SOM-CKL138/6748/1808

版本: 1.0

设计者: F 2020.12.31

修订历史

修订版本	描述	设计者	日期	
1.0	初始版本	F	2021.09.09	
	连接器 B2B 改改 SODIMM	F	2021.09.28	
	1.2V 电源改为 1.3V	F	2021.12.17	
	增加连接器为 B2B 版本			
	增加未引出引脚说明	F	2021.12.19	
	修改封装			
	修改连接器信号顺序	F	2022.01.15	

核心板未引出 CPU 引脚

外设	电压	引脚
EMAC LAN8710	3.3V	SPID ENA/EPWN0 B
DDR2	1.8V	所有 DDR2 相关引脚

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02.POWER

03.DDR2

04.EMIFA

05.USB/SATA/CLOCK/JTAG

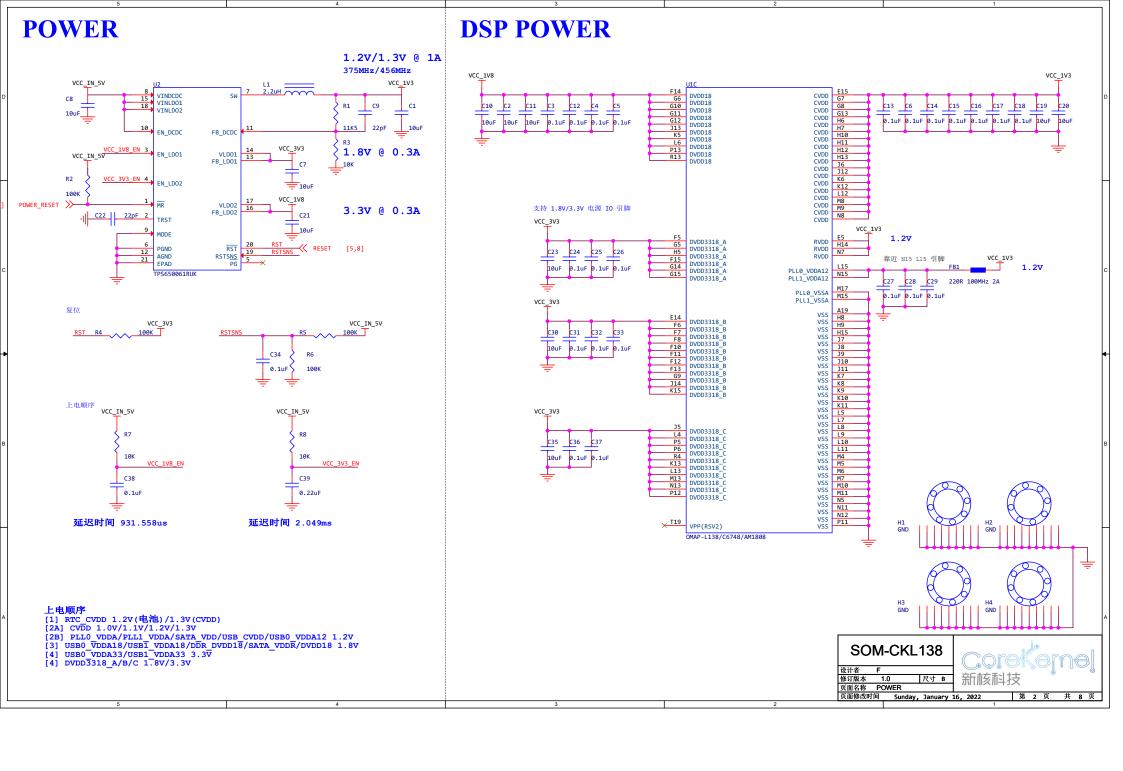
06.GPIO/SD NAND/LED

