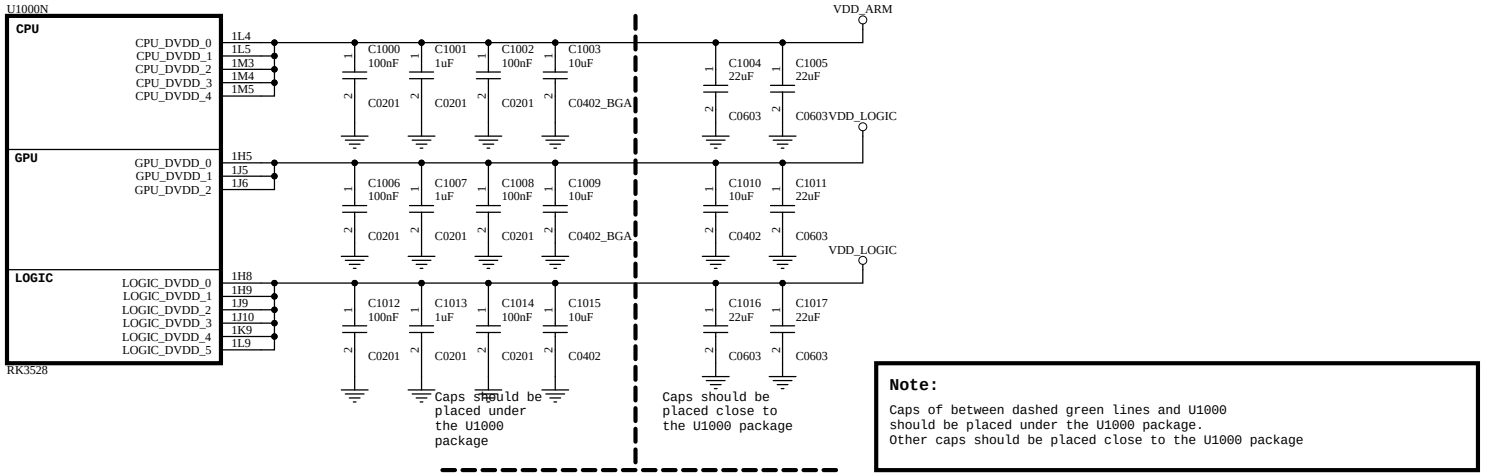
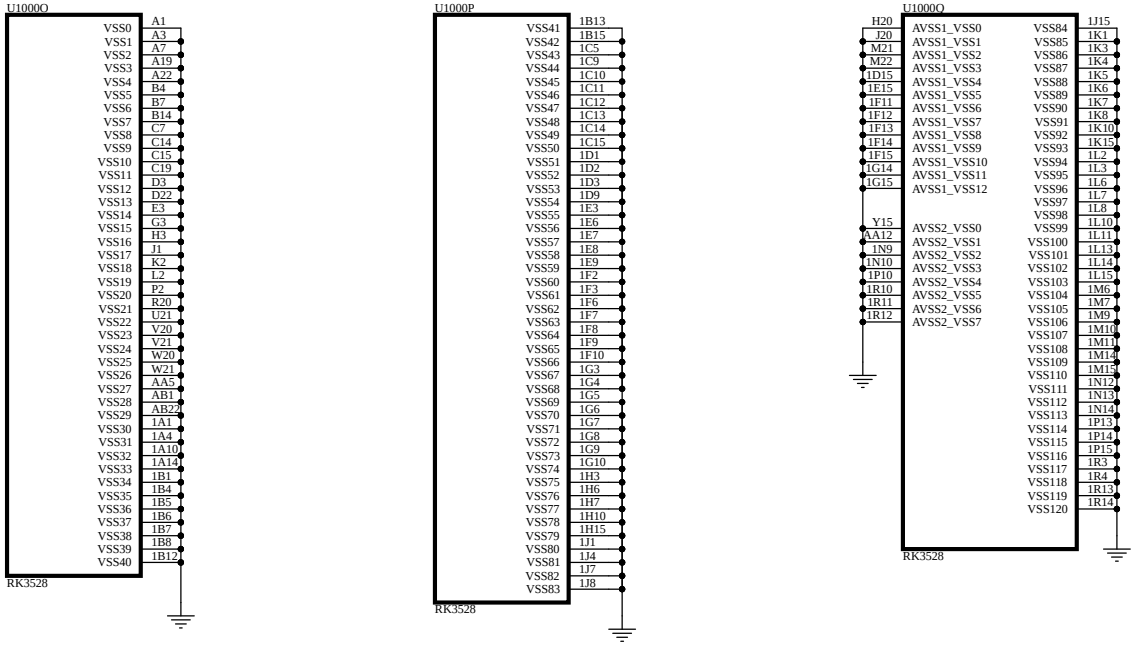
RK3528_N(POWER)



