

# Compal Confidential

## KIU10 LS-4764P Schematics Document

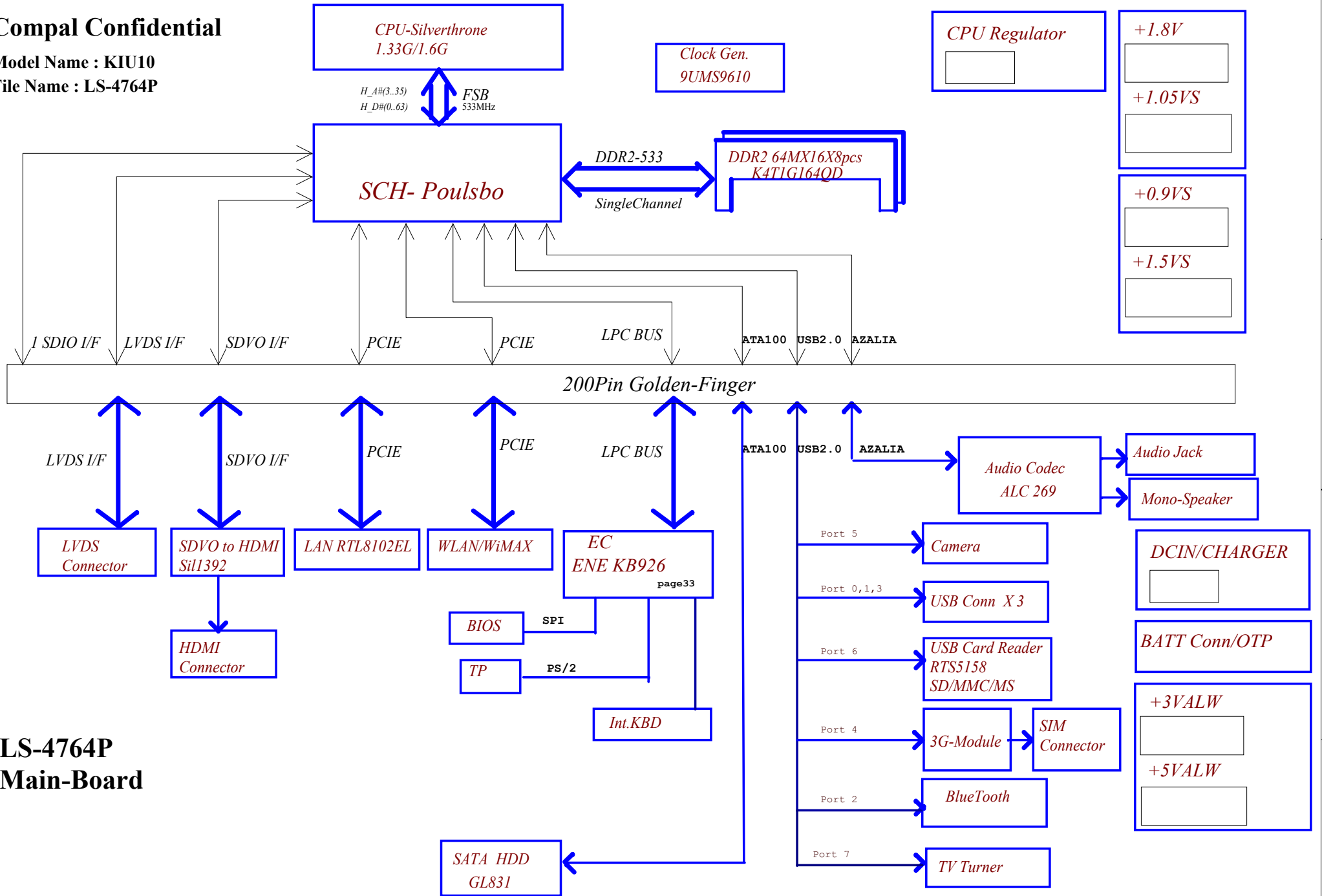
Menlow-Silverthorne with Poulsbo

REV: 1.0  
 2008/12/02

Security Classification		Compal Secret Data		Title	
Issued Date	2008/07/15	Deciphered Date	2011/07/15	<b>Compal Electronics, Inc.</b>	
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				Custom	KIU10 LS-4764P
Date:				Sheet 1 of 20	

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Model Name : KIU10  
File Name : LS-4764P



## LS-4764P Main-Board

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**Voltage Rails**    O MEANS ON    X MEANS OFF

power plane / State	+VBAT	+5VALW +3VALW	+1.8V +0.9V	+5VS +3VS +1.8VS +1.5VS +CPU_CORE +VCCP	CLOCK
S0	O	O	O	O	O
S3	O	O	O	X	X
S5 S4/AC	O	O	X	X	X
S5 S4/ Battery only	O	X	X	X	X
S5 S4/AC & Battery don't exist	X	X	X	X	X

O MEANS ON    S3 : STR  
X MEANS OFF    S4 : STD  
                         S5 : SOFT OFF

**SKU ID Table**

Vcc	3.3V +/- 5%			
Ra	100K +/- 5%			
Board ID	Rb	V <sub>AD_BID</sub> min	V <sub>AD_BID</sub> typ	V <sub>AD_BID</sub> max
* 0	0	0 V	0 V	0 V
1	8.2K +/- 5%	0.216 V	0.250 V	0.289 V
2	18K +/- 5%	0.436 V	0.503 V	0.538 V
3	33K +/- 5%	0.712 V	0.819 V	0.875 V
4	56K +/- 5%	1.036 V	1.185 V	1.264 V
5	100K +/- 5%	1.453 V	1.650 V	1.759 V
6	200K +/- 5%	1.935 V	2.200 V	2.341 V
7	NC	2.500 V	3.300 V	3.300 V

SKU ID	MB ID (H)	MB ID (L)
0		
* 1	IEL10	
2	IDL11	IDL01
3	HDL10	HDL00
4		HDL20
5	IDL12	HDL30
6		
7		

MB ID	
H	15"
L	14"

TBD

**BOM Structure**

MARK	FUNCTION
@	NC FOR ALL

Address

**USB PORT LIST**

PORT	DEVICE
0	2A POWER USB
1	USB (right)
2	BT
3	USB (LEFT)
4	3G, GPS
5	Camera
6	Card reader
7	TV Turner

