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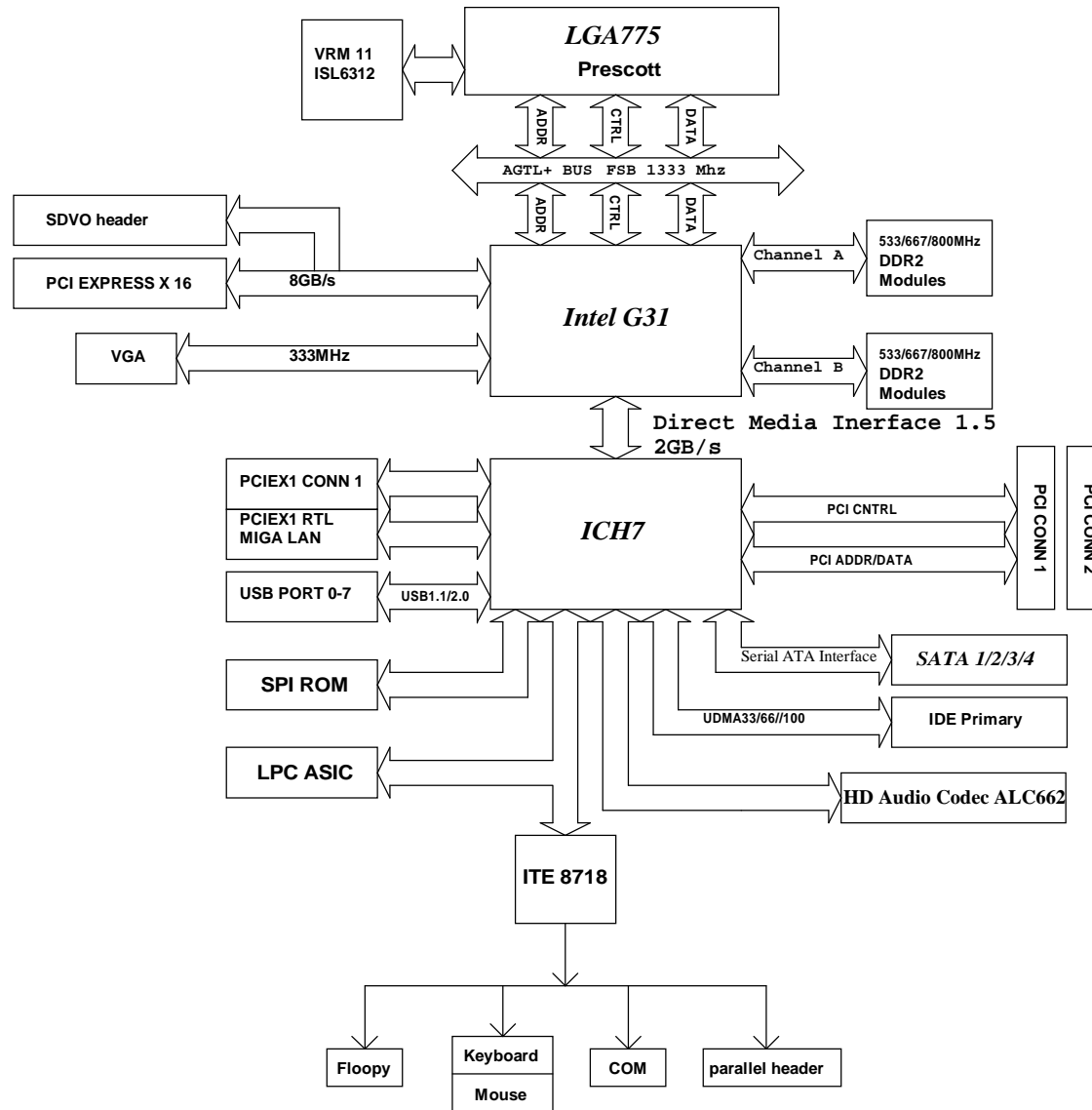
## IG31C-M7S

uATX VER:6.7

775 CPU , FSB1066 ,  
 PCI-Ex16 , PCI-Ex1 , DDR-II\* 2  
 , 10/100 LAN,PCI\*2

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# BLOCK DIAGRAM



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PCI Slot	IDE SEL	INT#	GNT#	REQ#	CLOCK
1					
2					

Chips	IDE SEL	INT#	GNT#	REQ#	CLOCK	GPIO
PATA						
ICH7S						
I/O BIOS						
LAN						
ANTI-POP						
DIMM-OV						
CPU-OV						
SATA-LED						
S						
I/O						



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Title: **General Spec.**

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0.61 to 0.62

1.dummy R485, add R501,R502,Q70,Q24 for BSEL=0,NB judge improperly

2.add R359,R360,C88,Q23,CT31 to supply a stable power to CRT


3.swap the smbusclk and smbusdata of CLK generation

4.add Q88,Q69,Q71,Q73,Q75 for ESD

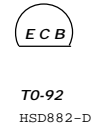
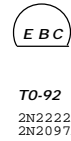
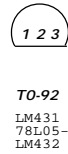
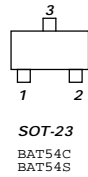
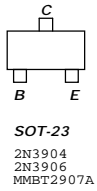
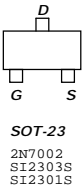
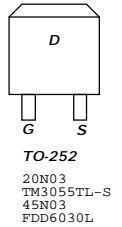
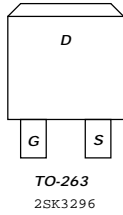
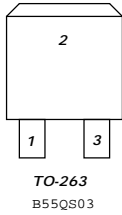
5.disconnect RST\_BUTT to SIO


6.change LAN chip to 8102E

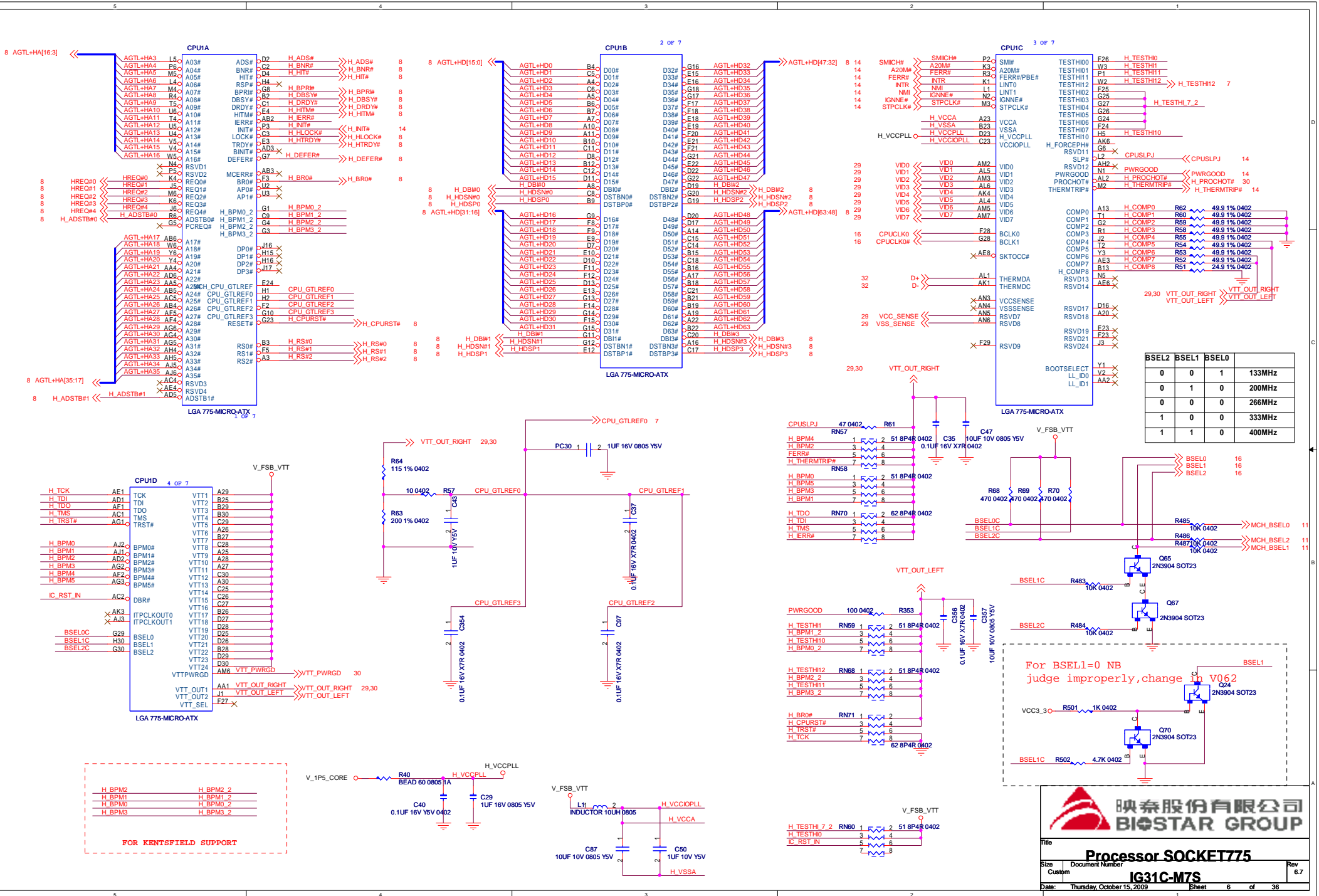
7.change all MOS to P0903BDG

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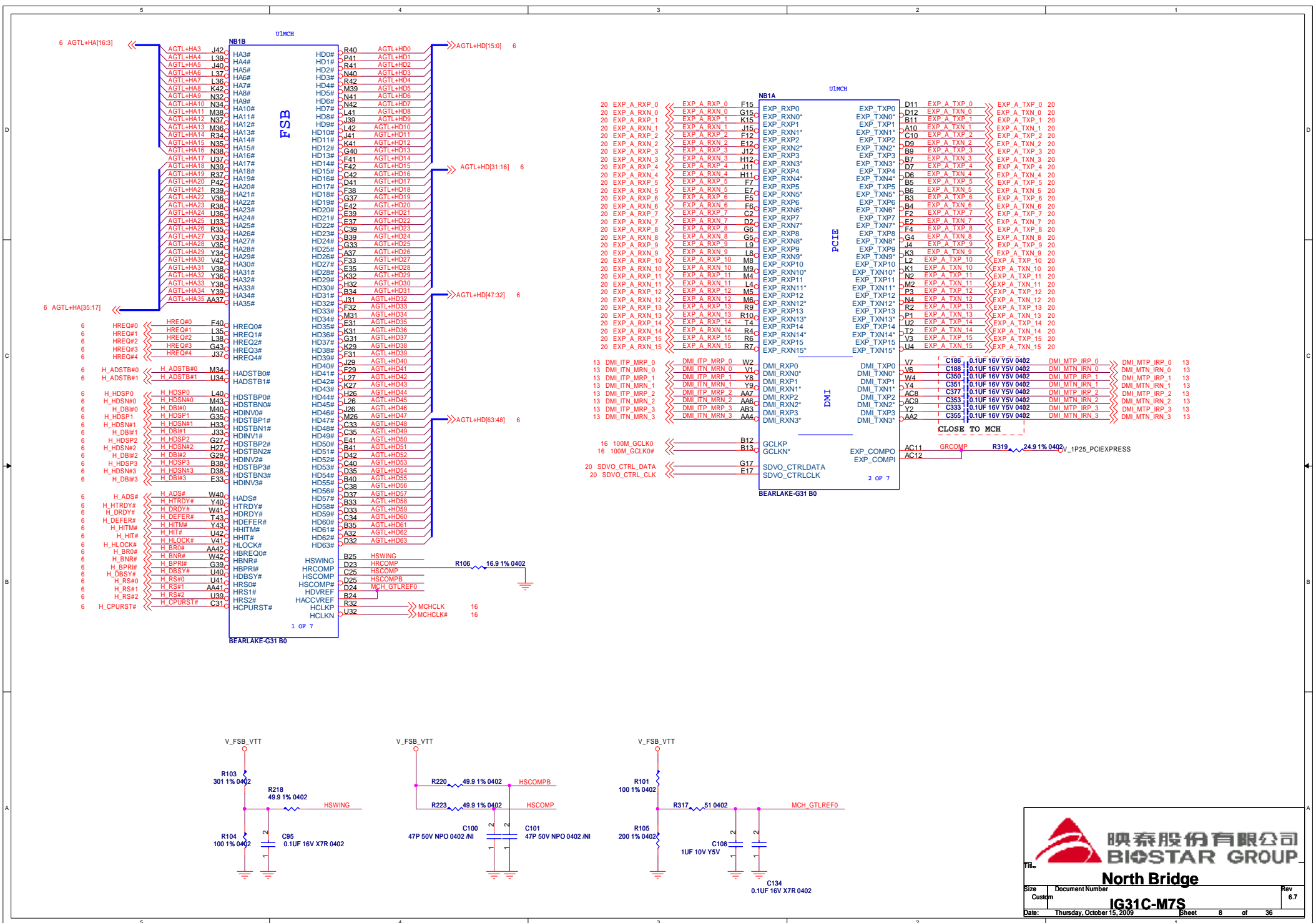
22U/25DE	5*7 mm
100U/16DE	6.3*11 mm
220U/10DE	6.3*11 mm
470U/16DE	8*11 mm
1000U/10DE	8*14 mm
1500U/16DE	10*25 mm
3300U/25DE	10*25 mm



