# WM8650 10inch SmartBook IO Board

WMS8134C

## Power Tree:

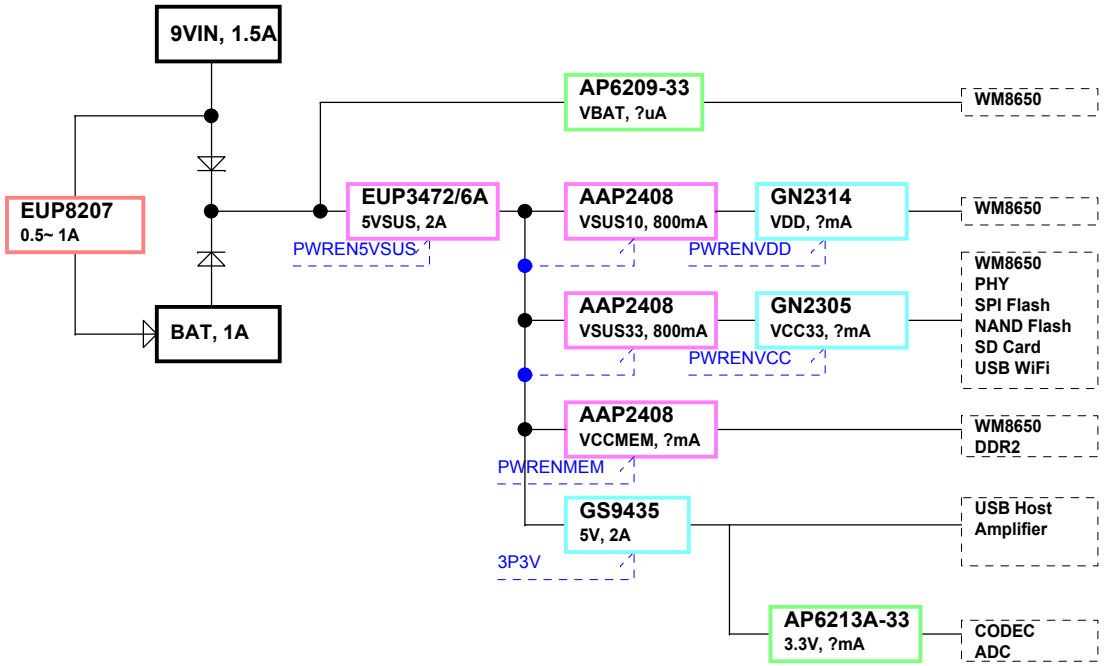



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**Illustration:**

Charger | DC-DC | LDO | MOS-FET | DOIDE

Source | Load

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| | | |
|---|---|---|
| Title: Cover Page | | |
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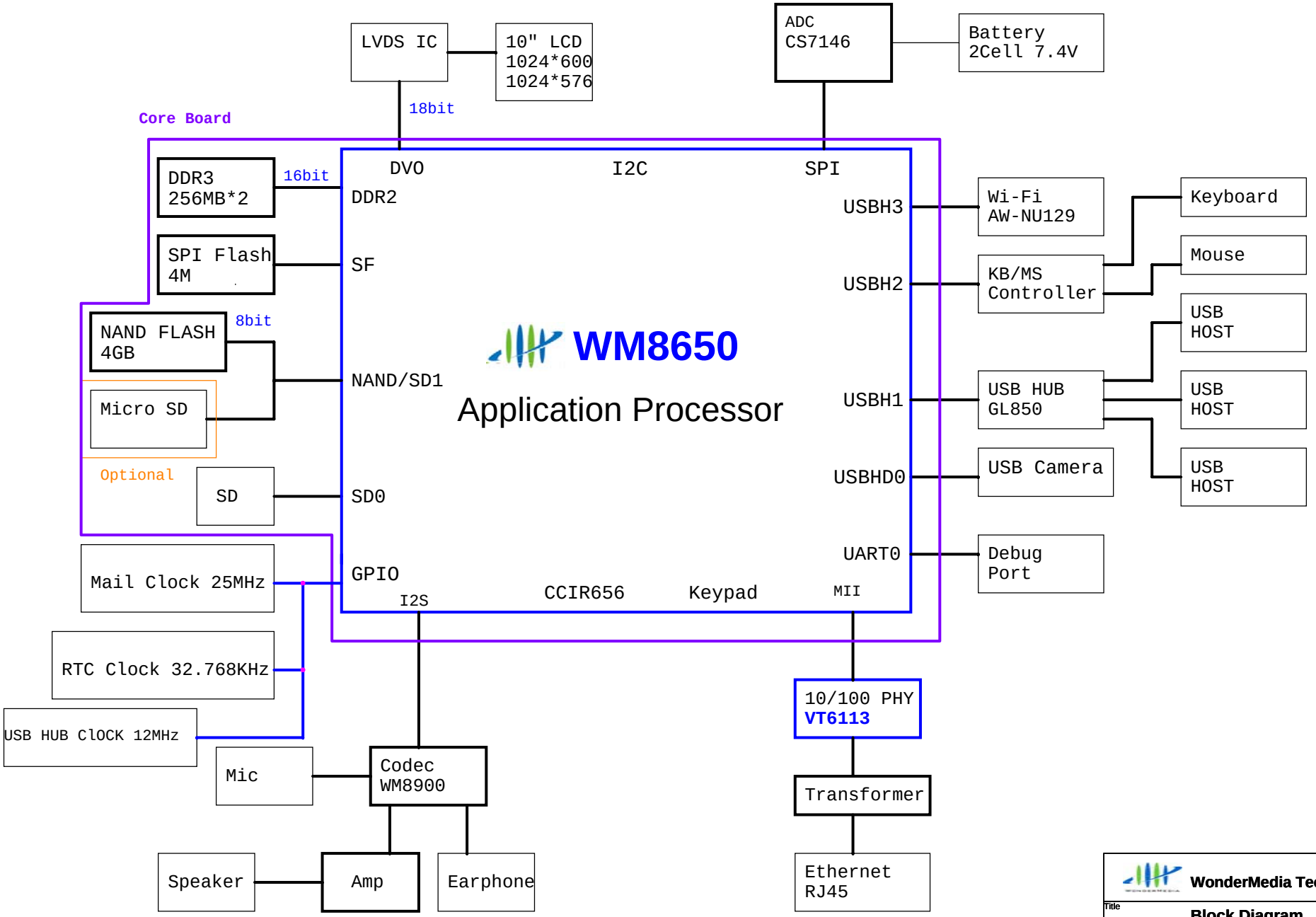
# Block Diagram

