


# BIOSTAR GROUP

## IG41S-M7S

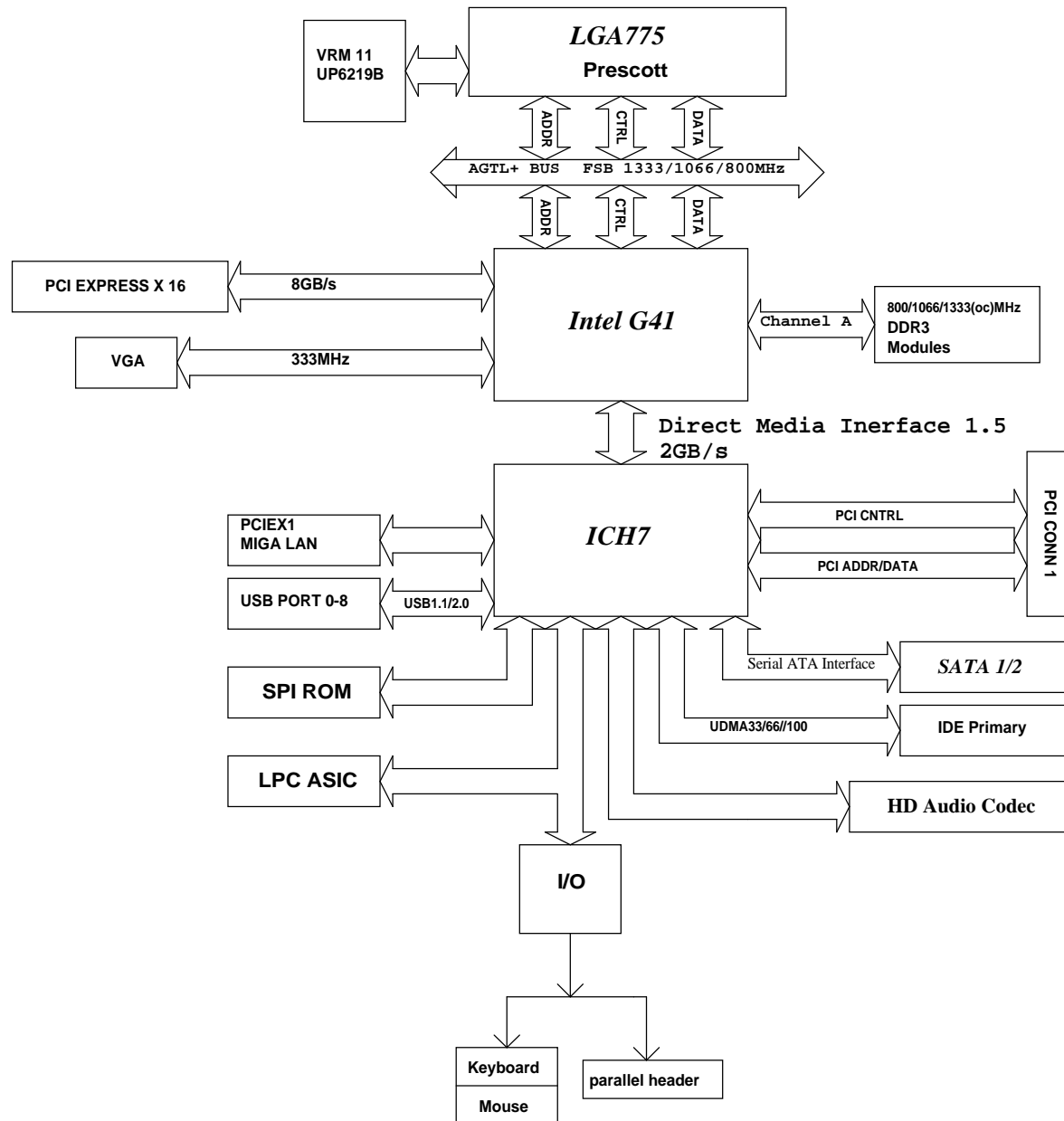
### Intel G41 + ICH7


VER:7.0

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# BLOCK DIAGRAM



 <b>映泰股份有限公司</b> <b>BIOS STAR GROUP</b>			
Title <b>Block Diagram</b>			
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PCI SLOT	IDE SEL	INT#	GNT#	REQ#	CLOCK
SLOT 1	AD17	A	0	0	PCLK_SLOT0

[illegible]**IG41S-M7S V0.7**

**CPU:**

Intel Core 2 Duo / Quad / Extreme, Celeron 4xx, Pentium Dual-Core, Celeron Dual-core (FSB1600/1333/1066/800) 95W  
3-Phase Power

**SYSTEM CHIP:**

Intel ICH7 (South Bridge)  
Intel EaglelakeG41-A3 GMCH (North Bridge)

### ONBOARD CHIP:

SUPERIO: ITE 8728BX  
AUDIO CODE: VT1708B 5.1Channel Audio  
LAN CHIP: Realtek Atheros AR8158  
CLOCK GEN:RTM876-665  
DDR/CHIP PWM: UP6109  
DDR VTT: FP6137E

### MEMORY SPEC:

DDR3 1333(OC)/1066/800  
MAX 4G DUAL CHANNEL

**CPU PWM:**

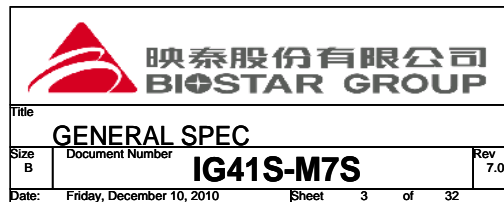
PWM: UP6219B 2PHASE UP1 LOW2 95W

## PCB SIZE

uATX, 170.0mmx225.0mm, 4-Layer


**EXPANSION SLOTS:**

- 1x PCIEX16 SLOT;
- 1x PCI SLOT;
- 1x IDE connector;
- 2x SATA connectors;
- 1x CPU Fan header;
- 1x System Fan Header;
- 1 x Front Panel Header;
- 1 x Front Panel Audio Header;
- 8 x USB 2.0/1.1 Headers



# V7.0

1. R57=2K, R59=1K
2. AR16=2.7 0805
3. OVCPU\_CORE0 change GPI023 BSEL2 control change to GPI022
4. add FPR6=4.7K FOR IO\_LED2
5. CT18=820UF-S 2.5V 6.3X8 8X12
6. PC40=47NF

		
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Change List		
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The VR's ICC-current numbers in this document reflect the CRB design (full sku-set). Customers should refer to the EDS to calculate their VR's ICC-current spec based on their supported sku

