COMPAL CONFIDENTIAL

MODEL NAME : *JAL21/22*

PCB NO : *LA-4051P (DAA00000R1L)*

BOM P/N : *43153431L01 (Avia TPM)*

43153431L02 (Avia Non TPM)

43153431L11(DSC TPM)

43153431L12 (DSC Non TPM)

M09 Avia / Maybach DIS

uFCPGA Mobile Penryn
Intel Cantiga PM + ICH9M

2008-06-16

REV : 1.0 (A00)

@ : Nopop Component

1@ : for Avia / JAL22 (NB9P) Component

2@ : for MayDSC / JAL21 (NB9M) Component

3@ : Disable TPM

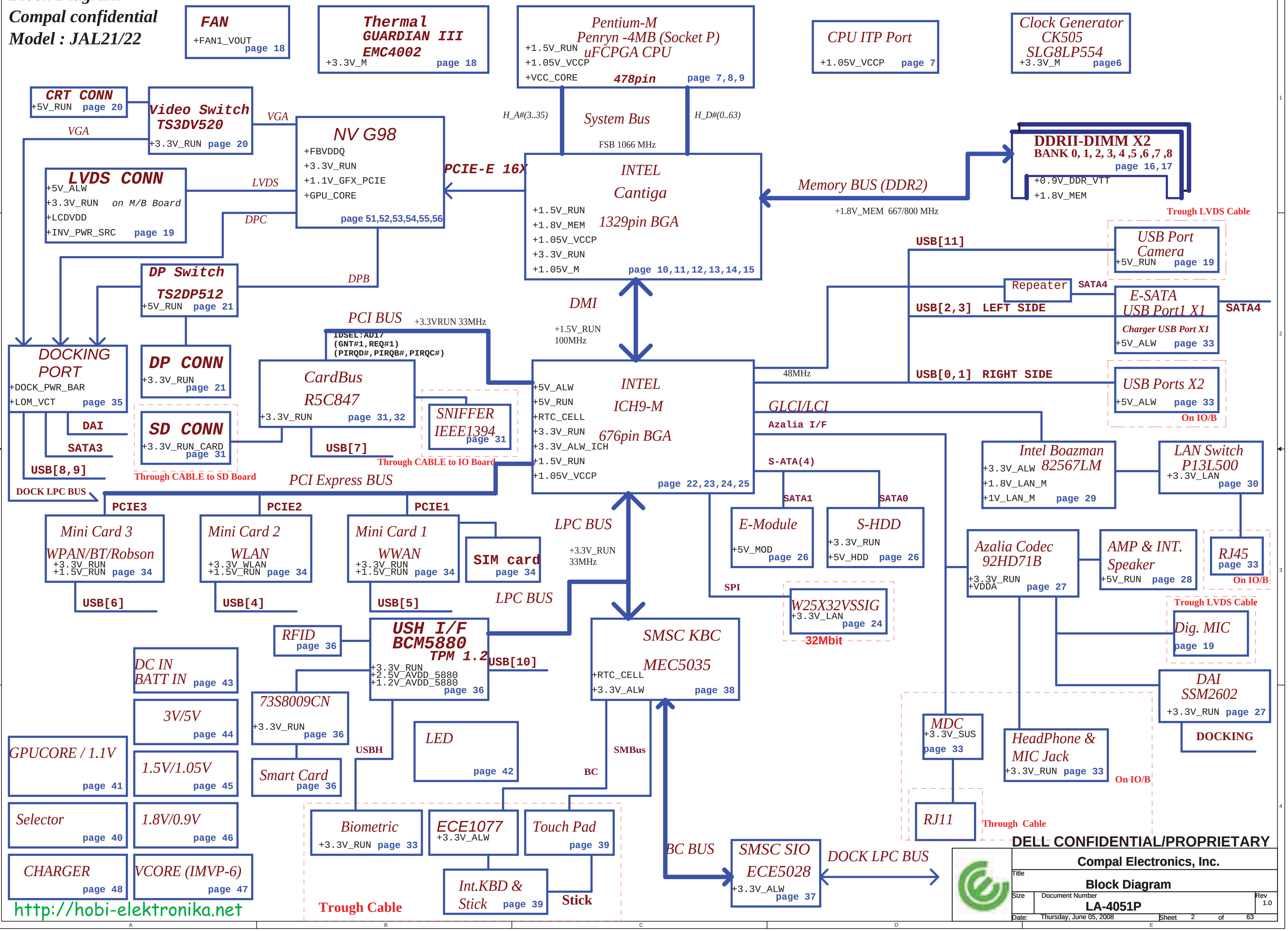
4@ : Enable TPM

Fix Function Field

MB PCB

Part Number	Description
DAA00000R1L	PCB 03P LA-4051P REV1 M/B

Block Diagram
Compal confidential
Model : JAL21/22



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Title	Block Diagram
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POWER STATES

State \ Signal	SLP S3#	SLP S4#	SLP S5#	S4 STATE#	SLP M#	ALWAYS PLANE	M PLANE	SUS PLANE	RUN PLANE	CLOCKS
S0 (Full ON) / M0	HIGH	HIGH	HIGH	HIGH	HIGH	ON	ON	ON	ON	ON
S3 (Suspend to RAM) / M1	LOW	HIGH	HIGH	HIGH	HIGH	ON	ON	ON	OFF	ON
S4 (Suspend to DISK) / M1	LOW	HIGH	HIGH	LOW	HIGH	ON	ON	ON	OFF	ON
S5 (SOFT OFF) / M1	LOW	HIGH	LOW	LOW	HIGH	ON	ON	ON	OFF	ON
S3 (Suspend to RAM) / M-OFF	LOW	HIGH	HIGH	HIGH	LOW	ON	OFF	ON	OFF	OFF
S4 (Suspend to DISK) / M-OFF	LOW	LOW	HIGH	LOW	LOW	ON	OFF	OFF	OFF	OFF
S5 (SOFT OFF) / M-OFF	LOW	LOW	LOW	LOW	LOW	ON	OFF	OFF	OFF	OFF

PM TABLE

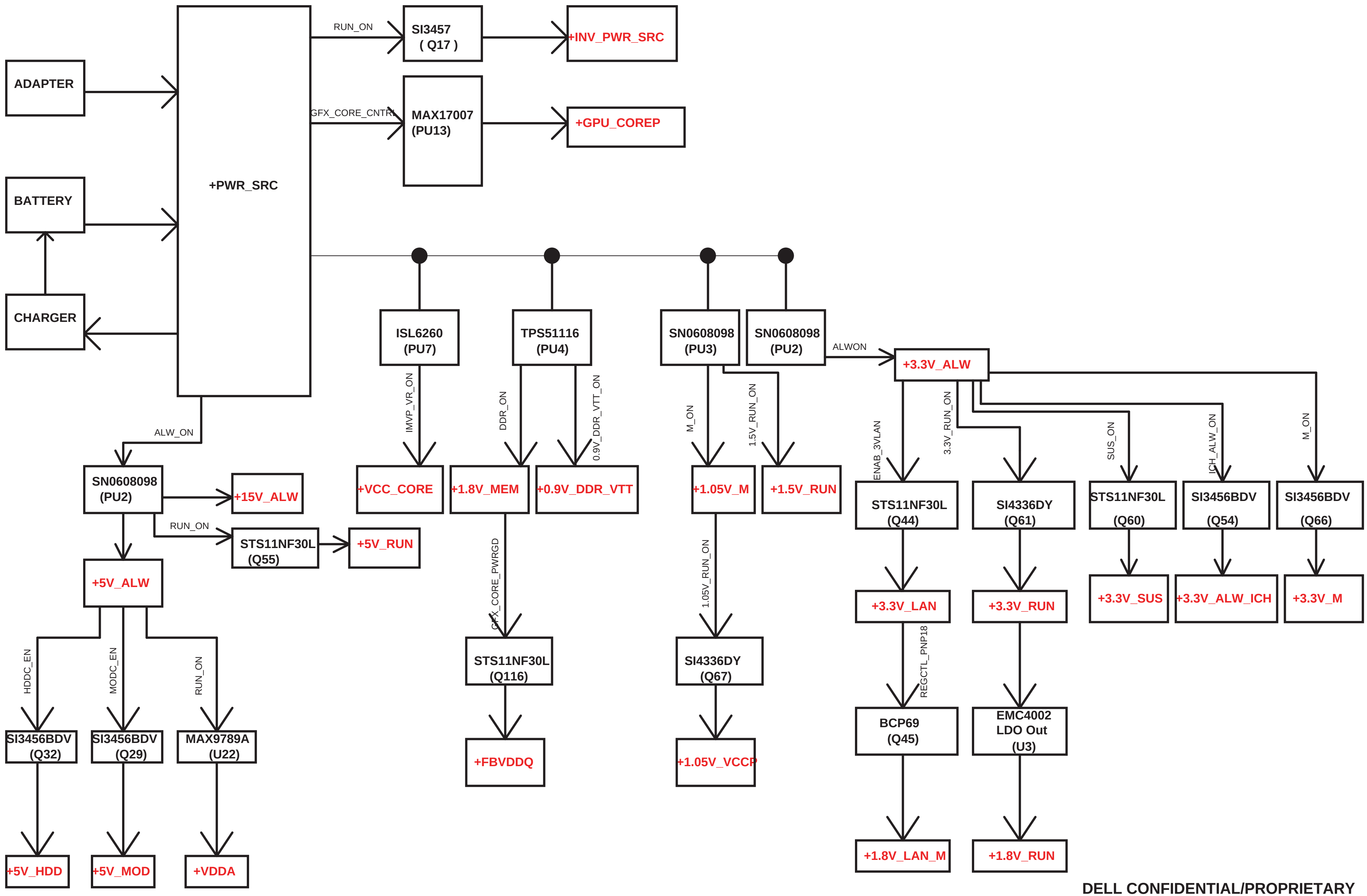
State \ power plane	+15V_ALW +5V_ALW +3.3V_ALW_ICH +3.3V_RTC_LDO	+3.3V_SUS +1.8V_MEM	+5V_RUN +3.3V_RUN +2.5V_RUN +1.5V_RUN +0.9V_DDR_VTT +GPU_CORE +VCC_CORE +1.05V_VCCP +FBVDDQ +1.1V_GFX_PCIE	+3.3V_M +1.05V_M	+3.3V_M +1.05V_M (M-OFF)
S0	ON	ON	ON	ON	ON
S3	ON	ON	OFF	ON	OFF
S5 S4/AC	ON	OFF	OFF	ON	OFF
S5 S4/AC don't exist	OFF	OFF	OFF	OFF	OFF

PCI TABLE

PCI DEVICE	IDSEL	REQ#/GNT#	PIRQ
R5C847	AD17	REQ#1 / GNT#1	PIRQ[B..D]

	USB PORT#	DESTINATION
ICH9-M	0	JUSB1 (Ext Right Side Top)
	1	JUSB1 (Ext Right Side Bottom)
	2	JESA1 (Ext Left Side Bottom)
	3	JESA1 (Ext Left Side TOP)
	4	WLAN
	5	WWAN
	6	WPAN
	7	Card Bus/Express card
	8	DOCKING
	9	DOCKING
	10	USH->BIO
	11	Camera

PCI EXPRESS	DESTINATION
Lane 1	MINI CARD-1 WWAN
Lane 2	MINI CARD-2 WLAN
Lane 3	MINI CARD-3 BT/UWB
Lane 4	EXPRESS CARD
Lane 5	None
Lane 6	10/100/1G LAN



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Title	Power Rail
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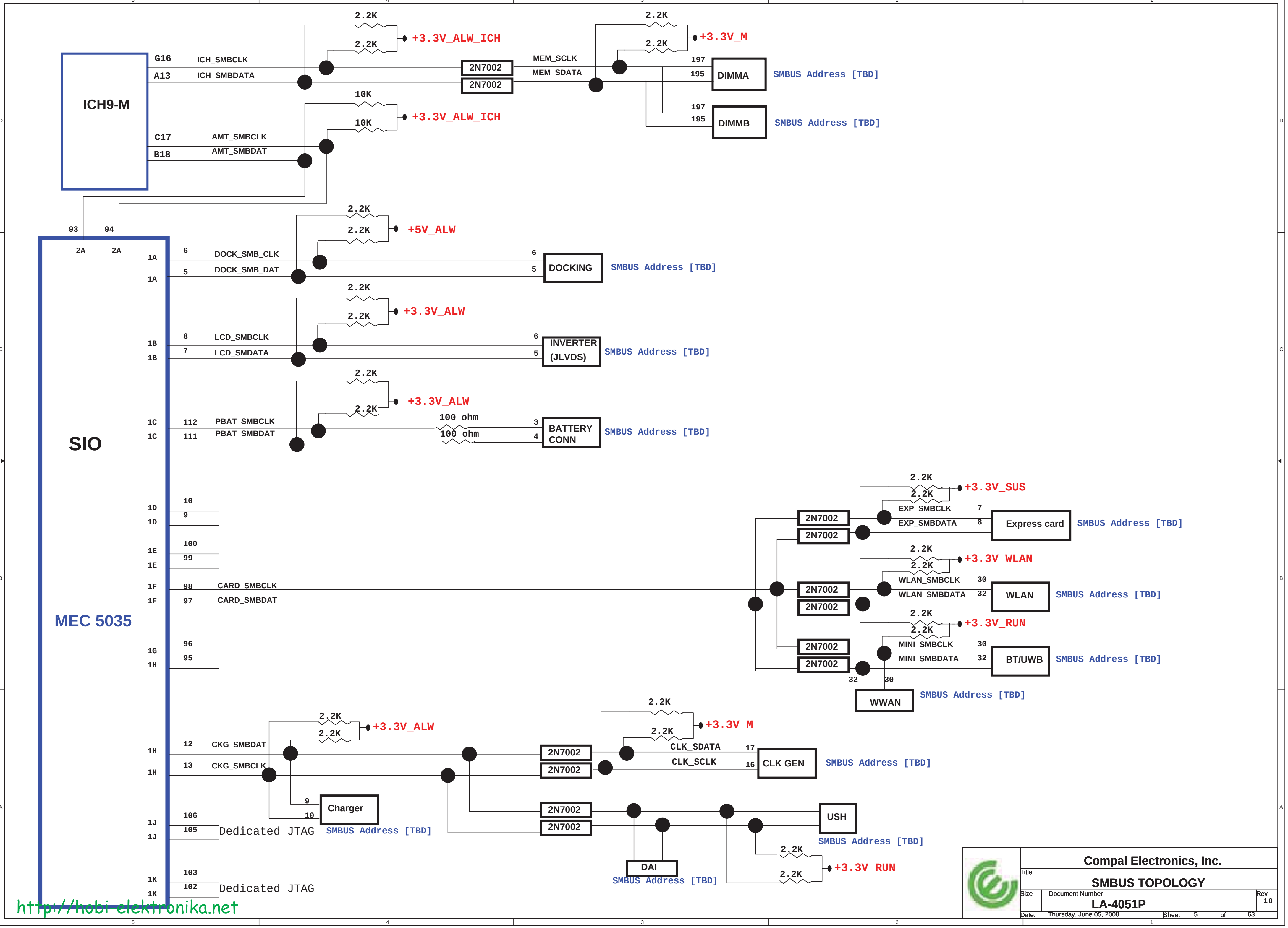

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Title
SMBUS TOPOLOGY

Size	Document Number	Rev
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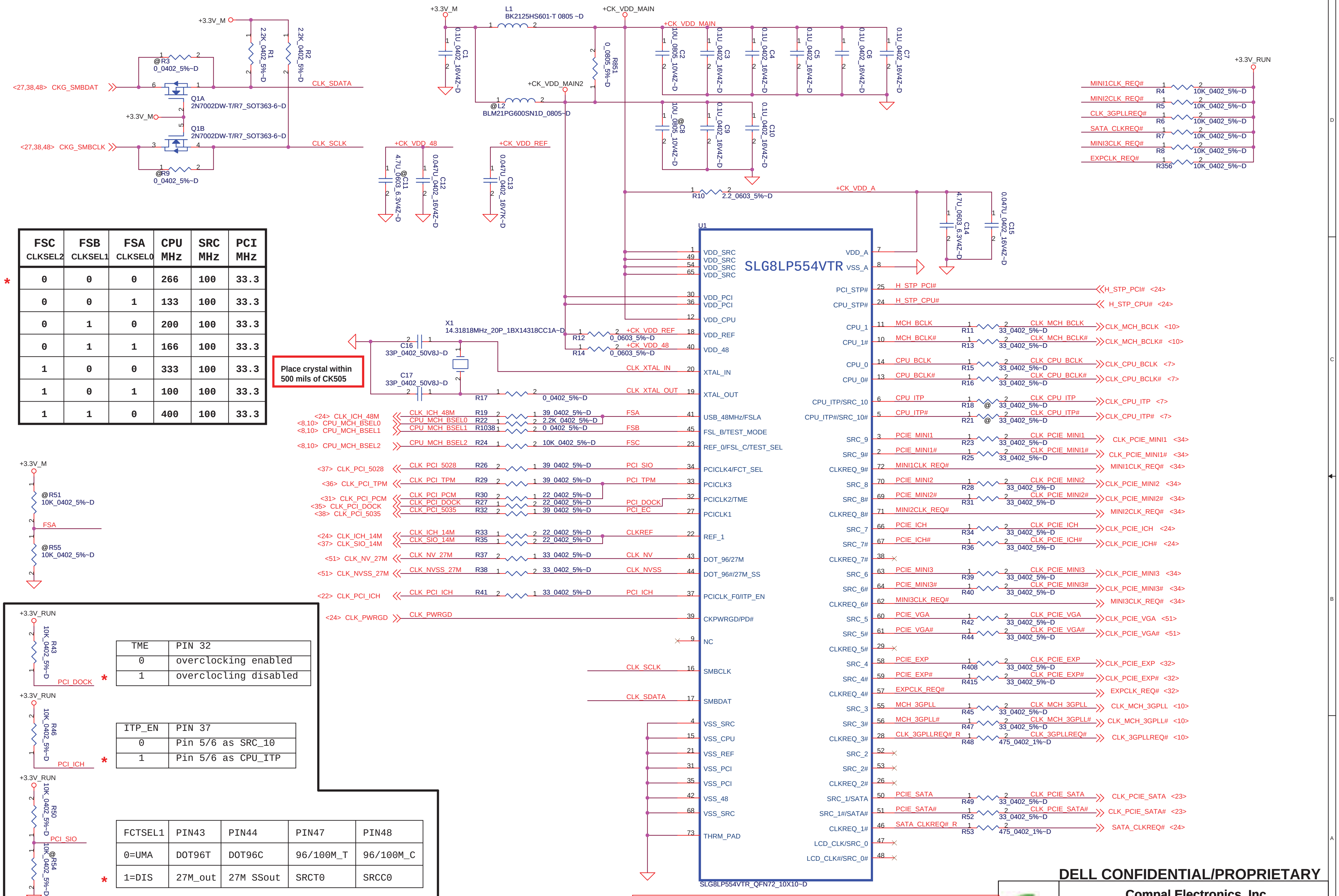

FSC CLKSEL2	FSB CLKSEL1	FSA CLKSEL0	CPU MHz	SRC MHz	PCI MHz
* 0	0	0	266	100	33.3
0	0	1	133	100	33.3
0	1	0	200	100	33.3
0	1	1	166	100	33.3
1	0	0	333	100	33.3
1	0	1	100	100	33.3
1	1	0	400	100	33.3

TME	PIN 32
0	overclocking enabled
1	overclocing disabled

ITP_EN	PIN 37
0	Pin 5/6 as SRC_10
1	Pin 5/6 as CPU_ITP

FCTSEL1	PIN43	PIN44	PIN47	PIN48
0=UMA	DOT96T	DOT96C	96/100M_T	96/100M_C
1=DIS	27M_out	27M SSout	SRCT0	SRCC0

0=UMA
1=Disc. GRFX down

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Title: Clock Generator

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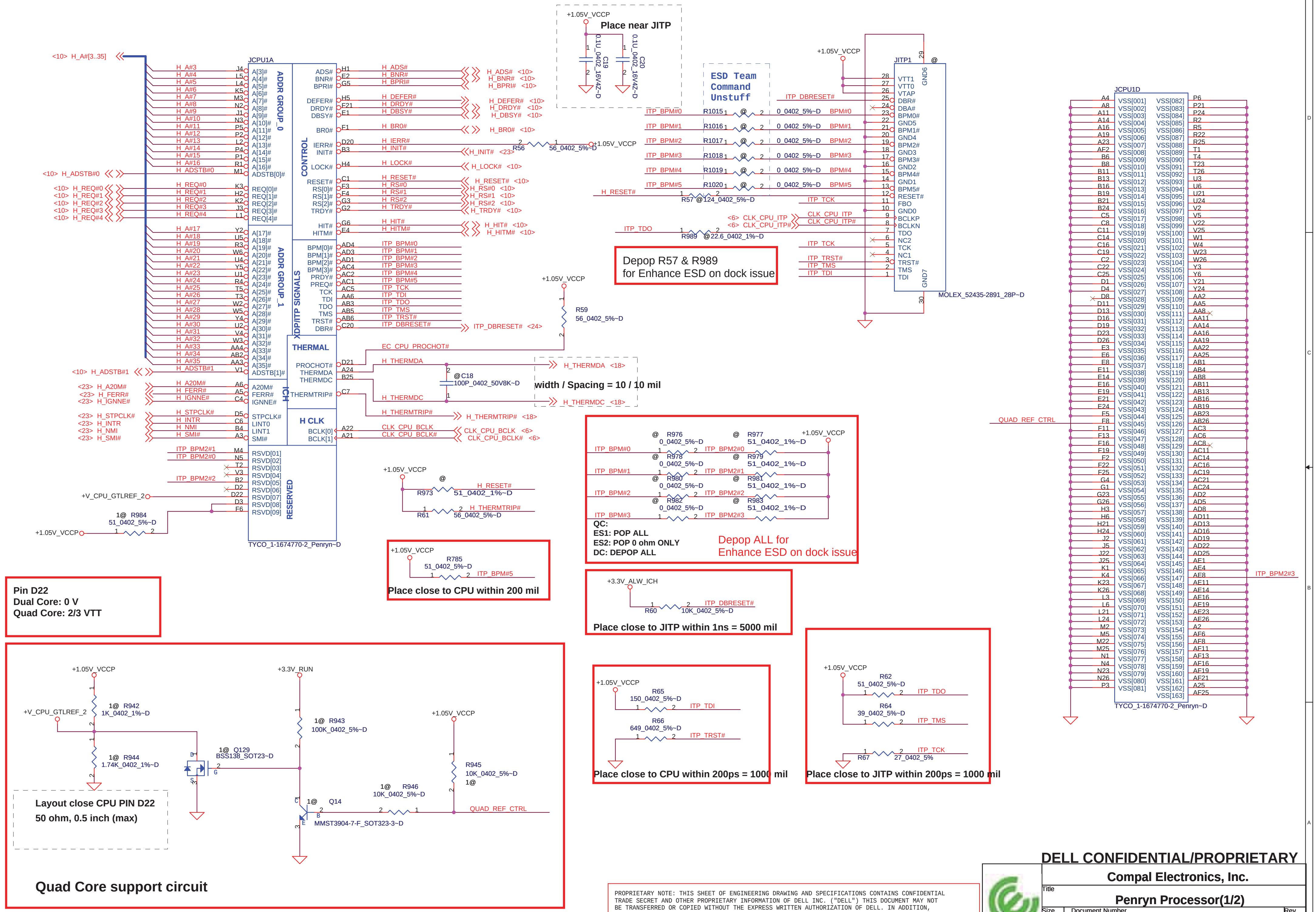

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Title	Penryn Processor(1/2)
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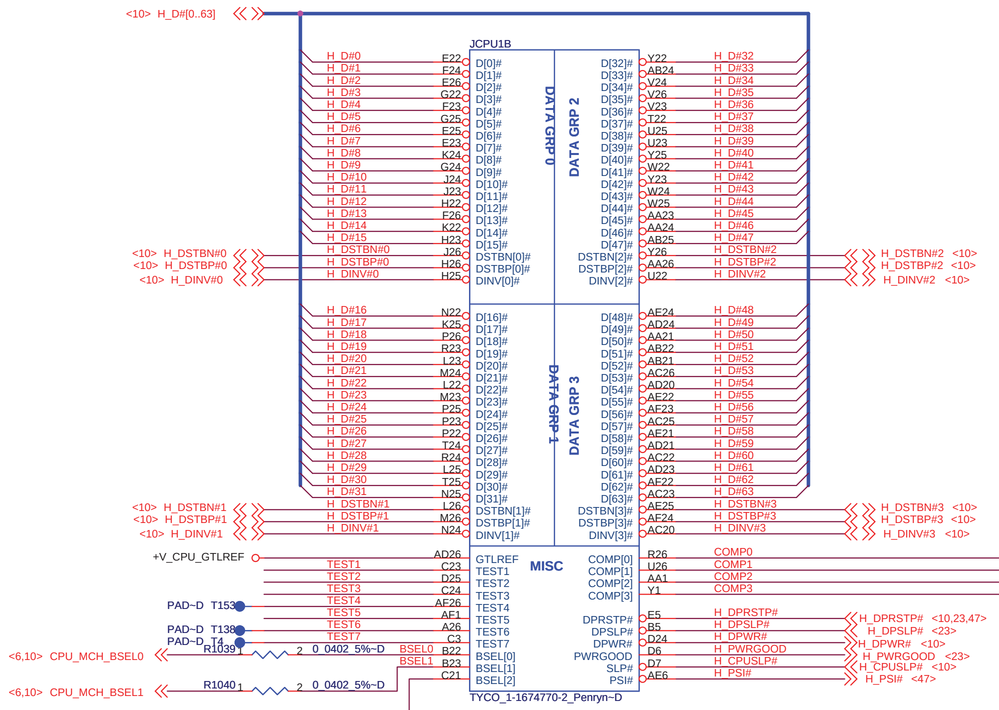
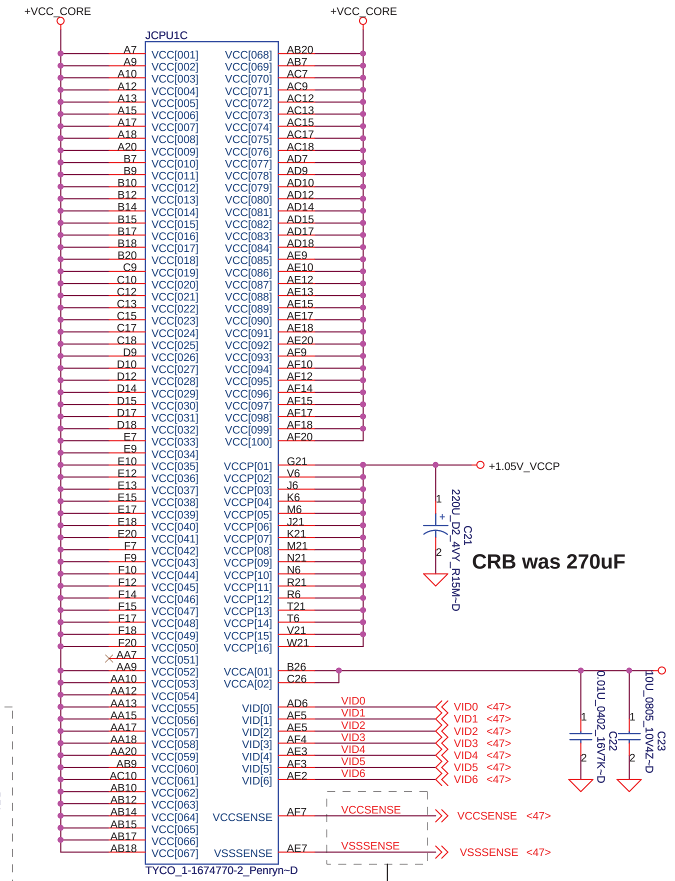
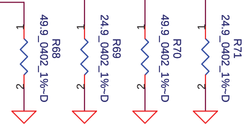




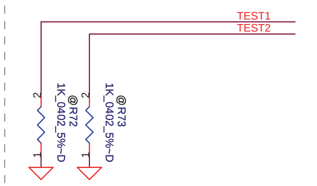
CRB was 270uF



Resistor placed within 0.5" of CPU pin.Trace should be at least 25 mils away from any other toggling signal. COMP0, COMP2 trace should be 25 ohm. COMP1, COMP3 should be 50 ohm. (Quad Core design)

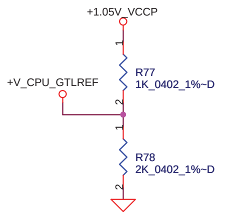
Length match within 25 mils, Z0=27.4 ohm

Dual Core Should follow Quad Core value
Avia should support Quad / Dual Core CPU



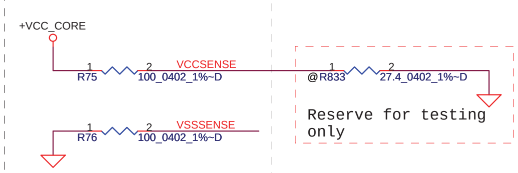
For the purpose of testability, route these signals through a ground referenced Z0 = 50ohm trace that ends in a via that is near a GND via and is accessible through an oscilloscope connection.

FSB	BCLK	BSEL2	BSEL1	BSEL0
533	133	0	0	1
667	166	0	1	1
800	200	0	1	0
1067	266	0	0	0



Layout close CPU PIN AD26
50 ohm, 0.5 inch (max)

Place R75 and R76 near CPU



Route VCCSENSE and VSSSENSE trace at
27.4 ohms, 7 mils spacing and the placement should be within 1 inch (max)

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Title: Penryn Processor(2/2)

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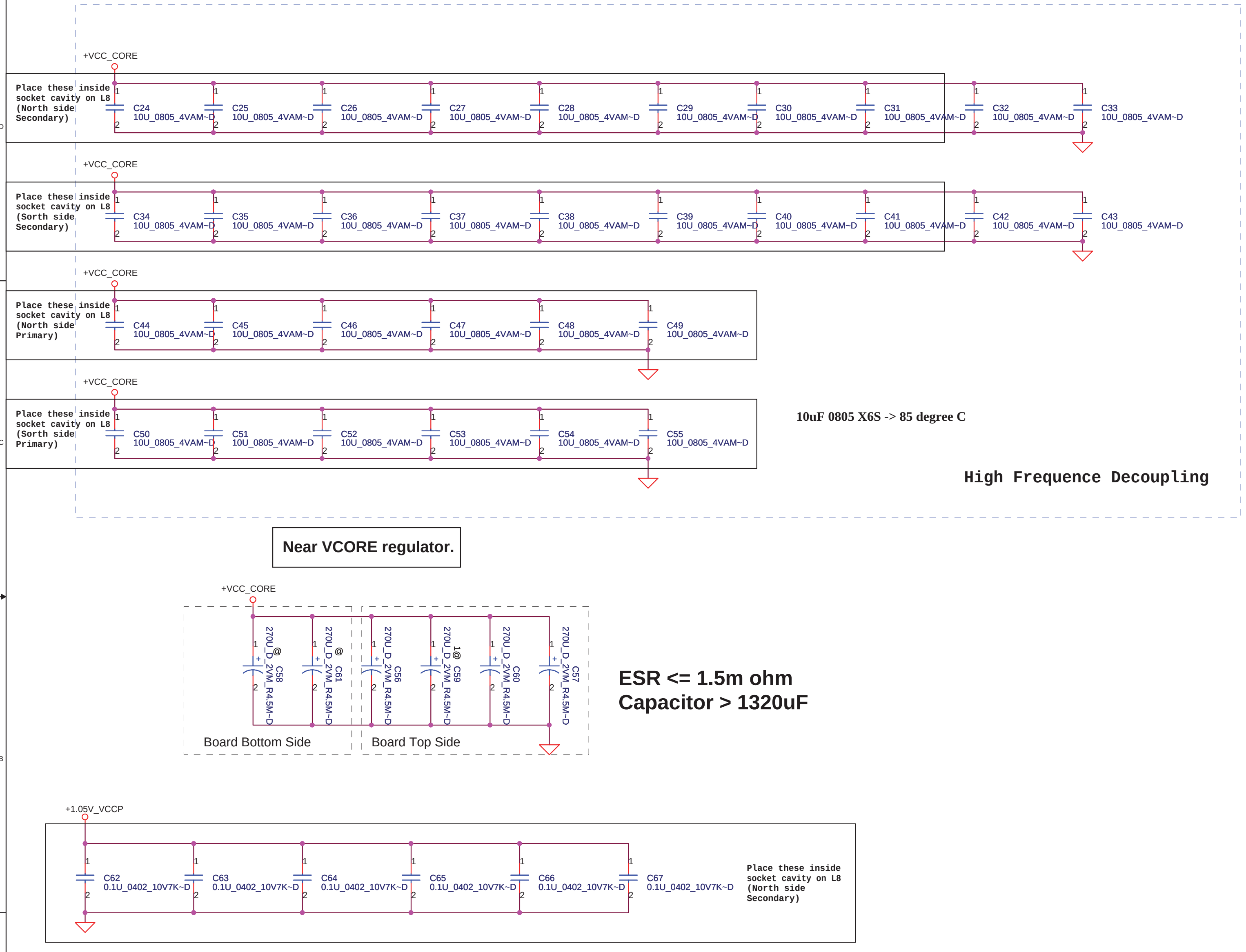

