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Federal Communications Commission (FCC) statement

RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed, used and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any special accessories needed for compliance must be specified in the instruction manual.

Warning: A shielded-type power cord is required in order to meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used.

Use only shielded cables to connect I/O devices to this equipment.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

WARNING

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This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Introduction:

The MPACTBOOK is one of the most advanced Pentium PCI/ISA Pentium system. It is fully compatible with PC/AT, a high-performance design for PCI-based implementations of Pentium processor. This well-integrated local PCI Bus motherboard running up to 266MHz speed of building advanced personal computers or workstations. It contains INTEL PCIset FW82371AB/FW82439TX Triton 430TX chip set to supports cache/non-cache functions for Intel Processor P54C/P55C, Cyrix 6x86/M1/M2 and AMD-K5/K6 offered with the 75MHz to 266MHz Pentium family.

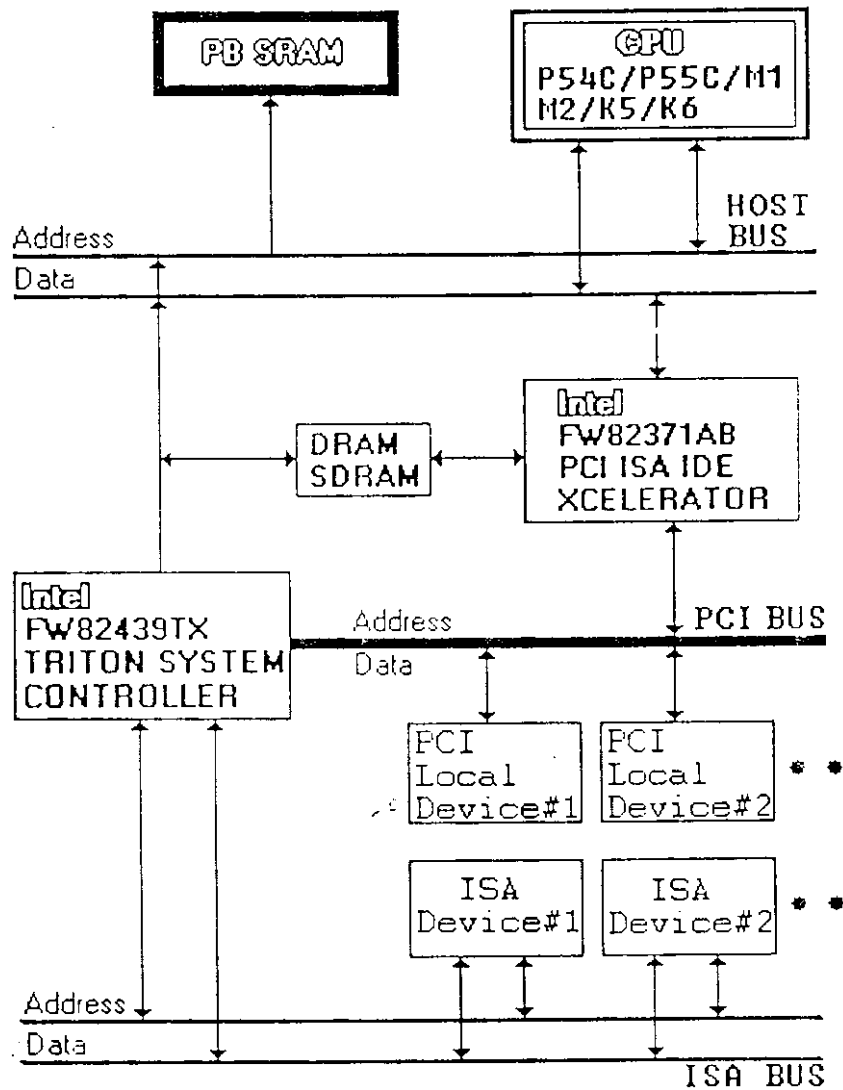
The MPACTBOOK system designed for optimum performance. On system Triton 430TX PCI IDE controller provides a high performance mastering primary/secondary IDE interface. EISA/PCI local bus slot provide a high bandwidth data path for data-movement intensive functions such as graphics. An integrated SMC 37M672 PC Super I/O chip controls a floppy drive, two FIFO serial ports with infrared -IrDA and an EPP/ECP capable parallel port support. EISA/ISA slot for the I/O mix. The special electronics make this system both faster and more powerful than other PCI local bus systems. It is an excellent choice for a green personal computer or workstation. Because it is fully compatible with IBM's PC/AT. You can use DOS, OS/2, Windows 95/98, Windows NT and hundreds of industry-standard software applications.

