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COMPAL CONFIDENTIAL

MODEL NAME :

PCB NO : LA2071

Revision : 0.3

CX12 Schematics Document

2003-12-29

REV: 1.0

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Title: COVER SHEET		
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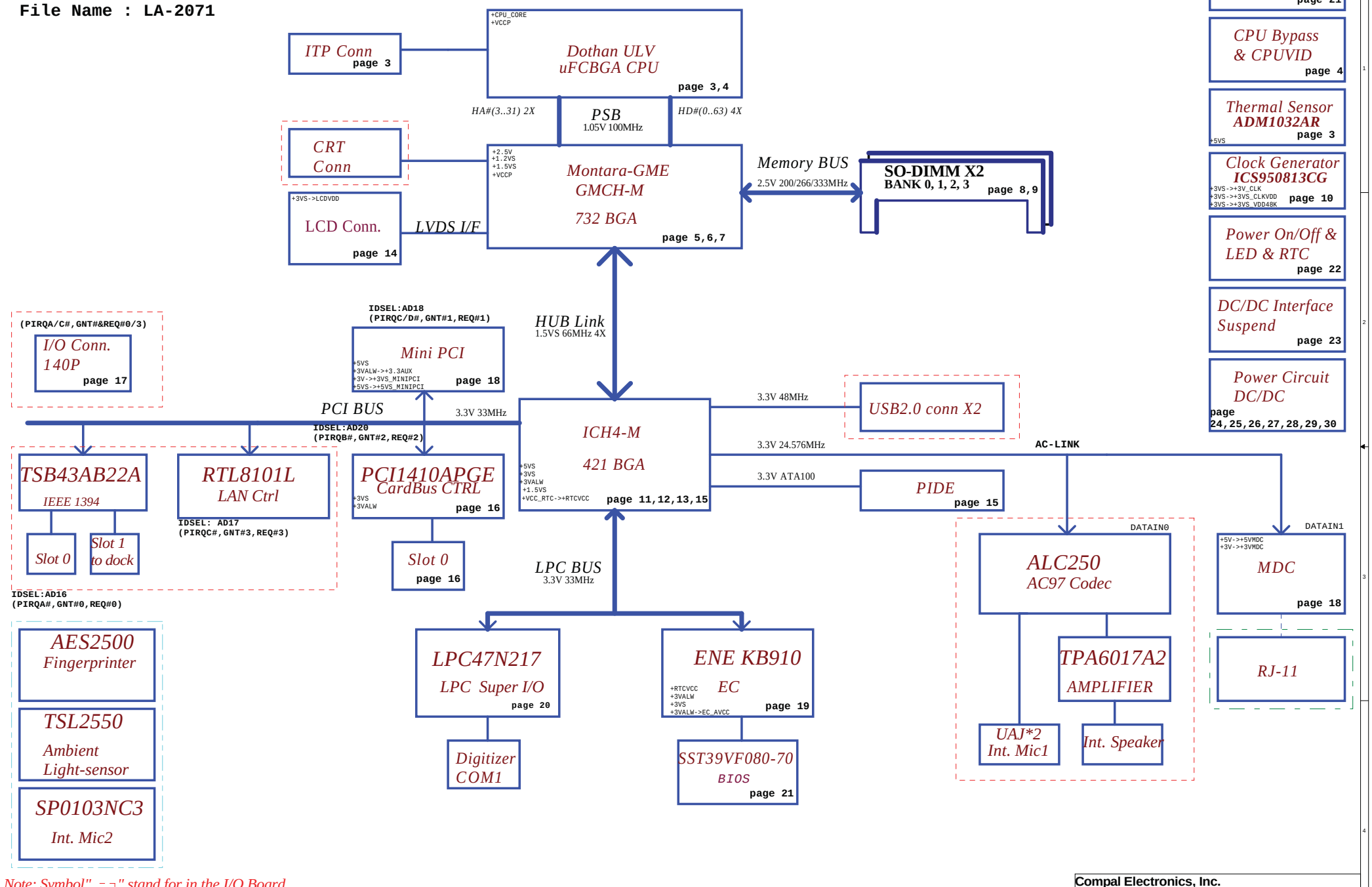
Compal confidential

Model Name :DCX12

File Name : LA-2071

Block Diagram



Note: Symbol" " stand for in the I/O Board.

" " for wire-set

" " for LS-2072

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Compal Electronics, Inc.		
Title: BLOCK DIAGRAM		
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Function \ Model	BCC00	DCX12
	BALDRIC	GLADIUS
1394	YES	YES
AUDIO	YES	UAJ
CRT	YES	YES
RJ11	NO	YES
RJ45	YES	YES
USB	YES 3-port	YES 2-port
Fingerprint\ALS	NO	YES
Bluetooth	NO	YES

Power Management table

State \ Signal	+3VALW +5VALW +1.8VALW +12VALW	+3V +2.5V	+3VS +5VS +1.8VS +1.5VS +1.25VS +1.2VS +VCCP +CPU_CORE
S0	ON	ON	ON
S1	ON	ON	ON
S3	ON	ON	OFF
S5 S4/AC	ON	OFF	OFF
S5 S4/AC don't exist	OFF	OFF	OFF

SOT23/SC70 pin definition

Top view

Mosfet pin difinition

pin1: Drain
pin2: Gate
pin3: Source

Temperature Characteristics:

Symbol	0	1	2	3	4	5	6	7
CODE	Z5U	Z5V	Z5P	Y5U	Y5V	Y5P	X5R	X7R

8	9	A	B	C	D	E	F	G
NP0	C0G		BJ	CH	CJ	CK	SH	SJ

H	I	J	
UJ	UK	SL	

Tolerance:

Symbol	A	B	C	D	F	G	H	J
CODE	+-0.05PF	+-0.1PF	+-0.25PF	+-0.5PF	+-1PF	+-2%	+-3%	+-5%

K	M	N	P	Q	V	X	Z	
+-10%	+-20%	+-30%	+100,-0%	+30,-10%	+20,-10%	+40,-20%	+80,-20%	

Status	CHIPS Rev			
SST-Build 10/08	MONTARA-GME QE28	82801DBM SL6DN B1	KB910 B0	ULV Dothan 1.0GHz A1 Q081
PT-Build				
ST-Build				
MP				

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Title: NOTE&Revision

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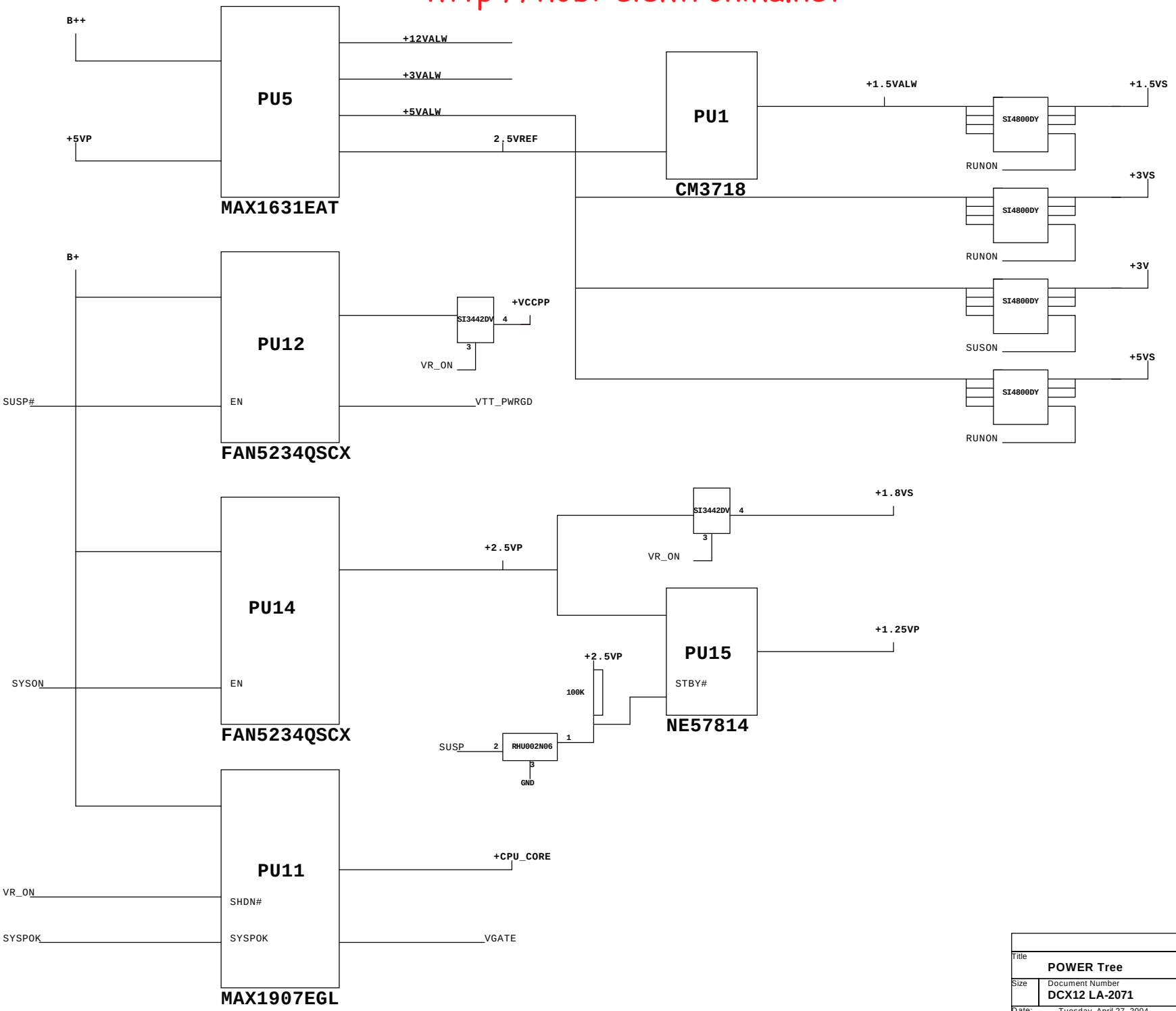

Title	POWER Tree	
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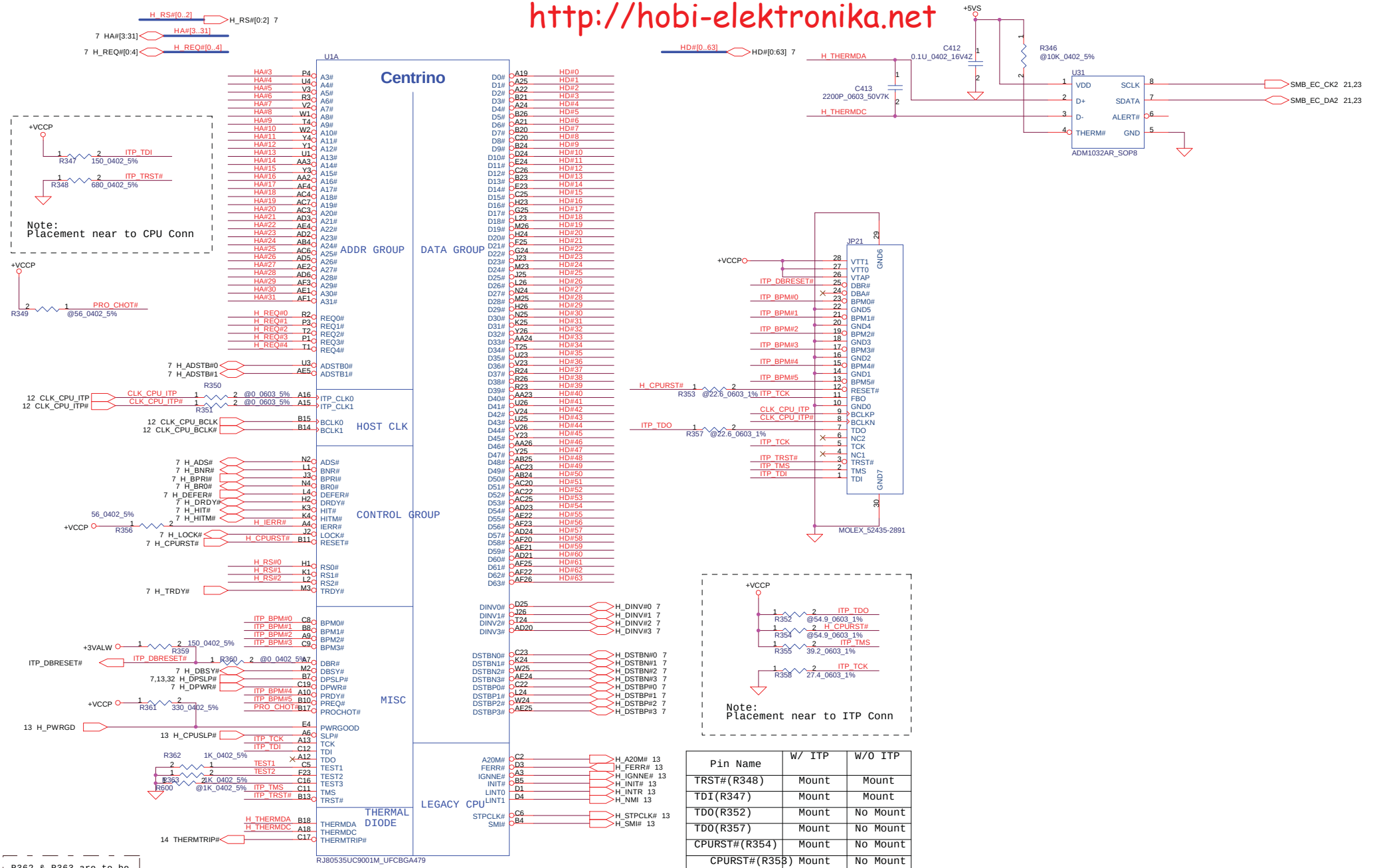

Pin Name	W/ ITP	W/O ITP
TRST#(R348)	Mount	Mount
TDI(R347)	Mount	Mount
TDO(R352)	Mount	No Mount
TDO(R357)	Mount	No Mount
CPURST#(R354)	Mount	No Mount
CPURST#(R353)	Mount	No Mount
TMS(R355)	Mount	Mount
TCK(R358)	Mount	Mount
ITPCLK(R350)	No Mount	Mount
ITPCLK#(R351)	No Mount	Mount
ITP Conn(JP20)	Mount	No Mount

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Title: ULV BANIAS-1

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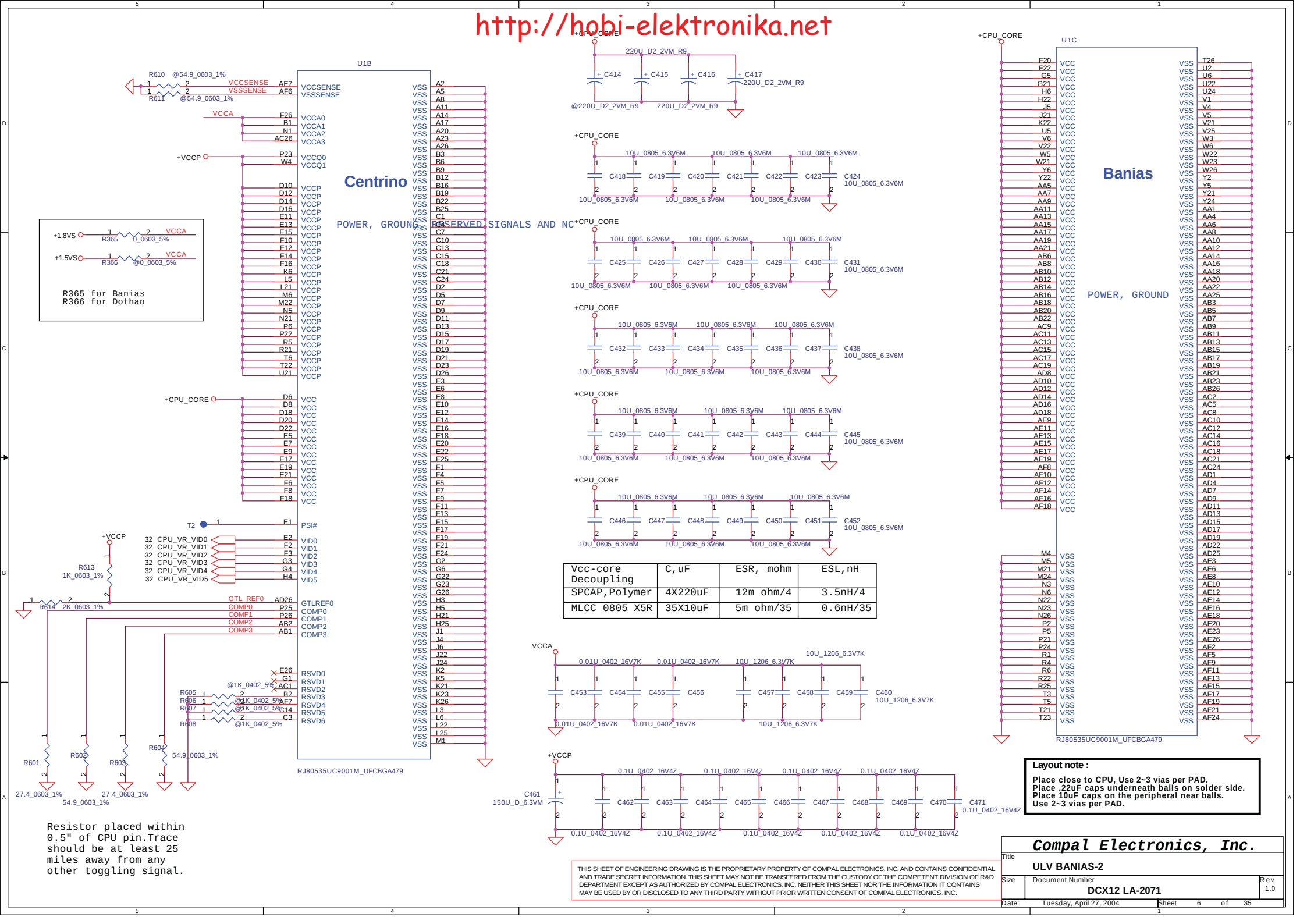

Vcc-core Decoupling	C,uF	ESR, mohm	ESL,nH
SPCAP,Polymer	4X220uF	12m ohm/4	3.5nH/4
MLCC 0805 X5R	35X10uF	5m ohm/35	0.6nH/35

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Compal Electronics, Inc.

