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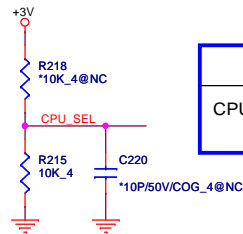
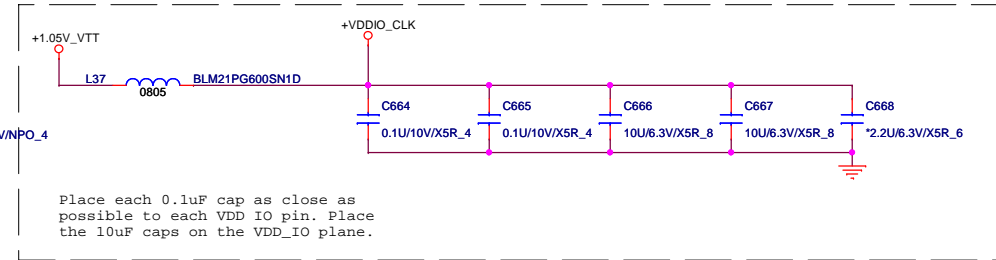
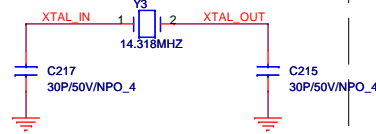
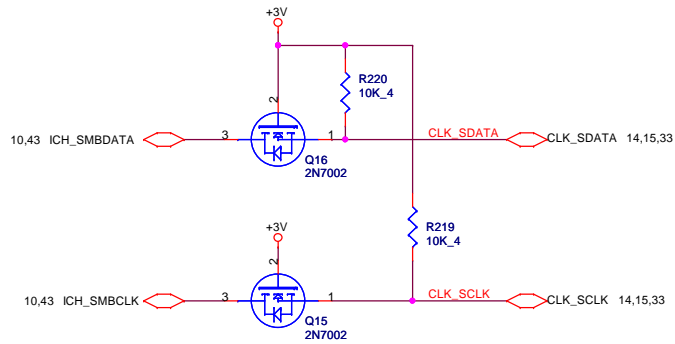
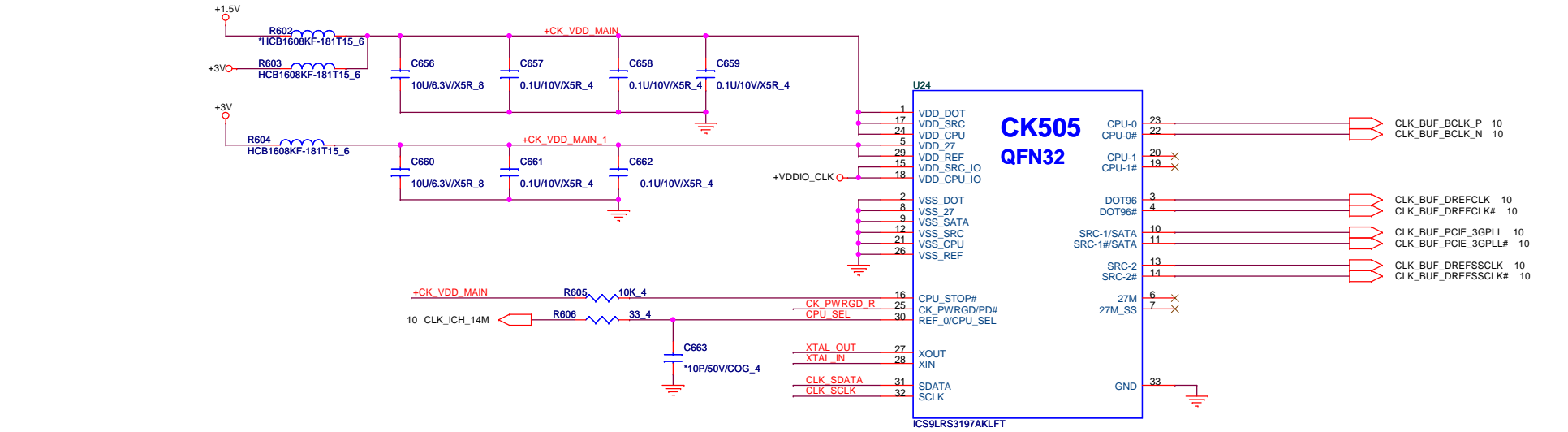
Power States

POWER PLANE	VOLTAGE	PAGE	DESCRIPTION	CONTROL SIGNAL	ACTIVE IN
VIN	10V~+20V	16,36,37,38,39,40,41,42	MAIN POWER		S0~S5
+3VRTC	+3.0V~+3.3V	9,12,34	RTC		S0~S5
3VPCU	+3.3V	9,16,20,23,28,32,34,36,37,40,42	ITE8502 POWER	3V5V_EN	S0~S5
5VPCU	+5V	36,37,38,39,40,42	DC/DC POWER IC SOURCE	3V5V_EN	S0~S5
+15V	+15V	16,31,36,38,39,40	LARGE POWER	3V5V_EN	S0~S5
LANVCC	+3.3V	20,36	LAN POWER	LAN_ON	
5V_S5	+5V	12,22,23,36	PCH SUS POWER	S5_ON	S0~S3
3V_S5	+3.3V	8,9,10,11,12,36	Sys Management,PCH Resume Well, Intel HD Audio,USB,WLAN,WiMAX POWER	S5_ON	S0~S3
5VSUS	+5V	16,32,36,41,42	SLP_S4# CTRLD POWER	SUSON	S0~S3
3VSUS	+3.3V	8,23,27,34,36,42	SLP_S4# CTRLD POWER	SUSON	S0~S3
1.5VSUS	+1.5V	4,6,12,14,15,36,38,39	DDR3 SODIMM POWER	SUSON	S0~S3
0.75VSMDDR_VTERM	+0.75V	14,15,36,38	DDR3 SODIMM REFERENCE POWER	MAINON	S0
+5V	+5V	8,12,16,17,18,19,21,28,30,34,36,37	SLP_S3# CTRLD POWER	MAINON	S0
+3V	+3.3V	3,4,8,9,10,11,12,14,15,16,17,18,19,20,21,22 23,24,25,26,27,29,30,31,32,33,34,36,37,38, 39,40,41,42,43	SLP_S3# CTRLD POWER	MAINON	S0
+1.8V	+1.8V	6,12,26,36,42	LVDS,NVM POWER	MAINON	S0
+1.5V	+1.5V	12,24,25,27,38,39	Mini PCIe,Express Card POWER	MAIND	S0
+1.05V_VTT	+1.05V	3,4,6,8,10,11,12,36,39,41,43	AuBurndale VTT POWER/PCH CORE POWER	MAINON	S0
+VCC_GFX_CORE		6,36,42	VGA CORE POWER	GFXVR_EN	S0
VCC_CORE		6,36,41	CPU CORE POWER	VRON	S0
LCDVCC	+3.3V	16	LCD Power	ENVDD	S0
+5V_ODD	+5V	21	ODD Power	MAINON#	S0
+5V_HDD	+5V	21	HDD Power	MAINON#	S0
BAT-V	+10V~+17V	37	MAIN BATTERY	CHG_PBATT	S0~S5

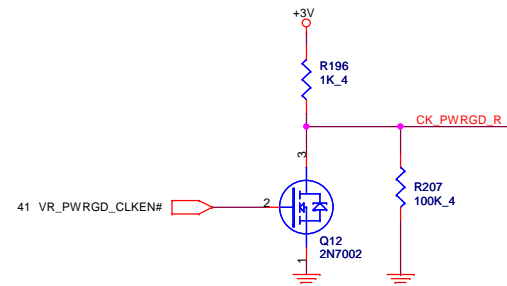


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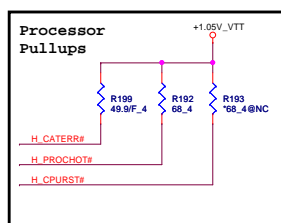
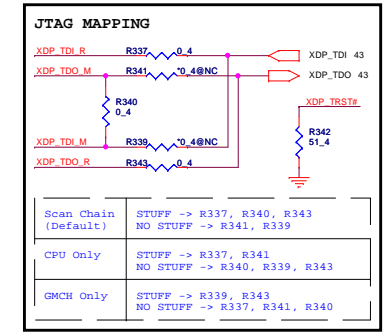
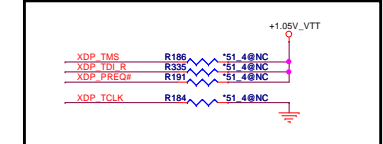
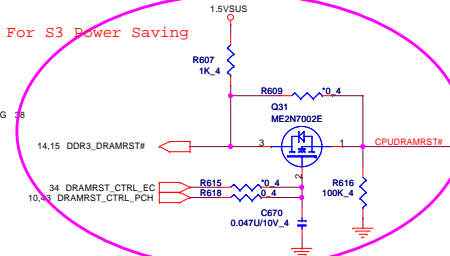
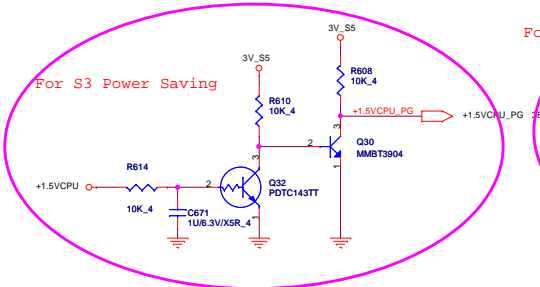
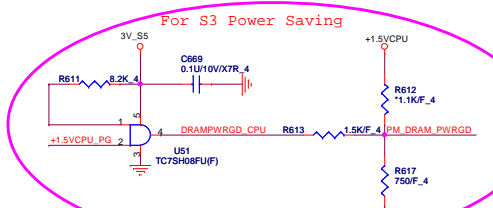
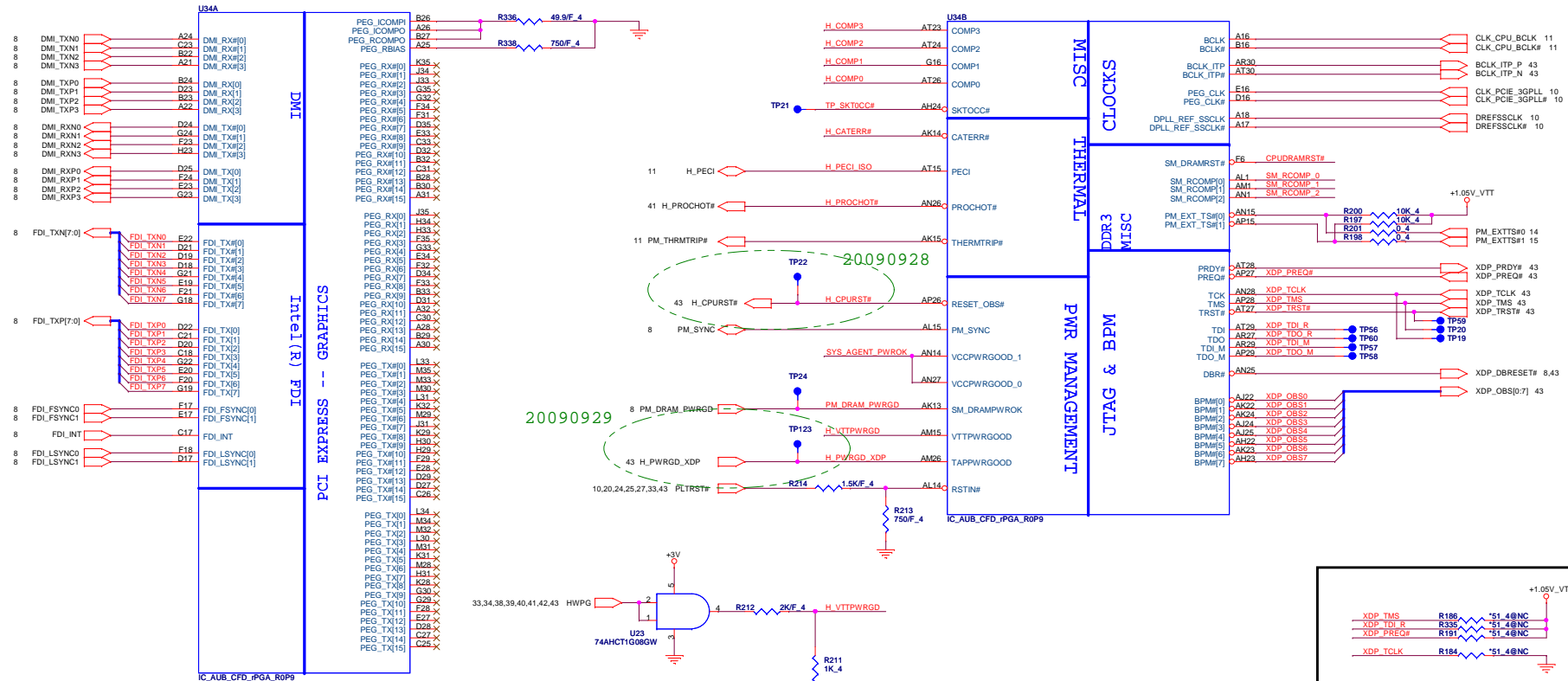
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	0	1
CPU_SEL	CPU0/1=133MHz (default)	CPU0/1=100MHz

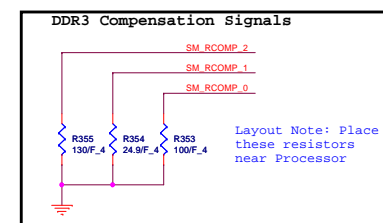
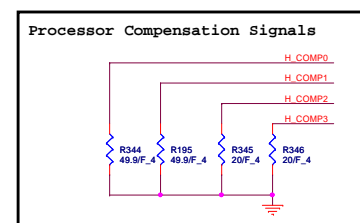


AUBURNDALE PROCESSOR (CLK,MISC,JTAG)

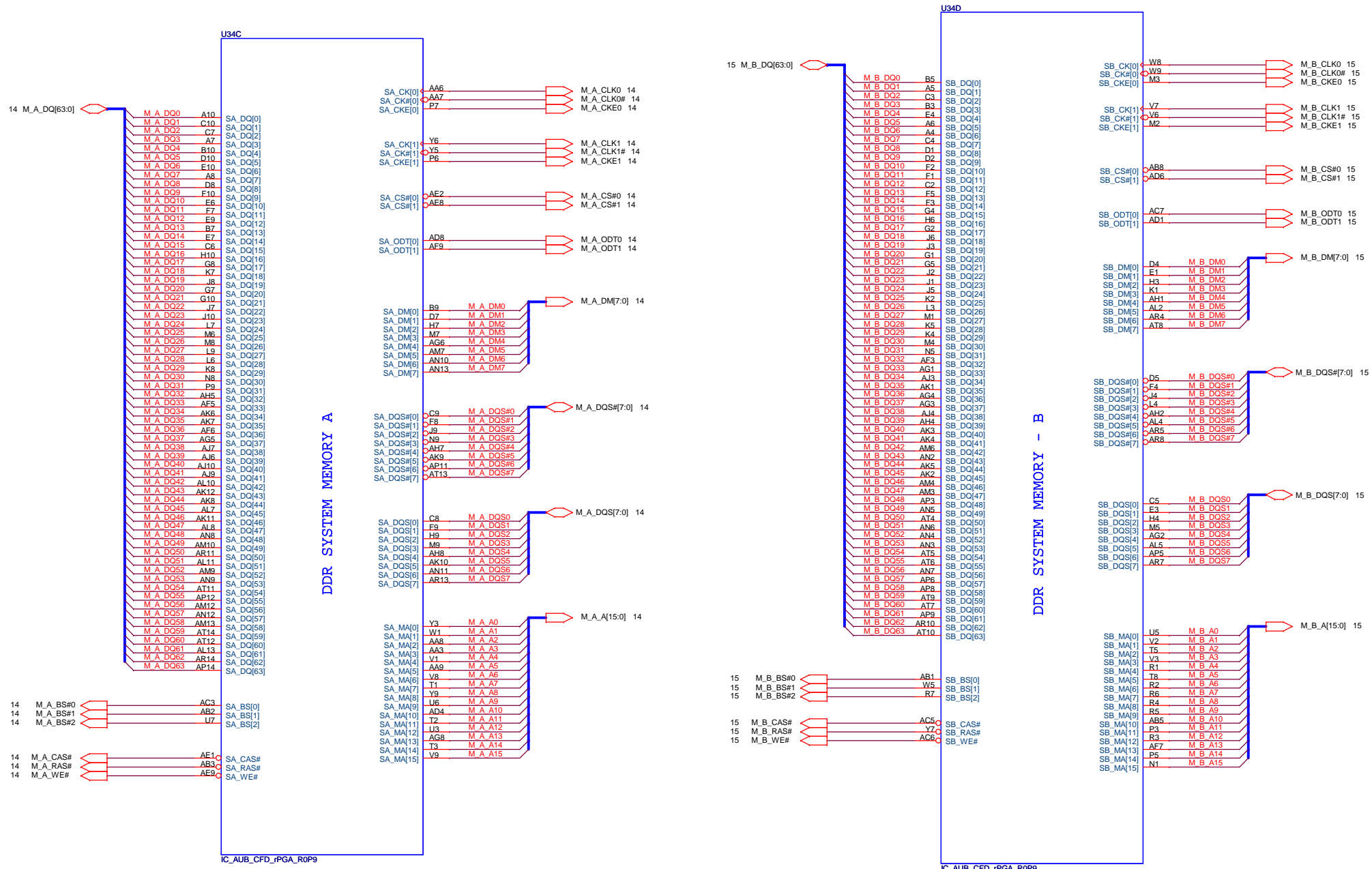


Timing diagram showing the relationship between REFDES, R205, and R206 signals. REFDES is a square wave. R205 is a square wave with a period of 0.4@NC. R206 is a square wave with a period of 0.4. The diagram shows that R205 and R206 are phase-locked to REFDES.

Platform	ERB	CRB
R205	STUFF	NO_STUFF
R206	NO_STUFF	STUFF



AUBURNDALE PROCESSOR (DDR3)

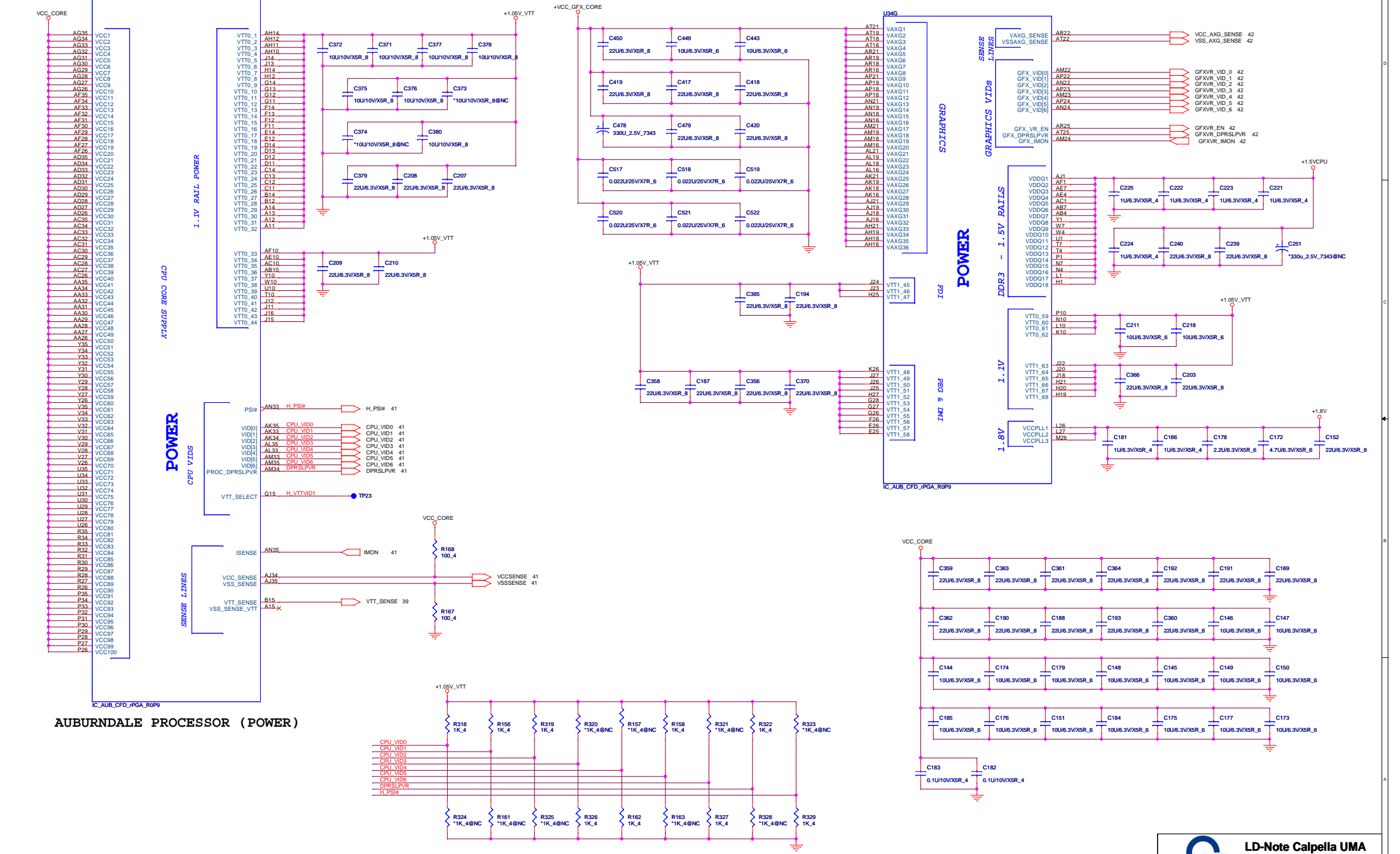


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AUBURNDALE PROCESSOR (GRAPHICS POWER)

