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3	Clock Distribution
4	CPU-CLK/Control/MISC/PEG
5	CPU-Memory
6	CPU-Power
7	CPU-GND
8	DDR III DIMM 1 / DIMM 3
9	DDR III DIMM 2 / DIMM 4
10	Clock-Gen_IDT/9LRS4116AKLFT
11	PCH-PCI/E/DMI/USB/CLK
12	PCH-SATA/HOST/FAN/GPIO/VGA
13	PCH-SMB/LPC/AUDIO/RTC
14	PCH-POWER
15	PCH-GND
16	SIO-Fintek F71882FG
17	Gigabit LAN - Realtek RT8111DL
18	JMB362 - ESATA x2
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20	Audio Codec ALC888S
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MS-7631

Version : A00

CPU :

Intel Lynnfield/Clarksdale Processor

System Chipset :

Intel Ibex Peak

On Board Chipset :

VRM 11.1 -- ISL6334 4 Phase

Gigabit LAN -- Realtek RT8111DL

HDA Codec -- Realtek ALC888S

ACPI Controller -- uPI Solution

Super I/O -- FinTek F71882FG

SPI Flash 32Mb

Main Memory :

2 Channel DDR III * 4 (Max 8GB)

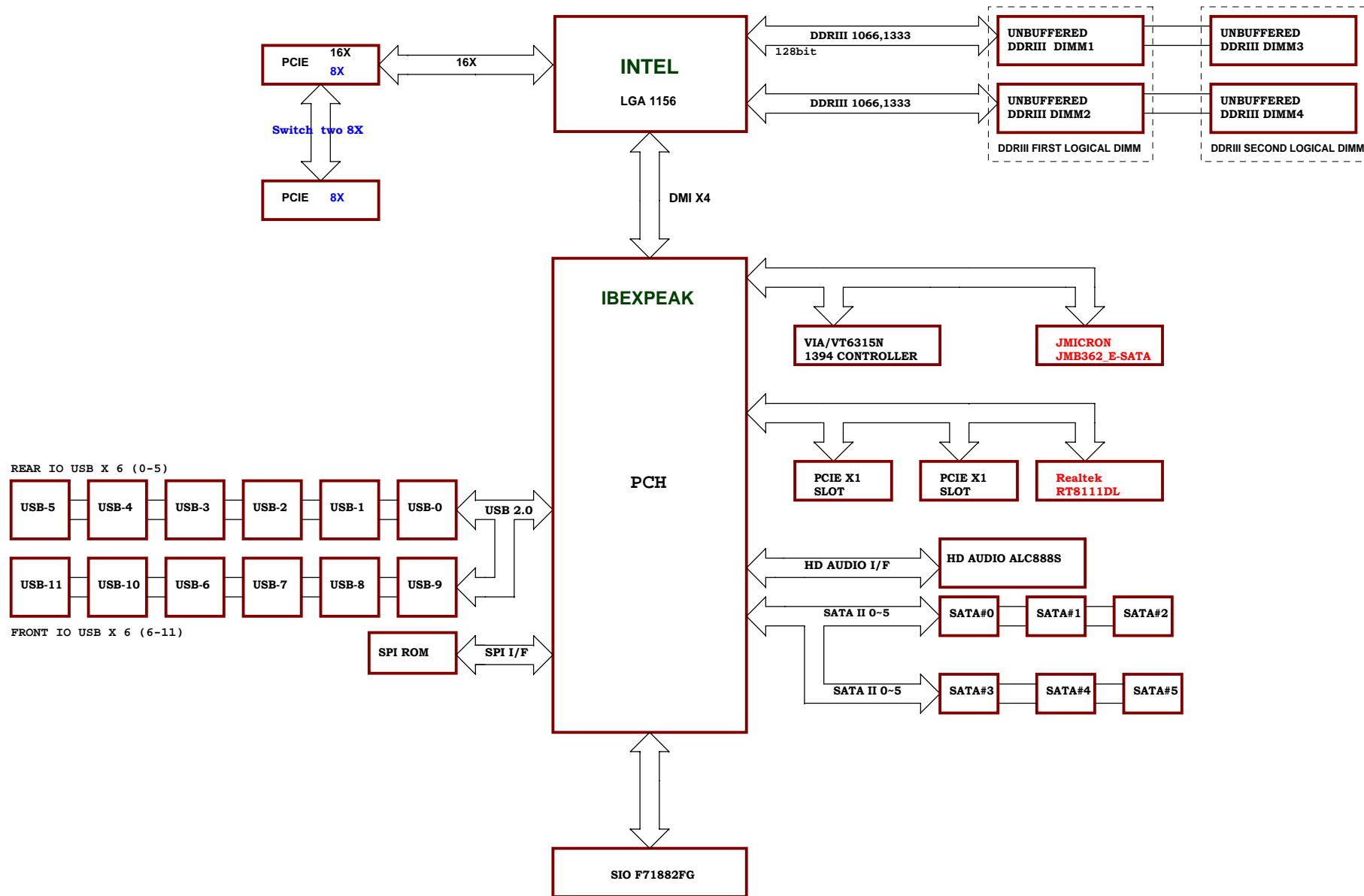
Expansion Slot :

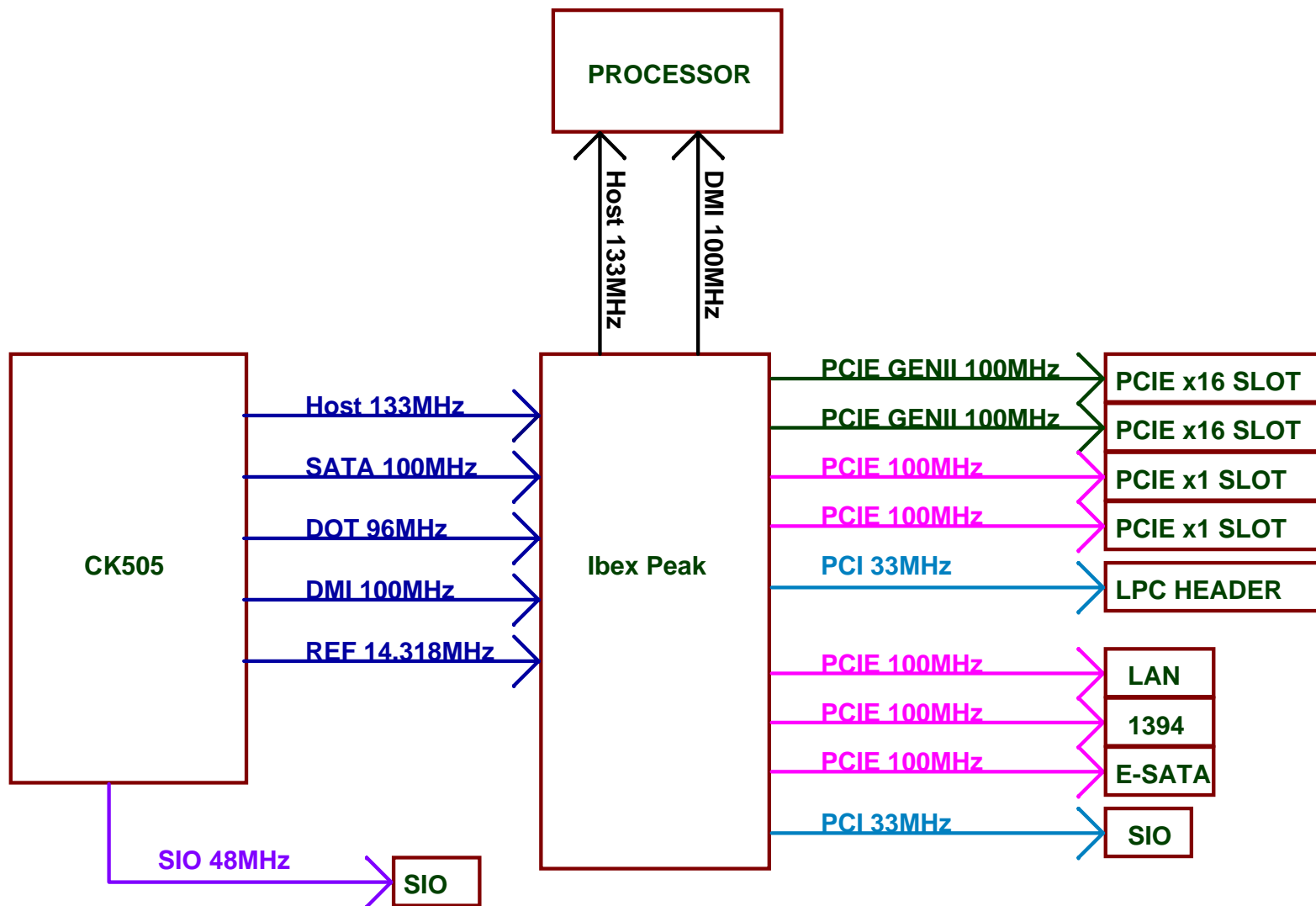
PCI Express x16 Slot * 2

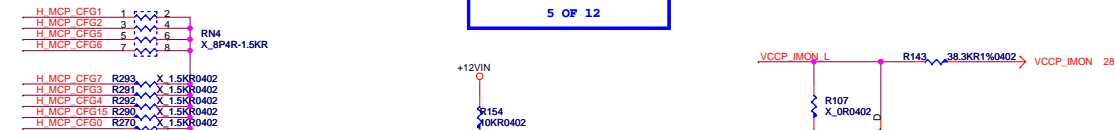
PCI Express x1 Slot * 2



DELL Voltaire platform schematic

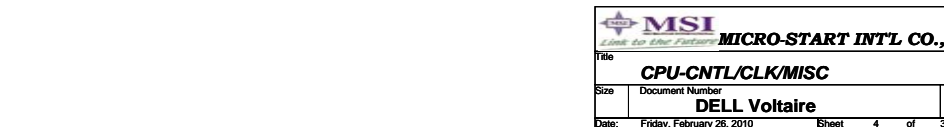
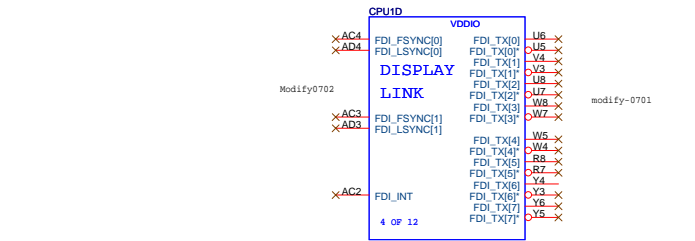
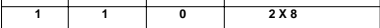


