Model 8500P
Service Manual
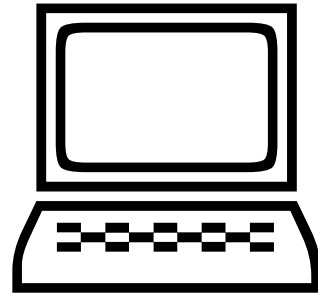
The circuit schematics herein provided for reference only are not necessarily the latest version.

Mainboard	*77-85P00-D04-A*
Power Board	*77-85M0C-D02*

Specifications are subject to change without notice**.**   **Oct. 1999**

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⌨ *SPECIFICATIONS*

The Model 8500P Notebook PC is IMM MMC2 based powerful one. The main unit itself is well designed to meet the changeable CPU strategy. The basic system of the Model 8500P Notebook PC includes a built-in battery pack and an AC adapter. The followings is the basic specifications:

◆ Processor Module

- ✓ 233/266/300/333/366/400 MHz Mobil Pentium II module and 450/500/550/600/650 MHz Mobil Pentium III module; 600/650 MHz Mobil Pentium III module with Intel **SpeedStep** technology.
- ✓ Intel Mobile Module Connector II Structure (MMC2).
- ✓ 66/100 MHz CPU Bus Clock.

◆ Memory

- ✓ Provide 64 bit data bus system memory
- ✓ Memory expandable up to 256 MB, depending on 8/16/32/64/128 MB SODIMM module.
- ✓ Two-bank 144-pin SODIMM sockets, support Sync DRAM SODIMM (3.3V)
- ✓ Sync SODIMM: must use 75MHz or faster; must use PC-100 SDRAM only for **Pentium III** processor

◆ System BIOS

- ✓ Systemsoft BIOS with Smart Battery.
- ✓ One 256KB (28F020) Flash ROM
- ✓ Plug and Play (1.0a)

◆ Display

- ✓ 15"/15.1" XGA TFT (1024x768 pixels) color panel
- ✓ 64 bit Hardware 2D/3D Accelerator Graphics Engine
- ✓ 8MB Video RAM SGRAM
- ✓ Simultaneous display in LCD and monitor
- ✓ High quality TV-out (resolution 1024x768x16M)

- ✓ AGP bus 2X
- ✓ Support VPM 1.10 (Zoomed Video Port)
- ✓ Support external Video Input

◆ Mass Storage

- ✓ Built-in 2.5" hard disk drive (12.7mm high or less), supporting bus mastering IDE, PIO4, ULTRA DMA-33 or 2.5" 17mm HDD
- ✓ Built-in 3.5" 3-MODE 1.44MB floppy disk drive.
- ✓ Built-in 24X CD-ROM disc drive (12.7mm high).
- ✓ DVD-ROM drive, LS-120 120MB floppy drive, IO MEGA 100MB ZIP drive (option).
- ✓ 3" (12.5mm high) or 2.5" (12.7mm or 17mm high) secondary hard disk drive

◆ PC Card Slot

- ✓ Two Type-II PC cards or one Type-III PC card.
- ✓ Support CardBus (PC Card 95).
- ✓ Support Zoom Video ports (slot A only).

◆ Audio

- ✓ Compatible Sound-Blaster PRO version 3.01.
- ✓ 3D stereo enhancement sound system.
- ✓ Full duplex support.
- ✓ Two built-in speakers (2 watts).
- ✓ Built-in microphone.

◆ Input/output

- ✓ One serial port (COM1).
- ✓ One parallel port (LPT1), supporting ECP/EPP 1.7 and 1.9
- ✓ One 15-pin external video port.
- ✓ One External keyboard/mouse (PS/2 type) port.
- ✓ One built-in track pad (PS/2).
- ✓ One 120-pin connector for Port Replicator.
- ✓ One S-Video jack for TV output.

- ✓ One RCA jack for video input.
- ✓ One Line-in jack.
- ✓ Fast Infrared (FIR) file transfer, IrDA 1.1 or ASKIR (SHARP standard).
- ✓ Dual USB port.
- ✓ One speaker-out jack.
- ✓ One microphone jack.
- ✓ One DC-in jack
- ✓ One IEEE 1394 port
- ✓ One RJ-11 jack for ISA Plug & Play modem accessory (option)
- ✓ Power jack

◆ Communication

- ✓ Wireless infrared transfer IrDA 1.1, 4Mbps FIR.
- ✓ 56K DSVD ISA plug and play Modem (V.90) (option).

◆ Power Management

- ✓ support ACPI v1.0
- ✓ support APM v1.2
- ✓ Soft off
- ✓ CPU Over-temperature protection.
- ✓ Support Suspend To Disk.
- ✓ Battery Low Suspend.
- ✓ Resume from Alarm time/Modem Ring.

◆ AC Power Supply

- ✓ AC input: 100~240V, 47~63Hz.
- ✓ Full Range 65watts AC adapter.

◆ Rechargeable Battery Pack

- ✓ Smart Lithium-Ion Battery.

◆ Size & Weight

- ✓ 358mm(w) X 280mm(d) X 50mm(h).
- ✓ 4.2 kg with Lithium-Ion Battery.

▣ *I/O Address Map*

Hex range	Device
000 - 00F	DMA controller-1
020 - 021	Interrupt controller-1
040 - 043	Timer 1
048 - 04B	Timer 2
060 - 06E	KB controller M38813 chip select
070 - 071	RTC and NMI mask
080 - 08F	DMA page register
0A0 - 0A1	Interrupt controller-2
0C0 - 0DF	DMA controller-2
1F0 - 1F7	Fixed disk select
3F6 , 3F7	
2F8 - 2FF	Serial port 2
378 - 37A	Parallel port 1
3B4 , 3B5	CRT controller index (mono)
3D4 , 3D5	CRT controller index (color)
3BA	Feature control
3C0 - 3DA	
3F2 - 3F7	Floppy disk controller
3F0 , 3F1	configuration port
3F8 - 3FF	Serial port 1

▣ *System Memory Map*

ADDRESS	SIZE	FUNCTION
000000 - 09FFFF	640KB	640KB Base Memory
0A0000 - 0BFFFF	128KB	Video RAM
0C0000 - 0CFFFF	64KB	VGA BIOS
0CC000 - 0DFFFF	80KB	Reserved
0E0000 - 0EFFFF	64KB	System BIOS for SCU, PCI, PnP, PMU
0F0000 - 0FFFFF	64KB	System BIOS for Kernal
100000 -	16MB to 256MB	Extended Memory

▣ *Motherboard*

The motherboard is designed as ***IMM MMC-2*** based CPU Module and includes the following CHIPSET function:

1. 82371MB PIIX4E chipset solution from INTEL
2. ***ATI 3D RAGE LT PRO*** Multimedia Flat Panel Controller
3. ***TI*** 1225 PC CARD Controller
4. FDC37N769 super I/O Floppy Disk Controller
5. ES1978S PCI Audio Chip and ES1918 AC97' CODEC
6. Bt829B Video-in decoder
7. M38867 Keyboard Controller
8. TI TSB 12LV22 (LINK)+ TI TSB41LV03 (PHY) IEEE 1394-1995 Controller

▣ *Setting DIP Switch (Updating BIOS)*

SW1-1	SW1-2	FLASH ROM BIOS
OFF	OFF	Existing BIOS
ON	ON	Updating BIOS

⌨ *Microprocessor*

The Model **8500P** Notebook PC applies *IMM MMC-2* base:

A. Pentium-II 233/266/300/333/366/400 Microprocessor and

Pentium-III 450/500/550/600/650 Microprocessor

Pentium-III 600/650 Microprocessor with Intel **SpeedStep**® technology

The *IMM MMC-2* has an improved prefetch/BTB mechanism that is more accurate and a built-in MMX (MultiMedia eXtension enable) Technology Architecture.

Feature includes:

1. Superscalar architecture
2. Separate code and data caches
3. Branch prediction
4. High performances floating point unit
5. Enhanced 64 bits data bus
6. Data integrity features
7. SL technology power management features
8. Multiprocessing support
9. Performance monitoring
10. Memory page size feature

B. 443BX Host Bridge System Controller

Intel's 443BX Host Bridge system controller is a highly integrated device that combines the mobile Pentium-II/III processor bus controller, the DRAM controller, and the PCI bus controller into one component. The 443BX Host bridge has multiple power management features:

1. Host Interface
2. Memory Interface
3. PCI Interface
4. AGP Interface

Note:

1. The **SpeedStep** technology will lower power consumption while a notebook is running on battery power.   A software applet will automatically switch the notebook into a mode that lowers the processor's clock speed and voltage when the applets detects that battery power is being used.

2. If the thermal pad on the heatsink is broken, please change the thermal pad. Otherwise, it will cause CPU temperature too high.