**CPU Core VR (VRD 11.1)**  
VCCP  
70A 1.15 - 1.50V  
60A VR\_TDC  
4ph Switching

**CPU**  
65nm/45nm Intel® Core™2 Duo & Intel® Core™2 Quad  
Core 130 W  
V\_FSB\_VTT 4.6 A

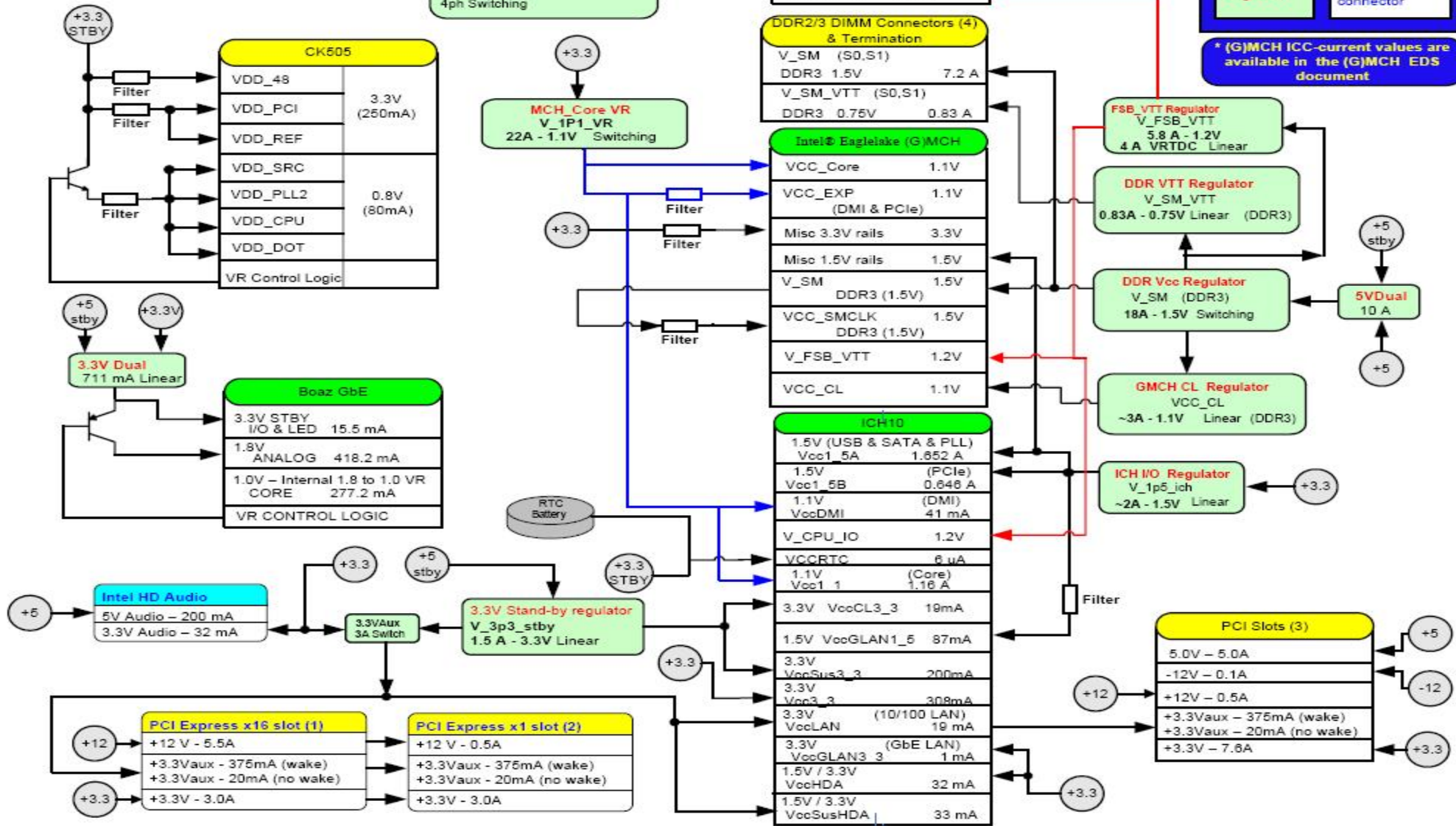
# Legend

● Silver box rail

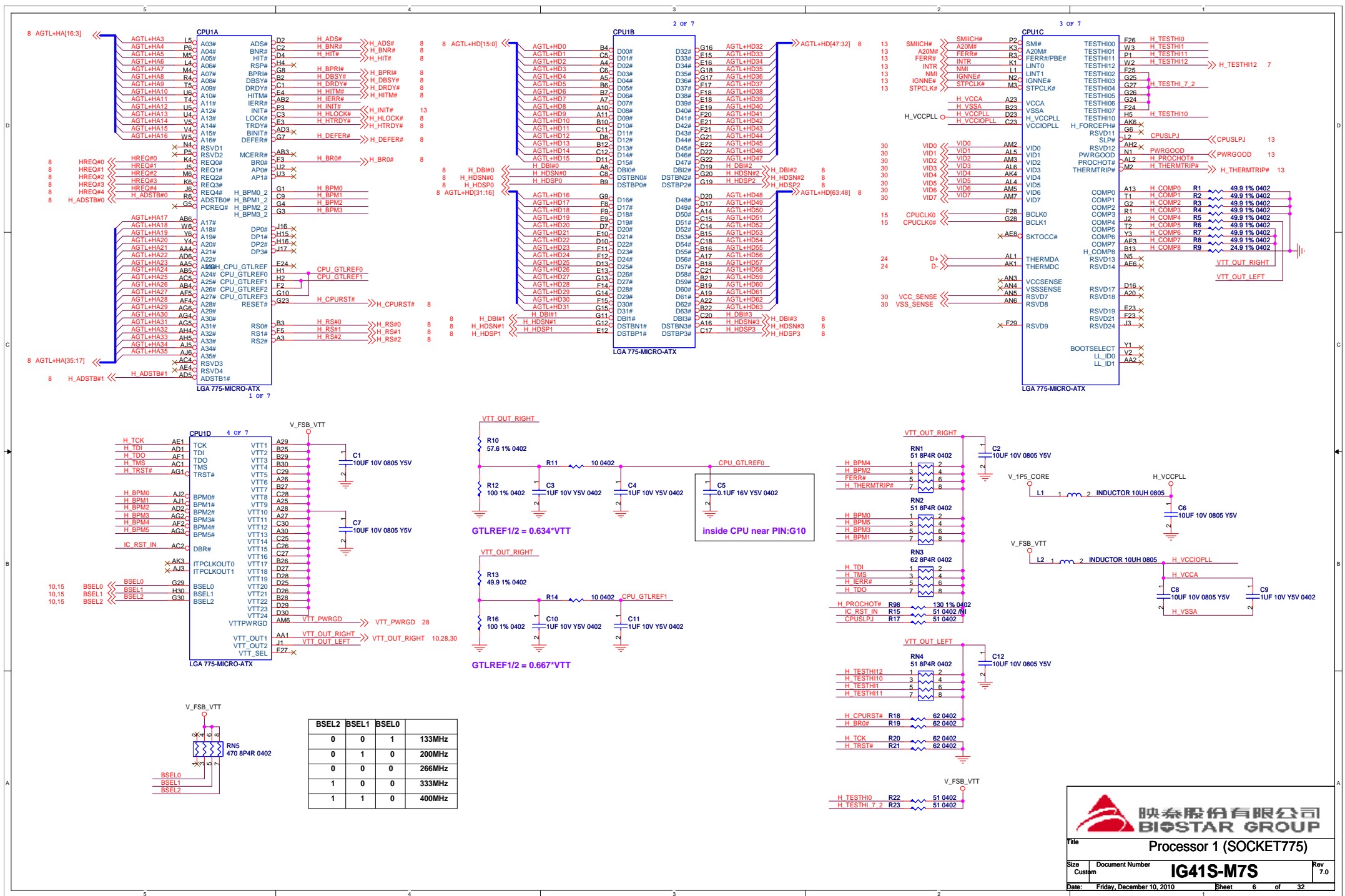
Regulator

Component/  
connector

\* (G)MCH ICC-current values are available in the (G)MCH EDS document



Title		Power Delivery
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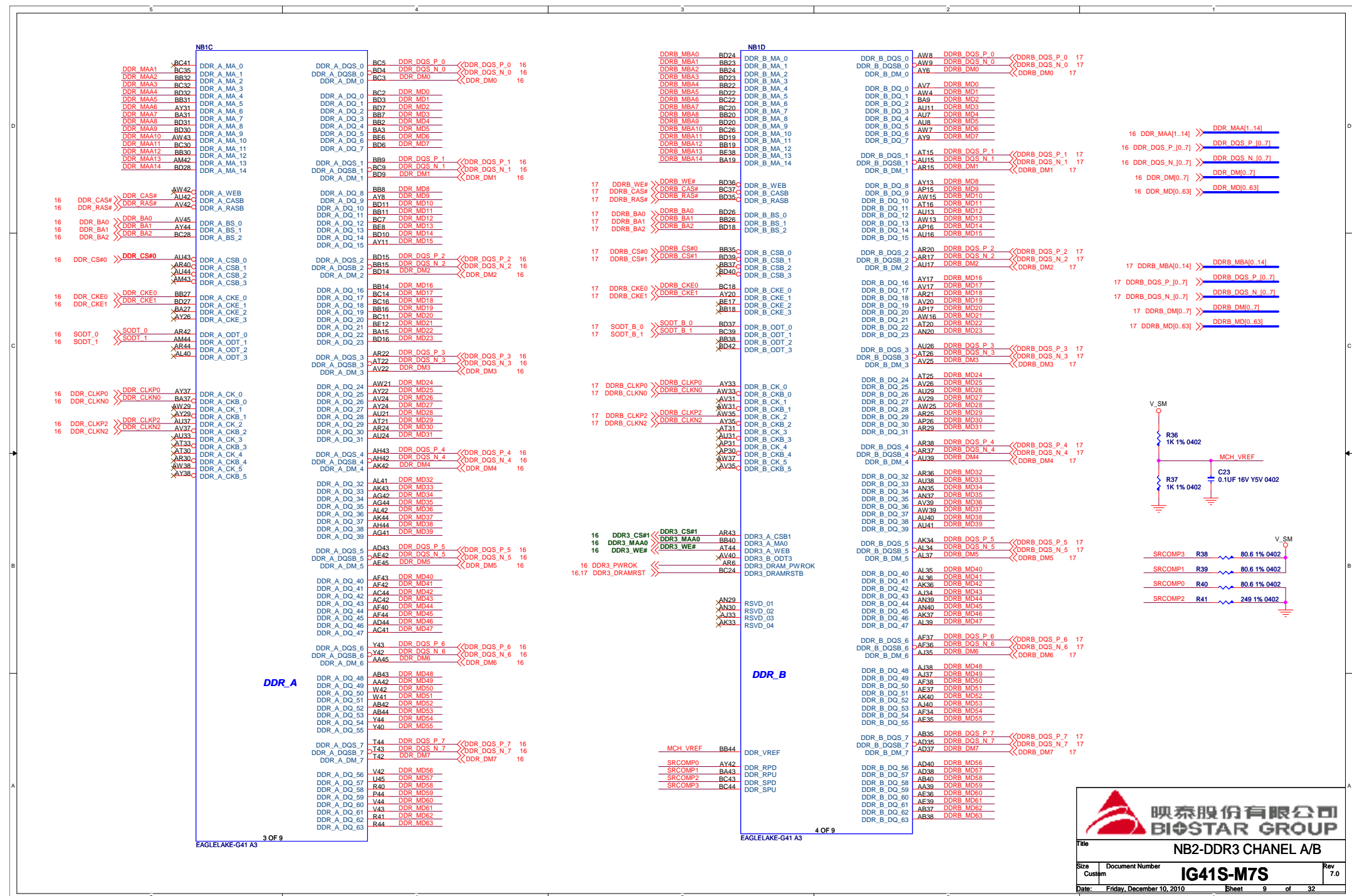