MPACTBOOK System Features:

- * ZIF Socket Supports 75MHz to 266MHz P54C/P55C /6x86/M1/M2/K5/K6 family Pentium Processor
- * Intel Triton 430TX PCiset Chip Set
- * Up To 256MB DRAM/SDRAM By SIMM/DIMM Modules
- * Use 4MB,8MB,16MB,64MB Devices Of 72Pin SIMM FP DRAM Module and EDO RAM Module
- * Supports 512KB PB or Memory Cache Subsystem
- * System and Video Shadowing Support
- * Programmable bus speed
- * EISA Slot for PCI/ISA Riser Card with LAN
- * Bus Master IDE And Super I/O On Board Supports 2 Serial(FIFO)/One Parallel(EPP/ECP)
- * Supports Infrared IrDA Interface
- * Supports PS/2 Mouse Connector
- * Dimension 300mm(W)x 320mm(D)x 90mm(H)
- * 100% IBM PC/AT compatible
- * Deep green function supports:
 - Doze Mode : System clock programmable
 - Stand By Mode: Monitor screen display off
Hard disk spin motor off
 - Suspend Mode : System going to 0MHz

1.0 Hardware Description

1.1 MPACTBOOK System Block Diagram

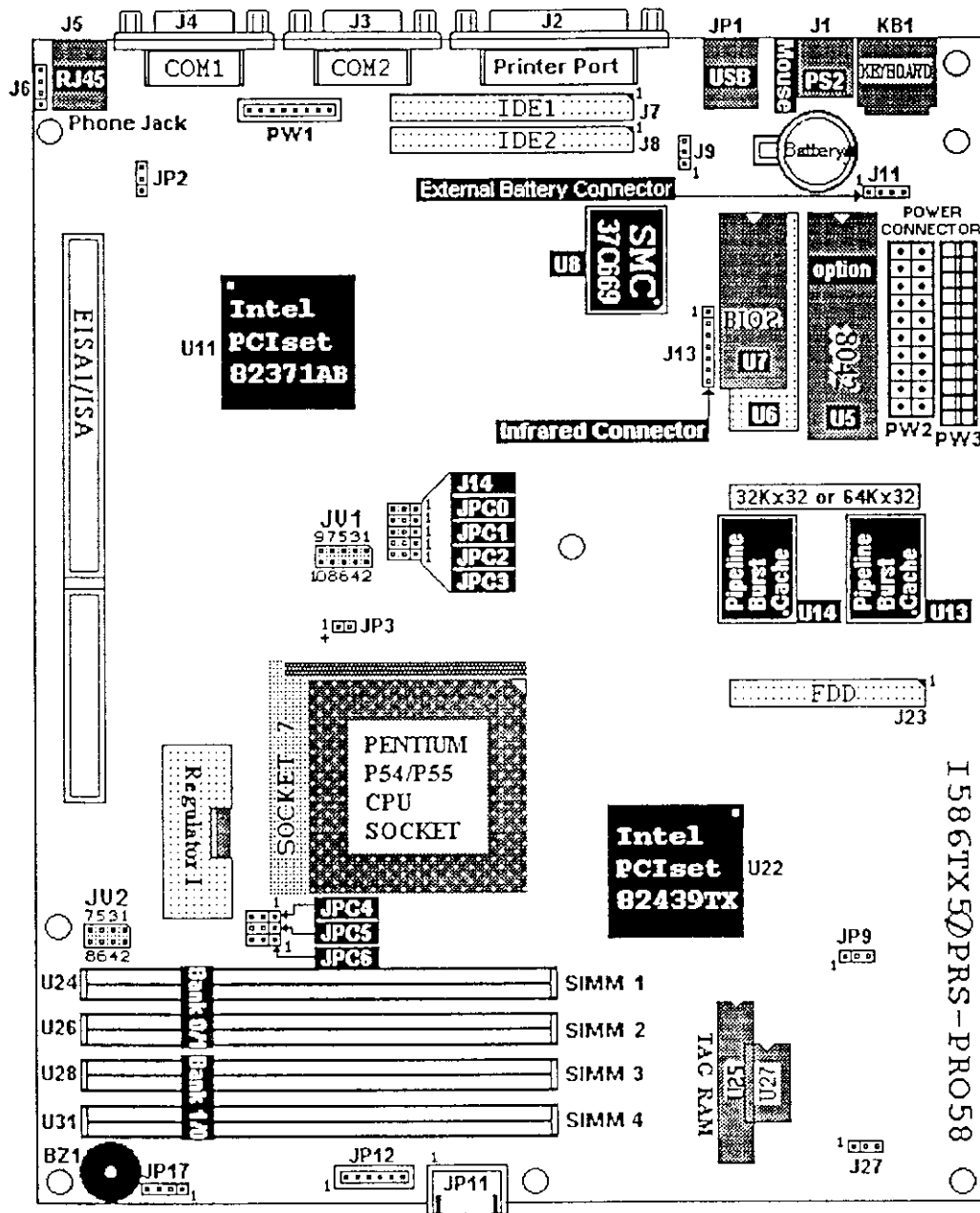


1.2 MPACTBOOK's VLSI Chip Set Description

The MPACTBOOK system consists of the 430TX VLSI chips:

Intel FW82439TX PCIsset SYSTEM CONTROLLER(MTXC)
Intel FW82371AB PCI/ISA IDE XCELERATOR(PIIX4)

The MPACTBOOK system consists of Intel FW82439TX/FW82371AB Pentium Processor Triton 430TX PCIsset controller. The PCIsset forms a Host-to-PCI and provides the second level pipeline burst cache control and a full function 64-bit data path to main memory. They has an IDE interface with both programmable I/O and PCI bus master functions. As the PCI-to-ISA bridge, the PCIsset integrates many common I/O functions found in ISA-based