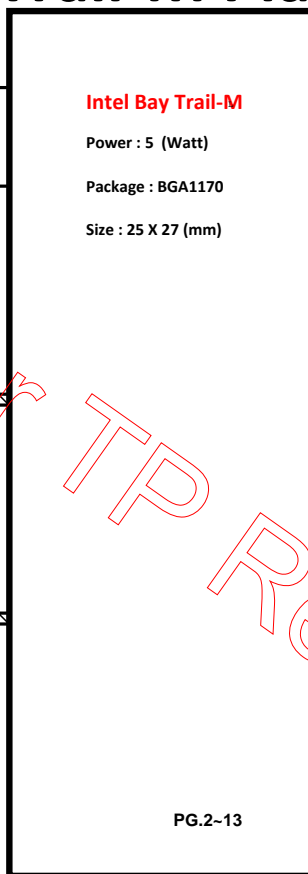


UMA (11.6")

Intel Bay Trail-M Platform Block Diagram

| | |
|-------------|----------|
| +3VS5/+5VS5 | PG.29 |
| MOIC | PG.31 |
| CPU Core | PG.32,33 |
| DDR3L | PG.30 |
| Charger | PG.28 |

| | |
|------------------|-----------------------|
| DDR3L | 1600MT/s Channel A |
| Memory down*4pcs | PG.14 |
| DDR3L | 1600MT/s Channel B |
| Memory down*4pcs | PG.15 |



eMMC 4.51

eMMC
32G/64G

PCI-E x2

Card Reader
RTS5239-GR

PG.17

WLAN
BT COMBO
NGFF M2

PG.24

KBC

IT8987

PG.25

LPC

Fast SPI

KB

PG. 21

TP

PG. 21

ROM

PG. 5

AUDIO
CODEC
ALC 3227

PG.19

Speaker

PG.19

Without amp for eMMC sku

Headphone
amplifier
HPA022642RTJR
Daughter board

Combo Jack

Daughter board

Azalia

MIC

eDP (2 lane)

EDP panel

PG.18

DP Port0

HDMI

PG.18

USB 3.0

USB 2.0

USB 2.0

USB 2.0

USB3.0 Ports

X1

PG.23

USB2.0 Ports

X1

PG.23

WLAN
BT COMBO
NGFF M2

PG.24

Webcam

PG.18

WWAN

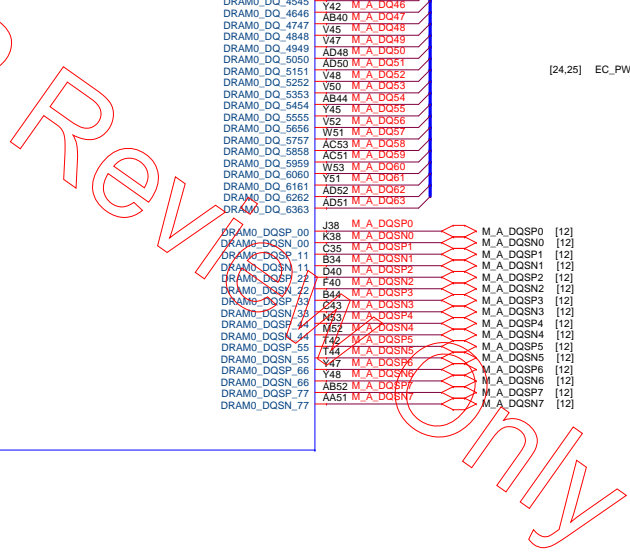
NGFF M2


PG.20

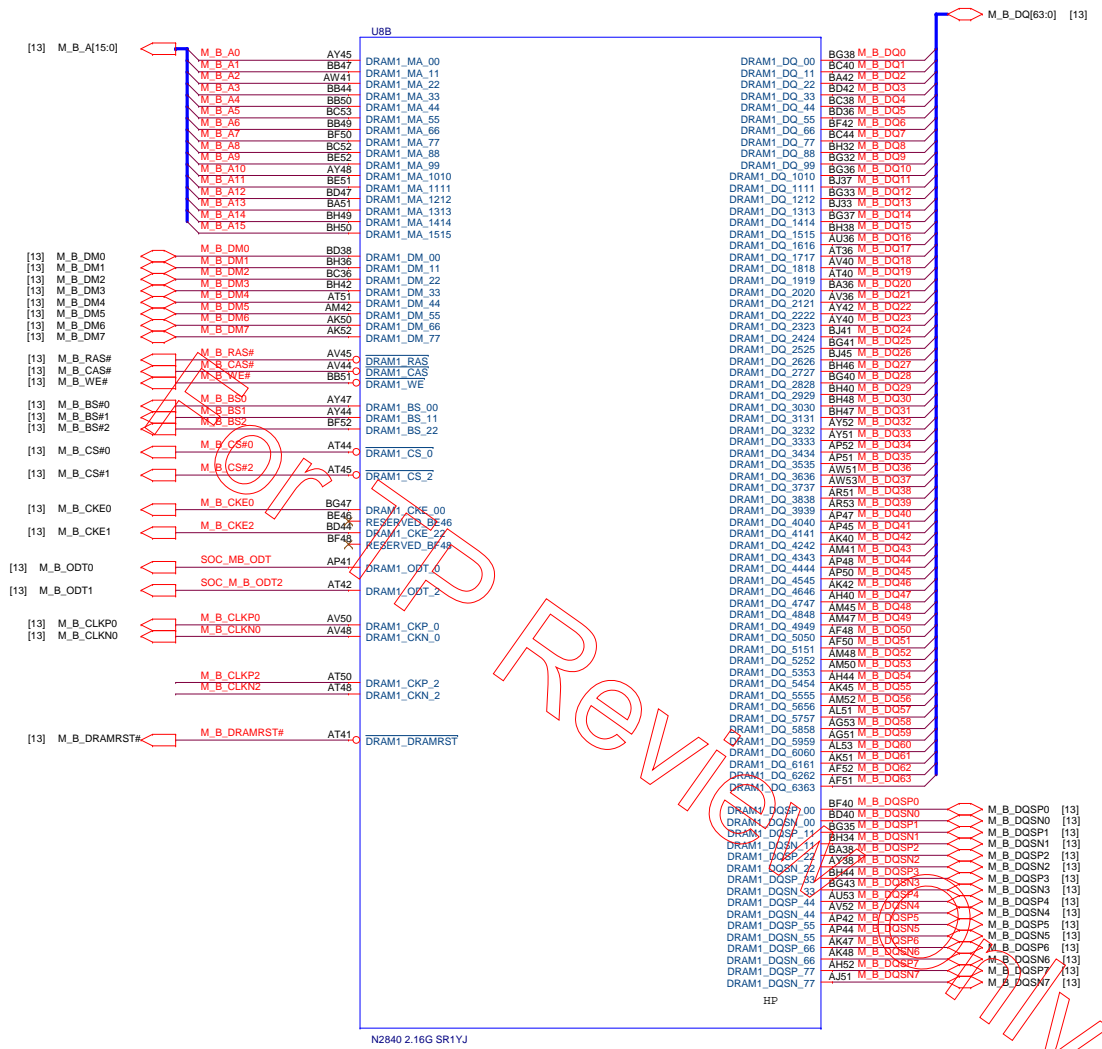
www.vinafix.com

PROJECT : Y0HC
Quanta Computer Inc.

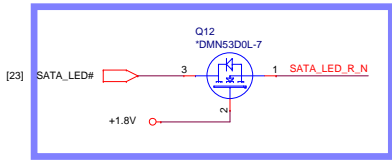
| Size | Document Number | Rev |
|------------------------------|-----------------|-------|
| | BLOCK DIAGRAM | 1A |
| Date: Tuesday, July 21, 2015 | Sheet 1 | of 33 |



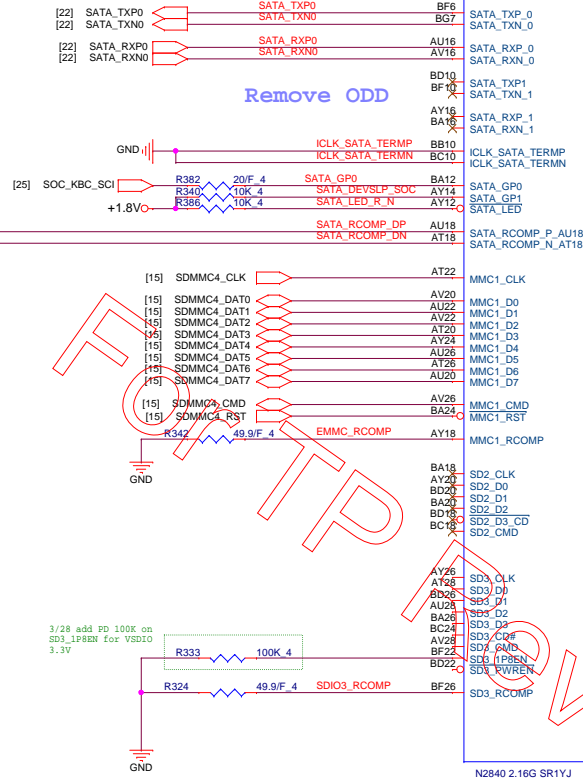
| | | | |
|---|--|---|------------------|
|  NB5 | PROJECT : Y0HC Quanta Computer Inc. | | |
| | Size | Document Number Valley 1/9 (DDRA) | Rev 1A |
| Date: Tuesday, July 21, 2015 | | Sheet 2 | of 33 |



