COMPAL CONFIDENTIAL

MODEL NAME : *QAL81*

PCB NO : *LA-7782P (DAA00002J00)*

BOM P/N : *TBD*

GPIO MAP: E4_VC_GPIO_map_rev_0.8

Dalmore 14 DSC

Ivy Bridge + Panther POINT

2011-05-12

REV : 0.1 (X00)

@ : Nopop Component

CONN@ : Connector Component

MB Type	BOM P/N	
TPM		1@ 3@
TCM		2@ 4@
TPM DIS/TCM DIS		2@ 3@

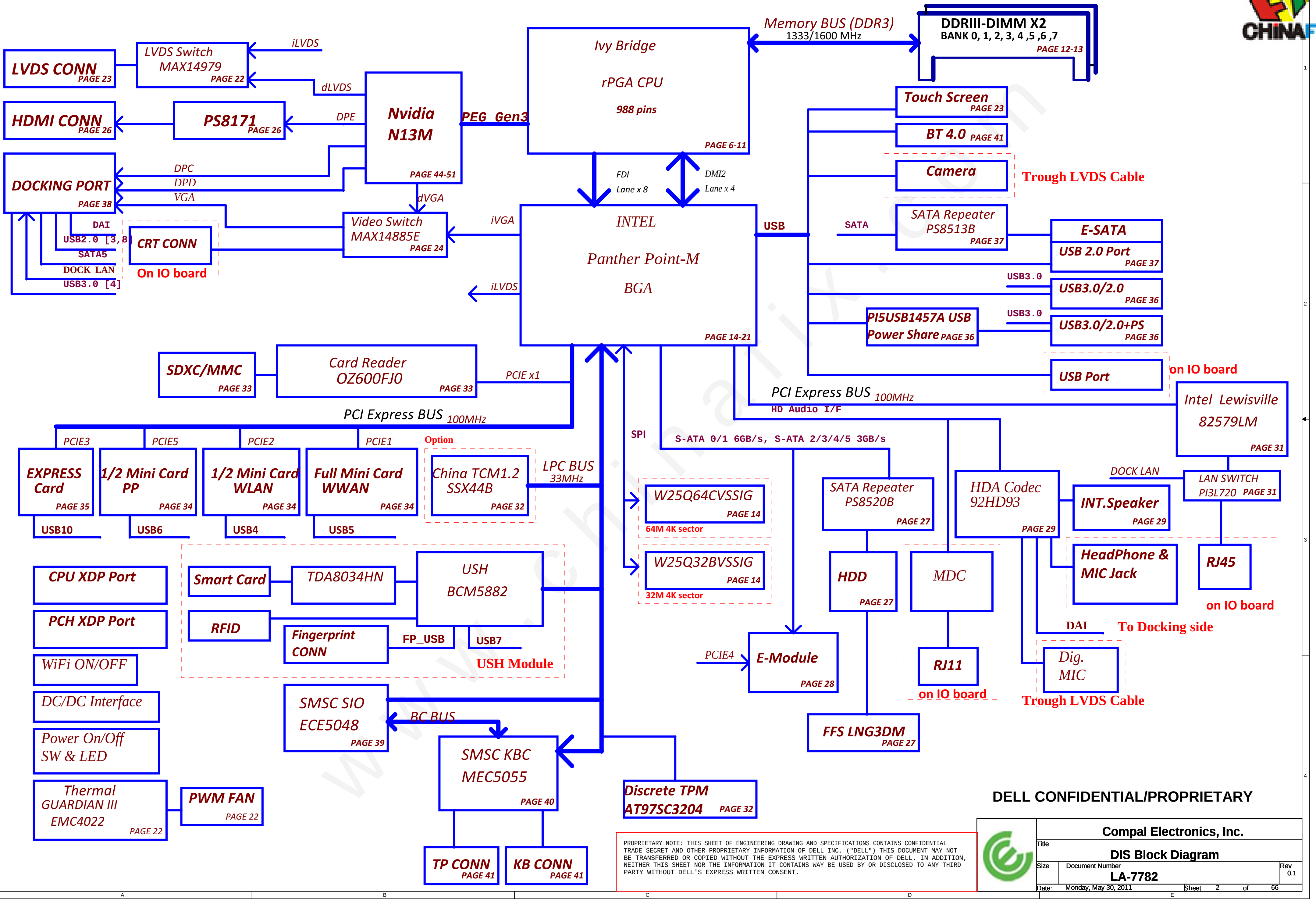
MB PCB

Part Number	Description
DAA00002J00	PCB 0LE LA-7782P REV0 M/B DSC

Compal Electronics, Inc.

Title	Cover Sheet	
Size	Document Number: LA-7782	Rev: 0.1
Date: Tuesday, May 24, 2011	Sheet 1 of 66	

Block Diagram Compal confidential



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	Compal Electronics, Inc.
Title	DIS Block Diagram
Size / Document Number	LA-7782
Rev	0.1
Date:	Monday, May 30, 2011
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POWER STATES

State \ Signal	SLP S3#	SLP S4#	SLP S5#	SLP A#	ALWAYS PLANE	M PLANE	SUS PLANE	RUN PLANE	CLOCKS
S0 (Full ON) / M0	HIGH	HIGH	HIGH	HIGH	ON	ON	ON	ON	ON
S3 (Suspend to RAM) / M3	LOW	HIGH	HIGH	HIGH	ON	ON	ON	OFF	OFF
S4 (Suspend to DISK) / M3	LOW	LOW	HIGH	HIGH	ON	ON	OFF	OFF	OFF
S5 (SOFT OFF) / M3	LOW	LOW	LOW	HIGH	ON	ON	OFF	OFF	OFF
S3 (Suspend to RAM) / M-OFF	LOW	HIGH	HIGH	LOW	ON	OFF	ON	OFF	OFF
S4 (Suspend to DISK) / M-OFF	LOW	LOW	HIGH	LOW	ON	OFF	OFF	OFF	OFF
S5 (SOFT OFF) / M-OFF	LOW	LOW	LOW	LOW	ON	OFF	OFF	OFF	OFF

PCH	USB PORT#	DESTINATION
PCH	0	JUSB1 (Right side Top)
	1	JUSB2 (Right side Bottom)
	2	JESA1 (Right side ESATA)
	3	MLK DOCK
	4	WLAN
	5	WWAN
	6	JMINI3(Flash)
	7	USH->BIO
	8	DOCKING
	9	JUSB (Left side)
	10	Express card
	11	Bluetooth
	12	Camera
	13	LCD Touch

USH	0	BIO
	1	NA

PM TABLE

State \ power plane	+15V_ALW +5V_ALW +3.3V_ALW_PCH +3.3V_RTC_LDO	+3.3V_SUS +1.5V_MEM	+5V_RUN +3.3V_RUN +1.8V_RUN +1.5V_RUN +0.75V_DDR_VTT +VCC_CORE +1.05V_RUN_VTT +1.05V_RUN	+3.3V_M +1.05V_M	+3.3V_M +1.05V_M (M-OFF)
S0	ON	ON	ON	ON	ON
S3	ON	ON	OFF	ON	OFF
S5 S4/AC	ON	OFF	OFF	ON	OFF
S5 S4/AC don't exist	OFF	OFF	OFF	OFF	OFF

SATA	DESTINATION
SATA 0	HDD
SATA 1	ODD/ E3 Module Bay
SATA 2	NA
SATA 3	NA
SATA 4	ESATA
SATA 5	Dock

need to update Power Status and PM Table

PCI EXPRESS	DESTINATION
Lane 1	MINI CARD-1 WWAN
Lane 2	MINI CARD-2 WLAN
Lane 3	Express card
Lane 4	E3 Module Bay (USB3)
Lane 5	1/2vMINI CARD-3 PCIE
Lane 6	MMI
Lane 7	10/100/1G LOM
Lane 8	None

Layer No.	Name	Material	Thickness (Material SPEC.) Unit : mil	Thickness (Actuality) Unit : mil
		SolderMask	min 0.4	0.50000
		Add Plating		1.45000
1	Top	Copper foil	0.5oz(0.68)	0.65000
		Prepreg	1080	2.75000
2	GND1	Copper foil	1oz(1.35)	1.35000
		Core	4mil	3.89000
3	IN 1	Copper foil	1oz(1.35)	1.35000
		Prepreg	1506	5.50000
4	GND2	Copper foil	1oz(1.35)	1.35000
		Core	3mil	3.09000
5	IN 2	Copper foil	1oz(1.35)	1.35000
		Prepreg	1506*2	11.50000
6	IN 3	Copper foil	1oz(1.35)	1.35000
		Core	3mil	3.09000
7	VCC	Copper foil	1oz(1.35)	1.35000
		Prepreg	1506	5.50000
8	IN 4	Copper foil	1oz(1.35)	1.35000
		Core	4mil	3.89000
9	GND 3	Copper foil	1oz(1.35)	1.30000
		Prepreg	1080	2.75000
10	Bottom	Copper foil	0.5oz(0.68)	0.65000
		Add Plating		1.45000
		SolderMask	min 0.4	0.50000
	Overall Thickness (1.45mm ± 10%)			57.91000

DSC DP/HDMI Port	Connetion
Port C	Dock DP port 2
Port D	Dock DP port 1
Port E	MB HDMI Conn

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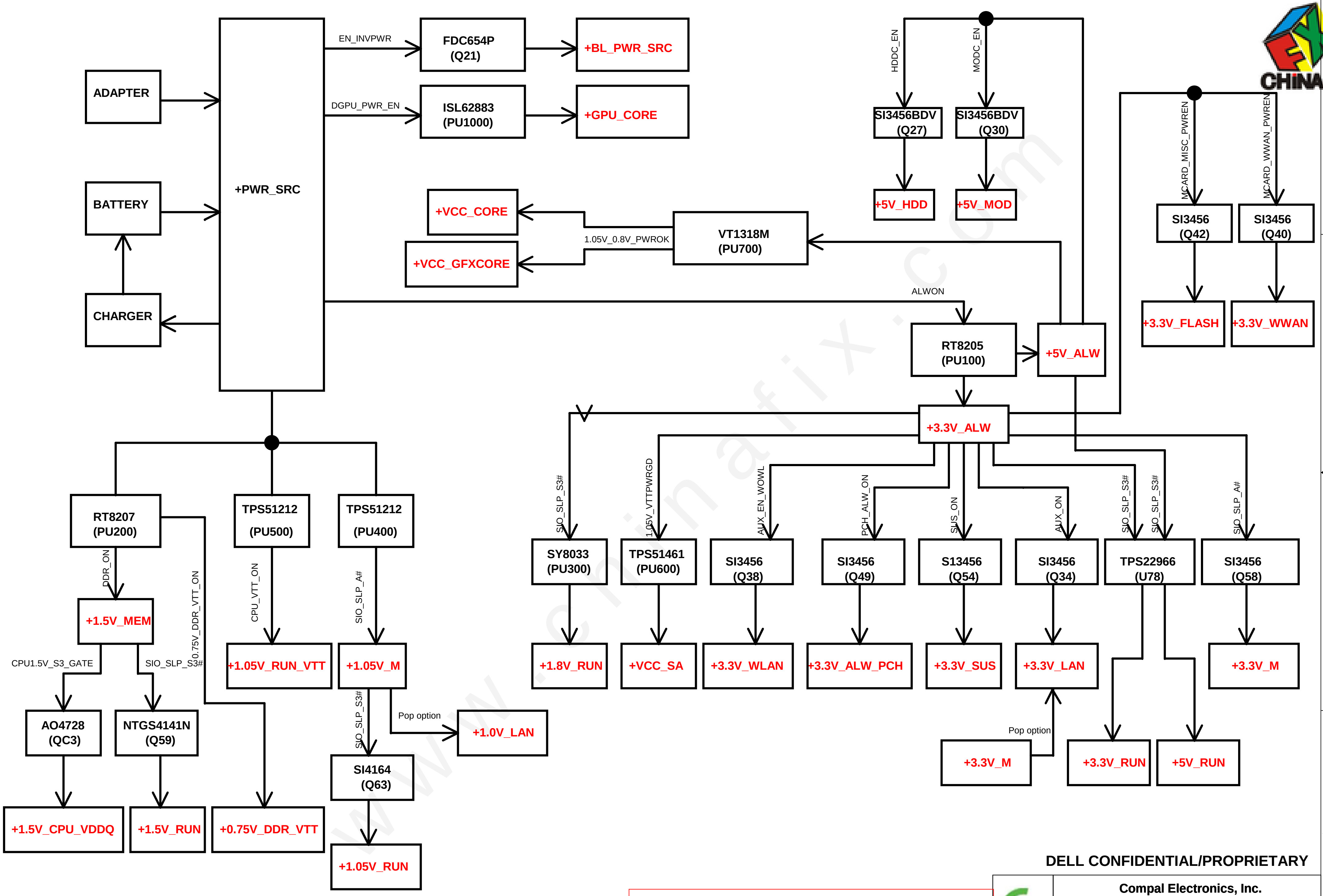
Title: Index and Config.

Size | Document Number: LA-7782 | Rev 0.1

Date: Friday, May 20, 2011 |



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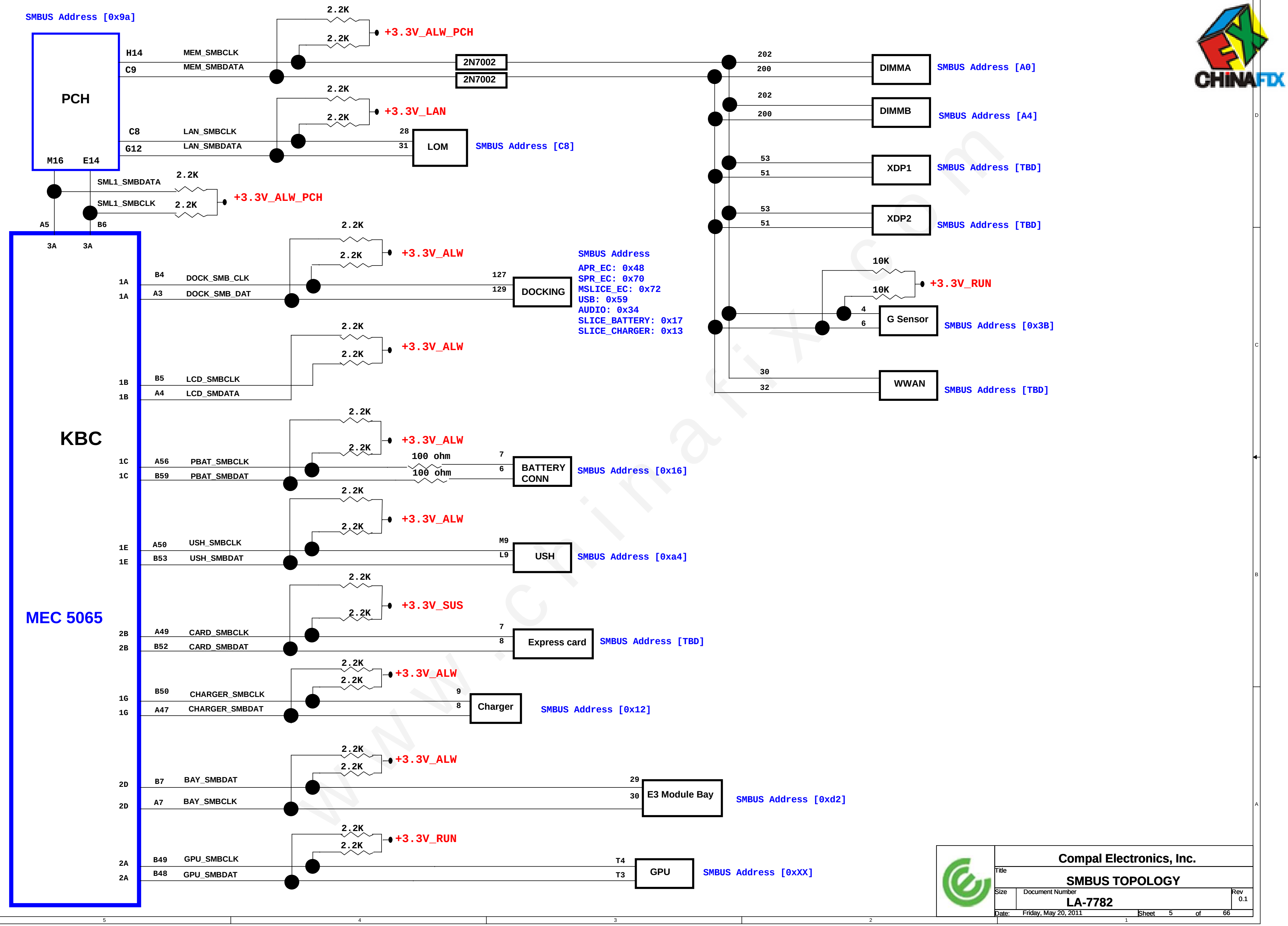
Compal Electronics, Inc.		
Title: Power Rail		
Size	Document Number: LA-7782	Rev 0.1
Date: Friday, May 20, 2011	Sheet 4	of 66



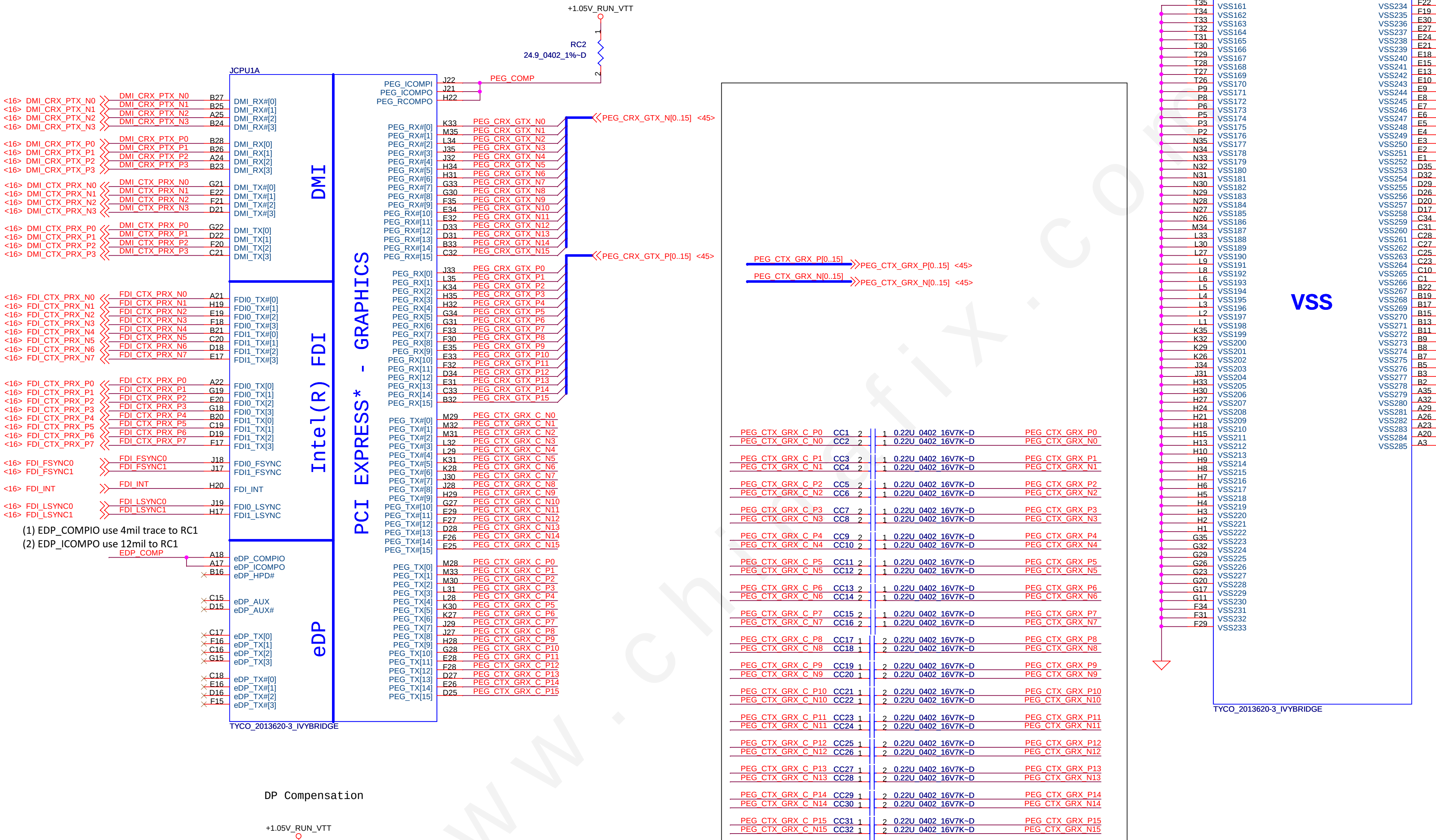
Compal Electronics, Inc.

Title: SMBUS TOPOLOGY

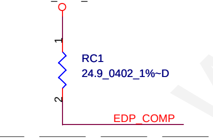
Size | Document Number: LA-7782 | Rev 0.1

Date: Friday, May 20, 2011 | Sheet 5 of 66

(1)PEG_RCOMPO (H22) use 4mil connect to PEG_ICOMPI, then use 4mil connect to RC2.
(2)PEG_ICOMPO use 12mil connect to RC2



DP Compensation



eDP_COMPIO and ICOMPO signals should be shorted near balls and routed with typical impedance <25 mohms

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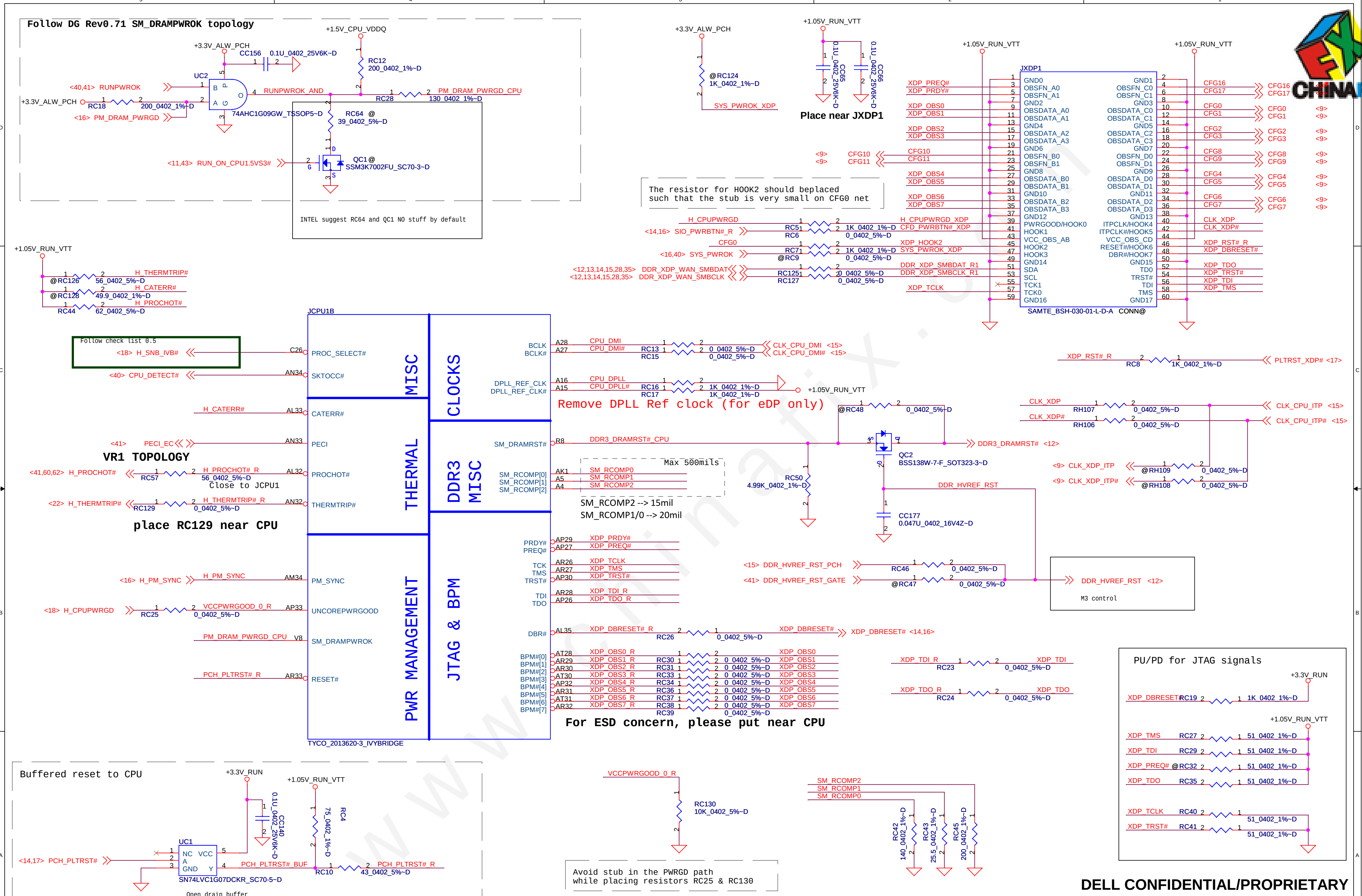
Title	Ivy Bridge (1/6)	
Size	Document Number LA-7782	Rev 0.1
Date: Friday, June 10, 2011	Sheet 6 of 66	



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	Compal Electronics, Inc.
Title	Ivy Bridge (1/6)
Size / Document Number	LA-7782
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Date:	Friday, June 10, 2011
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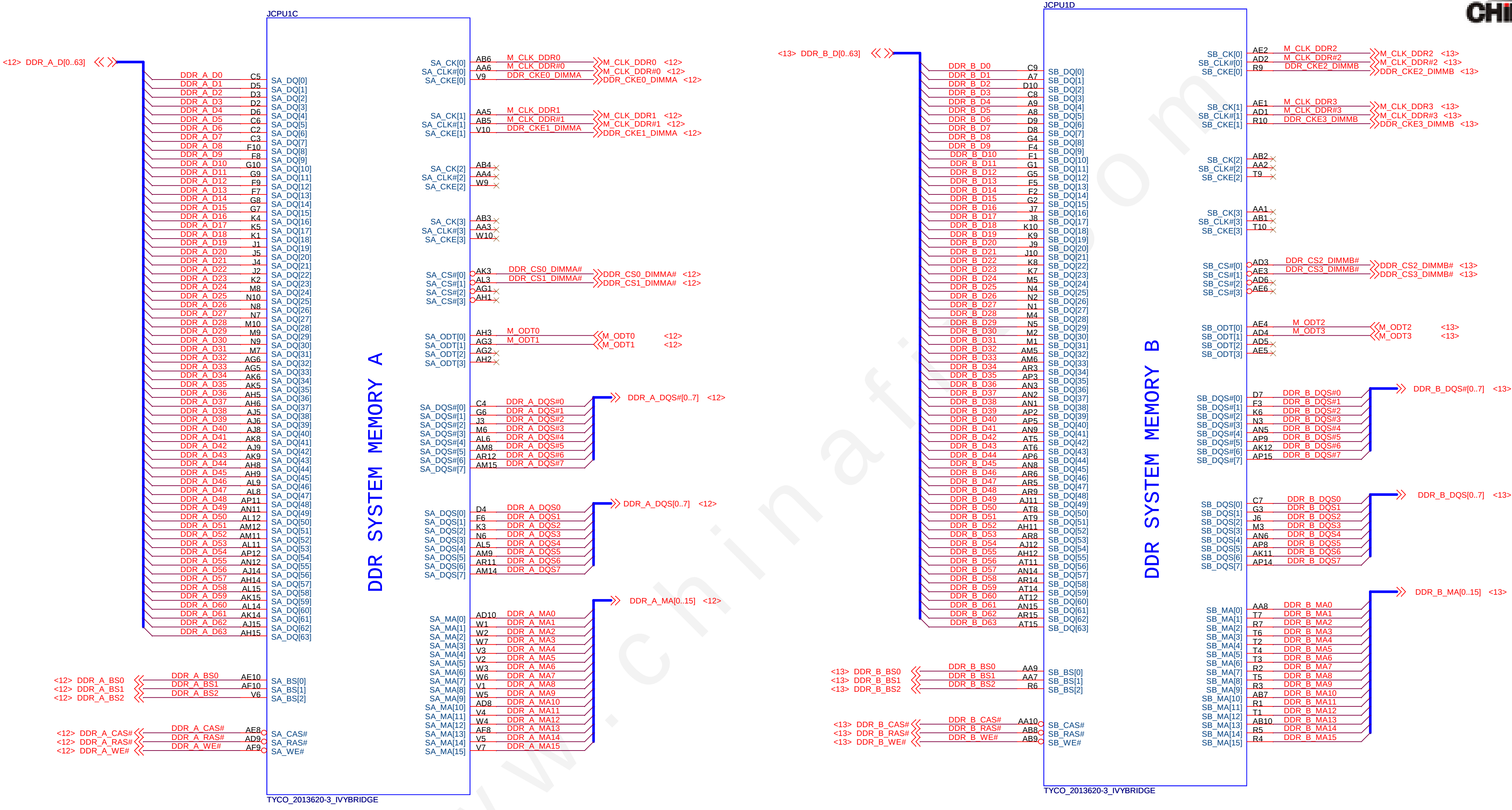

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Title	Ivy Bridge (1/6)	
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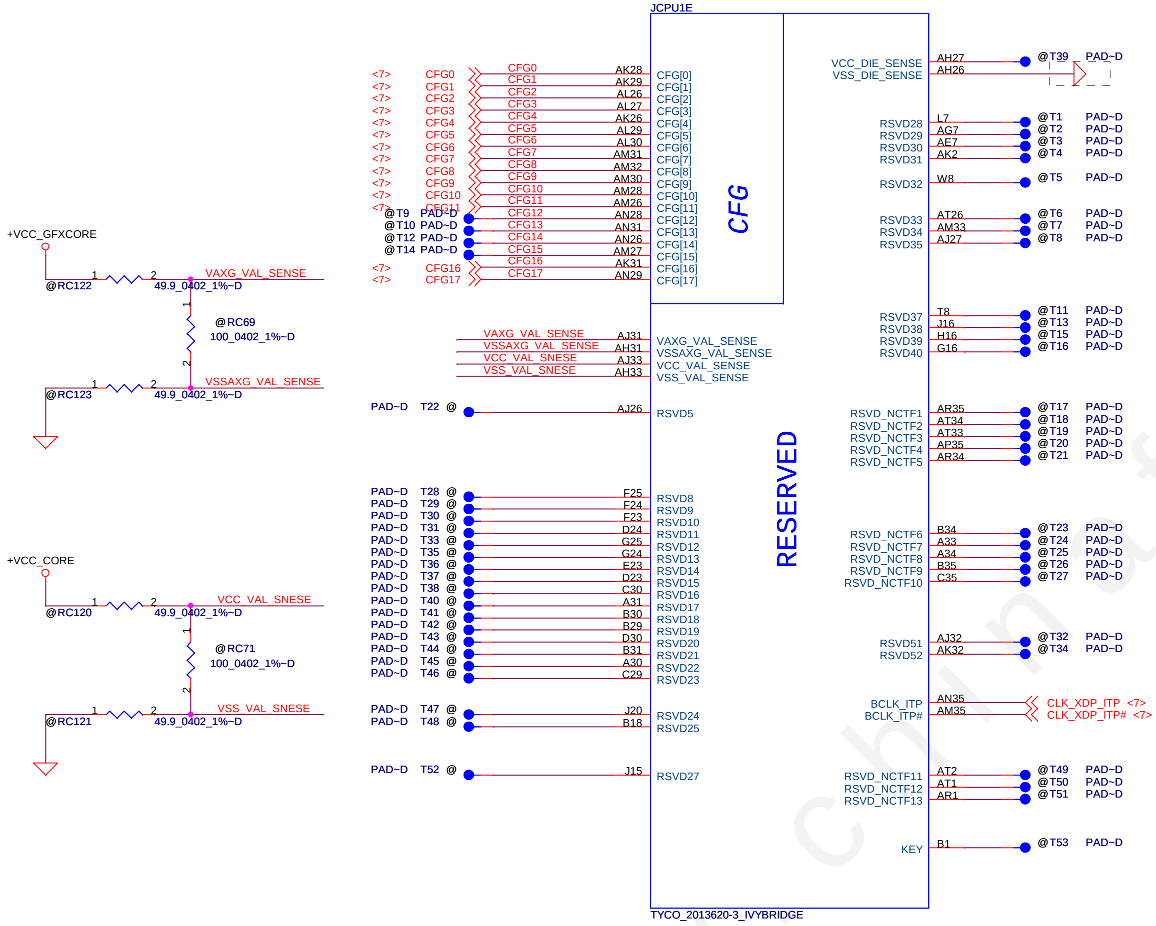
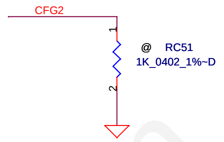
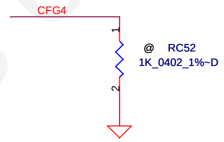
CFG Straps for Processor

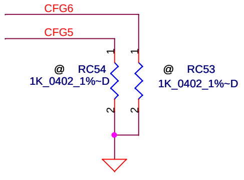




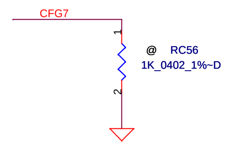
PEG Static Lane Reversal - CFG2 is for the 16x	
CFG2	1:(Default) Normal Operation; Lane # definition matches socket pin map definition 0:Lane Reversed



