

C51G-M2

REV:1.0

Circuit vA-->v1.0

8/10

1: page23, Del net name "PWRBTN*" from LPC.67 connect to Q60.D

2: page25, change F_USB1.15, F_USB2.15 from USBVCC2 to USBVDD2

8/15

3: page19, change U19.U3, R3, N3, L3, W3 from +1.2V_HT to +1.2V_CORE

8/16

4: page31, change Q30 from TM3055 to Q66 AM9412N, driving from +1.2V_CORE

5: page31, change EC41 from 1000U to 100U, add 0.1U

8/22

6: page31, del EC19

7: page31, del EC38 from 100U to 1000U

8: page22, change EC22 from 1000U to 100U

9: page31, change EC42 from 1000U to 100U

10: page31, del Q50,R343

11: page29, connect Q52.G to Q51.G, add R490

12: page29, change R339 pull-up from +5V to +5VSB

8/23

13: page17, add R491,R492,R493,SD28

14: page12, add D28

8/25

15: page24, add R495, R496, R497, R498

16: page29, add C382

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01-COVER PAGE

02-BLOCK DIAGRAM

03-K8-939 CPU P / G / HT

04-K8-939 CPU MEM

05-K8-939 CPU CNTL / STTRAPS

06-DDR DIMM

07-DDR VTT TERM / DECOUPLING

08-DDR ADD/CTL TERMINATION

09-C51 HT CPU

10-C51 HT MCP51

11-C51 PCI-E

12-C51 DAC / VGA CONN

13-C51 P/G

14-MCP51 HT C51

15-MCP51 PCI

16-MCP51 SATA / IDE / CONN

17-MCP51 AUDIO / USB / MISC

18-MCP51 RGMII

19-MCP51 P/G

20-PCI-E CONN

21-PCI CONN

22-PCI TERMINATION

23-LPC SIO-W83627EHF / FDD

24-LPT / COM / PS2

25-USB CONN

26-AUDIO ALC655

27-AUDIO PANEL

28-LAN

29-PWR CON / FNT PNL

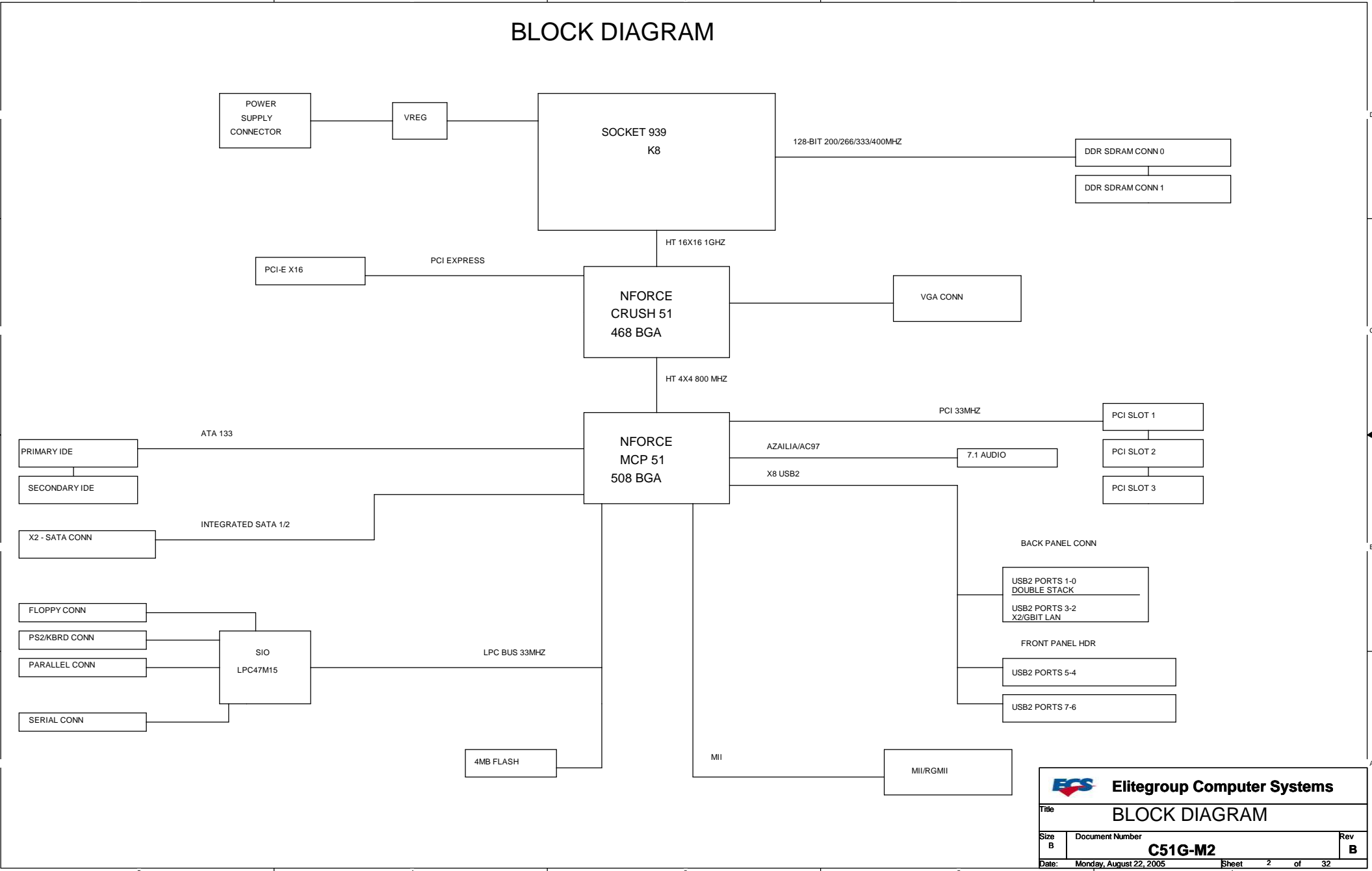
30-CPU VCORE

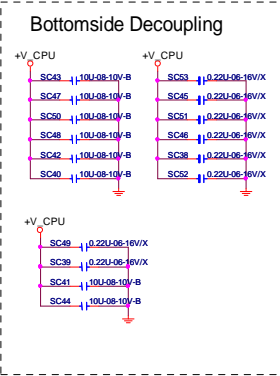
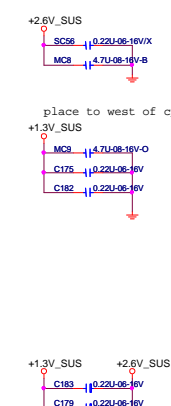
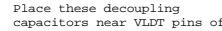
31-DC - DC

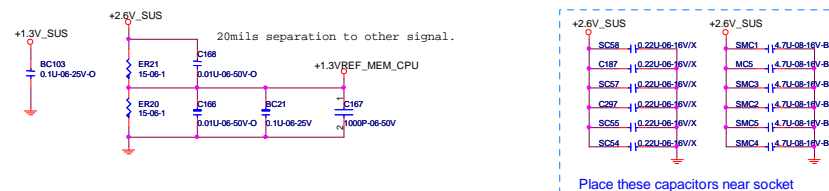
32-Attention

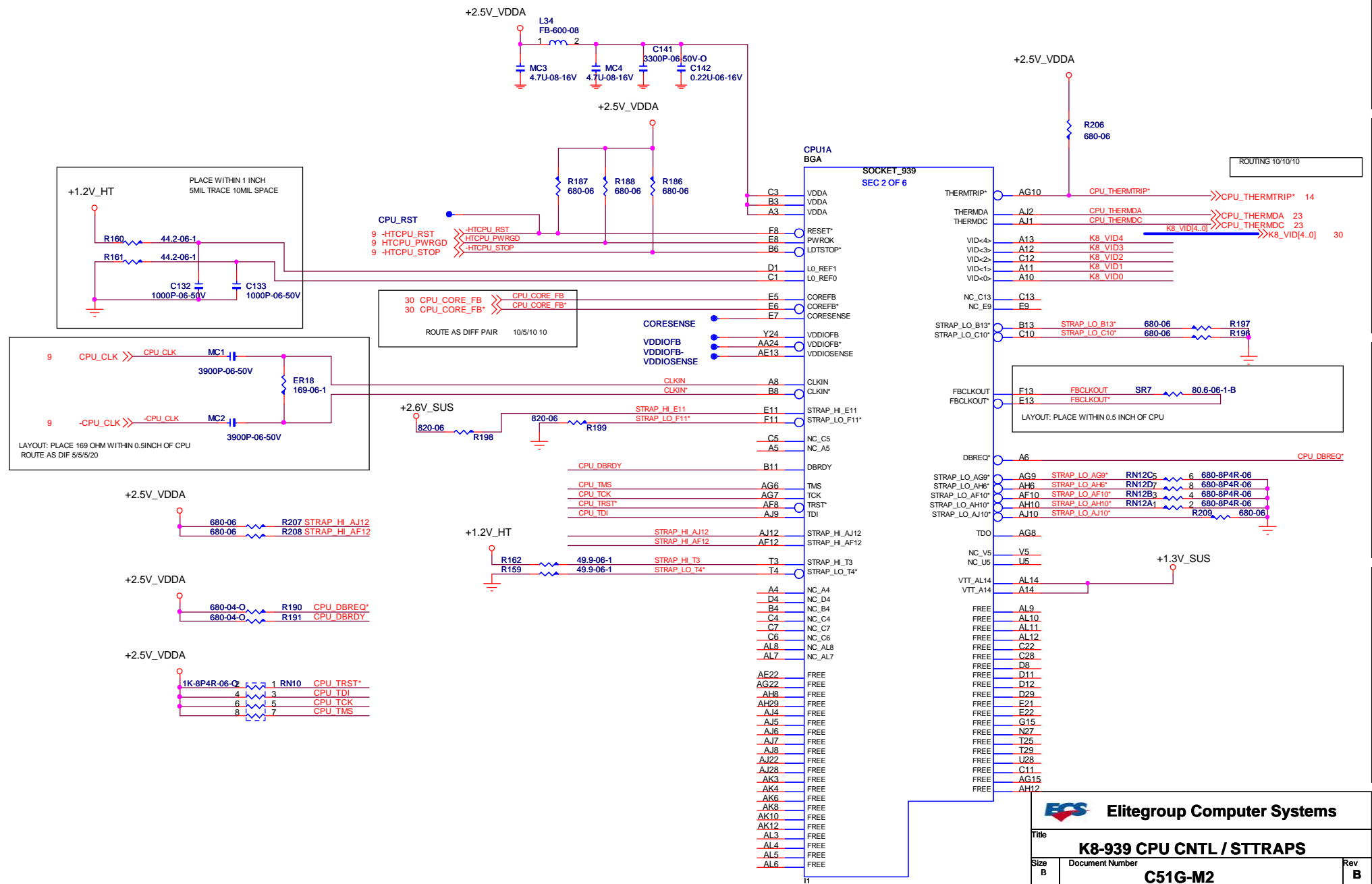
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Designer	Vincent	07/01/2005
Layout		
Check		
Approval		

