

# ***SERVICE MANUAL***

**2200C / 2700C**



*notebook*

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Preliminary Version

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## **Chapter 1: Introduction**

This manual covers information you will need to service or upgrade your Notebook Computer. Information about operating the computer (e.g. getting started, etc...) is in the User's Manual. Driver Information is also found in the User's Manual. The User's Manual is shipped with the computer. Operating Systems (Windows ME, Windows 2000, etc.) have their own manuals as do application software. If you have any questions regarding those, please consult their user's manual.

This manual is intended for service personnel who have completed sufficient training to undertake maintenance and inspection of personal computers. It is organized to allow you to look up basic information for servicing and/or upgrading components of the notebook computer. The following information is covered.

- Specifications
- Chipset and Mainboard information
- Disassembly
- Mechanical drawings and Parts Lists
- Schematic Diagrams
- Switch Settings

## System specifications (general)

The main unit of the Model 2200C/2700C Notebook PC has the following components:

- Intel FC-PGA370 Pentium III with AGP technology-based mainboard, using the SiS630S chipset solution supporting SDRAM with 0MB on-board DRAM, expandable to 32MB, 64MB, 96MB, 128MB, 192MB, 256MB, or 512MB using one or two expansion SODIMMs
- user-installed modules: CD-ROM or DVD or CD-RW ROM
- main storage (HDD) bay: principal HDD 2.5" 12.7/9.5mm, supports PIO mode 4/ATA-33/66/100 (Ultra DMA) and Master mode IDE.
- User interfaces
  - one internal keyboard, 84 keys (depending on the language)
  - one built-in touchpad
  - one 1024x768 XGA Color TFT LCD with CCFT backlight, size 13.3" or 14.1", supports IDCT
- Power Solutions
  - power bay: battery pack
  - AC adapter

**CPU ( FC-PGA370 )**

Intel Celeron-450	(1.6V)
Intel Celeron-500	(1.6V)
Intel Celeron-550	(1.6V)
Intel Pentium III-600	(1.65V)
Intel Pentium III-650	(1.65V)
Intel Pentium III-700	(1.65V)
Intel Pentium III-750	(1.65V)
Intel Pentium III-800	(1.65V)
Intel Pentium III-850	(1.65V)
Intel Pentium III-866	(1.65V)
Intel Pentium III-933	(1.65V)

**Memory**

L2 Cache (on die)	
Celeron(.18) series	128KB
Pentium III series	256KB
On board RAM	
Upgradable to	512MB

**TouchPad**

built-i n	x 1
interface	PS/2

**Keyboard**

Keys	84
Fn key support	YES
Integrated numeric keypad	YES
Inverted "T" layout cursor keys	YES

**HDD**

Easy change module	6GB or up
Drive size	2.5"
Height maximum	12.7mm
Average access time	<13ms>
Interface	PCI local bus master IDE with ultra DMA33/ 66/100

**FDD**

Easy change module	3.5" 1.44MB
--------------------	-------------

**CD-ROM (MKE CR175)24X**

Easy change module	
CD type	12.8cm
Height	12.7mm
Data transfer rate	3600KB/s (max)
Random access time	<100m>
Compliance	Multimedia PC-2 Spec.



## Service Manual

Transport Interface	drawer type load/eject PCI local bus master IDE
---------------------	----------------------------------------------------

Speaker-out Jack	YES
Microphone-in Jack	YES

### BIOS

InSyde	256KB
--------	-------

### Power Supply

AC adapter	
AC-in	100-240V/47-63Hz
Capacity	65W
Battery pack	NiMH/Li-Ion

### Display

LCD/CRT (simultaneous)	YES
VGA/EGA/CGA/Hercules compatible	YES
AGP 3D graphics accelerator	YES
Adjustable brightness	YES (standard)

### Power Saving Management

Doze mode	YES
PS/2 Sleep mode	YES
Suspend/Resume mode	YES
Suspend to HDD mode	YES
Hot key control suspend	YES
Closing LCD display off	YES
APM ver 1.2 support	YES
ACPI Ver 1.0b support	YES

### LCD/TFT

Backlight	CCFT
Size	13.3" or 14.1"
Resolution	1024x768
Color (CRT)	16,77M
Monitor	1280x1024
Support	IDCT

### Ports

Serial port	x 1
IrDA/SIR/ASK/FIR	x 1
Parallel port	x 1
15 pin external video port	x 1

### Audio

Built-in 2 speakers and 1 microphone	YES
3D, Sound Blaster compatible	YES

External 101/102 keyboard port/ PS/2 mouse	x 1
PC Card Standard Type I or Type II	x 1
Modem (RJ-11) port for MDC	x 1 (optional)
USB connector	x 2
speaker-out jack	x 1
microphone-in jack	x 1
LAN (RJ45) port	x 1

**Physical**

Dimension	308 mm(W) 254 mm(D) 37.5 mm(H)
Weight	3.2KG (with Lithium-Ion battery)

## Notes

## **Chapter 2: Chipset and Mainboard information**

### **CPU**

The 2200C/2700C Notebook PC uses the Intel Mobile Pentium III/Celeron (.18) processor in an FC-PGA370 package.

The Intel Mobile Pentium III/Celeron (.18) processor features an integrated L2 cache (256KB for Pentium III and 128KB for Celeron (.18)) and a 64-bit high performance system bus.

The Mobile Pentium III/Celeron (.18) processor's 64-bit wide Low Power Gunning Transceiver Logic system bus is compatible with the SIS630S AGP Set and provides a glue-less, point-to-point interface for an I/O bridge/memory controller.

The Intel Pentium III and Celerons (.18) processors are fully compatible with all software written for the Pentium processor with MMX technology, Pentium processor, Intel486 microprocessor, and Intel386 microprocessor. In addition, they provide improved multimedia & communication performance. Their features:

- Performance improved over existing mobile processors
  - Supports the Intel Architecture with Dynamic Execution
  - Supports the Intel Architecture MMX technology
- Integrated primary (L1) instructions and data caches
  - 4-way set associative, 32-byte line size, 1 line per sector
  - 16-Kbyte instruction cache and 16-Kbyte writeback data cache
  - Cacheable range programmable by processor programmable registers
- Integrated second level (L2) cache
  - 4-way set associative, 32-byte line size, 1 line per sector
  - Operated at full core speed

- 128/256-Kbyte, ECC protected cache data array
- Low Power GTL+ system bus interface
  - 64-bit data bus, 100-MHz operation
  - Uniprocessor, two loads only (processor and I/O bridge/memory controller)
  - Short trace length and low capacitance allows for single ended termination
- Voltage reduction technology
- Pentium III processor clock control
  - Quick Start for low power, low exit latency clock 'throttling'
  - Deep Sleep mode for extremely low power dissipation
- Thermal diode for measuring processor temperature

## **Chipsets**

### **SiS630S**

The single chipset, SiS630S, provides a high performance/low cost Desktop solution for the Intel Slot 1 and socket 370 series CPU based systems by integrating a high performance North Bridge, advanced hardware 2D/3D GUI engine, Super-South bridge or an external AGP4X Slot. In addition, SiS630S provides a system-on-chip solution that complies with the Easy PC Initiative which supports Instantly Available/OnNow PC technology, USB, Legacy Removal and Slotless Design and FlexATX form factor.

By integrating the UltraAGP™ technology and advanced 64-bit graphic display interface, SiS630S delivers AGP 4x performance and memory bandwidth of up to 1 GB/s. In addition, SiS also supports an extra AGP Slot that supports 4X and Fast Write transactions. Furthermore, SiS630S provides powerful hardware decoding DVD accelerator to improve the DVD playback performance. In addition to providing the standard interface for CRT monitors, SiS630S also provides the Digital Flat Panel Port (DFP) for a standard interface between a personal computer and a digital flat panel monitor. SiS630S adopts Share System Memory Architecture which can flexibly utilize the frame buffer size up to 64MB.

The “Super-South Bridge” in SiS630S integrates all peripheral controllers/accelerators /interfaces. SiS630S provides a total communication solution including 10/100Mb Fast Ethernet for Office requirement and 1Mb HomePNA for Home Networking. SiS630S offers AC'97 compliant interface that comprises digital audio engine with 3D-hardware accelerator, on-chip sample rate converter, and professional wavetable along with separate modem DMA controller. SiS630S also provides interface to Low Pin Count (LPC) operating at 33 MHz clock which is the same as PCI clock on the host, and dual USB host controllers with six USB ports that deliver better connectivity and 2 x 12Mb band-

width.

The built-in fast PCI IDE controller supports the ATA PIO/DMA, and the Ultra DMA33/66/100 function that supports the data transfer rate up to 100 MB/s. It provides the separate data path for two IDE channels that can eminently improve the performance under the multi-tasking environment.

The following illustrates the system block diagram

## **Features**

### **Host Interface Controller**

- Supports Intel Slot 1/Socket370 Pentium II/!!! CPUs
- Synchronous Host/DRAM Clock Scheme
- Asynchronous Host/DRAM Clock Scheme

### **Integrated DRAM Controller**

- 3-DIMM/6-Bank of 3.3V SDRAM
- Supports Memory Bus up to 133 MHz
- System Memory Size up to 3 GB
- Up to 512MB per Row
- Supports 16Mb, 64Mb, 128Mb, 256Mb, 512Mb SDRAM Technology
- Suspend-to-RAM (STR)
- Relocatable System Management Memory Region
- Programmable Buffer Strength for CS#, DQM[7:0], WE#, RAS#, CAS#, CKE, MA[14:0] and MD[63:0]
- Shadow RAM Size from 640KB to 1MB in 16KB increments
- Two Programmable PCI Hole Areas

### **Integrated A.G.P. Compliant Target/66Mhz Host-to-PCI Bridge**

- AGP v2.0 Compliant
- Supports Graphic Window Size from 4MBytes to 256MBytes
- Supports Pipelined Process in CPU-to-Integrated 3D A.G.P. VGA Access
- Supports 8 Way, 16 Entries Page Table Cache for GART to Enhance Integrated A.G.P. VGA Controller Read/Write Performance
- Supports PCI-to-PCI Bridge Function for Memory Write from 33Mhz PCI Bus to Integrated A.G.P. VGA
- Supports Additional AGP slot with 4X and Fast Write Transaction

### **Meet PC99 Requirements**

#### **PCI 2.2 Specification Compliant**

#### **High Performance PCI Arbiter**

- Supports up to 4 PCI Masters
- Rotating Priority Arbitration Scheme
- Advanced Arbitration Scheme Minimizing Arbitration Overhead.
- Guaranteed Minimum Access Time for CPU And PCI Masters

#### **Integrated Host-To-PCI Bridge**

- Zero Wait State Burst Cycles
- CPU-to-PCI Pipeline Access
- 256B to 4KB PCI Burst Length for PCI Masters
- PCI Master Initiated Graphical Texture Write Cycles Re-mapping
- Reassembles PCI Burst Data Size into Optimized Block Size

#### **Fast PCI IDE Master/Slave Controller**

- Supports PCI Bus Mastering



- Native Mode and Compatibility Mode
- PIO Mode 0, 1, 2 , 3, 4
- Multiword DMA Mode 0, 1, 2
- Ultra DMA 33/66/100
- Two Independent IDE Channels Each with 16 DW FIFO

### **Virtual PCI-to-PCI Bridge**

### **Integrated Ultra AGP VGA for Hardware 2D/3D Video/Graphics Accelerators**

- Supports Tightly Coupled 64 Bits Host Interface to VGA to Speed Up GUI Performance and Video Playback Frame Rate
- AGP v. 2.0 Compliant
- Zero-Wait-State 128x4 Post-Write Buffer with Write Combine Capability
- Zero-Wait-State 128x4 2-Way Read Ahead Cache Capability
- Re-locatable Memory-Mapped and I/O Address Decoding
- Flexible Design Shared Frame Buffer Architecture for Display Memory
- Shared System Memory Area up to 64MB
- Built-in 8K Bytes Texture Cache
- Supports High Quality Dithering
- Supports Bump Mapping
- Supports 8/16/24/32 BPP RGB/ARGB Texture Format
- Supports Video YUV Texture in All Supported Texture Formats
- 128-Bit 2D Engine with a Full Instruction Set
- Maximum 64 MB Frame Buffer with Linear Addressing
- Supports Hardware DVD Accelerator
- Supports Single Frame Buffer Architecture
- Supports Two Independent Video Windows with Overlay Function and Scaling Factors

- Supports YUV-To-RGB Color Space Conversion
- Supports Graphic and Video Overlay Function
- Supports CD/DVD to TV Playback Mode
- Simultaneous Graphic and TV Video Playback Overlay
- Supports RGB555, RGB565, YUV422 and YUV420 Video Playback Format
- Supports Filtered Horizontal Up and Down Scaling Playback
- Supports DVD Sub-Picture Playback Overlay
- Supports DVD Playback Auto-Flipping
- Built-in Two Video Playback Line Buffers
- Built-in Programmable 24-bit True-Color RAMDAC up to 270 MHz Pixel Clock RAMDAC Snoop Function
- Built-in Dual-Clock Generator
- Supports Multiple Adapters and Multiple Monitors
- Built-in PCI Multimedia Interface
- Supports Digital Flat Panel Port for Digital Monitor (LCD Panel)
- Built-in VESA Plug and Display for CH7003, PanelLink™ and LVDS Digital Interface
- Built-in Secondary CRT Controller for Independent Secondary CRT, LCD or TV digital output
- Supports VESA Standard Super High Resolution Graphic Modes
  - 640x480      16/256/32K/64K/16M colors 120 Hz NI
  - 800x600      16/256/32K/64K/16M colors 120 Hz NI
  - 1024x768      256/32K/64K/16M colors 120 Hz NI
  - 1280x1024      256/32K/64K/16M colors 85 Hz NI
  - 1600x1200      256/32K/64K/16M colors 85 Hz NI
  - 1920x1440      8bbp/16bbp 60NI

- Low Resolution Modes
- Supports Virtual Screen up to 4096x4096
- Fully Directx 7.0 Compliant
- Efficient and Flexible Power Management with ACPI Compliance

#### **Low Pin Count Interface**

- Forwards PCI I/O and Memory Cycles into LPC Bus
- Translates 8-/16-bit DMA Cycles into PCI Bus Cycles

#### **Advanced PCI H/W Audio & Modem**

#### **Advanced Power Management**

- Meets ACPI 1.0 Requirements
- Meets APM 1.2 Requirements
- ACPI Sleep States Include S1, S3, S4, S5
- CPU Power States Include C0, C1, C2 C3
- Power Button with Override
- RTC Day-of-Month, Month-of-Year Alarm
- 24-bit Power Management Timer
- LED Blinking in S0,S1 and S3 States
- System Power-Up Events Include: Power Button, Hot-Key, Keyboard Password/ Hot-Key, RTC Alarm, Modem Ring-In, SMBALT#, LAN, PME#, AC'97 Wake-Up and USB
- Wake-Up
- Software Watchdog Timer
- Power Supply'98 Support
- PCI Bus Power Management Interface Spec. 1.0

#### **Integrated DMA Controller**

- Two 8237A Compatible DMA Controllers
- 8/16- bit DMA Data Transfer
- Distributed DMA Support

### **Integrated Interrupt Controller**

- Two 8237A Compatible DMA Controllers
- Two 8259A Compatible Interrupt Controllers
- Level- or Edge-Triggered Programmable
- Serial IRQ
- Interrupt Sources Re-routable to Any IRQ Channel

### **Three 8254 Compatible Programmable 16-bit Counters**

- System Timer Interrupt
- Generate Refresh Request
- Speaker Tone Output

### **Integrated Keyboard Controller**

- Hardwired Logic Provides Instant Response
- Supports PS/2 Mouse Interface
- Password Security and Password Power-Up
- System Sleep and Power-Up by Hot-Key
- KBC and PS2 Mouse Can Be Individually Disabled

### **Integrated Real Time Clock (RTC) with 256B CMOS SRAM**

- Supports ACPI Day-of-Month and Month-of-Year Alarm
- 256 Bytes of CMOS SRAM
- Provides RTC H/W Year 2000 Solution

### **Universal Serial Bus Host Controller**

- OpenHCI Host Controller with Root Hub
- Two USB Host Controllers
- Six USB Ports
- Supports Legacy Devices
- Over Current Detection

### **I<sup>2</sup>C Bus/SMBUS Series Interface**

#### **Integrated Fast Ethernet Controller and MAC Interface**

- Plug and Play Compatible
- High-Performance 32-Bit PCI Bus Master Architecture with Integrated Direct Memory
- Supports Big Endian and Little Endian Byte Alignments
- Implements Optional PCI 3.3v Auxiliary Power Source 3.3Vaux Pin And Optional PCI
- Supports Software, Enhanced Software, and Automatic Polling Schemes to Internal
- PHY Status Monitor and Interrupt
- Supports 10base-T, 100base-Tx

### **NAND Tree for Ball Connectivity Testing**

#### **672-Balls BGA Package**

#### **1.8V Core with Mixed 3.3V and 5V I/O CMOS Technology**

## **PC Card Chipset - PCI1410**

- The PCI1410 supports the following features:
- Ability to wake from D3 hot and D3 cold
- Fully compatible with the Intel 430TX (Mobile Triton II) chipset
- A 144-Pin Low-Profile QFP (PGE), 144-ball MicroStar Ball Grid Array (GGU) package, or 209-ball MicroStar Ball Grid Array (GHK) package
- 3.3-V core logic with universal PCI interfaces compatible with 3.3-V and 5-V PCI signaling environments
- Mix-and-match 5-V/3.3-V 16-bit PC Cards and 3.3-V CardBus Cards
- Single PC Card or CardBus slot with hot insertion and removal
- Burst transfers to maximize data throughput on the PCI bus and the CardBus bus
- Parallel PCI interrupts, parallel ISA IRQ and parallel PCI interrupts, serial ISA IRQ with parallel PCI interrupts, and serial ISA IRQ and PCI interrupts
- Serial EEPROM interface for loading subsystem ID and subsystem vendor ID
- Pipelined architecture allows greater than 130M bps sustained throughput from CardBus-to-PCI and from PCI-to-CardBus
- Interface to parallel single-slot PC Card power interface switches like the TI TPS2211
- Up to five general-purpose I/Os
- Programmable output select for CLKRUN
- Five PCI memory windows and two I/O windows available to the 16-bit PC Card socket
- Two I/O windows and two memory windows available to the CardBus socket
- Exchangeable Card Architecture (ExCA) compatible registers are mapped in memory and I/O space
- Intel 82365SL-DF and 82365SL register compatible
- Distributed DMA (DDMA) and PC/PCI DMA

- 16-Bit DMA on the PC Card socket
- Ring indicate, SUSPEND, PCI CLKRUN, and CardBus CCLKRUN
- Socket activity LED pins
- PCI Bus Lock (LOCK)
- Advanced Submicron, Low-Power CMOS Technology
- Internal Ring Oscillator

## Ports



1. Mic-in, headphone
2. USB
3. IEEE 1394
4. TV out
5. Dual USB

6. External monitor
7. Parallel
8. PS/2
9. AC adapter

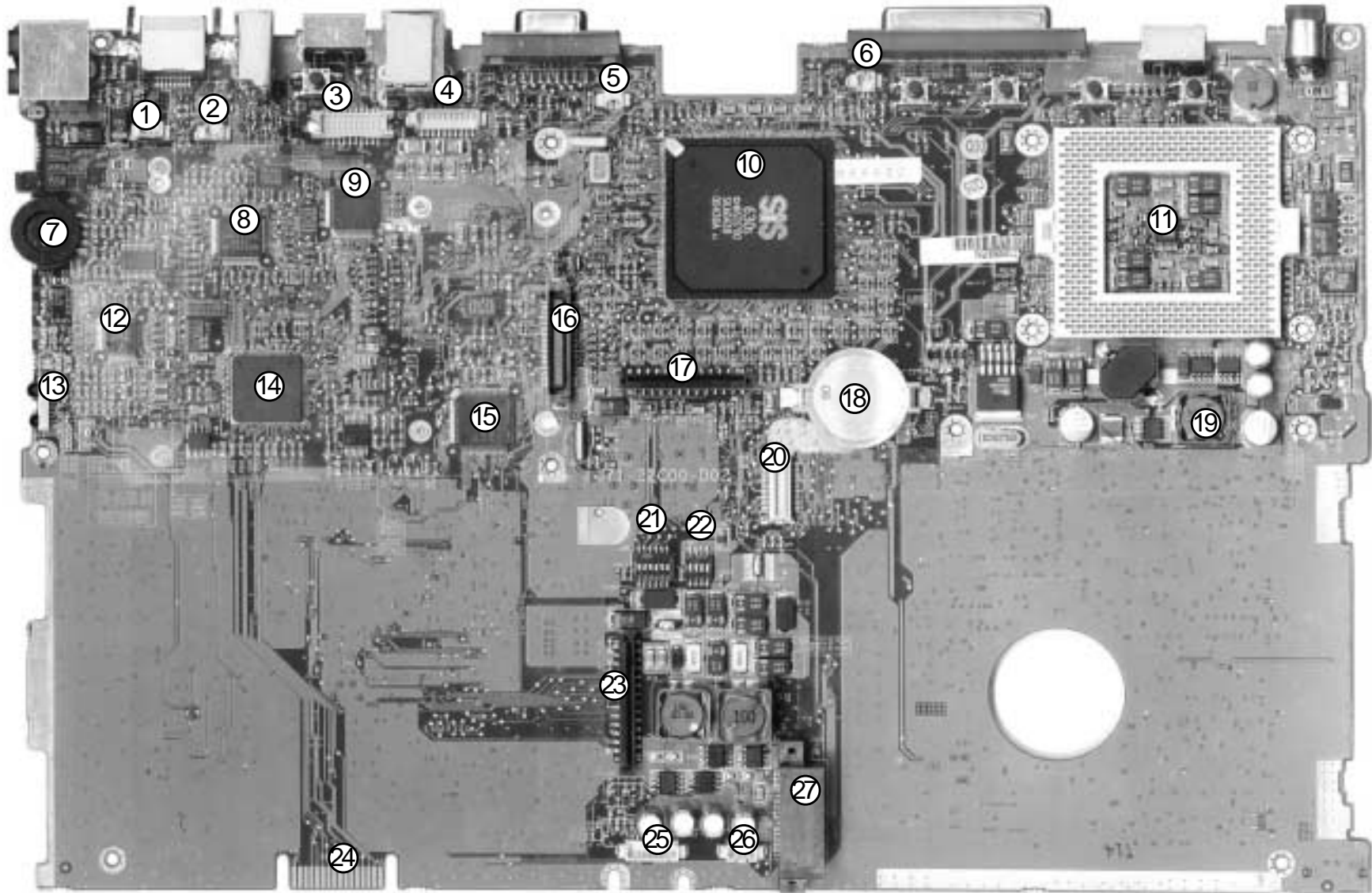


## **Mainboard**

### **Mainboard components list**




1. Microphone connector
2. MDC to RJ-11 connector
3. Panel connector
4. Invertor power connector
5. Heat sink fan connector
6. Second Fan connector
7. VR
8. ICS1893 Lan PHY
9. 1394 PHY
10. Core logic SiS630s
11. Thermal IC TC 1066
12. Audio Codec
13. IR
14. TI4410 (PCMCIA + 1394 Controller)
15. K/B Controller M33867
16. HDD connector
17. K/B connector
18. CMOS battery
19. Choke (for power)
20. MDC connector
21. CPU and Memory frequency switch
22. CPU V\_Core switch
23. FDD connector
24. Gold figen (for debug card)
25. Indicative LED and touchpad connector
26. Internal Speaker connector
27. CD-ROM connector

Mainboard photo



## Notes

## Chapter 3: Disassembly

To make the disassembly process easier each section may have a box in the page margin. Information contained in the  boxes inform you what tools will be needed for a given procedure and the amount of screws involved. A  box lists the components that are important for that particular procedure. A  contains information that may be helpful to you. Examples are shown on the left.

All screw and nuts used in the assembly of the Notebook Computer are assigned a letter. If you encounter any problems reassembling the machine, refer to this table to make sure you are using the proper screw or nut.

### Size chart for screws and hex nuts:

Letter	Size	Letter	Size
A	1.7 x 5 mm.	J	2.5 x 6 mm.
B	2 x 2 mm.	K	2.5 x 8 mm.
C	2 x 3 mm.	L	2.5 x 14 mm.
D	2 x 4 mm.	M	2.5 x 23 mm.
E	2 x 5 mm.	N	2.6 x 3.5 mm.
F	2 x 10 mm.	O	3 x 4 mm.
G	2.5 x 3 mm.	P	Heat sink screw
H	2.5 x 4 mm.	Q	Standoff hex nut
I	2.5 x 5 mm.	R	Hex stud (11 mm.)



This box lists the tools needed and the amount of screws used.



#### Note

*Information in this box will give possible useful information.*



This box lists the names of the relevant parts.



**Note**

*Remember to wear an anti-static wrist strap and remove all power sources when working on the computer*

## Disassembly steps

From the list below choose the component that you want to disassemble, then follow the steps listed and go to the appropriate page for detailed instruction.

### Steps to remove the CD-ROM/DVD-ROM :

- Remove the battery p 3-5
- Remove the keyboard p 3-6
- Remove the CD-ROM/DVD-ROM assembly p 3-8

### Steps to remove the CPU:

- Remove the battery p 3-5
- Remove the keyboard p 3-6
- Remove the heat sink p 3-9
- Remove the CPU p 3-10

### Steps to remove the FDD:

- Remove the battery p 3-5
- Remove the keyboard p 3-6
- Remove the HDD assembly p 3-7
- Separate the notebook base in two p 3-11
- Remove the FDD assembly from the mainboard p 3-14

**Steps to remove the HDD:**

- Remove the keyboard p 3-6
- Remove the HDD assembly p 3-7

**Steps to remove the inverter board:**

- Remove the battery p 3-5
- Remove the LCD panel frame p 3-17
- Remove the LCD panel from the LCD panel case p 3-18 (up to step 4)

**Steps to remove the LCD panel:**

- Remove the LCD panel frame p 3-17
- Remove the LCD panel and bracket from the LCD panel case p 3-18
- Remove the LCD panel from the bracket p 3-20
- Remove the LCD panel

**Steps to remove the mainboard:**

Remove the battery	p 3-5
Remove the keyboard	p 3-6
Remove the HDD assembly	p 3-7
Remove the CD-ROM/DVD-ROM assembly	p 3-8
Remove the Heatsink	p 3-9
Remove the CPU	p 3-10
Seperate thenotebook base in two	p 3-11
Remove the FDD assembly	p 3-14
Remove the CD-ROM/DVD-ROM tray	p 3-14
Remove the fan.	p 3-14
Remove the mainboard from the bottom case	p 3-15
Remove the mainboard from the mainboard tray	p 3-16

## Removal Procedures

### Remove the battery

1. Remove the 2 screws on the battery cover (figure 3-1).
2. Disconnect the battery connector from the computer.
3. Slide the battery out of the computer (figure 3-2).

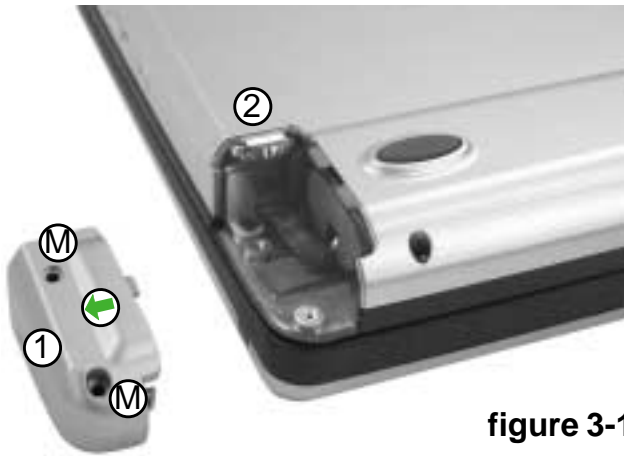


figure 3-1



figure 3-2



- 1 Philips screwdriver
- 1 screw



- 1) Battery Cover
- 2) Battery Connector plug
- 3) Battery Connector
- 4) Battery



### Remove the keyboard

1. Press the 4 keyboard latches at the top of the keyboard (figure 3-3).
2. Lift the top of the keyboard up and out of the computer (figure 3-4).
3. Remove the keyboard ribbon cable.

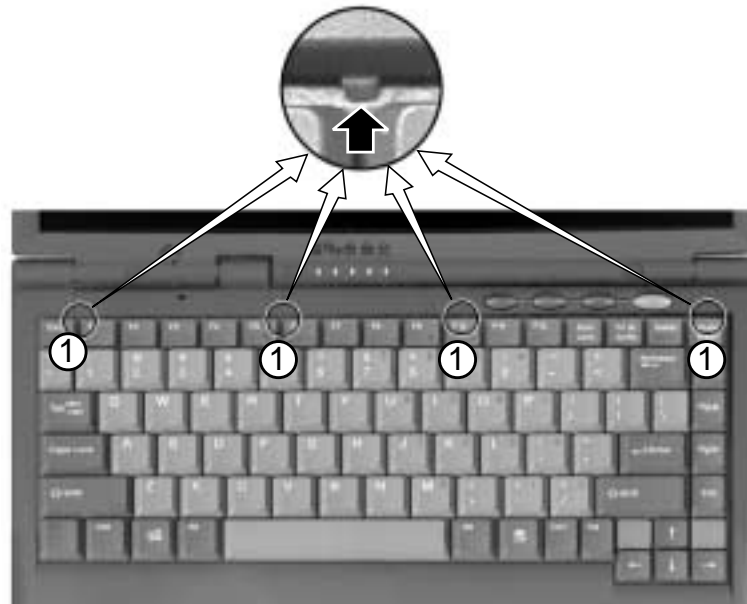


figure 3-3



figure 3-4

### Remove the HDD assembly

1. Remove 3 screws (D) holding the HDD assembly in place (figure 3-5).
2. Lift the HDD assembly out of the case using the HDD tab (figure 3-6).

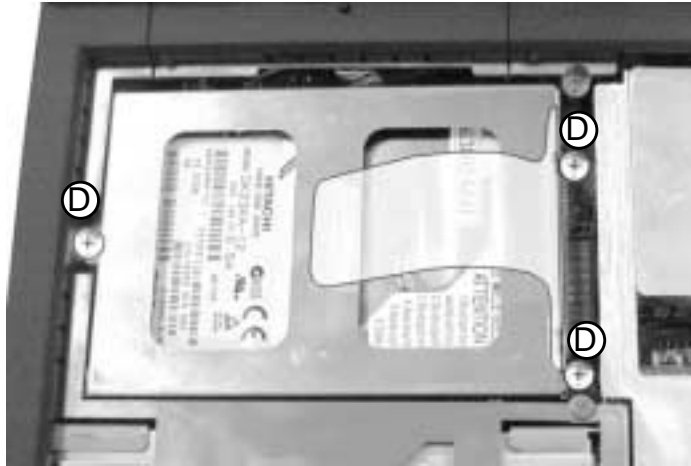


figure 3-5

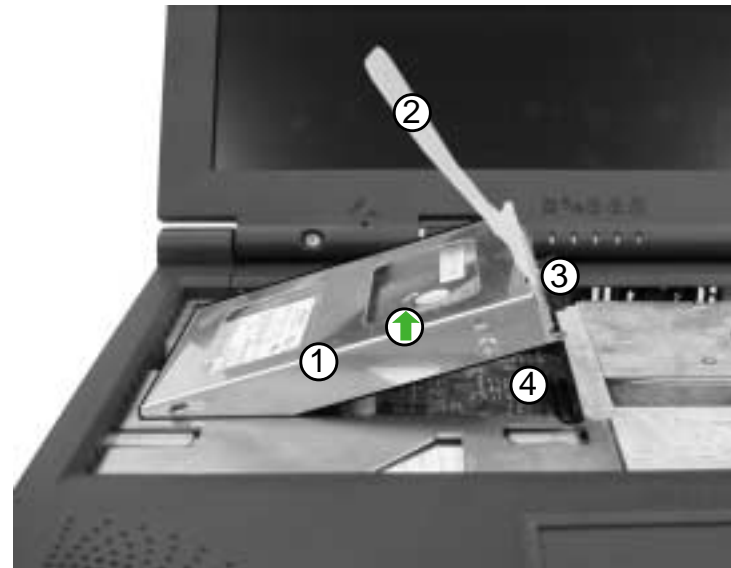


figure 3-6



1 Philips screwdriver  
3 screws



- 1) HDD assembly
- 2) HDD tab
- 3) HDD connector
- 4) HDD socket



#### **Note**

*For information on removing the HDD from the HDD assembly go to Appendix A.*



1 Philips screwdriver  
1 screw



**Note**

*For information on removing the CD-ROM/DVD-ROM from the CD-ROM/DVD-ROM assembly go to Appendix A.*

**Remove the CD-ROM/DVD-ROM assembly**

1. Remove screw (I) in figure (3-7).
2. Use a small screwdriver to gently push the CD-ROM assembly out of the case figure (3-7).



figure 3-7

### Remove the heat sink

1. Unscrew the 4 screws (P) securing the heat sink to the mainboard (figure 3-8).
2. Lift up the heat sink part way until you see the heat sink cable. Disconnect the cable from the mainboard (figure 3-9).
3. Place the heat sink aside.

