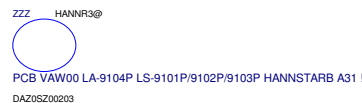


MODEL NAME : VAW00
PROJECT CODE : ANRVAW0000
PCB NO : LA-9104P (Thames XT)

DA60000VV00 LA-9104P M/B
DA40001FO00 LS-9101P POWER BUTTON/B
DA40001FP00 LS-9102P USB/B
DA40001FQ00 LS-9103P TP BUTTON/B



Dell / Compal Confidential

Schematic Document

Intel Chief River

Ivy Bridge (BGA) + Panther Point

OAK 15" UMA/DIS AMD Thames XT

2012-08-22

Rev: 1.0

46@ : for 46 level
@ : Nopop Component
CONN@ : Connector Component
KB9012@ : ENE KB9012 Implemented
UMA@ : Only for UMA
EMC@ : EMI/ESD parts

R1@ : R1 P/N
R3@ : R3 P/N

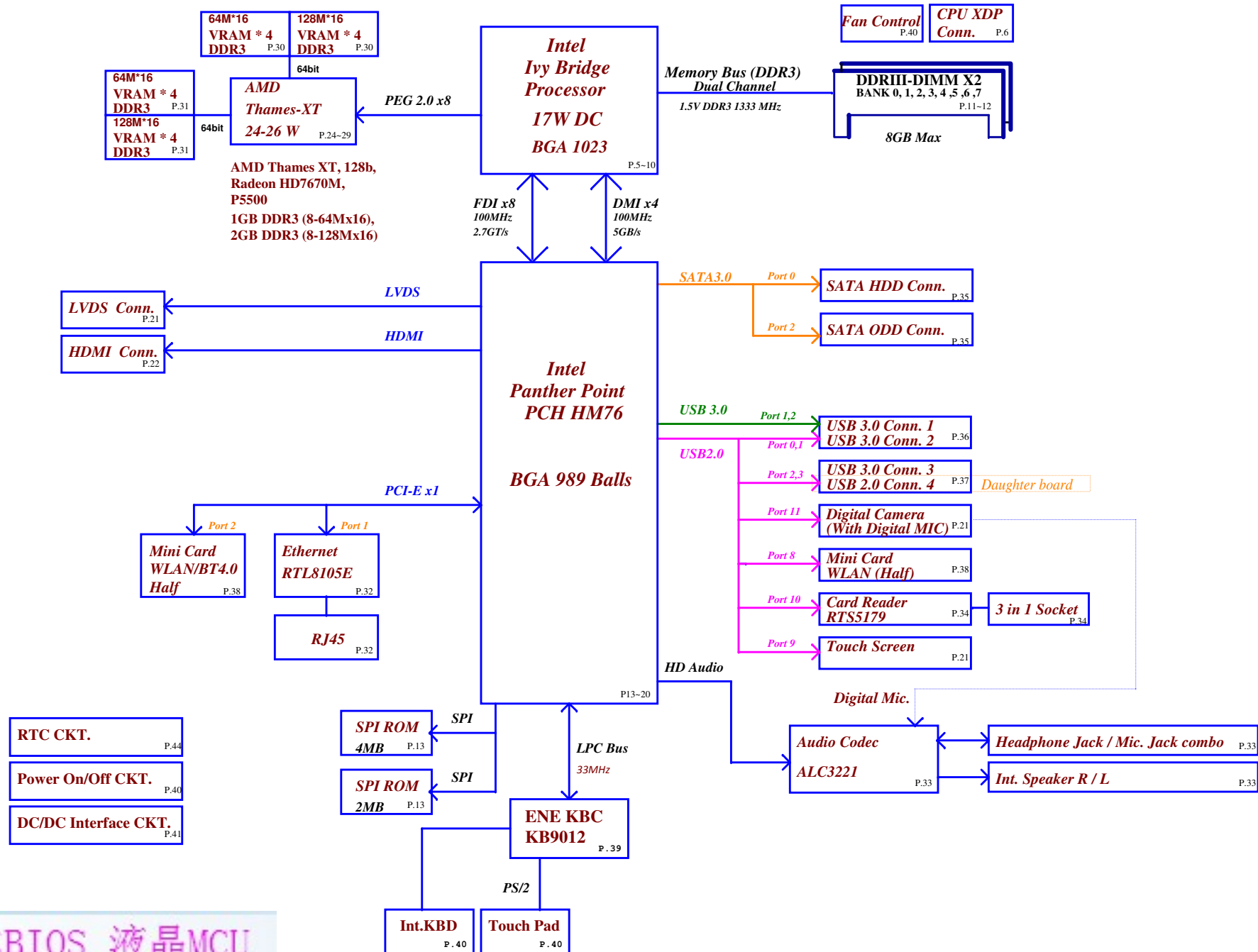
i3R1@ : CPU i3-3217 1.8G
i3VOSR1@ : CPU i3-2365 1.4G
i5R1@ : CPU i5-3317 1.7G
i7R1@ : CPU i7-3517 1.9G
CELR1@ : CPU Celeron 887 1.5G
PENR1@ : CPU Pentium 997 1.6G

DIS@ : Only for Discrete
TH@/THR1@ : Thames-XT
MS@/MSR1@ : Mars Pro
X76@ :
SPI-ROM & VRAM Group

GCLK@ : Green CLK implemented
GCLKUMA@ : Green CLK for UMA
GCLKDIS@ : Green CLK for DIS

XTAL@ : X'tal implemented
XTALDIS@ : X'tal with DIS implemented

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	Title	Cover Page
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RESEARCH AND DEVELOPMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Customer	LA-9104P
				Date	Wednesday, August 28, 2012
				Sheet	1 of 57
				Rev	1.0

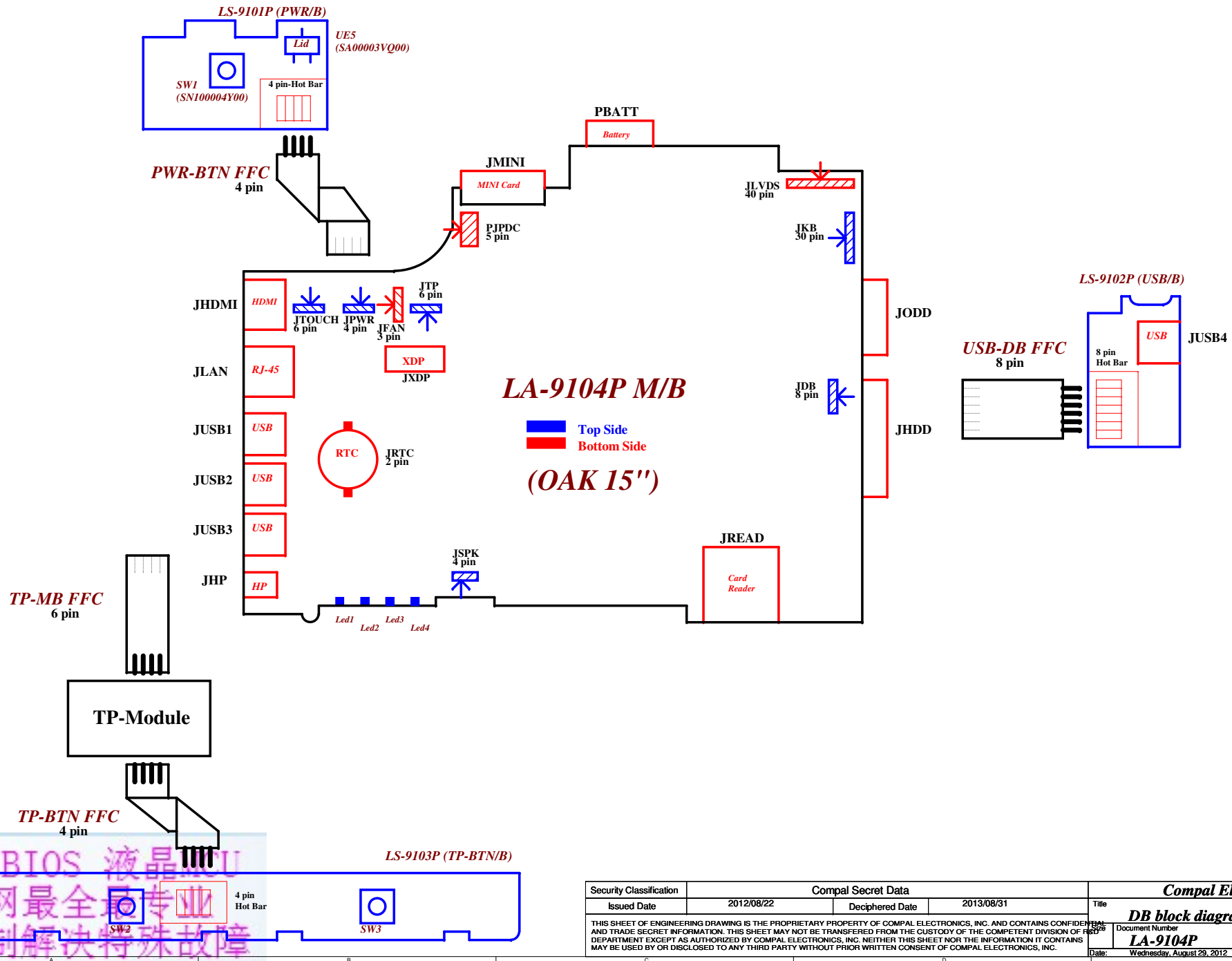


本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Block diagram
Size	Document Number	Rev		
	LA-9104P	1.0		
Date:	Wednesday, August 29, 2012	Sheet	2	of 57

Project Code : VAW00

File Name : LA-9104P



本本BIOS 液晶...
 全网最全...
 可定制解决特殊故障

Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF HEADQUARTERS DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number
				LA-9104P
				Rev 1.0
				Date: Wednesday, August 29, 2012 Sheet 3 of 57

Board ID Table for AD channel

Vcc	3.3V +/- 5%				
Ra	100K +/- 5%				
Board ID	Rb	V _{AD_BID} min	V _{AD_BID} typ	V _{AD_BID} max	EC AD3
0	0	0 V	0 V	0.155 V	0x00-0x0C
1	8.2K +/- 5%	0.168 V	0.250 V	0.362 V	0x0D-0x1C
2	18K +/- 5%	0.375 V	0.503 V	0.621 V	0x1D-0x30
3	33K +/- 5%	0.634 V	0.819 V	0.945 V	0x31-0x49
4	56K +/- 5%	0.958 V	1.185 V	1.359 V	0x4A-0x69
5	100K +/- 5%	1.372 V	1.650 V	1.838 V	0x6A-0x8E
6	200K +/- 5%	1.851 V	2.200 V	2.420 V	0x8F-0xBB
7	NC	2.433 V	3.300 V	3.300 V	0xBC-0xFF

BOARD ID Table

ID	PCB Revision	
0	0.1	
1		0.1 0.1
2	0.2	
3		0.2 0.2
4	0.3	
5		0.3 0.3
6	1.0	
7		1.0 1.0
	UMA	THM MARS

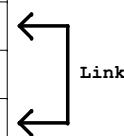
Project ID Table

ID	Project Revision
0	
1	
2	
3	
4	
5	UMA
6	DIS THAMES
7	DIS MARS PRO

PCH	USB PORT#	DESTINATION
	0	USB conn.2
	1	USB conn.1
	2	USB conn.3
	3	USB conn.4 (DB)
	4	NC
	5	NC
	6	NC
	7	NC
	8	MINI CARD (WLAN)
	9	Touch Screen
	10	Card Reader
	11	Camera
	12	NC
13	NC	

SMBUS Control Table

	SOURCE	MINI1	MINI2	BATT	SODIMM	Express Card	Thermal Sensor	FFS	VGA Thermal Sensor	VGA	XDPA	Charger
EC_SMB_CK1 EC_SMB_DA1	KB9012			V								V
EC_SMB_CK2 EC_SMB_DA2	KB9012								V	V		
PCH_SML0CLK PCH_SML0DATA	PCH											
PCH_SML1CLK PCH_SML1DATA	PCH											
MEM_SMBCLK MEM_SMBDATA	PCH	V	V		V	V		V				V



CLK	DIFFERENTIAL	DESTINATION	FLEX CLOCKS	DESTINATION
	CLKOUT_PCIE0	10/100 LAN	CLKOUTFLEX0	None
	CLKOUT_PCIE1	MINI CARD WLAN	CLKOUTFLEX1	None
	CLKOUT_PCIE2	None	CLKOUTFLEX2	None
	CLKOUT_PCIE3	None	CLKOUTFLEX3	None
	CLKOUT_PCIE4	None		
	CLKOUT_PCIE5	None		
	CLKOUT_PCIE6	None		
	CLKOUT_PCIE7	None		
CLKOUT_PEG_B	None			

CLKOUT	DESTINATION
PCI0	PCH_LOOPBACK
PCI1	EC LPC
PCI2	None
PCI3	None
PCI4	None

SATA	DESTINATION
SATA0	HDD
SATA1	None
SATA2	ODD
SATA3	None
SATA4	None
SATA5	None

PCI EXPRESS	DESTINATION
Lane 1	10/100 LAN
Lane 2	MINI CARD (WLAN)
Lane 3	None
Lane 4	None
Lane 5	None
Lane 6	None
Lane 7	None
Lane 8	None

Symbol Note :

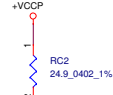
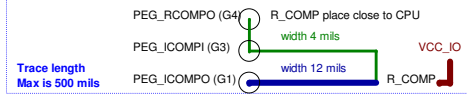
: means Digital Ground

: means Analog Ground

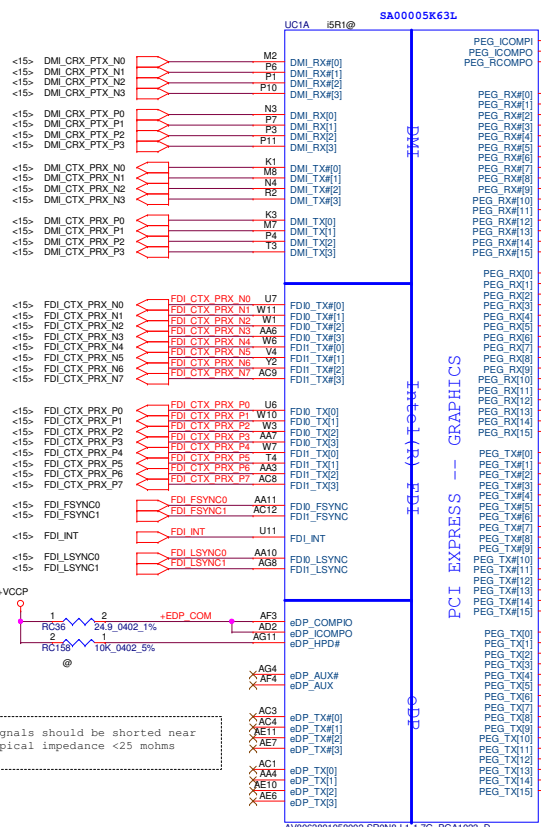
本本BIOS—液晶MCU
全网最全最专业
可定制解决特殊故障



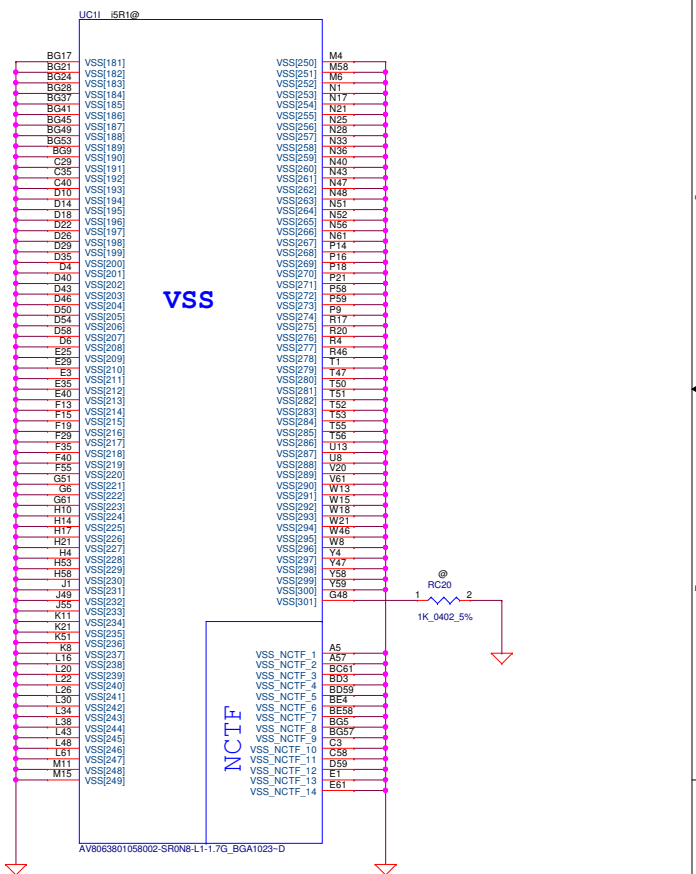
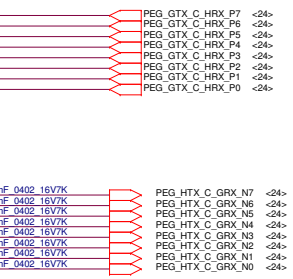
(1) PEG_RCOMP0 (G4) use 4mil connect to PEG_ICOMPO, then use 4mil connect to RC1.
(2) PEG_ICOMPO use 12mil connect to RC1



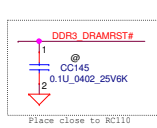
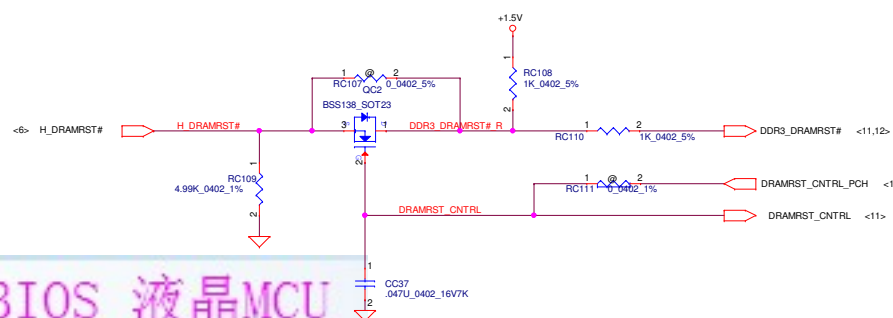
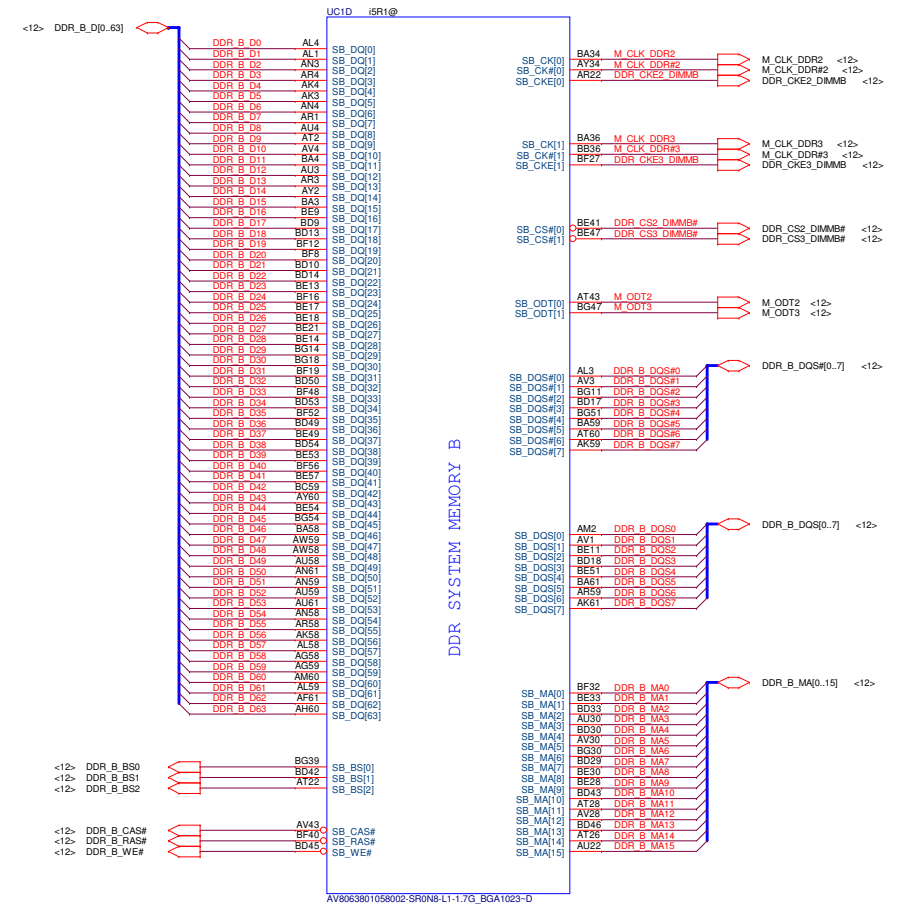
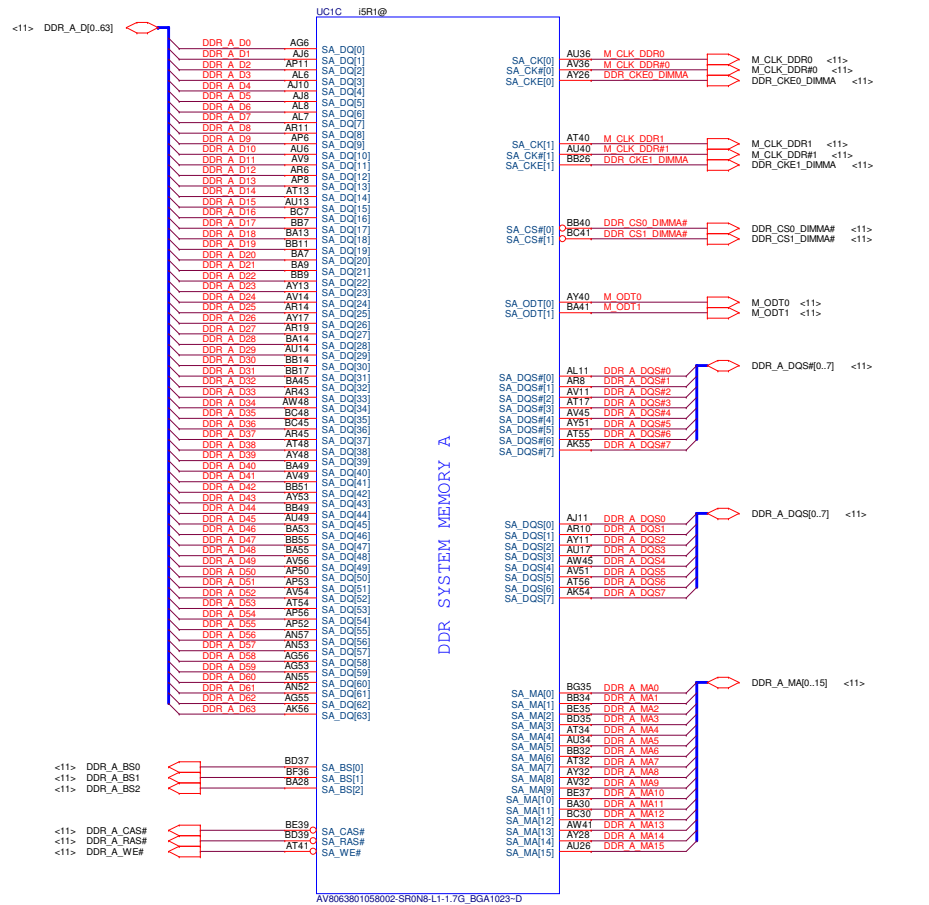
PEG_ICOMPI and RCOMP0 signals should be shorted and routed with - max length = 500 mils - typical impedance = 43 mohms
PEG_ICOMPO signals should be routed with - max length = 500 mils - typical impedance = 14.5 mohms



PCI EXPRESS -- GRAPHICS



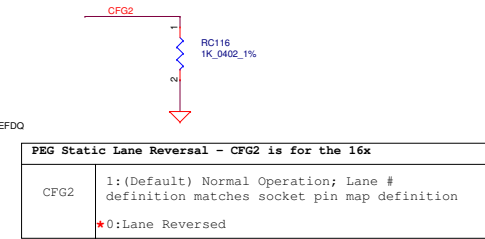
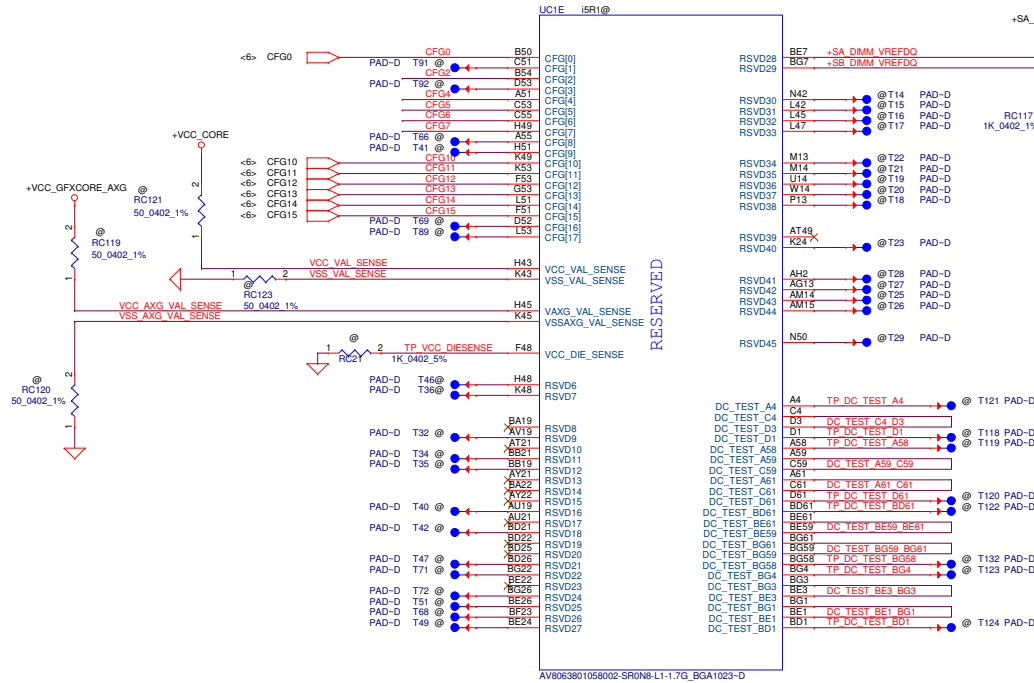
本本BIOS 液晶MCU
全网最全最专业
可定制解决特殊故障



本本BIOS 液晶MCU
全网最全最专业
可定制解决特殊故障

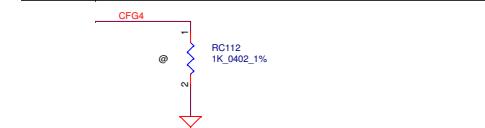
Security Classification	Compal Secret Data		Title	Compal Electronics, Inc.	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	PROCESSOR(3/6) DDRIII	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RESEARCH AND DEVELOPMENT DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.					
Document Number	LA-9104P		Rev	1.0	
Date	Wednesday, August 28, 2012	Sheet	7	of 57	

CFG Straps for Processor



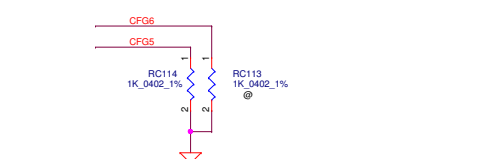
PEG Static Lane Reversal - CFG2 is for the 16x

CFG2	1: (Default) Normal Operation; Lane # definition matches socket pin map definition
	0: Lane Reversed