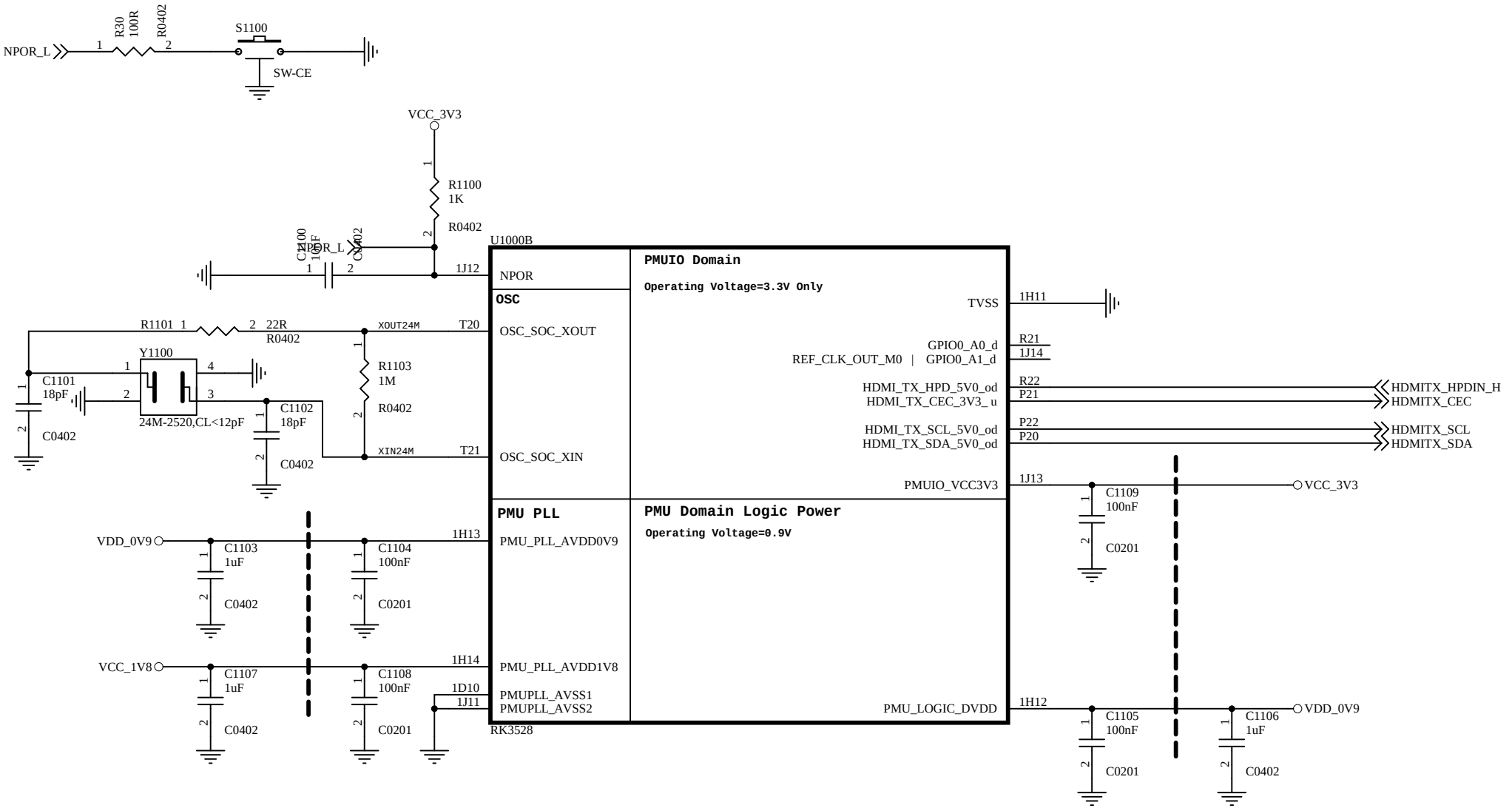
Note:

Caps of between dashed green lines and U1000 should be placed under the U1000 package.
Other caps should be placed close to the U1000 package

