

# IB75B-MHS B75MU3B REV 6.0

## CPU:

Intel Sandy/Ivy Bridge processors in LGA1155 Package 95W

## System Chipset:

Panther Point B75

## Main Memory:

Dual Channel/DDR-III\*2(Max 16GB) 1066/1333  
DDR3-1600 /1333 /1066

## Onboard Device:

Super I/O:IT8728  
LAN:Realtek 8111F  
HD Codec:ALC662VD 3 jacks

## Power solution:

CPU Voltage Regulators:2phase by ISL6363  
AXG voltage Regulators:1phase by ISL6363  
VTT voltage Regulators:1Phase by uP6109  
DDR voltage Regulators:1Phase by uP6109

## Expansion Slots:

PCI EXPRESS 16X SLOT\*1 PCI SLOT\*1  
PCI EXPRESS 1X SLOT\*1

## REAR IO:


PS/2 KB/MS  
DVI Port  
VGA  
2 layer USB3.0 Ports  
2 layer USB2.0 + Gb RJ-45 Ports  
Audio Jacks

## Front I/O:

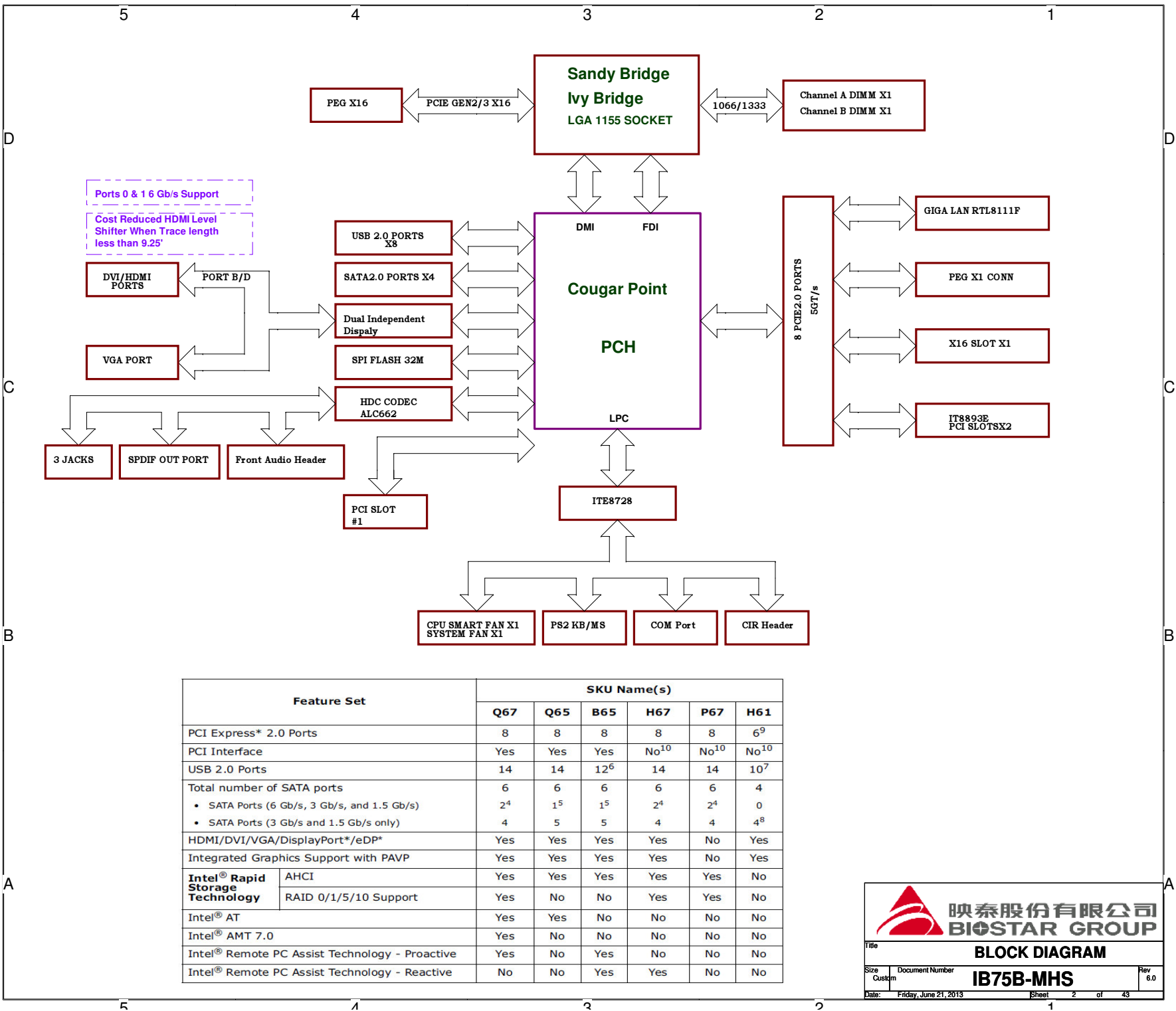
SATA2 \* 3 SATA3 \* 1  
USB Header \* 2  
USB3.0 Header \* 1  
CPU /System1  
Front Audio Header  
COM1 LPT1

HW Engineer		Date	
HW Leader1		Date	
HW Leader2		Date	

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D

- C

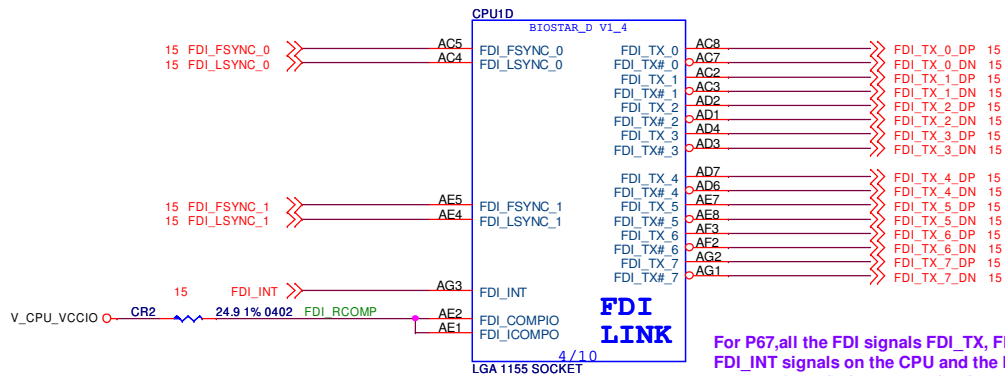
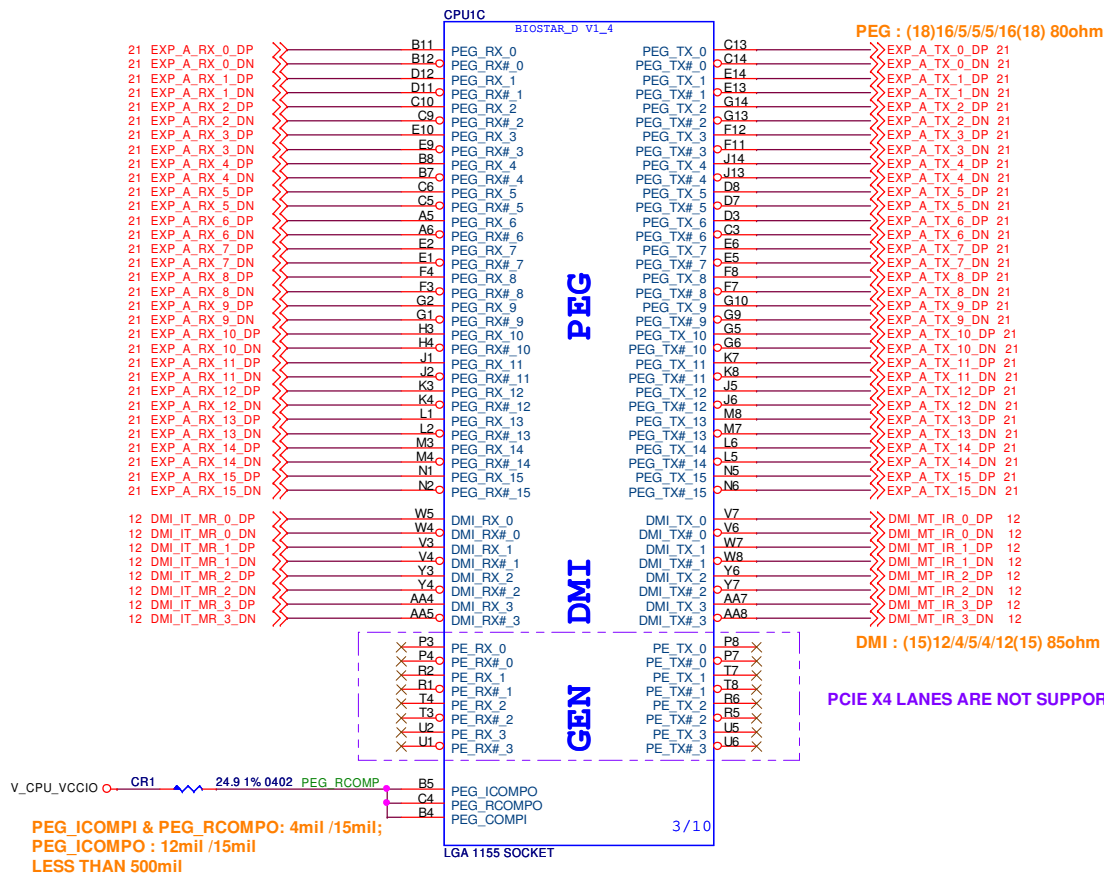
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A


L

4

2

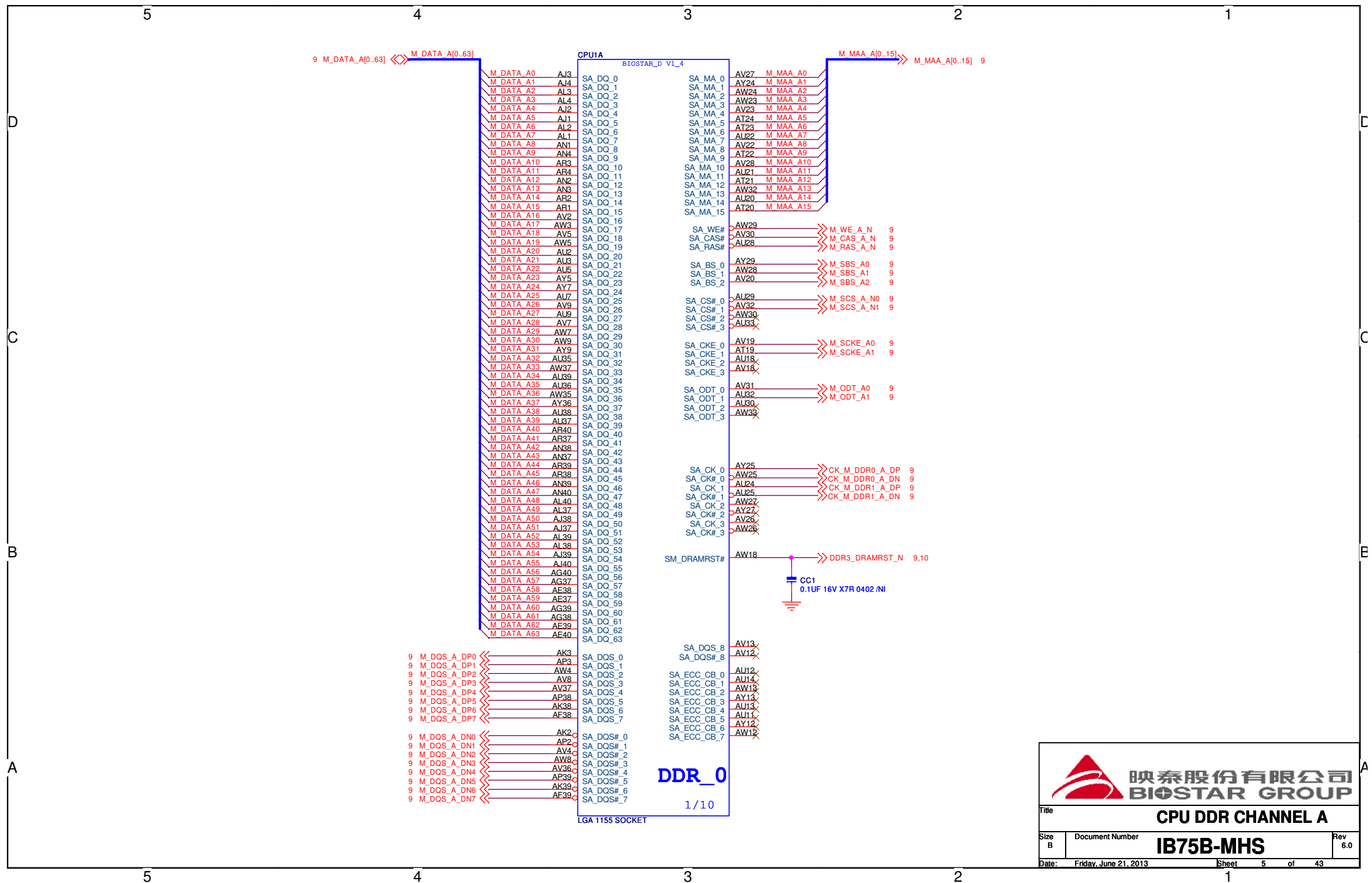


For P67,all the FDI signals FDI\_TX, FDI\_FSYNC, FDI\_LSYNC and FDI\_INT signals on the CPU and the PCH can be left as No connect for solutions not using integrated graphics/DG98



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Title			<b>CPU PCIEX16/DMI/FDI</b>		
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D