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



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



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

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Title	Ivy Bridge (1/6)	
Size	Document Number LA-7782	Rev 0.1
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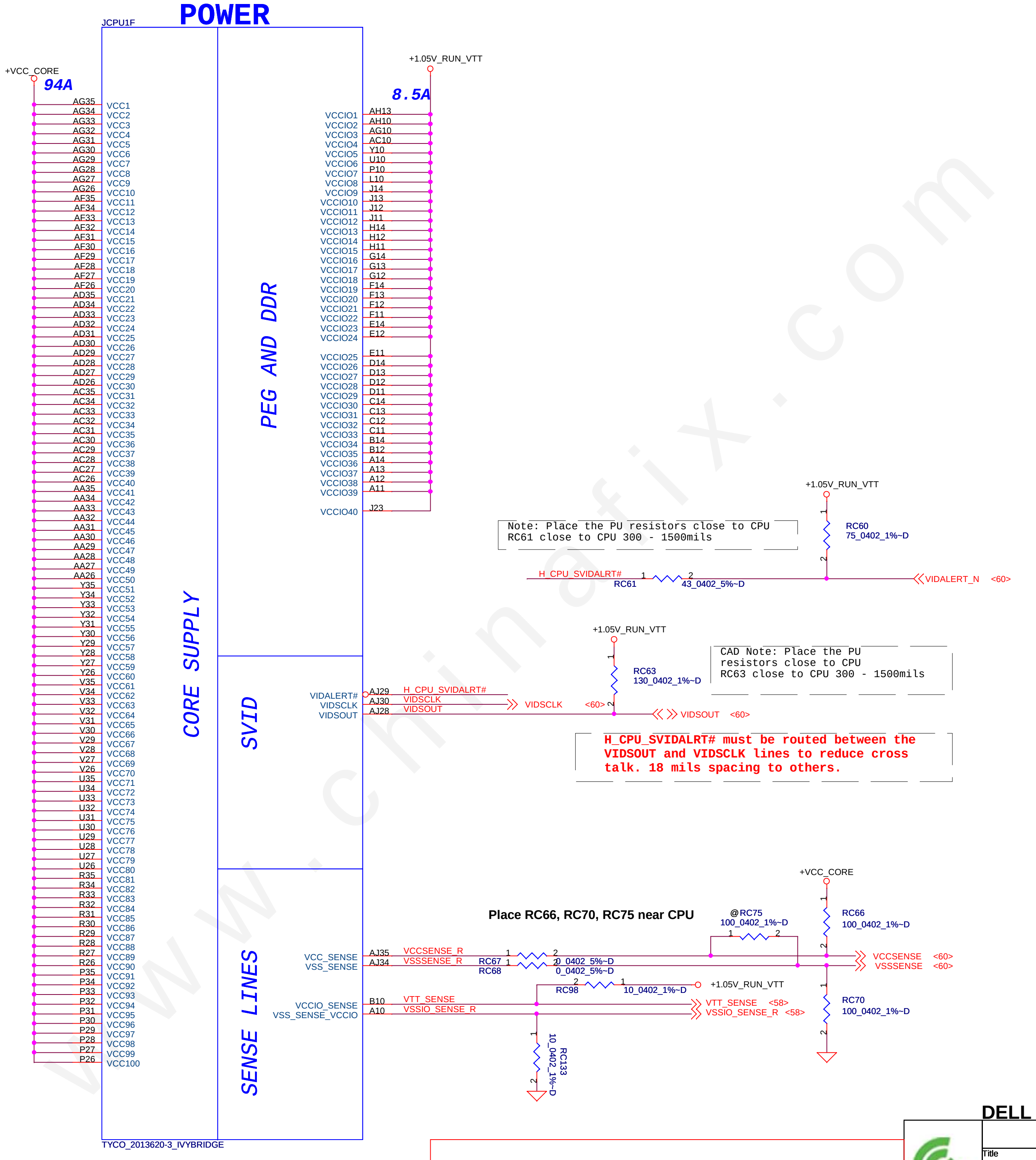

Iccmax current changed for PDDG Rev0.7

CPU Power Rail Table

Voltage Rail	Voltage	S0 Iccmax Current (A)
VCC	0.65-1.3	53
VCCIO	1.05	8.5
VAXG	0.0-1.1	26
VCCPLL	1.8	3
VDDQ	1.5	5
VCCSA	0.65-0.9	6
+1.5V_MEM	1.5	12-16 *

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

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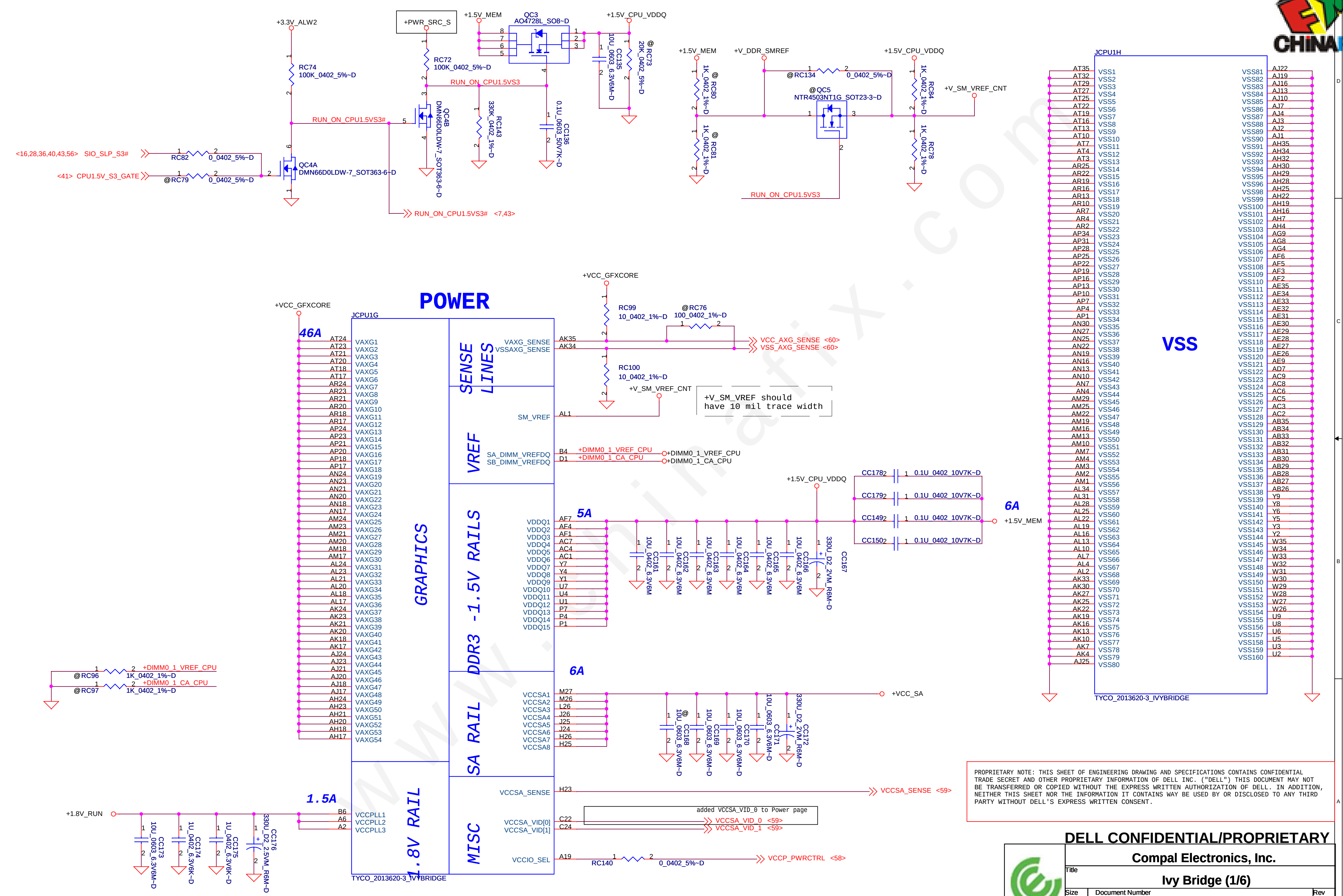
Title: Ivy Bridge (1/6)

Size | Document Number: LA-7782 | Rev 0.1

+1.5V_CPU_VDDQ Source



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Title	Ivy Bridge (1/6)
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Date:	Friday, June 10, 2011
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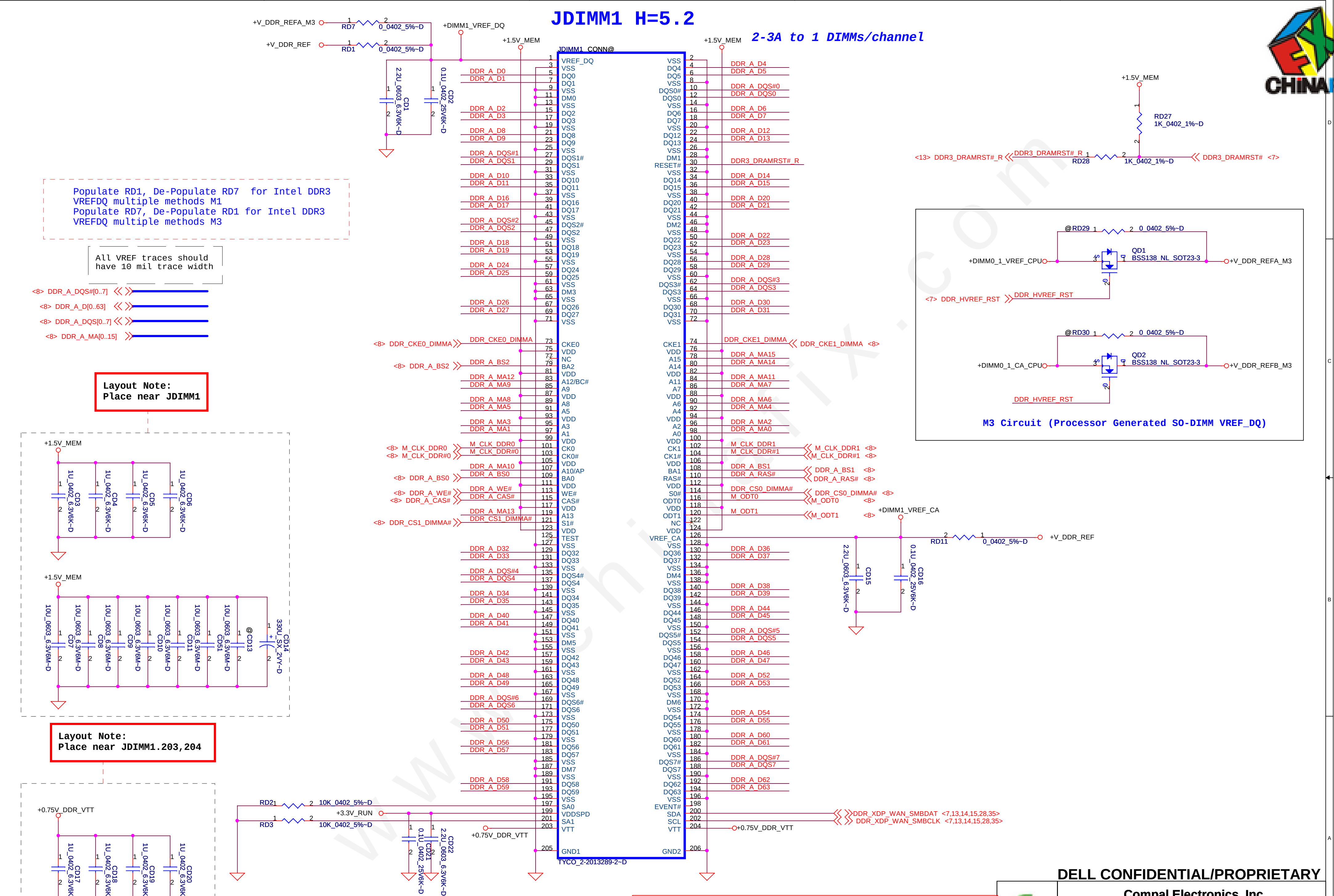
JDIMM1 H=5.2

2-3A to 1 DIMMs/channel

Populate RD1, De-Populate RD7 for Intel DDR3 VREFDQ multiple methods M1
Populate RD7, De-Populate RD1 for Intel DDR3 VREFDQ multiple methods M3

All VREF traces should have 10 mil trace width



Layout Note:
Place near JDIMM1

Layout Note:
Place near JDIMM1.203,204

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Title	DDRIII-SODIMM SLOT1
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Date:	Friday, June 10, 2011
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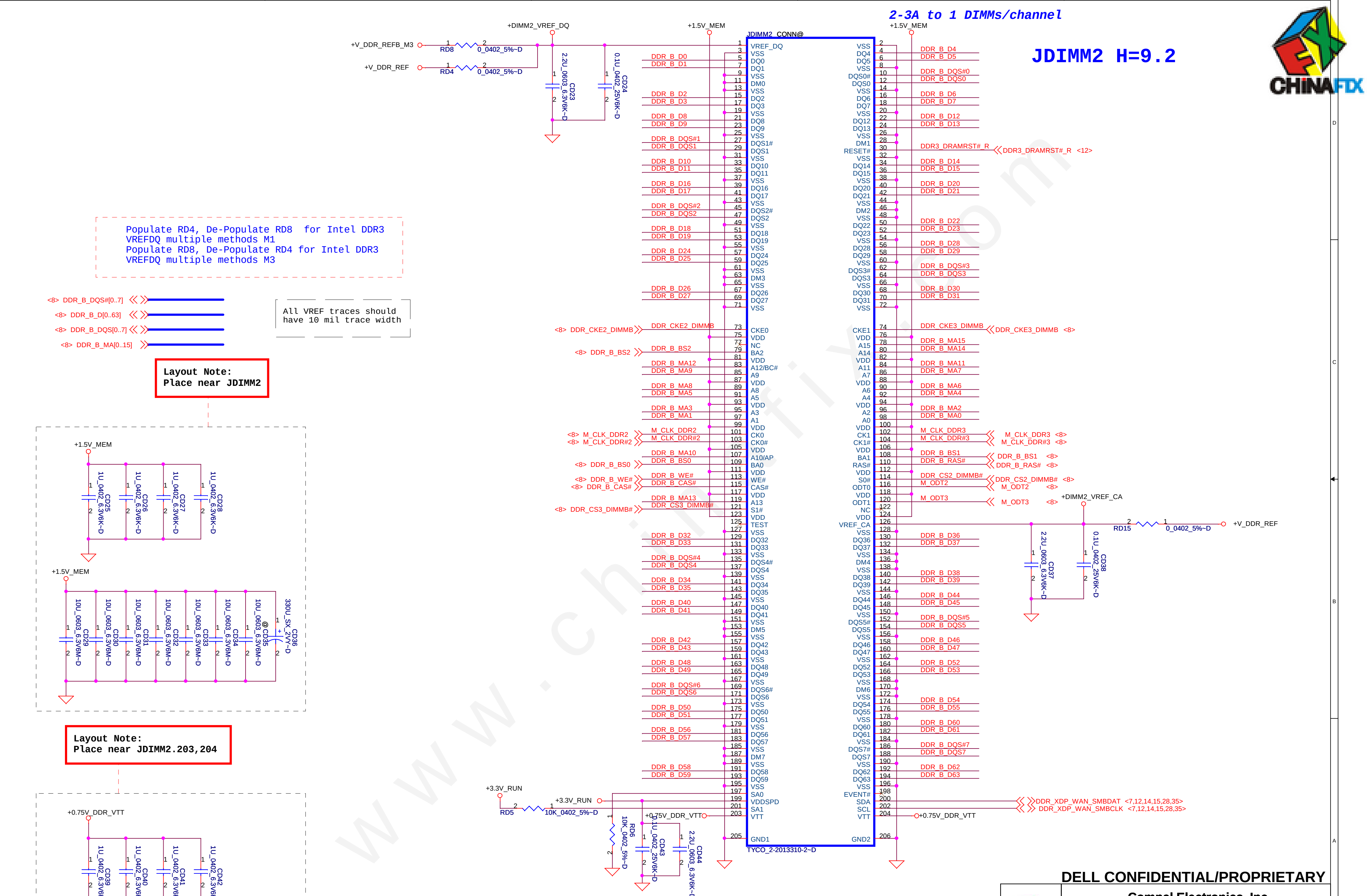

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Title	DDRIII-SODIMM SLOT2	
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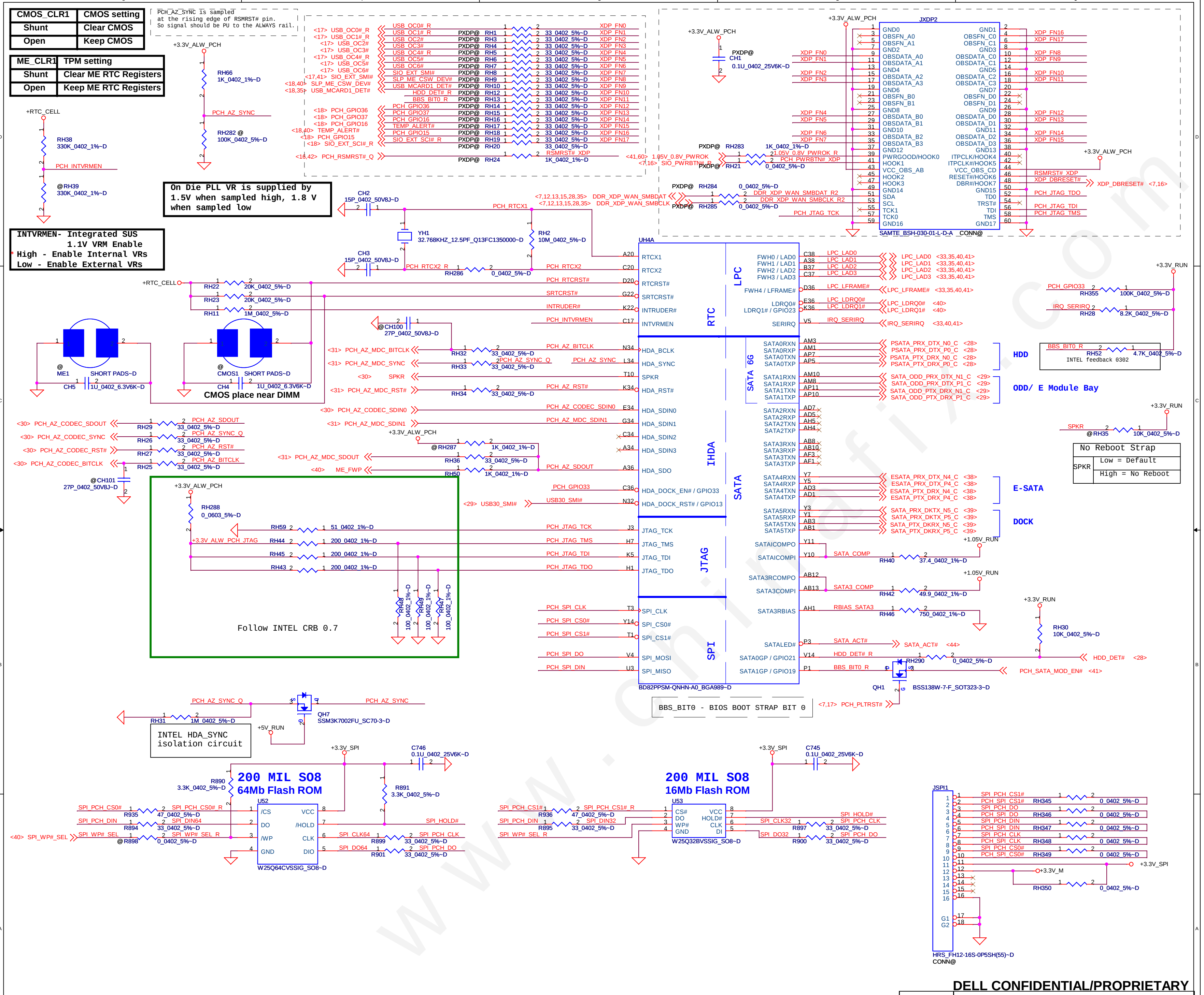
CMOS_CLR1	CMOS setting
Shunt	Clear CMOS
Open	Keep CMOS

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

PCH_AZ_SYNC is sampled at the rising edge of RSMRST# pin. So signal should be PU to the ALWAYS rail.

On Die PLL VR is supplied by 1.5V when sampled high, 1.8 V when sampled low

INTVRMEN- Integrated SUS 1.1V VRM Enable
High - Enable Internal VRs
Low - Enable External VRs



No Reboot Strap	
SPKR	Low = Default
	High = No Reboot

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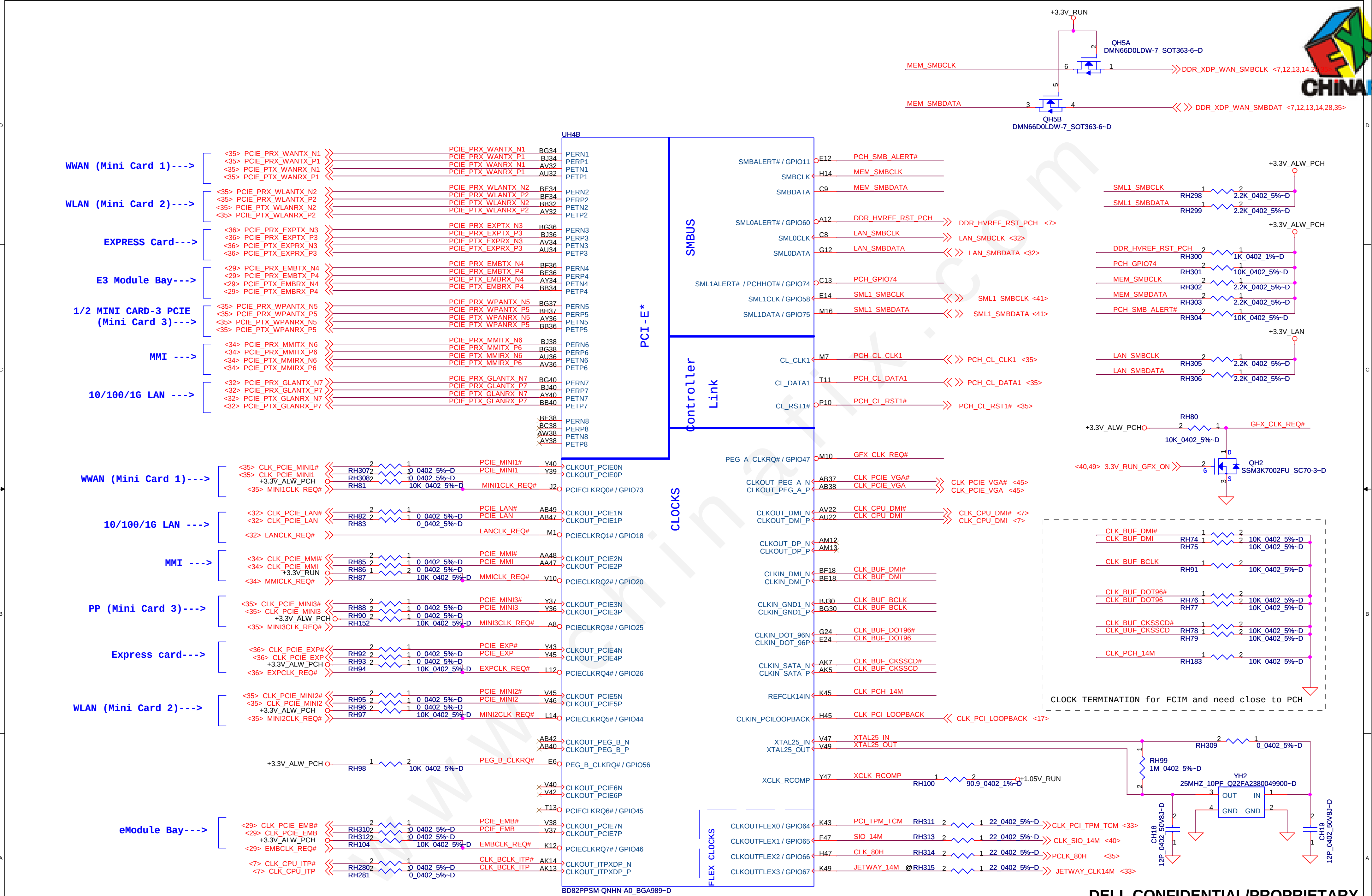
Title: PCH (1/8)

Size | Document Number: LA-7782 | Rev 0.1

Date: Friday, June 10, 2011 | Sheet 14 of 66



PCIE REQ power rail:
suspend: 0 3 4 5 6 7
core: 1 2

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Title	PCH (2/8)
Size / Document Number	LA-7782
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Date:	Friday, June 10, 2011
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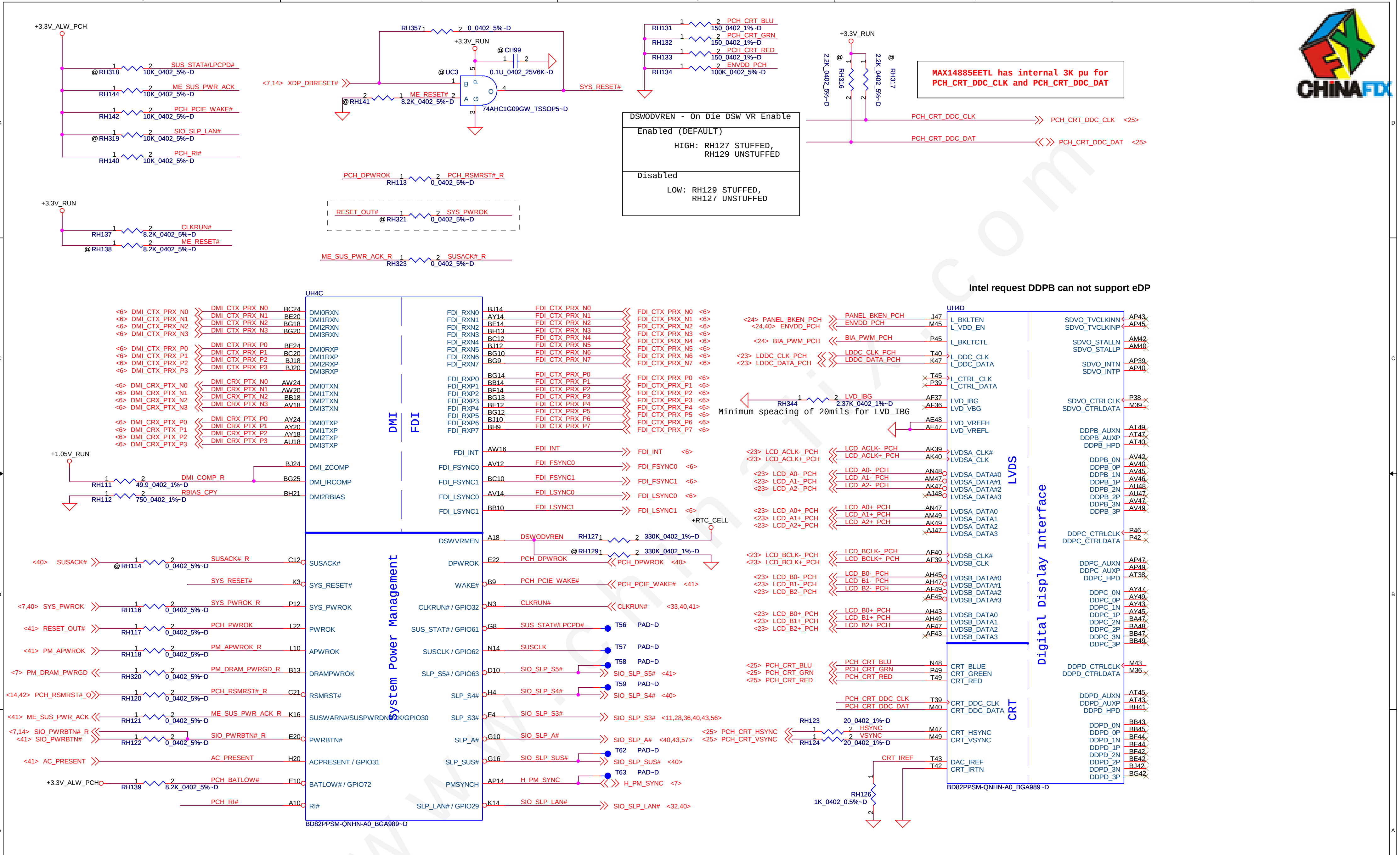

Compal Electronics, Inc.

Title	PCH (3/8)
Size / Document Number	LA-7782
Rev	0.1
Date:	Friday, June 10, 2011
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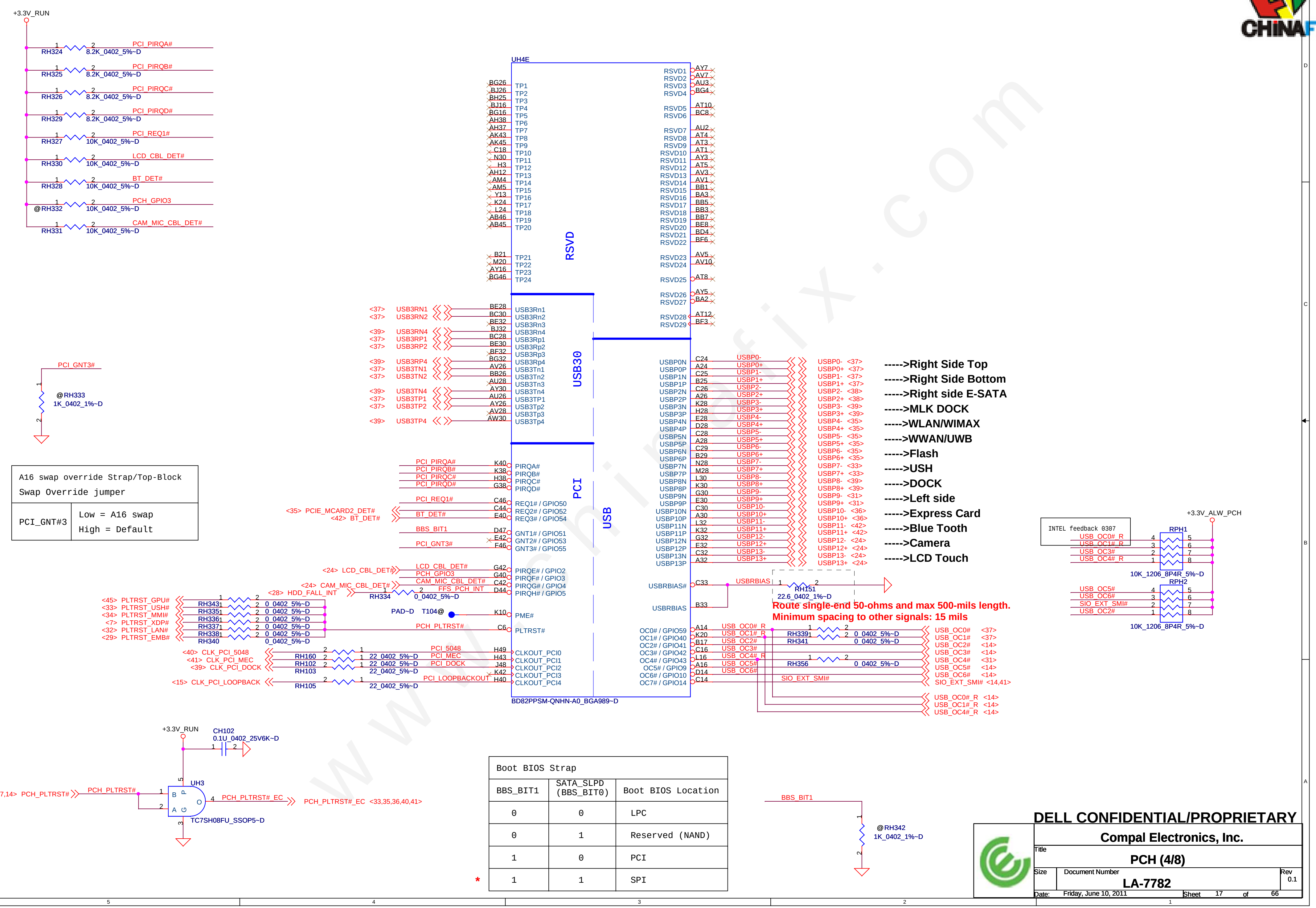

A16 swap override Strap/Top-Block Swap Override jumper	
PCI_GNT#3	Low = A16 swap High = Default

Boot BIOS Strap

BBS_BIT1	SATA_SLPD (BBS_BIT0)	Boot BIOS Location
0	0	LPC
0	1	Reserved (NAND)
1	0	PCI
* 1	1	SPI

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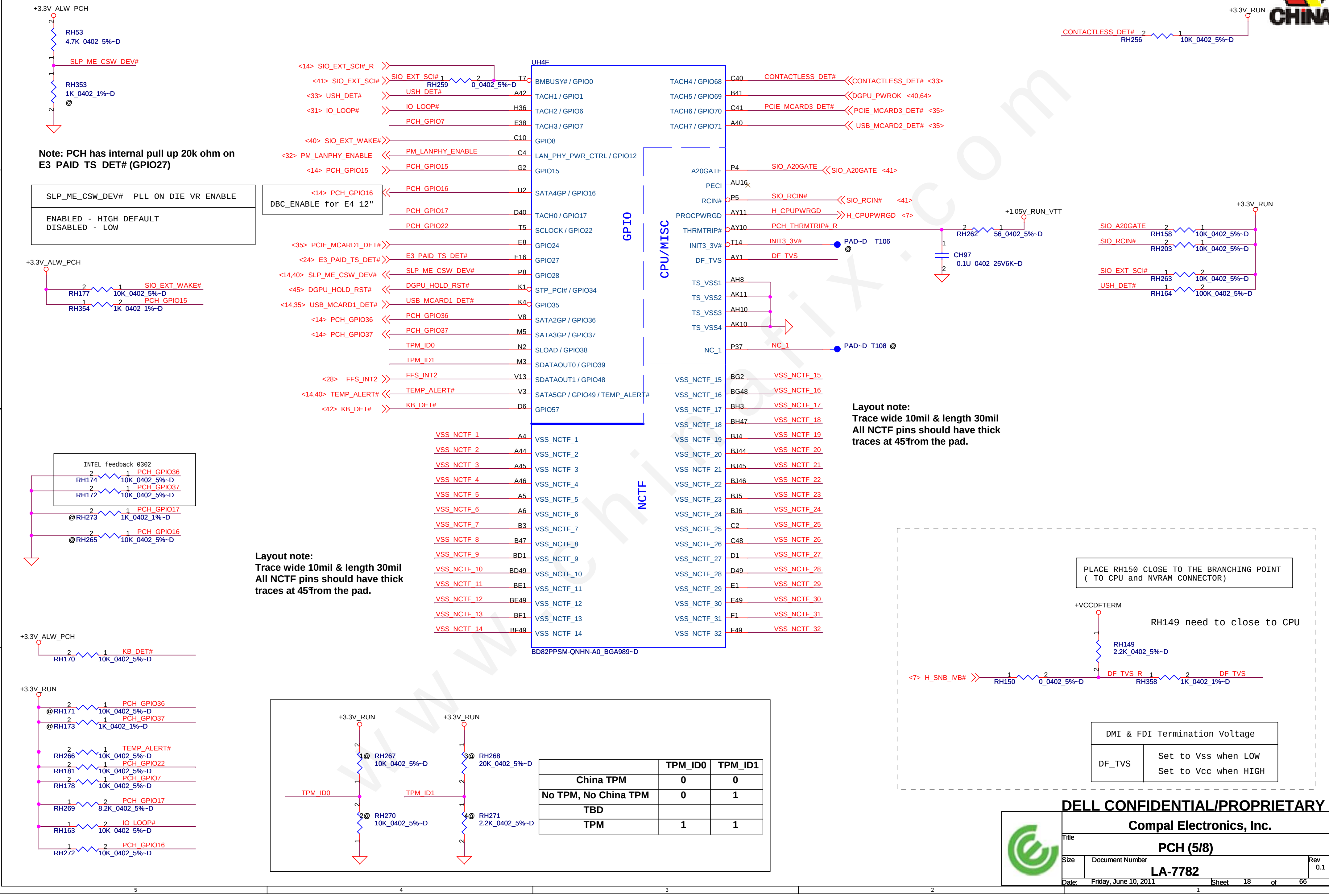
Title	PCH (4/8)	
Size	Document Number: LA-7782	Rev 0.1
Date: Friday, June 10, 2011	Sheet 17 of 66	



Note: PCH has internal pull up 20k ohm on E3_PAID_TS_DET# (GPIO27)

SLP_ME_CSW_DEV#	PLL ON DIE VR ENABLE
ENABLED - HIGH DEFAULT DISABLED - LOW	

DBC_ENABLE for E4 12"

Layout note:
Trace wide 10mil & length 30mil
All NCTF pins should have thick traces at 45°from the pad.

