

Compal Confidential

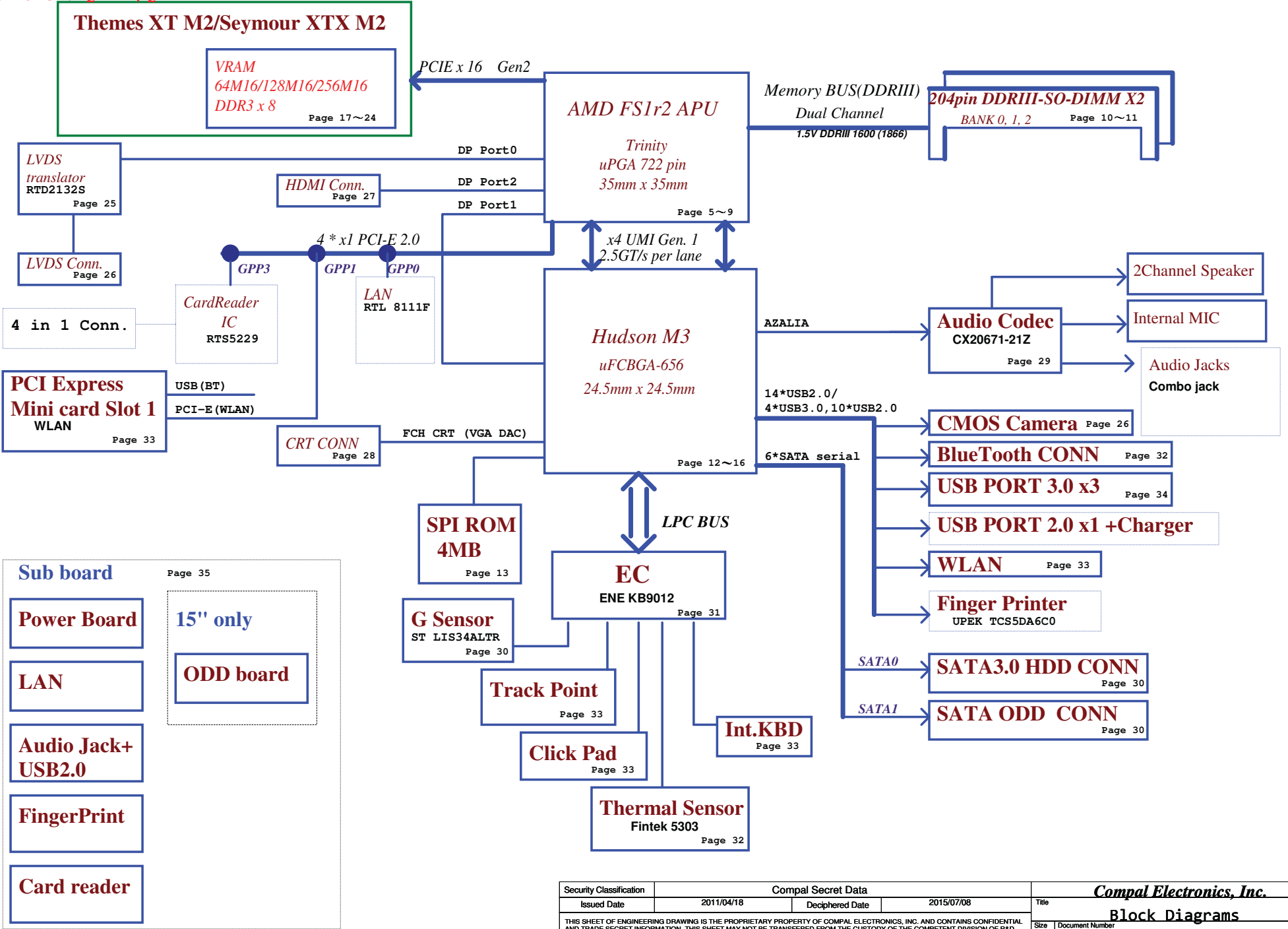
QALEA/QALEB Schematics Document

AMD APU Trinity FS1r2 + FCH Hudson-M3 + GPU Seymour XTX/Thames XT

2012-01-16

REV: 0.4

Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2011/04/18	Deciphered Date	2015/07/08	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 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 B	Document Number LA-8121P	Rev 0.4
				Date: Monday, January 16, 2012	Sheet 1	of 50



Voltage Rails

Power Plane	Description	S0	S3	S5
VIN	Adapter power supply (19V)	N/A	N/A	N/A
B+	AC or battery power rail for power circuit.	N/A	N/A	N/A
+APU_CORE	Core voltage for APU	ON	OFF	OFF
+APU_CORE_NB	Voltage for On-die VGA of APU	ON	OFF	OFF
+1.5V	1.5V power rail for APU VDDIO and DDR	ON	ON	OFF
+0.75VS	0.75V switched power rail for DDR terminator	ON	OFF	OFF
+1.2VS	1.2V (VDDR, VDDP) switched power rail for APU	ON	OFF	OFF
+2.5VS	2.5V for APU VDDA	ON	OFF	OFF
+1.1VALW	1.1V switched power rail for FCH	ON	ON	ON*
+1.1VS	1.1V switched power rail for FCH	ON	OFF	OFF
+1.5VS	1.5V switched power rail	ON	OFF	OFF
+VGA_CORE	0.95-1.2V switched power rail	ON	OFF	OFF
+1.5VGS	1.5V switched power rail	ON	OFF	OFF
+1.8VGS	1.8V switched power rail	ON	OFF	OFF
+1.0VGS	1.0V switched power rail for VGA	ON	OFF	OFF
+3VALW	3.3V always on power rail	ON	ON	ON*
+3VS_WLAN	3.3V power rail for WLAN	ON	OFF	OFF
+3VS	3.3V switched power rail	ON	OFF	OFF
+5VALW	5V always on power rail	ON	ON	ON*
+5VS	5V switched power rail	ON	OFF	OFF
+VSB	VSB always on power rail	ON	ON	ON*
+RTCVCC	RTC power	ON	ON	ON

Note : ON* means that this power plane is ON only with AC power available, otherwise it is OFF.

EC SM Bus1 address EC SM Bus2 address

Device	Address	HEX	Device	Address	HEX
Smart Battery	0001-011xb	15H	F75303 (DDR,VRAM,CPUCORE)	1001-101xb	9AH
			SB-TSI	1001-100xb	98H
			Seymour XTX	1000-0010b	82H
			LVDS translator		

FCH SMB0 (FCH_SMB0)

Device	Address	HEX
DDR DIMM1 (FCH_SMB0)	1001-000xb	90
DDR DIMM2 (FCH_SMB0)	1001-001xb	92
WLAN (FCH_SMB0)		
Security ROM		

Stencil Memo

FCH Hudson-M2/3 SATA Port List

SATA0	HDD
SATA1	ODD
SATA2	NC
SATA3	NC
SATA4	NC
SATA5	NC

Comal PCIE Port List

APU	PCIE0	LAN
	PCIE1	WLAN
	PCIE2	NC
	PCIE3	Card Reader
FCH	PCIE0	NC
	PCIE1	NC
	PCIE2	NC
	PCIE3	NC

FCH Hudson-M2/3 USB Port List

USB1.1	
Port0	NC
Port1	NC
USB2.0	
Port0	USB2.0 Port
Port1	NC
Port2	NC
Port3	NC
Port4	NC
Port5	WLAN
Port6	CMOS
Port7	FP
Port8	BT
Port9	NC
Port10	USB 3.0
Port11	USB 3.0
Port12	USB 3.0
Port13	NC

BOM Structure

UMA@ : UMA only
DIS@ : DIS muxluss
PX40@ : PX4.0 Support
PX50@ : PX5.0 Support
CMOS@ : USB camera

CONN@ : ME components
X76@, H2G@, S2G@ : VRAM

Tha@: Thames VGA
Sey@: Seymour VGA

BOM option and stencil

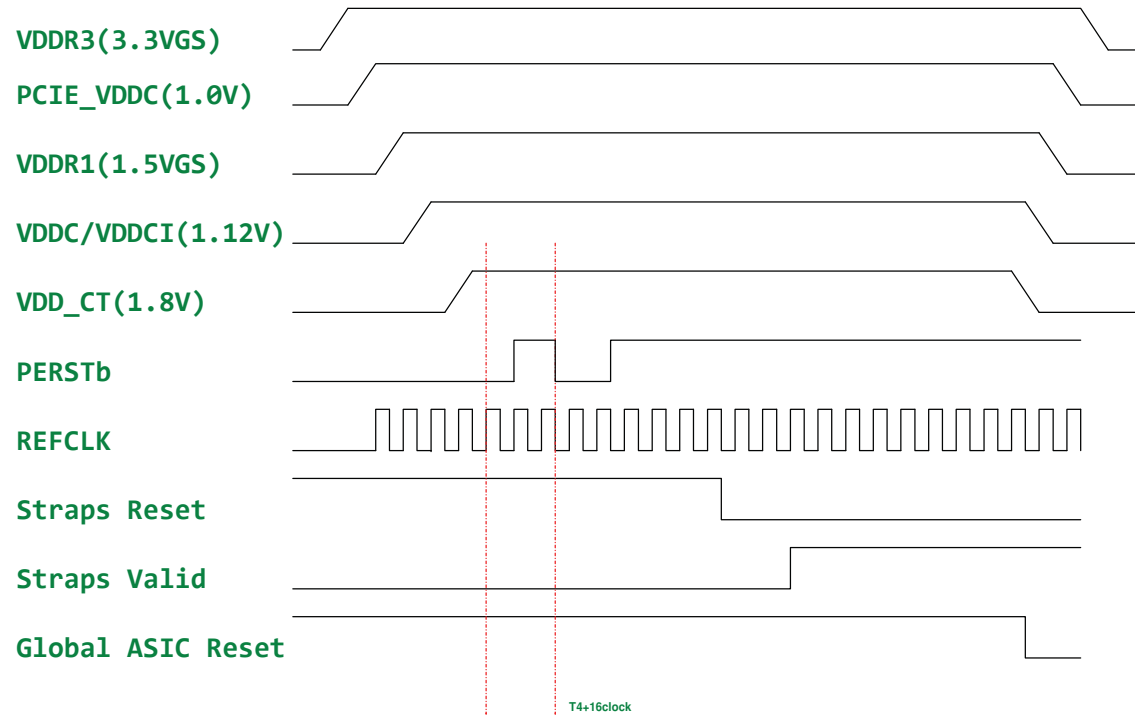
SDV:
CMOS@/DIS@/PX40@/SEY@ + X76@

PJ201,PJ401,PJ502,PJ503,PJ504,PJ601,PJ603,PJ604,
PJ701,PJ702,PJ703,PJ704,J1,J2301,J2401,J2402,J2403
PJ402,PJ403,PJ501,PJ602,PJ801,PJ802,PJ803,PJ804,PJ805

Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2011/04/18	Deciphered Date	2015/07/08	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.				Size B	Document Number	Rev 0.4
				Date:	Monday, January 16, 2012	Sheet 3 of 50

Power-Up/Down Sequence

- All the ASIC supplies, except for VDDR3, must fully reach their respective nominal voltages within 20 ms of the start of the ramp-up sequence, though a shorter ramp-up duration is preferred. There is no timing requirement on the ramp up of VDDR3 relative to other power rails.
- The external pull-up resistors on the DDC/AUX signals (if applicable) should ramp up before or after both VDDC and VDD_CT have ramped up.
- VDDC and VDD_CT should not ramp up simultaneously. For example, VDDC should reach 90% before VDD_CT starts to ramp up (or vice versa).
- For power down, reversing the ramp-up sequence is recommended.



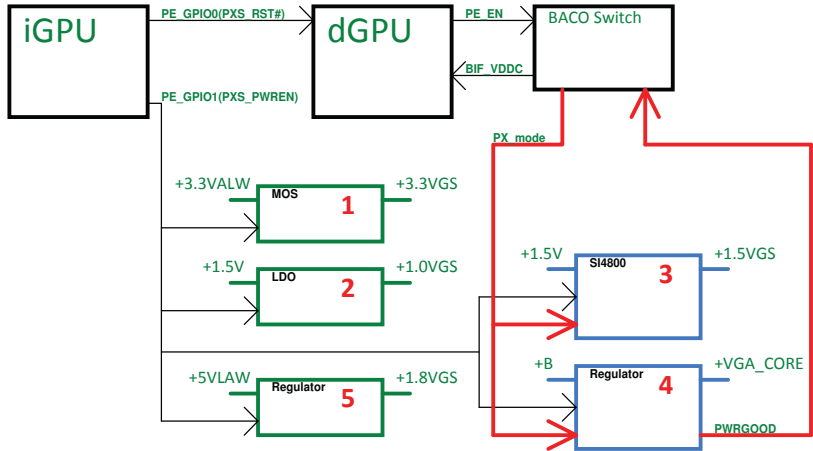
Without BACO option :

PE_GPIO0 : Low -> Reset dGPU ; High ->Normal operation
PE_GPIO1 : Low -> dGPU Power OFF ; High -> dGPU Power ON

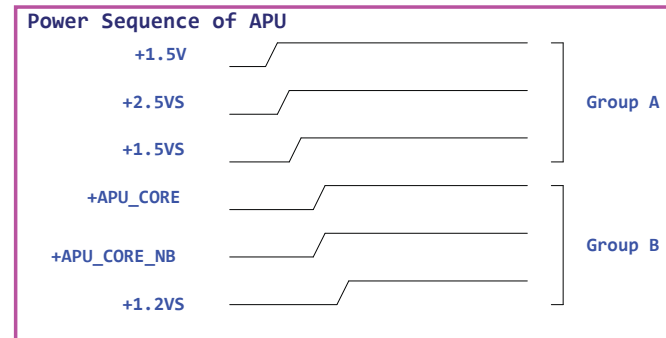
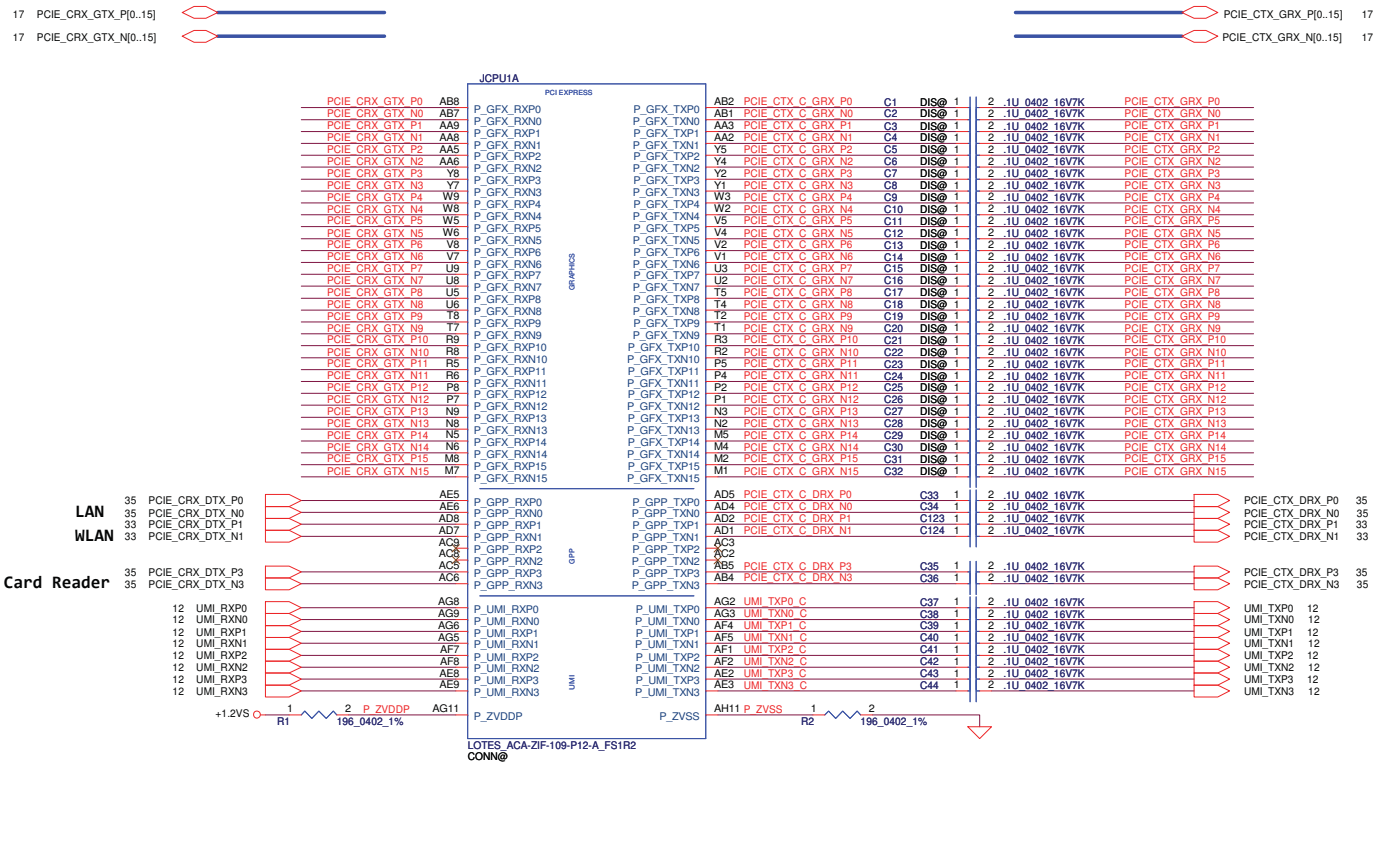
BACO option :

PE_GPIO0 : High ->Normal operation (dGPU is not reset on BACO mode)
PE_GPIO1 : Low -> dGPU Power OFF ; High -> dGPU Power ON (always High)

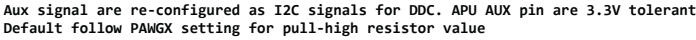
dGPU Power Pins	Voltage	PX 3.0	BACO Mode	Max current
PCIE_PVDD, PCIE_VDDR, TSVDD, VDDR4, VDD_CT, DPE_PVDD, DP[F:E]_VDD18, DP[D:A]_PVDD, DP[D:A]_VDD18, AVDD, VDD1DI, A2VDDQ, VDD2DI, DPLL_PVDD, MPV18, and SPV18	1.8V	OFF	ON	1679mA
DP[F:E]_VDD10, DP[D:A]_VDD10, DPLL_VDDC, and SPV10	1.0V	OFF	ON	775mA
PCIE_VDDC	1.0V	OFF	ON	1.1A
VDDR3	3.3V	OFF	ON	60mA
BIF_VDDC (current consumption = 55mA@1.0V, in BACO mode)	Same as VDDC	OFF	ON Same as PCIE_VDDC	70mA
VDDR1	1.5V	OFF	OFF	1.2A
VDDC/VDDCI	TBD	OFF	OFF	28



Security Classification	Compal Secret Data			Compal Electronics, Inc.	
Issued Date	2011/04/18	Deciphered Date	2015/07/08	Title	dGPU Block Diagram
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-8121P
				Date:	Monday, January 16, 2012
				Sheet	4 of 50



Security Classification		Compal Secret Data		<i>Compal Electronics, Inc.</i> FS1r2 PCIE/UMI	
Issued Date	2011/04/18	Deciphered Date	2015/07/08	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.				Size Custom	Document Number LA-8121P
				Date: Monday, January 16, 2012	Sheet 5 of 50 Rev 0.4

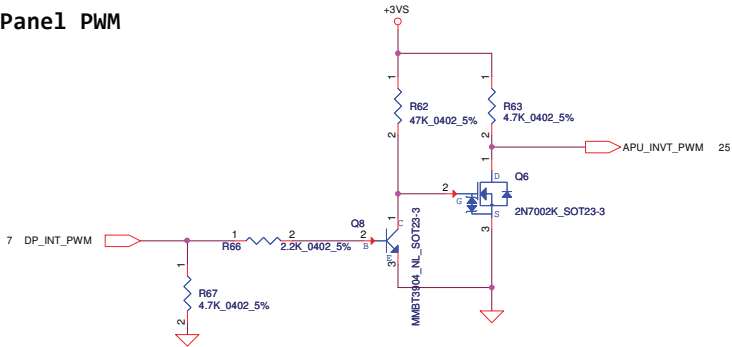


Date: Monday, January 16, 2012 Sheet 7 of 50

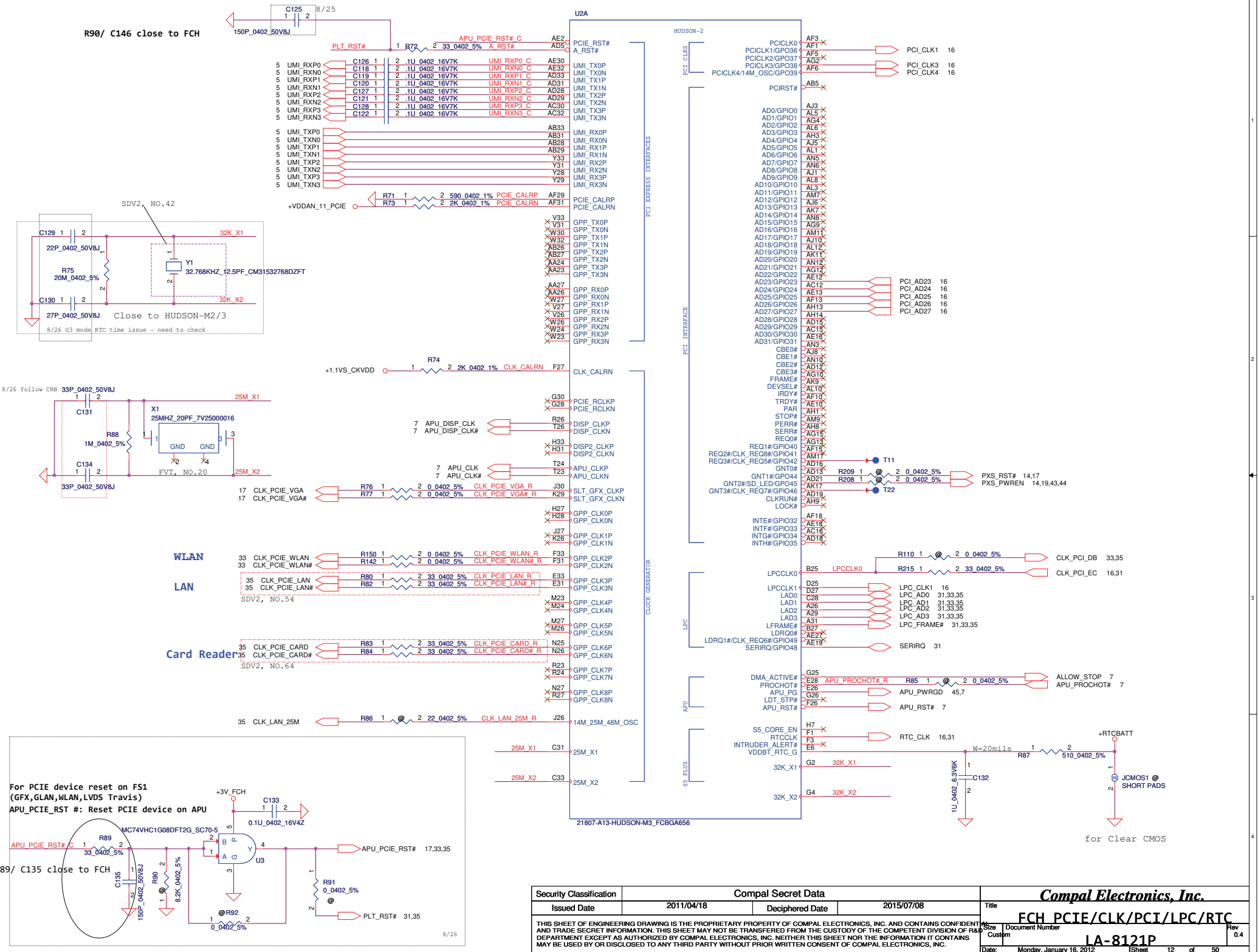
HPD

SIT, NO.4

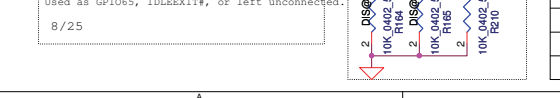
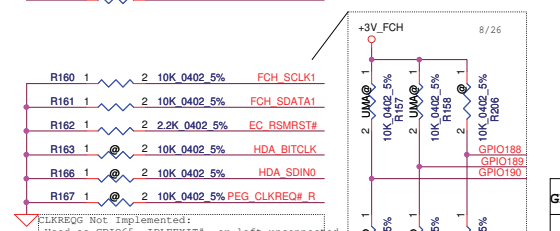
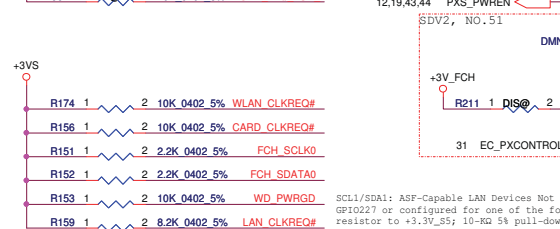
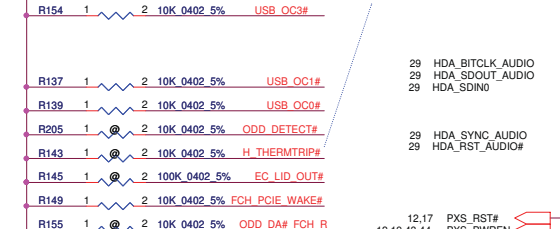
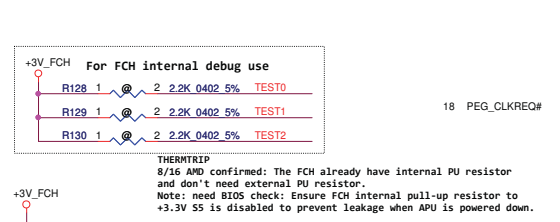
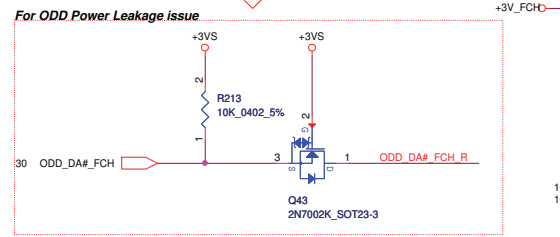
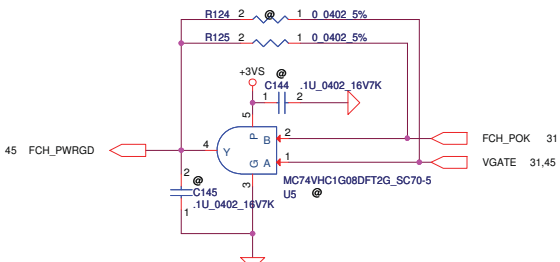
Panel PWM