C

B

A

D

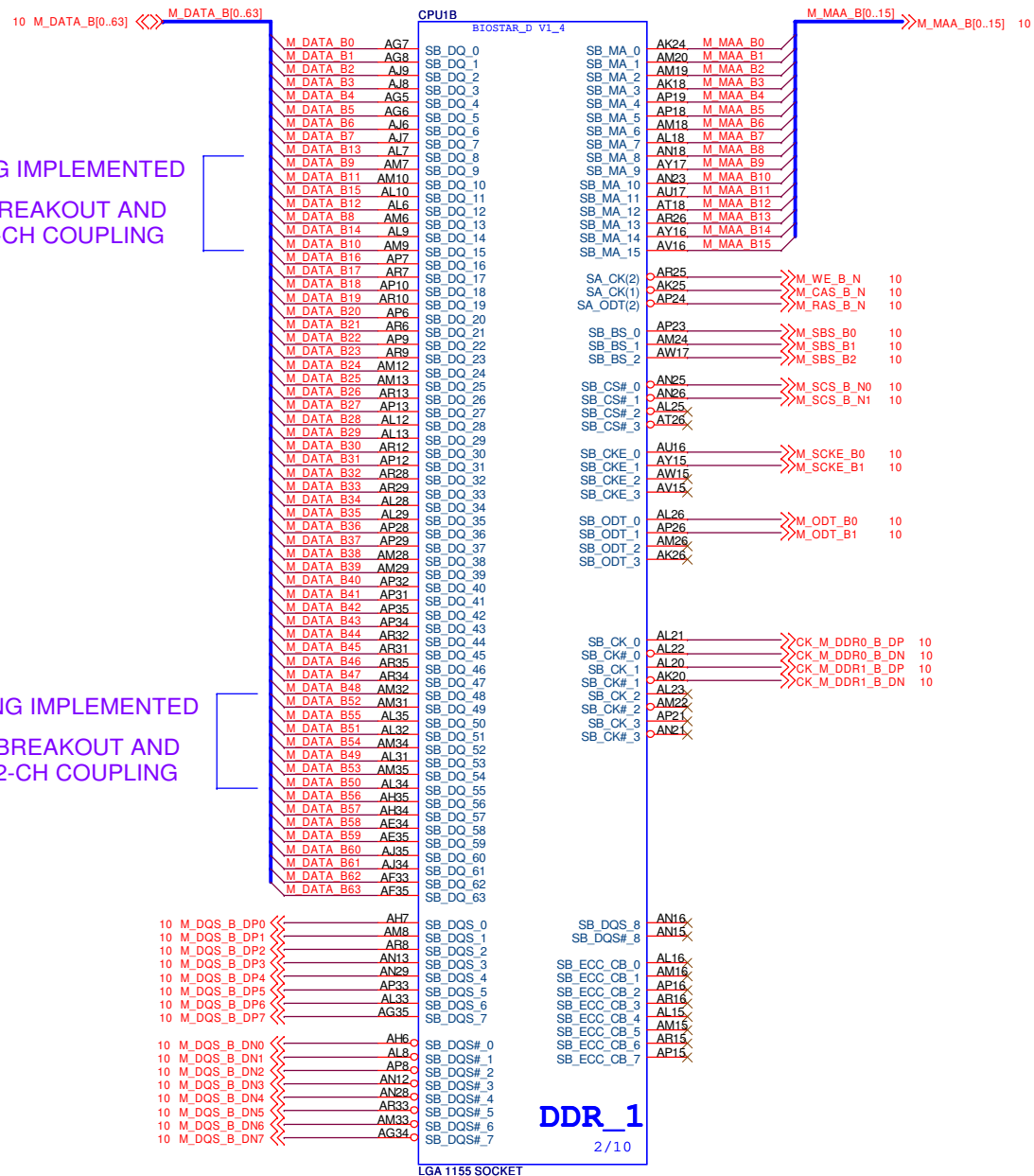
C


B

A

DQ REMAPPING IMPLEMENTED  
TO IMPROVE BREAKOUT AND  
MINIMIZE CH-2-CH COUPLING

DQ REMAPPING IMPLEMENTED  
TO IMPROVE BREAKOUT AND  
MINIMIZE CH-2-CH COUPLING

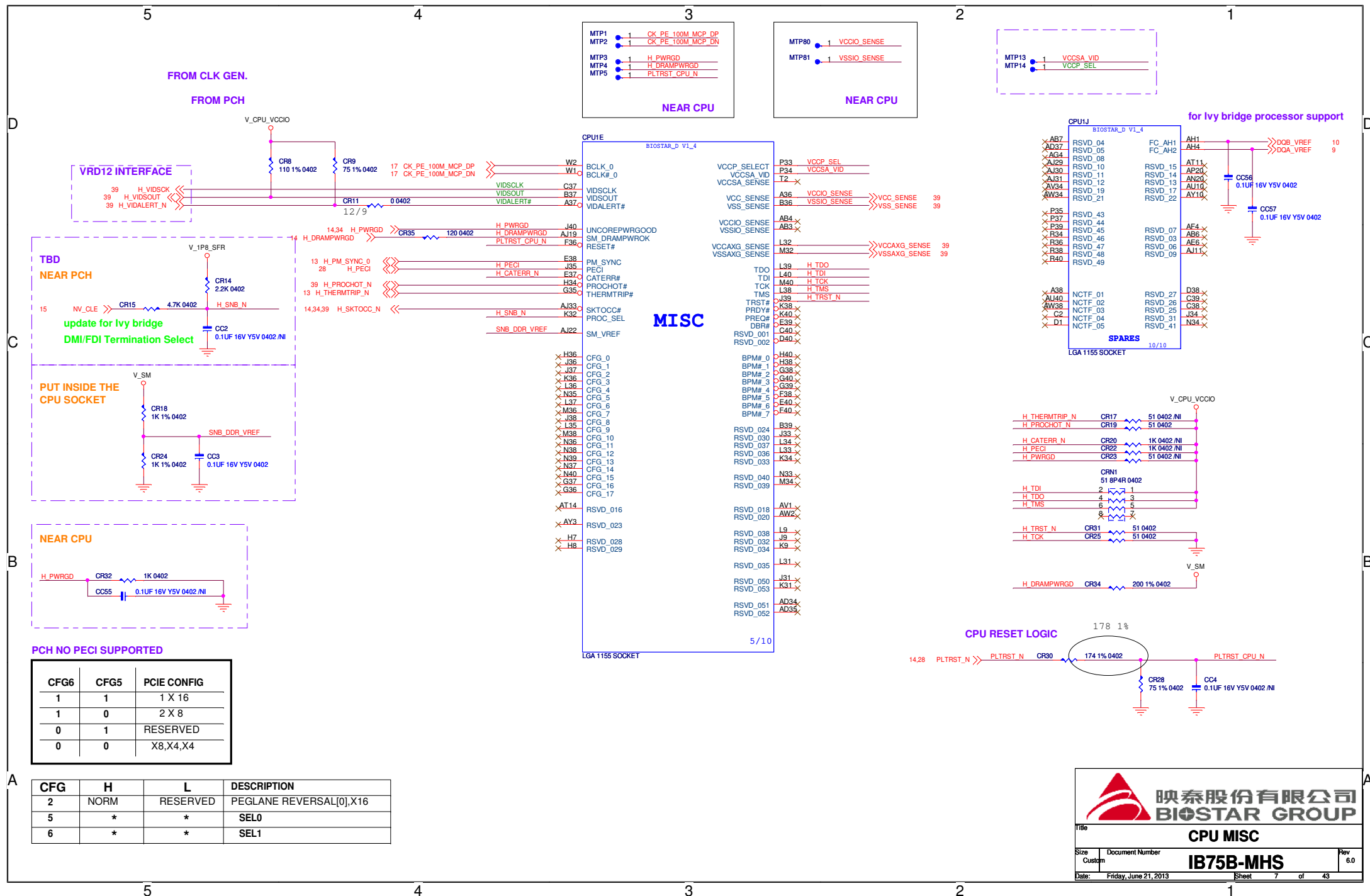


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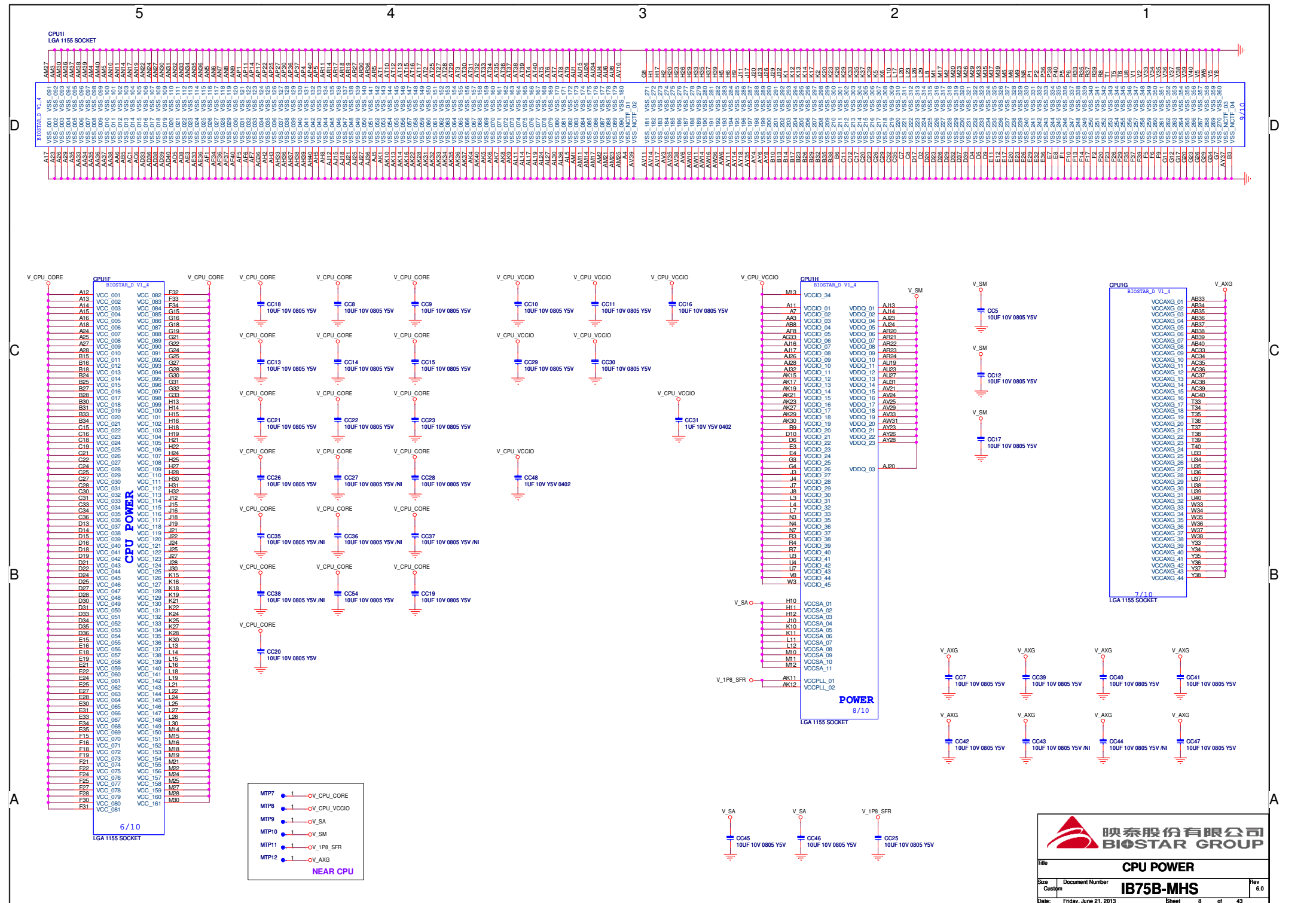
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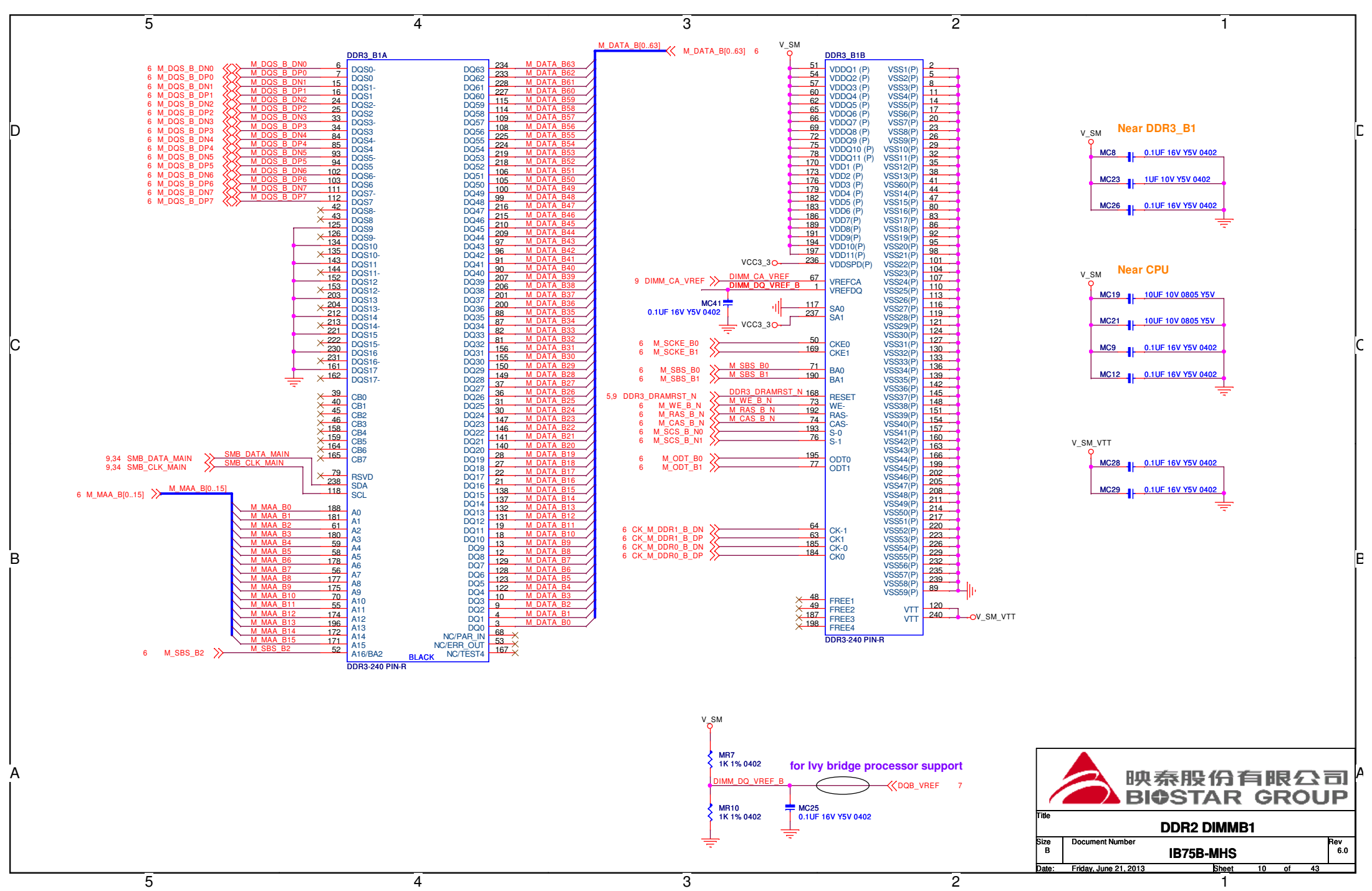


