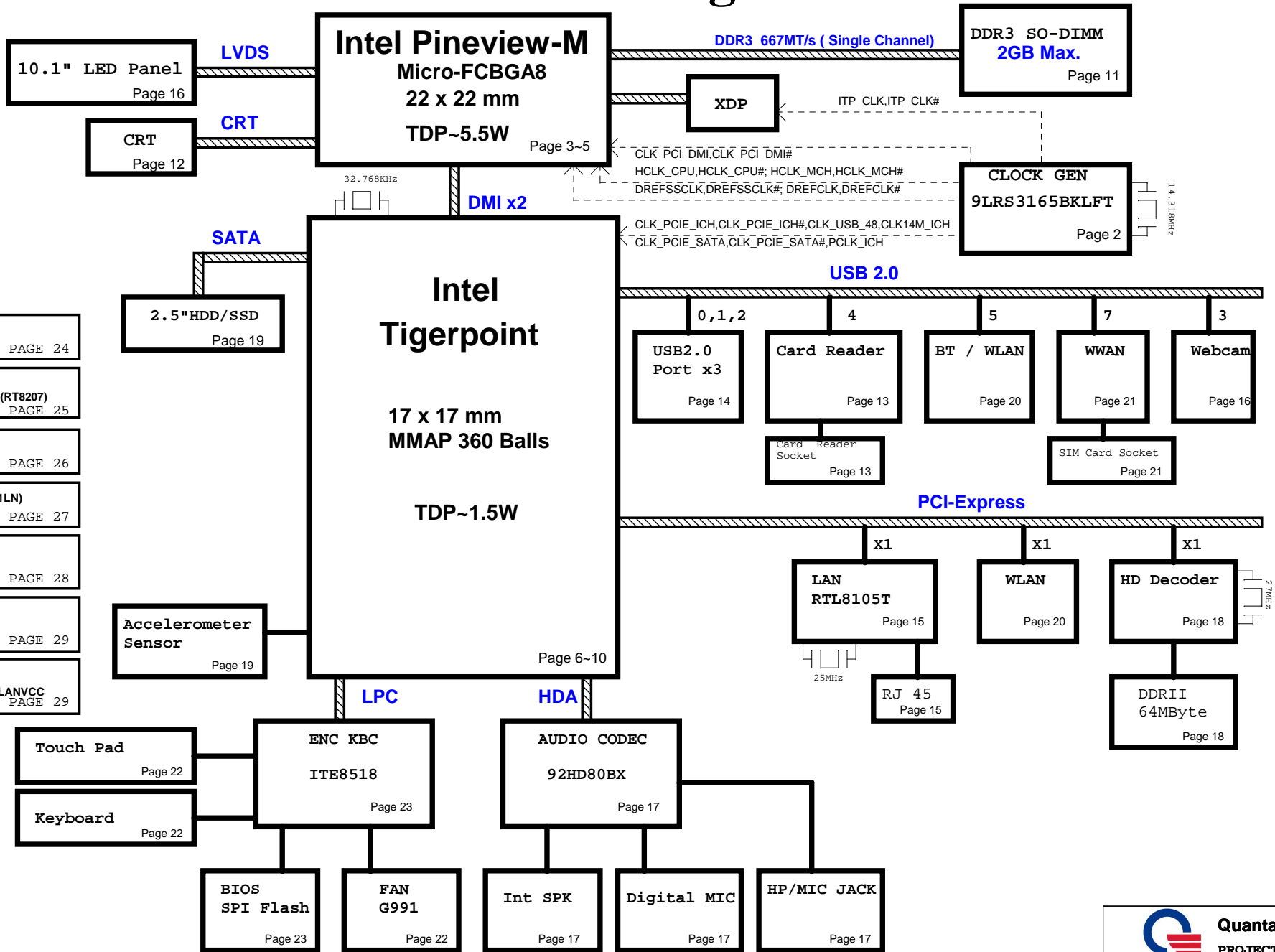


Miata 1.0 Block Diagram

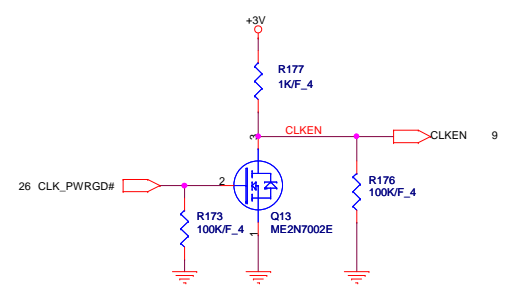
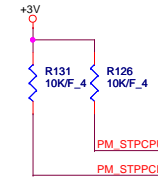
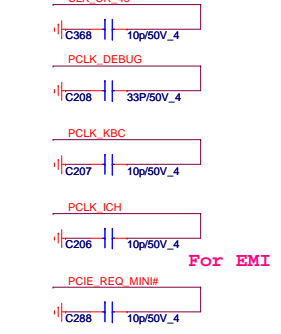
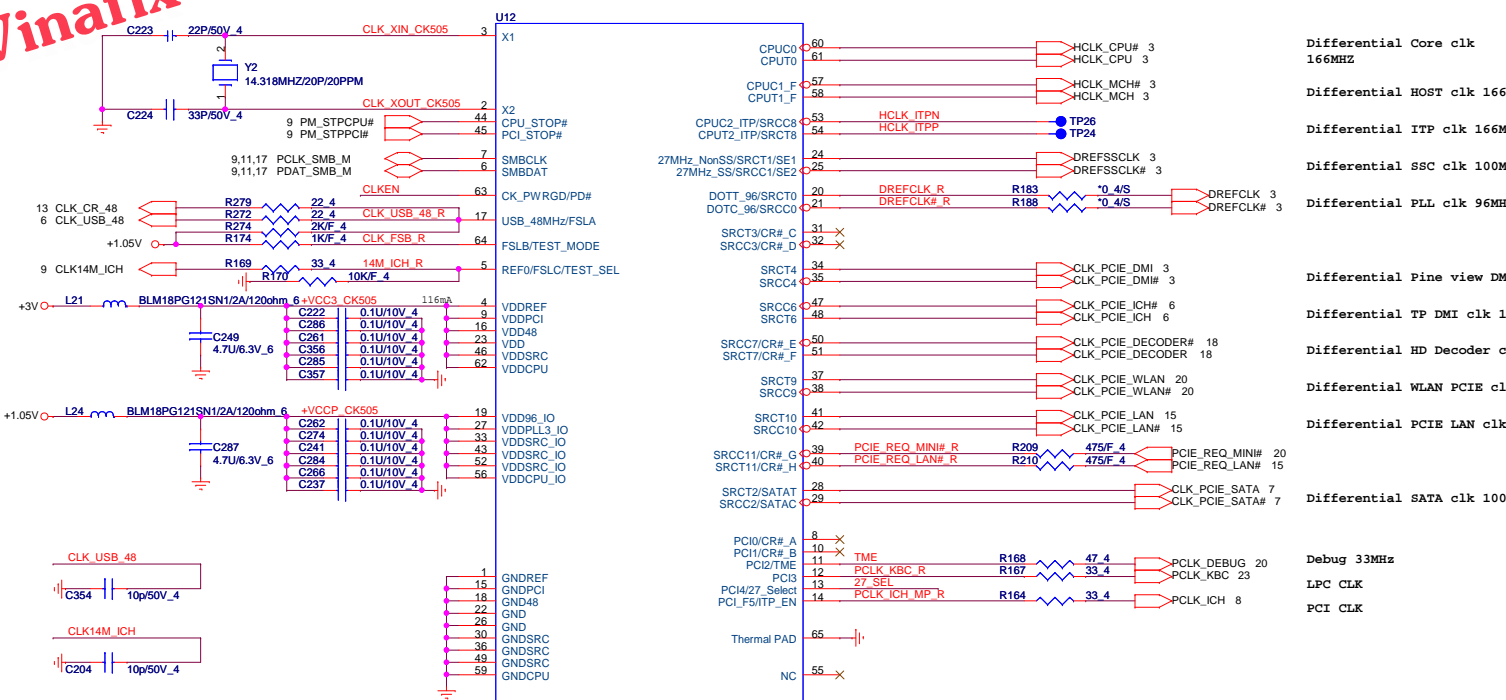
PCB STACK UP

6L

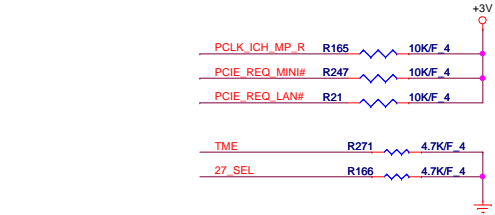
- LAYER 1 : TOP
- LAYER 2 : SGND
- LAYER 3 : IN1
- LAYER 4 : IN2
- LAYER 5 : VCC
- LAYER 6 : BOT



- SYSTEM POWER +3VS5/+5VS5(RT8223) PAGE 24
- DDR 3 +0.75V_DDR_VTT/+1.5VSUS(RT8207) PAGE 25
- CPU CORE (RT8152FGQW) PAGE 26
- SYSTEM CHARGER (OZ8681LN) PAGE 27
- +VCC_GFX_CORE(G9661) +1.8V (G9661) PAGE 28
- +1.05V(G5173) +1.2V (G9661) PAGE 29
- Dis-charge (G5934RZ1U) +3VSUS/+3V/+5V/+1.5V/+3VLAVCC PAGE 29



IDT AL003165000
SLG AL8SP513000

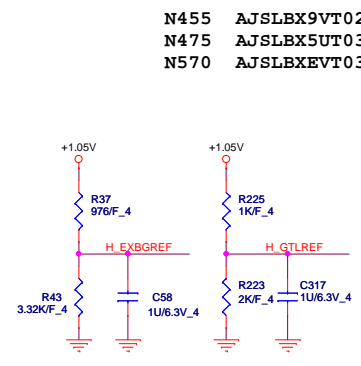
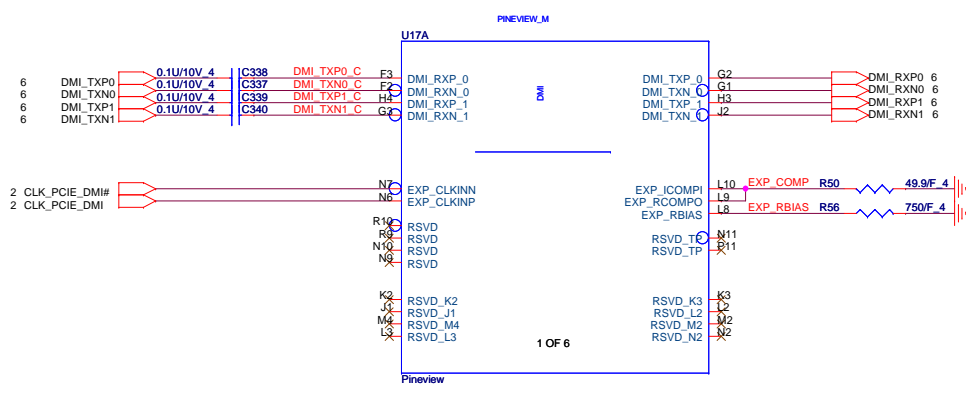
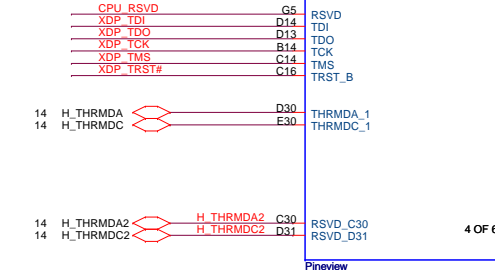
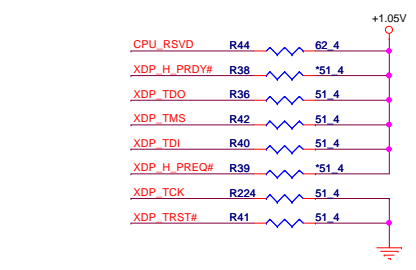
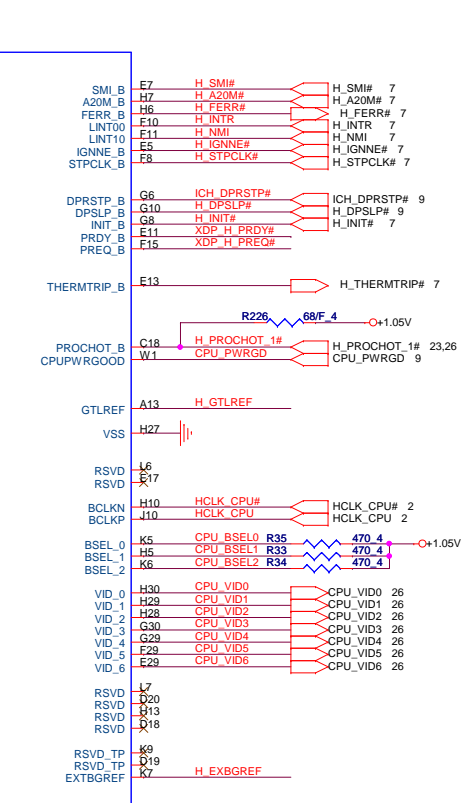
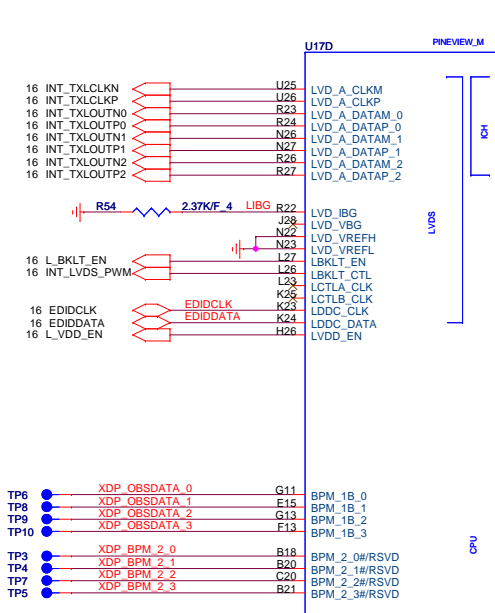
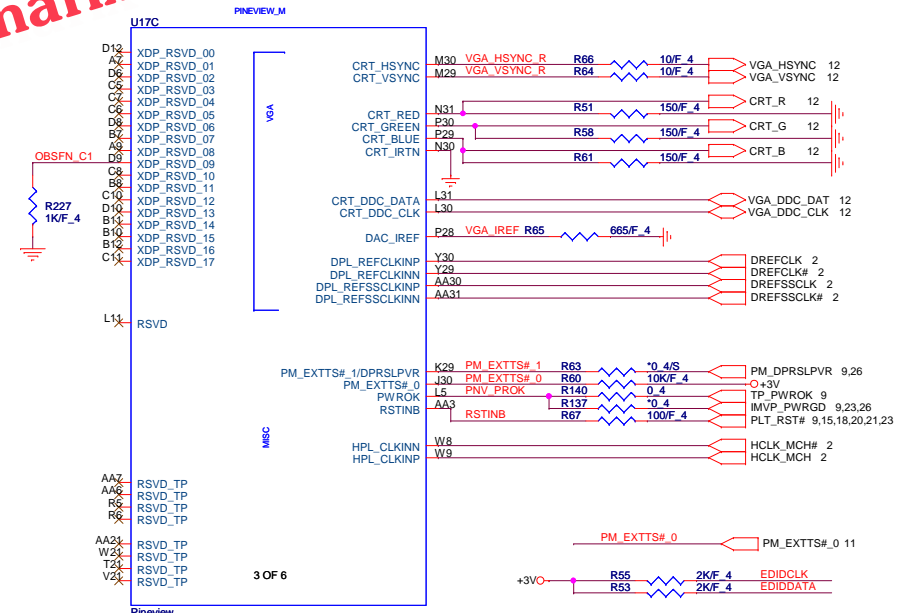


FSC BSEL2	FSB BSEL1	FSA BSEL0	CPU	SRC	PCI	REF	USB DOT	Spread %
0	0	0	266.66	100	33.33	14.318	48 96	0.5 Down
0	0	1	133.33	100	33.33	14.318	48 96	0.5 Down
0	1	0	200.00	100	33.33	14.318	48 96	0.5 Down
0	1	1	166.66	100	33.33	14.318	48 96	0.5 Down
1	0	0	333.33	100	33.33	14.318	48 96	0.5 Down
1	0	1	100.00	100	33.33	14.318	48 96	0.5 Down
1	1	0	400.00	100	33.33	14.318	48 96	0.5 Down
1	1	1						