**EC SM Bus1 address**

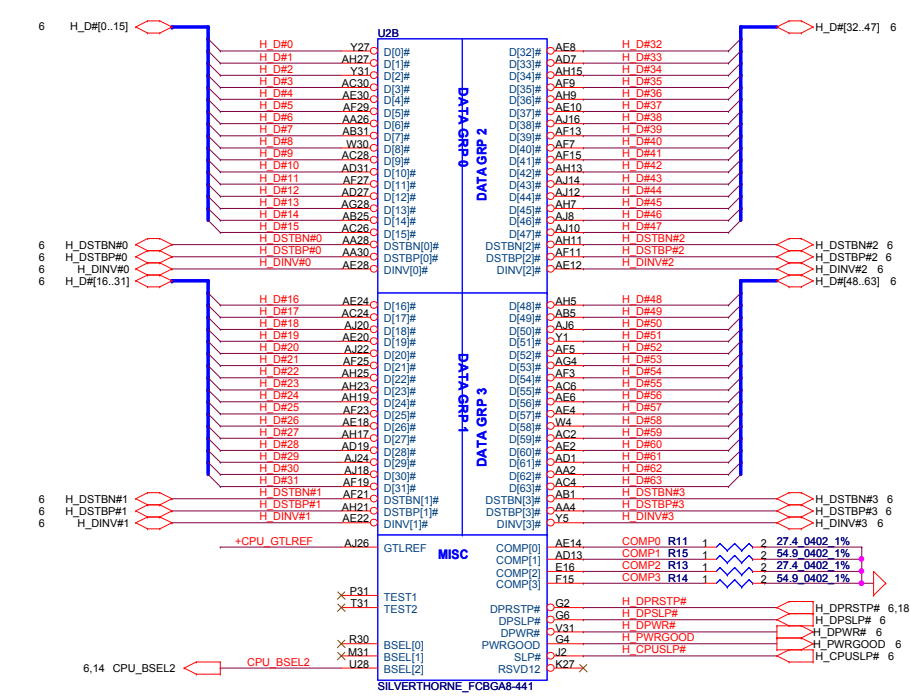
**EC SM Bus2 address**

Device	Address	Device	Address
EEPROM(24C16/02)	1010 000X b	ADM1032	1001 100X b

**Poulsbo SM Bus address**

Device	Address
Clock Generator (ICS954226)	1101 001Xb

# Silverthorne Host Data Interface

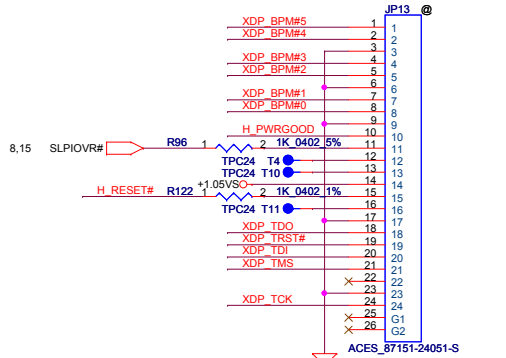
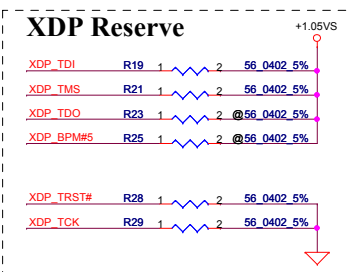
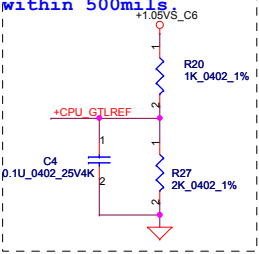


layout note: Route TEST3 & TEST5 traces on ground referenced layer to the TPs

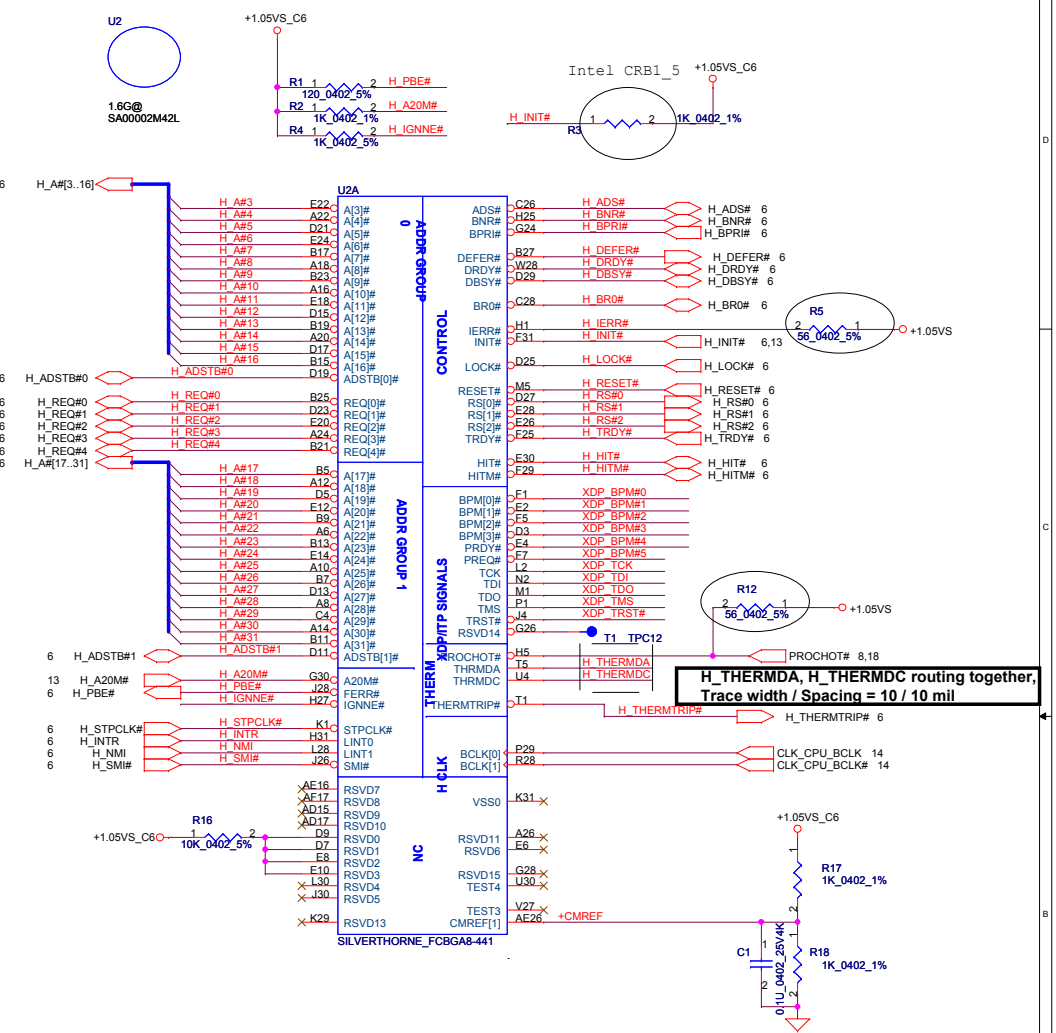
CPU_BSEL	CPU_BSEL2	CPU_BSEL1	CPU_BSEL0
100	1	0	1
133	0	0	1

Resistor placed within 0.5" of CPU pin. Trace should be at least 25 mils away from any other toggling signal. COMP[0,2] trace width is 18 mils. COMP[1,3] trace width is 4 mils.