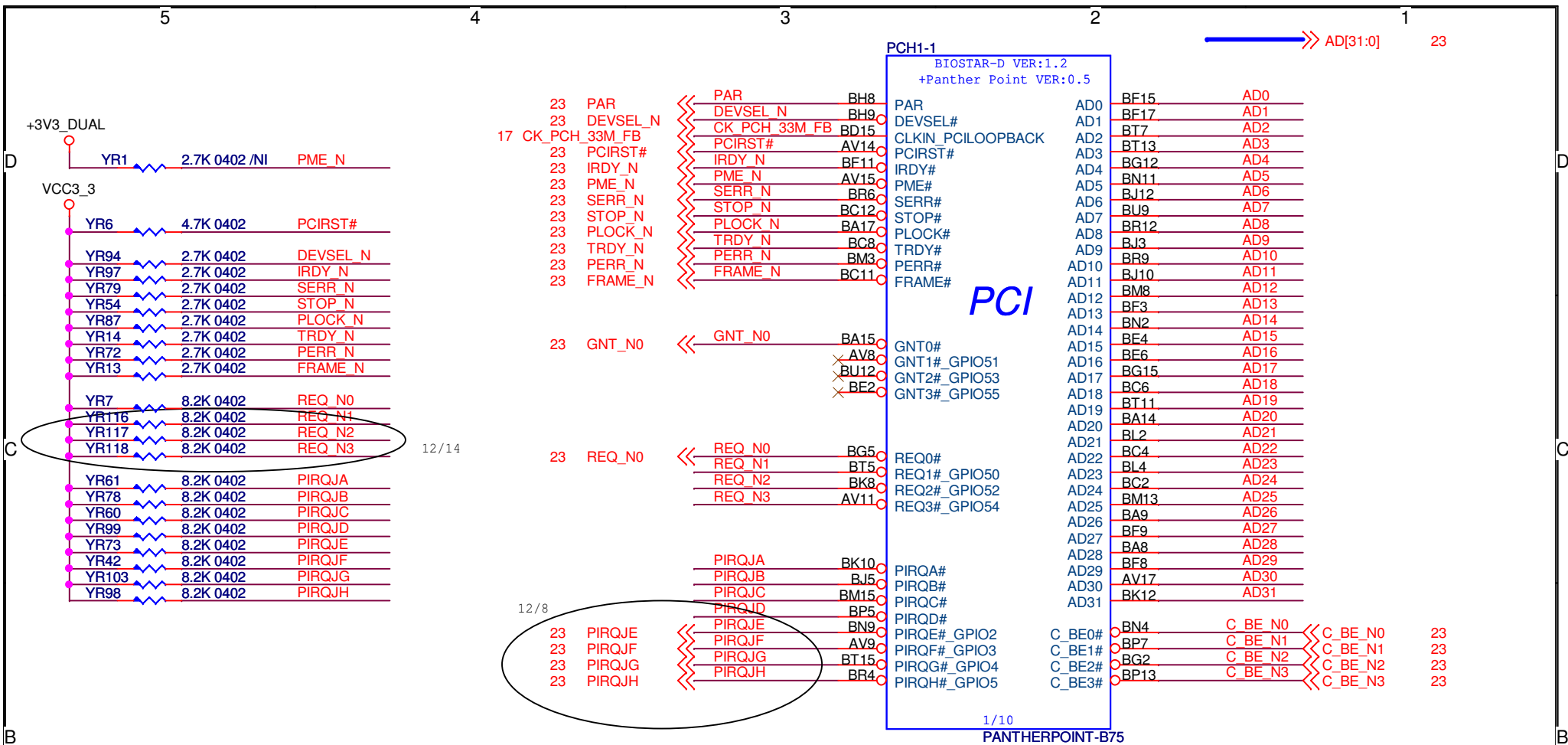










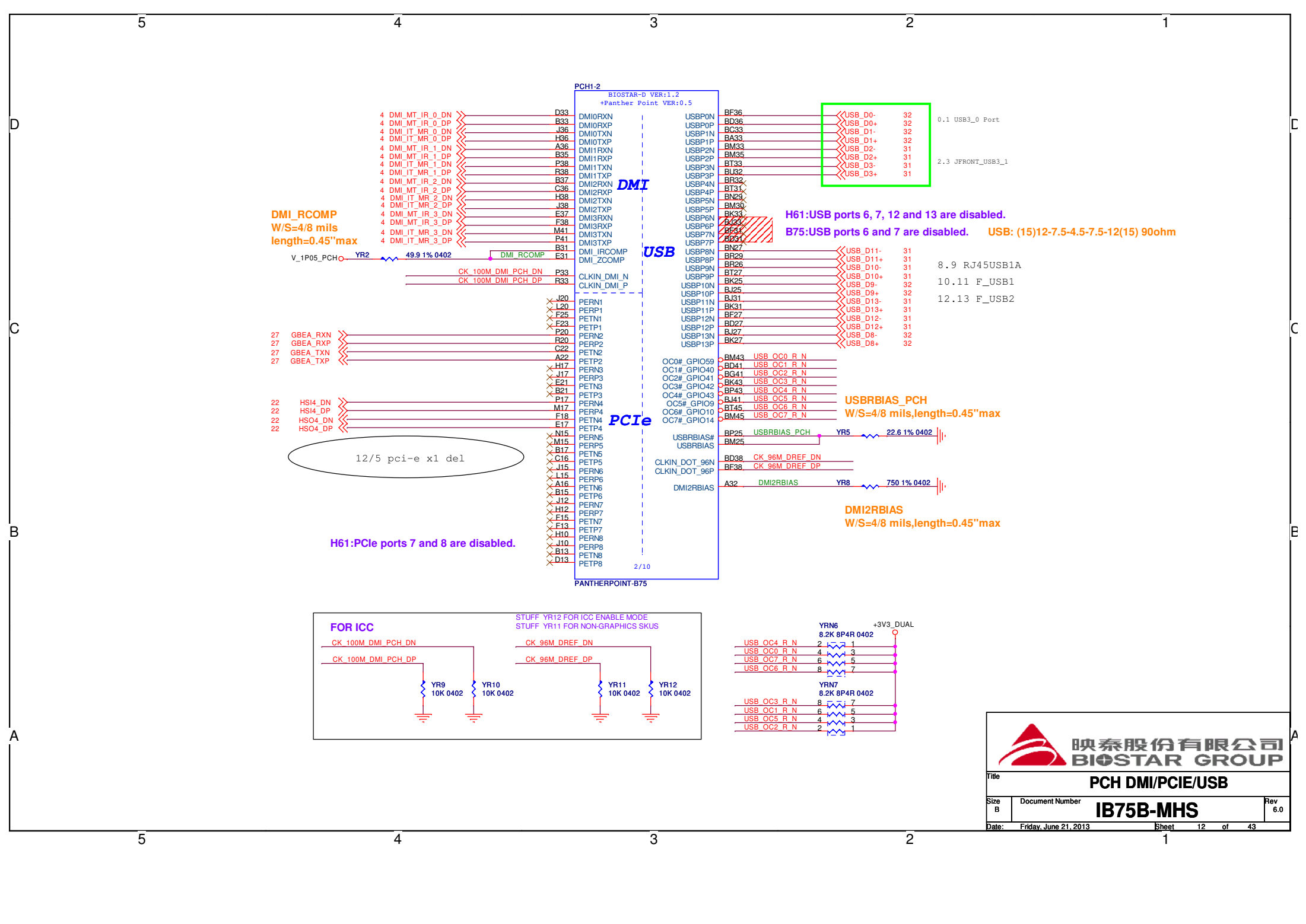


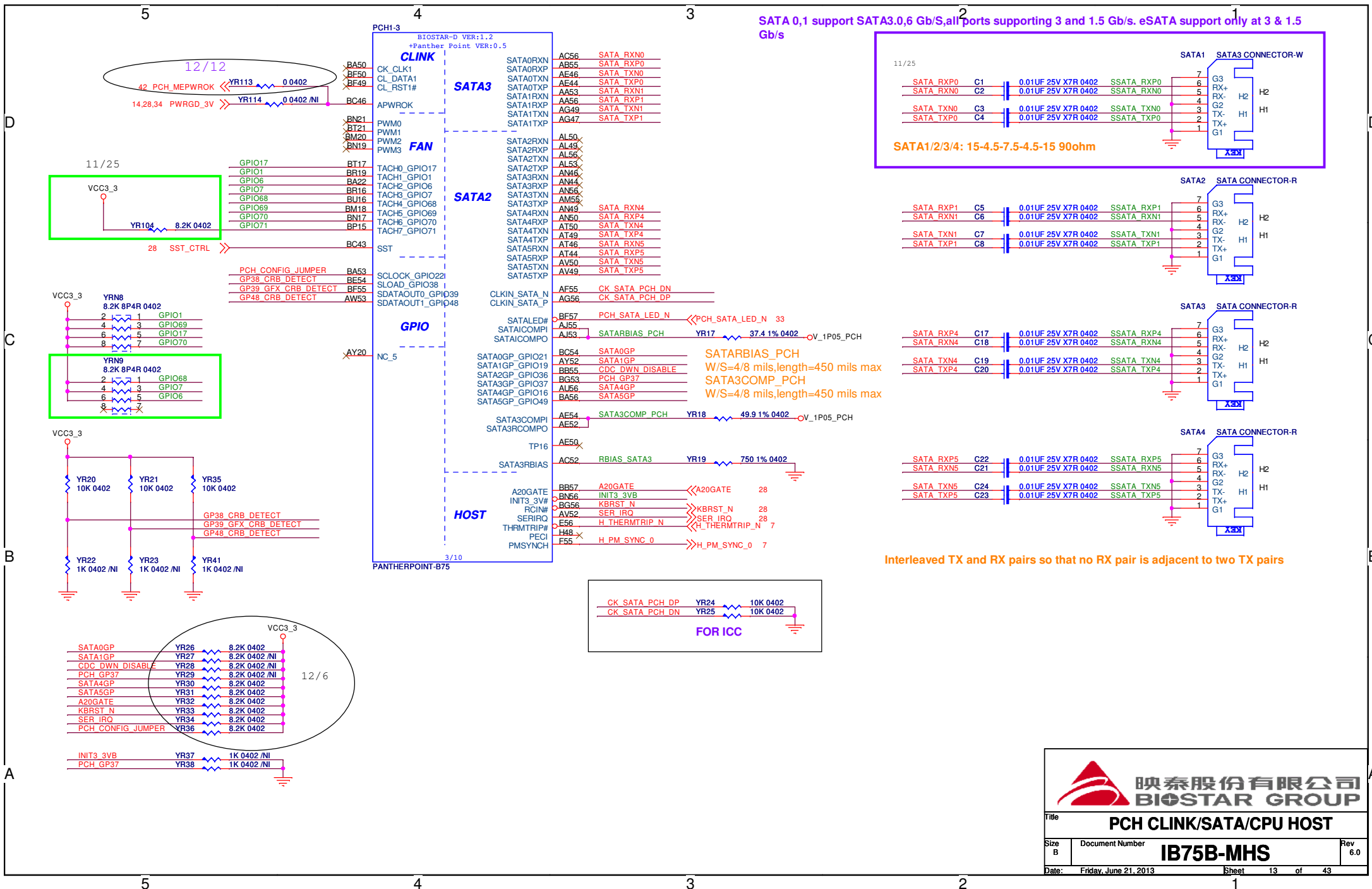
PANTHERPOINT-B75

Title: **PCH PCI**

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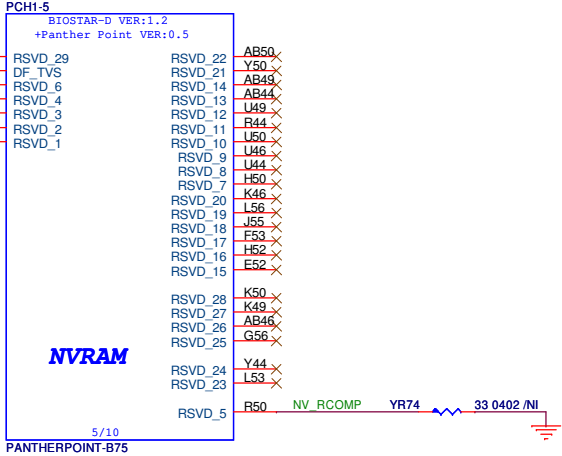




DMI/FDI Termination Select

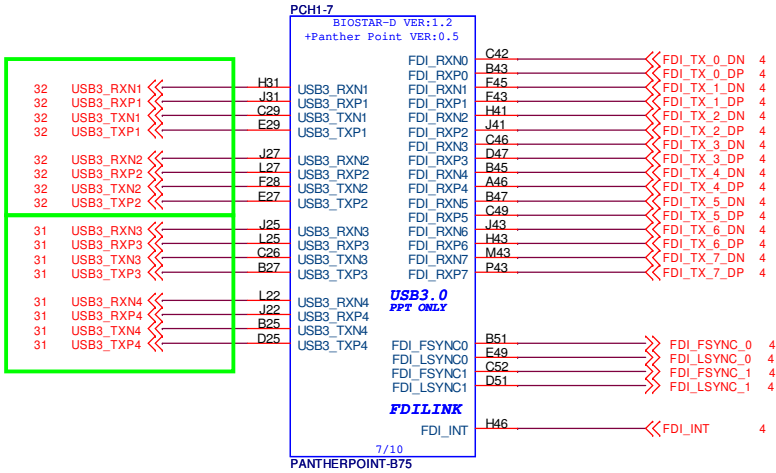
H:For Sandy Bridge

L:For Ivy Bridge



1.2 USB3\_0 Port

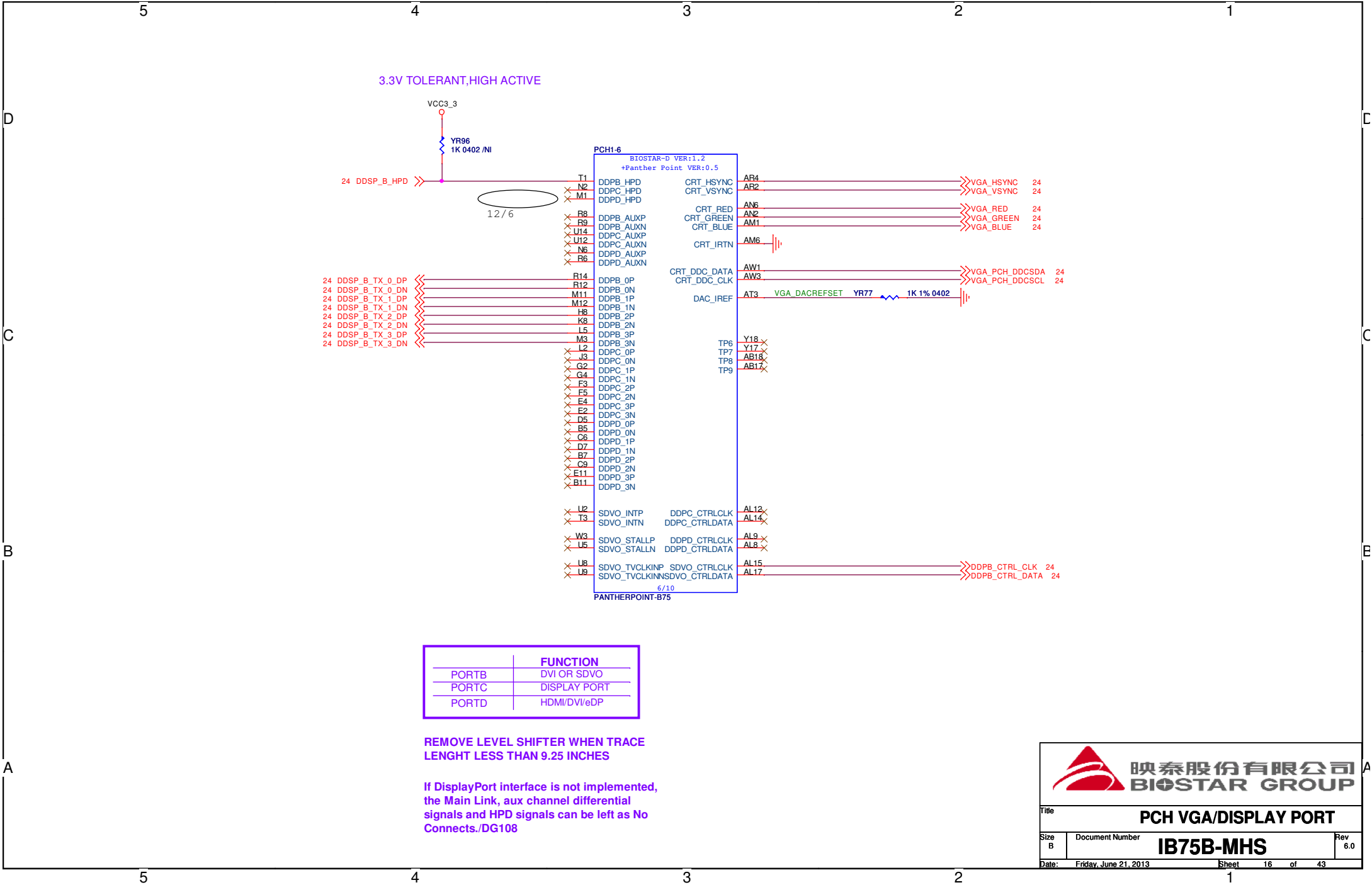
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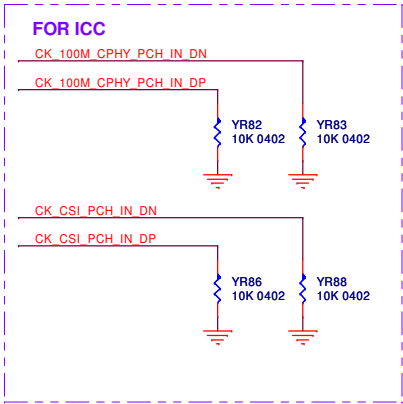


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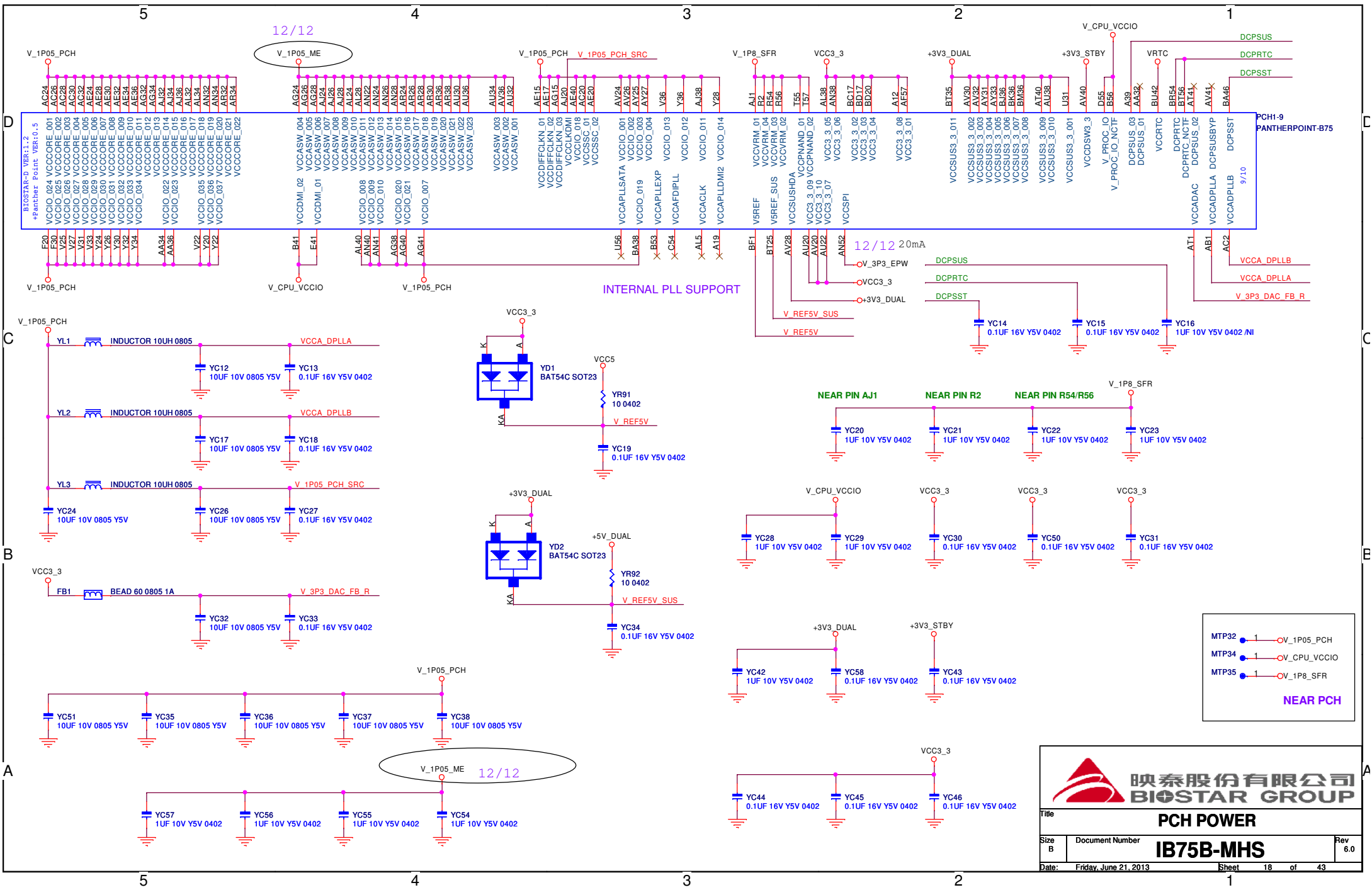