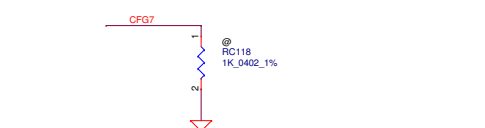
Display Port Presence Strap

CFG4	1: Disabled; No Physical Display Port attached to Embedded Display Port
	0: Enabled; An external Display Port device is connected to the Embedded Display Port



PCIe Port Bifurcation Straps

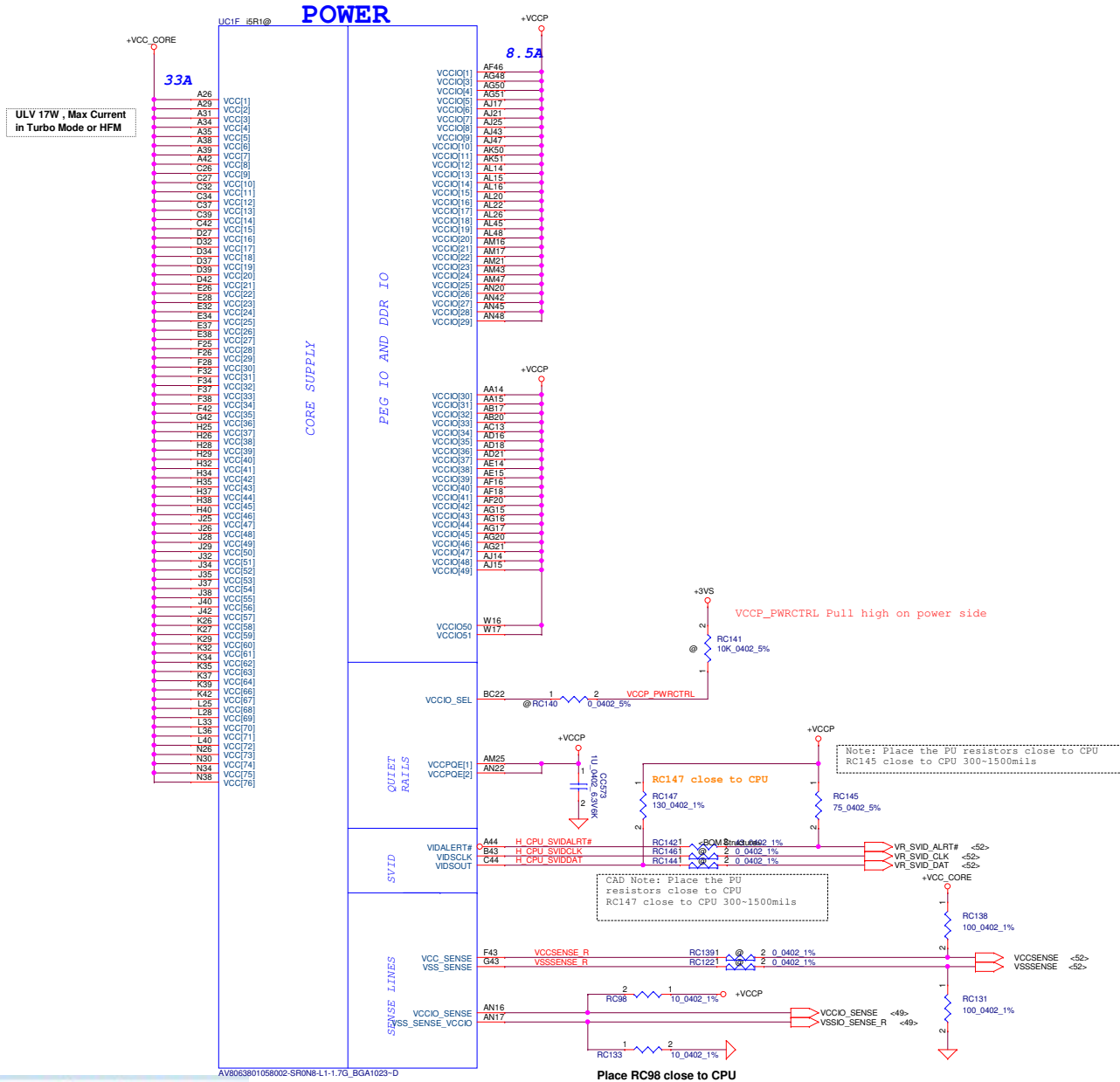
CFG[6:5]	11: (Default) x16 - Device 1 functions 1 and 2 disabled
	10: x8, x8 - Device 1 function 1 enabled; function 2 disabled
	01: Reserved - (Device 1 function 1 disabled; function 2 enabled)
	00: x8, x4, x4 - Device 1 functions 1 and 2 enabled



PEG DEFER TRAINING

CFG7	1: (Default) PEG Train immediately following xxRESETB de assertion
	0: PEG Wait for BIOS for training

本本BIOS 液晶MCU
全网最全最专业
可定制解决特殊故障

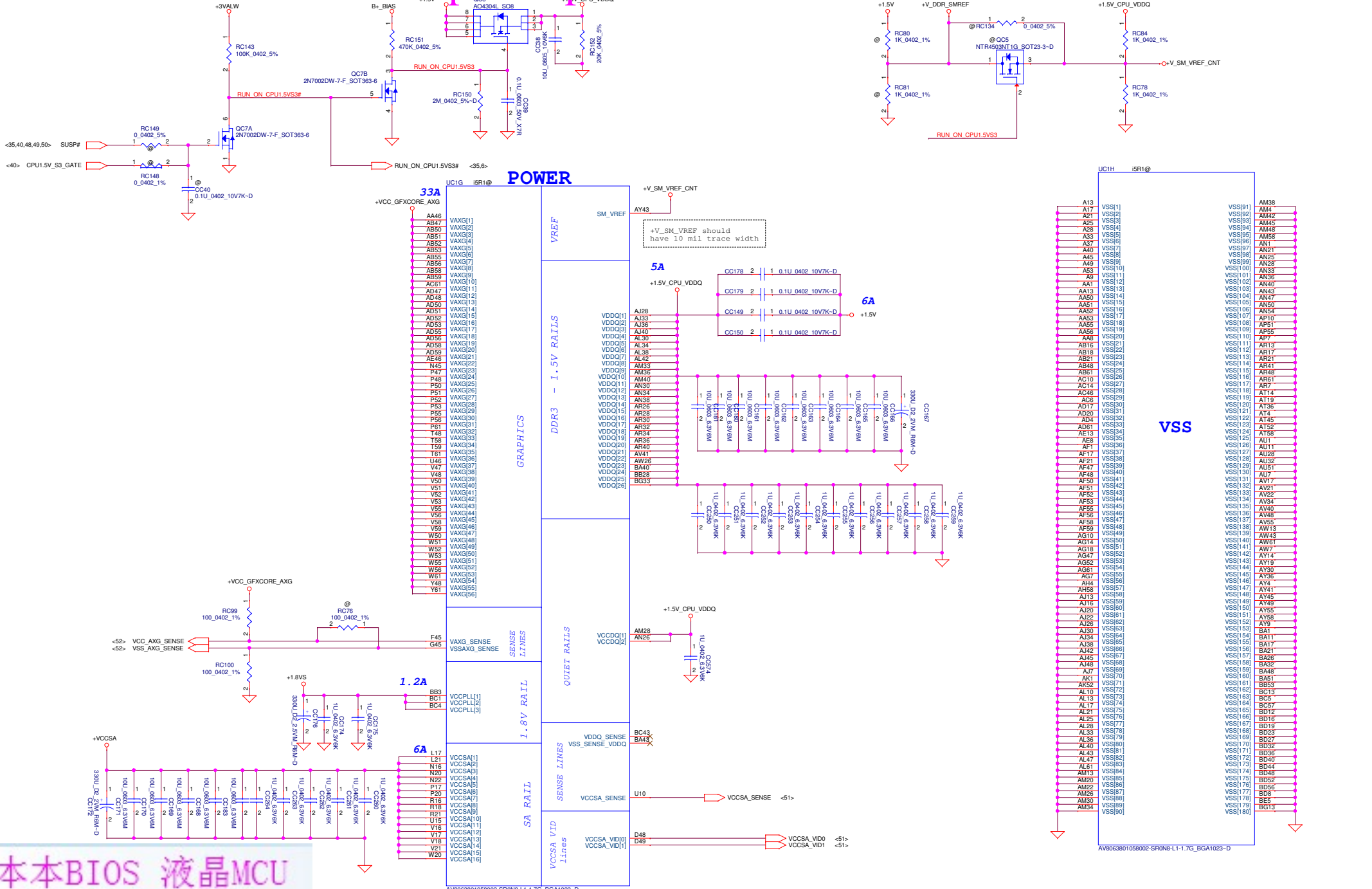


Iccmax current changed for PDDG Rev0.7

CPU Power Rail Table		
Voltage Rail	Voltage	SO Iccmax Current (A)
VCC	0.65-1.3	53
VCCIO	1.05/1	8.5
VAXG	0.0-1.1	33
VCCPLL	1.8	1.2
VDDQ	1.5	5
VCCSA	0.65-0.9	6
+1.5V_MEM	1.5	12-16 *

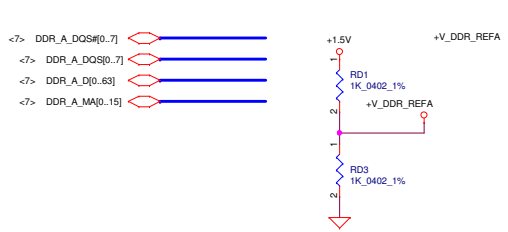
* Description
 5A to Mem controller (+1.5V_CPU_VDDQ)
 5-6A to 2 DIMMs/channel
 2-5A to +1.5V_RUN & +0.75V_DDR_VTT

本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障



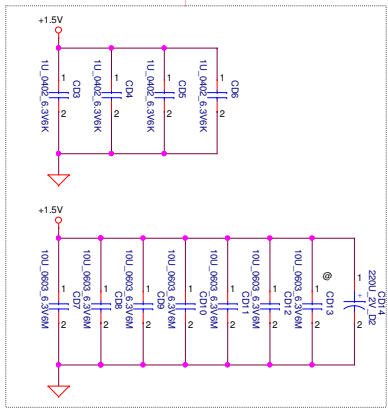
本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

Security Classification	Compal Secret Data		Title	Compal Electronics, Inc.
Issued Date	2012/08/22	Deciphered Date	2013/08/31	PROCESSOR(6/6) PWR,VSS
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				
Document Number	LA-9104P			Rev 1.0
Date	Wednesday, August 28, 2012	Sheet	10	of 57

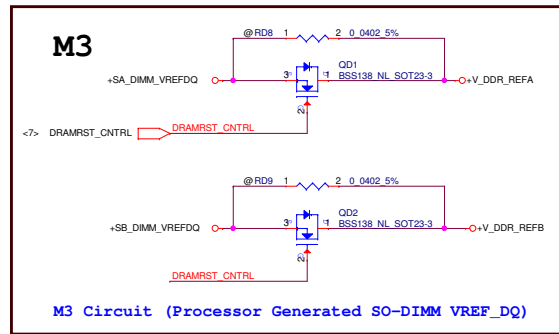
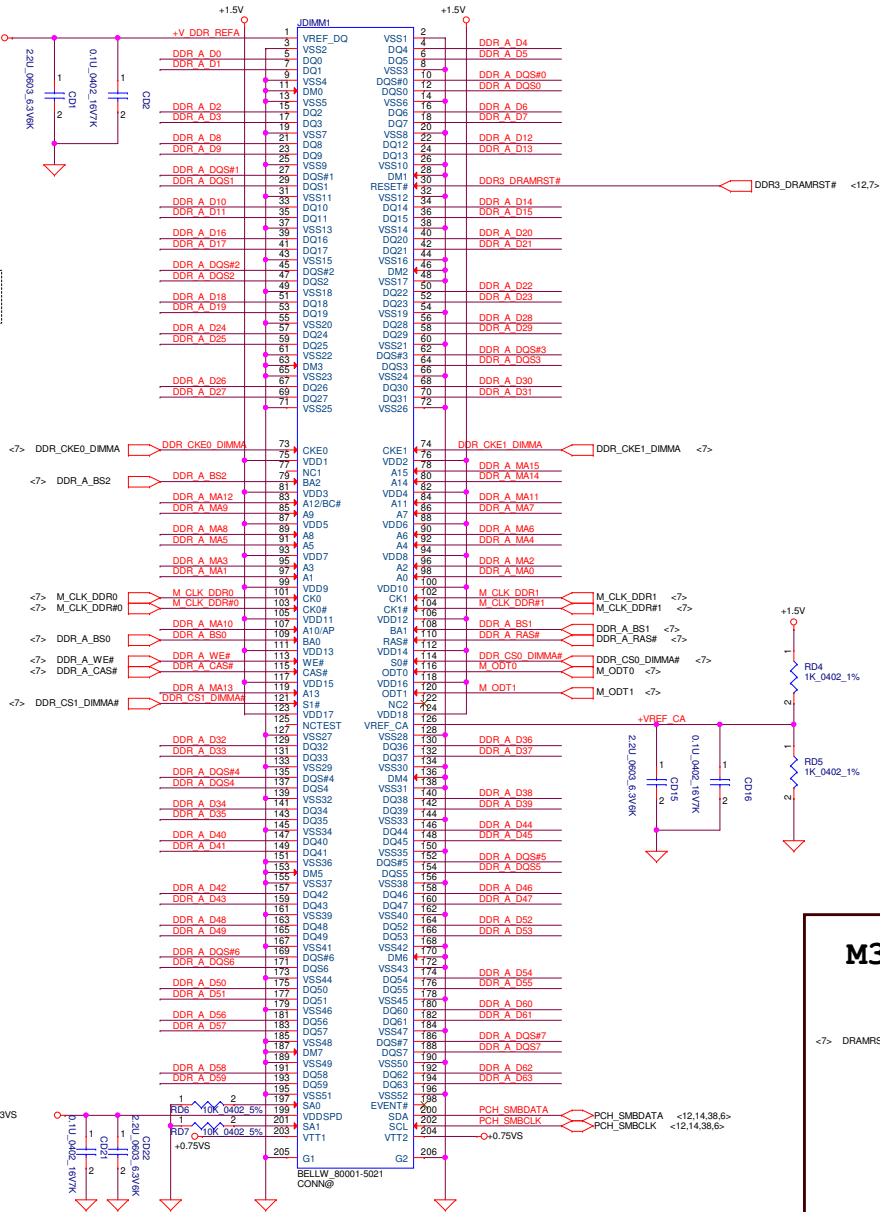
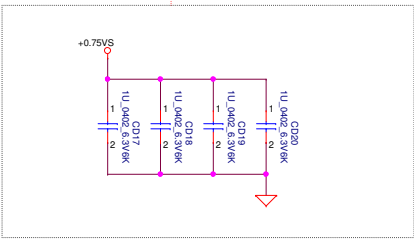


Layout Note:
Place near JDIMM1

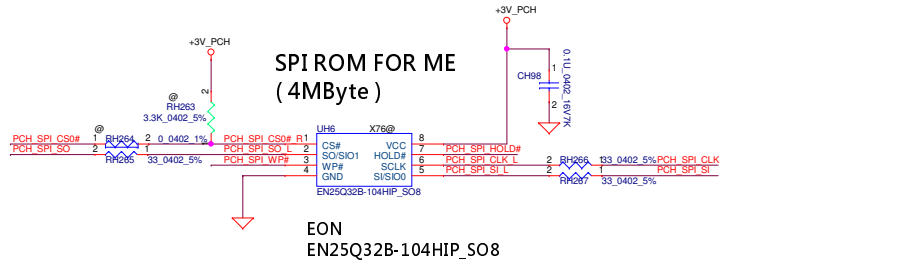
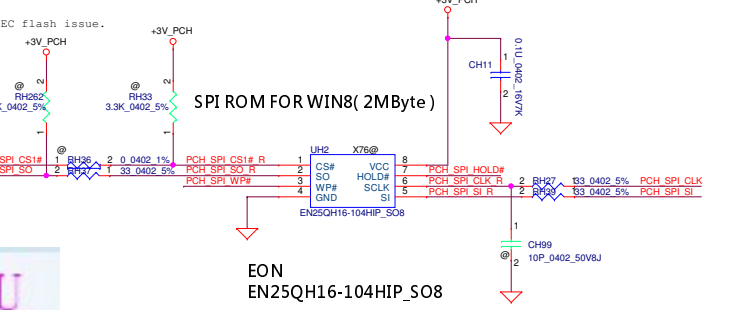
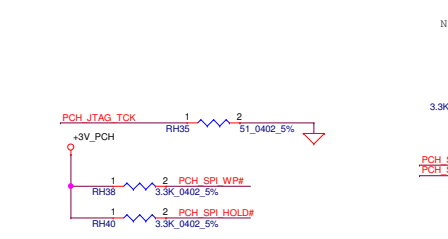
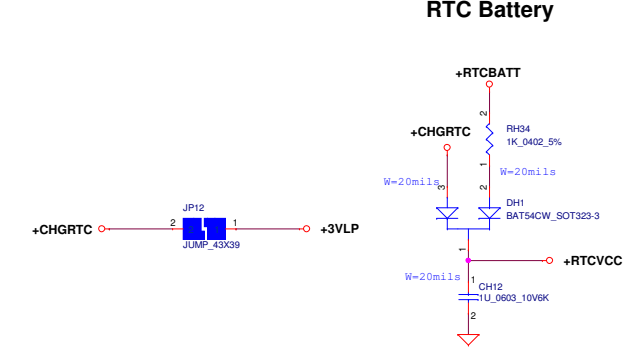
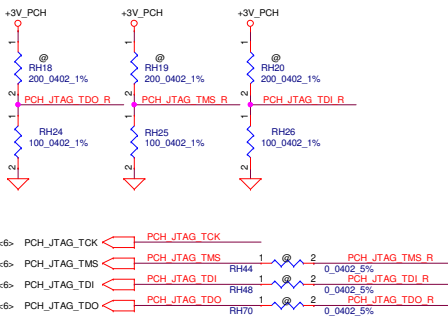
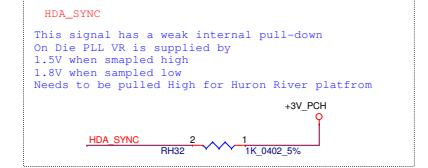
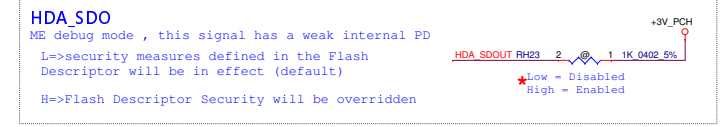
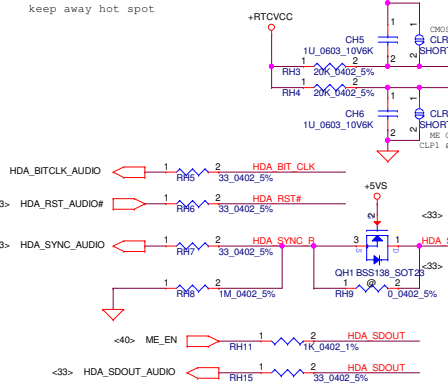
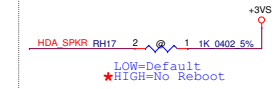
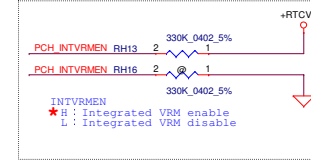
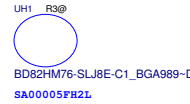
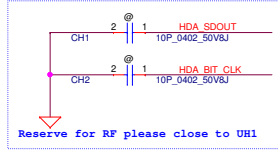
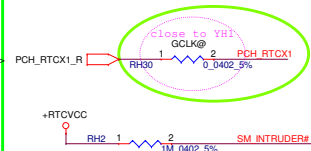
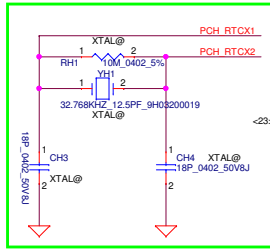
All VREF traces should have 10 mil trace width



Layout Note:
Place near JDIMM1. 203, 204



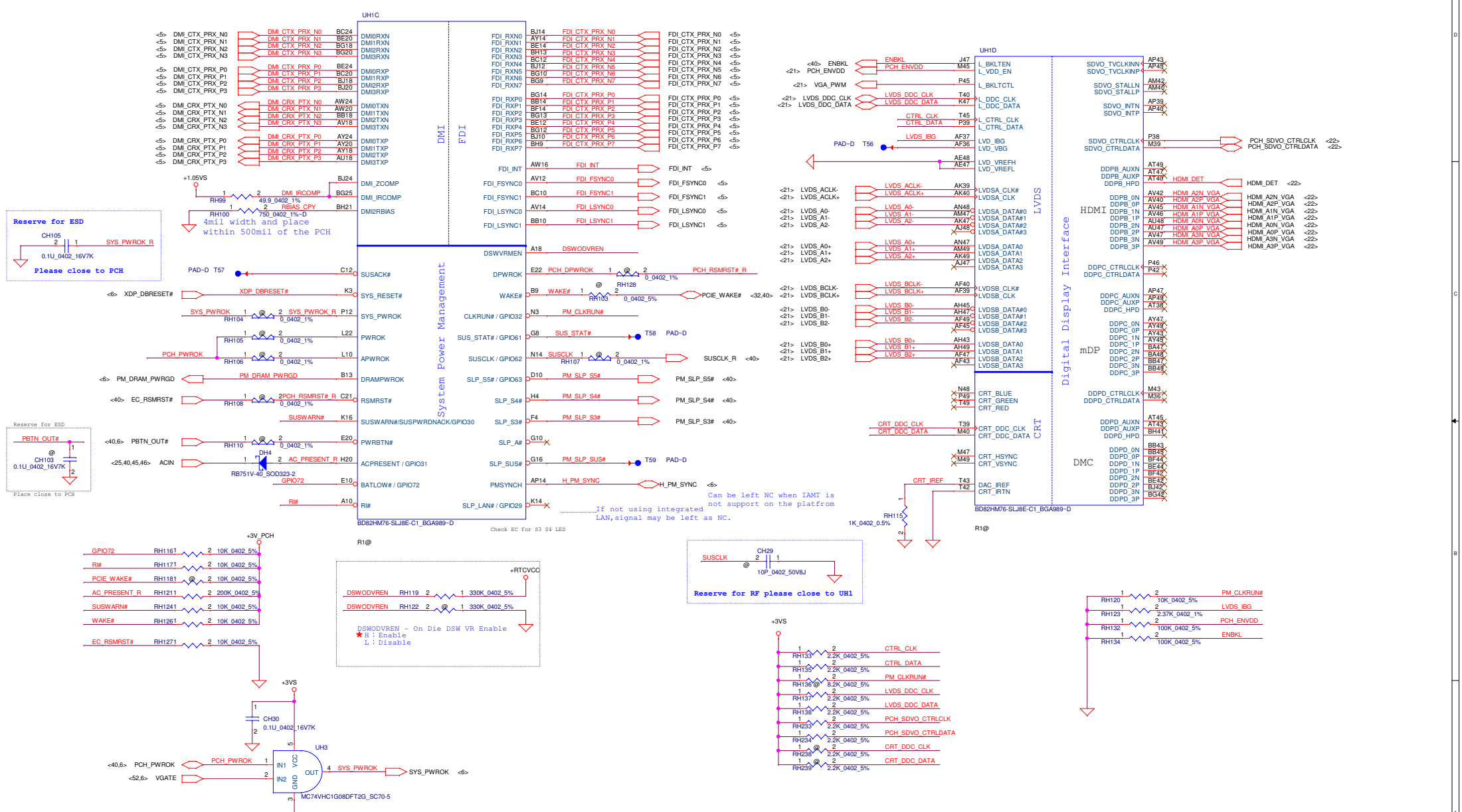
本本BIOS 液晶MCU
全网最全最专业
可定制解决特殊故障



本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

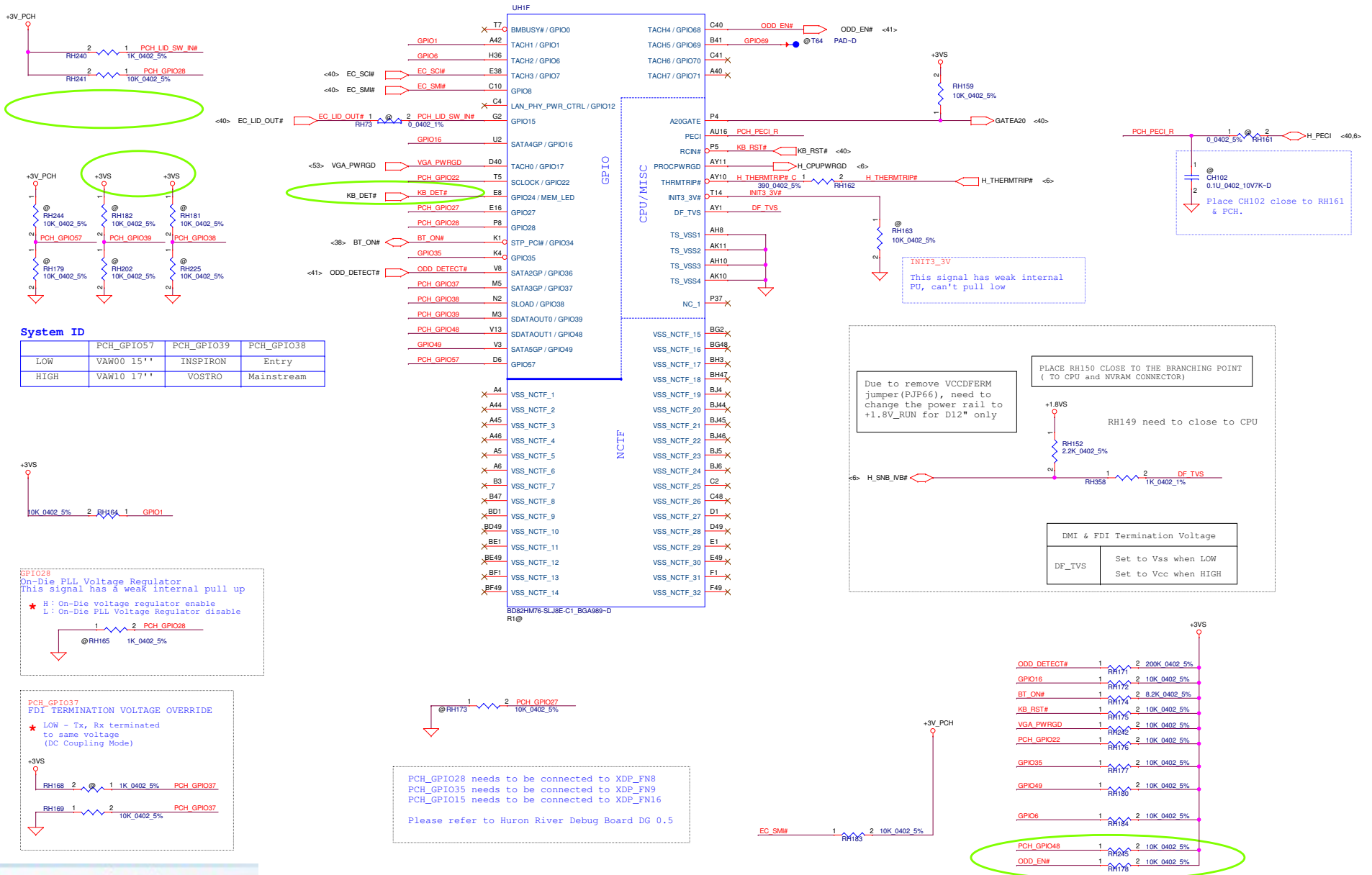


Security Classification	Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RESEARCH AND DEVELOPMENT DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number PCH (U8) SATA/HDA/SPI/LPC Rev 1.0 Date: Wednesday, August 28, 2012 Sheet 13 of 57



