

# Compal Confidential

Intel Haswell rPGA Processor with Lynx Point-H

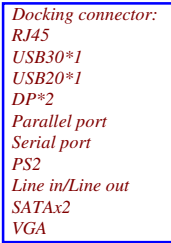
Viper MXM

Date : 2012/12/20

Version 0.5

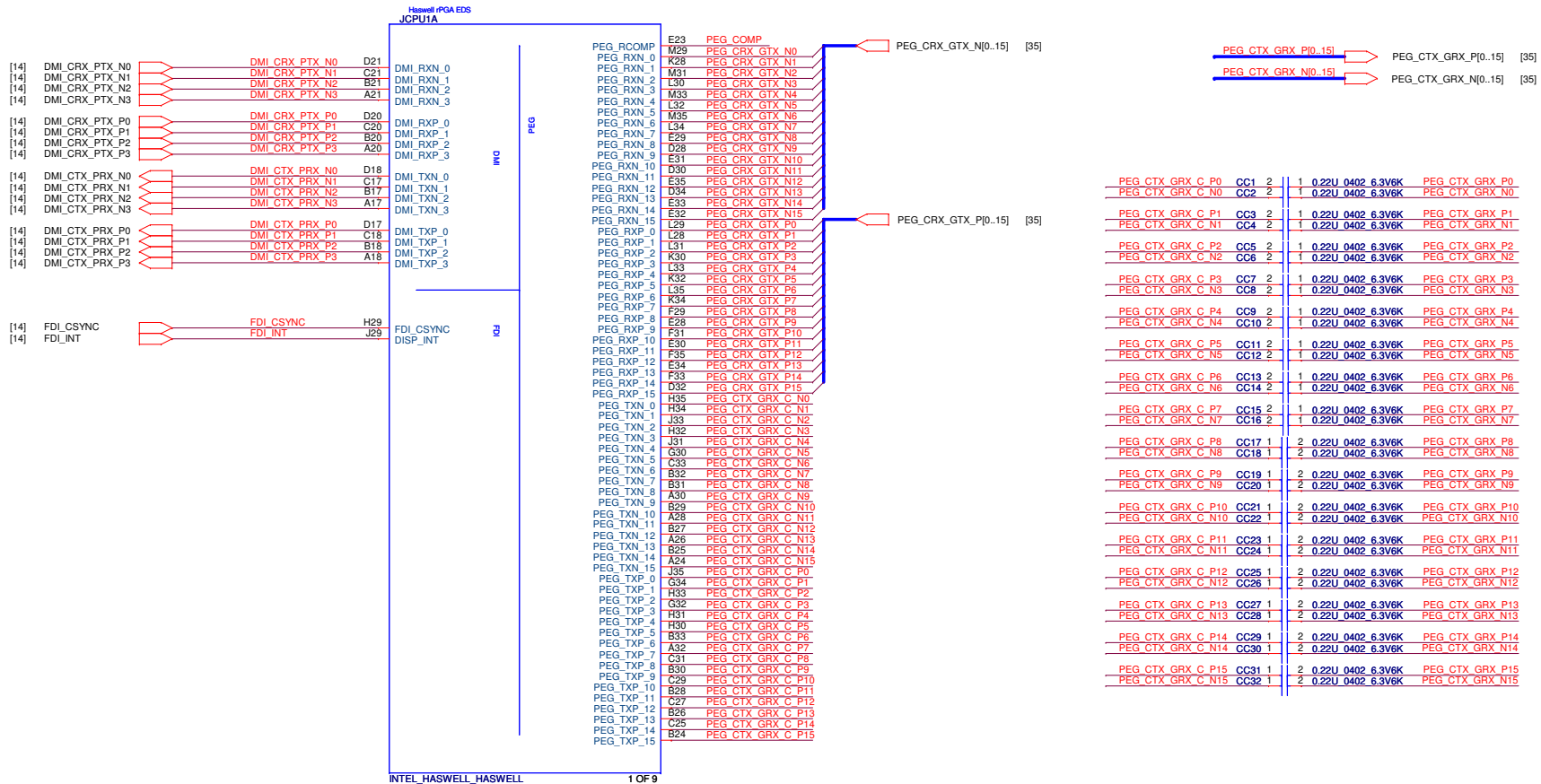
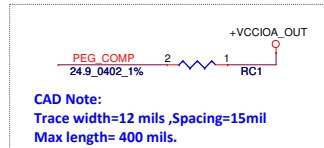
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				Date: Thursday, December 20, 2012	Sheet 1 of 56

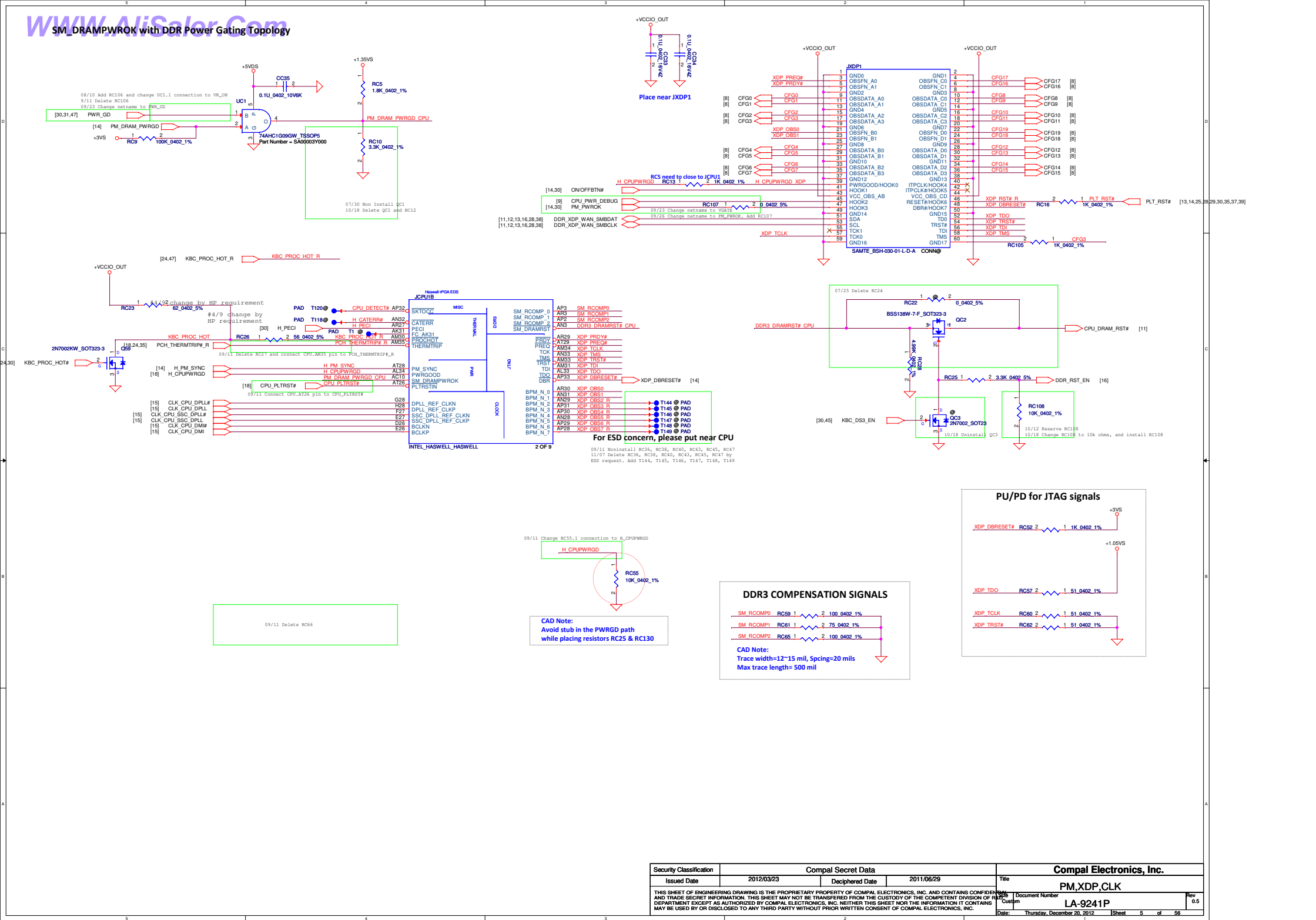
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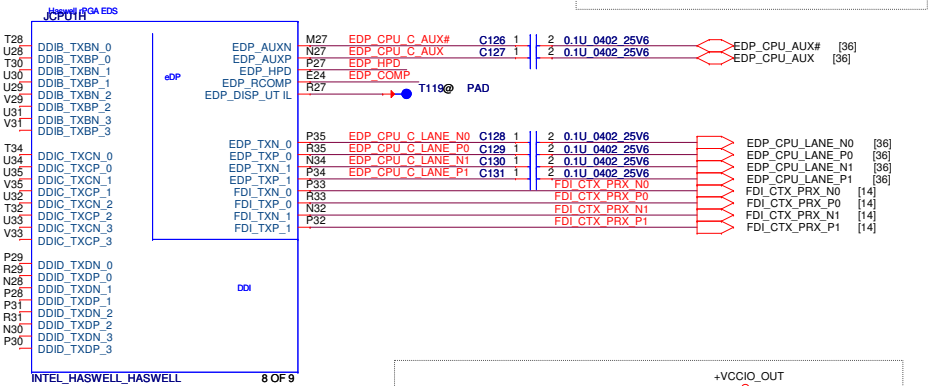
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Date	Thursday, December 20, 2012			Sheet	2 of 56

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				Custom	LA-9241P	0.5
				Date:	Thursday, December 20, 2012	Sheet 3 of 56

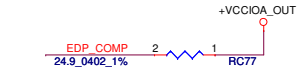






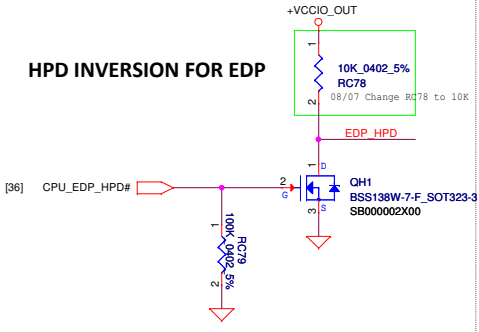


COMPENSATION PU FOR eDP

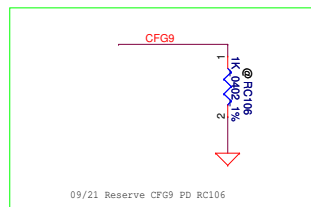
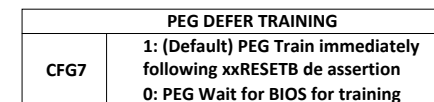


CAD Note:Trace width=20 mils,Spacing=25mil,  
Max length=100 mils.

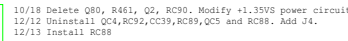
HPD INVERSION FOR EDP



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				Date: Thursday, December 20, 2012	Sheet 7 of 56





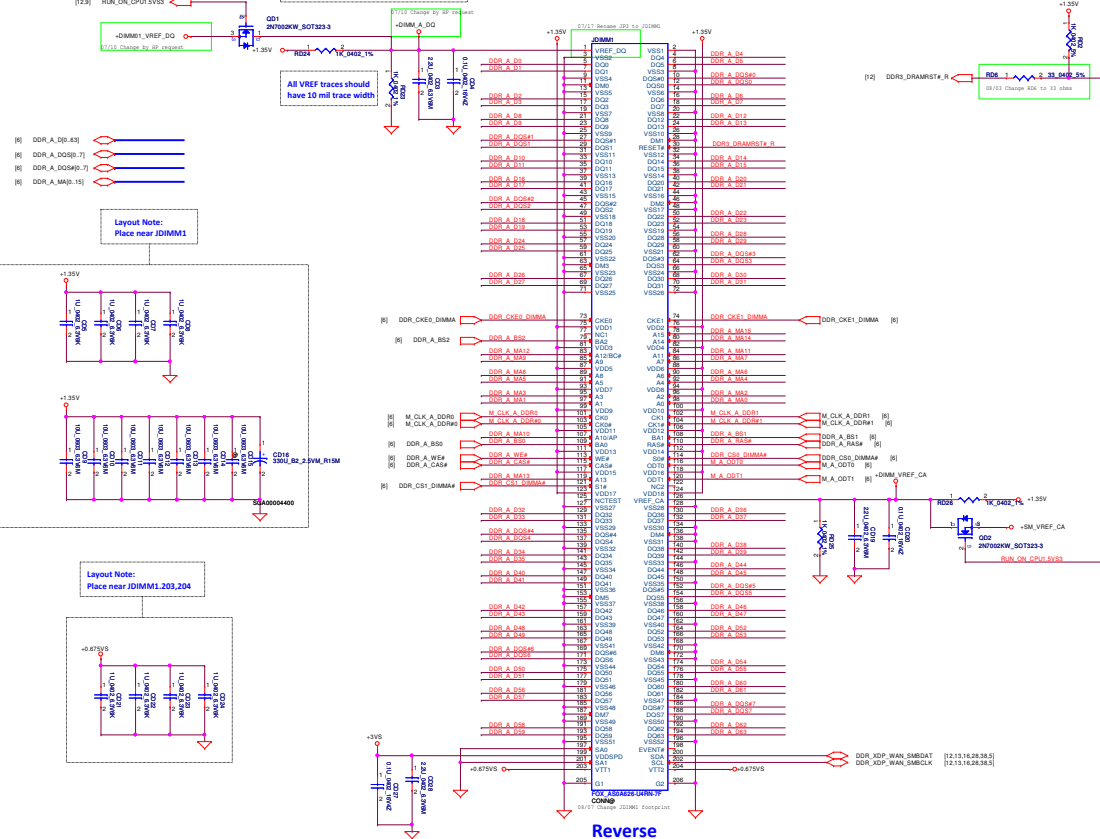


Date: Thursday, December 20, 2012 Sheet 9 of 56

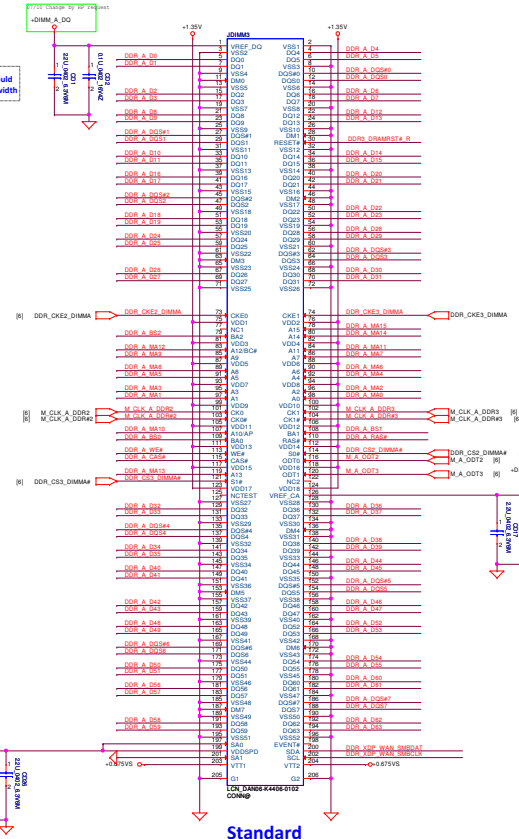


Populate RD1, De-Populate RD7 for Intel DOR3  
VREFDQ multiple methods M1  
Populate RD7, De-Populate RD1 for Intel DOR3  
VREFDQ multiple methods M3

**JDIMM1 H=4mm TOP**



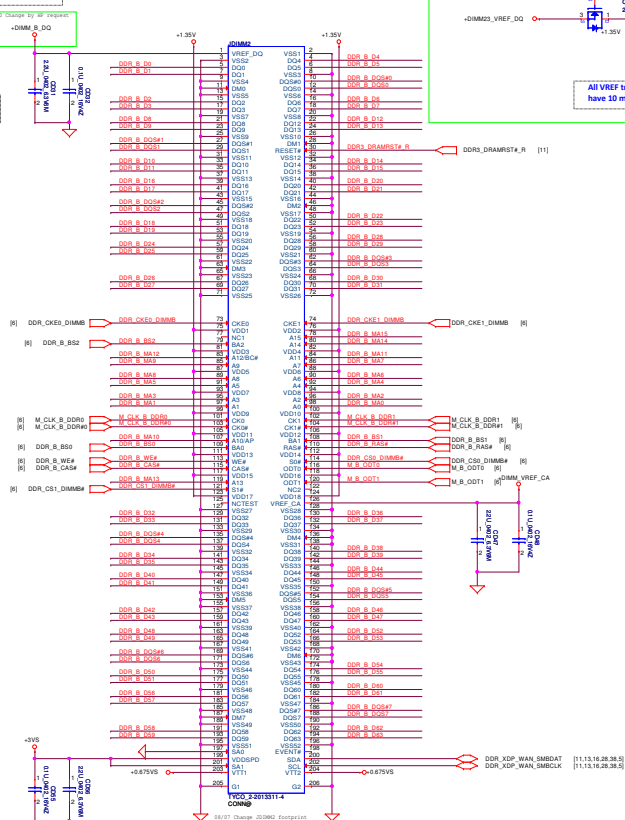
**JDIMM1 H=5.2mm BOT**



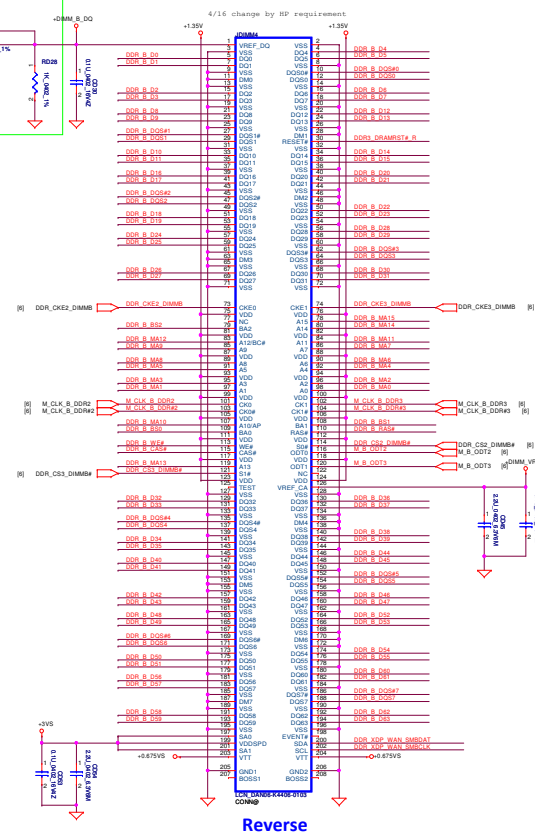
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				Page	11 of 16

Populate R04, R05, R06, R07, R08 for DDR3 VREF\_DQ multiple methods M1  
Populate R04, R05, R06, R07, R08 for DDR3 VREF\_DQ multiple methods M3

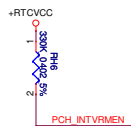
# JDIMM2 H=9.2mm TOP



# JDIMM4 H=5.2mm BOT

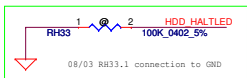


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				Rev#	Rev#



**INTVRMEN - INTEGRATED SUS 1.05V VRM ENABLE**  
 High - Enable Internal VRs  
 Low - Enable External VRs

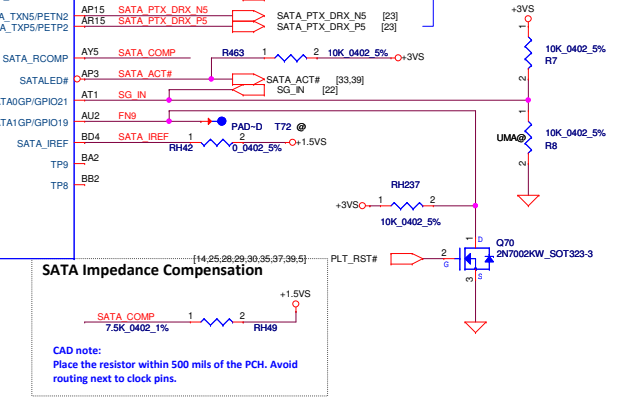
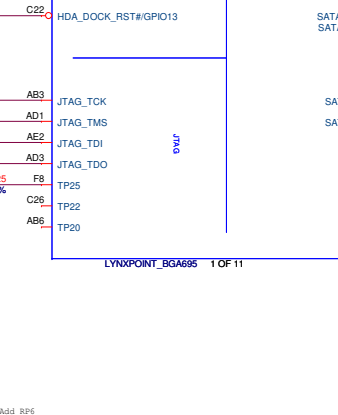
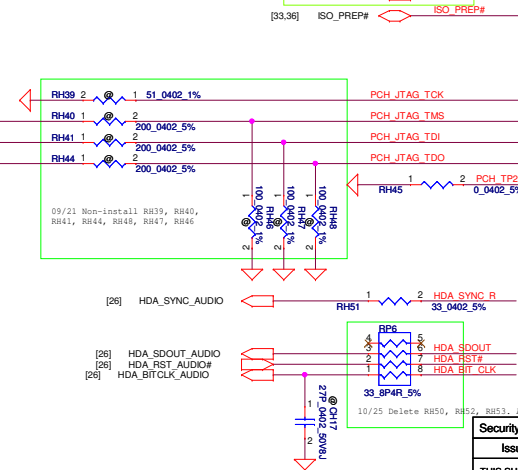
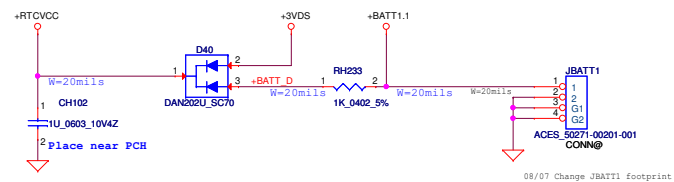
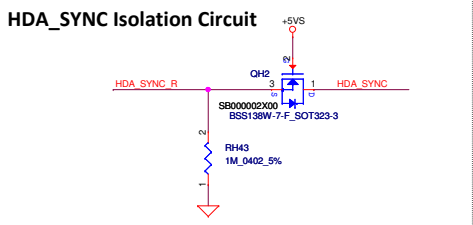
**NO REBOOT STRAP**  
 DISABLED WHEN LOW (DEFAULT)  
 ENABLED WHEN HIGH



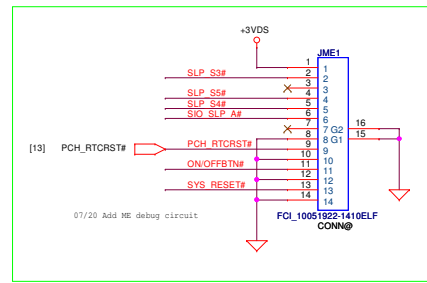
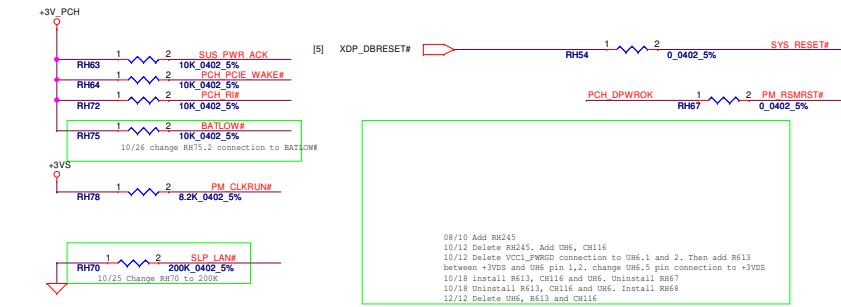
**FLASH DESCRIPTOR SECURITY OVERRIDE**  
 LOW = DISABLED (DEFAULT)  
 HIGH = ENABLED