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Title: CPU Bypass

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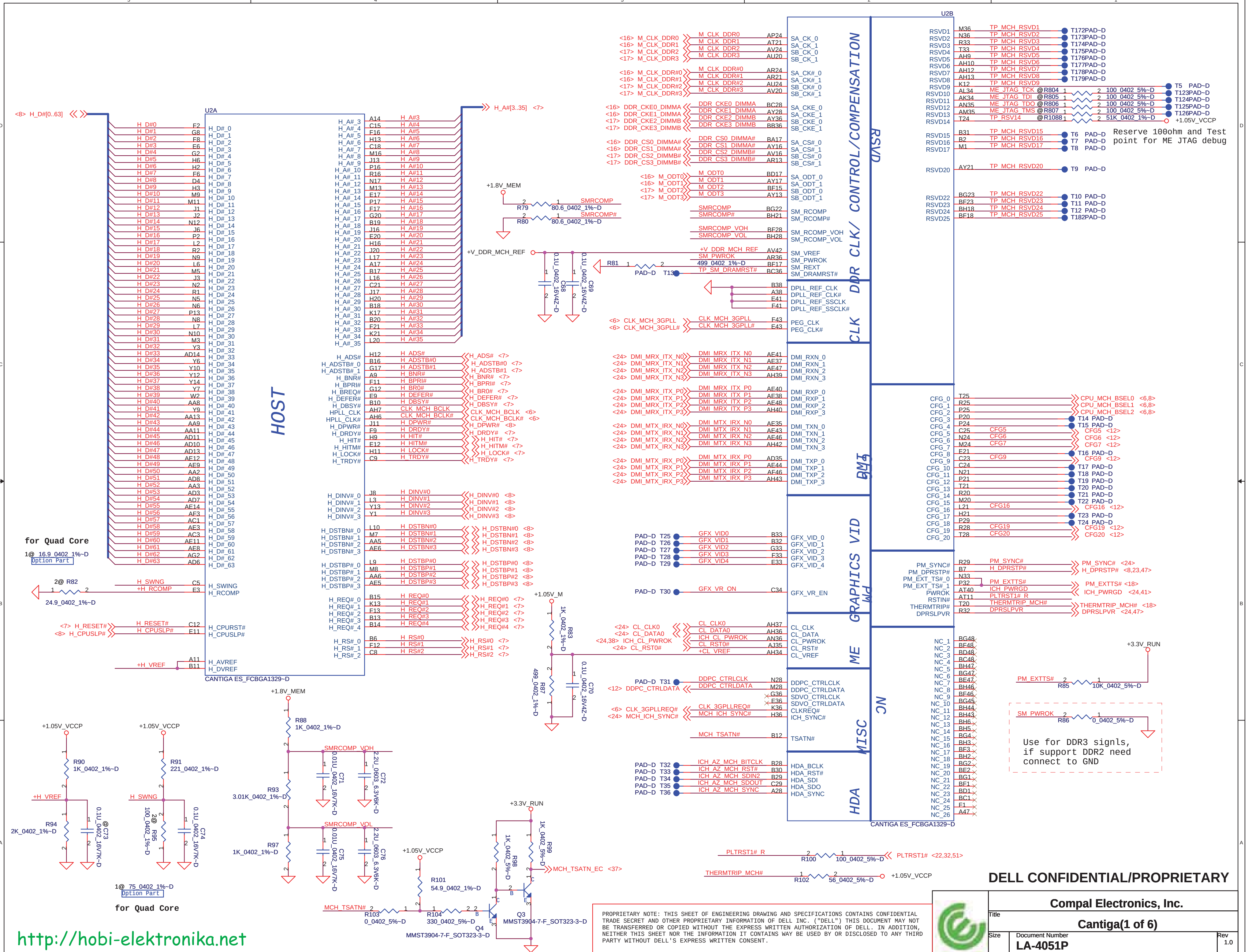

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Title	Cantiga(1 of 6)
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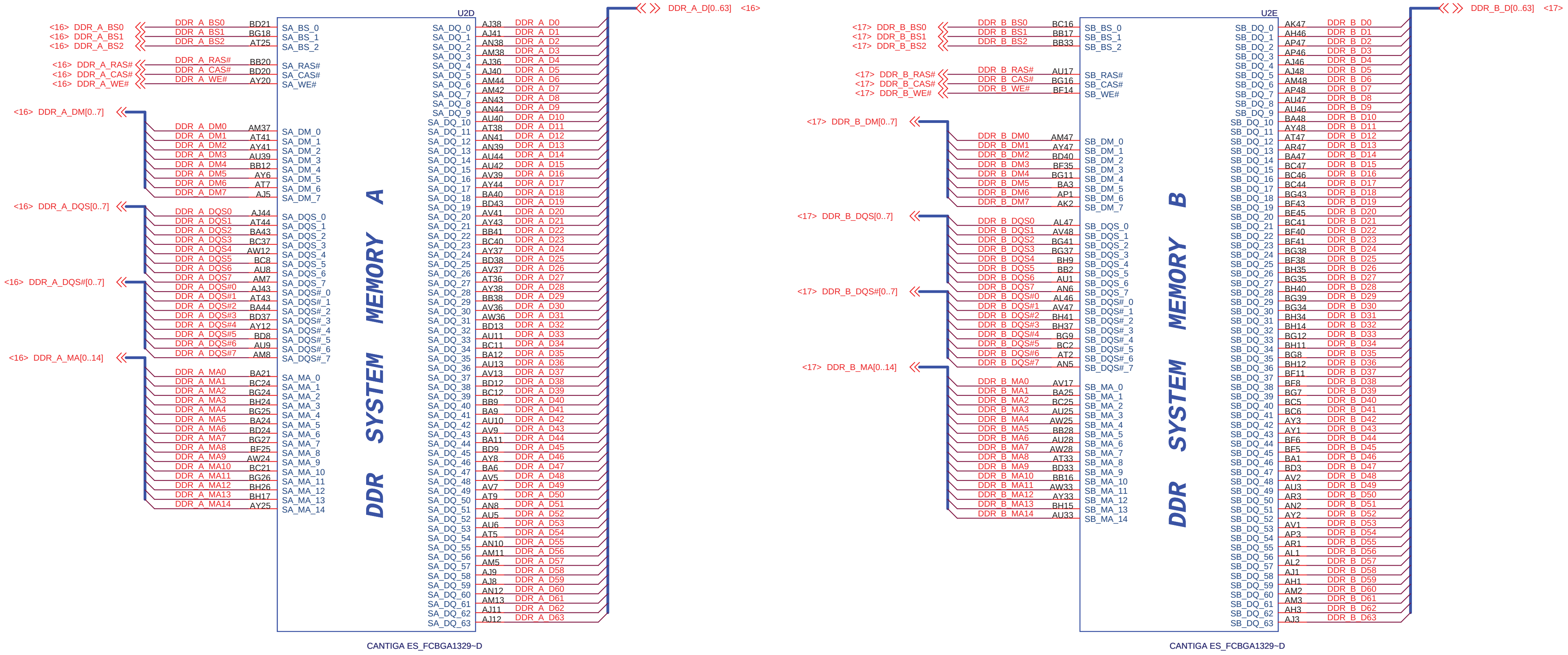

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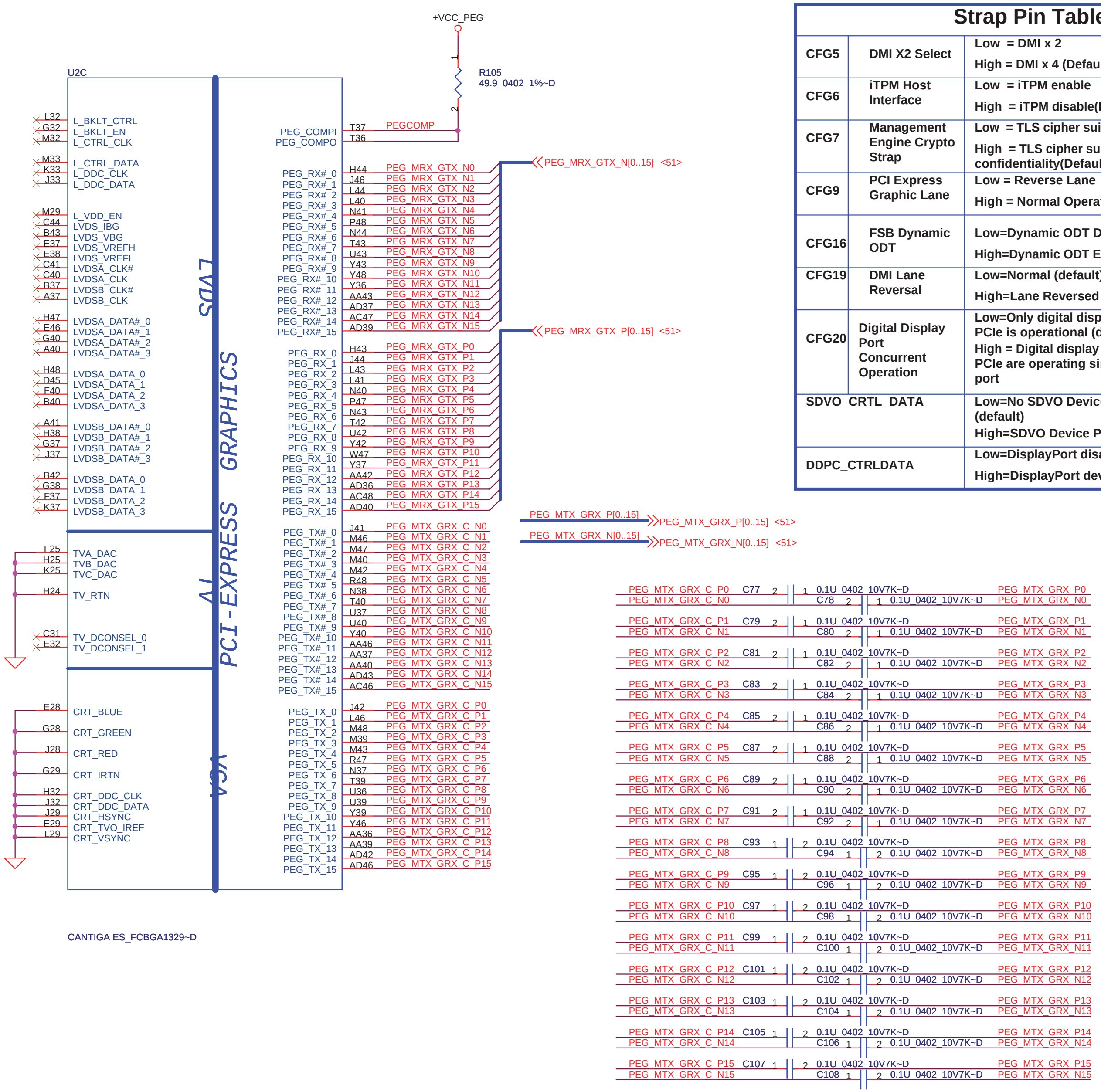
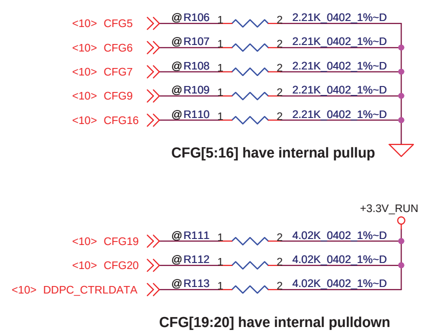


Strap Pin Table

CFG5	DMI X2 Select	Low = DMI x 2 High = DMI x 4 (Default)
CFG6	iTPM Host Interface	Low = iTPM enable High = iTPM disable(Defult)
CFG7	Management Engine Crypto Strap	Low = TLS cipher suite with no confidentiality High = TLS cipher suite with confidentiality(Default)
CFG9	PCI Express Graphic Lane	Low = Reverse Lane High = Normal Operation(Default)
CFG16	FSB Dynamic ODT	Low=Dynamic ODT Disable High=Dynamic ODT Enable(default)
CFG19	DMI Lane Reversal	Low=Normal (default) High=Lane Reversed
CFG20	Digital Display Port Concurrent Operation	Low=Only digital display port (SDVO/DP/iHDMI) or PCIe is operational (default) High = Digital display port (SDVO/DP/iHDMI) and PCIe are operating simultaneously via the PEG port
SDVO_CRTL_DATA		Low=No SDVO Device Present (default) High=SDVO Device Present
DDPC_CTRLDATA		Low=DisplayPort disabled (default) High=DisplayPort device present



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Title	Cantiga(3 of 6)	
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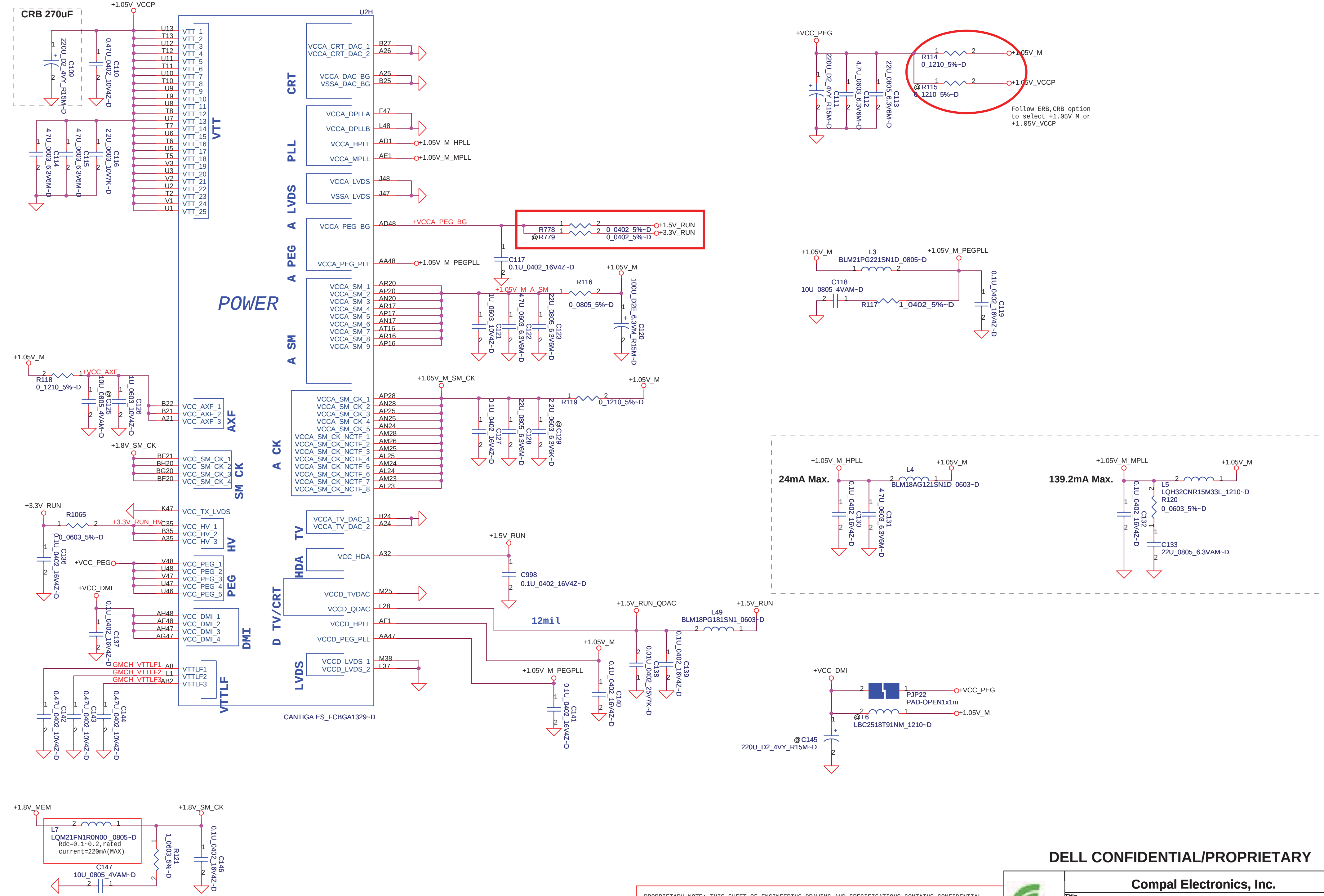

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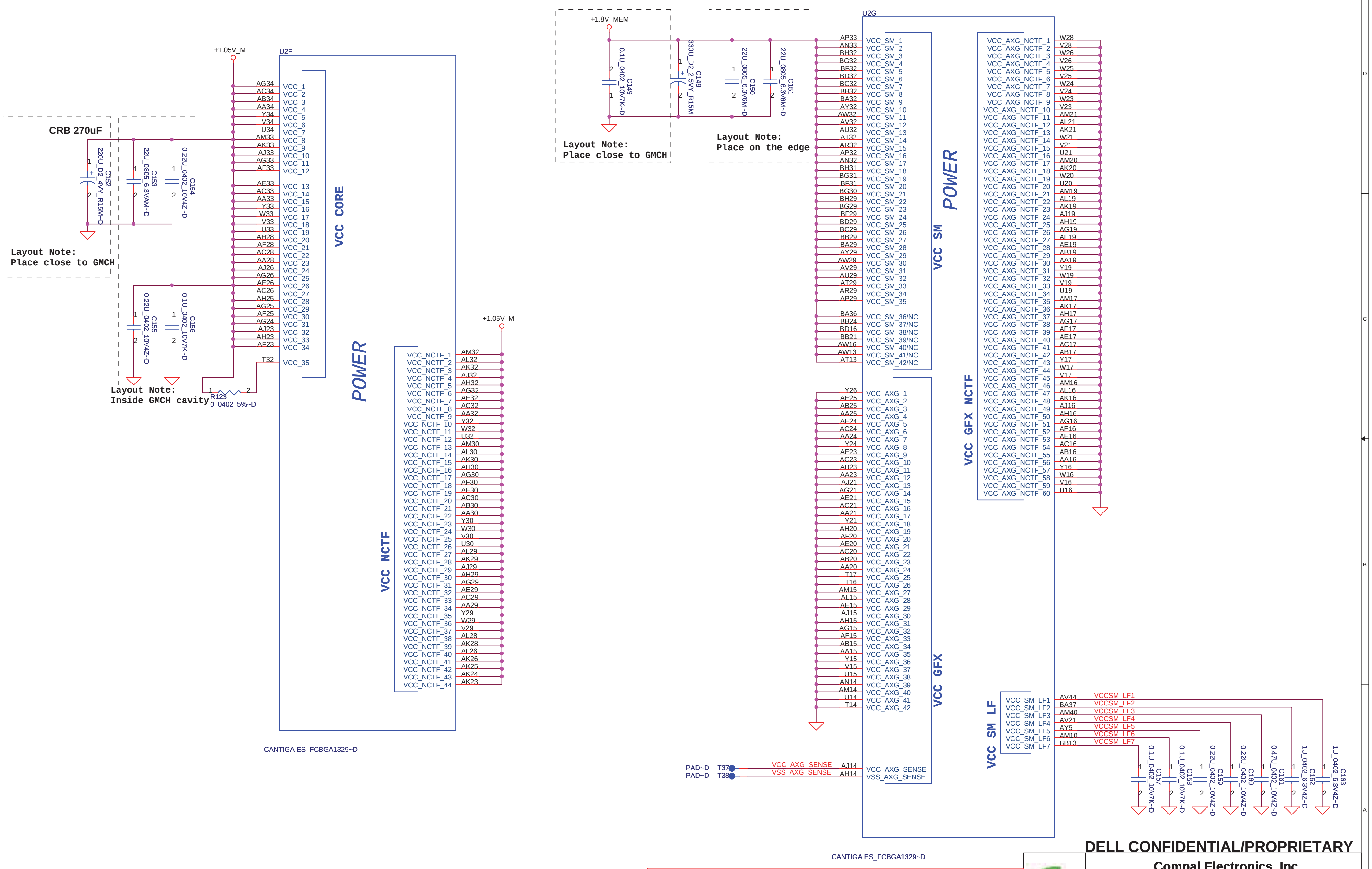

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Title	Cantiga(5 of 6)	
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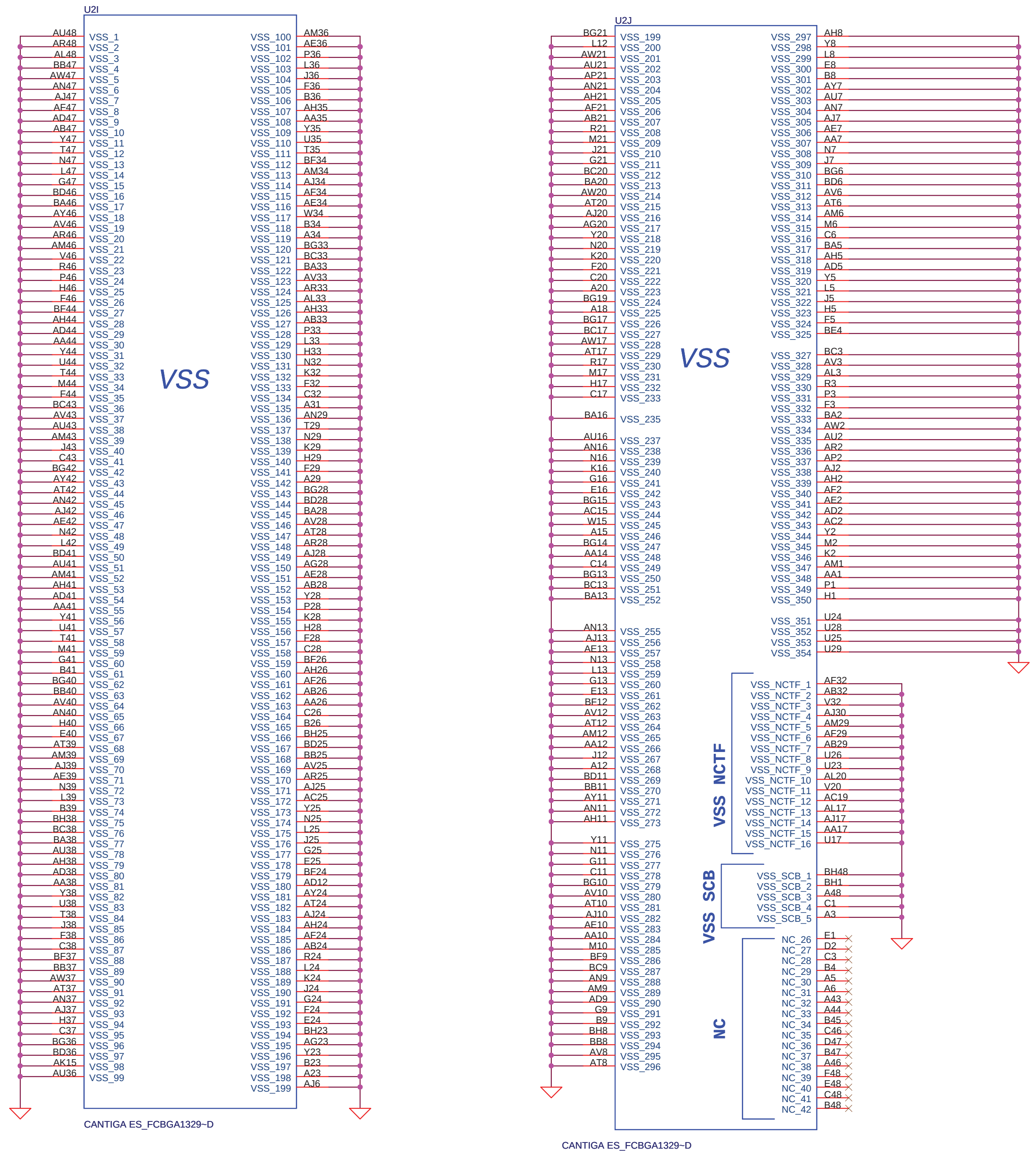

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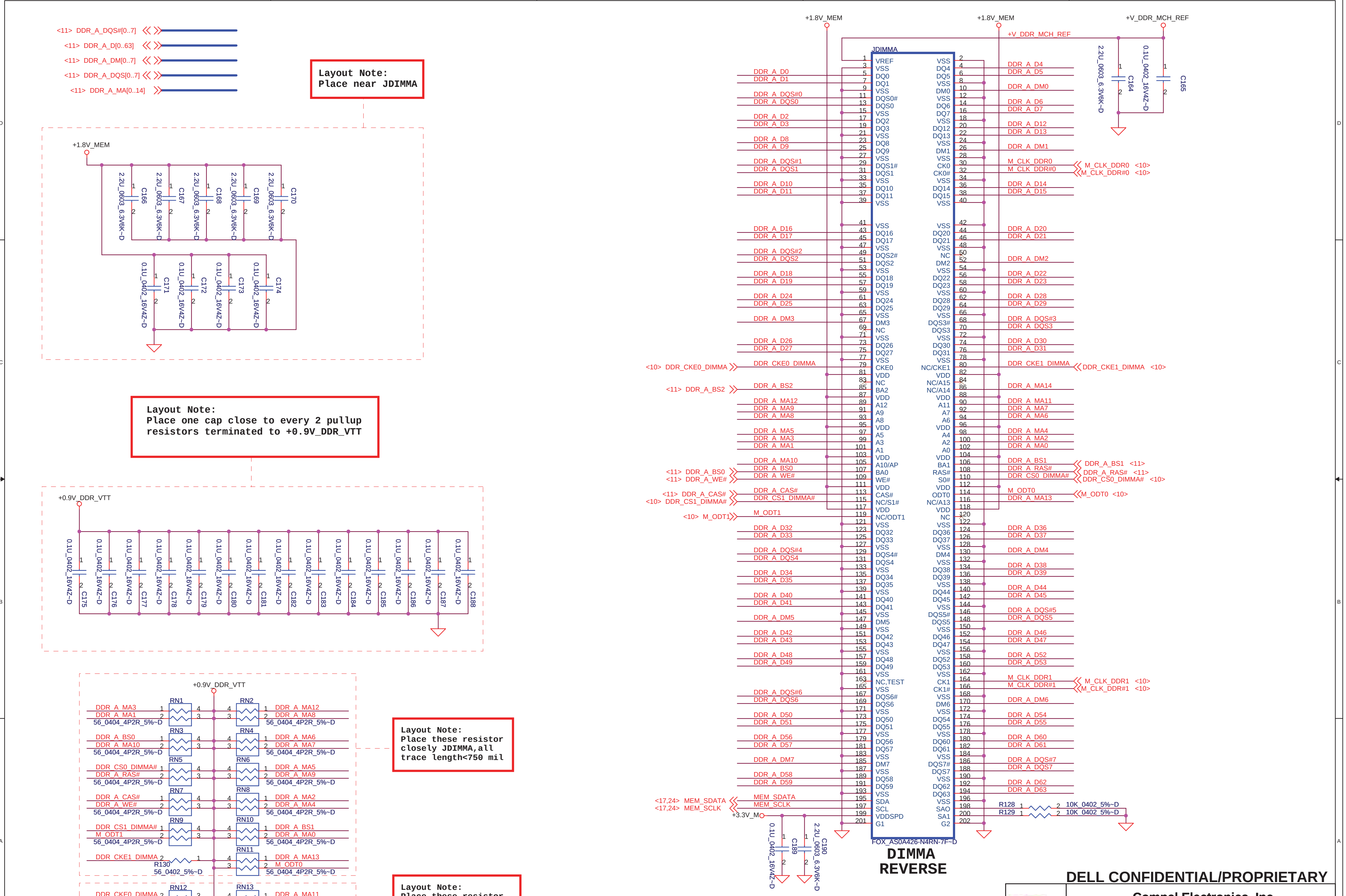

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Title	DDRII-SODIMM SLOT1	
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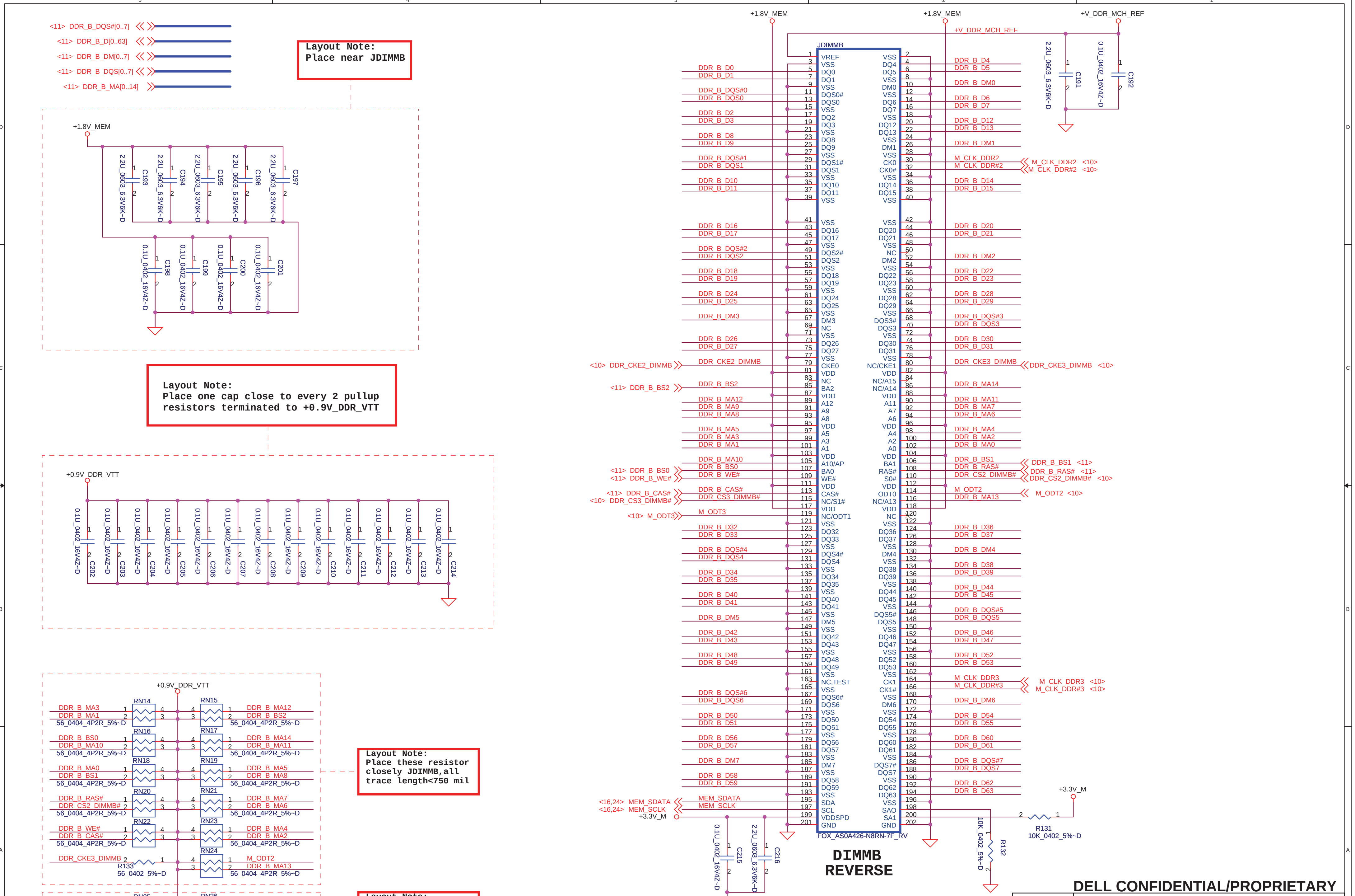
Date: Wednesday, June 11, 2008	Sheet 16 of 63	



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Title	DDRII-SODIMM SLOT2	
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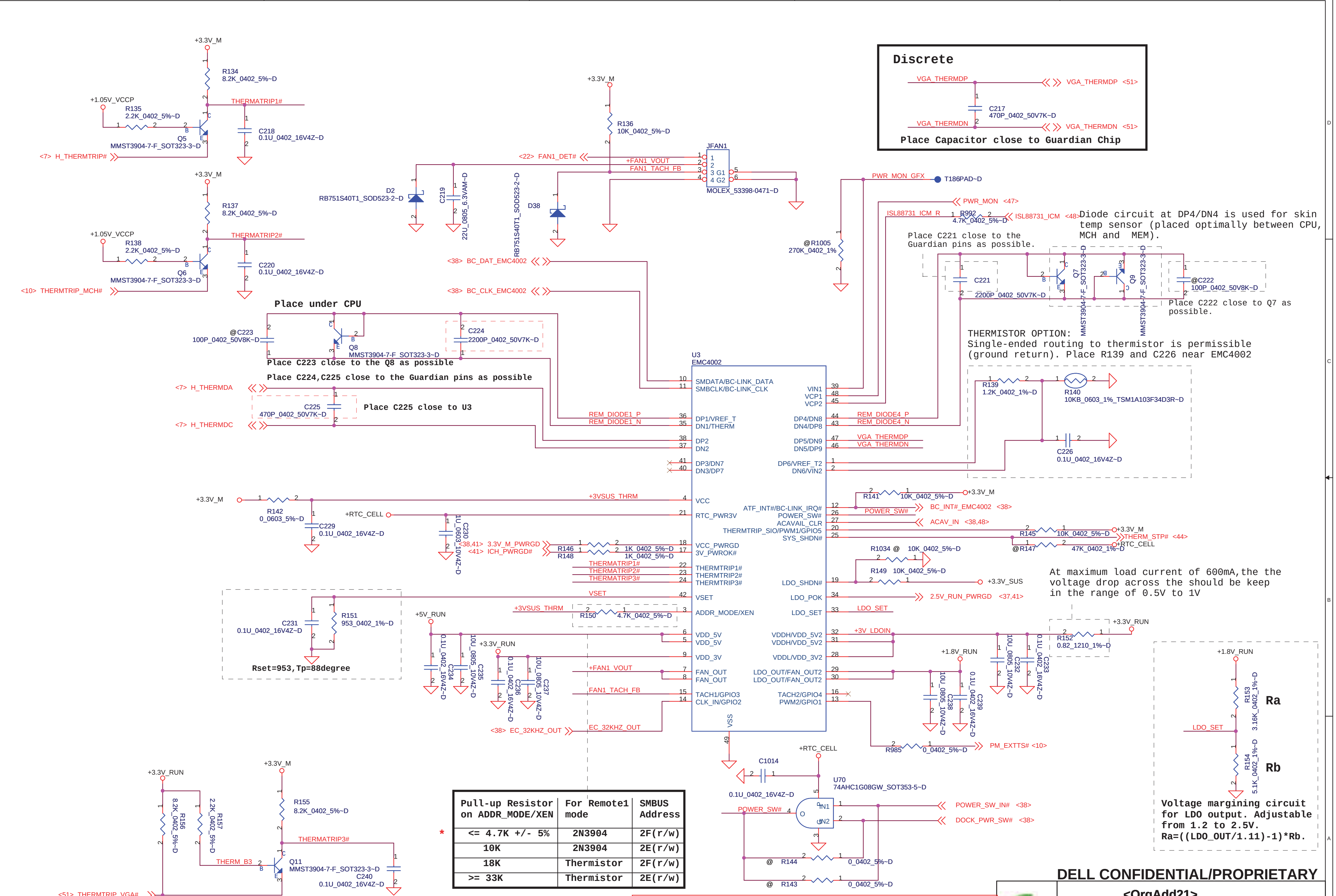

Pull-up Resistor on ADDR_MODE/XEN	For Remote1 mode	SMBUS Address
<= 4.7K +/- 5%	2N3904	2F(r/w)
10K	2N3904	2E(r/w)
18K	Thermistor	2F(r/w)
>= 33K	Thermistor	2E(r/w)