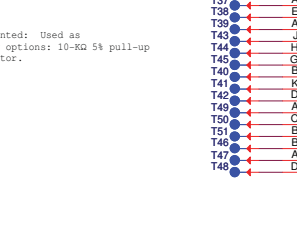
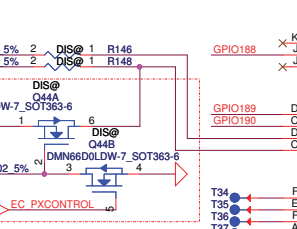
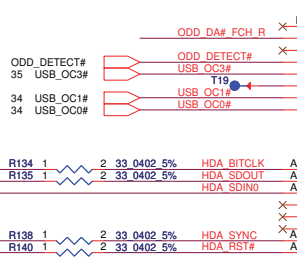
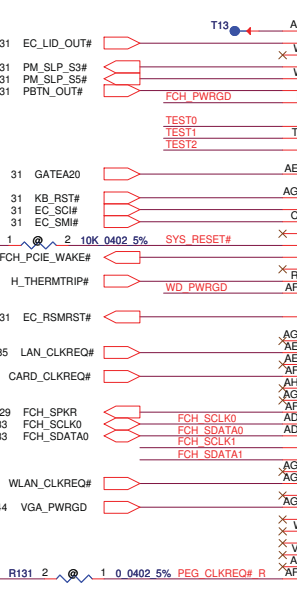
Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2011/04/18	Deciphered Date	2015/07/08	Title	FS1r2 Signal Level Shifter	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. 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	Rev
				Custom	LA-8121P	0.4
				Date:	Monday, January 16, 2012	Sheet 9 of 50



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2011/04/18	Deciphered Date	2015/07/08	Title	FCH_PCIE/CLK/PCI/LPC/RTC
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	Rev
				Document Number	0.4
				Custom	LA-8121P
Date: Monday, January 16, 2012				Sheet	12 of 50

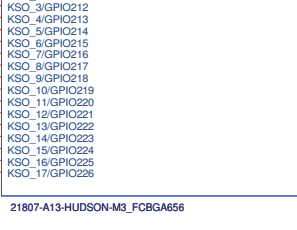
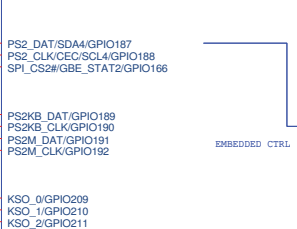
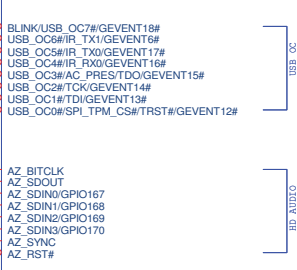
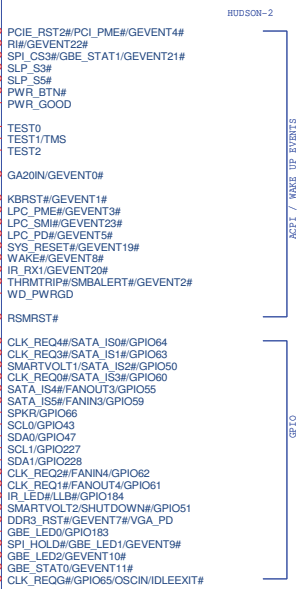


PCIE_RST2 : Reset PCIE device on Hudson2/3



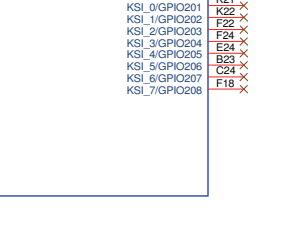
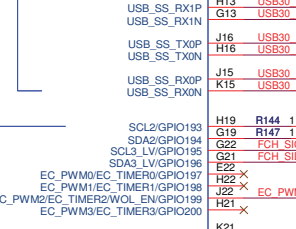
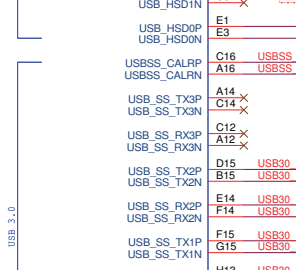
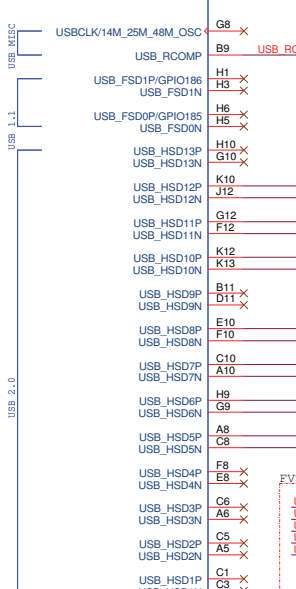
GPI0188	GPI0189	GPI0190	Function
0	0	0	PX
0	0	1	Reserved
0	1	0	DISCRET
0	1	1	UMA

U2D



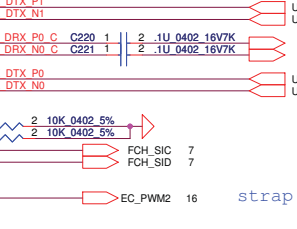
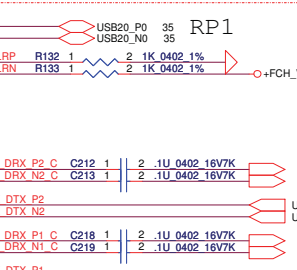
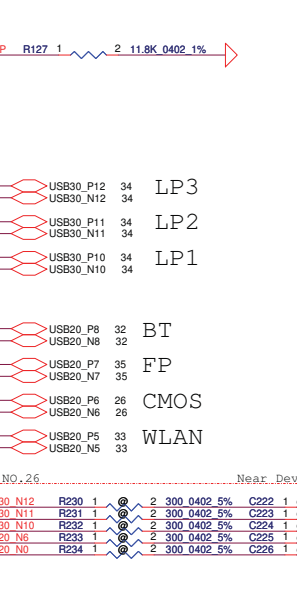
GPI0188	GPI0189	GPI0190	Function
0	0	0	PX
0	0	1	Reserved
0	1	0	DISCRET
0	1	1	UMA

HUDSON-2



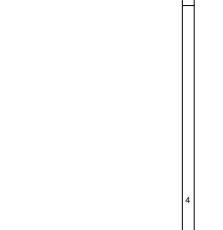
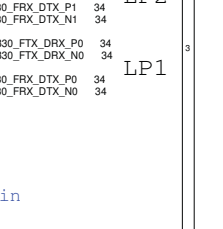
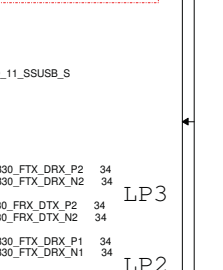
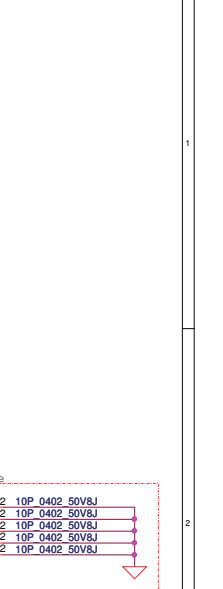
GPI0188	GPI0189	GPI0190	Function
0	0	0	PX
0	0	1	Reserved
0	1	0	DISCRET
0	1	1	UMA

ACPI / WAKE UP EVENTS



GPI0188	GPI0189	GPI0190	Function
0	0	0	PX
0	0	1	Reserved
0	1	0	DISCRET
0	1	1	UMA

EMBEDDED CTRL



GPI0188	GPI0189	GPI0190	Function
0	0	0	PX
0	0	1	Reserved
0	1	0	DISCRET
0	1	1	UMA

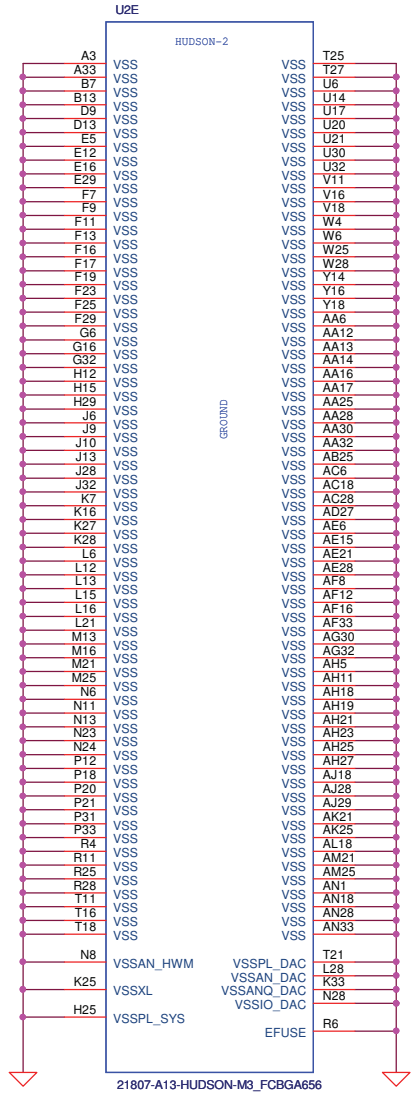
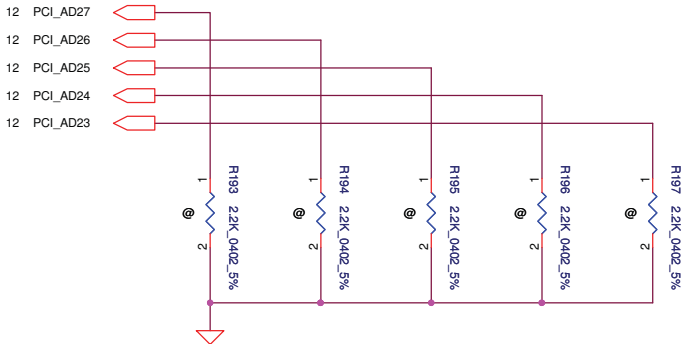
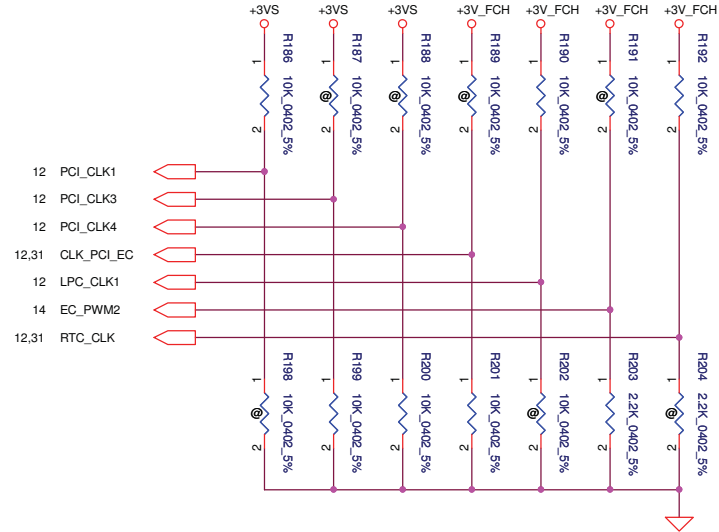
STRAP PINS

	PCI_CLK1	PCI_CLK3	PCI_CLK4	CLK_PCI_EC	LPC_CLK1	EC_PWM2	RTC_CLK
PULL HIGH	ALLOW PCIE GEN2 DEFAULT	USE DEBUG STRAPS	NON_FUSION CLOCK MODE	EC ENABLED	CLKGEN ENABLED DEFAULT	LPC ROM	S5 PLUS MODE DISABLED DEFAULT
PULL LOW	FORCE PCIE GEN1	IGNORE DEBUG STRAP DEFAULT	FUSION CLOCK MODE DEFAULT	EC DISABLED DEFAULT	CLKGEN DISABLE	SPI ROM DEFAULT	S5 PLUS MODE ENABLED

DEBUG STRAPS

FCH HAS 15K INTERNAL PU FOR PCI_AD[27:23]

	PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24	PCI_AD23
PULL HIGH	USE PCI PLL DEFAULT	DISABLE ILA AUTORUN DEFAULT	USE FC PLL DEFAULT	USE DEFAULT PCIE STRAPS DEFAULT	DISABLE PCI MEM BOOT DEFAULT
PULL LOW	BYPASS PCI PLL	ENABLE ILA AUTORUN	BYPASS FC PLL	USE EEPROM PCIE STRAPS	ENABLE PCI MEM BOOT



Security Classification

Compal Secret Data

Issued Date

2011/04/18

Deciphered Date

2015/07/08

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

0.4

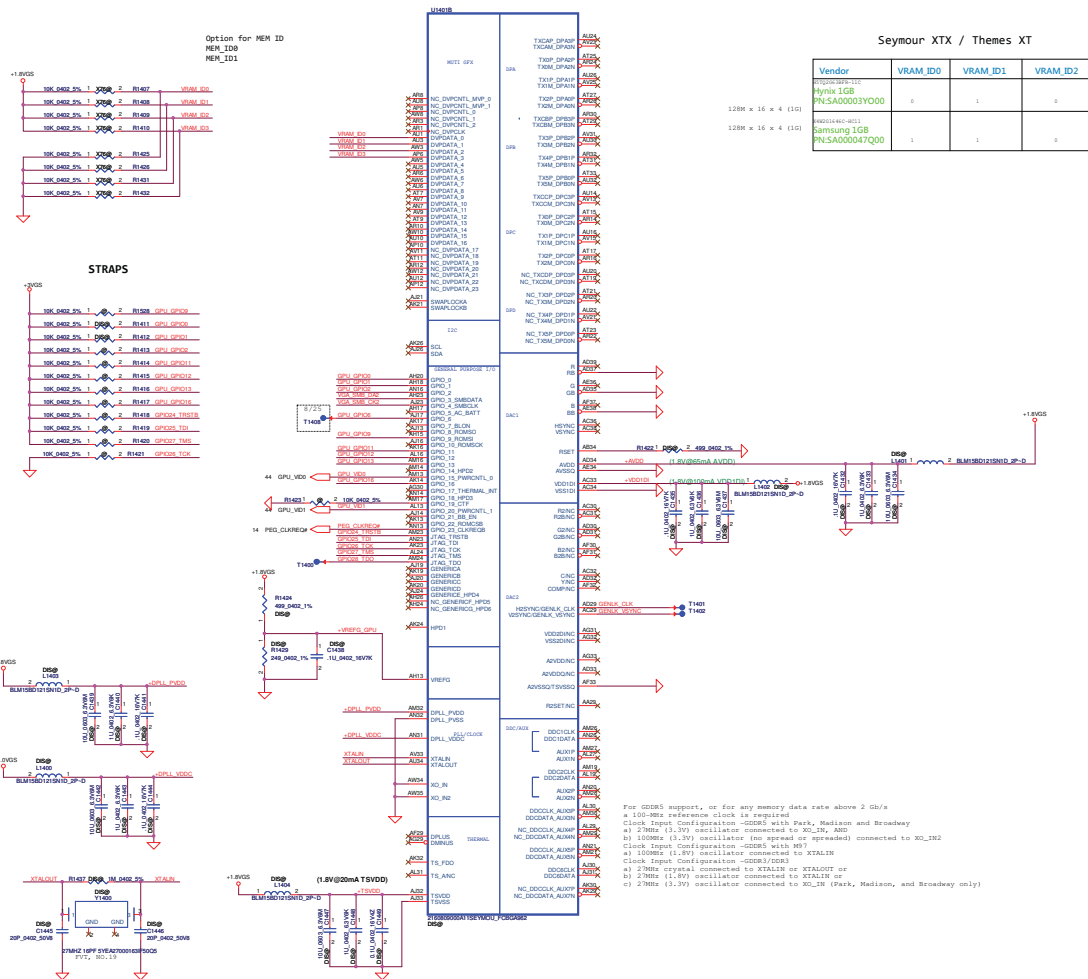
Compal Electronics, Inc.