Layout note:
Trace wide 10mil & length 30mil
All NCTF pins should have thick traces at 45°from the pad.

PLACE RH150 CLOSE TO THE BRANCHING POINT (TO CPU and NVRAM CONNECTOR)

RH149 need to close to CPU

	TPM_ID0	TPM_ID1
China TPM	0	0
No TPM, No China TPM	0	1
TBD		
TPM	1	1

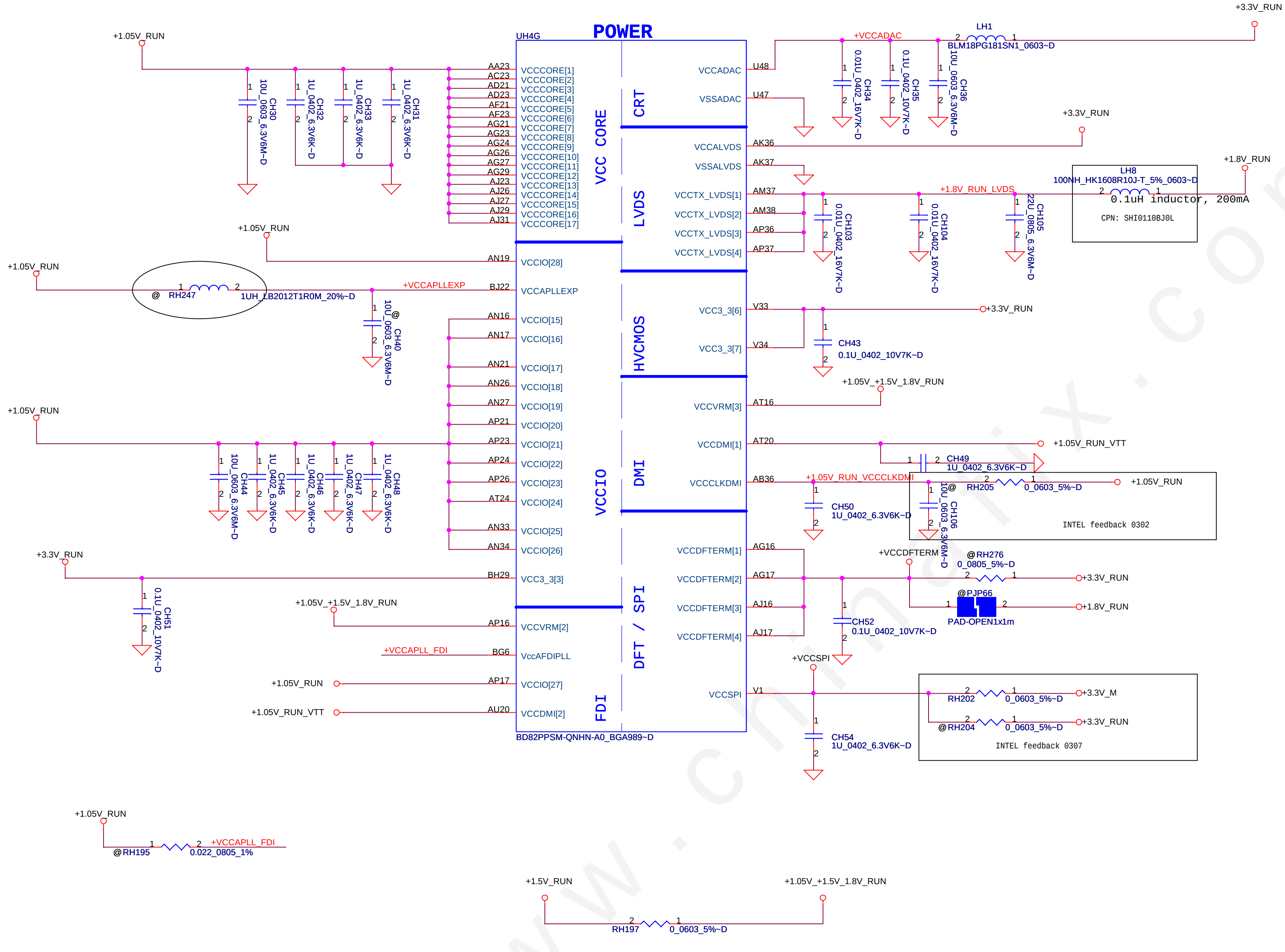
DMI & FDI Termination Voltage	
DF_TVS	Set to Vss when LOW Set to Vcc when HIGH

Compal Electronics, Inc.

Title: PCH (5/8)

Size | Document Number: LA-7782 | Rev 0.1

Date: Friday, June 10, 2011 | Sheet 18 of 66



PCH Power Rail Table

Voltage Rail	Voltage	S0 Iccmax Current (A)
V_PROC_IO	1.05	0.001
V5REF	5	0.001
V5REF_Sus	5	0.001
Vcc3_3	3.3	0.228
VccADAC3	3.3	0.063
VccADPLLA	1.05	0.08
VccADPLLB	1.05	0.08
VccCore	1.05	1.7
VccDMI	1.1	0.047
VccIO	1.05	3.711
VccASW	1.05	0.903
VccSPI	3.3	0.01
VccDSW3_3	3.3	0.001
VCCDFTERM	1.8	0.002
VccRTC	3.3	2 (mA)
VccSus3_3	3.3	0.095
VccSusHDA	3.3	0.01
VccVRM	1.5	0.167
VccClkDMI	1.05	0.07
VccSSC	1.05	0.095
VccDIFFCLKN	1.05	0.055
VccALVDS	3.3	0.001
VccTX_LVDS	1.8	0.04

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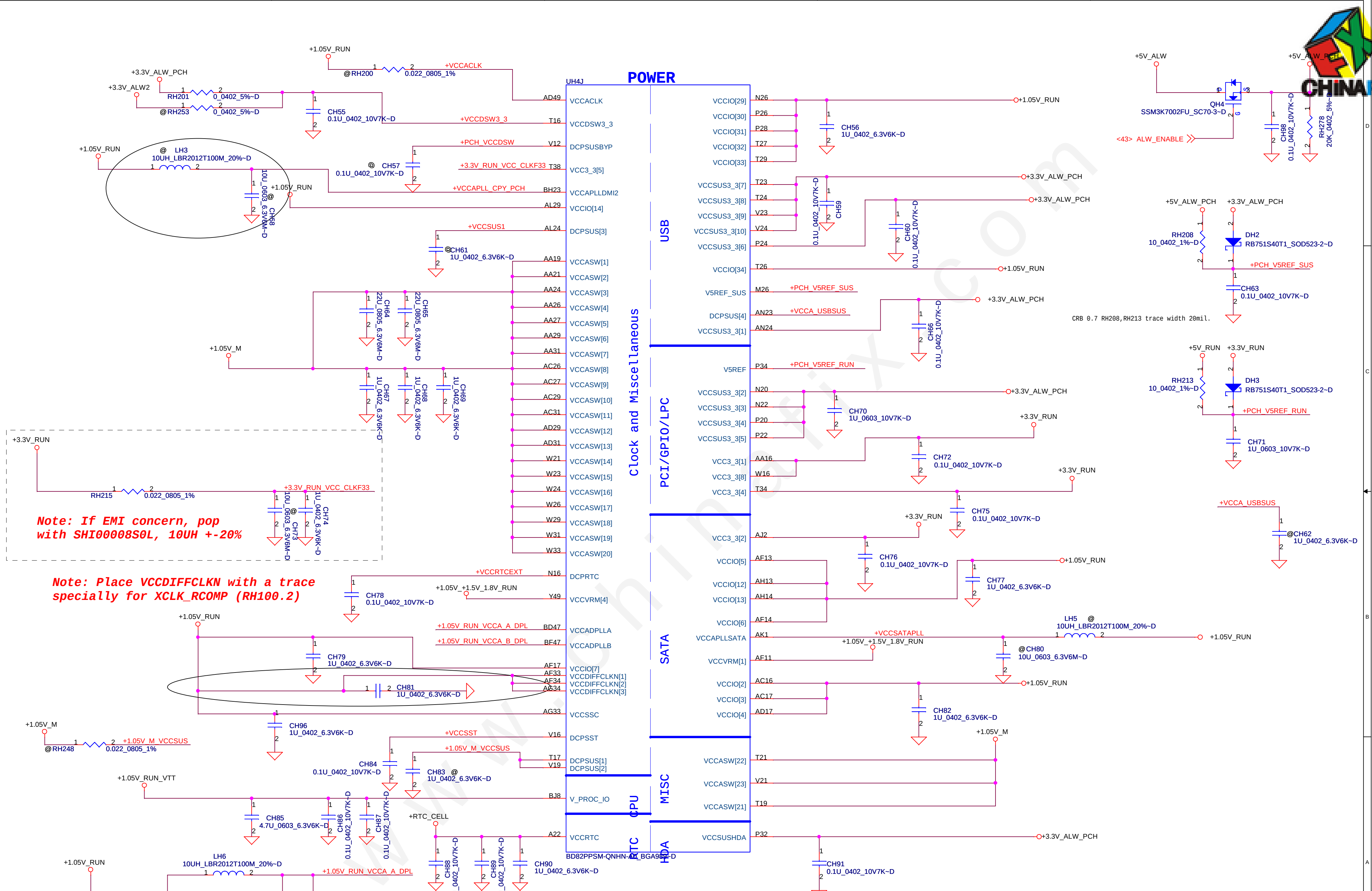
Title: PCH (6/8)

Size | Document Number: LA-7782 | Rev 0.1

Date: Tuesday, June 07, 2011 | Sheet 19 of 66



Compal Electronics, Inc.	
Title	PCH (7/8)
Size / Document Number	LA-7782
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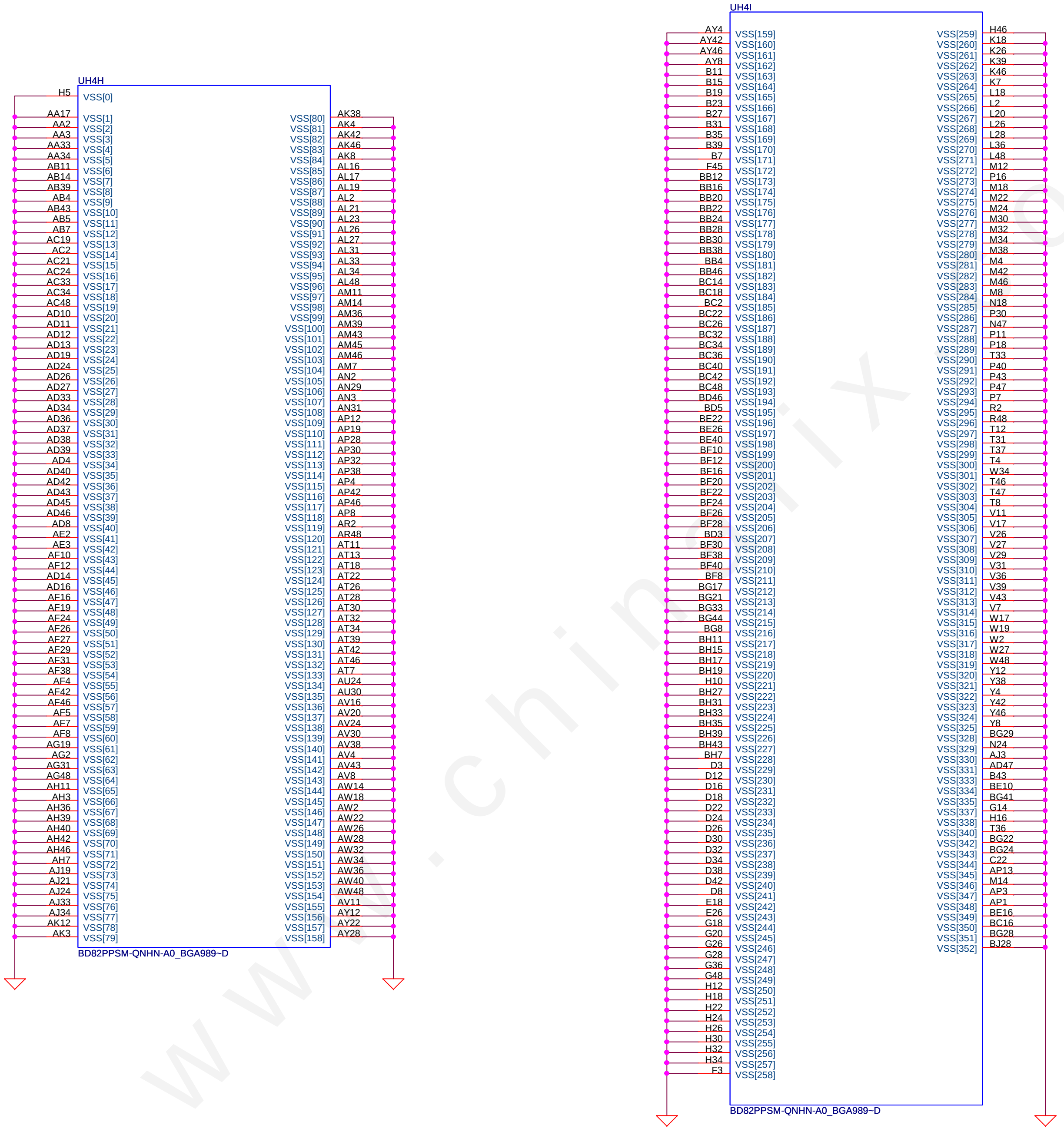

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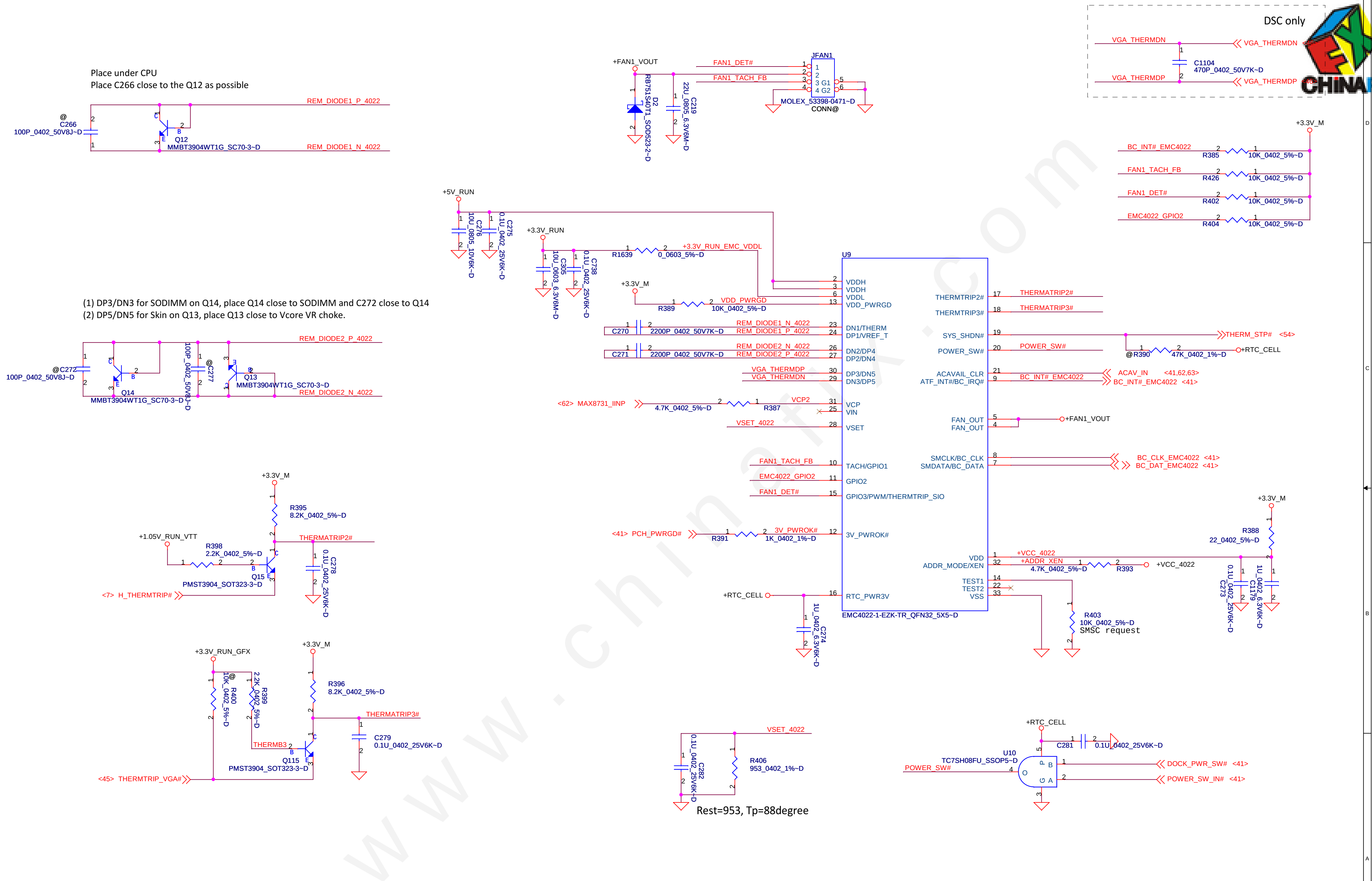
Title: PCH (8/8)

Size | Document Number: LA-7782 | Rev 0.1

Date: Monday, May 23, 2011 | Sheet 21 of 66



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Title	FAN & Thermal Sensor	
Size	Document Number: LA-7782	Rev 0.1
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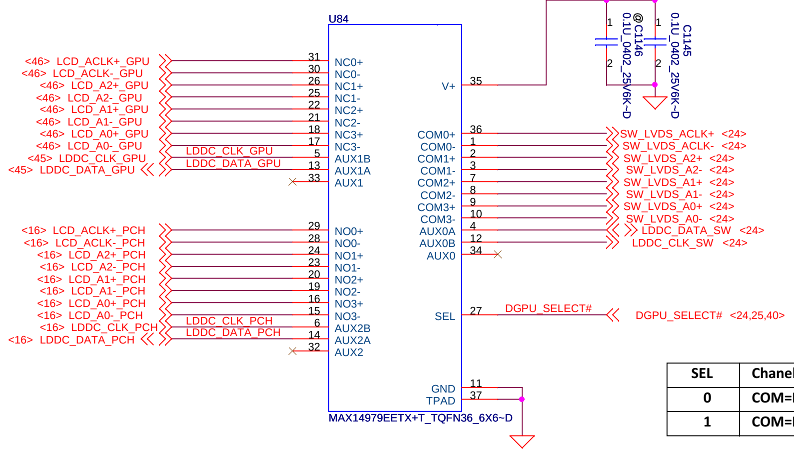
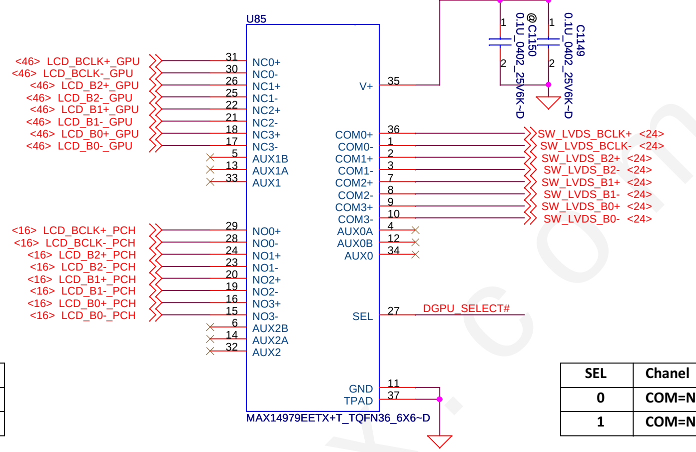
Channel A

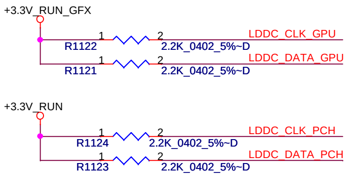


SEL	Chanel	Source
0	COM=NC	GPU
1	COM=NO	PCH

Channel B



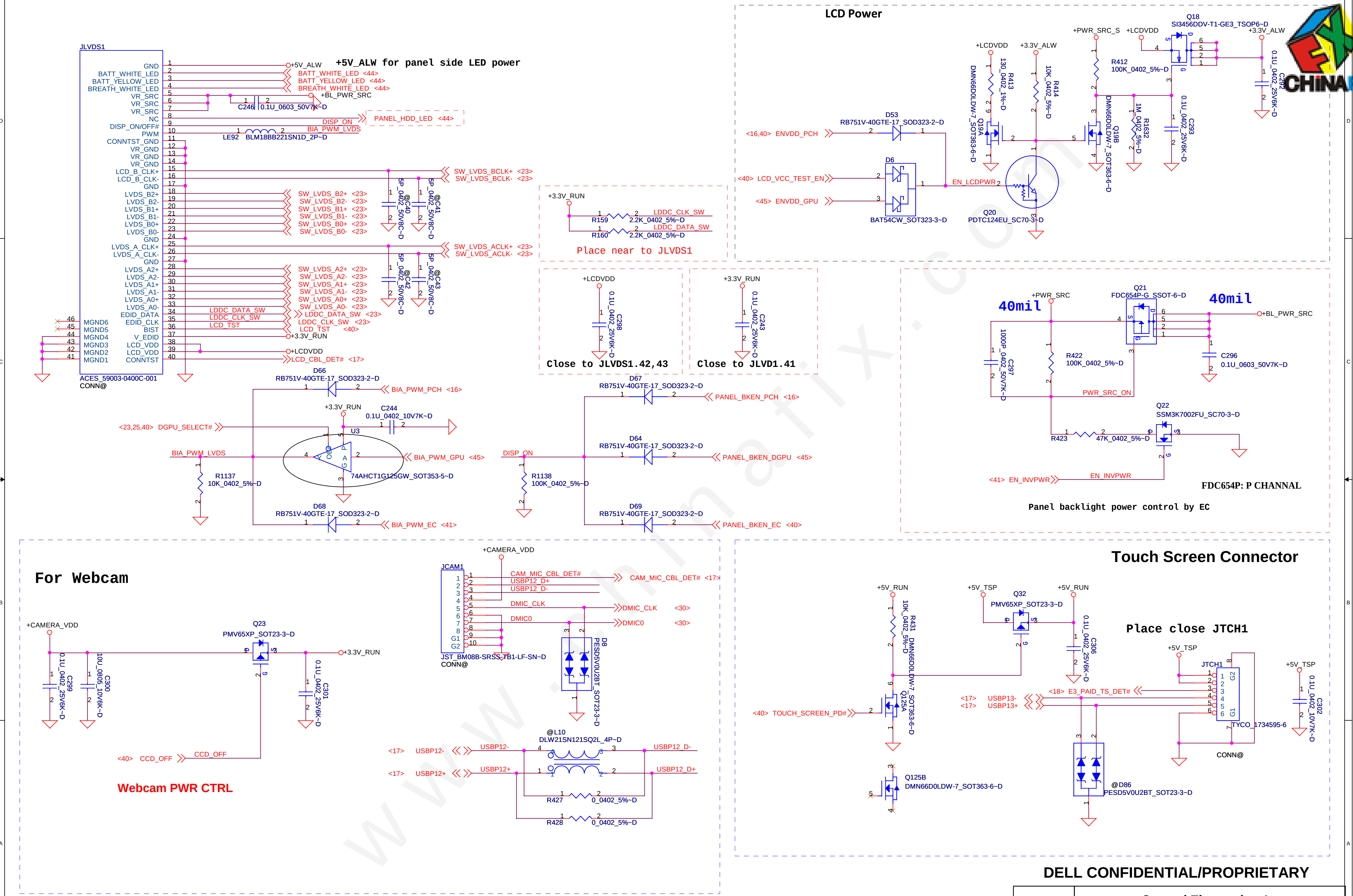
SEL	Chanel	Source
0	COM=NC	GPU
1	COM=NO	PCH



Compal Electronics, Inc.

Title: LVDS SW

Size | Document Number: LA-7782 | Rev 0.1



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Compal Electronics, Inc.	
Title	eDP & CAM &TS Conn
Size	Document Number: LA-7782
Rev	0.1
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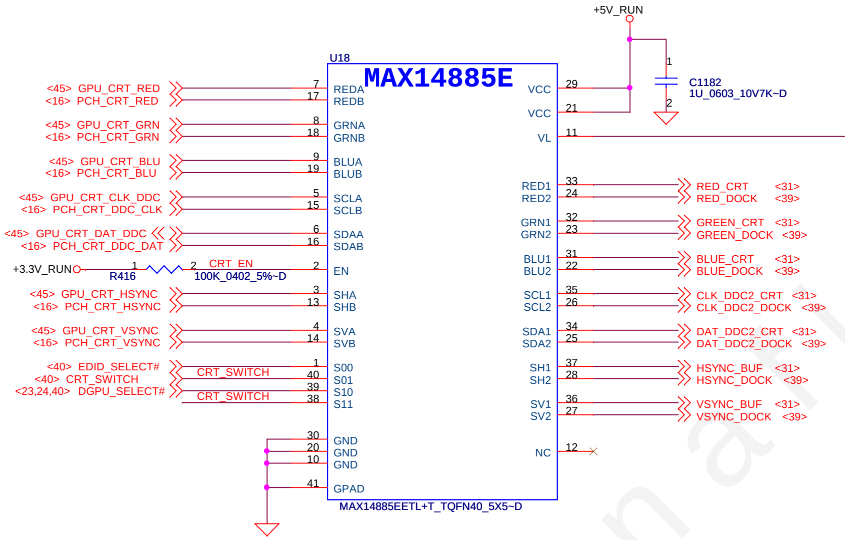
Channel A --> GPU

Channel B --> PCH



Port 1 --> MB Port RGB

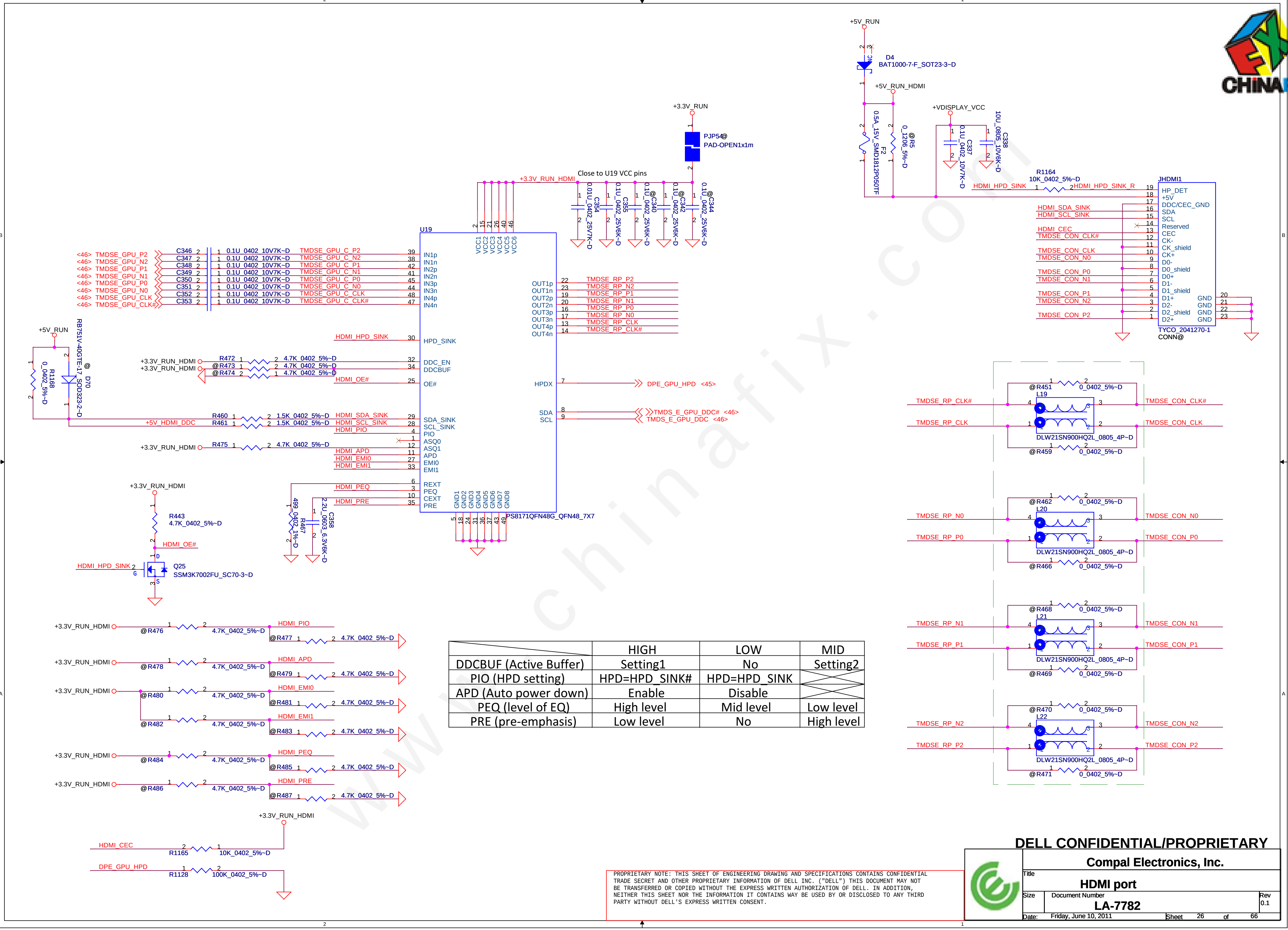
Port 2 --> Docking Port RGB

CRT_SWITCH	0	0	1	1
DGPU_SELECT#	0	1	0	1
EDID_SELECT#	0	1	0	1
	A --> Port 1	B --> Port 1	A --> Port 2	B --> Port 2

Compal Electronics, Inc.

Title: CRT/Video switch

Size | Document Number: LA-7782 | Rev 0.1



	HIGH	LOW	MID
DDCBUF (Active Buffer)	Setting1	No	Setting2
PIO (HPD setting)	HPD=HPD_SINK#	HPD=HPD_SINK	
APD (Auto power down)	Enable	Disable	
PEQ (level of EQ)	High level	Mid level	Low level
PRE (pre-emphasis)	Low level	No	High level

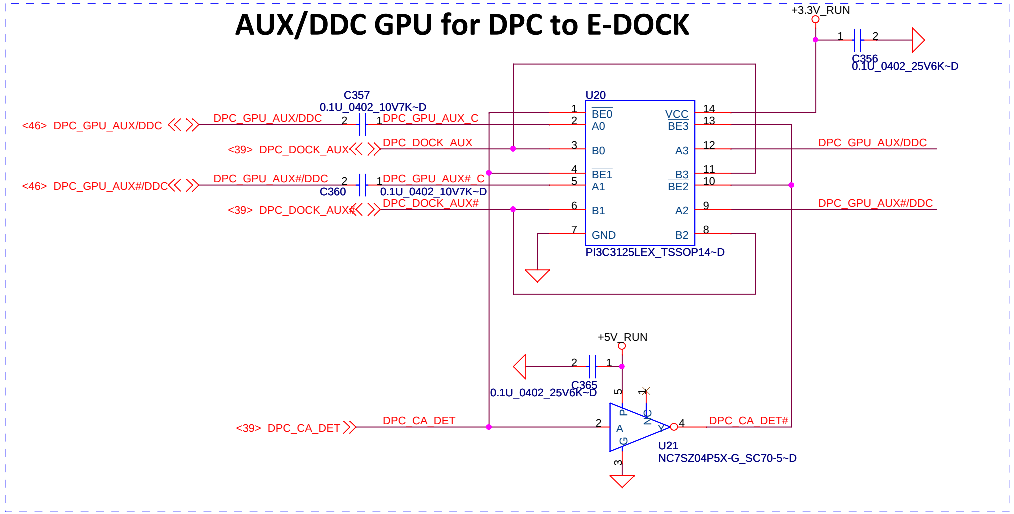
Compal Electronics, Inc.