 <b>映泰股份有限公司</b> <b>BIOSSTAR GROUP</b>		
<b>Component Size</b>		
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**North Bridge**

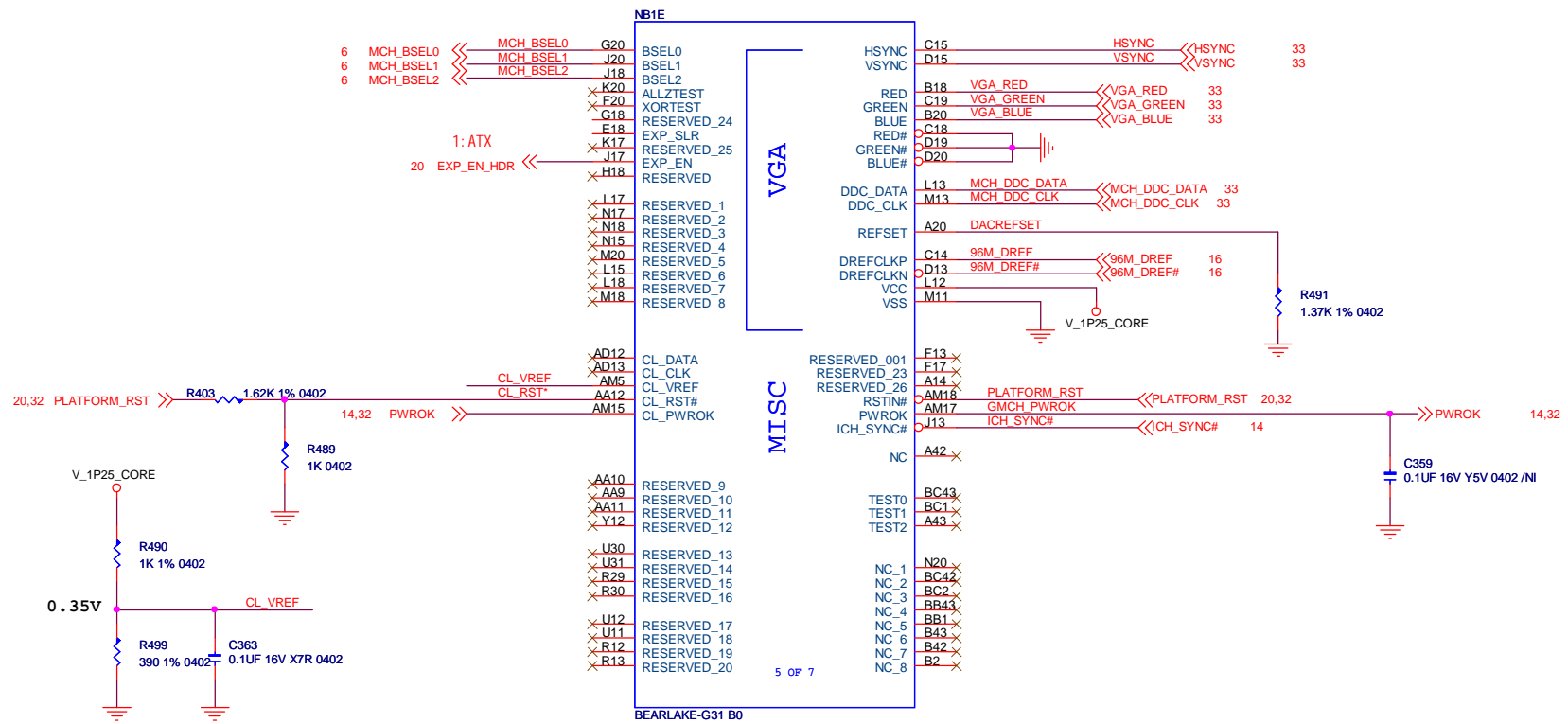
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**BSEL TABLE**

2	1	0	PSB FREQUENCY
0	0	0	266 MHZ (1066)
0	0	1	133 MHZ (533)
0	1	0	200 MHZ (800)
1	0	0	333 MHZ (1333)



Title		NB(4)	
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Code	Value	Code	Value
BC3V	VSS_1	AF5	VSS_181
BC3Z	VSS_2	AF3	VSS_182
BC3L	VSS_3	AF2	VSS_183
BC3H	VSS_4	AF1	VSS_184
BC3D	VSS_5	AF0	VSS_185
BC3	VSS_6	AD39	VSS_186
BC1	VSS_7	AD37	VSS_187
AV4	VSS_8	AD35	VSS_188
AV4L	VSS_9	AD33	VSS_189
AV4H	VSS_10	AD31	VSS_190
AV4L	VSS_11	AD29	VSS_191
AV4Z	VSS_12	AD27	VSS_192
AV4L	VSS_13	AD25	VSS_193
AV4Z	VSS_14	AD23	VSS_194
AV4L	VSS_15	AD21	VSS_195
AV4Z	VSS_16	AD19	VSS_196
AV4L	VSS_17	AD17	VSS_197
AV4L	VSS_18	AD15	VSS_198
AV4Z	VSS_19	AD13	VSS_199
AV4L	VSS_20	AD11	VSS_200
AV4Z	VSS_21	AD9	VSS_201
AV4L	VSS_22	AD7	VSS_202
AV4Z	VSS_23	AD5	VSS_203
AV4L	VSS_24	AD3	VSS_204
AV4Z	VSS_25	AD1	VSS_205
AV4L	VSS_26	AD0	VSS_206
AV4Z	VSS_27	AD0	VSS_207
AV4L	VSS_28	AD0	VSS_208
AV4Z	VSS_29	AD0	VSS_209
AV4L	VSS_30	AD0	VSS_210
AV4Z	VSS_31	AD0	VSS_211
AV4L	VSS_32	AD0	VSS_212
AV4Z	VSS_33	AD0	VSS_213
AV4L	VSS_34	AD0	VSS_214
AV4Z	VSS_35	AD0	VSS_215
AV4L	VSS_36	AD0	VSS_216
AV4Z	VSS_37	AD0	VSS_217
AV4L	VSS_38	AD0	VSS_218
AV4Z	VSS_39	AD0	VSS_219
AV4L	VSS_40	AD0	VSS_220
AV4Z	VSS_41	AD0	VSS_221
AV4L	VSS_42	AD0	VSS_222
AV4Z	VSS_43	AD0	VSS_223
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AV4L	VSS_46	AD0	VSS_226
AV4Z	VSS_47	AD0	VSS_227
AV4L	VSS_48	AD0	VSS_228
AV4Z	VSS_49	AD0	VSS_229
AV4L	VSS_50	AD0	VSS_230
AV4Z	VSS_51	AD0	VSS_231
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AV4Z	VSS_59	AD0	VSS_239
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AV4Z	VSS_107	AD0	VSS_287
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AV4Z	VSS_109	AD0	VSS_289
AV4L	VSS_110	AD0	VSS_290
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AV4L	VSS_112	AD0	VSS_292
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AV4L	VSS_142	AD0	VSS_322
AV4Z	VSS_143	AD0	VSS_323
AV4L	VSS_144	AD0	VSS_324
AV4Z	VSS_145	AD0	VSS_325
AV4L	VSS_146	AD0	VSS_326
AV4Z	VSS_147	AD0	VSS_327
AV4L	VSS_148	AD0	VSS_328
AV4Z	VSS_149	AD0	VSS_329
AV4L	VSS_150	AD0	VSS_330
AV4Z	VSS_151	AD0	VSS_331
AV4L	VSS_152	AD0	VSS_332
AV4Z	VSS_153	AD0	VSS_333
AV4L	VSS_154	AD0	VSS_334
AV4Z	VSS_155	AD0	VSS_335
AV4L	VSS_156	AD0	VSS_336
AV4Z	VSS_157	AD0	VSS_337
AV4L	VSS_158	AD0	VSS_338
AV4Z	VSS_159	AD0	VSS_339
AV4L	VSS_160	AD0	VSS_340
AV4Z	VSS_161	AD0	VSS_341
AV4L	VSS_162	AD0	VSS_342
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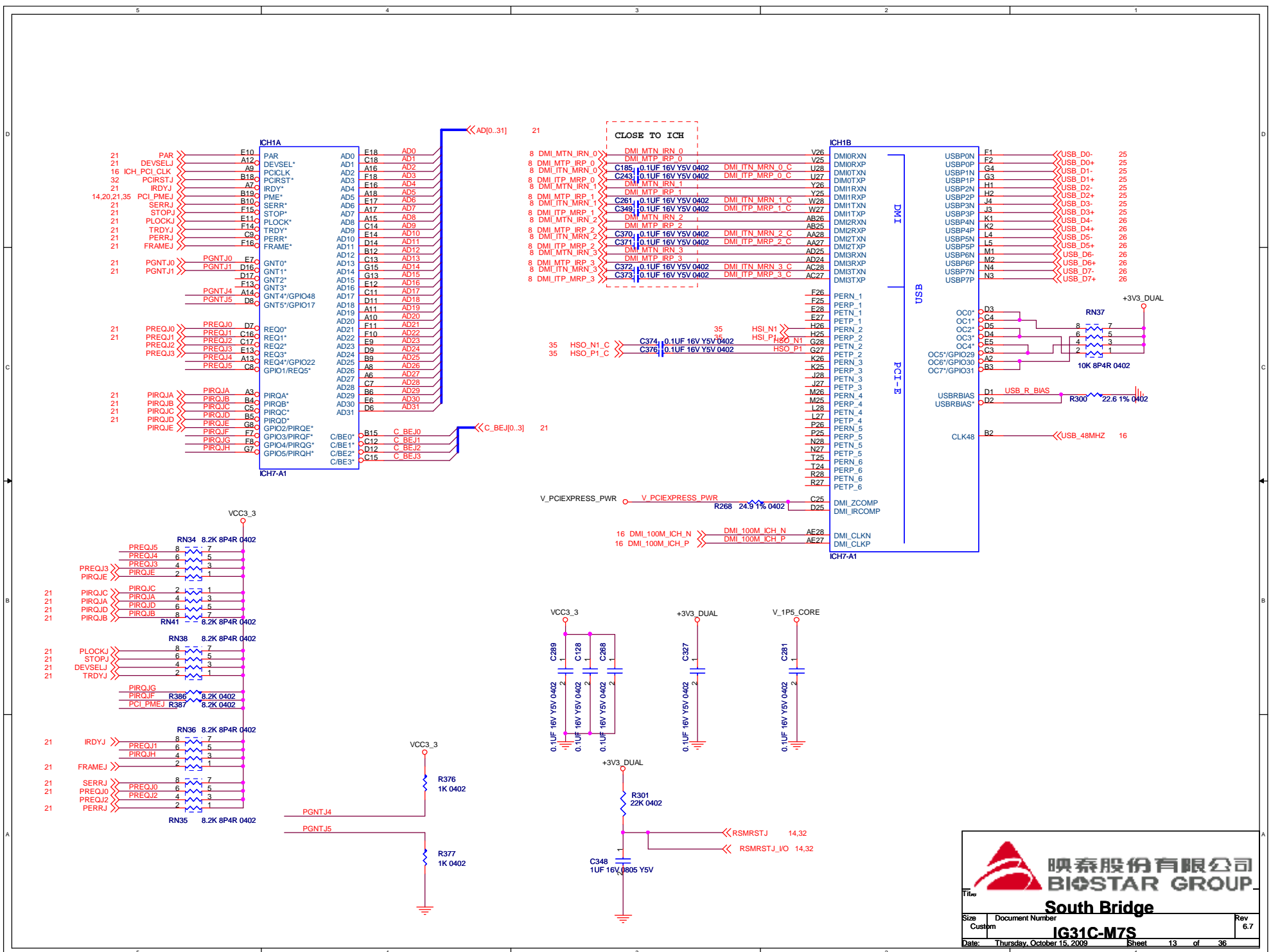
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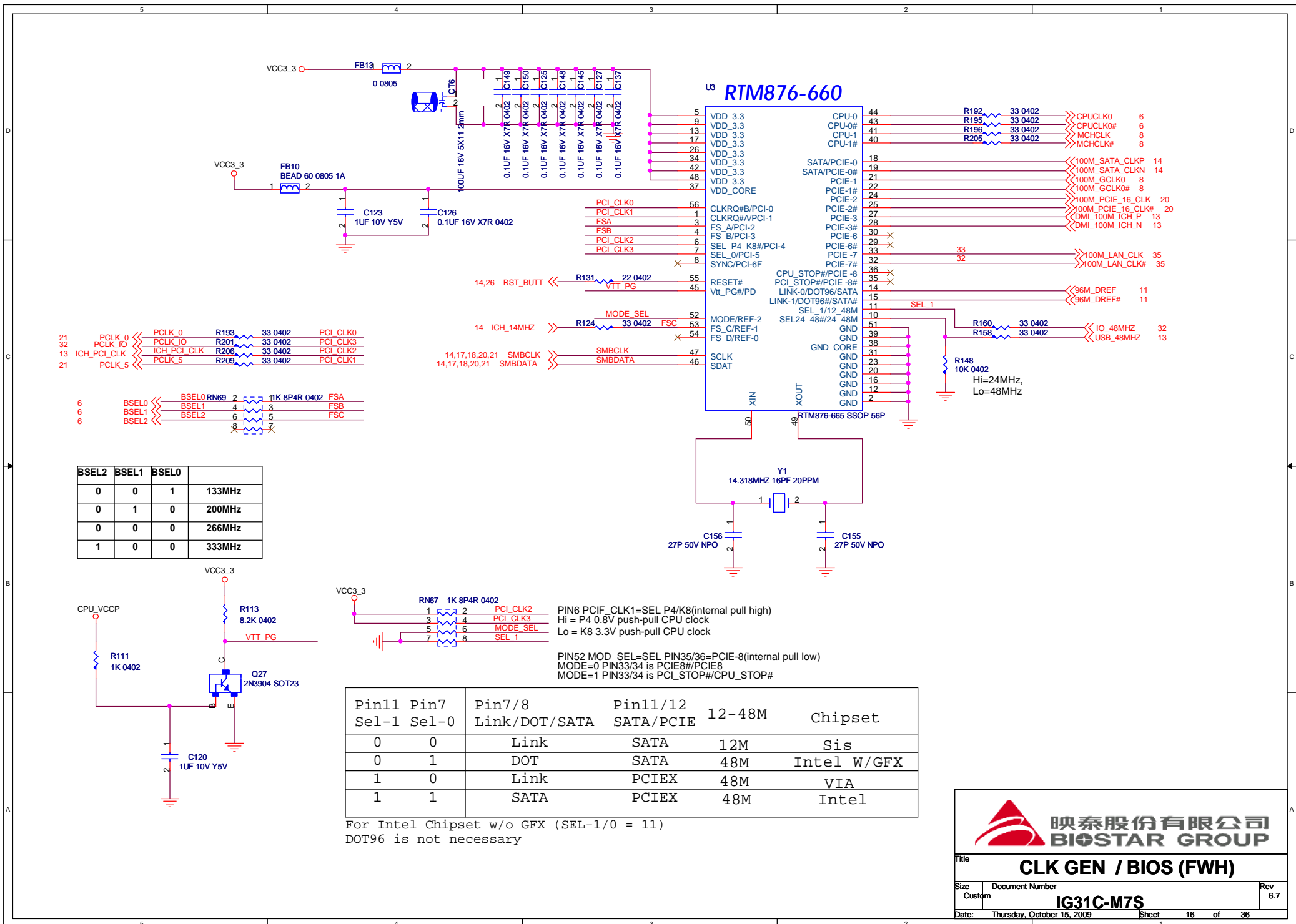