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File: Processor 1 (SOCKET775)		
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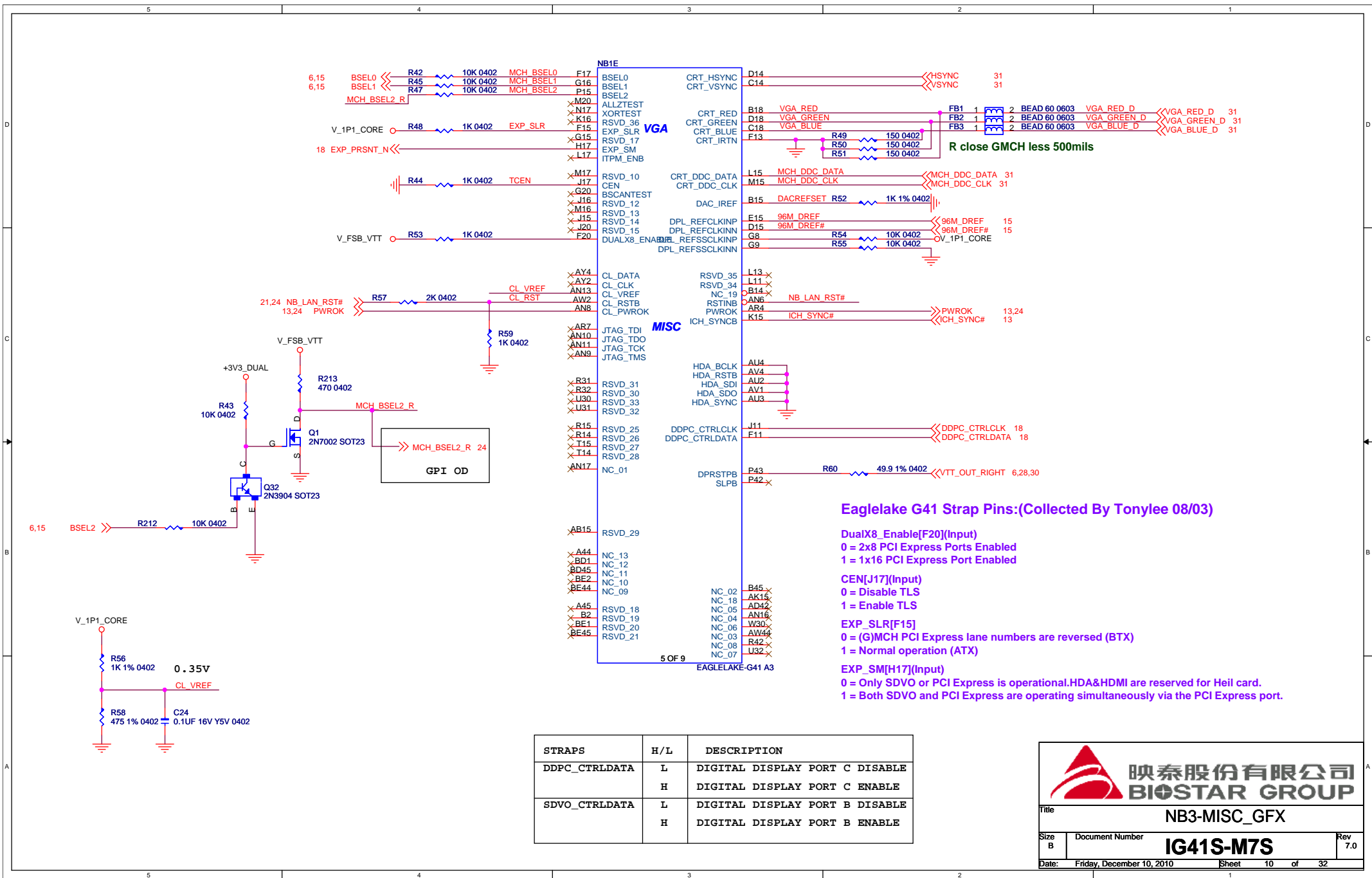




File: NB2-DDR3 CHANEL A/B

Size: Custom Document Number: IG41S-M7S Rev: 7.0

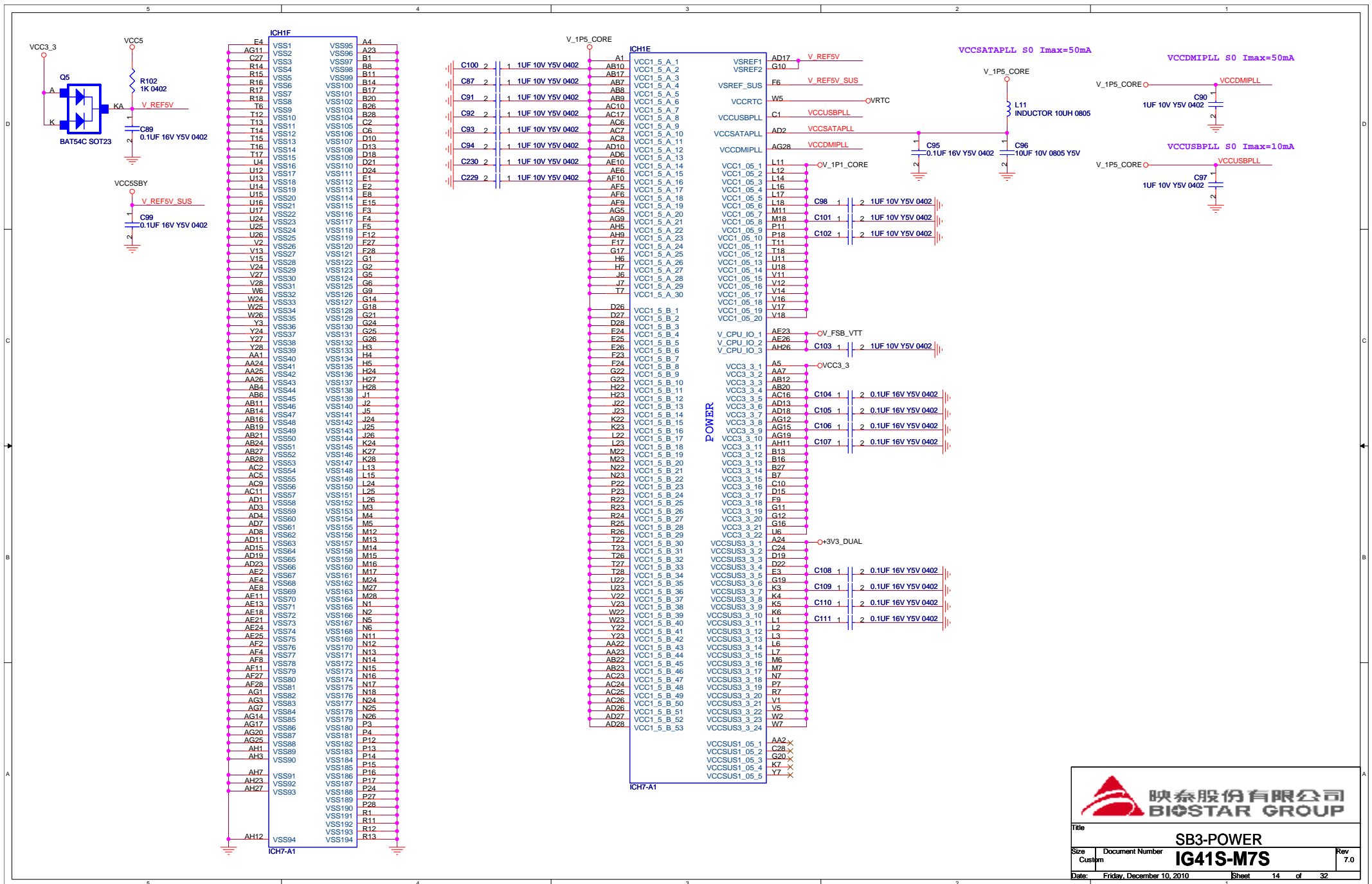
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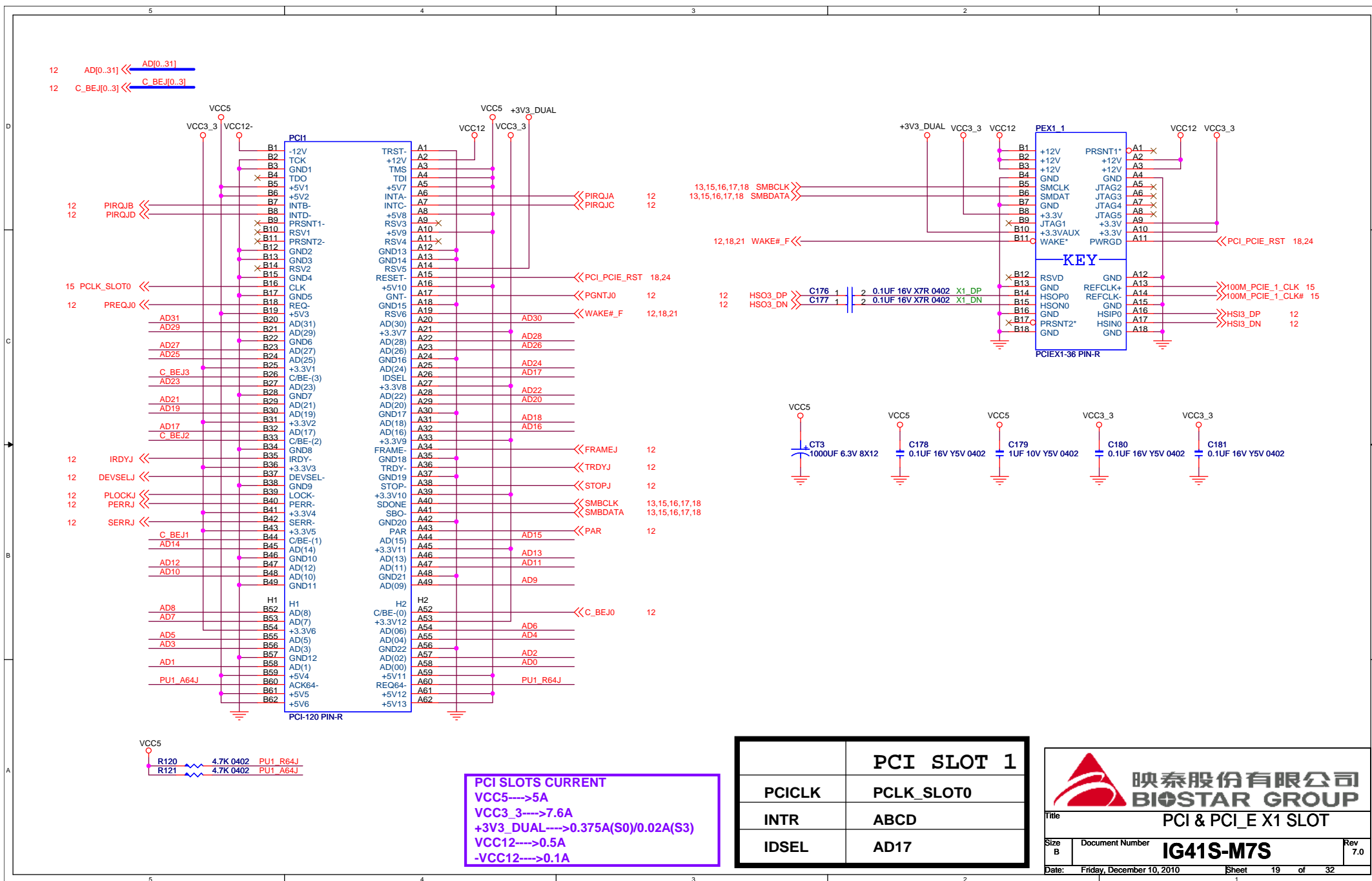