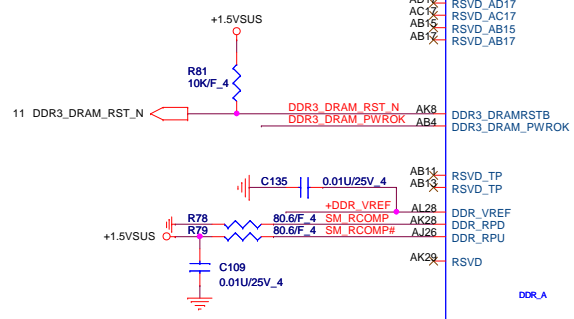
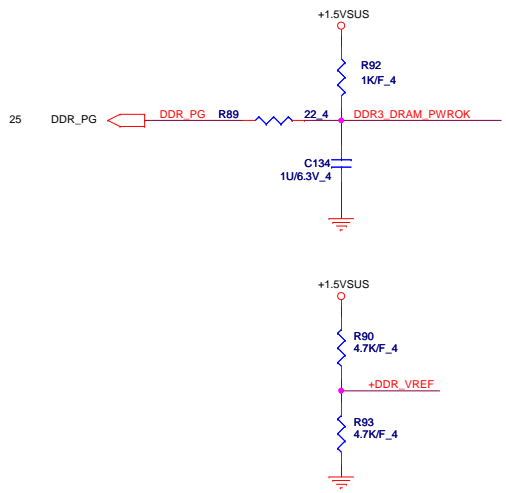
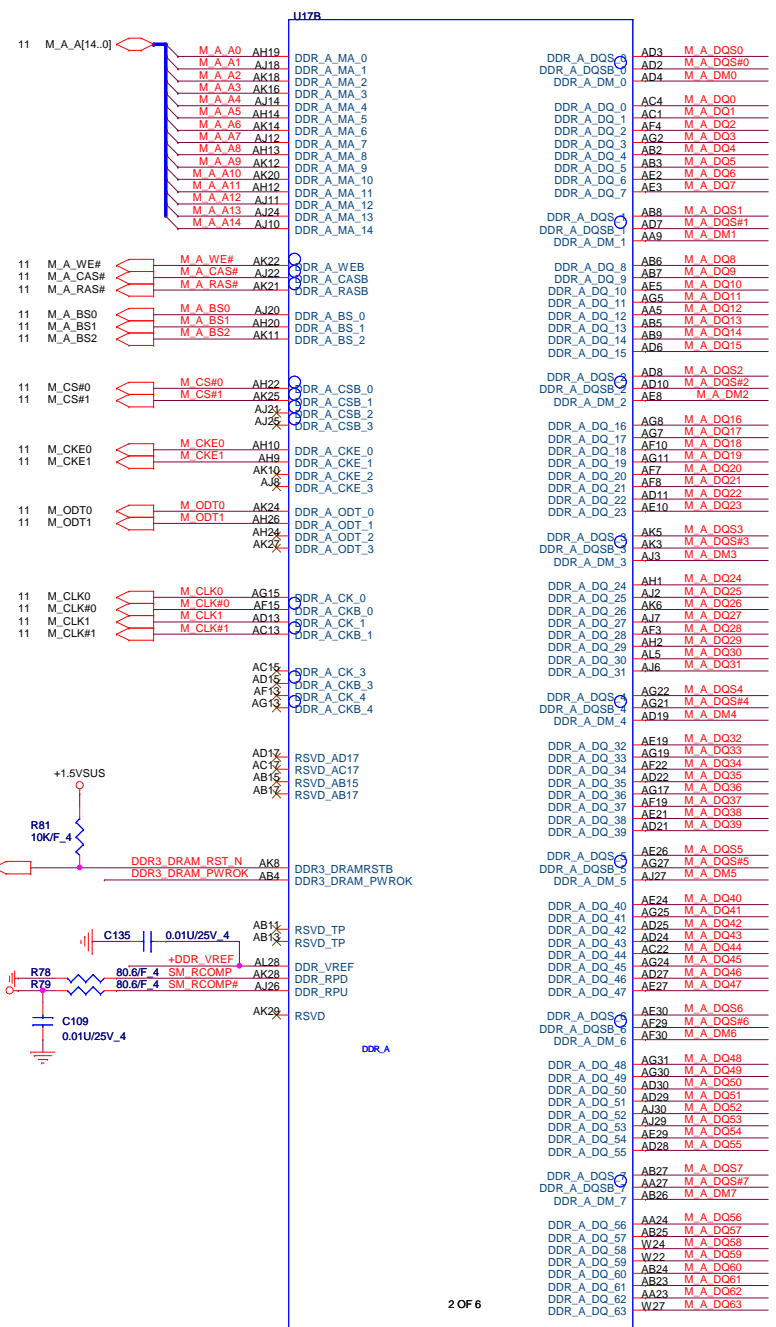
- Differential Core clk 166MHZ
- Differential HOST clk 166MHZ
- Differential ITP clk 166MHZ
- Differential SSC clk 100MHZ
- Differential PLL clk 96MHZ
- Differential Pine view DMI clk 100MHZ
- Differential TP DMI clk 100MHZ
- Differential HD Decoder clk 100MHZ
- Differential WLAN PCIE clk 100MHZ
- Differential PCIE LAN clk 100MHZ
- Differential SATA clk 100MHZ
- Debug 33MHZ
- LPC CLK
- PCI CLK

27 Select PIN13	PIN 20/21	PIN 24/25
* 0	DOT_96 / DOT_96#	LCDCCLK / LCDCCLK#
1	SRC_0 / SRC_0#	27M / 27M_SS

ITP_EN (PIN14)	PIN53/54
0	SRC8#/SRC8
* 1	ITP/ITP#



- N455 AJSLBX9VT02 / AJSLBX9VT03 CPU(559P)N455 1.66G SLBX9(BGA)
- N475 AJSLBX5UT03 / AJSLBX5UT02 CPU(559P)N475 1.83G SLBX5(BGA)
- N570 AJSLBXEVT03 / AJSLBXEVT02 CPU(559P)N570 1.66G SLBXE(BGA)

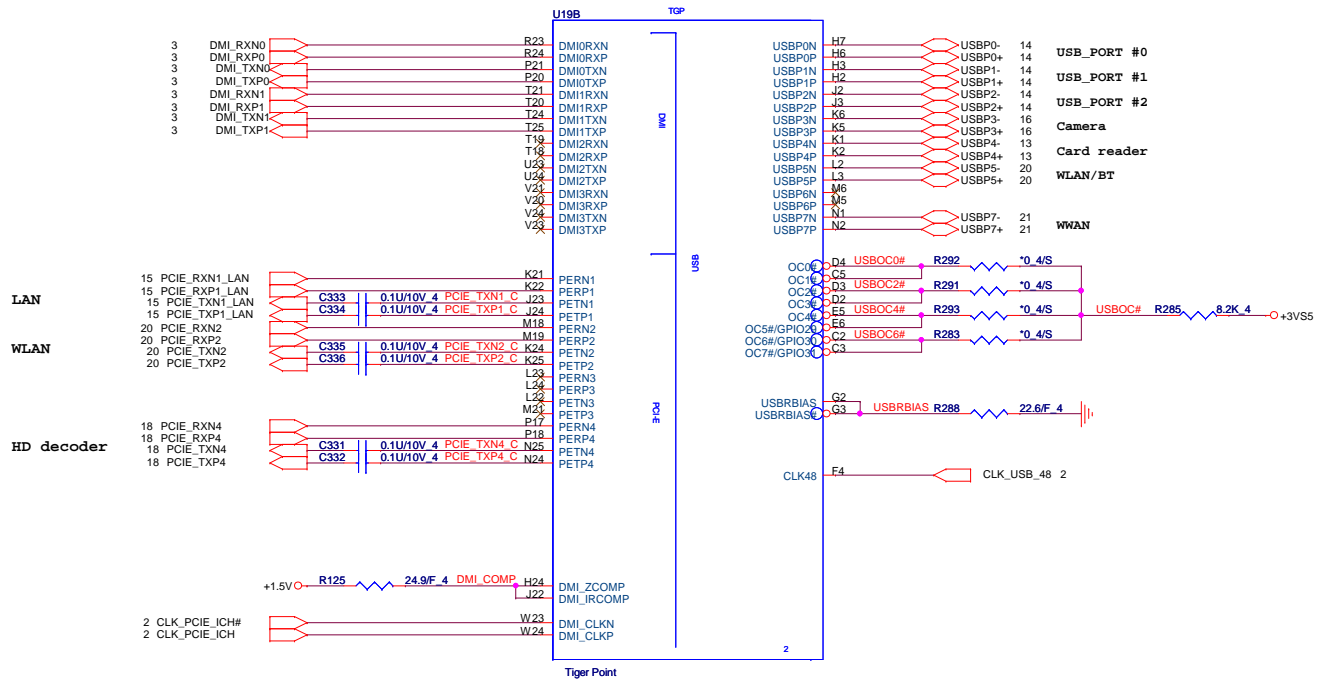


2 OF 6

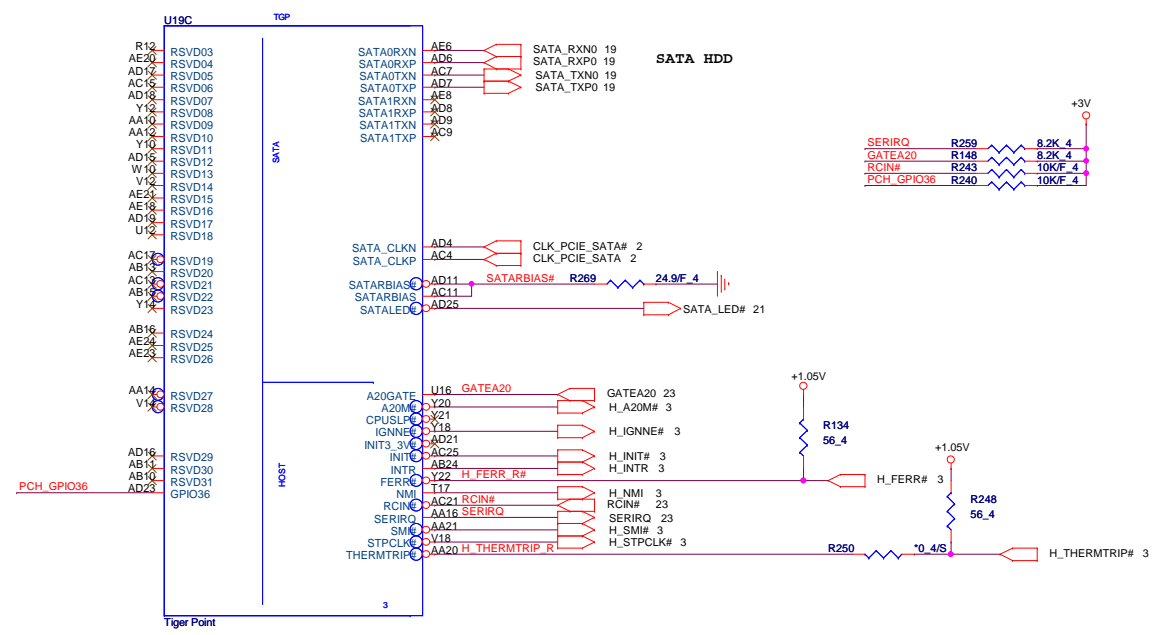
Quanta Computer Inc.
PROJECT : Miata

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	Pineview DDR(2/3)	1A
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→ 1.5VSUS 5.11,19,25,28,29,30



		Quanta Computer Inc.	
		PROJECT : Miata	
Size	Document Number	TigerPoint DM/PCIE(1/6)	
Date:	Friday, April 01, 2011	Sheet	6 of 31
			Rev: 1A

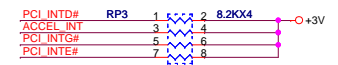
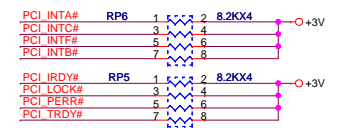
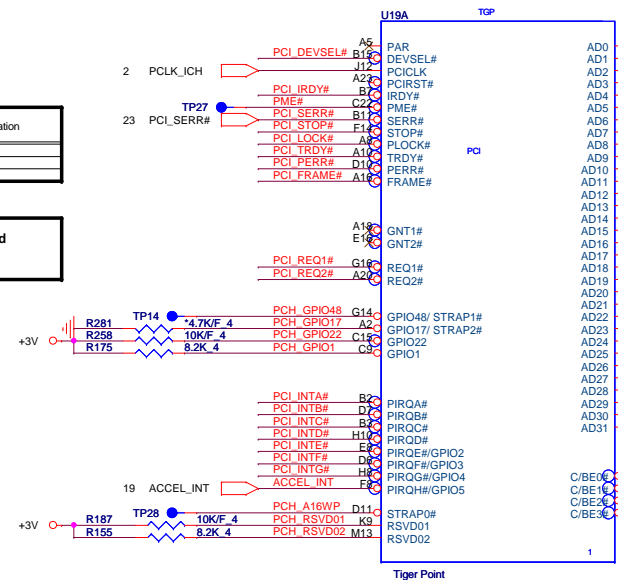


ICH Boot BIOS select

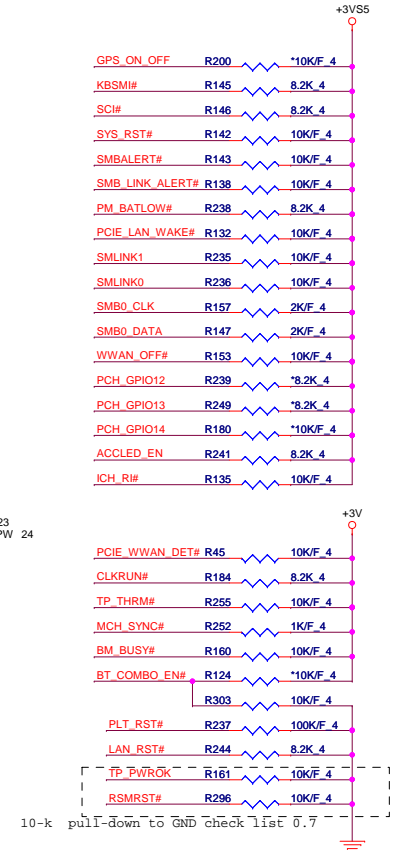
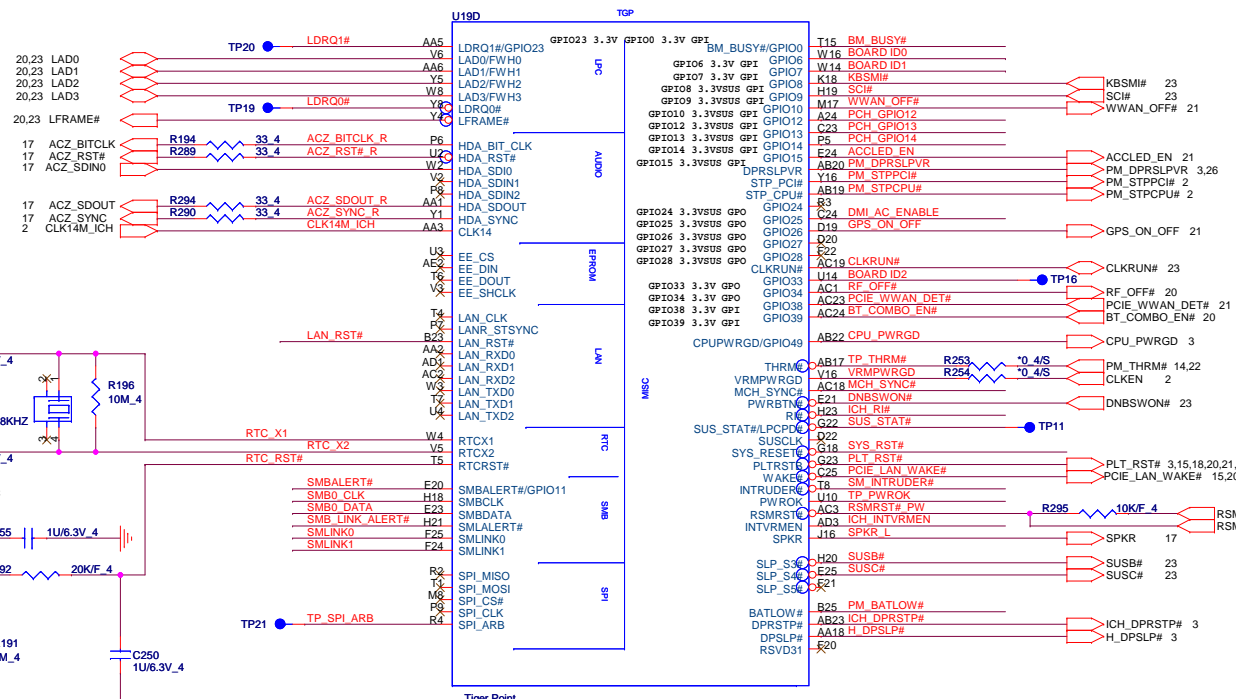
PCH_GPIO17 (INT PU)	PCH_GPIO48 (INT PU)	Boot BIOS Location
0	1	SPI
1	0	PCI
1	1	LPC (Default)

A16 SWAP Override strap

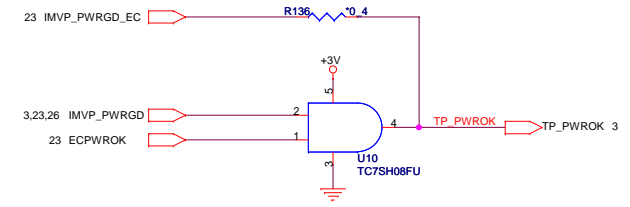
PCH_A16WP (INT PU)	Low = A16 swap override enabled High = Default



IRQ	Description
PIRQA	USB UHCI Controller #1, #4
PIRQB	AC'97 Codec; option for SMBUS
PIRQC	USB UHCI Controller #3; SATA/IDE Native Mode
PIRQD	USB UHCI Controller #2
PIRQE	Internal LAN; Option for SCI, TCO, HPET#0,1,2
PIRQF	Option for SCI, TCO, HPET#0,1,2
PIRQG	Option for SCI, TCO, HPET#0,1,2
PIRQH	USB EHCI Controller; Option for SCI, TCO, HPET#0,1,2
PCI_GNT#2	Internal PU Should not be PD



	INTVRMEN
Enable (default)	1
Disable	0



GPIO25 This signal has a weak internal pull-up. If the signal is sampled high, the DMI interface is strapped to operate in DC coupled mode (No coupling capacitors are required on DMI differential pairs). If the signal is sampled low, the DMI interface is strapped to operate in AC coupled mode (Coupling capacitors are required on DMI differential pairs). NOTE: Board designer must ensure that DMI implementation matches the strap selection.