Add SATA LED CTL

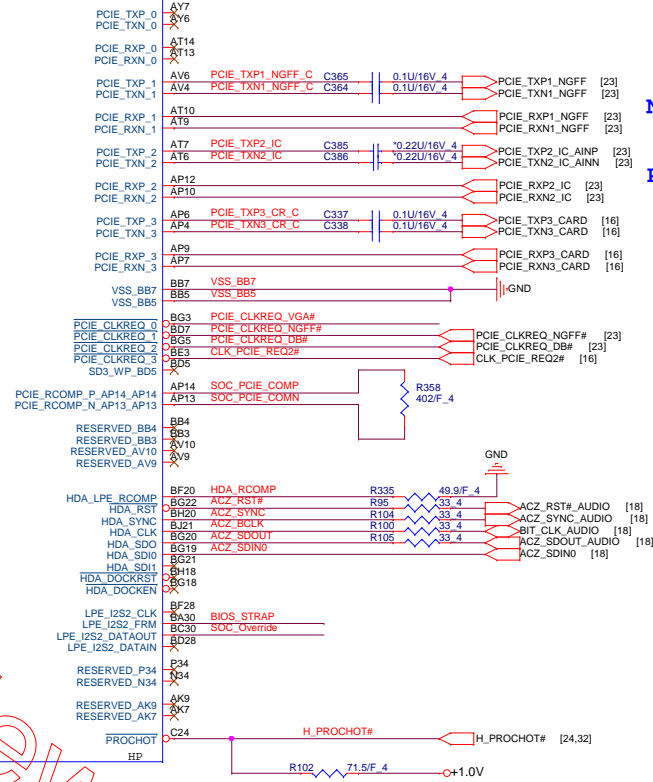


HDD



Remove ODD

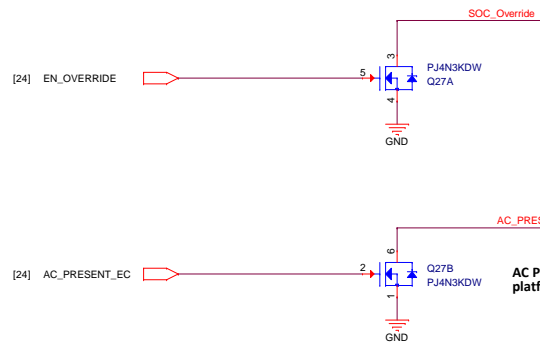
U8D



NGFF


PCIE Re-Driver IC

Card reader



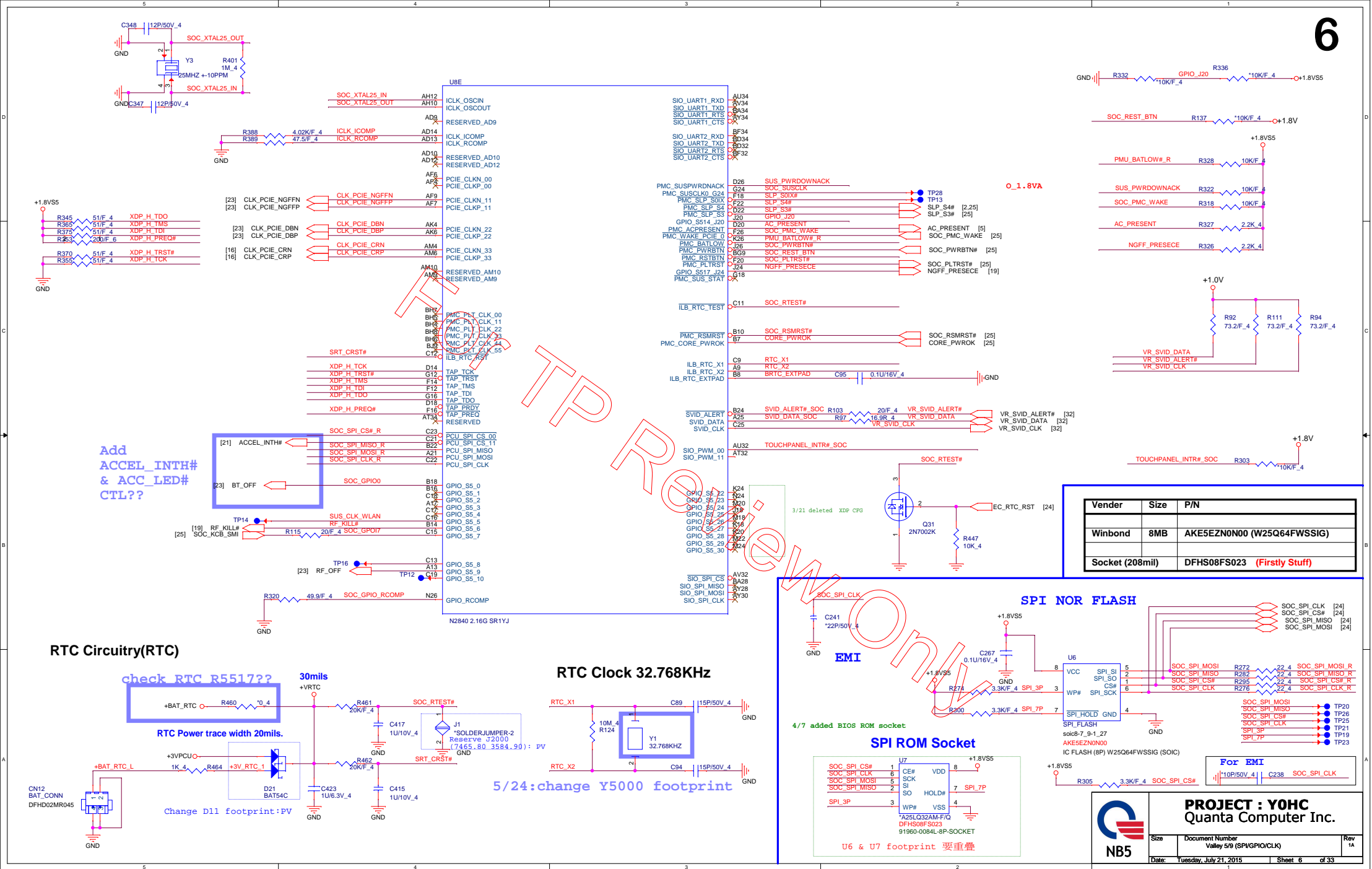
BIOS_STRAP
0 = LPC
1 = SPI

PCIE_CLKREQ_NGFF# R395 10K 4
PCIE_CLKREQ_DB# R394 10K 4
CLK_PCIE_REQ2# R396 10K 4
PCIE_CLKREQ_VGA# R397 10K 4



PROJECT : YOHC
Quanta Computer Inc.

| Size | Document Number | Rev |
|------------------------------|---------------------------|---------------|
| | Valley 4/9 (SD/PCIE/SATA) | 1A |
| Date: Tuesday, July 21, 2015 | | Sheet 5 of 33 |



+1.8VS5
0713 : del for +1.8V leakage

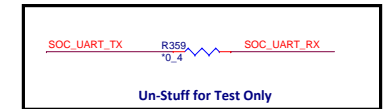
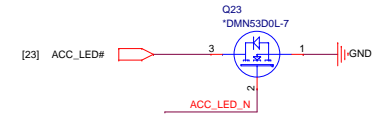
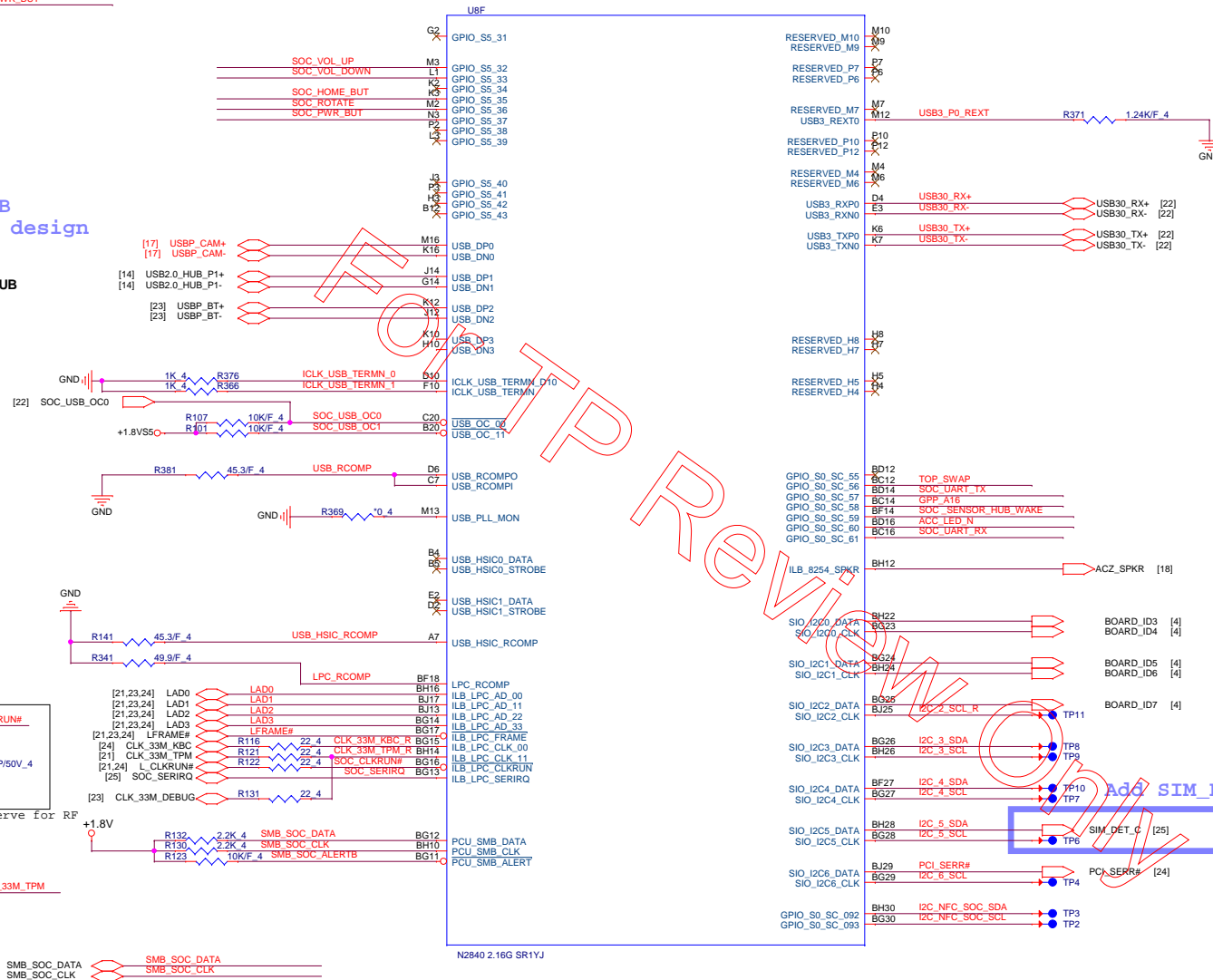
| | | |
|------|----------|--------------|
| R144 | *10K/F 4 | SOC_VOL_UP |
| R143 | *10K/F 4 | SOC_VOL_DOWN |
| R142 | *10K/F 4 | SOC_HOME_BUT |
| R145 | *10K/F 4 | SOC_ROTATE |
| R146 | *10K/F 4 | SOC_PWR_BUT |

Check
Add USB_BT_DB
All USB port design

Camera

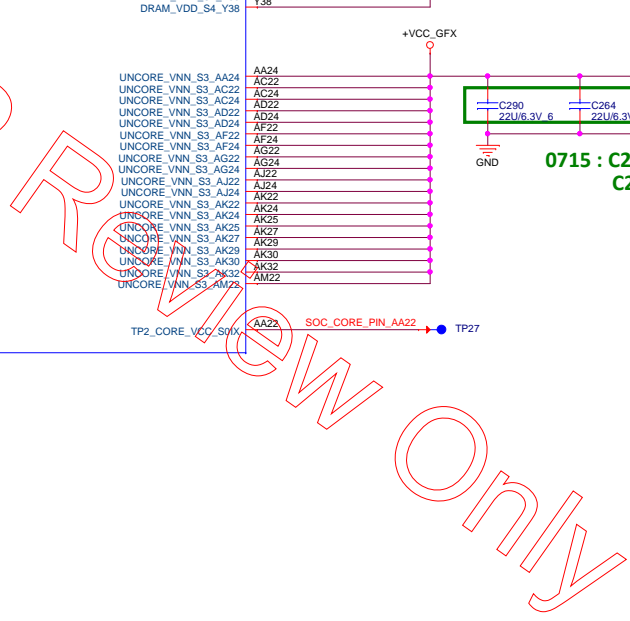
USB 2.0 HUB

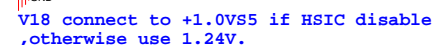
WWAN

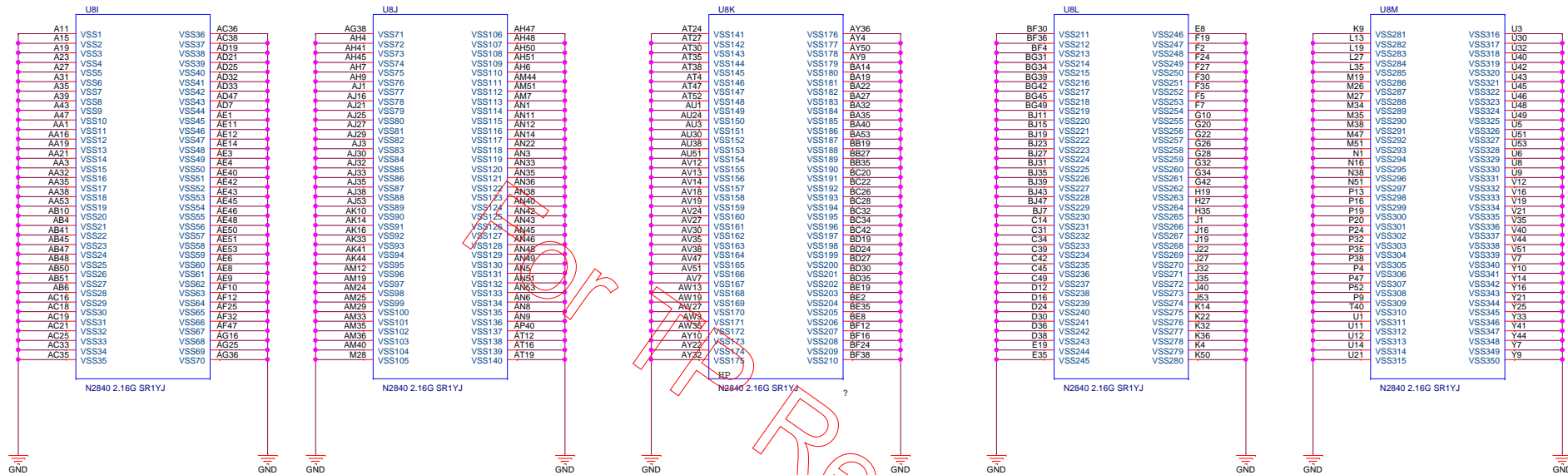


Add SIM_DET_C

| | | | |
|------------------------------|-----------------|---|--|
| | | PROJECT : YOHC Quanta Computer Inc. | |
| Size | Document Number | Rev 1A | |
| Valley 6/9 (USB/LPC/I2C) | | | |
| Date: Tuesday, July 21, 2015 | Sheet | of 33 | |