## (10inch SmartBook)

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|---|---|---|
| WonderMedia Technologies, Inc. | | |
| Title: Block Diagram | | |
| Size: Custom | Document Number: WMS8134C | Rev: 1.0 |
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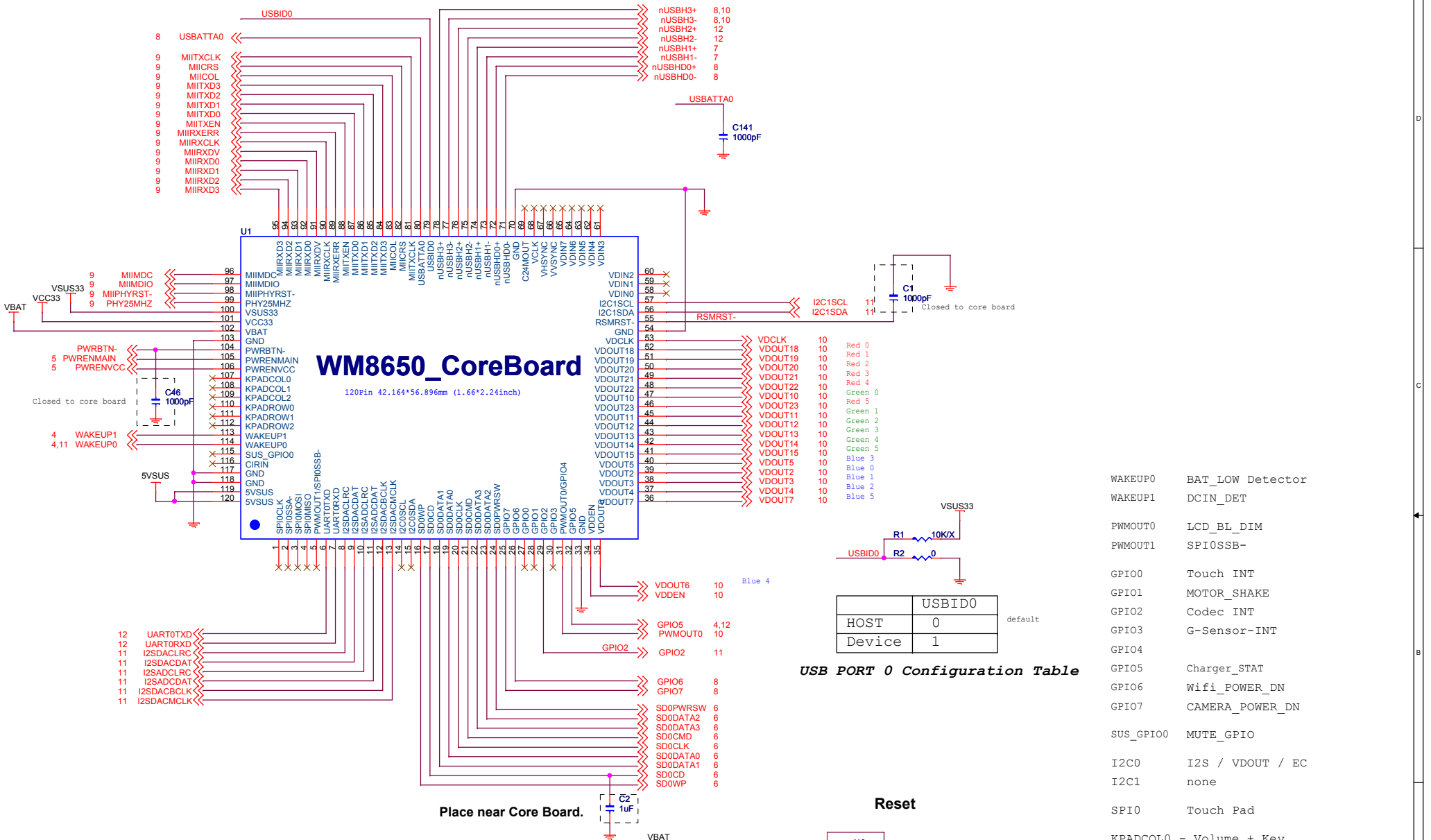
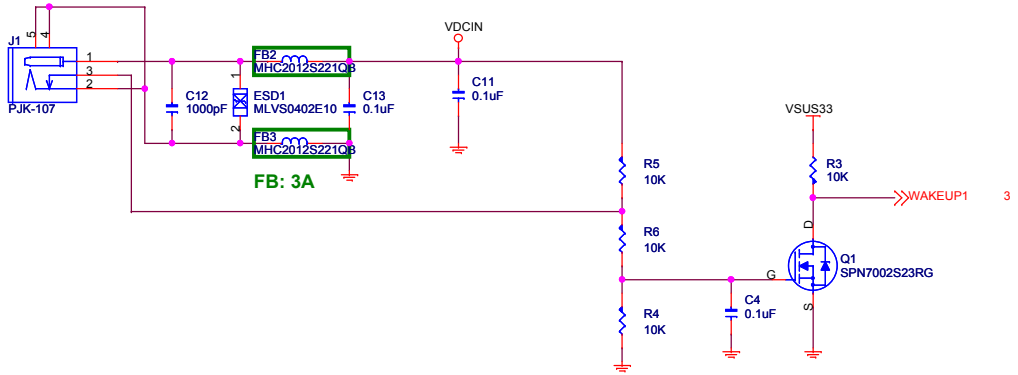

WM8650_CoreBoard
120Pin 42.164*56.896mm (1.66*2.24inch)
U1
Place near Core Board.
Reset
USB PORT 0 Configuration Table
USBID0
HOST 0
Device 1
default
WAKEUP0 BAT_LOW Detector
WAKEUP1 DCIN_DET
PWMOUT0 LCD_BL_DIM
PWMOUT1 SPI0SSB-
GPIO0 Touch INT
GPIO1 MOTOR_SHAKE
GPIO2 Codec INT
GPIO3 G-Sensor-INT
GPIO4
GPIO5 Charger_STAT
GPIO6 Wifi_POWER_DN
GPIO7 CAMERA_POWER_DN
SUS_GPIO0 MUTE_GPIO
I2C0 I2S / VDOUT / EC
I2C1 none
SPI0 Touch Pad
KPADCOL0 - Volume + Key
KPADCOL1 - Volume - Key
KPADROW0 - BACK Key
KPADROW1 - Menu Key
WonderMedia Technologies, Inc.
Core Board Package
WMS8134C
Monday, January 24, 2011
Sheet 3 of 14

