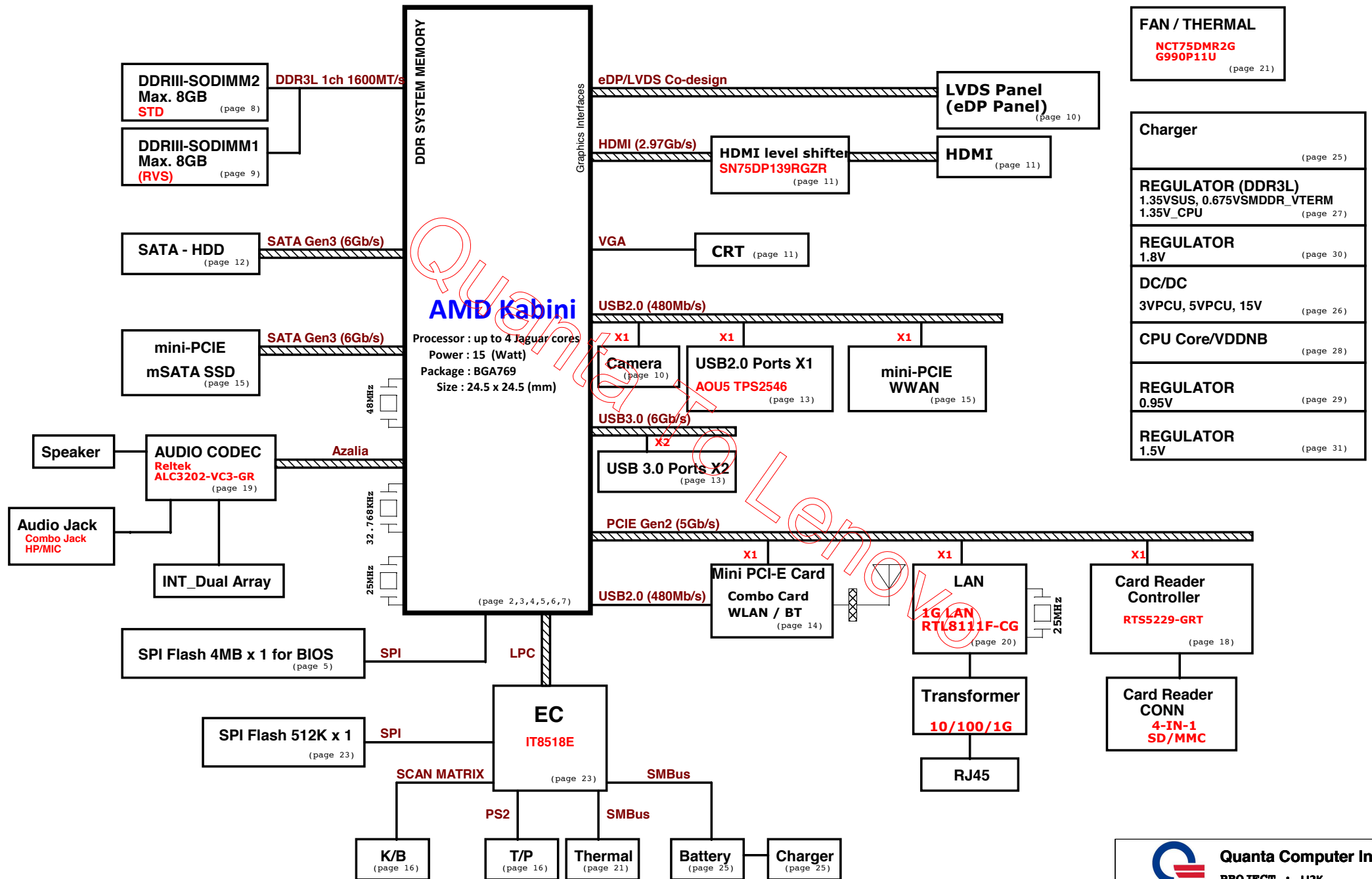
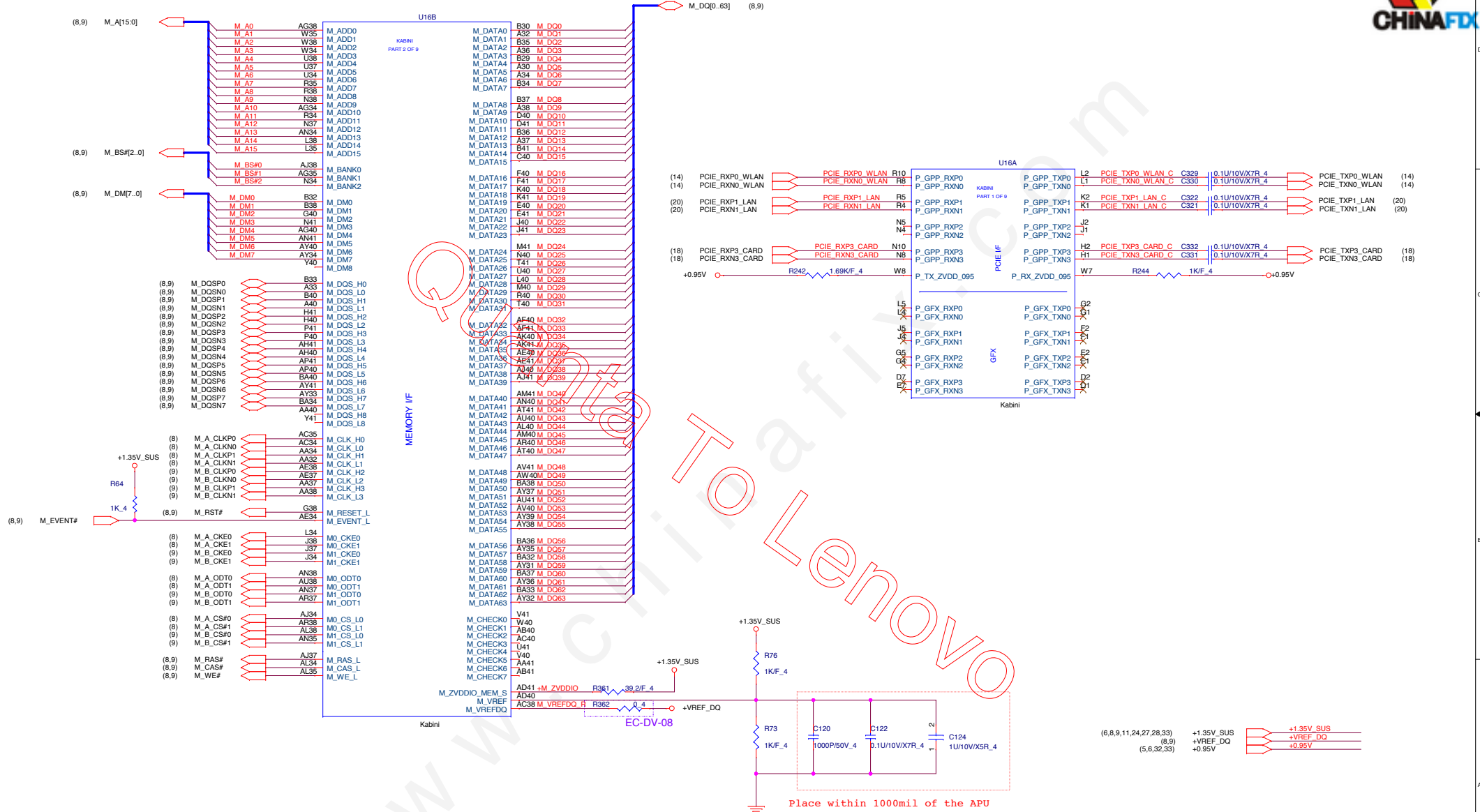


LI2K AMD Kabini Platform UMA Block Diagram

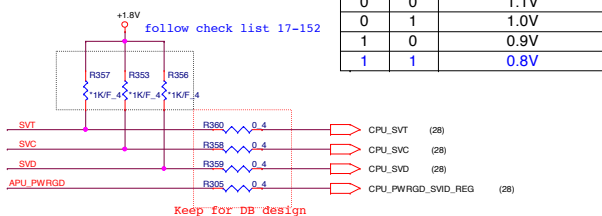
01



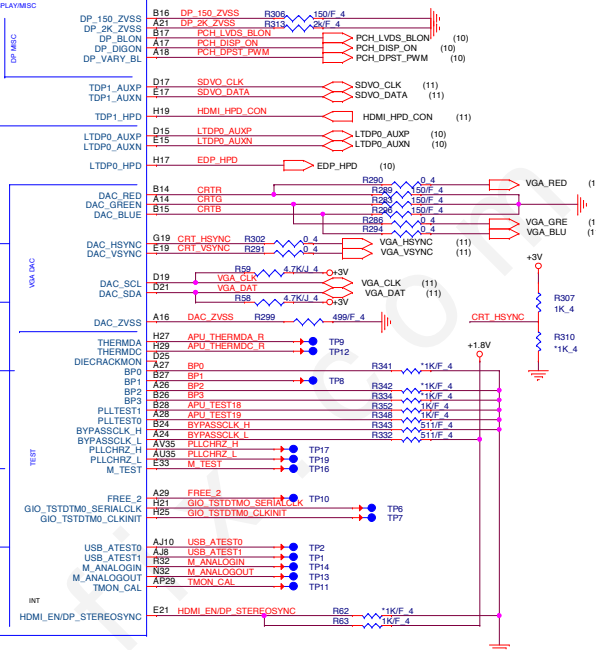
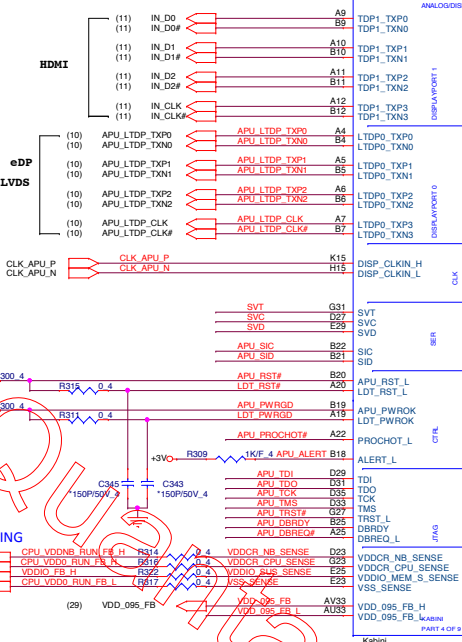
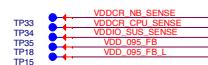
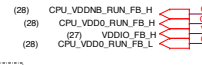
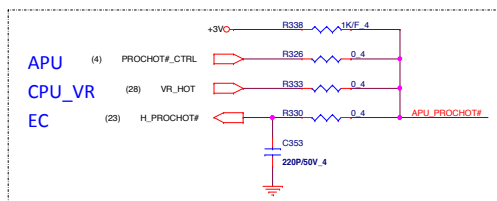


SVC	SVD	Root Voltage
-----	-----	--------------

SVC	SVD	Boot Voltage
0	0	1.1V
0	1	1.0V
1	0	0.9V
1	1	0.8V



APU on-die Thermal Sensor



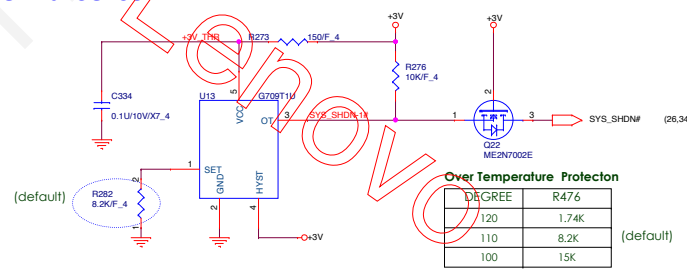
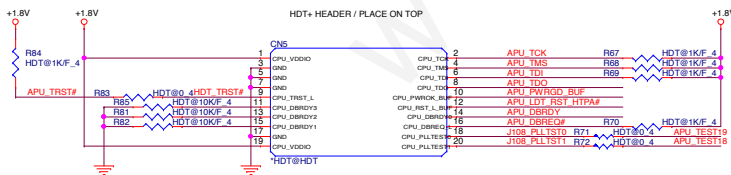
APU Thermal Sensor

Schematic diagram of the APU Thermal Sensor circuit. The circuit includes a +3V supply, a 150kF₄ resistor (R273), a 10kF₄ resistor (R276), a 0.1u10VX7₄ capacitor (C334), a U13 LM75 precision centroidal voltage detector, a Q22 ME2N7002E PNP NPN transistor, and a R282 8.2K/F₄ resistor. The output is SYS_SHDN# (26.34).

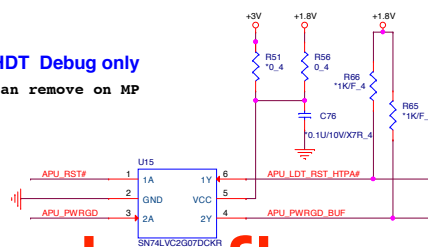
Over Temperature Protection

DEGREE	R476
120	1.74K
110	8.2K
100	15K

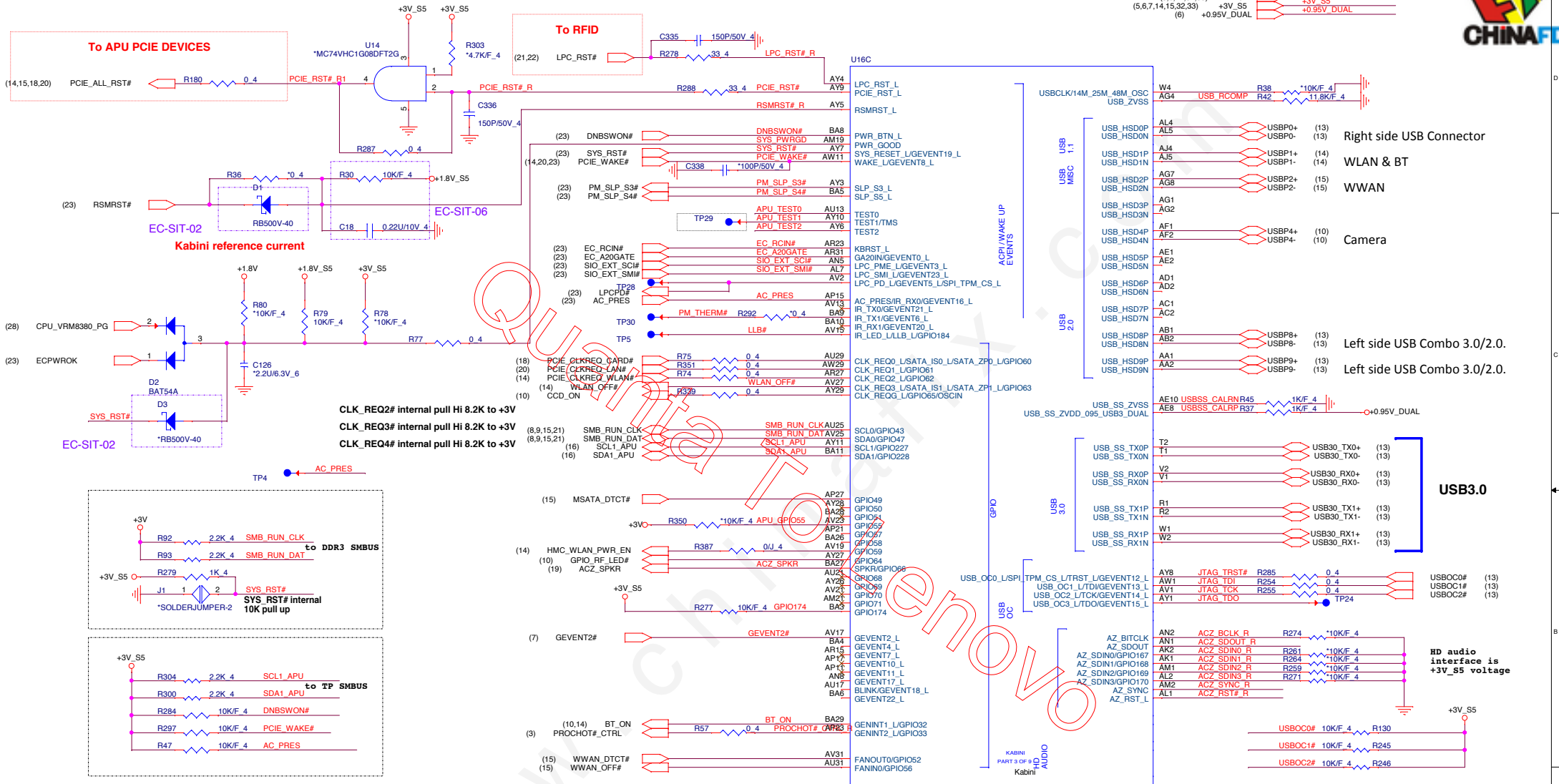
(default)

