

TA880G HD

A88PB-M3T

(RS880G/880D&SB850/810)

REV5.1

DATE :2010/10/27


PCB SIZE : uATX 244*244*1.5MM

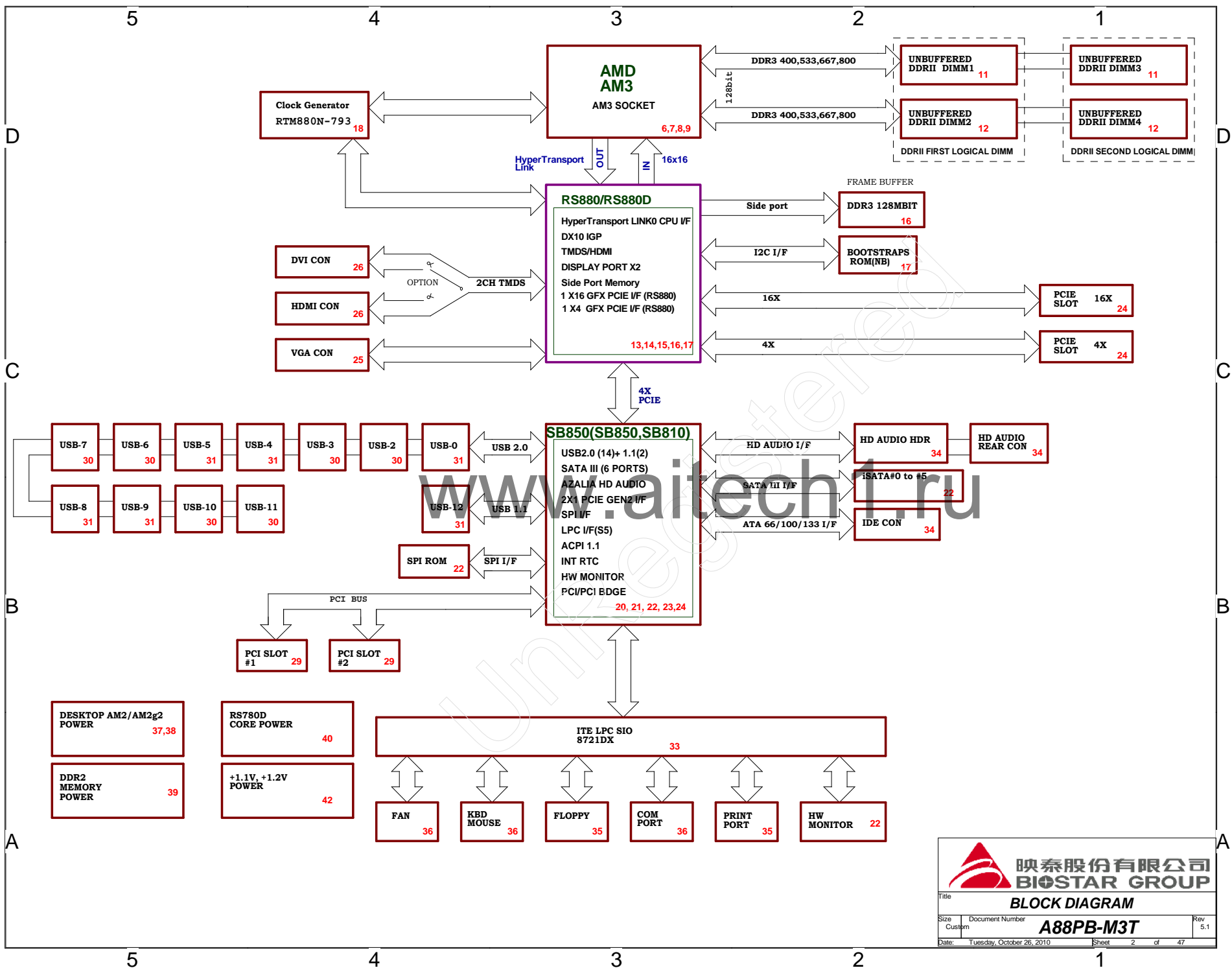
DDR3 X 4 Dual channel , PCI-Ex16 X 1 , PCI-Ex1 X 1 , PCI
X 2 ,RELTEK 10/100/1000 PCI-E Lan , AMD AM3

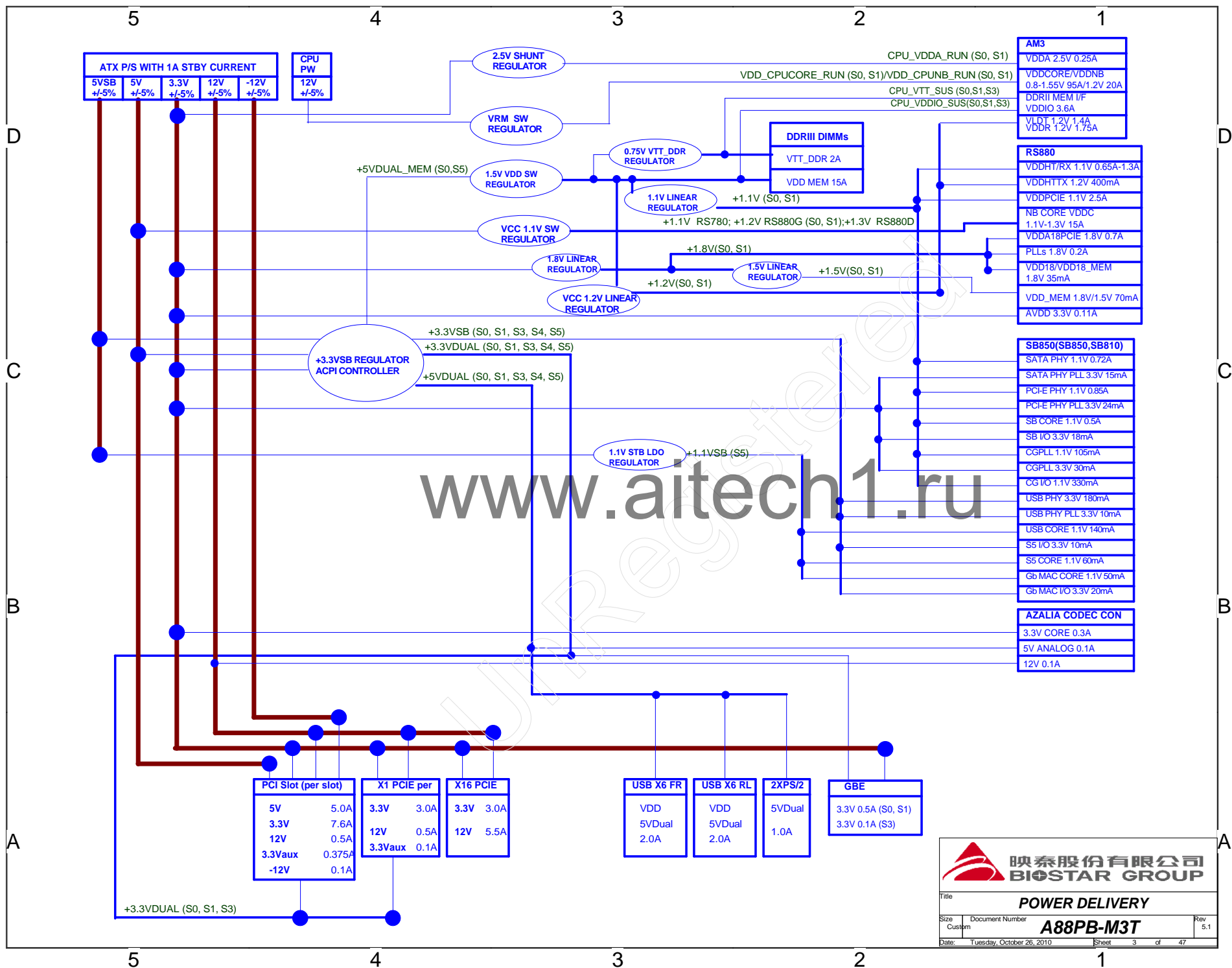
BIOSTAR'S PROPRIETARY INFORMATION

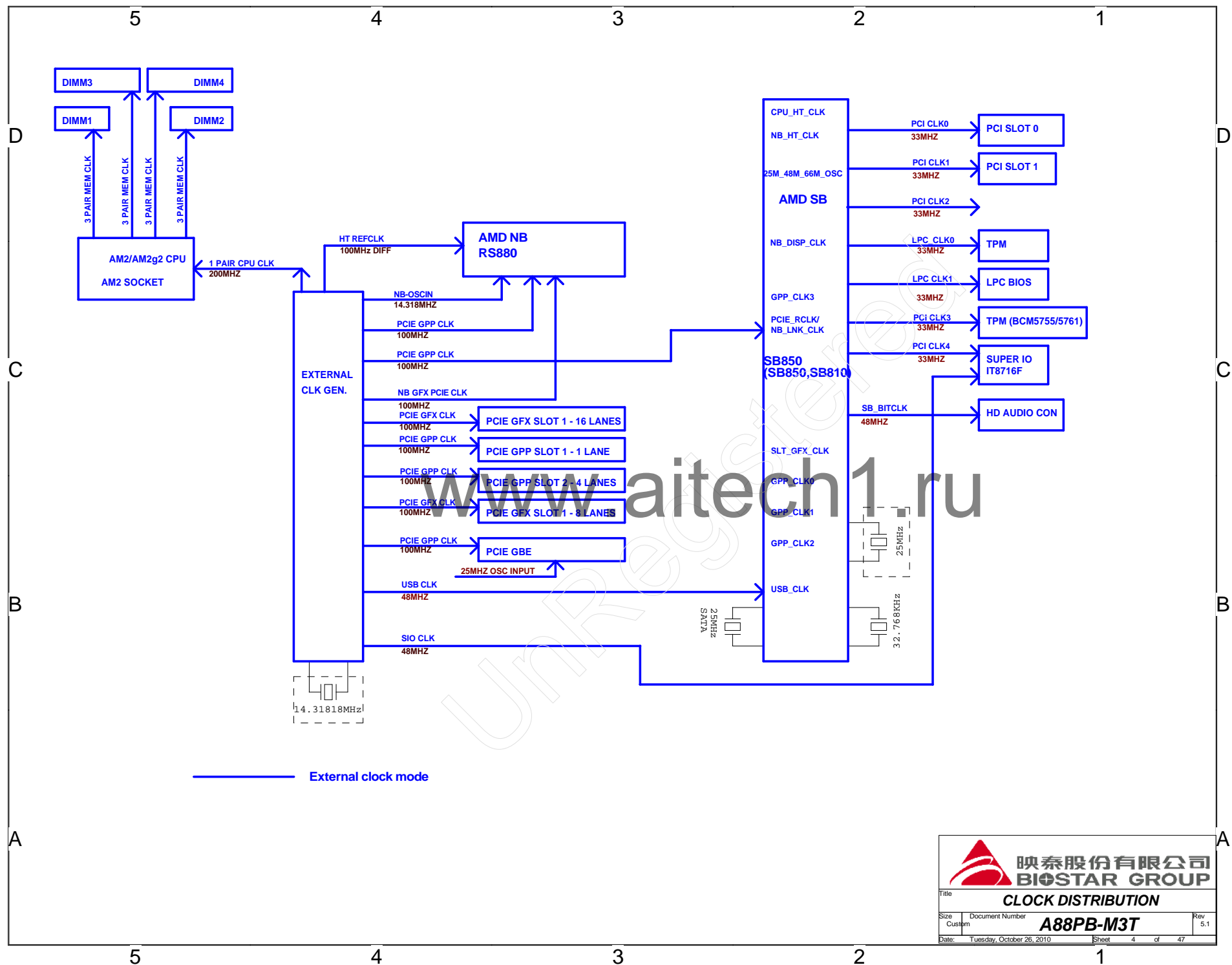
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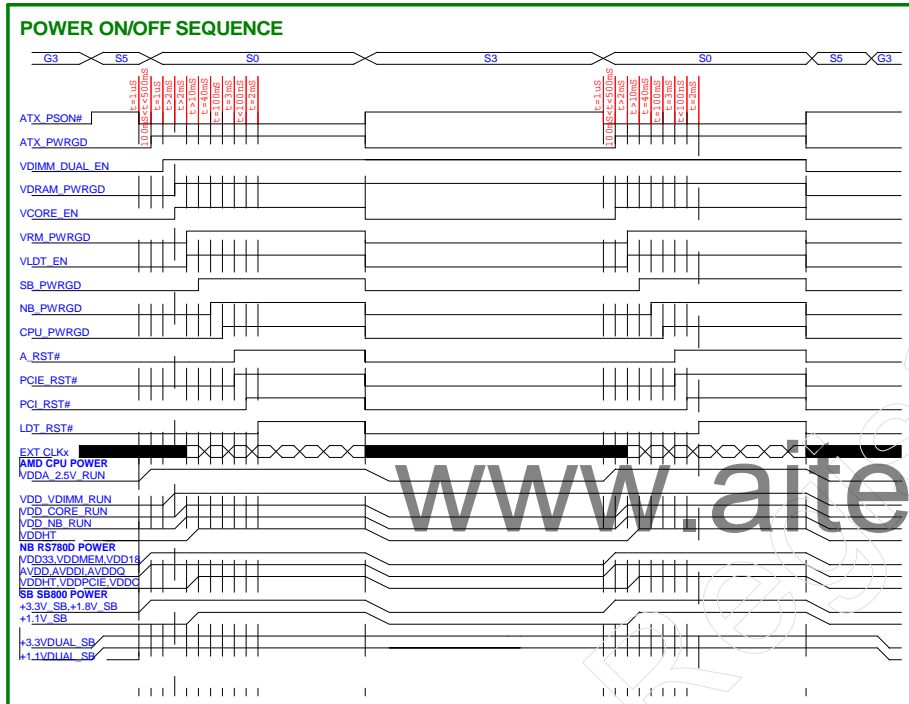
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Title COVER			
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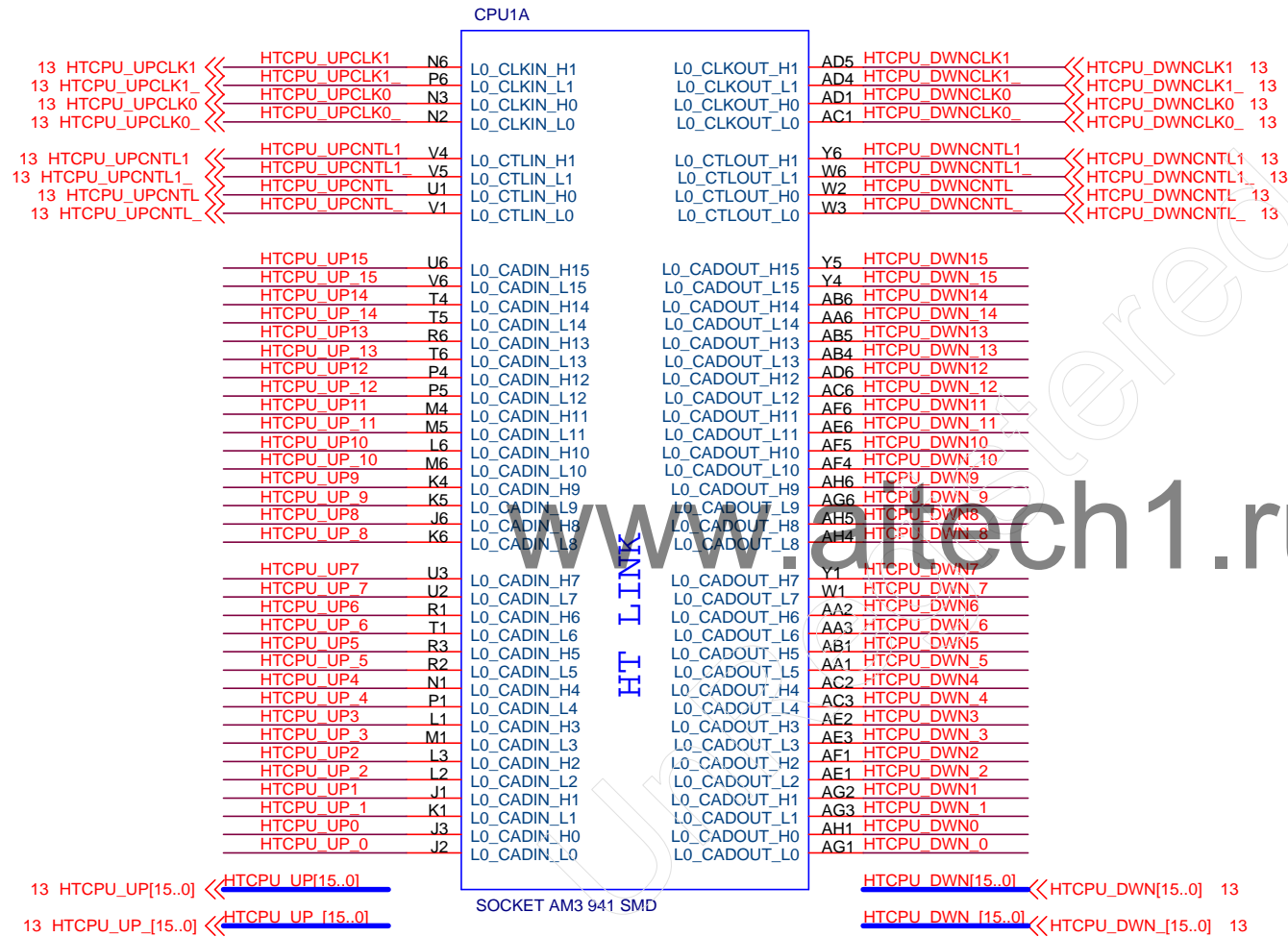