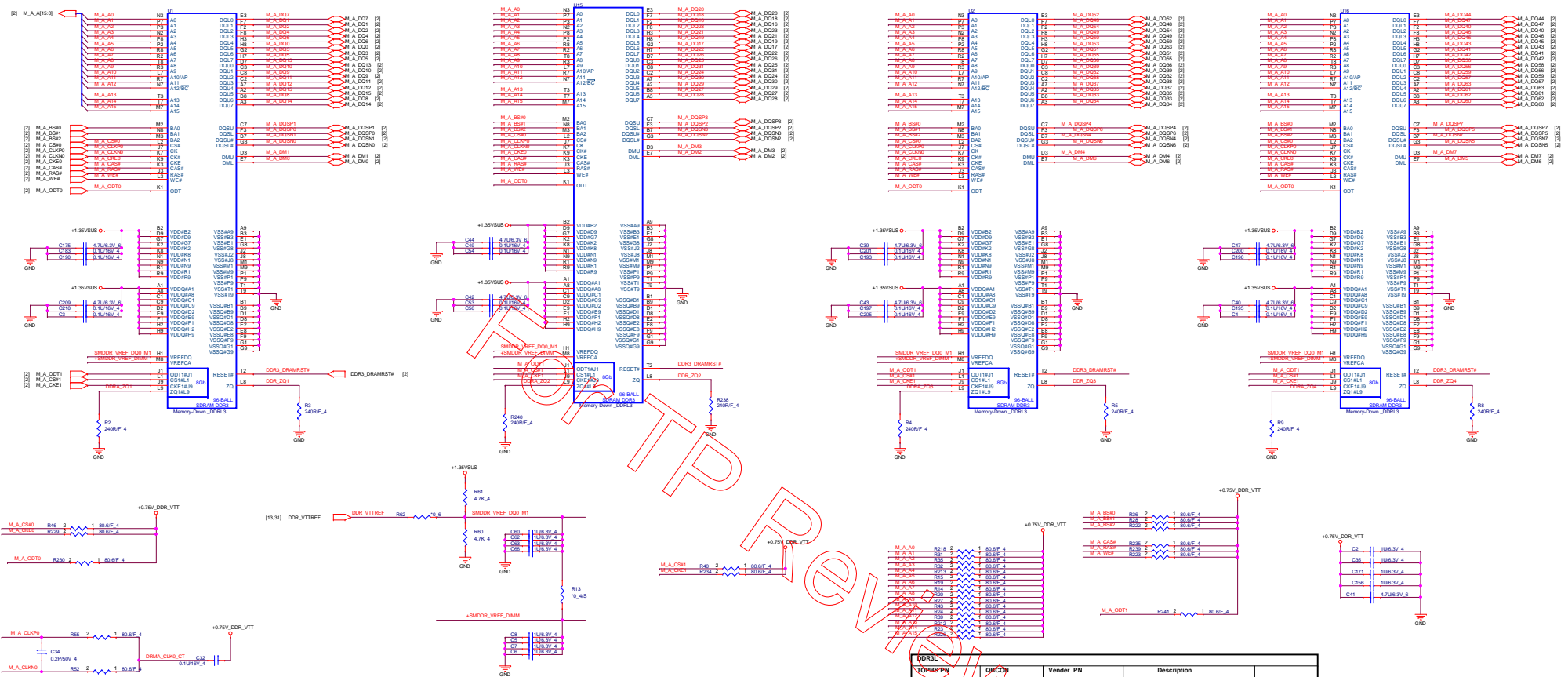


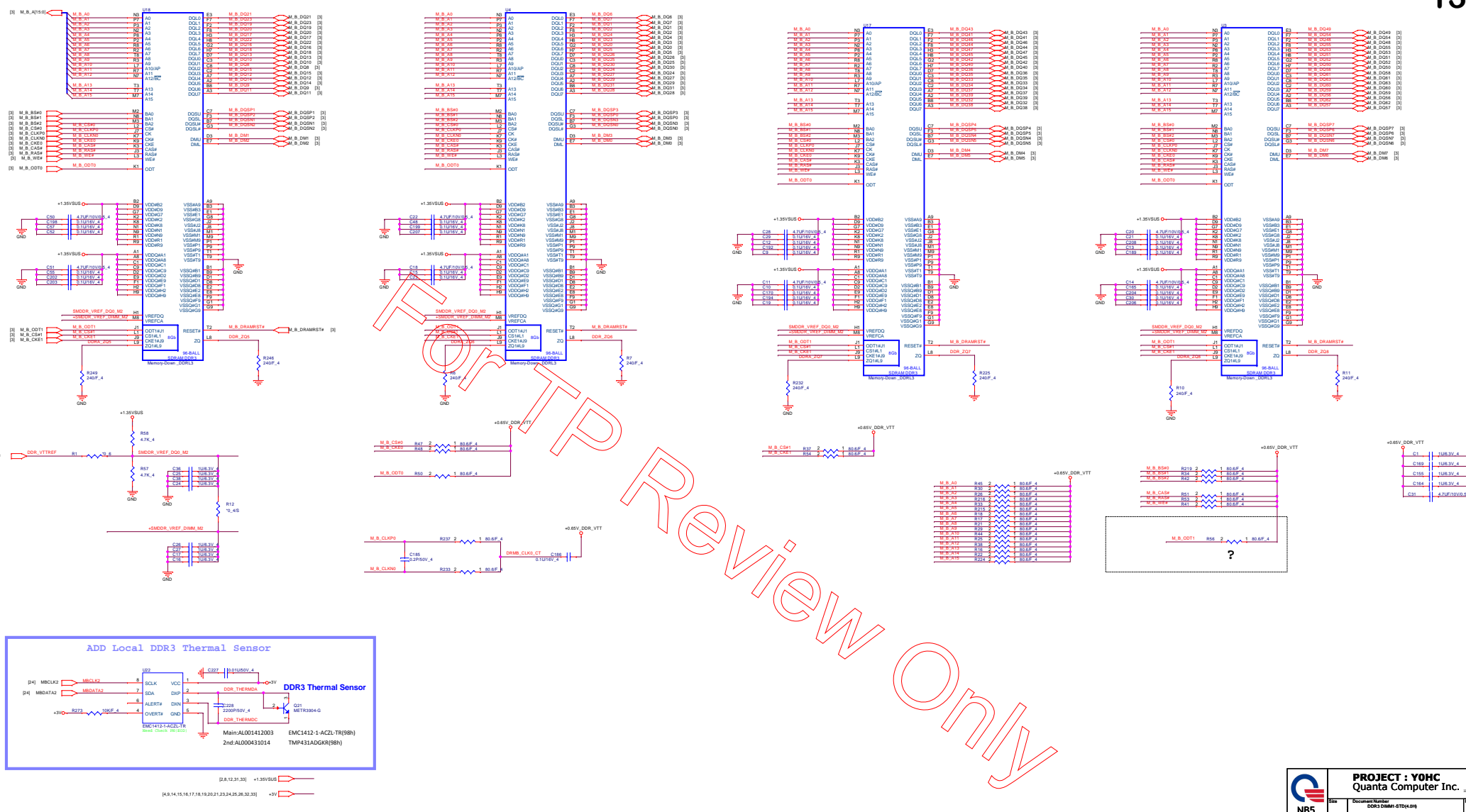


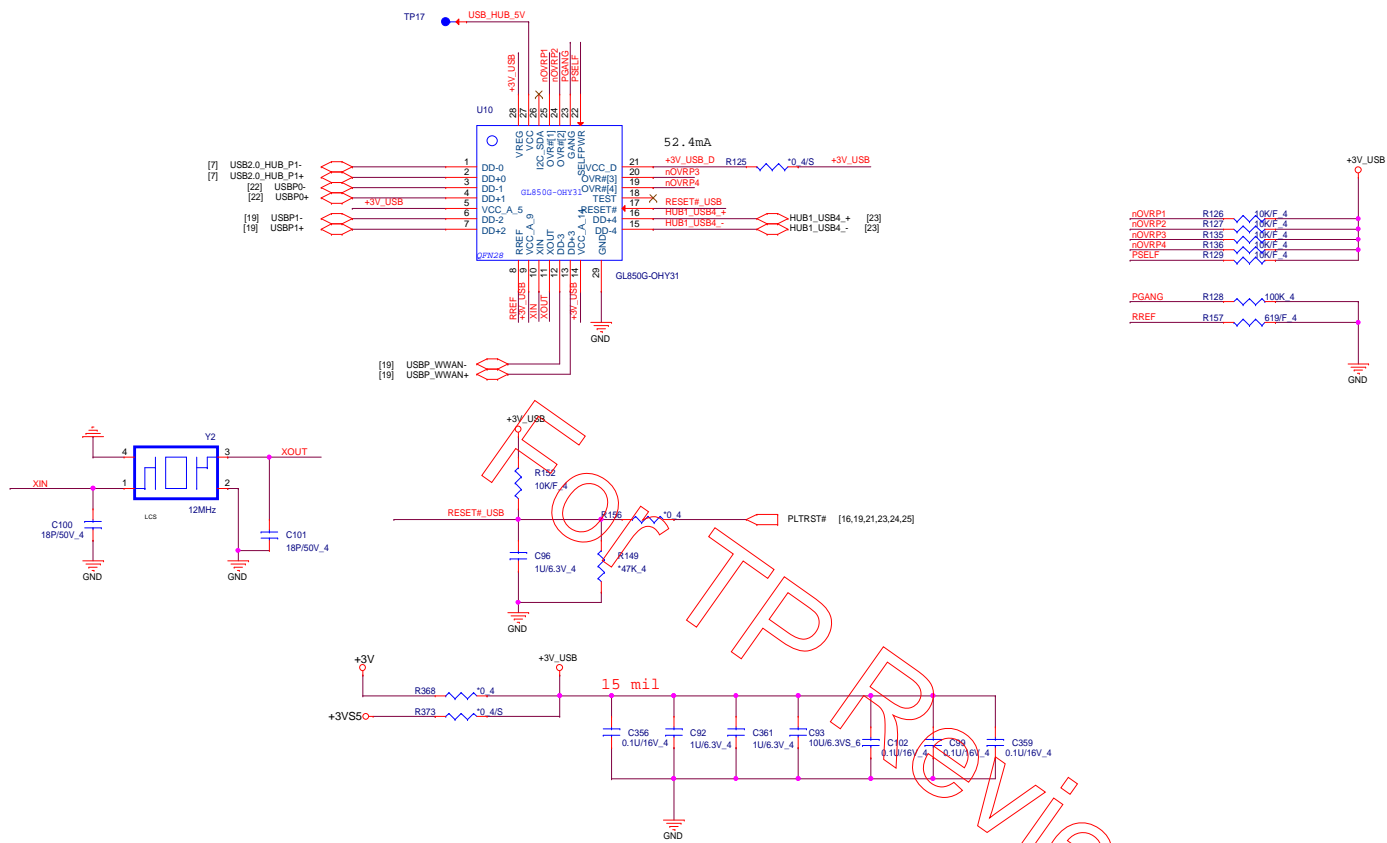


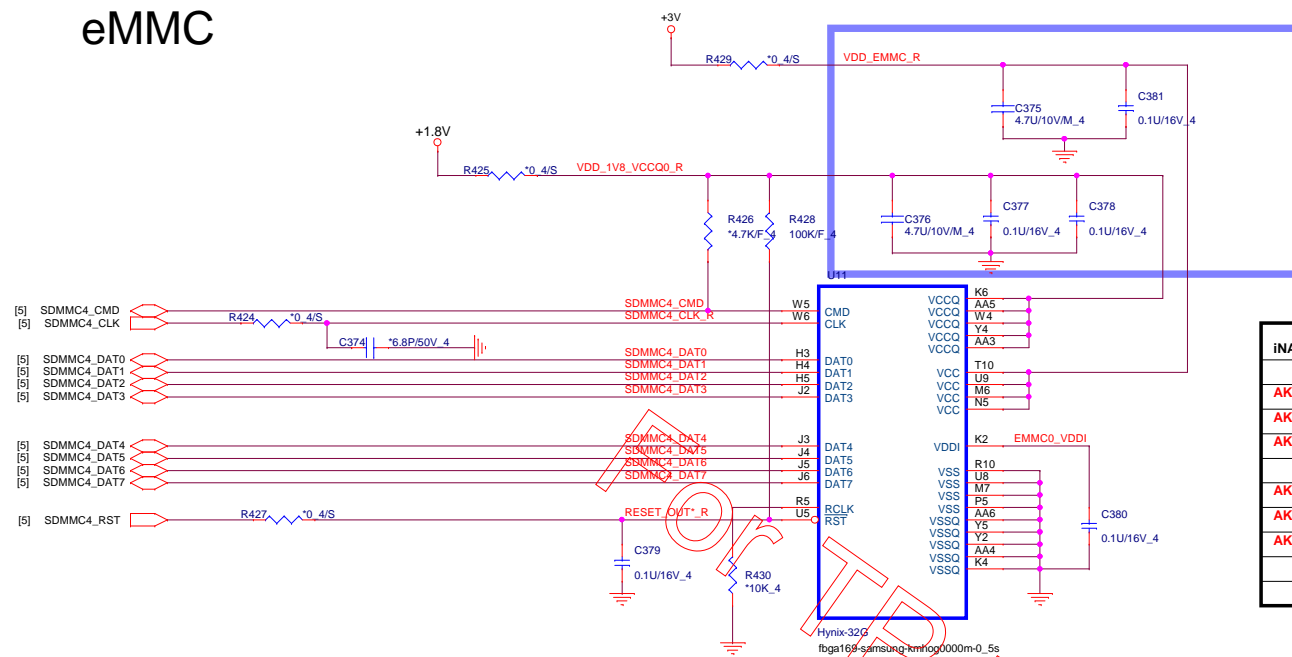
3/21 deleted XDP CH6

For TP Review Only



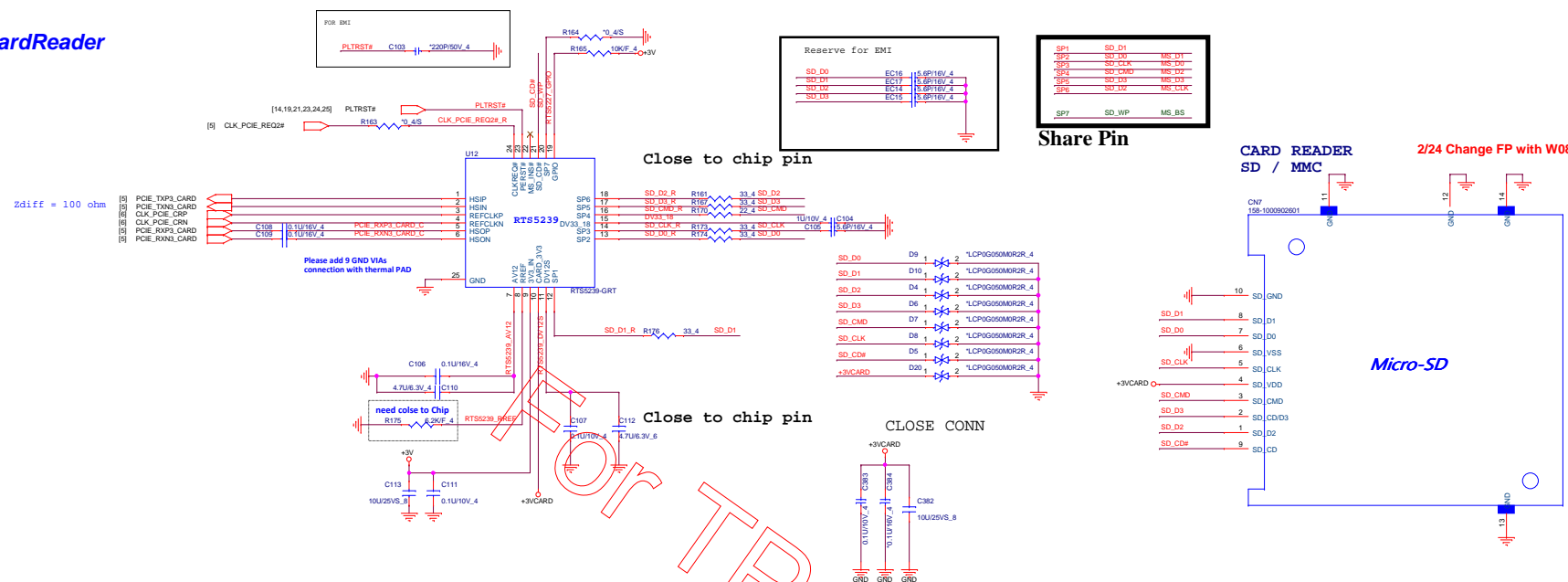


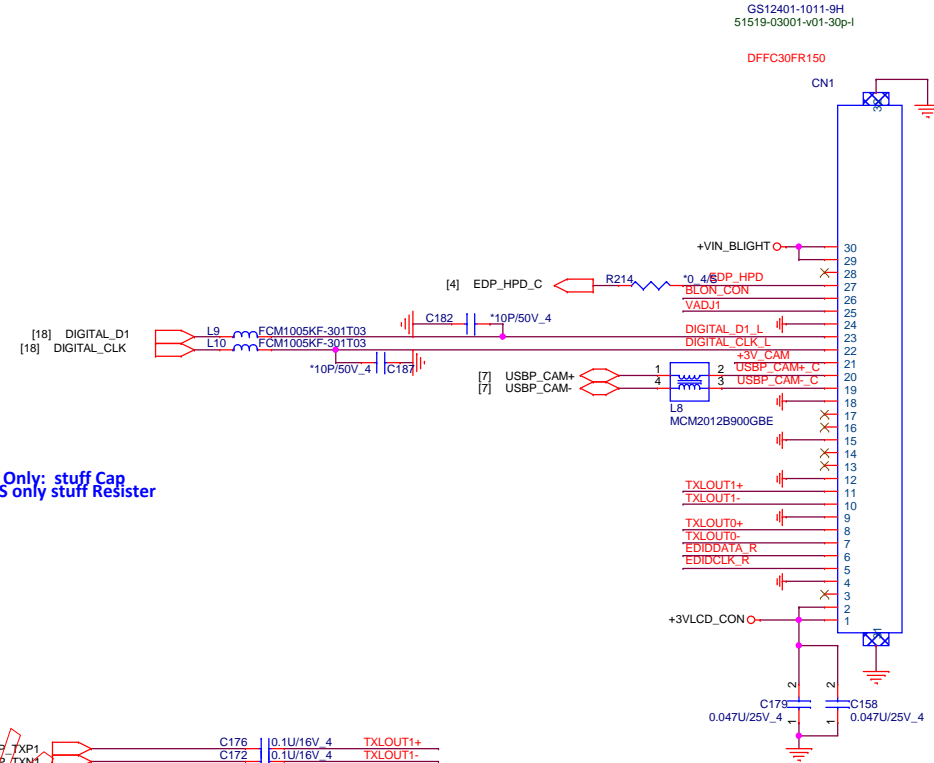




| iNAND (eMMC) V4.51 | | | | |
|--------------------|-------------|-----------------------------------|------|-----------------|
| TOPBSQ | QBCON | Description | SIZE | Vender |
| AKE3SZ-TW01 | AKE3SZ-TW02 | IC FLASH(153P)H26M64103EMR(FBGA) | 32G | Hynix (Default) |
| AKE5SZ0T513 | AKE5SZ0T512 | IC FLASH(153)KLMG4GEND-B031(FBGA) | 32G | samaung |
| AKE3SFUT000 | AKE3SFUT001 | IC FLASH(153P)SDIN9DW4-32G(FBGA) | 32G | SanDisk |
| AKE3TG-TW01 | AKE3TG-TW02 | IC FLASH(153P)H26M78103CCR(FBGA) | 64G | Hynix |
| AKE3TZPT521 | AKE3TZPT520 | IC FLASH(153)KLMG8GEND-B031(FBGA) | 64G | samaung |
| AKE3TFUT101 | AKE3TFUT102 | IC FLASH(153P)SDIN9DW4-64G(FBGA) | 64G | SanDisk |
| | | | | |
| | | | | |

Hynix-32G
fbga169-samsung-kmh00000m-0_5s
footprint : BGA 169 - BGA 153 co lay
BGA 169 PIN : 14mmX18mm
BGA 169 PIN : 12mmX16mm
BGA 153 PIN : 11.5mmX13mm