CPU Core Power

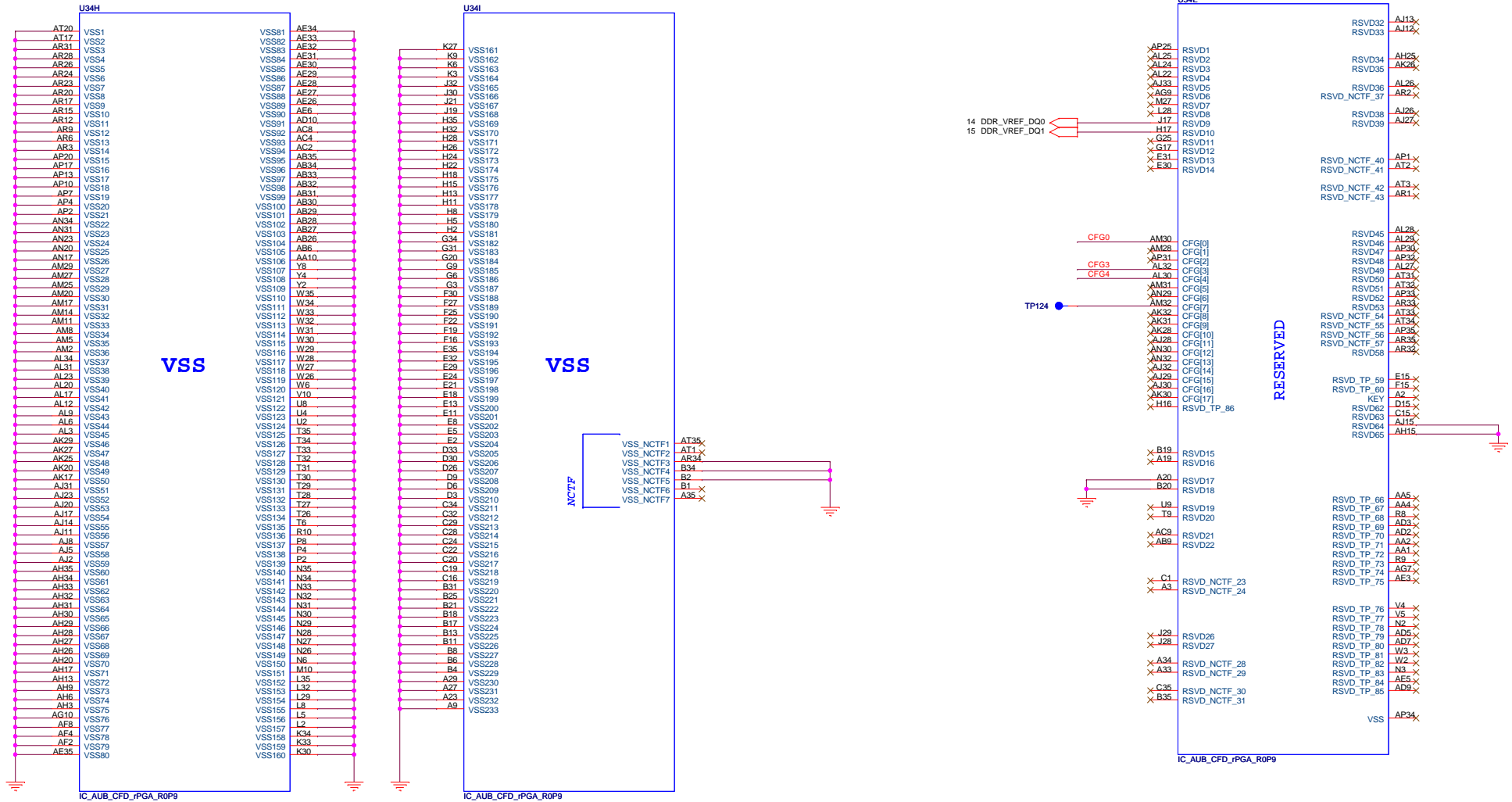


AUBURNDALE PROCESSOR (POWER)

AUBURNDALE PROCESSOR (GND)

AUBURNDALE PROCESSOR(RESERVED, CFG)

07

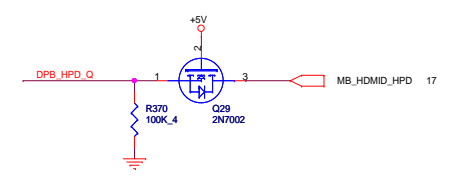
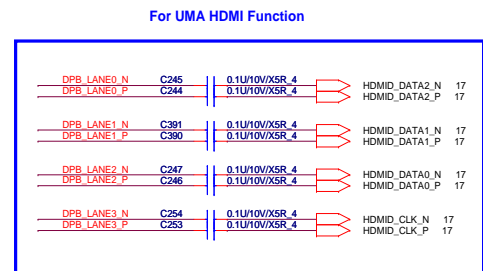
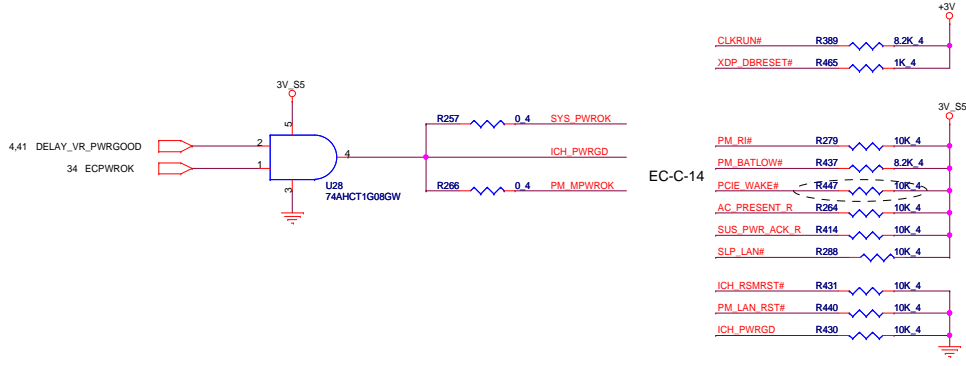
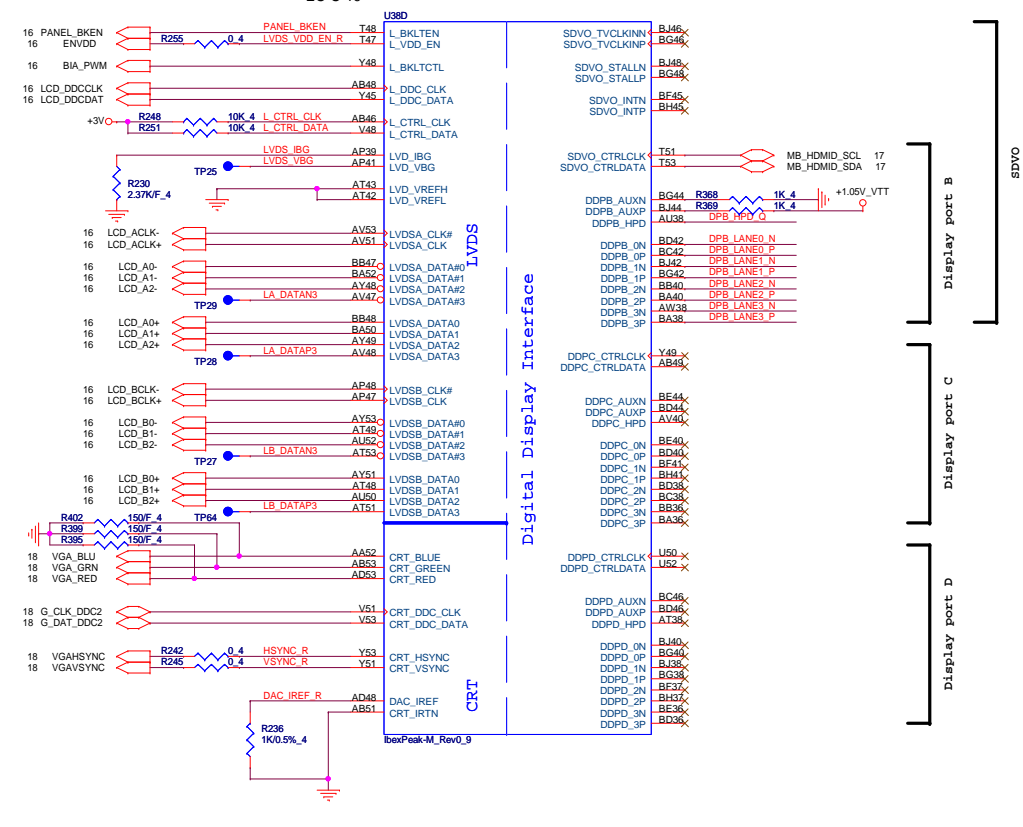
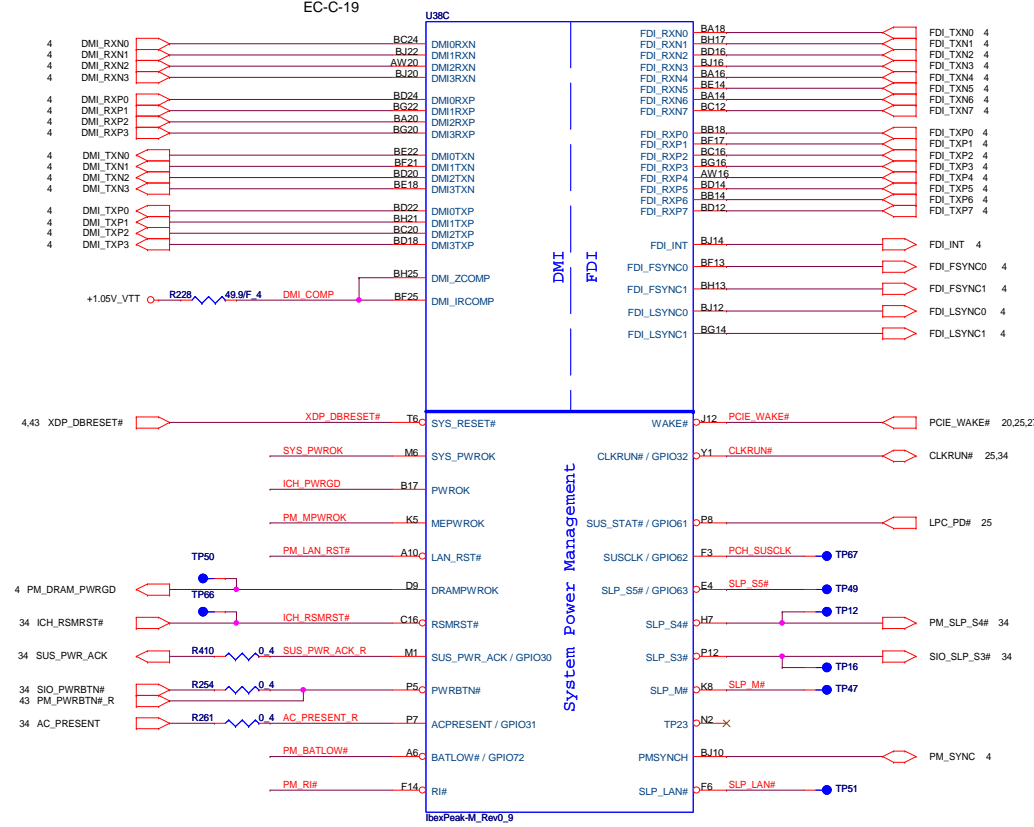


IBEX PEAK-M (DMI, FDI, GPIO)

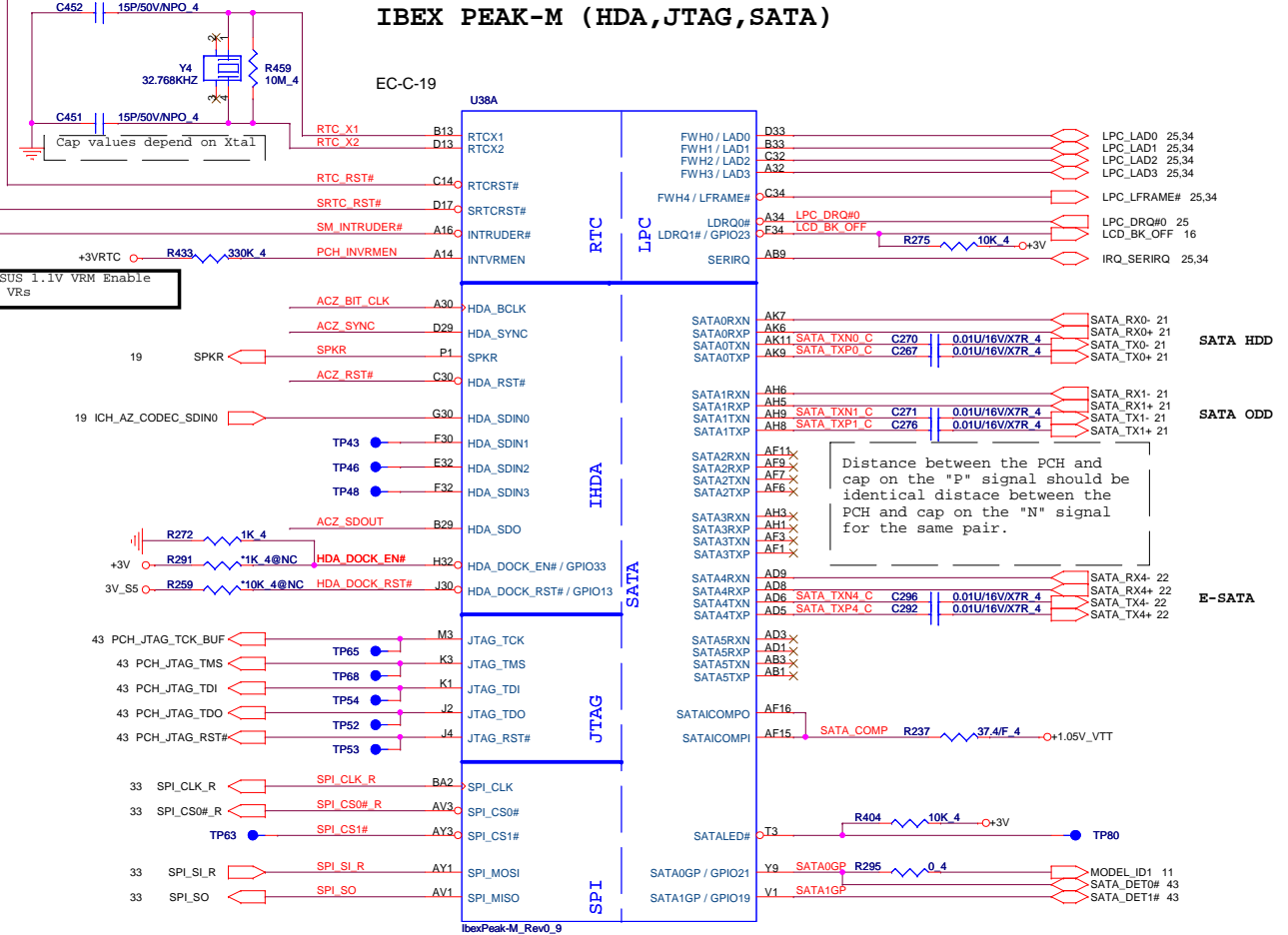
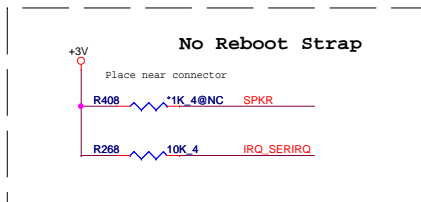
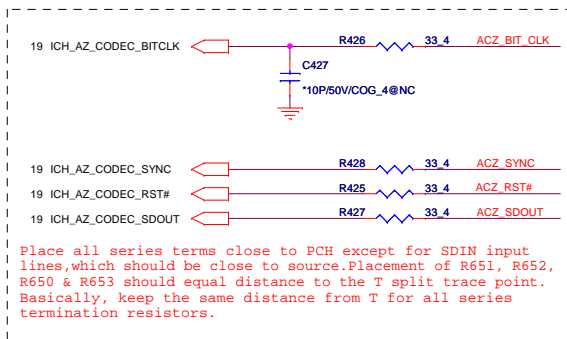
IBEX PEAK-M (LVDS, DDI)

EC-C-19

EC-C-19



IBEX PEAK-M (HDA,JTAG,SATA)



IBEX PEAK-M (PCI,USB,NVRAM)

IBEX PEAK-M (PCI-E,SMBUS,CLK)

10

EC-C-19

EC-C-19

Feature set	SKU Names			
	Q57	H57	H55	P55
PCI-E 2.0 Ports	8	8	6 ^{*1}	8
USB 2.0 Ports	14	14	12 ^{*2}	14

*1: USB ports 6 and 7 are disabled

*2: PCIe ports 7 and 8 are disabled



MiniWLAN

Express Card

MiniWWAN

LAN

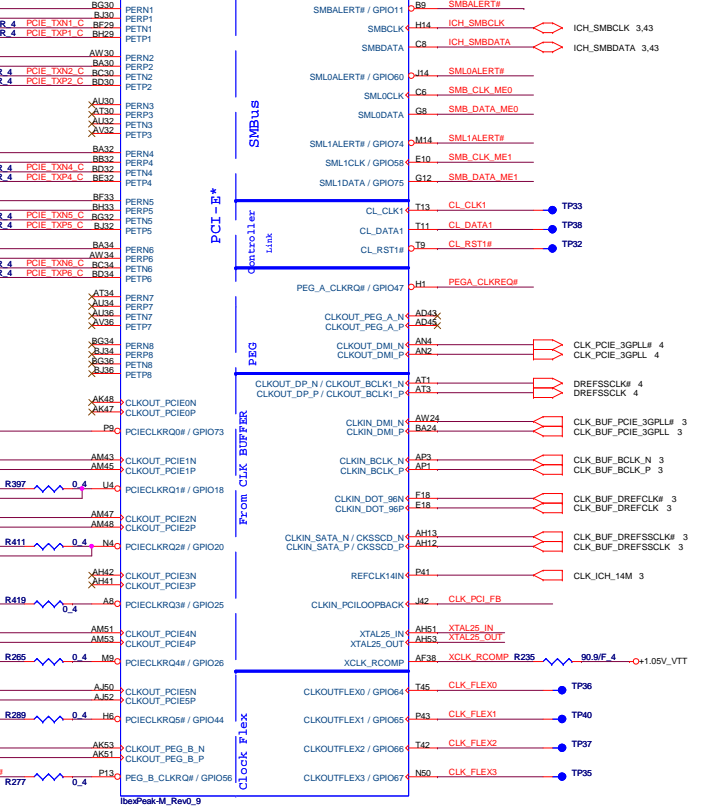
MiniWLAN

Express Card

MiniWWAN

LAN

EC-C-19



20091014

No stuff XTAL25_IN and XTAL25_OUT circuitry until integrated CG becomes PCH POR.