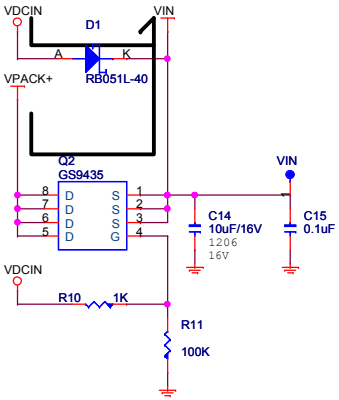
# DC-IN and Battery

## 9V DC Input 1.5A

DC adapter requirement
Voltage:(9.7V Max)
9V min @1.5A

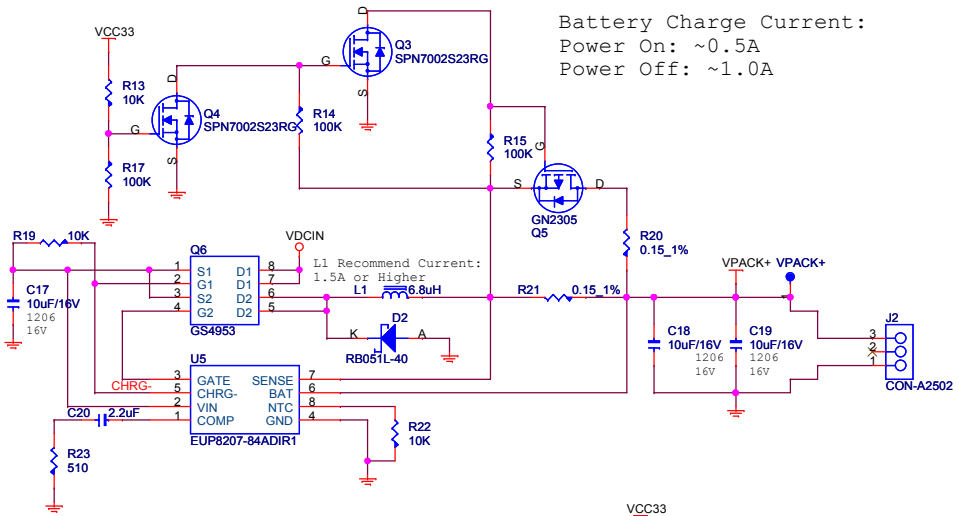


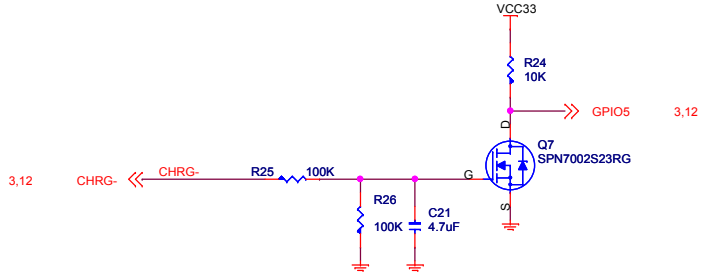

## DC Switch



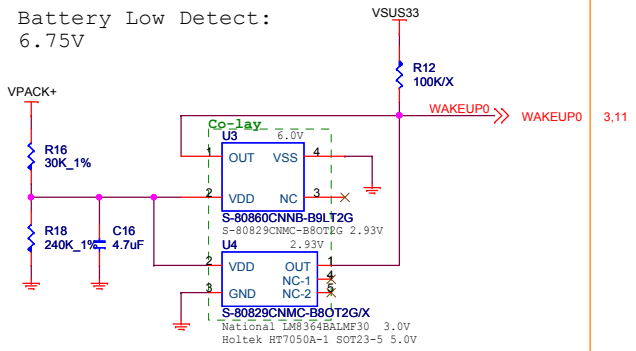

## Battery charger 2-Cell

Battery Charge Current:
Power On: ~0.5A
Power Off: ~1.0A




Battery Low Detect:
6.75V




**Replacement:**

| IC | R2 | R3 | |
|---|---|---|---|
| 5.0V | 30K | 84.5K | 6.78V |
| 2.93V | 47K | 35.7K | 6.79V |
| 3.0V | 47K | 37.4K | 6.77V |

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| | | |
|---|---|---|
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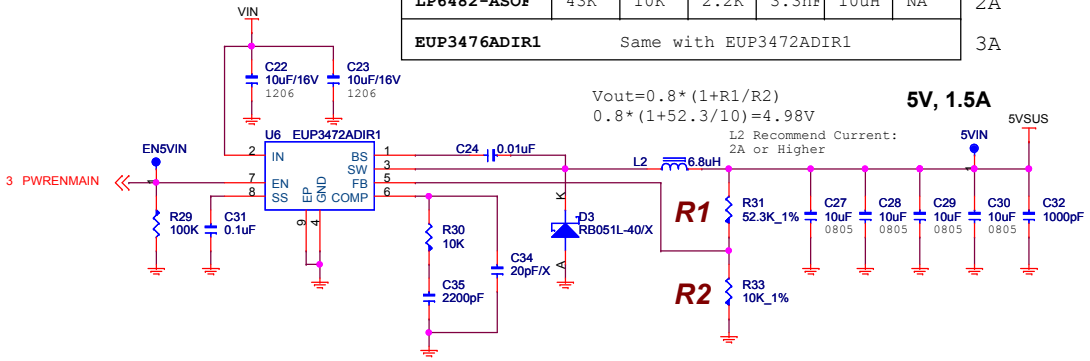
# Voltage Regulators

## VIN->5VSUS, 2A

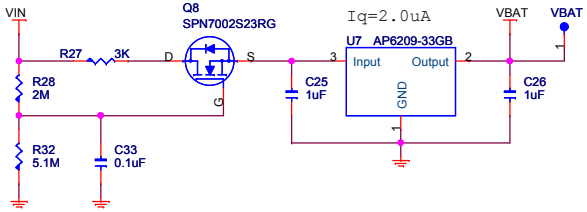
**Replacement:**

| U6 | R26 | R29 | R27 | C37 | L2 | D4 | |
|---|---|---|---|---|---|---|---|
| APW7156-KA | 43K | 10K | 20K | 4.7nF | 6.8uH | Yes | 3A |
| RT8272GSP | 43K | 10K | 41K | 2.2nF | 6.8uH | Yes | 3A |
| LP6482-ASOF | 43K | 10K | 2.2K | 3.3nF | 10uH | NA | 2A |
| EUP3476ADIR1 | Same with EUP3472ADIR1 | | | | | | 3A |