Close to HDMI connector

Q19

[4] SDVO_CLK

[1] SDVO_DATA

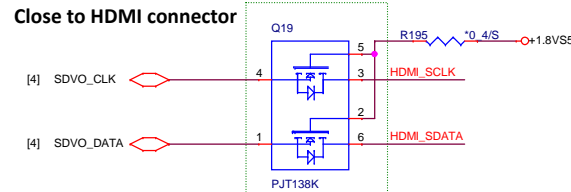
HDMI_SCLK

HDMI_SDATA

R195 *0.4/5

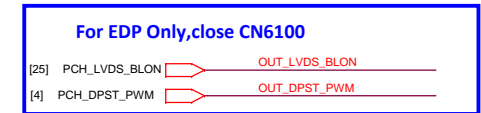
1.8VSS

PJT138K



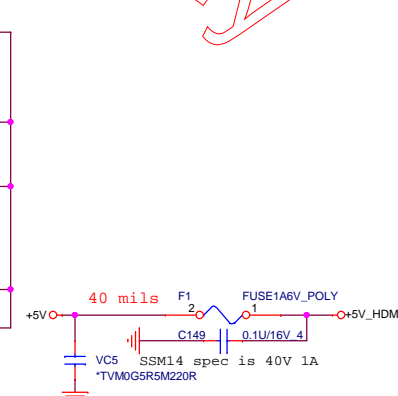
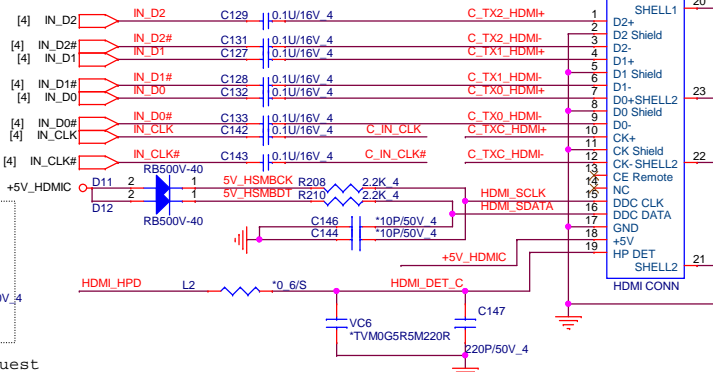
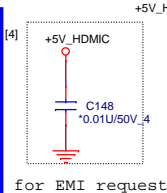
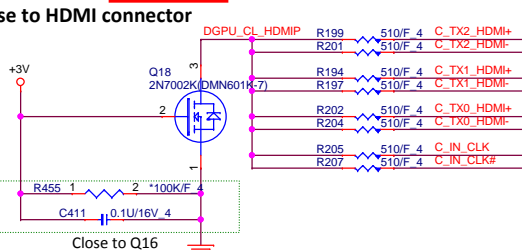
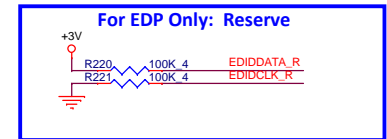
For EDP Only,close CN6100

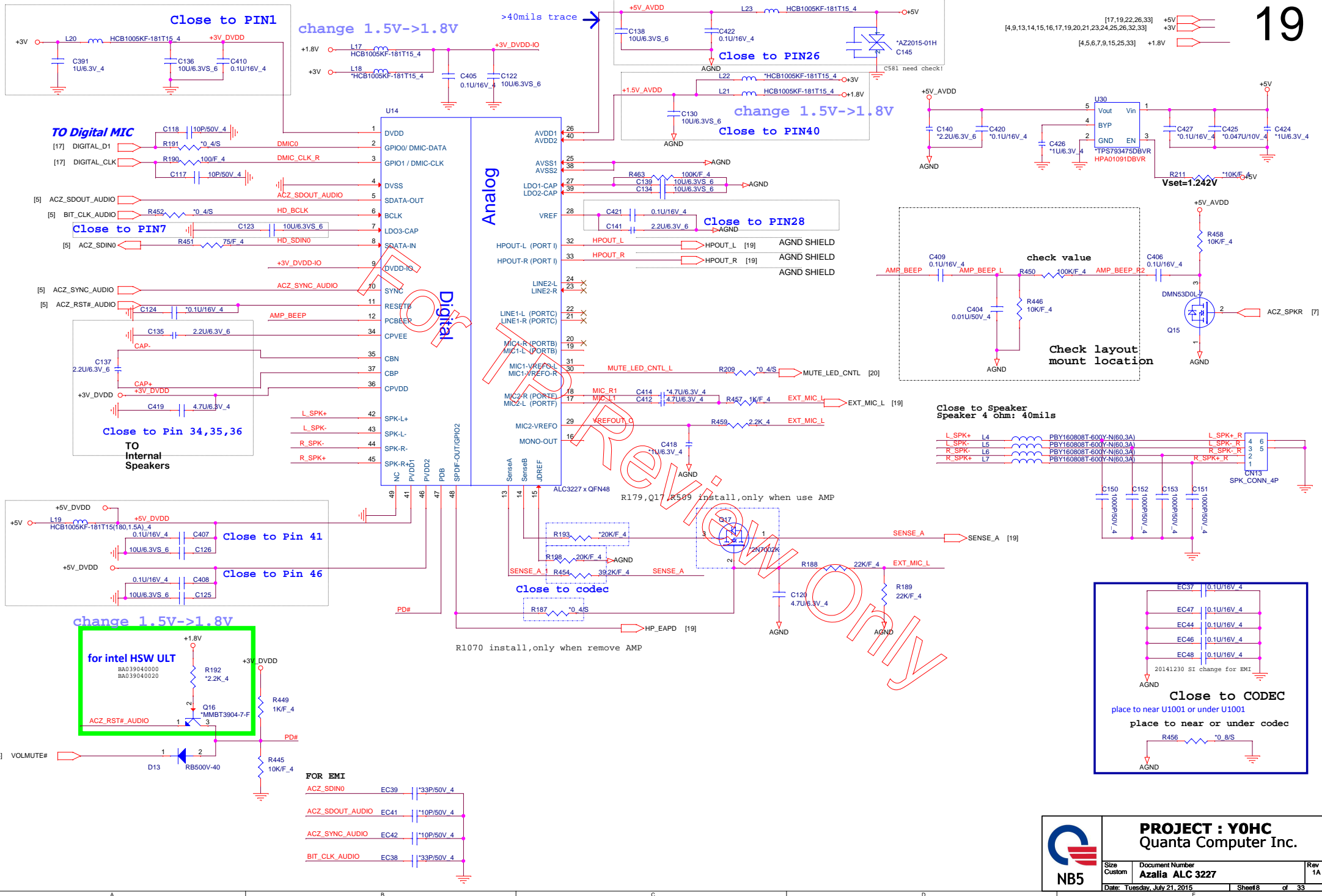
| | | |
|------|---------------|---------------|
| [25] | PCH_LVDS_BLON | OUT_LVDS_BLON |
| [4] | PCH_DPST_PWM | OUT_DPST_PWM |



For EDP Only: Reserve

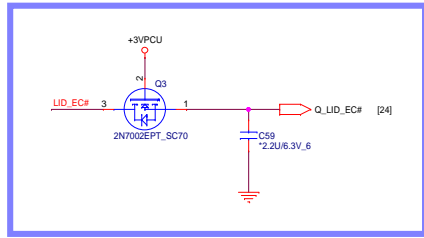
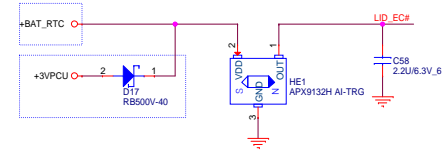
Diagram showing a circuit for EDP Only: Reserve. It includes a +3V supply, resistors R220, R221, and two 100K resistors, and signals EDIDDATA_R and EDIDCLK_R.





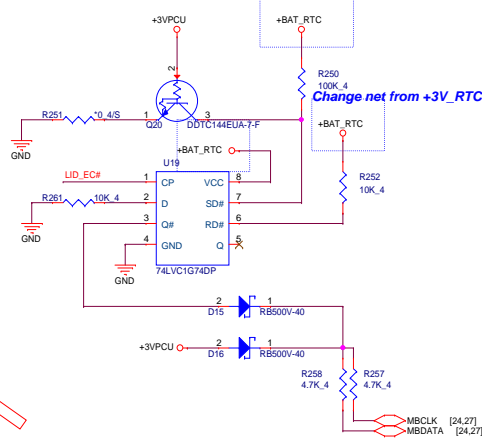
LID

Change net from +3V_RTC to +BAT_RTC



check with Y0BC?

Change net from +3V_RTC to +BAT_RTC

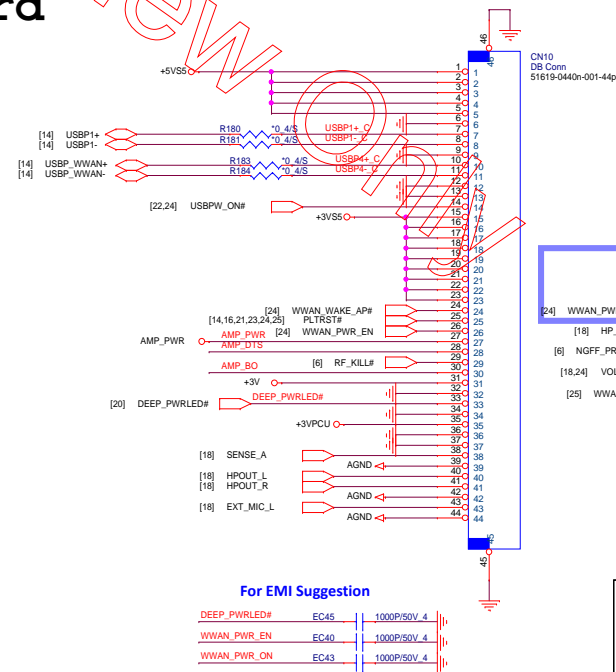
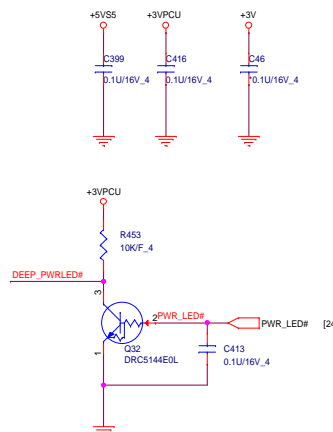
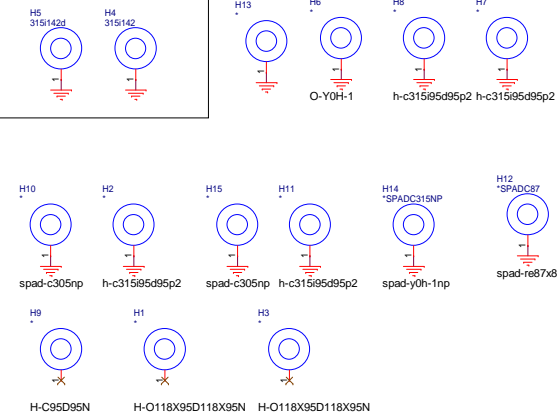


| Input | SD | RD | CP | D | Q | Q̄ |
|-------|----|----|----|---|---|----|
| L | H | X | X | X | H | L |
| H | L | X | X | X | L | H |
| L | L | X | X | X | H | H |

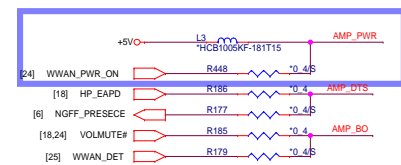
[1] H = HIGH voltage level;
L = LOW voltage level;
X = don't care.

| Input | SD | RD | CP | D | Q _{n+1} | Q̄ _{n+1} |
|-------|----|----|----|---|------------------|-------------------|
| H | H | ↑ | L | L | L | H |
| H | H | ↑ | H | H | H | L |

[1] H = HIGH voltage level;
L = LOW voltage level;
↑ = LOW-to-HIGH CP transition;
Q_{n+1} = state after the next LOW-to-HIGH CP transition.

