SoM Schematic For RK3399Pro

RK3399Pro_SoM_V1.0

PMIC:  RK809-3 (5BUCK + 9LDO + Codec)
RAM:  LPDDR3
ROM:  eMMC + TF card
Interface:  MIPI CSI/MIPI DSI/UART/I2S/RMII/LCDC/PCIE/USB2/TYPERC

BeiQi Technology
**NOTE 1:**
Component parameter description
1. DNP stands for component not mounted temporarily
2. If Value or option is DNP, which means the area is reserved without being mounted
3. If Flash is compatible, please notice when eMMC is used, the option is that @eMMC is mounted, @Nand is not mounted when Nand is used, the option is that @Nand is mounted, @eMMC is not mounted

**NOTE 2:**
Please use our recommended components to avoid too many changes. For more informations about the second source, please refer to our AVL.
<table>
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<tr>
<th>Version</th>
<th>Date</th>
<th>Author</th>
<th>Change List</th>
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<td>V0.9</td>
<td>20181223</td>
<td>First edition for RK3399Pro</td>
<td>cza</td>
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RK3399Pro SOC
SDMMC0/SDIO0 Controller

SDMMC0 D0/UART2A RX/GPIO4_C0
SDMMC0 D1/UART2A TX/GPIO4_C1
SDMMC0 D2/UART2A RX/GPIO4_C2
SDMMC0 D3/UART2A TX/GPIO4_C3
SDIO0 D0/SPI5 RXD/GPIO2_C4
SDIO0 D1/SPI5 TXD/GPIO2_C5
SDIO0 D2/SPI5 CLK/GPIO2_C6
SDIO0 D3/SPI5 CSN0/GPIO2_C7
SDIO0 CLKOUT/TEST CLKOUT1/GPIO2_C8
SDIO0_DET/PCIe_CLKREQN/GPIO2_C9
SDIO0_PWREN/GPIO2_C10
SDIO0_BKPWR/GPIO2_C11

API03 1.8V/3.0V Auto

API03 1.8V only

SDMMC0 VDDPST

VCCIO_SD_S0

C1600 100nF

C0201 X5R 16V

C1601 100nF

C0201 X5R 16V
Note: All the power filter capacitors should be placed close to the power pins of LPDDR3.
25MHz crystal: C6500=12pF, C6501=12pF

MAC <------ PHY

PHY Address=001 (RTL8211E)

Connect ENSWREG to AVDD3 to enable
Switching regulator or connect ENSWREG to GND to disable Switching regulator.

Pull down for 2.5V RGMII (RTL8211D/8211E)
Pull up for 3.3V RGMII (RTL8211D/8211E)
Pull up 1.5/1.8V RGMII (RTL8211E-VL only)

RGMII 1000M

Close to PHY

Close to PIN44.45