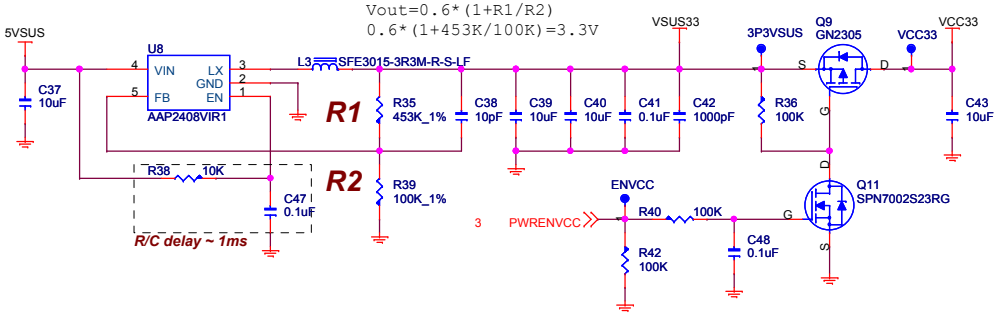



## VIN->VCCBAT 3.3V 10uA

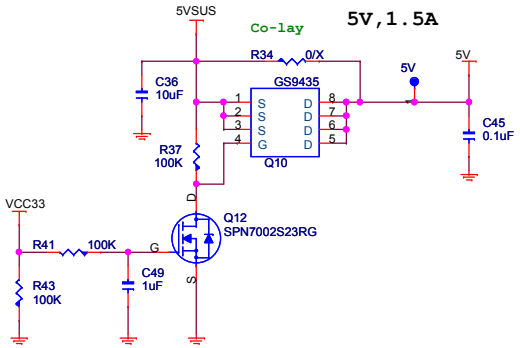
Recommend VIN Voltage:
6.0V Min~9.7V Max




## 5VSUS->3.3V 800mA




## 5VSUS->5V, 1.5A

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| | | |
|---|---|---|
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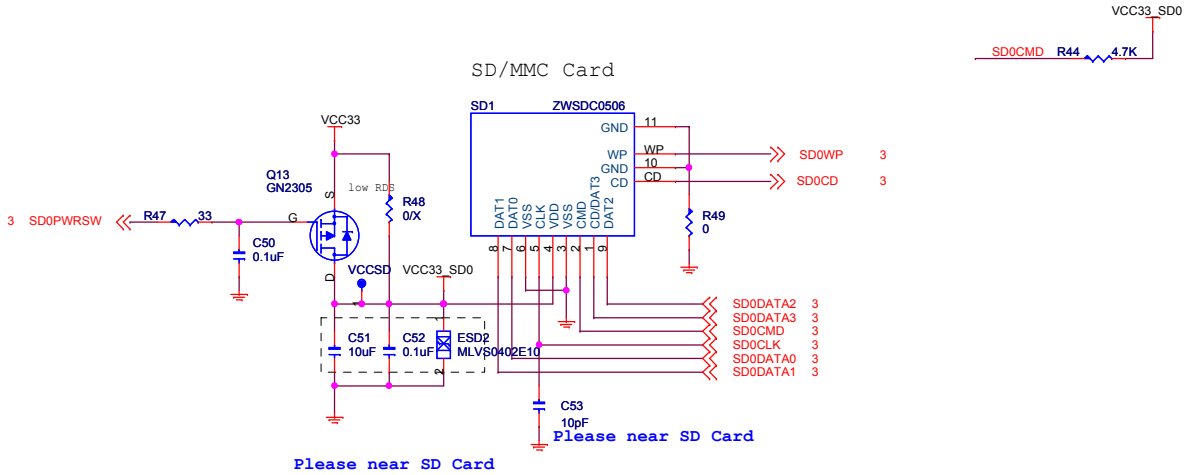
## SD Socket (SD/MMC only)







| | | |
|---|---|---|
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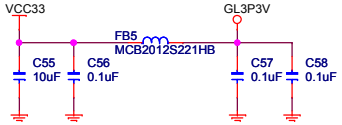
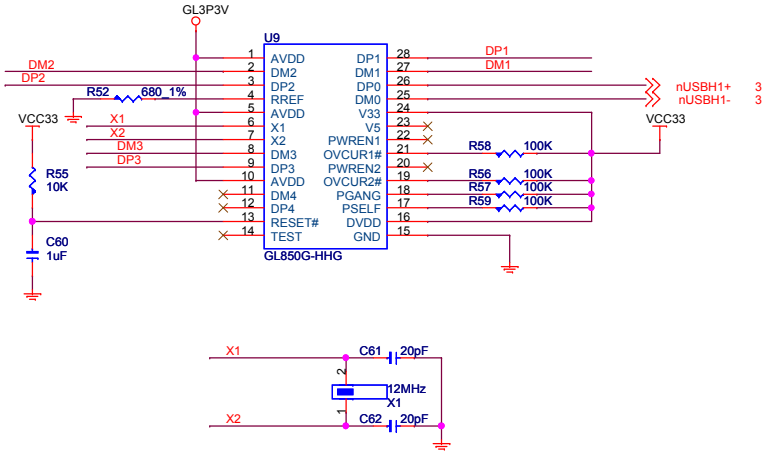
# USB HUB