Daughter Board**HOLE****Thermal Nut**

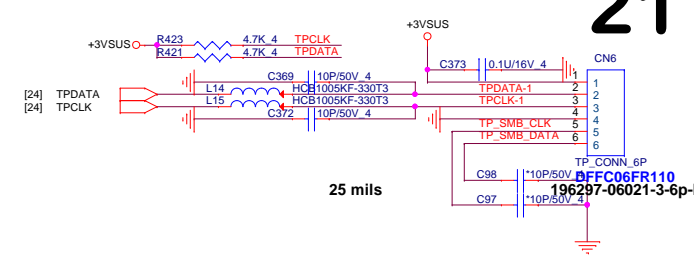
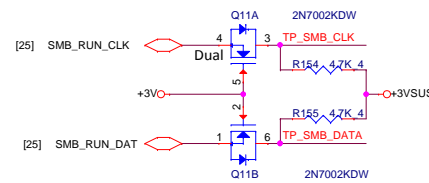
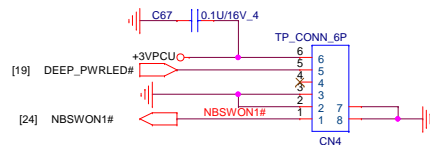
Check with EC&BIOS



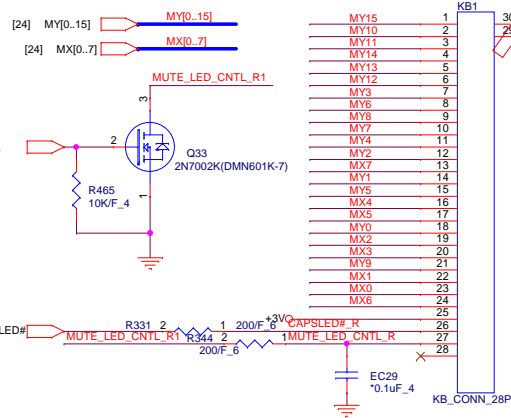
For EMI Suggestion

I'm from VIETNAM [sualaptop365](http://sualaptop365.com)

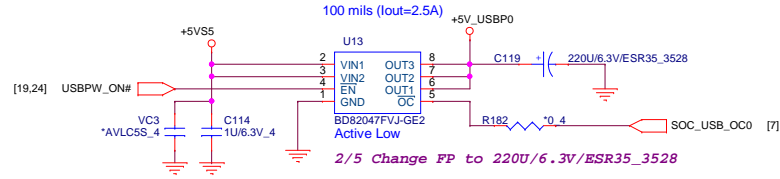
Touch Pad Connector



KEYBOARD Con.



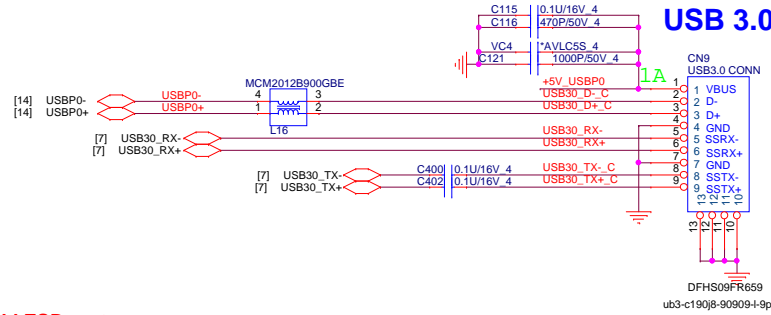
USB 2.0/3.0 Combo



20141223: SI build
Stuff L8 for EMI

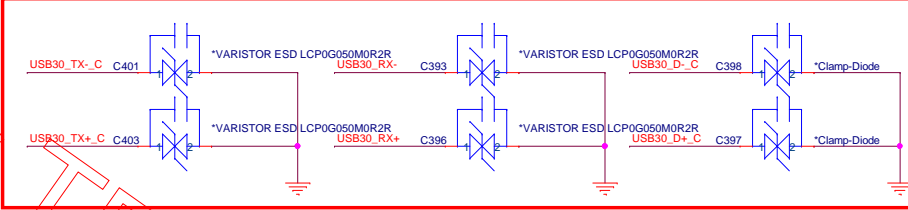
20141223: SI build
Stuff VC2 for ESD

USB 3.0



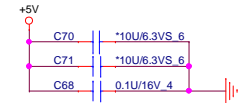
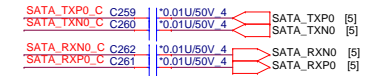
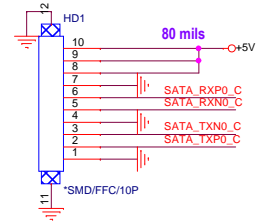
Del UART debug

2/25 Add ESD part

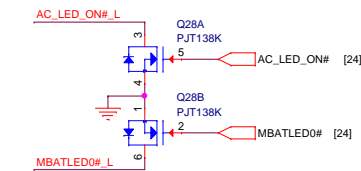


HDD

3/24 Change pin define as Napa

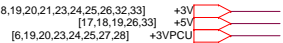
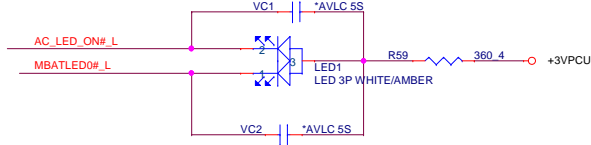


2/26 add LED MOS

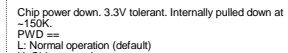


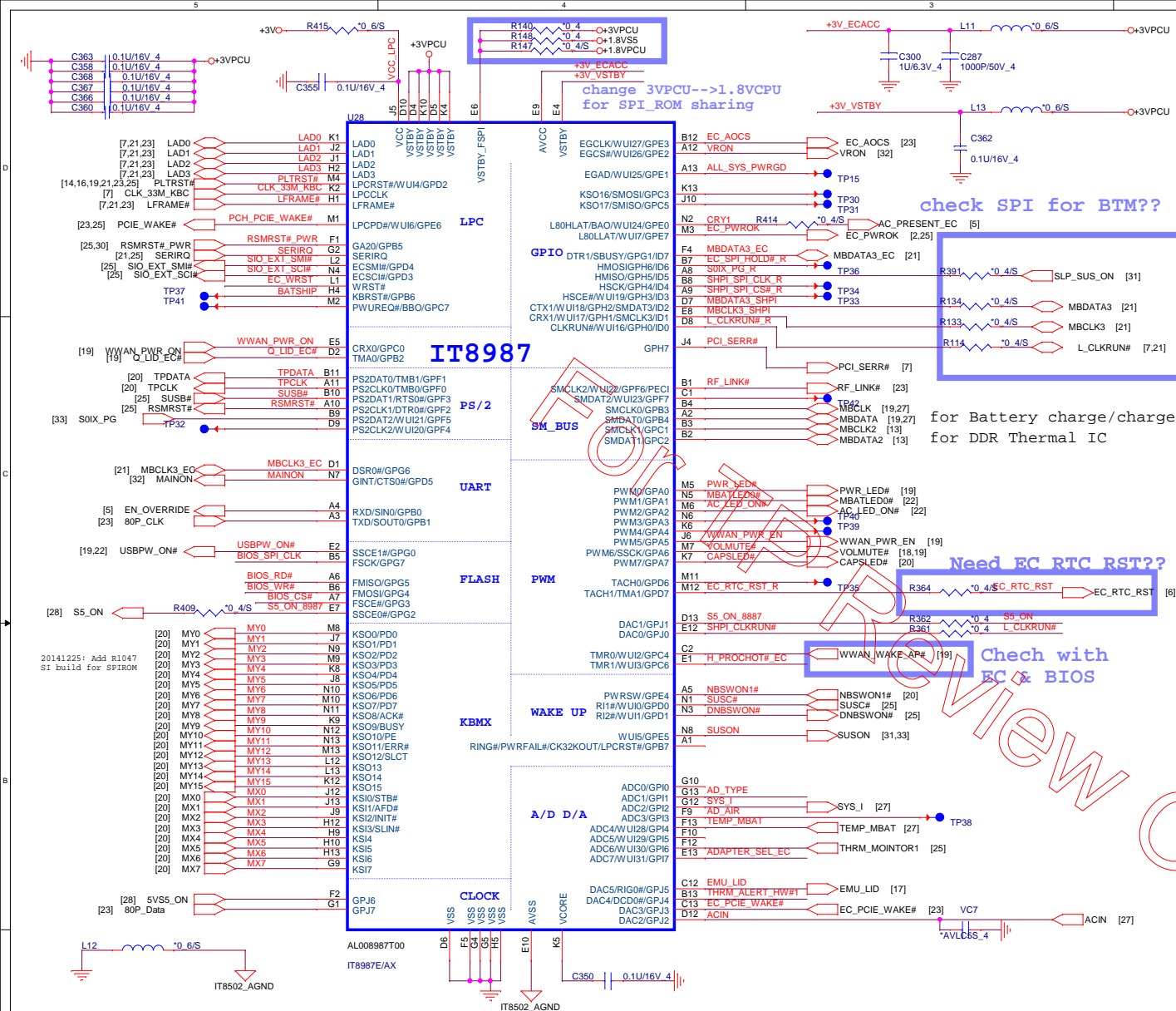
PWR LED

2/10 need check with EC



| | | | |
|--|---|----------------------------|---------------|
| | PROJECT : Y0HC Quanta Computer Inc. | | |
| | Size | Document Number | Rev |
| | | RTS5141 CARD READER | 1A |
| | Date: | Tuesday, July 21, 2015 | Sheet#2 of 33 |



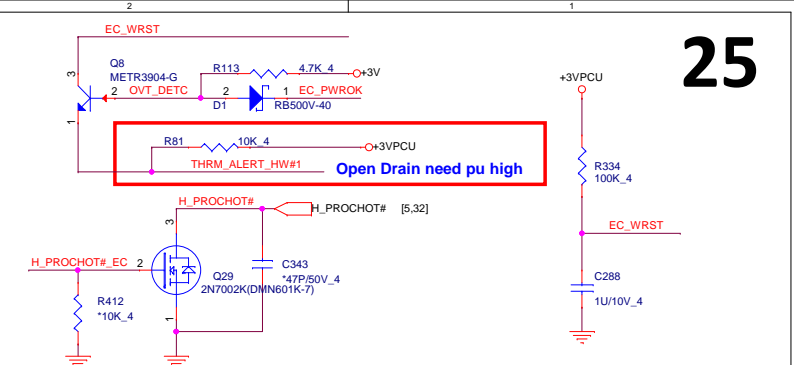


EC 8987 PN : AJ089870F01
EC 8887 PN : AJ088870T00
SI Build BOM Option

Close to EC

| | | | | |
|--------------|------|--------|--------------|-----|
| BIOS_WR# | R405 | 15/F 4 | SOC_SPI_MOSI | [6] |
| BIOS_RD# | R403 | 15/F 4 | SOC_SPI_MISO | [6] |
| BIOS_CS# | R393 | 15/F 4 | SOC_SPI_CS# | [6] |
| BIOS_SPI_CLK | R408 | 15/F 4 | SOC_SPI_CLK | [6] |

change EC SPI R to 15/F_4 ohm



Adapter select for EC

+3VPCU R347 *10K 4 ADAPTER_SEL_EC R348 10K 4

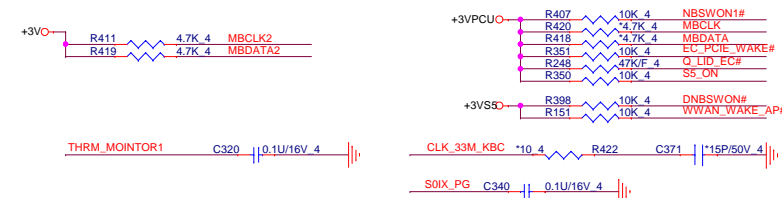
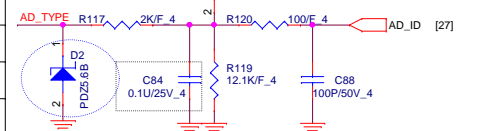
DIS Middle ==> (65W) Stuff R5016 and R5017