FCH-VSS/Strap

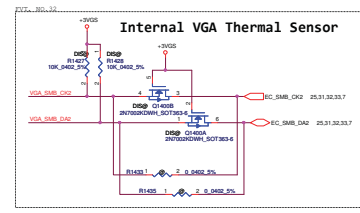
LA-8121P

Monday, January 16, 2012

Sheet 16 of 50



CONFIGURATION STRAPS -- SEE EACH DATABASE FOR STRAP DETAILS				
ALLOW FOR PULLUP PADS FOR THESE STRAPS AND IF THESE GPIOs ARE USED				
THEY MUST NOT CONFLICT DURING RESET				
STRAPS	MLPS	PN	DESCRIPTION OF DEFAULT SETTINGS	Default SETTINGS
MLPS_DISABLE	NA	GPIO_RL_FDO	0x00000000, for Thame,Whistler, and 0x00000001, disable GPIO PULLUPPAD 0x00000002, enable GPIO PULLUPPAD	X
TX_PWM_ENB	PS_16	GPIO0	Transmitter Power Switch Enable 0 = MLPS output enabled 1 = fail to output when MLPS	X
TX_DREAMPI_EN	PS_17	GPIO1	ACB Transmitter to emergency trouble 0 = MLPS emergency disabled 1 = do emergency enabled	X
BP_GND_EN_A	PS_18	GPIO2	1 = CPU reset enable 0 = GND not supported as power-on - GND supported as power-on (NOTE: BIST002 for Thame,Whistler/Seymour)	1
BP_VENL_EN	PS_19	GPIO3	0 = GND enable 1 = GND controller capacity enabled 1 = GND controller capacity disabled (for multi-GPI)	
ROMCFG2P[0]	GPIO_B[3:1]	GPIO[0:3]	Serial ROM type of memory aperture Size select If GPIO[0] = 1, defines memory aperture size If GPIO[1] = 1, defines ROM type	
ROMCFG2P[1]	GPIO_B[3:1]	GPIO[0:3]	0x00 = 132MHz ROMRAM (17T) 0x01 = 100MHz ROMRAM (17T) 0x02 = 100MHz ROMRAM (17T) 0x03 = 100MHz ROMRAM (17T) 0x04 = 100MHz ROMRAM (17T) 0x05 = 100MHz ROMRAM (17T) 0x06 = 100MHz ROMRAM (17T) 0x07 = 100MHz ROMRAM (17T) 0x08 = 100MHz ROMRAM (17T) 0x09 = 100MHz ROMRAM (17T) 0x0A = 100MHz ROMRAM (17T) 0x0B = 100MHz ROMRAM (17T) 0x0C = 100MHz ROMRAM (17T) 0x0D = 100MHz ROMRAM (17T) 0x0E = 100MHz ROMRAM (17T) 0x0F = 100MHz ROMRAM (17T) 0x10 = 100MHz ROMRAM (17T) 0x11 = 100MHz ROMRAM (17T) 0x12 = 100MHz ROMRAM (17T) 0x13 = 100MHz ROMRAM (17T) 0x14 = 100MHz ROMRAM (17T) 0x15 = 100MHz ROMRAM (17T) 0x16 = 100MHz ROMRAM (17T) 0x17 = 100MHz ROMRAM (17T) 0x18 = 100MHz ROMRAM (17T) 0x19 = 100MHz ROMRAM (17T) 0x1A = 100MHz ROMRAM (17T) 0x1B = 100MHz ROMRAM (17T) 0x1C = 100MHz ROMRAM (17T) 0x1D = 100MHz ROMRAM (17T) 0x1E = 100MHz ROMRAM (17T) 0x1F = 100MHz ROMRAM (17T) 0x20 = 100MHz ROMRAM (17T) 0x21 = 100MHz ROMRAM (17T) 0x22 = 100MHz ROMRAM (17T) 0x23 = 100MHz ROMRAM (17T) 0x24 = 100MHz ROMRAM (17T) 0x25 = 100MHz ROMRAM (17T) 0x26 = 100MHz ROMRAM (17T) 0x27 = 100MHz ROMRAM (17T) 0x28 = 100MHz ROMRAM (17T) 0x29 = 100MHz ROMRAM (17T) 0x2A = 100MHz ROMRAM (17T) 0x2B = 100MHz ROMRAM (17T) 0x2C = 100MHz ROMRAM (17T) 0x2D = 100MHz ROMRAM (17T) 0x2E = 100MHz ROMRAM (17T) 0x2F = 100MHz ROMRAM (17T) 0x30 = 100MHz ROMRAM (17T) 0x31 = 100MHz ROMRAM (17T) 0x32 = 100MHz ROMRAM (17T) 0x33 = 100MHz ROMRAM (17T) 0x34 = 100MHz ROMRAM (17T) 0x35 = 100MHz ROMRAM (17T) 0x36 = 100MHz ROMRAM (17T) 0x37 = 100MHz ROMRAM (17T) 0x38 = 100MHz ROMRAM (17T) 0x39 = 100MHz ROMRAM (17T) 0x3A = 100MHz ROMRAM (17T) 0x3B = 100MHz ROMRAM (17T) 0x3C = 100MHz ROMRAM (17T) 0x3D = 100MHz ROMRAM (17T) 0x3E = 100MHz ROMRAM (17T) 0x3F = 100MHz ROMRAM (17T) 0x40 = 100MHz ROMRAM (17T) 0x41 = 100MHz ROMRAM (17T) 0x42 = 100MHz ROMRAM (17T) 0x43 = 100MHz ROMRAM (17T) 0x44 = 100MHz ROMRAM (17T) 0x45 = 100MHz ROMRAM (17T) 0x46 = 100MHz ROMRAM (17T) 0x47 = 100MHz ROMRAM (17T) 0x48 = 100MHz ROMRAM (17T) 0x49 = 100MHz ROMRAM (17T) 0x4A = 100MHz ROMRAM (17T) 0x4B = 100MHz ROMRAM (17T) 0x4C = 100MHz ROMRAM (17T) 0x4D = 100MHz ROMRAM (17T) 0x4E = 100MHz ROMRAM (17T) 0x4F = 100MHz ROMRAM (17T) 0x50 = 100MHz ROMRAM (17T) 0x51 = 100MHz ROMRAM (17T) 0x52 = 100MHz ROMRAM (17T) 0x53 = 100MHz ROMRAM (17T) 0x54 = 100MHz ROMRAM (17T) 0x55 = 100MHz ROMRAM (17T) 0x56 = 100MHz ROMRAM (17T) 0x57 = 100MHz ROMRAM (17T) 0x58 = 100MHz ROMRAM (17T) 0x59 = 100MHz ROMRAM (17T) 0x5A = 100MHz ROMRAM (17T) 0x5B = 100MHz ROMRAM (17T) 0x5C = 100MHz ROMRAM (17T) 0x5D = 100MHz ROMRAM (17T) 0x5E = 100MHz ROMRAM (17T) 0x5F = 100MHz ROMRAM (17T) 0x60 = 100MHz ROMRAM (17T) 0x61 = 100MHz ROMRAM (17T) 0x62 = 100MHz ROMRAM (17T) 0x63 = 100MHz ROMRAM (17T) 0x64 = 100MHz ROMRAM (17T) 0x65 = 100MHz ROMRAM (17T) 0x66 = 100MHz ROMRAM (17T) 0x67 = 100MHz ROMRAM (17T) 0x68 = 100MHz ROMRAM (17T) 0x69 = 100MHz ROMRAM (17T) 0x6A = 100MHz ROMRAM (17T) 0x6B = 100MHz ROMRAM (17T) 0x6C = 100MHz ROMRAM (17T) 0x6D = 100MHz ROMRAM (17T) 0x6E = 100MHz ROMRAM (17T) 0x6F = 100MHz ROMRAM (17T) 0x70 = 100MHz ROMRAM (17T) 0x71 = 100MHz ROMRAM (17T) 0x72 = 100MHz ROMRAM (17T) 0x73 = 100MHz ROMRAM (17T) 0x74 = 100MHz ROMRAM (17T) 0x75 = 100MHz ROMRAM (17T) 0x76 = 100MHz ROMRAM (17T) 0x77 = 100MHz ROMRAM (17T) 0x78 = 100MHz ROMRAM (17T) 0x79 = 100MHz ROMRAM (17T) 0x7A = 100MHz ROMRAM (17T) 0x7B = 100MHz ROMRAM (17T) 0x7C = 100MHz ROMRAM (17T) 0x7D = 100MHz ROMRAM (17T) 0x7E = 100MHz ROMRAM (17T) 0x7F = 100MHz ROMRAM (17T) 0x80 = 100MHz ROMRAM (17T) 0x81 = 100MHz ROMRAM (17T) 0x82 = 100MHz ROMRAM (17T) 0x83 = 100MHz ROMRAM (17T) 0x84 = 100MHz ROMRAM (17T) 0x85 = 100MHz ROMRAM (17T) 0x86 = 100MHz ROMRAM (17T) 0x87 = 100MHz ROMRAM (17T) 0x88 = 100MHz ROMRAM (17T) 0x89 = 100MHz ROMRAM (17T) 0x8A = 100MHz ROMRAM (17T) 0x8B = 100MHz ROMRAM (17T) 0x8C = 100MHz ROMRAM (17T) 0x8D = 100MHz ROMRAM (17T) 0x8E = 100MHz ROMRAM (17T) 0x8F = 100MHz ROMRAM (17T) 0x90 = 100MHz ROMRAM (17T) 0x91 = 100MHz ROMRAM (17T) 0x92 = 100MHz ROMRAM (17T) 0x93 = 100MHz ROMRAM (17T) 0x94 = 100MHz ROMRAM (17T) 0x95 = 100MHz ROMRAM (17T) 0x96 = 100MHz ROMRAM (17T) 0x97 = 100MHz ROMRAM (17T) 0x98 = 100MHz ROMRAM (17T) 0x99 = 100MHz ROMRAM (17T) 0x9A = 100MHz ROMRAM (17T) 0x9B = 100MHz ROMRAM (17T) 0x9C = 100MHz ROMRAM (17T) 0x9D = 100MHz ROMRAM (17T) 0x9E = 100MHz ROMRAM (17T) 0x9F = 100MHz ROMRAM (17T) 0xA0 = 100MHz ROMRAM (17T) 0xA1 = 100MHz ROMRAM (17T) 0xA2 = 100MHz ROMRAM (17T) 0xA3 = 100MHz ROMRAM (17T) 0xA4 = 100MHz ROMRAM (17T) 0xA5 = 100MHz ROMRAM (17T) 0xA6 = 100MHz ROMRAM (17T) 0xA7 = 100MHz ROMRAM (17T) 0xA8 = 100MHz ROMRAM (17T) 0xA9 = 100MHz ROMRAM (17T) 0xAA = 100MHz ROMRAM (17T) 0xAB = 100MHz ROMRAM (17T) 0xAC = 100MHz ROMRAM (17T) 0xAD = 100MHz ROMRAM (17T) 0xAE = 100MHz ROMRAM (17T) 0xAF = 100MHz ROMRAM (17T) 0xB0 = 100MHz ROMRAM (17T) 0xB1 = 100MHz ROMRAM (17T) 0xB2 = 100MHz ROMRAM (17T) 0xB3 = 100MHz ROMRAM (17T) 0xB4 = 100MHz ROMRAM (17T) 0xB5 = 100MHz ROMRAM (17T) 0xB6 = 100MHz ROMRAM (17T) 0xB7 = 100MHz ROMRAM (17T) 0xB8 = 100MHz ROMRAM (17T) 0xB9 = 100MHz ROMRAM (17T) 0xBA = 100MHz ROMRAM (17T) 0xBB = 100MHz ROMRAM (17T) 0xBC = 100MHz ROMRAM (17T) 0xBD = 100MHz ROMRAM (17T) 0xBE = 100MHz ROMRAM (17T) 0xBF = 100MHz ROMRAM (17T) 0xC0 = 100MHz ROMRAM (17T) 0xC1 = 100MHz ROMRAM (17T) 0xC2 = 100MHz ROMRAM (17T) 0xC3 = 100MHz ROMRAM (17T) 0xC4 = 100MHz ROMRAM (17T) 0xC5 = 100MHz ROMRAM (17T) 0xC6 = 100MHz ROMRAM (17T) 0xC7 = 100MHz ROMRAM (17T) 0xC8 = 100MHz ROMRAM (17T) 0xC9 = 100MHz ROMRAM (17T) 0xCA = 100MHz ROMRAM (17T) 0xCB = 100MHz ROMRAM (17T) 0xCC = 100MHz ROMRAM (17T) 0xCD = 100MHz ROMRAM (17T) 0xCE = 100MHz ROMRAM (17T) 0xCF = 100MHz ROMRAM (17T) 0xD0 = 100MHz ROMRAM (17T) 0xD1 = 100MHz ROMRAM (17T) 0xD2 = 100MHz ROMRAM (17T) 0xD3 = 100MHz ROMRAM (17T) 0xD4 = 100MHz ROMRAM (17T) 0xD5 = 100MHz ROMRAM (17T) 0xD6 = 100MHz ROMRAM (17T) 0xD7 = 100MHz ROMRAM (17T) 0xD8 = 100MHz ROMRAM (17T) 0xD9 = 100MHz ROMRAM (17T) 0xDA = 100MHz ROMRAM (17T) 0xDB = 100MHz ROMRAM (17T) 0xDC = 100MHz ROMRAM (17T) 0xDD = 100MHz ROMRAM (17T) 0xDE = 100MHz ROMRAM (17T) 0xDF = 100MHz ROMRAM (17T) 0xE0 = 100MHz ROMRAM (17T) 0xE1 = 100MHz ROMRAM (17T) 0xE2 = 100MHz ROMRAM (17T) 0xE3 = 100MHz ROMRAM (17T) 0xE4 = 100MHz ROMRAM (17T) 0xE5 = 100MHz ROMRAM (17T) 0xE6 = 100MHz ROMRAM (17T) 0xE7 = 100MHz ROMRAM (17T) 0xE8 = 100MHz ROMRAM (17T) 0xE9 = 100MHz ROMRAM (17T) 0xEA = 100MHz ROMRAM (17T) 0xEB = 100MHz ROMRAM (17T) 0xEC = 100MHz ROMRAM (17T) 0xED = 100MHz ROMRAM (17T) 0xEE = 100MHz ROMRAM (17T) 0xEF = 100MHz ROMRAM (17T) 0xF0 = 100MHz ROMRAM (17T) 0xF1 = 100MHz ROMRAM (17T) 0xF2 = 100MHz ROMRAM (17T) 0xF3 = 100MHz ROMRAM (17T) 0xF4 = 100MHz ROMRAM (17T) 0xF5 = 100MHz ROMRAM (17T) 0xF6 = 100MHz ROMRAM (17T) 0xF7 = 100MHz ROMRAM (17T) 0xF8 = 100MHz ROMRAM (17T) 0xF9 = 100MHz ROMRAM (17T) 0xFA = 100MHz ROMRAM (17T) 0xFB = 100MHz ROMRAM (17T) 0xFC = 100MHz ROMRAM (17T) 0xFD = 100MHz ROMRAM (17T) 0xFE = 100MHz ROMRAM (17T) 0xFF = 100MHz ROMRAM (17T)	
ROMCFG2P[2]	GPIO_B[3:1]	GPIO[0:3]	0x00 = 132MHz ROMRAM (17T) 0x01 = 100MHz ROMRAM (17T) 0x02 = 100MHz ROMRAM (17T) 0x03 = 100MHz ROMRAM (17T) 0x04 = 100MHz ROMRAM (17T) 0x05 = 100MHz ROMRAM (17T) 0x06 = 100MHz ROMRAM (17T) 0x07 = 100MHz ROMRAM (17T) 0x08 = 100MHz ROMRAM (17T) 0x09 = 100MHz ROMRAM (17T) 0x0A = 100MHz ROMRAM (17T) 0x0B = 100MHz ROMRAM (17T) 0x0C = 100MHz ROMRAM (17T) 0x0D = 100MHz ROMRAM (17T) 0x0E = 100MHz ROMRAM (17T) 0x0F = 100MHz ROMRAM (17T) 0x10 = 100MHz ROMRAM (17T) 0x11 = 100MHz ROMRAM (17T) 0x12 = 100MHz ROMRAM (17T) 0x13 = 100MHz ROMRAM (17T) 0x14 = 100MHz ROMRAM (17T) 0x15 = 100MHz ROMRAM (17T) 0x16 = 100MHz ROMRAM (17T) 0x17 = 100MHz ROMRAM (17T) 0x18 = 100MHz ROMRAM (17T) 0x19 = 100MHz ROMRAM (17T) 0x1A = 100MHz ROMRAM (17T) 0x1B = 100MHz ROMRAM (17T) 0x1C = 100MHz ROMRAM (17T) 0x1D = 100MHz ROMRAM (17T) 0x1E = 100MHz ROMRAM (17T) 0x1F = 100MHz ROMRAM (17T) 0x20 = 100MHz ROMRAM (17T) 0x21 = 100MHz ROMRAM (17T) 0x22 = 100MHz ROMRAM (17T) 0x23 = 100MHz ROMRAM (17T) 0x24 = 100MHz ROMRAM (17T) 0x25 = 100MHz ROMRAM (17T) 0x26 = 100MHz ROMRAM (17T) 0x27 = 100MHz ROMRAM (17T) 0x28 = 100MHz ROMRAM (17T) 0x29 = 100MHz ROMRAM (17T) 0x2A = 100MHz ROMRAM (17T) 0x2B = 100MHz ROMRAM (17T) 0x2C = 100MHz ROMRAM (17T) 0x2D = 100MHz ROMRAM (17T) 0x2E = 100MHz ROMRAM (17T) 0x2F = 100MHz ROMRAM (17T) 0x30 = 100MHz ROMRAM (17T) 0x31 = 100MHz ROMRAM (17T) 0x32 = 100MHz ROMRAM (17T) 0x33 = 100MHz ROMRAM (17T) 0x34 = 100MHz ROMRAM (17T) 0x35 = 100MHz ROMRAM (17T) 0x36 = 100MHz ROMRAM (17T) 0x37 = 100MHz ROMRAM (17T) 0x38 = 100MHz ROMRAM (17T) 0x39 = 100MHz ROMRAM (17T) 0x3A = 100MHz ROMRAM (17T) 0x3B = 100MHz ROMRAM (17T) 0x3C = 100MHz ROMRAM (17T) 0x3D = 100MHz ROMRAM (17T) 0x3E = 100MHz ROMRAM (17T) 0x3F = 100MHz ROMRAM (17T) 0x40 = 100MHz ROMRAM (17T) 0x41 = 100MHz ROMRAM (17T) 0x42 = 100MHz ROMRAM (17T) 0x43 = 100MHz ROMRAM (17T) 0x44 = 100MHz ROMRAM (17T) 0x45 = 100MHz ROMRAM (17T) 0x46 = 100MHz ROMRAM (17T) 0x47 = 100MHz ROMRAM (17T) 0x48 = 100MHz ROMRAM (17T) 0x49 = 100MHz ROMRAM (17T) 0x4A = 100MHz ROMRAM (17T) 0x4B = 100MHz ROMRAM (17T) 0x4C = 100MHz ROMRAM (17T) 0x4D = 100MHz ROMRAM (17T) 0x4E = 100MHz ROMRAM (17T) 0x4F = 100MHz ROMRAM (17T) 0x50 = 100MHz ROMRAM (17T) 0x51 = 100MHz ROMRAM (17T) 0x52 = 100MHz ROMRAM (17T) 0x53 = 100MHz ROMRAM (17T) 0x54 = 100MHz ROMRAM (17T) 0x55 = 100MHz ROMRAM (17T) 0x56 = 100MHz ROMRAM (17T) 0x57 = 100MHz ROMRAM (17T) 0x58 = 100MHz ROMRAM (17T) 0x59 = 100MHz ROMRAM (17T) 0x5A = 100MHz ROMRAM (17T) 0x5B = 100MHz ROMRAM (17T) 0x5C = 100MHz ROMRAM (17T) 0x5D = 100MHz ROMRAM (17T) 0x5E = 100MHz ROMRAM (17T) 0x5F = 100MHz ROMRAM (17T) 0x60 = 100MHz ROMRAM (17T) 0x61 = 100MHz ROMRAM (17T) 0x62 = 100MHz ROMRAM (17T) 0x63 = 100MHz ROMRAM (17T) 0x64 = 100MHz ROMRAM (17T) 0x65 = 100MHz ROMRAM (17T) 0x66 = 100MHz ROMRAM (17T) 0x67 = 100MHz ROMRAM (17T) 0x68 = 100MHz ROMRAM (17T) 0x69 = 100MHz ROMRAM (17T) 0x6A = 100MHz ROMRAM (17T) 0x6B = 100MHz ROMRAM (17T) 0x6C = 100MHz ROMRAM (17T) 0x6D = 100MHz ROMRAM (17T) 0x6E = 100MHz ROMRAM (17T) 0x6F = 100MHz ROMRAM (17T) 0x70 = 100MHz ROMRAM (17T) 0x71 = 100MHz ROMRAM (17T) 0x72 = 100MHz ROMRAM (17T) 0x73 = 100MHz ROMRAM (17T) 0x74 = 100MHz ROMRAM (17T) 0x75 = 100MHz ROMRAM (17T) 0x76 = 100MHz ROMRAM (17T) 0x77 = 100MHz ROMRAM (17T) 0x78 = 100MHz ROMRAM (17T) 0x79 = 100MHz ROMRAM (17T) 0x7A = 100MHz ROMRAM (17T) 0x7B = 100MHz ROMRAM (17T) 0x7C = 100MHz ROMRAM (17T) 0x7D = 100MHz ROMRAM (17T) 0x7E = 100MHz ROMRAM (17T) 0x7F = 100MHz ROMRAM (17T) 0x80 = 100MHz ROMRAM (17T) 0x81 = 100MHz ROMRAM (17T) 0x82 = 100MHz ROMRAM (17T) 0x83 = 100MHz ROMRAM (17T) 0x84 = 100MHz ROMRAM (17T) 0x85 = 100MHz ROMRAM (17T) 0x86 = 100MHz ROMRAM (17T) 0x87 = 100MHz ROMRAM (17T) 0x88 = 100MHz ROMRAM (17T) 0x89 = 100MHz ROMRAM (17T) 0x8A = 100MHz ROMRAM (17T) 0x8B = 100MHz ROMRAM (17T) 0x8C = 100MHz ROMRAM (17T) 0x8D = 100MHz ROMRAM (17T) 0x8E = 100MHz ROMRAM (17T) 0x8F = 100MHz ROMRAM (17T) 0x90 = 100MHz ROMRAM (17T) 0x91 = 100MHz ROMRAM (17T) 0x92 = 100MHz ROMRAM (17T) 0x93 = 100MHz ROMRAM (17T) 0x94 = 100MHz ROMRAM (17T) 0x95 = 100MHz ROMRAM (17T) 0x96 = 100MHz ROMRAM (17T) 0x97 = 100MHz ROMRAM (17T) 0x98 = 100MHz ROMRAM (17T) 0x99 = 100MHz ROMRAM (17T) 0x9A = 100MHz ROMRAM (17T) 0x9B = 100MHz ROMRAM (17T) 0x9C = 100MHz ROMRAM (17T) 0x9D = 100MHz ROMRAM (17T) 0x9E = 100MHz ROMRAM (17T) 0x9F = 100MHz ROMRAM (17T) 0xA0 = 100MHz ROMRAM (17T) 0xA1 = 100MHz ROMRAM (17T) 0xA2 = 100MHz ROMRAM (17T) 0xA3 = 100MHz ROMRAM (17T) 0xA4 = 100MHz ROMRAM (17T) 0xA5 = 100MHz ROMRAM (17T) 0xA6 = 100MHz ROMRAM (17T) 0xA7 = 100MHz ROMRAM (17T) 0xA8 = 100MHz ROMRAM (17T) 0xA9 = 100MHz ROMRAM (17T) 0xAA = 100MHz ROMRAM (17T) 0xAB = 100MHz ROMRAM (17T) 0xAC = 100MHz ROMRAM (17T) 0xAD = 100MHz ROMRAM (17T) 0xAE = 100MHz ROMRAM (17T) 0xAF = 100MHz ROMRAM (17T) 0xB0 = 100MHz ROMRAM (17T) 0xB1 = 100MHz ROMRAM (17T) 0xB2 = 100MHz ROMRAM (17T) 0xB3 = 100MHz ROMRAM (17T) 0xB4 = 100MHz ROMRAM (17T) 0xB5 = 100MHz ROMRAM (17T) 0xB6 = 100MHz ROMRAM (17T) 0xB7 = 100MHz ROMRAM (17T) 0xB8 = 100MHz ROMRAM (17T) 0xB9 = 100MHz ROMRAM (17T) 0xBA = 100MHz ROMRAM (17T) 0xBB = 100MHz ROMRAM (17T) 0xBC = 100MHz ROMRAM (17T) 0xBD = 100MHz ROMRAM (17T) 0xBE = 100MHz ROMRAM (17T) 0xBF = 100MHz ROMRAM (17T) 0xC0 = 100MHz ROMRAM (17T) 0xC1 = 100MHz ROMRAM (17T) 0xC2 = 100MHz ROMRAM (17T) 0xC3 = 100MHz ROMRAM (17T) 0xC4 = 100MHz ROMRAM (17T) 0xC5 = 100MHz ROMRAM (17T) 0xC6 = 100MHz ROMRAM (17T) 0xC7 = 100MHz ROMRAM (17T) 0xC8 = 100MHz ROMRAM (17T) 0xC9 = 100MHz ROMRAM (17T) 0xCA = 100MHz ROMRAM (17T) 0xCB = 100MHz ROMRAM (17T) 0xCC = 100MHz ROMRAM (17T) 0xCD = 100MHz ROMRAM (17T) 0xCE = 100MHz ROMRAM (17T) 0xCF = 100MHz ROMRAM (17T) 0xD0 = 100MHz ROMRAM (17T) 0xD1 = 100MHz ROMRAM (17T) 0xD2 = 100MHz ROMRAM (17T) 0xD3 = 100MHz ROMRAM (17T) 0xD4 = 100MHz ROMRAM (17T) 0xD5 = 100MHz ROMRAM (17T) 0xD6 = 100MHz ROMRAM (17T) 0xD7 = 100MHz ROMRAM (17T) 0xD8 = 100MHz ROMRAM (17T) 0xD9 = 100MHz ROMRAM (17T) 0xDA = 100MHz ROMRAM (17T) 0xDB = 100MHz ROMRAM (17T) 0xDC = 100MHz ROMRAM (17T) 0xDD = 100MHz ROMRAM (17T) 0xDE = 100MHz ROMRAM (17T) 0xDF = 100MHz ROMRAM (17T) 0xE0 = 100MHz ROMRAM (17T) 0xE1 = 100MHz ROMRAM (17T) 0xE2 = 100MHz ROMRAM (17T) 0xE3 = 100MHz ROMRAM (17T) 0xE4 = 100MHz ROMRAM (17T) 0xE5 = 100MHz ROMRAM (17T) 0xE6 = 100MHz ROMRAM (17T) 0xE7 = 100MHz ROMRAM (17T) 0xE8 = 100MHz ROMRAM (17T) 0xE9 = 100MHz ROMRAM (17T) 0xEA = 100MHz ROMRAM (17T) 0xEB = 100MHz ROMRAM (17T) 0xEC = 100MHz ROMRAM (17T) 0xED = 100MHz ROMRAM (17T) 0xEE = 100MHz ROMRAM (17T) 0xEF = 100MHz ROMRAM (17T) 0xF0 = 100MHz ROMRAM (17T) 0xF1 = 100MHz ROMRAM (17T) 0xF2 = 100MHz ROMRAM (17T) 0xF3 = 100MHz ROMRAM (17T) 0xF4 = 100MHz ROMRAM (17T) 0xF5 = 100MHz ROMRAM (17T) 0xF6 = 100MHz ROMRAM (17T) 0xF7 = 100MHz ROMRAM (17T) 0xF8 = 100MHz ROMRAM (17T) 0xF9 = 100MHz ROMRAM (17T) 0xFA = 100MHz ROMRAM (17T) 0xFB = 100MHz ROMRAM (17T) 0xFC = 100MHz ROMRAM (17T) 0xFD = 100MHz ROMRAM (17T) 0xFE = 100MHz ROMRAM (17T) 0xFF = 100MHz ROMRAM (17T)	
ROMCFG2P[3]	GPIO_B[3:1]	GPIO[0:3]	0x00 = 132MHz ROMRAM (17T) 0x01 = 100MHz ROMRAM (17T) 0x02 = 100MHz ROMRAM (17T) 0x03 = 100MHz ROMRAM (17T) 0x04 = 100MHz ROMRAM (17T) 0x05 = 100MHz ROMRAM (17T) 0x06 = 100MHz ROMRAM (17T) 0x07 = 100MHz ROMRAM (17T) 0x08 = 100MHz ROMRAM (17T) 0x09 = 100MHz ROMRAM (17T) 0x0A = 100MHz ROMRAM (17T) 0x0B = 100MHz ROMRAM (17T) 0x0C = 100MHz ROMRAM (17T) 0x0D = 100MHz ROMRAM (17T) 0x0E = 100MHz ROMRAM (17T) 0x0F = 100MHz ROMRAM (17T) 0x10 = 100MHz ROMRAM (17T) 0x11 = 100MHz ROMRAM (17T) 0x12 = 100MHz ROMRAM (17T) 0x13 = 100MHz ROMRAM (17T) 0x14 = 100MHz ROMRAM (17T) 0x15 = 100MHz ROMRAM (17T) 0x16 = 100MHz ROMRAM (17T) 0x17 = 100MHz ROMRAM (17T) 0x18 = 100MHz ROMRAM (17T) 0x19 = 100MHz ROMRAM (17T) 0x1A = 100MHz ROMRAM (17T) 0x1B = 100MHz ROMRAM (17T) 0x1C = 100MHz ROMRAM (17T) 0x1D = 100MHz ROMRAM (17T) 0x1E = 100MHz ROMRAM (17T) 0x1F = 100MHz ROMRAM (17T) 0x20 = 100MHz ROMRAM (17T) 0x21 = 100MHz ROMRAM (17T) 0x22 = 100MHz ROMRAM (17T) 0x23 = 100MHz ROMRAM (17T) 0x24 = 100MHz ROMRAM (17T) 0x25 = 100MHz ROMRAM (17T) 0x26 = 100MHz ROMRAM (17T) 0x27 = 100MHz ROMRAM (17T) 0x28 = 100MHz ROMRAM (17T) 0x29 = 100MHz ROMRAM (17T) 0x2A = 100MHz ROMRAM (17T) 0x2B = 100MHz ROMRAM (17T) 0x2C = 100MHz ROMRAM (17T) 0x2D = 100MHz ROMRAM (17T) 0x2E = 100MHz ROMRAM (17T) 0x2F = 100MHz ROMRAM (17T) 0x30 = 100MHz ROMRAM (17T) 0x31 = 100MHz ROMRAM (17T) 0x32 = 100MHz ROMRAM (17T) 0x33 = 100MHz ROMRAM (17T) 0x34 = 100MHz ROMRAM (17T) 0x35 = 100MHz ROMRAM (17T) 0x36 = 100MHz ROMRAM (17T) 0x37 = 100MHz ROMRAM (17T) 0x38 = 100MHz ROMRAM (17T) 0x39 = 100MHz ROMRAM (17T) 0x3A = 100MHz ROMRAM (17T) 0x3B = 100MHz ROMRAM (17T) 0x3C = 100MHz ROMRAM (17T) 0x3D = 100MHz ROMRAM (17T) 0x3E = 100MHz ROMRAM (17T) 0x3F = 100MHz ROMRAM (17T) 0x40 = 100MHz ROMRAM (17T) 0x41 = 100MHz ROMRAM (17T) 0x42 = 100MHz ROMRAM (17T) 0x43 = 100MHz ROMRAM (17T) 0x44 = 100MHz ROMRAM (17T) 0x45 = 100MHz ROMRAM (17T) 0x46 = 100MHz ROMRAM (17T) 0x47 = 100MHz ROMRAM (17T) 0x48 = 100MHz ROMRAM (17T) 0x49 = 100MHz ROMRAM (17T) 0x4A = 100MHz ROMRAM (17T) 0x4B = 100MHz ROMRAM (17T) 0x4C = 100MHz ROMRAM (17T) 0x4D = 100MHz ROMRAM (17T) 0x4E = 100MHz ROMRAM (17T) 0x4F = 100MHz ROMRAM (17T) 0x50 = 100MHz ROMRAM (17T) 0x51 = 100MHz ROMRAM (17T) 0x52 = 100MHz ROMRAM (17T) 0x53 = 100MHz ROMRAM (17T) 0x54 = 100MHz ROMRAM (17T) 0x55 = 100MHz ROMRAM (17T) 0x56 = 100MHz ROMRAM (17T) 0x57 = 100MHz ROMRAM (17T) 0x58 = 100MHz ROMRAM (17T) 0x59 = 100MHz ROMRAM (17T) 0x5A = 100MHz ROMRAM (17T) 0x5B = 100MHz ROMRAM (17T) 0x5C = 100MHz ROMRAM (17T) 0x5D = 100MHz ROMRAM (17T) 0x5E = 100MHz ROMRAM (17T) 0x5F = 100MHz ROMRAM (17T) 0x60 = 100MHz ROMRAM (17T) 0x61 = 100MHz ROMRAM (17T) 0x62 = 100MHz ROMRAM (17T) 0x63 = 100MHz ROMRAM (17T) 0x64 = 100MHz ROMRAM (17T) 0x65 = 100MHz ROMRAM (17T) 0x66 = 100MHz ROMRAM (17T) 0x67 = 100MHz ROMRAM (17T) 0x68 = 100MHz ROMRAM (17T) 0x69 = 100MHz ROMRAM (17T) 0x6A = 100MHz ROMRAM (17T) 0x6B = 100MHz ROMRAM (17T) 0x6C = 100MHz ROMRAM (17T) 0x6D = 100MHz ROMRAM (17T) 0x6E = 100MHz ROMRAM (17T) 0x6F = 100MHz ROMRAM (17T) 0x70 = 100MHz ROMRAM (17T) 0x71 = 100MHz ROMRAM (17T) 0x72 = 100MHz ROMRAM (17T) 0x73 = 100MHz ROMRAM (17T) 0x74 = 100MHz ROMRAM (17T) 0x75 = 100MHz ROMRAM (	