▣ *Chips*

◆ **Southbridge Chip-INTEL 82371MB (PIIX4E)-**

It contains the following features:

1. Supported Kits for Pentium and Pentium II/III Microprocessors

2. Multifunction PCI to ISA Bridge
    - Support PCI at 33 MHz
    - Support PCI Rev 2.1 Specification
    - Support Full ISA or Extended I/O BUS

3. Support Mobile Deep Green Environments
    - 3V Operation with 5V Tolerant Buffers
    - Ultra-low Power for Mobile Environments Support

4. Full Support for ACPI(Advanced Configuration and Power Interface) Revision 1.0

5. Integrated IDE Controller
    - Support Ultra DMA/33

6. Support two 82c37 Enhanced DMA Controller

7. Support two 82c59 Intrrupt Controller

8. Support 82c54 Timmer Based

9. Support UHCI USB Ports

10. Support SMBus

◆ VGA Controller-ATI 3D RAGE LT PRO

The *ATI 3D RAGE LT PRO* Multimedia Flat Panel Controller is a DRAM based, fully integrated LCD, CRT & TV 64 bits controller for AGP systems. It contains the following functions:

1. support displays for 8MB
2. 64bit high performance 2D/3D Graphic Engine
3. support bus master AGP and SGRAM memory
4. support 24 bit TFT panels up to 1024x768 resolution
5. support non-interlaced 1280x1024x64k, 1280x1024x16M, 1024x768x16M, 800x600x16M, and 640x480x16M color on CRT
6. simultaneous display in 24 bit color on flat panel and CRT
7. internal buffer provides flicker reduction
8. *ATI 3D RAGE LT PRO* DAC can directly interface with a standard off-the-shelf NTSC/PAL encoder. Composite synchronization signals support for standard home TV connection up to 1024x768x16M and 16:9 Wide mode
9. graphic functions optimized by a 64 bit internal data bus and VGA, SVGA , and XGA flat panel
10. provide flexible and extensive power management capabilities and support four states of VESA Display Power Management Signaling standard
11. Industry leading DuoView Simultaneous display at Windows 98
12. Fully compliant ZV-port interface with device driver support for VPM
13. Motion compensation

◆ PC Card 95 (CardBus) Interface Controller-TI-1225

TI Card bus Interface Controller 1225 implements the
PCMCIA 2.0/JEIDA 4.1 standard. It contains the following functions:

1. Support 2 PCMCIA 2.1& JEIDA 4.2 R2 cards or 2 CardBus cards
2. Yenta Registers-compatible
3. Support Zoom Video Mode
4. PCMCIA dual-socket interface
5. one-Slot plus MPEG three Zoomed Video Ports support
6. Bus Master Transfer capability
7. Support both 5V and 3.3V PC cards
8. Support PCMCIA_ATA Specification
9. Support Advanced Submicron Low Power CMOS Technology
10. Support ACPI 1.0 Compliant
11. 208 pin TQFP package

ZV Port Custom Interface

The ZV (Zoomed Video) Port is a single source, point-to-point uni-directional video bus between a PC Card slot and a VGA controller. The ZV Port complies with CCIR601 timing to allow NTSC decoders to deliver real-time digital video straight into the VGA frame buffer from a PC Card. The ZV Port also allows an industry standard mechanism for transferring digital audio PCM data to a low cost DAC for conversion to an analog signal.

◆ Super I/O Floppy disk Controller-FDC37N769

The SMC FDC37N769 super I/O is optimized for motherboard applications. It provides:

1. Intelligent Auto Power Management

2. 16 Bit Address Qualification

3. 1.44MB Super I/O Floppy Disk Controller
   - ✓ Support Vertical Recording Format
   - ✓ 16 Byte Data FIFO
   - ✓ Enhanced Digital Data Separator. Data rate up to 1Mb/s.

4. Multi-Mode Parallel Port with ChiProtect Circuitry
   - ✓ Standard Mode
     IBM PC/AT and PS/2 compatible bi-directional Parallel port.
   - ✓ Enhanced Mode
     Enhanced Parallel Port (EPP) Compatible
   - ✓ High Speed Mode
     Microsoft and Hewlett Packard Extended Capabilities Port (ECP)
     Compatible
5. Serial Port
   - ✓ Two high speed NS16C550 compatible UARTs with Send/Receive 16 Byte FIFOs
   - ✓ Programmable Baud Rate Generator
   - ✓ Modem Control Circuitry
   - ✓ Infrared-IrDA,HPSIR,ASKIR,Fast IR(4Mbps IrDA),Consumer IR Support

◆ High Performance PCI Audio Chip- ES1978S

1. 500-MIPS-squivalent dual -engine PCI audio accelerator
2. HRTF 3-D positional audio acceleration
3. 64-Channel wavetable synthesis
4. Advanced platform for interactive 3-D gaming, DVD movie playback, and internet communication
5. Full plug and play
6. Multi-Stream DirectSound and DirectSound3D acceleration
7. Full DOS Game compatibility
8. I2S Zoomed Video interface

◆ Audio CODEC ES1918

1. Single, high-performance, mixed-signal, 16-bit stereo VLSI chip
2. Meet Audio Codec `97 analog performance specification
3. Full-duplex operation for simultaneous record and playback

◆ Video-In Decoder Bt829b

1. Single-chip composite/S-Video NTSC/PAL/SECAM to YcrCb digitizer
2. Square Pixel and CCIR601 Resolution for:
   - ✓ NTSC(M)
   - ✓ NTSC(M) without 7.5IRE pedestal
   - ✓ PAL
   - ✓ SECAM
3. Hardware closed-caption decoder
4. Two-wire Inter-Integrated Circuit(I2C)
5. YcrCb(4:2:2) output format
6. Auto NTSC/PAL format detect

◆ Keyboard Controller-M38867M8

1. Memory size :1024 bytes (RAM)
2. Timers :8 bit prescaler X 4 + 8 bit timer X 3
3. Comparator :4 bit X 8 channels
4. Bus interface :2 bytes
5. Key on wake-up :8 channels
6. Interrupts :8 external,7 internal,and 1 software
7. A-D converter:8 channels
8. D-A converter:2 channels
9. PWM:2 channels
10. System bus interface:8042 type

◆ IEEE1394-1995 Controller- TI TSB12LV22(LINK) + TI TSB41LV03 (PHY)

Features:

1. Fully IEEE 1394-1995 Compatible
2. General purpose IEEE1394 Host Controller
3. Provide Fully Compliant Cable Ports at 100, 200 and 400 Mbit/s
4. Standard Link-PHY protocol
5. PCI 2.2 Specification ready

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▣ *Device Port Connector Description*

◆ Floppy Disk Drive & Secondary Hard Disk Drive

Interface

Use one 60-pin B/B connector. The pin's configurations:

Pin	Description	Pin	Description
1	VCCS	31	VCCS
2	MTR0#	32	DRV0#
3	3MODE#	33	INDEX#
4	TRK0#	34	DSKCHG#
5	HDSEL#	35	DIR#
6	RDATA#	36	STEP#
7	WP_FD#	37	WDAT#
8	WGATE#	38	NC
9	CDRST#	39	GND
10	DDS7	40	DDS8
11	DDS6	41	DDS9
12	DDS5	42	DDS10
13	DDS4	43	DDS11
14	DDS3	44	DDS12
15	DDS2	45	DDS13
16	DDS1	46	DDS14
17	DDS0	47	DDS15
18	GND	48	NC
19	SDREQ	49	GND
20	SDIOW#	50	GND
21	SDIOR#	51	GND
22	SIORDY	52	CSEL
23	SDACK#	53	GND
24	CD_IRQ	54	NC
25	SDA1	55	PDIAG
26	SDA0	56	SDA2
27	CS1S#	57	CS3S#
28	SHD_LED#	58	GND
29	CD_VCC	59	CD_VCC
30	GND	60	NC

◆ Hard Disk Drive Interface

Use a 50-pin B/B connector. The 50-pin connector has the following pin configuration:

Pin	Description	Pin	Description
1	GND	26	GND
2	GND	27	GND
3	HDRST#	28	GND
4	DDP7	29	DDP8
5	DDP6	30	DDP9
6	DDP5	31	DDP10
7	DDP4	32	DDP11
8	DDP3	33	DDP12
9	DDP2	34	DDP13
10	DDP1	35	DDP14
11	DDP0	36	DDP15
12	GND	37	NC
13	PDREQ	38	GND
14	PDIOW#	39	GND
15	PDIOR#	40	GND
16	PIORDY	41	CSEL
17	PDACK#	42	GND
18	IRQ14	43	NC
19	PDA1	44	NC
20	PDA0	45	PDA2
21	CS1P#	46	CS3P#
22	PHD_LED#	47	GND
23	HDD_VCC	48	HDD_VCC
24	GND	49	NC
25	NC	50	NC

◆ Secondary Master CD-ROM Drive Interface

Use a 50-pin B/B connector. The 50-pin connector has the following pin configurations:

Pin	Description	Pin	Description
1	GND	26	GND
2	GND	27	GND
3	HDRST#	28	GND
4	DDP7	29	DDP8
5	DDP6	30	DDP9
6	DDP5	31	DDP10
7	DDP4	32	DDP11
8	DDP3	33	DDP12
9	DDP2	34	DDP13
10	DDP1	35	DDP14
11	DDP0	36	DDP15
12	GND	37	NC
13	PDREQ	38	GND
14	PDIOW#	39	GND
15	PDIOR#	40	GND
16	PIORDY	41	CSEL
17	PDACK#	42	GND
18	IRQ14	43	NC
19	PDA1	44	NC
20	PDA0	45	PDA2
21	CS1P#	46	CS3P#
22	PHD_LED#	47	GND
23	HDD_VCC	48	HDD_VCC
24	GND	49	NC
25	NC	50	NC

◆ RS-232C Serial Interface

The RS-232C Serial Interface uses a 9-pin D-sub male connector which has the following pin configurations:

Pin	Description
1	DCD (DATA Carrier Detect)
2	RXD (Received Data)
3	TXD (Transmitted Data)
4	DTR (Data Terminal Ready)
5	GND (Signal Ground)
6	DSR (Data Set Ready)
7	RTS (Request To Send)
8	CTS (Clear To Send)
9	RI (Ring Indicator)

◆ Parallel Interface

The Parallel interface is implemented through using a 25-pin D-sub female connector which has the following pin configurations:

Pin	Description	Pin	Description
1	Strobe#	2	data 0
3	Data 1	4	Data 2
5	Data 3	6	Data 4
7	Data 5	8	Data 6
9	Data 7	10	ACK#
11	Busy	12	Paper Empty
13	Select	14	Auto Linefeed#
15	Error#	16	Initialize#
17	Select In	18	Ground
19	Ground	20	Ground
21	Ground	22	Ground
23	Ground	24	Ground
25	Ground		

◆ Expansion Memory Socket

The Model 8500P Notebook PC has two 144-pin SODIMM type Expansion memory sockets with the following pin configuration:

✓ **BANK 1:**

Pin	Description	Pin	Description	Pin	Description	Pin	Description
1	GND	2	GND	3	MD0	4	MD32
5	MD1	6	MD33	7	MD2	8	MD34
9	MD3	10	MD35	11	MEM-VCC	12	MEM-VCC
13	MD4	14	MD36	15	MD5	16	MD37
17	MD6	18	MD38	19	MD7	20	MD39
21	GND	22	GND	23	DQMA0	24	DQMA4
25	DQMA1	26	DQMA5	27	MEM-VCC	28	MEM-VCC
29	IMA0	30	IMA3	31	IMA1	32	IMA4
33	IMA2	34	IMA5	35	GND	36	GND
37	MD8	38	MD40	39	MD9	40	MD41
41	MD10	42	MD42	43	MD11	44	MD43
45	MEM-VCC	46	MEM-VCC	47	MD12	48	MD44
49	MD13	50	MD45	51	MD14	52	MD46
53	MD15	54	MD47	55	GND	56	GND
57	MECC0	58	MECC4	59	MECC1	60	MECC5
61	MEMCLK3	62	CKE2	63	MEM-VCC	64	MEM-VCC
65	SRAS#	66	SCAS#	67	WEA#	68	CKE3
69	IRAS#2	70	IMA12	71	IRAS#3	72	IMA13
73	GND	74	MEMCLK4	75	GND	76	GND
77	MECC2	78	MECC6	79	MECC3	80	MECC7
81	MEM-VCC	82	MEM-VCC	83	MD16	84	MD48
85	MD17	86	MD49	87	MD18	88	MD50
89	MD19	90	MD51	91	GND	92	GND
93	MD20	94	MD52	95	MD21	96	MD53
97	MD22	98	MD54	99	MD23	100	MD55
101	MEM-VCC	102	MEM-VCC	103	IMA6	104	IMA7
105	IMA8	106	IMA11	107	GND	108	GND
109	IMA9	110	IMA12	111	IMA10	112	N.C
113	MEM-VCC	114	MEM-VCC	115	DQMA2	116	DQMA6
117	DQMA3	118	DQMA7	119	GND	120	GND
121	MD24	122	MD56	123	MD25	124	MD57
125	MD26	126	MD58	127	MD27	128	MD59
129	MEM-VCC	130	MEM-VCC	131	MD28	132	MD60
133	MD29	134	MD61	135	MD30	136	MD62
137	MD31	138	MD63	139	GND	140	GND
141	SDA_RB	142	SCL_RB	143	MEM-VCC	144	MEM-VCC

✓ **BANK 2:**

Pin	Description	Pin	Description	Pin	Description	Pin	Description
1	GND	2	GND	3	MD0	4	MD32
5	MD1	6	MD33	7	MD2	8	MD34
9	MD3	10	MD35	11	MEM-VCC	12	MEM-VCC
13	MD4	14	MD36	15	MD5	16	MD37
17	MD6	18	MD38	19	MD7	20	MD39
21	GND	22	GND	23	DQMA0	24	DQMA4
25	DQMA1	26	DQMA5	27	MEM-VCC	28	MEM-VCC
29	IMA0	30	IMA3	31	IMA1	32	IMA4
33	IMA2	34	IMA5	35	GND	36	GND
37	MD8	38	MD40	39	MD9	40	MD41
41	MD10	42	MD42	43	MD11	44	MD43
45	MEM-VCC	46	MEM-VCC	47	MD12	48	MD44
49	MD13	50	MD45	51	MD14	52	MD46
53	MD15	54	MD47	55	GND	56	GND
57	MECC0	58	MECC4	59	MECC1	60	MECC5
61	MEMCLK5	62	CKE4	63	MEM-VCC	64	MEM-VCC
65	SRAS#	66	SCAS#	67	WEA#	68	CKE3
69	IRAS#4	70	IMA12	71	IRAS#5	72	IMA13
73	GND	74	MEMCLK6	75	GND	76	GND
77	MECC2	78	MECC6	79	MECC3	80	MECC7
81	MEM-VCC	82	MEM-VCC	83	MD16	84	MD48
85	MD17	86	MD49	87	MD18	88	MD50
89	MD19	90	MD51	91	GND	92	GND
93	MD20	94	MD52	95	MD21	96	MD53
97	MD22	98	MD54	99	MD23	100	MD55
101	MEM-VCC	102	MEM-VCC	103	IMA6	104	IMA7
105	IMA8	106	IMA11	107	GND	108	GND
109	IMA9	110	IMA12	111	IMA10	112	N.C
113	MEM-VCC	114	MEM-VCC	115	DQMA2	116	DQMA6
117	DQMA3	118	DQMA7	119	GND	120	GND
121	MD24	122	MD56	123	MD25	124	MD57
125	MD26	126	MD58	127	MD27	128	MD59
129	MEM-VCC	130	MEM-VCC	131	MD28	132	MD60
133	MD29	134	MD61	135	MD30	136	MD62
137	MD31	138	MD63	139	GND	140	GND
141	SDA_RC	142	SCL_RC	143	MEM-VCC	144	MEM-VCC

◆ Port Replicator connector pin assignment

Use a 12-pin Docking connector which has the following configuration:

Pin	Description	Pin	Description	Pin	Description
1	GND	2	GND	3	GND
4	USBP1+	5	GND	6	USBP1-
7	GND	8	USBP0+	9	GND
10	USBP0-	11	VCCS	12	VCCS
13	GND	14	XLUMA	15	GND
16	XCRMA	17	GND	18	VIDEO_IN
19	GND	20	RED	21	BLUE
22	GREEN	23	GND	24	DVSYNC
25	GND	26	DHSYNC	27	GND
28	DDCDA	29	DDCLK	30	NC
31	A++	32	A++	33	A++
34	NC	35	NC	36	PD0
37	PD1	38	PD2	39	PD3
40	PD4	41	PD5	42	PD6
43	PD7	44	PSTB#	45	PSLIN#
46	PSLCT	47	PINIT#	48	PATFD#
49	PACK#	50	PBUSY	51	PPE
52	PPERR#	53	NC	54	FB0
55	FB0	56	FB0	57	MSOUT
58	MSI692	59	GND	60	GND
61	GND	62	GND	63	GND
64	RIA	65	DTRA	66	CTSA
67	SOUTA	68	RTSA	69	GND
70	SINA	71	DSRA	72	DCDA
73	NC	74	NC	75	CCO
76	CCO	77	CCO	78	NC
79	SOUT2	80	RTS2#	81	DTR2#
82	COM2RI	83	COMSTBY#	84	DSR2#
85	RI2#	86	CTS2#	87	SIN2
88	DCD2#	89	NC	90	NC
91	A++	92	A++	93	A++
94	NC	95	NC	96	GND
97	SUSB#	98	GND	99	EKDA
100	EKCLK	101	GND	102	GND
103	EMDA	104	EMCLK	105	VCC
106	VCC	107	SWA	108	SWB
109	SWC	110	SWD	111	GND
112	GND	113	GTA	114	GTB
115	GTC	116	GTD	117	NC
118	GND	119	GND	120	GND