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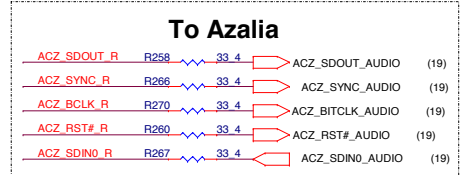
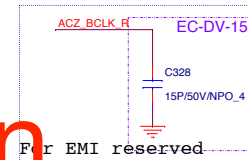
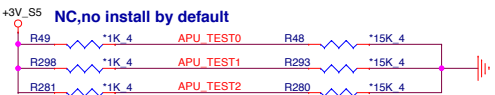
Can remove on MP



(3,5,6,8,9,10,11,12,14,15,16,17,18,19,20,21,22,23,24,26,27,28,29,30,31,32,33)
 (6,24,30,32,33)
 (3,6,24,32,33)
 (5,6,7,14,15,32,33)
 (6)
 +3V_S5
 +1.8V_S5
 +1.8V
 +3V_S5
 +3V_S5
 +0.95V_DUAL



TEST2	TEST1	TEST0	Description
0	0	0	FCH TAP accessible from APU when TAPEN is asserted FCH JTAG pins are overloaded for multiple functions, in this configuration the FCH JTAG are used as non-JTAG pins
0	0	1	Reserved
0	1	X	Reserved
1	TMS	0	FCH JTAG multi-function pins are configured as JTAG pins, in this configuration the FCH TAP can be accessed from FCH JTAG pins
1	TMS	1	Use on ATE only Yuba JTAG enabled



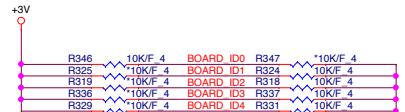
(3,4,6,8,9,10,11,12,14,15,16,17,18,19,20,21,22,23,24,26,27,28,29,30,31,32,33)
 (2,6,32,33)
 (4,6,7,14,15,32,33)
 (10,11,14,15,20,23,24,25,26,32)

+3V
 +0.95V
 +3V_S5
 3VPCU

BOARD ID SETTING

Model	BOARD_ID0	BOARD_ID1	BOARD_ID2	BOARD_ID3	BOARD_ID4
eDP output	L				
LVDS output	H				
Dutton		L			
Jett		H			

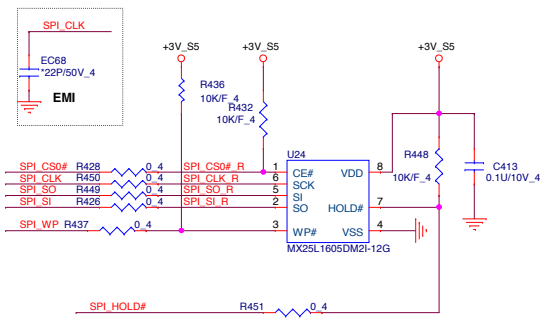
EC-SIT-05



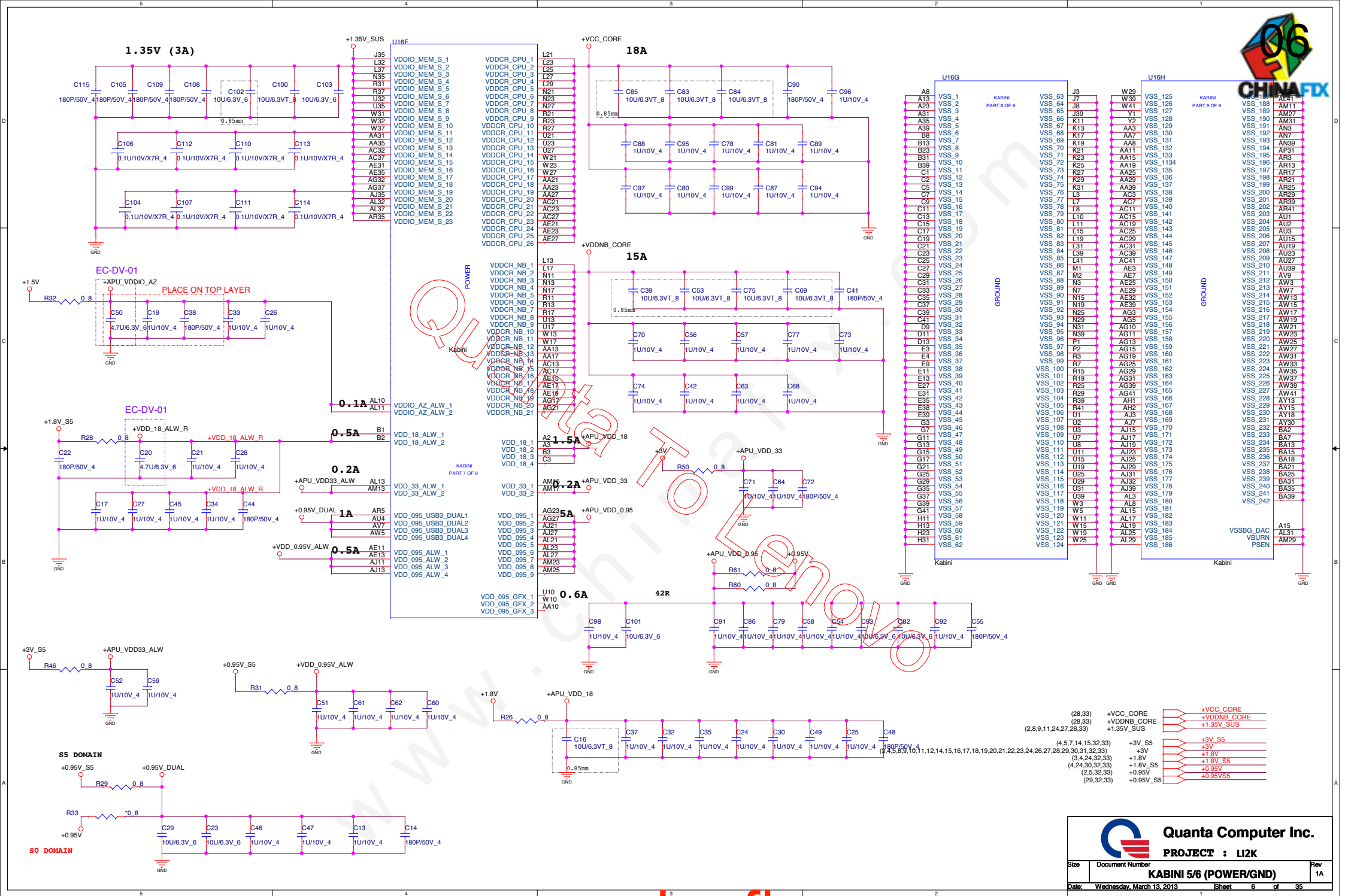
APU SPI ROM

Replace to MX25L6436E

Vender	Size	P/N
EON	4M	AKE39ZN0Q02
WINBOND	4M	AKE391P0N00
Socket		DFHS08FS023



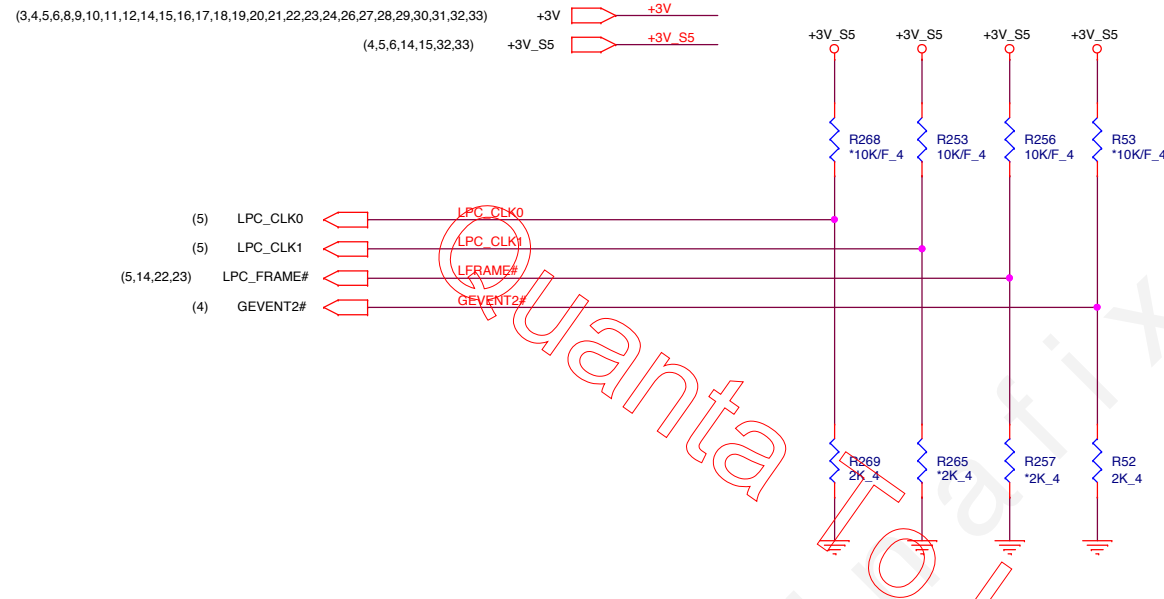

Quanta Computer Inc.
PROJECT : LI2K
KABINI 4/6 (SATA/CLK/RTC)
 Size Document Number
 Date: Tuesday, March 26, 2013 Sheet 5 of 35





STRAPS PINS

OVERLAP COMMON PADS WHERE POSSIBLE FOR DUAL-OP RESISTORS.



REQUIRED STRAPS

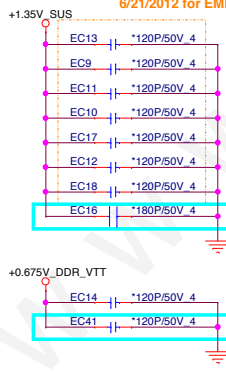
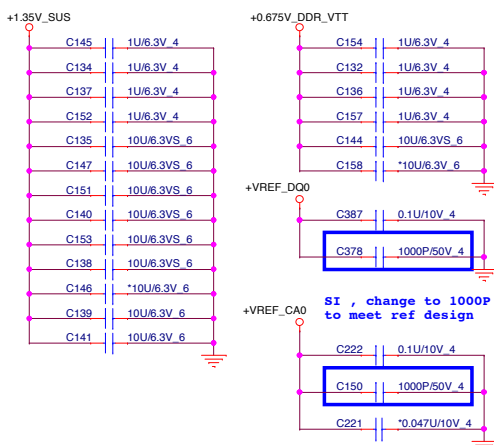
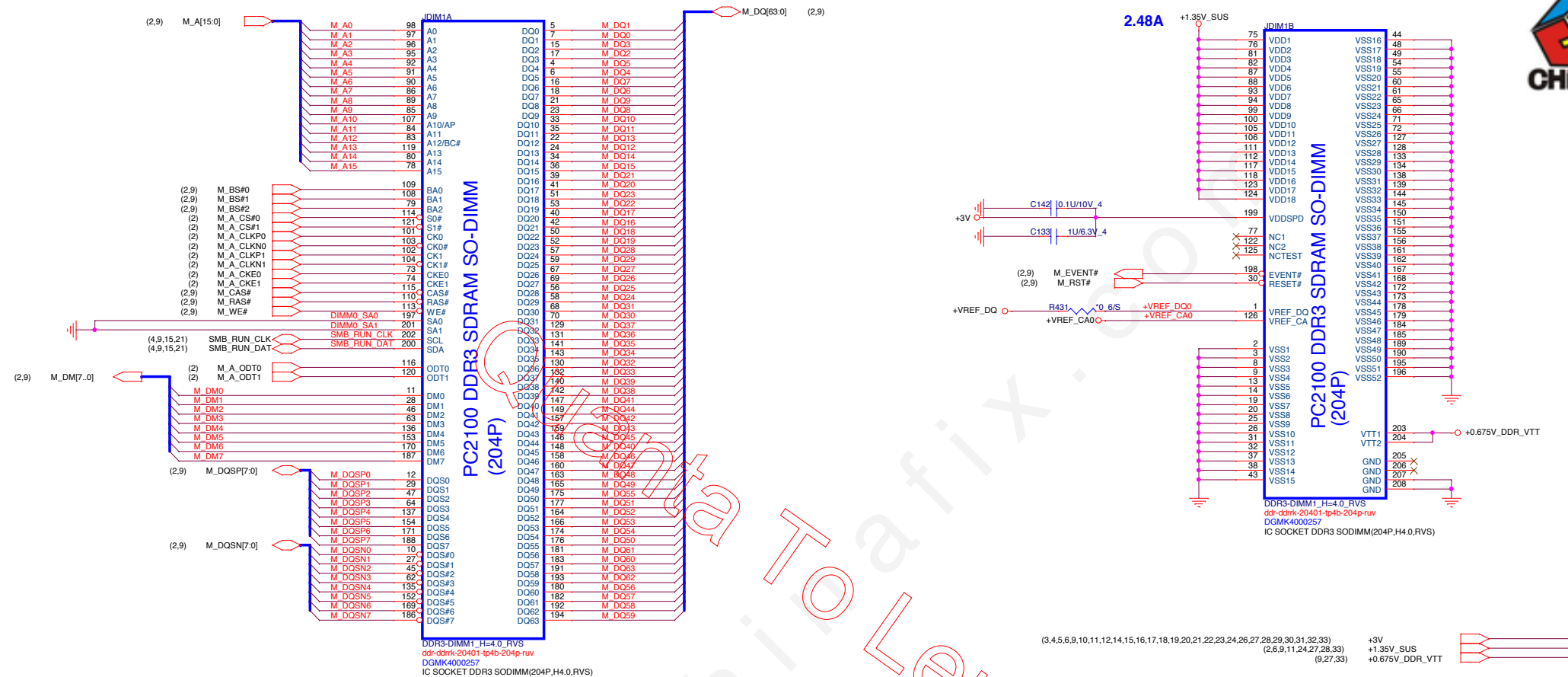
					LPC_CLK0	LPC_CLK1	LFRAME#	GEVENT2#
PULL HIGH					BOOT FAIL TIMER ENABLED	CLKGEN ENABLED DEFAULT	SPI ROM DEFAULT	1.8V SPI ROM
PULL LOW					BOOT FAIL TIMER DISABLED DEFAULT	CLKGEN DISABLED	LPC ROM	3.3V SPI ROM DEFAULT



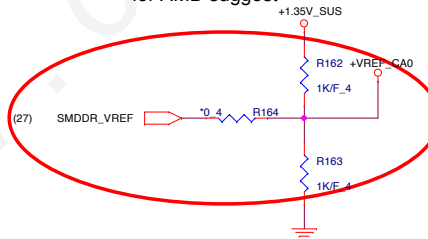
Quanta Computer Inc.

