

Compal Confidential

DFL32 Schematics Document

Banias/Dothan uFCPGA with Intel 855GME + ICH4-M

2003-03-24

REV:1.0

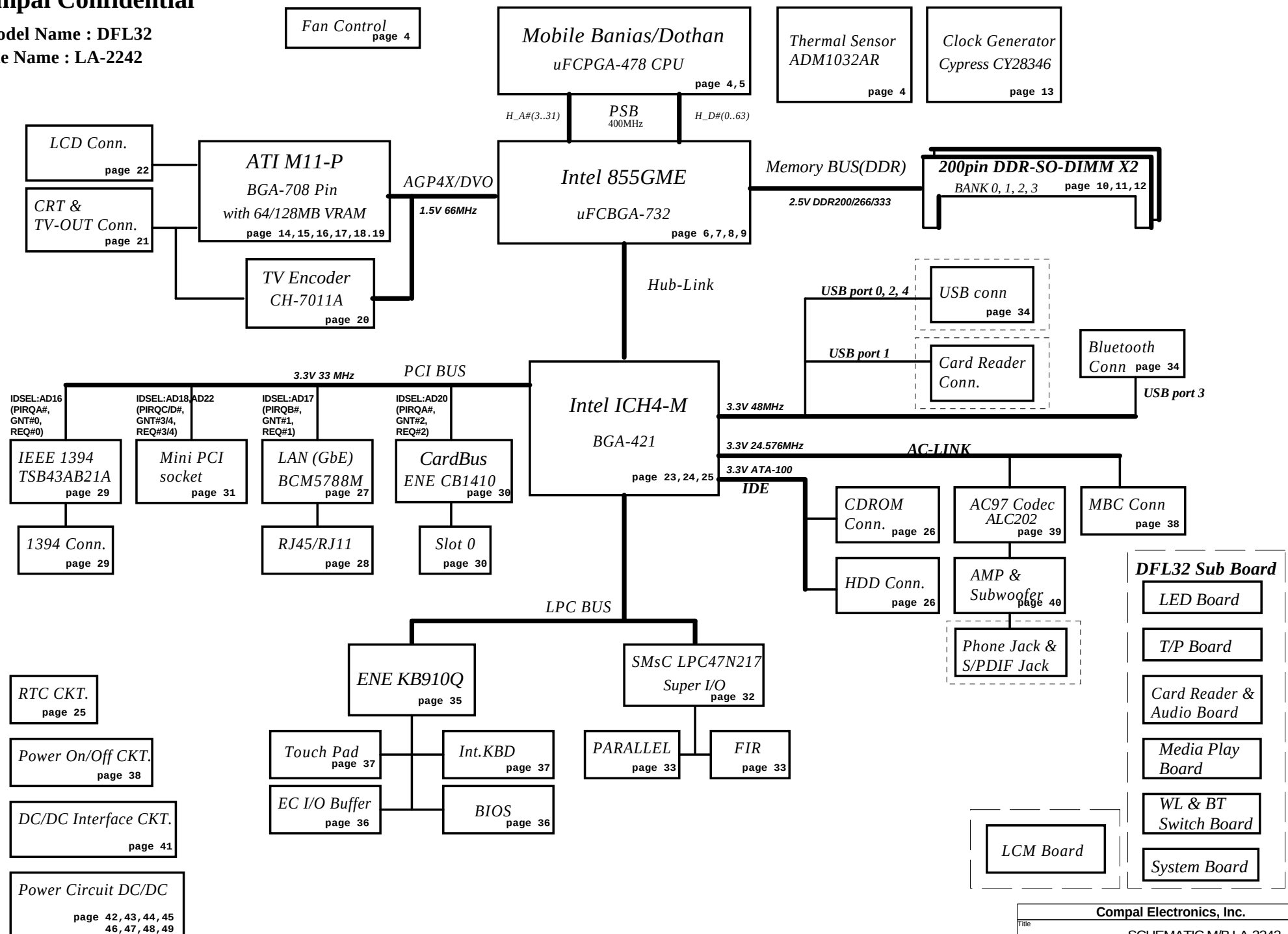
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Model Name : DFL32

File Name : LA-2242



Voltage Rails

Power Plane	Description	S0-S1	S3	S5
VIN	Adapter power supply (19V)	N/A	N/A	N/A
B+	AC or battery power rail for power circuit	N/A	N/A	N/A
+CPU_CORE	Core voltage for CPU	ON	OFF	OFF
+VCCP	1.05V rail for Processor I/O	ON	OFF	OFF
+1.25VS	1.25V switched power rail for DDR Vtt	ON	OFF	OFF
+1.2VS	1.2V switched power rail for VGA core power	ON	OFF	OFF
+1.35VS	1.35V switched power rail for GMCH core power	ON	OFF	OFF
+1.5VALW	1.5V always on power rail	ON	ON	ON*
+1.5VS	1.5V switched power rail for AGP interface	ON	OFF	OFF
+1.8VS	1.8V switched power rail for CPU PLL & Hub-Link	ON	OFF	OFF
+2.5V	2.5V power rail for system DDR	ON	ON	OFF
+2.5VS	2.5V switched power rail	ON	OFF	OFF
+3VALW	3.3V always on power rail	ON	ON	ON*
+3V	3.3V switched power rail	ON	ON	OFF
+3VS	3.3V switched power rail	ON	OFF	OFF
+5VALW	5V always on power rail	ON	ON	ON*
+5VS	5V switched power rail	ON	OFF	OFF
+12VALW	12V always on power rail	ON	ON	ON*
RTCVCC	RTC power	ON	ON	ON

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

Internal PCI Devices

DEVICE	PCI Device ID
HUB	D30
USB	D29
AC97 MODEM	D31
AC97	D31
ATA 100	D31
ETHERNET	D8 (AD24)
LPC I/F	D31
SMBUS	D31

I2C / SMBUS ADDRESSING

DEVICE	HEX	ADDRESS
DDR SO-DIMM 0	A0	1 0 1 0 0 0 0 X
DDR SO-DIMM 1	A2	1 0 1 0 0 0 1 X
CLOCK GENERATOR (EXT.)	D2	1 1 0 1 0 0 1 X

External PCI Devices

DEVICE	PCI Device ID	IDSEL #	REQ/GNT #	PIRQ
1394	D0	AD16	0	E
LAN	D1	AD17	1	F
CARD BUS	D4	AD20	2	A
Wireless LAN	D2	AD18	3	G
Mini-PCI	D6	AD22	4	H
AGP BUS	N/A	AGP_DEVSEL#	N/A	A

Symbol note:

-  :means digital ground.
-  :means analog ground.
-  :means reserved.

AS2010,AS2020 Compare Table

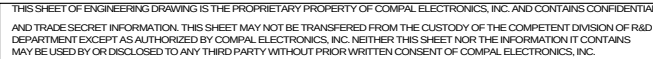
Item	* AS2020	AS2010(ATI)	AS2010(UMA)	Page
VGA	ATI M11P	ATI M11P	UMA	7, 9, 14, 15, 16, 17, 21, 22, 38
VRAM	128MB	64MB	N/A	14, 18, 19
TV Encoder	N/A	N/A	CH7011A	20
LAN	BCM5788M(GbE)	BCM4401(10/100)	BCM4401(10/100)	27, 28
S/PDIF	YES	N/A	N/A	N/A
Card Reader	YES	YES	N/A	N/A
Sub Woofer	YES	YES	N/A	33
LCM/B	YES	N/A	N/A	37, 39
MEDIA/B	YES	N/A	N/A	40

Board ID/ Project ID Table for AD channel

Vcc	3.3V +/- 5%			
Ra	10K +/- 5%			
BID/PID	Rb/Rc	VAD_BID min	VAD_BID typ	VAD_BID max
0	0	0 V	0 V	0 V
1	8.2K +/- 5%	1.412 V	1.486 V	1.560 V
2	18K +/- 5%	2.015 V	2.121 V	2.227 V
3	33K +/- 5%	2.406 V	2.533 V	2.659 V
4	56K +/- 5%	2.660 V	2.800 V	2.940 V
5	NC	3.135 V	3.300 V	3.465 V

Board ID	PCB Revision
0	0.1
1	0.2
2	0.3
* 3	0.4
4	
5	
6	
7	

Project ID	Project
* 0	Drongo2
1	Drongo3
2	Drongo4
3	
4	
5	
6	
7	



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Dothan VCCA update(WW45 2003)
Dothan B-Step support 1.5V only for VCCA

Resistor placed within
0.5" of CPU pin.Trace
should be at least 25
mils away from any
other toggling signal.

Resistor placed within
0.5" of CPU pin.Trace
should be at least 25
mils away from any
other toggling signal.

Banias

POWER, GROUND, RESERVED SIGNALS AND NC

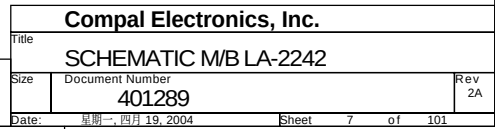
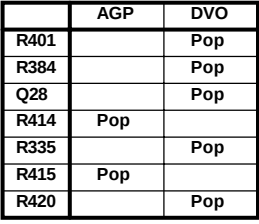
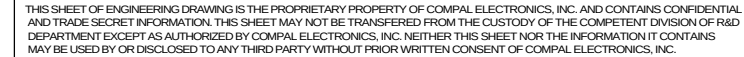
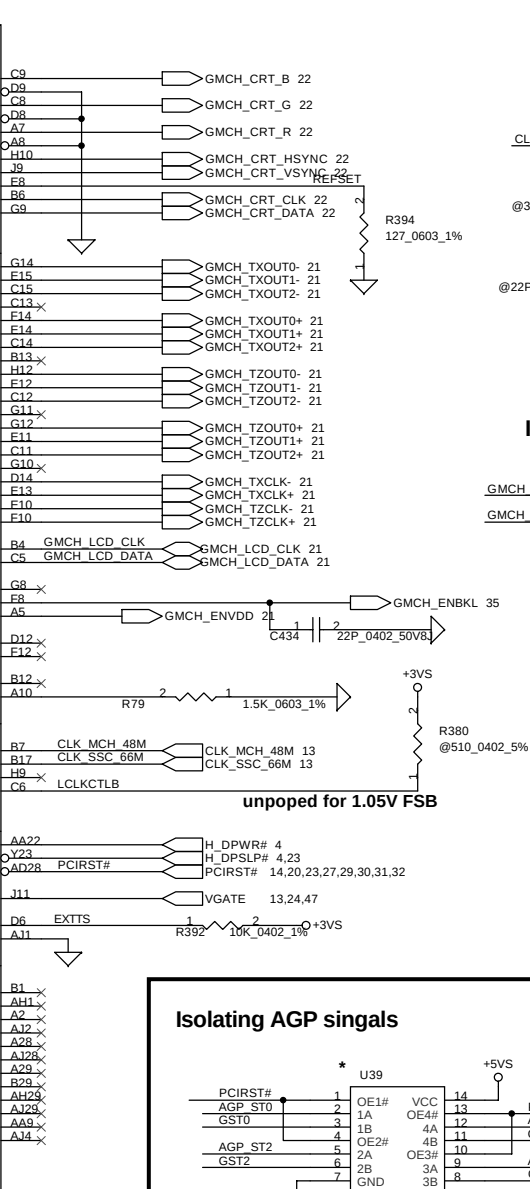
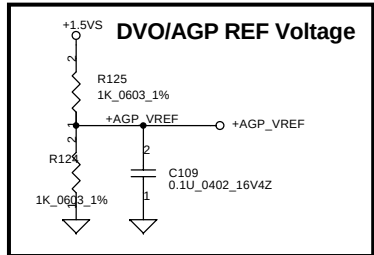
Banias

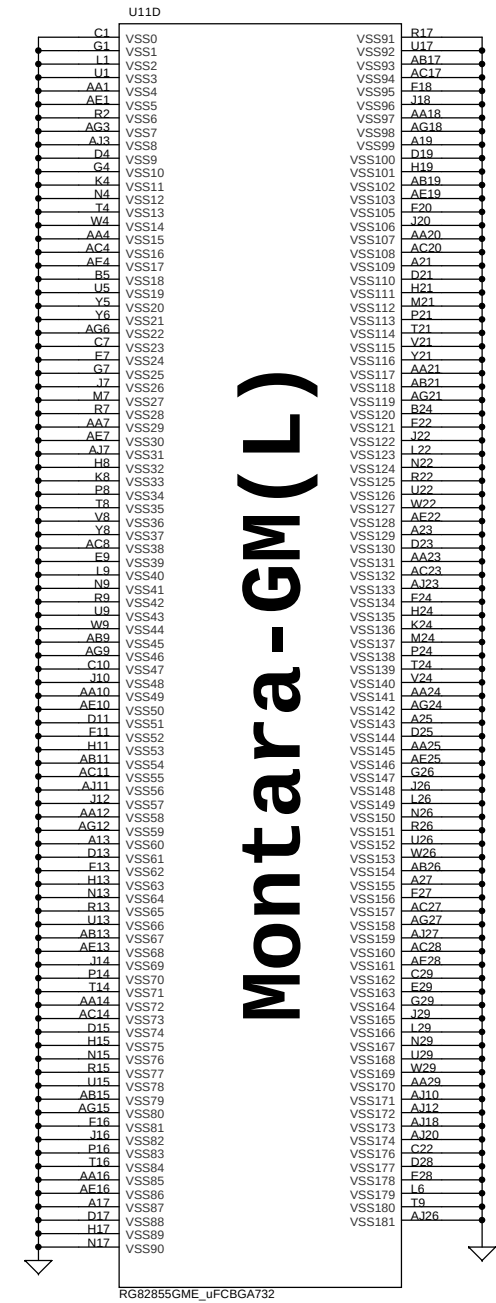
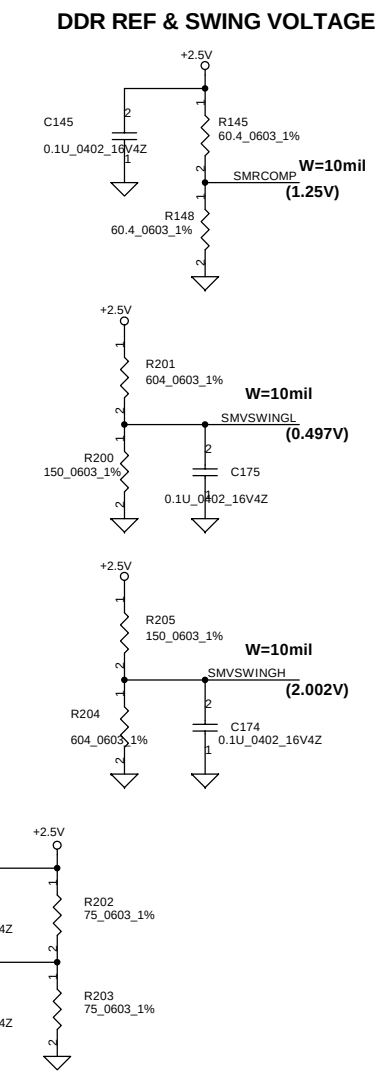
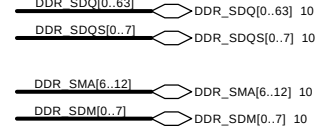
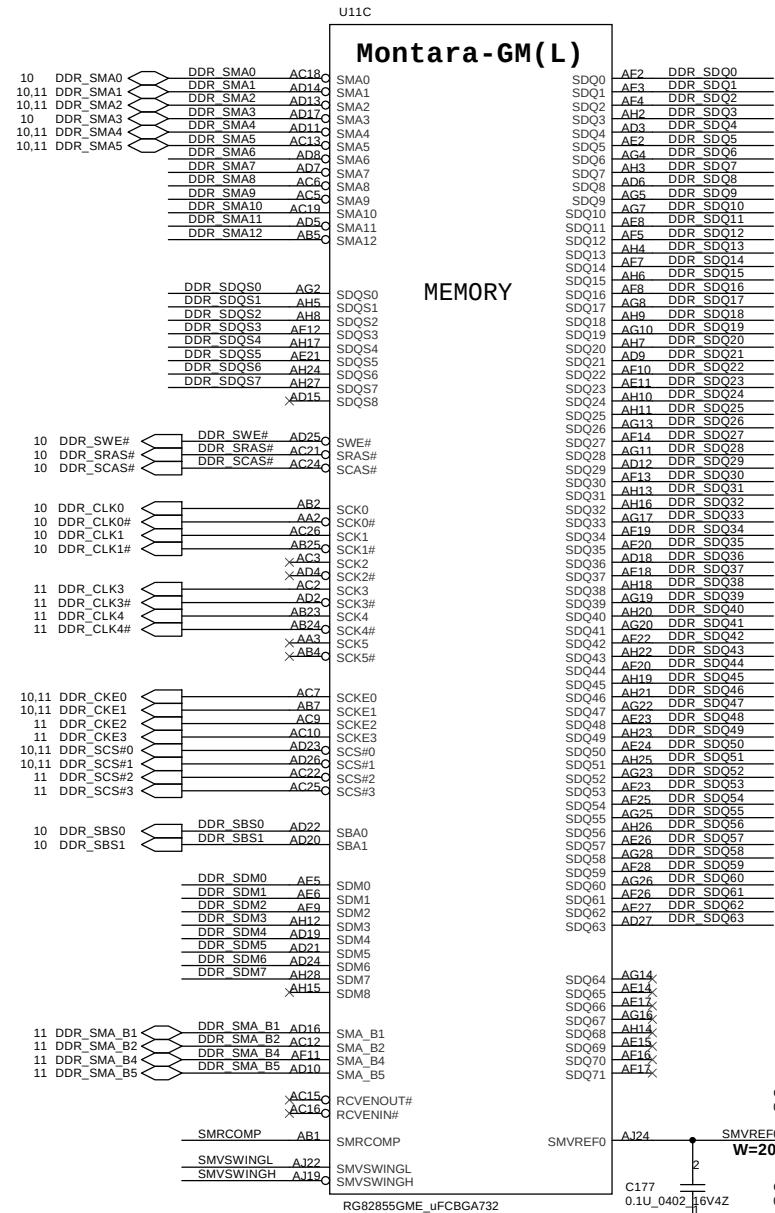
POWER, GROUND

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

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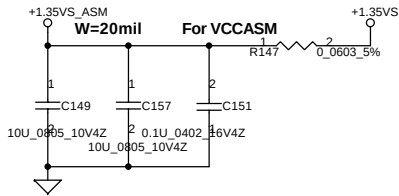
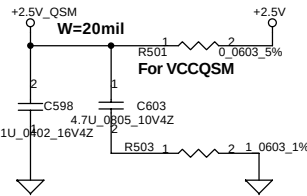
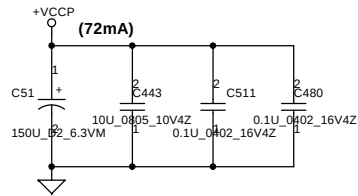
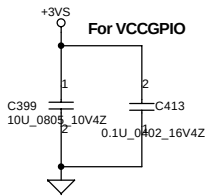
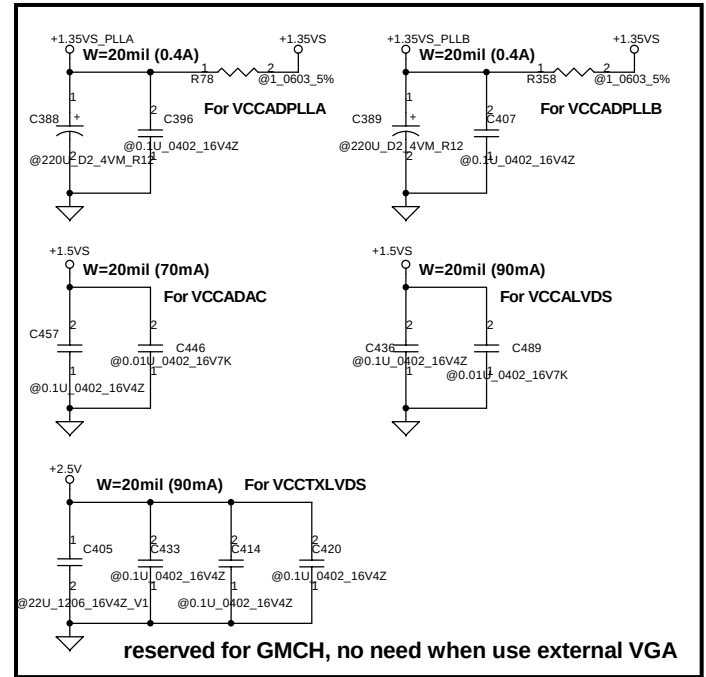
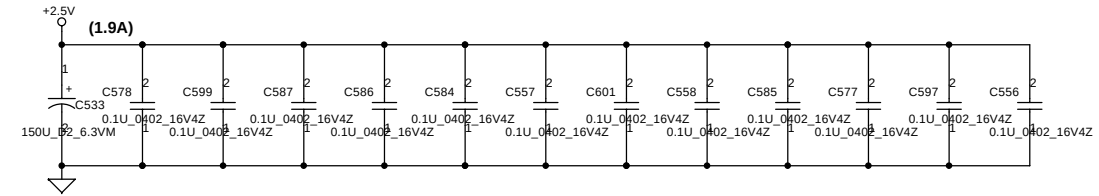
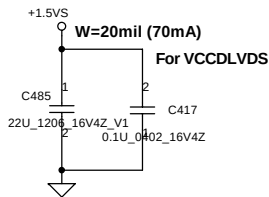
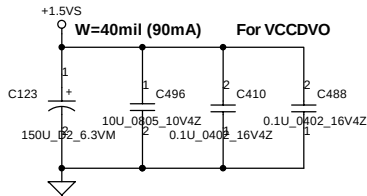
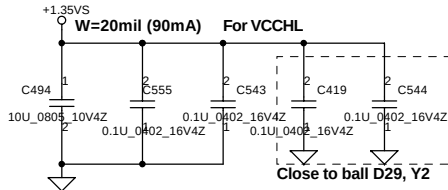
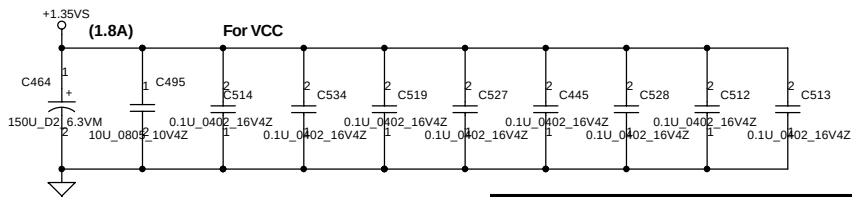
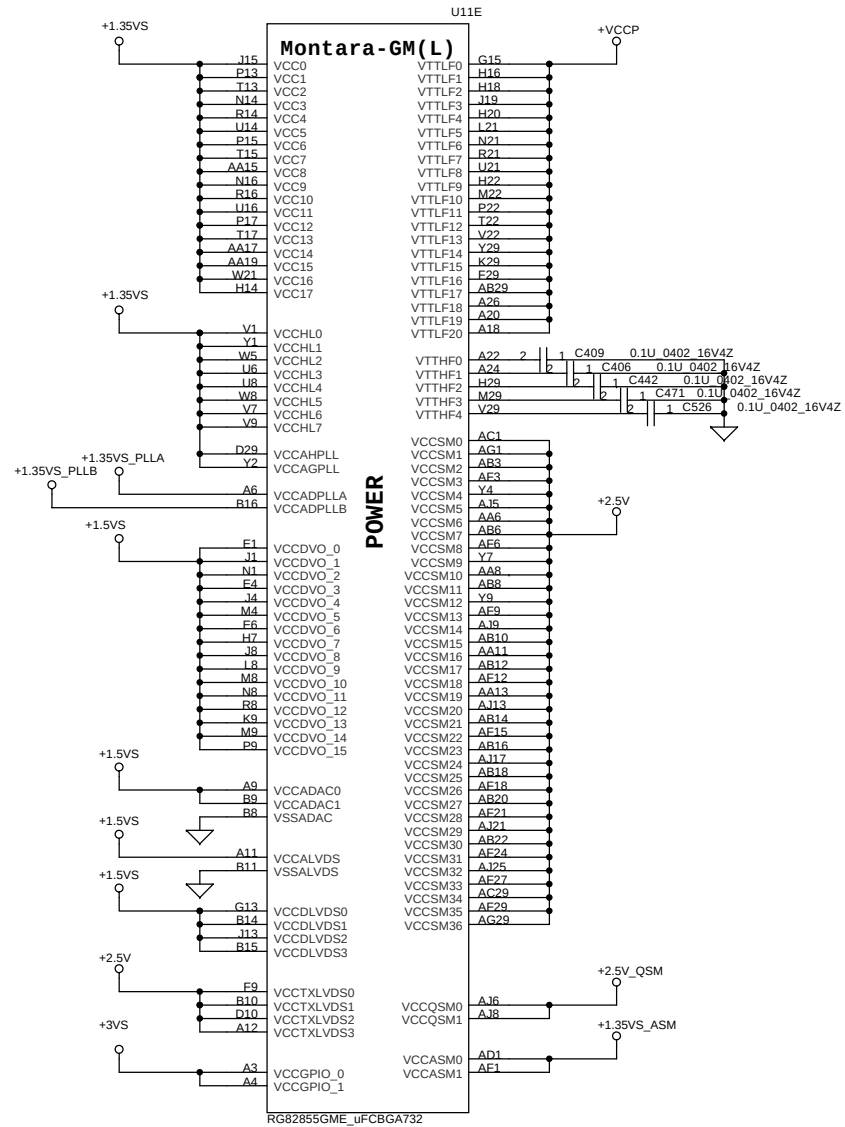




Montara-GM(L)

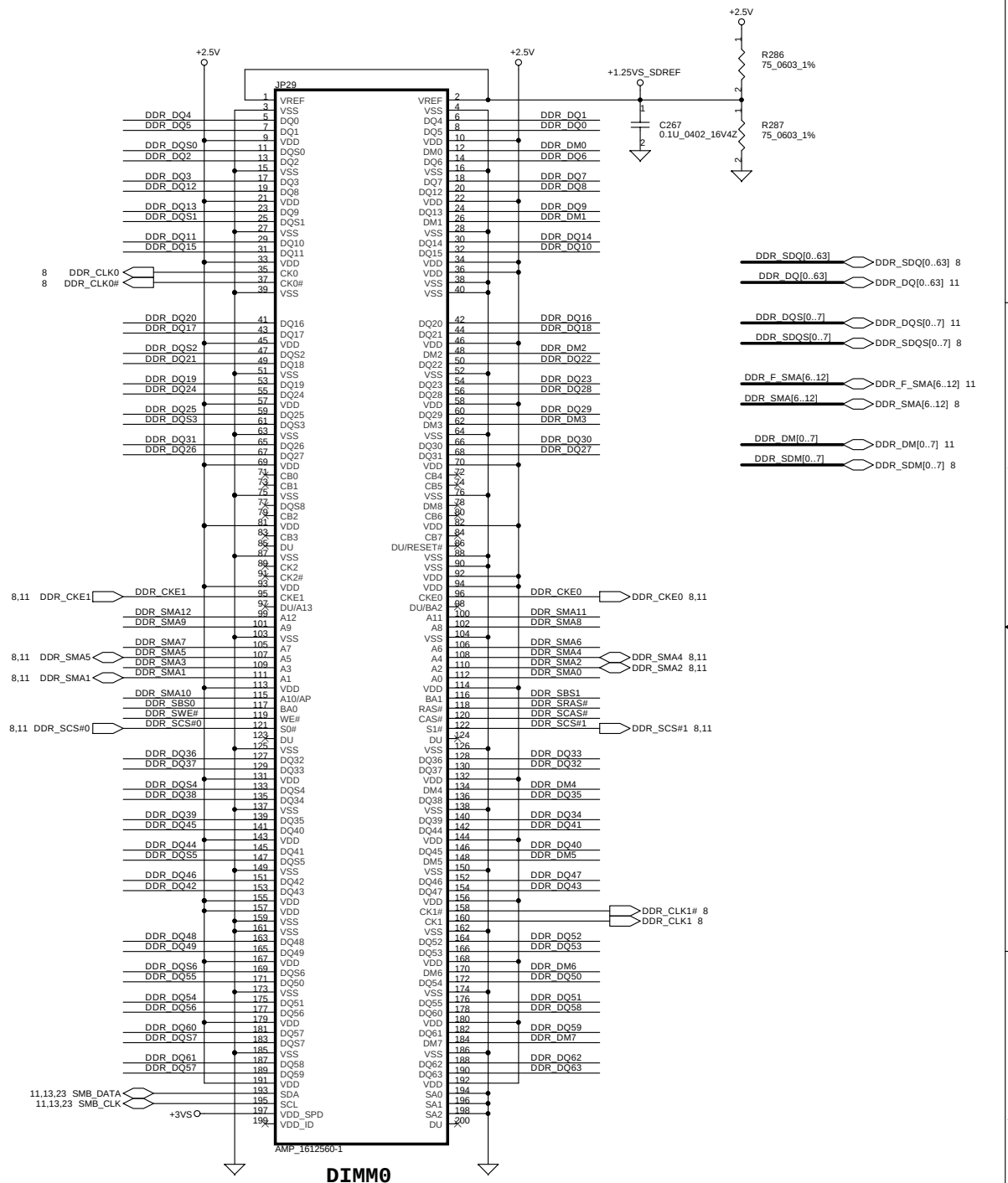
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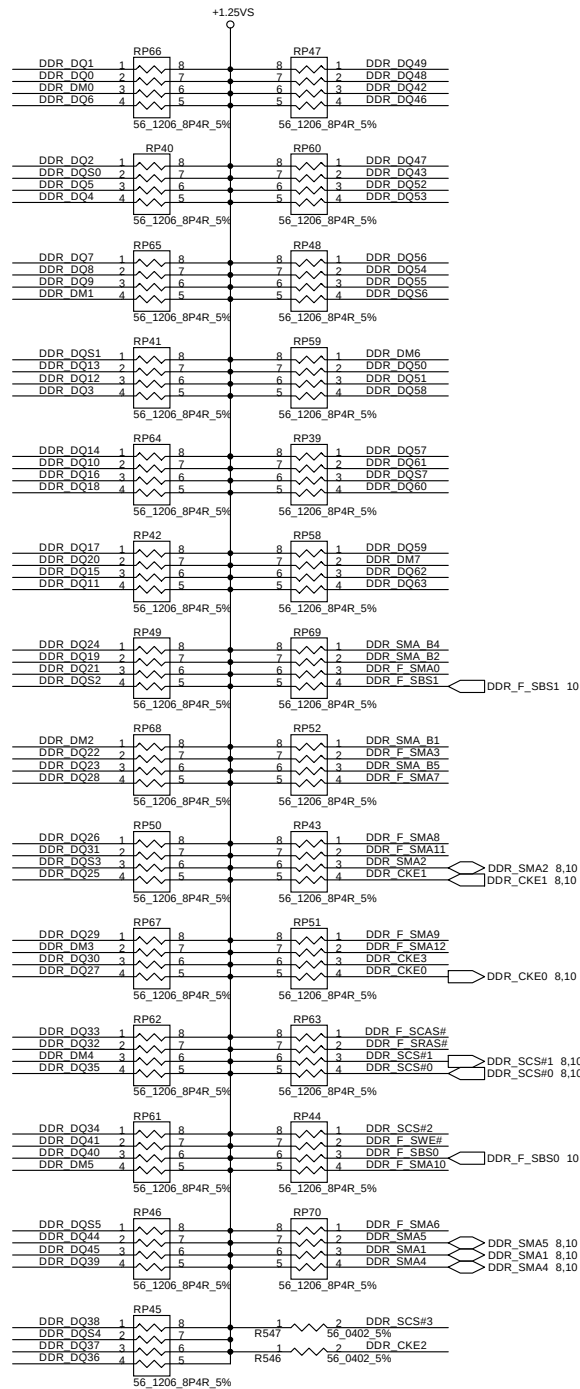
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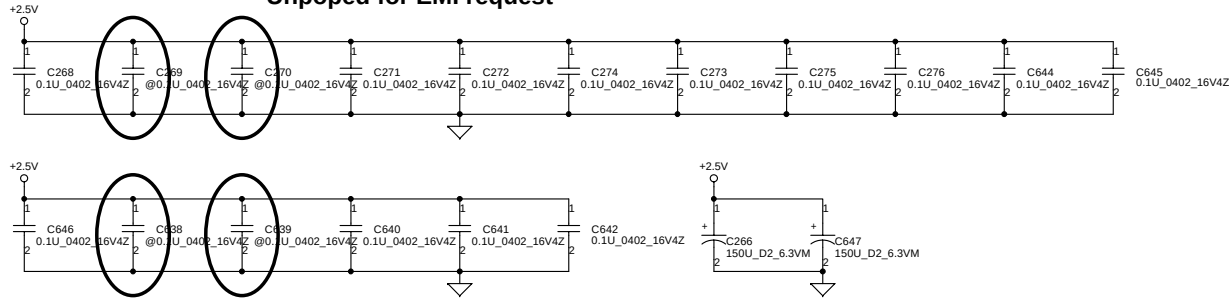
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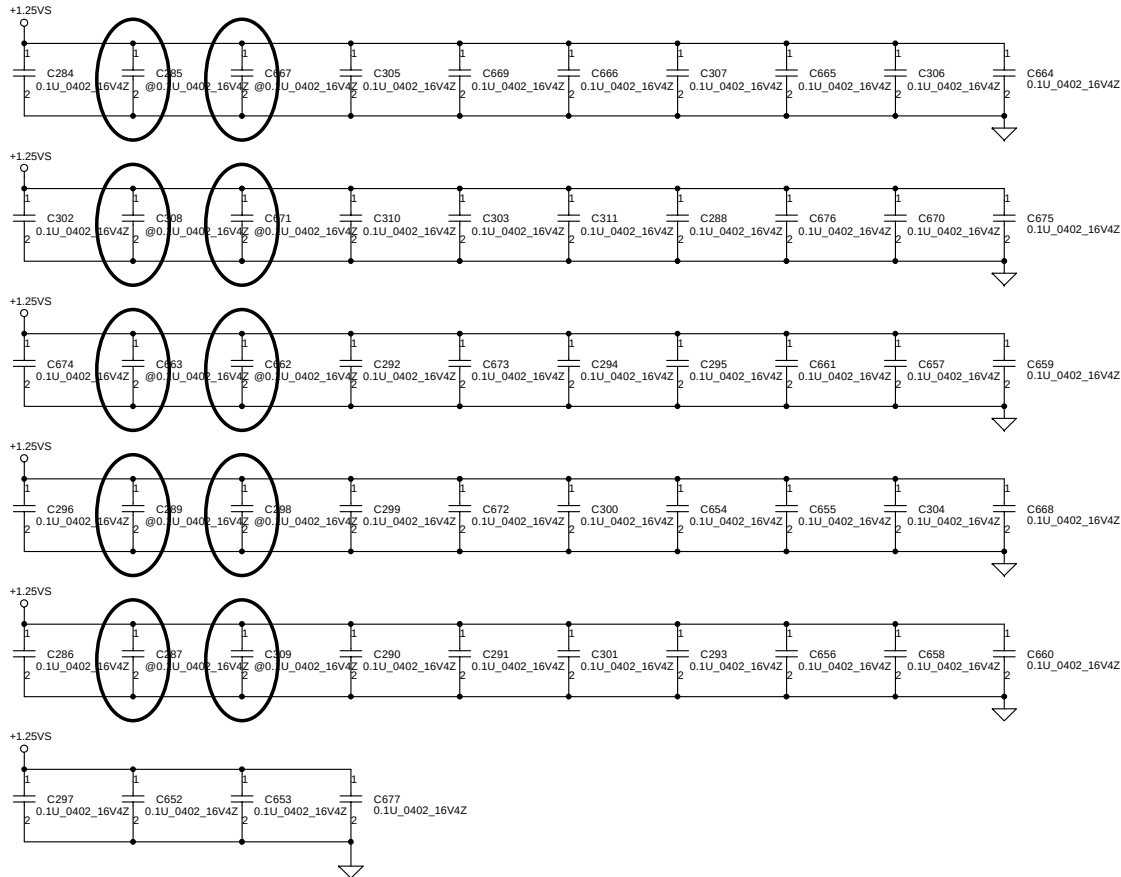


Layout note :
Distribute as close as possible
to DDR-SODIMM.

Unpoped for EMI request



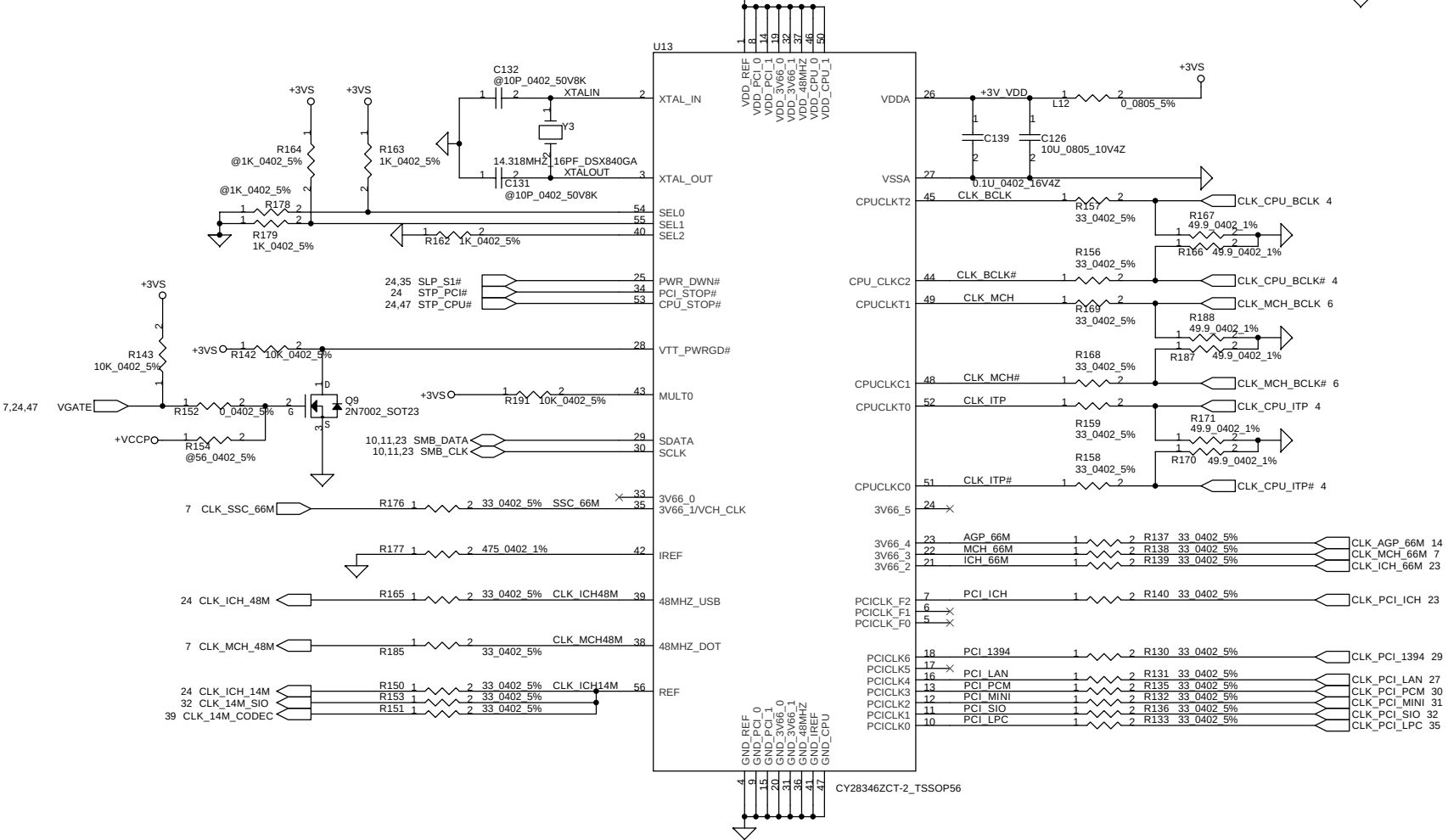
Layout note :
Place one cap close to every 2 pull up resistors termination to
+1.25V



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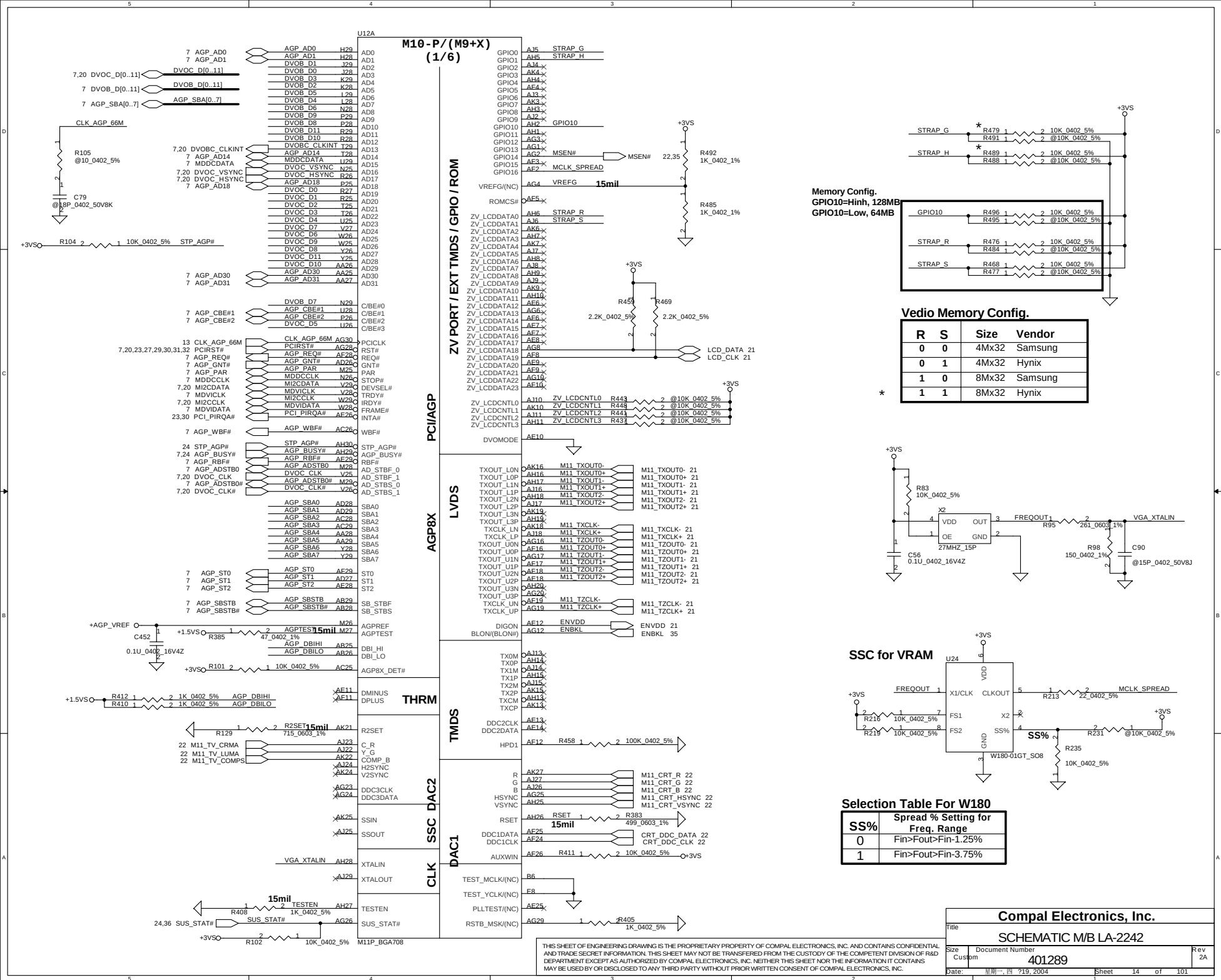
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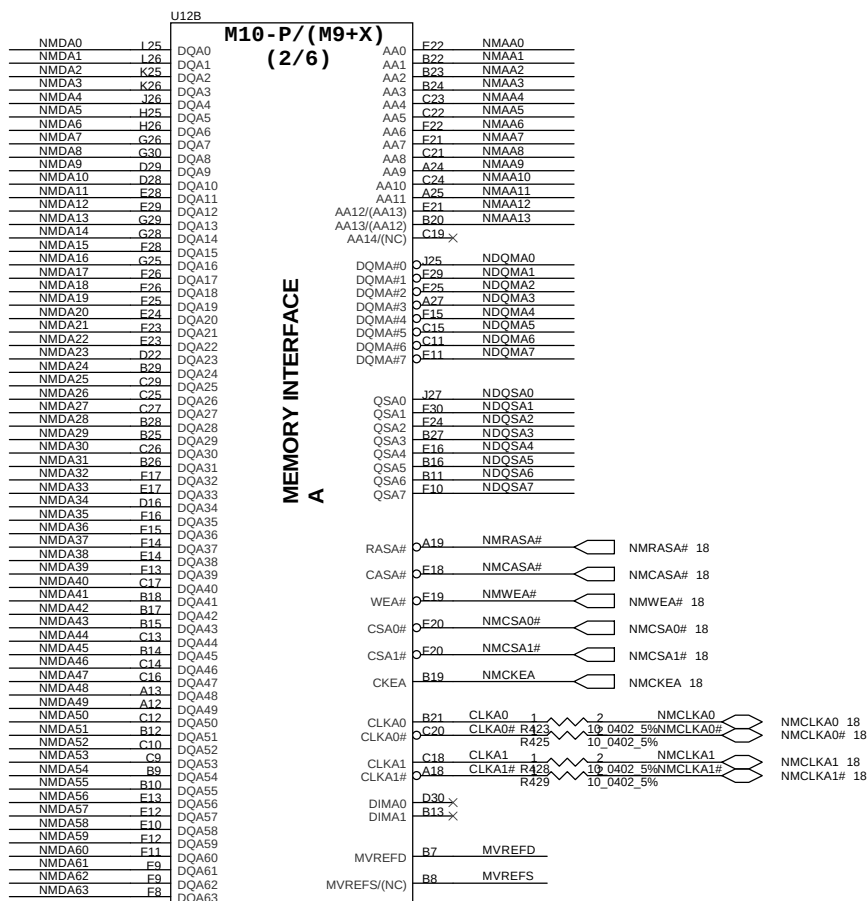
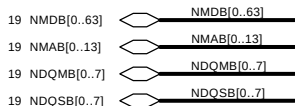
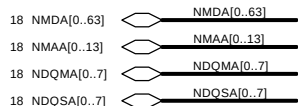
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0	0	1	100.00	100.00
0	1	0	200.00	200.00
0	1	1	133.33	133.33



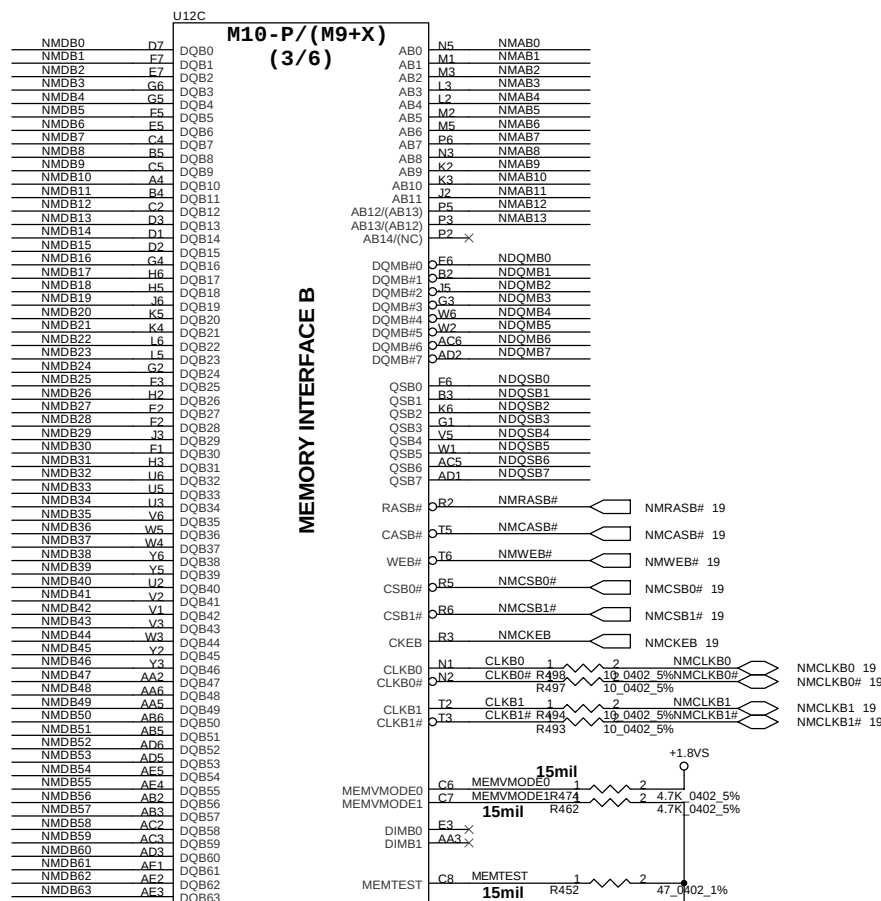
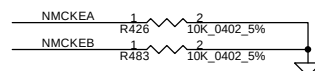
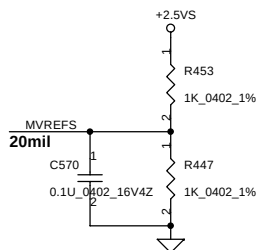
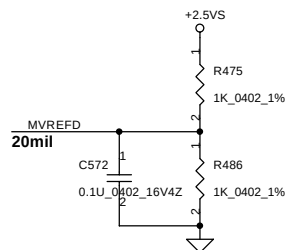
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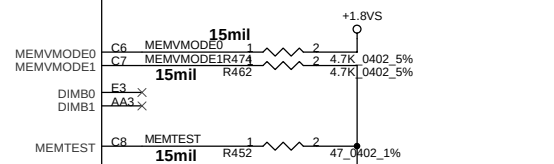