◆ Internal trackpad Interface

The following is the pin configuration for the connector:

Pin	Description
1	VCC
2	IMDATA
3	IMCLK
4	GND

◆ External Monitor Interface

Use a 15-pin D-sub female connector that has the following configuration:

Pin	Description
1	BRED
2	BGREEN
3	BBLUE
4	N.C
5	GND
6	GND
7	GND
8	GND
9	N.C
10	GND
11	N.C
12	DDCDA
13	DHSYNC
14	DVSYNC
15	DDCLK

RGB Out-

Output Impedance : 75ohm

RGB peak voltage: 0.7Vpp

◆ External S-video TV-out Interface

Pin	Description
1	GND
2	COMP
3	XLUMA
4	XCRMA

22

◆ External Keyboard/PS2 Mouse Interface

✓ CONNECTOR A:

Pin	Description
1	EKDA
2	NC
3	GND
4	VCC
5	EKCLK
6	NC

✓ CONNECTOR B:

Pin	Description
1	EMDA
2	NC
3	GND
4	VCC
5	EMCLK
6	NC

◆ External USB (Universal Serial Bus) Interface

✓ Port A:

Pin	Description
1	USB_VCCA
2	USBP0-
3	USBP0+
4	GND

✓ Port B:

Pin	Description
1	USB_VCCB
2	USBP1-
3	USBP1+
4	GND

◆ 1394 Port Interface

Pin	Description
1	VPP (POWER)
2	GND (GND)
3	TPB# (Twisted pair cable B negative)
4	TPB (Twisted pair cable B positive)
5	TPA# (Twisted pair cable A negative)
6	TPA (Twisted pair cable A positive)

◆ PCMCIA CardBus Interface

✓ Slot A:

Pin	Description	Pin	Description	Pin	Description
1	GND	35	GND	69	GND
2	A-CD3	36	A-CA5	70	A-CA19
3	A-CD4	37	A-CA4	71	A-CA20
4	GND	38	GND	72	GND
5	A-CD5	39	A-CA3	73	A-CA21
6	A-CD6	40	A-CA2	74	A-VCC-C
7	GND	41	GND	75	GND
8	A-CD7	42	A-CA1	76	GND
9	A-CE1#	43	A-CA0	77	A-VPP
10	GND	44	GND	78	A-CA22
11	A-CA10	45	A-CD0	79	GND
12	A-OE#	46	A-CD1	80	A-CA23
13	GND	47	GND	81	A-CA24
14	A-CA11	48	A-CD2	82	GND
15	A-CA9	49	A-WP#	83	A-CA25
16	GND	50	GND	84	A-VS2
17	A-CA8	51	GND	85	GND
18	A-CA13	52	A-CD1#	86	A-RESET
19	GND	53	A-CD11	87	A-WAIT#
20	A-CA14	54	GND	88	GND
21	A-WE#	55	A-CD12	89	A-INPACK
22	GND	56	A-CD13	90	A-REG#
23	A-RDYBY#	57	GND	91	GND
24	A-VCC-C	58	A-CD14	92	A-BVD2#
25	GND	59	A-CD15	93	A-BVD1#
26	GND	60	GND	94	GND
27	A-VPP	61	A-CE2#	95	A-CD8
28	A-CA16	62	A-VS1	96	A-CD9
29	GND	63	GND	97	GND
30	A-CA15	64	A-IORD#	98	A-CD10
31	A-CA12	65	A-IOWR#	99	A-CD2#
32	GND	66	GND	100	GND
33	A-CA7	67	A-CA17		
34	A-CA6	68	A-CA18		

✓ Slot B:

Pin	Description	Pin	Description	Pin	Description
1	GND	35	GND	69	GND
2	B-CD3	36	B-CA5	70	B-CA19
3	B-CD4	37	B-CA4	71	B-CA20
4	GND	38	GND	72	GND
5	B-CD5	39	B-CA3	73	B-CA21
6	B-CD6	40	B-CA2	74	B-VCC-C
7	GND	41	GND	75	GND
8	B-CD7	42	B-CA1	76	GND
9	B-CE1#	43	B-CA0	77	B-VPP
10	GND	44	GND	78	B-CA22
11	B-CA10	45	B-CD0	79	GND
12	B-OE#	46	B-CD1	80	B-CA23
13	GND	47	GND	81	B-CA24
14	B-CA11	48	B-CD2	82	GND
15	B-CA9	49	B-WP#	83	B-CA25
16	GND	50	GND	84	B-VS2
17	B-CA8	51	GND	85	GND
18	B-CA13	52	B-CD1#	86	B-RESET
19	GND	53	B-CD11	87	B-WAIT#
20	B-CA14	54	GND	88	GND
21	B-WE#	55	B-CD12	89	B-INPACK
22	GND	56	B-CD13	90	B-REG#
23	B-RDYBY#	57	GND	91	GND
24	B-VCC-C	58	B-CD14	92	B-BVD2#
25	GND	59	B-CD15	93	B-BVD1#
26	GND	60	GND	94	GND
27	B-VPP	61	B-CE2#	95	B-CD8
28	B-CA16	62	B-VS1	96	B-CD9
29	GND	63	GND	97	GND
30	B-CA15	64	B-IORD#	88	B-CD10
31	B-CA12	65	B-IOWR#	99	B-CD2#
32	GND	66	GND	100	GND
33	B-CA7	67	B-CA17		
34	B-CA6	68	B-CA18		

◆ Internal ISA Interface (For Modem Optional)

Pin	Description	Pin	Description
1	RSTDRV	31	MODEM
2	SD0	32	SD1
3	SD2	33	SD3
4	SD4	34	SD5
5	SD6	35	SD7
6	NC	36	AGND
7	VCCS	37	AUXBR
8	VCCS	38	AGND
9	VCCS	39	VCCA
10	AGND	40	VCCA
11	MIC_IN	41	NC
12	AGND	42	+12V
13	IORD#	43	AEN
14	IOWR#	44	IRQ10
15	IRQ3	45	IRQ11
16	IRQ4	46	IRQ12
17	IRQ5	47	GND
18	IRQ9	48	OSC4
19	SA0	49	SA1
20	SA2	50	SA3
21	SA4	51	SA5
22	SA6	52	SA7
23	SA8	53	SA9
24	SA10	54	SA11
25	SA12	55	SA13
26	SA14	56	SA15
27	GND	57	GND
28	NC	58	NC
29	NC	59	NC
30	--	60	--

◆ LCD Interface (For XGA TFT)

Pin	Description	Pin	Description
1	LCDVDD	26	LCDVDD
2	GND	27	GND
3	PP0	28	PP2
4	PP1	29	PP3
5	GND	30	GND
6	PP4	31	PP6
7	PP5	32	PP7
8	GND	33	GND
9	PP12	34	PP10
10	PP13	35	PP11
11	GND	36	GND
12	PP16	37	PP14
13	PP17	38	PP15
14	GND	39	GND
15	VD48	40	VCC3
16	VD47	41	VCC3
17	GND	42	GND
18	INTMIC	43	MICGND
19	LID	44	BATON
20	ACIN	45	BAT_BEEP
21	BATCHA	46	BATFULL
22	ENABKKL	47	BRIGADJ
23	GND	48	GND
24	NC	49	NC
25	B+	50	B+

◆ PCI BUS Interface (For MPEG-II Optional)

Pin	Description	Pin	Description	Pin	Description
1	VCC3	35	B_Y2	69	PAR
2	MPEGPCLK	36	B_Y4	70	AD15
3	GND	37	B_Y6	71	AD13
4	PRST#	38	GND	72	AD11
5	REQ#2	39	B_UV0	73	AD9
6	AD31	40	B_UV2	74	GND
7	AD29	41	B_UV4	75	CBE#0
8	AD27	42	B_UV6	76	AD6
9	AD25	43	VCC3	77	AD4
10	CBE#3	44	DVD_LUMA	78	AD2
11	AD23	45	DVD_CRMA	79	AD0
12	AD21	46	GND	80	GND
13	AD19	47	DVDSPDIF	81	NC
14	AD17	48	B_SCLK	82	B_PCLK
15	CBE#2	49	B_MCLK	83	B_HREF
16	VCC3	50	VCC3	84	B_VSYNC
17	IRDY#	51	VCC3	85	B_Y1
18	GND	52	INTA#	86	B_Y3
19	DEVSEL#	53	GND	87	B_Y5
20	PERR#	54	GNT#2	88	B_Y7
21	SERR#	55	AD30	89	B_UV1
22	CBE#1	56	AD28	90	B_UV3
23	AD14	57	AD26	91	B_UV5
24	AD12	58	AD24	92	B_UV7
25	AD10	59	IDSEL	93	VCC3
26	AD8	60	AD22	94	DVD_CVBS
27	AD7	61	AD20	95	GND
28	AD5	62	AD18	96	GND
29	AD3	63	AD16	97	NC
30	AD1	64	FRAME#	98	B_SDATA
31	DVD_ON#	65	TRDY#	99	B_LRCLK
32	ZV_GPO#	66	VCC3	100	VCC3
33	DVD_DRV	67	STOP#		
34	B_Y0	68	GND		

🖳 *DC/DC Converter Board*

◆ Input Characteristics

Input Voltage---From AC Adapter: 9.0V~21V

              ---From Battery: 12V

◆ Efficiency

The total efficiency is 85% minimum at full load condition.

