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|                                     |       |

# MS-7267

Version 2.1

## CPU:

Intel Prescott ( L2=2MB ) - 3.4G & Above  
Intel Cendar Mill (65nm) - 3.73G & Above  
Intel Smithfield (90nm Dual core)  
Intel Conroe (65W Dual core)

## System Chipset:

Intel Lakeport - MCH (North Bridge)  
Intel ICH7R (South Bridge)

## On Board Chipset:

BIOS -- FWH EEPROM  
AC '97 -- ALC850  
LPC Super I/O -- W83627EHG  
LAN-- REALTEK RTL8100C Co-lay RTL8110SB\SC  
CLOCK -- ICS954519

## Main Memory:


DDR II \*2 (Max 2GB)

## Expansion Slots:

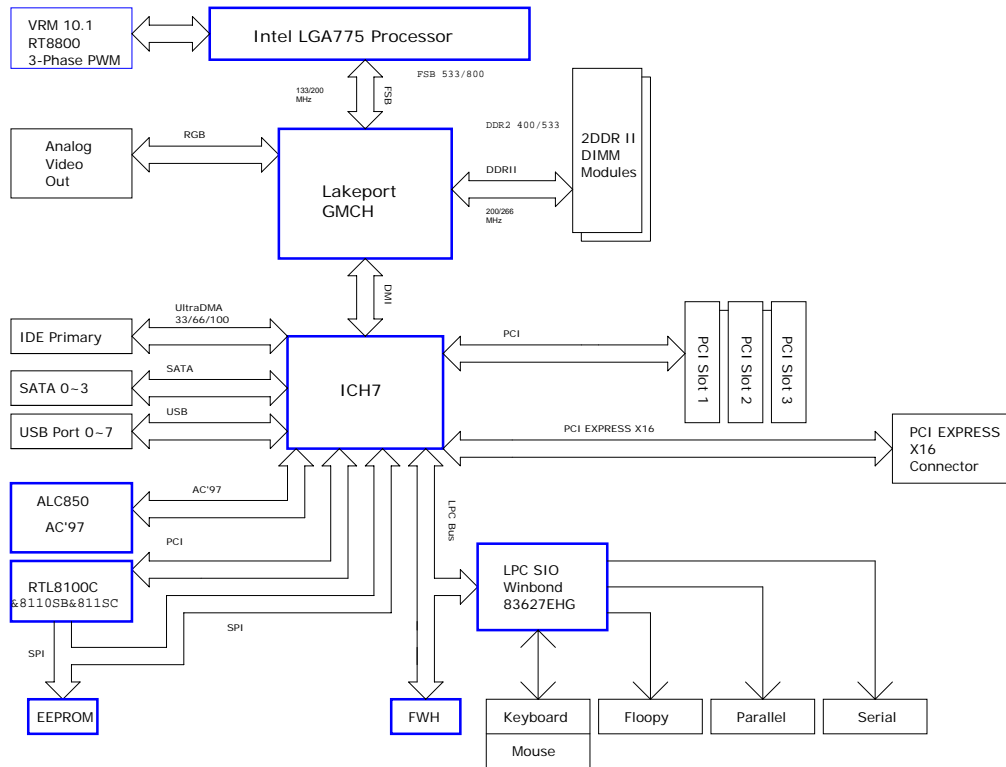
PCI2.3 SLOT \* 3  
PCI EXPRESS X16 SLOT

## RICH PWM:

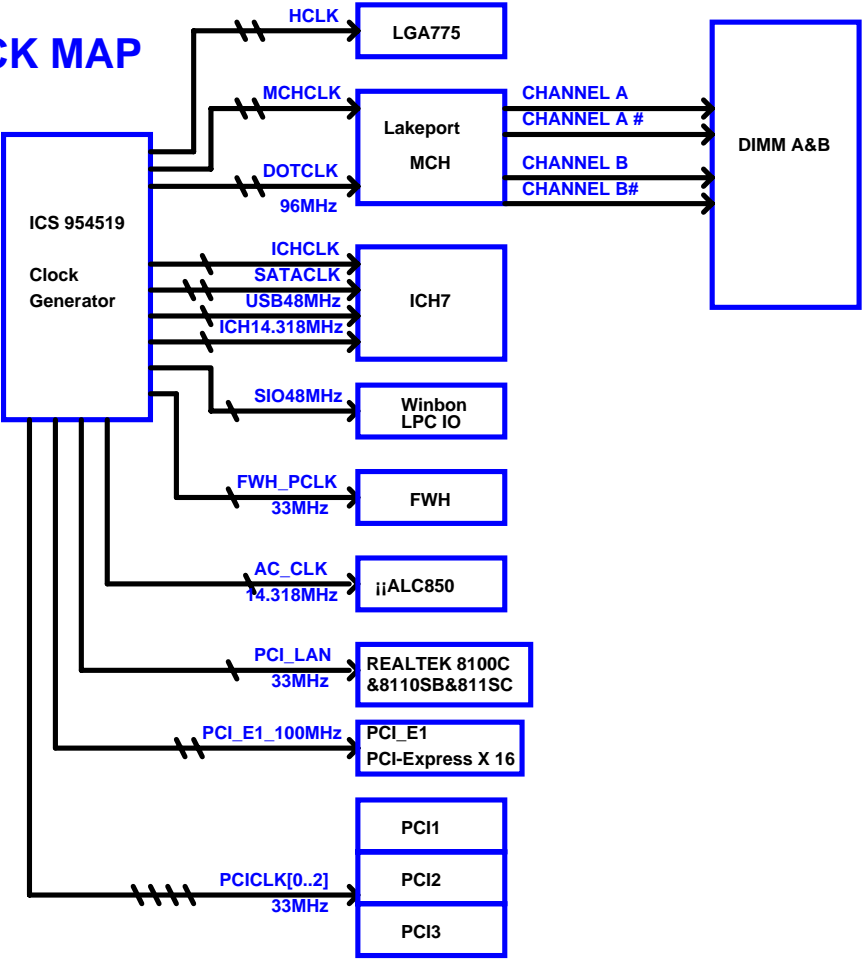
Controller: ISL6312CR 3 PHASES

|  |                         |
|--|-------------------------|
|  <b>MICRO-STAR INT'L CO., LTD.</b> |                         |
| File COVER SHEET   |                         |
| Size   | Document Number MS-7267 |
| Date: Wednesday, November 15, 2006   | Sheet 1 of 35           |

