MP5000A/J ALL-IN-ONE TOUCH SCREEN COMPUTER SYSTEM

User’s Guide
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1.0 Introduction

The MP5000A/J and MP5000J are all-in-one touch screen computers with low power, 64 bit instruction set & Intel Atom dual core processors. Viewing angle can be adjusted installed on the metal stand. They can also be wall mounted. MP5000A/J has 12” 800x600 LCD display & MP5000J has 15” 1024x768 LCD display. The flexibility of a PC-based architecture combined with advanced LCD and touch screen technology comes together to form a low cost, small-sized computer that runs all PC-based software. Its unique design allows for ease of use with any applications. With networking capability, this computer is ideal for information kiosk, point of sales, and practically anything one can imagine.

2.0 Standard Features

<table>
<thead>
<tr>
<th>Processor</th>
<th>Intel® Atom Dual Core D510 (1.66GHz) or D525 (1.8GHz) CPU, 667MHz or 800MHz front side bus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bios</td>
<td>AMI 16 Mbit Flash BIOS with data backup to avoid configuration loss</td>
</tr>
<tr>
<td>Memory</td>
<td>Max 4GB, DDR3-800 SODIMM for D525 Max 2GB, DDR2-667 SODIMM for D510</td>
</tr>
<tr>
<td>Chipset</td>
<td>Intel® Atom. N455/D525 + ICH8M</td>
</tr>
<tr>
<td>Storage Devices</td>
<td>One 2.5” SATA hard disk or Solid State drive. One CF type I/II slot.</td>
</tr>
<tr>
<td>Watchdog Timer</td>
<td>Timer generates system reset at 1 ~ 6 2 second interval. Software enabled/disabled.</td>
</tr>
</tbody>
</table>
3.0 Input/Output

<table>
<thead>
<tr>
<th>Serial</th>
<th>3X, 1 external DB9 (COM1), 2X internal: COM2 for Touch screen, COM3 supports RS232/422/485</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethernet</td>
<td>2X RJ45 1000 Mbps. LAN1 Intel® 82567V, LAN2 Intel 82583V. Compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 8023y, IEEE 802.ab</td>
</tr>
<tr>
<td>Keyboard/Mouse</td>
<td>Internal connector for PS/2 KB/Mouse support</td>
</tr>
<tr>
<td>USB</td>
<td>1 - 3.0 USB, 1 USB 2.0 on rear I/O and 4 internal USB 2.0</td>
</tr>
<tr>
<td>PCI Bus</td>
<td>1X internal mini PCIe port for expansion</td>
</tr>
<tr>
<td>Parallel Port</td>
<td>1X internal with EPP/ECP support</td>
</tr>
<tr>
<td>Audio Port</td>
<td>Internal line-in, line-out and microphone</td>
</tr>
</tbody>
</table>

4.0 Graphics

| Display Controller | Intel® Gen 3.5 DX9+ GFX core, up to 224MB shared VRAM |
| Display | Supports VGA & LVDS LCD dual displays:  
• MP5000A: 12”, 800x600 LCD  
• MP5000J: 15” 1024x768 LCD |

5.0 Touch Screen

| Touch Screen | 5 wire resistive technology integrated USB controller, using mouse emulation |
6.0 Power Supply

| Power Supply Voltage | External power adapter, full range auto sensing 100-240 V, 50-60Hz input, Max. 12V, 5A, 60W output |

7.0 Environment

| Operating Temperature | 0~40°C |
| Storage Temperature   | -20~60°C |

8.0 Physical Dimensions

| Weight               | MP5000A: 6.8 lb. without alloy stand, 12 lb. with stand  
| MP5000J: 9 lb. without alloy stand, 16 lb. with stand |
| Width                | MP5000A/J: 11.5” / 14.25” |
| Depth                | MP5000A/J: 2.5” / 3.0” without stand |
| Height               | MP5000A/J: 8.5” / 10.75” without stand |

9.0 Optional Accessories

| Magnetic Stripe Reader | 1~3 track HID USB reader |
| Barcode Scanner       | CCD miniature scanner |
10.0 Set Up and Installation of the All-in-One

10.1 Unpacking. What you should have:
✓ MP5000A/J computer monitor base unit
✓ Screws to attach the base unit to the computer monitor
✓ Power adapter and power cord
✓ Drivers and manual files (included on the hard drive)

10.2 Site Selection:
Consider the following when selecting sites:
✓ The area should be well ventilated
✓ Avoid glare from bright overhead lighting
✓ The system should be placed on a hard surface
✓ There should be easy access for power and other cabling requirements