DMI_AC_ENABLE R133 1K/F 4

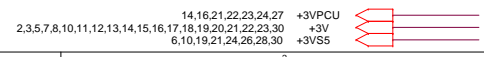
ACZ_SDOUT (INT PD)	ACZ_SYNC (INT PD)	Description
0	0	* 4 x 1s
1	0	Reserved
0	1	Reserved
1	1	1 x 4s (1 port/4 lanes)

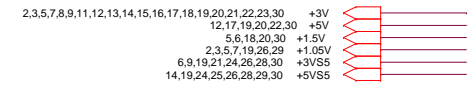
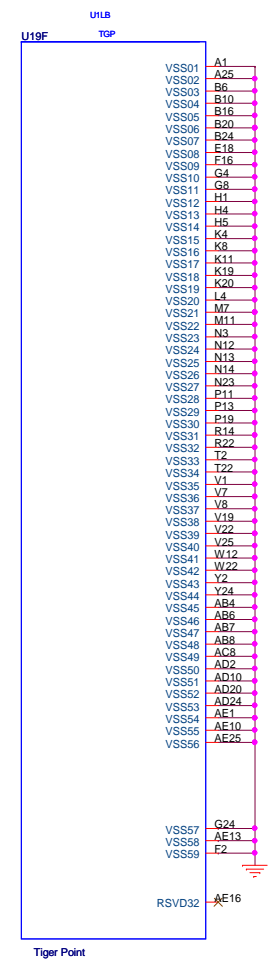
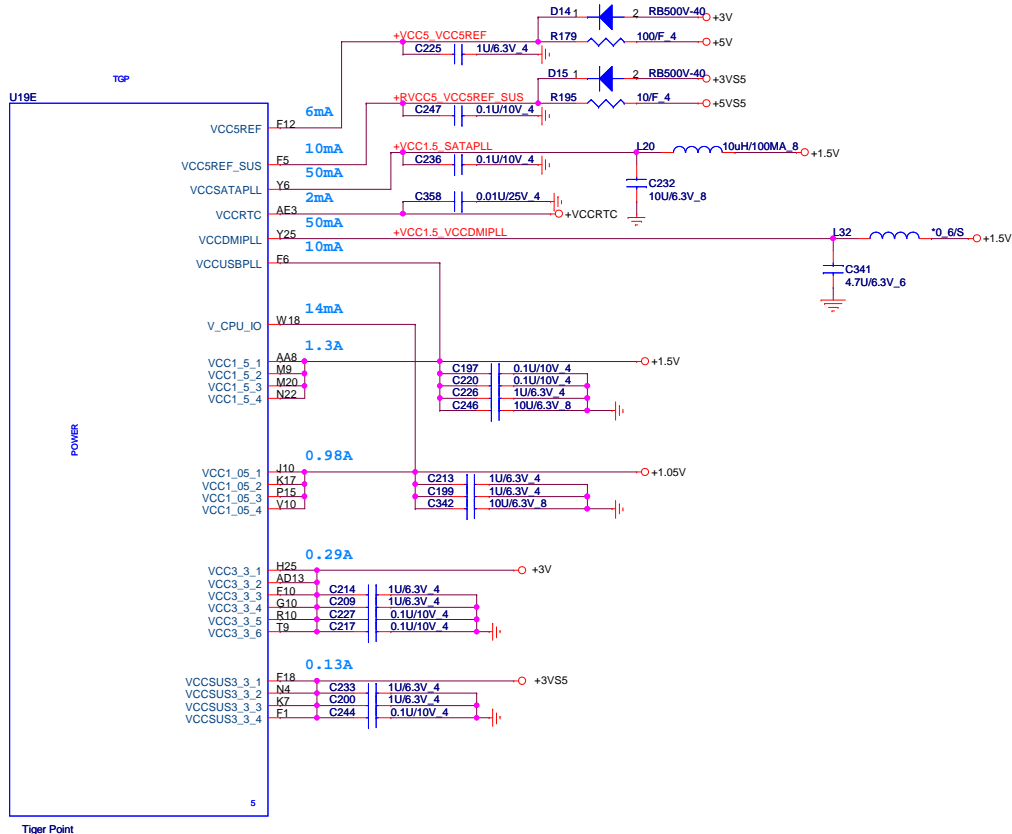
RTC

DFHS02FS020

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PROJECT : Miata

Size: Document Number: TigerPoint GPIO(4/6) Rev: 1A
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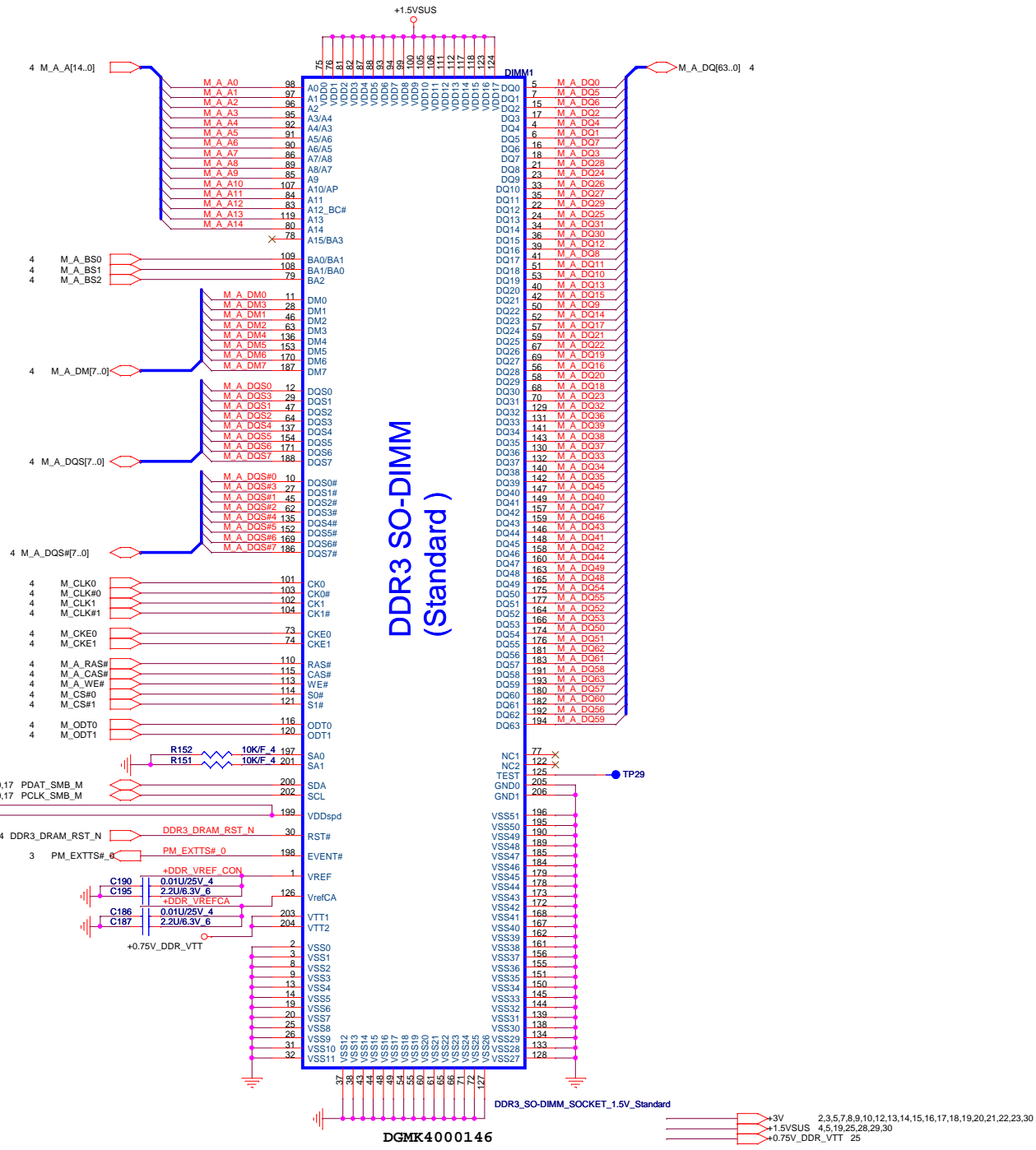
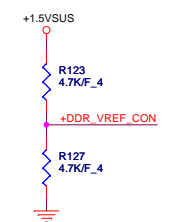
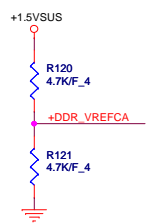
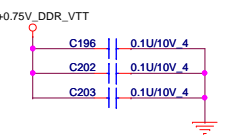
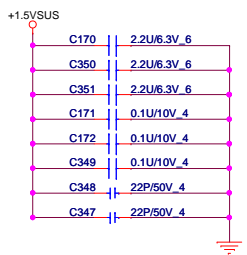




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Size Document Number
TigerPoint Power(5/6) Rev 1A

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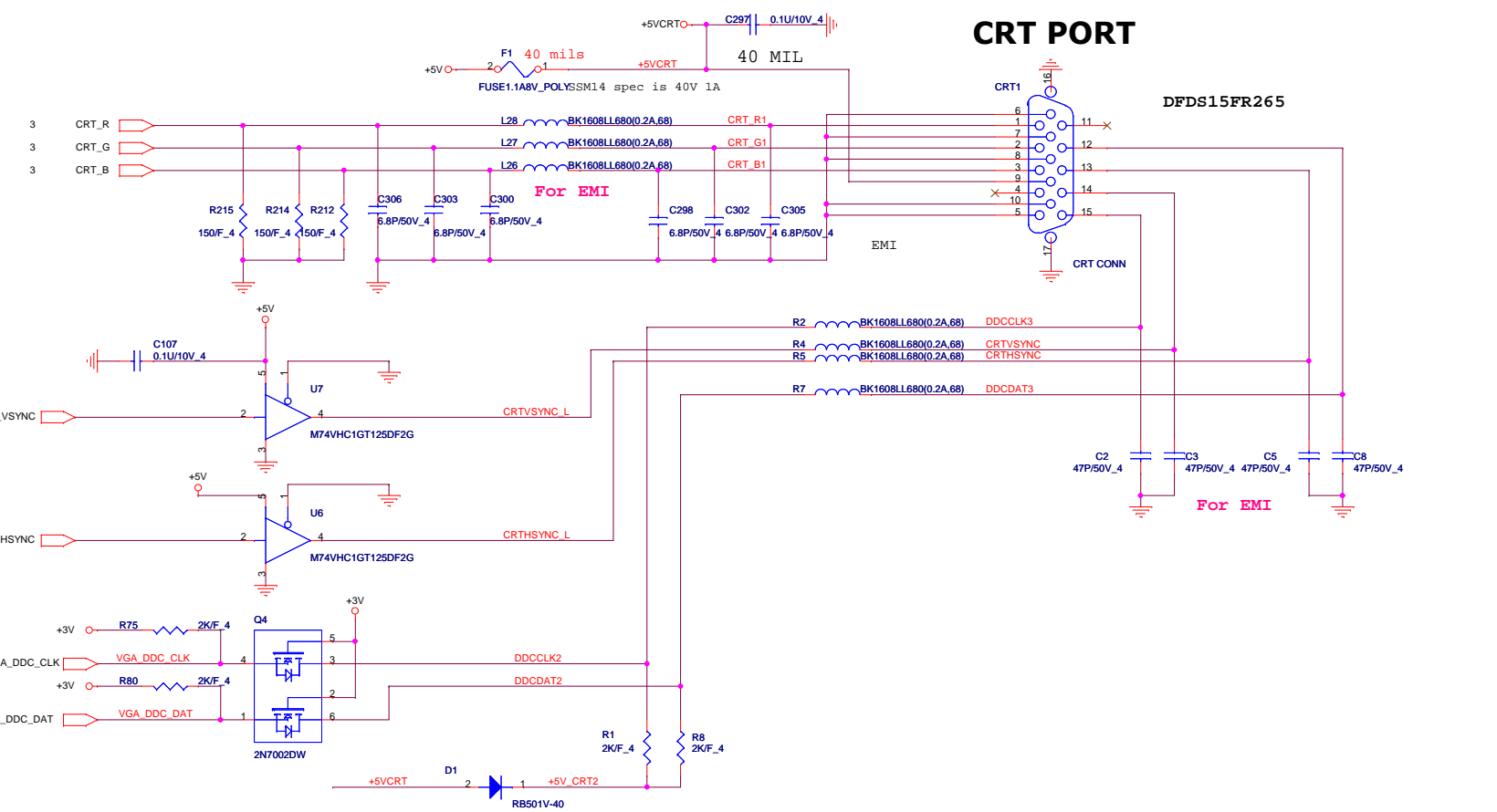


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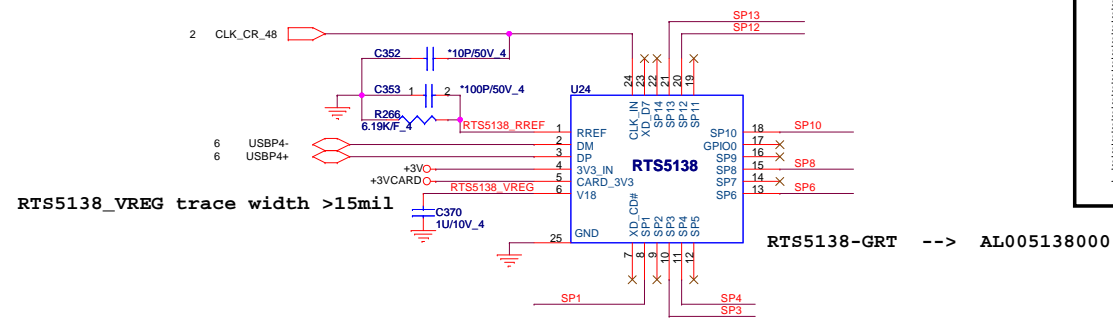
Size	Document Number	Rev
	DDR3 SODIMM	1A
Date:	Friday, April 01, 2011	Sheet 11 of 31

2,3,5,7,8,9,10,11,13,14,15,16,17,18,19,20,21,22,23,30 +3V
2,3,5,7,10,19,26,29 +1.05V

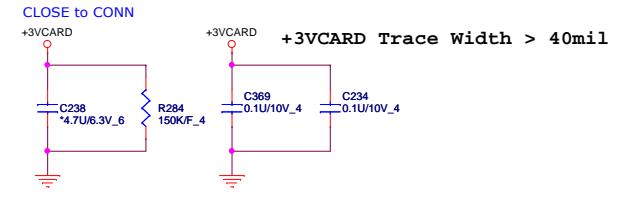
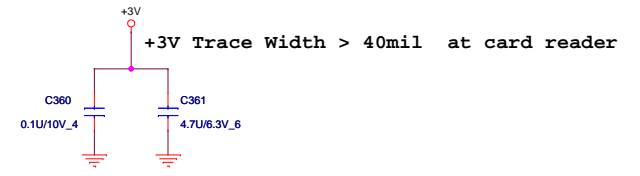


Share Pin

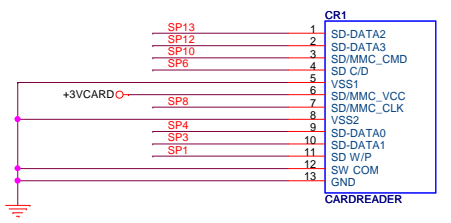
	XD_CD#			
SP1	XD_RDY	SD_WP	MS_CLK	
SP2	XD_RE#		MS_INS#	
SP3	XD_CE#	SD_D1		
SP4	XD_CLE	SD_D0	MS_D7	
SP5	XD_ALE	SD_D7	MS_D3	
SP6	XD_WE#	SD_CD#		
SP7	XD_WP	SD_D6	MS_D6	
SP8	XD_D0	SD_CLK	MS_D2	
SP9	XD_D1	SD_D5	MS_D0	
SP10	XD_D2	SD_CMD		
SP11	XD_D3	SD_D4	MS_D4	
SP12	XD_D4	SD_D3	MS_D1	
SP13	XD_D5	SD_D2	MS_D5	
SP14	XD_D6		MS_BS	
	XD_D7			