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<OrgAdd21>

Title: FAN & Thermal Sensor

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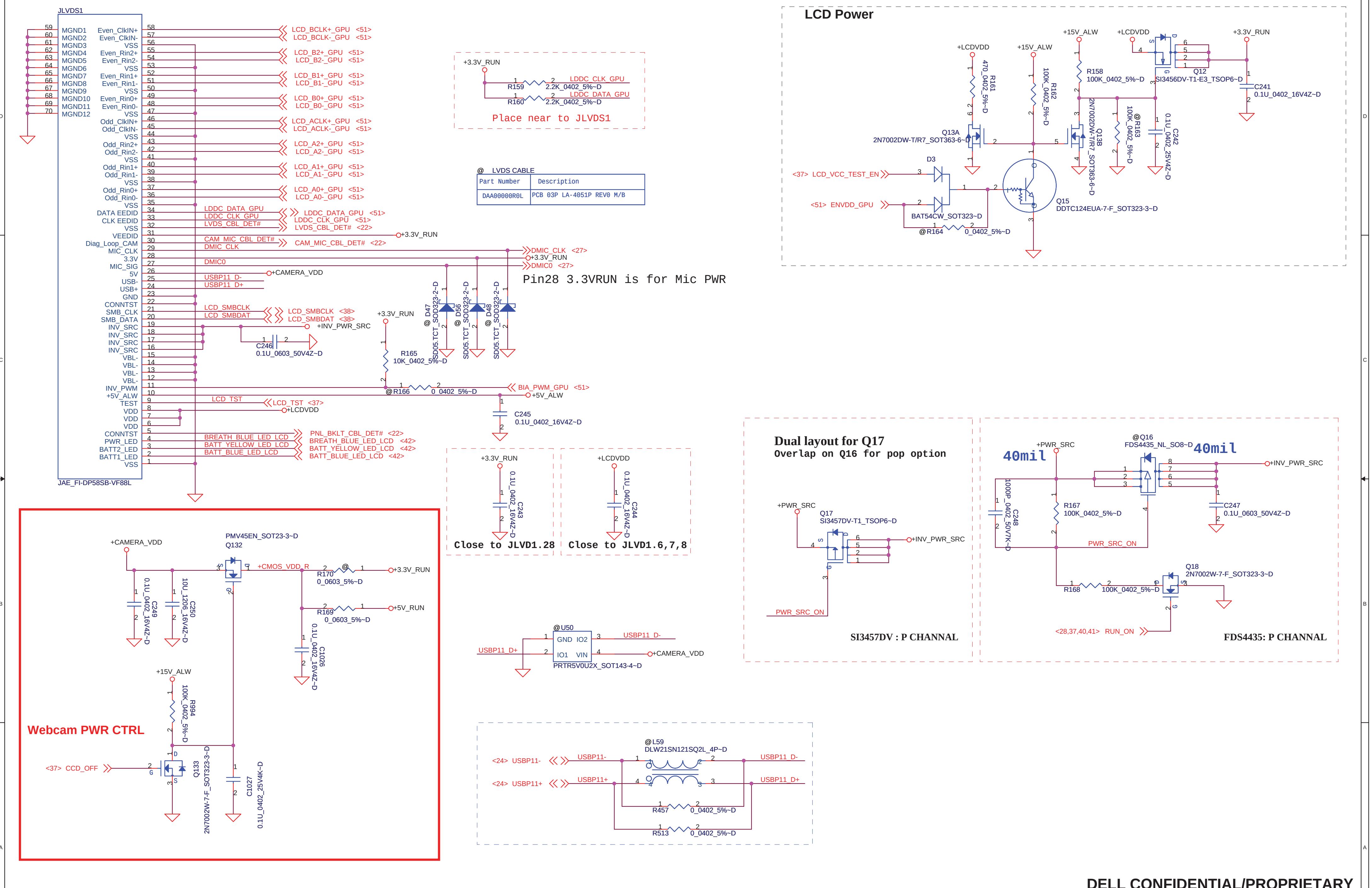

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Title	LVDS Conn
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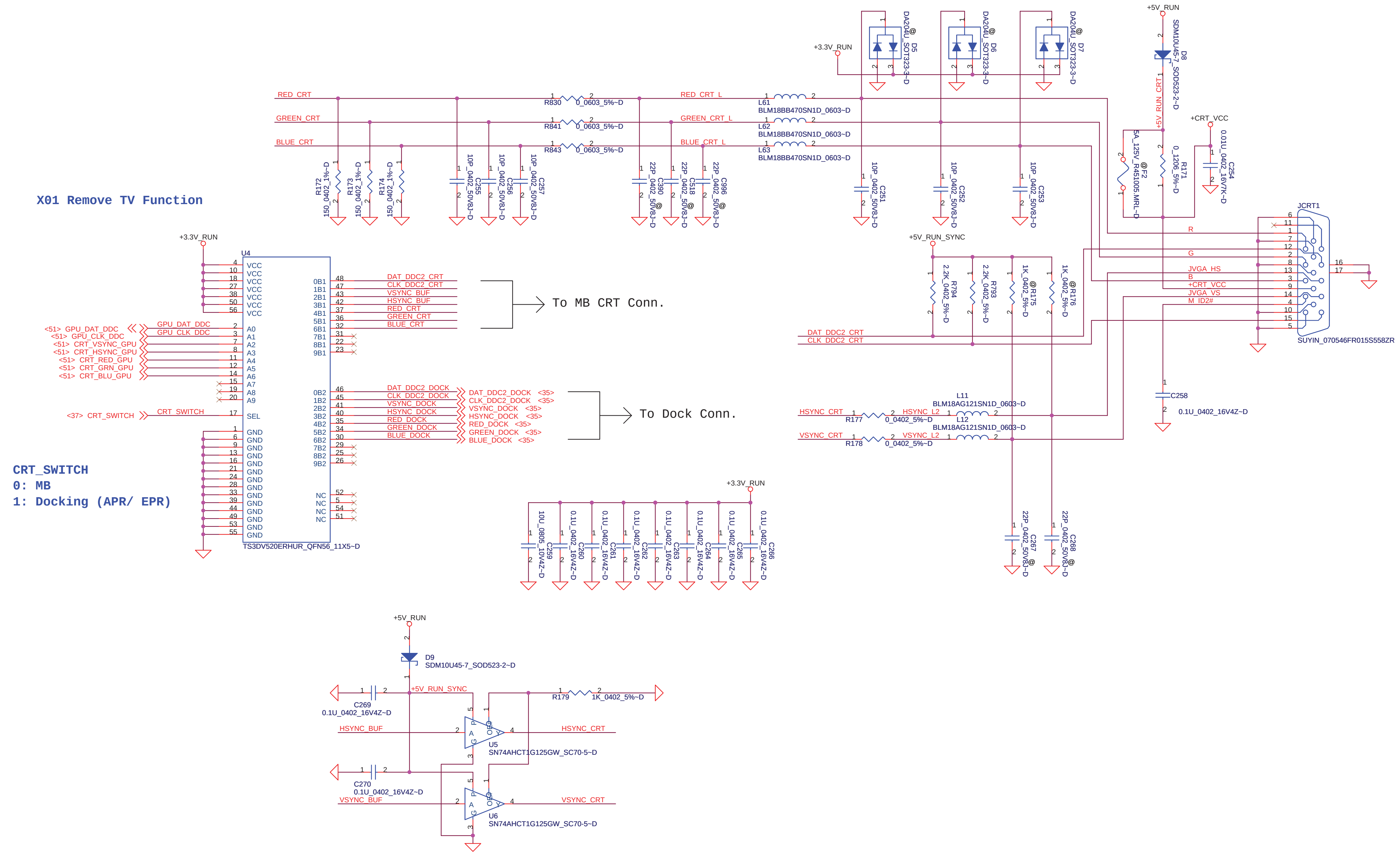

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Title	CRT/Video switch	
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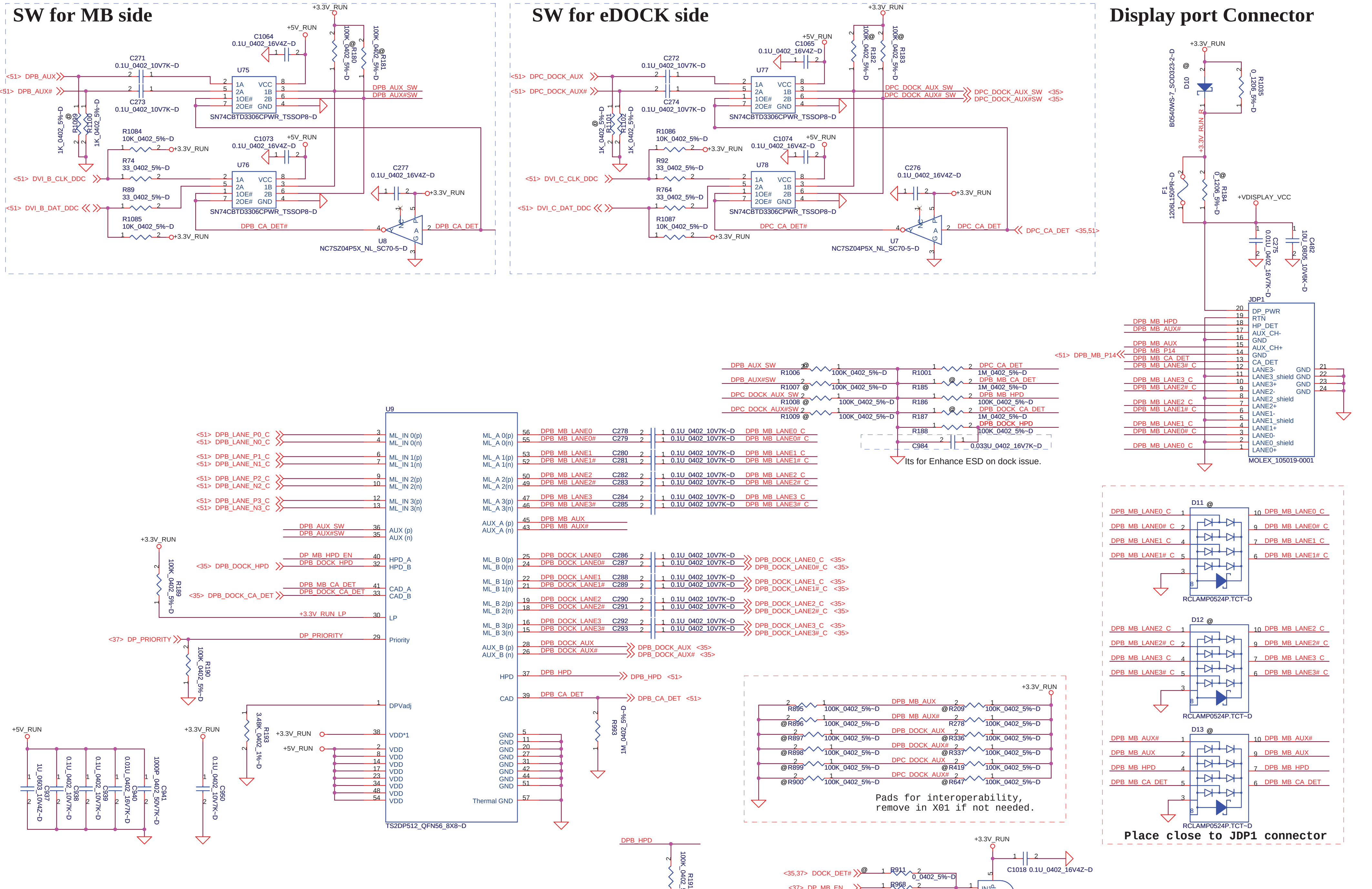

Pin30	Level	State	Description
LP	Hi	Normal Mode	Standard operational mode for device
	Low	Low power Mode	Device is forced into a low power mode causing the output s to go to a high-Z state, all other inputs are ignore

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Compal Electronics, Inc.

Title: Display port

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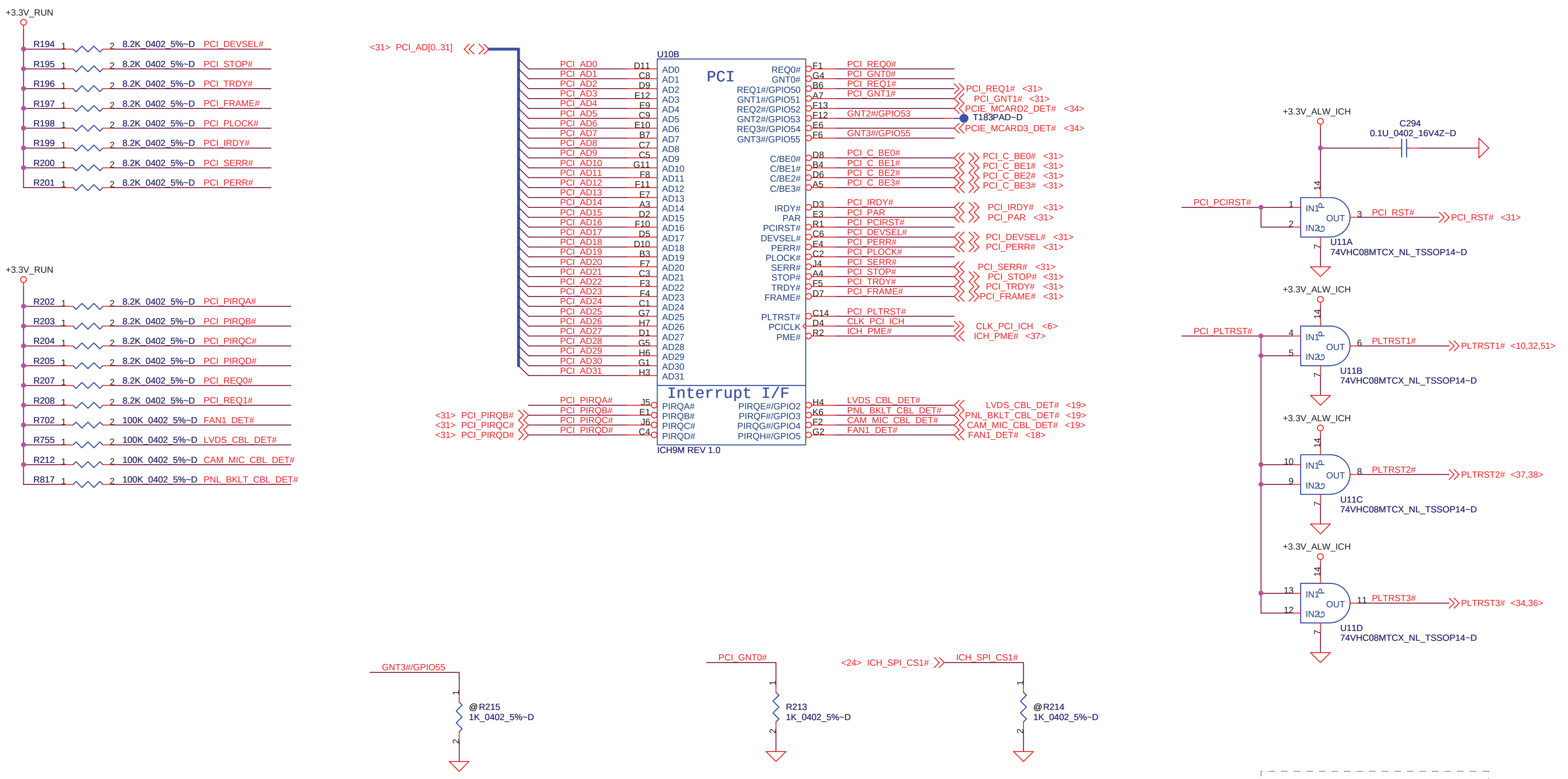
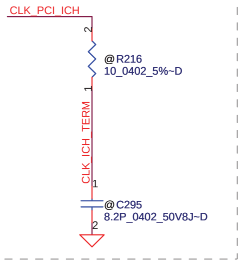


Place closely pin U10.D4



A16 away override strap.	
PCI_GNT3#	Low = A16 swap override enabled. High = Default.

*

Boot BIOS Strap

PCI_GNT0#	SPI_CS1#	Boot BIOS Location
0	1	SPI
1	0	PCI
1	1	LPC

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Title: ICH9-M(1/4)

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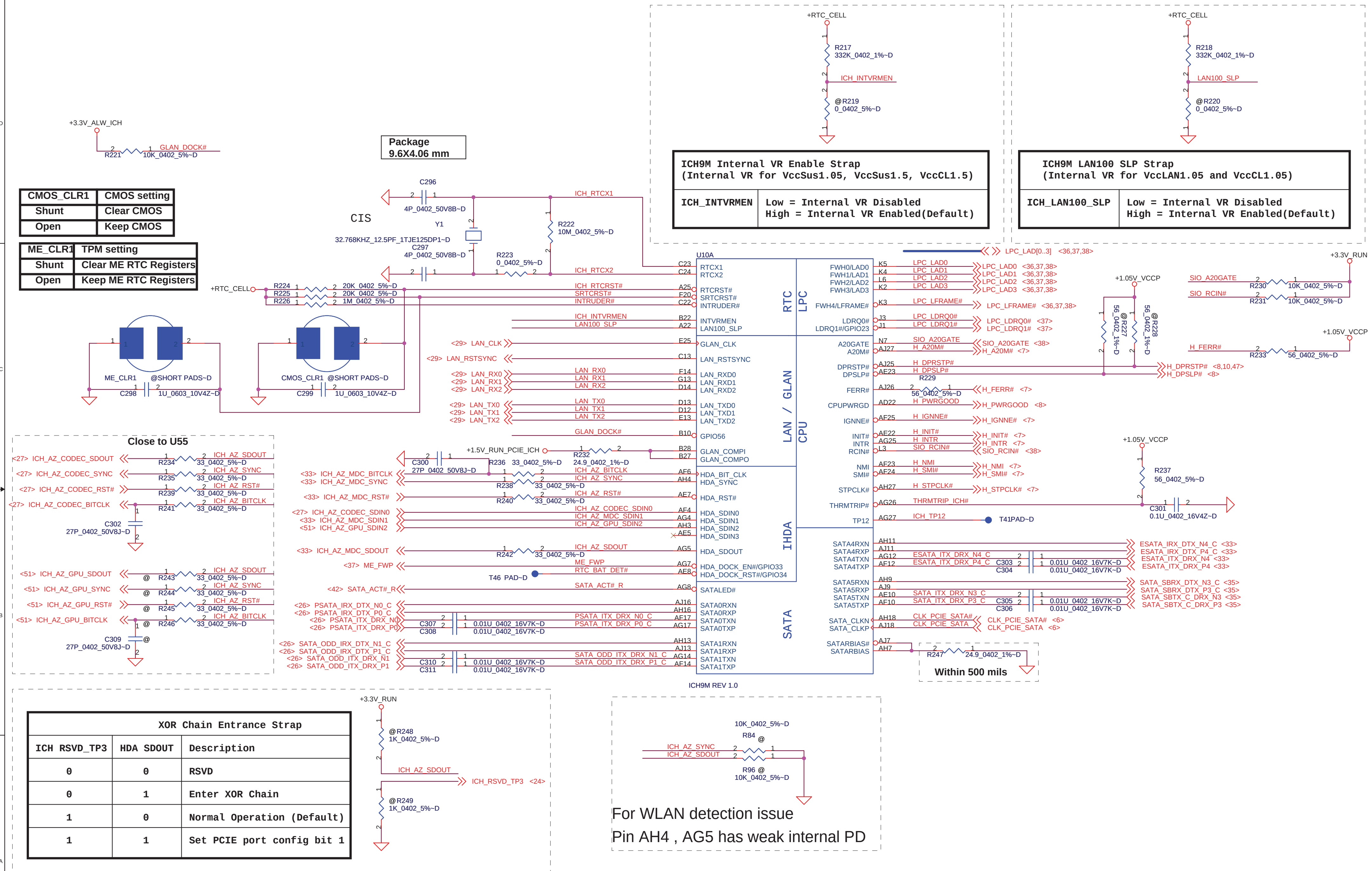
CMOS_CLR1	CMOS setting
Shunt	Clear CMOS
Open	Keep CMOS

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

Package
9.6X4.06 mm

ICH9M Internal VR Enable Strap (Internal VR for VccSus1.05, VccSus1.5, VccCL1.5)	
ICH_INTVRMEN	Low = Internal VR Disabled High = Internal VR Enabled(Default)

ICH9M LAN100 SLP Strap (Internal VR for VccLAN1.05 and VccCL1.05)	
ICH_LAN100_SLP	Low = Internal VR Disabled High = Internal VR Enabled(Default)



XOR Chain Entrance Strap		
ICH RSVD_TP3	HDA SDOUT	Description
0	0	RSVD
0	1	Enter XOR Chain
1	0	Normal Operation (Default)
1	1	Set PCIE port config bit 1

For WLAN detection issue

Pin AH4 , AG5 has weak internal PD

Compal Electronics, Inc.

Title: ICH9-M(2/4)

Document Number: LA-4051P — Rev 1.0

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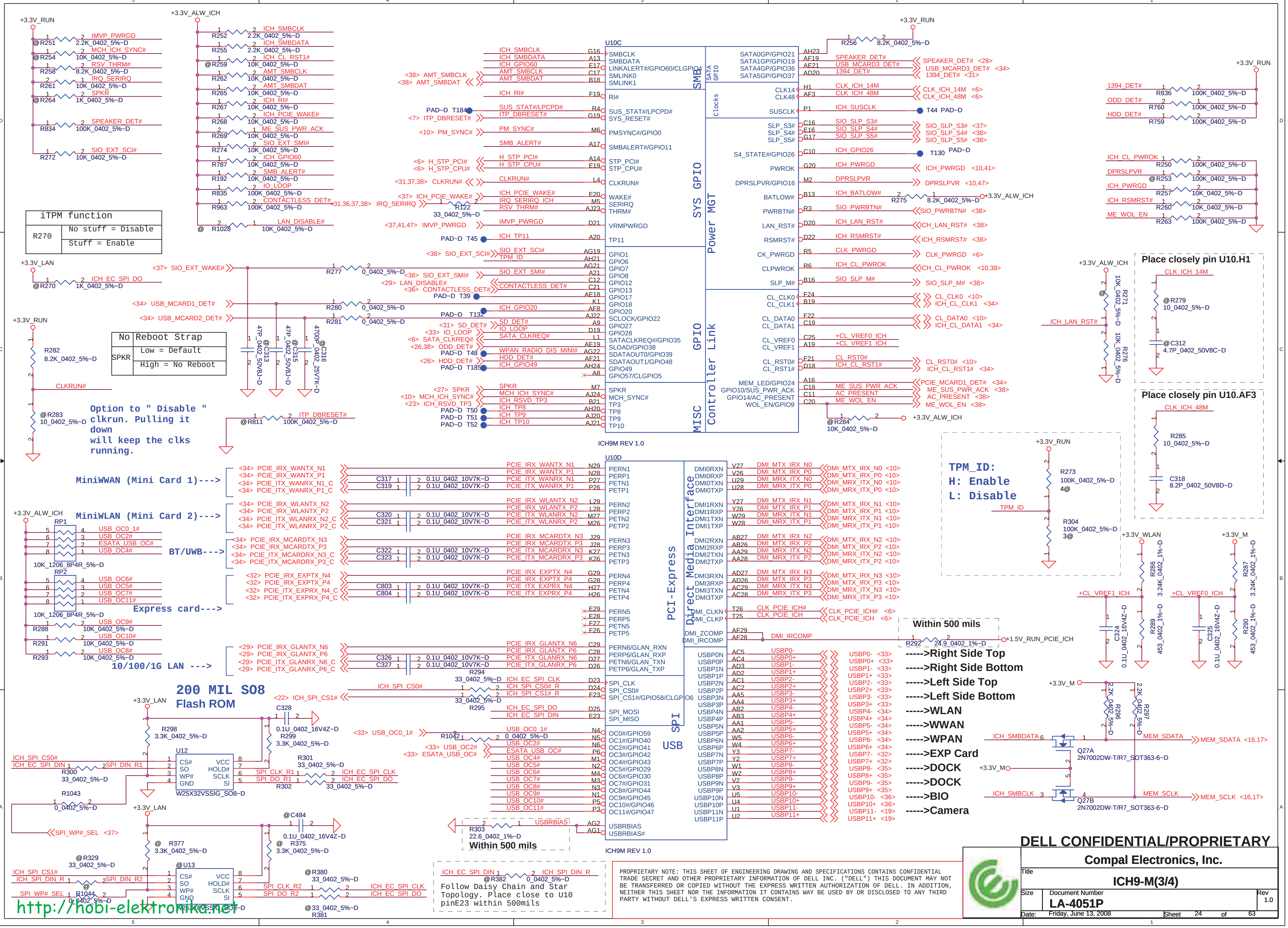

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Title	ICH9-M(3/4)
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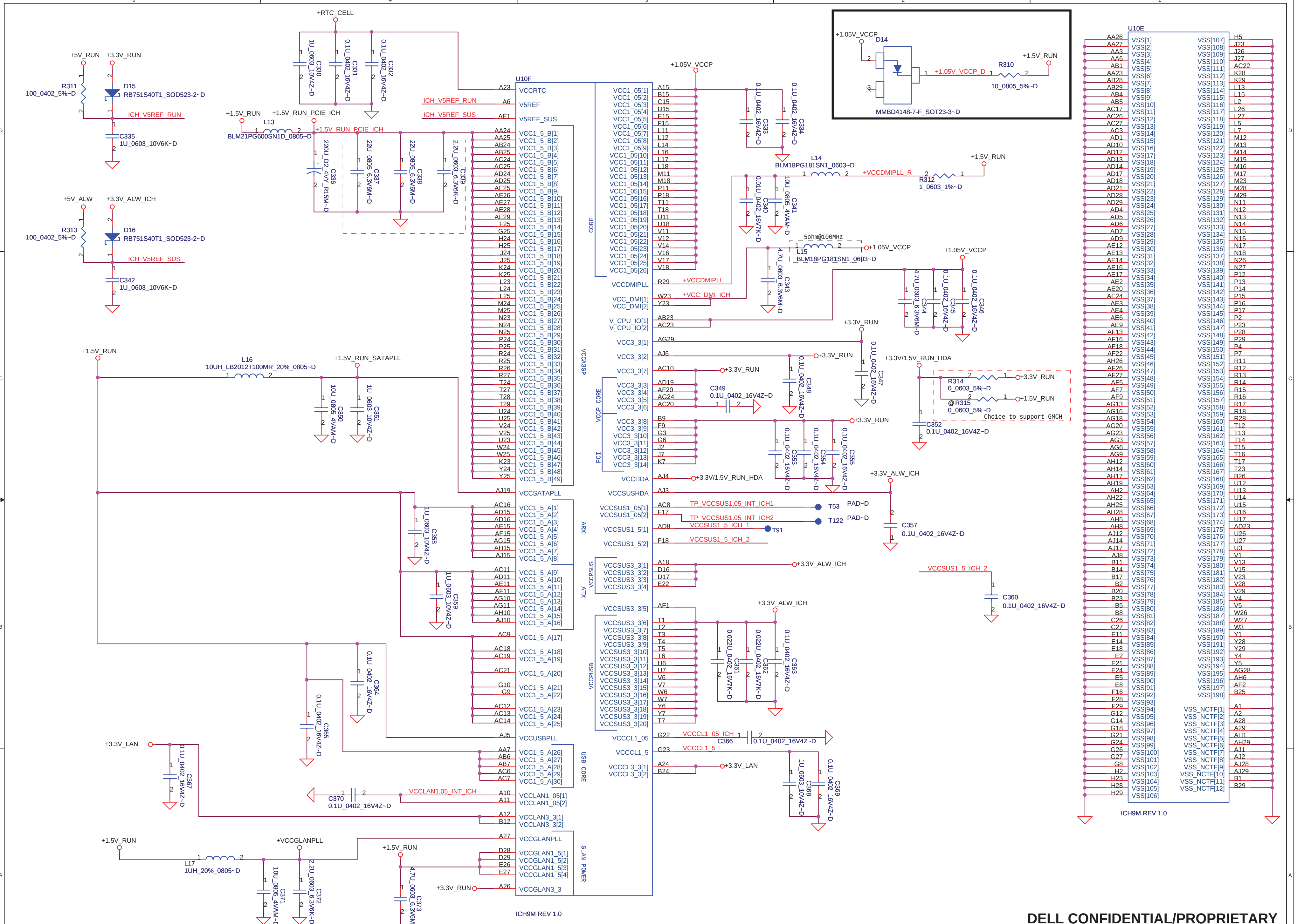

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Title	ICH8(4/4)	
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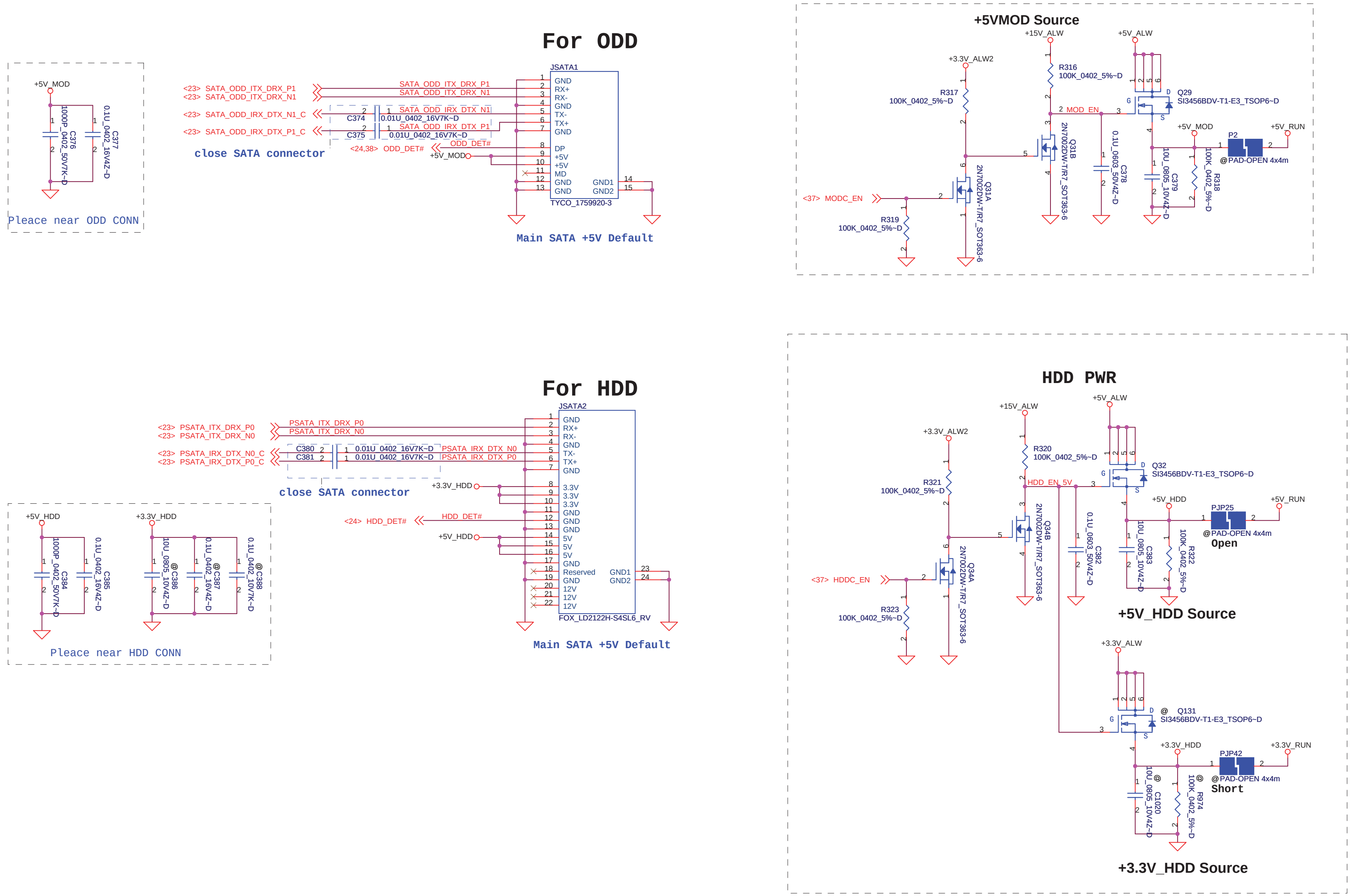

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Title: ODD/HDD CONNECTOR

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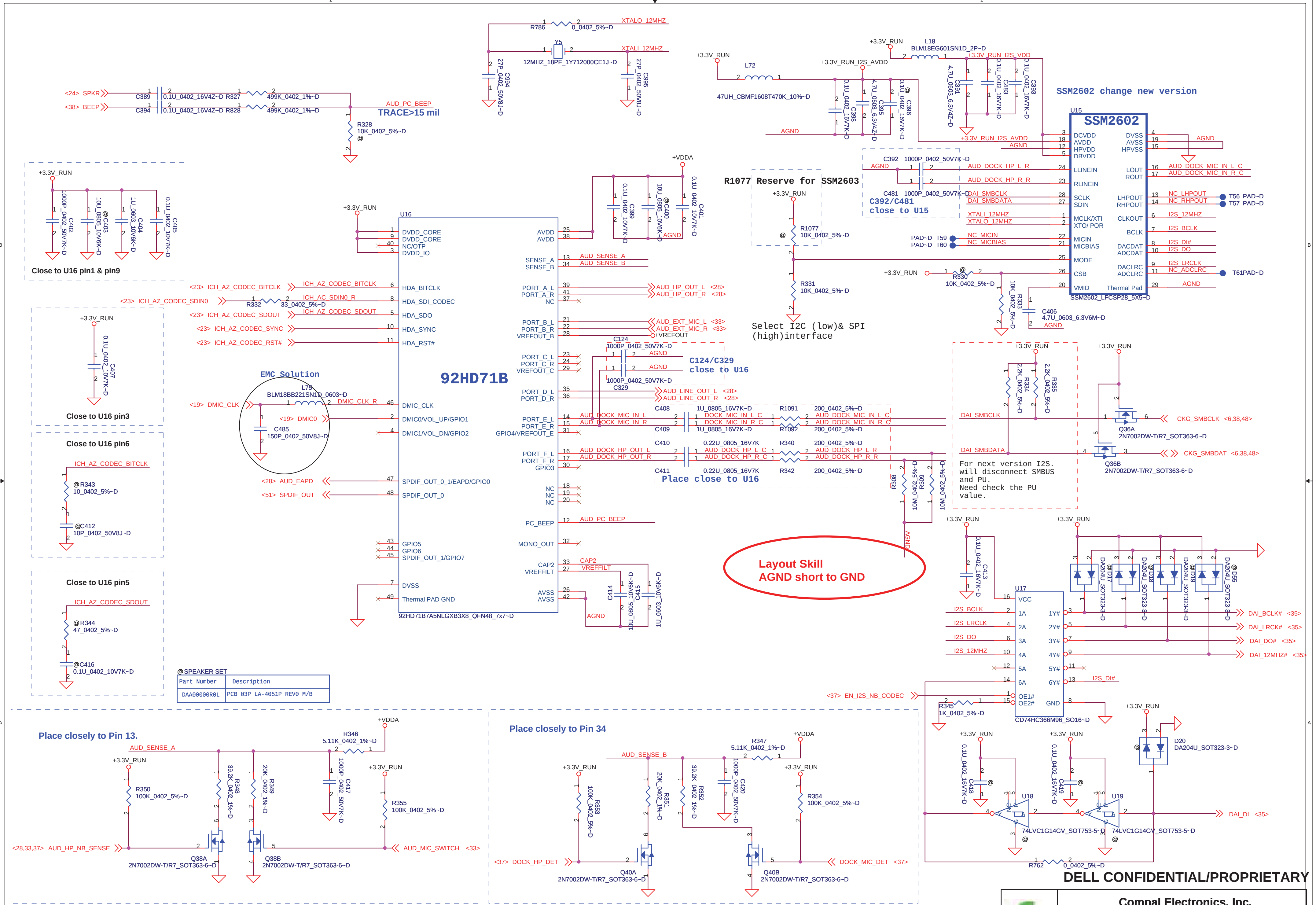

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Compal Electronics, Inc.