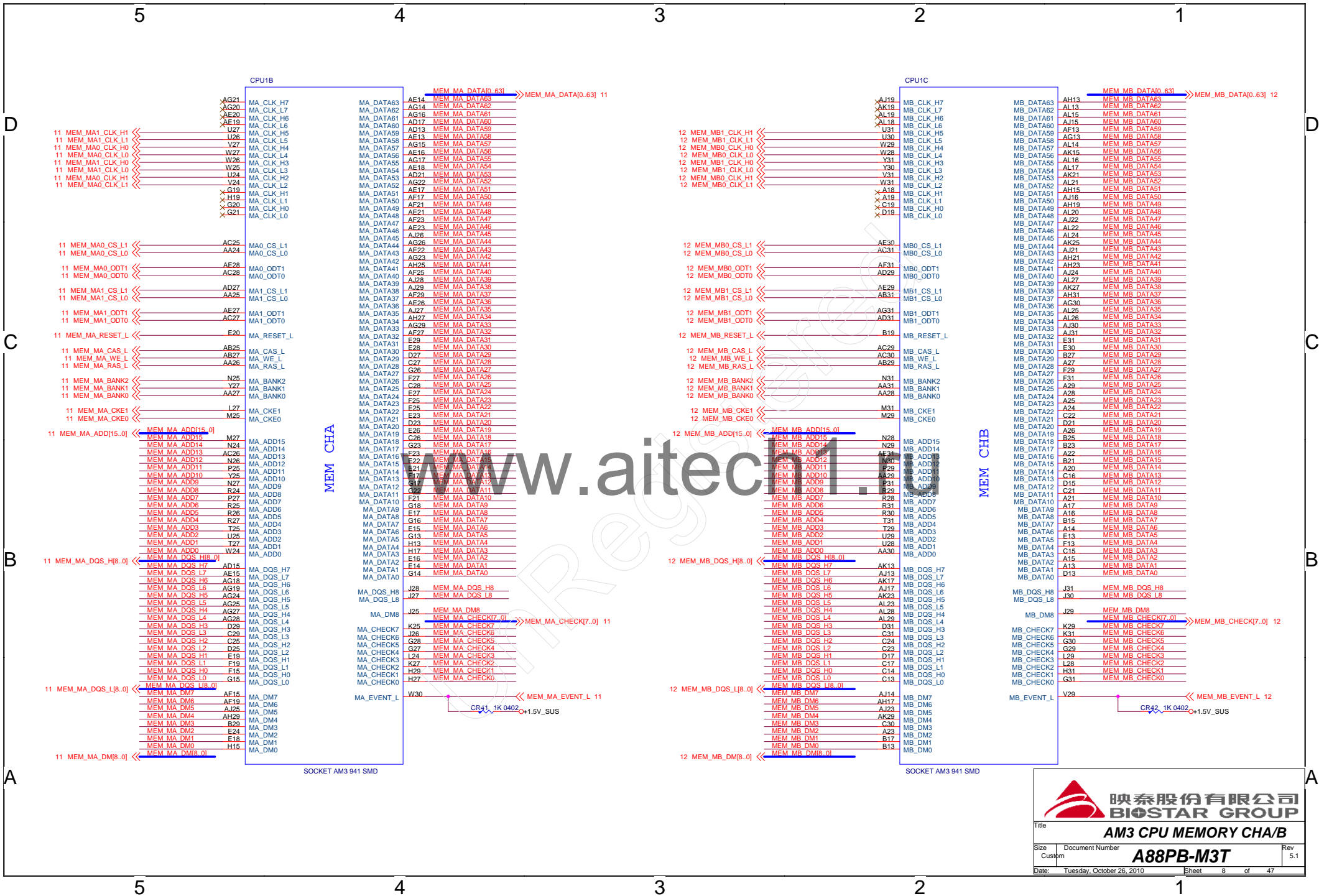


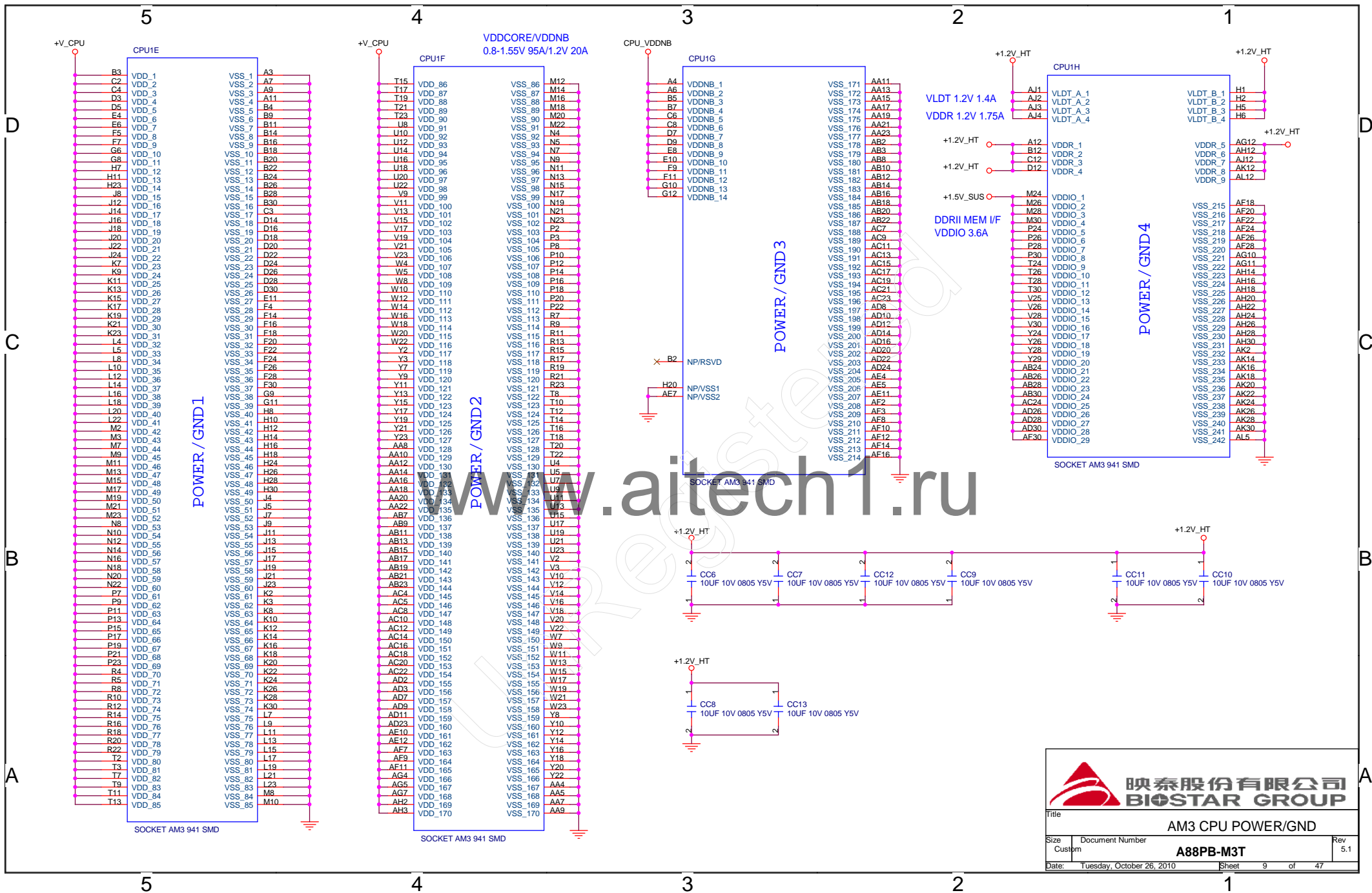
HyperTransport 3.0



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Title			AM3 CPU HT
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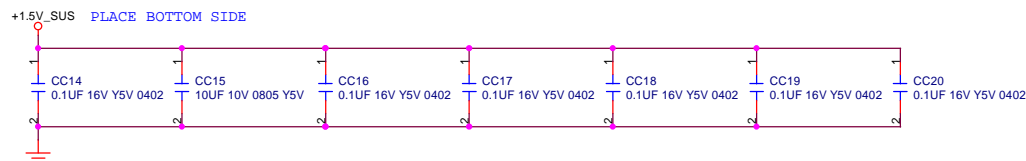
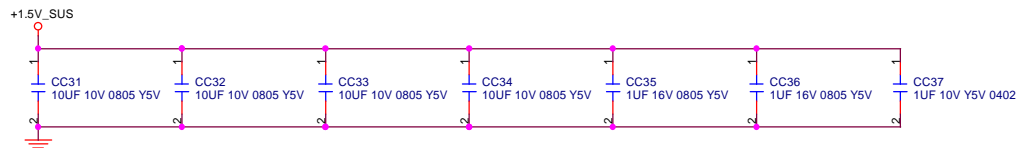
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4

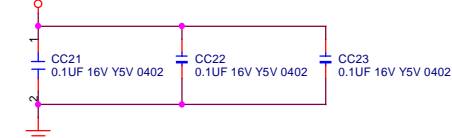
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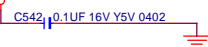
1



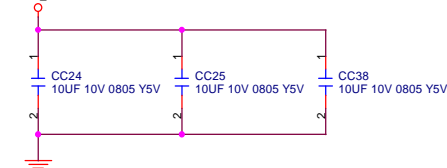
+1.5V_SUS DECOUPLING BETWEEN PROCESSOR AND DIMMS



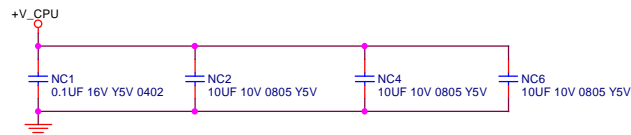
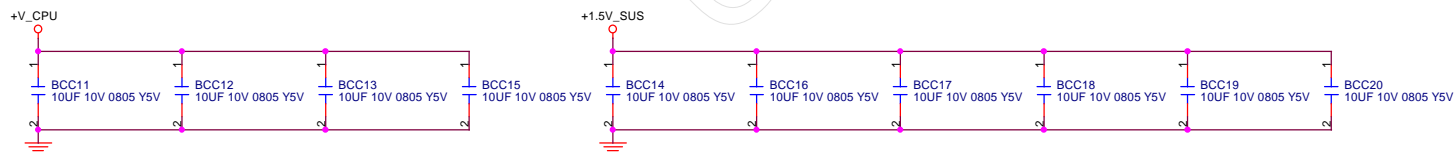
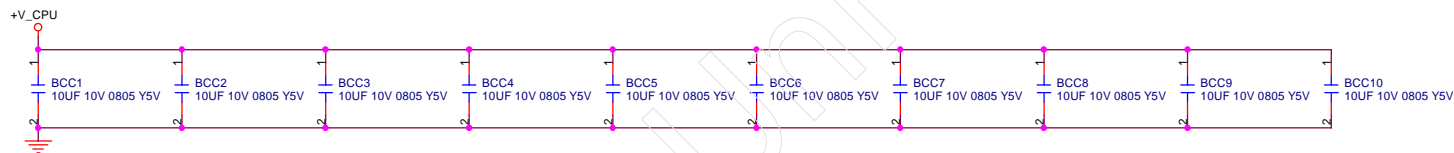
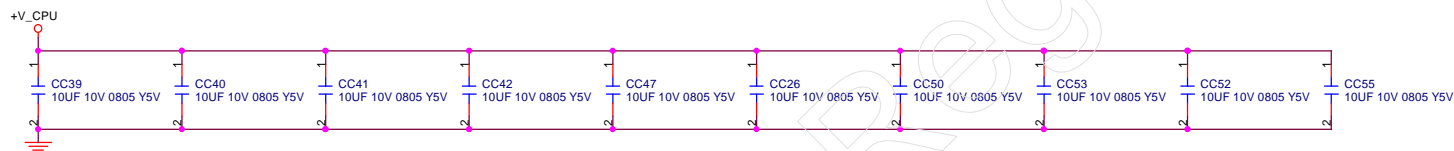
+V_CPU