PC system -a seven channel DMA controller, two 82C59 interrupt controllers, an 8254 timer/ counter, Intel SMM power management support, and control logic for NMI generation. Each DMA channel supports type F transfers. Chip select decoding is provided for BIOS, real time clock, and keyboard controller, Edge/Level interrupts and interrupt steering are support for PCI plug and play compatibility.



1.3-1 MPACTBOOK System Jumper Descriptions

JP12: Power On LED
Hard Disk Read/Write LED(HD)
JP17: Speaker Connector(Speaker)
BZ1: Buzzer
KB1: AT Keyboard Connector(KB)
J11: External Battery Connector
J13: Infrared Connector
JP3: DC 12V Voltage Connector
J27: Flash ROM BIOS Selector(Input Voltage)
J1: PS2 Mouse Port Connector
J9: CMOS Data Initial Jumper
J4: COM1 Port Connector(COM1)
J3: COM2 Port Connector(COM2)
J23: Floppy Controller Connector(FDD)
J2: Printer Port Connector(Printer)
J7: Primary IDE Controller Connector(IDE1)
J8: Secondary IDE Controller Connector(IDE2)

JPC0,JPC1,JPC2,JPC3,JPC4,JPC5,JPC6 ----
System Clock Selector

JV1 -- VCORE Voltage Selector

JV2 -- VIO Voltage Selector

2.0 MPACTBOOK Motherboard's Installation

2.1 Microprocessor Speed Selector

The MPACTBOOK system is designed for you, and you can use Intel P54C/P55C Pentium Processor, Cyrix 6x86, M1, M2 and the AMD-K5/K6 at 75MHz to 266MHz Speed. There are Seven jumpers JPC0, JPC1, JPC2, JPC3, JPC4, JPC5 and JPC6 on the motherboard to setup system clock for you installed the 54C/P55C Pentium, Cyrix 6x86/M1/M2 and AMD-K5/K6 microprocessor. Please see the table below to setup your system speed.