Title	ULV BANIAS-2	
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U33A

Montara-GME(L)

HOST

HUB I/F

RG82855GME_uFCBGA732

U34B

Montara-GME(L)

DAC / LVDS / DVO / CLKS / MISC / NC

RG82855GME_uFCBGA732

Montara-GM EDS(rev.0.5) recommand.

Starp pin list

LCLKCTLB: High for P4
N.C. for Banias(default low)
DVODETECT: Low to enable DVO
High to disable DVO

GST1	GST0	PSB/Sys Mem/ GFX Core
0	0	400/266/200 (default)
0	1	400/200/200
1	0	400/200/133

HOST REF VOLTAGE

HUB I/F REF VOLTAGE

0.796V

0.35V

DVO REF VOLTAGE

I2C BUS PULL UP

Compal Electronics, Inc.	
Title	MONTARA-GM-1
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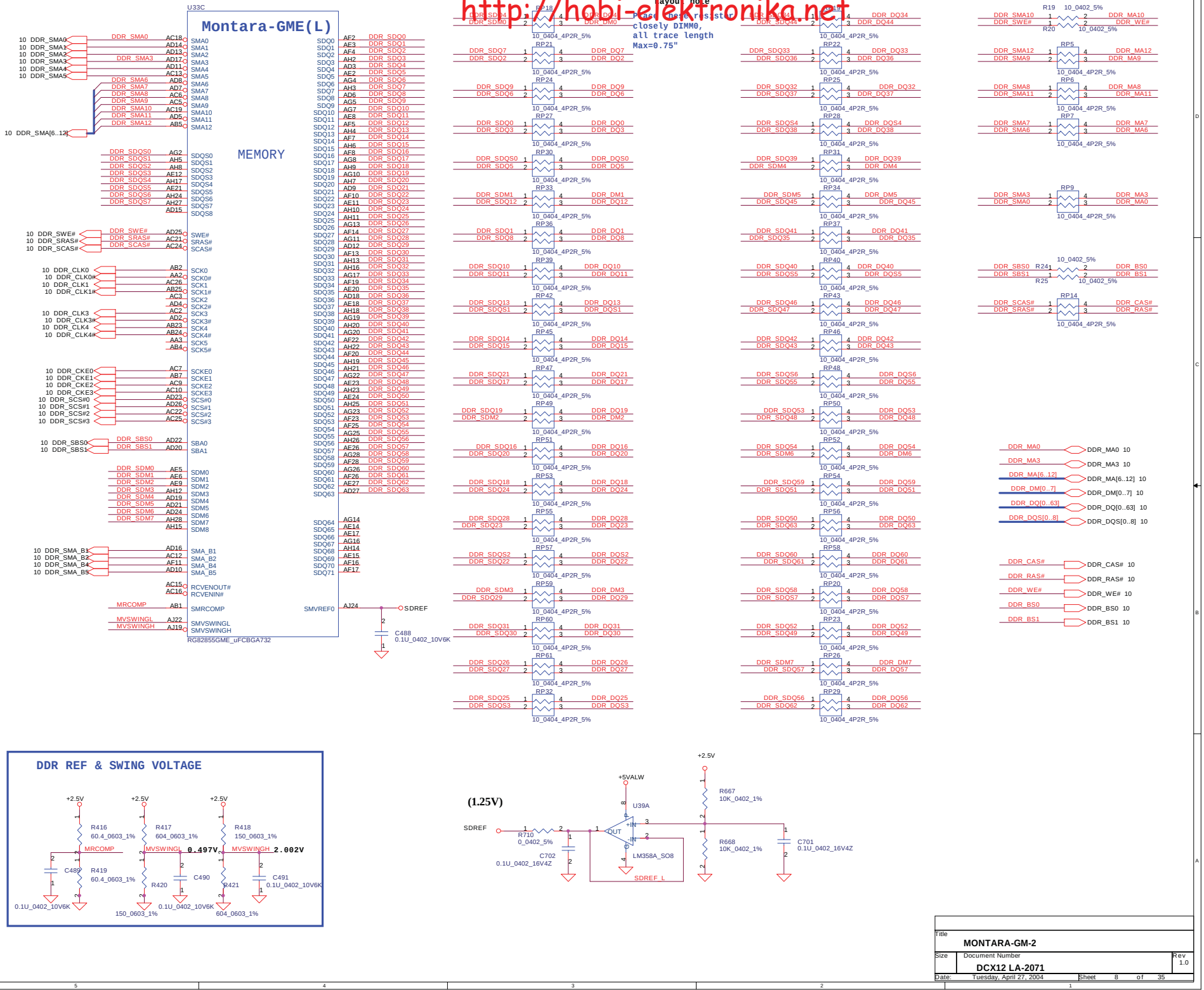

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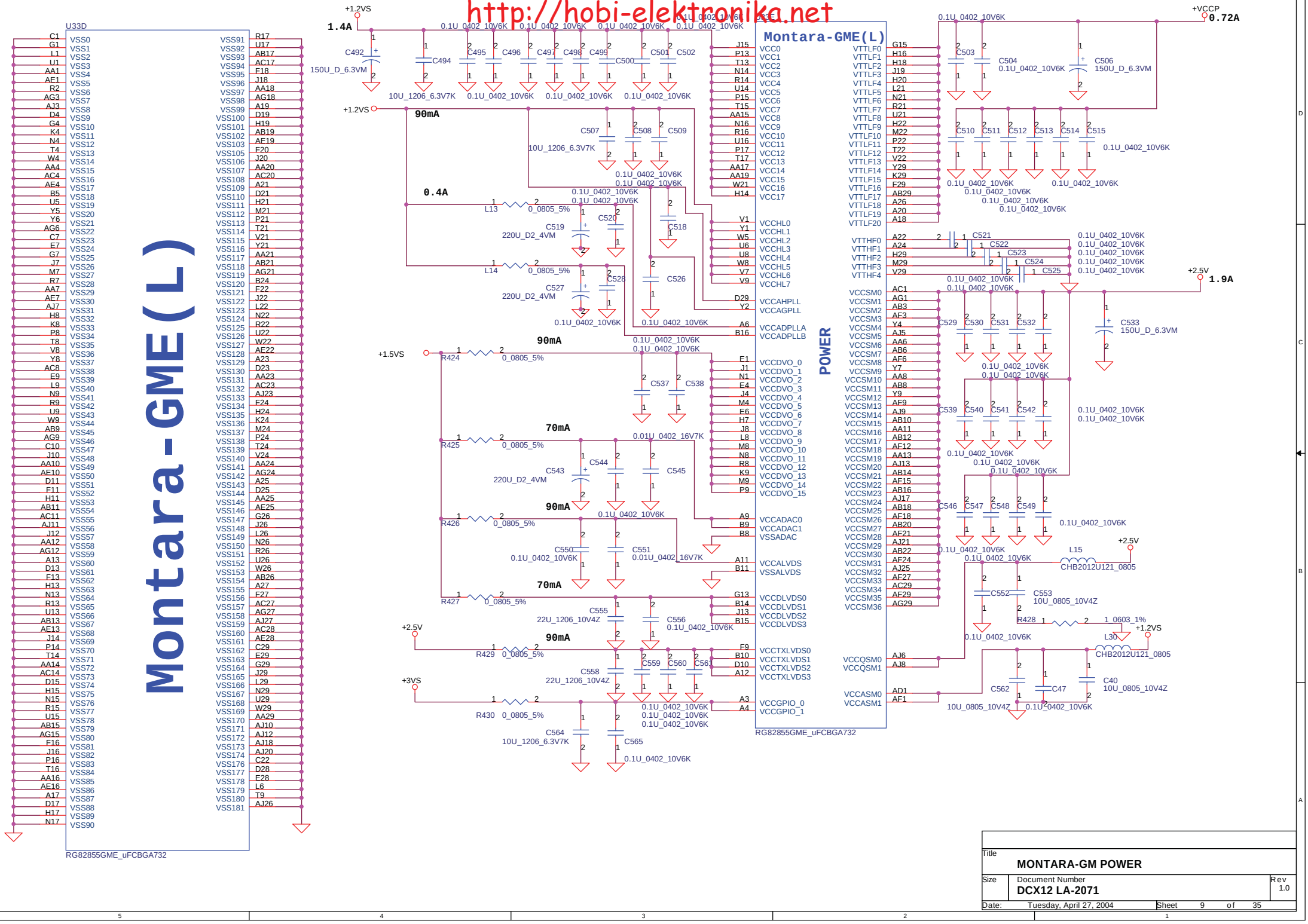

Title	MONTARA-GM POWER
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Compal Electronics, Inc.

Title: DDR-SODIMM0/1&TERMINATION

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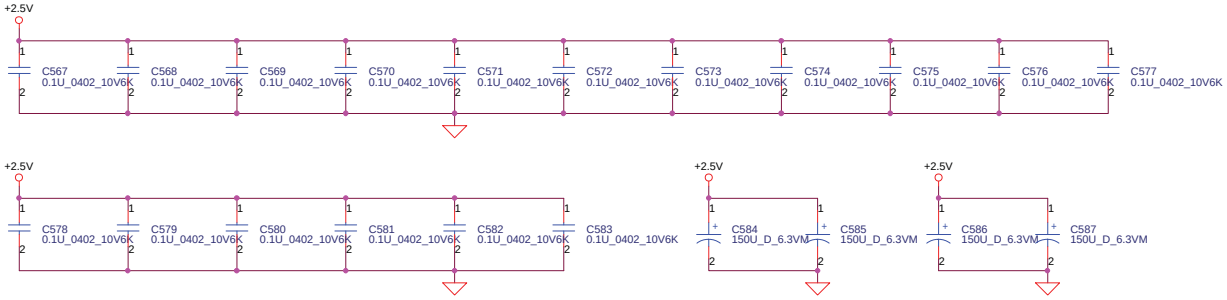
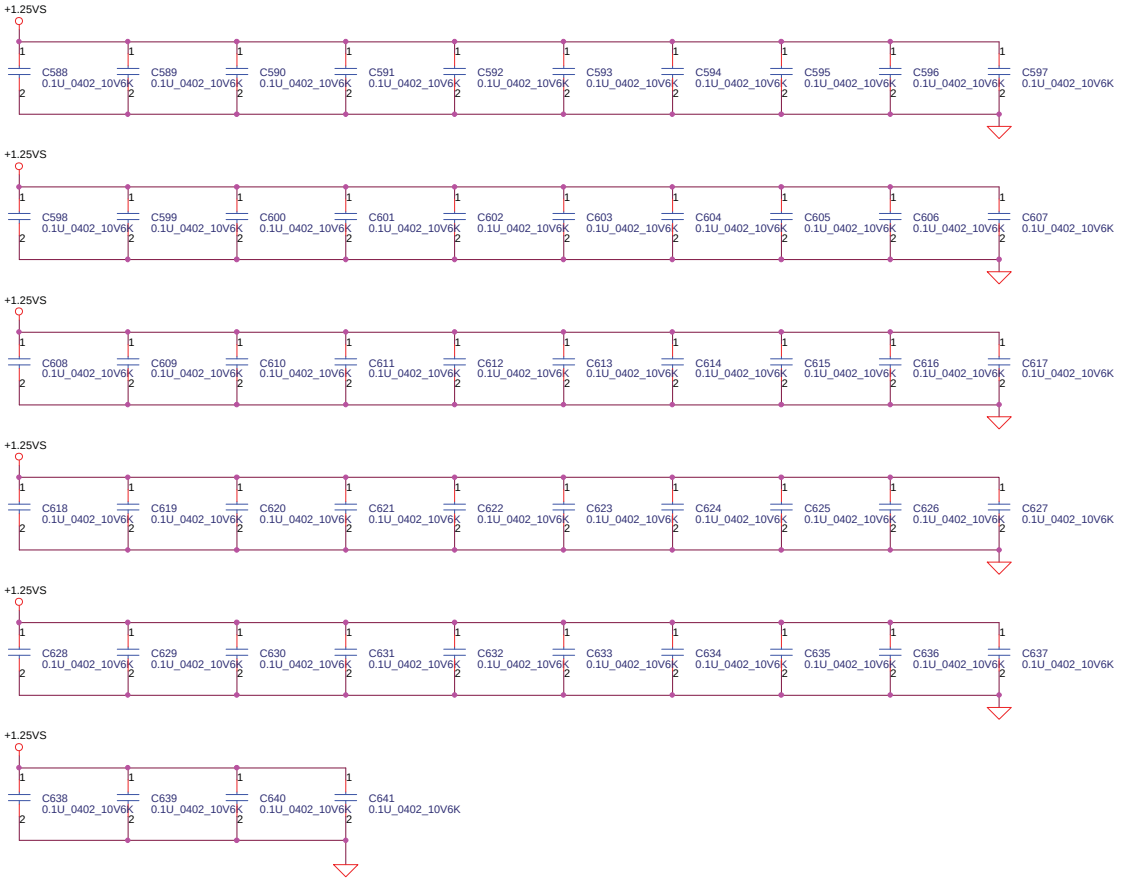
Layout note :

Distribute as close as possible to DDR-SODIMM.