CPU_VDDNB



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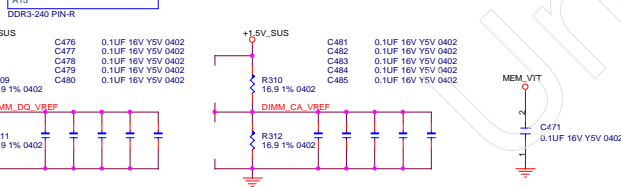
HT LINK STITCHING CAPS

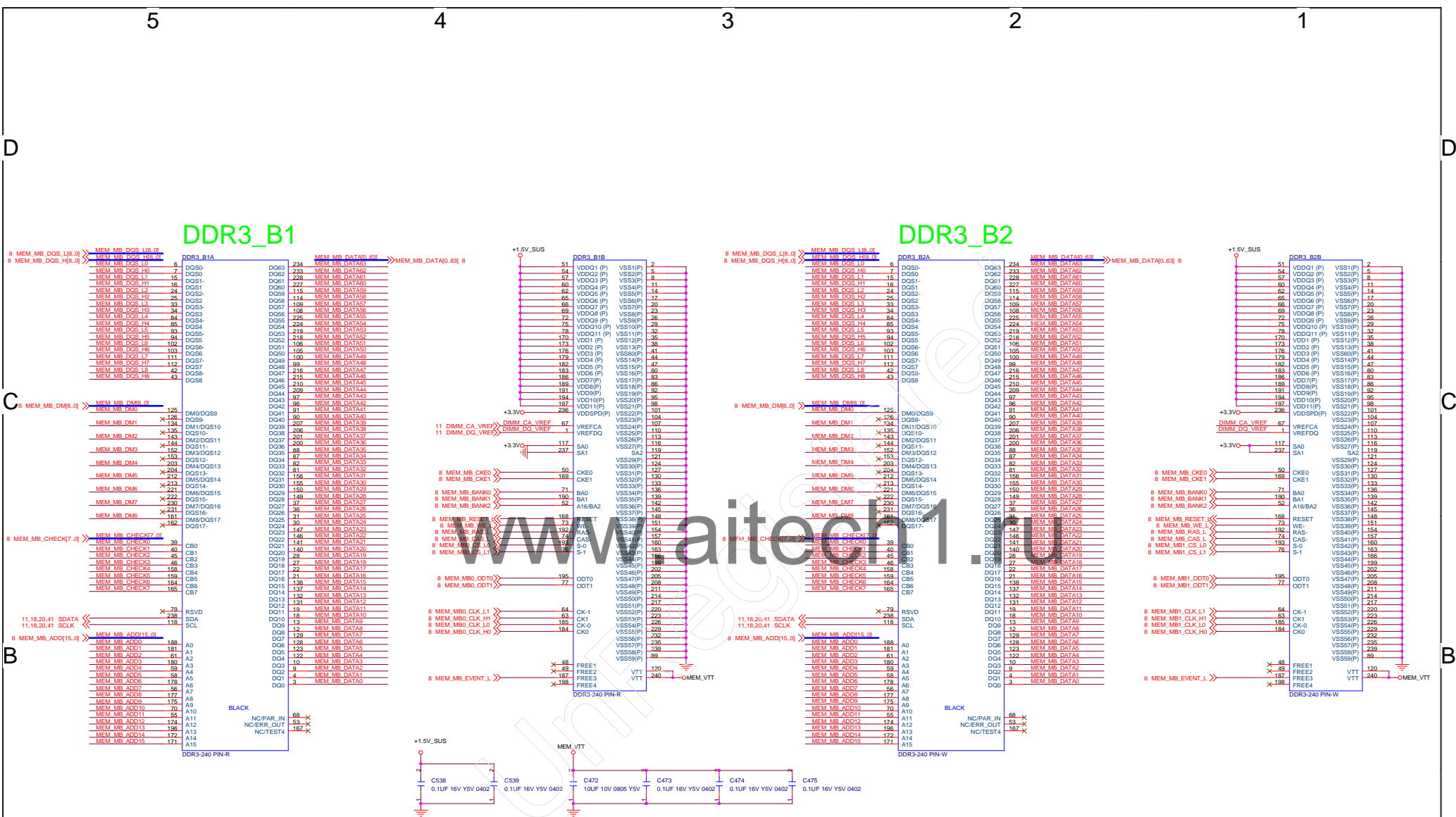
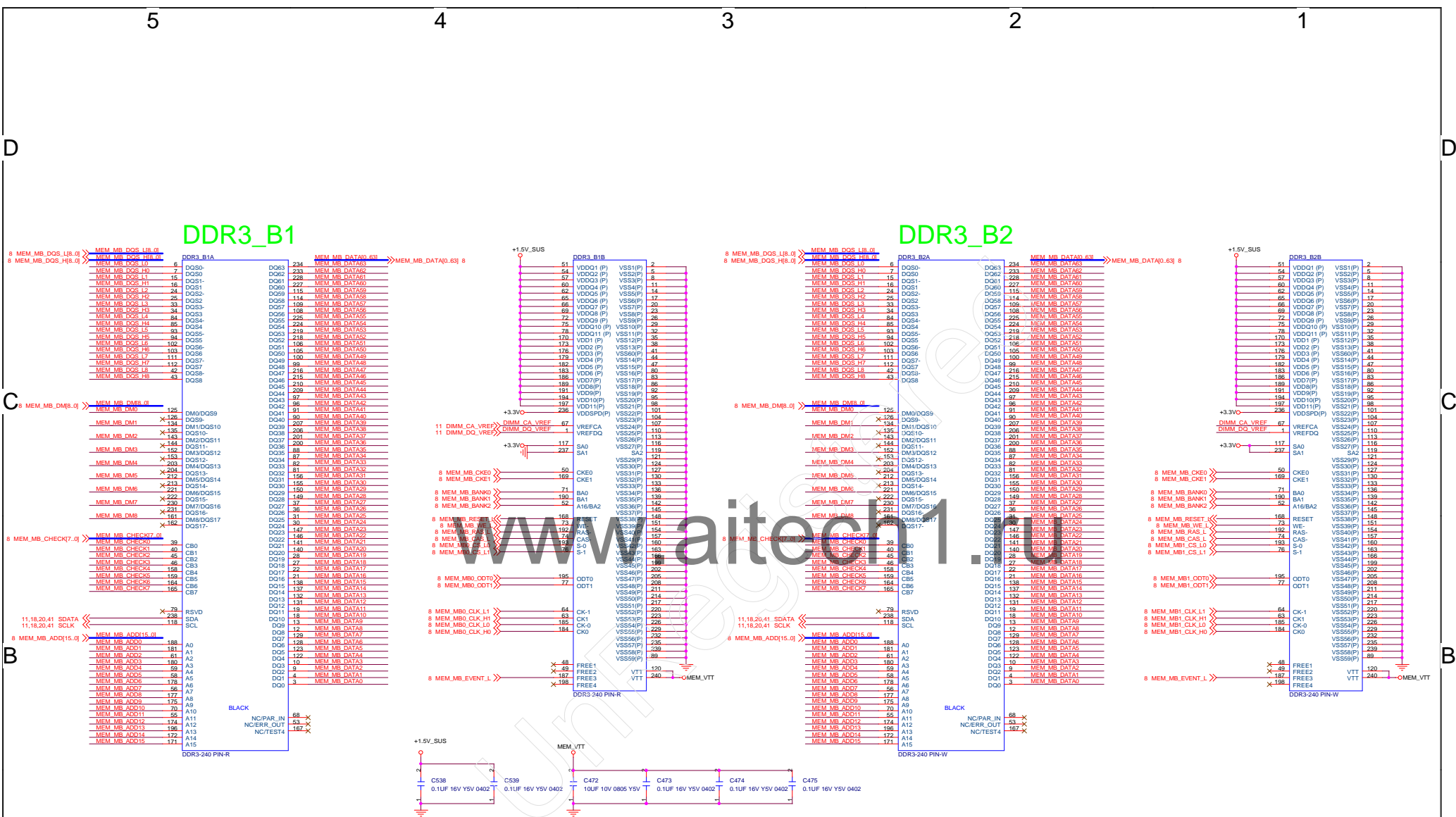


Title		DECOUPLING	
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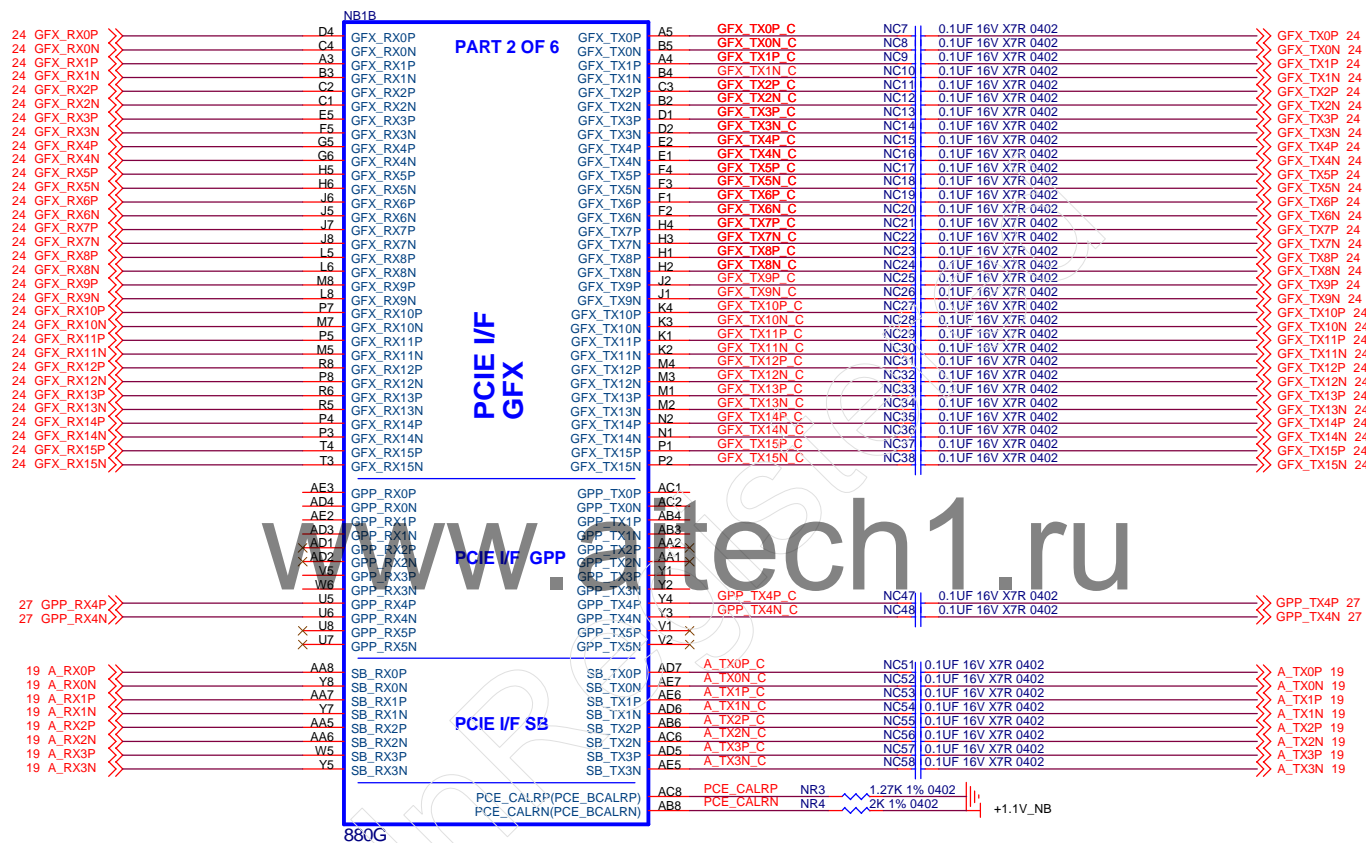
DDR3_A1