Title: HDMI port

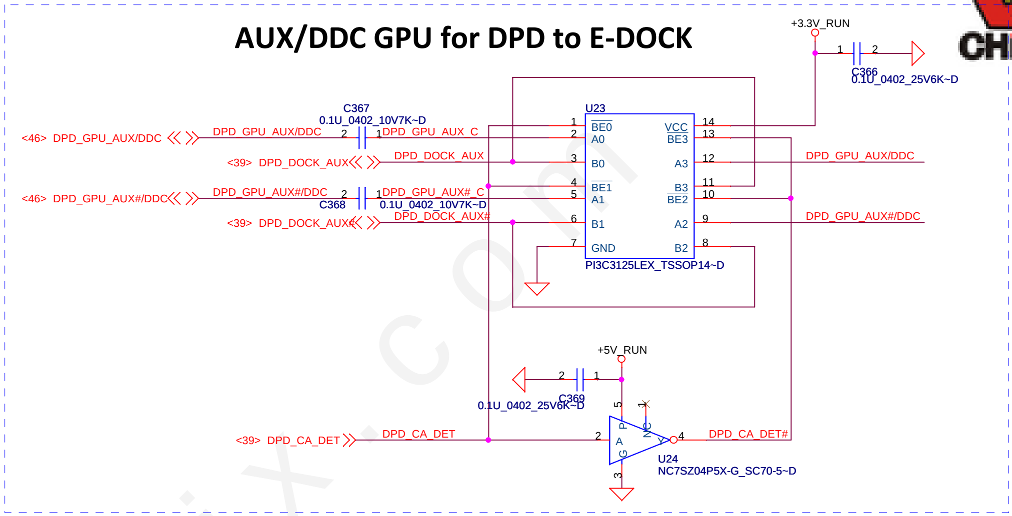
Size | Document Number: LA-7782 | Rev 0.1

Date: Friday, June 10, 2011

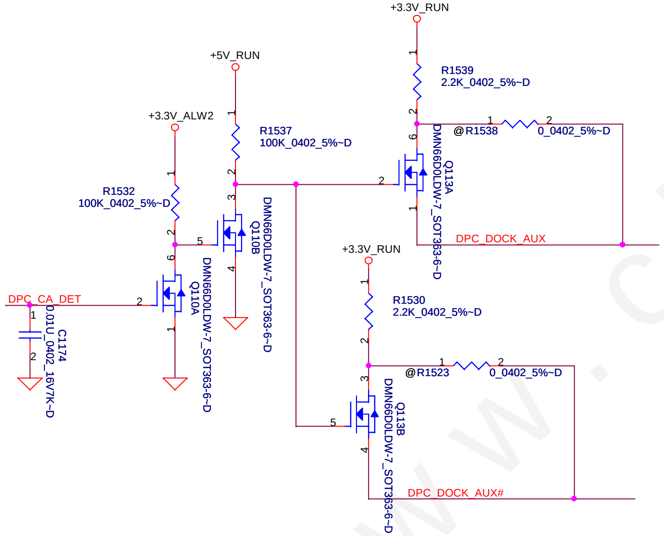
AUX/DDC GPU for DPC to E-DOCK

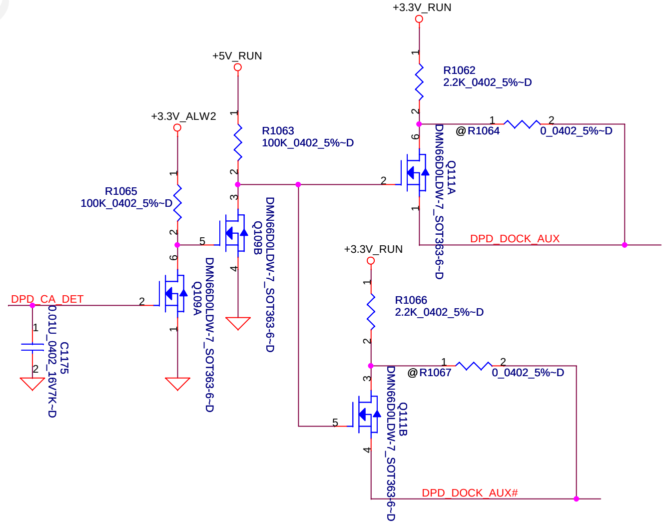


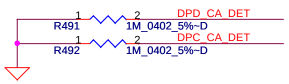
AUX/DDC GPU for DPD to E-DOCK



There is a new die for PI3C3125. Sample availabe on May.

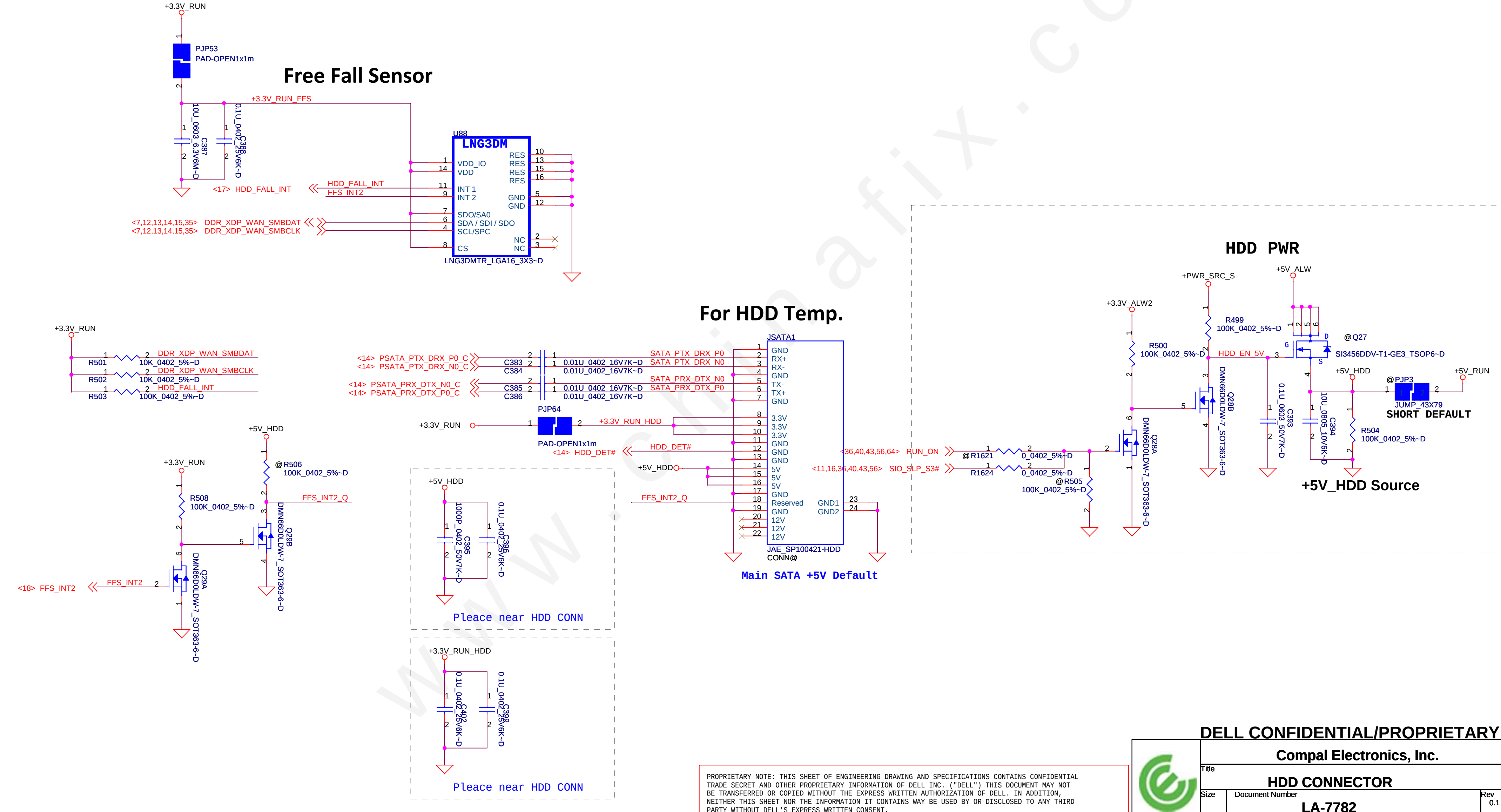






DELL CONFIDENTIAL/PROPRIETARY

Compal Electronics, Inc.	
Title	DP AUX SW
Size / Document Number	LA-7782
Rev	0.1
Date:	Friday, June 10, 2011
Sheet	27 of 66



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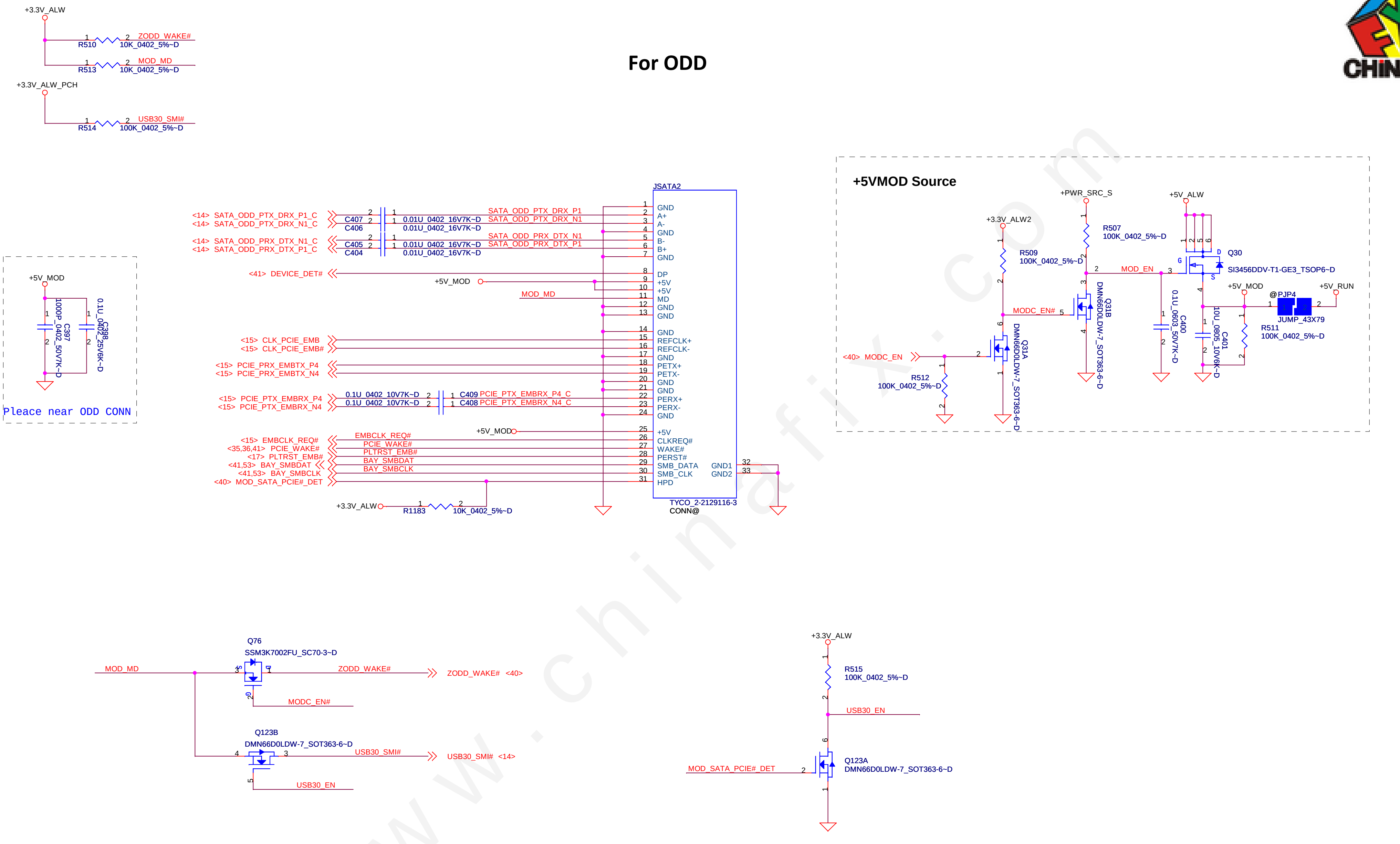
Compal Electronics, Inc.

Title	HDD CONNECTOR
Size / Document Number	LA-7782
Rev	0.1
Date	Friday, June 10, 2011
Sheet	28 of 66

For ODD



Compal Electronics, Inc.

Title	ODD CONNECTOR
Size / Document Number	LA-7782
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Date:	Friday, June 10, 2011
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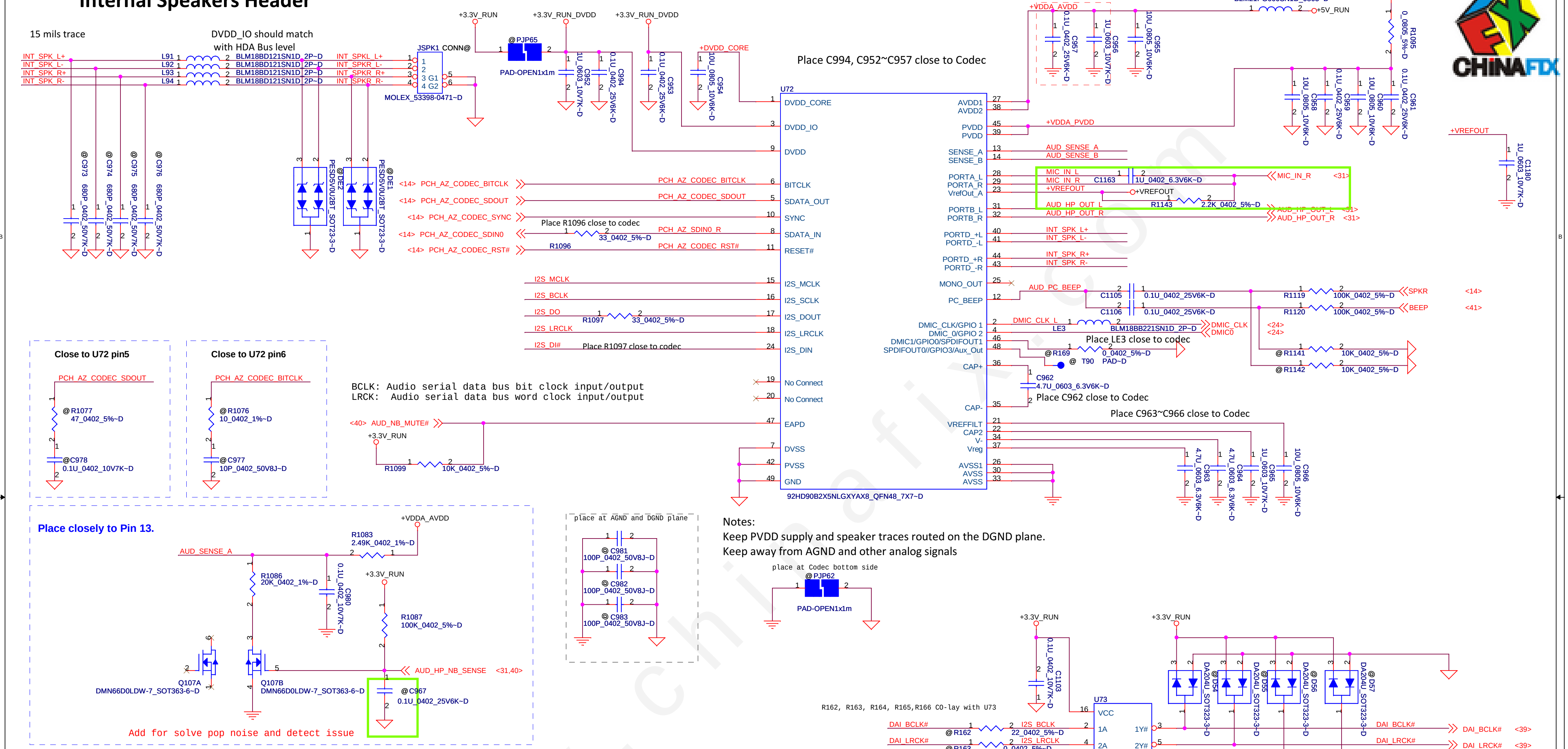
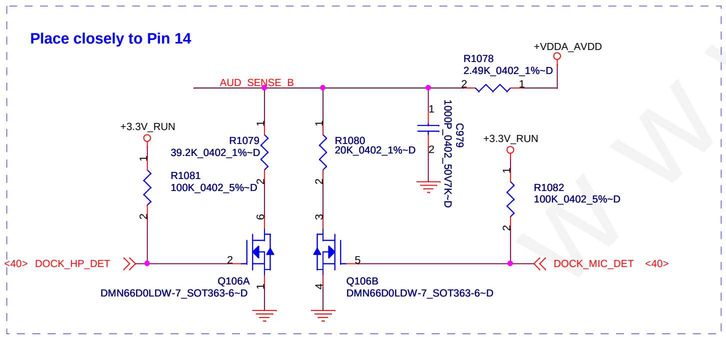
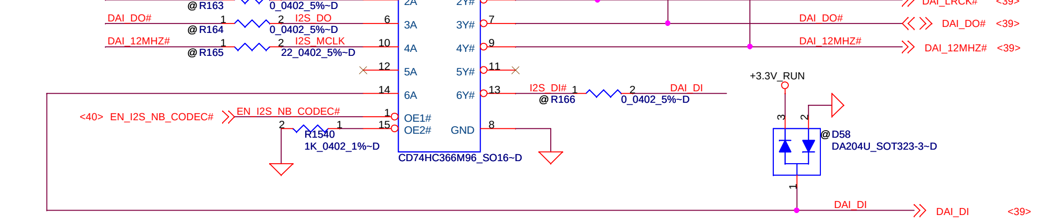
Internal Speakers Header







Resistor	SENSE_A	SENSE_B
39.2K	PORT A	PORT E
20K	PORT B	PORT F
10K	NA	DMIC0
5.11K	SPDIFOUT0	SPDIFOUT1 (DMIC1)
2.49K	Pull-up to AVDD	

PORT A	External MIC
PORT B	HeadPhone Out
PORT C	Dock Audio
PORT D	Internal SPK

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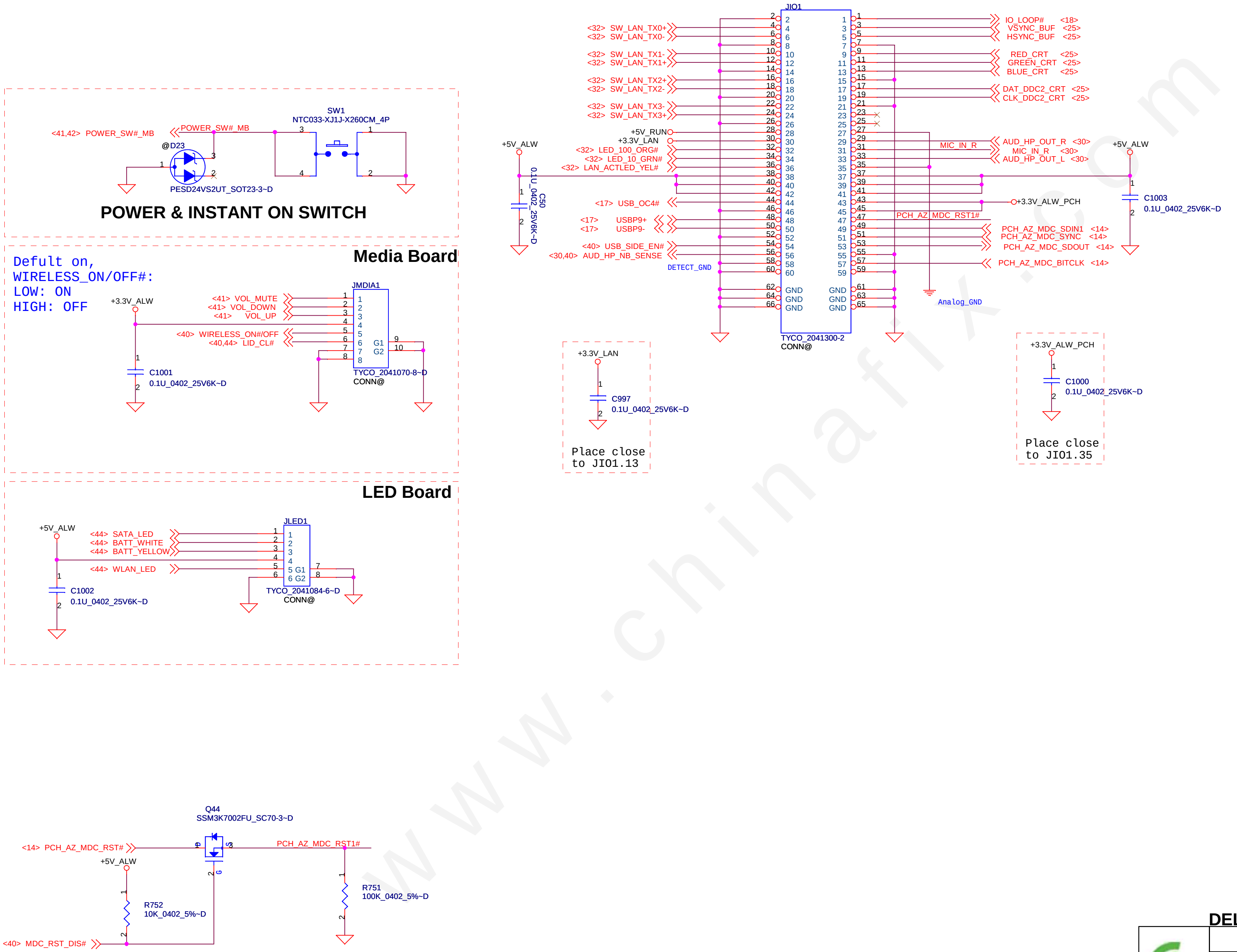
Compal Electronics, Inc.

Title: Azalia (HD) Codec

Size | Document Number: LA-7782 | Rev 0.1

I/O board CONN.

Change to TYCO_2041300-2_60P-T and Horizonal reverse to SSI

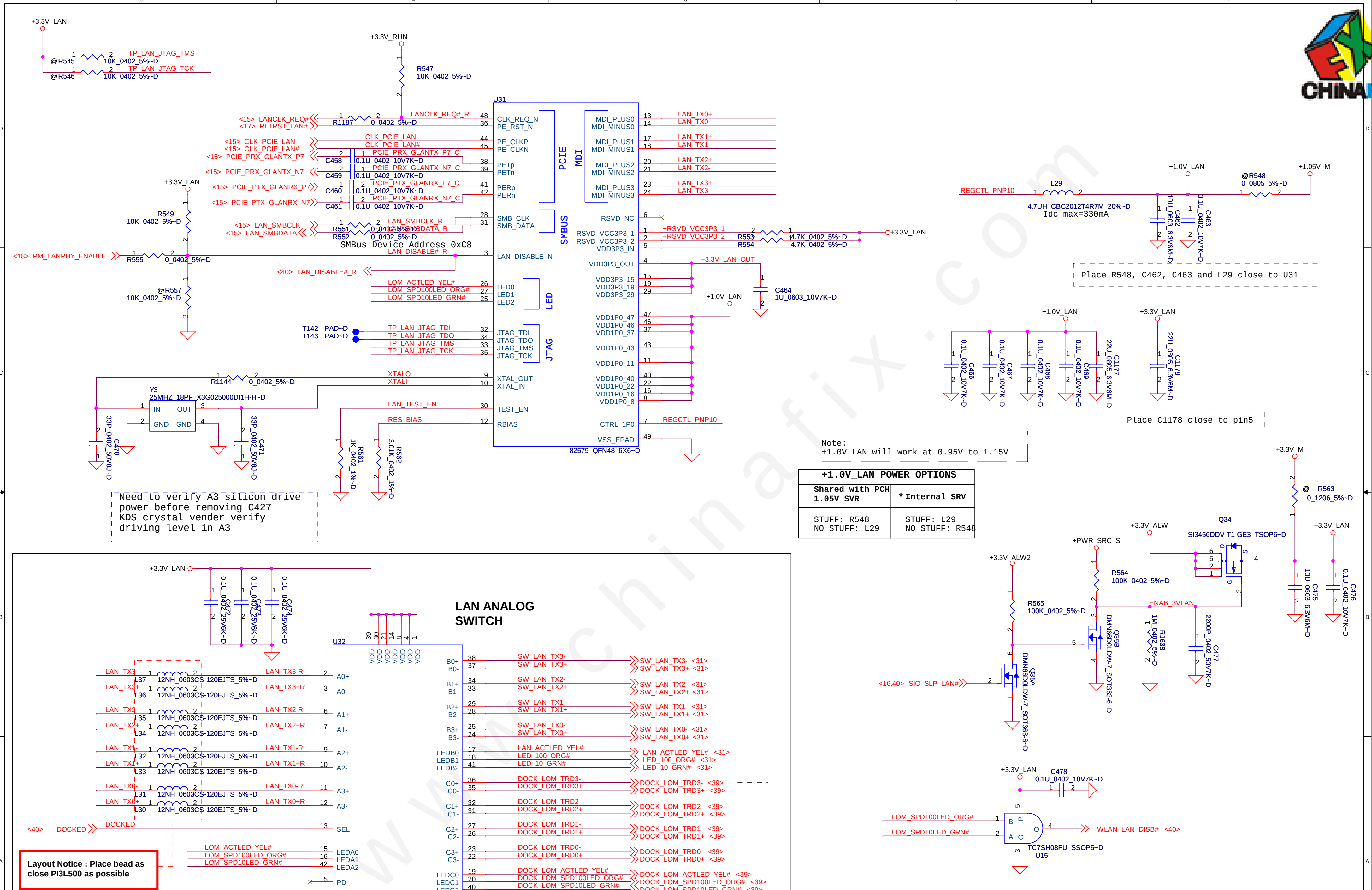


Compal Electronics, Inc.

Title: PWR SW/Sub-board Connector

Size | Document Number: LA-7782 | Rev 0.1

Date: Friday, June 10, 2011 | Sheet 31 of 66

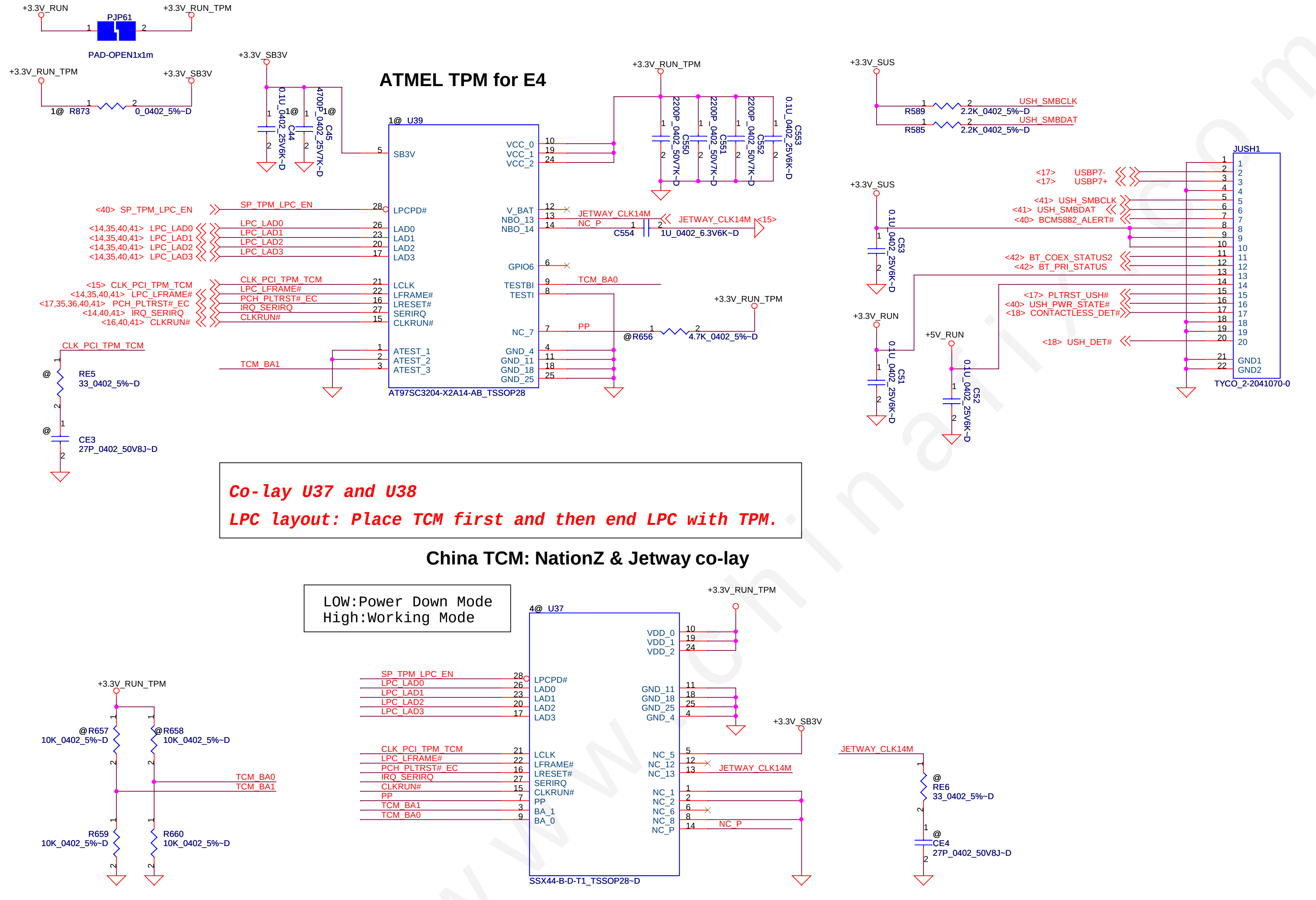


Compal Electronics, Inc.

Title: Intel 82579 (Hanksville) / LAN SW

Size | Document Number: LA-7782 | Rev 0.1

Date: Friday, June 10, 2011



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Compal Electronics, Inc.

Title	USH conn/TPM
Size / Document Number	LA-7782
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Date:	Friday, June 10, 2011
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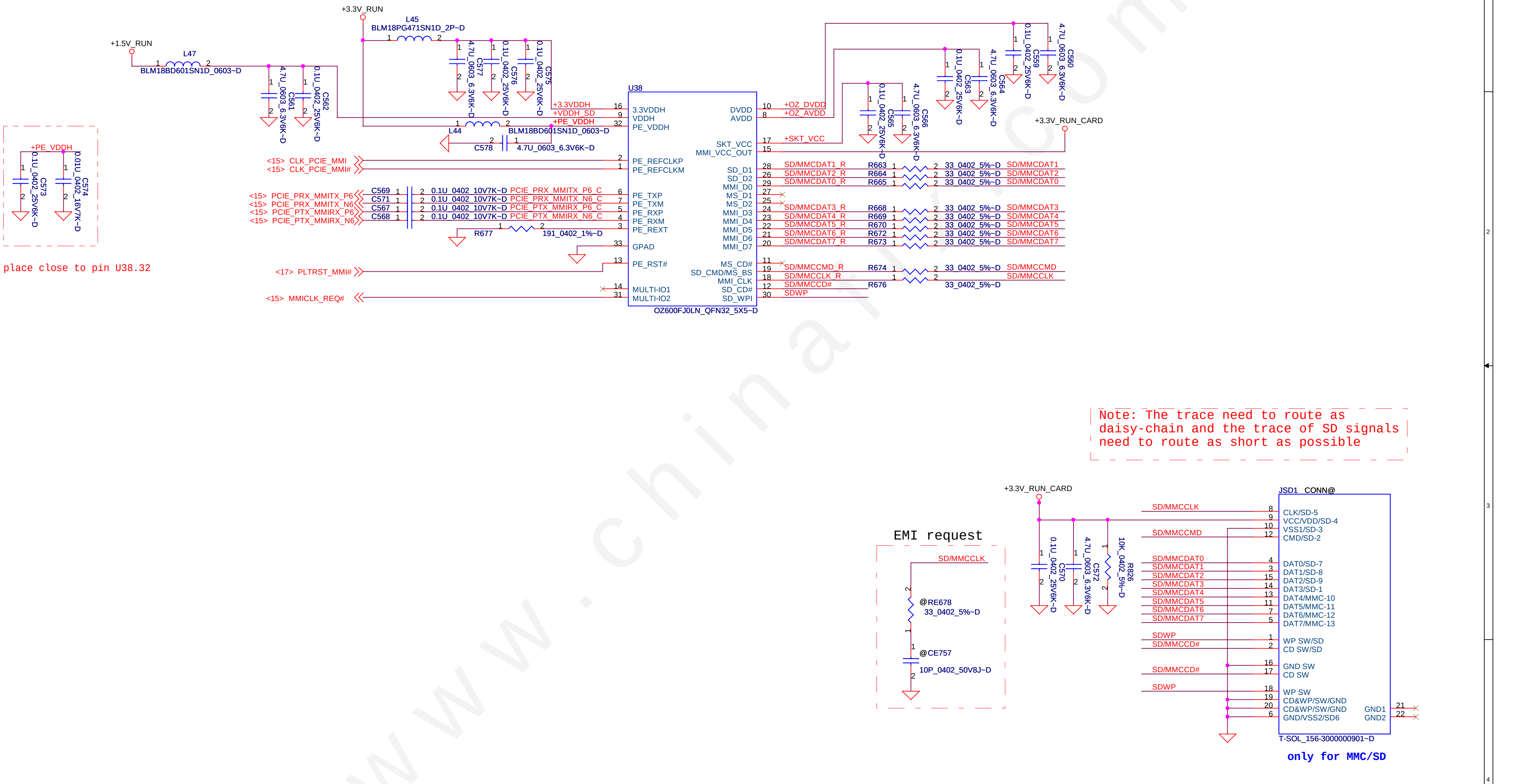

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Compal Electronics, Inc.