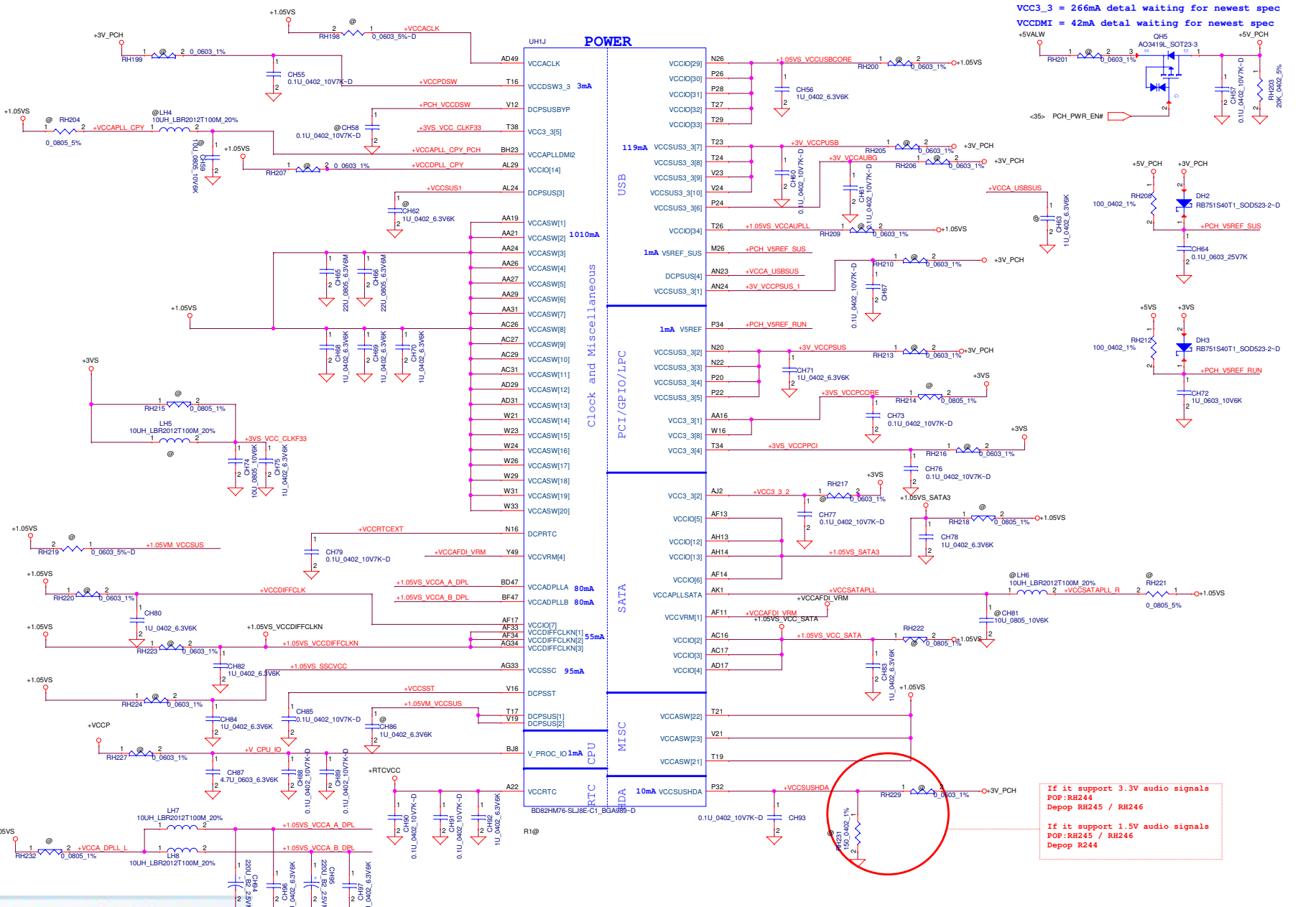
本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

Security Classification	Compal Secret Data		Title	Compal Electronics, Inc.	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	PCH (3/8) DMI/FDI/PM/GFX/DP	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.					
Document Number	LA-9104P		Rev	1.0	
Date	Wednesday, August 28, 2012	Sheet	15	of 57	



本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

VCC3_3 = 266mA detail waiting for newest spec
 VCCDMI = 42mA detail waiting for newest spec

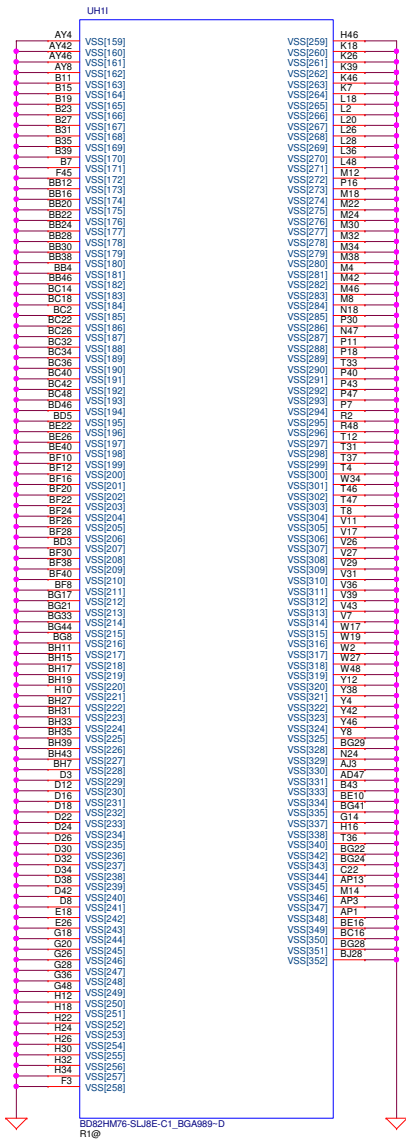
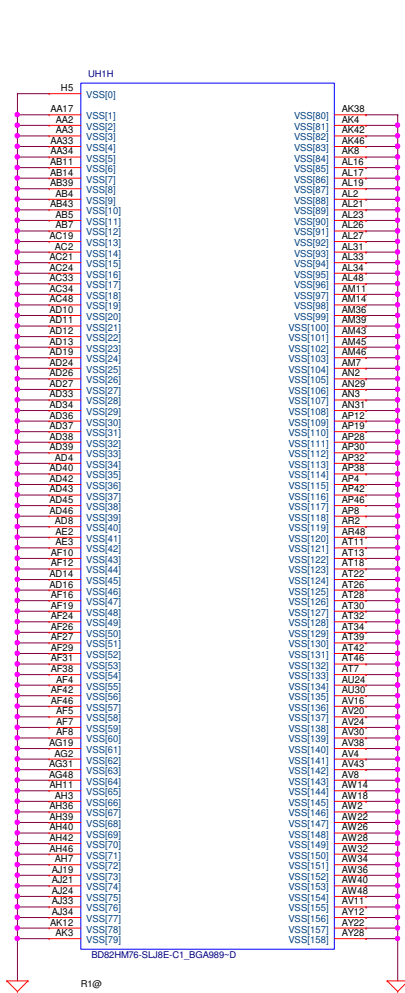


If it support 3.3V audio signals
 POP:RH244 / RH246
 Depop RH245 / RH246

If it support 1.5V audio signals
 POP:RH245 / RH246
 Depop R244

本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

Security Classification	Compal Secret Data		Title	Compal Electronics, Inc.	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	PCH (7/8) PWR	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RESEARCH AND DEVELOPMENT TO ANY OTHER DEPARTMENT OR DIVISION OF COMPAL ELECTRONICS, INC. WITHOUT THE WRITTEN CONSENT OF THE DEPARTMENT MANAGER. THIS SHEET IS NOT TO BE REPRODUCED OR DISCLOSED TO ANY THIRD PARTY WITHOUT THE WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.					
Document Number	LA-9104P		Rev	1.0	
Date	Wednesday, August 28, 2012	Sheet	19	of 57	

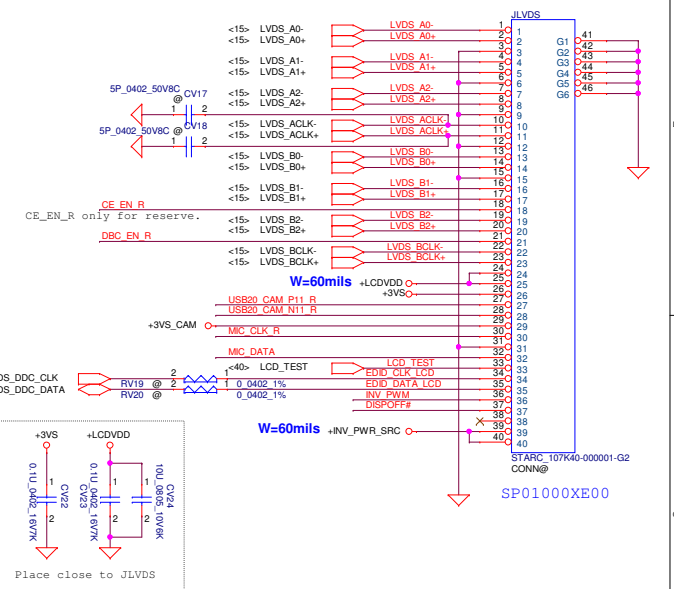
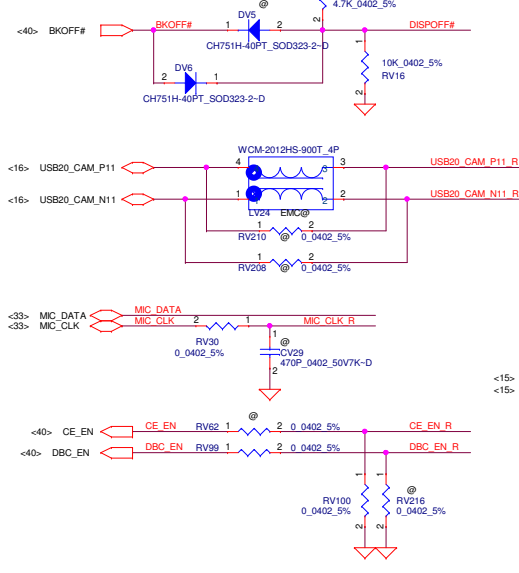
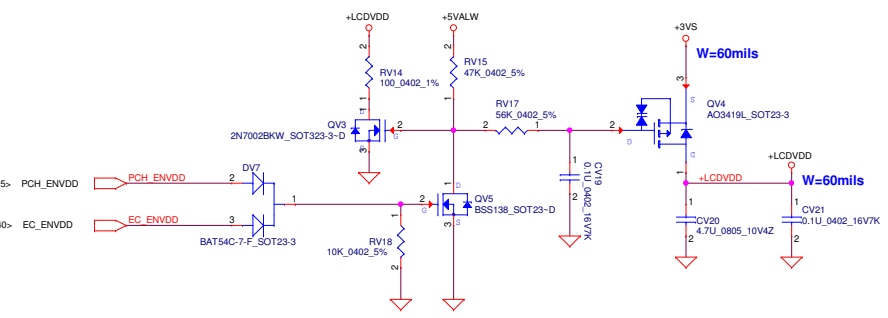


本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

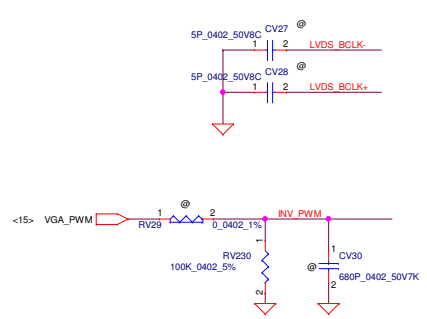
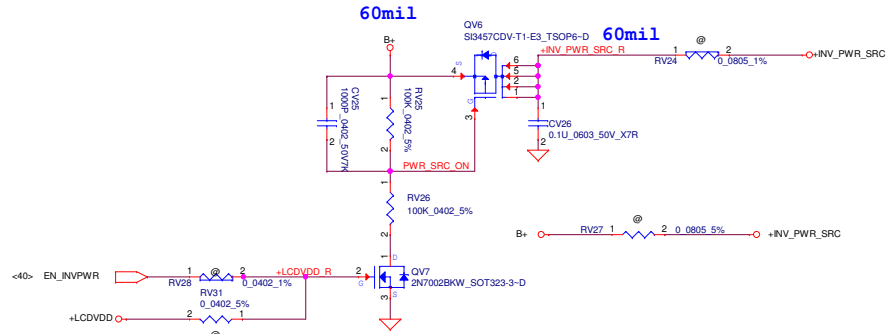
LCD PWR CTRL

<http://shop65127737.taobao.com>

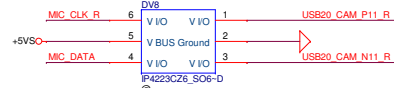
LVDS Conn.



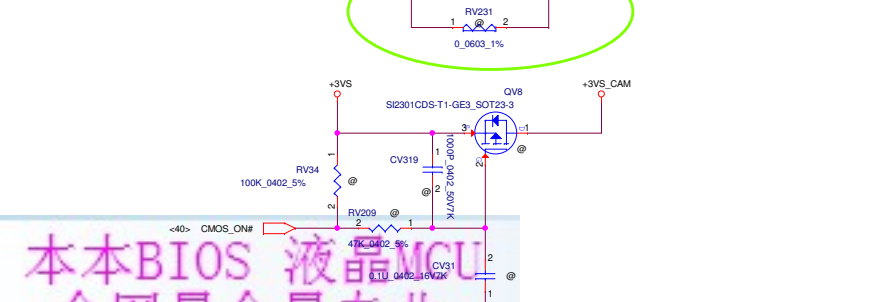
LCD backlight PWR CTRL



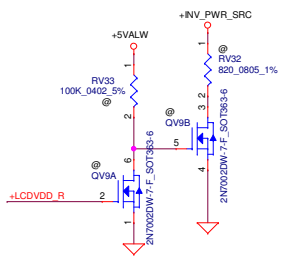
* Reserved for EMI/ESD/RF need to close to JLVDS



Webcam PWR CTRL



* Reserved for LCD sequence tuning

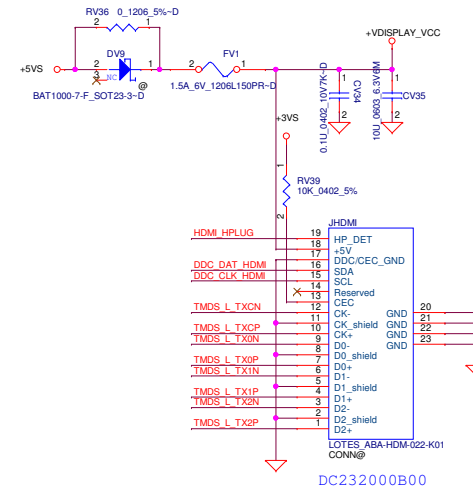
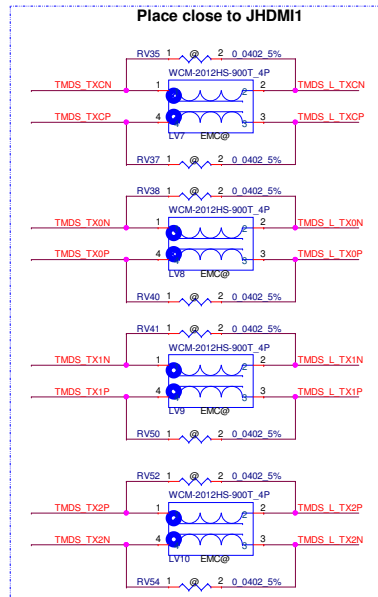
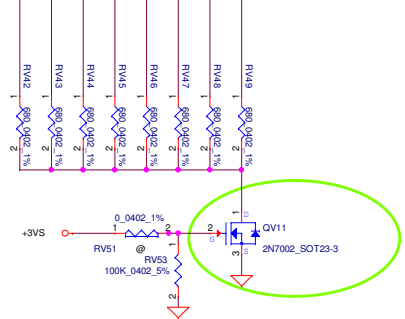


本本BIOS 液晶MCU
全网最全最专业
可定制解决特殊故障

Security Classification	Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	Rev
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number
				LA-9104P
				Rev 1.0
				Date: Wednesday, August 28, 2012 Sheet 21 of 57

W=40mils

<15>	HDMI_A3N_VGA	CV32	2	1	0.1U_0402	10V7K-D	TMDS_TXCN
<15>	HDMI_A3P_VGA	CV33	2	1	0.1U_0402	10V7K-D	TMDS_TXCP
<15>	HDMI_A0N_VGA	CV36	2	1	0.1U_0402	10V7K-D	TMDS_TX0N
<15>	HDMI_A0P_VGA	CV37	2	1	0.1U_0402	10V7K-D	TMDS_TX0P
<15>	HDMI_A1N_VGA	CV38	2	1	0.1U_0402	10V7K-D	TMDS_TX1N
<15>	HDMI_A1P_VGA	CV39	2	1	0.1U_0402	10V7K-D	TMDS_TX1P
<15>	HDMI_A2N_VGA	CV40	2	1	0.1U_0402	10V7K-D	TMDS_TX2N
<15>	HDMI_A2P_VGA	CV41	2	1	0.1U_0402	10V7K-D	TMDS_TX2P

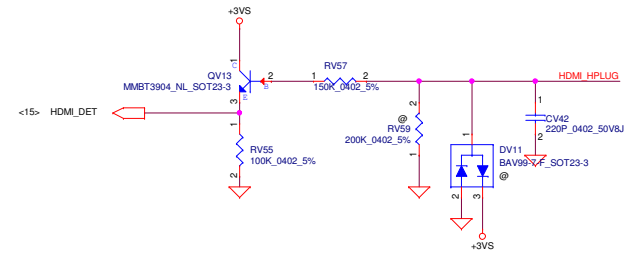
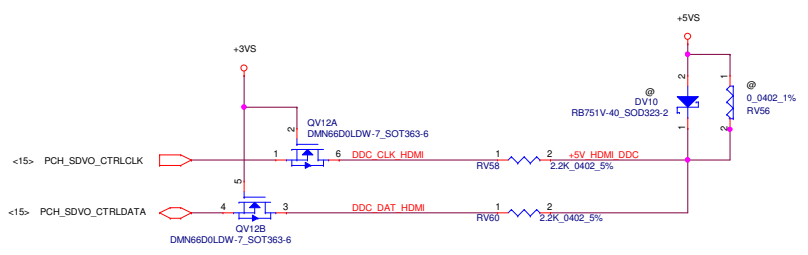


TMDS_TXCN	@CV358	1	2	100P_0402_50V8J
TMDS_TXCP	@CV360	1	2	100P_0402_50V8J
TMDS_TX0N	@CV362	1	2	100P_0402_50V8J
TMDS_TX0P	@CV363	1	2	100P_0402_50V8J
TMDS_TX1N	@CV359	1	2	100P_0402_50V8J
TMDS_TX1P	@CV357	1	2	100P_0402_50V8J
TMDS_TX2N	@CV361	1	2	100P_0402_50V8J
TMDS_TX2P	@CV364	1	2	100P_0402_50V8J

20111024 EMI ADD

TMDS L_TXCN	CV349	1	2	3.3P_0402_50V8C-D
TMDS L_TXCP	CV350	1	2	3.3P_0402_50V8C-D
TMDS L_TX0N	CV351	1	2	3.3P_0402_50V8C-D
TMDS L_TX0P	CV352	1	2	3.3P_0402_50V8C-D
TMDS L_TX1N	CV353	1	2	3.3P_0402_50V8C-D
TMDS L_TX1P	CV354	1	2	3.3P_0402_50V8C-D
TMDS L_TX2N	CV355	1	2	3.3P_0402_50V8C-D
TMDS L_TX2P	CV356	1	2	3.3P_0402_50V8C-D

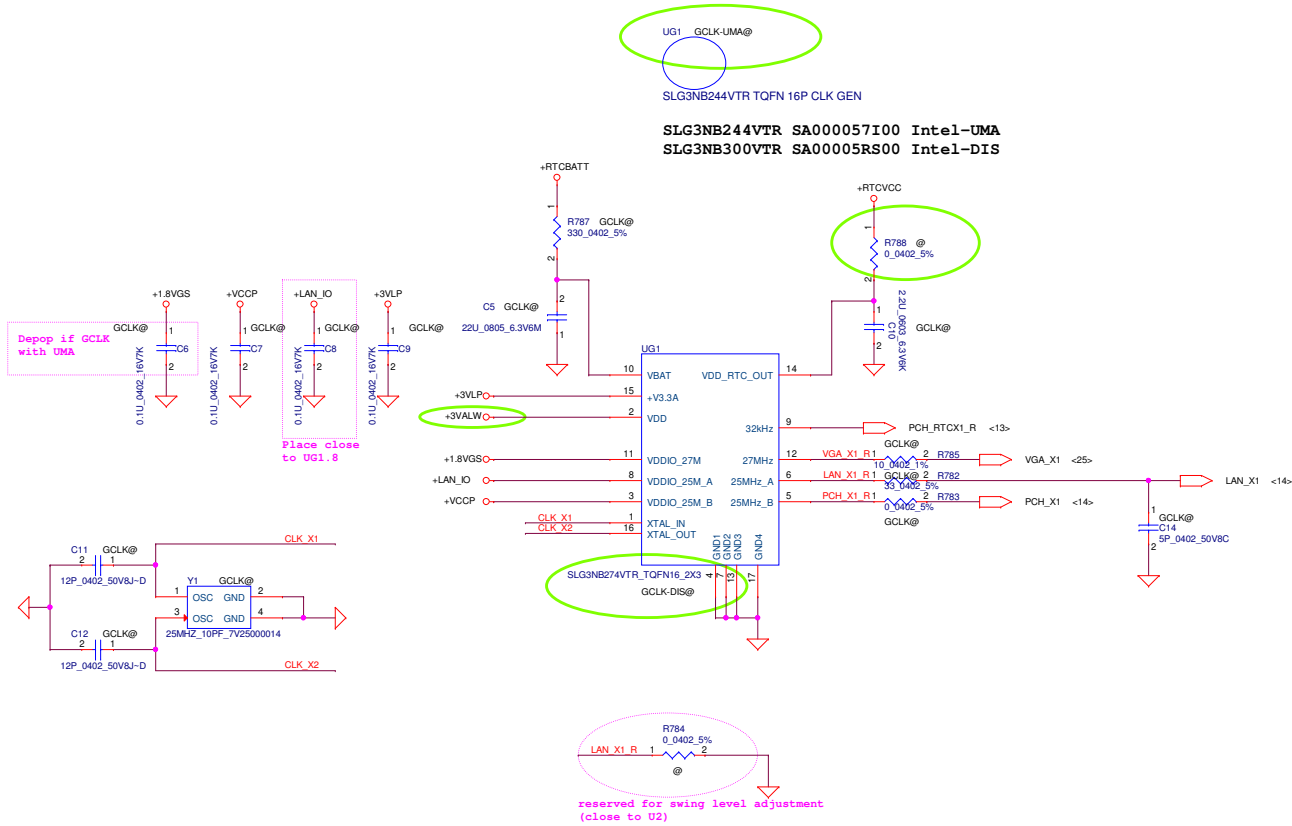
20110805 EMI ADD



本本BIOS 液晶MCU
全网最全最专业
可定制解决特殊故障

46@	ROYALTY HDMI W/LOGO
Part Number	Description
800000023M	HDMI W/Logo#R00000023M

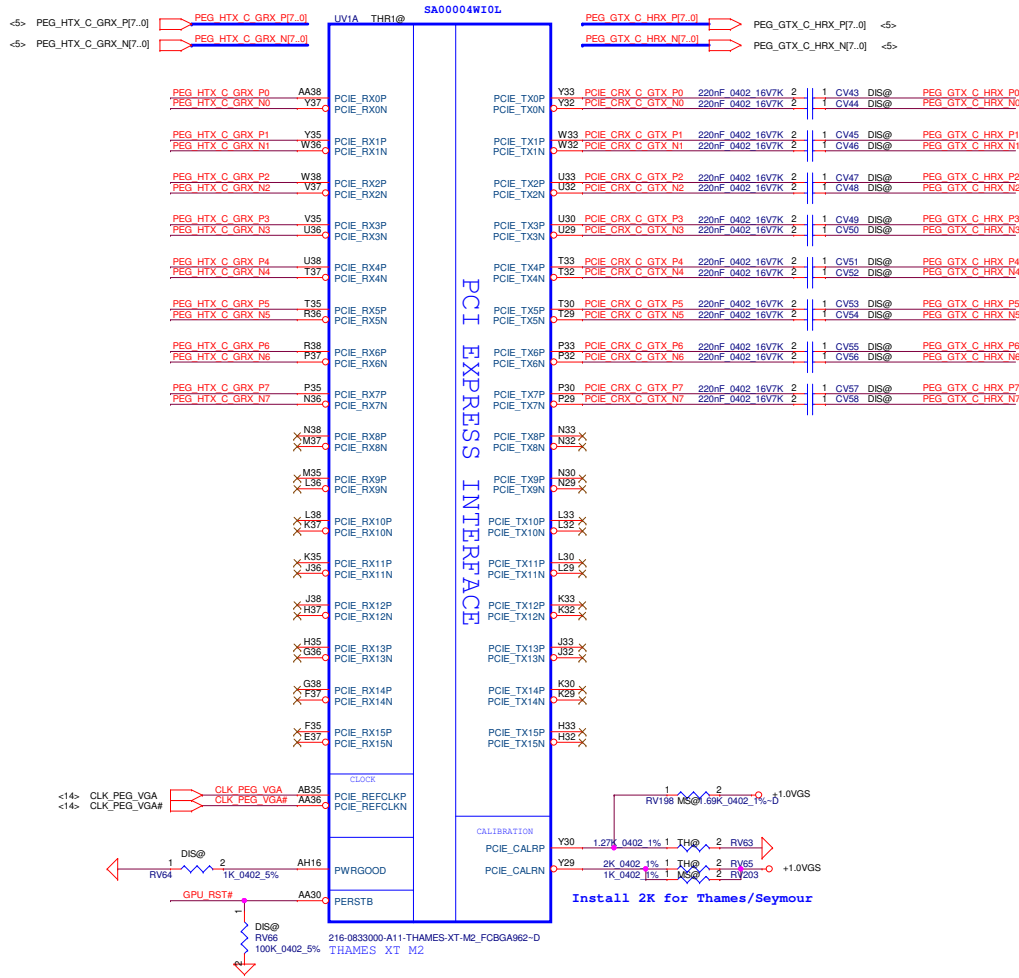
Security Classification	Compal Secret Data		Title	HDMI	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	Document Number	LA-9104P
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RESEARCH AND DEVELOPMENT DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.					
Date:	Wednesday, August 28, 2012	Sheet	22	of	57



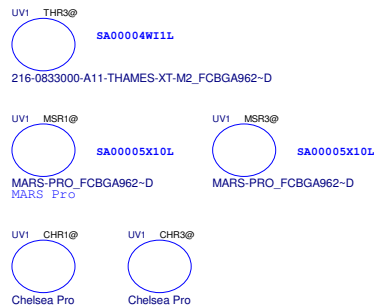
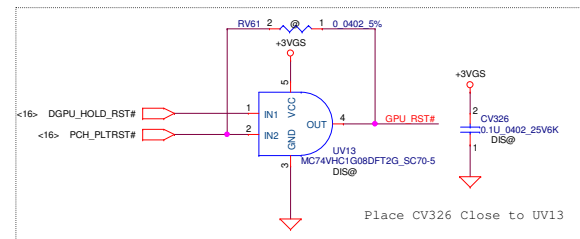
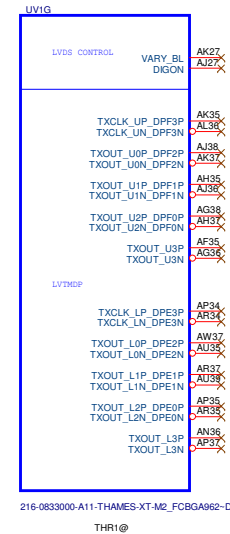
本本BIOS 液晶MCU
全网最全最专业
可定制解决特殊故障