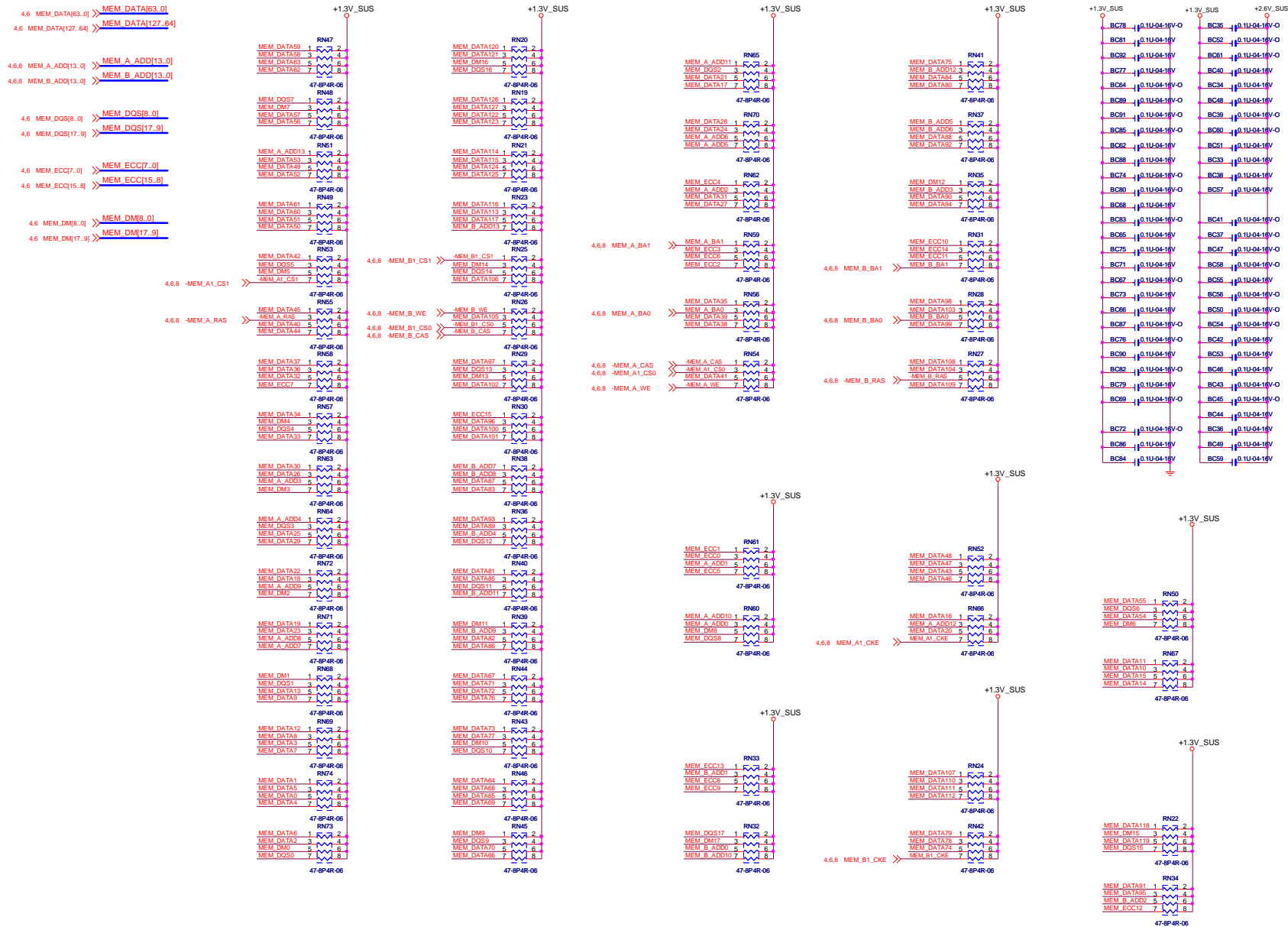
BLOCK DIAGRAM



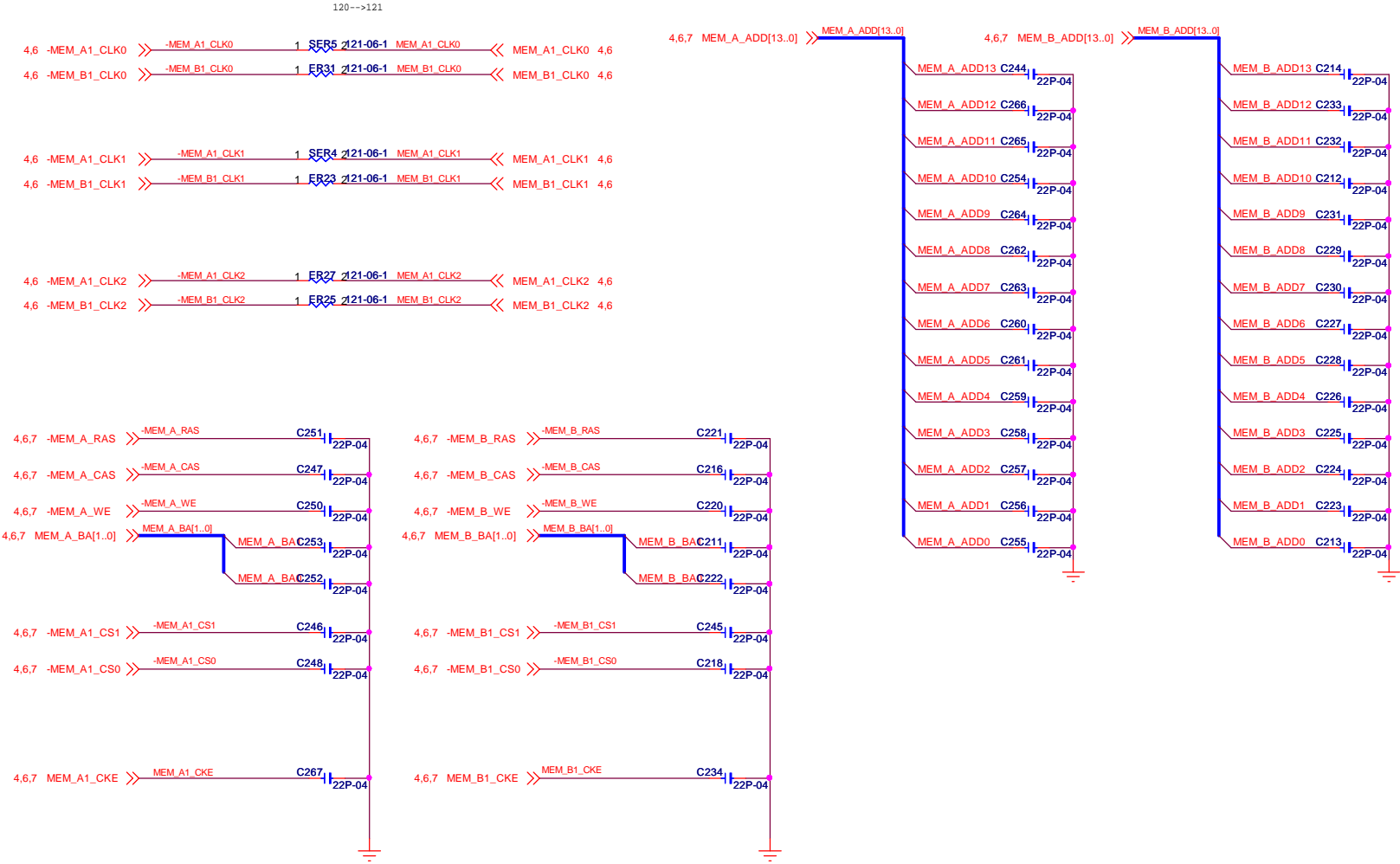


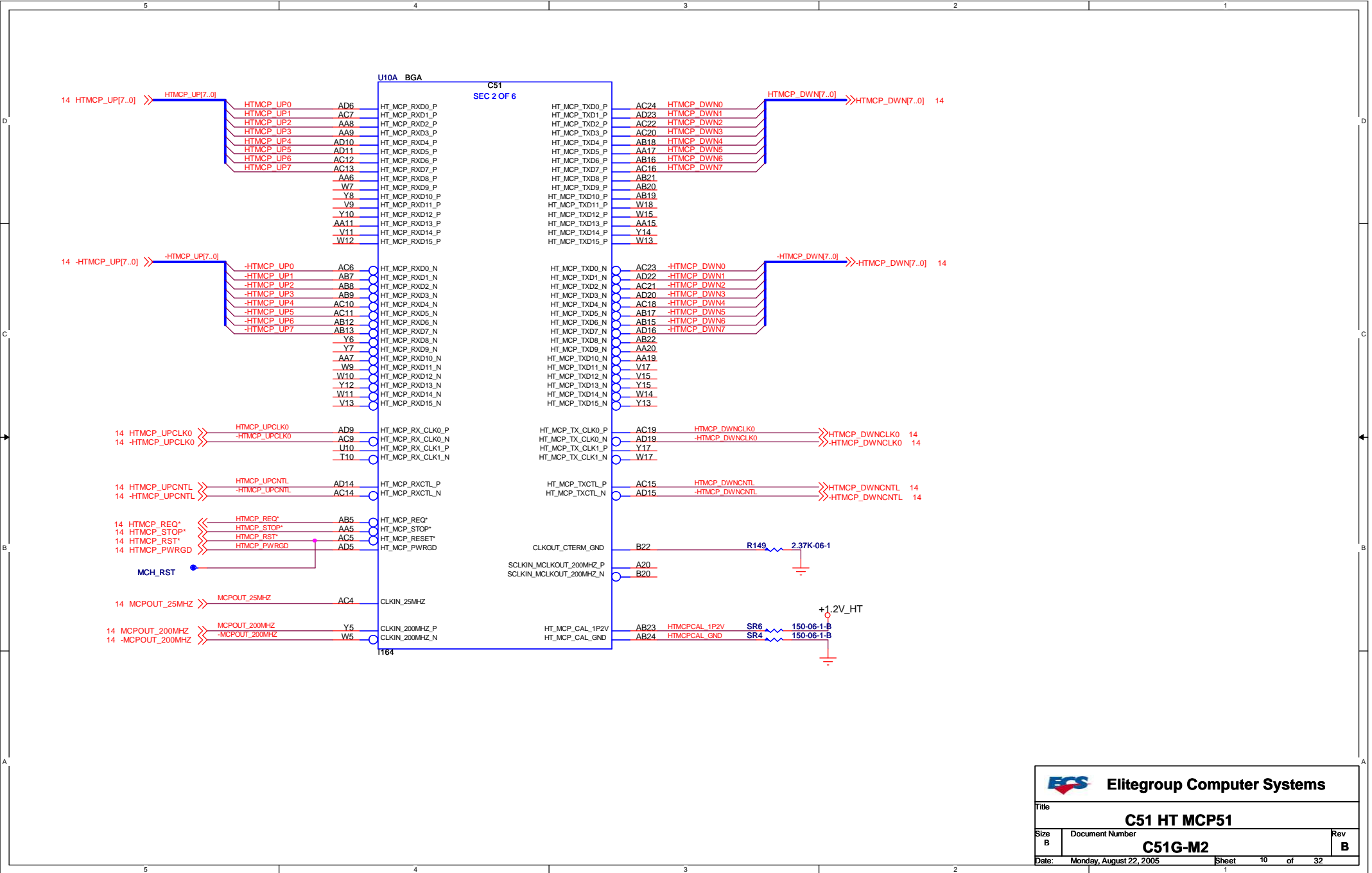