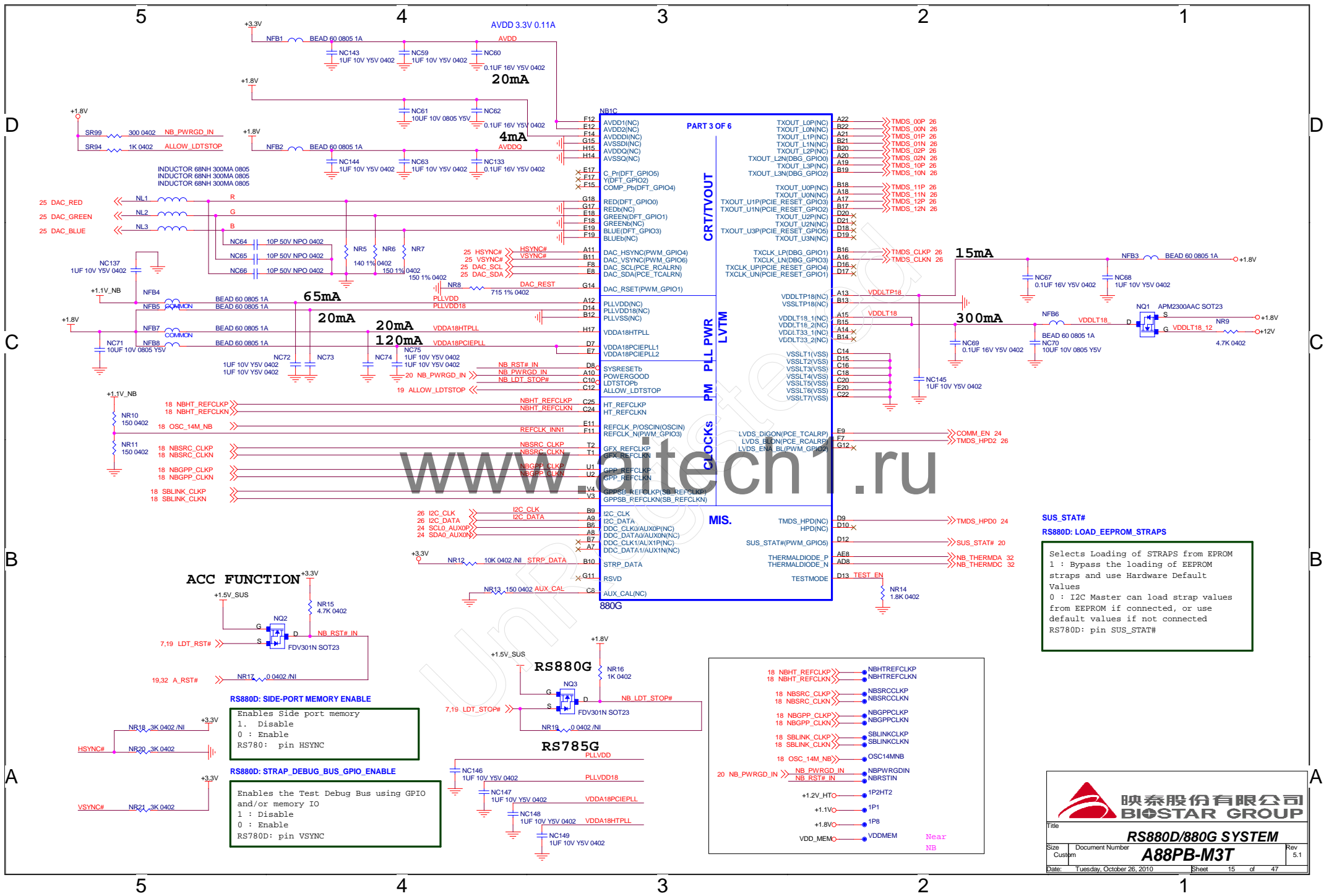
DDR3_A2

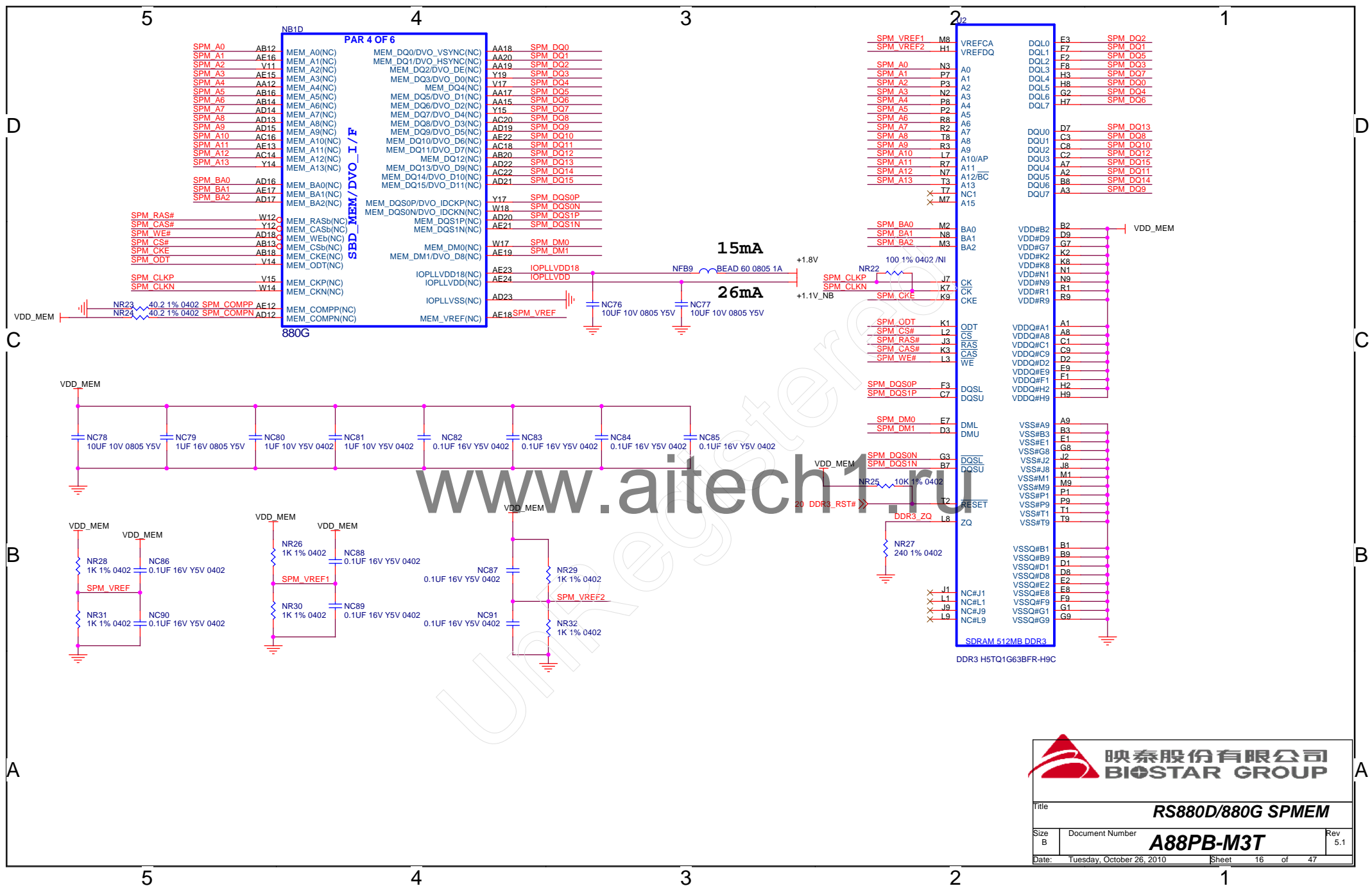


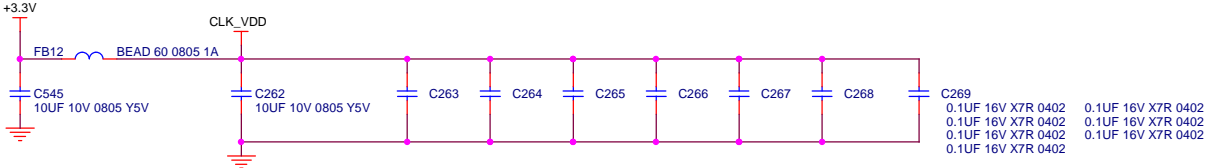








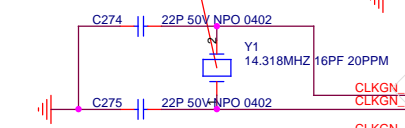




1- PLACE ALL THE SERIES TERMINATION
RESISTORS AS CLOSE TO U800 AS
POSSIBLE ALL SRCCLKTX AND SRCCLKX
AS DIFFERENT PAIR RULE
3- PUT DECOUPLING CAPS CLOSE TO U800
POWER PIN

Place R800/801 less than 500 mils away from U800
R851 less than 100 mils away from R800/801
route CPU clock as 100ohm differential pair

Parallel Resonance
Crystal



SEL_HTT66	1	66MHz 3.3V single ended HTT clock
	0*	100MHz differential HTT clock
SEL_SATA	1	100MHz non-spreading differential SATA clock
	0*	100MHz differential spreading SRC clock

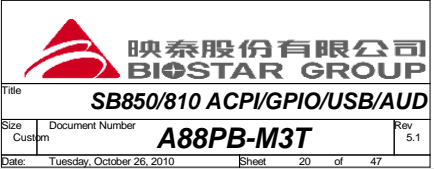
* default

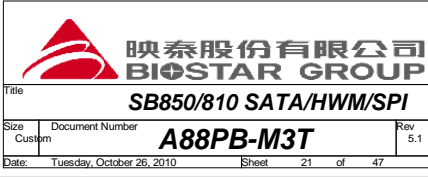
Clock chip has internal serial terminations
for differential pairs, external resistors are
reserved for debug purpose.

CLOCK GEN

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5

4

3

2

1

D

D

C

C

B

B

A

A

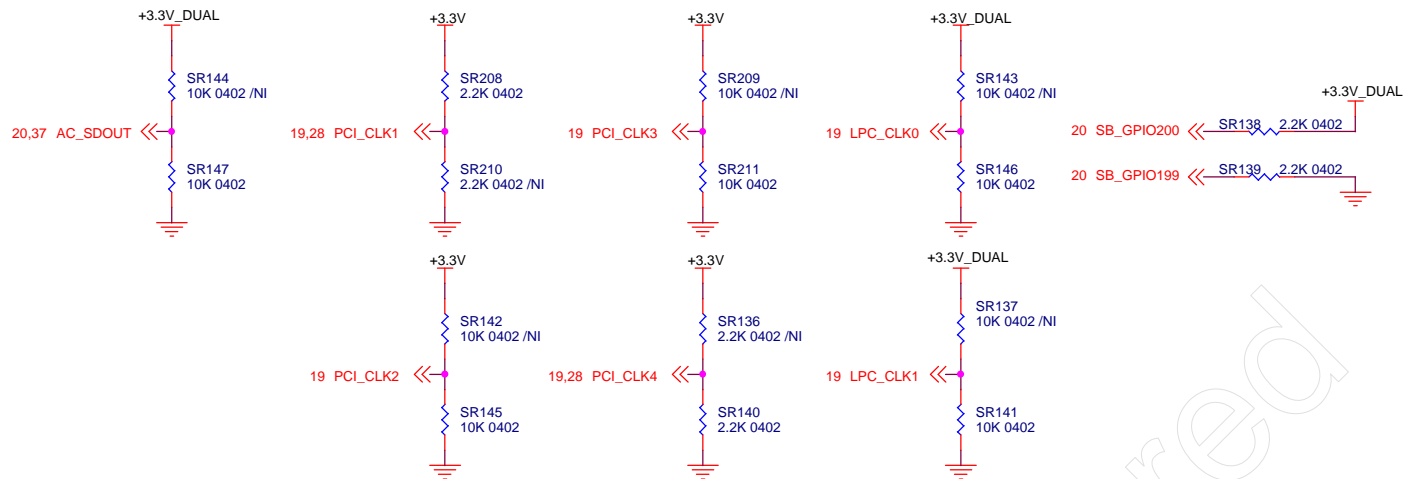
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4

3

2


1

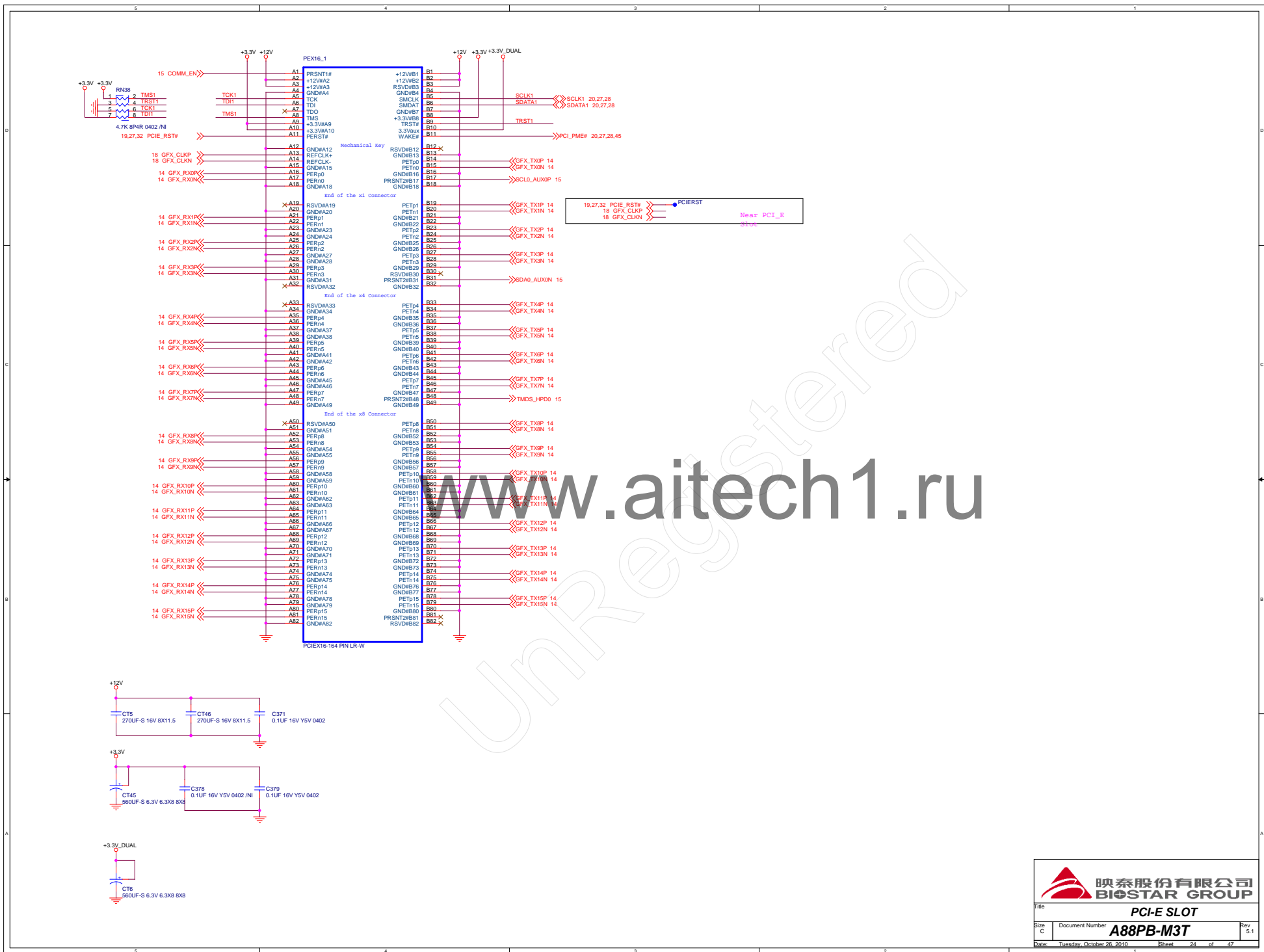


REQUIRED STRAPS

NOTE: SB700 HAS INTERNAL 15K PULL UP RESISTOR FOR RTC_CLK

	AZ_SDOUT	PCI_CLK1	PCI_CLK2	PCI_CLK3	PCI_CLK4	LPC_CLK0	LPC_CLK1	GPIO200	GPIO199
PULL HIGH	LOW POWER MODE	ALLOW PCIE GEN2 DEFAULT	WATCHDOG TIMER ON NB_PWRGD ENABLED	USE DEBUG STRAPS	NON-FUSION CPU CLOCK MODE	EC ENABLED	CLKGEN ENABLED	ROM TYPE: H, L = SPI ROM	DEFAULT
PULL LOW	PERFORMANCE MODE DEFAULT	FORCE PCIE GEN1	WATCHDOG TIMER ON NB_PWRGD DISABLED DEFAULT	IGNORE DEBUG STRAPS DEFAULT	FUSION CPU CLOCK MODE DEFAULT	EC DISABLED DEFAULT	CLKGEN DISABLED DEFAULT		