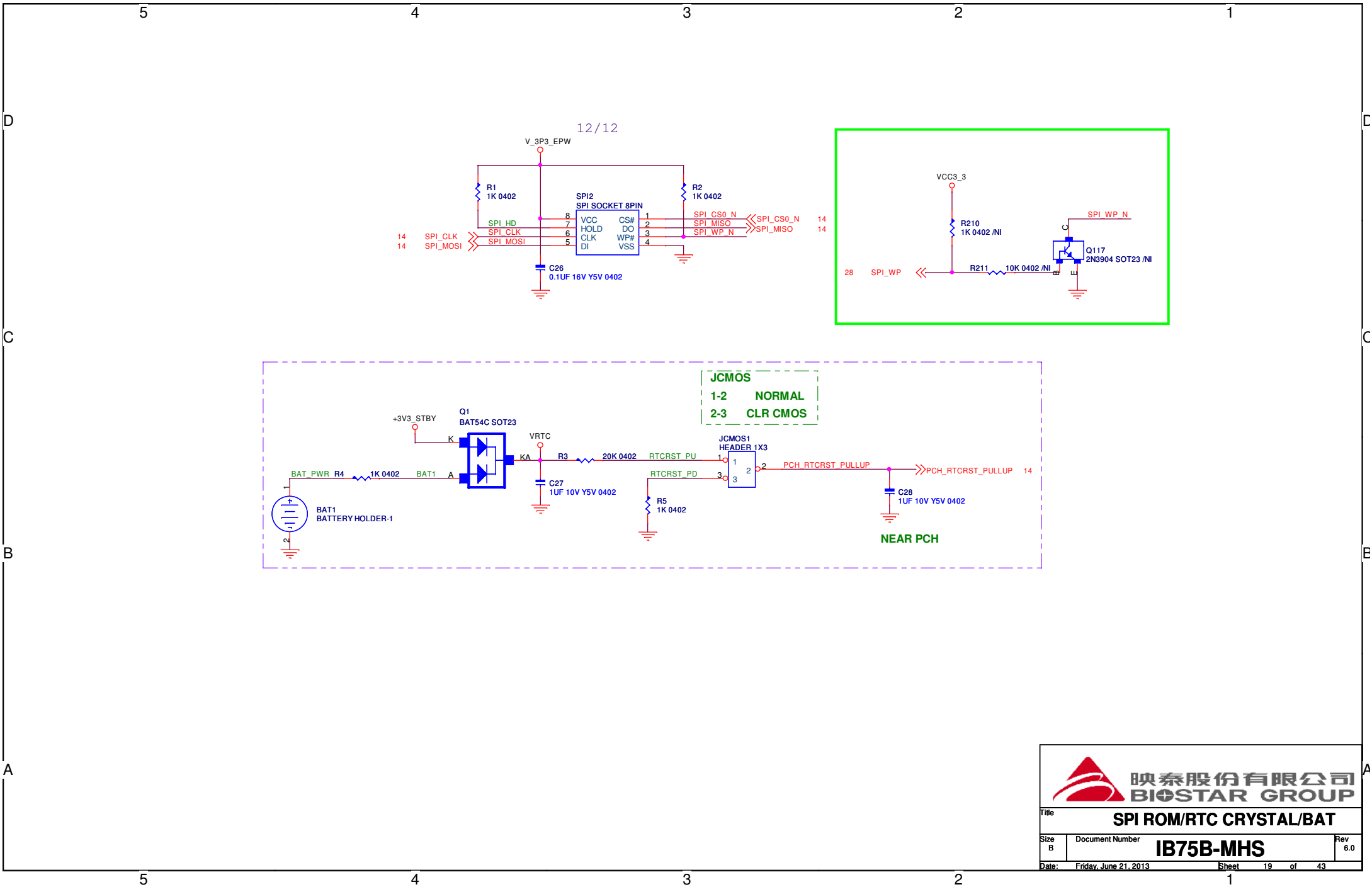


FOR CPU PCIE X 16 DEVICE(0)



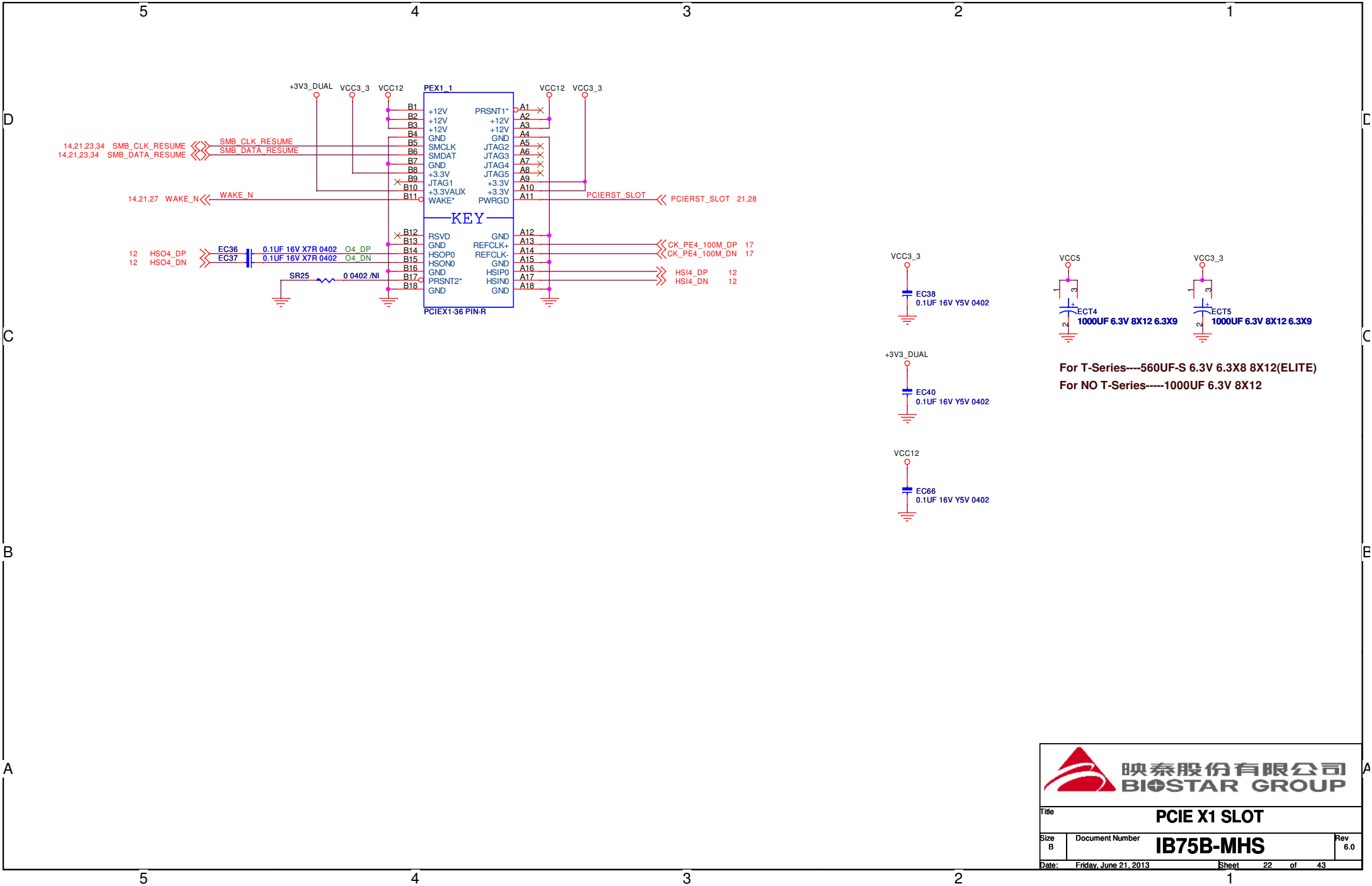


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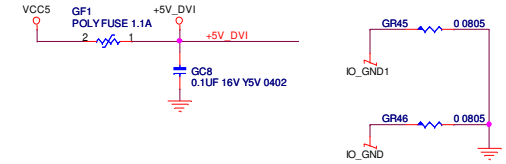
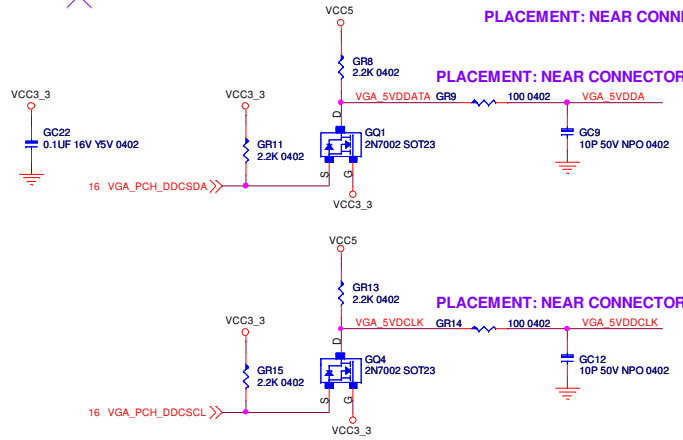
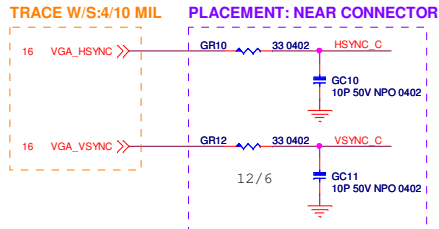
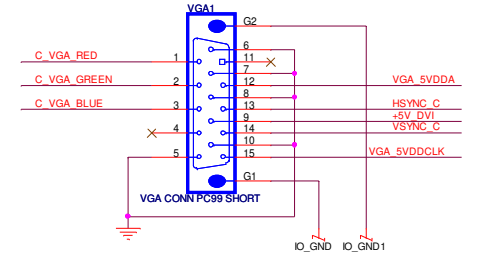
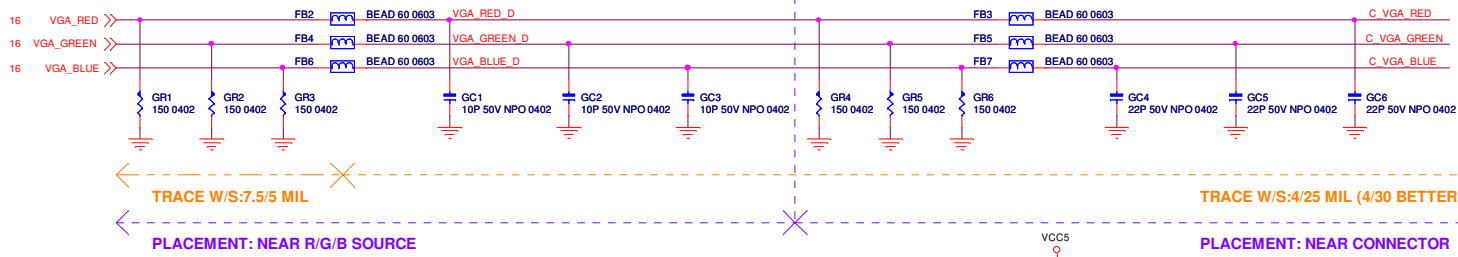




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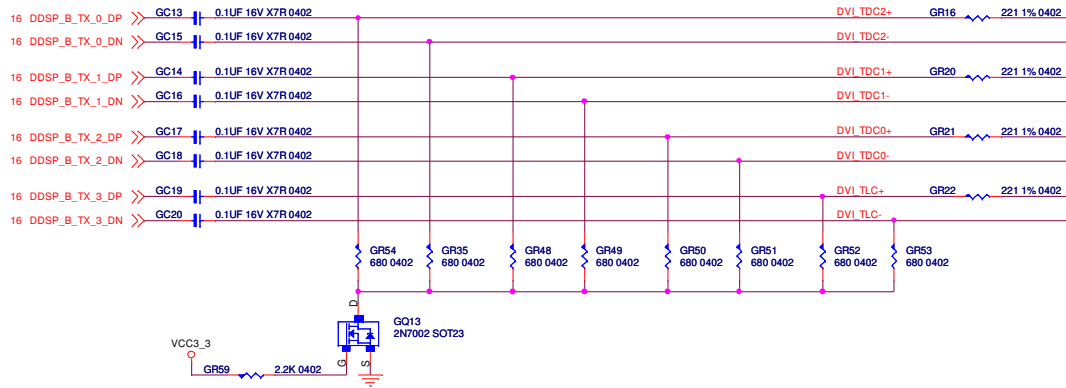




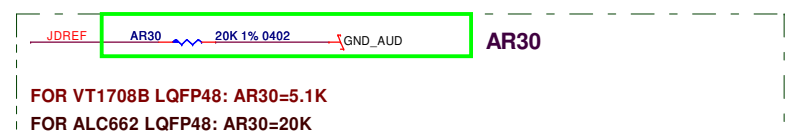
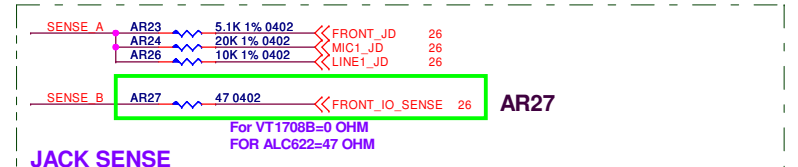
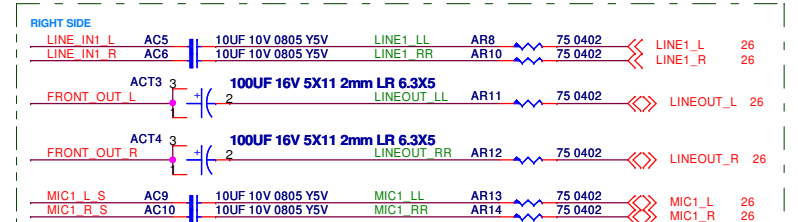
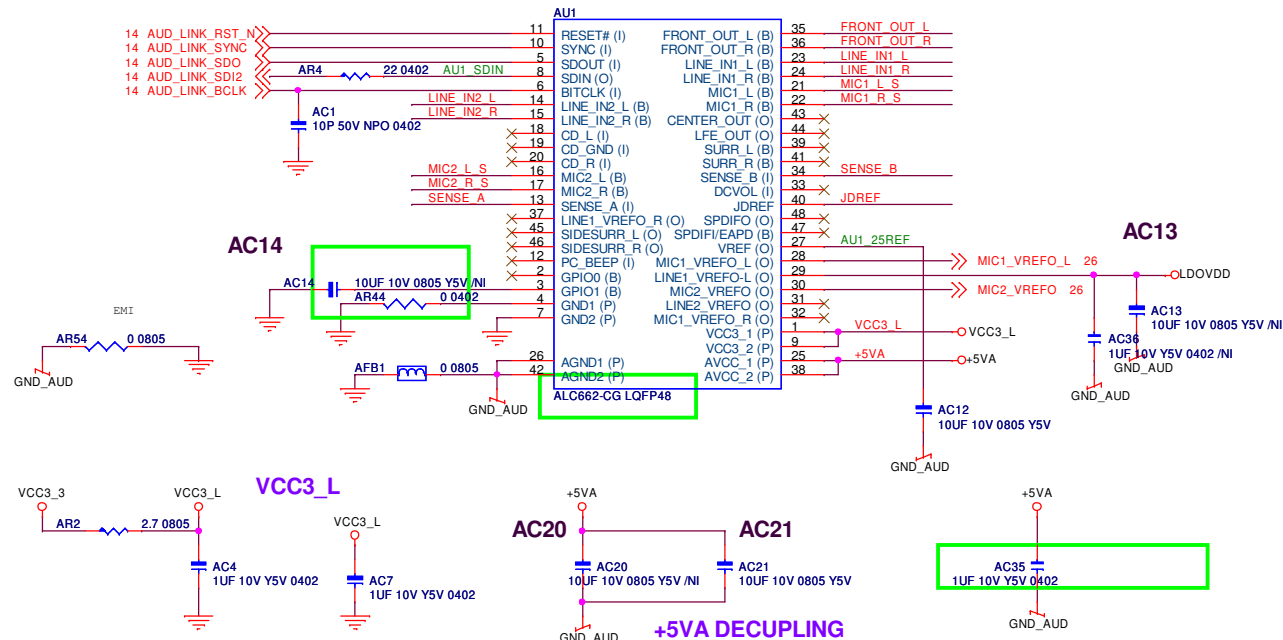