Close to CPU pin AD26 within 500mils

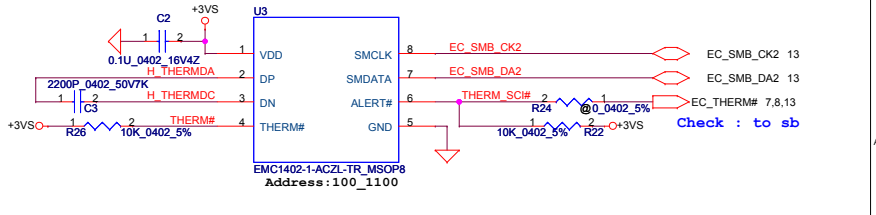


# Silverthorne Host Data Interface



H\_THERMDA, H\_THERMDC routing together, Trace width / Spacing = 10 / 10 mil

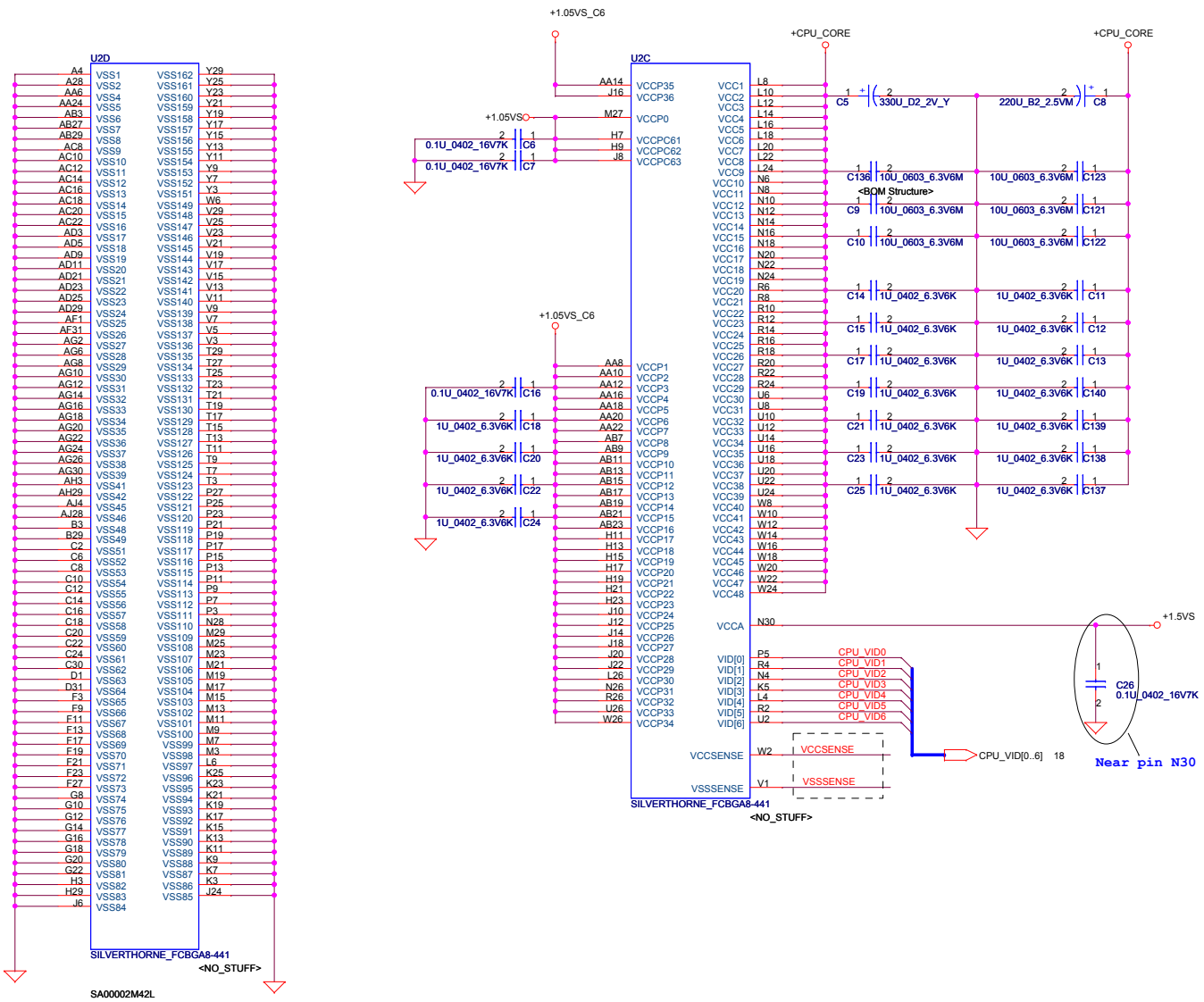
## Thermal Sensor



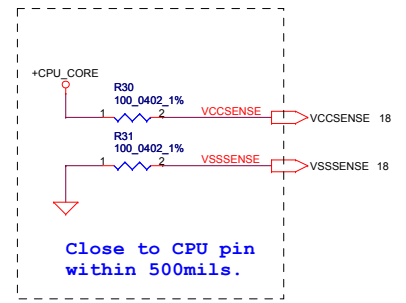
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Silverthorne(1/2)-AGTL+/XDP		
Title	Size	Rev
Customer	Document Number	1.0
	KIU10 LS-4764P	
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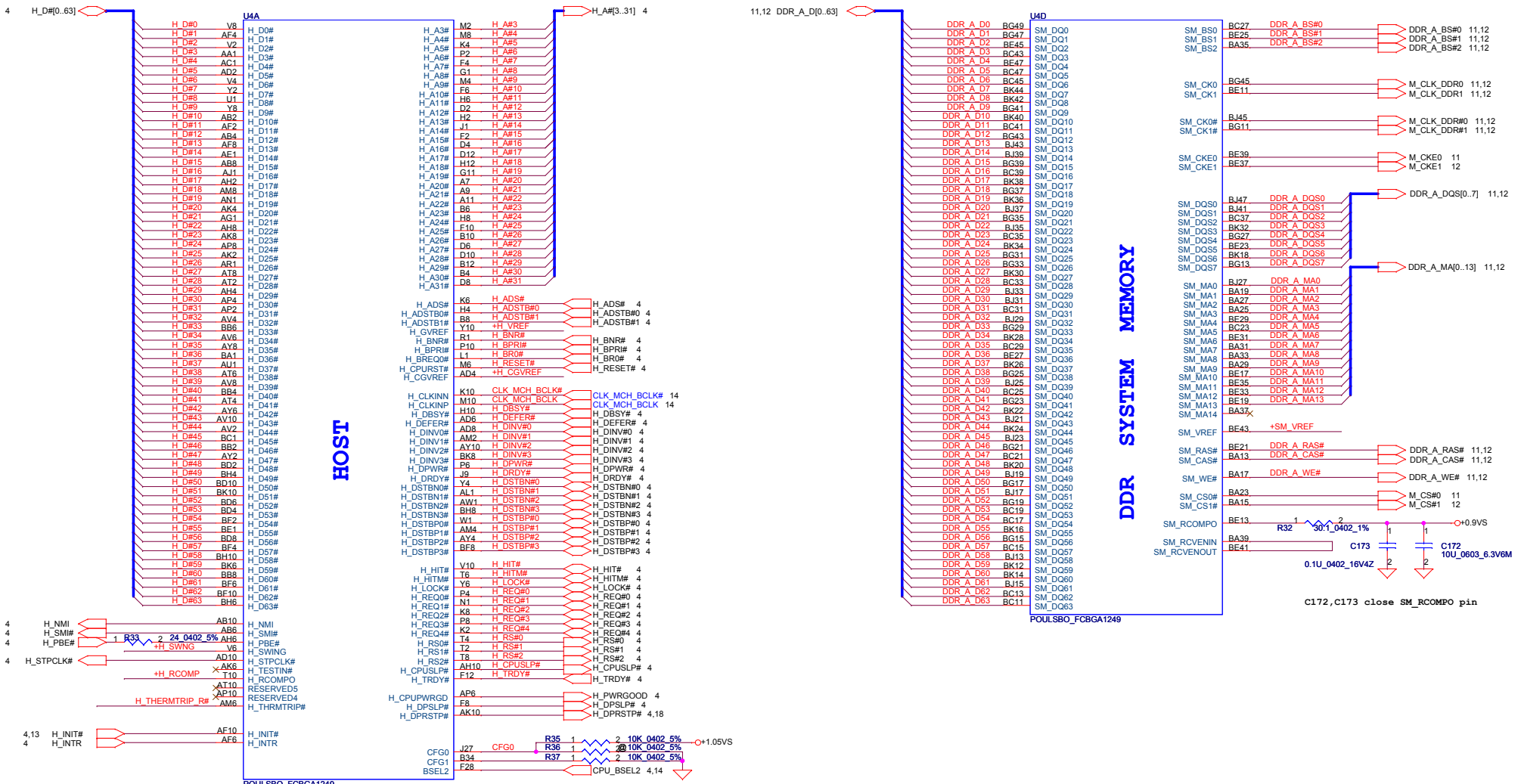


Length match within 25 mils.  
The trace width/space/other is 20/7/25.

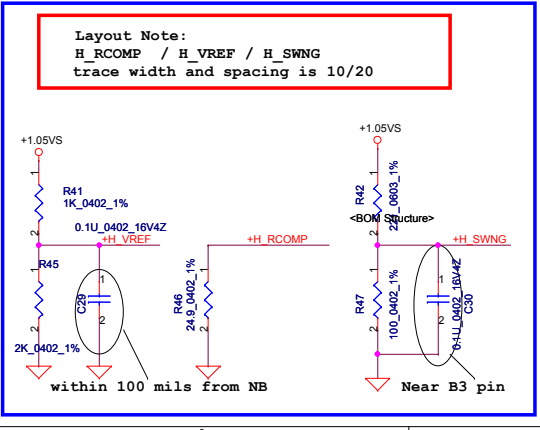


Close to CPU pin within 500mils.

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				Custom	KIU10 LS-4764P	1.0
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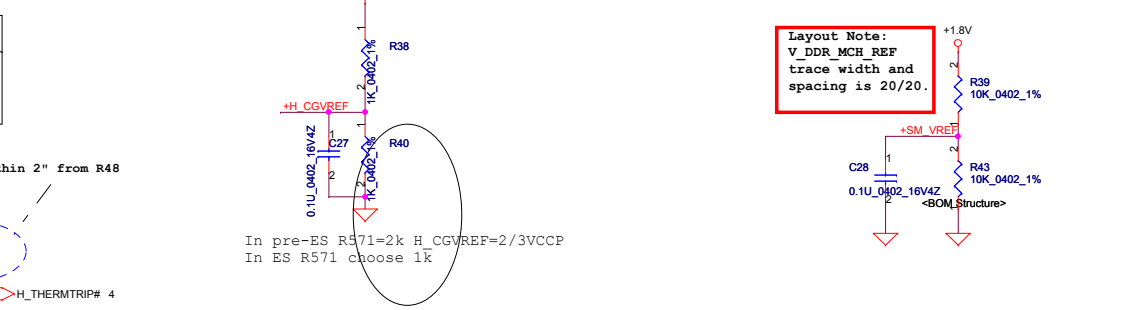


layout note:  
Route H\_SCOMP and H\_SCOMP# with trace width, spacing and impedance (55 ohm) same as FSB data traces