10.3 Installation Checklist:

☐ Route cables through the cast alloy stand and position the cables to the side of the stand
☐ Insert stand front tabs into slots on back of MP5000A/J

☐ Remove the screw on the center top of the MP5000A/J and use it to secure the stand to the computer
- Route all other peripheral cables through the stand
- Connect them to the MP5000A/J computer. Set the computer in upright position.
- Connect all the peripherals to the cables
- Turn the computer on
- Install operating system software (pre-installed if purchased with system)
- Install software driver’s
- Install application software

11.0 BIOS Introduction
The MP5000A/J has been integrated into a slew of motherboards for over two decades. With the Setup program, you can modify BIOS settings and control the various system features.

AMI’s BIOS ROM has a built-in setup program that allows users to modify the basic system configuration. This information is stored in battery-backed CMOS, so it retains the setup information when the power is turned off.

11.1 BIOS Setup
Turn on the computer and check for the “patch" code. If there is a number assigned to the patch code, it means that the BIOS supports your CPU. If there is no number assigned to the patch code, please contact us to obtain an up-to-date patch code file. This will ensure that your CPU’s system status is valid. After ensuring that you have a number assigned to the patch code, press <DEL> and you will immediately be allowed to enter setup.
11.2 BIOS Main Menu
Press <Del> to enter AMI BIOS CMOS Setup Utility, the Main Menu will appear on the screen. Use arrow keys to select among the items and press <Enter> to accept or enter the sub-menu.

Control Keys
< ↑ > < ↓ > < ← > < → > Move to select item
<Enter> Select Item
<Esc> Main Menu - Quit and not save changes into CMOS
Sub Menu - Exit current page and return to Main Menu
<Page Up/+> Increase the numeric value or make changes
<Page Down/-> Decrease the numeric value or make changes
<F1> General help, for Setup Sub Menu
<F2> Item Help
<F5> Load Previous Values
<F7> Load Setup Defaults
<F10> Save all CMOS changes
11.3 BIOS Operation
The Main BIOS setup screen has two main frames. The left frame displays all the options that can be configured. Grayed-out options cannot be configured; options in blue can. The right frame displays the key legend.

Above the key legend is an area reserved for a text message. When an option is selected in the left frame, it is highlighted in white. Often a text message will accompany it.

Use the “System time / System date” option to change the system time and date. Highlight System Time or System Date using the <Arrow> keys. Enter new values through the keyboard. Press the <Tab> key or the <Arrow> keys to move between fields. The date must be entered in MM/DD/YY format. The time must be entered in HH:MM:SS format.

11.4 Advanced BIOS Feature
Select the “Advanced” tab from the setup screen to enter the Advanced BIOS Setup screen. You can select any of the items in the left frame of the screen, such as CPU Configuration, to go to the sub menu for that item. You can display an Advanced BIOS Setup option by highlighting it using the <Arrow> keys. All Advanced BIOS Setup options are described in this section. The Advanced BIOS Setup screen is shown below. The sub menus are described on the following pages.

12.0 CPU Configuration
- Max CPUID Value Limit allows you to limit CPUID maximum value. [ Disabled ]
- Execute-Disable Bit Capability - This item allows you to enable or disable the No-Execution page protection technology. [ Enabled ]
- Hyper Threading Technology allows you to enable or disable Intel® Hyper Threading technology. [ Enabled ]
- Intel® SpeedStep® tech - When set to disabled, the CPU runs at its default speed, when set to enabled, the CPU speed is controlled by the operating system. [ Disabled ]
- Intel® C-STATE tech allows the CPU to save more power under idle mode. [ Enabled ]
Enhanced C-States - CPU idle set to enhanced C-States, disabled by Intel® C-STATE tech item. [Enabled]

13.0 IDE Configuration

- ATA/IDE Configuration allows you to select Disabled / Compatible / Enhanced. [Compatible]
- Legacy IDE Channels - When set to Enhanced mode you can select IDE or AHCI mode. When select Compatible mode you can select SATA only; SATA pri, PATA sec; or PATA only. [SATA pri, PATA sec]
- Primary/Secondary/Third IDE Master/Slave - BIOS auto detects the presence of IDE device and displays the status of auto detection of IDE device. [Not Detected]
  Type: Select the type of SATA driver. [Not Installed][Auto][CD/DVD][ARMD]
  - LBA/Large Mode: Enables or Disables the LBA mode.
  - Block (Multi-Sector Transfer): Enables or disables data multi-sectors transfers.
  - PIO Mode: Select the PIO mode.
  - DMA Mode: Select the DMA mode.
  - S.M.A.R.T.: Select the smart monitoring, analysis, and reporting technology.
  - 32Bit Data Transfer: Enables or disables 32-bit data transfer.
- Hard Disk Write Protect - Disable/Enable device write protection. This will be effective only if the device is accessed through BIOS. [Disabled]
- IDE Detect Time Out (Sec) allows you to select the time out value for detecting ATA/ATAPI device(s). [35]