DMI Termination Voltage

NV_CLE Set to Vcc when LOW

NV_CLE Set to Vcc/2 when HIGH

Danbury Technology Enabled

NV_ALE High = Enable

NV_ALE Low = Disable

A16 swap override Strap/Top-Block Swap Override jumper

GNT3# Low = A16 swap override/Top-Block Swap Override enabled

GNT3# High = Default

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IBEX PEAK-M 3/6

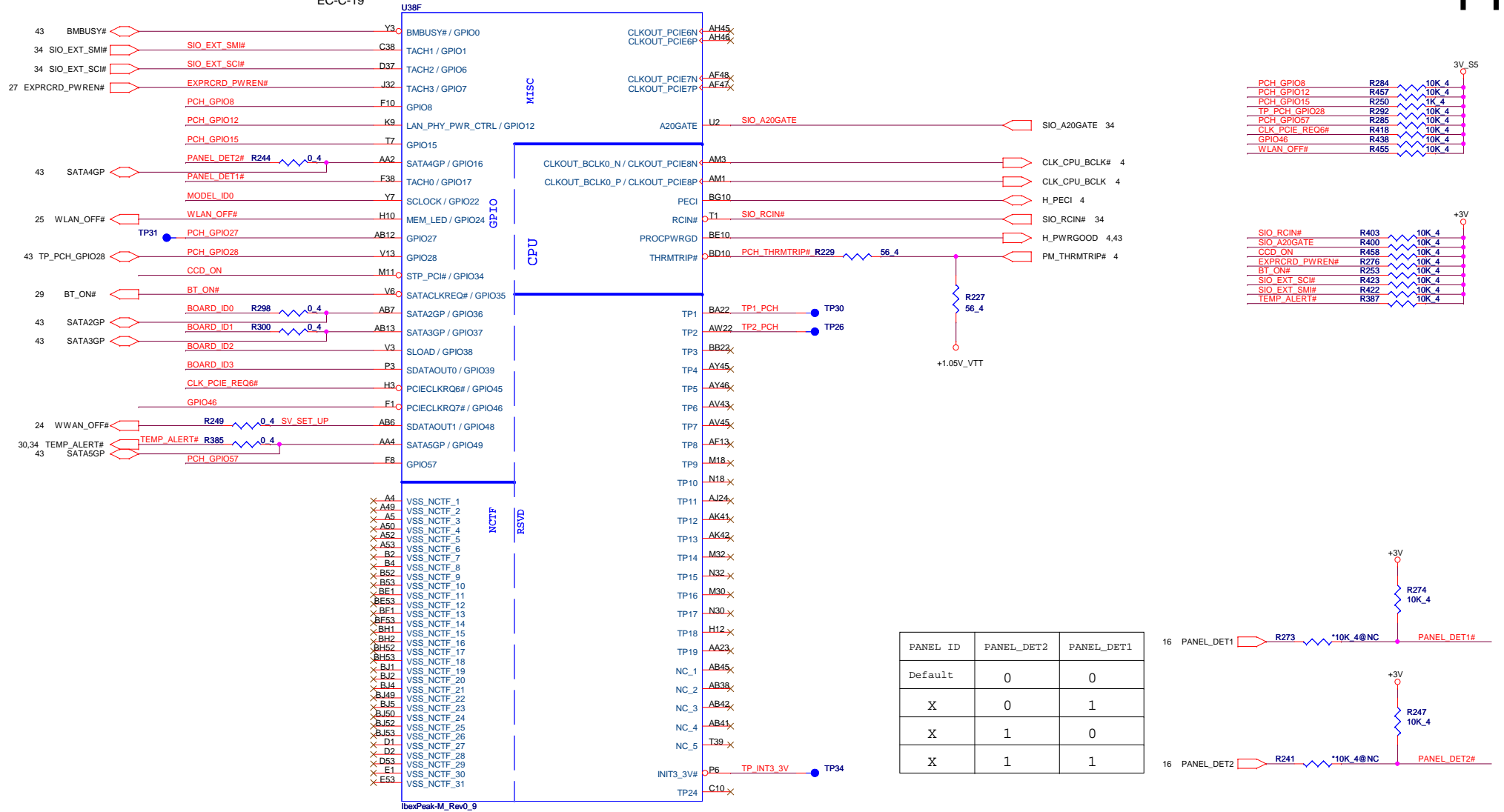
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IBEX PEAK-M (GPIO,VSS_NCTF,RSVD)

EC-C-19

3,4,8,9,10,12,14,15,16,17,18,19,20,21,22,23,24,25,27,29,30,31,33,34,36,38,39,40,41,43
+3V
4,8,9,10,12,22,25,36,43
3V_S5
3,4,6,8,9,10,12,35,36,39,41,42,43 +1.05V_VTT

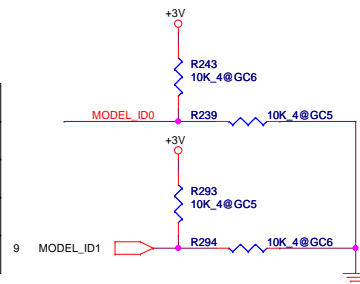
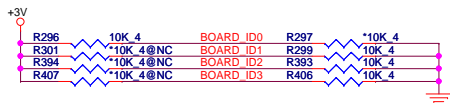
11



PANEL ID	PANEL_DET2	PANEL_DET1
Default	0	0
X	0	1
X	1	0
X	1	1

Board ID For Function	ID3 GPIO39	ID2 GPIO38	ID1 GPIO37	ID0 GPIO36
SDV	0	0	0	0
SIV	0	0	0	1
SIT	0	0	1	0
SVT	0	0	1	1
SOVP	0	1	0	0

Model ID	MODEL_ID0	MODEL_ID1
13"	0	0
14"	0	1
15"	1	0
Default	1	1



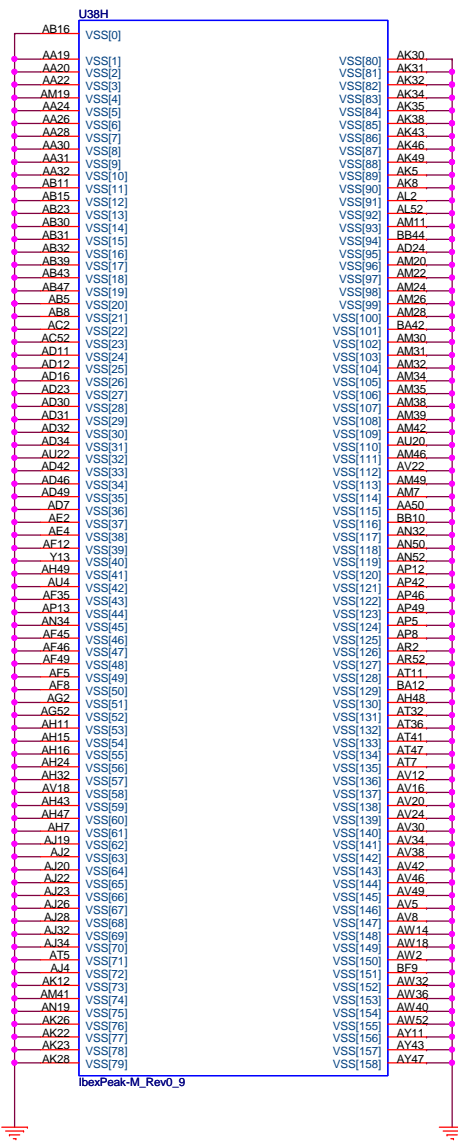
SV_SET_UP	1-X High = Strong (Default)
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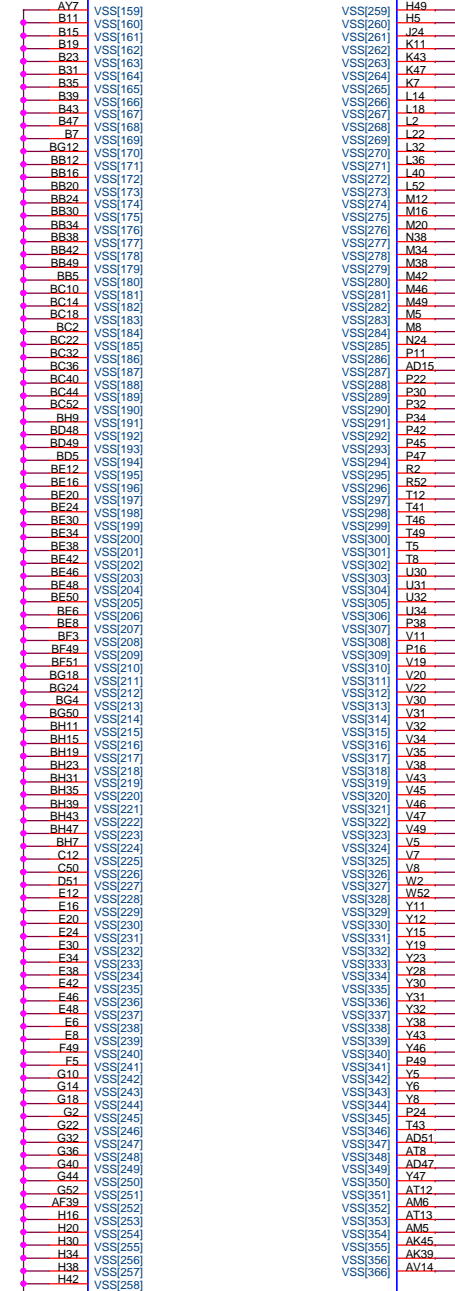
Size Custom Document Number **IBEX PEAK-M 4/6** Rev

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EC-C-19

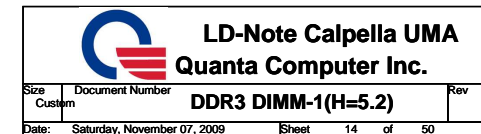
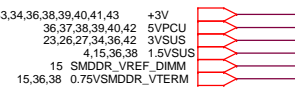


U38I



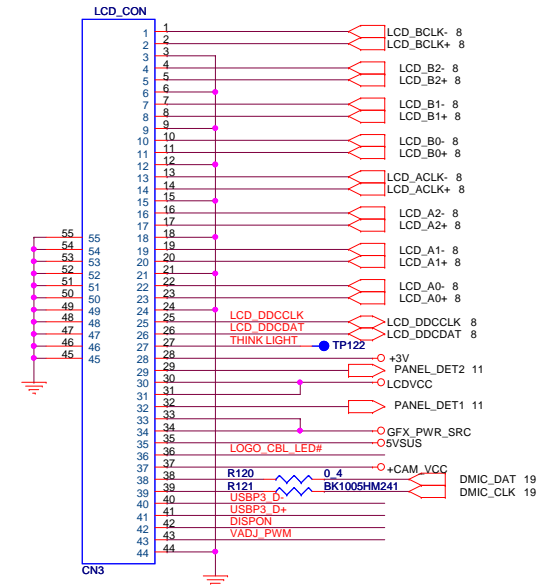
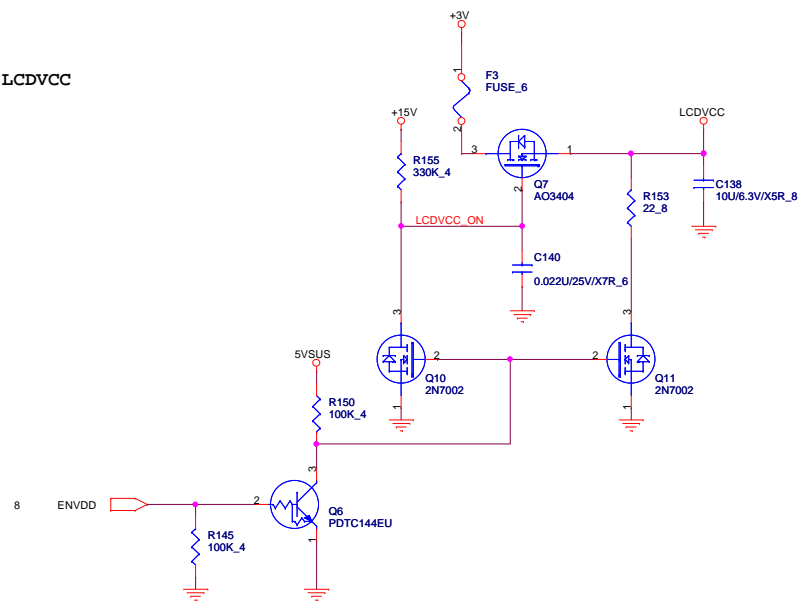
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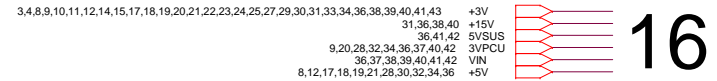




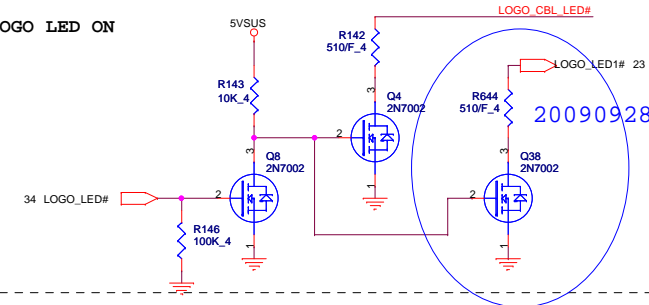
LCDVCC



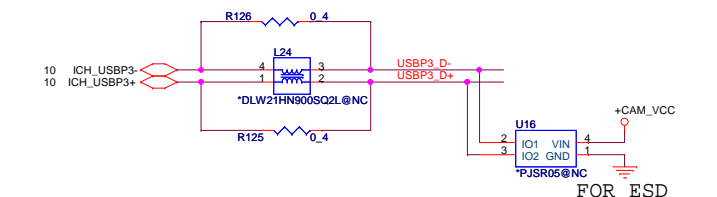
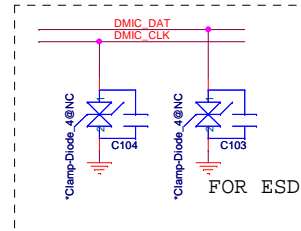
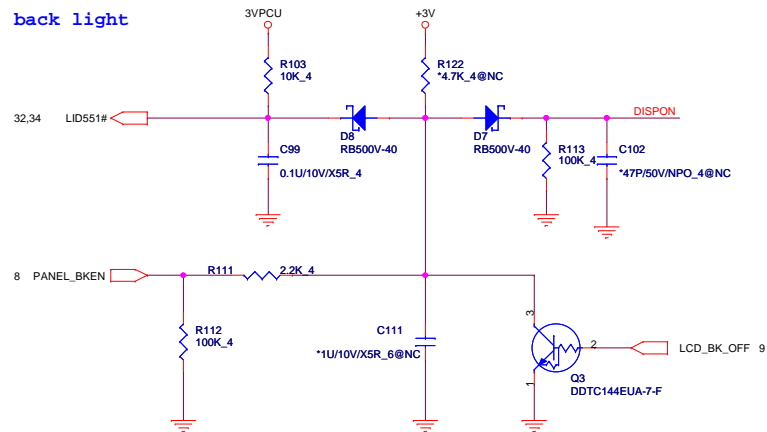
Address : A9H --Contrast
AAH --Backlight



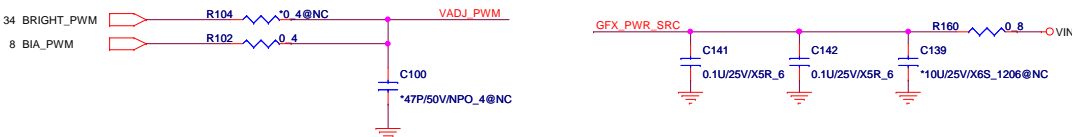
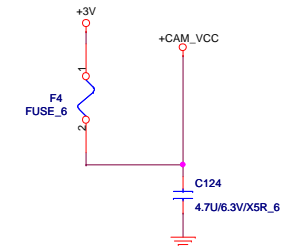
LOGO LED ON

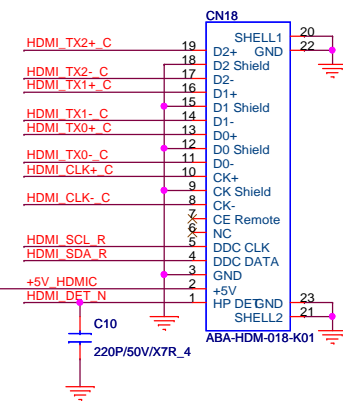
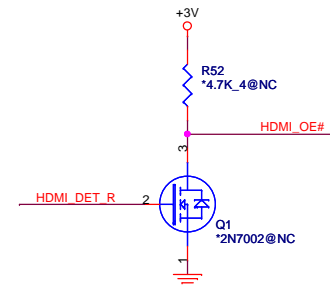
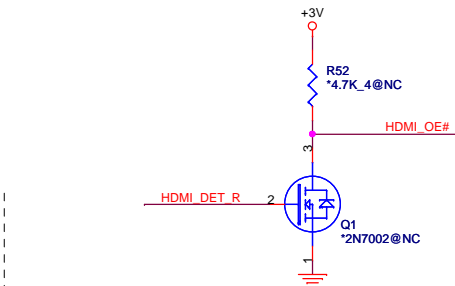
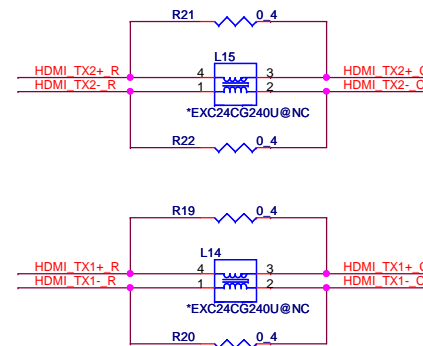
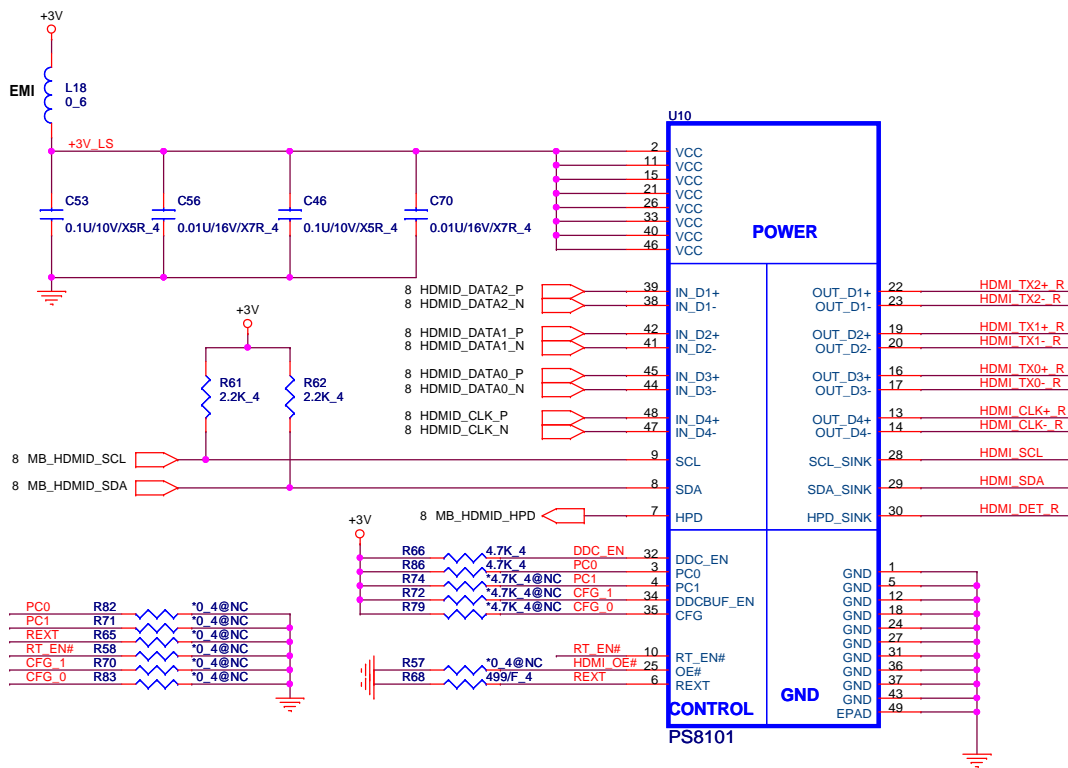


back light



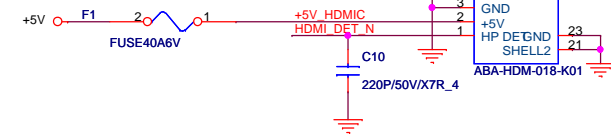
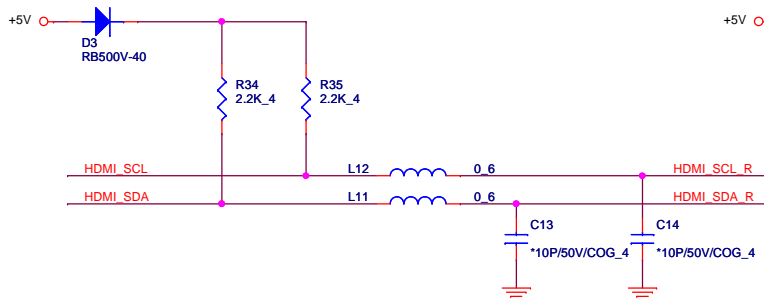
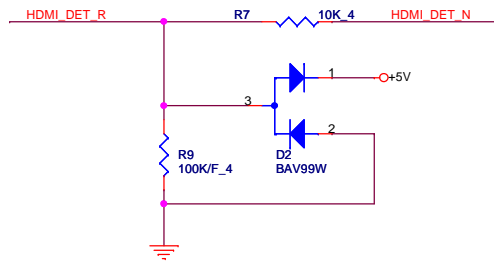
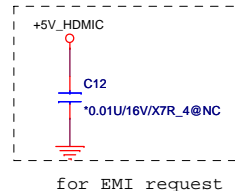
CAMERA VCC Control