◆ Output Characteristics

+5V and +3.45V Power on simultaneously.

Voltage	Regulation	Ripple & Noise	Current Typical	Current Peak
+5V	-4%~+2%	150mVp-p	4.6A	6.4A
+3.45V	-4%~+2%	150mVp-p	4.0A	6.0A
+12V	-5%~+5%	200mVp-p	0.2A	0.5A

◆ System Alarm

Type	Battery Low	Shut Down
LI-ION	9.8V $\pm$ 0.3V	8.8V $\pm$ 0.3V

⌨ *Inverter Board*

LED Lamp:

LED 1: LED 2 **à** SML-010 (GREEN)

LED 3~LED 6 **à** SML-020 (GREEN/RED)

Pin Assignment

◆ 15.1"(H) Connector 1; Input Connector

Pin No.	Symbol	Description
1	B+	Dc Voltage Supply the Operating Power
2	GND	GND
3	BRIGADJ	Given an analog step by step signal in the rang of 0 to 2.5vdc to Control the Lamp brightness
4	BKLO	Control the Inverter ON/OFF
5	BATFULL	Indicator signal
6	BATCHA	Indicator signal
7	BAT-BEEP	Indicator signal
8	ACIN	Indicator signal
9	BATON	Indicator signal
10	LID	Indicator signal

◆ 15.1"(V) Connector 1; Input Connector

Pin No.	Symbol	Description
1	B+	Dc Voltage Supply the Operating Power
2	GND	GND
3	BRIGADJ	Given an analog step by step signal in the rang of 0 to 2.5vdc to Control the Lamp brightness
4	BKLO	Control the Inverter ON/OFF

◆ Connector 2; Output Connector

Pin No.	Description
1	High voltage side of the Lamp
2	Low voltage side of the Lamp

◆ 15.0"(H) Connector 1; Input Connector

Pin No.	Symbol	Description
1	GND	GND
2	GND	GND
3	BATFULL	Indicator signal
4	BATCHA	Indicator signal
5	BAT-BEEP	Indicator signal
6	ACIN	Indicator signal
7	BATON	Indicator signal
8	LID	Indicator signal

◆ 15.0"(V) Connector 1; Input Connector

Pin No.	Symbol	Description
1	B+	Dc Voltage Supply the Operating Power
2	B+	Dc Voltage Supply the Operating Power
3	GND	GND
4	GND	GND
5	BRIGADJ	Given an analog step by step signal in the range of 0 to 2.5vdc to Control the Lamp brightness
6	BKLO	Control the Inverter ON/OFF

◆ Connector 2; Output Connector

Pin No.	Description
1	High voltage side of the Lamp
2	Low voltage side of the Lamp

Lamp Current: $2.5 \pm 0.5 \sim 5.0 \pm 0.5$
Lamp Voltage: 550 Vrms

Starting Voltage: 1400 @ 0 ºC

Working Frequency: 30~60 kHz
Brightness Control: 0~2.5 Vdc
B+:   7~22 V
BKLO: 0V (OFF)   3.3V(ON)

🖳 *System Resource Allocation*(In Windows 98)

IRQ:

IRQ 0: System timer

IRQ 1: Standard 101/102-key or Microsoft Natural Keyboard

IRQ 2: Programmable interrupt controller

IRQ 3: Infrared PnP Serial Port (*PNP0510)

IRQ 4: Communication Port (COM1)

IRQ 5: ESS Device Manager

IRQ 5: IRQ holder for PCI steering

IRQ 6: Standard Floppy Disk Controller

IRQ 7: Printer Port (LPT1)

IRQ 8: System CMOS/real time clock

IRQ 9: Free

IRQ 10: Texas Instruments OHCI Compliant IEEE 1394 Host Controller

IRQ 10: REALmagic Ventura Plus

IRQ 10: Texas Instruments PCI-1225 CardBus Controller

IRQ 10: Texas Instruments PCI-1225 CardBus Controller

IRQ 10: Intel 82371AB/EB PCI to USB Universal Host Controller

IRQ 10: IRQ Holder for PCI steering

IRQ 10: RAGE LT PRO AGP 2X (English)

IRQ 10: IRQ Holder for PCI steering

IRQ 10: IRQ Holder for PCI steering

IRQ 10: IRQ Holder for PCI steering

IRQ 11: Free

IRQ 12: PS/2 Compatible Mouse Port

IRQ 13: Numeric data processor

IRQ 14: Intel 82371AB/MB PCI Bus Master IDE Controller

IRQ 14: Primary IDE controller (dual fifo)

IRQ 15: Intel 82371AB/MB PCI Bus Master IDE Controller
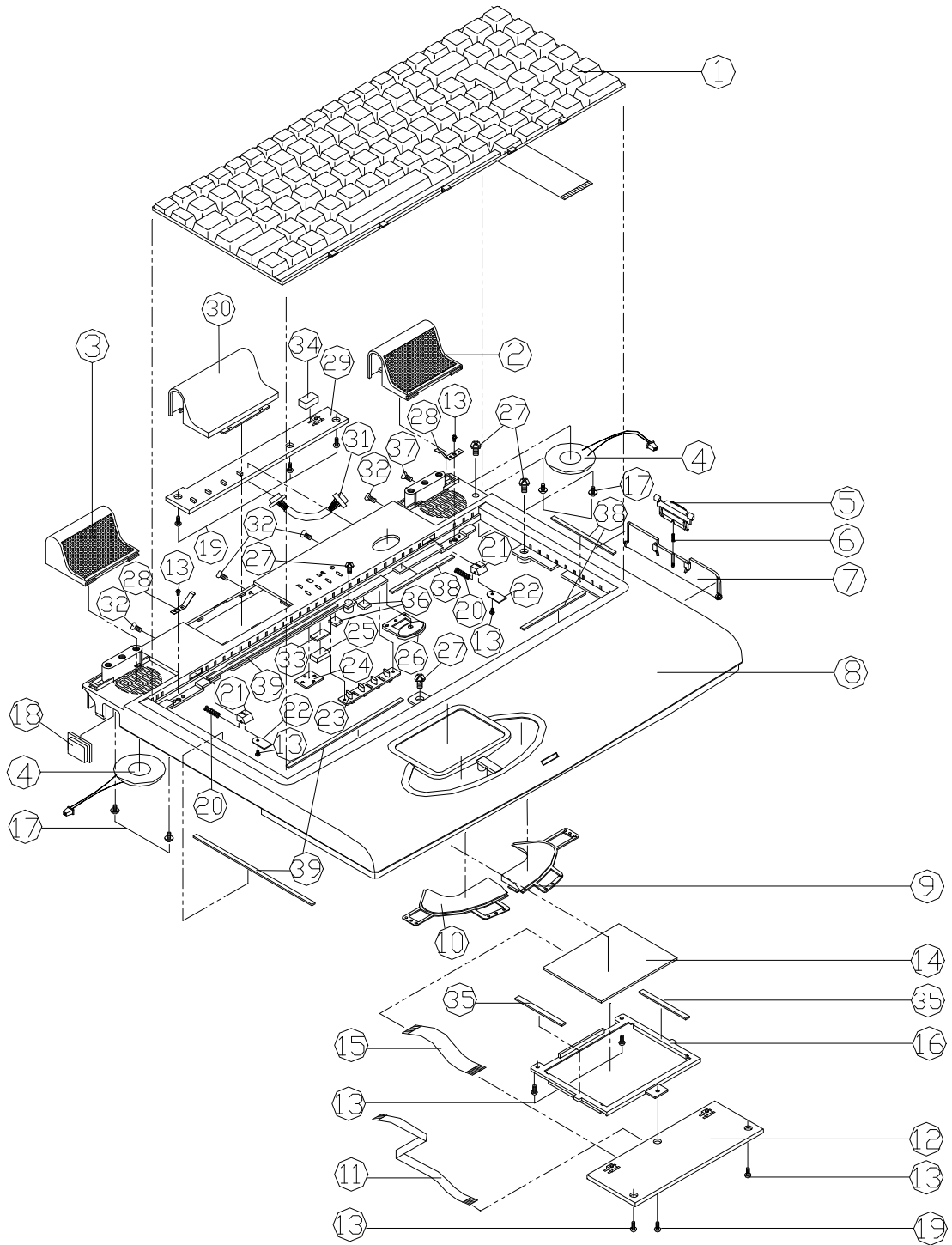
IRQ 15: Secondary IDE controller (dual fifo)