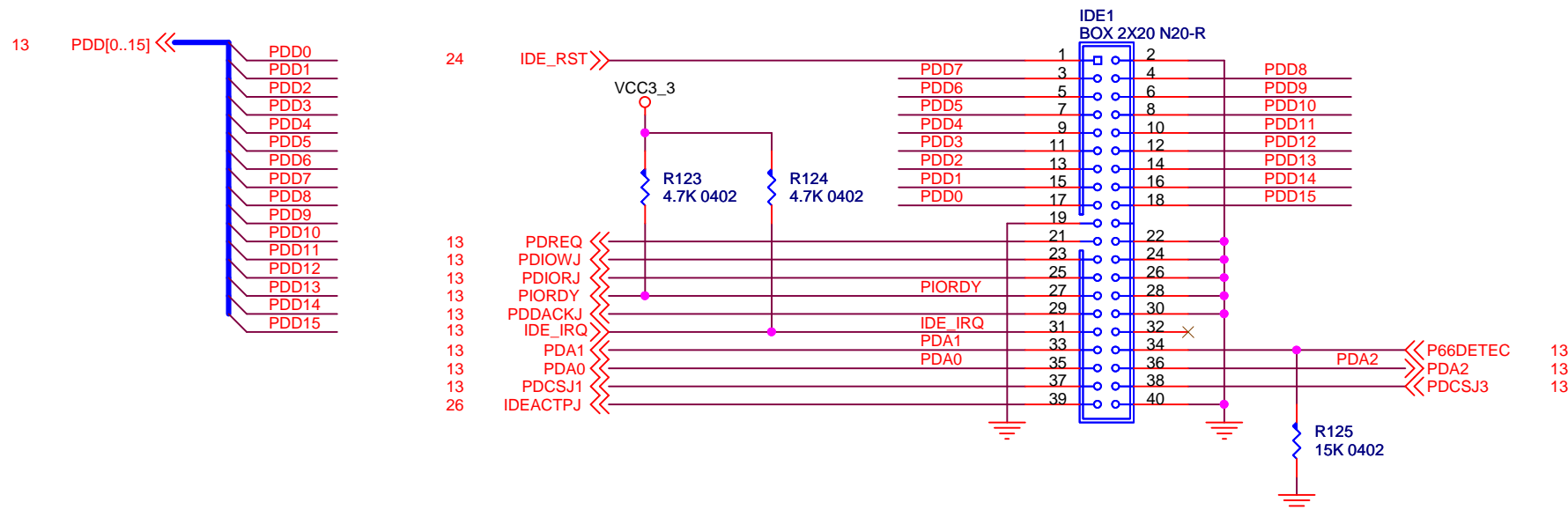















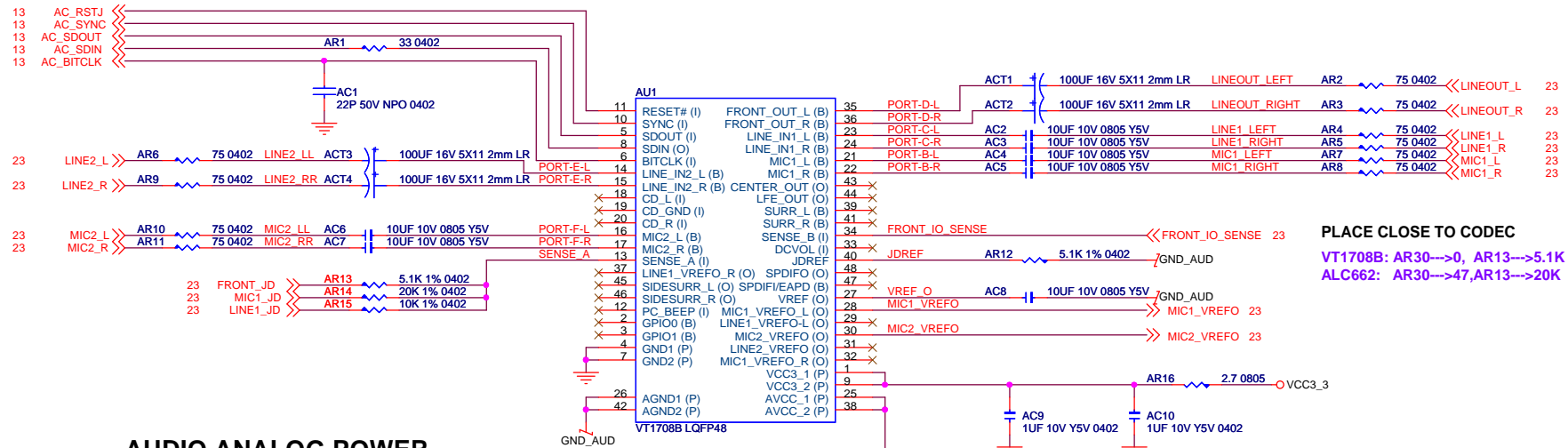
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Title: IDE CONNECTOERS

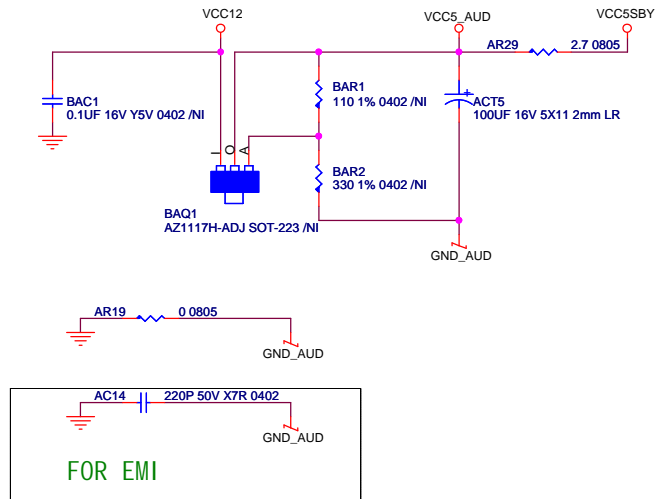
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## AUDIO ANALOG POWER



PLACE CLOSE TO CODEC

VT1708B: AR30--->0, AR13--->5.1K

ALC662: AR30--->47, AR13--->20K

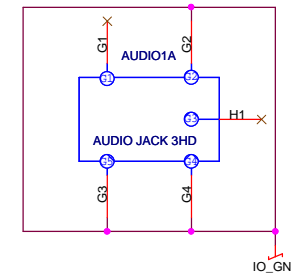
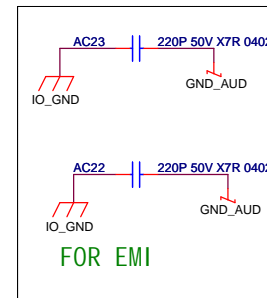
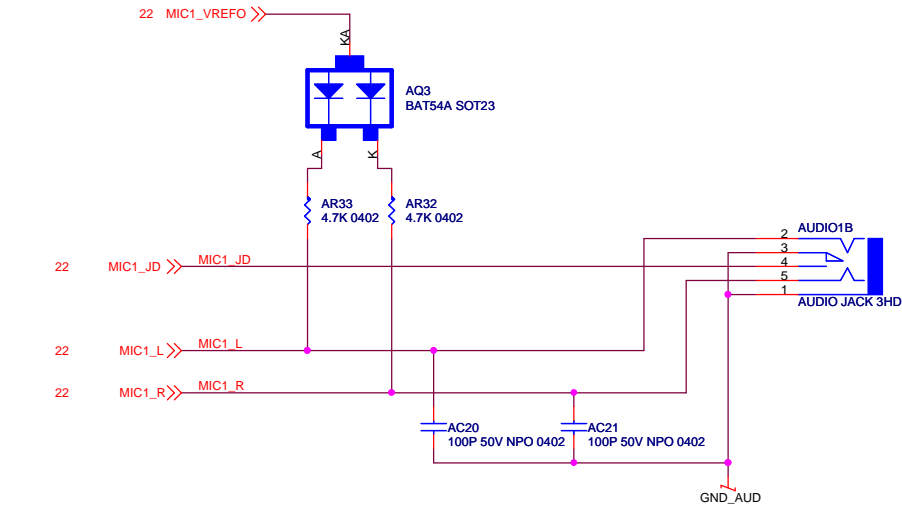
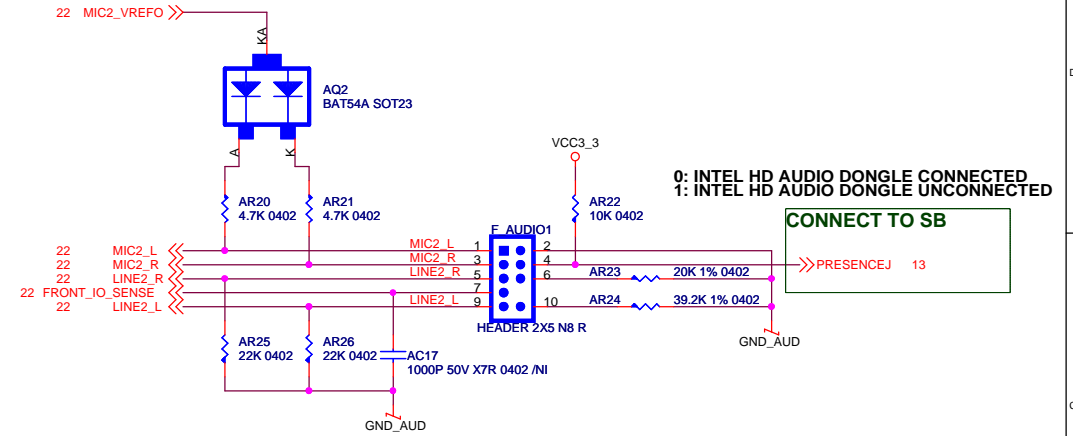
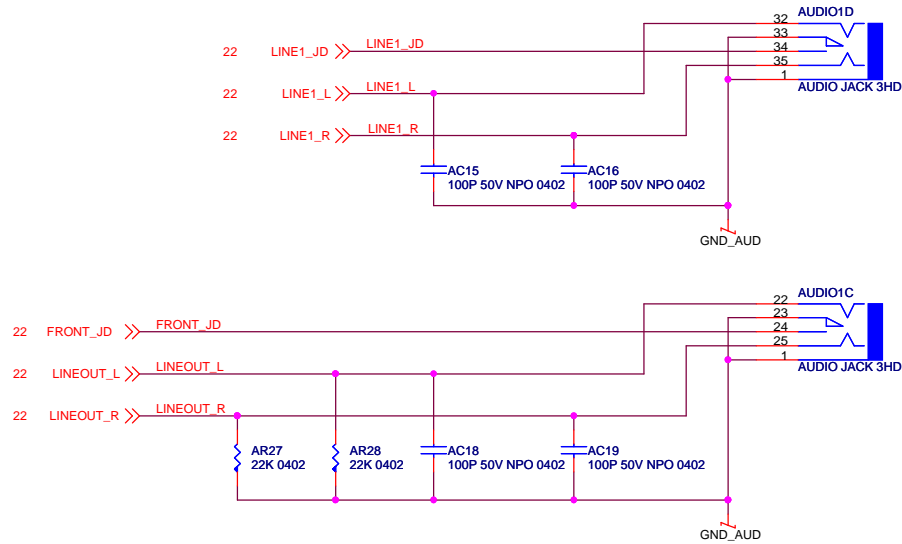