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**South Bridge**  
**IG31C-M7S**

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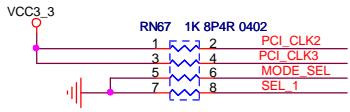
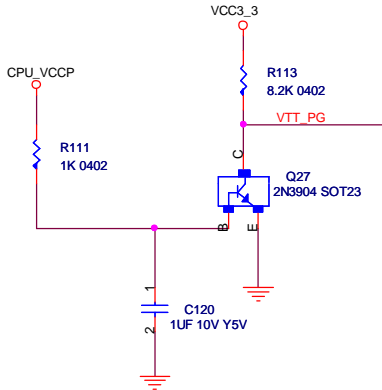




21	PCLK_0	PCLK_0	R193	33 0402	PCI_CLK0
32	PCLK_IO	PCLK_IO	R201	33 0402	PCI_CLK3
13	ICH_PCLK	ICH_PCLK	R206	33 0402	PCI_CLK2
21	PCLK_5	PCLK_5	R209	33 0402	PCI_CLK1

6	BSEL0	BSEL0	RN69	2	1K 8P4R 0402	FSA
6	BSEL1	BSEL1		4		FSB
6	BSEL2	BSEL2		6		FSC

BSEL2	BSEL1	BSEL0	Frequency
0	0	1	133MHz
0	1	0	200MHz
0	0	0	266MHz
1	0	0	333MHz



PIN6 PCIF\_CLK1=SEL P4/K8(internal pull high)  
 Hi = P4 0.8V push-pull CPU clock  
 Lo = K8 3.3V push-pull CPU clock

PIN52 MOD\_SEL=SEL PIN35/36=PCIE-8(internal pull low)  
 MODE=0 PIN33/34 is PCIE8#/PCIE8  
 MODE=1 PIN33/34 is PCI\_STOP#/CPU\_STOP#

Pin11 Sel-1	Pin7 Sel-0	Pin7/8 Link/DOT/SATA	Pin11/12 SATA/PCIE	12-48M	Chipset
0	0	Link	SATA	12M	Sis
0	1	DOT	SATA	48M	Intel W/GFX
1	0	Link	PCIEX	48M	VIA
1	1	SATA	PCIEX	48M	Intel

For Intel Chipset w/o GFX (SEL-1/0 = 11)  
 DOT96 is not necessary

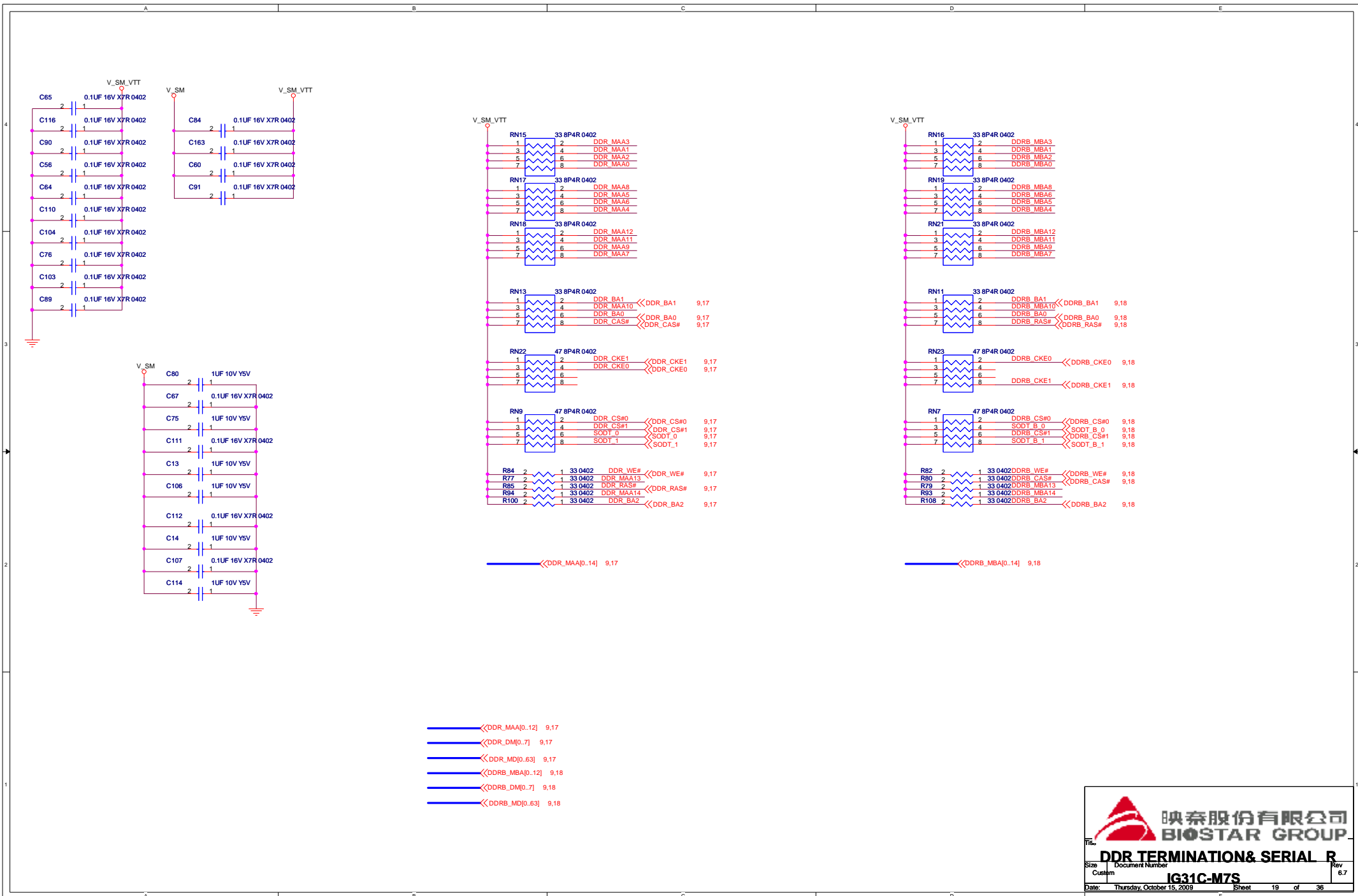
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Title			<b>CLK GEN / BIOS (FWH)</b>		
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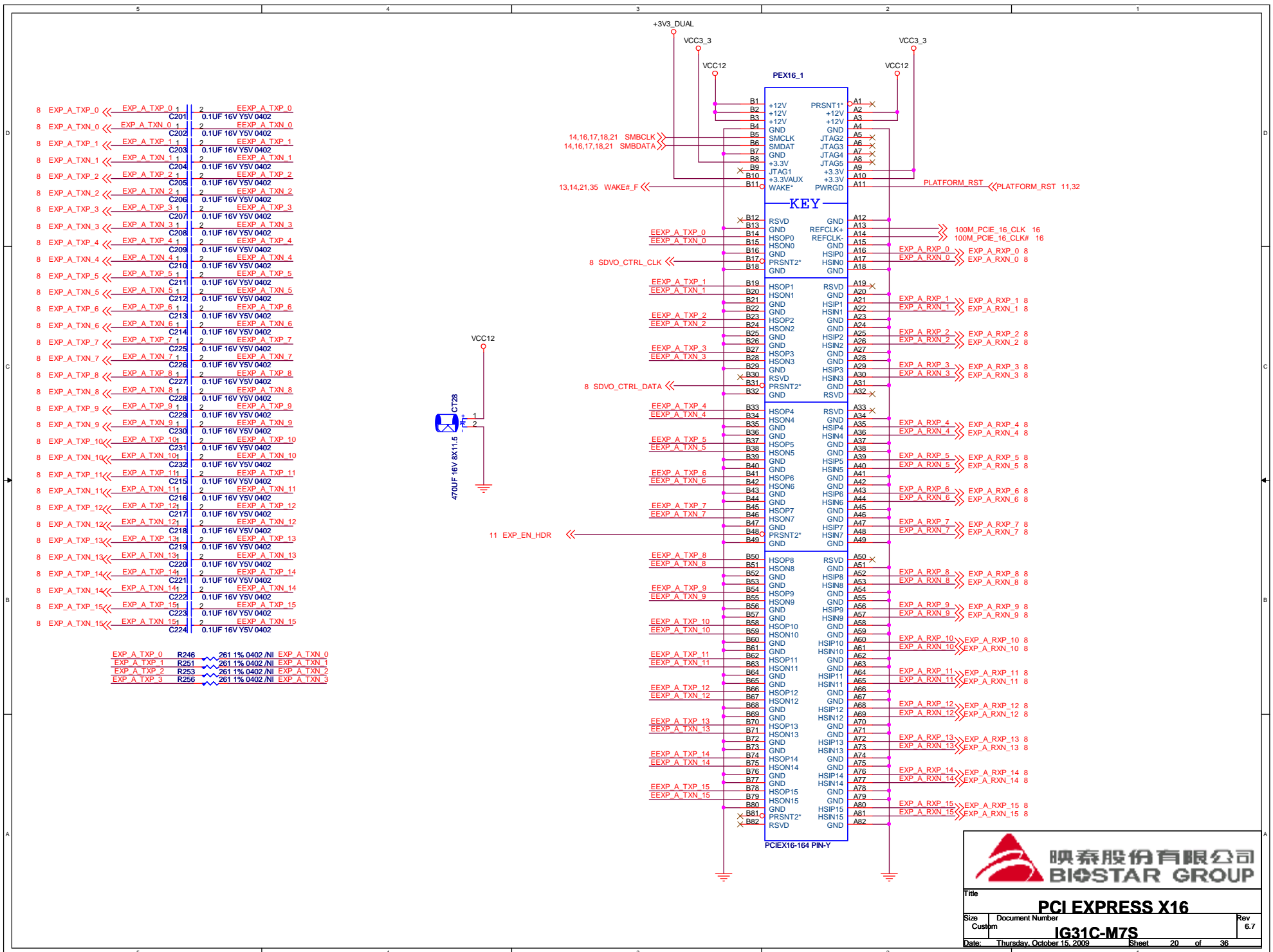