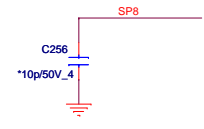
RTS5138_VREG trace width >15mil

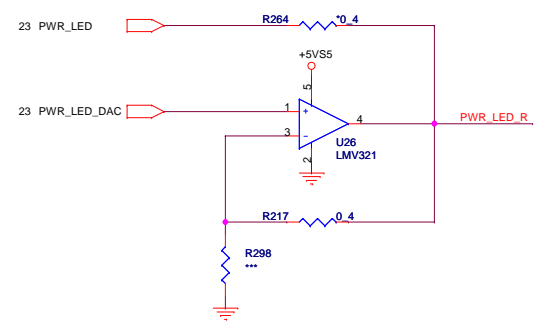
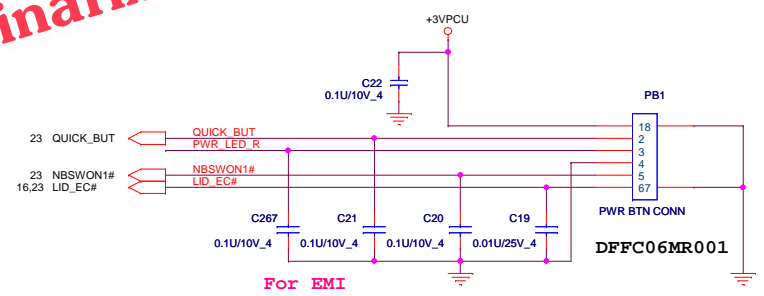


SD / MMC CARD READER

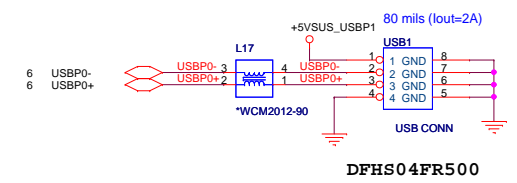
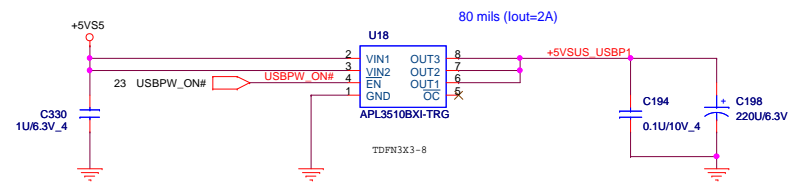
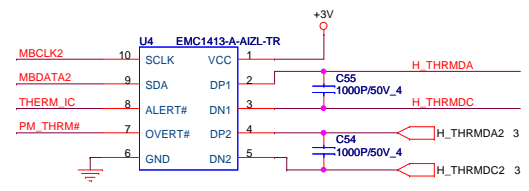
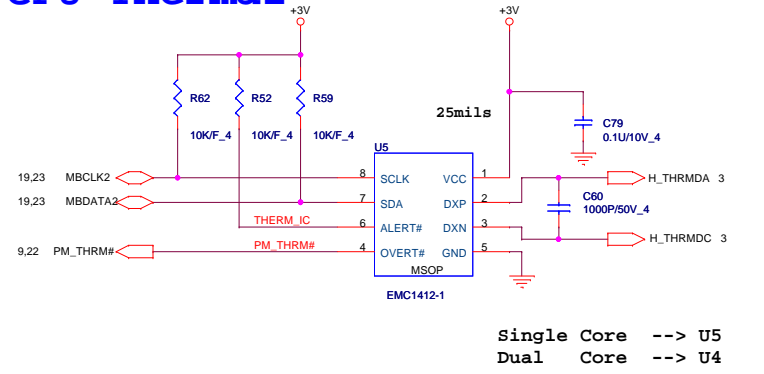


DFHS11FR079

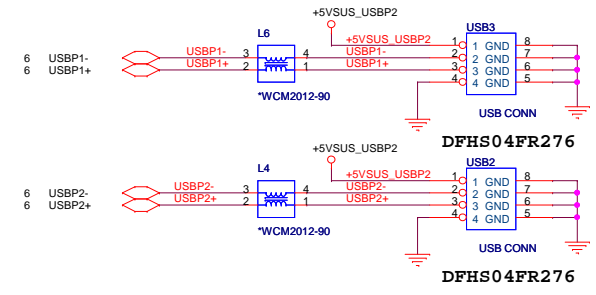
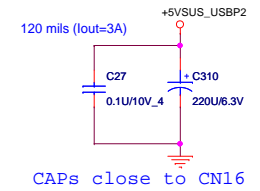
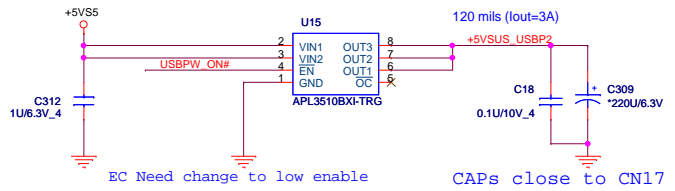




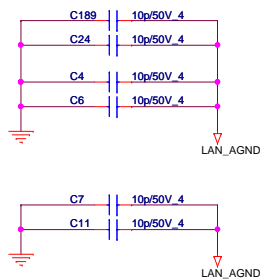
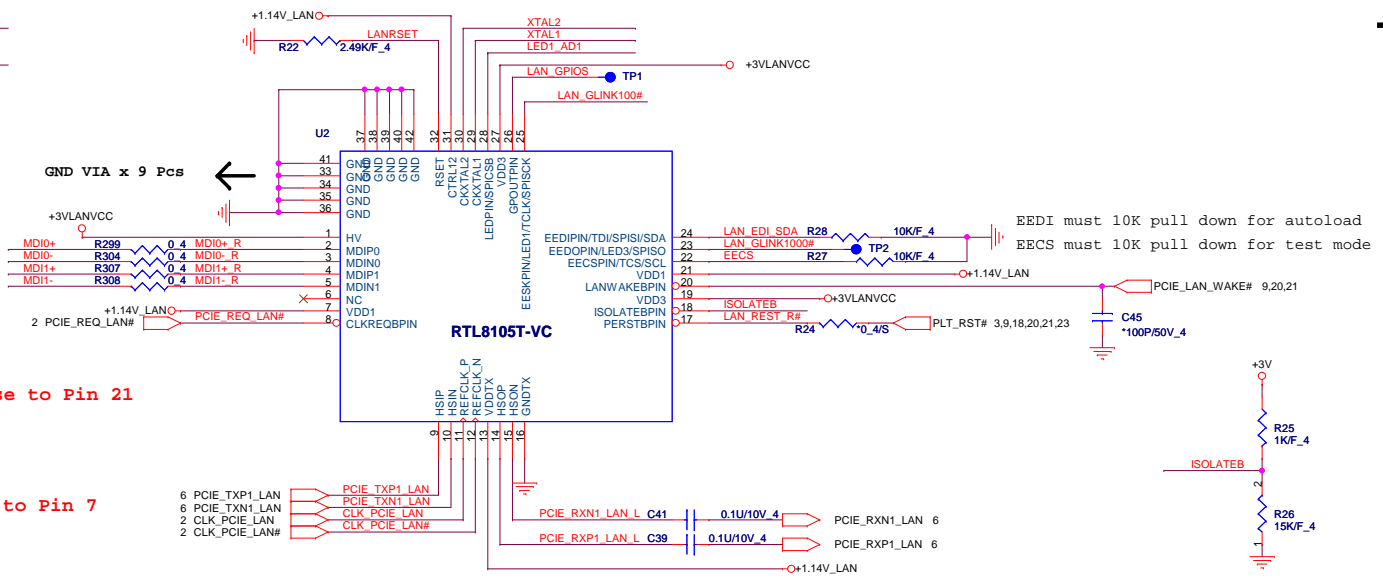
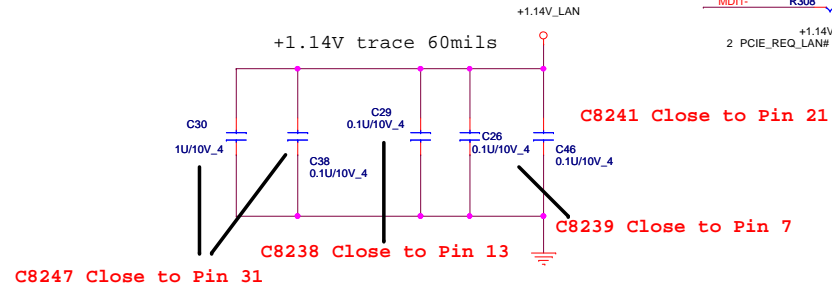
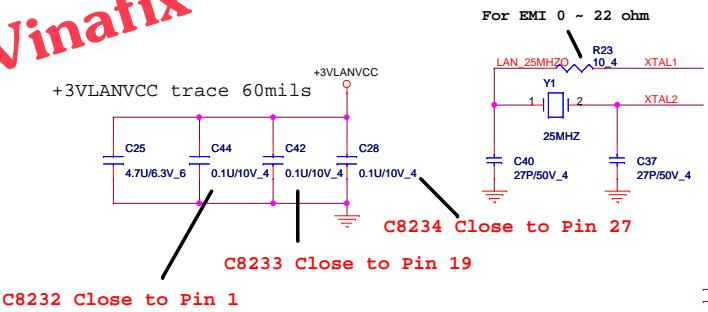
CPU Thermal



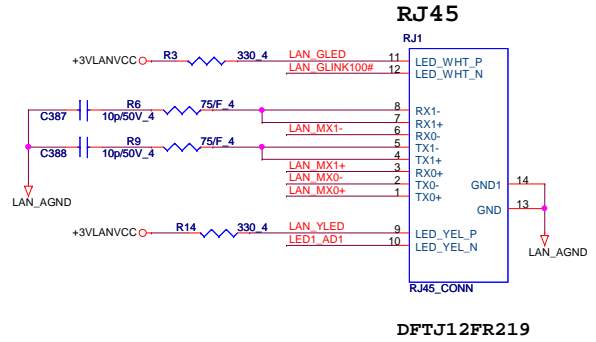
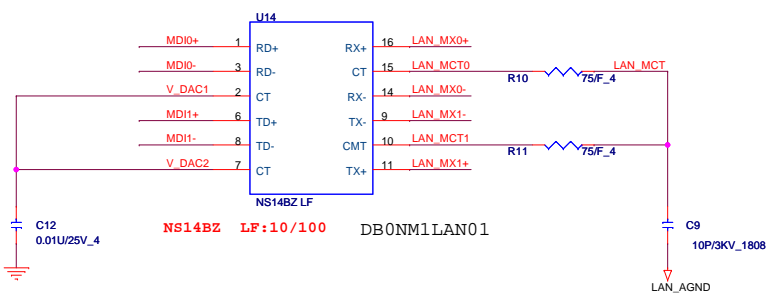
For Right 2xUSB Ports PWR



<p>Quanta Computer Inc. PROJECT : Miata</p>		
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	Power Board/CPU Thermal / USB	1A
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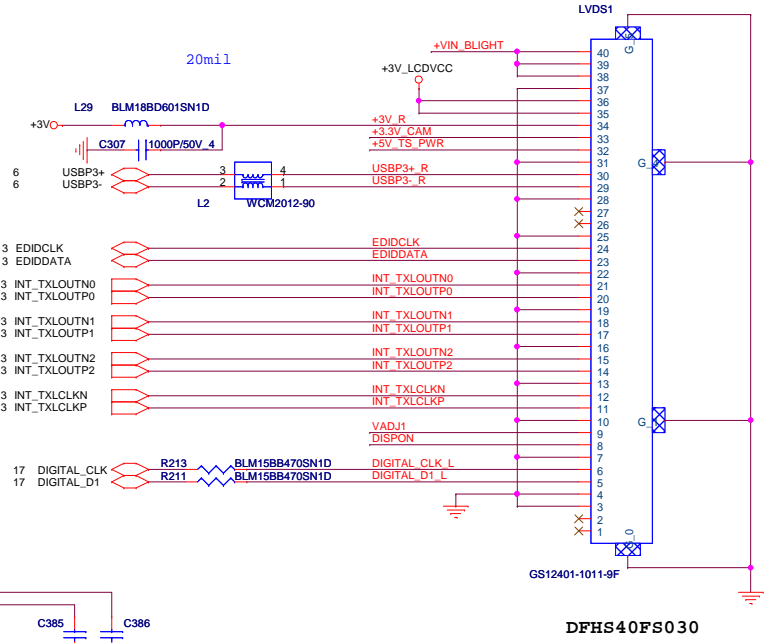
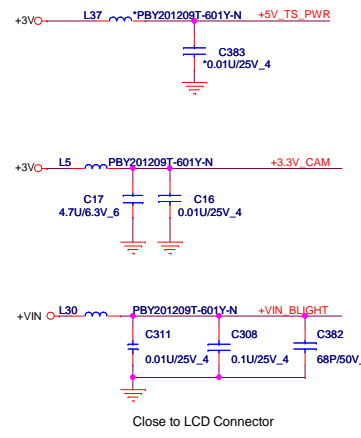
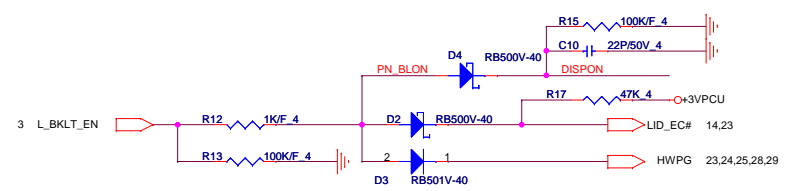


Transformer for 10/100

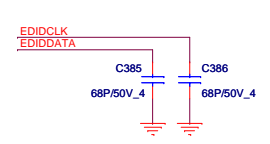
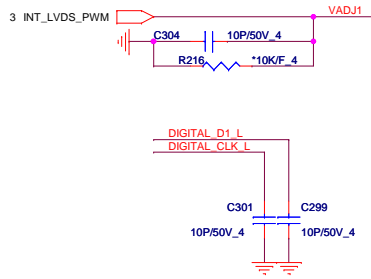
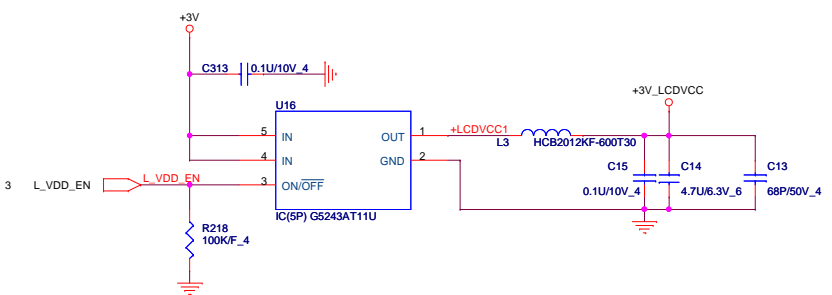