Title AUDIO CODEC VT1708B

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# Rear Panel Onboard Analog I/O



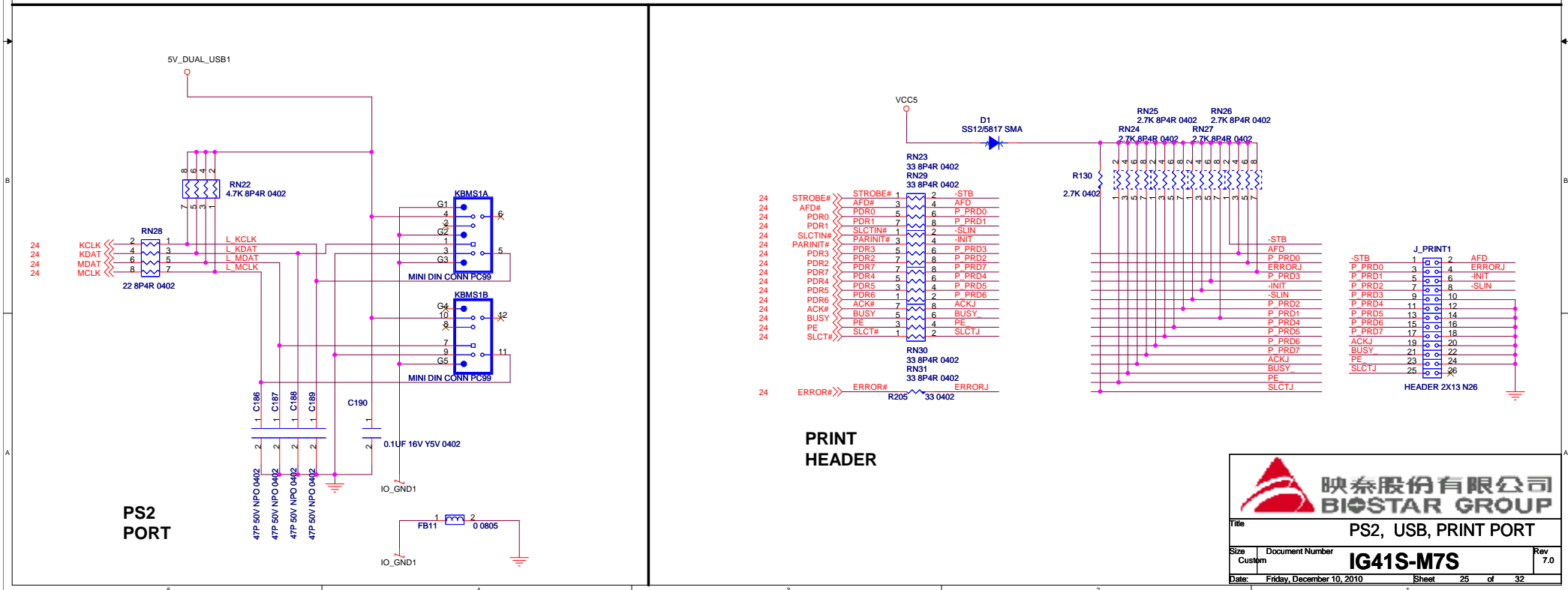
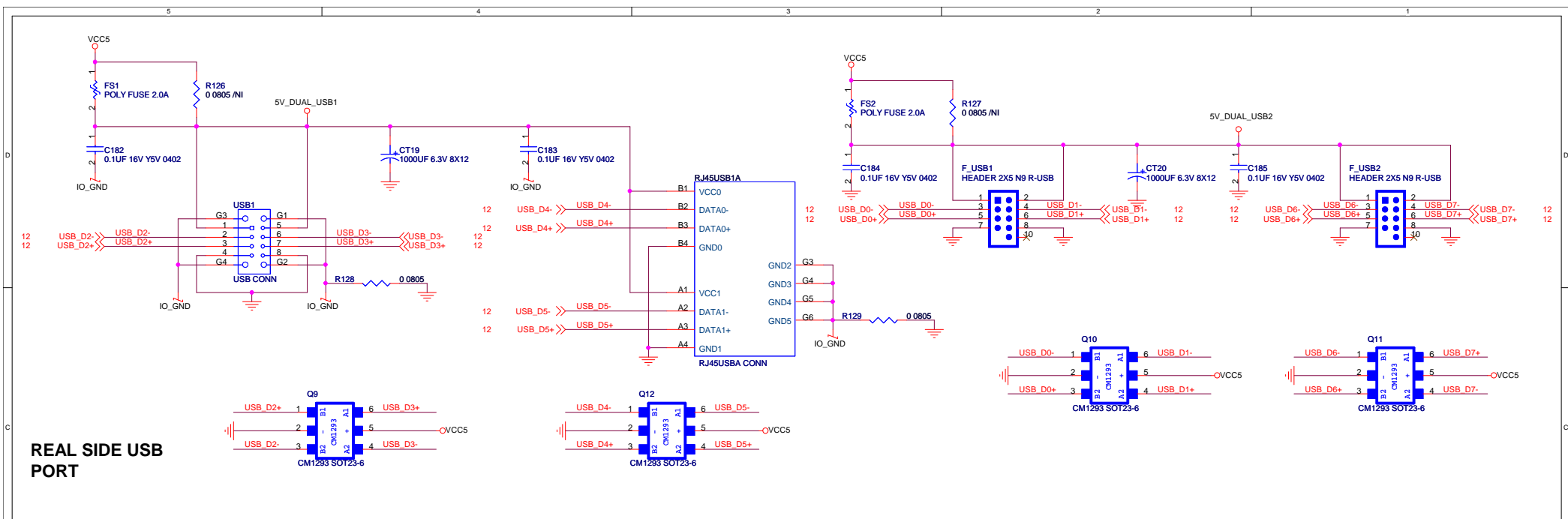
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Title: **AUDIO CONNECTOR**

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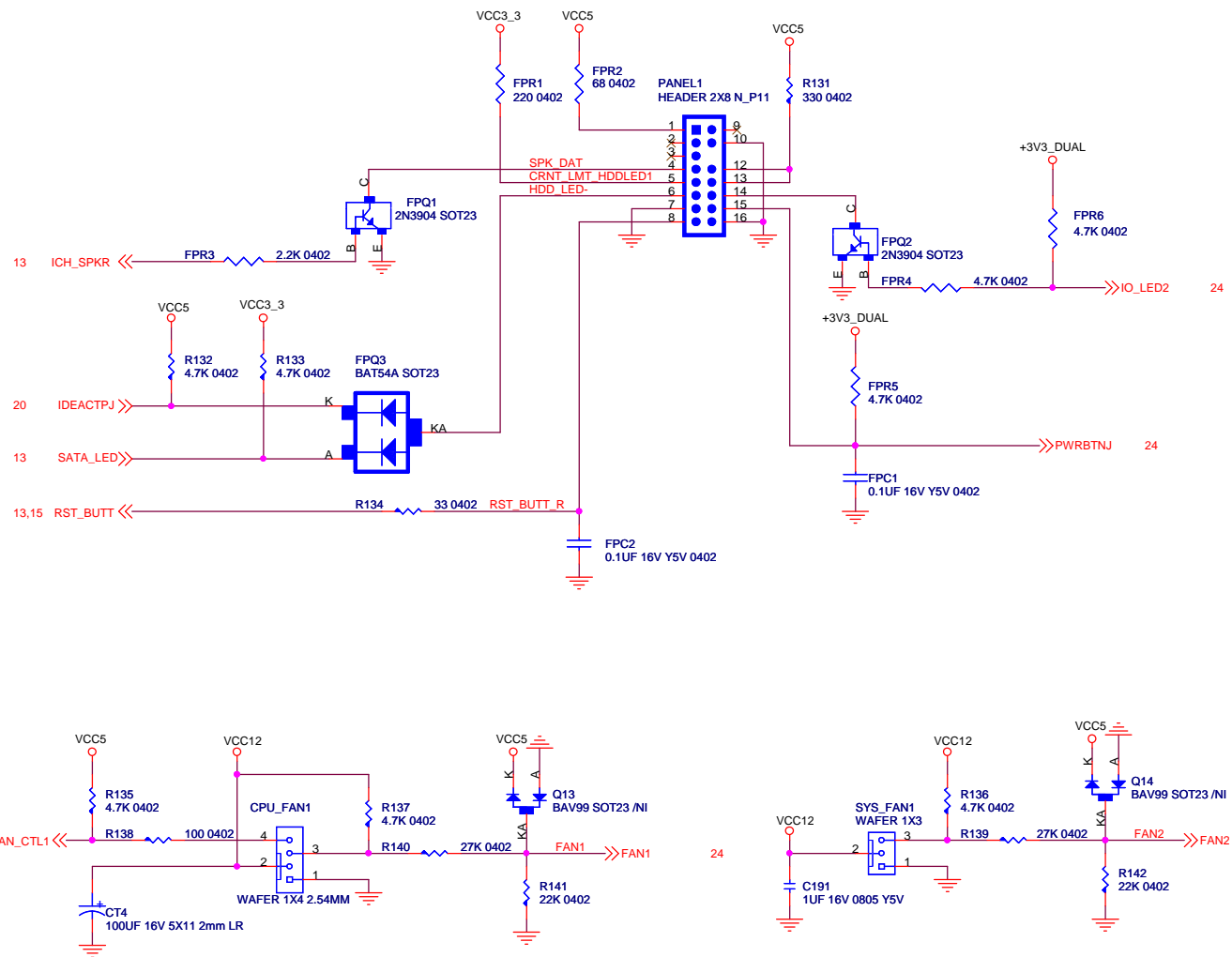