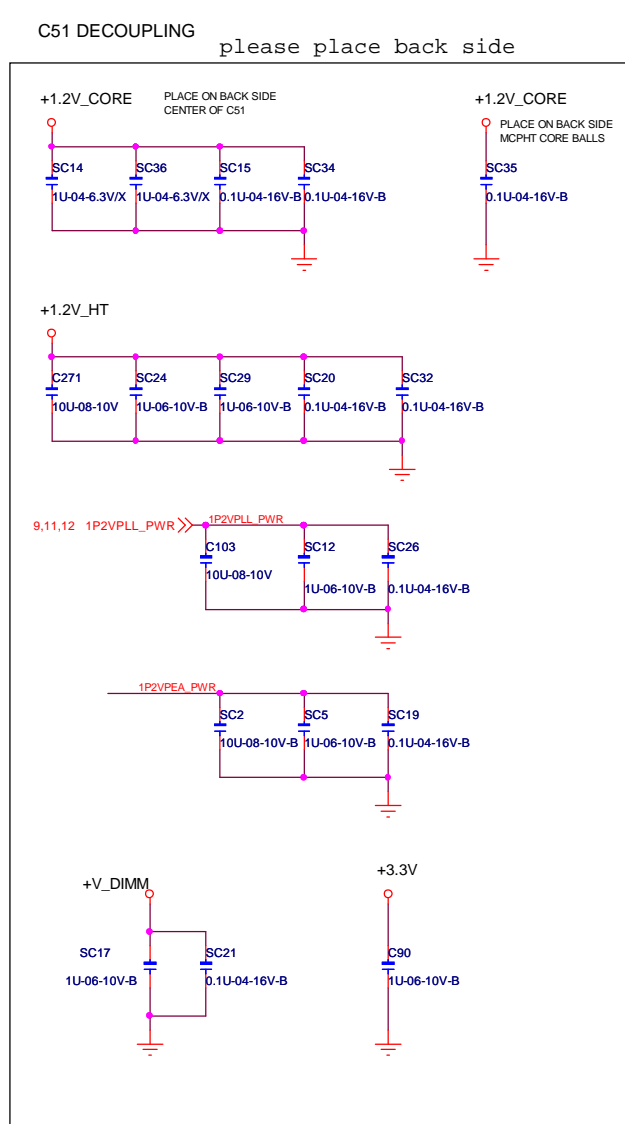
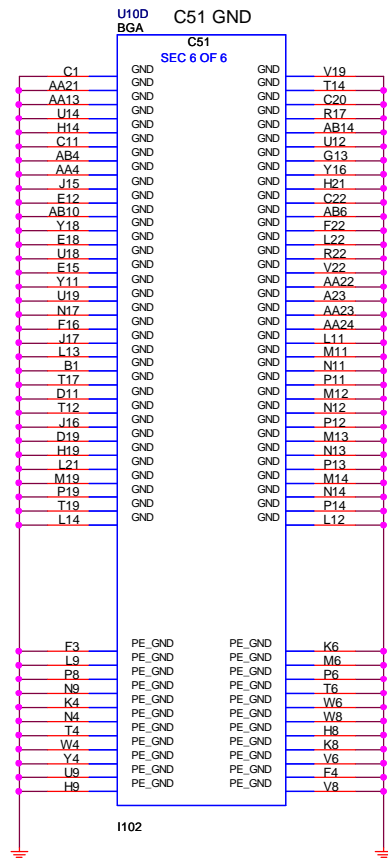
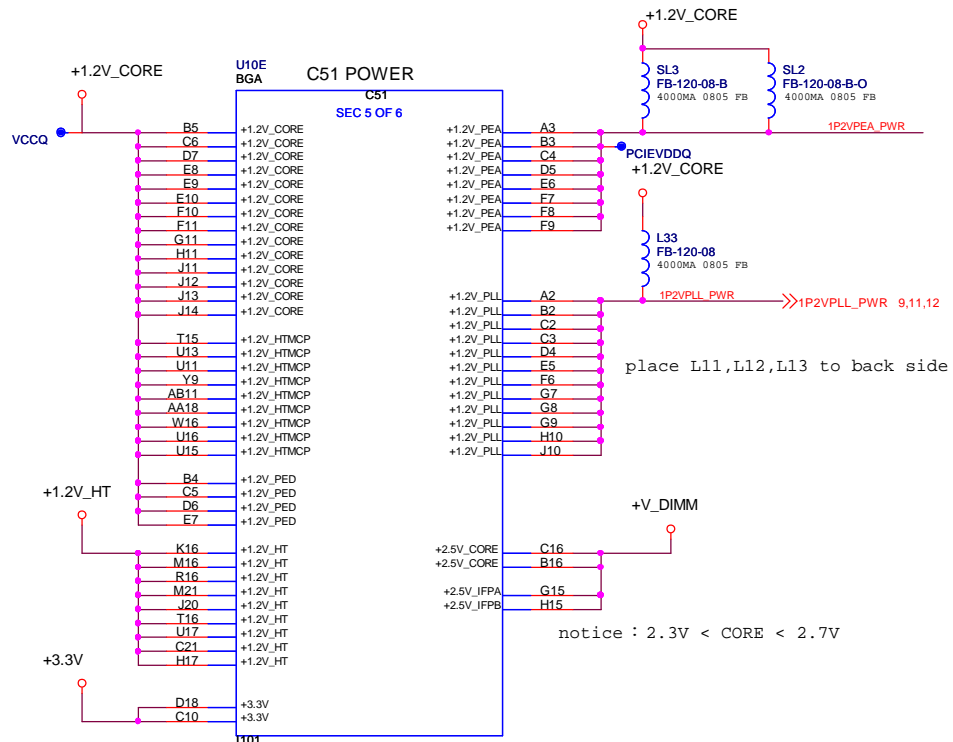