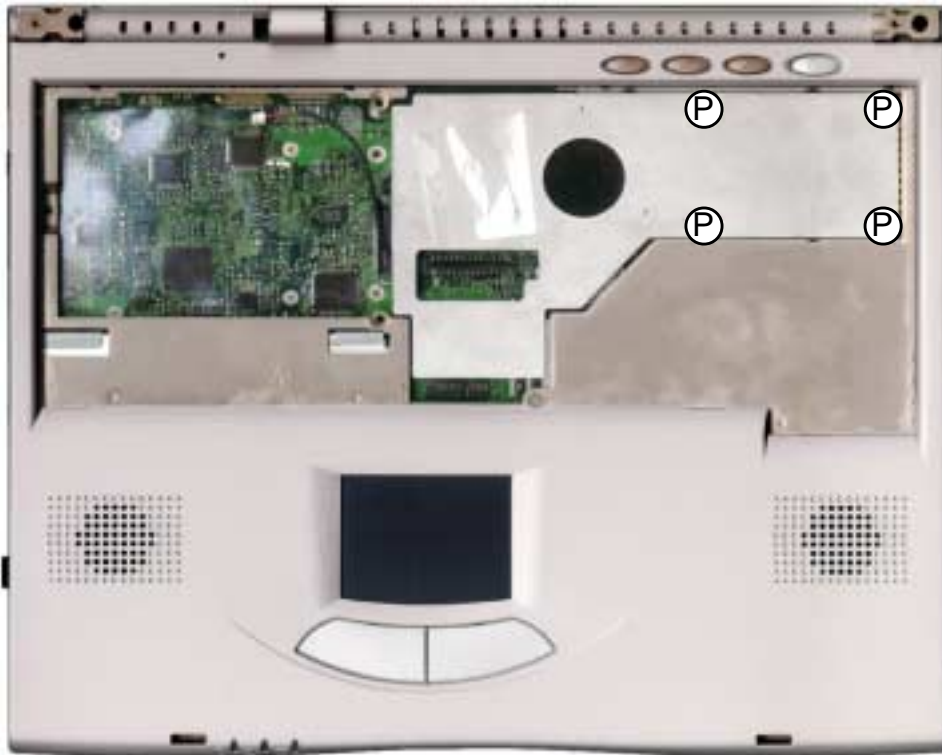
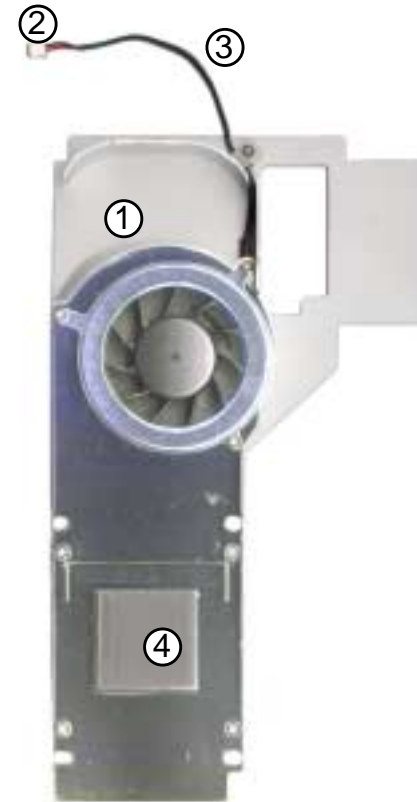


figure 3-8



1 Philips screwdriver  
1 screw



1) Heat sink  
2) Cable connector  
3) Cable  
4) Heat sink pad

### Applying a heat sink pad

1. When the heat sink has been removed you will need to apply a new heat sink pad before re-installing it. To do so simply peel off the old pad and adhere a new one to the same area.

### Remove the CPU

1. Place the CPU tool over the CPU (figure 3-10).
2. Place a screw driver in the open slot of the CPU socket and move it to the left (figure 3-11).
3. The CPU is now unlocked from the socket so remove the CPU tool and lift the CPU out of the Socket.

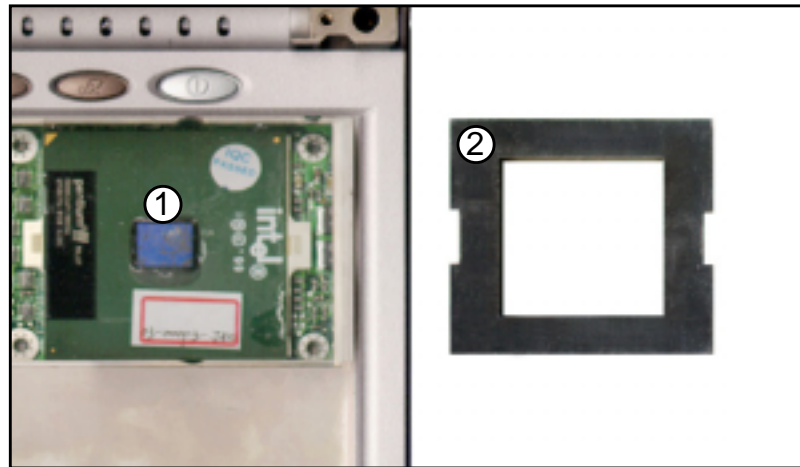




figure 3-10

  
1 Regular screwdriver  
1 CPU tool

  
1) CPU  
2) CPU Tool  
3) Open Slot  
4) Close Slot

### Reinstall the CPU

1. Place the CPU firmly in the socket.
2. Place the CPU tool over the CPU (figure 3-10)
3. Place a screwdriver in the close slot of the CPU socket figure (3-12) and move it to the right..
4. The CPU is now locked into the socket so remove the CPU tool and reinstall the heat sink.

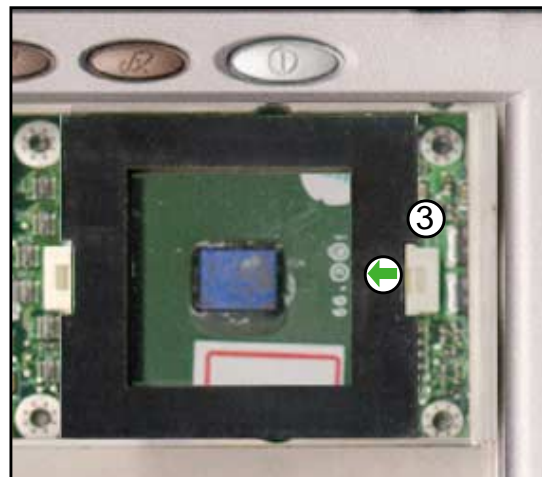


figure 3-11

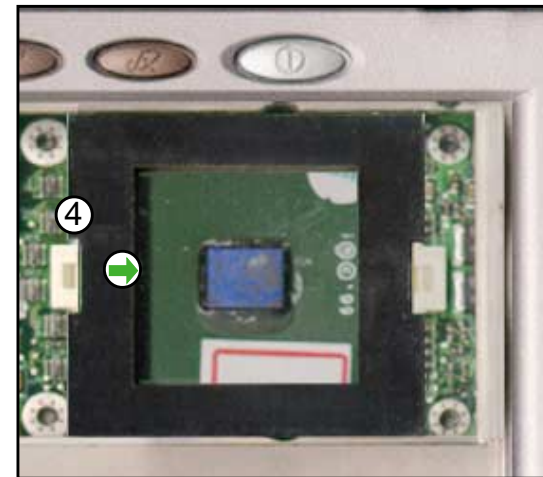


figure 3-12

### Separate the notebook base in two

With the CPU and heatsink, keyboard, HDD and CD-ROM/DVD-ROM drive removed:

1. Remove screw (I), the LCD panel ground wire and Inverter power ground wire. When re-installing make sure to place the LCD panel ground wire on top of the case and the Inverter power ground on the inside of the case just above the hex nut (figure 3-14).



figure 3-13

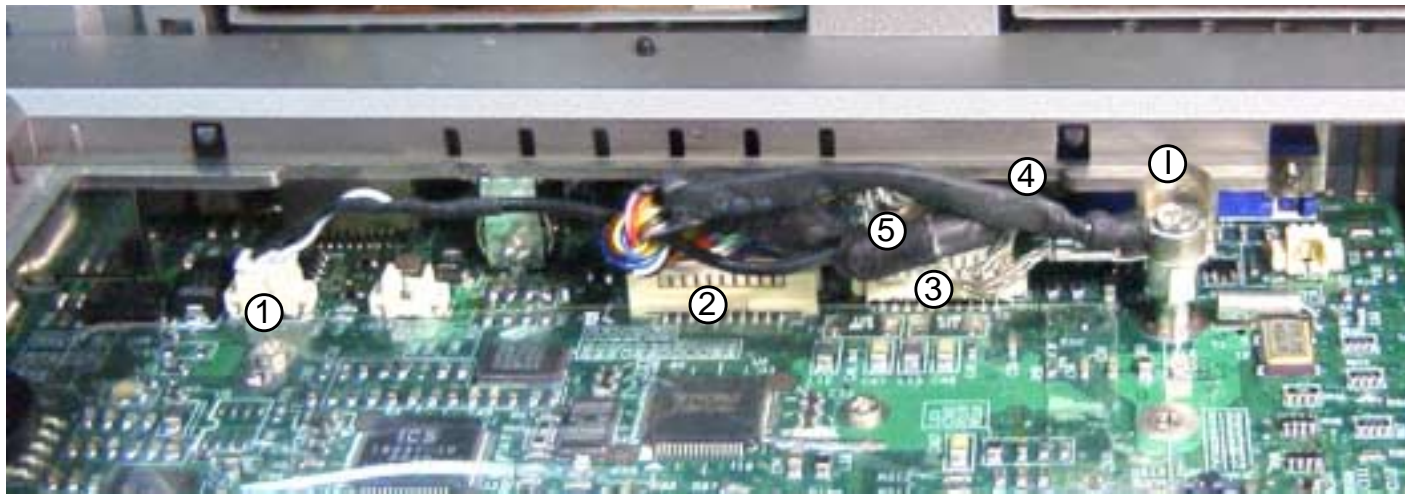


figure 3-14



- 1 Philips screwdriver
- 1 Hex socket wrench

Top: 1 Screw  
1 Hex nut

Right Side: 1 Screw

Bottom: 6 Screws

Bottom Rear: 3 Screws



- 1) microphone connector
- 2) LCD panel connector
- 3) Inverter power connector
- 4) LCD panel ground
- 5) Inverter power ground

2. Remove screw (I) (figure 3-15).



**figure 3-15**

3. Close the LCD panel and go to the right side of the computer and remove screw (I) (figure 3-16).



**figure 3-16**

4. On the back of the computer just above the ports, remove screws (D) (figure 3-17).

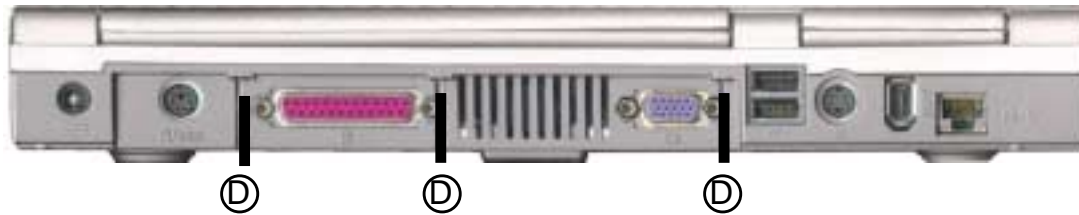


figure 3-17

5. Remove all screws (H, K) as shown in (figure 3-18).
6. Run a small screwdriver around the rim where the two halves meet and slowly pry the pieces apart.
7. You should be left with figure 3-19 on page 3-13.

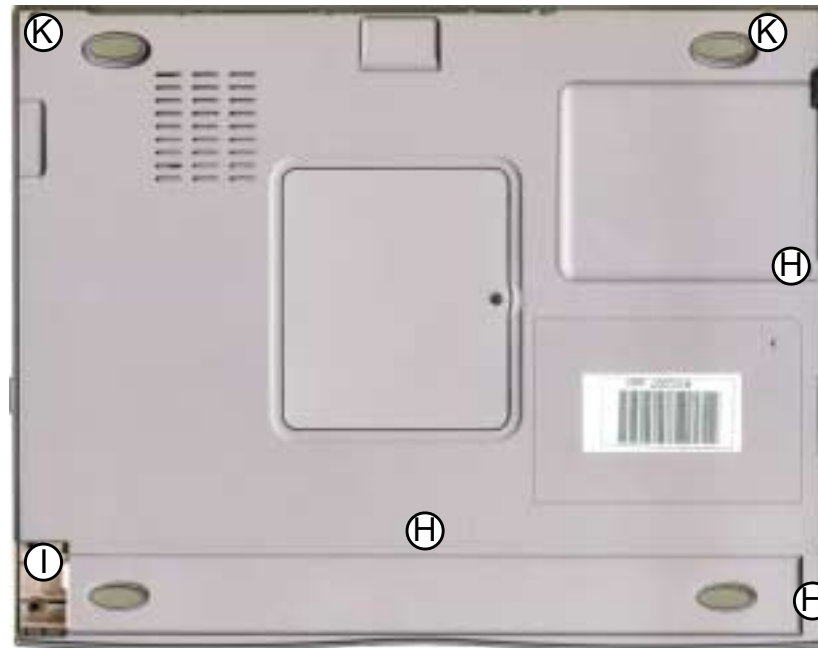


figure 3-18





- 1 Philips screwdriver
- 1 Hex socket wrench

FDD:

- 1 Stand-off Hex nut
- 1 Screw

- CD-ROM tray
- 3 Screws



- 1) Fan
- 2) Fan cable
- 3) Fan cable connector
- 4) FDD assembly
- 5) CD-ROM tray



**Note**

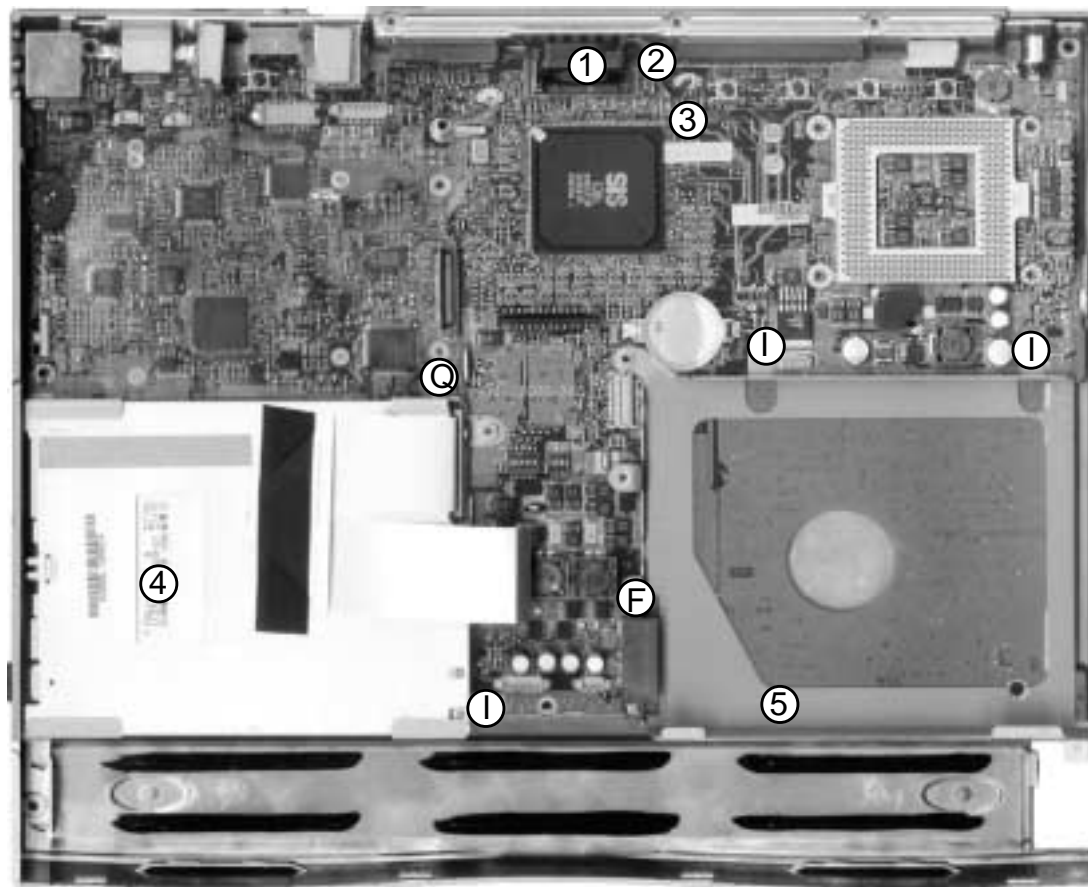
*For information on removing the FDD from the FDD assembly go to Appendix A.*

**Remove the FDD assembly**

1. Remove screw (I).
2. Remove the Hex nut (Q).
3. Lift the FDD assembly off of the mainboard.

**Remove the CD-ROM tray**

1. Remove screws (I).
2. Remove screw (F).
3. Slide the tray slightly to the right and lift it off of the mainboard.



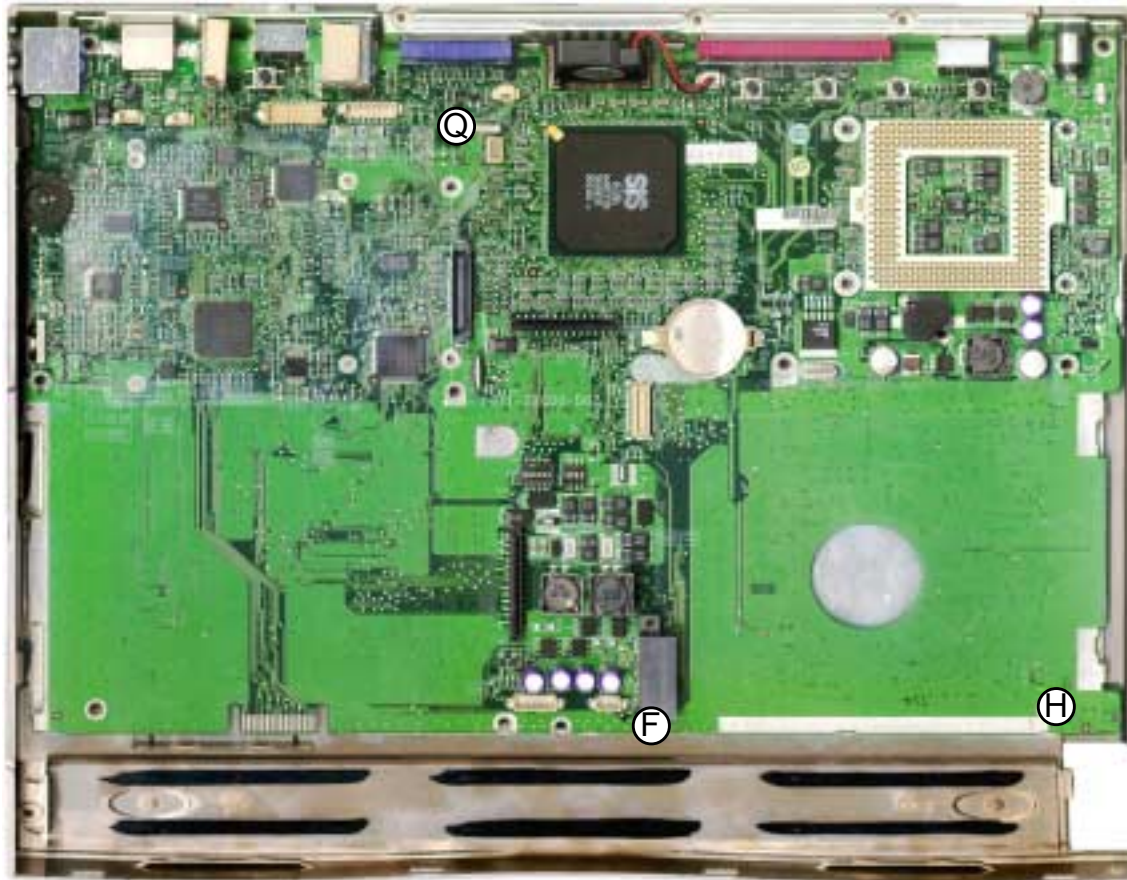
**Remove the Fan**

1. Unplug fan cable from mainboard.
2. Lift out the fan.

figure 3-19

**Remove the mainboard and tray from the bottom case**

1. Remove screws (F, H) and Hex nut (Q).
2. Lift the mainboard up from the battery side and pull it out of the case.



**figure 3-20**



- 1 Philips screwdriver
- 1 Hex socket wrench
- 2 Screws
- 1 Hex nut



1 Hex socket wrench  
1 Hex nut



1) parallel port  
2) monitor port

### Remove the mainboard from the mainboard tray

1. Remove the hex nuts (R) on the parallel port (figure 3-21).
2. Remove the hex nuts (R) on the monitor out port (figure 3-21).
3. Lift the mainboard out of the tray.



figure 3-21

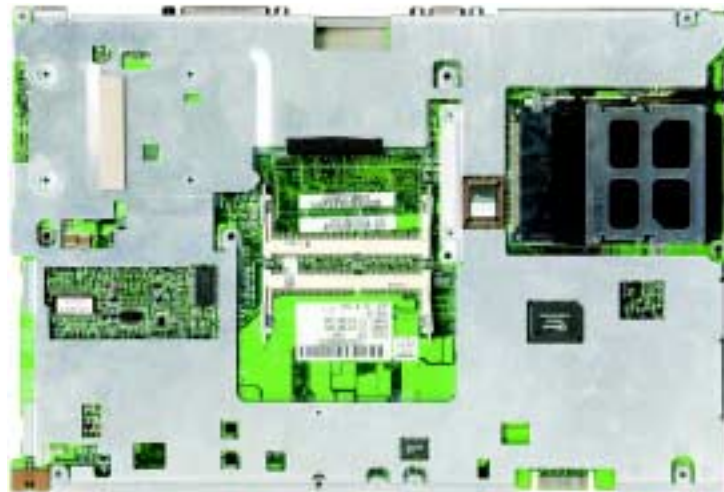


figure 3-22



figure 3-23

## The LCD Panel

### Remove the LCD panel frame

1. Remove the rubber stoppers in positions D and J (figure 3-24).
2. Remove the screws (D, J) (figure 3-24).
3. Run your finger around the middle of the frame and separate the frame from the back (figure 3-25).

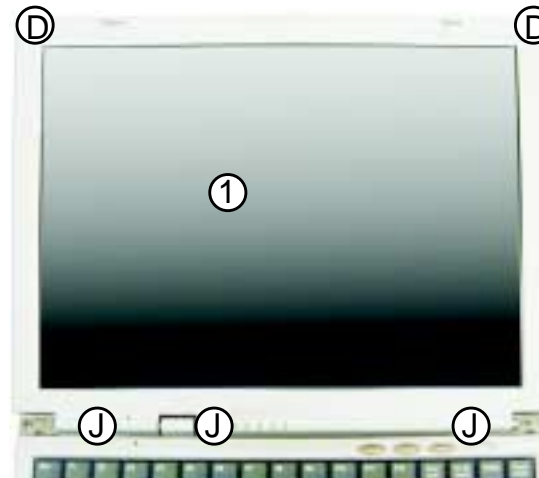


figure 3-24

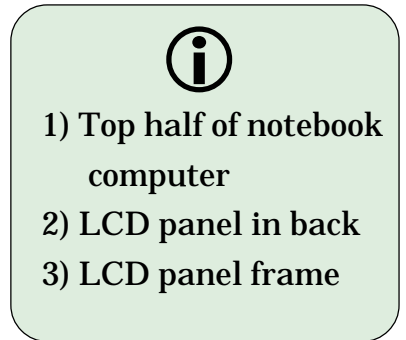


figure 3-25



1 Philips screwdriver  
6 Screws



- 1) Ground wire  
(for reassembly,  
please note where  
the ground wire is  
attached )
- 2) Inverter Board

### Remove the LCD panel and bracket from the LCD panel case

1. Remove the bracket (D) screws on the side of the LCD panel (figure 3-26).
2. Remove the 4 screws at the bottom of the LCD screen
3. Remove screws (D) holding securing the inverter board (figure 3-26).

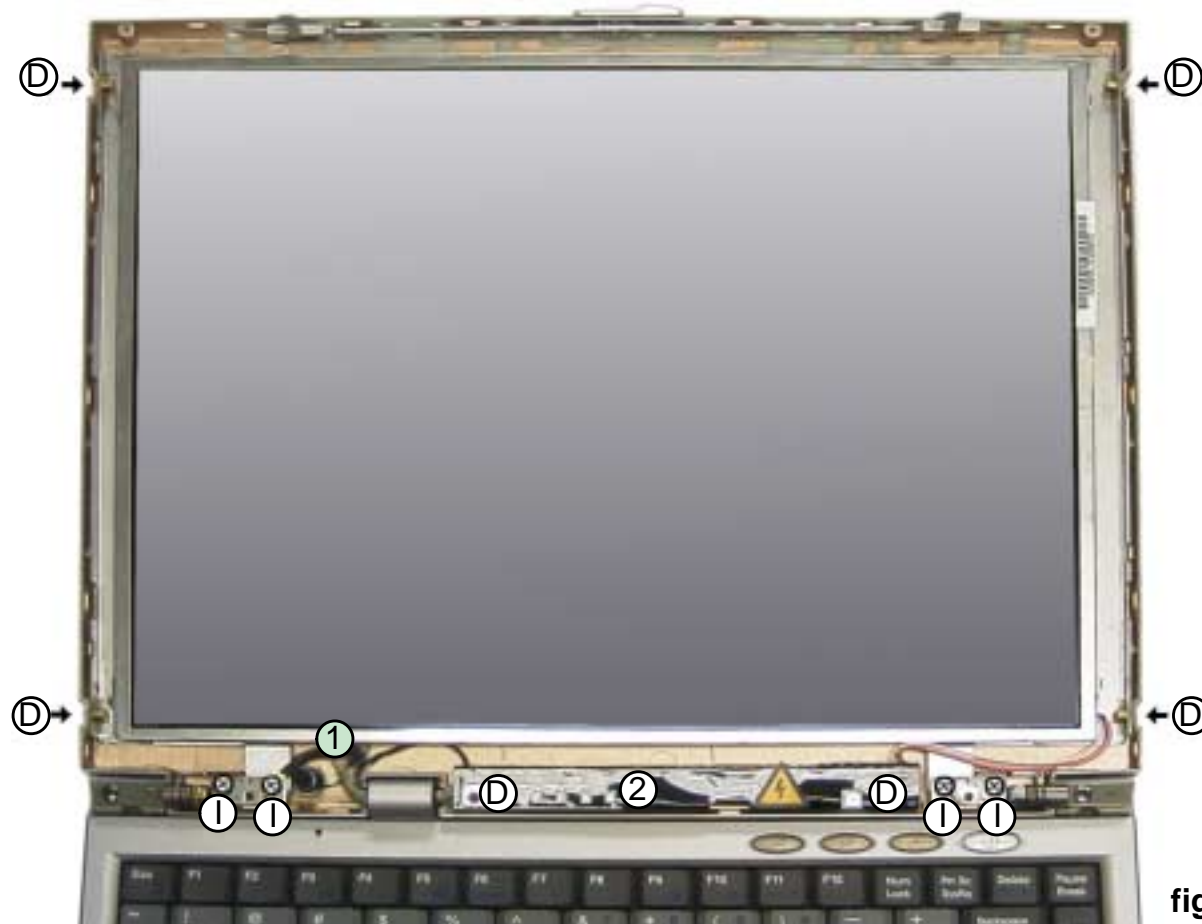


figure 3-26

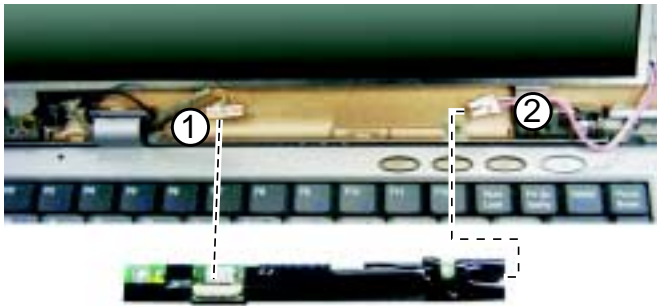


figure 3-27

4. Lift the LCD inverter and disconnect the inverter wire cable and the LCD to inverter wire cable (figure 3-27).
5. Lift the LCD screen and bracket out of the case and place it atop the keyboard (figure 3-28).
6. Disconnect the LCD wire cable.