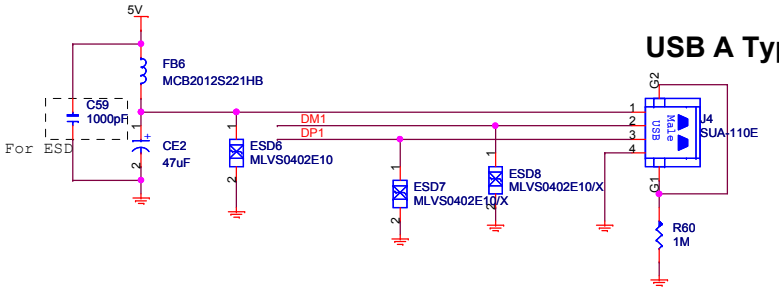


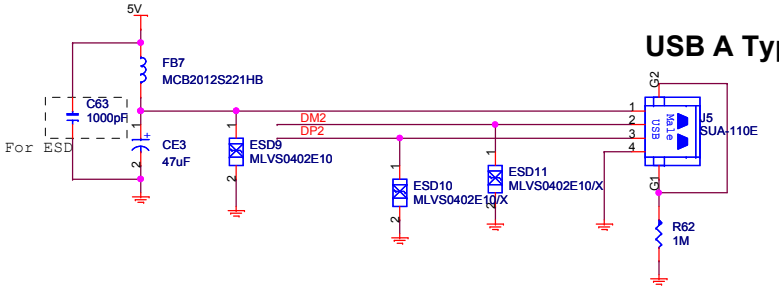




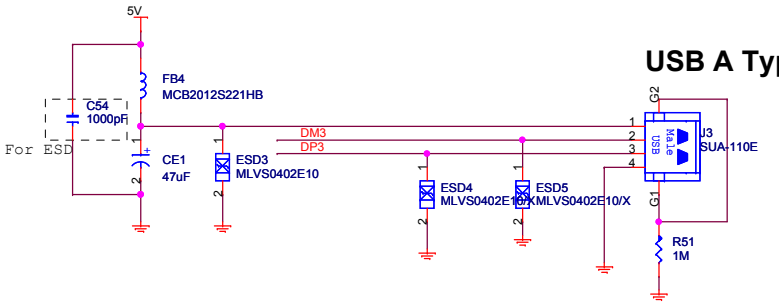
## USB A Type




## USB A Type




## USB A Type

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|---|---|---|
| WonderMedia Technologies, Inc. | | |
| Title: USB HUB | | |
| Size: Custom | Document Number: WMS8134C | Rev: 1.0 |
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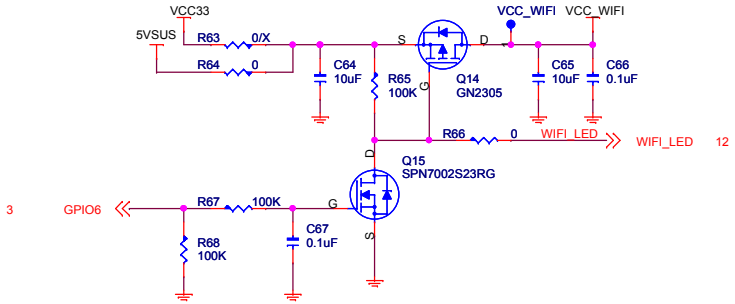
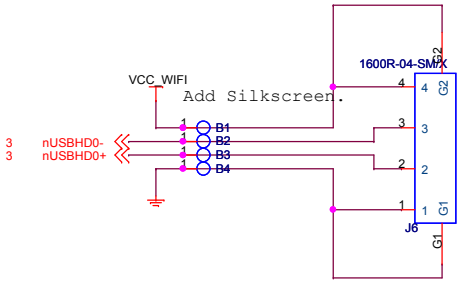
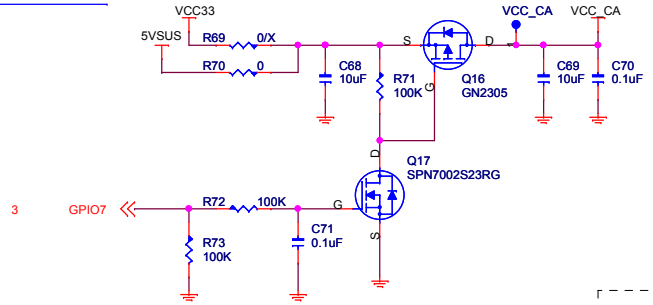
# USB WiFi