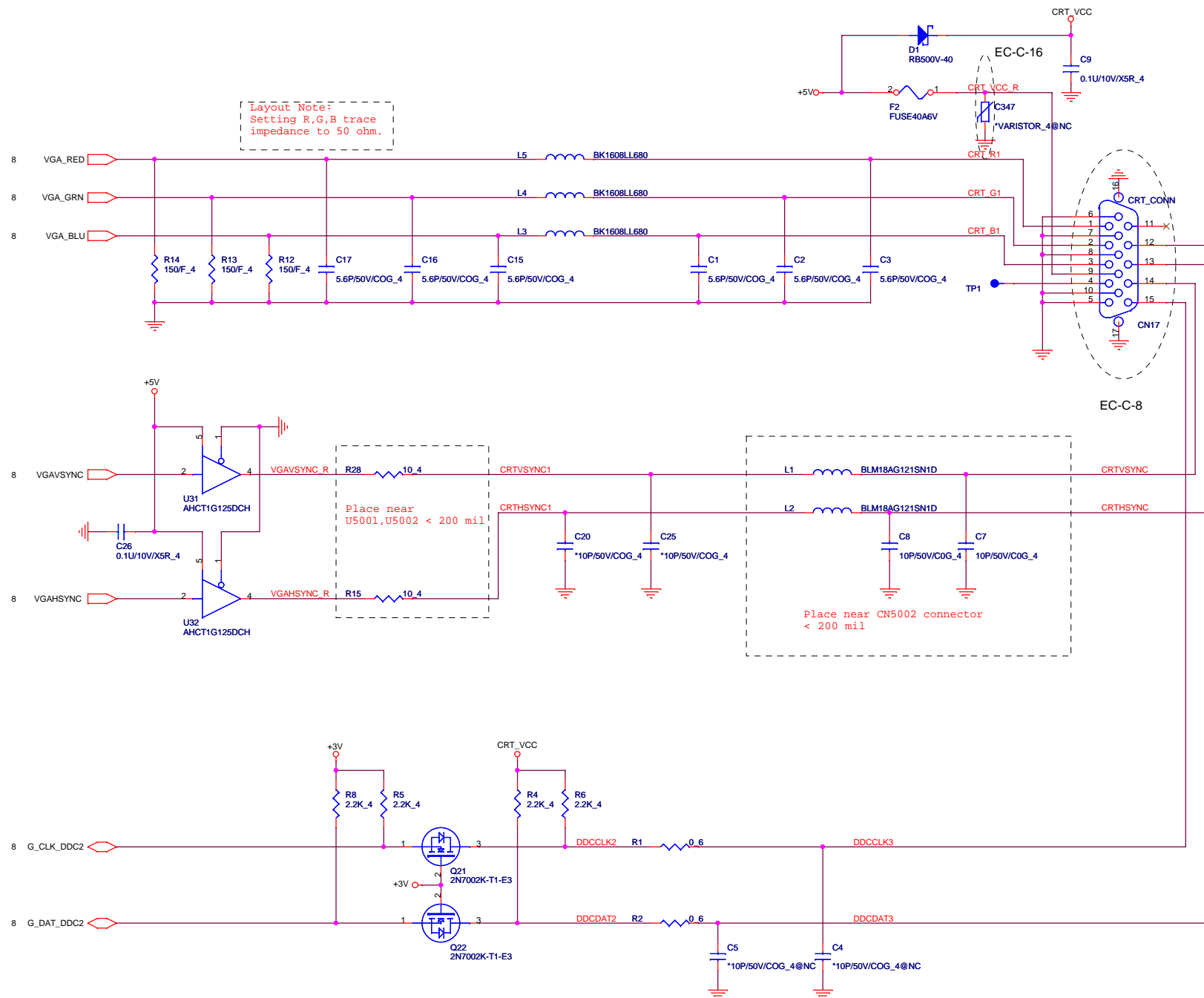




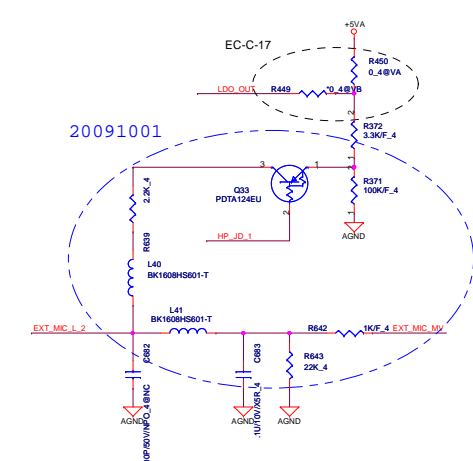
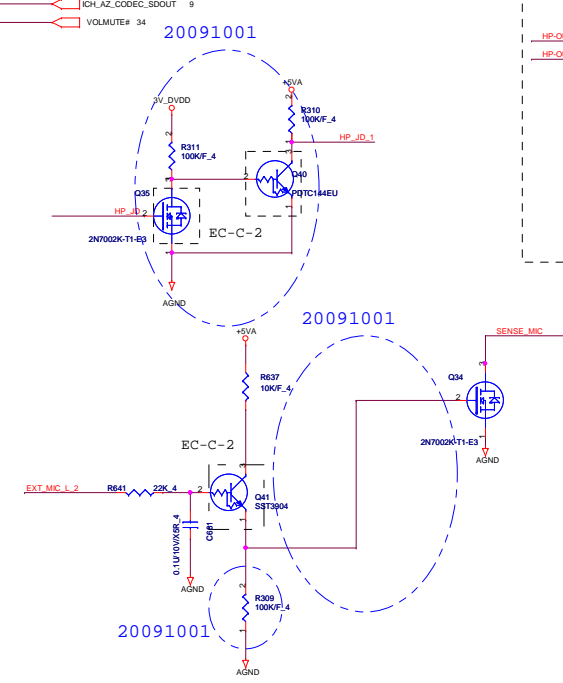
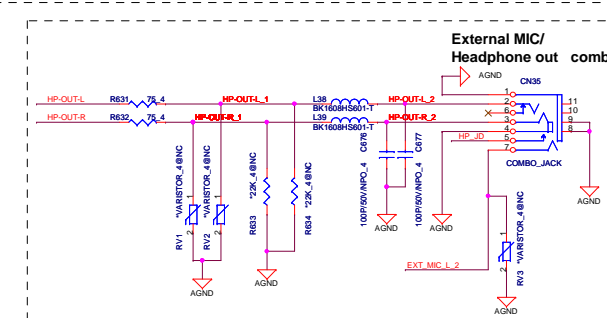
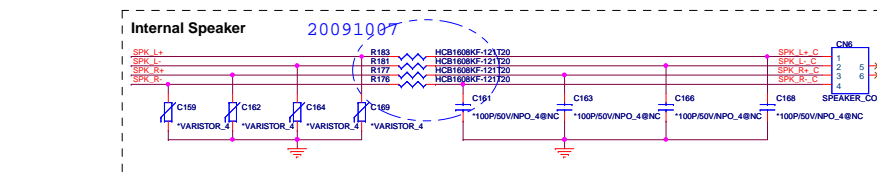
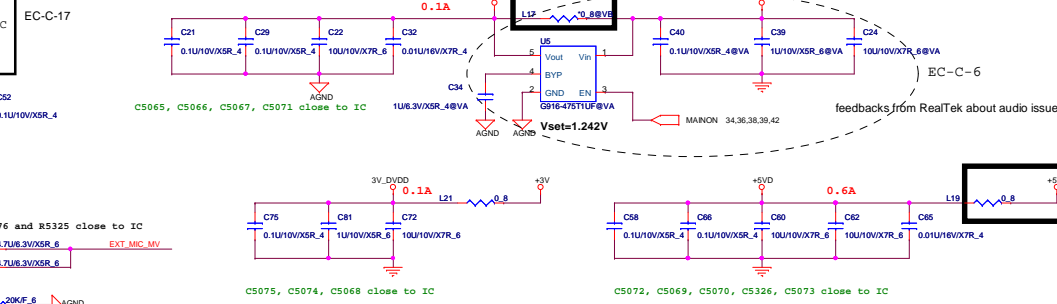
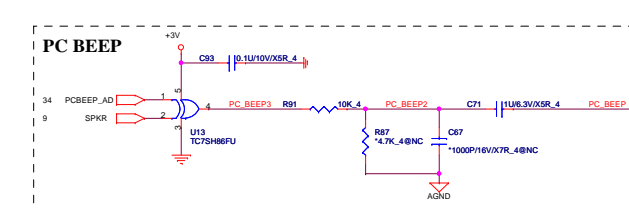
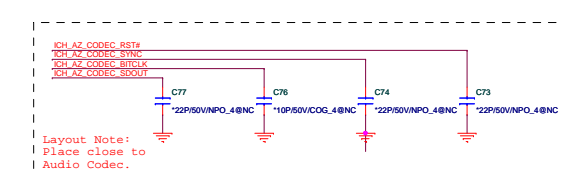
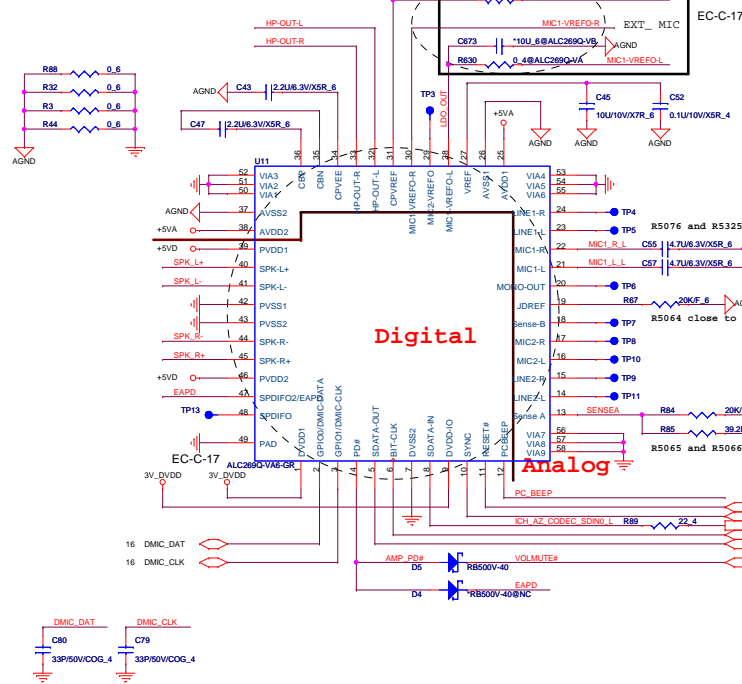
EQUALIZATION SETTING
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 PC1:PC0=0:1 4dB Recommended
 PC1:PC0=1:0 12dB
 PC1:PC0=1:1 0dB

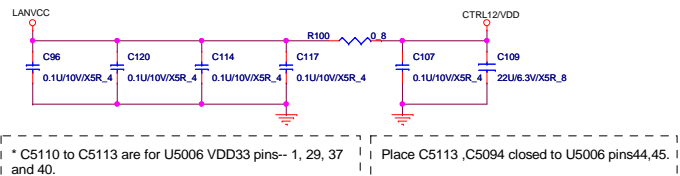
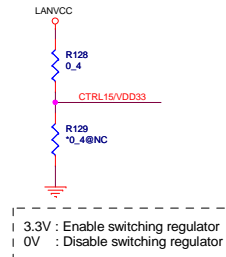
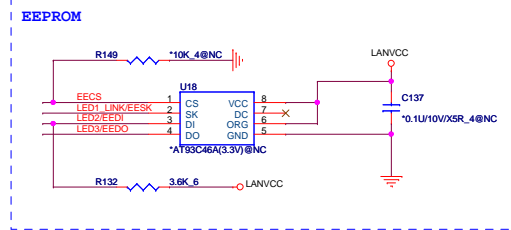
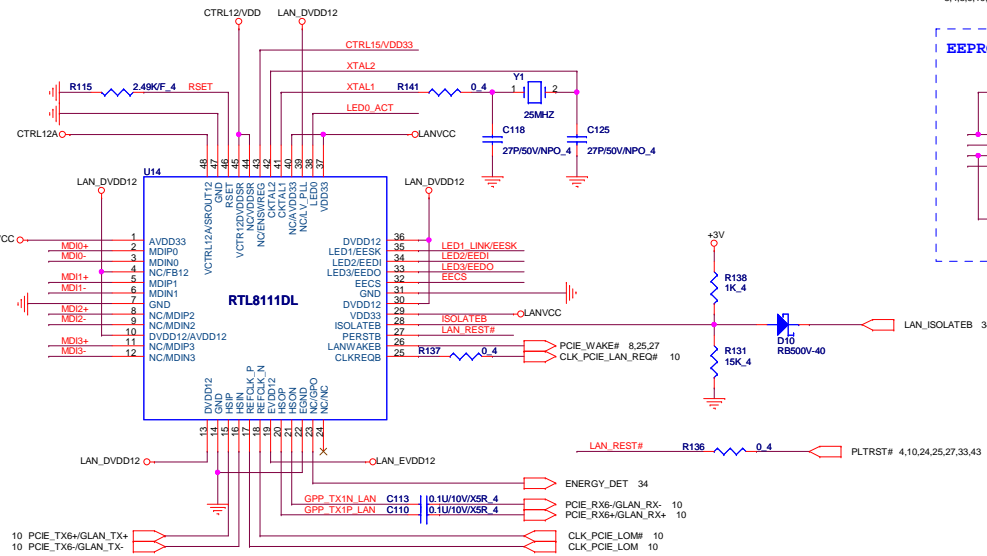
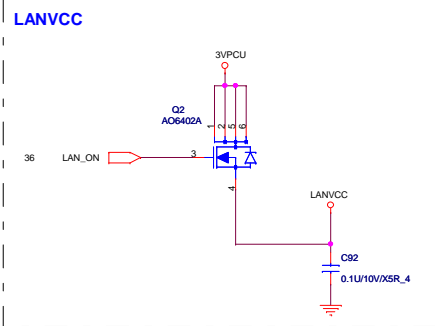
PS8101 Pin34/35 is NC
 SCLZ/SDAZ Low-level input/output Voltage
 CFG1:CFG0=0:0 VIL:<0.4V VOL:0.6V (Default)
 CGF1:CGF0=0:1 VIL:<0.36V VOL:0.55V
 CGF1:CGF0=1:0 VIL:<0.44V VOL:0.65V
 CGF1:CGF0=1:1 VIL:<0.36V VOL:0.6V





HDAudio Codec

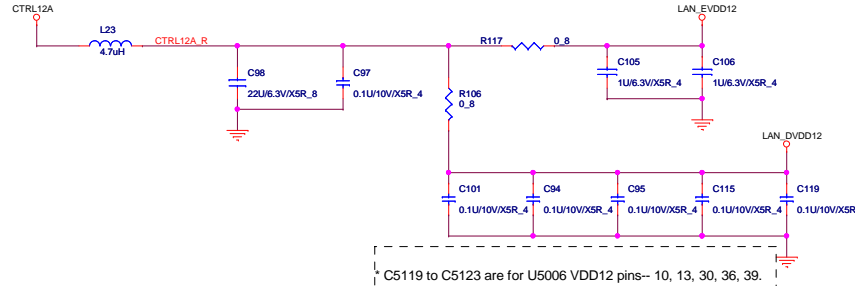




Note 1: The Trace length between L1 and 8111DL's Pin 1 must be within 0.5 cm. C5 and C8 to L1 must be within 0.5cm. Refer to Layout guide for more detail.

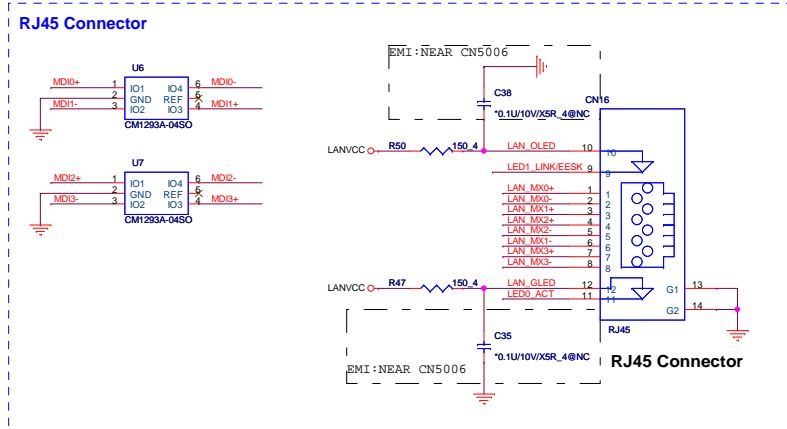
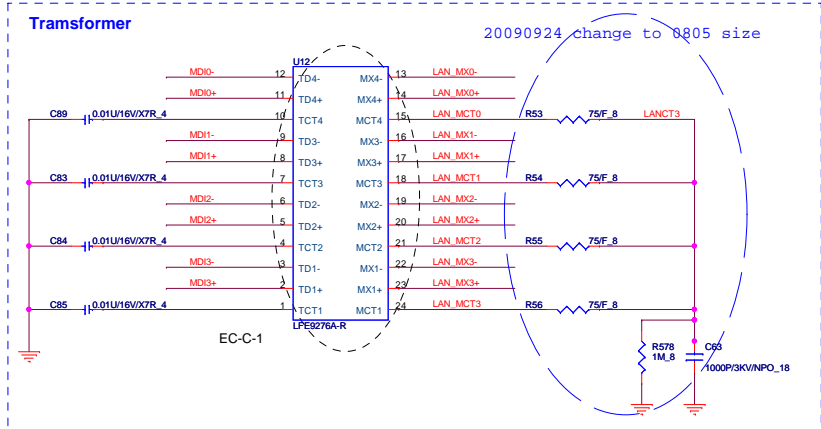
* C5110 to C5113 are for U5006 VDD33 pins-- 1, 29, 37 and 40.

Place C5113, C5094 closed to U5006 pins 44, 45, and 40.

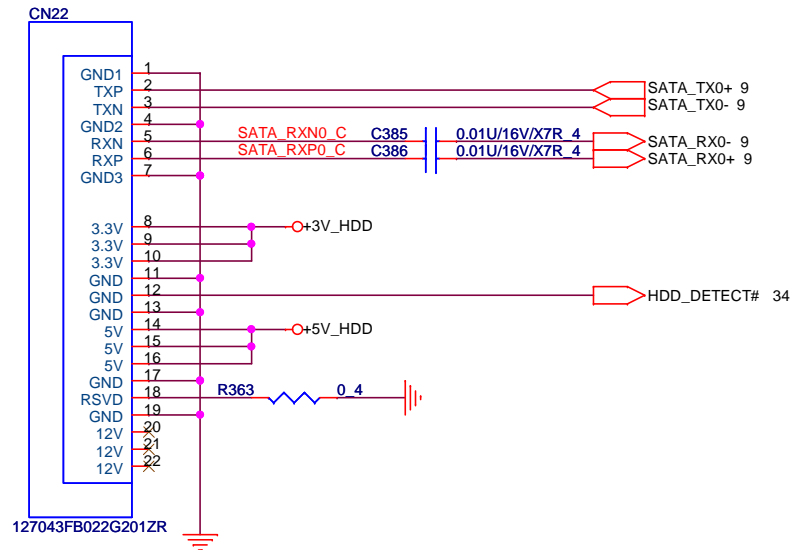


* C5116 and C5273 are for U5006 EVDD12 pin 19.

* C5119 to C5123 are for U5006 VDD12 pins-- 10, 13, 30, 36, 39.



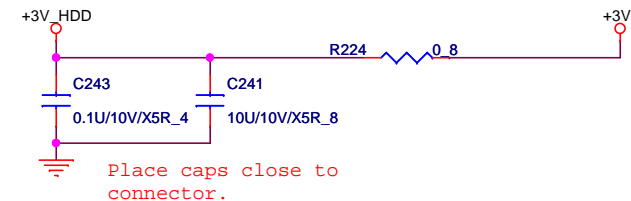
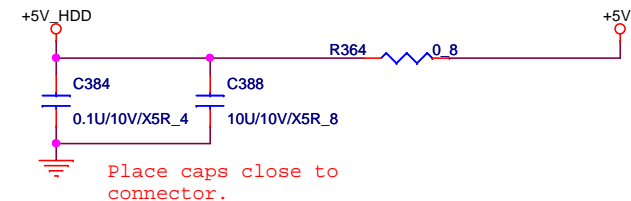
SATA Connector.