Layout note :

Place one cap close to every 2 pull up resistors termination to +1.25V



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Compal Electronics, Inc.		
Title: DDR SODIMM Decoupling		
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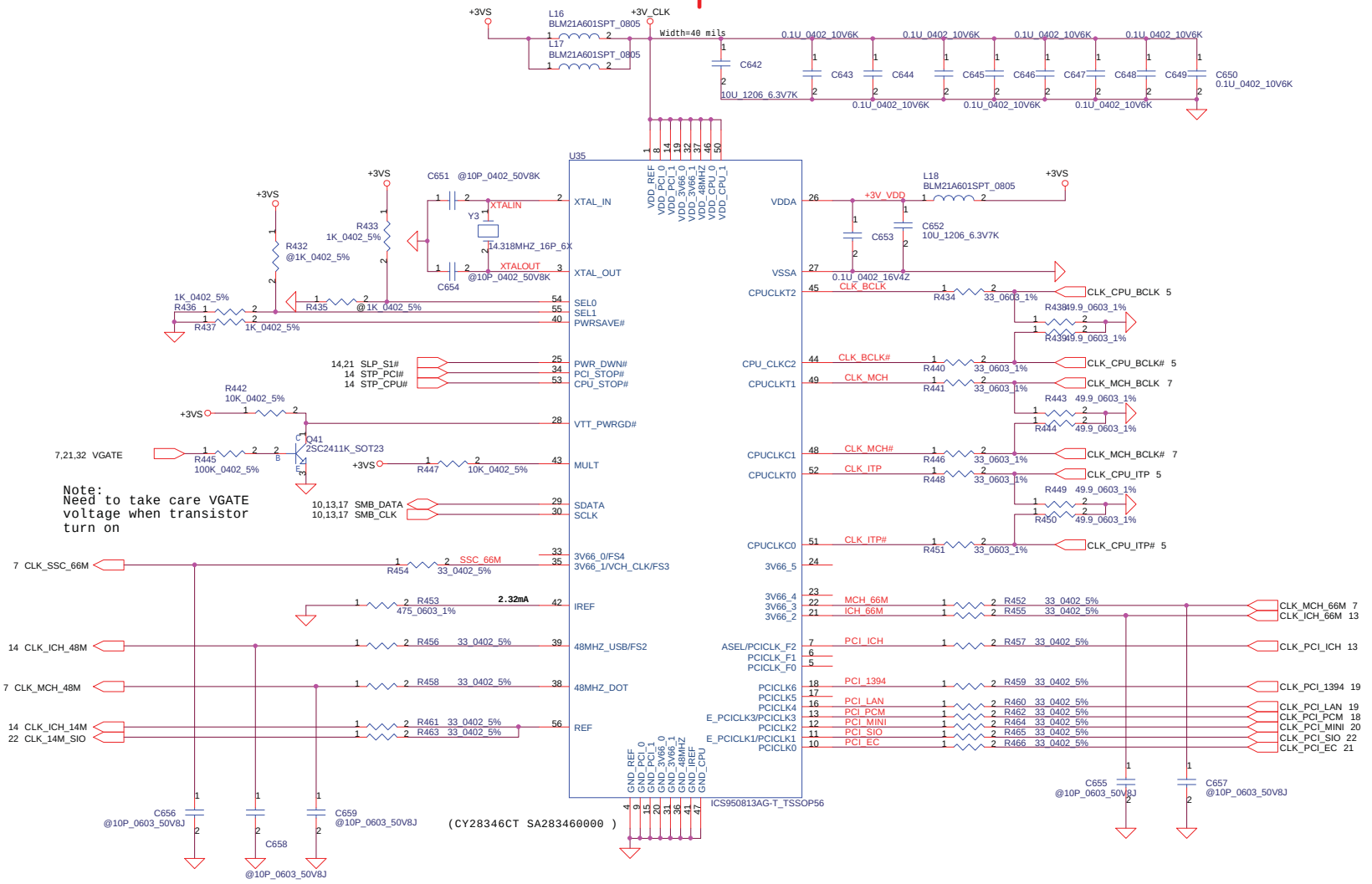
Clock Generator



Compal Electronics, Inc.	
Title	Clock Generator
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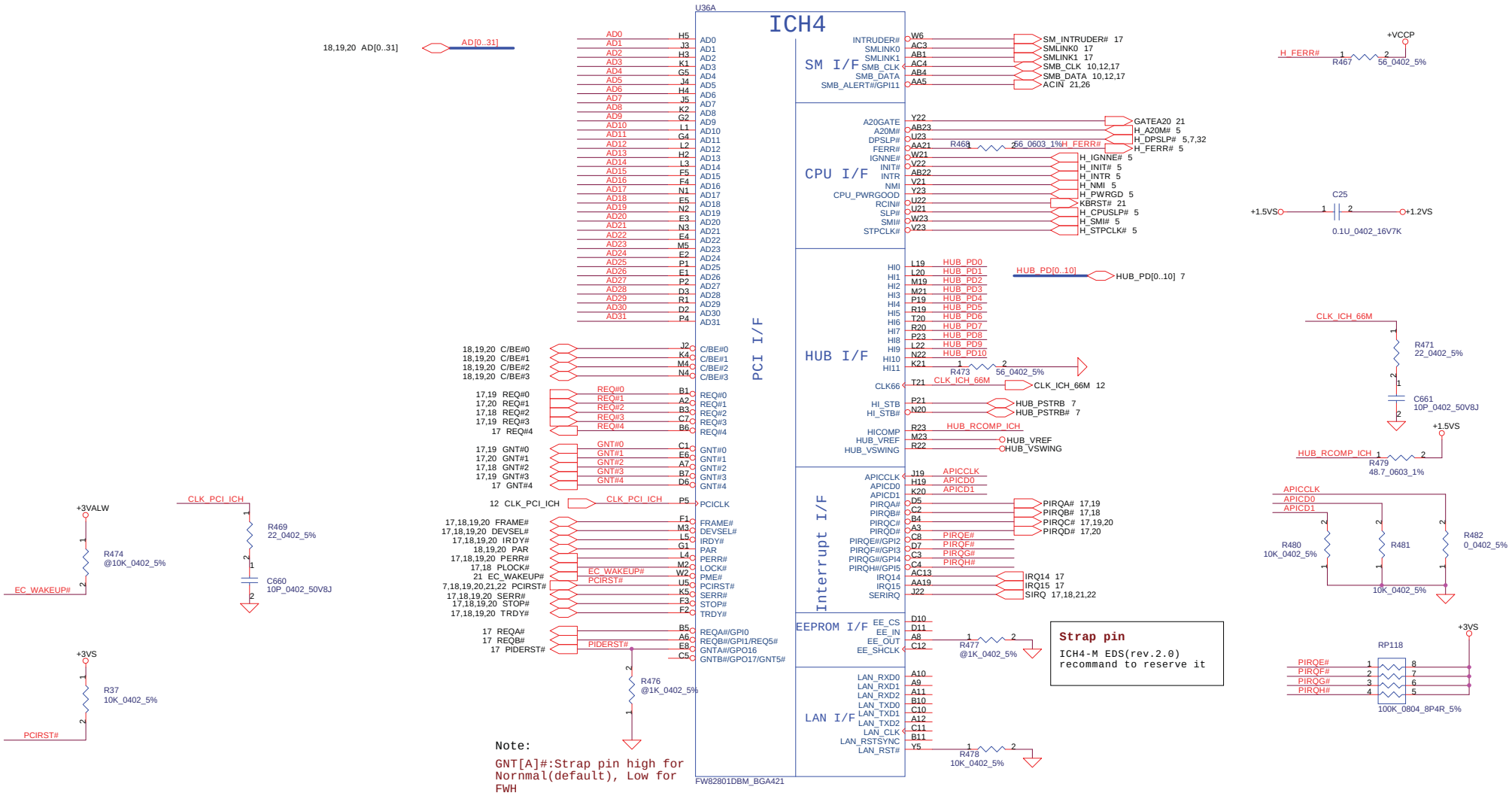

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Strap pin
DPRSLPVR: Low(default)
High-ICH4-M no support.

+3VALW
U37
SLPS4#
SLPS5#
IN1
IN2
SLP_S5# 21
SN74AHC1G08DCKR_SC70

OVCUR#0 OVCUR#1 OVCUR#2 OVCUR#3 OVCUR#4 OVCUR#5
R513 R514 R515 R516 R517 R518 10K_0402_5%

+3VALW
R9 10K_0402_5% SYSRST#

19,20 AC97_RST#
R484 33_0402_5% AC_RST#

+3VS
R487 10K_0402_5% AGP_BUSY#
R488 100K_0402_5% PM_PWROK

+3VS
R491 @10K_0603_5% SDATAO

Strap pin: High to set the CPU speed strap pin for safe mode

C39 33P_0402_50V8J
R18 22_0402_5% IAC_BITCLK

+VCCP
R493 @8.2K_0402_5% CPUPERF#

+3VS
R496 @1K_0402_5% ICH_SPKR

Strap pin: Low(default)-Normal, High-No reboot.

RP119
EC_SWI#
+3VALW
VLBA#
SCI#
10K_1206_10P8R_5%

R505 100K_0402_5% RSMRST#
R508 @10K_0402_5% IAC_BITCLK

U36B

ICH4

GPIO
PM
IST
AC97 I/F
IDE I/F
LPC I/F
USB I/F
GPIO
CLOCK
MISC

FW82801DBM_BGA421

7 AGP_BUSY#
21 VLBA#
17,18,19,20,21,22 PM_CLKRUN#
32 PM_DPRSLPVR
21 PWRBTN_OUT#
21,23 PM_PWROK
21 EC_SWI#
21 RSMRST#
12,21 SLP_S1#
21 SLP_S3#
12 STP_CPU#
12 STP_PCI#
7 RTCCLK
22 SUS_STAT#

AGP_BUSY# SYSRST# VLBA# PM_CLKRUN# PM_DPRSLPVR PM_PWROK EC_SWI# RSMRST# SLP_S1# SLP_S3# SLP_S4# SLPS5# STP_CPU# STP_PCI# RTCCLK SUS_STAT# ATF_INT#

AGPBUSY# SYSRST# BATLOW# C3_STAT# CLKRUN# DPRSLPVR PWRBTN# PWROK RI# RSMRST# SLP_S1# SLP_S3# SLP_S4# SLP_S5# STP_CPU# STP_PCI# SUS_CLK SUS_STAT#/LPCPD# THRM#

GPI7 GPI8 GPI12 GPI13 GPIO25 GPIO27 GPIO28
EC_SMI# SCI#
WRBT_ICH 21
EC_SMI# 21
SCI# 21
M_SEN# 17,19
EC_FLASH# 23
PID0 16
PID1 16

PDA0 PDA1 PDA2 PDCS1# PDCS3#
PDDREQ PDDACK# PDIOR# PDIOW# PIORDY
PDA0 17
PDA1 17
PDA2 17
PDCS1# 17
PDCS3# 17
PDDREQ 17
PDDACK# 17
PDIOR# 17
PDIOW# 17
PDIORDY 17

PDD0 PDD1 PDD2 PDD3 PDD4 PDD5 PDD6 PDD7 PDD8 PDD9 PDD10 PDD11 PDD12 PDD13 PDD14 PDD15

SDA0 SDA1 SDA2 SDCS1# SDCS3#
SDDREQ SDDACK# SDIOR# SDIOW# SIORDY
R520 4.7K_0402_5% +3VS

SDD0 SDD1 SDD2 SDD3 SDD4 SDD5 SDD6 SDD7 SDD8 SDD9 SDD10 SDD11 SDD12 SDD13 SDD14 SDD15

+3VS
R73 4.7K_0402_5% PDIORDY
PDD[0..15] PDD[0..15] 17

+3VS
R483 10K_0402_5% ATF_INT#
D15 D_RB751V-40 EC_THRM# 21

+VCCP
R494 56_0402_5% THERTRIP#
R492 330_0402_5%
Q42 2SC2411K_SOT23
C666 0.1U_0402_16V4Z
5 THERMTRIP# THERMTRIP#

19,20 IAC_BITCLK
19 SDATA_IN0
20 SDATA_IN1
Strap pin
SDATAO
ICH_AC_SYNC

AC_BITCLK AC_RST# SDATA_IN0 SDATA_IN1

AC_BITCLK AC_RST# AC_SDATAIN0 AC_SDATAIN1 AC_SDATAIN2 AC_SDATAOUT AC_SYNC

21,22 LAD0
21,22 LAD1
21,22 LAD2
21,22 LAD3
22 LDRQ#0
21,22 LFRAME#

LAD0 LAD1 LAD2 LAD3 LDRQ#0 LFRAME#

LPC_AD0 LPC_AD1 LPC_AD2 LPC_AD3 LPC_DRQ#0 LPC_DRQ#1 LPC_FRAME#

19 USBP0+
19 USBP0-
19 USBP1+
19 USBP1-
24 USBP2+
24 USBP2-
19 USBP3+
19 USBP3-
19 USBP4+
19 USBP4-
23 USBP5+
23 USBP5-

USBP0+ USBP0- USBP1+ USBP1- USBP2+ USBP2- USBP3+ USBP3- USBP4+ USBP4- USBP5+ USBP5-

19 OVCUR#0
19 OVCUR#1
19 OVCUR#2
19 OVCUR#3
19 OVCUR#4

OVCUR#0 OVCUR#1 OVCUR#2 OVCUR#3 OVCUR#4 OVCUR#5

OC#0 OC#1 OC#2 OC#3 OC#4 OC#5

USB_RBIAS
R498 22.6_0603_1%
USB_RBIAS USB_RBIAS#

GPIO32 GPIO33 GPIO34 GPIO35 GPIO36 GPIO37 GPIO38 GPIO39 GPIO40 GPIO41 GPIO42 GPIO43

CLK14 CLK48
CLK_ICH_14M CLK_ICH_48M
CLK_ICH_14M 12
CLK_ICH_48M 12

RTCRST# RTC_RST#
VBIAS
RTCX1
RTCX2
SPKR ICH_SPKR ICH_SPKR 24
THRTRIP# THERTRIP#

J1 JOPEN
R499 0_0402_5%
R497 180K_0402_5%
C667 0.1U_0402_16V4Z
C668 0.047U_0603_16V7K
R500 1K_0603_5% R_VBIAS
+RTCVCC

R501 10M_0603_5%
Y4 32.768KHZ_12.5PF_6H032000100
R502 10M_0603_5%
R503 @22M_0402_5%
R504 @2.4M_0402_5%
C669 12P_0603_50V8K
C670 12P_0603_50V8K

CLK_ICH_14M
CLK_ICH_48M
R16 10_0402_5%
R17 10_0402_5%
C3 10P_0402_50V8J
C16 15P_0402_50V8D

19,20 IAC_SYNC
19,20 IAC_SDATAO
R506 33_0402_5% ICH_AC_SYNC
R507 33_0402_5% SDATAO
C671 @22P_0402_50V8J
C672 @22P_0402_50V8J

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Title: ICH4-M
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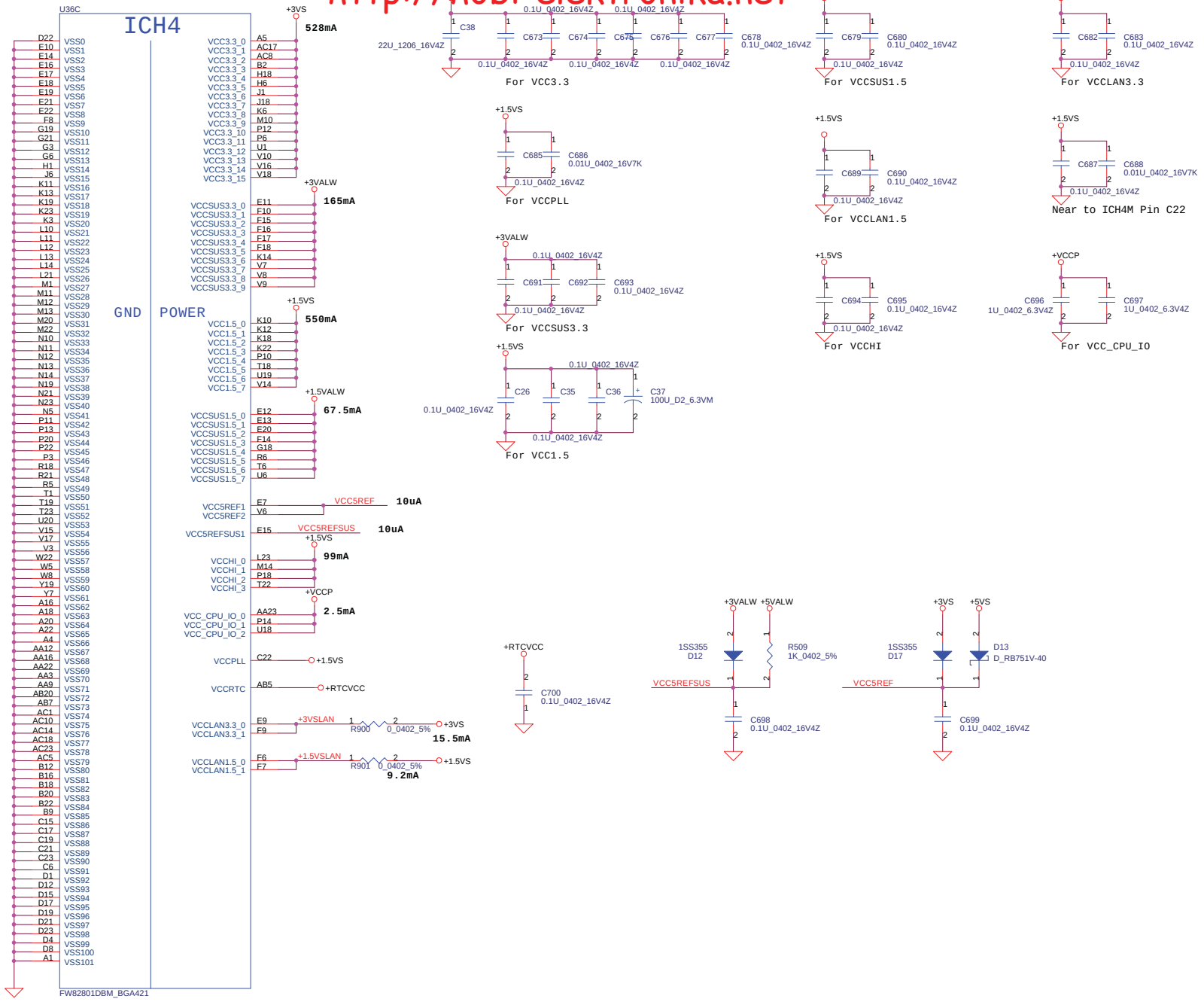