VDDR1	CRB	Design
0.1u	11	6
1u	10	5
10u	6	5

VDD_CT	CRB	Design
0.1u	1	1
1u	3	3
10u	1	1

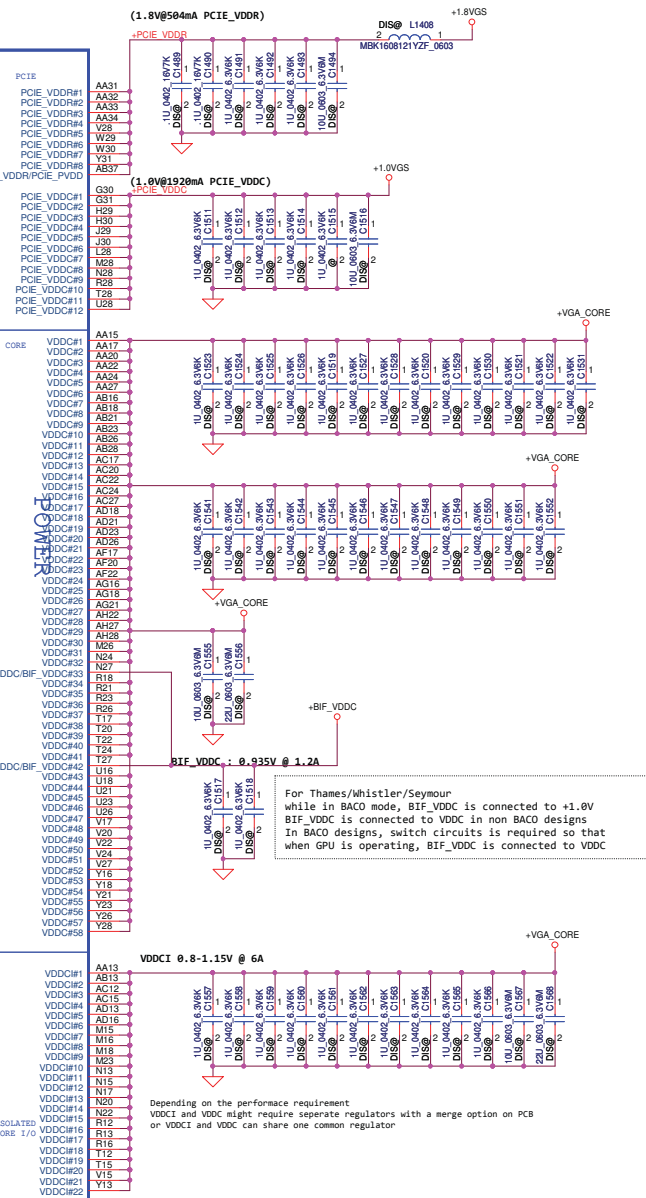
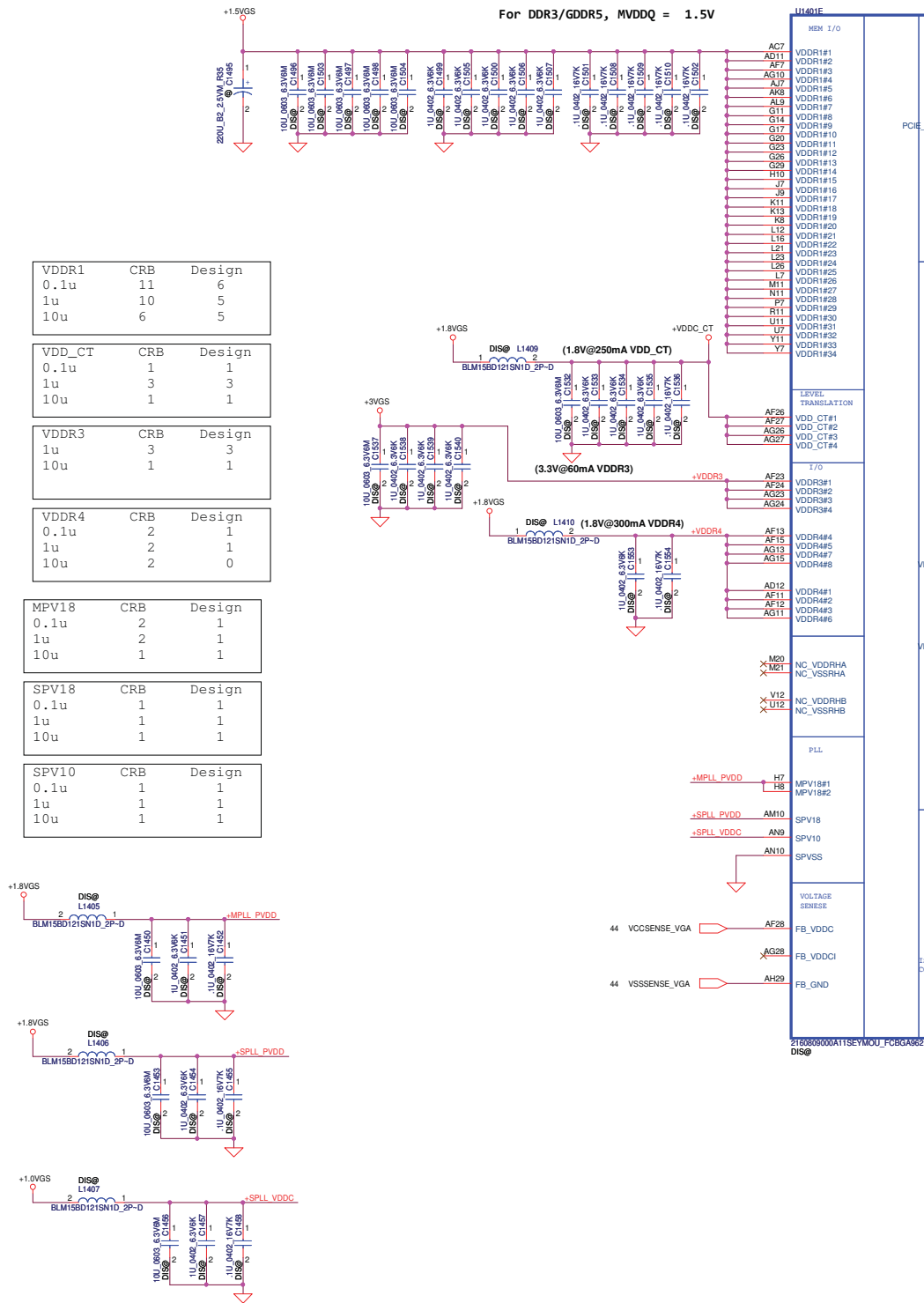
VDDR3	CRB	Design
1u	3	3
10u	1	1

VDDR4	CRB	Design
0.1u	2	1
1u	2	1
10u	2	0

MPV18	CRB	Design
0.1u	2	1
1u	2	1
10u	1	1

SPV18	CRB	Design
0.1u	1	1
1u	1	1
10u	1	1

SPV10	CRB	Design
0.1u	1	1
1u	1	1
10u	1	1



PCIE_VDDR	CRB	Design
0.01u	1	0
0.1u	1	2
1u	3 (2@)	3
10u	1	1

PCIE_VDDC	CRB	Design
0.1u	3	0
1u	10	5 (1@)
10u	2	1

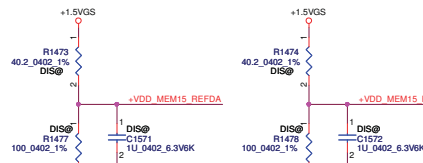
+BIF_VDDC	CRB	Design
1u	2	2
10u	1	0

VDDC	CRB	Design
1u	30	25
10u	9	1
22u	0	1

VDDCI	CRB	Design
1u	10	9
10u	3	2
22u	0	1

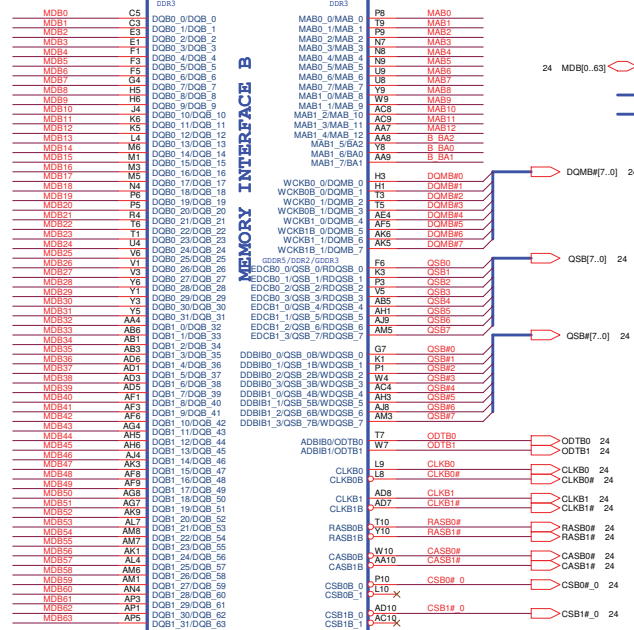
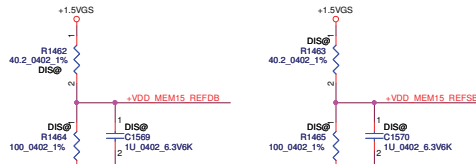
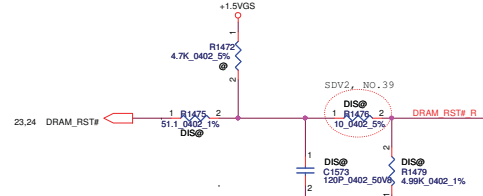
For Thames/Whistler/Seymour while in BACO mode, BIF_VDDC is connected to +1.8V BIF_VDDC is connected to VDDC in non BACO designs. In BACO designs, switch circuits is required so that when GPU is operating, BIF_VDDC is connected to VDDC

SVGS		+VDD MEM1S REFDA	L18	NC_MVREFDA		
		+VDD MEM1S REFSA	L20	NC_MVREFSA		
R1466!	Theo	2	240	0402 1%	N27	NC_MEM_CALRNO
R1467!	Say	2	240	0402 1%	L172	MEM_CALRNI
R1468!	Theo	2	240	0402 1%	AG12	NC_MEM_CALRNI2
R1469!	Say	2	240	0402 1%	M12	MEM_CALRP1
R1470!	Theo	2	240	0402 1%	M27	NC_MEM_CALRP2
R1471!	Theo	2	240	0402 1%	AH12	NC_MEM_CALRP2



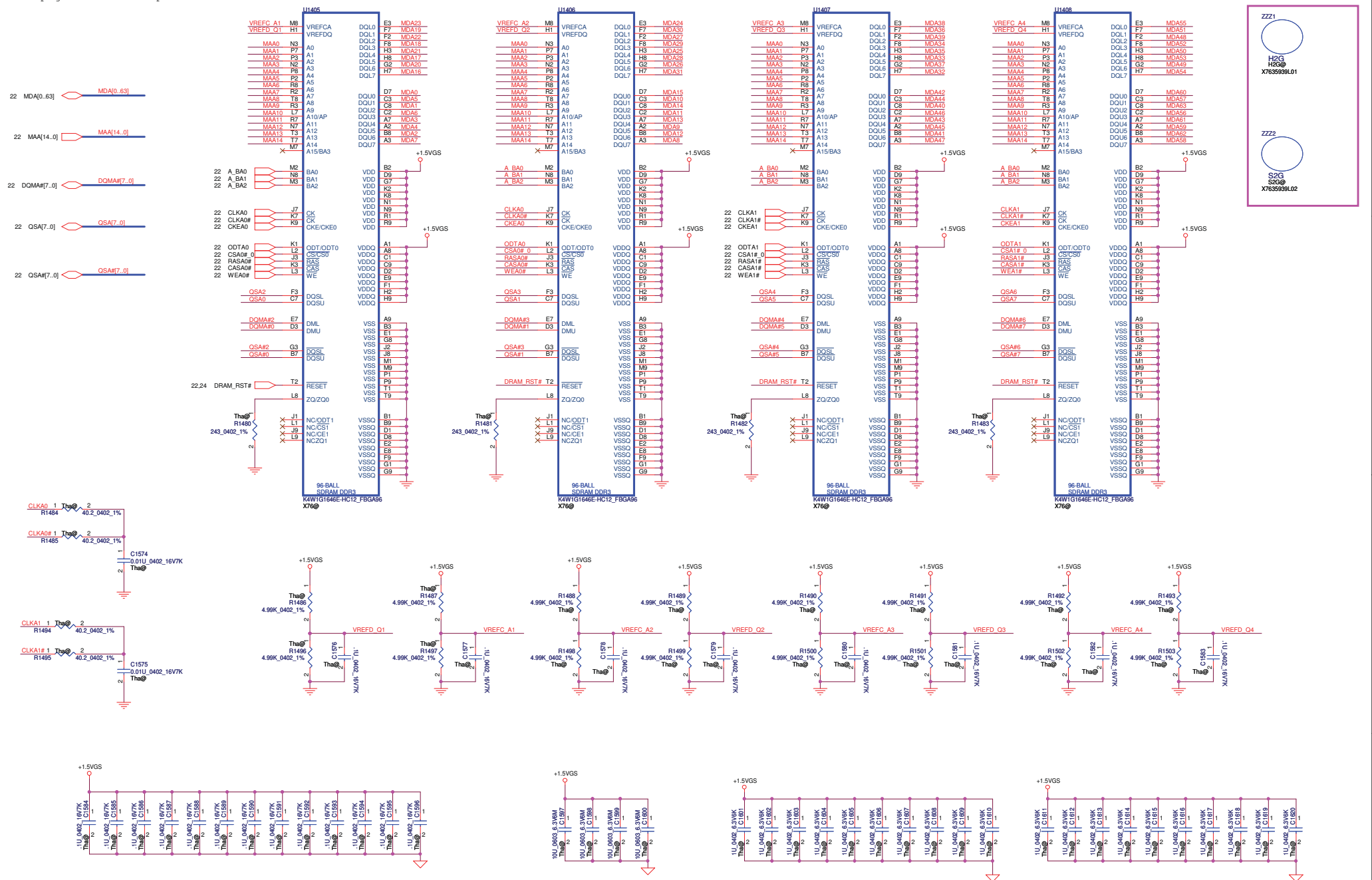
Place all these components very close to GPU (within 25mm)
and keep all components close to each other
** This basic topology should be used for DRAM_RAT for DDR3/GDDR5

These Capacitors and Resistor values are an example only
The series R and I cap values will depend on the DRAM loads
and will have to be calculated for different Memory,
DRAM loads and board to pass Reset Signal Spec



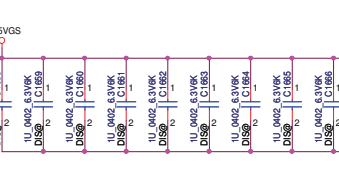
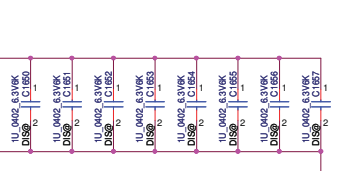
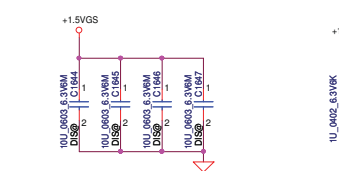
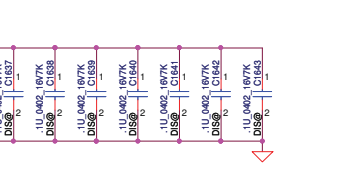
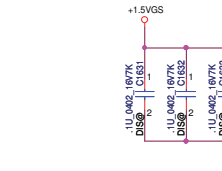
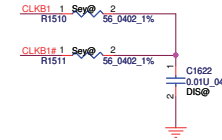
Security Classification		Compal Secret Data		Title	
Issued Date	2011/04/18	Deciphered Date	2015/07/08	ATTI Themes XT M2 MEM IF	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL INFORMATION. THIS SHEET MAY NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC.				Documents Revision 0.4	
THIS SHEET IS AUTHORIZED BY COMPAL ELECTRONICS, INC. TO BE USED FOR THE PURPOSES OF THE PROJECT AND MAY BE USED OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				LA-8121P	
Date: Monday, January 16, 2012				Page 22 of 50	

The Seymour M2 only support channel B (64 bit),
this page unmount all parts



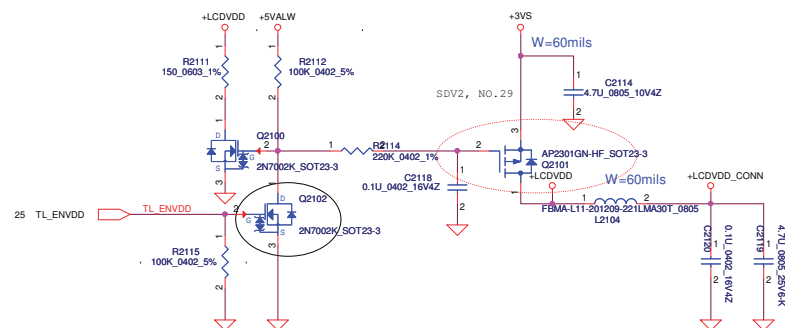
Security Classification	Compal Secret Data		<i>Compal Electronics, Inc.</i> ATTI Themes XT_M2_VRAM_A	
Issued Date	2011/04/18	Deciphered Date	2015/07/08	Title LA-8121P
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. 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 C Document Number Rev 0.4
Date: Monday, January 16, 2012				Sheet 23 of 50

OSR#17-01

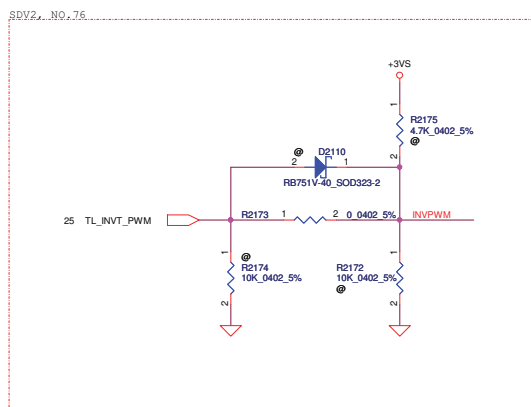
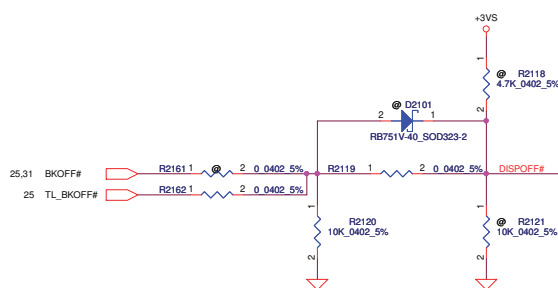


Security Classification		Compal Secret Data		Compal Electronics, Inc. ATT Themes XT_M2_VRAM_B	
Issued Date	2011/04/18	Deciphered Date	2015/07/08	Title	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER BY VERBAL NOR BY WRITTEN INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Size C Document Number LA-8121P	Rev 0.4
2				Date: Monday, January 16, 2012	Sheet 24 of 50

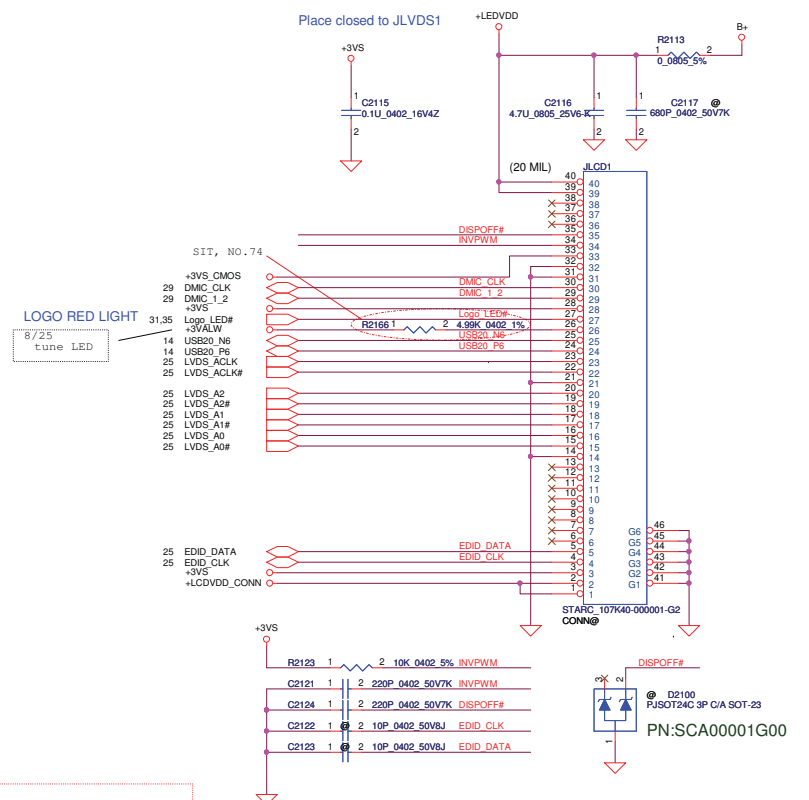
LCD POWER CIRCUIT



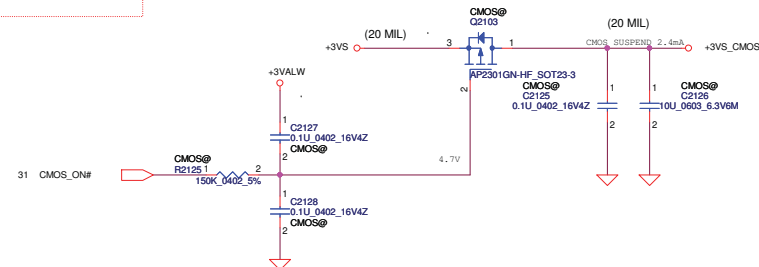
CMOS



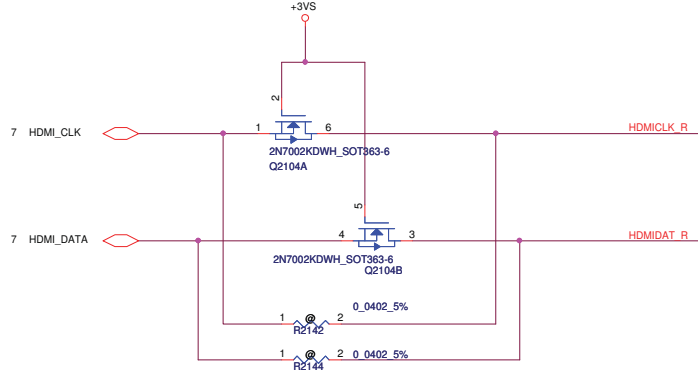
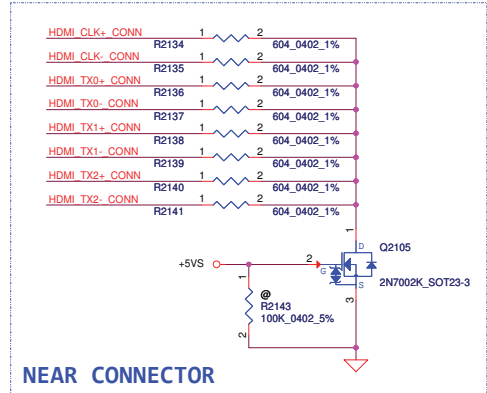
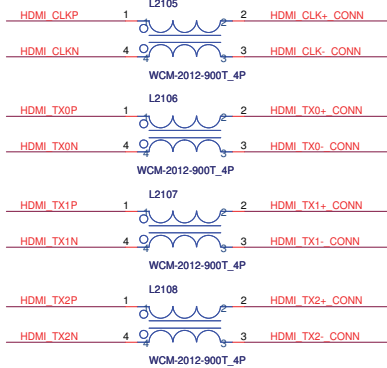
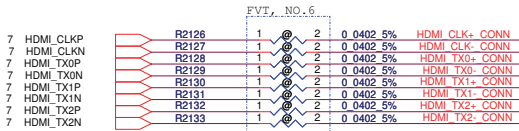
LCD/LED PANEL Conn.