Security Classification	Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RESEARCH AND DEVELOPMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number
				LA-9104P
Date: Wednesday, August 23, 2012				Rev 1.0
Sheet 23 of 57				

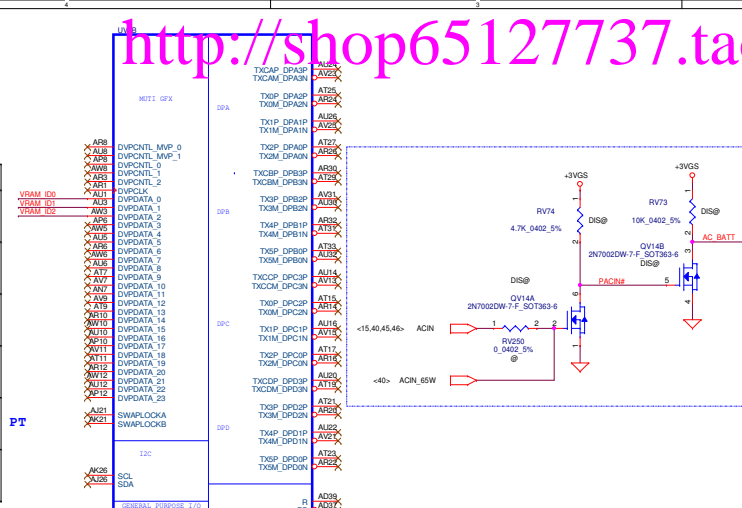
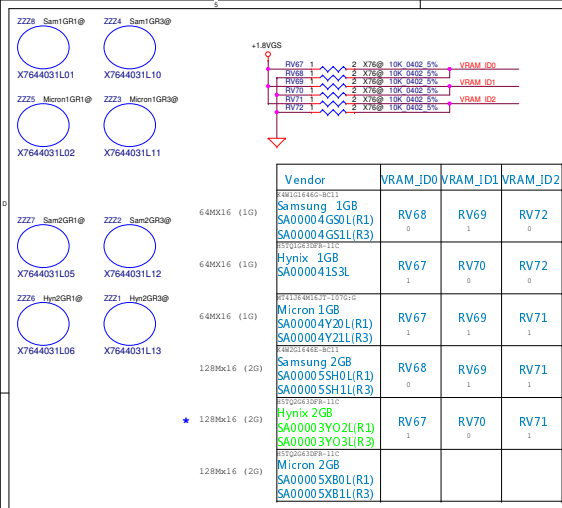
GFX PCIE LANE REVERSAL



LVDS Interface



本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障



CONFIGURATION STRAPS

ALLOW FOR PULLUP PADS FOR THESE STRAPS AND IF THESE GPIOs ARE USED, THEY MUST NOT BE ON LIT DURING RESET

STRAPS	PN	DESCRIPTION OF DEFAULT SETTINGS	RECOMMENDED SETTINGS
TX_PWR5_ENB	GPIO0	PCI FULL TX OUTPUT SWING	0: 50% swing 1: Full swing
TX_DEEMPH_EN	GPIO1	PCI TRANSMITTER DE-EMPHASIS	0: disable 1: enable
RSVD	GPIO2	Advertise PCIe speed when compliance test	0: 2.5GT/s 1: 5.0GT/s
RSVD	GPIO8	RESERVED	0
RSVD	GPIO9	VGA ENABLED	0
BIOS_ROM_EN	GPIO_22_ROMCSB	ENABLE EXTERNAL BIOS ROM	0: disable 1: enable
ROMDCFG(2:0)	GPIO(13:11)	SERIAL ROM TYPE OR MEMORY APERTURE SIZE SELECT	XXX
VP_DEVICE_STRAP_BNA	VS2VNC	IGNORE VIP DEVICE STRAPS	0
RSVD	HSYNCR		0
RSVD	GENERIC		0
AUD[1]	HSYNC	AUD[1] AUD[0]	11
AUD[0]	VSYNCR	0: No audio function 0: 1 Audio for DisplayPort and HDMI if dongle is detected 1: 0 Audio for DisplayPort only 1: 1 Audio for both DisplayPort and HDMI	

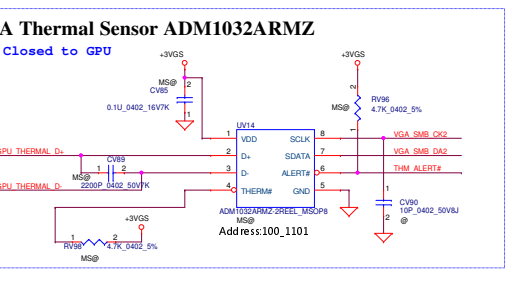
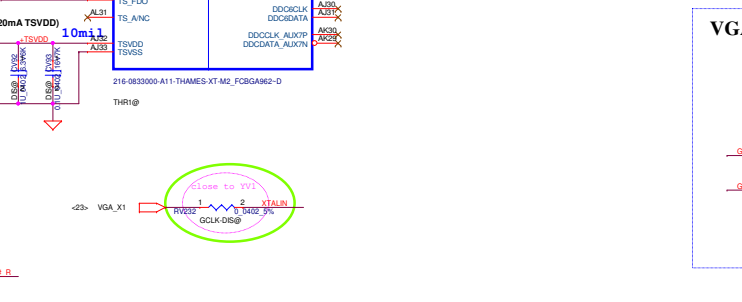
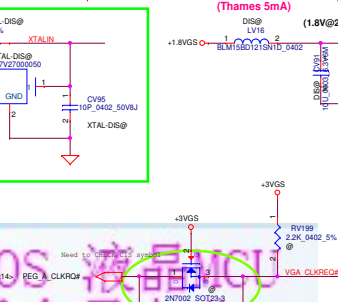
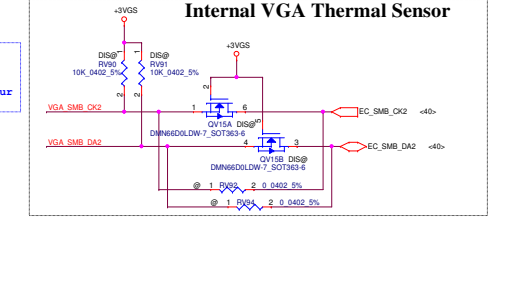
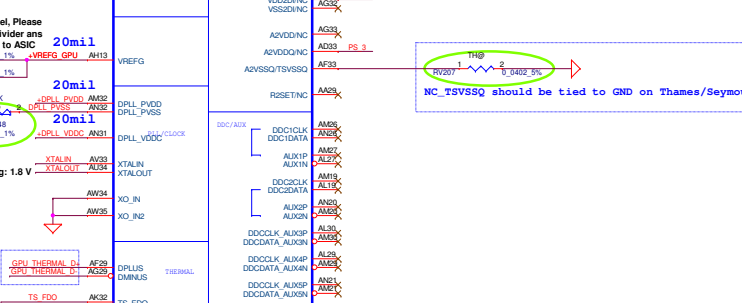
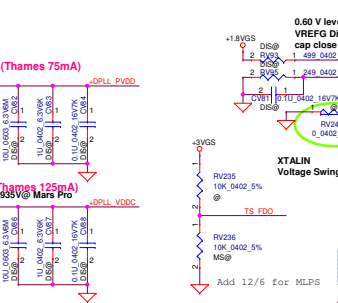
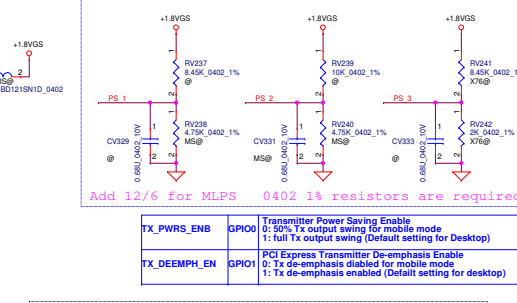
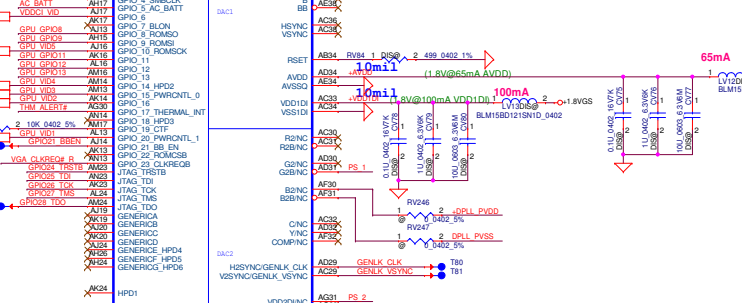
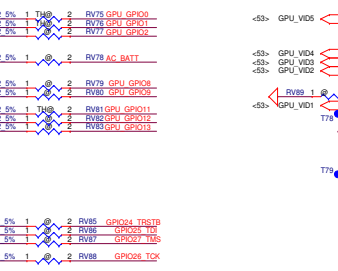
AMD RESERVED CONFIGURATION STRAPS

ALLOW FOR PULLUP PADS FOR THESE STRAPS BUT DO NOT INSTALL RESISTOR, IF THESE GPIOs ARE USED, THEY MUST KEEP "LOW" AND NOT CONFLICT DURING RESET

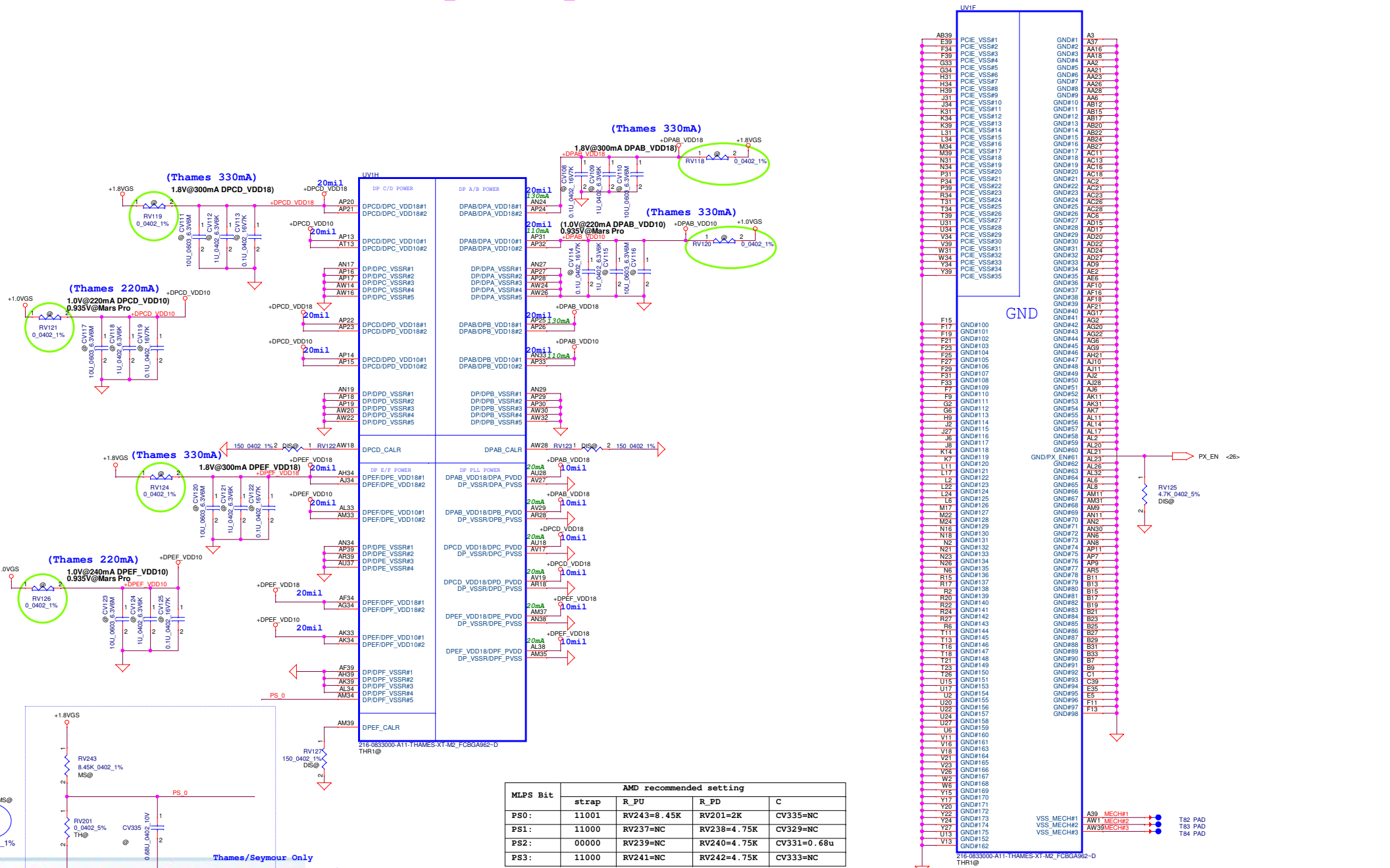
GPIO21	HSYNCR	GENERIC	GPIO2	GPIO8
--------	--------	---------	-------	-------

Mars Pro MLPs	RV241	RV242	Bits [3:1]
Hynix	NC	2.75k	000
Samsung	8.45k	4.75k	001
Micron	4.75k	NC	111

STRAPS

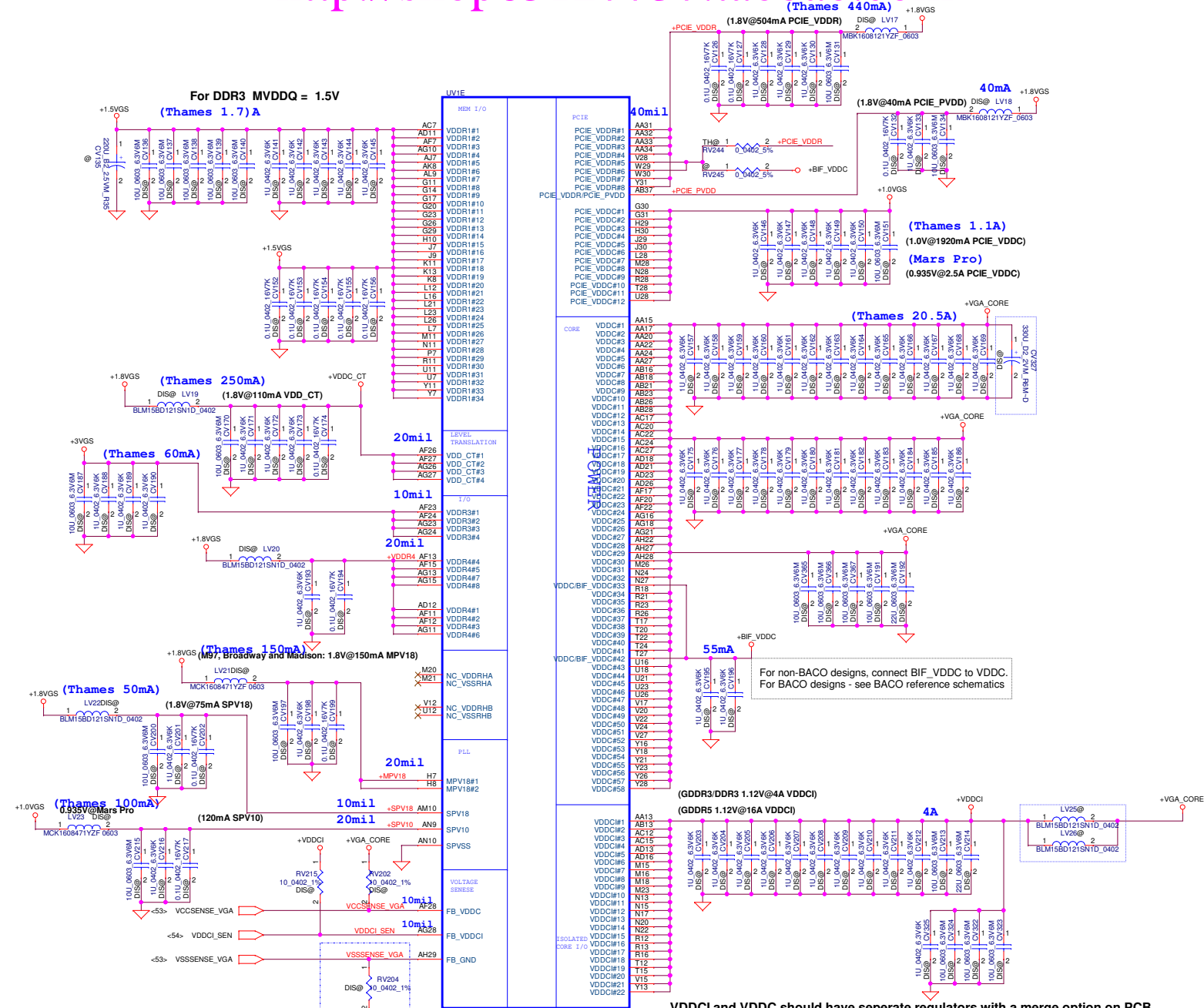


本本BIOS 液晶屏
全网最全最专业
可定制解决特殊故障



Do not install for Heathrow/Mars Pro
PS_0 Should be tied to GND on Thames/Seymour

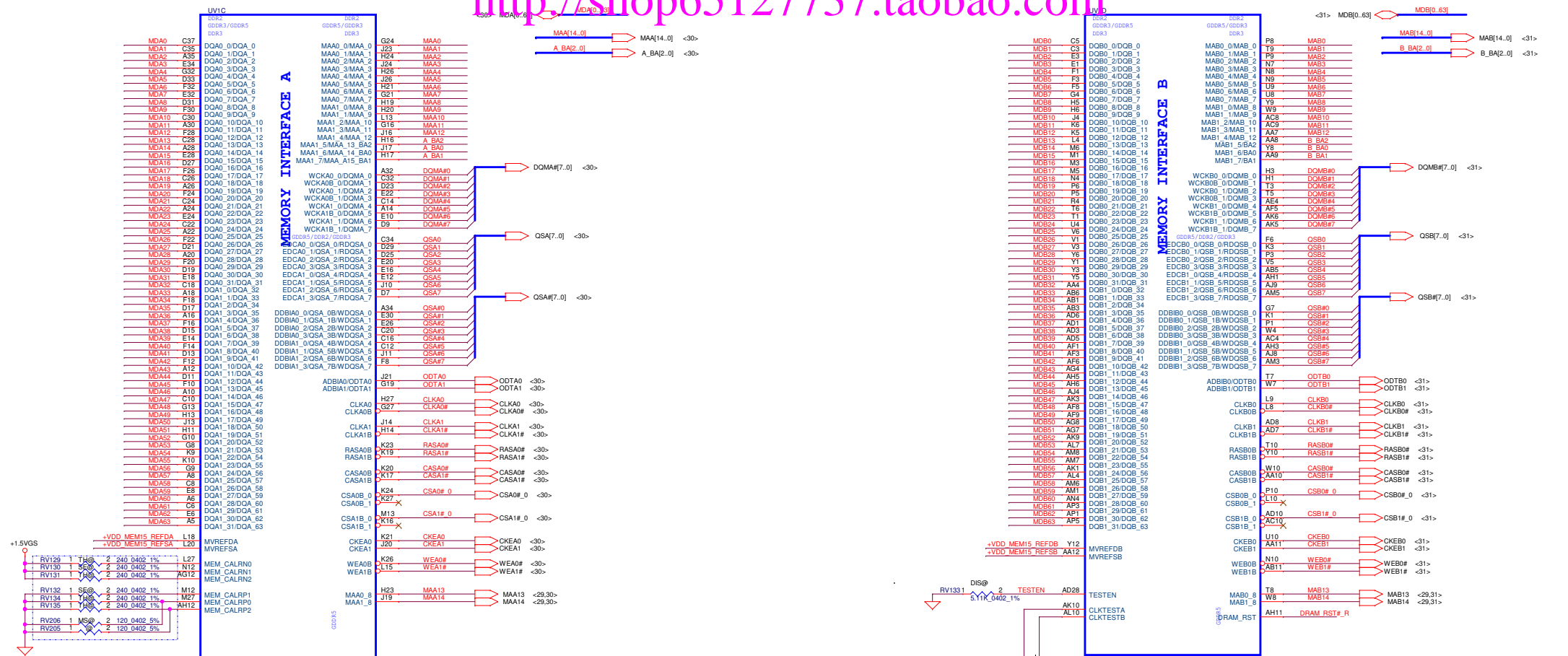
本本BIOS 液體MCU
全网最全最专业
可定制解决特殊故障



VDDCI and VDDC should have separate regulators with a merge option on PCB
 For Madison, Park, Capilano, Robson, Seymour and Whistler, VDDCI and VDDC can share one common regulator

本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

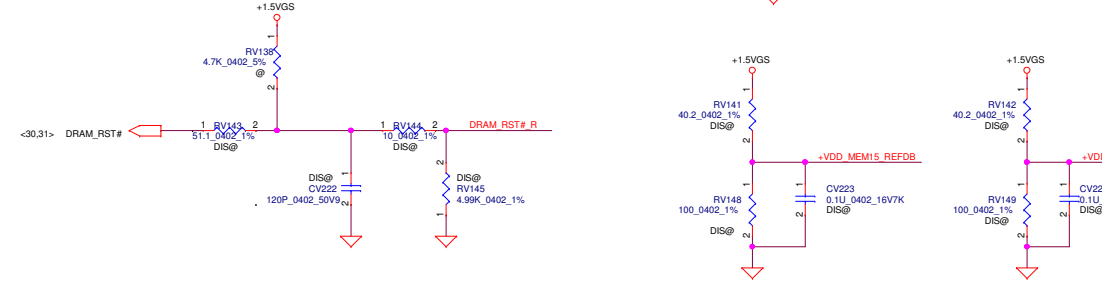
Security Classification	Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	ATI ThamesXT M2 Power
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				
Document Number	LA-9104P			Rev 1.0
Date:	Wednesday, August 28, 2012	Sheet	28	of 57



Co-lay Thames/Seymour/Mars Pro

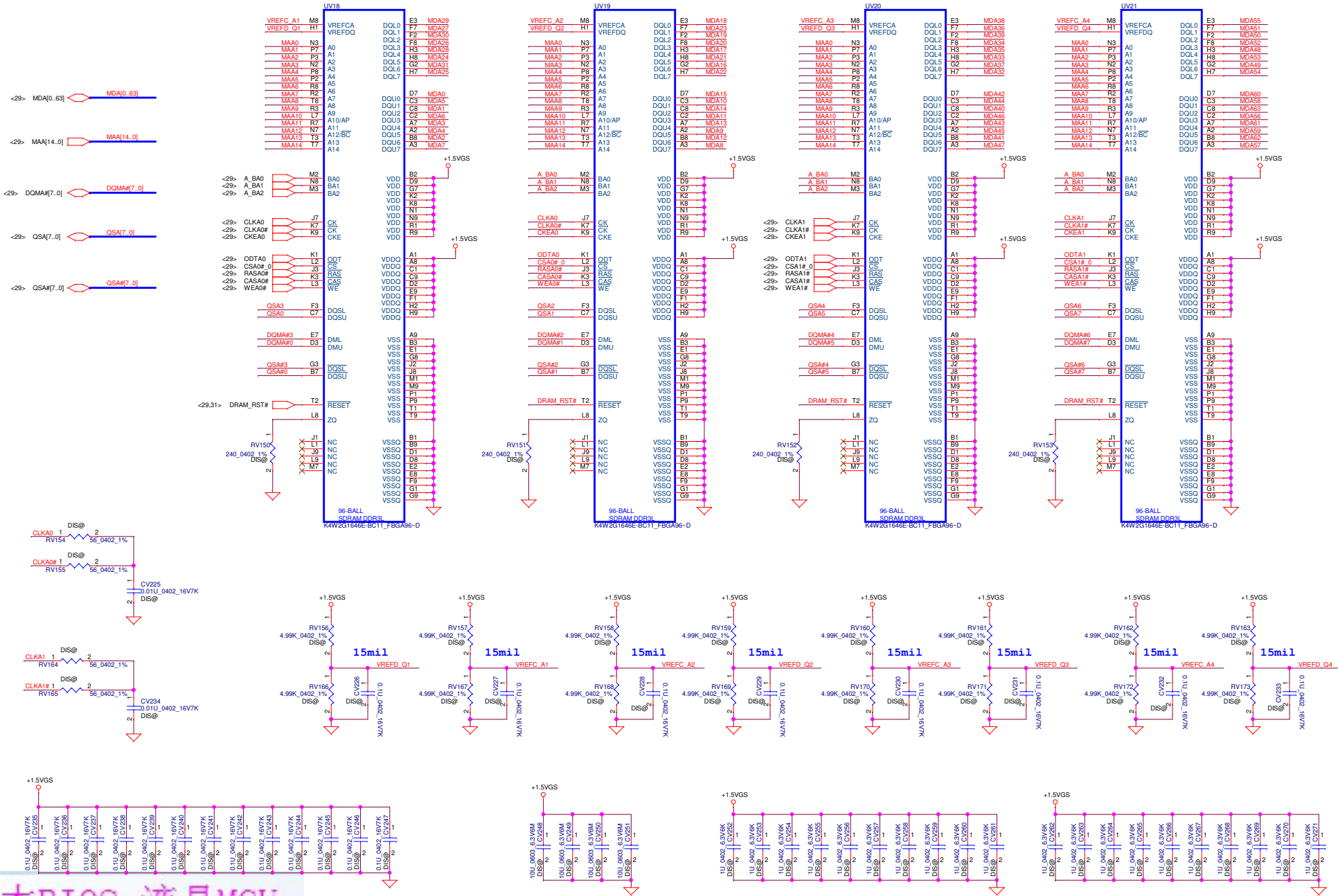
	Thames M2	Seymour M2	Mars Pro
RV129	TH@	@	@
RV130	@	SE@	@
RV131	TH@	@	@
RV132	@	SE@	@
RV134	TH@	@	@
RV135	TH@	@	@
RV206	@	@	MS@
RV205	@	@	@

This basic topology should be used for DRAM_RST for DDR3/GDDR5. These Capacitors and Resistor values are an example only. The Series R and | Cap values will depend on the DRAM load and will have to be calculated for different Memory, DRAM load and board to pass Reset Signal Spec. Place all these components very close to GPU (Within 25mm) and keep all component close to each Other (within 5mm) except Rser2