14.0 Super I/O Configuration

- Serial Port1 / Port2 / Port3 / Port4 address allows you to select serial port1 ~ port4 base addresses. [3F8 / 2F8 / 3E8]
- Serial Port1 / Port2 / Port3 / Port4 IRQ allows you to select serial port1 ~ port4 IRQs. [4 / 3 / 11]
- Parallel Port Address - to select parallel port base address. [378]
- Parallel Port Mode - to select parallel port mode. [Normal]
- Parallel Port IRQ allows you to select parallel port IRQ. [IRQ7]
- Auto Flow Control for SP2 allows you to enable or disable auto flow control. [Disabled]
15.0 Hardware Health Configuration

- H/W Health Function allows you to control H/W monitoring. [Enabled]
- Temperature & Voltage show - CPU/System Temperature Vcore / +3.3 Vin / +5 Vin / +12 Vin / VBAT
  - CPU [36°/96°]
  - System [35°/95°]
  - Vcore [1.156 V]
  - +3.3 Vin [3.317 V]
  - +5 Vin [4.922 V]
  - +12 Vin [11.875 V]
  - VBAT [3.048 V]
- Fan1 Speed show display Fan1 Speed RPM. [6826 RPM]

16.0 ACPI Settings

16.1 General ACPI Configuration

☐ Suspend mode - Select the ACPI state used for system suspend. [Auto]
☐ Repost Video on S3 Resume allows you to invoke VA BIOS POST on S3/STR resume. [No]

16.2 Advanced ACPI Configuration

ACPI Version Features allows you to enable RSDP pointers to 64-bit fixed system description tables. [ACPI v3.0]
ACPI APIC support - Include APIC table pointer to RSDT pointer list. [Enabled]
AMI OEMB table - Include OEMB table pointer to R(x)SDT pointer lists. [Enabled]
Headless mode - Enable / Disable Headless operation mode through ACPI. [Disabled]

16.3 Chipset ACPI Configuration

☐ Energy Lake Feature allows you to configure Intel’s Energy Lake power management technology. [Disabled]
☐ APIC ACPI SCI IRQ - Enable/Disable APIC ACPI SCI IRQ. [Disabled]
☐ USB Device Wakeup from S3 - Enable/Disable USB Device Wakeup from S3. [Disabled]
High Performance Event Timer - Enable/Disable High performance Event timer. [Enabled]

17.0 AHCI Configuration
- AHCI Port0 / Port1 - While entering setup, BIOS auto detects the presence of IDE devices. This displays the status of auto detection of IDE device.
  - Port 0 [Not Detected]
  - Port 1 [Not Detected]

18.0 APM Configuration
- Power Management/APM - Enable or disable APM. [Enabled]
- Power Button Mode - Power on, off, or enter suspend mode when the power button is pressed. The following options are also available. [On/Off]
- Restore on AC power Loss - Use this to set up the system response after a power failure. The "Off" setting keeps the system powered off after power failure, the "On" setting boots up the system after failure, and the "Last State" returns the system to the status just before power failure. [Power Off]
- Video Power Down Mode - Power down video in suspend or standby mode.
- Hard Disk Power Down Mode - Power down Hard Disk in suspend or standby mode.
- Resume On Ring - Enable / Disable RI to generate a wake event. [Disabled]
- Resume On RTC Alarm - Enable / Disable RTC to generate a wake event. [Disabled]

19.0 Event Log Configuration
- View Event Log - View all unread events on the event Log.
- Mark all events as read - Mark all unread events as read.
- Clear Event Log - Discard all events in the event Log.
20.0 MPS Configuration
☐ MPS Revision - allows you to select MPS (Multi-Processor Specification) version.
  [ 1.4 ]