PROJECT : L12K

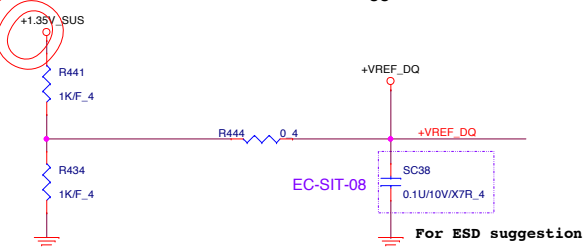
Size	Document Number	Rev
	KABINI 6/6 (STRAP)	1A
Date:	Wednesday, March 13, 2013	Sheet 7 of 35



for AMD suggest



Reserved for AMD suggest

**Quanta Computer Inc.**

PROJECT : LI2K

number
DDR3 DIMM0-RVS (4.0H)

Size	Document Number
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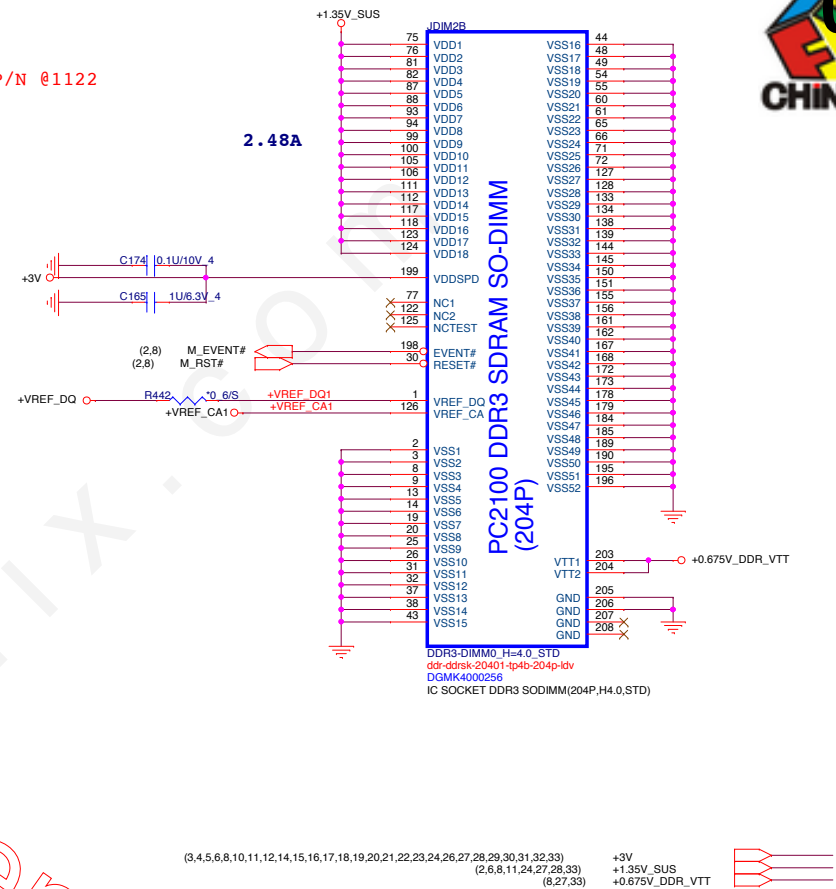
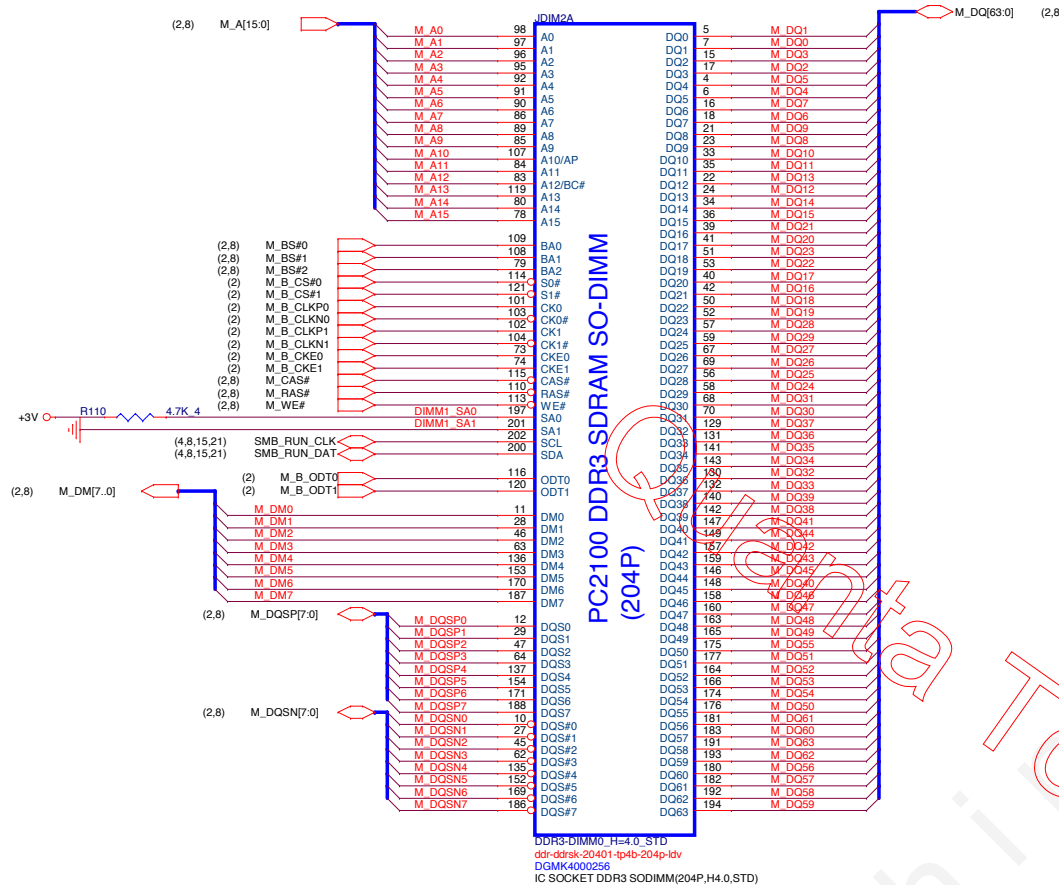
Date: Tuesday, March 20, 2018

M0-RVS (4.0H)

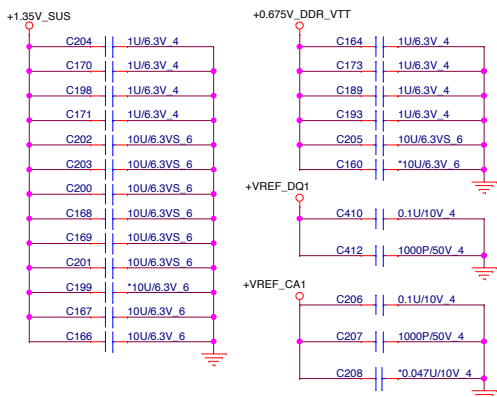
Date:	Tuesday, March 26, 2013	Sheet	8	of	25
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Date:	Tuesday, March 20, 2018	Printed:	6	01	30
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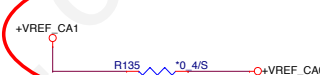
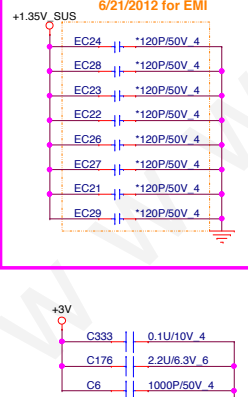
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Place these Caps near So-Dimm1.



For EMI RESERVE 6/21/2012 for EMI



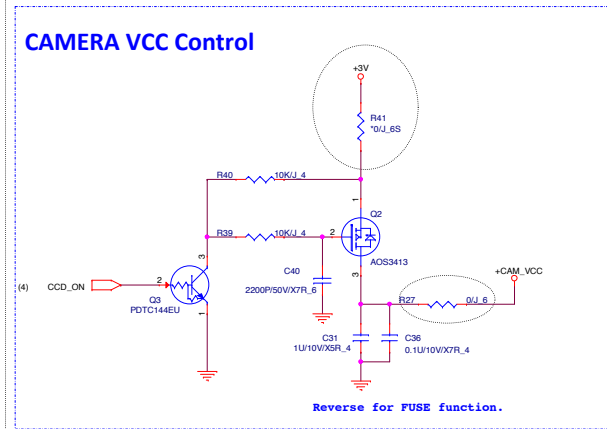
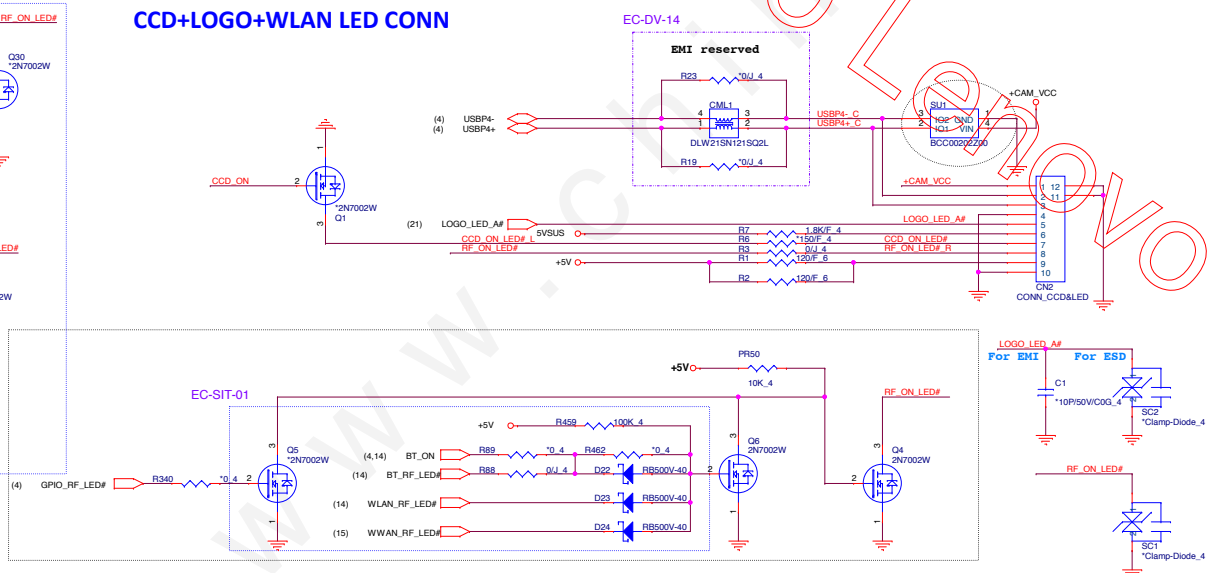
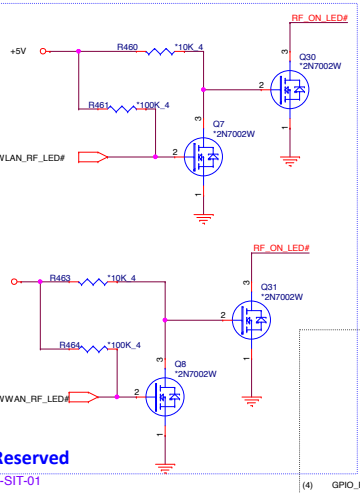
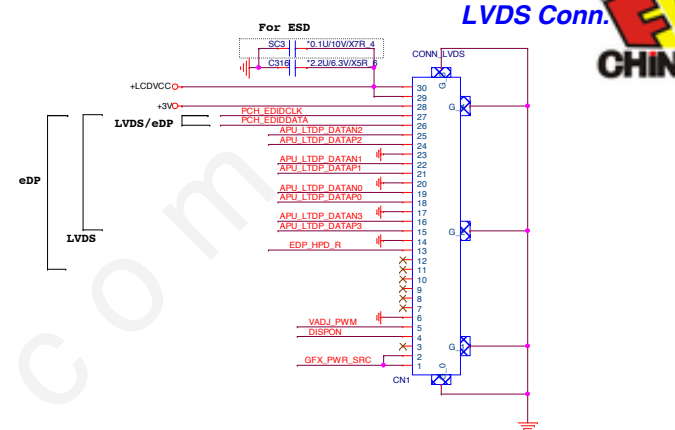
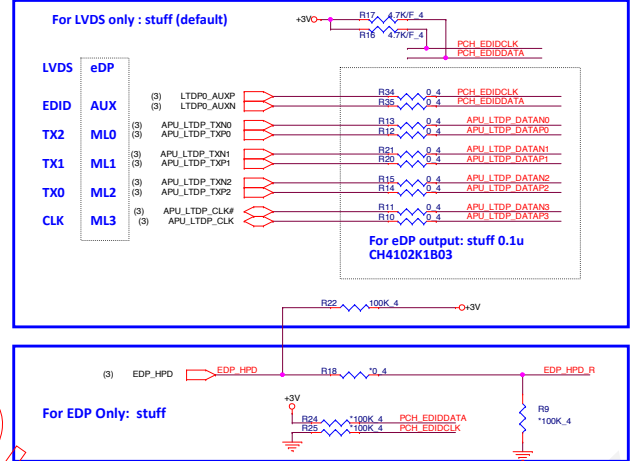
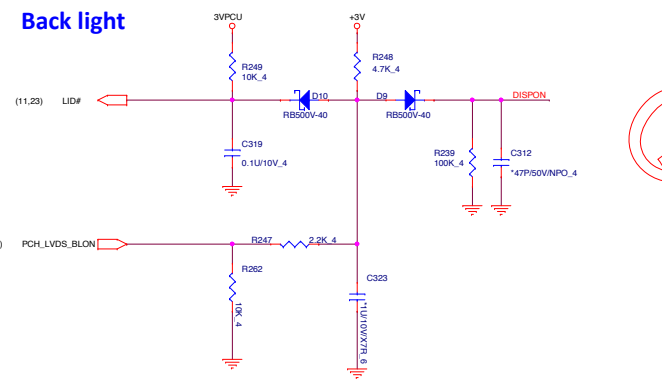
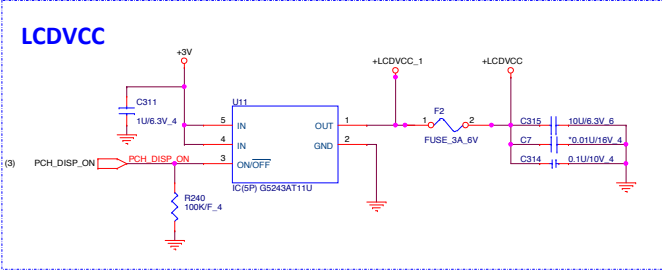
Local Thermal Sensor

