

MP042 User's Manual
OPTi 486 PCI/ISA Motherboard

WARNING

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To ensure the reliability of the Computer DO NOT reconfigure the board while the Power is ON. If you wish to reconfigure the board, make sure that the power to the system is OFF before changing any hardware setting such as Jumper setting or DIP switch.

CHECKLIST

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Your 486 PCI/ISA Cache package contain the following:

- * 486 PIC/ISA Cache Mother board.
- * User's manual.

ABOUT THIS MANUAL

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This manual is designed to provide the basic information necessary for the end user to understand and properly use of the 486 PCI/ISA Motherboard. The mother board ensure superlative performance and complete compatibility with software written for IBM PC/AT 80286 type, 80386 type and 80486 type of processor.

TRADEMARKS

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MOTHERBOARD FEATURES

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- * OPTI chipset 82C895, 82C822 and 82C602
- * Support 80486 SX/DX/DX2, P24C (DX4) SL-enhanced CPU P24T, P24D, AMD 486 DX/DX2 and Cyrix M7 Microprocessor
- * Memory up to 128MB

- * Optional 128KB or 512KB external cache
- * Three 16bit slots and Four PCI slots
- * Dimension: 19 x 22.5 cm with 4 Layers

- * Two clock source, supporting system running from 25 to 50 MHz, PCI clock running ASYNC or SYNC

- * Support System Memory Management (SMM) for Power Management
- * Support full SMI Interface
- * Power Management port for specific control during all modes of operation

JUMPERS AND CONNECTORS REFERENCE

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Before installing the motherboard, make sure the jumpers setting are set for your configuration. The Function of each jumpers are as follows:

CPU Type Selector	JP14,JP15,JP16,JP17,JP18,JP29 JP21,JP23,JP24,JP25,JP26
SL-enhanced CPU Selector	JP6,JP10,JP18,JP28
CPU VOLTAGE Selector	JP30
CPU Clock Selector	JP31,JP32
P24C (DX4) Clock selector	JP16
PCI Clock Selector	JP33
Cache Option.....	JP13,JP19,JP22
Charge / Discharge CMOS	JP1
CRT Power Down	JP3
SMI LED	JP38
Speaker Connector	JP41
Turbo Switch Connector	JP40
Turbo LED Connector	JP39
Reset Connector	S1
External Battery Connector	J2
Keylock/Power LED Connector	J9
Keyboard Connector	J1
Power Supply Connector	PL1
Micellaneous Jumpers	JP4,JP5,JP27

NOTE:

RED	Jumpers Represent	Voltage	Selector
White	Jumpers Represent	CPU	Type
Yellow	Jumpers Represent	Clock	Selector
Blue	Jumpers Represent	Cache	Option
Black	Jumpers Represent	Others	

JUMPER SWITCHES

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These switches consist of two or three pins set in a plastic base. Two of the pins are covered by a cap which connect or short each other. It is

possible to change the switch setting by moving the cap between the first or last two pins.

JUMPERS OPEN & SHORT
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If you wish to change any of the jumper setting, make sure the board is disconnected from the power source. This is to protect the mother board from getting damage.

JUMPER SETTING FOR CPU
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CPU Type Selector is used to select different type of CPU.

CPU Type	JP14	JP15	JP16	JP17	JP18	JP21	JP23	JP24	JP25	JP26	JP29
486SX	1-2	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	2-3	OPEN
486DX	1-2	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	1-2	OPEN	1-2,3-4	OPEN
U5S	1-2	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	1-2	OPEN	1-2,3-4	OPEN
M7	1-2	1-2	OPEN	OPEN	2-3	CLOSE	CLOSE	OPEN	OPEN	1-2,3-4	OPEN
P24C	1-2	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	1-2	OPEN	1-2,3-4	OPEN
P24D	1-2	2-3	OPEN	1-2	OPEN	CLOSE	OPEN	1-2	CLOSE	1-2,3-4	OPEN
P24T	2-3	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	1-2	OPEN	1-2,3-4	OPEN

NOTE: If AMD DX2-66, DX2-80, DX4-100 CPU (3.0 VOLTS) is used note JP17 (1-2 for DX4-100, 2-3 for DX2-66, DX2-80) JP30 (3-5, 4-6 for 3.45 VOLTS)

NOTE: If SL-enhanced CPU is used note JP6,JP10,JP18,JP28

NOTE: IF CYRIX M7 CPU is used note JP29 CYRIX M7 CLOCK Selector (JP29 CLOSE is CLOCK x 2)

NOTE: If P24C (DX4-100 MHz) CPU is used note JP16 P24C CLOCK x 3 (DX4-75 MHz CLOCK x 3) JP30 CPU VOLTAGE 3-5,4-6 3.45 VOLTS

WARNING: WRONG CPU VOLTAGE TO P24C WILL DAMAGE THE CPU.

