

MP064 User's Manual
Intel FX Triton Pentium Motherboard

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 MP064 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 MP064 Cache package contains the following:

- * MP064 Cache mainboard
- * User's Manual.
- * HDD/FDD Cable
- * Com1 & Com2 Cable
- * Printer Cable

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.

Mainboard Features

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- * Intel Triton PCI chipset: 82437 (TSC)/82438(TDP)/82371FB (PIIX)
- * Support P54C/P55C Microprocessor, system running up to 200 Mhz
- * Support High performance 32bits PCI local bus and provide four PCI bus master
- * Support four 16bits ISA system bus I/O slot
- * On-Board Synchronous Cache Option 256KB AND 512KB
- * 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 I/O (Serial port, Parallel port, FDC) onboard

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

Flash ROM Voltage Selector JP14
 CMOS Charge/ Discharge JP13
 AT Bus Speed Selector JP15

Mainboard Connectors:

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Onboard HDD LED Connector J3
 Reset Switch Connector..... J2
 Speaker Connector J1
 Keylock and Power LED Connector..... J4
 PS/2 mouse Connector MS2, MS1
 Keyboard Connector KB2
 Power Supply Connector PW1
 Turbo Switch Connector TB/SW
 Turbo LED Connector TB/LED

Jumper Caps reference :

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

Intel CPU Type Configuration

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CPU type configuration will give you detailed information to install the jumper setting of P54C type of CPU. If the CPU type you are using is not listed in our user's manual, please contact your dealer for the correct jumper setting.

CPU Clock Jumper Setting (reversion A)

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(Intel CPU)

CPU CLOCK	JP17	JP18	JP31	JP32	CLOCK	FREQUENCI	MODULATION
75 MHZ	CLOSE	CLOSE	OPEN	OPEN	50MHz	x 1.5	
100 MHZ	CLOSE	CLOSE	OPEN	CLOSE	50MHz	x 2 (6x86-P120+)	
90 MHZ	OPEN	CLOSE	OPEN	OPEN	60MHz	x 1.5	
120 MHZ	OPEN	CLOSE	OPEN	CLOSE	60MHz	x 2 (6x86-P150+)	
150 MHZ	OPEN	CLOSE	CLOSE	CLOSE	60MHz	x 2.5	
100 MHZ	CLOSE	OPEN	OPEN	OPEN	66.6MHz	x 1.5	
133 MHZ	CLOSE	OPEN	OPEN	CLOSE	66.6MHz	x 2 (6x86-P166+)	
166 MHZ	CLOSE	OPEN	CLOSE	CLOSE	66.6MHz	x 2.5	
180 MHZ	OPEN	CLOSE	CLOSE	OPEN	60MHz	x 3	
200 MHZ	CLOSE	OPEN	CLOSE	OPEN	66.6MHz	x 3	

CPU Clock Jumper Setting (reversion B)

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(Intel CPU - Single voltage)

CPU CLOCK	JP17	JP18	JP31	JP32	JP29	JP36	JP37	JP38	CLOCK
75 MHz	CLOSE	CLOSE	OPEN	OPEN	1-2, 3-4	1-2	OPEN	1-2	50x1.5
					5-6				
100 MHz	CLOSE	CLOSE	OPEN	CLOSE	1-2, 3-4	1-2	OPEN	1-2	50x1.5
					5-6				

90 MHz	OPEN	CLOSE	OPEN	OPEN	1-2, 3-4	1-2	OPEN	1-2	60x1.5
					5-6				
120 MHz	OPEN	CLOSE	OPEN	CLOSE	1-2, 3-4	1-2	OPEN	1-2	60x2
					5-6				
150 MHz	OPEN	CLOSE	CLOSE	CLOSE	1-2, 3-4	1-2	OPEN	1-2	66.6x2.5
					5-6				
100 MHz	CLOSE	OPEN	OPEN	OPEN	1-2, 3-4	1-2	OPEN	1-2	66.6x1.5
					5-6				
133 MHz	CLOSE	OPEN	OPEN	CLOSE	1-2, 3-4	1-2	OPEN	1-2	66.6x2
					5-6				
166 MHz	CLOSE	OPEN	CLOSE	CLOSE	1-2, 3-4	1-2	OPEN	1-2	66.6x2.5
					5-6				
180 MHz	OPEN	CLOSE	CLOSE	OPEN	1-2, 3-4	1-2	OPEN	1-2	60x3
					5-6				
200 MHz	CLOSE	OPEN	CLOSE	OPEN	1-2, 3-4	1-2	OPEN	1-2	66.6x3
					5-6				

(Intel CPU - Dual voltage)