Title	Card Reader OZ600FJ0
Size / Document Number	LA-7782
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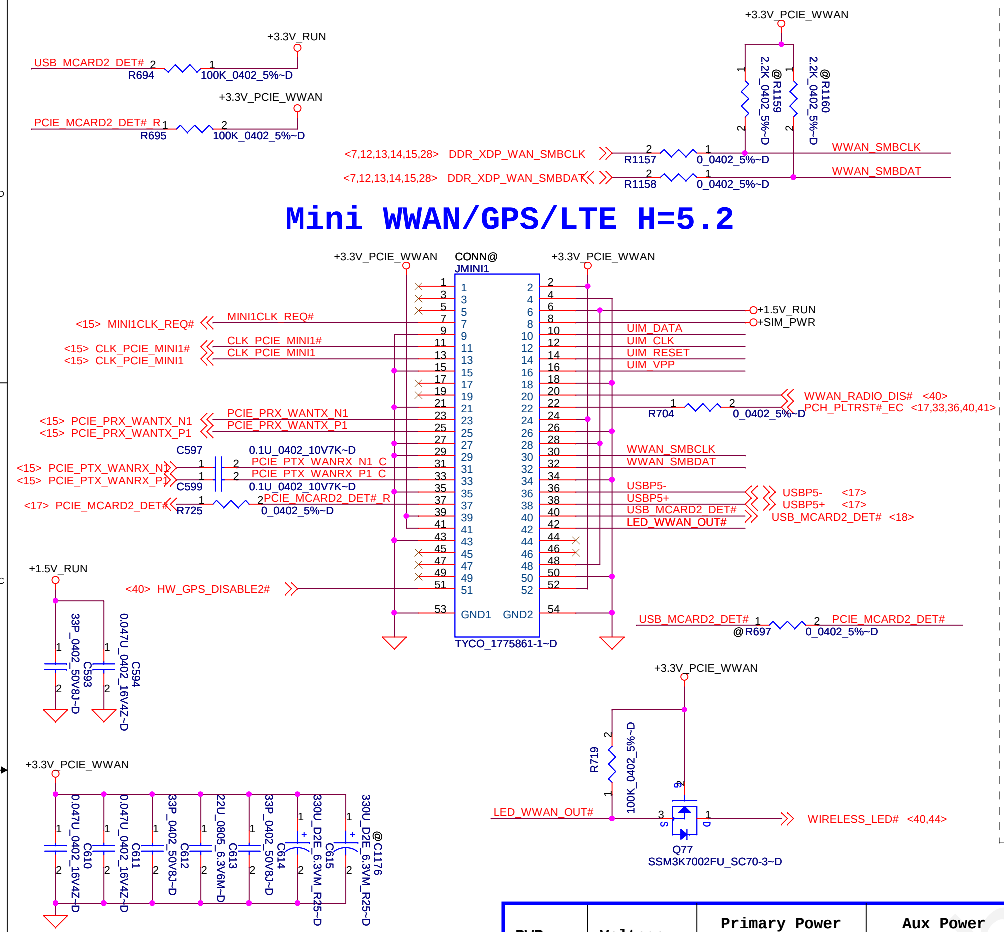
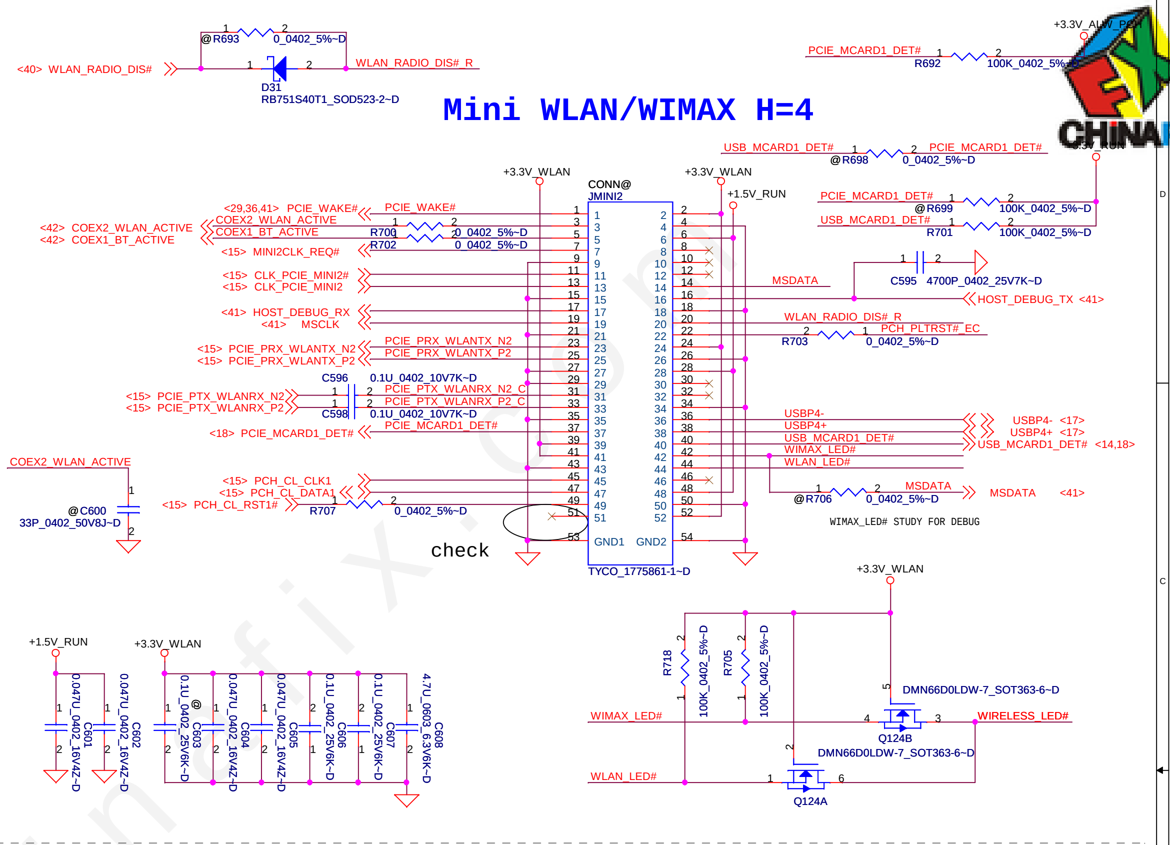
Mini WWAN/GPS/LTE H=5.2

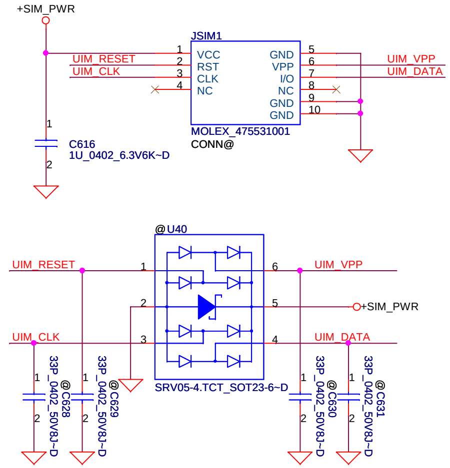


Mini WLAN/WIMAX H=4

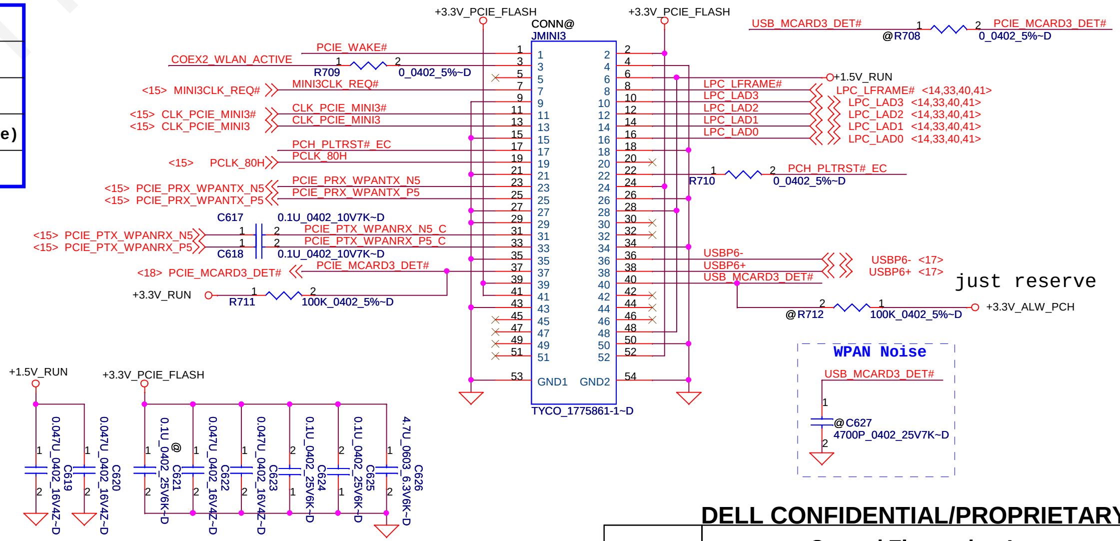


PWR Rail	Voltage Tolerance	Primary Power		Aux Power
		Peak	Normal	Normal
+3.3V	+-9%	1000	750	
+3.3Vaux	+-9%	330	250	250 (Wake enable) 5 (Not wake enable)
+1.5V	+-5%	500	375	NA

SIM Card Push-Push



1/2 Minicard Pink Pather/60GHz Card H=4



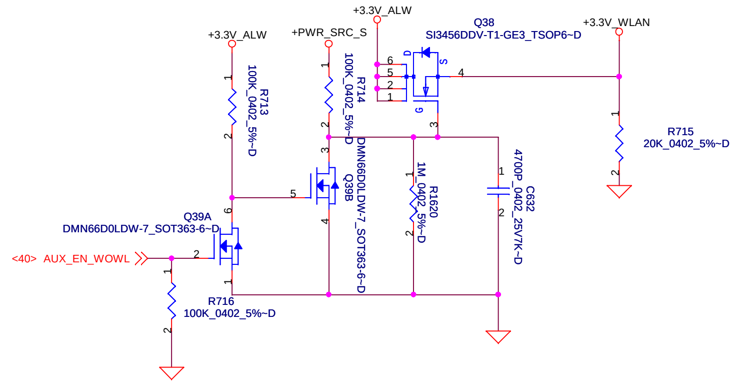
Compal Electronics, Inc.

Title: Mini Card

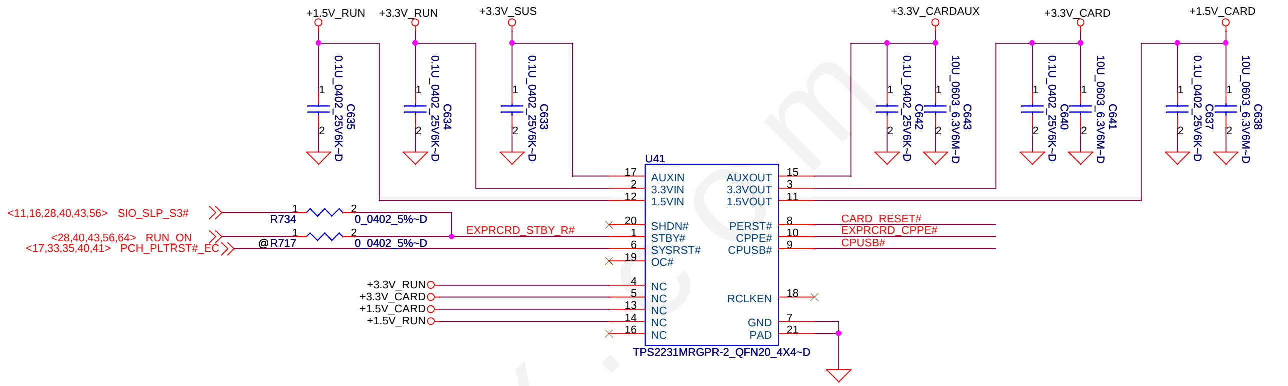
Size | Document Number: LA-7782 | Rev 0.1

Date: Friday, June 10, 2011 | Sheet 35 of 66

Power Control for Mini card2

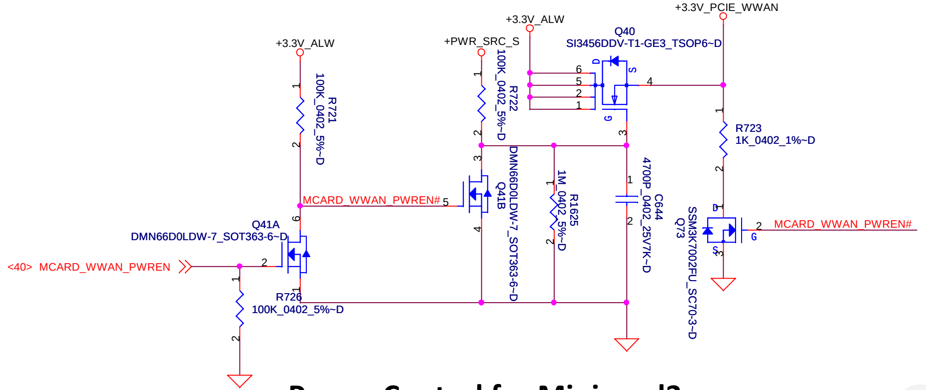


Express Card PWR S/W

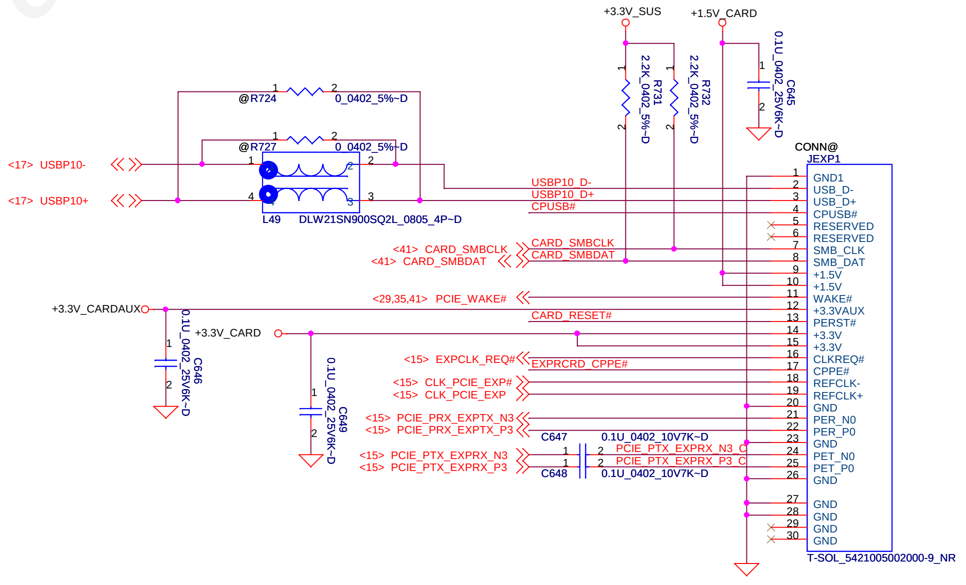


Note: Add connection on pin4, pin5, pin 13 and pin14 to support GMT 2nd source part

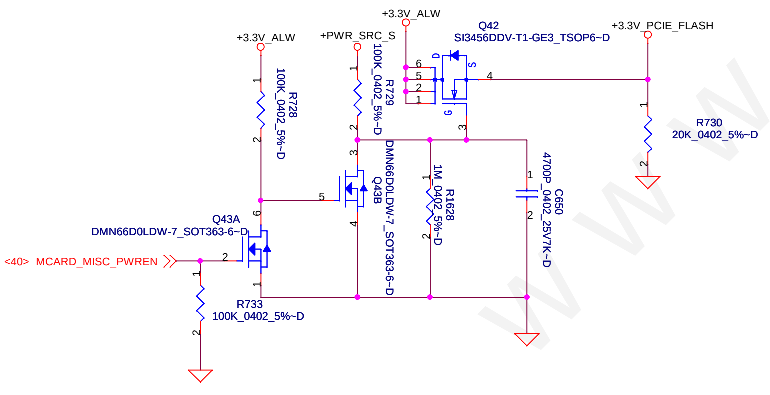
Power Control for Mini card1



Express Card Conn.

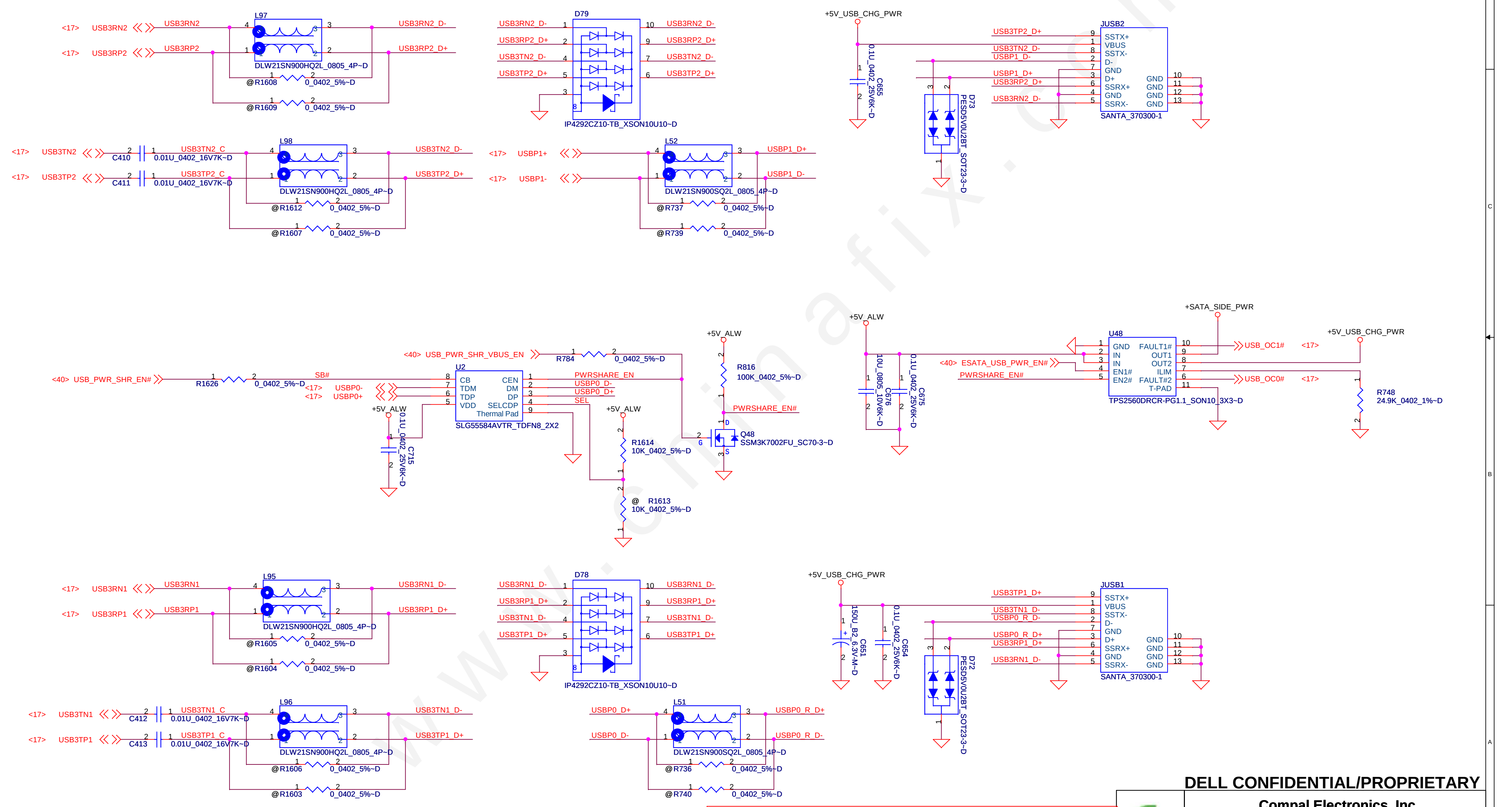


Power Control for Mini card3



Compal Electronics, Inc.

Title	PCIE-SATA SW / PCIE PWR	
Size	Document Number LA-7782	Rev 0.1
Date: Friday, June 10, 2011	Sheet 36 of 66	



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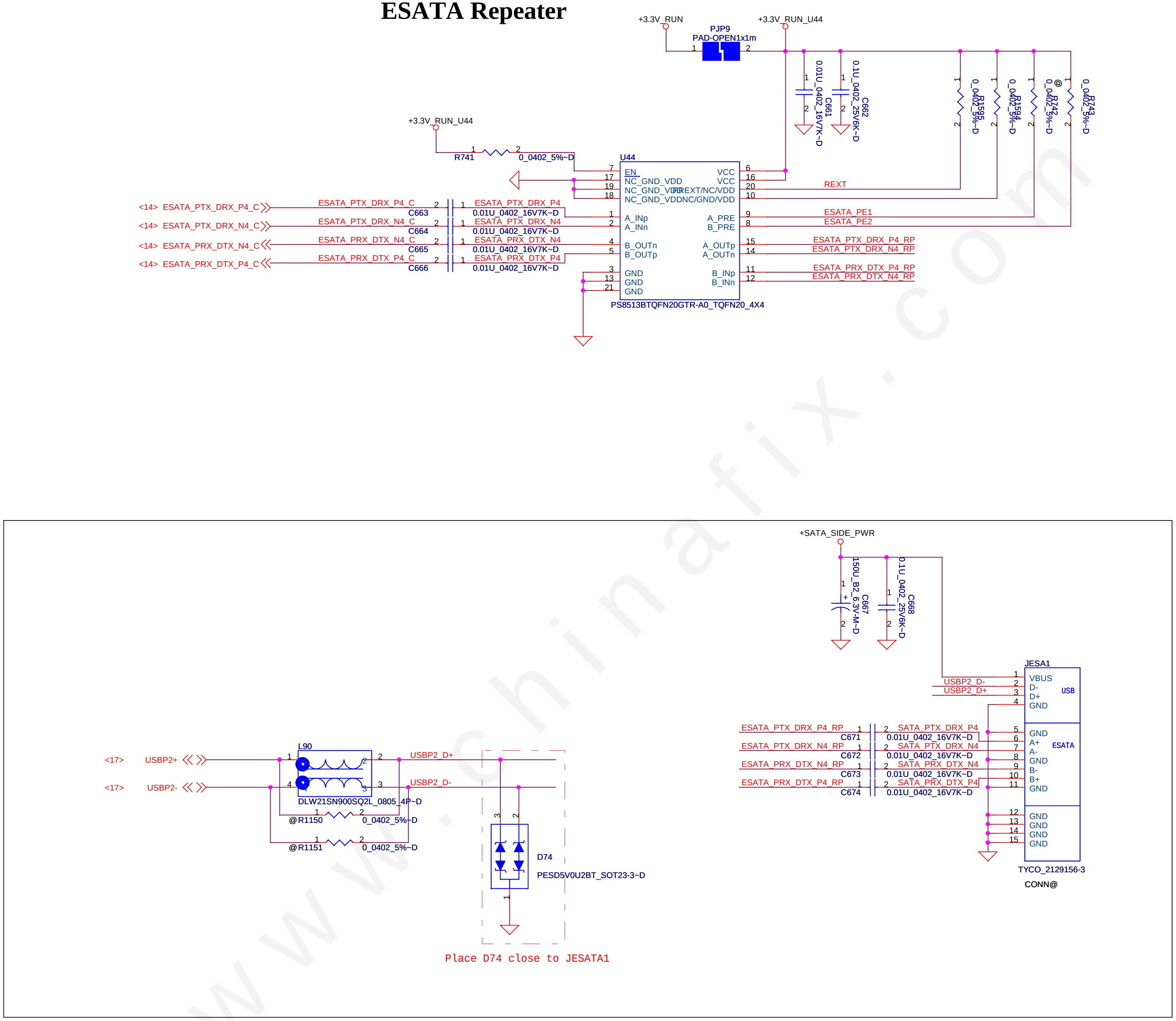
Compal Electronics, Inc.

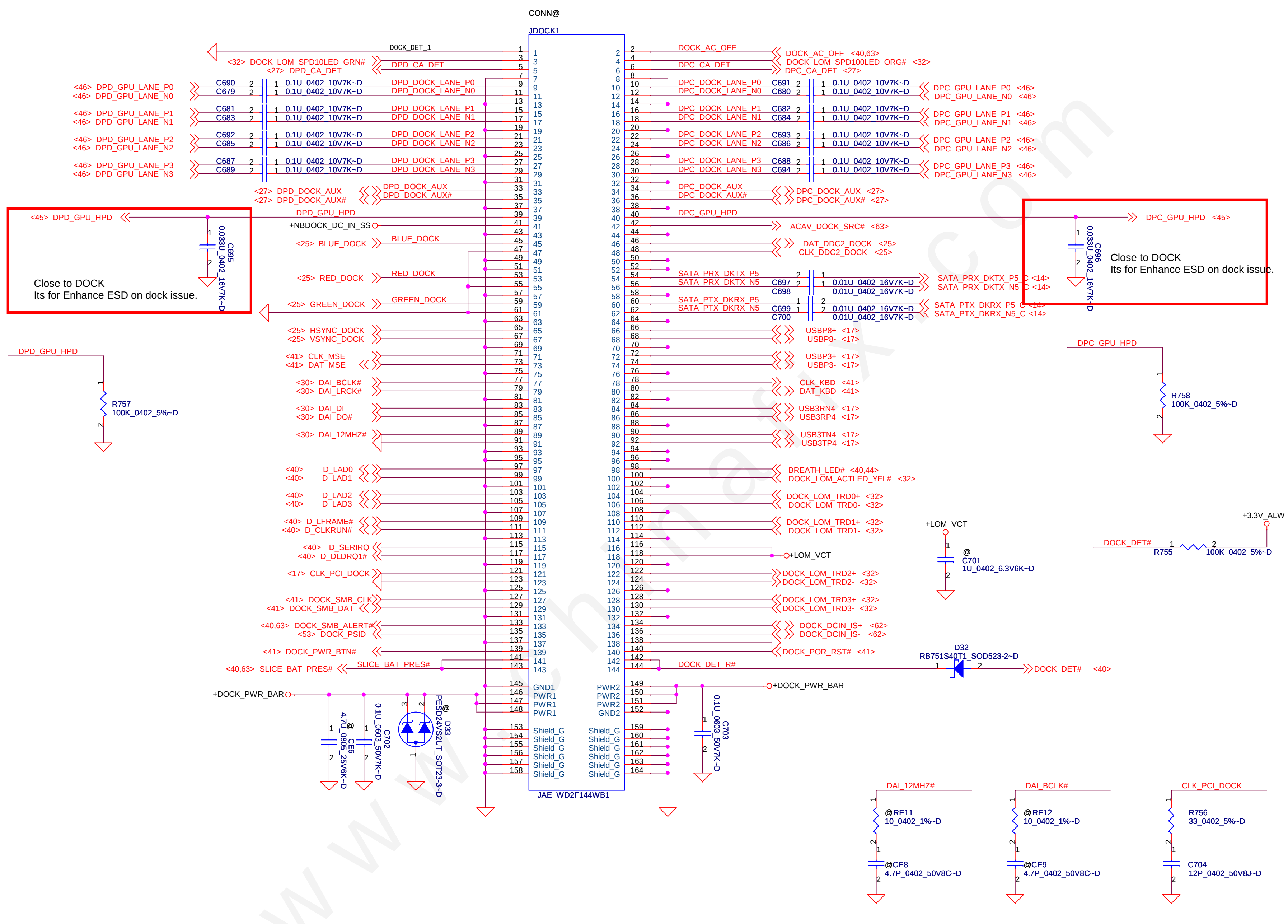
Title	USB x2	
Size	Document Number: LA-7782	Rev 0.1
Date: Friday, June 10, 2011	Sheet 37 of 66	

ESATA Repeater



Compal Electronics, Inc.

Title	USB/ESATA/IO/MDC	
Size	Document Number LA-7782	Rev 0.1
Date: Friday, June 10, 2011	Sheet 38 of 66	

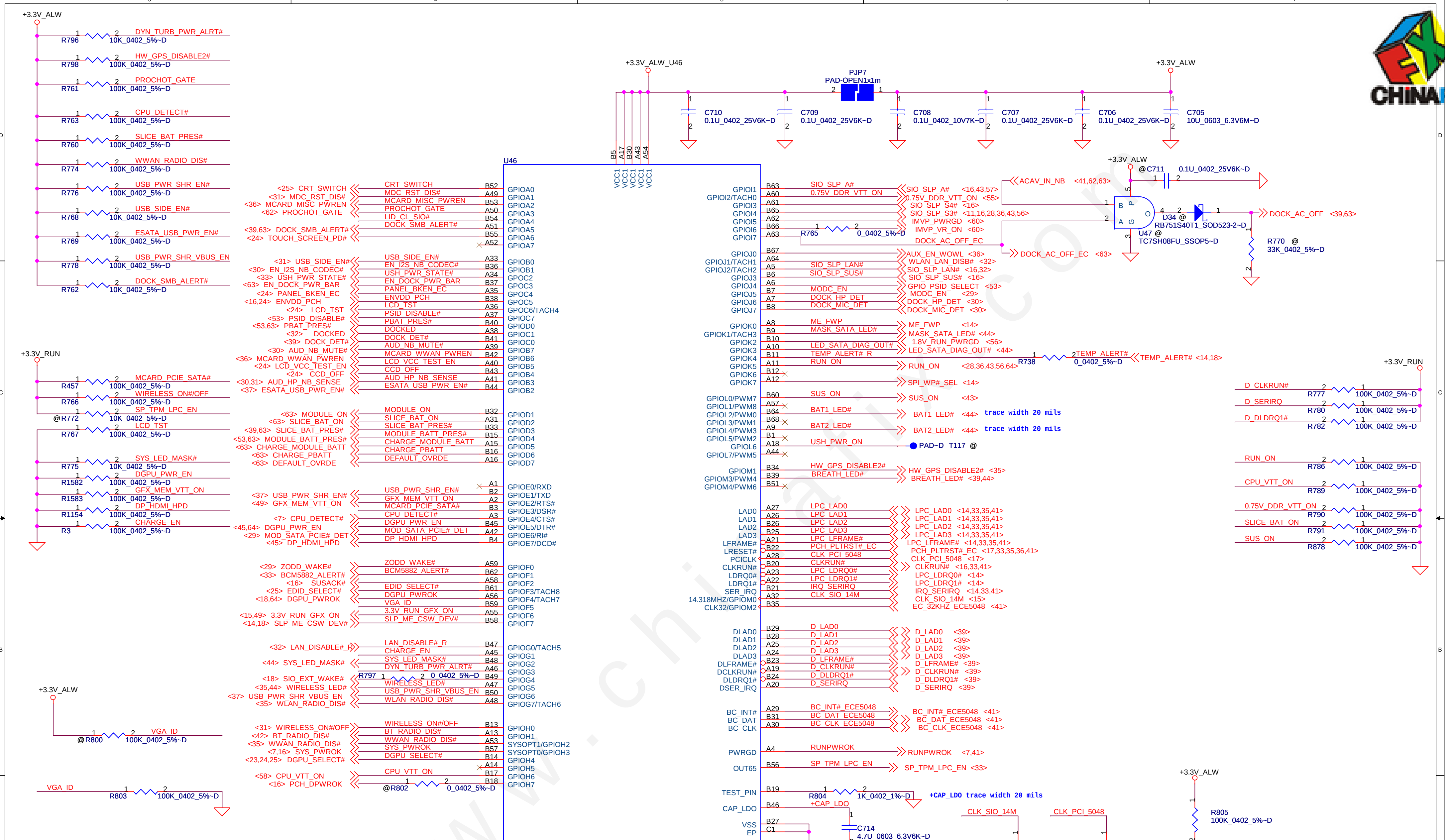


Compal Electronics, Inc.