DMA:

DMA 1: Maestro DOS Games/FM Devices

DMA 2: Standard Floppy Disk Controller

DMA 3: Direct memory access Controller

🖳 *Parts List*

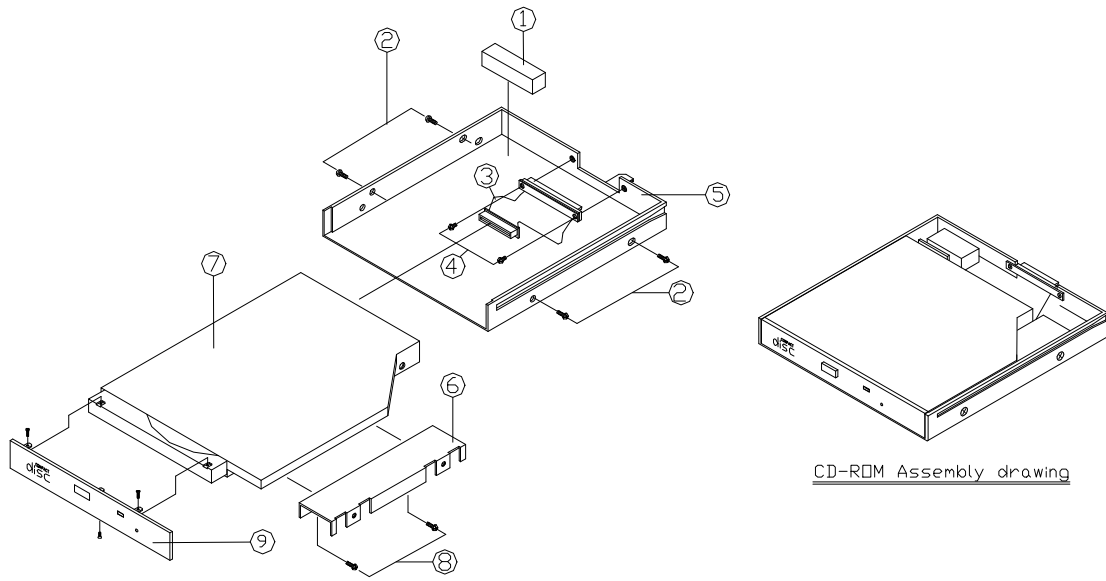| ITEM	PART NAME	PART NO	REMARK
1	KEYBOARD FOR 8500	80-85008-7G0	
2	SPEAKER COVER (R)+NET	33-8500T-A10	
3	SPEAKER COVER (L)+NET	33-8500T-A21	
4	SPEAKER	23-C4020-801	
5	COVER KNOB POM	42-62082-010	
6	SPRING FOR COVER KNOB	38-62020-020	
7	CARD BUS COVER	42-8507P-010	
8	TOP CASE ASS'Y	39-85001-013	
9	GLIDE POINT KNOB (R)	42-85082-011	
10	GLIDE POINT KNOB (L)	42-85082-021	
11	FFC CABLE	27-9350C-850	
12	SWITCH BOARD	77-8500S-D02	
13	SCREW	35-41120-3RA	
14	GLIDE POINT LOGTECH	87-62070-080	
15	FFC CABLE	27-9350C-B50	
16	GLIDE PAD HOLDER	33-85002-011	
17	SCREW	35-41025-4RA	
18	IR LENS	42-850I2-010	
19	SCREW	35-06120-6RA	
20	SPRING FOR K/B LOCK KNOB	38-00R26-010-A	
21	K/B LOCK KNOB	42-85082-030	
22	K/B LOCK BRACKET	33-66002-020	
23	LED LENS(L)	42-85001-020	
24	MAGNET HOLDER	42-35032-010	
25	MAGNET	34-72002-011	
26	POWER KNOB	42-85084-010	
27	SCREW	35-06125-6RA	
28	K/B SPRING PLATE	38-35020-010	
29	LED BOARD	77-85004-D01	
30	CONNECTOR COVER	42-85072-010	
31	CABLE	28-77B10-600	
32	SCREW	35-26130-6RA	
33	SPONGE FOR HOLDER	47-85092-050	
34	SPONGE FOR LED BOARD	47-85092-040	
35	SPONGE FOR GLIDE PAD BRACKET	47-85092-060	
36	SPONGE FOR LENS(L)	47-85092-070	
37	SCREW	35-22120-5R0	
38	EMI SPONGE FOR K/B(2)	47-35097-020	
39	SHIELD SPONGE(A) FOR REAR BRK.	47-85093-051	
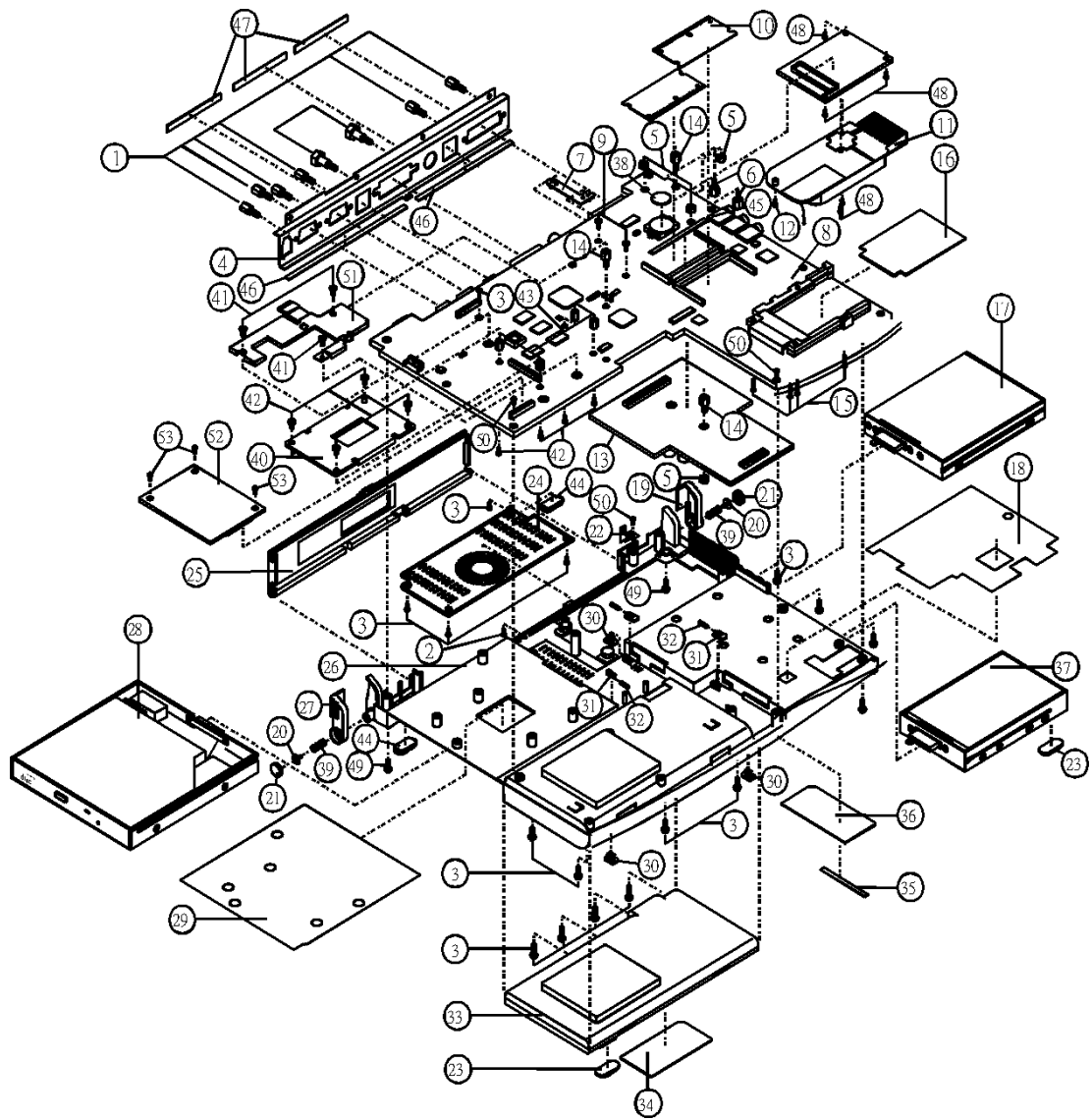
ITEM	PART NAME	PART NO	REMARK
1	HEX STUD	34-07009-011-A	
2	SCREW	35-26130-6RA	
3	SCREW	35-06125-6RA	
4	REAR BRACKET	33-85P0Q-010	
5	NUT M2.5,SN	36-05111-250	
6	HEX STUD	34-62M0S-03A	
7	IMM BRACKET	33-85P0S-020	
8	MAIN BOARD	77-85P00-D04-A	
9	SCREW	35-B4125-5RA	
10	SDRAM CARD 32M	76-9827U-840	
10	SDRAM CARD 32M	76-0017U-810	
10	SDRAM CARD 32M	76-0017U-820	
10	SDRAM CARD 64M	76-0017U-A10	
10	SDRAM CARD 64M	76-0017U-A20	
10	SDRAM CARD 128M	76-0018U-B10	
11	HEAT SINK ASS'Y	31-85P0N-010	
12	SCREW	35-41120-10A	
13	DC/DC	77-85M0C-D02	
14	HEX STUD	34-8500S-020	
15	SCREW	35-41120-14A	
16	MYLAR FOR CARD BUS	40-85053-030	