RK3528_O/P/Q(GND)



RK3528_B(OSC/PLL/PMUIO Domain)

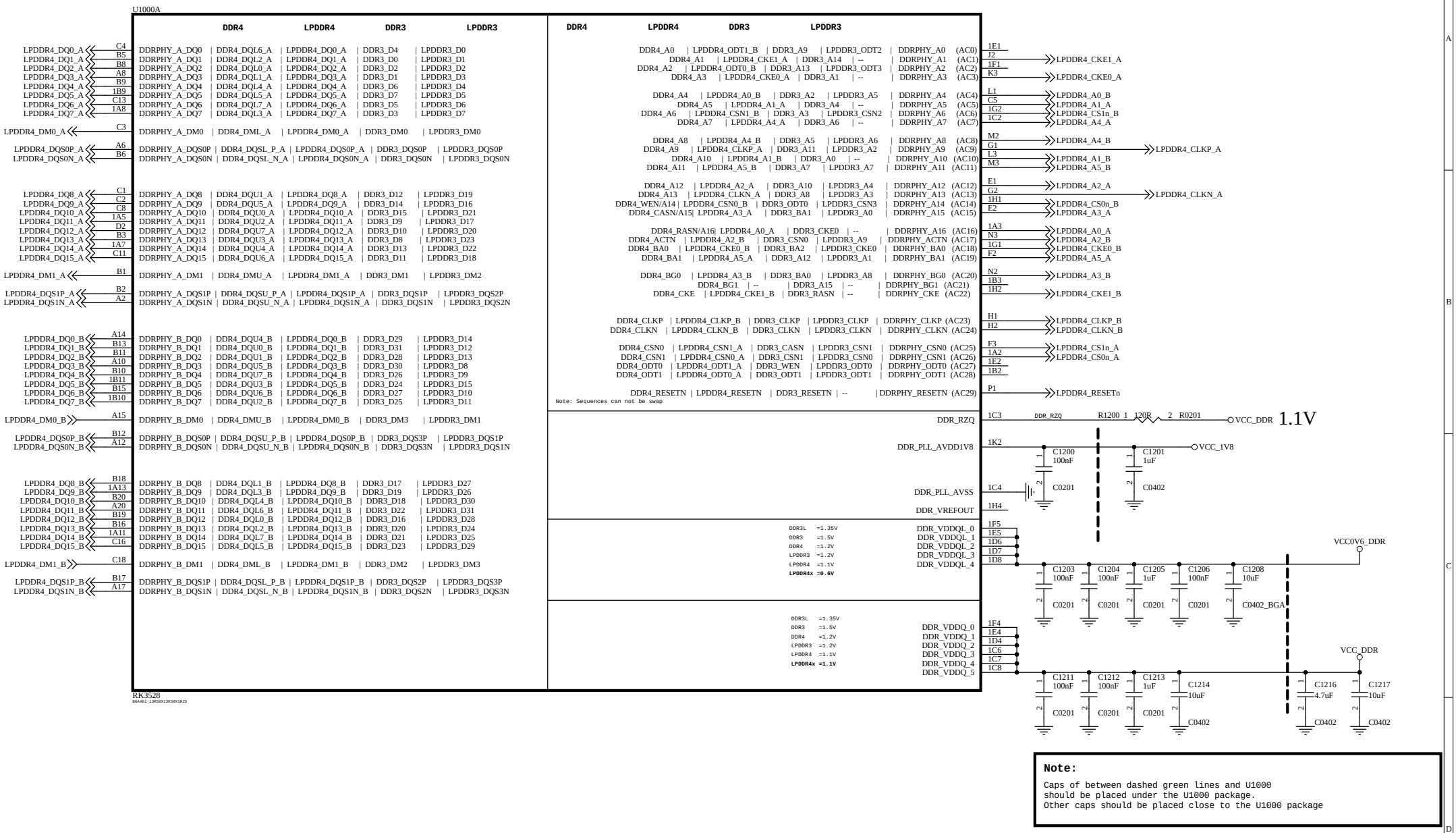


Note:

Caps of between dashed green lines and U1000
should be placed under the U1000 package.
Other caps should be placed close to the U1000 package