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**DDR TERMINATION & SERIAL R**  
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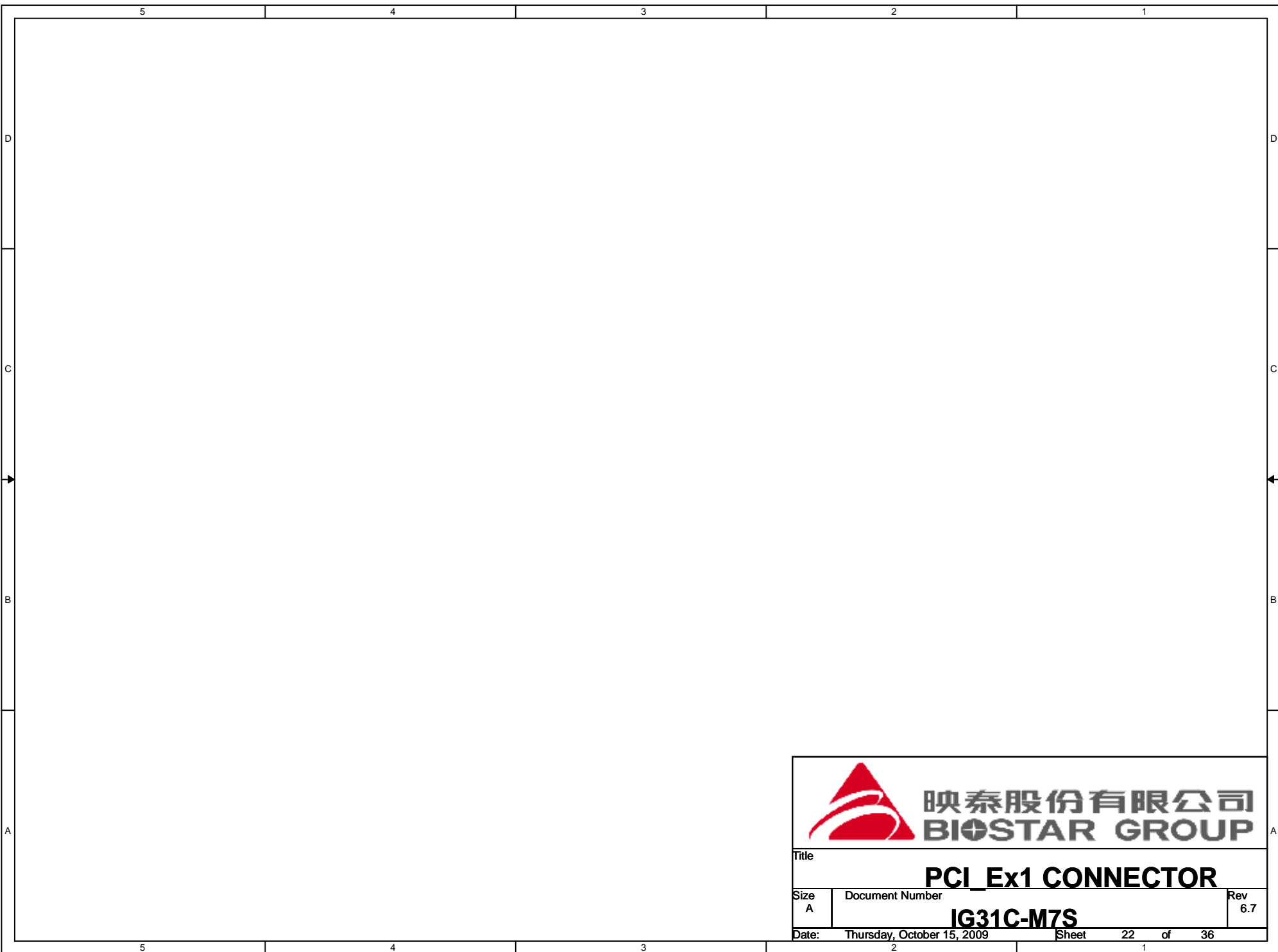



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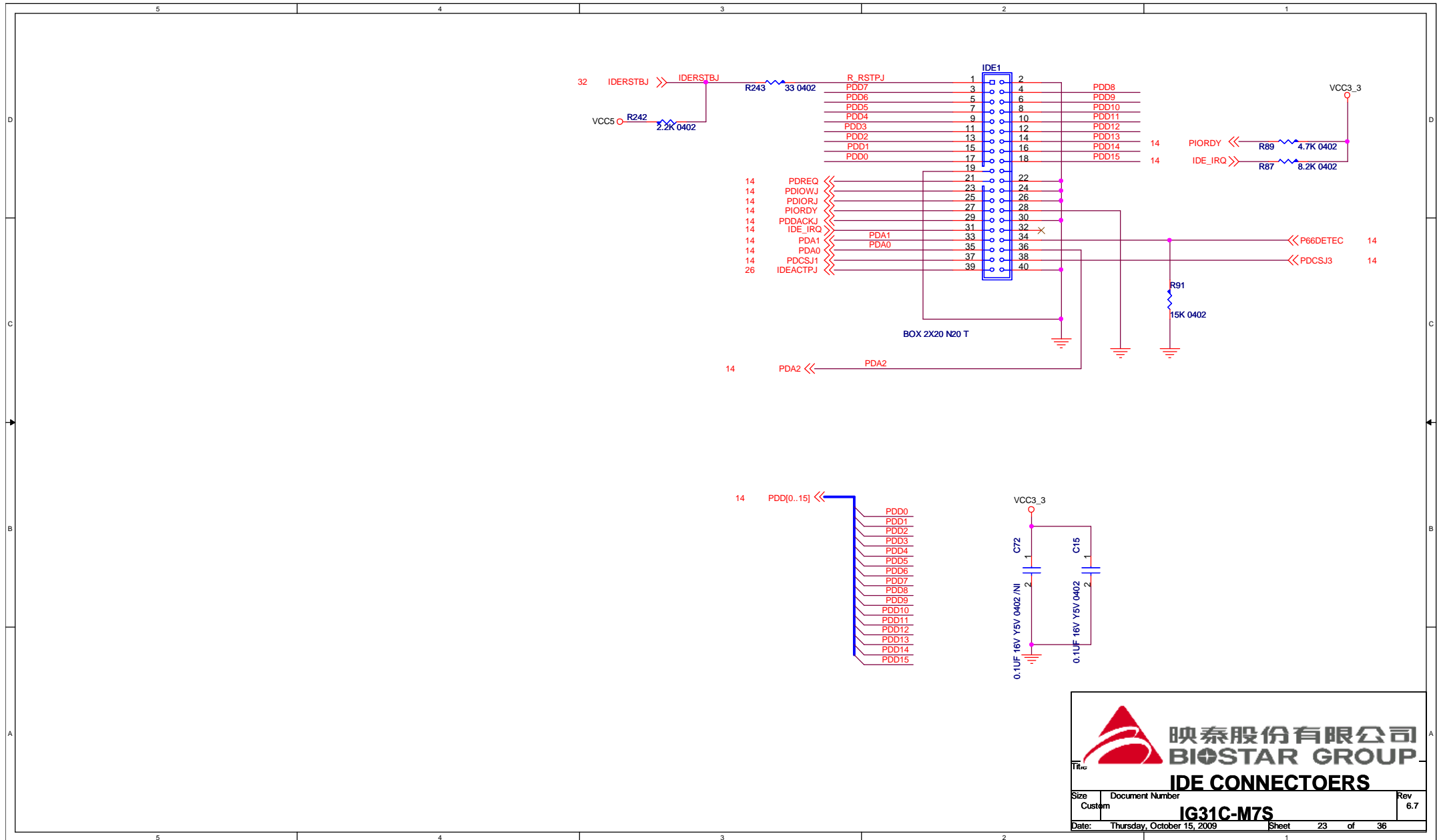
**PCI EXPRESS X16**