M11P_BGA708

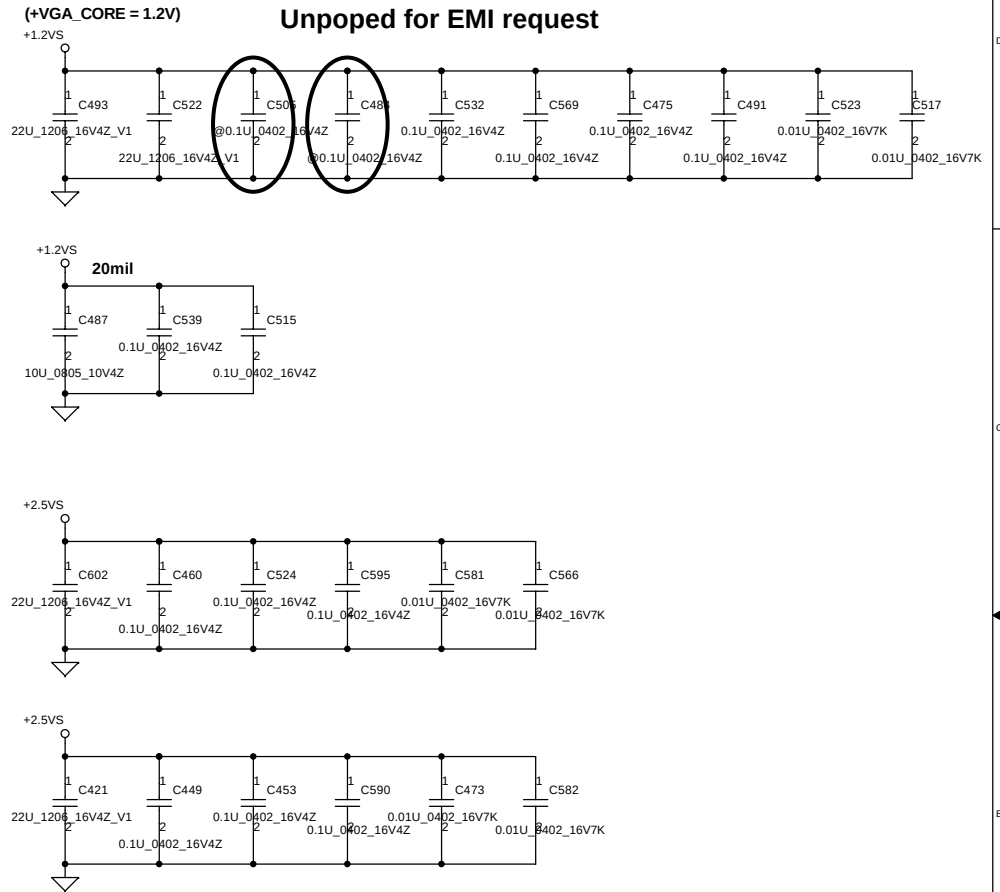
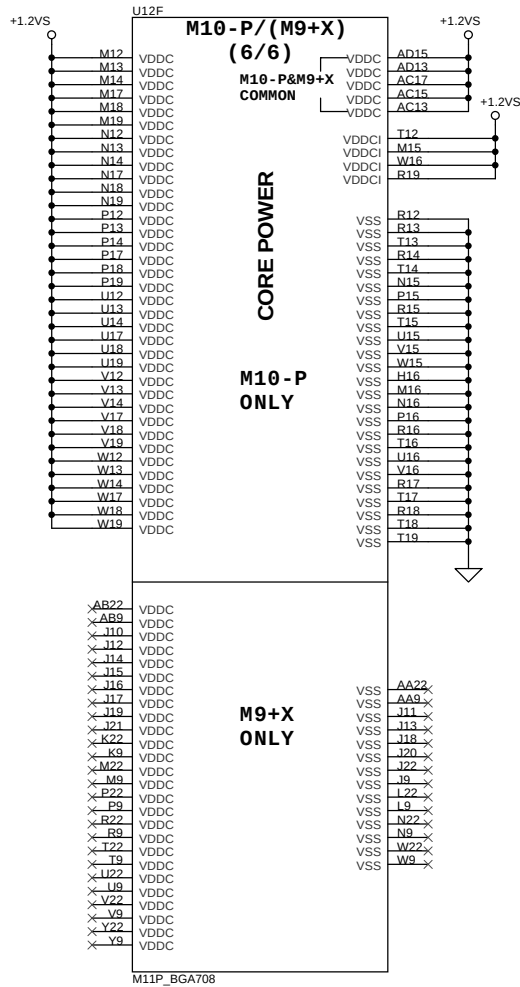
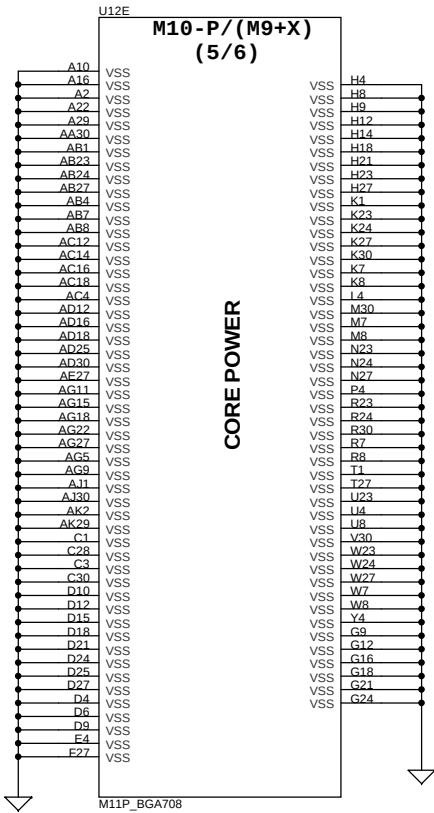


M11P_BGA708



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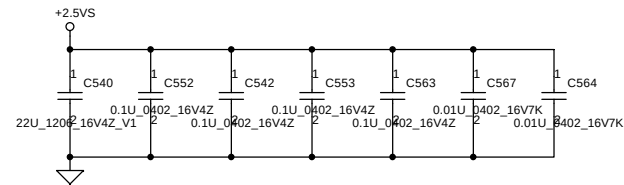
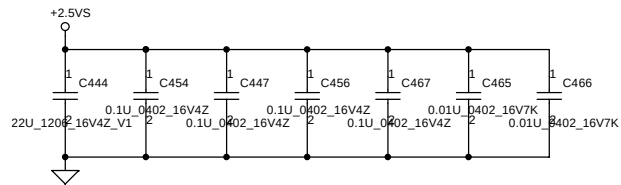
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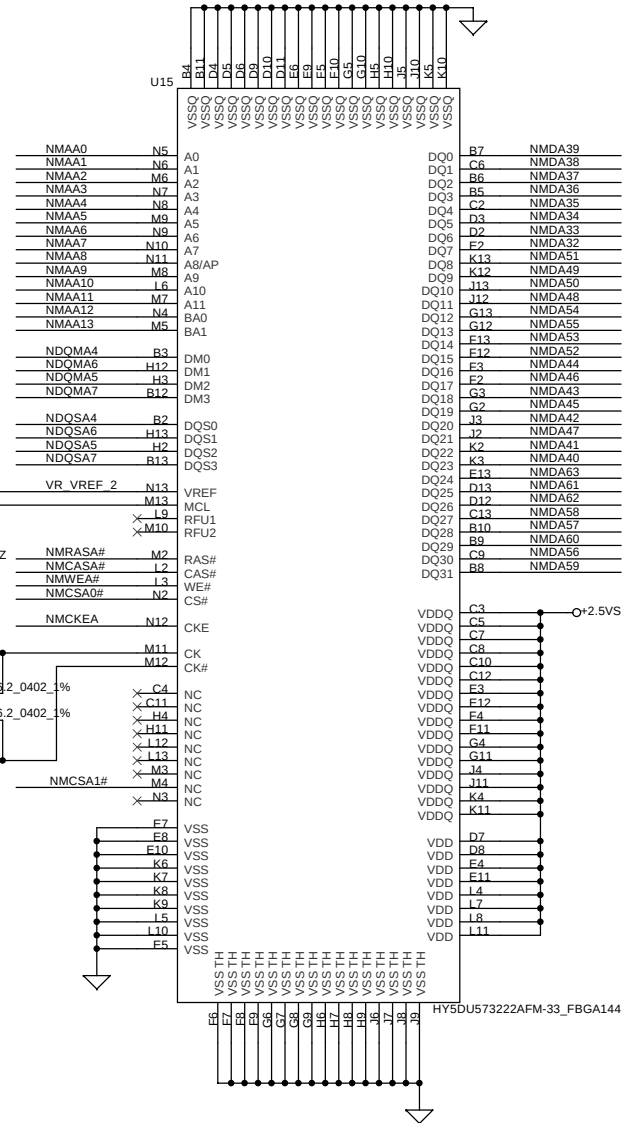
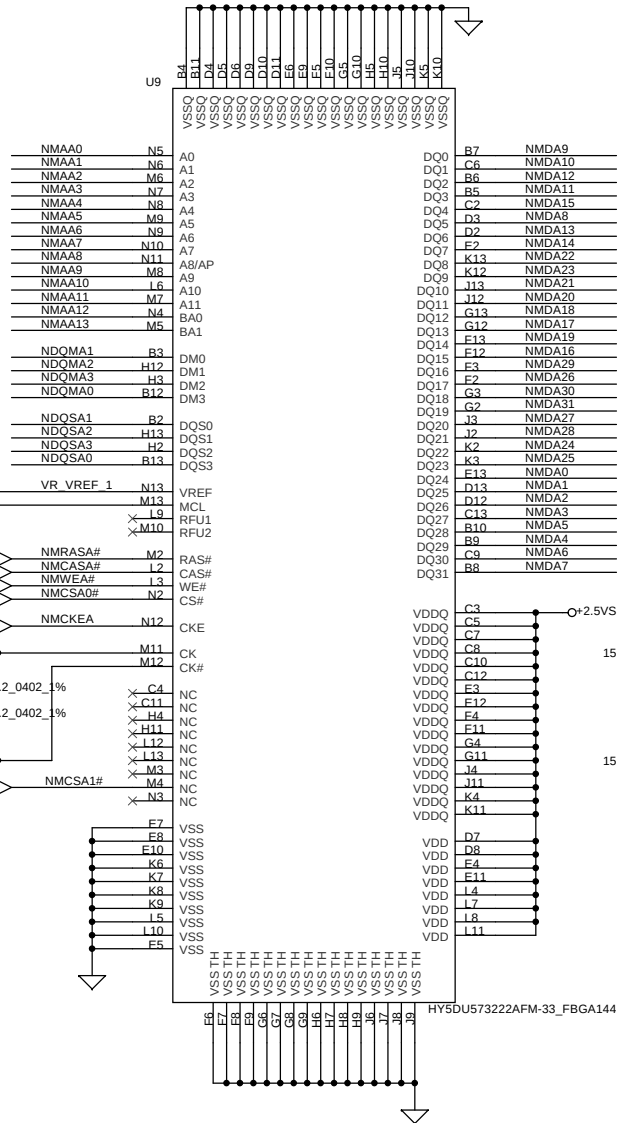
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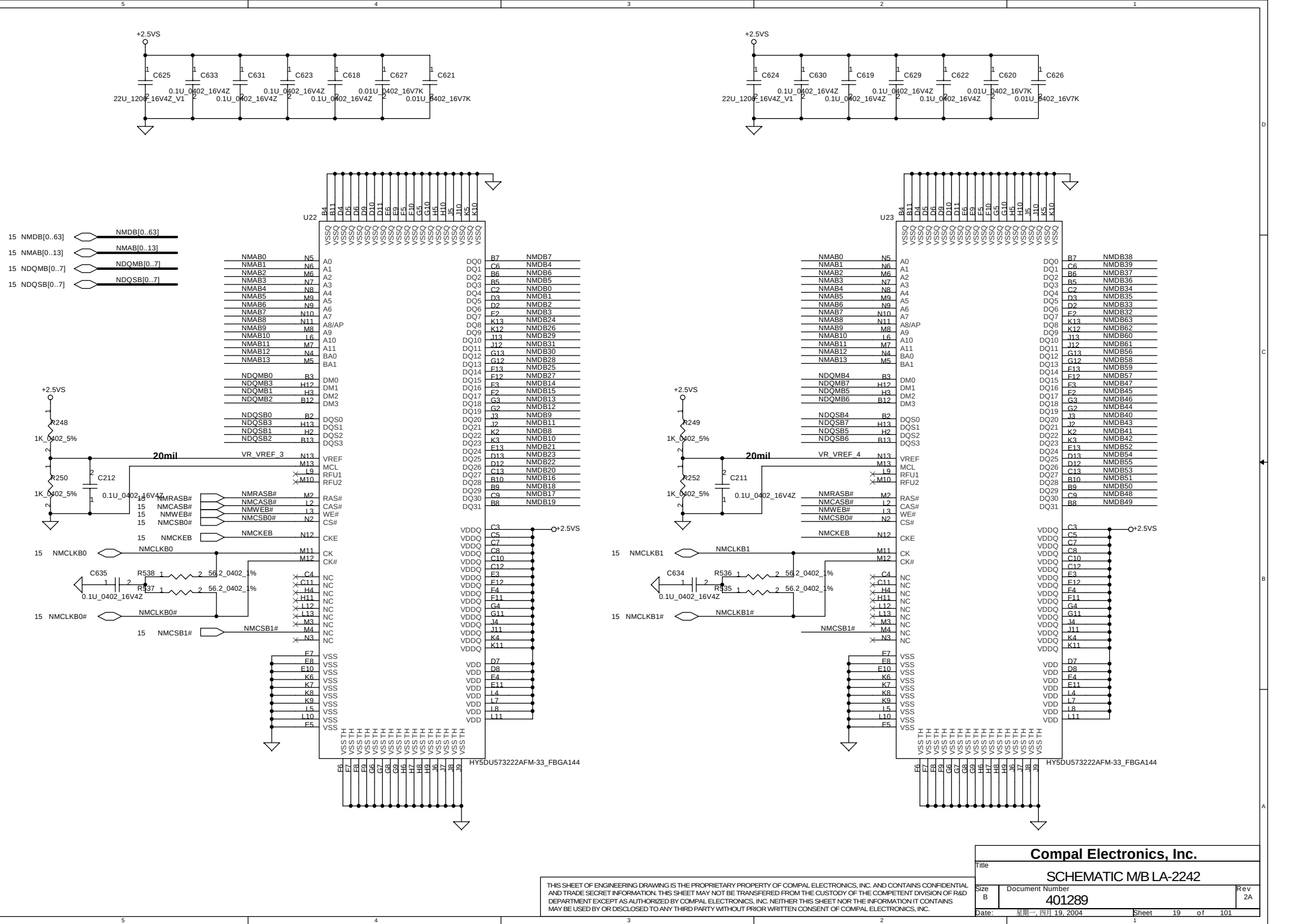


15 NMDA[0..63] NMDA[0..63]
 15 NMAA[0..13] NMAA[0..13]
 15 NDQMA[0..7] NDQMA[0..7]
 15 NDQSA[0..7] NDQSA[0..7]



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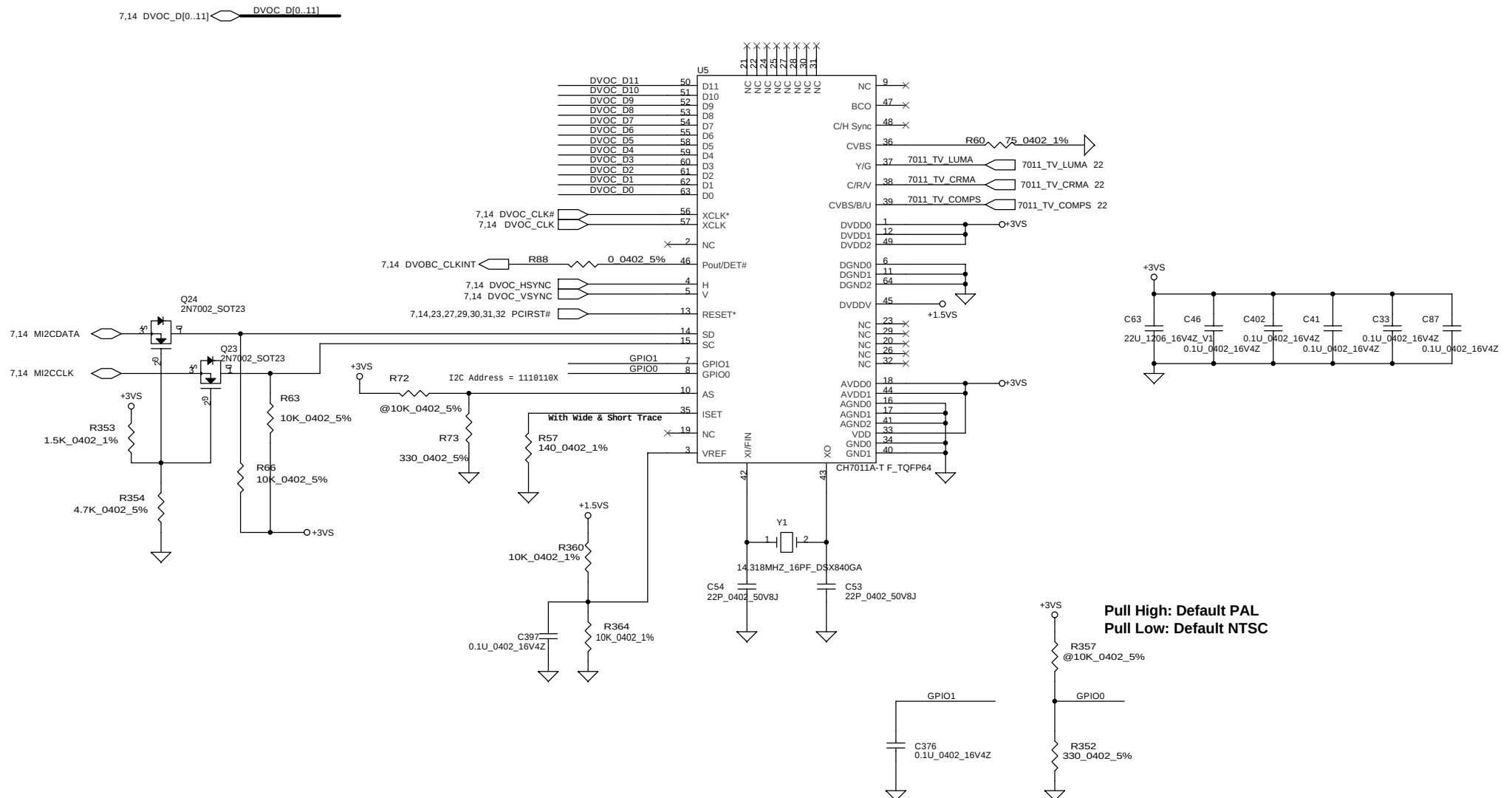
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TV Encoder

remove this page when use M11P



LCD POWER CIRCUIT

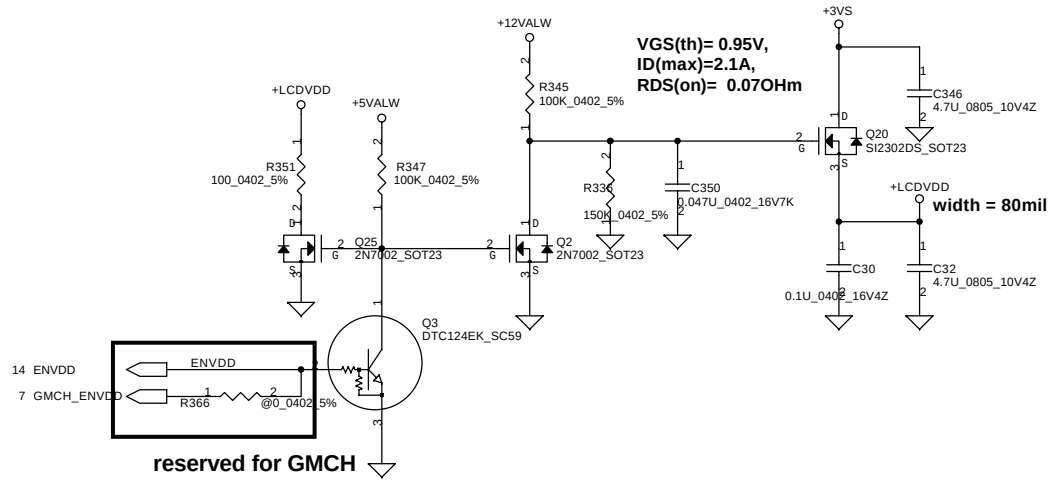
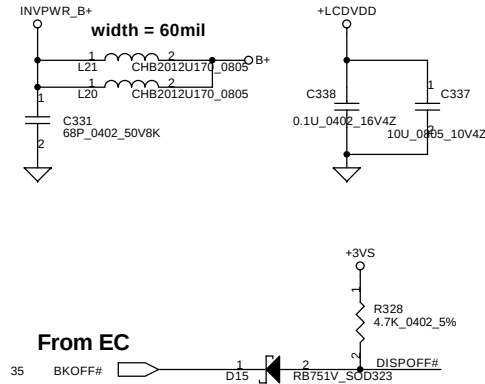
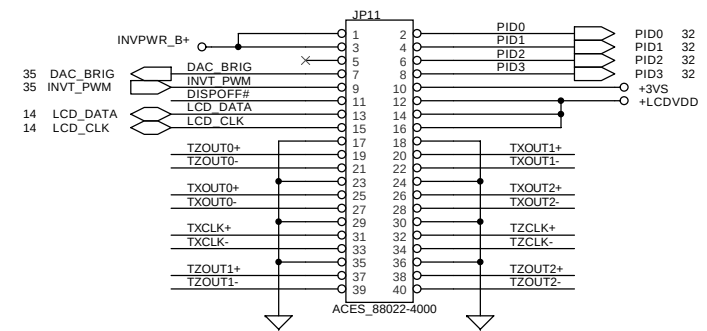


Table 1: Panel ID

PID3	PID2	PID1	PID0	PANEL
0	1	0	0	SANYO TM154WX-22L31 15.4" WXGA 1280X800
0	1	0	1	AU B154EW01 15.4" WXGA 1280X800
0	1	1	0	CPT CLAA154WA01 15.4" WXGA 1280X800
0	1	1	1	SAMSUNG LTN154X1-L02 15.4" WXGA 1280X800
1	0	0	1	SAMSUNG LTN154P1-L02 15.4" WSXGA+ 1680X1050
1	0	1	0	LG LP154W02-A1 15.4" WSXGA+ 1680X1050



LCD CONN.



14 M11_TXOUT0-	M11_TXOUT0-	R317	1	2	0	0402 5%	TXOUT0-
14 M11_TXOUT0+	M11_TXOUT0+	R316	1	2	0	0402 5%	TXOUT0+
14 M11_TXOUT1-	M11_TXOUT1-	R338	1	2	0	0402 5%	TXOUT1-
14 M11_TXOUT1+	M11_TXOUT1+	R337	1	2	0	0402 5%	TXOUT1+
14 M11_TXOUT2-	M11_TXOUT2-	R340	1	2	0	0402 5%	TXOUT2-
14 M11_TXOUT2+	M11_TXOUT2+	R339	1	2	0	0402 5%	TXOUT2+
14 M11_TXCLK-	M11_TXCLK-	R319	1	2	0	0402 5%	TXCLK-
14 M11_TXCLK+	M11_TXCLK+	R318	1	2	0	0402 5%	TXCLK+
14 M11_TZOUT0-	M11_TZOUT0-	R315	1	2	0	0402 5%	TZOUT0-
14 M11_TZOUT0+	M11_TZOUT0+	R314	1	2	0	0402 5%	TZOUT0+
14 M11_TZOUT1-	M11_TZOUT1-	R321	1	2	0	0402 5%	TZOUT1-
14 M11_TZOUT1+	M11_TZOUT1+	R320	1	2	0	0402 5%	TZOUT1+
14 M11_TZOUT2-	M11_TZOUT2-	R344	1	2	0	0402 5%	TZOUT2-
14 M11_TZOUT2+	M11_TZOUT2+	R343	1	2	0	0402 5%	TZOUT2+
14 M11_TZCLK-	M11_TZCLK-	R342	1	2	0	0402 5%	TZCLK-
14 M11_TZCLK+	M11_TZCLK+	R341	1	2	0	0402 5%	TZCLK+

For ATI M11P

7 GMCH_TXOUT0-	GMCH_TXOUT0-	R304	1	2	@0	0402 5%	TXOUT0-
7 GMCH_TXOUT0+	GMCH_TXOUT0+	R303	1	2	@0	0402 5%	TXOUT0+
7 GMCH_TXOUT1-	GMCH_TXOUT1-	R51	1	2	@0	0402 5%	TXOUT1-
7 GMCH_TXOUT1+	GMCH_TXOUT1+	R52	1	2	@0	0402 5%	TXOUT1+
7 GMCH_TXOUT2-	GMCH_TXOUT2-	R49	1	2	@0	0402 5%	TXOUT2-
7 GMCH_TXOUT2+	GMCH_TXOUT2+	R50	1	2	@0	0402 5%	TXOUT2+
7 GMCH_TXCLK-	GMCH_TXCLK-	R306	1	2	@0	0402 5%	TXCLK-
7 GMCH_TXCLK+	GMCH_TXCLK+	R305	1	2	@0	0402 5%	TXCLK+
7 GMCH_TZOUT0-	GMCH_TZOUT0-	R302	1	2	@0	0402 5%	TZOUT0-
7 GMCH_TZOUT0+	GMCH_TZOUT0+	R301	1	2	@0	0402 5%	TZOUT0+
7 GMCH_TZOUT1-	GMCH_TZOUT1-	R308	1	2	@0	0402 5%	TZOUT1-
7 GMCH_TZOUT1+	GMCH_TZOUT1+	R307	1	2	@0	0402 5%	TZOUT1+
7 GMCH_TZOUT2-	GMCH_TZOUT2-	R53	1	2	@0	0402 5%	TZOUT2-
7 GMCH_TZOUT2+	GMCH_TZOUT2+	R54	1	2	@0	0402 5%	TZOUT2+
7 GMCH_TZCLK-	GMCH_TZCLK-	R55	1	2	@0	0402 5%	TZCLK-
7 GMCH_TZCLK+	GMCH_TZCLK+	R56	1	2	@0	0402 5%	TZCLK+

For GMCH

Compal Electronics, Inc.

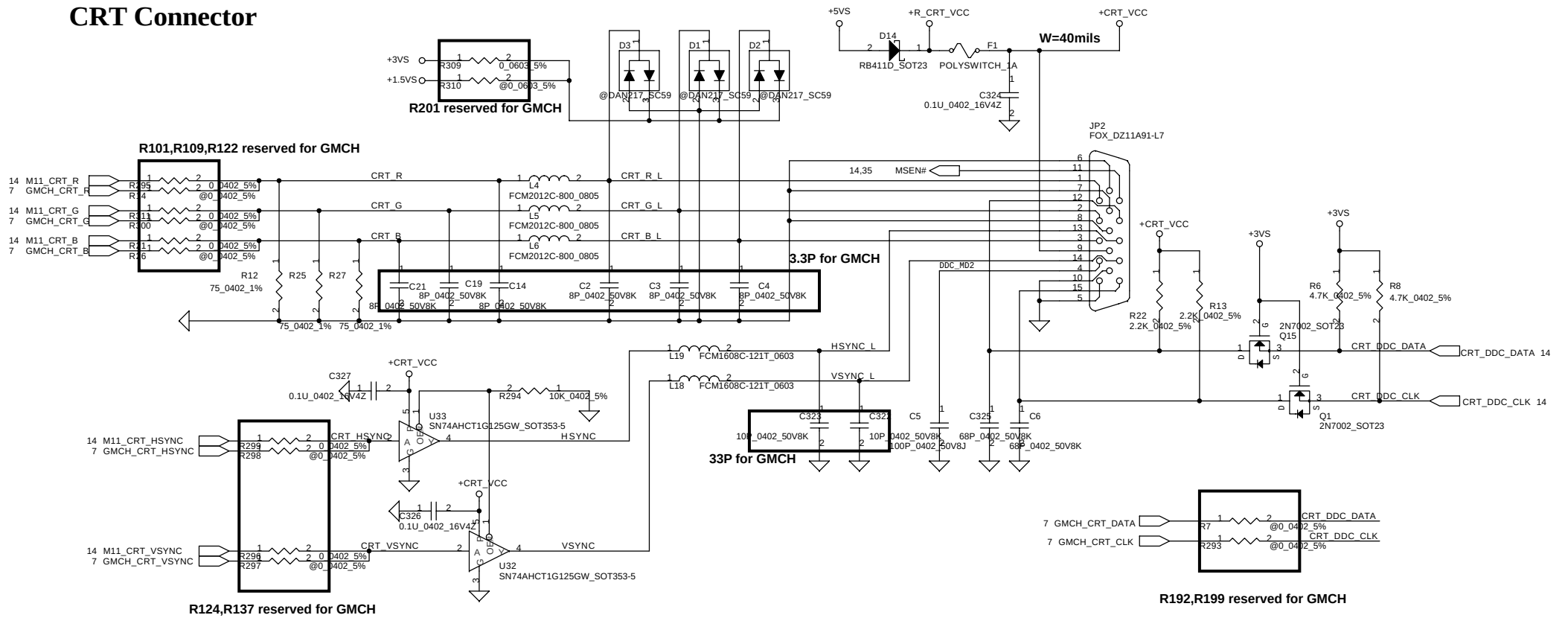
Title
SCHEMATIC M/B LA-2242

Size
Document Number
401289

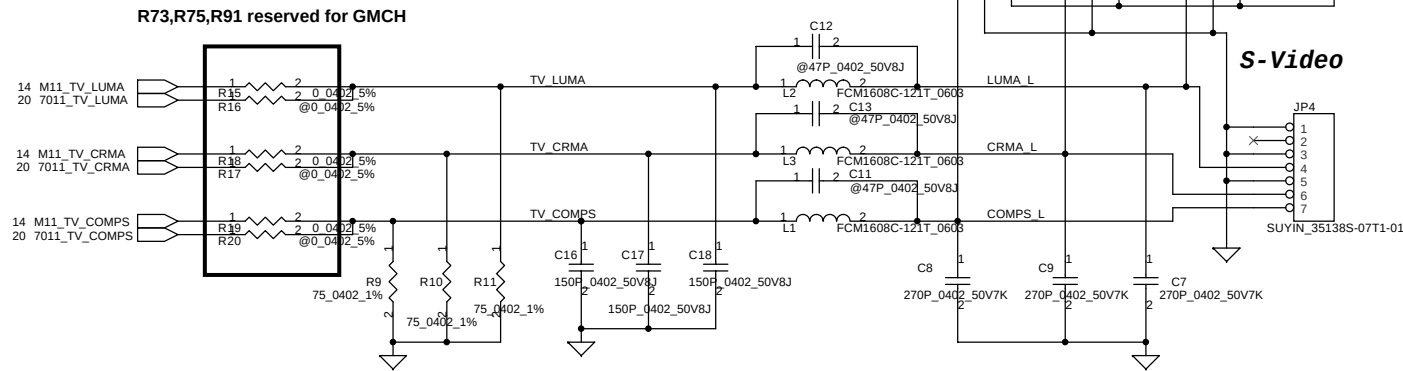
Date: 星期一, 四月 19, 2004 Sheet 21 of 101

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CRT Connector

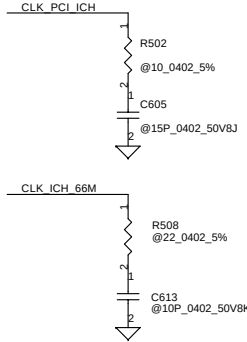


TV-Out Connector

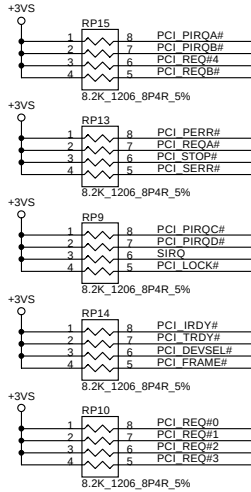


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Date	星期一, 四月 19, 2004	Sheet	22 of 101
		Rev	2A



PCI Pullups



27,29,30,31 PCI_AD[0..31] PCI_AD[0..31]

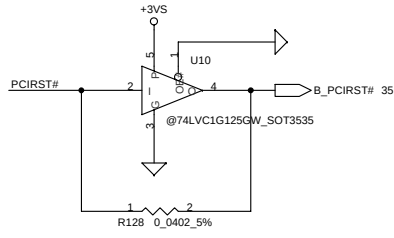
PCI_AD0	H5	AD0
PCI_AD1	J3	AD1
PCI_AD2	H3	AD2
PCI_AD3	K1	AD3
PCI_AD4	G5	AD4
PCI_AD5	J4	AD5
PCI_AD6	H4	AD6
PCI_AD7	J5	AD7
PCI_AD8	K2	AD8
PCI_AD9	G2	AD9
PCI_AD10	L1	AD10
PCI_AD11	G4	AD11
PCI_AD12	L2	AD12
PCI_AD13	H2	AD13
PCI_AD14	L3	AD14
PCI_AD15	F5	AD15
PCI_AD16	F4	AD16
PCI_AD17	N1	AD17
PCI_AD18	E5	AD18
PCI_AD19	N2	AD19
PCI_AD20	E3	AD20
PCI_AD21	N3	AD21
PCI_AD22	F4	AD22
PCI_AD23	M5	AD23
PCI_AD24	E2	AD24
PCI_AD25	E1	AD25
PCI_AD26	P1	AD26
PCI_AD27	P2	AD27
PCI_AD28	D3	AD28
PCI_AD29	R1	AD29
PCI_AD30	D2	AD30
PCI_AD31	P4	AD31

27,29,30,31 PCI_CBE#0	PCI_CBE#0	J2	C/BE#0
27,29,30,31 PCI_CBE#1	PCI_CBE#1	M4	C/BE#1
27,29,30,31 PCI_CBE#2	PCI_CBE#2	M4	C/BE#2
27,29,30,31 PCI_CBE#3	PCI_CBE#3	N4	C/BE#3
29 PCI_REQ#0	PCI_REQ#0	B1	REQ#0
27 PCI_REQ#1	PCI_REQ#1	A2	REQ#1
30 PCI_REQ#2	PCI_REQ#2	B3	REQ#2
31 PCI_REQ#3	PCI_REQ#3	C7	REQ#3
31 PCI_REQ#4	PCI_REQ#4	B6	REQ#4
29 PCI_GNT#0	PCI_GNT#0	C1	GNT#0
27 PCI_GNT#1	PCI_GNT#1	E6	GNT#1
30 PCI_GNT#2	PCI_GNT#2	A7	GNT#2
31 PCI_GNT#3	PCI_GNT#3	D7	GNT#3
31 PCI_GNT#4	PCI_GNT#4	D6	GNT#4

13 CLK_PCI_ICH	CLK_PCI_ICH	P5	PCICLK
27,29,30,31 PCI_FRAME#	PCI_FRAME#	F1	FRAME#
27,29,30,31 PCI_DEVSEL#	PCI_DEVSEL#	M3	DEVSEL#
27,29,30,31 PCI_IRDY#	PCI_IRDY#	L5	IRDY#
27,29,30,31 PCI_PAR	PCI_PERR#	G1	PAR
27,29,30,31 PCI_PERR#	PCI_LOCK#	M2	LOCK#

7,14,20,27,29,30,31,32 PCIRST#	PCIRST#	U5	PCIRST#
27,29,30,31 PCI_SERR#	PCI_SERR#	K5	SERR#
27,29,30,31 PCI_STOP#	PCI_STOP#	F3	STOP#
27,29,30,31 PCI_TRDY#	PCI_TRDY#	E2	TRDY#

26 PIDERST#	PCI_REQA#	B5	REQA#/GP10
26 SIDERST#	PCI_REQB#	A6	REQB#/GP11/REQ5#
	PCIRST#	E6	GNTA#/GPO16
	SIDERST#	C6	GNTB#/GPO17/GNT5#



ICH4

SM I/F

INTRUDER#	W6	INTRUDER#
SMLINK0	AC3	SMLINK0
SMLINK1	AB1	SMLINK1
SMB_CLK	AC4	SMB_CLK 10,11,13
SMB_DATA	AB4	SMB_DATA 10,11,13
SMB_ALERT#/GPI11	AA6	GPI11

CPU I/F

A20GATE	Y22	GATEA20 35
A20MH#	AB23	H_A20MH# 4
DPSLP#	U23	H_DPSLP# 4,7
FERR#	AA21	H_FERR# 4
IGNNE#	W21	H_IGNNE# 4
INIT#	Y22	H_INIT# 4
INTR	AB22	H_INTR 4
NMI	V21	H_NMI 4
CPU_PWRGOOD	Y23	H_CPU_PWRGOOD 4
RCIN#	U21	RC# 35
SLP#	U21	H_CPUSLP# 4
SMH#	W23	H_SMH# 4
STPCLK#	Y23	H_STPCLK# 4

HUB I/F

H10	L19	HUB_PD0
H11	L20	HUB_PD1
H12	M19	HUB_PD2
H13	M21	HUB_PD3
H14	P19	HUB_PD4
H15	R19	HUB_PD5
H16	T20	HUB_PD6
H17	B20	HUB_PD7
H18	P23	HUB_PD8
H19	L22	HUB_PD9
H10	U22	HUB_PD10
H11	K21	HUB_PD11
CLK66	T21	CLK_ICH_66M 13
HI_STB	P21	HUB_PSTRB 6
HI_STB#	N20	HUB_PSTRB# 6
HICOMP	R23	HUB_RCOMP_ICH
HUB_VREF	M23	HUB_VREF
HUB_VSWING	R22	HUB_VSWING

Interrupt I/F

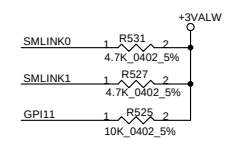
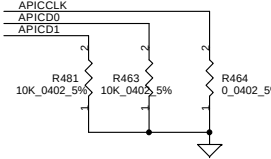
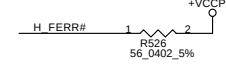
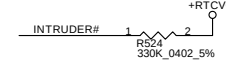
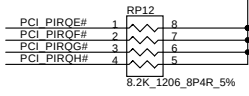
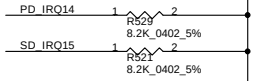
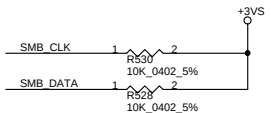
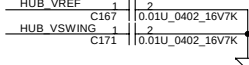
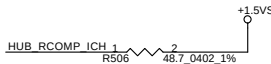
APICCLK	I19	APICCLK
APICD0	H19	APICD0
APICD1	K20	APICD1
PIRQA#	D5	PCI_PIRQA# 14,30
PIRQB#	C2	PCI_PIRQB#
PIROC#	C8	PCI_PIROC#
PIROD#	A3	PCI_PIROD#
PIRQE#/GP12	C8	PCI_PIRQE# 29
PIRQF#/GP13	D7	PCI_PIRQF# 27
PIRQG#/GP14	C3	PCI_PIRQG#
PIRQH#/GP15	C4	PCI_PIRQH# 31
IRQ14	AC13	PD_IRQ14 26
IRQ15	AA19	SD_IRQ15 26
SERIRQ	J27	SIRQ 30,32,35

EEPROM I/F

EE_CS	D11	
EE_OUT	A8	
EE_SHCLK	C12	

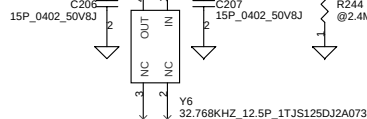
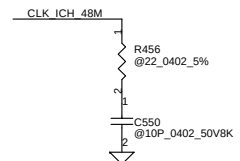
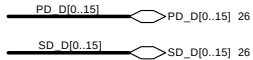
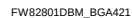
LAN I/F

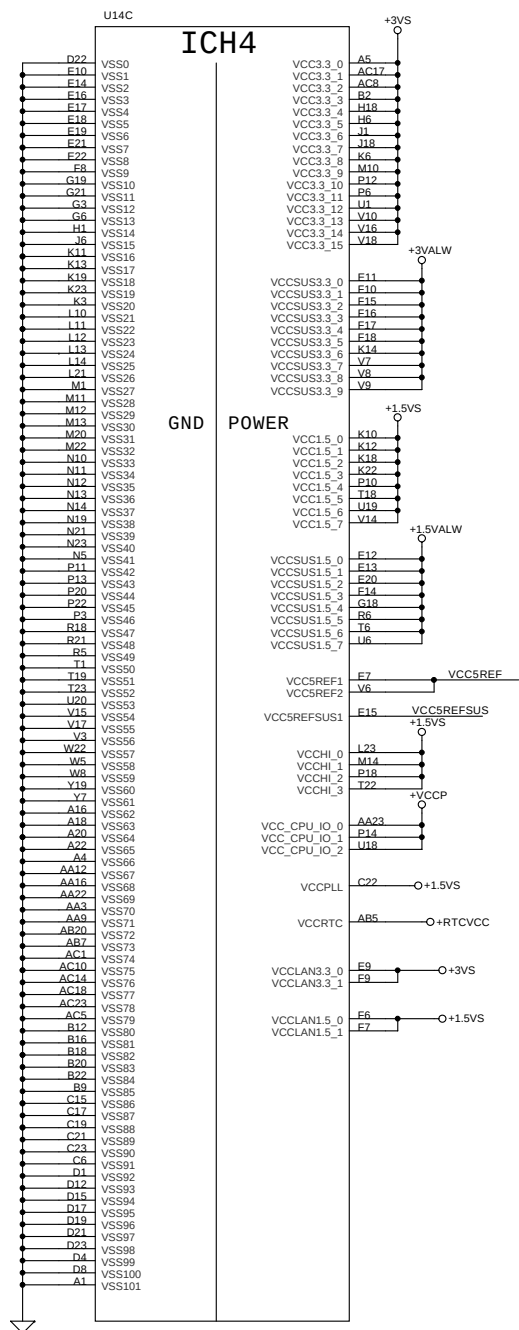
LAN_RXD0	A10	
LAN_RXD1	A9	
LAN_RXD2	A11	
LAN_TXD0	B10	
LAN_TXD1	A12	
LAN_TXD2	C10	
LAN_CLK	A11	
LAN_RST#	B11	



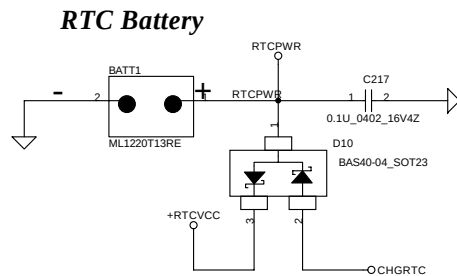
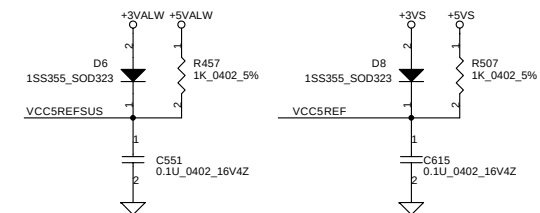
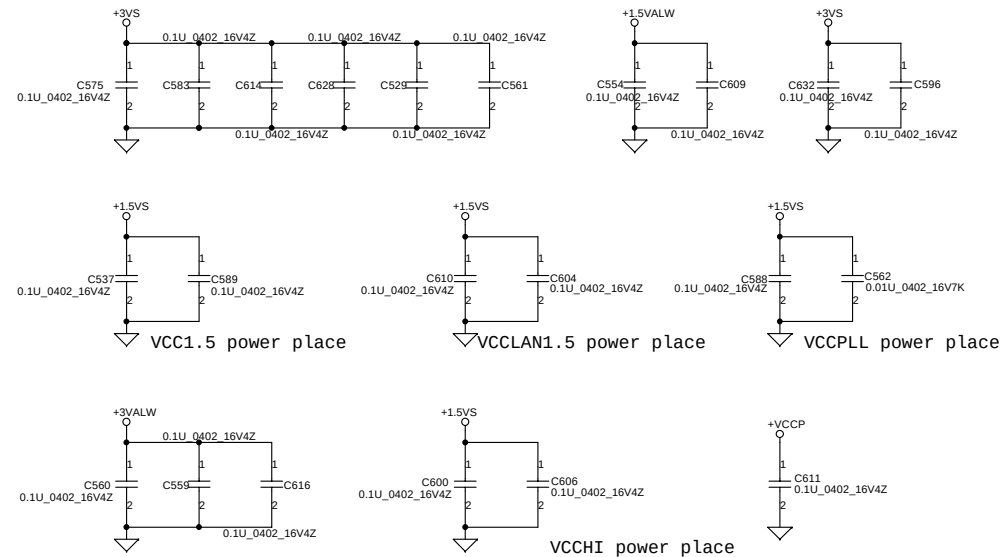
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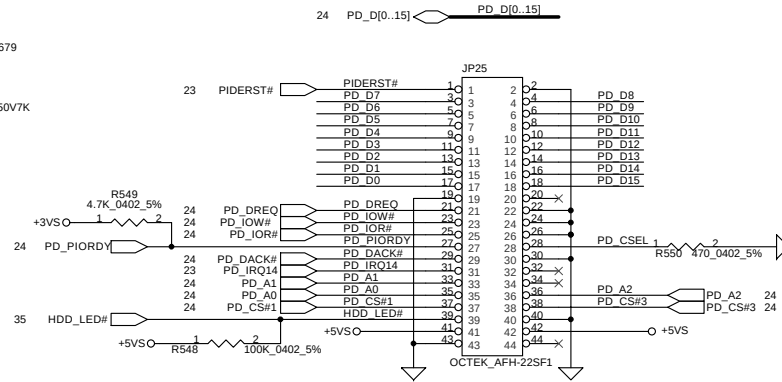
Compal Electronics, Inc.			
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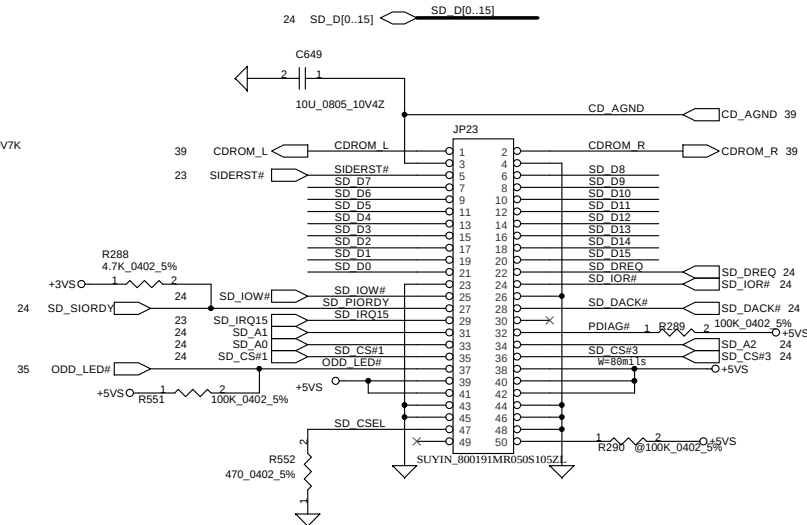


FW82801DBM_BGA421



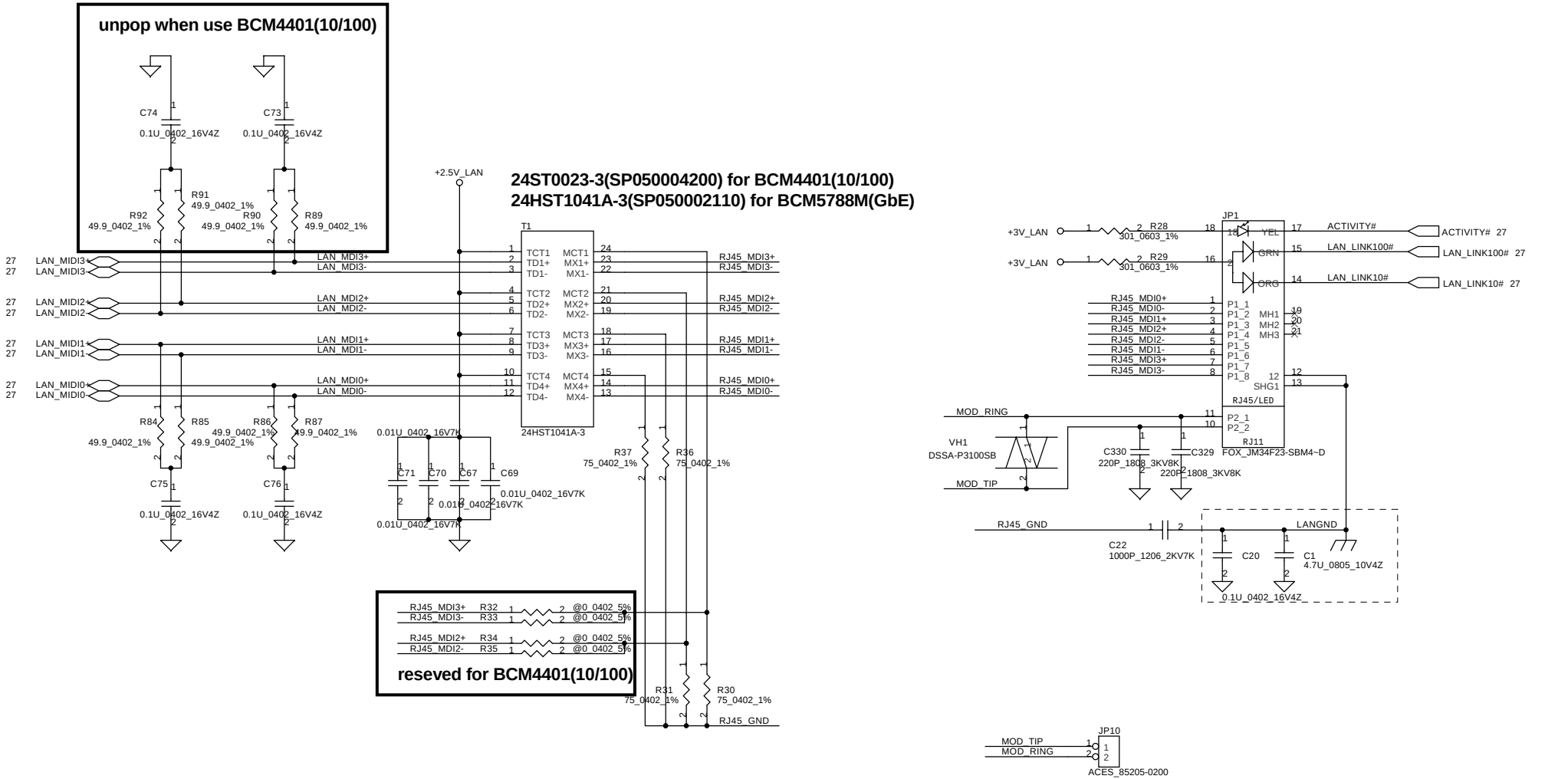
HDD CONN

24 SD_D[0..15] SD_D[0..15]



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LAN BCM5788M/BCM4401KFB



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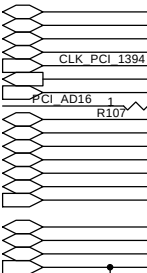
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23,27,30,31 PCI_AD[0..31]

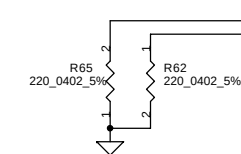
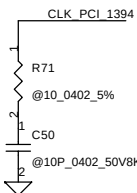
PCI_AD[0..31]

PCI_AD0	84	PCI_AD0
PCI_AD1	82	PCI_AD1
PCI_AD2	81	PCI_AD2
PCI_AD3	80	PCI_AD3
PCI_AD4	79	PCI_AD4
PCI_AD5	77	PCI_AD5
PCI_AD6	76	PCI_AD6
PCI_AD7	74	PCI_AD7
PCI_AD8	71	PCI_AD8
PCI_AD9	70	PCI_AD9
PCI_AD10	69	PCI_AD10
PCI_AD11	67	PCI_AD11
PCI_AD12	66	PCI_AD12
PCI_AD13	65	PCI_AD13
PCI_AD14	63	PCI_AD14
PCI_AD15	61	PCI_AD15
PCI_AD16	46	PCI_AD16
PCI_AD17	45	PCI_AD17
PCI_AD18	43	PCI_AD18
PCI_AD19	42	PCI_AD19
PCI_AD20	41	PCI_AD20
PCI_AD21	40	PCI_AD21
PCI_AD22	38	PCI_AD22
PCI_AD23	37	PCI_AD23
PCI_AD24	32	PCI_AD24
PCI_AD25	31	PCI_AD25
PCI_AD26	29	PCI_AD26
PCI_AD27	28	PCI_AD27
PCI_AD28	26	PCI_AD28
PCI_AD29	25	PCI_AD29
PCI_AD30	24	PCI_AD30
PCI_AD31	22	PCI_AD31

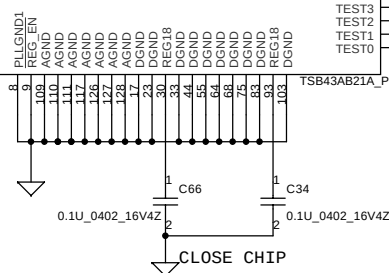
23,27,30,31 PCI_CBE#3
23,27,30,31 PCI_CBE#2
23,27,30,31 PCI_CBE#1
23,27,30,31 PCI_CBE#0
13 CLK_PCI_1394
23 PCI_GNT#0
23 PCI_REQ#0
ID: AD16
23,27,30,31 PCI_FRAME#
23,27,30,31 PCI_IRDY#
23,27,30,31 PCI_TRDY#
23,27,30,31 PCI_DEVSEL#
23,27,30,31 PCI_STOP#
23,27,30,31 PCI_PERR#
23 PCI_PIRQE#
23,27,30,31 PCI_SERR#
23,27,30,31 PCI_PAR#
24,27,30,31,32,35 PM_CLKRUN#
7,14,20,23,27,30,31,32 PCIIRST#



G_RST# connect to PCIIRST#



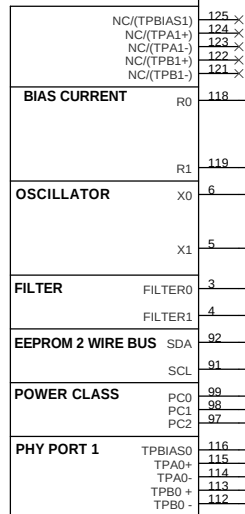
G_RST
GPIO3
GPIO2



** GPIO2 and GPIO3 defaults as an input and if it is not implemented, it is recommended that it be pulled low to ground with a 220 ohm resistor.