Delete the NB5's Thermal Solution @1126 -- ALF

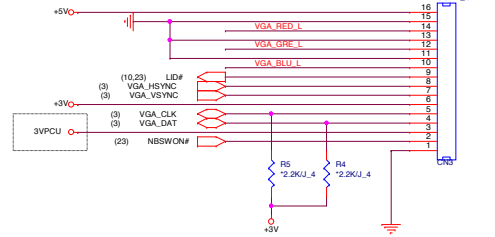
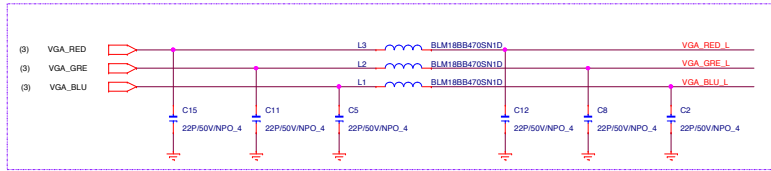
DDR3 Thermal Sensor

Need to Informa ME have 2 LCD cable,
one is for LVDS, other one is for eDP#1126

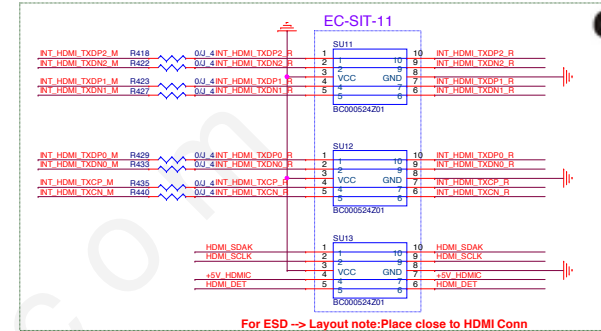
LVDS Conn.



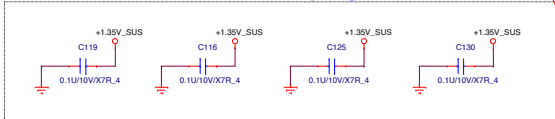
EC-DV-17



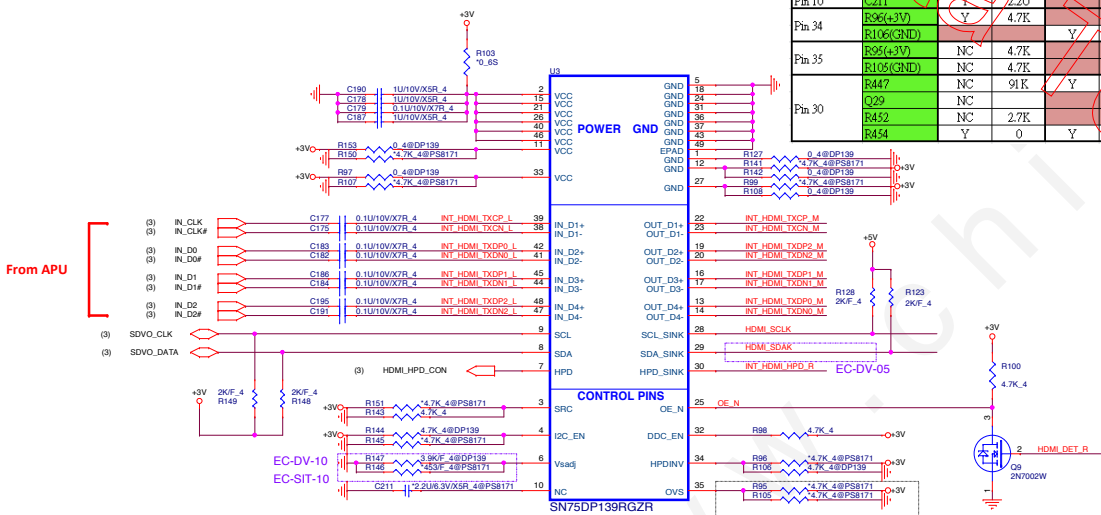
ESD reserved



Stitching Cap for Ref Plane Change



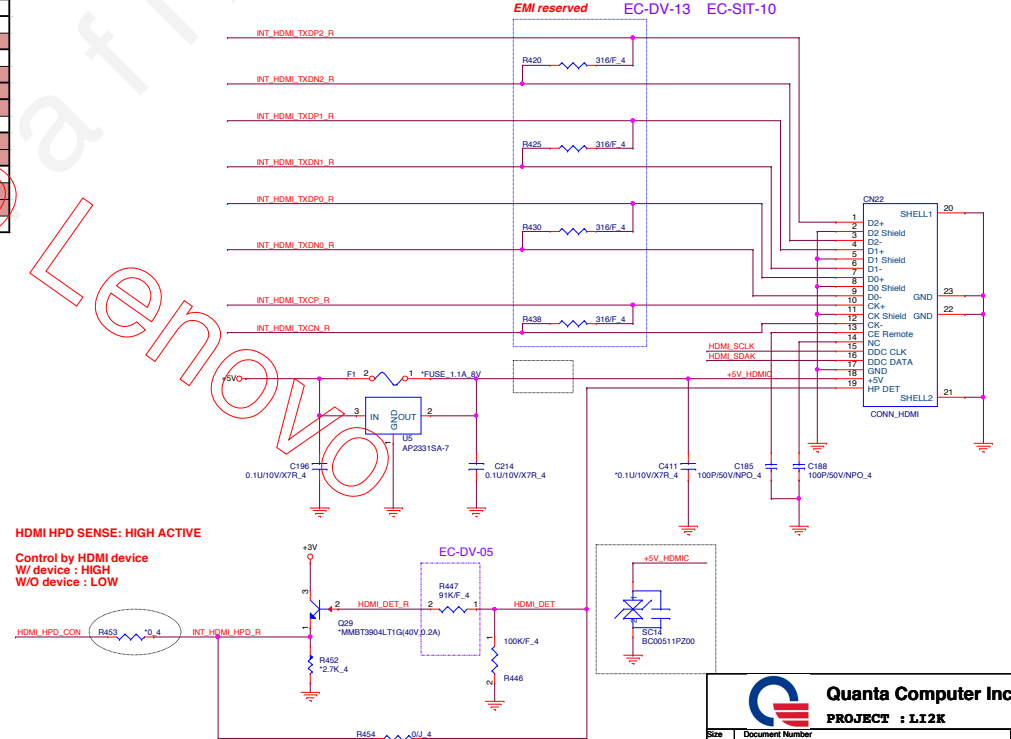
HDMI Level Shifter



EC-20: Add HDMI level shifter second source BOM control table

Pin number	Location	PS8171		DPI39	
		Stuff	Value	Stuff	Value
Pin 1	R127(GND)			Y	0
Pin 12	R141(+3V)	Y	4.7K		
Pin 12	R142(GND)			Y	0
Pin 27	R99(+3V)	NC	4.7K		
Pin 27	R108(GND)			Y	0
Pin 11	R153(+3V)			Y	0
Pin 11	R150(GND)	NC	4.7K		
Pin 33	R97(+3V)			Y	0
Pin 33	R107(GND)	NC	4.7K		
Pin 3	R151(+3V)	NC	4.7K		
Pin 3	R143(GND)			Y	4.7K
Pin 4	R144(+3V)			Y	4.7K
Pin 4	R145(GND)	NC	4.7K		
Pin 6	R147(GND)			Y	3.9K
Pin 10	R146(GND)	Y	499		
Pin 10	C211	Y	2.2U		
Pin 34	R96(+3V)	Y	4.7K		
Pin 34	R106(GND)			Y	4.7K
Pin 35	R95(+3V)	NC	4.7K		
Pin 35	R105(GND)	NC	4.7K		
Pin 30	R447	NC	91K	Y	91K
Pin 30	Q29	NC			
Pin 30	R452	NC	2.7K		
Pin 30	R454	Y	0	Y	0

HDMI CONN

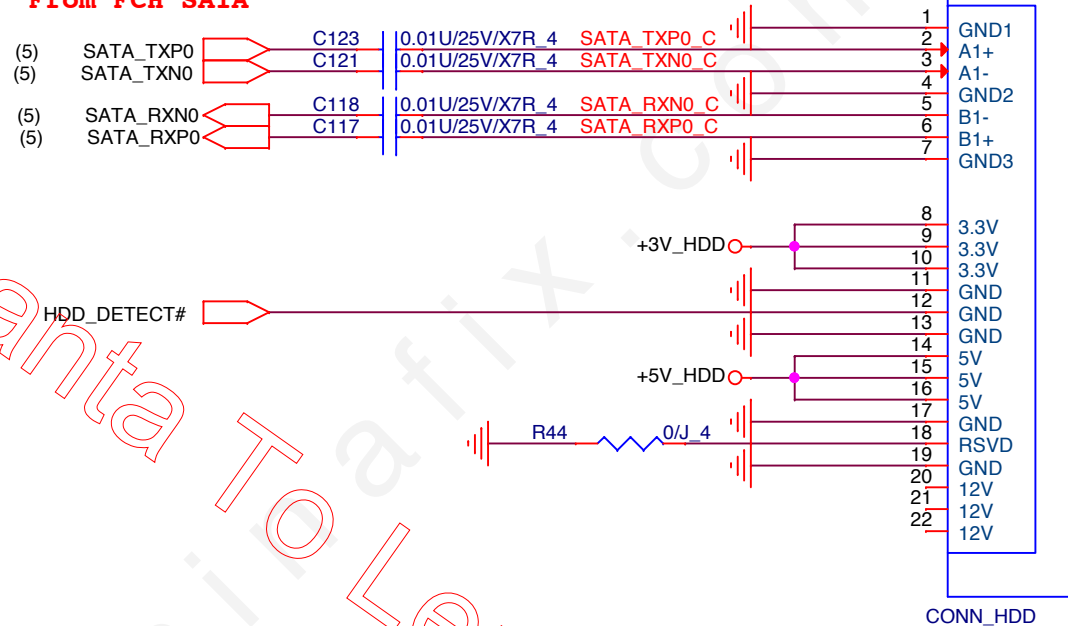


SATA HDD CONN

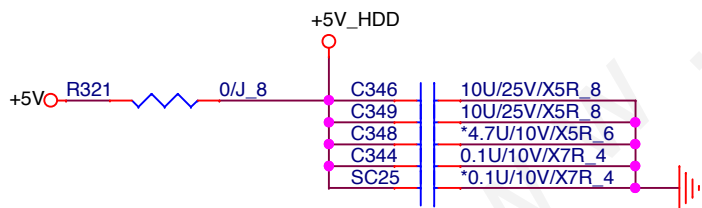
12



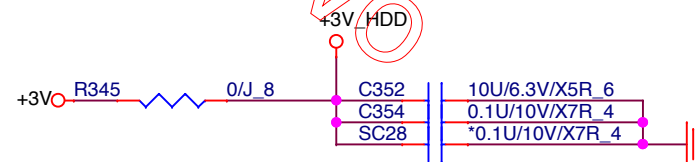
From FCH SATA



DC Current rating: 2 A (MAX)



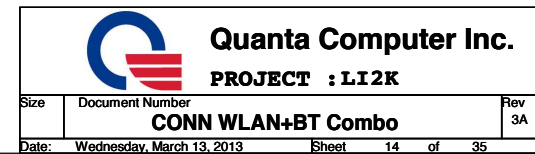
DC Current rating: 3 A (MAX)



Quanta Computer Inc.

PROJECT : LI2K

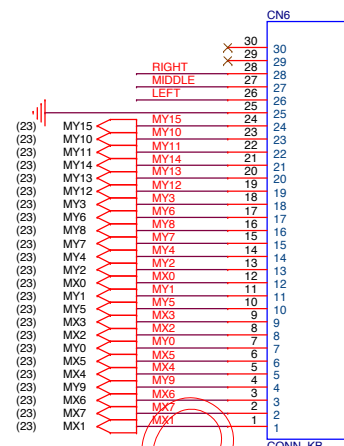
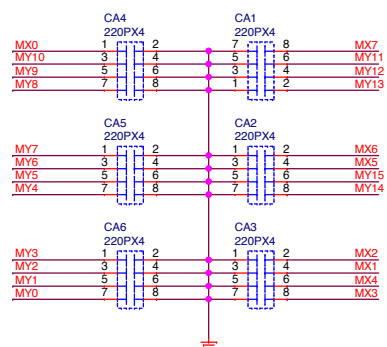
Size	Document Number	Rev
	CONN SATA(HDD or SSD)	3A
Date: Wednesday, March 13, 2013	Sheet 12 of 35	



