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                       MP078 USER'S MANUAL
             Intel ATX Pentium II PCI/ISA MOTHERBOARD
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Foreword
========
This manual is designed to provide the basic necessarv information for the
end user to understand and properly use the MP078 mainboard. The mainboard
ensures superlative performance and complete compatibility with industry
standards, which incorporating many technical enhancements.


Trademarks
==========
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belong to their registered owner.


Checklist
=========
Your MP078 Cache package contains the following:

* MP078 Cache mainboard
* User's Manual.
* HDD Cable
* FDD Cable
* Serial & Printer Cable
* CPU Heatsink
* Heatsink Frame
* Screws for Heatsink Frame


Precautions
===========
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 vourselfbefore 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
==================
* Intel 440FX PCI chipset: 82441(PMC) / 82442(DBX) / 82371 (PIIX3)
* Supports Intel Pentuim II-233MHz/266MHz/300MHz Processor(with MMX)
* Five high performance 32 bits PCI local bus master
* Three 16 bits ISA system bus I/O slots
* Supports BEDO,EDO,FPM DRAMs,8MB up to 768MB
* Supports two USB (Universal Serial Bus) ports
* Enchanced IDE onboard
* Support PnP (Plug and Play) function
* Enhanced fast I/O ( Serial port, Parallel port (ECP/EPP/SPP), FDC) onboard
* IR prot optional
* Modem Ring wake up
* ATX motherboard specification

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Jumpers and Connectors Reference
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Before installing the mainboard, make sure that thejumper settings are
properly set for your configuration. The functions of the different jumpers
are respectively as follows:

CPU Clock Selector                  SW1
Flash ROM Voltage Selector          JP13
CMOS Charge/ Discharge              JP14
COM2 / IR Selector                  JP1, JP2


Mainboard Connectors
====================
Hard disk Connector                 IDE1 & IDE2
Printer Connector                   PRN1
Floppy Connector                    FDC
Serial Connector                    COM1 & COM2
Universal Serial Bus Connector      USB
Power on push button Connector      JP16
Power LED Connector                 J4 or J11(1-3)
SMI Connector                       J8
SMI LED Connector                   J2
Hard disk LED Connector             J9
Keylock Connector                   J11
Speaker Connector                   J10
Reset Connector                     J5
Turbo LED Connector                 J7
Turbo Switch Connector              J6
Keyboard Connector                  KB1
PS/2 Mouse                          MS1
Power Supply Connector              P1 or P2
IR Connector                        IR1


Jumper Caps reference
=====================
Red   cap for voltage selector
Black cap for others


CPU JUMPER SETTING
==================

CPU TYPE                            CPU Clock Selector
                                    SW1- 1   2   3   4
INTEL PENTIUM IT - 233Mhz                OFF OFF ON  ON

INTEL PENTIUM II - 266MHz                ON  ON  ON  OFF

INTEL PENTTUM II - 300MHz                ON  OFF ON  OFF


FLASH ROM VOLTAGE SELECTOR
==========================
JP13  RED jumper Cap
1-2   12 VOLTS FLASH ROM   (Inter / MX brand)
2-3   5  VOLTS FLASH ROM   (SST / Winbond / Atmel brand)


CMOS RESET CONNECTOR
====================
JP14
OPEN  CMOS CHARGE
CLOSE CMOS DISCHARGE OR RESET


COM2 / IR SELECTOR
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==================
JP1   JP2
2-3   2-3    FOR COM2 PORT (DEFAULT)
1-2   1-2    FOR IR PORT


MEMORY CONFIGURATION
====================
Memory supports from 4MB upto 768MB by using Standard, EDO and BEDO.

MEMORY MODULE COMBINATIONS:
BANK O            BANK 1          BANK 2          TOTAL MEMORY
SM1&2             SM3&4           SM5&6

4MB x 2           NONE            NONE            8MB
NONE              4MB x 2         NONE            8MB
NONE              NONE            4MB x 2         8MB

8MB x 2           NONE            NONE            16MB
NONE              8MB x 2         NONE            16MB
NONE              NONE            8MB x 2         16MB

4MB x 2           4MB x 2         4MB x 2         24MB
4MB x 2           8MB x 2         NONE            24MB
8MB x 2           4MB x 2         NONE            24MB

8MB x 2           8MB x 2         NONE            32MB
NONE              8MB x 2         8MB x 2         32MB
16MB x 2          NONE            NONE            32MB
NONE              16MB x 2        NONE            32MB
NONE              NONE            16MB x 2        32MB

4MB x 2           16MB x 2        NONE            40MB
16MB x 2          4MB x 2         NONE            40MB

8MB x 2           16MB x 2        NONE            48MB
16MB x 2          8MB x 2         NONE            48MB
8MB x 2           8MB x 2         8MB x 2         48MB

32MB x 2          NONE            NONE            64MB
NONE              32MB x 2        NONE            64MB
NONE              NONE            32MB x 2        64MB

4MB x 2           32MB x 2        NONE            72MB
32MB x 2          4MB x 2         NONE            72MB

8MB x 2           32MB x 2        NONE            80MB
32MB x 2          8MB x 2         NONE            80MB

16MB x 2          32MB x 2        NONE            96MB
32MB x 2          16MB x 2        NONE            96MB
16MB x 2          16MB x 2        16MB x 2        96MB

32MB x 2          32MB x 2        NONE            128MB
NONE              32MB x 2        32MB x 2        128MB

32MB x 2          32MB x 2        32MB x 2        192MB
32MB x 2          64MB x 2        NONE            192MB
64MB x 2          32MB x 2        NONE            192MB

64MB x 2          64MB x 2        NONE            256MB
NONE              64MB x 2        64MB x 2        256MB

64MB x 2          64MB x 2        64MB x 2        384MB
64MB x 2          128MB x 2       NONE            384MB
128MB x 2         64MB x 2        NONE            384MB

128MB x 2         128MB x 2       NONE            512MB
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128MB x 2        128MB x 2        64MB x 2         640MB

128MB x 2        128MB x 2        128MB x 2        768MB
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IMPROTANT: Do not use 72-pin SIMM module with more than 24 chips. Module
          with more than 24 chips exceed the design specification of the
          memory subsystem and will cause unreliable operation.


MAINBOARD CONNECTORS
====================
```
IDE 1 & 2        HARD DISK CONNECTOR
FDC              FLOPPY CONNECTOR
PRN1             PRINTER PORT CONNECTOR
COM 1 & 2        SERIAL PORT CONNECTOR
USB              UNIVERSAL SERIAL BUS CONNECTOR
MS1              PS/2 MOUSE CONNECTOR
KB1              PS/2 KEYBOARD CONNECTOR
IR1              INFRARED MODULE CONNECTOR
J2               SMILED CONNECTOR
JP16             POWER ON PUSH BUTTON CONNECTOR
J4 or J11(1-3)   POWER LED CONNECTOR
J5               RESET CONNECTOR
J6               TURBO SWITCH CONNECTOR
J7               TITRBO LED CONNECTOR
J8               SMI SWITCH CONNECTOR
J9               HARD DISK LED CONNECTOR
J10              SPEAKER CONNECTOR
J11              KEYLOCK CONNECTOR
```


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.