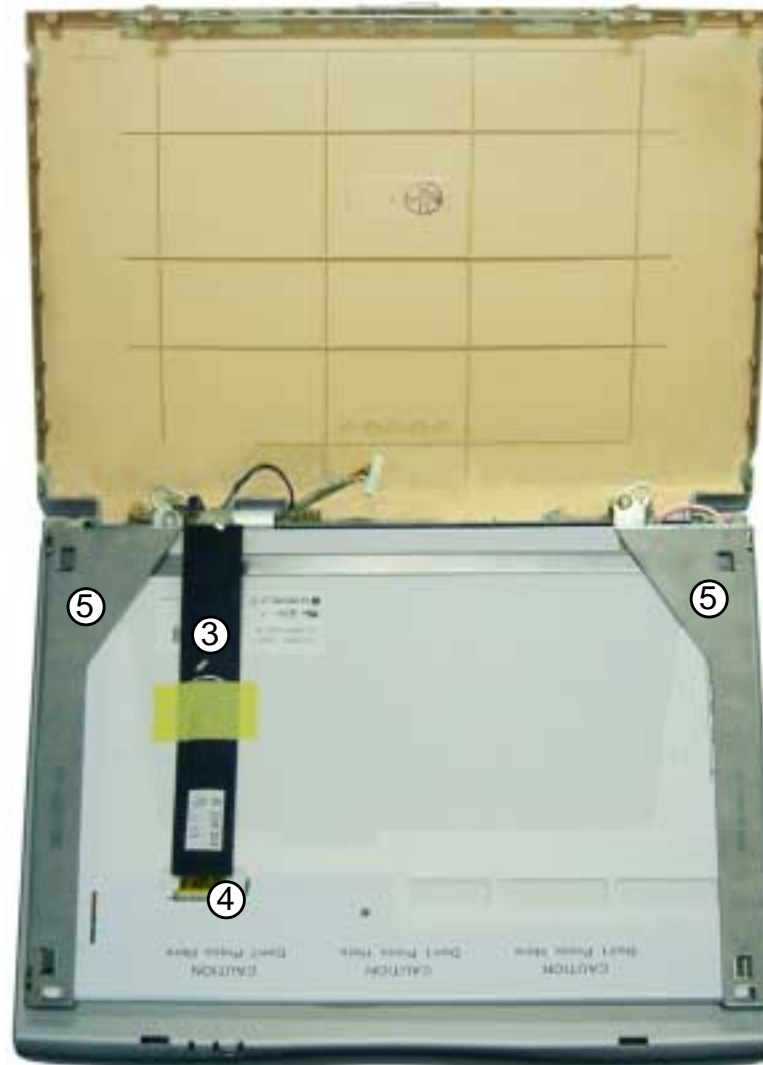


figure 3-28



- 1) Inverter wire cable
- 2) LCD to inverter wire cable
- 3) LCD wire cable
- 4) LCD wire cable connector
- 5) LCD bracket



1 Philips screwdriver  
(small)

### Remove the LCD panel from the bracket

1. Gently lift out the panel.
2. Remove the screws (C) holding the LCD in the bracket (figure 3-29).

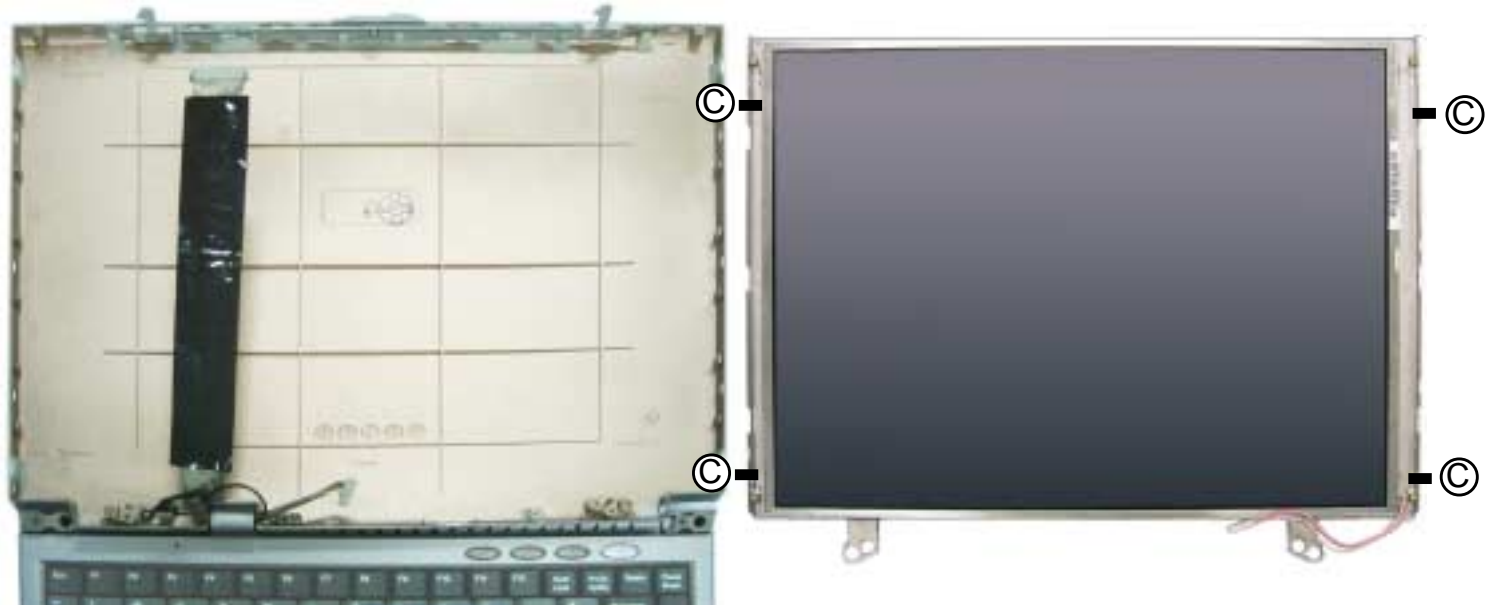
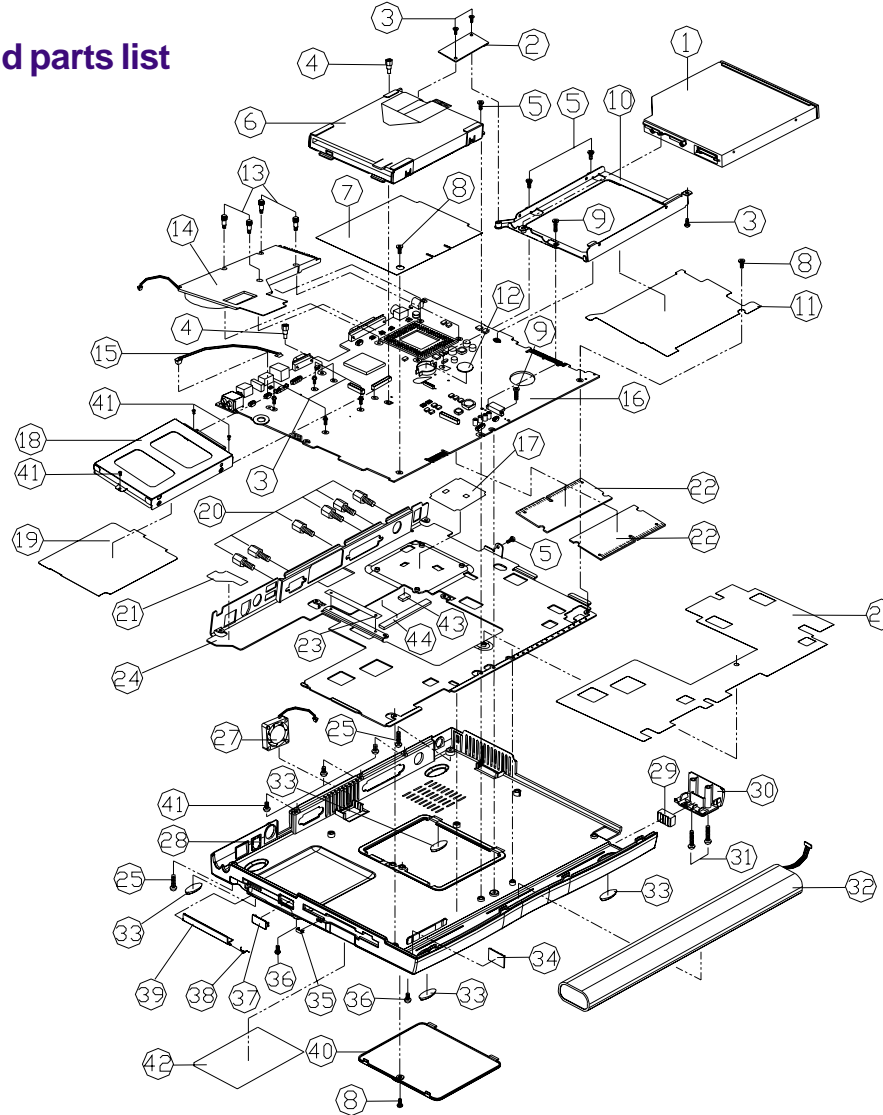


figure 3-29

# Appendix A: Mechanical Drawings and Parts Lists

## 2200C

### Bottom Half assembly and parts list



ITEM	PART NAME	PART NO	REMARK
1	CD-RDM ASS'Y DWG	79-2202Z-011	Reference Ass'y Dwg (99-22005-080)
1	DVD-RDM ASS'Y DWG	79-2202V-011	Reference Ass'y Dwg (99-22005-090)
2	SYSTEM ASS'Y W/LAN OR MODEM	79-22000-00A	
3	SCREW M2.5*4.0L K1 BNI ICT	35-B9125-4R0	
4	STANDOFF FOR M/B SUM22	34-22002-000	
5	SCREW M2.5*5L K1 NI ICT	35-B1125-5R0	
6	FDD ASS'Y DWG	79-2202J-011	Reference Ass'y Dwg (99-22005-070)
7	FDD MYLAR	40-22003-000	
8	SCREW M2.5*4L K1 NI ICT	35-B9125-4R0	
9	SCREW M2*10L B NI ICT	35-C1120-100-1	
10	CD-RDM/DVD BRACKET	33-2200Z-010	
11	CD-RDM MYLAR	40-2205Z-010	
12	MYLAR FOR BATTERY	40-8505M-010	
13	HEX STUD FOR CPU HEATSINK	34-2200N-010	
14	HEATSINK MODULE 2200C	31-22C0N-100	
15	CABLE FOR MDC TO M/B	43-22011-001	
16	MAIN BOARD(w/ LAN OR MODEM)	77-22C00-D0X	
17	CPU MYLAR	40-22C0S-011	
18	HDD ASS'Y (W/O HDD)	79-2202I-011	Reference Ass'y Dwg (99-22005-060)
19	HDD MYLAR	40-22002-001	
20	HEX STUD SUM NI-PL 11mm	34-82001-000	
21	AUDIO MYLAR	40-22007-000	
22	64M SDRAM*16 PC-100	76-0017U-AB0	
22	64M SDRAM*16 PC-100	76-0017U-AD0	
23	MYLAR M/B TO I/O BRACKET	40-22S0S-020	
24	I/O BRACKET	33-22C0S-110	
25	SCREW M2.5*8L B BN ICT NY	35-49125-8R0	
26	M/B MYLAR	40-22010-001	
27	FAN 22mm	23-A221B-050	
28	BOTTOM CASE	39-22C13-01A	
29	BATTERY COVER RUBBER	47-22001-020	
30	BATTERY COVER	42-2207M-011	
31	SCREW M2.5*23L K1 NI ICT	35-B1125-230	
32	BATTERY FOR LI-ION 3600 PANA	87-2208S-42C	
33	RUBBER FOOT SILICONE 990H	47-22003-010	
34	BATTERY RUBBER	47-22001-010	
35	FDD LENS	39-22021-000	
36	SCREW M2.5*6L B BN ICT	35-49125-6R0	
37	IR LENS	39-22020-000	
38	CARD BUS DOOR SPRING ø0.2mm	38-22001-000	
39	DOOR FOR CARBUS GARAGE	42-2207P-020	
40	RAM COVER	42-22073-010	
41	SCREW M2*4L K1 NI ICT	35-B1120-4R0-A	
42	FCC LABEL	45-22C03-030	
43	GASKET FOR I/O BRACKET (B)	47-22S93-020	
44	GASKET FOR I/O BRACKET (A)	47-22S93-010	

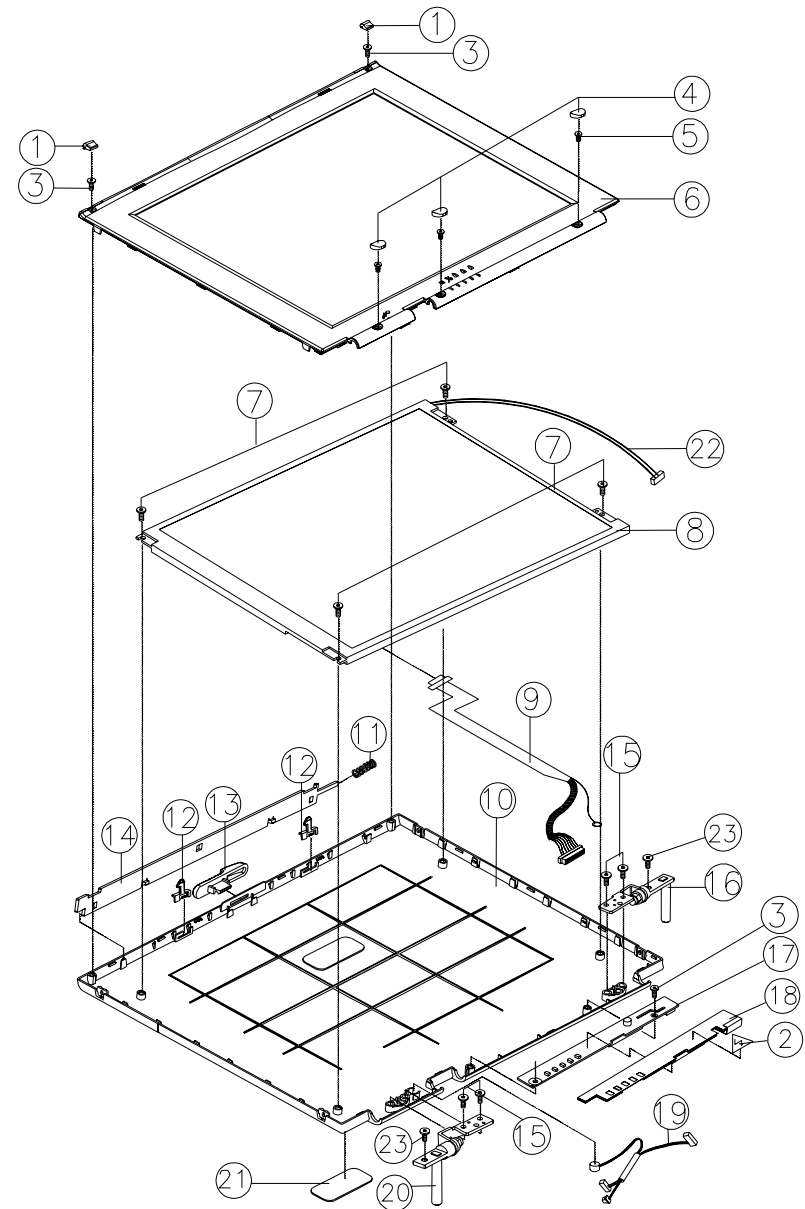
2200C



LCD panel (12.1") assembly and parts list

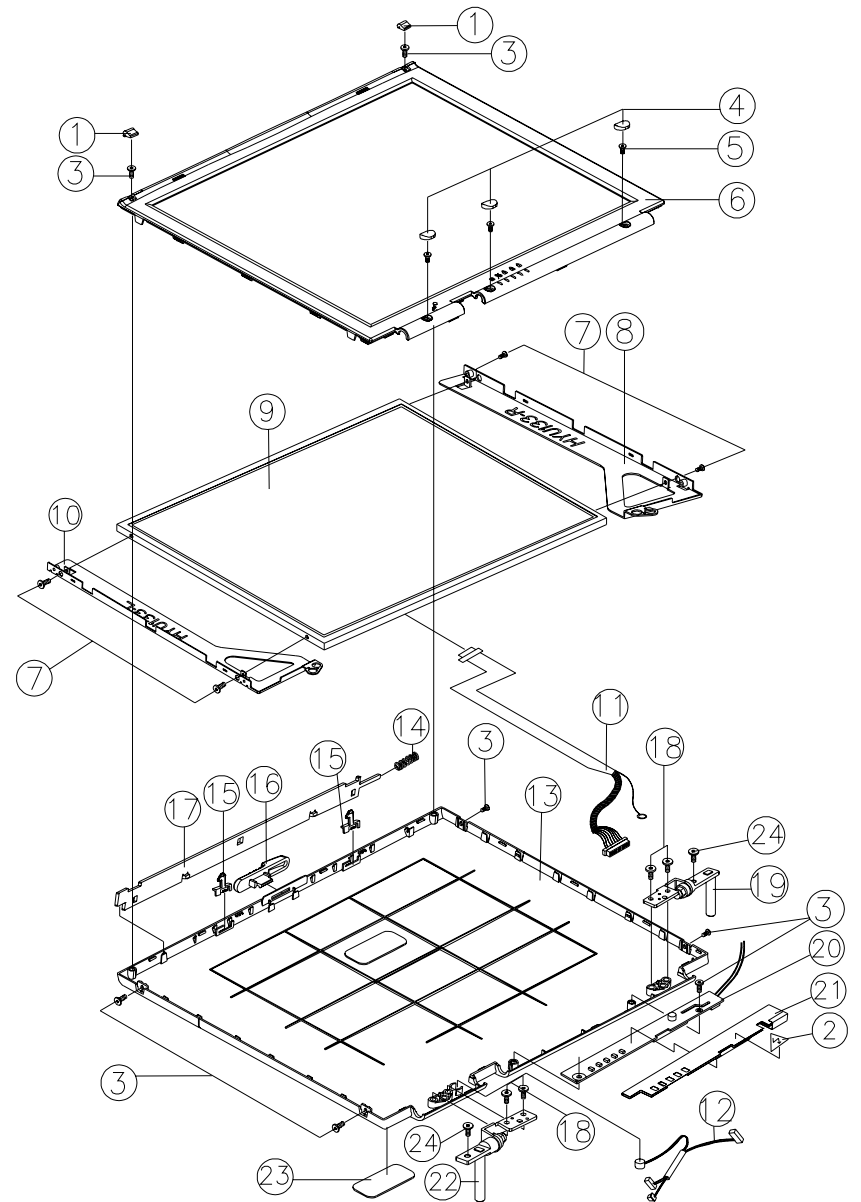
2200C

ITEM	PART NAME	PART NO	REMARK
1	DISPLAY RUBBER PAD(TOP)	47-22021-010	
2	ELECTRIC SHOCK CAUTION 82H	45-82004-000	
3	SCREW M2*4L KI NI ICT	35-B1120-4RB	
4	DISPLAY RUBBER RAD(BOTTOM)	47-22021-020	
5	SCREW M2.5*0.45P*6L KI NI ICT	35-B1125-6R0	
6	LCD FRONT COVER & LENS MODULE FOR 12.1"	39-22001-111	
7	SCREW M3*4L KI NI ICT	35-B1130-4RB	
8	LCD 12.1" TFT SANYO TM121SV-02L07	50-F1255-S01	
9	WIRE CABLE FOR SAN.	43-22001-101	
10	DISPLAY BACK COVER 12.1"	39-22001-12B	
11	LCD SPRING FOR HOOK	38-26004-003	
12	LCD HOOK	42-220A1-010	
13	LCD HOOK KNOB	42-220A1-022	
14	LCD LATCH BRACKET	33-22001-010	
15	SCREW M2.5*5L K1 BNI ICT NY	35-B9125-5R0	
16	HINGE (R) ASS'Y	79-2200Y-011	
17	INVERTER BOARD SMT ASS'Y V2.1 2200	77-22001-002	
18	INVERTER MYLAR	40-22004-000	
19	WIRE CABLE FOR INVERTER	43-22006-002	
20	HINGE (L) ASS'Y	79-2200Y-021	
21	DISPLAY BACK COVER LABEL	45-22001-010	
22	WIRE CABEL FOR LCD TO INVERTER	43-22010-001	
23	SCREW M2.5*8L B BN ICT NY	35-49125-8R0	



LCD panel (13.1" , 15.3") assembly and parts list

ITEM	PART NAME	PART NO	REMARK
1	DISPLAY RUBBER PAD(TOP)	47-22021-010	
2	ELECTRIC SHOCK CAUTION 82H	45-82004-000	
3	SCREW M2*4L KI NI ICT	35-B1120-4RB	
4	DISPLAY RUBBER PAD(BOTTOM)	47-22021-020	
5	SCREW M2.5*0.45P*6L KI NI ICT	35-B1125-6R0	
6	LCD FRONT COVER & LENS MODULE FOR 13.3"	39-22001-011	
7	SCREW M2*3L KI BK ICT	35-B4120-3R0	
8	LCD BRACKET (R) FOR 13.3"	33-22010-000	
9	LCD 13.3" T UNIPAC UB133X01 5.5M	50-G2255-U01	
9	LCD 13.3" T HYUNDAI HT13X14 13.3"XGA	50-G2257-H01	
10	LCD BRACKET (L) FOR 13.3"	33-22011-000	
11	WIRE CABLE FOR UNIPAC UB133X01	43-22001-200	
11	WIRE CABLE FOR HYU. HT13X14	43-22001-210	
12	WIRE CABLE FOR INVERTER	43-22006-002	
13	LCD BACK COVER 13.3/14.1"	39-22001-22B	
14	LCD SPRING FOR HOOK	38-26004-003	
15	LCD HOOK	42-220A1-010	
16	LCD HOOK KNOB	42-220A1-022	
17	LCD LATCH BRACKET	33-22001-010	
18	SCREW M2.5*5L K1 BNI ICT NY	35-B9125-5R0	
19	HINGE (R) ASS'Y	79-2200Y-011	
20	INVERTER BOARD SMT ASS'Y V2.1 2200	77-22001-002	
21	INVERTER MYLAR	40-22004-000	
22	HINGE (L) ASS'Y	79-2200Y-021	
23	DISPLAY BACK COVER LABEL	45-22001-010	
24	SCREW M2.5*8L B BN ICT NY	35-49125-8R0	

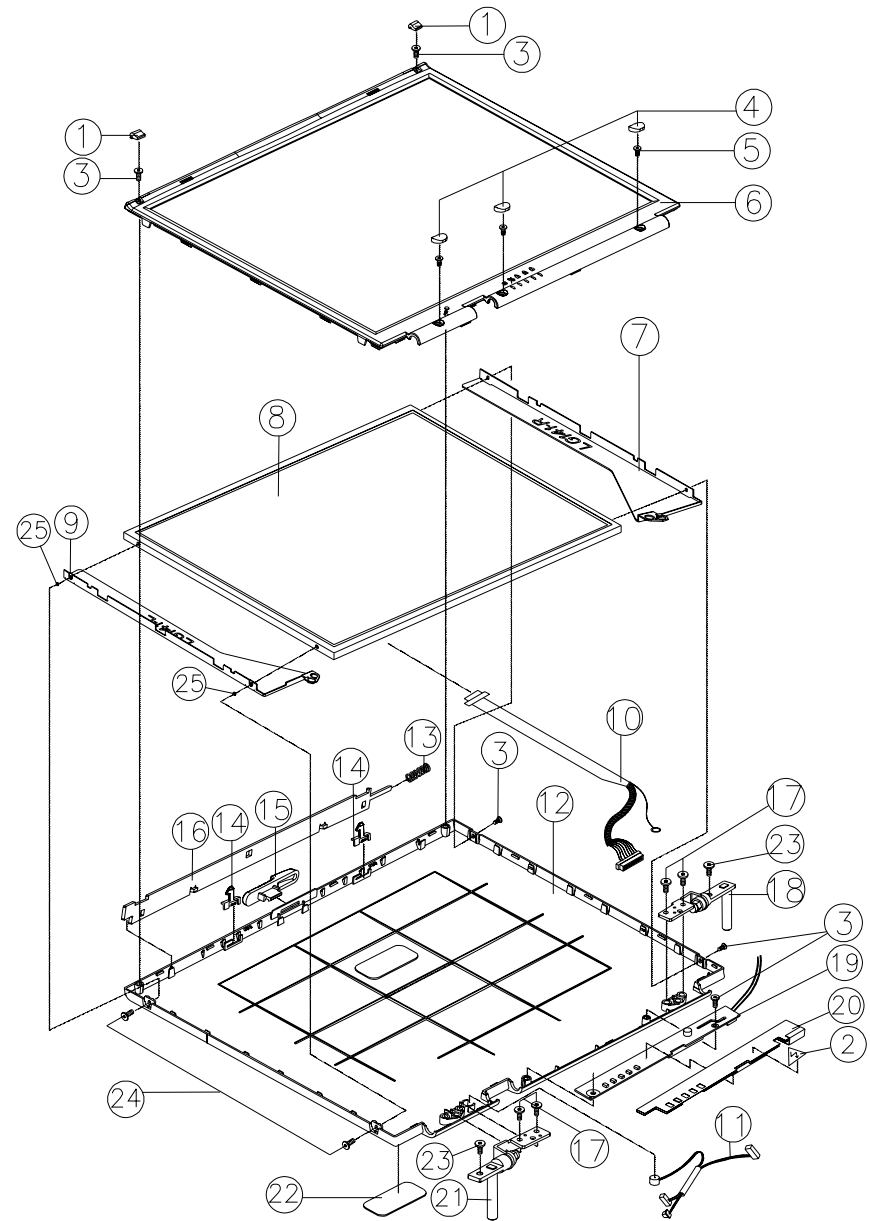


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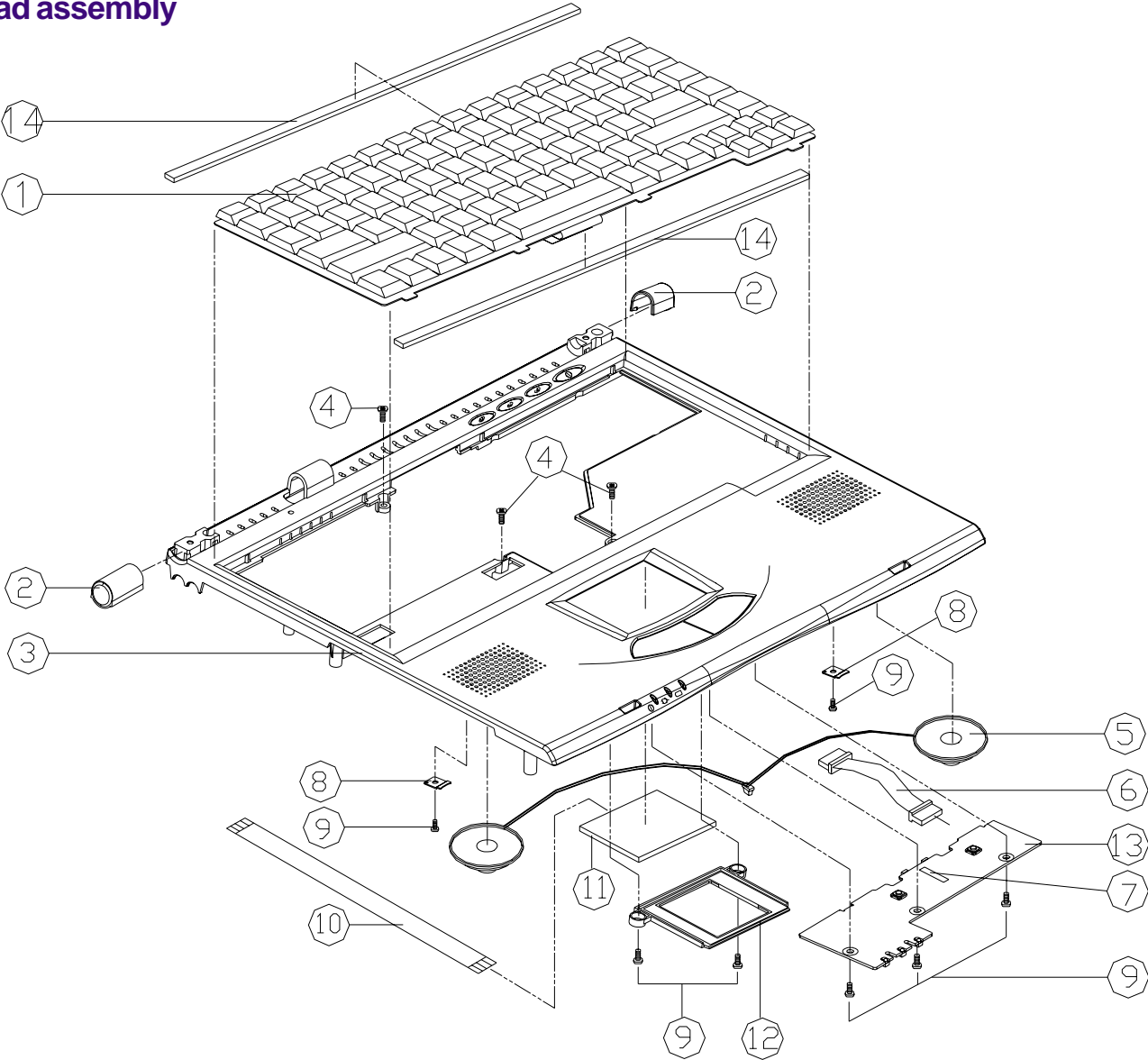
LCD panel (14.1") assembly and parts list

2200C

ITEM	PART NAME	PART NO	REMARK
1	DISPLAY RUBBER PAD(TOP)	47-22021-010	
2	ELECTRIC SHOCK CAUTION 82H	45-82004-000	
3	SCREW M2*4L KI NI ICT	35-B1120-4RB	
4	DISPLAY RUBBER PAD(BOTTOM)	47-22021-020	
5	SCREW M2.5*0.45P*6L KI NI ICT	35-B1125-6R0	
6	LCD FRONT COVER & LENS MODULE FOR 14.1"	39-22001-211	
7	LCD BRACKET (R) FOR LG/UNIPAC.14.1"	33-22008-001	
8	LCD T LG LP141XA-A1NA 14.1" XGA	50-J6787-66L	
8	LCD T UNIPAC UB141X01 14.1" 6.0mm	50-J2260-U02	
9	LCD BRACKET (L) FOR LG/UNIPAC.14.1"	33-22009-000	
10	WIRE CABLE FOR LG/UNIPAC	43-22001-300	
11	WIRE CABLE FOR INVERTER	43-22006-002	
12	LCD BACK COVER 13.3/14.1"	39-22001-22B	
13	LCD SPRING	38-26004-003	
14	LCD HOOK	42-220A1-010	
15	LCD HOOK KNOB	42-220A1-022	
16	LCD LATCH BRACKET	33-22001-010	
17	SCREW M2.5*5L K1 BNI ICT NY	35-B9125-5R0	
18	HINGE (R) ASS'Y	79-2200Y-011	
19	INVERTER BOARD SMT ASS'Y V2.1 2200	77-22001-002	
20	INVERTER MYLAR	40-22004-000	
21	HINGE (L) ASS'Y	79-2200Y-021	
22	DISPLAY BACK COVER LABEL	45-22001-010	
23	SCREW M2.5*8L B BN ICT NY	35-49125-8R0	
24	SCREW M2*5L I BZ ICT	35-C6120-5R0	
25	WASHER FOR FDD CASE	40-11A5J-020	



Keyboard and Touchpad assembly



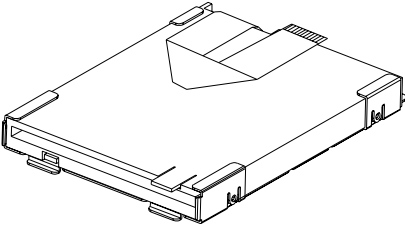
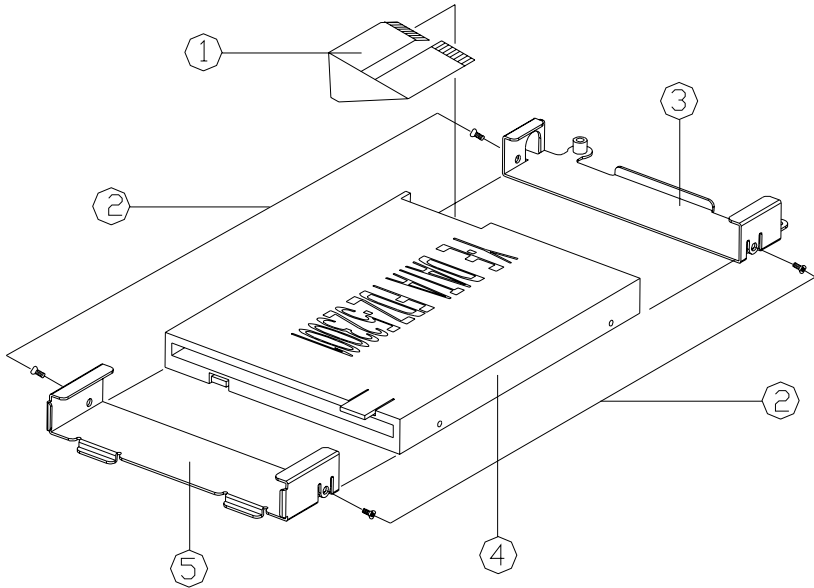
2200C