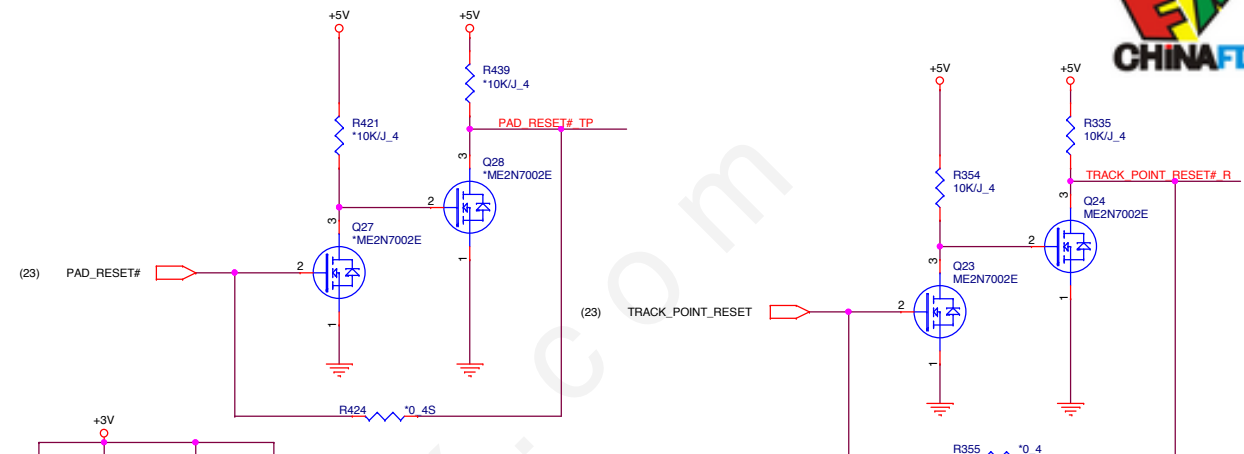


KEYBOARD

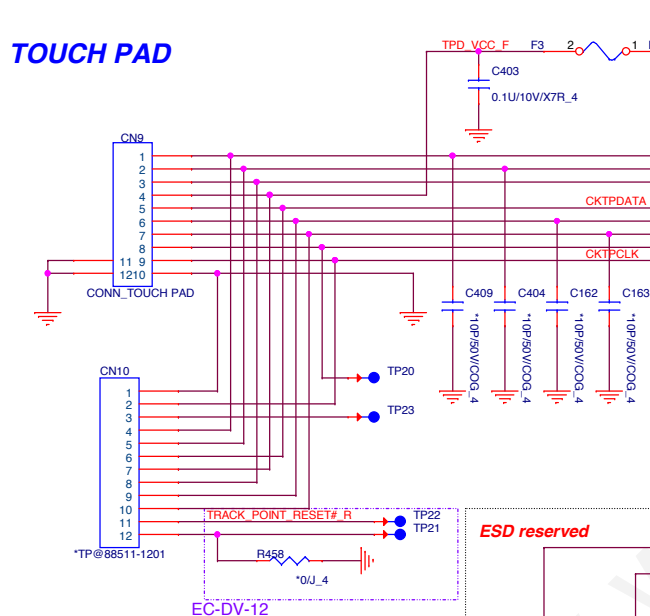
For EMI request



TRACK POINT/TOUCH PAD reset signal level shift

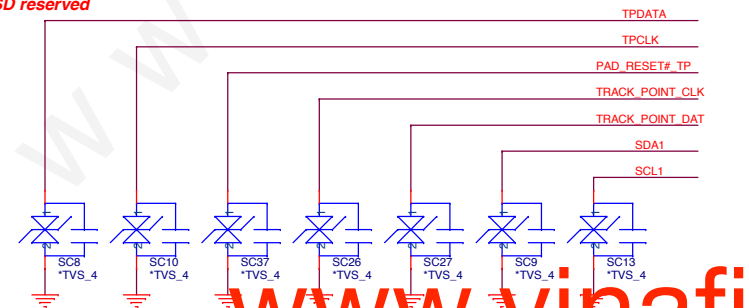


TOUCH PAD



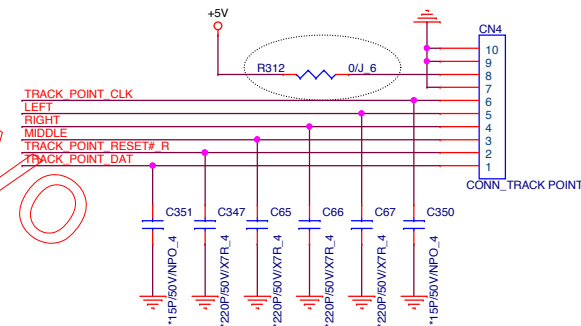
EC-08: Reserved ESD components by ESD engineer's suggestions

ESD reserved



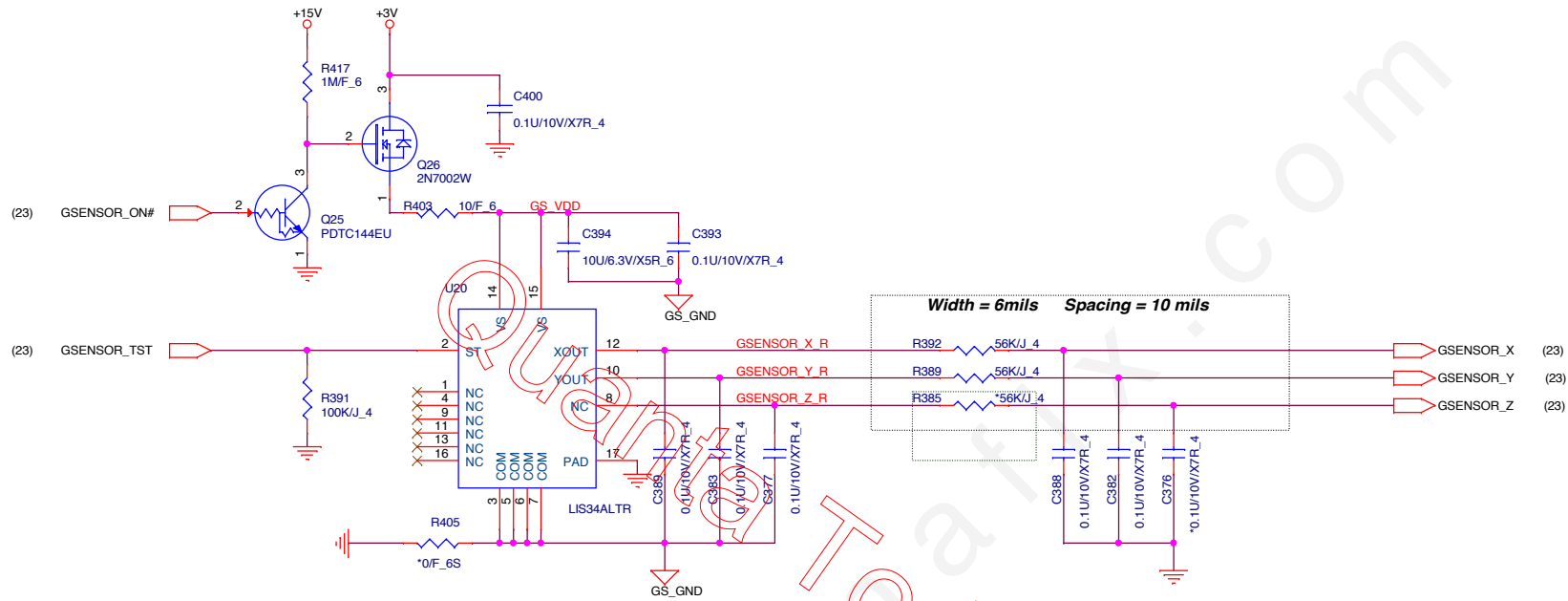
TRACK POINT

EC-C2-01: Reverse TRACK POINT Fuse.

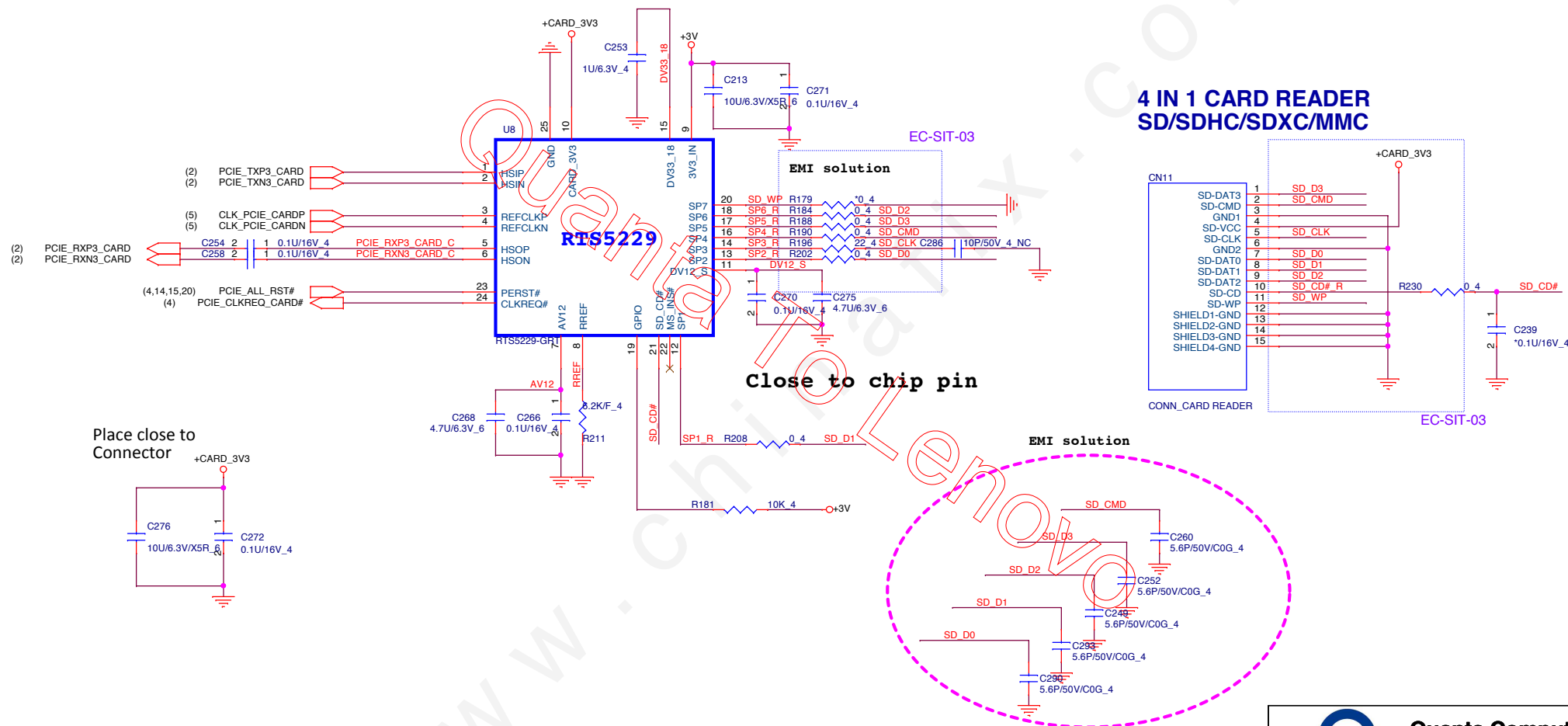


EC-B-10: Reverse SMBus CLICKPAD SCH.

G-SENSOR (2-Axial)



Cardreader (RTS5229) Support SD/ MMC



Quanta Computer Inc. PROJECT : LI2K		
Size	Document Number	Rev
	Cardreader RTS5229	3A
Date: Wednesday, March 13, 2013	Sheet 18 of 35	

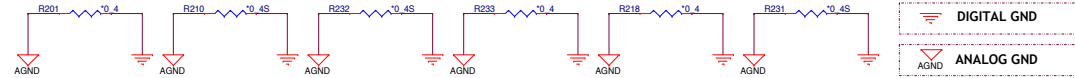
AUDIO CODEC: ALC3202-VC3-GR

19

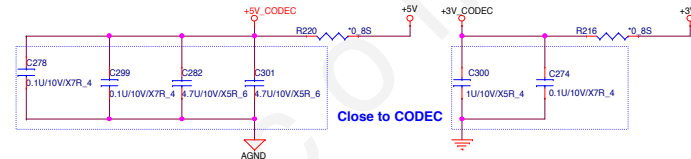


EMI Reserve

Please see Design Guide for audio grounding.

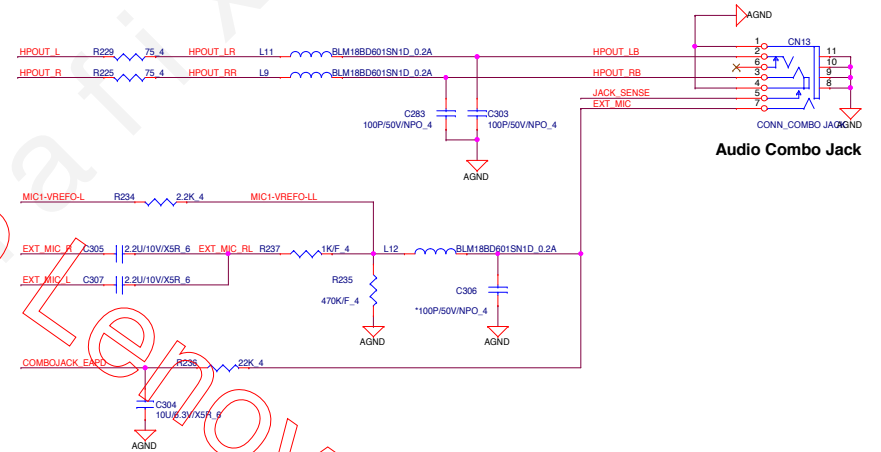


POWER

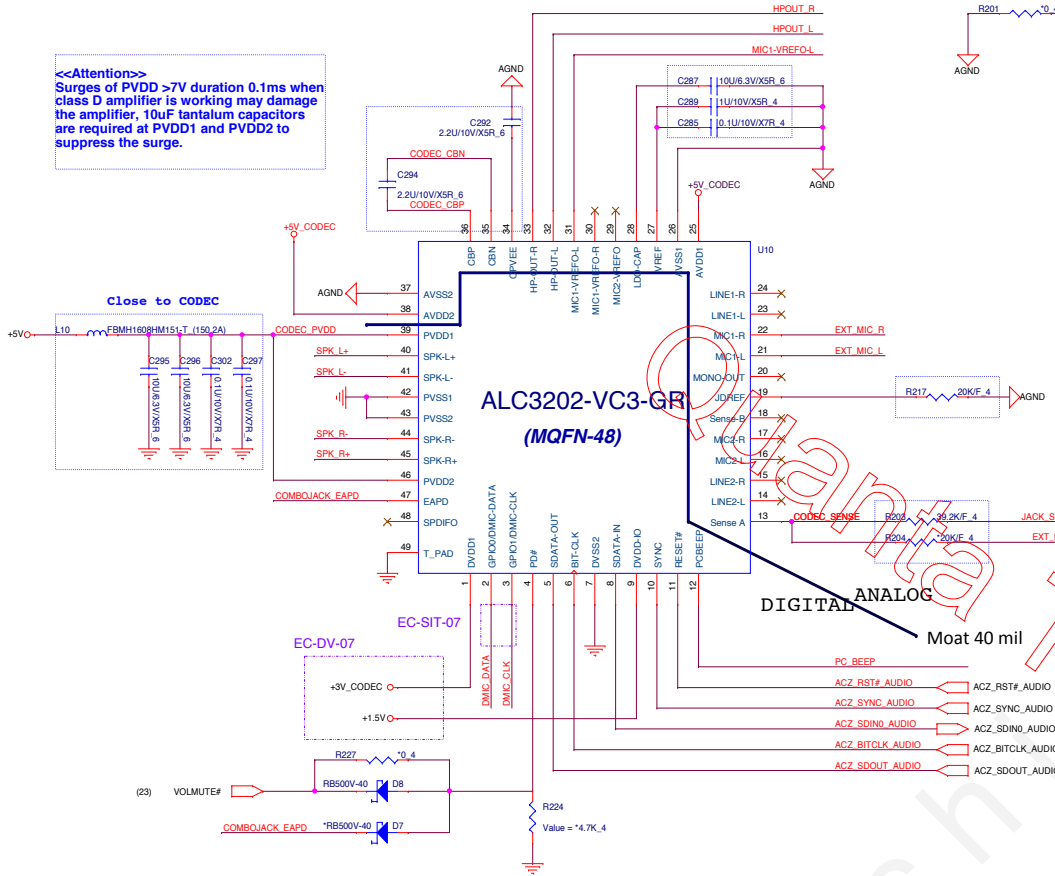


External MIC/Headphone Combo

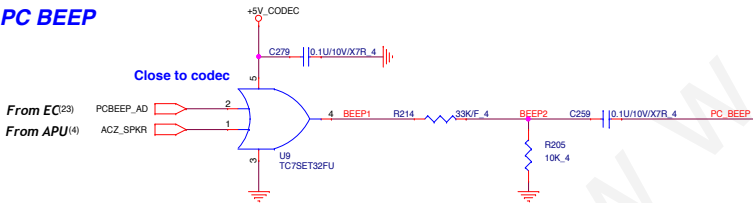
Important for Jack detect behavior: The Pin 4 & Pin 5 of COMBO-JACK must use Normal-Open type.