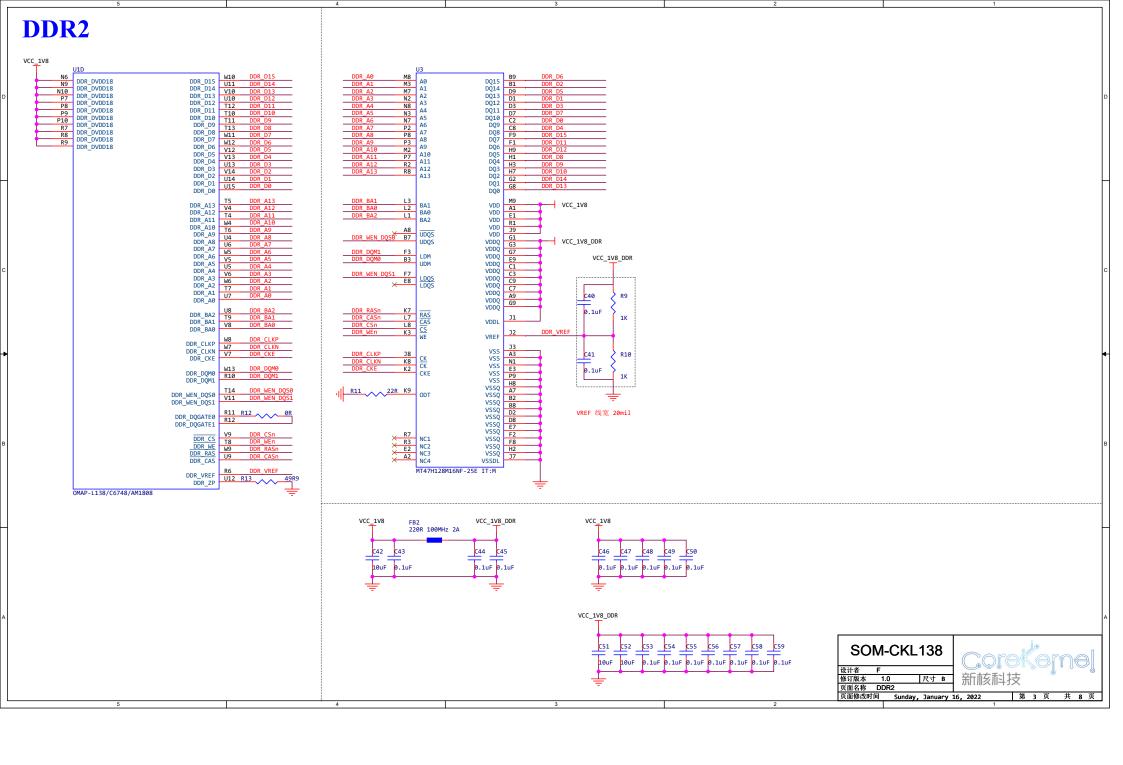
07.GPIO/FLASH/ETH

08.CONNECTOR



SOM-CKL138





EMIFA POWER GROUP B EMIFA_D15/GPI03[07] E6 GPI03[07]/EMIFA_D15 EMIFA_D15/GP103[06] B6 EMIFA_D13/GP103[05] A6 GPI03[06]/EMIFA_D14 GPI03[05]/EMIFA_D13 GPI03[04]/EMIFA_D12 GPI03[03]/EMIFA_D11 EMIFA D12/GPI03[04] EMIFA_D12/GPI03[04] D6 EMIFA_D11/GPI03[03] A7 EMIFA_D17/GP103[02] D9
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MMCSD0_D2/EMIFA_A19/GP104[03]

MMCSD0_D3/EMIFA_A18/GP104[01]

MMCSD0_D4/EMIFA_A17/GP104[01]