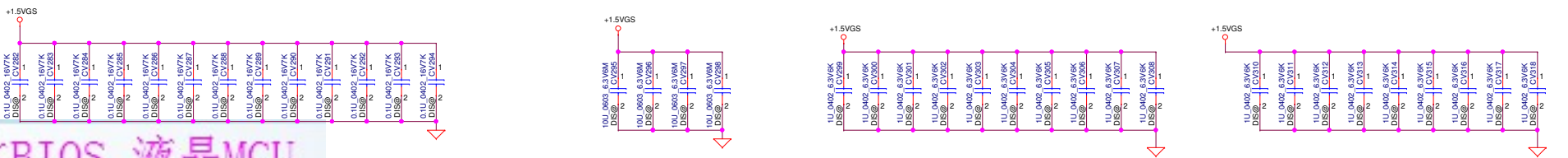
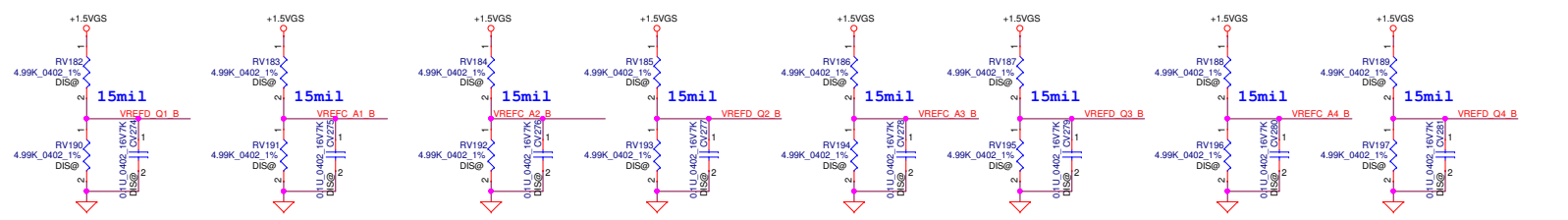
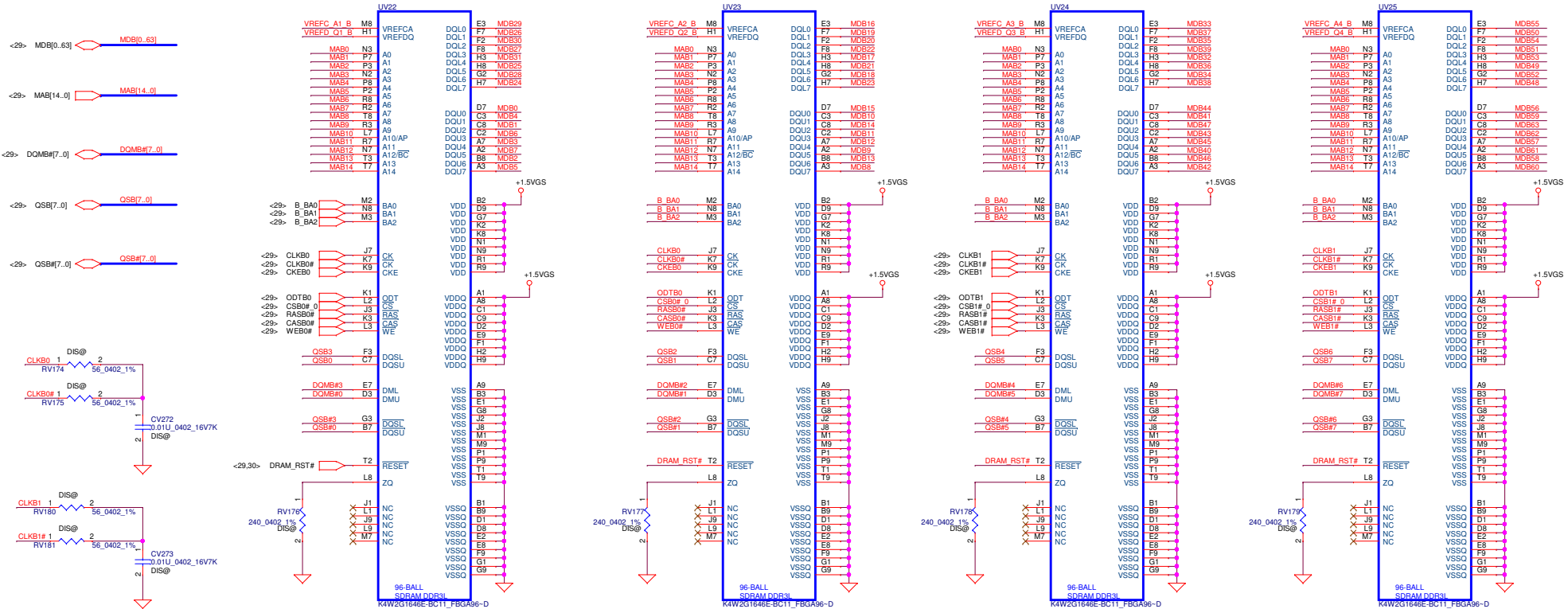
route 50ohms single-ended/100ohms diff and keep short Debug only, for clock observation, if not needed, DNT 5mil 5mil

本本IO 液晶IC 全网最全最专业的定制解决特殊故障



本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

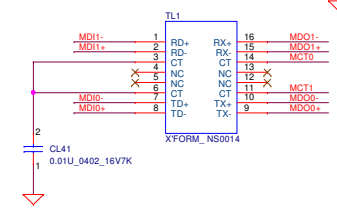
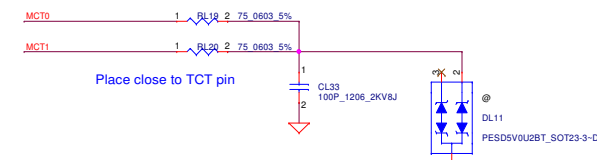
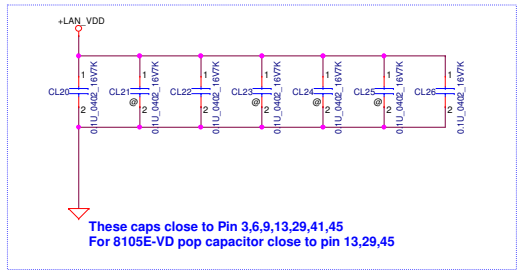
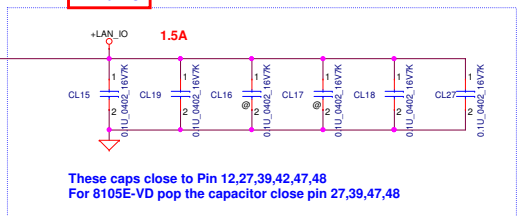
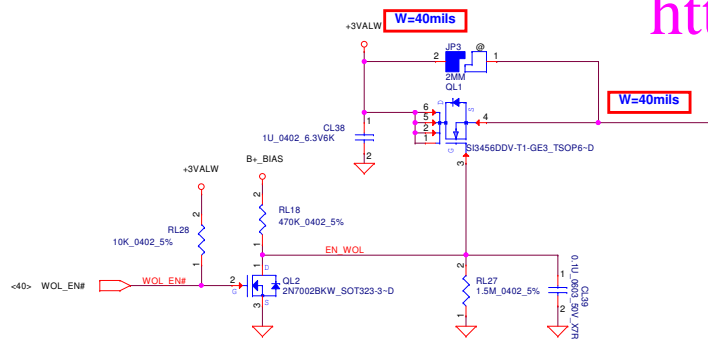
Security Classification	Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	ATI ThamesXT M2 VRAM A
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				
Size	Document Number	LA-9104P	Rev	1.0
Date:	Wednesday, August 23, 2012	Sheet	30	of 57



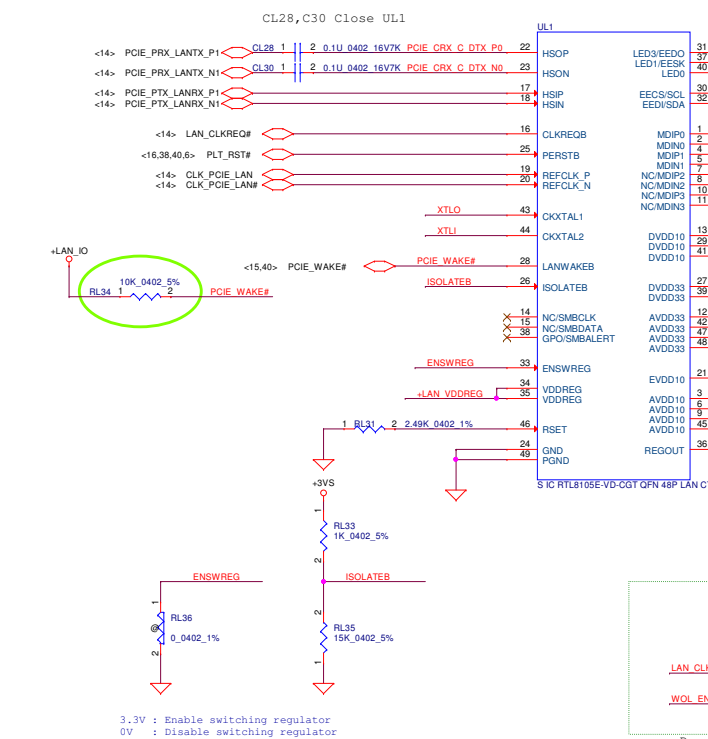
本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

Security Classification		Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	ATI ThamesXT M2 VRAM B	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPONENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.					
Size	Document Number	LA-9104P		Rev	1.0
Date:	Wednesday, August 23, 2012	Sheet	31	of 57	

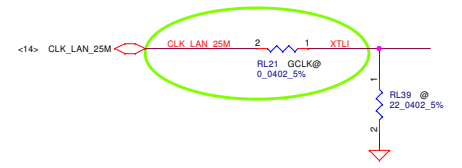
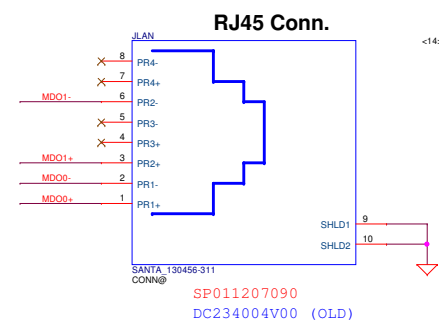
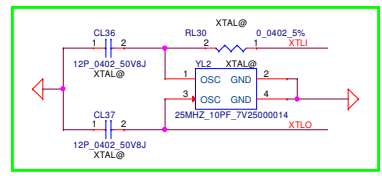
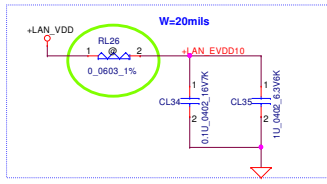
+LAN_IO rising time : >1ms and <100ms



DL11 as close as possible to C27 and C32



Reserve 10K pull LAN_IO

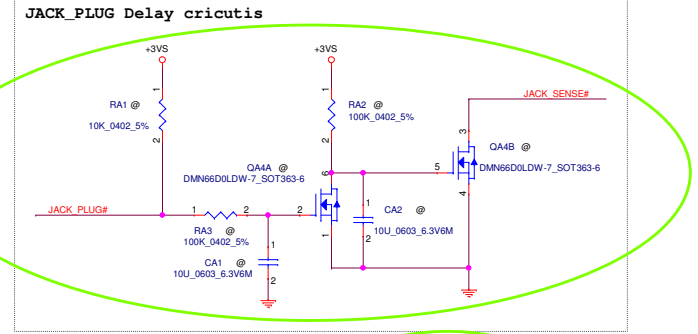
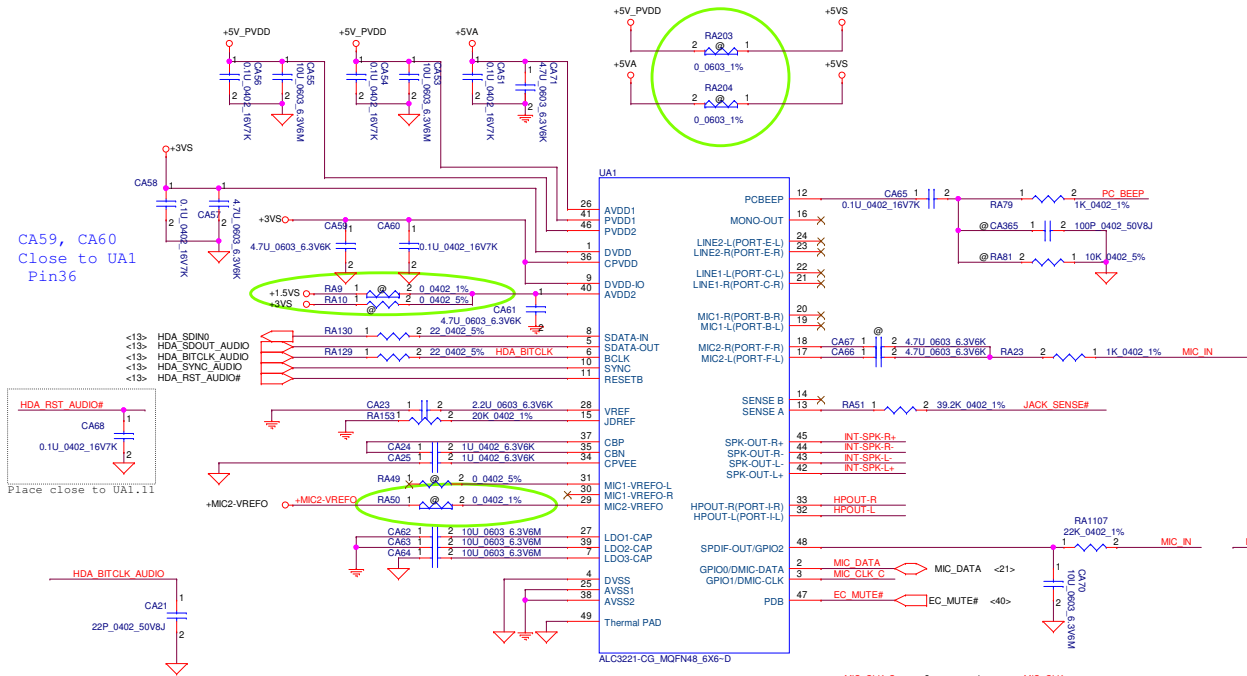


3.3V : Enable switching regulator
0V : Disable switching regulator

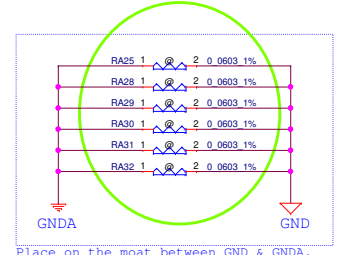
10/100 : 100@ (LDO mode used)

Security Classification	Compal Secret Data		Compal Electronics, Inc.
Issued Date	2012/08/22	Deciphered Date	2013/08/31
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.			Title LAN RTL8105E
			Doc Number LA-9104P
			Rev 1.0
			Date: Wednesday, August 29, 2012 Sheet 32 of 57

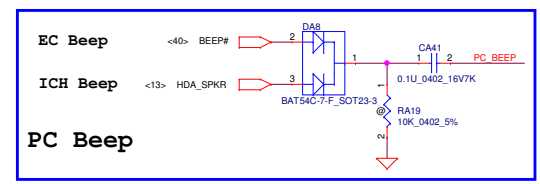
本本BIOS 液晶MCU
全网最全最专业
可定制解决特殊故障



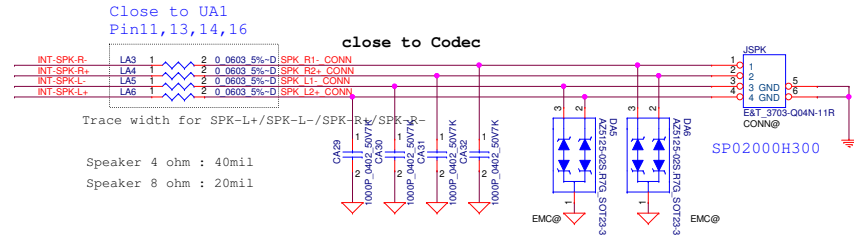
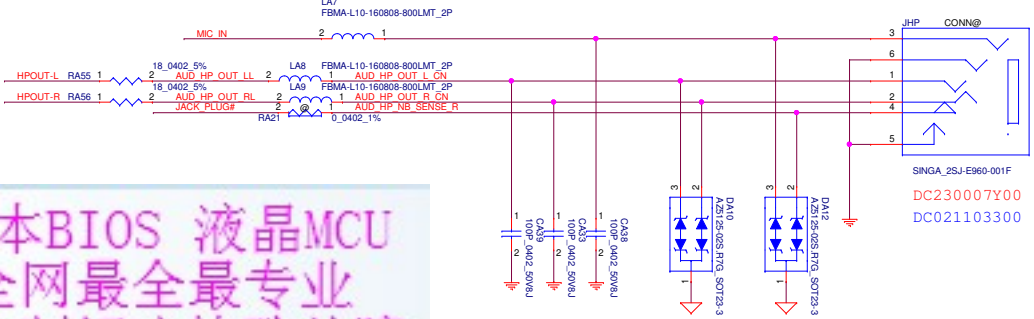
Reserve for cancel Delay circuitis



Place on the moat between GND & GND.



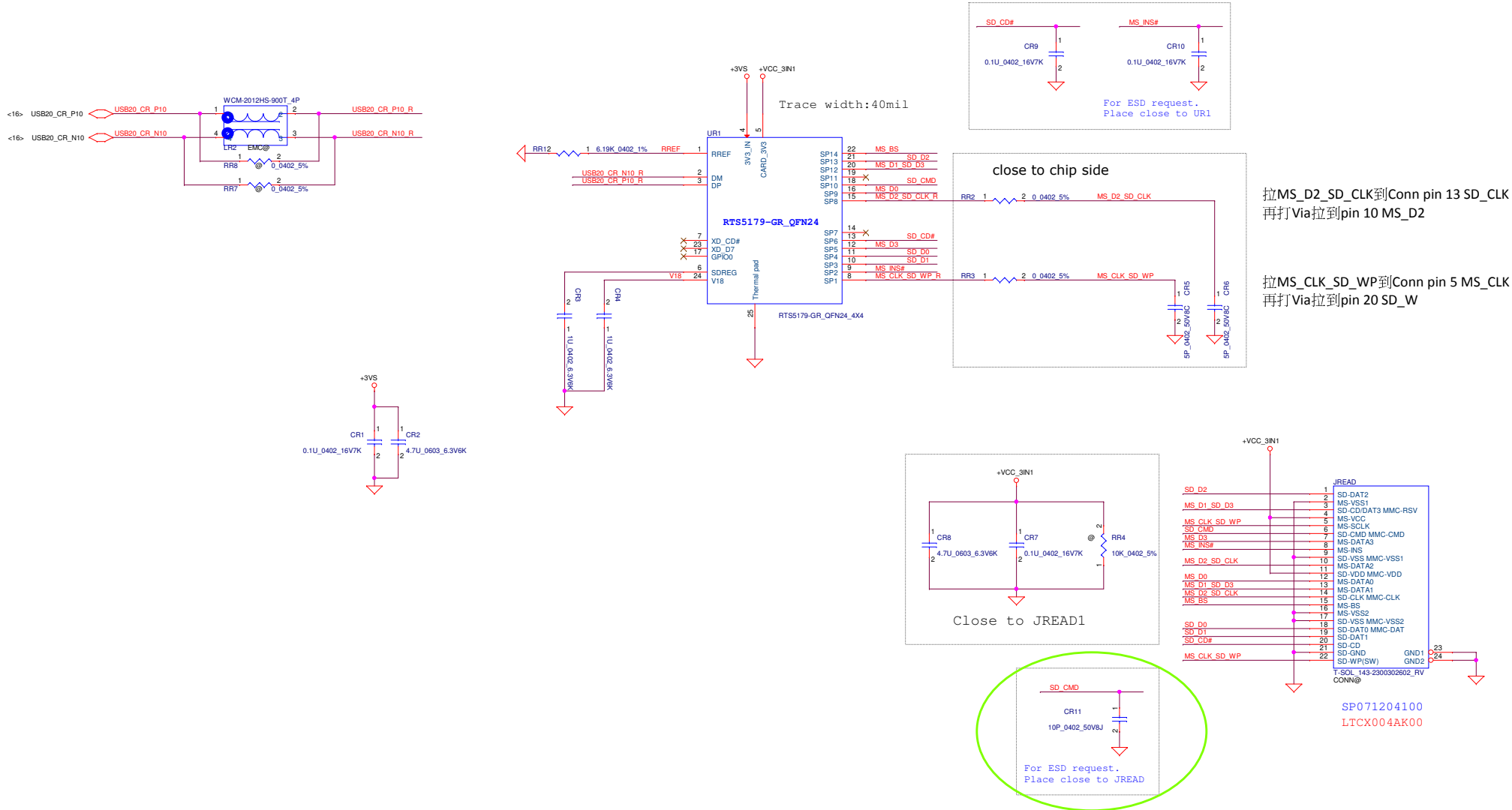
iPhone type Combo Jack



Speaker 4 ohm : 40mil
Speaker 8 ohm : 20mil

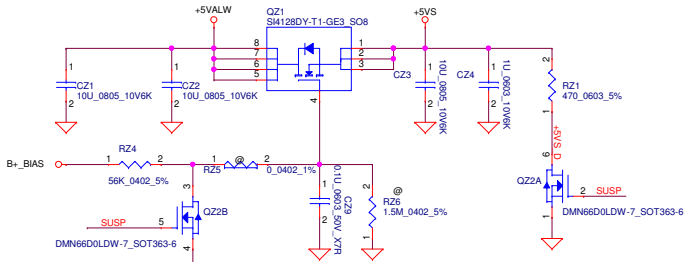
本本BIOS 液晶MCU
全网最全最专业
可定制解决特殊故障

Security Classification		Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	Compal Electronics, Inc.	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RESEARCH AND DEVELOPMENT DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	Rev
				LA-9104P	1.0
Date: Wednesday, August 28, 2012				Sheet	33 of 57

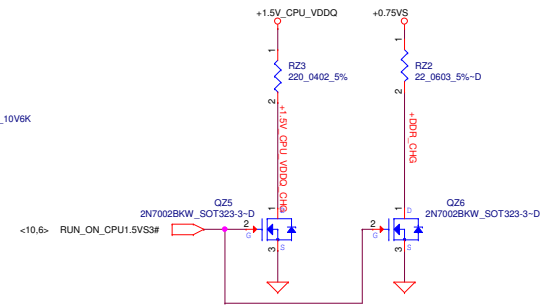
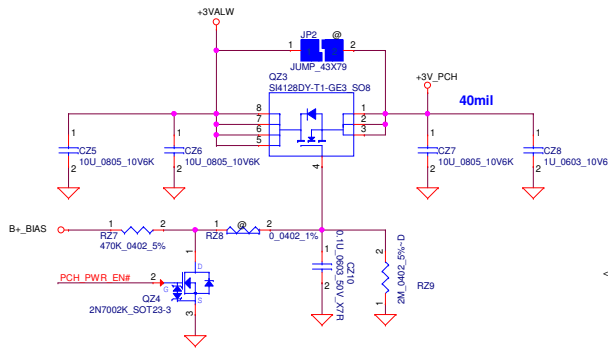


本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

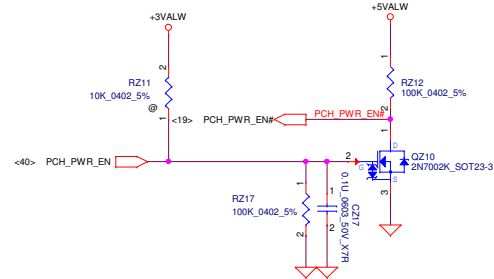
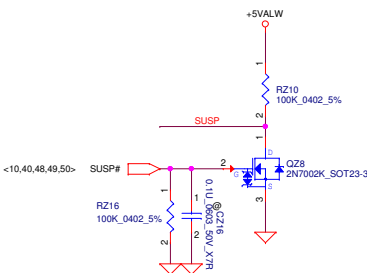
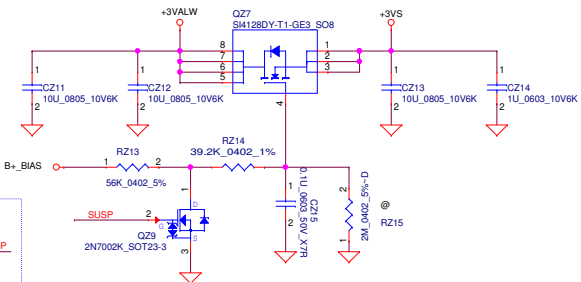
+5VALW to +5VS



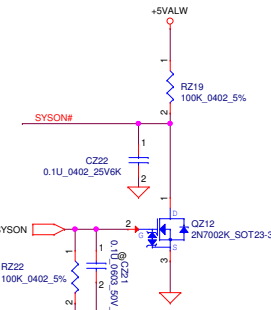
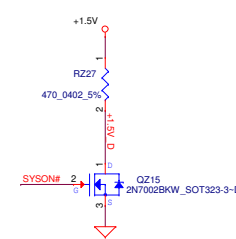
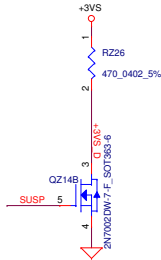
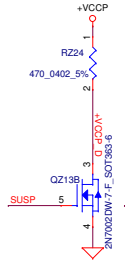
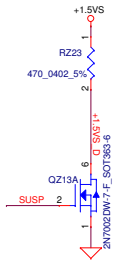
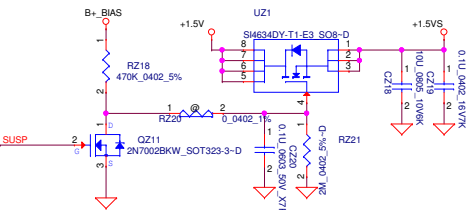
+3VALW to +3V_PCH



+3VALW to +3VS



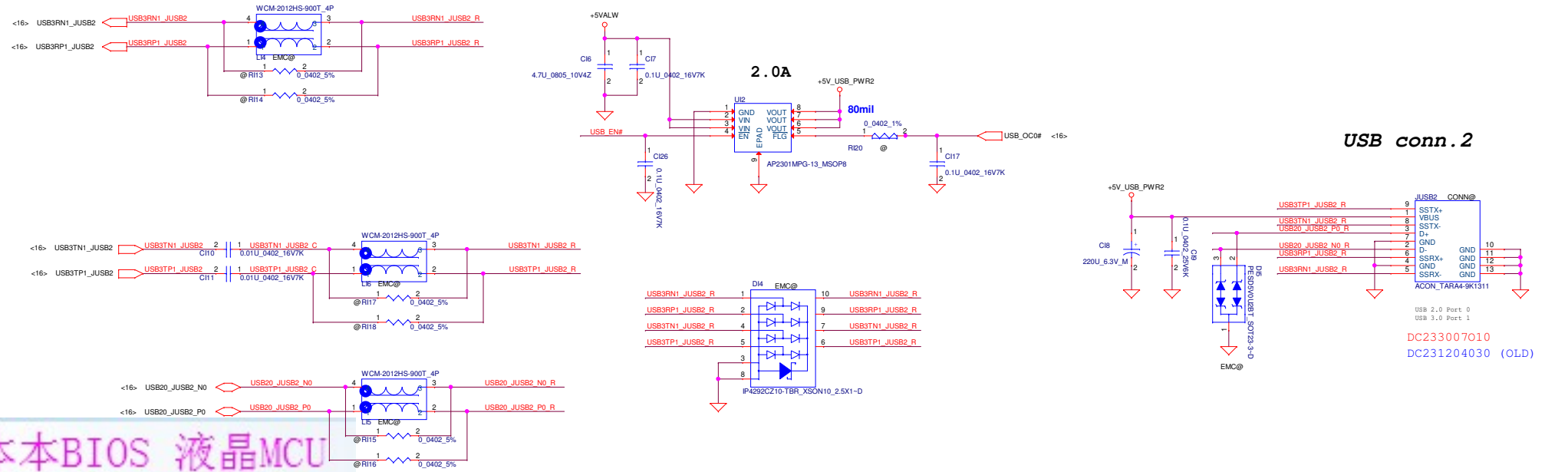
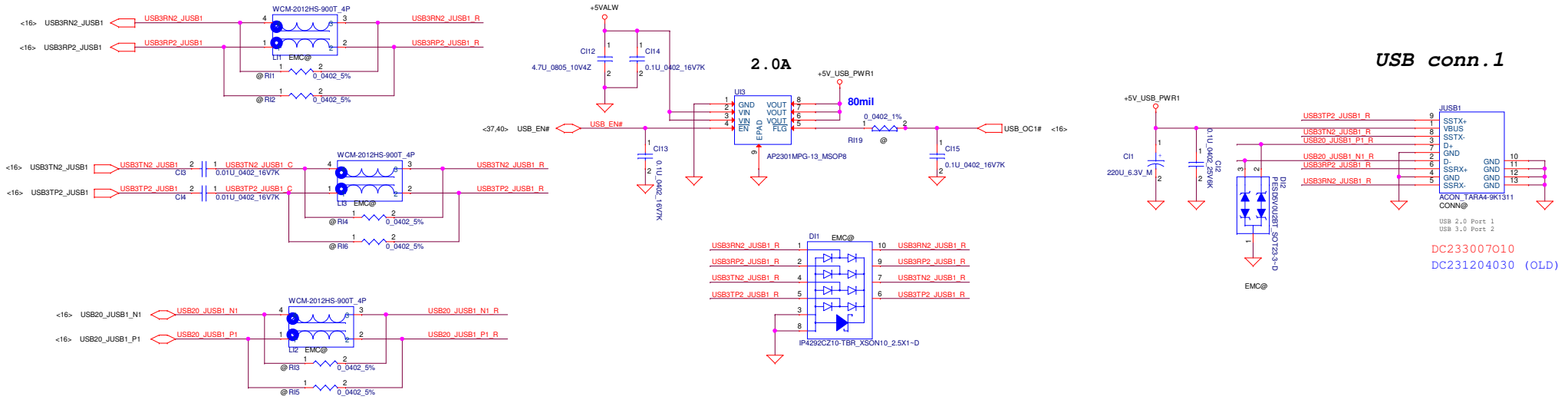
+1.5V To +1.5VS