21.0 Smbios Configuration
☐ SMBIOS SMI Support - SMBIOS SMI wrapper support for PnP function 50h-54h.
  [ Enabled ]

22.0 USB Configuration
☐ Legacy USB Support - Enables support for legacy USB. Auto option disables legacy support if no USB devices are connected. [ Enabled ]
☐ USB 2.0 Controller Mode allows you to select HiSpeed(480Mbps) or FullSpeed (12Mpbs). [ HiSpeed ]
☐ BIOS EHCI Hand-Off - This is a workaround for an OS without EHCI hand-off support. The EHCI ownership change should be claimed by EHCI driver. [ Enabled ]
☐ Hotplug USB FDD Support - A dummy FDD device is created that will later be associated with a hotplugged FDD. Auto option creates this dummy device only if there is no USB FDD present. [ Auto ]

22.1 USB Mass Storage Device Configuration
☐ USB Mass Storage Reset Delay - Number of sends POST wait for the USB mass storage device after start unit command. [ 20 Sec. ]
☐ Emulation Type - If Auto, any USB device less than 530MB will be emulated as a floppy drive and the remaining as hard drives. Force FDD option can be used to force a FDD formatted drive to boot as FDD (Ex. ZIP drive). [ Auto ]

23.0 Advanced PCI/PnP Settings
☐ Clear NVRAM - Set this value to force the BIOS to clear the Non-Volatile Random Access Memory (NVRAM). The Optimal and Fail-Safe default setting is No. [ No ]
Plug & Play O/S - When set to No, BIOS configures all the devices in the system. When set to Yes and if you install a Plug and Play operating system, the operating system configures Plug and Play devices not required for bootup. [No]

PCI Latency Timer - Value in units of PCI clocks for PCI device latency timer register. [64]

Allocate IRQ to PCI VGA - When set to Yes, assigns IRQ to PCI VGA card if card requests IRQ. When set to No, will not assign IRQ to PCI VGA card even if card requests an IRQ. [Yes]

Palette Snooping is designed to solve problems caused by some non-standard VGA cards. [Disabled]

PCI IDE BusMaster - When set to enabled BIOS uses PCI busmastering for reading/writing to IDE drives. [Enabled]

OffBoard PCI/ISA IDE Card - Some PCI IDE cards may require this to be set to the PCI slot number that is holding the card. When set to Auto will works for most PCI IDE cards. [Auto]

IRQ 3 / 4 / 5 / 7 / 9 / 10 /11 allows you respectively assign an interruptive type for IRQ 3, 4, 5, 7, 9, 10, 11. [Available]

DMA Channel 0 / 1 / 3 / 5 / 6 / 7 - When set to Available will specify which DMA is available to be used by PCI/PnP devices. When set to Reserved will specify which DMA will be reserved for use by legacy ISA devices.

### 24.0 Boot Settings Configuration

Quick Boot allows BIOS to skip certain tests while booting. This will decrease the time needed to boot the system. [Enabled]

Quiet Boot - If this option is set to Disabled, the BIOS displays normal POST messages. If Enabled, an OEM Logo is shown instead of POST messages. [Disabled]

AddOn ROM Display Mode - Set display mode for option ROM. [Force BIOS]

Bootup Num-Lock - Select the Power-on state for Numlock. [On]

PS/2 Mouse Support - Select support for PS/2 Mouse. [Auto]

Wait For ‘F1’ If Error - Wait for the F1 key to be pressed if an error occurs. [Enabled]

Hit ‘DEL’ Message Display - Displays -Press DEL to run Setup in POST. [Enabled]

Interrupt 19 Capture allows options for ROMs to trap interrupt 19. [Disabled]
Bootsafe function allows you to enable or disable the bootsafe function. [ Disabled ]

25.0 Security
- Select Security Setup from the MP5000A/J Setup main BIOS setup menu. All Security Setup options, such as password protection and virus protection are described in this section. To access the sub menu for the following items, select the item and press <Enter>:
- Boot Sector Virus protection will warn if any program tries to write to the boot sector. [ Disabled ]

26.0 Advanced Chipset Settings-North Bridge
- DRAM Frequency allows you to manually change DRAM frequency. [ Auto ]
- Configure DRAM Timing by SPD allows you to enable or disable detection by DRAM SPD. [ Enabled ]
- Initiate Graphic Adapter allows you to select which graphics controller to use as the primary boot device. [ IGD ]
- Internal Graphics Mode Select - Select the amount of system memory used by the Internal graphics device. [ Enabled, 8MB ]