Keyboard and Touchpad assembly parts list

ITEM	PART NAME	PART NO	REMARK
1	KEYBOARD	80-22008-7G0	
2	HINGE COVER	42-2207Y-010	
3	TOP CASE ASS'Y 2200	39-22002-012	
4	SCREW M2.5*5L K1 NI ICT	35-B1125-5R0	
5	SPK. WITH CABLE 28mm	23-52810-201	
6	WIRE CABLE FOR CLICK BOARD	43-22008-001	
7	MYLAR FOR T/P BOARD 260	40-26009-000	
8	SPEAKER BRACKET	33-22017-000	
9	SCREW M2.5*3L K1 NI ICT	35-B1125-3RA	
10	FFC CABLE 8P 85mm FOR GLIDE POINT	27-9350C-850	
11	TOUCHPAD ALPS KGDDHQ943A	49-98000-030	
12	TOUCH PAD HOLDER MODULE	79-2200M-0A0	
13	CLICK BOARD SMT ASS'Y V2.0 2200	77-22002-002	
14	導電布 FOR KEYBOARD	47-22S97-010	

2200C

FDD assembly and parts list



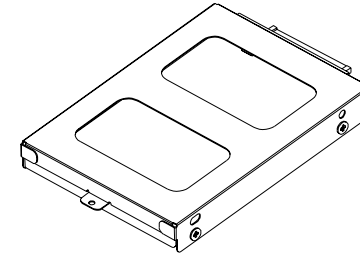
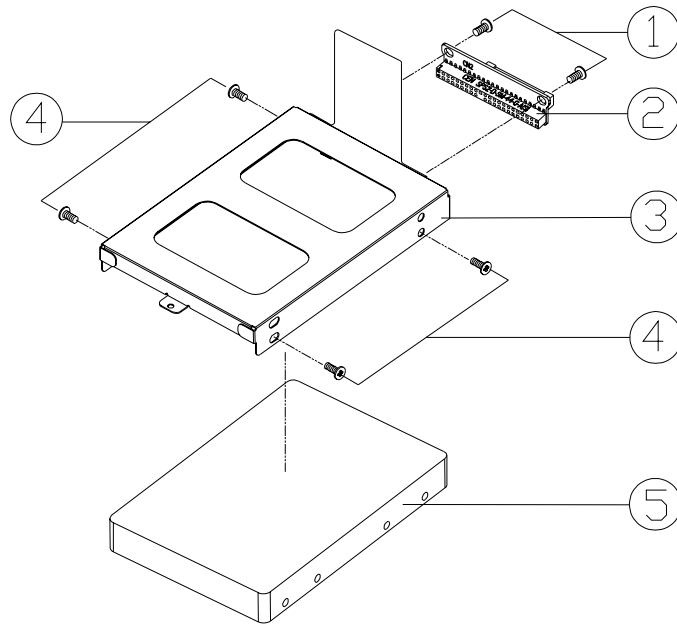
FDD ASS'Y DWG

2200C

ITEM	PART NAME	PART NO	REMARK
1	FFC CABEL FOR FDD	43-22009-001	
2	SCREW M2.6*3.5L F NI ICT	35-21126-350	
3	FDD BRACKET <B>	33-22004-000	
4	3.5' FDD 1.44MB 12.7mm	85-11700-Y01	YD-702J-6637J
5	FDD BRACKET <F>	33-22003-000	

HDD assembly and parts list

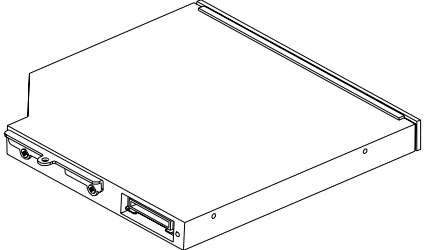
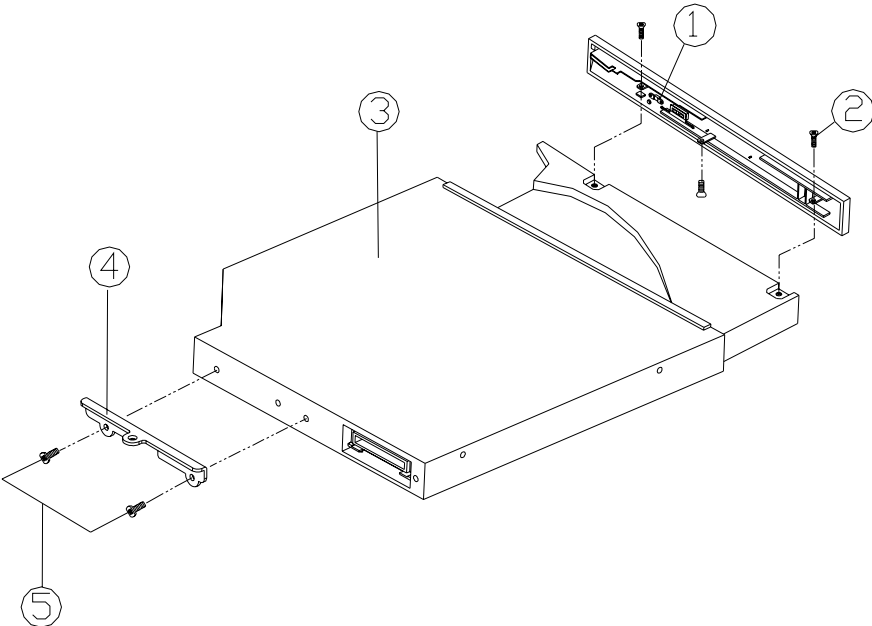
2200C



HDD ASS'Y DWG(9.5mm)

ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*2L KI ICT NY	35-B6120-2RA	
2	HDD CONVERTER BOARD SMT ASS'Y	77-22004-D03	
3	HDD HOLDER AND MYLAR MODULE	79-2200N-0A1	
4	SCREW M3*4L KI NI ICT	35-B1130-4RB	
5	2.5" HDD MHK2060AT 6GB 9.5mm	85-01860-F00	FUJITSU
5	2.5" HDD MK6014MAP 6GB 9.5mm	85-01860-T00	TOSHIBA

CD-ROM assembly and parts list



CD-ROM ASS'Y DWG

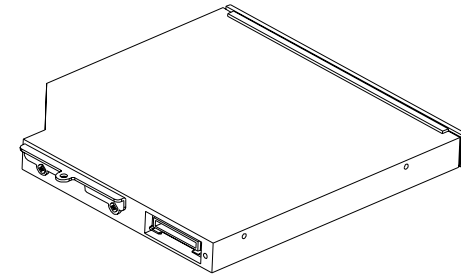
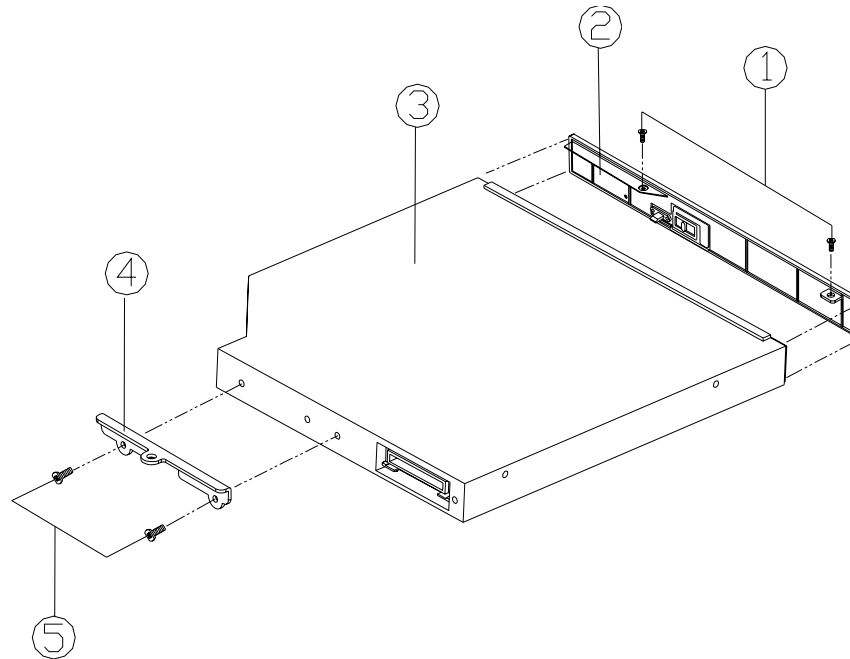
ITEM	PART NAME	PART NO	REMARK
1	CD-ROM DVD BEZEL MODULE	42-2207Z-000	TEAC
2	SCREW M2*5L F BZ TAP	35-26720-5R0	
3	CD-ROM 5 1/4" 24X	85-6070X-701	CD-224E-B20
4	CD-ROM DVD FIXED BRACKET	33-22002-000	
5	SCREW M2*3L K1 NI ICT	35-B1120-3R0	

2200C



DVD-ROM assembly and parts list

2200C

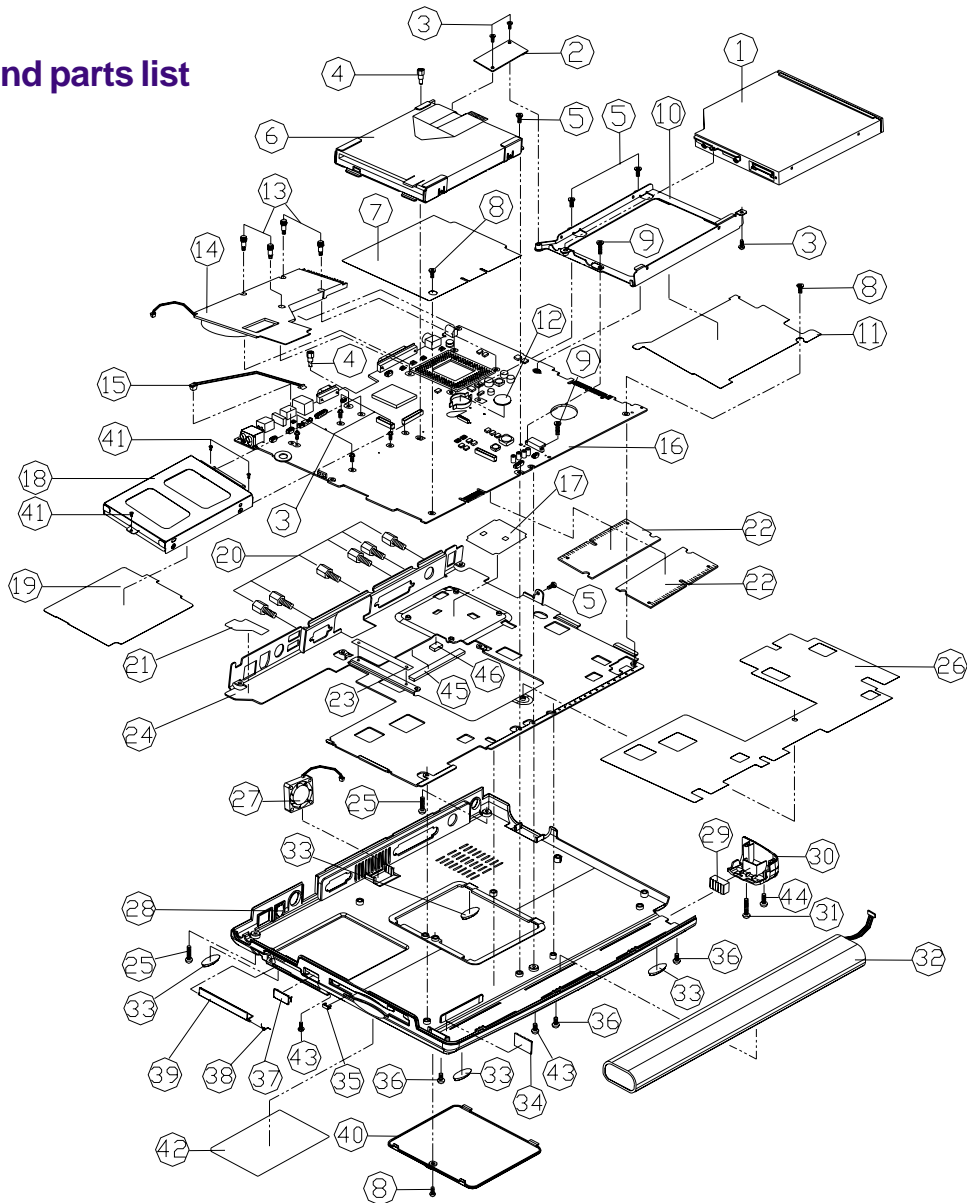


DVD-ROM ASS'Y DWG

ITEM	PART NAME	PART NO	REMARK
1	SCREW M1.7*5L BK/Z ICT	35-C6117-5R0	
2	DVD-ROM BEZEL MODULE	42-2207V-000	SANYO
3	DVD 5 1/4" 8X 12.7mm	85-7078X-801	SANYO(DRD-U824)
4	CD-ROM DVD FIXED BRACKET	33-22002-000	
5	SCREW M2*3L K1 NI ICT	35-B1120-3R0	

2700C

Bottom half assembly and parts list



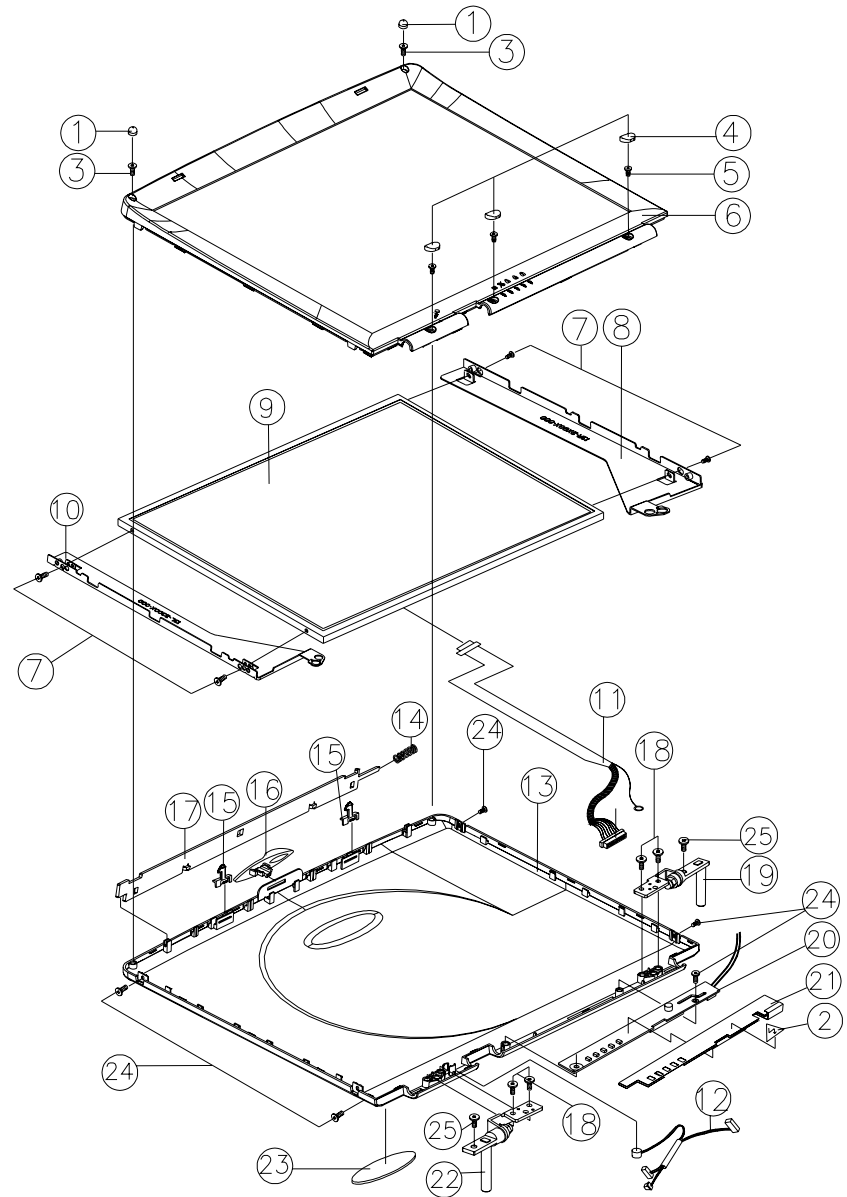
ITEM	PART NAME	PART NO	REMARK
1	CD-ROM ASS'Y DWG	79-2202Z-011	Reference Assy Dwg (99-27005-050)
1	DVD-ROM ASS'Y DWG	79-2202V-011	Reference Assy Dwg (99-27005-060)
2	SYSTEM ASS'Y W/LAN OR MODEM	79-22000-00A	
3	SCREW M2.5*4.0L K1 BNI ICT	35-B9125-4R0	
4	STANDOFF FOR M/B SUM22	34-22002-000	
5	SCREW M2.5*5L K1 NI ICT	35-B1125-5R0	
6	FDD ASS'Y DWG	79-2202J-011	Reference Assy Dwg (99-22005-070)
7	FDD MYLAR	40-22003-000	
8	SCREW M2.5*4L K1 NI ICT	35-B9125-4R0	
9	SCREW M2*10L B NI ICT	35-41120-100	
10	CD-ROM/DVD BRACKET	33-2200Z-010	
11	CD-ROM MYLAR	40-2205Z-010	
12	MYLAR FOR BATTERY	40-8505M-010	
13	HEX STUD FOR CPU HEATSINK	34-2200N-010	
14	HEATSINK MODULE 2200C	31-22C0N-100	
15	CABLE FOR MDC TO M/B	43-22011-001	
16	MAIN BOARD(w/ LAN OR MODEM)	77-22C00-DOX	
17	CPU MYLAR	40-22C0S-011	
18	HDD ASS'Y (w/O HDD)	79-2202I-011	Reference Assy Dwg (99-22005-060)
19	HDD MYLAR	40-22002-001	
20	HEX STUD SUM NI-PL 11mm	34-82001-000	
21	AUDIO MYLAR	40-22007-000	
22	64M SDRAM*16 PC-100	76-0017U-AB0	
22	64M SDRAM*16 PC-100	76-0017U-AD0	
23	MYLAR FOR M/B TO I/O BRACKET	40-22S0S-020	
24	I/O BRACKET	33-22C0S-110	
25	SCREW M2.5*8L B BN ICT	35-49125-8R0	
26	M/B MYLAR	40-22010-001	
27	FAN 22mm	23-A221B-050	
28	BOTTOM CASE	39-27C13-01A	
29	BATTERY COVER RUBBER	47-22001-020	
30	BATTERY COVER	42-2707M-011	
31	SCREW M2.5*23L K1 NI ICT	35-B1125-230	
32	BATTERY FOR LI-ION 3600 PANA	87-2208S-42C	
33	RUBBER FOOT SILICONE 990H	47-22003-010	
34	BATTERY RUBBER	47-22001-010	
35	FDD LENS	39-22021-000	
36	SCREW M2*4L KI BNI ICT	35-B9120-4R0	
37	IR LENS	39-22020-000	
38	CARD BUS DOOR SPRING ø0.2mm	38-22001-000	
39	DOOR FOR CARBUS GARAGE	42-2707P-010	
40	RAM COVER	42-27072-030	
41	SCREW M2*4L KI NI ICT	35-B1120-4R0-A	
42	FCC DDC LABEL	45-27C03-030	
43	SCREW M2.5*6L B BN ICT	35-49125-6R0	
44	SCREW M2.5*14L KI BNI ICT	35-B9125-140	
45	GASKET FOR I/O BRACKET (A)	47-22S93-010	
46	GASKET FOR I/O BRACKET (B)	47-22S93-020	

2700C

LCD panel (13.3") assembly and parts list

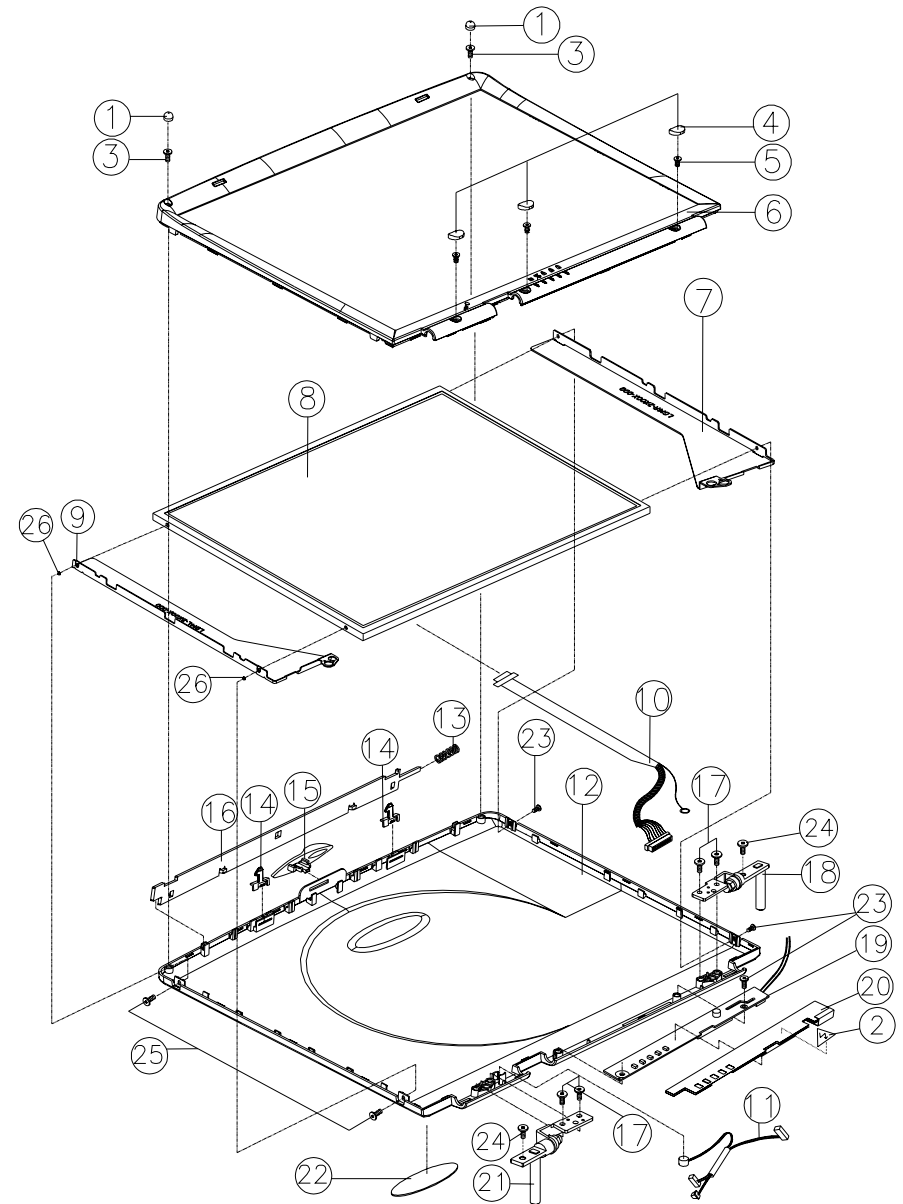
2700C

ITEM	PART NAME	PART NO	REMARK
1	DISPLAY RUBBER PAD(TOP)	47-27031-010	
2	ELECTRIC SHOCK CAUTION 82H	45-82004-000	
3	SCREW M2*4L P NI ICT	35-01120-4R0	
4	DISPLAY RUBBER RAD(BOTTOM)	47-27021-010	
5	SCREW M2.5*0.45P*6L KI NI ICT	35-B1125-6R0	
6	LCD FRONT COVER & LENS MODULE FOR 13.3"	39-27001-011	
7	SCREW M2*3L KI BK ICT	35-B4120-3R0	
8	LCD BRACKET (R) FOR 13.3"	33-27001-010	
9	LCD 13.3" T UNIPAC UB133X01 5.5M	50-G2255-U01	
9	LCD T HYUNDAI HT13X14-101-P 13.3"XC	50-G2257-H01	
10	LCD BRACKET (L) FOR 13.3"	33-27001-020	
11	WIRE CABLE FOR UNIPAC UB133X01	43-22001-200	
11	WIRE CABLE FOR HYU. HT13X14	43-22001-210	
12	WIRE CABLE FOR INVERTER	43-22006-002	
13	LCD BACK COVER 13.3/14.1"	39-27001-02B	
14	LCD SPRING FOR HOOK	38-26004-003	
15	LCD HOOK	42-270A1-010	
16	LCD HOOK KNOB	42-270A1-021	
17	LCD LATCH BRACKET	33-22001-010	
18	SCREW M2.5*5L K1 BNI ICT NY	35-B9125-5R0	
19	HINGE (R) ASS'Y	79-2200Y-011	
20	INVERTER BOARD SMT ASS'Y V2.0 2200	77-22001-002	
21	INVERTER MYLAR	40-22004-000	
22	HINGE (L) ASS'Y	79-2200Y-021	
23	DISPLAY BACK COVER LABEL	45-31B01-010	
24	SCREW M2*4L KI NI ICT	35-B1120-4RB	
25	SCREW M2.5*8L B BN ICT NY	35-49125-8R0	



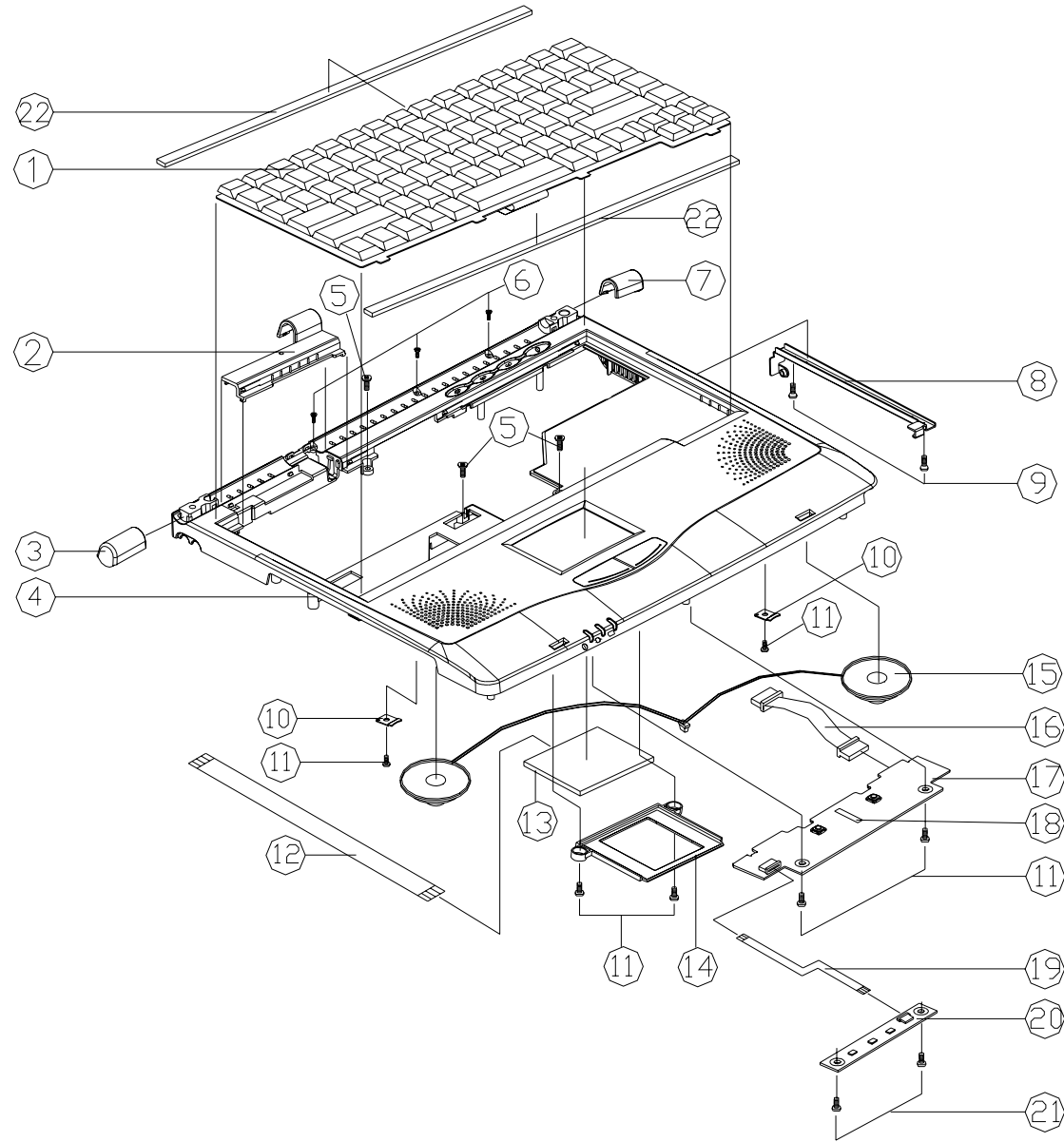
LCD panel (14.1") assembly and parts list

ITEM	PART NAME	PART NO	REMARK
1	DISPLAY RUBBER PAD(TOP)	47-27031-010	
2	ELECTRIC SHOCK CAUTION 82H	45-82004-000	
3	SCREW M2*4L P NI ICT	35-01120-4R0	
4	DISPLAY RUBBER PAD(BOTTOM)	47-27021-010	
5	SCREW M2.5*0.45P*6L KI NI ICT	35-B1125-6R0	
6	LCD FRONT COVER & LENS MODULE FOR 14.1"	39-27001-211	
7	LCD BRACKET (R) FOR LG/UNIPAC.14.1"	33-27001-210	
7	LCD BRACKET (R) FOR HYU.14.1"	33-27001-110	
8	LCD T UNIPAC UB141X01 14.1" 6.0mm	50-J2260-U02	
8	LCD T LG LP141XA-A1NA 14.1" XGA	50-J6787-66L	
8	LCD T HYUNDAI HT14X12-101 14.1" XGA	50-J2257-H01	
8	LCD T HYUNDAI HT14X13-101-P 14.1" XG	50-J2257-H02	
9	LCD BRACKET (L) FOR LG/UNIPAC.14.1"	33-27001-220	
9	LCD BRACKET (L) FOR HYU.14.1"	33-27001-120	
10	WIRE CABLE FOR LG/UNIPAC	43-22001-300	
10	WIRE CABLE FOR HYU.	43-22001-310	
11	WIRE CABLE FOR INVERTER	43-22006-002	
12	LCD BACK COVER 14.1"	39-27001-02B	
13	LCD SPRING	38-26004-003	
14	LCD HOOK	42-270A1-010	
15	LCD HOOK KNOB	42-270A1-021	
16	LCD LATCH BRACKET	33-22001-010	
17	SCREW M2.5*5L K1 BNI ICT NY	35-B9125-5R0	
18	HINGE (R) ASS'Y	79-2200Y-011	
19	INVERTER BOARD SMT ASS'Y V2.0 2200	77-22001-002	
20	INVERTER MYLAR	40-22004-000	
21	HINGE (L) ASS'Y	79-2200Y-021	
22	DISPLAY BACK COVER LABEL	45-31B01-010	
23	SCREW M2*4L KI NI ICT	35-B1120-4RB	
24	SCREW M2.5*8L B BN ICT NY	35-49125-8R0	
25	SCREW M2*5L I BZ ICT	35-C6120-5R0	
26	WASHER FOR FDD CASE	40-11A5J-020	