Title: DOCKING CONN

Size | Document Number: LA-7782 | Rev 0.1

Date: Friday, June 10, 2011 | Sheet 39 of 66



	VGA_ID0
Discrete	0
UMA	1

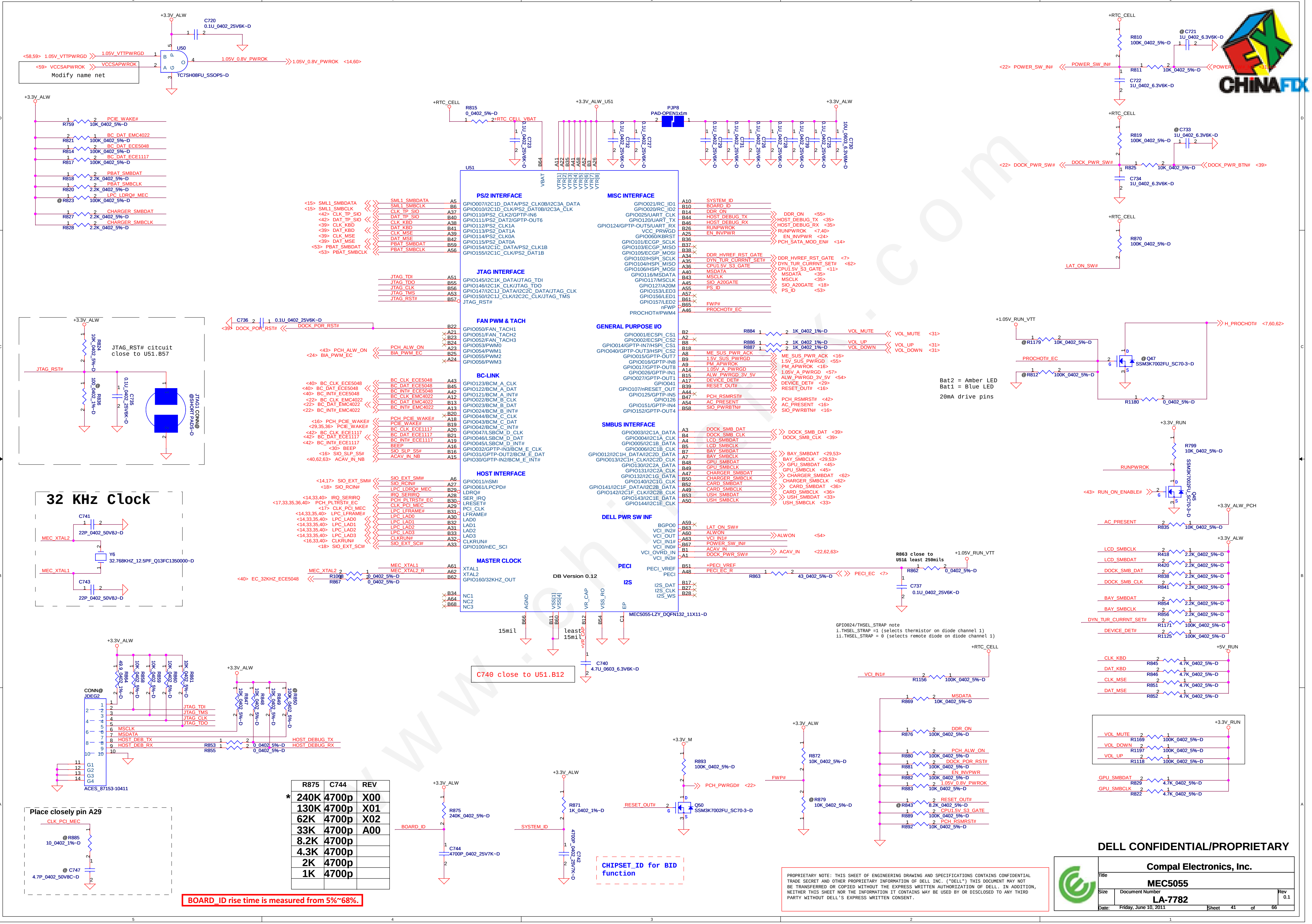
ME_FWP PCH has internal 20K PD.
(suspend power rail)

Compal Electronics, Inc.

Title: ECE5048

Size | Document Number: LA-7782 | Rev 0.1

Date: Friday, June 10, 2011 |



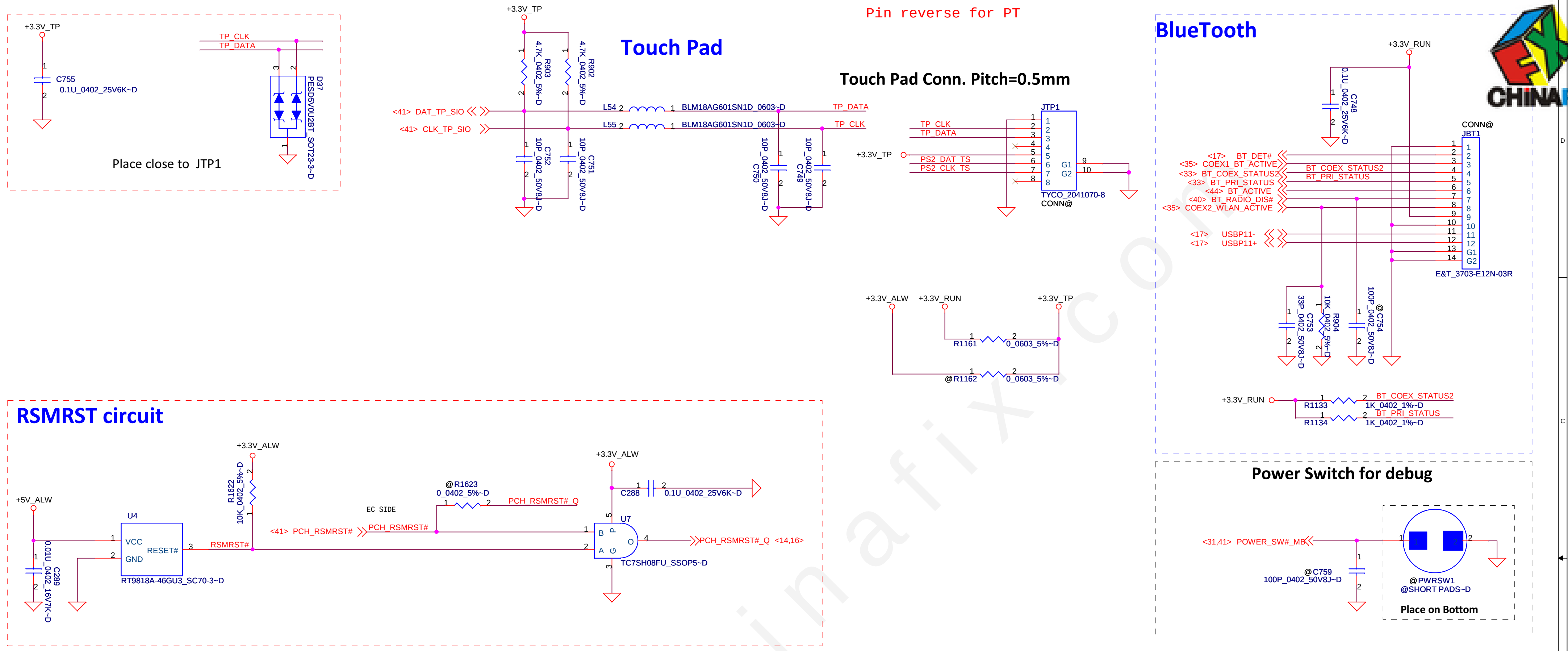
R875	C744	REV
* 240K	4700p	X00
130K	4700p	X01
62K	4700p	X02
33K	4700p	A00
8.2K	4700p	
4.3K	4700p	
2K	4700p	
1K	4700p	

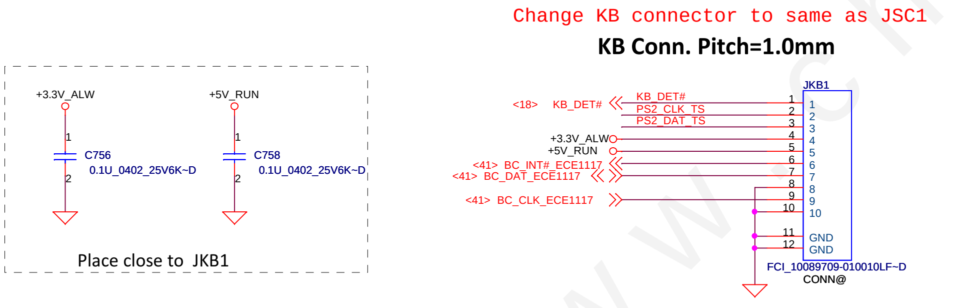
Compal Electronics, Inc.

Title: MEC5055

Size | Document Number: LA-7782 | Rev 0.1

Date: Friday, June 10, 2011 | Sheet 41 of 66





@LVDS cable

Part Number	Description
DC020003Y0L	H-CONN SET ZJX MB-LCD 14 WXGA+(-1ch)

@RTC BATT

Part Number	Description
GC20323MX00	BATT CR2032 3V 220MAH MAXELL

@FAN

Part Number	Description
DC28A000800	FAN SET DAQ20 DC5V AB7405HB-HB3 ADDA

@Speak

Part Number	Description
PK230003Q0L	SPK PACK ZJX 2.0W 4 OHM FG

@LED Board FFC

Part Number	Description
NBX0000RP0L	FFC 6P H P1 PAD=0.7 87.4MM MB-LED/B 0FD

@MEDIA Board FFC

Part Number	Description
NBX0000RS0L	FFC 12P G P.5 PAD.3 75MM MB-VOLUME/B 0FD

@LVDS cable

Part Number	Description
DC02C00180L	H-CONN SET 0FD MB-LCD CAM LED 2CHANNEL

@UMA DC_IN wire cable

Part Number	Description
DC30100BN0	CONN SET 0FD DCJACK-MB WDMD-DCE30004-DF

@Battery bridge cable

Part Number	Description
DC020014Z10	H-CONN SET 0FD M/B-BATTERY 9PIN

@MDC wire set cable

Part Number	Description
DC30100BL0L	CONN SET 0FD MDC-RJ11

@T/P FFC

Part Number	Description
NBX0000RR0L	FFC 8P F P0.5 PAD=0.3 136MM MB-TP/B 0FD

@KB FFC

Part Number	Description
SP070007V0L	S SOCKET TYCO 1770551-1 10P H5.9 SMART

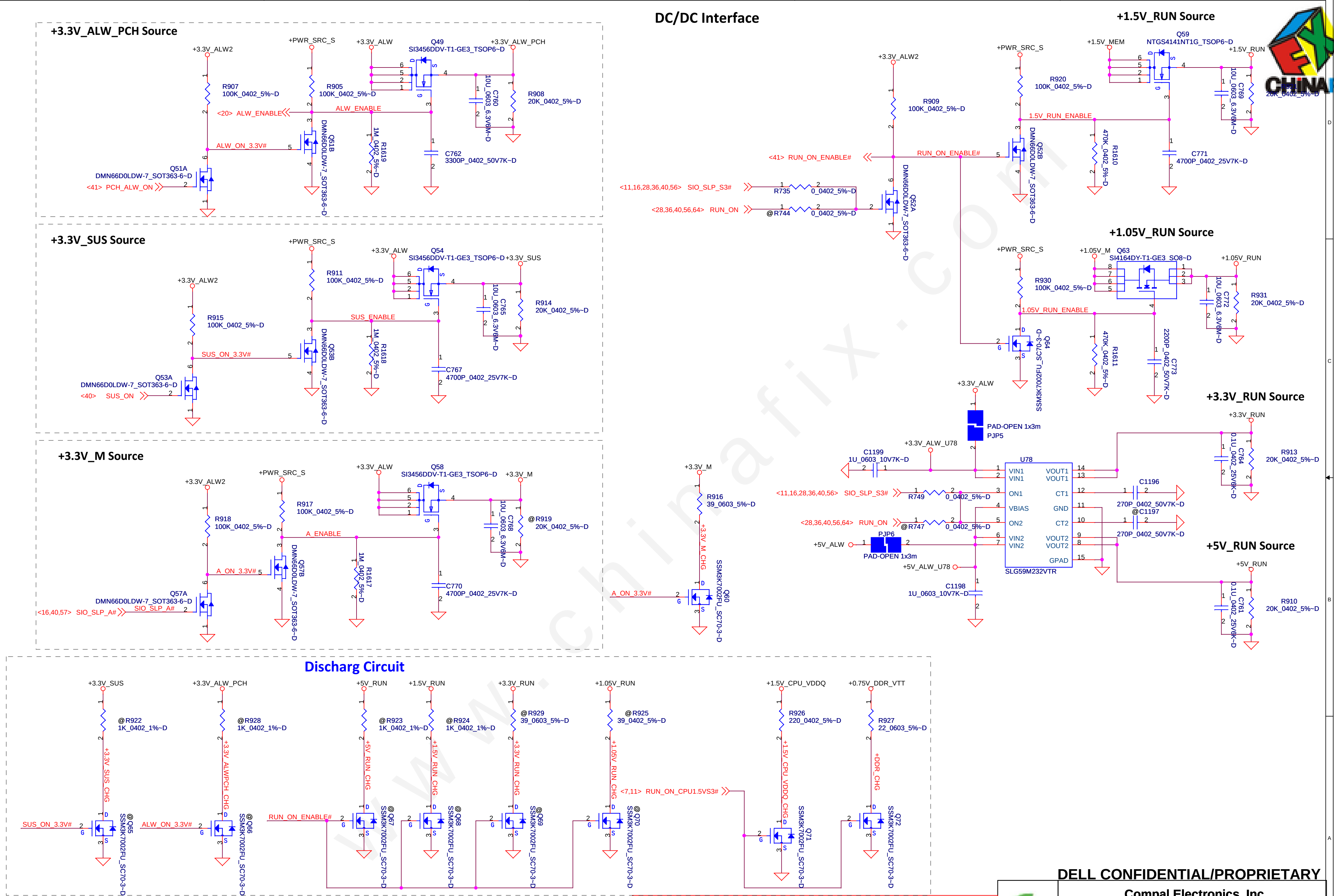
@BT wire cable

Part Number	Description
DC020014Y0L	H-CONN SET 0FD MB-BT

Compal Electronics, Inc.

Title: TP/KB/BT/FAN/RESET

Size | Document Number: LA-7782 | Rev 0.1



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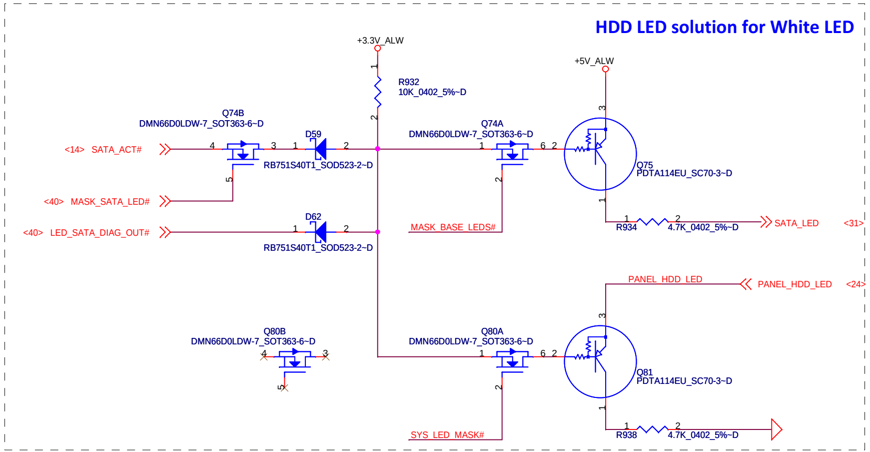
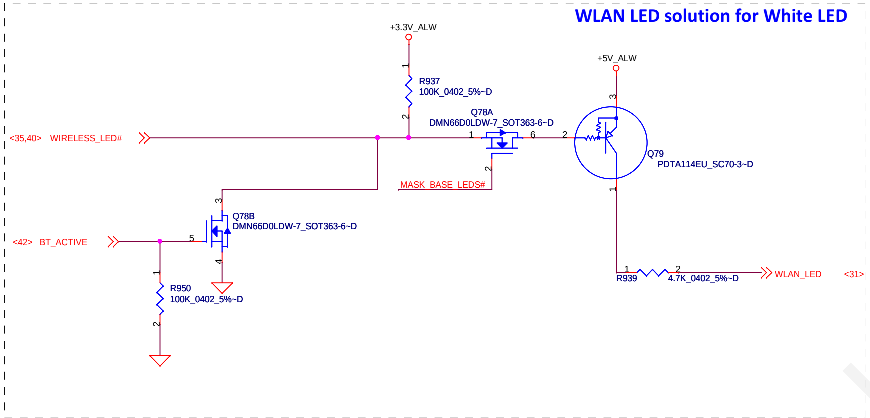
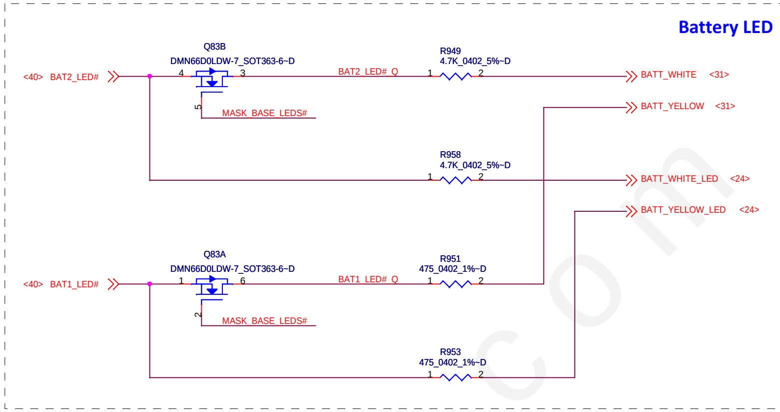
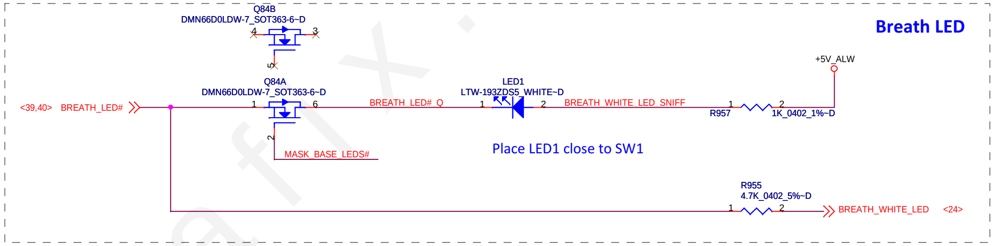
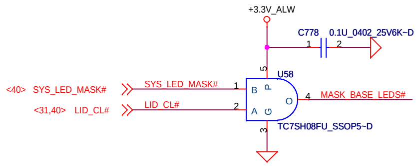
Compal Electronics, Inc.		
Title: POWER CONTROL		
Size	Document Number: LA-7782	Rev 0.1
Date: Friday, June 10, 2011	Sheet 43	of 66

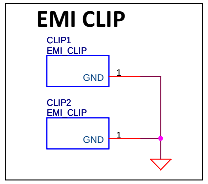


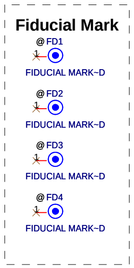






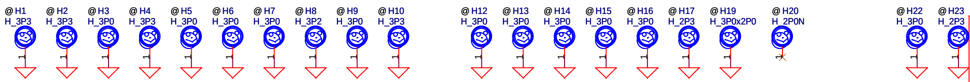






LED Circuit Control Table

	SYS_LED_MASK#	LID_CL#
Mask All LEDs (Sniffer Function)	0	X
Mask Base MB LEDs (Lid Closed)	1	0
Do not Mask LEDs (Lid Opened)	1	1



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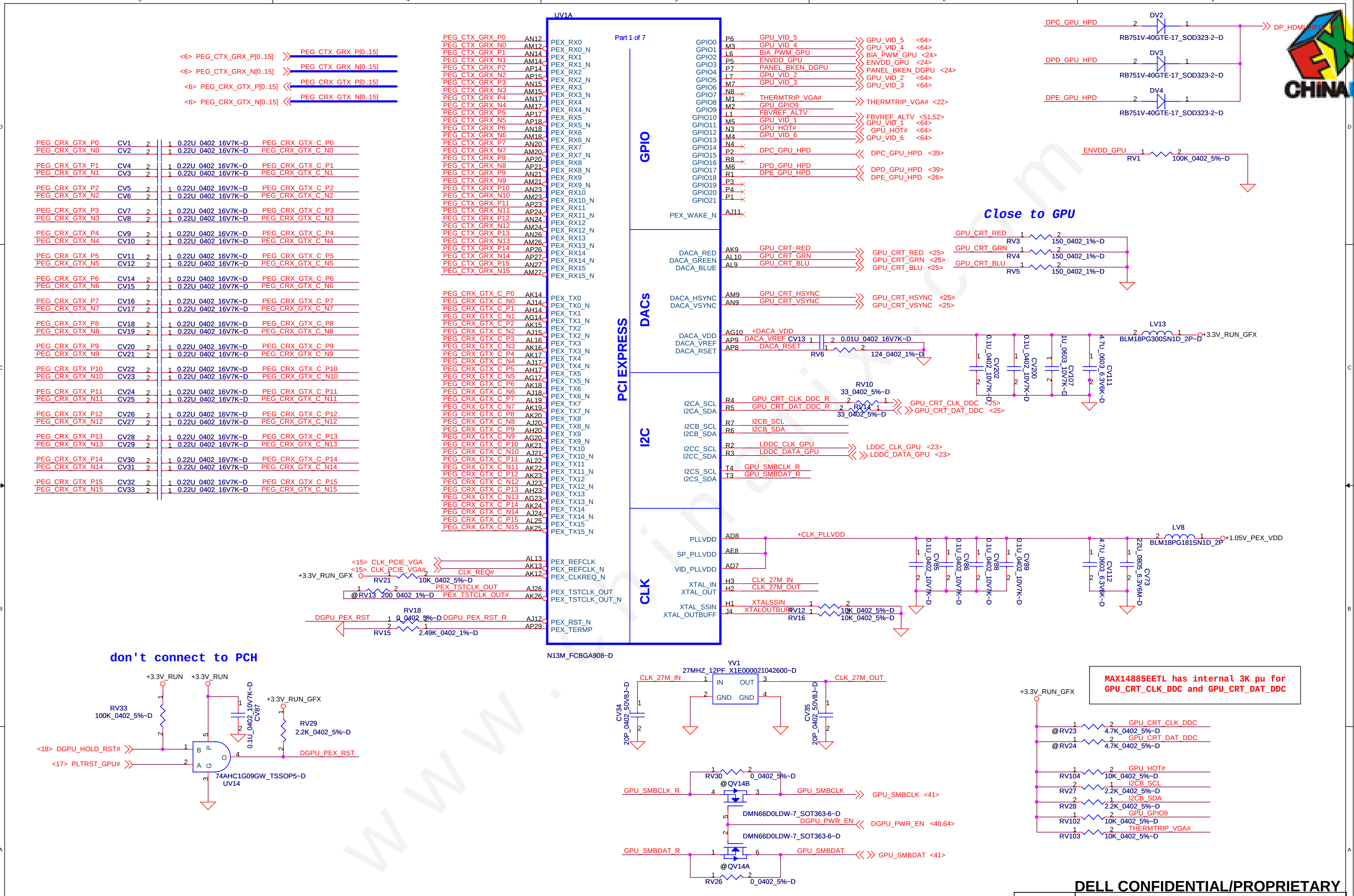
Compal Electronics, Inc.

Title: PAD and Standoff

Size | Document Number: LA-7782 | Rev: 0.1

Date: Friday, June 10, 2011 | Sheet 44 of 66



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Compal Electronics, Inc.

Title	N12P PCIE,I2C,DAC,GPIO
Size	Document Number: LA-7782
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Date:	Friday, June 10, 2011
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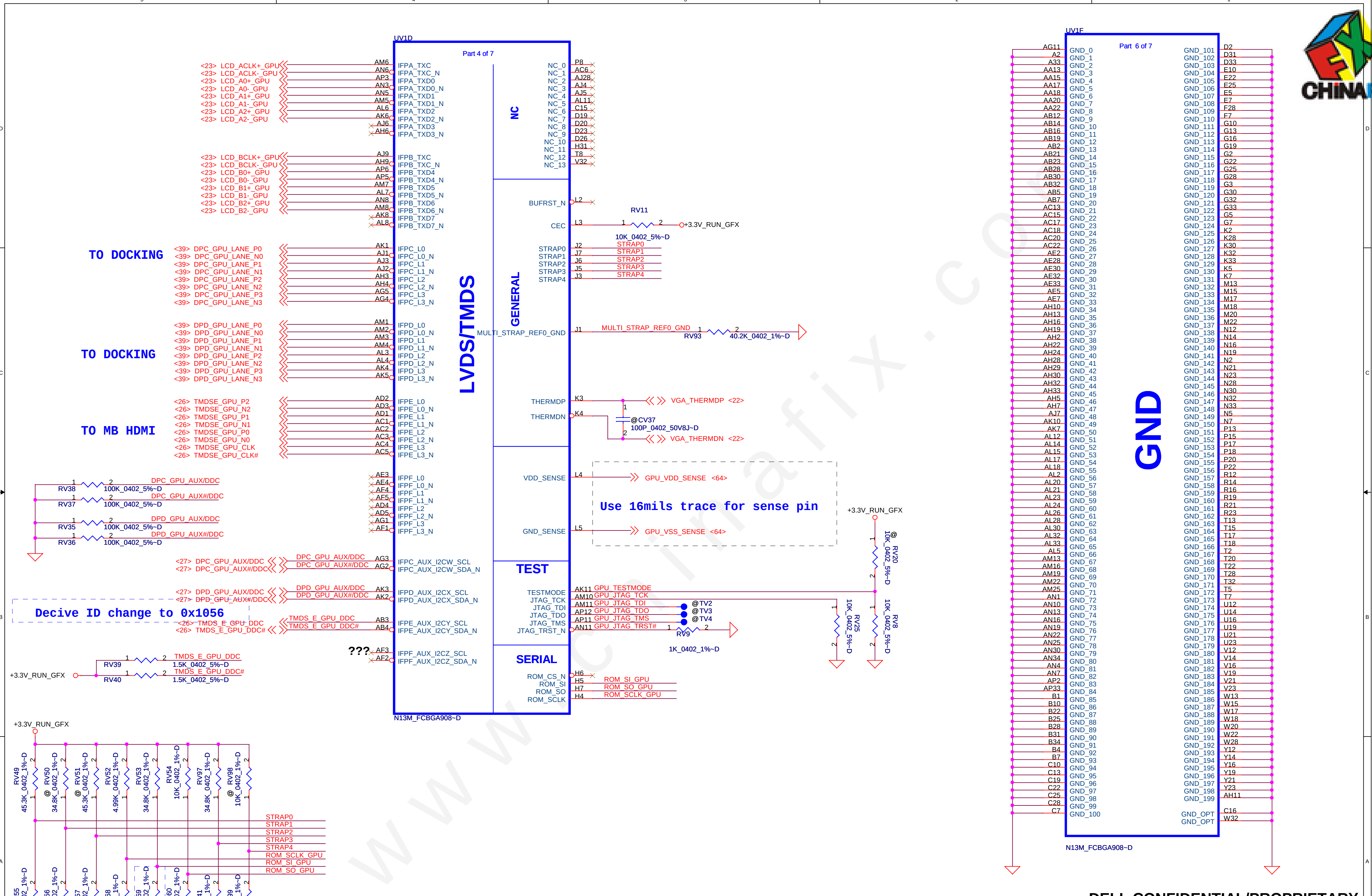

** Hynix 128Mx16 GDDR5 part stuff RV53=35K
Samsung 128Mx16 GDDR5 part stuff RV53=45K

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Compal Electronics, Inc.

Title	N12P DP, STRAP, GND
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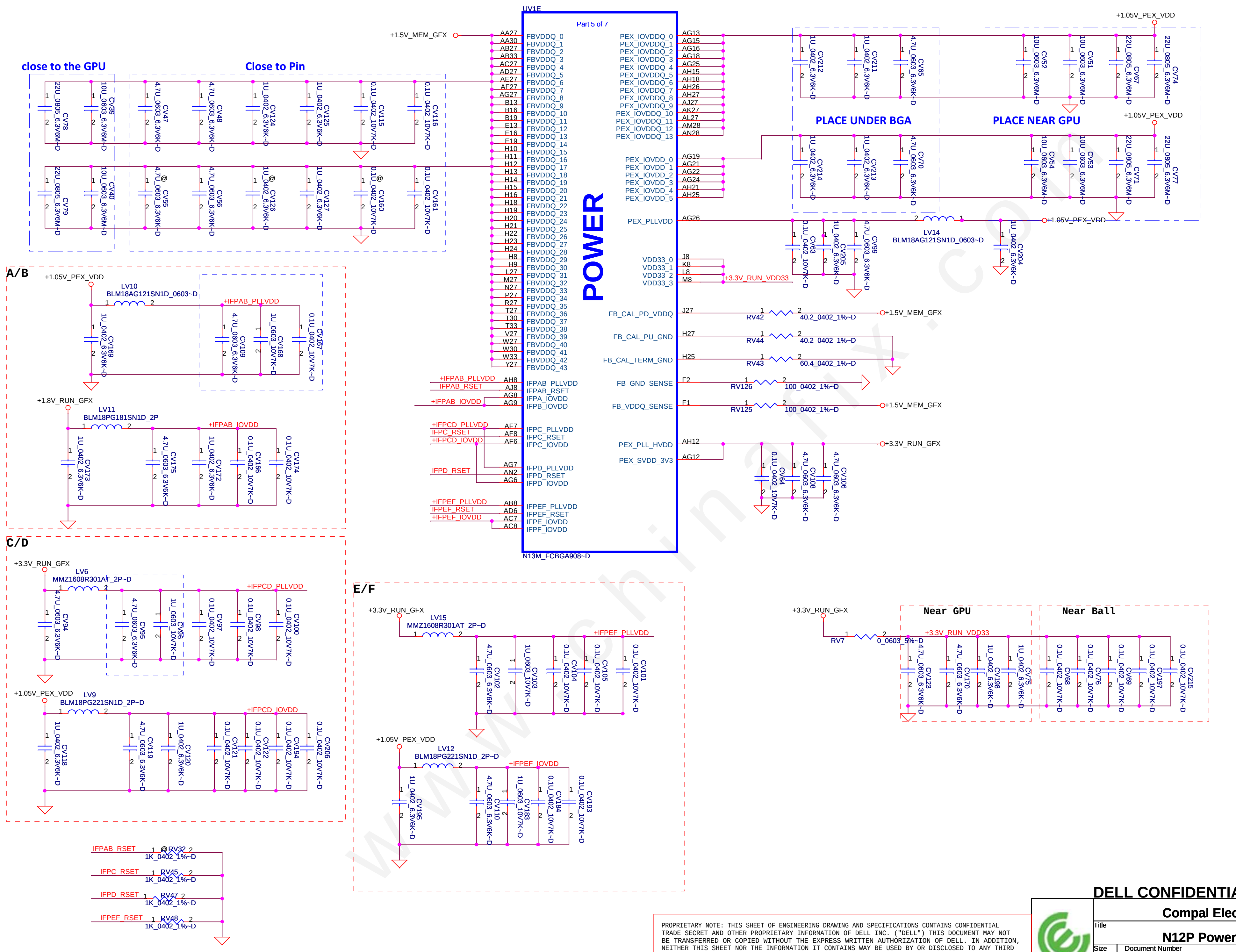

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Compal Electronics, Inc.	
Title	N12P Power
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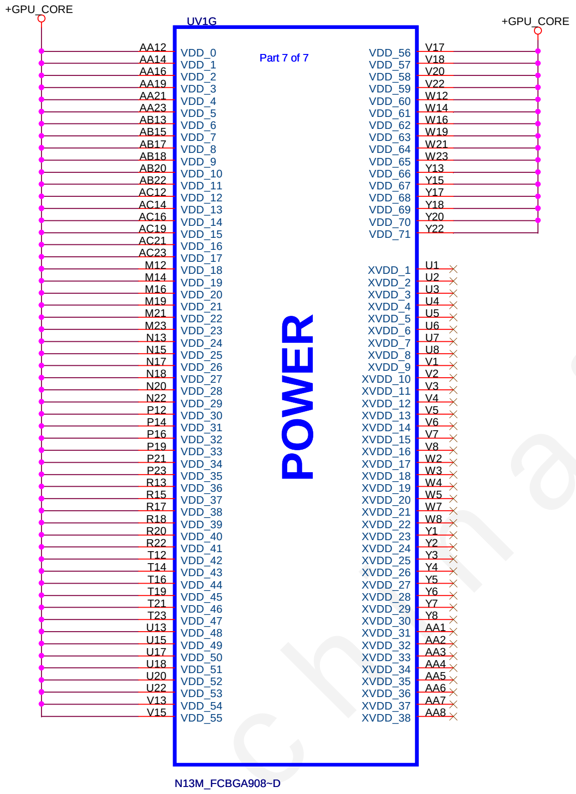
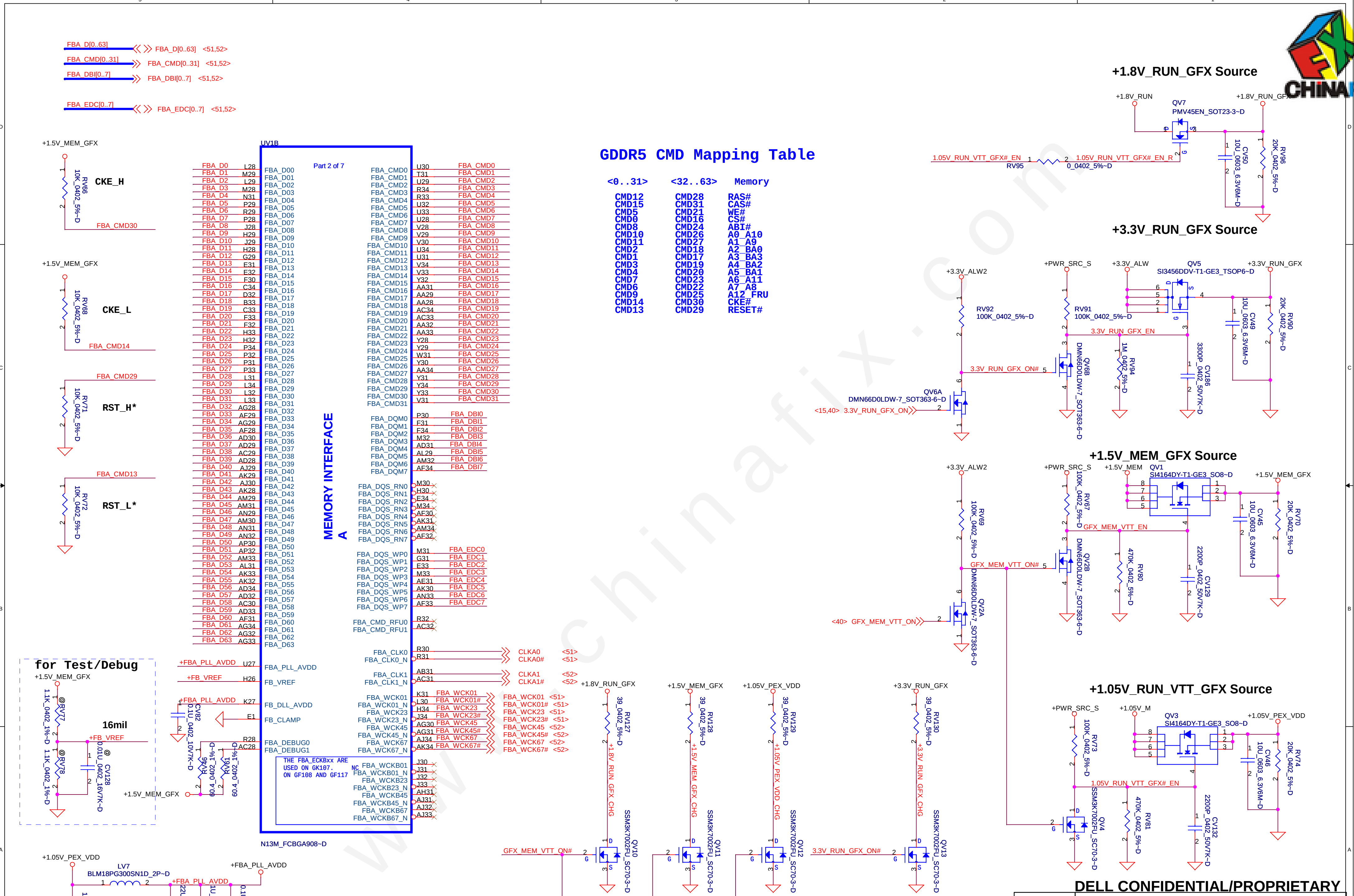
Caps on Power Side



Compal Electronics, Inc.		
Title: N12P Power GFX Core		
Size	Document Number: LA-7782	Rev: 0.1
Date: Friday, May 20, 2011	Sheet 48 of 66	



GDDR5 CMD Mapping Table

<0..31>	<32..63>	Memory
CMD12	CMD28	RAS#
CMD15	CMD31	CAS#
CMD5	CMD21	WE#
CMD0	CMD16	CS#
CMD8	CMD24	ABI#
CMD10	CMD26	A0_A10
CMD11	CMD27	A1_A9
CMD2	CMD18	A2_BA0
CMD1	CMD17	A3_BA3
CMD3	CMD19	A4_BA2
CMD4	CMD20	A5_BA1
CMD7	CMD23	A6_A11
CMD6	CMD22	A7_A8
CMD9	CMD25	A12_FRU
CMD14	CMD30	CKE#
CMD13	CMD29	RESET#

Compal Electronics, Inc.