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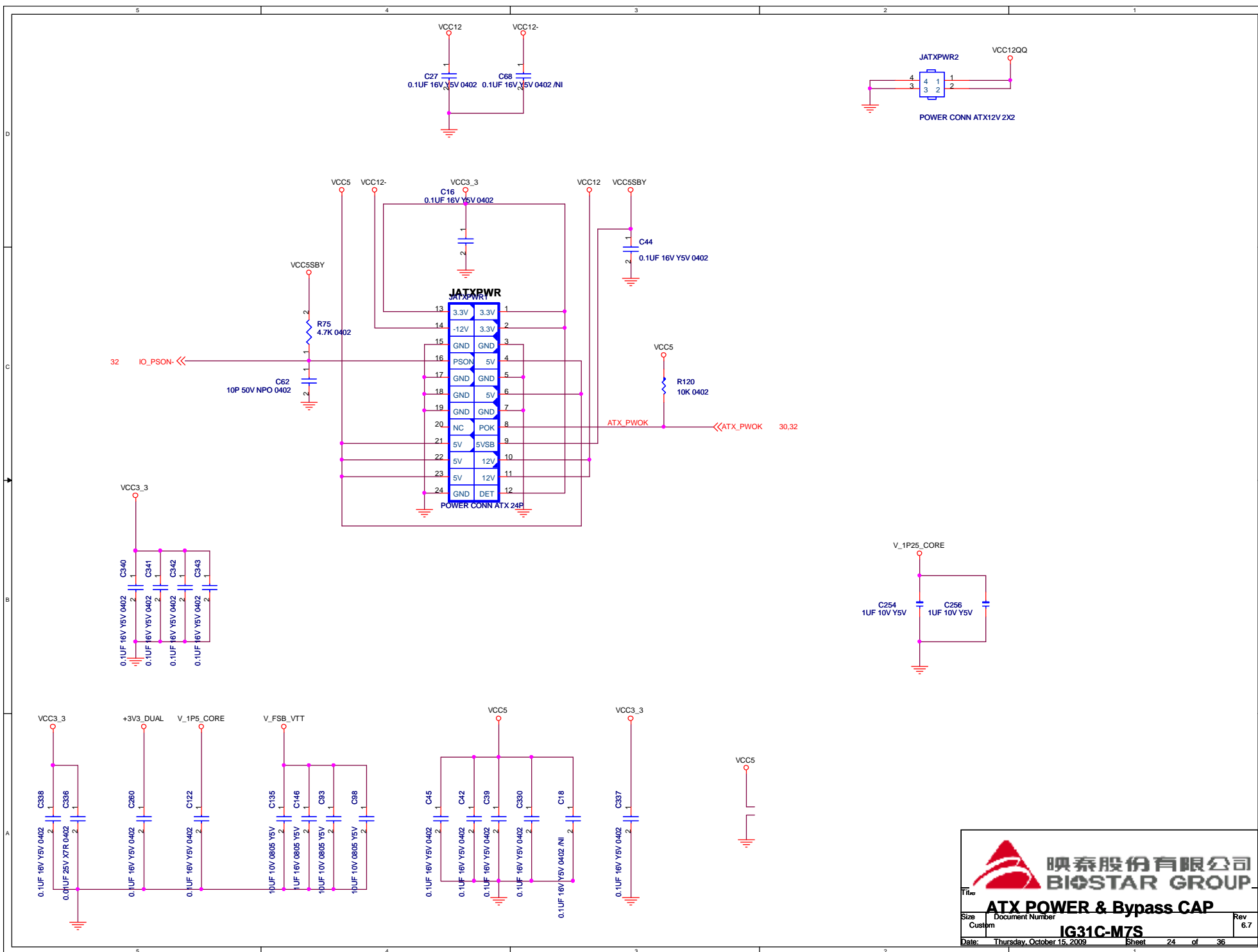



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<b>Title</b> <b>PCI_Ex1 CONNECTOR</b>		
<b>Size</b> A	<b>Document Number</b> <b>IG31C-M7S</b>	<b>Rev</b> 6.7
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**IDE CONNECTOERS**

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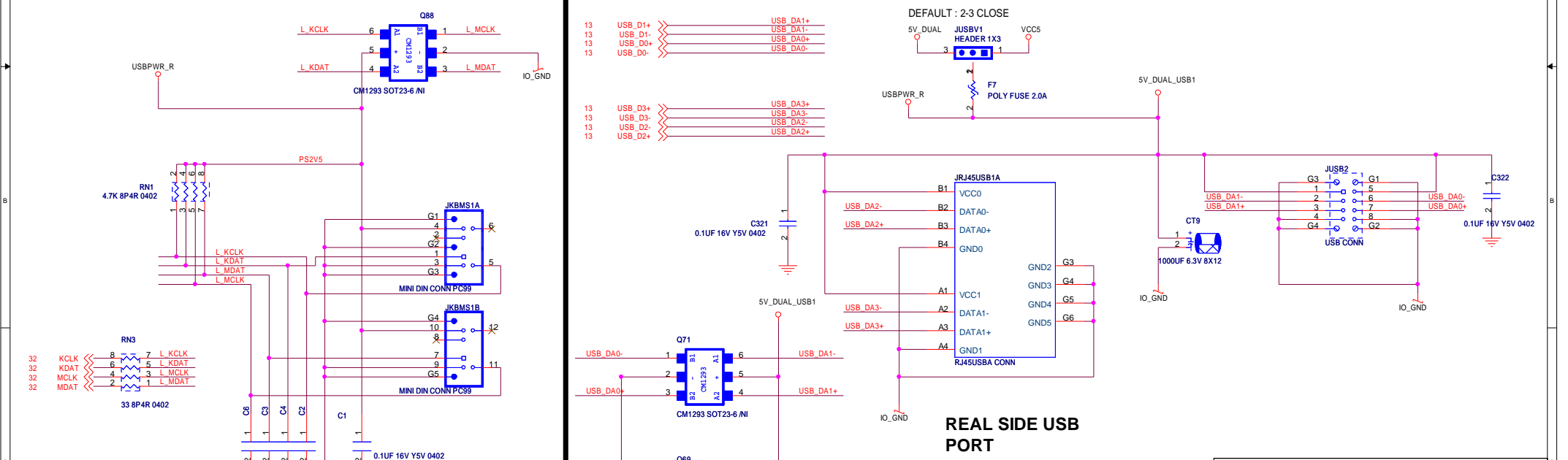
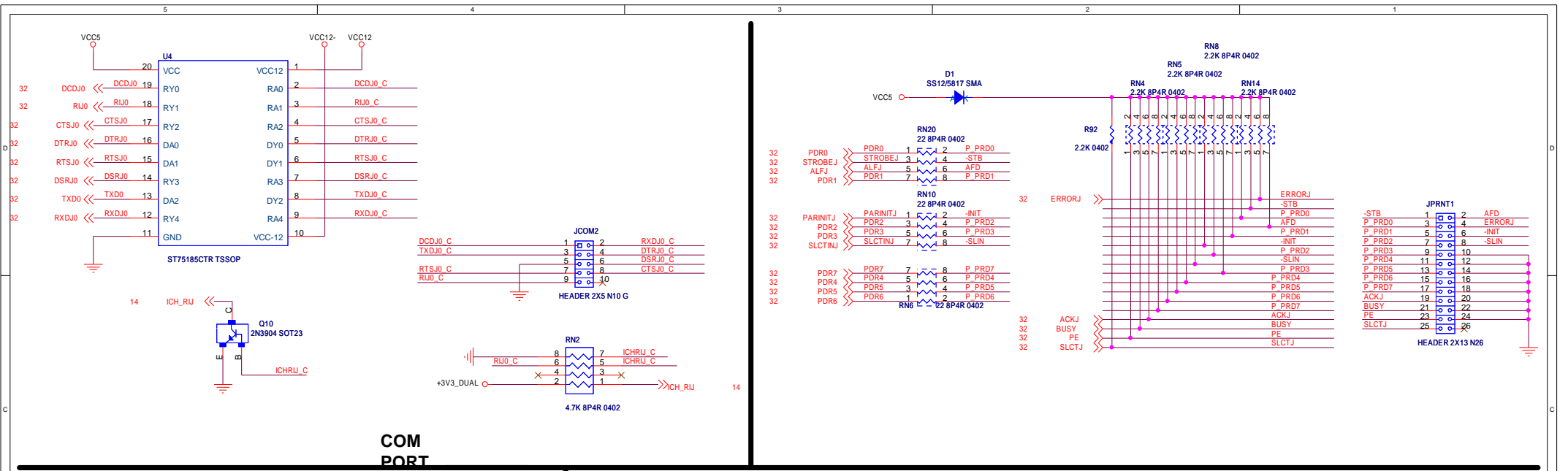



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**ATX POWER & Bypass CAP**  
**IG31C-M7S**

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**PS2 PORT**

PS2V5: PS/2 connector

JKBMS1A, JKBMS1B: PS/2 connectors

33P 50V NPO 0402: Capacitors

C1: 0.1UF 16V Y5V 0402

IO\_GND: Ground

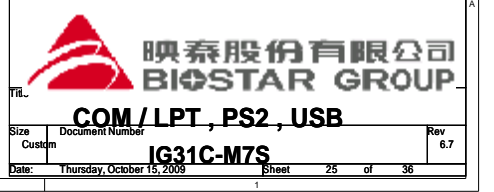
**COM / LPT, PS2, USB**

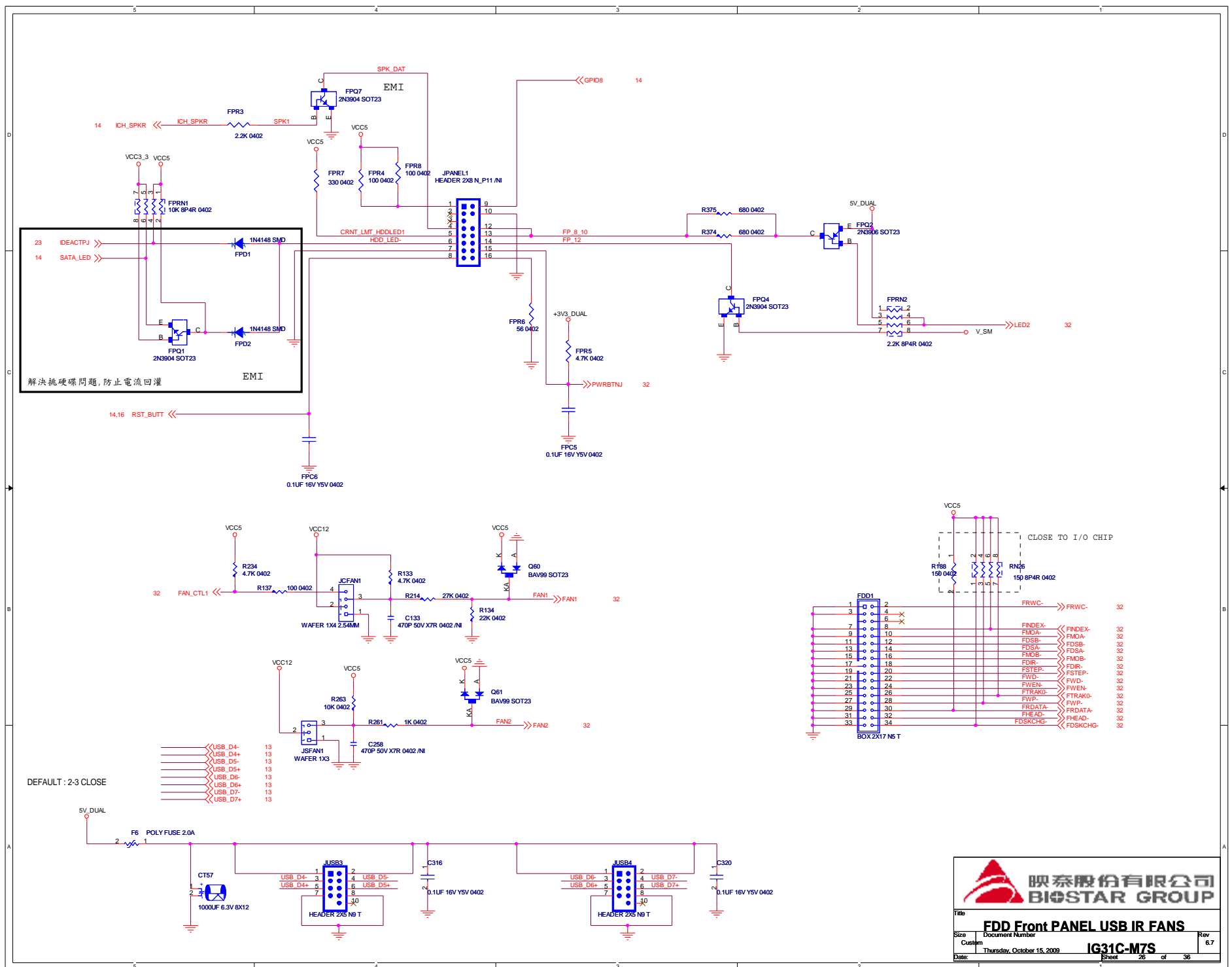
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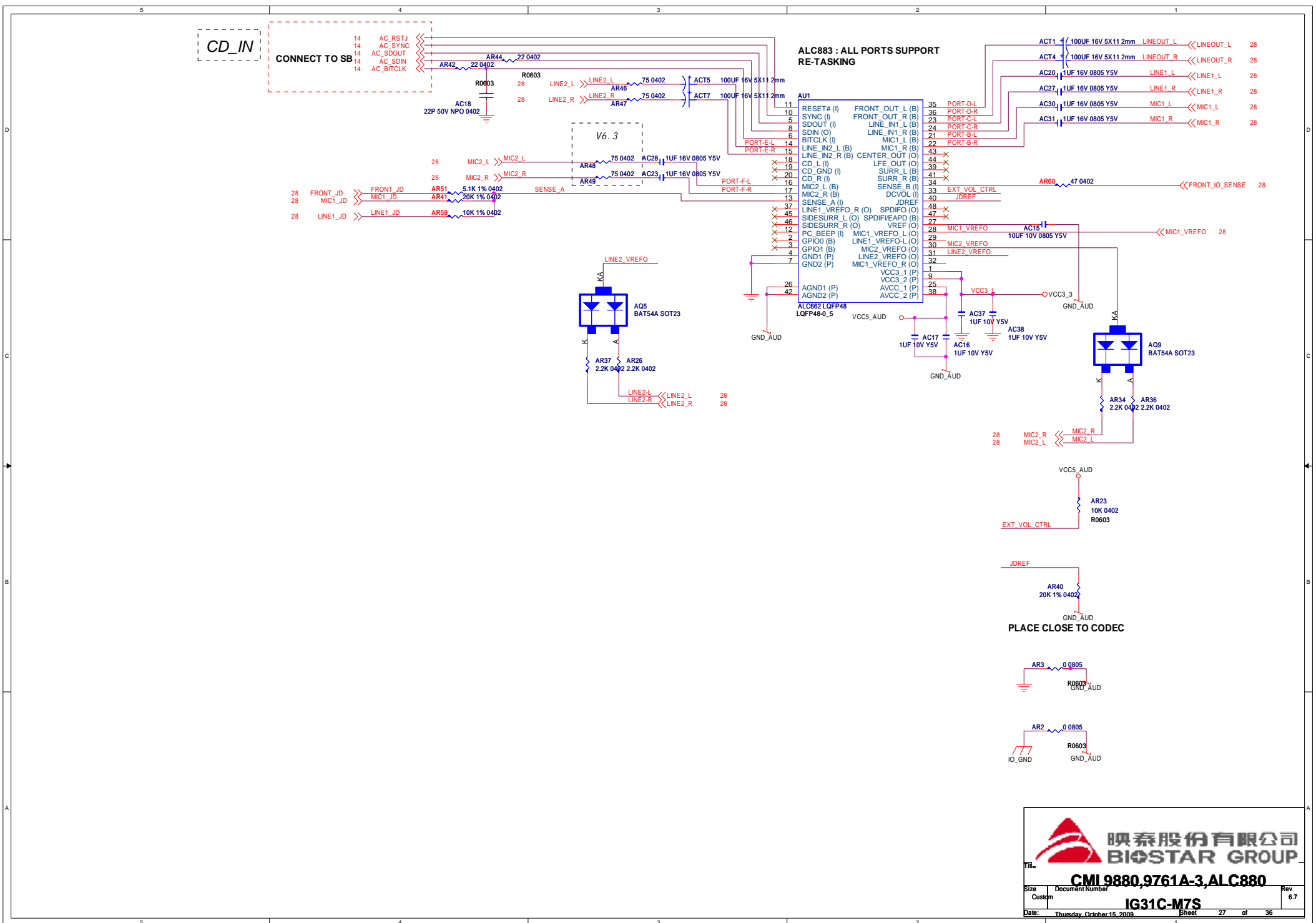
**Title: FDD Front PANEL USB IR FANS**