<<Attention>>
Surges of PVDD >7V duration 0.1ms when class D amplifier is working may damages the amplifier. 10uF tantalum capacitors are required at PVDD1 and PVDD2 to suppress the surge.

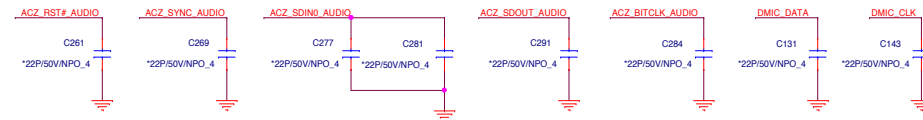


PC BEEP



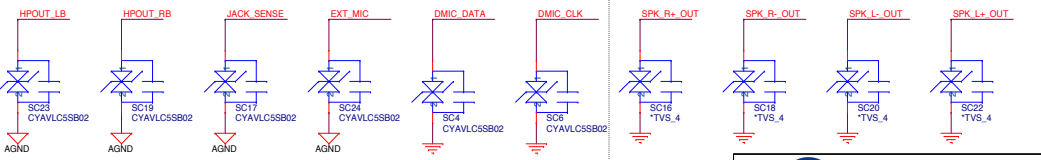
EMI Reserve

Place there EMI components next to codec; For EMI issue, please also refer our ALC269 Layout guide document

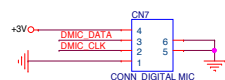


ESD Reserve

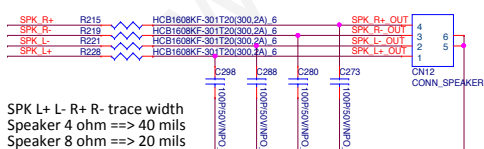
Reserved ESD components by ESD engineer's suggestions



INT Digital MIC



INT Speaker



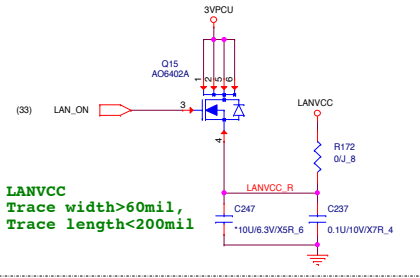
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LAN: RTL8111F-CG

20



LAN POWER



Place CAP. close to LAN IC pin 21

Place CAP. close to LAN IC pin 36

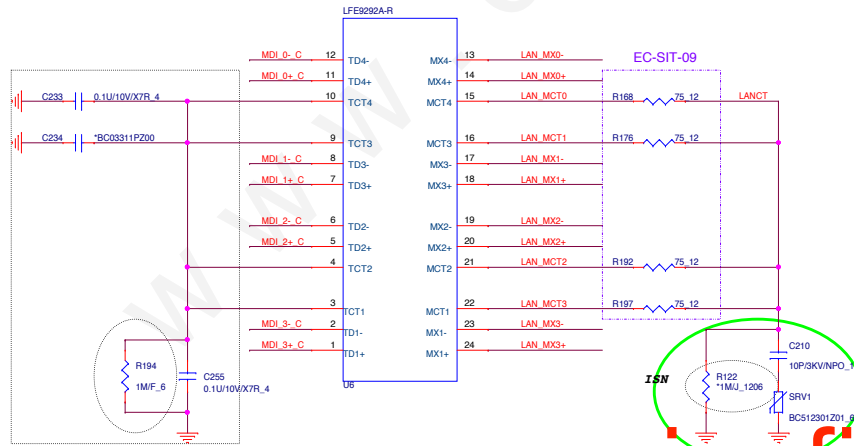
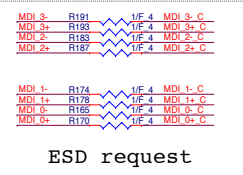
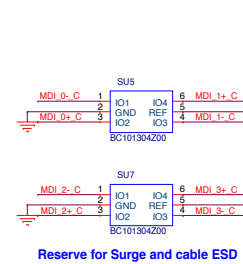
Place CAP. close to LAN IC pin 3,6,9,13,29,41,45

Place CAP. close to LAN IC pin 12, 27, 39, 42, 47, 48

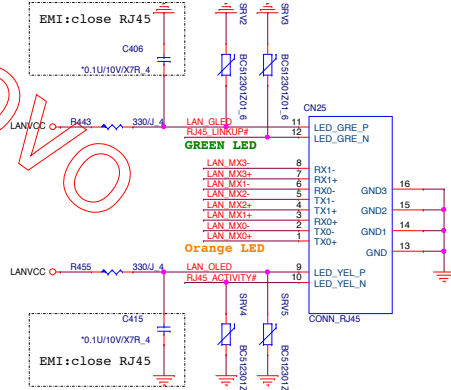
Place CAP. close to LAN IC pin 34, 35

Transformer

Layout: All termination signal should have 20 mil trace

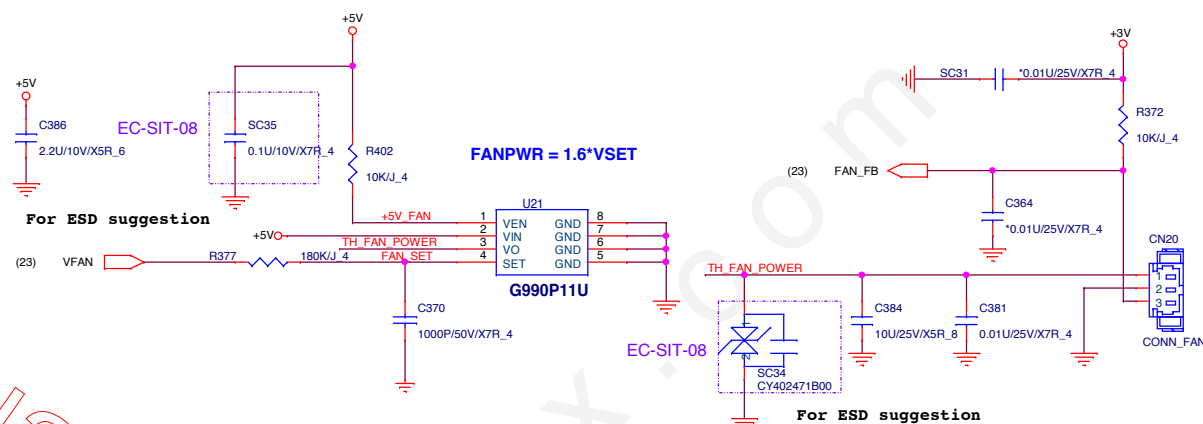
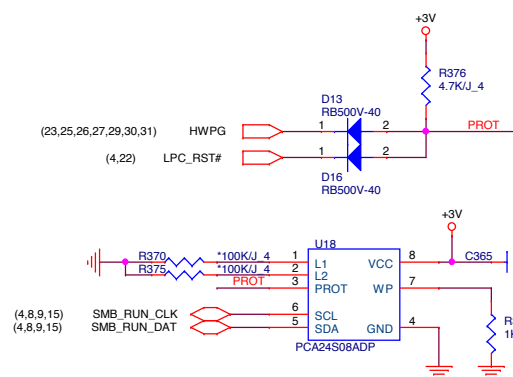


RJ45 Connector

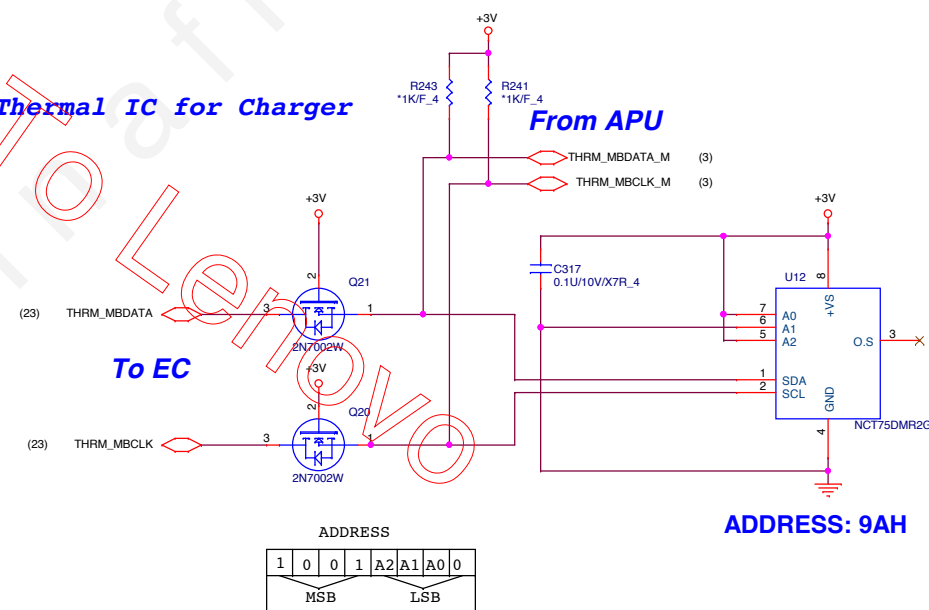
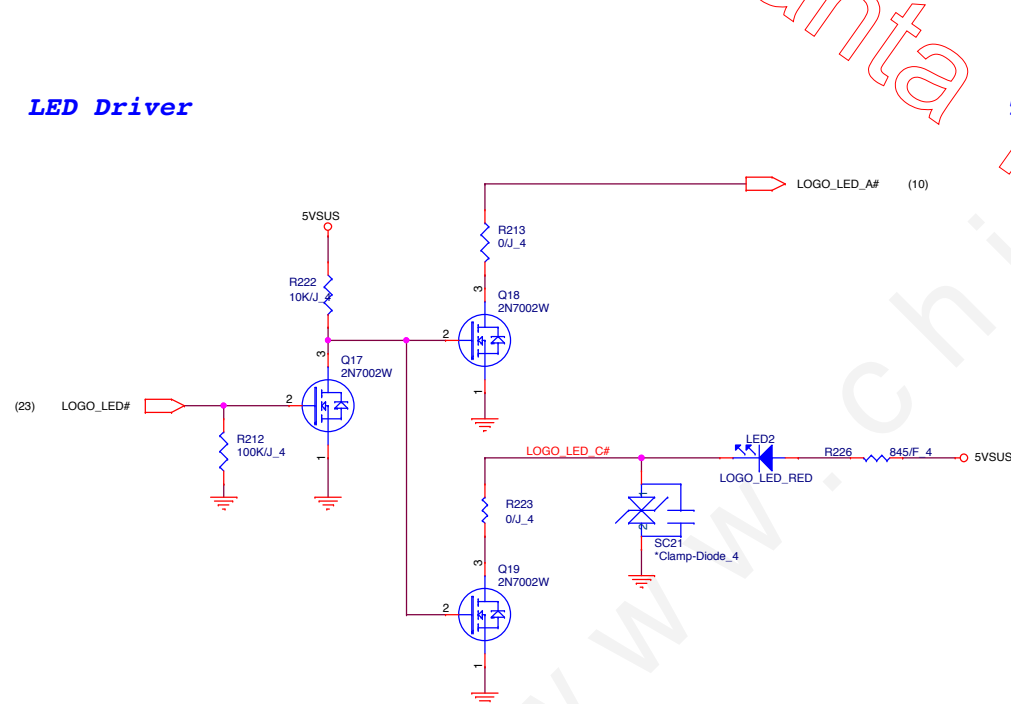


Isolate Pin: Active low.
Used to isolate the RTL8111F from the PCI express bus. The RTL8111F will not drive its PCI Express outputs (excluding LANWAKEB) and will not sample its PCI Express input as long as the isolate pin is asserted.

FAN IC & CONN



Thermal IC for Charger



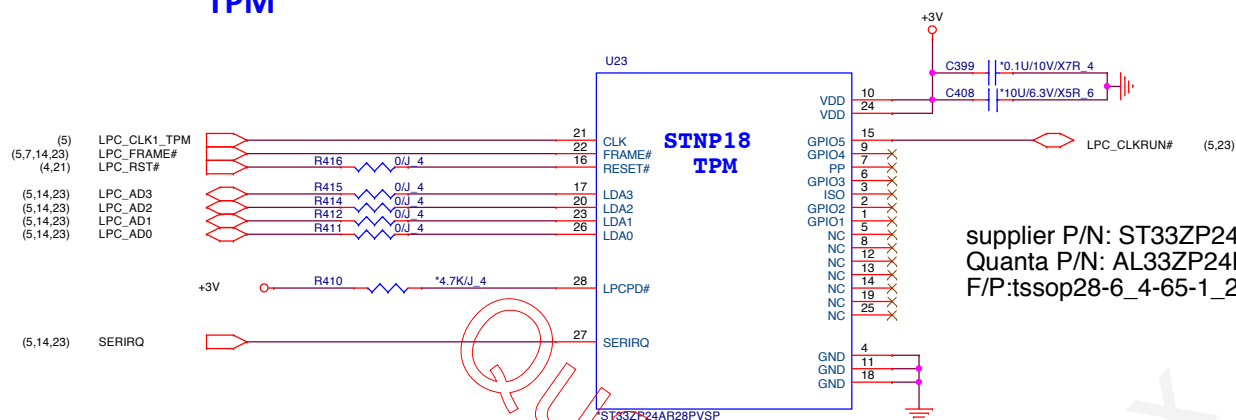
ADDRESS: 9AH



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	FAN/Thermal/LED/RFID	3A
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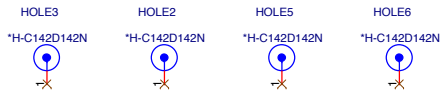
TPM