Reserve for ESD
CZ23
0.1U_0402_16V7K
Please close to QZ9

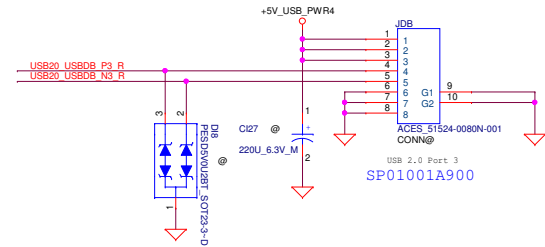
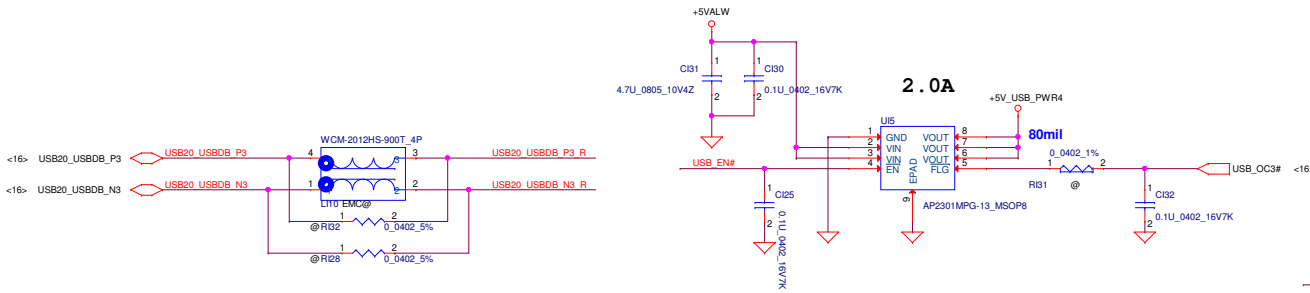
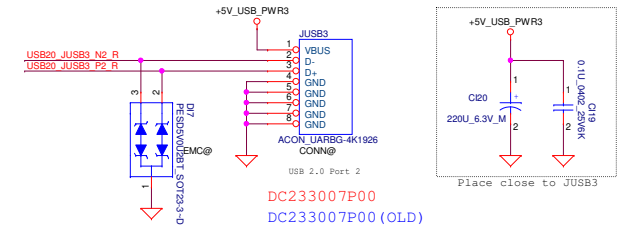
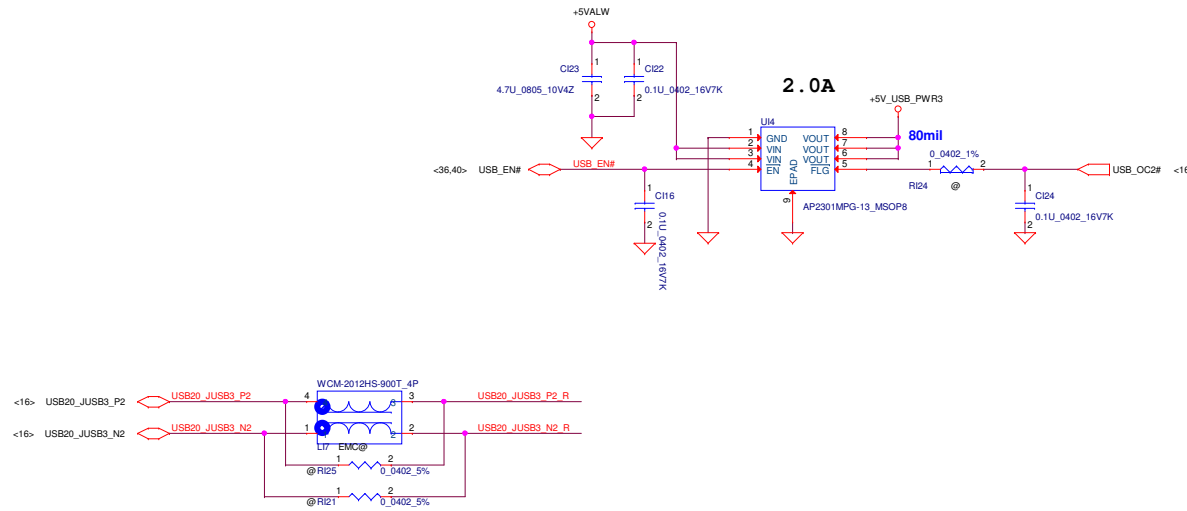
本本BIOS 液晶MCU
全网最全最专业
可定制解决特殊故障

Security Classification	Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number LA-9104P
Date: Wednesday, August 28, 2012				Rev 1.0
Sheet 35 of 57				



本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

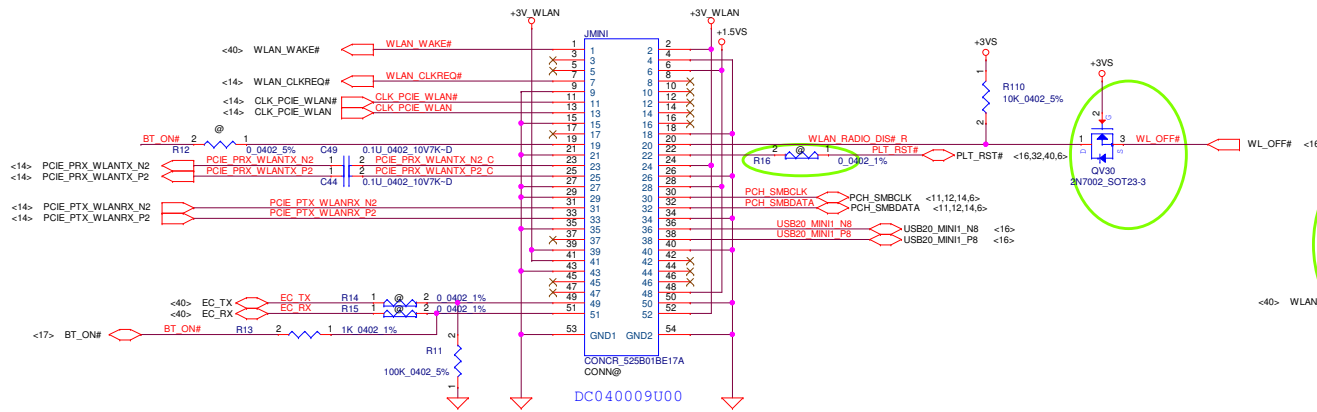
Security Classification	Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	USB3.0
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RESEARCH AND DEVELOPMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Rev
				1.0
Date: Wednesday, August 28, 2012				Sheet 36 of 57



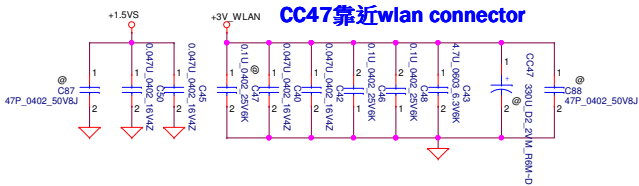
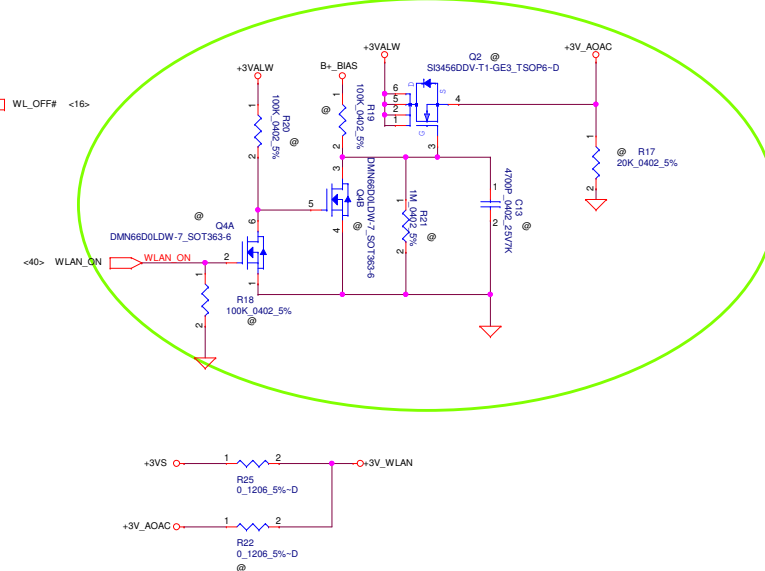
本本BIOS 液晶MCU
全网最全最专业
可定制解决特殊故障

Security Classification	Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	MB to USB2.0 DB
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RESEARCH AND DEVELOPMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Rev 1.0
Date: Wednesday, August 28, 2012				Sheet 37 of 57

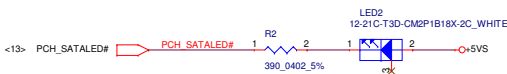
Mini WLAN/WIMAX H=6.7



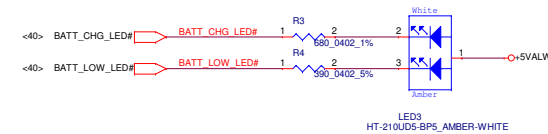
Power Control for Mini card



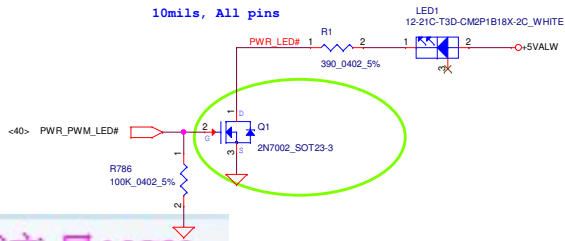
HDD LED



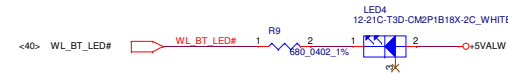
Battery LED



Power LED



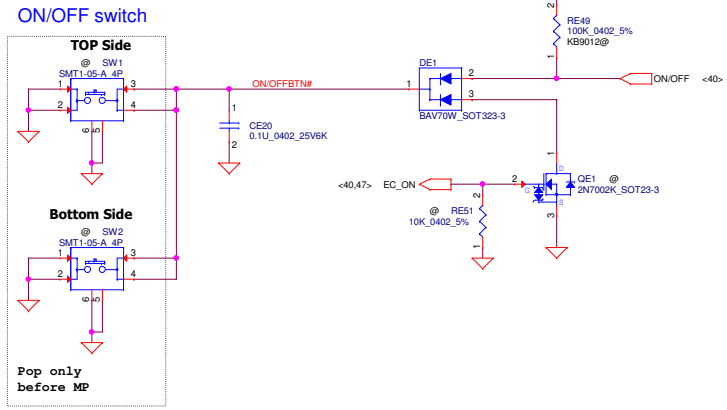
Wireless LED



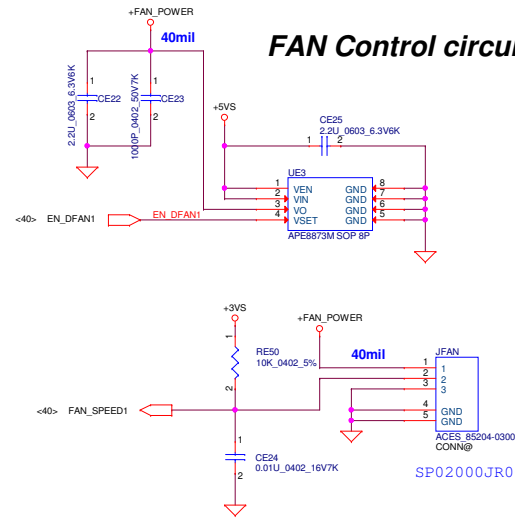
本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

Security Classification	Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number LA-9104P Date: Wednesday, August 28, 2012 Sheet 38 of 57

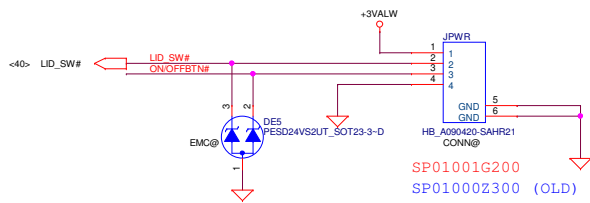
Power ON Circuit



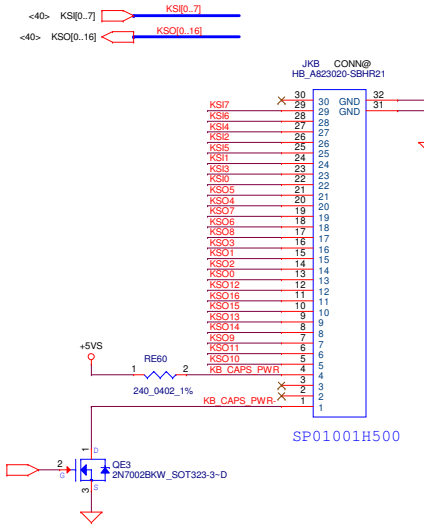
FAN Control circuit



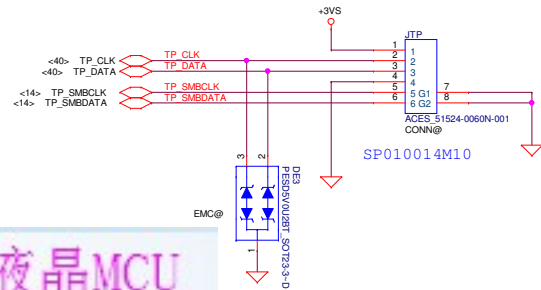
POWER/B



INT_KBD Conn.

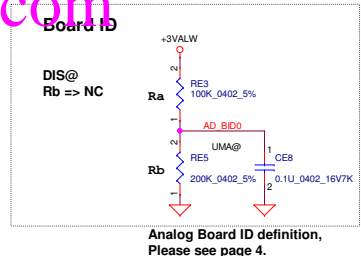
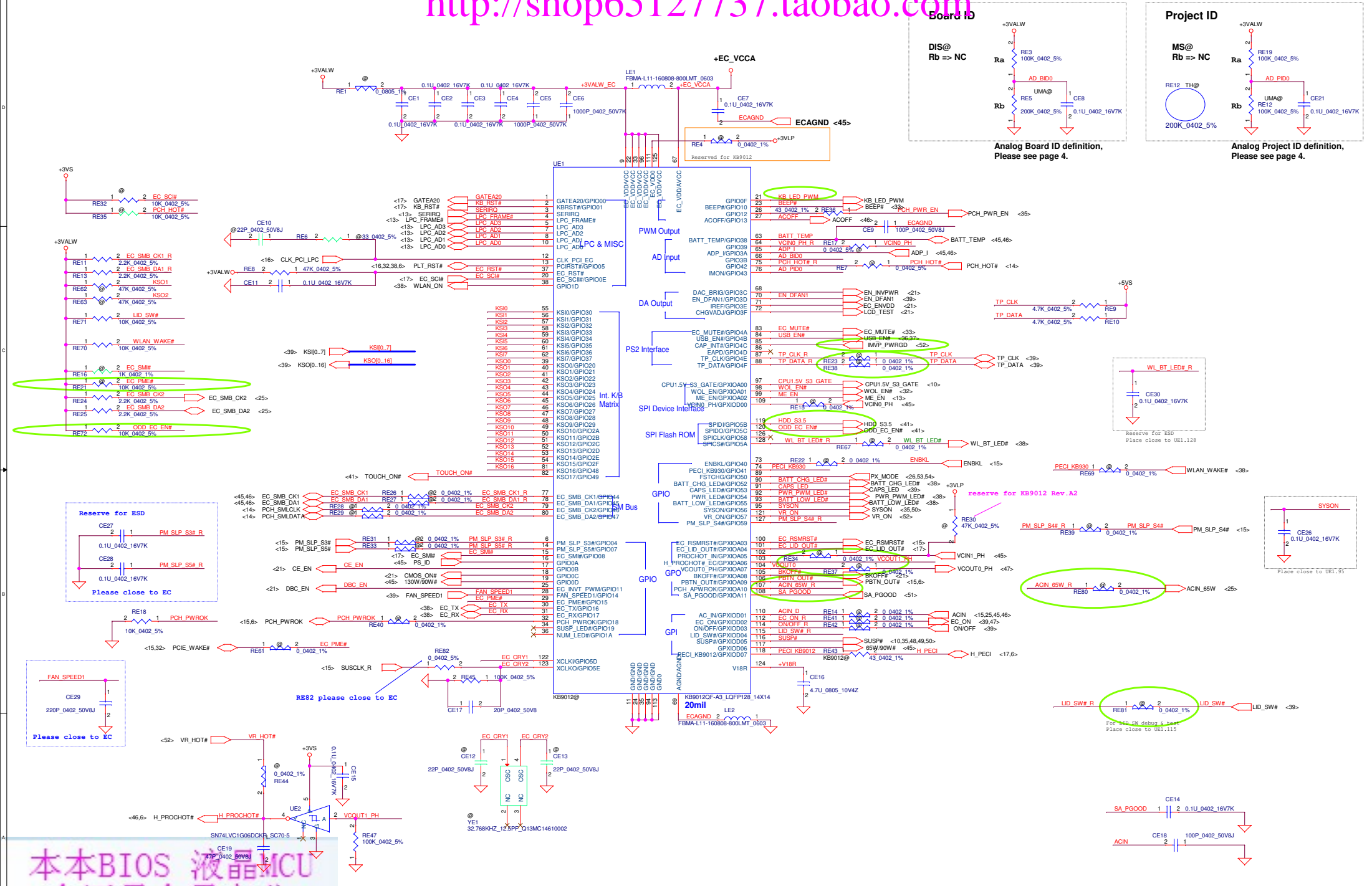


Touch pad



本本BIOS 液晶MCU
全网最全最专业
可定制解决特殊故障

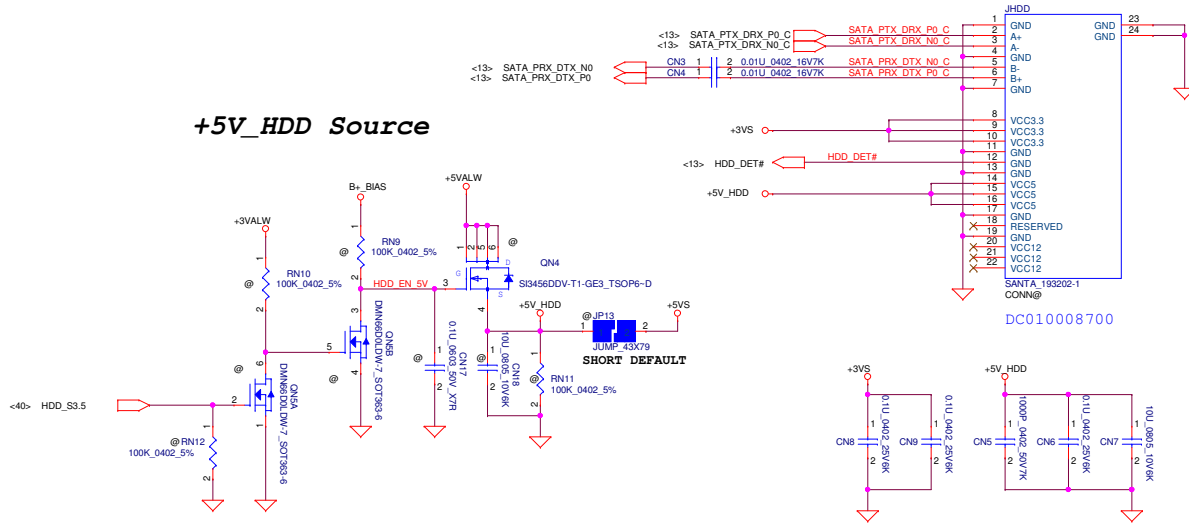
Security Classification	Compal Secret Data		Title	Compal Electronics, Inc.	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	FAN/TP/KB/PWR SW	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RESEARCH AND DEVELOPMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	Rev
				LA-9104P	1.0
				Date	Wednesday, August 28, 2012 [Sheet 39 of 57]



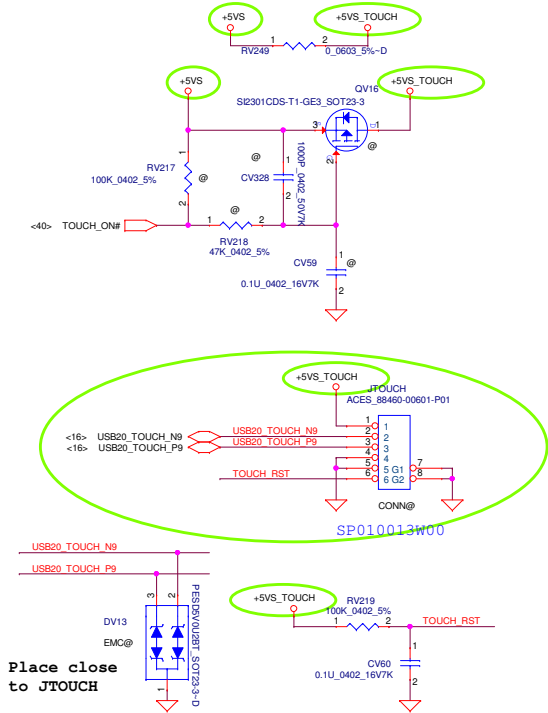
本本BIOS 液話MCU
全网最全最专业
可定制解决特殊故障

Security Classification		Compal Secret Data		Title	
Issued Date		Deciphered Date		EC ENE-KB9012	
2012/08/22		2013/08/31		Document Number	
				LA-9104P	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RECD DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.					
Date: Wednesday, August 28, 2012				Sheet 40 of 57	

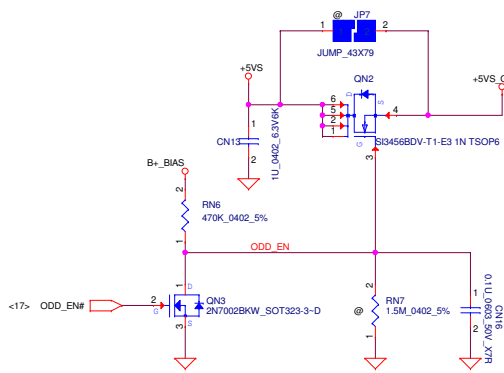
SATA HDD Conn.



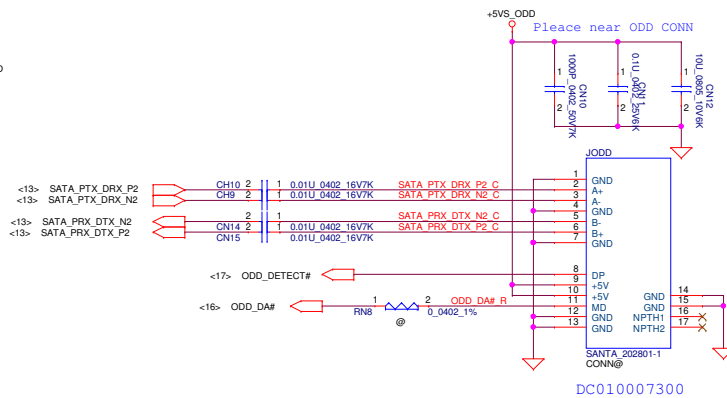
* Touch Screen Panel



ODD Power Control



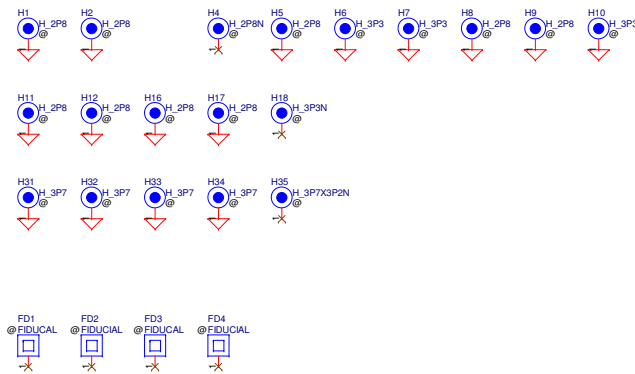
SATA ODD Conn.