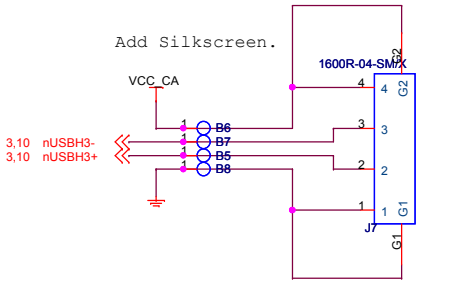
## USB WiFi

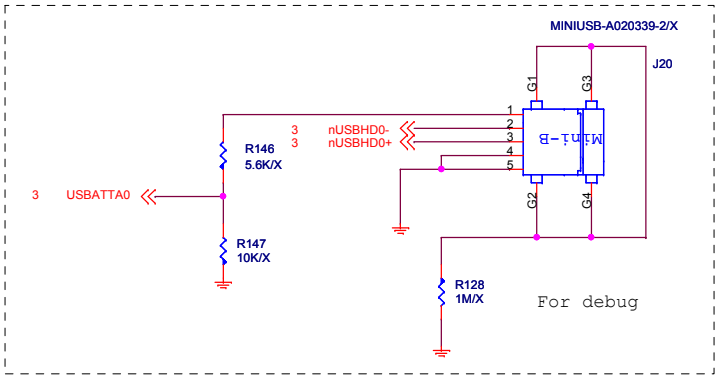



## USB Camera

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|---|---|---|
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| Title: USB WiFi/Camera | | |
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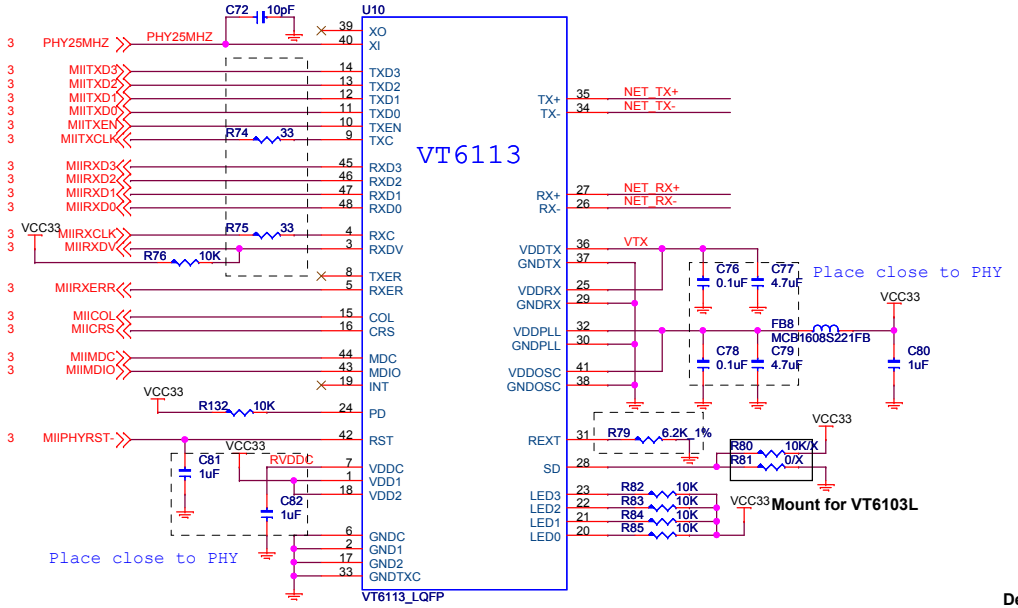
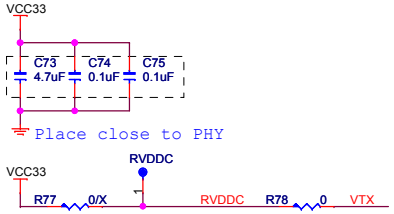
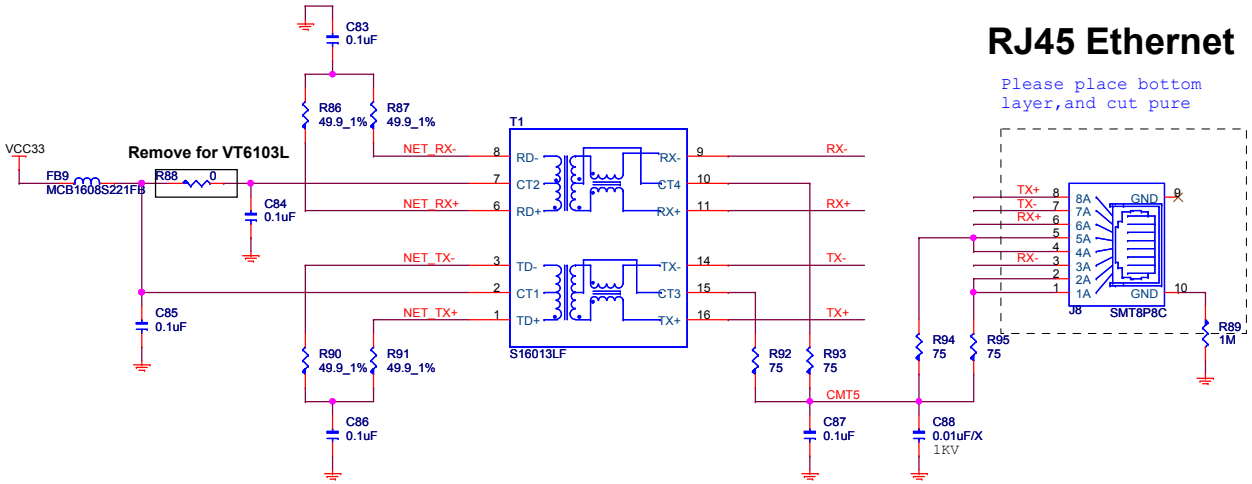
# Ethernet PHY




| | | R79 | R77 | R81 | R80 |
|---|---|---|---|---|---|
| Default | VT6113 | 6.2K | Remove | Remove | Remove |
| | VT6103X | 6.49K | Mount | Remove | Mount |




## RJ45 Ethernet

Please place bottom layer,and cut pure

| | |
|---|---|
| Title | Ethernet PHY |
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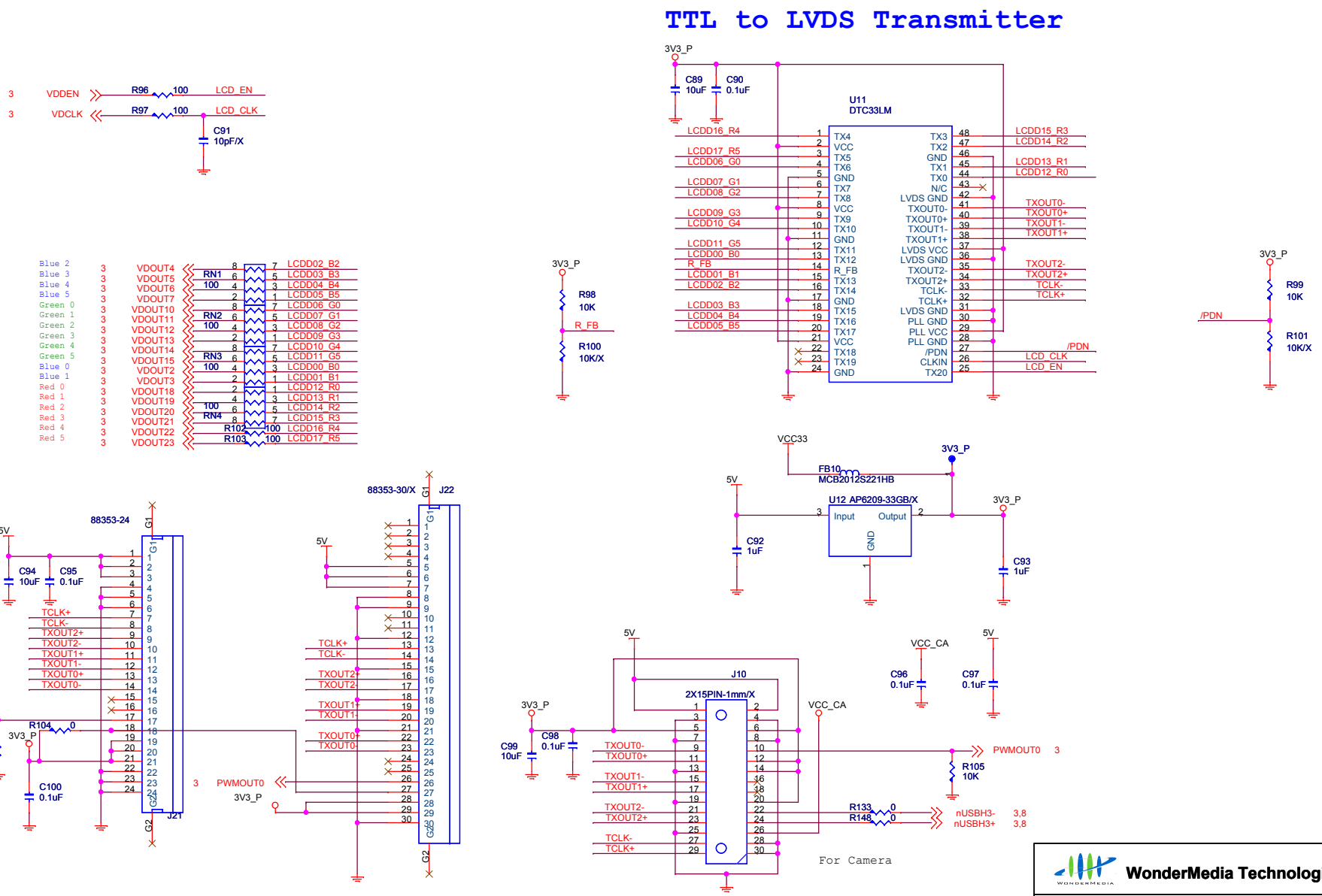
# LCD Panel