CMOS_CLR1	CMOS setting
Shunt	Clear CMOS
Open	Keep CMOS

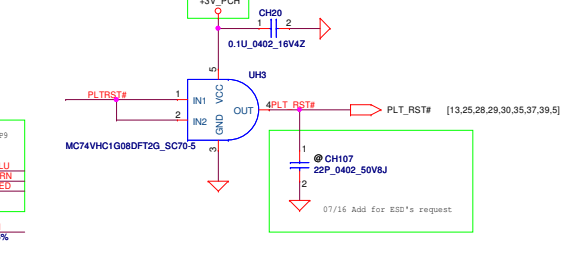
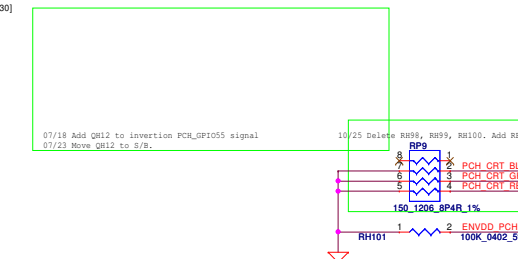
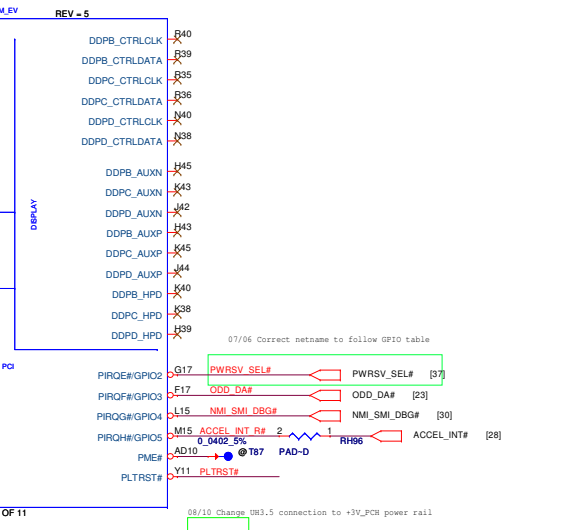
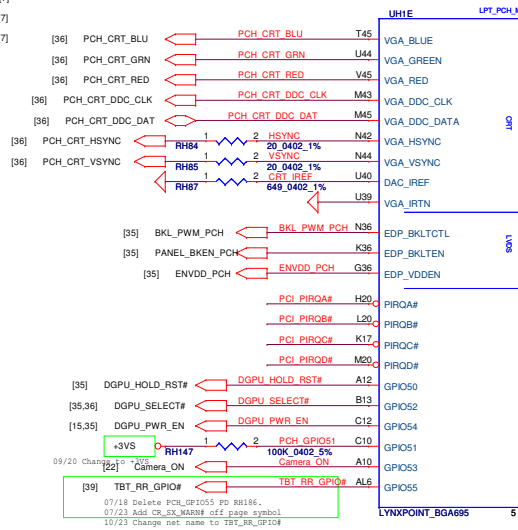
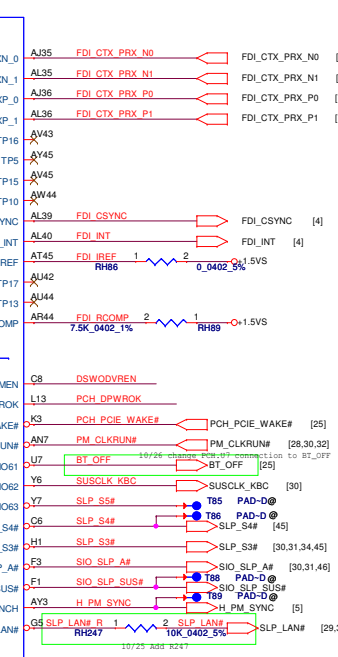
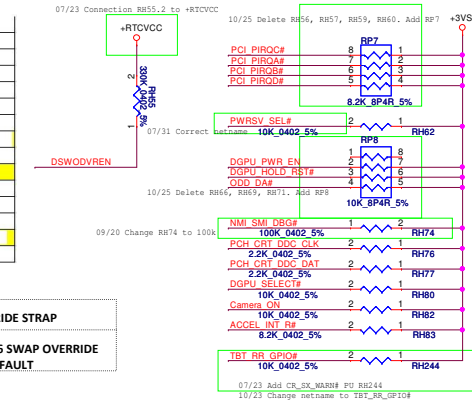
ME_CLR1	TPM setting
Shunt	Clear ME RTC Registers
Open	Keep ME RTC Registers



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Date: Thursday, December 20, 2012				Sheet	13 of 56



Pin	Intel Signal Name	HP Name
1	VccSUS3_3	+3VDS
2	SLP_53#	SLP_53#
3	VccDSW3_3	NC
4	SLP_55#	SLP_55#
5	SLP_54#	SLP_54#
6	SLP_A#	SLP_A#
7	3.3DS	NC
8	GND	GND
9	RTCST#	RTCST#
10	GND	GND
11	PWRBTN#	ON/OFFBTN#
12	GND	GND
13	SYS_RESET#	SYS_RESET#
14	GND	GND



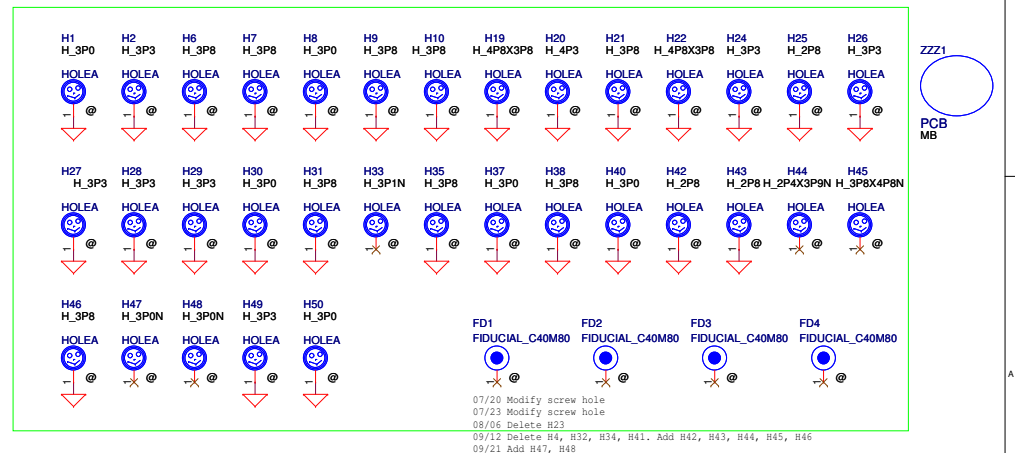
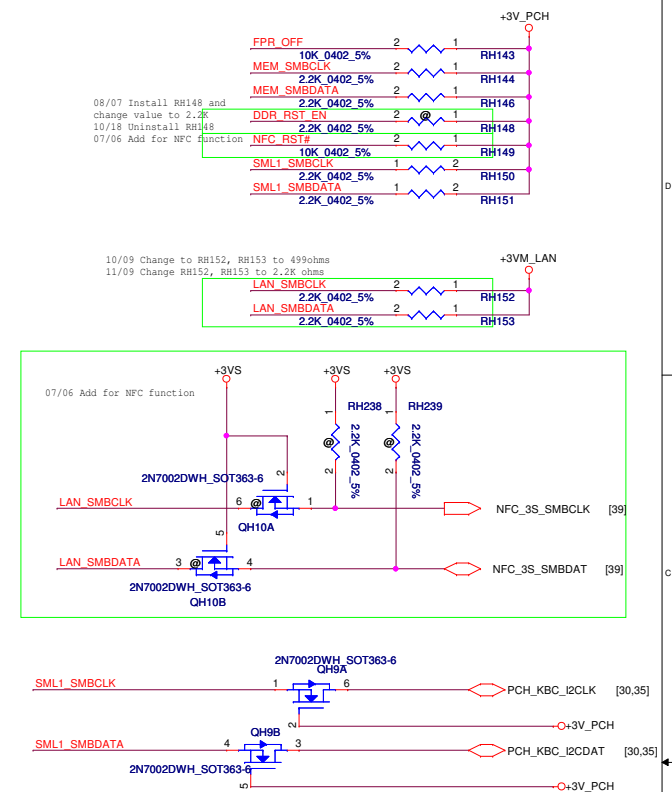
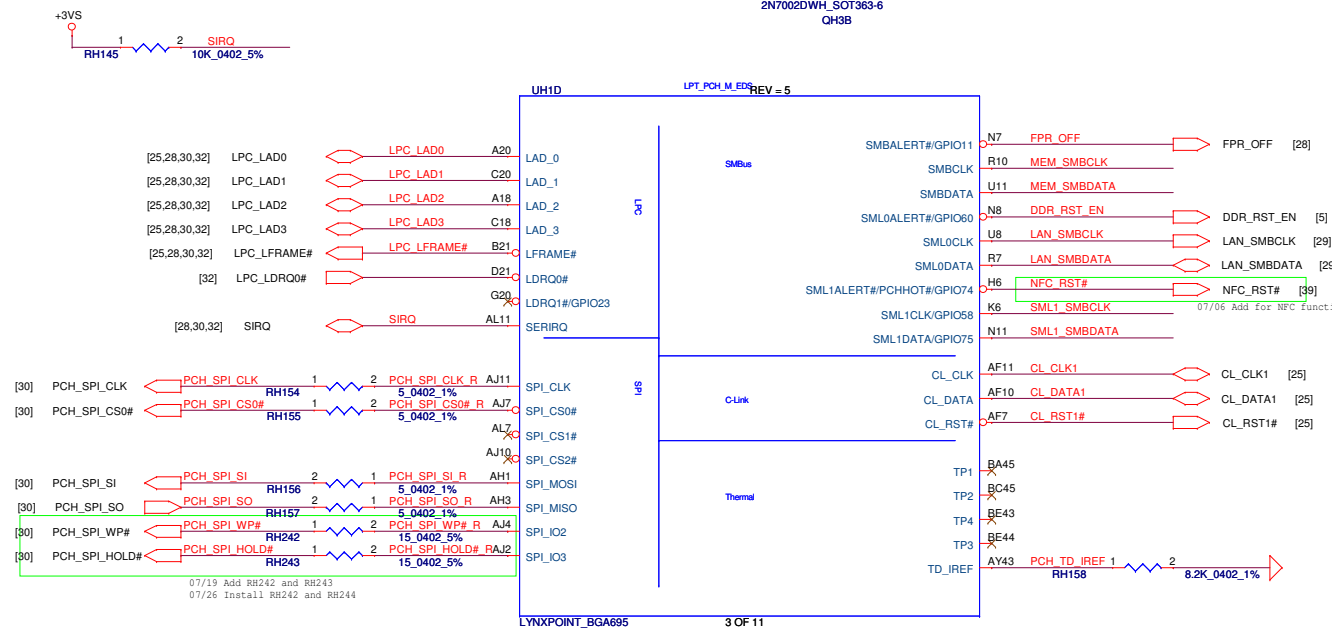
Boot BIOS Strap		
PCH_GPIOS1	SATA1GP/ GPIOS19	Boot BIOS Location
0	0	LPC
0	1	Reserved (NAND)
1	0	PCI
1	1	SPI

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				Size	Document Number	Rev	
				Custm	LA-9241P	0.5	
Date:	Thursday, December 20, 2012	Sheet	14	of	55		



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Compal Electronics, Inc.				Rev
PCH - SPI, SMBUS, LPC				0.5
LA-9241P				0.5
Date: Thursday, December 20, 2012				Sheet 16 of 56

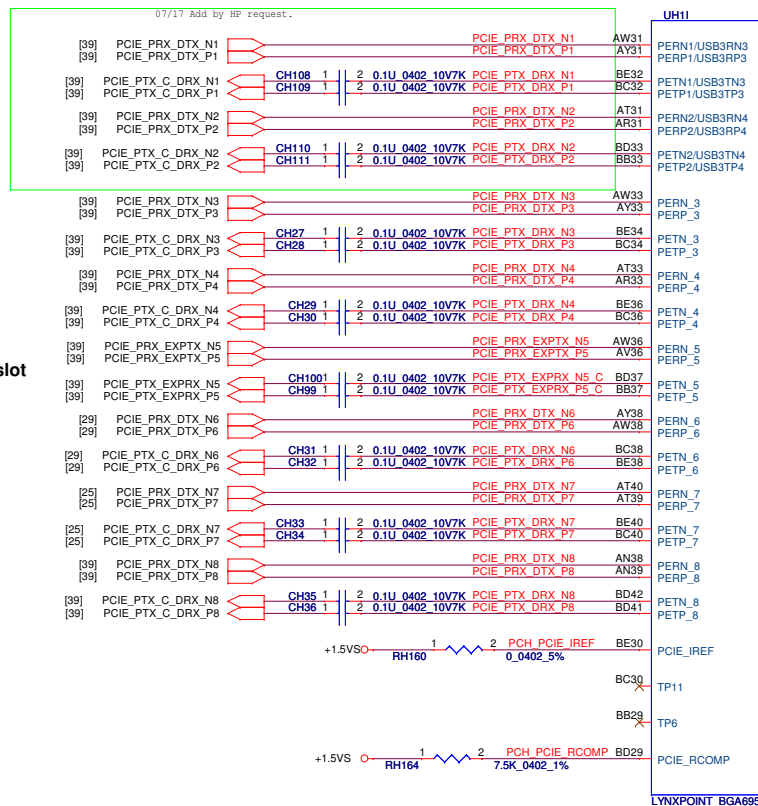


Express card slot

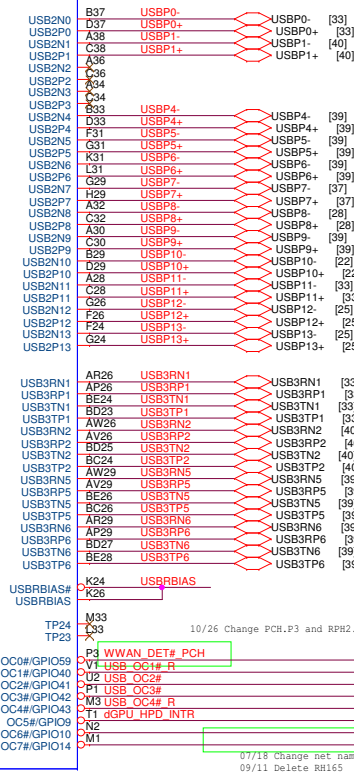
GIGA LAN

WLAN

Card Reader

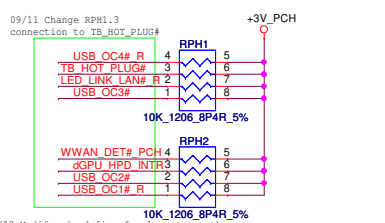
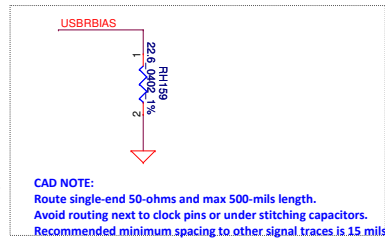


UHI1 LPT\_PCH\_M\_EDS REV = 5

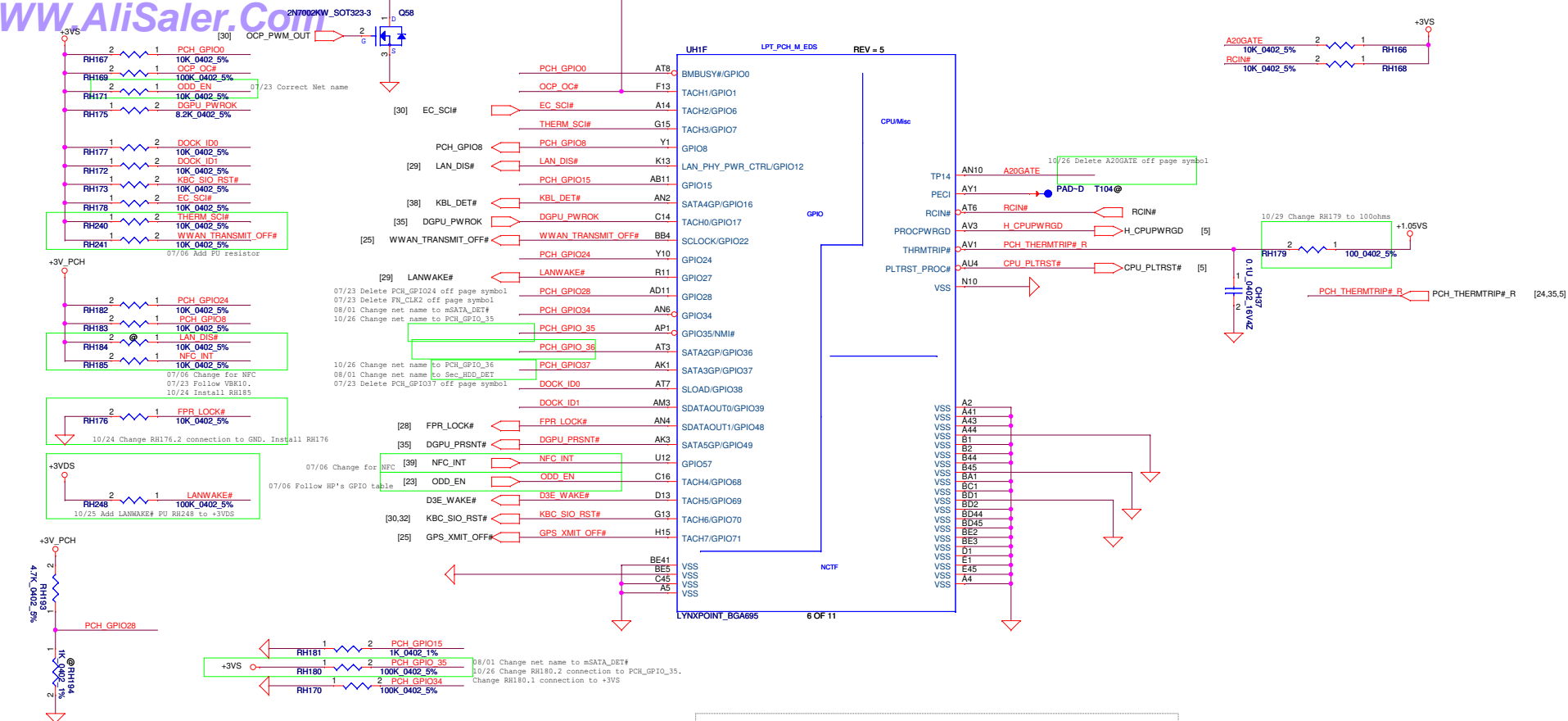


- >Docking USB 3.0
- >USB 3.0 Walkup port 2
- >NA
- >NA
- >USB 3.0 Walkup port 3
- >USB 3.0 Walkup port 4
- >Express card slot
- >Smart card reader
- >Finger Print Reader
- >Walkup USB 2.0 port
- >USB Camera
- >Docking USB 2.0 port
- >WWAN
- >BT/WLAN Combo

- >Docking USB 3.0
- >USB 3.0 Walkup port 2
- >USB 3.0 Walkup port 3
- >USB 3.0 Walkup port 4



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				Document Number				LA-9241P			
				Rev				0.5			
Date: Thursday, December 20, 2012				Sheet				17 of 56			

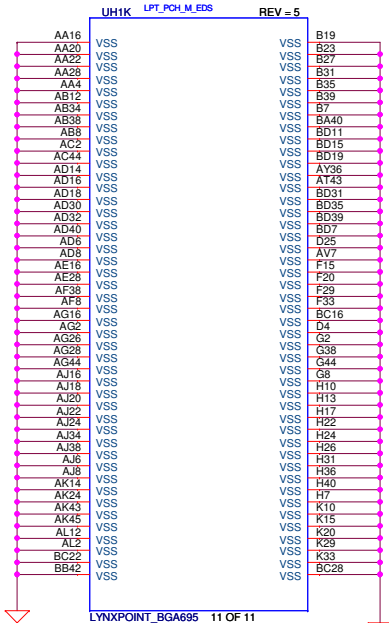
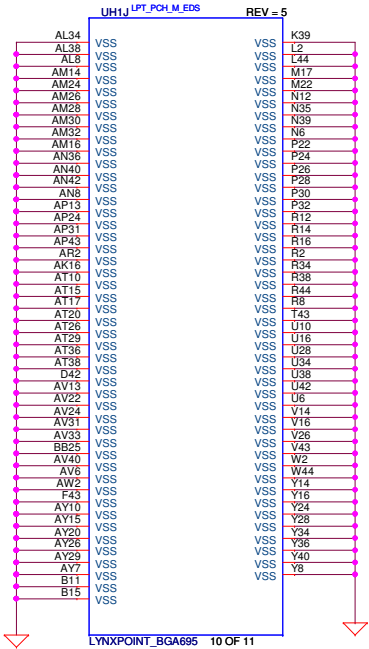


Config	GPIO16,49
USB X4,PCIEX8,SATAx6	11
USB X6,PCIEX8,SATAx4	01

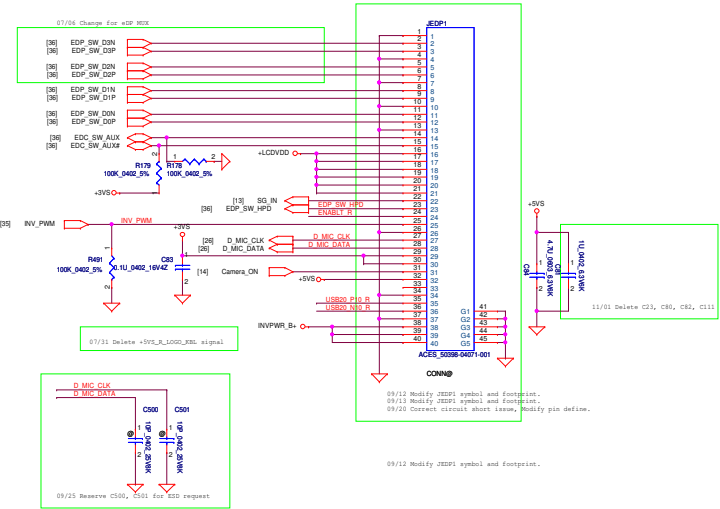
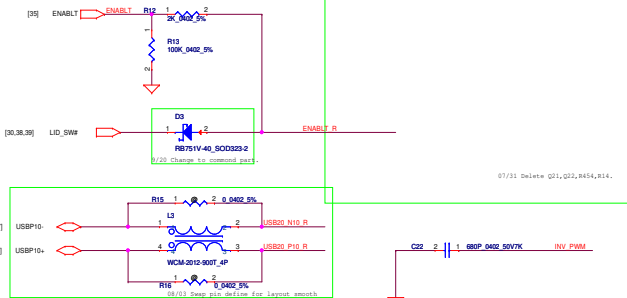
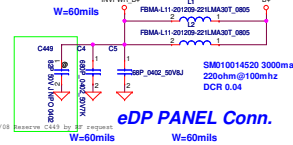
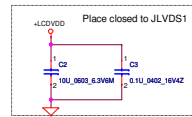
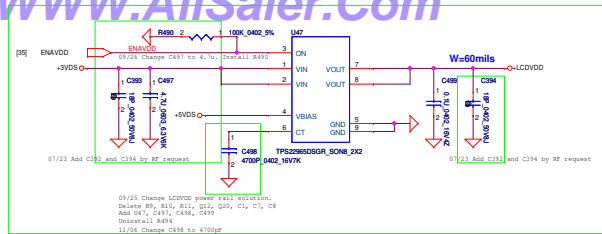
Fixed Signals				Muxed Signals		Fixed Signals						Muxed Signals		Fixed Signals			
USB3 1	USB3 2	USB3 5	USB3 6	PCIE 1	PCIE 2	PCIE 3	PCIE 4	PCIE 5	PCIE 6	PCIE 7	PCIE 8	SATA 4	SATA 5	SATA 0	SATA 1	SATA 2	SATA 3
				(00)	(00)							(00)	(00)				
				USB3 3	USB3 4							PCIE 1	PCIE 2				



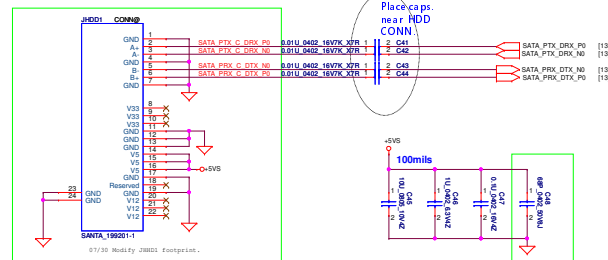




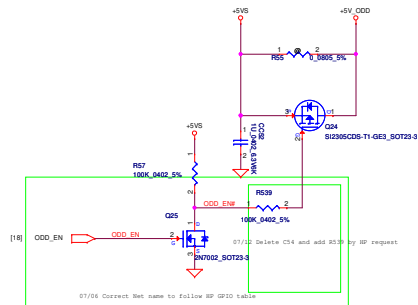
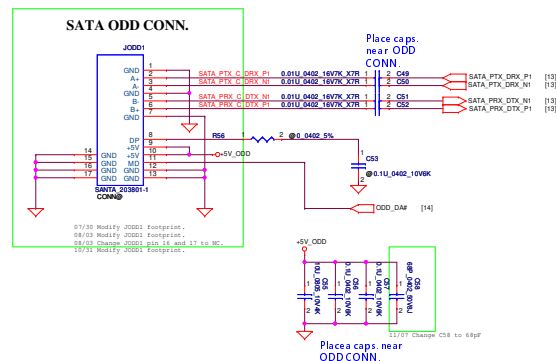
# LCD POWER CIRCUIT



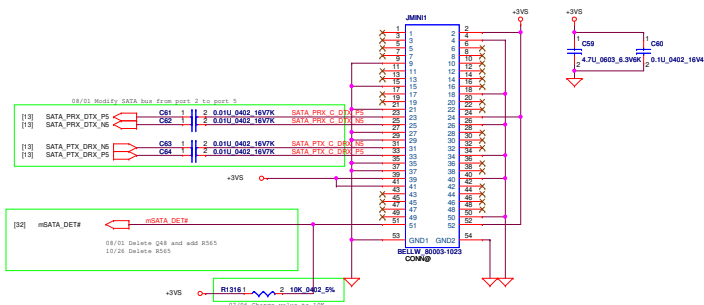
# SATA HDD CONN.