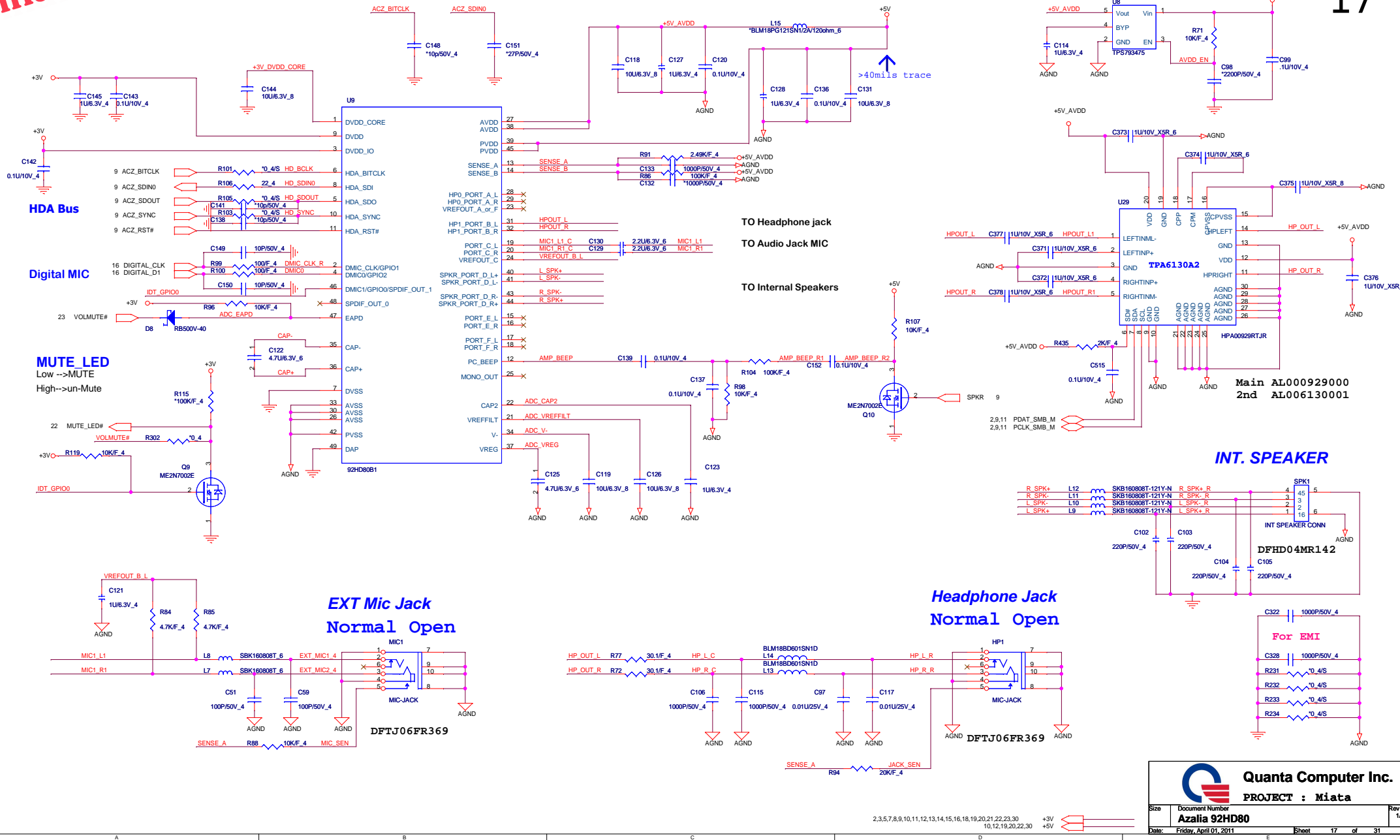
LED Panel(LDS)

Backlight Control(LDS)



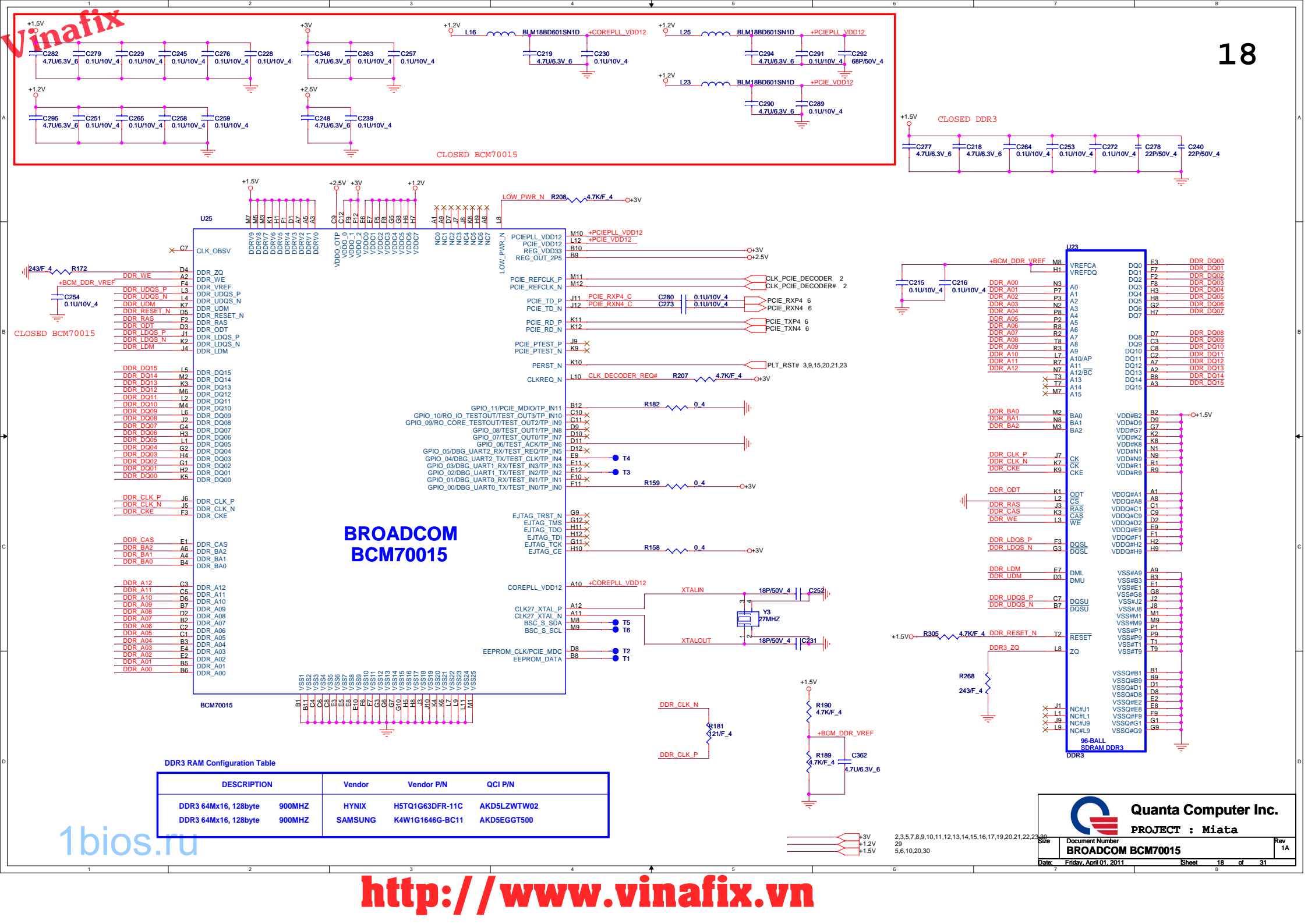
LCD POWER SWITCH



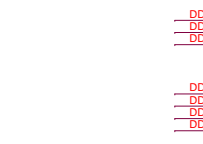
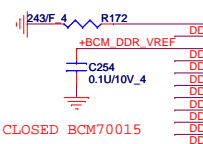
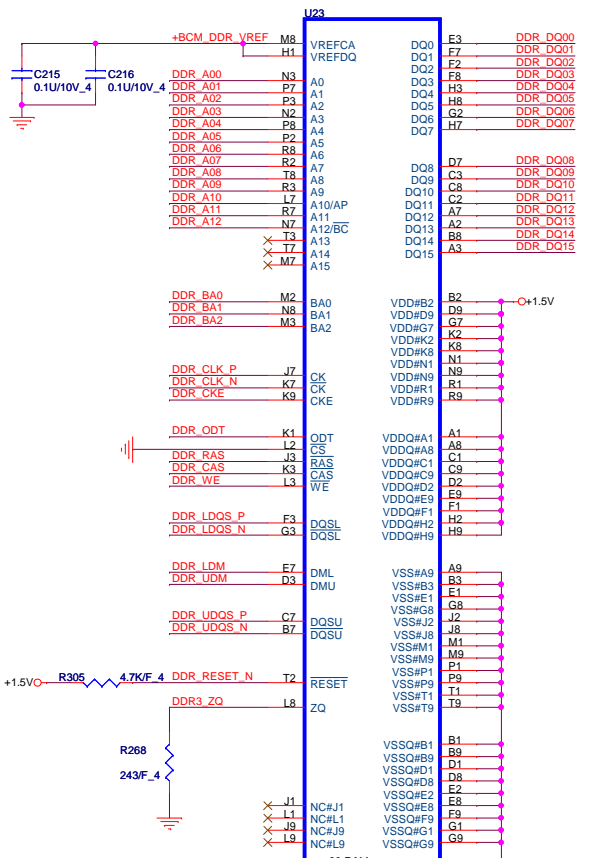
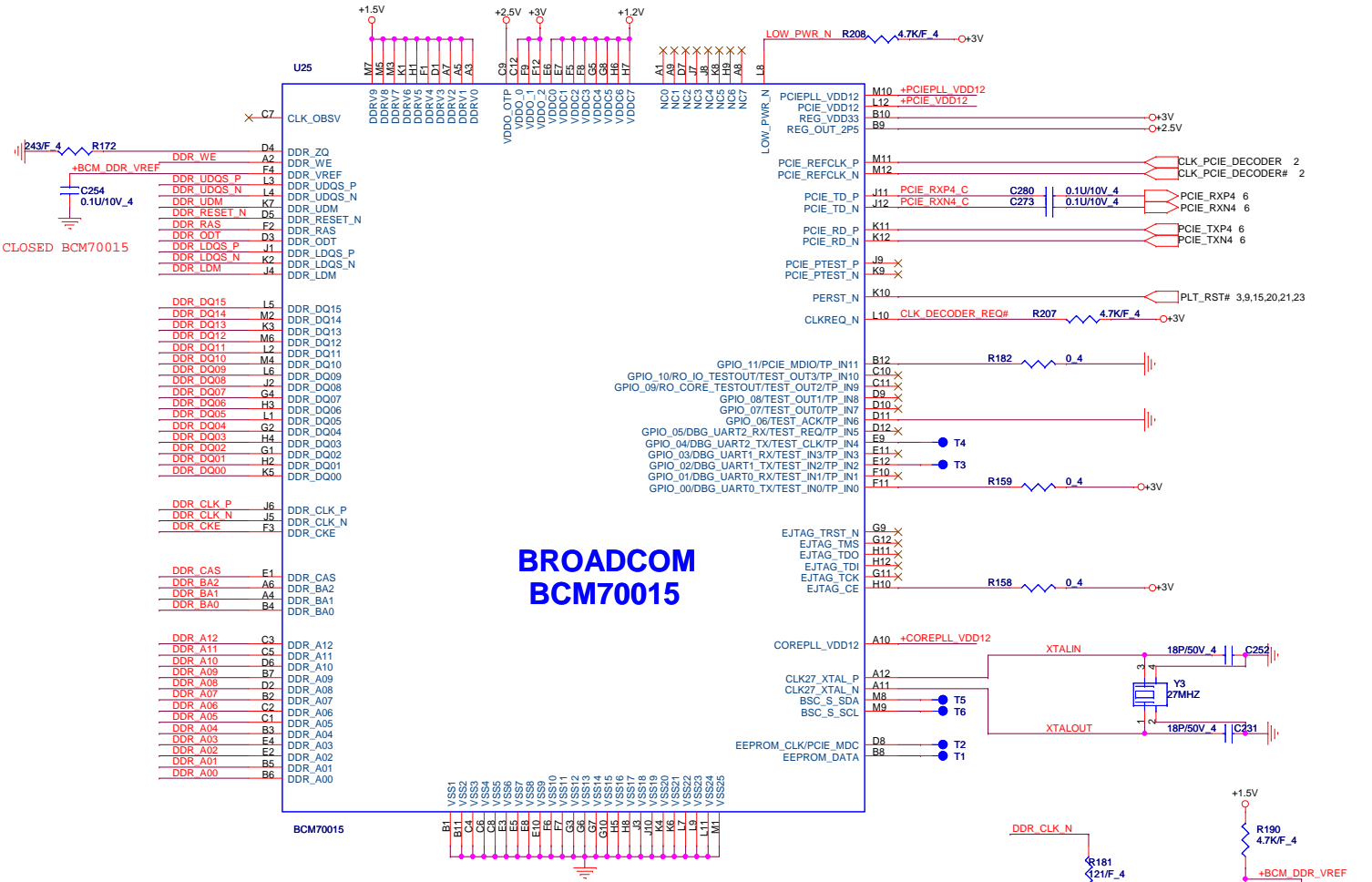
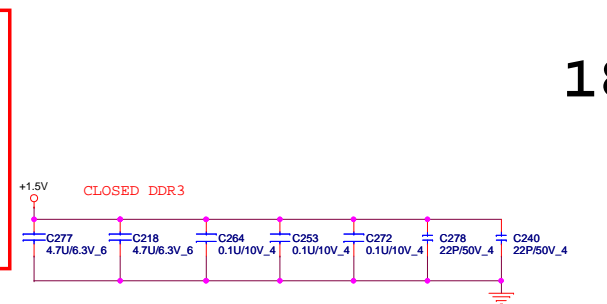
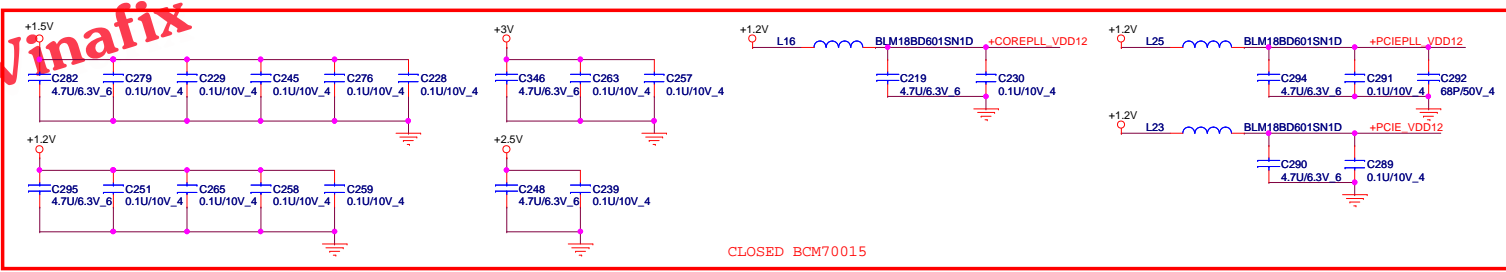


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Size	Document Number	Rev
	Azalia 92HD80	1A
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Vinafix



BROADCOM BCM70015

DDR3 RAM Configuration Table

DESCRIPTION	Vendor	Vendor P/N	QCI P/N
DDR3 64Mx16, 128byte 900MHZ	HYNIX	H5TQ1G63DFR-11C	AKD5LZWTW02
DDR3 64Mx16, 128byte 900MHZ	SAMSUNG	K4W1G1646G-BC11	AKD5EGGT500

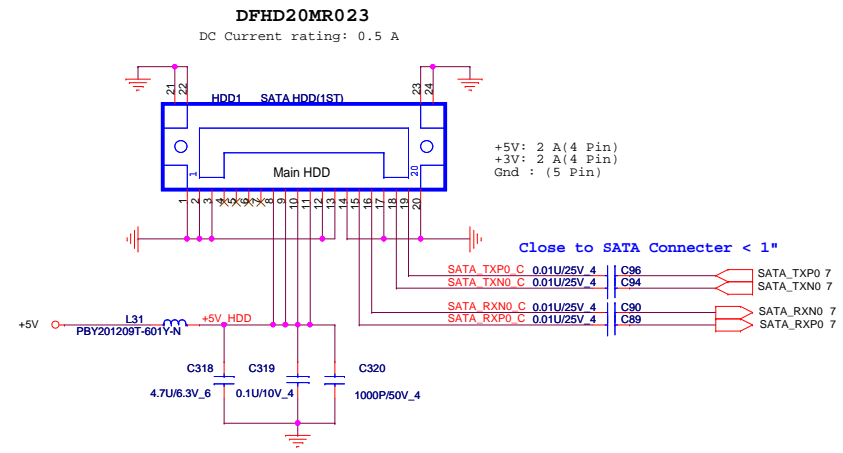
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PROJECT : Miata

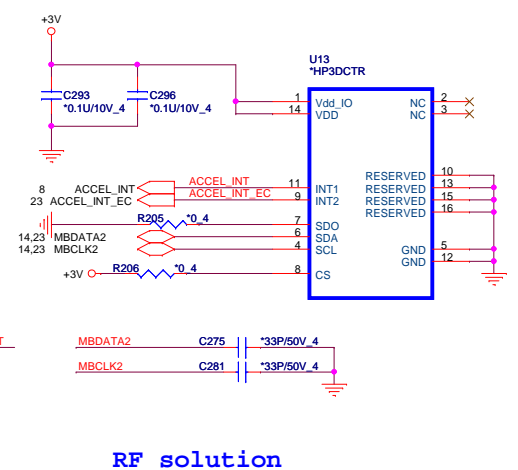
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2,3,5,7,8,9,10,11,12,13,14,15,16,17,19,20,21,22,23,26,29,5,6,10,20,30