17	FDD ASS'Y 8500	79-8502J-010	Reference Ass'y dwg (99-85005-050)
18	MYLAR(B)	40-85053-021	
19	FOOT(R)	42-85063-010-A	
20	SCREW	35-41025-4RA	
21	FOOT RUBBER	47-85013-010-A	
22	LOCK BRACKET	33-85003-020	
23	BOTTOM CASE RUBBER PAD	47-35023-010-A	
24	CPU COVER	42-85M73-010	
25	REAR COVER ASS'Y	42-85P7Q-001	
26	BOTTOM CASE	39-85013-01E	
27	FOOT(L)	42-85063-020	
28	CD-ROM ASS'Y 8500	79-8502Z-010	Reference Ass'y dwg (99-85005-070)
29	MYLAR (A)	40-85053-010-A	
30	BATTERY LOCK KNOB	42-6208M-010	
31	HDD LOCK	42-85083-011	
32	LOCK KNOB SPRING	38-62026-010	
33	BATTERY PACK ASS'Y	79-3500M-416	
33	BATTERY PACK ASS'Y	79-350SM-416	
34	LABEL FOR BATTERY	45-3500M-010	
35	FCC DOC LABEL	45-85M03-020	
36	FCC DOC LABEL 8500	45-85003-010	
37	HDD ASS'Y 8500	79-8502I-010	Reference Ass'y dwg (99-85005-060)
38	MYLAR FOR BATTERY	40-8505M-010	
39	FOOT SPRING	38-85026-010	
40	K/B SUPPORTER	33-21P07-010	
41	SCREW	35-26125-5RA	
42	SCREW	35-B4125-3RA	
43	HEX STUD	34-85P0S-020	
44	BOTTOM CASE RUBBER PAD	47-85M23-010	
45	MYLAR FOR DIMM	40-8505S-010	
46	SHIELD SPONGE(A) FOR REAR BRK TO BOTTOM	47-85093-051	
47	SHIELD SPONGE(B) FOR REAR BRK TO BOTTOM	47-85093-061	
48	SCREW	35-01120-4RA	
49	SCREW	35-06130-6RA	
50	SCREW	35-41125-4RA	
51	VGA CHIP PLATE	33-85P0S-011	
52	MODEM MODULE	79-8500U-010	
53	SCREW	35-06125-6R0	
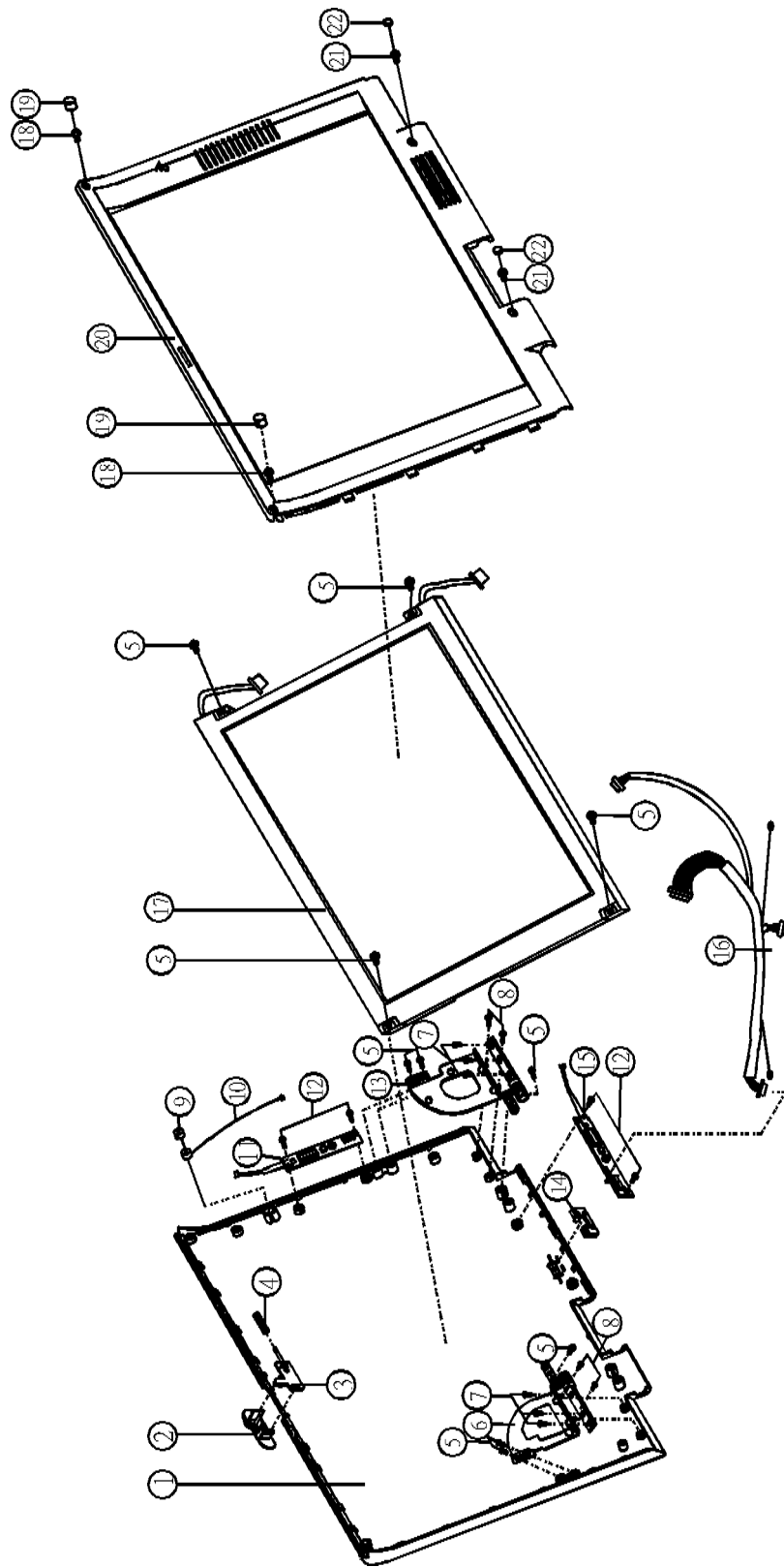
ITEM	PART NAME	PART NO	REMARK
1	DISPLAY BACK PANEL(15.1T)	39-85201-02A-1	HOSIDEN
2	HOOK KNOB	42-35081-010	
3	DISPLAY HOOK	42-850A1-010-A	
4	SPRING FOR HOOK	38-100R4-020	
5	SCREW	35-04130-6R0	
6	HINGE (L)	79-8500Y-020-A	
7	SCREW	35-46130-6RA	
8	SCREW	35-41120-4RA	
9	MIC RUBBER	47-91023-010	
10	MIC + CABLE	23-E0610-22M	
11	INVERTER MODULE(15.1T)	76-850TR-V10	TFT-V
12	SCREW	35-41120-3RA	
13	HINGE (R)	79-8500Y-010-B	
14	LED LENS FOR BACK PANEL	42-85001-010	
15	INVERTER MODULE(15.1T)	76-850TR-H10	TFT-H
16	CABLE	28-77B50-040	
17	LCD (15.1")	50-L6710-64H	HOSIDEN
18	SCREW	35-01120-4R0-A	
19	DISPLAY RUBBER PAD (UP)	47-52021-010	
20	DISPLAY FRONT PANEL(15.1T)	39-85201-01A-1	
21	SCREW	35-06130-6RA	
22	DISPLAY RUBBER PAD (BOTTOM)	47-85021-010-A	