Compal Electronics, Inc.	
Title	ICH4-M POWER
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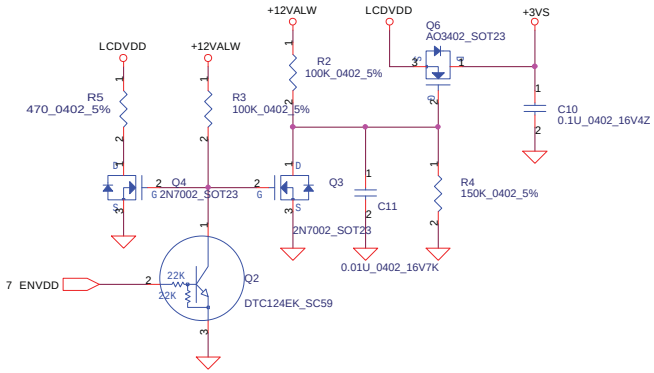
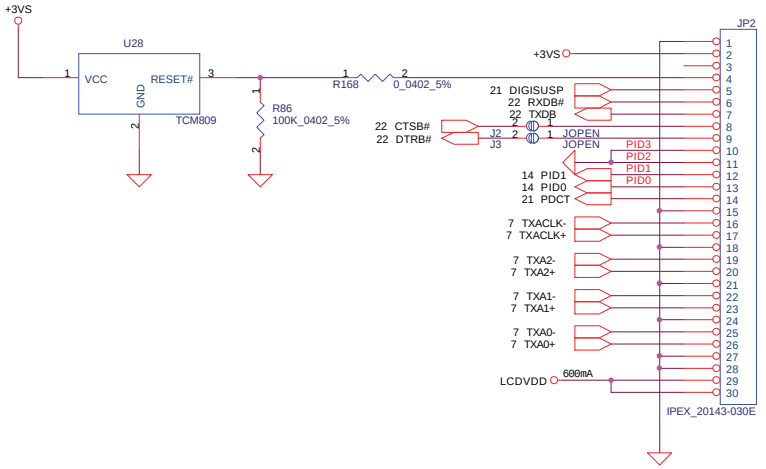
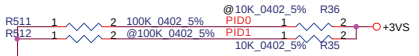
LCD CONN.





Close to JP3



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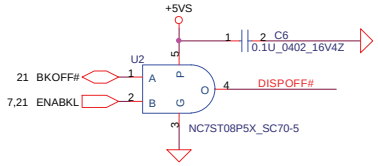
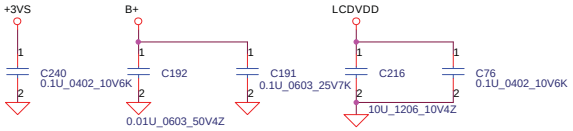
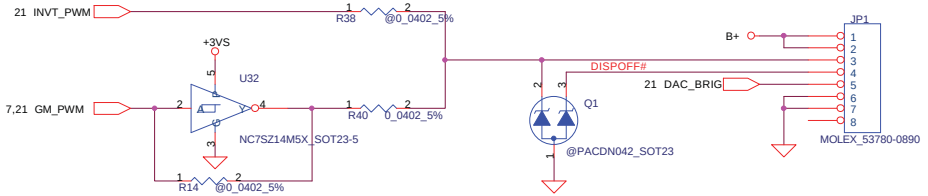




Create layout library



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Compal Electronics, Inc.		
Title: LCD Conn&Inverter		
Size	Document Number: DCX12 LA-2071	Rev: 1.0
Date: Tuesday, April 27, 2004	Sheet 16 of 35	

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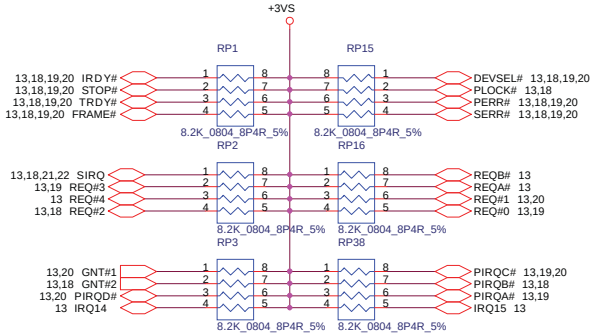
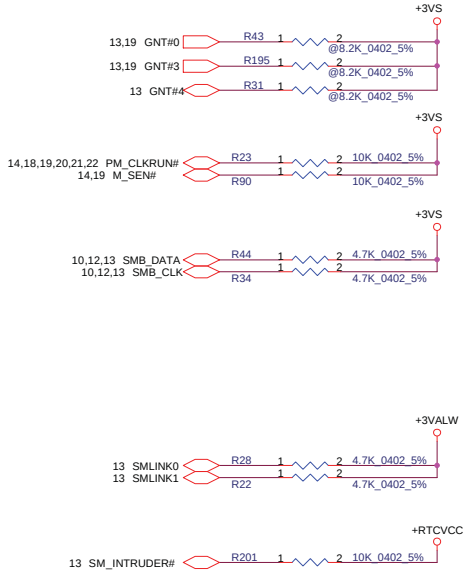
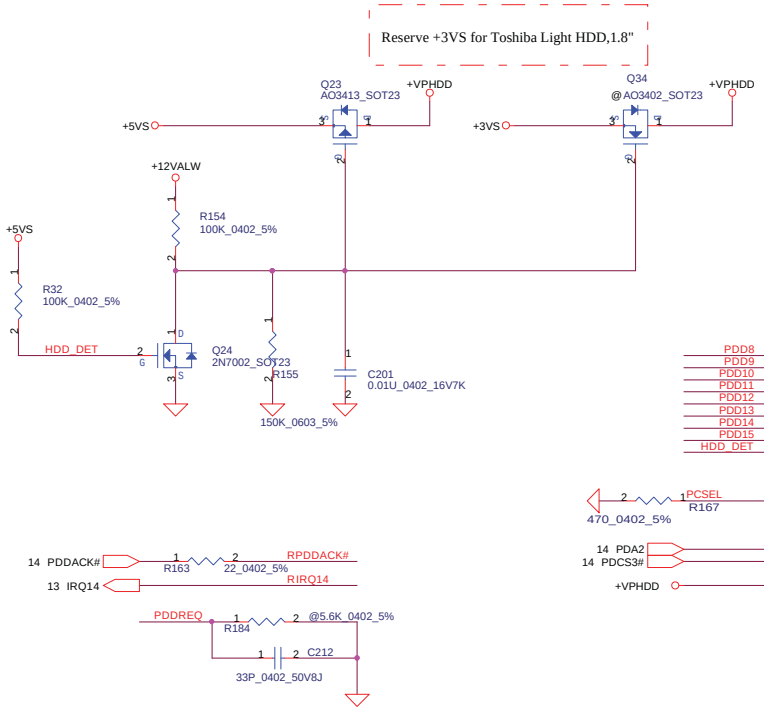
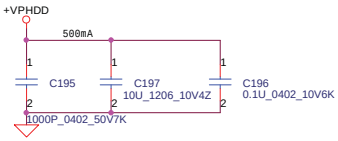


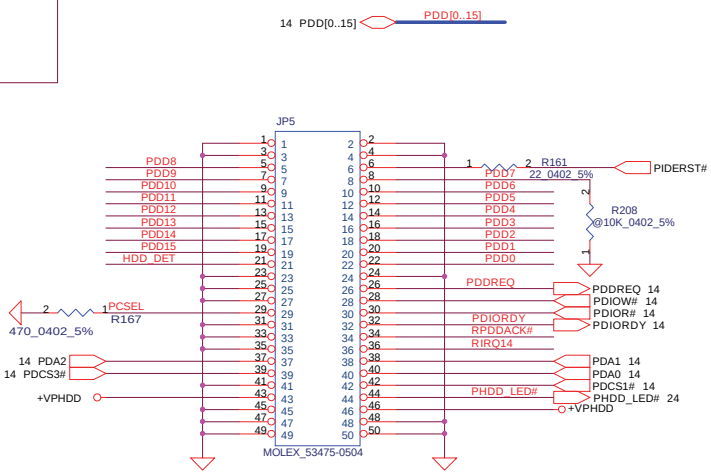




Placea caps. near HDD CONN.

Layout Note: +VPHDD trace width 60 mil





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Compal Electronics, Inc.		
Title: ICH4-M PIDE&ICH Pull-up		
Size	Document Number: DCX12 LA-2071	Rev: 1.0
Date: Tuesday, April 27, 2004	Sheet 17 of 35	

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PCMCIA Power Controller

S1_VCC:maximum 1A from +3V or +5V,
S1_VPP: 150mA from +12V, +3V or +5V

U26 TPS2211AIDBR_SSOP16

CardBus Socket

JP20 FOX_WZ21131-G2-P4

U10 PCI1410APGE PCI1410APGE_LQFP144

FBM-L11-160808-800LMT:300mA

Compal Electronics, Inc.	
Title	PCMCIA Ctrl PCI1410 & Socket
Size	Document Number DCX12 LA-2071 Rev 1.0
Date: Tuesday, April 27, 2004	Sheet 18 of 35

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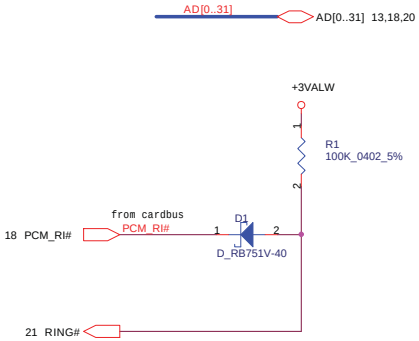

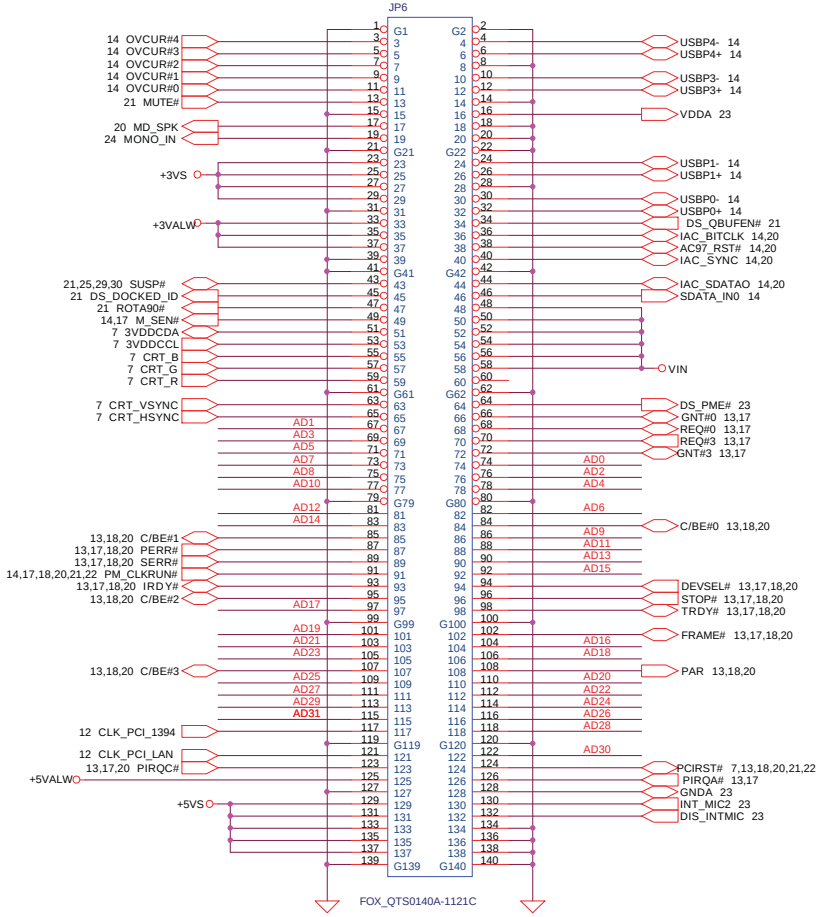

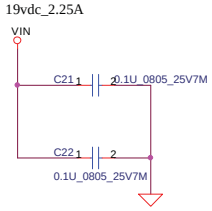

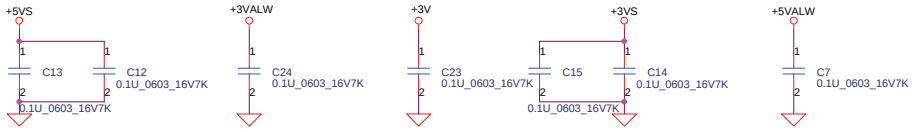

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Compal Electronics, Inc.

Title: **DAUGHTER Brd I/F**

Size | Document Number: **DCX12 LA-2071** | Rev: 1.0

Date: Tuesday, April 27, 2004 | Sheet 19 of 35

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-+5VS limited to 100mA
-+3.3VAUX--Normal:
375mA, D3: 200mA,
-+3VS_MINIPCI: 500mA
for wireless LAN

+3V R80 0_0805_5%
+3VMDC 500mA
C88 4.7U_1206_25V4Z
C90 0.1U_0402_16V4Z
@0.1U_0402_16V4Z
C86
C87 @1000P_0402_50V7K

500mA
1: Have primary CODEC on mother board

+3VALW Q9 @SI2301DS_SOT23 +3.3VAUX
R15 0_0402_5%
C59 @1U_0805_10V4Z
C55 @1U_0805_10V4Z
21 EN_WOL# R21 @100K_0402_5%

Act:500mA:
Sus: 3mA

JP14
MONO_OUT/PC_BEEP AGND AUXA_RIGHT AUXA_LEFT CD_GND CD_RIGHT CD_LEFT GND 3.3Vaux GND 3.3Vmain AC97_SDATA_OUT AC97_RESET# GND AC97_MSTRCLK
AUDIO_PWDN MONO_PHONE RESERVED GND +5V RESERVED RESERVED RESERVED RESERVED RESERVED AC97_SYNC AC97_SDATA_IN1 AC97_SDATA_IN0 GND AC97_BITCLK
ACES_88018-3010
MD_SPK MD_SPK 19
10K_0402_5% R87 +3V
IAC_SYNC SDATA_IN1 IAC_SYNC 14,19 SDATA_IN1 14
R88 @22_0402_5%
IAC_BITCLK R89 22_0402_5% IAC_BITCLK 14,19
+3VMDC
14,19 IAC_SDATAO IAC_SDATAO
14,19 AC97_RST# AC97_RST#

MDC Conn.
AMP_3-1565907-1

MDC Note
Pin 1 is NC for Pctel and connexant MDC modem
Pin 2 is NC for Pctel and connexant MDC modem

AD[0..31] AD[0..31] 13,18,19

JP10 AMP_1318916-1
TIP RING
LANRESERVED LANRESERVED
21 WLAN_ACT1 WLAN_ACT2 21
21 RFOFF# D2 D_RB751V-40
13,17,19 PIRQC# PIRQC# W=20mils PIRQD# PIRQD# 13,17
+3VS L1 FBM-L11-160808-121LMT W=60mils +3VS_MINIPCI +3VS_MINIPCI
+3VS_MINIPCI 12 CLK_PCI_MINI CLK_PCI_MINI W=20mils MINI_RST# +3.3VAUX
13,17 REQ#1 GNT#1 13,17
W=60mils L3 FBM-L11-160808-121LMT +3VS
WLANPME# 23 BT_ACTIVE 24
24 WLAN_ACTIVE
13,18,19 C/BE#3
IDSEL18 R13 10_0402_5% AD18
PAR 13,18,19
13,18,19 C/BE#2
13,17,18,19 IRDY#
FRAME# 13,17,18,19
TRDY# 13,17,18,19
14,17,18,19,21,22 PM_CLKRUN#
13,17,18,19 SERR#
STOP# 13,17,18,19
13,17,18,19 PERR#
13,18,19 C/BE#1
DEVSEL# 13,17,18,19
C/BE#0 13,18,19
CLK_PCI_MINI R10 22_0402_5% C27 22P_0402_50V8J
+5VS_MINIPCI W=20mils
T3 T4
T3: Reserved for Audio_out_R
T4: Reserved for Audio_out_L
+5VS R715 0_0603_5% W=20mils +3.3VAUX
+5VS_MINIPCI C45 0.1U_0402_16V4Z
R716 0_0805_5%

MINI_RST# R12 0_0402_5% PCIRST# 7,13,18,19,21,22
R11 @0_0402_5% V_PRST# 18,21

IDSEL : AD18

@0.1U_0402_16V4Z +5VS_MINIPCI
C29 @1000P_0402_50V7K C28 C46 C34 @10U_1206_10V7K
0.1U_0402_16V4Z +3VS_MINIPCI
C31 C30 C41 C42 C43 C44 C33 C32 C4 10U_1206_6.3V7K

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Compal Electronics, Inc.