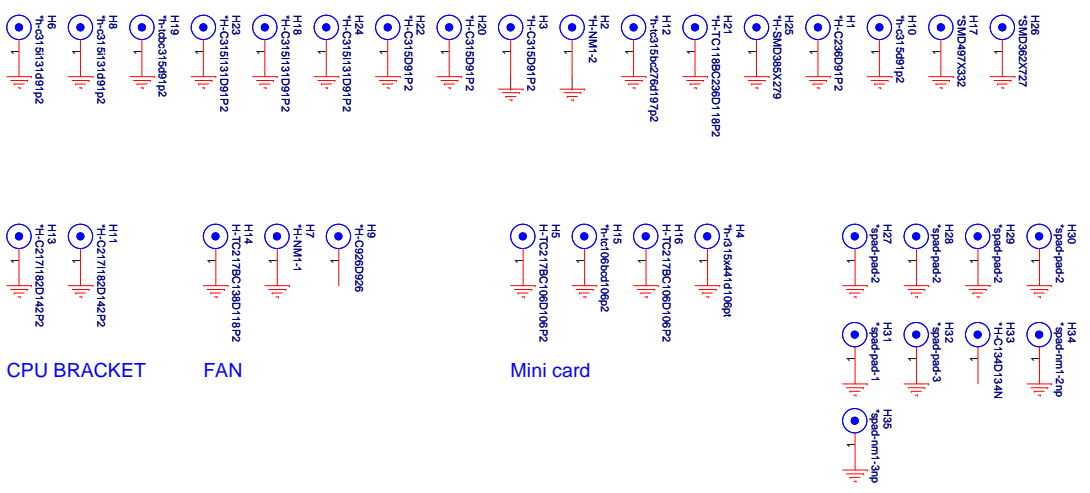
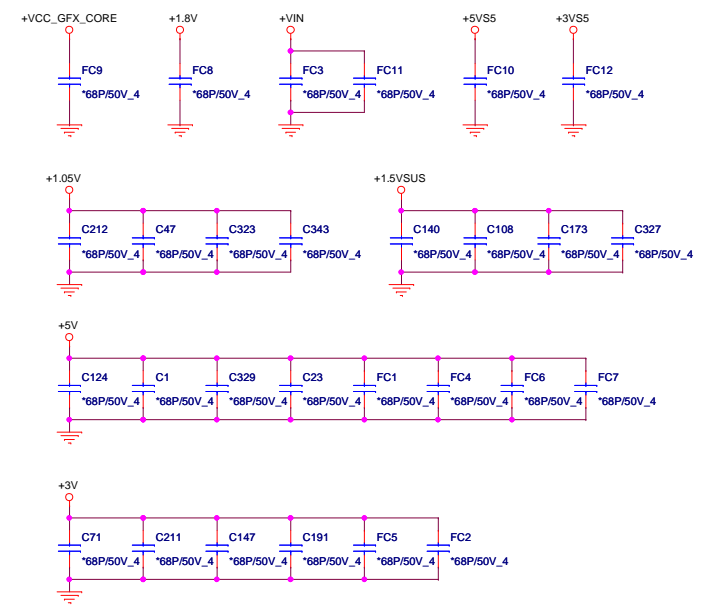
2.5" SATA HDD OR SSD(TOSHIBA)



Accelerometer Sensor

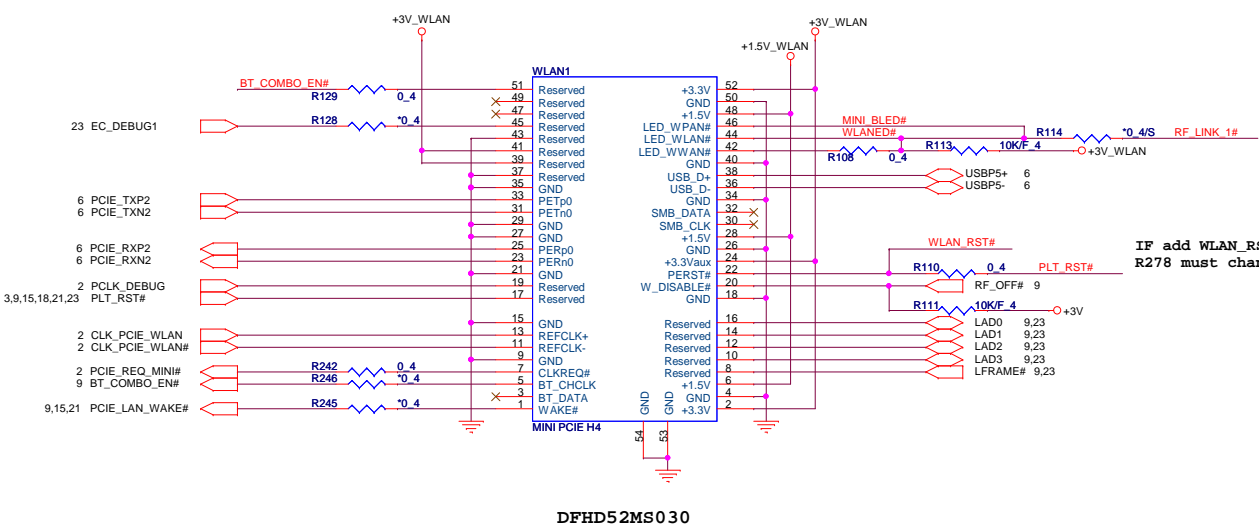
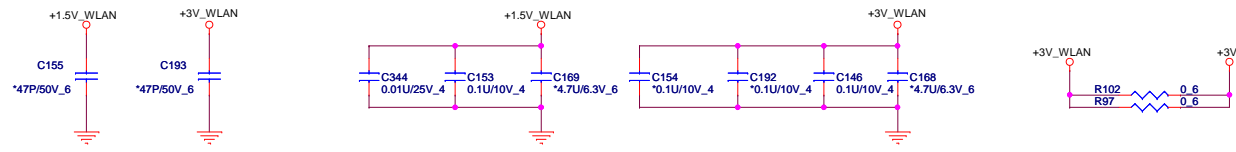


RF solution



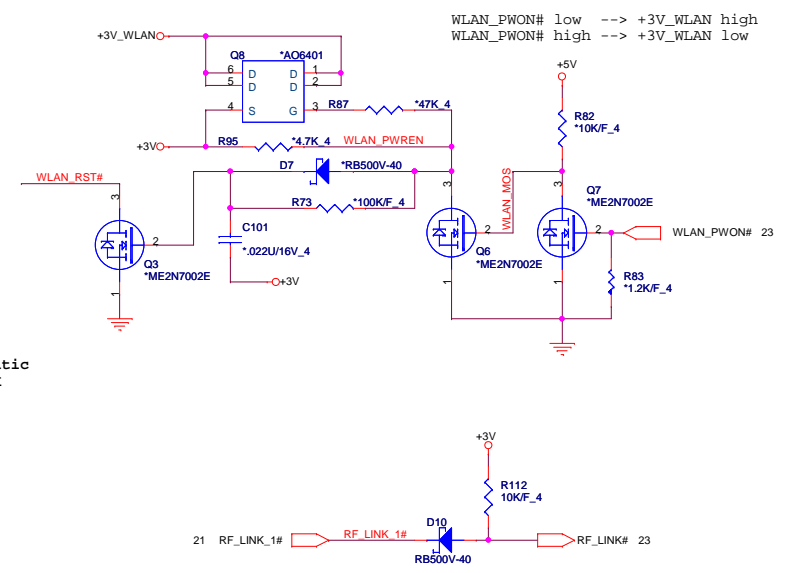
Mini PCI-E Card 1 Half Mini PCI-E WLAN

The value of the capacitor is suggest by Siemens HQ expert.
For against 900MHz RF interference. The value of capacitor is 27pF.
For against 1800MHz RF interference. The value of capacitor is 10pF.
1nF/10nF value capacitor use for against ESD purpose.

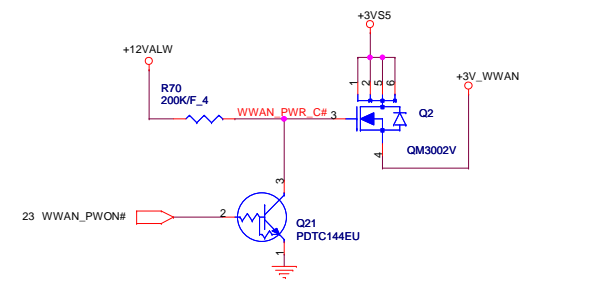
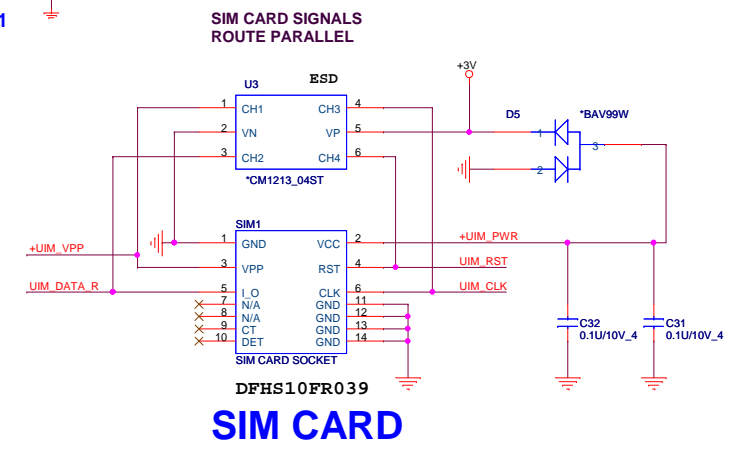
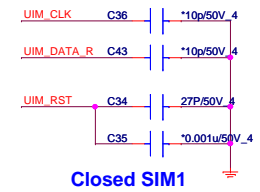
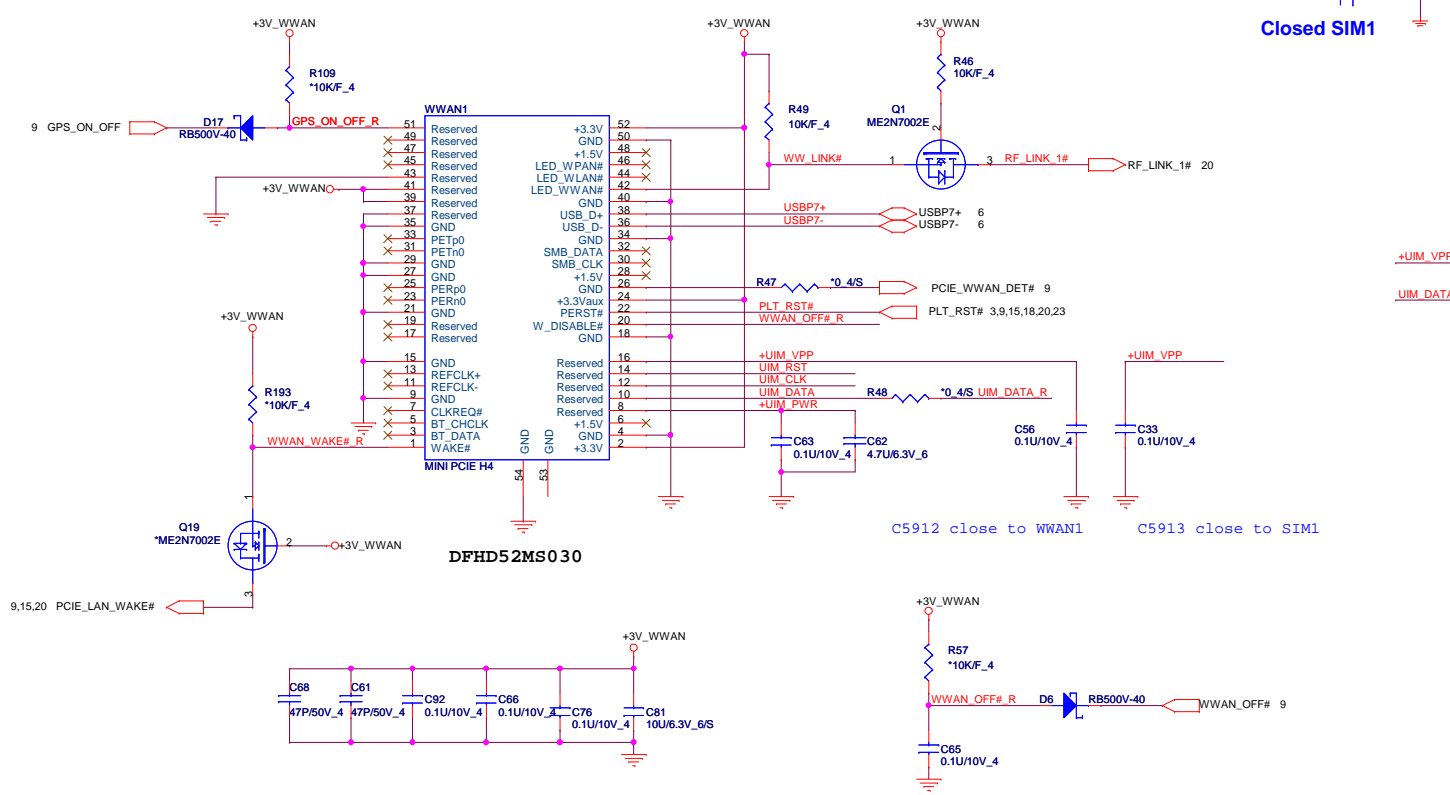


DFHD52MS030

IF add WLAN_RST# schematic
R278 must change to 10K

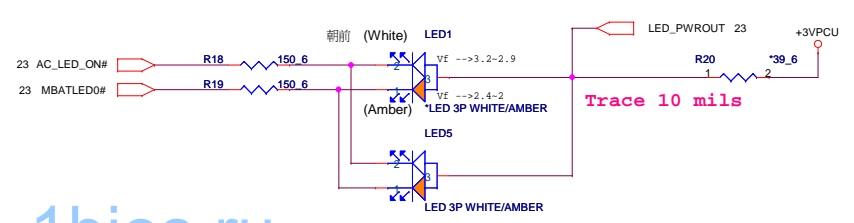


Full mini PCIE for WWAN Mini PCI-E Card 2



Charging & Discharging/LED

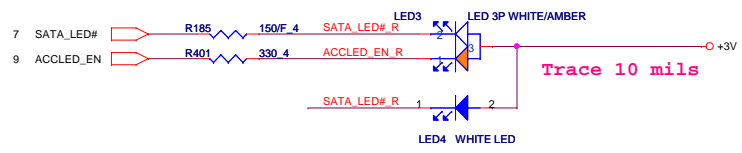
White+Yellow
 BEWY0007ZA0
 BEWY0009ZA0



SATA/G sensor LED

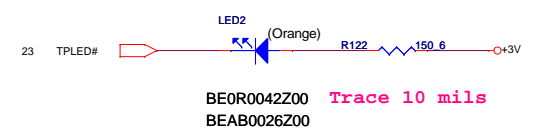
non- G sensor
 White
 BEWH0046Z00
 BEWH0051Z00

G sensor
 White+Yellow
 BEWY0007ZA0
 BEWY0009ZA0



G sensor --> R299 un-stuff , R298 stuff
 Non-Gsensor --> R299 stuff , R298 un-stuff

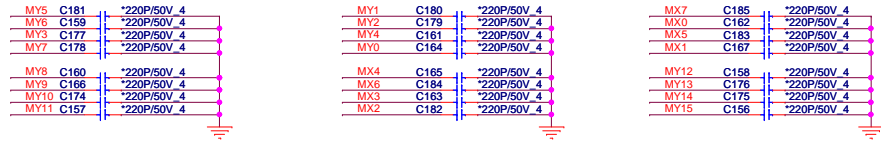
Touchpad LED



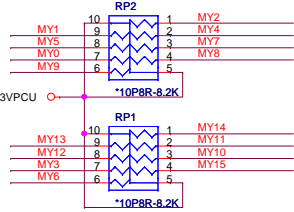
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	MINI PCI-E(WWAN)/LED	1A
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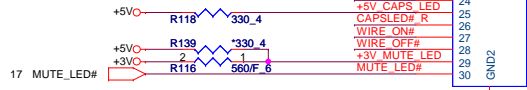


KEYBOARD PULL-UP

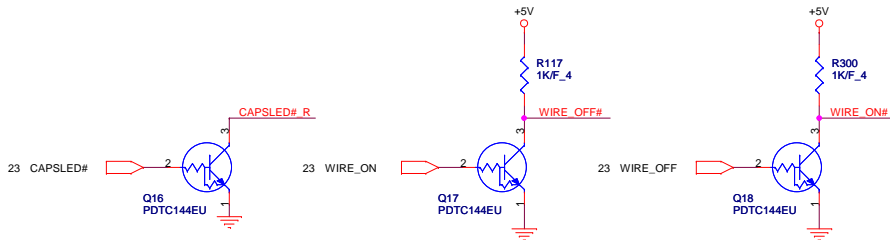


CAPSLED# high --> LED light
CAPSLED# low --> LED non-light

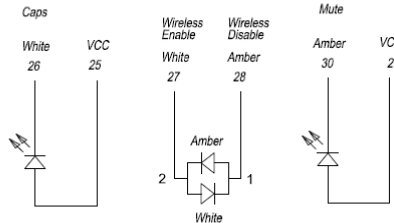
Enable WLAN --> wire_on high and wire_off low
Disable WLAN --> wire_on low and wire_off high