CPU CLOCK	JP17	JP18	JP31	JP32	JP29	JP36	JP37	JP38	CLOCK
166 MHz	CLOSE	OPEN	CLOSE	CLOSE	OPEN	1-2	2-3	2-3	66.6x2.5
180 MHz	OPEN	CLOSE	CLOSE	OPEN	OPEN	1-2	2-3	2-3	60x3
200 MHz	CLOSE	OPEN	CLOSE	OPEN	OPEN	1-2	2-3	2-3	66.6x3

* JP37 Set	1-2: 2.6 Volt		* JP38 Set	1-2	: Single Volt
	2-3: 2.8 Volt			2-3	: Dual Volt
* JP36 Set	1-2 : 3.55 Volt		* JP29 Set	Close	: Single Volt
	2-3 : 3.45 Volt			Open	: Dual Volt

CYRIX CPU Clock Jumper Setting And Voltage Selector

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(Single Voltage)

CPU CLOCK	JP17	JP18	JP31	JP32	JP29	JP36	JP37	JP38	CLOCK
P120+	CLOSE	CLOSE	OPEN	CLOSE	1-2, 3-4	1-2	OPEN	1-2	50x2
					5-6				
P150+	OPEN	CLOSE	OPEN	CLOSE	1-2, 3-4	1-2	OPEN	1-2	60x2
					5-6				
P166+	CLOSE	OPEN	OPEN	CLOSE	1-2, 3-4	1-2	OPEN	1-2	66.6x2
					5-6				

(Dual Voltage)

CPU CLOCK	JP17	JP18	JP31	JP32	JP29	JP36	JP37	JP38	CLOCK
P120+	CLOSE	CLOSE	OPEN	CLOSE	OPEN	1-2	1-2	2-3	50x2
P150+	OPEN	CLOSE	OPEN	CLOSE	OPEN	1-2	1-2	2-3	60x2
P166+	CLOSE	OPEN	OPEN	CLOSE	OPEN	1-2	1-2	2-3	66.6x2

AMD CPU Clock Jumper Setting And Voltage Selector

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(Single Voltage)

CPU CLOCK	JP17	JP18	JP31	JP32	JP29	JP36	JP37	JP38	CLOCK
P75	CLOSE	CLOSE	OPEN	OPEN	1-2, 3-4	1-2	OPEN	1-2	50x1.5
					5-6				
P90	OPEN	CLOSE	OPEN	OPEN	1-2, 3-4	1-2	OPEN	1-2	60x1.5
					5-6				
P100	CLOSE	OPEN	OPEN	OPEN	1-2, 3-4	1-2	OPEN	1-2	66.6x1.5
					5-6				

(Dual Voltage)

CPU CLOCK	JP17	JP18	JP31	JP32	JP29	JP36	JP37	JP38	CLOCK
K5-P100	CLOSE	CLOSE	OPEN	OPEN	OPEN	1-2	1-2	2-3	50x1.5
K5-P120	OPEN	CLOSE	OPEN	OPEN	OPEN	1-2	1-2	2-3	60x1.5
K5-P133	CLOSE	OPEN	OPEN	OPEN	OPEN	1-2	1-2	2-3	66x1.5
K5-P150	OPEN	CLOSE	OPEN	CLOSE	OPEN	1-2	1-2	2-3	60x2
K5-P166	CLOSE	OPEN	OPEN	CLOSE	OPEN	1-2	1-2	2-3	66x2

NOTE: Please pay attention to your CPU voltage and Jumper number

of motherboard reversion.

SRAM Configuration

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SIZE          JP 20      TAG RAM
256K          OPEN      8Kx8
512K          1-2       16Kx8
```

CPU Voltage Selector

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VOLTAGE      JP36      CPU VOLTAGE SPEC
3.45V        2-3      FOR INTEL P54C STANDARD CPU
3.55V        1-2      FOR INTEL P54C VRE CPU
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OTHER JUMPERS

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JP15 ( AT BUS SPEED SELECTOR )
1-2  PCI CLOCK V3
2-3  PCI COLCK V4

JP14 ( FLASH ROM VOLTAGE SELECTOR )
1-2  FLASH ROM 12 VOLTS (INTEL BRAND)
2-3  FLASH ROM 5 VOLTS (SST BRAND)

JP13 ( CMOS CHARGE / DISCHARGE )
OPEN  CHARGE CMOS
CLOSE RESET CMOS

MS2 ( PS/2 MOUSE CONNECTOR )
KB2 ( KEYBOARD CONNECTOR )
PW1 ( POWER SUPPLY CONNECTOR )
```

Memory Configuration

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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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Memory Module Combinations

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Bank 0      Bank 1      Total Memory Using Sockets
Socket 1 & 2 Socket 3 & 4      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 x2      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         48MB
16MB x 2    16MB x 2    64MB
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16MB x 2	32MB x 2	96MB
32MB x 2	4MB x 2	72MB
32MB x 2	8MB x 2	80MB
32MB x 2	16MB x 2	96MB
32MB x 2	32MB x 2	128MB