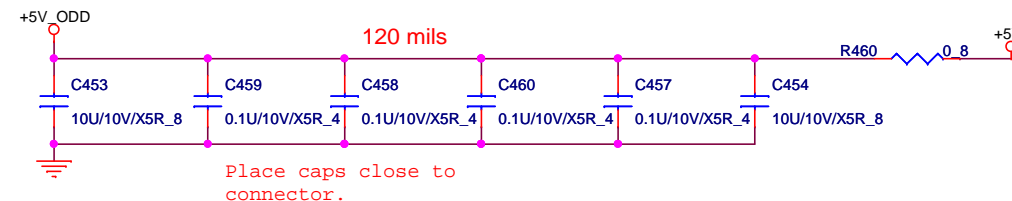
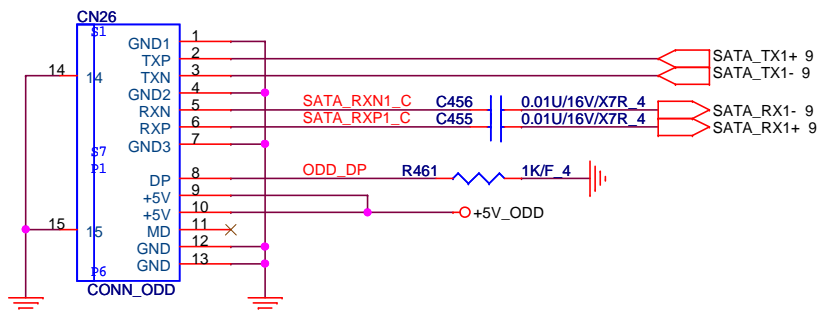
3,4,8,9,10,11,12,14,15,16,17,18,19,20,22,23,24,25,27,29,30,31,33,34,36,38,39,40,41,43

8,12,17,18,19,28,30,32,34,36
+5V
+3V

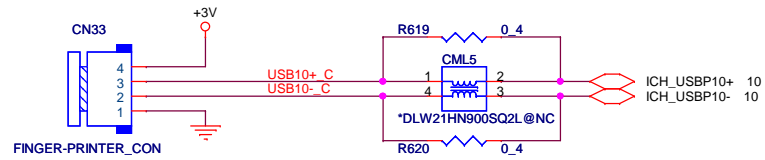
21



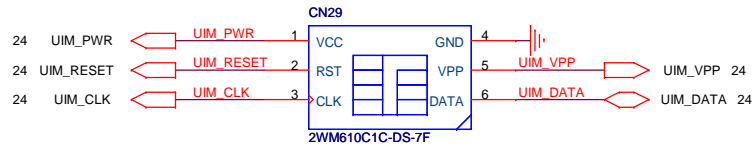
ODD Connector



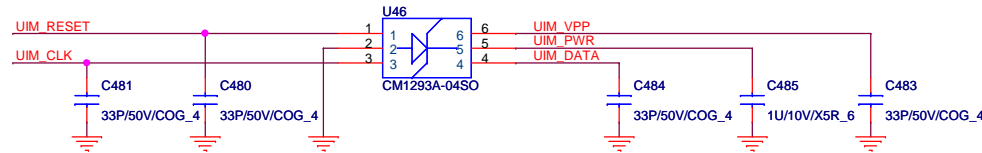
Finger Print



SIM Card CONN

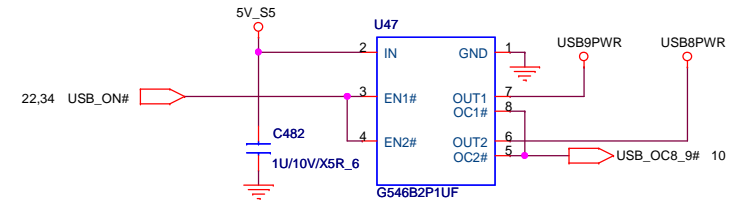
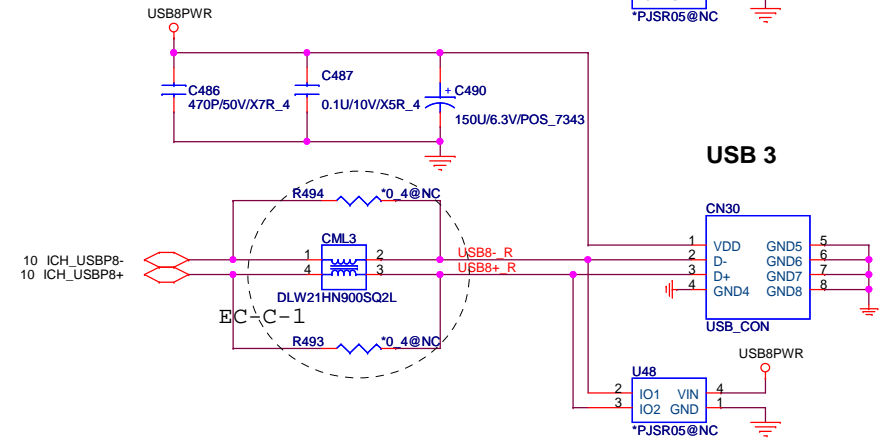
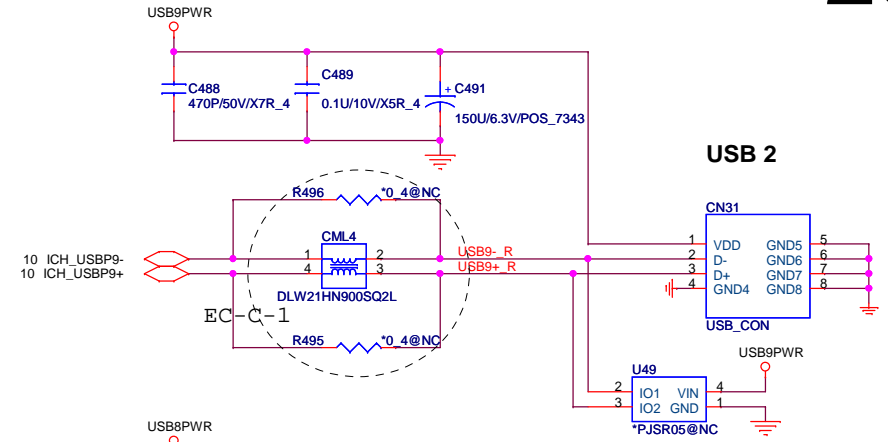


Layout Note:
UIM_RESET, UIM_CLK, UIM_DATA routing as short as possible



20090928

LOGO LED

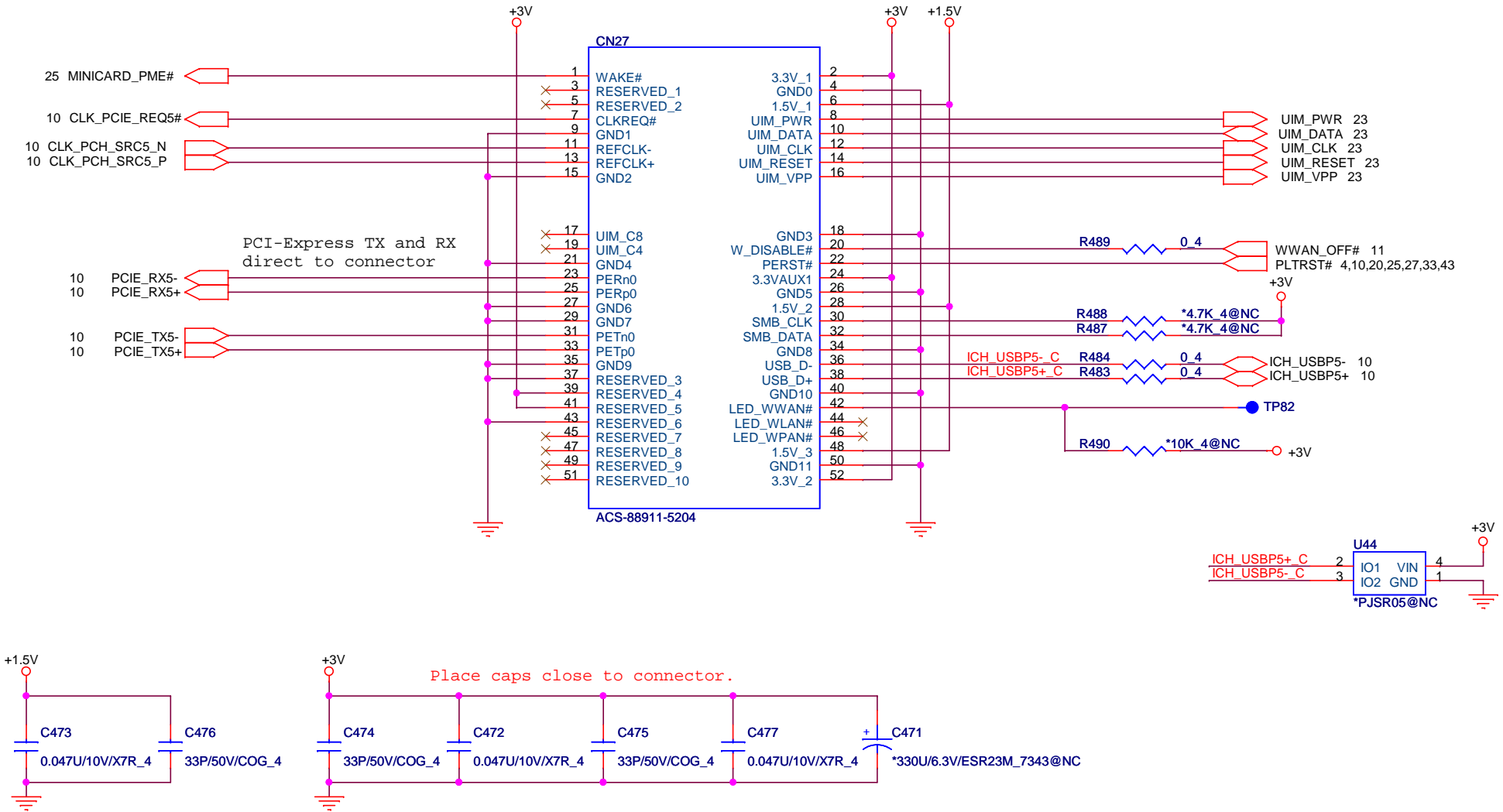


LD-Note Calpella UMA
Quanta Computer Inc.

Size Custom Document Number **USB X2/SIM_CARD/LEDs/RF** Rev
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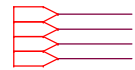
MiniCard WWAN connector

24

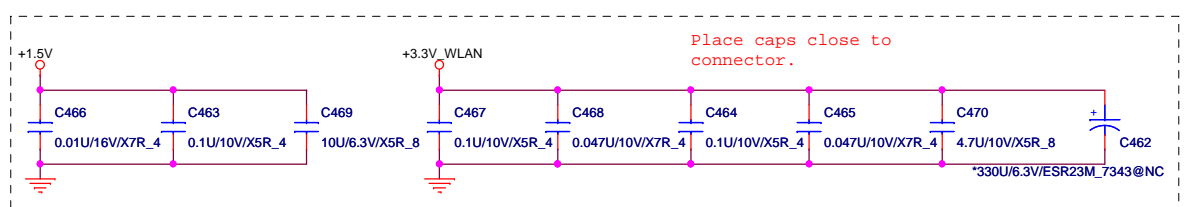
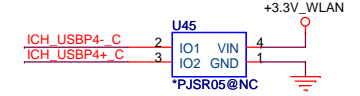
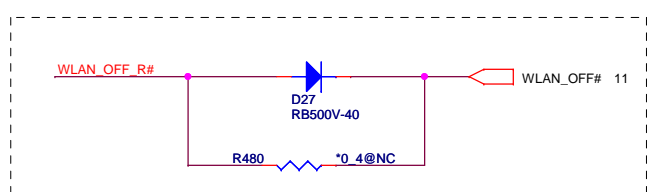
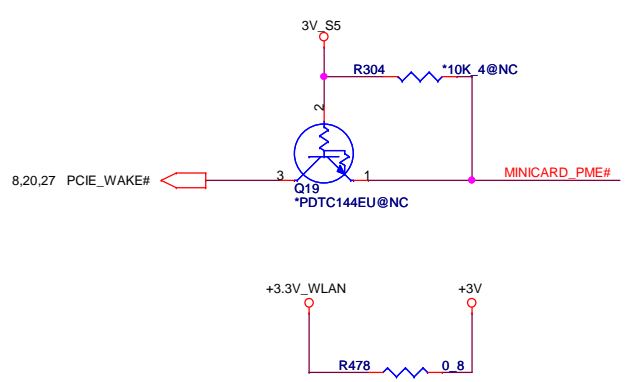
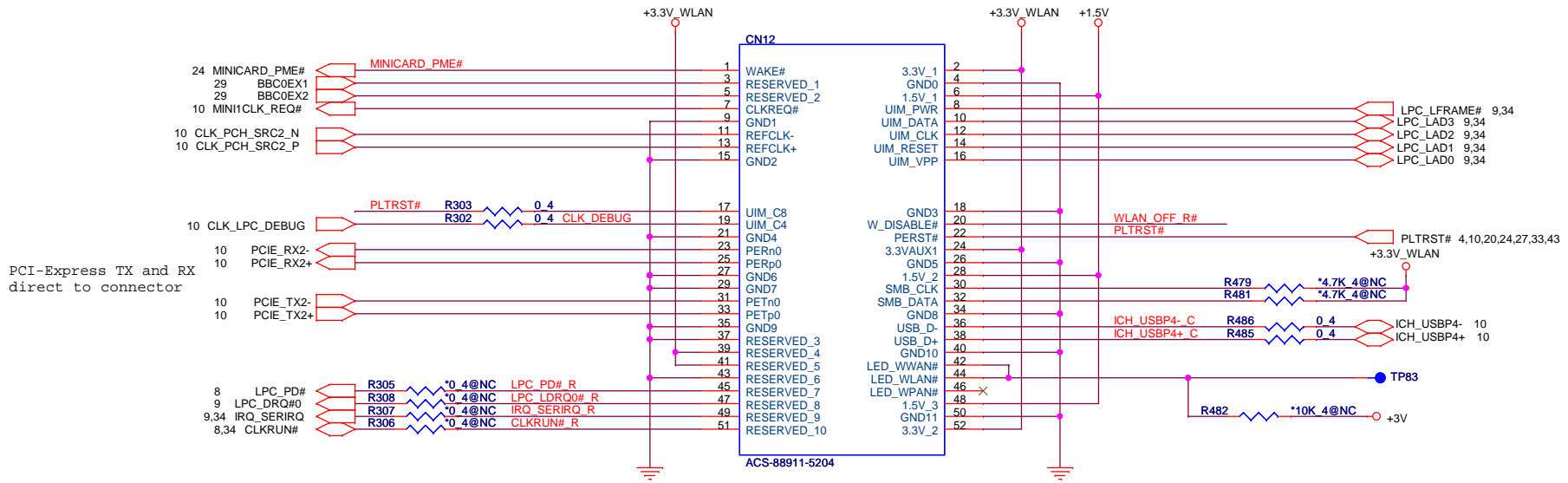


MiniCard WLAN/WiMAX connector

3,4,8,9,10,11,12,14,15,16,17,18,19,20,21,22,23,24,27,29,30,31,33,34,36,38,39,40,41,43
3,24,27,38 +3V
9,16,20,28,32,34,36,37,40,42 +1.5V
16,36,37,38,39,40,41,42 VIN



25



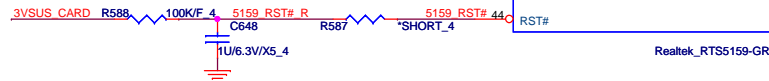
Left NC if Pin23
connected to XD-D4

CARD READER

For external 12Mhz clock input
pin13 floating
For external 48Mhz clock input
pin13 pull high

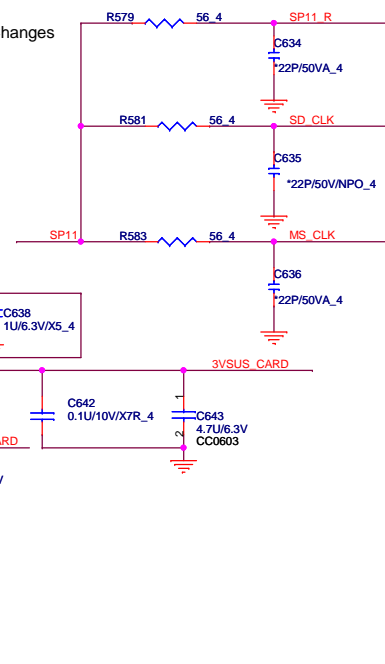
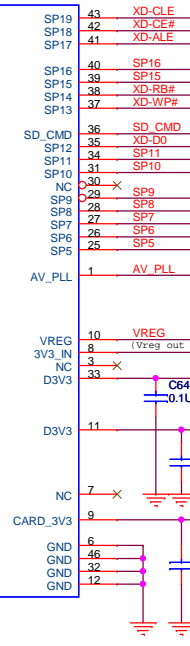
Card Reader Model Select

Pin 45	R20
RTS5159-GR	0 ohm (default)
RTS5158-GR	N.C



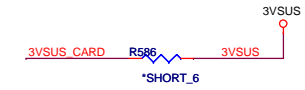
Realtek_RTS5159-GR

0515 EMI Changes

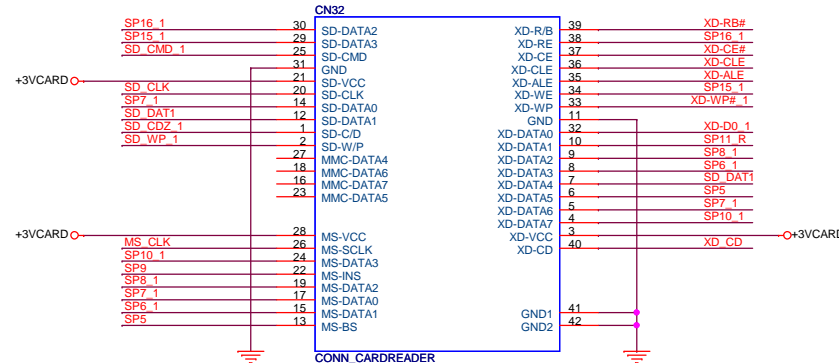


Note:

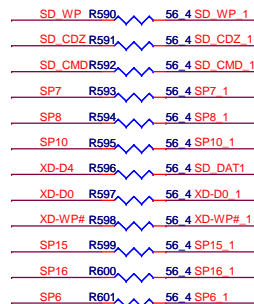
SD/MMC	MS	XD
SP0		XD_CD#
SP1	SD_WP	
SP2	SD_CD#	
SP3		XD_D4
SP4	MS_BS	XD_D5
SP5	MS_D1	XD_D3
SP6	SD_DAT0	XD_D6
SP7	SD_DAT1	XD_D2
SP8	MS_INS#	
SP9	SD_DAT6	XD_D7
SP10	SD_CLK	MS_SCLK
SP11	SD_DAT5	XD_D0
SP12	SD_DAT4	XD_WP#
SP13	XD_R/#	
SP14	XD_RE#	
SP15	XD_CE#	
SP16	XD_CLE	
SP17		
SP18		
SP19		



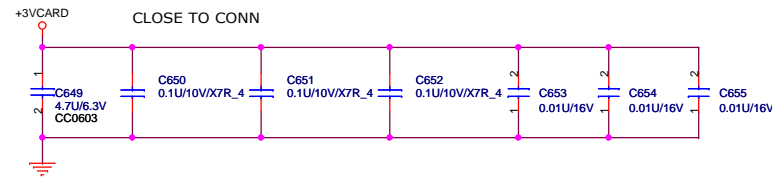
7 in 1 Socket (MS, MS PRO, SD, MMC, xD...)