Title	MiniPCI TYPEIII Slot	
Size	Document Number DCX12 LA-2071	Rev 1.0
Date: Tuesday, April 27, 2004	Sheet 20 of 35	

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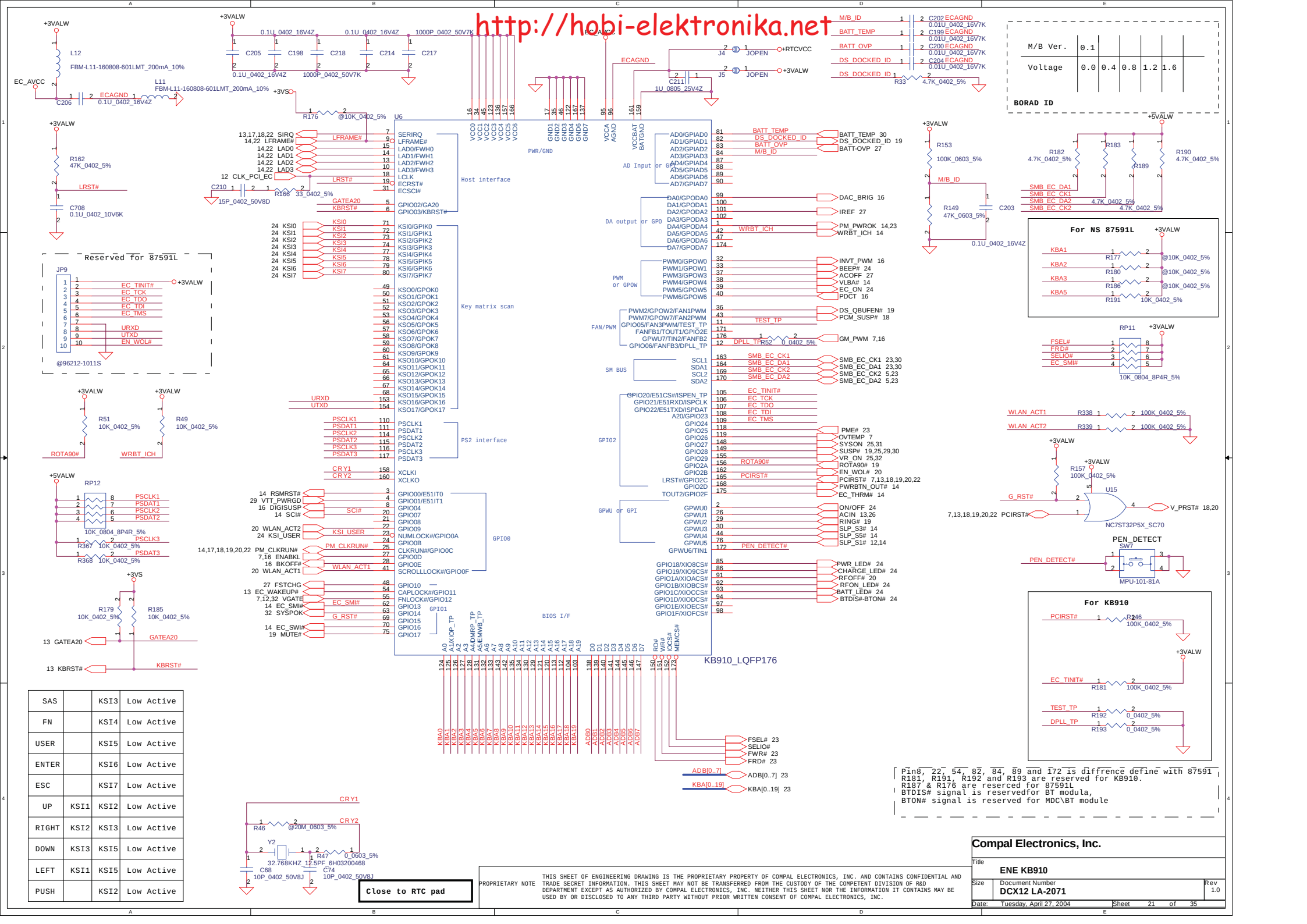

SAS		KSI3	Low Active
FN		KSI4	Low Active
USER		KSI5	Low Active
ENTER		KSI6	Low Active
ESC		KSI7	Low Active
UP	KSI1	KSI2	Low Active
RIGHT	KSI2	KSI3	Low Active
DOWN	KSI3	KSI5	Low Active
LEFT	KSI1	KSI5	Low Active
PUSH		KSI2	Low Active

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Compal Electronics, Inc.

Title: ENE KB910

Size: | Document Number: DCX12 LA-2071 | Rev: 1.0

Date: Tuesday, April 27, 2004 | Sheet 21 of 35

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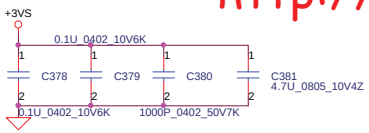

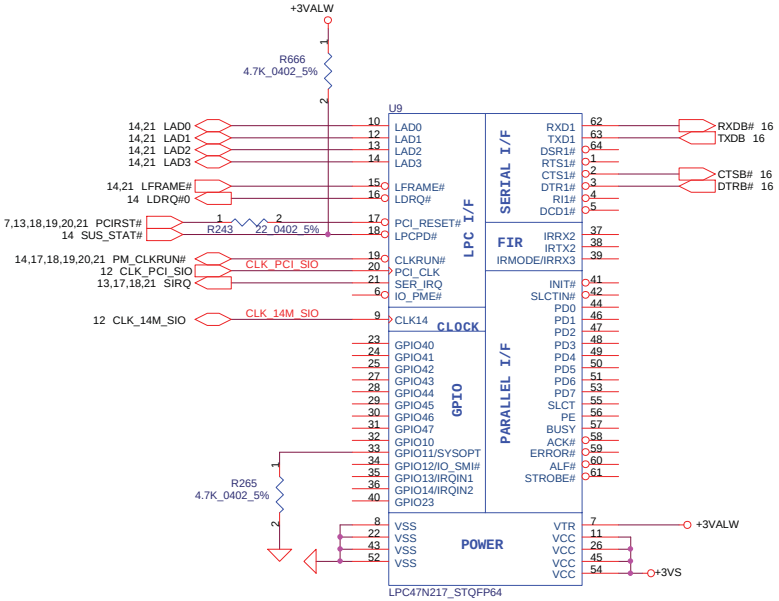

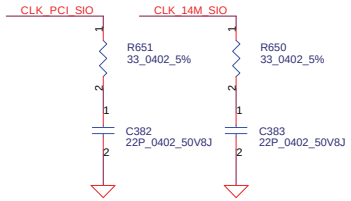

Strap pin	Pin #	Description
BADDR	33	BASE Address Selection "0": 2E~2F (Default) "1": 4E~4F

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Compal Electronics, Inc.

Title: Super I/O LPC47N217

Size: | Document Number: DCX12 LA-2071 | Rev: 1.0

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21 ADB[0..7] ADB[0..7]
21 KBA[0..19] KBA[0..19]

NM24C164 Address definition: 1 A2 A1# A0 B2 B1 B0 R/W#

+3VALW
R171 10K_0402_5%
R174 100_0402_5%
R173 100_0402_5%
R170 100_0402_5%
18 PCM_PME#
20 WLANPME#
19 DS_PME#
PME# 21

+3VALW
C283 0.1U_0402_16V4Z
+3VALW
R248 100K_0402_5%
U20
VCC WC SCL SDA A0 A1 A2 GND
21,30 SMB_EC_CK1
21,30 SMB_EC_DA1
AT24C16AN-10SI-2.7_SO8

Change U20 to SA024160130

EC I2C Bus Address:
24C164: 1011xxx R/W#
24C16: 1010xxx R/W#

U41
+5VS
C9 @0.1U_0402_10V6K
5,21 SMB_EC_CK2
5,21 SMB_EC_DA2
SCLK SDA VDD GND NC
@ TC74A1-5.0VCT_SOT23-5

SM BUS Addr. 1001 001

U50
+5VS
C17 0.1U_0402_10V6K
SCLK SDA VDD GND NC
TC74A2-5.0VCT_SOT23-5

SM BUS Addr. 1001 010

JP7
INTMIC
GNDA 19
VDDA 19
USBP5+ 14
USBP5- 14
SMB_EC_DA2 5,21
SMB_EC_CK2 5,21
+3VS
MOLEX_53780-0990

+3VALW
R306 100K_0402_5%
+3VALW
U7
14,21 PM_PWROK
14 EC_FLASH#
Q29 2N7002_SOT23
TC7SH32FU_SSOP5
FWE#
21 FWR#
FWR#

21 FSEL#
21 FRD#
FSEL#
FRD#

R39 0_0402_5%
C401 0.22U_0603_10V7K
L20 FBM-11-160808-700T_0603
19 INT_MIC2
INT_MIC2
INTMIC
Q50 @AO3413_SOT23
19 DIS_INTMIC
DIS_INTMIC

MDC
H5 C236BC244D157
H7 C236BC244D157

IO/B
H3 C236BC244D157
H4 C236BC244D157
H6 C236BC244D157

PCB
PCB LA2071

H14 C256D130
H10 C256D130
H9 C256D130
H13 C256D130
H1 C295D150
H11 C295D150
H16 C295D150
H15 C295D150
H8 C98D98N
H2 C236D138
H12 C236D138
H19 C236D138

JP11
FSEL# FRD# FWE# ADB7 ADB6 ADB5 ADB4 ADB3 ADB2 ADB1 ADB0 KBA19 KBA18 KBA17 KBA16 KBA15 KBA14 KBA13 KBA12 KBA11 KBA10 KBA9 KBA8 KBA7 KBA6 KBA5 KBA4 KBA3 KBA2 KBA1 KBA0 BIOS_RST# +3VALW
@ELCO_00-6278-034-001-800

+3VALW
R143 0_0603_5%
+3VBIOS
C180 0.1U_0402_16V4Z
C184 10U_1206_10V4Z
U24
KBA0 KBA1 KBA2 KBA3 KBA4 KBA5 KBA6 KBA7 KBA8 KBA9 KBA10 KBA11 KBA12 KBA13 KBA14 KBA15 KBA16 KBA17 KBA18 KBA19
FSEL# FRD# FWE#
A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12 A13 A14 A15 A16 A17 A18 A19
CE# OE# WE#
VCC0 VCC1
D0 D1 D2 D3 D4 D5 D6 D7
ADB0 ADB1 ADB2 ADB3 ADB4 ADB5 ADB6 ADB7
RP# NC READY/BUSY# NC0 NC1
GND0 GND1
+3VBIOS
R8 10K_0402_5%
BIOS_RST#
SST39VF080-70_TSOP40

Alternative SA290080100 for U24

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Compal Electronics, Inc.
Title: Thermal Sensor & BIOS
Size: Document Number: DCX12 LA-2071 Rev: 1.0
Date: Tuesday, April 27, 2004 Sheet 23 of 35

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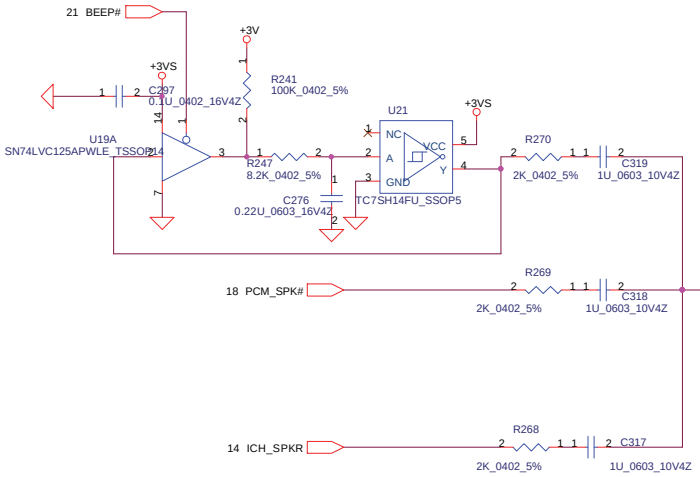
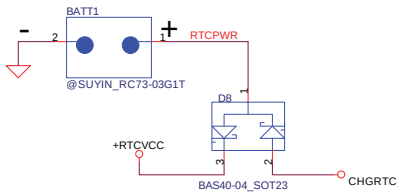
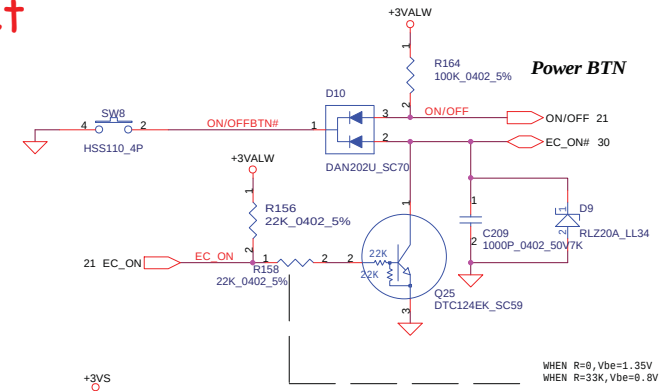


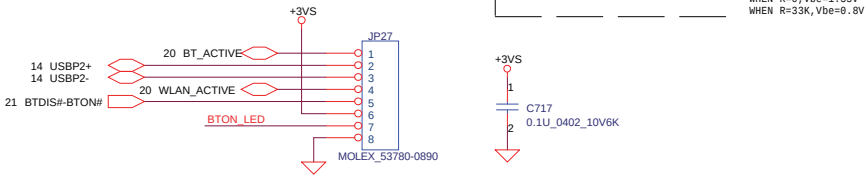
RTC Battery

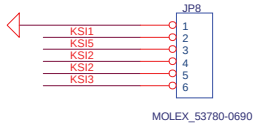


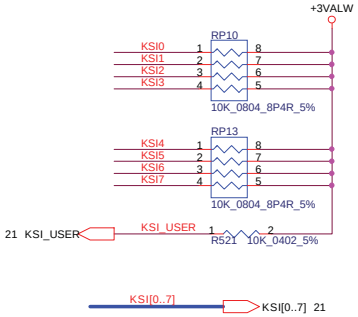
Power BTN



WHEN R=0,Vbe=1.35V
WHEN R=33K,Vbe=0.8V

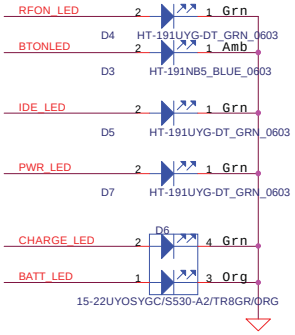


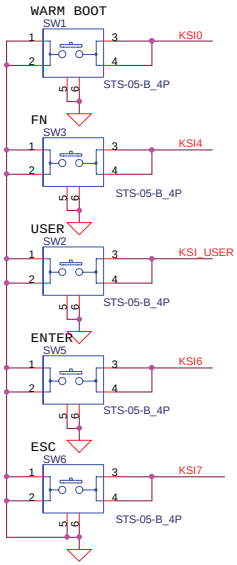


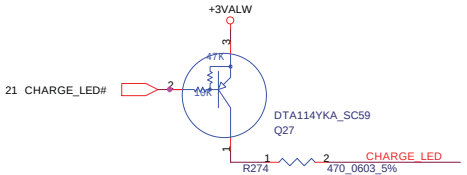


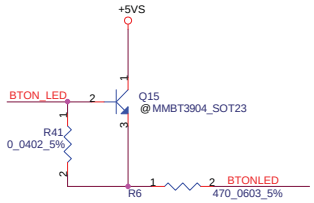
Bluetooth Cable

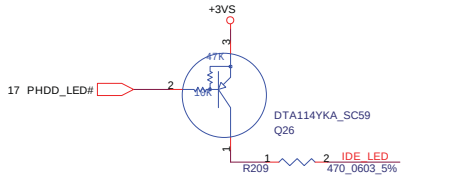
mini_PCI Pin36	BT_ACTIVE JP27.1
mini_PCI Pin43	WLAN_ACTIVE JP27.4

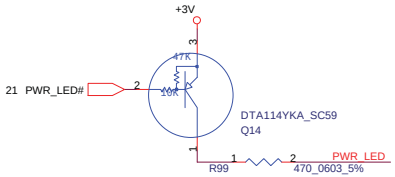


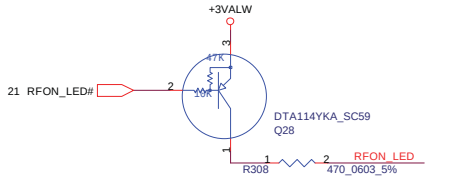


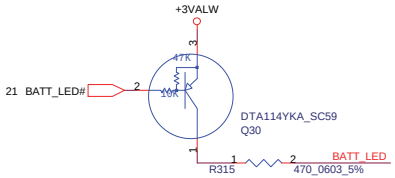












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Compal Electronics, Inc.