TSB43AB21
(TSB43AB22)

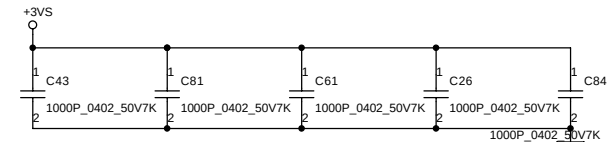
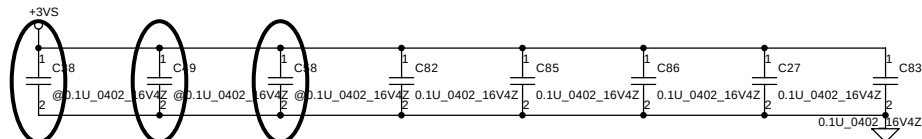
PCI BUS INTERFACE



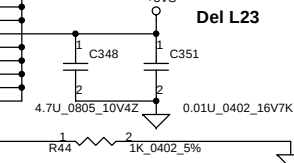
EEPROM cancel,
need System
Support

close chip

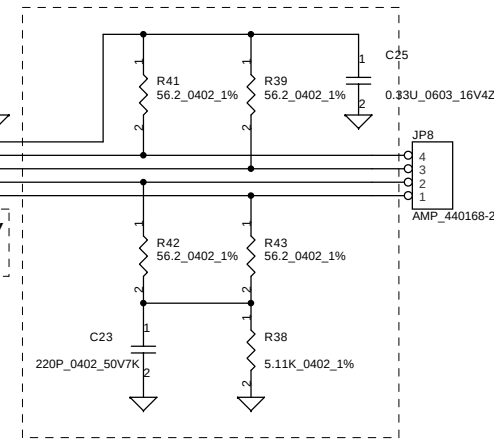
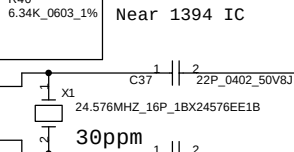
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Del L23



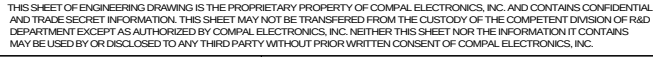
Near 1394 IC

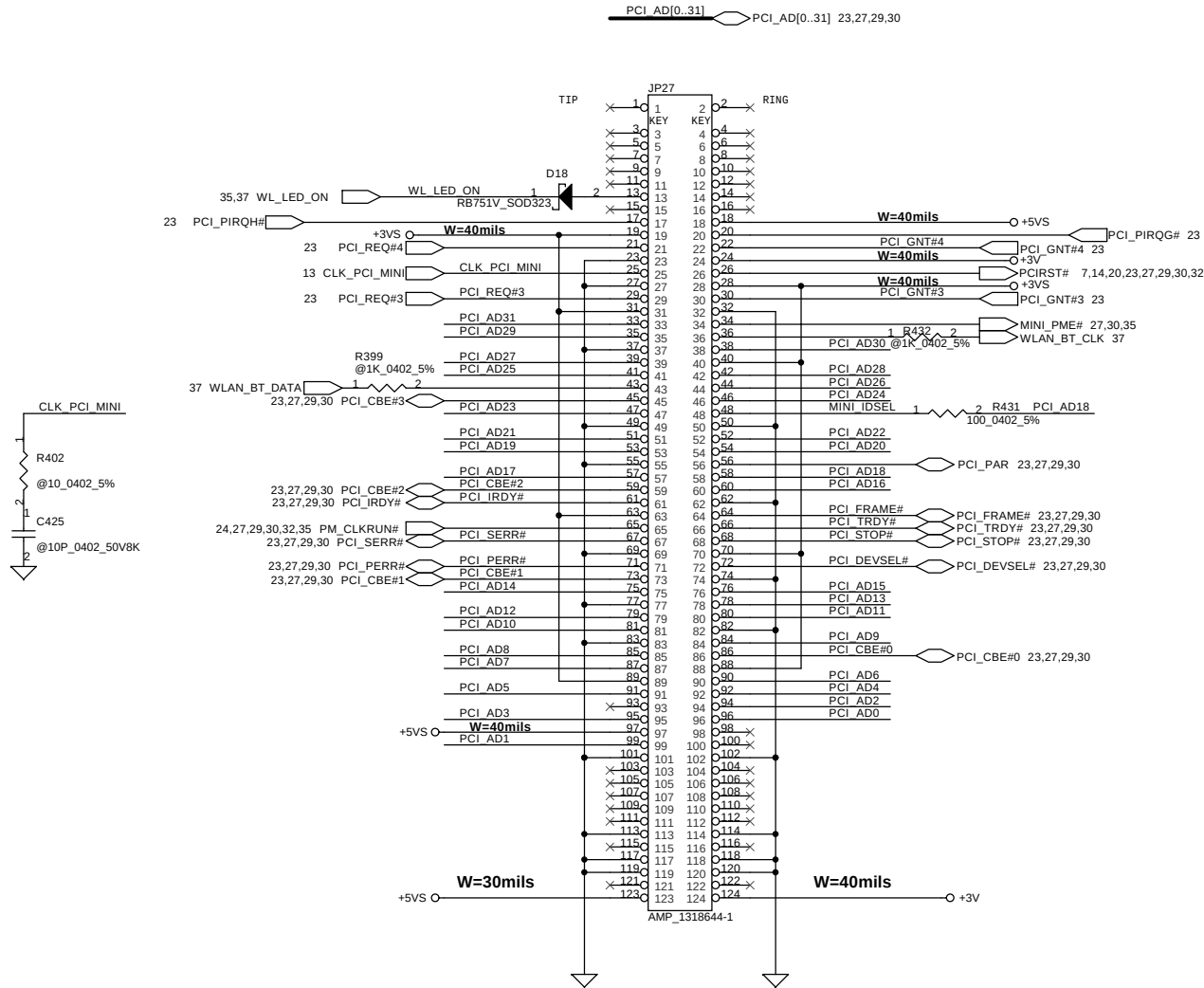
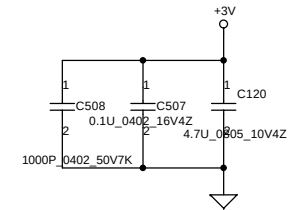
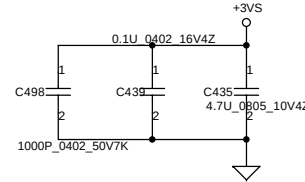
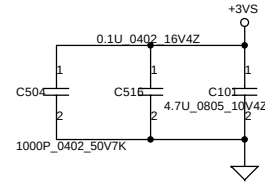
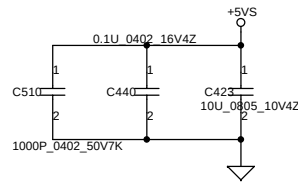


Connect To
Shielding
GND

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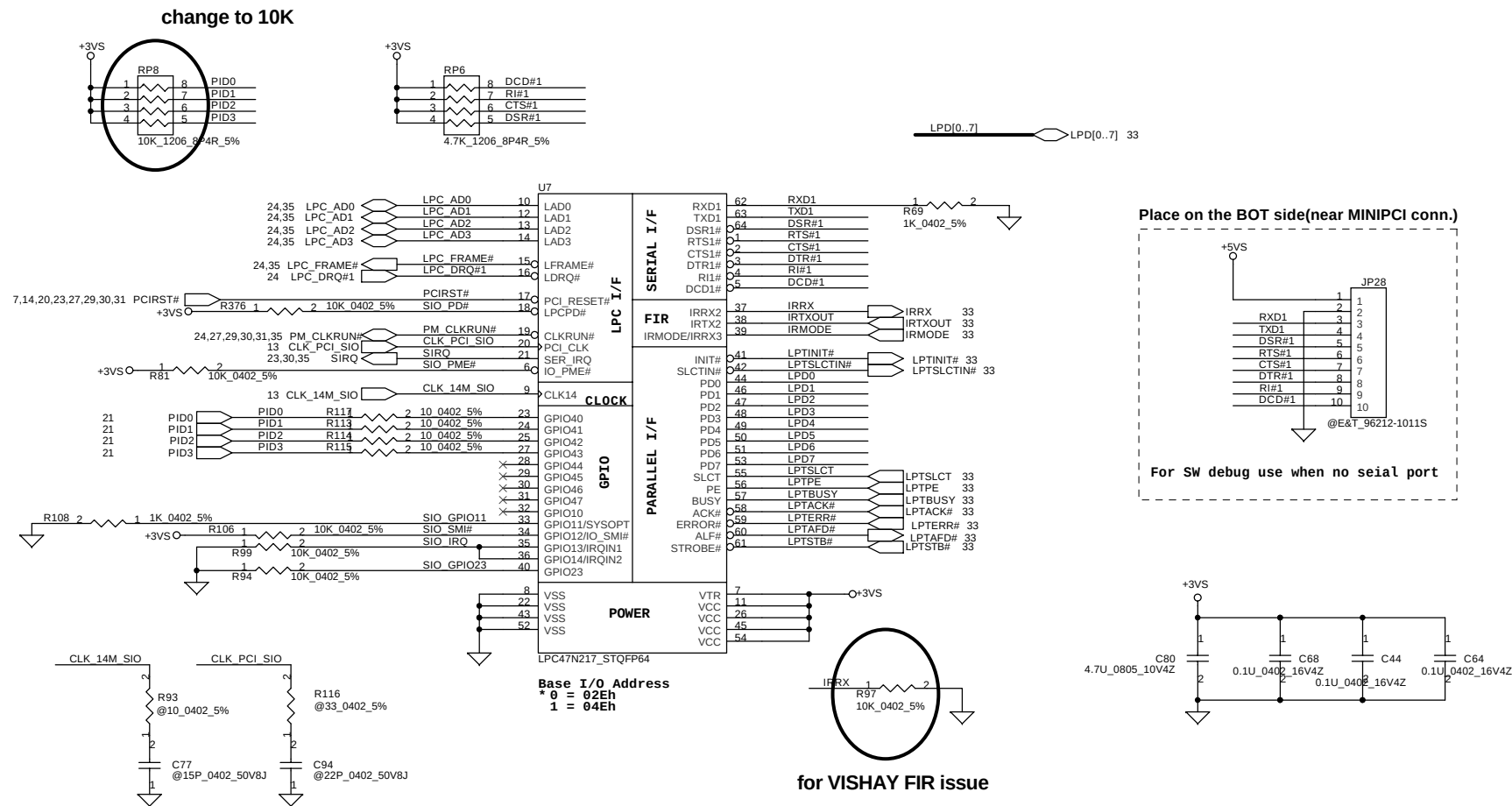


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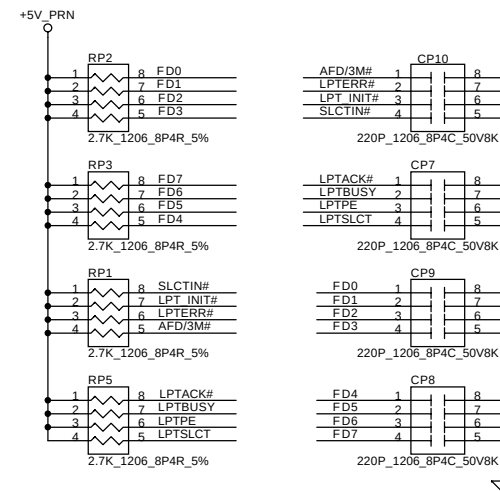
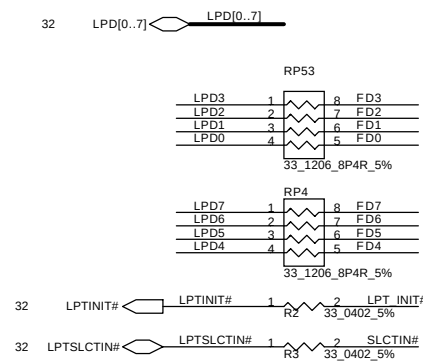
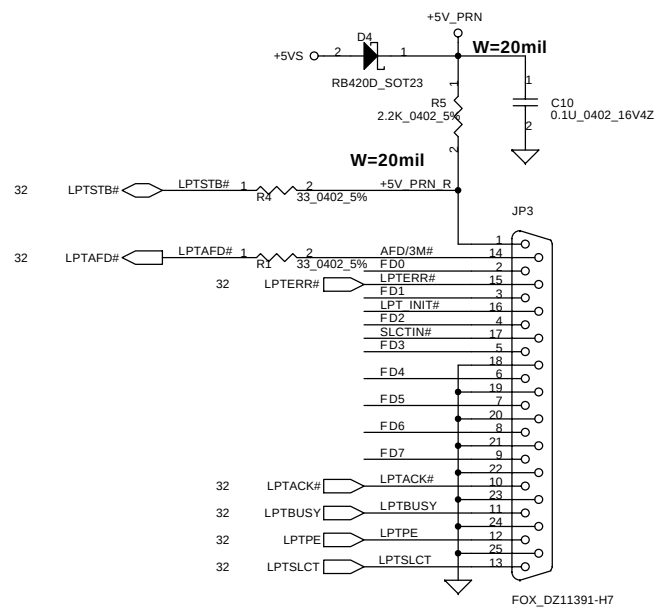
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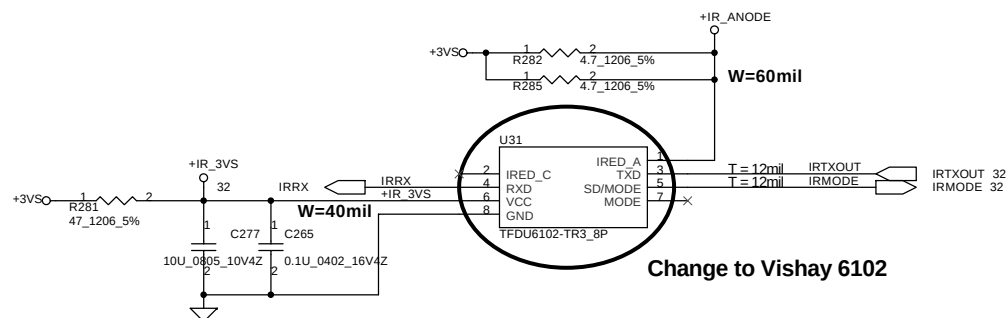
SUPER I/O SMC LPC47N217



Parallel Port



FIR Module



Change to Vishay 6102

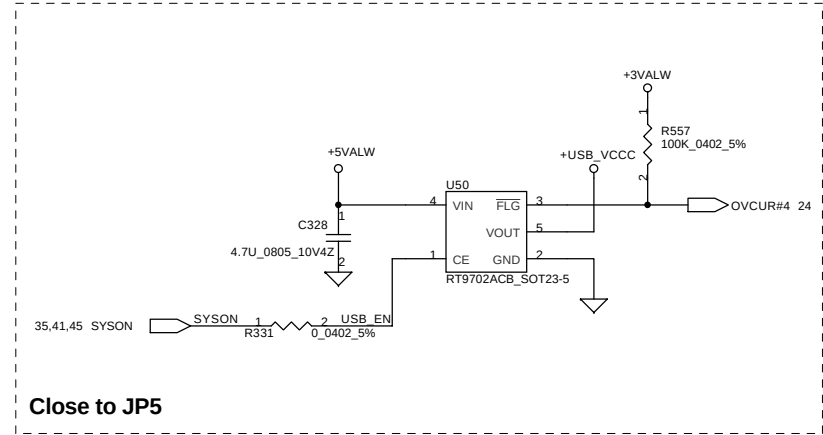
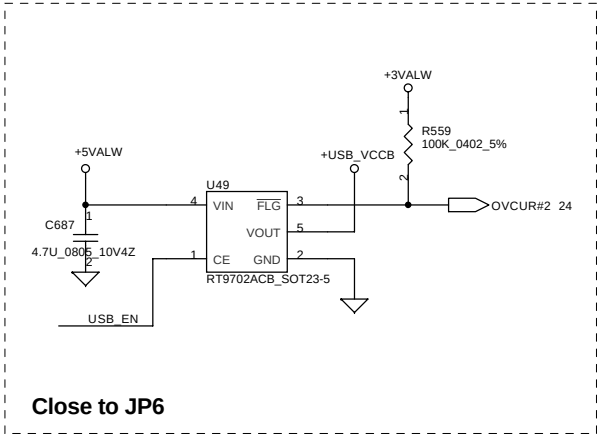
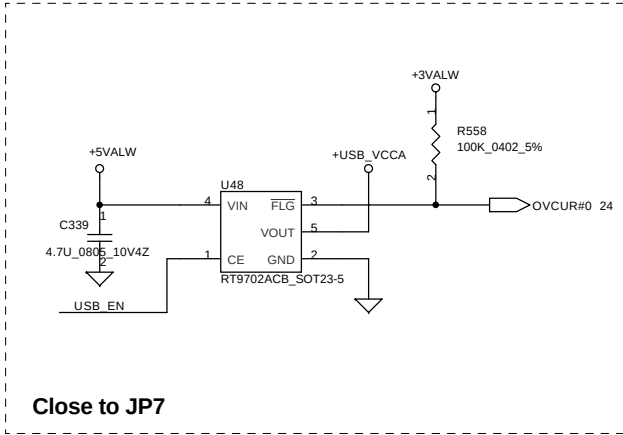
Compal Electronics, Inc.

Title	SCHEMATIC M/B LA-2242
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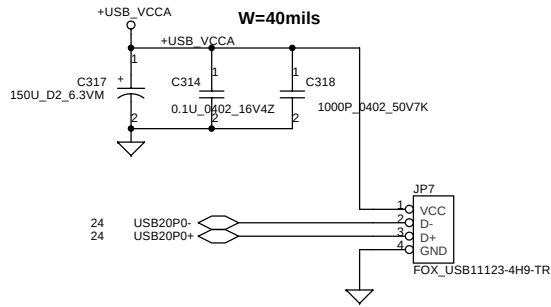
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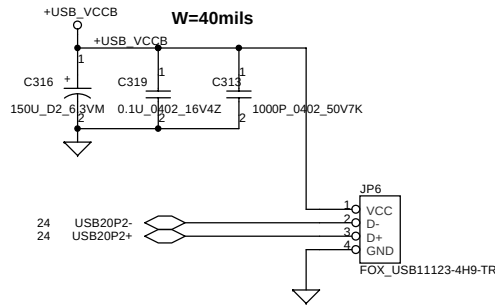
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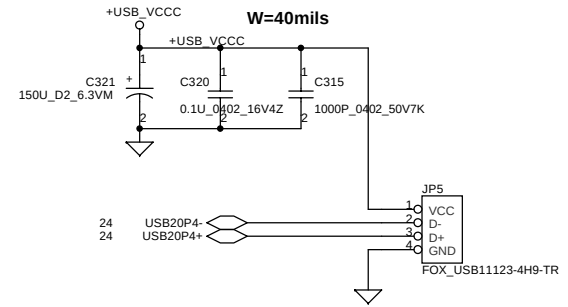
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USB CONN. 2

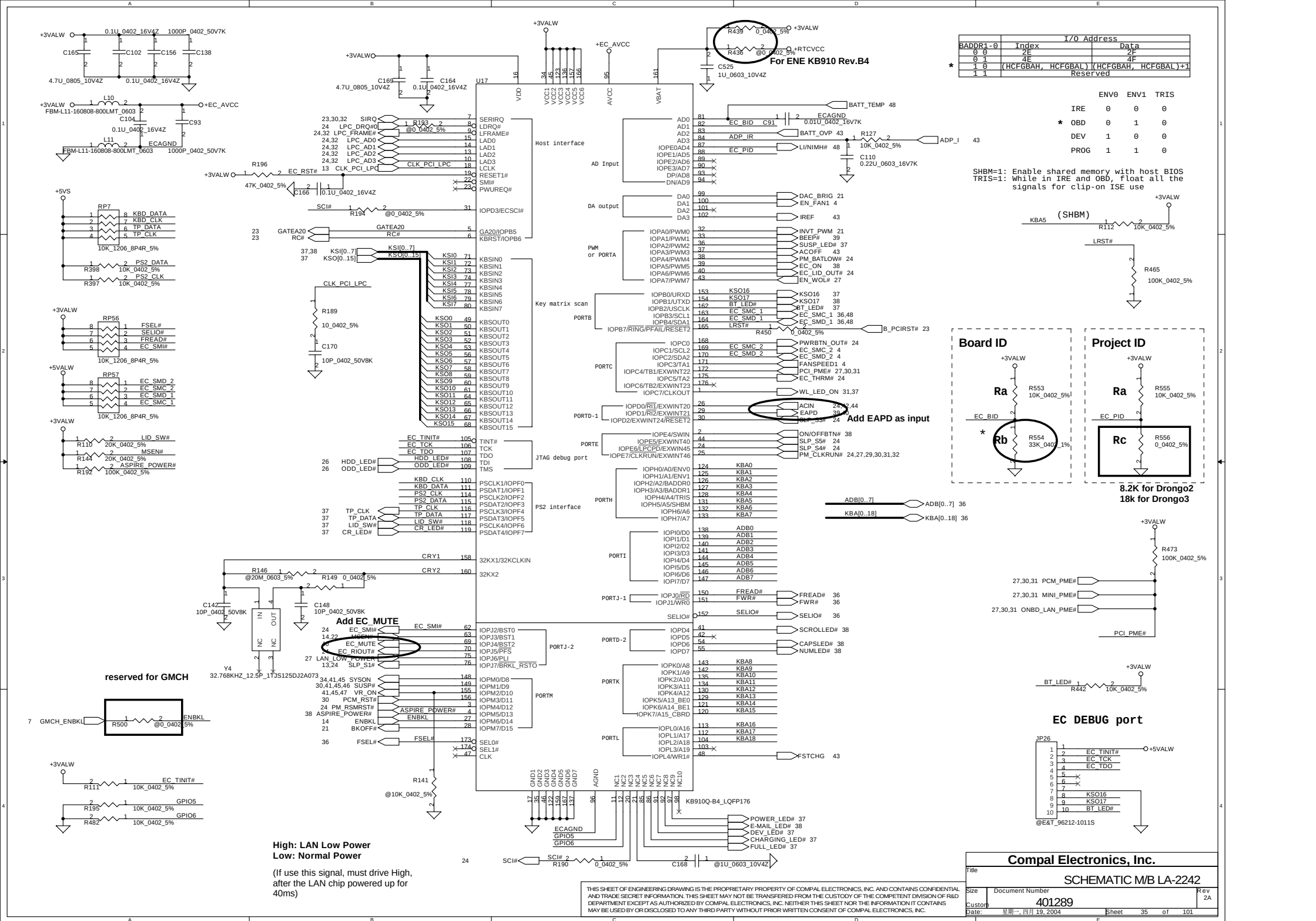


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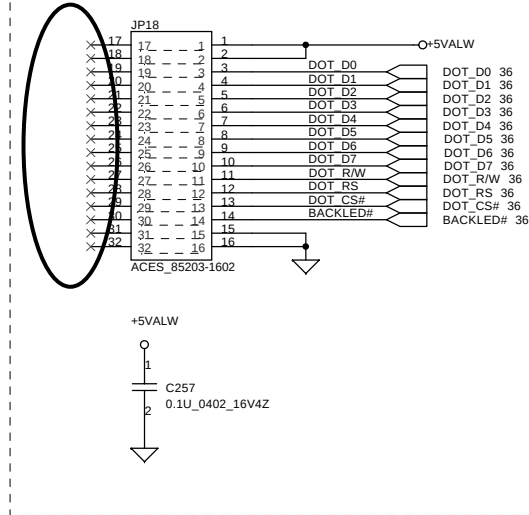


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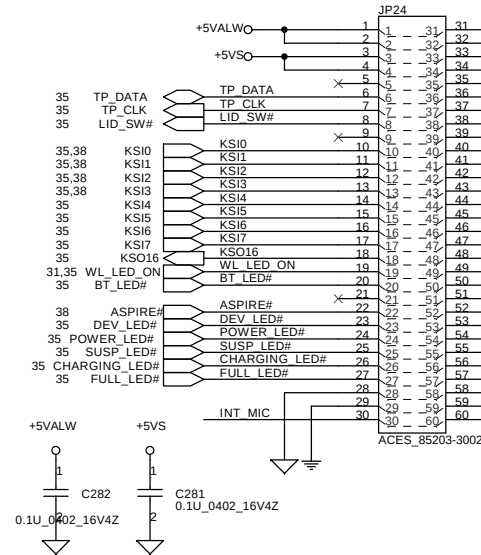
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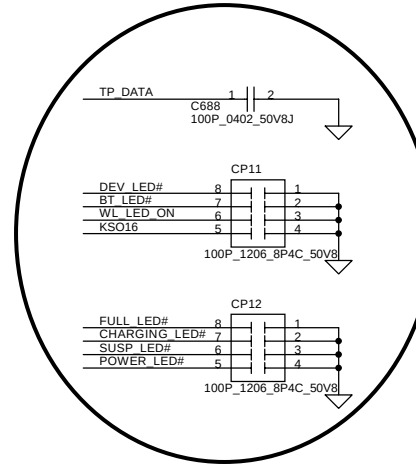
To LCM Board



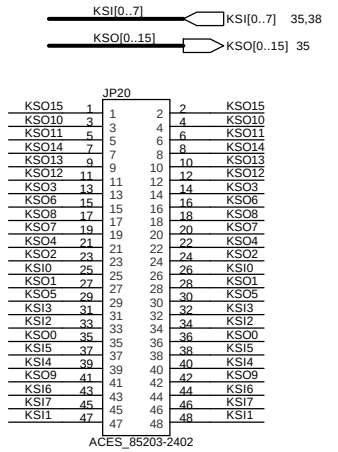
To T/P Board



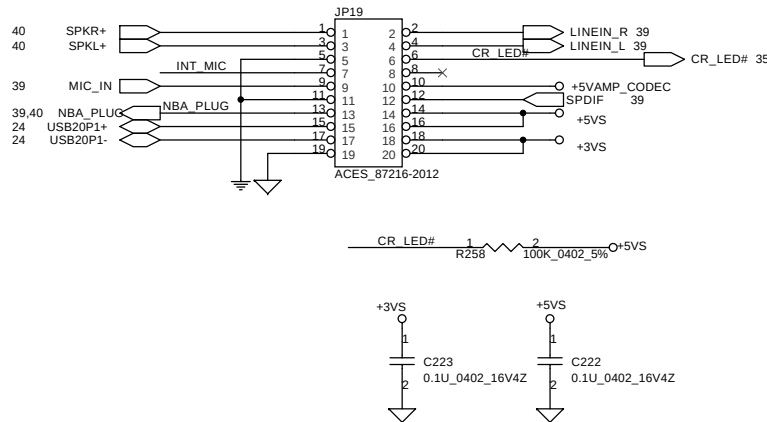
Add CP11,CP12,C688



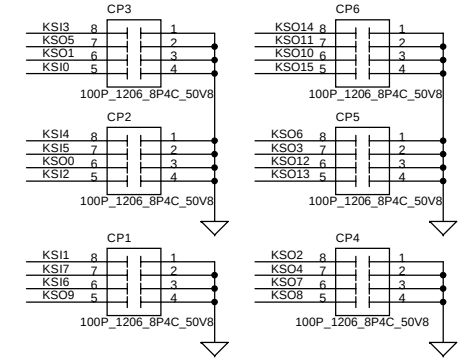
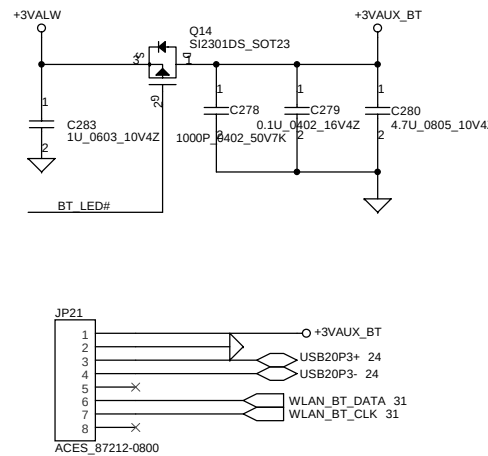
INT_KBD CONN.



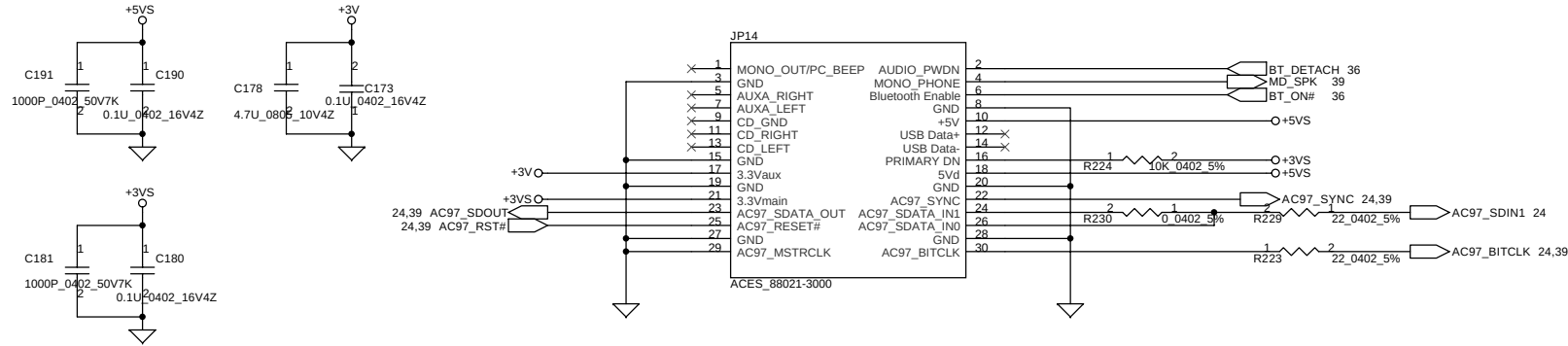
To Card Reader Board



Bluetooth Conn.

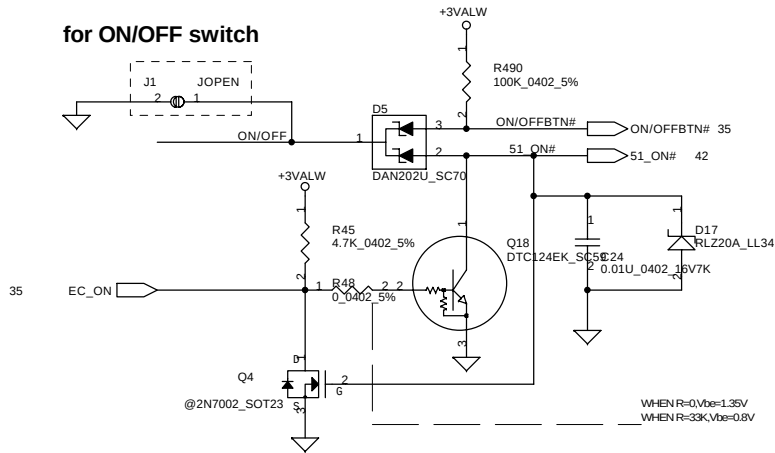


MDC Conn.

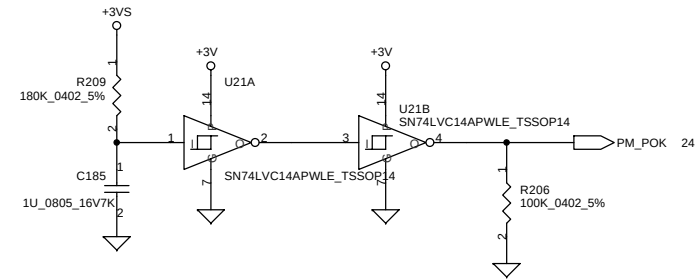


ON/OFF BUTTON

for ON/OFF switch

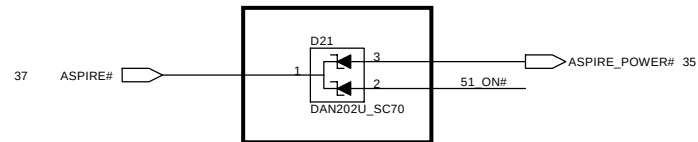


Power OK Circuit

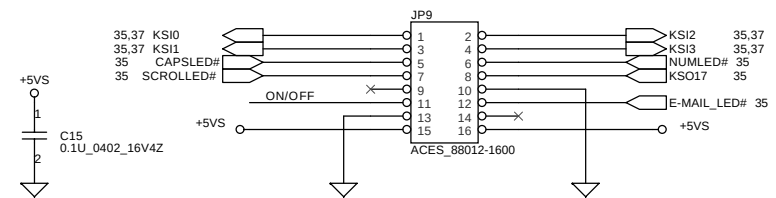


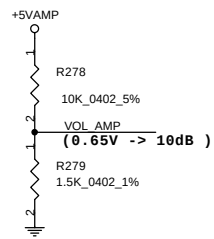
ASPIRE POWER

remove when no MEDIA/B

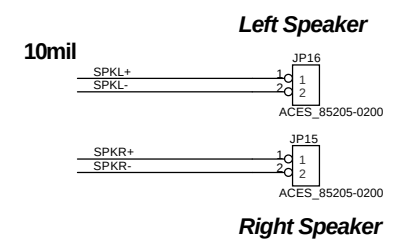
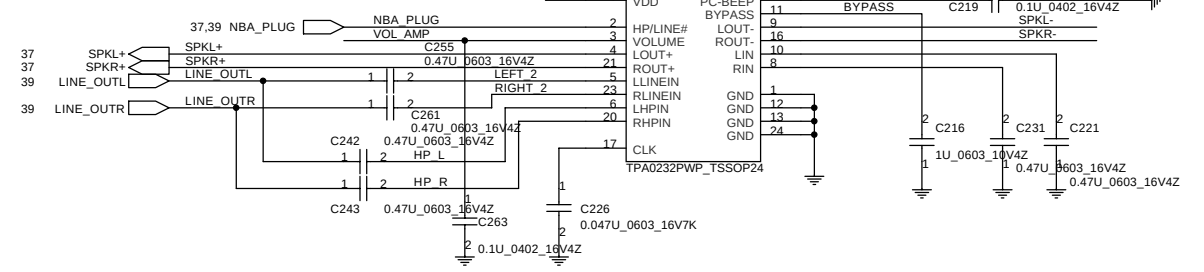
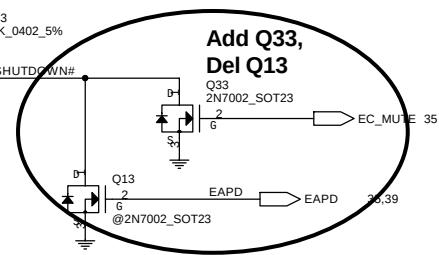
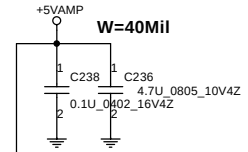


POWER/B CONN

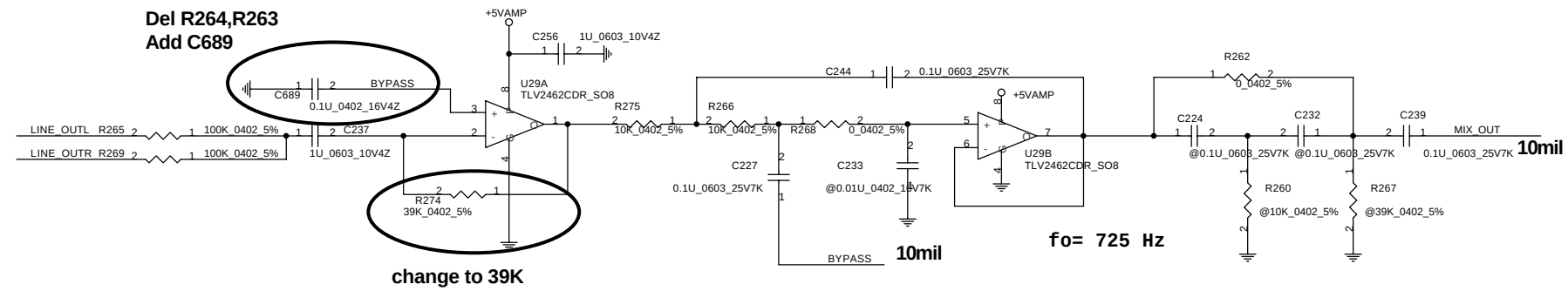




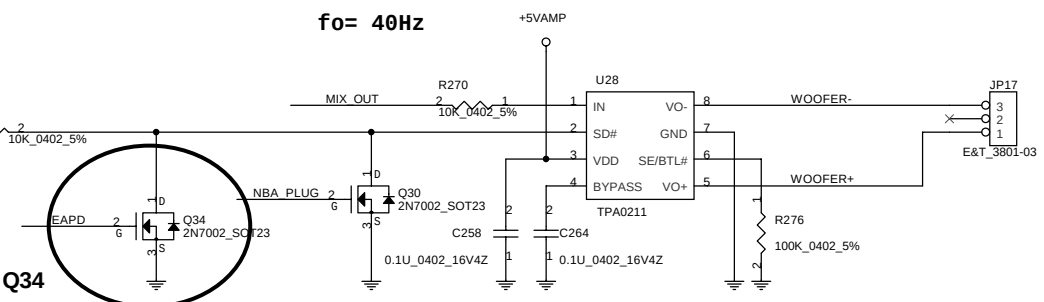
Pin 2 HIGH PIN 6,20 ACTIVE
LOW PIN 5,23 ACTIVE



Del R264,R263
Add C689



Add Q34

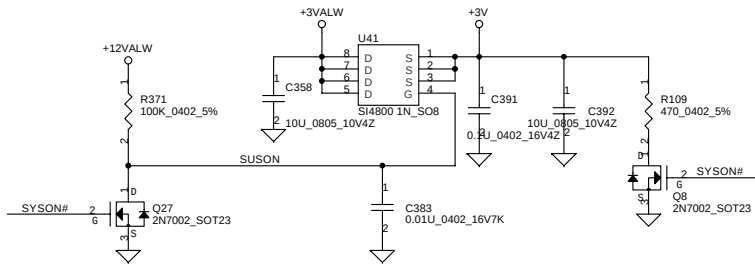


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SCHEMATIC MB LA-2242

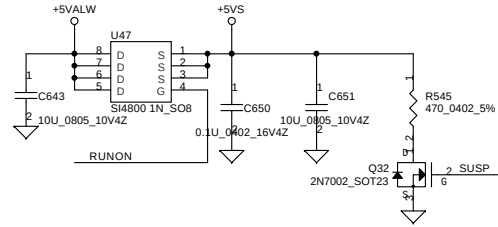
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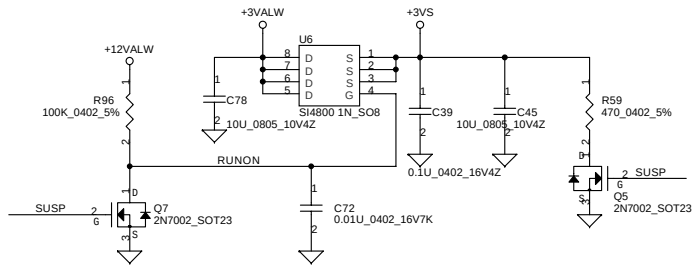
+3VALW to +3V Transfer



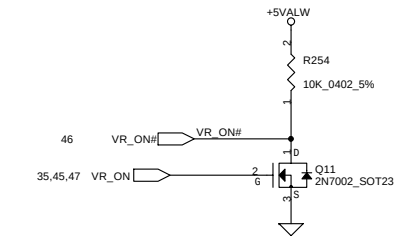
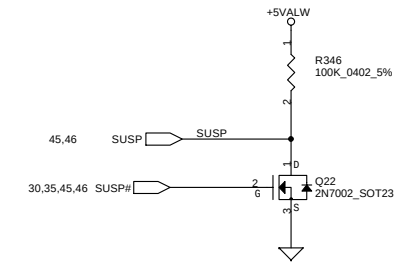
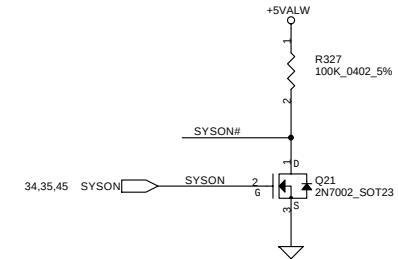
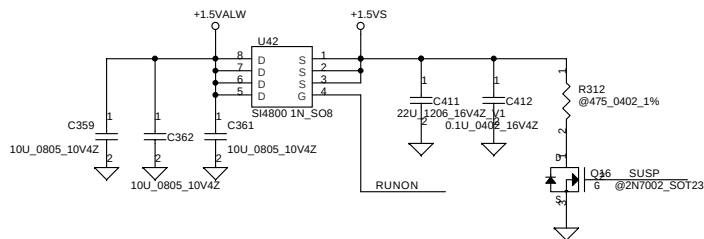
+5VALW to +5VS Transfer



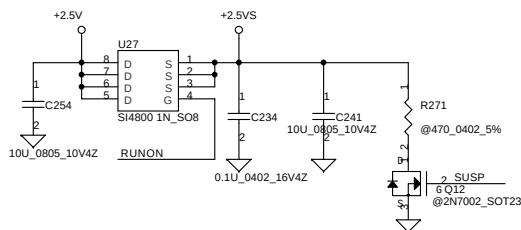
+3VALW to +3VS Transfer



+1.5VALW to +1.5VS Transfer



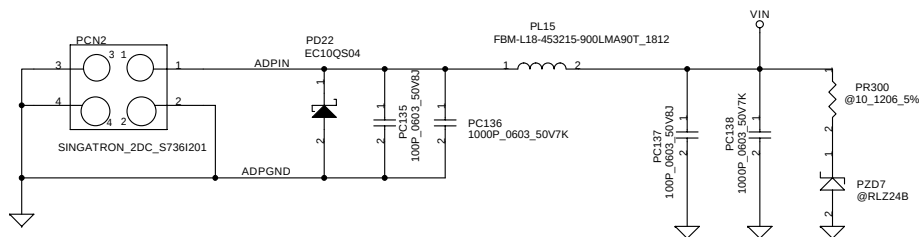
+2.5V to +2.5VS Transfer



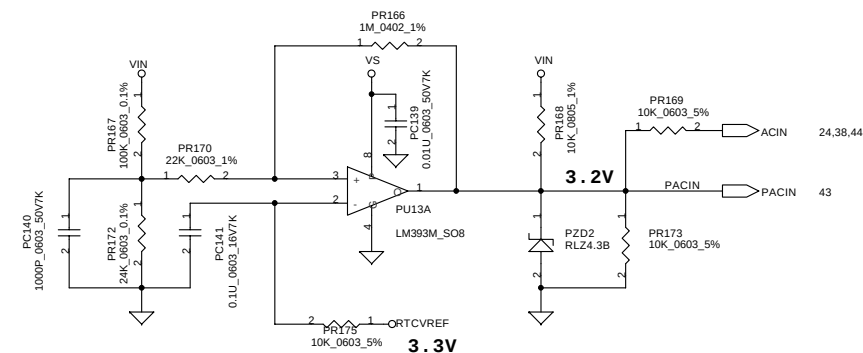
remove on Drongo4

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VIN detector
 18.239 17.755 17.273
 17.545 17.071 16.587

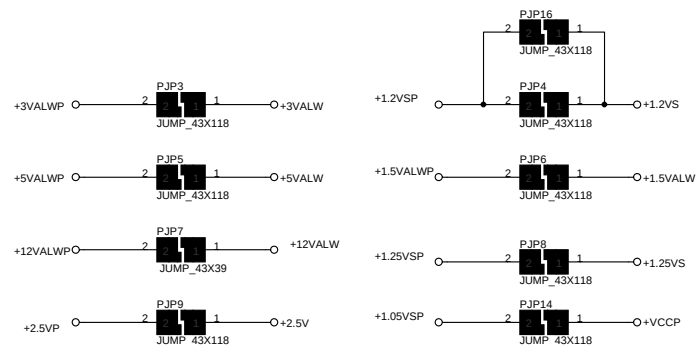
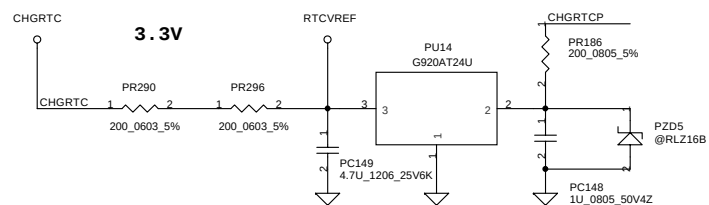
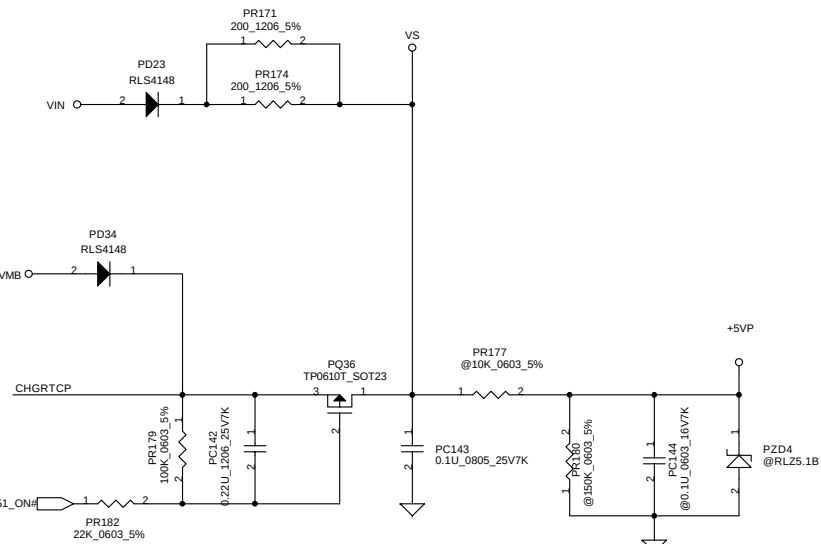