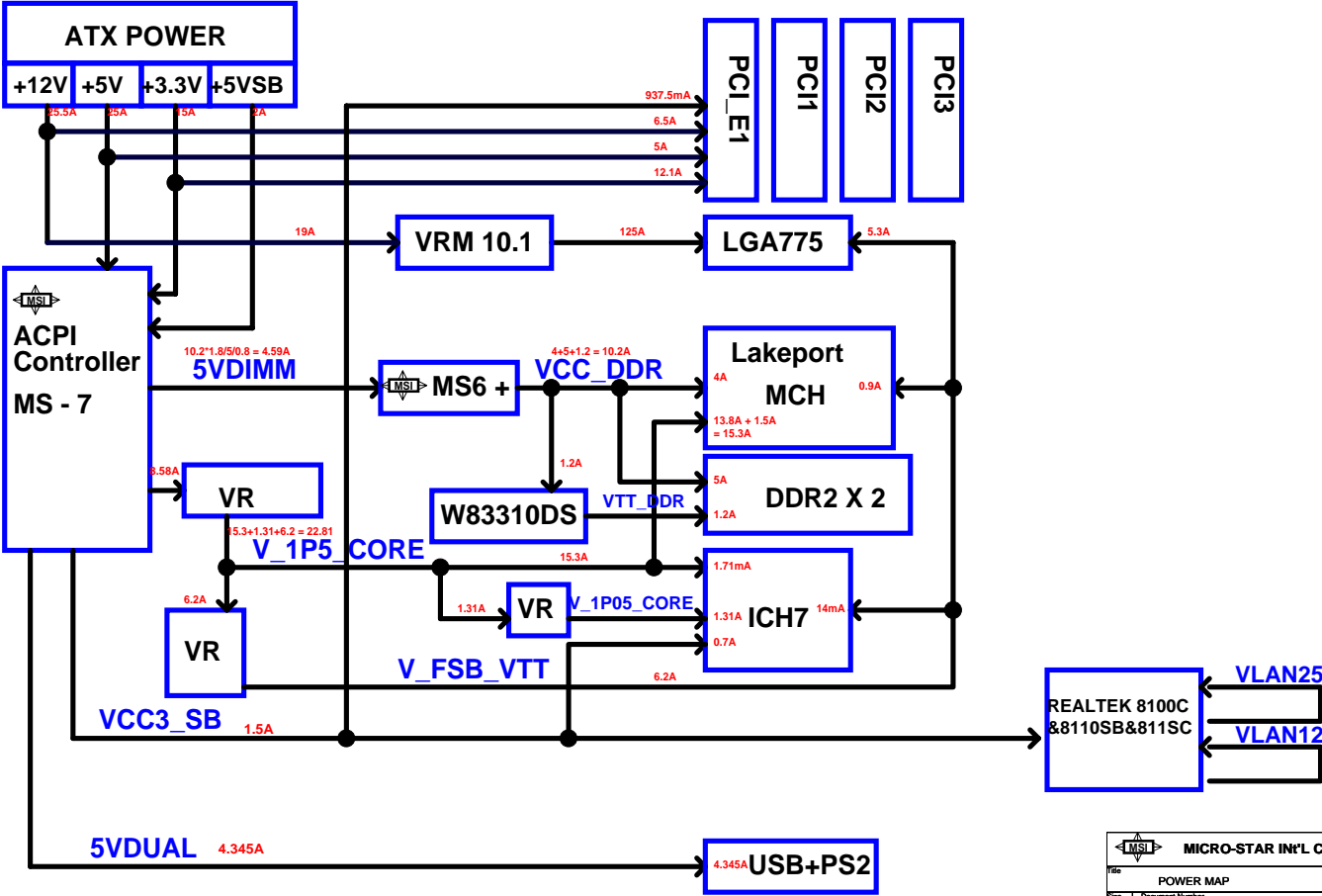
# Block Diagram



# CLOCK MAP

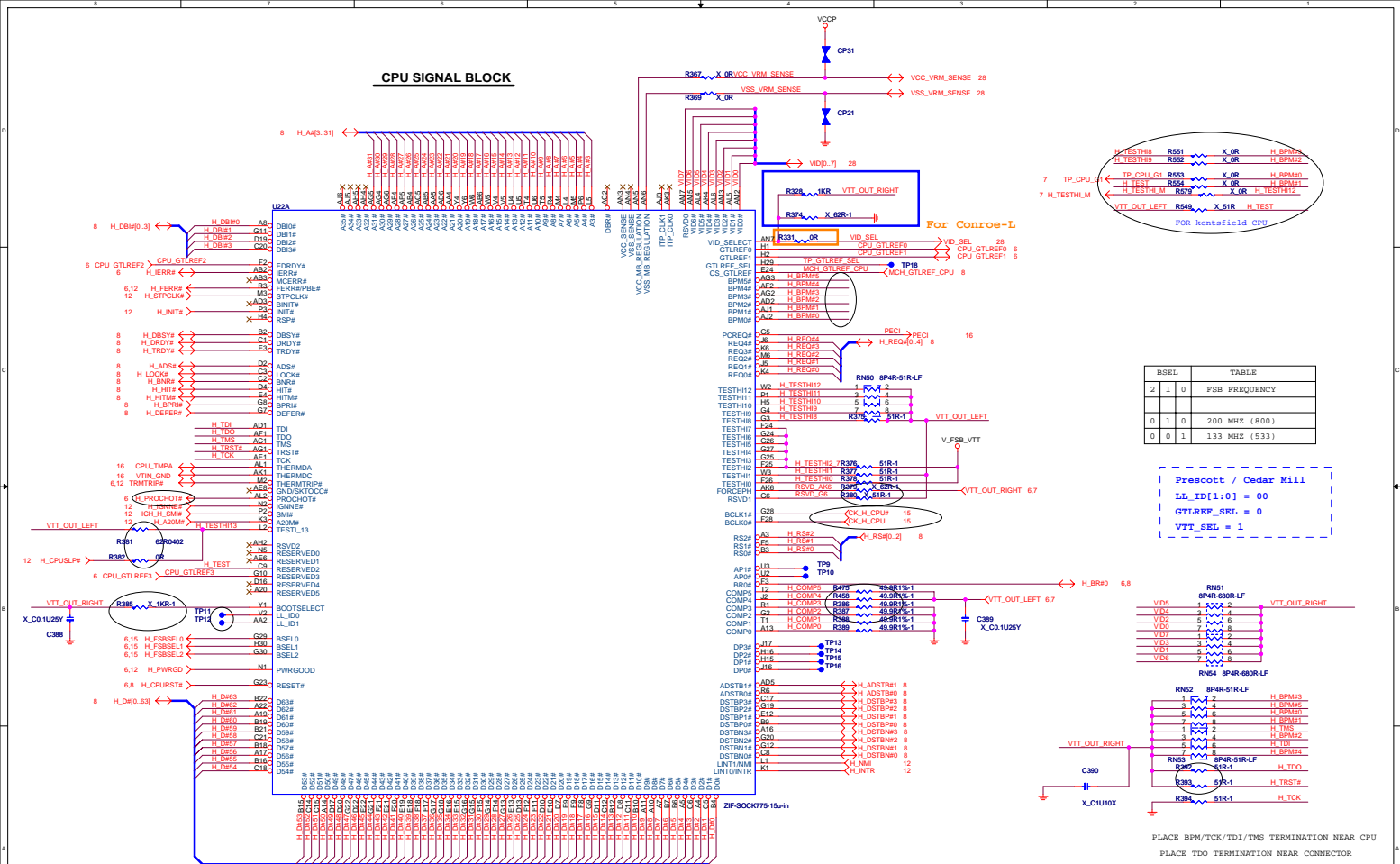


POWER MAP




|                            |                              |               |     |
|----------------------------|------------------------------|---------------|-----|
| MICRO-STAR INT'L CO., LTD. |                              |               |     |
| POWER MAP                  |                              |               |     |
| File                       | Document Number              | MS-7267       | Rev |
| Size                       | Wednesday, November 18, 2009 | Sheet 4 of 38 | 2.1 |