Title: Lid SW&RTC & LED&SPKR&BT&MIC

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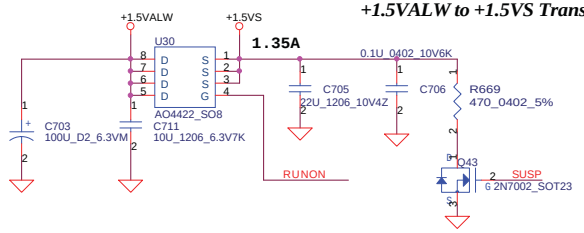
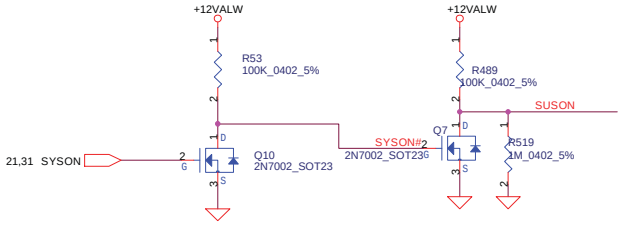
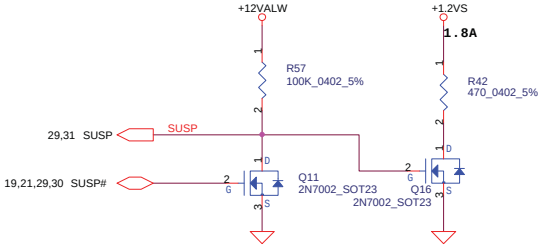
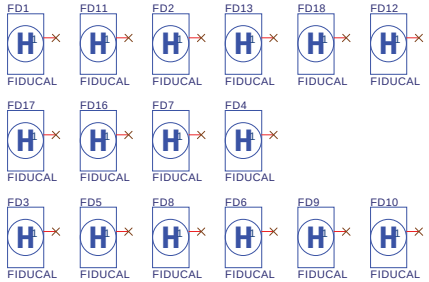
+1.5VALW to +1.5VS Transfer

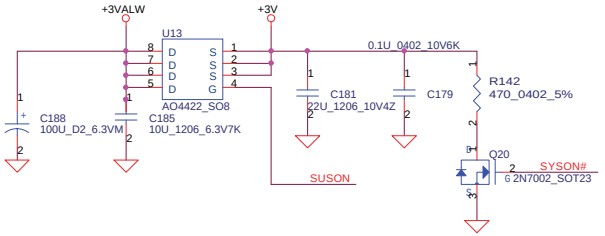




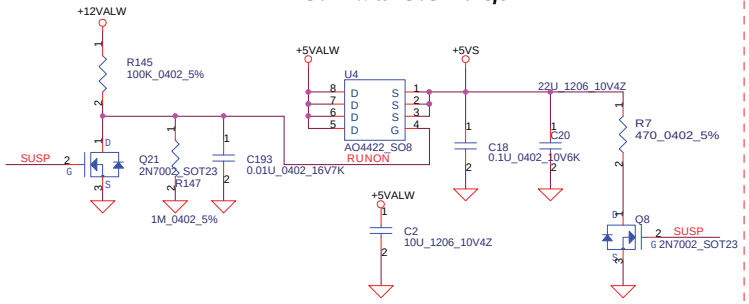




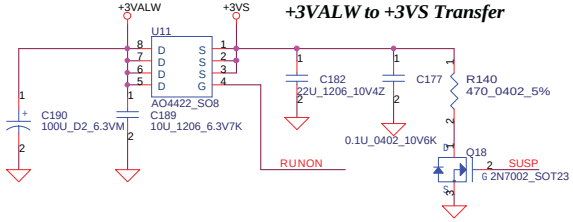
+3VALW to +3V Transfer

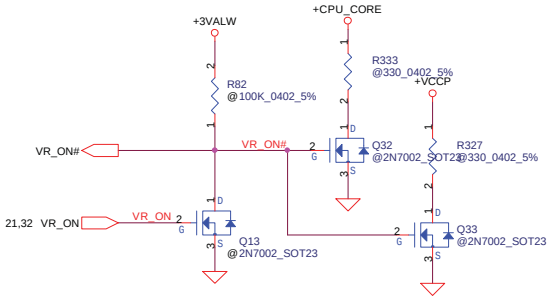


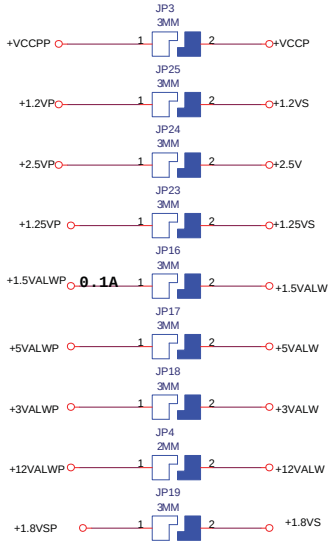
+5VALW to +5VS Transfer



+3VALW to +3VS Transfer







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Compal Electronics, Inc.

Title: DC/DC Interface

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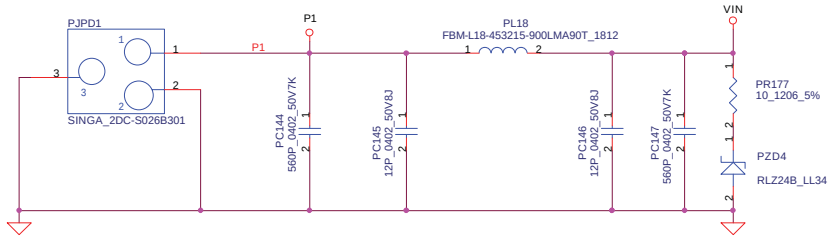
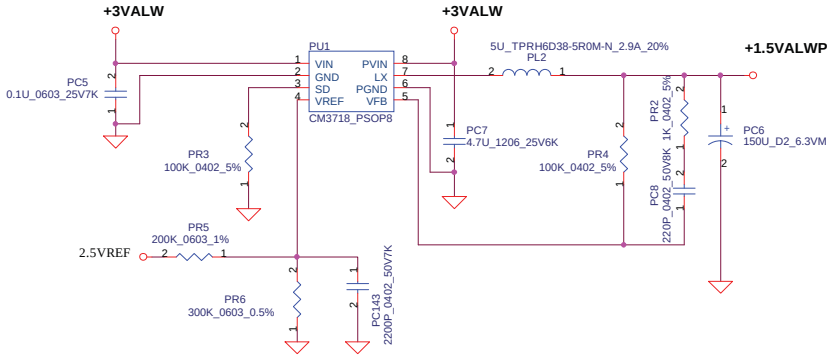
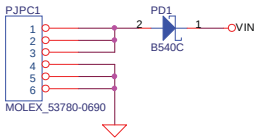
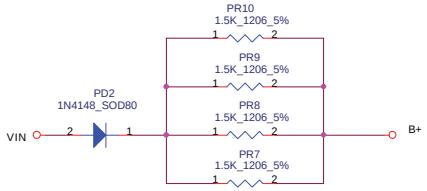
Detector/+1.5VALWP



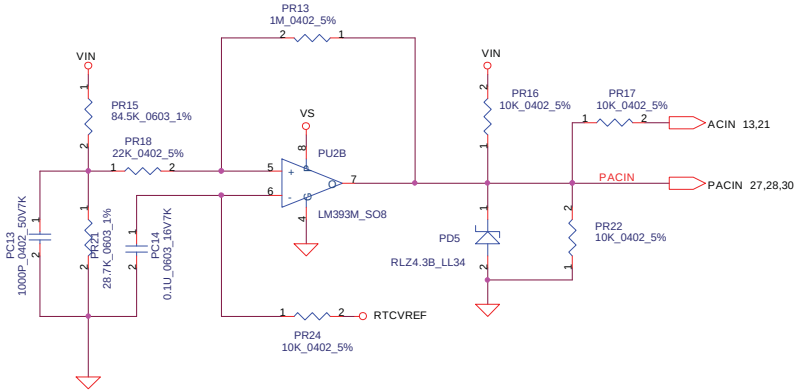


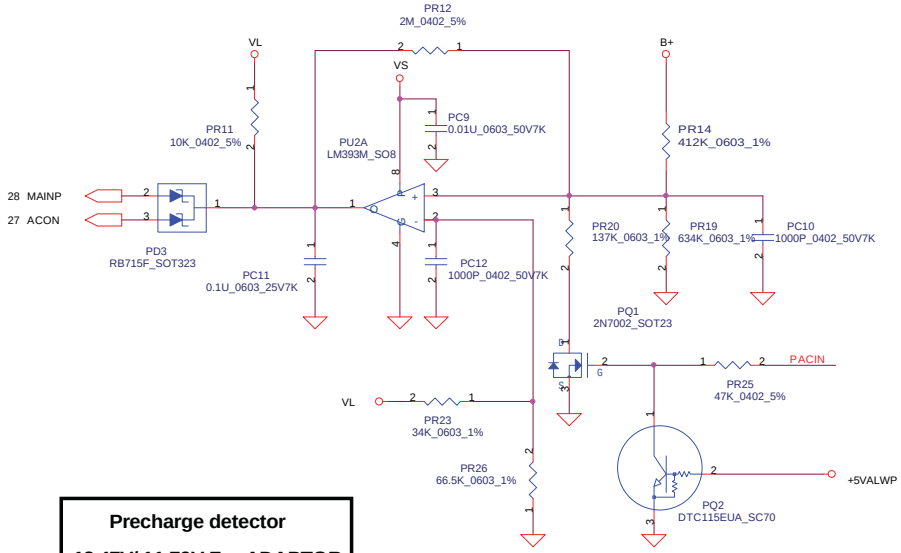


Charger Bay



Vin Detector
13.58V/13.02V





Precharge detector
12.47V/ 11.79V For ADAPTOR

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COMPAL ELECTRONICS, INC	
Title	Detector/+1.5VALWP
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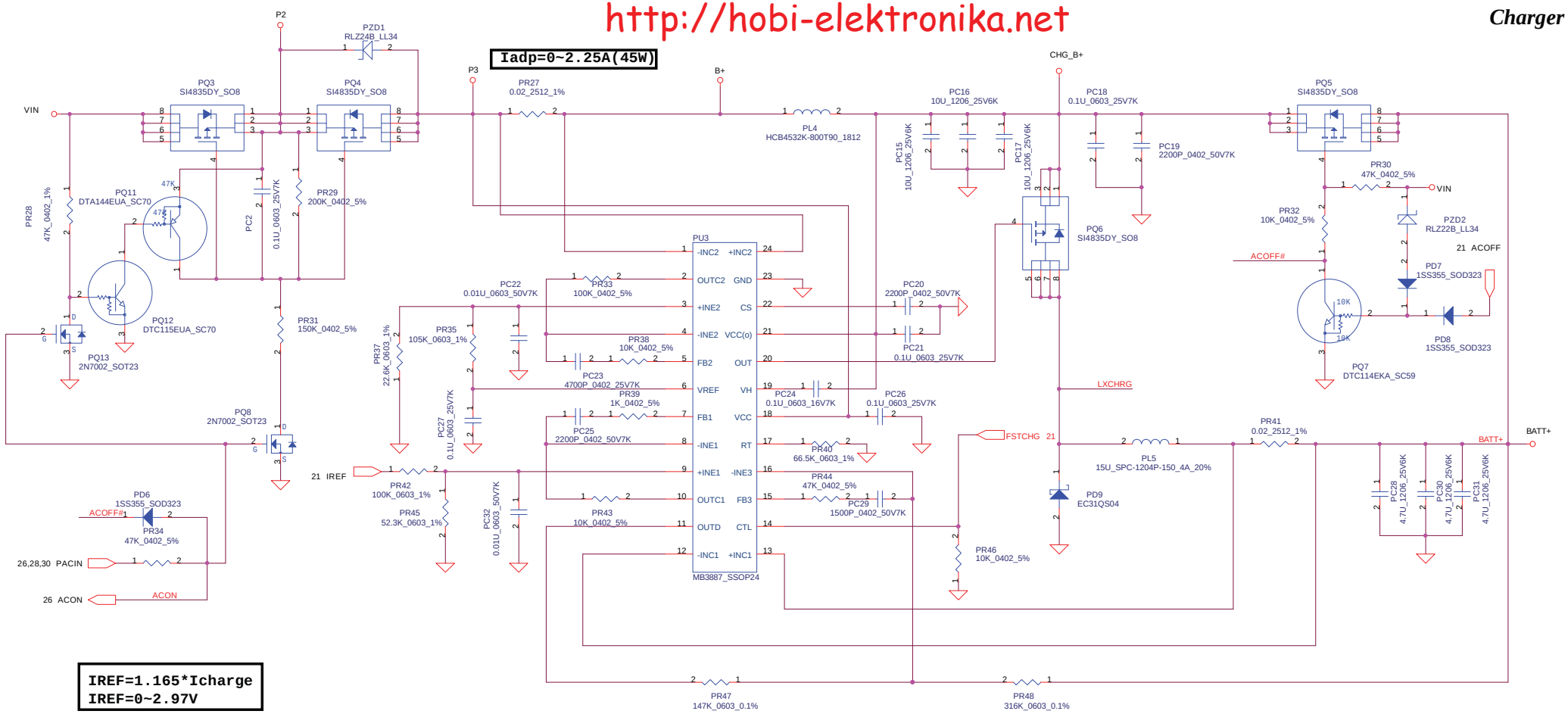
Charger

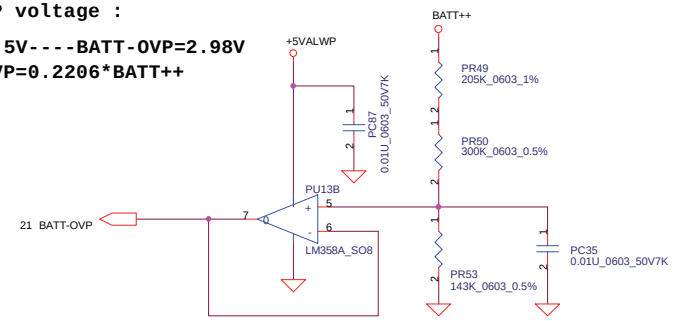


IREF=1.165*Icharge
IREF=0~2.97V

2P3S:1800mAH/cell
0.8C=2.83A

OVP voltage :