Title: Azalia (HD) Codec

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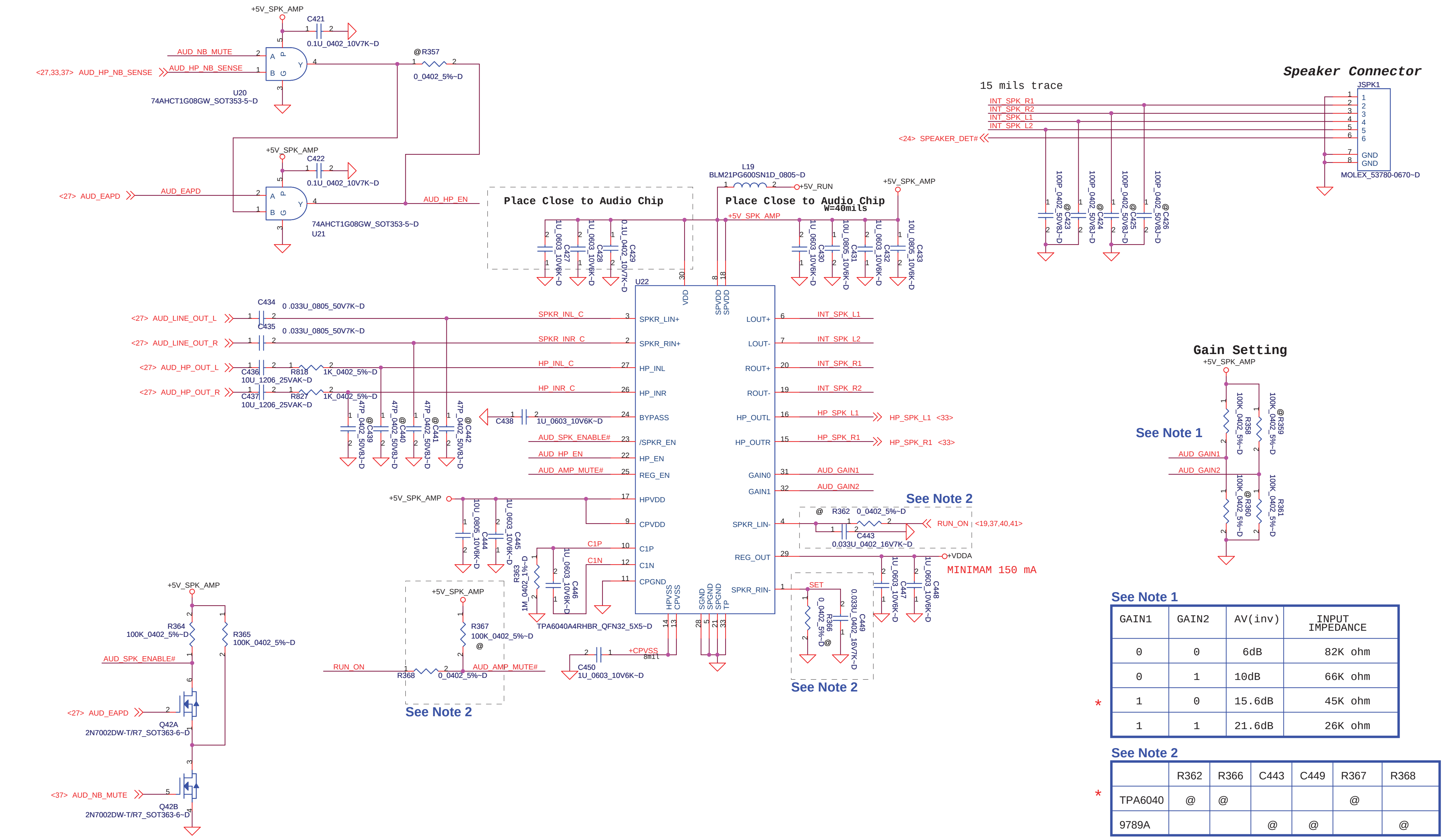

See Note 1

GAIN1	GAIN2	AV(inv)	INPUT IMPEDANCE
0	0	6dB	82K ohm
0	1	10dB	66K ohm
* 1	0	15.6dB	45K ohm
1	1	21.6dB	26K ohm

See Note 2

	R362	R366	C443	C449	R367	R368
* TPA6040	@	@			@	
9789A			@	@		@

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Compal Electronics, Inc.

Title: AMP and PHONE JACK

Size | Document Number: LA-4051P | Rev 1.0

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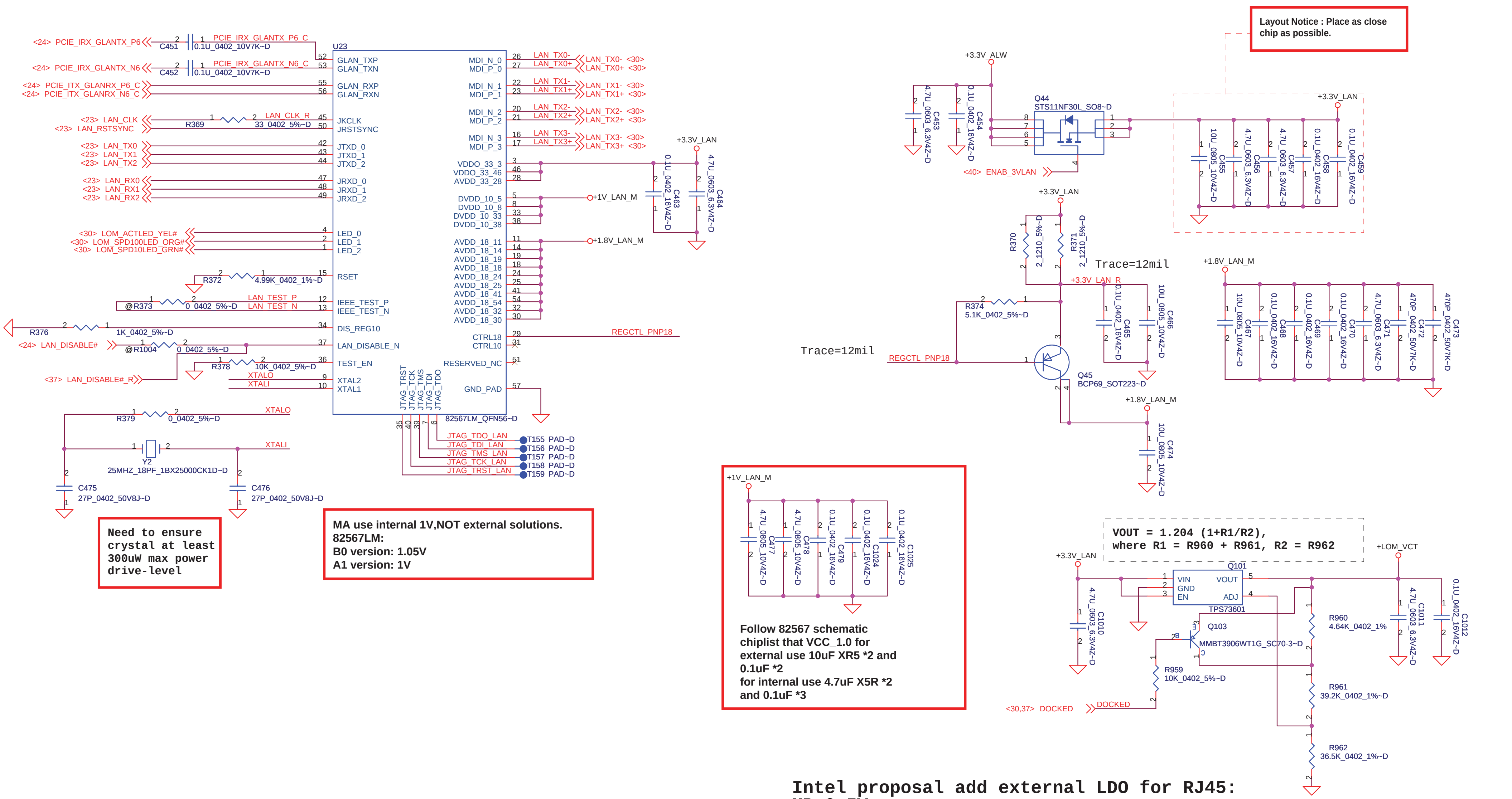

Need to ensure crystal at least 300uW max power drive-level

MA use internal 1V,NOT external solutions.
82567LM:
B0 version: 1.05V
A1 version: 1V

Follow 82567 schematic chiplist that VCC_1.0 for external use 10uF XR5 *2 and 0.1uF *2
for internal use 4.7uF X5R *2 and 0.1uF *3

Intel proposal add external LDO for RJ45:
MB:2.5V,
Dock:2.65V

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Title: LAN-82567LM		
Size	Document Number: LA-4051P	Rev 1.0
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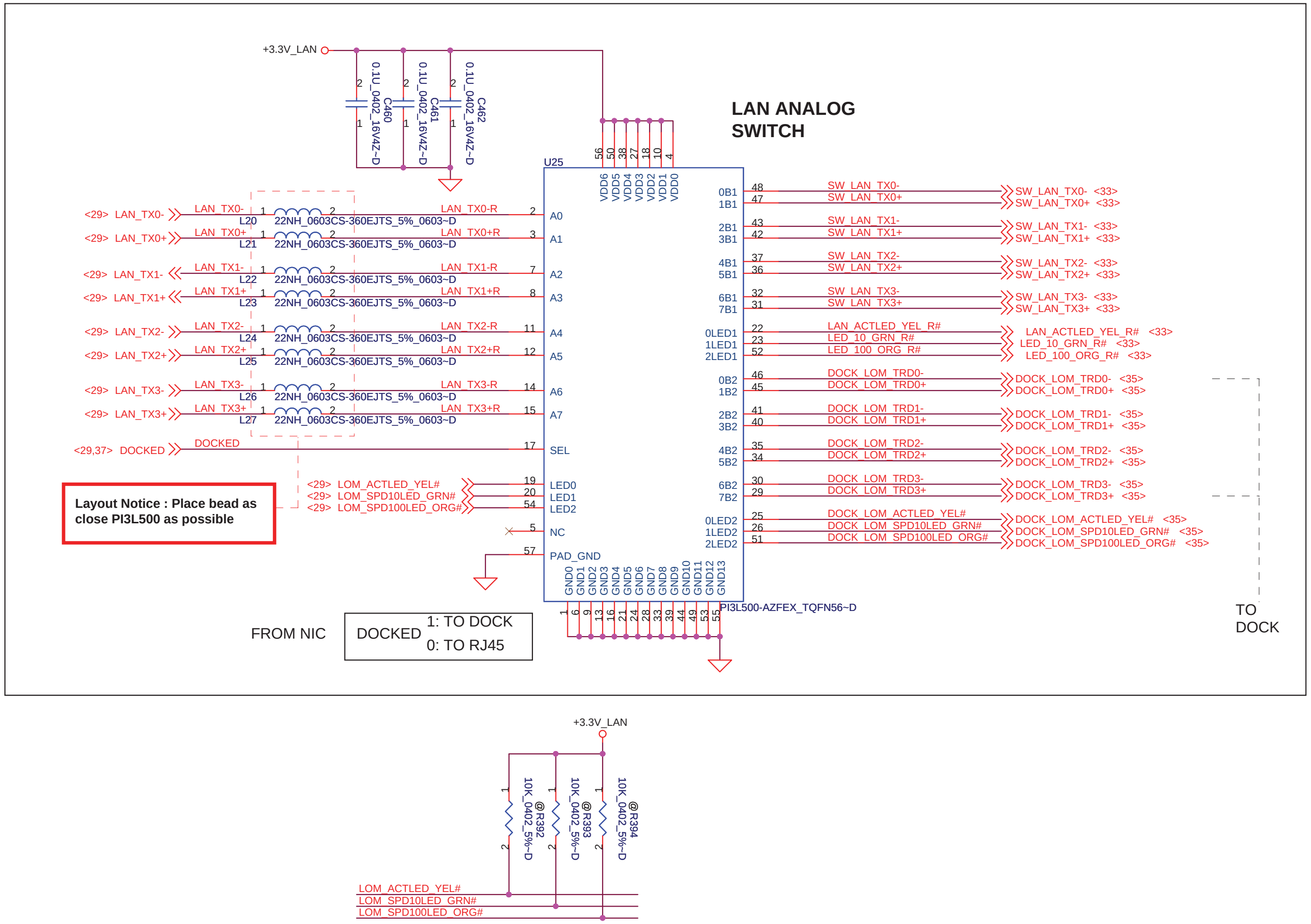

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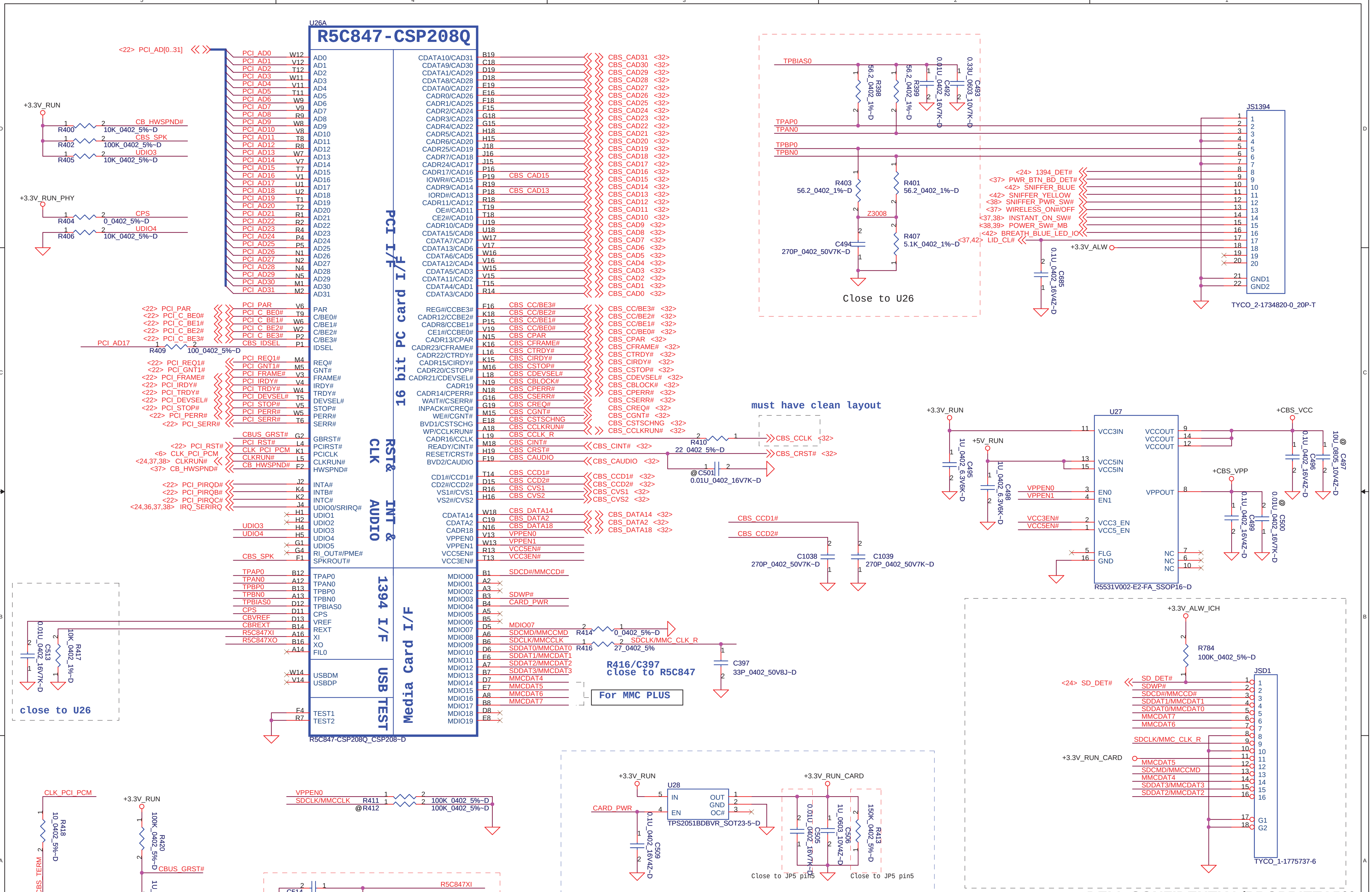
Title	LAN TRANSFOMER	
Size	Document Number: LA-4051P	Rev 1.0
Date: Thursday, June 05, 2008	Sheet 30 of 63	



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Compal Electronics, Inc.

Title	CardBus Controller(R5C847)
Size	Document Number: LA-4051P
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Date:	Thursday, June 05, 2008
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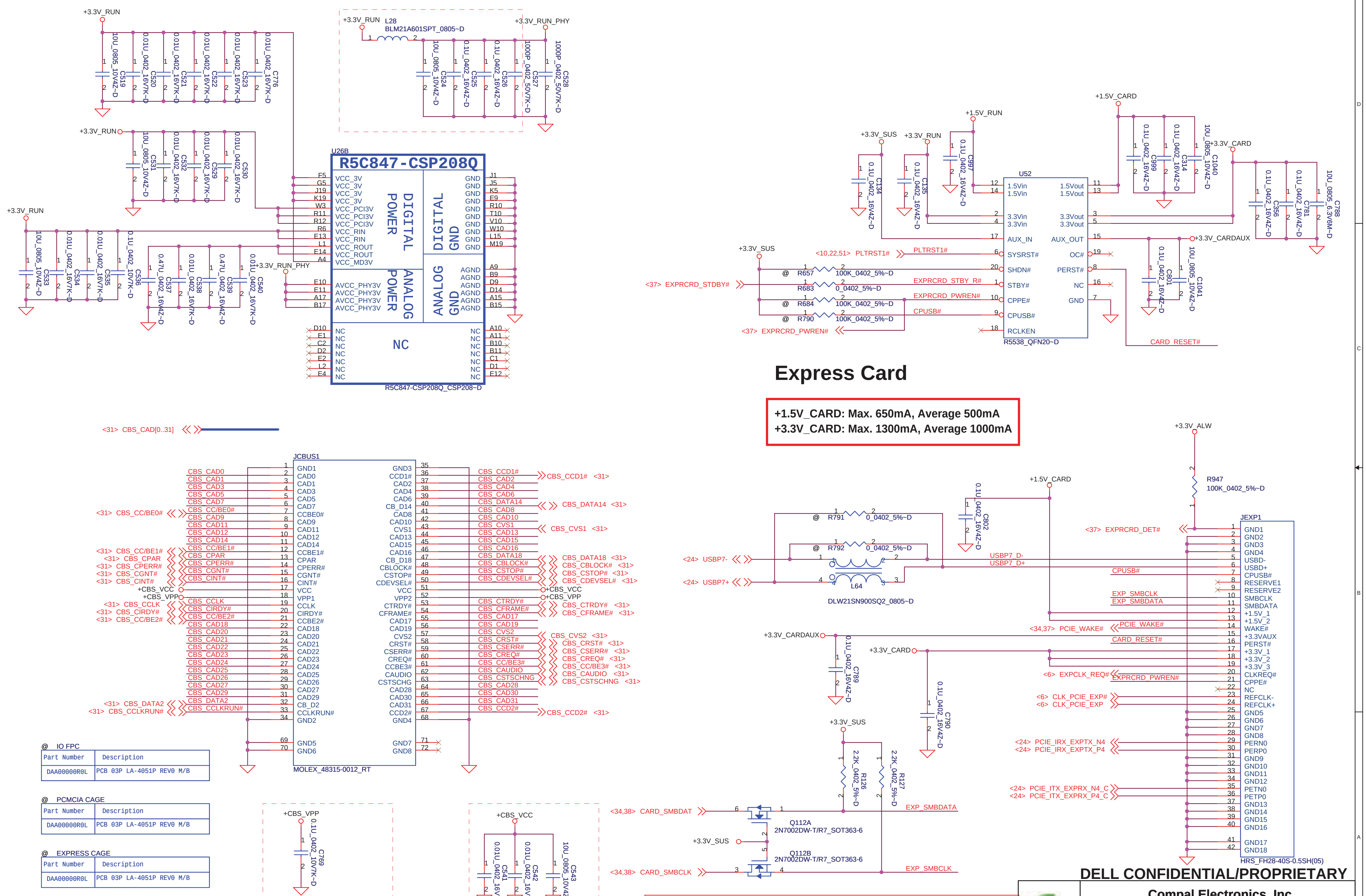


Express Card

+1.5V_CARD: Max. 650mA, Average 500mA
+3.3V_CARD: Max. 1300mA, Average 1000mA

@ IO FPC

Part Number	Description
DAA00000R0L	PCB 03P LA-4051P REV0 M/B

@ PCMCIA CAGE

Part Number	Description
DAA00000R0L	PCB 03P LA-4051P REV0 M/B

@ EXPRESS CAGE

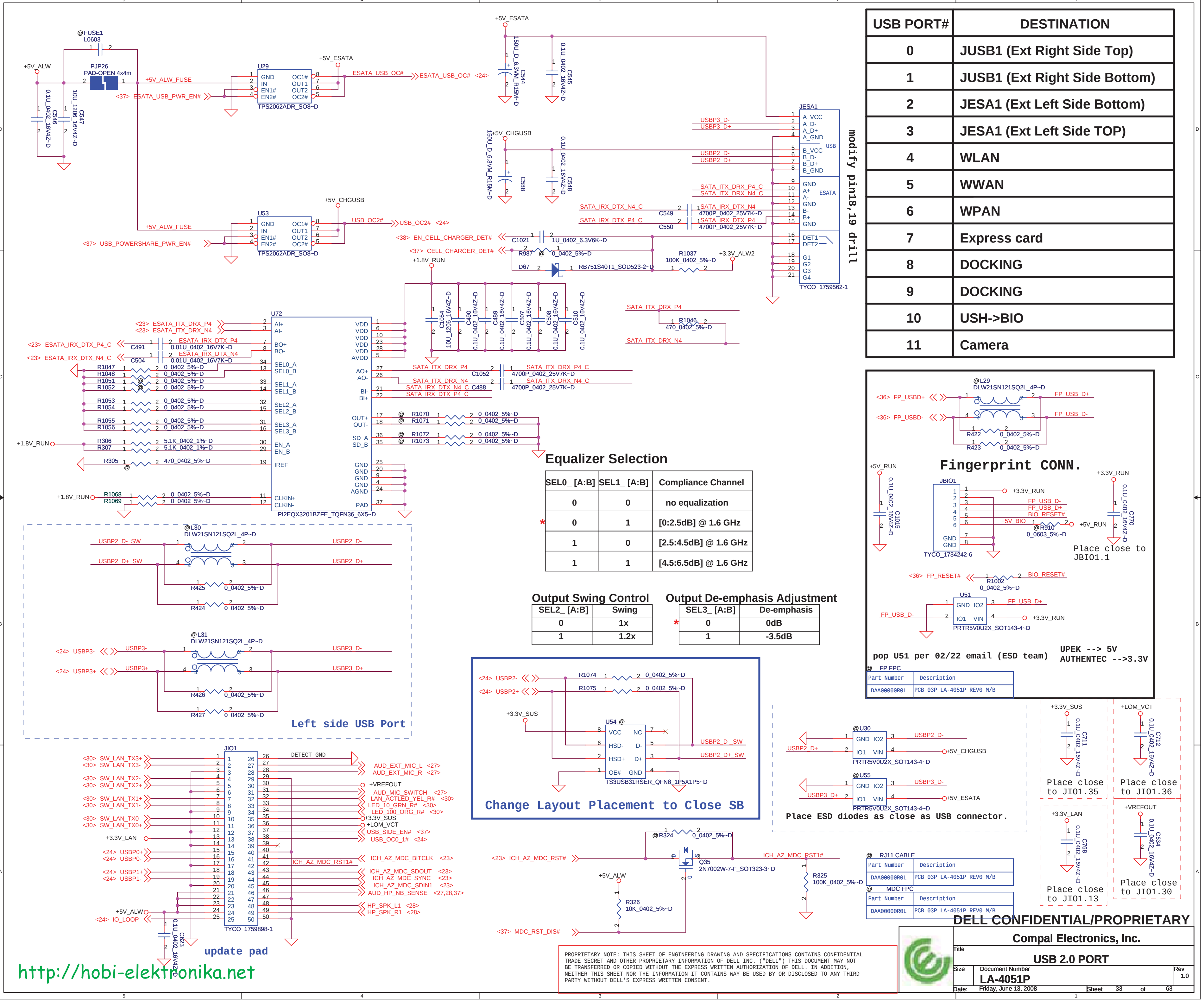
Part Number	Description
DAA00000R0L	PCB 03P LA-4051P REV0 M/B

@ SD CABLE

Part Number	Description
DAA00000R0L	PCB 03P LA-4051P REV0 M/B

Compal Electronics, Inc.

Title	CardBus/SD card Socket
Size / Document Number	LA-4051P
Rev	1.0
Date:	Wednesday, June 11, 2008
Sheet	32 of 63



USB PORT#	DESTINATION
0	JUSB1 (Ext Right Side Top)
1	JUSB1 (Ext Right Side Bottom)
2	JESA1 (Ext Left Side Bottom)
3	JESA1 (Ext Left Side TOP)
4	WLAN
5	WWAN
6	WPAN
7	Express card
8	DOCKING
9	DOCKING
10	USH->BIO
11	Camera

Equalizer Selection

SEL0_ [A:B]	SEL1_ [A:B]	Compliance Channel
0	0	no equalization
* 0	1	[0:2.5dB] @ 1.6 GHz
1	0	[2.5:4.5dB] @ 1.6 GHz
1	1	[4.5:6.5dB] @ 1.6 GHz

Output Swing Control

SEL2_ [A:B]	Swing
0	1x
1	1.2x

Output De-emphasis Adjustment

SEL3_ [A:B]	De-emphasis
* 0	0dB
1	-3.5dB

@ FP FPC

Part Number	Description
DAA00000R0L	PCB 03P LA-4051P REV0 M/B

@ RJ11 CABLE

Part Number	Description
DAA00000R0L	PCB 03P LA-4051P REV0 M/B

@ MDC FPC

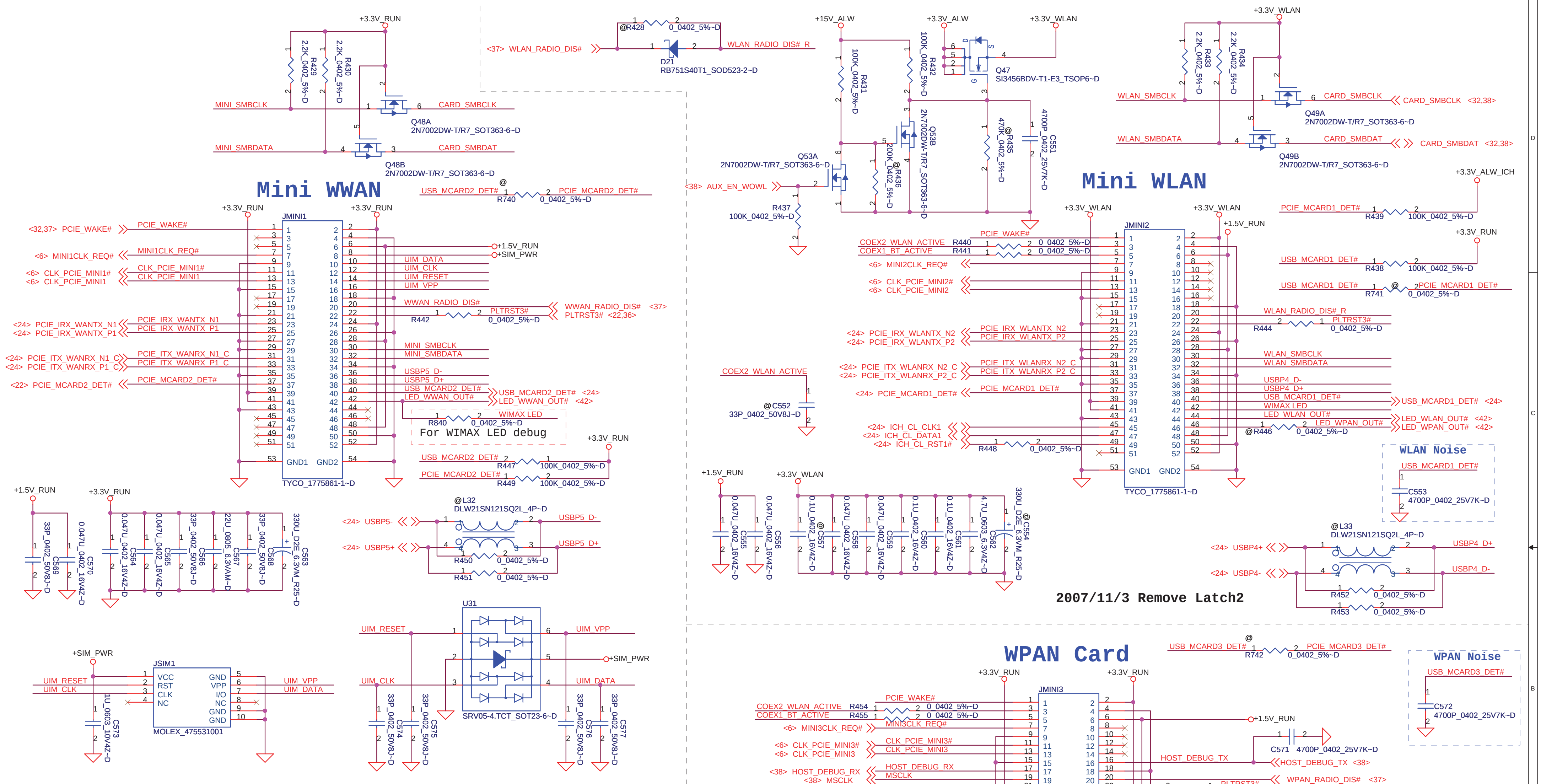
Part Number	Description
DAA00000R0L	PCB 03P LA-4051P REV0 M/B

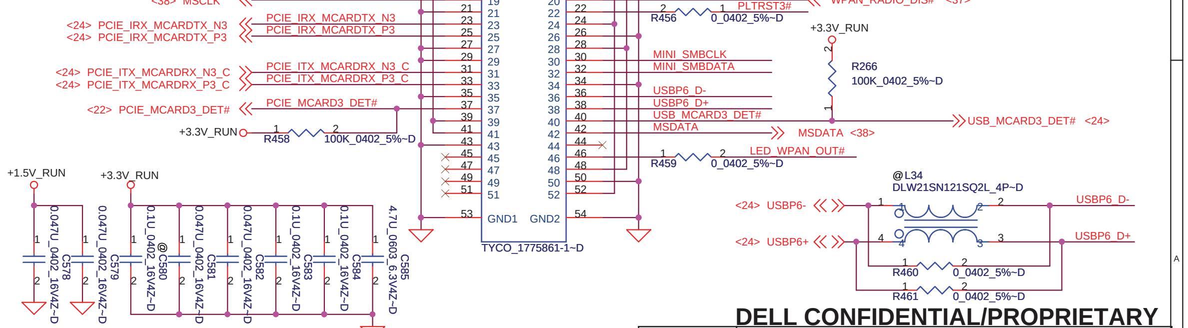
Compal Electronics, Inc.

Title: USB 2.0 PORT

Size | Document Number: LA-4051P | Rev 1.0

Date: Friday, June 13, 2008





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

Compal Electronics, Inc.

Title: Mini Card

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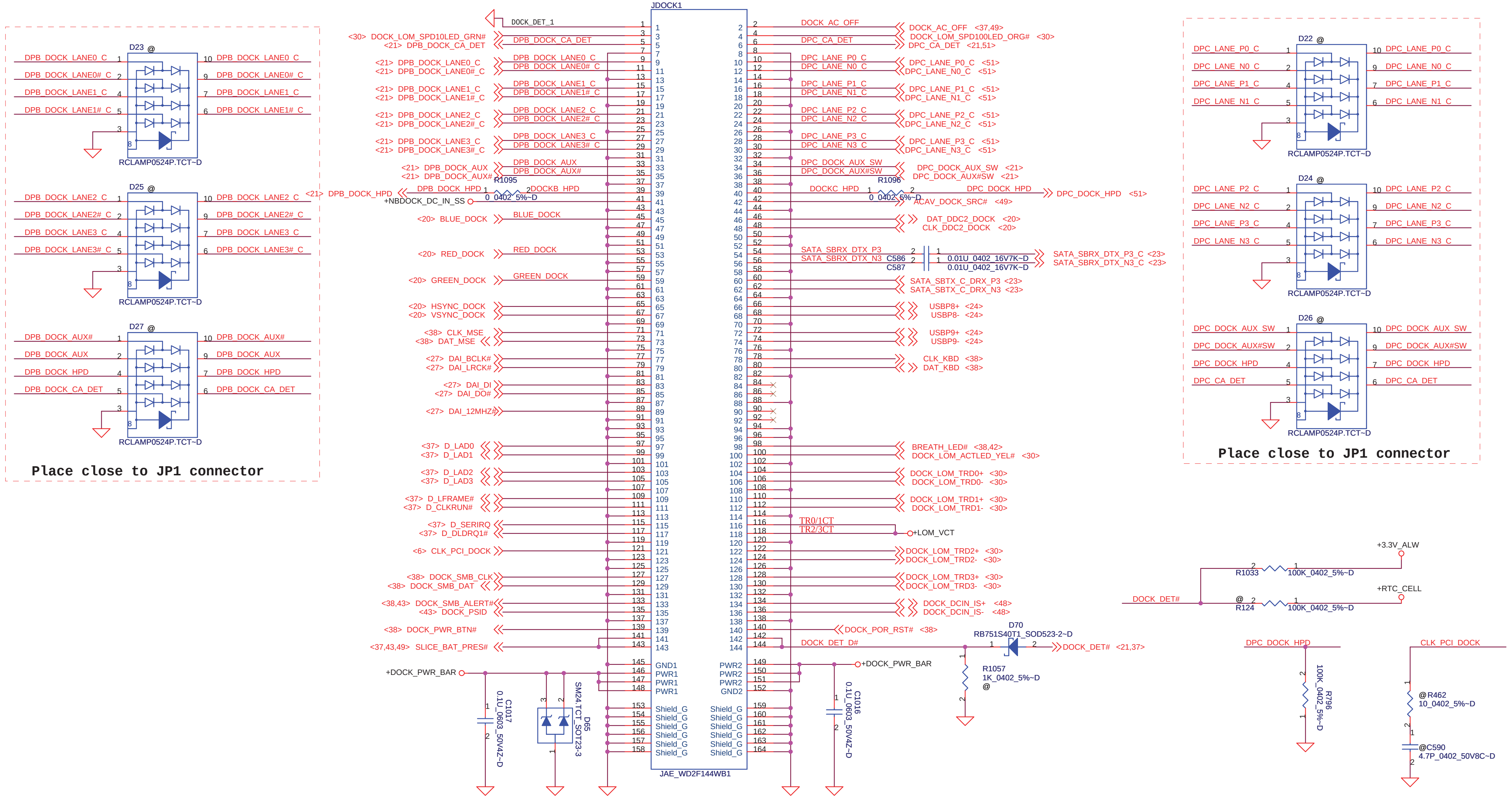
Date: Thursday, June 05, 2008 | Sheet 34 of 63



Compal Electronics, Inc.