# SATA ODD CONN.

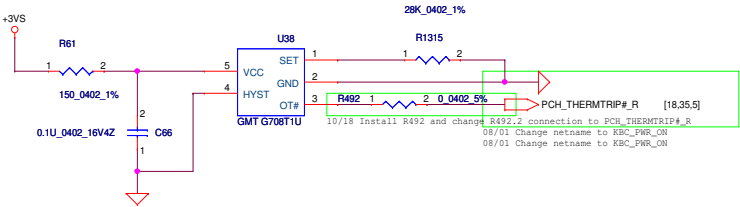
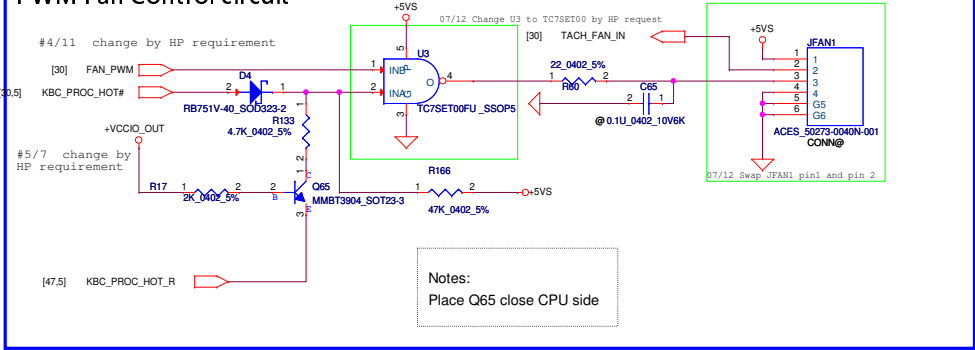


# mSATA Conn.



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				Drawn	LA-9241P
				Check	Yusufy, Enclosure 26, 2013
				Sheet	28 of 38

PWM Fan Control circuit



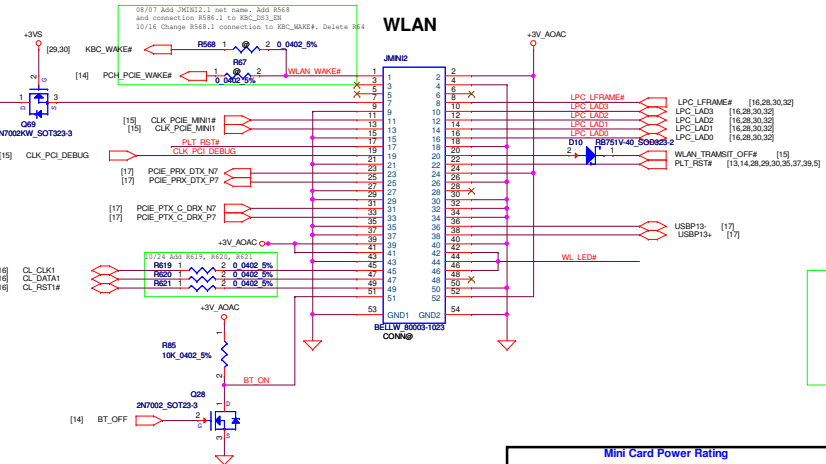
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				Date: Thursday, December 20, 2012	Sheet 24 of 56





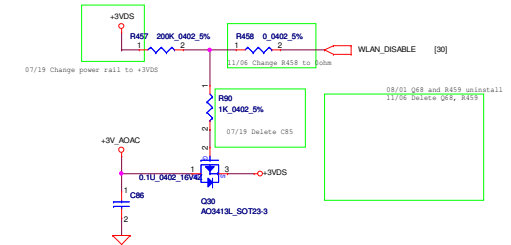
## WLAN


WLAN&BT Combo module circuits		
	BT on module Enable	BT on module Disable
BT_CTRL	HI	LO
BT_ON#	LO	HI



For Wireless LAN

Mini Card Power Rating			
Power	Primary Power (mA)		Auxiliary Power (mA)
	Peak	Normal	Normal
+3VS	1000	750	
+3V	330	250	250 (wake enable)
+1.5VS	500	375	5 (Not wake enable)



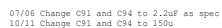
Security Classification	Compal Secret Data			
Issued Date	2012/03/23	Deciphered Date	2010/03/31	Title <b>WWAN/NAND mini</b>
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DATE: <b>Thursday, December 20, 2012</b>			Sheet 25	of 56



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Issued Date	2012/03/23	Deciphered Date	2011/06/29	Title	Audio IDT 92HD91	
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				Custm	LA-XXXXP	0.5
Date:				Thursday, December 20, 2012	Sheet	26 of 56

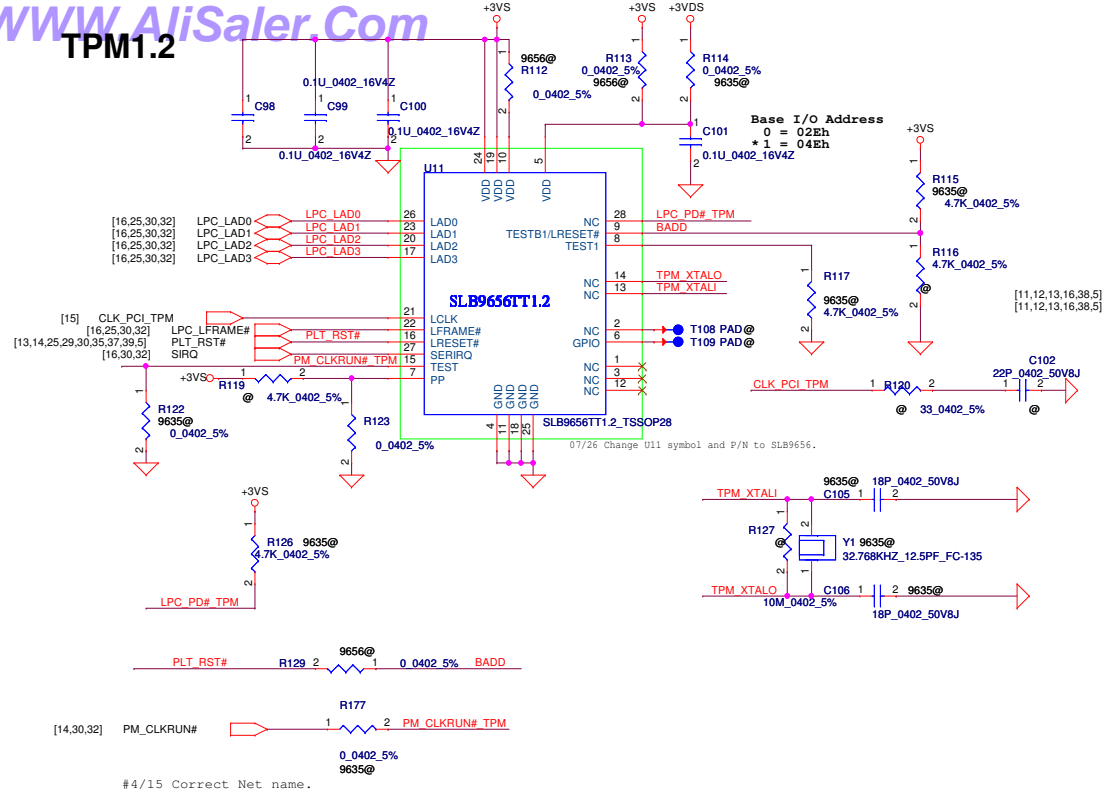


### *DOCK Audio*

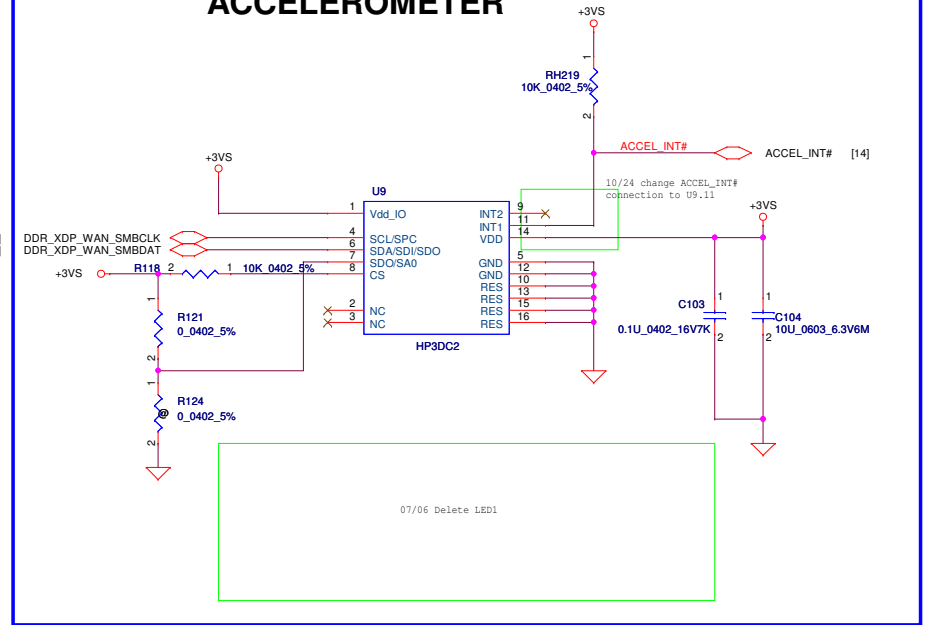


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Issued Date	2012/03/23	Deciphered Date	2012/10/21	Title	Audio SPK Conn/Jack/MIC	
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				C	LA-9241P	0.1
				Date:	Thursday, December 20, 2012	Sheet

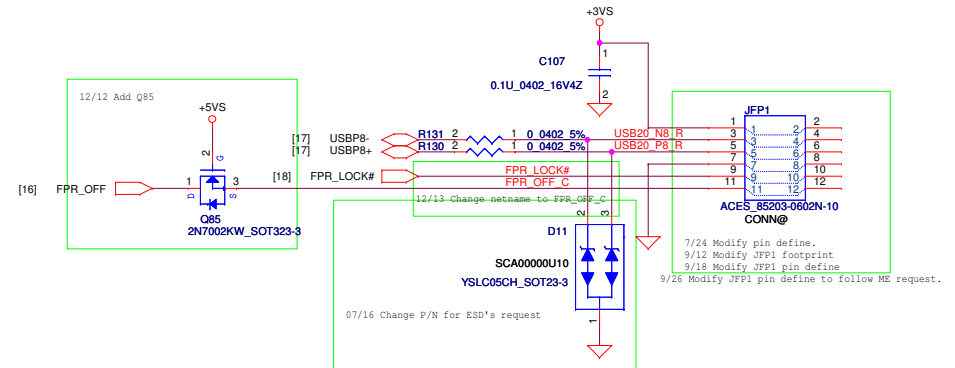
# TPM1.2



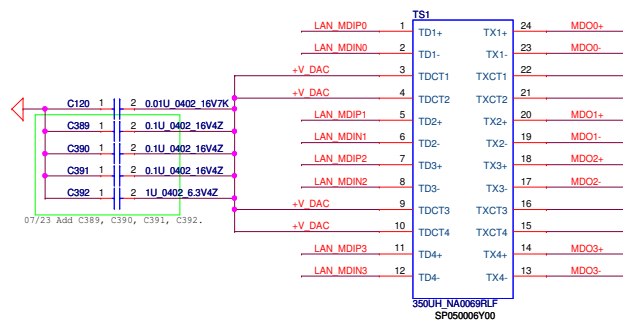
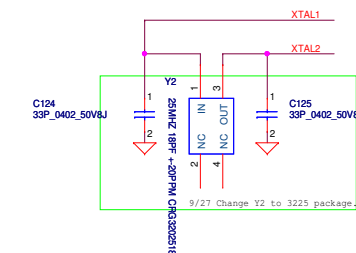
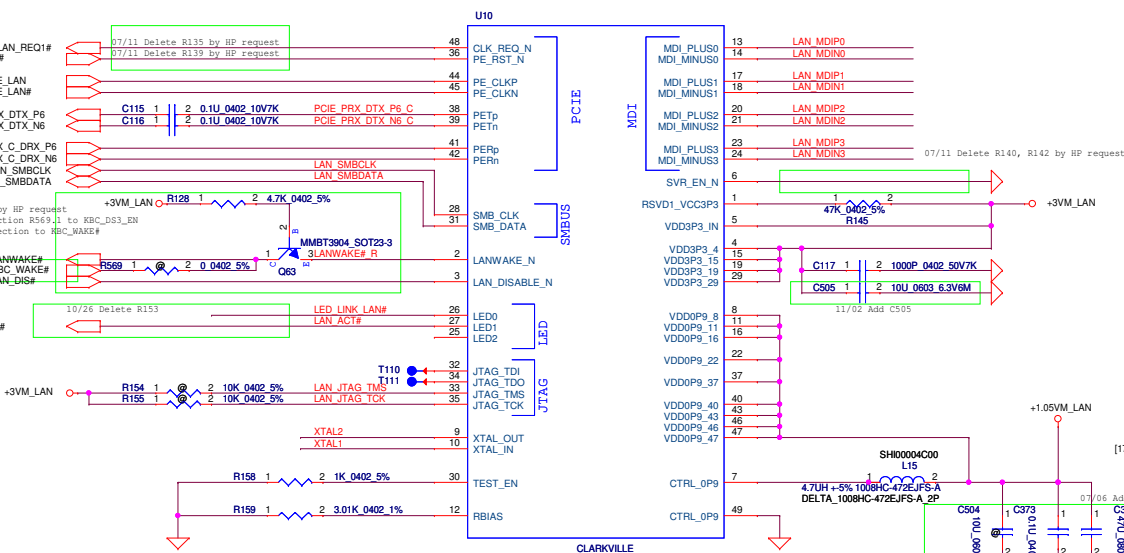
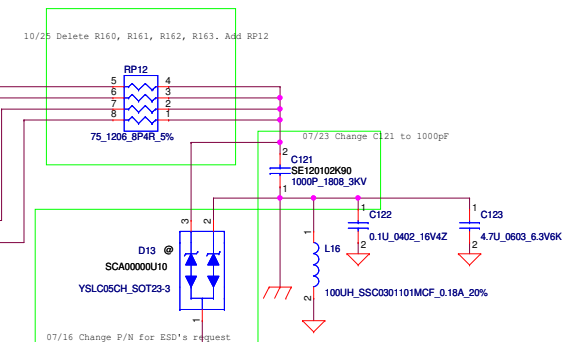
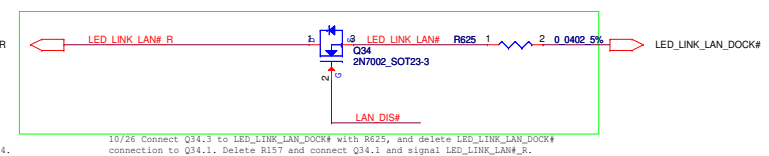
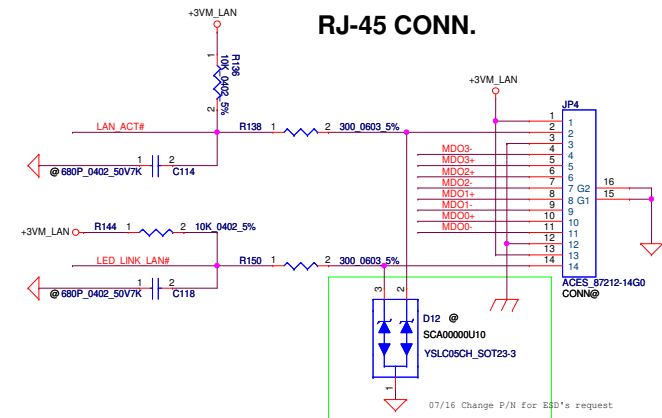
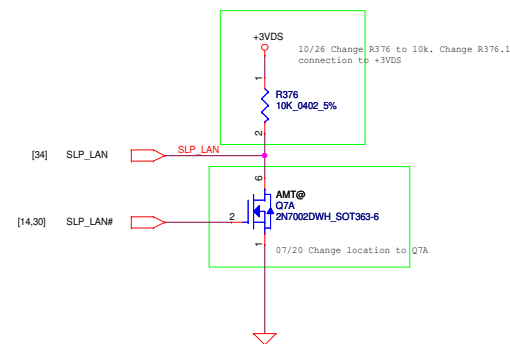
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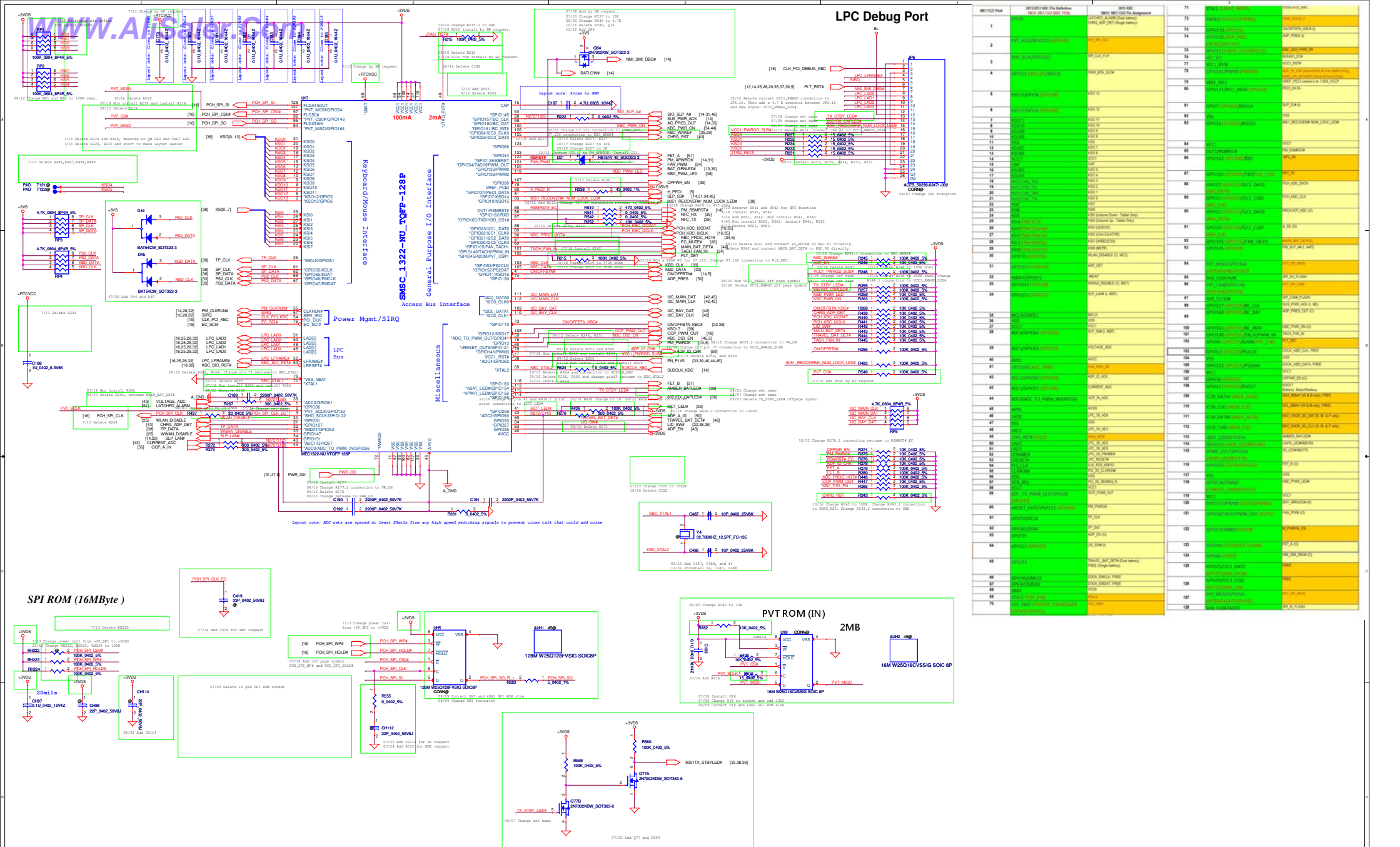
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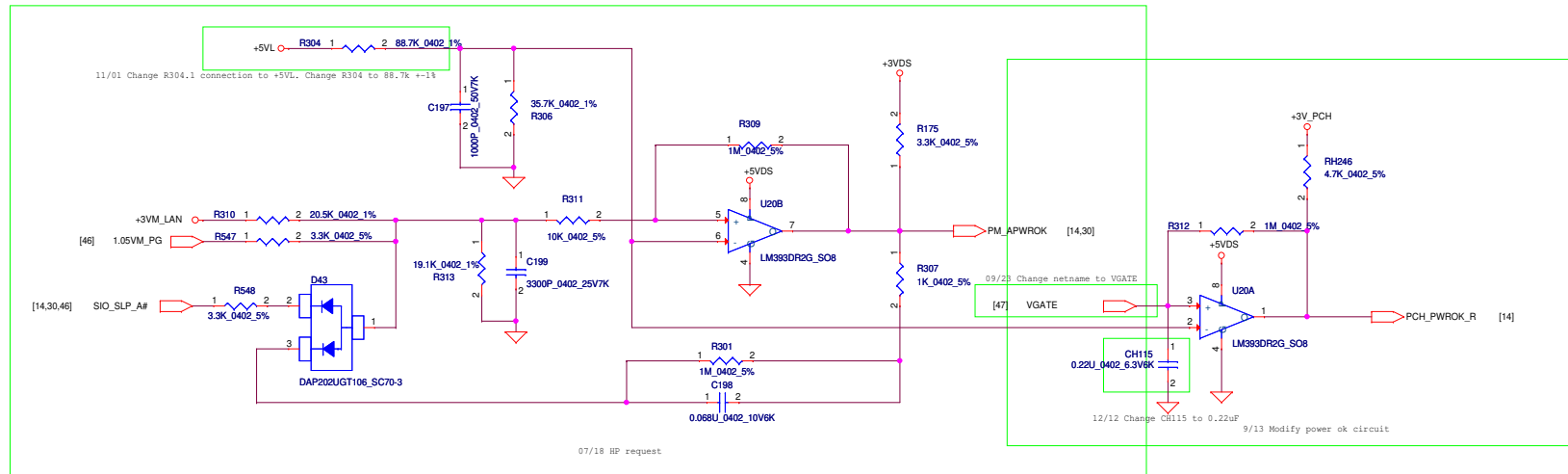
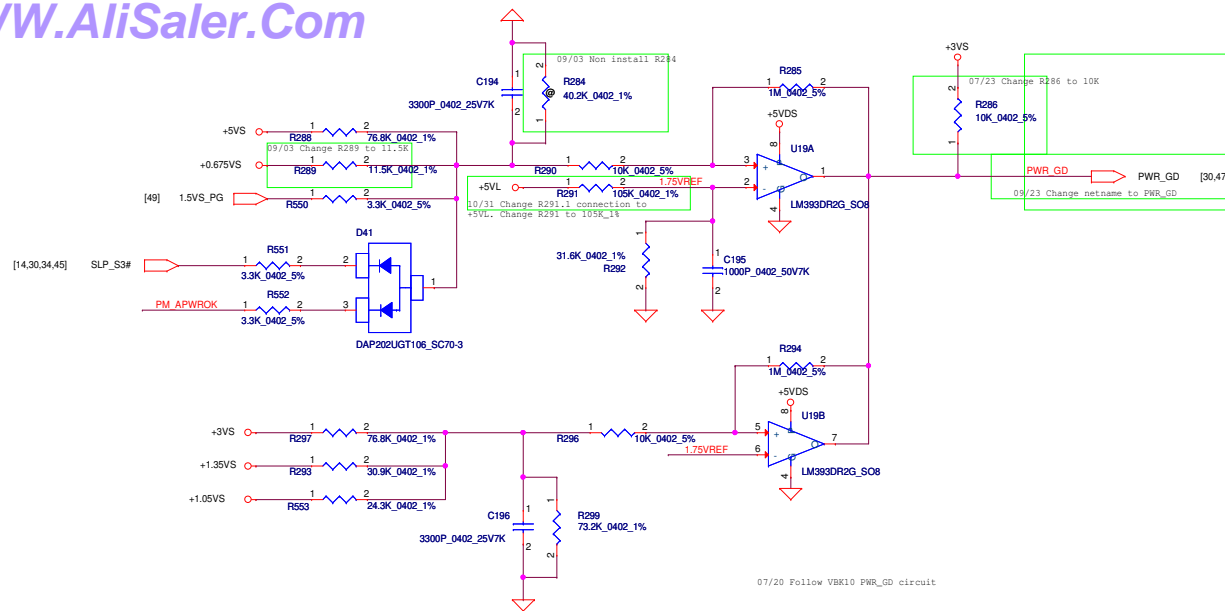