CPU CLOCK Selector
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CLK	JP31	JP32
25 MHz	OPEN	OPEN
33 MHz	CLOSE	CLOSE
40 MHz	OPEN	CLOSE
50 MHz	CLOSE	OPEN

PCI CLOCK Selector
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JP33 1-2 ASYNC CLK
JP33 2-3 SYNC CLK

IF CPU CLK = 50 MHz SET PCI CLK ASYNC
IF CPU CLK < 50 MHz SET PCI CLK SYNC

MICELLANEOUS JUMPER

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JP27 2-3 FOR CPU CLK > 33 MHz
3-4 FOR CPU CLK <= 33 MHz

SL-ENHANCE CPU Selector

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SP6	JP10	JP28	JP18	
CLOSE	CLOSE	CLOSE	1-2	FOR SL-ENHANCE CPU
OPEN	OPEN	OPEN	OPEN	FOR OTHER CPU
			2-3	FOR CYRIX CPU

CPU VOLTAGE Selector

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JP30	1-3,2-4	5 VOLTS	OTHER CPU
	3-5,4-6	3.45 VOLTS	P24C CPU

P24C CLOCK Selector

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JP16
OPEN P24C x3 AND OTHER CPU
1-2 P24C x2
2-3 P24C x2.5

P24D WRITE BACK / THROUGH Selector

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JP17
1-2 P24D WRITE BACK
2-3 P24D WRITE THROUGH

CACHE OPTION

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	SRAM	TAG RAM			
SIZE	BANK	U17	JP13	JP19	JP22
128KB	32K*8	8K*8	2-3	OPEN	OPEN
512KB	128K*8	32K* 8	1-2	CLOSE	CLOSE

BANK U3, U8, U9, U10

Charge/Discharge CMOS (JP1)

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CMOS Charge/Discharge CMOS is used to Charge and Discharge CMOS. If you discharge the CMOS all datas in the CMOS will be erase. To discharge CMOS, place a jumper cap in pin 1 & 2 then turn on the Power supply for 1 to 2 seconds then turn off the power supply. In this procedure the CMOS is discharge, all the datas in the CMOS is erase. Place the jumper cap in pin 2 & 3 for CMOS charge, then run setup.

JP1 1-2 DISCHARGE CMOS
JP1 2-3 CHARGE CMOS

Power Supply Connector PL1

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NOTE: Wrong connection will damage the mainboard.

Keyboard Connector J1

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External Battery Connector J2

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(Note of the POLARITY)

NOTE: PIN 1 for (+) PIN 4 for (-)

CRT POWER DOWN JP3

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NOTE: This function need a Green function power supply and also note of polarity. Set power management setup CRT POWER DOWN ENABLE.

SMI LED JP38

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Keylock/Power LED J9

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Turbo LED JP39 (Note of the POLARITY)

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OPEN NORNAL SPEED LED WILL LIGHT OFF

CLOSE TURBO SPEED LED WILL LIGHT ON

NOTE: If KEYBOARD is used to change the speed TURBO LED will not change.

Turbo Switch JP40

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OPEN NORAL SPEED
CLOSE TURBO SPEED

Speaker Connector JP41
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Reset Connector S1
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MICELLANEOUS JUMPER JP4, JP5
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JP4 1-2,5-4 FOR EDGE TRIGGER
 2-3 FOR LEVEL TRIGGER
JP5 1-2,3-4 FOR EDGE TRIGGER
 2-3 FOR LEVEL TRIGGER

MEMORY CONFIGURATION
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The system board Memory can be expanded from 2MB to 128MB. Memory can be installed by using 512K * 9/36, 1M * 9/36, 2M * 36, 4M * 36 and 16M * 36 SIMM RAM Module.

Table with 3 columns: MEMORY SIZE, SIMM1, SIMM2. Rows include configurations for 2M, 4M, 8M, 12M, 16M, 20M, 32M, 64M, and 128M memory sizes.

AWARD BIOS SETUP

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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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