本BIOS 全网最全最专业
可定制解决特殊故障

Security Classification	Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	HDD / ODD
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RESEARCH AND DEVELOPMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number
				LA-9104P
Date:				Wednesday, August 28, 2012
Sheet				41 of 57

Screw Hole



本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

Security Classification	Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RESEARCH AND DEVELOPMENT DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number LA-9104P Date: Wednesday, August 28, 2012
			Sheet	42 of 57
			Rev	1.0

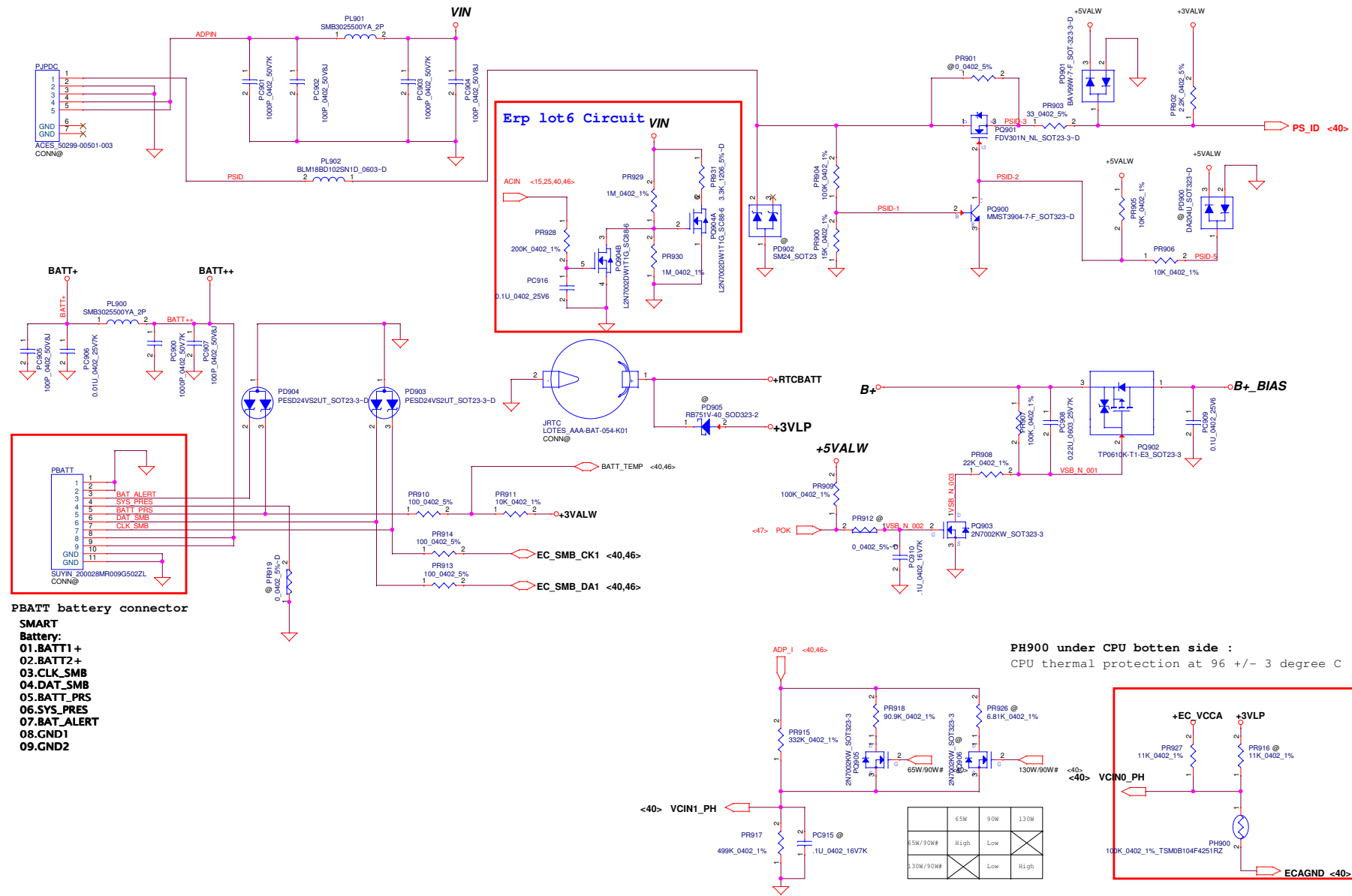
Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	21,39	LVDS	2012/05/17	SED	Add FHD Panel CE_ENABLE, DBC_ENABLE function from SED request	Add CE_EN, DBC_EN control pin to EC	0.2
2	21	LVDS	2012/05/22	SED	Follow SED team request disable CE_EN function	Change RV62 to DE-POP and RV100 to POP for disable CE_EN function	0.2
3	33	Audio codec	2012/05/23	CODEC	Follow CODEC vendor suggestion	Add AUDIO JACK PLUG delay circuit, Separate NET JACK_PLUG to -> JACK_SENSE# & -> JACK_PLUG#	0.2
4	16,21	Touch Screen	2012/05/29	HW	Add touch screen function	Add RV217, RV218, RV219, RV249, CV59, CV60, CV328, DV13, QV16, JTOUCH	0.2
5	39	Board ID	2012/05/30	HW	Board ID change for PT	Change RES from 8.2k_0402(SD028820180) to 33k_0402(SD028330280)	0.2
6	21,39	Touch Screen	2012/05/30	HW	Add touch screen function power control	Add NET "TOUCH_ON#" from JTOUCH to UE1.82(KB9012) for TOUCH SCREEN PANEL power control	0.2
7	33	Audio codec	2012/05/30	HW	Follow RealTek suggestion remove, delete reserve MUTE circuit	Delete D1,QA1,QA2,QA3,RA24,RA26,RA60,RA62,RA68,RA109,CA72,CA73	0.2
8	15,16, 39,41	ESD	2012/05/30	ESD	ESD ask CAP for reserve	Reserve 0.1u/0402 CH104,C223,CH105,CE27,CE29	0.2
9	14	Green CLK	2012/05/30	HW	For Green CLK test	Change RH31,RH41,RV232 0ohm form "GCLK#" to "g" for break the clock signal to device	0.2
10	10,26,41	DC/DC	2012/05/31	HW	Change "+1.5V_CPU_VDDQ", "+1.5VS", "+1.5VGS" derating	Change RC150 330K/0402 to 2M/0402, RC151 100K/0402 to 470K/0402, R218 100K/0402 to 470K/0402, RV115 0/0402 to 2M/0403	0.2
11	41	DC/DC	2012/05/31	HW	For power sequence trunning	Change R215 to DE-POP	0.2
12	06,15,16, 39,41	ESD	2012/05/31	ESD	Follow ESD team request	Change 0.1u/0402 from "g" to POP	0.2
13	32	Green CLK	2012/06/15	HW	Change for Green CLK bom control	Change RL21,RL30 from "g" to "GCLK#"	0.2
14	41	DC/DC	2012/06/15	HW	For WLAN card power sequence issue	Change R24,R213 from 470K/0402 56K/0403	0.2
15	35,41	Schematic page modify	2012/06/18	HW	Schematic page modify for easily maintain.	Swap Page. 35 & Page 41.	0.2
16	41	ODD	2012/06/18	HW	Change component location for easily maintain.	Move CH9,CH10 from Page.13 to Page.41	0.2
17	39	FAN	2012/06/29	HW	Fan speed noise issue	Reserve 220p/0402 CE24	0.2
18	6	CPU	2012/06/29	ESD	System boot-up shot down issue.	Change CC151 from POP to "g"	0.2
19	21,35, 39,40,41	Circuit adjust	2012/07/01	HW	Circuit & page adjust for OAK 15" & OAK 17"	1. Swap P.35 & P.41and move touch screen circuit from P.21 to P.41. 2. Swap P.39 & P.40 page no	0.2
20	40	LID SW	2012/07/01	HW	LID SW need a trace for debug and switch.	Add RE81 for LID SW.	0.2
21	25	GPU	2012/07/01	HW	Follow AMD request, MarsPro will used MPLs.	Change RV75,RV76,RV81 from "DIS#" to "TH#"	0.2
22	29	GPU	2012/07/01	HW	Follow AMD request, MEM_CALRP2 is not need for Mars ASIC now.	Change RV205 from "MS#" to "g"	0.2
23	38	MINI card	2012/07/03	HW	Power Control for Mini card didn't need	Change R17 to "g"	0.2
24	6	XDP	2012/07/06	HW	S3 return hang issue	Change RC89 from "g" to POP	0.2
25	23	GREEN CLK	2012/07/09	HW	Follow Green CLK FAE suggestion	1. Change UG1.2(+3VLP) & UG1.8(+3VALW) connect to +LAN_IO 2. Add R787 connect from +RTC Batt to C5.2 & UG1.10 3. Change C14 from 0.1u to 5p/0402 4. Change C8 connect from +3V_ALW to +LAN_IO 5. Add R788 0ohm/0402 from +RTCVCC to UG1 for GCLK & DH1 select	0.2
26	35	MOAT	2012/07/09	ESD	For ESD request reserve CAP.	Reserve those CAP for ESD MOAT.	0.2
27	18	LVDS	2012/07/10	HW	Change RES and reserve CAP for LVDS issue	Change RH185 from 0ohm-short to 0ohm/0805, and reserve CH106 1U/0402	0.2
28	13	PCH	2012/07/11	ESD	Follow ESD team request	Add RH44,RH49,RH70 & NET PCH_JTAG_TMS_R, PCH_JTAG_TDI_R, PCH_JTAG_TDO_R for break signal trace	0.2
29	40	PCH	2012/07/11	ESD	Follow ESD team request	1.Change NET NAME "N59110727" to "WL_BT_LED#_R" 2. Reserve 0.1u/0402 on "WL_BT_LED#_R" for ESD	0.2
30	21	LVDS	2012/07/11	HW	Reserve for CE function for LVDS connector	Change CE_EN_R from dummy to JLVDS.18	0.2
31	32	Connector	2012/07/12	ME	For ME request	Change JLAN CPN from "DC234004V00" to "SP011207090"	0.2
32	40	FAN	2012/07/16	HW	For FAN_SPEED1 noise issue	Change CE29 from "g" to POP	0.2
33	14	Touch PAD	2012/07/17	SED	Change Touch PAD SMBUS port for SMBUS issue	Change Touch PAD SMBUS port for SMB0 to SMB	1.0
34	32	GREEN CLK	2012/07/19	HW	Follow Silego FAE request	Change RL21 from 510 ohm to 0 ohm/0402	1.0
35	41	Touch Screen	2012/08/07	SED	Follow SED team request change JTOUCH USB signal conatct.	Change JTOUCH Pin define.	1.0
36	34	Card Reader	2012/08/14	ESD	Follow ESD team request	Reserve CR11 100p/0402 close to JREAD	1.0
37	23	GREEN CLK	2012/08/16	HW	Fixed GCLK output abnormal issue	Change UG1.2(UG1/VDD) from +LAN_IO to+3VALW	1.0
38	33	CODEC	2012/08/16	HW	The issue already fixed by new CODEC.	Remove delay circuit and POP RA4	1.0
39	23	GREEN CLK	2012/08/17	HW	For RTC discharge issue	De-pop R788	1.0
40	32,34	LAN	2012/08/17	HW	For LAN Chip abnormal leakage issue	Pop RL34 and de-pop RE21	1.0
41	34	Card Reader	2012/08/20	ESD	Follow ESD team request	Change CR11 from 100p/0402 to 10p/0402 and POP	1.0

本本BIOS 液晶MCU
全网最全最专业
可定制解决特殊故障

Item	Page #	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
42	41	Touch Screen	2012/08/20	SED	Follow SED team request	Change Touch screen power rail for +3VS to +5VS	1.0
43	38	LED	2012/08/20	HW	Change LED light	Change LED1,LED2,LED4 CPN from SC500006000 to SC50000DC00	1.0
44	38	WLAN	2012/08/20	HW	Remove AGAC function power control	Change R18,R19,R20,R21,C13,Q2,Q4 component BOM structure to "0"	1.0
45	41	Touch Screen	2012/08/20	HW	Add EC control for Touch Screen function	Add RN15 & QN6 and relative circuit connect	1.0
46	40	BATMAN2	2012/08/21	HW	For BATMAN2	Add RE82 0ohm/0402 between trace SUSCLK_R & EC_CRY2	1.0
47	14,17	PCH	2012/08/21	HW	For SYSTEM S3 leakage issue	Change RH79.2 & RH245.2 connect from +3V_PCH to +3VS	1.0

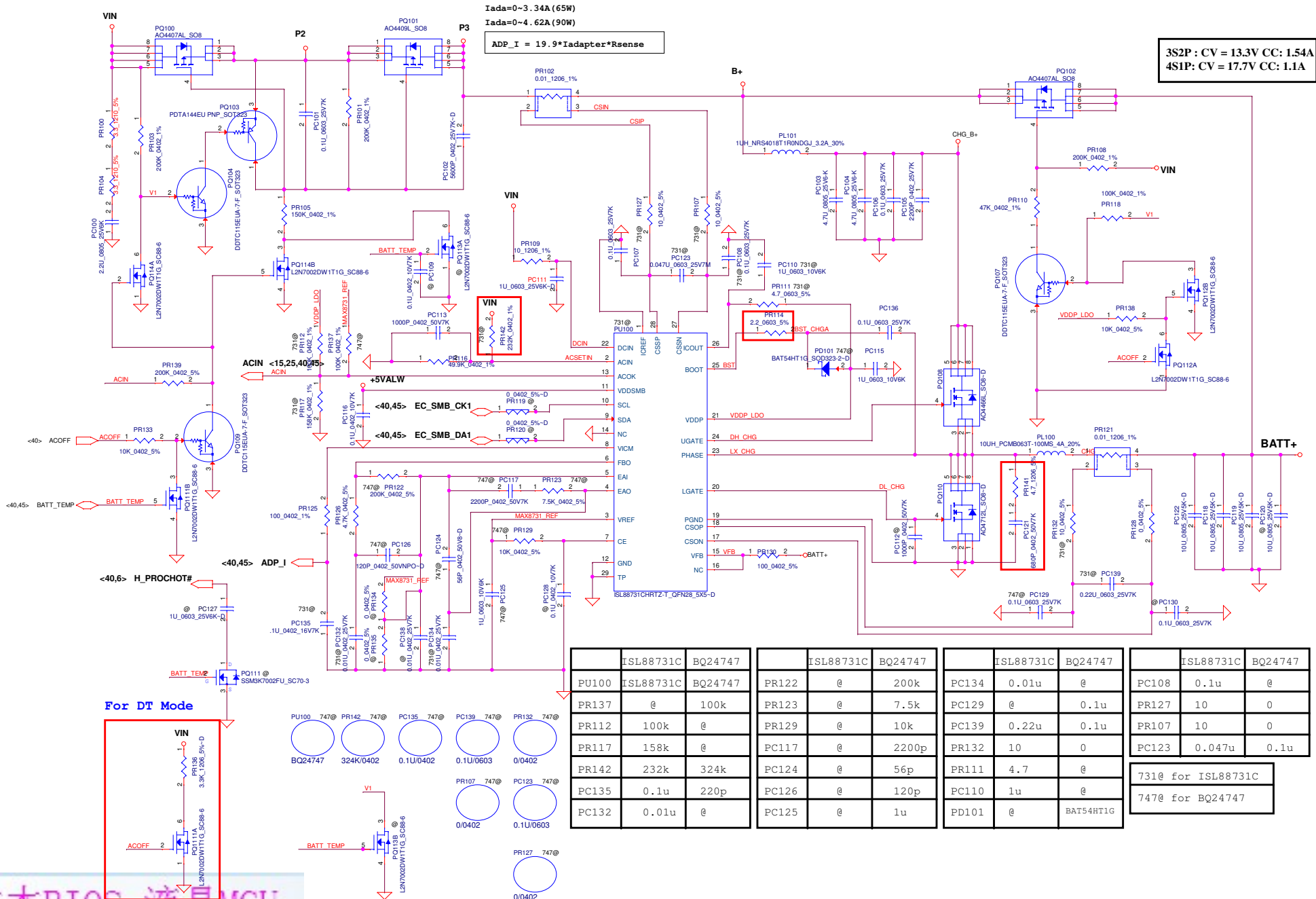
本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

Security Classification		Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	Compal Electronics, Inc.	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RESEARCH AND DEVELOPMENT DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Doc No	Rev
				LA-9104P	1.0
				Date	Sheet
				Wednesday, August 28, 2012	44 of 57



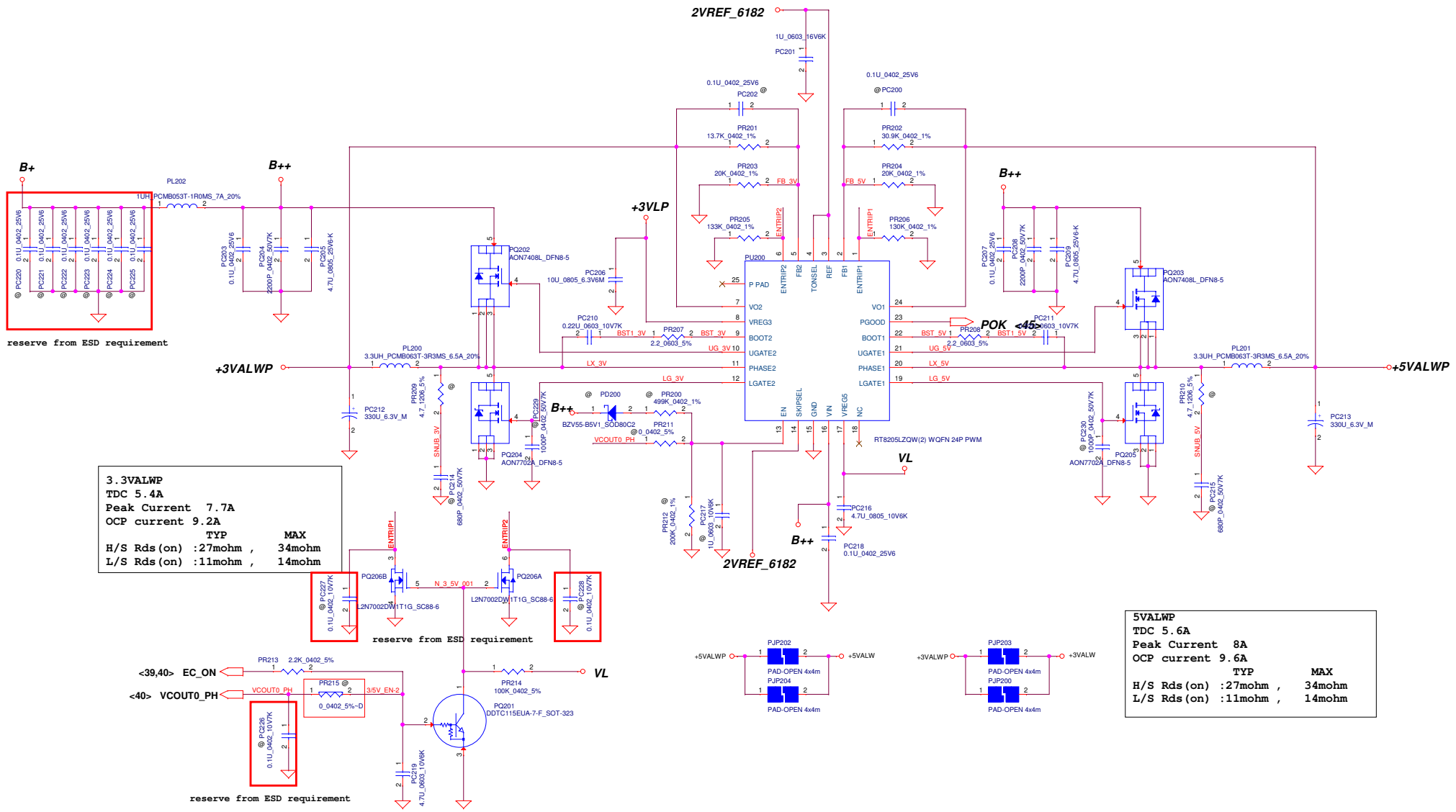
PBATT battery connector
SMART
Battery:
01.BATT+
02.BATT2+
03.CLK_SMB
04.DAT_SMB
05.BATT_PRS
06.SYS_PRES
07.BAT_ALERT
08.GND1
09.GND2

本本BIOS 液晶MCU
全网最全最专业
可定制解决特殊故障



	ISL88731C	BQ24747		ISL88731C	BQ24747		ISL88731C	BQ24747		ISL88731C	BQ24747
PU100	ISL88731C	BQ24747	PR122	@	200k	PC134	0.01u	@	PC108	0.1u	@
PR137	@	100k	PR123	@	7.5k	PC129	@	0.1u	PR127	10	0
PR112	100k	@	PR129	@	10k	PC139	0.22u	0.1u	PR107	10	0
PR117	158k	@	PC117	@	2200p	PR132	10	0	PC123	0.047u	0.1u
PR142	232k	324k	PC124	@	56p	PR111	4.7	@	731@ for ISL88731C		
PC135	0.1u	220p	PC126	@	120p	PC110	1u	@	747@ for BQ24747		
PC132	0.01u	@	PC125	@	1u	PD101	@	BAI54HT1G			

本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

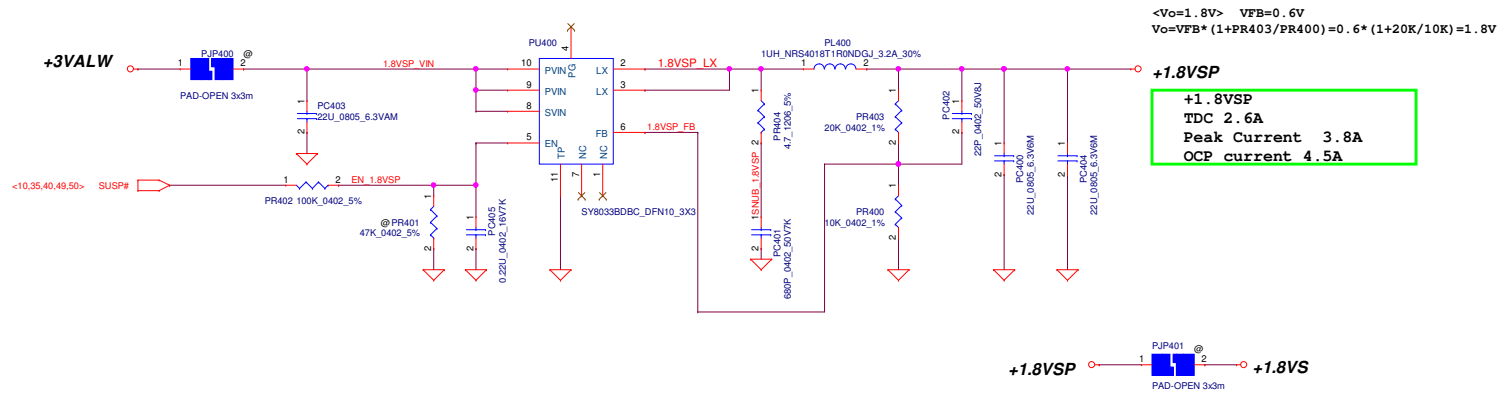


3.3VALWP
 TDC 5.4A
 Peak Current 7.7A
 OCP current 9.2A
 H/S Rds(on) : 27mohm , 34mohm
 L/S Rds(on) : 11mohm , 14mohm

5VALWP
 TDC 5.6A
 Peak Current 8A
 OCP current 9.6A
 H/S Rds(on) : 27mohm , 34mohm
 L/S Rds(on) : 11mohm , 14mohm

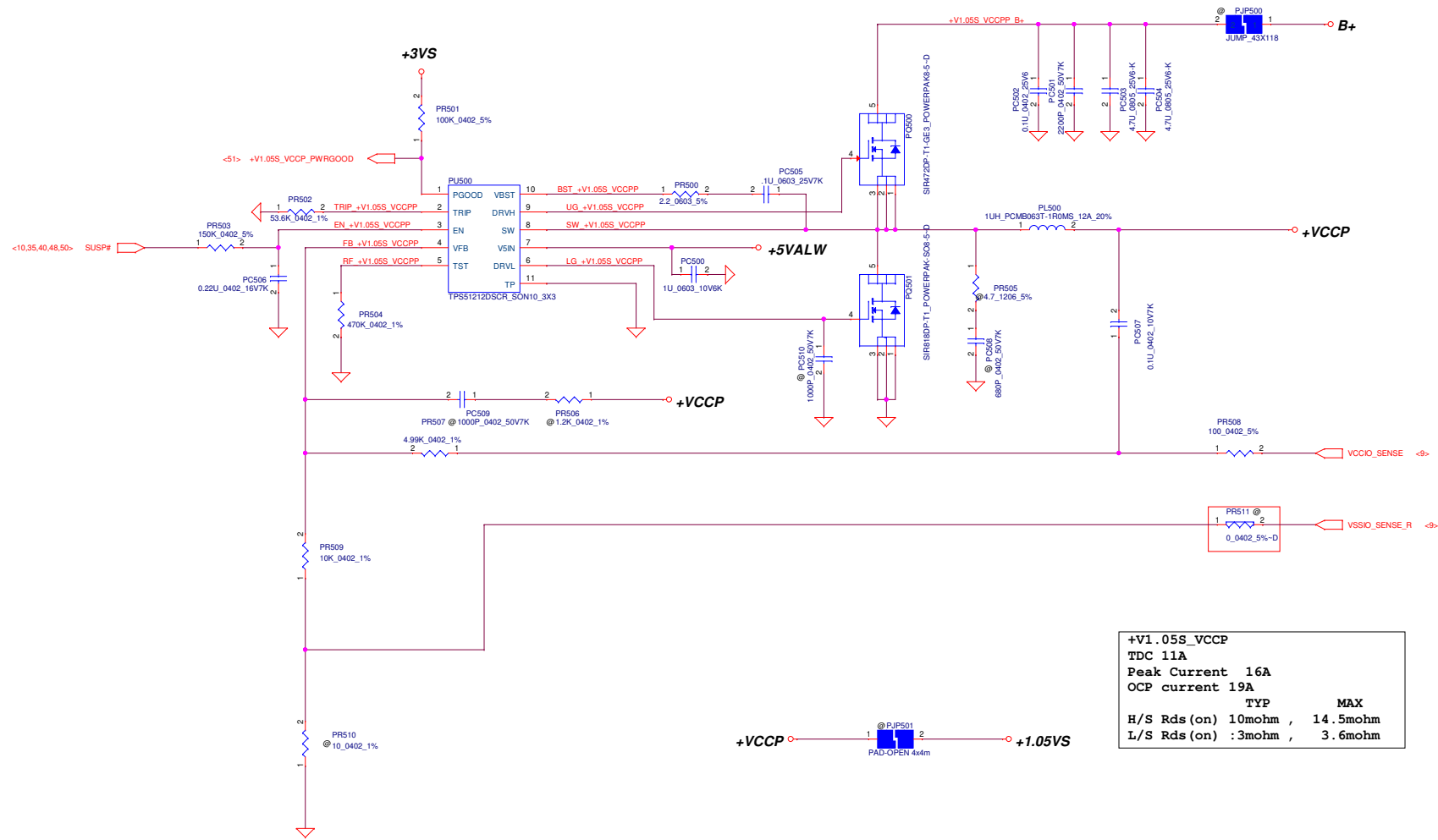
本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

Security Classification	Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/03/31	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number LA-9104P Date: Wednesday, August 28, 2012 Sheet 47 of 57



本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

Security Classification	Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number LA-9104P Date: Wednesday, August 29, 2012
				Rev 1.0 Sheet 48 of 57

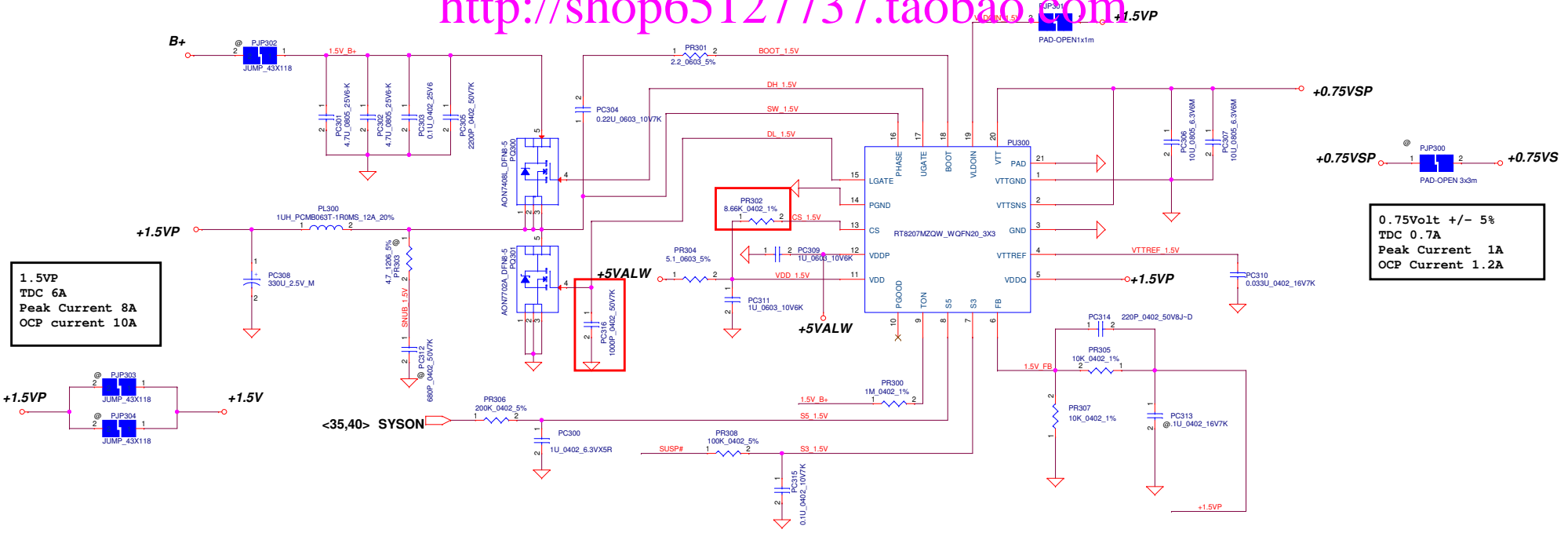


+V1.05S_VCCP	
TDC 11A	
Peak Current 16A	
OCP current 19A	
TYP	MAX
H/S Rds (on) 10mohm	14.5mohm
L/S Rds (on) : 3mohm	3.6mohm