ACIN

Precharge detector
 15.821 15.195 14.585
 13.192 12.700 12.022

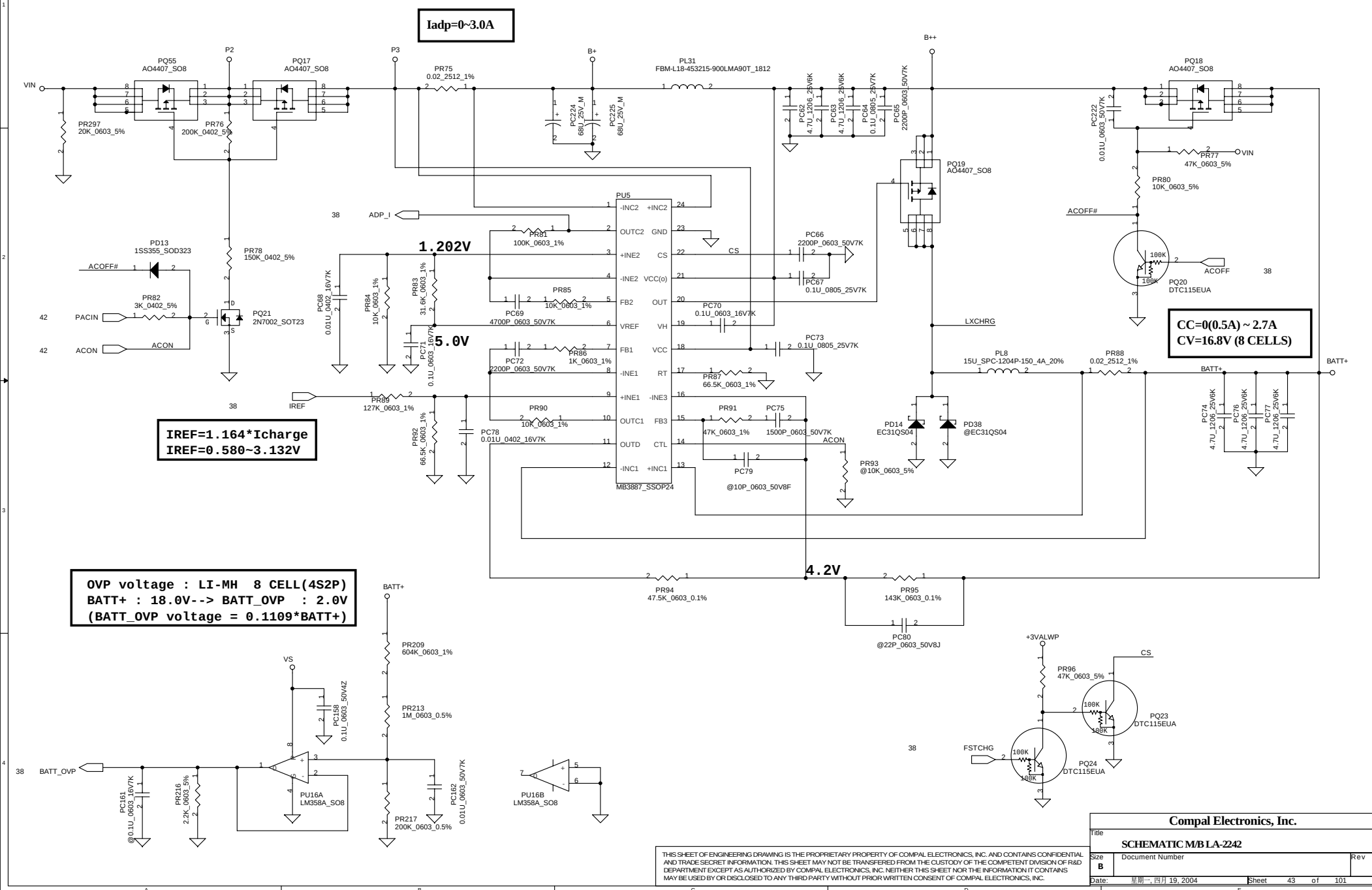
BAT ONLY

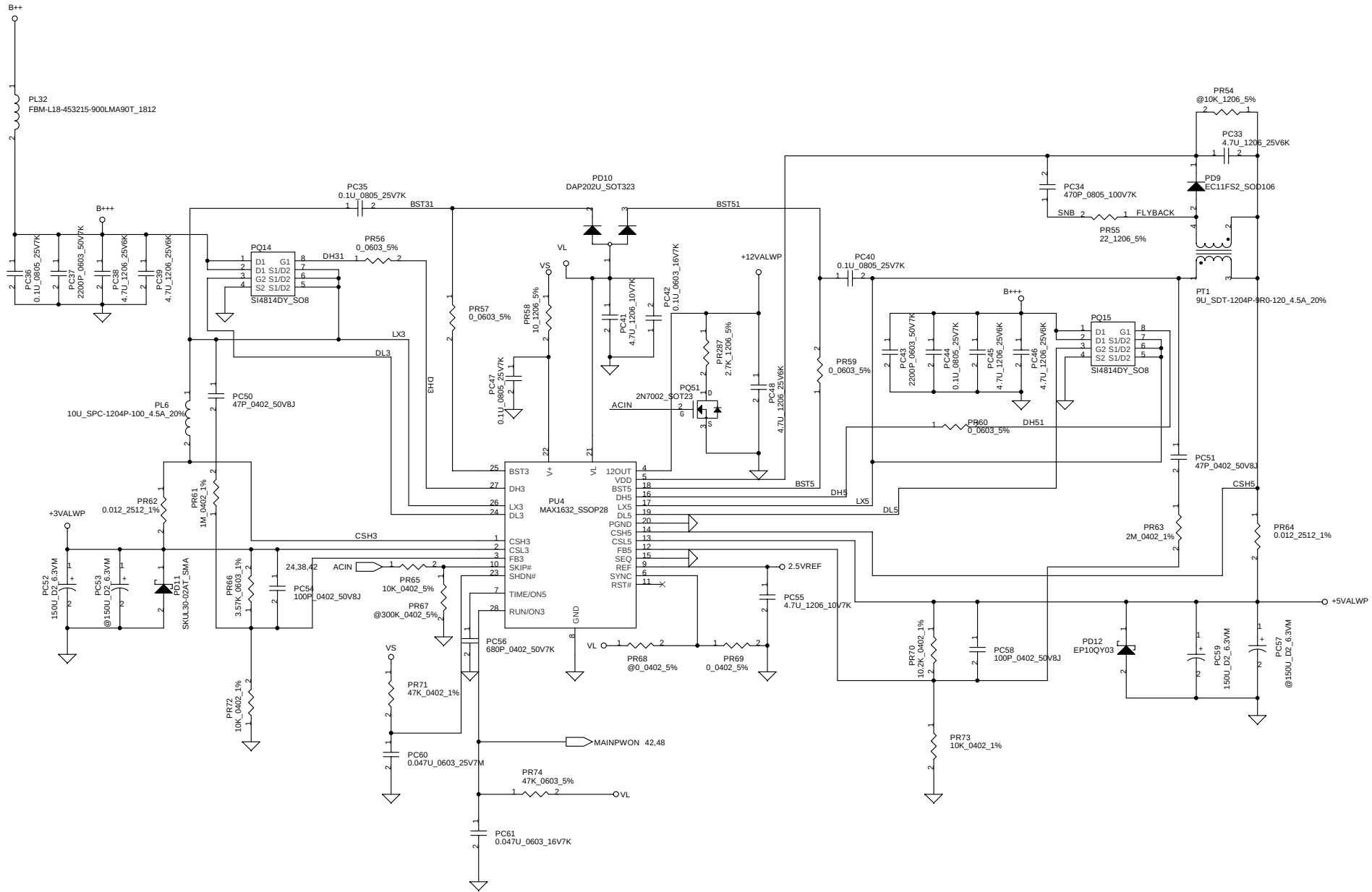
Precharge detector
 8.555 8.247 7.945
 5.926 5.752 5.382



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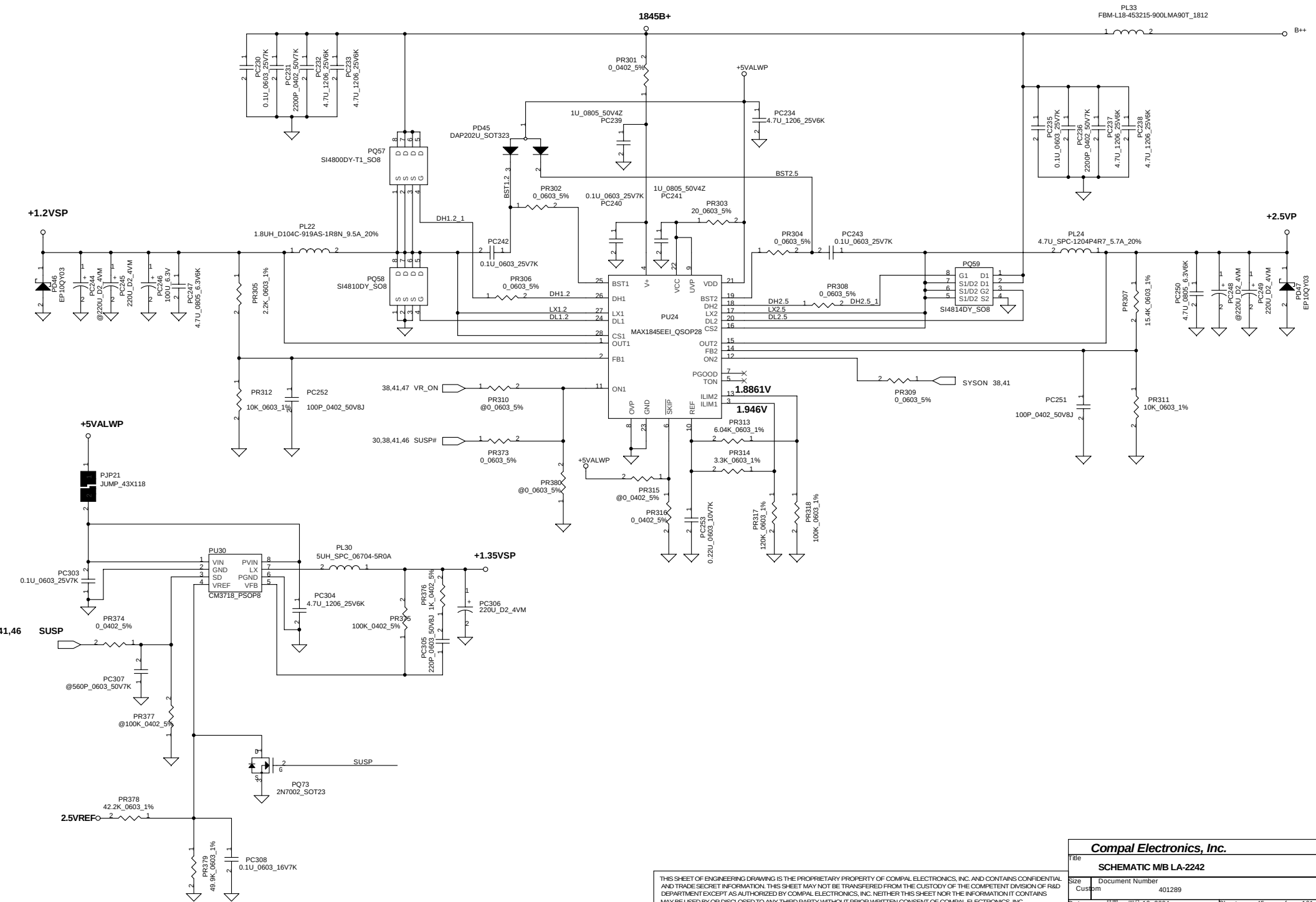


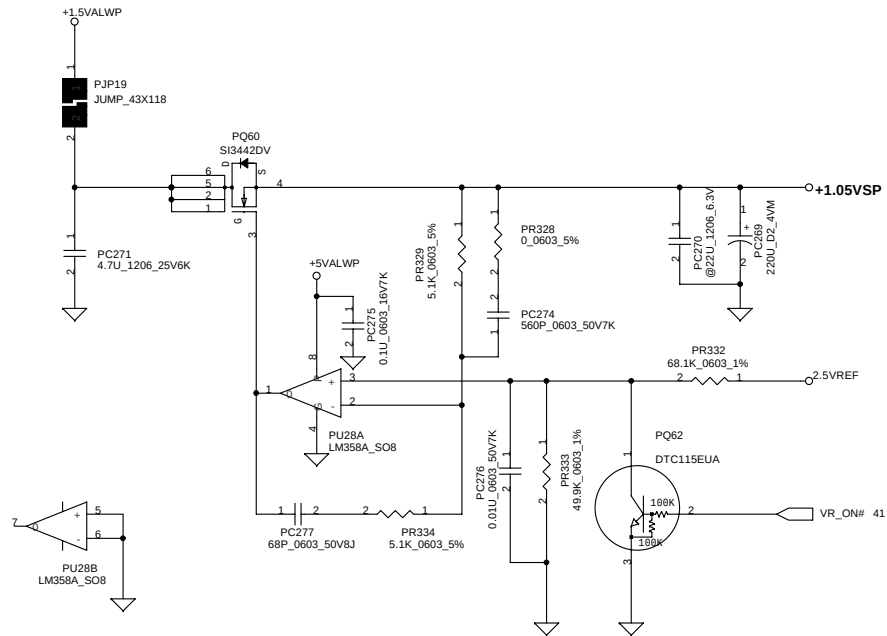
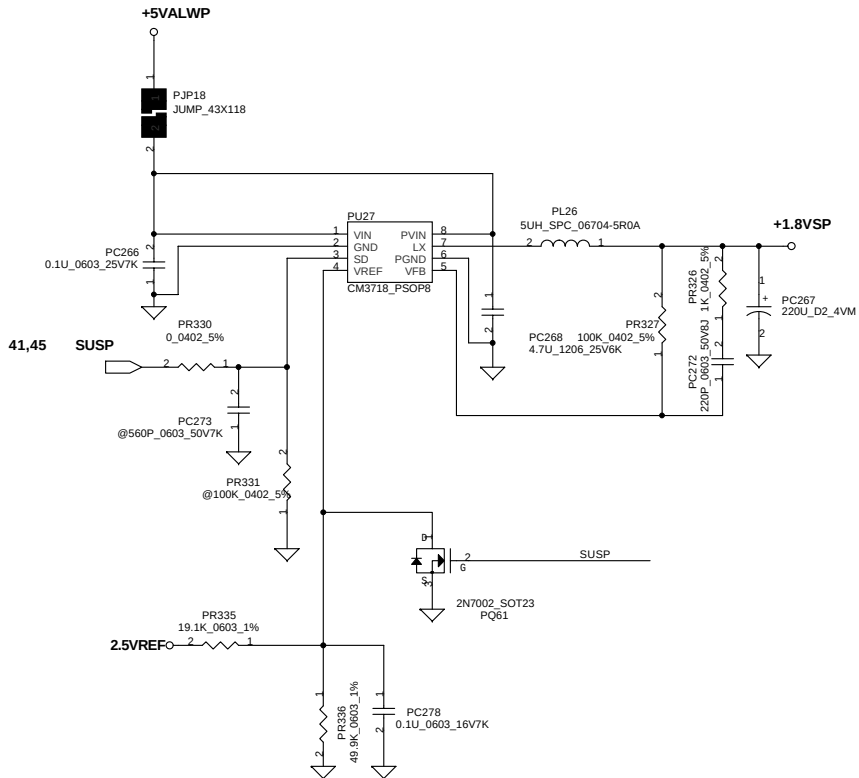
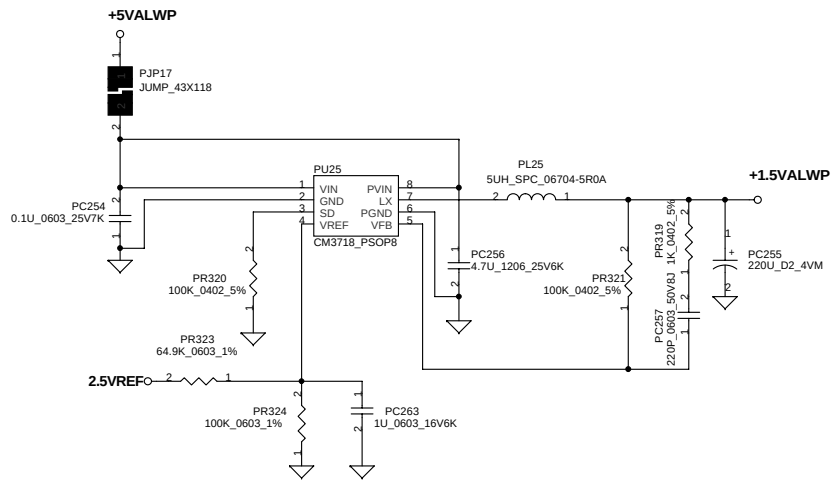


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+2.5VP/+1.2VSP/+1.35VSP

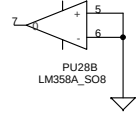




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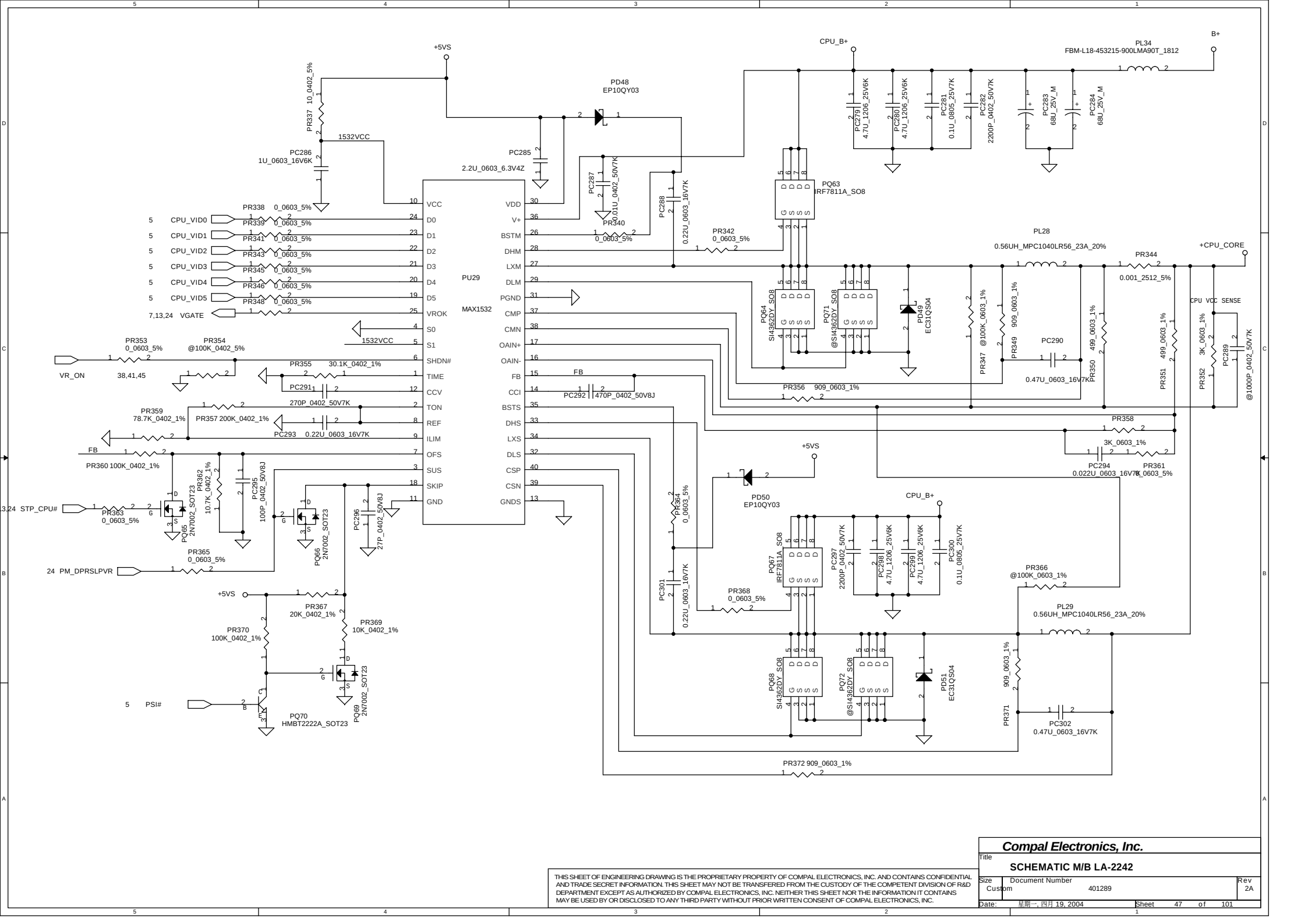
+2.5VP

30,38,41,45 SUSP#



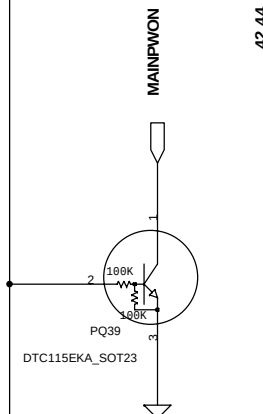
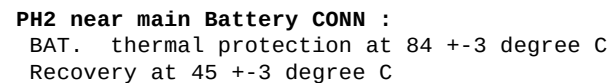
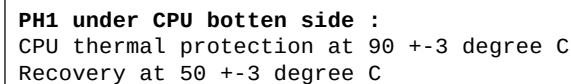
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Version change list (P.I.R. List)

Power section

Item	Reason for change	PG #	Modify List	Date	B.Ver #
1	1.05V oscillate	46	Delete PC270 and add PC269 (220u D2).	2004.02.07	
2	The single "SUSP" will be pull down to 2.2V	45 46	Delete PR331 and PR377.	2004.02.07	
3	To reduce the response time, when charger into CP mode.	43	Change PR81 from 22K to 100K.	2004.02.07	
4	For EMI request	43;44;45;47	Delete PL5,PL7,PL23,PL27 Change PQ63 and PQ67 to IRF7821 Change PR340 and PR364 to 2.2 ohm	2004.02.11	
5	To speed up 1.8V, 1.35V 1nd 1.05V	45 46	Change PR336, PR333 and PR379 to 49.9K Change PC278 and PC308 to 0.1uF Change PR335 to 19.1K Change PR332 to 68.1K Change PR378 to 42.2K	2004.02.12	
6	To reduce +3VALWP power plane negative voltage	44	Change PD11 to SKUL30-02AT	2004.03.01	
7	For EMI request	43;44;45;47	Add PL31,PL32,PL33,PL34 Change PR342 and PR368 to 2.2 ohm Change PR340 and PR364 to 0 ohm	2004.03.01	
8	For EMI request	47	Change PR342 and PR368 to 0 ohm Change PQ63 and PQ67 to IRF7811A Change PQ64 and PQ68 to SI4362	2004.03.16	
9	Adjust Vin detector	42	Change PR167 to 100K_0603_0.1% Change PR172 to 24K_0603_0.1% Change PR170 to 22K_0603_1% Change PR166 to 1M_0402_1%	2004.03.16	

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

HW section

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Item	Reason for change	PG #	Modify List	Date	
1	PCI_AD[31..0],PCI_CBE#[0..3] reserved	P.27	Correct PCI_AD[31..0],PCI_CBE#[0..3]	2/4	EVT(Rev02)
2	VR_ON# pull up resistor	P.41	Change R254 from 100K to 10K	2/4	EVT(Rev02)
3	AGP Isolating circuit	P.7	Mount U39, unmount R372,R377,R388,R414	2/4	EVT(Rev02)
4	Change Codec to ALC250	P.39	Change U26 to ACL250, mount R242	2/4	EVT(Rev02)
5	Modify VGA strap pin	P.14	Mount R479,R489; unmount R437, R441,R443,R448	2/4	EVT(Rev02)
6	Enter Windows "Beep" noise	P.39	Del C209 and let U26 pin14,15,16 no connect	2/6	DVT(Rev03)
7	For LS-1993 NBA_PLUG signal	P.37	Del R541,Q31	2/6	DVT(Rev03)
8	For DFX	P.24,36,38	Change J1,J2,H22 footprint	2/6	DVT(Rev03)
9	Change USB Power Switch to RT9701CBL	P.34	Change U34,U35, Del R291,R292,R313,R322,R329 Add R557,R558,R559,R560,R562,C685,C686	2/8	DVT(Rev03)
10	Change LAN LED circuit	P.27	Add R562	2/8	DVT(Rev03)
11	For EMI	P.13,16,17 ,23,35,37	Del L15,L16,L31,L28,L23,R542,R543,R283,R284,R471	2/11	DVT(Rev03)
12	Unpoped 0.1UF capacitor for EMI request	P.12,16,17, 26,27,29,30	Del some 0.1UF capacitor for EMI request	2/12	DVT(Rev03)
13	For +LVDDR25 ripple	P.16	Unpoped C518 for LDO issue	3/4	PVT(Rev04)
14	Duplicate AGP_BUSY pill-up	P.24	Del R103	3/4	PVT(Rev04)
15	For BCM5788 +3V_LAN 0.2V leakage issue	P.27	Change VESD[1..3] to +3V_LAN(system power)	3/4	PVT(Rev04)
16	For BCM5788/BCM4401 difference	P.27,28	Del R369 and change T1 to 24ST0023-3 when use BCM4401	3/4	PVT(Rev04)
17	Vishay FIR issue(Nokia 61XX series)	P.32,33	Change U31 to TDFU6102; Poped R97 and change to 10K	3/4	PVT(Rev04)
18	For audio issue	P.35,40	Add Q33,Q34 and EC_MUTE to U17 pin.69 Connect BYPASS from U30 to U29, change R274 to 39K Connect EAPD to EC pin.29	3/4	PVT(Rev04)
19	To simplify Codec circuit	P.36	Unpoped C210,C252, Del Y5,R236,C192,C193 Add C690,C691	3/4	PVT(Rev04)
20	For EMI	P.37	Add C688,CP11,CP12	3/4	PVT(Rev04)

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DFL32 Schematics Document

Banias/Dothan uFCPGA with Intel 855GME + ICH4-M

2003-04-06

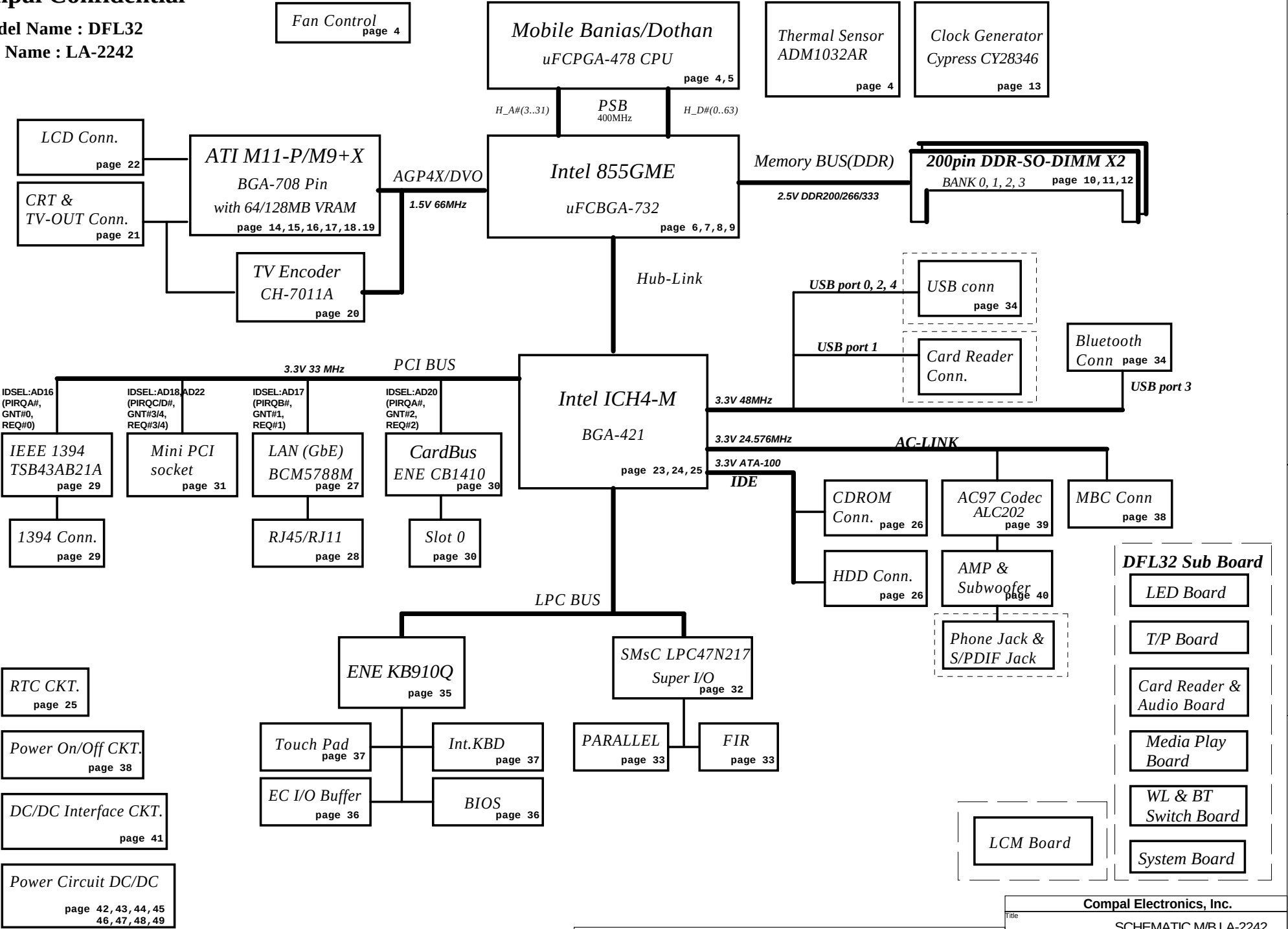
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Model Name : DFL32
File Name : LA-2242



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Voltage Rails

Power Plane	Description	S0-S1	S3	S5
VIN	Adapter power supply (19V)	N/A	N/A	N/A
B+	AC or battery power rail for power circuit	N/A	N/A	N/A
+CPU_CORE	Core voltage for CPU	ON	OFF	OFF
+VCCP	1.05V rail for Processor I/O	ON	OFF	OFF
+1.25VS	1.25V switched power rail for DDR Vtt	ON	OFF	OFF
+1.2VS	1.2V switched power rail for VGA core power	ON	OFF	OFF
+1.35VS	1.35V switched power rail for GMCH core power	ON	OFF	OFF
+1.5VALW	1.5V always on power rail	ON	ON	ON*
+1.5VS	1.5V switched power rail for AGP interface	ON	OFF	OFF
+1.8VS	1.8V switched power rail for CPU PLL & Hub-Link	ON	OFF	OFF
+2.5V	2.5V power rail for system DDR	ON	ON	OFF
+2.5VS	2.5V switched power rail	ON	OFF	OFF
+3VALW	3.3V always on power rail	ON	ON	ON*
+3V	3.3V switched power rail	ON	ON	OFF
+3VS	3.3V switched power rail	ON	OFF	OFF
+5VALW	5V always on power rail	ON	ON	ON*
+5VS	5V switched power rail	ON	OFF	OFF
+12VALW	12V always on power rail	ON	ON	ON*
RTCVCC	RTC power	ON	ON	ON

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

Internal PCI Devices

DEVICE	PCI Device ID
HUB	D30
USB	D29
AC97 MODEM	D31
AC97	D31
ATA 100	D31
ETHERNET	D8 (AD24)
LPC I/F	D31
SMBUS	D31

I2C / SMBUS ADDRESSING

DEVICE	HEX	ADDRESS
DDR SO-DIMM 0	A0	1 0 1 0 0 0 0 X
DDR SO-DIMM 1	A2	1 0 1 0 0 0 1 X
CLOCK GENERATOR (EXT.)	D2	1 1 0 1 0 0 1 X

External PCI Devices

DEVICE	PCI Device ID	IDSEL #	REQ/GNT #	PIRQ
1394	D0	AD16	0	E
LAN	D1	AD17	1	F
CARD BUS	D4	AD20	2	A
Wireless LAN	D2	AD18	3	G
Mini-PCI	D6	AD22	4	H
AGP BUS	N/A	AGP_DEVSEL#	N/A	A

Symbol note:

-  :means digital ground.
-  :means analog ground.
-  :means reserved.

AS2010,AS2020 Compare Table

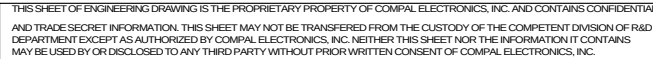
Item	* AS2020	AS2010(ATI)	AS2010(UMA)	Page
VGA	ATI M11P	ATI M11P	UMA	7, 9, 14, 15, 16, 17, 21, 22, 38
VRAM	128MB	64MB	N/A	14, 18, 19
TV Encoder	N/A	N/A	CH7011A	20
LAN	BCM5788M(GbE)	BCM4401(10/100)	BCM4401(10/100)	27, 28
S/PDIF	YES	N/A	N/A	N/A
Card Reader	YES	YES	N/A	N/A
Sub Woofer	YES	YES	N/A	33
LCM/B	YES	N/A	N/A	37, 39
MEDIA/B	YES	N/A	N/A	40

Board ID/ Project ID Table for AD channel

Vcc	3.3V +/- 5%			
Ra	10K +/- 5%			
BID/PID	Rb/Rc	VAD_BID min	VAD_BID typ	VAD_BID max
0	0	0 V	0 V	0 V
1	8.2K +/- 5%	1.412 V	1.486 V	1.560 V
2	18K +/- 5%	2.015 V	2.121 V	2.227 V
3	33K +/- 5%	2.406 V	2.533 V	2.659 V
4	56K +/- 5%	2.660 V	2.800 V	2.940 V
5	NC	3.135 V	3.300 V	3.465 V

Board ID	PCB Revision
0	0.1
1	0.2
2	0.3
* 3	0.4
4	
5	
6	
7	

Project ID	Project
* 0	Drongo2(M11)
1	Drongo3(M11)
2	Drongo4
3	Drongo3(M9+X)
4	
5	
6	
7	



Dothan VCCA update(WW45 2003)
Dothan B-Step support 1.5V only for VCCA

Resistor placed within
0.5" of CPU pin.Trace
should be at least 25
miles away from any
other toggling signal.

Resistor placed within
0.5" of CPU pin.Trace
should be at least 25
miles away from any
other toggling signal.

Banias

POWER, GROUND, RESERVED SIGNALS AND NC

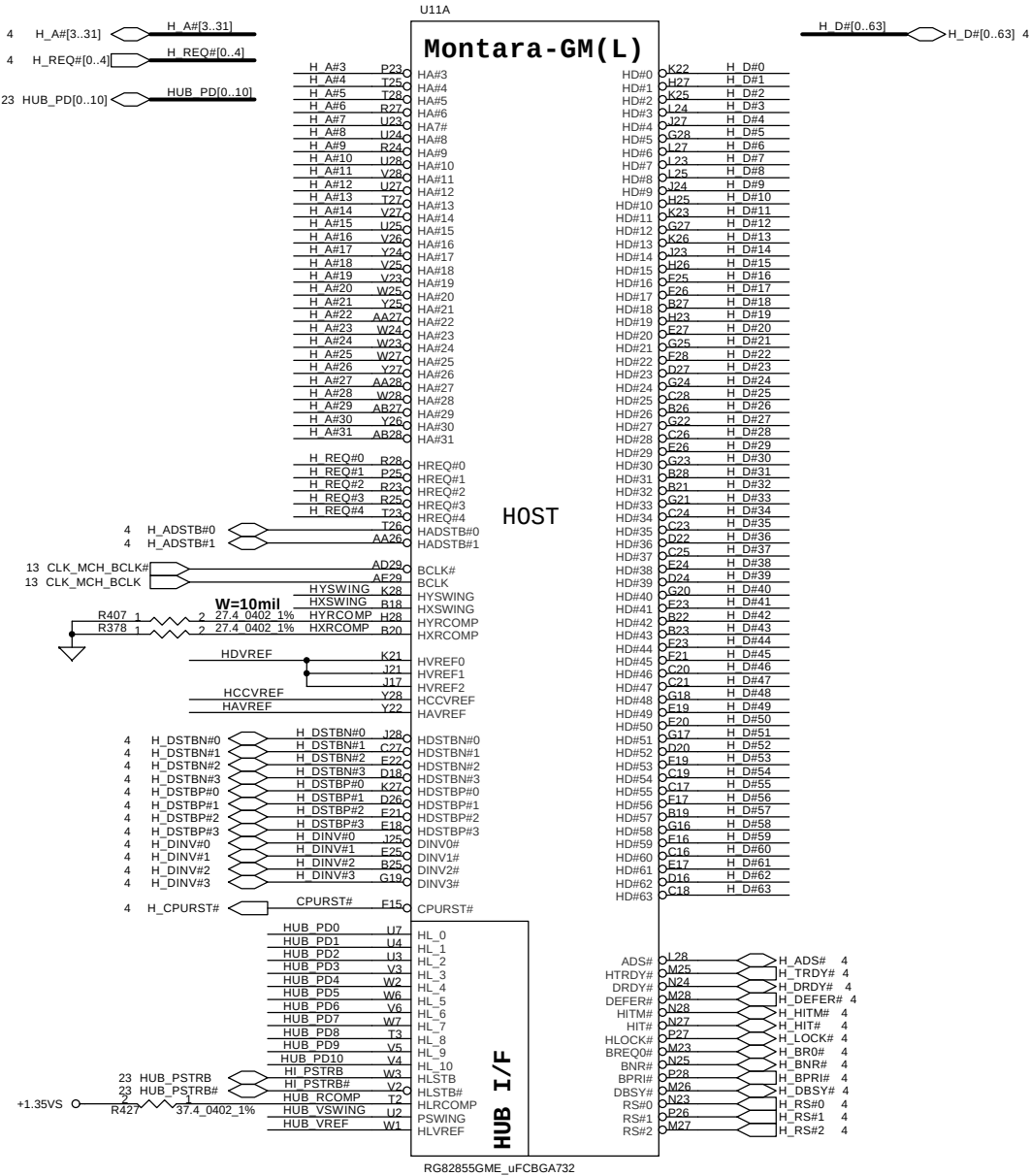
Banias

POWER, GROUND

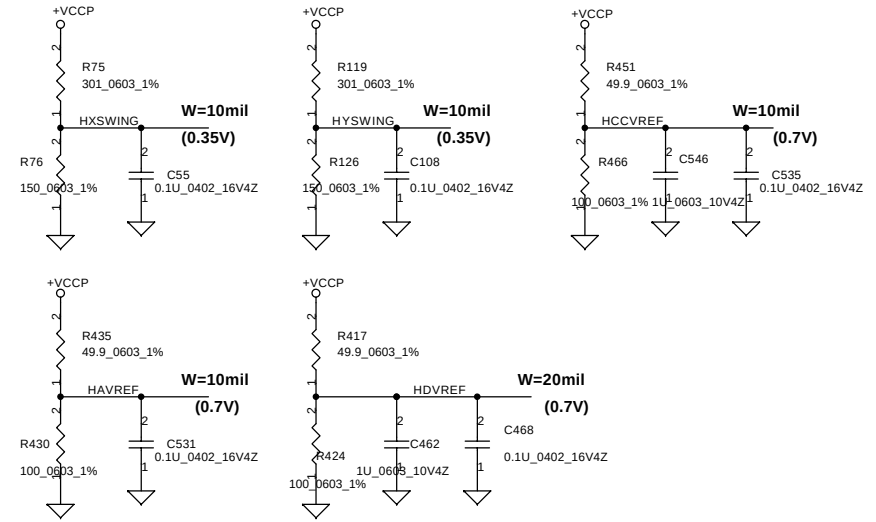
Vcc-core Decoupling	C, uF	ESR, mohm	ESL, nH
SPCAP, Polymer	4X220uF	12m ohm/4	3.5nH/4
MLCC 0805 X5R	35X10uF	5m ohm/35	0.6nH/35

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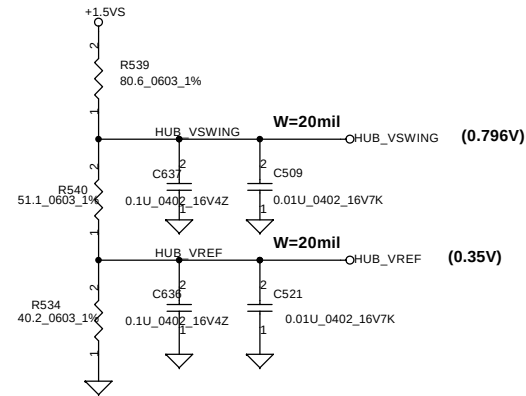
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HOST REF VOLTAGE



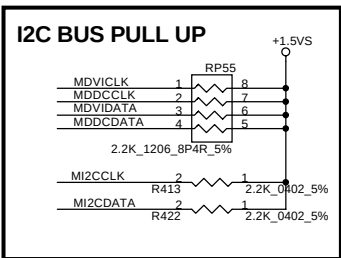
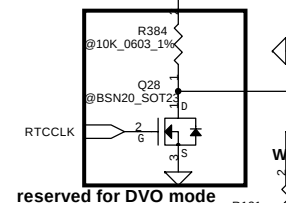
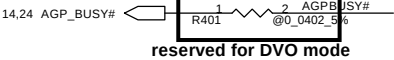
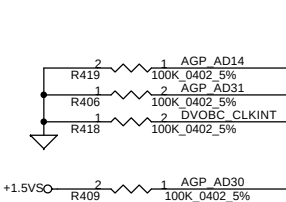
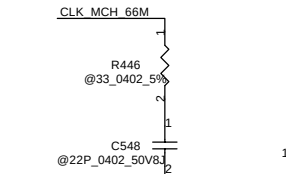
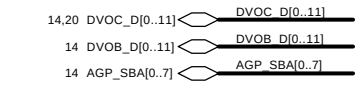
HUB I/F REF VOLTAGE