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Title SB850/810 STRAP		
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5

4

3

2

1

D

D

C

C

B

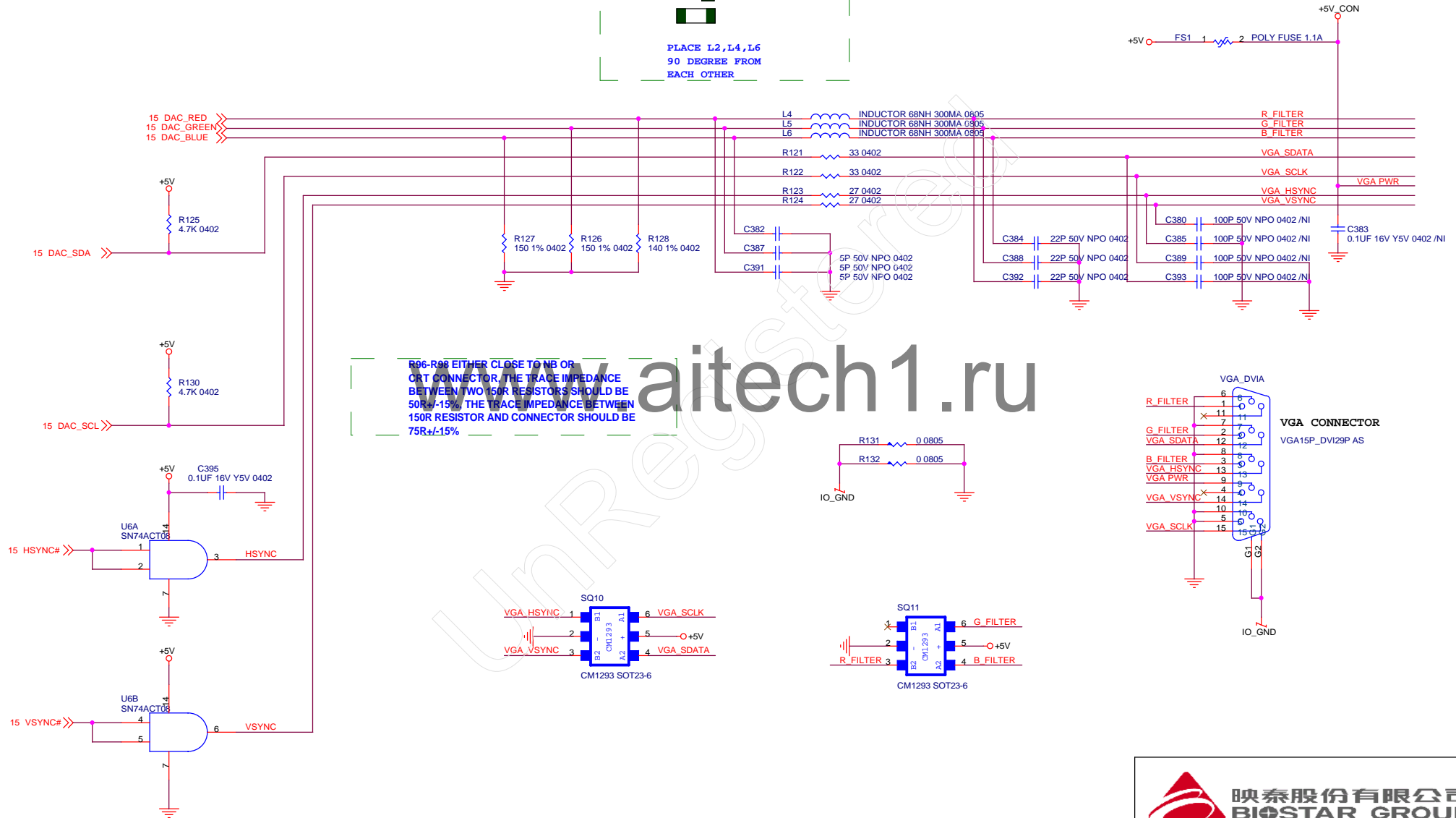
B

A

A




PLACE L2,L4,L6
90 DEGREE FROM
EACH OTHER



R96-R98 EITHER CLOSE TO NB OR
CRT CONNECTOR. THE TRACE IMPEDANCE
BETWEEN TWO 150R RESISTORS SHOULD BE
50R \pm 15% THE TRACE IMPEDANCE BETWEEN
150R RESISTOR AND CONNECTOR SHOULD BE
75R \pm 15%

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Title VGA

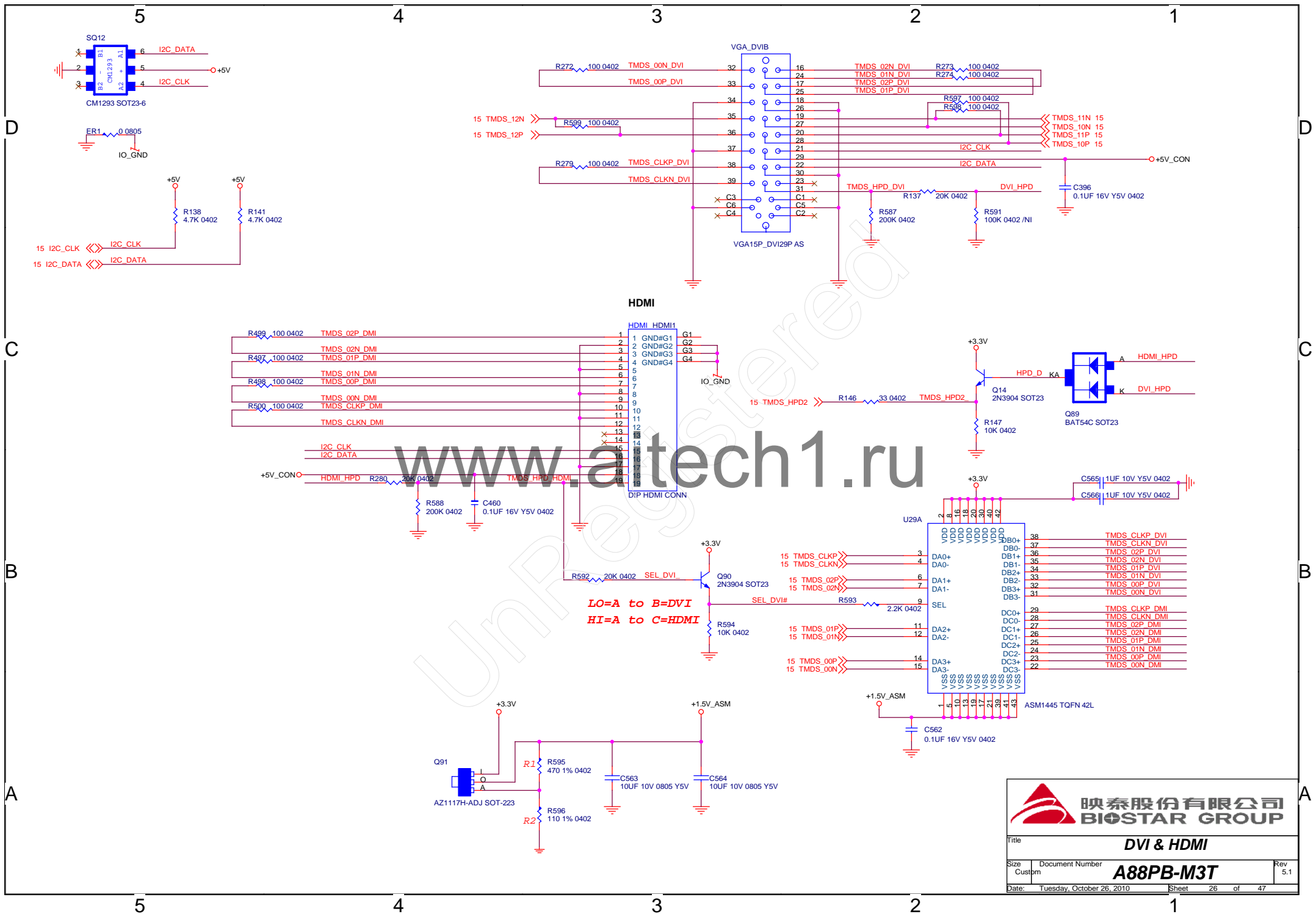
Size Custom

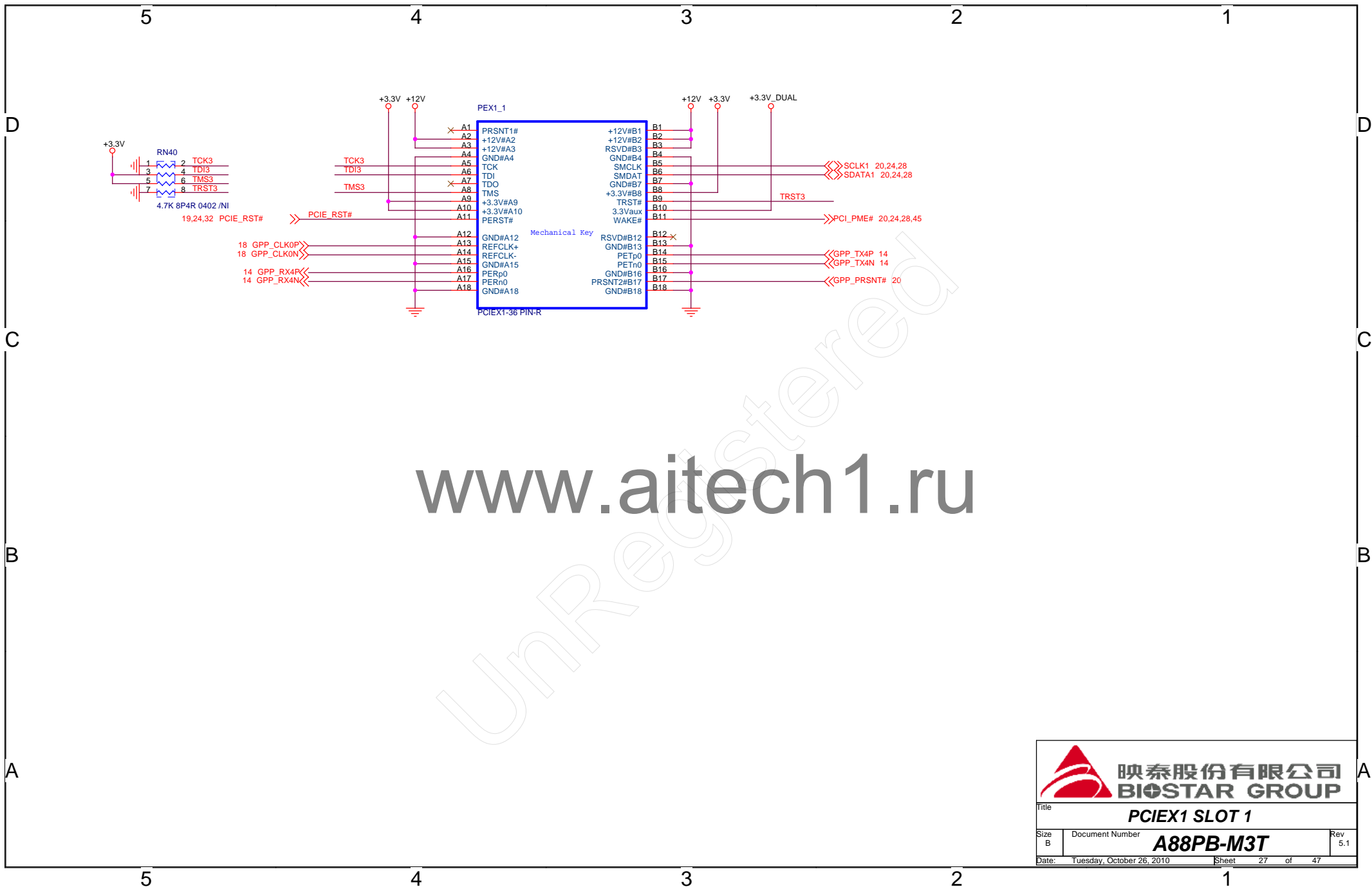
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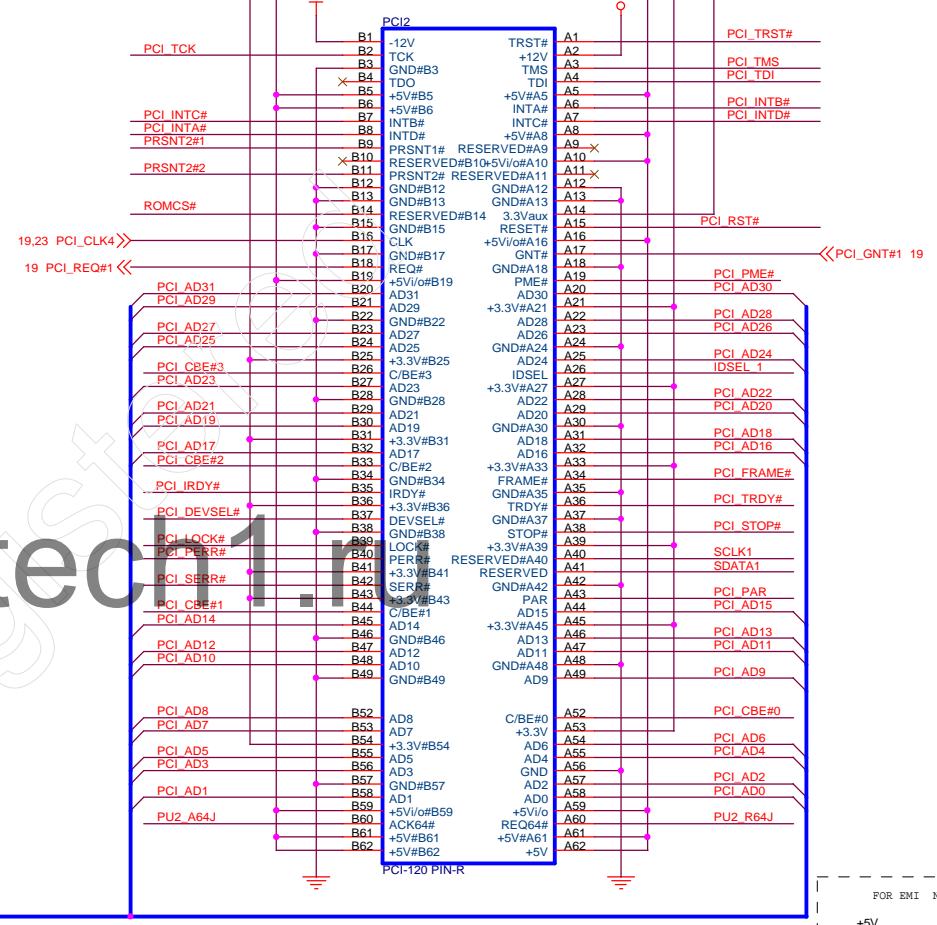
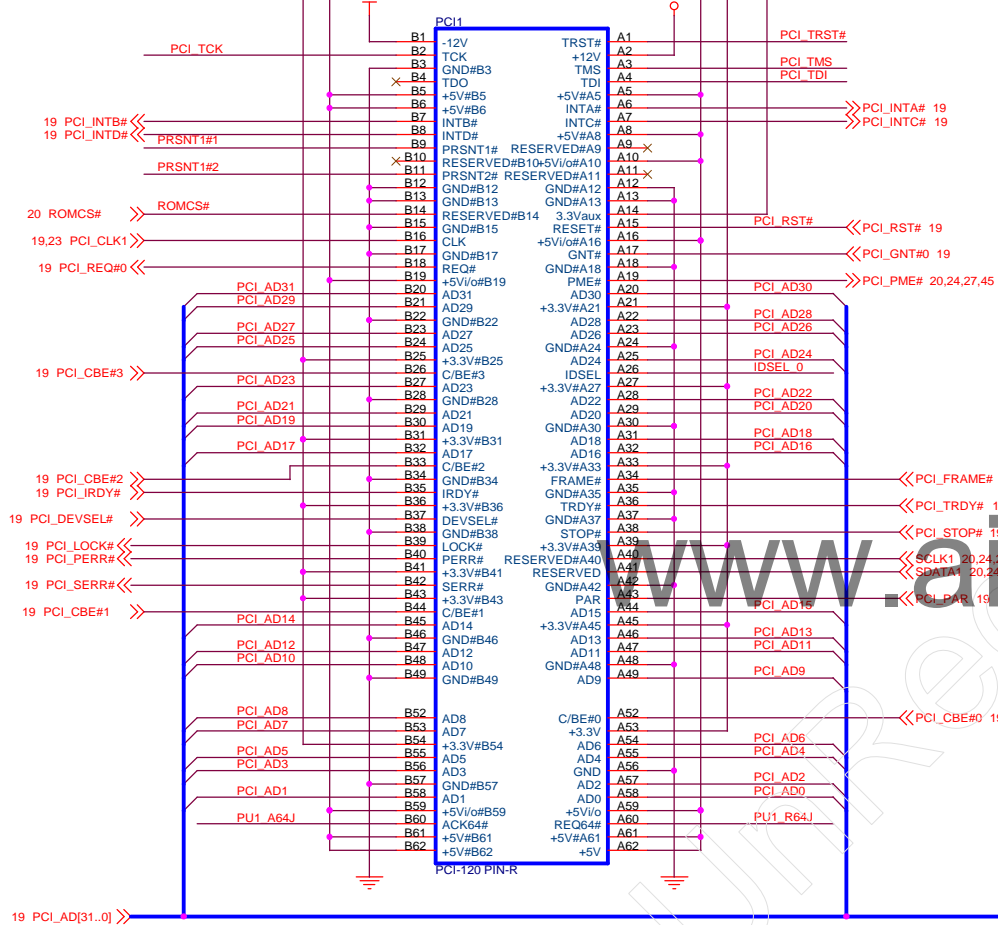
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IDSEL:AD21, INT:ABCD, REQ0 & GNT0, PCI_CLK1