### CPU SIGNAL BLOCK

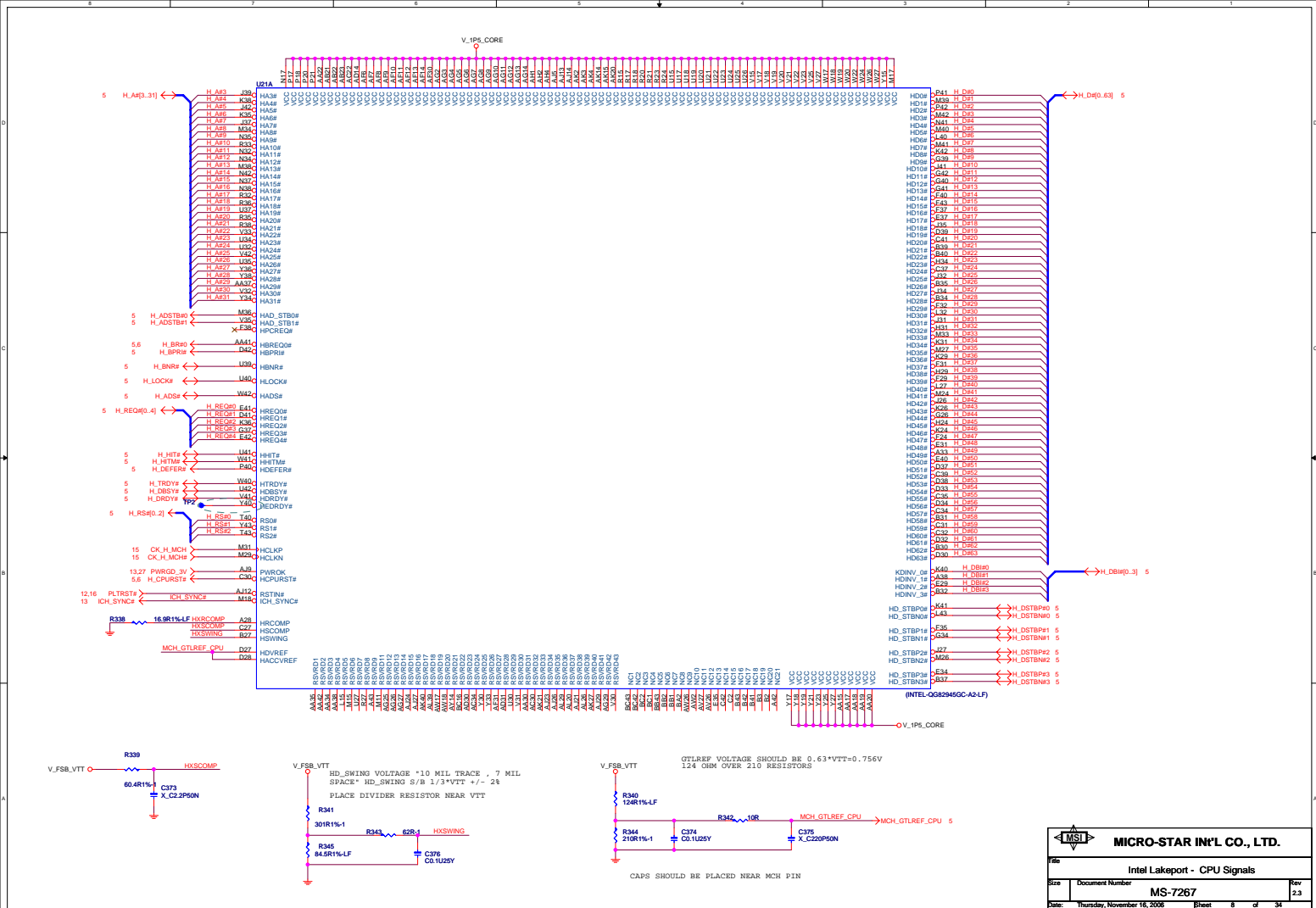


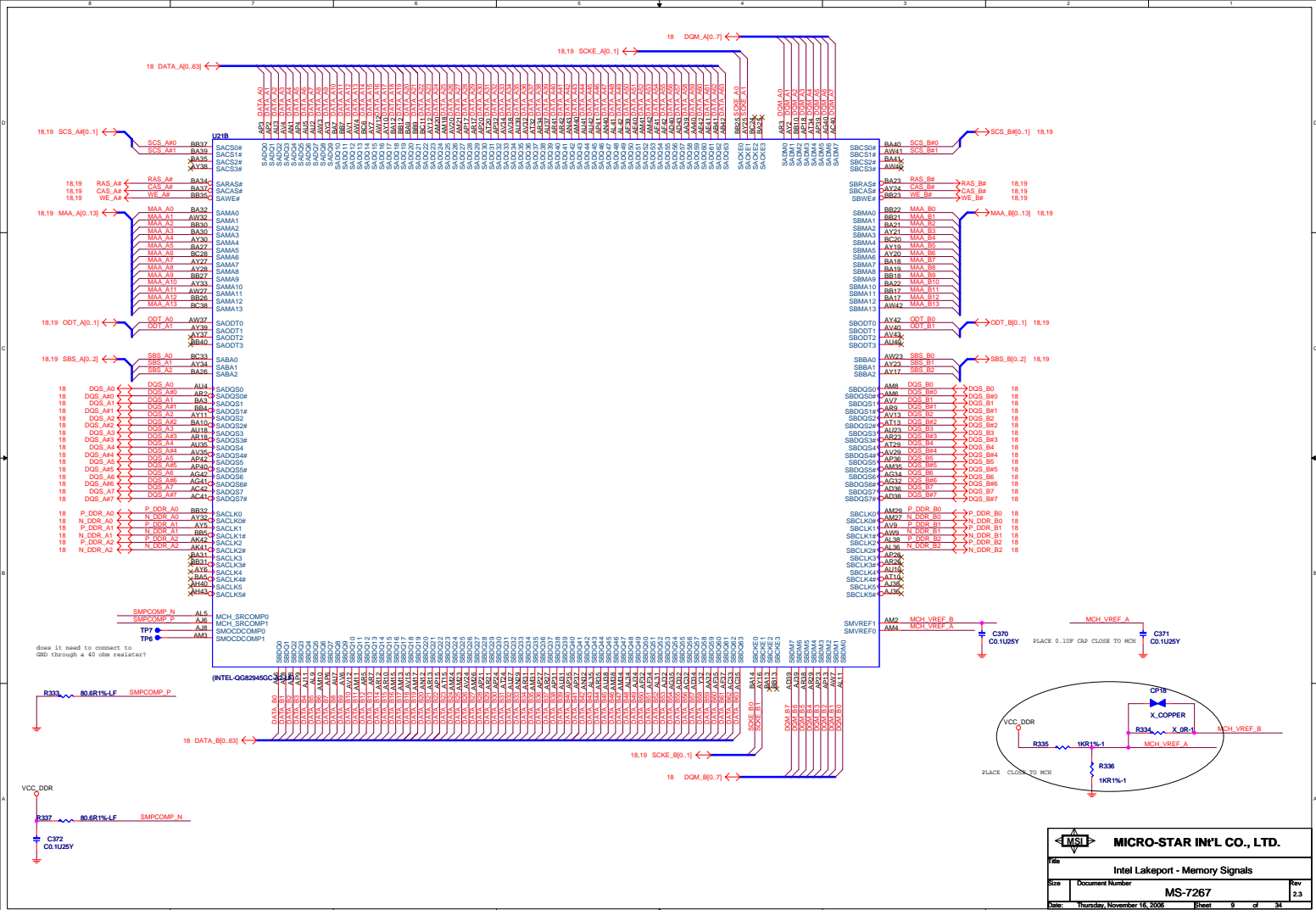
PLACE BPM/TCK/TDI/TMS TERMINATION NEAR CPU  
PLACE TDO TERMINATION NEAR CONNECTOR

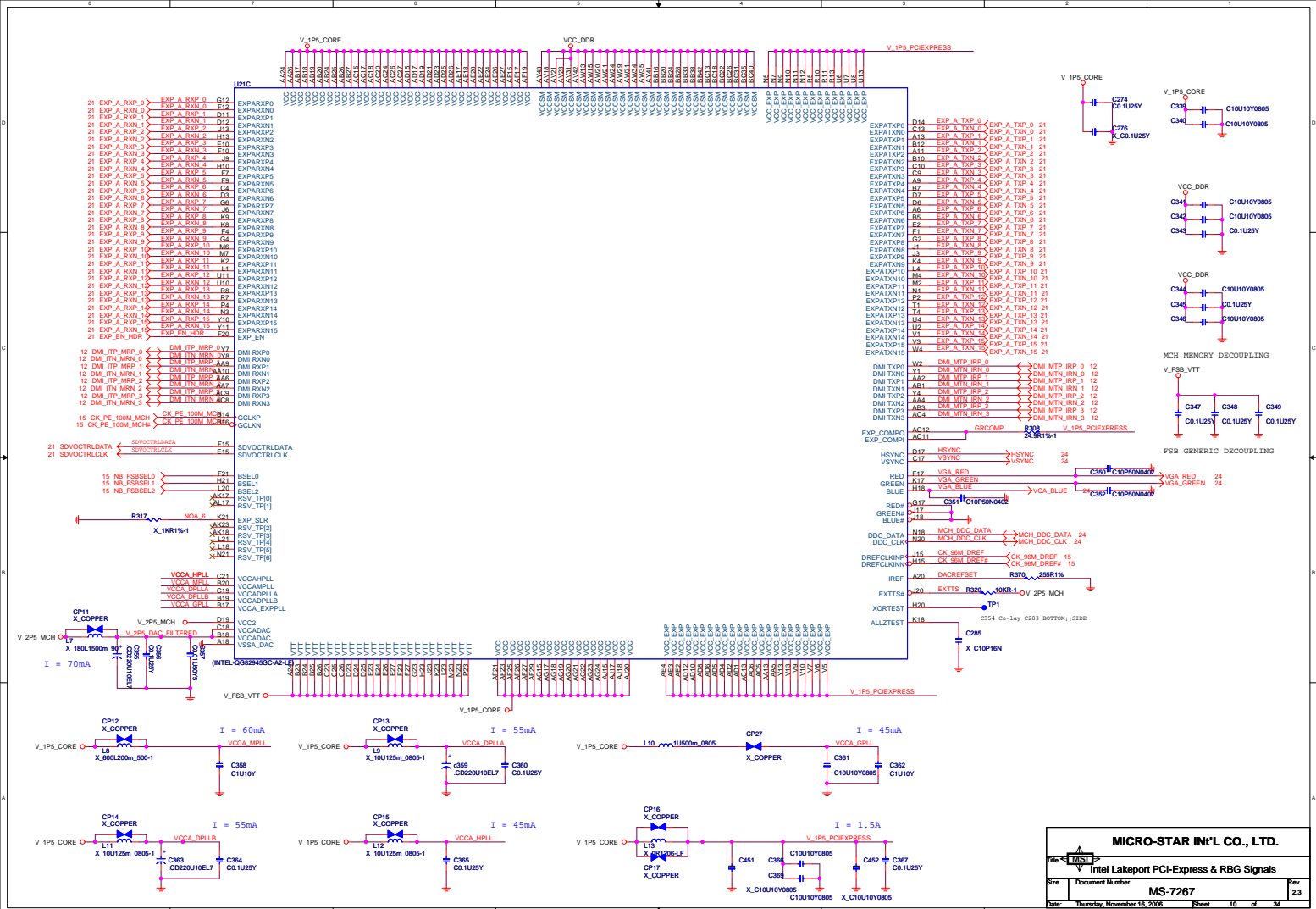
|   |                            |
|---|----------------------------|
|  <b>MICRO-STAR INT'L CO., LTD.</b> |                            |
| Title<br>Intel LGA775 CPU - Signals   |                            |
| Size  | Document Number<br>MS-7267 |
| Date: Thursday, November 16, 2006   | Rev<br>2.3                 |
| Sheet   | 5 of 34                    |



