## VERSION HISTORY

### Index:

<table>
<thead>
<tr>
<th>Revision</th>
<th>Description</th>
<th>Date</th>
<th>Drawn</th>
<th>Checked</th>
<th>Approved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ver 1.0</td>
<td>Release version</td>
<td>2015-04-22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ver 1.2</td>
<td></td>
<td>2015-09-28</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- P01: REVISION HISTORY
- P02: BLOCK DIAGRAM
- P03: POWER TREE
- P04: DDR3 16X2
- P05: CPU
- P06: PMIC
- P07: FLASH
- P08: AUDIO
- P09: USB/T-CARD
- P10: CAMERA
- P11: LCD
- P12: Euler e Connector
- P13: VIDEO
- P14: LED POWER
- P15: WIFI+BT
- P16: CTP/IR
- P17: Pi-2 Connector
- P18: EMAC/GMAC
- P19: EMAC/GMAC
LPDDR3 32X1
Backup battery. Support rechargeable battery.

\[ V_{out} = 0.6 \times (1 + \frac{RA}{RB}) \]
\[ I_{max} = 2A \]
When insert HP, pin4 and pin3 is connected, when pull out HP, pin4 and pin3 is disconnected.

Note:
When insert HP, pin2 and pin3 is disconnected, pull out HP, pin2 and pin3 is connected.
Mount R100 3.3K.
The ESD part's parasitic capacitance < 5pF.
Differential pairs
$Z_0 = 100$ ohm
CTP

IR

CTP/IR

ChipHD to Pine64
**Note 1:** The Trace length between GL1 and Pin 48 must be within 0.5 cm. GC40 and GC41 to G L1 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/8211DN/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: GR81 (NC) GR82 (NC)

---

**For EMI GC27, GC28 must close to pin 15 and pin 21 for 2.5V RGMII power (if MAC support 2.5V RGMII)**

---

**Reserve for EMI**

For 2.5V RGMII power (if MAC support 2.5V RGMII)
R80 for 3.3V RGMII
R81 for 2.5V RGMII (From 3.3-2.5V LDO)
RTL8201FN/EN: GR81 (NC) GR82 (NC)

---

**EMAC/GMAC Chipset to Pine64**

---