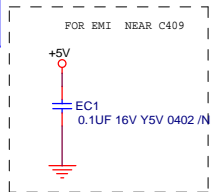
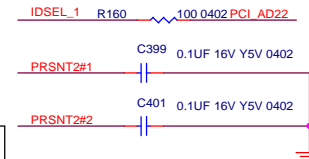
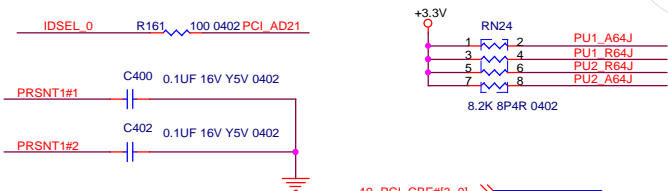
IDSEL:AD22, INT:BCDA, REQ1 & GNT1, PCI_CLK4

PCI_SLOT 1

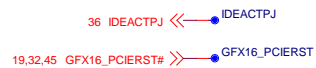
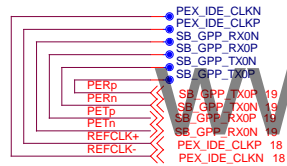
PCI_SLOT 2




PCI PULL UPS

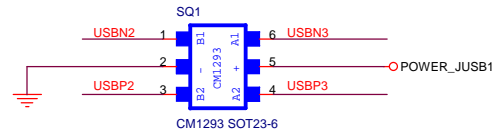


Title			PCI SLOT		
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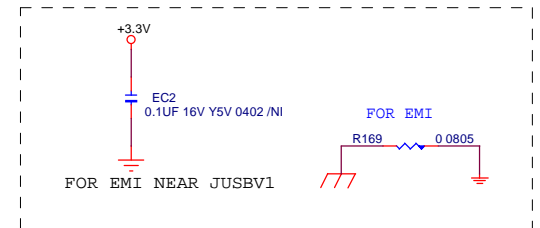
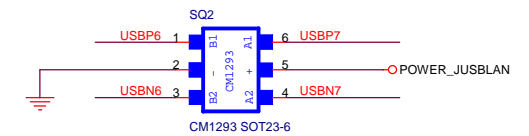
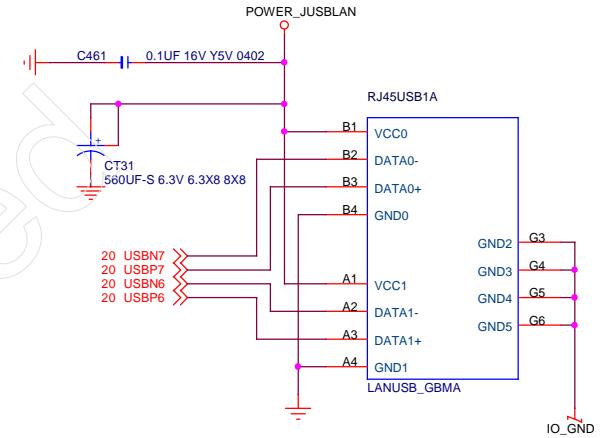
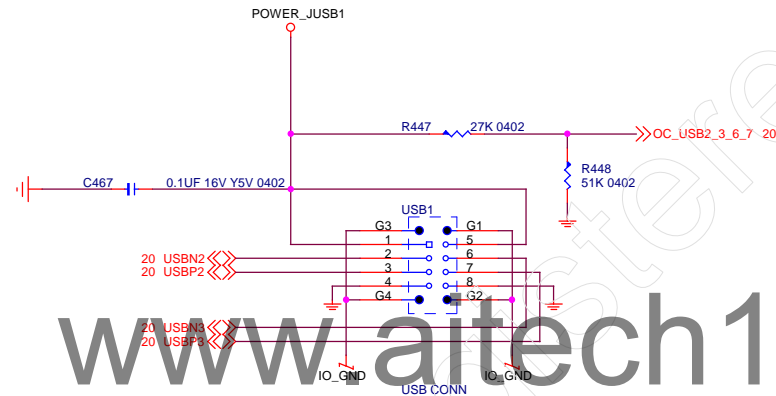
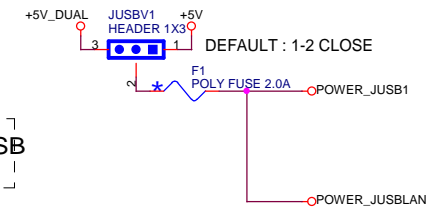


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Title PEX IDE ATA 133-VT6415			
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BACK PANEL USB

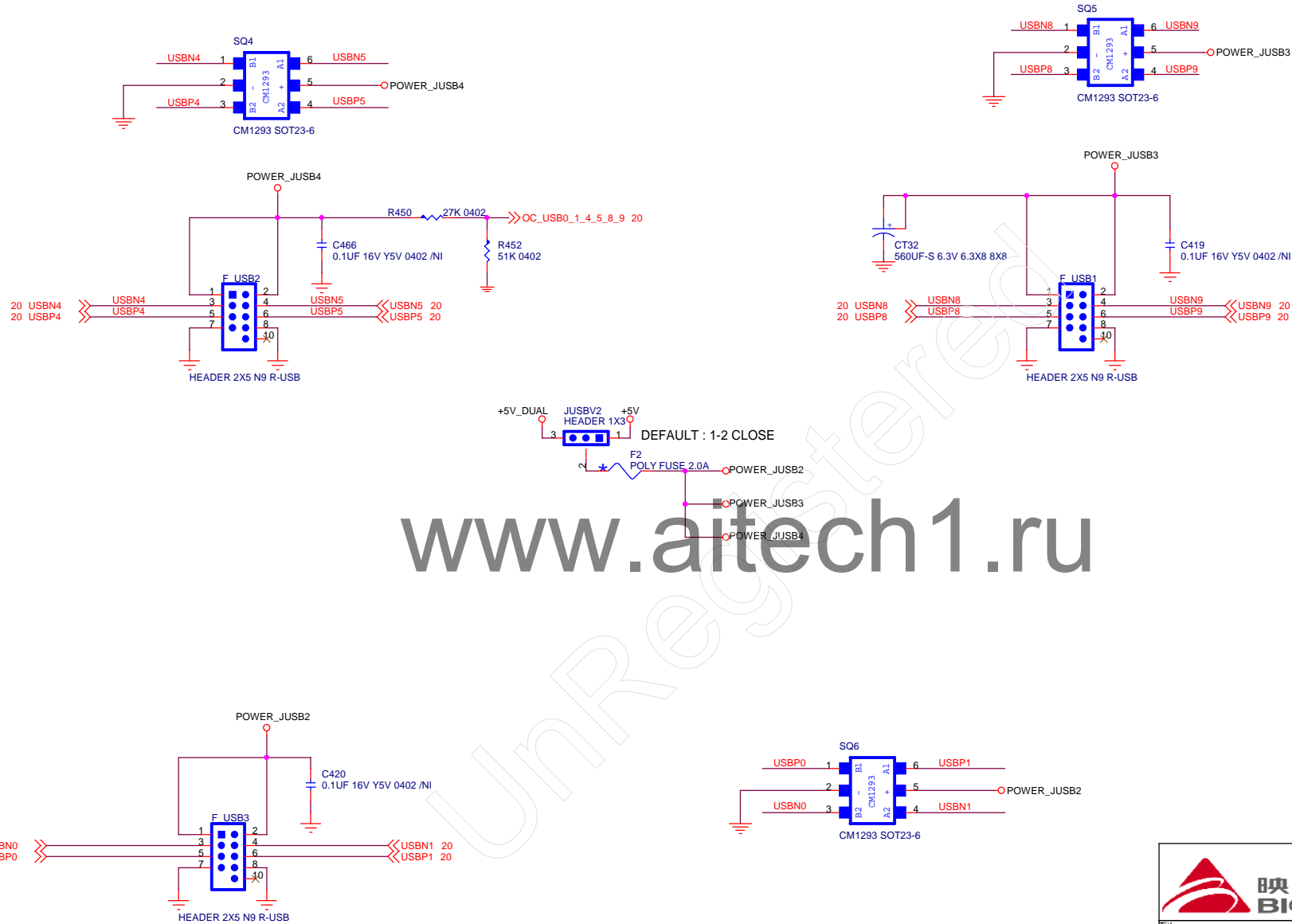


BACK PANEL USB PLACE NEAR CONN

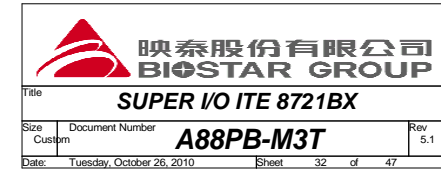


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USB CONN		
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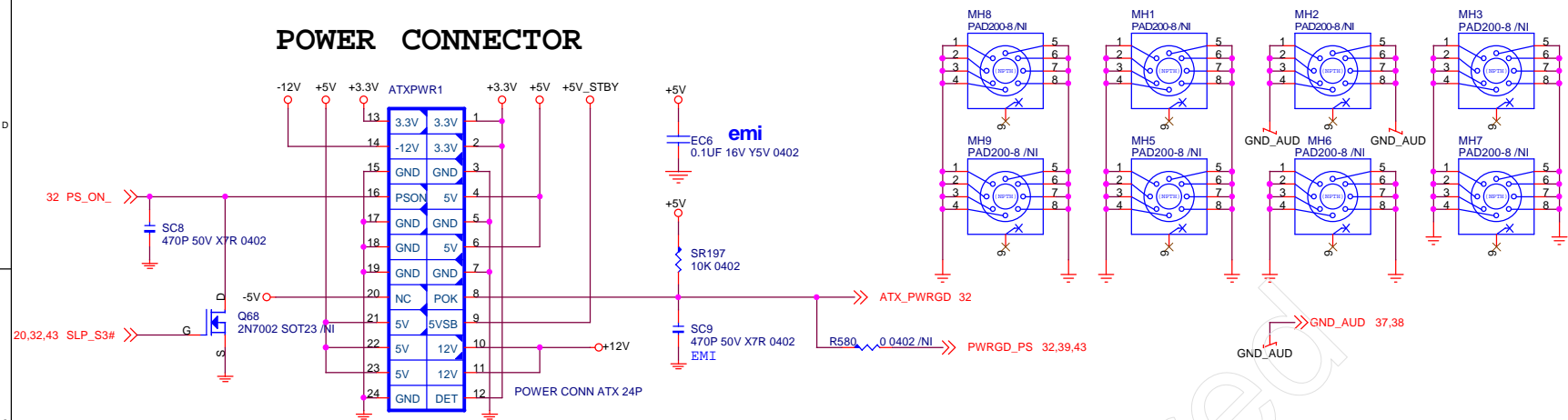
FRONT PANEL USB



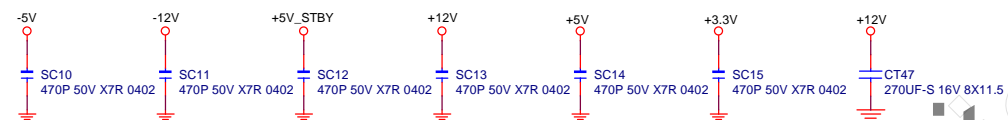
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POWER CONNECTOR