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				Date	Thursday, December 20, 2012
				Sheet	28 of 56
				Rev	0.5



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Issued Date	2012/03/23	Deciphered Date	2009/12/31	Title		
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				Date:	Thursday, December 20, 2012	Sheet 29 of 56





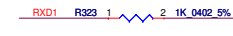
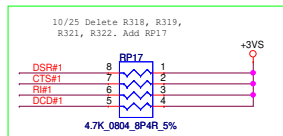
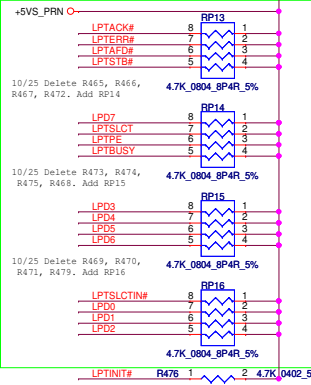
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Issued Date				2012/03/23		Deciphered Date		2010/03/31		
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				LA-9241P				0.5		
				Date		Thursday, December 20, 2012		Sheet 31 of 56		



# Parallel Port

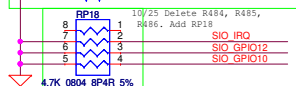
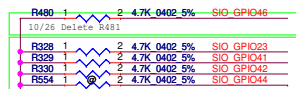
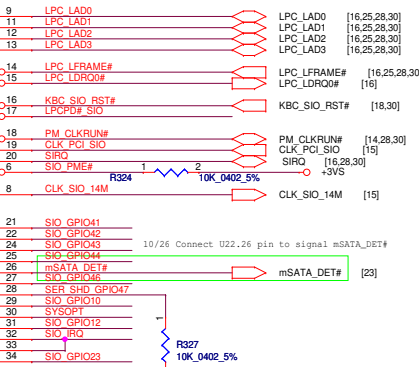
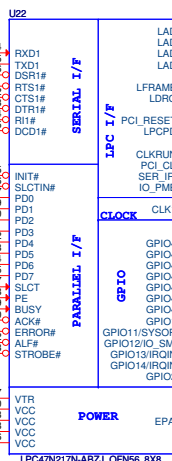
TO LPC47N217N

10/25 Delete R320, R477, R478, R464. Add RP13

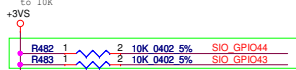


(33) RXD1  
(33) TXD1  
(33) DSR#1  
(33) RTS#1  
(33) CTS#1  
(33) DTR#1  
(33) RI#1  
(33) DCD#1

(33) LPTINIT#  
(33) LPTSLCTIN#  
(33) LPD0  
(33) LPD1  
(33) LPD2  
(33) LPD3  
(33) LPD4  
(33) LPD5  
(33) LPD6  
(33) LPD7  
(33) LPTSLCT  
(33) LPTPE  
(33) LPTBUSY  
(33) LPTACK#  
(33) LPTERR#  
(33) LPTAFD#  
(33) LPTSTB#

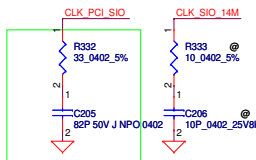


07/19 Change R483.1 and R482.1 connection to +3VS. Change R330.1, R329.1, and R328.1 connection to GND. 07/20 Reserve SIO\_GPIO44 PD R554, and modify R328, R329, R330 value to 4.7K. Modify R482, R483 value to 10K.



09/12 Add R601 4.7K 0 to +3VS on signal SIO\_GPIO42. Noninstall R601

Base I/O Address  
0 = 02Eh  
1 = 04Eh





11/07 Change R332 to 33 ohms, C205 to 82pF and install R332 and C205

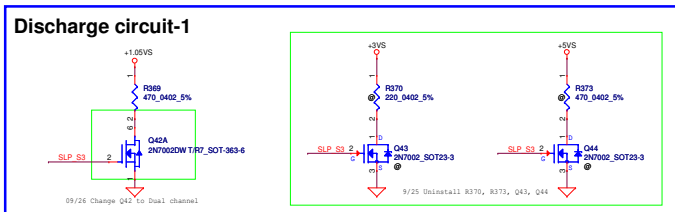
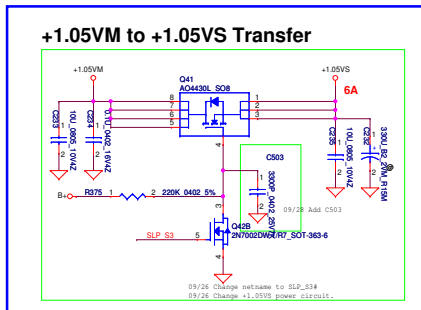
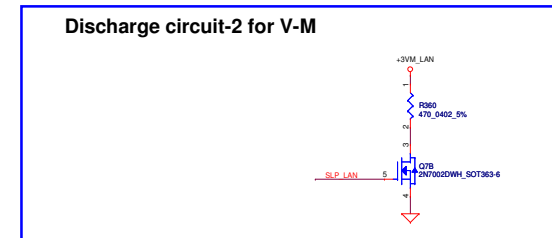
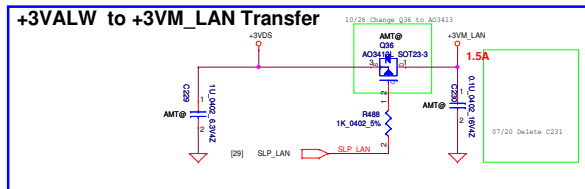
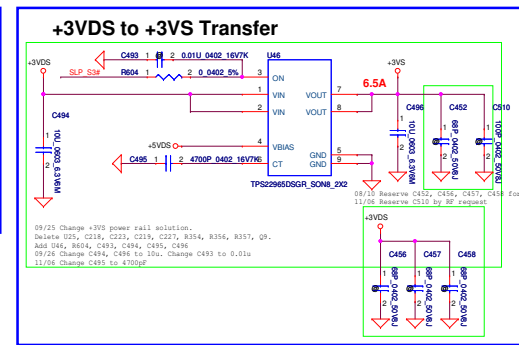
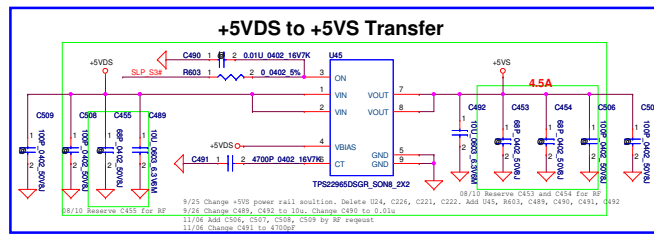
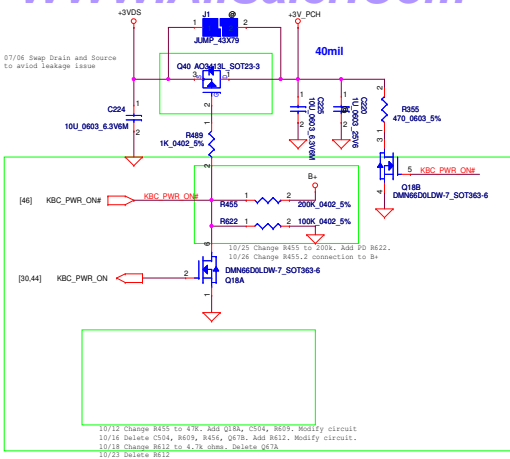
GPIO44	GPIO43	GPIO42	GPIO41	GPIO23	
0	1	0	0	0	Viper 4 DIMM
1	1	1	0	0	Viper 2 DIMM

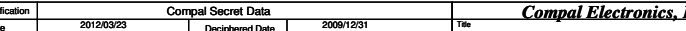


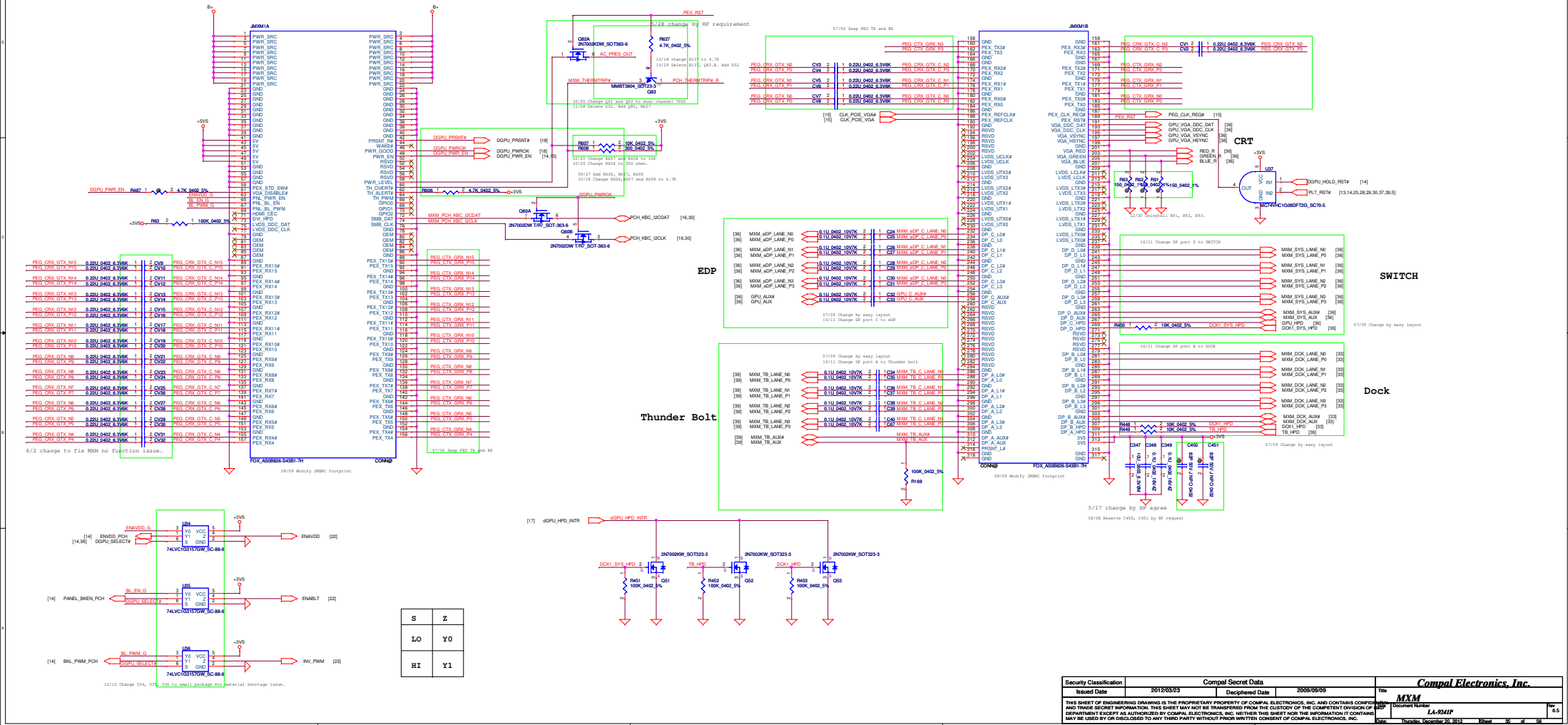
- R DOCK RED** R343 1 2 150 0402 1%  
**R DOCK GRN** R344 1 2 150 0402 1%  
**R DOCK BLU** R345 1 2 150 0402 1%
- R DOCK RED** C214 1 2 @0.1U 0402 16V4Z  
**R DOCK GRN** C215 1 2 @0.1U 0402 16V4Z  
**R DOCK BLU** C216 1 2 @0.1U 0402 16V4Z

[30,38,39] 8051TX\_STBYLED#  8051TX\_STBYLED# 2  Q35 2N7002\_SOT23-3

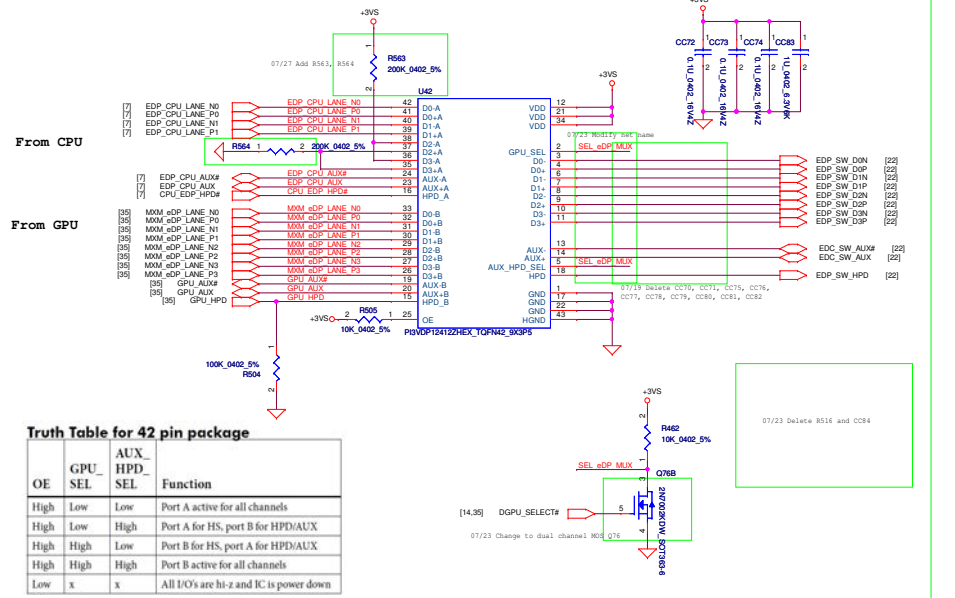
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				Date:	Thursday, December 20, 2012         Sheet 33 of 56



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Date	Thursday, December 20, 2012		Sheet	34 of 56		



## eDP MUX



## DP MUX

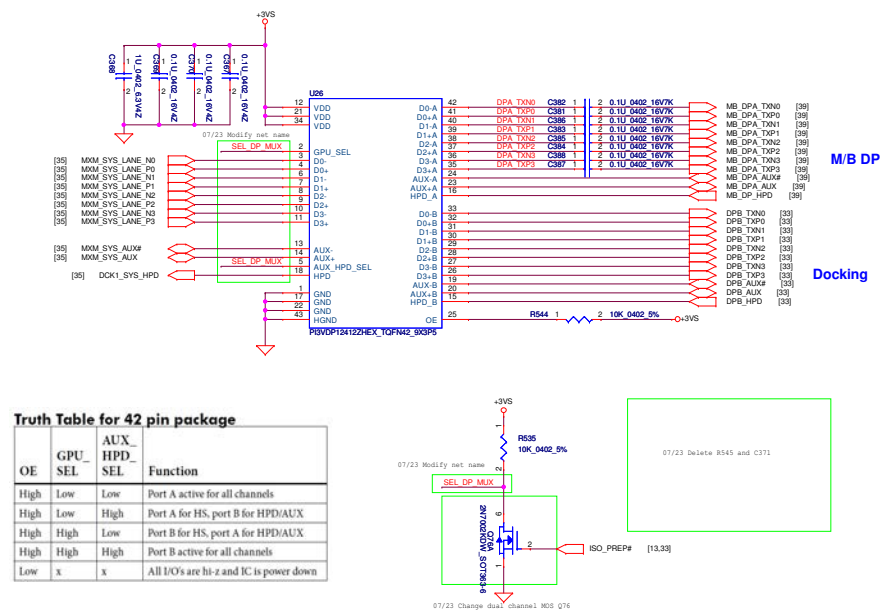
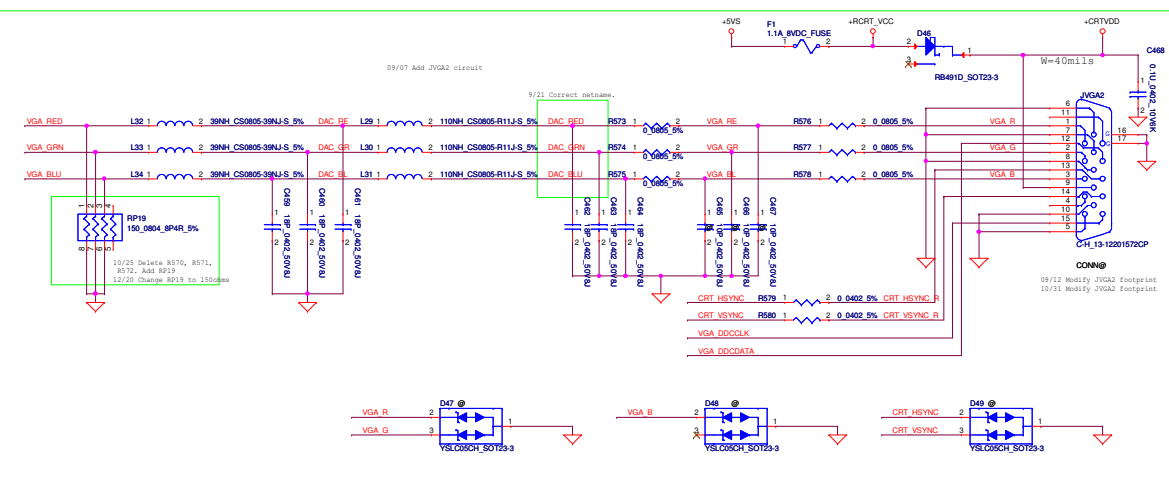
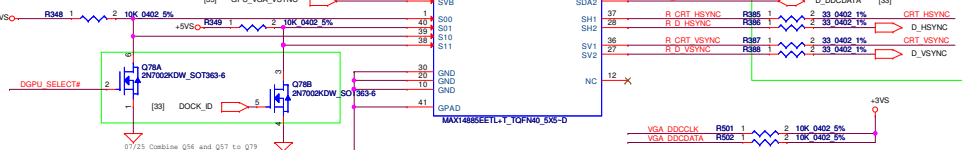


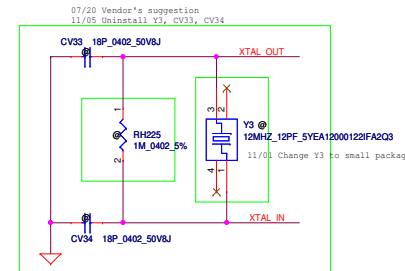
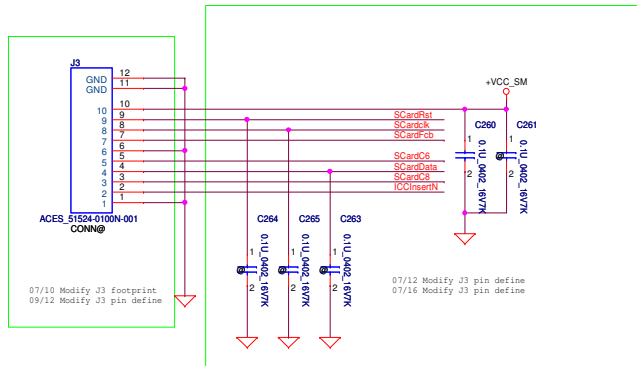
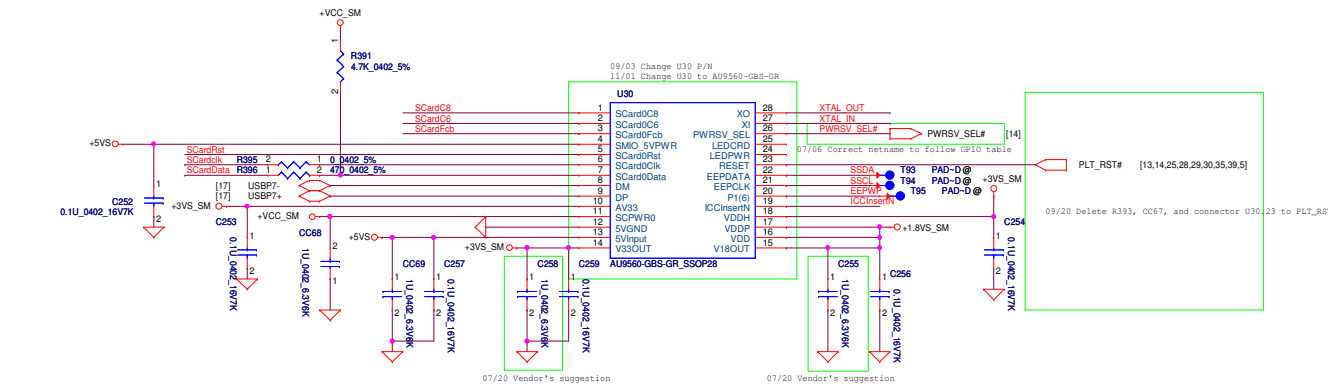
Table 1. DDC Truth Table