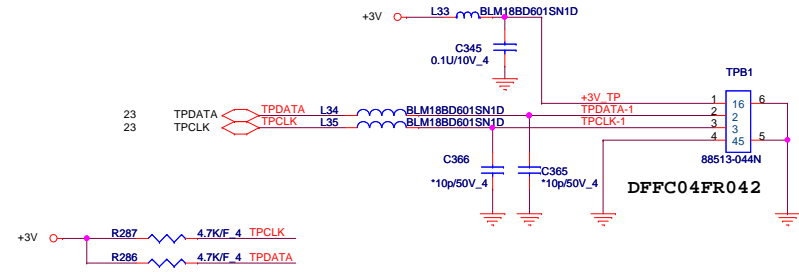
Keyboard conn
DFFC30FR074



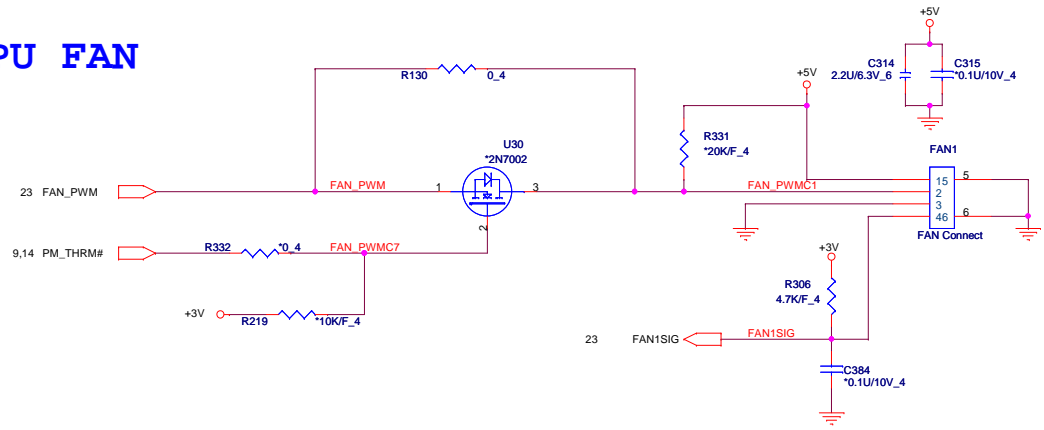
KSI0	12		30	112		50	119	56		51		13	123		62	126	76
KSI1	1		110	115	127	35	118	125		36		41	122			15	124
KSI2	8		58	16	114		21	117	45		22		27	121		29/42	80
KSI3	9			1	113		6	116	26	59	7		12	120	129		85
KSI4	5		64	31	33		34	32	38		37		40	39		43	86
KSI5	6			46	48		49	47	53		52	44	55	54		61	81
KSI6	3			2	4		5	3	9		8		11	10		60	84
KSI7	2				17	19		20	18	24		23	57	26	25		83
		7	11	13	18	14	10	17	15	16	4	23	22	19	20	21	24
		KS00	KS01	KS02	KS03	KS04	KS05	KS06	KS07	KS08	KS09	KS010	KS011	KS012	KS013	KS014	KS015



TOUCH PAD CONN



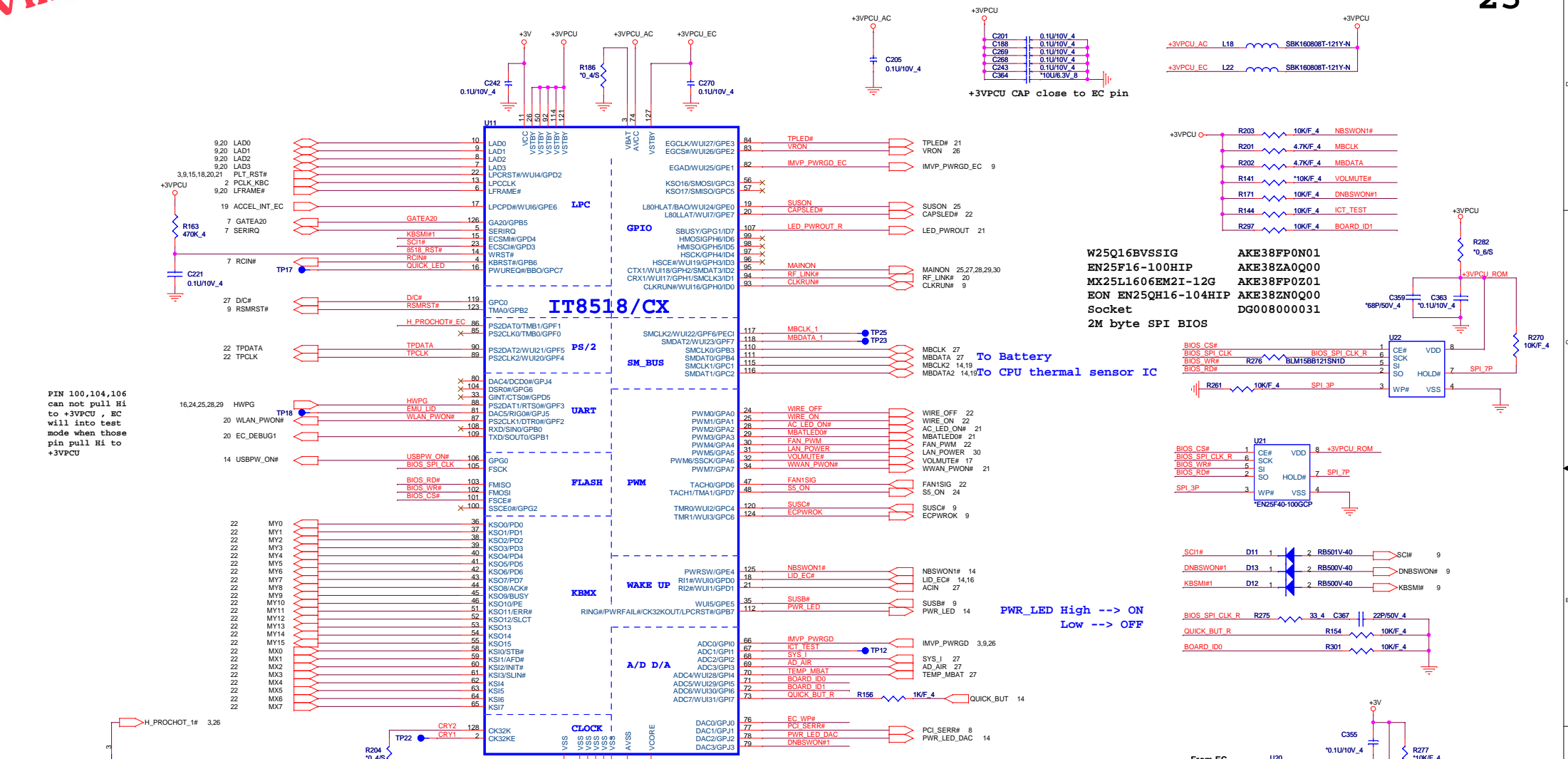
CPU FAN



+3VPCU 9,14,16,21,23,24,27
+5V 10,12,17,19,20,30
+3V 2,3,5,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,23,30

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	KB/TP/CPU FAN/TP SCREEN	1A
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PIN 100,104,106 can not pull Hi to +3VPCU, EC will into test mode when those pin pull Hi to +3VPCU

W25Q16BVSSIG
EN25F16-100HIP
MX25L1606EM2I-12G
EON EN25QH16-104HIP
Socket
2M byte SPI BIOS

AKE38FP0N01
AKE38ZA0Q00
AKE38FP0Z01
AKE38ZN0Q00
DG008000031

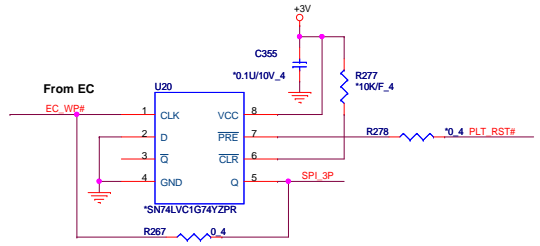
To Battery
To CPU thermal sensor IC

PWR_LED High --> ON
Low --> OFF

INPUTS				OUTPUTS	
PRE	CLR	CLK	D	Q	Q̄
L	H	X	X	H	L
H	L	X	X	L	H
L	L	X	X	H	H
H	H	↑	H	H	L
H	H	↓	L	L	H
H	H	L	X	Q _n	Q _n

	Old Fan	New Fan
	Old LED	New LED
BOARD_ID0 (GPI5)	1 (High)	0 (Low)

	NM1	NM3
BOARD_ID1 (GPI6)	1 (High)	0 (Low)

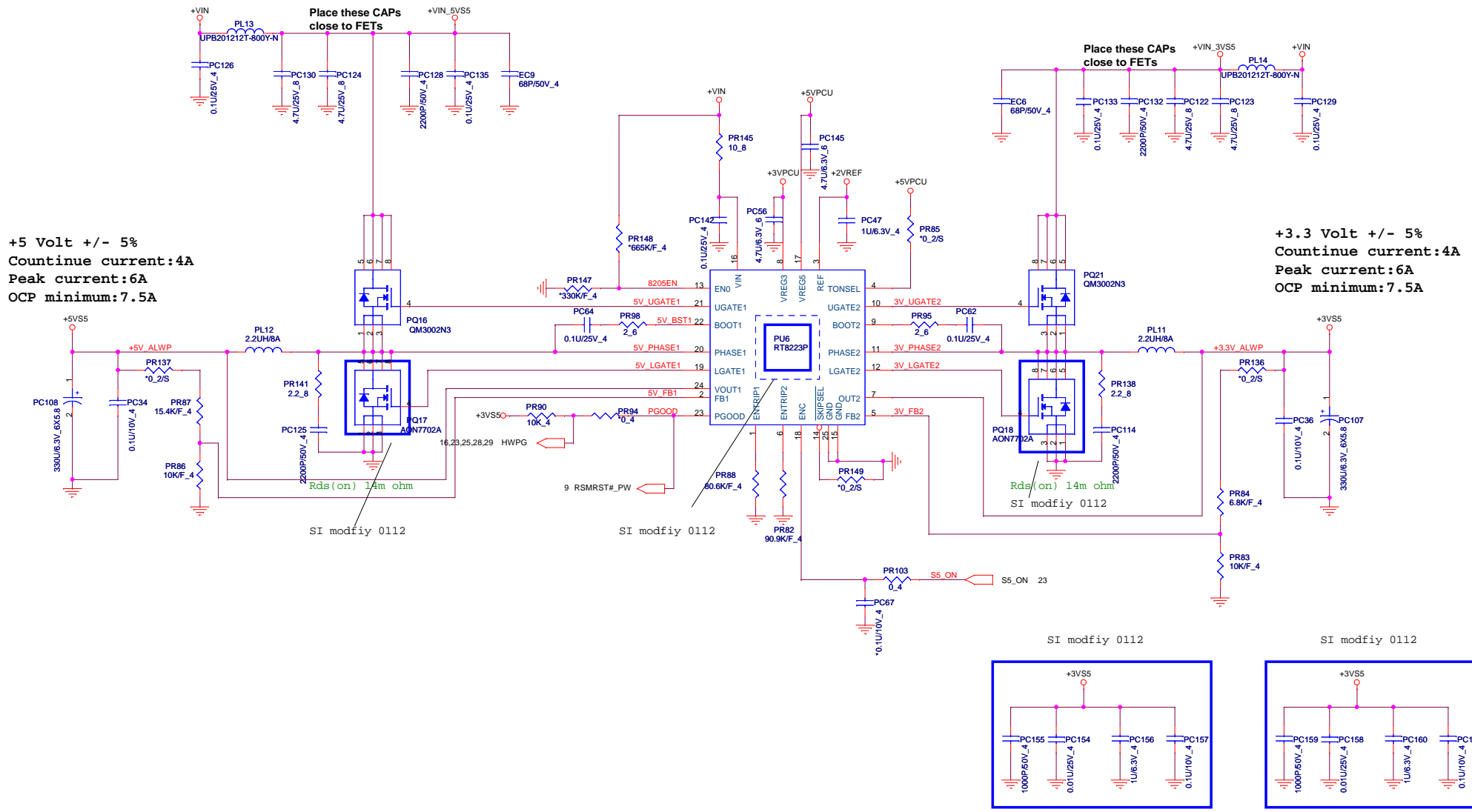


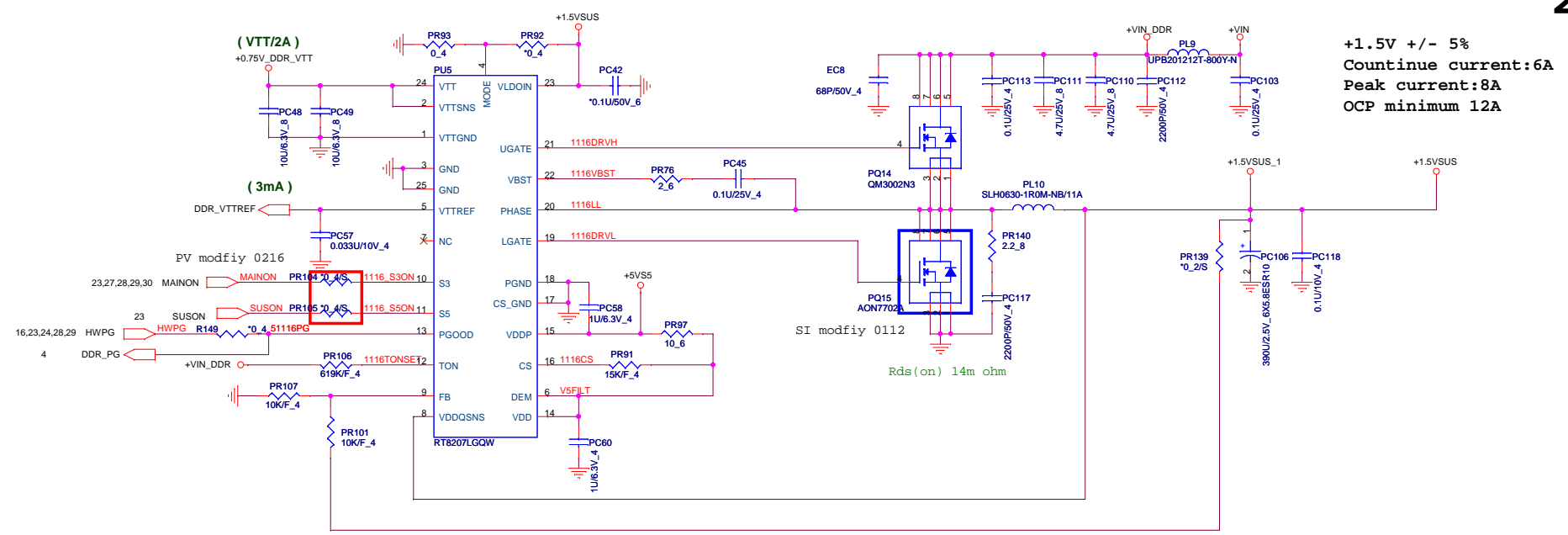
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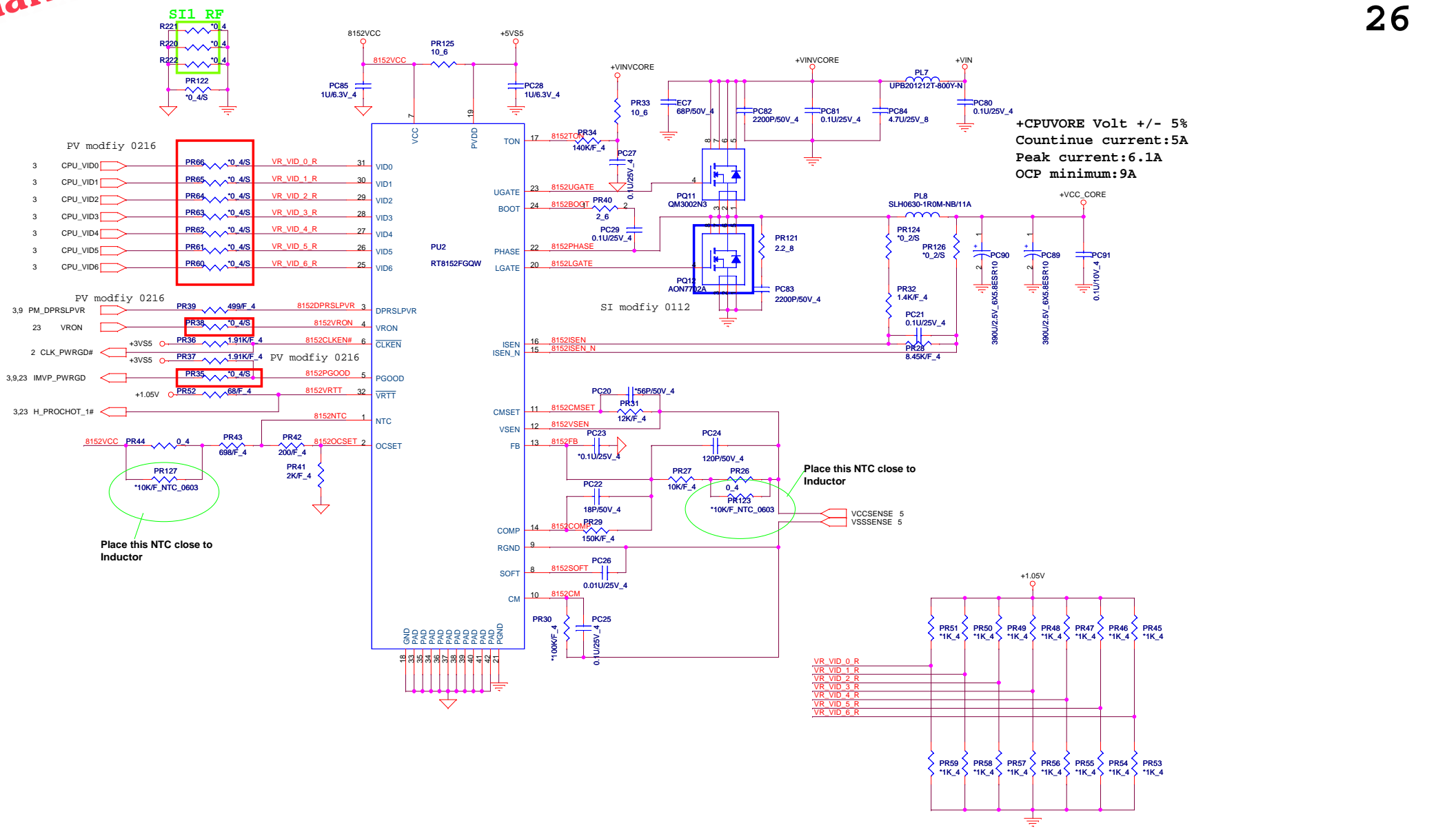
Size: Document Number
KBC8518/ROM