TTL to LVDS Transmitter
U11
DTC33LM
3V3_P
C89 10uF
C90 0.1uF
R98 10K
R_FB
R100 10K/X
R99 10K
/PDN
R101 10K/X
FB10 MCB2012S221HB
VCC33
U12 AP6209-33GB/X
Input
Output
GND
C92 1uF
C93 1uF
5V
VDDEN
VDCLK
R96 100
R97 100
LCD_EN
LCD_CLK
C91 10pF/X
RN1 100
RN2 100
RN3 100
RN4 100
R102 100
R103 100
88353-24
88353-30/X
J21
J22
C94 10uF
C95 0.1uF
C100 0.1uF
R104 0
R150 100K
PWMOUT0
TCLK+
TCLK-
TXOUT2+
TXOUT2-
TXOUT1+
TXOUT1-
TXOUT0+
TXOUT0-
J10
2X15PIN-1mm/X
C96 0.1uF
C97 0.1uF
C98 0.1uF
C99 10uF
VCC_CA
R105 10K
R133 0
R148 0
nUSBH3-
nUSBH3+
For Camera
WonderMedia Technologies, Inc.
Title
LCD Panel
Size
Custom
Document Number
WMS8134C
Rev
1.0
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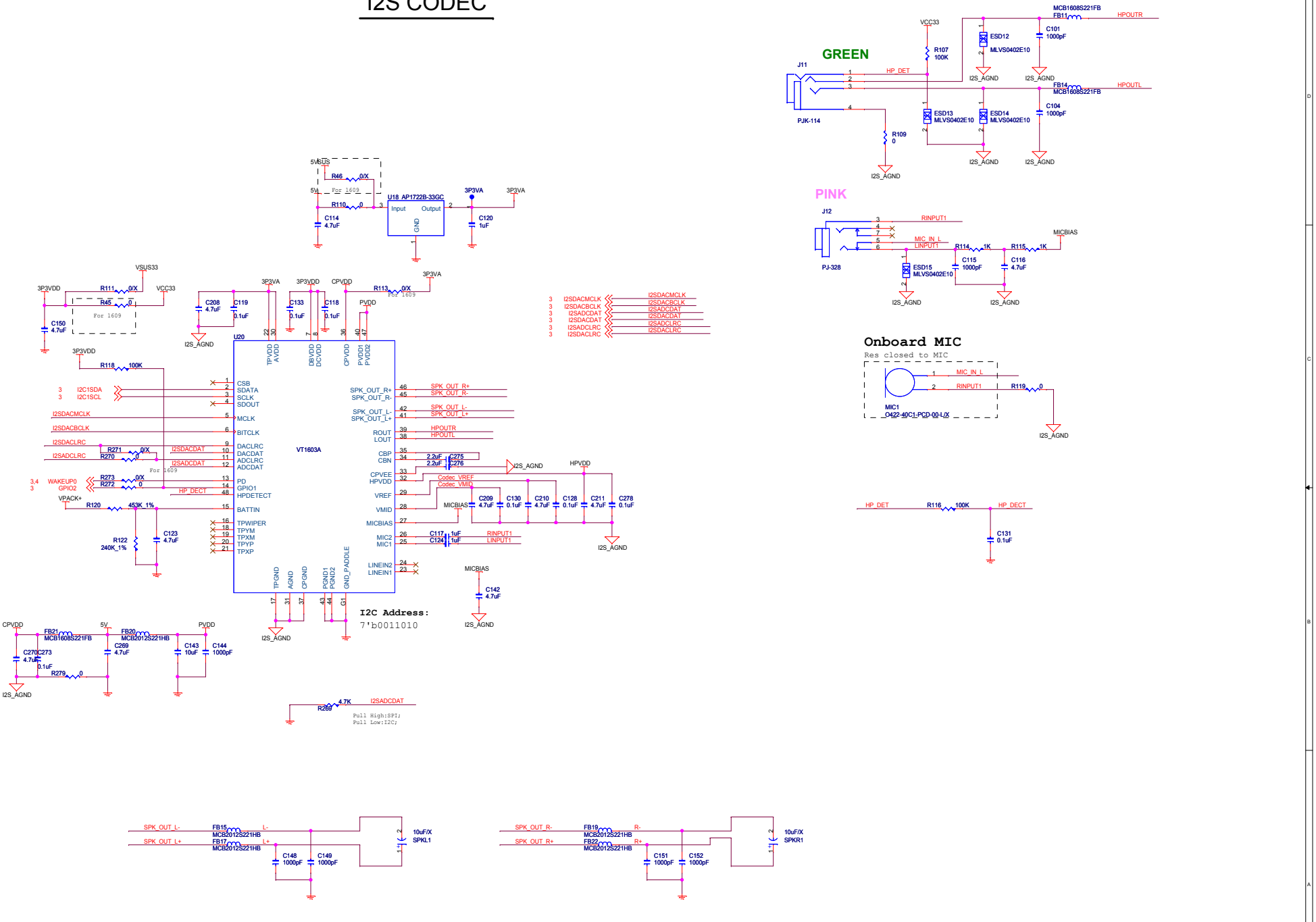
# I2S CODEC

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|---|---|---|---|
| WonderMedia Technologies, Inc. | | | |
| Title: I2S CODEC | | | |
| Size: C | Document Number: WMS8134C | | Rev: 1.0 |
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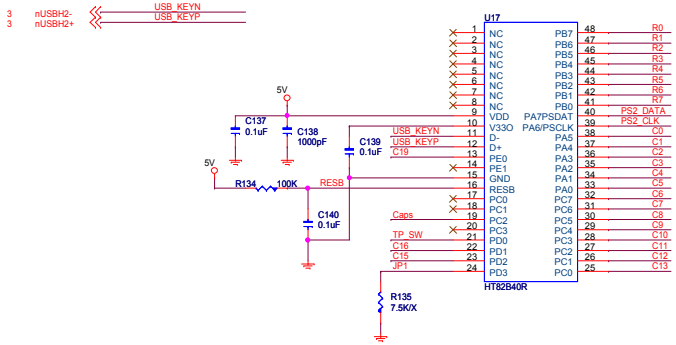
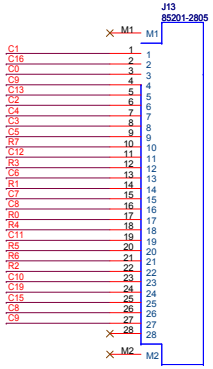
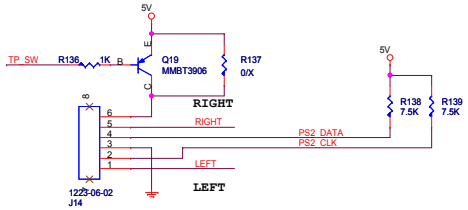
# Keyboard and Touchpad