## D\_SUB

## DVI



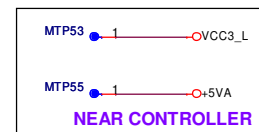
# AUDIO PART: A+Reference



## COMPONENT CONTRAST LIST

AUDIO	AR2	ACT5	AR1	AC13	AC14	AC20	AC21	AR27	AR30
ALC662VD	X	X	O	O	O	10UF 10V 0805 Y5V	10UF 10V 0805 Y5V	47 OHM	20K
VT1708	O	O	X	X	X	1UF 16V 0805 Y5V	1UF 16V 0805 Y5V	0 OHM	5.1K

NETIN: 100UF 16V 5X11 2MM LR 6.3X5  
BOM: 100UF 16V 5X11 2mm LR  
100UF-S 16V 6.3X8 ELITE



Title: **CODEC ALC662**

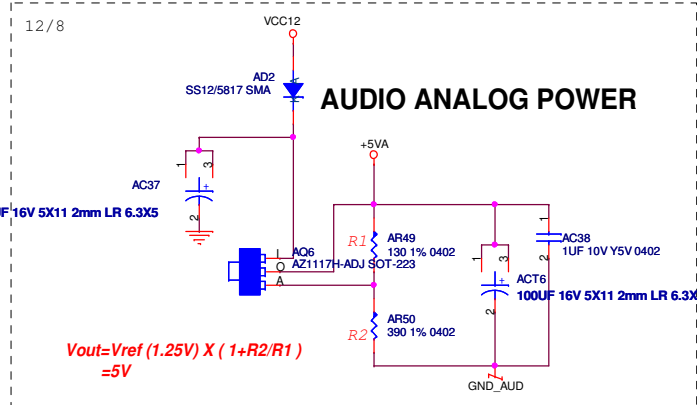
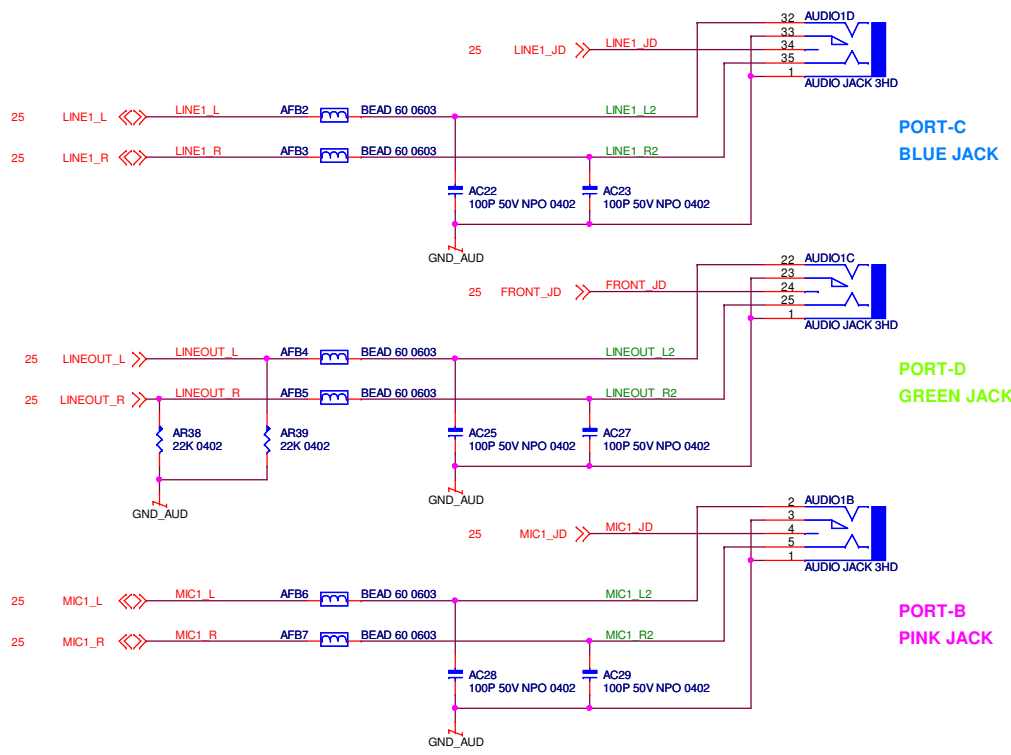
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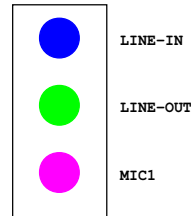
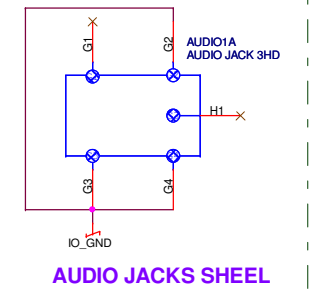
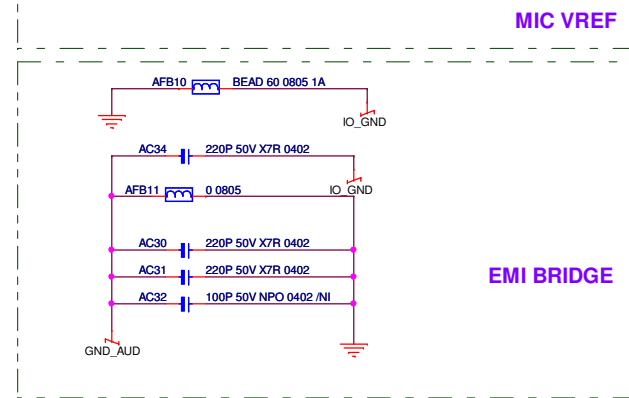
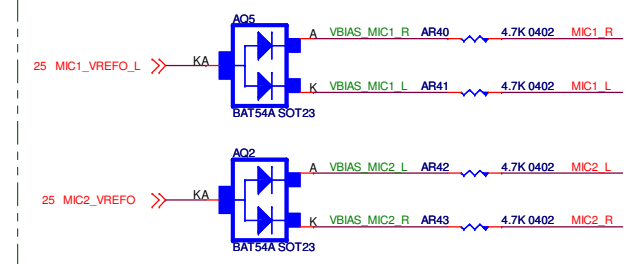
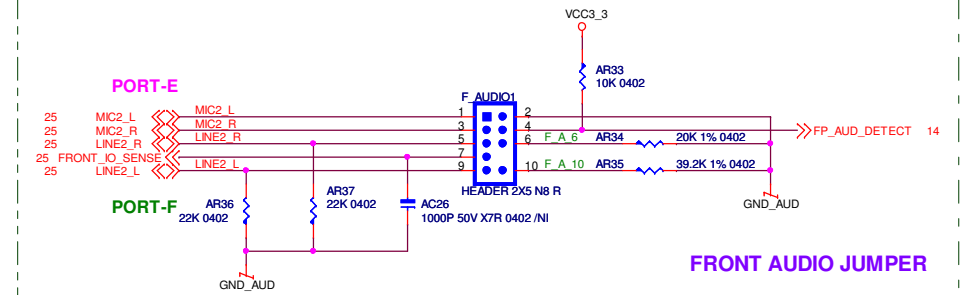
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Rev: **6.0**

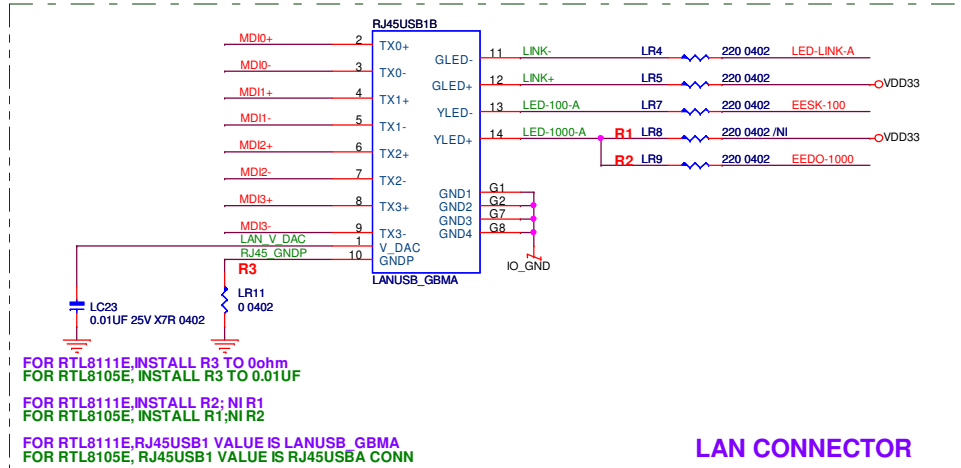
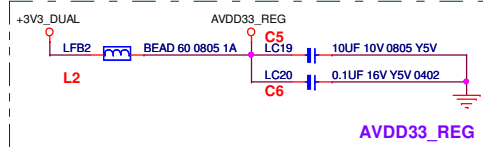
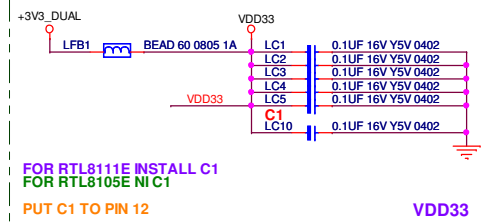
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REAR AUDIO JACKS

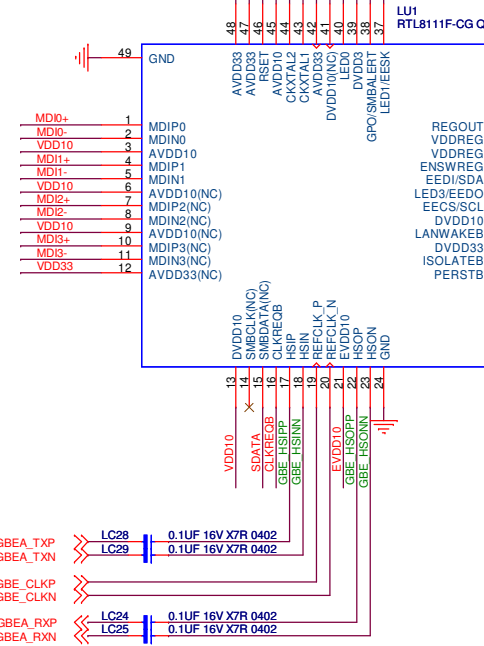
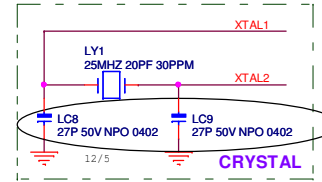


## LAN PART: L+Reference

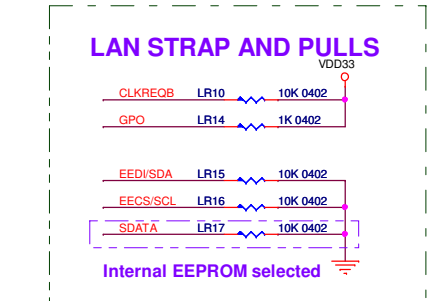
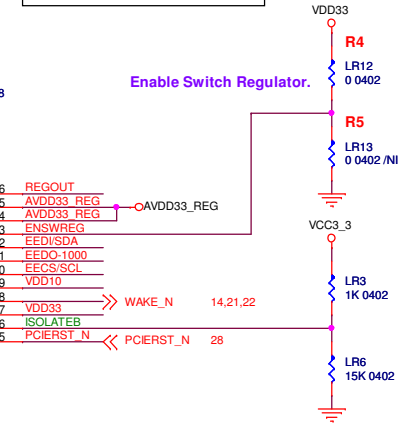
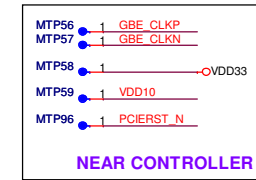



### COMPONENT CONTRAST LIST

LAN PARTS	C1	C2	C3	C4	R1	R2	R3	L1	R4	R5	L2	C5	C6	C7	C8	RJ45 CONN
RTL8111E	O	O	O	O	X	O	0ohm	O	O	X	O	O	O	O	O	LANUSB_GBMA
RTL8105E	X	X	X	X	O	X	0.01uF	X	X	O	X	X	X	X	X	RJ45USBA_CONN



CLOSE TO LAN IC  
AC COUPLE CAP Close to the device



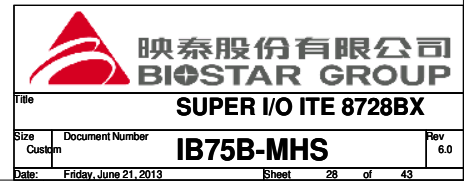


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BIOSSTAR GROUP

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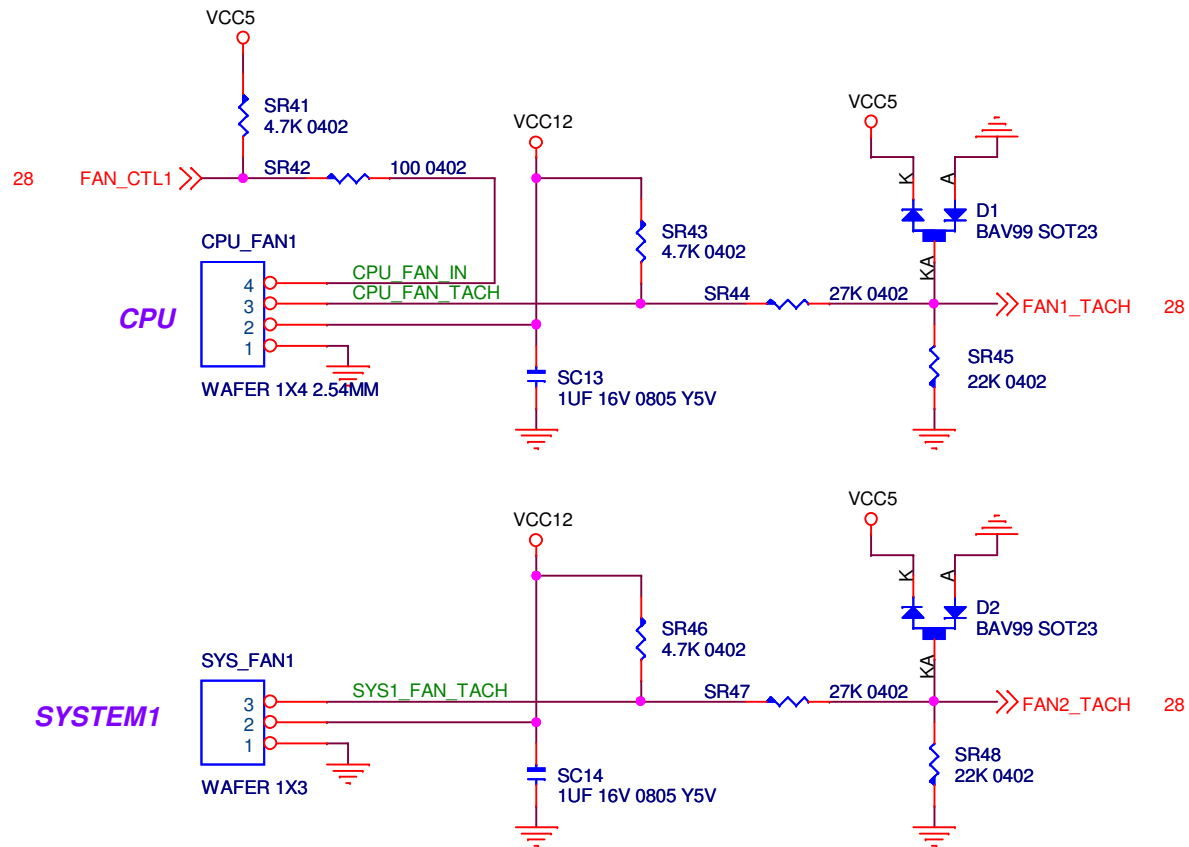
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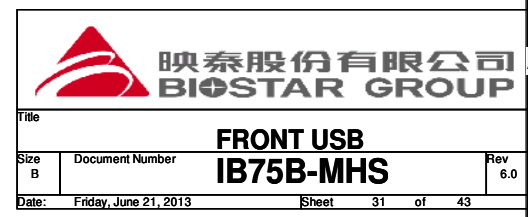
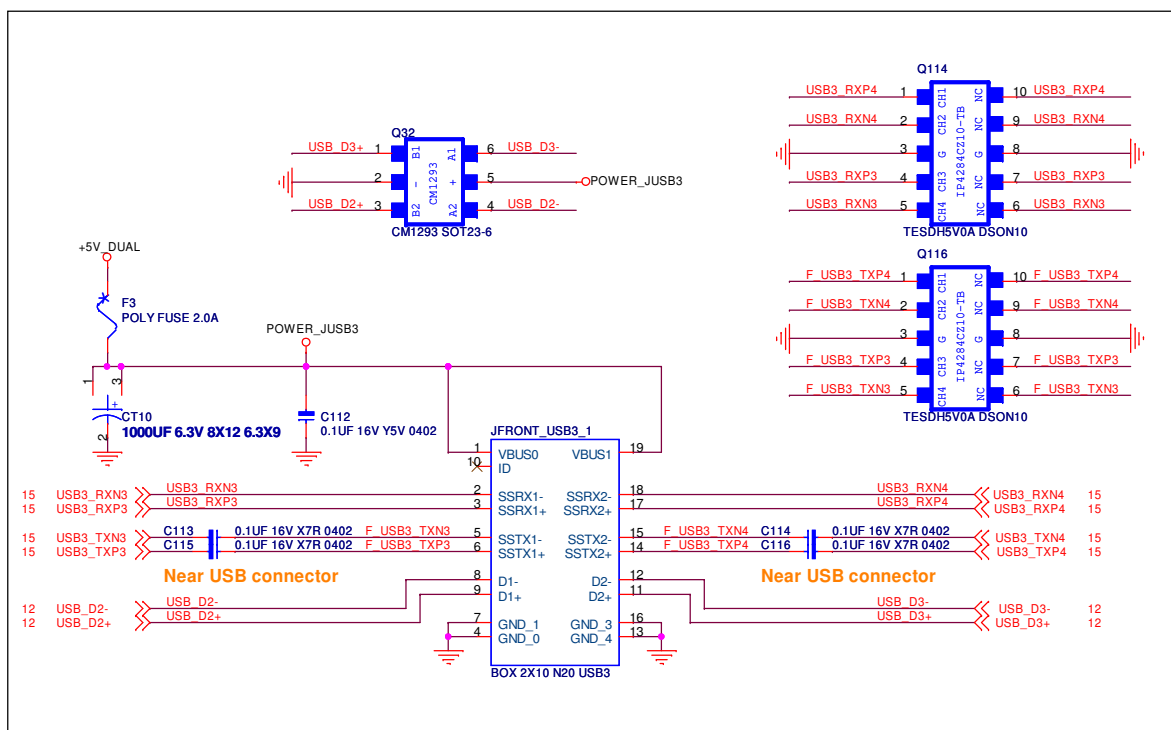
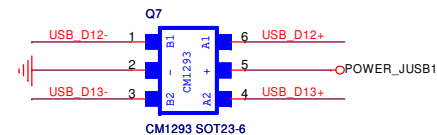
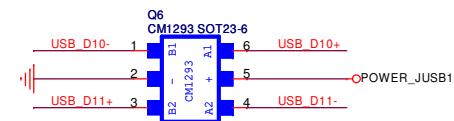
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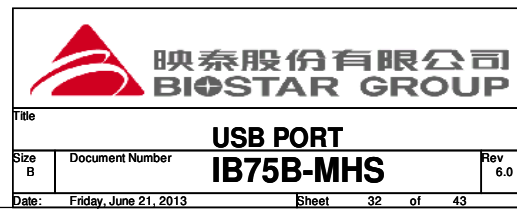