0616 Add 10K to GND for +3VCARD discharge in Ver.B



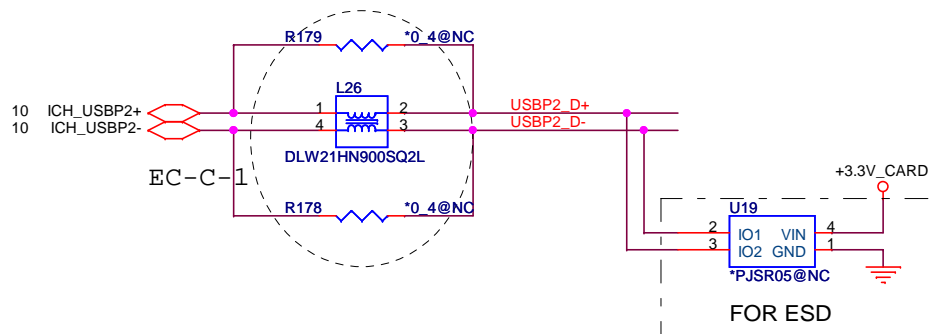
0505 EMI added



Express Card

3,4,8,9,10,11,12,14,15,16,17,18,19,20,21,22,23,24,25,29,30,31,33,34,36,38,39,40,41,43
+3V
3,24,25,38 +1.5V
23,26,34,36,42 3VSUS

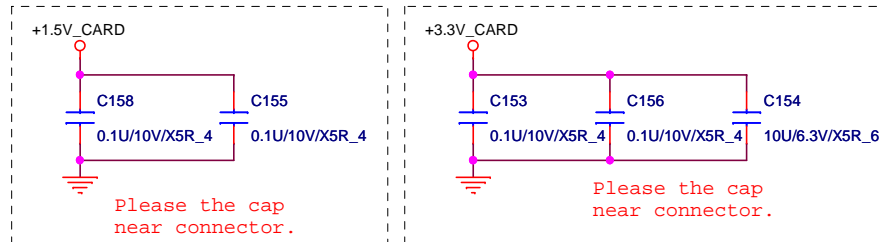
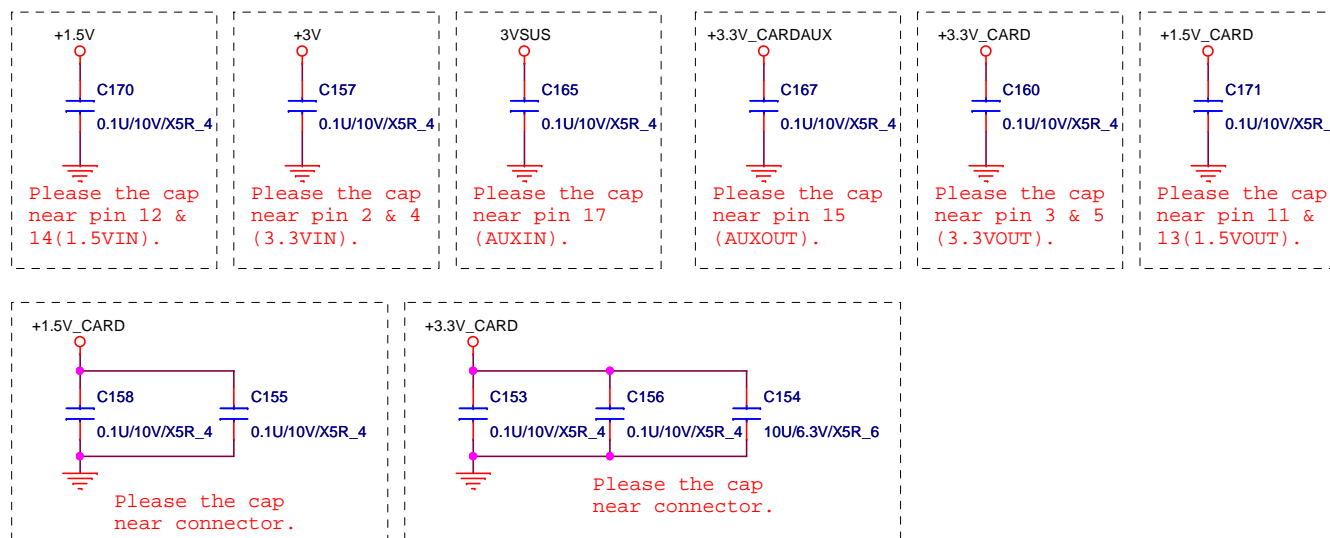
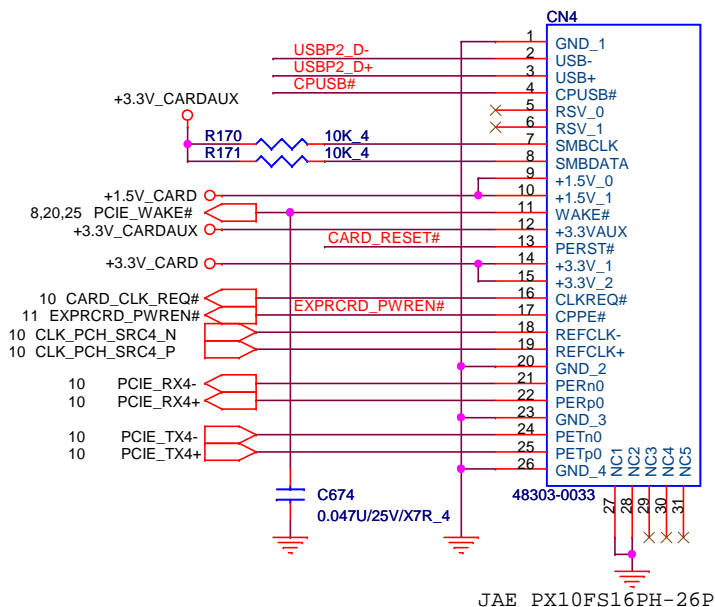
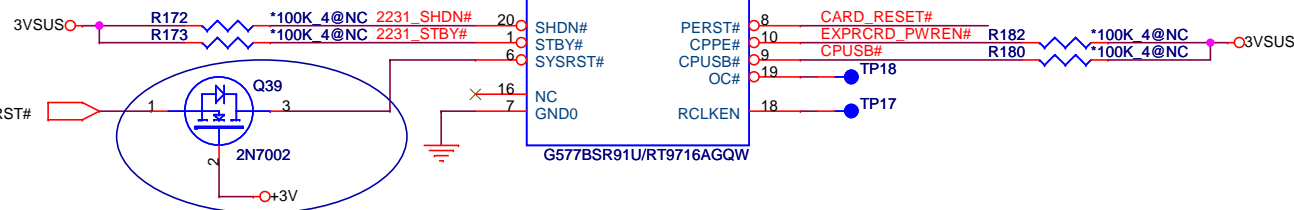
27



+1.5V_CARD Max. 650mA, Average 500mA.
+3V_CARD Max. 1300mA, Average 1000mA.

20090928
avoid current leakage

4,10,20,24,25,33,43 PLTRST#



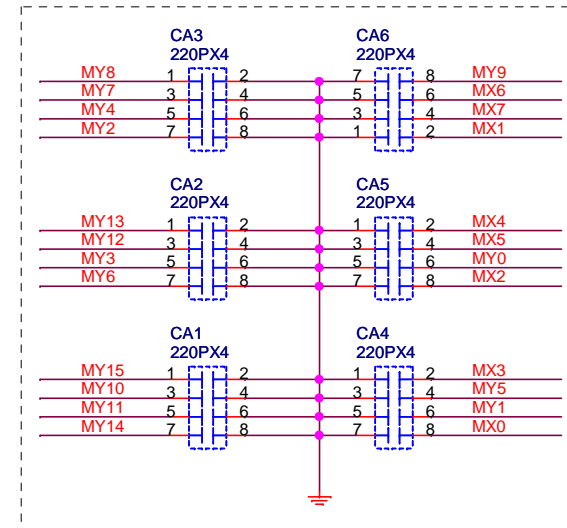
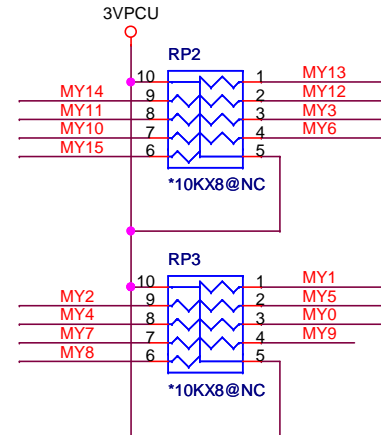
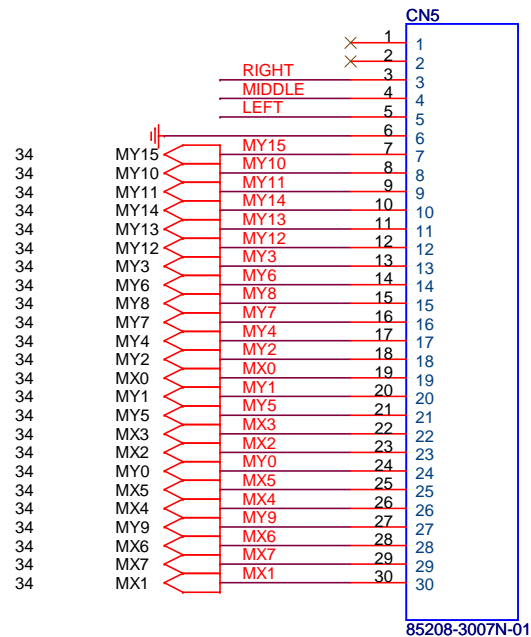
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Quanta Computer Inc.

Size	Document Number	Rev
Custom	Express Card	

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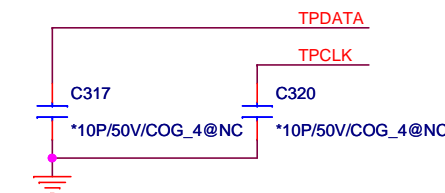
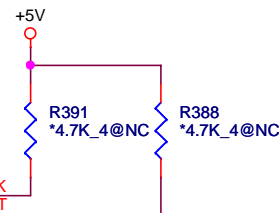
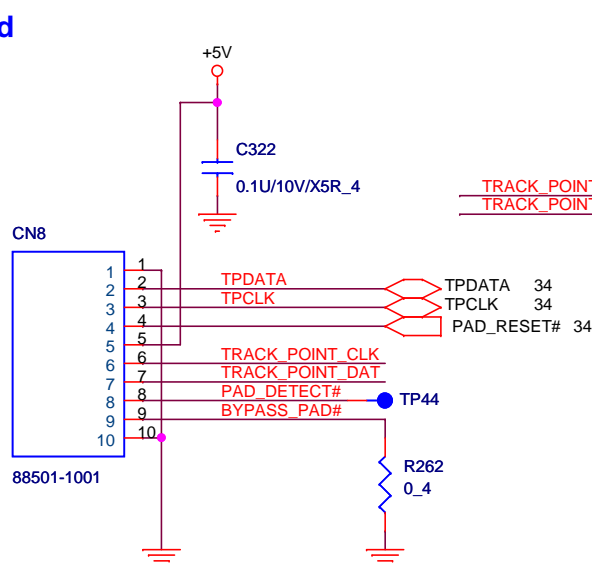
KEYBOARD

KEYBOARD connector



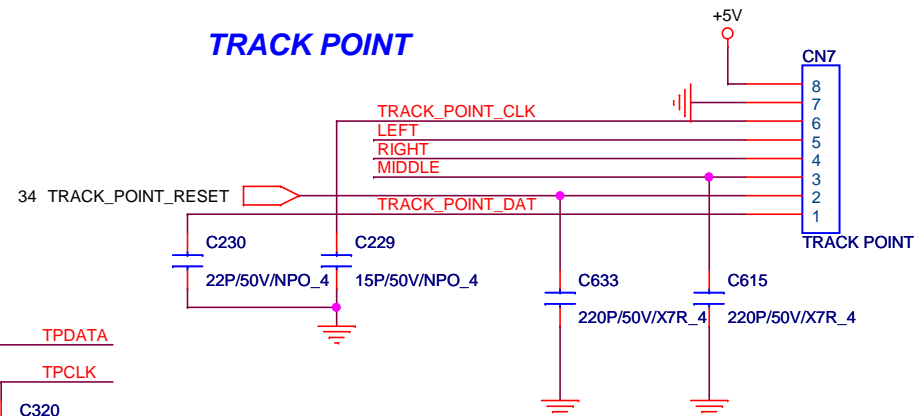
28

Touch pad



Place C5303 ,C5302 closed to CN5020

TRACK POINT



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Quanta Computer Inc.

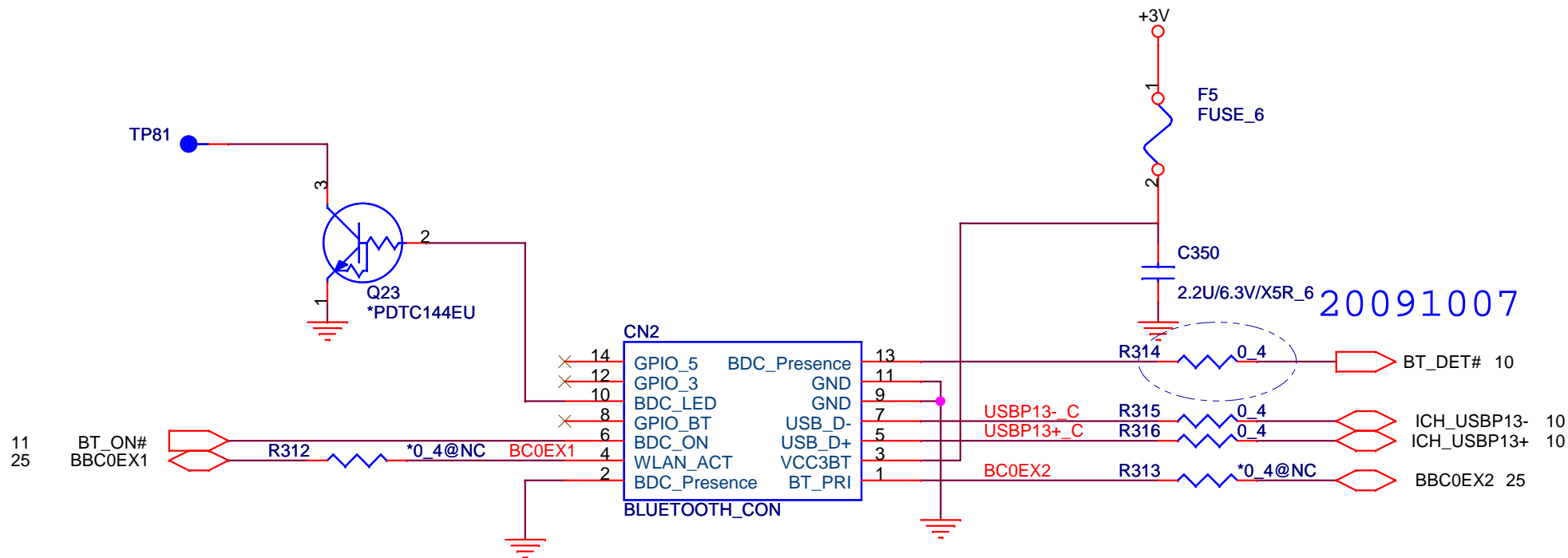
Size Custom	Document Number K/B, T/P	Rev
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BLUETOOTH

3,4,8,9,10,11,12,14,15,16,17,18,19,20,21,22,23,24,25,27,30,31,33,34,36,38,39,40,41,43

+3V

29



LD-Note Calpella UMA
Quanta Computer Inc.

Size Custom	Document Number B/T	Rev
Date: Saturday, November 07, 2009	Sheet 29 of 50	

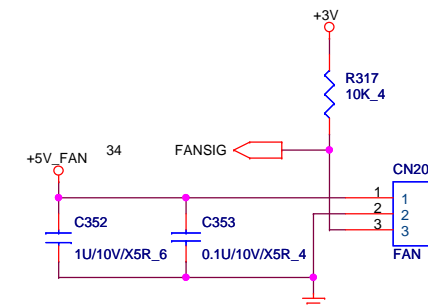
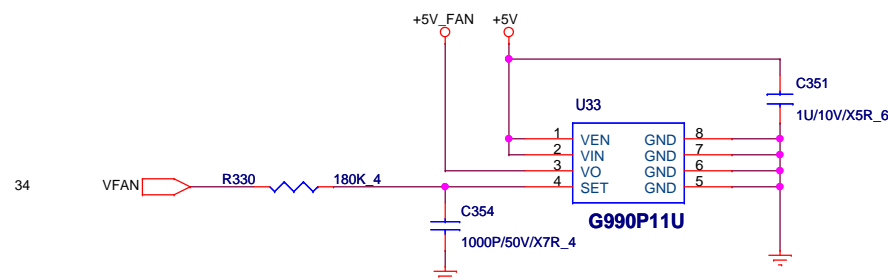
FAN CONTROL

3,4,8,9,10,11,12,14,15,16,17,18,19,20,21,22,23,24,25,27,29,31,33,34,36,38,39,40,41,43
8,12,17,18,19,21,28,32,34,36

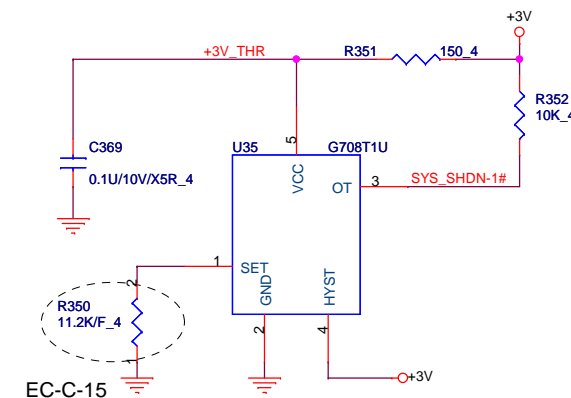
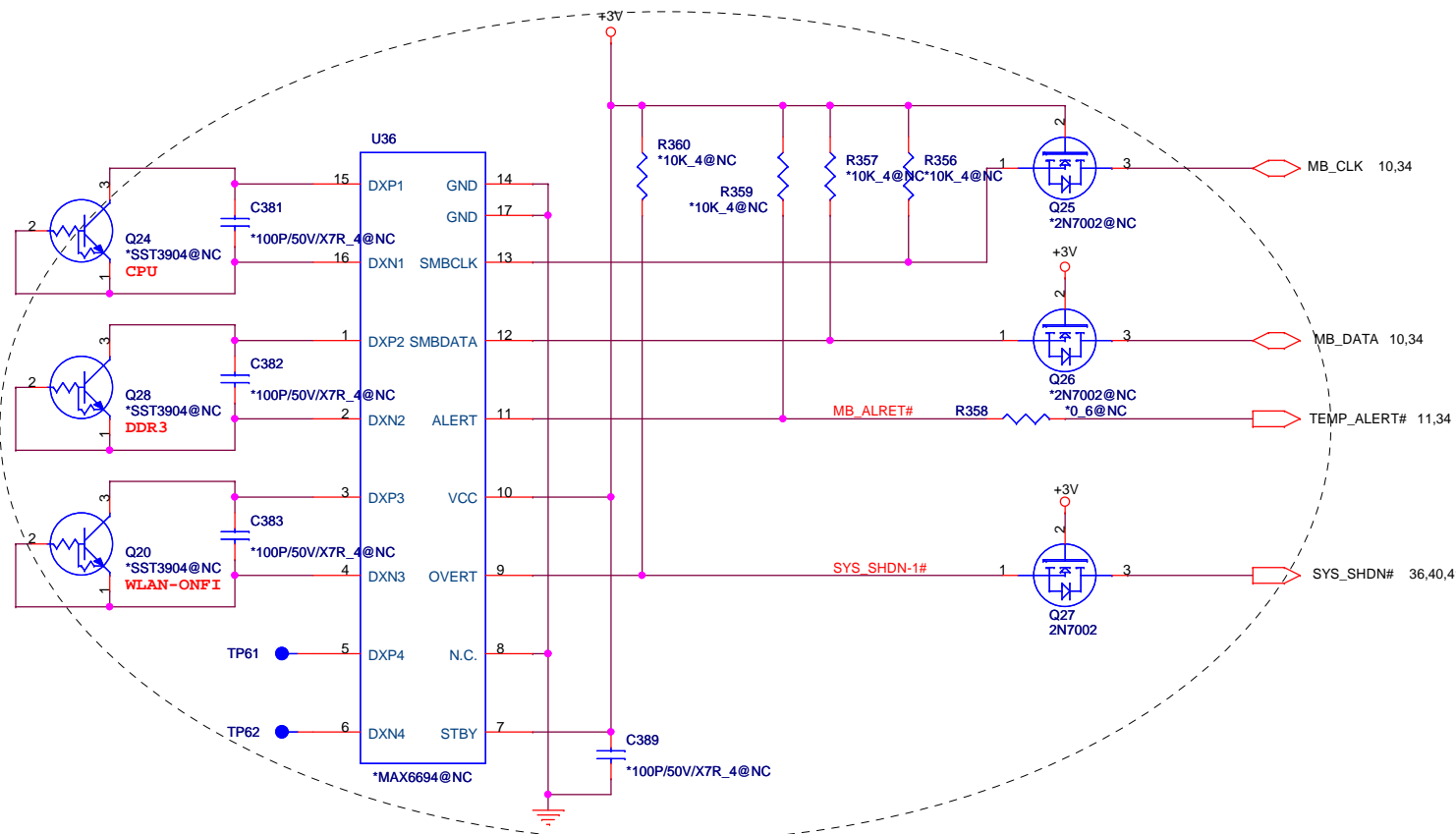
+3V
+5V



30



EC-C-9



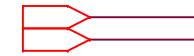
LD-Note Calpella UMA
Quanta Computer Inc.

Size	Document Number	Rev
Custom	FAN & THERMAL	

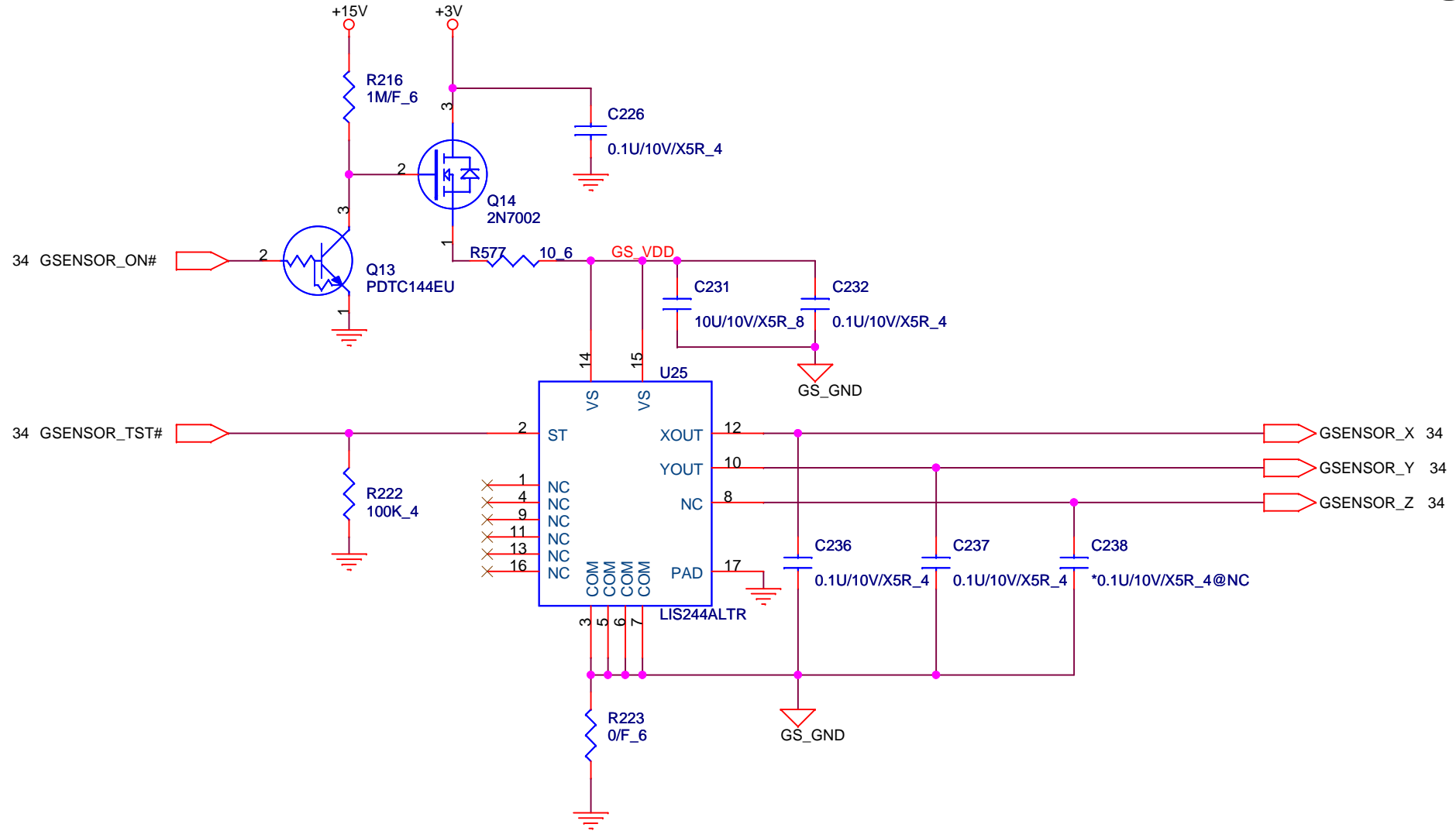
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G-SENSOR (2-Axial)

3,4,8,9,10,11,12,14,15,16,17,18,19,20,21,22,23,24,25,27,29,30,33,34,36,38,39,40,41,43
+3V
+15V

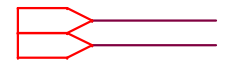


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LD-Note Calpella UMA
Quanta Computer Inc.