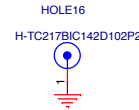
23



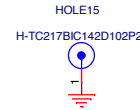
Hole For CPU support



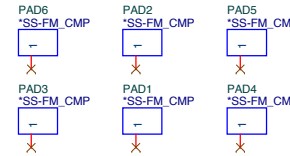
MiniCard WWAN



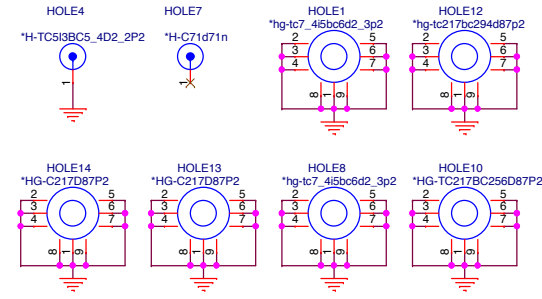
MiniCard WLAN



Optics Point



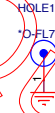
Boundary Hole



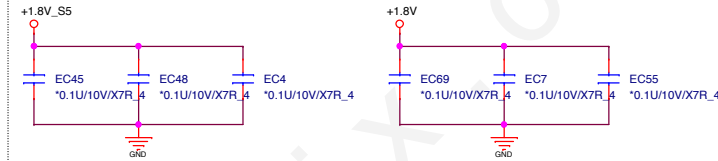
CRT PAD



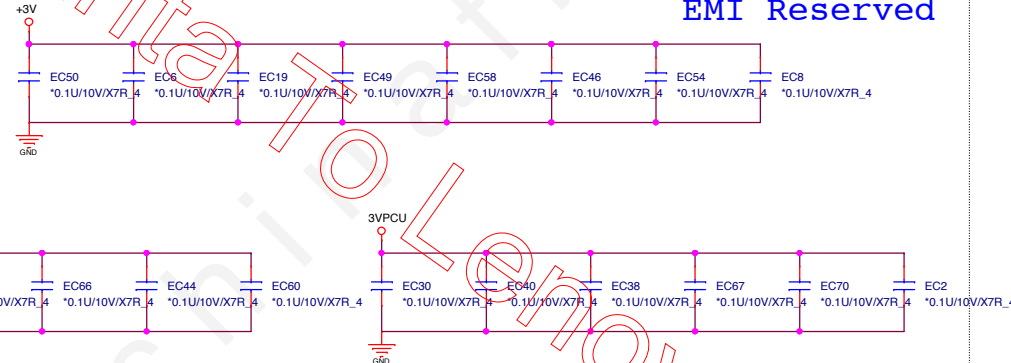
Keyboard



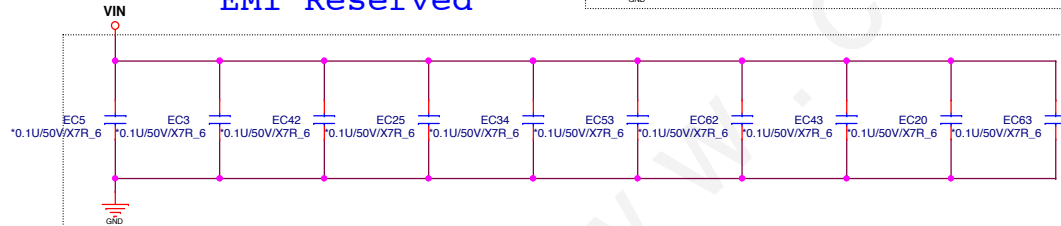
EMI Reserved



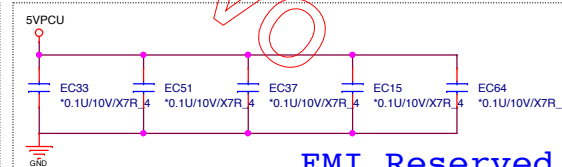
EMI Reserved



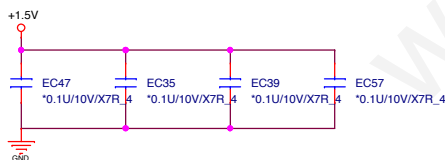
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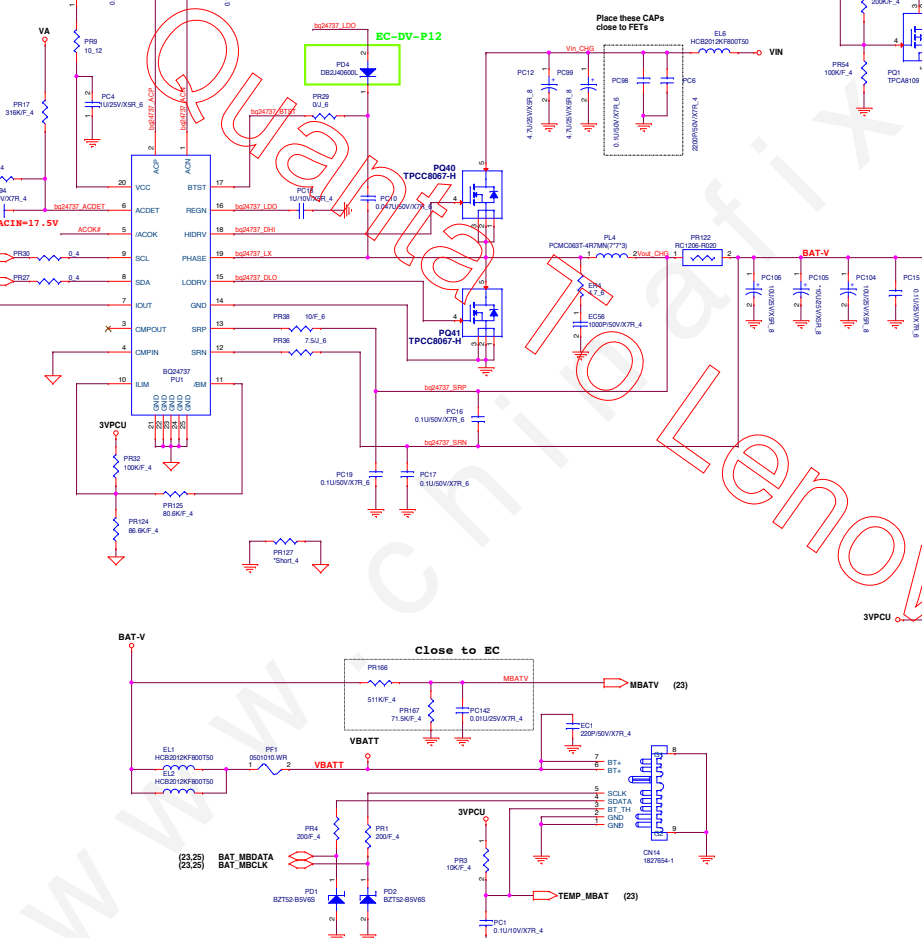


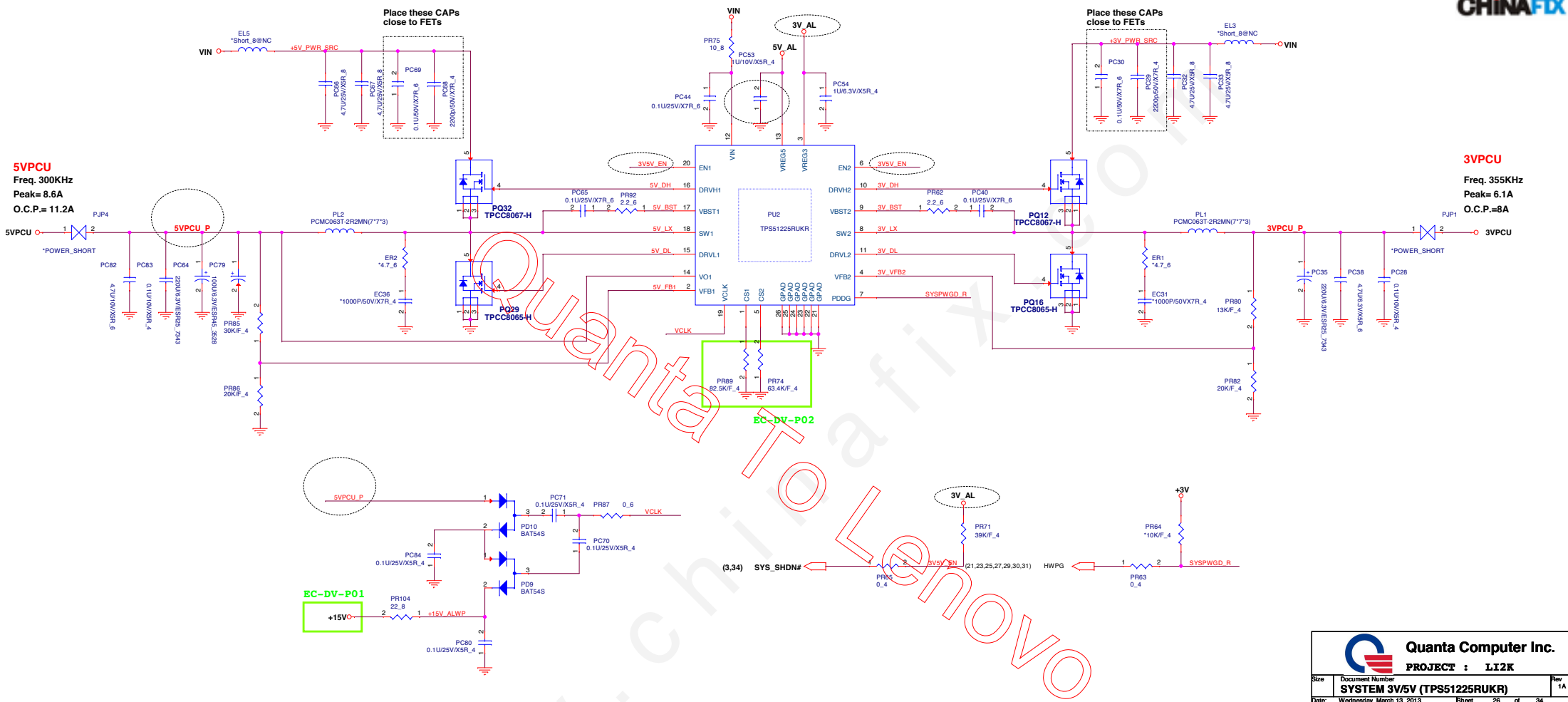
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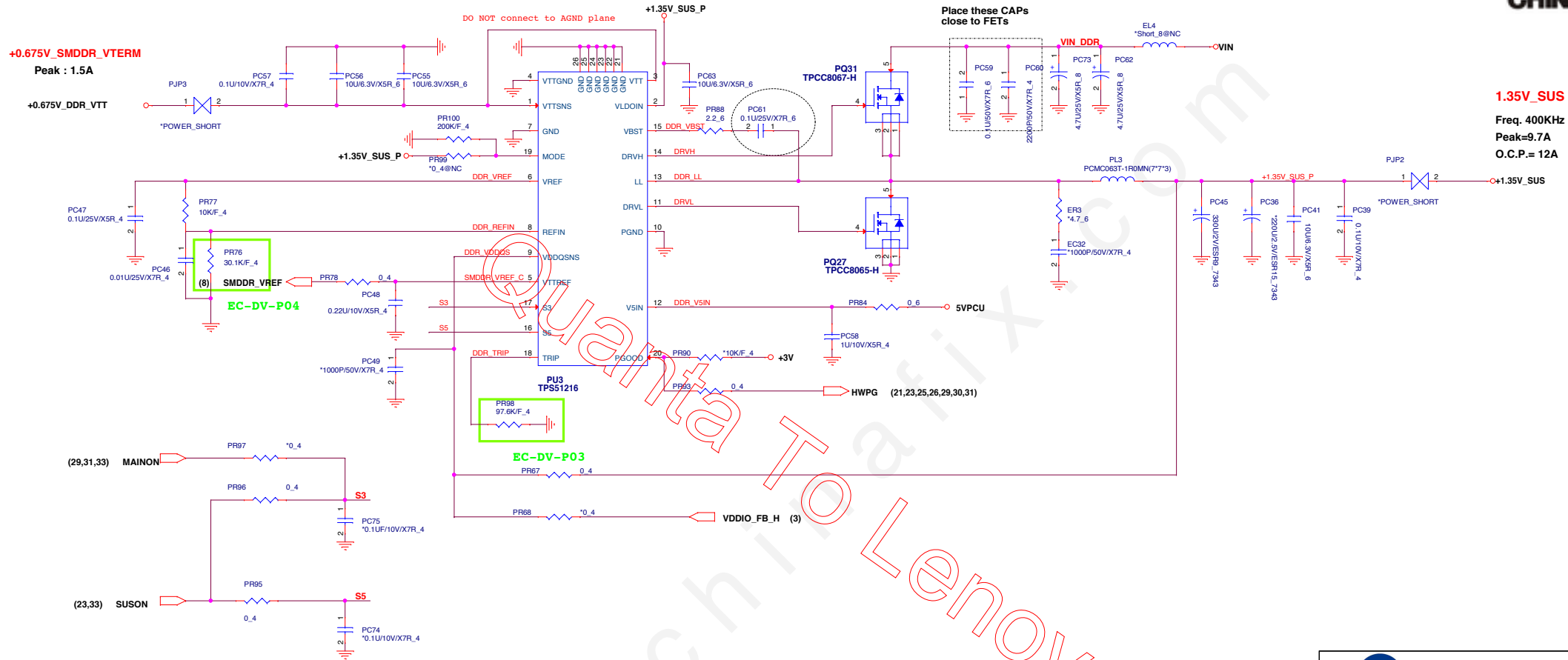