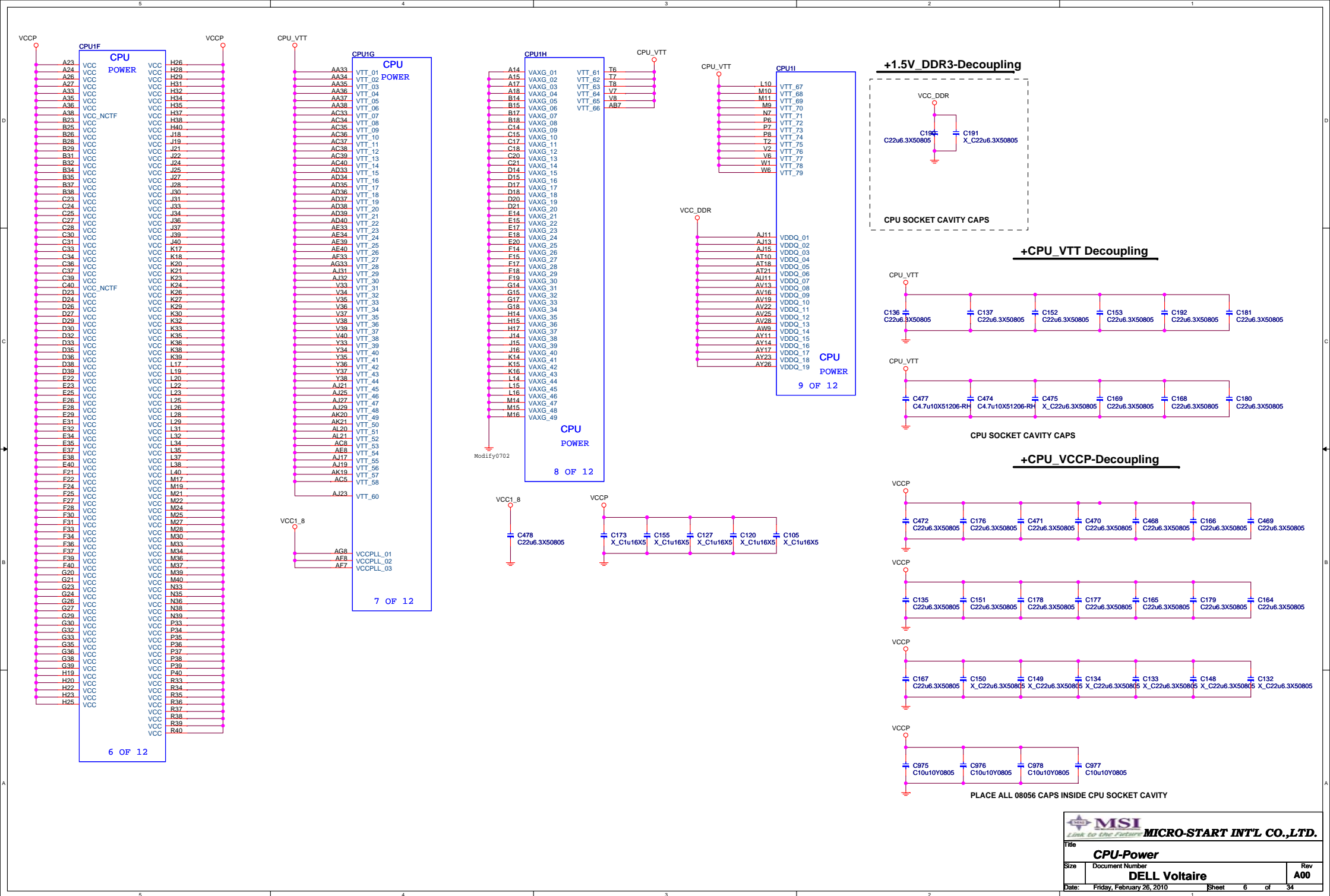


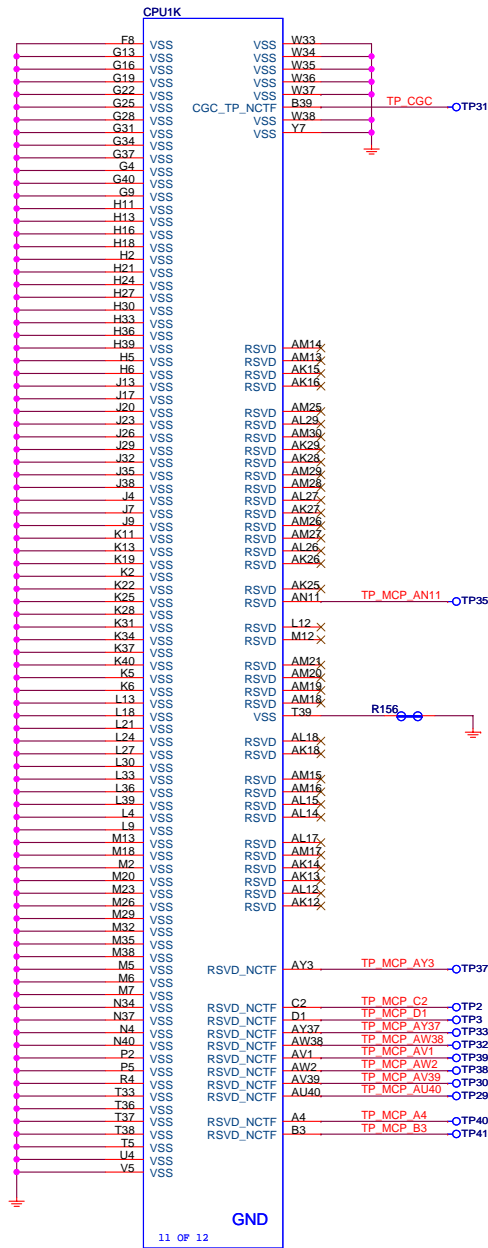
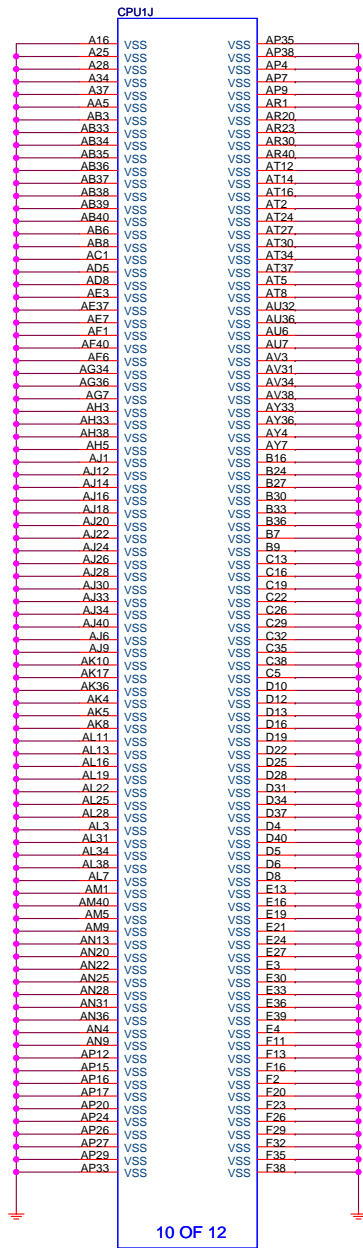


PEG CONFIG TABLE

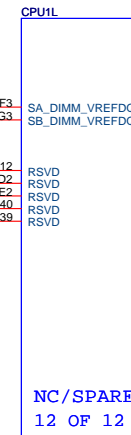
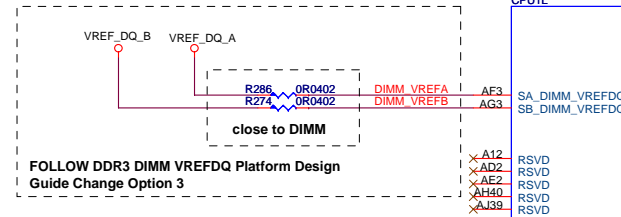
SEL2	SEL1	SEL0	PCIE CONFIG
1	1	1	1 X 16
1	1	0	2 X 8



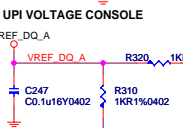
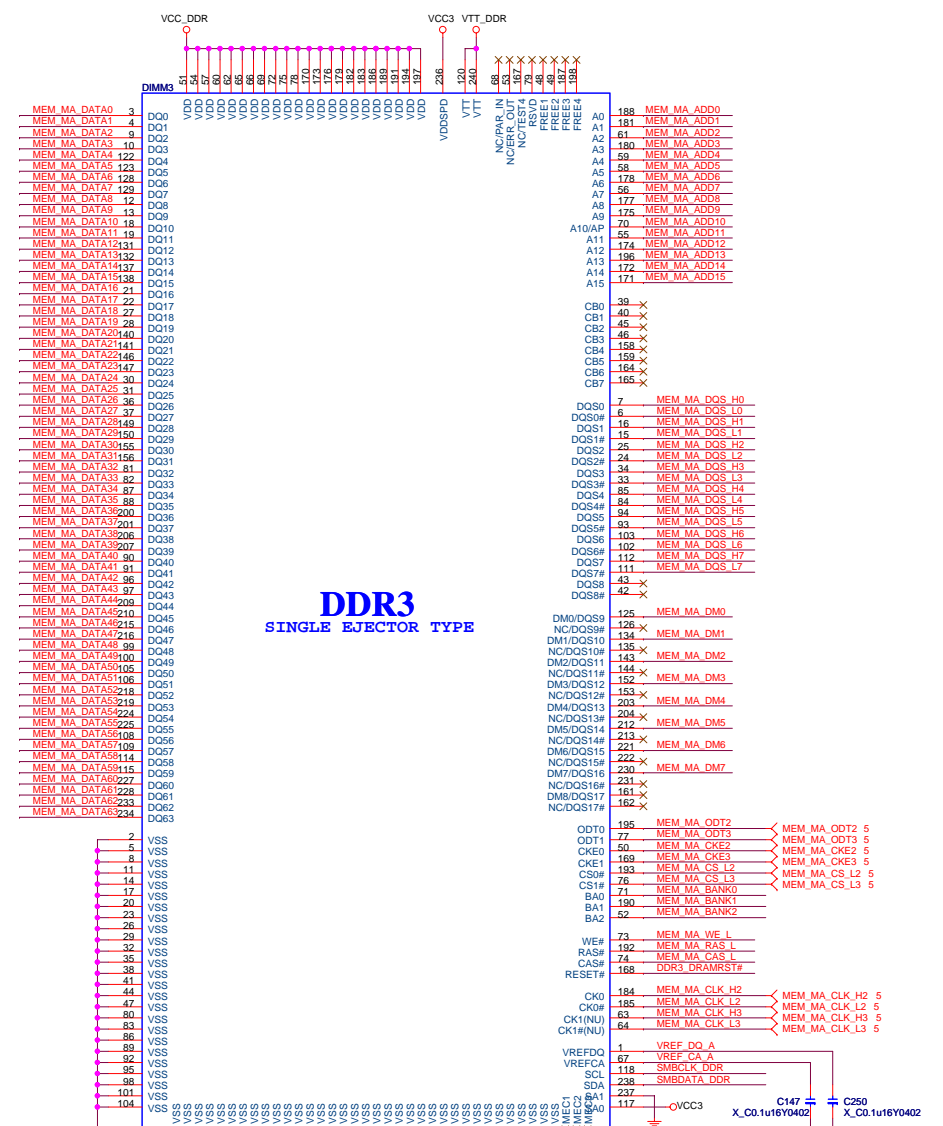




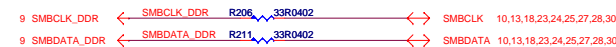
NOTE:R286,R274 STUFFED,JF DDR3 DIMM VREFDQ OPTION 2 UNSTUFFED.