Title: N12P Memory

Size | Document Number: LA-7782 | Rev 0.1

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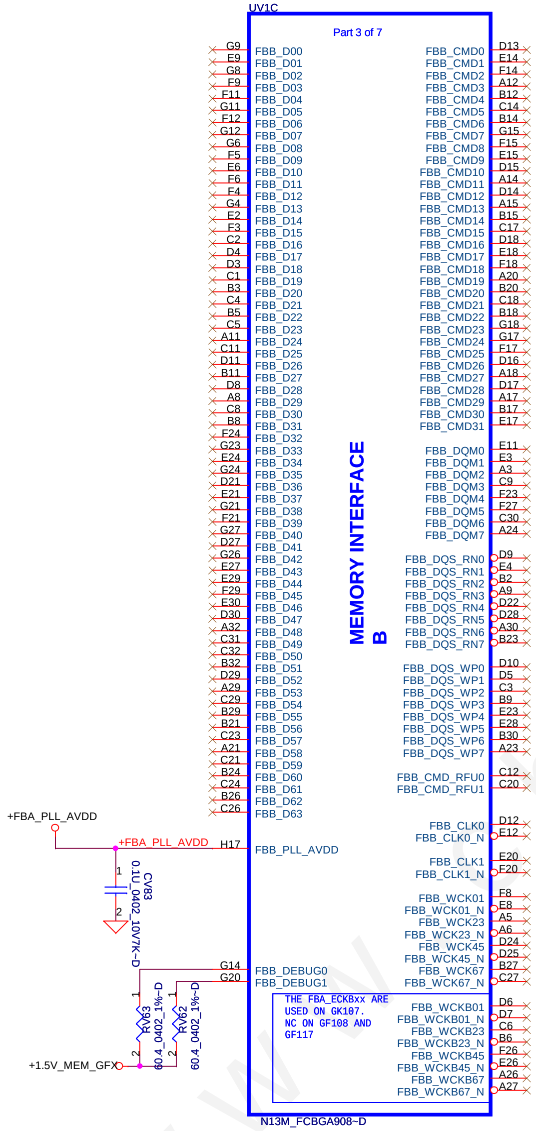
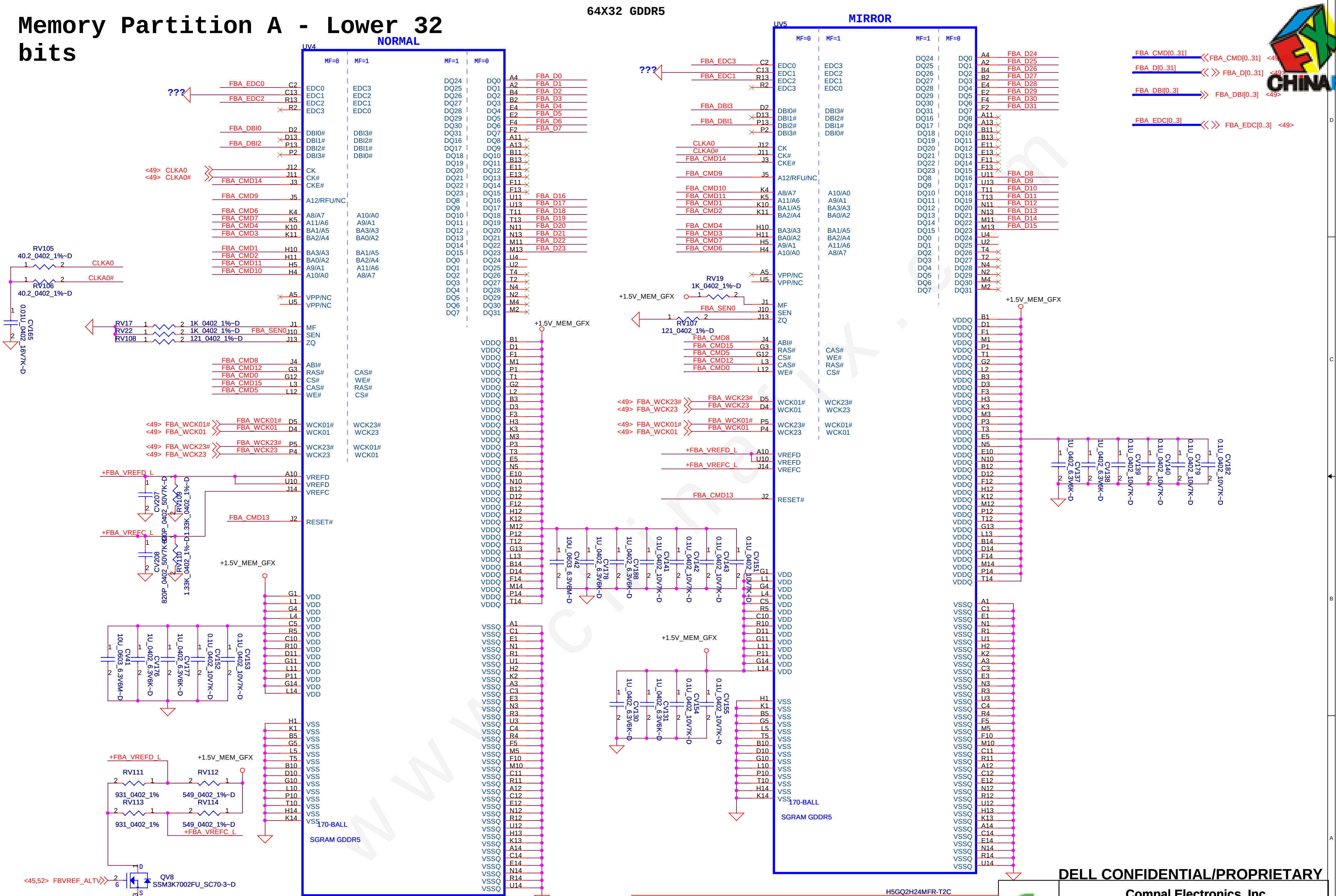
CHANNEL-B NOT TO USE, NEED TO BE DISABLED



Compal Electronics, Inc.		
Title: N12P Memory (2)		
Size	Document Number: LA-7782	Rev: 0.1
Date: Friday, May 20, 2011	Sheet 50 of 66	

Memory Partition A - Lower 32 bits

64X32 GDDR5



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Compal Electronics, Inc.

Title	VRAM A Lower
Size / Document Number	LA-7782
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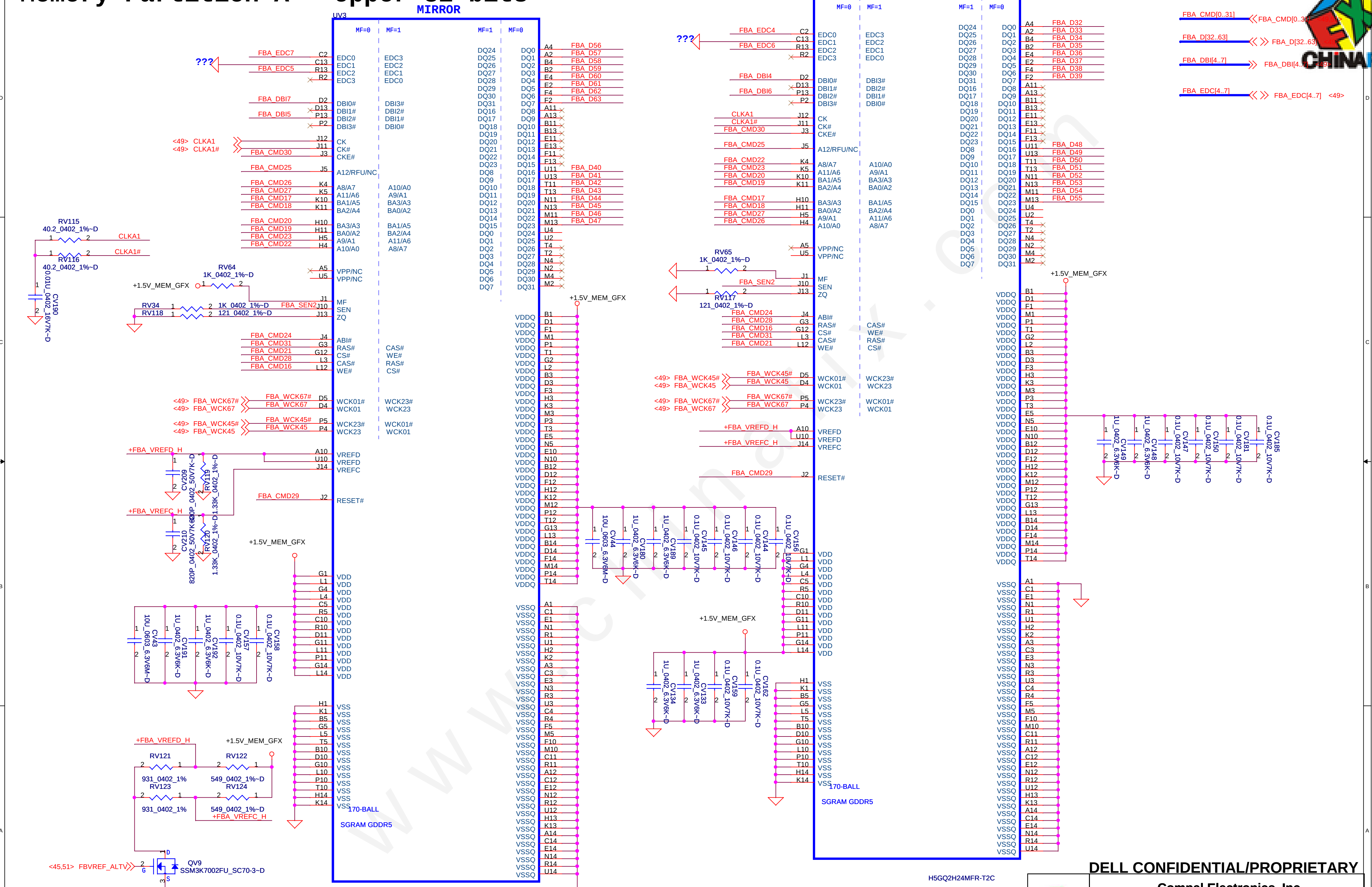
Memory Partition A - Upper 32 bits



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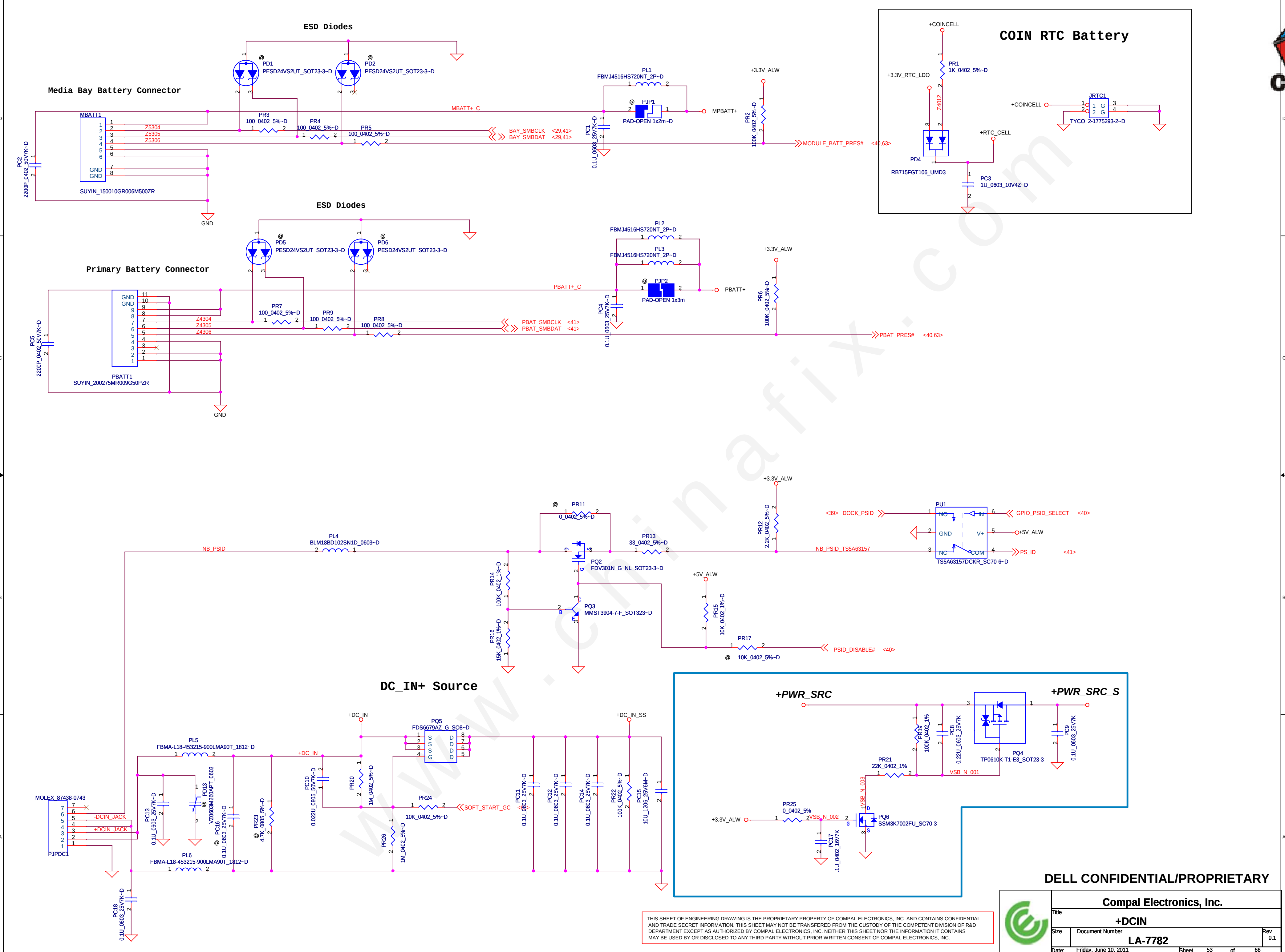
Compal Electronics, Inc.

Title	VRAM A Upper	
Size	Document Number LA-7782	Rev 0.1
Date: Friday, June 10, 2011	Sheet 52 of 66	



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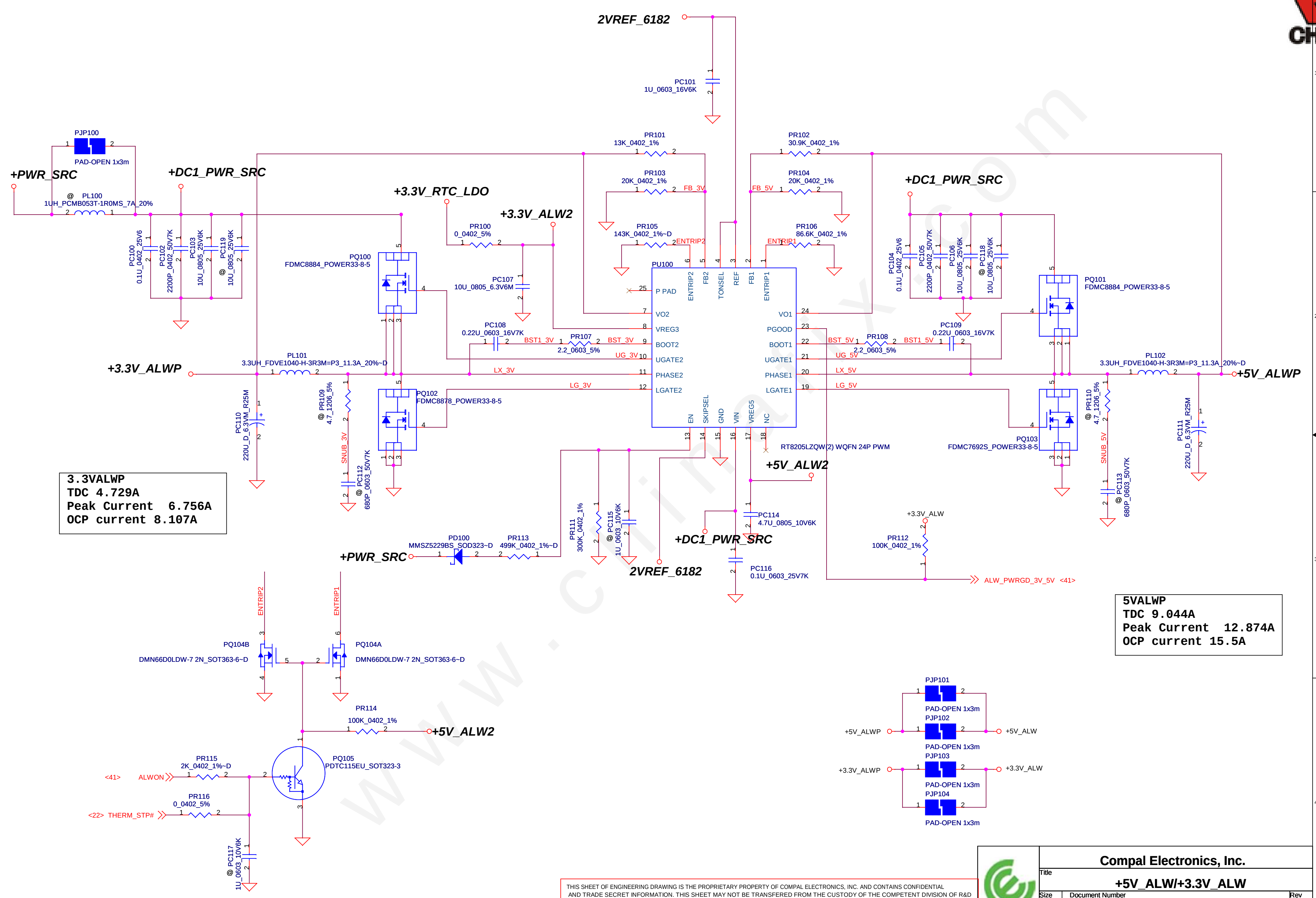
Compal Electronics, Inc.

Title	+DCIN	
Size	Document Number: LA-7782	Rev: 0.1
Date: Friday, June 10, 2011	Sheet 53 of 66	



	Compal Electronics, Inc.
Title	+5V_ALW/+3.3V_ALW
Size / Document Number	LA-7782
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Date:	Friday, June 10, 2011
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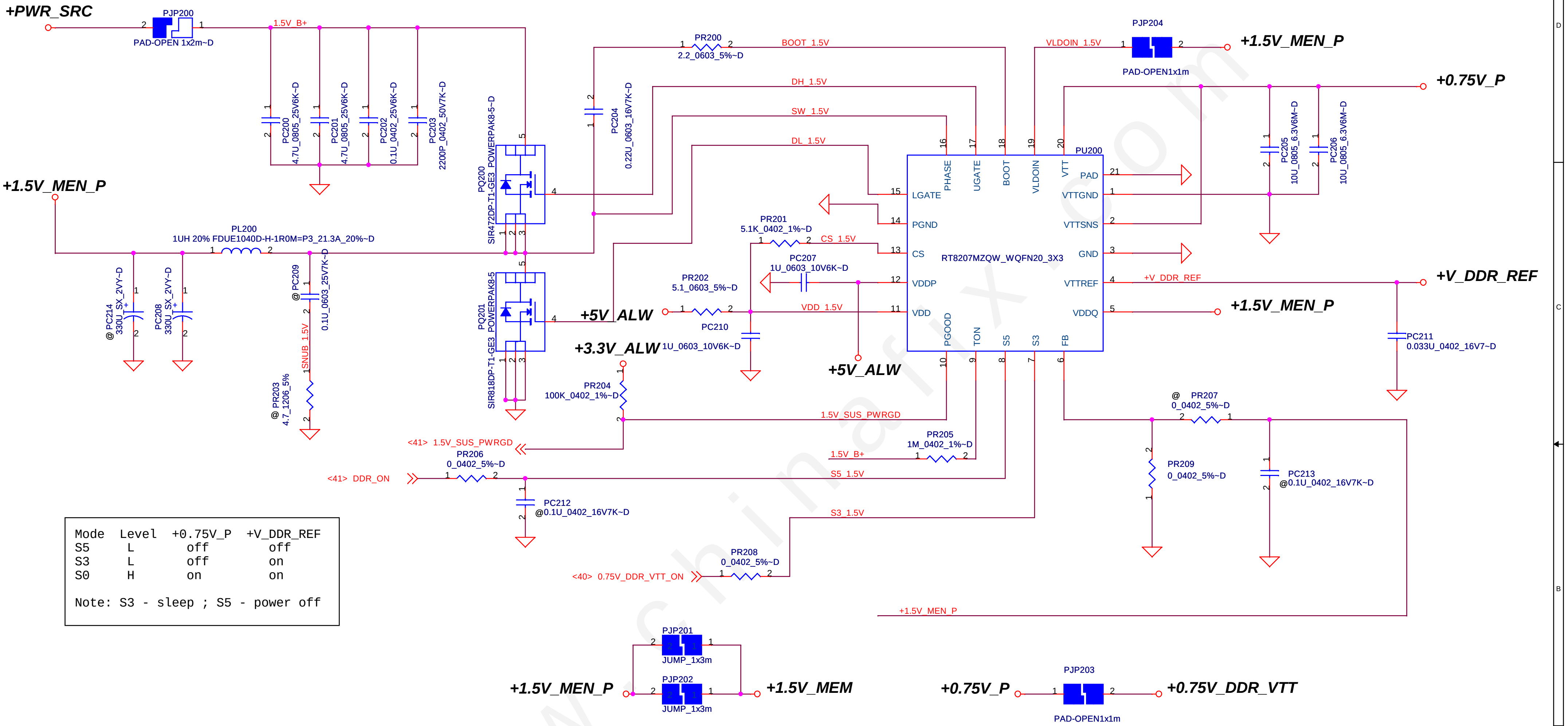
```
1.5Volt +/- 5%
TDC 9.74A
Peak Current  13.915A
OCP current 16.698A
```

```
0.75Volt +/- 5%
TDC 0.525A
Peak Current  0.75A
OCP Current 0.9A
```



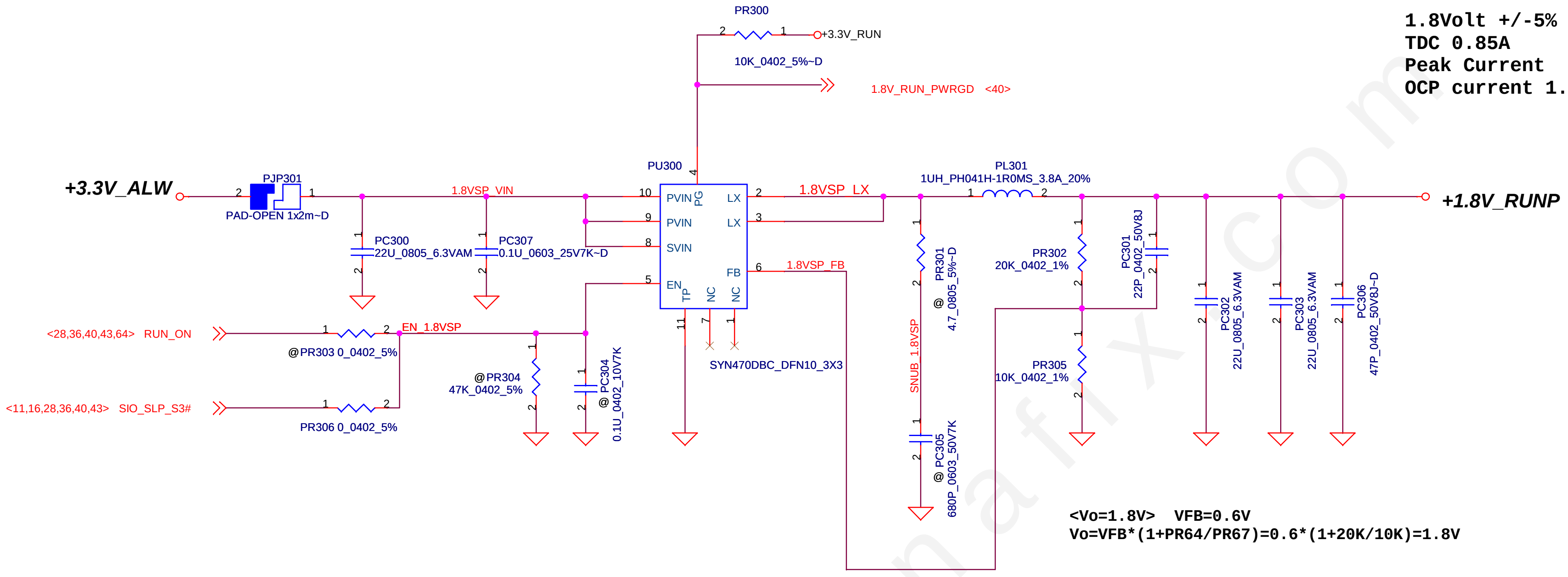
Mode	Level	+0.75V_P	+V_DDR_REF
S5	L	off	off
S3	L	off	on
S0	H	on	on

Note: S3 - sleep ; S5 - power off

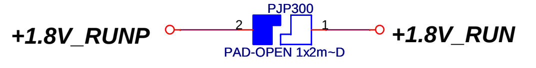
Compal Electronics, Inc.

Title	+1.5V_MEN/+0.75V_DDR_VTT	
Size	Document Number: LA-7782	Rev 0.1
Date: Friday, June 10, 2011	Sheet 55 of 66	

1.8Volt +/-5%
TDC 0.85A
Peak Current 1.215A
OCP current 1.458A



<Vo=1.8V> VFB=0.6V
Vo=VFB*(1+PR64/PR67)=0.6*(1+20K/10K)=1.8V



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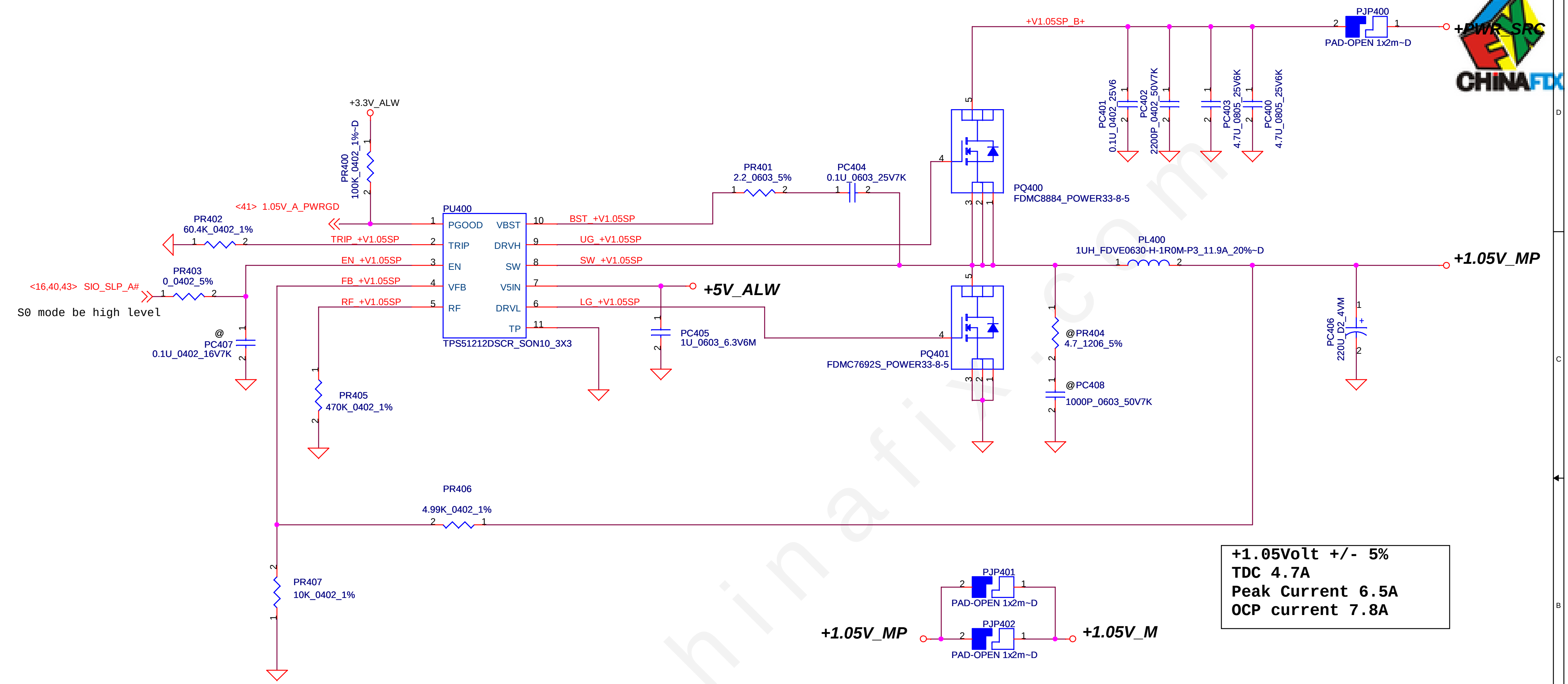
Compal Electronics, Inc.		
Title: +1.8V_RUN		
Size	Document Number: LA-7782	Rev: 0.1
Date: Friday, June 10, 2011	Sheet 56 of 66	



+1.05Volt +/- 5%
TDC 4.7A
Peak Current 6.5A
OCP current 7.8A

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Compal Electronics, Inc.		
Title: +1.05V_M		
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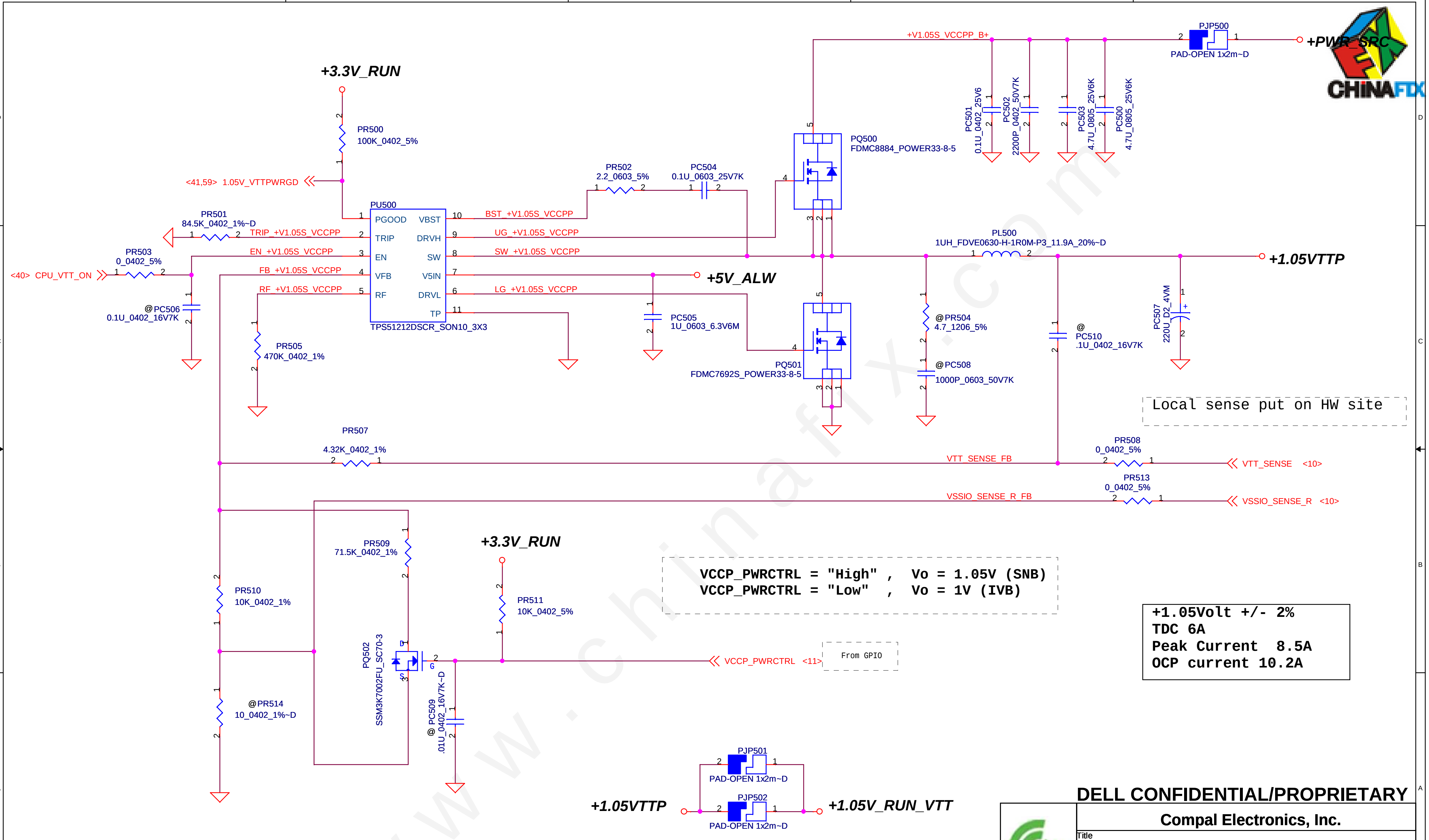


Compal Electronics, Inc.