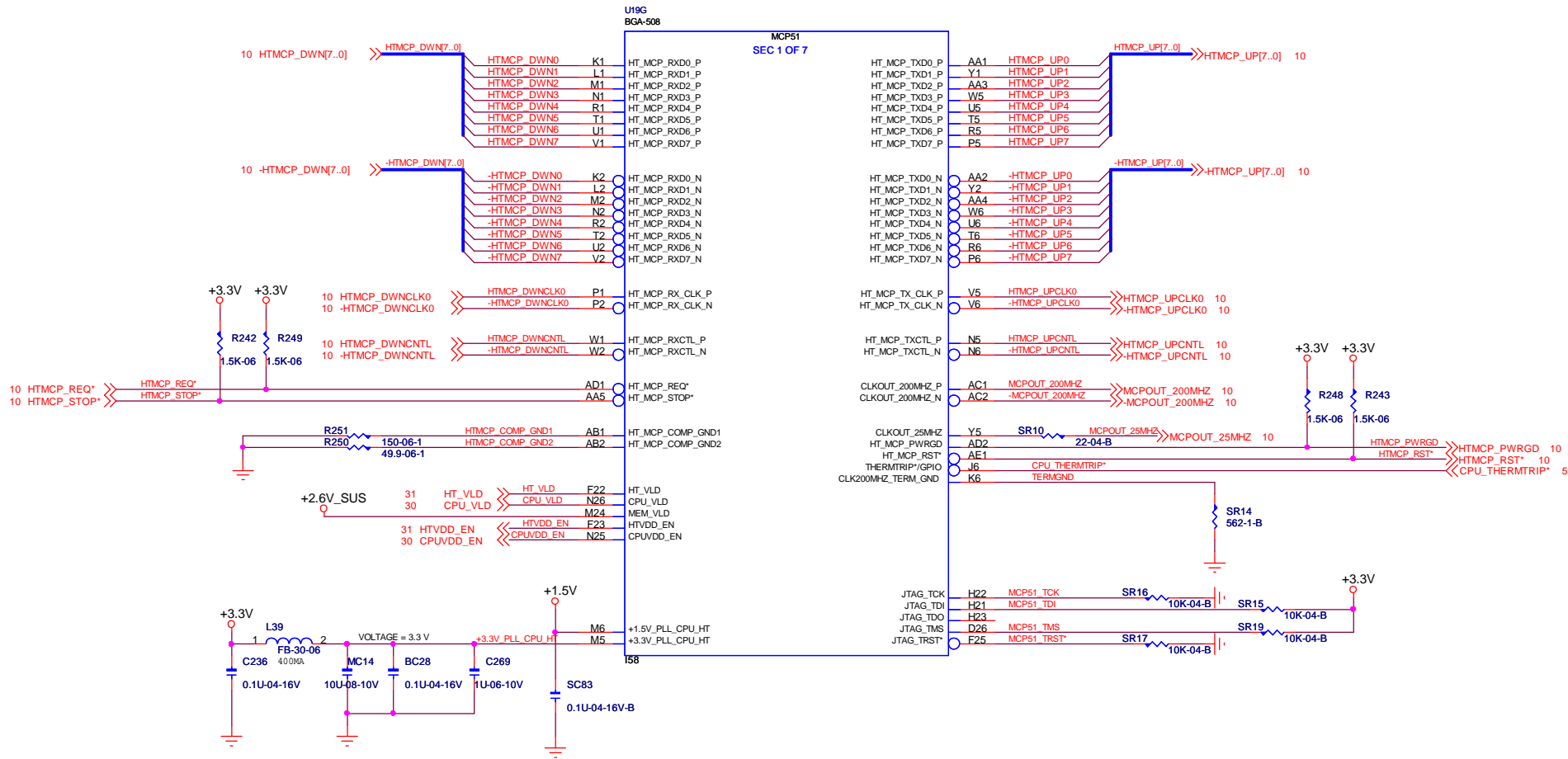


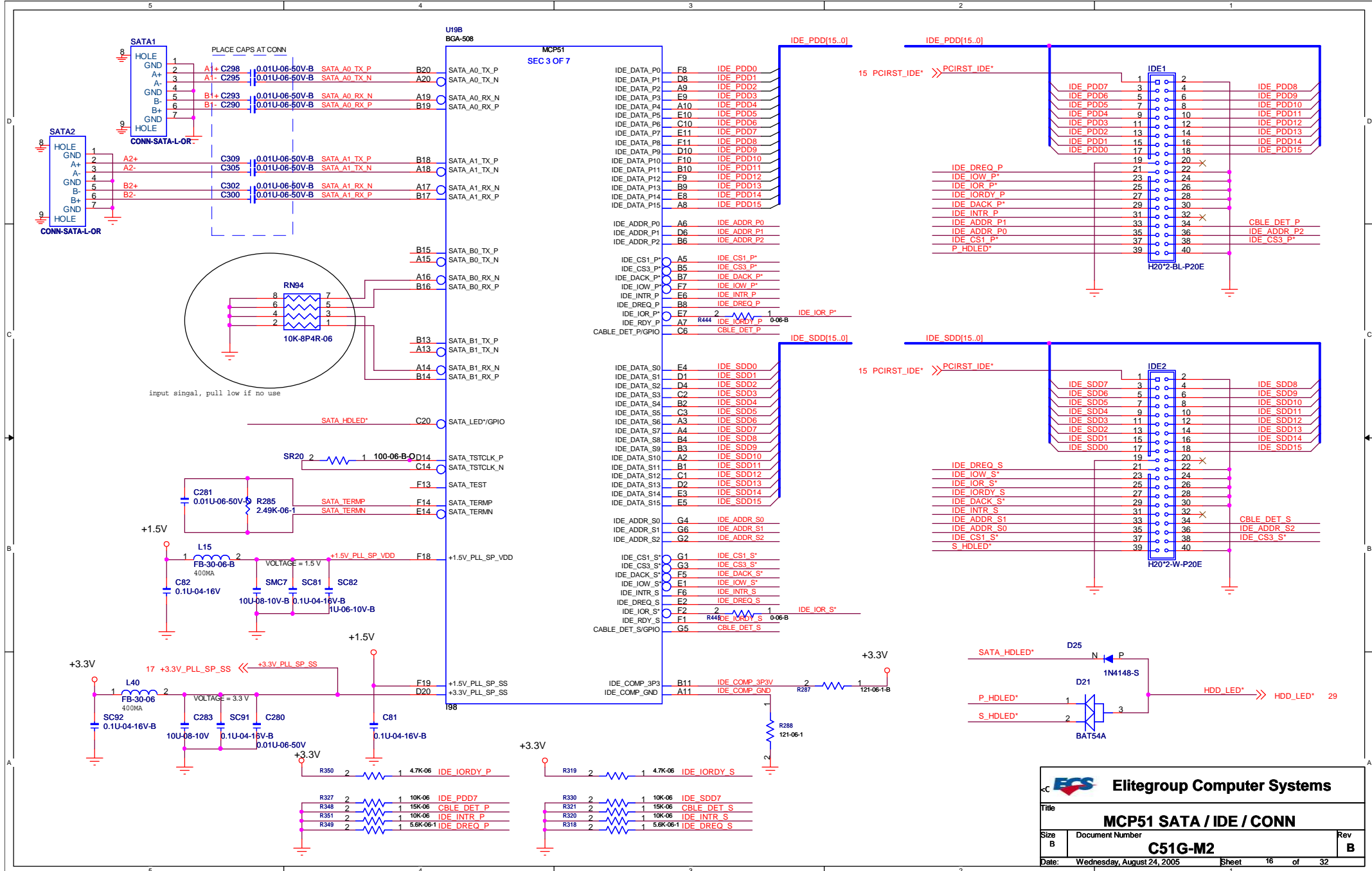
PLACE ALL PARTS 0.25 TO 0.50 INCH FROM CPU