LI-3S :13.5V----BATT-OVP=2.98V
BATT-OVP=0.2206*BATT++



Charge voltage

3S LI-ION : 13.2V

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COMPAL ELECTRONICS, INC

Title: Charger

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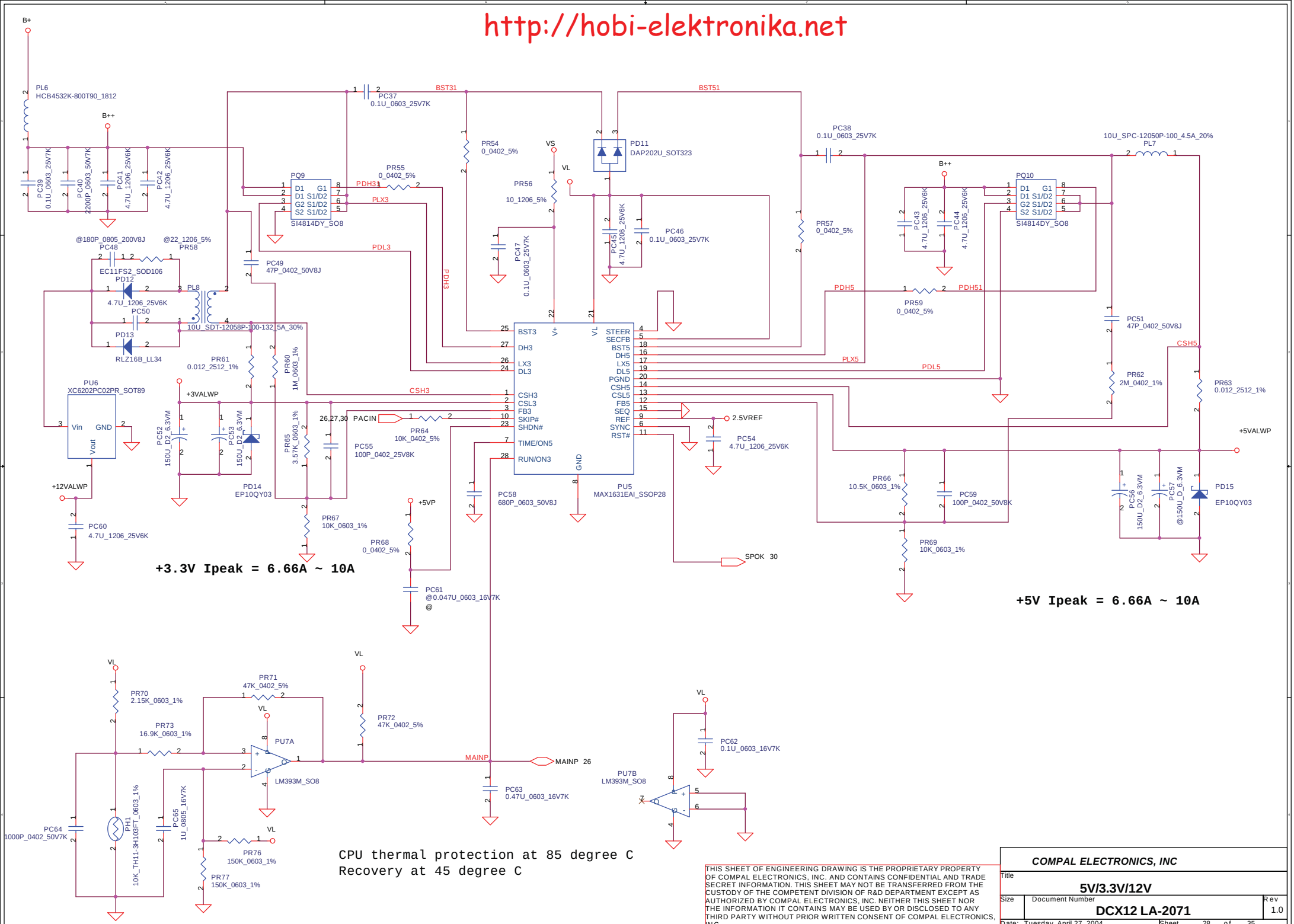

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COMPAL ELECTRONICS, INC	
Title	5V/3.3V/12V
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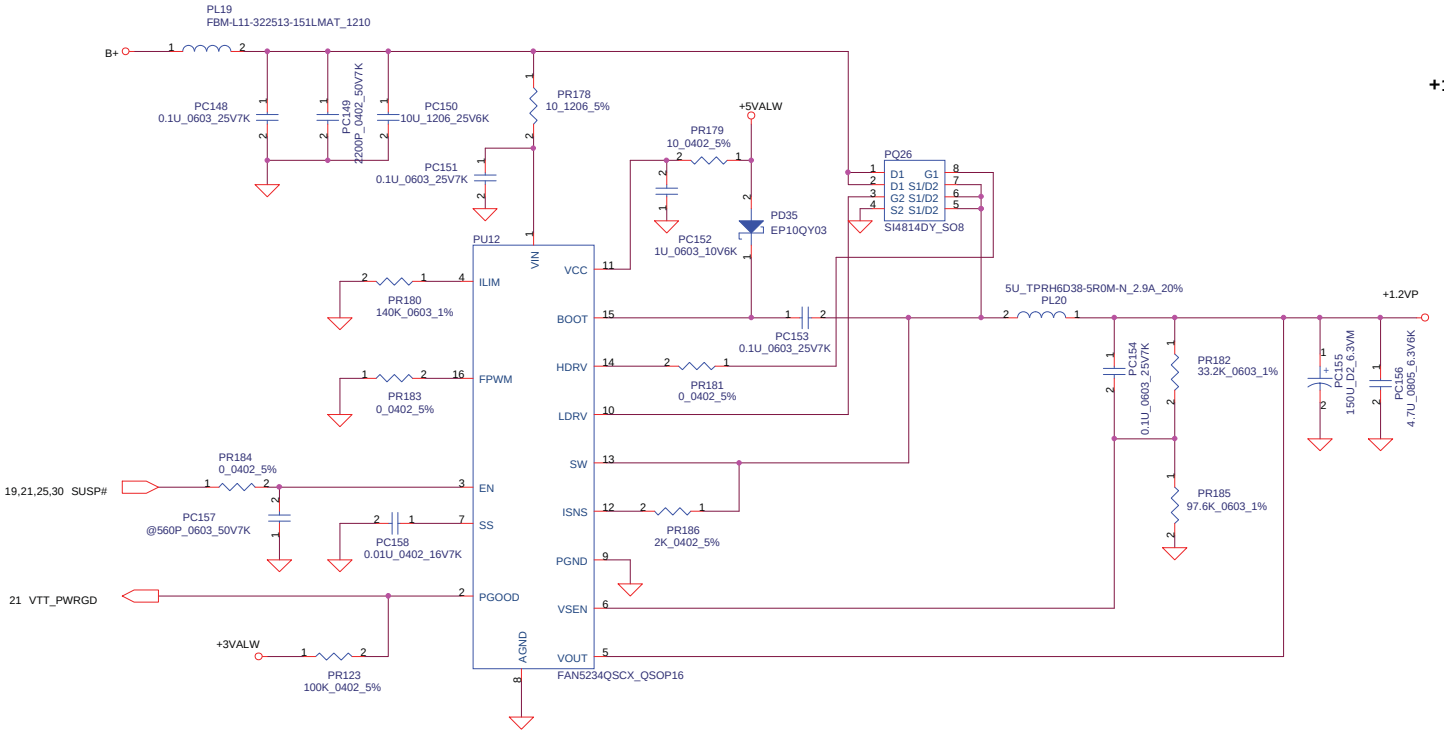
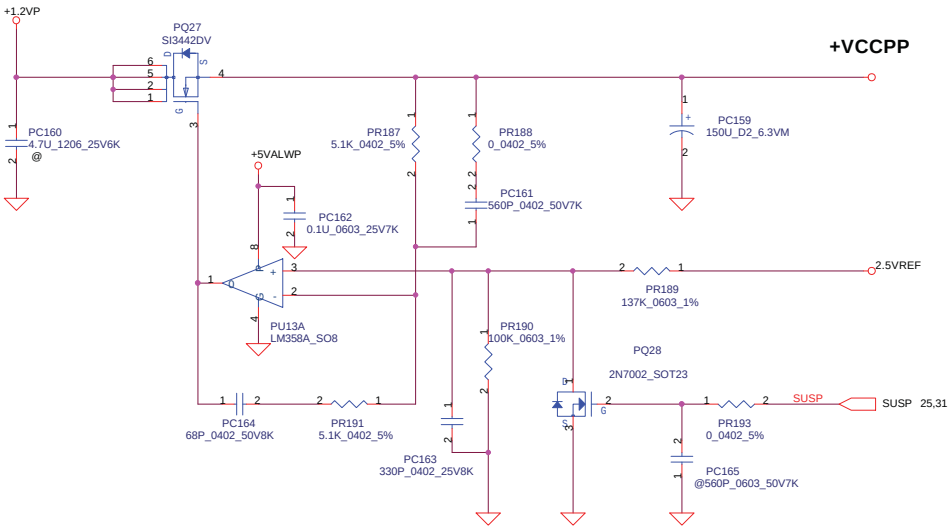
+1.2VP I Limit = 3.01A ~ 4.01A





+VCCPP

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COMPAL ELECTRONICS, INC		
Title: +-1.2VP & VCCPP		
Size: B	Document Number: DCX12 LA-2071	Rev: 1.0
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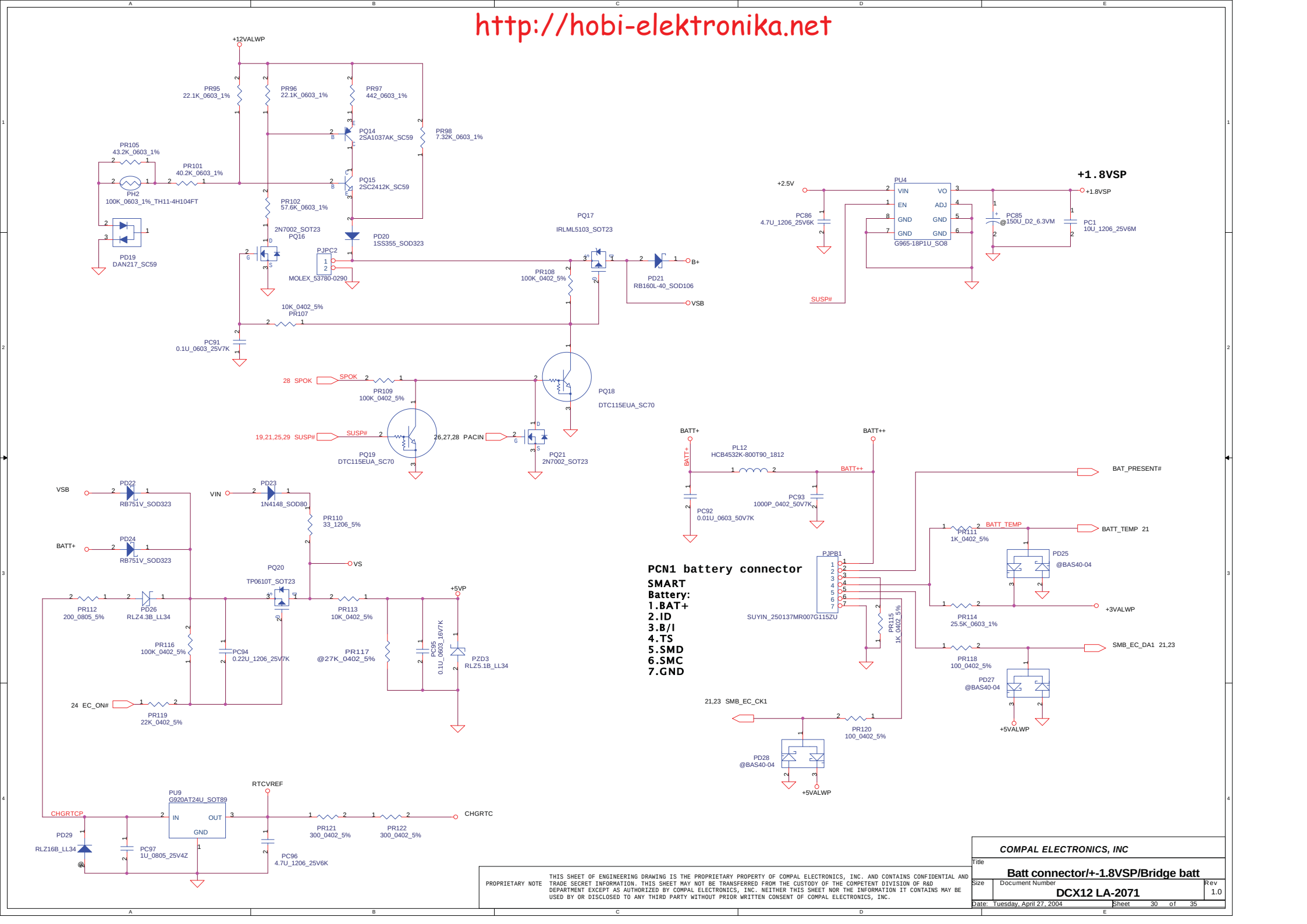

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COMPAL ELECTRONICS, INC

Title: Batt connector/+-1.8VSP/Bridge batt

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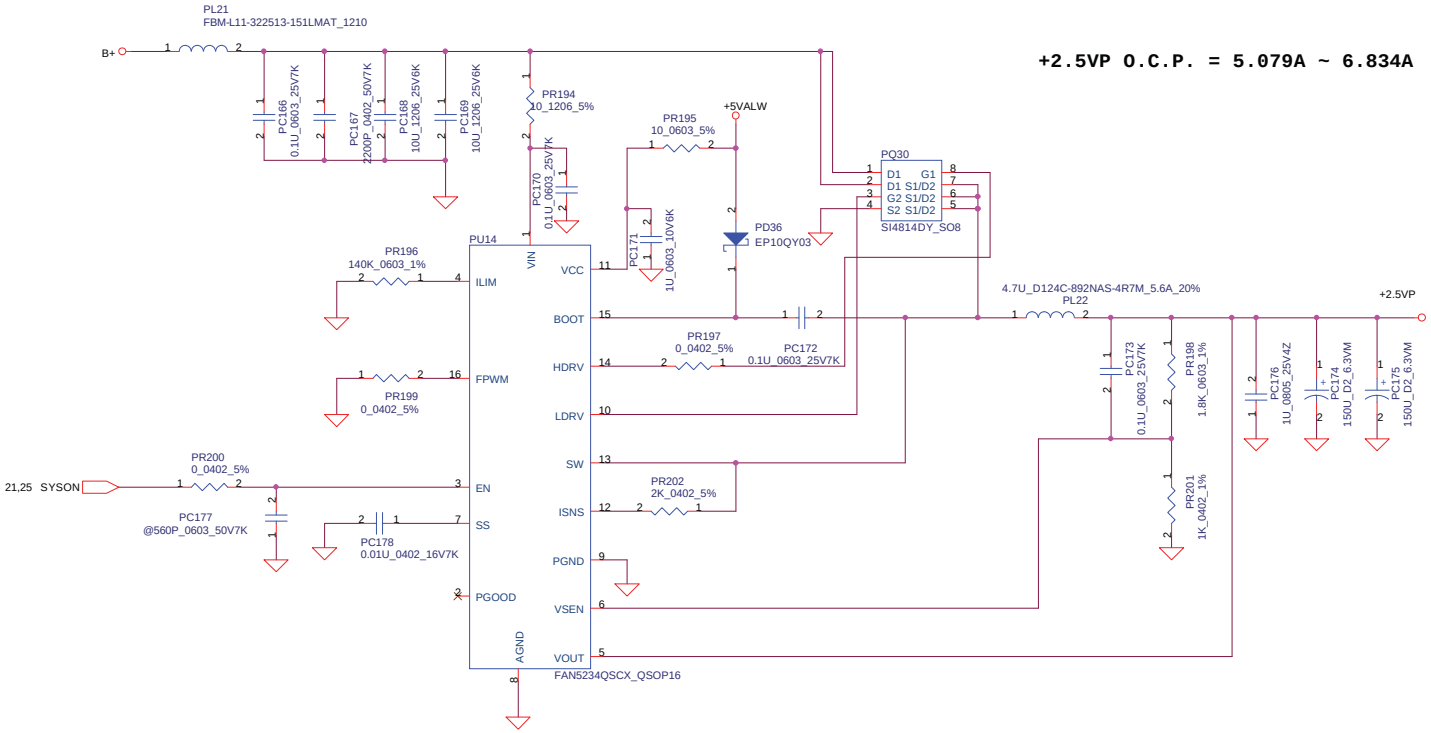
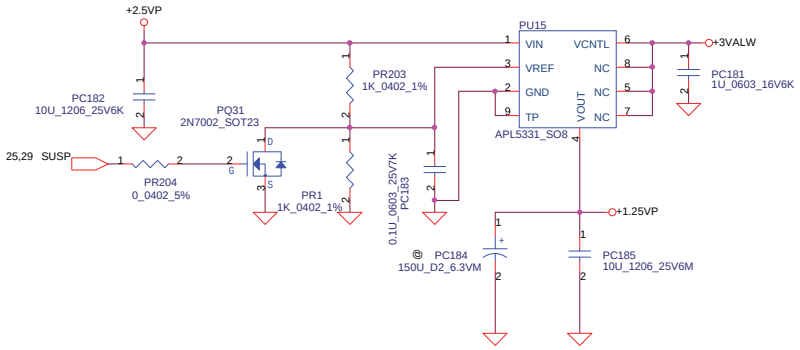
+2.5VP O.C.P. = 5.079A ~ 6.834A