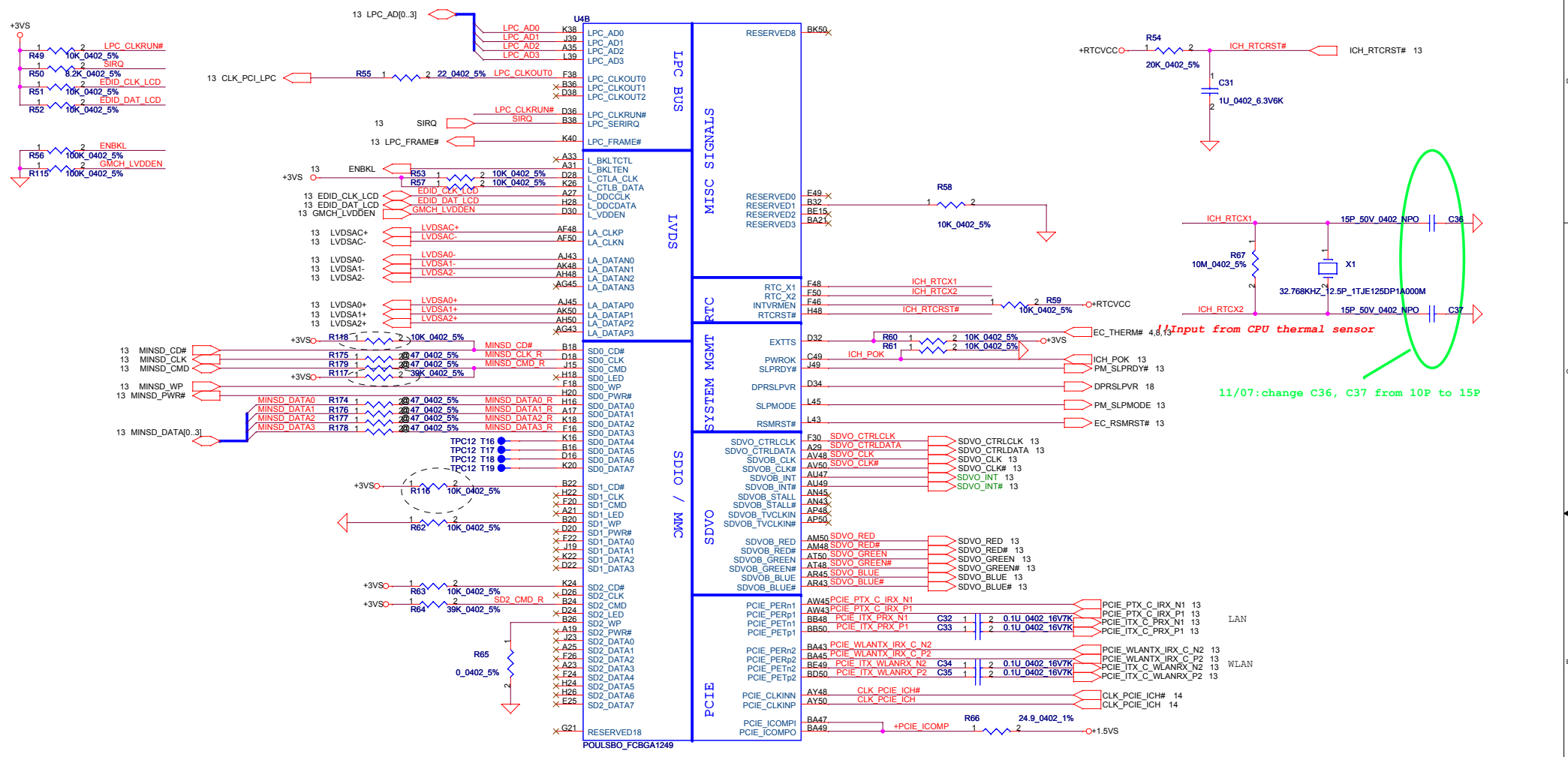


FSB	BSEL2	FSB DDR	FSB	CFG0	FSB DDR
100	1	100	100	1	133
133	0	133	133	0	100

CFG1 10K pull-down is required.