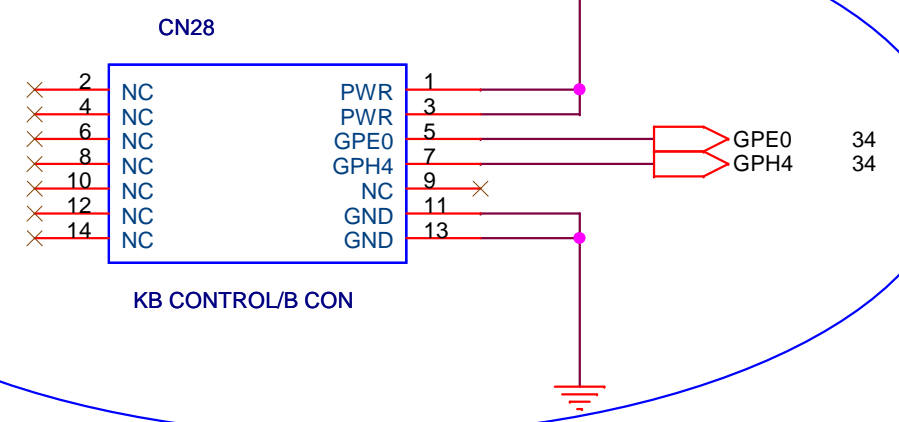
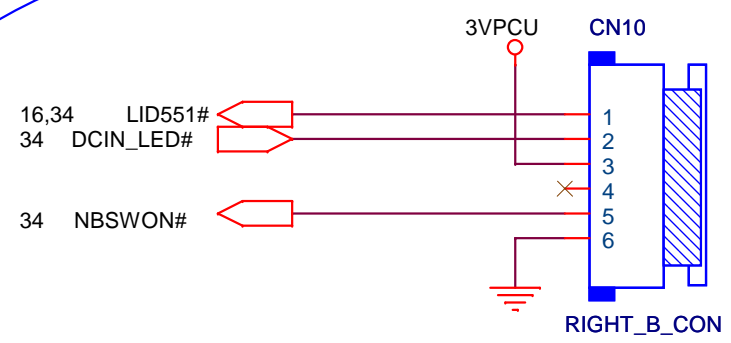
Size Custom	Document Number G-SENSOR	Rev
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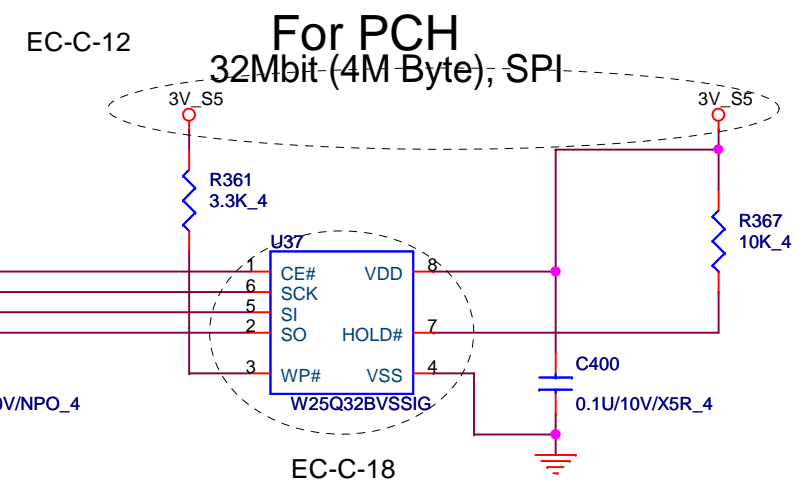
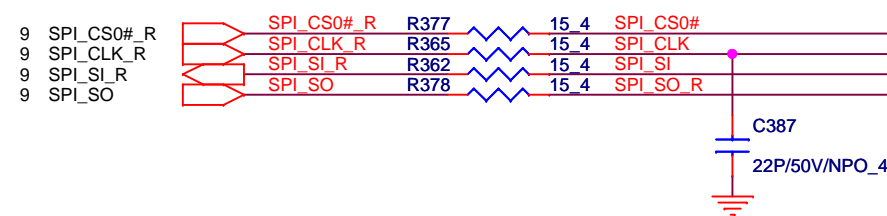
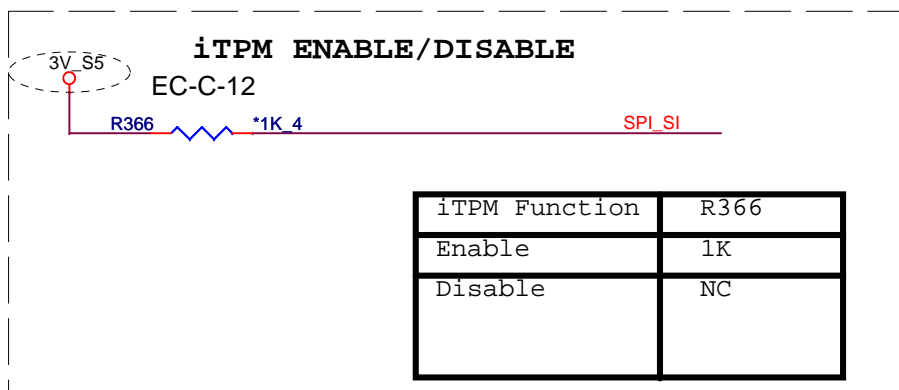
20080928

FFC TO B LED RIGHT SIDE CONNECTOR

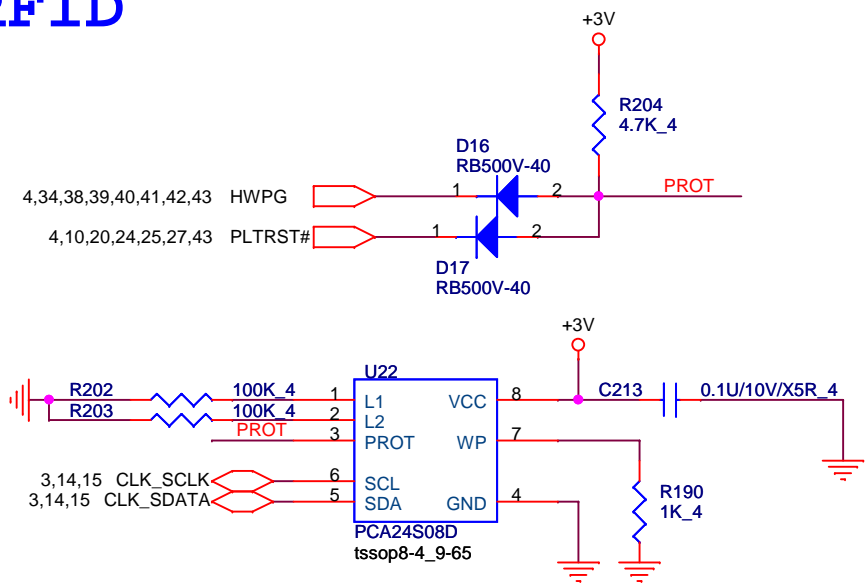
20081002

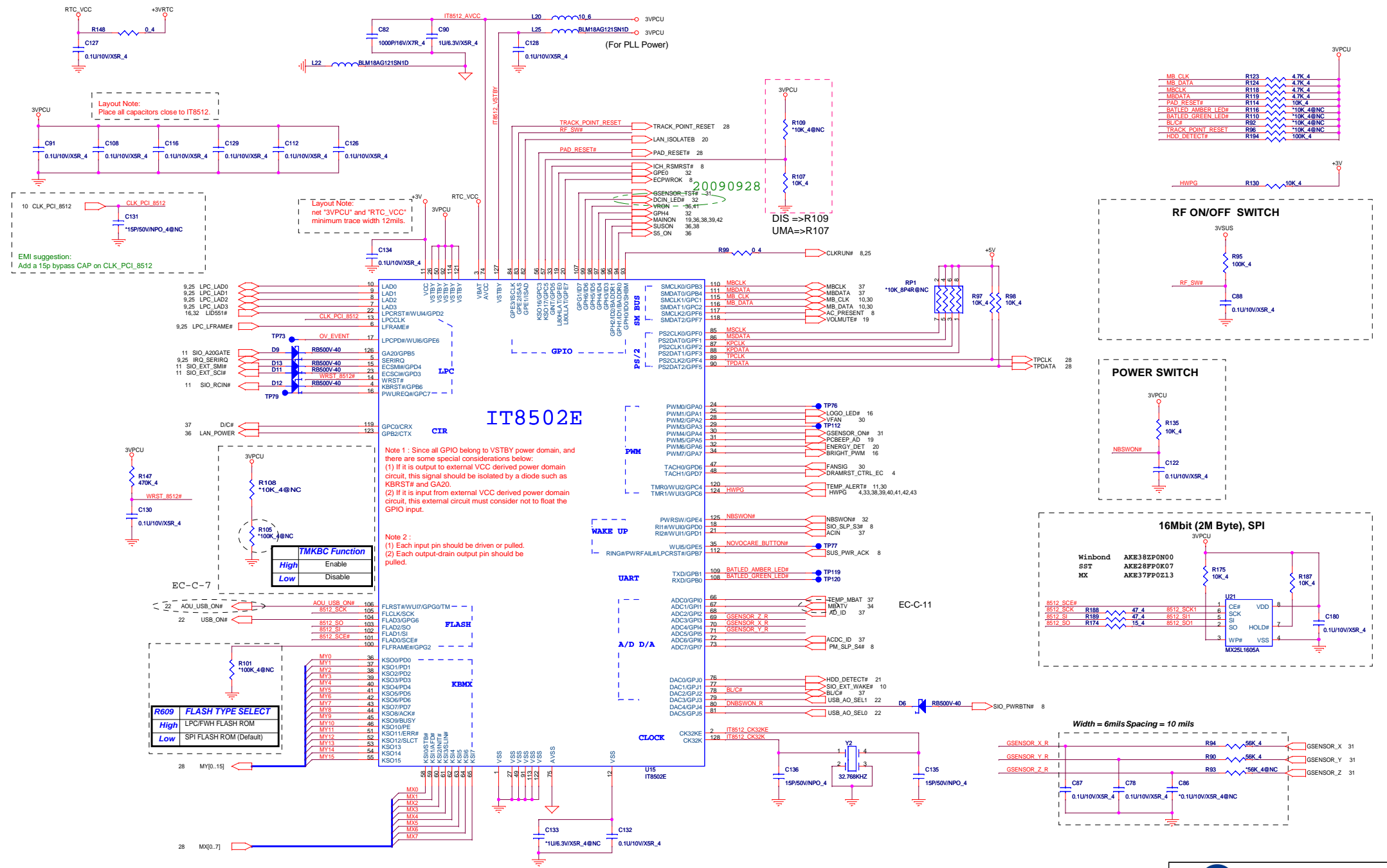


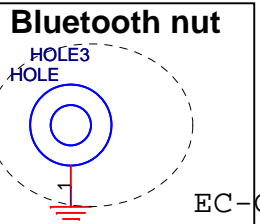
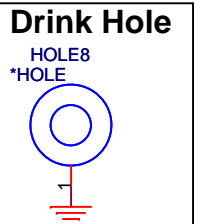
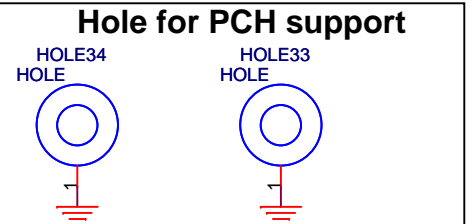
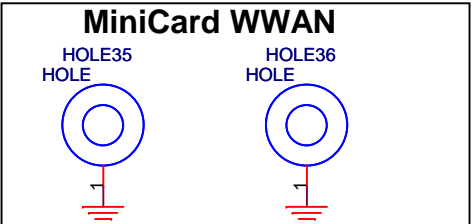
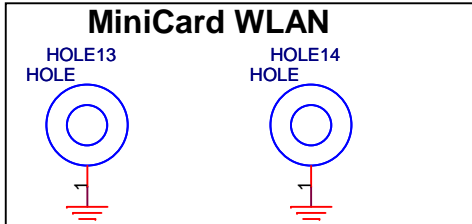
LD-Note Calpella UMA
Quanta Computer Inc.



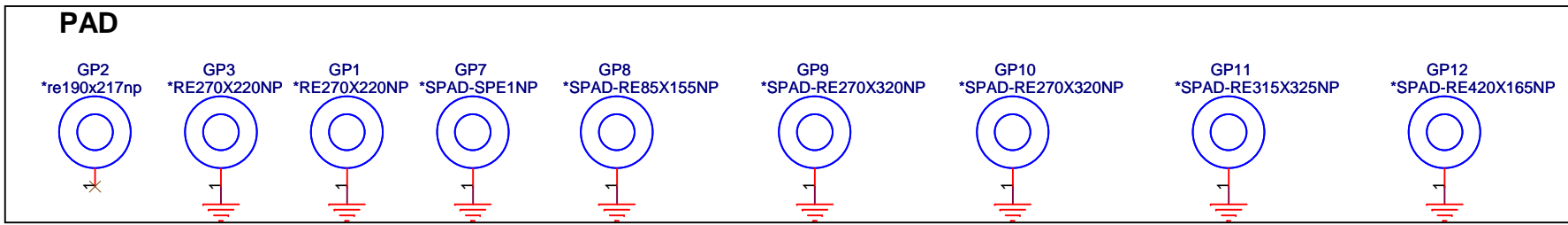
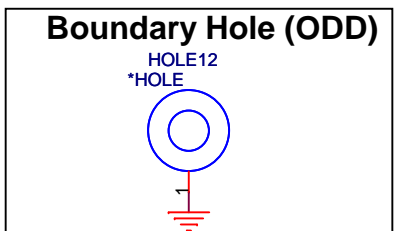
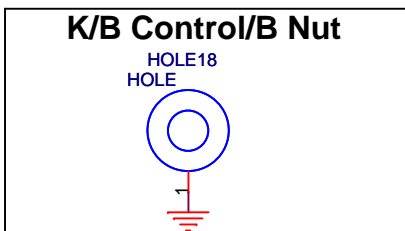
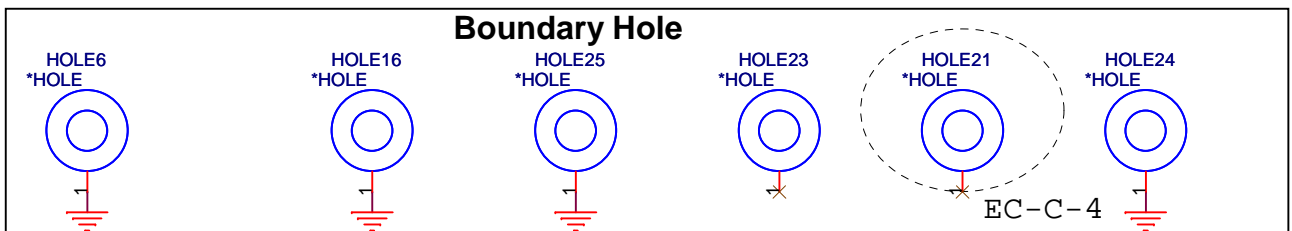
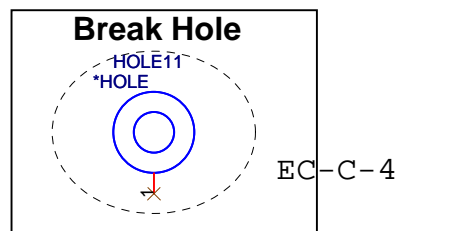
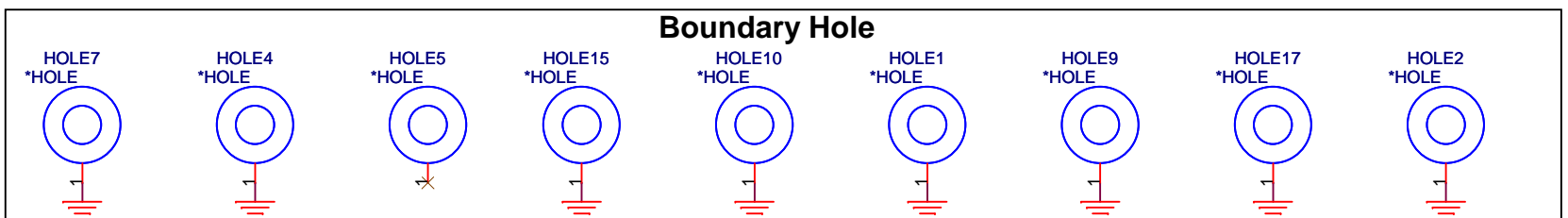
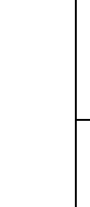
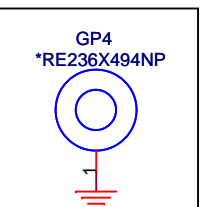
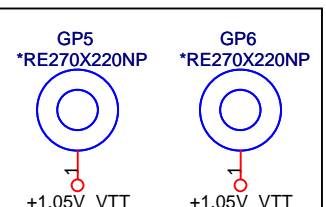
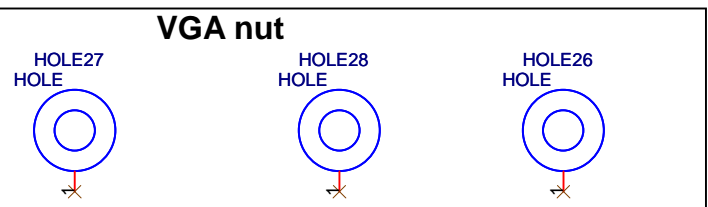
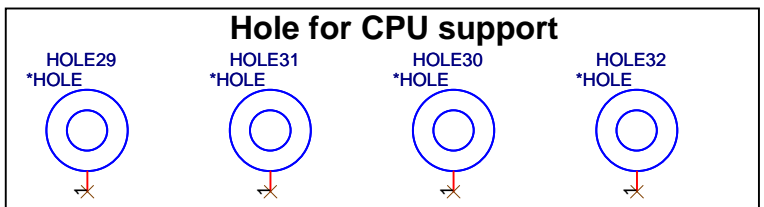
RFID