MangoPi M28K V1.1

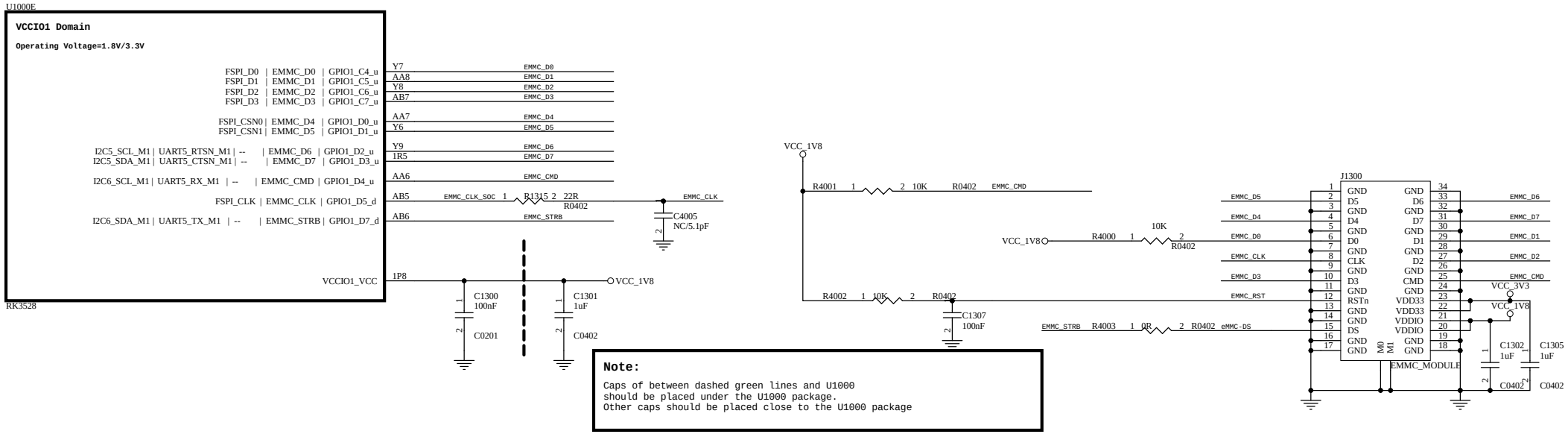
RK3528_A(DDR PHY)



Note:

Caps of between dashed green lines and U1000
should be placed under the U1000 package.
Other caps should be placed close to the U1000 package

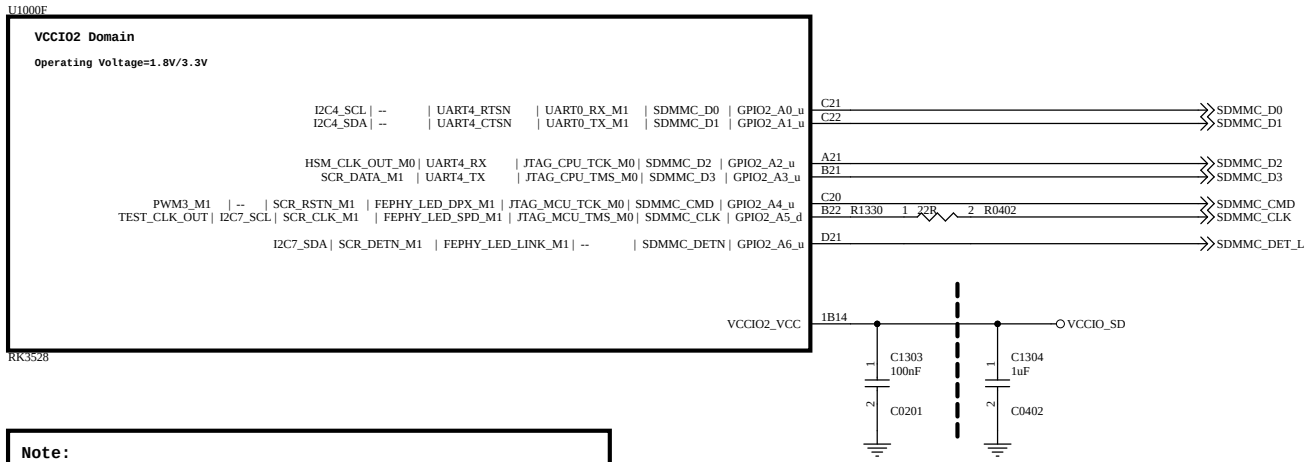
RK3528_E(VCCIO1 Domain)



Note:

Caps of between dashed green lines and U1000
should be placed under the U1000 package.
Other caps should be placed close to the U1000 package