UMA Low ==>(45W) Stuff R5017 only

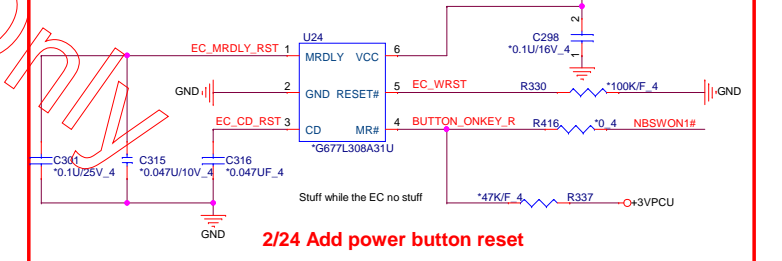
adapter Type check

+3VPCU
Change to 1SS355 as Current loss

| | | |
|---------|-----|-----|
| Adapter | 65W | 45W |
| UMA | X | Low |
| | | |
| | | |



Power Button Reset

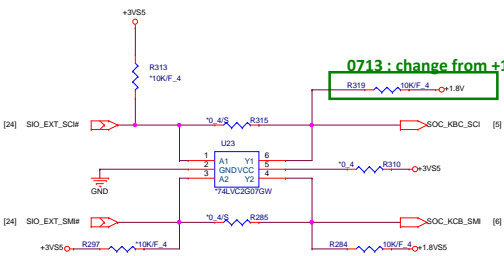
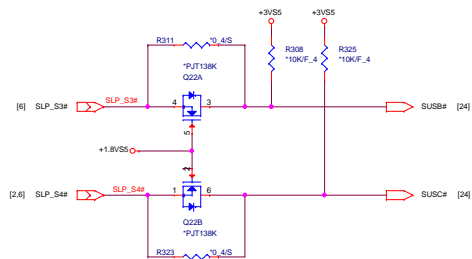
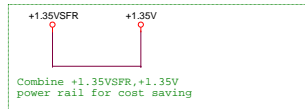
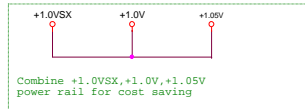
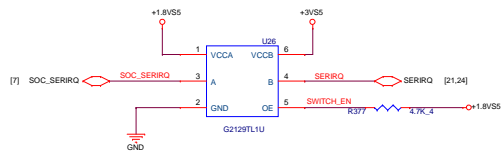


[4,9,13,14,15,16,17,18,19,20,21,23,25,26,32,33]
[6,19,20,22,23,25,27,28]

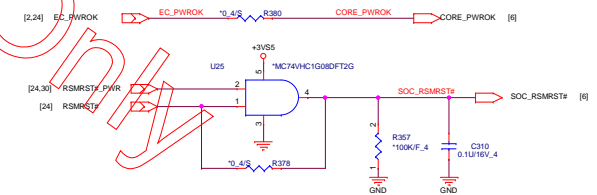
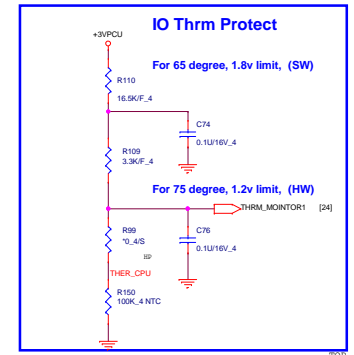
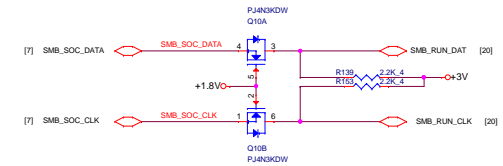
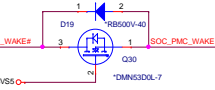
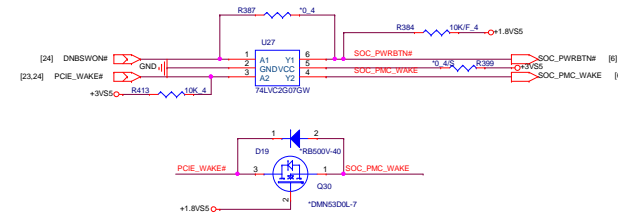
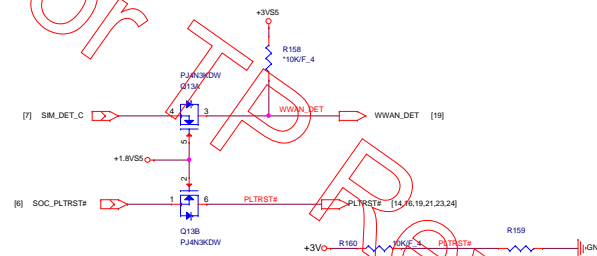
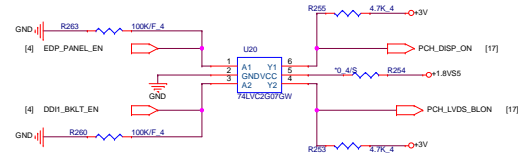


PROJECT : Y0HC
Quanta Computer Inc.

| | | |
|------------------------------|--|----------------|
| Size Custom | Document Number WLAN/G-Sensor/G-CLK/TS | Rev 1A |
| Date: Tuesday, July 21, 2015 | | Sheet 24 of 33 |



0713 : change from +1.8VSS to +1.8V for leakage

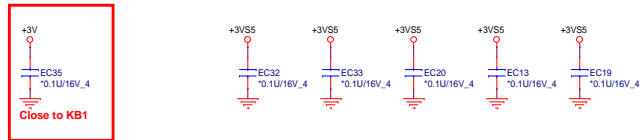
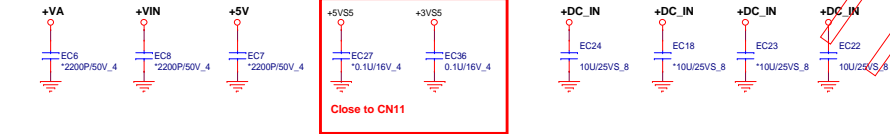


| PROJECT : YOHC Quanta Computer Inc. | | | |
|--|------|------------------------|----------------|
| NB5 | Size | Document Number | Rev |
| | | Level 1/1/1/Thermistor | 1A |
| | Date | Yunday, July 21, 2015 | Sheet 25 of 33 |

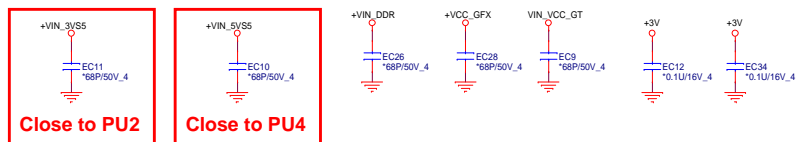
I/O port definition

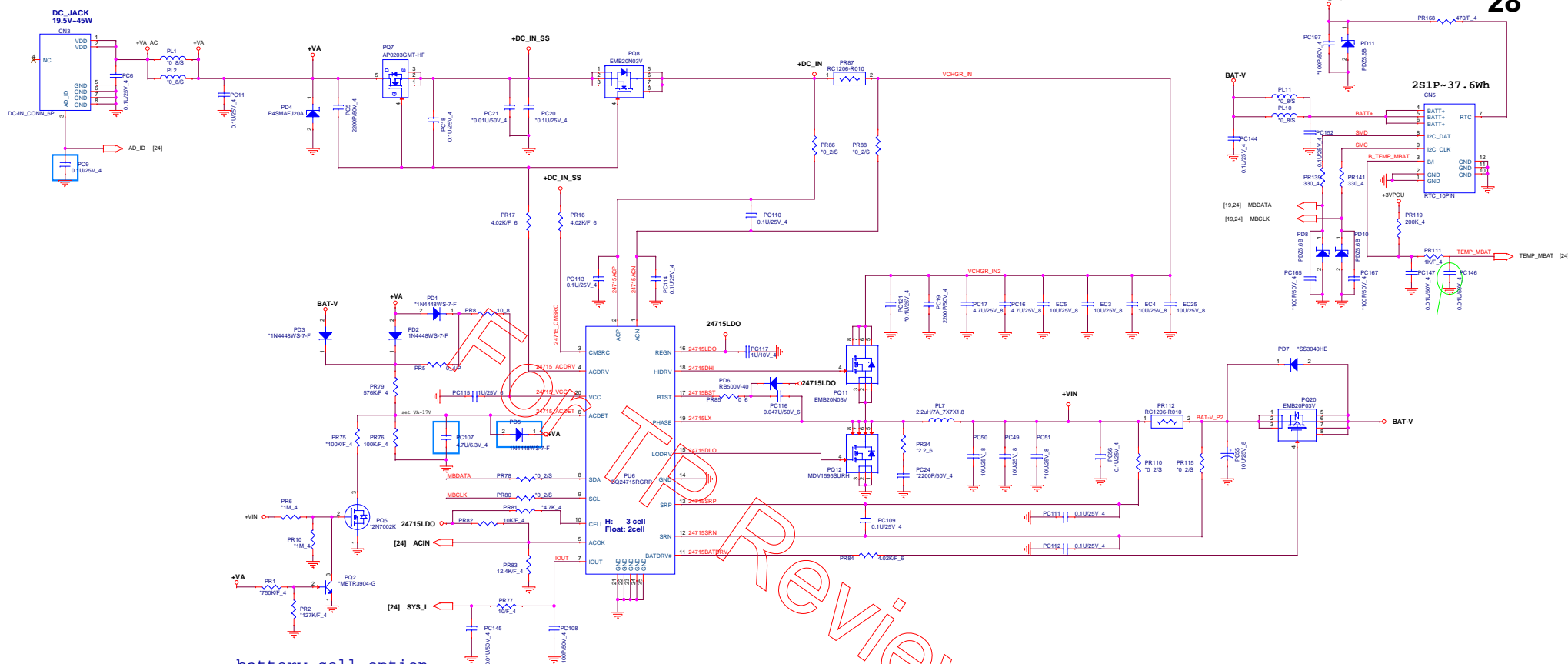
| | Brasswell-M | Note |
|--------------|-------------------|------|
| SATA Port0 | HDD | |
| SATA Port1 | ODD | |
| PCIE Port0 | Card reader | |
| PCIE Port1 | | |
| PCIE Port2 | | |
| PCIE Port3 | WIFI | |
| USB3.0 Port0 | USB 2.0/3.0 Combo | |
| USB3.0 Port1 | | |
| USB3.0 Port2 | | |
| USB3.0 Port3 | | |
| USB2.0 Port0 | USB 2.0/3.0 Combo | |
| USB2.0 Port1 | USB 2.0 | |
| USB2.0 Port2 | Webcam | |
| USB2.0 Port3 | BT | |
| USB2.0 Port4 | WWAN | |