26.1 Video Function Configuration
- DVMT Mode Select displays the active system memory mode. [ DVT Mode ]
- DVMT/FIXED Memory - Specify the amount of DVMT / FIXED system memory to allocate for video memory. [ 256MB ]
- Boot Display Device - Select boot display device at post stage. [ VBIOS-Default ]
- Flat Panel Type allows you to select which panel resolution you want. [ 1024X768(24bit) ]
- Spread Spectrum Clock allows you to enable or disable the spread spectrum clock. [ Disabled ]
- Backlight Control 1/2 Type allows you to select backlight control type. [ PWM ] [ Level 10 ]
- Backlight 1/2 Level allows you to select backlight level. [ PWM Level 10 ]
27.0 Advanced Chipset Settings-South Bridge

- USB Functions - disabled, 2 USB Ports, 4 USB Ports, 6 USB Ports or 8 USB Ports or 10 USB Ports. [10 USB Ports]
- USB 2.0 Controller - enables or disables the USB 2.0 controller. [Enabled]
- LAN1 Intel 82576V controller - enables or disables the Intel LAN1 controller. [Enabled]
- LAN1 Boot ROM - enables or disables internal LAN1 boot. [Disabled]
- LAN1 Wake Up from S5 - enables or disables LAN1 wake up from S5 function. [Disabled]
- LAN2 Intel 82583V controller - enables or disables the LAN2 controller. [Enabled]
- LAN2 Boot ROM - enables or disables LAN2 boot. [Disabled]
- LAN2 Wake Up from S3/S4/S5 - enables or disables LAN2 wake up from S3/S4/S5 function. [Disabled]
- HDA Controller - enables or disables the HDA controller. [Enabled]
- SMBUS Controller - enables or disables the SMBUS controller. [Enabled]
- SLP_S4# Min. Assertion Width is a signal for power plane control. This signal shuts off power to all non-critical systems when in the S4 (Suspend to disk) or S5 (Soft off) state. This setting indicates minimum assertion width of the SLP_S4# signal to ensure that the DRAMs have been safely power-cycled. [1 to 2 seconds]

28.0 Exit Option

- Save Changes and Exit - When you have completed system configuration, select this option to save your changes, exit BIOS setup and reboot the computer so the new system configuration parameters can take effect.
  1. Select Exit Saving Changes from the Exit menu and press <Enter>.
  The following message appears: Save Configuration Changes and Exit Now?
    [Ok] [Cancel]
  2. Select Ok or cancel.
Discard Changes and Exit - Select this option to quit Setup without making any permanent changes to the system configuration.
1. Select Exit Discarding Changes from the Exit menu and press <Enter>. The following message appears: Discard Changes and Exit Setup Now? [Ok] [Cancel]
2. Select Ok to discard changes and exit. Discard Changes
3. Discard Changes from the Exit menu and press <Enter>.

Load Optimal Defaults. The MP5000A/J automatically configures all setup items to optimal settings when you select this option. Optimal defaults are designed for maximum system performance but may not work best for all computer applications. Do not use the Optimal Defaults if your computer is experiencing system configuration problems. Select Load Optimal Defaults from the Exit menu and press <Enter>.

Load Fail-Safe Defaults. The MP5000A/J automatically configures all setup options to fail-safe settings when you select this option. Fail-Safe Defaults are designed for maximum system stability, but not maximum performance. Select Fail-Safe Defaults if your computer is experiencing system configuration problems.
1. Select Load Fail-Safe Defaults from the Exit menu and press <Enter>. The following message appears: Load Fail-Safe Defaults? [OK] [Cancel]
2. Select OK to load Fail-Safe defaults.

### 29.0 Jumper Settings

<table>
<thead>
<tr>
<th>Function</th>
<th>Jumper Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Keep CMOS data</td>
<td>1-2 closed</td>
</tr>
<tr>
<td>Clear CMOS data</td>
<td>2-3 closed</td>
</tr>
</tbody>
</table>

*Default
30.0 Installing Software and Drivers
Drivers and utilities are in the “Drivers” of the hard drive.

30.1 Operating Systems
Your All-in-One computer is designed to work with a wide variety of operating systems including but not limited to Embedded OS, Windows XP, Windows Vista, and Windows 7.

If you purchased the Windows operating system for your All-in-One computer, the operating system and drivers have already been installed for you.

30.2 Touch Screen Driver
The MP5000A/J has an ELO serial touch controller. A universal driver is included in the respective ELO touch directory.