EN	SEL	FUNC
1	0	0
1	0	1
1	1	0
1	1	1

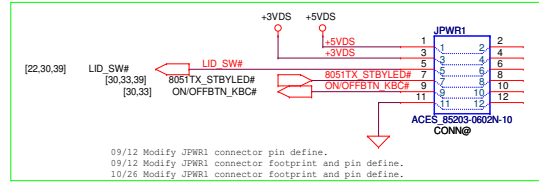
Table 2. RGB/HSYNC\_VSYNC Truth Table

EN	SEL	FUNC
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1	0	1
1	1	0
1	1	1

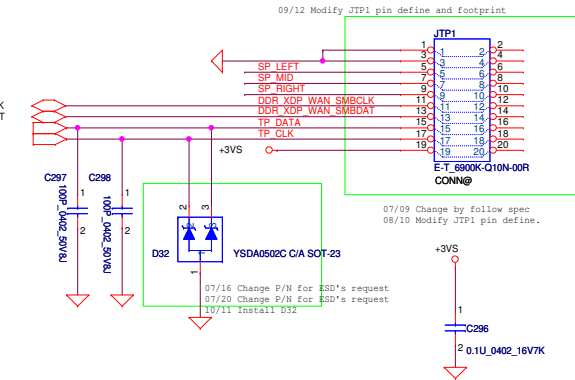




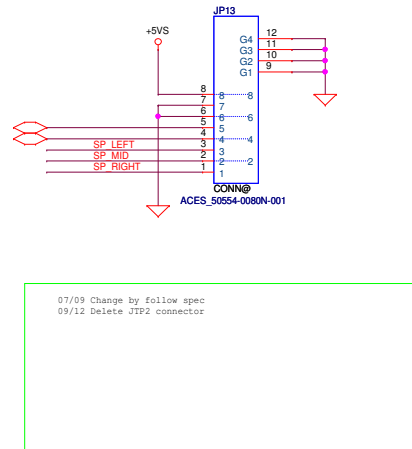
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Issued Date	2012/03/23	Deciphered Date	2011/06/29	Title		
				Smart Card		
				Size	Document Number	Rev
				C		0.5
				Date:	Thursday, December 20, 2012	Sheet 37 of 56



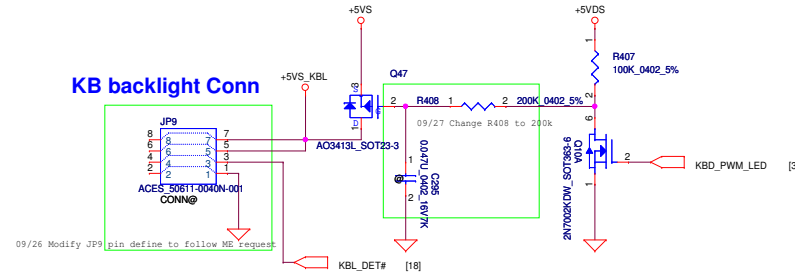
## TP/B Conn



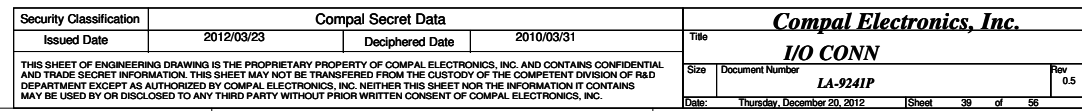
## Stick Point CONN



## KB backlight Conn

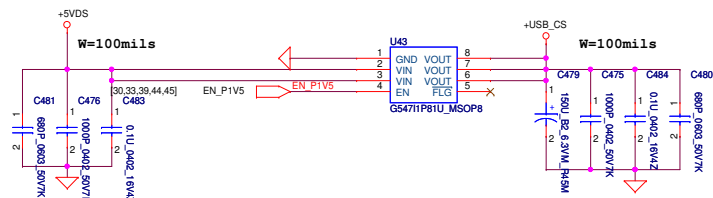


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				Sheet	38 of 56

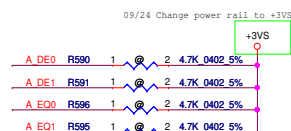




9/07 Add USB3.0 repeater and connector



change power switch to high active parts  
20120803

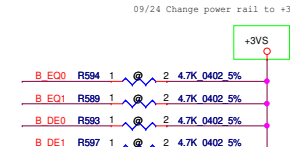


09/24 Change power rail to +3VS

```
Programs: Internal pre-emphasis level setting for channel A
3.3V tolerant. Internally pulled down at -150K $\Omega$ .
[A: EQ1, A, EQ0] ==
LL: 3.5dB de-emphasis
LH: No de-emphasis
HL: 5dB de-emphasis
HH: Reserved

Equalizer control and program for channel A
3.3V tolerant. Internally pulled down at
-150K $\Omega$ .
[A: EQ1, A, EQ0] ==
LL: adaptive EQ enable
LH: program EQ at 3.5dB
HL: program EQ at 6dB
HH: program EQ at 10dB
```

Equalizer control and program for channel A  
3.3V tolerant. Internally pulled down at  
~150K $\Omega$   
[A\_EQ1, A\_EQ0] ==  
LL: adaptive EQ enable  
LH: program EQ at 3.5dB  
HL: program EQ at 6dB  
HH: program EQ at 10dB

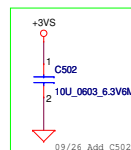


09/24 Change power rail to +3V

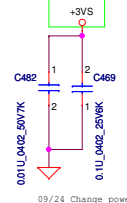
Equalizer control and program for channel B  
3.3V tolerant. Internally pulled down at  
~150K次  
[B\_EQ1, B\_EQ0] ==  
LL: adaptive EQ enable  
LH: program EQ at 3.5dB  
HL: program EQ at 6dB  
HH: program EQ at 10dB

Programmable output pre-emphasis level setting for channel B  
3.3V tolerant. Internally pulled down at ~150K $\Omega$   
[B\_EQ1, B\_EQ0] ==  
LL: 3.5dB de-emphasis  
LH: No de-emphasis  
HL: 5dB de-emphasis  
HH: Reserved

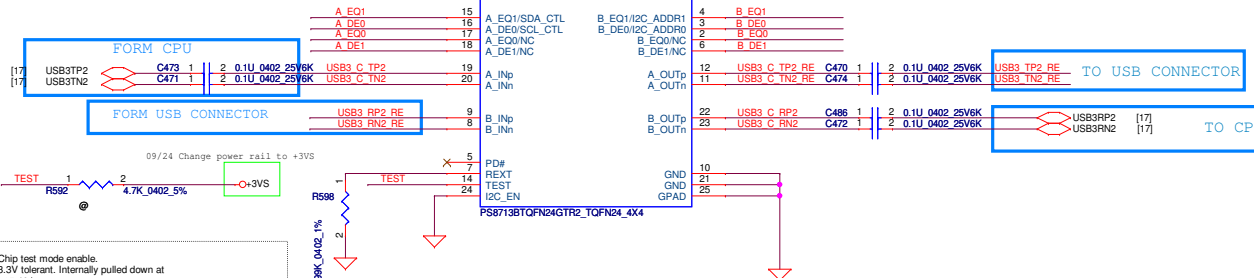
## *USB3.0 Repeater*



09/24 Change power rail to +3VS



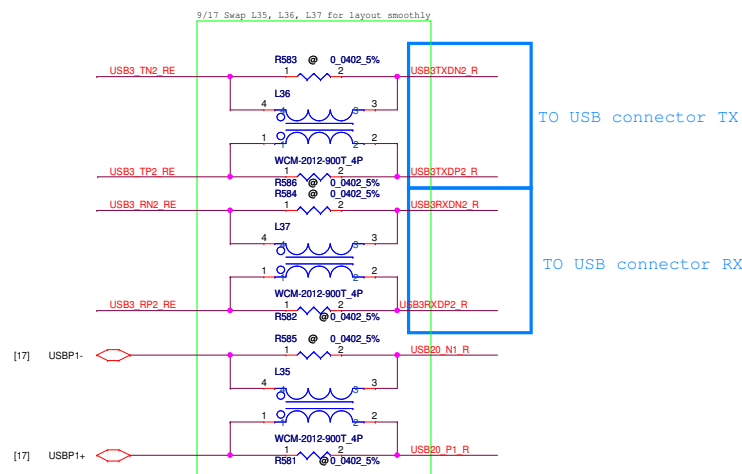
09/24 Change power



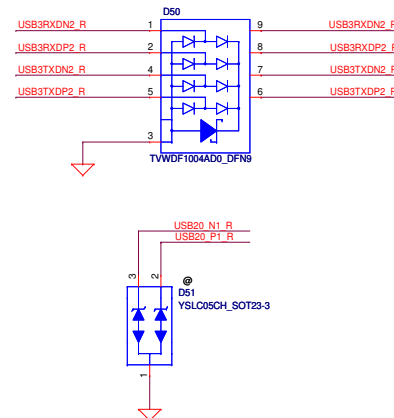
Folow ESD team recommeend change ESD diode D5 D6  
20120713

Chip test mode enable.  
3.3V tolerant. Internally pulled down at  
~150K次.  
TEST =  
L: Normal operation (default)  
H: Test mode enable

Add DC to DC interface  
2012/8/3



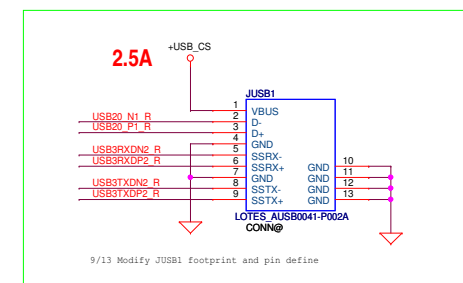
9/17 Swap L35, L36, L37 for layout smoothly



Security Classification	Compal Secret Data		
Issued Date	2012/05/11	Deciphered Date	2013/05/11

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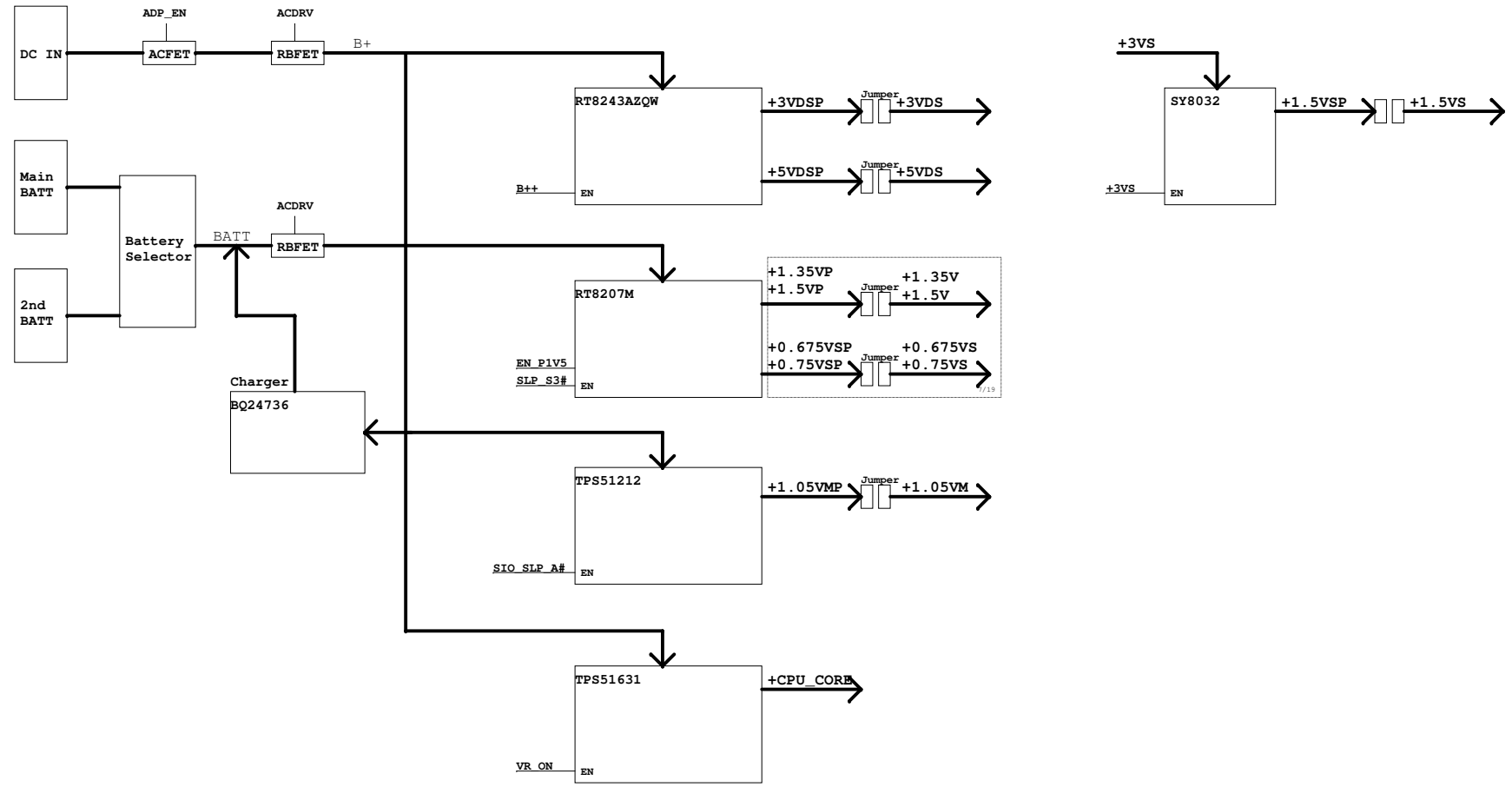
### ***USB3.0 Connector***

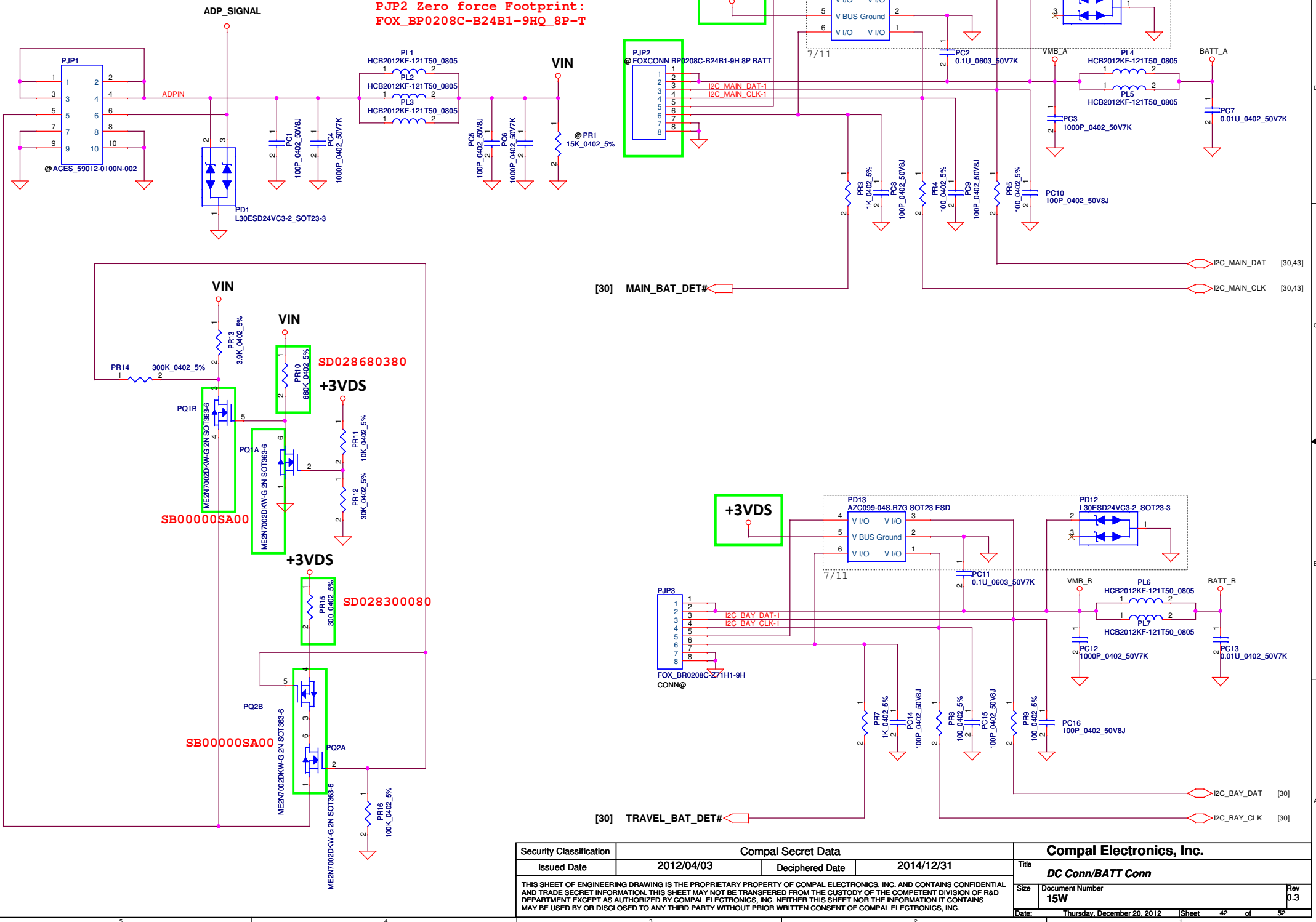


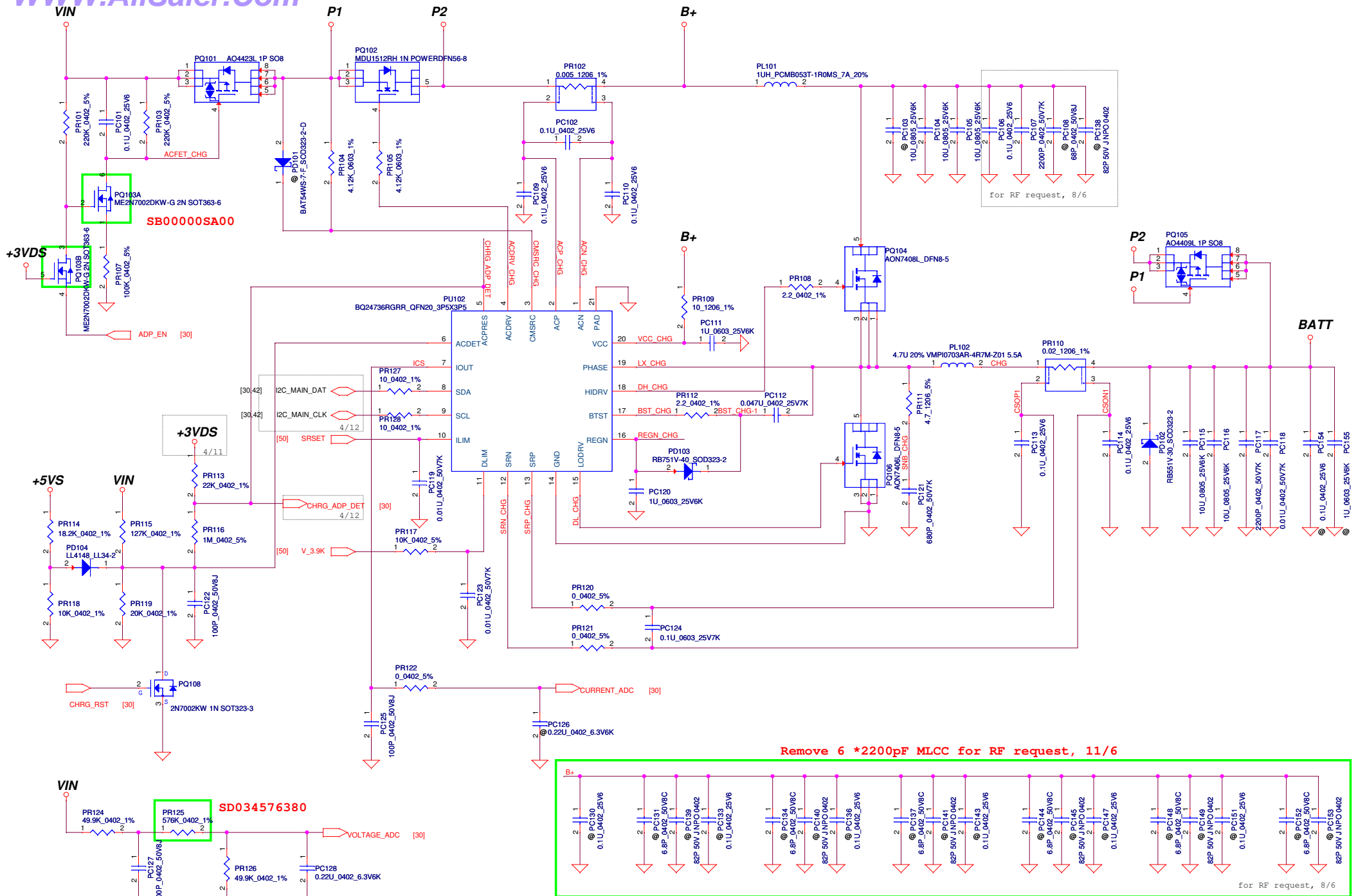
9/13 Modify JUSB1 footprint and pin define

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								USB3.0 CONN/Repeater		
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								Custom	LA-9241P	
Date:		Thursday, December 20, 2012		Sheet		40 of 56				