Title	DOCKING CONN
Size	Document Number: LA-4051P
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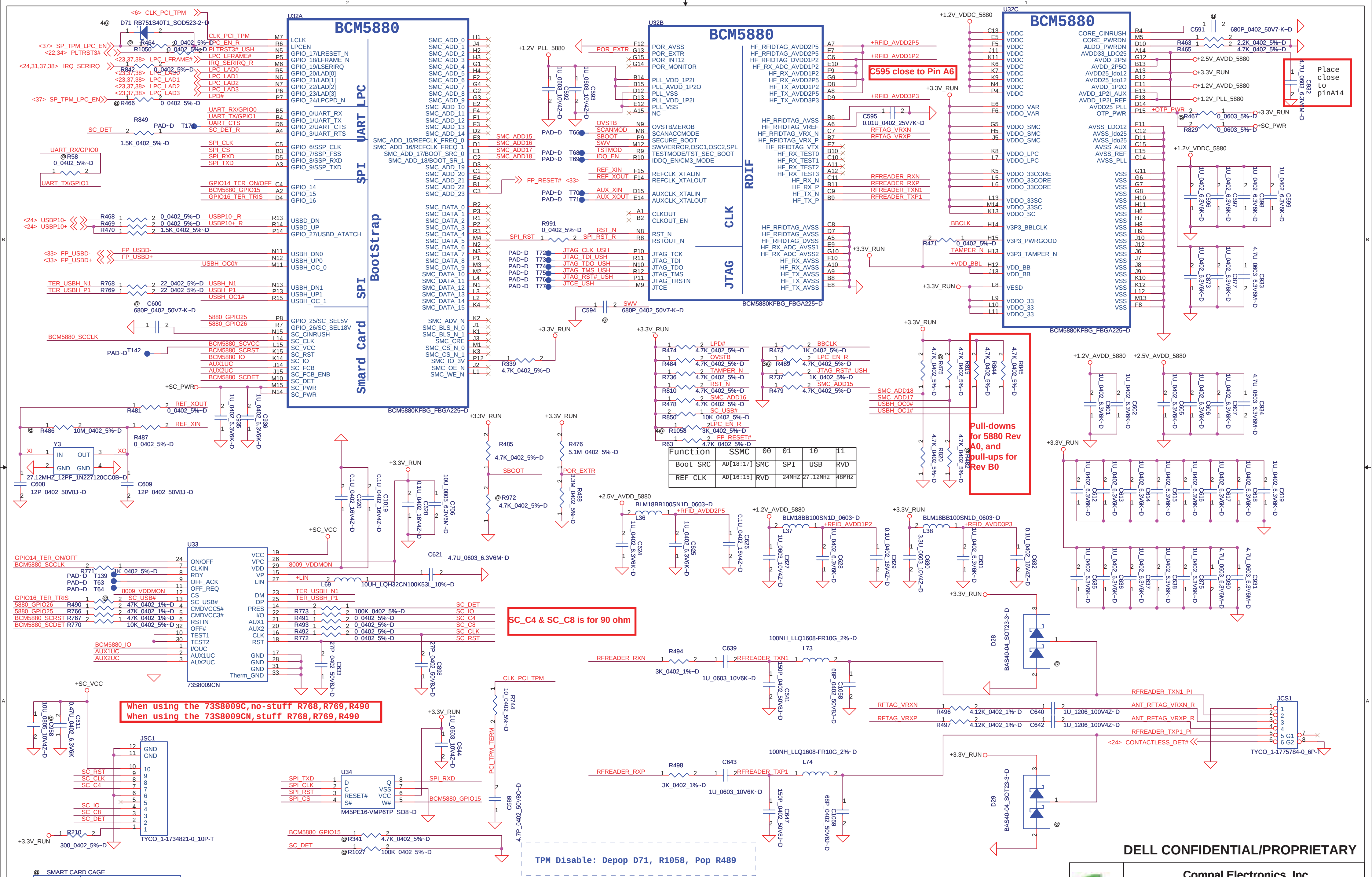

Function	SSMC	00	01	10	11
Boot SRC	AD[18:17]	SMC	SPI	USB	RVD
REF CLK	AD[16:15]	RVD	24MHZ	27.12MHZ	48MHZ

@ SMART CARD CAGE

Part Number	Description
DAA00000R0L	PCB 03P LA-4051P REV0 M/B

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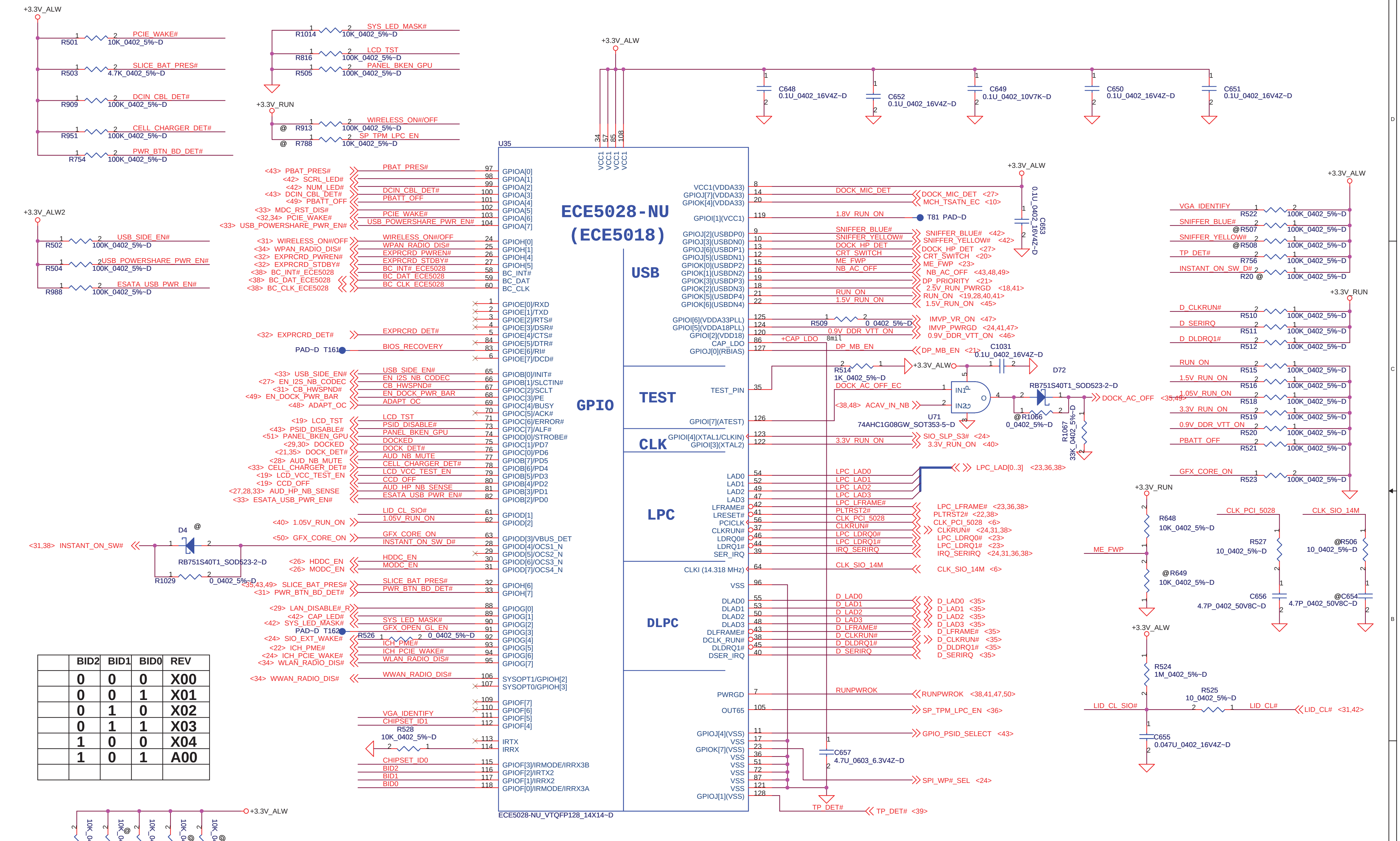
Title: USH I/F

Size | Document Number: LA-4051P | Rev 1.0

Date: Friday, June 13, 2008 |



	BID2	BID1	BID0	REV
	0	0	0	X00
	0	0	1	X01
	0	1	0	X02
	0	1	1	X03
	1	0	0	X04
	1	0	1	A00

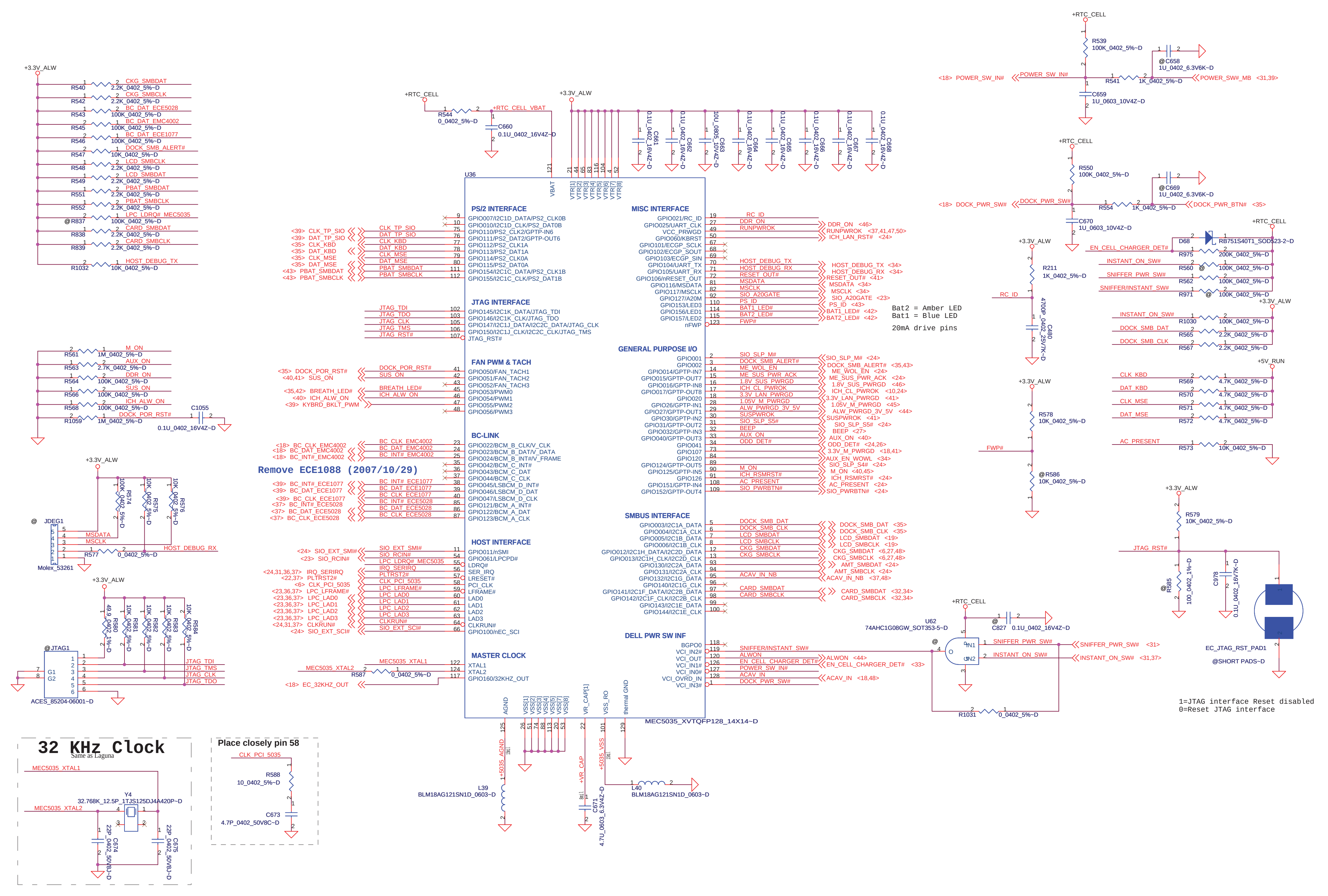
CHIPSET_ID1	CHIPSET_ID0	
0	0	Roush-I Foose-I
0	1	Roush-A
1	0	SmFF
1	1	Nike

Compal Electronics, Inc.

Title: ECE5028

Size | Document Number: LA-4051P | Rev 1.0

Date: Friday, June 13, 2008 | Sheet 37 of 63



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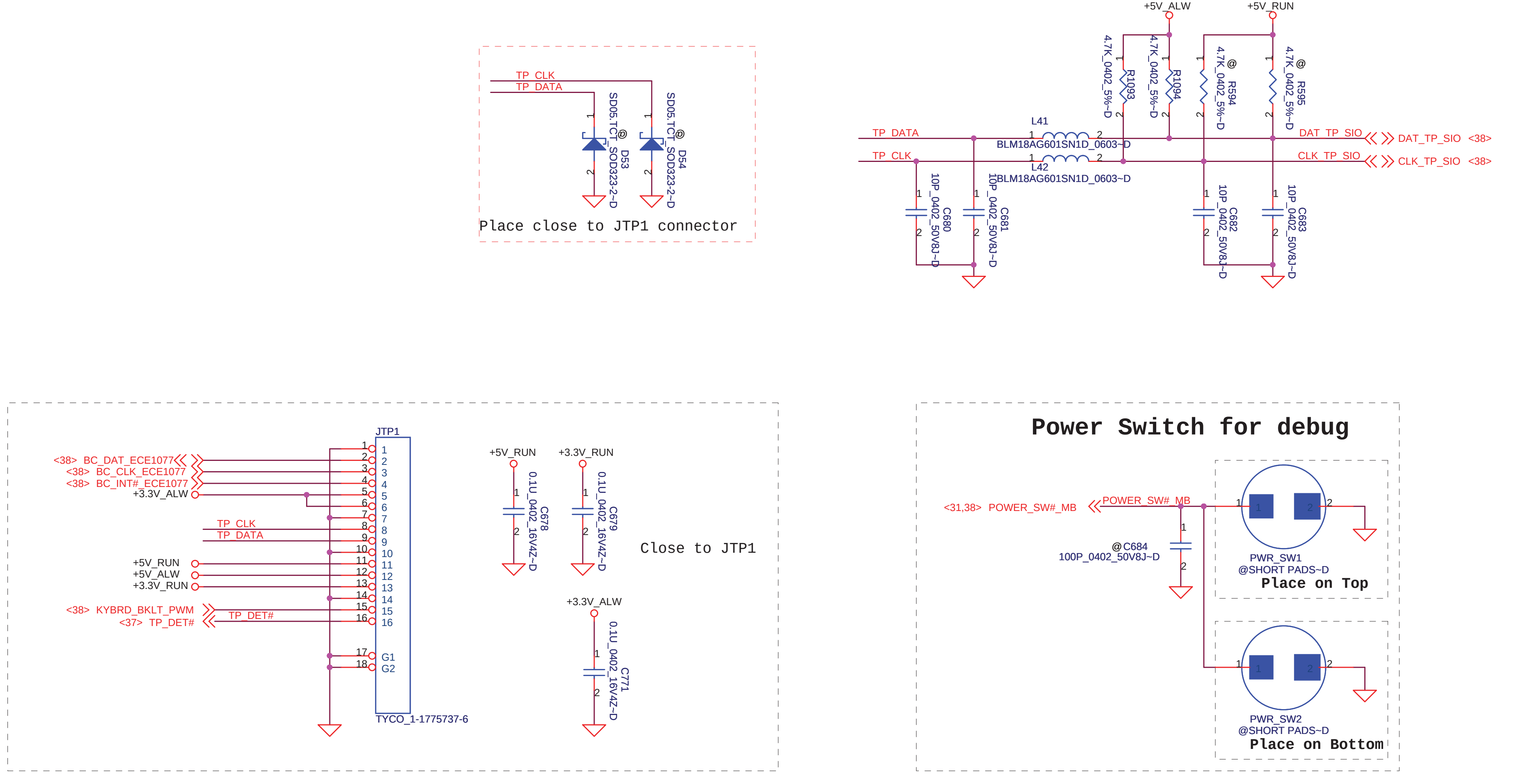
Title	EMC5035		
Size	Document Number: LA-4051P		Rev 1.0
Date: Thursday, June 05, 2008		Sheet 38 of 63	



Compal Electronics, Inc.

Title	Touch PAD/Int KB/LID
Size / Document Number	LA-4051P
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Date:	Thursday, June 05, 2008
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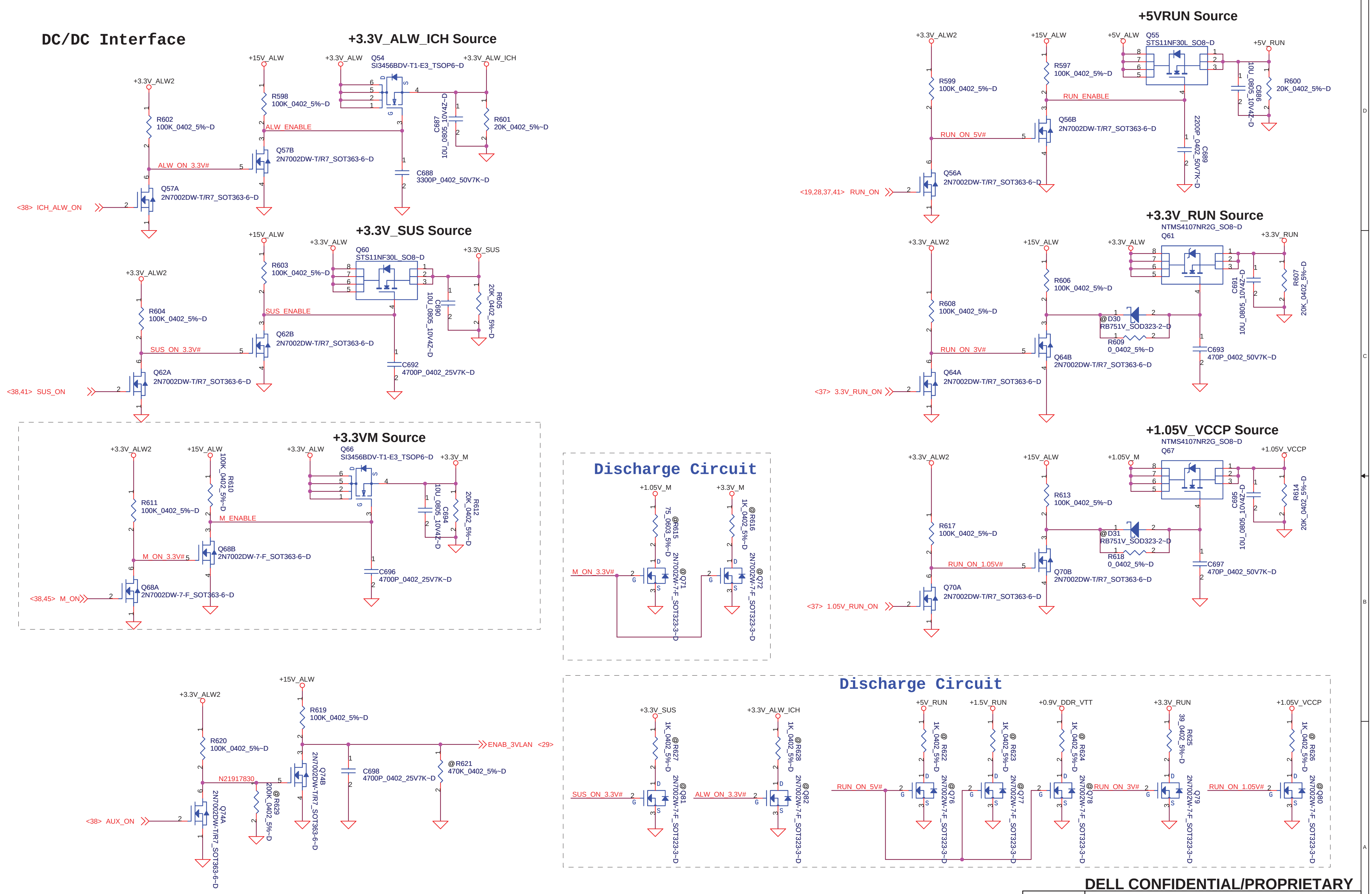

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Compal Electronics, Inc.

Title	POWER CONTROL
Size	Document Number LA-4051P
Rev	1.0
Date:	Tuesday, June 10, 2008
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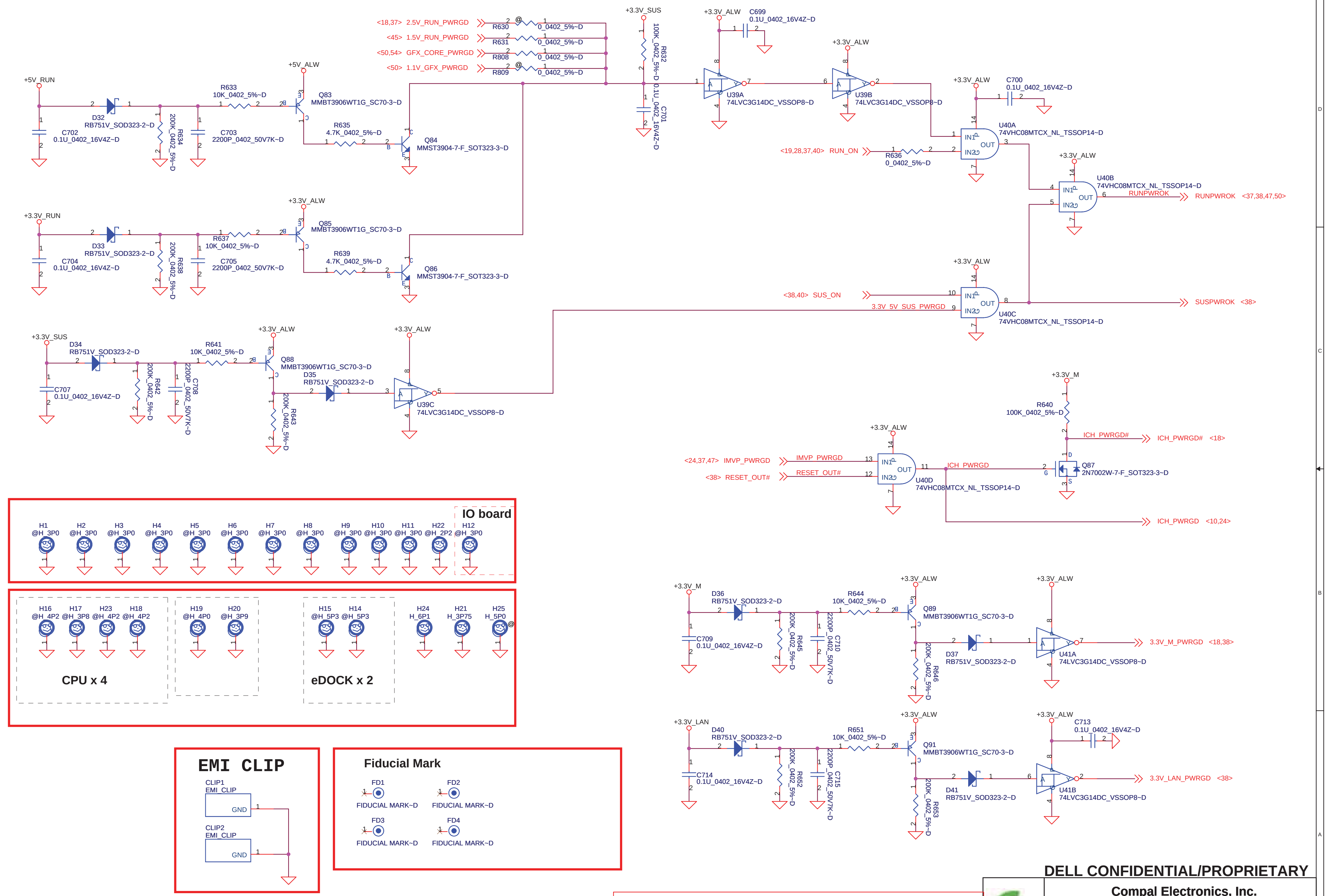

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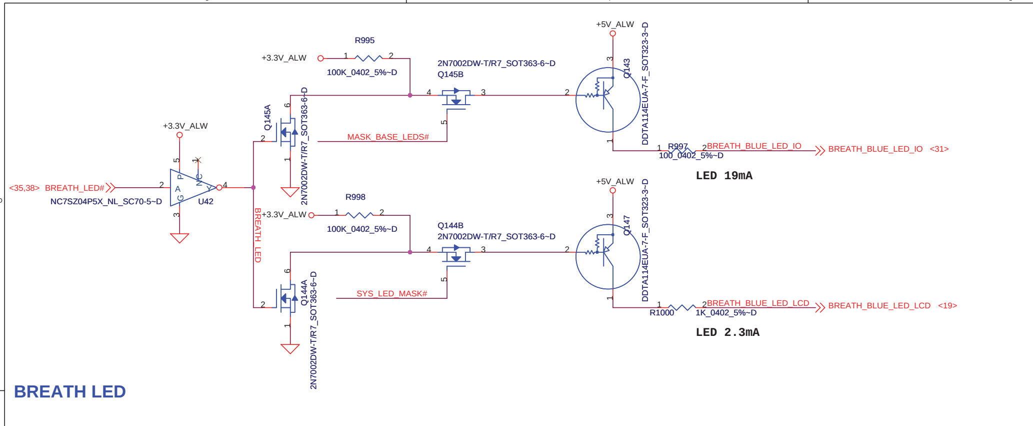
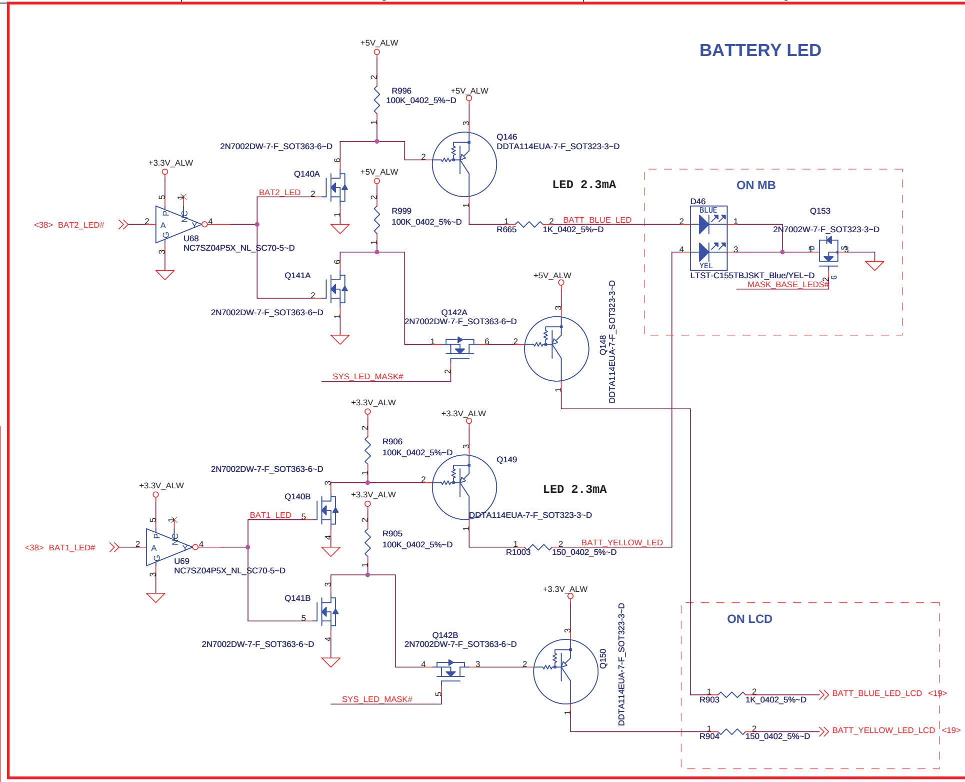
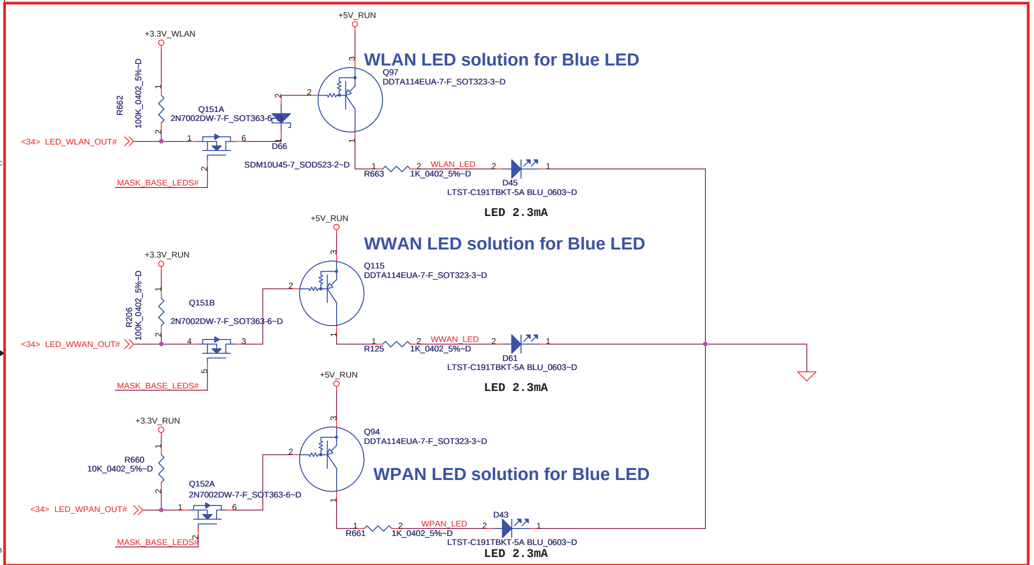
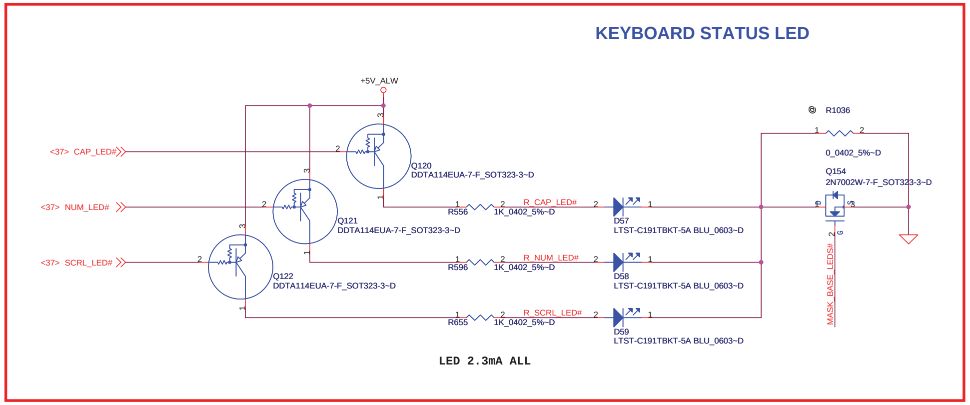
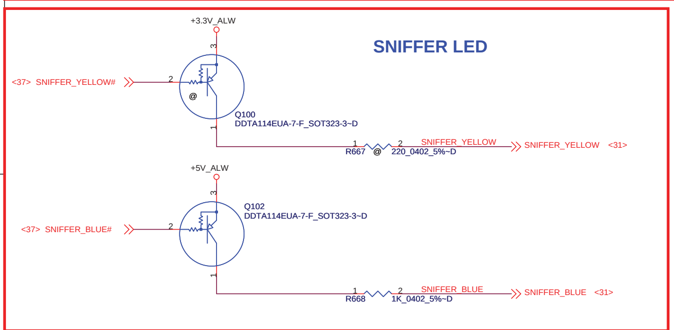
	Compal Electronics, Inc.
Title	Power Good
Size	Document Number: LA-4051P	Rev 1.0
Date: Thursday, June 05, 2008	Sheet 41 of 63

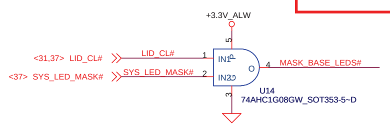


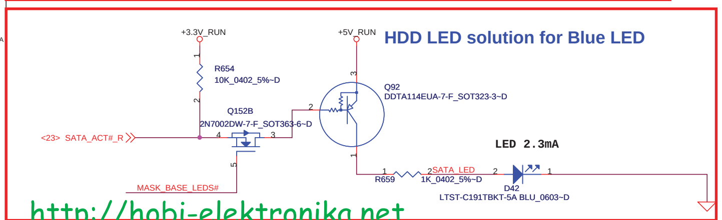












BIOS GPIO Table for LED Control

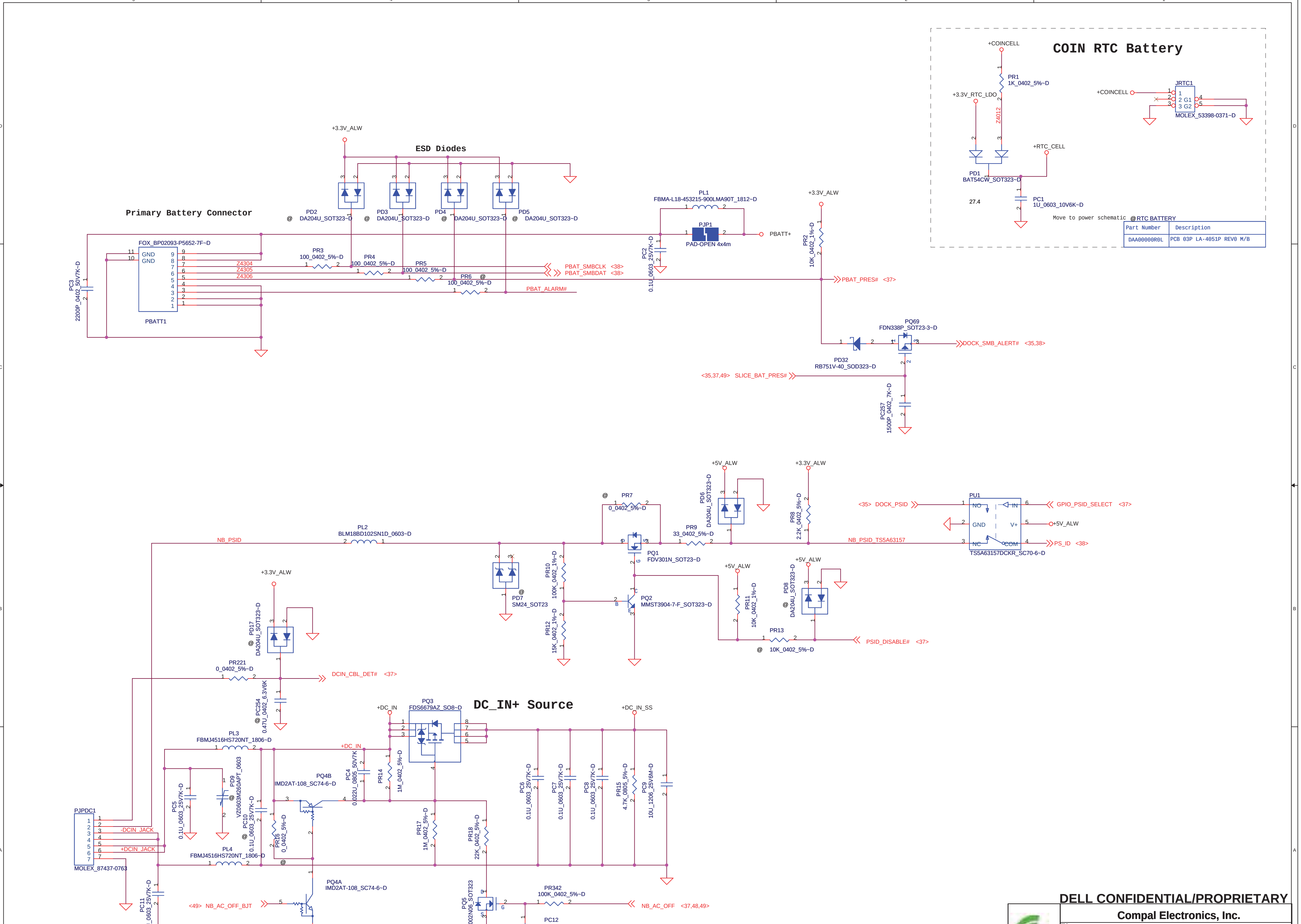
	SYS_LED_MASK#	LID_CL#
MASK ALL LED (SNIFFER FUNCTION)	Low	X
MASK BASE MB LEDs (Lid Closed)	High	Low
Do Not Mask LEDs (Lid Opened)	High	High

Compal Electronics, Inc.