Jumper Speed	JPC0	JPC1	JPC2	JPC3	JPC4	JPC5	JPC6	X	Cyrix IBM
75MHz	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1.5x	
90MHz	2-3	2-3	1-2	2-3	1-2	1-2	1-2	1.5x	
100MHz	2-3	2-3	2-3	1-2	1-2	1-2	1-2	1.5x	
100MHz	1-2	1-2	1-2	1-2	2-3	1-2	1-2	2x	120+
120MHz	2-3	2-3	1-2	2-3	2-3	1-2	1-2	2x	150+
133MHz	2-3	2-3	2-3	1-2	2-3	1-2	1-2	2x	166+
150MHz	1-2	2-3	2-3	1-2	2-3	1-2	1-2	2x	200+
150MHz	2-3	2-3	1-2	2-3	2-3	2-3	1-2	2.5x	
166MHz	2-3	2-3	2-3	1-2	2-3	2-3	1-2	2.5x	
150MHz	1-2	1-2	1-2	1-2	1-2	2-3	1-2	3x	
180MHz	2-3	2-3	1-2	2-3	1-2	2-3	1-2	3x	
200MHz	2-3	2-3	2-3	1-2	1-2	2-3	1-2	3x	
233MHz	2-3	2-3	2-3	1-2	1-2	1-2	1-2	3.5x	

2.1-1 Motherboard System Clock and CPU Multiple Jumper Setting

Motherbaord System Clock Jumper Setting

Jumper Speed	JPC0	JPC1	JPC2	JPC3
50MHz	1 - 2	1 - 2	1 - 2	1 - 2
60MHz	2 - 3	2 - 3	1 - 2	2 - 3
66MHz	2 - 3	2 - 3	2 - 3	1 - 2
68MHz	2 - 3	1 - 2	2 - 3	1 - 2
75MHz	1 - 2	2 - 3	2 - 3	1 - 2

CPU Multiple Jumper Setting

Jumper Multiple	JPC4	JPC5	JPC6
1.5x	1 - 2	1 - 2	1 - 2
2.0x	2 - 3	1 - 2	1 - 2
2.5x	2 - 3	2 - 3	1 - 2
3.0x	1 - 2	2 - 3	1 - 2
3.5x	1 - 2	1 - 2	1 - 2
4.0x	2 - 3	1 - 2	2 - 3
4.5x	2 - 3	2 - 3	2 - 3
5.0x	1 - 2	2 - 3	2 - 3
5.5x	1 - 2	1 - 2	2 - 3

2.2 Memory Bank Configuration

The MPACTBOOK supports the possible DRAM combinations for EDO and Fast Page DRAM in 2 banks(4 row SIMM) of 72-pin SIMM memory module. The DRAM banks has to be filled in the following order:

SIMM MODULE MEMORY

BANK	DRAM MODULE	Total RAM
BANK 0 SIMM 1,2	4MB,8MB,16MB,32MB,64MB 72-pin EDO or FPM Memory	?MB x 2
BANK 1 SIMM 3,4	4MB,8MB,16MB,32MB,64MB 72-pin EDO or FPM Memory	?MB x 2
ON BOARD MEMORY	BANK 0 BANK 1	AMOUNT

2.2-1 Tag RAM And Data SRAM Configuration

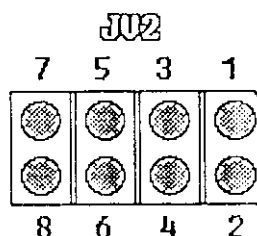
PB CACHE	DATA SRAM	TAG RAM
256KB	32Kx32x2	8Kx8x1
512KB	64Kx32x2	32Kx8x1

TAG RAM: U31 or U28

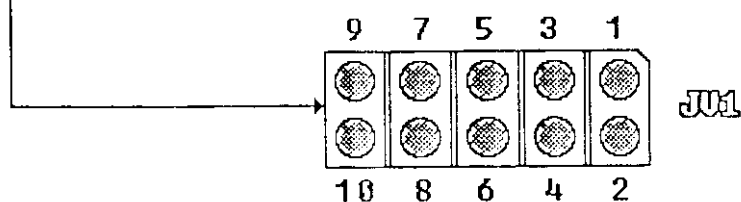
DATA PB SRAM: U22, U27 (BANK 0)

2.3 CPU Voltage Selector Jumper VIO & VCORE

VIO Voltage Selector				
J02	3.3V	3.45V	3.55V	3.65V
1-2	OPEN	OPEN	OPEN	SHORT
3-4	OPEN	OPEN	SHORT	OPEN
5-6	OPEN	SHORT	OPEN	OPEN
7-8	SHORT	OPEN	OPEN	OPEN



VCORE Voltage Selector					
J01	1.8V	2.8V	2.9V	3.2V	3.52V
1-2	SHORT	OPEN	OPEN	OPEN	OPEN
3-4	OPEN	SHORT	OPEN	OPEN	OPEN
5-6	OPEN	OPEN	SHORT	OPEN	OPEN
7-8	OPEN	OPEN	OPEN	SHORT	OPEN
9-10	OPEN	OPEN	OPEN	OPEN	SHORT



3.0 Precautions

This section is written to protect both you and the system itself. In order to lengthen the service life of the system, please read this section carefully.