# Keyboard and Touchpad assembly

2700C



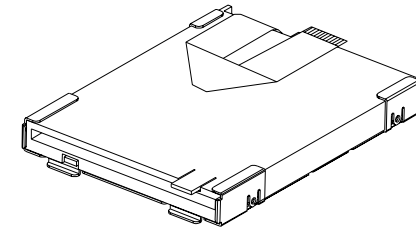
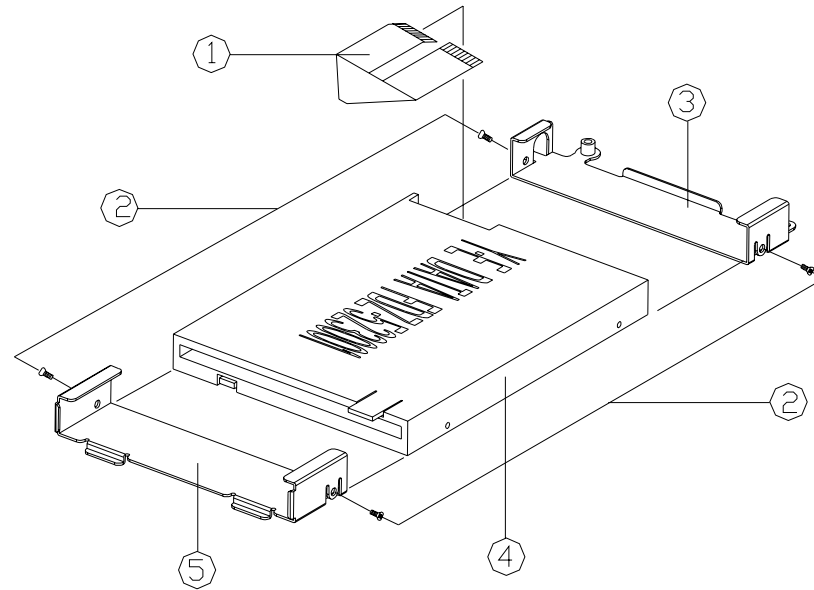
Keyboard and Touchpad parts list

ITEM	PART NAME	PART NO	REMARK
1	KEYBOARD	80-22008-7G0	
2	LCD CABLE COVER	42-27071-101	
3	HINGE COVER(L)	42-2707Y-021	
4	TOP CASE MODULE 2700	39-27002-011	
5	SCREW M2.5*5L K1 NI ICT	35-B1125-5R0	
6	SCREW M2*4L K1 BNI ICT	35-B9120-4R0	
7	HINGE COVER(R)	42-2707Y-011	
8	CD-ROM BRACKET	33-2700Z-010	
9	SCREW M2*3L F NI	35-21120-3R0	
10	SPEAKER BRACKET	33-22017-000	
11	SCREW M2.5*3L K1 NI ICT	35-B1125-3RA	
12	FFC CABLE 8P 85mm FOR GLIDE POINT	27-9350C-850	
13	TOUCHPAD ALPS KGDDHQ943A	49-98000-030	
14	TOUCH PAD HOLDER MODULE	79-2200M-0A0	
15	SPK. WITH CABLE 28mm	23-52810-201	
16	WIRE CABLE FOR CLICK BOARD	43-22008-001	
17	SWITCH BOARD	77-27001-D01	
18	TOUCH-PAD MYLAR	40-22001-000	
19	CABLE FOR LED BOARD	43-2700S-011	
20	LED BOARD	77-27002-D03	
21	SCREW M2*4L KI BN ICT	35-B1120-4R0-A	
22	導電布 FOR KEYBOARD	47-22S97-010	

2700C

FDD Assembly and parts list

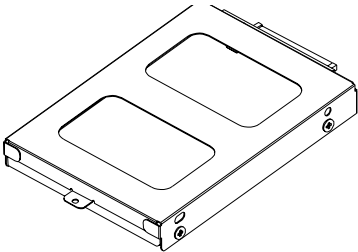
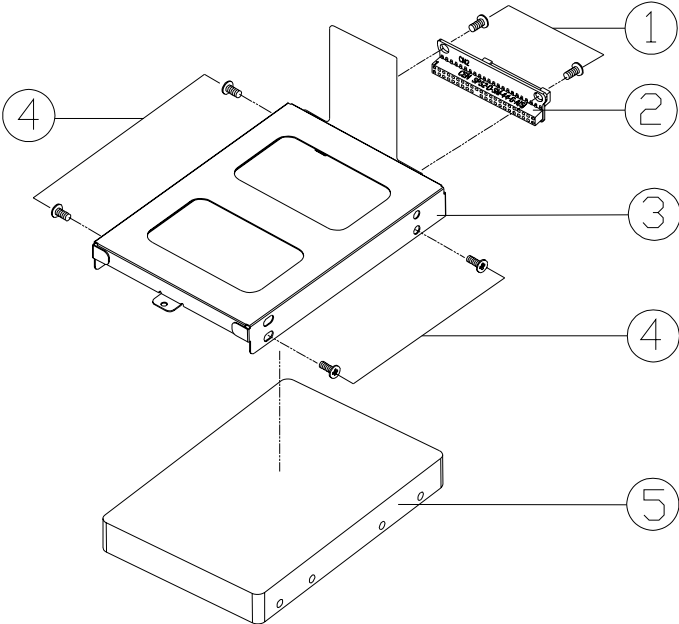
2700C



FDD ASS'Y DWG

ITEM	PART NAME	PART NO	REMARK
1	FFC CABEL FOR FDD	43-22009-001	
2	SCREW M2.6*3.5L F NI ICT	35-21126-350	
3	FDD BRACKET <B>	33-22004-000	
4	3.5' FDD 1.44MB 12.7mm	85-11700-Y01	YD-702J-6637J
5	FDD BRACKET <F>	33-22003-000	

HDD assembly and parts list



HDD ASS'Y DWG(9.5mm)

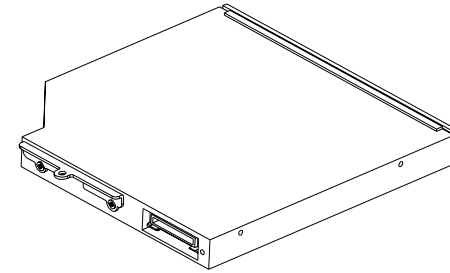
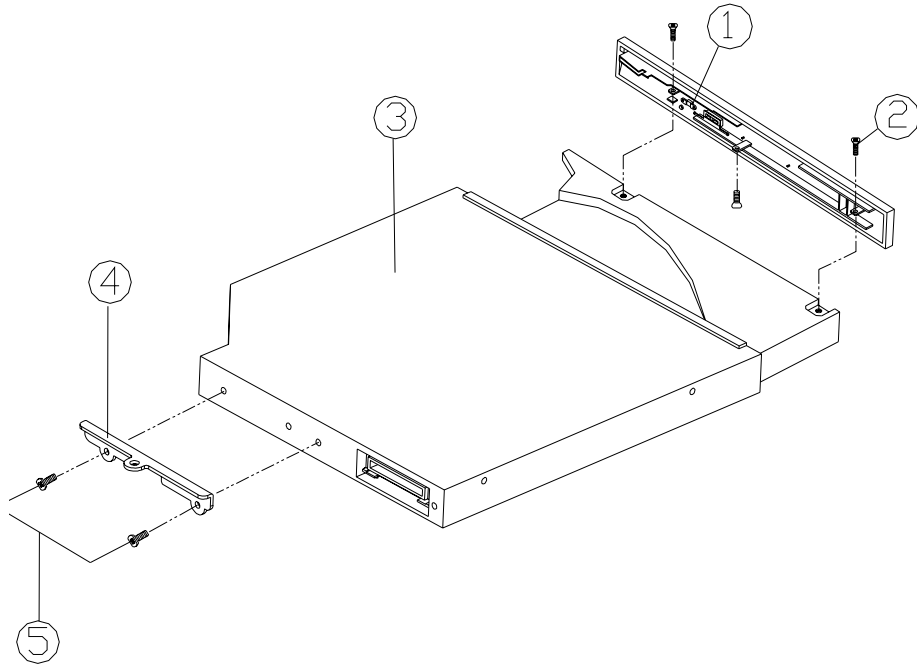
2700C

ITEM	PART NAME	PART NO	REMARK
1	SCREW M2*2L KI ICT NY	35-B6120-2RA	
2	HDD CONVERTER BOARD SMT ASS'Y	77-22004-D03	
3	HDD HOLDER AND MYLAR MODULE	79-2200N-0A1	
4	SCREW M3*4L KI NI ICT	35-B1130-4RB	
5	2.5" HDD MHK2060AT 6GB 9.5mm	85-01860-F00	FUJITSU
5	2.5" HDD MK6014MAP 6GB 9.5mm	85-01860-T00	TOSHIBA



CD-ROM Assembly and parts list

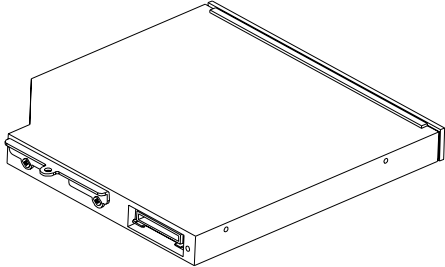
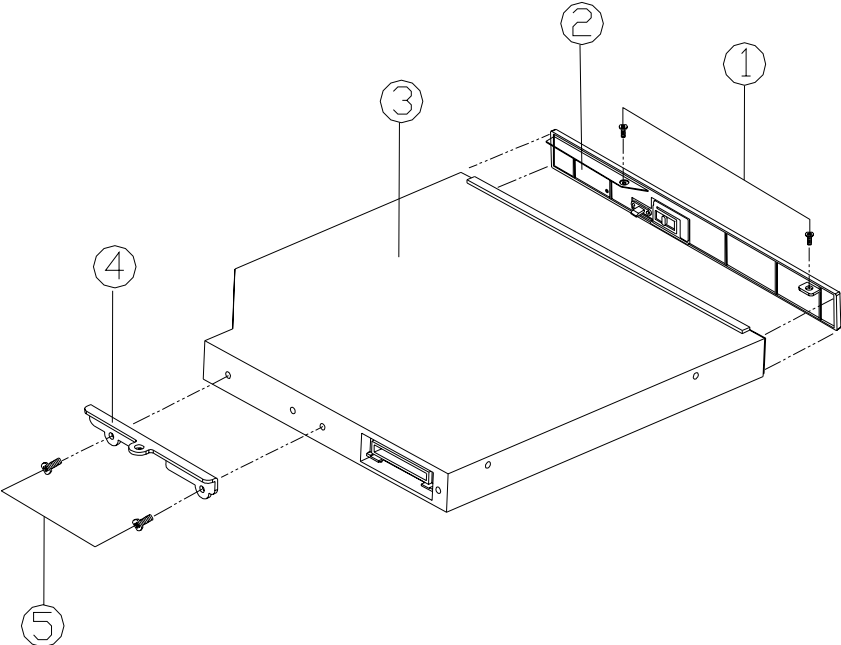
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CD-ROM ASS'Y DWG

ITEM	PART NAME	PART NO	REMARK
1	CD-ROM DVD BEZEL MODULE	42-2707Z-000	TEAC
2	SCREW M2*5L F BZ TAP	35-26720-5R0	
3	CD-ROM 5 1/4" 24X	85-6070X-701	CD-224E-B20
4	CD-ROM DVD FIXED BRACKET	33-22002-000	
5	SCREW M2*3L K1 NI ICT	35-B1120-3R0	

DVD-ROM assembly and parts list



DVD-ROM ASS'Y DWG

ITEM	PART NAME	PART NO	REMARK
1	SCREW M1.7*5L BK/Z ICT	35-C6117-5R0	
2	DVD-ROM BEZEL MODULE	42-2707V-000	SANYO
3	DVD 5 1/4" 8X 12.7mm	85-7078X-801	SANYO<DRD-U824>
4	CD-ROM DVD FIXED BRACKET	33-22002-000	
5	SCREW M2*3L K1 NI ICT	35-B1120-3R0	

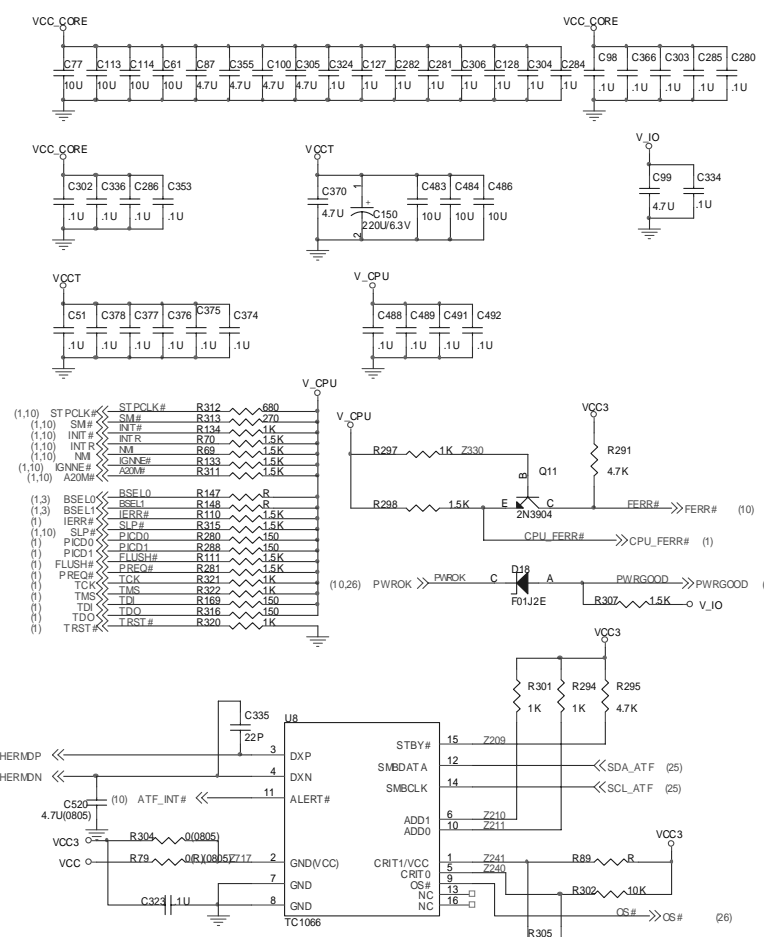
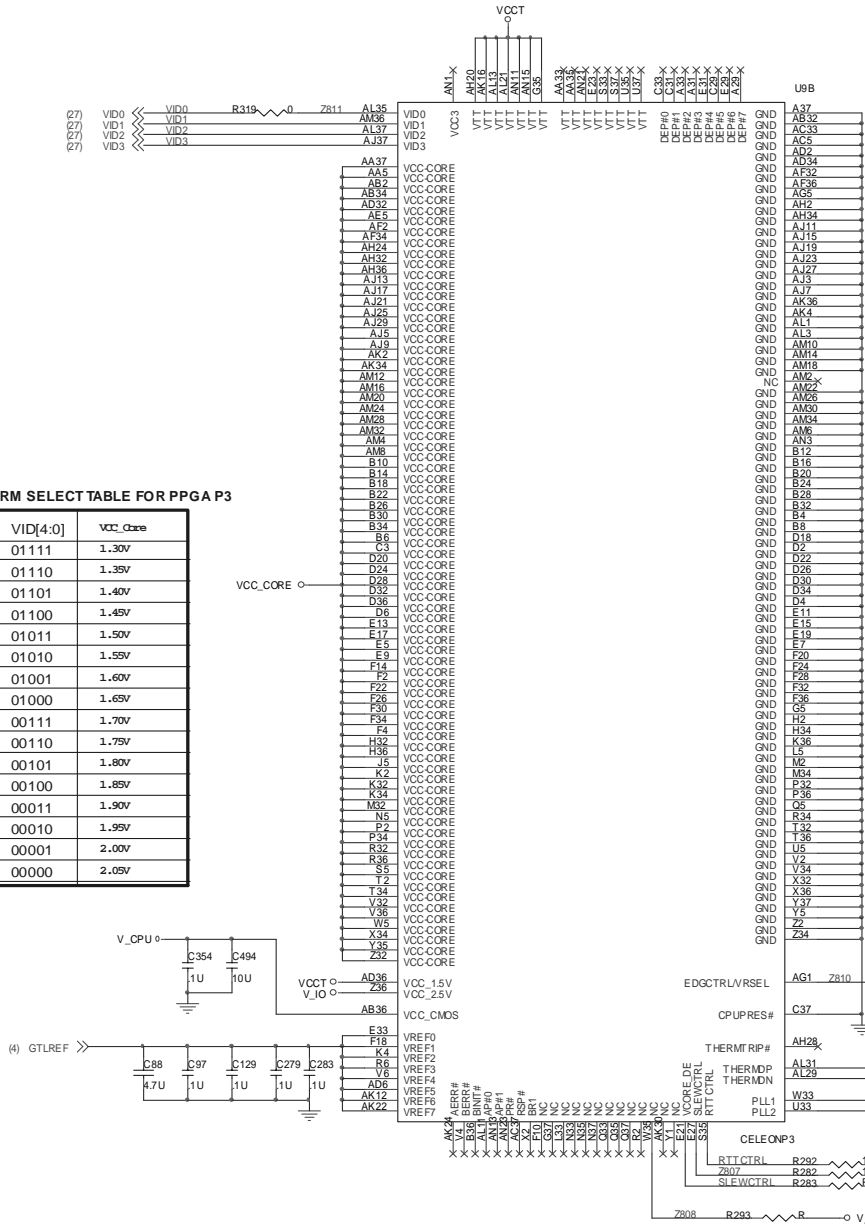
2700C

## Notes



CPU VRM SELECT TABLE FOR PPGA P3

VID[4:0]	VCC_Core
01111	1.30V
01110	1.35V
01101	1.40V
01100	1.45V
01011	1.50V
01010	1.55V
01001	1.60V
01000	1.65V
00111	1.70V
00110	1.75V
00101	1.80V
00100	1.85V
00011	1.90V
00010	1.95V
00001	2.00V
00000	2.05V



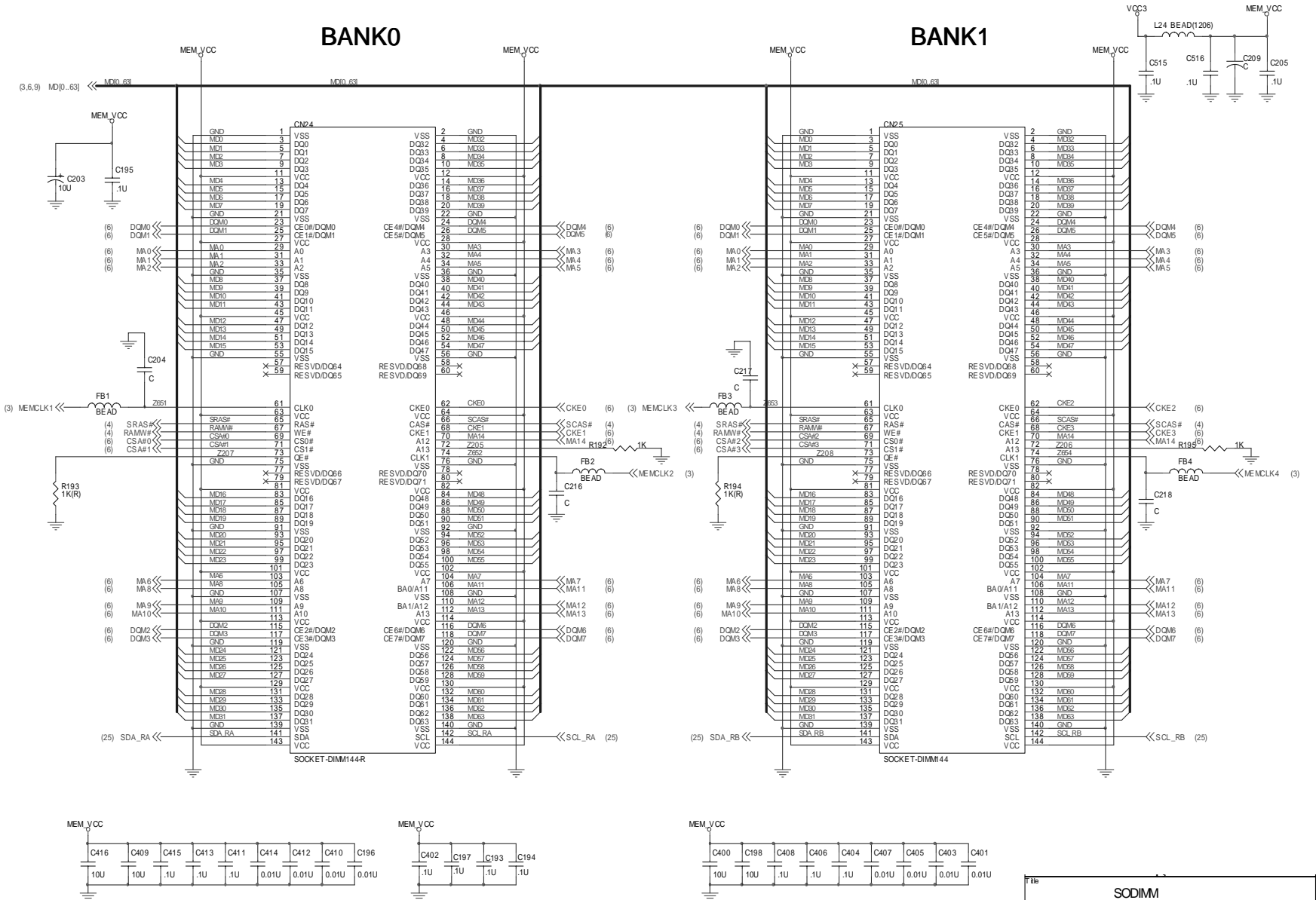
Hardware Protect = 95 <x

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85	0	0
95	0	1
100	X	0
115	1	0

File CPU		
Size	Document Number	Rev
Custom	71-22C00-D02	A
Date	Monday, March 05, 2011	Sheet 2 of 31

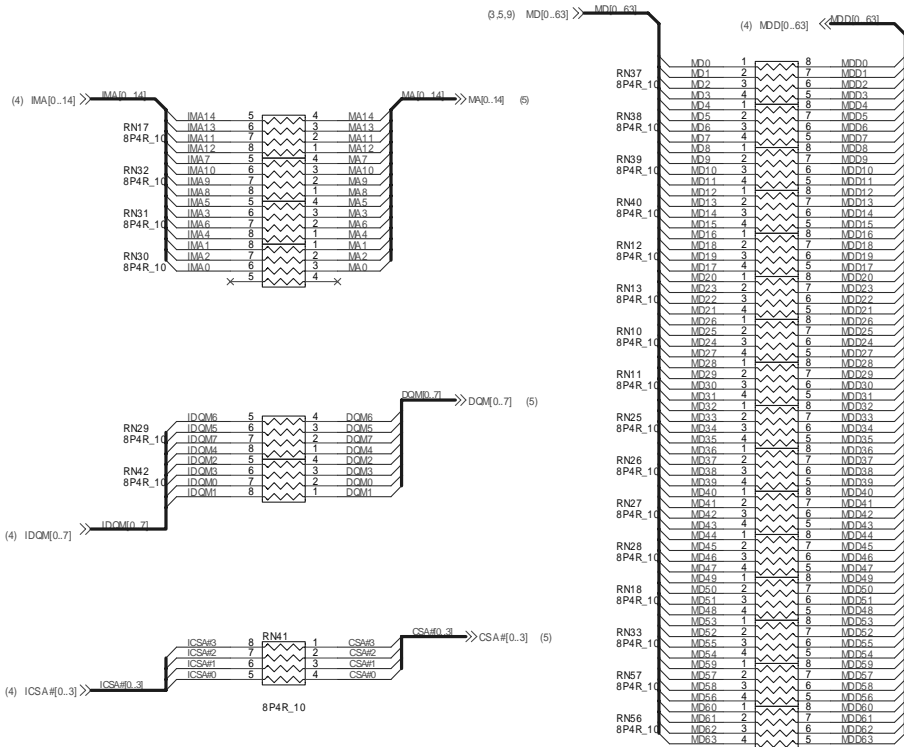




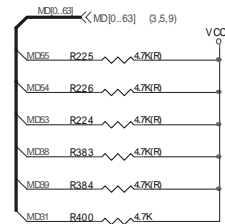
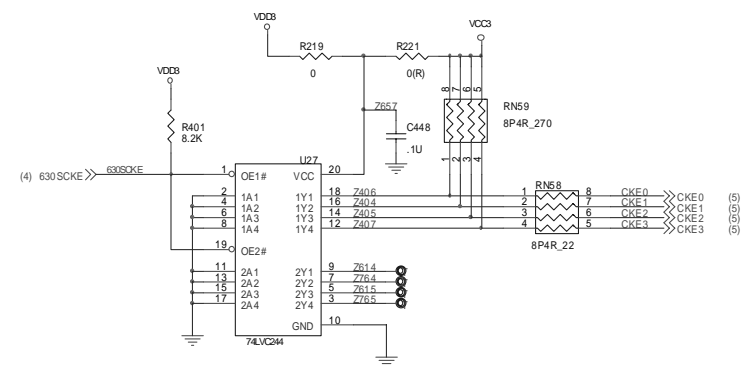


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Size	Document Number	Rev			
Custom	71-22C00-D02	A			
Date:	Monday, March 05, 2001	Sheet	5	of	31





DRAM BUS DAMPING RESISTOR NEAR SIS630S



MD[55..53]: CLOCK SKEW CONTROL OF A GP  
DEFAULT 001

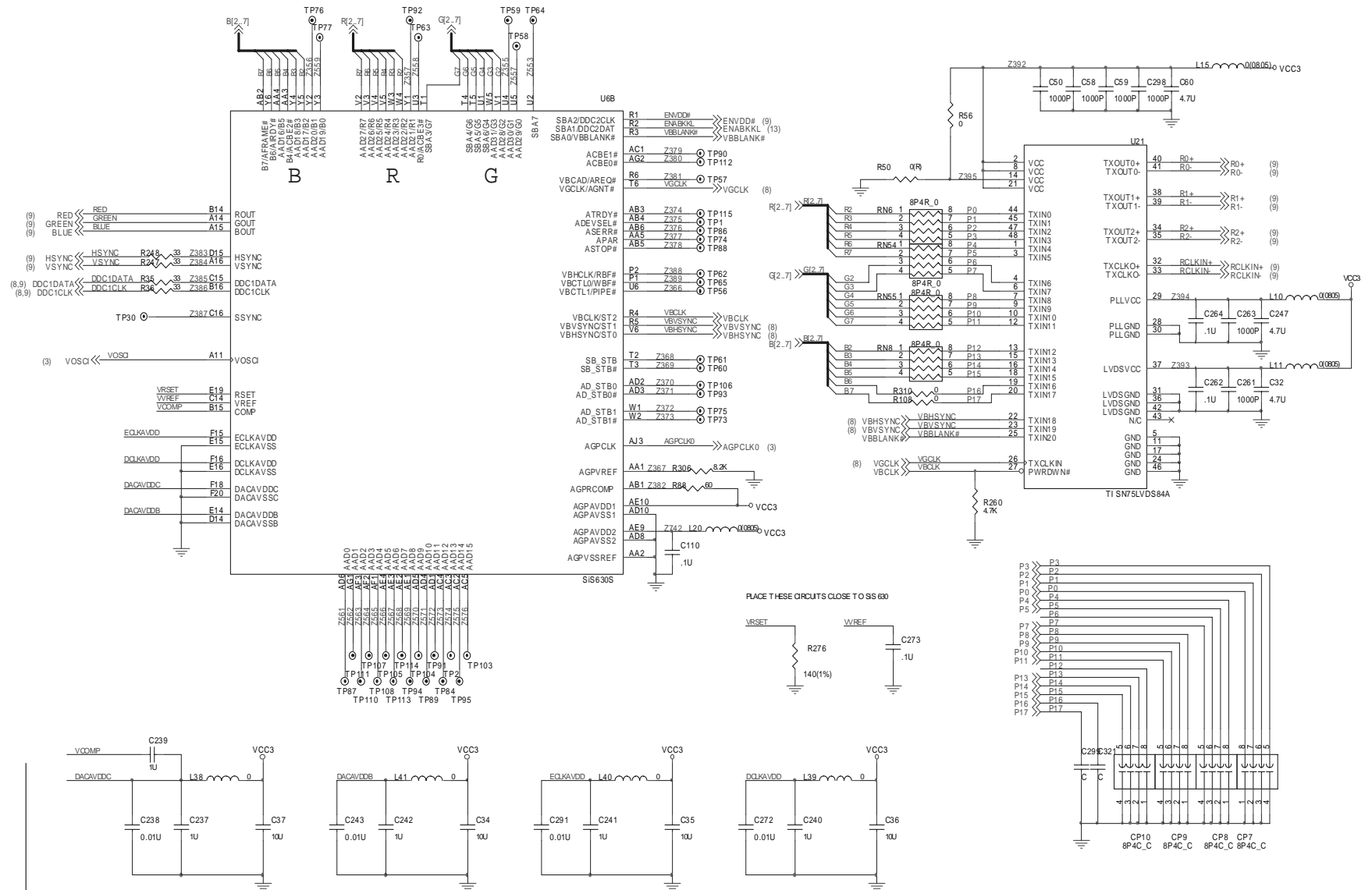
MD38: VGA INTERRUPT FUNCTION  
1: ENABLE  
0: DISABLE

MD39: VGA ECLK AND MCLK MODE  
1: SYNCHRONOUS MODE  
0: ASYNCHRONOUS MODE

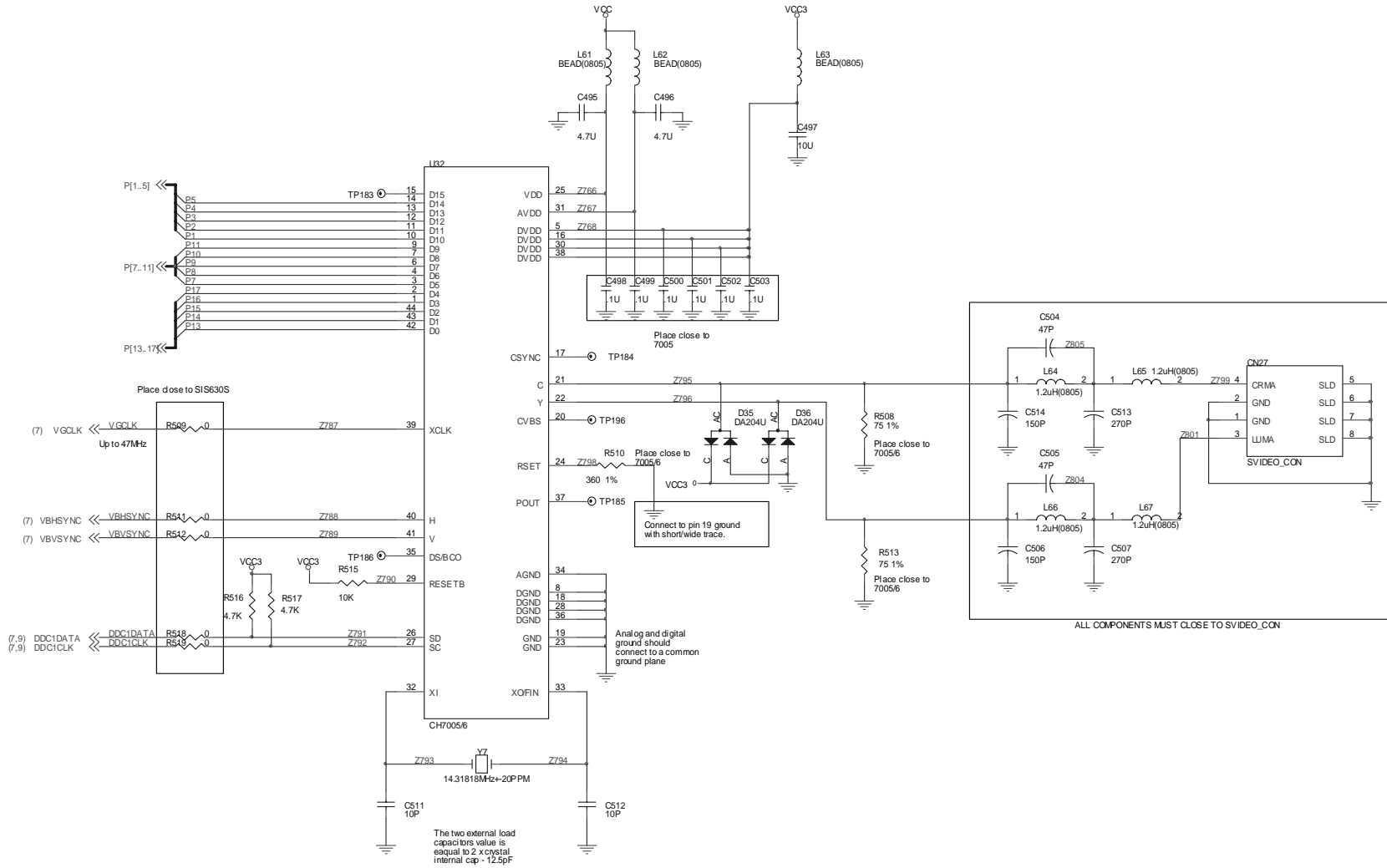
MD31: QUICK START FUNCTION  
1: ENABLE  
0: DISABLE