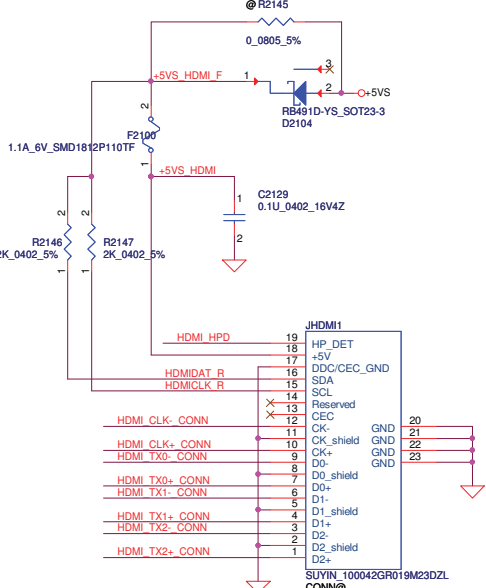
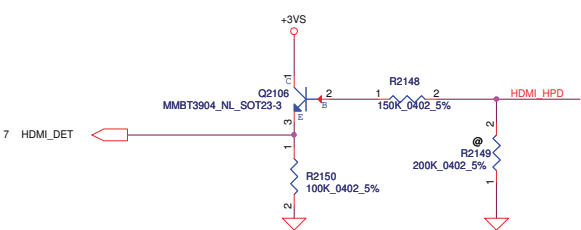
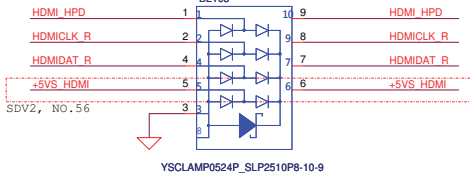
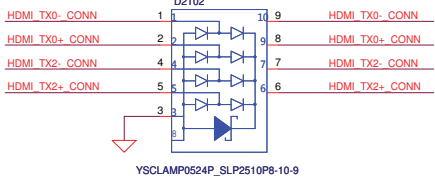
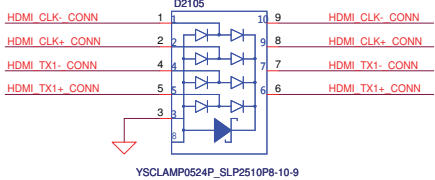
CMOS Camera Conn



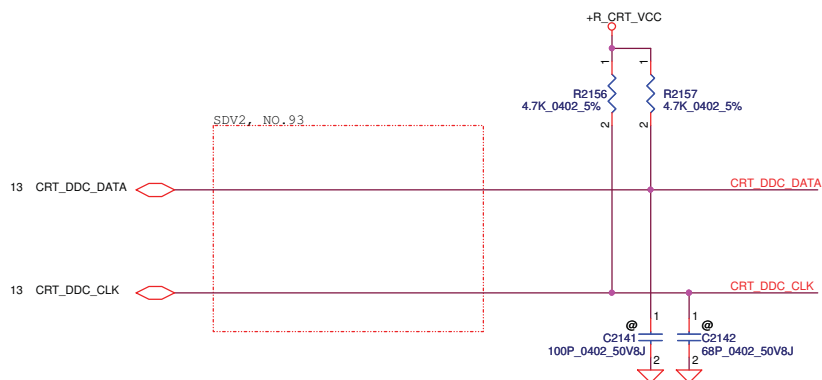
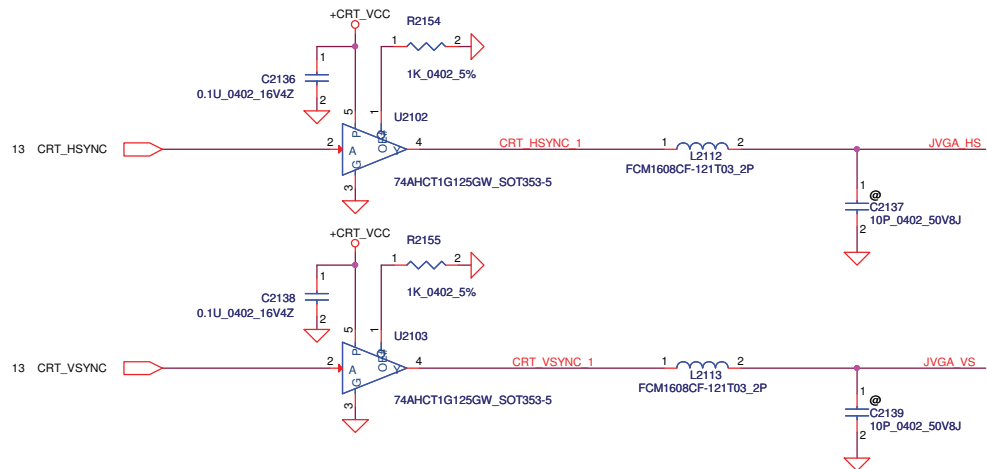
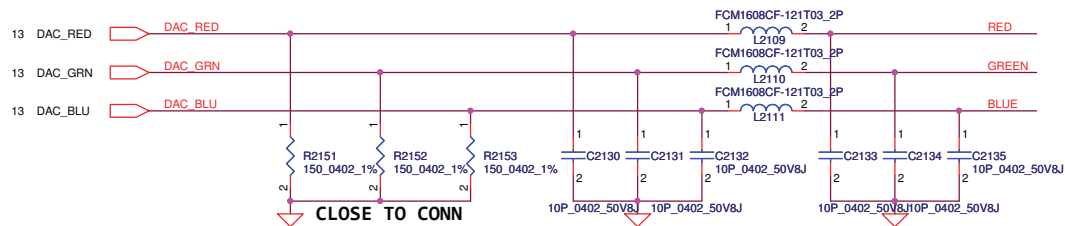
Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2011/04/18	Deciphered Date	2015/07/08	Title	LVDS CONN/CAMERA	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET 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	Rev
				Custm	LA-8121P	0.4
Date: Monday, January 16, 2012				Sheet	26	of 50



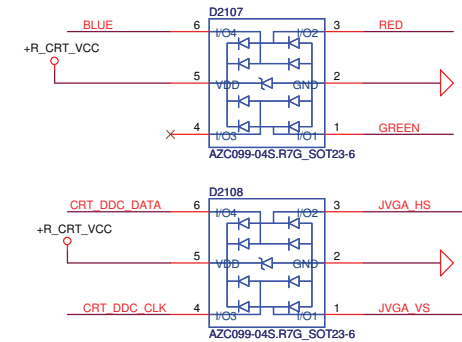
ESD Request 2011.08.13



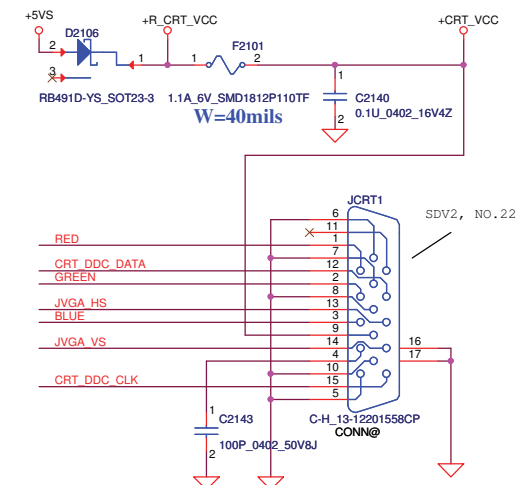
Security Classification		Compal Secret Data		Title	
Issued Date	2011/04/18	Deciphered Date	2015/07/08	HDMI Connector	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM 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	Rev
				Custom	0.4
				Date:	Monday, January 16, 2012
				Sheet	27 of 50



ESD Request 2011.08.13



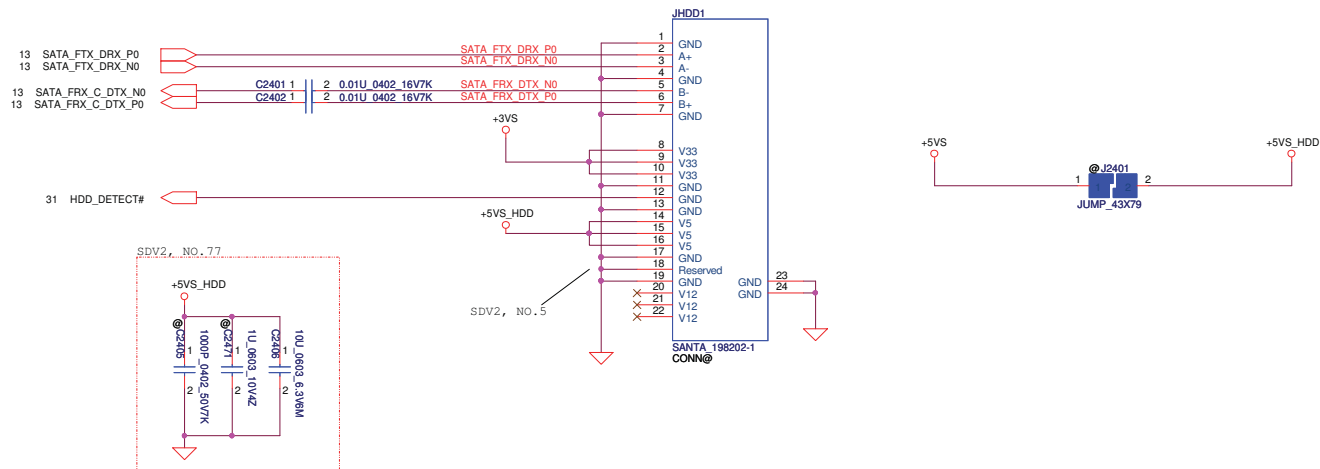
CRT Connector



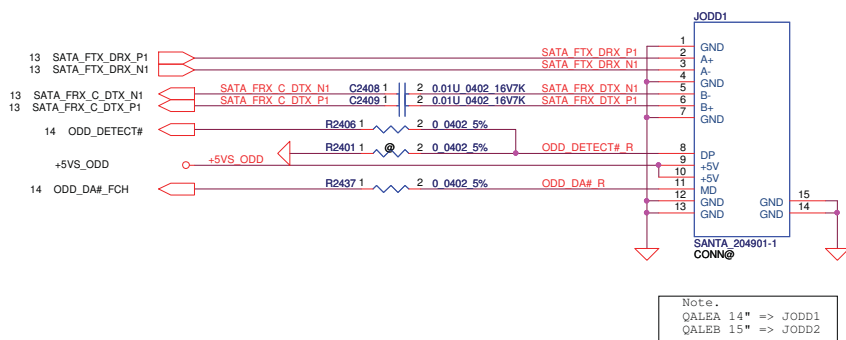
AMD check list update
20101110

Security Classification		Compal Secret Data		Title	
Issued Date	2011/04/18	Deciphered Date	2015/07/08	Document Number	LA-8121P
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.				Date	Monday, January 16, 2012
				Sheet	28 of 50

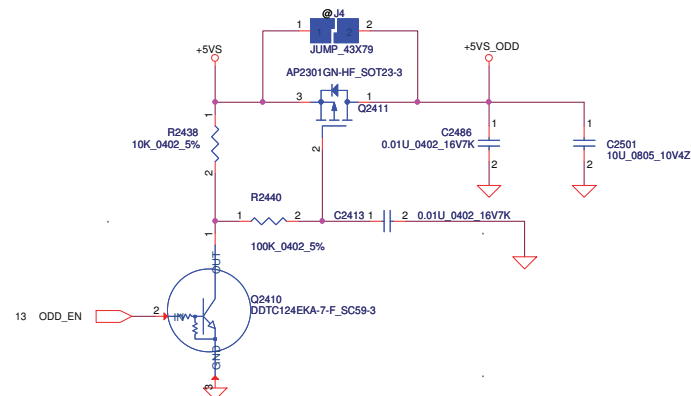
SATA HDD Conn.



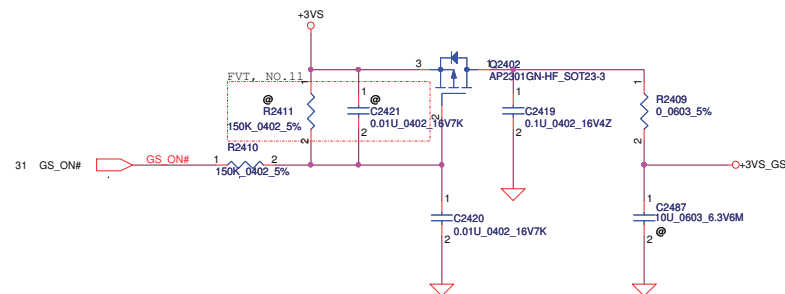
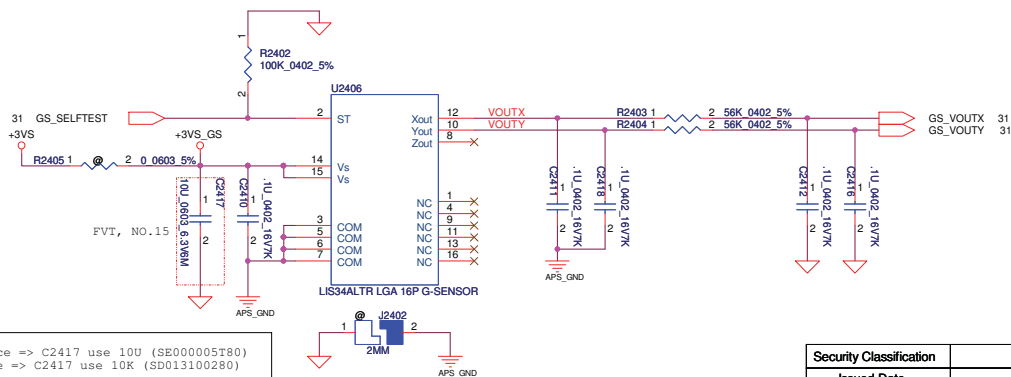
SATA ODD Conn.



ODD Power Control

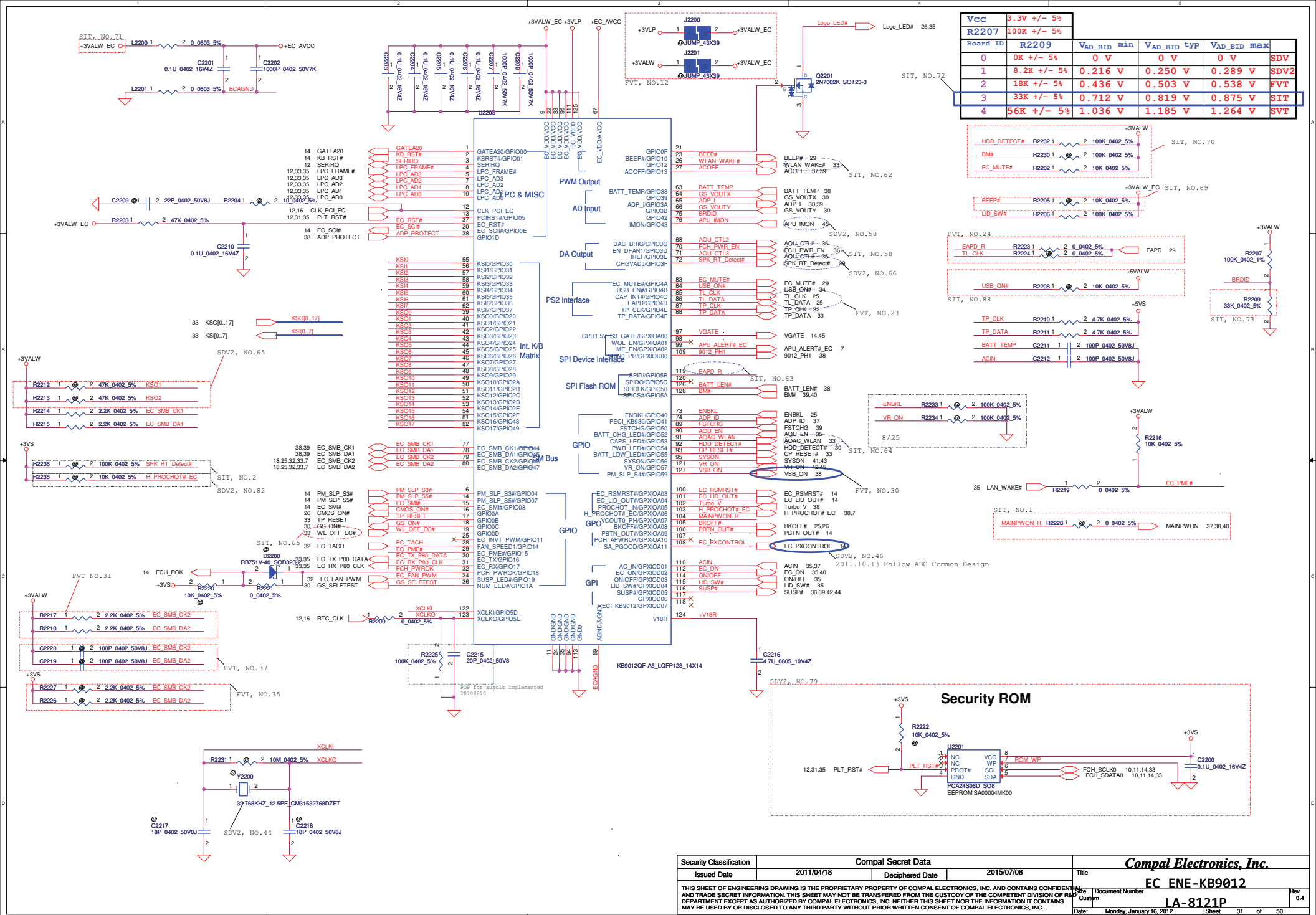


APS G-Sensor

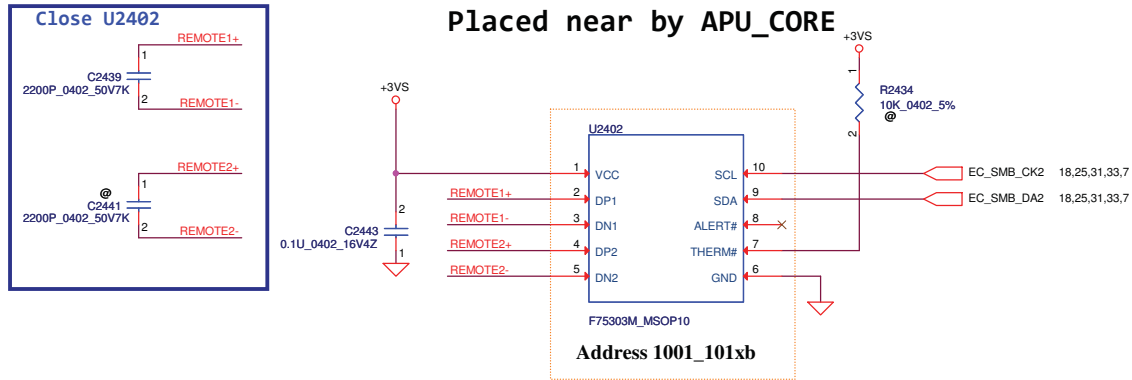


Note.
Main Source => C2417 use 10U (SE000005T80)
2nd Source => C2417 use 10K (SD013100280)

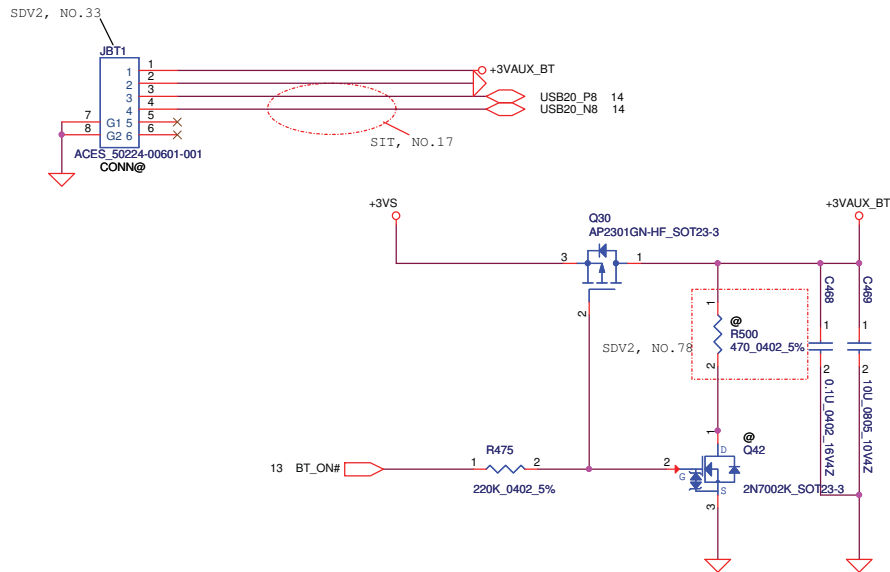
Security Classification		Compal Secret Data		Title	
Issued Date	2011/04/18	Deciphered Date	2015/07/08	HDD/ODD/G-Sensor	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM 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 B	Document Number
				LA-8121P	
				Date	Monday, January 16, 2012
				Sheet	30 of 50



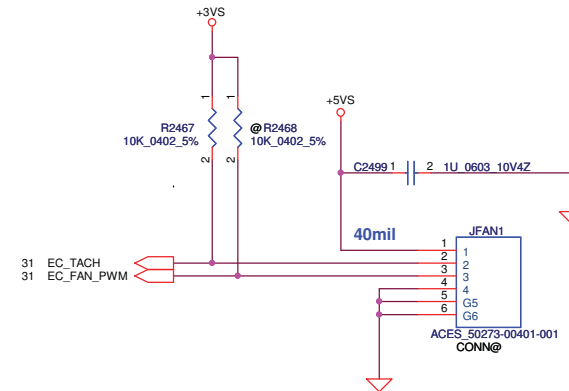
Fintek Thermal sensor Placed near by APU_CORE



BT Connector



FAN1 Conn



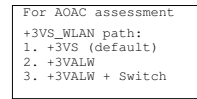
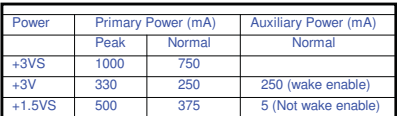
Security Classification	Compal Secret Data		Title	
Issued Date	2011/04/18	Deciphered Date	2015/07/08	Rev
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY 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.				0.4
Document Number				LA-8121P
Date: Monday, January 16, 2012				Sheet 32 of 50

Compal Electronics, Inc.

Thermal/FAN/BT

LA-8121P

WLAN Conn

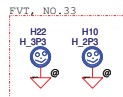


Signal	Width	Frequency	Signal	Width	Frequency	Signal	Width	Frequency
LPC_FRAME# R	R2477	2	0	0402	5%	LPC_FRAME#		
LPC_A03 R	R2478	2	0	0402	5%	LPC_A03		12.31,35
LPC_A02 R	R2474	2	0	0402	5%	LPC_A02		12.31,35
LPC_A01 R	R2475	2	0	0402	5%	LPC_A01		12.31,35
LPC_A00 R	R2476	2	0	0402	5%	LPC_A00		12.31,35
PCI_RST# R	R2479	2	0	0402	5%	APU_PCIE_RST#		12.31,35
CLK_PCI_DB						CLK_PCI_DB		12.35

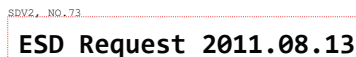
INT_KBD Conn.



Screw Holes



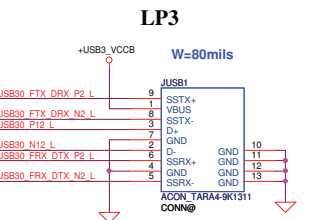
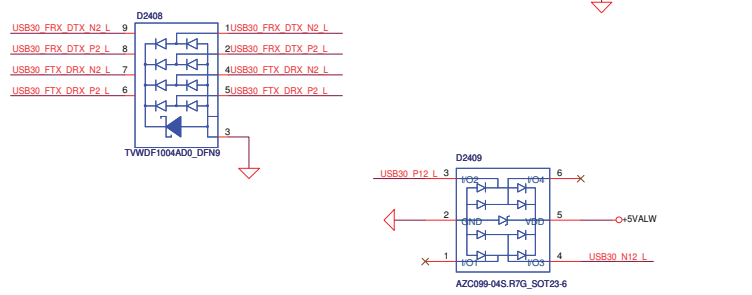
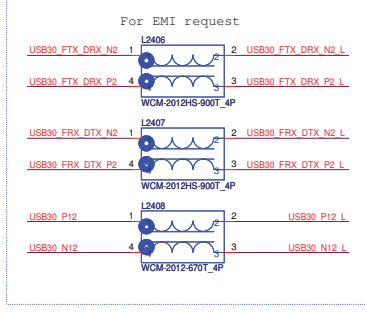
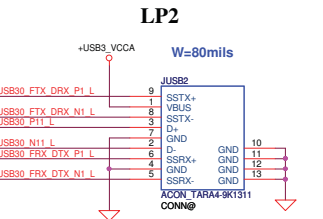
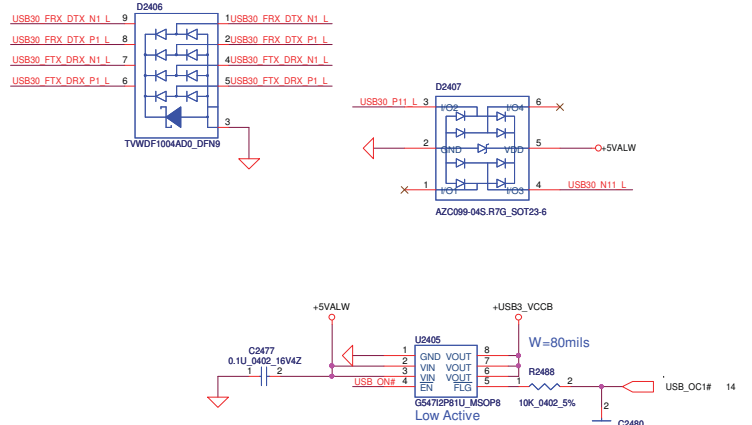
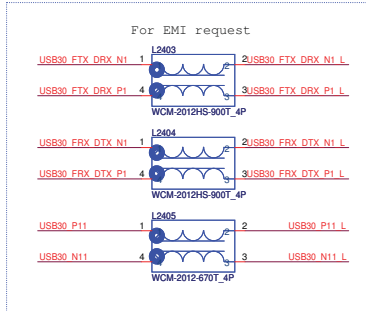
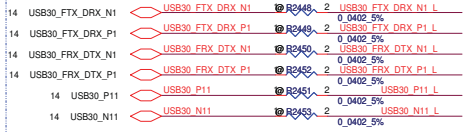
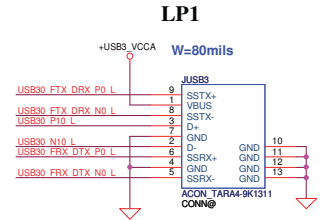
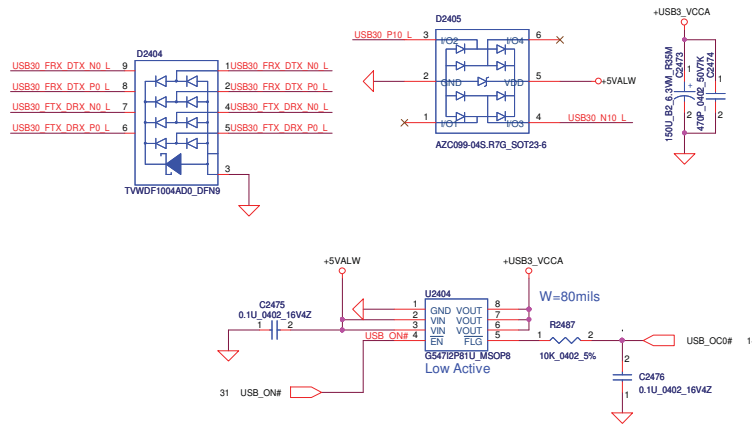
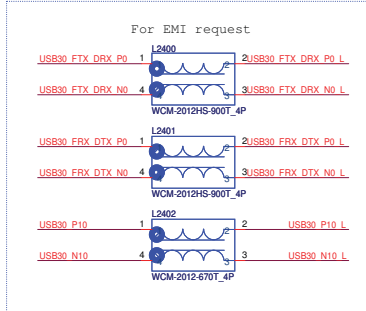
Track Point Conn