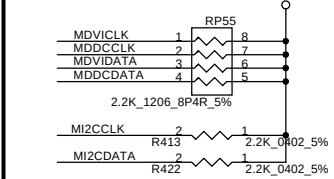
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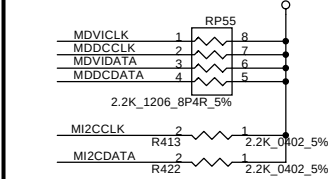
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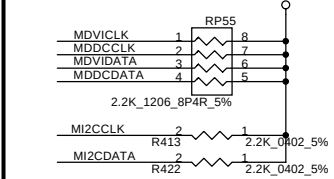
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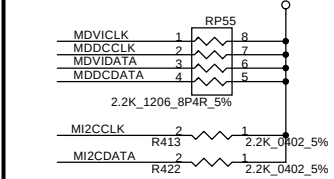
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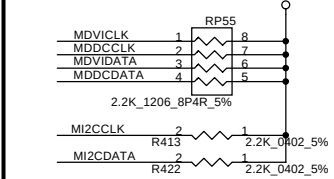
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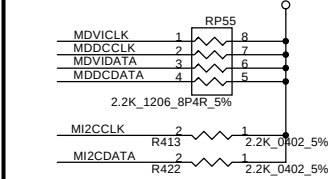
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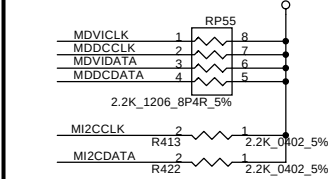
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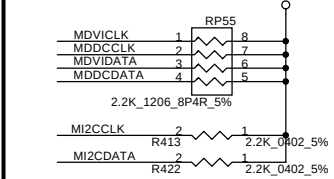
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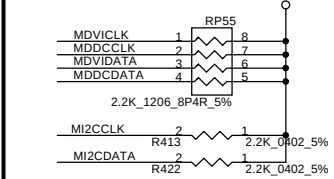
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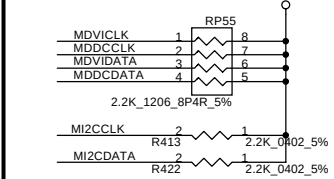
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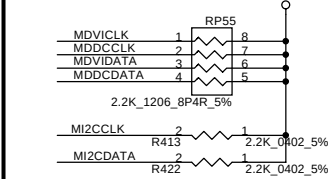
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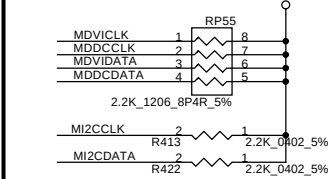
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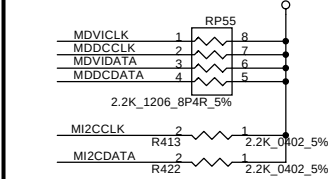
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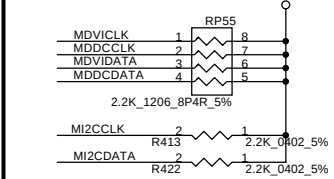
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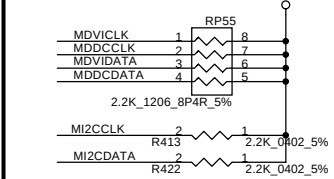
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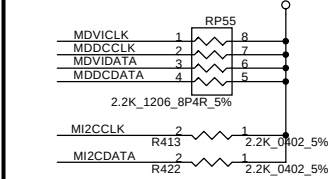
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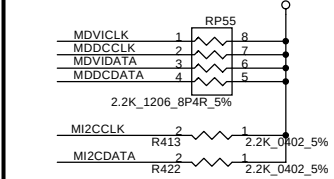
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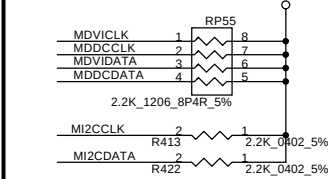
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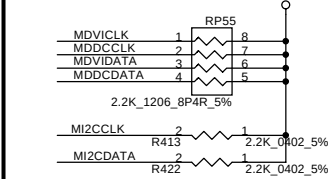
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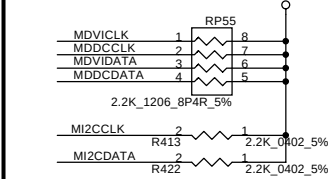
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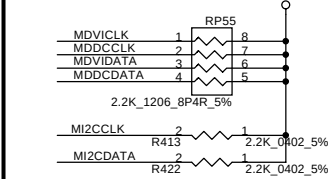
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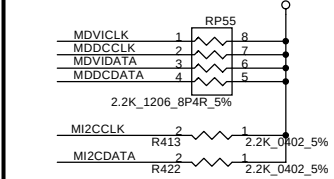
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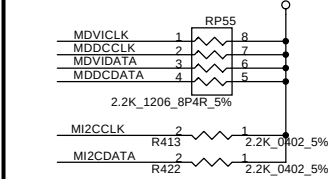
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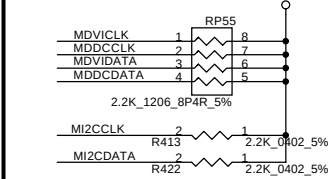
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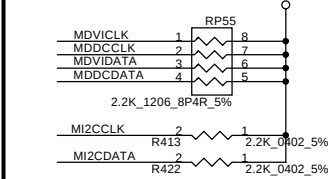
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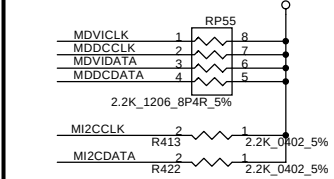
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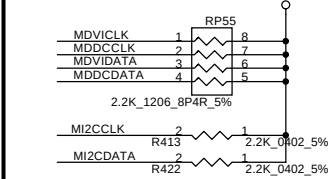
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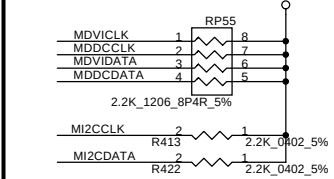
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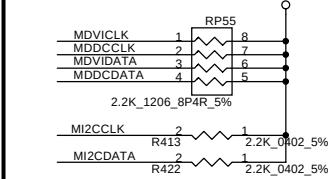
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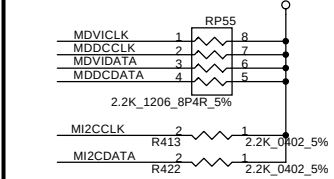
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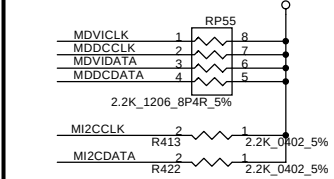
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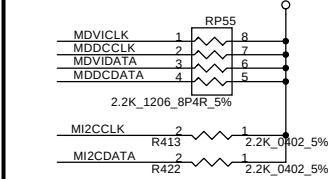
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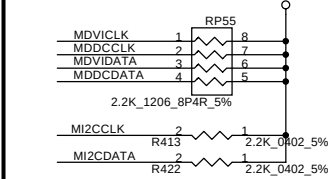
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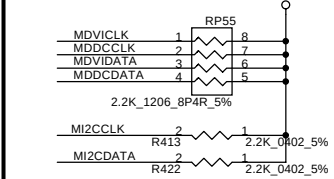
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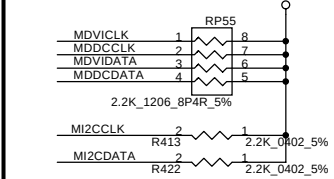
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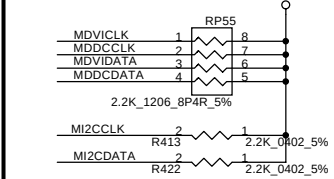
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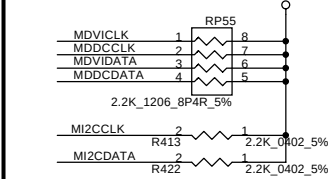
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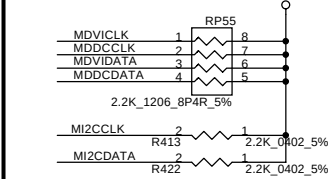
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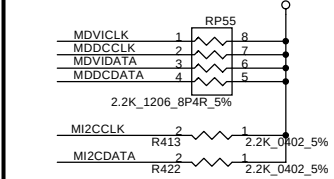
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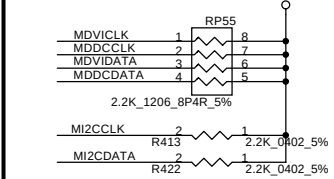
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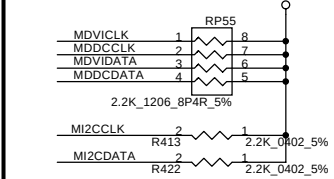
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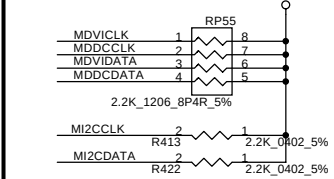
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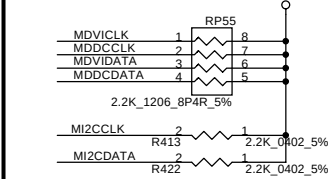
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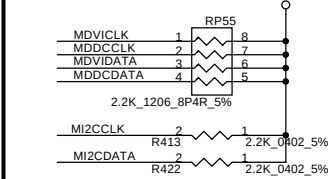
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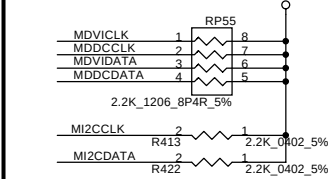
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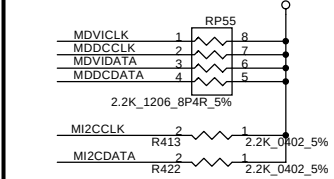
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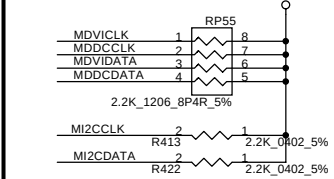
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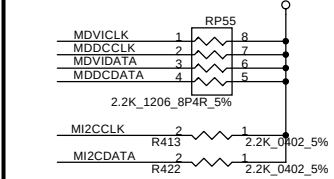
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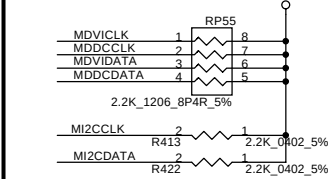
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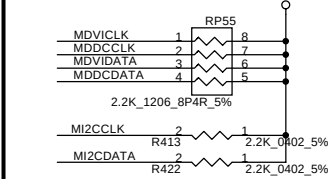
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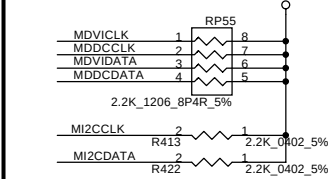
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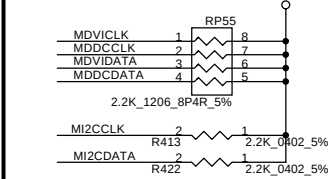
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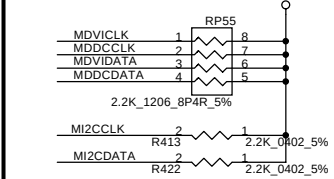
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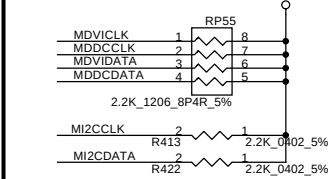
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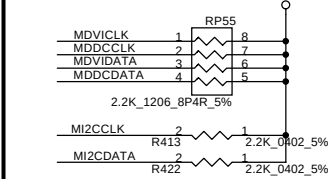
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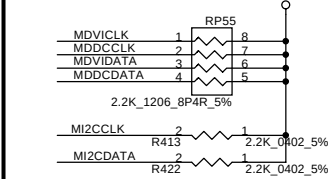
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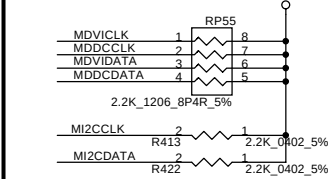
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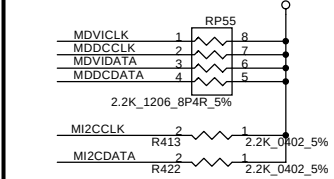
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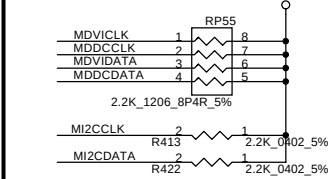
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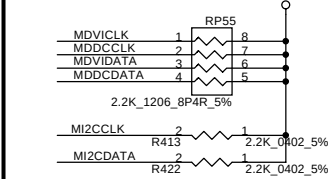
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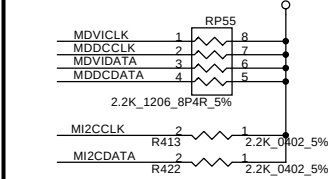
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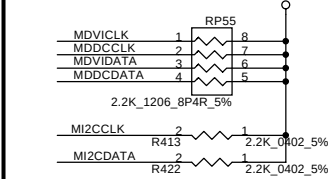
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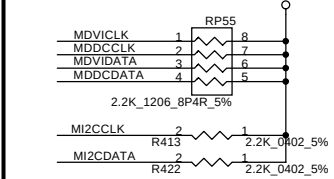
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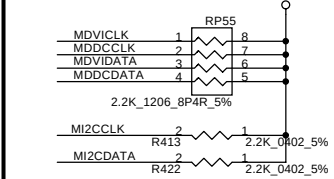
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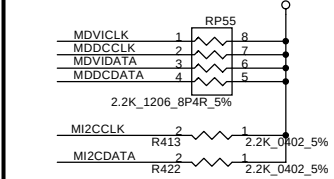
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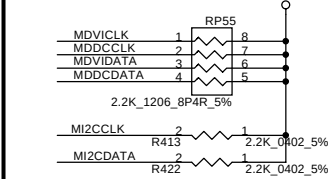
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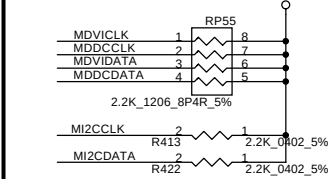
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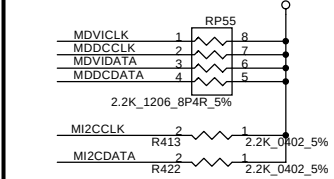
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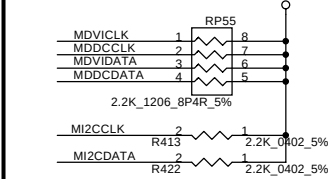
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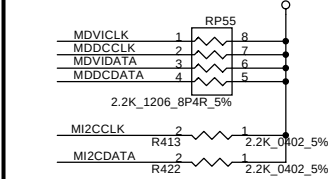
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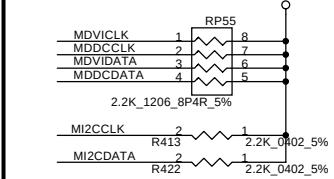
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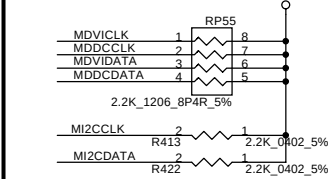
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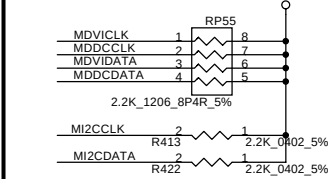
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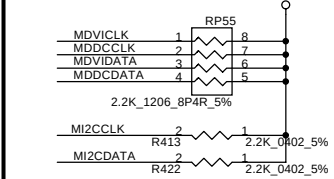
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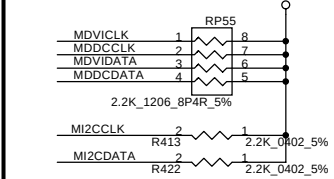
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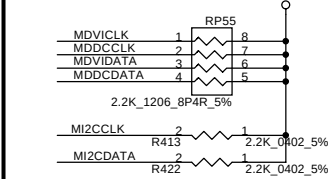
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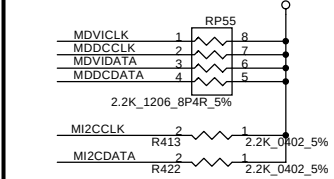
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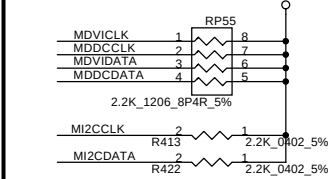
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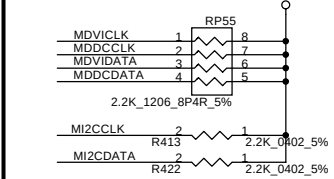
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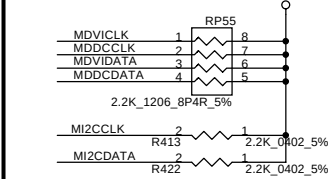
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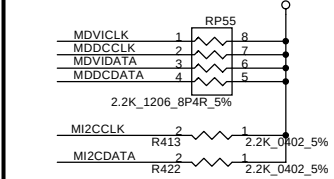
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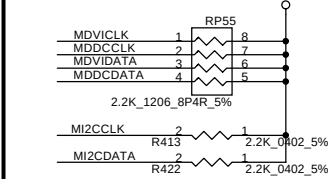
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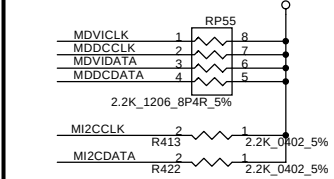
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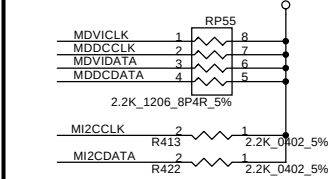
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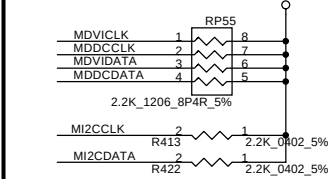
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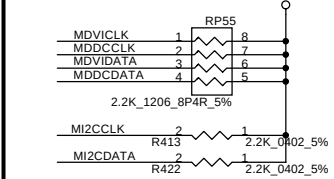
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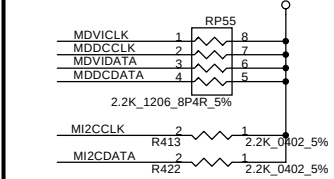
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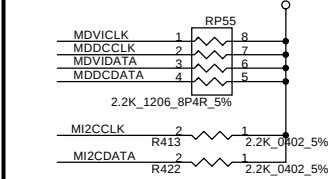
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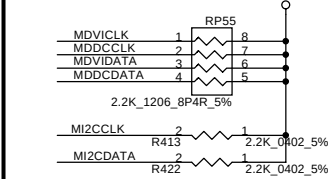
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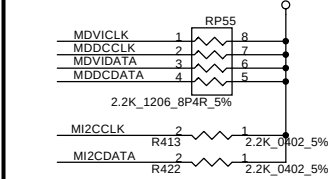
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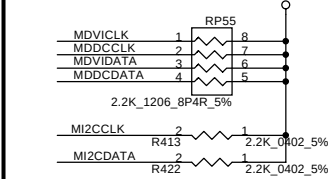
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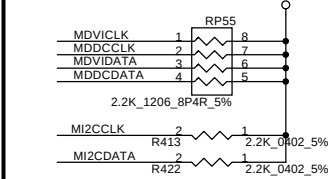
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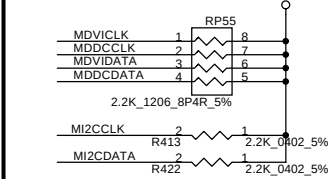
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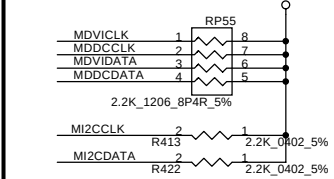
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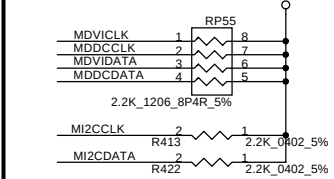
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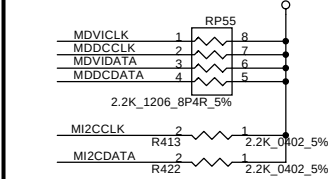
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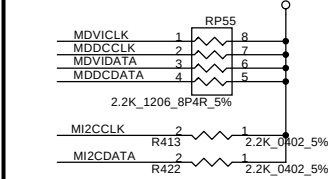
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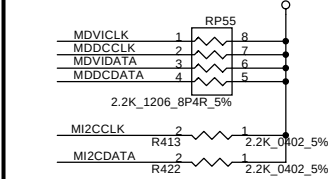
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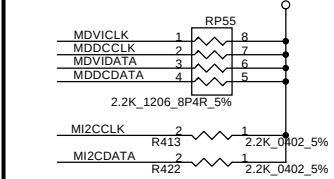
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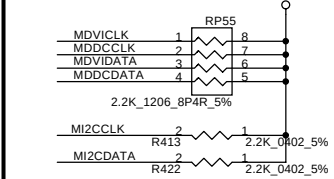
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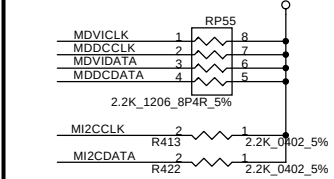
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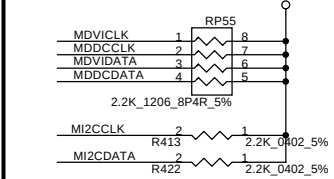
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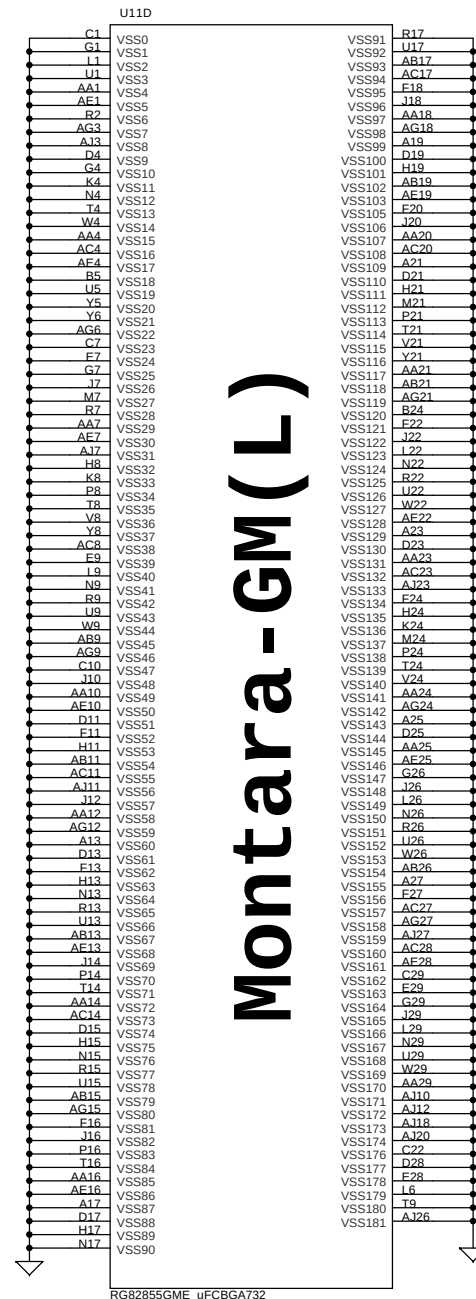
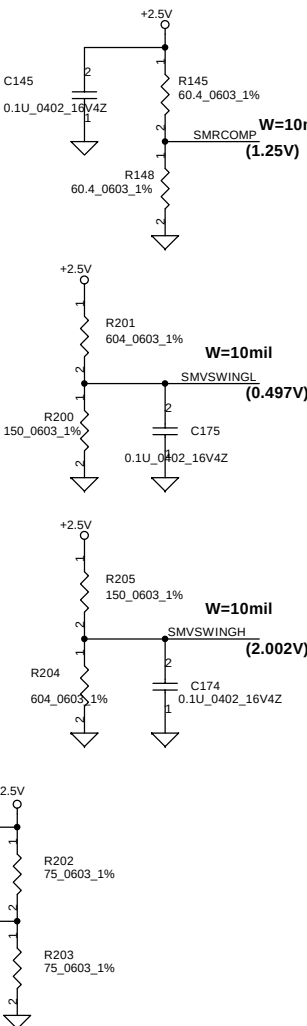
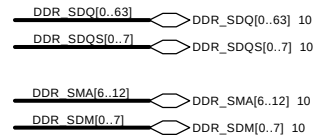
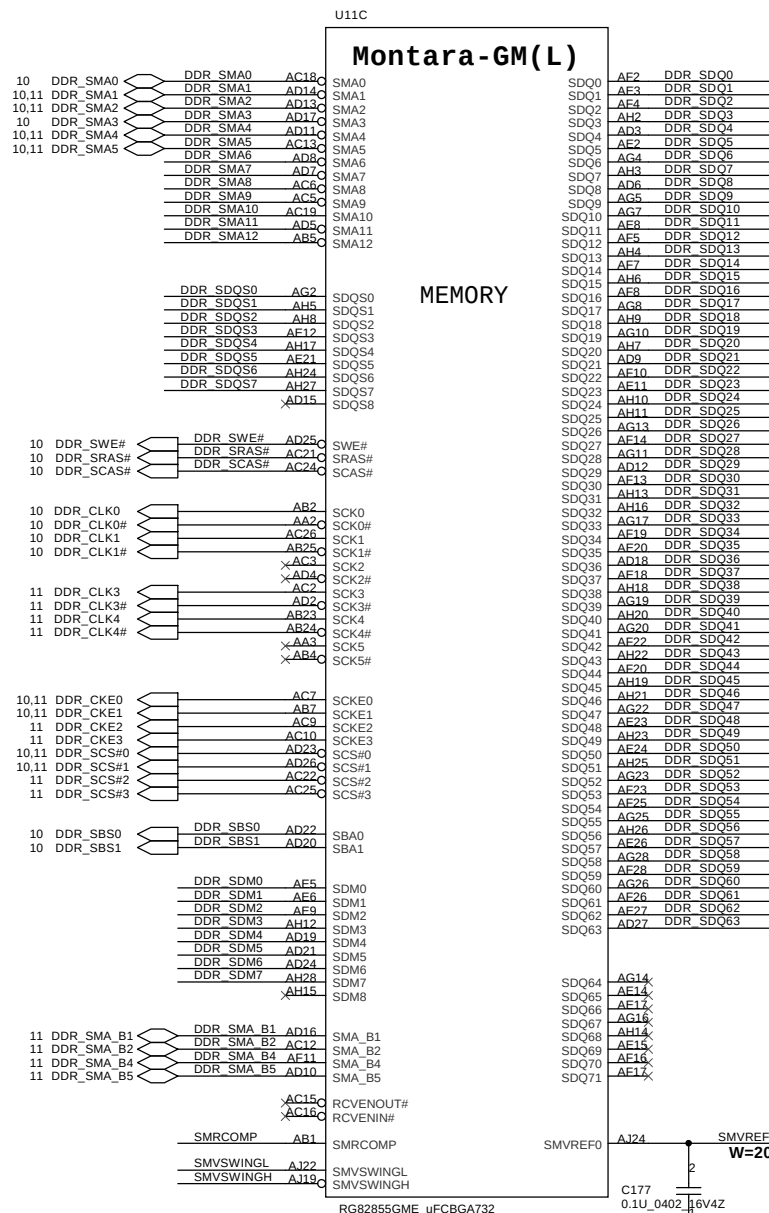


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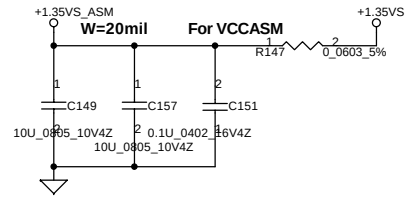
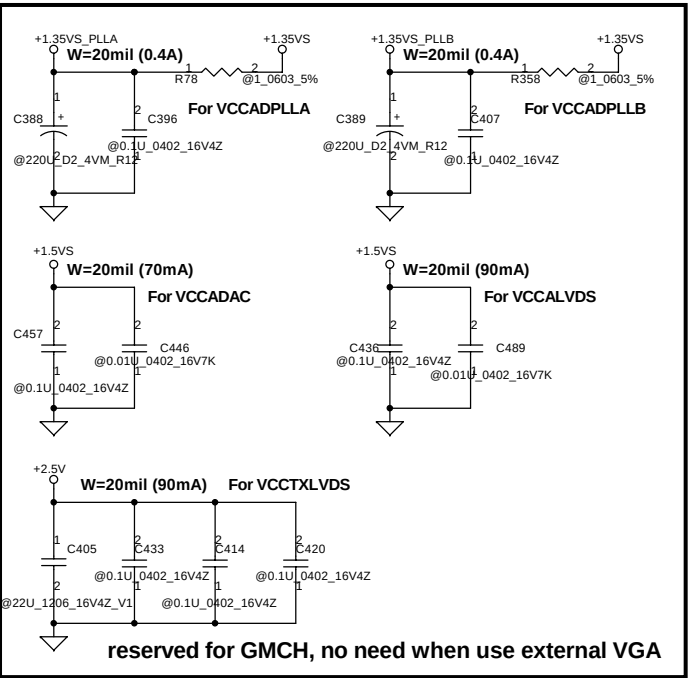
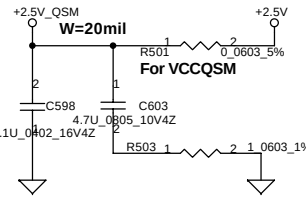
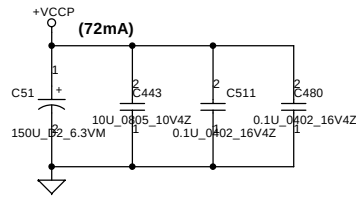
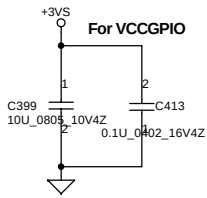
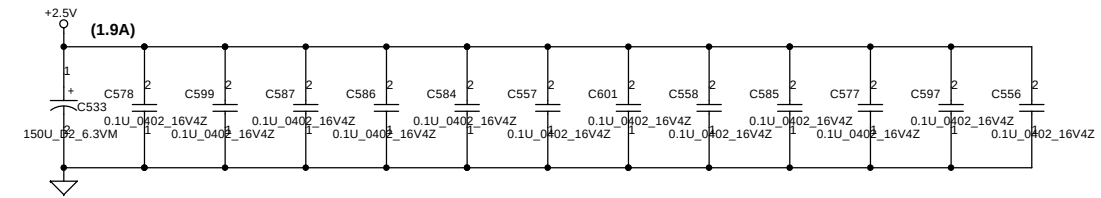
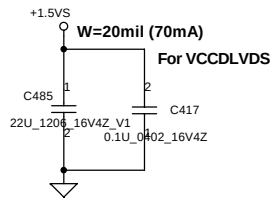
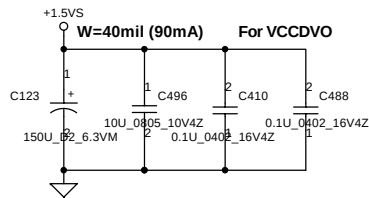
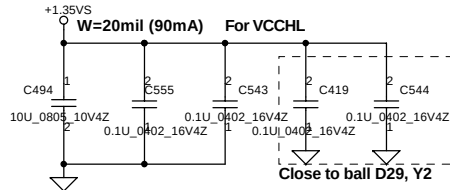
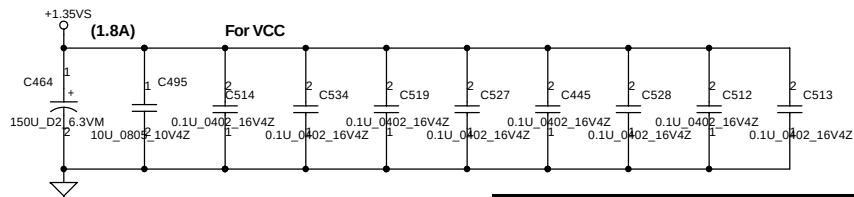
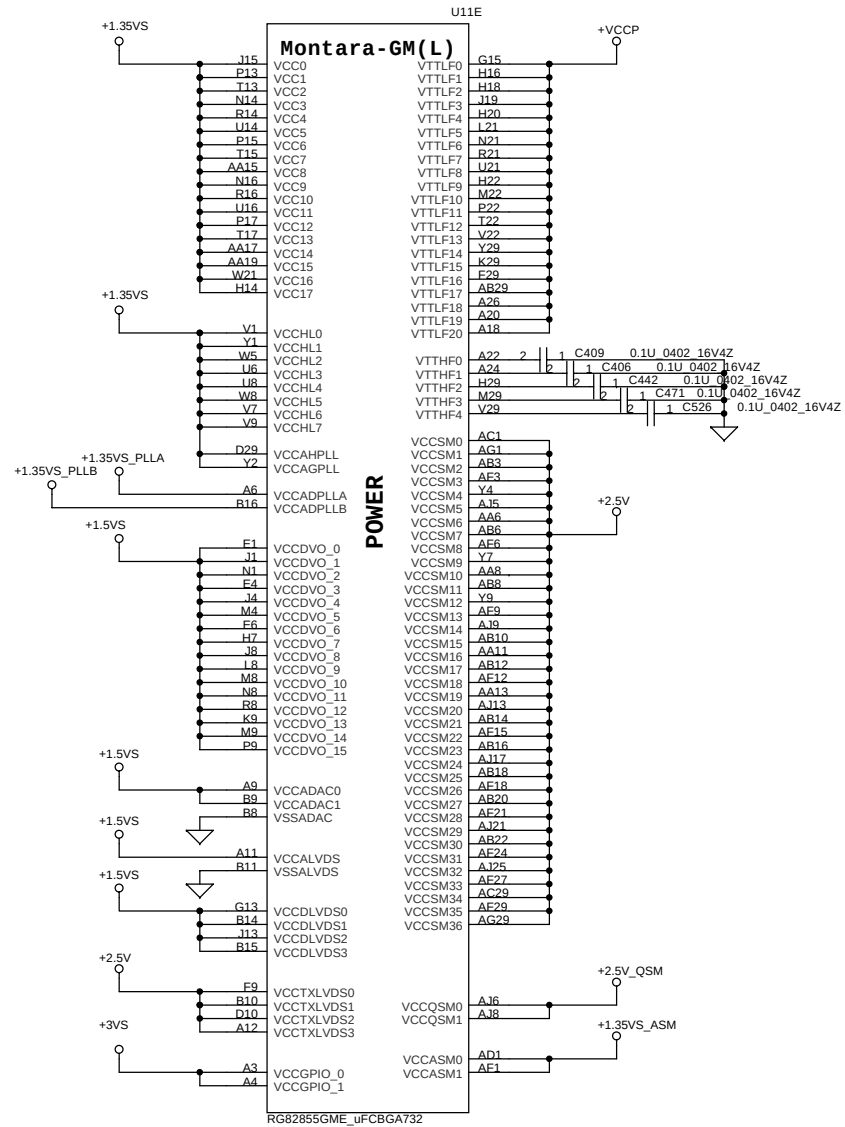


I2C BUS PULL UP



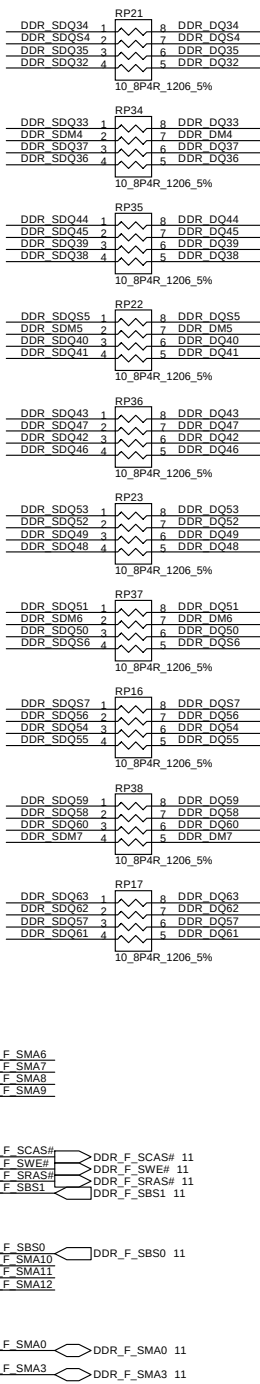
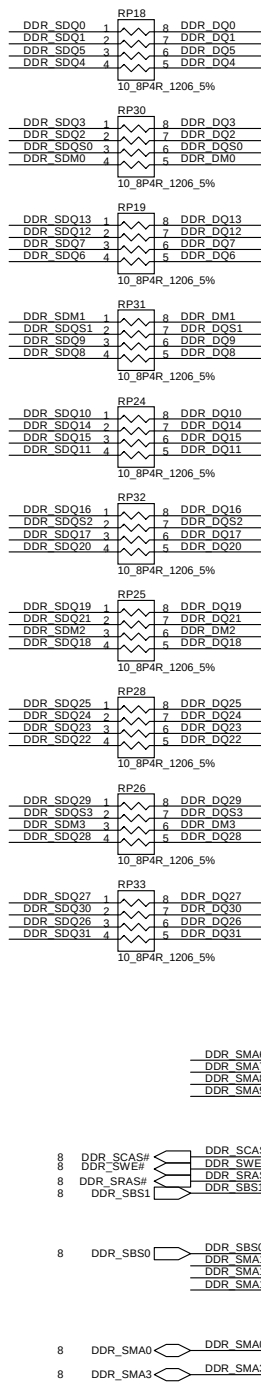


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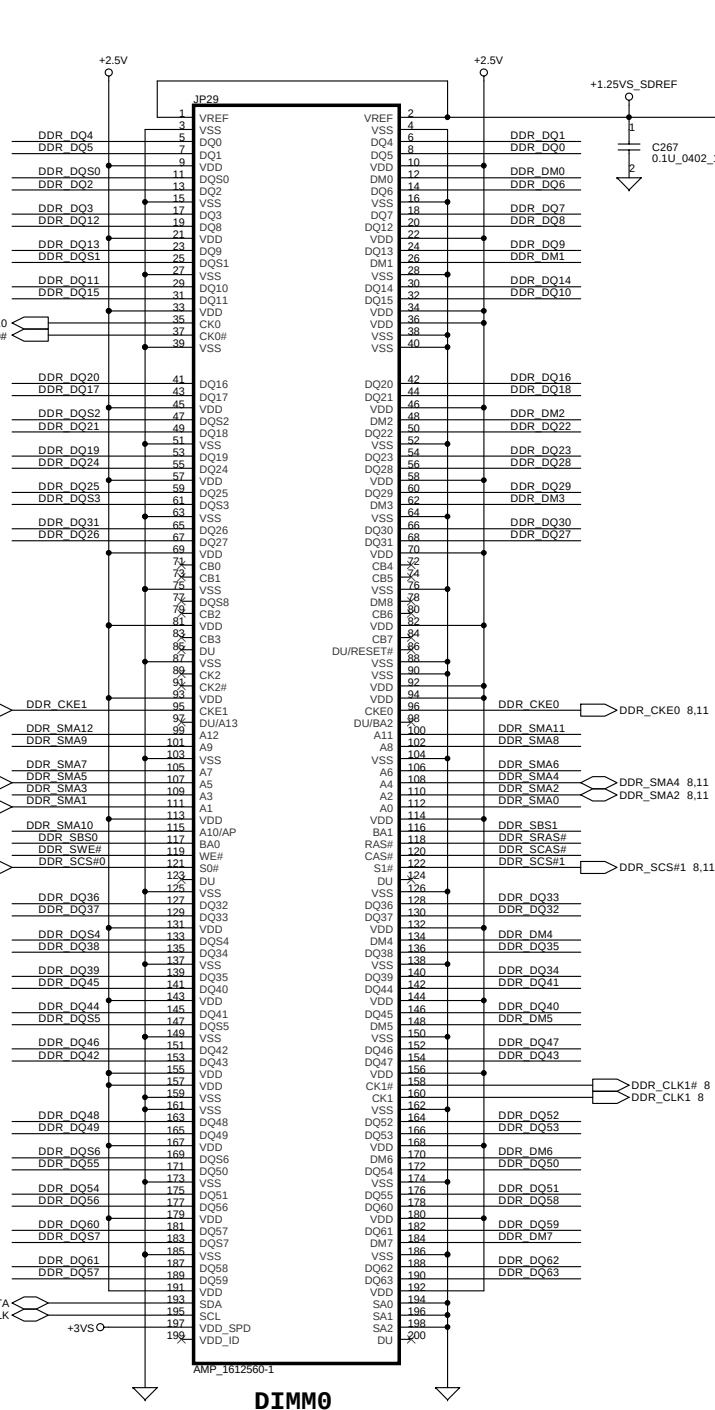
Compal Electronics, Inc.			
Title	SCHEMATIC M/B LA-2242		
Size	Document Number	Rev	
	401289	2A	
Date:	星期四, 四月 19, 2004	Sheet	59 of 101



8 DDR_CLK0
8 DDR_CLK0#

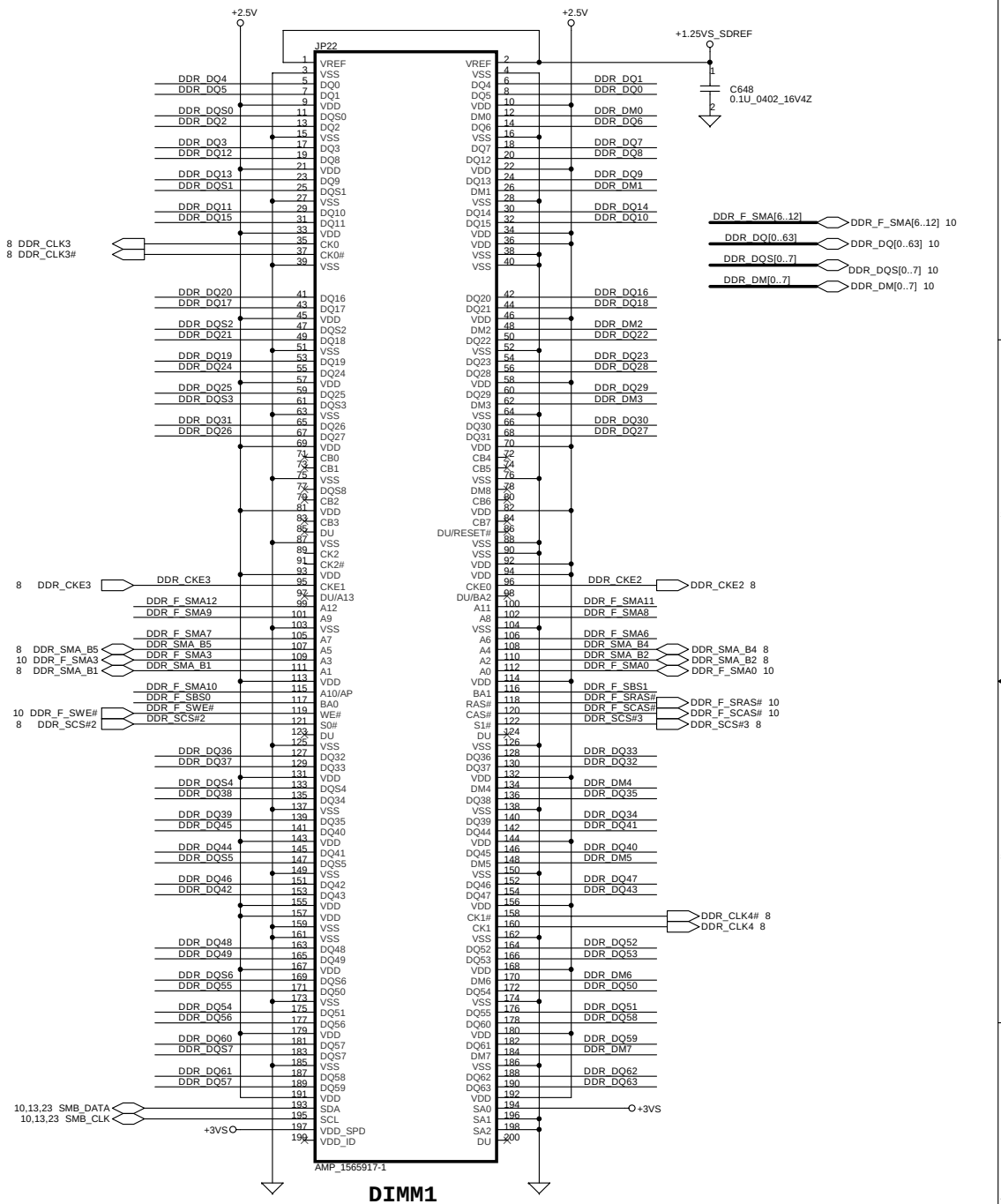
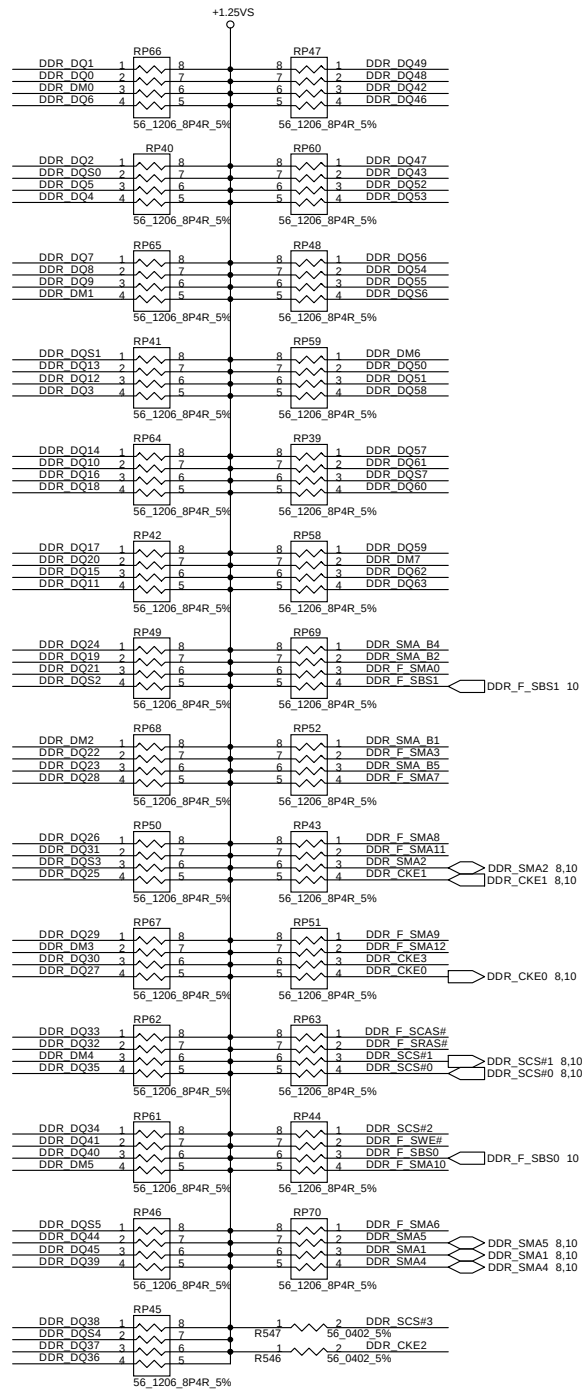
8.11 DDR_CKE1
8.11 DDR_SMA5
8.11 DDR_SMA1
8.11 DDR_SCS#0

11.13.23 SMB_DATA
11.13.23 SMB_CLK



Compal Electronics, Inc.			
Title			
SCHEMATIC M/B LA-2242			
Size	Document Number	Rev	
	401289	2A	
Date:	日期: 四月 19, 2004	Sheet	60 of 101

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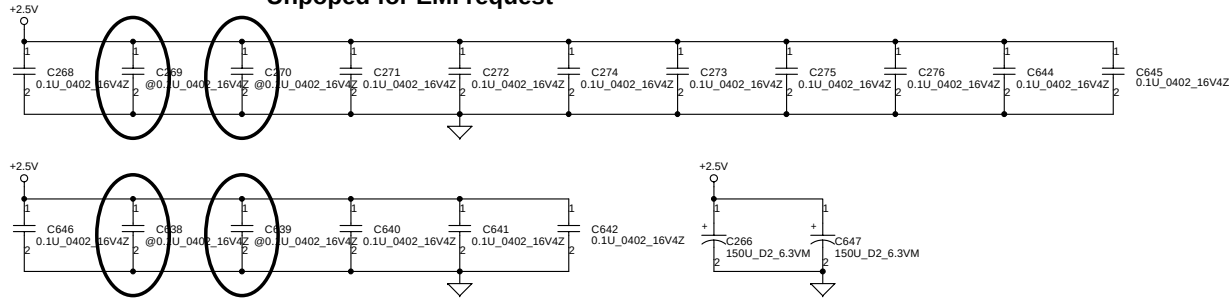


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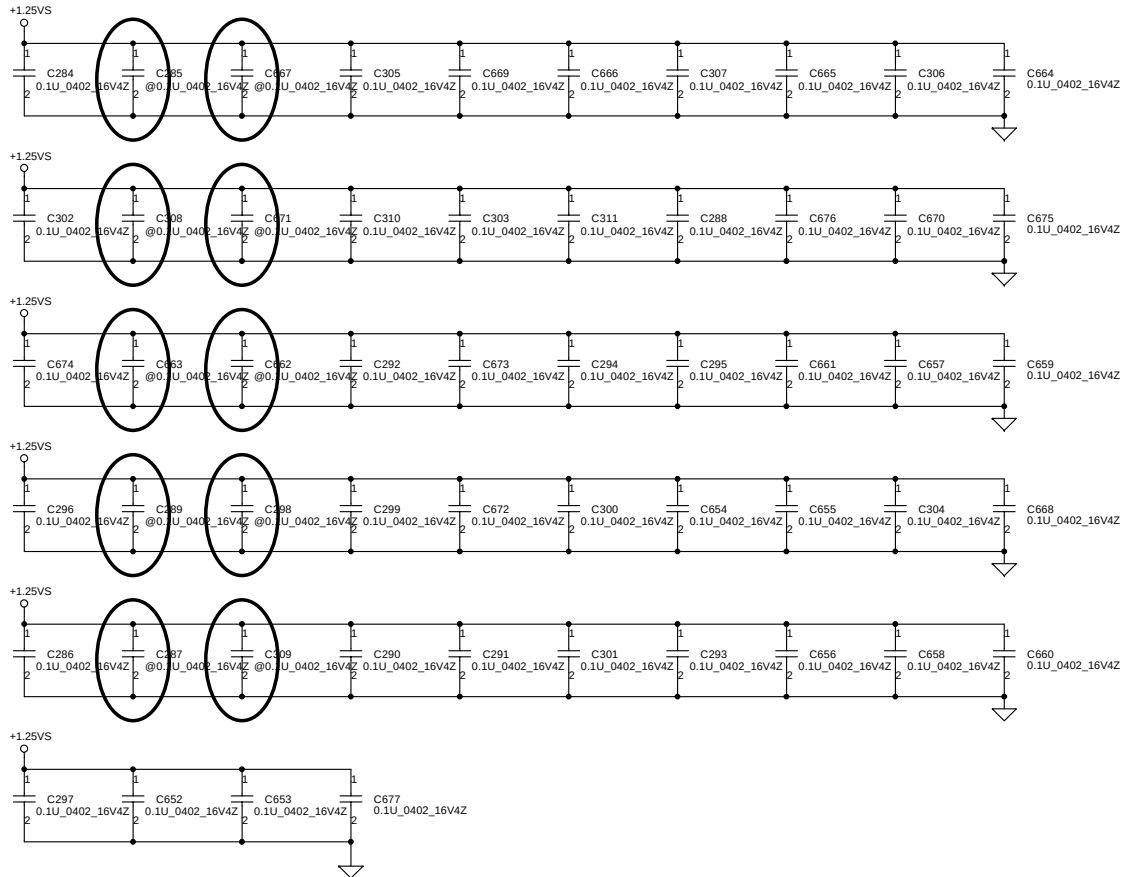
Compal Electronics, Inc.			
Title			
SCHEMATIC M/B LA-2242			
Size	Document Number	Rev	
	401289	2A	
Date:	日期: 四月 19, 2004	Sheet	61 of 101

Layout note :
Distribute as close as possible
to DDR-SODIMM.