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COMPAL ELECTRONICS, INC		
Title: DDR POWER 2.5VP & 1.25VP		
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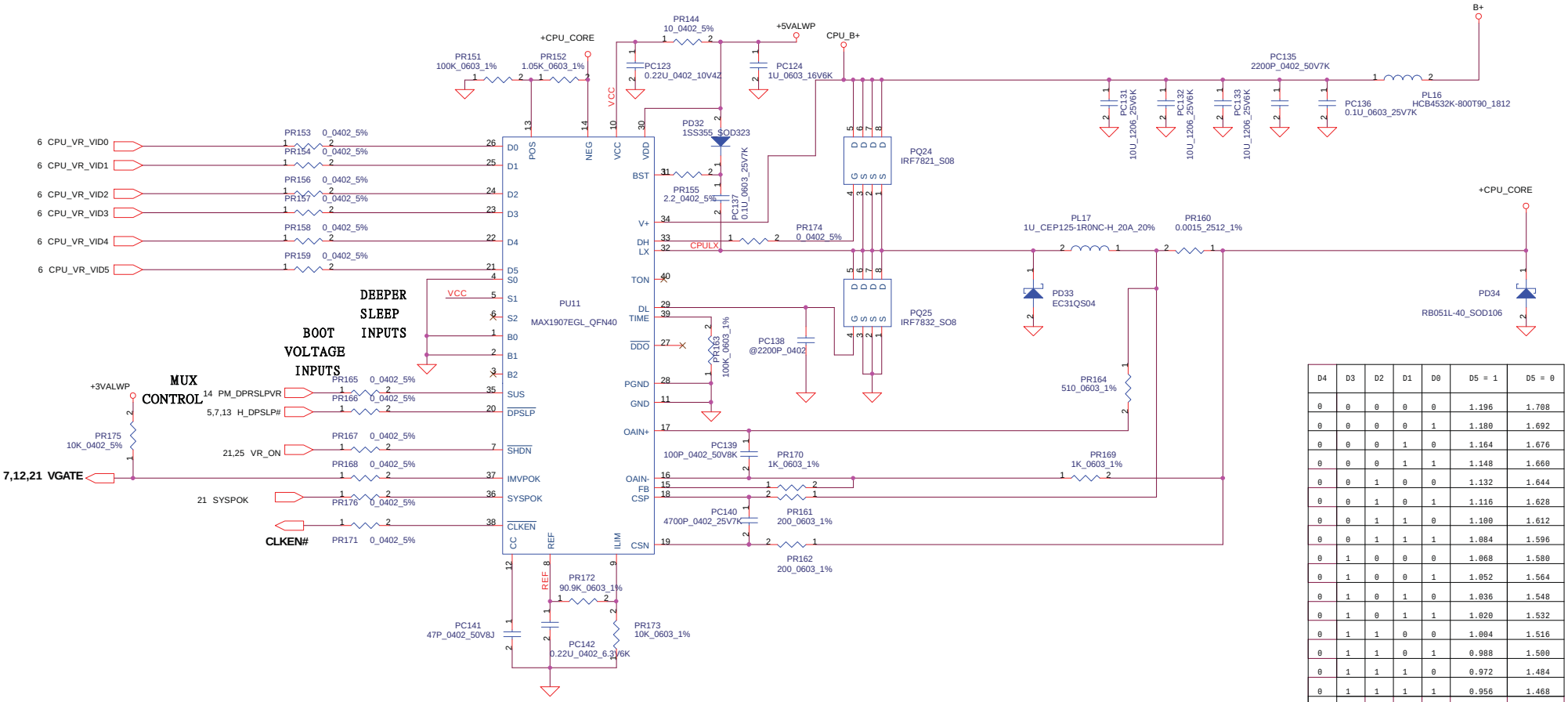
CPU-CORE



D4	D3	D2	D1	D0	D5 = 1	D5 = 0
0	0	0	0	0	1.196	1.708
0	0	0	0	1	1.180	1.692
0	0	0	1	0	1.164	1.676
0	0	0	1	1	1.148	1.660
0	0	1	0	0	1.132	1.644
0	0	1	0	1	1.116	1.628
0	0	1	1	0	1.100	1.612
0	0	1	1	1	1.084	1.596
0	1	0	0	0	1.068	1.580
0	1	0	0	1	1.052	1.564
0	1	0	1	0	1.036	1.548
0	1	0	1	1	1.020	1.532
0	1	1	0	0	1.004	1.516
0	1	1	0	1	0.988	1.500
0	1	1	1	0	0.972	1.484
0	1	1	1	1	0.956	1.468
1	0	0	0	0	0.940	1.452
1	0	0	0	1	0.924	1.436
1	0	0	1	0	0.908	1.420
1	0	0	1	1	0.892	1.404
1	0	1	0	0	0.876	1.388
1	0	1	0	1	0.860	1.372
1	0	1	1	0	0.844	1.356
1	0	1	1	1	0.828	1.340
1	1	0	0	0	0.812	1.324
1	1	0	0	1	0.796	1.308
1	1	0	1	0	0.780	1.292
1	1	0	1	1	0.764	1.276
1	1	1	0	0	0.748	1.260
1	1	1	0	1	0.732	1.244
1	1	1	1	0	0.716	1.228
1	1	1	1	1	0.700	1.212

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COMPAL ELECTRONICS, INC

Title: CPU_CORE

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Item	Reason for change	PG#	Modify List	B.Ver#	Phase
1	Power saving for DVO I/F	7	Add R393 SD014100106 S RES 1/16W 1K +-1% 0603 S9	0.2	DVT
	For KB910	21	Remove BOM R177 ,R180 SD028100200 S RES 1/16W 10K +-5% 0402 Remove R187, R188 SD028000010 S RES A34 1/16W 0 +-5% 0402 U6.16 directly connect to +3VALW.	0.2	DVT
2	Remove USB HUB for DVT	22	Remove C712,C714,C715,C716,C750,C751 SE095104K00 S CER CAP .1U 10V +-10% X5R 04026 C713,C720 SE053106Z00 S CER CAP 10U 10V Z Y5V 08052 C754,C755 SE071220J00 S CER CAP 22P 50V +-5% NPO 04022 L51,L50 SM010015400 S SUPPRE_ KC FBM-L11-160808-800LMT 06032 R41,R45 SD028000010 S RES A34 1/16W 0 +-5% 04021 R48,R50,R54,R55,R56,R58 SD028000000 S RES 1/16W 0 +-5% 04024 R260,R781,R782 SD028100200 S RES 1/16W 10K +-5% 04023 R261,R264 SD0130000T4 S RES 1/16W 0 +5% 06032 R262 SD014120200 S RES 1/16W 12K +-1% 06031 R267 SD013100500 S RES 1/16W 10M +-5% 06031 R278,R783,R780 SD028100200 S RES 1/16W 10K +-5% 04021 U18 SA024020310 S IC EE 2K SO-8 AT24C02N-10SI-2.71 U22 SA020040000 S IC USB20H04-JD TQFP-64 USB HUB1 Y10 24MHZ_20P_1BX24000BK1A SJ124P0M000	0.2	DVT
3	Correct JP7 library	23	Swap Pin Sequence 1 to 10 change 10 to 1	0.2	DVT
4	Correct switch function	24	Change connection of SW1, SW2, SW3, SW5, SW6 and JP8 Add PullUp to +3VALW Resistor RP13 SD309100200 S ROW RES 1/16W 10K +-5% 8P4R 0804	0.2	DVT
5	Modify Digitizal Contral signal	16	Add J2 for CTSB#,J3 for DTRB#	0.2	DVT
6	Add HW funciotn for KB901 version	21	Add J4 +RTCVCC for ENE 910 B0, J5 +3VALW for ENE 910 B2	0.2	DVT
7	Increase UJ Microphone Performence	23	Add R39 SD028000000 S RES 1/16W 0 +-5% 0402	0.2	DVT
8	Change MOSEFT	16 17 17 23 25	Cgange Q6 from SB523020005 S TR SI2302DS 1N SOT-23 to SB534020000 S TR AO3402 1N SOT-23 Cgange Q34 from SB523020005 S TR SI2302DS 1N SOT-23 to SB534020000 S TR AO3402 1N SOT-23 Cgange Q34 from SB923010007 S TR SI2301DS 1P SOT-23 to SB934130000 S TR AO3413 1P SOT-23 Cgange Q50 from SB923010007 S TR SI2301DS 1P SOT-23 to SB934130000 S TR AO3413 1P SOT-23 Cgange U4,U11,U13,U30 from SB548000000 S TR SI4800DY-T1 1N SO-8 to SB544040100 S TR AO4404 1N SO-8	0.2	DVT
9	Change JP27 net name for WLAN and Bluetooth function	24	Change JP27 net name Change JP27.1 net name from SM_CLK to BT_ACTIVE Change JP27.4 net name from SM_DAT to WLAN_ACTIVE	0.3	PVT
10	Modify D3, D7 FootPrint	24	Modify D3,D7 FootPrint from LED0603 to LED_HT-191UYG_2P	0.3	PVT
11	Modify JP7 Component	23	Modify JP7 from 10Pin to 9Pin Modify JP7 Net name Sequence and del GND net	0.3	PVT
12	Enable DVO function	7	Remove BOM R393 SD014100106 S RES 1/16W 1K +-1% 0603 S9	0.3	PVT
13	Modify ENE1410 Power Plan to +3VS	18	Remove BOM R789 SD0130000T4 S RES 1/16W 0 +5% 0603 Add BOM R788 SD0130000T4 S RES 1/16W 0 +5% 0603	0.3	PVT
14	Change +VCCP control signal from VR_ON to SUSP	25	Remove BOM R82 SD028100300 S RES 1/16W 100K +-5% 0402 Q13 SB570020000 S TR 2N7002 1N SOT-23	0.3	PVT
15	Change BuleTooth LED Color	24	Cgange D3 from SC591UYG000 S LED HT-191UYG-DT YEL/GRN 1608 to SC591NB5A00 S LED HT-191NB5-DT BLUE 0603	0.3	PVT
16	Change LED Limit Current Resistor	24	Cgange R274 from SD014221000 S RES 1/16W 221 +-1% 0603 to SD0134700T1 S RES 1/16W 470 +-5% 0603 S9 Cgange R209,R99,R308 from SD0133300T4 S RES 1/16W 330 +-5% 0603 S9 to SD0134700T1 S RES 1/16W 470 +-5% 0603 S9 Cgange R315 from SD0131800T2 S RES 1/16W 180 +-5% 0603 S9 to SD0134700T1 S RES 1/16W 470 +-5% 0603 S9 Cgange R6 from SD014221000 S RES 1/16W 221 +-1% 0603 to SD0134700T1 S RES 1/16W 470 +-5% 0603 S9	0.3	PVT

Title	PIR- EE		
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Item	Reason for change	PG#	Modify List	B.Ver#	Phase
17	Change LED D3 Control Singal	24	Remove Q15 SB0390400T5 S TR MMBT3904 (S0T-23)	0.3	PVT
18	Change BlueTooth supply Power	24	Change JP27 Pin6 and C717 supply power from +3V to +3VS	1.0	PVT 2
19	Change USER Key control signal from KSI5 to KSI_USER	24	Add R521 SD028100200 S RES 1/16W 10K +-5% 0402 for KSI_USER Pull Up	1.0	PVT 2
20	Increase one M/B ID	21	change R149 to S RES 1/16W 47K +-5% 0603 S9 for M/B Id	1.0	

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Version change list (P.I.R. List)

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	B.Ver#	Phase
1.	Modify the CPU_CORE O.V.P. point.	Modify the CPU_CORE O.V.P. point.	0.2	32	1.Change PR172 from 76.8K +-1% 0603 to 90.9K +-1% 0603. 2.Change PR173 from 100K +-1% 0603 to 10K +-1% 0603.	0.2	DVT
2.	Modify the pre-charge circuit as same BMX01.	Don't use the 15V AC Adaptor.	0.2	26	1.Change the PR20 from 215K +-1% 0603 to 137K +-1% 0603. 2.Change the PR14 from 499K +-1% 0603 to 412K +-1% 0603.	0.2	DVT
3.	Change +1.8VSP from LM358 to LDO for cost down.	Change +1.8VSP from LM358 to LDO for cost down.	0.2	30	1.Change PU4 from LM358A SO-8 to LDO G965-18P1U SOP-8L REG. 2.Delete the PR104,PR103,PQ11,PQ13,PR99 and PR106, PR100,PC88,PC89,PC90.	0.2	DVT
4.	Modify the Vin-detector circuit as same BMX01.	Don't use the 15V AC Adaptor.	0.2	26	1.Change PR21 from 28.7K +-1% 0603 to 20K +-1% 0603.	0.2	DVT
5.	For bridge battery charge circuit,	Because cut-in new bridge battery(18mah), so need modify charge current.	0.2	30	1.Change PR105 from 34.8K +-1% 0603 to 43.2K +-1% 0603. 2.Change PR101 from 49.9K +-1% 0603 to 40.2K +-1% 0603. 3.Change PD21 from RB051L-40 SOD-106 to RB160L-40 SOD-106.	0.2	DVT
6.	For +1.25VP circuit,	Cost down solution,	0.2	31	1.Change PU15 from NE57814DDto APL5331KAC-TR. 2.Add the PR1 1K +-1% 0402. 3.Change PR203 from 100K +-5% 0402 to 1K +-1% 0402. 4.Delete the PC180,PC185 and PC186 .1U 25V K X7R 0603.	0.2	DVT
7.	For +1.25VP circuit's output capacitor,	Cost down solution,	0.2	31	1.Delete PC184 S POLY C 150U 6.3V M F(D2) PF R45 H1.9. 2.Add PC185 S CER CAP 10U 25V K X5R 1210.	0.2	DVT
8.	For +1.8VSP circuit's output capacitor,	Cost down solution,	0.2	30	1.Delete PC85 S POLY C 150U 6.3V M F(D2) PF R45 H1.9. 2.Add PC1 S CER CAP 10U 25V K X5R 1210.	0.2	DVT
9.	For +VCCP circuit's input capacitor,	Cost down solution,	0.2	29	1.Delete PC160 S CER CAP 4.7U 25V K X5R 1206 H1.6.	0.2	DVT
10.	For RTC battery's regulator,	Cost down solution,	0.2	30	1.Change PU9 from S IC S-812C33AUA-C2N-T2 SOT89-3 to S IC G920AT24U SOT89 REG 3.3V. 2.Delete PD29 S ZEN DIO RLZ16B (LL-34).	0.2	DVT
11.	For EMI soultion.	Add 2.2 on boot.	0.2	32	1.Change PR155 from 0 to 2.2.	0.2	DVT
12.	Change +1.8VSP output capacitor size.	Change +1.8VSP output capacitor size.	0.3	30	1.Change PC1 from size 1210 to 1206 H1.6.	0.3	PVT
13.	Change +1.25VP output capacitor size.	Change +1.25VP output capacitor size.	0.3	31	1.Change PC185 from size 1210 to 1206 H1.6.	0.3	PVT
14.	Chnage the +VCCP's power sequence.	Chnage the +VCCP's power sequence from +VR_ON# to SUSP.	0.3	29	1.Change PQ28 fromTR DTC115EUA NPN (UMT3) to TR 2N7002.	0.3	PVT
15.	The Vin OVP function is fail.	Add the some components initial circuit to improve the over voltage protection function.	0.3	27	1.Add PR28 47K 0402+-5%,PQ11 DAT144EUA_SC70,PQ12 DTC115EUA_SC70,PQ13 2N7002 SOT23,PC2 0.1U_25V 0603.	0.3	PVT

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