Title: LED

Size | Document Number: LA-4051P | Rev 1.0

Date: Tuesday, June 10, 2008 |



Part Number	Description
DAA00000R0L	PCB 03P LA-4051P REV0 M/B

@DC-IN cable

Part Number	Description
DC301008B0L	CONN SET 03N DCJACK-MB

Compal Electronics, Inc.

Title: +DCIN

Size | Document Number: LA-4041P | Rev: 1.0

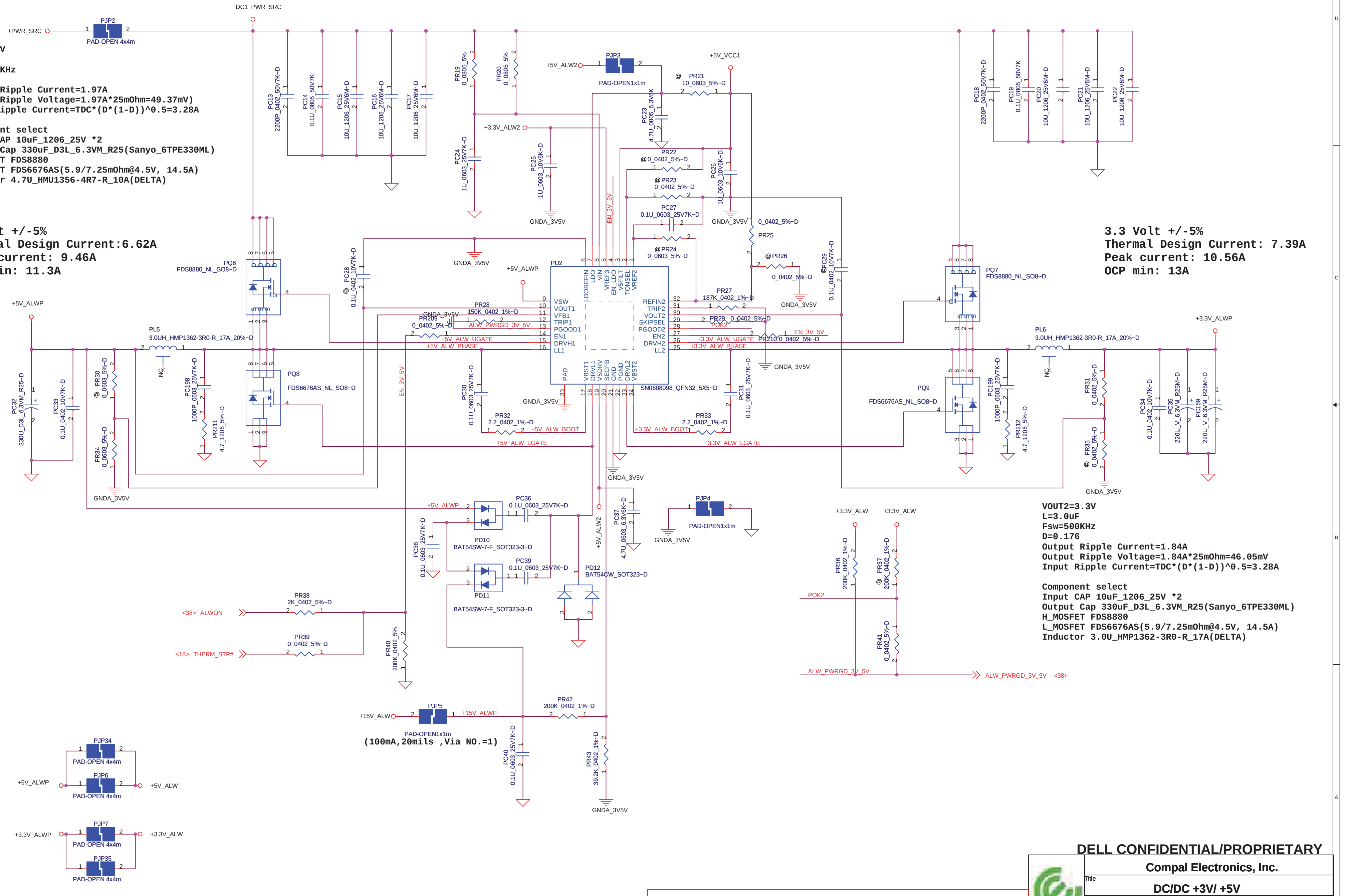
+3.3V_ALWP/ +5V_ALWP/ +5V_ALW2 / +15V_ALWP

VOUT1=5V
L=4.7uF
Fsw=400KHz
D=0.265
Output Ripple Current=1.97A
Output Ripple Voltage=1.97A*25mOhm=49.37mV)
Input Ripple Current=TDC*(D*(1-D))^0.5=3.28A

Component select
Input CAP 10uF_1206_25V *2
Output Cap 330uF_D3L_6.3VM_R25(Sanyo_6TPE330ML)
H_MOSFET FDS8880
L_MOSFET FDS6676AS(5.9/7.25mOhm@4.5V, 14.5A)
Inductor 4.7U_HMU1356-4R7-R_10A(DELTA)

5 Volt +/-5%
Thermal Design Current:6.62A
Peck current: 9.46A
OCP min: 11.3A

3.3 Volt +/-5%
Thermal Design Current: 7.39A
Peak current: 10.56A
OCP min: 13A



VOUT2=3.3V
L=3.0uF
Fsw=500KHz
D=0.176
Output Ripple Current=1.84A
Output Ripple Voltage=1.84A*25mOhm=46.05mV
Input Ripple Current=TDC*(D*(1-D))^0.5=3.28A

Component select
Input CAP 10uF_1206_25V *2
Output Cap 330uF_D3L_6.3VM_R25(Sanyo_6TPE330ML)
H_MOSFET FDS8880
L_MOSFET FDS6676AS(5.9/7.25mOhm@4.5V, 14.5A)
Inductor 3.0U_HMP1362-3R0-R_17A(DELTA)

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Compal Electronics, Inc.		
Title	DC/DC +3V/ +5V	
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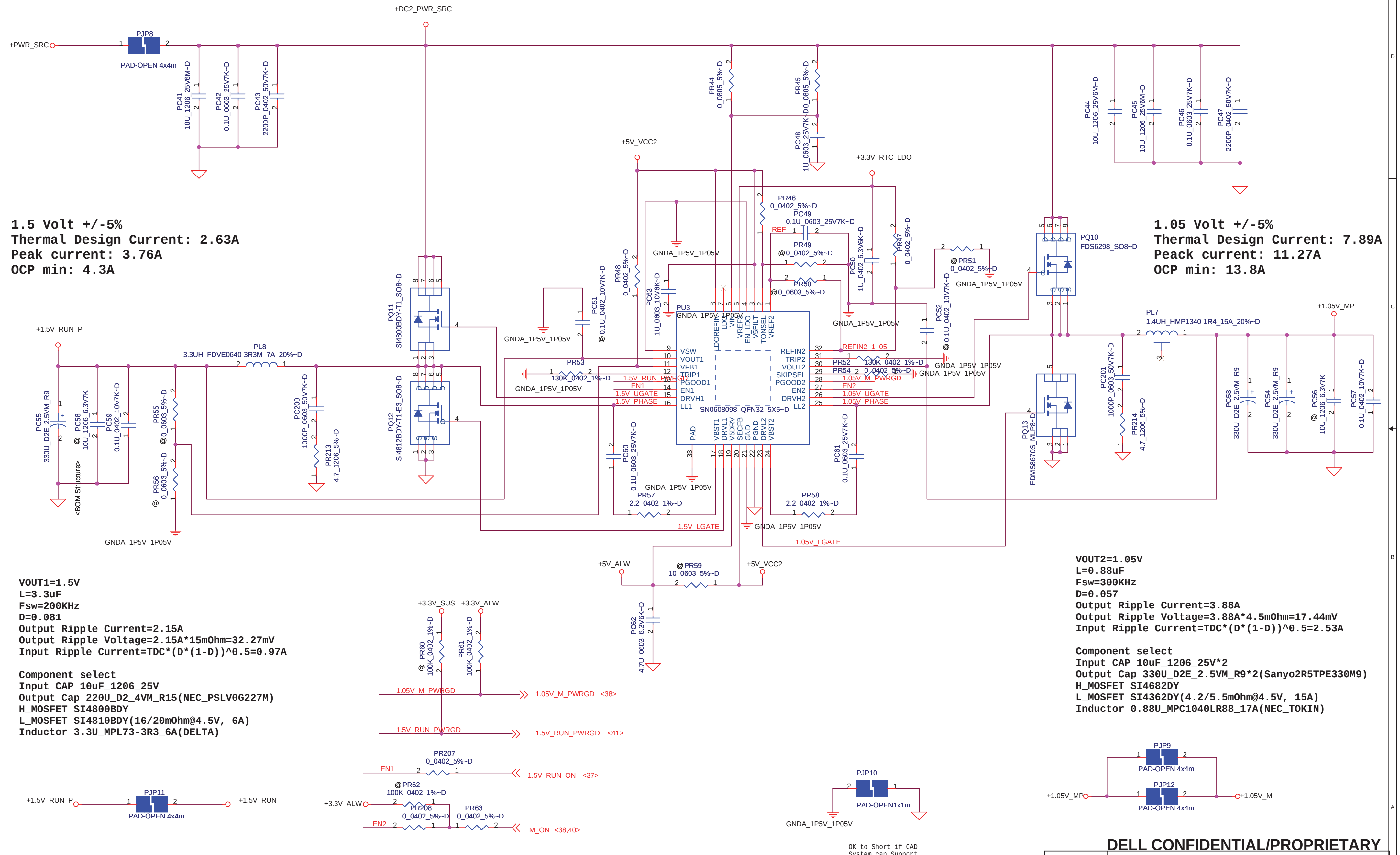
+1.5V_RUN / +1.05V_M/ +3.3V_RTC_LDO



1.5 Volt +/-5%
Thermal Design Current: 2.63A
Peak current: 3.76A
OCP min: 4.3A

1.05 Volt +/-5%
Thermal Design Current: 7.89A
Peack current: 11.27A
OCP min: 13.8A

VOUT1=1.5V
L=3.3uF
Fsw=200KHz
D=0.081
Output Ripple Current=2.15A
Output Ripple Voltage=2.15A*15mOhm=32.27mV
Input Ripple Current=TDC*(D*(1-D))^0.5=0.97A

Component select
Input CAP 10uF_1206_25V
Output Cap 220U_D2_4VM_R15(NEC_PSLV0G227M)
H_MOSFET SI4800BDY
L_MOSFET SI4810BDY(16/20mOhm@4.5V, 6A)
Inductor 3.3U_MPL73-3R3_6A(DELTA)

VOUT2=1.05V
L=0.88uF
Fsw=300KHz
D=0.057
Output Ripple Current=3.88A
Output Ripple Voltage=3.88A*4.5mOhm=17.44mV
Input Ripple Current=TDC*(D*(1-D))^0.5=2.53A

Component select
Input CAP 10uF_1206_25V*2
Output Cap 330U_D2E_2.5VM_R9*2(Sanyo2R5TPE330M9)
H_MOSFET SI4682DY
L_MOSFET SI4362DY(4.2/5.5mOhm@4.5V, 15A)
Inductor 0.88U_MPC1040LR88_17A(NEC_TOKIN)

Compal Electronics, Inc.

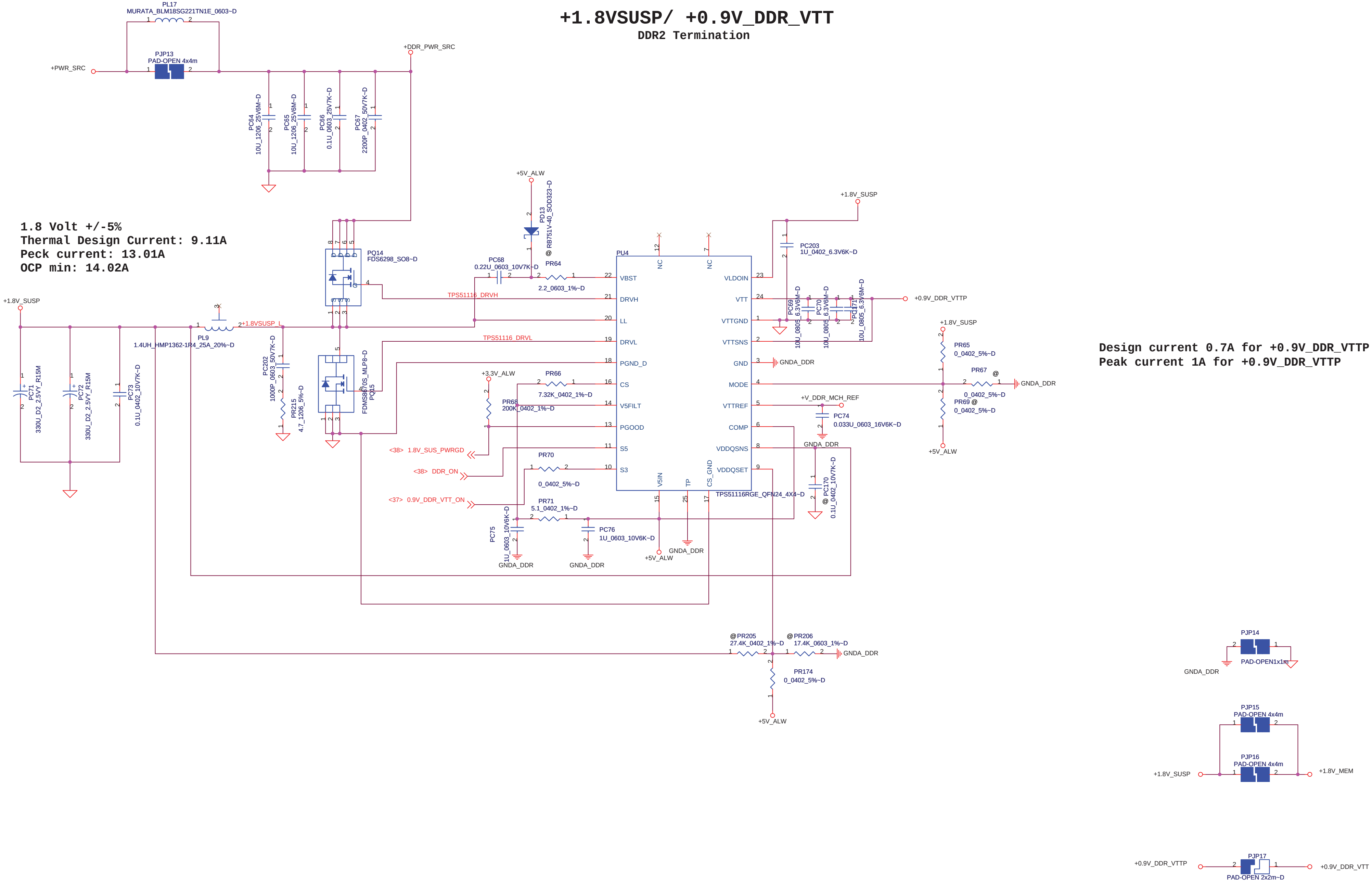
Title	+1.5V_RUN / +1.05V_VCCP	
Size	Document Number LA-4041P	Rev 1.0
Date: Thursday, June 05, 2008	Sheet 45 of 63	

+1.8VSUSP/ +0.9V_DDR_VTT

DDR2 Termination

1.8 Volt +/-5%
Thermal Design Current: 9.11A
Peck current: 13.01A
OCP min: 14.02A

Design current 0.7A for +0.9V_DDR_VTTP
Peak current 1A for +0.9V_DDR_VTTP



Compal Electronics, Inc.		
Title	1.8VSUSP/0.9VDDR	
Size	Document Number LA-4041P	Rev 1.0
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PU5 PU6 PU8
AVIA ISL6208
Maybach DIS MAX8791

PU7
AVIA ISL6260C
Maybach DIS MAX8786

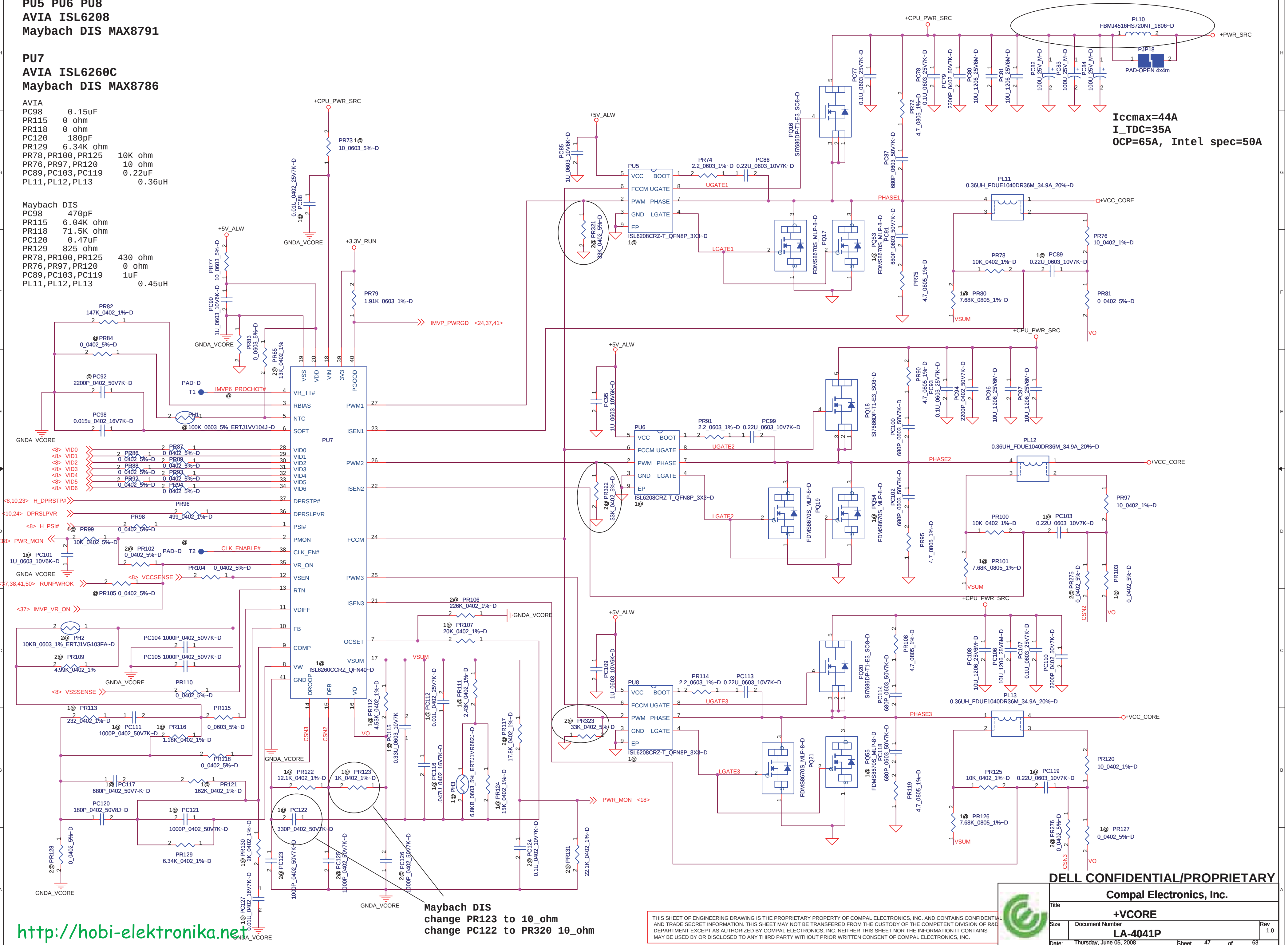
AVIA

PC98	0.15uF
PR115	0 ohm
PR118	0 ohm
PC120	180pF
PR129	6.34K ohm
PR78,PR100,PR125	10K ohm
PR76,PR97,PR120	10 ohm
PC89,PC103,PC119	0.22uF
PL11,PL12,PL13	0.36uH

Maybach DIS

PC98	470pF
PR115	6.04K ohm
PR118	71.5K ohm
PC120	0.47uF
PR129	825 ohm
PR78,PR100,PR125	430 ohm
PR76,PR97,PR120	0 ohm
PC89,PC103,PC119	1uF
PL11,PL12,PL13	0.45uH

Iccmax=44A
I_TDC=35A
OCP=65A, Intel spec=50A



Maybach DIS
change PR123 to 10_ohm
change PC122 to PR320 10_ohm

Compal Electronics, Inc.			
Title	+VCORE		
Size	Document Number: LA-4041P		Rev 1.0
Date: Thursday, June 05, 2008		Sheet 47 of 63	

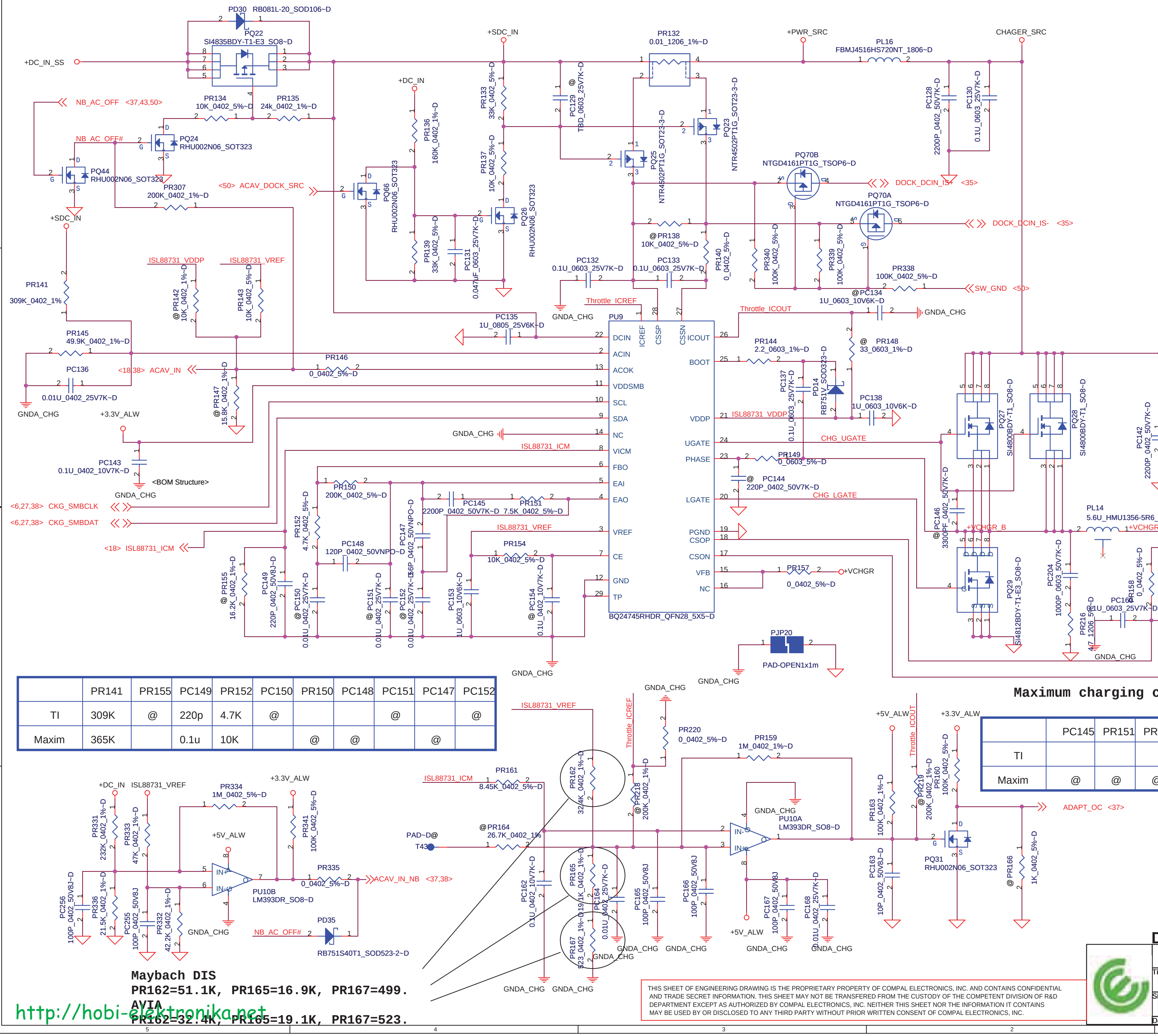


TABLE 3, PIN NAME DIFFERENCES

PIN	MAXIM	INTERSIL
1	GND	NC
3	REF	VREF
4	CCS	ICOMP
5	CCI	NC
6	CCV	VCOMP
7	DAC	NC
8	IINP	ICM
11	VDD	VDDSMB
14	BATSEL	NC
15	FBSA	VFB
16	FBSB	NC
17	CSIN	CSON
18	CSIP	CSOP
20	DLO	LGATE
21	LDO	VDDP
23	LX	PHASE
24	DHI	UGATE
25	BST	BOOT

"NC" means no-connect

	PR141	PR155	PC149	PR152	PC150	PR150	PC148	PC151	PC147	PC152
TI	309K	@	220p	4.7K	@			@		@
Maxim	365K		0.1u	10K		@	@		@	

Maximum charging current is 6.24A

	PC145	PR151	PR154	PC154	PC132	PC133	PR138	PC134	PR148
TI				@			@	@	@
Maxim	@	@	@		@	@			

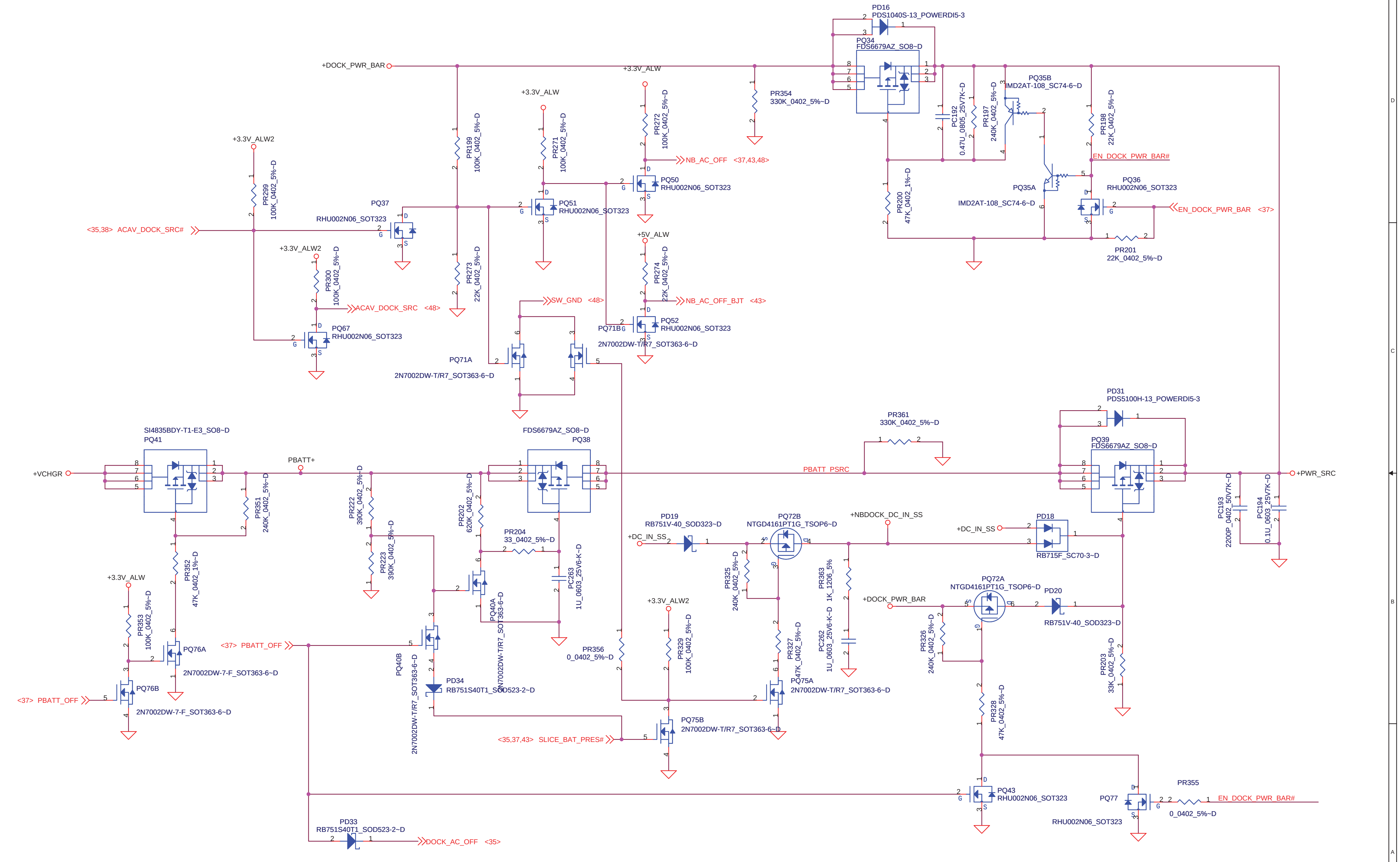
	PC144	PR157	PC160	PC161
TI	@	0		
Maxim		100	@	@

Maybach DIS
PR162=51.1K, PR165=16.9K, PR167=499.
AVIA
PR162=32.4K, PR165=19.1K, PR167=523.

Compal Electronics, Inc.