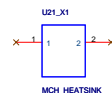




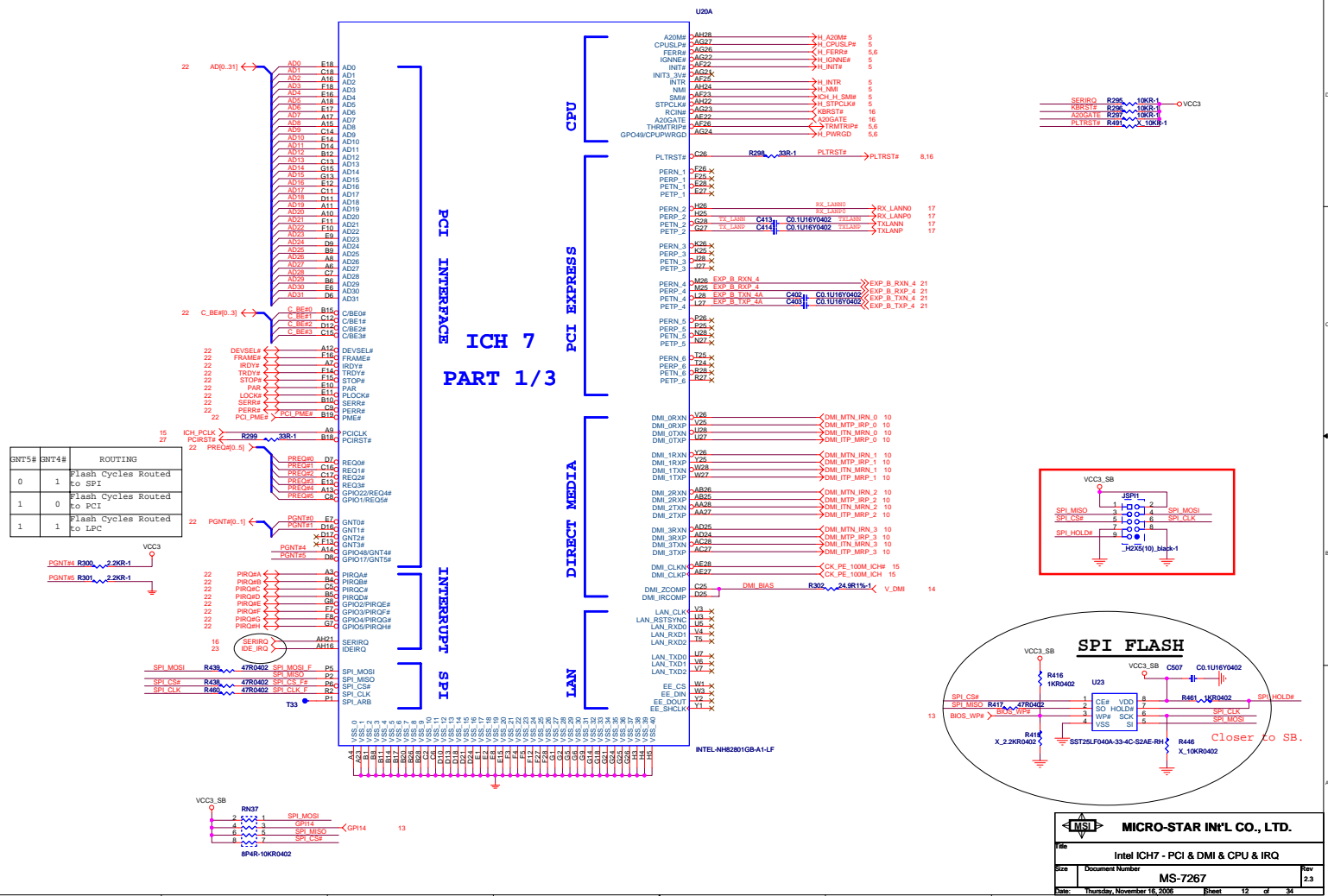


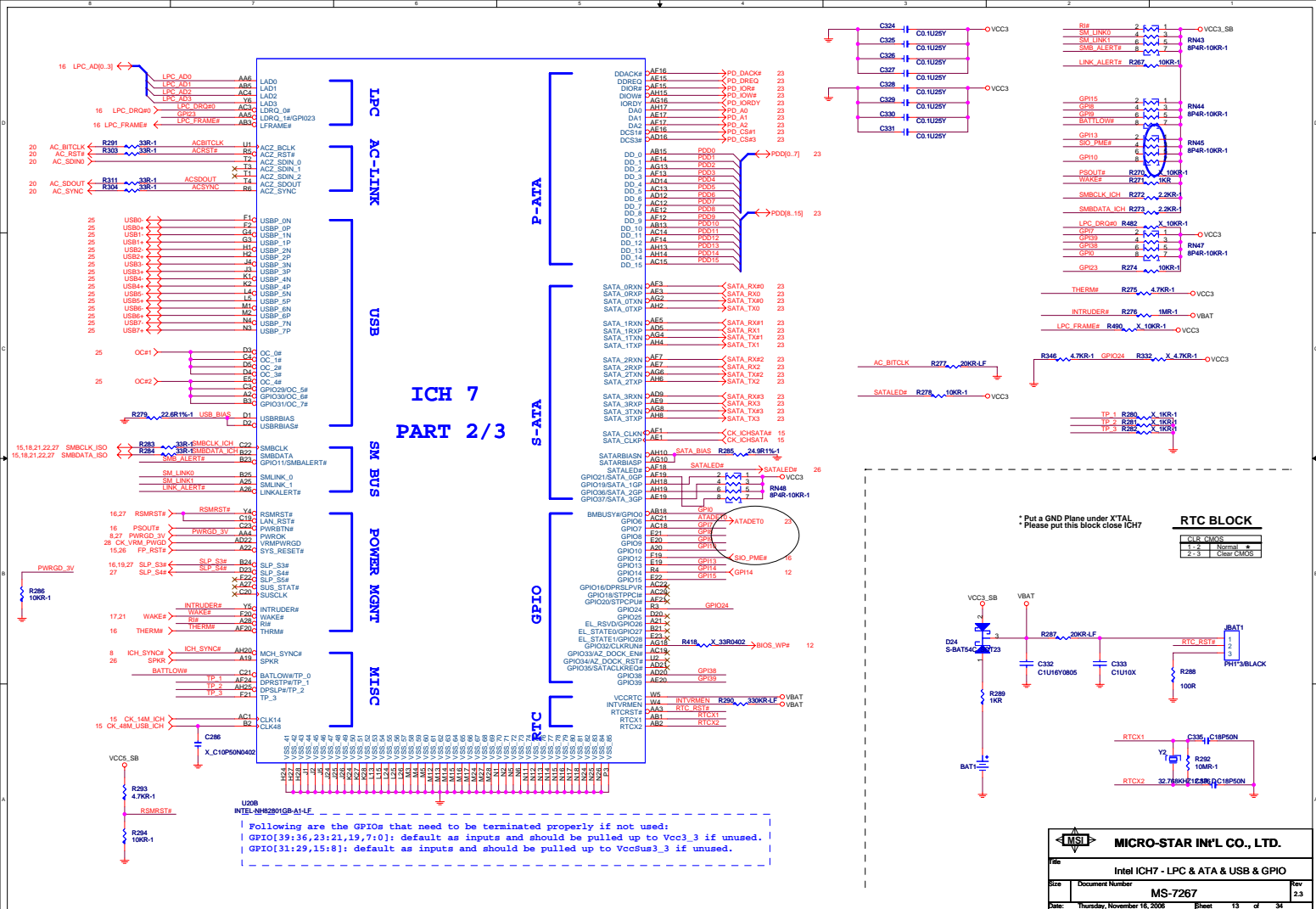


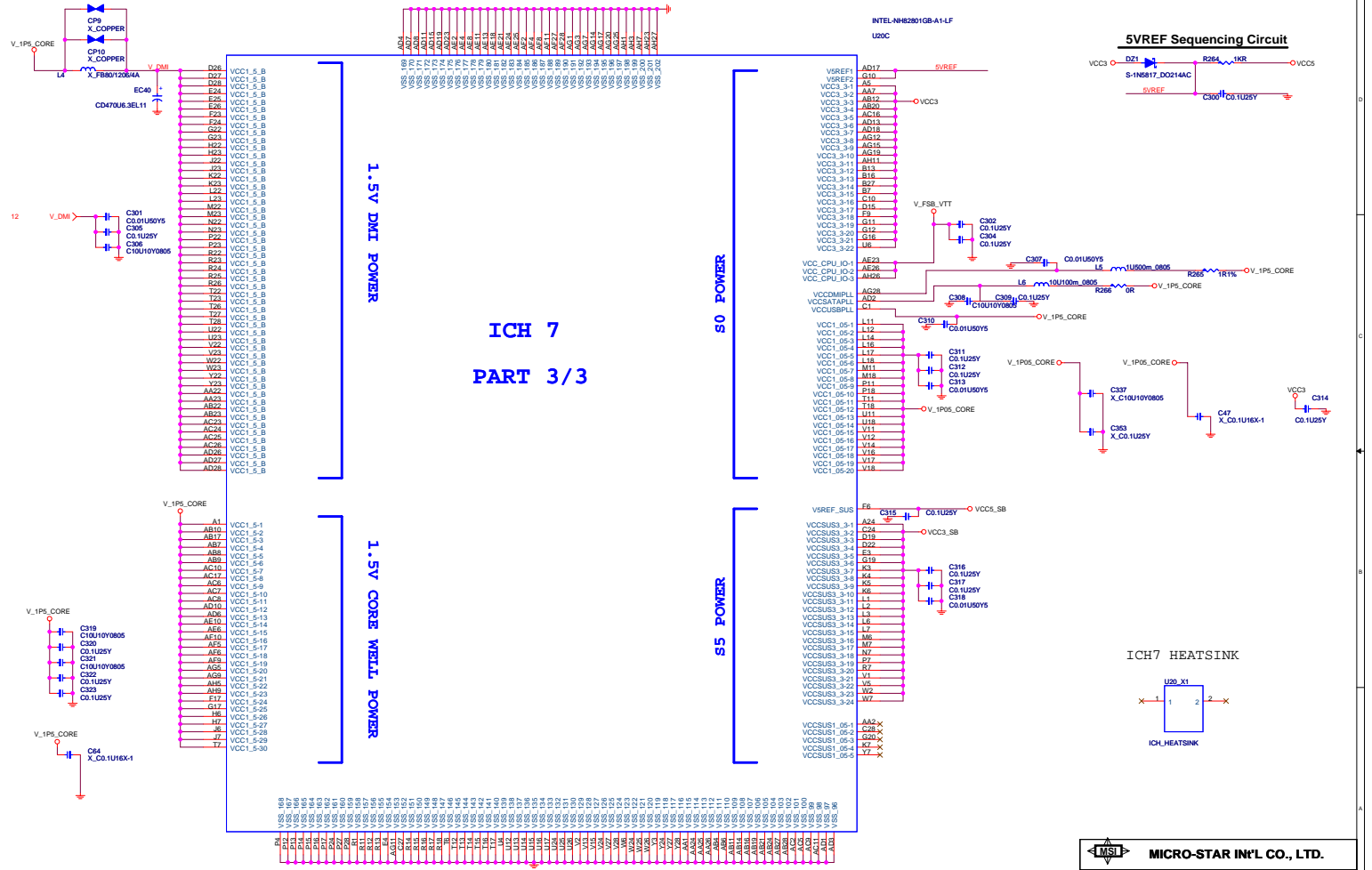
MCH\_HEATSINK



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|----------------------------|------------------------------|----------|---------|
| File Intel Lakeport - GND  |                              |          |         |
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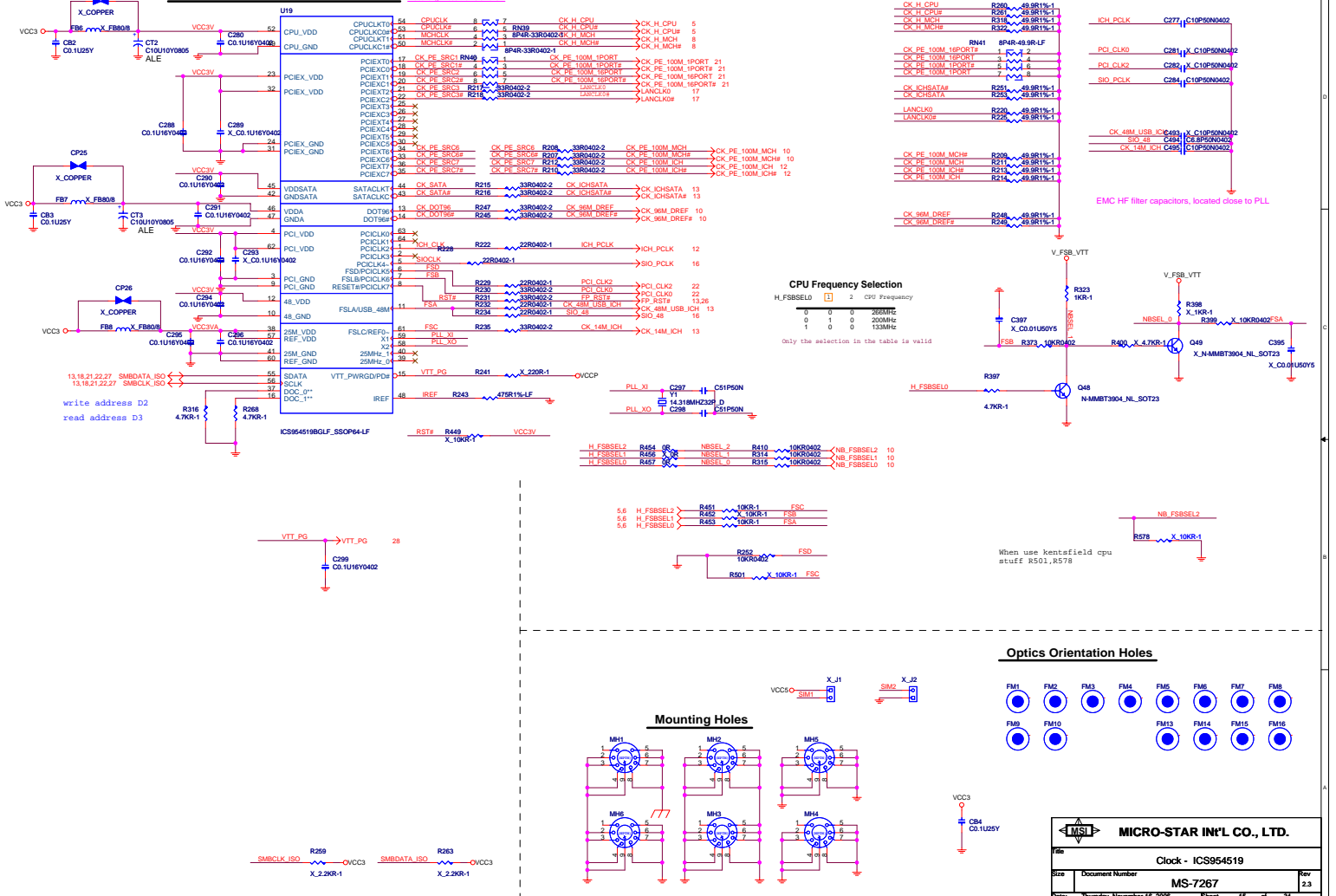


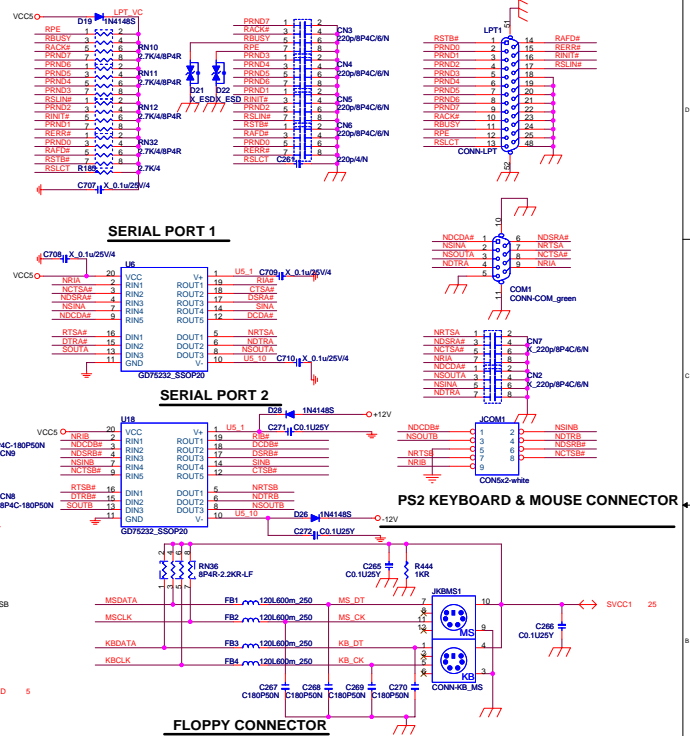




# Clock Generator - ICS954519

Trace length less than 6 inches





|                                 |                                   |             |            |
|---------------------------------|-----------------------------------|-------------|------------|
| MICRO-STAR INT'L CO., LTD.      |                                   |             |            |