Unpoped for EMI request



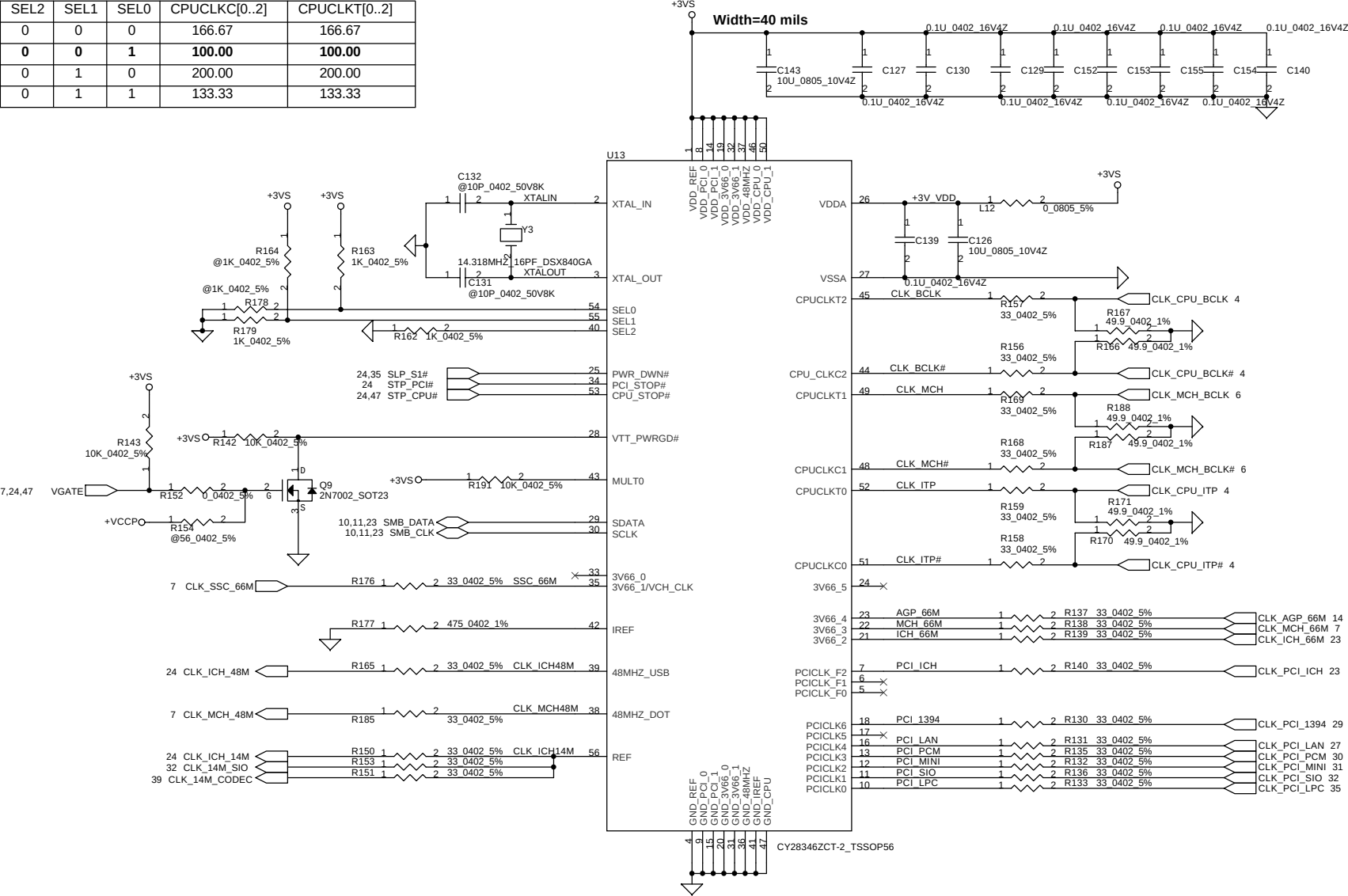
Layout note :
Place one cap close to every 2 pull up resistors termination to
+1.25V



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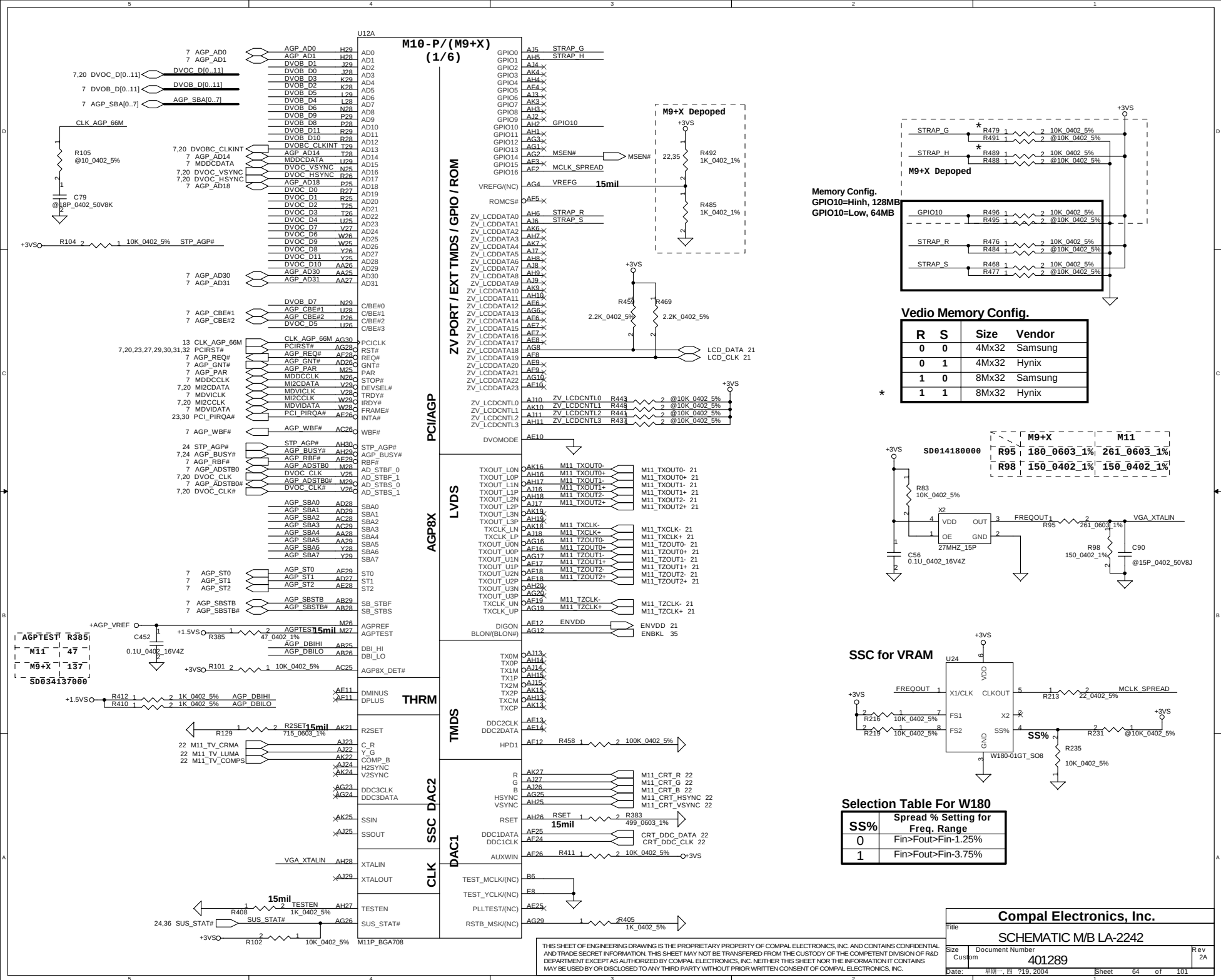
Compal Electronics, Inc.			
Title			
SCHEMATIC M/B LA-2242			
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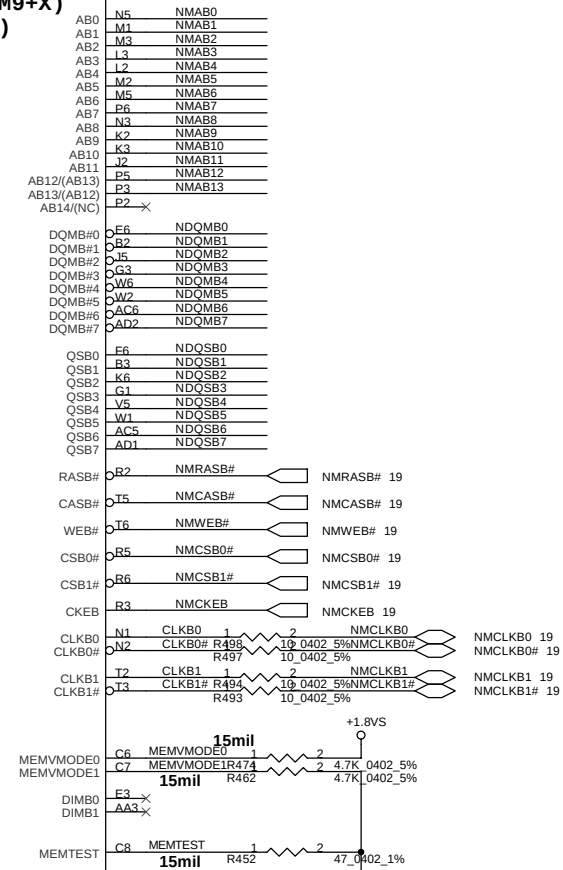
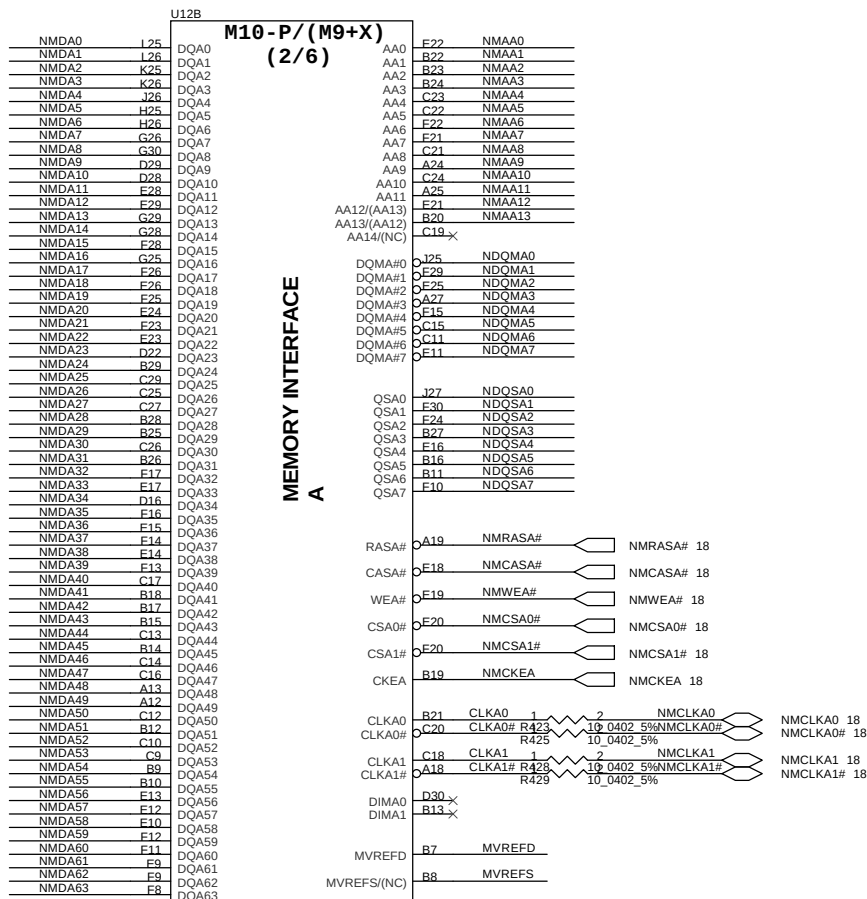
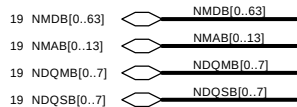
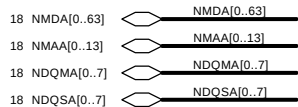
SEL2	SEL1	SEL0	CPUCLKC[0..2]	CPUCLKT[0..2]
0	0	0	166.67	166.67
0	0	1	100.00	100.00
0	1	0	200.00	200.00
0	1	1	133.33	133.33

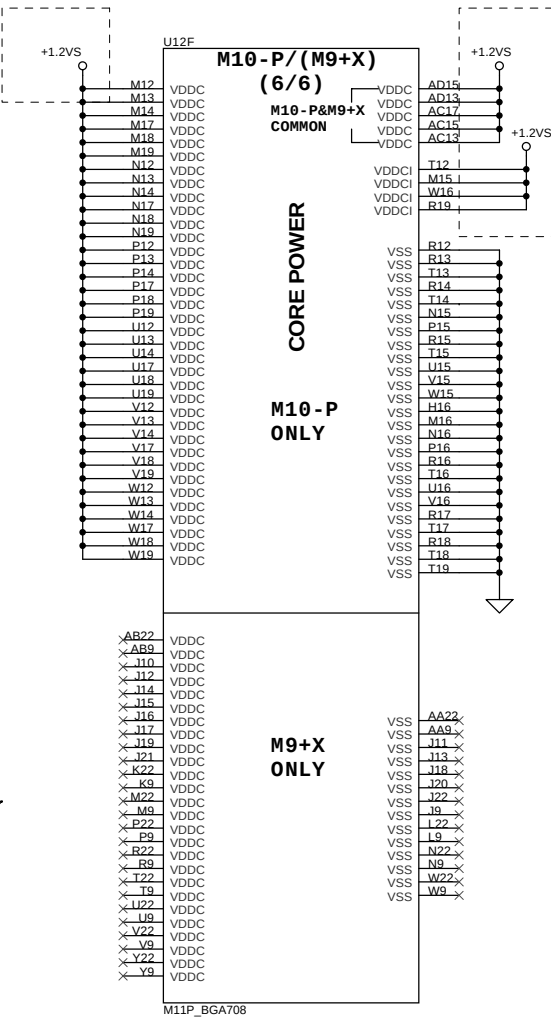
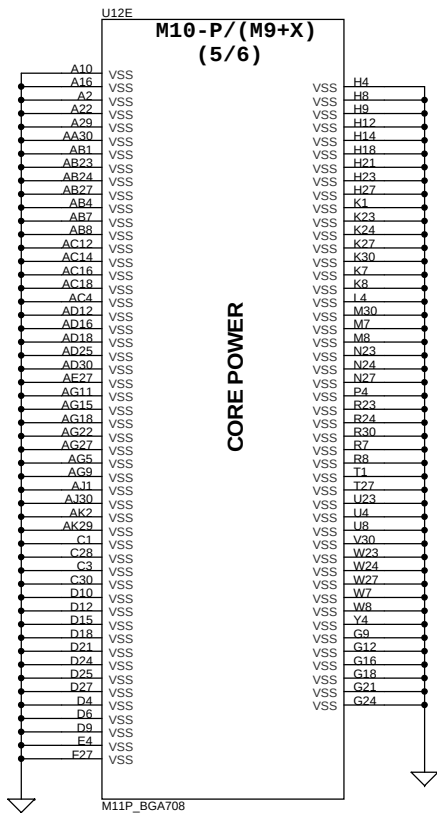


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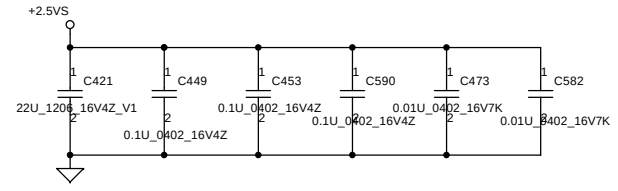
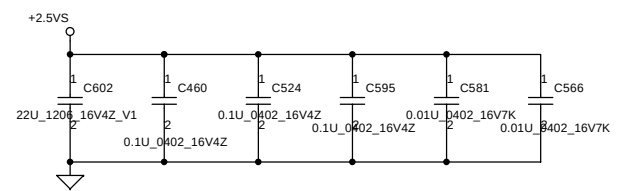
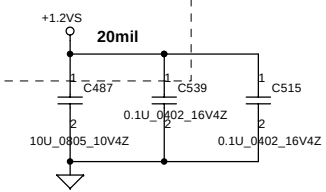
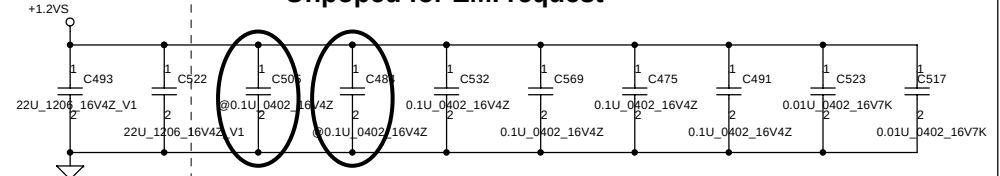






For VGA CORE:
(M11 +VGA_CORE = 1.2V)
(M9+X +VGA_CORE = 1.5V)

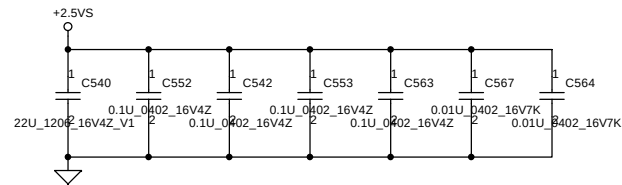
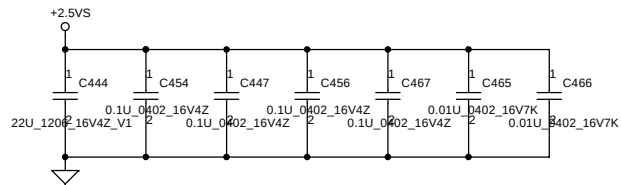
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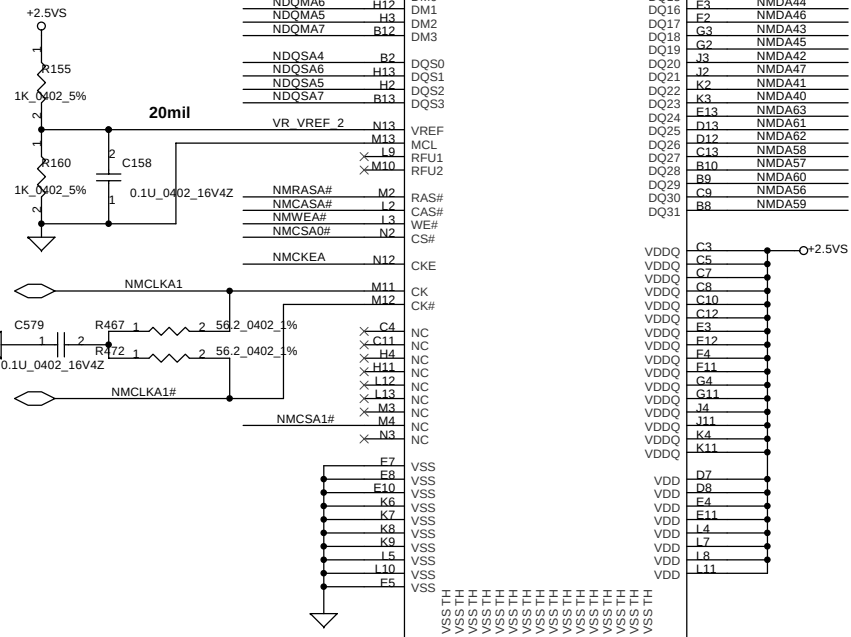
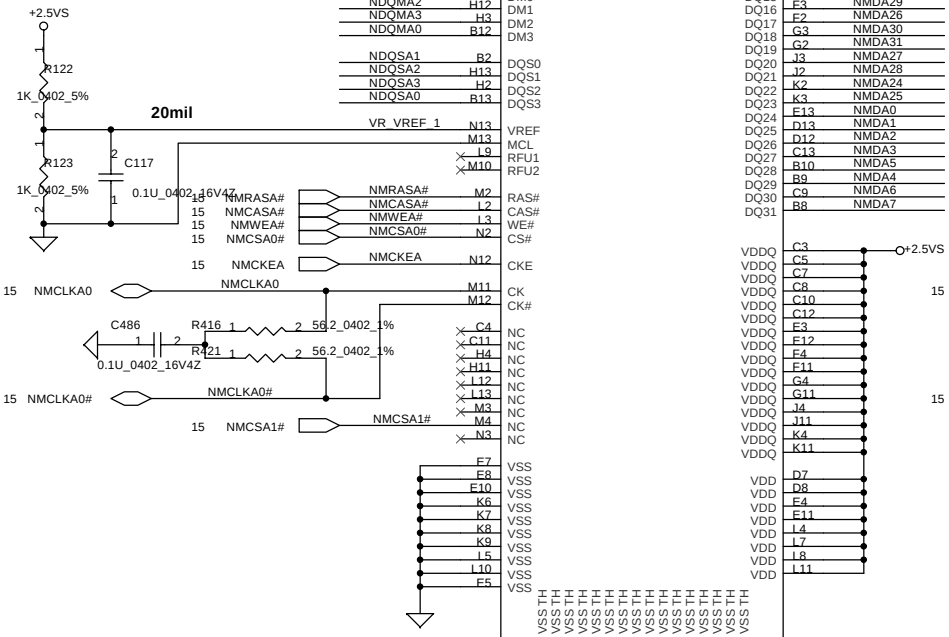
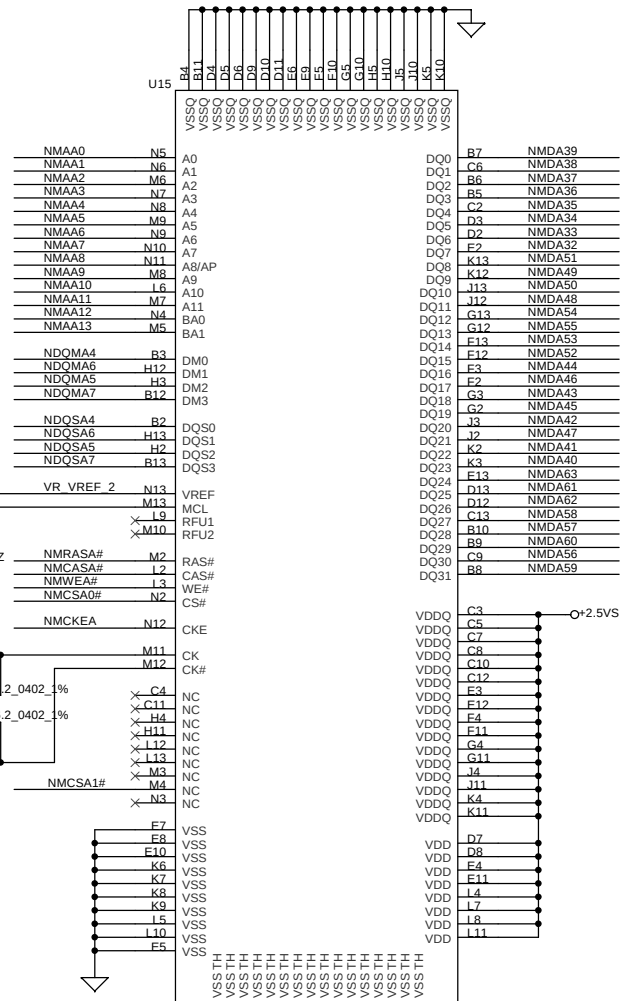
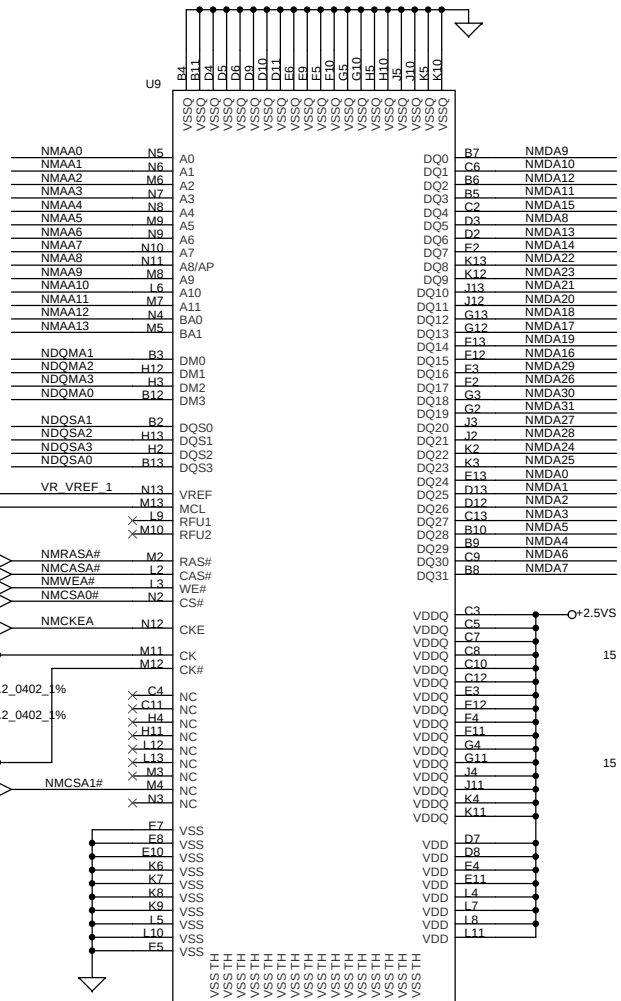
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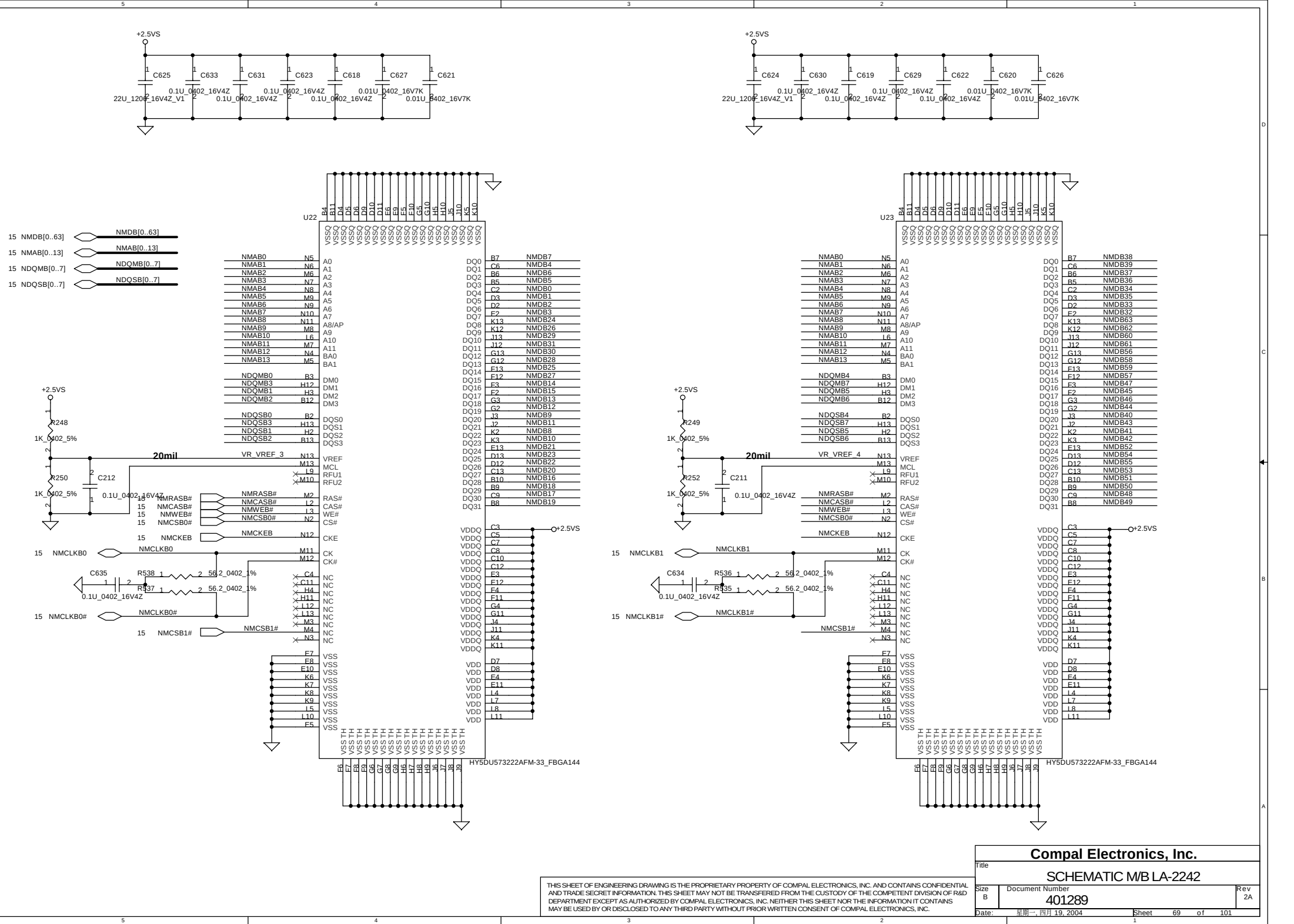


15 NMDA[0..63] NMDA[0..63]
 15 NMAA[0..13] NMAA[0..13]
 15 NDQMA[0..7] NDQMA[0..7]
 15 NDQSA[0..7] NDQSA[0..7]



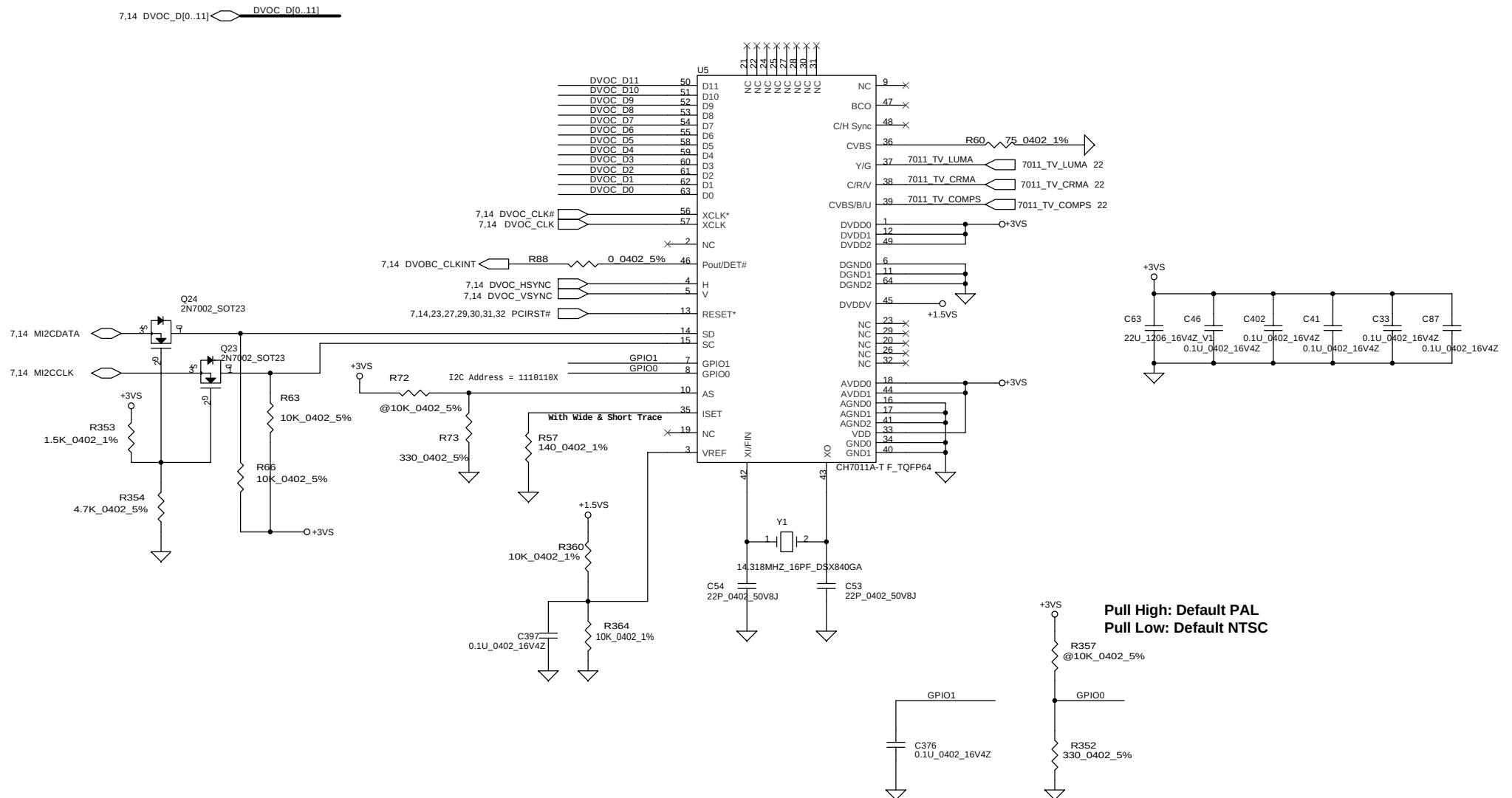
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TV Encoder

remove this page when use M11P



LCD POWER CIRCUIT

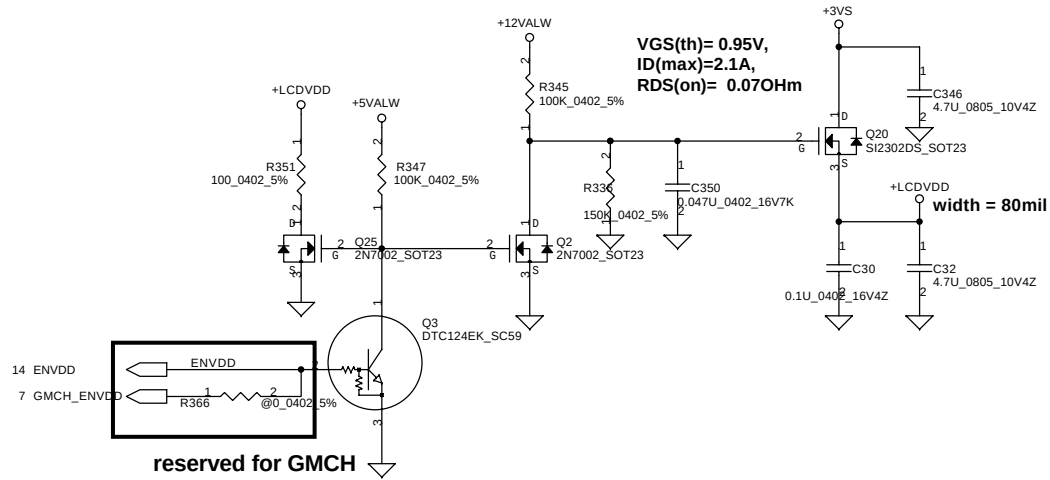
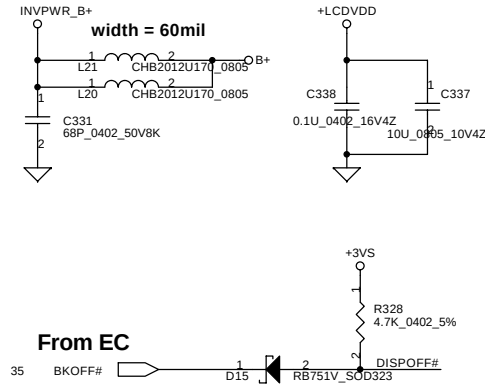
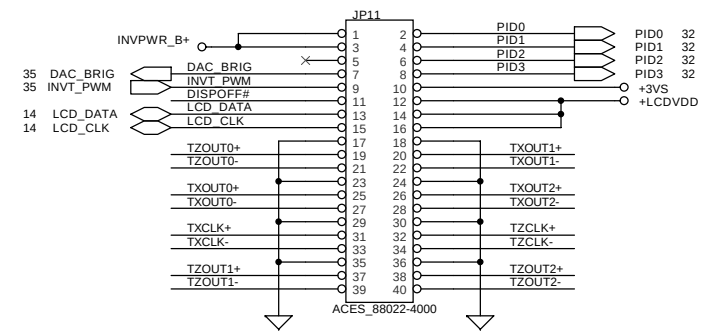


Table 1: Panel ID

PID3	PID2	PID1	PID0	PANEL
0	1	0	0	SANYO TM154WX-22L31 15.4" WXGA 1280X800
0	1	0	1	AU B154EW01 15.4" WXGA 1280X800
0	1	1	0	CPT CLAA154WA01 15.4" WXGA 1280X800
0	1	1	1	SAMSUNG LTN154X1-L02 15.4" WXGA 1280X800
1	0	0	1	SAMSUNG LTN154P1-L02 15.4" WSXGA+ 1680X1050
1	0	1	0	LG LP154W02-A1 15.4" WSXGA+ 1680X1050



LCD CONN.



14 M11_TXOUT0-	M11_TXOUT0-	R317	1	2	0	0402_5%	TXOUT0-
14 M11_TXOUT0+	M11_TXOUT0+	R316	1	2	0	0402_5%	TXOUT0+
14 M11_TXOUT1-	M11_TXOUT1-	R338	1	2	0	0402_5%	TXOUT1-
14 M11_TXOUT1+	M11_TXOUT1+	R337	1	2	0	0402_5%	TXOUT1+
14 M11_TXOUT2-	M11_TXOUT2-	R340	1	2	0	0402_5%	TXOUT2-
14 M11_TXOUT2+	M11_TXOUT2+	R339	1	2	0	0402_5%	TXOUT2+
14 M11_TXCLK-	M11_TXCLK-	R319	1	2	0	0402_5%	TXCLK-
14 M11_TXCLK+	M11_TXCLK+	R318	1	2	0	0402_5%	TXCLK+
14 M11_TZOUT0-	M11_TZOUT0-	R315	1	2	0	0402_5%	TZOUT0-
14 M11_TZOUT0+	M11_TZOUT0+	R314	1	2	0	0402_5%	TZOUT0+
14 M11_TZOUT1-	M11_TZOUT1-	R321	1	2	0	0402_5%	TZOUT1-
14 M11_TZOUT1+	M11_TZOUT1+	R320	1	2	0	0402_5%	TZOUT1+
14 M11_TZOUT2-	M11_TZOUT2-	R344	1	2	0	0402_5%	TZOUT2-
14 M11_TZOUT2+	M11_TZOUT2+	R343	1	2	0	0402_5%	TZOUT2+
14 M11_TZCLK-	M11_TZCLK-	R342	1	2	0	0402_5%	TZCLK-
14 M11_TZCLK+	M11_TZCLK+	R341	1	2	0	0402_5%	TZCLK+

For ATI M11P

7 GMCH_TXOUT0-	GMCH_TXOUT0-	R304	1	2	@0	0402_5%	TXOUT0-
7 GMCH_TXOUT0+	GMCH_TXOUT0+	R303	1	2	@0	0402_5%	TXOUT0+
7 GMCH_TXOUT1-	GMCH_TXOUT1-	R51	1	2	@0	0402_5%	TXOUT1-
7 GMCH_TXOUT1+	GMCH_TXOUT1+	R52	1	2	@0	0402_5%	TXOUT1+
7 GMCH_TXOUT2-	GMCH_TXOUT2-	R49	1	2	@0	0402_5%	TXOUT2-
7 GMCH_TXOUT2+	GMCH_TXOUT2+	R50	1	2	@0	0402_5%	TXOUT2+
7 GMCH_TXCLK-	GMCH_TXCLK-	R306	1	2	@0	0402_5%	TXCLK-
7 GMCH_TXCLK+	GMCH_TXCLK+	R305	1	2	@0	0402_5%	TXCLK+
7 GMCH_TZOUT0-	GMCH_TZOUT0-	R302	1	2	@0	0402_5%	TZOUT0-
7 GMCH_TZOUT0+	GMCH_TZOUT0+	R301	1	2	@0	0402_5%	TZOUT0+
7 GMCH_TZOUT1-	GMCH_TZOUT1-	R308	1	2	@0	0402_5%	TZOUT1-
7 GMCH_TZOUT1+	GMCH_TZOUT1+	R307	1	2	@0	0402_5%	TZOUT1+
7 GMCH_TZOUT2-	GMCH_TZOUT2-	R53	1	2	@0	0402_5%	TZOUT2-
7 GMCH_TZOUT2+	GMCH_TZOUT2+	R54	1	2	@0	0402_5%	TZOUT2+
7 GMCH_TZCLK-	GMCH_TZCLK-	R55	1	2	@0	0402_5%	TZCLK-
7 GMCH_TZCLK+	GMCH_TZCLK+	R56	1	2	@0	0402_5%	TZCLK+

For GMCH

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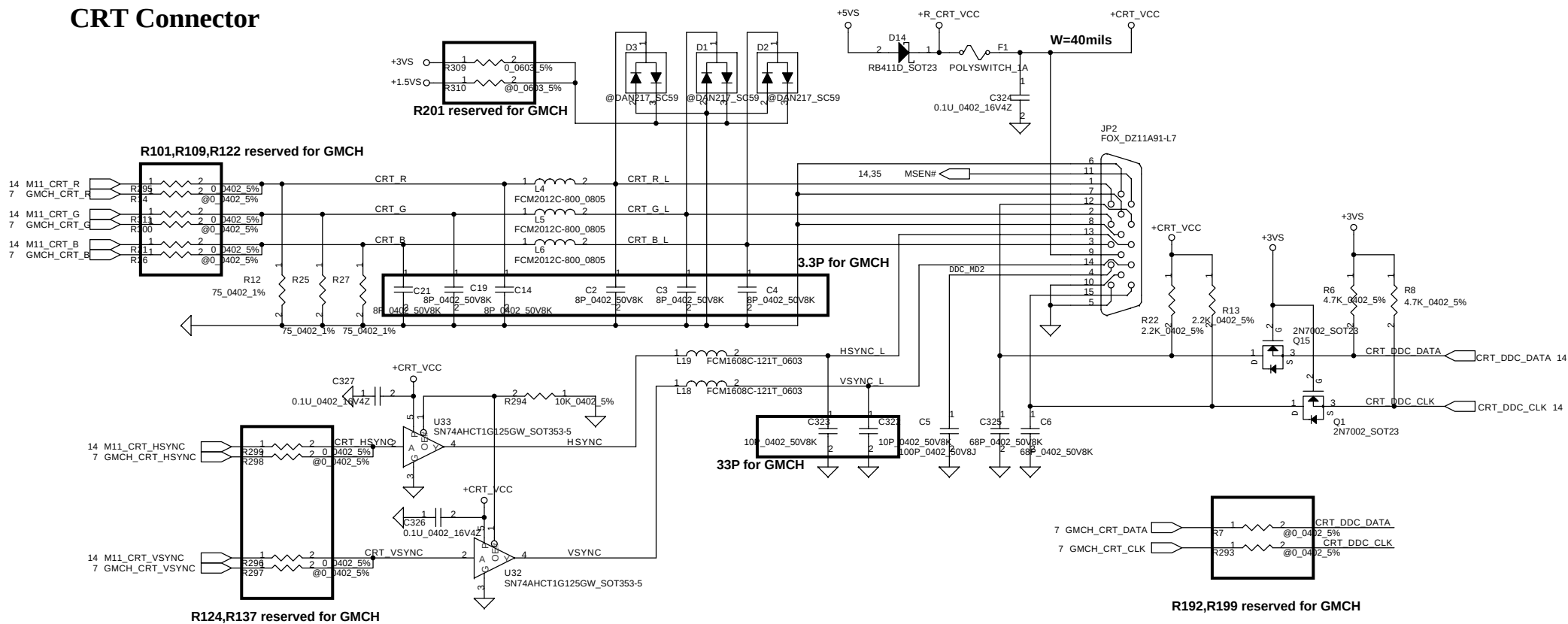
Title SCHEMATIC M/B LA-2242

Size Document Number 401289 Rev 2A

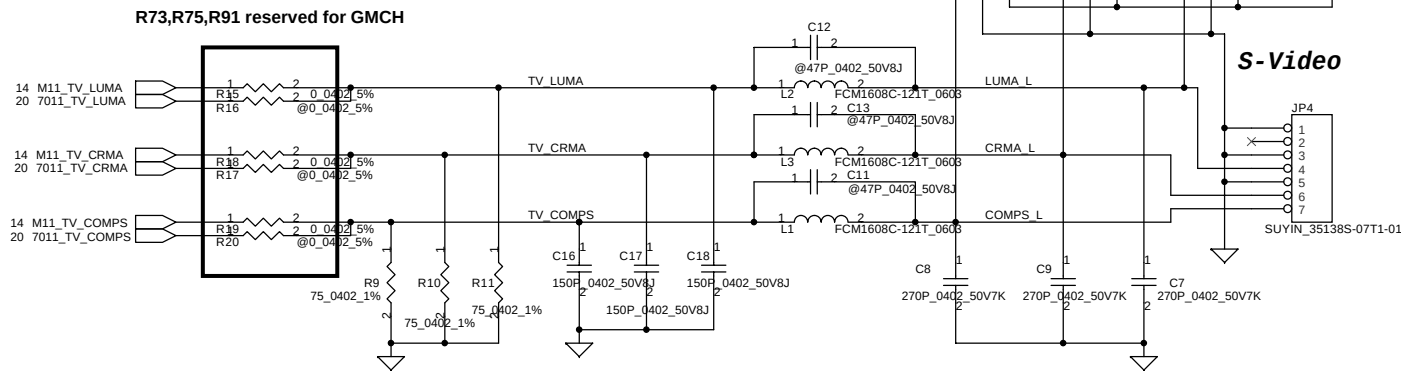
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CRT Connector

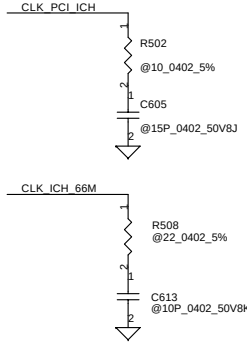


TV-Out Connector

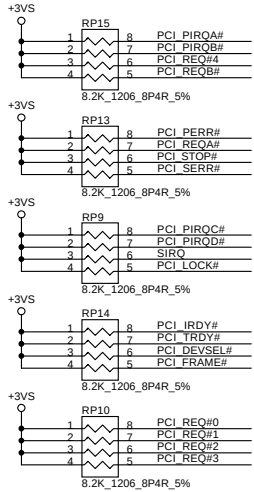


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PCI Pullups



27,29,30,31 PCI_AD[0..31] PCI_AD[0..31]

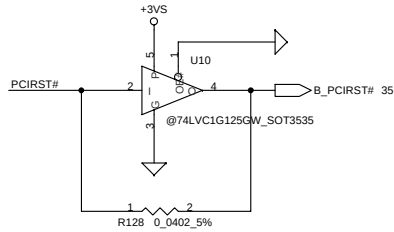
PCI_AD0	H5	AD0
PCI_AD1	J3	AD1
PCI_AD2	H3	AD2
PCI_AD3	K1	AD3
PCI_AD4	G5	AD4
PCI_AD5	J4	AD5
PCI_AD6	H4	AD6
PCI_AD7	J5	AD7
PCI_AD8	K2	AD8
PCI_AD9	G2	AD9
PCI_AD10	L1	AD10
PCI_AD11	G4	AD11
PCI_AD12	L2	AD12
PCI_AD13	H2	AD13
PCI_AD14	L3	AD14
PCI_AD15	F5	AD15
PCI_AD16	F4	AD16
PCI_AD17	N1	AD17
PCI_AD18	E5	AD18
PCI_AD19	N2	AD19
PCI_AD20	E3	AD20
PCI_AD21	N3	AD21
PCI_AD22	F4	AD22
PCI_AD23	M5	AD23
PCI_AD24	E2	AD24
PCI_AD25	E1	AD25
PCI_AD26	P1	AD26
PCI_AD27	P2	AD27
PCI_AD28	D3	AD28
PCI_AD29	R1	AD29
PCI_AD30	D2	AD30
PCI_AD31	P4	AD31

27,29,30,31 PCI_CBE#0	PCI_CBE#0	J2	CBE#0
27,29,30,31 PCI_CBE#1	PCI_CBE#1	M4	CBE#1
27,29,30,31 PCI_CBE#2	PCI_CBE#2	M4	CBE#2
27,29,30,31 PCI_CBE#3	PCI_CBE#3	N4	CBE#3
29 PCI_REQ#0	PCI_REQ#0	B1	REQ#0
27 PCI_REQ#1	PCI_REQ#1	A2	REQ#1
30 PCI_REQ#2	PCI_REQ#2	B3	REQ#2
31 PCI_REQ#3	PCI_REQ#3	C7	REQ#3
31 PCI_REQ#4	PCI_REQ#4	B6	REQ#4
29 PCI_GNT#0	PCI_GNT#0	C1	GNT#0
27 PCI_GNT#1	PCI_GNT#1	E6	GNT#1
30 PCI_GNT#2	PCI_GNT#2	A7	GNT#2
31 PCI_GNT#3	PCI_GNT#3	B7	GNT#3
31 PCI_GNT#4	PCI_GNT#4	D6	GNT#4

13 CLK_PCI_ICH	CLK_PCI_ICH	P5	PCICLK
27,29,30,31 PCI_FRAME#	PCI_FRAME#	F1	FRAME#
27,29,30,31 PCI_DEVSEL#	PCI_DEVSEL#	M3	DEVSEL#
27,29,30,31 PCI_IRDY#	PCI_IRDY#	L5	IRDY#
27,29,30,31 PCI_PAR	PCI_PERR#	G1	PAR
27,29,30,31 PCI_PERR#	PCI_LOCK#	M2	LOCK#

7,14,20,27,29,30,31,32 PCIRST#	PCIRST#	W2	PCIRST#
27,29,30,31 PCI_SERR#	PCI_SERR#	K5	SERR#
27,29,30,31 PCI_STOP#	PCI_STOP#	F3	STOP#
27,29,30,31 PCI_TRDY#	PCI_TRDY#	E2	TRDY#

26 PIDERST#	PCI_REQA#	B5	REQA#/GP10
26 SIDERST#	PCI_REQB#	A6	REQB#/GP11
	PCIRST#	E6	PCIRST#
	SERR#	K5	SERR#
	STOP#	F3	STOP#
	TRDY#	E2	TRDY#



ICH4

INTRUDER#	W6	INTRUDER#
SMLINK0	AC3	SMLINK0
SMLINK1	AB1	SMLINK1
SMB_CLK	AC4	SMB_CLK
SMB_DATA	AB4	SMB_DATA
SMB_ALERT#/GPI11	AA6	GPI11

A20GATE	Y22	GATEA20	35
A20MH	AB23	H_A20MH	4
DPSLP#	U23	H_DPSLP#	4,7
FERR#	AA21	H_FERR#	4
IGNNE#	W22	H_IGNNE#	4
INIT#	AB22	H_INIT#	4
INTR	Y22	H_INTR	4
NMI	V21	H_NMI	4
CPU_PWRGOOD	Y23	H_CPU_PWRGOOD	4
RCIN#	U21	H_RCIN#	35
SLP#	U21	H_CPUSLP#	4
SMH	W23	H_SMH	4
STPCLK#	Y23	H_STPCLK#	4

HIO	L19	HUB_PD0
H11	L20	HUB_PD1
H12	M19	HUB_PD2
H13	M21	HUB_PD3
H14	P19	HUB_PD4
H15	R19	HUB_PD5
H16	T20	HUB_PD6
H17	B20	HUB_PD7
H18	P23	HUB_PD8
H19	L22	HUB_PD9
H110	U22	HUB_PD10
H111	K21	HUB_PD11
CLK66	T21	CLK_ICH_66M
HI_STB	P21	HUB_PSTRB
HI_STB#	N20	HUB_PSTRB#
HICOMP	R23	HUB_RCOMP_ICH
HUB_VREF	M23	HUB_VREF
HUB_VSWING	R22	HUB_VSWING

APICCLK	H19	APICCLK
APICD0	H19	APICD0
APICD1	K20	APICD1
PIROA#	D5	PCI_PIROA#
PIROB#	C2	PCI_PIROB#
PIROC#	B4	PCI_PIROC#
PIROD#	A3	PCI_PIROD#
PIREQ#/GP12	C8	PCI_PIREQ#
PIREQ#/GP13	D7	PCI_PIREQ#
PIROG#/GP14	C3	PCI_PIROG#
PIROH#/GP15	C4	PCI_PIROH#
IRQ14	AC13	PD_IRQ14
IRQ15	AA19	SD_IRQ15
SIRQ	J27	SIRQ

EEPROM I/F	EE_CS	D11
EEPROM I/F	EE_OUT	A8
EEPROM I/F	EE_SHCLK	C12

LAN I/F	LAN_RXD0	A10
LAN I/F	LAN_RXD1	A9
LAN I/F	LAN_RXD2	A11
LAN I/F	LAN_TXD0	B10
LAN I/F	LAN_TXD1	A12
LAN I/F	LAN_CLK	C11
LAN I/F	LAN_RST#	B11

EEPROM I/F	EE_CS	D11
EEPROM I/F	EE_OUT	A8
EEPROM I/F	EE_SHCLK	C12

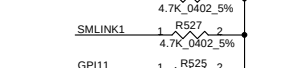
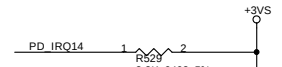
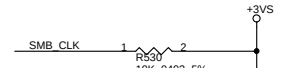
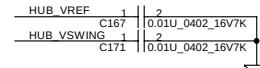
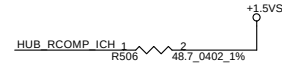
LAN I/F	LAN_RXD0	A10
LAN I/F	LAN_RXD1	A9
LAN I/F	LAN_RXD2	A11
LAN I/F	LAN_TXD0	B10
LAN I/F	LAN_TXD1	A12
LAN I/F	LAN_CLK	C11
LAN I/F	LAN_RST#	B11

EEPROM I/F	EE_CS	D11
EEPROM I/F	EE_OUT	A8
EEPROM I/F	EE_SHCLK	C12

LAN I/F	LAN_RXD0	A10
LAN I/F	LAN_RXD1	A9
LAN I/F	LAN_RXD2	A11
LAN I/F	LAN_TXD0	B10
LAN I/F	LAN_TXD1	A12
LAN I/F	LAN_CLK	C11
LAN I/F	LAN_RST#	B11

EEPROM I/F	EE_CS	D11
EEPROM I/F	EE_OUT	A8
EEPROM I/F	EE_SHCLK	C12

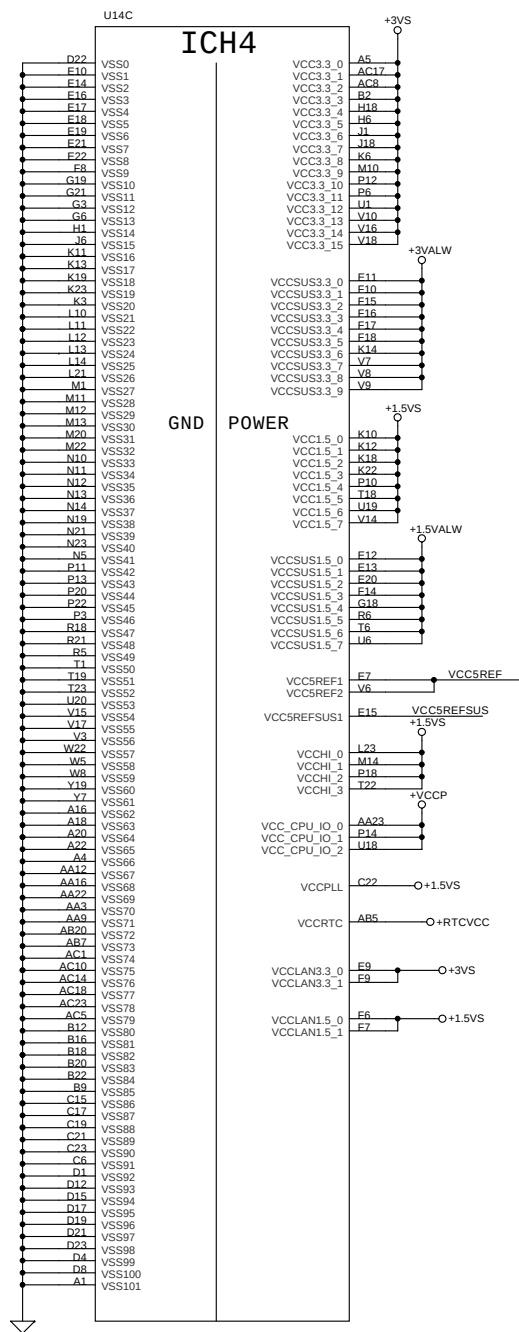
LAN I/F	LAN_RXD0	A10
LAN I/F	LAN_RXD1	A9
LAN I/F	LAN_RXD2	A11
LAN I/F	LAN_TXD0	B10
LAN I/F	LAN_TXD1	A12
LAN I/F	LAN_CLK	C11
LAN I/F	LAN_RST#	B11