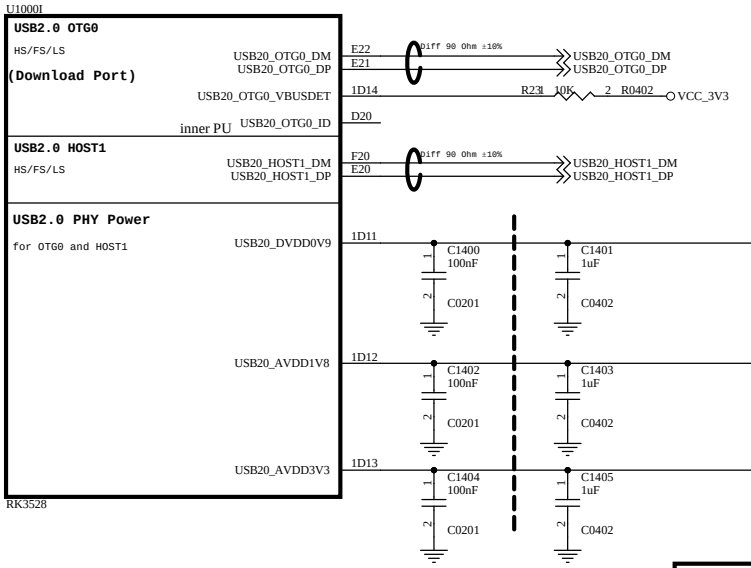
RK3528_F(VCCIO2 Domain)



Note:

Caps of between dashed green lines and U1000
should be placed under the U1000 package.
Other caps should be placed close to the U1000 package

RK3528_I(USB2.0 OTG/HOST)



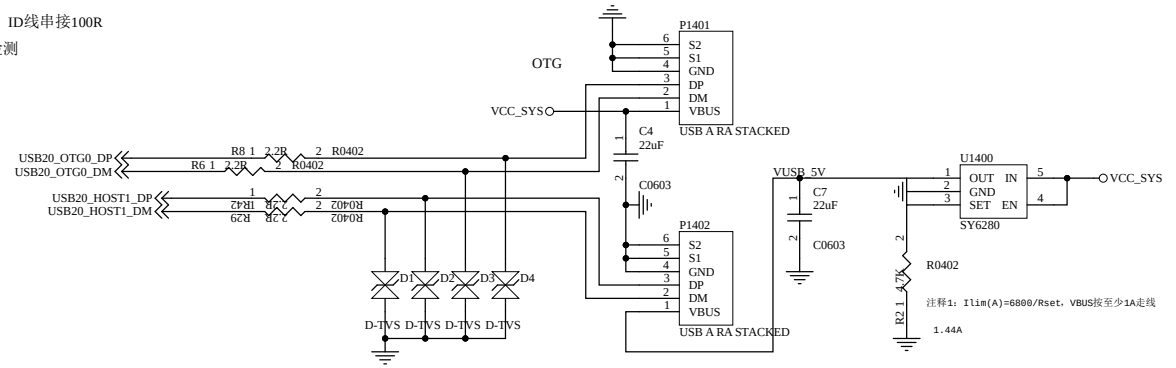
OTG: ID H:device, L:HOST. VBUS>2.3V 枚举

Device: 无需ID，判断VBUS>2.3V，枚举

HOST : 无需ID，判断VBUS>2.3V，枚举

信号线必须串接2.2ohm，ID线串接100R

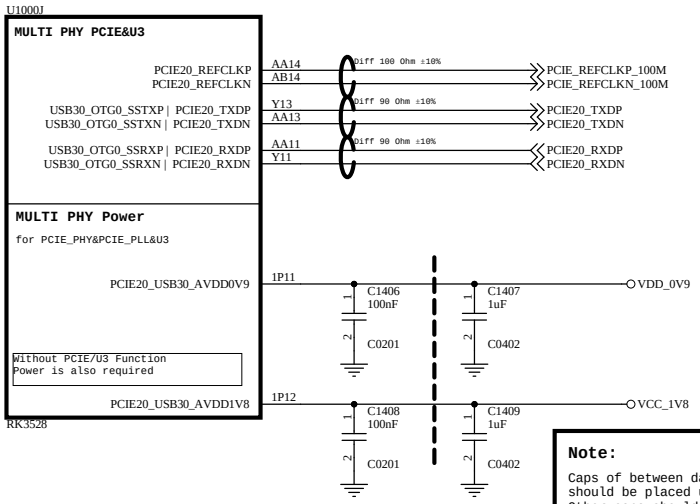
VBUS可采用电阻分压检测



Note:

Caps of between dashed green lines and U1000
should be placed under the U1000 package.
Other caps should be placed close to the U1000 package

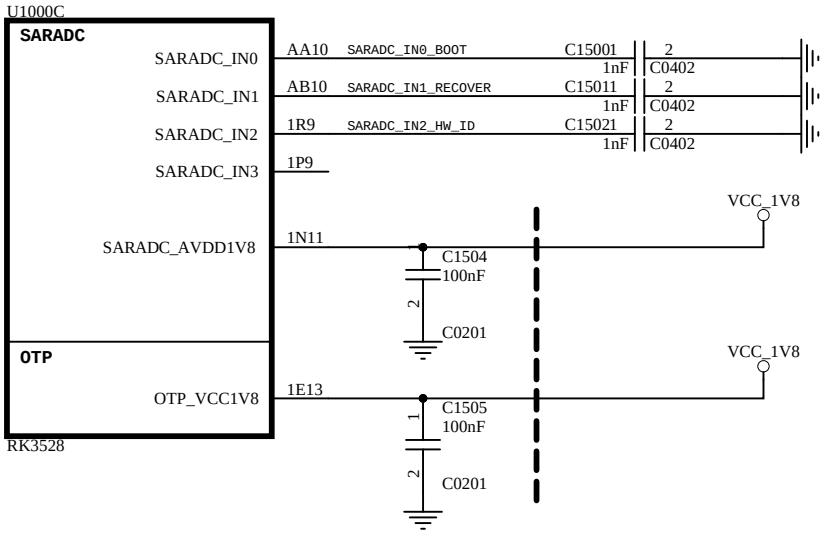
RK3528_J(PCIE2.0/U3 PHY)

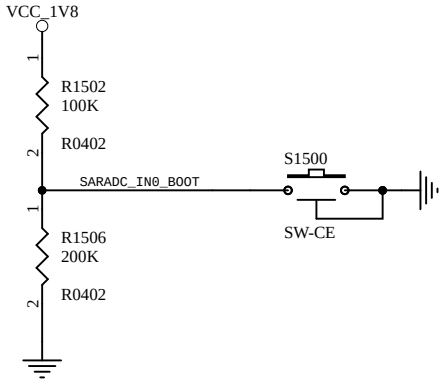


Note:

Caps of between dashed green lines and U1000
should be placed under the U1000 package.
Other caps should be placed close to the U1000 package

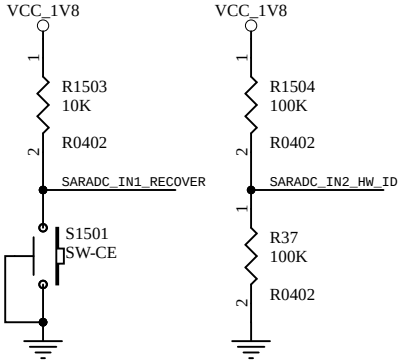
RK3528_C(Saradc/OTP)





Note:

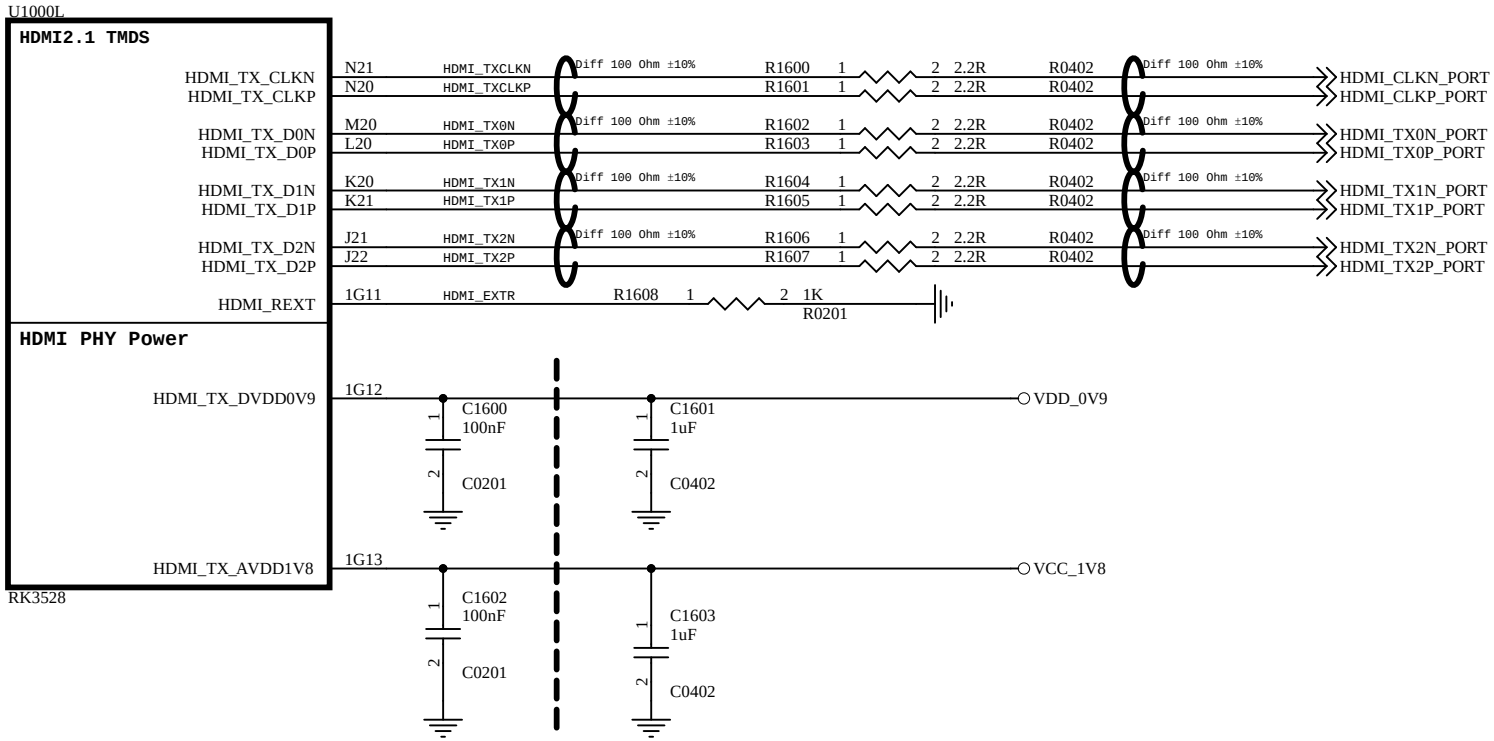
Caps of between dashed green lines and U1000
should be placed under the U1000 package.
Other caps should be placed close to the U1000 package



TABLE

Item	*Rup*	*Rdown*	*ADC*	*BOOT MODE*
LEVEL1	*DNP*	*100K*	*0*	*USB (Maskrom mode)*
LEVEL2	*100K*	*12K*	*114*	
LEVEL3	*100K*	*27K*	*228*	*FSPI--USB*
LEVEL4	*100K*	*51K*	*342*	
LEVEL5	*100K*	*82K*	*456*	
LEVEL6	*100K*	*120K*	*570*	*EMMC--USB*
LEVEL7	*100K*	*200K*	*683*	*EMMC--SD Card--USB*
LEVEL8	*100K*	*330K*	*796*	*SD Card--USB*
LEVEL9	*100K*	*820K*	*910*	
LEVEL10	*100K*	*DNP*	*1023*	*FSPI--EMMC--SD Card--USB*