| Title<br><Title> Fintek 71882FG |                                   |             |            |
| Size                            | Document Number<br>Custom MS-7276 |             | Rev<br>2.3 |
| Date:                           | Thursday, November 16, 2006       | Sheet 16 of | 34         |

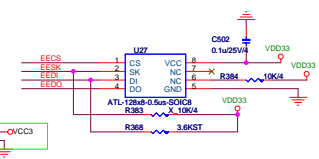
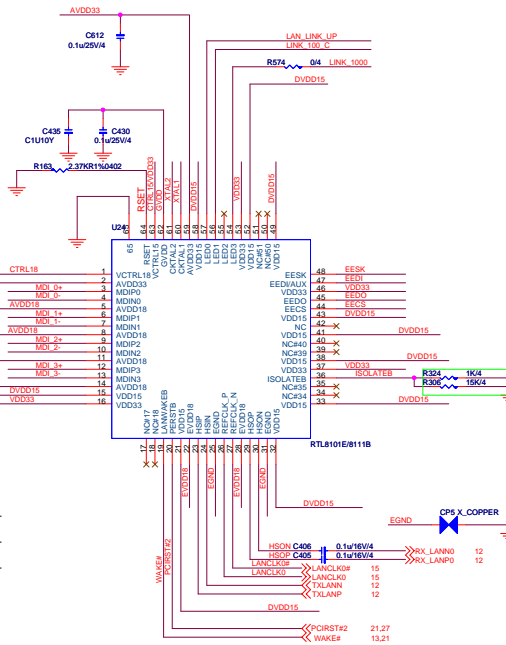
CPG001 For RTL8101E  
CPG002 For RTL8111B

2K for 8101E; 2.49K for 8111B

# Power domain chart

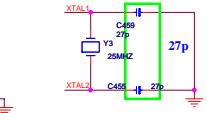
|        | RTL8111B /<br>RTL8101E |
|--------|------------------------|
| AVDD33 | 3.3V                   |
| AVDD18 | 1.8V                   |
| EVDD18 | 1.8V                   |
| DVDD15 | 1.5V                   |

|          | Q35  | Q36  |
|----------|------|------|
| RTL8111B | Need | Need |
| RTL8101E | N/A  | N/A  |



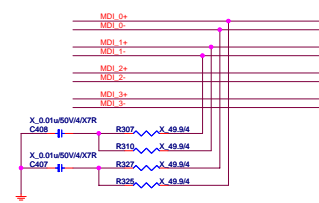
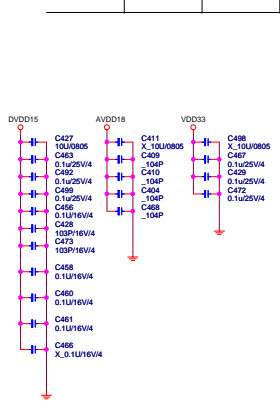
for 8111B