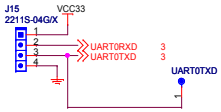

## Keyboard

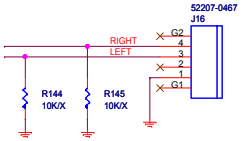


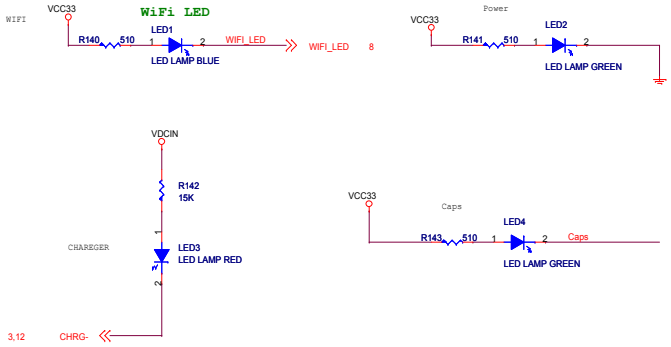

## PS2 Touchpad




## Reversed for debug

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|---|---|---|
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| Title: Keyboard and Touchpad | | |
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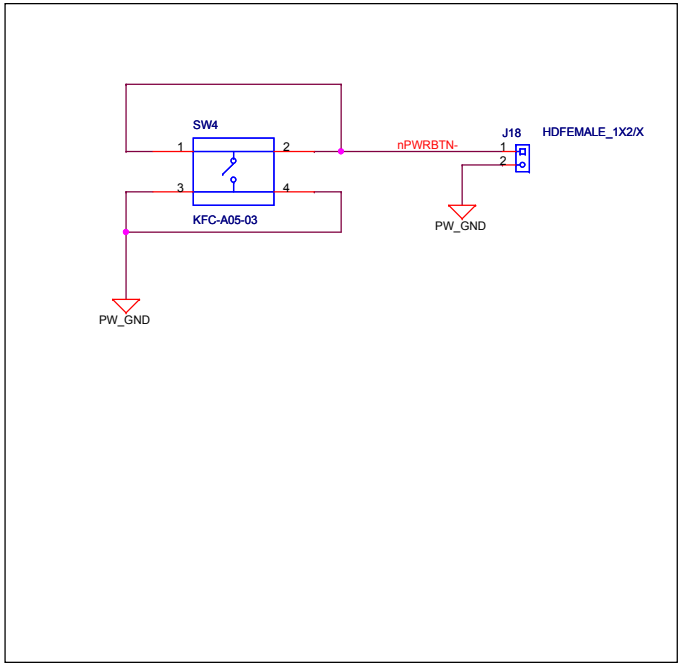


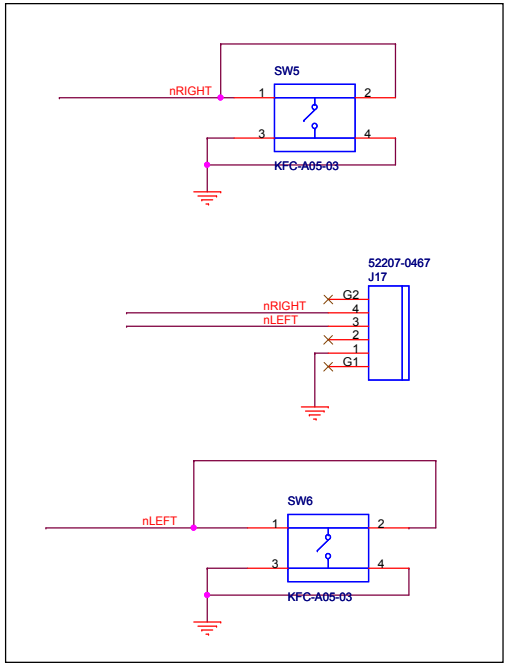


| | | |
|---|---|---|
| WonderMedia Technologies, Inc. | | |
| Title: Small Board | | |
| Size: A3 | Document Number: WMS8134C | Rev: 1.0 |
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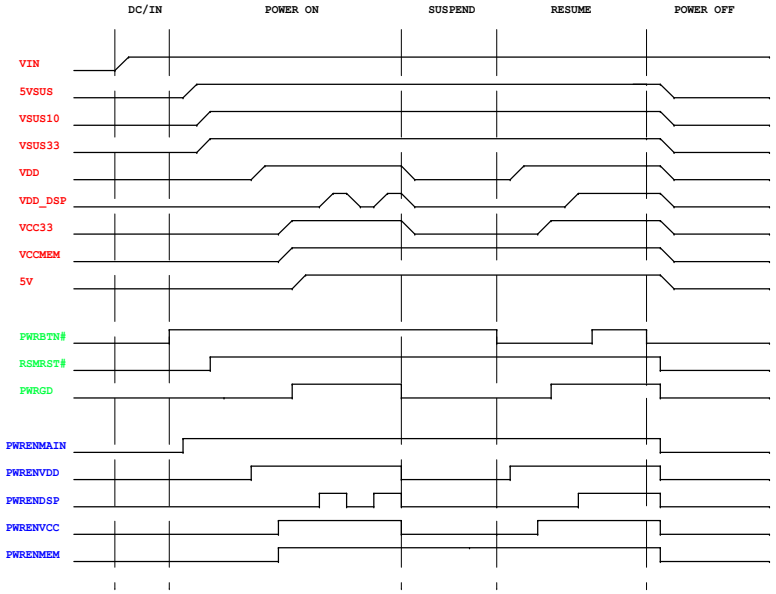
# Version History

| Version | Modify Content | Responsibility | Date |
|---|---|---|---|
| WMS8134A | Initial released. | Sunday Liang | 2010/10/13 |
| WMS8134C | Change wm8900 to VT1603A | Sunday Liang | 2011/01/24 |

## Power Sequence:

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| Title: Version History | | |
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