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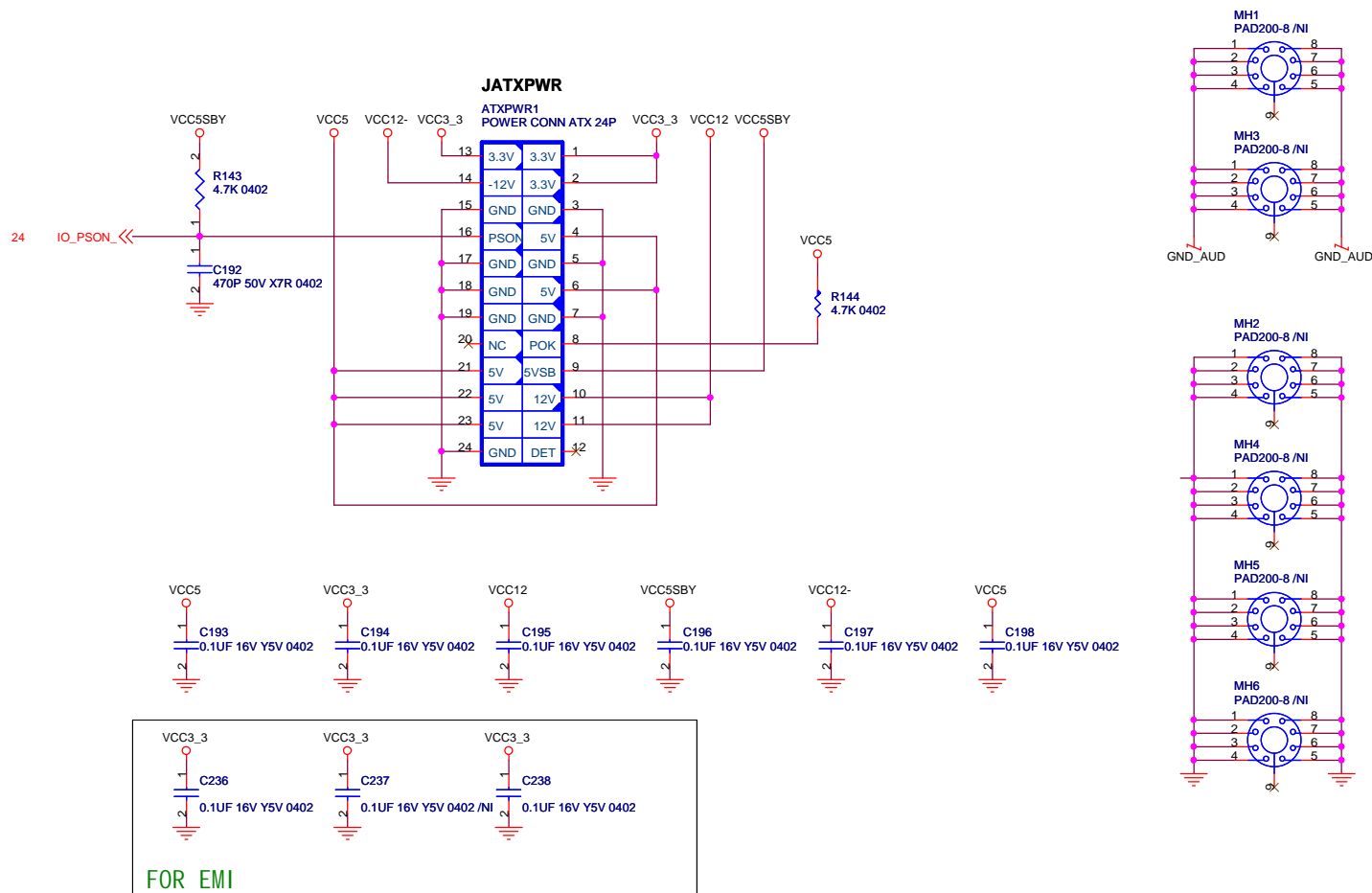
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Size: Custom Document Number: **IG41S-M7S** Rev: 7.0

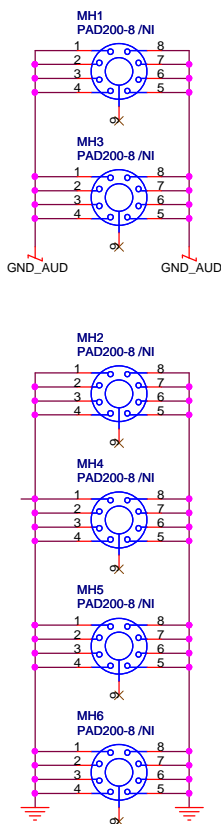
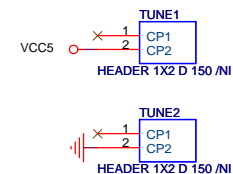
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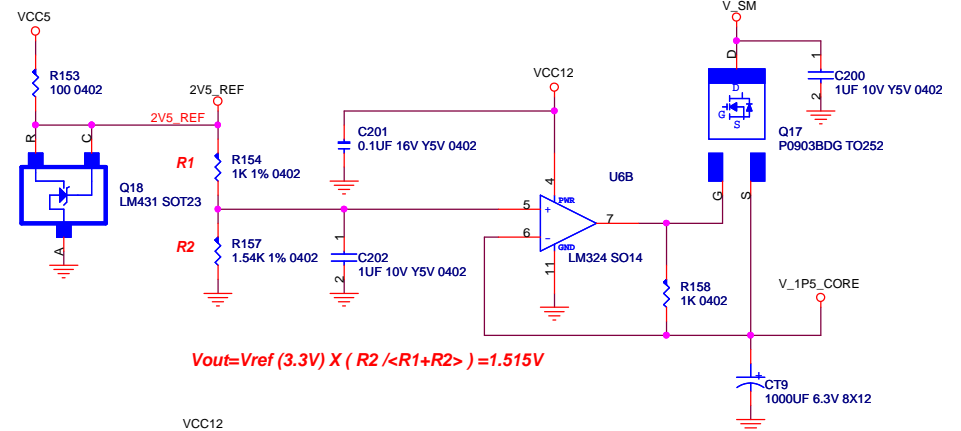
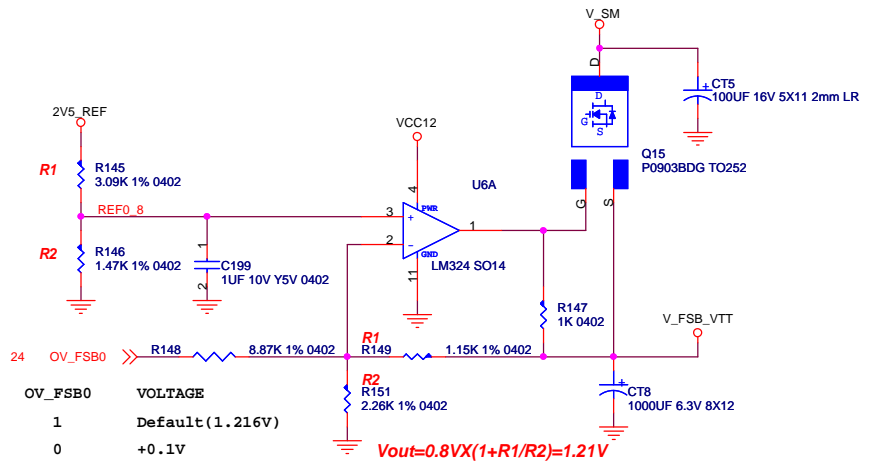
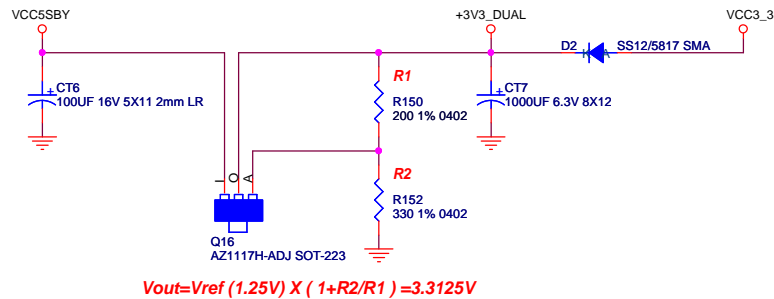
			