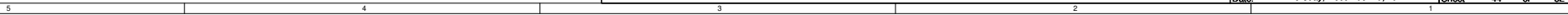




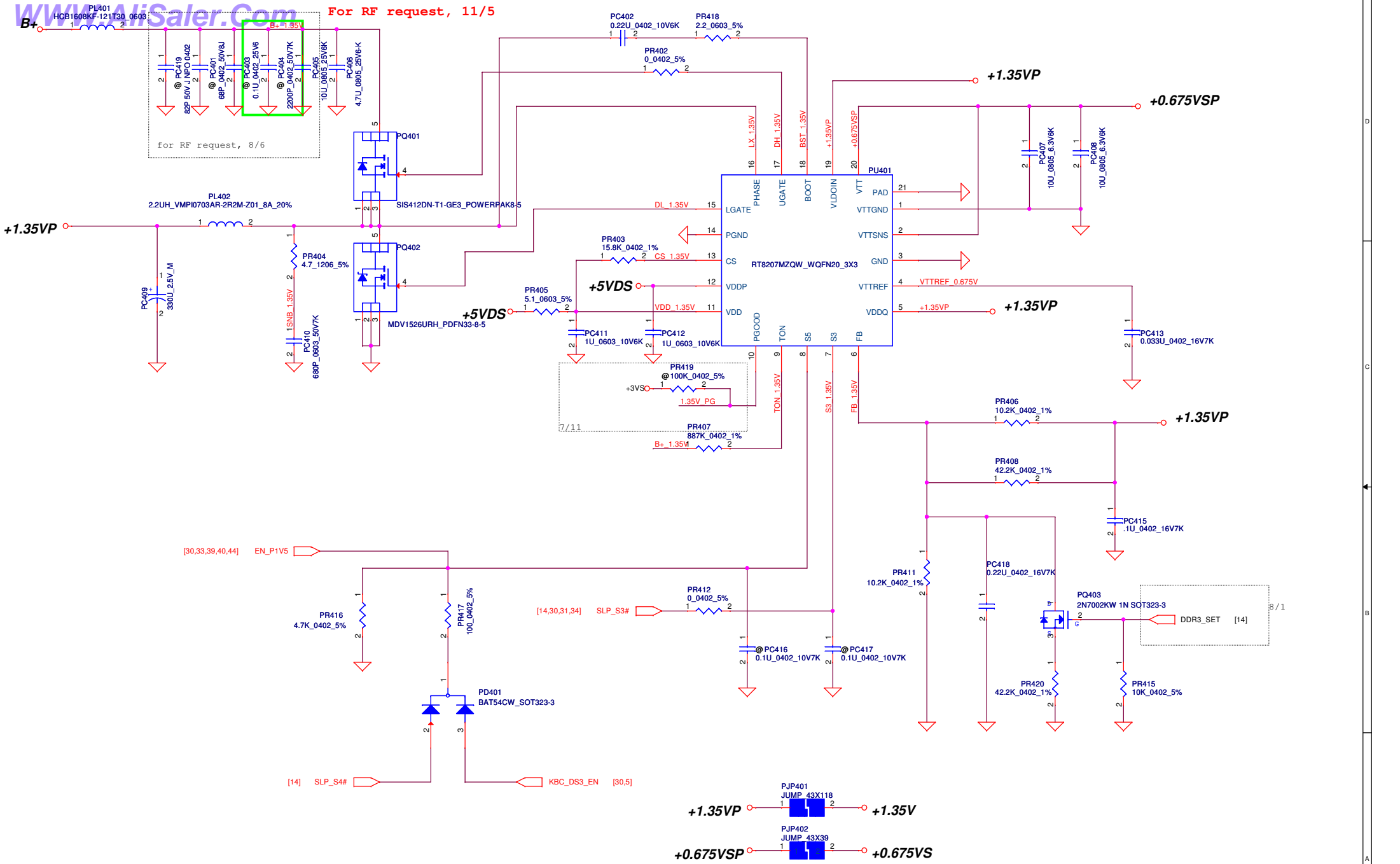




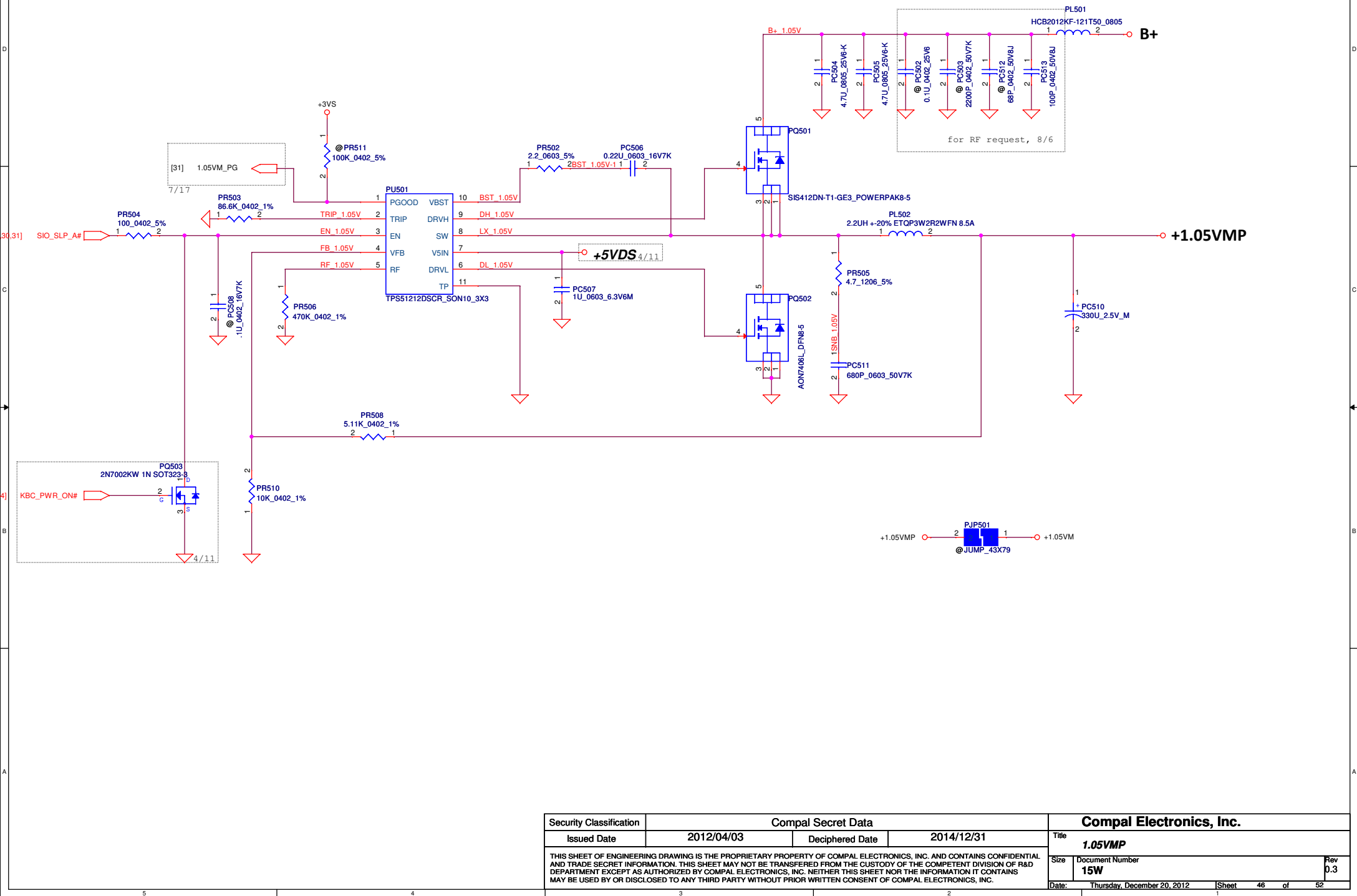
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				Date:	Thursday, December 20, 2012
				Sheet	43 of 52



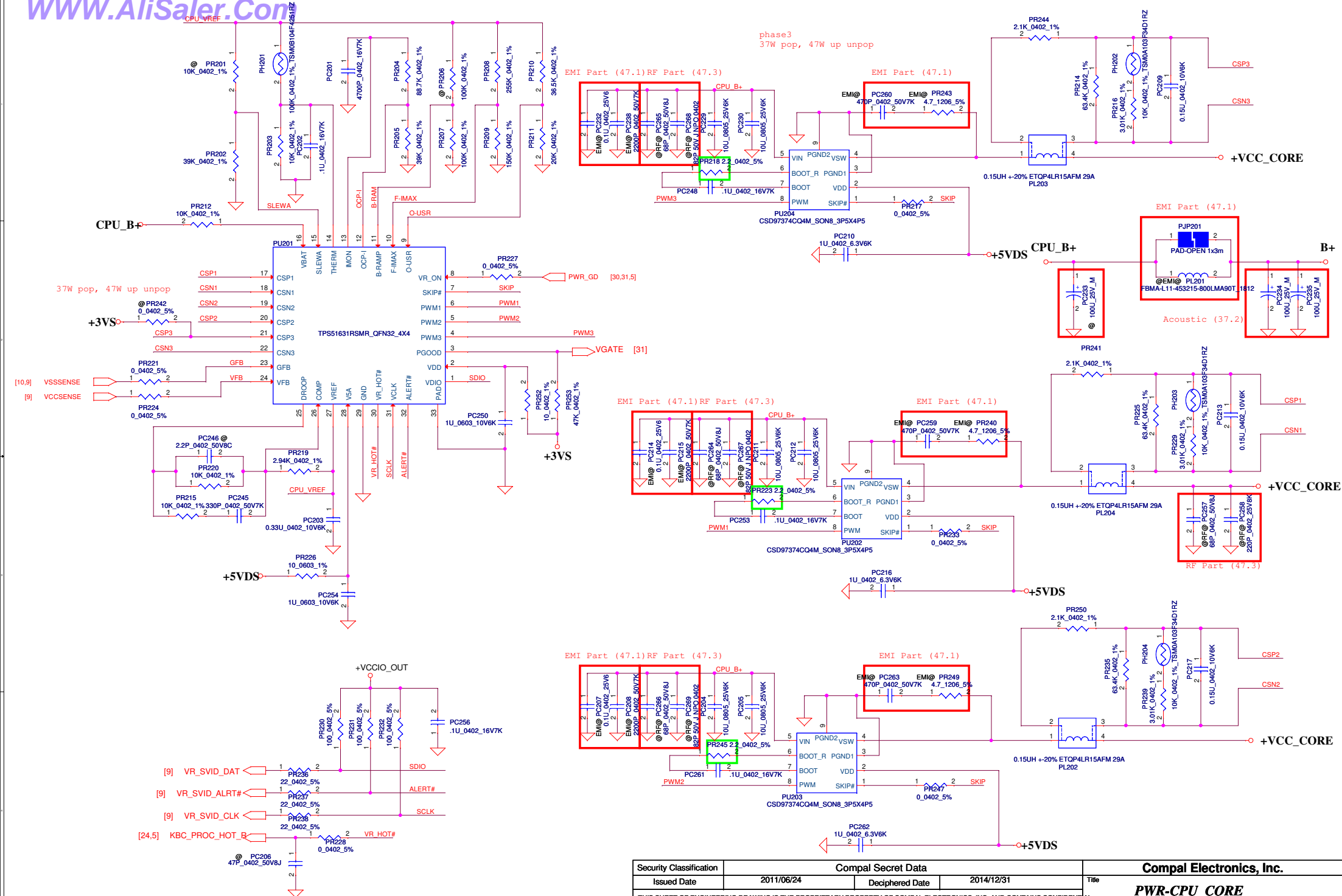
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Issued Date	2012/04/03	Deciphered Date	2014/12/31	Title	DDR Power
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				15W	Rev 0.3
				Date	Thursday, December 20, 2012
				Sheet	45 of 52

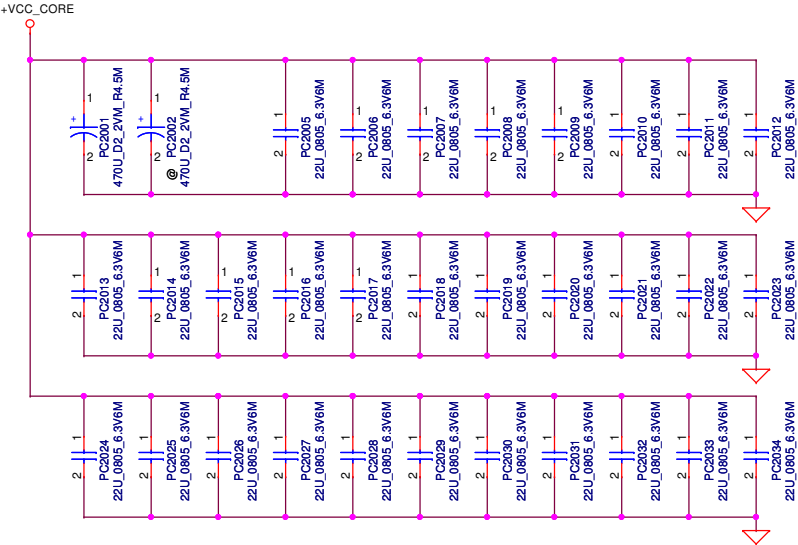


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				Sheet	46 of 52
				Rev	0.3



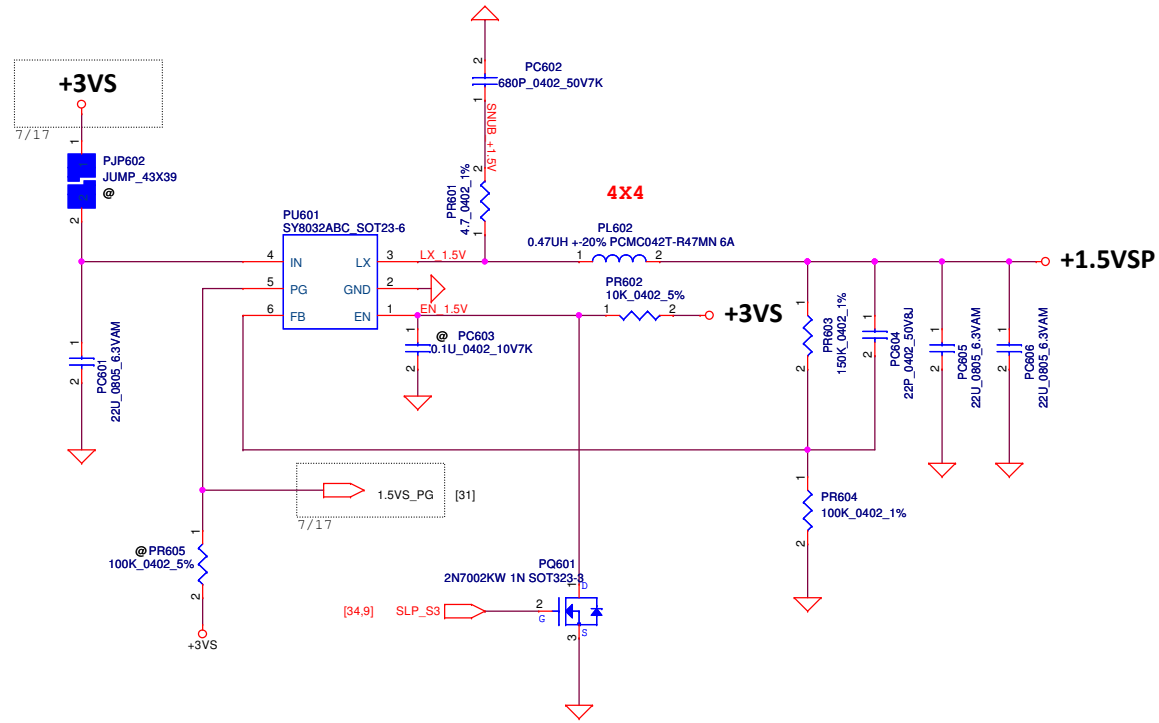
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				Custom		0.
Date:				Sheet	47	of 59

+VCC\_CORE 2 X 470u/4m  
30 X 22u/0805



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					Document Number
					LA-9371P
					Rev
					0.3
					Date: Thursday, December 20, 2012
					Sheet 48 of 52



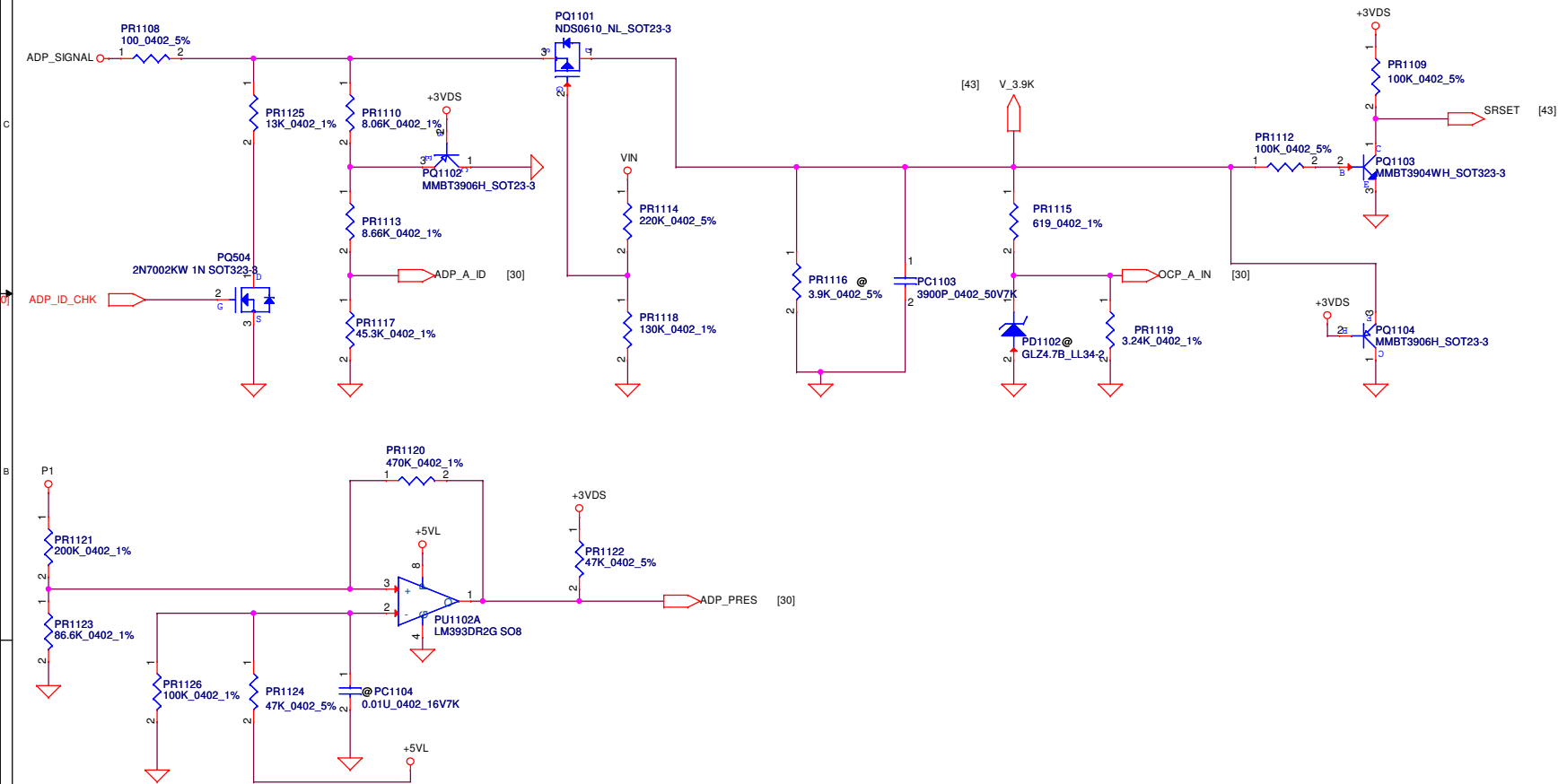


+1.5VSP

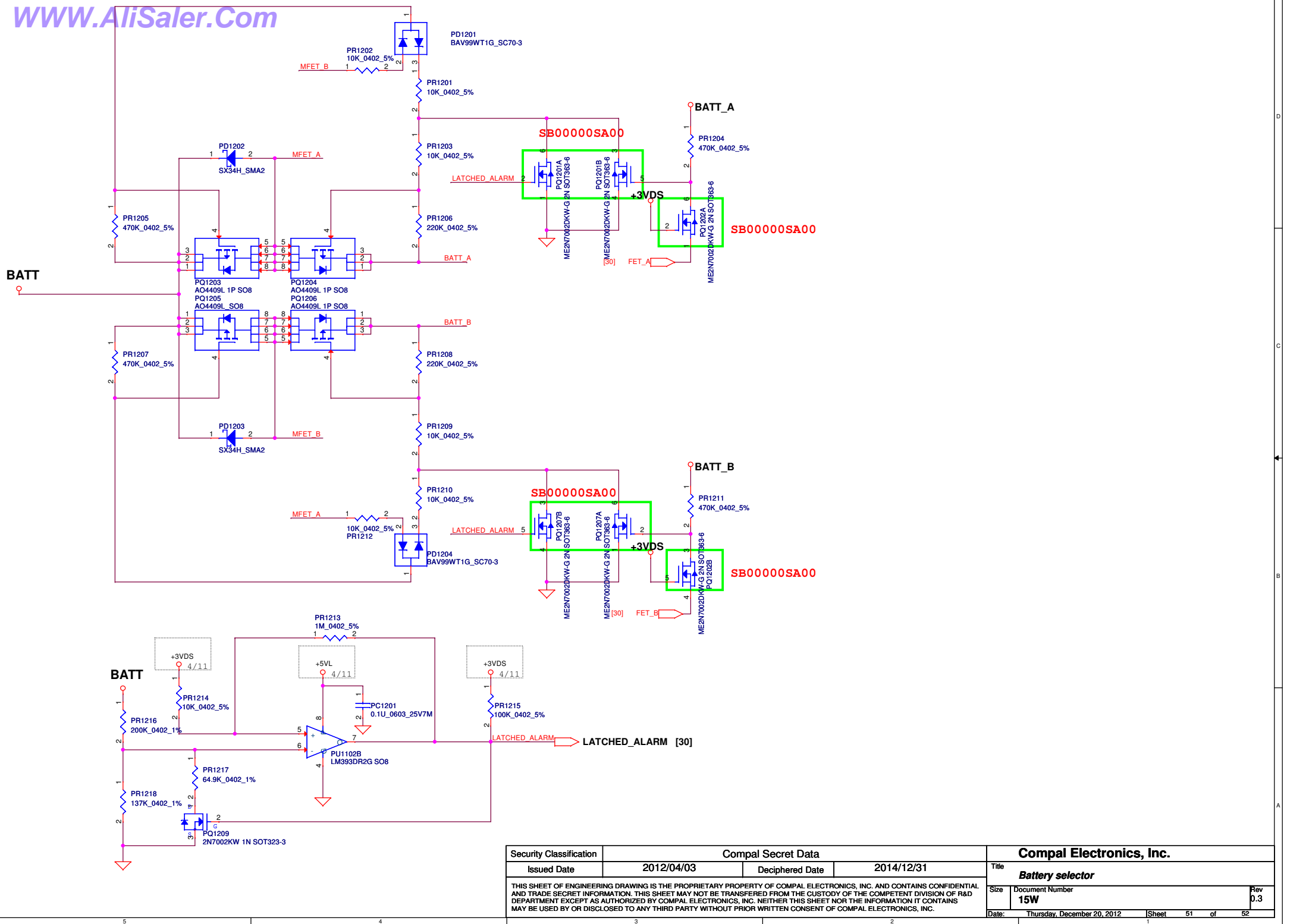
+1.5VS

+1.5V\_PCIEP  
TDC=0.46A  
Peak Current=0.66A

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				Date:	Thursday, December 20, 2012
				Sheet	49 of 52



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				Date:	Thursday, December 20, 2012
				Sheet	50 of 52
				Rev	0.3



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Size	Document Number	Rev		0.3	
Date	Thursday, December 20, 2012	Sheet	51	of	52

