	(133 Mhz)	OPEN	CLOSE (66 Mhz)	1-2	2-3	(x2)

NOTE: This motherboard only can support single voltage CPU.

CPU VOLTAGE SELECTOR Red Jumper Cap
=====

JP36	JP37	
CLOSE	OPEN	3.38 Volts for Intel P54C, Cyrix 6x86 Standard CPU Type

SRAM Configuration
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SRAM Configuration is used to configure the external cache of the mainboard. External cache can be configured by using 32K*8 and 64K*8 DIP type SRAM or synchronous cache module.

There are 3 types external cache configuration.

- A. DIP Type SRAM (Asynchronous Cache with pin legs)

	JP20	SRAM	TAG RAM
256K cache size	1-2	32K*8	8K*8 / 16K*8 / 32K*8
512K cache size	2-3	64K*8	16K*8 / 32K*8

Note: Please use mix (3/5 volt) or 3 volt DIP cache.
- B. Cache Module With Built-in TAG RAM (Synchronous Cache)

Please remove DIP type SRAM on the mainboard because Asynchronous and Synchronous can't be simultaneously installed.
- C. Cache Module Without Built-in TAG RAM (Synchronous Cache)

	JP20	TAG RAM
256K cache size	1-2	8K * 8 / 16K * 8 / 32K * 8 TAG RAM on the U19 socket
512K cache size	2-3	16K*8 / 32K * 8 TAG RAM

on the U19 socket

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SRAM Voltage Selector

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MP058 provides two types of voltage value for the SRAM, 5V voltage for mix-mode DIP type SRAM , 3.3V voltage for 3.3V DIP type SRAM and synchronous cache module.

JP29	JP30	
OPEN	1-2,3-4,5-6	for MIX Mode SRAM
1-2,3-4,5-6	OPEN	for 3.3 Volts DIP SRAM or Synchronous Cache Module

AT Bus Speed Selector Yellow jumper Cap

=====

JP15
1-2 PCI Clock 1/3 (for higher speed)
2-3 PCI Clock 1/4
Note: Please use 1/4 clock for old version add-on card.

Printer Port ECP Function Selector

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JP5	JP6	
1-2	1-2	for ECP Mode
2-3	2-3	for Normal Mode

Flash ROM Voltage Selector Red jumper Cap

=====

JP14
OPEN EPROM
1-2 Flash ROM 12 Volts (Intel Brand)
2-3 Flash ROM 5 Volts (SST or Winbond Brand)
Note: The brand name of BIOS is under the BIOS.

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Memory Configuration

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Memory Module Combinations

Bank 0 Socket 1 & 2	Bank 1 Socket 3 & 4	Total Memory Using Sockets 1 through 4
4MB x 2	None	8MB
8MB x 2	None	16MB
16MB x 2	None	32MB
32MB x 2	None	64MB
None	4MB x 2	8MB
None	8MB x 2	16MB
None	16MB x 2	32MB
None	32MB x 2	64MB
4MB x 2	4MB x 2	16MB
4MB x 2	8MB x 2	24MB
4MB x 2	16MB x 2	40MB
4MB x 2	32MB x 2	64MB
8MB x 2	4MB x 2	24NB
8MB x 2	8MB x 2	32MB
8MB x 2	16MB x 2	48MB
8MB x 2	32MB x 2	80MB
16MB x 2	4MB x 2	40MB

16MB x 2	8MB x 2	48MB
16MB x 2	16MB x 2	64MB
16MB x 2	32MB x 2	96MB
32MB x2	4MB x 2	72MB
32MB x2	8MB x 2	80MB
32MB x 2	16MB x 2	96MB
32MB x 2	32MB x2	128MB

IMPORTANT: Do not use SIMM modules with more than 24 chips per module with this mainboard. Module with more than 24 chips exceeds the design specification of the memory subsystem and will cause unreliable operation.

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CMOS Charge / Discharge slack jumper Cap

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CMOS Charge / Discharge is used to discharge and charge CMOS. If you discharge the CMOS all the data will be erased.

JP13
 OPEN Charge CMOS
 CLOSE Reset CMOS

Mainboard Connectors

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- J1 Speaker connector will be connected to the speaker of your computer case.
- J2 Reset Switch connector will be connected in your computer case front panel. Resetting the system, it will restart the computer from self-test without turning off the power supply. This connection is always off position.
- J3 Onboard HDD LED connector will be connected in your computer case front panel.
- J4 Keylock and Power LED connector will be connected in your computer case front panel. Keylock is used to lock the keyboard. Power LED will light up when you turn on your power supply.
- MS1 PS/2 Mouse connector , this is used for PS/2 mouse. (In mainframe case) Note: PS/2 mouse cable is optional.
- KB1 Keyboard connector ,this is used for inputting signal from the keyboard.
- PW1 Power Supply connector is connected from the output of the power supply. Most of the power supply has two connectors which will be connected to the mainboard. Each connector has six wires , two of the wires are black. To connect to the mainboard, make sure that the black wire is in the middle. Wrong connection will cause damage to the mainboard.
- TB/SW Turbo Switch Connector will be connected in your computer case front panel.
- TB/LED Turbo LED Connector will be connected in your computer case front panel.

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AWARD BIOS SETUP

Award BIOS support plug and play function and has a built-in setup program that allows the users to modify the basic system configuration. This type of information is stored in CMOS so that it retains the setup information when

the power is turned off.

1. Turn on or reboot the system. when the below message appears at the bottom of the screen during the POST (Power On Self Test) press DEL key to enter setup.
2. Press the DEL key to enter the Award BIOS program and the main menu will appear on the screen. The main menu allows you to select from ten setup functions and two exit choices.
3. For the safe, please select "LOAD SETUP DEFAULTS" for BIOS setup.

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