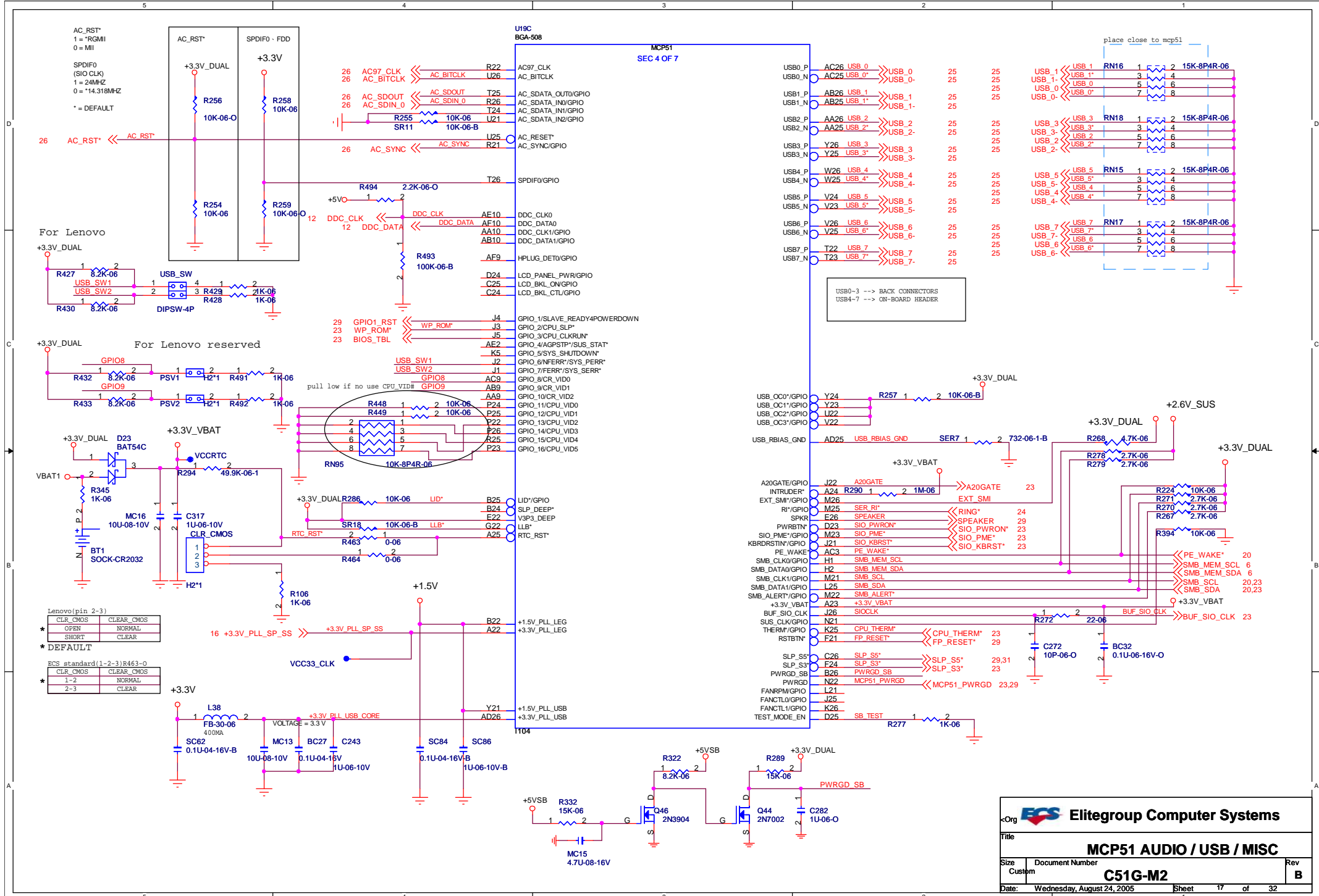


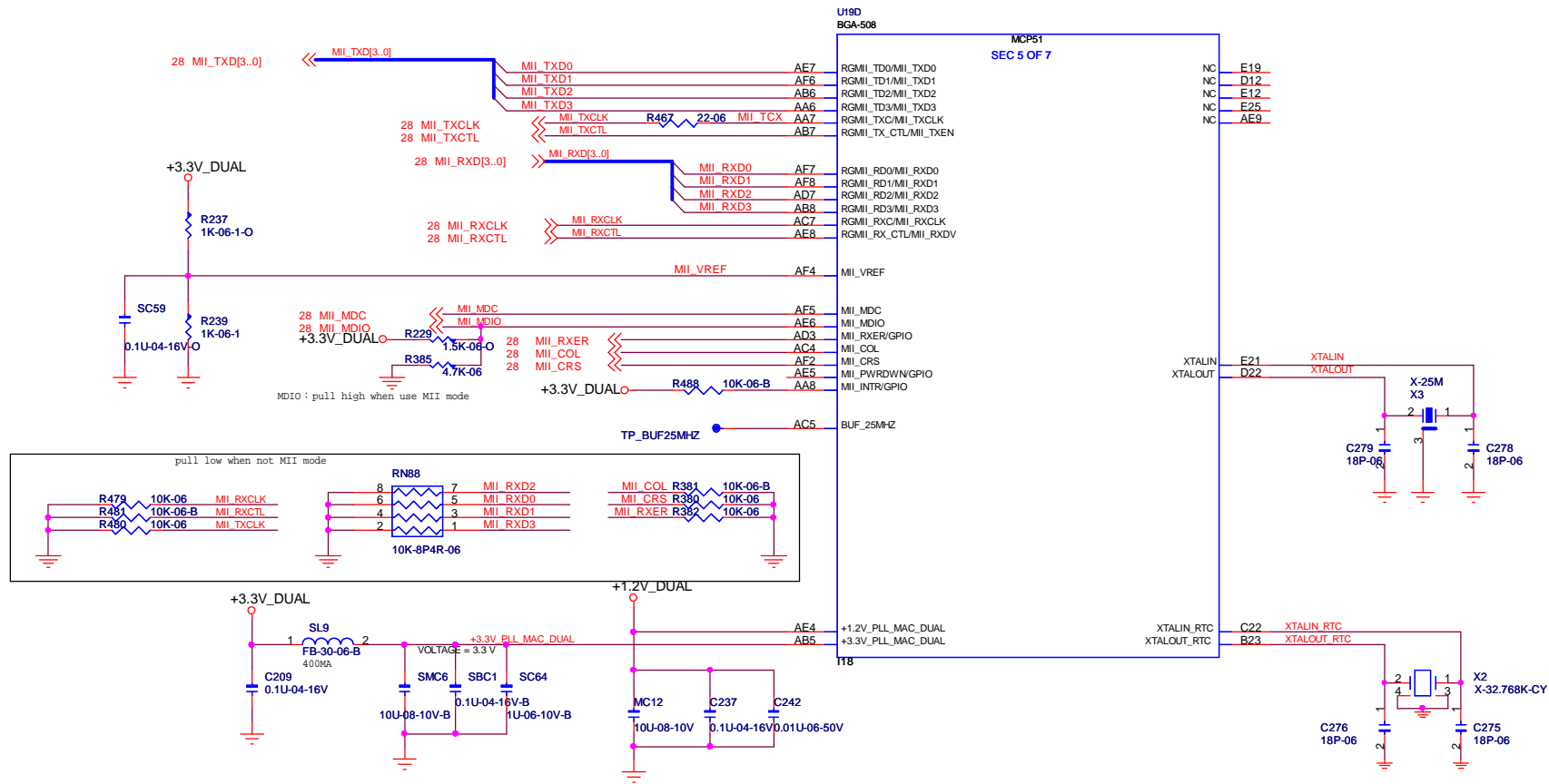


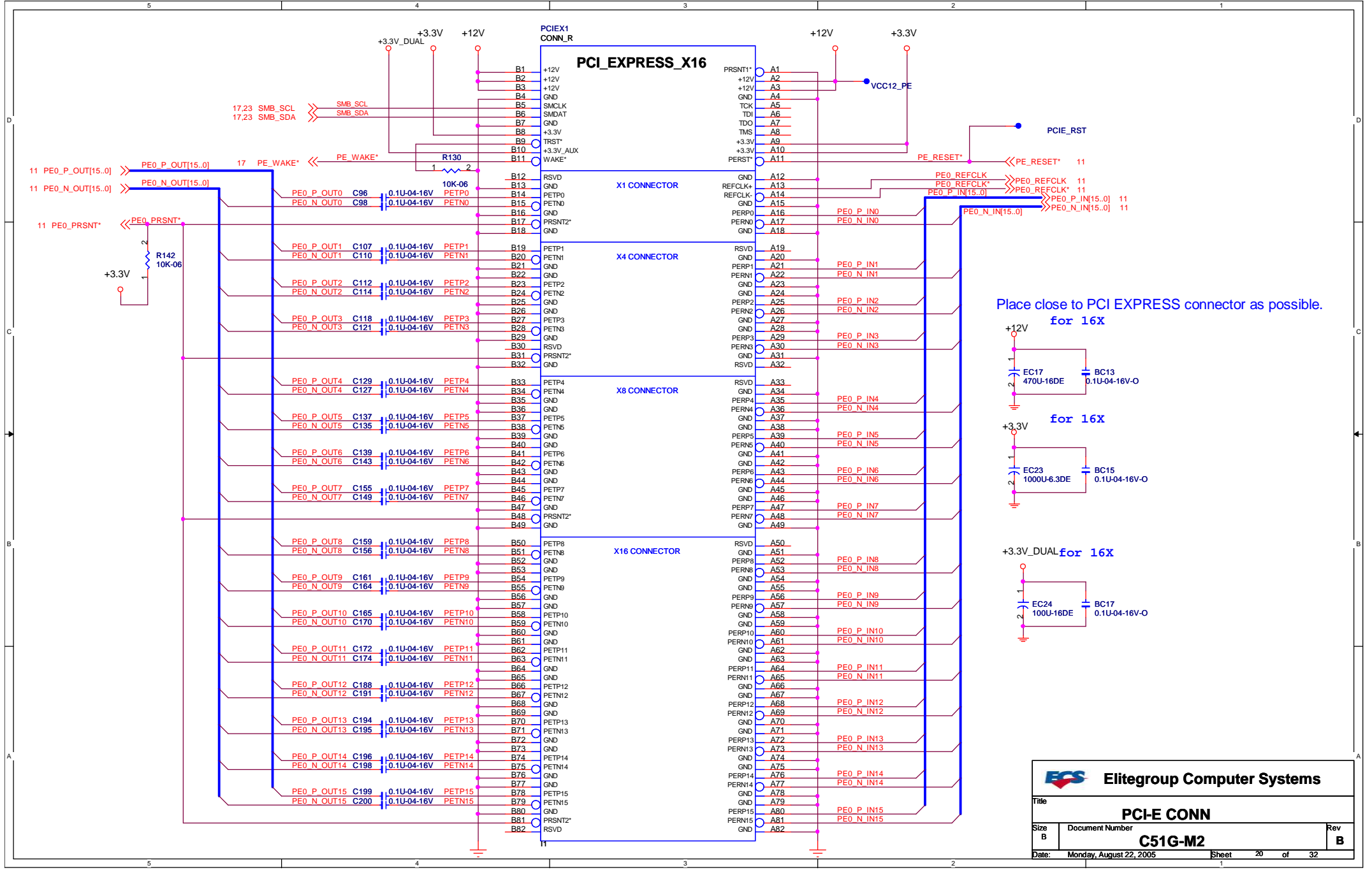




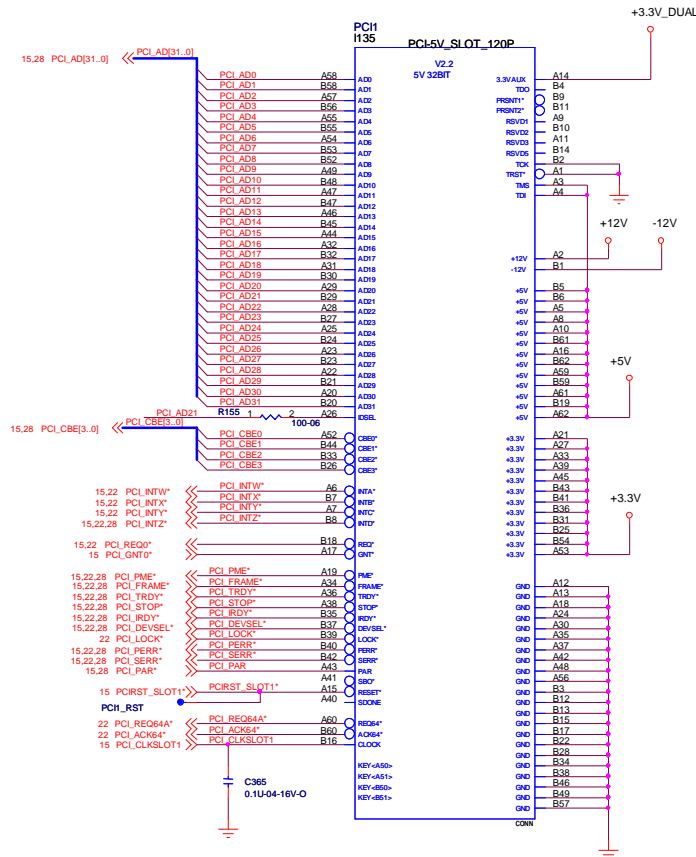






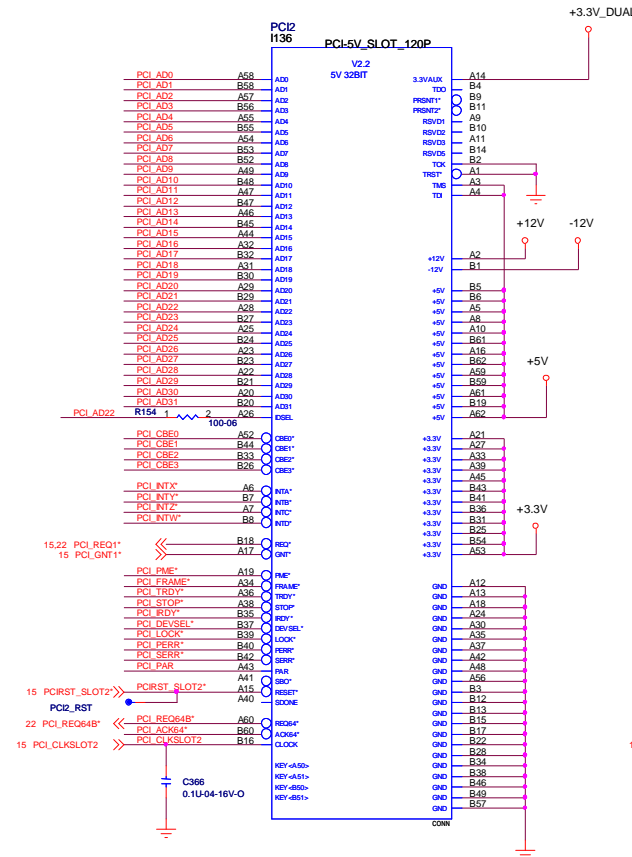


SLOT 1 (FURTHEST FROM CPU)