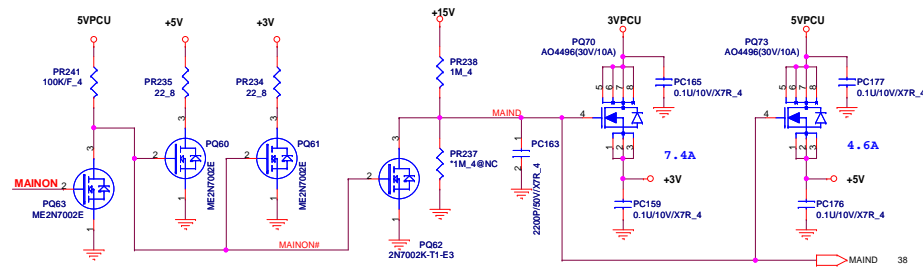




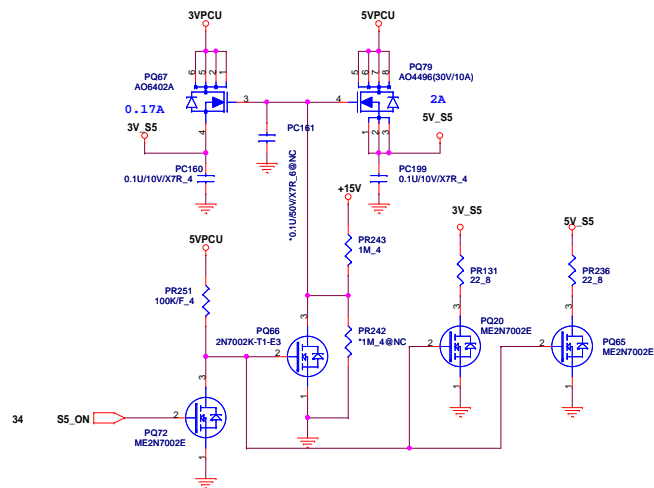
35



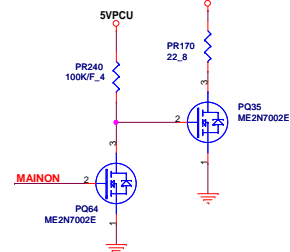
+3.3V, +5V



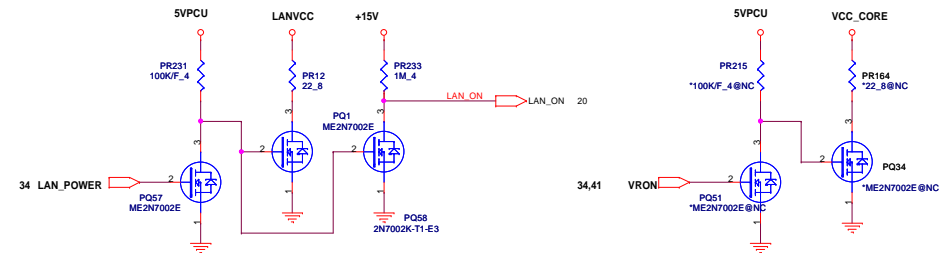
3V_S5, 5V_S5



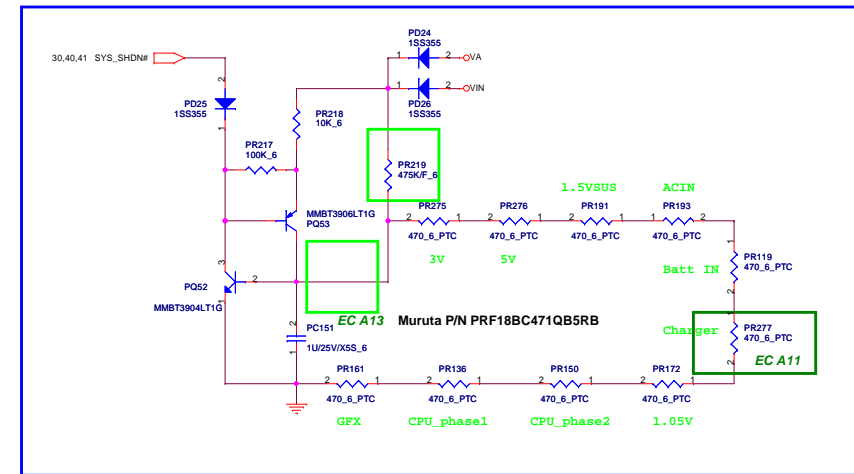
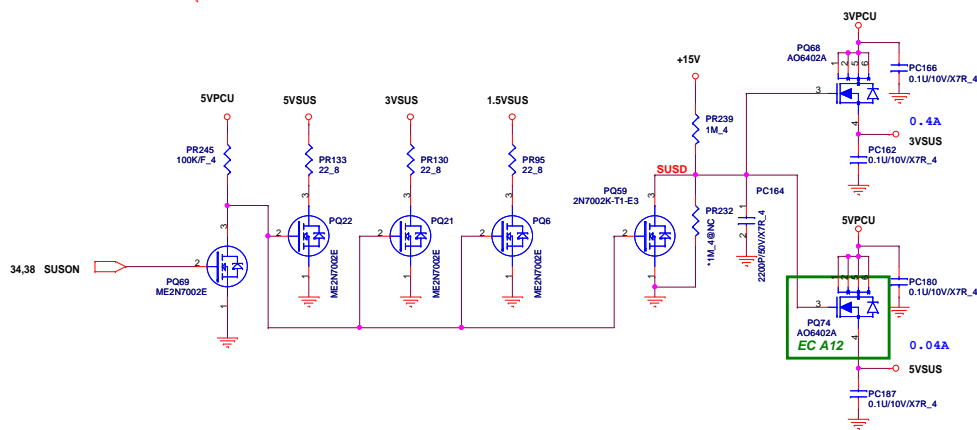
+VCC_GFX_CORE

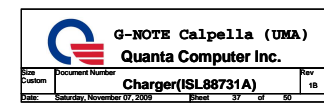
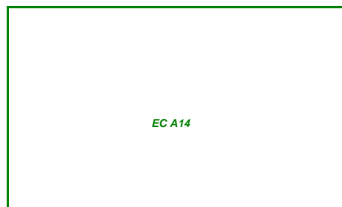


LANVCC

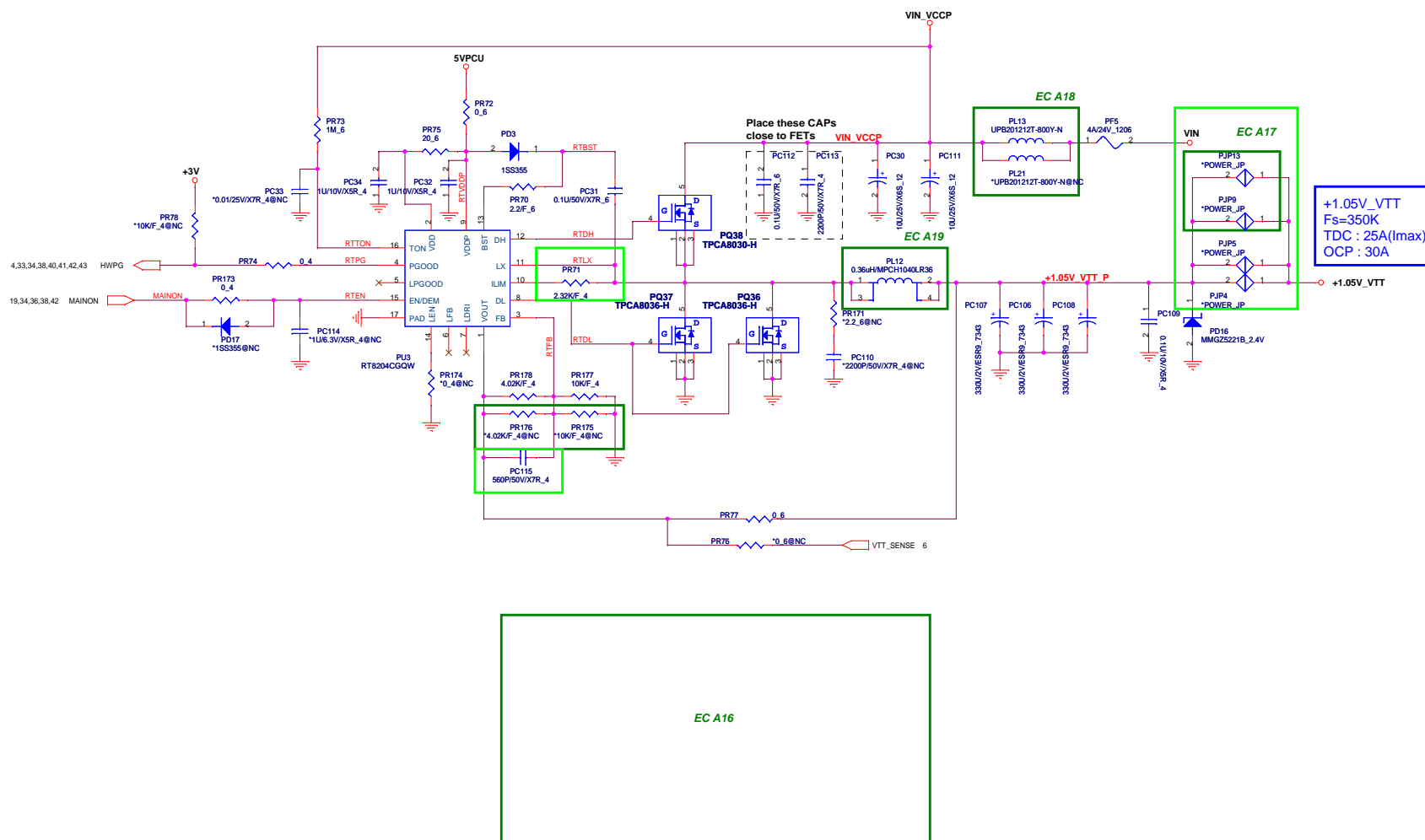


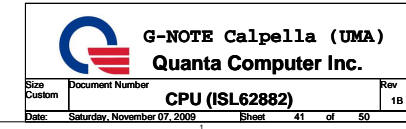
3VSUS, 5VSUS

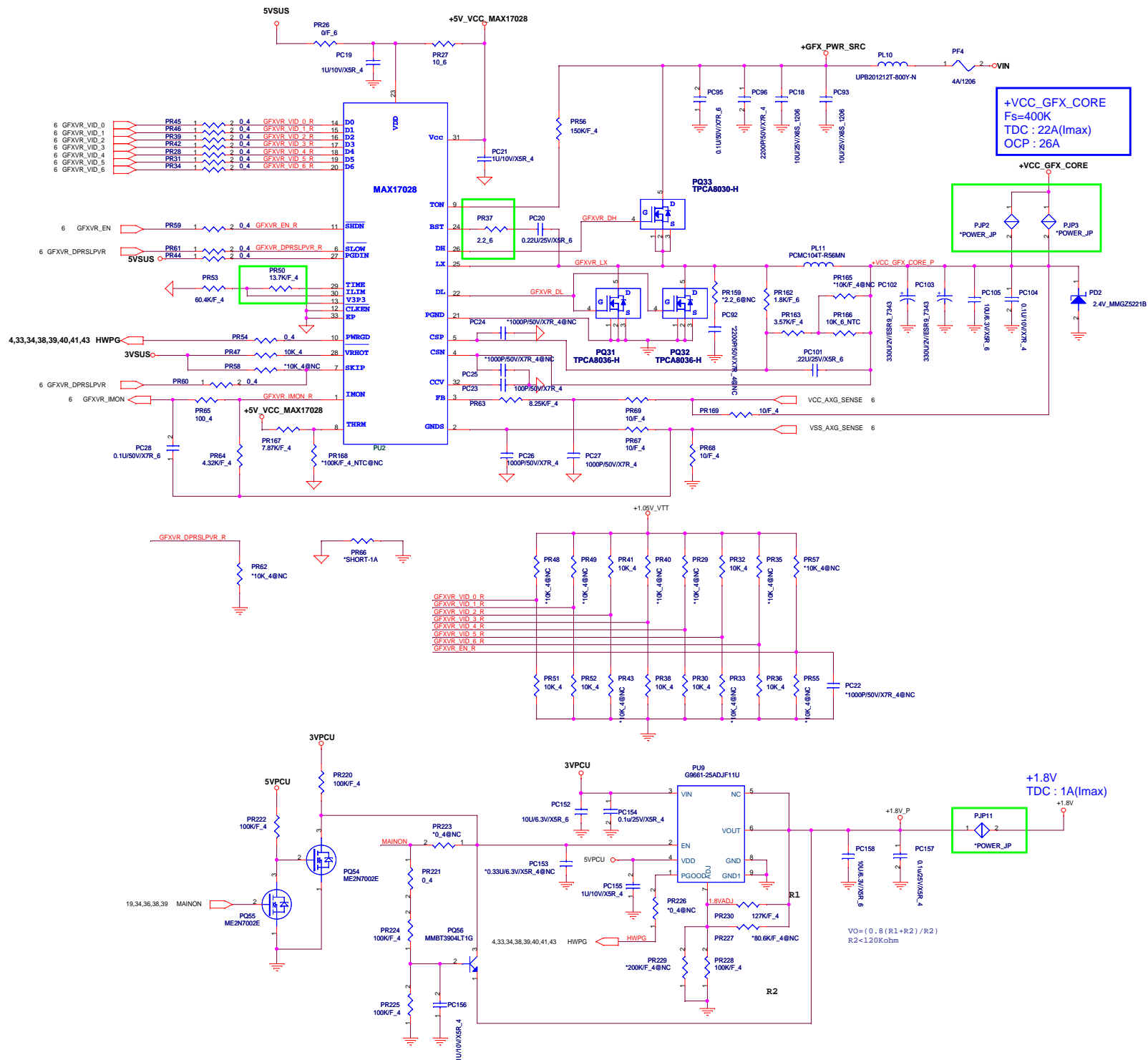


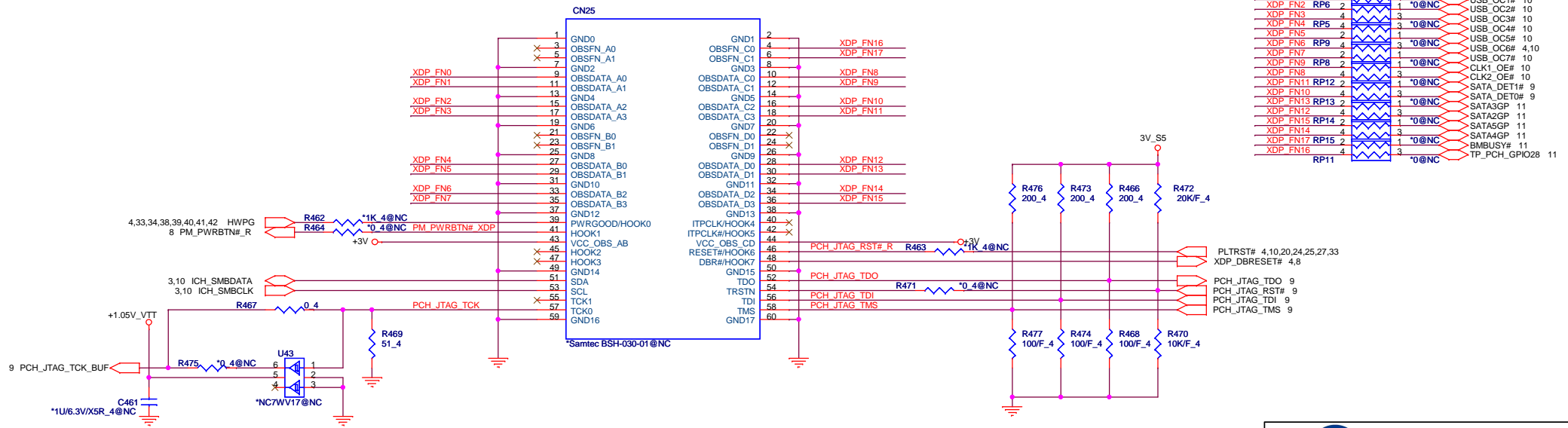
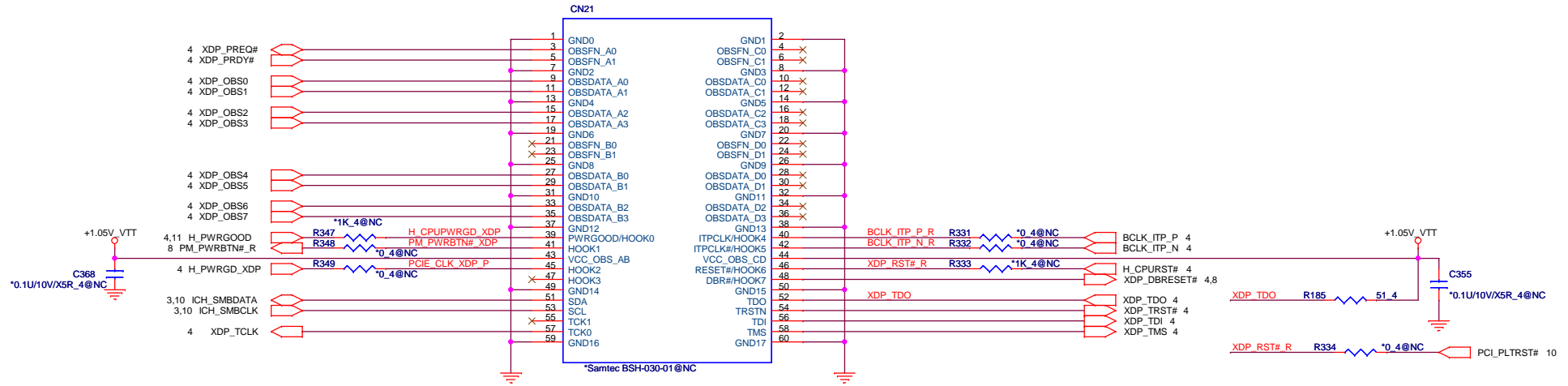












Revision History

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Revision	Date	Phase	Change List	Release Schematic Date	Release Gerber File Date
1A		DV	Initial release		

Schematic Value Explanation Description :

RESISTOR

Value	F	4	6	8	12	1210	*	Description
*1K/F_4	1%	0402 (1005)					DE POP	1K ohm 1% SMD 0402 package and DE POP
1K_6	5%		0603 (1608)				POP	1K ohm 5% SMD 0603 package and POP
1K_8	5%			0805 (2125)			POP	1K ohm 5% SMD 0805 package and POP
1K_12	5%				1206 (3216)		POP	1K ohm 5% SMD 1206 package and POP
1K_1210	5%					1210 (3225)	POP	1K ohm 5% SMD 1210 package and POP

CAPACITOR

Value	Voltage	Material	6				*	Description
*0.1U/10V/X5R_4	10V	X5R	0402 (1005)				DE POP	0.1UF 10V X5R SMD 0402 package DE POP
1U/25V/X7R_6	25V	X7R	0603 (1608)				POP	0.1UF 25V X7R SMD 0603 package POP

EC NO.	Page	Date	Part reference	Description
EC-C-1	23	10/30	CML3,CML4,R493/R494/R495/R496	
	22		CML1,R38,R39	POP CML1/CML3/CML4 for EMI Suggestion
	27		L26,R178,R179	U12 Only use DBBL5MLAN01
	20		U12	
EC-C-2	19	10/30	Q35,Q40,Q41	Q40 change to BA001440Z87 Q35 change to BAM70020058 Q41 change to BA039040ZA9
EC-C-3	10	10/30	U38	Modify Card Reader PORT
EC-C-4	35	10/30	HOLE11,HOLE3,HOLE21	Change footprint
EC-C-5	41	10/30	PR134,PR135,PC74,PC75	POP and PC74,PC75 change to 1000PF
EC-C-6	19	11/02	L17,C34,U15,C24,C39,C40	L17:DEPOP;C34,U15,C24,C39,C40:POP feedbacks from RealTek about audio issue
EC-C-7	22	11/02	U41	Modify Enable Pin connect to AOU_USB_ON# for AOU3 function and delete cell select function
EC-C-8	18	11/02	CN17	Modify CRTVSYNC,CRTHSYNC,DDCCLK3,DDCDAT3
EC-C-9	30	11/02	Q24,Q28,Q20,C381,C382,C383, U36,C389,R356,R357,Q25,Q26,Q27	DEPOP
EC-C-10	38	11/02	PR206,PR279,PQ82	PR206:DEPOP PR279,PQ82:POP



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EC NO.	Page	Date	Part reference	Description
EC-C-11	37	11/02		From a field issue, Lenovo system needs to have battery sense function. MBATV shall be connected to ADC1/GPI1@KBC.
EC-C-12	33	11/02	U37	Change iTPM Power to 3V_S5
EC-C-13	22	11/02	U52	Change to MAX14550AEETB+
EC-C-14	8	11/02	R447	PCIE_WAKE# Pull high Resistor change to 10K
EC-C-15	30	11/03	R350	R350 change to 11.2K
EC-C-16	18	11/04	C347	Modify to CRT_VCC_R
EC-C-17	19	11/05	U11,R628,R629,C673,R630,R450	Chip Change version to ALC269Q-VA6 POP:R628,R630,R450 DEPOP:R629,C673
EC-C-18	33	11/05	U37	Change Part to 4M bytes Material
EC-C-19	08-13	11/06	U38	Change footprint
EC-C-20	10	11/06	R444	Add part

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4

3

2

1

EC NO.

Page

Date

Part reference

Description

EC-C-21

11/06

TP49、TP44、TP73、TP16、TP6、TP93 & TP98
TP112、TP99、TP32、TP47、TP34、TP101、TP103

Change footprint to TP3050

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Custom

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EC list 2

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USB Port	Device	PM55 Support	HM55 Support	DV-Stage(UMA)	DV-Stage(Discrete)
Port0	USB Port	V	V	HM55	HM55
Port1	USB Port	V	V	HM55	HM55
Port2	New Card	V	V	HM55	HM55
Port3	Camera	V	V	HM55	HM55
Port4	WLAN	V	V	HM55	HM55
Port5	WWAN	V	V	HM55	HM55
Port6	Card Reader	V	X	HM55	HM55
Port7	NC	V	X	HM55	HM55
Port8	USB Port	V	V	HM55	HM55
Port9	USB Port	V	V	HM55	HM55
Port10	Fingerprint	V	V	HM55	HM55
Port11	NC	V	V	HM55	HM55
Port12	NC	V	V	HM55	HM55
Port13	Bluetooth	V	V	HM55	HM55