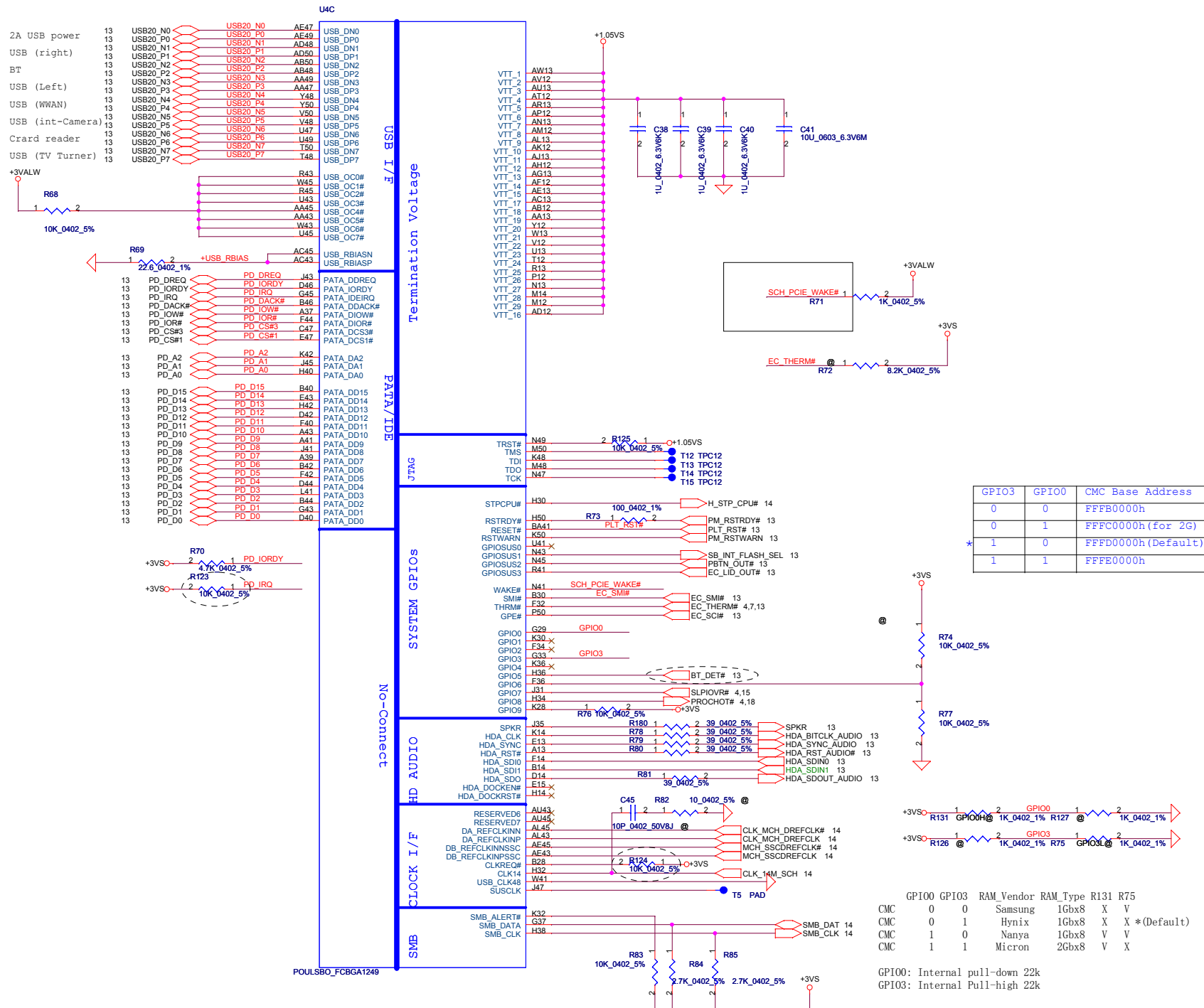


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Size	Document Number	Rev	1.0
Customer	KIU10 LS-4764P	Date:	Saturday, December 06, 2008
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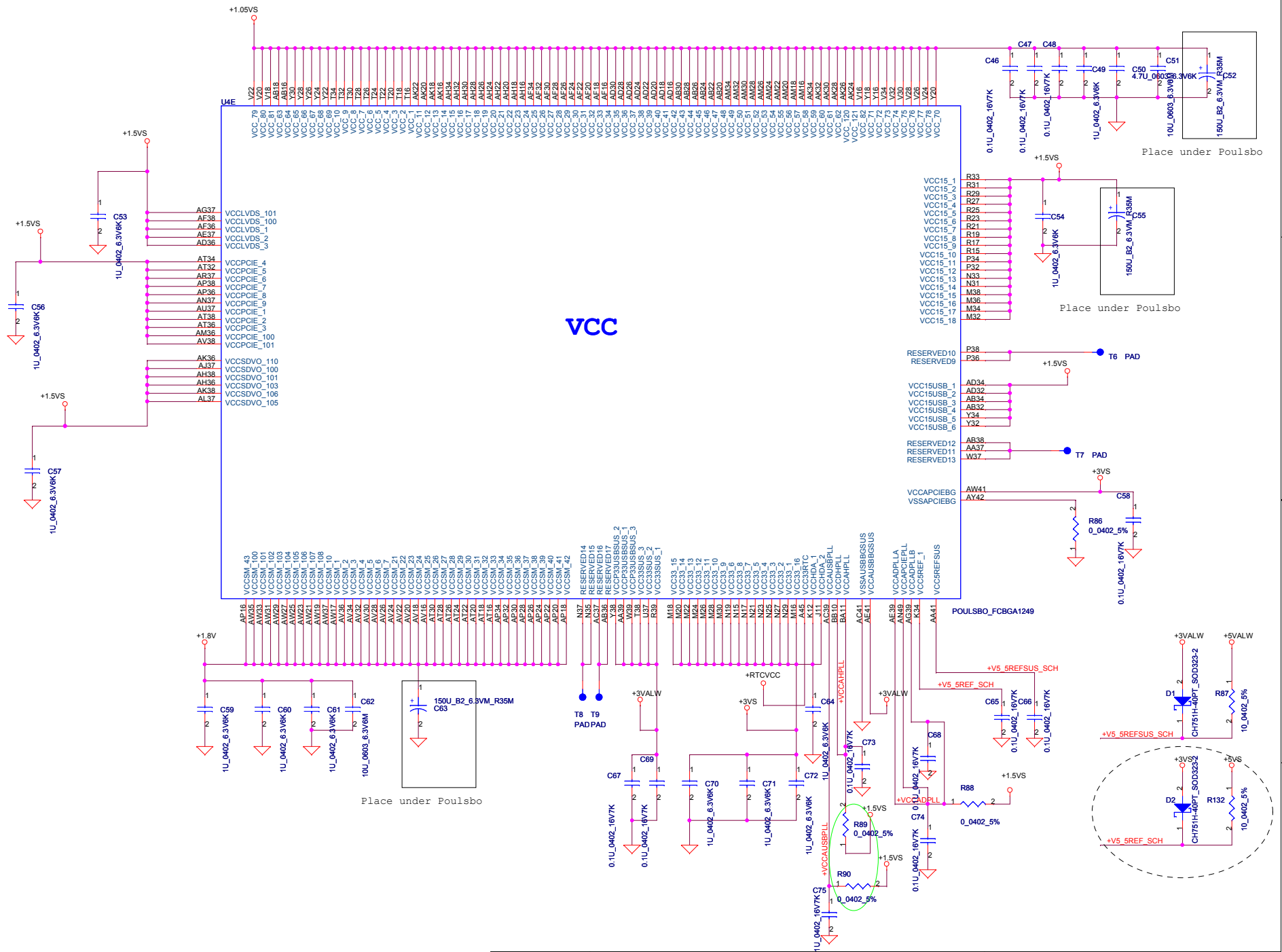


11/07:change C36, C37 from 10P to 15P

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				Custom	KIU10 LS-4764P
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				Rev	1.0