Title			
RESISTOR			
Size	Document Number	71-22C00-D02	Rev
Custom	0200-06SCH		A
Date	Monday, March 05, 2001	Sheet	6 of 31

# Schematic Diagrams

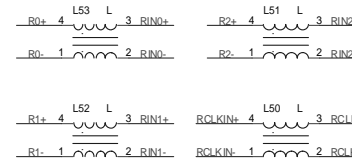
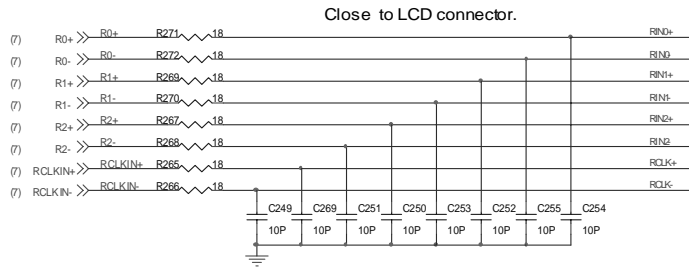


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630(VGA) & LVDS			
Size	Document Number	Rev	
Cus Id	020-07-SCH	A	
Date	Monday, March 05, 2001	Sheet	7 of 31



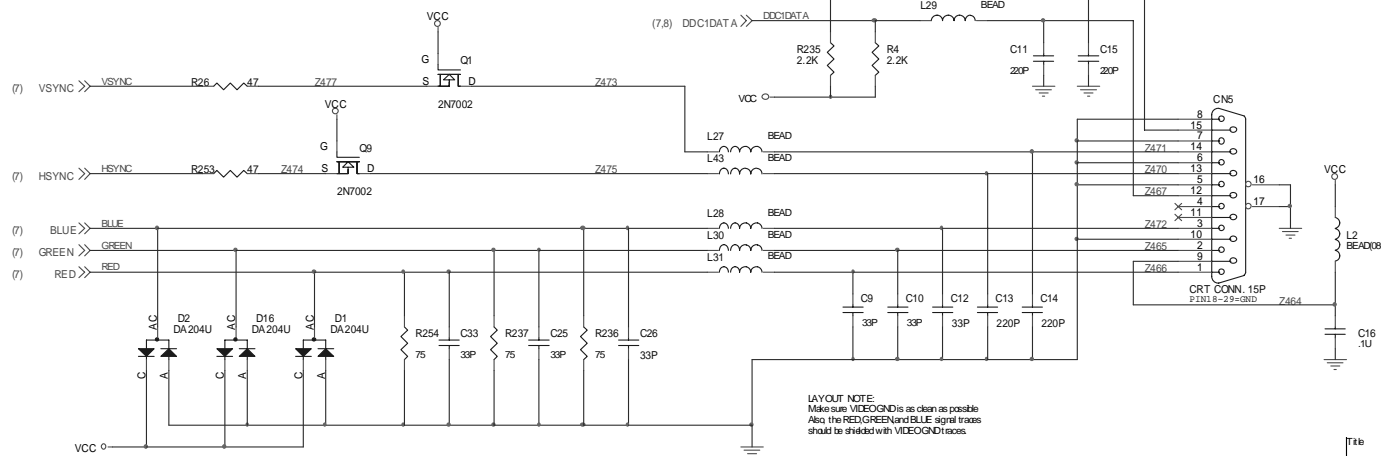
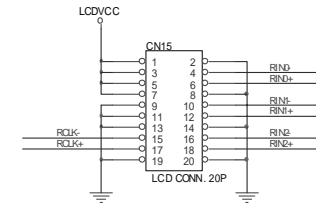
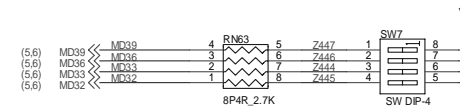
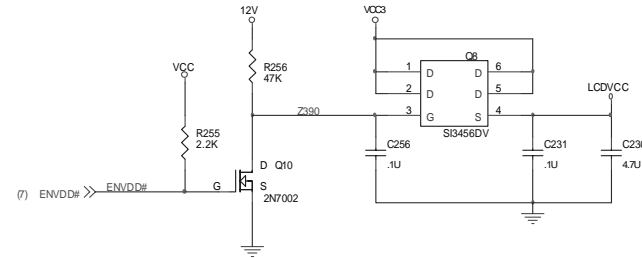
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Size	Document Number		Rev
Custom	020-08 SCH	71-22C00-D02	A
Date	Monday, March 05, 2001	Sheet	8 of 31

# Schematic Diagrams



Panel ID	SWF-1 VM336	SWF-2 VM336	SWF-3 VM333	SWF-4 VM332
1 12.1" SANYO TM121 SV-02L04	1	0	1	0
2 Samsung LT121SU-121	1	0	1	0
3 ADI AA121SJ03	0	0	0	0
4 IBM ITS V53C1	0	0	0	0
5 13.3" LG LP133X7-A2	1	1	0	0
6 Unipac UP133X01	1	1	0	0
7 Acer L133X2-1	1	1	0	0
8 Hyundai HT13X14	1	1	1	0
9 Samsung LT133X5-122	1	1	1	0
10 14.1" Samsung LT141X5-124	1	1	1	0
11 Hyundai HT14X12	1	1	1	0
12 LG LP141X5	1	1	0	0
13 NEC NL10276BC28-11E	1	1	0	0
14 HITACHI TX36D01 VC0CAA TX36D11 VC0CAA	X	X	X	X
15 Samsung LT141X5-122				

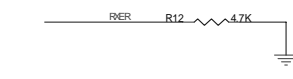
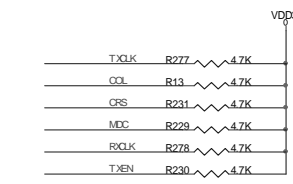
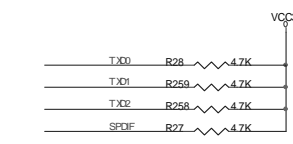
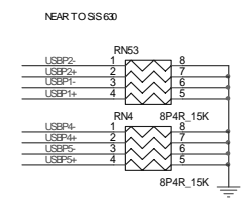
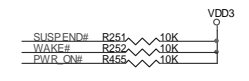
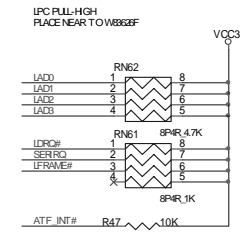
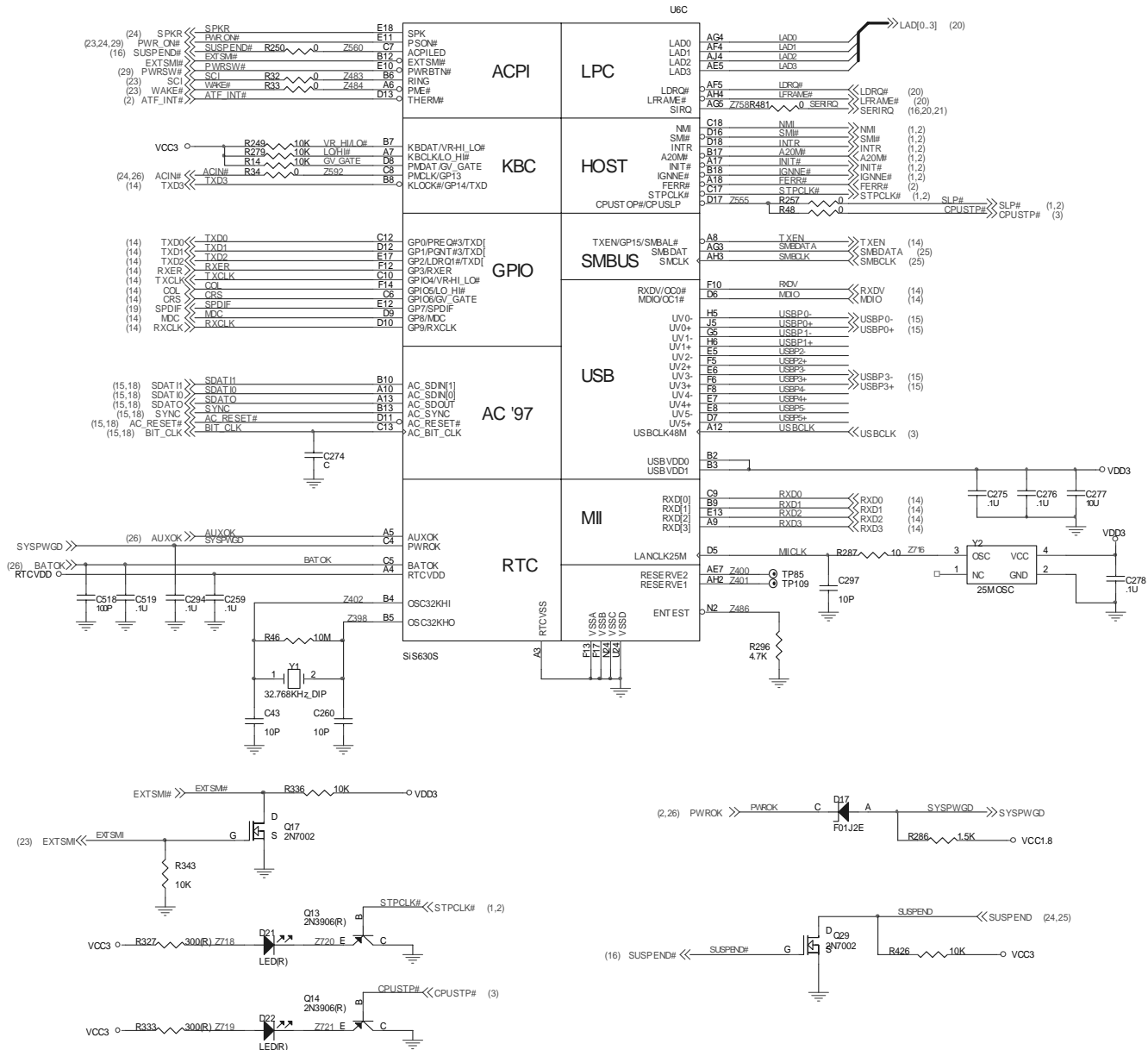
ON=H=1 OFF=L=0



LAYOUT NOTE:  
Make sure VIDEOGND is as clean as possible.  
Also the RED, GREEN and BLUE signal traces should be shielded with VIDEOGND traces.

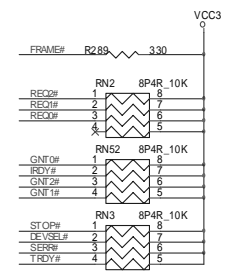
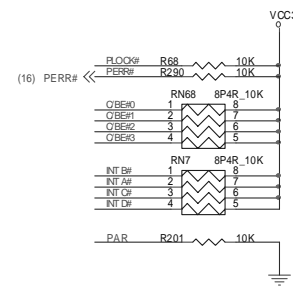
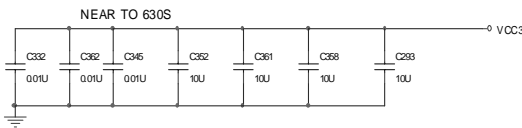
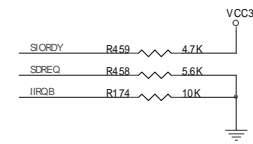
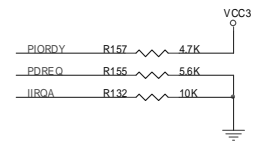
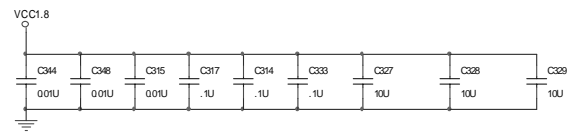
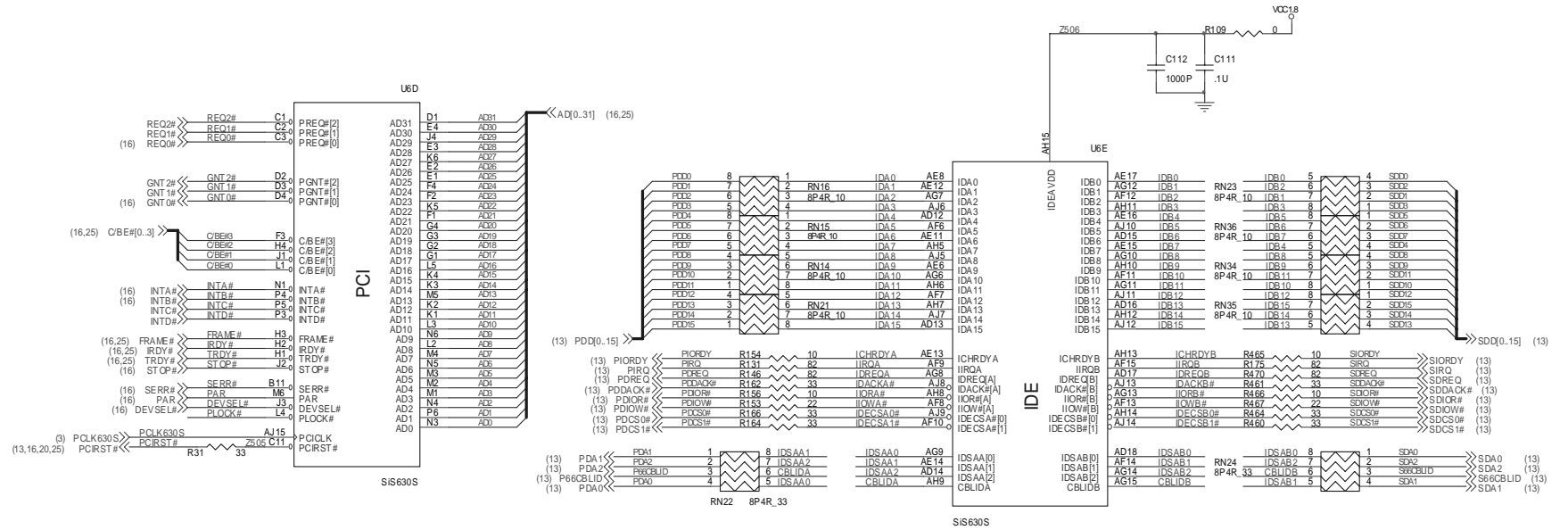
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Size	Document Number	Rev	
Custom	020008 SCH	71-22C00-D02	A
Date	Mondy, March 05, 2001	Sheet	9 of 31

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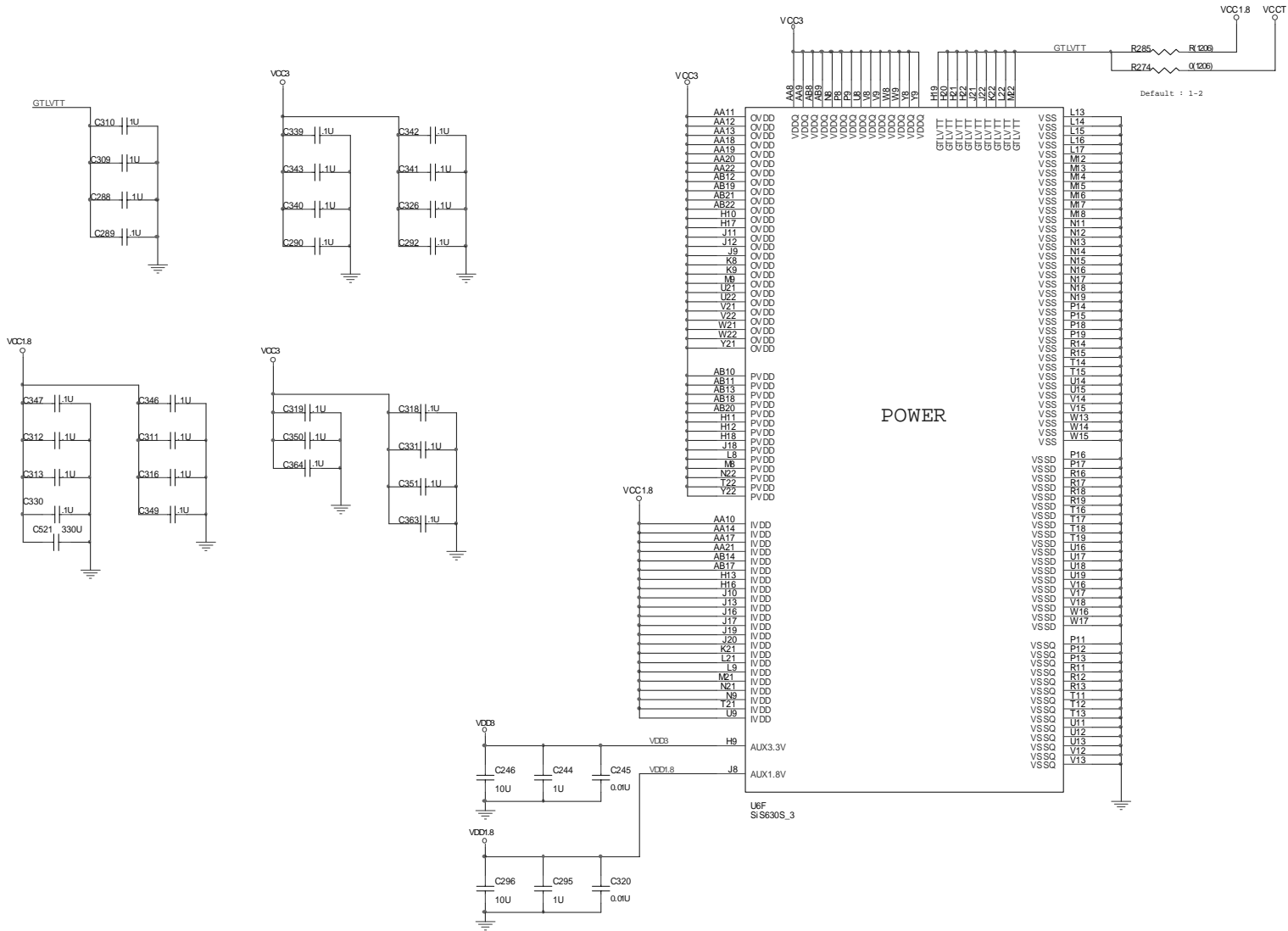


Title			
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Size	Document Number	Rev	A
Custom	02D08.SCH	71-22C00-D02	
Date	Monday, March 05, 2001	Sheet	10 of 31

# Schematic Diagrams

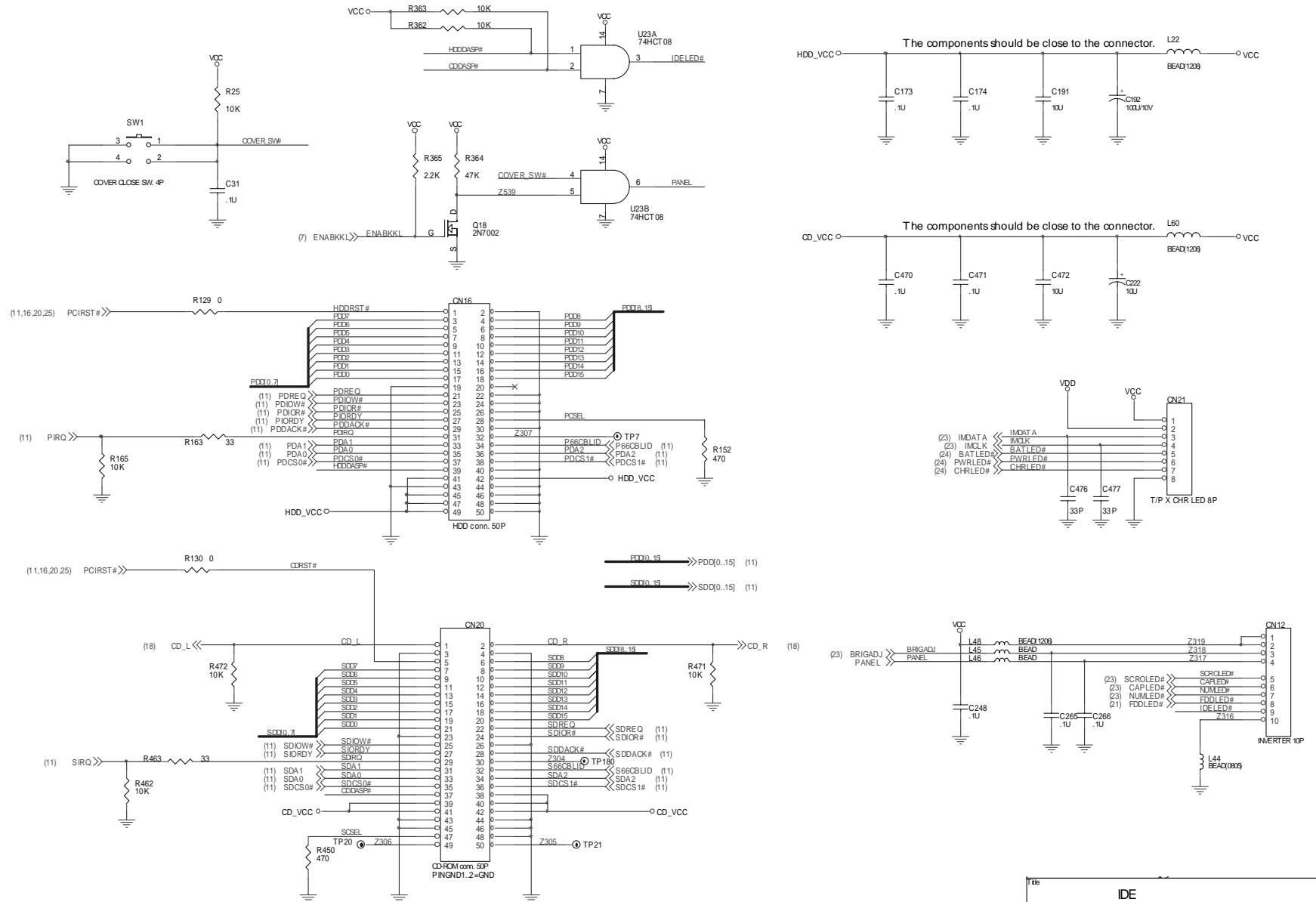


Title		630S(PCI/IDE)	
Size	Document Number	71-22C00-D02	
Custom	0200 10SCH1	Rev	A
Date	Monday, March 06, 2001	Sheet	11 of 31



Title			630S(POWER)		
Size	Document Number	Rev		A	
Custom	02011.SCH	71-22C00-D02			
Date	Monday, March 05, 2001	Sheet	2	of	3

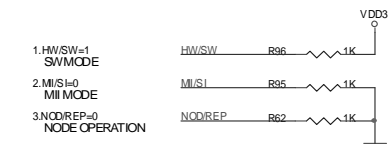
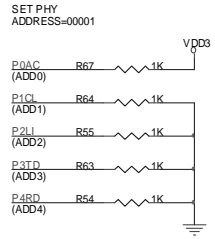
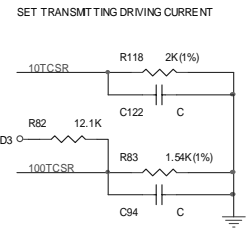
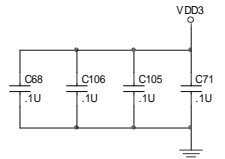
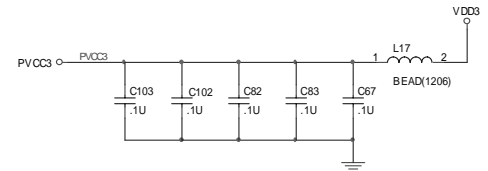
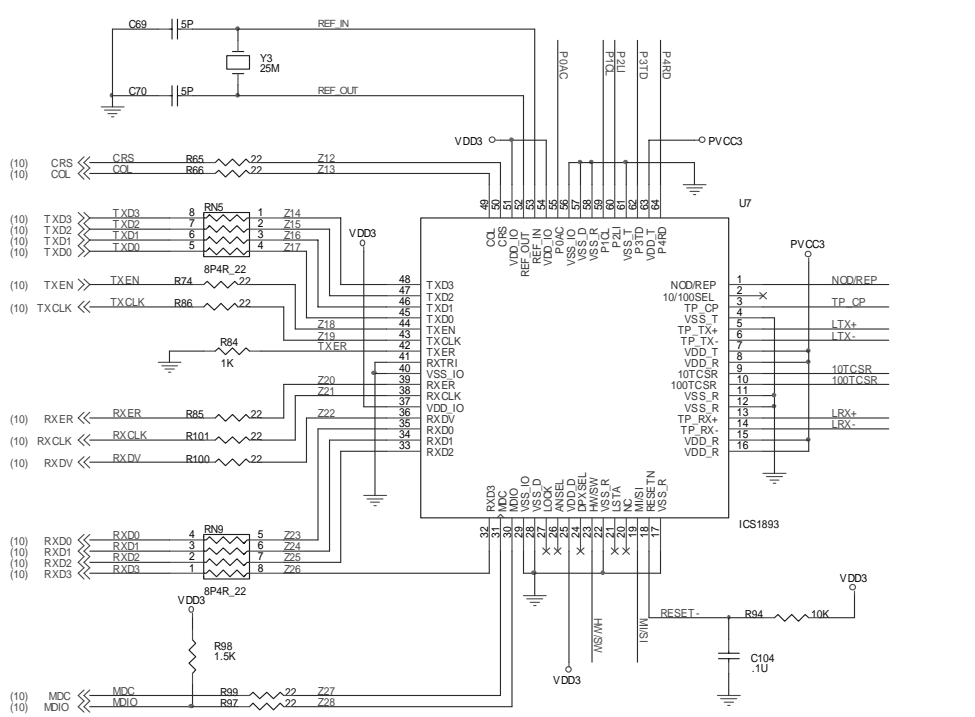
# Schematic Diagrams



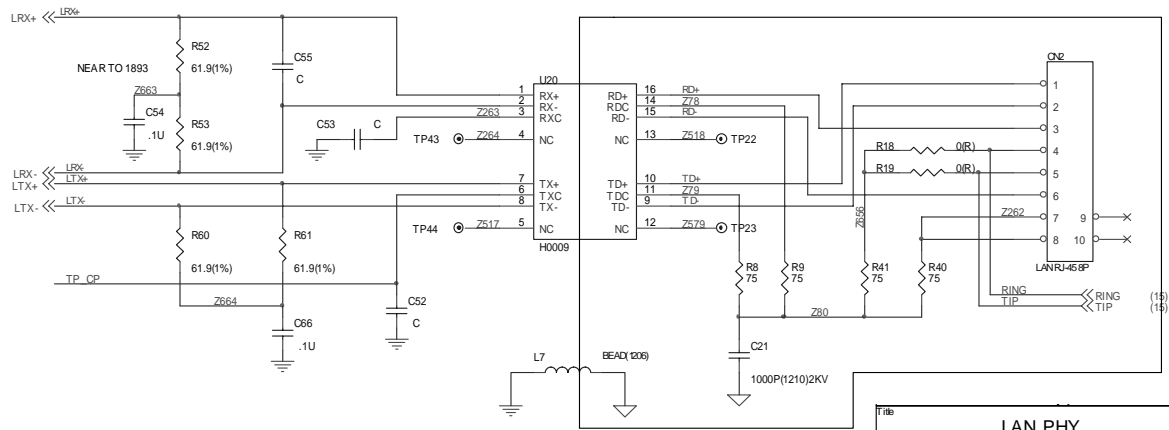
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Customer	0200-12 SCH	Rev A	
Date	Monday, March 05, 2001	Sheet	13 of 31



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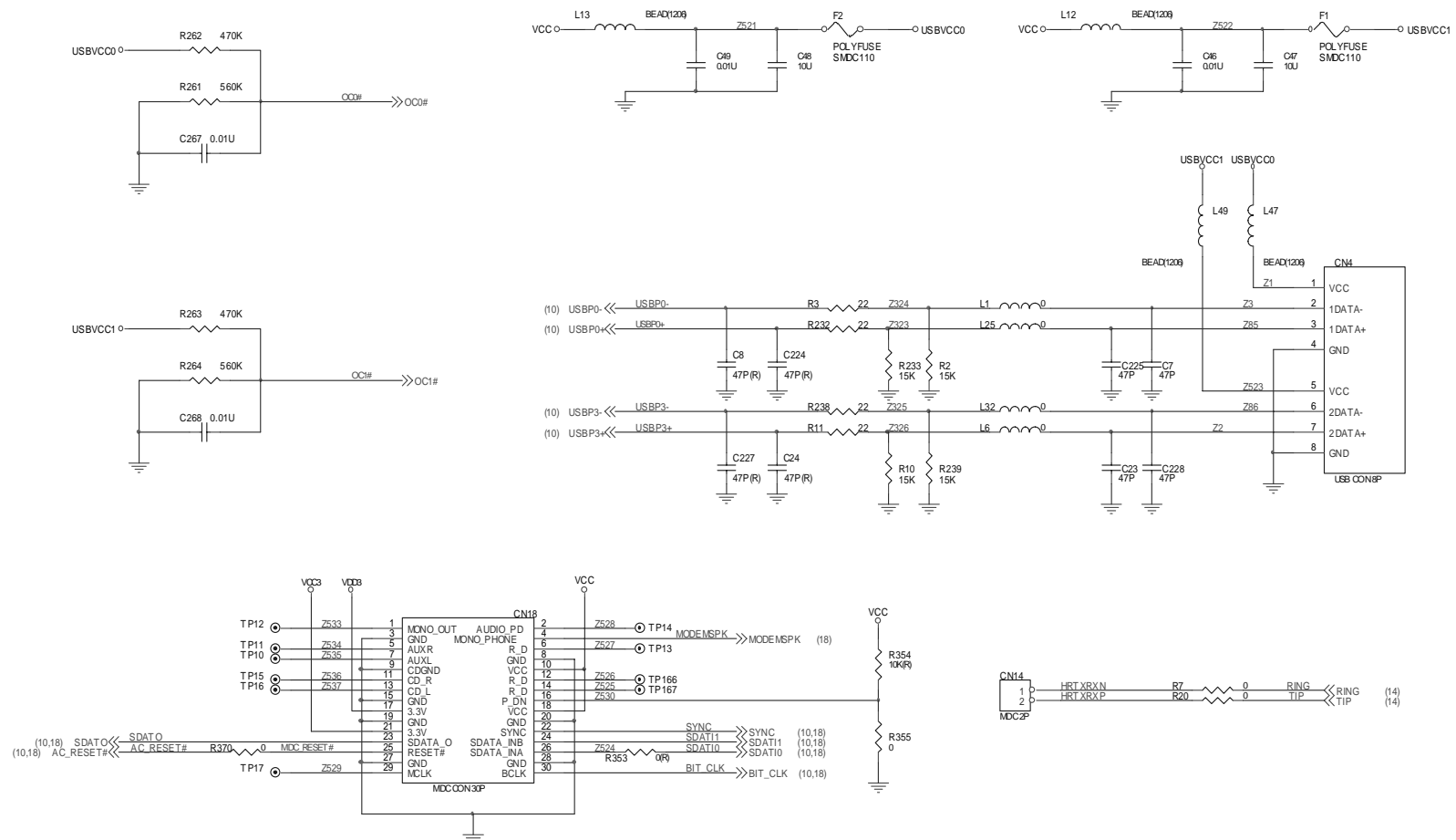