Title: Charger

Size | Document Number: LA-4041P | Rev 0.2



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Compal Electronics, Inc.		
Title: Selector		
Size	Document Number: LA-4041P	Rev 1.0
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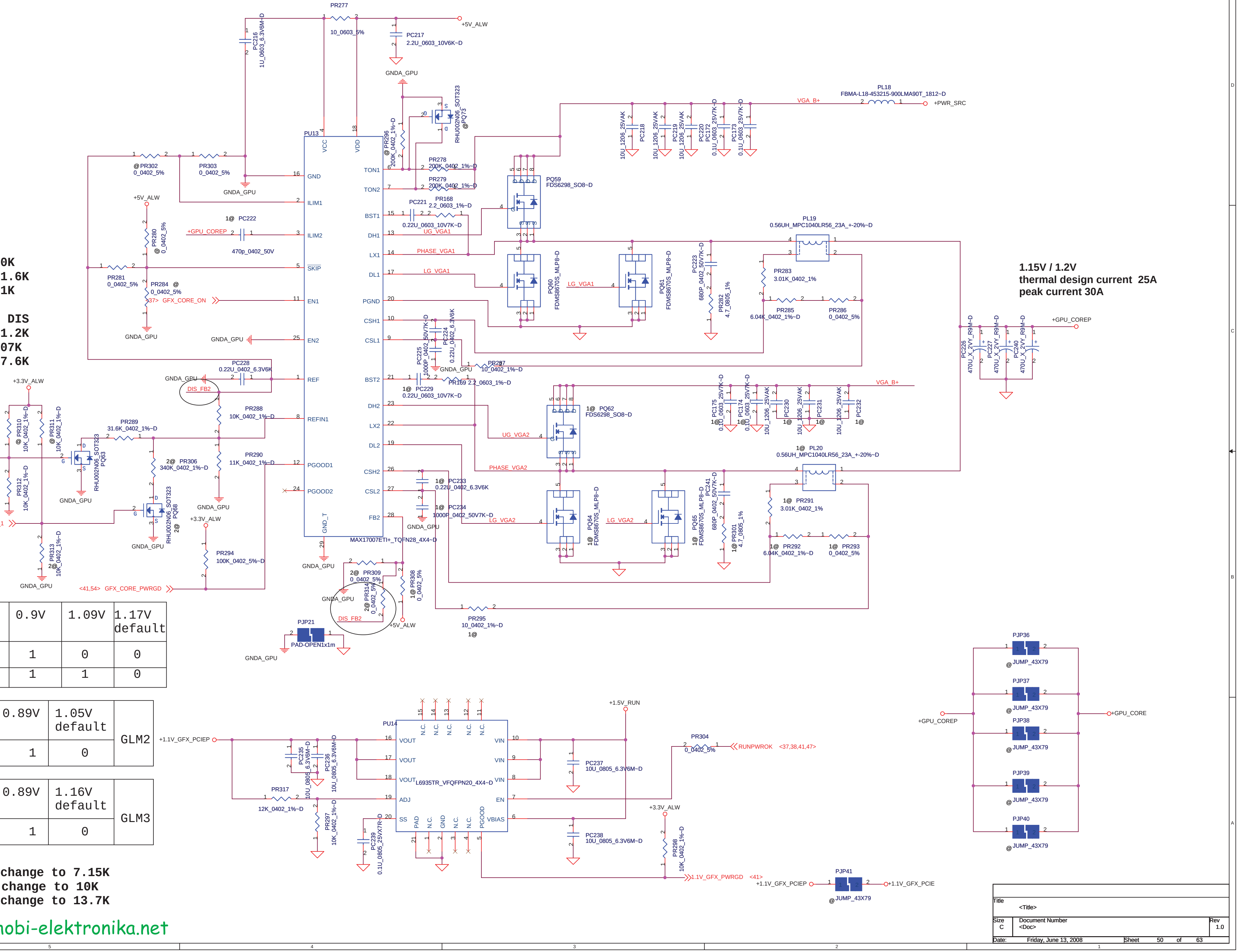
AVIA
PR288 10K
PR289 31.6K
PR290 11K

Maybach DIS
PR288 41.2K
PR289 107K
PR290 57.6K

1.15V / 1.2V
thermal design current 25A
peak current 30A

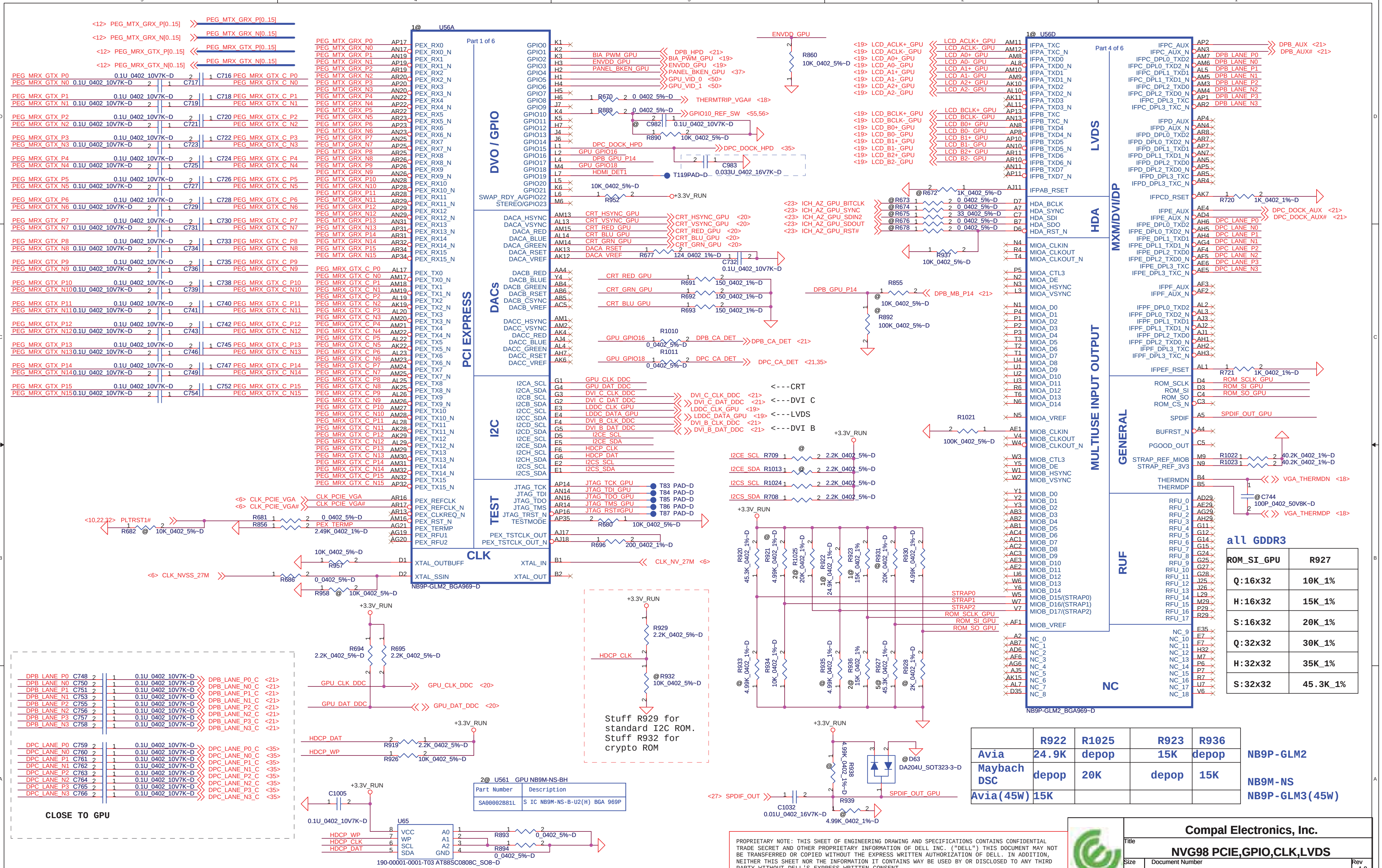


Maybach	0.9V	1.09V	1.17V default
GPU_VID_0	1	0	0
GPU_VID_1	1	1	0

AVIA	0.89V	1.05V default	GLM2
GPU_VID_0	1	0	

AVIA	0.89V	1.16V default	GLM3
GPU_VID_0	1	0	

GLM3
PR288 change to 7.15K
PR290 change to 10K
PR289 change to 13.7K



all GDDR3

ROM_SI_GPU	R927
Q:16x32	10K_1%
H:16x32	15K_1%
S:16x32	20K_1%
Q:32x32	30K_1%
H:32x32	35K_1%
S:32x32	45.3K_1%

	R922	R1025	R923	R936	
Avia	24.9K	depop	15K	depop	NB9P-GLM2
Maybach DSC	depop	20K	depop	15K	NB9M-NS
Avia(45W)	15K				NB9P-GLM3(45W)

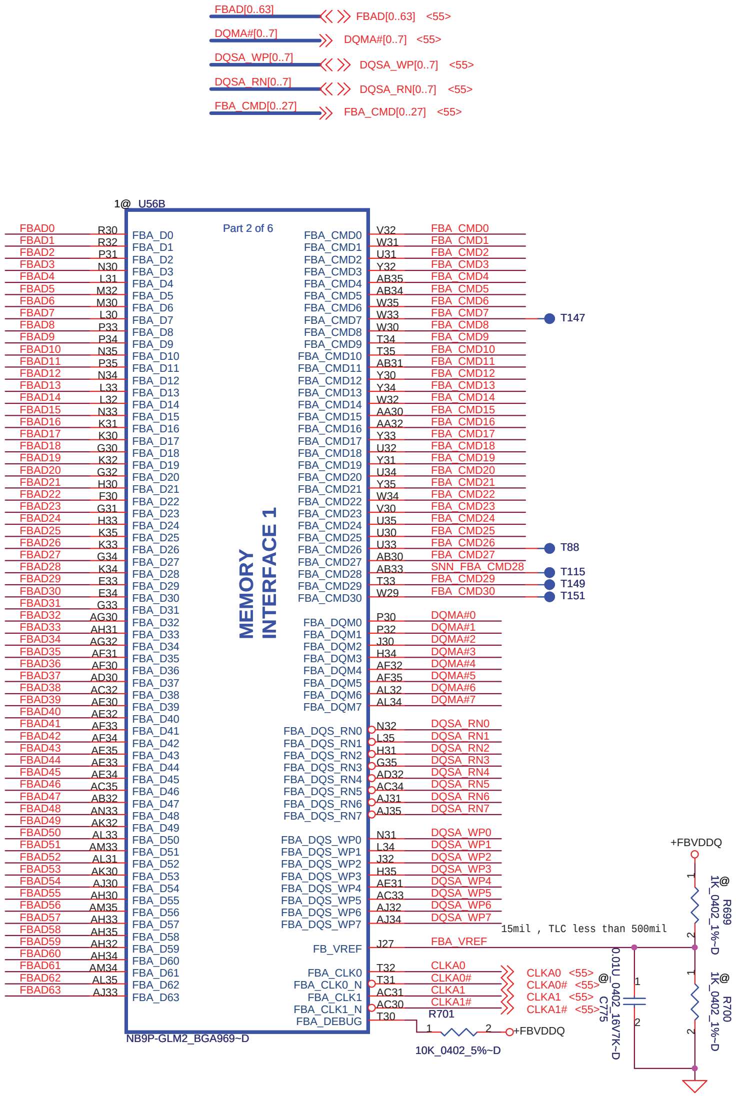
Part Number	Description
SA00002B81L	S IC NB9M-NS-B-U2(H) BGA 969P

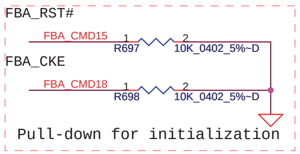
Compal Electronics, Inc.

Title: NVG98 PCIE,GPIO,CLK,LVDS

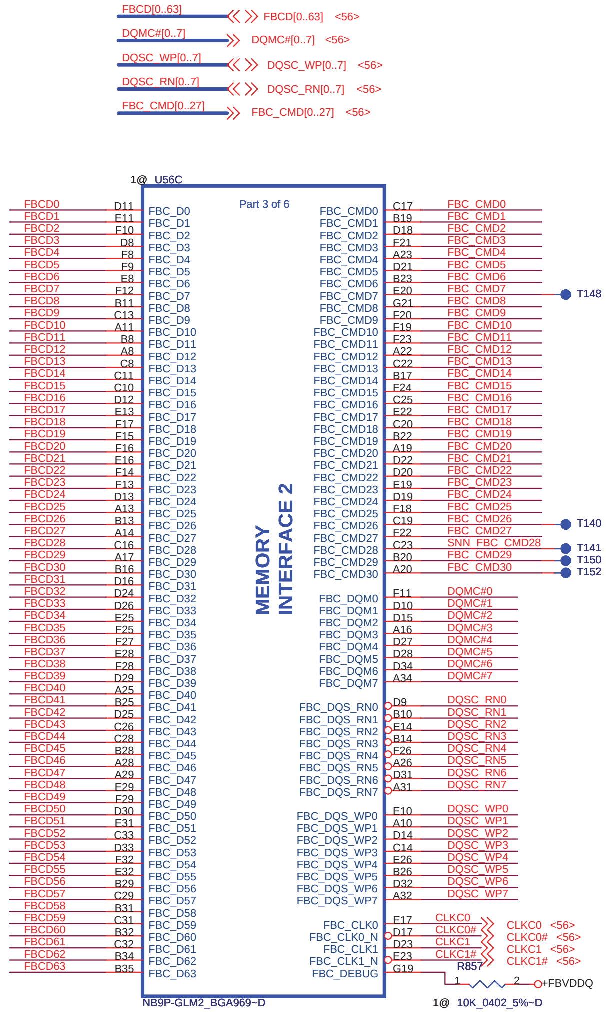
Size | Document Number: LA-4051P | Rev 1.0

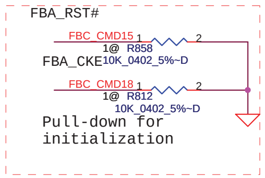
Date: Friday, June 13, 2008 |





	0..31	32..63
FBA_CMD0	A4	
FBA_CMD1	RAS#	RAS#
FBA_CMD2	A5	
FBA_CMD3	BA1	BA1
FBA_CMD4		A2
FBA_CMD5		A4
FBA_CMD6		A3
FBA_CMD7	CS1#	CS1#
FBA_CMD8	CS0#	CS0#
FBA_CMD9	A11	A11
FBA_CMD10	CAS#	CAS#
FBA_CMD11	WE#	WE#
FBA_CMD12	BA0	BA0
FBA_CMD13		A5
FBA_CMD14	A12	A12
FBA_CMD15	RST/ODT	RST/ODT
FBA_CMD16	A7	A7
FBA_CMD17	A10	A10
FBA_CMD18	CKE	CKE
FBA_CMD19	A0	A0
FBA_CMD20	A9	A9
FBA_CMD21	A6	A6
FBA_CMD22	A2	
FBA_CMD23	A8	A8
FBA_CMD24	A3	
FBA_CMD25	A1	A1
FBA_CMD26	A13	A13
FBA_CMD27	BA2	BA2
FBA_CMD28	RFU0	RFU0
FBA_CMD29	RFU1	RFU1
FBA_CMD30	RFU2	RFU2





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Compal Electronics, Inc.

Title: NVG98 Memory Interface

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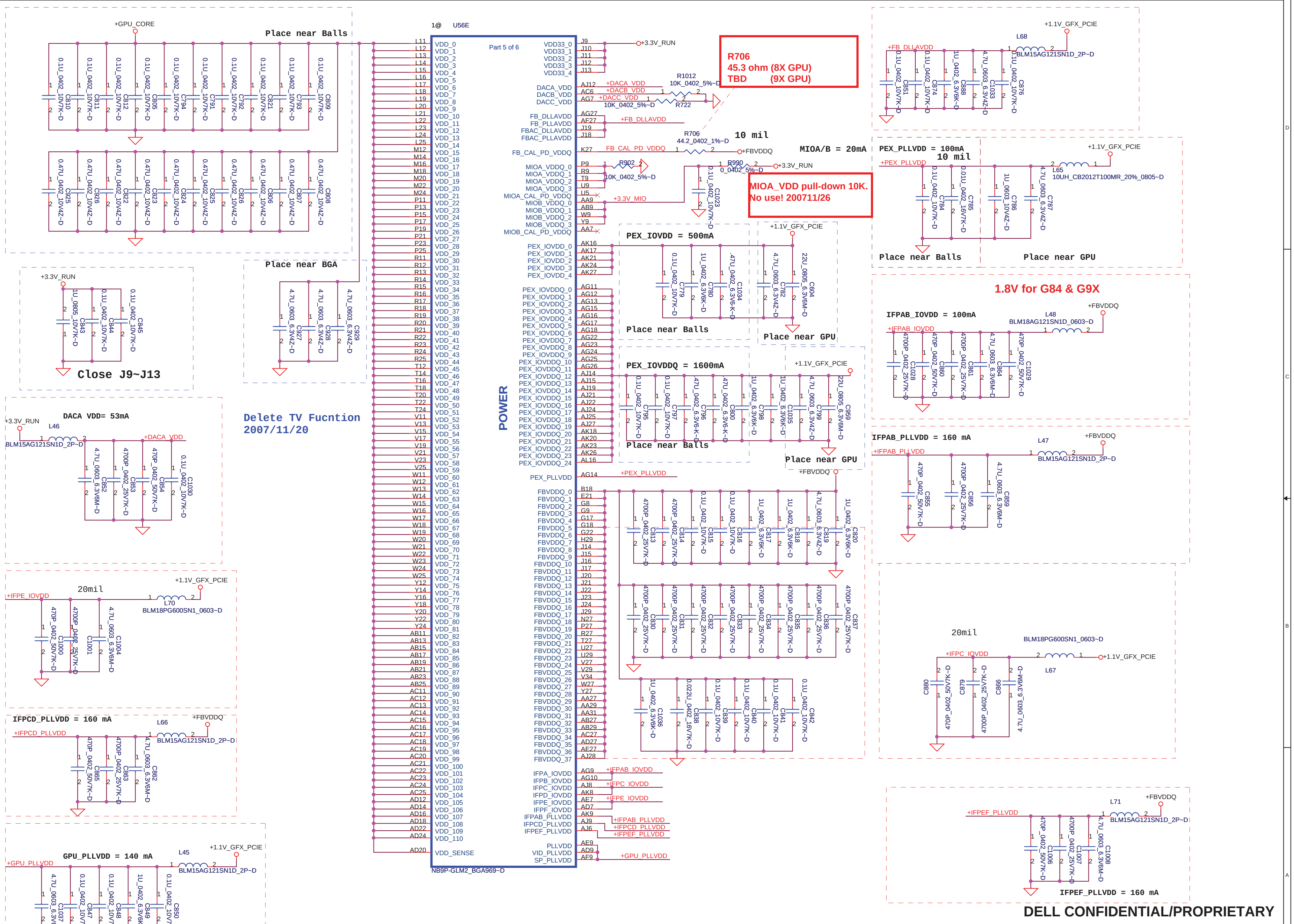

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Compal Electronics, Inc.	
Title	NVG98 POWER
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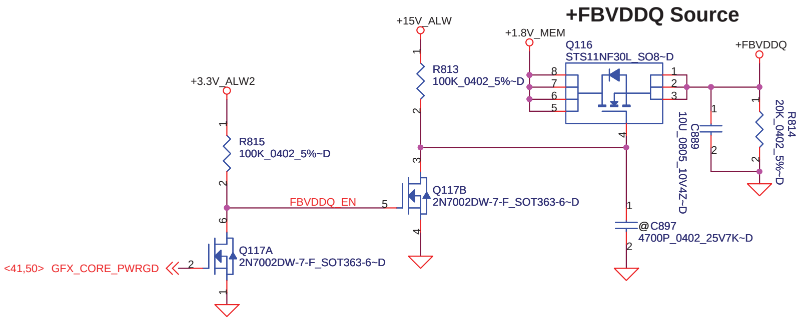

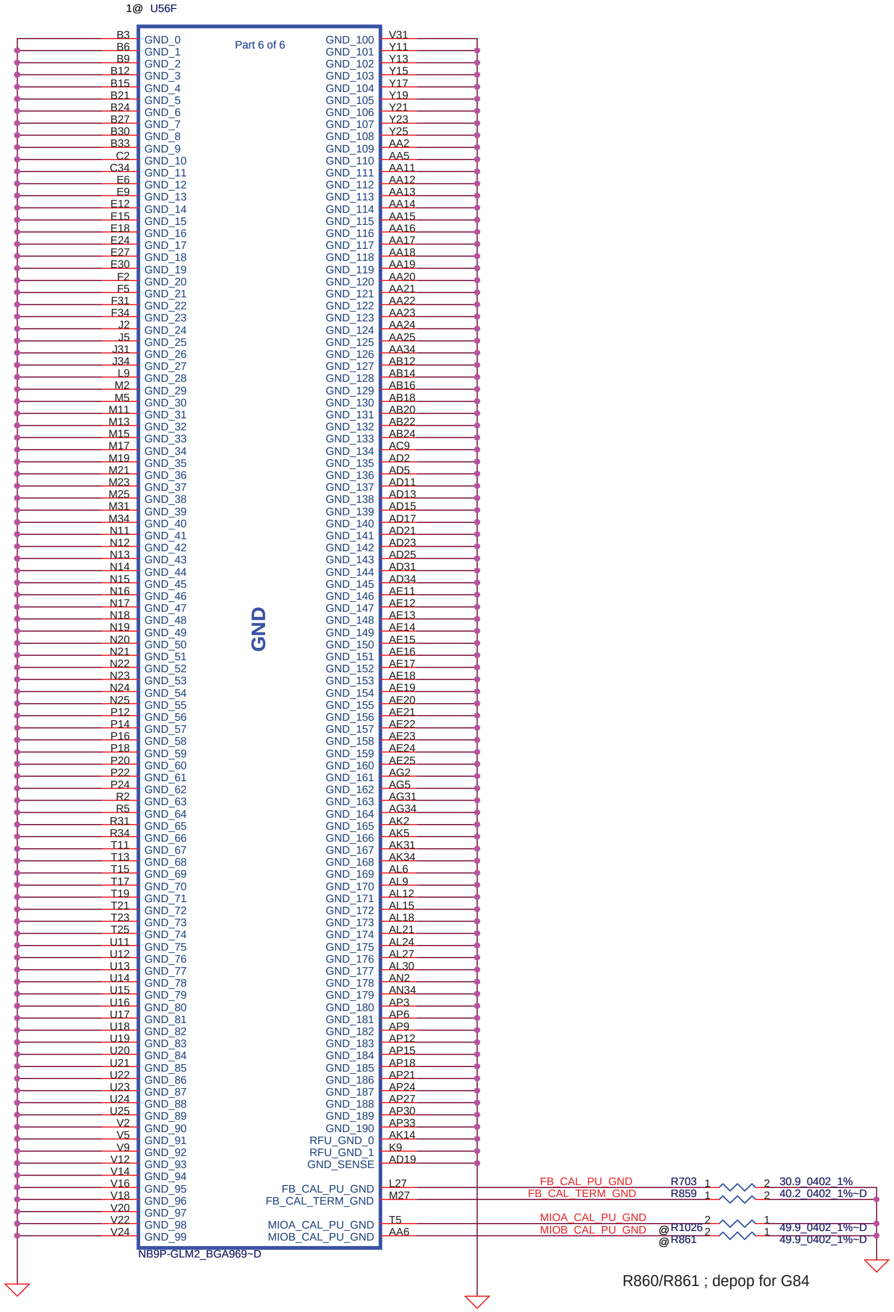

R860/R861 ; depop for G84

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Title	NVG98 GND	
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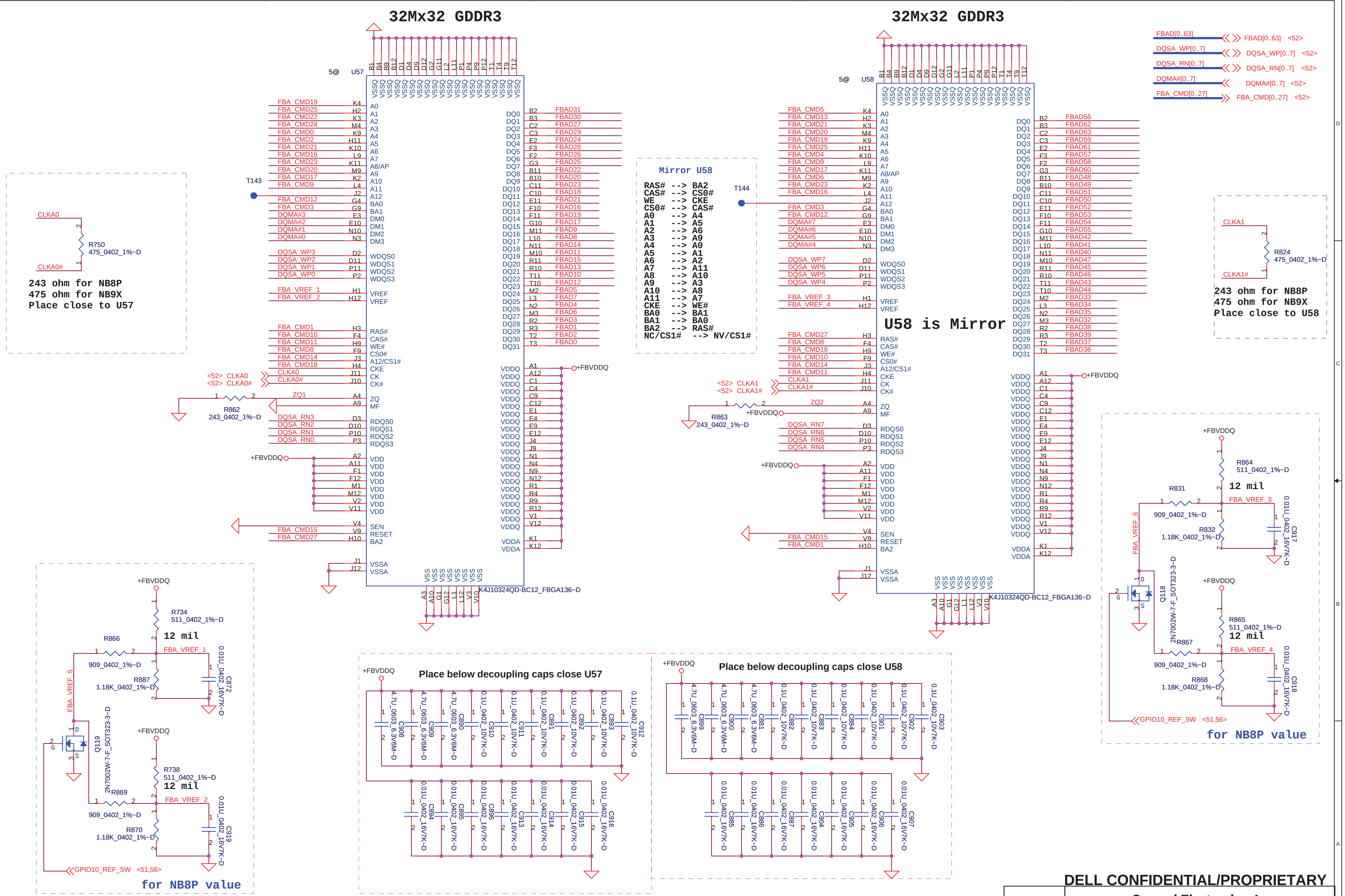

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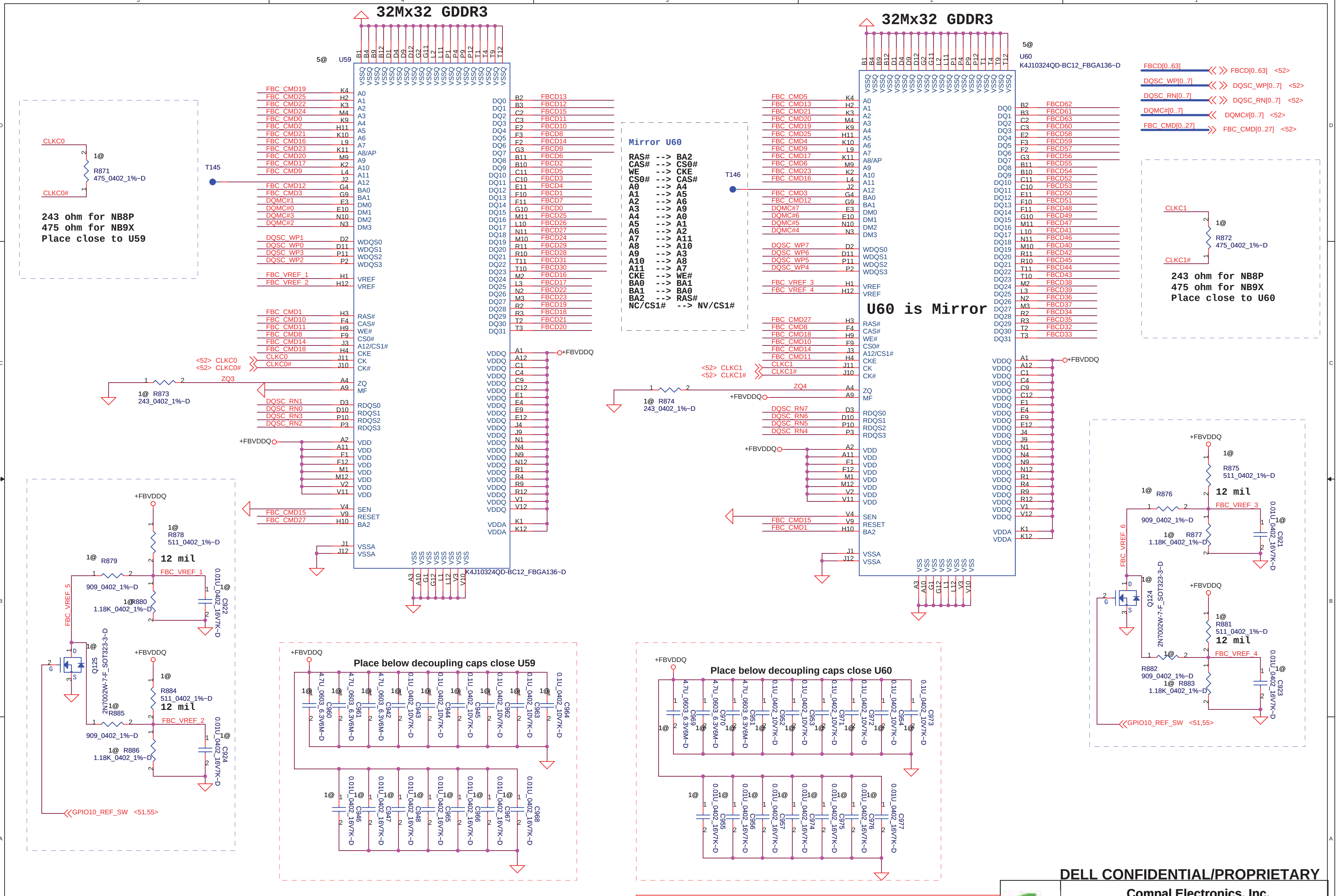

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Version Change List (P. I. R. List)

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	37	ECE5028	2007/10/09	Compal	change BID pop option to X01: SCH165393	R534 (depop) ; R529 (pop)	X01
2	33	USB2.0	2007/10/25	Compal	Charger USB Fail: SCH165395	Need to swap the connection for USB_CHARGER_PWR_EN# & ESATA_USB_PWR_EN#	X01
3	13	Cantiga	2007/10/25	Compal	modify JUMPER ref. name	Modify ref name from P1 to PJP22	X01
~~4~~	~~51~~	~~NV98~~	~~2007/10/25~~	~~Compal~~	~~VRAM strap pin pop option~~	~~depop R922,R923,R933,R934 and pop R920,R921,R935,R936 to match 16Mx32 (Samsung)~~	~~X01~~
5	51 20	NV98 CRT SW	2007/10/25	Compal	No more TV out function supported on Edock-LIO:SCH165398	Delete TV signals & Circuit, and remove R669, R762, R763	X01
6	6	Clock	2007/11/1	Compal	Clock 27M R37 Resistor Error:SCH165399	R37 change value to 33ohm	X01
7	7	Quad Core	2007/11/5	Compal	Support Quad Core CPU	(1) Quad Core Support, stuff R941, R984, R945, R946, R943, R942, R944, Q14, Q129 (2) Quad Core ITP Support, stuff R976, R977, R978, R979, R980, R981, R982, R983	X01
8	21	DP	2007/11/5	Compal	Support DP compoments	(1) Support DP, all components stuff	X01
9	21	DP	2007/11/5	Compal	DPB_HPD# Voltage Level	Remove R1006 pull down 7.5K (UMA need the resistor), becasue Descrite level is 3.3V	X01
10	21	DP	2007/11/5	Compal	DOCK_DET# Double Pull Up	Remove R799 for Double Pull Up	X01
11	21	DP	2007/11/5	Compal	DP Spec for AUX/# need pull down 100k	add DPB_MB_AUX/# --> R895/R896 add DPB_DOCK_AUX/# --> R897/R898 add DPC_DOCK_AUX/# --> R899/R900 (no-stuff)	X01
12	22	SB	2007/11/5	Compal	MDC Reset Change Control By ECE5028 to 5V Level:SCH165401	SB U10 PinF6 change Name to GNT3#/GPIO55 only	X01
13	23	SB	2007/11/5	Compal	SB Remove RTC Detect Funcion	Remove R375, R961, R960, Q130 and Add T46 on U10 pinAE8	X01
14	23 51	SB GPU	2007/11/5	Compal	Support HDCP Audio:SCH165403	SB Stuff 3rd HD Audio to GPU R243, R244, R245, R246 GPU Stuff R673, R674, R676, R678 0ohm, R675 33ohm	X01
15	24 37	SB	2007/11/5	Compal	SB GPIO Change:SCH165431	(1) Sniffer detect Remove From SB to ECE5028 GPIOH7, U10 pinAE8 add T39, pull up resistor R754 change to page37 (2)R266 USB_MCARD3_DET# move to page34 (3)SB U10 pinC12 net named to "LAN_PHY_PWR_CNTRL"	X01
16	28	Audio	2007/11/5	Compal	Audio Test Result:SCH165433	C437/C436 change from 1uF_1206 to 2.2uF_1206	X01
17	31 37	PWR Board	2007/11/5	Compal	Power Board Detect pin name Changed:SCH165431	JS1394 pin9 change name to "PWR_BTN_BD_DET#", and connect to page 37 ECE5028 pin33 GPIOH7	X01
18	29 37	LOM	2007/11/5	Compal	LOM Disable pin name changed:SCH165431	LOM Disable pin name changed to "LAN_PHY_PWR_CNTRL" and connect to page 37 ECE5028 pin88 GPIOG0	X01
19	33 37	ESATA	2007/11/5	Compal	ESATA Enable pin name Change:SCH165431	ESATA Enable pin name U29 Changed to "ESATA_USB_PWR_EN#" and connector to ECE5028 pin82 GPIOB2	X01
20	33 37	USB	2007/11/5	Compal	Charger USB Port pin name Change:SCH165431	Chatger USB U53 Enable pin name changed to "USB_POWERSHARE_PWR_EN#" and connector to ECE5028 pin104 GPIOA7	X01
21	33	USB	2007/11/5	Compal	Charger USB Port Switch Eye Diagram Fail:SCH165434	U54 Change to TI Part TS3USB1RSER	X01
22	33	MDC	2007/12/5	Compal	MDC DIS pin Voltage to +3.3V too Low:SCH165431	R326 pull up to +5V_ALW and connrection changed from SB to ECE5028 pin102 GPIOA5 (2007/12/5 update to pull up +5V_ALW)	X01
23	34	WLAN	2007/11/5	Compal	New ME Drawing Remove Latch 2	Remove JLAT2	X01
24	34	Nimi-card	2007/11/5	Compal	Correct Nimi-Card Detect	stuff R438, R458, R449	X01
25	35	Dock-ESD	2007/11/5	Compal	Support Dock ESD	ESD Part D65, D66 stuff	X01
26	36	USH	2007/11/5	Compal	Smartcard Detect Cancel:SCH165435	Smartcard SC_DET pin remove module port to EC	X01
27	36	USH	2007/11/5	Compal	Correct Smartcard Buffer 73S8009CN Power Bead Current Value:SCH165435	L69 change part >400mA of Murata LQH32CN100K53L	X01
28	36	USH	2007/11/5	Compal	Contactless Connector Changed:SCH165435	JCS1 change connector to TYCO_1-1775784-0_6P-T. But still wait contactless spec to update	X01
29	37	ECE5028	2007/11/5	Compal	ECE5028 change GPIO Define:SCH165431	(1)pin102 no need of PNL_LED_MASK#, change to MDC_RST_DIS# (3)pin70 GPIOC5 no need of ADAPT_TRIP_SET, NC (4)updte CHIP_ID message, current set to (0,0)	