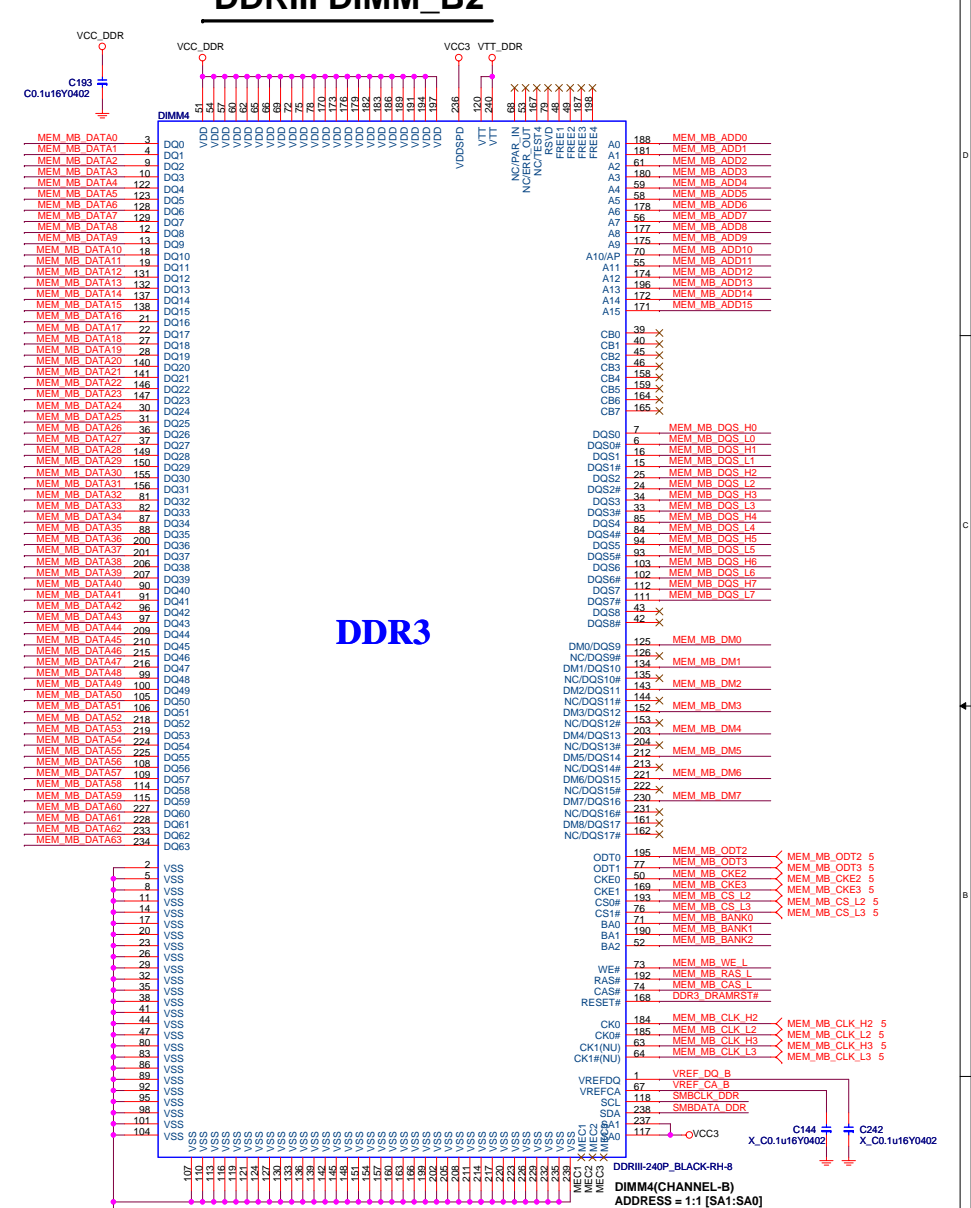
DDRIII DIMM_A2




2.083325V

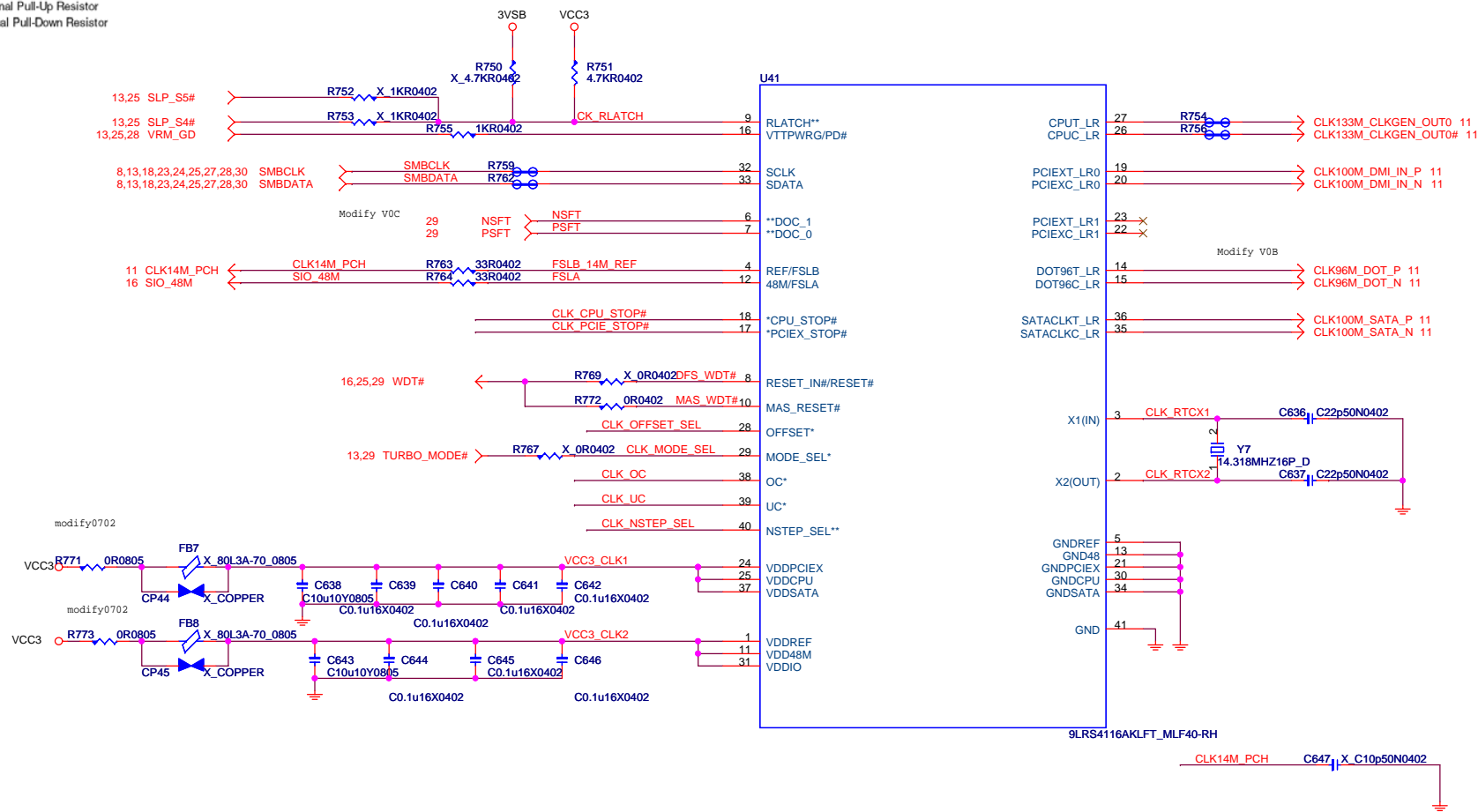


DDRIII DIMM_B2

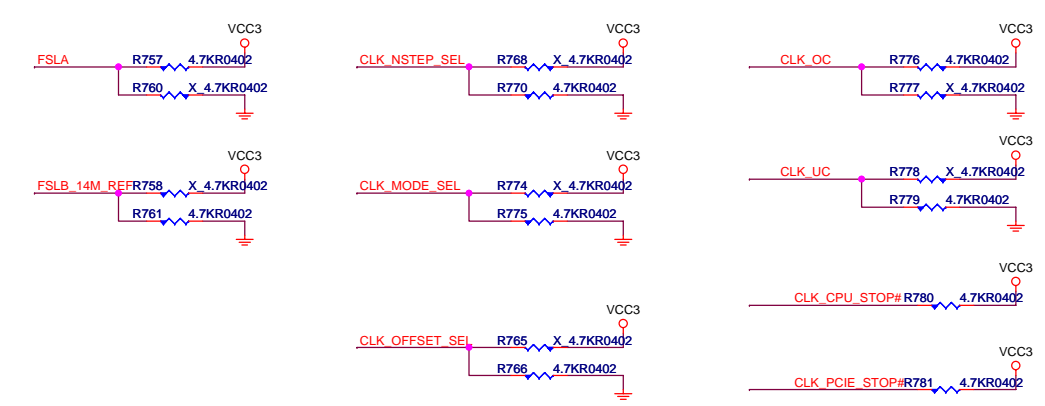


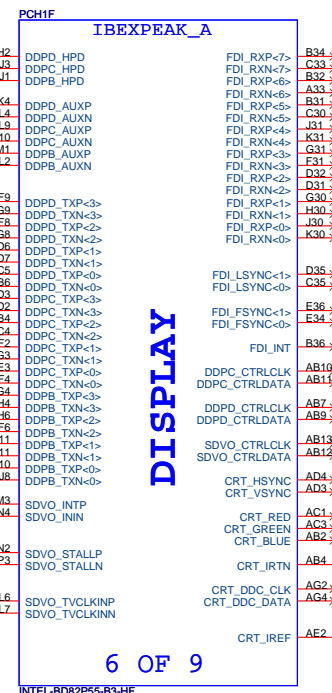
 MSI <i>Link to the Future</i>				MICRO-START INT'L CO.,LTD.			
Title DDR3 Chanel-B DIMM3/4							
Size		Document Number DELL Voltaire				Rev A00	
Date: Friday, February 26, 2010		Sheet 9		of 34			