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Customer: \_\_\_\_\_

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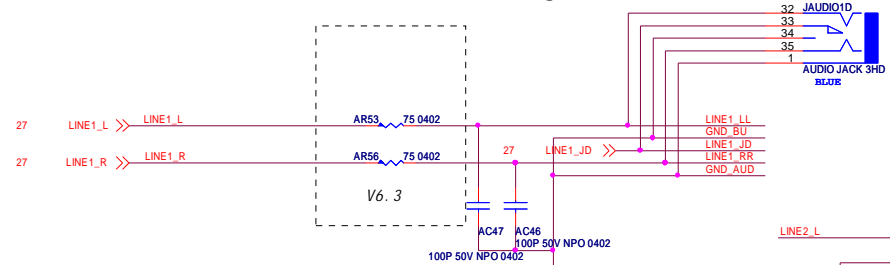


ALC883 : ALL PORTS SUPPORT RE-TASKING

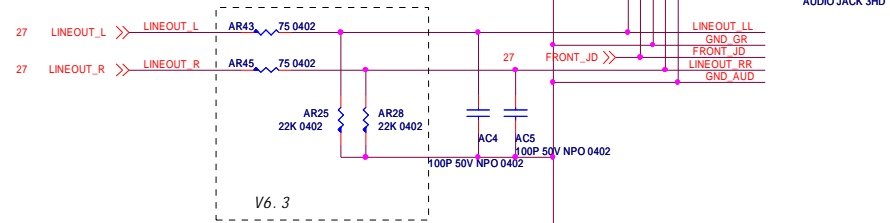
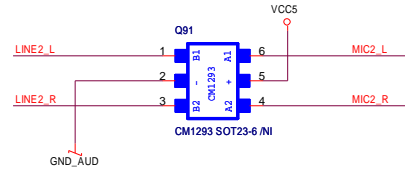
PLACE CLOSE TO CODEC

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**CMI 9880,9761A-3,ALC880**  
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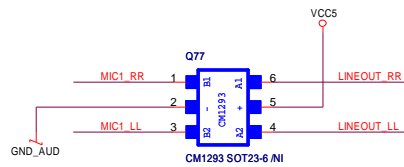
Rear Panel Onboard Analog I/O



BLUE JACK

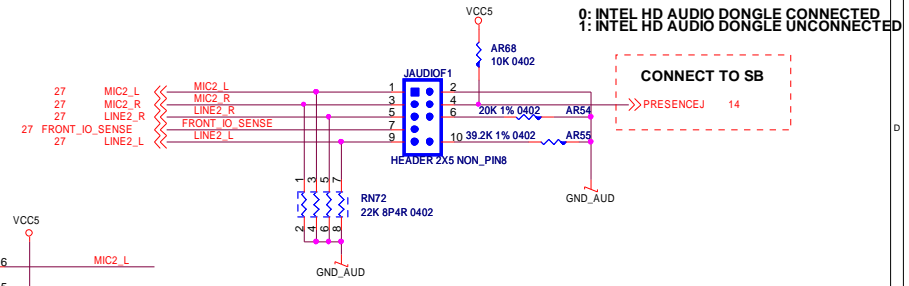
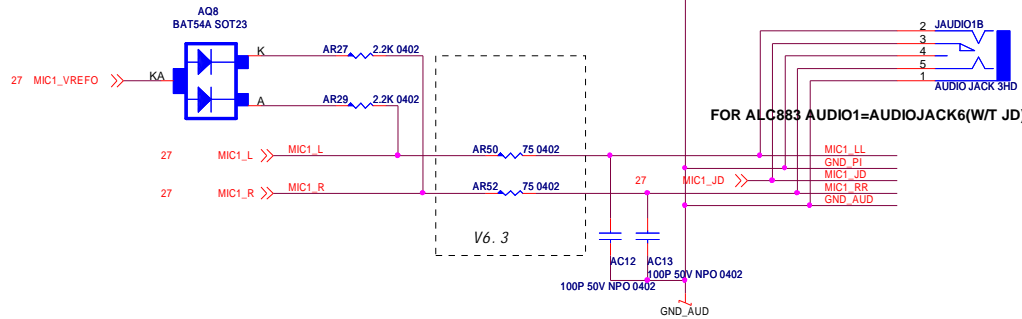


GREEN JACK



FOR ALC883 AUDIO1=AUDIOJACK6(WT JD)

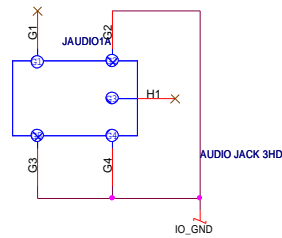
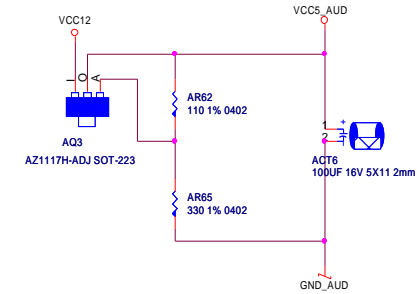
PINK JACK