For 8111B remove

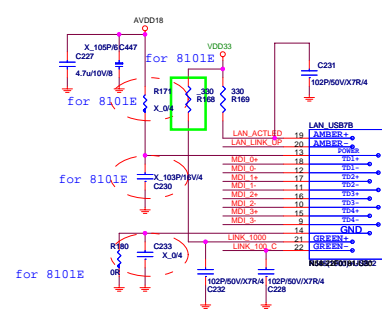


for 8111B

For 8111B remove



For 8111B remove



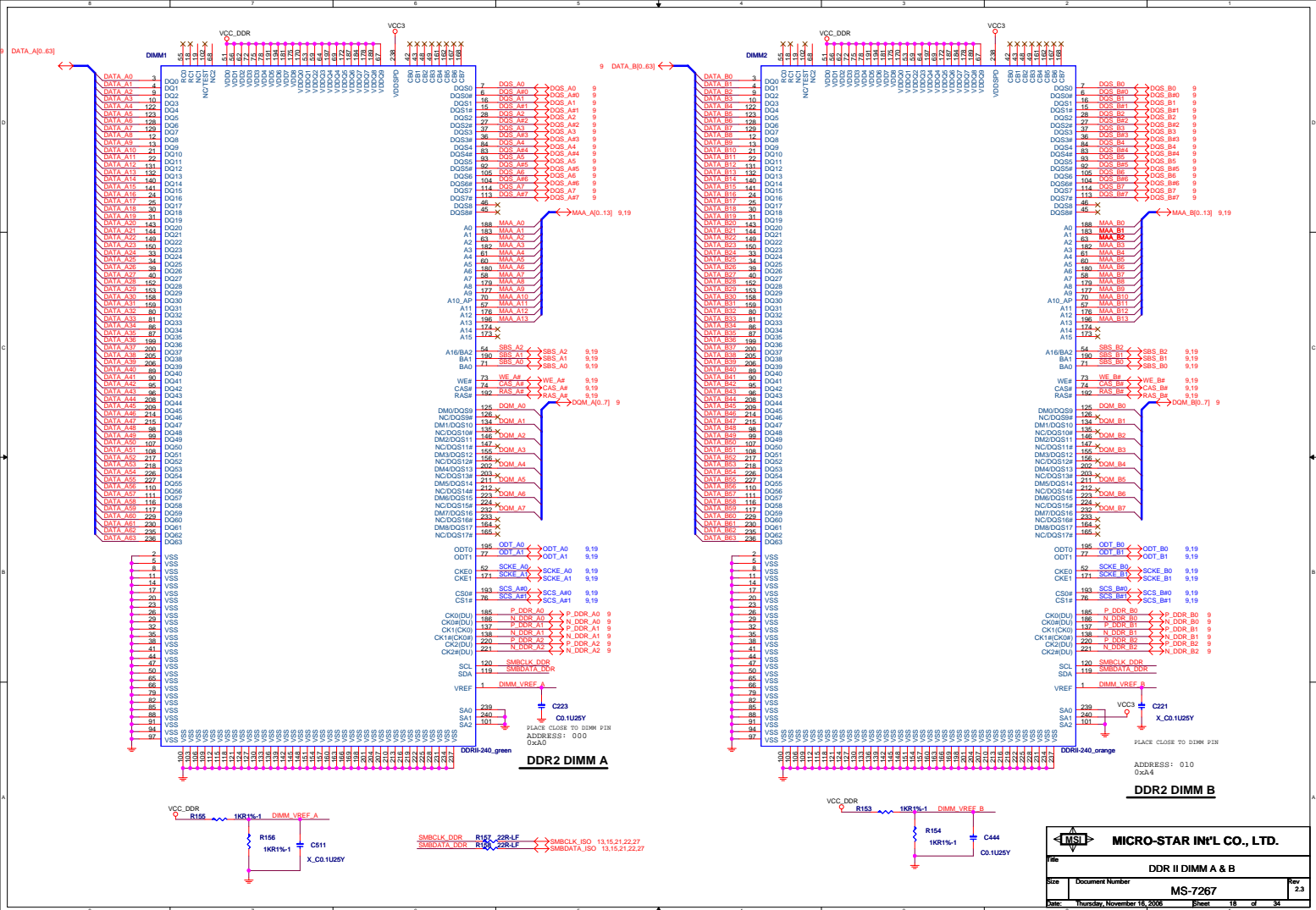
for 8101E

for 8101E

|      | 1G    | 100M |
|------|-------|------|
| 3.3V | 103mA | TBD  |
| 1.5V | 367mA | TBD  |
| 1.8V | 198mA | TBD  |

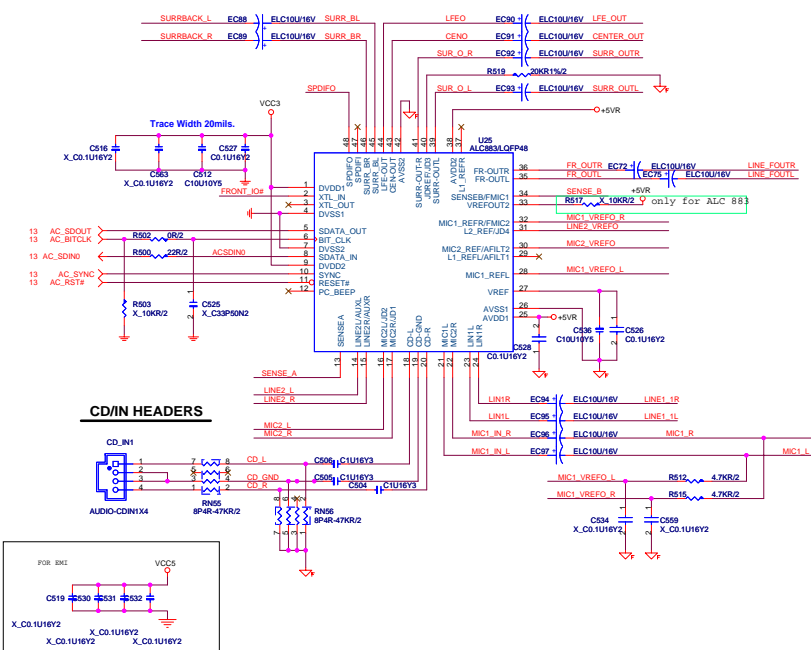
|                 | Giga-Lan        | 10/100-Lan      |
|-----------------|-----------------|-----------------|
| N58-22F0081-842 | N58-22F0061-842 | N58-22F0061-P02 |
| Link            | Yellow          | Link            |
| Active          | Blinking        | Active          |
| 1000            | Orange          | 100             |
| 100             | Green           | Green           |
| 10              | None            | None            |
| 19              | Yellow          | 19              |
| 20              | Yellow          | 20              |
| 21              | Orange          | 21              |
| 22              | Green           | 22              |

| MICRO-STAR INT'L CO., LTD. |                             |            |          |
|----------------------------|-----------------------------|------------|----------|
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|                            |                             | MS-7267    | 0A       |
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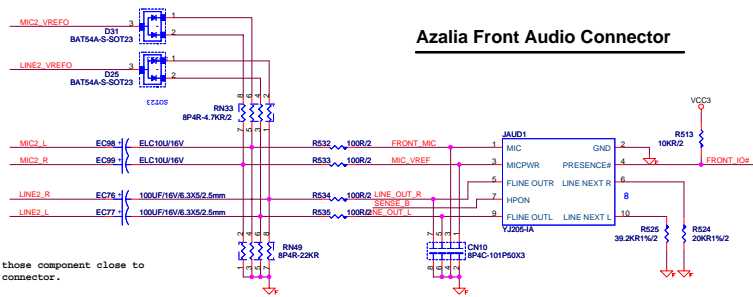




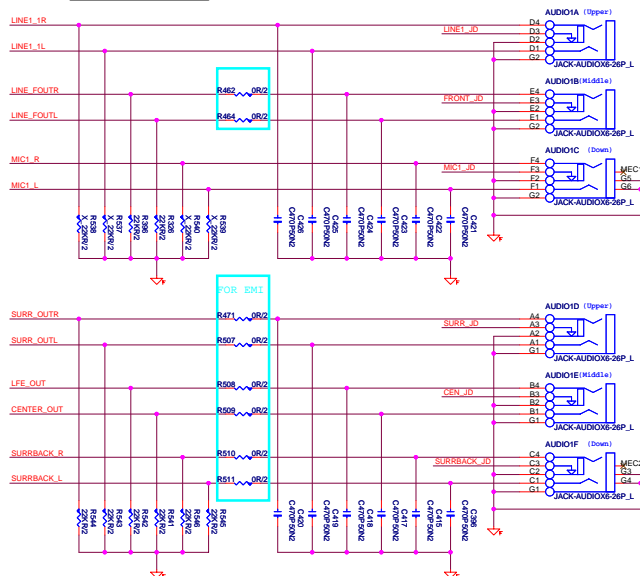
## ALC888 CODEC



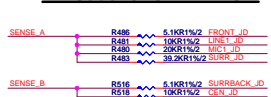
## Azalia Front Audio Connector



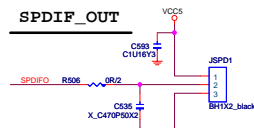
ALC883 JACK



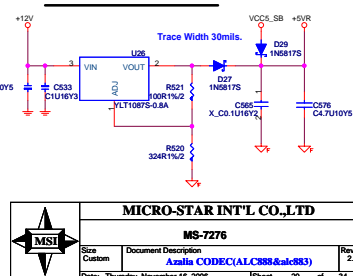
ALC883 JACK DETECT



## SPDIF\_OUT



## AUDIO CODE REGULATORS



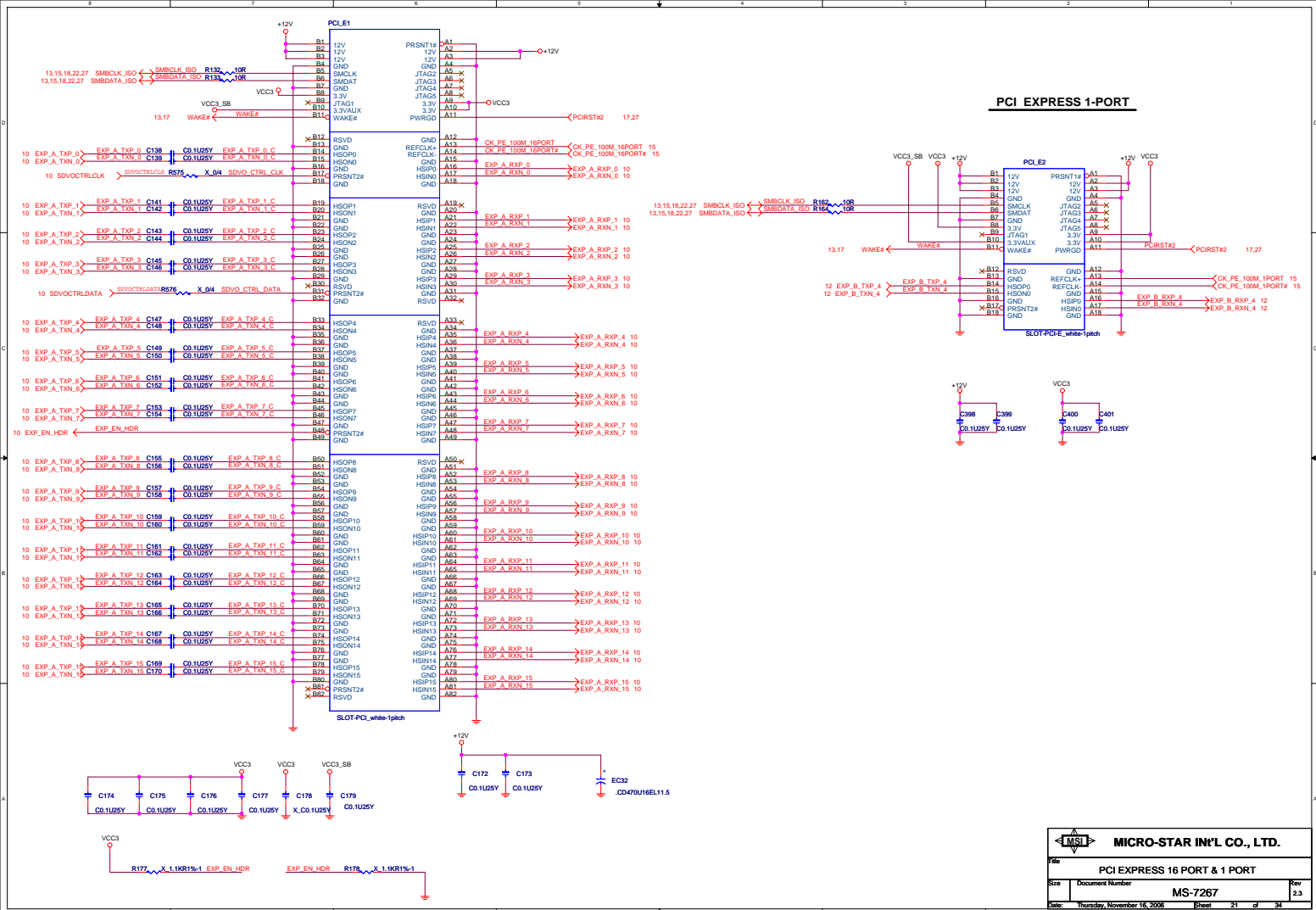
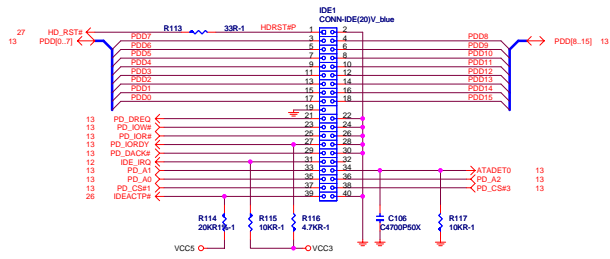