* Internal Pull-Up Resistor
** Internal Pull-Down Resistor

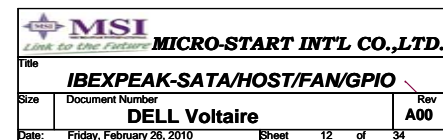


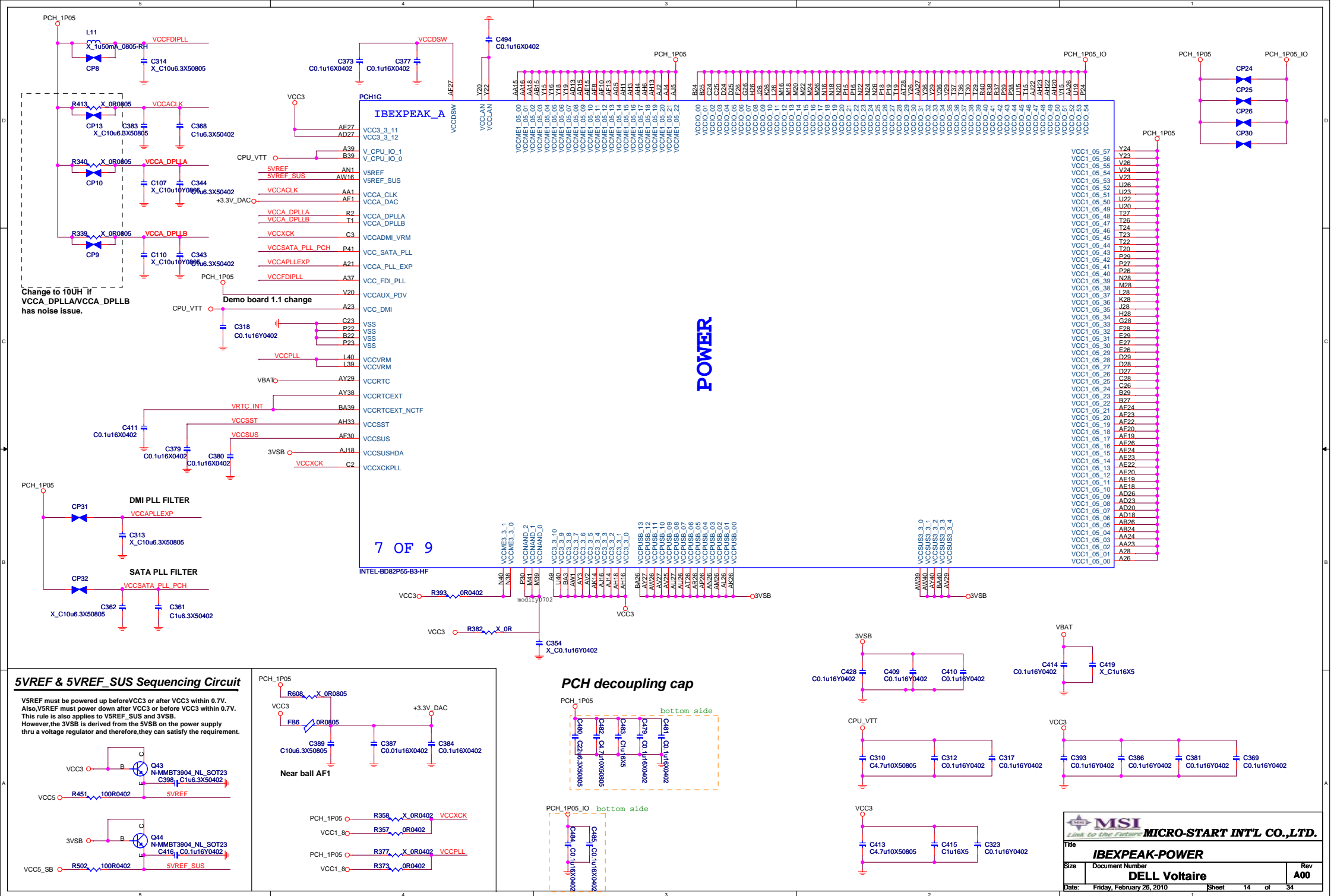
Boot Setup Strapping

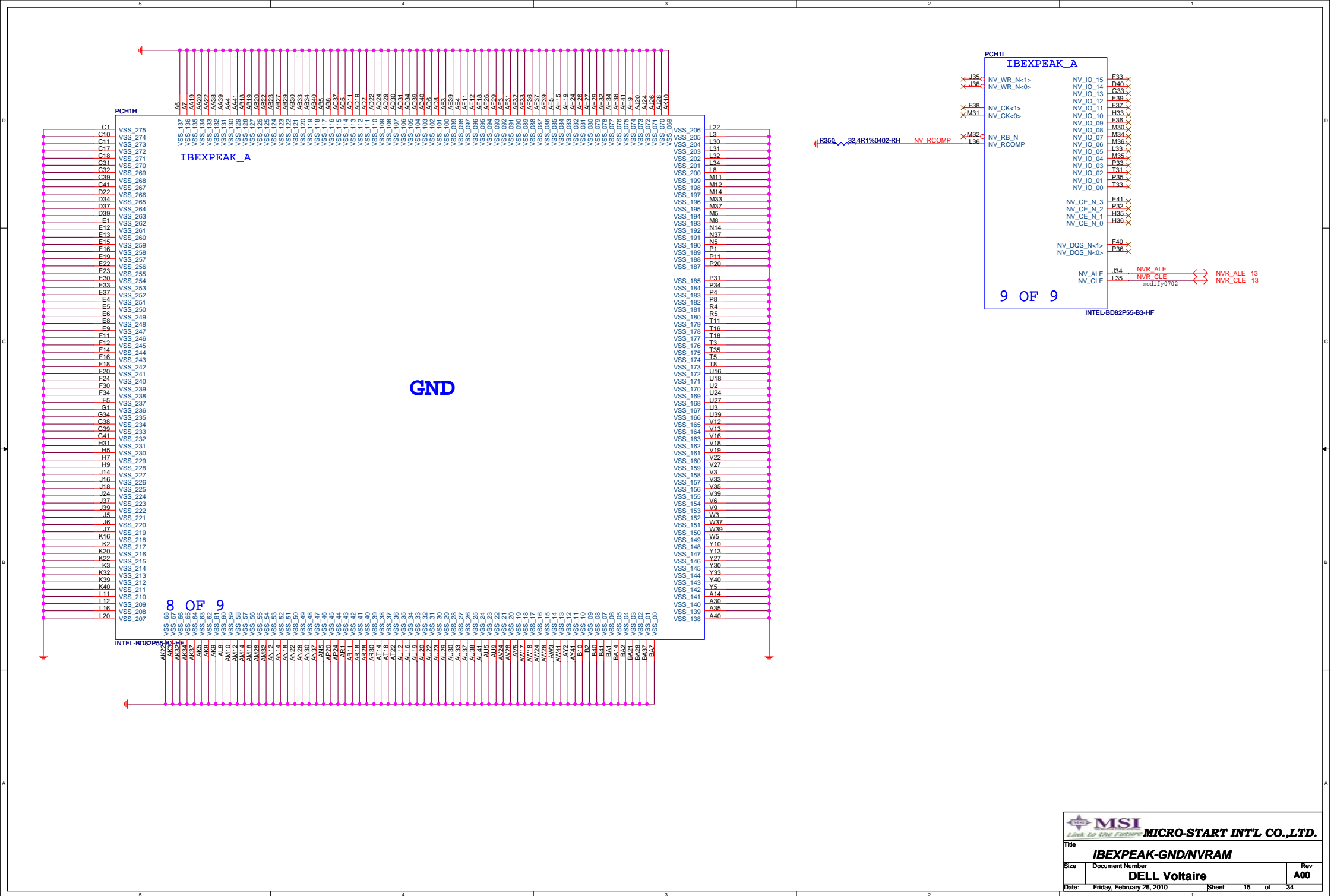




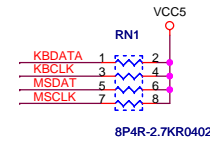
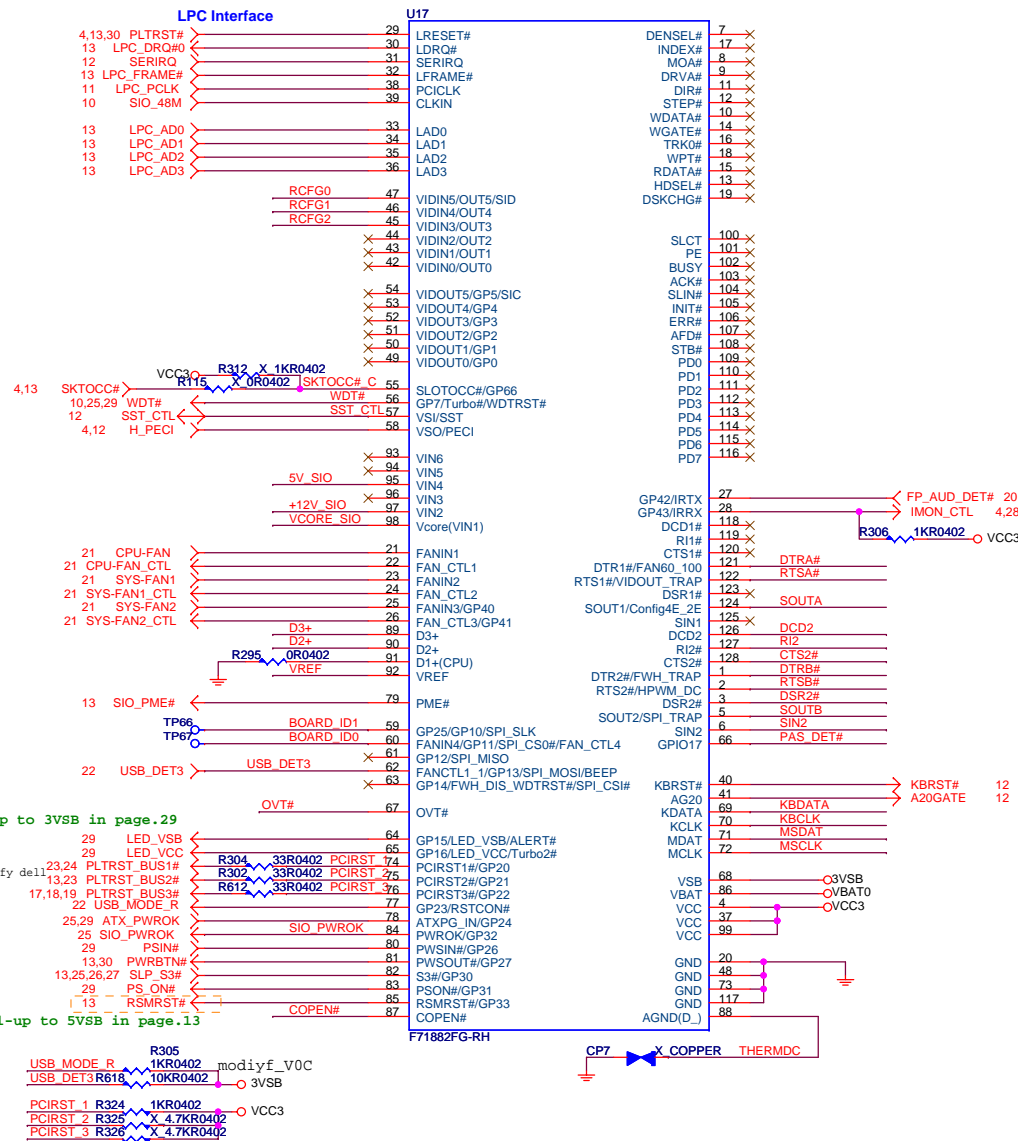
VGA DACSET
RESISTORS CLOSE
TO MCH(500 MILS
TO MCH BALLS)



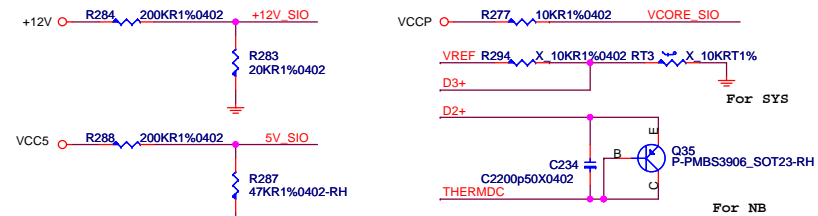




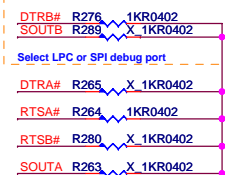
PS2 KEYBOARD & MOUSE CONNECTOR



Voltage and Temperature H/W Monitor Block



Boot Setup Strapping



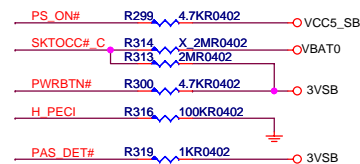
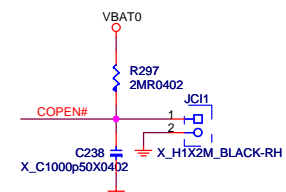
	Don't Stuff	Stuff
RTSB#	PWM FAN	LINEAR FAN
RTSA#	PIN49-54=VID_OUT	PIN49-54=GPIO
SOUTA#	PIN42-47=VIDIN	PIN42-47=VIDIN/OUT
SOUTB	4E / 4F	2E / 2F
DTRA#	SPI DISABLE	SPI ENABLE
	FAN Start Duty 60%	FAN Start Duty 100%

PASSWORD DETECTION

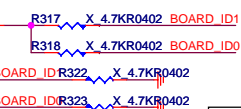


PAS_DET#
1-2 Short: Clear password
1-2 Open: -

Chassis Intrusion



Board ID modify_V0B



	TD0	TD1	Super I/O - F71882FG			
X00	0	0	Size	Document Number		Rev
X01	0	1	DELL Voltaire			A00
	1	0				
	1	1	Date:	Friday, February 26, 2010	Sheet	16 of 34