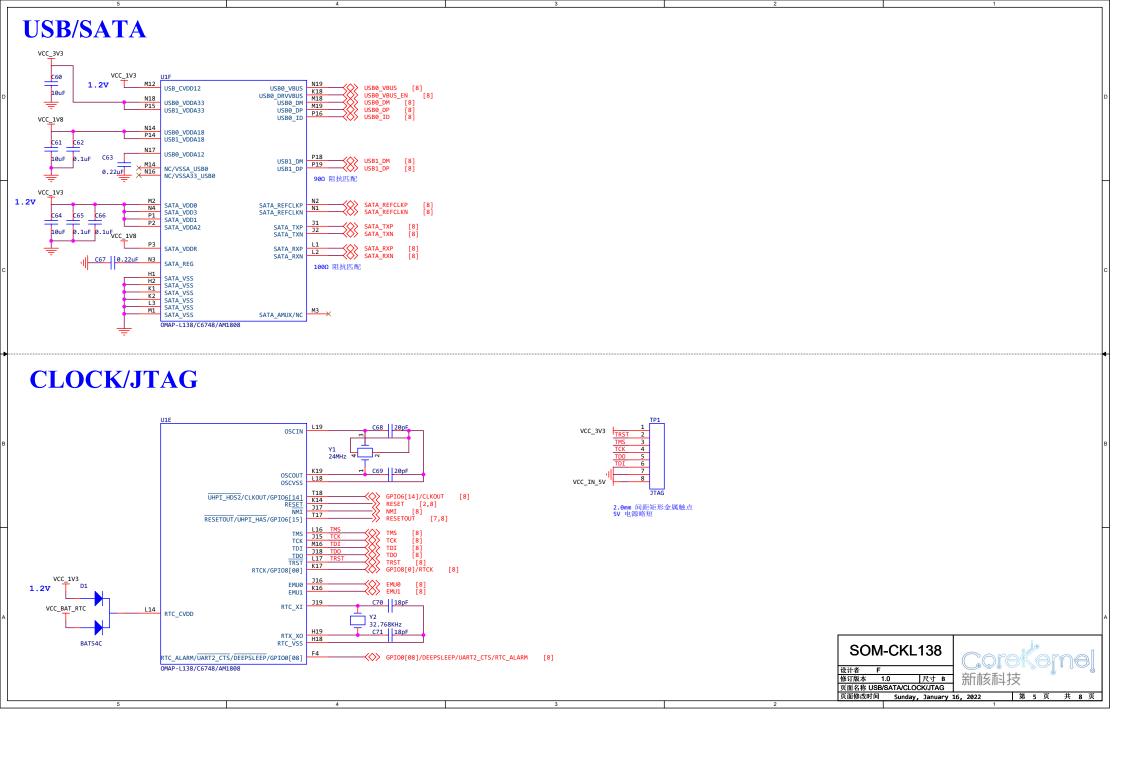
MMCSD0_D5/EMIFA_A16/GP104[00]

C10

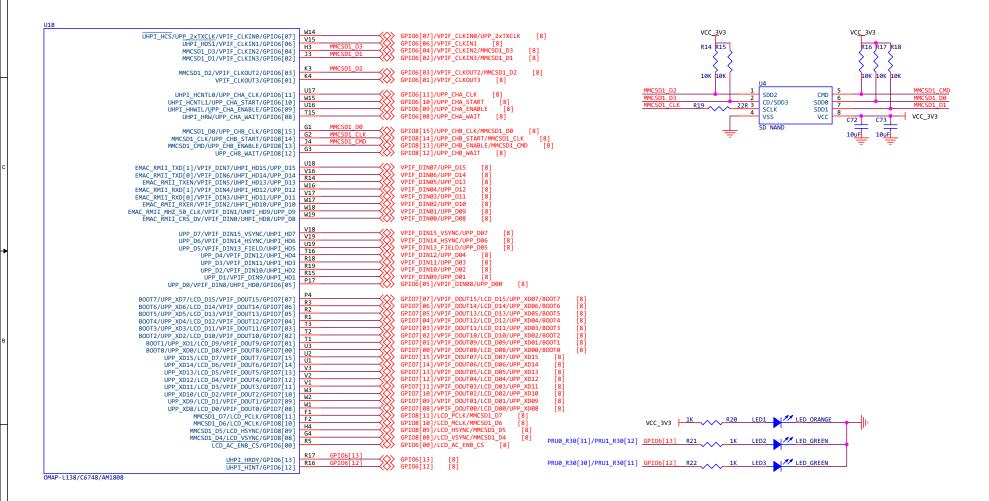
E11

MMCSD0_D3/EMIFA_A17/GP104[01]

E12 GPI04[04]/EMIFA_A19/MMCSD0_D2
GPI04[02]/EMIFA_A18/MMCSD0_D3
GPI04[01]/EMIFA_A17/MMCSD0_D4
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GPI02[06]/EMIFA_SDCKE
GPI02[05]/EMIFA_RAS
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GPI02[02]/EMIFA_WEN_DQM1 GPI03[08]/EMIFA_WAIT0
GPI02[01]/EMIFA_WAIT1 EMIFA_WAIT0/GPIO3[08] B19 EMIFA_WAIT1/GPIO2[01] OMAP-L138/C6748/AM1808 GPIO BANK3/4/5[15-0] GPIO BANK2[9-0] SOM-CKL138 设计者 F 新核科技 修订版本 1.0 尺寸B 页面名称 EMIFA Danuary 16, 2022 第 4 页 共 8 页