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	43	Reserve PC130,129,131,139,133,132,134,140,136,135,137,141,143,142,144,145,146,147,148,149,151,150,152,153,138	2012/08/06		RF solution		
2	44	Reserve PC324,322,323,325326,327,328,329,330,331,302,303	2012/08/06		RF solution		
3	44	Add PC305,304,308,309	2012/08/06		RF solution		
4	45	Reserve PC419,401	2012/08/06		RF solution		
5	45	Add PC403,404,405	2012/08/06		RF solution		
6	46	Reserve PC512,513	2012/08/06		RF solution		
7	46	Add PC502,503	2012/08/06		RF solution		
8	48	Reserve PC264,267,266,269,265,268	2012/08/06		RF solution		
9	48	Add PC214,215,207,203,232,236	2012/08/06		RF solution		
10	48	Change PC233,234 from SF000001280 to SF000004M00	2012/08/09		Change the hieght to 6mm		
11	47	Change PR234 from 19.1K to 62K	2012/08/10		HP suggestion		
12	48	Change PQ203,204,211 from SB00000K300 to SB00000U200	2002/09/11		Design change		
13	48	Change PQ201,205,209 from SB00000SJ00 to SB00000W200	2002/09/13		Design change		
14	44	Change PQ301,302 from SB00000JM00 to SB00000IA00	2012/09/17		Design change		
15	44	Change PQ303 from SB00000CT00 to SB00000H700	2012/09/17		Design change		
16	44	Change PQ304 from SB00000N800 to SB00000TZ00	2012/09/17		Design change		
17	45	Change PQ401 from SB00000H800 to SB00000IA00	2012/09/17		Design change		
18	45	Change PQ402 from SB00000N800 to SB00000TZ00	2012/09/17		Design change		
19	46	Change PQ501 from SB00000H800 to SB00000IA00	2012/09/17		Design change		
20	46	Change PQ502 from SB00000N800 to SB00000H700	2012/09/17		Design change		
21	51	Reserve PR1101,1102,1103,1104,1105,1106,1107,PC1100,1102,PD1101,PD1101	2012/10/2		HP suggestion		
22	45	Change PD401 from SC600000D00 to SCS00006400	2012/10/2		HP suggestion		
23	45	Change PR416 from SD034100380 to SD028470180	2012/10/2		HP suggestion		
24	43	Change PL101 from SH00000MR00 to SH00000NW00	2012/10/2		Design change		
25	23	Change PR240,243,249 from SD001470B80 to SD000010280	2012/10/2		Design change		
26	23	Reserve PL201	2012/10/2		Design change		
27	25	Reserve PL301	2012/10/2		Design change		

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Issued Date	2011/10/03	Deciphered Date	2014/12/31	PWR - PIR		
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Date:				Thursday, December 20, 2012	Sheet	52 of 52

VBL20 from DB0 to DB1 LA-9241P REV:0.1 -> 0.2 Modify <2012.07.04.~2012.08.07. >					
Rev.	Item	Date	Impact	Page	Change Cause
0.2	1	7/6	CKT	13	-Follow HP GPIO table
0.2	2	7/6	CKT	14,37	-Follow HP GPIO table
0.2	3	7/6	CKT	15	-Follow HP GPIO table
0.2	4	7/6	CKT, LAYOUT	16	-For NFC function
0.2	5	7/6	CKT, LAYOUT	18,23	-Follow HP GPIO table
0.2	6	7/6	CKT, LAYOUT	18	-Follow HP GPIO table
0.2	7	7/6	CKT, LAYOUT	19	-Add PU resistor to avoid issue.
0.2	8	7/6	CKT, LAYOUT	22	-eDP MUX
0.2	9	7/6	CKT	23	-Power driving
0.2	10	7/6	CKT, LAYOUT	25	-Change WWAN connector to NFCC
0.2	11	7/6	CKT, LAYOUT	26	-Move Mute circuit to S/B
0.2	12	7/6	CKT, LAYOUT	26	-Audio Combo Jack
0.2	13	7/6	CKT, LAYOUT	27	-Follow reference design
0.2	14	7/6	CKT, LAYOUT	28	-No ACCELEROMETER LED
0.2	15	7/6	CKT, LAYOUT	29	-NIC yellow ban issue
0.2	16	7/6	CKT, LAYOUT	30	-Follow HP KBC pin define.
0.2	17	7/6	CKT, LAYOUT	34	-Avoid leakage issue
0.2	18	7/6	CKT, LAYOUT	35	-MXM no display out issue
0.2	19	7/6	CKT, LAYOUT	36	-Avoid eDP signal quality fail issue
0.2	20	7/6	CKT, LAYOUT	36	-To support DP1.2a
0.2	21	7/6	CKT, LAYOUT	39	-Add NFC function
0.2	22	7/9	CKT, LAYOUT	13	-HP request
0.2	23	7/9	CKT, LAYOUT	13	-HP request
0.2	24	7/9	CKT, LAYOUT	16	-HP request
0.2	25	7/9	CKT, LAYOUT	30	-HP request
0.2	26	7/9	CKT, LAYOUT	30	-HP request
0.2	27	7/9	CKT, LAYOUT	35	-HP request
0.2	28	7/9	CKT, LAYOUT	38	-Follow spec pin define
0.2	29	7/9	CKT, LAYOUT	39	-Follow spec pin define
0.2	30	7/10	CKT, LAYOUT	6,11,12	-Following Intel CRB by HP request
0.2	31	7/10	CKT, LAYOUT	8	-HP request
0.2	32	7/10	CKT, LAYOUT	30	-HP request
0.2	33	7/10	CKT, LAYOUT	34	-HP request
0.2	34	7/11	CKT, LAYOUT	36	-Follow vendor request
0.2	35	7/11	CKT, LAYOUT	29	-HP request
0.2	36	7/12	CKT, LAYOUT	22	-HP request
0.2	37	7/12	CKT, LAYOUT	23	-HP request
0.2	38	7/12	CKT, LAYOUT	24	-HP request
0.2	39	7/12	CKT, LAYOUT	24	-FAN module pin define wrong.
0.2	40	7/12	CKT, LAYOUT	37	-Follow latest Smart card module pin define.
0.2	41	7/12	CKT, LAYOUT	38	-Follow latest KB connector pin 1 location.
0.2	42	7/13	CKT, LAYOUT	27,39	-Reduce layout spacing
0.2	43	7/13	CKT, LAYOUT	30	-Correct KBC circuit
0.2	44	7/13	CKT, LAYOUT	39	-Follow ME connector list
0.2	45	7/13	CKT, LAYOUT	39	-Follow ME connector list
0.2	46	7/16	CKT, LAYOUT	14	-ESD request
0.2	47	7/16	CKT, LAYOUT	25	-ESD request
0.2	48	7/16	CKT, LAYOUT	27	-ESD request
0.2	49	7/16	CKT, LAYOUT	27	-ESD request
0.2	50	7/16	CKT, LAYOUT	28	-ESD request
0.2	51	7/16	CKT, LAYOUT	29	-ESD request
0.2	52	7/16	CKT, LAYOUT	33	-ESD request
0.2	53	7/16	CKT, LAYOUT	37	-Follow HP latest generation smart card connector pin define.
0.2	54	7/16	CKT, LAYOUT	38	-ESD request
0.2	55	7/17	CKT	11	-Correct connector name
0.2	56	7/17	CKT, LAYOUT	36	-Change DP and eDP MUX to passive solution
0.2	57	7/17	CKT, LAYOUT	17,39	-Follow HP request
0.2	58	7/18	CKT, LAYOUT	14	-Follow HP request
0.2	59	7/18	CKT, LAYOUT	17	-Follow HP request
0.2	60	7/18	CKT, LAYOUT	30,32	-Follow HP request
					Modify Description
					-Change UH1.B17 to HDD_HALTLED
					-Change UH1.G17 and U30.26 to PWRSV_SEL#.
					-Change UH1.U4 to WLAN_TRAMSIT_OFF#
					-Change UH1.H6 to NFC_RST#, and add QH10, RH238, RH239 for NFC SMBUS level shift
					-Change UH1.C16 to ODD_EN. Change Q25.1 netname to ODD_EN and Q25.2 netname to ODD_EN#
					-Change UH1.U12 and RH185.1 to NFC_INT
					-Add RH240 and RH241PU resistor of THERM_SCI# and WWAN_TRANSMIT_OFF#
					-Modify eDP connector signal source from eDP MUX.
					-Change R1316 from 100K to 10K ohms
					-Modify JMINI3 connector type and pin define
					-Move QA2 and R95 to S/B
					-Delete MIC_SENSE# circuit.
					-Change C91 and C94 to 2.2uF as spec
					-Delete LED1
					-Add C350 and C373 to +1.05VM_LAN
					-Modify U17 pin define.
					-Swap Q40 drain and source
					-Swap JMXM1 PEG TX and RX bus
					-Change U42 to PS8321 which had include repeater function
					-Change U26 to PS8338 to support DP1.2a spec.
					-Add JNFC1 circuit.
					-Delete PCH_XDP circuit
					-Add QH11
					-Delete U39, U40, RH232
					-Delete 16pin SPI ROM socket
					-Add R537,Q73
					-Swap MXM port A and port C for layout smoothly
					-Modify JTP1 and JTP2 pin define
					-Modify JNFC1 pin define
					-Modify JCPU1 pin AM3,F16,F13 netname. Delete RC73,RC76,C13,C75. Add QD3,RD27,RD28
					-Delete RC106, RC107
					-Modify R537 to 10K ohms
					-Modify R363 to 4.7K ohms
					-Add CC75,CC76,CC77,CC78,CC79,CC80,CC81,CC82. Modify U26 circuit
					-Delete R135, R139, R151, R152, R140, R142 for layout.
					-Delete C6
					-Delete C54. Add R539.
					-Change U3 to TC7SET00
					-Modify JFAN1 pin define by follow latest spec.
					-Modify J3 pin define.
					-Modify JKB1 pin define.
					-Move R494,R495,LA5,LA9,CA37,CA38,DA4 to sub board
					-Change U17.68, C179.1, C188.1 to +RTCVCC.
					-Delete R224, R460, R220, R223, R496, R497, R498, R499, R244, R269, R236, RH220.
					-Change RH222.1, RH223.1, RH224.1, CH97.1, CH98.1, UH5.8 to +3VDS
					-Reserve R541, R542 for NFC TX/RX
					-Modify JVGAI footprint and pin define.
					-Modify JTB1 pin define, add WL/BT_LED# signal.
					-Reserve CH107
					-Reserve C375
					-Change DA2 and DA3 P/N.
					-Delete DA1
					-Change D11 P/N
					-Change D12 and D13 P/N
					-Add D42
					-Modify J3 pin define.
					-Change D32 P/N.
					-Change JP3 to JDIMM1
					-Modify U26 and U42 to P13VDP12412ZHEX and releate circuit.
					-Modify JTB1 pin define. Add CH108, CH109, CH110, CH111. Connect PCIE port 1 and port 2 to JTB1.
					-Delete RH186, and add QH12 to inversion PCH_GPIO56 signal for CR_SX_WARN#
					-Change RH165.2 net name to TB_HOT_PLUG# for TBT function.
					-Change JP6.13 connection to 8051TX_STBYLED# (instead of 8051TX_STBLED#)
					-Change Q35.2 connection to 8051TX_STBYLED# (instead of 8051TX_STBLED#)
					-Add a 100K pullup resistor between signal PVT_CS# and +3VDS power rail.
					-Make these resistors as non-install (from Install): R219,R266,R258,R253,R216,R264
					-Make R215 install
					-Change R436 to 1K (from 10 ohm)
					-Make these resistors as install (from un-install): R242,R254,R500,R277,R269,R262,R218
					-Make U18 as install.

VBL20 from DB0 to DB1 LA-9241P REV:0.1 -> 0.2 Modify <2012.07.04.~2012.08.07. >									
Rev.	Item	Date	Impact	Page	Change Cause	Modify Description			
0.2	61	7/18	CKT, LAYOUT	31	-Follow HP request	-Modify PM_APWROK circuit			
0.2	62	7/18	CKT, LAYOUT	39	-Follow HP request	-Modify JTB1 connector pin define. Add HDD_HALTLED and PWR_GD			
0.2	63	7/19	CKT, LAYOUT	16,30	-Follow HP request	-Reserve RH242 and RH243. Add off page symbol of PCH_SPI_WP# and PCH_SPI_HOLD#			
0.2	64	7/19	CKT	20	-Follow Intel reference schematic V1.2	-Non-install CH101			
0.2	65	7/19	CKT,LAYOUT	25	-Follow HP request	-Delete C79 and C85. Change R457.1 power rail to +3VDS			
0.2	66	7/19	CKT,LAYOUT	30	-Follow HP request	-Delete R254			
0.2	67	7/19	CKT,LAYOUT	32	-Follow HP request	-Change R483.1 and R482.1 connection to +3VS. Change R330.1, R329.1, and R328.1 connection to GND			
0.2	68	7/19	CKT,LAYOUT	36	-Follow HP request	-Delete CC70, CC71, CC75, CC76, CC77, CC78, CC79, CC80, CC81, CC82			
0.2	69	7/19	CKT,LAYOUT	39	-Follow HP request	-Modify pin define JVGAI and JCR1 pin define for better return path			
0.2	70	7/19	CKT,LAYOUT	40	-Follow HP request	- Connect signal ADP_ID_CHK to pin 78 of KBC via a 0 ohm resistor (install this resistor). - Connect NFC_RX to pin 86 of KBC directly, and then move R541 (install) between ADP_ID_CHK and pin 86 of KBC. - Connect NFC_TX to pin 87 of KBC directly, and then move R542 (install) between pin 87 of KBC and signal PLT_SEL.			
0.2	71	7/20	CKT,LAYOUT	14	-Follow HP request	-Add ME debug connector JME1			
0.2	72	7/20	CKT,LAYOUT	16	-Follow latest ME drawing.	-Correct screw hole size.			
0.2	73	7/20	CKT,LAYOUT	19,20	-Follow HP request.	-Delete CH60, CH62, CH63, CH102			
0.2	74	7/20	CKT,LAYOUT	19,21,38	-Follow HP request.	-Add RA28 and Q75 for REC_MUTE_CTRL_KB signal. Modify JKB1 pin define.			
0.2	75	7/20	CKT	27,38	-Follow ESD request.	-Change DA2, DA3, D32 P/N			
0.2	76	7/20	CKT,LAYOUT	29,34	-Follow HP request.	-Change C110 to 22uF, Delete C231. Change Q170A lation to Q7A			
0.2	77	7/20	CKT,LAYOUT	30	-Layout smooth	-Modify RP1 pin define.			
0.2	78	7/20	CKT,LAYOUT	30	-Follow HP request.	-Add D44 and D45			
0.2	79	7/20	CKT,LAYOUT	31	-Follow HP request.	-Modify PWR_GD circuit.			
0.2	80	7/20	CKT	37	-Vendor's suggestion	-Change C258 and C255 to 1uF. Non install RH225.			
0.2	81	7/20	CKT	38	-Modify for 2 DIMM and 4 DIMM SKU.	-Reserve SIO_GPIO44 PD R554, and modify R328, R329, R330 value to 4.7K. Modify R482, R483 value to 10K			
0.2	82	7/23	CKT,LAYOUT	14	-Schematic wrong.	-Connection RH55.2 to power rail +RTCVCC			
0.2	83	7/23	CKT,LAYOUT	14	-Follow HP request.	-Move QH12 to sub board. Add CR_SX_WARN# PU 10K ohms RH244			
0.2	84	7/23	CKT,LAYOUT	15,17,18	-No connection to other page.	-Delete FN14, FN15, USB_OC0#_R, USB_OC1#_R, USB_OC2#, USB_OC3#, USB_OC4#_R, PCH_GPIO24, FN_CLK2, PCH_GPIO37 off page symbol.			
0.2	85	7/23	CKT,LAYOUT	16	-Follow latest ME drawing.	-Modify screw hole size.			
0.2	86	7/23	CKT,LAYOUT	17	-Correct net name	-Change RH171.1 connection to ODD_EN			
0.2	87	7/23	CKT,LAYOUT	18,29,30,34	-Follow VBK10	-Non install RH184 and RH185. Add C389, C390, C391, C392. Change C121 to 1000pF. Change C322 to 100pF. Delete Q37, R366, R361.			
0.2	88	7/23	CKT,LAYOUT	22,30	-Follow RF request.	-Reserve C393, C394, CH112			
0.2	89	7/23	CKT,LAYOUT	26	-MIC_SENSE circuit had been removed.	-Delete RA7.			
0.2	90	7/23	CKT,LAYOUT	27	-Reduce layout spacing	-Combine QA2B with QA1A.			
0.2	91	7/23	CKT,LAYOUT	31	-Follow HP request.	-Change R286 to 10K			
0.2	92	7/23	CKT,LAYOUT	36	-Follow HP request.	-Combine Q63 and Q72 to Dual channel Q76. Delete R516, R545, CC84, C371.			
0.2	93	7/23	CKT,LAYOUT	36	-Modify netname to more clear.	-Change SEL to SEL_eDP_MUX. Change SEL_DP to SEL_DP_MUX			
0.2	94	7/23	CKT,LAYOUT	17	-Layout smooth	-Modify RPH1 and RPH2 pin define			
0.2	95	7/24	CKT,LAYOUT	25	-Follow latest NGFF pin define.	-Modify JMINI3 pin define.			
0.2	96	7/24	CKT,LAYOUT	28	-Follow latest FP spec.	-Modify JFP1 pin define.			
0.2	97	7/24	CKT,LAYOUT	30,38	-Follow EMI request	-Add C420, C421, C422, C422, C423, C424, C425, C426, C427, C428, C429, C430, C431, C432, C433, C434, C435, C436, C437, C438, C439, C440, C441, C442, C443, C444, C445, C446, C447, C448, R555 and C419. Change R437.2 netname to PCH_SPI_CLK_EC.			
0.2	98	7/24	CKT,LAYOUT	39	-Follow HP request	-Modify JUB1 pin define.			
0.2	99	7/25	CKT,LAYOUT	5,9,20	-Follow HP request	-Delete RC24, RC96. Change UH1 pin AJ12 and AJ14 connection to +1.05VS			
0.2	100	7/25	CKT,LAYOUT	30	-Follow HP request	-Change U18 to socket and add &UH2 for KBC ROM			
0.2	101	7/25	CKT,LAYOUT	30	-Follow HP request	-Connect JP6.13, U17.115, and R255.1 to TX_STBY_LED. Add R559, R560, and Q77			
0.2	102	7/25	CKT,LAYOUT	36	-Reduce layout spacing	-Combine Q56 and Q57 to dual channel Q79			
0.2	103	7/25	CKT,LAYOUT	25	-Follow latest NGFF spec	-Modify JMINI3 and JSIM1 pin define.			
0.2	104	7/26	CKT,LAYOUT	16,30	-Follow HP request	-Install RH242, RH244. Add R561, R562. Noninstall R541, R542			
0.2	105	7/26	CKT,LAYOUT	28	-Follow RFQ spec	-Change U11 to SLB9656			
0.2	106	7/27	CKT,LAYOUT	36	-Follow HP request	-Add R563, R564			
0.2	107	7/30	CKT,LAYOUT	5	-Follow Intel reference schematic	-Non install QC1			
0.2	108	7/30	CKT,LAYOUT	16	-Follow RF request	-PCH_SPI_CLK reserve CH113 to GND			
0.2	109	7/30	CKT,LAYOUT	22,39	-Follow HP request	-Change R10.1 to +5VDS and Q20.3 to +3VDS for layout easy. Modify JVGAI and JCR1 pin define.			
0.2	110	7/30	CKT,LAYOUT	23	-Follow latest connector list	-Modify JHDD1, JODD1 and JCR1 footprint.			
0.2	111	7/30	CKT,LAYOUT	39	-Correct JNFC1 pin define	-Modify JNFC1 pin define.			
0.2	112	7/31	CKT,LAYOUT	25,39	-Follow HP request	-Modify Q4A circuit. Change JTB1.95 connection to +3VDS.			
0.2	113	7/31	CKT	25	-Wireless LED fail issue.	-Install Q29 and Q31			
0.2	114	7/31	CKT,LAYOUT	26	-No LOGO KBL function	-Delete Q21,Q22,R454,R14. Delete JEDP1.35 signal			
0.2	115	7/31	CKT,LAYOUT	14	-Correct netname	-Change RH62.2 netname to PWRSV_SEL#			
0.2	116	8/01	CKT,LAYOUT	23,33,39	-HP request	-Swap SATA bus port 2 and port 5. JCR1.35 connection to PCH_PCIE_WAKE#			
0.2	117	8/01	CKT,LAYOUT	18,23,25	-HP request	-Uninstall Q68, R459. Change PCH.AT3 and RH198.2 netname to Sec_HDD_DET. Change PCH.AP1 and RH180.2 to mSATA_DET#. Delete Q48. Add R565.			
0.2	118	8/01	CKT,LAYOUT	24	-PWR request	-Change R492.2 connection to KBC_PWR_ON			
0.2	119	8/01	CKT	30	-Follow RFQ spec	-Change KBC symbol to SMC1322			
0.2	120	8/03	CKT,LAYOUT	6,11,13,18	-HP request	-Add CC84, CC85, CC86. Change RD6 to 33ohms. RH33.1 connection to GND. Delete RH201, RH202. Q4.2 connection to BT_ON			
0.2	121	8/03	CKT,LAYOUT	22	-Layout smooth	-Swap L3 pin define for layout smooth			
0.2	122	8/03	LAYOUT	23	-Follow ME connector list	-Modify JODD1, JMINI3 footprint			
0.2	123	8/03	CKT,LAYOUT	25,30,39	-HP request	-Q4.2 connection to BT_ON. Change R437 to 33 ohms. Change R540 to 4.7K. Change JVGAI pin 39 and 40 connection to +3VDS			
0.2	124	8/03	CKT,LAYOUT	30	-RF request	-Add CH114			
0.2	125	8/06	CKT,LAYOUT	9,15	-HP request	-Reserve CC87. Change JCPU1 pin AM43 and pin AL44 ball name			