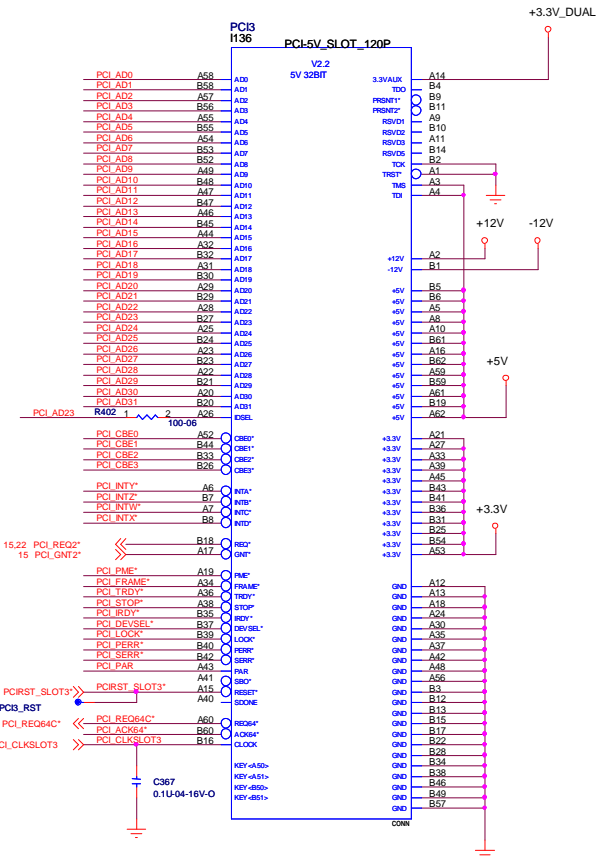
INT:W-X-Y-Z
IDSEL:PCI_AD21

SLOT 2



INT:X-Y-Z-W
IDSEL:PCI_AD22

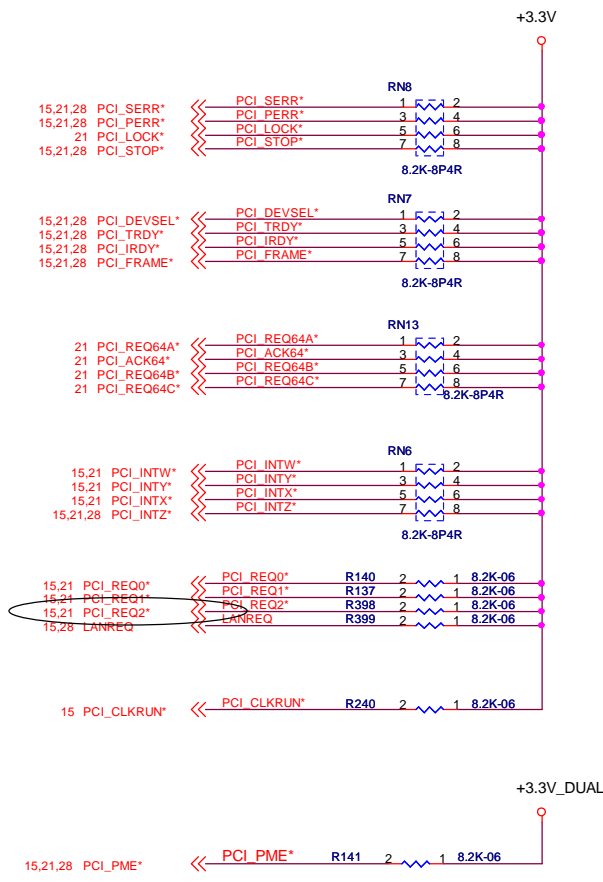
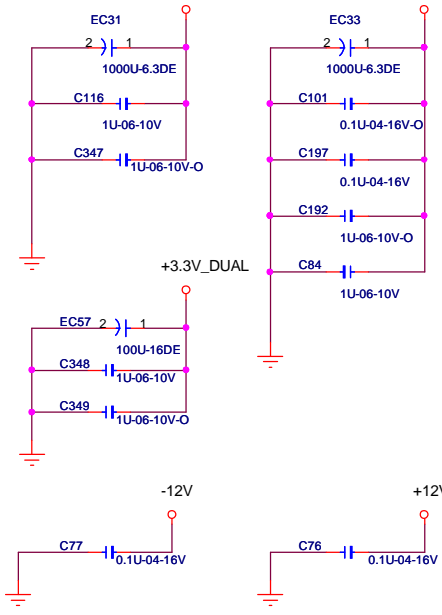
SLOT 3



INT:Y-Z-W-X
IDSEL:PCI_AD23

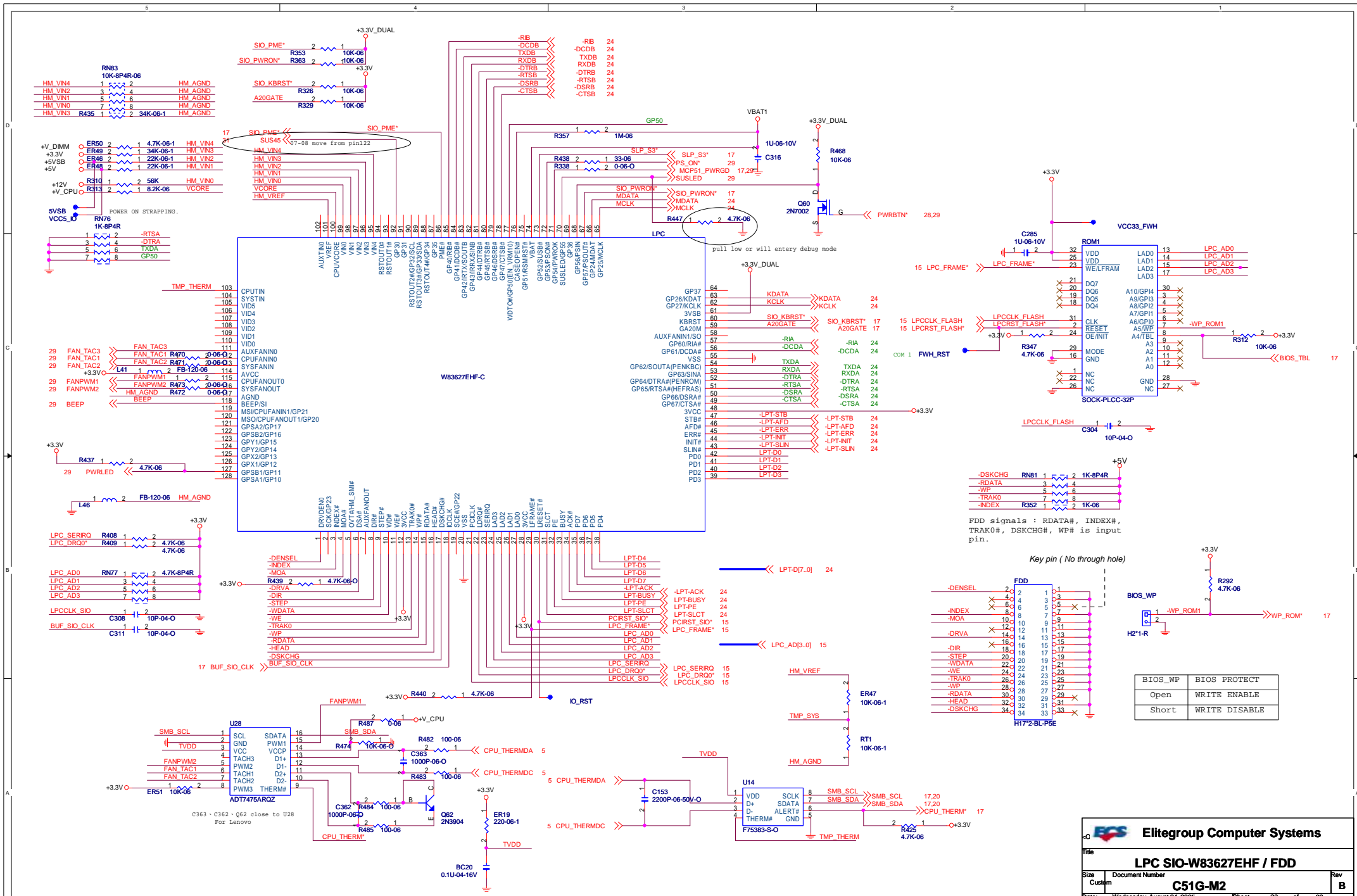
PCI SLOT DECOUPLING

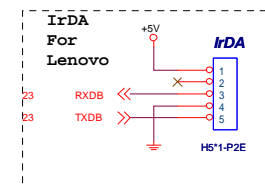
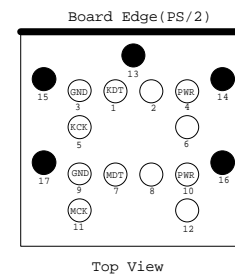
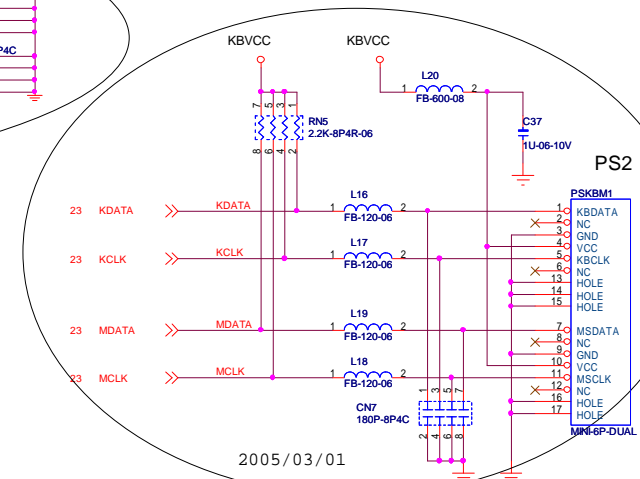
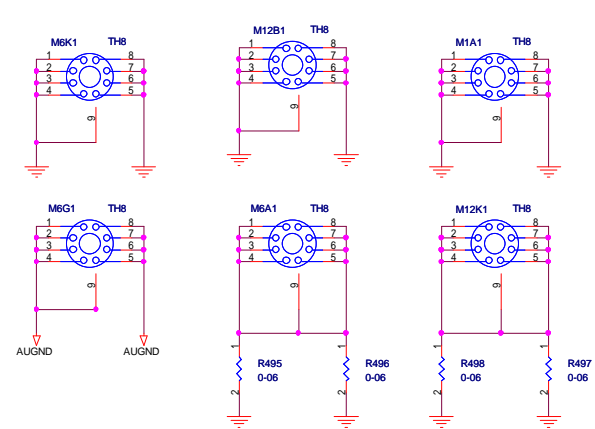
+3.3V +5V



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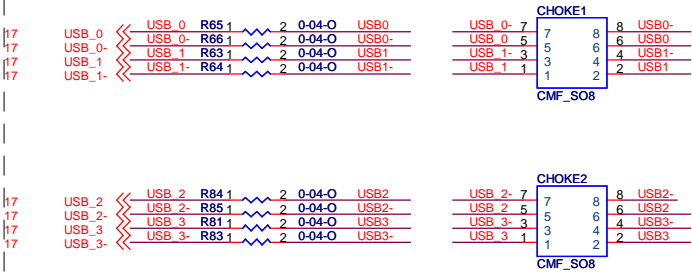
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PCI TERMINATION			
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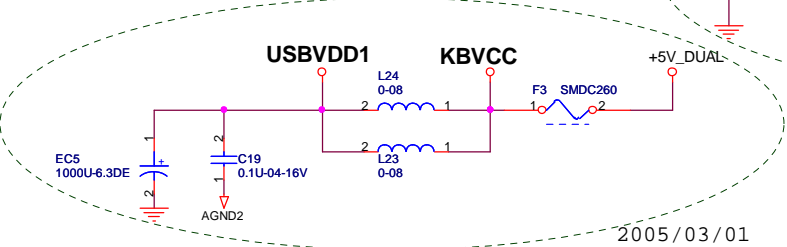
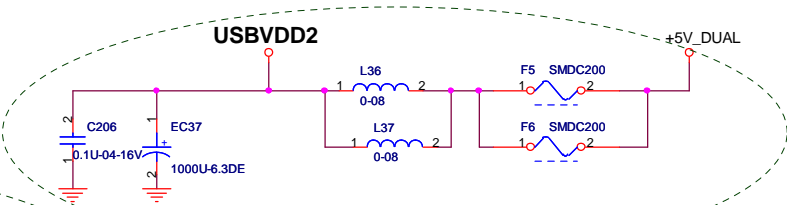
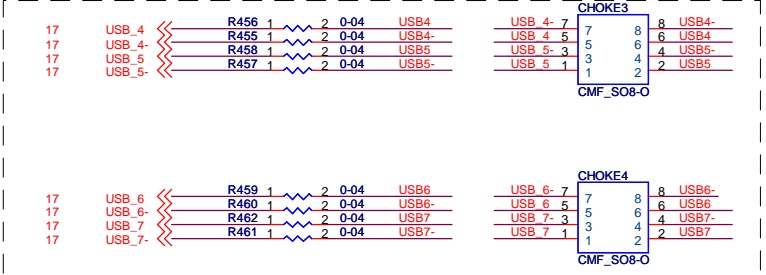
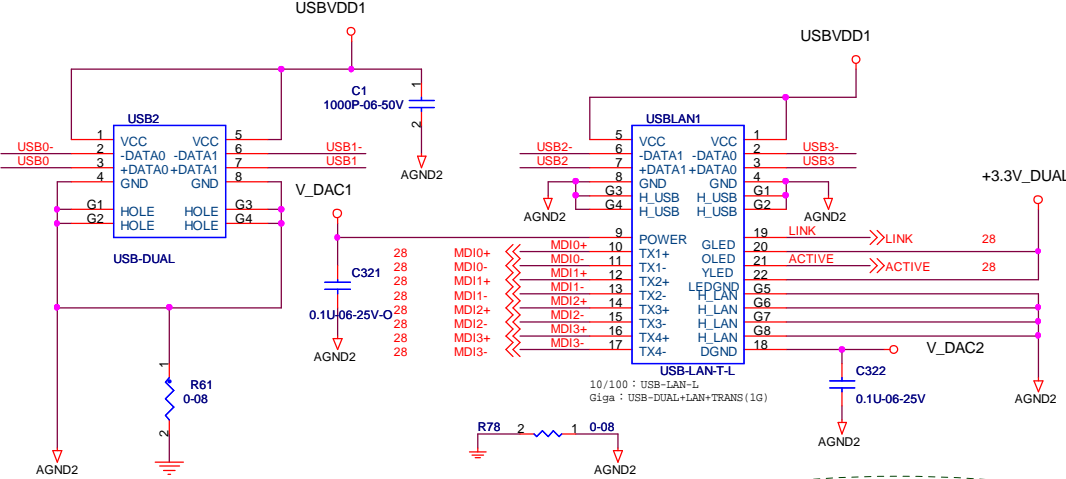
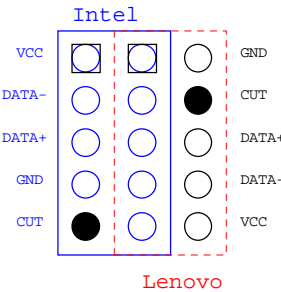
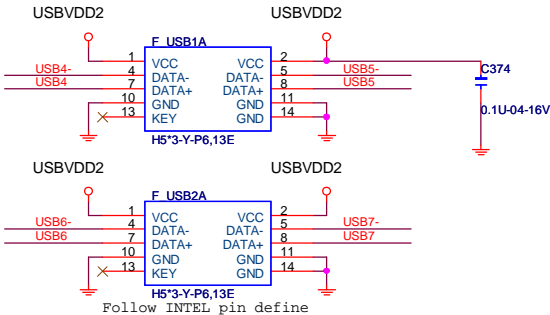
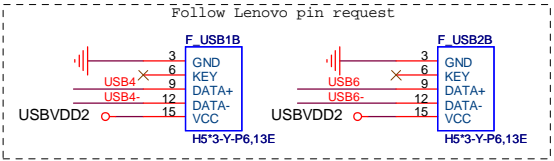