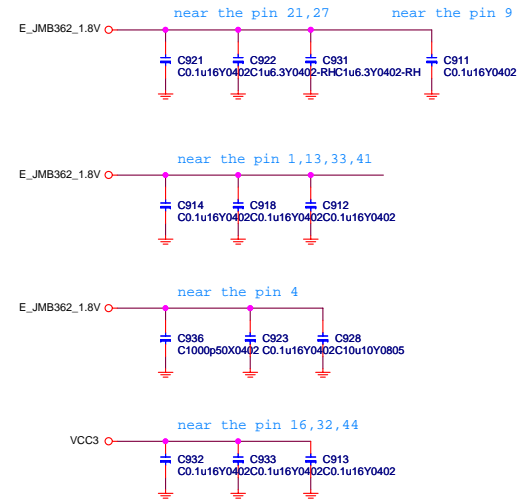
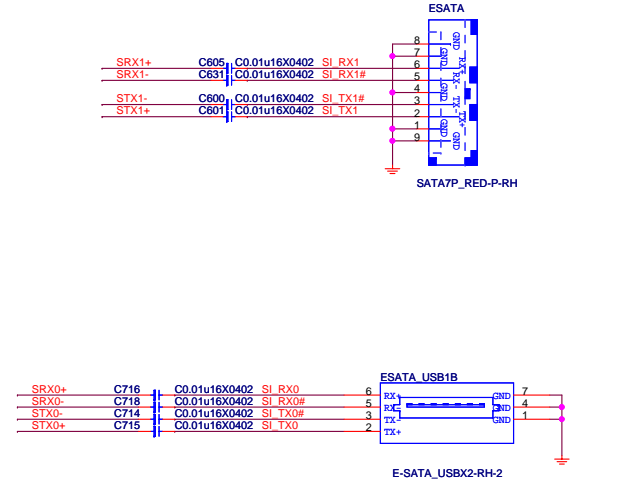
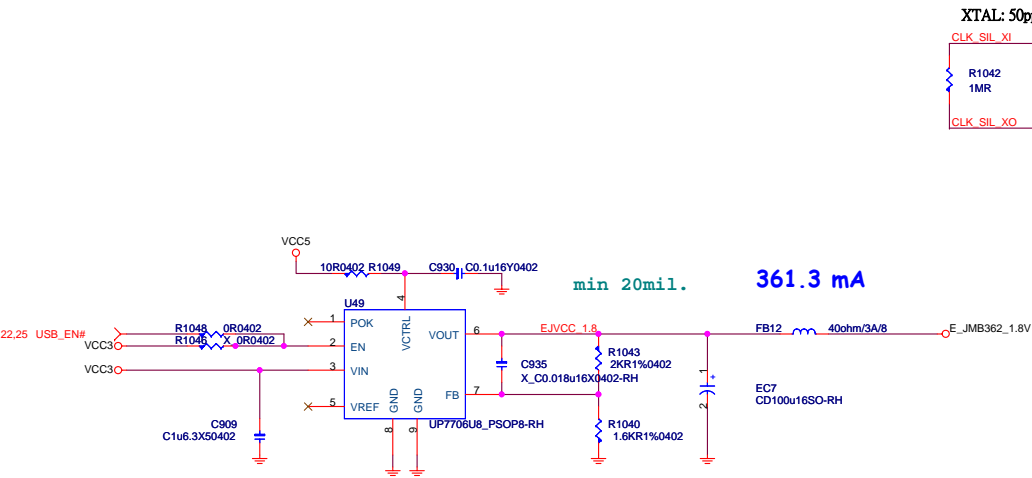
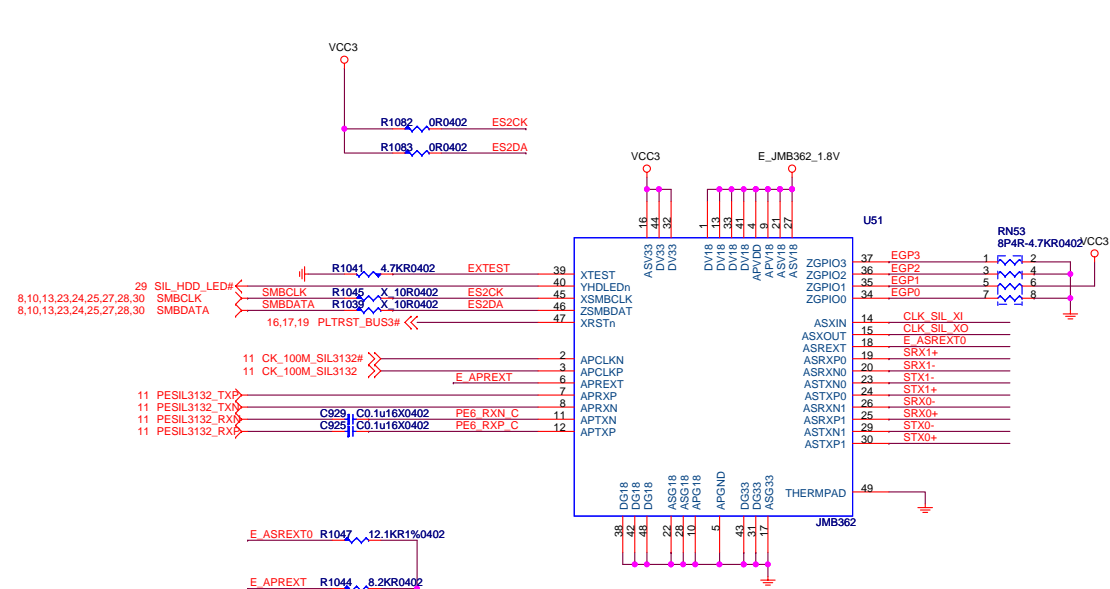
MICRO-START INT'L CO.,LTD.

Super I/O - F71882FG

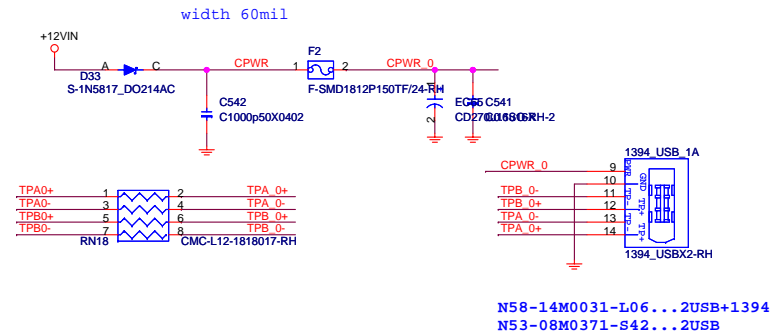
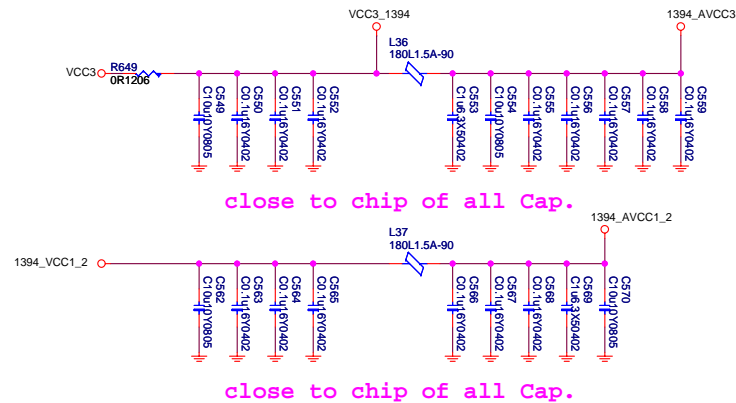
DELL Voltaire

A00

JMB362 - ESATA X2



POWER



width 60mil

D08-0200230-R02

12V

D34 S-1N5817_D0214AC

CPWR

F3 F-SMD1812P150T023-RH

CPWR 1

C560 C1000p50X0402

ECM CD2700

1394

TPA1+ 1 2 TPA1-

TPB1+ 3 4 TPB1-

TPA1+ 5 6 TPA1-

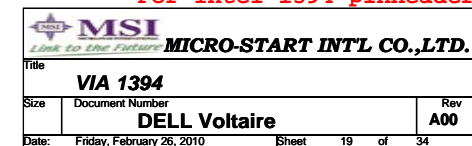
CPWR1 7 8 CPWR 1

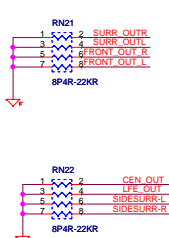
10

RN19 CMC-L12-1818017-RH

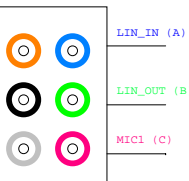
BHX25[9]_GREEN-RH

For Intel 1394 pinheader

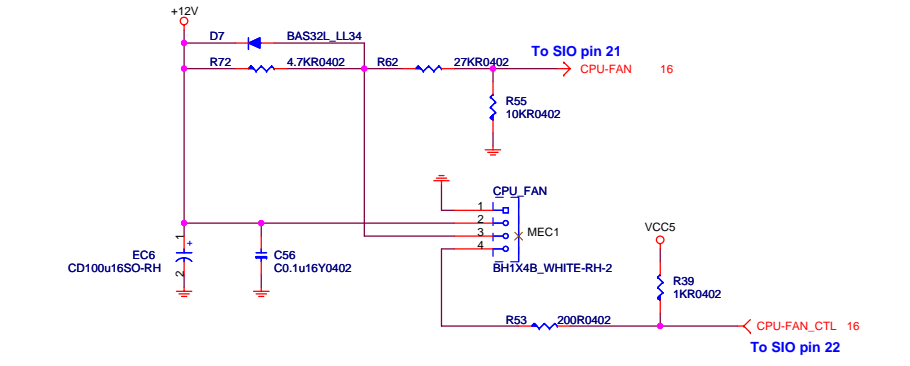




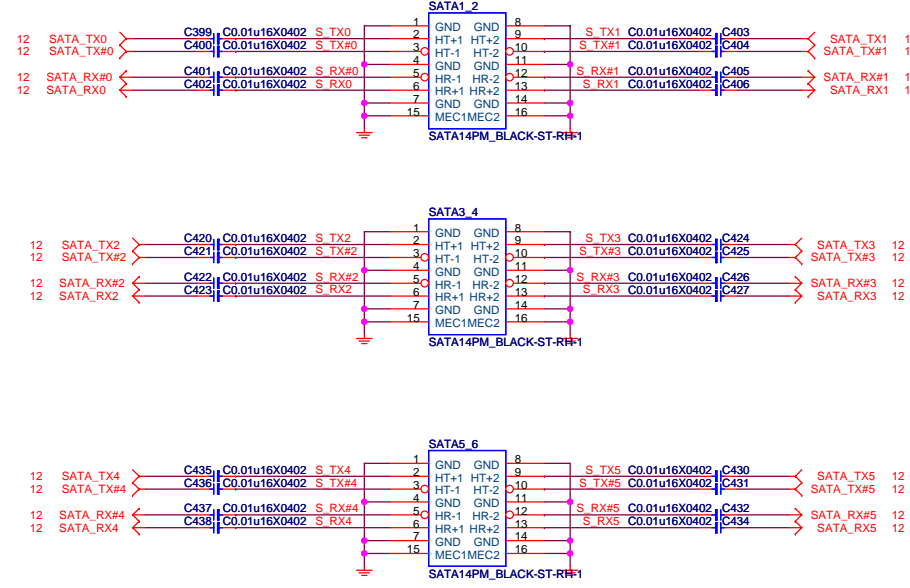
The schematic diagram illustrates the audio input section of the X_S-BAT54A_SOT23 module. It features two microphone inputs, MIC2-VREF0 and MIC2-VREF1, which are connected to pins D37 and D38 respectively. The circuit includes several resistors (R697, R698, R699, R691, R692) and capacitors (C506, C508, C509, C607, C610, C609) for signal conditioning and filtering. The output of the circuit is connected to the FRONT_AUDIO pin and FP_AUD_DET# 16. The diagram also shows a 75R0402 resistor and a 1K0R0402 resistor connected to the microphone inputs.