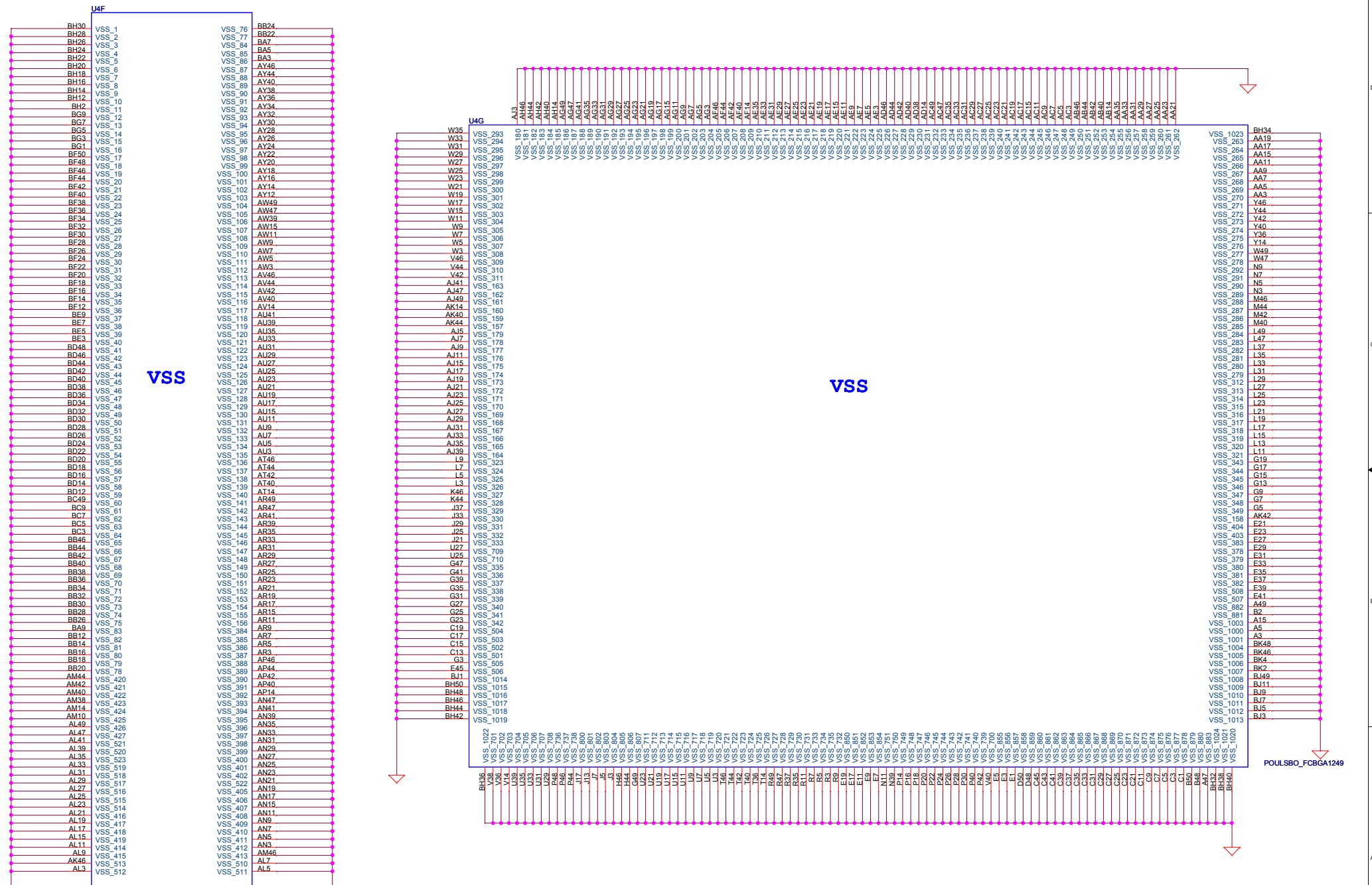






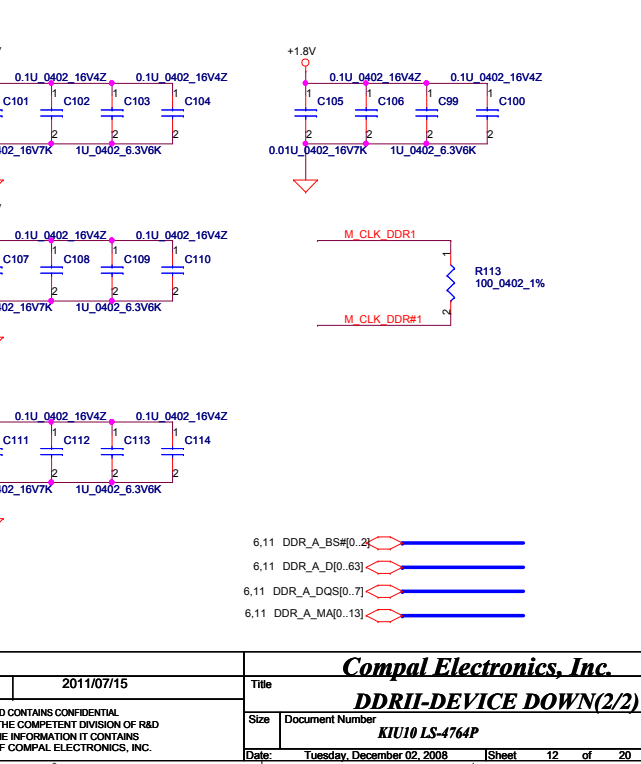
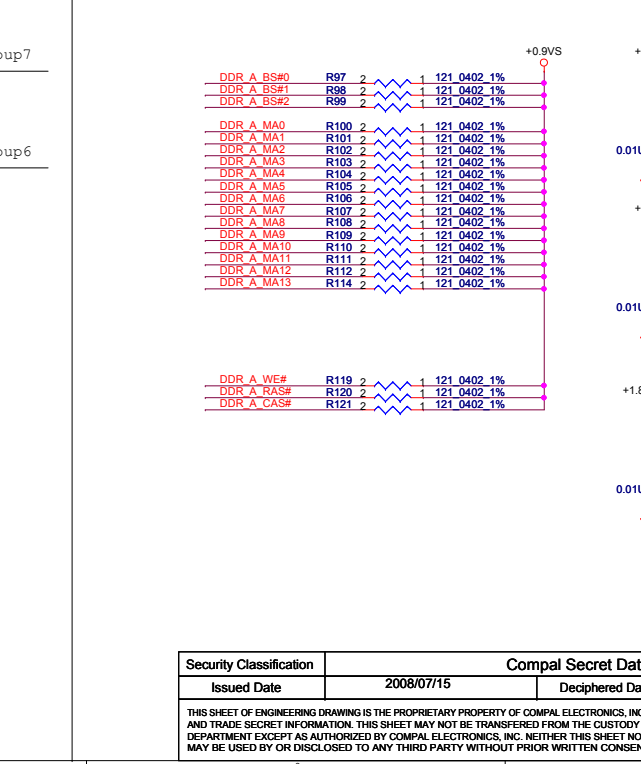
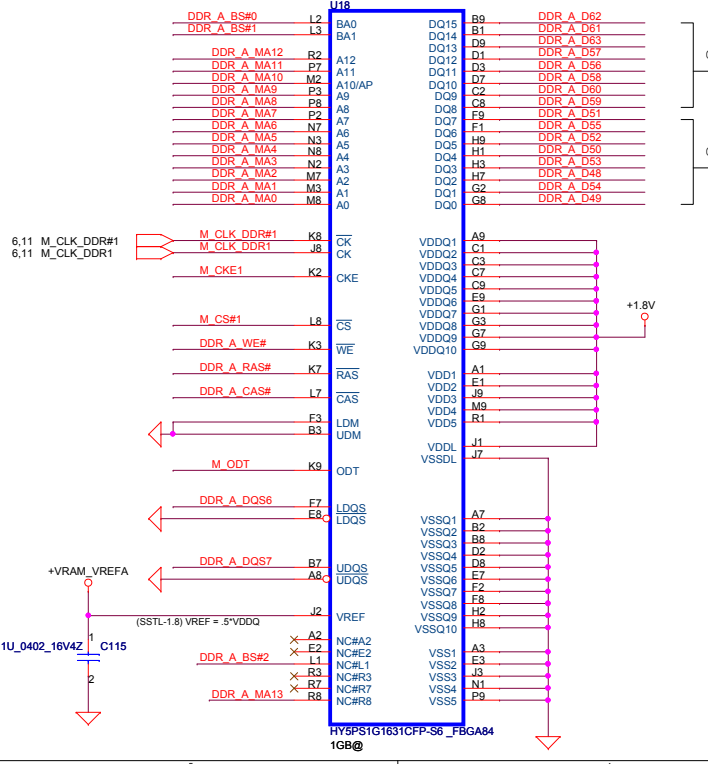
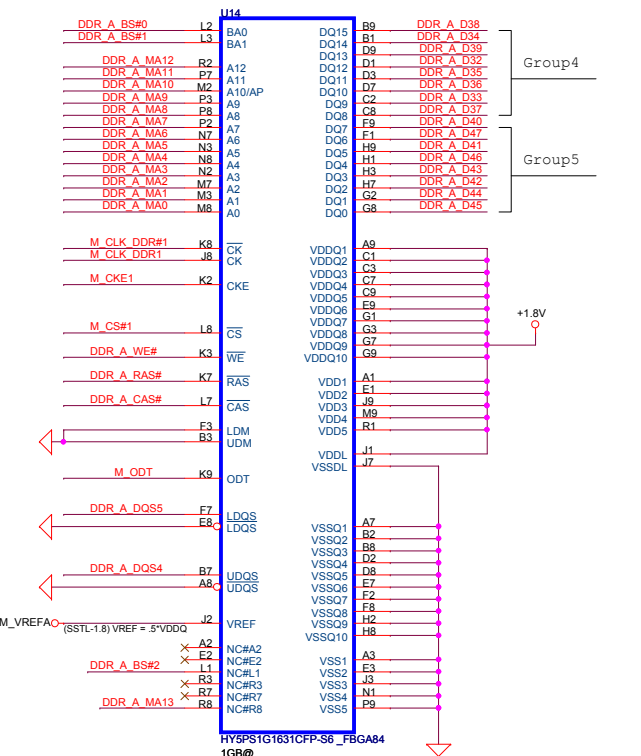
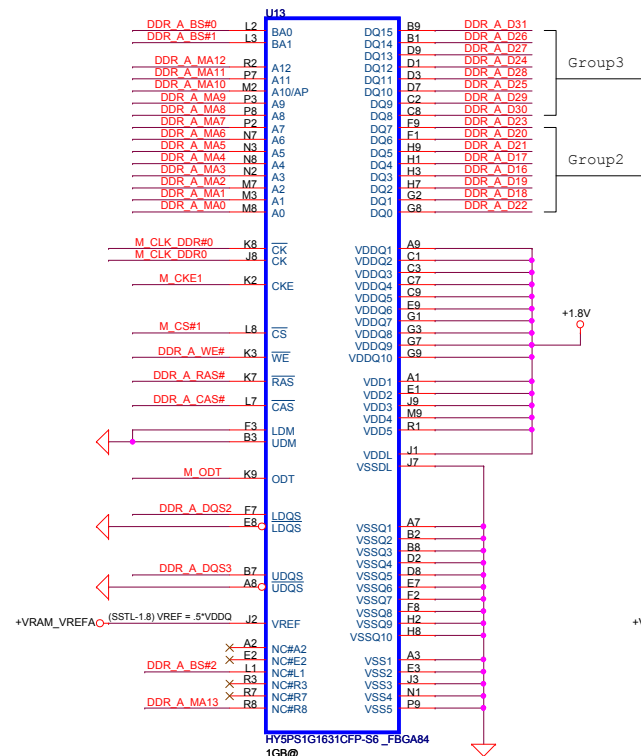
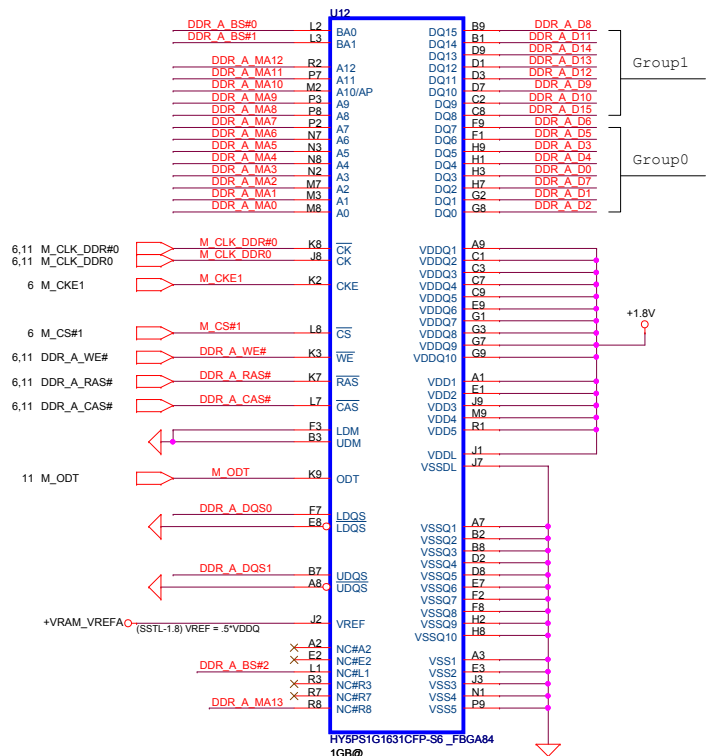
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**Poulsbo(4/5)-PWR**