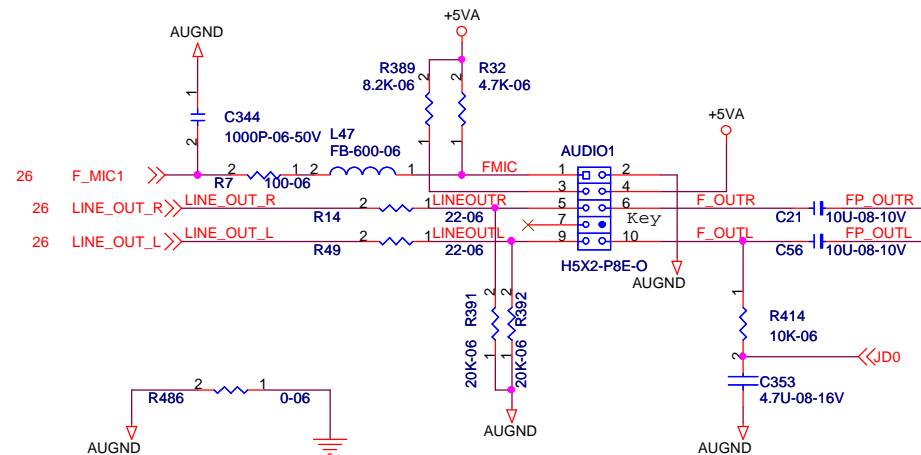
BACK PANEL USB

PLACE NEAR CONN

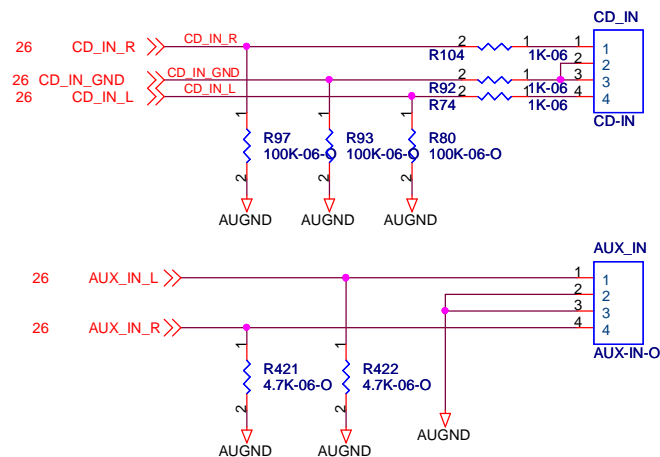
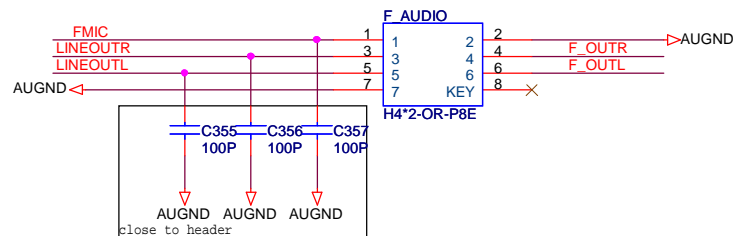