# CPU FAN/SYSTEM FAN1



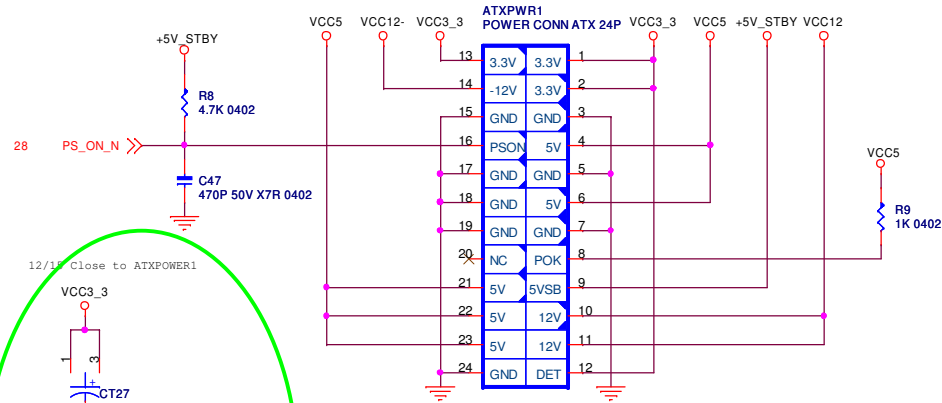
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<b>Size</b> A	<b>Document Number</b> <b>IB75B-MHS</b>	<b>Rev</b> 6.0
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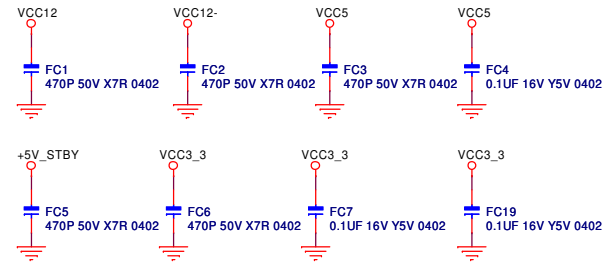


# 24 PIN POWER CONNECTOR

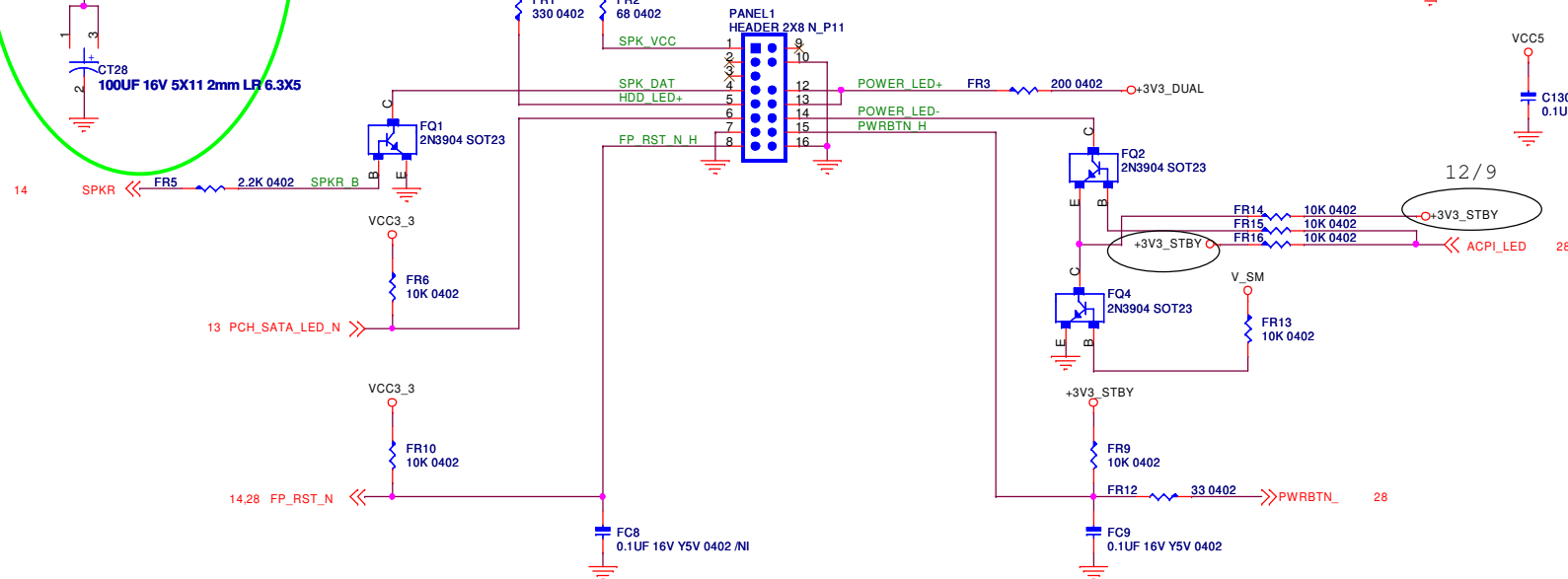
JATXPWR



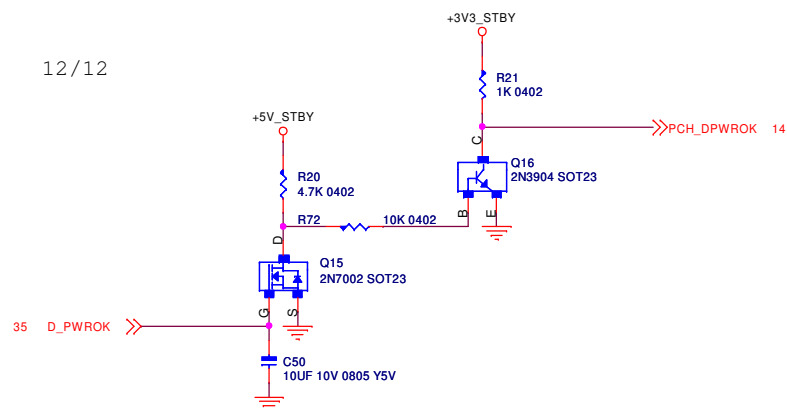
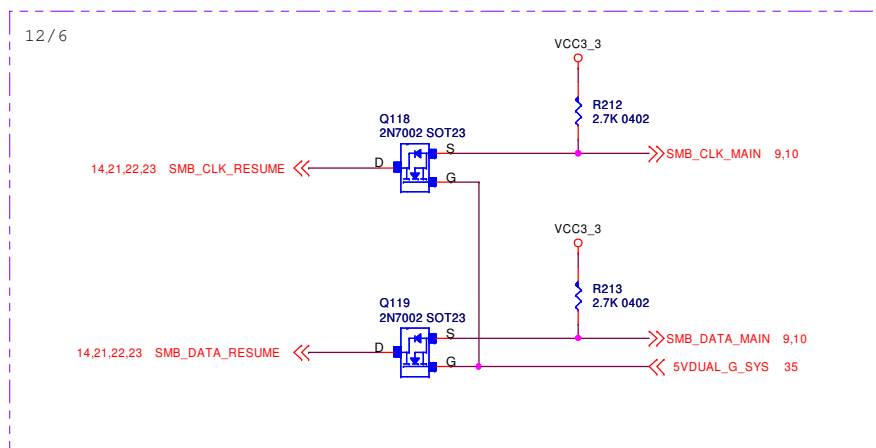
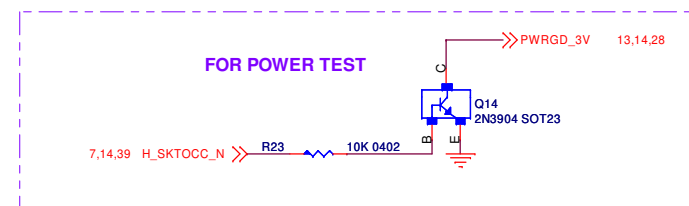
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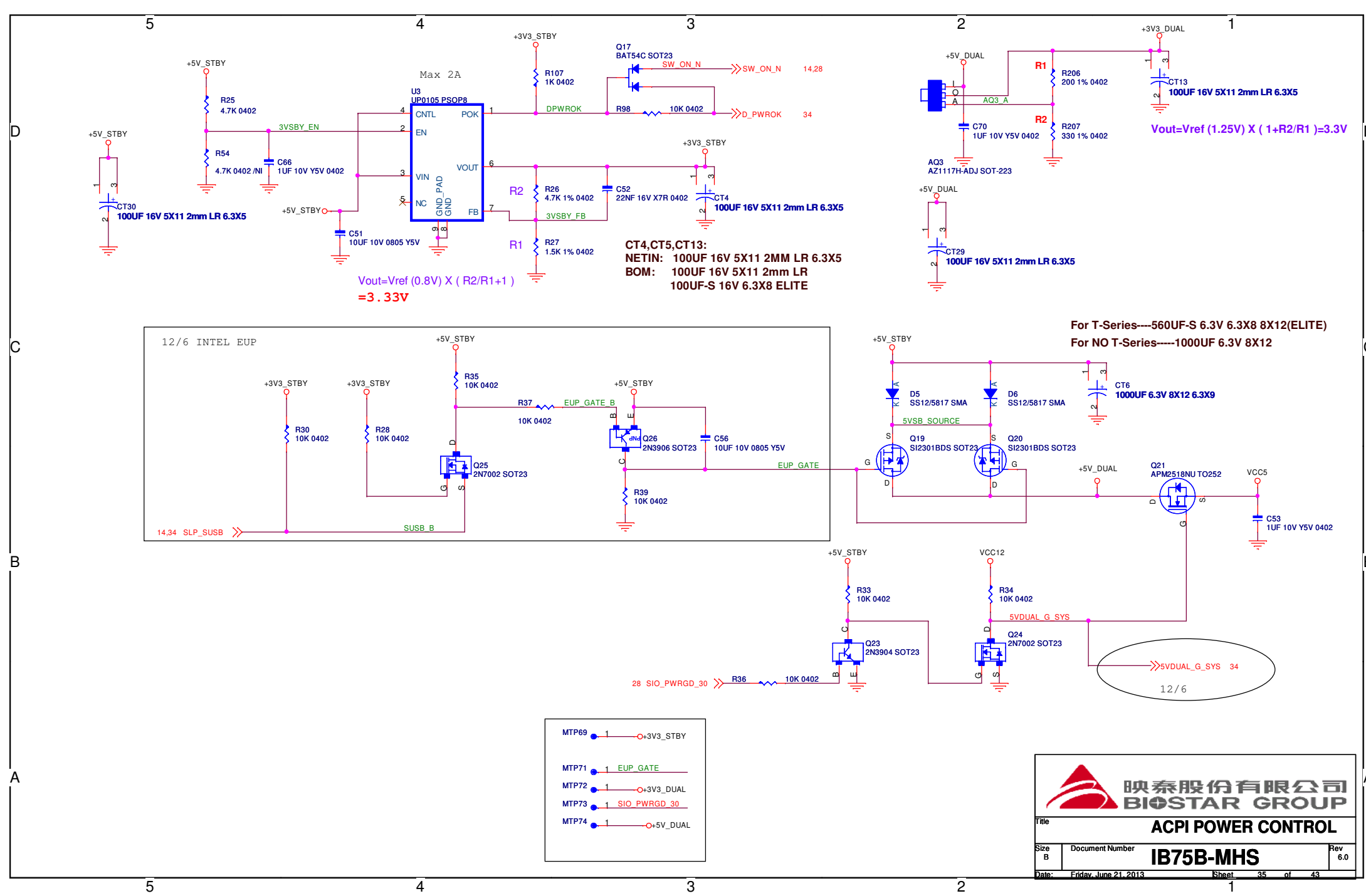