Figure 1 shows the pin connections for the ATMEGA162P-PU microcontroller. The diagram is a detailed pinout showing the connections for each of the 40 pins. The pins are numbered 1 to 40. The connections are as follows:

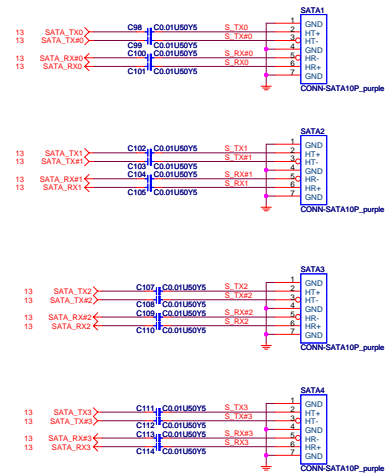
- Pin 1: GND
- Pin 2: VCC
- Pin 3: RESET
- Pin 4: AIN0
- Pin 5: AIN1
- Pin 6: AIN2
- Pin 7: AIN3
- Pin 8: AIN4
- Pin 9: AIN5
- Pin 10: AIN6
- Pin 11: AIN7
- Pin 12: AIN8
- Pin 13: AIN9
- Pin 14: AIN10
- Pin 15: AIN11
- Pin 16: AIN12
- Pin 17: AIN13
- Pin 18: AIN14
- Pin 19: AIN15
- Pin 20: AIN16
- Pin 21: AIN17
- Pin 22: AIN18
- Pin 23: AIN19
- Pin 24: AIN20
- Pin 25: AIN21
- Pin 26: AIN22
- Pin 27: AIN23
- Pin 28: AIN24
- Pin 29: AIN25
- Pin 30: AIN26
- Pin 31: AIN27
- Pin 32: AIN28
- Pin 33: AIN29
- Pin 34: AIN30
- Pin 35: AIN31
- Pin 36: AIN32
- Pin 37: AIN33
- Pin 38: AIN34
- Pin 39: AIN35
- Pin 40: AIN36

[illegible]

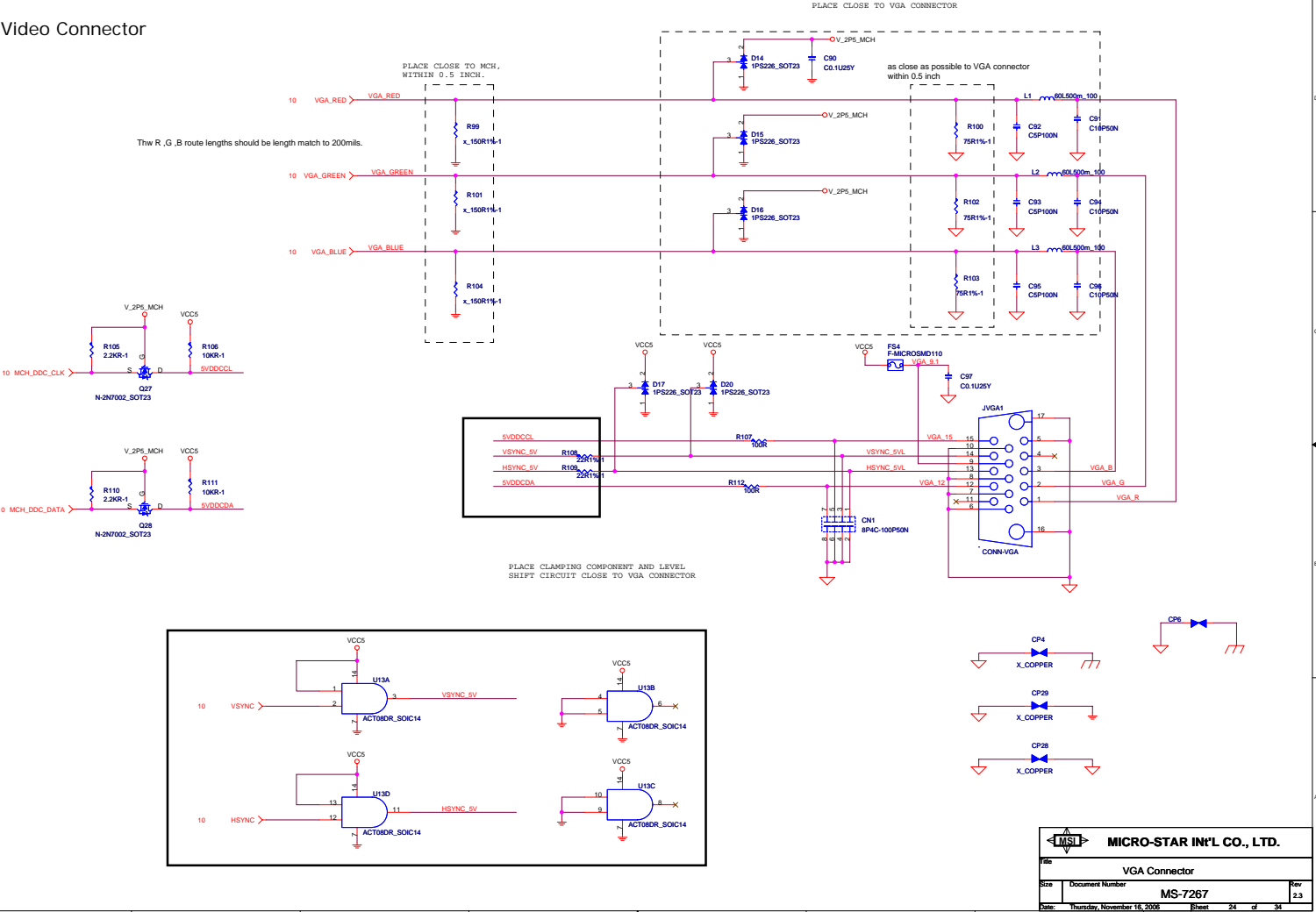
# ATA 33/66/100 IDE Connectors



# SERIAL ATA CONNECTOR BLOCK

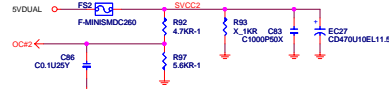
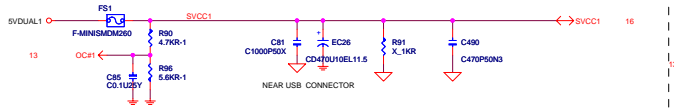


Video Connector

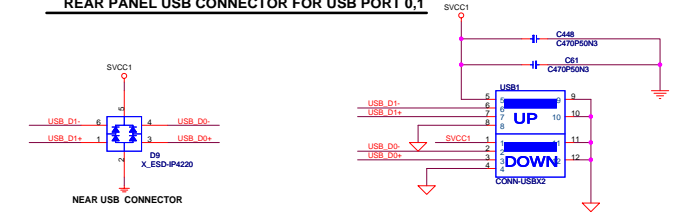


# POWER CIRCUIT FOR USB PORT 0,1,2,3 (REAR)

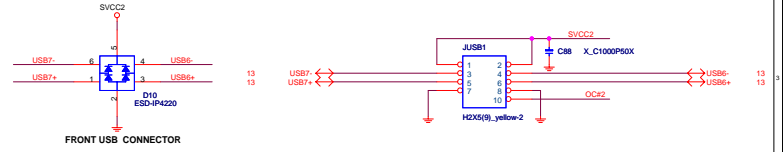
# POWER CIRCUIT FOR USB PORT (FRONT)



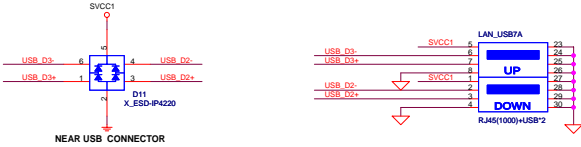
## REAR PANEL USB CONNECTOR FOR USB PORT 0,1