Title FRONT PANEL, USB(FRONT), FAN			
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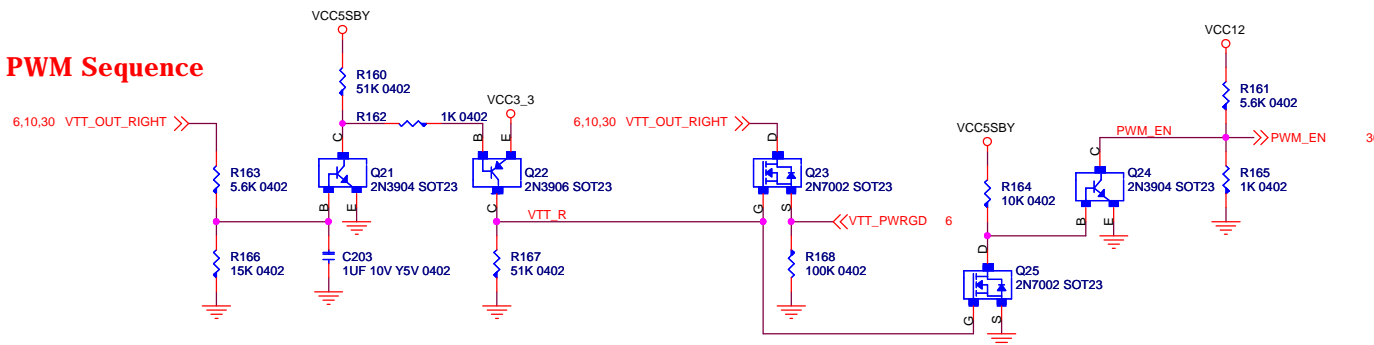
# Impedance Testing Coupon



<b>ATX POWER &amp; BPCAP MH &amp; EMI</b>		
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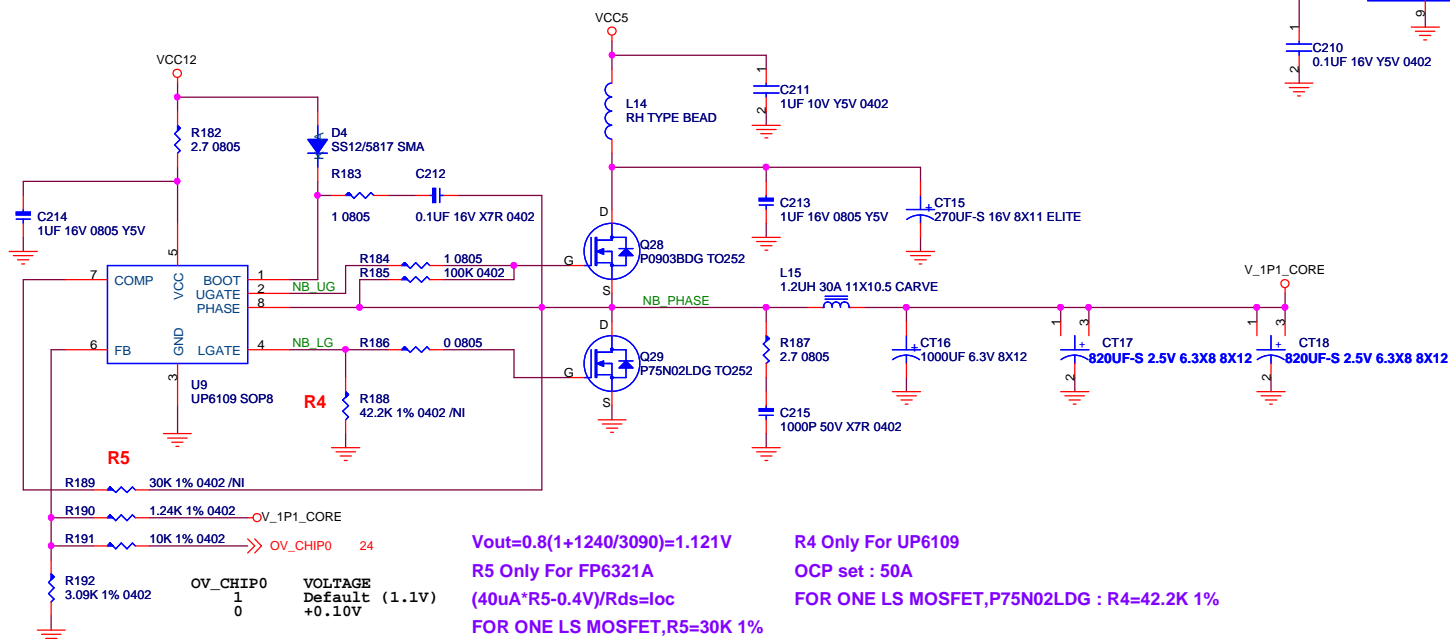
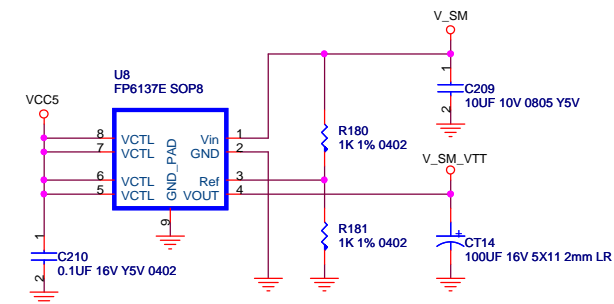
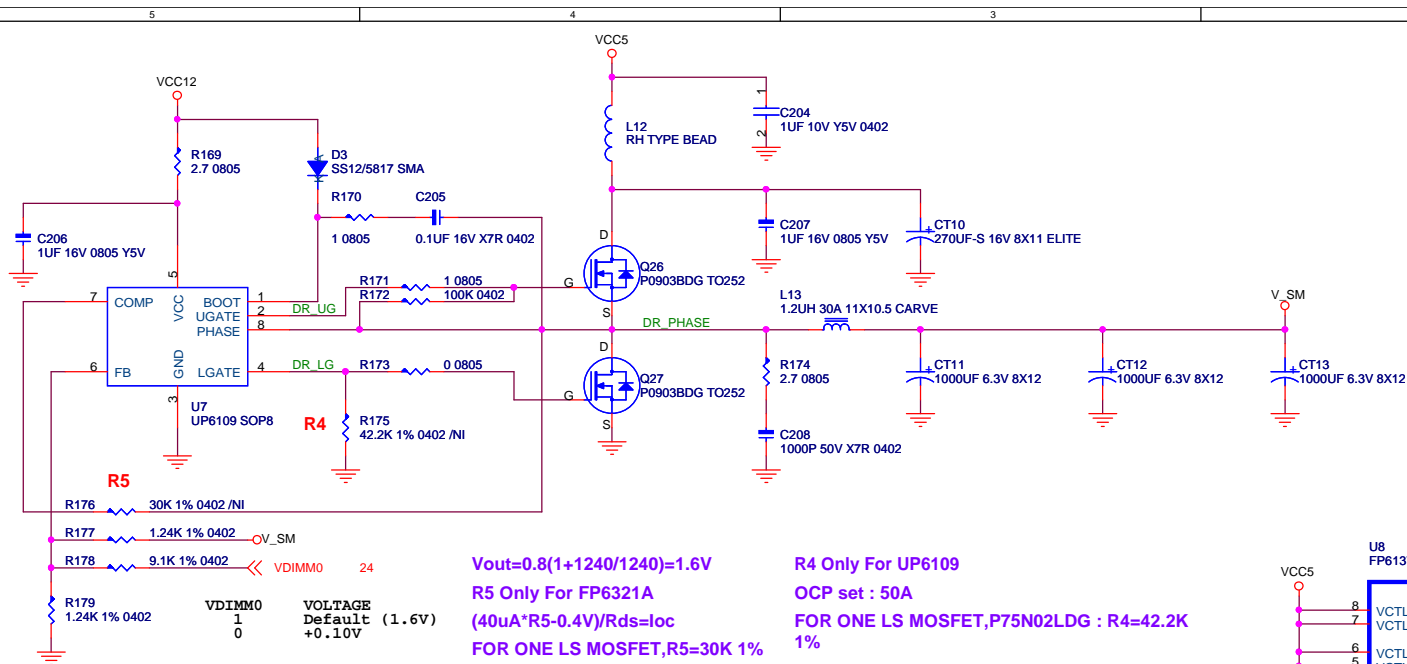