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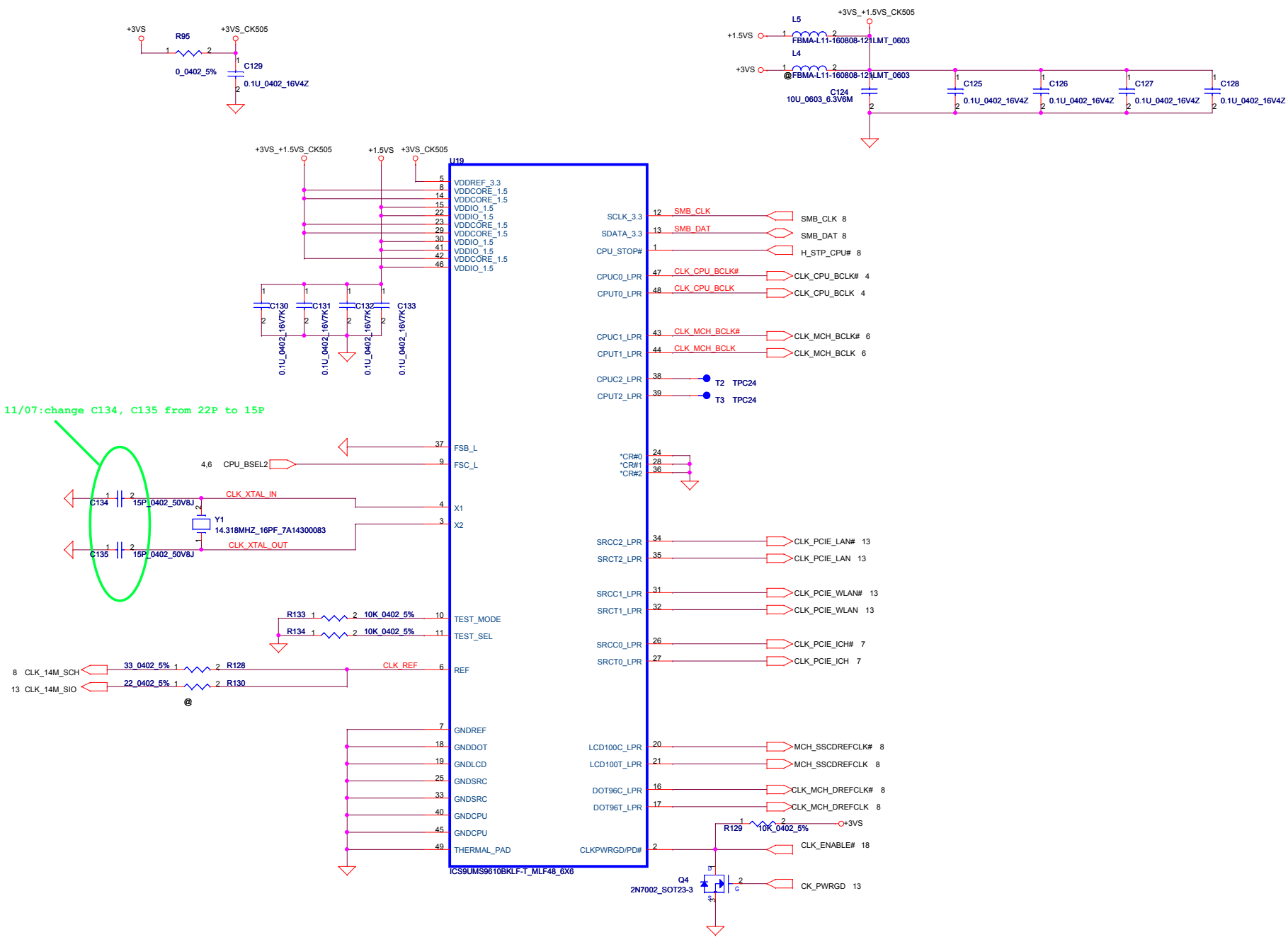
Security Classification	Compal Secret Data	
Issued Date	2008/07/15	Deciphered Date
		2011/07/15

Title		
Compal Electronics, Inc.		
DDR11-DEVICE DOWN(2/2)		
Size	Document Number	Rev
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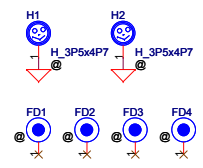
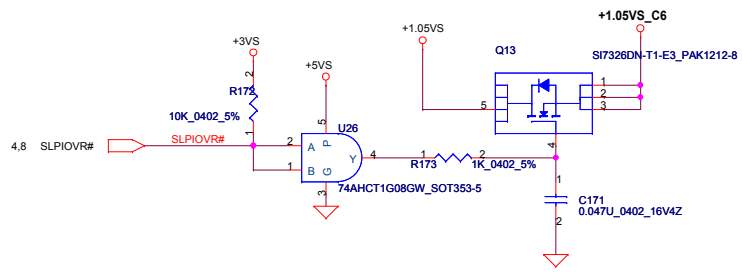
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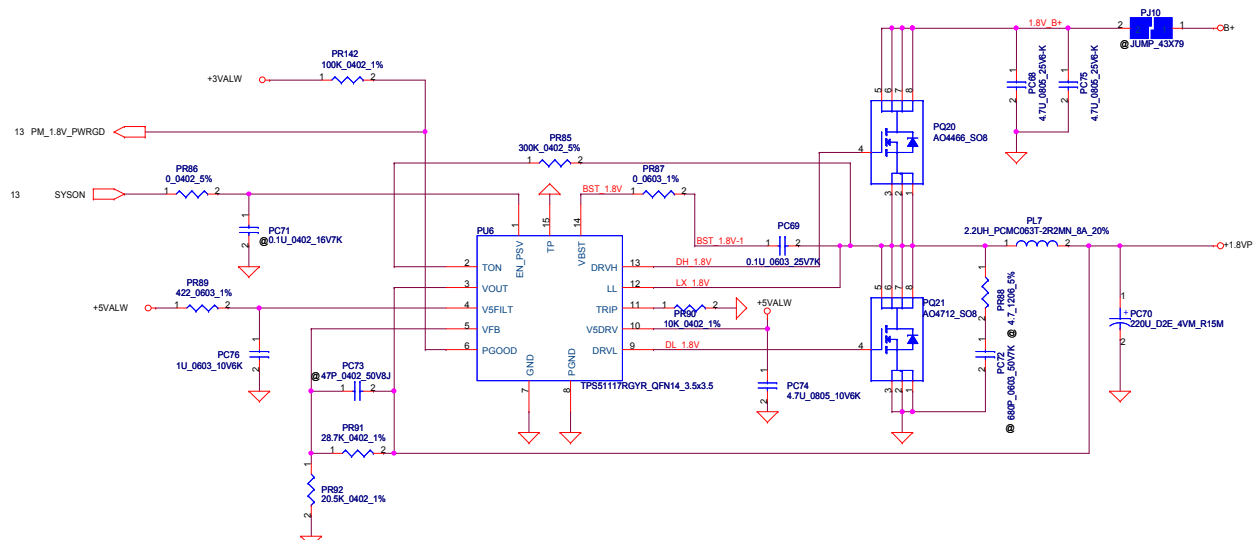
11/07:change C134, C135 from 22P to 15P