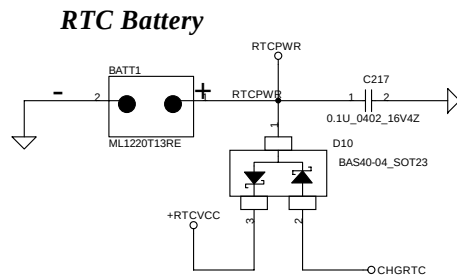
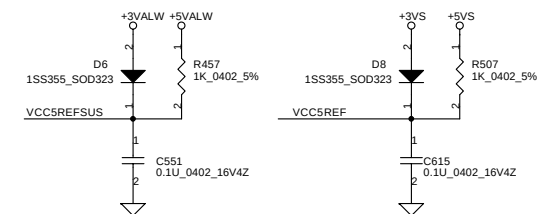
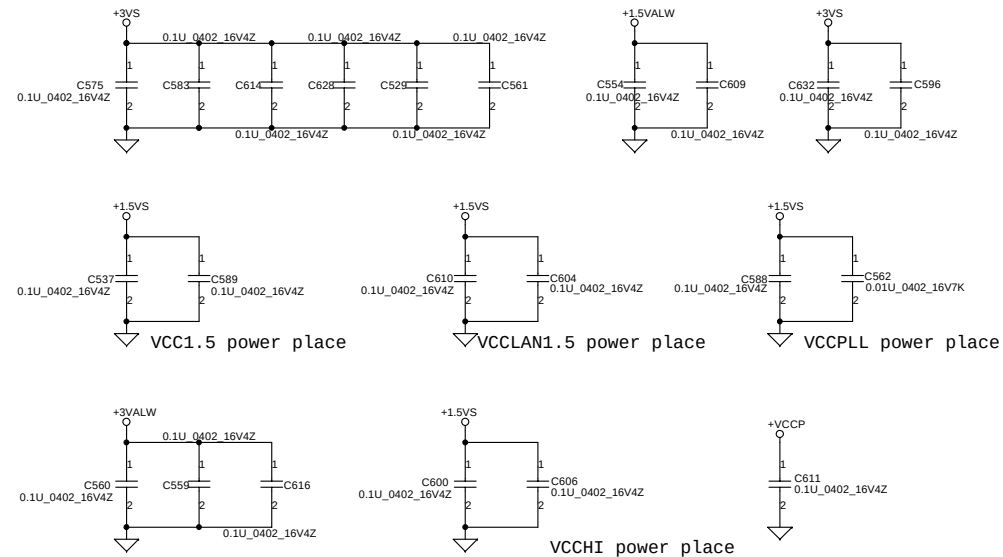
Compal Electronics, Inc.			
Title			
SCHEMATIC MB LA-2242			
Size	Document Number	Rev	
	401289	ZA	
Date:	星期一, 四月 19, 2004	Sheet	73 of 101

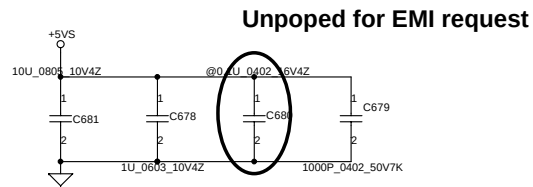
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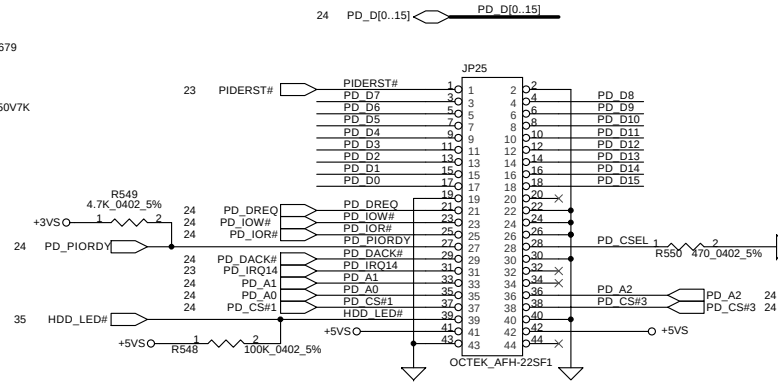


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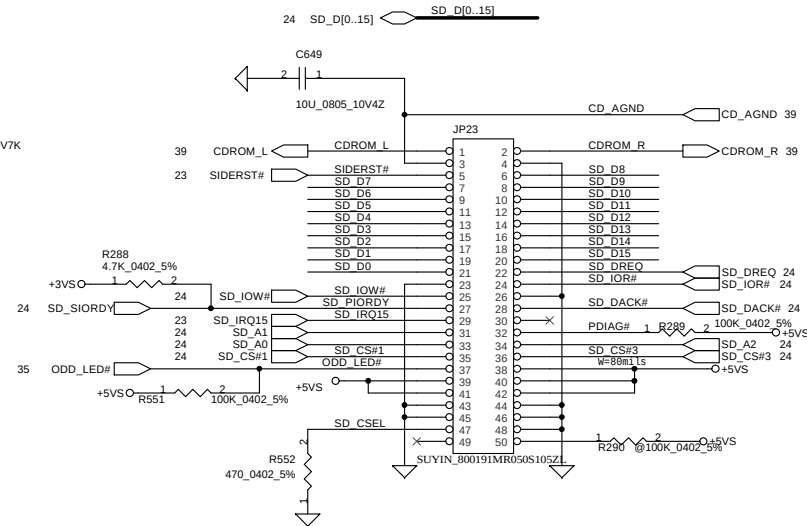
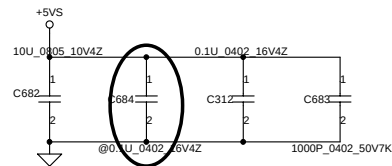




HDD CONN



CDROM CONN



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EN_WOL# = Low,
System can wake on LAN
(keep Low when Power On)

VGS(th) = -0.45V
IDmax = 2.3A

+3VS for BCM5788
+3V_LAN for BCM4401

23,29,30,31 PCI_AD[0..31]

U4A
PCI_AD31 B8 AD31
PCI_AD30 A8 AD30
PCI_AD29 C7 AD29
PCI_AD28 C6 AD28
PCI_AD27 B6 AD27
PCI_AD26 B5 AD26
PCI_AD25 A5 AD25
PCI_AD24 B4 AD24
PCI_AD23 B2 AD23
PCI_AD22 B1 AD22
PCI_AD21 C1 AD21
PCI_AD20 D3 AD20
PCI_AD19 D2 AD19
PCI_AD18 D1 AD18
PCI_AD17 E3 AD17
PCI_AD16 K1 AD16
PCI_AD15 L2 AD15
PCI_AD14 L1 AD14
PCI_AD13 M3 AD13
PCI_AD12 M2 AD12
PCI_AD11 M1 AD11
PCI_AD10 N2 AD10
PCI_AD9 N3 AD9
PCI_AD8 P3 AD8
PCI_AD7 N4 AD7
PCI_AD6 P4 AD6
PCI_AD5 M5 AD5
PCI_AD4 P5 AD4
PCI_AD3 P5 AD3
PCI_AD2 M6 AD2
PCI_AD1 P7 AD1
PCI_AD0 N7 AD0

CLK_PCI_LAN
R46 @10_0402_5%
C29 @18P_0402_50V8K

23,29,30,31 PCI_CBE#3 C4 CBE3
23,29,30,31 PCI_CBE#2 E3 CBE2
23,29,30,31 PCI_CBE#1 I3 CBE1
23,29,30,31 PCI_CBE#0 M4 CBE0

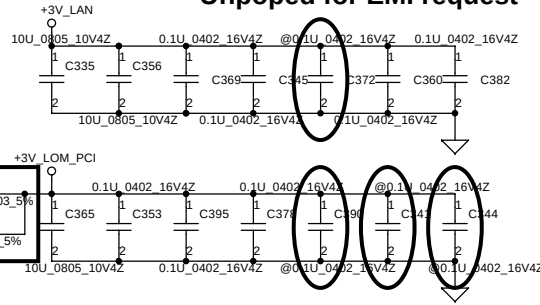
100_0402_5%
PCI_AD17 R330 1 2 LAN_IDSEL A4 IDSEL
23,29,30,31 PCI_FRAME# F2 FRAME
23,29,30,31 PCI_IRDY# F1 IRDY
23,29,30,31 PCI_TRDY# G3 TRDY
23,29,30,31 PCI_DEVSEL# H3 DEVSEL
23,29,30,31 PCI_STOP# J2 STOP
23,29,30,31 PCI_PERR# A2 PERR
23,29,30,31 PCI_SERR# J1 SERR
23,29,30,31 PCI_PAR# J1 PAR
13 CLK_PCI_LAN J1 CLK_CLK

23 PCI_PIRQ# H2 INTA
7,14,20,23,29,30,31,32 PCI_RST# J3 PCI_RST
23 PCI_GNT#1 J3 GNT
23 PCI_REQ#1 C3 REQ

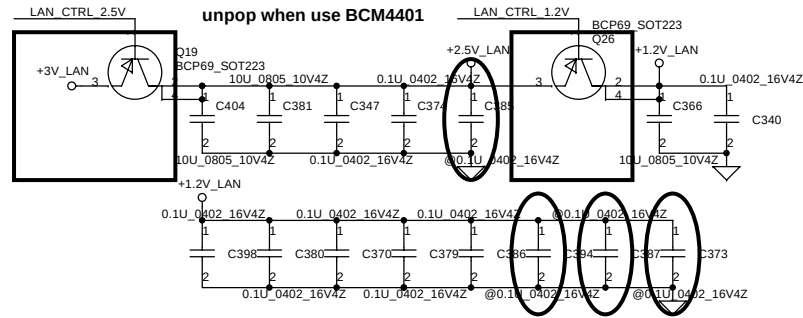
+3V_LAN 1 R349 1K_0402_5% LAN_AUXPWR J12 VAUXPRSN
30,31,35 ONBD_LAN_PME# A6 M66EN(NC_F4) PME

LAN_X1 Y2 25MHZ_20P
C88 27P_0402_50V8J
27P_0402_50V8J

Unpoped for EMI request



unpop when use BCM4401



BCM5788M /(BCM4401)

REGSUP12/(NC_B9)
REGCTL12/(NC_B10)
REGSUP25/(REGSUP18)
REGCTL25/(NC_C11)
REGSUP25/(REGSUP18)
VESD1
VESD2
VESD3
EEDATA/(SPROM_CS)
EECLK/(SPROM_CLK)

TRD3+/(NC_E13)
TRD3-/(NC_E14)
TRD2+/(NC_D13)
TRD2-/(NC_D14)
TRD1+/(RD0P)
TRD1-/(RD0N)
TRD0+/(TD0P)
TRD0-/(TD0N)

B9 LAN_CTRL 1.2V +2.5V_LAN
B10 LAN_CTRL 1.2V +1.2V_LAN (Output 1.8V for BCM4401)
A9 LAN_CTRL 2.5V +3V_LAN
C10 LAN_CTRL 2.5V +3V_LAN

For 5788M leakage issue

GPIO0/(NC_H12)
GPIO1/(NC_K13)
GPIO2/(NC_J13)
LAN_EEWP 1 2 10K_0402_5% +3V_LAN
LAN_EECLK 1 2 10K_0402_5% +3V_LAN

pop R80 and unpop R77,R562 when use BCM4401
LINKLED/(LINKLED10)
SPD100LED/(LINKLED100)
SPD1000LED/(COL_LED)
TRAFFICLED/(ACT_LED)
ACTIVITY# 1 2 0.0402_5% +3V_LAN
ACTIVITY# 28 0.0402_5% +3V_LAN

PLLVD2/(PLLVD)
NC_P7 1 2 0.0603_5% +1.2V_LAN
TCK
TDI
TDO
TMS
TRST
LAN_TRST# 1 2 4.7K_0402_5% +1.2V_LAN
24,29,30,31,32,35 PM_CLKRUN# PM_CLKRUN#

XTALVDD
XTAL0
XTAL1
LAN_X1 1 2 200_0402_1% +2.5V_LAN
LAN_X2 1 2 200_0402_1% +2.5V_LAN

1.24K for BCM5788
1.27K for BCM4401
NC_G11
NC_E10/(EEDATA_PX6)
NC_E11/(EECLK_PX6)
NC_H11

BIASVDD
RDAC
LAN_BIASVDD 1 2 1000P_0402_50V8K +2.5V_LAN
LAN_RDAC 1 2 1.24K_0402_1% 0.0603_5% +2.5V_LAN

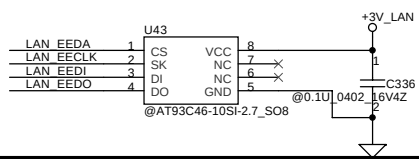
NC_A10
NC_C9
R332 @10K_0402_5% +3V_LAN
R333 @10K_0402_5% +3V_LAN

VDDC_E12
VDDC_H5
VDDC_H6
VDDC_H7
VDDC_H8
VDDC_J5
VDDC_J6
VDDC_J7
VDDC_J8
VDDC_J9
VDDC_J10
VDDC_K5
VDDC_K6
VDDC_K7
VDDC_K8
VDDC_K9
VDDC_K10
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VDDC_L10
VDDC_M14
VDDC_N14
VDDC_P8
VDDC_P12
VDDC_P13
VDDC_P14

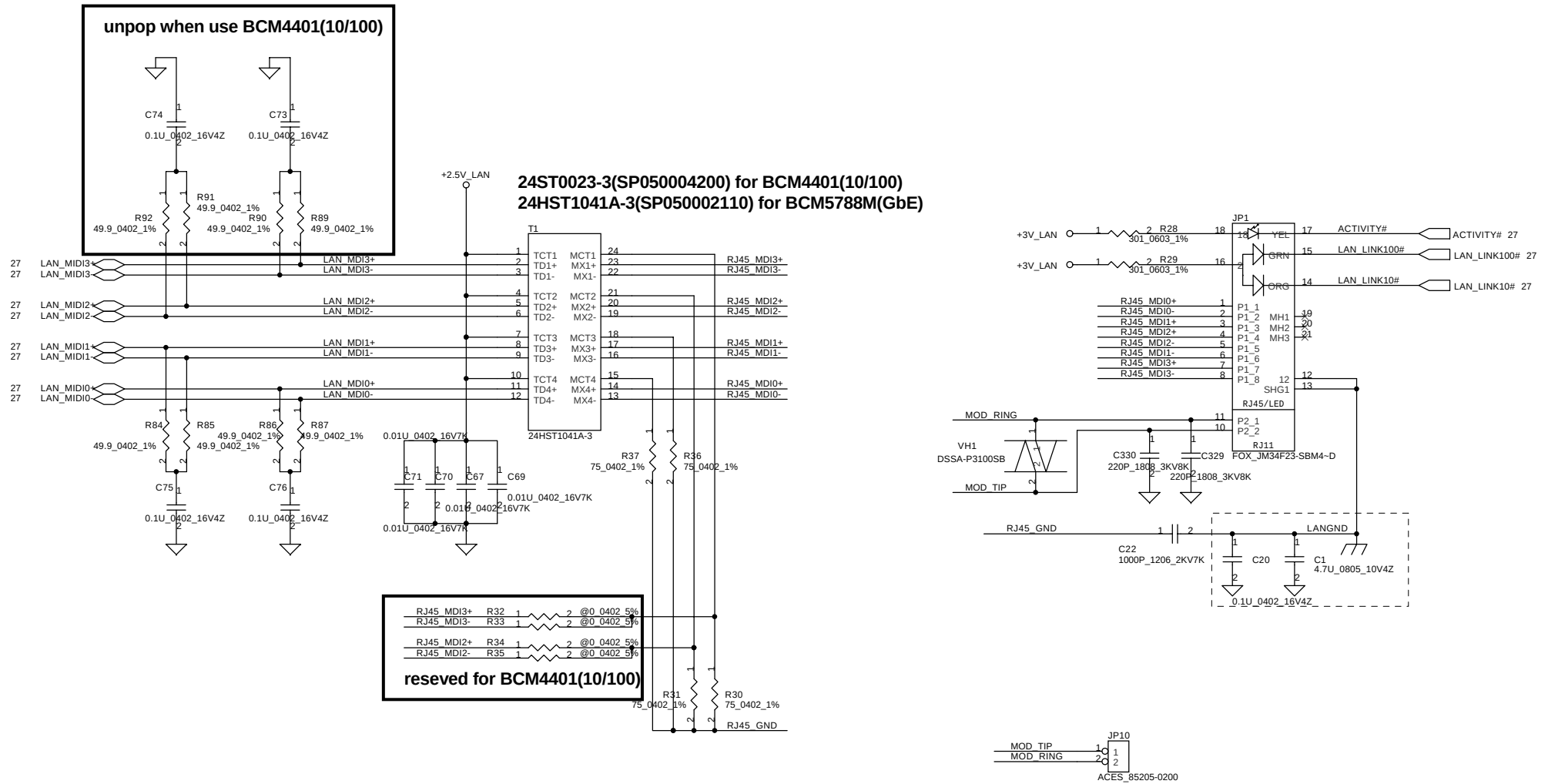
VDDIO-PCI_A7
VDDIO-PCI_B3
VDDIO-PCI_C5
VDDIO-PCI_E1
VDDIO-PCI_E4
VDDIO-PCI_G1
VDDIO-PCI_K3
VDDIO-PCI_L4
VDDIO-PCI_N6
VDDIO-PCI_P2

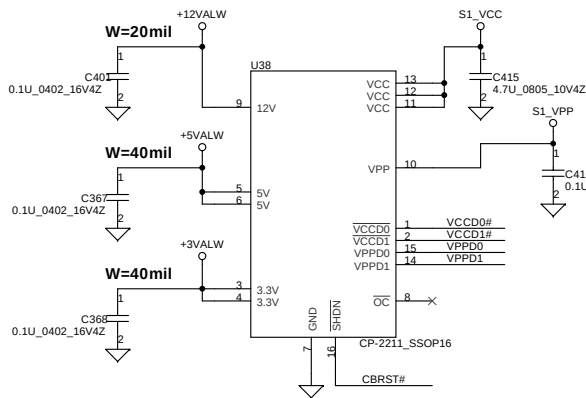
NC_C8
CLKRUN
NC_H10
NC_J4
NC_K4
NC_K11/(GPIO_10W_POWER/(TESTMODE))
NC_K11/(GPIO_0)
NC_L7
NC_L8

AT93C46 for BCM4401



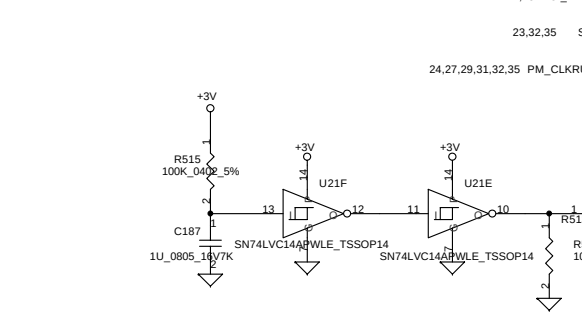
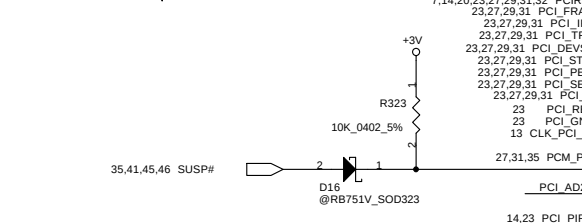
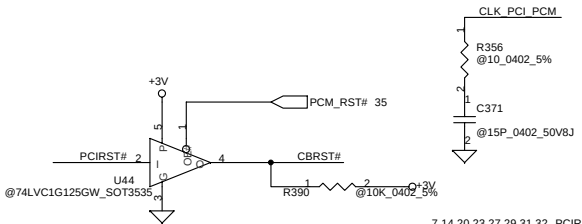
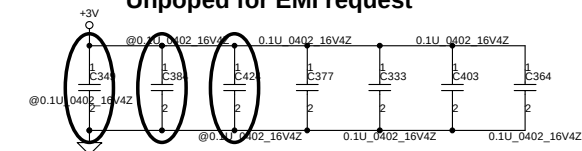
LAN BCM5788M/BCM4401KFB





23,27,29,31 PCI_AD[0..31] $\Rightarrow$ PCI_AD[0..31]
23,27,29,31 PCI_CBE[0..3] $\Rightarrow$ PCI_CBE[0..3]

Unpoped for EMI request



PCI_AD31 3 AD31
PCI_AD30 4 AD30
PCI_AD29 5 AD29
PCI_AD28 6 AD28
PCI_AD27 7 AD27
PCI_AD26 8 AD26
PCI_AD25 9 AD25
PCI_AD24 10 AD24
PCI_AD23 11 AD23
PCI_AD22 12 AD22
PCI_AD21 13 AD21
PCI_AD20 14 AD20
PCI_AD19 15 AD19
PCI_AD18 16 AD18
PCI_AD17 17 AD17
PCI_AD16 18 AD16
PCI_AD15 19 AD15
PCI_AD14 20 AD14
PCI_AD13 21 AD13
PCI_AD12 22 AD12
PCI_AD11 23 AD11
PCI_AD10 24 AD10
PCI_AD9 25 AD9
PCI_AD8 26 AD8
PCI_AD7 27 AD7
PCI_AD6 28 AD6
PCI_AD5 29 AD5
PCI_AD4 30 AD4
PCI_AD3 31 AD3
PCI_AD2 32 AD2
PCI_AD1 33 AD1
PCI_AD0 34 AD0

PCI_CBE#3 12 C/BE3#
PCI_CBE#2 27 C/BE2#
PCI_CBE#1 37 C/BE1#
PCI_CBE#0 48 C/BE0#

PCI_RST# 20 C/BE3#/RESET
PCI_FRAME# 28 C/BE2#/A12
PCI_IRDY# 29 C/BE1#/A8
PCI_TRDY# 30 C/BE0#/CE1#

PCI_DEVSEL# 32 C/BE3#/RESET
PCI_STOP# 33 C/BE2#/A12
PCI_PERR# 34 C/BE1#/A8
PCI_SERR# 35 C/BE0#/CE1#

PCI_REQ#2 1 C/BE3#/RESET
PCI_GNT#2 2 C/BE2#/A12
CLK_PCI_PCM 21 C/BE1#/A8

PCI_PME# 59 C/BE0#/CE1#
PCI_IDSEL 13 C/BE3#/RESET
PCI_PIRQA# 61 C/BE2#/A12
PCI_PIRQB# 62 C/BE1#/A8
PCI_PIRQC# 63 C/BE0#/CE1#

PCI_PIRQD# 64 C/BE3#/RESET
PCI_PIRQE# 65 C/BE2#/A12
PCI_PIRQF# 66 C/BE1#/A8
PCI_PIRQG# 67 C/BE0#/CE1#

PQFP 144
22.2 X 22.2 X 1.60

CC/BE3#/REG# 125 S1 D10
CC/BE2#/A12 112 S1 D9
CC/BE1#/A8 99 S1 D8
CC/BE0#/CE1# 88 S1 D7

CRST#/RESET 119 S1 D6
CFRAME#/A23 111 S1 D5
CIRDY#/A15 110 S1 D4
CTRDY#/A22 109 S1 D3
CDEVSEL#/A21 107 S1 D2
CSTOP#/A20 105 S1 D1
CPERR#/A14 104 S1 D0
CSERR#/WAIT# 103 S1 D0

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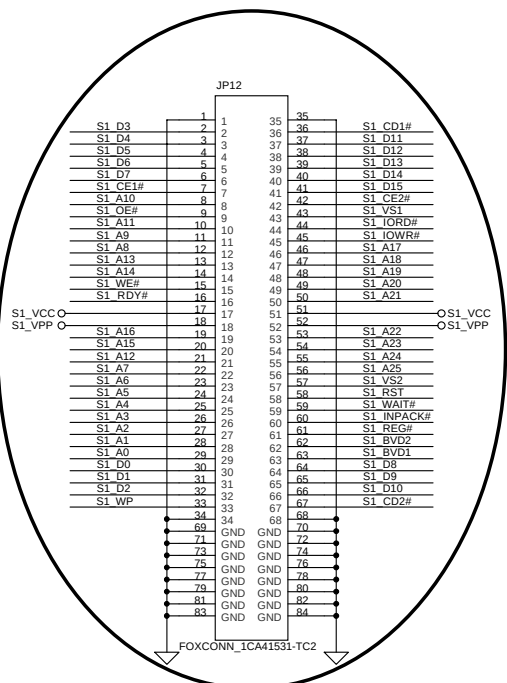
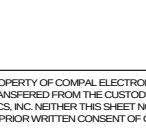
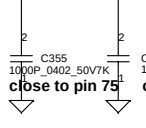
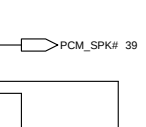
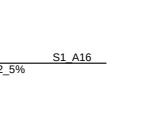
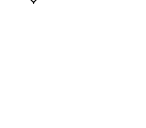
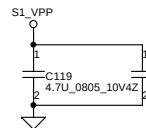
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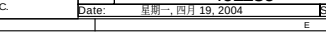
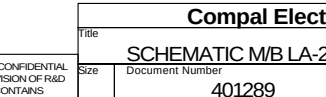
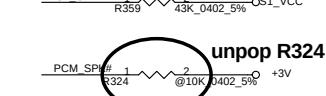
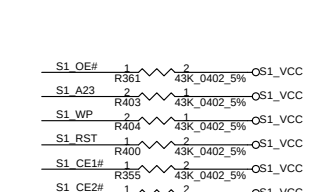
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change to SP01F002800(BCL50)



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SCHEMATIC M/B LA-2242

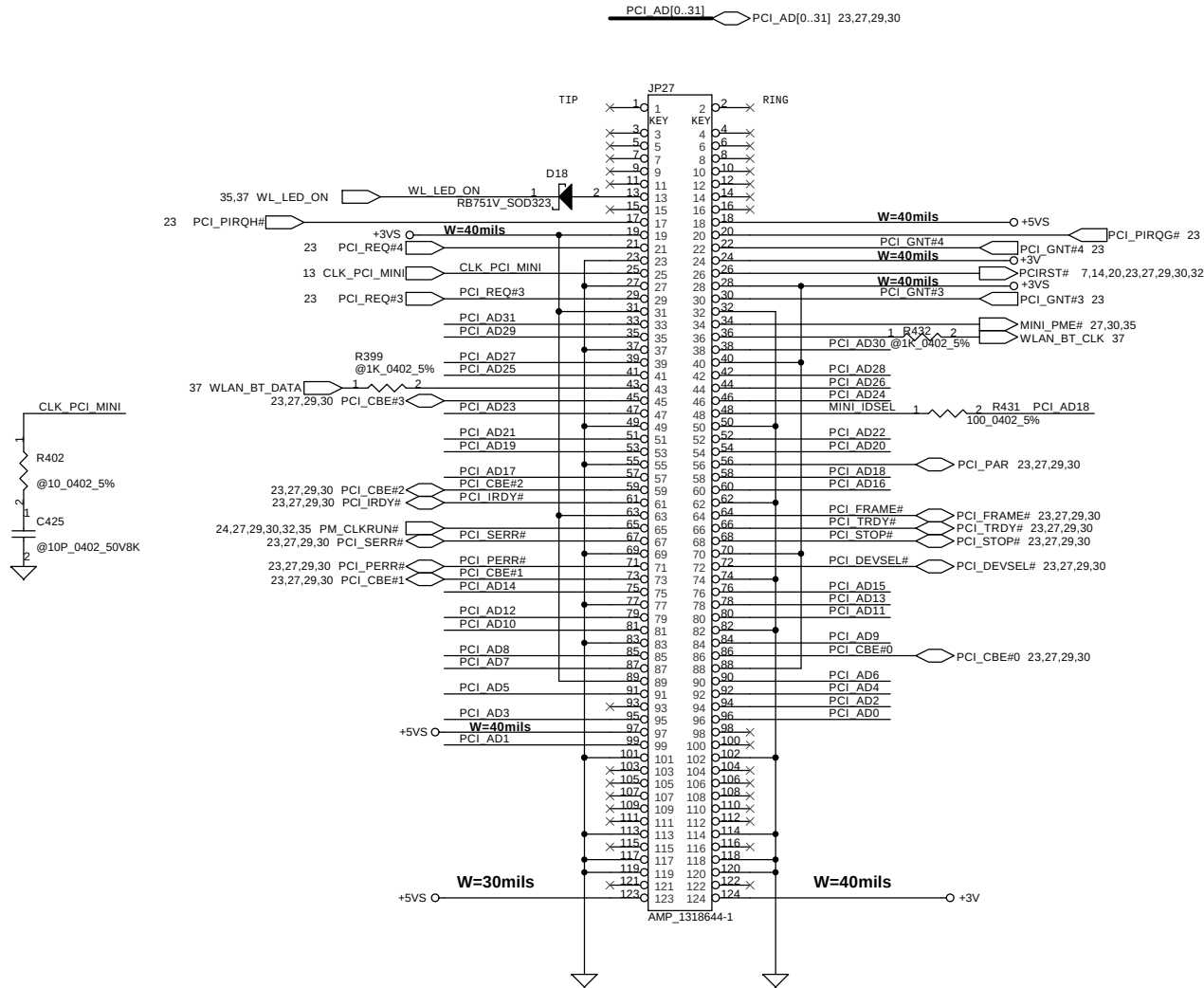
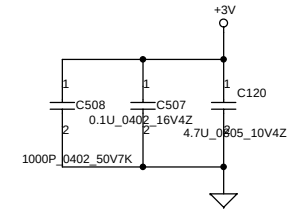
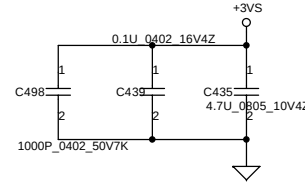
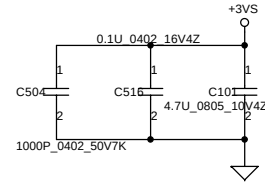
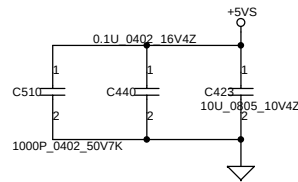
401289

Date: 星期一, 四月 19, 2004

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Rev 2A

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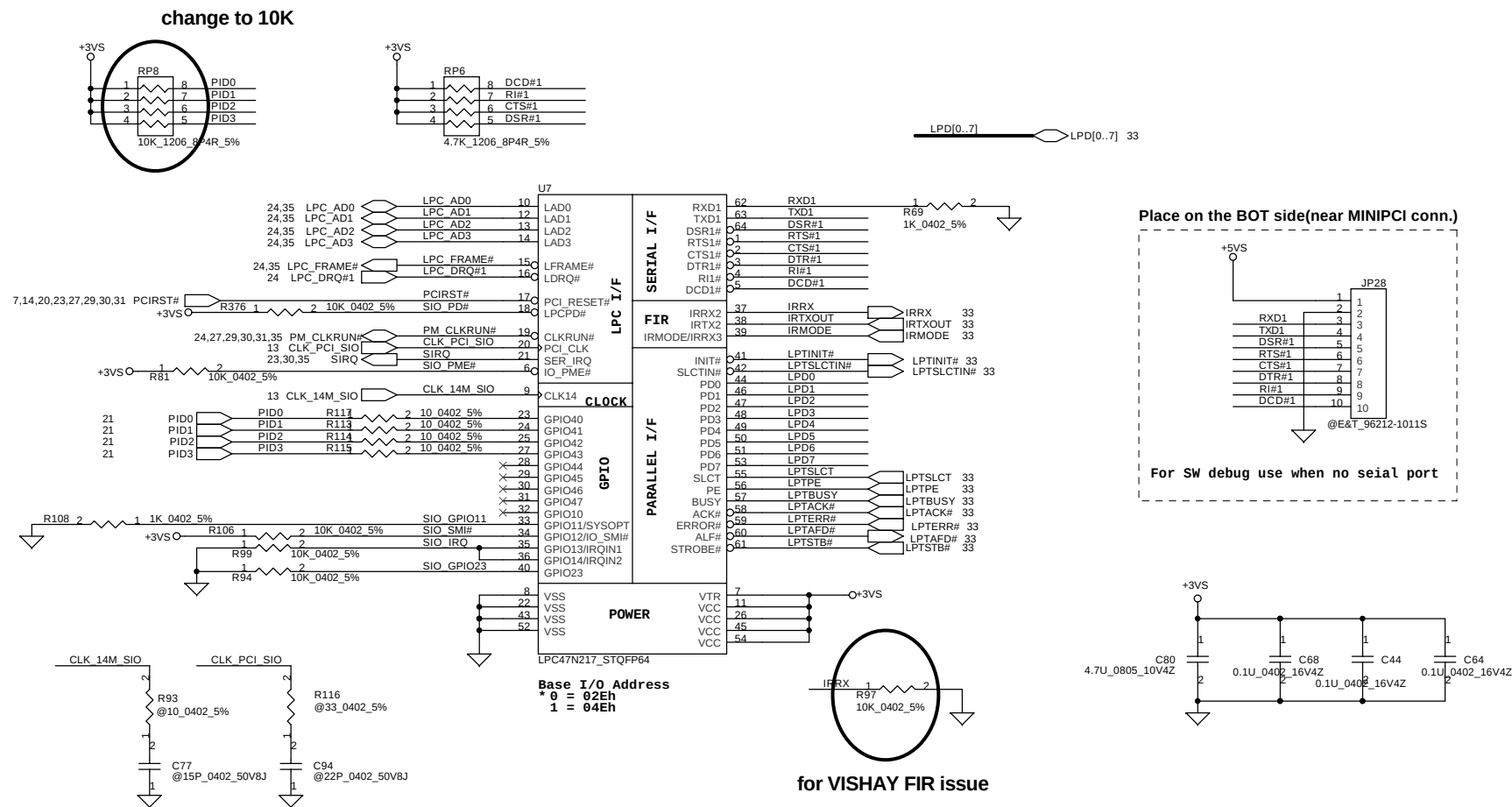
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Size Document Number 401289 Rev 2A

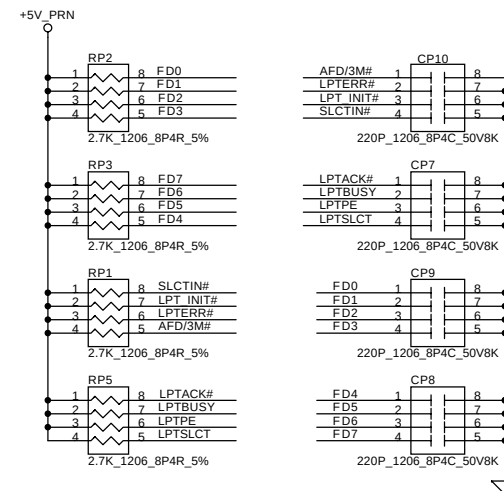
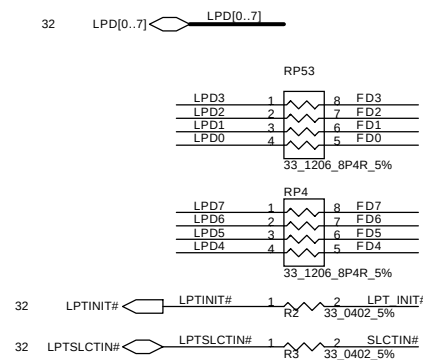
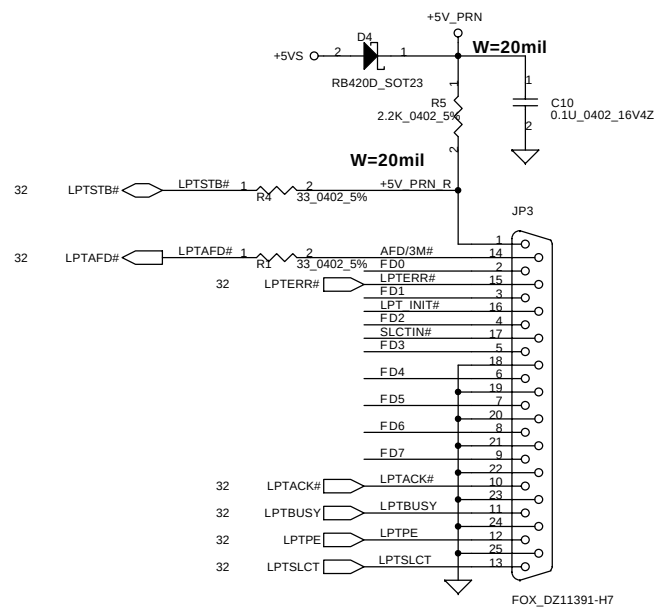
Date: 星期一, 四月 19, 2004 Sheet 81 of 101

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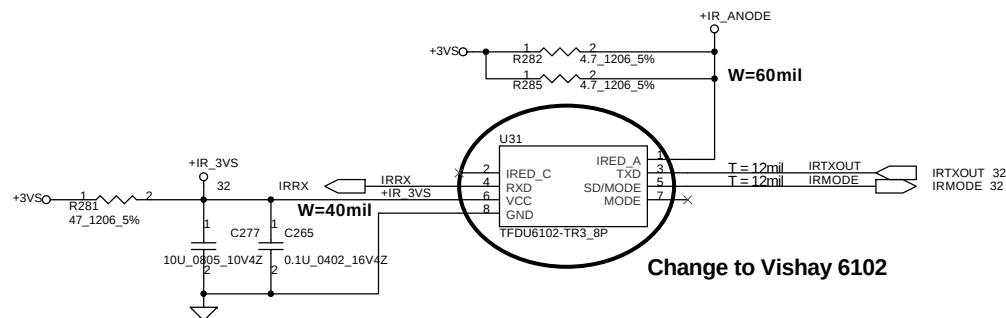
SUPER I/O SMsC LPC47N217



Parallel Port



FIR Module



Change to Vishay 6102

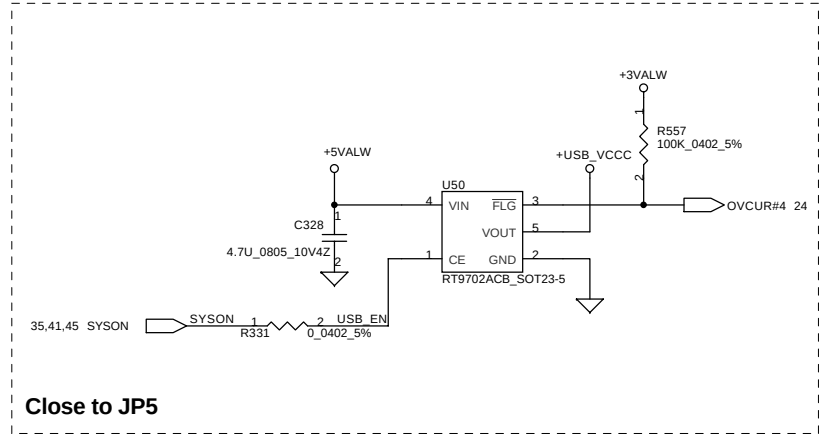
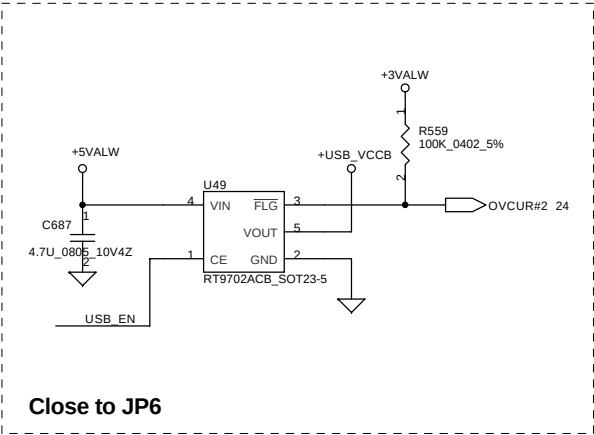
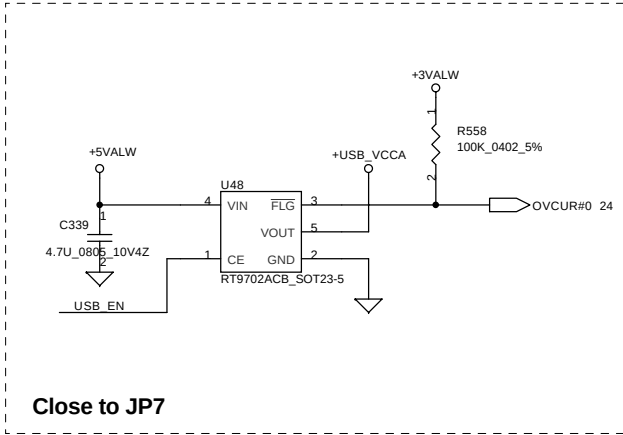
Compal Electronics, Inc.

Title	SCHEMATIC M/B LA-2242
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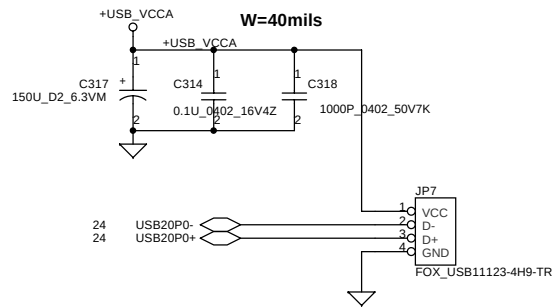
Size	Document Number	Rev
	101000	2A

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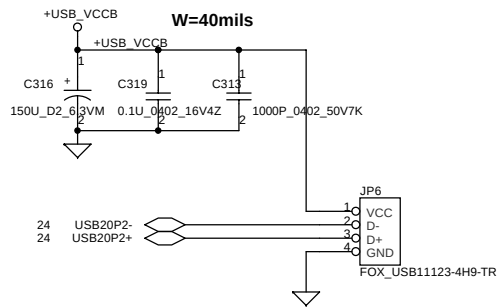
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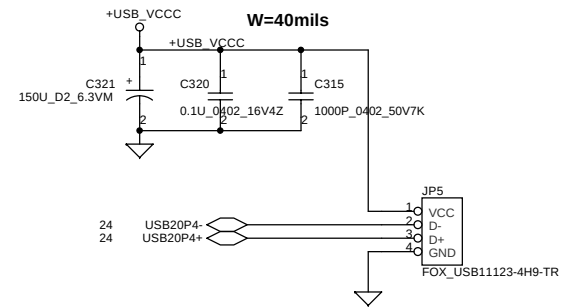
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USB CONN. 2

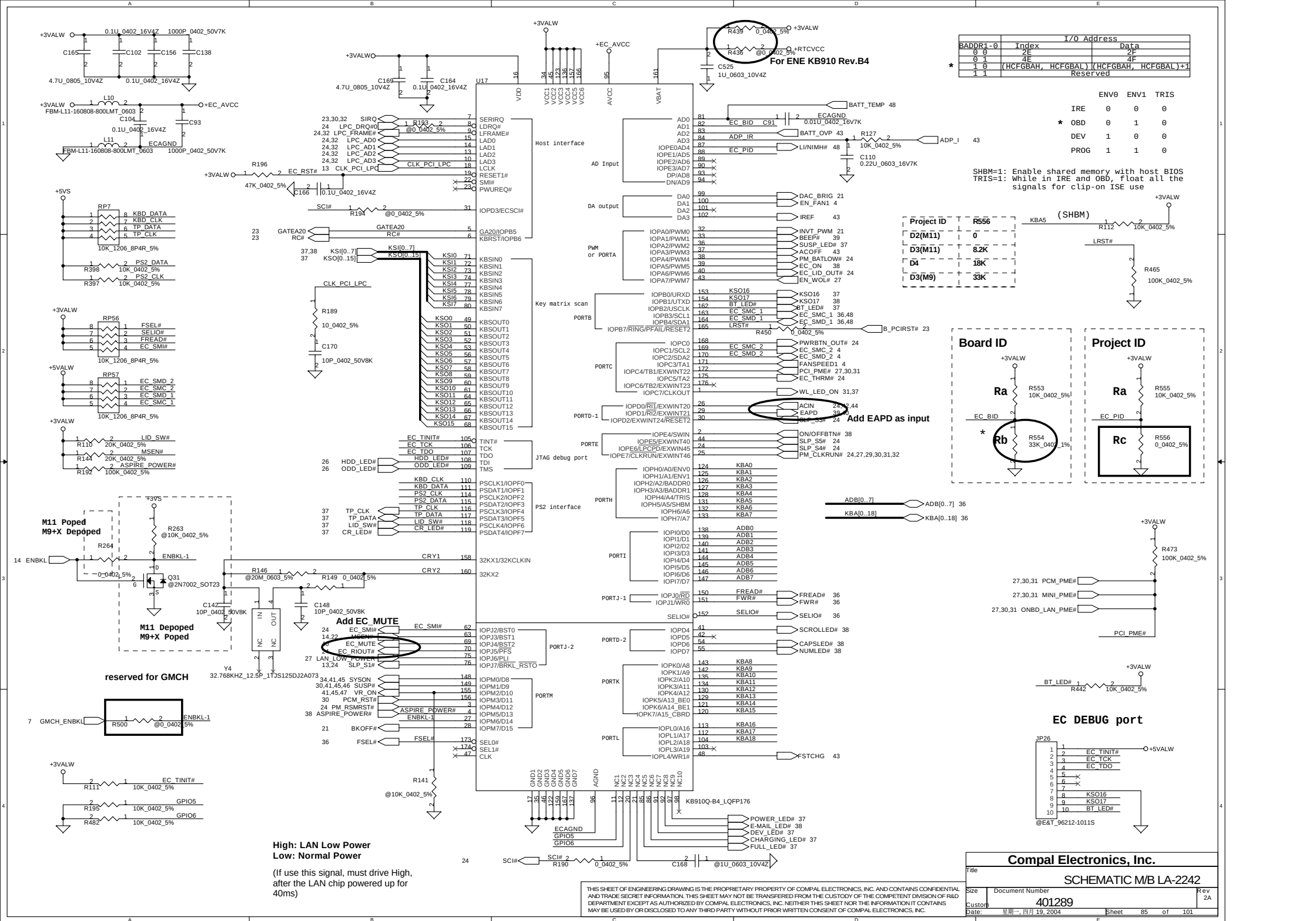


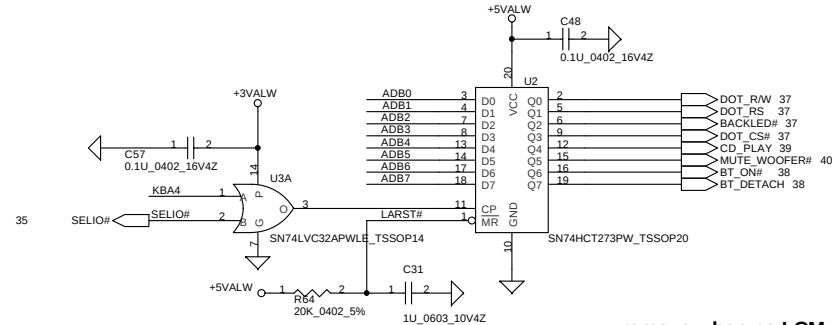
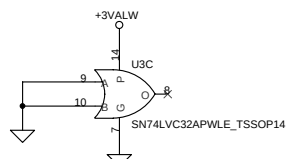
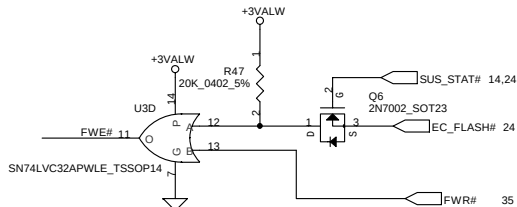
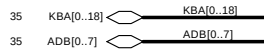
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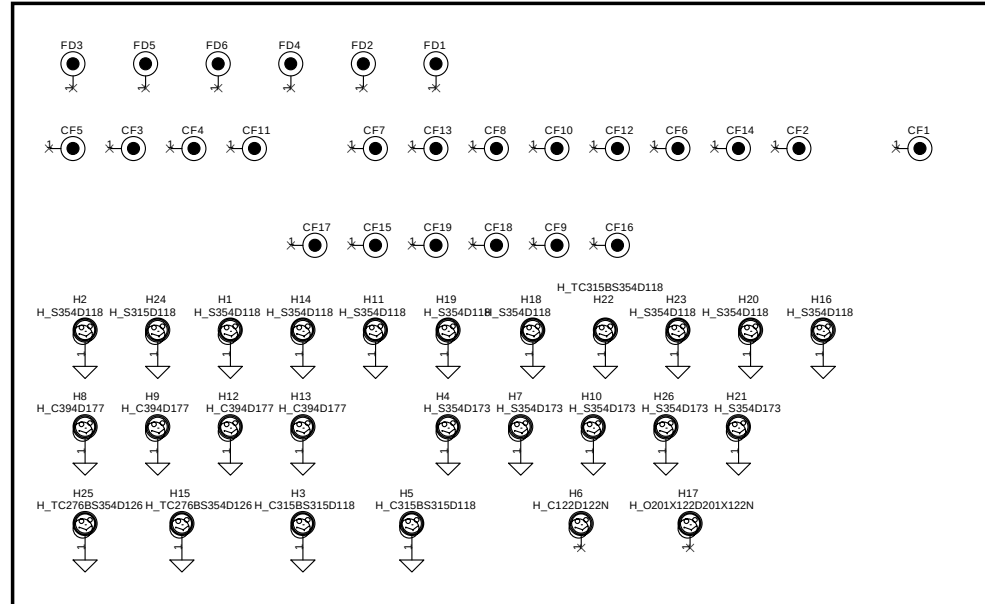
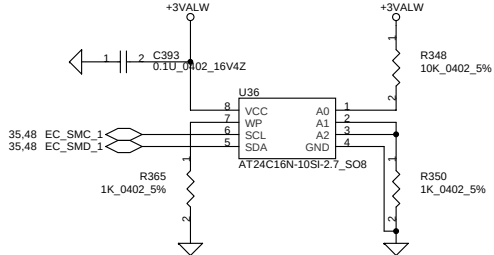
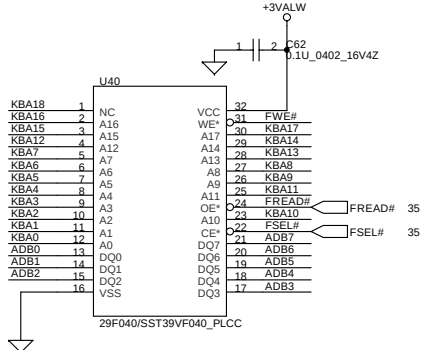
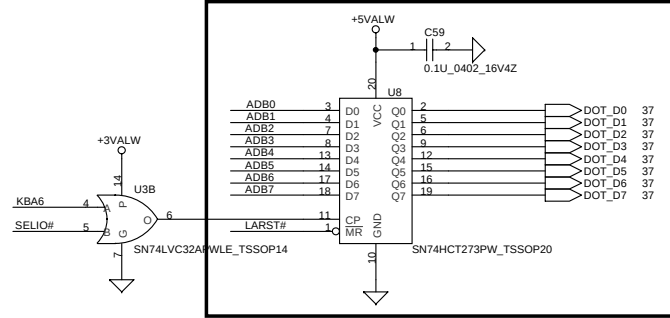
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remove when no LCM module