Security Classification		Compal Secret Data		Title	
Issued Date	2011/04/18	Deciphered Date	2015/07/08	TP/KBD/Screw Hole/Debug	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION. THIS SHEET MAY NOT BE REPRODUCED OR THE CONTENTS THEREOF DISCLOSED TO ANY THIRD PARTY OR 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 C	Document Number
				LA-8121P	
				Date: Monday, January 16, 2012	33 of 50

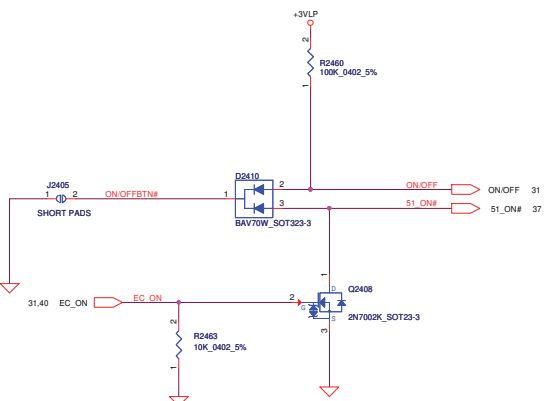
USB3.0 Conn *3

FVT, No.5

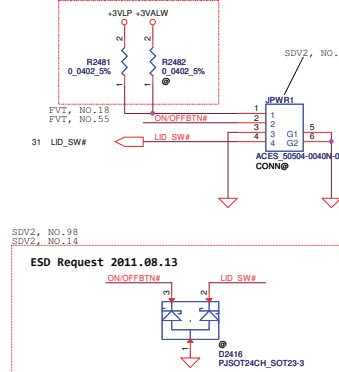


Security Classification		Compal Secret Data		Title	
Issued Date		Deciphered Date		2015/07/08	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT 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.		2011/04/18		2015/07/08	
Size		Document Number		Rev	
C		1A-8121P		0.4	
Date		Monday, January 16, 2012		Sheet	
		34		of	
		50			

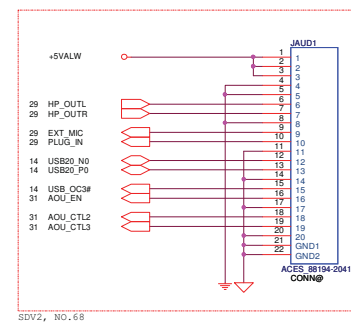
ON/OFF switch



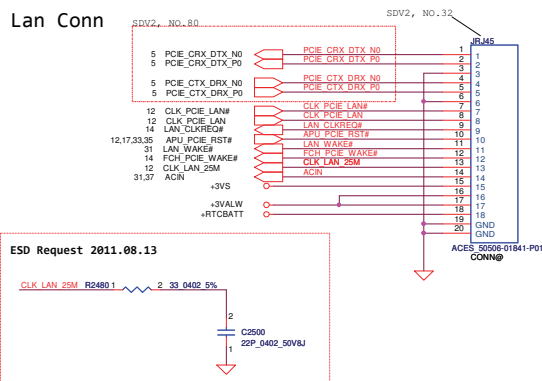
Power Button Board Conn



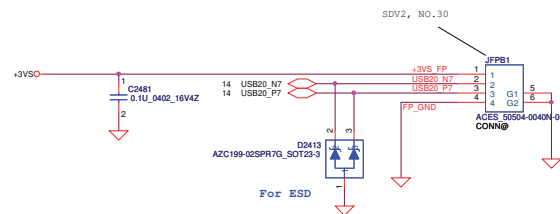
USB2.0/Audio Jack SB CONN



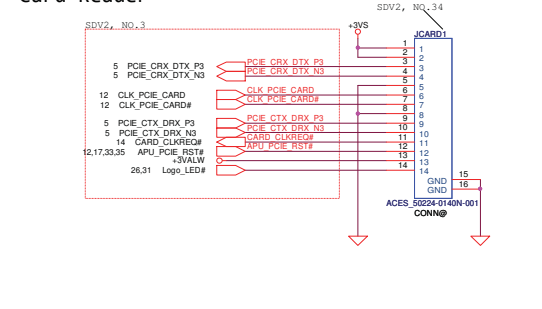
Lan Conn



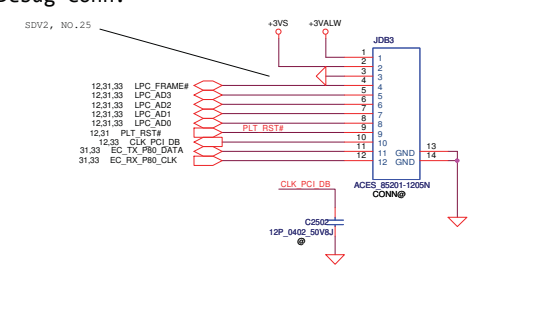
Finger Printer



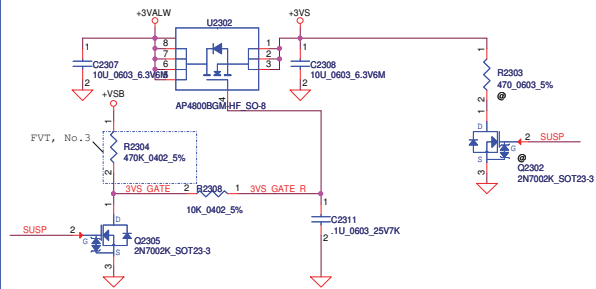
Card Reader



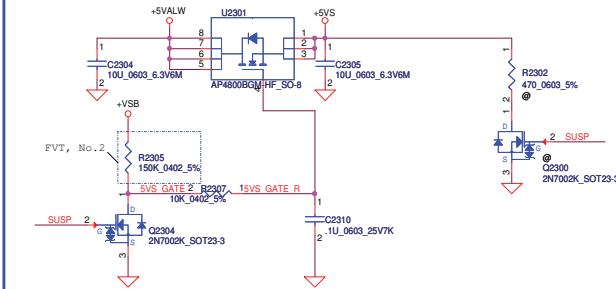
Debug Conn.



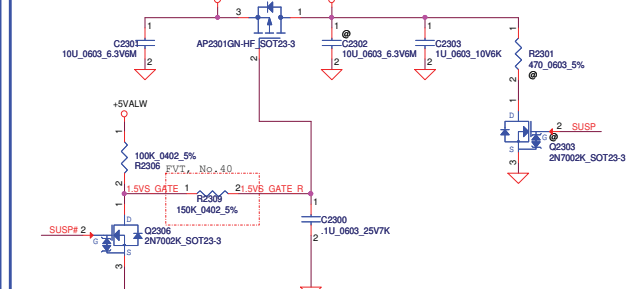
+3VALW TO +3VS



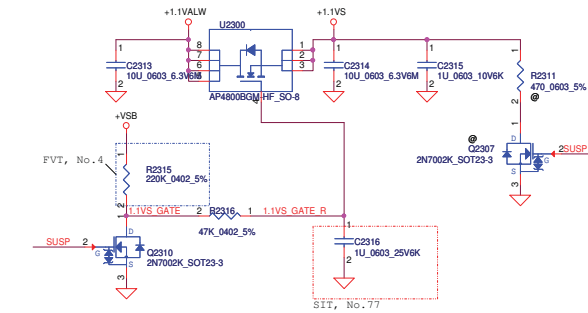
+5VALW TO +5VS



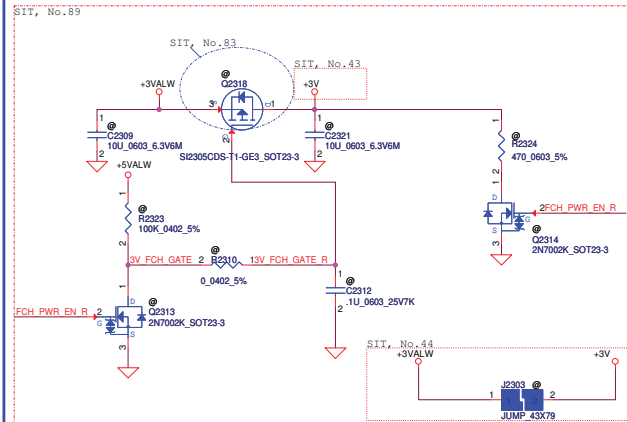
+1.5V to +1.5VS



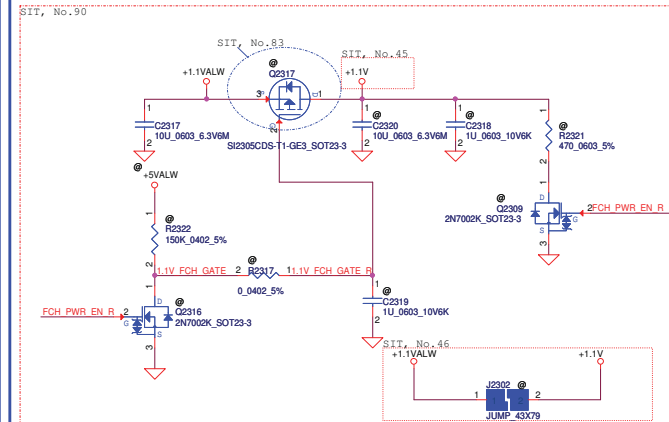
+1.1VALW to +1.1VS



+3VALW TO +3V

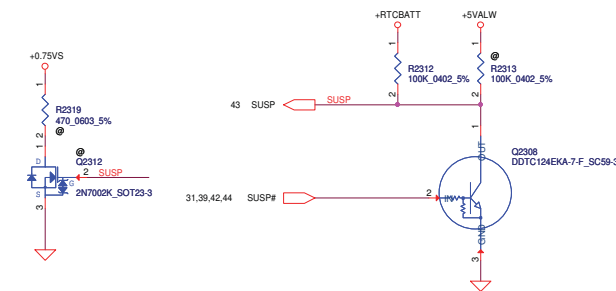
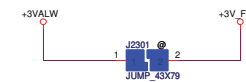


+1.1VALW to +1.1V



+3VALW TO +3V_FCH

Short J2301 for PCH VCCSUS3.3

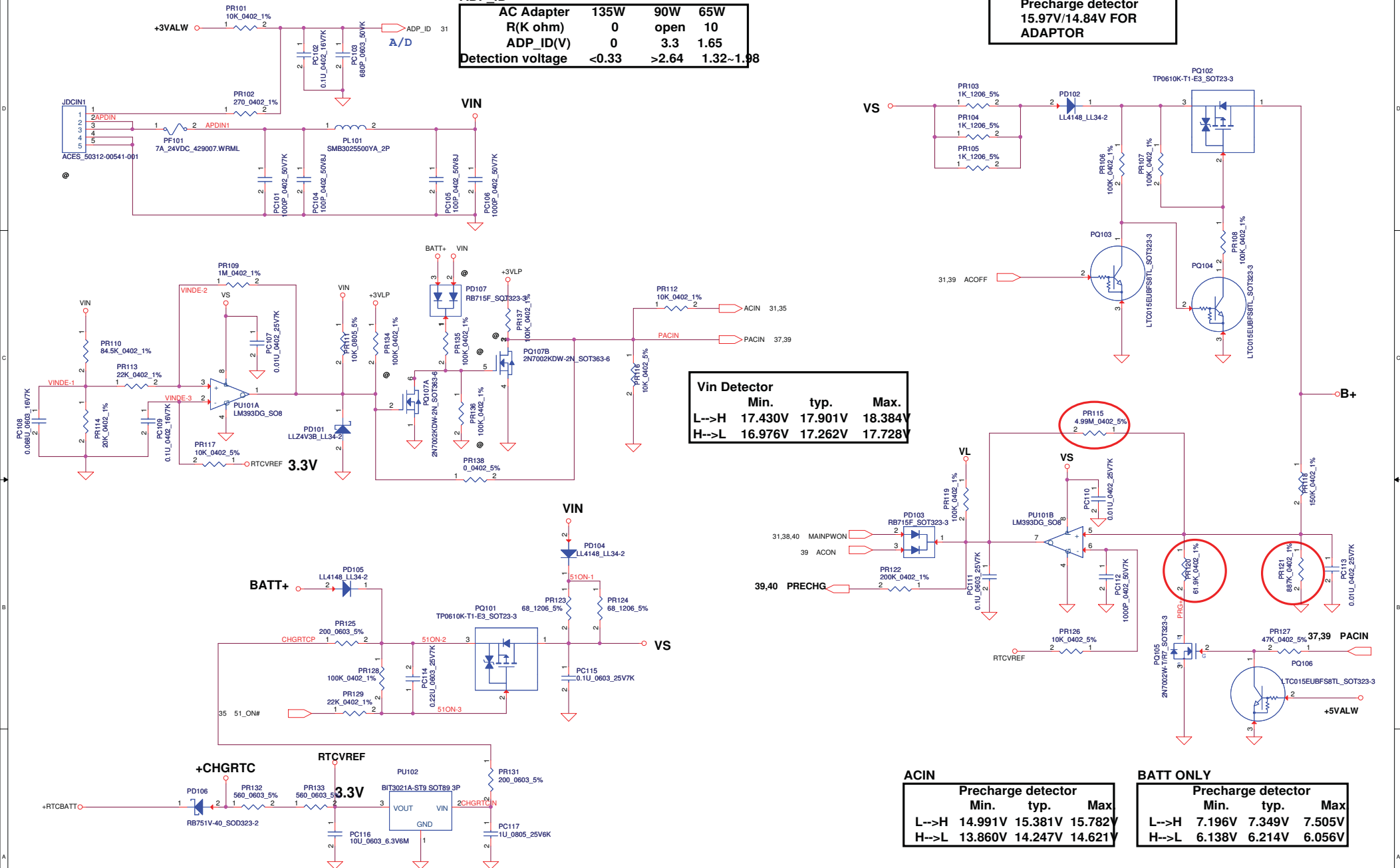


Security Classification		Compal Secret Data		Title	
Issued Date		Deciphered Date		DC V TO VS INTERFACE	
2011/04/18		2015/07/08		1A-8121P	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT 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.		Date		Monday, January 16, 2012	
Sheet		36		of	
4		50		Rev	
0.4					

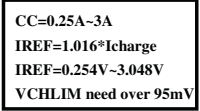
ADP_ID

AC Adapter	135W	90W	65W
R(K ohm)	0	open	10
ADP_ID(V)	0	3.3	1.65
Detection voltage	<0.33	>2.64	1.32~1.98

Precharge detector
15.97V/14.84V FOR
ADAPTOR

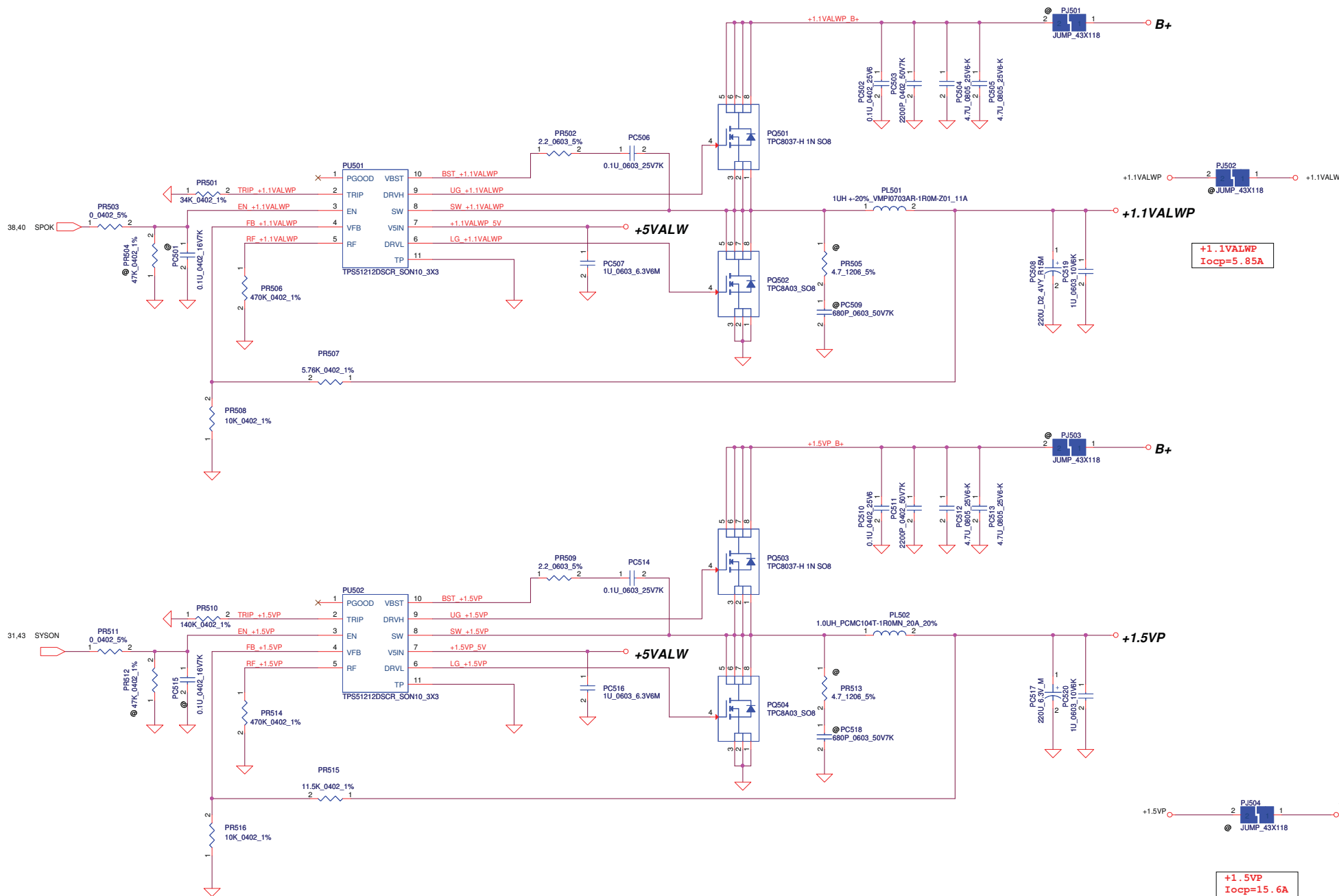


Security Classification	Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2011/04/18	Deciphered Date	2015/07/08	Title
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED 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.				Size
				Document Number
				Rev
				Monday, January 16, 2012
				Sheet 37 of 48

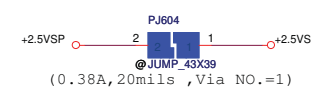
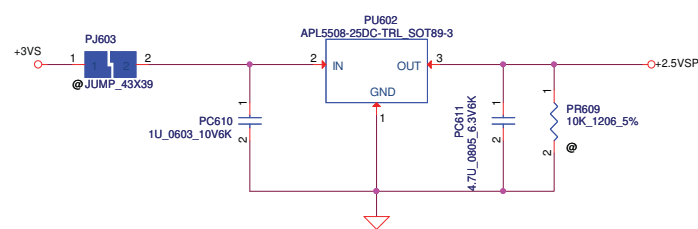
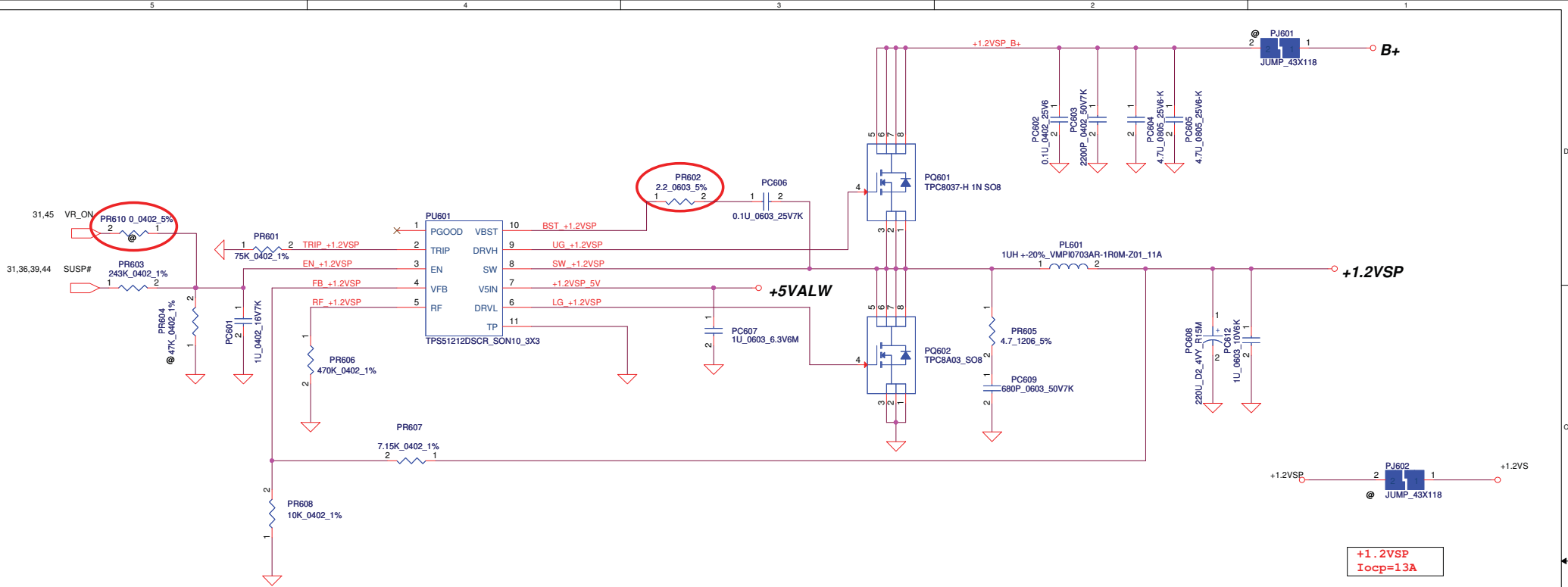


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2011/04/18	Deciphered Date	2015/07/08	Title	CHARGER
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF FIRST DATA 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	
				C38-G series Chief River Schematic	
				Date: Monday, January 16, 2012	Sheet 39 of 48

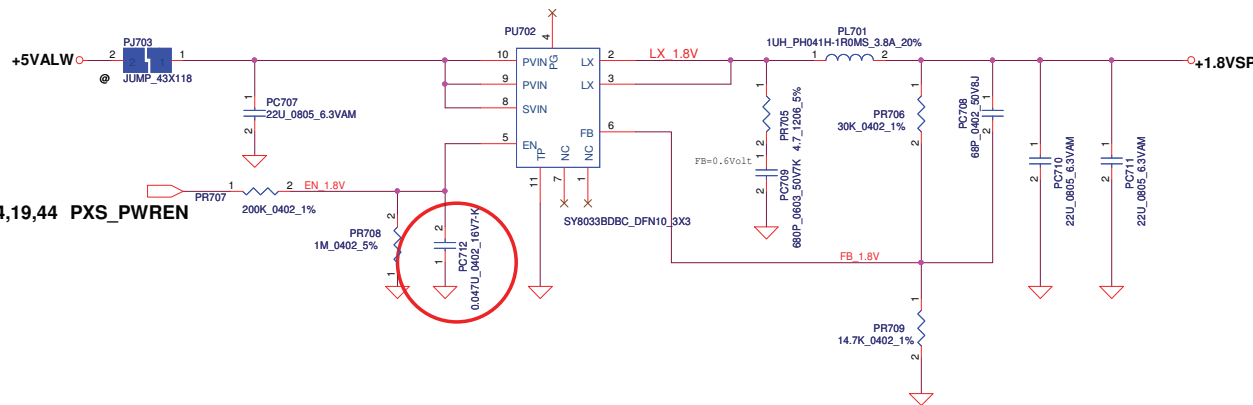
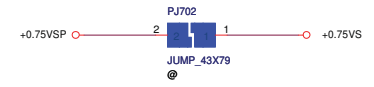
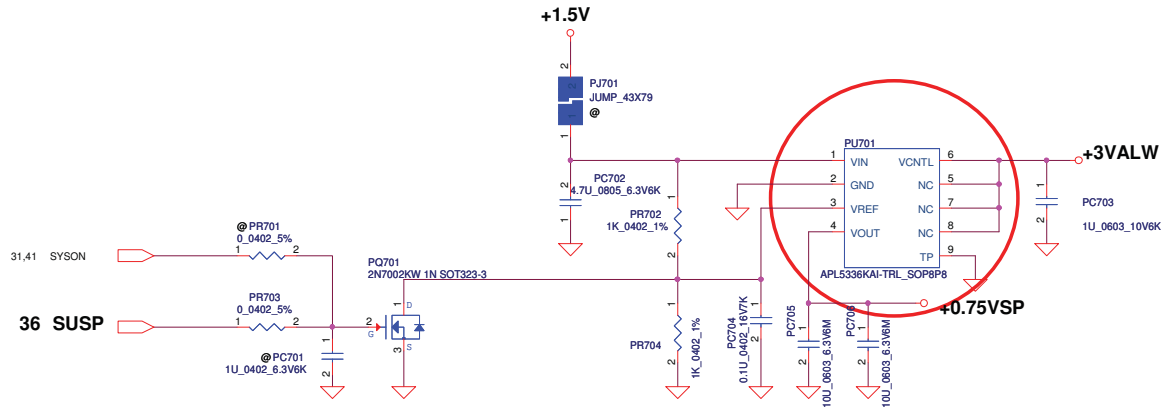
Security Classification	Compal Secret Data			<i>Compal Electronics, Inc.</i> 3VALWP/5VALWP		
Issued Date	2011/04/18	Deciphered Date	2015/07/08	Title	3VALWP/5VALWP Document Number	
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE 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.				Customer	C38-G series Chief River Schematic	
				Date	Monday, January 16, 2012 Sheet 40 of 48 Rev 0.1	



Security Classification		Compal Secret Data		Title	
Issued Date	2011/04/18	Deciphered Date		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.				Size	Document Number
				Date:	Monday, January 16, 2012
				Sheet	41 of 48
				Rev	0.1