10/100SEL: 10/100MHZ INDECATED  
 LOW=10BASE-T  
 HIGH=100BASE-T  
 DPXSEL: HALF OR FULL INDECATED  
 LOW=HALF-DUPLEX,  
 HIGH=FULL-DUPLEX  
 ANSEL: AUTO-NEGOTIATION INDECATED  
 LOW=DISABLE,  
 HIGH=ENABLE



Title			LAN PHY	
Size	Document Number	71-22C00-D02		Rev
Custom	000-13.SCH			A
Date:	Monday, March 05, 2001	Sheet	11	of 31

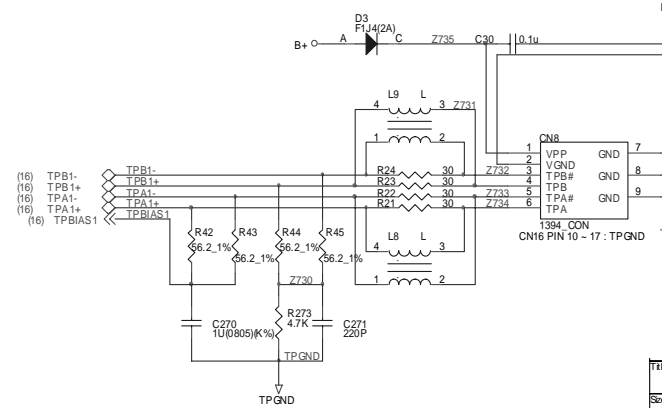
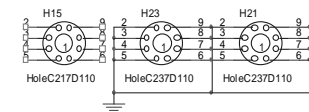
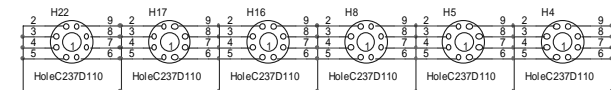
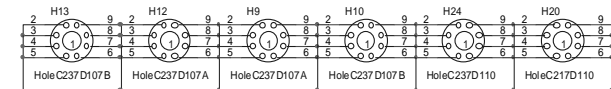
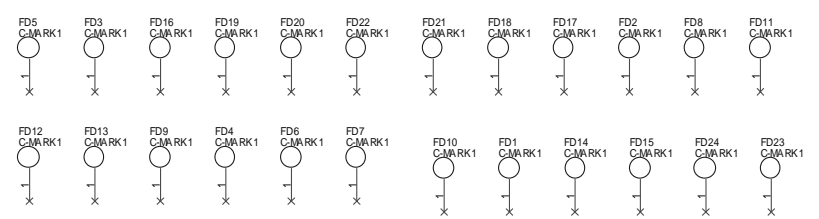
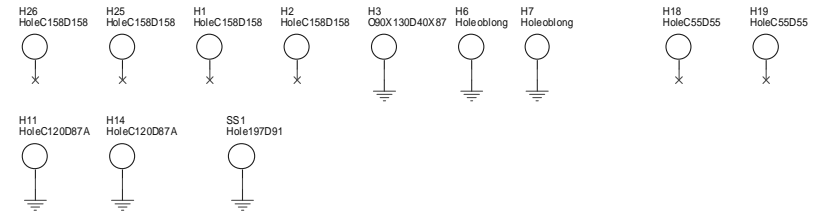
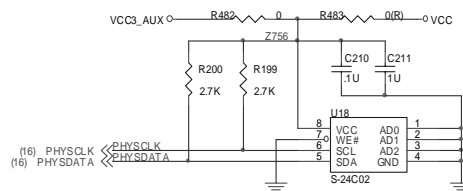
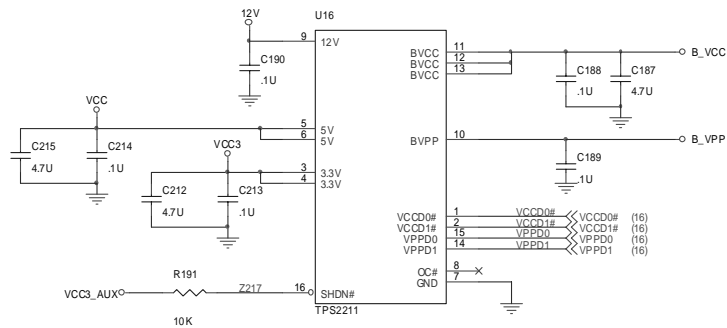
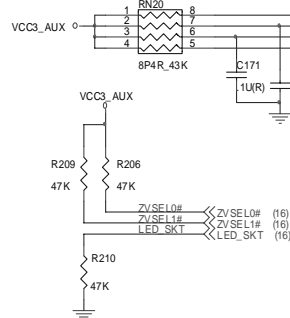
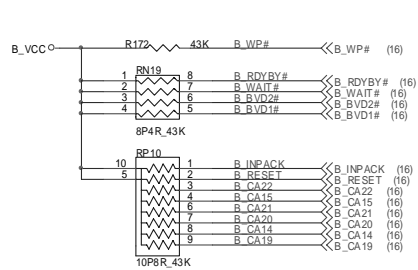
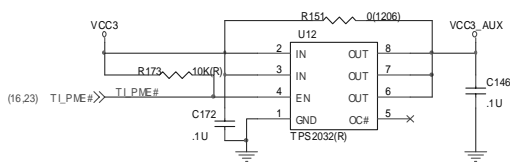
# Schematic Diagrams



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Size	Document Number	Rev	
Custom	000-94SCH	71-22C00-D02	A
Date	Friday, November 10, 2000	Sheet	15 of 31

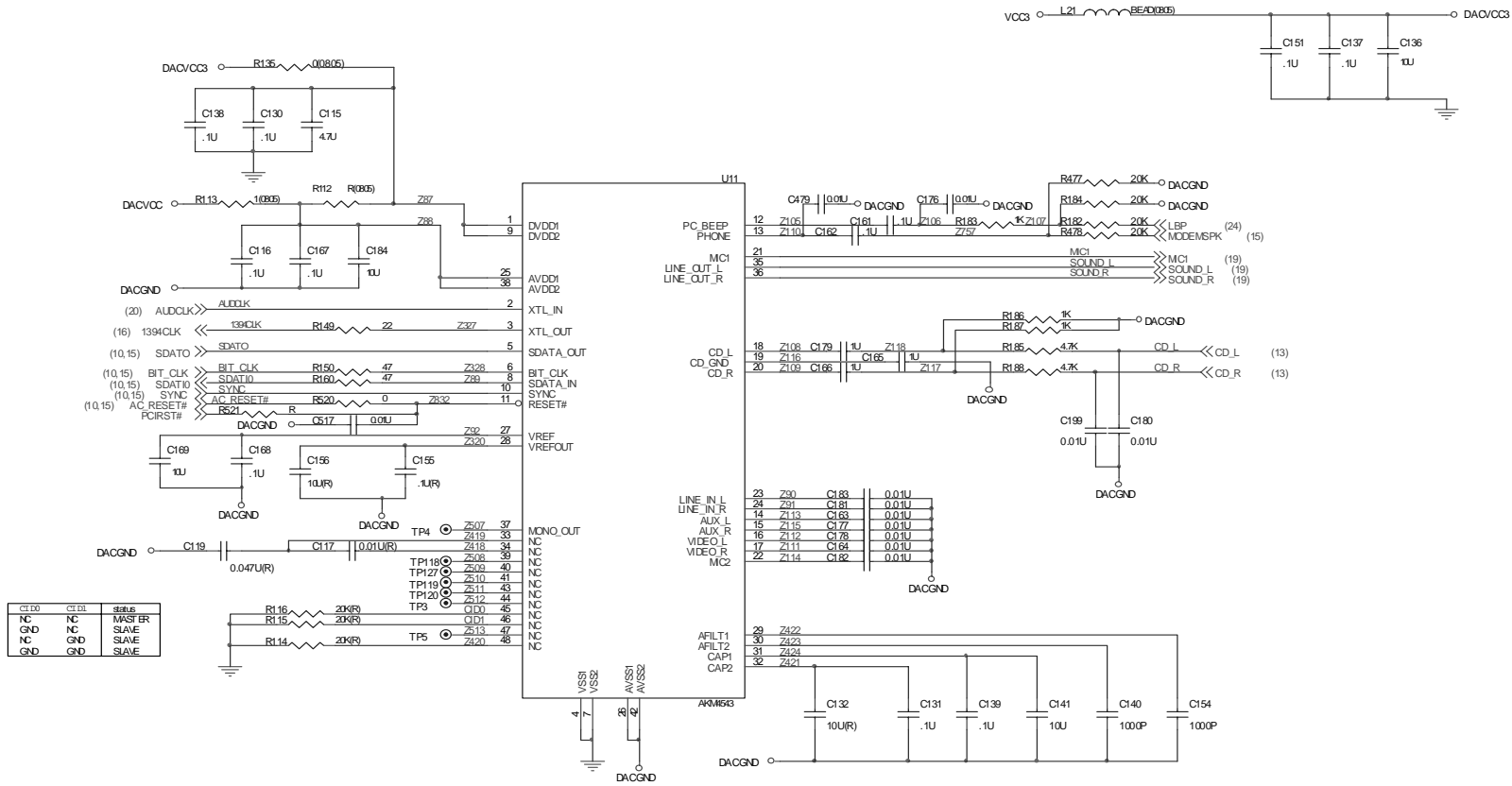


# Schematic Diagrams

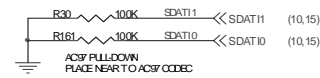
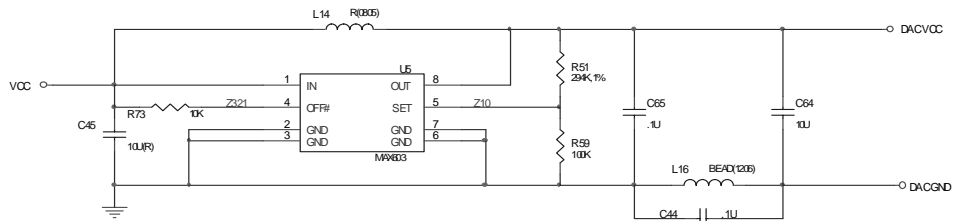


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Size	Document Number			Rev	
Custom	0300-16-SCH1	71-22C00-D02		A	
Date	Monday, March 06, 2001	Sheet	17	of	31

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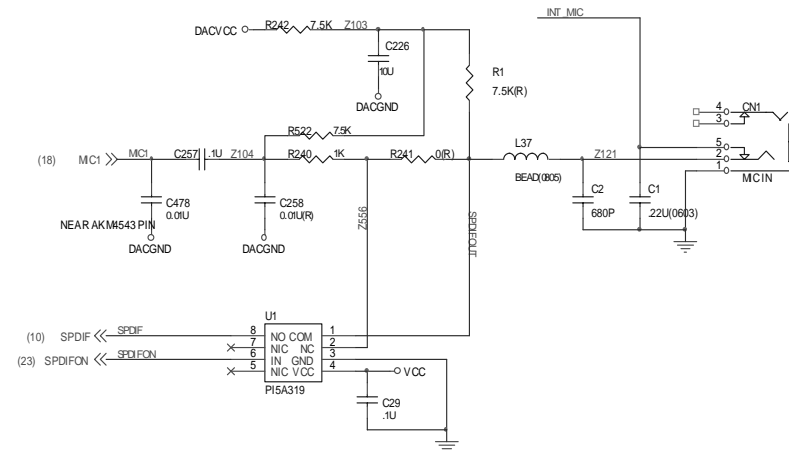
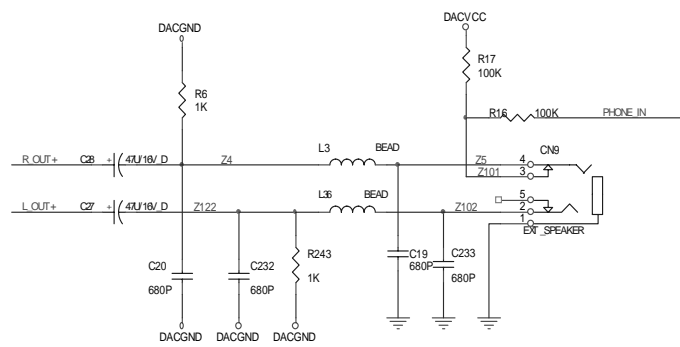
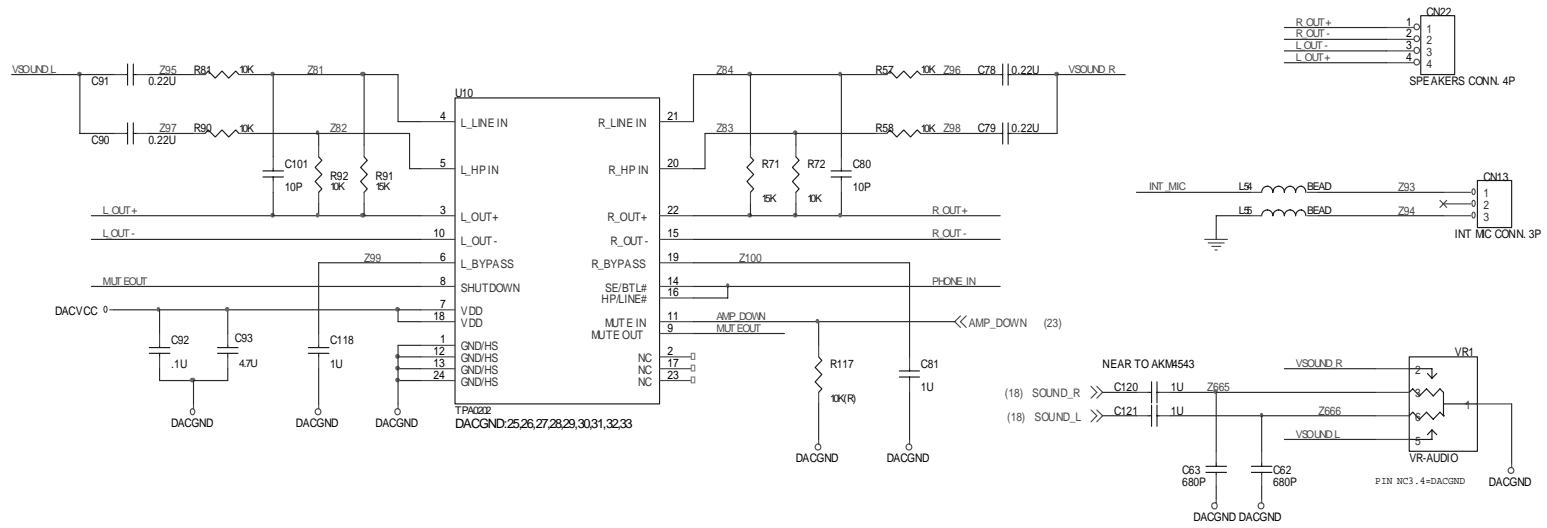


CE10	CE11	status
NC	NC	MASTER
GND	NC	SLAVE
NC	GND	SLAVE
GND	GND	SLAVE

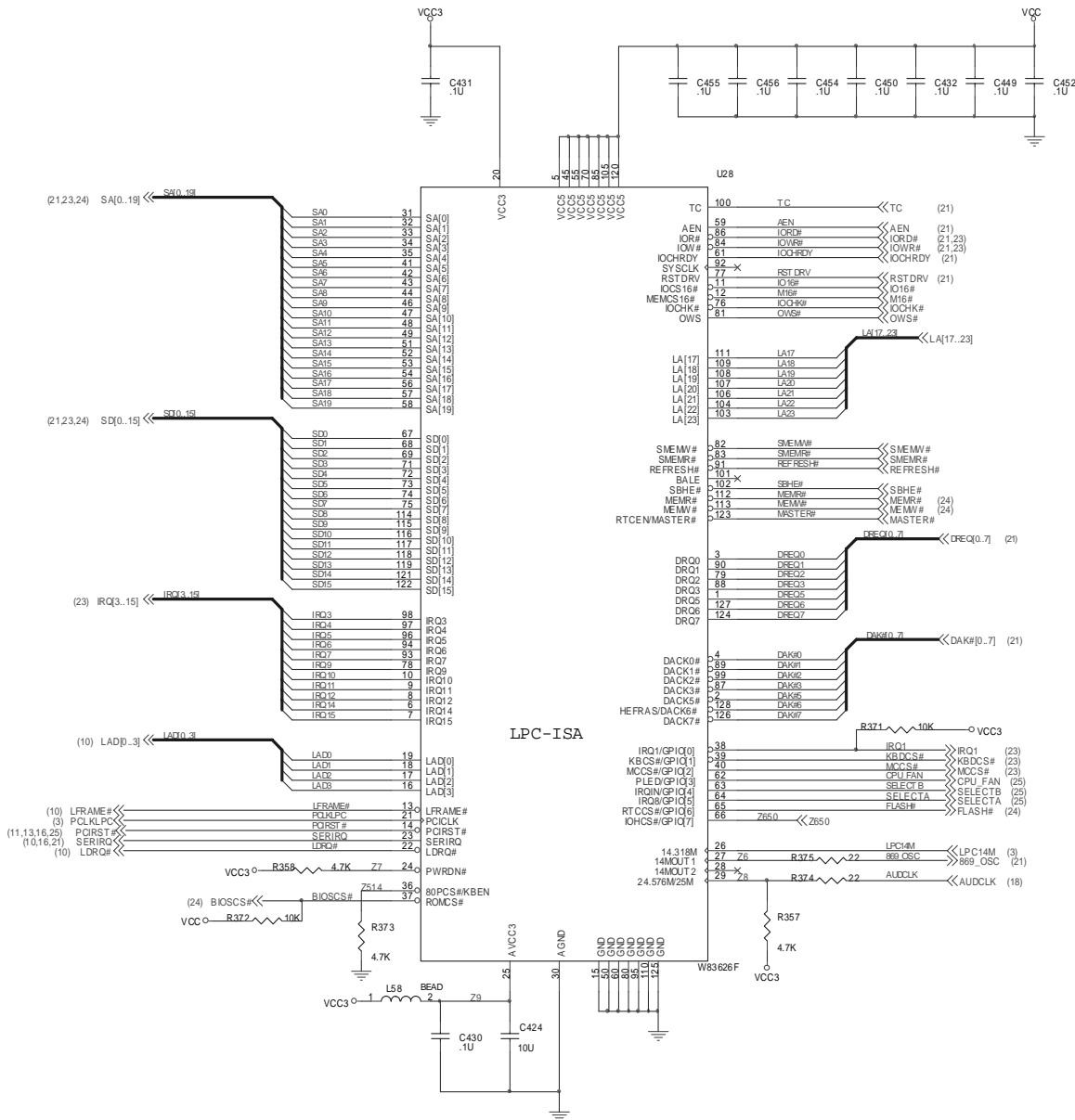


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Size	Documt Number	Rev	
Custom	000-17-504	71-22C00-D02	A
Date	Monday, March 05, 2001	Sheet	18 of 31

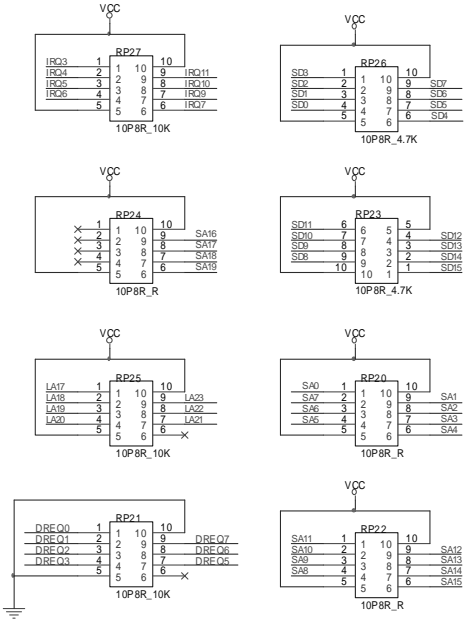
# Schematic Diagrams



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Sub	Document Number	71-22C00-D02	
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Date	Monday, March 05, 2007	Sheet	19 of 31

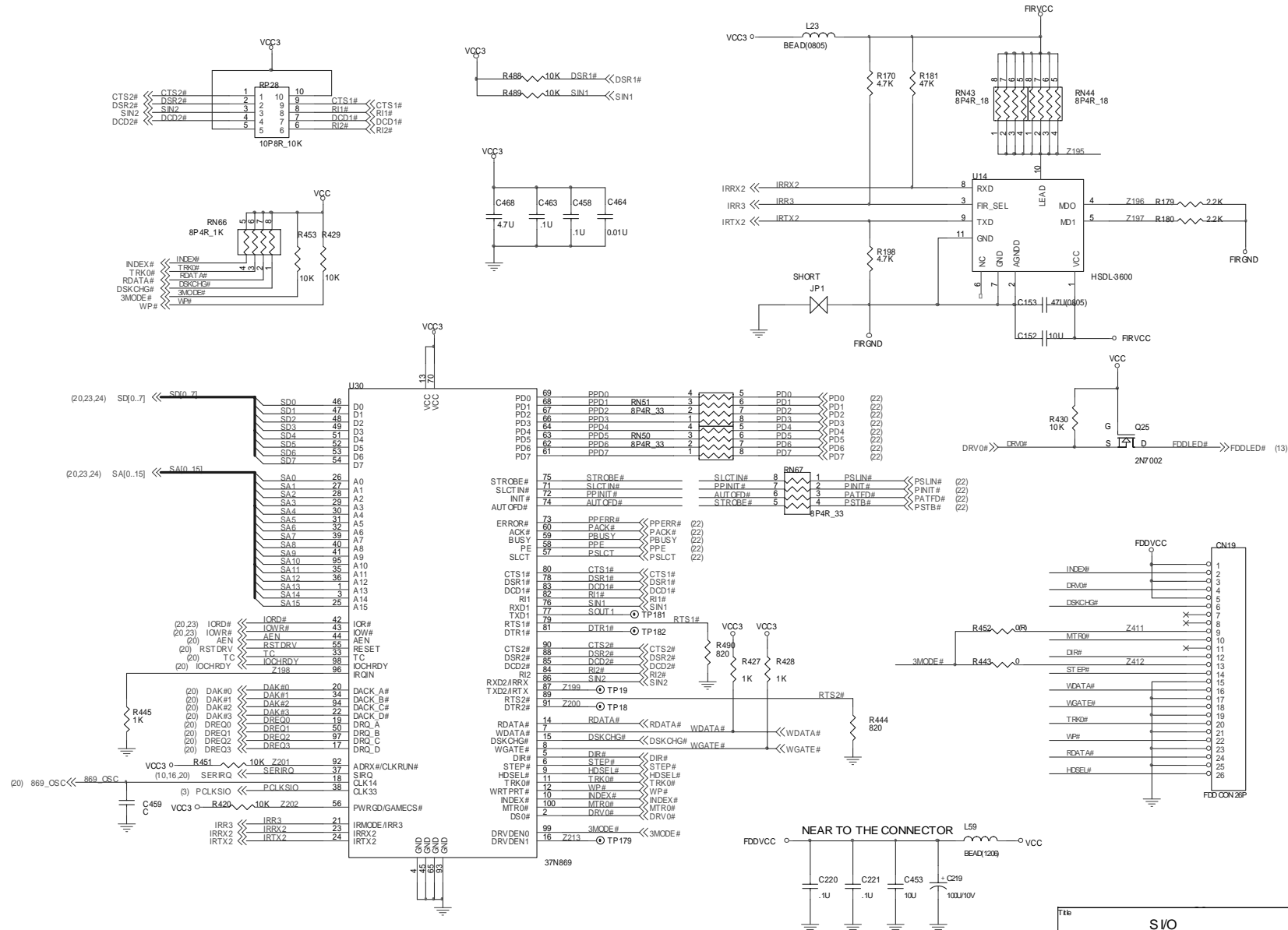


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S1MEMR#	R413	1K
IOVR#	R416	8.2K
IOCR#	R417	8.2K
MEMW#	R403	8.2K
MEMR#	R402	8.2K
IOCH#	R411	4.7K
SEHE#	R418	4.7K(R)
IOCHRDY	R410	1K
OWS#	R412	1K
REFRESH#	R414	1K
M16#	R376	1K
IO16#	R359	1K
MASTER#	R395	1K
IRQ12	R377	10K
IRQ14	R361	10K
IRQ15	R360	10K



Title			
LPC-ISA BRIDGE			
Size	Document Number	Rev	
Custom	020019.SCH	71-22C00-D02	A
Date	Monday, March 05, 2001	Sheet	20 of 31

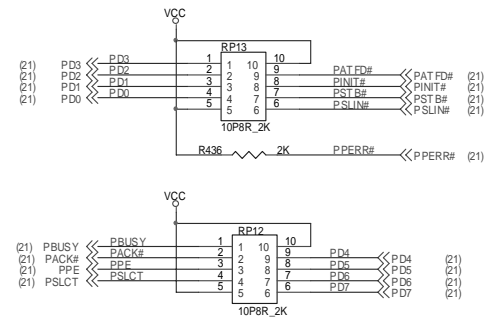
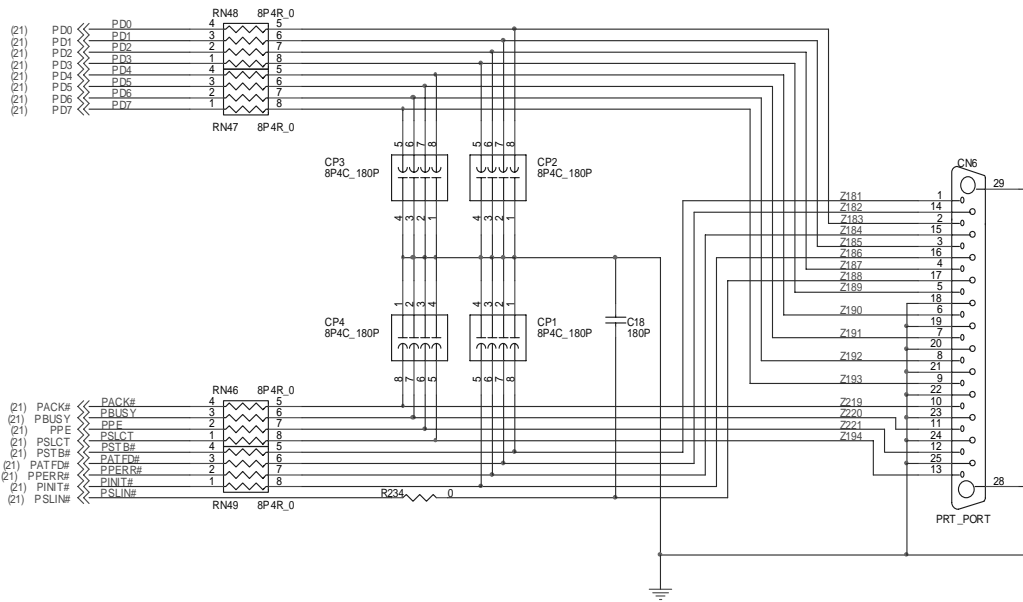
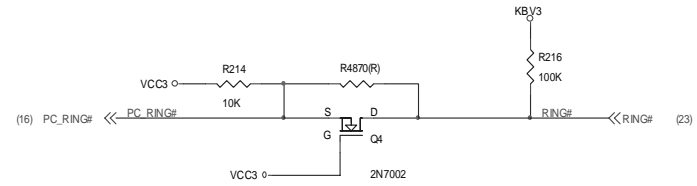
# Schematic Diagrams



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Size	Document Number	71-22C00-D02	
Customer	020030 SCH	Rev A	
Date	Monday, March 05, 2001	Sheet	21 of 31



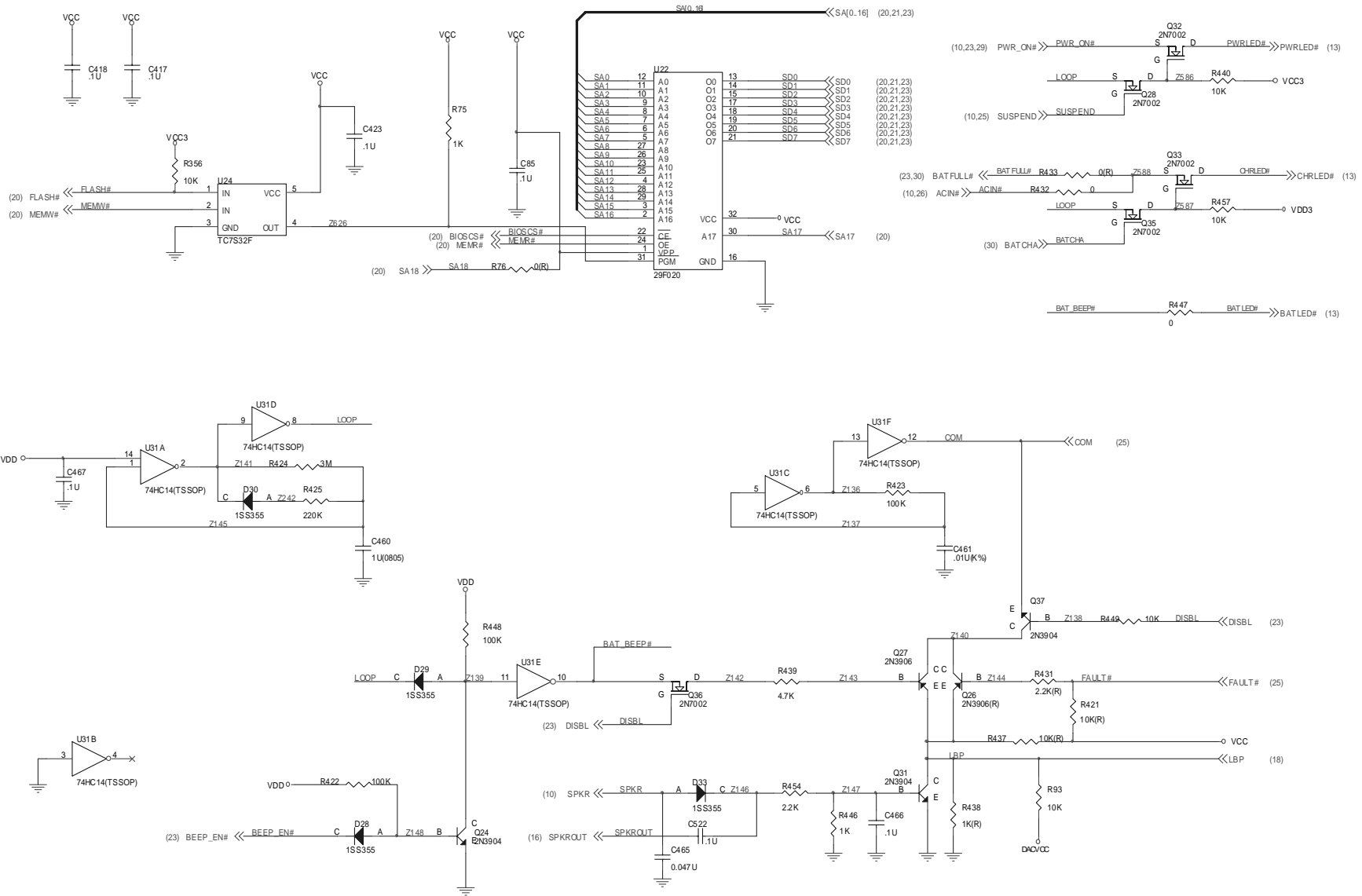
# Service Manual



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Size	Document Number		Rev
Custom	0300-21.SCH	71-22C00-D02	A
Date	Monday, March 05, 2001	Sheet	22 of 31