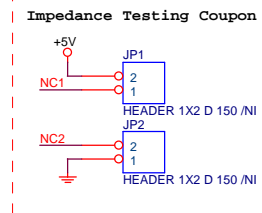
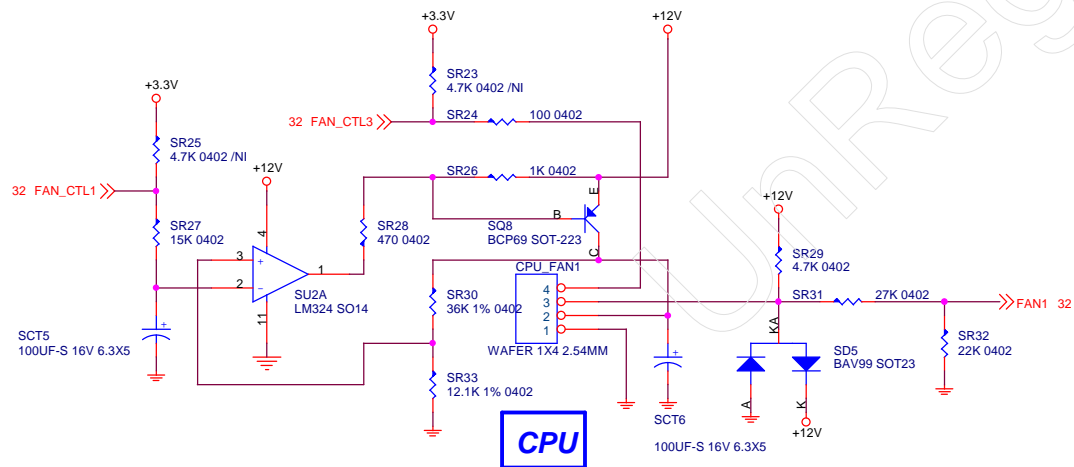



EMI POWER CONN DECOUPLING



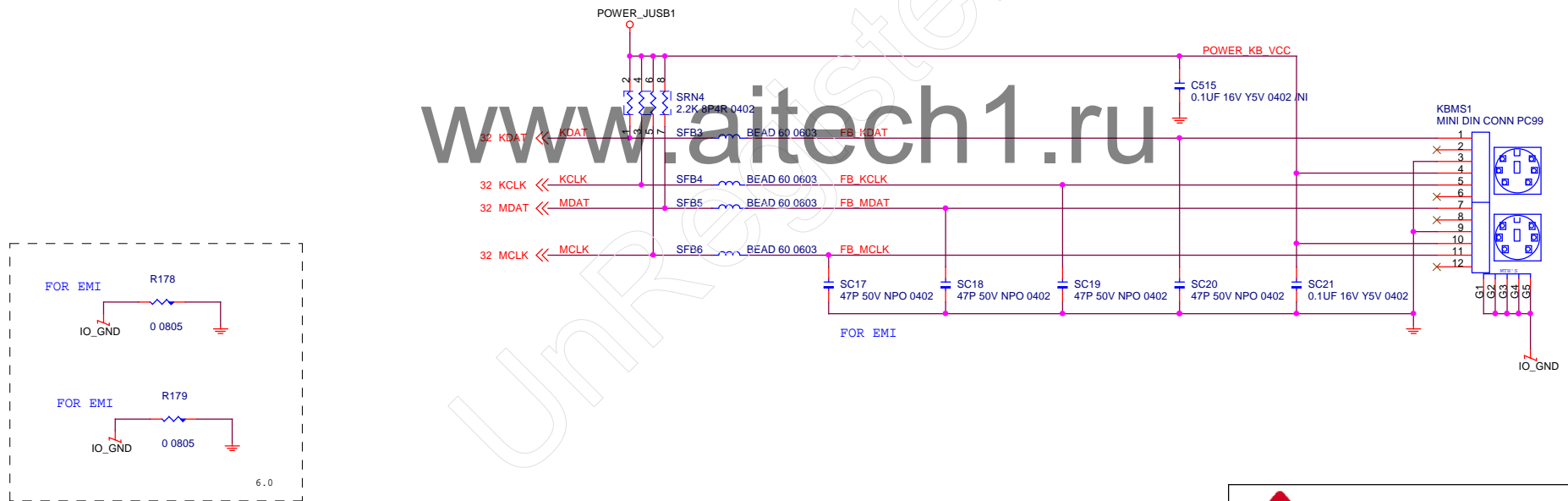
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SYSTEM



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Title FAN&POWER CONN			
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FOR KEYBOARD WITH MOUSE CONN.



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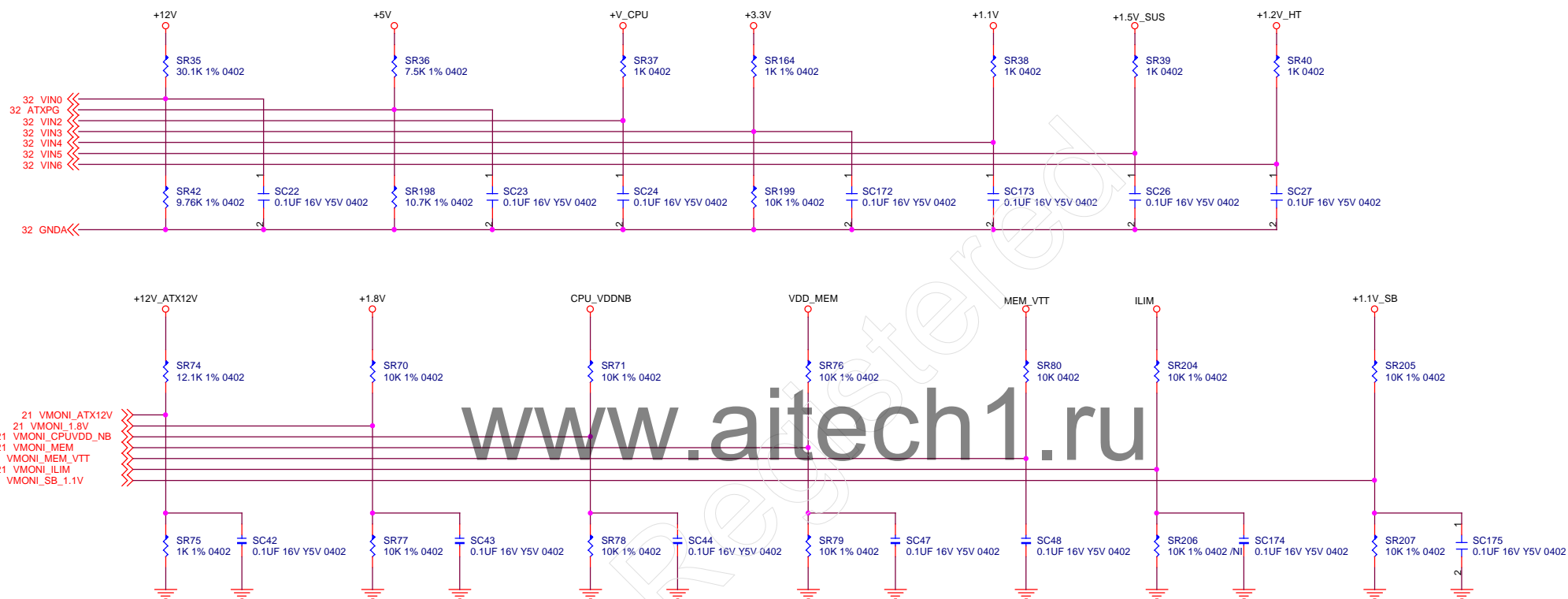
Title **FDD / PS2 CONN**

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hardware monitor

Voltage Sensing



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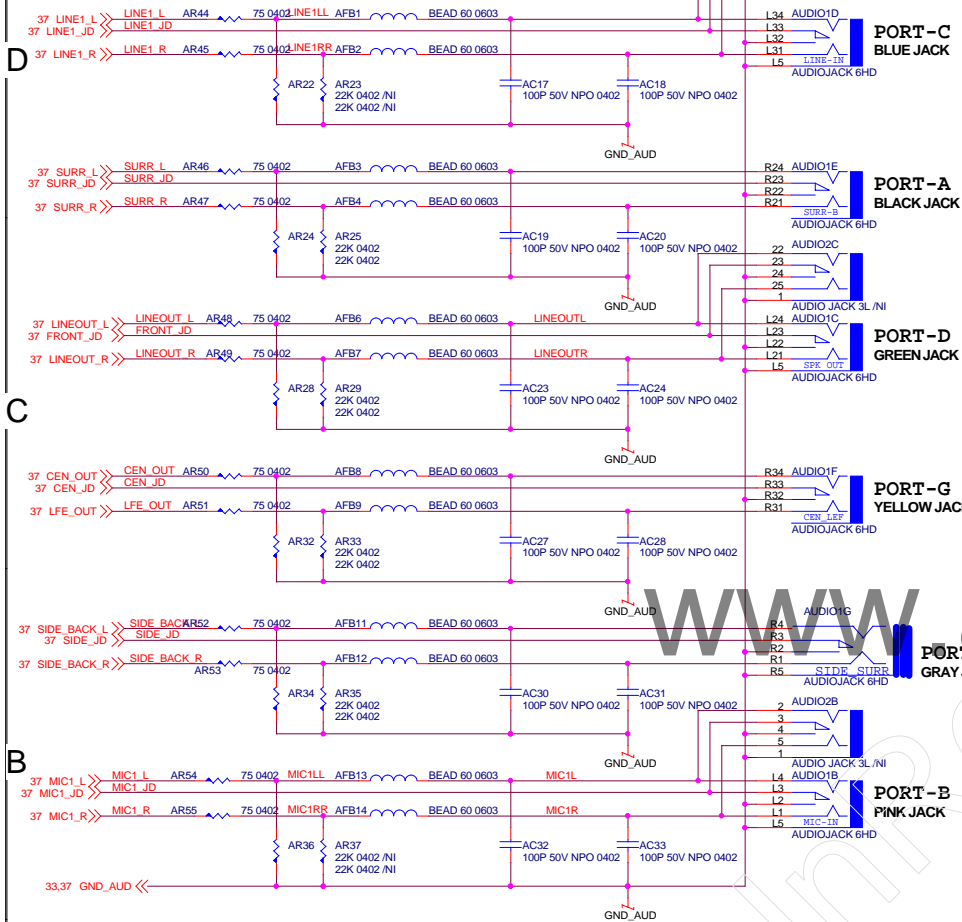
LED_D2	LED_D1	MESSAGE
OFF	OFF	ABNORMAL
OFF	ON	MEMORY ERROR
ON	OFF	VGA ERROR
ON	ON	NORMAL

		
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Title FRONT PANEL/LED		
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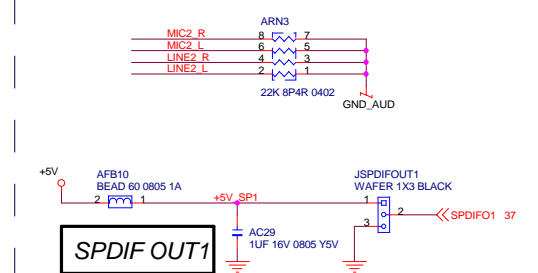
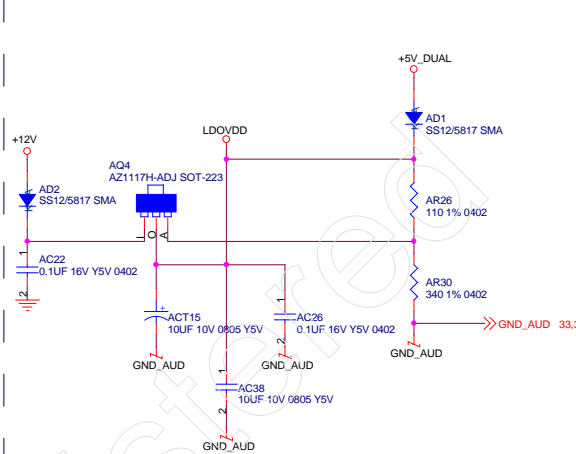
Rear Panel Onboard Analog I/O P07 : 3-Port & 6-Port Co-Lay

ALC883/888:B,C,E,F ports support I/P & O/P function.

But A,D,G,H ports not support MIC function.