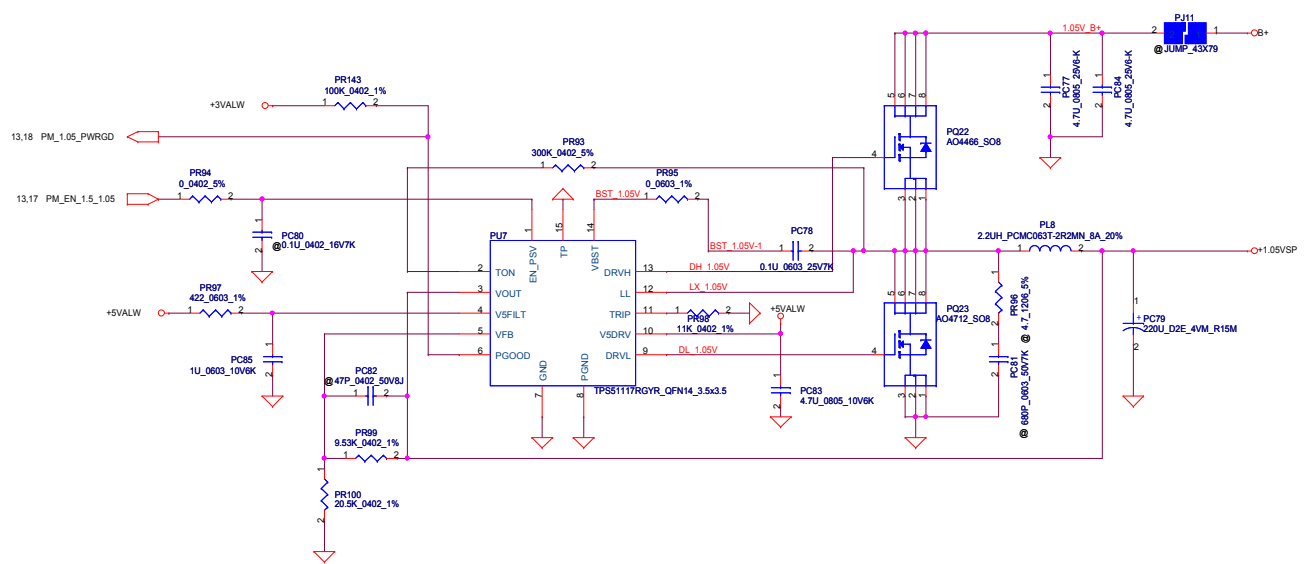
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Issued Date	2008/07/15	Deciphered Date	2011/07/15			
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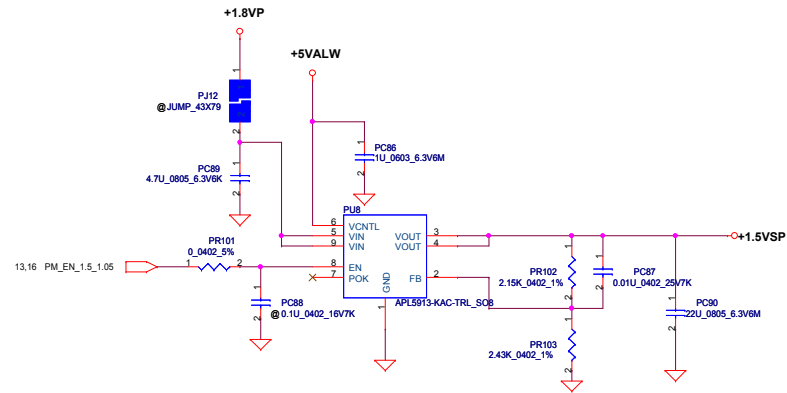
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**I<sub>max</sub>=4.19**  
**I<sub>ocp</sub>=7.9A**



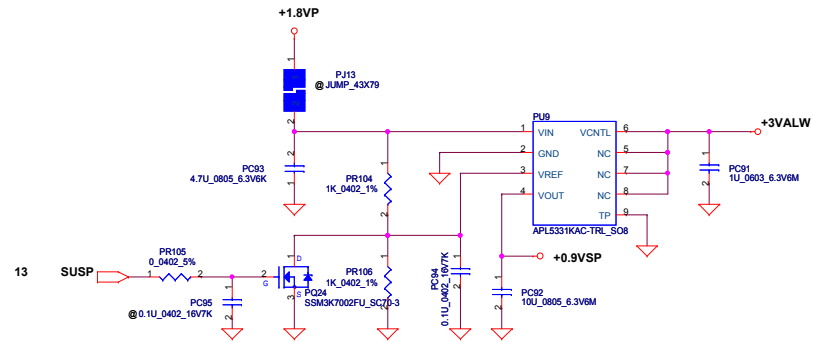
**+1.05VSP**  
**I<sub>max</sub>=5.039A**  
**I<sub>ocp</sub>=8.2A**

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Issued Date	2008/07/15	Deciphered Date	2011/07/15	<b>+1.05VSP / +1.8VP</b>	
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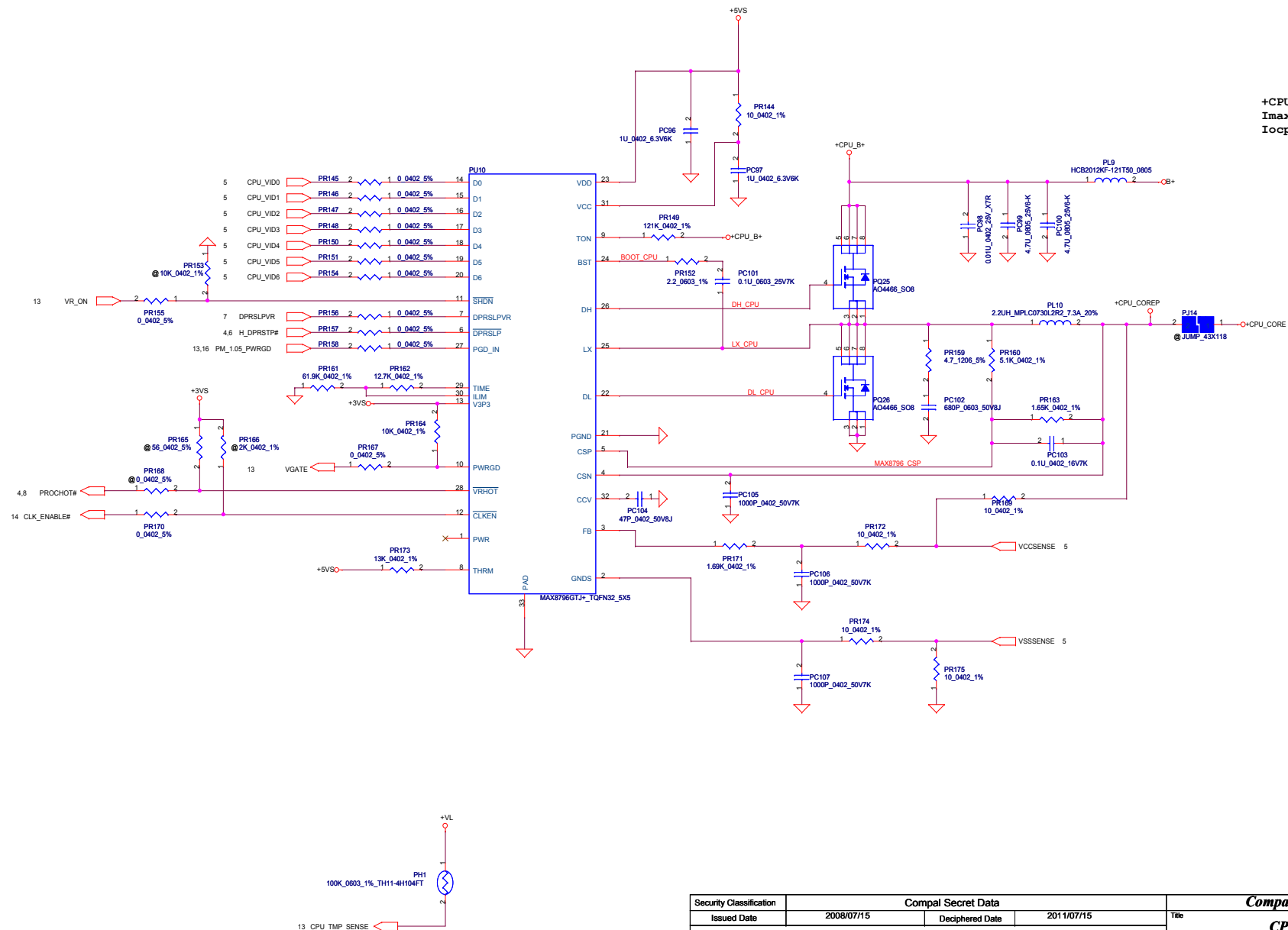
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Imax=1.52A



+0.9VSP  
Imax=0.19A

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+CPU\_CORE  
 I<sub>max</sub>=3A  
 I<sub>ocp</sub>=7A



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				CPU CORE	
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5 4 3 2 1  
 KIU10 LS-4764P SCHMATIC CHANGE LIST  
 REVISION CHANGE : 0.1 TO 0.2

NO	DATE	PAGE	MODIFICATION LIST	PURPOSE
1	0907	13	Del J1,J2,J3 Bom structure	Default
2	0907	06	add C172,C173	INTEL Suggestion for avoid ripple noise
3	11/07	07	Change C36, C37 from 10P to 15P	
4	11/07	14	Change C134, C135 from 22P to 15P	

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NO	DATE	PAGE	MODIFICATION LIST	PURPOSE
9/24	16		Change PR99 from 8.2K to 9.53K ohm	3D mark burn-in BSOD issue
11/10	18		Stuff PR159 and PC102	WWAN noise solution from EMI team requirement
11/10	18		Change PC98 from 0.01U_0402_25V_X7R	Voltage rating can not meet application

Security Classification		Compal Secret Data		Title	
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				Date: Tuesday, December 02, 2008	

**Power PIR**

LA-348IP