Title: +1.05V_RUN_VTT

Size | Document Number: LA-7782 | Rev 0.1

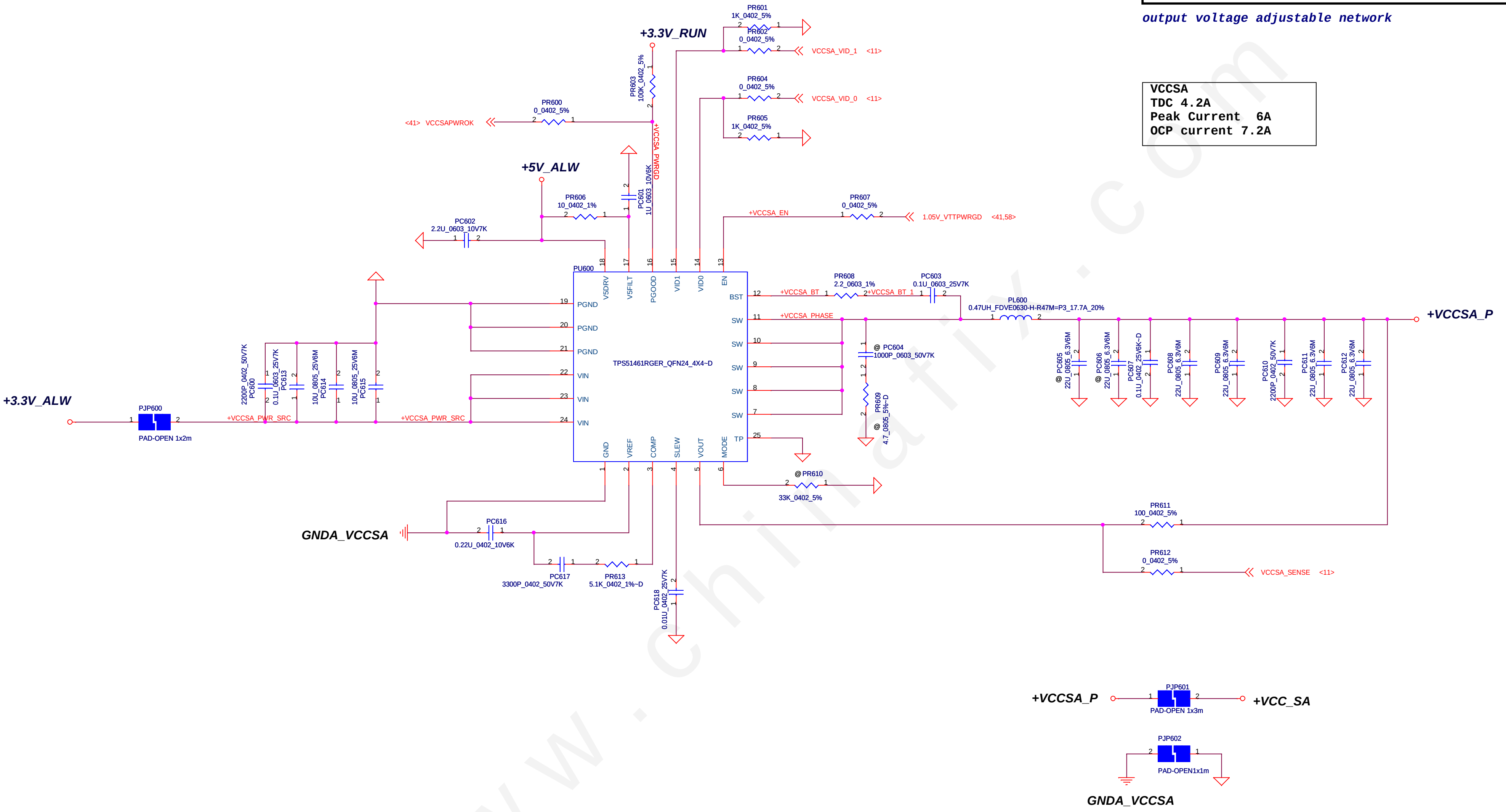
Date: Friday, June 10, 2011

VID [0]	VID[1]	VCCSA Vout
0	0	0.9V
0	1	0.8V
1	0	0.725V
1	1	0.675V

output voltage adjustable network

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

VCCSA
TDC 4.2A
Peak Current 6A
OCP current 7.2A



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Compal Electronics, Inc.

Title	+VCC_SA
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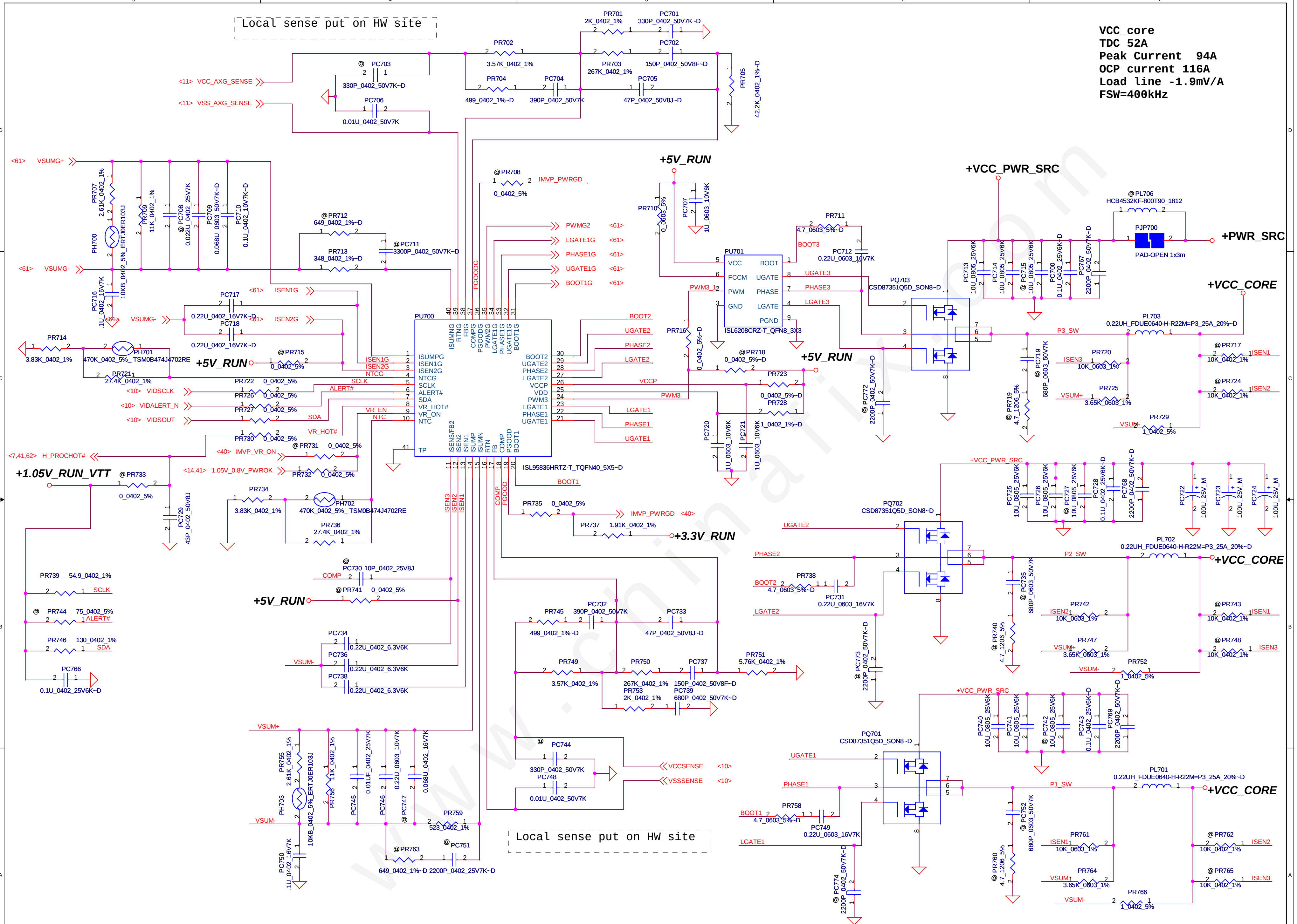

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Compal Electronics, Inc.	
Title	+VCC_CORE
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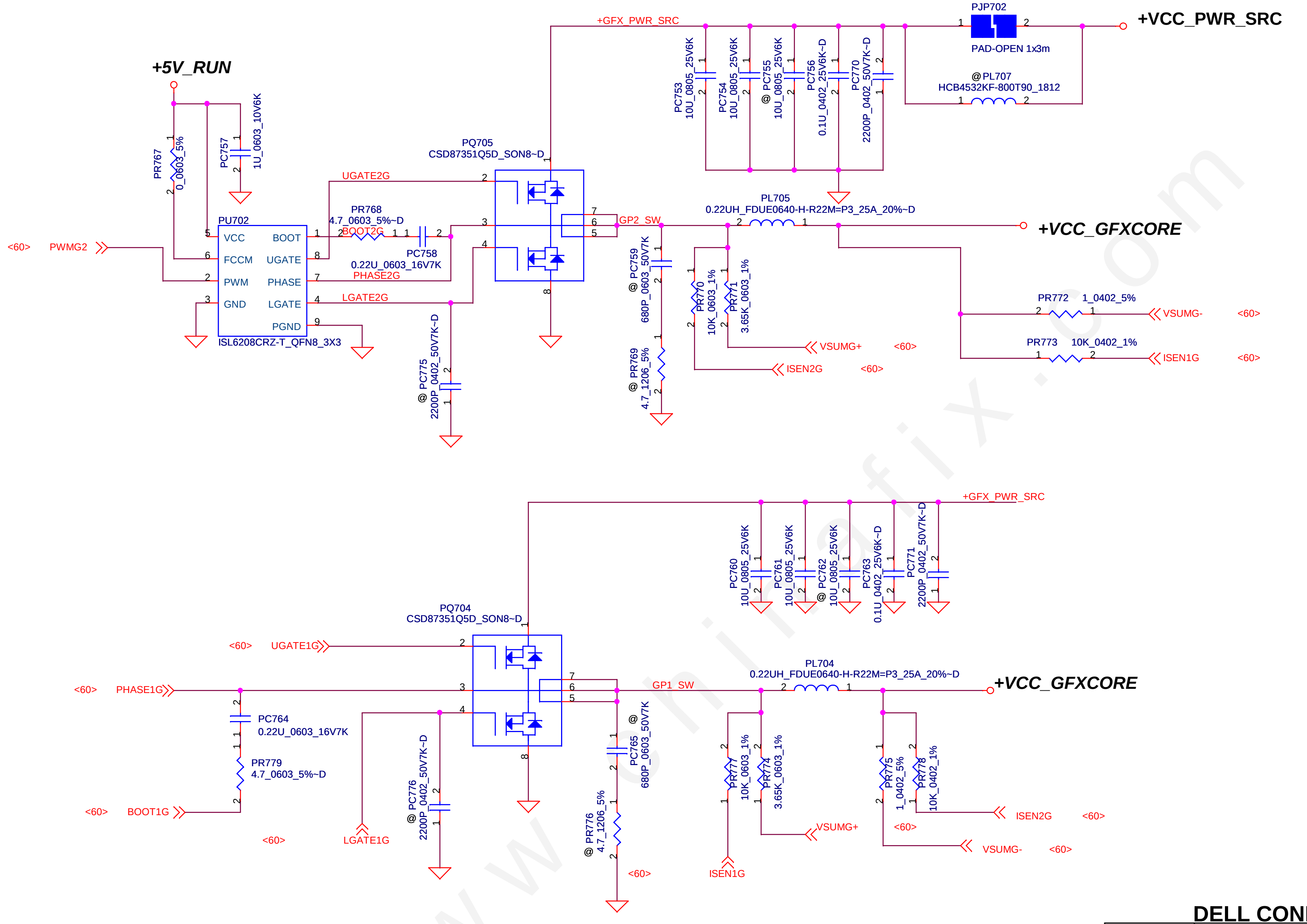
VCC_GFXCORE
TDC 38A
Peak Current 46A
OCP current 57.18A
Load line -3
FSW=400kHz



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Compal Electronics, Inc.		
Title: +VCC_GFXCORE		
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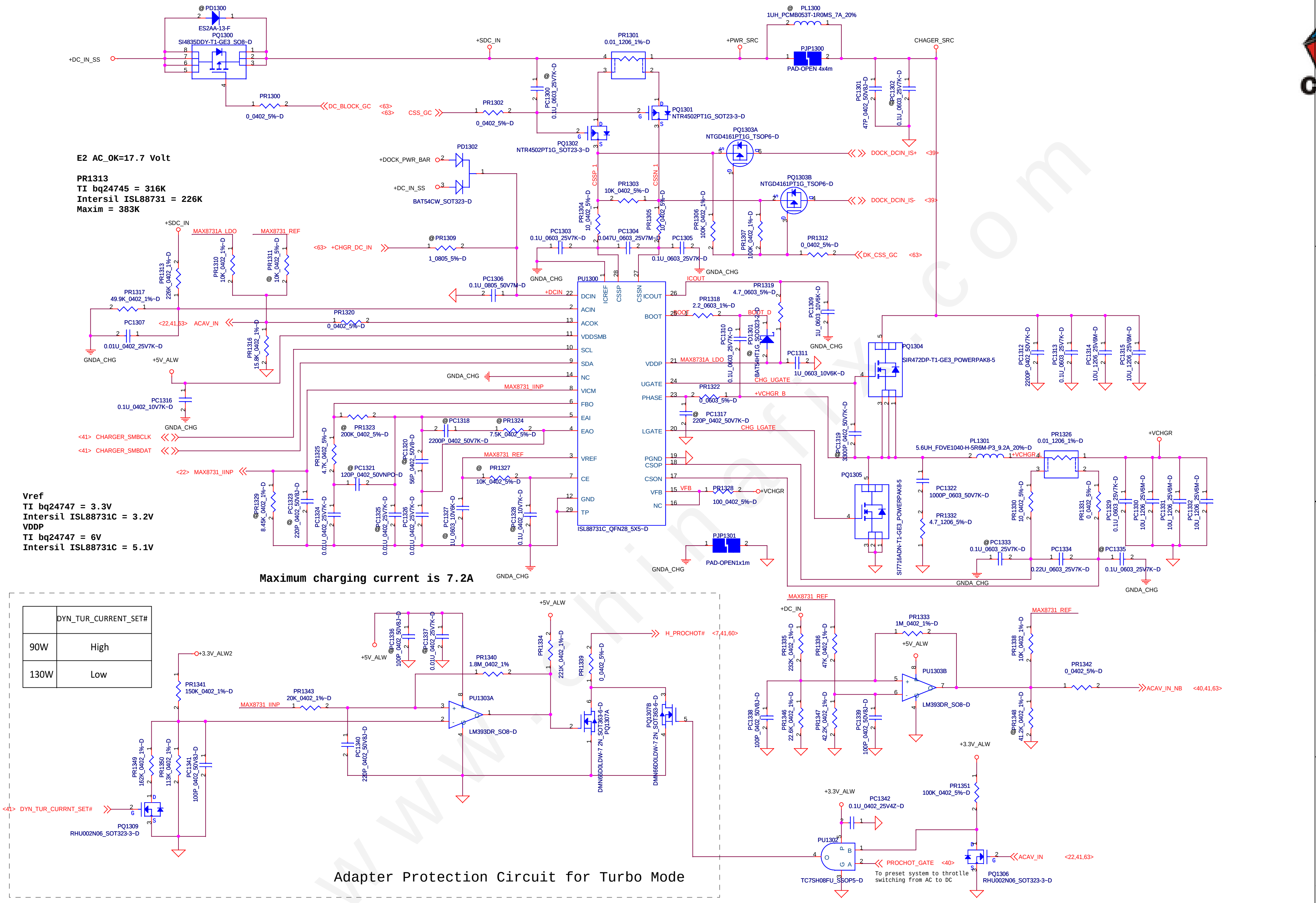
Date: Friday, June 10, 2011	Sheet 61 of 66	



E2 AC_OK=17.7 Volt

PR1313
TI bq24745 = 316K
Intersil ISL88731 = 226K
Maxim = 383K

Vref
TI bq24747 = 3.3V
Intersil ISL88731C = 3.2V
VDDP
TI bq24747 = 6V
Intersil ISL88731C = 5.1V

Maximum charging current is 7.2A

	DYN_TUR_CURRENT_SET#
90W	High
130W	Low

Adapter Protection Circuit for Turbo Mode

To preset system to throttle switching from AC to DC

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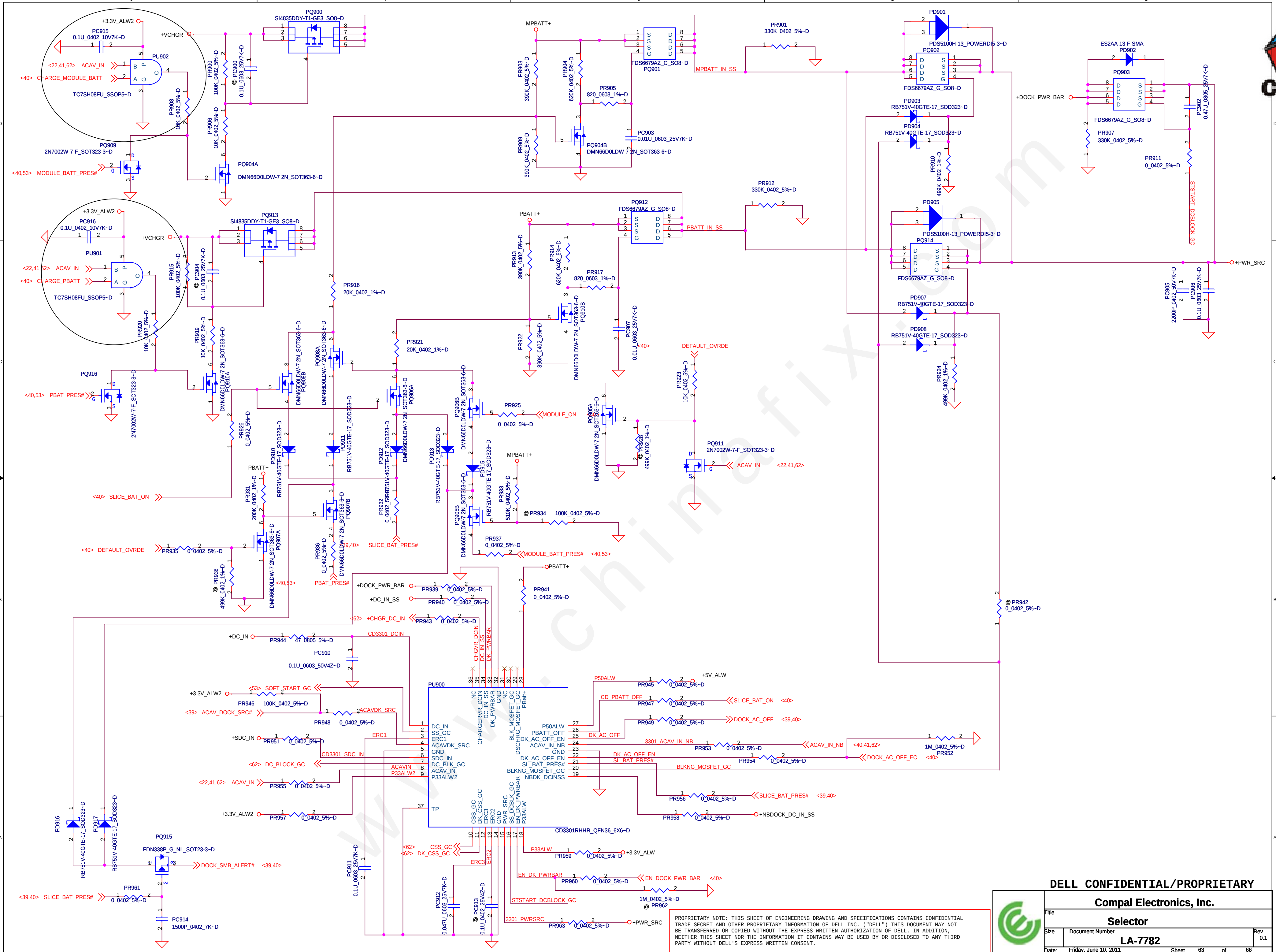
Compal Electronics, Inc.

Title: Charger

Size | Document Number: LA-7782 | Rev 0.1

Date: Friday, June 10, 2011 |



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Title: Selector		
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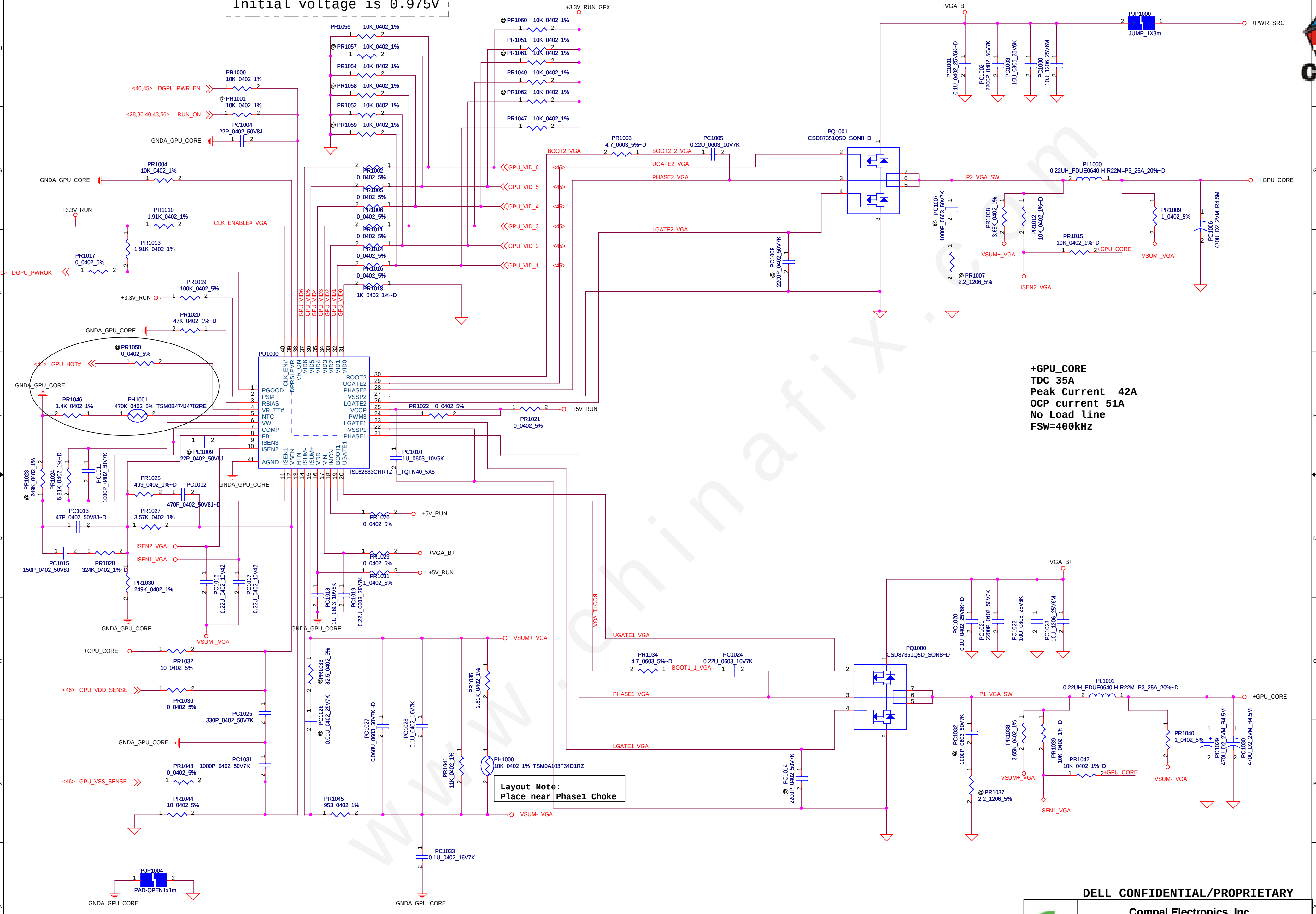
Initial voltage is 0.975V



+GPU_CORE
TDC 35A
Peak Current 42A
OCP current 51A
No Load line
FSW=400kHz

Layout Note:
Place near Phase1 Choke

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Compal Electronics, Inc.	
Title	+GPU_CORE
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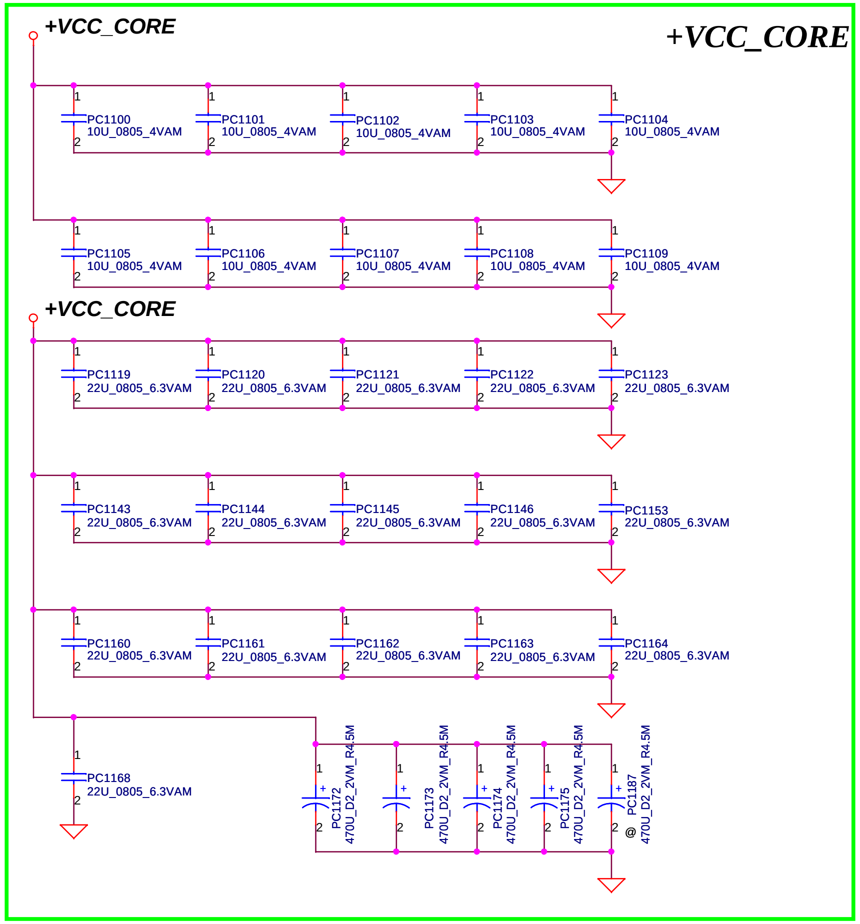
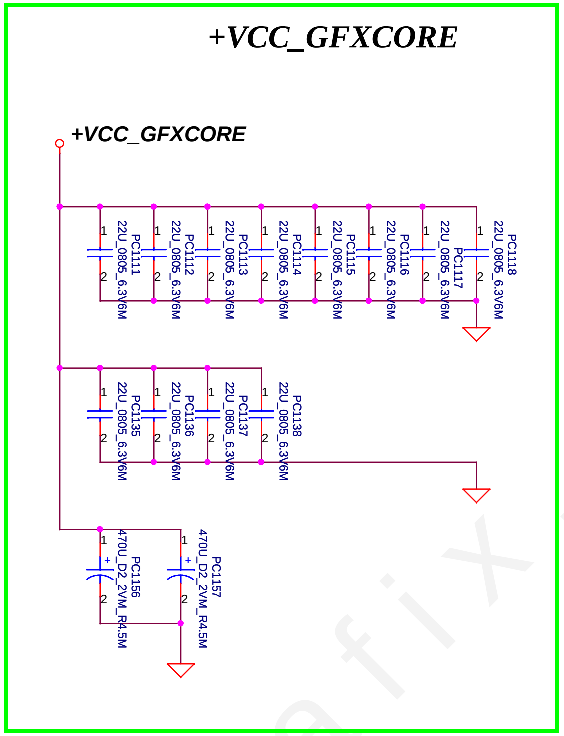
+VCC_CORE

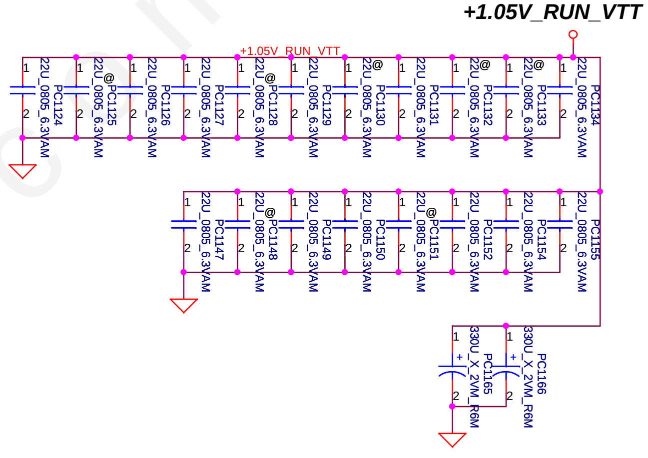


+VCC_GFXCORE

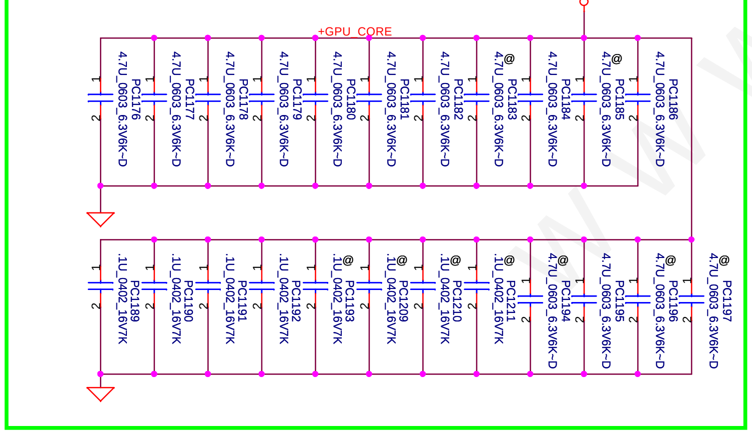


Below is 458544_CRV_PDDG_0.5 Table 5-8.

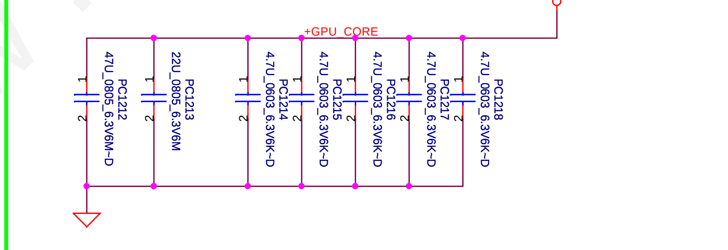
Socket Bottom	5 x 22 µF (0805) 5 x (0805) no-stuff sites
Socket Top	7 x 22 µF (0805) 2 x (0805) no-stuff sites



+GPU_CORE (place under GPU)



+GPU_CORE (place near GPU)



Compal Electronics, Inc.

Title	PROCESSOR DECOUPLING
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Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.