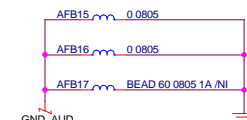
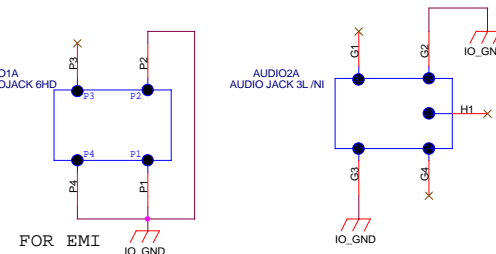
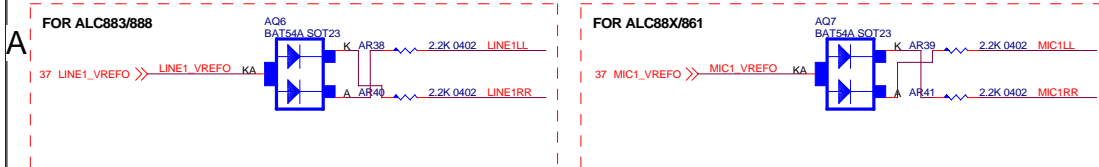


AUDIO ANALOG POWER $V_{OUT} = 1.25 (1 + R2/R1)$



V0.51 Add EMI component CM1293 SOT23-6

	ALC883/8	ALC861VD
HDA Interface	Yes	Yes
DAC	5 DAC 7.1Ch + 2 Ch	4 DAC 7.1Ch
DAC SNR	95dB	90dB
GPIO for Vref	None	None
SPDIF-I	Yes	No
SPDIF-O	Yes	Yes
Re-Tasking	4-PORTS	Port D,E,F



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Title: EUP POWER

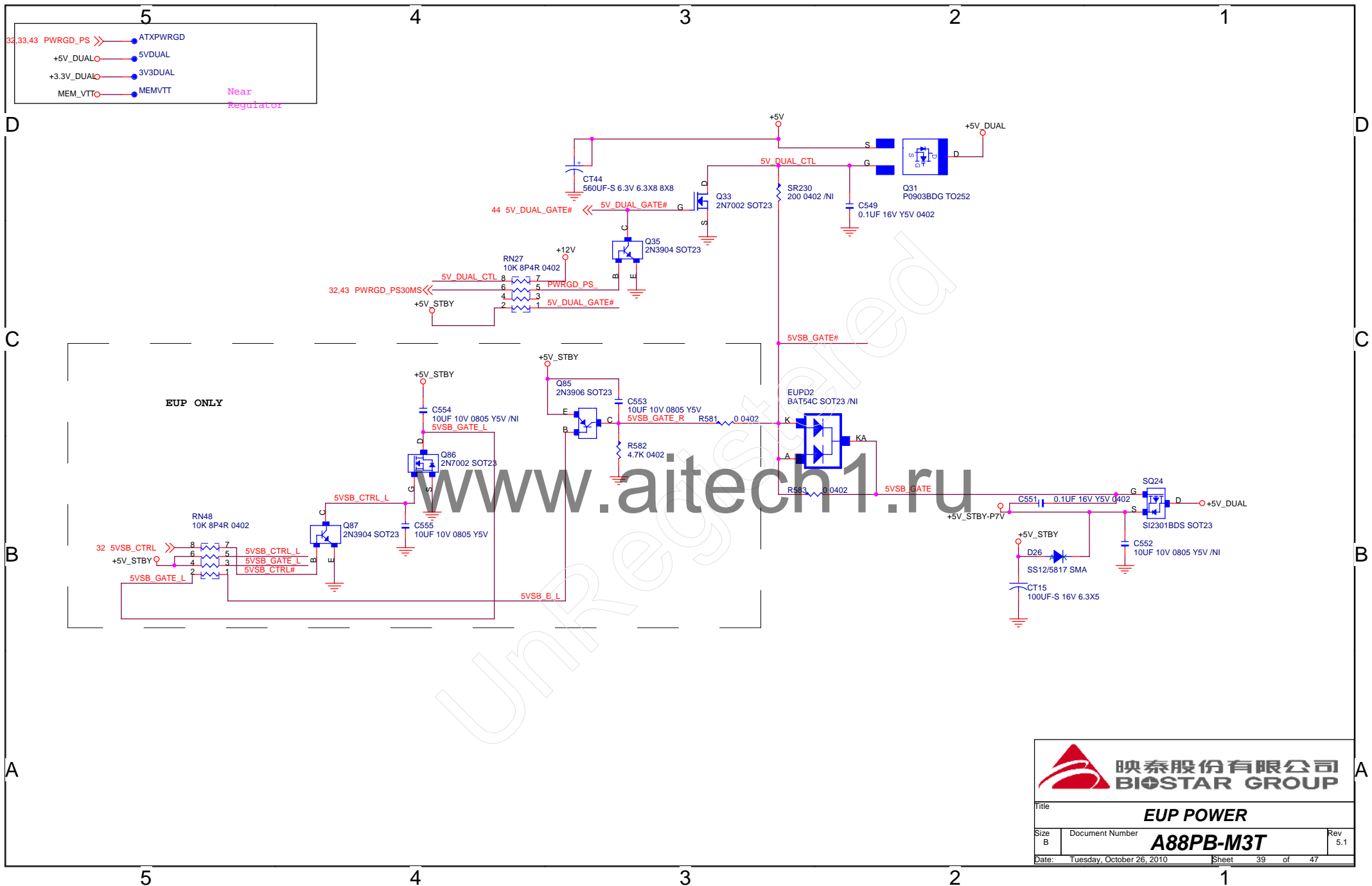
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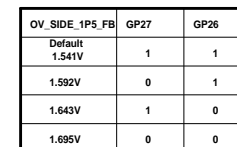
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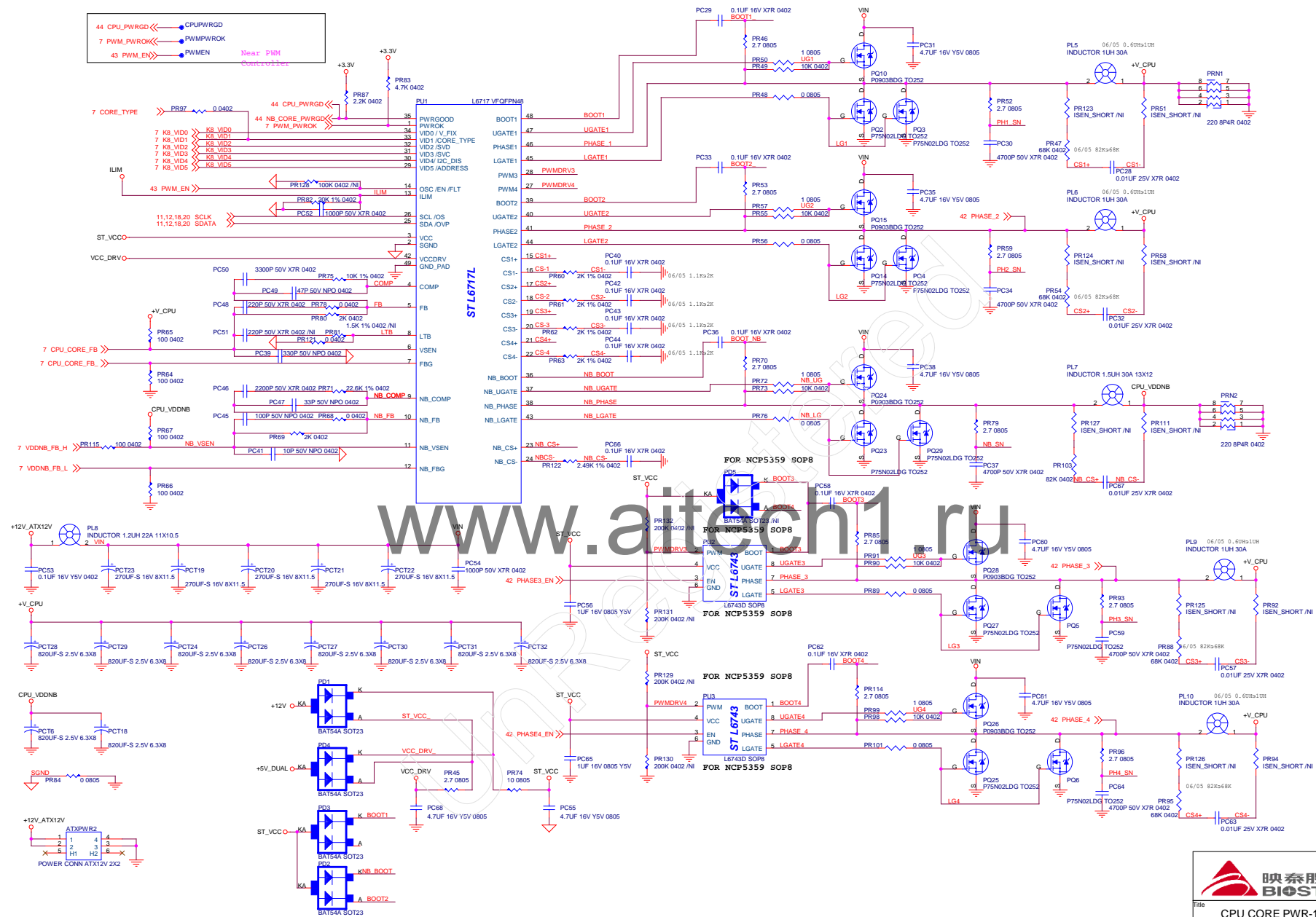
Date: Tuesday, October 26, 2010

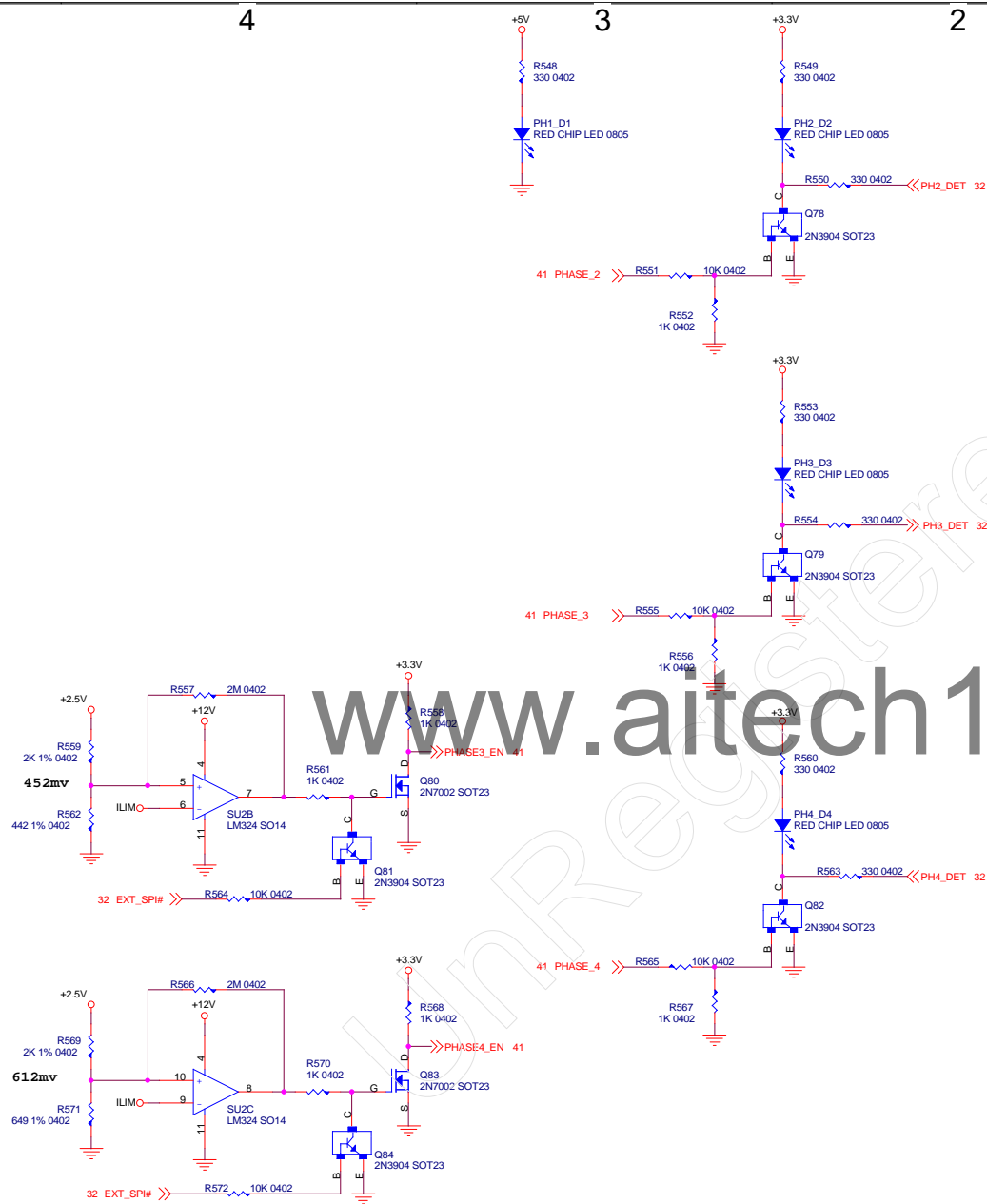
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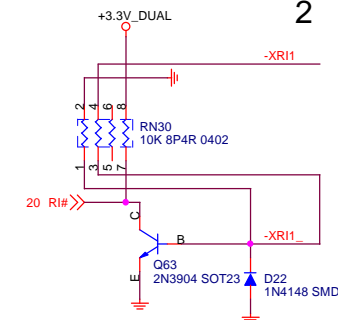
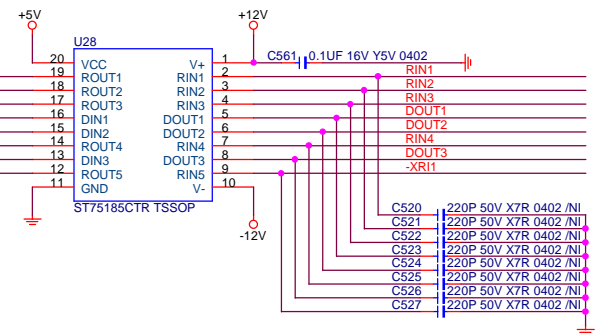
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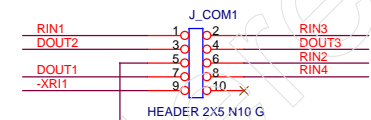
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1

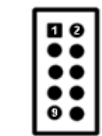
COM1



WAKE ON LAN

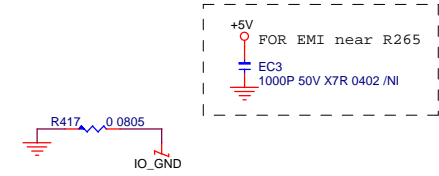
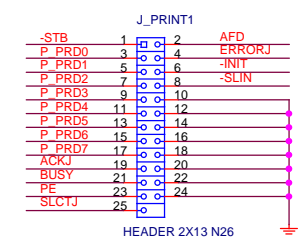
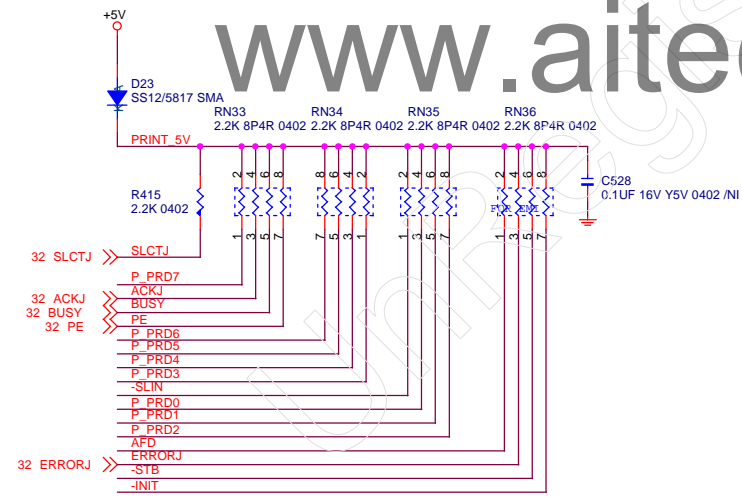
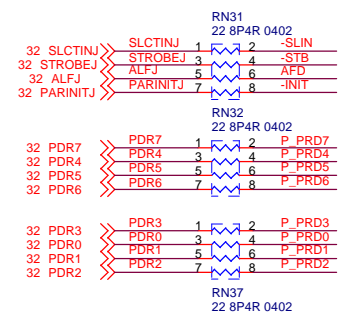



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