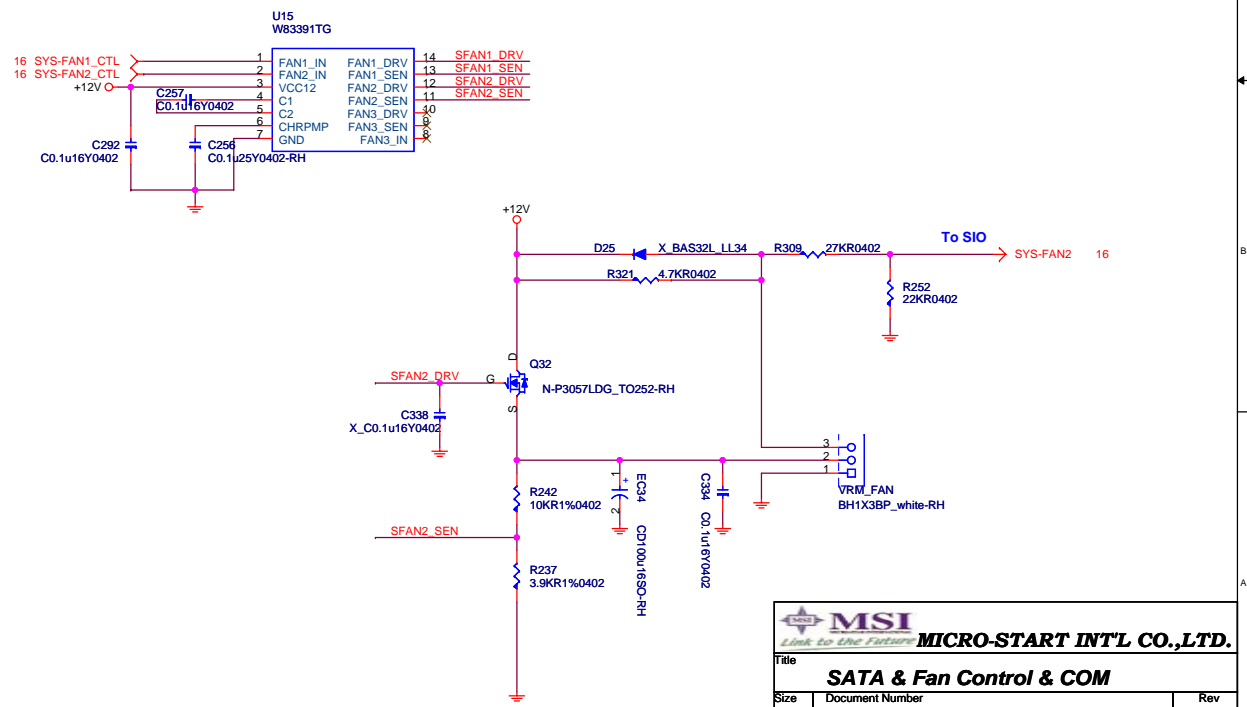
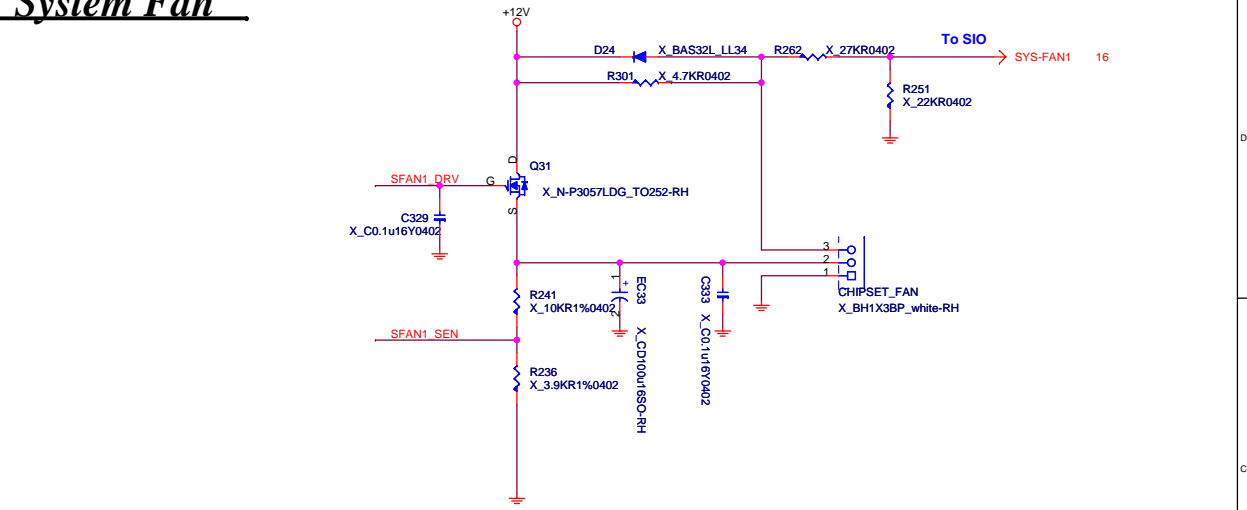
CPU Fan



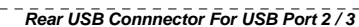
SATA Connector



System Fan



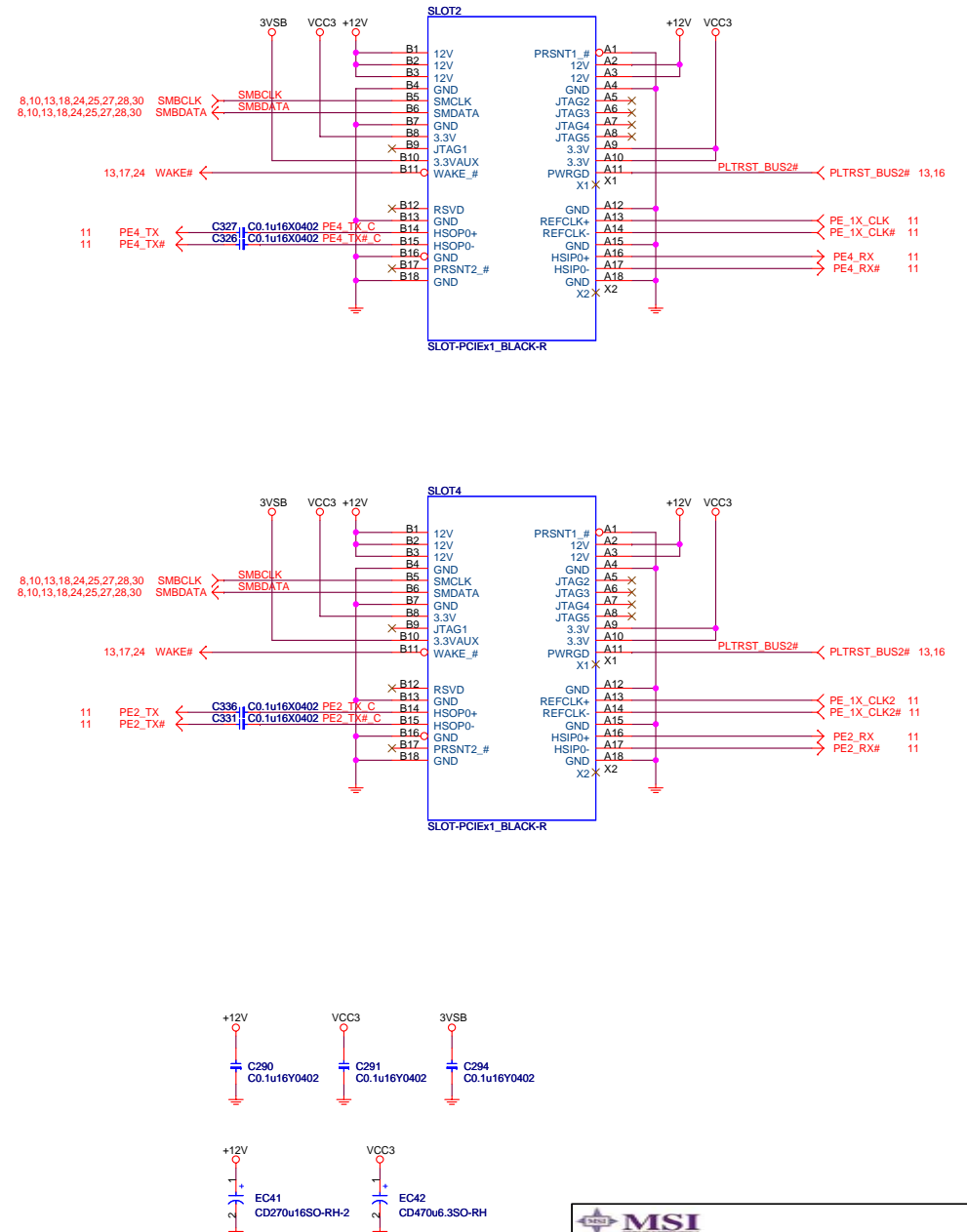
Rear USB Connector For USB Port 0 / 1



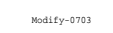
PCI EXPRESS X16 SLOT



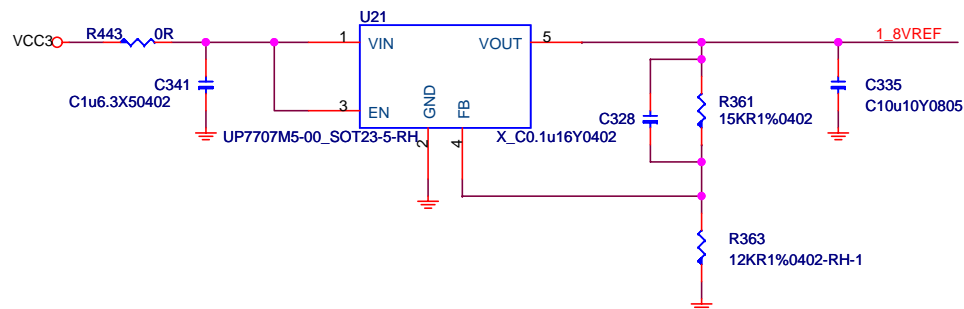
PCI EXPRESS x1-PORT



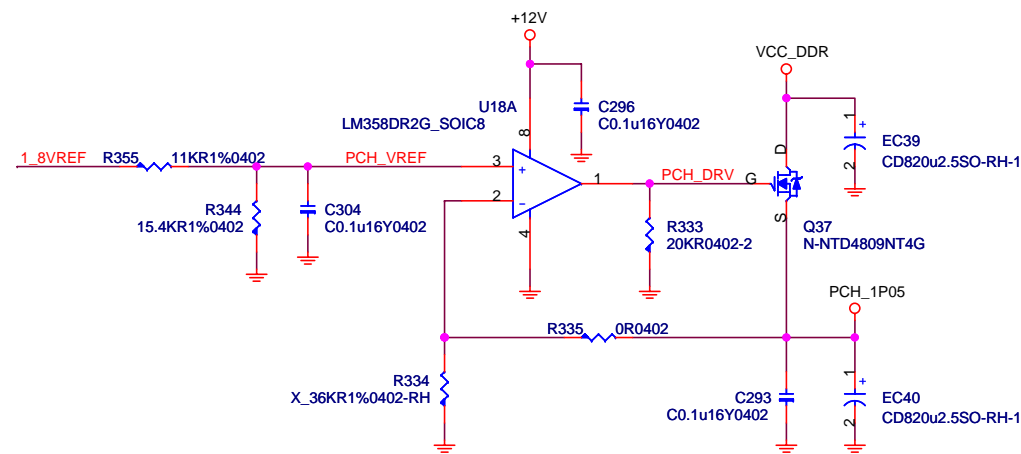
(Share with PCI_E x16 Slots)