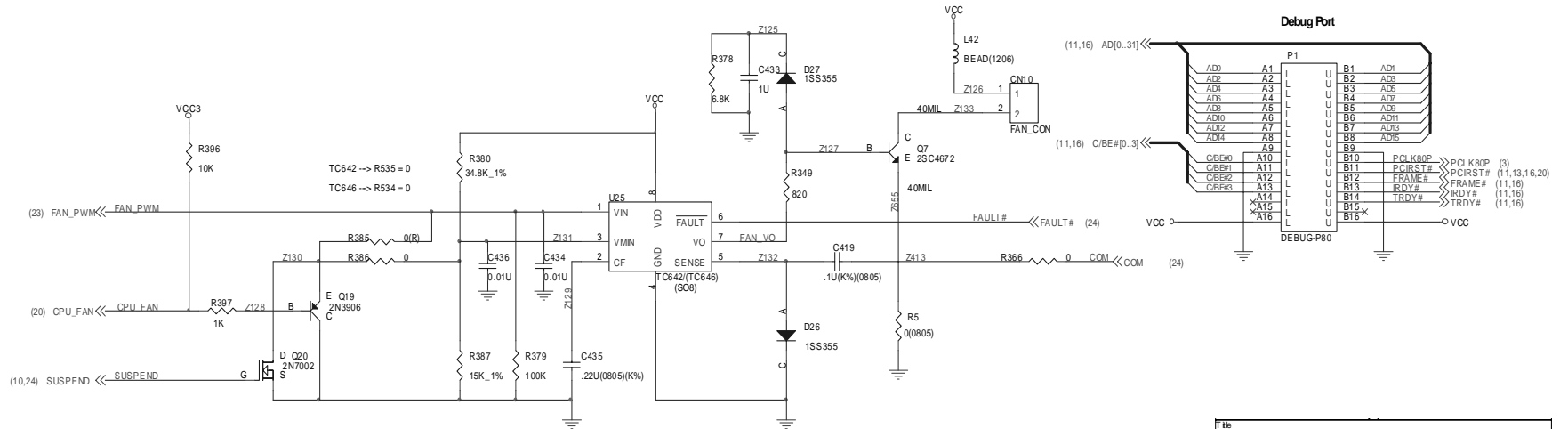
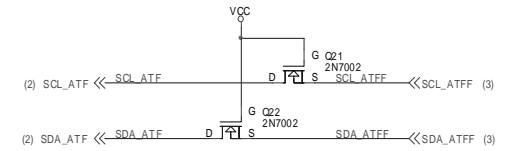
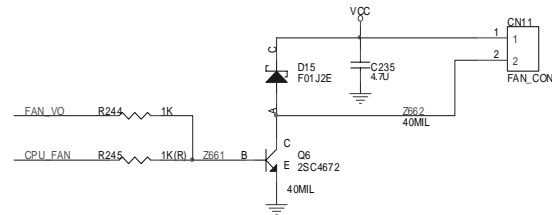
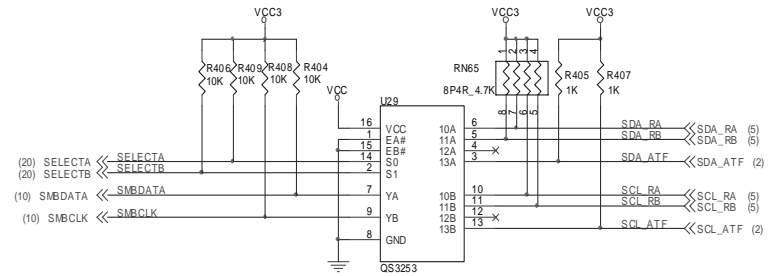
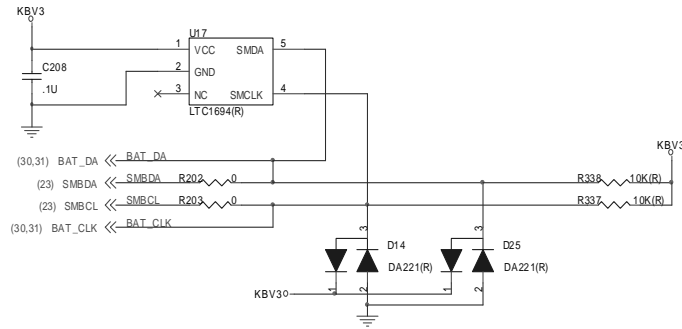


# Service Manual



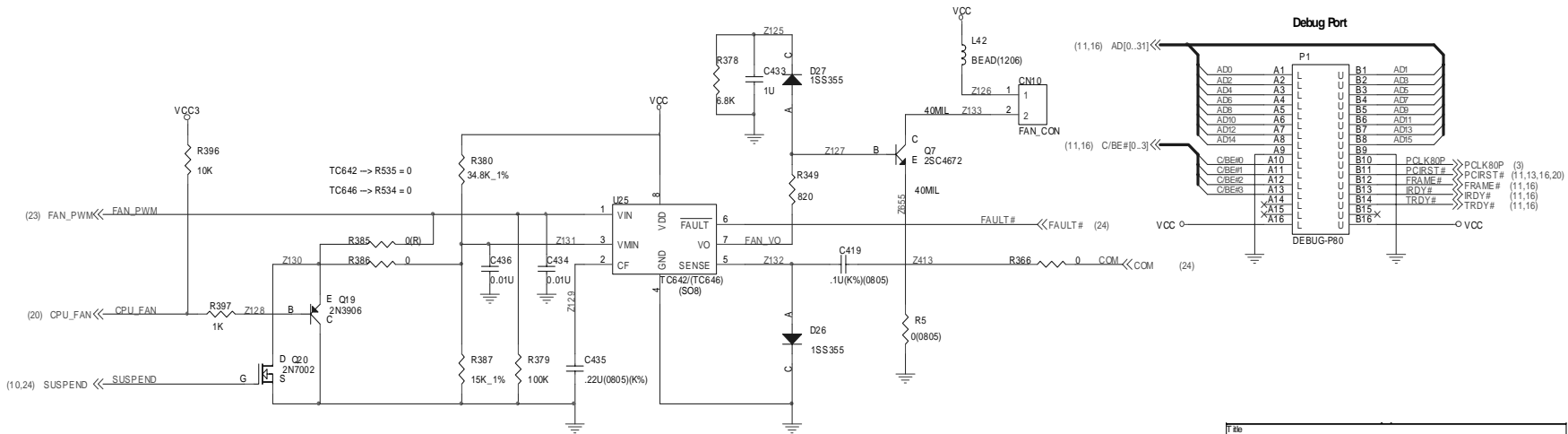
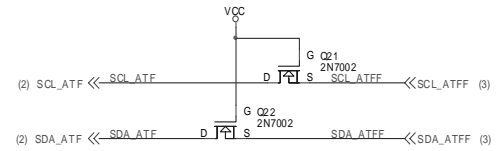
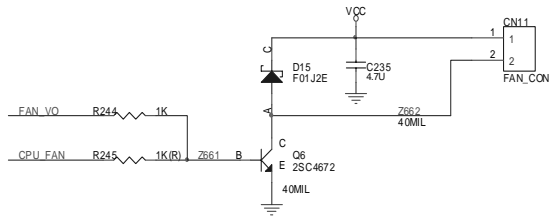
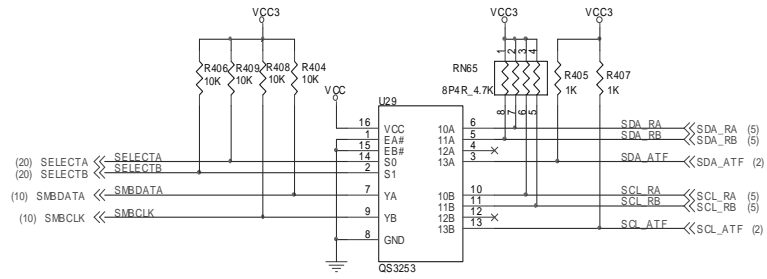
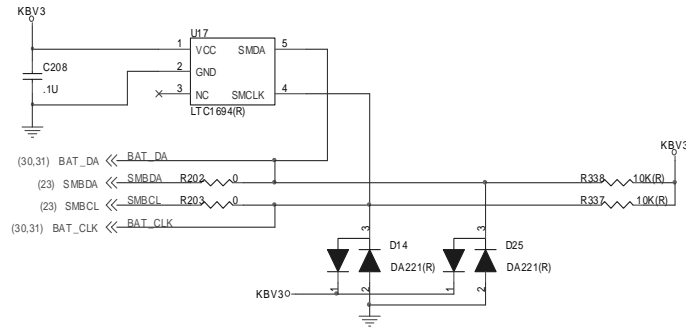
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Size	Document Number	Rev
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Date	Monday, March 05, 2001	Sheet 24 of 31
71-22C00-D02		

# Schematic Diagrams



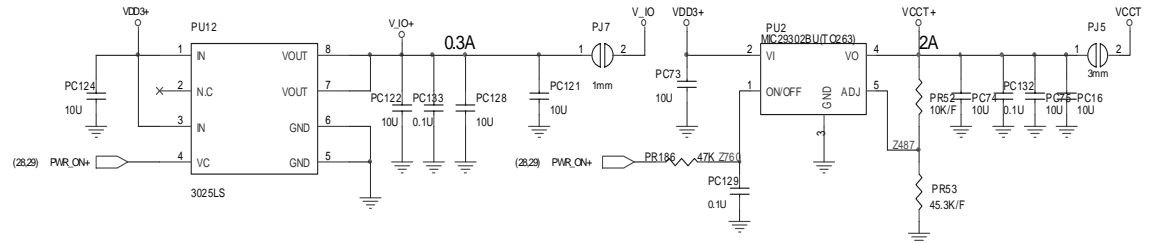
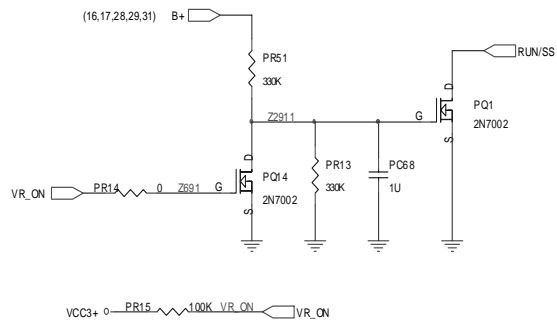
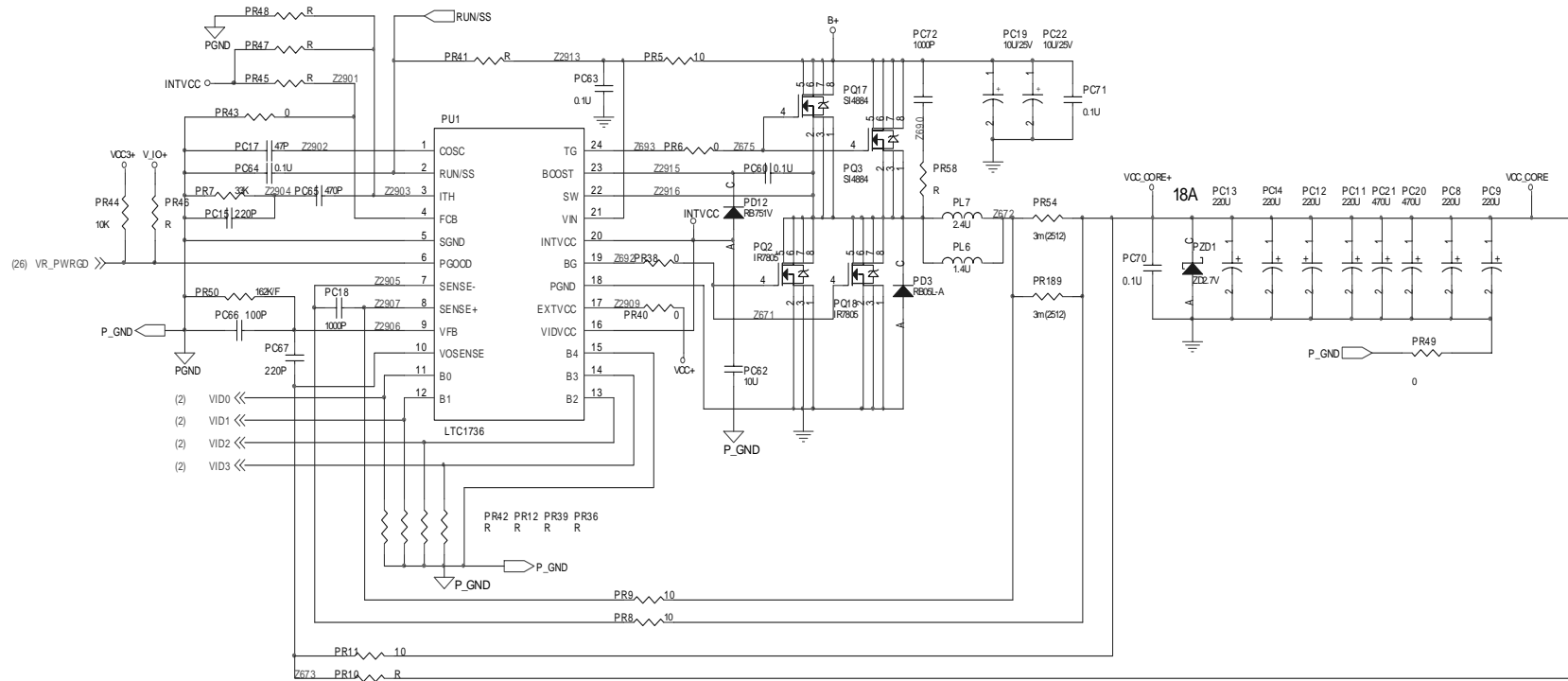
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Size	Document Number		Rev
B	020-24 SCH	71-22C00-D02	A
Date	Monday, March 05, 2001	Sheet	26 of 31

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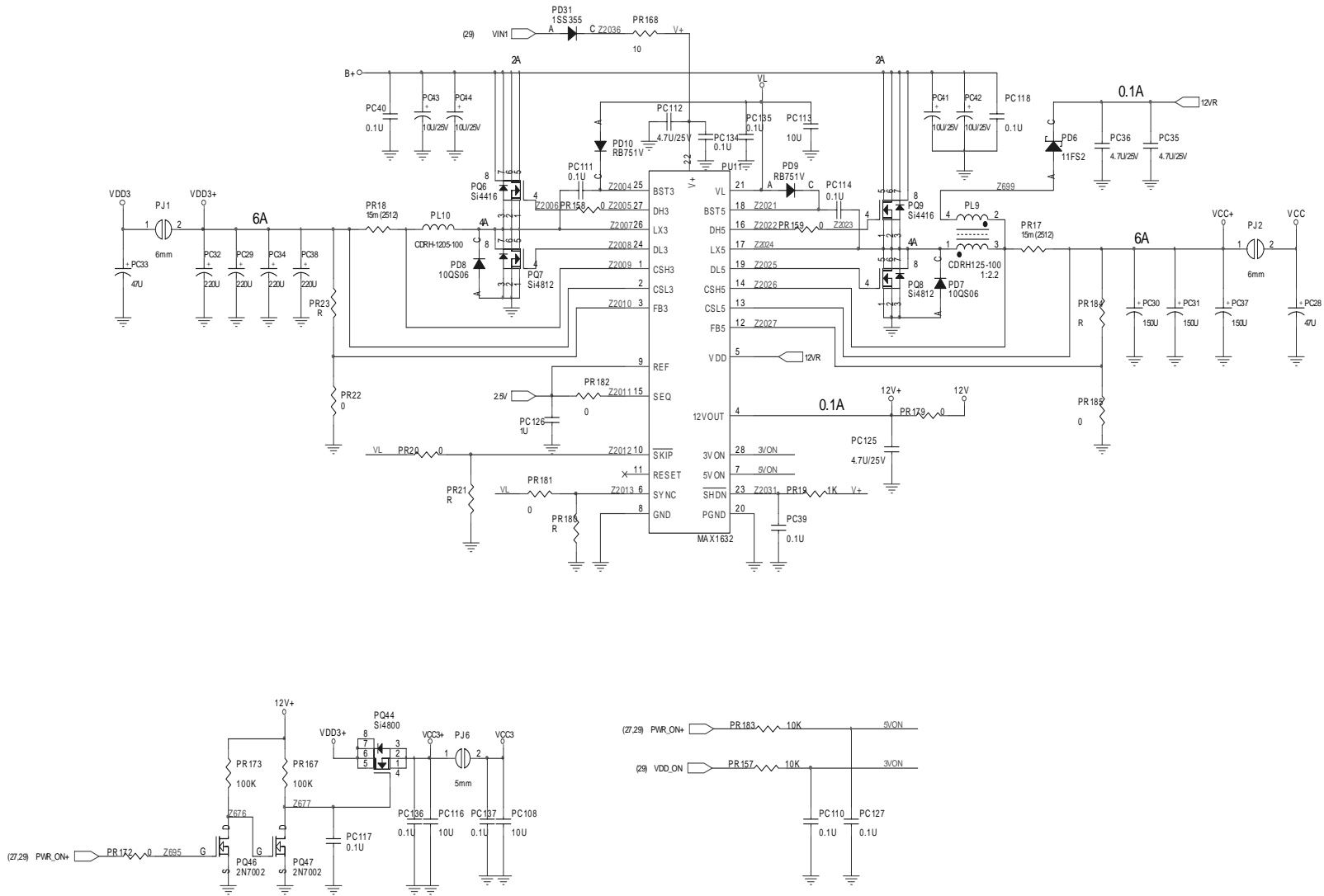
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Size	Document Number	Rev
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Date	Monday, March 05, 2001	Sheet 25 of 31

# Schematic Diagrams



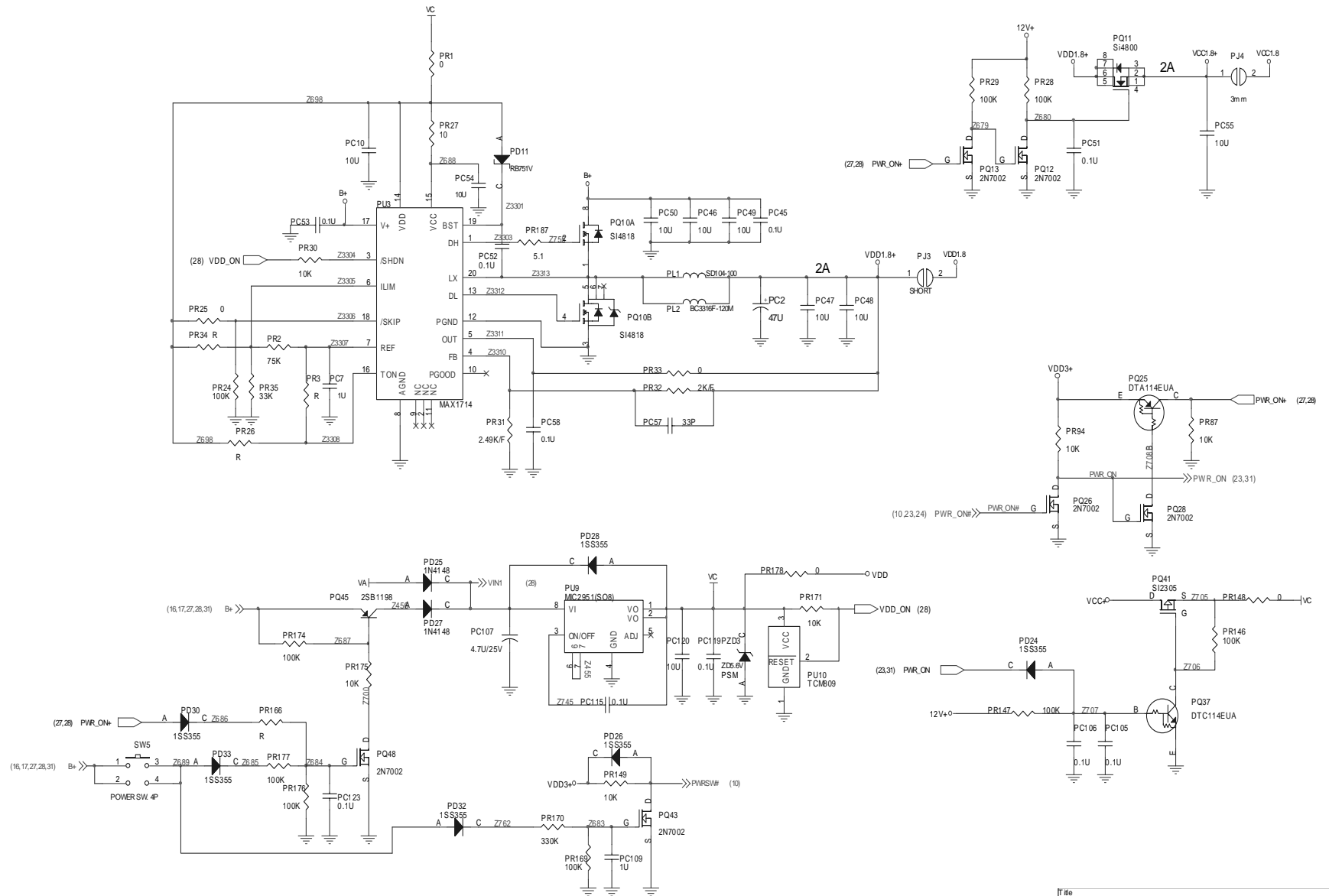
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Size	Document Number	Rev	
Custom	0200-28.SCH1	A	
Date:	02-10-04	Sheet	27 of 31

# Service Manual



Title		VDD3,VCC3,VCC,12V	
Size	Document Number	71-22C00-D02	
Custom	Q00-27.SCH	Rev A	
Date	Friday, November 10, 2000	Sheet	28 of 31

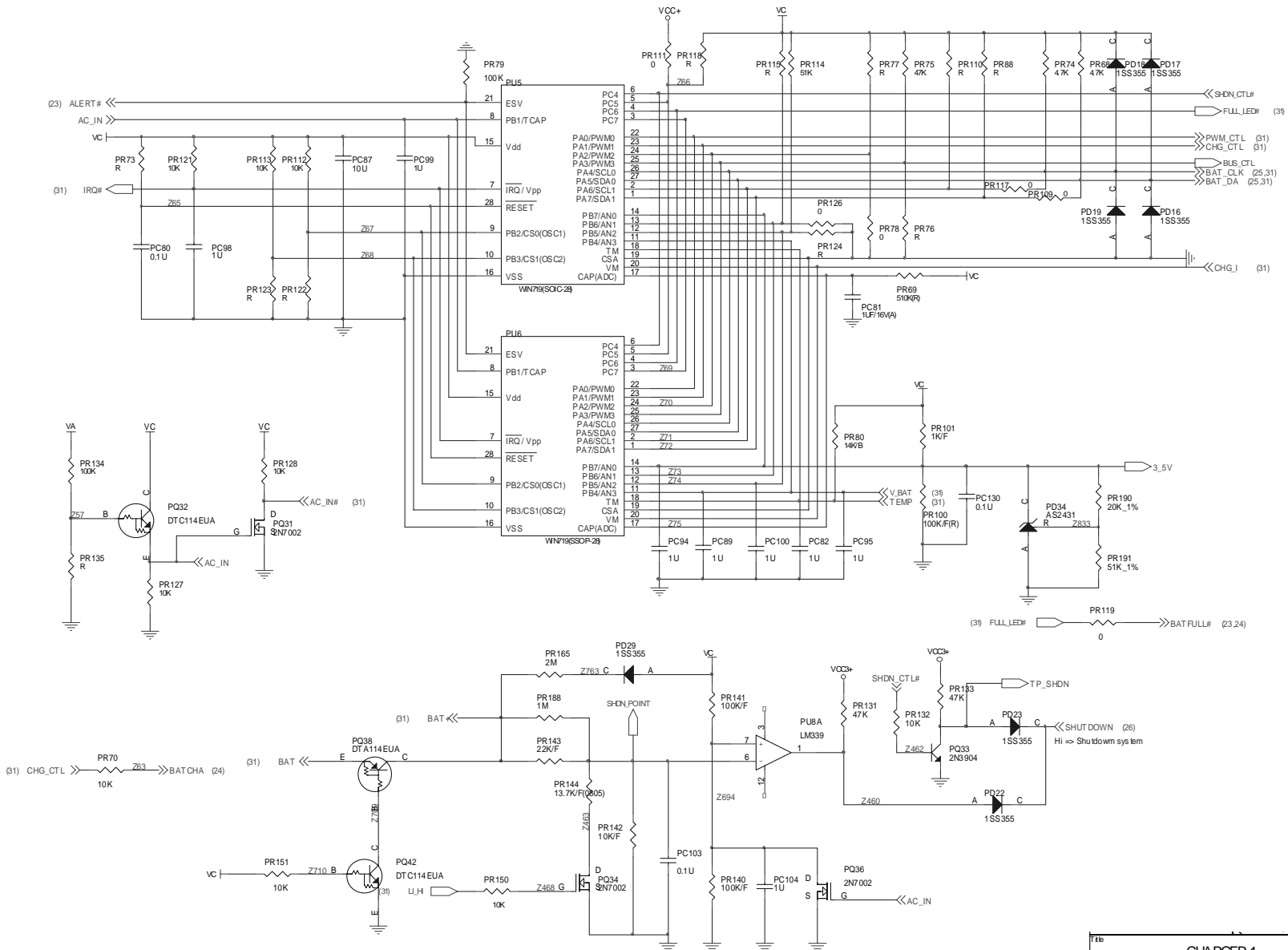
# Schematic Diagrams



Title		VDD1.8,VCC1.8	
Size	Document Number	Rev	
Custom	020626.SCH	A	
Date	71-22C00-D02	Sheet	29 of 31
03.17.15			



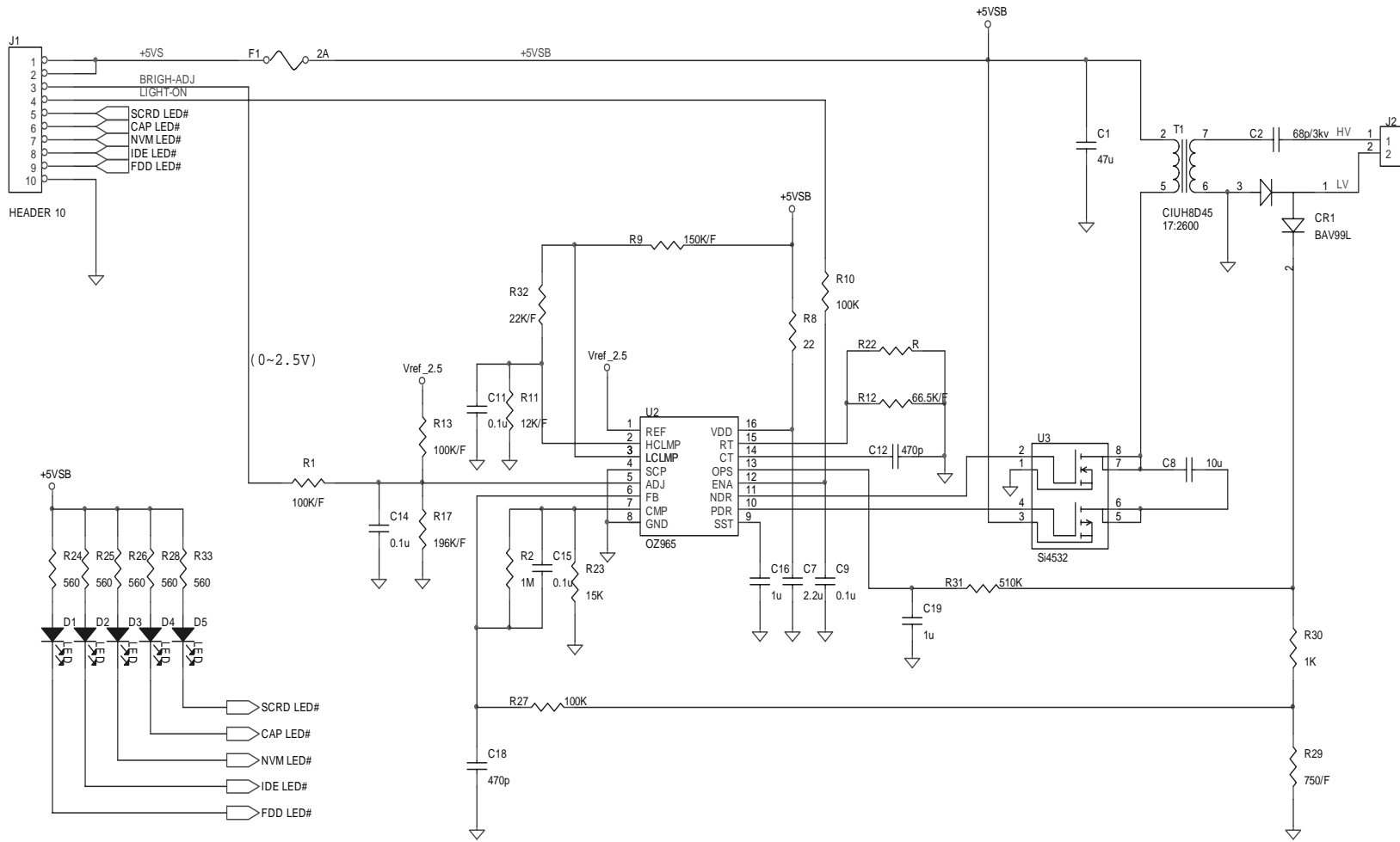
# Service Manual



CHARGER-1			
Size	Document Number	71-22C00-D02	Rev
Custom	020-28 SCH		A
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Title		CCFL Smart Inverter	
Size	Document Number	Rev	
	2200 , 2200S , 2200C , 2700S	2.2	
Date:	Thursday, December 14, 2000	Sheet	1 of 1

## Appendix C: Switch Settings

### Clock Settings (SW6)

CPU (FSB)	SDRAM	SW6-1	SW6-2	SW6-3	SW6-4	SW6-6
66	PC-133	OFF	OFF	OFF	OFF	ON
66	PC-100	OFF	OFF	OFF	OFF	OFF
100	PC-100	ON	OFF	OFF	OFF	OFF
100	PC-133	ON	OFF	ON	OFF	OFF
133	PC-133	ON	ON	ON	OFF	OFF

Panel ID Settings (SW7)

SIZE	BRAND	Model No.	SW7-1	SW7-2	SW7-3	SW7-4
13.3"	LG	LP133X7-C2CC	ON	ON	OFF	OFF
	ADT	L133X2-1	ON	ON	OFF	OFF
	UNIPAC	UP133X01	ON	ON	OFF	OFF
	HYUNDAI	HT13X14	ON	ON	ON	OFF
14.1"	LG	LP141X5	ON	ON	OFF	OFF
	ADT	L141X1	ON	ON	OFF	OFF
	CPT	CLAA141XB01	ON	ON	OFF	OFF
	CPT	CLAA141XC01	ON	ON	OFF	OFF
	UNIPAC	UP141X01	ON	ON	OFF	OFF
	HYUNDAI	HT14X13	ON	ON	ON	OFF