30.3 Video Driver
The MP5000A/J computers use The Intel® embedded Atom + ICH8M chipset, featuring Embedded Gen3.5+ GFX Core with MPEG2 decode in hardware. Intel Graphics Media Accelerator 3150 Driver can be installed in the respective VGA directory.

30.4 Audio Driver
The MP5000A/J has a build-in audio controller. Windows driver can be installed by running the program in the respective audio directory.

30.5 Network Driver
The MP5000A/J has two Intel 10/100/1000 network interfaces (82567V and 82583V). Network driver can be installed by running the program in the respective LAN directory.

30.6 Tuning the Touch Screen Under Windows
If you wish to calibrate the touch screen while under Windows, go to “Control Panel” and select “Touch” icon. Choose “calibrate” to set the touch positions and click “OK” to save the setup.
30.7 Other Applications
Please refer to the manuals accompanying your additional software or hardware.

31.0 Troubleshooting
If your system does not operate correctly at first, re-read the instructions regarding the procedure being performed. If problems occur with third party software, consult the accompanying documentation. Please check this section for possible solutions. If the problem still cannot be resolved, contact your authorized dealer.

31.1 Initial Inspection
Oftentimes the simplest things can cause the most confusing errors. Always check the following:

1. The power cord is securely connected to both the AC outlet and your Panel Touch.
2. The Panel Touch is turned on.
### 31.2 Peripherals Configuration Problems

If one or more of your peripherals is not working correctly, it often can be the result of an improper configuration either with the device driver or the BIOS. To check device drivers, enter Windows and check the Control Panel for possible conflicts. Default IRQ settings are included in appendices. Enter the BIOS program to verify the configuration settings.

### 31.3 Connection Problems

If you are having problems with your peripherals and have checked the possible solutions above, the connection between your Panel Touch and the peripheral may be the problem. Verify the cable signal output.

### 32.0 Standard IRQ Settings

<table>
<thead>
<tr>
<th>IRQ</th>
<th>Priority</th>
<th>Standard Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>System Timer</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>Keyboard Controller</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>Redirect to IRQ#9</td>
</tr>
<tr>
<td>3</td>
<td>11</td>
<td>IRQ Holder for PCI Steering*</td>
</tr>
<tr>
<td>4</td>
<td>12</td>
<td>Communications Port (COM1)*</td>
</tr>
<tr>
<td>5</td>
<td>13</td>
<td>IRQ Holder for PCI Steering</td>
</tr>
<tr>
<td>6</td>
<td>14</td>
<td>Floppy Disk Controller</td>
</tr>
<tr>
<td>7</td>
<td>15</td>
<td>Printer Port (LPT)*</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>System CMOS/Rear Time</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>IRQ Holder for PCI Steering*</td>
</tr>
<tr>
<td>10</td>
<td>5</td>
<td>IRQ Holder for PCI Steering*</td>
</tr>
<tr>
<td>11</td>
<td>6</td>
<td>IRQ Holder for PCI Steering*</td>
</tr>
<tr>
<td>12</td>
<td>7</td>
<td>PS/2 Compatible Mouse Port*</td>
</tr>
<tr>
<td>13</td>
<td>8</td>
<td>Numeric Data Processor</td>
</tr>
<tr>
<td>14</td>
<td>9</td>
<td>Primary IDE Channel</td>
</tr>
<tr>
<td>15</td>
<td>10</td>
<td>Secondary IDE Channel</td>
</tr>
</tbody>
</table>
33.0 Optional Magnetic Stripe Reader
MSR213U is a HID Keyboard emulation device. It accepts keyboard input from Windows applications.

33.1 Reader Test
The following process will test MSR213U installation:

1. Run the Notepad application from Start ? Programs ? Accessories ? Notepad under Windows
2. Swipe any card through the reader MSR213U.
3. The card data should appear on the Notepad if the MSR213U installed properly.

33.2 Changing Configuration
The MSR configurations can be changed through software installed on the system. They are factory preset and normally do not need to be changed by the user.

To enter the setting mode:
- Connect keyboard to your MP5000A/J computer.
- Run .MSR213U setting AP
- Follow instructions on the screen to change settings

33.3 Power-Up Initialization
Upon power-up, the controller goes into its initialization sequence. The board is designed to initialize in two states:

1. physical power up
2. software power up.

After 250mS, the board is ready to receive software power up. YOU MUST SEND THE BOARD A CLEAR SCREEN COMMAND (HEX 0C) TWO TIMES AT HALF SECOND INTERVALS. This will initialize the controller completely. The LCD display is NOT hot pluggable or hot swappable!