GPIO/SD NAND/LED



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修订版本 1.0 尺寸 B 页面名称 GPIO/SD NAND/LED

页面修改时间 Sunday, January 16, 2022

GPIO/FLASH/ETH VCC_3V3 R23 R24 4K7 McBSP0_CLKR0/McASP_AXR06/EMAC_MII_TXEN/GPI01[14] McBSP0_CLKX0/McASP_AXR05/EMAC_MII_TXCLK/GPI01[13] MDC TYD FTH TXP MDTO TXN FTH TXN McBSP0_FSR0/McASP_AXR04/EMAC_MII_COL/GPI01[12] EMAC_MII_TXCLK R25 22R 20 TXCLK FTH RXP 21 McBSP0_FSX0/McASP_AXR03/EMAC_MII_TXD[3]/GPI01[11] McBSP0_DR0/McASP_AXR02/EMAC_MII_TXD[2]/GPI01[10] McBSP0_DX0/McASP_AXR01/EMAC_MII_TXD[1]/GPI01[09] TXEN FTH RXN EMAC_MII_TXD0 TXD0 ECAPO_APWM0/McBSP0_CLKS0/McASP_AXR00/EMAC_MII_TXD[0]/GPI08[07] TXD1 TXD2 FPIØ_ENA/EPWMØ_B/EMAC_MII_RXDV EPWMØ_A/SPIØ_CLK/EMAC_MII_RXCLK/GPIO1[08] TXD3 D19 EMAC_MII_RXCLK VDDCR EMAC_MII_RXCLK R26 22R EMAC_MII_RXDV RXCLK/PHYAD1 26 C74 C75 RXDV VCC_3V3 0.1uF 10uF RXD0/MODE0 VDDIO RXD1/MODE1 VCC_3V3_ETH EMAC_MII_RXER EPWM0_SYNCI/SPI0_SOMI/EMAC_MII_RXER/GPI08[06] RXD2/RMIISEL EPWM0_SYNCO/SPI0_SIMO/EMAC_MII_CRS/GPI08[05] RXD3/PHYAD2 VDD1A VDD2A TIMER64P0 OUT12/TIMER64P0 IN12/SPI0 SCS1/MDIO CLK/GPI01[07] LED1/REGOFF MDIO DATA TIMER64P1_OUT12/TIMER64P1_IN12/SPI0_SCS0/MDI0_DATA/GPI01[06] ETH LED2 LED2/INTSEL USB REFCLKIN/UART1 CTS/McASP AHCLKX/GPI00[10] GPI00[10]/McASP_AHCLKX/UART1_CTS/USB_REFCLKIN [8] RBIAS 12K1 1% RXER/RXD4/PHYAD0 McASP_ACLKR/GPI00[15] McASP_ACLKX/GPI00[14] McASP_AFSR/GPI00[13] GPI00[15]/McASP ACLKR COL/CRS_DV/MODE2 XTAL1/CLKIN B1 GPI00[14]/McASP_ACLKX CRS GPIO0[13]/McASP_AFSR McASP_AFSX/GPI00[12] GPI00[12]/McASP_AFSX × 18 INT/TXER/TXD4 R28 XTAL2 33 GPIO0[11]/McASP_AHCLKR/UART1_RTS UART1_RTS/McASP_AHCLKR/GPI00[11] RESETOUT <<-GND UART2_RTS/McASP_AMUTE/GPI00[09] ✓ GPI00[09]/McASP_AMUTE/UART2_RTS LAN8710A-EZC GPIO0[07]/McASP_AXR15/EPWMN0_TZ0/ECAP2_APWM2 GPIO0[06]/McASP_AXR14/McBSP1_CLKR1 [8] ECAP2_APWM2/EPWMN0_TZ0/McASP_AXR15/GPI00[07] VCC 3V3 VCC 3V3 ETH C76 C77 McBSP1_CLKR1/McASP_AXR14/GPI00[06] McBSP1_CLKX1/McASP_AXR13/GPI00[05] GPI00[05]/McASP_AXR13/McBSP1_CLKX1 220R 100MHz 