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<th>Revision</th>
<th>Description</th>
<th>Date</th>
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<tr>
<td>Ver 1.0</td>
<td>Release version</td>
<td>2015-04-22</td>
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<td>Ver 1.3</td>
<td>Added USB port power option</td>
<td>2016-01-13</td>
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POWER TREE

AXP803

VBUS 5V02A

BAT 3.5-4.35V

Battery Charger & Power Detect

MT3608

Switch for USB Host

5V01A

5V010mA

VIDEO

POWER TREE

Title

Size

Document Number

Rev

Date: Sheet of

PINE A64+ 2GB

Pine A64

A3

A

B

C

D

MODEM/WIFI

MODEM/WIFI

3.0V VCC-RTC(ON)

3.0V@100mA

5V@1A Switch for USB Host

5V@2AVBUS

3.5-4.35VBAT

BatteryCharger&Power Detect

DC/DC1

DC18W

DC/DC2

DC/DC3

DC/DC4

DC/DC5

DC/DC6

ALDO1

ALDO2

ALDO3

DLDO1

DLDO2

DLDO3

DLDO4

ELDO1

ELDO2

ELDO3

FLDO1

FLDO2

GPIO0LD0

GPIO1LD0

GPIO2LD0

RTCLDO

PS

3.5-5V03A

1.6-3.4V01.5A

100mA from DCDC1

0.5-1.3V03A

0.5-1.3V03A

0.5-1.3V03A

0.8-1.84V02.5A

0.6-1.52V02.5A

0.7-3.3V0500mA

0.7-3.3V0300mA

0.7-3.3V0200mA

0.7-3.3V0500mA

0.7-4.2V0400mA

0.7-3.3V0300mA

0.7-3.3V0500mA

0.7-1.9V0400mA

0.7-1.9V0200mA

0.7-1.9V0200mA

0.7-1.45V0300mA

0.7-1.45V0100mA

0.7-3.3V0100mA

0.7-3.3V0150mA

3.0V860mA

3.0V Nand/eMMC/SDCARD(ON)/WI-FI-IO

3.3V LCD(ON)

1.1V CPUX(ON)

1.5V DRAM(ON)

1.1V VDD-SYS(ON)

2.8V DOVDD=CSI/AFVCC=CSI/PE(ON)

1.8V VCC-PL(ON)

3.0V AVCC/VCC-PLL(ON)

3.3V VIDEO/VCC-V3-V3-HSIC/VCC-SENSOR(ON)

3.3V VCC-MIPI(ON)

2.8V AVDD=CSI(ON)

3.3V WIFI-IO

1.8V CPVDD/VCC18-LPDDR

1.2V/1.5V/1.8V CSI-DVDD(ON)

1.2V HSIC(ON)

1.1V CPUX(ON)

3.3V CTP(ON)

3.3V MOTOR(ON)
Note 1: When insert HP, pin 4 and pin 3 is connected, when pull out HP, pin 4 and pin 3 is disconnected.

Note 2: When insert HP, pin 4 and pin 3 is disconnected, when pull out HP, pin 4 and pin 3 is connected. Mount R100 3.3K.
The ESD part's parasitic capacitance < 5pF.
Close to camera.

Close to AP.

CAM (5)

Close to Camera
Differential pairs
Z0 = 100 ohm
**Note 1:** The trace length between GL1 and Pin 48 must be within 0.5 cm. The trace width from PHY_AVDD33 to Pin 44, 45 must be within 0.5 cm.

**Note 2:** The trace length from C56, C57 to Pin 44, 45 must be within 1 cm. The trace width from PHY_AVDD33 to Pin 44, 45 should be 40 mils.

**External Power Source**

U10, GC69, GC68, GR122, GR120 and GR121 are only used by 8211CN/8211D/8211E application when switching regulator is disabled. For other applications, please remove them.

---

**3.3/2.5V RGMII Power**

R80 for 3.3V RGMII

R81 for 2.5V RGMII (From 3.3-2.5V LDO)

RTL8201FN/EN: GC56: 22uF (X5R)

RTL8211E: GC56: 4.7uF (X5R)

**For EMI:** GC27, GC28 must close to pin 15 and pin 21

**Reserve for 2.5V RGMII power (if MAC support 2.5V RGMII):**

C41 close to pin 40

GC40 22uF (X5R)

Solo 4.7uF (X5R)

**Reserve for EMI:**

GC27, GC28 must close to pin 15 and pin 21

R80 for 3.3V RGMII

R81 for 2.5V RGMII (From 3.3-2.5V LDO)

R82 for 2.5V RGMII (From ACR 2.5V)

RTL8201FN/EN: GC69, GC68, GR122, GR120, and GR121 are only used by 8211CN/8211D/8211E application when switching regulator is disabled. For other applications, please remove them.

---

**ENABLE SWITCHING REGULATOR**

**DISABLE SWITCHING REGULATOR**

---

**Reserve for EMI:**

C39 close to pin 28

---

**Reserve for EMI:**

C40 close to L1

---

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R81 for 2.5V RGMII (From 3.3-2.5V LDO)

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GC27, GC28 must close to pin 15 and pin 21

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