# CPU Board Schematics

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**Note:**
- **R**: Fixed Resistor
- **RV**: Potentiometer
- **U**: Integrated Circuit
- **X**: Crystal
- **RES**: Reset Switch
- **SW**: Switch
- **LED**: Light Emitting Diode
- **PWR**: Power Jack
- **J**: Connector, Jumper

* "DNF" marking means that component does not fit by default.

### Board Variation:

**R0K50563NC000BE**: RSK+RX63N Board  
*Board mounts R5F563NBDDFC (ROM 1MB, RAM 128KB)*

**R0K50563NC010BE**: RSK+RX63N(256K) Board  
*Board mounts R5F563NFDDFC (ROM 2MB, RAM 256KB)*
RX63N Microcontroller

Note:
- Microcontroller's pins are not described by the full pin function. For full pin function details, refer to RX63N datasheet.

RX63N R5F563NFDDFC (RAM 256KB)
RX63N R5F563NBDDFC (RAM 128KB)

RX63N Microcontroller-1
Note:
Microcontroller's pins are not described by the full pin function.
For full pin function details, refer to RX63N datasheet.

Chip Select

<table>
<thead>
<tr>
<th>CSn</th>
<th>Interface</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS0n</td>
<td>On-board Nor Flash (BD, CS0n) / Application Header A1 (CON-CS0n)</td>
</tr>
<tr>
<td>CS1n</td>
<td>Application Header A2 (A2)</td>
</tr>
<tr>
<td>CS2n</td>
<td>On-board Nor Flash (CS2n)</td>
</tr>
<tr>
<td>CS3n</td>
<td>On-board SDRAM (BD, CS3n) / Application Header A3 (CON-CS3n)</td>
</tr>
</tbody>
</table>

Power Configuration for USB Boot Mode

<table>
<thead>
<tr>
<th>Select</th>
<th>Power Configuration</th>
<th>USB Boot Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>On</td>
<td>OTG Host</td>
<td>USB Boot Mode</td>
</tr>
<tr>
<td>Off</td>
<td>OTG Slave</td>
<td>USB Boot Mode</td>
</tr>
</tbody>
</table>

RSI Slave Select

<table>
<thead>
<tr>
<th>SSL</th>
<th>Interface</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSL0</td>
<td>On-board SPI Serial Flash</td>
</tr>
<tr>
<td>SSL1</td>
<td>General LCD Connector (TFT)</td>
</tr>
</tbody>
</table>

Renesas System Design Co., Ltd.
Circuit not Fitted on RSK+RX63N CPU Board.
(Only Special Prototype Board)
The board is designed to accept a straight-through RS232 male-to-female cable.

To App Header
(Do not connect MCU pins)
Ethernet

This Ethernet circuit is not recommended circuit. Please design according to a customer system.

Renesas System Design Co., Ltd.

File: RSD-KDSN235K & RSD-KDSN
            (Ethernet)

Sheet: 5
Date: Friday, August 01, 2014

LED_LED_A_YELLOW  | PHY address '11111' = 0x1F = 31d
PHYS0741D900F0300 3.00

PHY address '11111' = 0x1F = 31d

R_MII resistor handling
R_MII resistor handling

Remove: R302, R304, R324, R325

PHY = R294, R295, R296, R297, R298, R299, R300, R301, R302, R304, R324, R325, R326, R327, R307, R308

R302, R304, R324, R325

R320

* If required MIF function
R307, R308

Remove R320
<table>
<thead>
<tr>
<th>REV</th>
<th>DATE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| 3.00| 01.08.2014| Adds RSK+RX63N-256K Product.