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Vinafix







Main DFHD04MR122
Sec DFHD04MR146

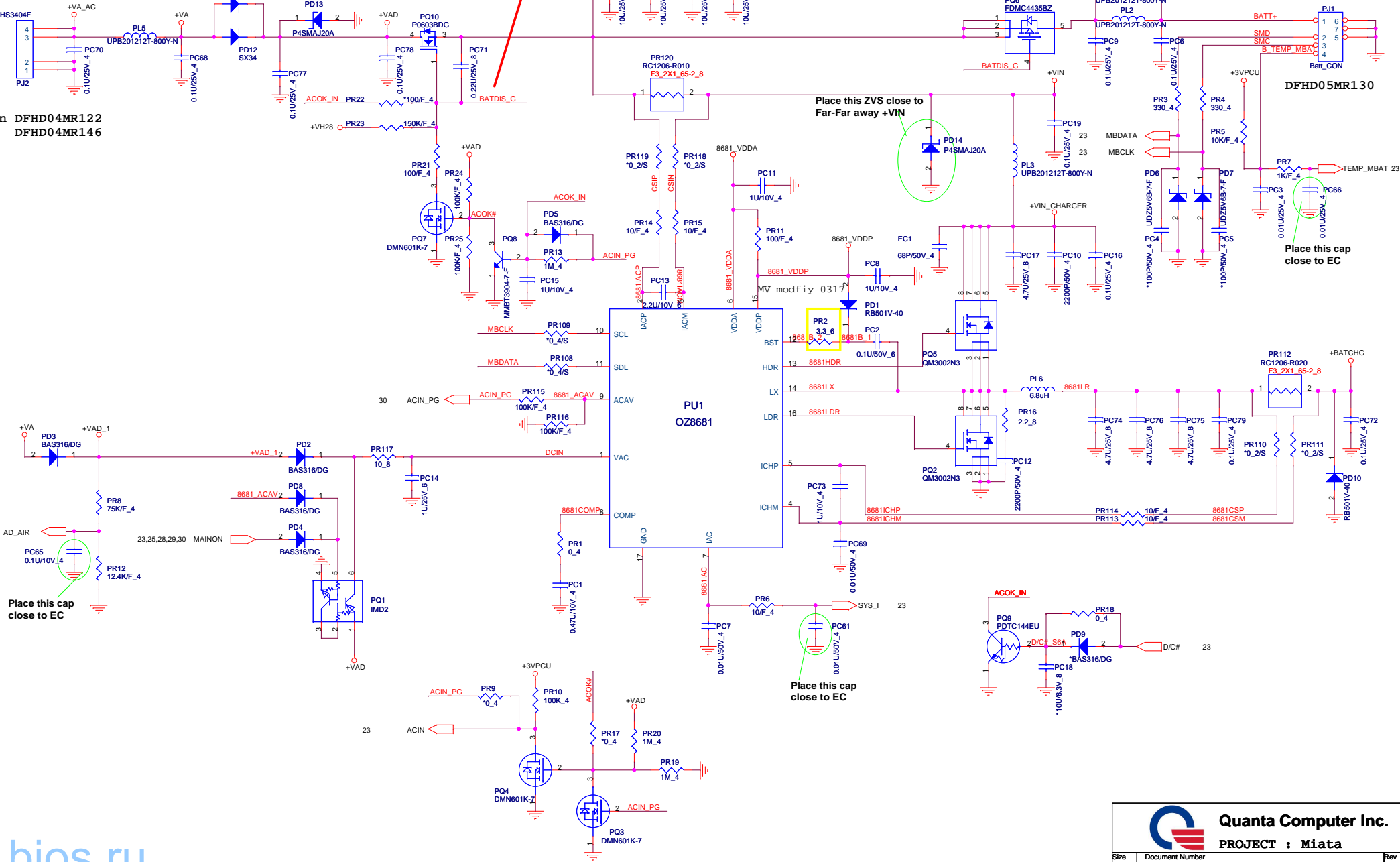
Do Not add test pad on BATDIS_G signal

Place this ZVS close to Diode away +VIN

Place this ZVS close to Far-Far away +VIN

DFHD05MR130

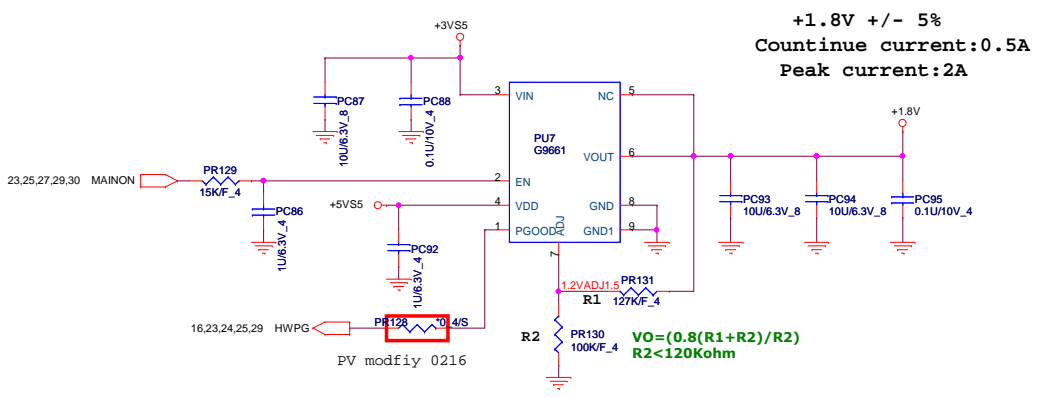
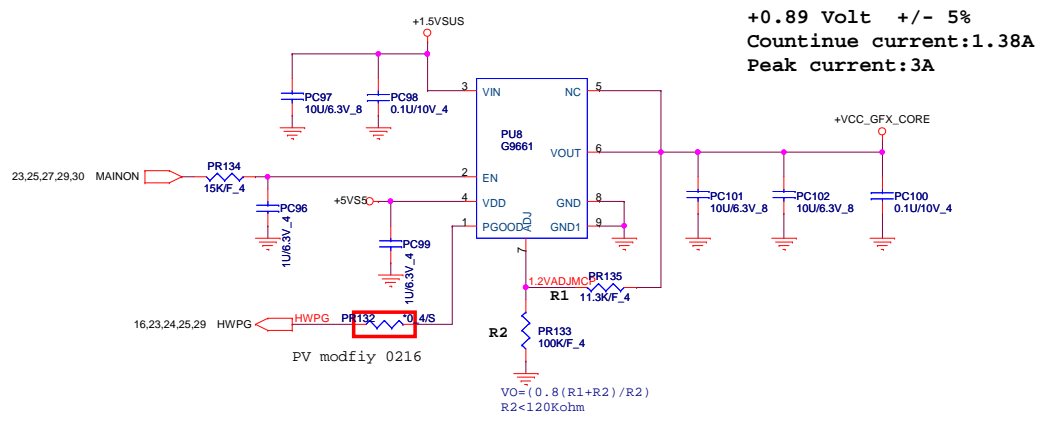
Place this cap close to EC

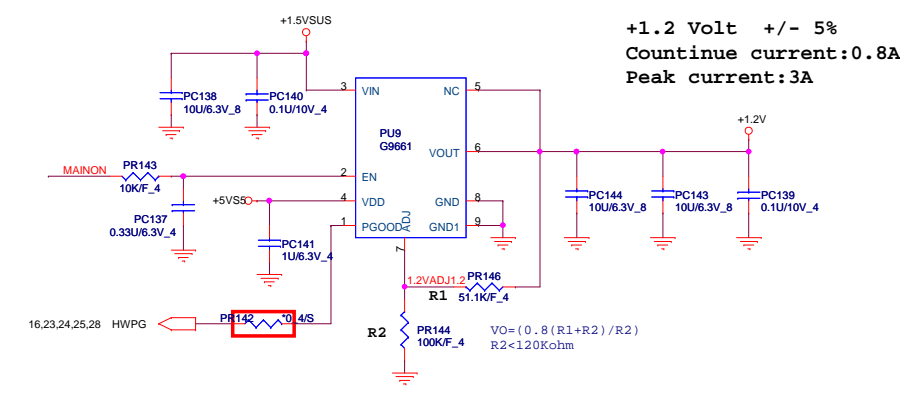
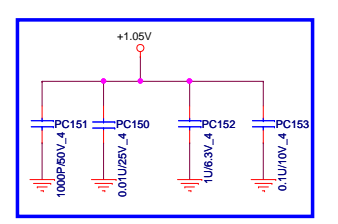
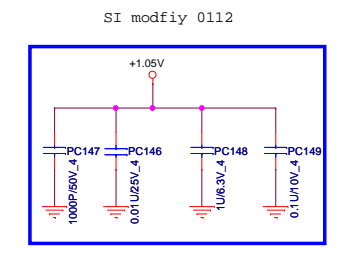
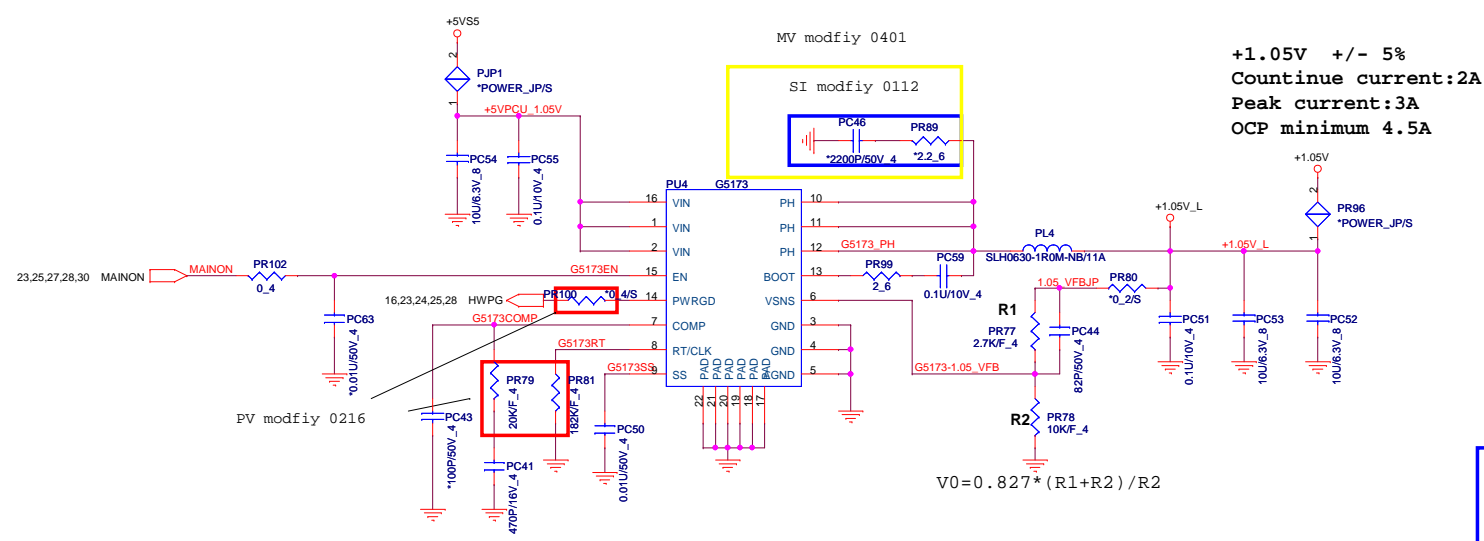


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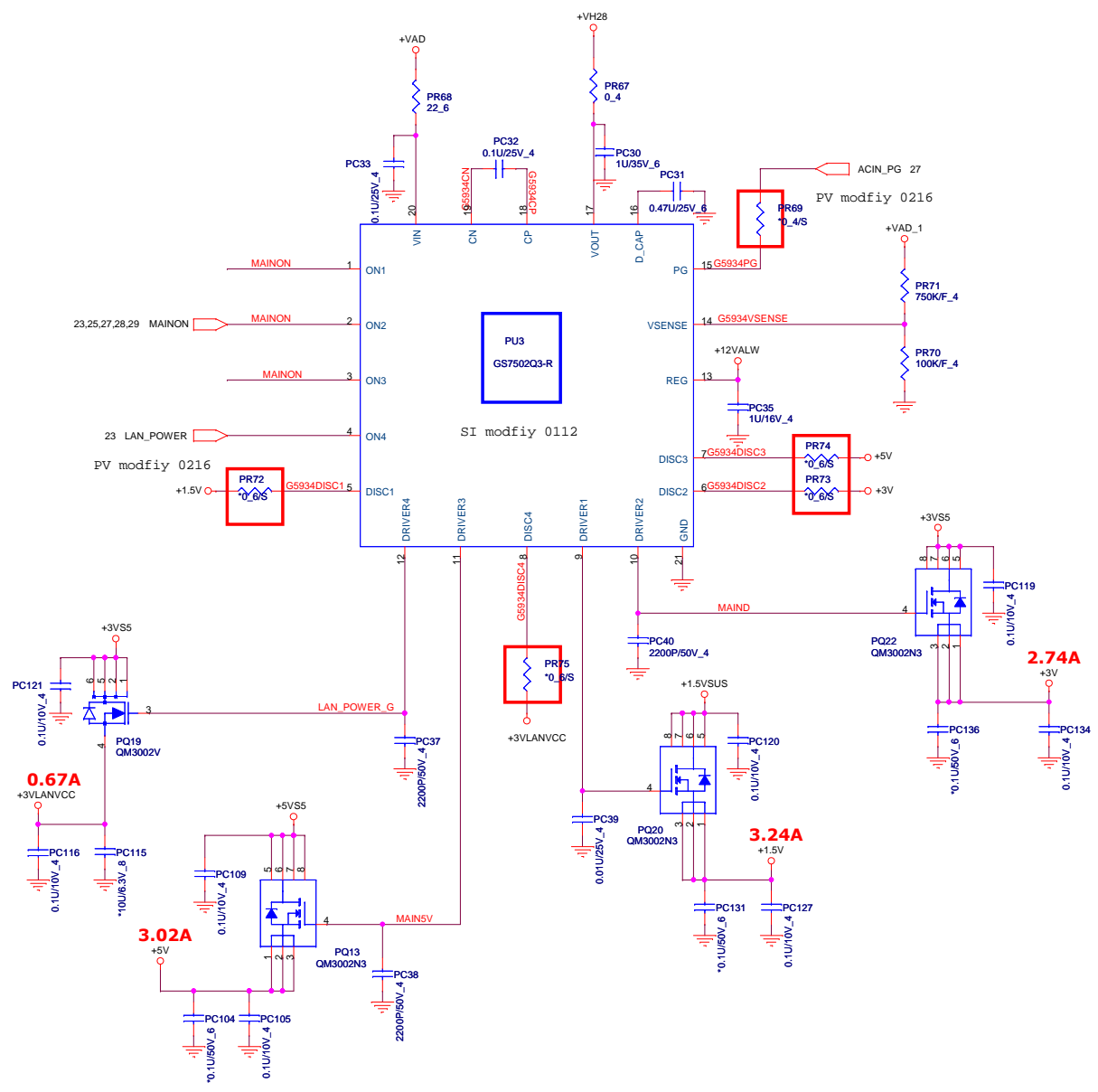
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	CHARGER (OZ8681)	1A
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- +VAD 27
- +SV 10,12,17,19,20,22
- +VIN 16,19,24,25,26,27
- +1.5V 5,6,10,18,20
- +3VS5 6,9,10,19,21,24,26,28
- +5VS5 10,14,19,24,25,26,28,29
- +VH28 27
- +VAD_1 27
- +1.5VSUS 4,5,11,19,25,28,29
- +3VLAVCC 15



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	Dis-charge IC (G5934)	1A
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Power up sequence