FRONT PANEL USB



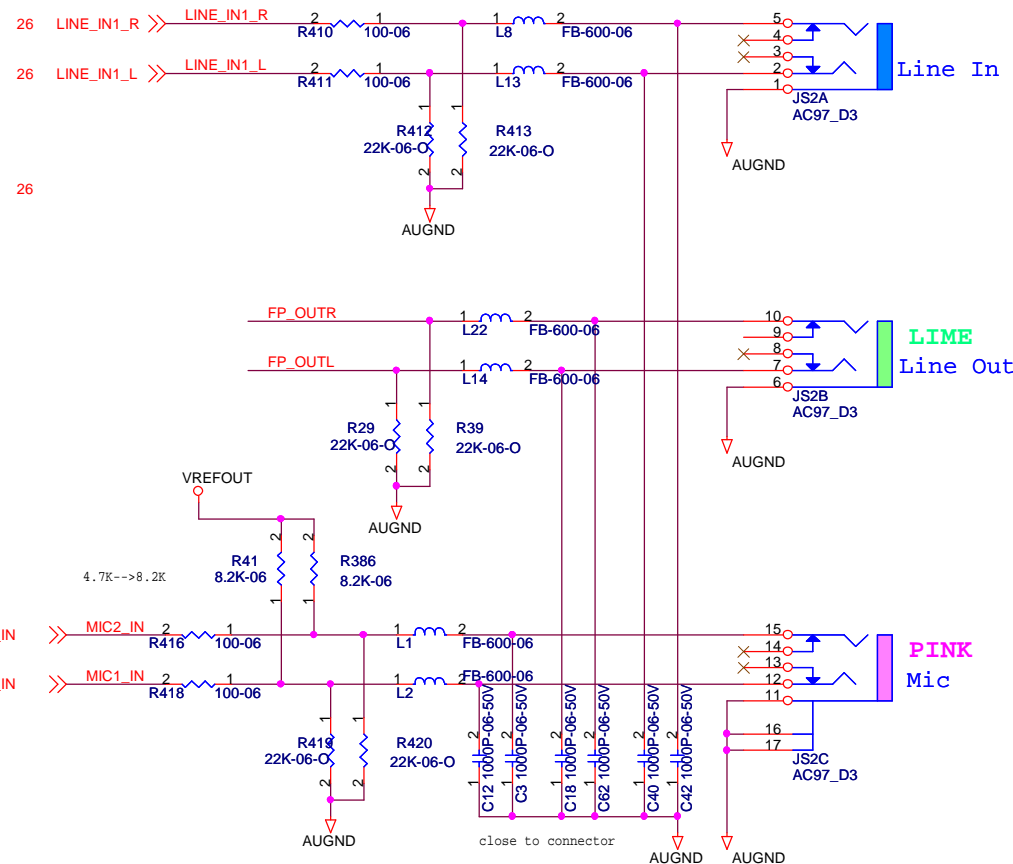


For Lenovo



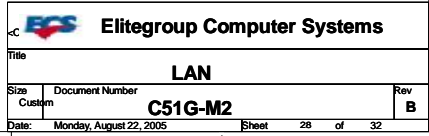
Rear Panel Onboard Analog I/O

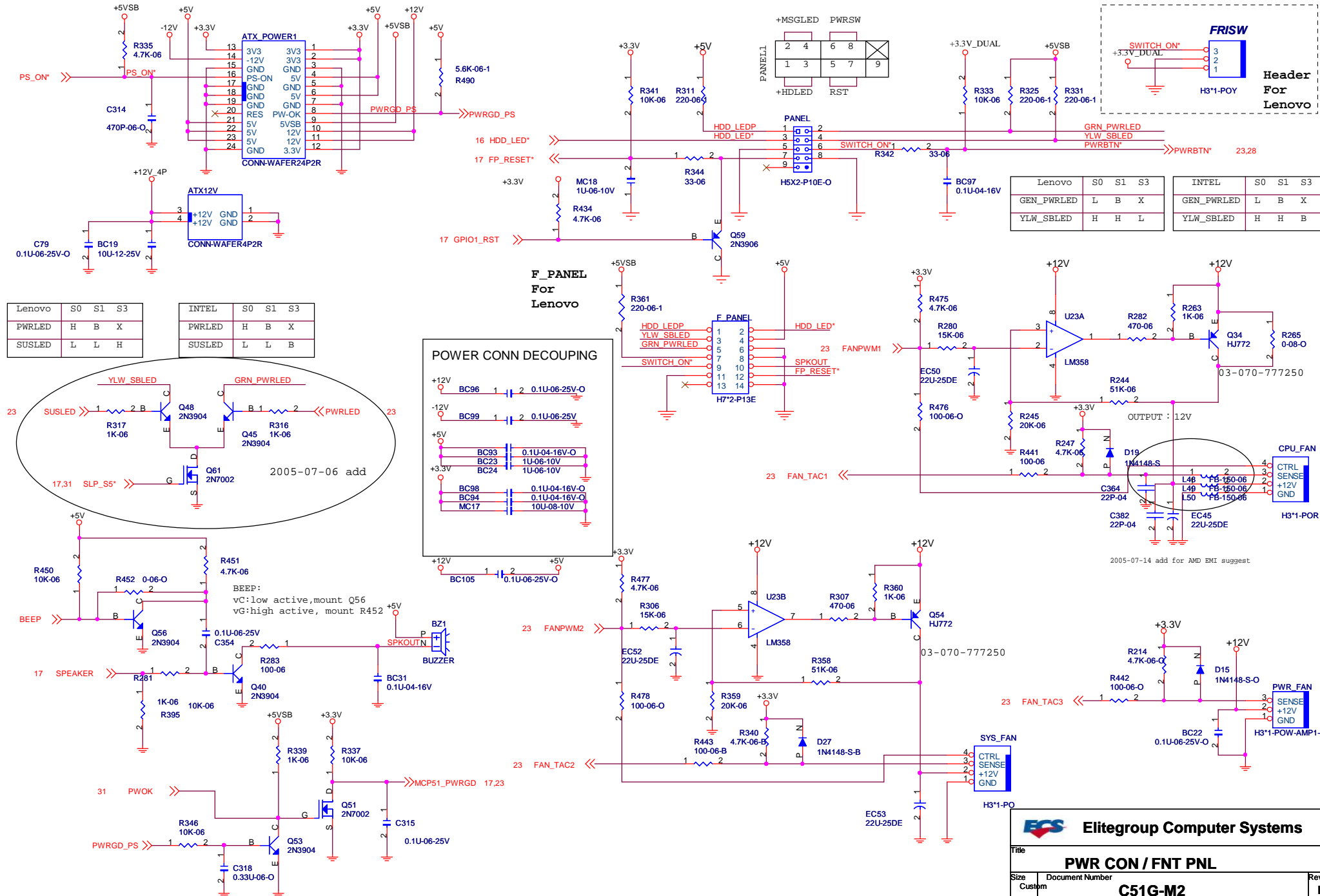
AC97 : AC97_D3 : 11-369-013520
HD : AC_BT_X-AUDIO : 11-369-026521



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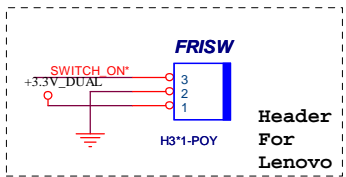
Title		
AUDIO PANEL		
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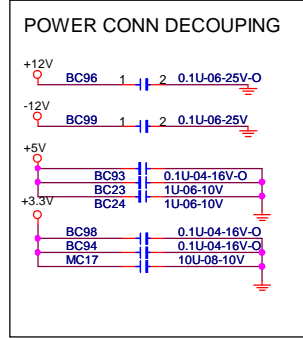
Lenovo	S0	S1	S3
PWRLED	H	B	X
SUSLED	L	L	H

INTEL	S0	S1	S3
PWRLED	H	B	X
SUSLED	L	L	B

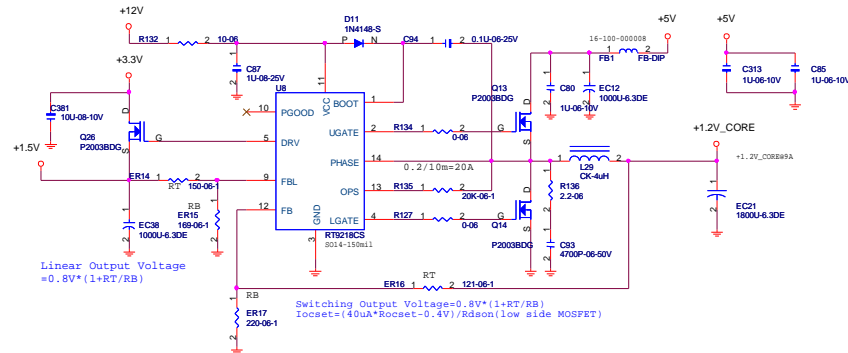


Lenovo	S0	S1	S3
GEN_PWRLED	L	B	X
YLW_SBLE	H	H	L

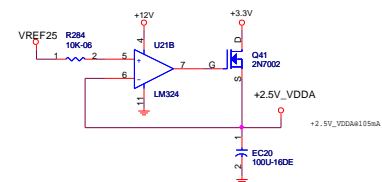
INTEL	S0	S1	S3
GEN_PWRLED	L	B	X
YLW_SBLE	H	H	B



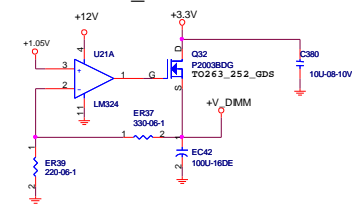
Power for C51G Core,PCI Express,SATA



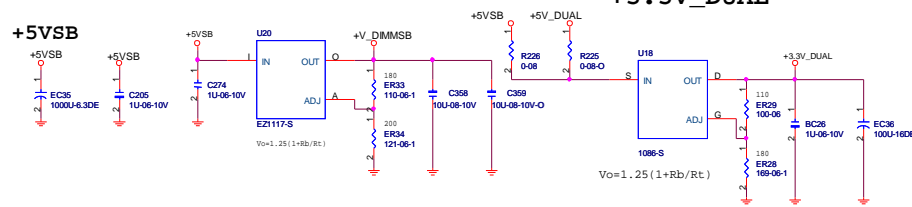
+2.5V_VDDA for CPU PLL



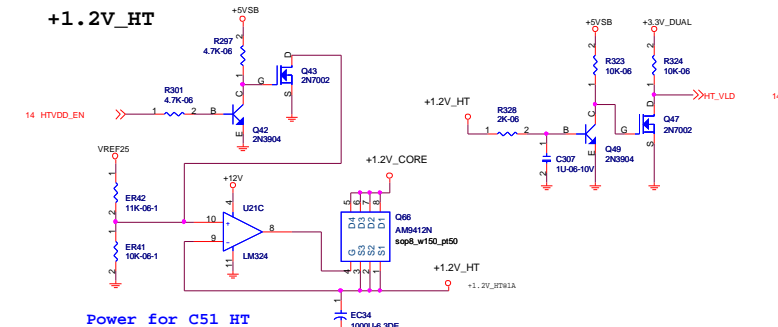
+V_DIMM



+3.3V_DUAL



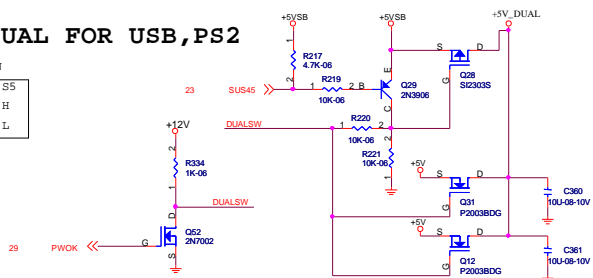
+1.2V_HT



+5V_DUAL FOR USB,PS2

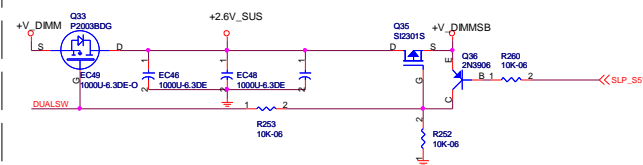
KEYBOARD POWER ON

SUS45	SO	S3	S5
USE	H	H	H
UN-USE	H	L	L

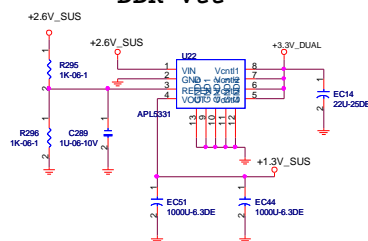


DDR Memory

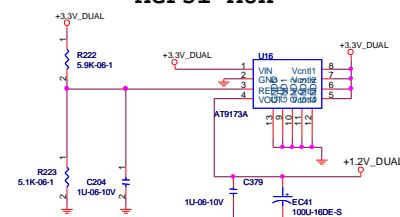
+2.6V_SUS



DDR Vtt



MCP51 AUX



BOM vA-->v1.0
8/10
1: page31, change Q50 from 2N3904 to 2N7002
2: page31, change R336 from 110 OHM to 68 OHM
3: page31, change D22 from LM431 DIP to LM431 SMT
4: page31, change R222 from 8.2K to 5.9K, R223 from 4.87K to 5.1K (pull +1.2V_DUAL to +1.5V_DUAL)
5: page29, del R452
6: page29, add R475, R477 4.7K OHM
7: Del F_AUDIO jump(3-4), jump(5-6)
8: Change BIOS_WP jump color(black-->red)
9: page23, change R438 from 220 ohm to 33 ohm
8/15
10: page30, change R194 from 33K to 15K
11: page30, change R179, R177, R158 from 1.13K to 1.91K
8/16
12: page14, change SR14 from 549 ohm to 562 ohm
13: page25, change F3 from SMDC200(16-205-200020) to SMDC260(16-205-260021)
14: page25, change CHOKE1,2 from 280 ohm(16-408-280380) to 200 ohm(16-409-201170)
15: page29, change ER7 from 49.9 ohm to 47.5 ohm
8/17
16: page23, add R487 0 ohm, del R474 10K ohm
17: page31, change R295,R296 from 10K ohm to 1K ohm
18: page26, change C31,C38 from 1U to 2.2U
8/22
19: page31, del EC19
20: page31, change EC38 from 100U to 1000U
21: page22, change EC57 from 1000U to 100U
22: page31, change EC42 from 1000U to 100U
23: page29, add R490 5.6K ohm
24: page31, del Q50, R343
8/23
25: page17, add R491,R492,R493
26: page12, add D28
8/25
27: page24, add R495, R496,R497, R498
28: page29, add C382


RTL8100C : 10 / 100
RTL8110S : 1000

Page28	R369,R370	R379	R366	R365	ER2,ER3,ER4,ER5
RTL8100C	1K,15K	100	3.6K	5.6K	OPEN
RTL8110S RTL8110SB	1K,15K	100	3.6K	2.49K	49.9
RT8201B RT8201C	OPEN	OPEN	OPEN	5.9K 2K	OPEN

Page28	C4,C5	C6,C7	U25	L42	QP1
RTL8100C	OPEN	0.1U	OPEN	0	HPN2907A-D
RTL8110S RTL8110SB	0.01U	0.01U	Mounted	bead	HA8550
RT8201B RT8201C	OPEN	0.1U	OPEN	bead	HPN2907A-D

POWER of LAN

Page28	L45	QP2	RJ1	RJ2	RJ3	RJ4
RTL8100C	OPEN	OPEN	1-2	1-2	OPEN	OPEN
RTL8110S RTL8110SB	FB-600	HA8550	2-3	OPEN 2-3	1-2 OPEN	OPEN OPEN
RT8201B RT8201C	OPEN	OPEN	OPEN	OPEN	OPEN 2-3	OPEN 2-3

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Attention

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