## PWM Sequence

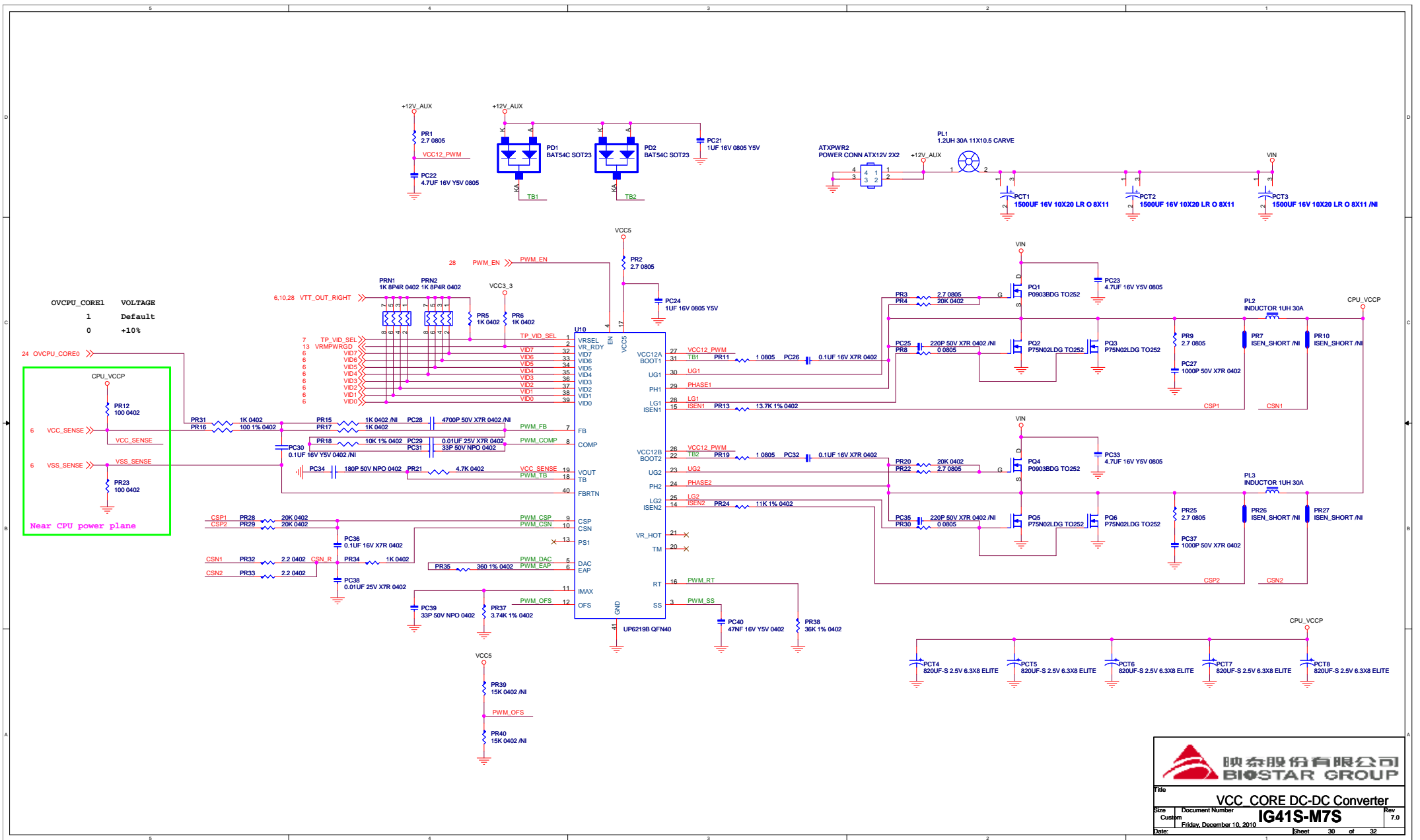


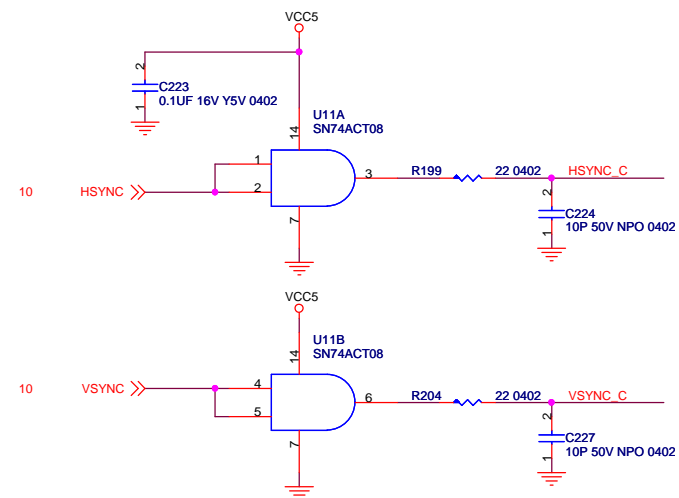
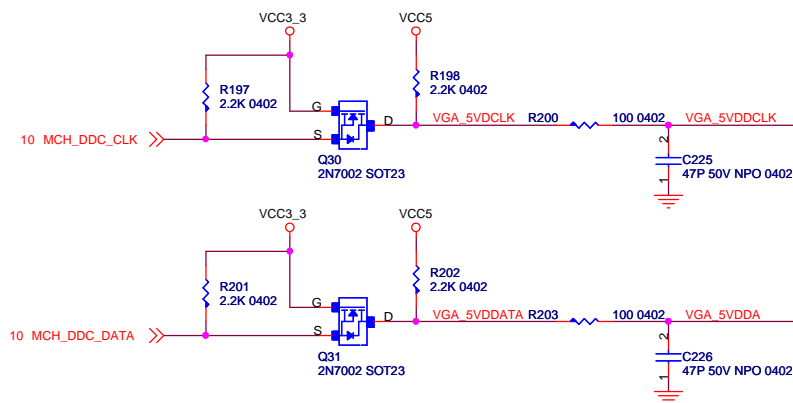
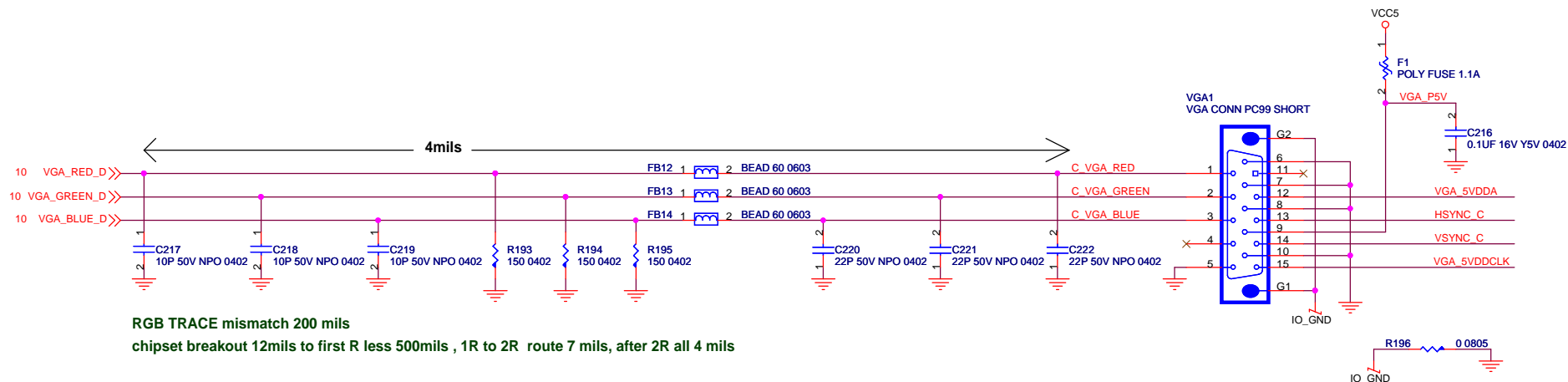
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Title: Miscellaneous DC-DC  
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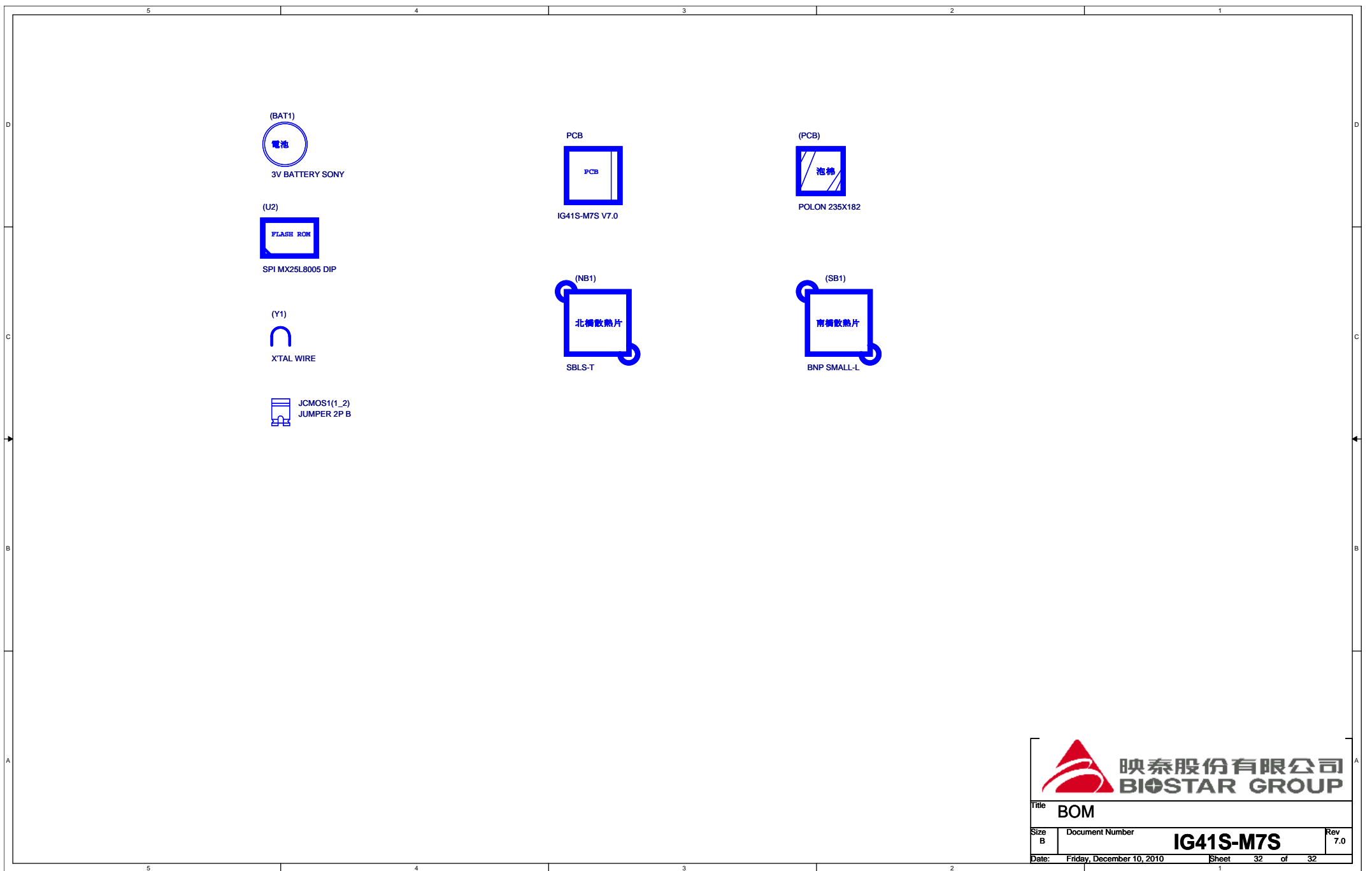



Title V_SM & V_1P1_CORE	
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VGA CONNECTOR			
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