EMI Reserved

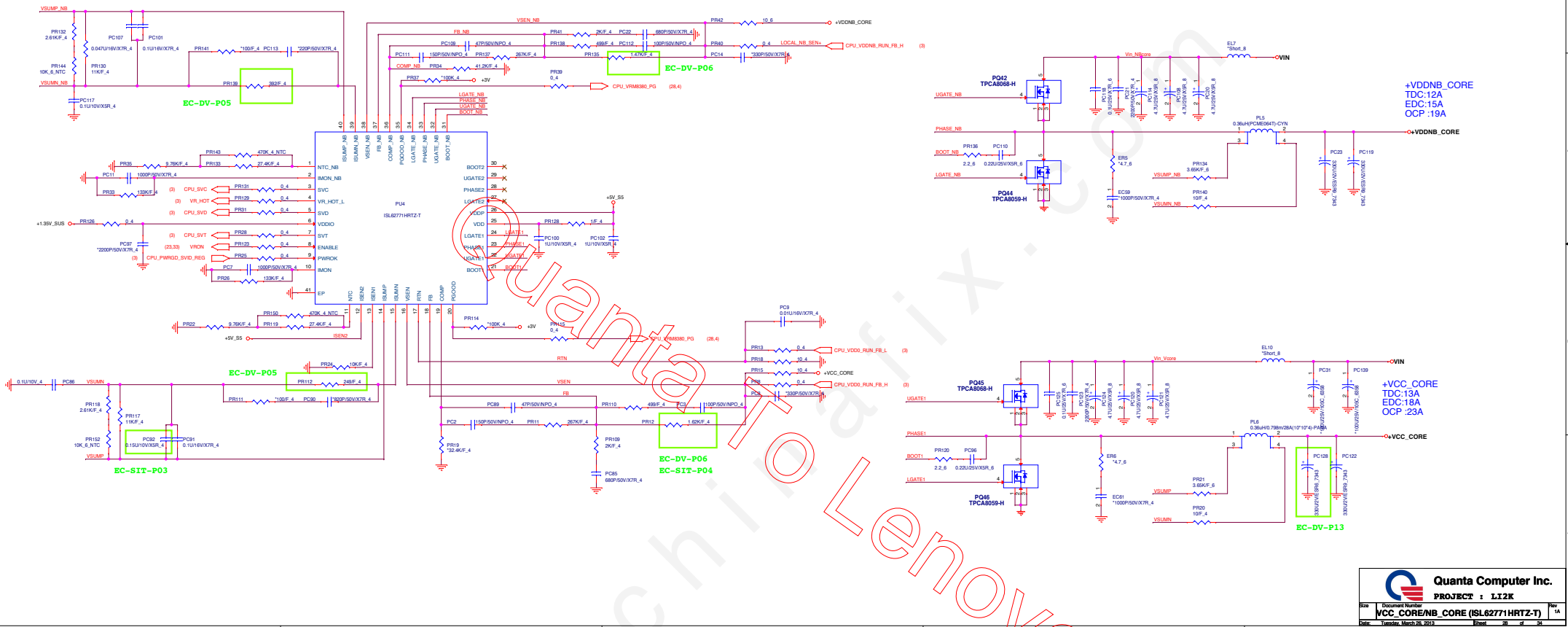


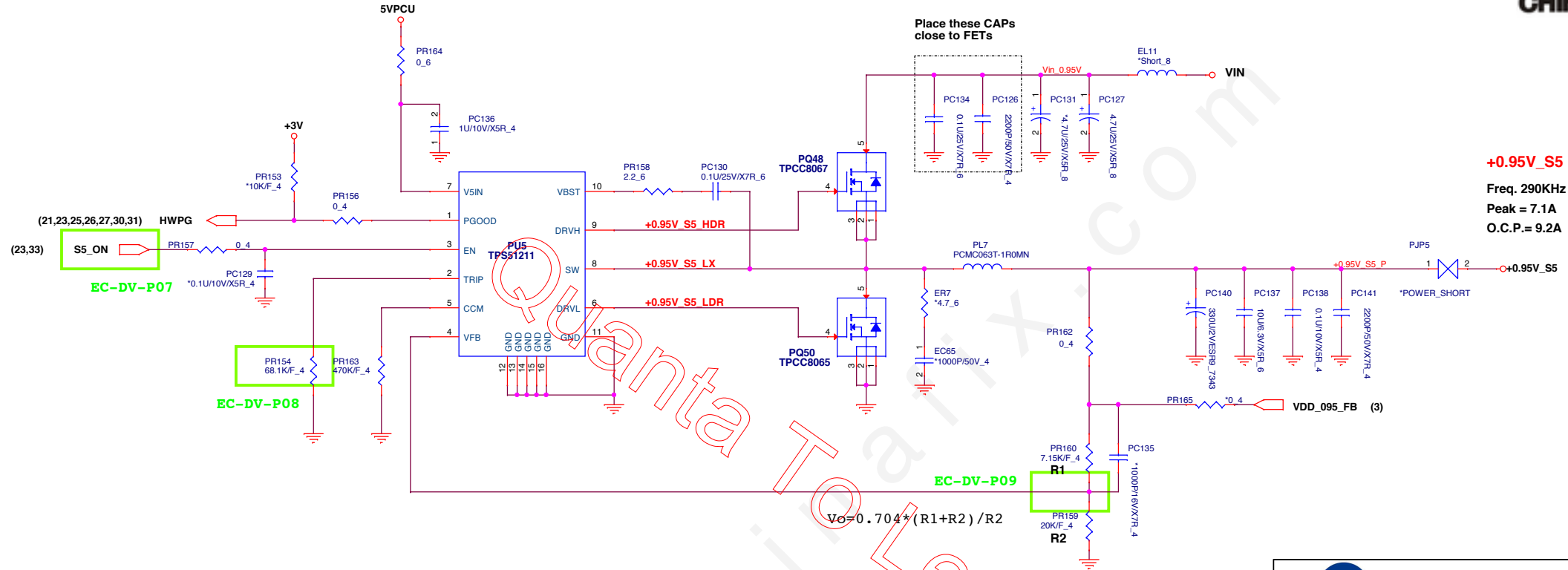




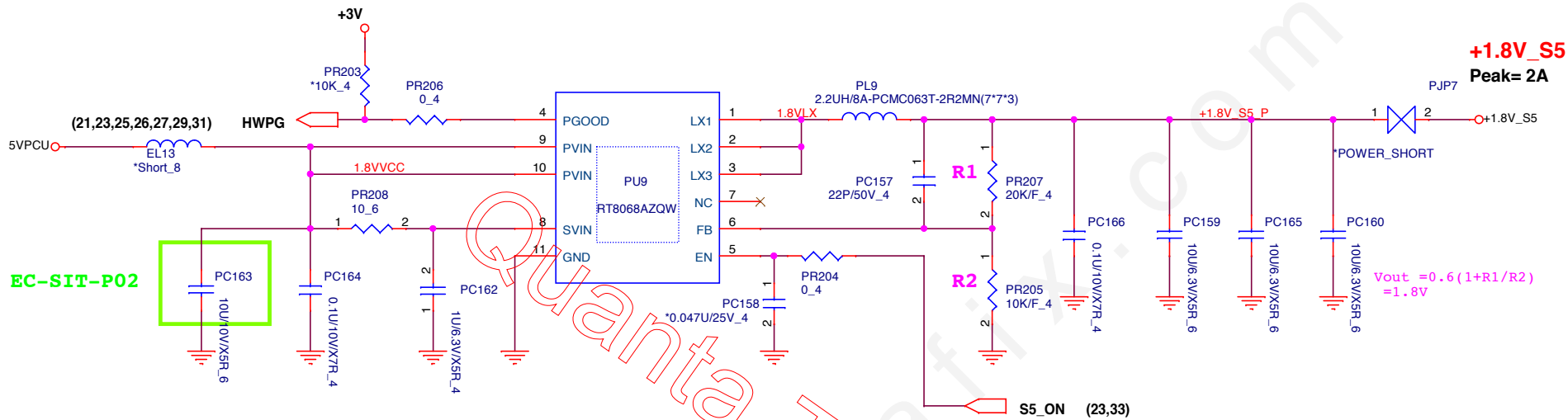


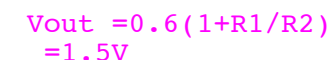
VCC_CORE/VDDNB_CORE (ISL62771HRTZ-T)



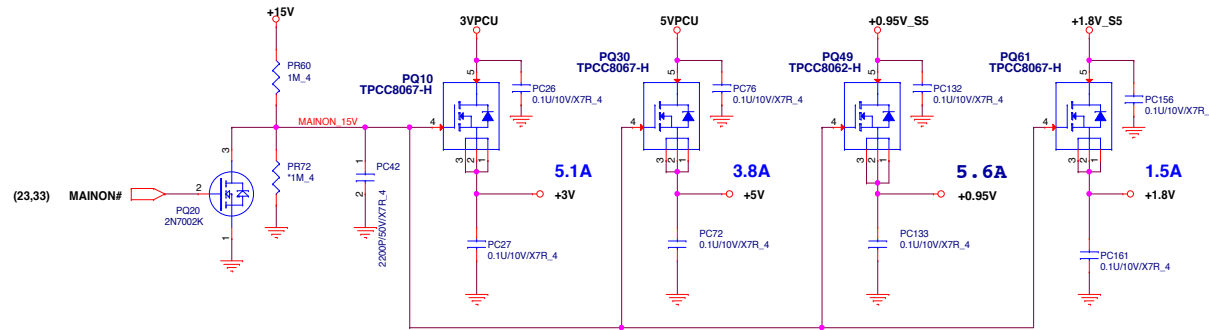


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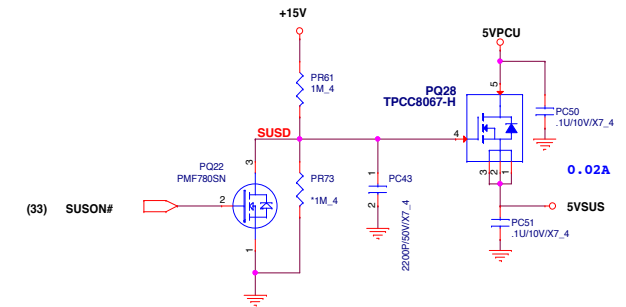
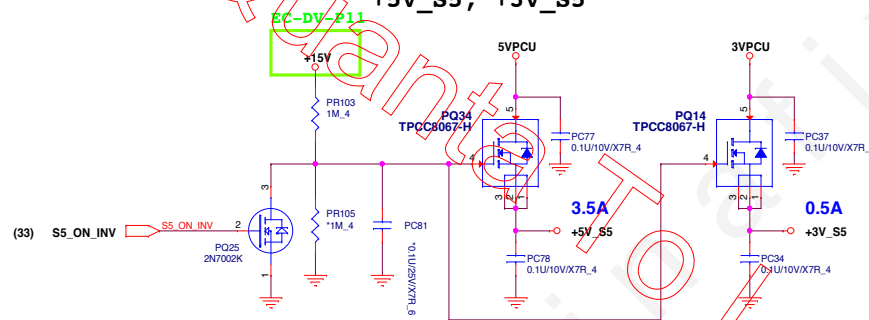


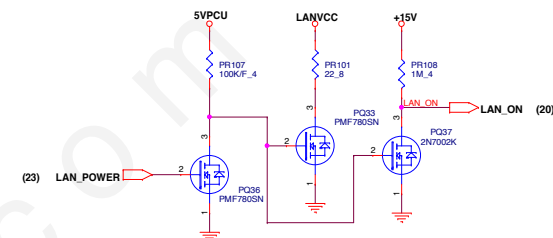


+3V, +5V, +0.95V, +1.8V, +1.5V

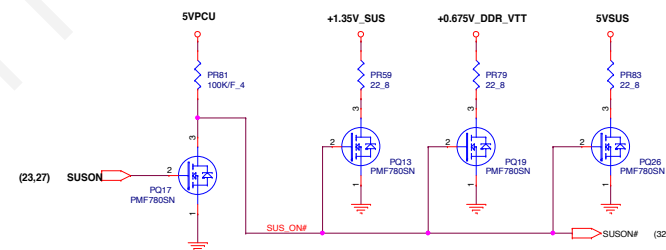


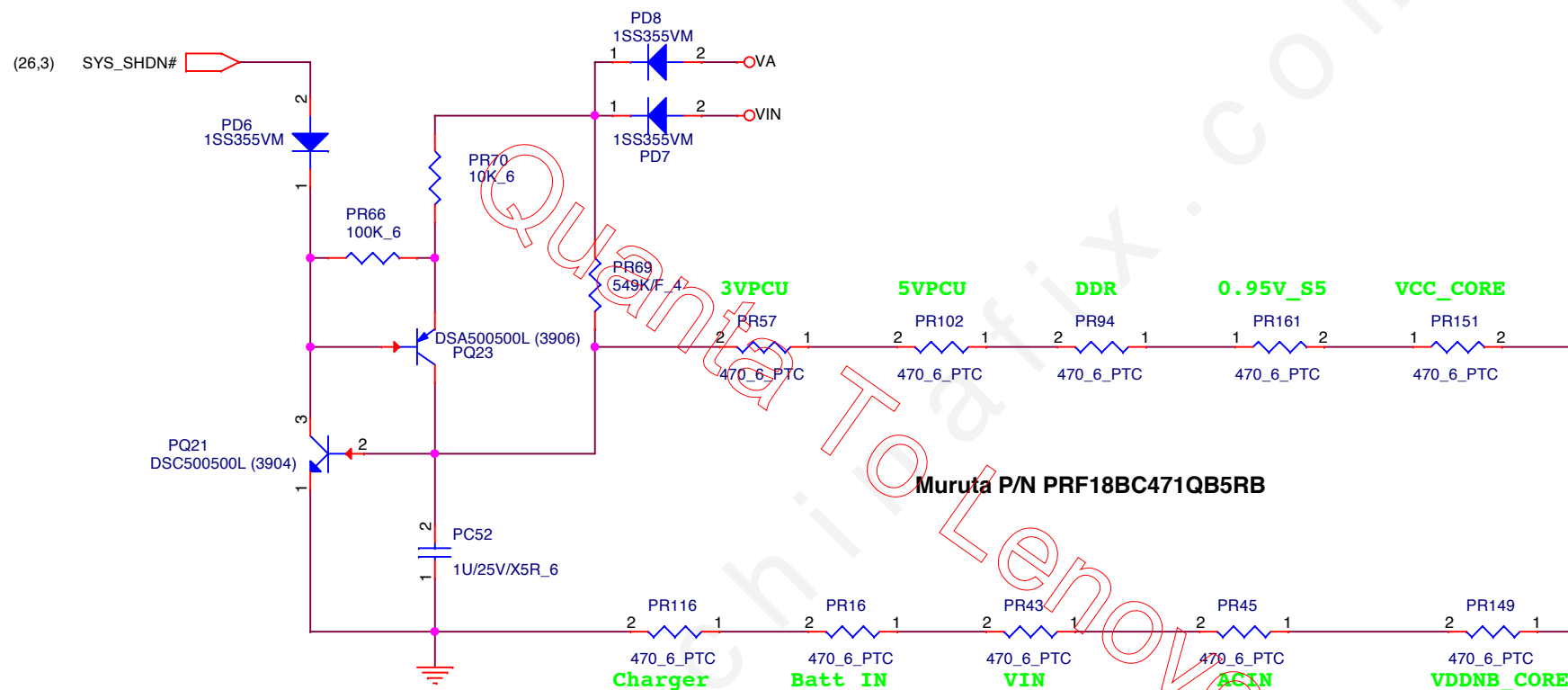
+5V_S5, +3V_S5



LANVCC

5VSUS, +1.35V SUS,+0.675V DDR VTT





LI2K Schematic EC Tracking Record A to B version



EC #	Page	Description	Part Affected
EC-DV-01	6	Correct the footprint 0402 to 0603	C20,C50
EC-DV-02	23	Correct the Netname mainon# to mainon	
EC-DV-03	5	Change symbol pin number(Pin1 and Pin2)	U17
EC-DV-04	5	Change 32.768K XTAL Y2 to small one.	Y2,C324,C325
EC-DV-05	11	R447 stuff and connect the SMB data to fix HDMI no output.	R447
EC-DV-06	20	Swap the P/N net to correct.	
EC-DV-07	19	Change audio VDDIO to +1.5V for Kabini platform only	
EC-DV-08	2	R362 stuff by AMD confirmation	R362
EC-DV-09	23	Reserved the path 3VPCU/+3V for EC pin 11 to prevent currnet leakage	R456,R457
EC-DV-10	11	R146 change the value from 464 to 499	R146
EC-DV-11	13	Increase the USB FFC power pin	
EC-DV-12	16	Modify CN10 Pin 11,Pin 12	
EC-DV-13	11	Un-stuff to Stuff for EMI solution in HDMI	R420,R425,R430,R438
EC-DV-14	10,13	Stuff for EMI Common choke in USB	CML1,CML2,CML3,CML4,R19,R23,,R86,R87,R101,R102,R131,R132
EC-DV-15	4,23	Un-stuff to Stuff for EMI solution	C328,C372
EC-DV-16	24	Un-stuff to Stuff for EMI solution	SC5,SC7,SC11,SC15
EC-DV-17	11	Chagne the value for EMI suggestion	L1,L2,L3,C2,C5,C8,C11,C12,C15
EC-DV-18			
EC-DV-19			
EC-DV-20			
EC-DV-21			
EC-DV-22			
EC-DV-23			
EC-DV-24			
EC-DV-25			
EC-DV-26			
EC-DV-27			
EC-DV-28			
EC-DV-29			
EC-DV-30			

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[illegible]

	C357,C379,SC34,SC35,SC36
	R168,R176,R192,R197
	R420,R425,R430,R438,R146
	SU9,SU10,SU11,SU12,SU13

[illegible]