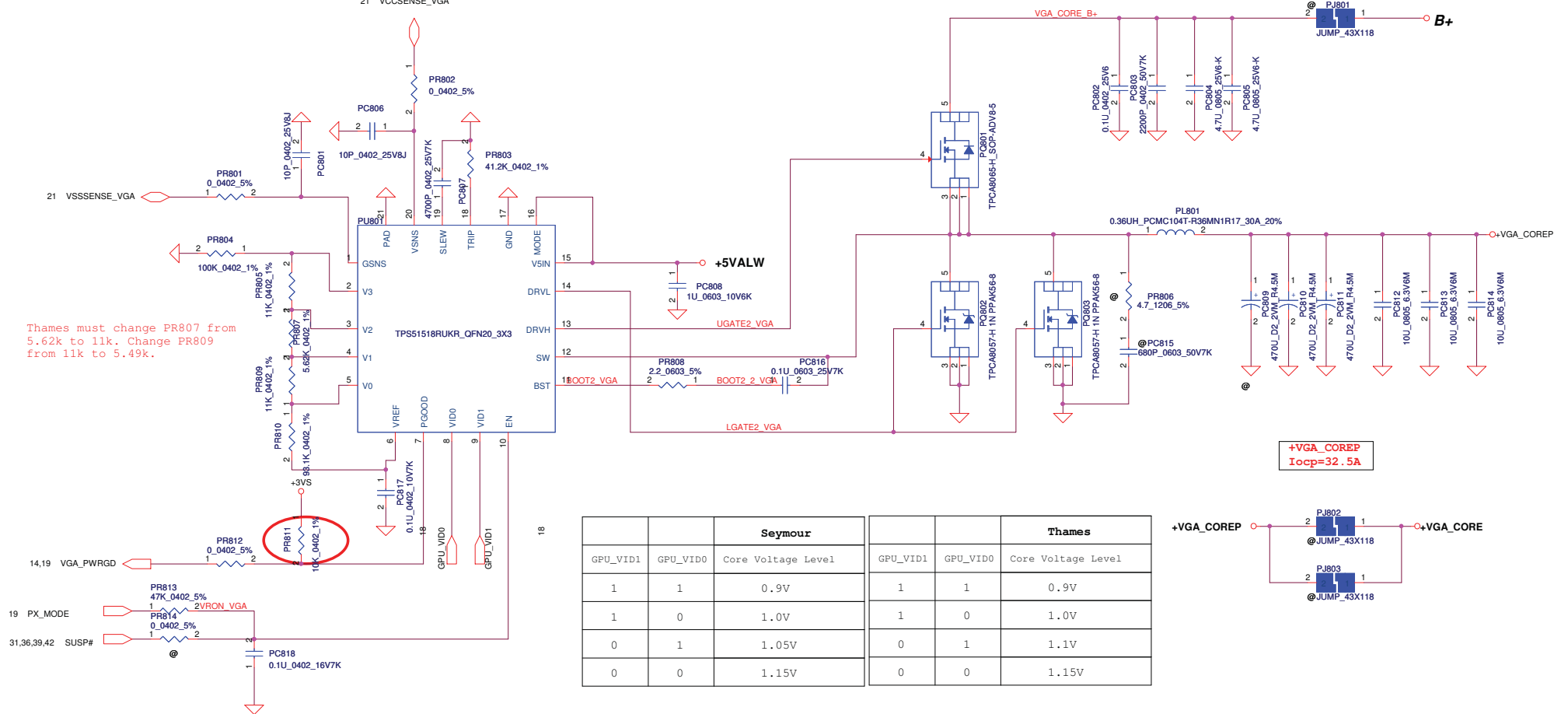


Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2011/04/18	Deciphered Date		Title	+1.2VSP/+2.5VSP
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE 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
				Date	Monday, January 16, 2012
				Sheet	42 of 48
				Rev	0.1

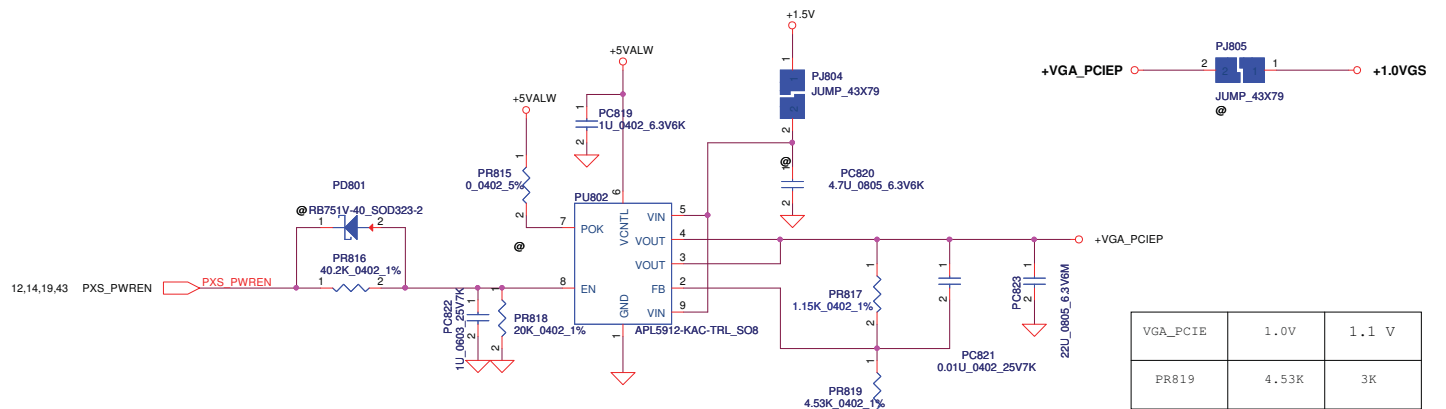
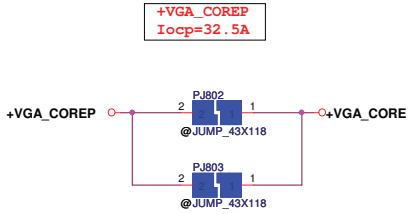


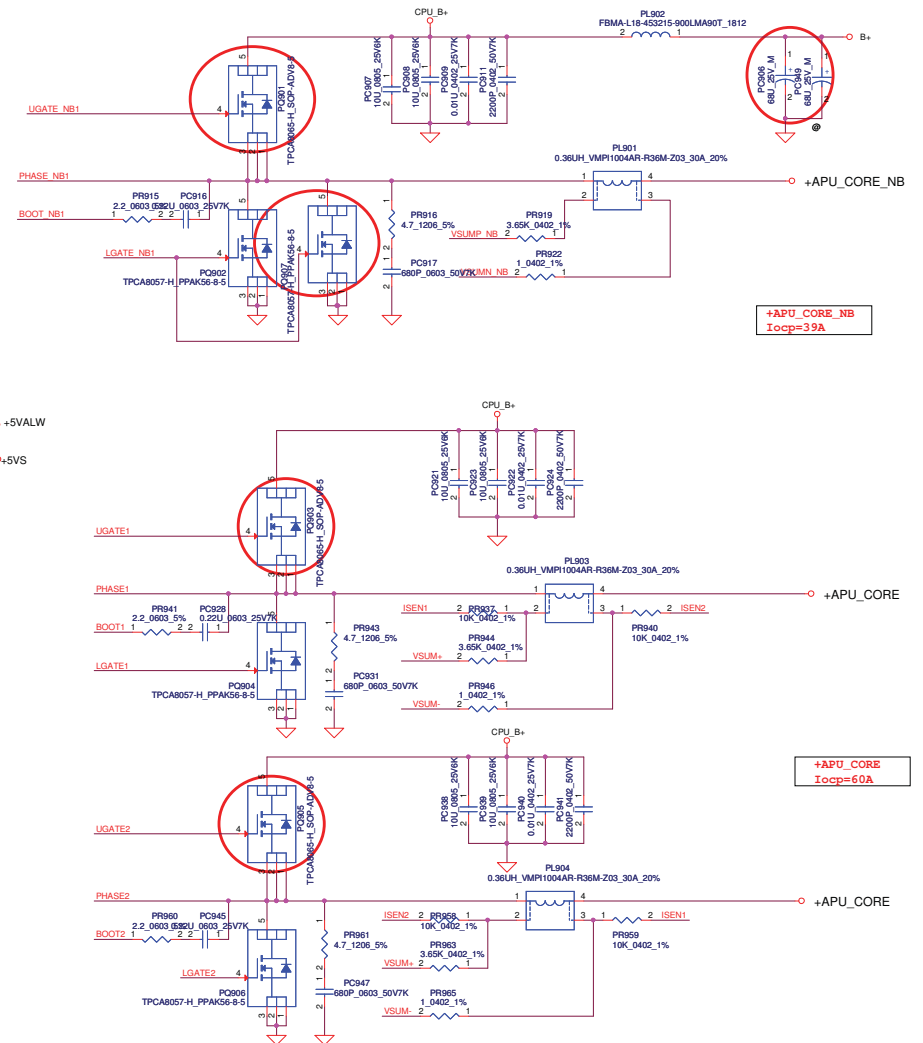
Security Classification		Compal Secret Data		Title	
Issued Date	2011/04/18	Deciphered Date		Size	Document Number
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE 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.				Rev 0.1	
Date: Monday, January 16, 2012				Sheet	43 of 48

Compal Electronics, Inc.
+0.75VP/+1.8VP

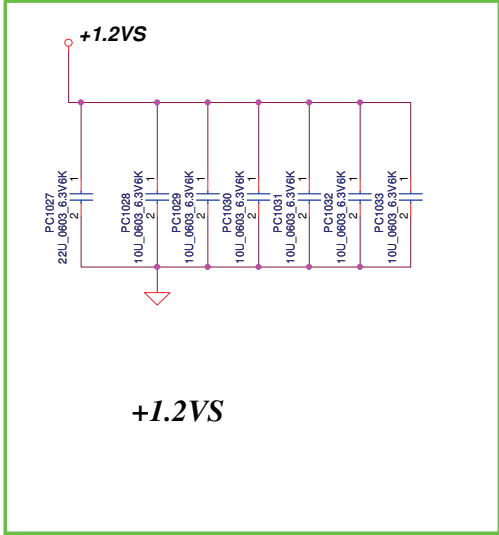
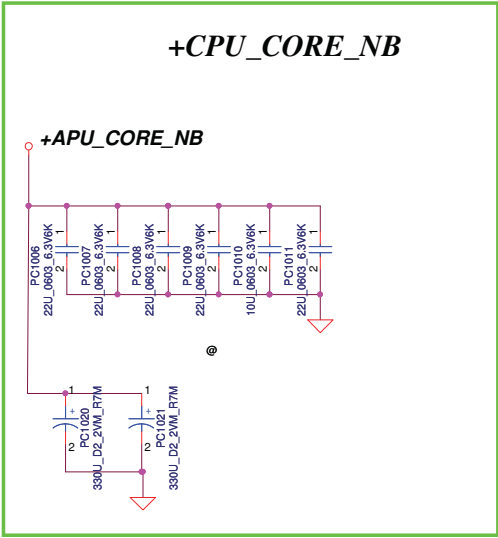
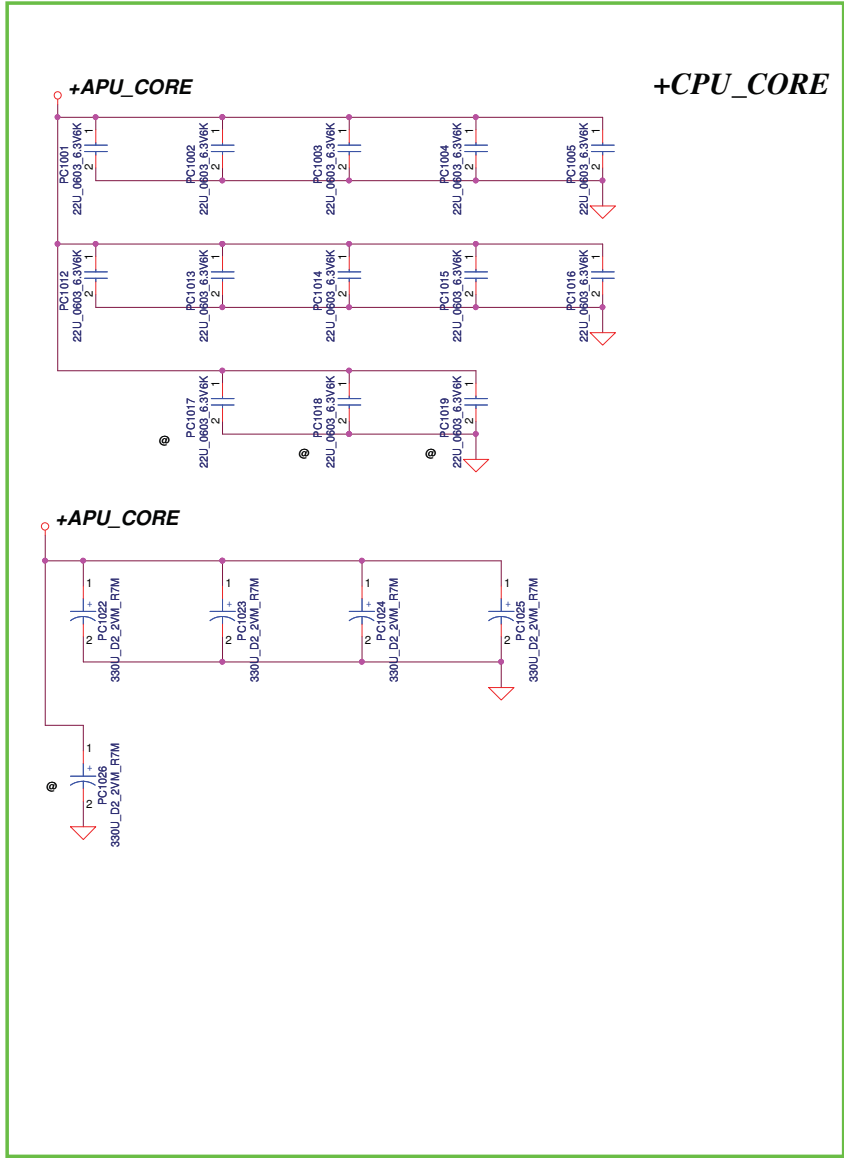


Seymour			Thames		
GPU_VID1	GPU_VID0	Core Voltage Level	GPU_VID1	GPU_VID0	Core Voltage Level
1	1	0.9V	1	1	0.9V
1	0	1.0V	1	0	1.0V
0	1	1.05V	0	1	1.1V
0	0	1.15V	0	0	1.15V





Security Classification	Compal Secret Data		Title	
Issued Date	2011/04/18	Deciphered Date	2015/07/08	Compal Electronics, Inc. CPU COREP
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 COMPLETE DIVISION OR DEPARTMENT EXCEPT AS AUTHORIZED BY COMPA ELECTRONICS, INC. THIS SHEET NOR THE INFORMATION IN IT CONTAINED MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.				Rev 0.1
Date	Monday, January 16, 2012	Sheet	45	of 48



Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date		2011/04/18		Title	
		Deciphered Date		PROCESSOR DECOUPLING	
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	A3	Document Number			Rev 0.1
Date:		Monday, January 16, 2012		Sheet	46 of 48

Item	Reason for change	PG#	Modify List	Date	Phase
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2011/04/18	Deciphered Date	2015/07/08	Title	PIR (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 FIRST 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	Rev
				Custom	C38-G series Chief River Schematic	C ^{0.1}
				Date	Monday, January 16, 2012	Sheet 47 of 48

Phase	Date	No.	BOM	Sch	Layout	Description
SDV2	2011/09/13	No.1	V			Page29, install R1102, R1104, R1105 for audio noise prevention
	2011/09/14	No.2	V			page12~16, change FCH P/N from SA000043IC0 to SA000043IG0
	2011/09/16	No.3	V	V		Page35, Swap JCARD1 Pin3,4 to Pin9,10 PCIE TX & RX for CardReader no function issue
	2011/09/16	No.4	V	V		Page33, Modify JTP1 Pin1 to TP_DATA2, JTF1 Pin6 to TP_CLK2 for Click Pad no function issue
	2011/09/17	No.5	V	V		Page30, Modify JPD1 Pin18 connect to GND for SATA Gen2
	2011/09/17	No.6	V			Page5~9, Modify U1 to JCPU1
	2011/09/17	No.7	V			Page10~11, SWAP JDIMM1 & JDIMM2
	2011/09/17	No.8	V			Page33, Modify JFP1 to JFPB1,Modify JWLAN1 to JMINI1,Modify JLAN1 to JRJ45
	2011/09/17	No.9	V			Page12, Modify CLRPI to JCMOS1
	2011/09/26	No.10	V			Page31, POP U2201,C2200,R2229 for Security ROM Function not work issue
	2011/09/26	No.11	V			Page14, Modify D1103,D1104 to DIS8 for DIS only
	2011/09/28	No.12	V		V	Reserve R2489,R2490 to PCIE_CRX_C_DTX_N1,PCIE_CRX_C_DTX_P1 for PCIE WLAN RX AC Decoupling
	2011/09/28	No.13	V	V	V	Page29, R1111.2 Connect to U1101 Pin38 add net name CX_GP100 for Vendor request
	2011/09/28	No.14	V	V	V	Page35, Add D2416 to replace D2414 for ESD request
	2011/09/28	No.15	V	V	V	Page5~9, Modify JCPU1 Footprint to LOTES_ACA-ZIF-109_722P-A39 for A39 DFX Rule
	2011/09/28	No.16	V	V	V	Page12~16, Modify U2 Footprint to 21807-01-HUDSON_FCBGA_656P-A39 for A39 DFX Rule
	2011/09/28	No.17	V	V	V	Page17~22, Modify U1401 Footprint to 2160809000A11SEY_FCBGA_962P-A39 for A39 DFX Rule
	2011/09/28	No.18	V	V	V	Page23~24, Modify U1405~U1412 Footprint to K4W1G1646E-HC12_FBGA_96P-A39 for A39 DFX Rule
	2011/09/28	No.19	V	V		Page31, Modify Board ID Table for AMD Build Plan Change
	2011/09/28	No.20	V	V		Page31, Modify R2209 for QALEA FVT1 Build Board IC Mapping
	2011/09/28	No.21	V	V	V	Page28, update JCR11 Footprint from SUYIN_070546FR015S2002R_15P to C-H_13-12201558CP_15P-T for ME Conn modify
	2011/09/30	No.22	V			Page14, Add C2222~C237 connect to all USB3.0 port near connector for AMD request that about USB Signal Driving
	2011/10/03	No.23	V	V	V	Page14, Add C222~C237 connect to all USB3.0 port near connector for AMD request that about USB Signal Driving
	2011/10/04	No.24	V	V	V	Page35, Add JDB3 Conn for SW Debug request
	2011/10/05	No.25	V	V	V	Page12, Add TP52~T58 on U2 GP10 input pin for debug
	2011/10/05	No.26	V	V	V	Page13, Add TP59~T61, TP67~T74 on U2 GP10 input pin for debug
	2011/10/05	No.27	V	V	V	Page13, Add TP52~T58 on U2 GP10 input pin for debug
	2011/10/05	No.28	V	V	V	Page26, Q2101 P/N change to SB00007H10 for Component common
	2011/10/06	No.29	V	V	V	Page35, JFPB1 update P/N to SP010002300 for Conn List update
	2011/10/06	No.30	V	V	V	Page35, JFWB1 update P/N to SP010002300 for Conn List update
	2011/10/06	No.31	V	V	V	Page35, JRJ45 update Footprint to ACES_50506-01841-P01_18P-T for Conn List update
	2011/10/06	No.32	V	V	V	Page32, JBT1 update P/N to SP02000TF00 for Conn List update
	2011/10/06	No.33	V	V	V	Page35, JCARD1 update Footprint to ACES_50224-0140N-001_14P-T for Conn List update
	2011/10/07	No.34	V	V	V	Page29, reserve D1101 for Audio Noise issue
	2011/10/11	No.35	V	V	V	Del TP52~T58 on U2 GP10 input pin for debug
	2011/10/11	No.36	V	V	V	Page13, Del TP59~T61, TP67~T74 on U2 GP10 input pin for debug
	2011/10/11	No.37	V	V	V	Page14, Add TP62~T93 on U2 GP10 input pin for debug
	2011/10/11	No.38	V	V	V	Page22, Replace R1476 P/N From D028100A00 to SD028100A80 for HF Part modify
	2011/10/12	No.39	V	V	V	Page19,30,36, Replace Q1409,Q2309,Q2410 P/N From SBX012440010 to SB00000J700 for HF Part modify
	2011/10/12	No.40	V	V	V	Page12, Replace X1 P/N From SJ100003300 to SJ10000EL00 for Sourcer request (No Footprint, Use SJ10000DJ00)
	2011/10/13	No.41	V	V	V	Page12, Replace Y1 P/N From SJ132P7KW10 to SJ10000BM00 for Sourcer request
	2011/10/13	No.42	V	V	V	Page18, Replace Y1400 P/N From SJ10000G800 to SJ10000D000 for Sourcer request (No Footprint, Use SJ10000DJ00)
	2011/10/13	No.43	V	V	V	Page31, Replace Y2200 P/N From SJ132P7KW10 to SJ10000BM00 for Sourcer request
	2011/10/13	No.44	V	V	V	Page31, Modify U2200 Pin107 EC_PXCNTROL to U2200 Pin108 for ABO Common Design
	2011/10/14	No.45	V	V	V	Page31, Add R2235 pull up to +3V3 for H_PROCHOT#_EC
	2011/10/14	No.46	V	V	V	Page19, Replace Q1401,Q1402,Q1404,Q1405 P/N from SB00000FG00 to SB00000FG10 for Sourcer request
	2011/10/14	No.47	V	V	V	Page26, Add C2144,C2145 1000P Caps connect to DMIC_CLK & DMIC_L2 for EMI Request(Noise issue)
	2011/10/17	No.48	V	V	V	Page25, Add R2171 connect to LVDS_HPD_R for Vendor Request (Noise Filtering)
	2011/10/17	No.49	V	V	V	Page7,9,27 Replace Q2,Q3,Q8,Q2106 P/N From SB000006A00 to SB000006A10 for HF Part modify
	2011/10/17	No.50	V	V	V	Page14, Del D1103,D1104 with EDID_DATA & EDID_CLK pull up for VGA Sequence tuning
	2011/10/17	No.51	V	V	V	Page19, Modify C1463,D1400,R1442 BOM Structure from DIS8 to FX400 & D1400 use _D0603_5# for PX50
	2011/10/17	No.52	V	V	V	Page17, Modify R65,R69 BOM Structure to 0 for Power Leakage issue
	2011/10/17	No.53	V	V	V	Page12, Modify R80,R82 value from 0 ohm to 33 ohm for EMI Noise Issue
	2011/10/17	No.54	V	V	V	Page17,31, Modify instruction: H_PROCHOT#, Turbo_V
	2011/10/18	No.55	V	V	V	Page27, Add Net +5VS_HDMI on D2103 Pin5 & Pin6 For ESD Request
	2011/10/18	No.56	V	V	V	Page19, Modify R1454,Q1412,R1450,R1451,R1449,C1470,U1404,C1467,C1468,C1469,C1470 BOM Structure from PX40 to DIS8 for PX50 Function workable
	2011/10/19	No.57	V	V	V	Page31, Add Net APU_LMON on U2200 Pin76 for Power Team Request
	2011/10/19	No.58	V	V	V	Page35, Add intersheet of PLT_RST# on debug card
	2011/10/19	No.59	V	V	V	Page25, modify net name: LVDS_HPD_R to LVDS_HPD_C
	2011/10/20	No.60	V	V	V	Page33, Del A0AC circuit for Customer request
	2011/10/20	No.61	V	V	V	Page31, Del A0AC Powe Control Pin WLAN_POWER# for Customer request
	2011/10/20	No.62	V	V	V	Page14, Modify USB Signal net name from USB20_[P..N][10..12]_C to USB30_[P..N][10..12]_C for USB30 net name error
	2011/10/21	No.63	V	V	V	Page12, Modify R83,R84 value from 0 ohm to 33 ohm for EMI Noise Issue
	2011/10/21	No.64	V	V	V	Page31, Modify R2212,R2213 BOM Structure to 0 for ENE Suggestion
	2011/10/21	No.65	V	V	V	Page31, Modify U2200 Pin 72 Net Name From AOU_ILIM to SPK_RT_Detect# for Speaker main stream & retail
	2011/10/21	No.66	V	V	V	Page31, Add R2236 pul up to +3VS for SPK_RT_Detect#
	2011/10/21	No.67	V	V	V	Page35, Modify JAUD1 Pin20 Net Name From AOU_ILIM to GND , Pin17 From AOU_CTL1 to GND, Pin4 From NC to AGNDfor USB Charger Function
	2011/10/21	No.68	V	V	V	Page29, Modify JSFK1 P/N From DC030008W00 to SP02000N000 & Add JSFK1 Pin5 Connect to SPK_RT_Detect#,JSFK1 Pin6 connect to GND for Speaker main stream & retail
	2011/10/21	No.69	V	V	V	Page31, Modify U2200 Pin120 Net Name From AOU_CTL1 to NC for USB Charger Function1
	2011/10/21	No.70	V	V	V	Page29, reserve D1102 for Audio Noise issue
	2011/10/24	No.71	V	V	V	Page35, Modify D2415 BOM Structure to POP for ESD Request
	2011/10/24	No.72	V	V	V	Page33, Modify D2402,D2403 BOM Structure to POP for ESD Request
	2011/10/24	No.73	V	V	V	Page34, Modify D2402,D2403 BOM Structure to POP for ESD Request
	2011/10/24	No.74	V	V	V	Page34, Modify D2402,D2403 BOM Structure to POP for ESD Request
	2011/10/24	No.75	V	V	V	Page26, Del R2116,R2117, Add R2172~R2176 & Reverse D2110 for PWM Power Leakage issue
	2011/10/24	No.76	V	V	V	Page30, Del C2404,Reserve C2471,C2405 for Intel Circuit Common
	2011/10/24	No.77	V	V	V	Page32, Modify R500 BOM Structure to 0 for BOM Error
	2011/10/24	No.78	V	V	V	Page31, Del R2223~R2229, Q2200 to update Security ROM Circuit for Intel Circuit Common
	2011/10/24	No.79	V	V	V	Page35, Swap JRJ45 PCIE_CRX_DTX_P0 to PCIE_CRX_DTX_N0, PCIE_CTX_DRX_P0 to PCIE_CTX_DRX_N0 For LAN Board Common
	2011/10/24	No.80	V	V	V	Page35, Del R2462 to update Power OK circuit for Intel Circuit Common
	2011/10/24	No.81	V	V	V	Page36, Del R2300, R2310, C2312, R2317 update Power OK circuit for Intel Circuit Common
	2011/10/24	No.82	V	V	V	Page31, Modify R2235 BOM structure to 0 for H_PROCHOT#_EC
	2011/10/24	No.83	V	V	V	Page34, Modify D2404,D2406,D2408 P/N from SC300001D00 to SC300002800 for ESD Request
	2011/10/24	No.84	V	V	V	Page34, Modify D2404~D2409,L2400~L2408 BOM Structure from 0 to POP for EMC Request
	2011/10/24	No.85	V	V	V	Page27, Modify L2105~L2108 BOM Structure from 0 to POP for EMI Request
	2011/10/24	No.86	V	V	V	Page34, Modify L2402,L2405,L2408 P/N from SC300000I00 to SM070000000 for ESD Request (Footprint SM070000I00)
	2011/10/24	No.87	V	V	V	Page34, Modify L2403, L2404, L2400, L2401, L2406, L2407 P/N from SC300000I00 to SM070001500 for ESD Request
	2011/10/24	No.88	V	V	V	Page27, Modify D2102,D2103,D2105 P/N from SC300001Y00 to SC300002C00 for ESD Request
	2011/10/24	No.89	V	V	V	Page35, Modify D2413 P/N from SC000001600 to SC000001600 for ESD Request
	2011/10/25	No.90	V	V	V	Page29, Modify JSFK1 P/N From SP02000N000 to DC030008W00 For Ld Requirement
	2011/10/25	No.91	V	V	V	Page29, Add R1140 connect to SPK_RT_Detect# to GND for Speaker Verify
	2011/10/25	No.92	V	V	V	Page28, Del Q2412 with CRT_DDC_DATA & CRT_DDC_CLK for AMD Design Guide Require
	2011/10/25	No.93	V	V	V	Page26, Del D1122,R2124 with EDID_DATA & EDID_CLK pull up for Duplicate Pull up error
	2011/10/26	No.94	V	V	V	Page26, Modify R2174 BOM Structure to 0 for BOM Error
	2011/10/26	No.95	V	V	V	Page25, Reserve R2116, R2117 to Connect from CSCL & CSCA to EC_SMB_DA2 & EC_SMB_CK2 for Power Leakage issue
	2011/10/26	No.96	V	V	V	Page29, Modify D1101, D1102 BOM Structure From 0 to POP for Audio Noise issue
	2011/10/26	No.97	V	V	V	Page35, Modify D2416 P/N from SC300001G00 to SC000001G00 for ESD Request
	2011/10/27	No.98	V	V	V	Page29, Modify C1111 ,C1141 BOM Structure From POP to 0 for Audio Noise issue
	2011/10/27	No.99	V	V	V	Page29, Modify C1111 ,C1141 BOM Structure From POP to 0 for Audio Noise issue