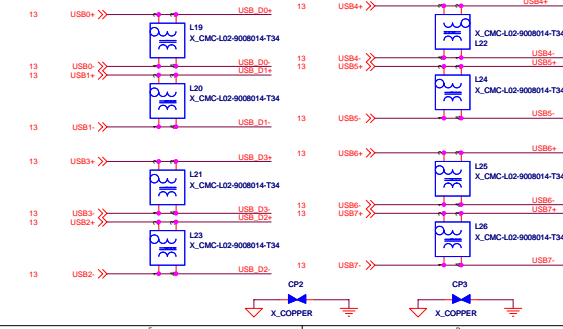
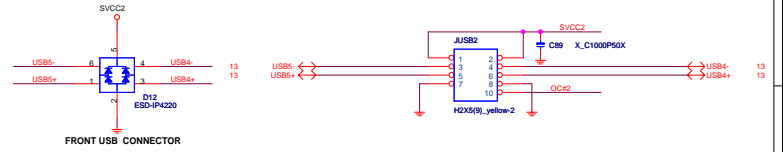
## FRONT PANEL USB CONNECTOR FOR USB PORT 6,7



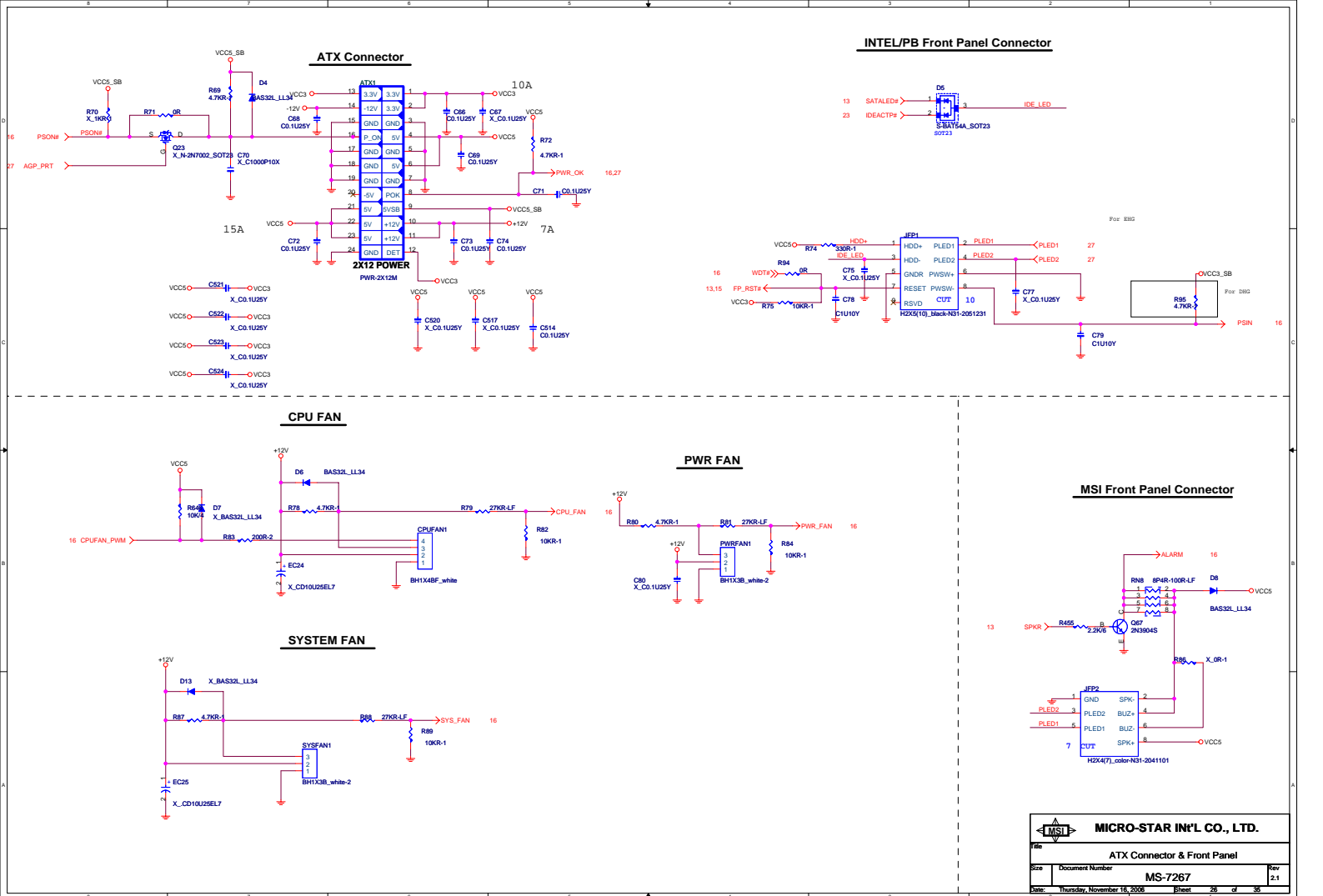
## REAR PANEL USB CONNECTOR FOR USB PORT 2,3



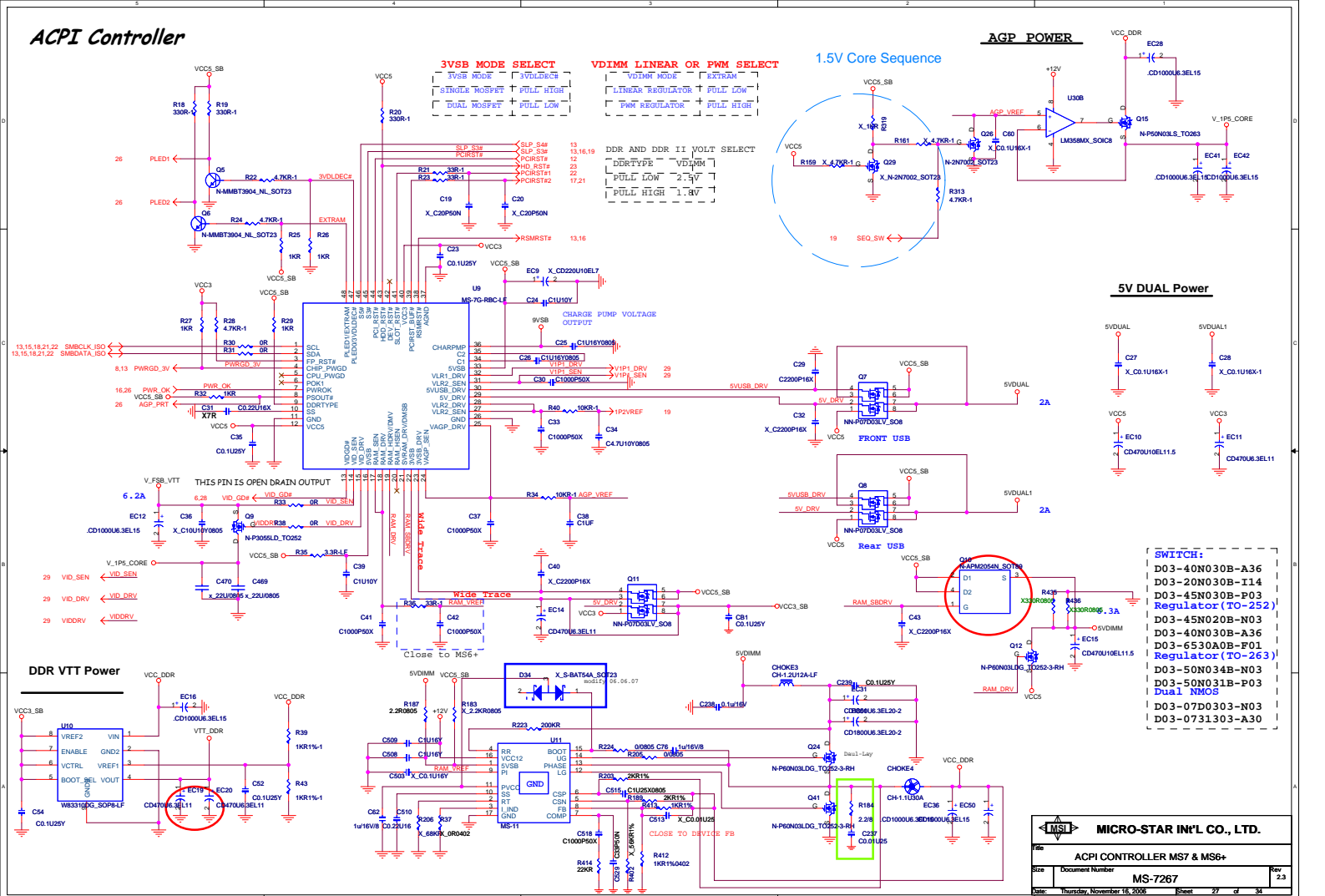
## FRONT PANEL USB CONNECTOR FOR USB PORT 4,5



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|----------------------------|-----------------------------|----------|---------|
| File                       | USB Connectors              |          |         |
| Size                       | Document Number             | MS-7267  | Rev 2.3 |
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ACPI Controller



- SWITCH:**
- D03-40N030B-A36
  - D03-20N030B-I14
  - D03-45N030B-P03
  - Regulator (TO-252)
  - D03-45N020B-N03
  - D03-40N030B-A36
  - D03-6530A0B-P01
  - Regulator (TO-263)
  - D03-50N034B-N03
  - D03-50N031B-P03
  - Dual NMOS
  - D03-07D0303-N03
  - D03-0731303-A30

| MSI MICRO-STAR INT'L CO., LTD. |                             |         |          |
|--------------------------------|-----------------------------|---------|----------|
| File                           | ACPI CONTROLLER MS7 & MS6+  |         |          |
| Size                           | Document Number             | MS-7267 | Rev 2.3  |
| Date                           | Thursday, November 18, 2005 | Sheet   | 27 of 34 |