CD-ROM Assembly drawing

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ITEM	PART NAME	PART NO	REMARK
1	SPONGE FOR CD-ROM	47-8509Z-010	
2	SCREW	35-46120-3RA	
3	FPC CABLE 24X	28-79R50-44E	TEAC
4	SCREW	35-26125-5RA	
5	CD-ROM CASE	42-8507Z-011	
6	CD-ROM BRACKET	33-8500Z-011	
7	CD-ROM 24X	87-62010-057	TEAC
8	SCREW	35-01120-2RE	
9	CD-ROM PANEL	79-6202Z-001	
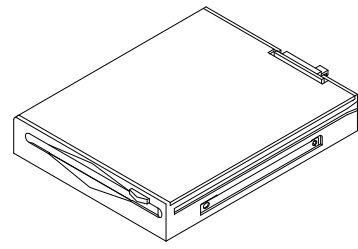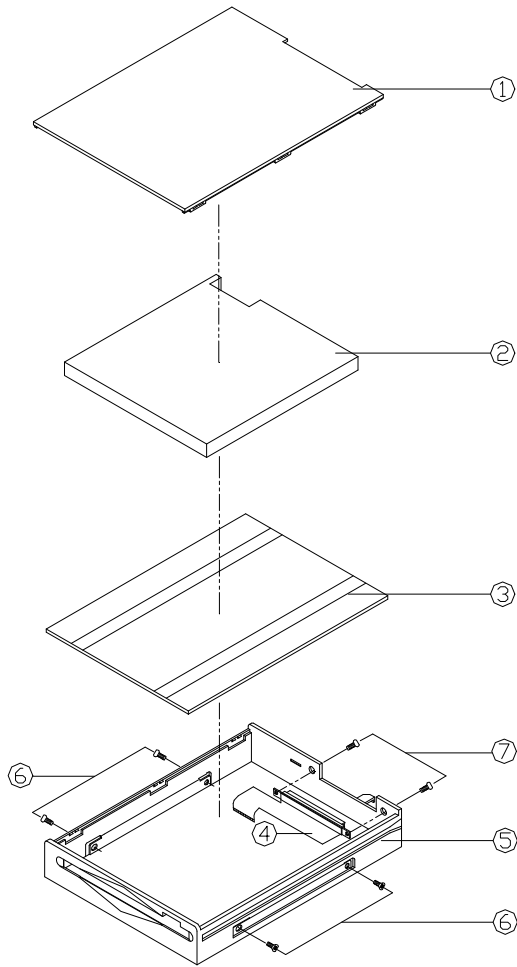
FDD Assembly Drawing

ITEM	PART NAME	PART NO	REMARK
1	FDD TOP CASE	42-8507J-010	
2	3.5" FDD	85-23211-567-C	TEAC
3	FDD MYLAR	40-8505J-010-A	
4	FPC CABLE	28-59R60-290	TEAC
5	FDD BOTTOM CASE	42-8507J-021	
6	SCREW	35-B4125-4RA	
7	SCREW	35-B4125-5RA	
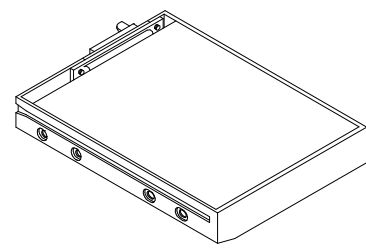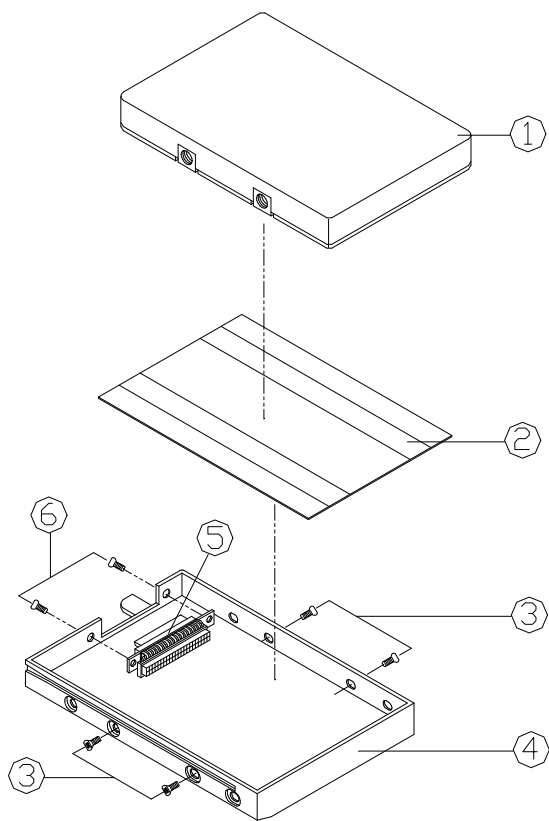
2.5" HDD Assembly Drawing

ITEM	PART NAME	PART NO	REMARK
1	2.5″HDD	85-12211-514	IBM
1	2.5″HDD	85-12211-542	SEAGATE
1	2.5″HDD	85-12211-59T	TOSHIBA
1	2.5″HDD	85-12211-5ET	TOSHIBA
2	HDD MYLAR	40-6205I-010	
3	SCREW	35-B6130-4R0	
4	HDD CASE	42-8507I-010	
5	FPC CABLE	28-79R50-260	
6	SCREW	35-B4125-5RA	

OPTIONAL PARTS

LCD

LCD ITEM	Samsung 15" T LT150*2-121/2	LG 15" T LP 150*1	Hosiden 15.1" T HLD1505-011210120
Y-Cable	28-77B50-R50	28-77B50-R50	28-77B50-N40
LCD BRK(R)	33-85001-110	33-85001-210	
LCD BRK(L)	33-85001-120	33-85001-220	
SCREW For LCD BRK	35-01125-4RA*6	35-41120-3RA*4	
DISP. FRONT PANEL	39-85201-51A	39-85201-51A	39-85201-01A
DISP. BACK PANEL	39-85201-02A	39-85201-02A	39-85201-02A
LCD LABEL	45-85201-020	45-85201-020	45-85201-010
LCD	50-L6780-63S	50-L6707-63L	50-L6710-63H
INV. CARD (H&V)	76-850TR-H20 76-850TR-V20	76-850TR-H20 76-850TR-V21	76-850TR-H10 76-850TR-V10
HINGE (R) ASS'Y	79-8500Y-010-A	79-8500Y-010	79-8500Y-010

POWER CORD

ITEM	PART NUMBER	DESCRIPTION
1	27-00818-001-A	POWER CORD AC117V (USA)
2	27-00918-004	POWER CORD 220V (ARABIC)
3	27-00918-00A	POWER CORD 220V (ITALIAN)
4	27-00918-00G	POWER CORD 220V (SPAINISH)
5	27-00918-00I	POWER CORD 220V (SWISS)
6	27-00198-00J-A	POWER CORD 250V (U.K)+5A(FUSE)
7	27-00918-00K-1	POWER CORD 220V (AUSTRALIA)W/SAA CABLE
8	27-00918-00M	POWER CORD 220V (ISRAELITE)
9	27-00918-00X	POWER CORD 220V (S. AFRICA)
10	27-00918-00Z	POWER CORD 220V (EUROPE)
11	27-01618-00L	POWER CORD 110V 2P (JAPANESE)

KEYBOARD

ITEM	PART NUMBER	DESCRIPTION
1	80-85038-7G1	U.S.A MP-98256NM-US-354
2	80-85038-7G1-1	U.S.A KAS1901-0651R
3	80-85038-7G2	CHINESE MP-98256NM-RC-354
4	80-85038-7G3	DANISH UB-98256NM-DK-354
5	80-85038-7G4	ARABLAN
6	80-85038-7G6	FRANCE UB-98256NM-F0-354
7	80-85038-7G6-1	FRANCE
8	80-85038-7G7	GERMAN UB-98256NM-D0-354
9	80-85038-7G7-1	GERMAN
10	80-85038-7G8	ISREAN UB-98256NM-HB-354
11	80-85038-7GA	ITLAY UB-98256NM-I0-354
12	80-85038-7GB	KOREAN MP-98256NM-U0-354
13	80-85038-7GC	LATIN RUSSIAN UB-98256NM-SL-354
14	80-85038-7GD	NORWAY UB-98256NM-N0-354
15	80-85038-7GE	POLAND
16	80-85038-7GG	SPAINISH UB-98256NM-E0-354
17	80-85038-7GH	SWEDEN UB-98256NM-S0-354
18	80-85038-7GI	SWISS UB-98256NM-CH-354
19	80-85038-7GI-1	SWISS KAS1901-0659R
20	80-85038-7GJ	U.K UB-98256NM-GB-354
21	80-85038-7GL	JAPANESE UB-98256NM-J0-354
22	80-85038-7GS	BELGAN UB-98256NM-B0-354
23	80-85038-7GT	TURKISH UB-98256NM-TQ-354
24	80-85038-7GU	GREEK MP-98256NM-GR-354
25	80-85038-7GV	THAI MP-98256NM-T0-354
26	80-85038-7GW	CZECH MP-98256NM-C0-354