Security Classification		Compal Secret Data		Compal Electronics, Inc.	
Issued Date	2008/08/10	Deciphered Date	2011/03/04	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.				EE modify list	
Size	Document Number	Rev		0.4	
Customer	LA-7121P				
Date	Monday, January 16, 2012	Sheet	48	of	50

Phase	Date	No.	BOM	Sch	Layout	Description
FVT	2011/11/14	No.1	V			Page1~24, Modify U1401 P/N From SA000047H00 to SA000047H50 for GPU Version update
	2011/11/14	No.2	V			Page36, Modify R2305 P/N From SD028200280 (20K_0402_5%) to SD028150380 (150K_0402_5%) for Power Consumption & Power Sequence tuning
	2011/11/14	No.3	V			Page36, Modify R2304 P/N From SD028470280 (47K_0402_5%) to SD028470380 (470K_0402_5%) for Power Consumption & Power Sequence tuning
	2011/11/14	No.4	V			Page36, Modify R2315 P/N From SD028750280 (75K_0402_5%) to SD028220380 (220K_0402_5%) for Power Consumption & Power Sequence tuning
	2011/11/14	No.5	V			Page34, Modify R2442-R2459 BOM Structure From POP to @ for EMI Request
	2011/11/14	No.6	V			Page27, Modify R2126-R2133 BOM Structure From POP to @ for EMI Request
	2011/11/14	No.7	V	V	V	Page14, Replace C222-C237 to R216-R231 on all usb port signal for AMD Design checklist update (USB no function issue)
	2011/11/14	No.8	V	V	V	Page19, Add R1461 to connect PK5_FWREN to RUNPWOK for PX5 Power Enable
	2011/11/14	No.9	V	V	V	Page14, Remove R230-R231 on all usb port signal for AMD Design checklist update (USB no function issue)
	2011/11/15	No.10	V	V	V	Page35, Remove D2415 for ESD Request
	2011/11/21	No.11	V	V	V	Page30, Reserve R2411,C2421 for G Sensor Vendor Suggestion
	2011/11/21	No.12	V	V	V	Page31, Add J2200,J2201 to improve EC Power Source +3VLP or +3VALW to +3VALW_EC Power Source Option and modify +3VALW Net Name to +3VALW_EC for Lenovo S4 Lid Function
	2011/11/21	No.13	V	V	V	Page31, Update Borad ID table for FVT Phase
	2011/11/21	No.14	V	V	V	Page31, Modify R2209 From 8.2K to 18K for FVT BRDID update
	2011/11/21	No.15	V	V	V	Page30, C2417 BOM Change from 10U (SE000005T80) to 10K (SD013100280) for G Sensor Vendor Suggestion
	2011/11/21	No.16	V	V	V	Page19, Add R2317,R2322,C2317,C2318,C2319,Q2313,Q2314 for +3V_FCH Power Control
	2011/11/21	No.17	V	V	V	Page31, U2200 Pin70 Add FCH_PWR_EN# for +3V_FCH Power Control
	2011/11/22	No.18	V	V	V	Page35, Add R2481 Pull up to +3VLP & Reserve R2482 Pull up to +3VALW for Lenovo S4 LID Function
	2011/11/22	No.19	V			Page18, Y1400 P/N From SJ10000DY00 to SJ10000CV00 for BOM Change
	2011/11/22	No.20	V			Page12, X1 P/N From SJ10000E000 to SJ10000CX00 for BOM Change
	2011/11/22	No.21	V	V	V	Page25, Modify R2117 connect to TL_DATA & R2116 connect to TL_CLK, Two signals connect to R2177,R2178 pull up to +3VS for LVDS Translator EEPROM Reserve
	2011/11/22	No.22	V	V	V	Page31, Modify U2200 Pin86 EAPD to TL_DATA & Add U2200 Pin85 TL_CLK for LVDS Translator EEPROM Reserve Function
	2011/11/22	No.23	V	V	V	Page31, Add U2200 Pin26 EAPD_R for LVDS Translator EEPROM Reserve Function
	2011/11/22	No.24	V	V	V	Page31, Add R2223 & R2224 to option EAPD GPIO Output signal from Pin26 (EAPD_R) or Pin86 (TL_DATA) for LVDS Translator EEPROM Reserve Function
	2011/11/23	No.25	V	V	V	Page14, Del R216-R229 for USB2.0 Signals tuneing circuit remove
	2011/11/23	No.26	V	V	V	Page14, Reserve R230-R234 & C222-C226 with USB2.0 N signals port 0,6,10,11,12 for AMD Suggestion
	2011/11/24	No.27	V	V	V	Page36, Del R2321,R2322,C2317,C2318,C2319,Q2313,Q2314 for +3V_FCH Power Control
	2011/11/24	No.28	V	V	V	Page31, U2200 Pin70 Del FCH_PWR_EN# for +3V_FCH Power Control
	2011/11/24	No.29	V	V	V	Page29, Modify JSFK1 P/N from DC030008W00 to DC030009100 for ME Connector List update
	2011/11/24	No.30	V	V	V	Page31, U2200 Pin127 Add VSB_ON & Reserve R2226 for +VSB Power Control
	2011/11/25	No.31	V	V	V	Page31, Modify R2217, R2218 Power Source from +3VS to +3VALW for +3VGS Power Leakage issue
	2011/11/25	No.32	V	V	V	Page18, Install Q1400, R1427, R1428 & Remove R1433, R1435 for +3VGS Power Leakage issue
	2011/11/25	No.33	V	V	V	Page33, Modify H10 & H22 From NPTH to PTH For ME Drawing Lose
	2011/11/25	No.34	V	V	V	Page31, Del R2226 for VSB_ON resistor double reserve
	2011/11/26	No.35	V	V	V	Page31, Add R2226,R2227 Pull up to +3VS & Reserve R2217,R2218 pull up to +3VALW for SMBUS Leakage issue
	2011/11/28	No.36	V	V	V	Page7, Del R65,R69 & Reserve R45 & R45 with APU_SID & APU_SIC By Pass APU_SID_R & APU_SIC_R for SMBUS Power Leakage Issue
	2011/11/28	No.37	V	V	V	Page31, Reserve C2219,C2210 to +3VALW For SMBUS2 AC Decoupling
	2011/11/28	No.38	V	V	V	Page31, Del C2213,C2214 & Modify R2226,R2227 BOM Structure to @ & R2217,R2218 to POP For SMBUS Power Leakage issue
	2011/11/29	No.39	V			Page7, Modify R45,R48 BOM Structure to POP & Q9 to @ For SMBUS Power Leakage issue
	2011/11/29	No.40	V			Page36, Modify R2309 P/N from SD028750180 (7.5K) to SD028150380 (150K) for Power Sequence tuneing
	2011/11/29	No.41	V			Page36, Modify C2316 P/N from SE042104K80 (0.1U) to SE080105K80 (1U) for Power Sequence tuneing
	2011/11/29	No.42	V			Page19, Modify R1450 P/N from SD028150380 (150K) to SD028150380 (130K) for Power Sequence tuneing
	2011/11/29	No.43	V			Page19, Modify C1470 P/N from SE042104K80 (0.1U) to SE080105K80 (1U) for Power Sequence tuneing
	2011/11/29	No.44	V			Page13, Modify U4 P/N from SA000041P00 (MXIC) to SA00003K800 (Winbond) for ROM Part Issue
	2011/11/30	No.45	V			Page19, Modify C1470 P/N from SE080105K80 (1U) to SE042104K80 (0.1U) for Power Sequence tuneing
2011/11/30	No.46	V			Page19, Modify R1450 P/N from SD028150380 (130K) to SD028200280 (20K) for Power Sequence tuneing	
2011/11/30	No.47	V			Page19, Modify R1449 P/N from SD028200280 (20K) to SD02830380 (330K) for Power Sequence tuneing	
2011/11/30	No.48	V			Page35, unmount R2481 and mount R2482 for LID SW function reserved	
2011/11/30	No.49	V			Page29, unmount R1140 because 14" is no need to select mainstream and retail	
2011/12/02	No.50	V			Page12, Modify C129 P/N from SE071150J80 (15P) to SE071220J80 (22P) For Crystal Clock Tuneing	
2011/12/02	No.51	V			Page12, Modify C130 P/N from SE071150J80 (15P) to SE071270J80 (27P) For Crystal Clock Tuneing	
2011/12/02	No.52	V			Page12, Modify C131,C134 P/N from SE071270J80 (27P) to SE071330J80 (33P) For Crystal Clock Tuneing	
2011/12/02	No.53	V			Page18, Modify C1445,C1446 P/N from SE07120J80 (12P) to SE071200JN0 (20P) For Crystal Clock Tuneing	
2011/12/05	No.54	V			Page26, Modify C2144,C2145 BOM Structure to @ for DMIC no function issue	
MEMO	2011/12/09	No.55	V			Page35, unmount R2482 and mount R2481 for LID SW function implement when SMT
	2011/12/09	power				power schematics 20110208.dsn

Security Classification

Issued Date

2008/08/10

Deciphered Date

2011/03/04

Compal Secret Data

2011/03/04

Compal Electronics, Inc.

EE modify list

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

Custom

LA-7121P

Rev

0.4

Date

Monday, January 16, 2012

Sheet

49

of

50

Phase	Date	No.	BOM	Sch	Layout	Description
SIT	2012/01/03	No.1	V	V	V	Page31, Add R2228 connect from MAINPWON_R to MAINPWON for Power Circuit update
	2012/01/03	No.2	V	V	V	Page31, Modify R2236 BOM Structure from POP to 0 for +3VS Power Leakage Issue
	2012/01/04	No.3	V	V	V	Page7, delete Q9, short and remove 0 ohm: R45&R48
	2012/01/04	No.4	V	V	V	Page7,9,13, short and remove R64&R68, change Page13 net name ML_VGA_HPD, change page7 net name LVDS_HPD
	2012/01/04	No.5	V	V	V	Page15, Modify +VDDCR_11V_USB power source from +1.1VALW to +1.1V_FCH for reduce power consumption
	2012/01/04	No.6	V	V	V	Page15, Modify +VDDAN_11_SSUSB & +VDDCR_11_SSUSB power source from +1.1VALW to +1.1V_FCH for reduce power consumption
	2012/01/04	No.7	V	V	V	Page15, Modify +VDDIO_33_S power source from +3V_FCH to +3VALW for reduce power consumption
	2012/01/04	No.8	V	V	V	Page15, Modify +VDDXL_3.3V power source from +3V_FCH to +3VALW for reduce power consumption
	2012/01/04	No.9	V	V	V	Page15, Modify +VDDPL_11_SS_S power source from +1.1VALW to +1.1V_FCH for reduce power consumption
	2012/01/04	No.10	V	V	V	Page36, Modify R2314,R2319,R2320,Q2311 BOM Structure from 0 to POP for Reduce Power Consumption
	2012/01/04	No.11	V	V	V	Page36, Add Q2313,Q2314,U2304,C2309,C2312,C2321,R2323,R2310,R2324 for +3VALW to +3V_FCH Circuit (Reduce Power Consumption)
	2012/01/04	No.12	V	V	V	Page36, Add Q2316,Q2309,U2303,C2317,C2320,C2318,C2319,R2322,R2317 for +1.1VALW to +1.1V_FCH Circuit (Reduce Power Consumption)
	2012/01/04	No.13	V	V	V	Page36, Add Q2316,Q2309,U2303,C2317,C2320,C2318,C2319,R2322,R2317 for +1.1VALW to +1.1V_FCH Circuit (Reduce Power Consumption)
	2012/01/04	No.14	V	V	V	Page36, Add Q2316,Q2309,U2303,C2317,C2320,C2318,C2319,R2322,R2317 for +1.1VALW to +1.1V_FCH Circuit (Reduce Power Consumption)
	2012/01/04	No.15	V	V	V	Page36, Add Q2316,Q2309,U2303,C2317,C2320,C2318,C2319,R2322,R2317 for +1.1VALW to +1.1V_FCH Circuit (Reduce Power Consumption)
	2012/01/04	No.16	V	V	V	Page7, Remove R207 for component part reduce
	2012/01/04	No.17	V	V	V	Page32, Remove R471 & R472 for component part reduce
	2012/01/04	No.18	V	V	V	Page29, Remove R1106,R1107,R1119,R1134,R1109 for component part reduce
	2012/01/04	No.19	V	V	V	Page35, Remove R2465,R2466 for component part reduce
	2012/01/04	No.20	V	V	V	Page33, Reserve R2483 & R2485 to connect EC_SMB_DA2 for Lenovo Multi-touch function
	2012/01/04	No.21	V	V	V	Page26, Modify EC_U2200 I1Pin from +3VLP to +3VALW_EC for S4 LID Function (common Q1EX)
	2012/01/04	No.22	V	V	V	Page26, Del R2176 to connect to EC_INVFWM for common Q1EX
	2012/01/05	No.23	V	V	V	Page14, Add R146 & R148 for component part reduce
	2012/01/05	No.24	V	V	V	Page36, Modify +1.1V_FCH netname to +1.1VS_FCH for component part reduce
	2012/01/05	No.25	V	V	V	Page36, Modify +1.1V_FCH netname to +1.1VS_FCH for component part reduce
	2012/01/05	No.26	V	V	V	Page15, Modify +VDDAN_11_USB_S power source from +1.1V_FCH to +1.1VS_FCH for reduce power consumption
	2012/01/05	No.27	V	V	V	Page15, Modify +VDDCR_11V_USB power source from +1.1V_FCH to +1.1VS_FCH for reduce power consumption
	2012/01/05	No.28	V	V	V	Page15, Modify +VDDAN_11_SSUSB & +VDDCR_11_SSUSB power source from +1.1V_FCH to +1.1VS_FCH for reduce power consumption
	2012/01/05	No.29	V	V	V	Page15, Modify +VDDIO_33_S power source from +3VALW to +3VS_FCH for reduce power consumption
	2012/01/05	No.30	V	V	V	Page15, Modify +VDDXL_3.3V power source from +3VALW to +3VS_FCH for reduce power consumption
	2012/01/05	No.31	V	V	V	Page15, Modify +VDDPL_11_SS_S power source from +1.1V_FCH to +1.1VS_FCH for reduce power consumption
	2012/01/05	No.32	V	V	V	Page15, Modify +VDDAN_11_USB_S power source from +3VALW to +3VS_FCH for reduce power consumption
	2012/01/05	No.33	V	V	V	Page29, Remove R1108,R1135,R1110,C1127 for component part reduce
	2012/01/05	No.34	V	V	V	Page31, Remove Pin25 EC_INVF_PWM for Circuit Common
	2012/01/05	No.35	V	V	V	Page31, Modify EC_U2200 I1Pin from +3VALW_EC to +3VLP for S4 LID Function (common Q1EX)
	2012/01/05	No.36	V	V	V	Page15, Modify +VDDAN_11_USB_S power source from +3VALW to +3VS_FCH for reduce power consumption
	2012/01/05	No.37	V	V	V	Page15, Modify +VDDAN_33_USB power source from +3VS_FCH to +3V_FCH for reduce power consumption
	2012/01/05	No.38	V	V	V	Page15, Modify +VDDPL_33_SSUSB_S power source from +3VS_FCH to +3V_FCH for reduce power consumption
	2012/01/05	No.39	V	V	V	Page15, Modify +VDDPL_33_USB_S power source from +3VS_FCH to +3V_FCH for reduce power consumption
	2012/01/05	No.40	V	V	V	Page15, Modify +VDDIO_33_S power source from +3V_FCH to +3VALW for reduce power consumption
	2012/01/05	No.41	V	V	V	Page15, Modify +VDDAN_33_HWM power source from +3V_FCH to +3VALW for reduce power consumption
	2012/01/05	No.42	V	V	V	Page36, Modify U2304 Power source from +3V_FCH to +3V for reduce power consumption
	2012/01/05	No.43	V	V	V	Page36, Add J2303 from +3VALW to +3V for reduce power consumption
	2012/01/05	No.44	V	V	V	Page36, Add J2303 from +3VALW to +3V for reduce power consumption
	2012/01/05	No.45	V	V	V	Page36, Modify U2303 Power source from +1.1V_FCH to +1.1V for reduce power consumption
	2012/01/05	No.46	V	V	V	Page36, Modify J2302 From +1.1V_FCH to +1.1V for reduce power consumption
	2012/01/05	No.47	V	V	V	Page15, Modify +VDDAN_11_USB_S power source from +1.1V_FCH to +1.1V for reduce power consumption
	2012/01/05	No.48	V	V	V	Page15, Modify +VDDCR_11V_USB power source from +1.1V_FCH to +1.1V for reduce power consumption
	2012/01/05	No.49	V	V	V	Page15, Modify +VDDAN_11_SSUSB & +VDDCR_11_SSUSB power source from +1.1V_FCH to +1.1V for reduce power consumption
	2012/01/05	No.50	V	V	V	Page15, Modify +VDDPL_11_SS_S power source from +1.1V_FCH to +1.1V for reduce power consumption
2012/01/05	No.51	V	V	V	Page15, Modify +VDDAN_33_USB power source from +3V_FCH to +3V for reduce power consumption	
2012/01/05	No.52	V	V	V	Page15, Modify +VDDPL_33_SSUSB_S power source from +3V_FCH to +3V for reduce power consumption	
2012/01/05	No.53	V	V	V	Page15, Modify +VDDPL_33_USB_S power source from +3V_FCH to +3V for reduce power consumption	
2012/01/05	No.54	V	V	V	Page15, Modify +VDDIO_33_S power source from +3VALW to +3V_FCH for reduce power consumption	
2012/01/05	No.55	V	V	V	Page15, Modify +VDDAN_33_HWM power source from +3VALW to +3V_FCH for reduce power consumption	
2012/01/06	No.56	V	V	V	Page15, Modify +VDDXL_3.3V power source from +3V_FCH to +3V for reduce power consumption	
2012/01/09	No.57	V	V	V	Page33, Add R2493,R2492,R2491,R2494,Q2403,Q2400,C2494,C2493 for AOAC Power Circuit	
2012/01/09	No.58	V	V	V	Page31, U2200 add netname FCH_PWR_EN# to FCH_PWR_EN# on Pin70 for +3V & +1.1V Power Control	
2012/01/09	No.59	V	V	V	Page36, Add R2325 from FCH_PWR_EN# to FCH_PWR_EN# on R for +3V & +1.1V Power Control	
2012/01/09	No.60	V	V	V	Page36, Add FCH_PWR_EN#_R on Q2313.2,Q2314.2,Q2316.2,Q2309.2 for +3V & +1.1V Power Control Enable Option	
2012/01/09	No.61	V	V	V	Page33, Modify JMINI1 pin1 from FCH_PCTIE_WAKE# to WLAN_WAKE# for AOAC Function	
2012/01/09	No.62	V	V	V	Page31, Modify U2200 Pin26 from EAPD_R to WLAN_WAKE# for AOAC Function	
2012/01/09	No.63	V	V	V	Page31, Add U2200 Pin119 from NC to EAPD_R for Audio Function	
2012/01/09	No.64	V	V	V	Page31, Add U2200 Pin91 from NC to AOAC_WLAN for AOAC Function	
2012/01/10	No.65	V	V	V	Page31, Modify U2200 Pin19 net name from ODD_DA# to WL_OFF_EC# for Circuit common with Intel	
2012/01/10	No.66	V	V	V	Page30, Del R2435 for component reduce	
2012/01/10	No.67	V	V	V	Page33, Add R2496 & reserve R2495 for RF_OFF# source option	
2012/01/10	No.68	V	V	V	Page33, Modify JMINI1 Pin20 net name from WL_OFF# to RF_OFF# for Circuit common with Intel	
2012/01/10	No.69	V	V	V	Page31, Modify R2205 BOM Structure to 0 for Common Circuit with Intel	
2012/01/10	No.70	V	V	V	Page31, Modify R2232,R2230 from 10K to 100K & Modify R2202,R2230,R2232 pull up from +3VALW_EC to +3VALW for Common Circuit with Intel	
2012/01/11	No.71	V	V	V	Page31, Modify L2200.1 Power Source from +3VALW to +3VALW_EC for EC_AVCC Power Leakage Issue	
2012/01/11	No.72	V	V	V	Page31, BRDID Table update for SIT Build	
2012/01/11	No.73	V	V	V	Page31, Modify R2209 From 18K to 33K for FVT BRDID update	
2012/01/11	No.74	V	V	V	Page26, Modify R2166 P/N from SD028330080 (33ohm) to SD034499180 (4.99K) for logo led brightness fine tune	
2012/01/11	No.75	V	V	V	Page35, Remove R2469 for logo led brightness fine tune	
MEMO	2012/01/11	No.76	V	V	V	Page18, Modify C1445,C1446 P/N from SE071200JN0 to SE071200J80 for FVT SMT Memo
	2012/01/11	No.77	V	V	V	Page36, Modify C2316 P/N from SE080105K80 to SE0000069L0 for FVT SMT Memo
	2012/01/11	No.78	V	V	V	Page26, Add C2144,C2145 P/N SE071220J80 (22P)for FVT SMT Memo
	2012/01/11	No.79	V	V	V	Page36, Add Q2317 to Replace U2303 for +1.1V Power Mos layout space not enough issue
	2012/01/11	No.80	V	V	V	Page36, Add Q2318 to Replace U2304 for +3V Power Mos layout space not enough issue
	2012/01/11	No.81	V	V	V	Page29, Modify R1102,R1104,R1105 BOM Structure to 0 for Vendor suggestion
	2012/01/12	No.82	V	V	V	Page36, Modify R2323.1 & R2322.1 from +VSB to +3VALW for VGS over spec issue
	2012/01/12	No.83	V	V	V	Page36, Modify Q2317 & Q2318 P/N: from SB00000LQ00 to SB923050030 for VGS over spec issue
	2012/01/12	No.84	V	V	V	Page31,35 Modify U2200 Pin70 Net name from FCH_PWR_EN# to FCH_PWR_EN for +3V & +1.1V power control solution change
	2012/01/12	No.85	V	V	V	Page36, Modify R2325 to POP from FCH_PWR_EN to FCH_PWR_EN_R for +3V & +1.1V Power Control
2012/01/12	No.86	V	V	V	Page36, Delete R2314,R2318,R2320,Q2311 for Reduce Power Consumption	
2012/01/16	No.87	V	V	V	Page31, Modify R2230 BOM Structure from POP to 0 for double pull up error	
2012/01/16	No.88	V	V	V	Page31, Modify R2208 BOM Structure from POP to 0 for internal pull high solution	
Security Classification Compal Secret Data Issued Date 2008/08/10 Deciphered Date 2011/03/04 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 EE modify list Size Document Number LA-7121P Rev 0.4 Date Monday, January 16, 2012 Sheet 50 of 50						