2A 18pF 18pF 25MHz GPI00[04]/McASP_AXR12/McBSP1_FSR1 GPI00[03]/McASP_AXR11/McBSP1_FSX1 McBSP1_FSR1/McASP_AXR12/GPI00[04] McBSP1_FSX1/McASP_AXR11/GPI00[03] McBSP1_DR1/McASP_AXR10/GPI00[02] C78 C79 C81 C82 GPI00[02]/McASP AXR10/McBSP1 DR1 McBSP1_DX1/McASP_AXR09/GPI00[01] E4 GPI00[01]/McASP_AXR09/McBSP1_DX1 0.1uF 0.1uF 10uF 0.1uF 10uF ECAP1_APWM1/McBSP1_CLKS1/McASP_AXR08/GPI00[00] GPIO0[00]/McASP_AXR08/McBSP1_CLKS1/ECAP1_APWM1 EPWMN1_TZ[0]/McASP_AXR07/GPI01[15] GPI01[15]/McASP_AXR07/EPWMN1_TZ[0] GPI02[13]/SPI1_CLK GPI02[12]/SPI1_ENA SPI1_CLK/GPI02[13] 配置为 10/100 半/全双工模式 使能自动协商 H16 GPI02[12]/SPI1_ENA SPI1_ENA/GPI02[12] VCC_3V3 SPI1_SCS0 GPI02[14]/SPI1_SCS0/TIMER64P3_IN12/EPWM1_B EPWM1_B/TIMER64P3_IN12/SPI1_SCS0/GPI02[14] EMAC_MII_RXD0 R29 _ _4K7 GPI02[15]/SPI1_SCS1/TIMER64P2_IN12/EPWM1_A EPWM1_A/TIMER64P2_IN12/SPI1_SCS1/GPI02[15] F19 SATA_CP_POD/UART1_TXD/SPI1_SCS2/GPI01[00] GPIO1[00]/SPI1 SCS2/UART1 TXD/SATA CP POD EMAC_MII_RXD1 R30 _____4K7 SATA_LED/UART1_RXD/SPI1_SCS3/GPI01[01] F16 GPI01[01]/SPI1_SCS3/UART1_RXD/SATA_LED I2C1_SDA/UART2_TXD/SPI1_SCS4/GPI01[02] GPI01[02]/SPI1_SCS4/UART2_TXD/I2C1_SDA GPI01[03]/SPI1_SCS5/UART2_RXD/I2C1_SCL EMAC_MII_COL R31 _____4K7 I2C1_SCL/UART2_RXD/SPI1_SCS5/GPI01[03] I2C0_SDA/TIMER64P3_OUT12/SPI1_SCS6/GPI01[04] GPI01[04]/SPI1 SCS6/TIMER64P3 OUT12/I2C0 SDA 配置 PHY 地址为 000 G16 I2C0 SCL/TIMER64P2 OUT12/SPI1 SCS7/GPI01[05] GPIO1[05]/SPI1_SCS7/TIMER64P2_OUT12/I2C0_SCL EMAC_MII_RXER R32 _____4K7 SPI1_SOMI/GPI02[11] G17 SPI1_SIMO/GPI02[10] GPIO2[11]/SPI1_SOMI GPIO2[10]/SPI1_SIMO EMAC_MII_RXCLK R33 _ _ _ 4K7 OMAP-L138/C6748/AM1808 EMAC_MII_RXD3 R34 _____4K7 VCC_3V3 VCC_3V3 C83 配置为 MII 模式 R38 > R39 R35 0.1uF EMAC_MII_RXD2 R40 _____4K7 4K7 4K7 4K7 使能内部 1.2V 电源输出 4K7 4K7 U6 SOM-CKL138 cs VCC ETH_LED1 R41 _____4K7 SO/I01 WP/I02 HOLD/TO3

使能 INT 功能

ETH LED2

设计者

VCC_3V3

R42 _____4K7

修订版本 1.0

页面修改时间

页面名称 GPIO/FLASH/ETH

尺寸 B

Sunday, January 16, 2022

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SCK

SI/I00

GND

W25Q64FVSSIQ