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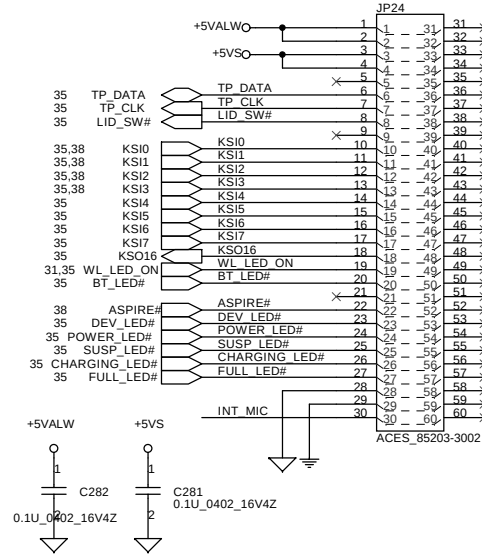
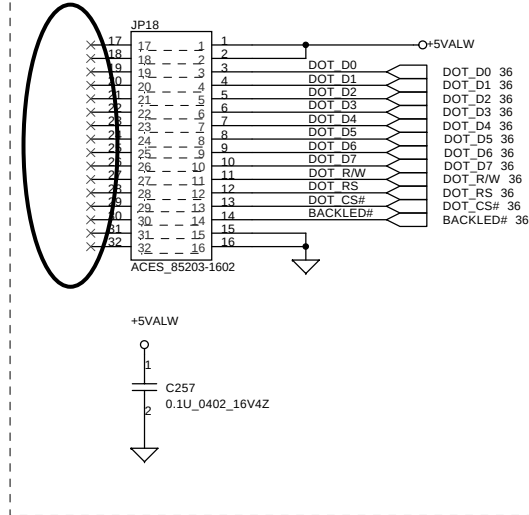
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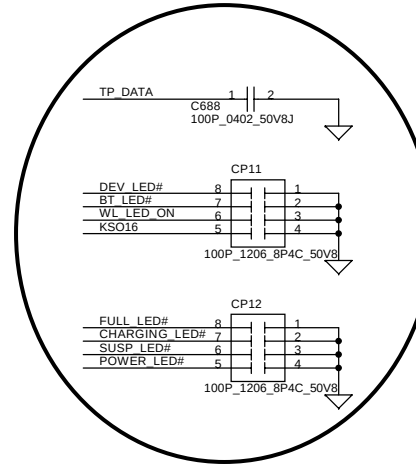
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To T/P Board

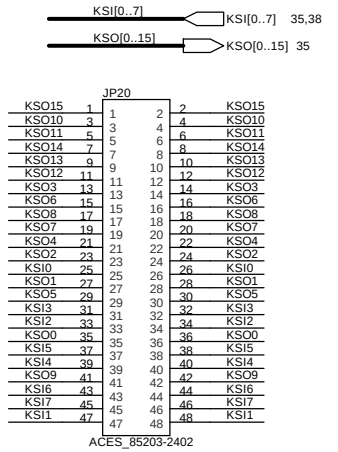
To LCM Board



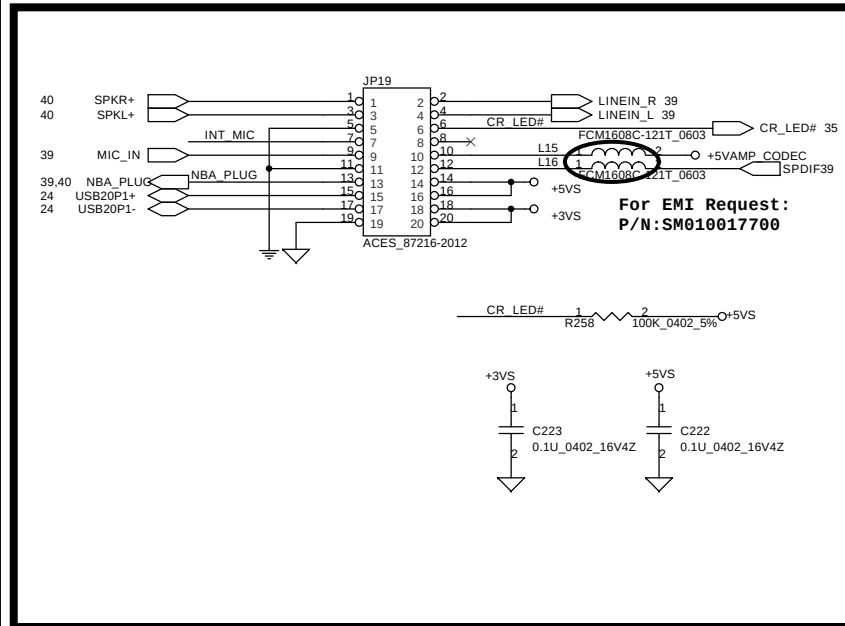
Add CP11,CP12,C688



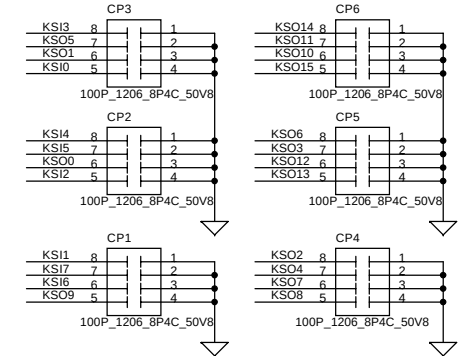
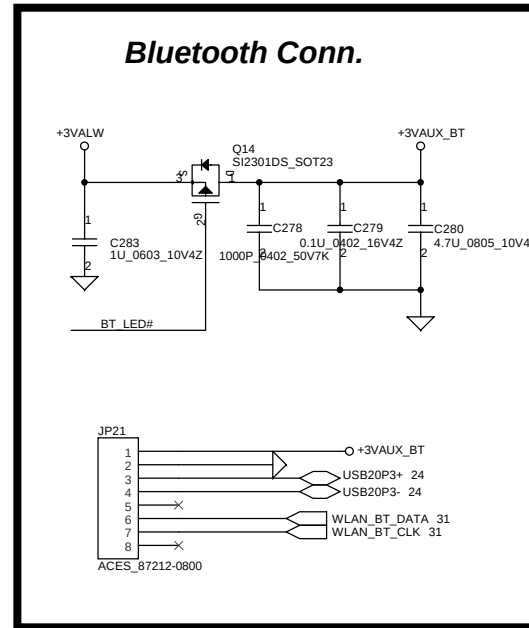
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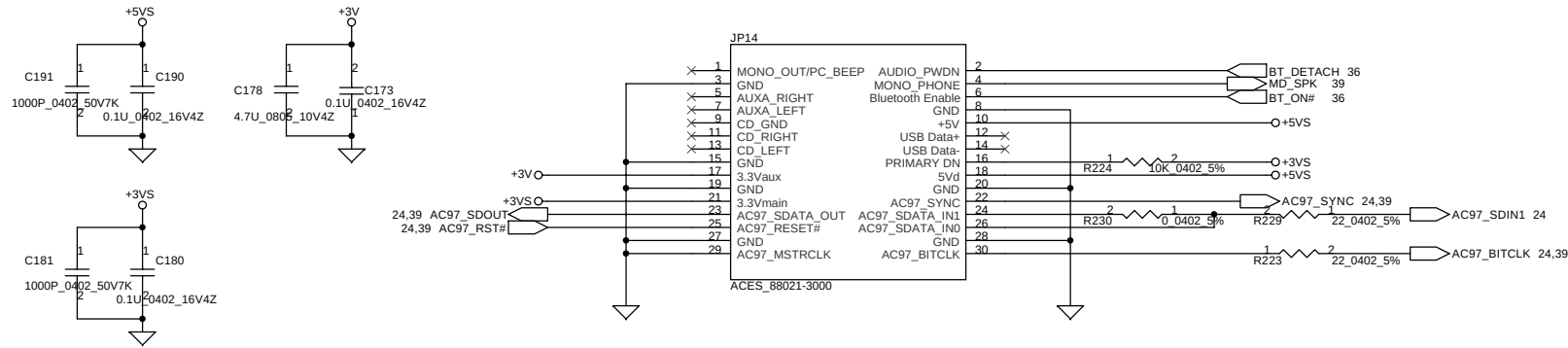
To Card Reader Board



Bluetooth Conn.

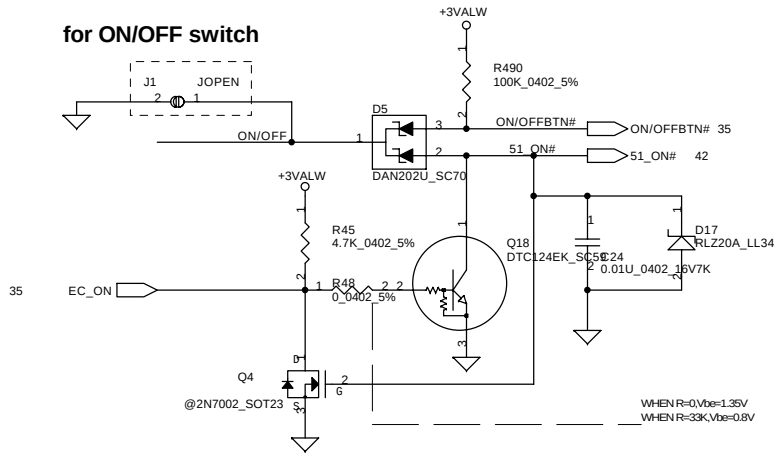


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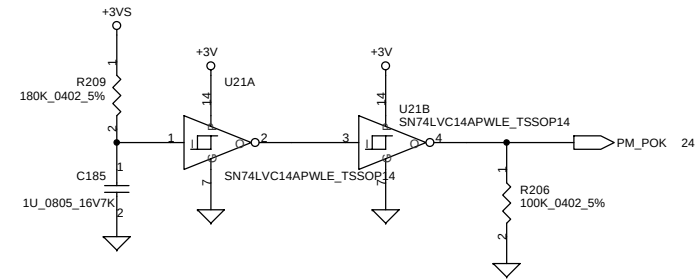


ON/OFF BUTTON

for ON/OFF switch

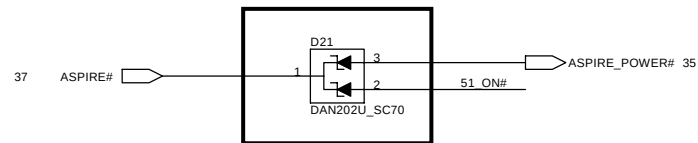


Power OK Circuit

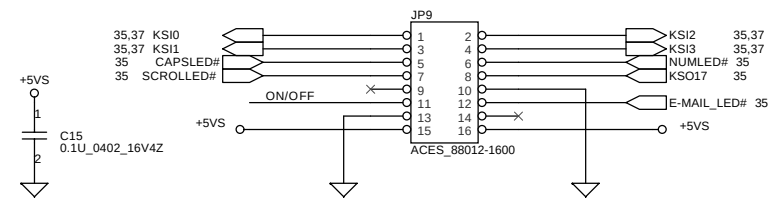


ASPIRE POWER

remove when no MEDIA/B

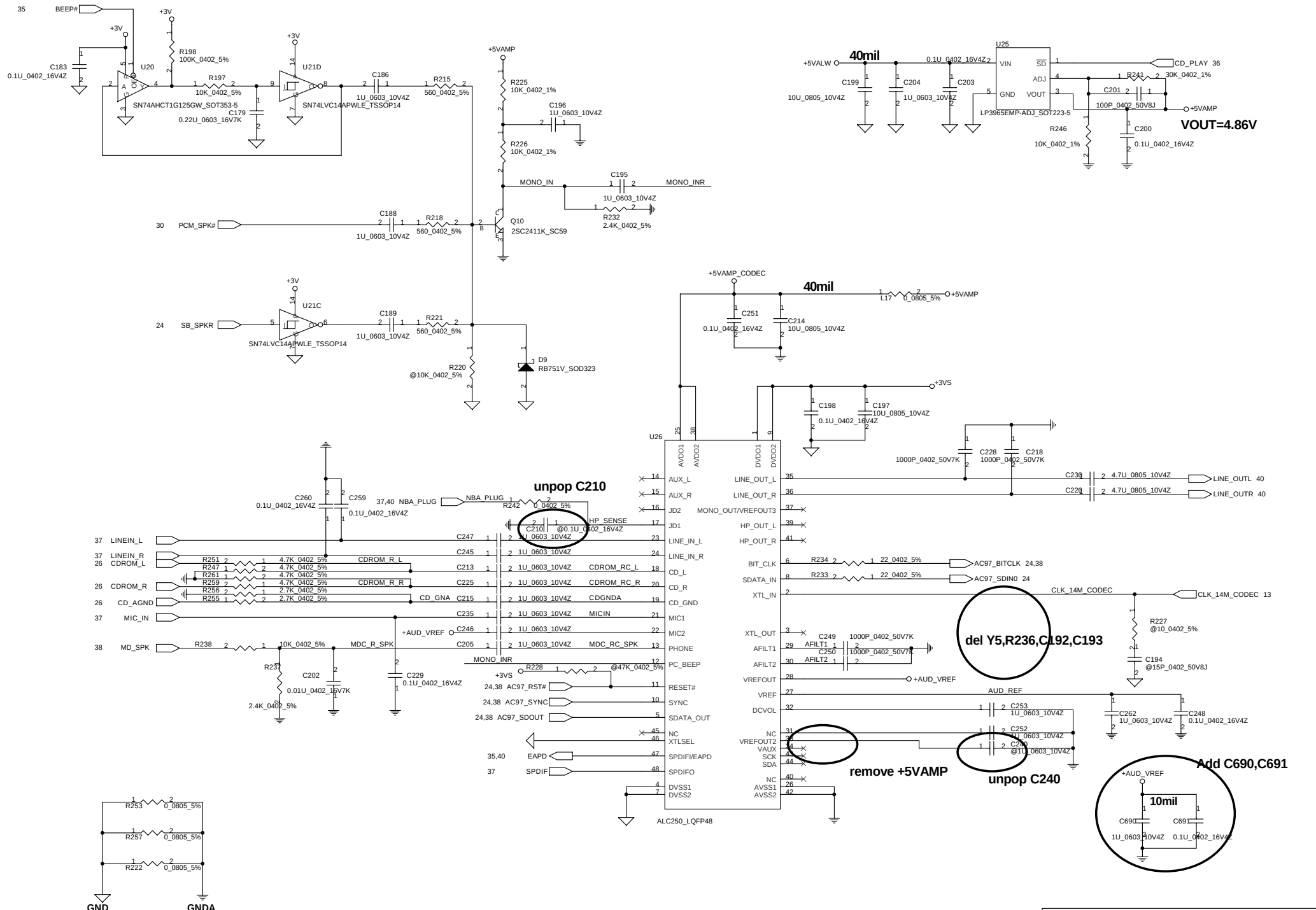


POWER/B CONN



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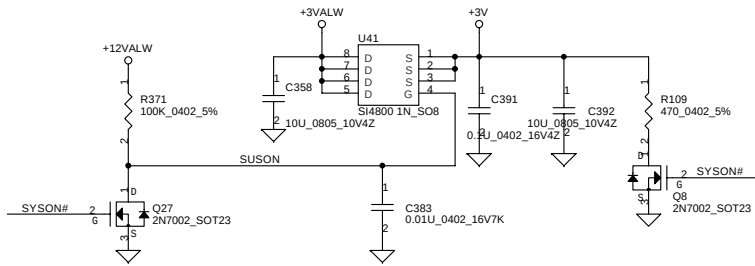
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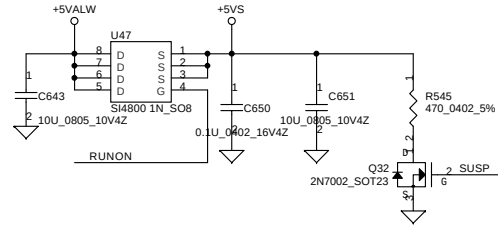
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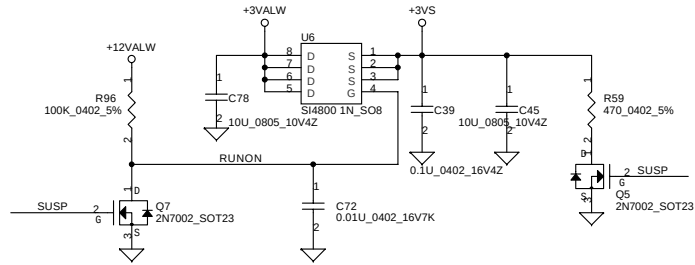
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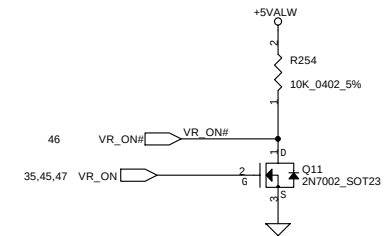
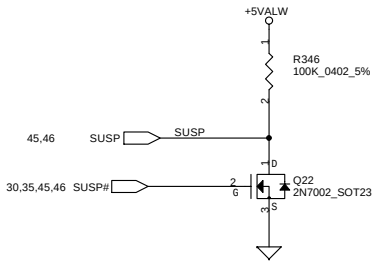
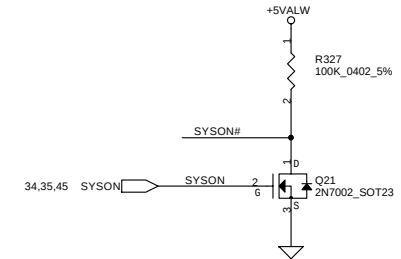
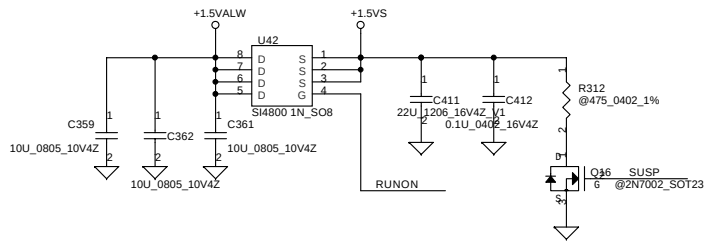
+5VALW to +5VS Transfer



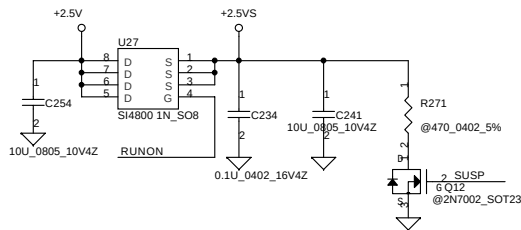
+3VALW to +3VS Transfer



+1.5VALW to +1.5VS Transfer



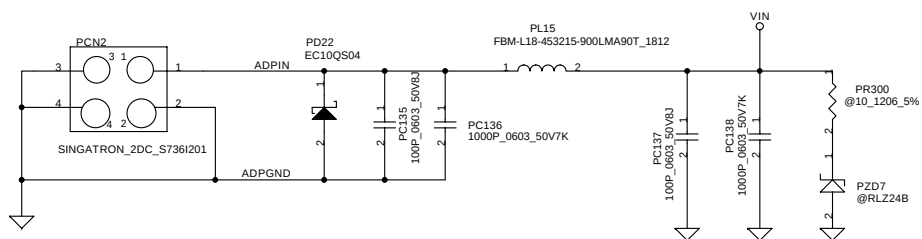
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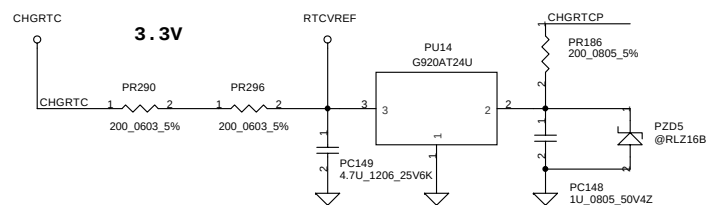
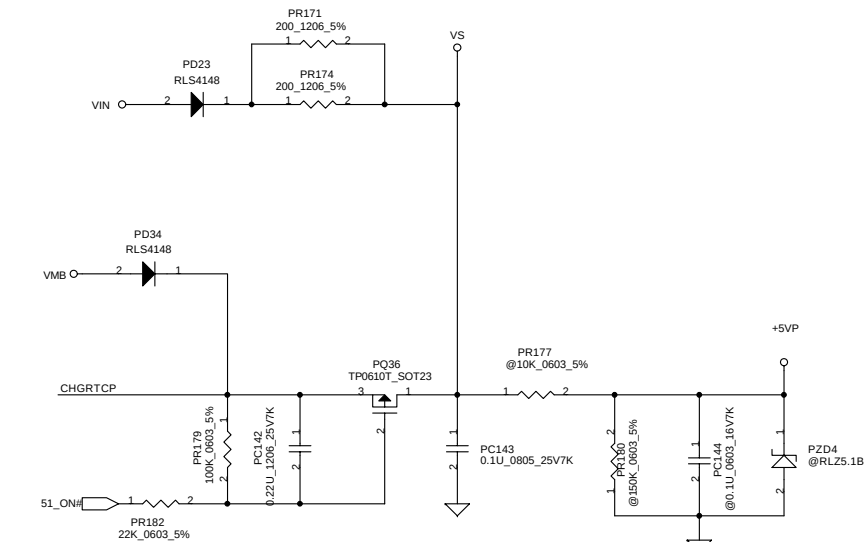
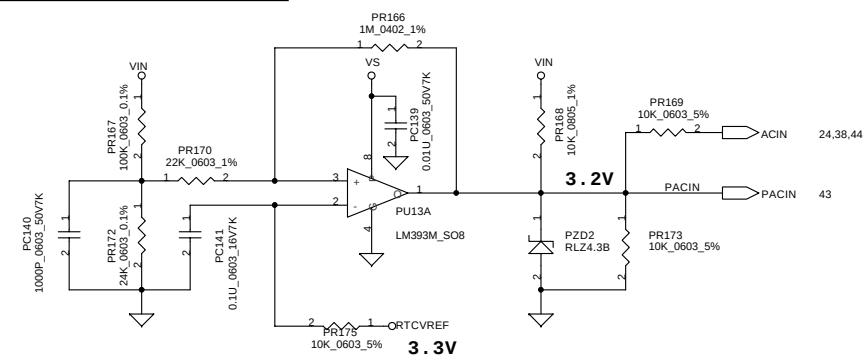
remove on Drongo4

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VIN detector
 18.239 17.755 17.273
 17.545 17.071 16.587

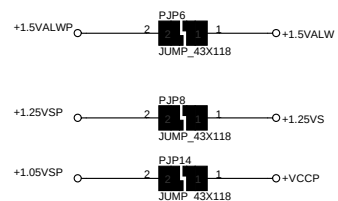
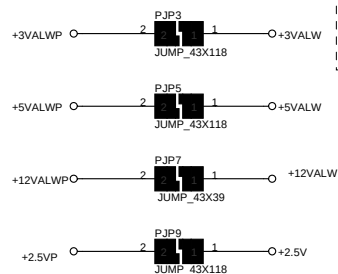
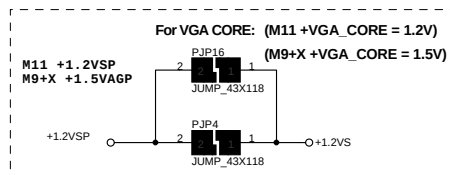


ACIN

Precharge detector
 15.821 15.195 14.585
 13.192 12.700 12.022

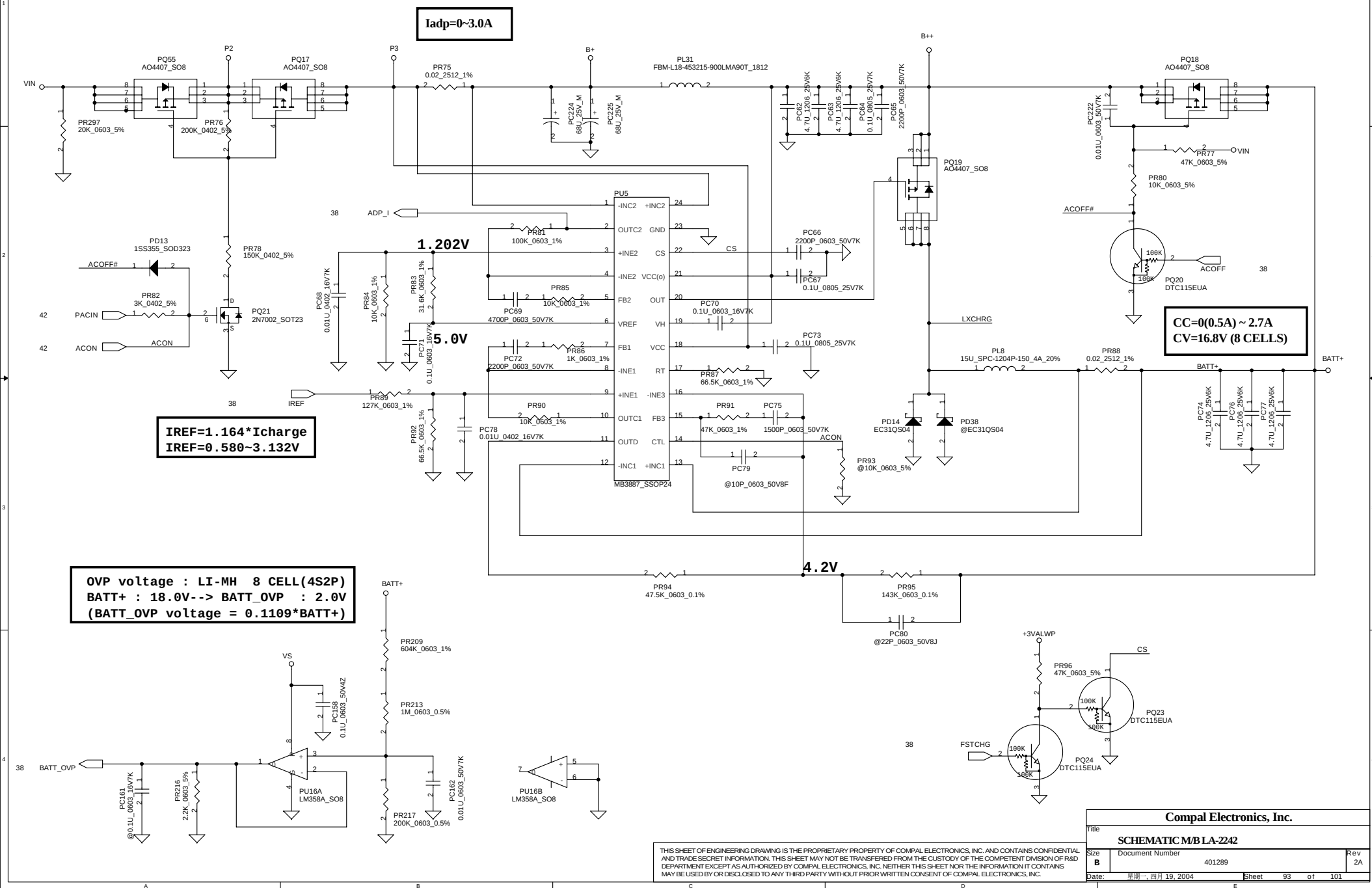
BAT ONLY

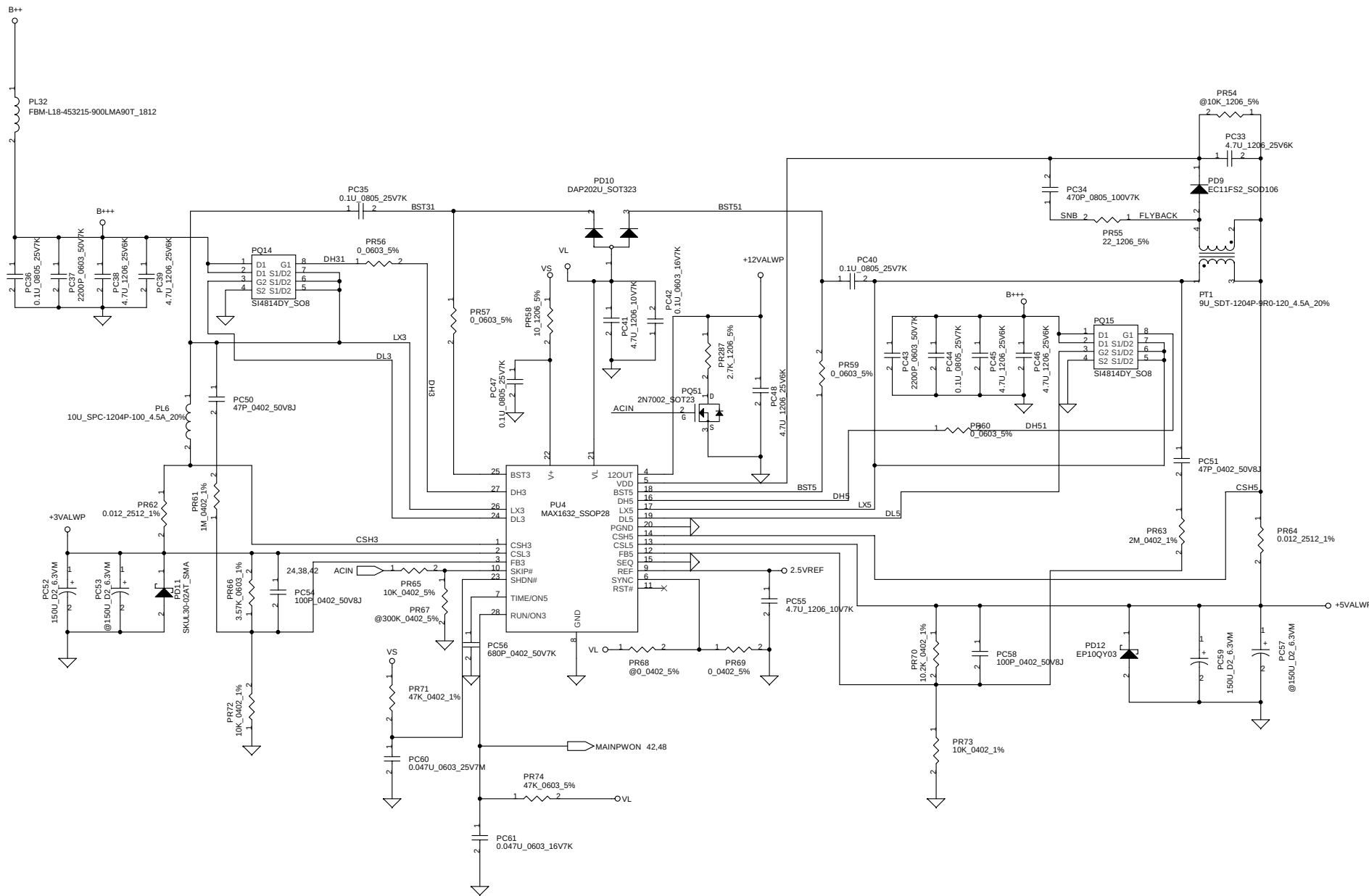
Precharge detector
 8.555 8.247 7.945
 5.926 5.752 5.382



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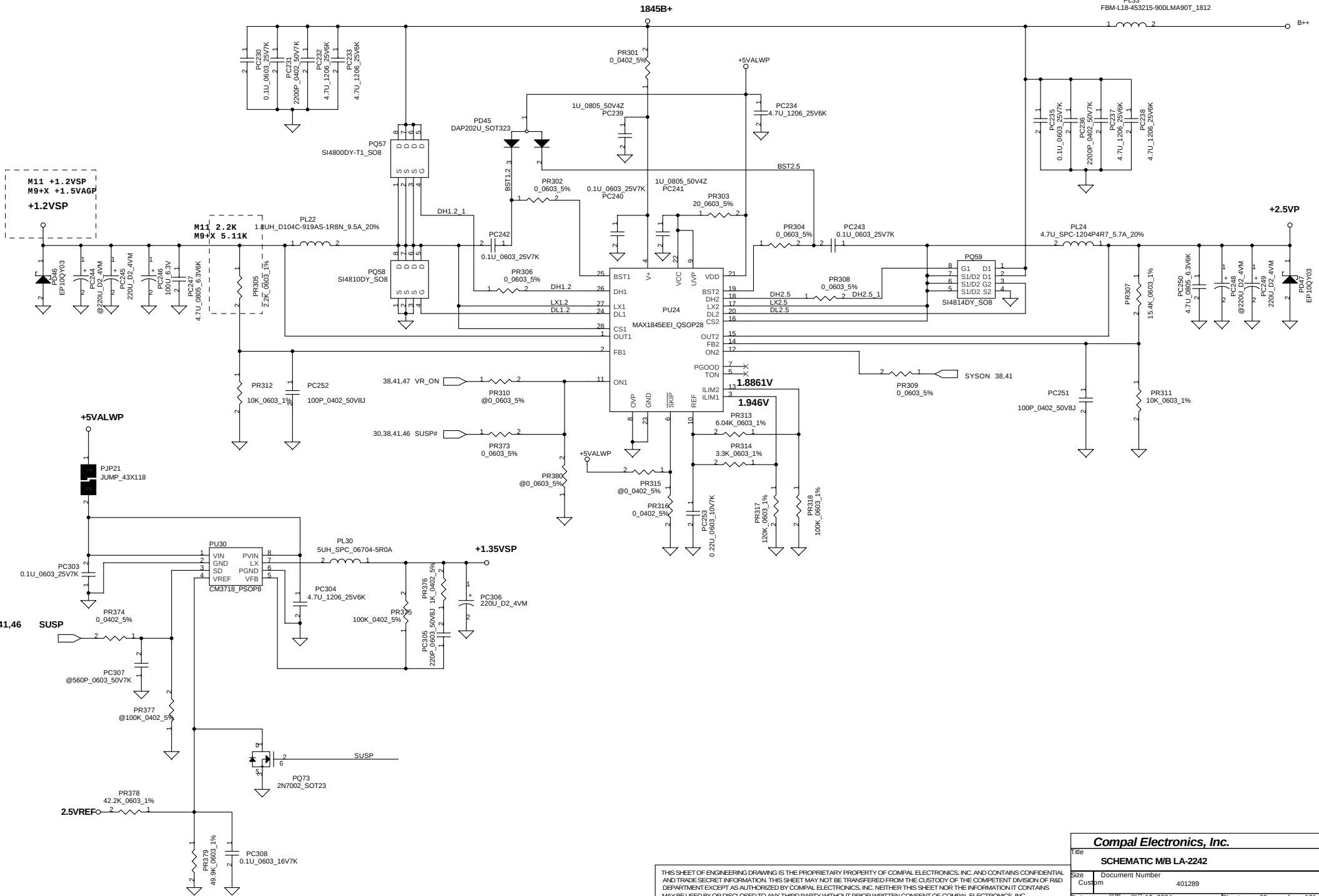
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+2.5VP/+1.2VSP/+1.35VSP

PL33
FBM-L18-453215-900LMA90T_1812

B++

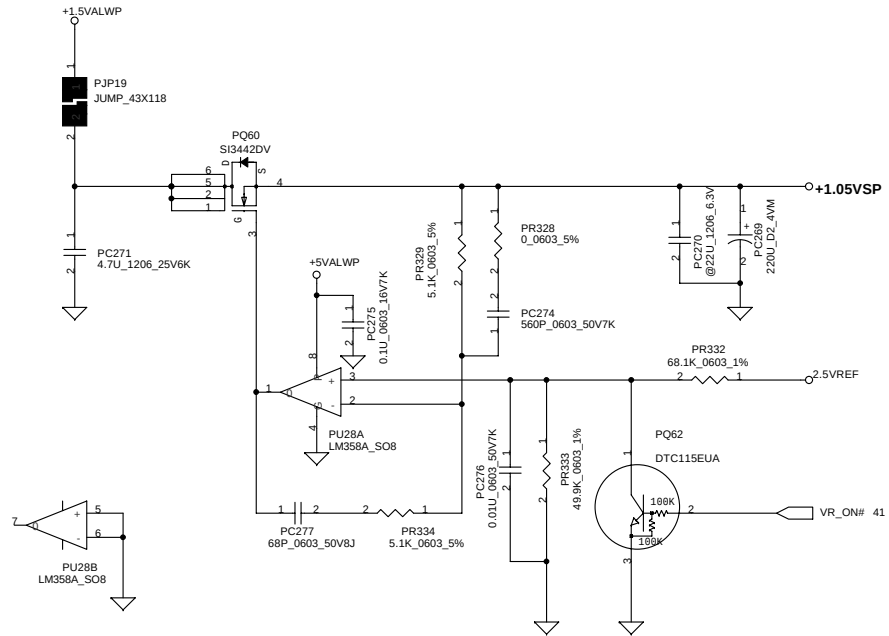
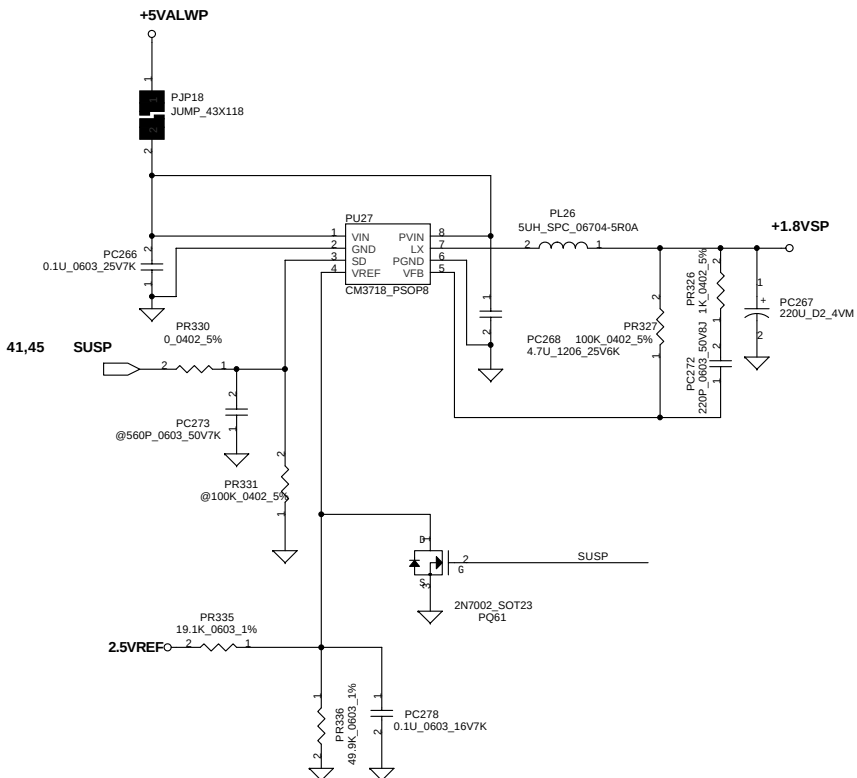
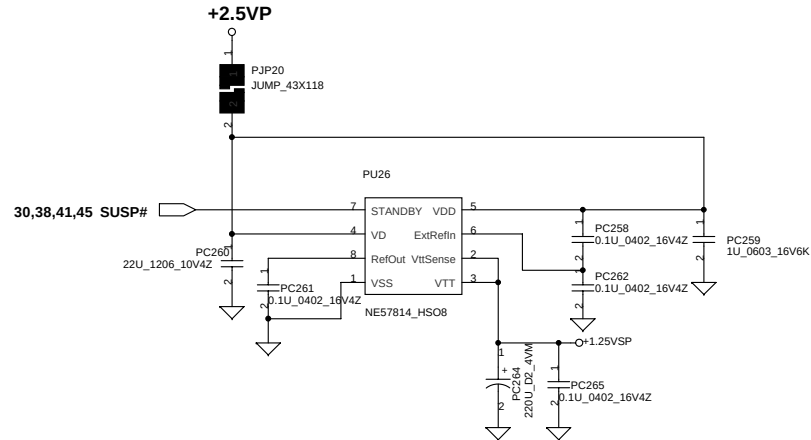
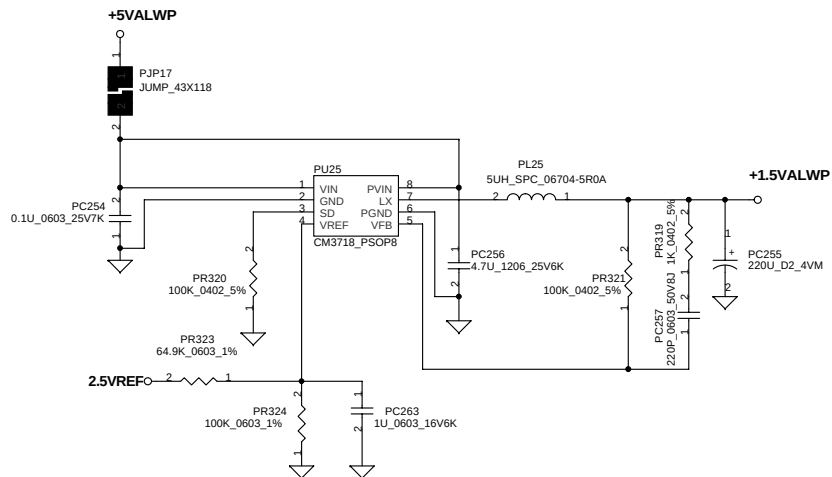


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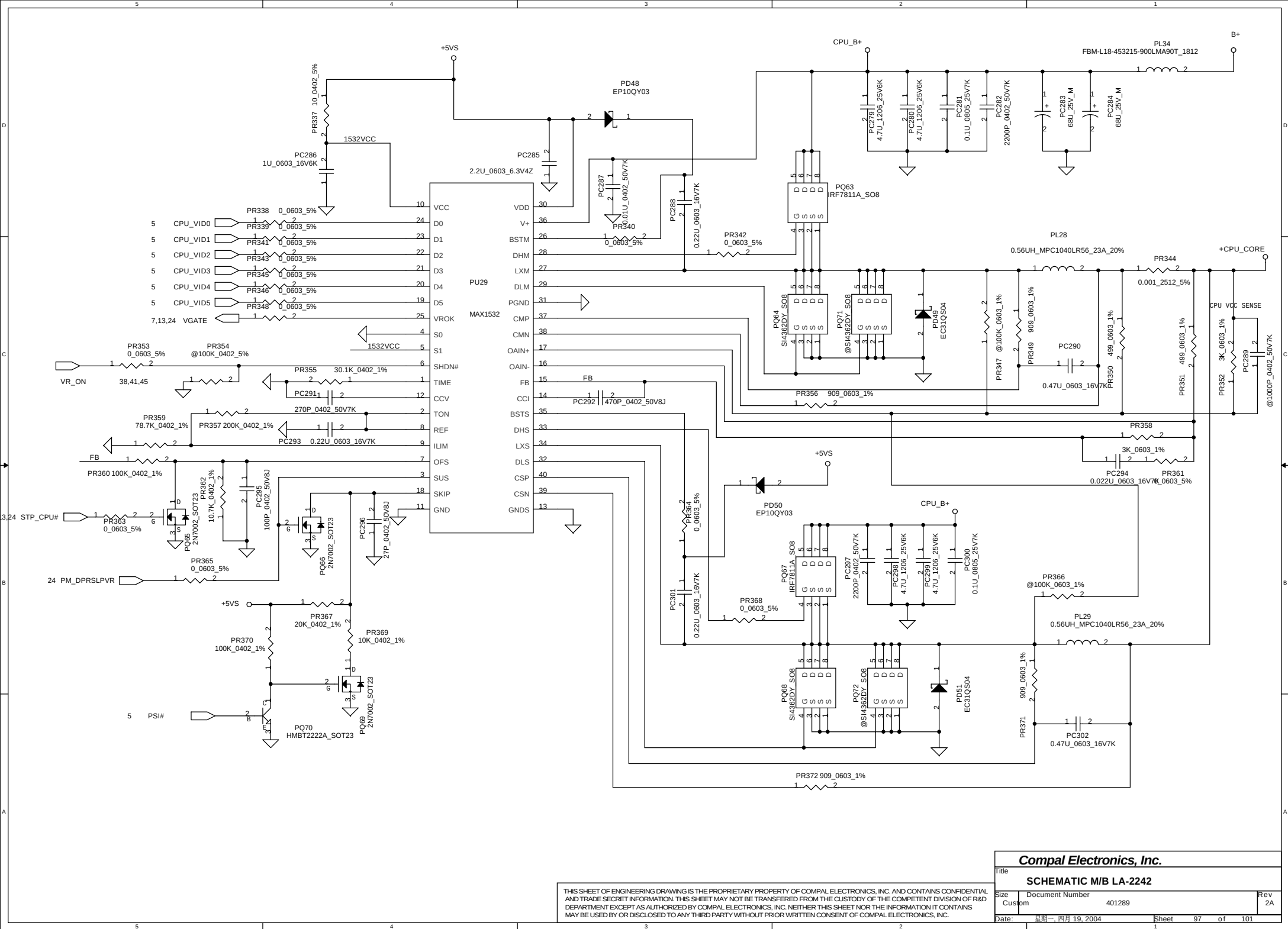
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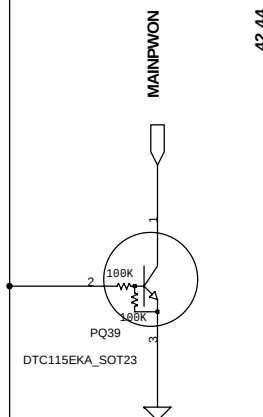
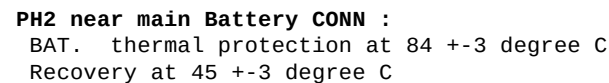
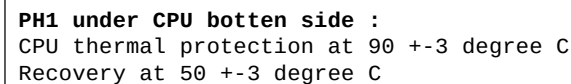
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Version change list (P.I.R. List)

Power section

Item	Reason for change	PG #	Modify List	Date	B.Ver #
1	1.05V oscillate	46	Delete PC270 and add PC269 (220u D2).	2004.02.07	
2	The single "SUSP" will be pull down to 2.2V	45 46	Delete PR331 and PR377.	2004.02.07	
3	To reduce the response time, when charger into CP mode.	43	Change PR81 from 22K to 100K.	2004.02.07	
4	For EMI request	43;44;45;47	Delete PL5,PL7,PL23,PL27 Change PQ63 and PQ67 to IRF7821 Change PR340 and PR364 to 2.2 ohm	2004.02.11	
5	To speed up 1.8V, 1.35V 1nd 1.05V	45 46	Change PR336, PR333 and PR379 to 49.9K Change PC278 and PC308 to 0.1uF Change PR335 to 19.1K Change PR332 to 68.1K Change PR378 to 42.2K	2004.02.12	
6	To reduce +3VALWP power plane negative voltage	44	Change PD11 to SKUL30-02AT	2004.03.01	
7	For EMI request	43;44;45;47	Add PL31,PL32,PL33,PL34 Change PR342 and PR368 to 2.2 ohm Change PR340 and PR364 to 0 ohm	2004.03.01	
8	For EMI request	47	Change PR342 and PR368 to 0 ohm Change PQ63 and PQ67 to IRF7811A Change PQ64 and PQ68 to SI4362	2004.03.16	
9	Adjust Vin detector	42	Change PR167 to 100K_0603_0.1% Change PR172 to 24K_0603_0.1% Change PR170 to 22K_0603_1% Change PR166 to 1M_0402_1%	2004.03.16	

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

HW section

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Item	Reason for change	PG #	Modify List	Date	
1	PCI_AD[31..0],PCI_CBE#[0..3] reserved	P.27	Correct PCI_AD[31..0],PCI_CBE#[0..3]	2/4	EVT(Rev02)
2	VR_ON# pull up resistor	P.41	Change R254 from 100K to 10K	2/4	EVT(Rev02)
3	AGP Isolating circuit	P.7	Mount U39, unmount R372,R377,R388,R414	2/4	EVT(Rev02)
4	Change Codec to ALC250	P.39	Change U26 to ACL250, mount R242	2/4	EVT(Rev02)
5	Modify VGA strap pin	P.14	Mount R479,R489; unmount R437, R441,R443,R448	2/4	EVT(Rev02)
6	Enter Windows "Beep" noise	P.39	Del C209 and let U26 pin14,15,16 no connect	2/6	DVT(Rev03)
7	For LS-1993 NBA_PLUG signal	P.37	Del R541,Q31	2/6	DVT(Rev03)
8	For DFX	P.24,36,38	Change J1,J2,H22 footprint	2/6	DVT(Rev03)
9	Change USB Power Switch to RT9701CBL	P.34	Change U34,U35, Del R291,R292,R313,R322,R329 Add R557,R558,R559,R560,R562,C685,C686	2/8	DVT(Rev03)
10	Change LAN LED circuit	P.27	Add R562	2/8	DVT(Rev03)
11	For EMI	P.13,16,17 ,23,35,37	Del L15,L16,L31,L28,L23,R542,R543,R283,R284,R471	2/11	DVT(Rev03)
12	Unpoped 0.1UF capacitor for EMI request	P.12,16,17, 26,27,29,30	Del some 0.1UF capacitor for EMI request	2/12	DVT(Rev03)
13	For +LVDDR25 ripple	P.16	Unpoped C518 for LDO issue	3/4	PVT(Rev04)
14	Duplicate AGP_BUSY pill-up	P.24	Del R103	3/4	PVT(Rev04)
15	For BCM5788 +3V_LAN 0.2V leakage issue	P.27	Change VESD[1..3] to +3V_LAN(system power)	3/4	PVT(Rev04)
16	For BCM5788/BCM4401 difference	P.27,28	Del R369 and change T1 to 24ST0023-3 when use BCM4401	3/4	PVT(Rev04)
17	Vishay FIR issue(Nokia 61XX series)	P.32,33	Change U31 to TDFU6102; Poped R97 and change to 10K	3/4	PVT(Rev04)
18	For audio issue	P.35,40	Add Q33,Q34 and EC_MUTE to U17 pin.69 Connect BYPASS from U30 to U29, change R274 to 39K Connect EAPD to EC pin.29	3/4	PVT(Rev04)
19	To simplify Codec circuit	P.36	Unpoped C210,C252, Del Y5,R236,C192,C193 Add C690,C691	3/4	PVT(Rev04)
20	For EMI	P.37	Add C688,CP11,CP12	3/4	PVT(Rev04)

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

HW section

Item	Reason for change	PG #	Modify List	Date	
1	Add NC solution for M9+X Ball D19/R4	P.16	Add R103,R236	4/13	MP(Rev2.0)
2	Switch +1.5VS(M11) & +1.8VS (M9+X)	P.16	Add R283,R284	4/13	MP(Rev2.0)
3	Switch +VDDR25(M11)& +VDD_PNLIO1.8(M9+X)	P.16	Add R313	4/13	MP(Rev2.0)
4	Add ENBKL inverse ckt for M9+X	P.35	Add R263,R264,Q31	4/13	MP(Rev2.0)
5	For EMI	P.37	Add L15,L16	4/13	MP(Rev2.0)
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