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

Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
30	38	MEC5035	2007/11/05	Compal	MEC5035 pin19 add RC_ID:SCH165437	add R211/C480	X01
31	38	MEC5035	2007/11/05	Compal	MEC5035 SUSPWROK change Define:SCH165437	SUSPWROK change from pin19 to pin30	X01
32	38	MEC5035	2007/11/05	Compal	MEC5035 no need DEBUG_ENABLE#, support from KOST_DEBUG_RX:SCH165437	(1)JDEG1 pin 2 change to HOST_DEBUG_RX, Double pull up --> remove R553. (2)DEBUG_ENABLE# no need, remove R959	X01
33	38	MEC5035	2007/11/05	Compal	No Need EC SPI Rom Function:SCH165439	(1)Remove R591, R589, R590, R592, R593, C672, U37 (2)MEC5035 pin 67, 68, 69 : NC	X01
34	38 39	MEC5035	2007/11/05	Compal	No Need ECE1088:SCH165440	(1)MEC5035 pin35, 37 : NC (2)remove ECE1088: U38, C676, C677, R747, R650, R826	X01
35	39 38	ECE1088	2007/11/05	Compal	TouchPad Change Define:SCH165443	(1)TouchPad Connector Change pin define for pin 14/15/16 to GND/KYBD_BLJT_PWR/TP_DET# (2)KYBD_BLJT_PWR connect to MEC5035 pin47	X01
36	41	Screw	2007/11/05	Compal	ME Changed Screw Size	(1)Dock: H14/H15 --> H_5P3 (2)GPU : H19 --> 4P0, H20 --> 3P9, H21 --> 3P3 (3)H23 --> 4P0 (4)H22 --> 2P2	X01
37	42	LED	2007/11/05	Compal	LED Circuit Changed:SCH165444	(1)Add U14 AND Gate for Base LED Mark with LID_CL# (2) Refer Page 42 for LED circuit changed	X01
38	37	MEC5028	2007/11/19	Compal	ALWON oscillation on Battery only with RTC battery:SCH165445	Cause the ECE5028 no power, add D4/R20 to separate	X01
39	24,33,36	USH/BIO	2007/11/19	Compal	USH add Reset# to BIO Module:SCH165061	BIO_DET# Function Delete, add R63 pull-up for FP_RESET#. And link to USH pin C3. And add R1002 for UPEK module	X01
40	29	LOM	2007/11/19	Compal	Intel LOM PHY 82576LM change to B0 version:SCH165446	Intel LOM PHY 82576LM change to B0 version	X01
41	10~15	NB	2007/11/19	Compal	Intel NB Cantiga change to B0:SCH165447	Intel NB Cantiga change to B0	X01
42	21,35,51	DP	2007/11/19	Compal	DP Port Cable Detect change to "H" Detect:SCH165448	Delete R783/Q10, and net name change to DPB_HPD Delete R795/Q114, and net name change to DPC_DOCK_HPD	X01
43	21	DP	2007/11/19	Compal	DP Port delete no use parts	Delete R895~R900, R209, R278, R336, R337, R419, R647 --> Dell want keep those parts	X01
44	21	DP	2007/11/19	Compal	DP Port delete function:SCH165448	DP Port delete function work, DPC_DOCK_AUX_SW/DPC_DOCK_AUX#SW add R1008/R1009 100k to GND DP Port delete function work, DPB_AUX_SW/DPB_AUX#SW add R1006/R1007 100k to GND, but depop U9 pin 1 R193 change to 3.48K_1%, and depop R180/R181/R896. pop R276/R336/R337	X01
45	35	DOCK	2007/11/19	Compal	Dock connect rename:SCH165449	Dock connect rename to JDOCK1	X01
46	35	DOCK	2007/11/20	Compal	Dock connect ESD Diode:SCH165449	add D65 SM24C.TCT_SOD23 ESD Diode on +DOCK_PWR_BAR	X01
47	18	Thermal	2007/11/20	Compal	No need for PWR_MON_GFX for DSC platform:SCH165450	un-stuff R1005	X01
48	20	CRT/ESD	2007/11/20	Compal	No stuff CRT ESD Diode D5, D6, D7:SCH165453	No stuff CRT ESD Diode D5, D6, D7	X01
49	55,56	GDDR	2007/11/20	Compal	Chnage to NB9P, CLK Shunt Resistors Change Value:SCH165454	R750, R824, R871, R872 change to 475ohm_1%	X01
50	51	GPU	2007/11/20	Compal	need to add two series resistors for CA_DET:SCH165454	add R1010, R1011 0hm, un-stuff	X01
51	12,13,20 51, 53	NB/GPU	2007/11/20	Compal	TV Function Remove from M09 Platform:SCH165454	NB: page12 U2 pinC31/E32 --> NC NB: page13 U2 pinM25 to GND, pinL28 to +1.5V_RUN after a Bead (L49) SW: page20 U4 7B1/8B1/9B1, 7B2/8B2/9B2 --> NC and remove R669/R762/R763 GPU: page51, delete R679, C737. U56 pinAA4/Y4/AB4/AB6/AC5 NC GPU: page53, delete DACB: C867,C868, C869, C1031,L49, and add R1012 10K pull dowm DACB at pinAC6	X01
52	51	GPU	2007/11/20	Compal	Nvidia FAE suggest for I2C E channel pull up:SCH165454	U56 GPU pinD5/E5 I2CE_SCL/SDA add R709/R1013 10K pull up, but depop	X01
53	51	GPU	2007/11/20	Compal	Nvidia GPU set threes different power level: 1.17V, 1.09V, 0.9V:SCH165454	U56 GPIO5 --> GPU_VID_0 GPIO6 --> GPU_VID_1	X01
54	35	DOCK	2007/11/20	Compal	DOCK pin out to support Battery Slice:SCH165449	JDOCK1 pin41 add net : +NBDOCK_DC_IN_SS	X01
55	30	LOM	2007/11/20	Compal	Remove termination resistors capacitors and LED serial resistors:SCH165456	Remove MDI termination R384~R391, C488~C491, R395, R396, R397 move to IO Board	X01
56	18	EMC4002	2007/11/21	Compal	EMC4002, Power SW pin separate :SCH165450	Add AND Gate: U70 and C1014, R143/R144 depop	X01
57	29, 33, 35	LOM	2007/11/21	Compal	Intel LOM LDO for +2.65V/+2.5V:SCH165456	page29: Add LDO Q101/Q103, R959~R962, C1010~C1012 page33: IO connector pin36 change to +LOM_VCT page35: Dock pin116/118 change to +LOM_VCT	X01
58	30	LOM SW	2007/11/21	Compal	Change MDI bus Bead Value at L20 ~ L27 from 36nH to 22nH:SCH165456	Change MDI bus Bead Value at L20 ~ L27 from 36nH to 22nH, will improving the IEEE	X01
59	33	USB Port 2	2007/11/21	Compal	USB SW Vendor Suggest Change Design:SCH165434	USB Port Two Connection Changed for Port2: SB --> Switch--> Choke --> Connector, and Switch Chip close to SB	X01
60	21	DP	2007/11/21	Compal	Proper Compoments Derating	D10 change change to B0540WS-7_SOD323-2	X01
61	53	GPU Power	2007/11/21	Compal	Change from Nvidia NB8P to NB9P, remove some parts:SCH165457	For +IFPC_IOVDD remove Q127, R940, Q128, PJP43	X01
62	53	GPU Power	2007/11/21	Compal	pop for NB9P on +IFPE_IOVDD/ +IFPEF_PLLVDD:SCH165457	+IFPE_IOVDD: L70, C1000, C1001, C1004 +IFPEF_PLLVDD: L71, C1006, C1007, C1008	X01

Title: Changed-List History -2

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Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
63	38	MEC5035	2007/11/21	Compal	Change Netname following Power Circuit Changed:SCH165437	"ACAV_IN_DOCK" to " ACAV_DOCK_SRC" "ACAV_IN_DOCK#" to " ACAV_DOCK_SRC#" "ACAV_IN_MB/DOCK" to " ACAV_IN" Remove U64, C846, add U71, C1031	X01
64	37	MEC5028	2007/11/21	Compal	DF174483: [SSI2]The LCD/LED will keep had power with USB device when unplug AC & Battery.	1) Add 100k no pop pull-ups to +3.3V_ALW2 on: - USB_SIDE_EN# - ESATA_USB_PWR_EN# - USB_POWERSHARE_PWR_EN# 2) No stuff R502, R923, R929.	X01
65	37	MEC5028	2007/11/21	Compal	Change PU/PD on SYS_LED_MASK#:SCH165431	add R1014 100k PD	X01
66	36	USH	2007/11/21	Compal	Remove unnecessary parts on contact less:SCH165435	Remove R495, R499	X01
67	51	GPU	2007/11/21	Compal	Need to depop R855/R892 to pass HDMI spec:SCH165454	depop R855/R892	X01
68	27, 36	Crystal	2007/11/21	Compal	Y3 Y5 is not PSL parts:SCH165458	Update Y3, Y5 to PSL parts	X01
69	24, 29, 37	Crystal	2007/11/22	Compal	LAN_PHY_DISABLE# Change net name same with Roush:SCH165431	Change net name to LAN_DISABLE# for SB GPIO12 to PHY, and pass a 0ohm resistor for "LAN_DISABLE#_R" to ECE5028 GPIOG0	X01
70	7	CPU Quad Core	2007/11/22	Compal	Bom Separate for Avia and Maybach DSC for CPU:SCH165460	Change the R976~ R983, R984, R941~R946 Q129, Q14 to 1@, then Avia Bom Stuff. MaybachDSC un-stuff	X01
71	19	Camera VDD	2007/11/22	Compal	Camera net name update:SCH165461	Camera net name update to "+CAMERA_VDD"	X01
72	31	PCMCIA	2007/11/22	Compal	Change SD Card Power Switch for PSL:SCH165463	U28 chnage to TI TPS2051BDBVR_SOT23-5	X01
73	31	PCMCIA	2007/11/22	Compal	JSD1 connector changed from FPC type to Cable type:SCH165464	JSD1 change to 16pin cable type connector, same with touchpad connector	X01
74	33	BIO	2007/11/22	Compal	BIO connector change to another part:SCH165464	JBIO1 change to "TYCO_1734242-6_6P-T"	X01
75	35	Docking	2007/11/22	Compal	Docking Connector Change Layout Symbol:SCH165449	JDOCK1 change to JAE_WD2F144WB1	X01
76	36	Contact Less	2007/11/22	Compal	Contact Less Connector Changed:SCH165435	JCS1 Contact Less Connector Changed to Tyco_1-1775784-0	X01
77	27	I2C Codec	2007/11/27	Compal	Reduce one components R329 for I2C Codec fixed:SCH165467	We use I2C codec, no more for SPI Audio Codec, R329 can remove	X01
78	36	USH	2007/11/27	Compal	use B0 USH BCM5880 Chip, resistors setting changed:SCH165435	R845/R844 pop, delete R847/R846	X01
79	24	SPI/ICH9	2007/11/27	Compal	no more for 2nd SPI Rom, save board space:SCH165469	delete components: R307/R308/R309/R295/R305/R304/R306/C329/U13	X01
80	7	ITP	2007/11/29	Compal	ESD suggest add 0-ohm resistors on ITP bus:SCH165507	Add R1015~R1020 on ITP BPM#0~BPM#5, and depop first. Then we need hand soldering when we want use ITP	X01
81	13	NB	2007/12/03	Intel	SCH165564, Intel provide remove D1/R122	remove D1/R122	X01
82	37, 36	USH	2007/12/04	Broadcom	Broadcom Review Result	(1) R788 SP_TPM_LPC_EN pull up pop (2) R490 depop (3) C591 depop (4) remove R472 resistor 10ohm (5) pop R829, depop R467 for B0 version (6) depop R849, due to Broadcom no need detect SC_DET (7) R476 Change to 5.1M, R488 change to 3.3M to reduce power consumption (8) depop C594 (9) add R1027 47K pull down	X01
82	51, 52, 53, 54	Graphic	2007/12/04	Nvidia	Nvidia Review result	(1) PEX_IOVDDQ add C1035 1uF (2) PEX_IOVDD add C1034 (3) remove C778 (4) R699, R700, C755 no stuff (5) FBVDDQ C820 to 1u and add one C1036 (1u) (6) +FBVDDQ all 0.022u to 4700p, done (7) +FB_DLLAVDD add C1033 4.7u (8) +GPU_PLLVDD C850 change to 0.1u (9) +GPU_PLLVDD add C1037 4.7u (10) strap pin define change, STRAP0: Not stuff R933; Stuff R920 with 45.3K 1%. STRAP1: Not Stuff R921; Stuff R934 with 10K 1% STRAP2: NB9M-NS : Not stuff R935, Stuff R922 with 20K 1% STRAP2: NB9P-GLM2 : Not stuff R935, Stuff R922 with 25K 1% ROM_CLK_GPU: NB9M-NS : Not stuff R923, stuff R936 with 15K 1% ROM_SI_GPU: Qimonda 16Mx32 : Not stuff R931, Stuff R927 with 10K 1%. Hynix 16Mx32 : Not stuff R931, Stuff R927 with 15K 1% Samsung 16Mx32 : Not stuff R931, stuff R927 with 20K 1% Qimonda 32Mx32 : Not stuff R931, Stuff R927 with 30K 1%. Hynix 32Mx32 : Not stuff R931, Stuff R927 with 35K 1% Samsung 32Mx32 : Not stuff R931, stuff R927 with 45.3K 1% ROM_SO_GPU: Not stuff R928, Stuff R930 with 4.99K 1% (11) Add R1022 40.2K 1% on STRAP_REF_MIOB (12) Add R1023 40.2K 1% on STRAP_REF_3V3. (13) C982 Remove (14)Add pull down resiter on MIOA_CAL_PU_GND R1026 and not stuff (15)Add 10K pull down on MIOB_CLKIN R1021 (16) I2CE_SCL/SDA: Change R709 and R1013 to pull up +3.3V_RUN (17) I2CS_SCL/SDA: Add 10K pull up on I2CS_SCL. (18) R696 pop	X01 X01
82	28	Audio	2007/12/05	IDT	IDT Audio Reference changed	R818. R827 change to 1K_0402	

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Item	Page#	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
83	32	CardBus/Express	2007/12/6	Ricoh	Ricoh review result	(1) CBS_CCD1#/CBS_CCD2# add C1038/C1039 270pF pull down (2) U52 +1.5V_CARD add C1041, +3.3V_CARDAUX ADD C1040 10uF_0805 (3) R657, R684, R790 depop, because chip internal have been pull up	X01
84	24	LOM	2007/12/10	Intel	Per Intel message, no use GPIO12 to control LAN_DISABLE#, then reserve to pull up	add R1028 pull up +3.3V_ALW_ICH, depop	X01
85	37, 38	EC	2007/12/10	Dell	INSTANT_ON_SW# design change (WI165505)	INSTANT_ON_SW# change design to add R1029, R1030, R1031, then depop R560, D4, C827, R20	X01
86	23, 51	SB/VGA	2007/12/10	Compal	HDMI Over Audio source changed, because it will imapct S3 resume. HDMI source change from SPDIF	Depop R673, R674, R675, R676, R678, R243, R244, R245, R246.	X01
87	27	Codec	2007/12/12	Compal	IDT codec review result to change C408 ~ C411	Value from 1uF to 2.2uF	X01
88	18,21,37,38	EMC4002 , DP 5028, 5035, LED	2007/12/13	Compal	The VCC tied to logic gate VCC isnt correct.	Change U70,U66,U71,U62,U14 from 74AHCT to 74AHC part. (VCC pin spec = 3.3V)	X01
89	35	DP	2007/12/17	Dell	SCH166257: DOCK_DET# add pull 100K	add R1033 100K, and depop R124	X02
90	38	DOCK/5035	2007/12/17	Dell	TASK166259: update GPIO Map	signal ACAV_DOCK_SRC# can be removed from the 5035	X02
91	29	LOM PHY	2007/12/17	Dell	SCH166263: De-pop R1004 for control LAN PHY enable from BIOS setting	De-pop R1004	X02
92	42	LED	2007/12/17	Compal	SCH165444: add D66 for +5V_RUN back drive issues	add D66 between Q151 and Q97	X02
93	18	+2.5V LDO	2007/12/17	Compal	SCH166267: Disable EMC4002 LDO for +2.5V_RUN	add R1034 10K pull low, and de-pop R149, C238, C239	X02
94	19	DP	2007/12/17	Compal	SCH166272: De-populate D10 with a 0ohm Resistor	D10 footprinter can't stuff for 0805 or 1210, reserve a 1210 resistor footprint first: R1035	X02
95	42	LED	2007/12/17	DELL	SCH166275:Mask signals for NUM/SCRL/CAPS LEDs	Add Q154/R1036 to control NUM/SCRL/CAPS LED on/off, R1036 de-pop	X02
96	33, 38	USB	2007/12/17	DELL	SCH166278:Update cell charger detect circuit	add D67/D68 R1037, del R986, update C1021 to 1uF	X02
97	6, 8, 24	CLOKC, CPU, ICH	2007/12/17	DELL	SCH166282: intel NOA tets points comliance	add R1038~R1042 on PT2	X02
98	33	eSATA	2007/12/17	Compal	SCH166284:eSATA add Repeater Chip	eSATA repeater for ICH to eSATA trace over 5inch issues, addU72, C1042~C1045, R1043~R1048, Q155 . U72 change to PI2EQX3201BZFE	X02
99	37	5035	2007/12/17	Compal	SCH166316:PT2 change to X02 BID	PT2 change the BID for X02: R530, R534 pop. R535, R529 de-pop	X02
100	35	Dock	2007/12/21	Compal	SCH166435 : Hot Docking then Docking side Apdater Protect	add D70 and R1057 on docking connector, and add C1055, R1059. MEC5035 pin41 change to "DOCK_POR_RST#" to dock pin140	X02
101	9	CPU Bulk Caps	2008/2/4	Power	SCH166160 : CPU Bulk change to 270u_4.5mohm to support QC CPU	C56~C61 change to 270U_D_2VM_R4.5M~D, C58, C61 depop	X03
102	21	DP	2008/2/13	Dell	SCH168227 : DP Circuit Separate to Two Path for DP and DVI	Add C1056, C1057, R1060~R1063, Q155, Q156, U73, U74	X03
103	24, 36	SB (TPM), USH	2008/2/13	Dell	SCH168228 : Disable TPM Strape pin on SB GPIO6	Add R304 (3@) pull low when disable TPM Strap, and depop R273. And USH Depop D71, R1058 (4@) Pop R489 (3@)	X03
104	27	Audio	2008/2/13	IDT	SCH168229 : Reduce distortion, hissing, noise, and “pops” when changing PC BEEP volume	Depop R328, and R327/R828 change to 499K	X03
105	35	Dock	2008/2/13	Power	SCH168230 : Prevent System as Docking Always	Depop R1057	X03
106	13	NB	2008/2/13	Compal	SCH168231 : Debug +3.3V_Run backdrive issues	Reserve R1065 and stuff	X03
107	37	ECE5028	2008/2/13	Power	SCH168232 : Power Battery Slice Issues	Add D72/R1067, and reserve R1066	X03
108	33	eSATA	2008/2/13	Pericom	SCH168233 : Vendor Suggest Reserve Some Resistors on ESATA Repeater Chip	R1068~R1069 pop, and R1070~R1073 depop. And pop R1046 470ohm for SATA Eye	X03
109	36	USH	2008/2/13	Dell	SCH168234 : USH USB Signals Damping Resistor Value	R468/ R469 change to 0ohm	X03
110	33	USB Switch	2008/2/13	Dell	SCH168235 : USB Switch Add Resistore Reserve	Add R1074, R1075, depop	X03
111	42	LED	2008/2/13	Compal	SCH168236 : Follow Roush Test Result for LED Current Spec	Change to 1K: R663, R125, R661, R1000, R668, R659, R556, R596, R655, R903, R665 Change to 82ohm: R997	X03
112	18	EMC4002	2008/2/13	SMSC	SCH168237 : For Proper ESATA Power Consumption on EMC4002 +3.3V LDO	R152 Change to 0.82_1210	X03
113	6	Clock	2008/2/13	Dell	SCH168238 : For Proper Ferrite Bead Power Rating	L1 change to BK2125HS601 500mA	X03
114	36	USH	2008/2/13	Broadcom	SCH168239 : For USH Support Low Power	Pop R849	X03
115	10	NB	2008/2/13	Intel	SCH168045 : Reserve for Intel Debug	add R1088, Depop	X03
116	37	ECE5028	2008/2/13	Compal	SCH168043 : X03 Board ID Updated	Pop R529 and Depop R534	X03
117	27	Audio	2008/2/15	ADI	SCH168240 : ADI Suggest	(1) L18 change to BLM18EG601SN1D for wider high frequency coverage (2) U15 pin 12/18 combine together and add L72(BLM18EG601SN1D) (3) C391, C395, C406 change to 4.7uF_0603 (IDT suggest 10uF_0805 better, but the package is too big) (4)C392 remove	X03
118	27 36	Audio USH	2008/2/15	IDT Broadcom	Chip Version changed	(1) U32 USH change to C0 version (2) U16 IDT Audio change to 92HD71B7A5NLGXB3X8_QFN48	
119	24 36	SB USH	2008/2/15	Compal	TPM Disable to Common Resistors Location with UMA, R1064 --> R304, R483 --> R489		

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120	7	ITP	2008/2/18	Intel	Change Some ITP Resistors Value	ITP Resistors: R67 --> 27, R64 --> 39 , R66 -> 649, R65 --> 150, R57 --> 124	X03
121	33	eSATA	2008/2/18	Compal	SCH168046: Follow eSATA EA Result, Add the Parallel Resistor	R1046 pop 470ohm	X03
122	27, 28	Audio	2008/2/20	ADI/Dell	SCH168466 : ADI Suggest to Update Separate AGND and Audio Precision Spec Update	(1) ADI SSM2602 add AGND net, include Audio Codec 92HD71 (2) Audio Precision spec for SNR and THD+N update, then C436/C437 change to 10uF	X03
123	21	DP	2008/2/20	Dell	SCH168467 : More DP Components Changed	(1) R1060 / R1061 / R1062 / R1063 change to 10K (2) R897/R336/R898/R337/R1008/R1009 Depopulate (3) R193 to 5.11K (4) R1001 change to 1M	X03
124	27	Codec	2008/2/22	ADI/Dell	SCH168468 : update codec circuit for noise problem	(1) C401, change to 0.1uF (2) add C124,C329,R308,R309,C392,C481 (3) delete C397 (4) C408/C409 change to 0.22uF (5) C410/C411 change to 0.068uF (6) R340/R342 change to 100 ohm	X03
125	36	USH5880	2008/2/22	Compal	SCH168469 : add PI circuit for EMI issue	Add L73/L74/C1059/C1058	X03
126	18	EMC4002	2008/2/25	Compal	SCH168531 : chnge R153 value to meet the formula of Ra	R153 change to 3.16K	X03
127	33	USB2.0	2008/2/29	Compal	SCH168774 : To pop U51 per ESD testing result	pop U51	X03
128	23,29,36	ICH,USH,LAN	2008/2/29	Compal	SCH168777 : X'tal EA result to change some Caps value	C296/C297 from 15pF to 10pF;C475/C476 from 27pF to 12pF;C609/C608 from 22pF to 12pF	X03
129	8	CPU	2008/3/3	Dell	SCH168828 : QC BU issue	Pin AA7 of the CPU has to be NC and we connect it to +VCC_CORE	X03
130	27	Codec	2008/3/3	Compal/IDT	SCH168836 : Follow Roush to add R1091/R1092 for Audio noise	add R1091/R1092 (100 ohm)	X03
131	39	TP/KB/LID	2008/3/3	Dell	SCH168838 : M09 S3 backdrive issue	Touch pad vendor use 5VALW for SMBUS,to add R1093,Ro1094, and depop R594/R595	X03
132	23	ICH	2008/3/3	Compal	SCH168843 : 24MHz noise issue (EMI feedback)	pop C300,C302,C309	X03
133	7	CPU	2008/4/28	Compal	SCH170946 : change R944 from 2K to 1.74K	R944 from 2K to 1.74K	X04
134	7	CPU	2008/4/28	Compal	POP R785 to support Quad Core circuit	POP R785 (51 ohm)	X04
135	10	MCH	2008/4/28	Compal	SCH170947 : R82 & R95 value for Quad core , Dual Core	R82 for Avia is 16.9 ohm ; R82 for DSC is 24.9 ohm R95 for Avia is 75 ohm ; R95 for DSC is 100 ohm	X04
136	21,51	GPU,DP	2008/4/28	Compal	SCH170948 : ESD requirement	C984 & C983 from 0.1uF to 0.033uF	X04
137	24	ICH	2008/4/28	Compal	SCH170949 : Depop 2nd SPI ROM	Depop R329,R1044,R377,U13,R375,C484,R380,R381,R382	X04
138	27	Codec	2008/4/28	Compal	SCH170950 : DMIC_CLK EMI issue	We pop C485 and change R338 to L75(POP)	X04
139	27	Codec	2008/4/28	Compal	SCH170952 : Bypass double inverter of DAI_DI	follow Roush to bypass U18,U19. so we depop U18,U19,C418,C419, and add R762(0 ohm) to bypass it.	X04
140	35	eDOCK	2008/4/28	Compal	SCH170955 : Follow Roush to add R1095, R1096	add R1095,R1096	X04
141	37	ECE5028	2008/4/28	Compal	SCH170956 : change BID	depop R529, add R534 ; depop R530, add R535 ; add R531, depop R536	X04
142	40	PWR CTRL	2008/4/28	Compal	SCH170957 : add discharge circuit of 3.3VRUN	add R625(39 ohm), Q79	X04
143	18	EMC4002	2008/5/7	Compal	SCH171232 : FAN speed couldnt be detected issue	add D38	X04
144	42	LED	2008/5/7	Compal	SCH171235 : SNIFFER LED only support blue color led	depop Q100,R667	X04
145	23	ICH	2008/5/8	Compal	SCH171330 : WLAN detection issue	Follow Roush to add R84,R96 PD 10K ohm	X04
146	40	PWR CTRL	2008/5/27	Compal	SCH172015 : Follow Roush to change C688 value	From 4700pF to 3300pF	A00
147	37	ECE5028	2008/5/27	Compal	SCH172018 : BID to A00(1.0)	pop R529, depop R534	A00
148	7,18	CPU,EMC4002	2008/5/29	Intel/DELL	SCH172109 : to disconnect the Quad Core 2nd thermal sensor	delete the traces, H_THERMDA1 / H_THERMDC1, and delete C227, C228	A00
149	7,37	CPU,ECE5028	2008/5/29	Compal	SCH172115 : to modify the Quad Core detect circuit	(1) disconnect ECE5028 pin3, pin4. make it NC. (2) delete R941, and CPU pin F8 connect to R945 pin2, the net name is QUAD_REF_CTRL (3) R945 change to 10K, and R945 pin 1 change PU to +1.05V_VCCP (4) R943 pin 1 change PU to +3.3V_RUN	A00
150	24,38	ICH,MEC5035	2008/6/2	DELL	SCH172198 : re-route ODD_DET#	add a connection to MEC5035 pin34 also.	A00
151	29	82567LM	2008/6/6	DELL	SCH172398 : LOM IEEE test result from Intel	C475 & C476 from 12PF to 27PF to pass LOM IEEE test	A00
152	42	LED	2008/6/6	Compal	SCH172400 : Breath LED current issue	R997 from 82 ohm to 100 ohm for current limited	A00
153	24	ICH	2008/6/6	Compal	SCH172402 : SAWTOOTH waveform on SERIRQ issue	Add R122(33 ohm)	A00
154	36	USH5880	2008/6/13	BRCM	BRCM feedback for PI circuit	C1058/C1059 from 5% to 1% ; C641/C647 from 5% to 1%	A00

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1	43	+DC_IN	11/24	leverage Roush	Battery slice need detect NB battery is insert or not.	Add PQ69 NTR4502PT1G, and PD32 RB751_SOD323 Connect to DOCK_SMB_ALERT# and SLICE_BAT_PRES#	
2	43	+DC_IN	11/24	leverage Roush	DCIN_CBL_DET# damage ECE5028	Add ESD diedo PD17 DA204U_SOT323 at DCIN_CBL_DET# Series PR221 1K_0402_5% between PJPDC1, PIN1 and DCIN_CBL_DET# Parallel PC254 0.47uF_0402_6.3V on DCIN_CBL_DET#	
3	43	+DC_IN	11/24	leverage Roush	Roush component and rework changes for Dcoking test	PC4 change form 0.47uF_0805_25V to 0.1uF_0805_25V PR14 change form 240K_0402_5% to 1M_0402_5% PR17 change form 47K_0402_1% to 220K_0402_5% PR18 change form 47K_0402_1% to 22K_0402_5% PR342 change form 0_0402_1% to 100K_0402_5%	
4	48	Charger	11/24	leverage Roush	NB DC blocking MOSFET won't turn off when Dock AC insert.	Add PQ44 RHU002N06 control NB DC blocking MOSFET. Control singal is NB_AC_OFF Series PR284 200K_0402_1% between PQ44 PIN1 and ACAV_IN Add PD30 B540C parallel PQ34	
5	48	Charger	11/24	leverage Roush	Charger of ISL88731 will turn off When ACIN is no power	Add LM393 to replace ISL88731 ACOK function(PU11B)	
6	48 49	Charger Selector	11/24	leverage Roush	+PWR_SRC exist on Docking connector through the DOCK_DCIN_IS+ and -	Add PQ70 NTGD4161PT1G series DOCK_DCIN_IS+ and - Add PQ71 RHU002N06 to control PQ70 on/off	
7	48 49	Charger Selector	11/24	leverage Roush	A global signal name change for all notebooks	From "ACAV_IN_DOCK" to "ACAV_DOCK_SRC" From "ACAV_IN_DOCK#" to "ACAV_DOCK_SRC#"	
8	48	Charger	11/24	leverage Roush	SCH165050: Validate EMC4002 VIN1/VCP1/VCP2 for UMA & Discrete for PT1 SMT	Depop UL circuit.	
9	49	Selector	11/24	leverage Roush	PBATT DC blocking MOSFET won't turn off when Docking AC insert. It will cause Battery or adapter protect.	Add PD18 RB715F_SOT323, PD20 and PD19 RB751V_SOD323, PR329 100K_0402_5% PR328 and PR327 47K_0402_5%, PR326 and PR325 240K_0402_5% PQ75 2N7002DW-7-F_SOT363-6, PQ72 NTG6161PT1G_TSOP6 Extra net name add +NBDOCK_DC_IN_SS from Docking connector	
10	43	+DCIN	11/24	EE / SCH165224	follow HW change	To delete the RTC detection circuit	
11	52	Graphic	11/24	Compal	support Maybach DIS and AVIA	Add PR308 and PR309 to switch 1 phase or 2 phase.	
12	48 49	Selector charger	11/30	Dell	for slice function implement	change charger output to FB pin15 net name from PBATT+ to +VCHGR Add PQ41 PQ70 PR351 PR352 PR353 between +VCHGR and PBATT+	
13	47	Vcore	12/17	Intersil	transent to meet Intel IMVP6+	change PR116 from 1.69K to 1.18K,PC111 from 680p to 1000pF, PR113 from 332 to 232,PR121 from 82.5K to 162k, PC117 from 1500p to 680pF,PC120 from 220p to 180pF, PR122 from 14.7K to 12.1K,PR107 from 11.5K to 20k, PR130 from 1K to 2k,PC116 from 0.033u to 0.047u, PC112 from 0.033u to 0.01uF	
14	47	Vcore	12/17	Maxim	fix voltage too low when no load	change PR78,PR100,PR120 from 2K to 430 ohm Change PC89,PC103,PC119 from 0.22u to 1uF	

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15	43	+DCIN	12/17	Dell	change DCIN connector for ESD issue of "DCIN_CBL_DET#"	from Molex_87437_0663 to MOLEX_87437-0763	
16	49	selector	12/24	Dell	AC adaptor crowbar when docking	Add PR354 330K ohm Add PR355: 0 ohm Add PQ77 RHU002N06	
17	49	Selector	02/19	Merle DELL	Fix BITS CR196131 and CR196130	Add PR363 1K_1206 and PC262 1U_0603_25V from +NBDOCK_DC_IN_SS to ground Add PD35 RB751S40T1_SOD523-2 from NB_AC_OFF# to ACAV_IN_NB	
18	47	+Vcore	02/19	Dell / Maxim	Reduce Ring-backwithin 20mV when change bulk caps from 4*220uF to 3*270uF (Maybach DIS)	PR129 change from 909 ohm to 825 ohm	
19	47	+Vcore	02/19	Maxim	Fix Jitter issue	change PR123 to 10_ohm change PC122 to PR320 10_ohm	
20	50	Graphic	02/19	Maxim	MAX17007 cold boot issue back up circuit if IC versin change can not catch ST schedule	Add PQ73 RHU002N06 Add PR296	
21	48	Charger	03/06	Compal	Delete non-use circuit	delete +DC_IN_SS to PR217 and PR217.	
22	49	Selector	03/06	Compal	For slice battery hot docking issue	Change PQ40 from IMD2AT to 2N7002DW change PR202 from240K_ohm ot 620k_ohm change PR204 from 47K_ohm to 33_ohm add PR222 390K_ohm and PR223 390K_ohm add PD34 RB751S40T1	
23	47	+Vcore	03/11	Maxim	For driver IC power down issue	Add PR321 PR322 PR323 from IC pin 2 to GND	
24	50	Graphic	03/18	Compal	hardware delete NET	delete NET 1.1V_RUN_ON delete PR305	
25	50	Graphic	4/23	Compal	EMI soultion	change PR168 to 2.2ohm	
26	50	Graphic	4/23	Compal	hardware change control mode	un-pop PR310 pop PR312 (un-pop PR311 pop PR313 for JAL21)	
27	50	Graphic	4/23	Maxim	MAX17007 version change	un-pop PQ73 RHU002N06 un-pop PR296	
28	47	Vcore	4/23	Maxim	JAL21 Driver IC power down issue need change resistor value	change PR321 PR322 PR323 to 33K	
29	48	Charger	5/23	Dell	For Dell M09 platform	Change PR135 to 24K PC256 to 100p	
30	50	Graphic PWR	5/23	Nvidia	support GLM3	PR288 change to 7.15K, PR290 change to 10K, PR289 change to 13.7K	
31	43	DC-IN	6/3	Compal	Glitch issue on SLICE_BAT_PRES#	Add PC257:SE074152K8L(S CER CAP 1500P 50V +-10% X7R 0402) between pin2 of PQ69 and GND.	
32	49	Selector	6/4	Compal	Reserve a pull high resistor between +3.3V_ALW2 and SLICE_BAT_PRES#	Add un-pop PR330:SD02847018L(S RES 1/16W 4.7K +-5% 0402) between +3.3V_ALW2 and PQ40B.5.	
33	48	Charger	5/21	Merle DELL	Reduce delay time between NB adapter removal and ACAV_IN_NB de-assert from 1.6mS to~400uS.	change PC256 from .1uF to 100pF. change PR135 from 100K to 24K.	
34	50	Graphic PWR	6/10	Compal	change PL18 to PSL	change PL18 from SM01001821L (Tai tech) to SM01002078L (KC)	

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