VBL20 from DB0 to DB1 LA-9241P REV:0.1 -> 0.2 Modify <2012.07.04.~2012.08.14. >					
Rev.	Item	Date	Impact	Page	Change Cause
0.2	126	8/07	CKT, LAYOUT	7,16,25,29	-Follow HP request
0.2	127	8/07	CKT, LAYOUT	30	-Correct netname
0.2	128	8/07	CKT, LAYOUT	11,12,13,30,38,39	-Follow latest ME connector list
0.2	129	8/08	CKT, LAYOUT	22,35	-RF request
0.2	130	8/08	CKT, LAYOUT	39	-Follow latest ME connector list
0.2	131	8/09	CKT	39	-Follow latest ME connector list
0.2	132	8/10	CKT, LAYOUT	5,14,30	-Follow HP request
0.2	133	8/10	CKT	39	-Add +3VDS power rail for USB repeater
0.2	134	8/10	CKT	38	-Follow TP module pin define
0.2	135	8/10	CKT, LAYOUT	34	-RF request
0.2	136	8/14	CKT		-Material EOL
0.2	137	8/14	CKT	24,25,30,32	-Material EOL
VBL20 from DB1 to DB2 LA-9241P REV:0.2 -> 0.3 Modify <2012.09.03.~ 2012.09.28 >					
Rev.	Item	Date	Impact	Page	Change Cause
0.3	1	9/03	CKT	26	-Chang UA1 to HP P/N
0.3	2	9/03	CKT	30,31	-Follow HP request
0.3	3	9/07	CKT	30,36	-No used
0.3	4	9/07	CKT, LAYOUT	36,39,40	-Follow latest ME drawing
0.3	5	9/10	CKT, LAYOUT	25	-Follow HP request
0.3	6	9/10	CKT, LAYOUT	30	-Follow HP request
0.3	7	9/11	CKT, LAYOUT	5,9,10,14,15,17,20,31,32, 33	-Follow HP request
0.3	8	9/12	CKT, LAYOUT	30	-Follow HP request
0.3	9	9/12	CKT, LAYOUT	38,	-ME move LID SW from Power board to Function board.
0.3	10	9/12	CKT, LAYOUT	37	-ME rotate Smart connector 90 degree.
0.3	11	9/13	CKT, LAYOUT	16	-Follow latest ME drawing
0.3	12	9/14	CKT, LAYOUT	14,31	-Follow HP request
0.3	13	9/14	CKT, LAYOUT	22,30,38,39,40	-Follow ME and DFX request
0.3	14	9/17	CKT, LAYOUT	40	-Layout request
0.3	15	9/17	CKT, LAYOUT	38	-Follow ME connector list
0.3	16	9/17	CKT, LAYOUT	38	-Follow Keyboard spec
0.3	17	9/18	CKT, LAYOUT	28	-Follow ME drawing
0.3	18	9/19	CKT, LAYOUT	13,39	-Follow HP request
0.3	19	9/19	CKT, LAYOUT	34	-Layout smooth
0.3	20	9/20	CKT, LAYOUT	14,26,30,37	-Follow HP request
0.3	21	9/20	CKT, LAYOUT	22	-Correct circuit short issue
0.3	22	9/20	CKT, LAYOUT	22,26	-Change to common part.
0.3	23	9/21	CKT, LAYOUT	8,13,30,39	-Follow HP request
0.3	24	9/21	CKT, LAYOUT	36	-Netname issue.
0.3	25	9/23	CKT, LAYOUT	5,30,31,47	-Follow HP request
0.3	26	9/24	CKT, LAYOUT	20,30	-Follow HP request
0.3	27	9/24	CKT, LAYOUT	40	-No need another DC/DC circuit to provide +3VDS_P to U44.
0.3	28	9/25	CKT, LAYOUT	22	-Change +3VS, +5VS and +LCDVDD power rail soultion
0.3	29	9/25	CKT, LAYOUT	30	-Follow HP request
0.3	30	9/25	CKT, LAYOUT	31	-Reserve for EC CLK issue
0.3	31	9/26	CKT, LAYOUT	5,22,34,40	-Follow HP request
0.3	32	9/26	CKT, LAYOUT	34	-Correct Netname
0.3	33	9/26	CKT, LAYOUT	38,39	-Follow ME request
0.3	34	9/26	CKT, LAYOUT	34	-Follow HP request.
0.3	35	9/27	CKT, LAYOUT	33,35,38	-Follow HP request.
0.3	36	9/27	CKT, LAYOUT	29	-Material shortage issue
0.3	37	9/28	CKT, LAYOUT	34	-Follow HP request.
0.3	38	10/09	ckT	16	-Follow HP request.
Modify Description					
-Change RC78 to 10Kohms. Install RH148 and change to 2.2Kohms. Add R567, R568 and R569.					
-Change TX_STBY_LED net name to TX_STBY_LED#					
-Modify JDIMM1, JDIMM2, JBATT1, JKB1, JCR1, JNFC1, JP6 connector footprint					
-Reserve C449, C450, C451					
-Modify JCR1 and JNFC1 pin define.					
-Modify JMXM1 footprint					
-Add RC106 and change UC1.1 connection to VR_ON. Change UH7.5 and UH3.5 connection to +3V_PCH power rail. Change RH235 to 0ohms. Add RH245 and connection to VCC1_PWRGD. Change R277.1 and R253.2 connection to VR_ON					
-Change JCR1.21 connection to +3VDS					
-Modify JTP1 pin define.					
-Reserve C452, C453, C454, C455, C456, C457, C458					
-Change Q59, Q70, Q55, Q58, Q68, Q75, Q39, Q61, Q51, Q52, Q53 to SB0000009Q80 (S TH 2N7002KW 1N SOT323-3 )					
-Change D4, D8, D10, D21, D27 to SCS00000Z00 (S SCH DIO RB751V-40 SOD-323)					

Rev.	Item	Date	Impact	Page	Change Cause
0.3	1	9/03	CKT	26	-Chang UA1 to HP P/N
0.3	2	9/03	CKT	30,31	-Follow HP request
0.3	3	9/07	CKT	30,36	-No used
0.3	4	9/07	CKT, LAYOUT	36,39,40	-Follow latest ME drawing
0.3	5	9/10	CKT, LAYOUT	25	-Follow HP request
0.3	6	9/10	CKT, LAYOUT	30	-Follow HP request
0.3	7	9/11	CKT, LAYOUT	5,9,10,14,15,17,20,31,32, 33	-Follow HP request
0.3	8	9/12	CKT, LAYOUT	30	-Follow HP request
0.3	9	9/12	CKT, LAYOUT	38,	-ME move LID SW from Power board to Function board.
0.3	10	9/12	CKT, LAYOUT	37	-ME rotate Smart connector 90 degree.
0.3	11	9/13	CKT, LAYOUT	16	-Follow latest ME drawing
0.3	12	9/14	CKT, LAYOUT	14,31	-Follow HP request
0.3	13	9/14	CKT, LAYOUT	22,30,38,39,40	-Follow ME and DFX request
0.3	14	9/17	CKT, LAYOUT	40	-Layout request
0.3	15	9/17	CKT, LAYOUT	38	-Follow ME connector list
0.3	16	9/17	CKT, LAYOUT	38	-Follow Keyboard spec
0.3	17	9/18	CKT, LAYOUT	28	-Follow ME drawing
0.3	18	9/19	CKT, LAYOUT	13,39	-Follow HP request
0.3	19	9/19	CKT, LAYOUT	34	-Layout smooth
0.3	20	9/20	CKT, LAYOUT	14,26,30,37	-Follow HP request
0.3	21	9/20	CKT, LAYOUT	22	-Correct circuit short issue
0.3	22	9/20	CKT, LAYOUT	22,26	-Change to common part.
0.3	23	9/21	CKT, LAYOUT	8,13,30,39	-Follow HP request
0.3	24	9/21	CKT, LAYOUT	36	-Netname issue.
0.3	25	9/23	CKT, LAYOUT	5,30,31,47	-Follow HP request
0.3	26	9/24	CKT, LAYOUT	20,30	-Follow HP request
0.3	27	9/24	CKT, LAYOUT	40	-No need another DC/DC circuit to provide +3VDS_P to U44.
0.3	28	9/25	CKT, LAYOUT	22	-Change +3VS, +5VS and +LCDVDD power rail soultion
0.3	29	9/25	CKT, LAYOUT	30	-Follow HP request
0.3	30	9/25	CKT, LAYOUT	31	-Reserve for EC CLK issue
0.3	31	9/26	CKT, LAYOUT	5,22,34,40	-Follow HP request
0.3	32	9/26	CKT, LAYOUT	34	-Correct Netname
0.3	33	9/26	CKT, LAYOUT	38,39	-Follow ME request
0.3	34	9/26	CKT, LAYOUT	34	-Follow HP request.
0.3	35	9/27	CKT, LAYOUT	33,35,38	-Follow HP request.
0.3	36	9/27	CKT, LAYOUT	29	-Material shortage issue
0.3	37	9/28	CKT, LAYOUT	34	-Follow HP request.
0.3	38	10/09	ckT	16	-Follow HP request.
Modify Description					
-Change UA1 P/N to 92HD91B2X5NLGXWCX8					
-Install R451, R452. Noninstall R561, R562, R284. Change R282 to 10K ohms. Change R289 to 11.5k ohms					
-Delete TX_STBY_LED#, VGA_RED, VGA_GRN, VGA_BLU, VGA_DDCCLK, VGA_DDCDATA, CRT_HSYNC, and CRT_VSYNC off page symbol					
-Add VGA circuit and connector. Remove JVGA1 BTB connector. Add JFUN1 connector. Add USB3.0 repeater and connector					
-Delete WWAN_FULL_PWR and WWAN_RSVD2 PU R599 and R600 to +3V_WWAN. Delete T126 and T128					
-Delete R219, R258, R500, R262, R264, R266, R216, R241, R242, R253, R549, R271. Change U17 pin69 to KBC_XTA2, pin 71 to KBC_XTAL1. Add C487, C488, Y4 Connect EC_MUTE# to KBC.91. MAIN_BAT_DET# to KBC.92. pin 70 of KBC to GND. ADP_ID_CHK signal to KBC.78. AIDP_EN signal to KBC.63					
-Delete RC102 and RC103. Connect CPU.AL35 pin to VCCSENSE. Connect CPU.AK35 pin to VSSSENSE. Delete RH165 and connect PCH.M1 to TB_HOT_PLUG# directly. Connect RPH1.3 to TB_HOT_PLUG# directly. Delete RH226 and connect pin AD12 of PCH to +3V_PCH power rail. Delete RC106 and connect UC1.1 to VR_ON. Noninstall RC36,RC38,RC40,RC43,RC45,RC47. Delete RC66. Connect CPU.AT26 pin to CPU_PLTRST#. Delete RC30. Connect CPU.AL34 pin to H_CPUUPWRGD. Change RC55.1 connection to H_CPUUPWRGD. Delete RC27. Connect CPU.AM35 pin to PCH_THERMTRIP#. R. Delete RC93 and connect SLP_S3# to QC5.5. Delete R351. Connect EN_P1V5 to JDOCK1.140. Change C299 to 0.01uF. Delete R336 and connect C299.1 to ON/OFFBTN_KBC#. Connect ON/OFFBTN_KBC# to JDOCK1.49. Delete R287. Connect joint point of R286.1 and U18.1 to VR_ON. Add R601 4.7K PU to +3VS on signal SIO_GPIO42. Noninstall R601. Delete RH92, RH93, RH221, RH94, RH95, RH107, RH103, RH203, RH114, RH116, RH205, RH122, RH124, RH126, RH127, RH128, RH130					
-Delete R543, R561, R562. Delete signal ADP_ID_CHK connection to KBC.86 pin. Delete R249 and connect signal OCP_PWM_OUT to KBC.59 pin. Delete R251 and connect signal PM_PWROK to KBC.60 pin. Delete R256 and connect signal EN_P1V5 to KBC.38 pin. Delete R277 and connect signal VR_ON to KBC.72. Change RP1 and RP2 to 100K.					
-Modify JPWR1 and JFUNC1 connector pin defin.					
-Modify J3 pin define.					
-Delete H4, H32, H34, H41, JP2. Add H42, H43, H44, H45, H46. Modify JEDP1, JSIM1, JFP1, JVGA2, J3, JKB1, JTP1. JFUN1 pin define and footprint.					
-Delete UH7, RH235. Move RH236, CH106 to page 31. Modify POWER OK circuit					
-Modify JEDP1, UH5, JTB1, JUSB1 and JKB1 pin define and footprint.					
-Swap L35, L36, L37 for layout smoothly.					
-Change JPWR1 footprint and pin define.					
-Modify JKB1 pin define.					
-Modify JFP1 pin define.					
-Add a 0ohm resistor between JCR1.5 and signal PCH_PCIE_WAKE#. Then make this resistor open. Change QH11 to P MOS. Change RH30 to 2.2K ohms					
-Delete J2					
-Change RH74 to 100K. Change RH147.1 power rail to +3VS. Delete RA13, CA20. Change R227 to 3K. Delete R393, CC67, and connector U30.23 to PLT_RST#.					
-Modify JEDP1 connector circuit. Add one more +3VS power pin for power consumption					
-Change D3 and DH1 to RB751V-40_SOD323-2					
-Reserve CFG9 PD resistance RC106. Non-install RH39, RH40, RH41, RH44, RH48, RH47, RH46. Change R436 to 100K and connection R436.2 to GND. Delete R557, Non-install R358, C374					
-Change L29.2 netname to DAC_RED. L30.2 netname to DAC_GRN. L31.2 netname to DAC_BLU					
-Change netname VR_ON to PWR_GD, change netname PWR_GOOD_3 to VGATE					
-Non install D21. Delete RH213, RH216, and change netname					
-Delete Q79, Q80, C475, C477, C478, R588, R587. Change +3VDS_P power rail to +3VS.					
-Delete R9, R10, R11, Q12, Q20, C1, C7, C8, U24, C226, C221, C222, U25, C218, C223, C219, C227, R354, R356, R357, Q9. Add U47, C497, C498, C499, U45, R603, C489, C490, C491, C492, U46, R604, C493, C494, C495, C496. Uninstall R370, R373, Q43, Q44, R490					
-Install R237, R235, R234, R233, R231					
-Reserve R605 and connect R605.1 to SUSCLK_KBC					
-Change JXDP1.47 connection to PM_PWROK via a 0ohm resistor. Add a C502 (10uF cap) for +3VS decoupling. Change C489 and C492 value to 10uF or 4.7uF. Change C494 and C496 to 10uF or 4.7uF. Change C499 value to 4.7uF and make R480 as install. Change C493 and C490 to 0.01uF.					
-Change R375.1 connection netname to SLP_S3#					
-Modify JP9 and JFUN1 pin define.					
-Modify +1.05VS power circuit.					
-Delete R339, R340, R341, R342. Add R606, R607, R608 PU to +3VS. Change R408 to 200K ohms. Uninstall C295.					
-Change Y2 to smaller (32x25 mm) package.					
-Add C503					
-Change RH152, RH153 to 499ohms.					



VBL20 from DB1R to SI1 LA-9241P REV:0.3 -> 0.4 Modify <2012.10.11.~ 2012.11.09>						Modify Description
Rev.	Item	Date	Impact	Page	Change Cause	
0.4	1	10/11	CKT, LAYOUT	26,27	-Follow IDT request	-Change RA14 to 0 ohm. Change C91, C94 to 150u. Change R97, R98, R102, R104 to 1%. Non-install R106, R107. Change C95 to 0.47u X5R. Change QA1.4, R110.2, Q6.1, R111.2, Q6.4 to AGND.
0.4	2	10/11	CKT,	33	-Follow ESD request.	-Non-install D42. Install D32.
0.4	3	10/11	CKT, LAYOUT	35	-Follow HP request	-Re-arrange MXM DP port. Port A for Thunder Bolt. Port B for Dock. Port C for EDP. Port D for SWITCH
0.4	4	10/12	CKT, LAYOUT	5,14,30,34	-Follow HP request	-Reserve RC108, UH6, CH116, R610. Change U17.85 and R276.1 connection netname to RSMRST#. EC. Change R455 to 47K. Add Q18A, C504, R609. Modify +3V_PCH power circuit
0.4	5	10/16	CKT, LAYOUT	9,14,25,29,30,34,39	-Follow HP request	-Install R567, D21. Add R612, R616, Q80, R614, Q79. Delete R602, C504, R609, R456, Q67B, R218, R239, R240, R540, Q74, R247, C322, C186, R230, R64. Change R568.1, R569.1 and R245.1 connection to KBC_WAKE#. Remove current VCC1_PWRGD connection to JP6.16. Then add a 4.7 K resistor between JP6.16 and new signal VCC1_PWRGD_SUS#. Change R215.2 to GND. Change R227 to 3.3K. Add a R615 PD for U7.102. Change U7.102 connection to PLT_DET. Change R248 to 200k ohms. Change R248.1, U17.77 connection to VCC1_PWRGD_SUS#. Change R243.1 and U7.125 connection to CHRGR_RST. Change R243 to 100K. Change R243.2 connection to GND. change R436.2 connection to +3VDS. Change JTB1.91, U17.41 and R436.1 connection to iSCT_LED#. Change D21.2 connection to PM_APWROK. Modify +3V_PCH power circuit. Change JCR1.5 connection to +5VDS.
0.4	6	10/17	CKT, LAYOUT	14,30	-Follow HP request	-Change R614.1 connection to +3V_PCH. Correct R227 to 10K.
0.4	7	10/18	CKT, LAYOUT	5,9,14,16,20,24,25,30,34,35	-Follow HP request	-Change R615 to 470K, R610 to 470 ohm, R614 to 10K ohms, R612, R137, R606, R607 and R608 to 4.7K ohms, RC108 to 10K ohms . Delete Q67A, QC1, RC12, Q80, R461, Q2, RC90. Install RH209, R492, RC108, R613, CH116 and UH6. Uninstall QC3, RH148, RH67, RH208. Change R492.2 connection to PCH_THERMTRIP#_R Connection R614.1 to PM_RSMRST#. Modify +1.35VS power circuit
0.4	8	10/23	CKT, LAYOUT	14,20,30,34,39	-Follow HP request	-Delete R612. Reserve R616 between KBC_124 pin and signal SIO_SLP_SUS#. Uninstall RH209, Q79, R614, R613, CH116 and UH6. Install RH67, RH208. Change PCH.AL6, JTB1.91 and RH244.2 connection to TBT_RR_GPIO#. Add Q80 for iSCT_LED# circuit
0.4	9	10/24	CKT, LAYOUT	18,25,28	-Follow HP request	-Add R618, R619, R620, R621. Delete R567, and connect JMINI3.15 to WLAN_WAKE# directly. Change ACCEL_INT# connection to U9.11. Change RH176.2 connection to GND and make RH176 install. Change RH185 as install
0.4	10	10/25	CKT, LAYOUT	14,18,25,29,34,35	-Follow HP request	-Add R247, Q63. Change RH70 to 200k ohms. Add LANWAKE# PU RH248 to +3VDS. Delete R618, R89. Change R455 to 200k. Add PD R622. Change Q61 and Q62 to dual channel 7002
0.4	11	10/25	CKT, LAYOUT	30	-Solve KBC external crystal can not work issue.	-Reserve R624 and connection to SUSCLK_KBC
0.4	12	10/26	CKT, LAYOUT	13,14,15,29,32,36	-Follow Compal HW request	-Delete RH56, RH57, RH59, RH60, RH66, RH69, RH71, RH98, RH99, RH100, RH141, RH234, RH139, RH108, RH110, RH111, RH112, R160, R161, R162, R163, R320, R477, R478, R464, R465, R466, R467, R472, R473, R474, R475, R468, R469, R470, R471, R479, R484, R485, R486, R318, R319, R321, R322, R570, R571, R572. Add RP7, RP8, RP9, RP10, RP11, RP12, RP13, RP14, RP15, RP16, RP17, RP18, RP19.
0.4	13	10/26	CKT, LAYOUT	13,14,15,29,32,36	-For layout smoothly.	-Rearrange RP11, RP8, RP17, RP13, RP14, RP15, RP16, RP12, RP10, RP7 pin assignment for layout smoothly.
0.4	14	10/26	CKT, LAYOUT	38	-Move LID switch to PWR board by ME reqesut.	-Change JPWR1 to 6 pin, and modify the JPWR1 pin define.
0.4	15	10/26	CKT, LAYOUT	13,14,17,18,23,29,30,32,34,38,	-Follow HP request.	-Delete R153, R481, R565. Swap QH11A.2 and QH11B.5 connection. Change RH75.2 and PCH.K7 connect to BATLOW#. Change PCH.U7 connect to BT_OFF. Change PCH.P3 and RPH2.4 connect to WWAN_DET#. PCH. Delete A20GATE and VCC1_PWRGD_SUS# off page symbol. Change RH180.2 and UH1.AP1 connect to PCH_GPIO_35. Change RH198.1 and UH1.AT3 connect to PCH_GPIO_36. Change R376 to 10k. Change R376.1 connect to +3VDS. Connect Q34.3 to LED_LINK_LAN_DOCK# with R625, and delete LED_LINK_LAN_DOCK# connection to Q34.1. Delete R157 and connect Q34.1 and signal LED_LINK_LAN#_R. Connect U22.26 pin to signal mSATA_DET#. Change R455.2 connection to B+. Change Q36 to AQ3413.
0.4	16	10/29	CKT, LAYOUT	18,35	-Follow HP request.	-Change RH179 to 100ohms. Delete R137, Q82.B. Add D52
0.4	17	10/31	CKT, LAYOUT	18,36	-Follow ME request.	-Change JODD1, JVGA2, JKB1 footprint
0.4	18	10/31	CKT, LAYOUT	18,37	-Follow HP request.	-Change R291.1 connection to +5VL. Change R291 to 105K_1%
0.4	19	11/01	CKT, LAYOUT	31	-Follow HP request.	-Change R304.1 connection to +5VL. Change R304 to 88.7k +-1%. Uninstall R306.
0.4	20	11/01	CKT, LAYOUT	13,15,37	-Material shortage issue	-Change Y3, YH1, YH2 to small package
0.4	21	11/01	CKT, LAYOUT	22,30,37,38	-Follow HW request	-Uninstall Y4, C487, C488. Delete C23, C80, C82, C111. Change U30 to AU9560-GBS-GR. Add R626
0.4	22	11/02	CKT, LAYOUT	29	-Follow HP request.	-Reserve C504. Add C505
0.4	23	11/05	CKT, LAYOUT	27	-Audio Jack change to normal open type	-Delete R174, QA1B. HP_SENSE# connection to R167.1
0.4	24	11/05	CKT, LAYOUT	38	-Follow ME request	-Modify JKB1 pin define to follow ME request.
0.4	25	11/05	CKT, LAYOUT	39	-Smart Card Reader AU9560-GBS-GR no need external crystal	-Uninstall Y3, CV33, CV34
0.4	26	11/06	CKT, LAYOUT	9,14,22, 25	-Follow HP request	-Change QC5A.2 and QC5B.5 connection to SLP_S3. Change PCH.D2 pin connection to DDR3_SET. Delete Q68, R459. Change R458 to 0ohm. Change JMINI3.13 connection to signal WWAN_DET#. PCH. Change JMINI3.65 connection to GND. Change C498 to 4700pF
0.4	27	11/06	CKT, LAYOUT	12	-Follow RF request	-Add C506, C507, C508, C509, C510, C511
0.4	28	11/07	CKT, LAYOUT	5	-Follow ESD request	-Delete RC36, RC38, RC40, RC43, RC45, RC47 by ESD request. Add T144, T145, T146, T147, T148, T149
0.4	29	11/07	CKT, LAYOUT	23,32	-Follow RF request	-Change C48 and C58 to 68pF. Change R332 to 33 ohms, C205 to 82pF and install R332 and C205
0.4	30	11/08	CKT, LAYOUT	23,33	-Follow HP request	-Delete D52. Add Q83, R627
0.4	31	11/09	CKT	16,34,35	-Follow HP request	-Change RH152 and RH153 value to 2.2K. Change C491 and C495 to 4700pF. Change R627 to 4.7K.

VBL20 from SI1 to SI2 LA-9241P REV:0.4 -> 0.5 Modify <2012.12.12.~ >

Rev.	Item	Date	Impact	Page	Change Cause	Modify Description
0.5	1	12/12	CKT, LAYOUT	9,14,28,30,31	-Follow HP request	-Uninstall QC4, RC92, CC39, RC89, QC5 and RC88. Add J4, Q84, Q85. Delete Q79, R615, UH6, R613, R617, R227, CH116, R605. Change RH222, RH223, RH224, R615, R248 to 100K. Remove R611. Connect JP6.16 to VCC1_PWRGD_SUS#. Install R624. Change CH115 to 0.22uF
0.5	2	12/12	CKT, LAYOUT	35	-Material shortage issue.	-Change U34, U35, U36 to small package
0.5	3	12/13	CKT	9,28	-Follow HP request	-Install RC88. Change JFP1.11 netname to FPR_OFF_C
0.5	4	12/20	CKT	35,36	-Solve CRT switch issue	-Uninstall R91,R92,R93. Change RP19 to 150 ohms