0: INTEL HD AUDIO DONGLE CONNECTED  
1: INTEL HD AUDIO DONGLE UNCONNECTED

CONNECT TO SB

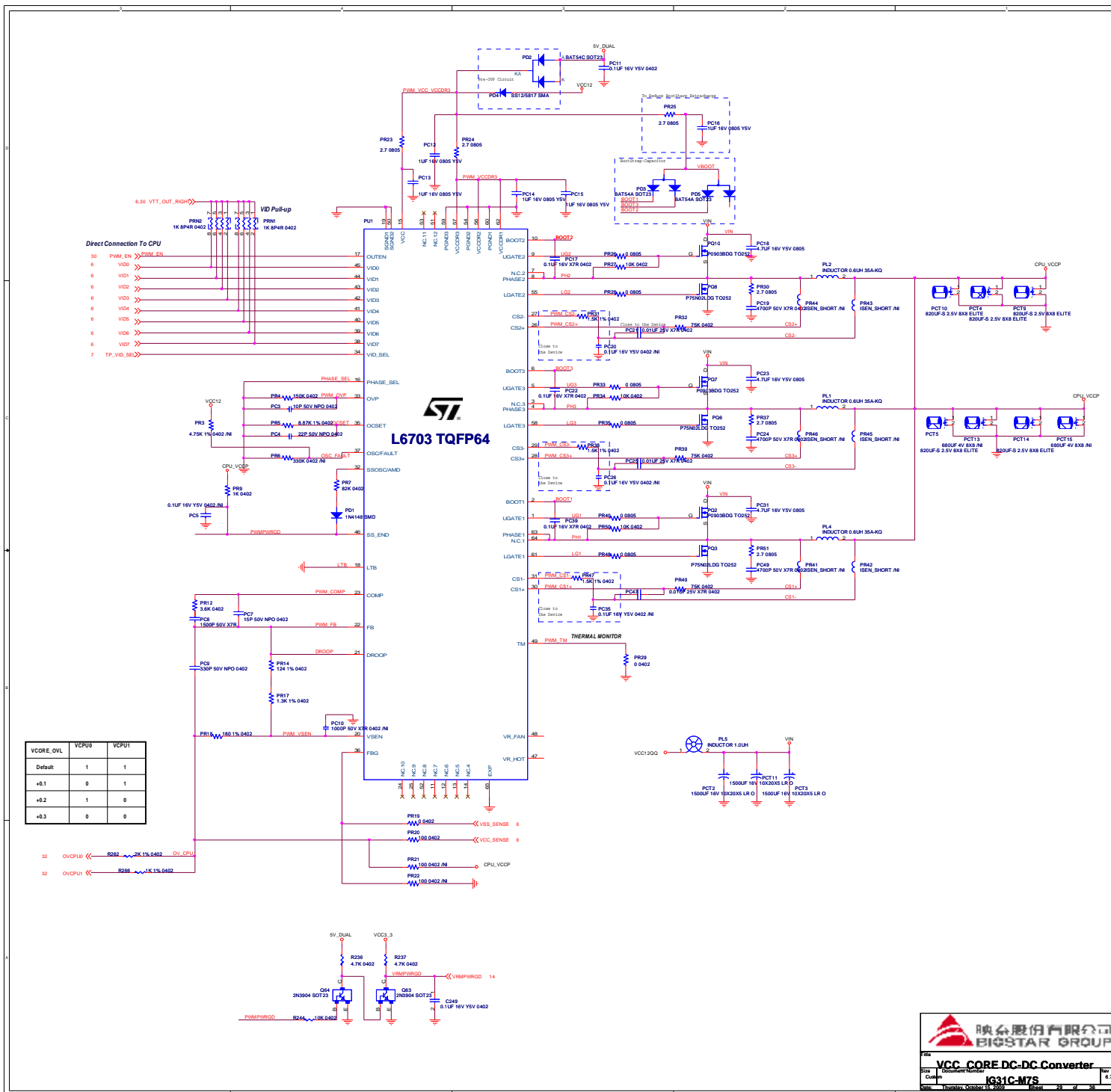
AUDIO ANALOG POWER



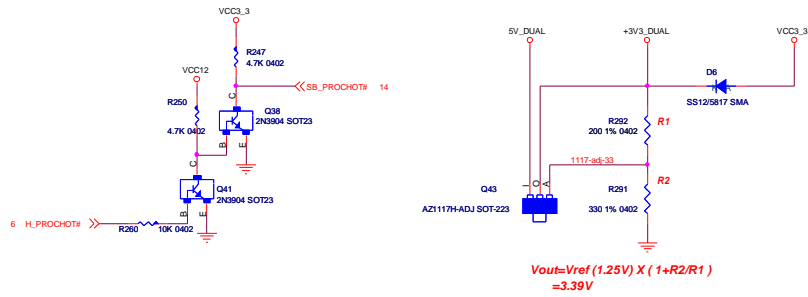
0.6-->6.0版..改connector  
JDpin和GNDpin交换

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audio connector

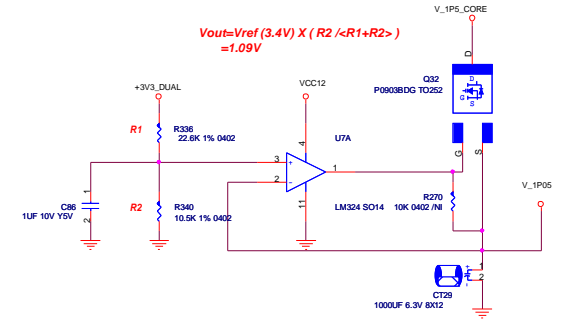
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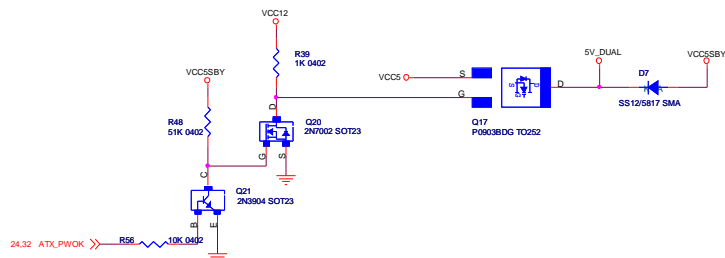
### +3V3\_DUAL



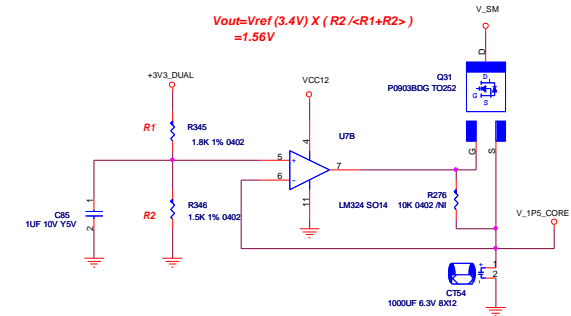
### 1D05V For SB



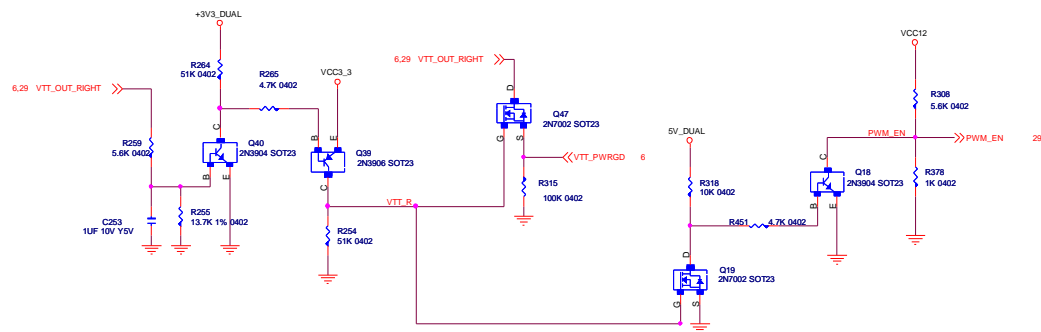
### 5V\_DUAL



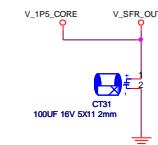
### 1D5V For SB



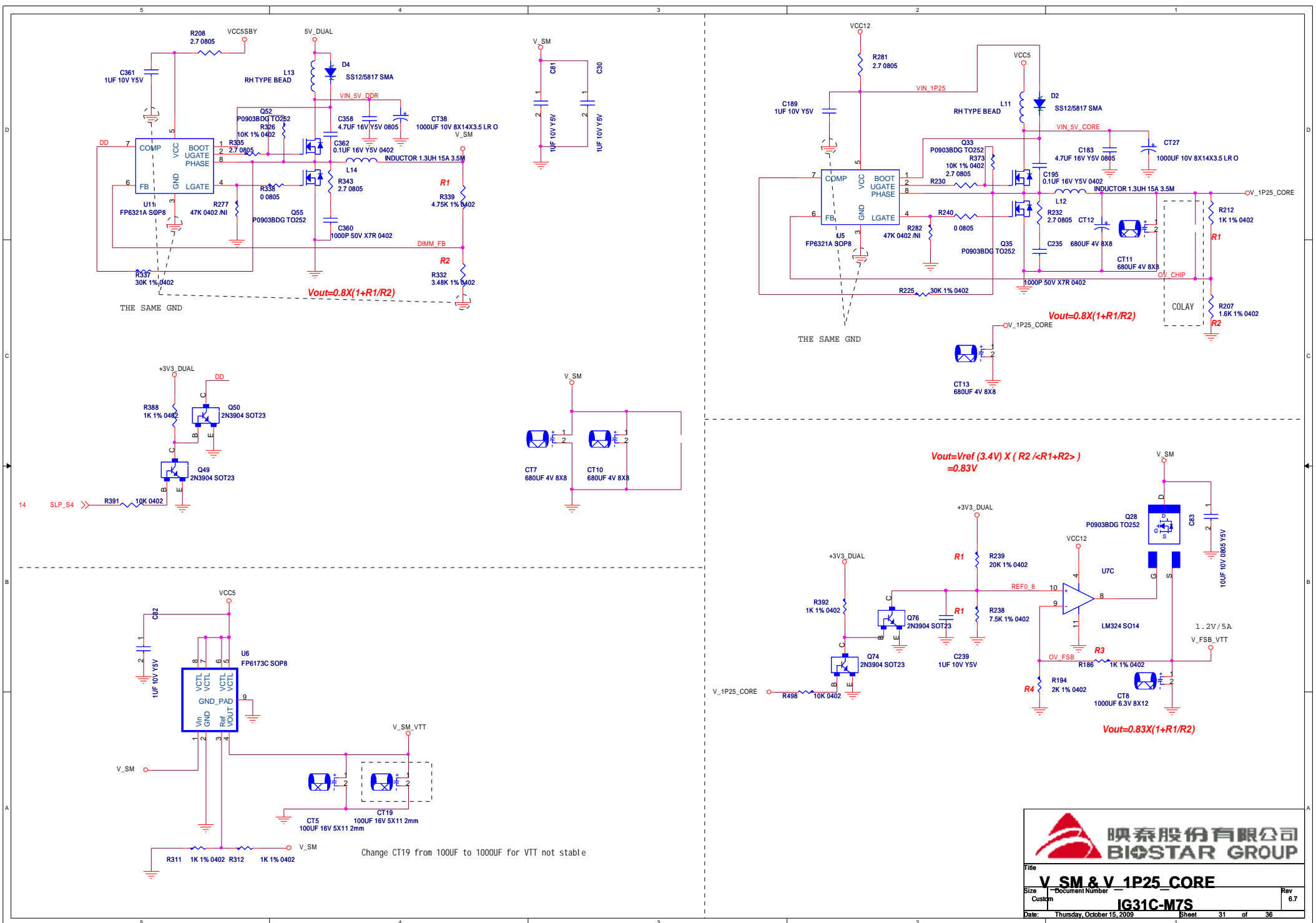
### PWM Sequence



### 1D5V For VCCD\_CRT




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**BIOSTAR GROUP**  
**Miscellaneous DC-DC Converters**  
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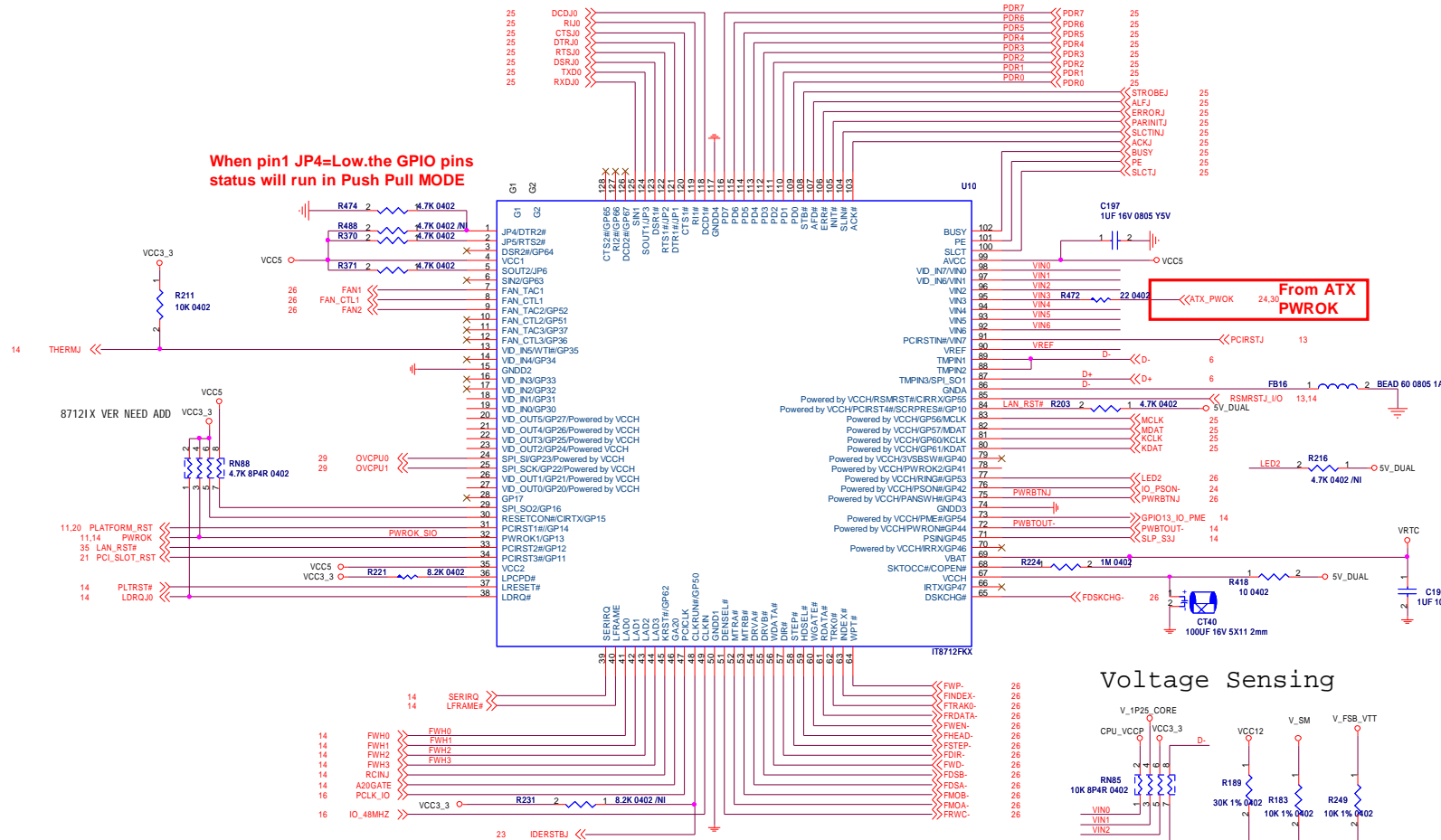
**映泰股份有限公司**  
**BIOSSTAR GROUP**