## FRONT PANEL HEADER



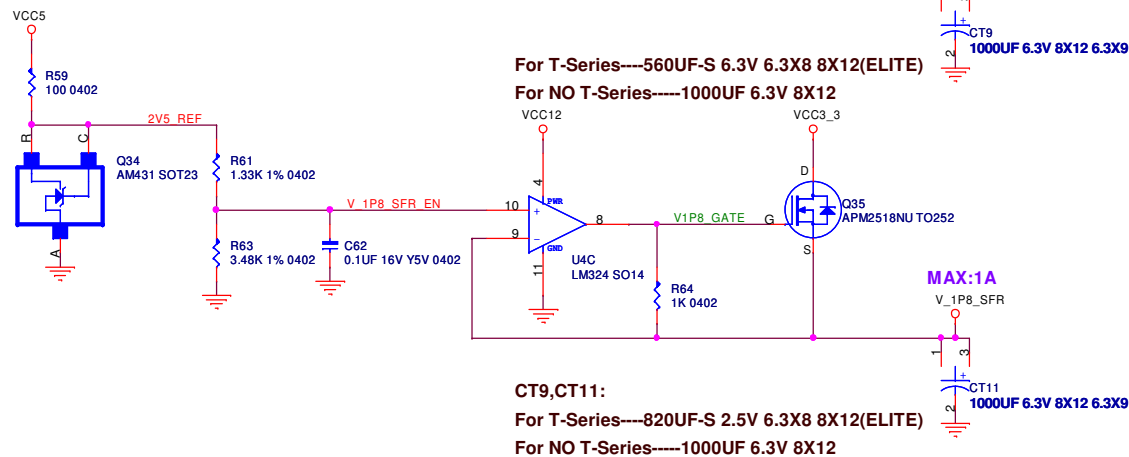
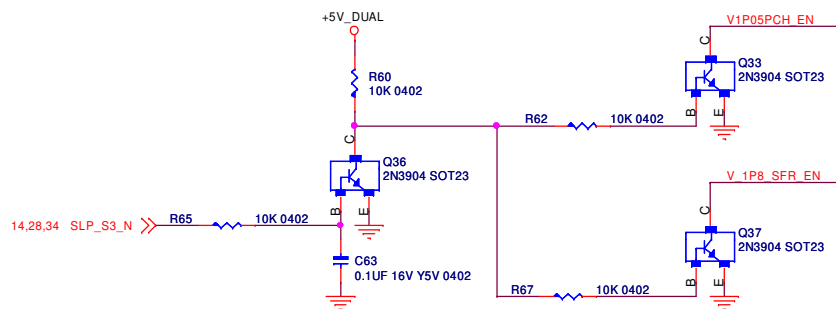
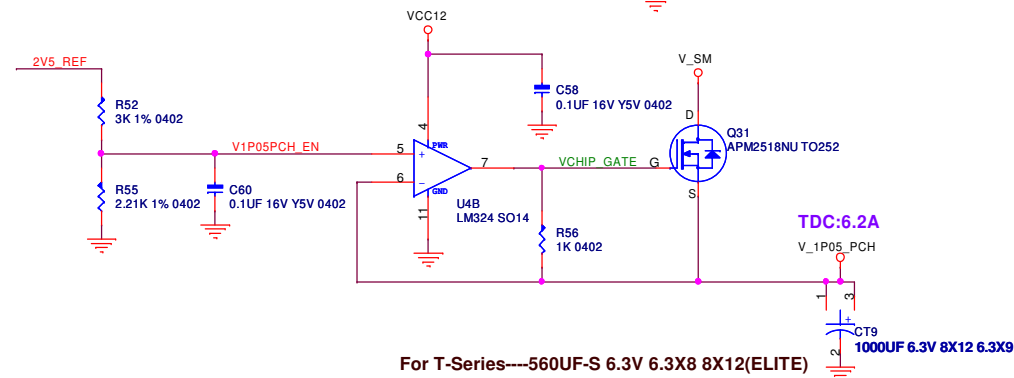
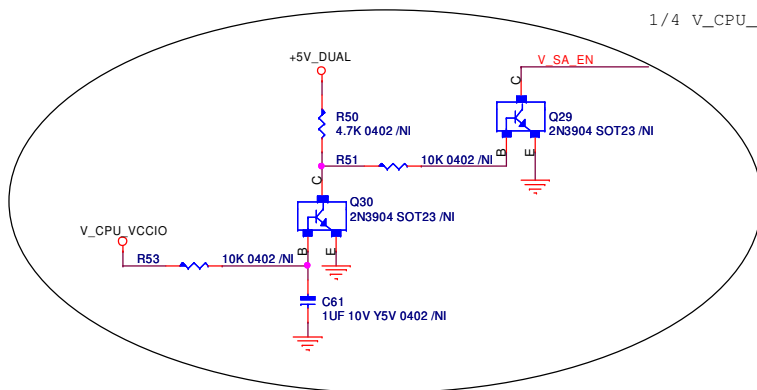
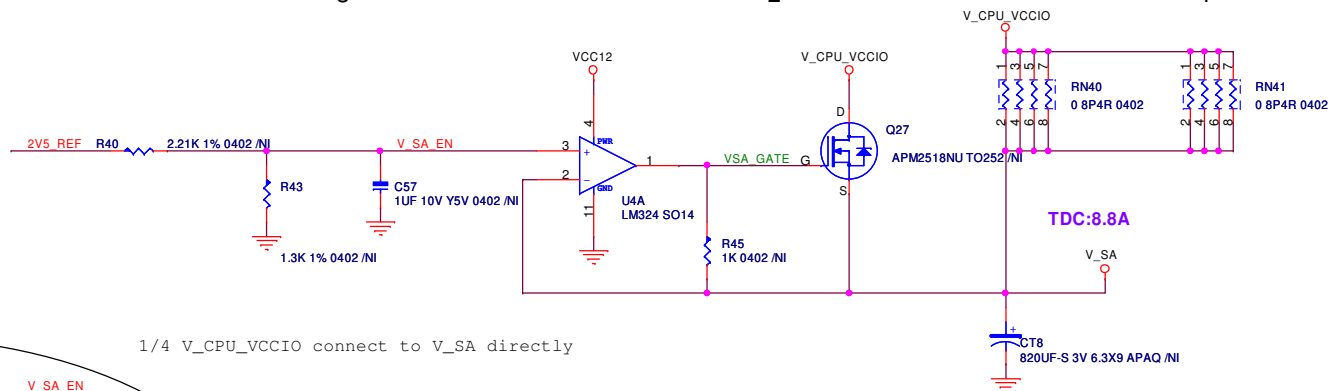
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MTP75 1 V\_SA\_EN  
MTP76 1 V1P05PCH\_EN  
MTP77 1 V\_1P8\_SFR\_EN

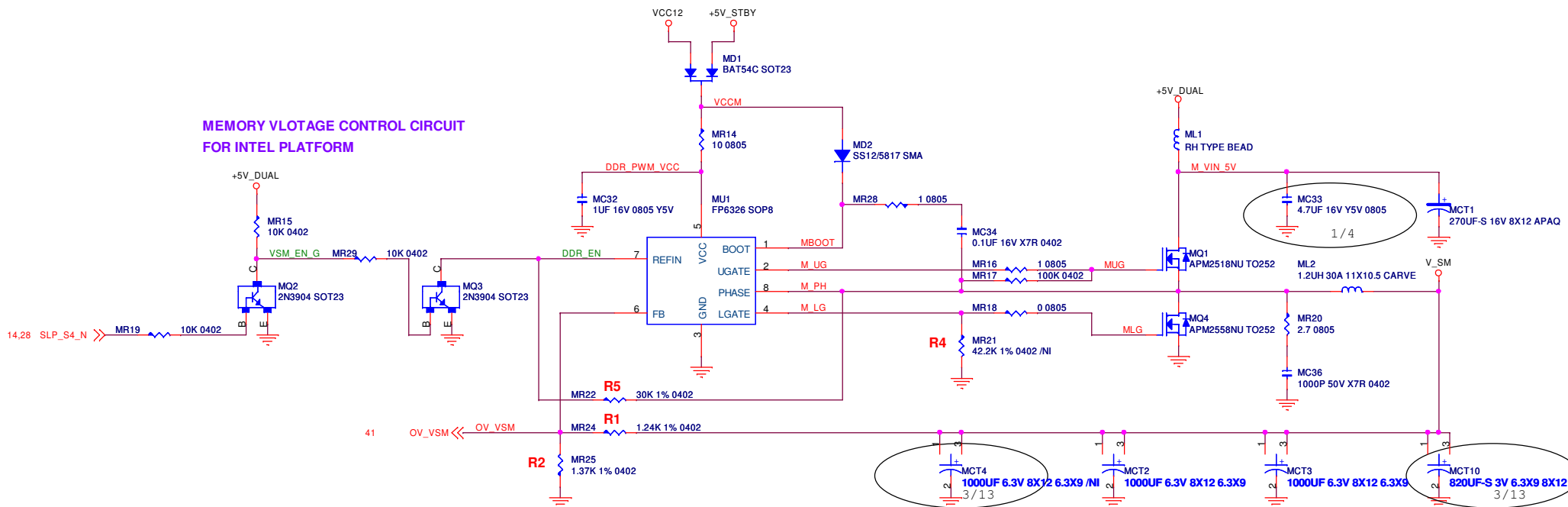
NEAR OP



Title		
LINEAR POWER CONTROL		
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# MEMORY VLOTAGE CONTROL CIRCUIT FOR INTEL PLATFORM



$$V\_SM=0.8(1+R1/R2)=1.6V$$

R5 Only For FP6326

(40uA\*R5-0.4V)/Rds=loc

FOR ONE LS MOSFET,R5=30K 1%

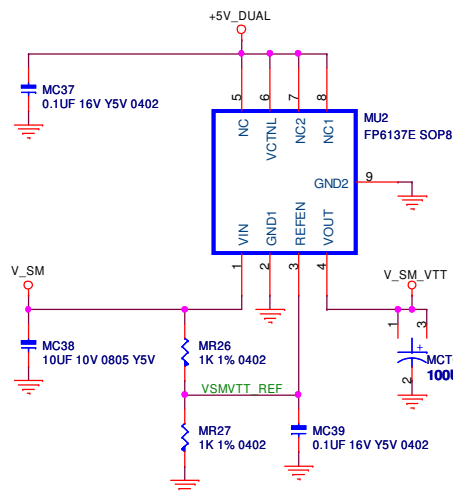
R4 Only For UP6109

OCP Set : 50A

FOR ONE LS MOSFET,P0603BDL : R4=42.2K 1%

For T-Series----820UF-S 2.5V 6.3X8 8X12(ELITE)