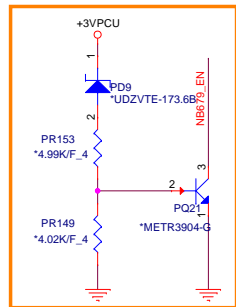
EMI Reserve



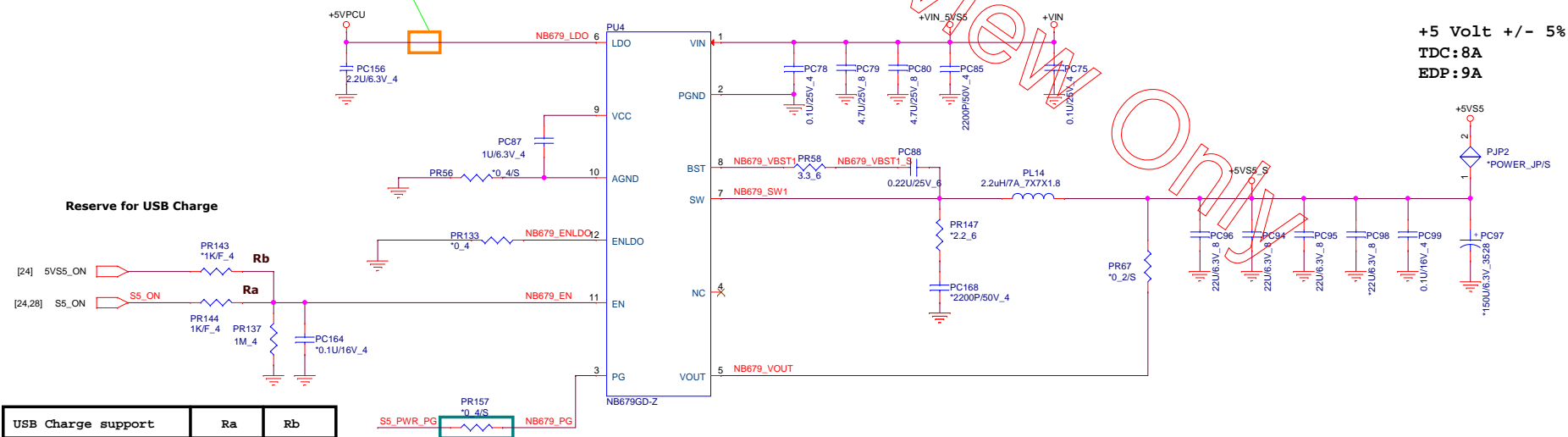
RF Reserve





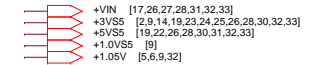


Reserve



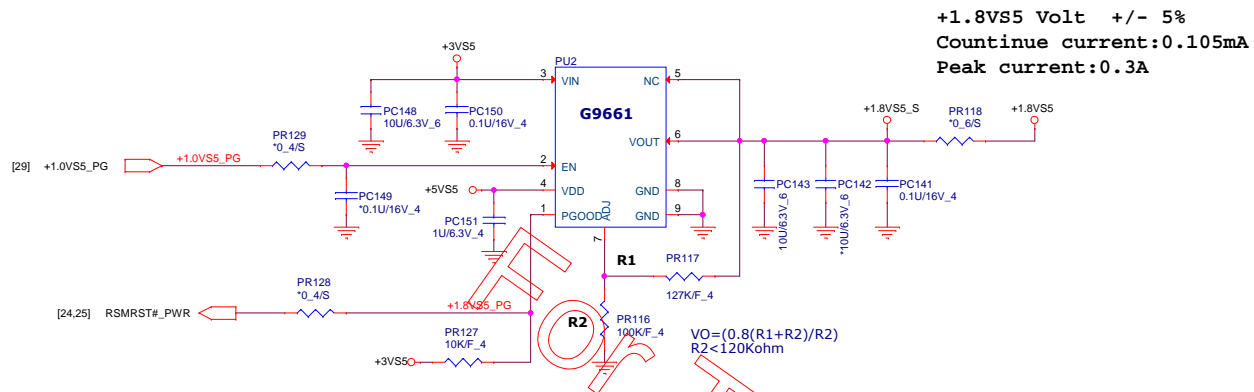
Reserve for USB Charge

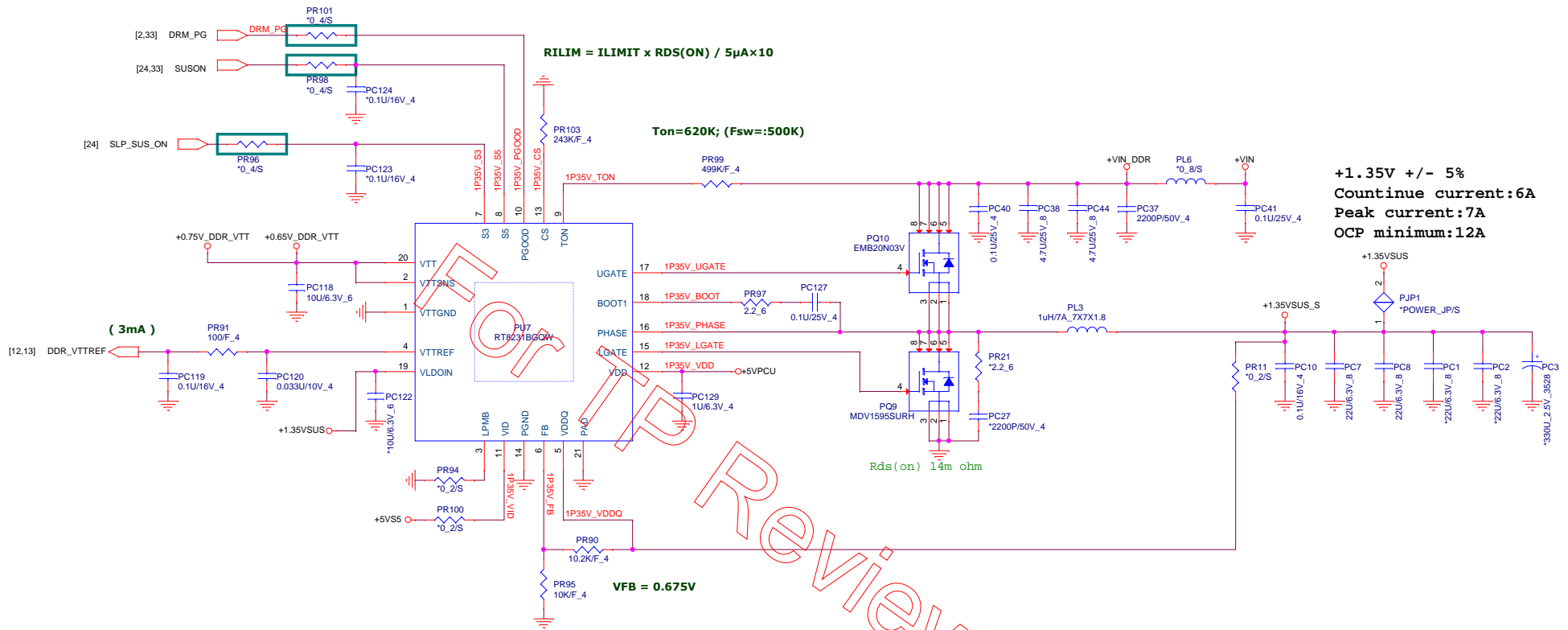
| | | |
|--------------------|-------|-------|
| USB Charge support | Ra | Rb |
| Vine (No support) | Stuff | NA |
| Envy (Support) | NA | Stuff |



+1.0VS5 Volt +/- 5%
Countinue current:0.2mA
Peak current:0.36A

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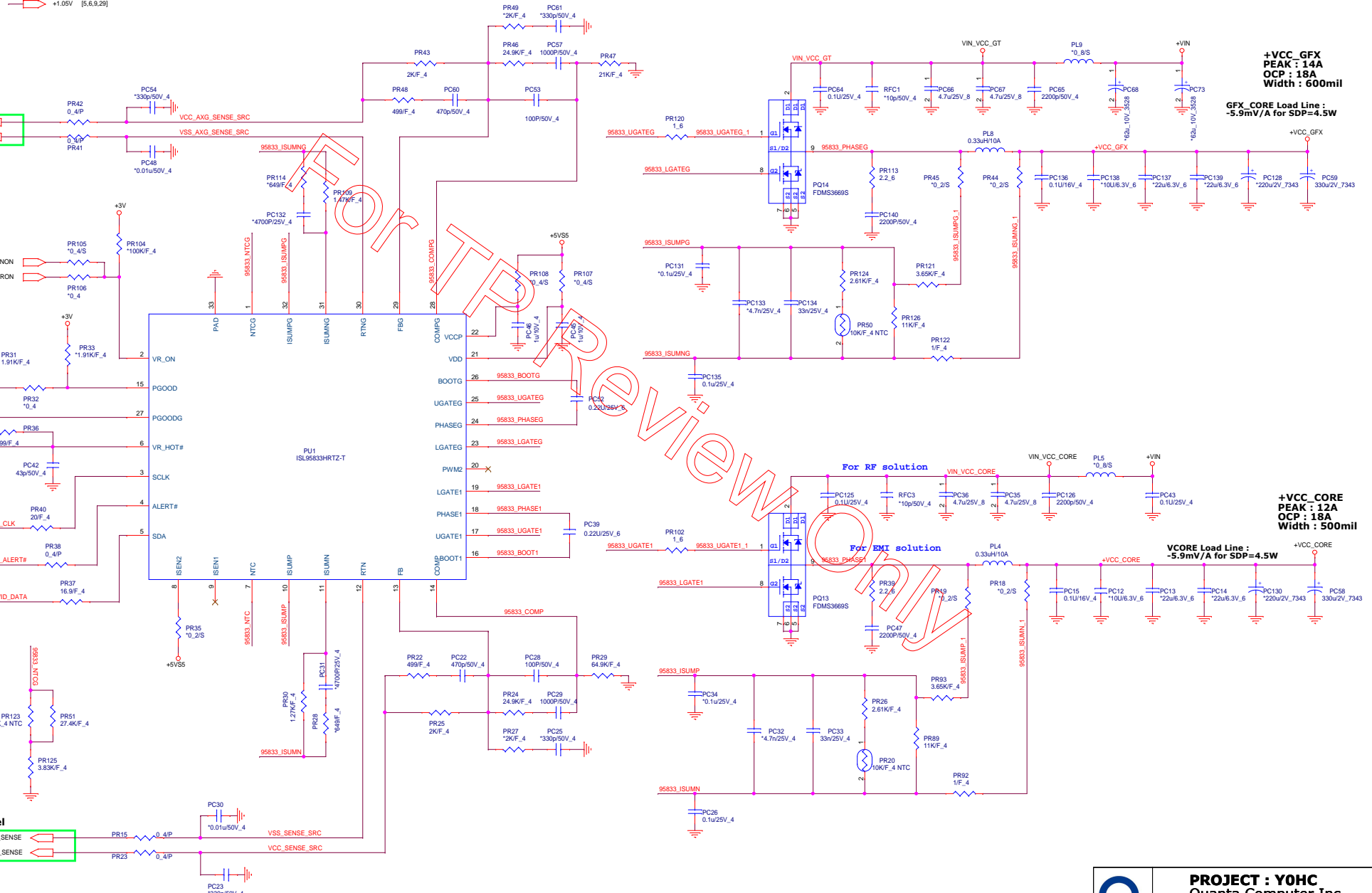
PROJECT : Y0HC
Quanta Computer Inc.

| Size | Document Number | Rev |
|-------|------------------------|--------------|
| | DDR3 (RT8231B)1.8VS5 | 1A |
| Date: | Tuesday, July 21, 2015 | Sheet1 of 33 |

- +VIN [17,26,27,28,29,31,33]
- +3VSS [2,9,14,19,23,24,25,26,28,29,30,33]
- +5VSS [19,22,26,28,29,30,31,33]
- +1.0VSS [9,29]
- +VCC_GFX [8,9,26]
- +VCC_CORE [8]
- +3V [4,9,13,14,15,16,17,18,19,20,21,23,24,25,26,33]
- +1.05V [5,6,9,29]

Parallel

- [8] VCC_AXG_SENSE
- [8] VSS_AXG_SENSE



+VCC_GFX
PEAK : 14A
OCP : 18A
Width : 600mil

GFX_CORE Load Line :
-5.9mV/A for SDP=4.5W

+VCC_CORE
PEAK : 12A
OCP : 18A
Width : 500mil

VCCORE Load Line :
-5.9mV/A for SDP=4.5W

Parallel

- [8] VSS_SENSE
- [8] VCC_SENSE

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| | | | |
|------------------------------|-----------------------|-------------------------------------|--------|
| | PROJECT : Y0HC | | Rev 1A |
| | Quanta Computer Inc. | | |
| | Size Custom | Document Number +VCC_CORE(ISL95833) | |
| Date: Tuesday, July 21, 2015 | | Sheet 32 of 33 | |