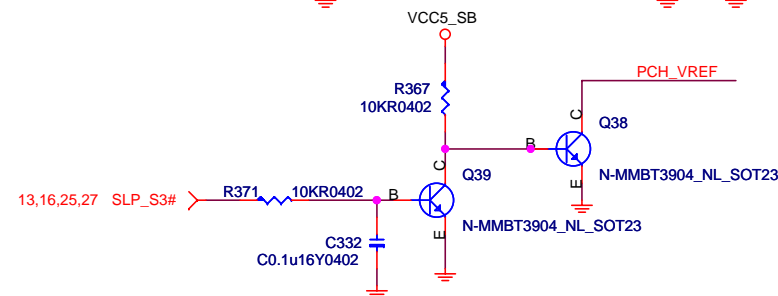
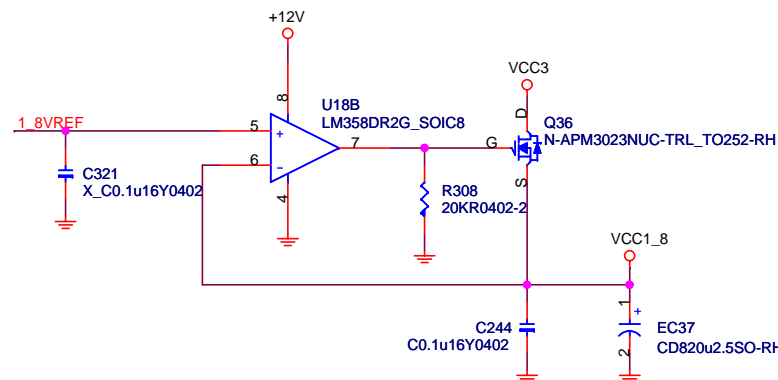
1.8V Reference Power




PCH Core Power 1.05V - 6.5A

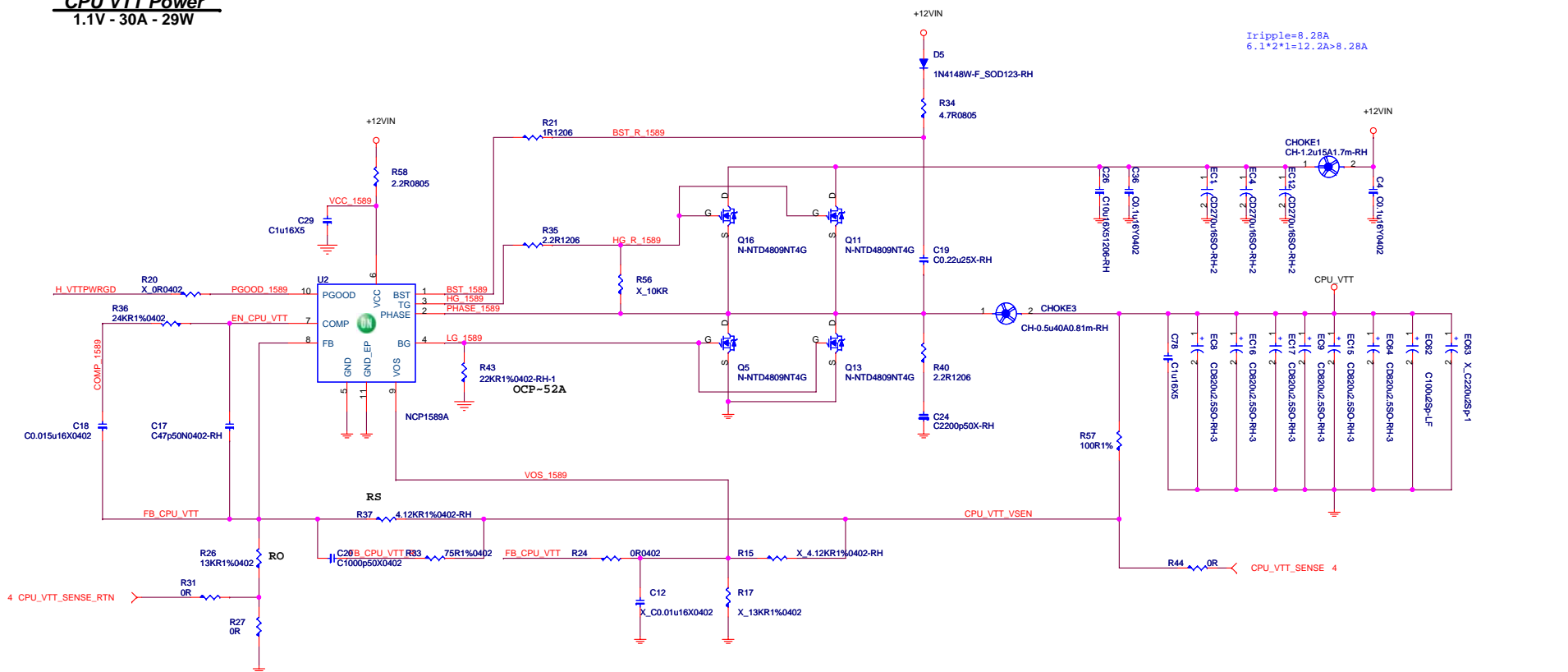


1.8V VSFR 1.5A

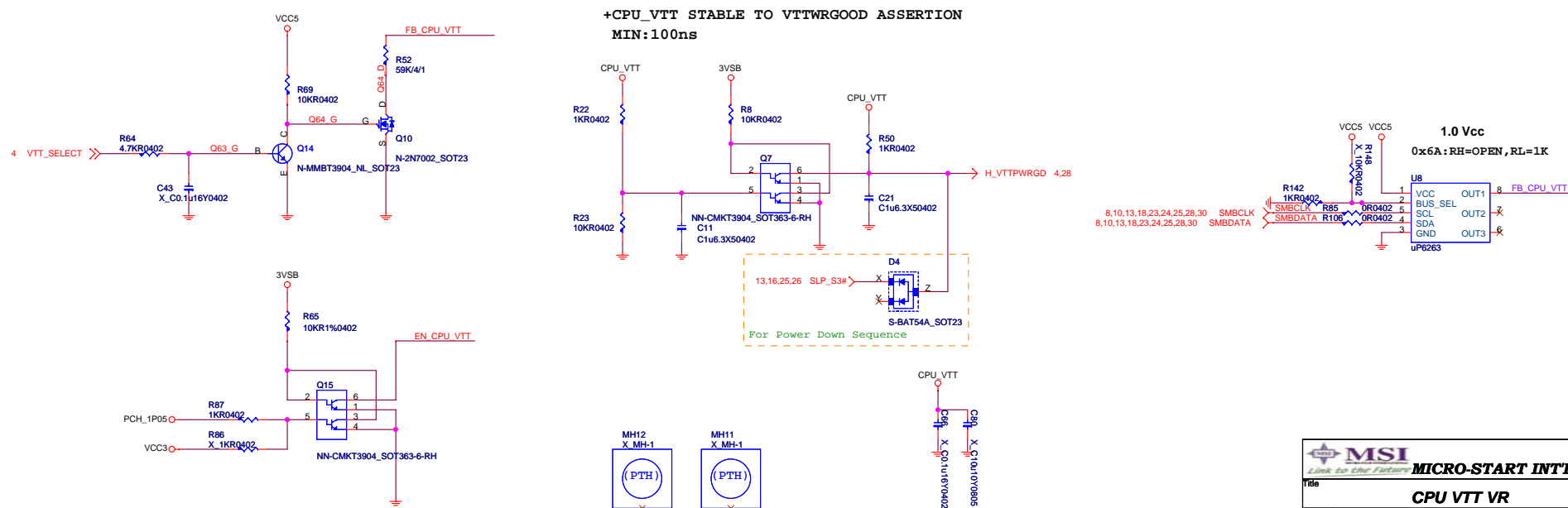


 MSI <i>Link to the Future</i>		MICRO-START INT'L CO.,LTD.	
Title			
PCH Core Power			
Size	Document Number		Rev
	DELL Voltaire		A00
Date:	Friday, February 26, 2010	Sheet	26 of 34

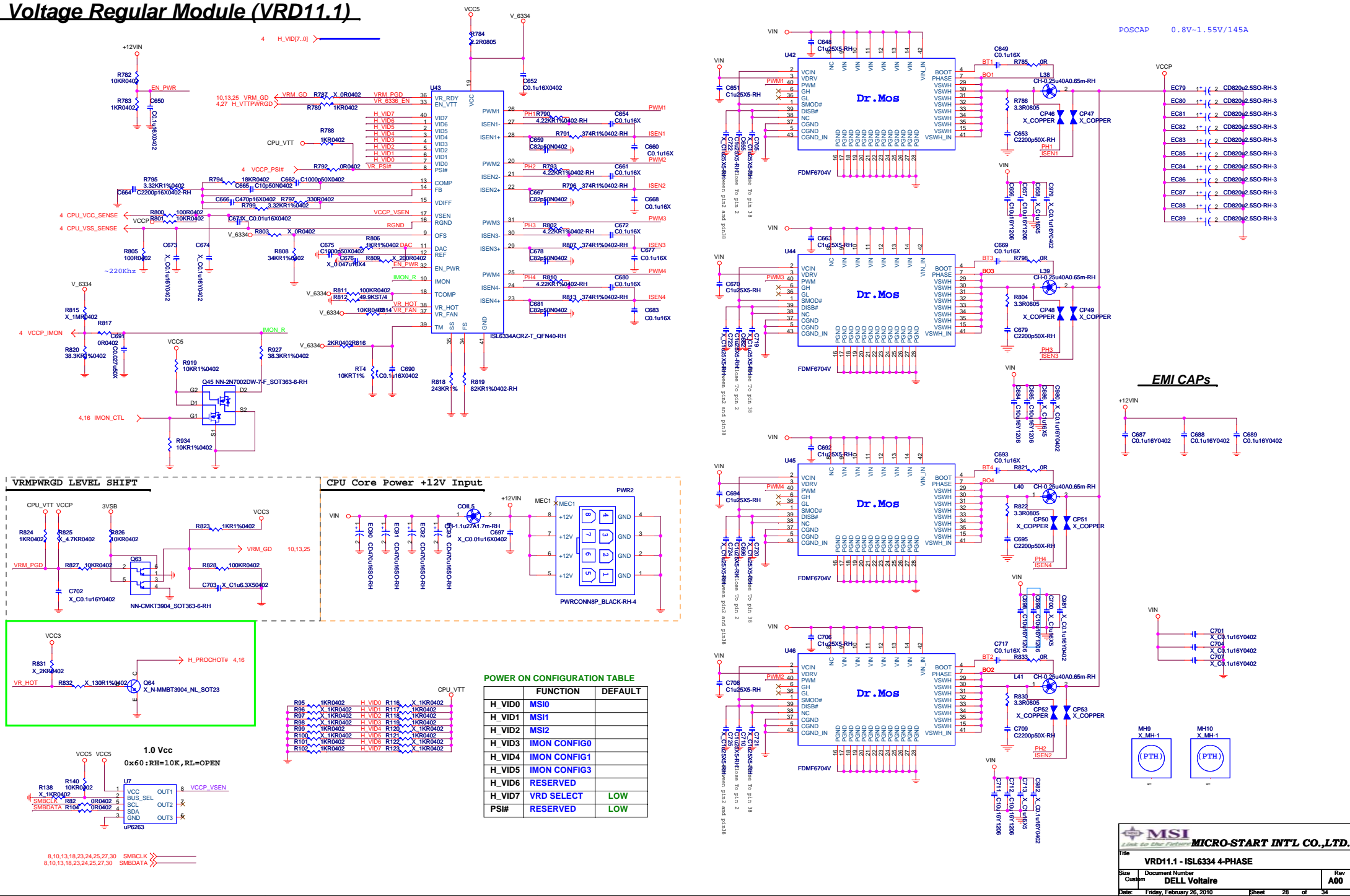
CPU VTT Power
1.1V - 30A - 29W



```
+CPU_VTT STABLE TO VTTWRGOOD ASSERTION
MIN:100ns
```