+VCCP @ PJP501 PAD OPEN 4x4mm +1.05VS

本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

Security Classification	Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RESEARCH AND DEVELOPMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number LA-9104P Date: Wednesday, August 28, 2012 Sheet 49 of 57
				Rev 1.0



1.5VP
TDC 6A
Peak Current 8A
OCP current 10A

0.75Volt +/- 5%
TDC 0.7A
Peak Current 1A
OCP Current 1.2A

+1.5VGPU
TDC 4.2A
Peak Current 6A
OCP current 7.2A

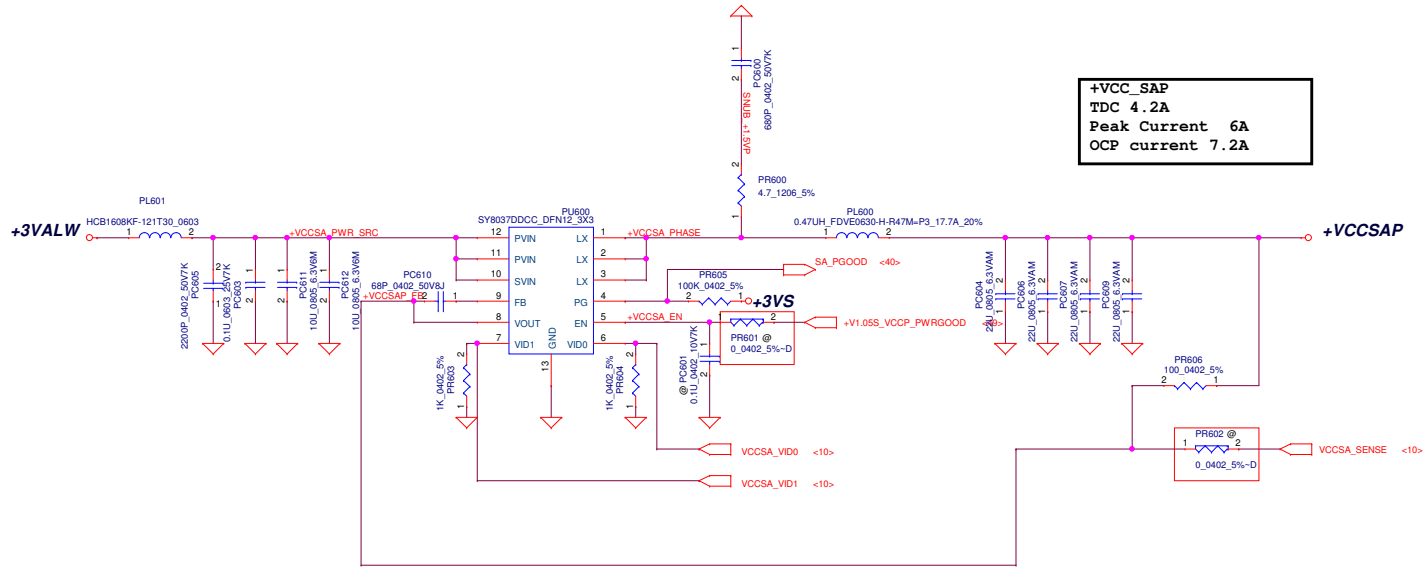
<10,35,40,48,49> SUSP#

本本BIOS 液晶MCU
全网最全最专业
可定制解决特殊故障

Security Classification	Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	PWR +1.5VP/+1.5VGPUP/0.75VSP
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RESEARCH AND DEVELOPMENT DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Rev 1.0
Date:	Wednesday, August 28, 2012	Sheet	50	of 57

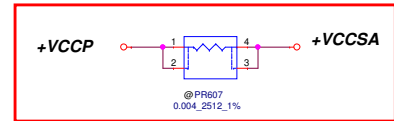
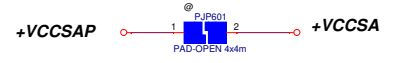
VID [0]	VID[1]	VCCSA Vout
0	0	0.9V
0	1	0.85V
1	0	0.775V
1	1	0.75V

output voltage adjustable network



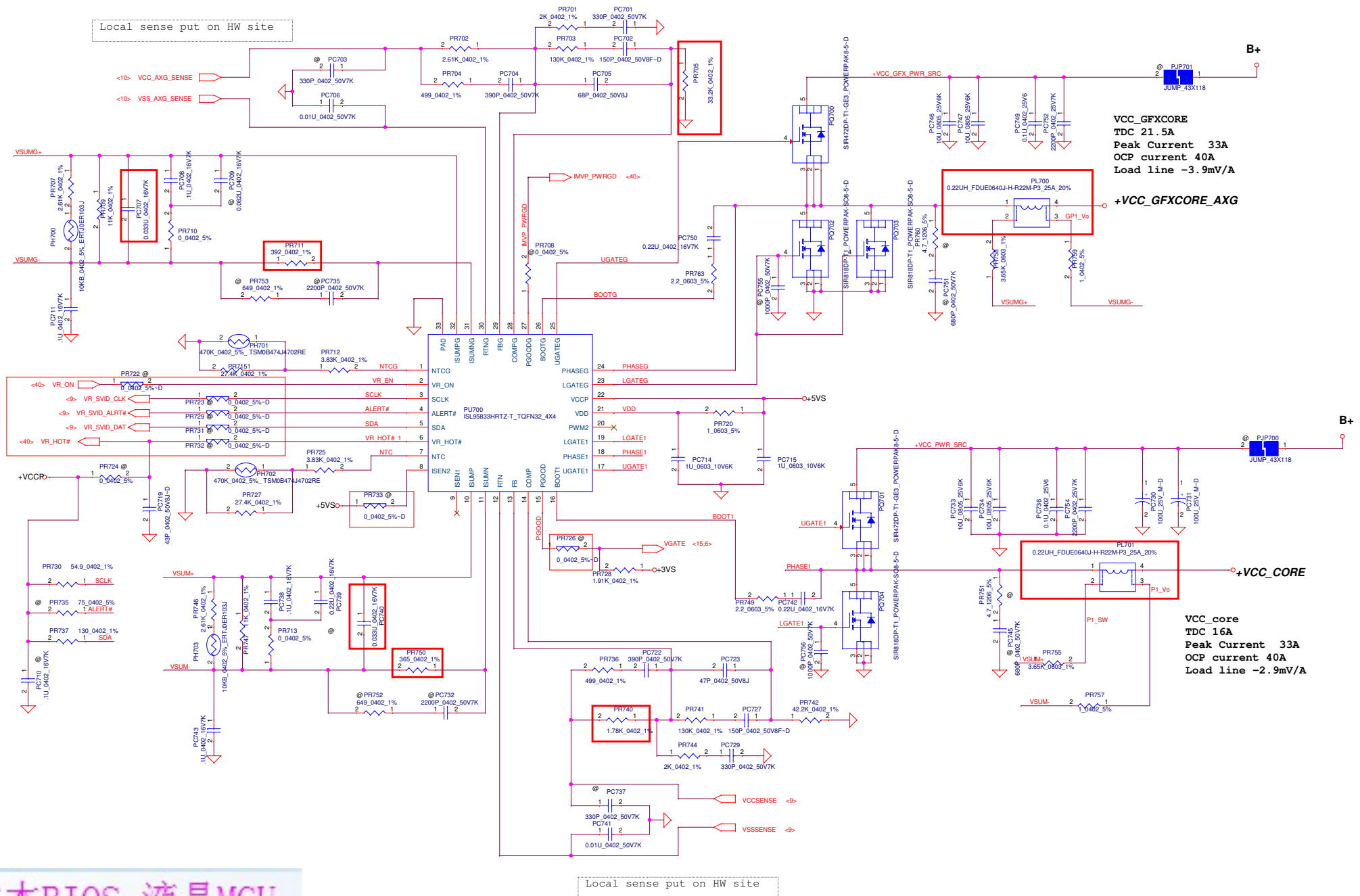
+VCC_SAP
TDC 4.2A
Peak Current 6A
OCP current 7.2A

The 1k PD on the VCCSA VIDs are empty. These should be stuffed to ensure that VCCSA VID is 00 prior to VCCIO stability.



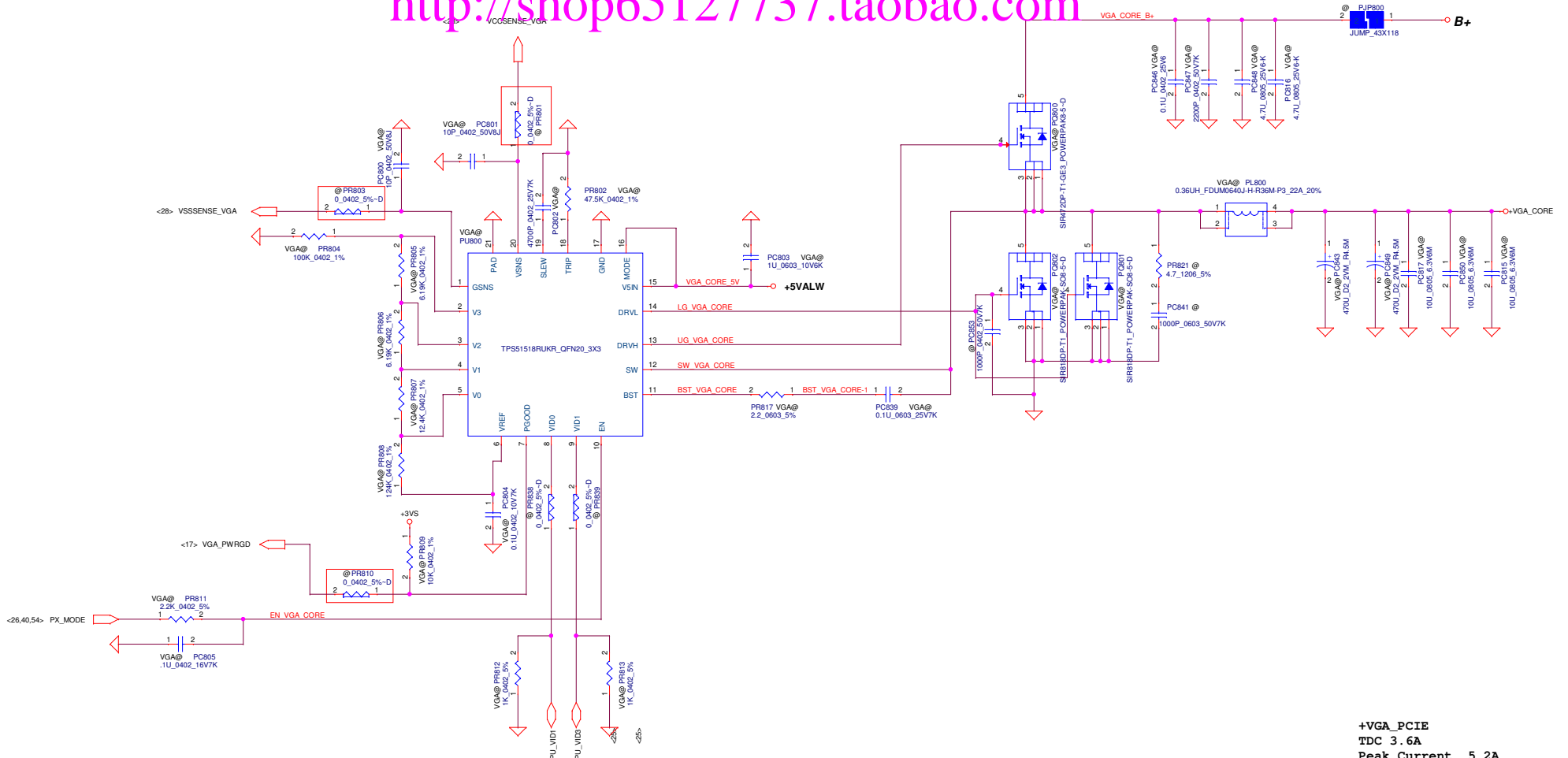
reserve for Pentium and Celeron only

本本BIOS 液晶MCU
全网最全最专业
可定制解决特殊故障



本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

Security Classification	Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Rev
Document Number				1.0
Date: Wednesday, August 28, 2012				Sheet 52 of 57

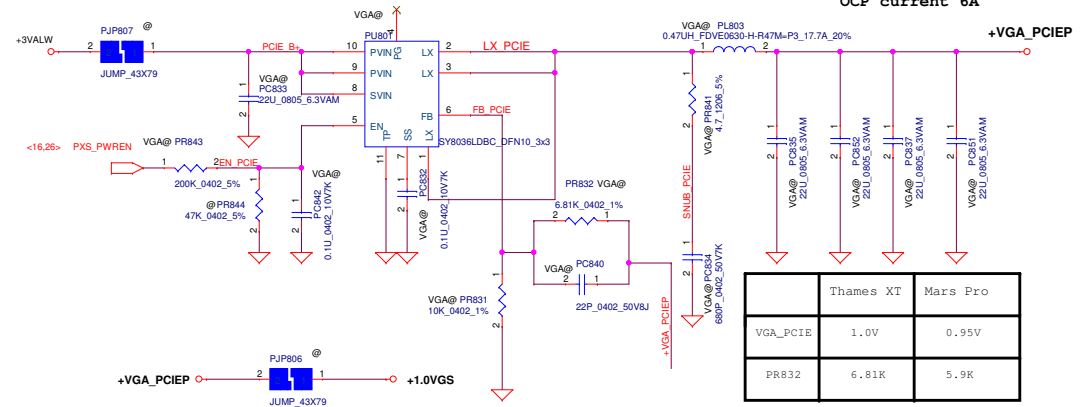


Thames XT

GPU_VID3 (GPI015)	GPU_VID1 (GPI020)	Core Voltage Level
1	1	0.8V
1	0	0.85V
0	1	0.9V
0	0	1.0V

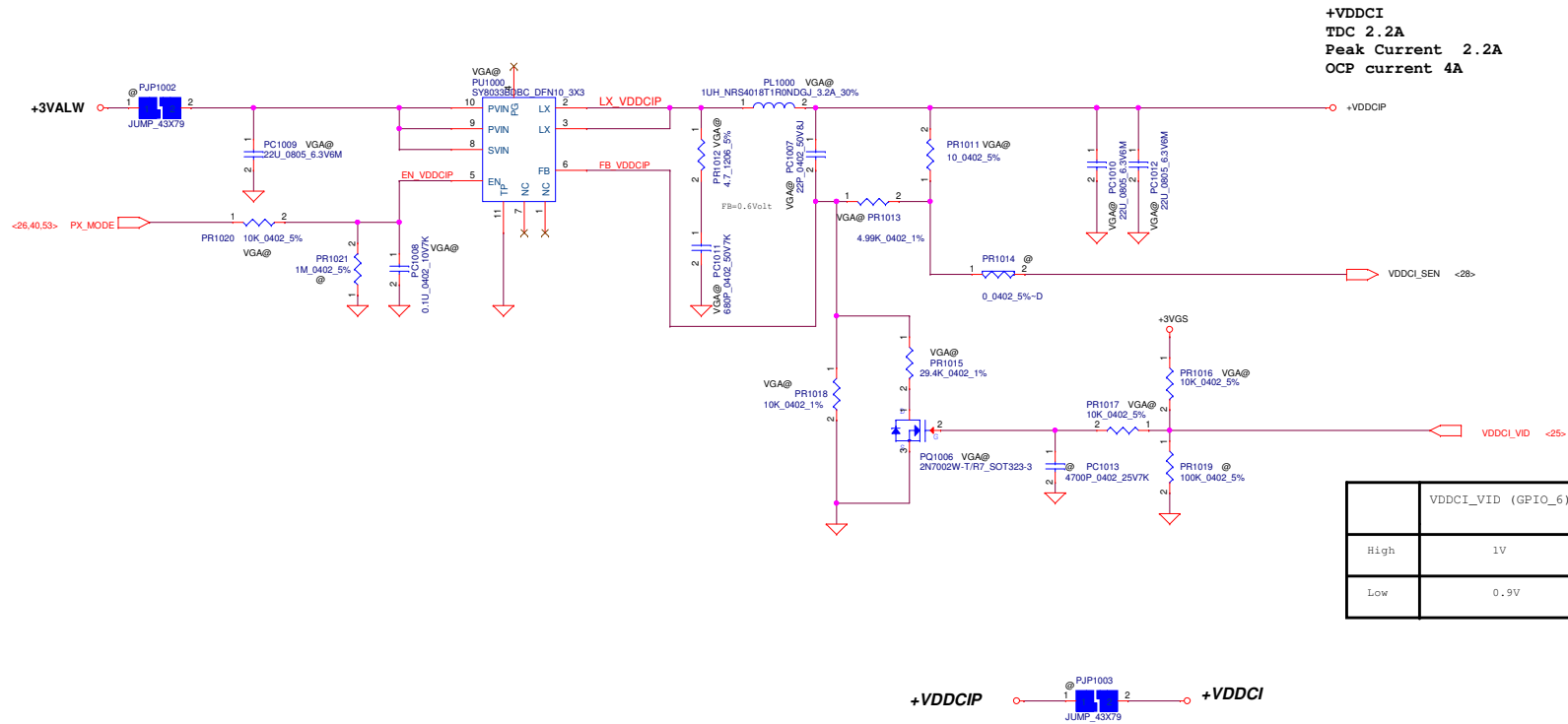
+VGA_CORE
 TDC 20A
 Peak Current 30A
 OCP current 36A
 FSW=350kHz
 DCR 1.4mohm +/-5%

+VGA_PCIE
 TDC 3.6A
 Peak Current 5.2A
 OCP current 6A

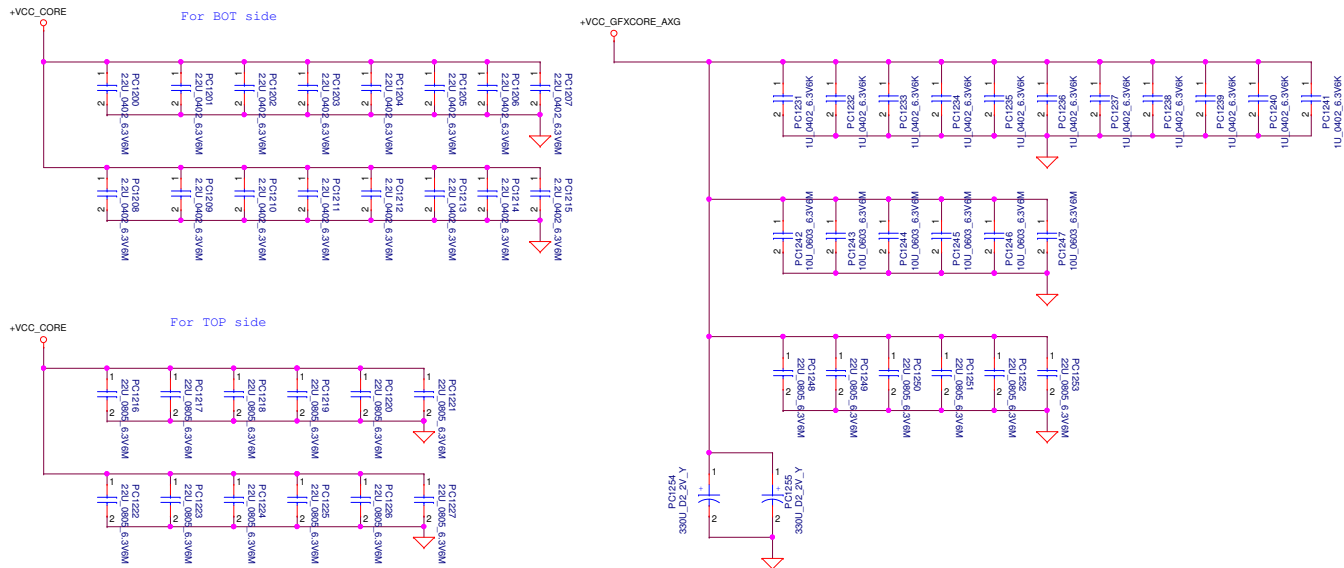


	Thames XT	Mars Pro
VGA_PCIE	1.0V	0.95V
PR832	6.81K	5.9K

本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

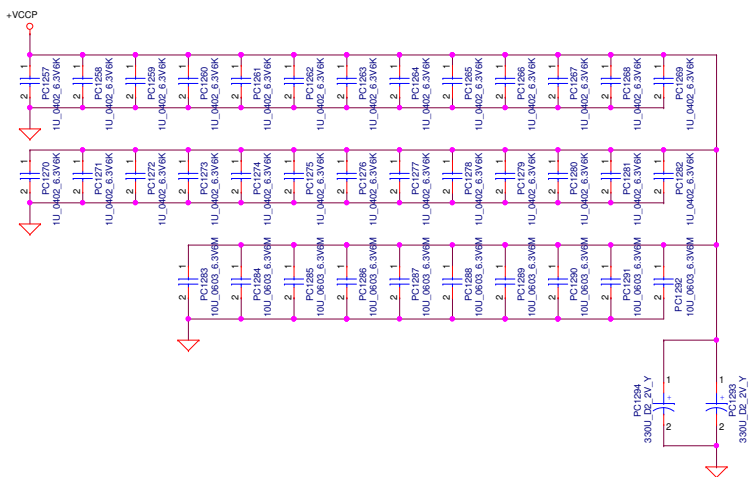
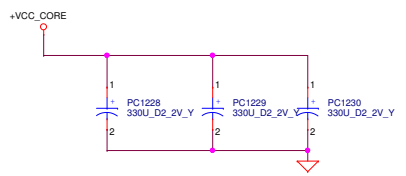


本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障



Vaxg

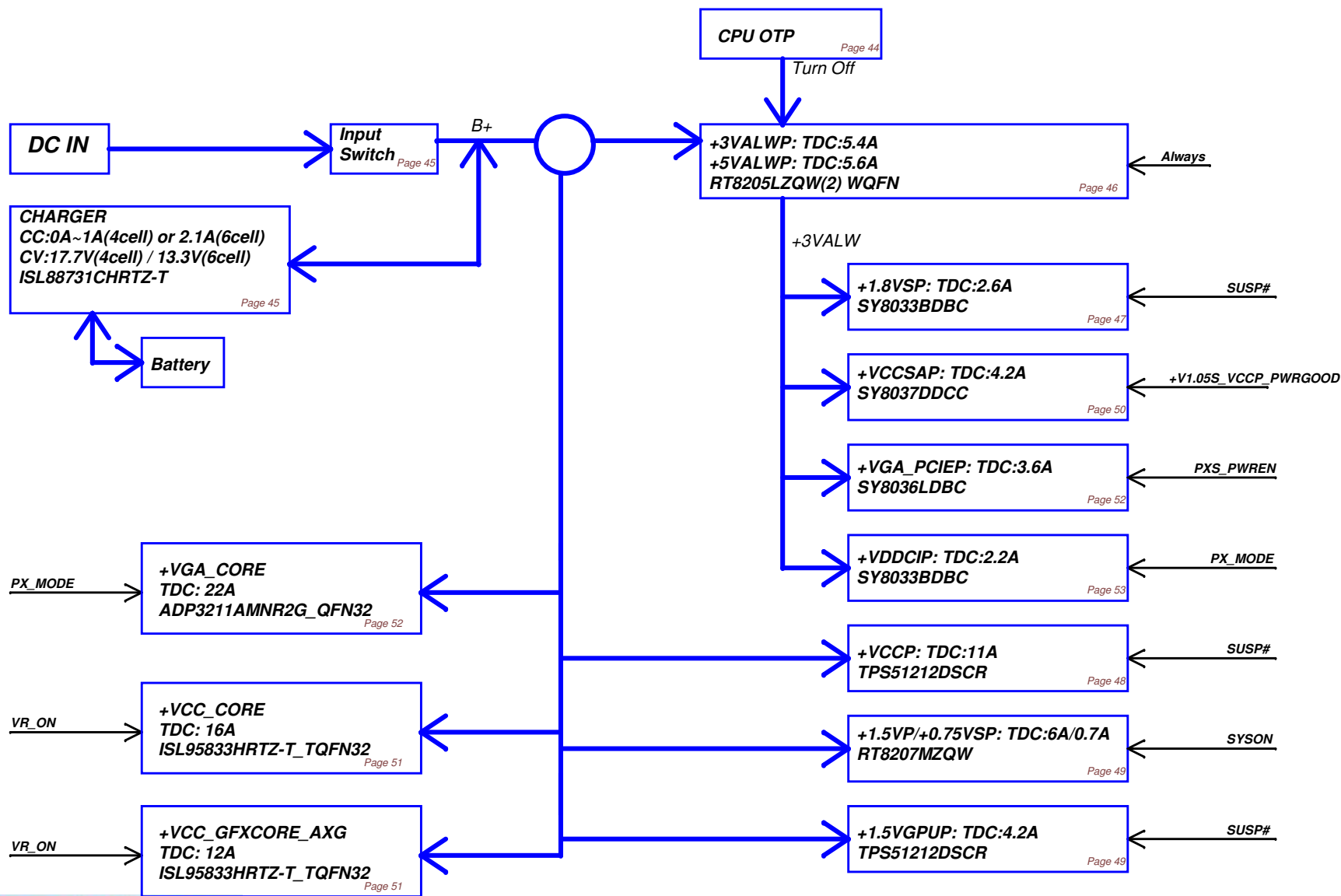
- Can connect to GND if motherboard only supports external graphics and if GFX VR is not stuffed in a common motherboard design,
- VAXG can be left floating in a common motherboard design (Gfx VR keeps VAXG from floating) if the VR is stuffed



本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

Security Classification		Compal Secret Data		Title	
Issued Date		2012/08/22	Deciphered Date	2013/08/31	Compal Electronics, Inc.
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.					
Document Number				Rev	
LA-9104P				1.0	
Date: Wednesday, August 28, 2012 Sheet 55 of 57					

Power block



本本BIOS 液晶MCU
 全网最全最专业
 可定制解决特殊故障

Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number
				LA-9104P
				Rev 1.0
				Date: Wednesday, August 28, 2012 Sheet 56 of 57

Version Change List (P. I. R. List)

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	51	VCORE	12/05/11	Morris	adjust VR parameter	change PL700 and PL701 from 0.36u to 0.22u change PC707 and PC740 from 0.047u to 0.033u change PR750 from 649 to 365 change PR711 from 649 to 392 change PR740 from 1.91k to 1.78k change PR705 from 150k to 33.2k	X00
2	44 45 46	DCIN/BATT CONN/OTP CHARGER 3.3VALWP/SVALWP	12/05/11	Morris	follow SSI memo for part shortage issue	change PQ112,PQ114,PQ1111,PQ206,PQ904 from SB00000CQ00 to SB00000PV00	X00
3	49	+1.5VP/1.5VDGPU/0.75VSP	12/05/15	Morris	design change	change PR302 from 12k to 8.66k	X00
4	50	+VCCSAP	12/05/23	Morris	for Pentium and Celeron special BOM	add PR607 and reserve	X00
5	49	+1.5VP/1.5VDGPU/0.75VSP	12/07/06	Morris	design change to reduce low-side mosfet induce	add PC316 1000pf	X01
6	45	CHARGER	12/07/17	Morris	from EMI request	change PR114 from 0 to 2.2 add PR141 and PC121	X01
7	45	CHARGER	12/07/17	Morris	design change to solve Battery LED is still on after unplug AC when SUT in S3S4S5 issue	change PR142 from 210k to 232k for ISL88731C (X76) change PR142 from 309k to 324k for BQ24747 (X76)	X01
8	44	DCIN/BATT CONN/OTP	12/07/17	Morris	revise OTP setting to 96C from thermal request	change PR927 from 12.1k to 11k	X01

本本BIOS 液晶MCU
全网最全最专业
可定制解决特殊故障

Security Classification		Compal Secret Data		Title	
Issued Date	2012/08/22	Deciphered Date	2013/08/31	Compal Electronics, Inc.	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Document Number	Rev
				LA-9104P	1.0
Date:				Wednesday, August 28, 2012	Sheet 57 of 57