Title: **V<sub>SM</sub> & V<sub>1P25\_CORE</sub>**

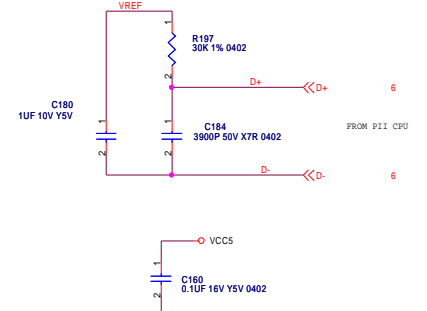
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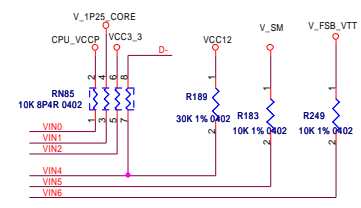
When pin1 JP4=Low,the GPIO pins status will run in Push Pull MODE



### Temperature Sensing



### Voltage Sensing

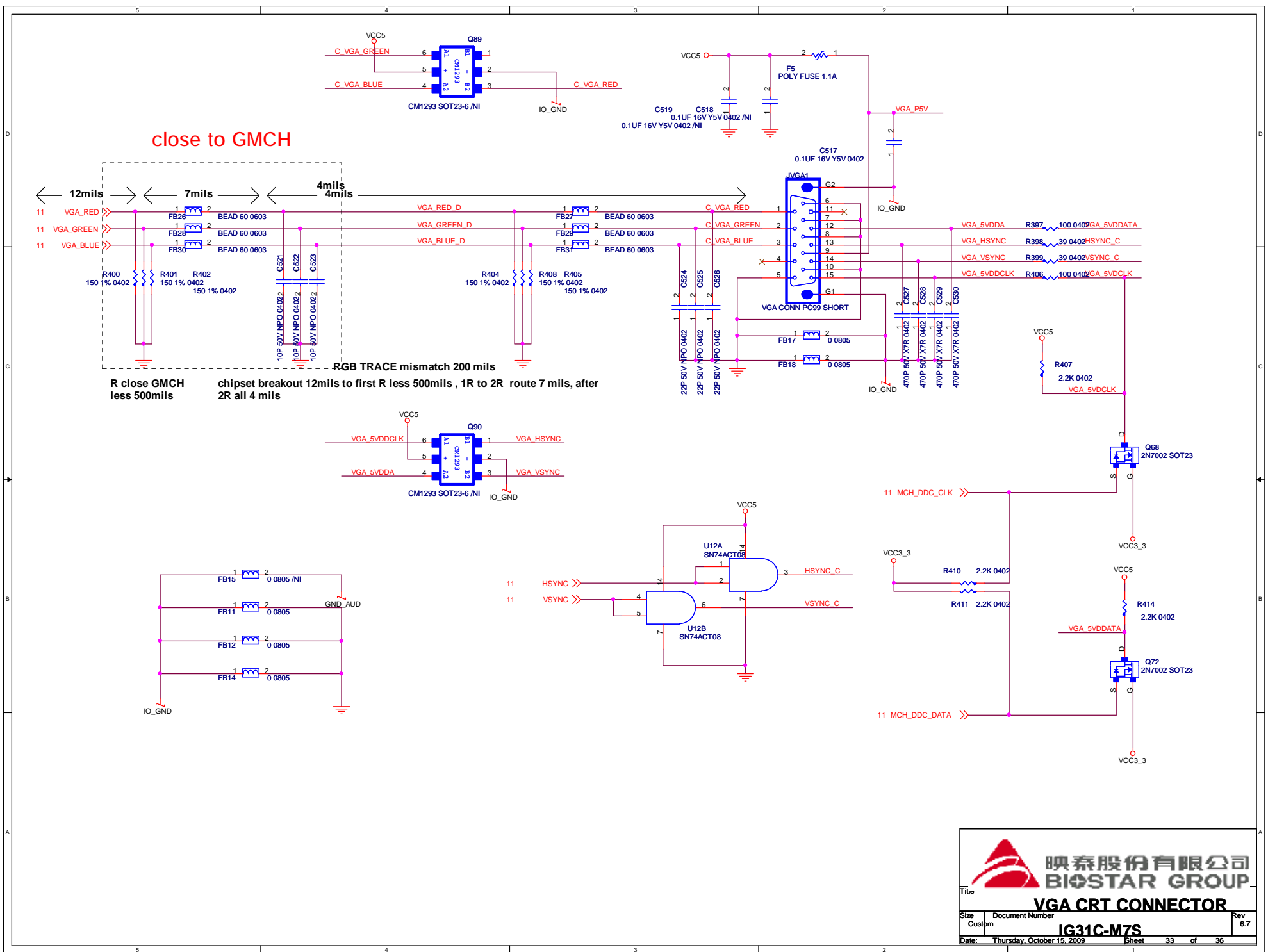


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LPC / SUPER I/O

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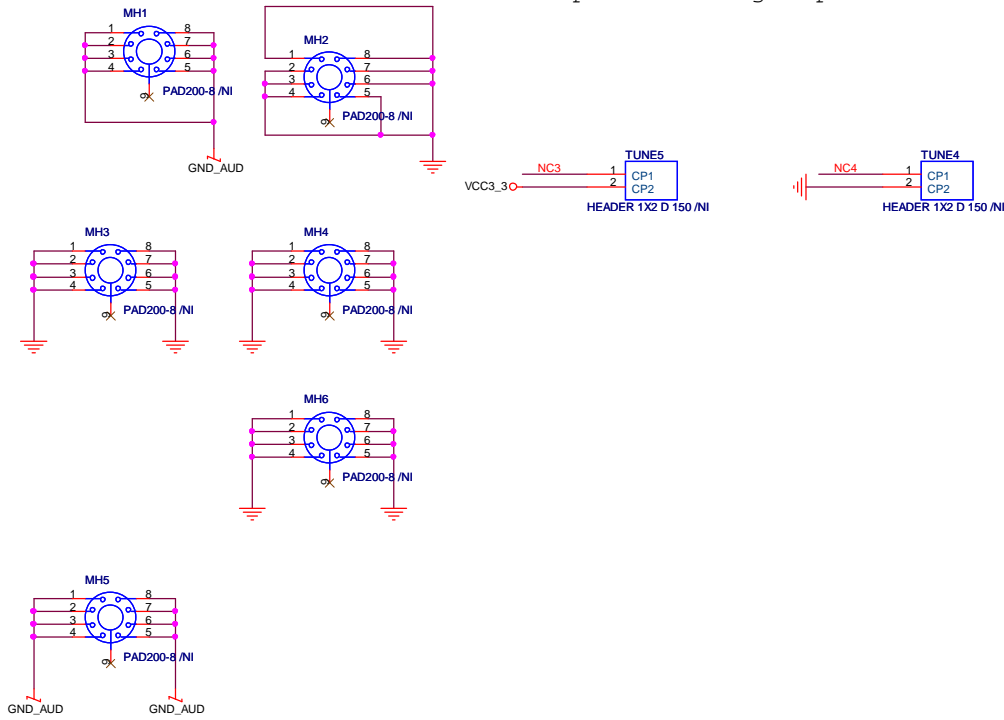


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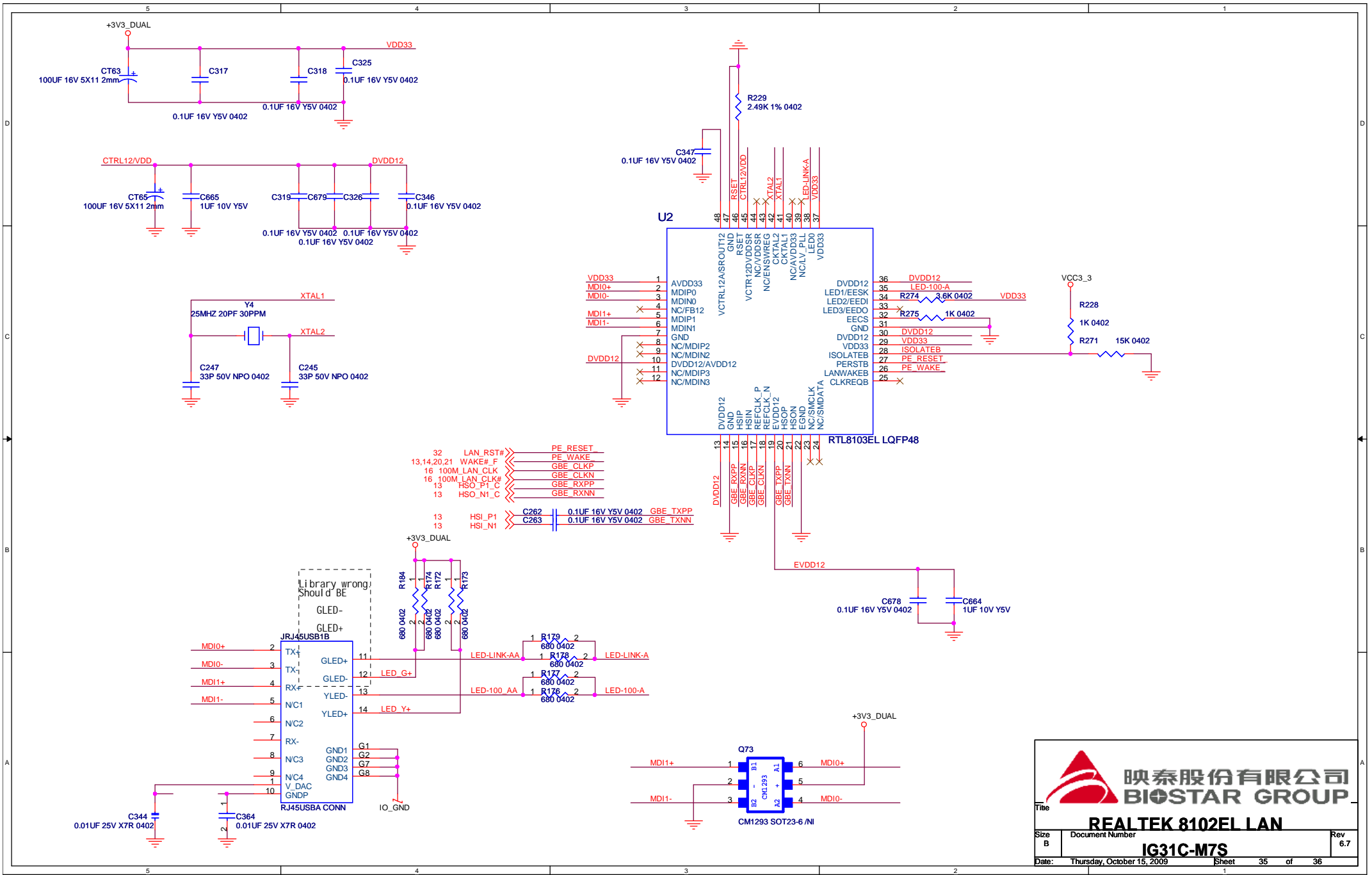
**VGA CRT CONNECTOR**

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Impedance Testing Coupon



 <b>映泰股份有限公司</b> <b>BIOSTAR GROUP</b>		
<b>MH &amp; Coupon</b>		
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**REALTEK 8102EL LAN**

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JUSBV1(2\_3)  
JUMPER 2P R

JCMOS1(1\_2)  
JUMPER 2P B

(Y3)  
X'TAL WIRE

PCB  
IG31C-M7S V6.7

(PCB)  
POLON 245x200

(BAT1)  
3V BATTERY SONY

(U18)  
FLASH ROM  
SPI MX25L4005 DIP

(NB1)  
北橋散熱片  
SBLS-T

(ICH1)  
北橋散熱片  
BNP SMALL-L

**New JPANEL1**  
**JPANEL1 2\*8**

JPANEL1(9\_10) JPANEL1(15\_16)  
HEADER 1X2 HEADER 1X2  
JPANEL1(11\_14)  
PLED

JPANEL1(1\_4) JPANEL1(5\_6) JPANEL1(7\_8)  
SPK HLED RST

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Title: **BOM**

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