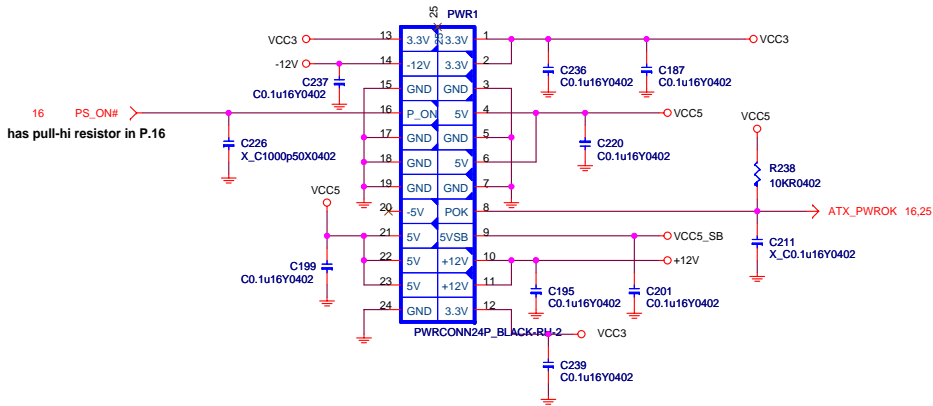


Voltage Regular Module (VRD11.1)

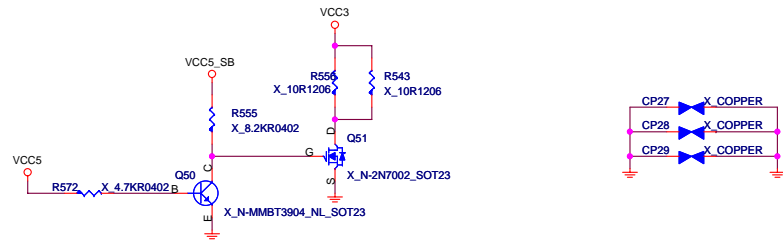


ATX Power Connector / Front Panel / LED

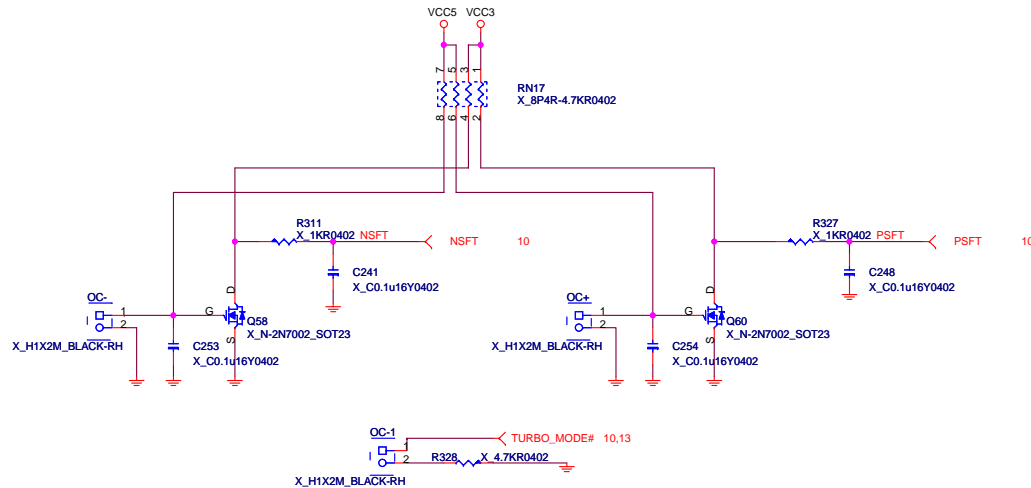
24 Pin ATX Power Connector



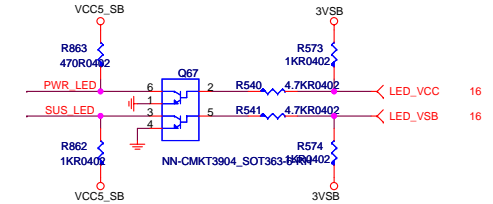
Dummy Load



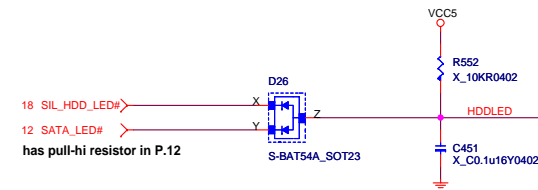
OC Button



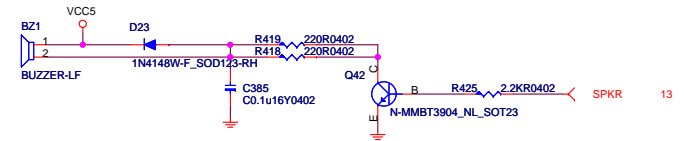
Power LED



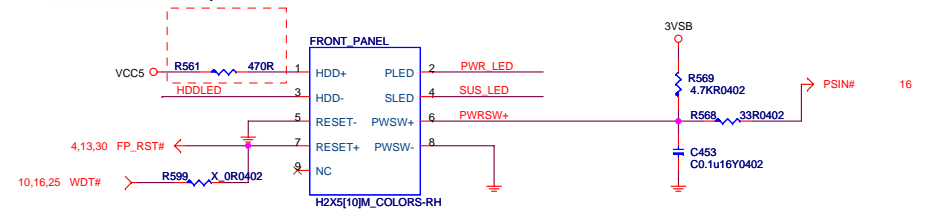
HDD LED

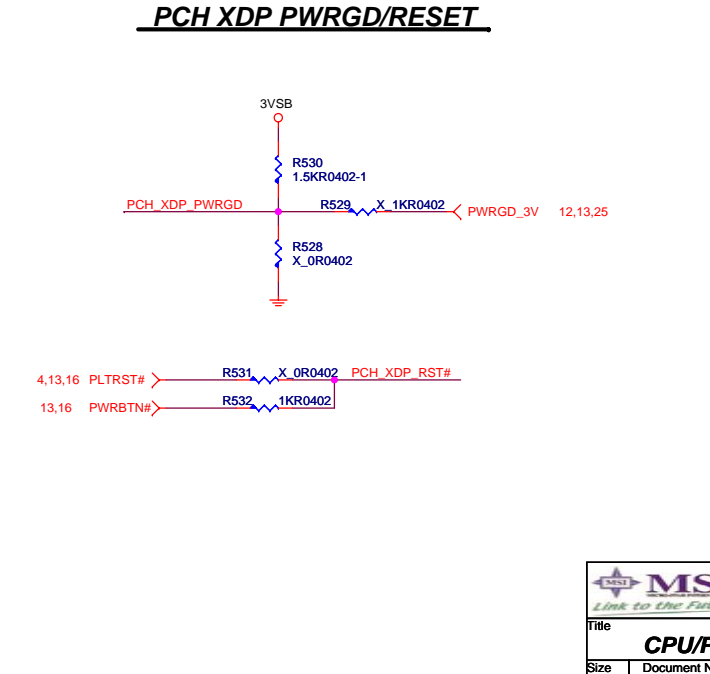
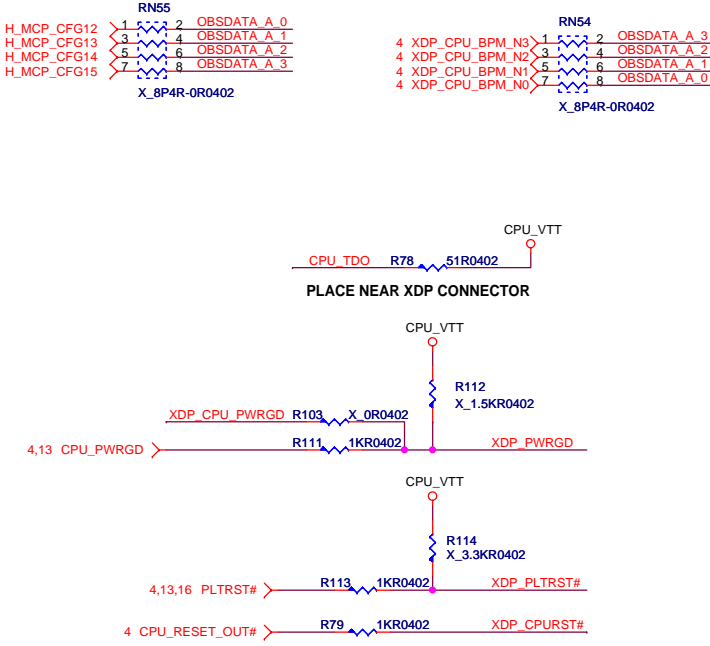


Buzzer Circuit

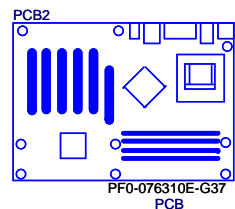


Front Panel

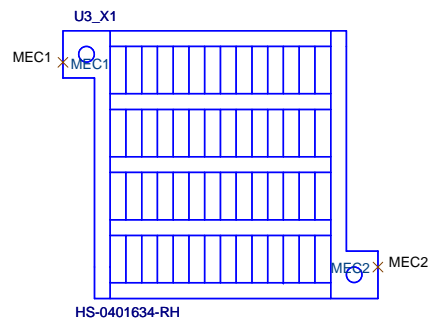




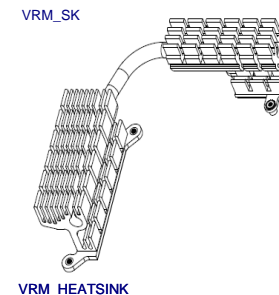
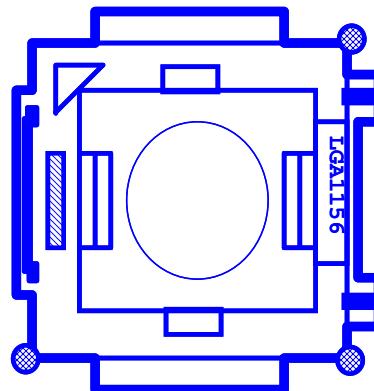
Manual Parts



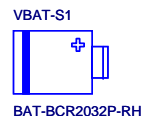
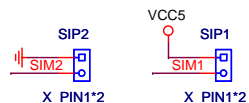
PF0-076310E-T53



XU1_X1
CPU SOCKET

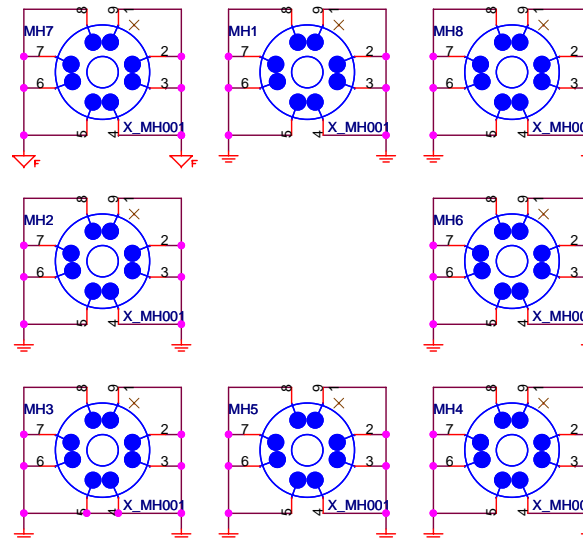


Simulation



PCB Mounting Holes

Mounting Holes



Optics Orientation Holes

Optical Fiducial Marks-120