3.1 Check the Line Voltage

The operating voltage for the switching power should cover the range of 90V AC-260V AC, otherwise the system may be damaged.

Rating	Line Voltage	Frequency
90-260V AC	100-240V AC	50/69 Hz

IMPORTANT!

For internal power model, use only the internal switching power supply unit that came with your PRS-MPACTBOOK PC system unit. Using a different switching power adapter may cause system damage.

3.2 Environmental Conditions

- *Place your PRS-MPACTBOOK PC on a solid, level surface. Be sure to allow enough room on each side so that you can have an easy access.
- *Avoid installing this system in an extremely hot or cold place.
- *Avoid putting this system in a place exposed to direct sunlight, in a closed car in the summer time, or near a heating device such as a stove.
- *Temperature: Operating Temperature: 5 C - 40 C.
Non-operating Temperature: -20 C - -60 C.
- *Do not use a system that has been left outdoors on a cold winter day. The operating lowest ambient temperature is 5 C.
- *Avoid moving the system rapidly from a hot place to a cold place or vice versa. Otherwise, condensation may form inside the system.
- *Keep the system away from damp air, water and dust. The operating ambient humidity is 20% - 80% (non-condensing). The Non-operating Relative Humidity is 5%-80% (non-condensing). Avoid putting a water-filled container such as a vase on or near the system.
- *Do not put the system in a place of strong vibration which may cause serious damage to the hard disk inside the system (if a hard disk is installed inside).
- *Do not place the system too close to a radio, television, or other communication systems to avoid interference.

3.3 Handle the System Carefully

- *Do not put heavy objects on the system except a small light monitor.
- *Do not turn the system upside down. Otherwise, the disk drive may not work properly.
- *When you transport the system outdoors, it is always advisable to protect it by inserting a protective diskette into the disk drive.

3.4 When Not in Use

When the system is not in use, remember to cover the system and store it with care.

3.5 When Operation is Faulty

Double check the operating procedure and if problem persists, contact your supplier.

4.0 Getting Start

This section explains how to set up your new MPACTBOOK PC. It helps you unpack the computer, identify all the parts, and put it all together.

4.1 Unpacking the package

Upon unpacking the MPACTBOOK package, make sure that you have the following items in good condition:

- *The main system unit
- *Power cord
- *The MPACTBOOK User's Manual
- *DR DOS 6.0 or later version (Optional)
- *HDD&FDD cable
- *Warranty card

If any of the above items are damaged or missing. Please contact your supplier immediately.

After you have removed all items, put the packing material and plastic wraps into the packing box and move it to a storage area. Save them for use when moving or shipping the computer.

4.2 PRS-MPACTBOOK PC Outlooking

4.2-1 Introduction

The PRS-MPACTBOOK PC are high performance 16/32/64-bit personal computers. They are IBM PC-/386/486/Pentium/Pentium-Pro compatible PC with 3 expansion slots.

The PRS-PRO58 Main Board used in the MPACTBOOK PC is an all-in-one motherboard which contains CPU, RAM, ROM BIOS, floppy disk drive controller, IDE hard disk controller, LAN function, etc.

The Dimension for PRS-MPACTBOOK PC is as following:

<u>Model</u>	<u>Dimension</u>
PRS-MPACTBOOK	300 (W) x 320 (D) x 90 (H) mm

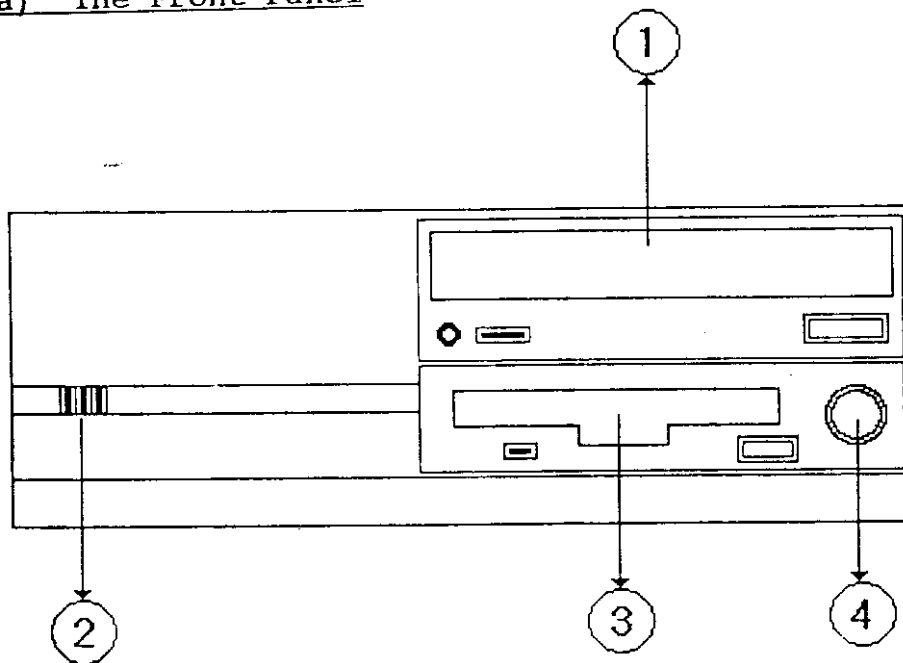
4.2-2 Outside the System Unit

The system unit is the main body of a PC system. Its equipment and structures define almost all of the features & functions of the PC system. It is a box-like structure with a metal casing enclosing all its electronic components.

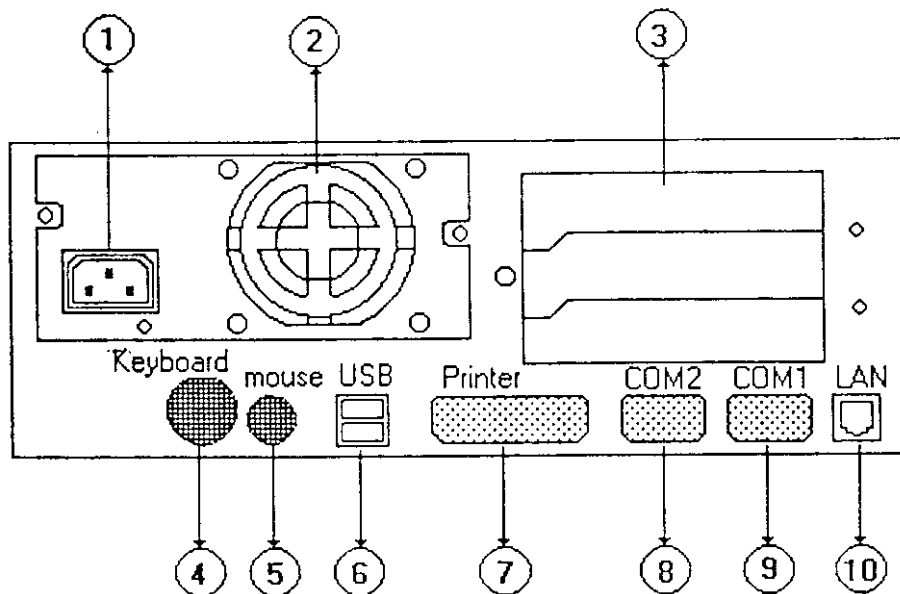
The outside of the system unit has LED indicating lights and input/output connectors on it. The casing is made of metal so as to help with heat dissipation to assure the proper function of the inside components.

4.2-3 PRS-MPACTBOOK PC Outlooking Detail Description

a) The Front Panel



1	5.25" CD ROM Drive Bay	2	HDD/FDD/POWER ON LED
3	3.5" 1.44MB FDD	4	POWER SWITCH

b) The Rear Panel

1	AC Power Inlet	2	FAN
3	Expansion Slot	4	AT Keyboard Jack
5	PS2 Mouse Jack	6	USB1/USB2 Connector
7	Parallel Port(Printer Port)	8	Serial Port 2(COM2)
9	Serial Port 1(COM1)	10	RJ45 LAN Jack