For NO T-Series-----1000UF 6.3V 8X12

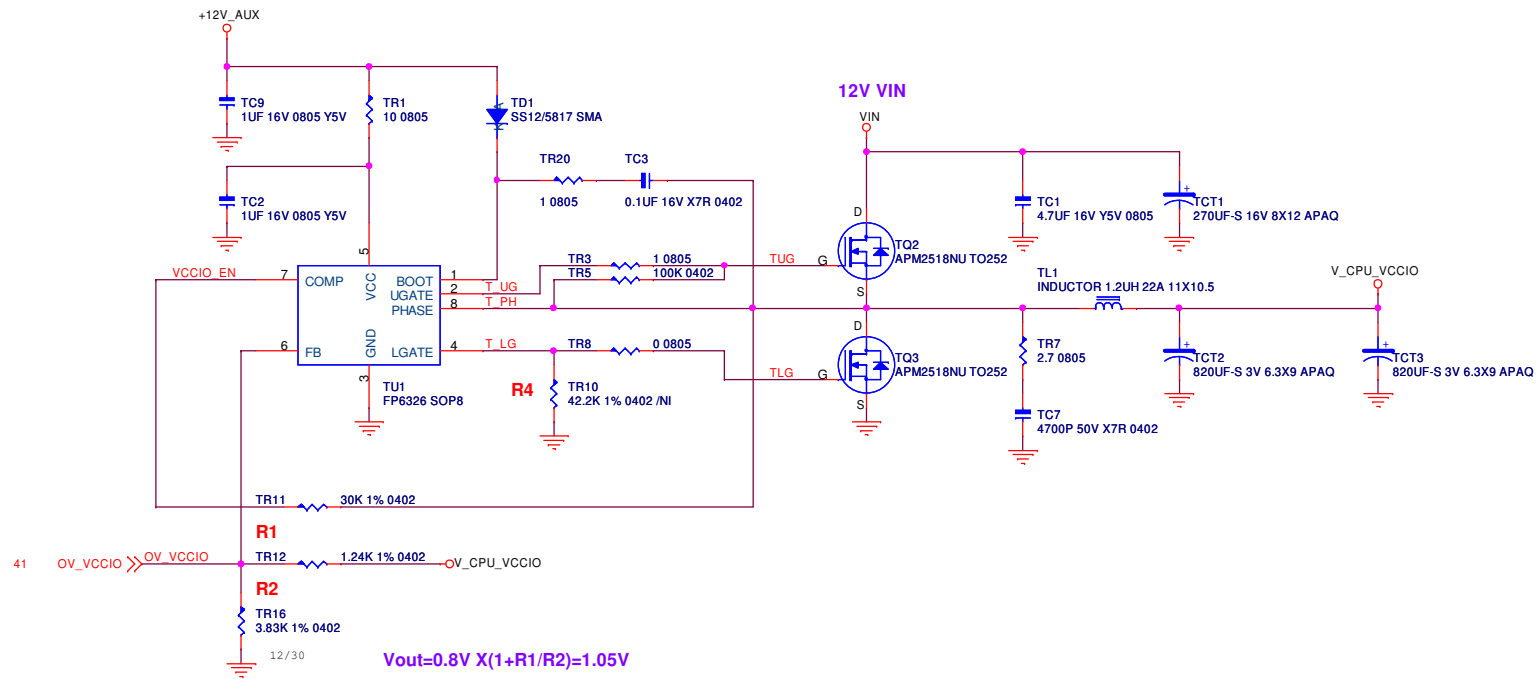


NETIN: 100UF 16V 5X11 2MM LR 6.3X5

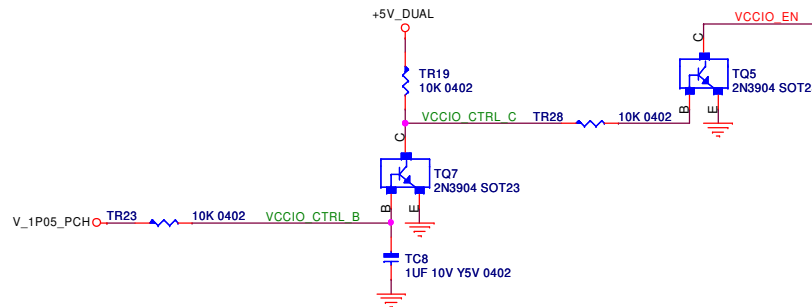
BOM: 100UF 16V 5X11 2mm LR

100UF-S 16V 6.3X8 ELITE

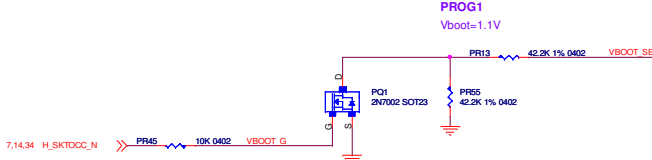
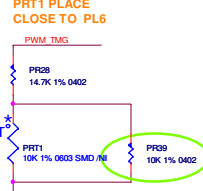
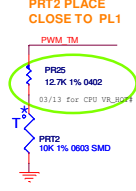
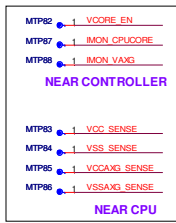
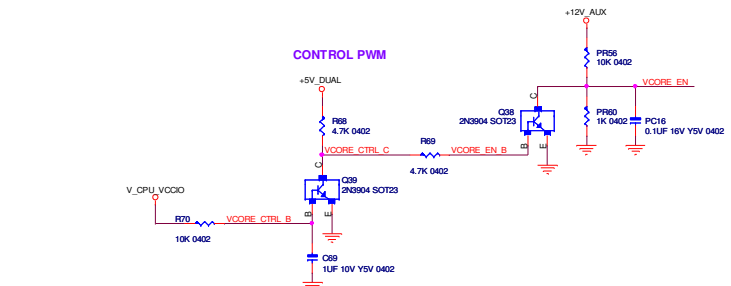
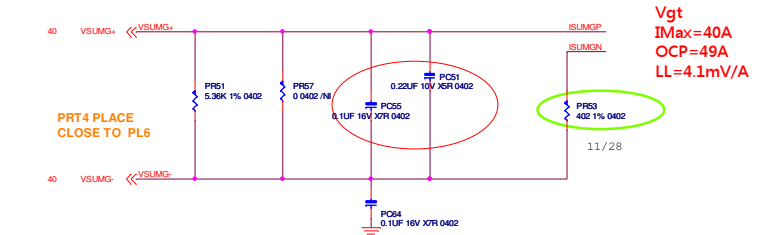
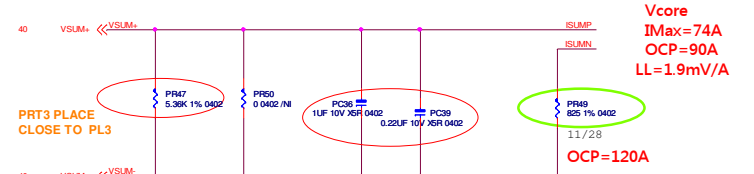
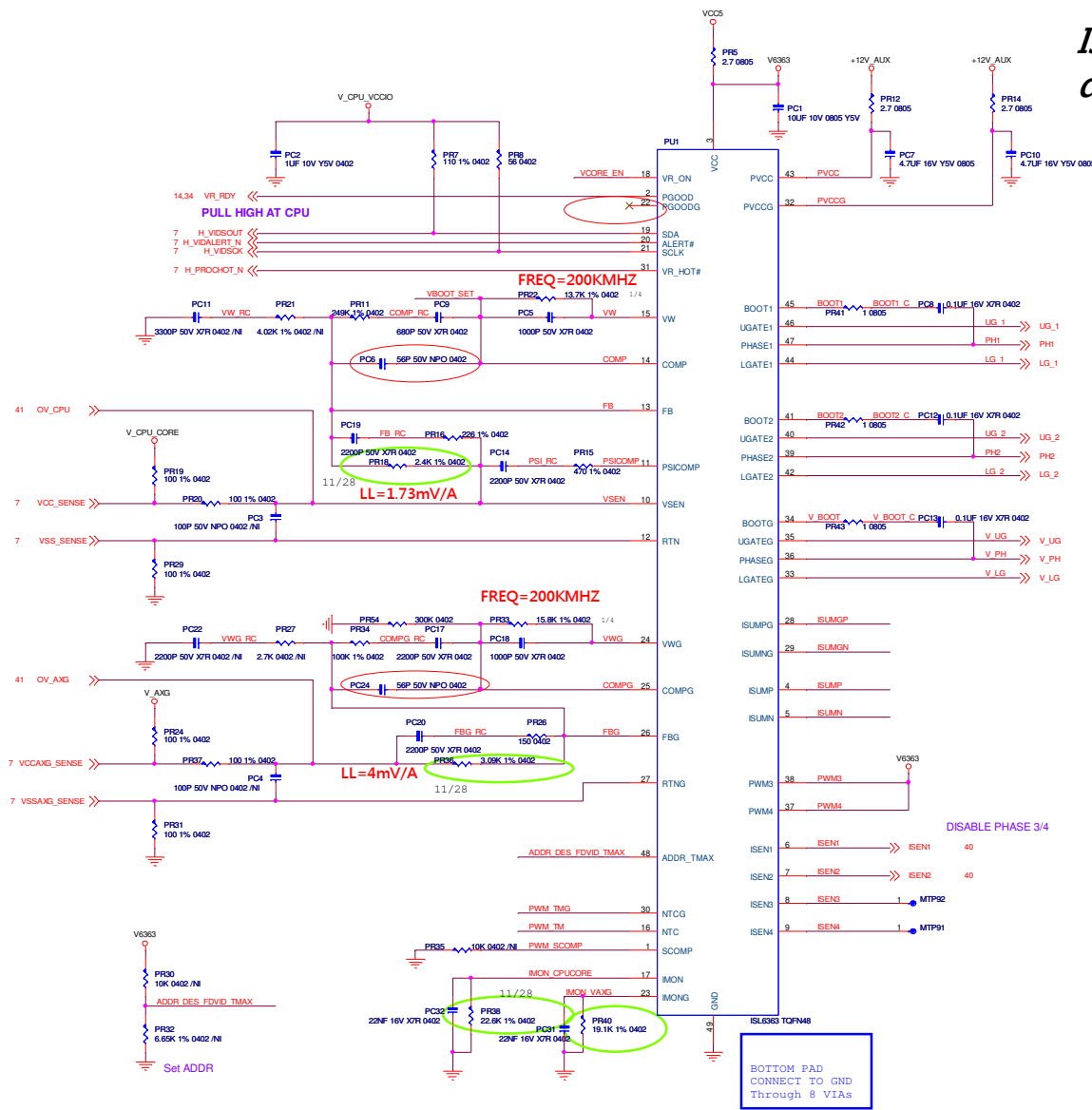
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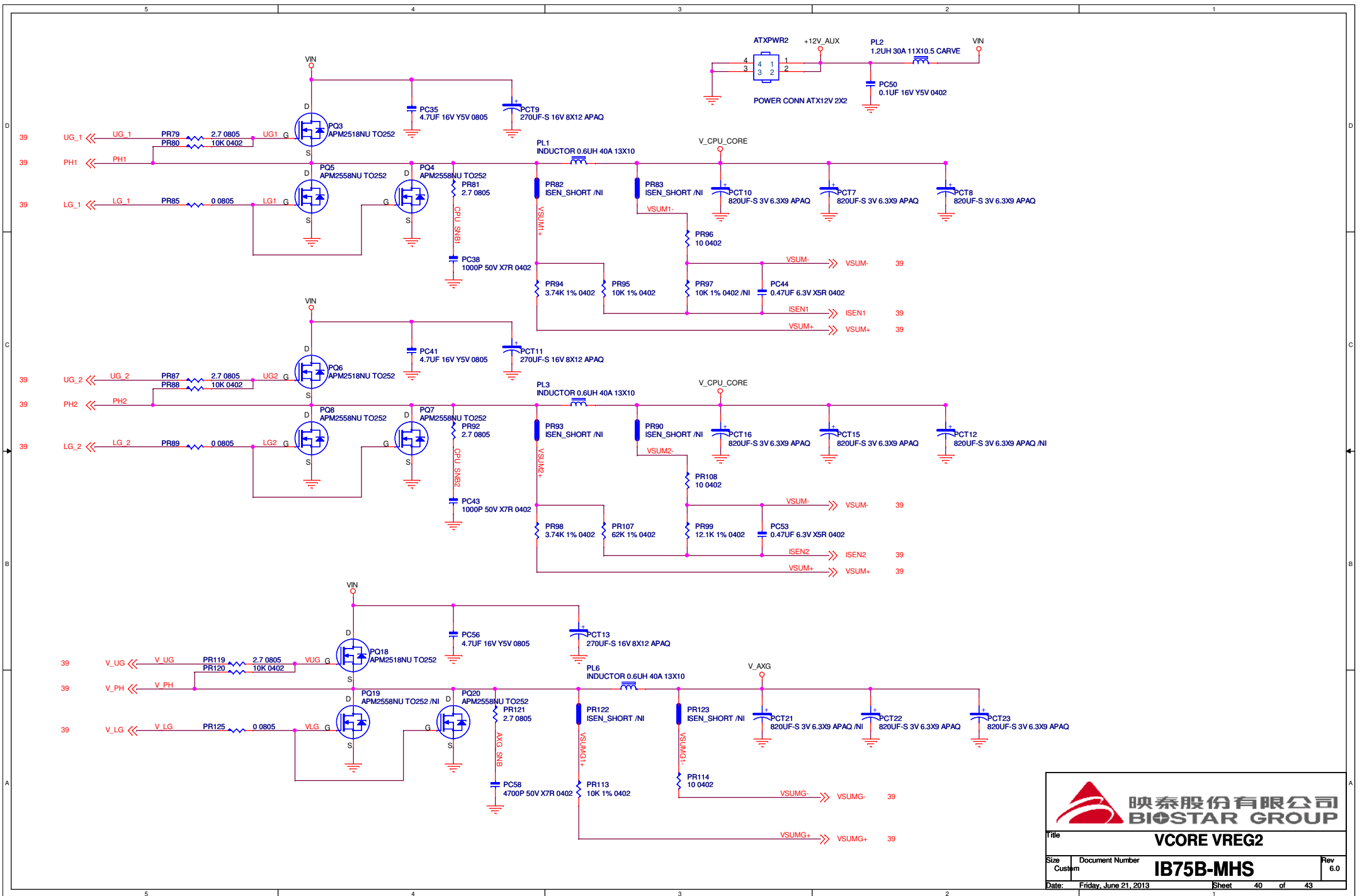


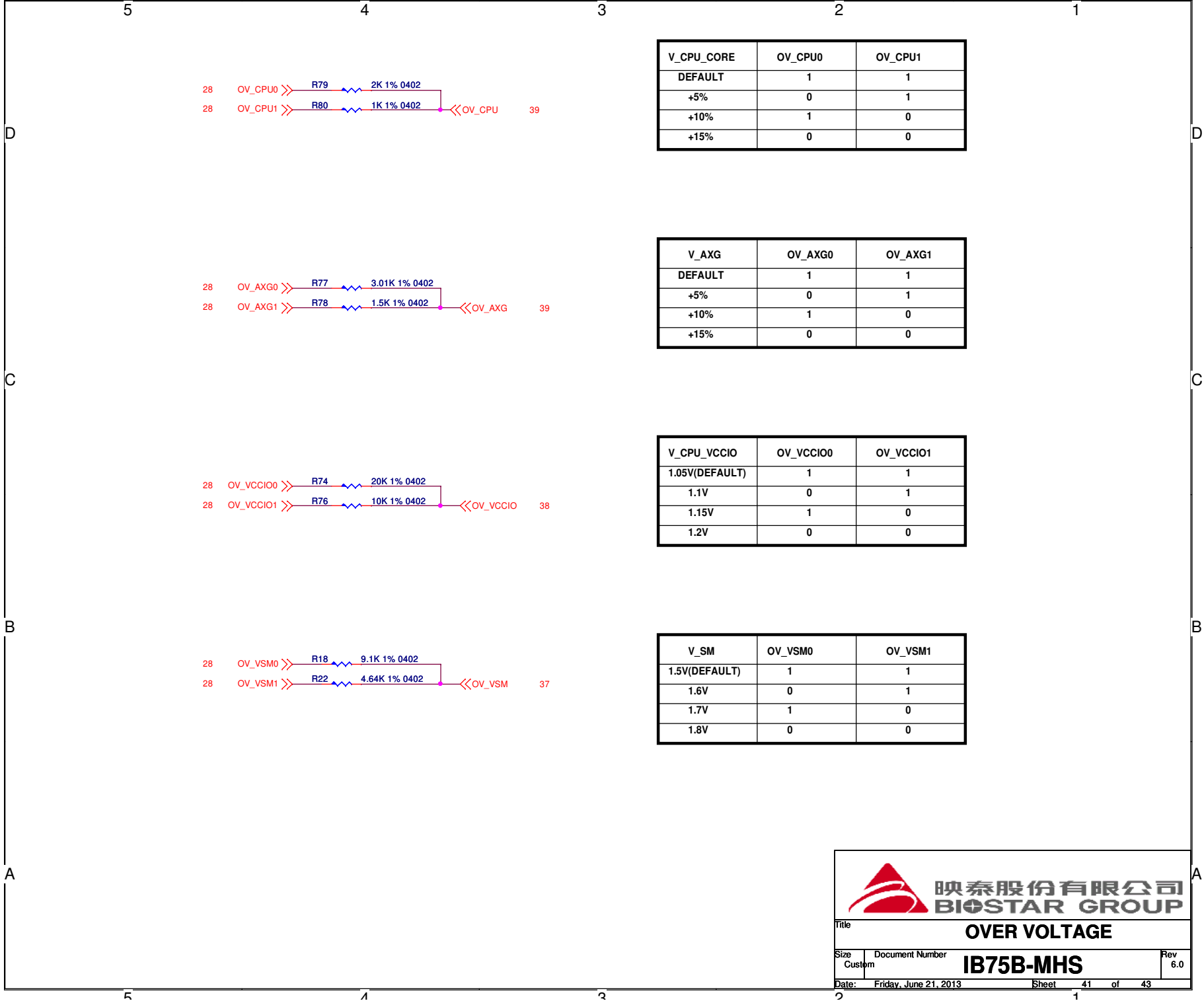
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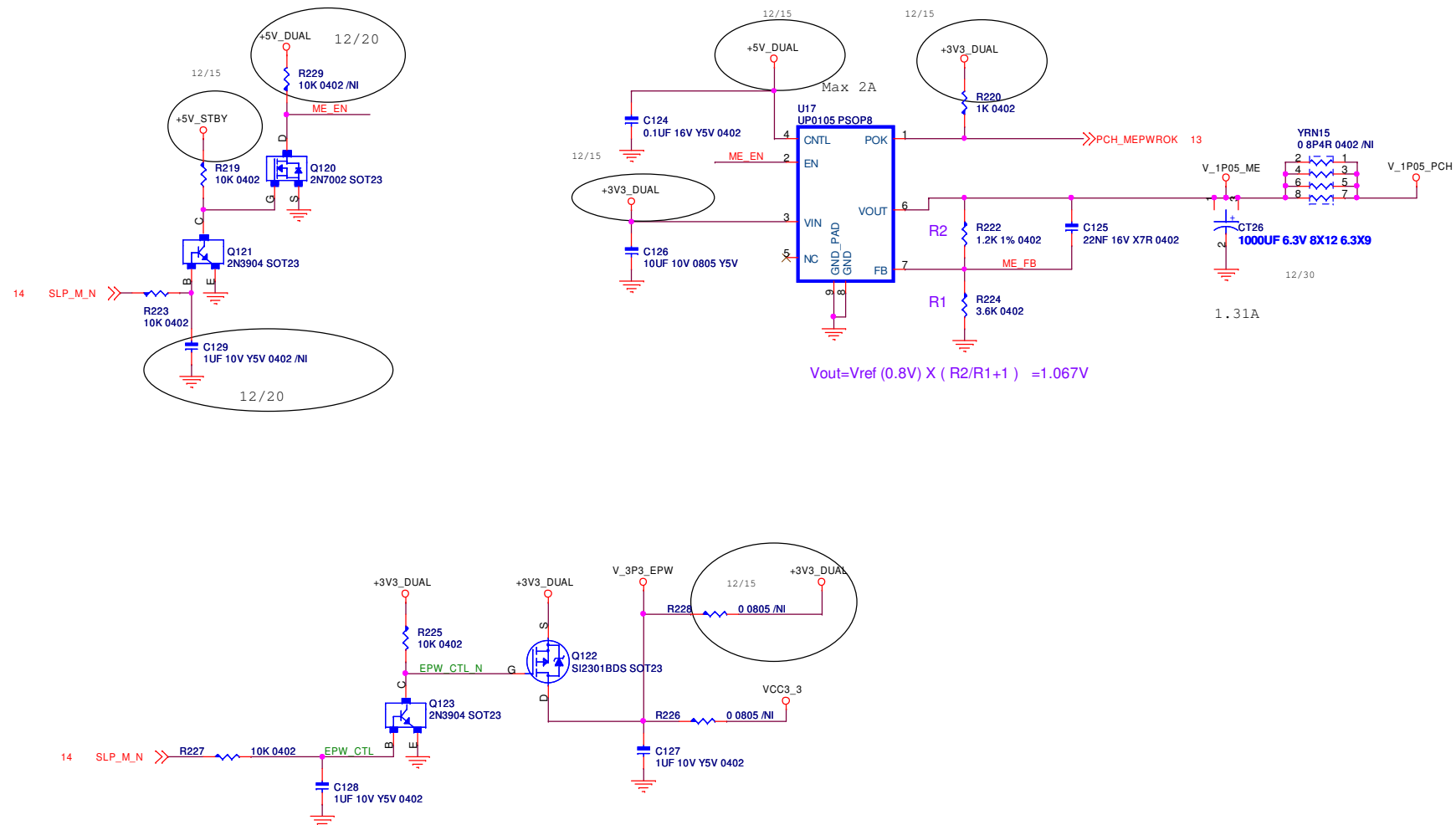


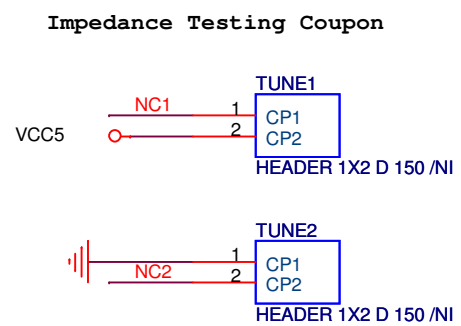
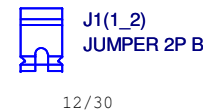
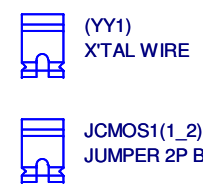
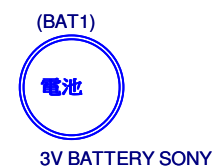
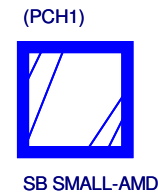
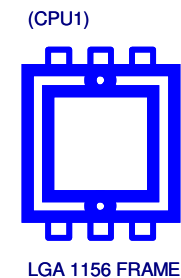
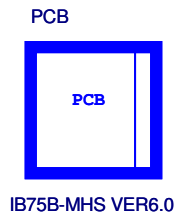
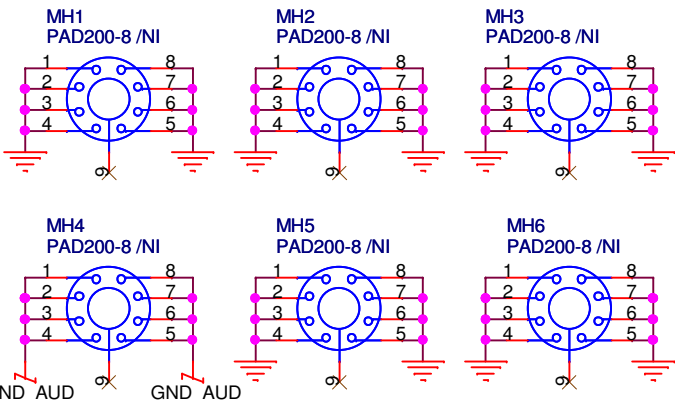
# ISL6363CRZ 2+1 Phase design












New PANEL1  
PANEL1 2\*8

YELLOW COLOR

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