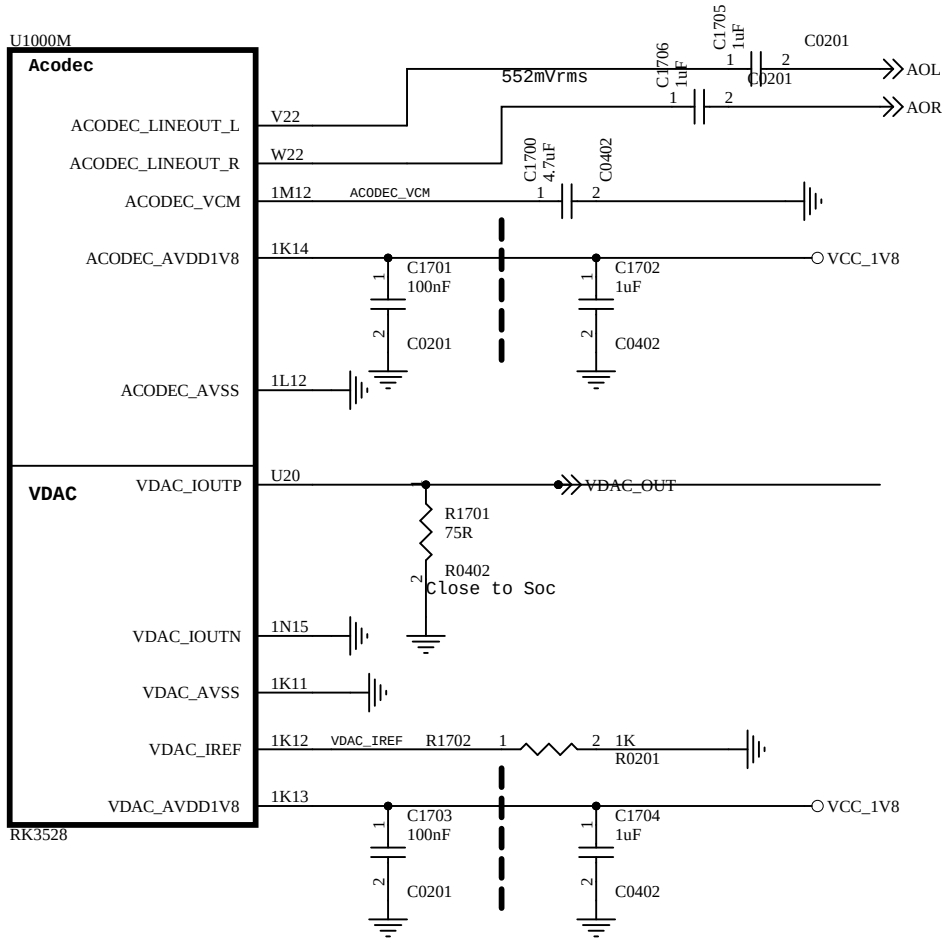
RK3528_L(HDMI PHY)



Note:

Caps of between dashed green lines and U1000
should be placed under the U1000 package.
Other caps should be placed close to the U1000 package

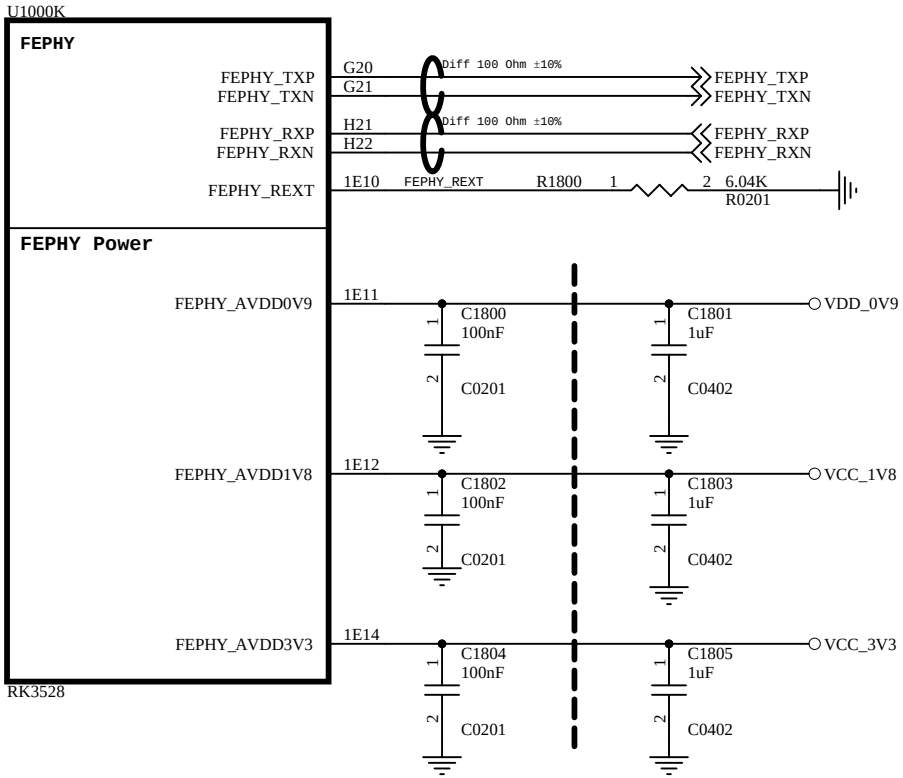
RK3528_M(Acodec/VDAC)



Note:

Caps of between dashed green lines and U1000
should be placed under the U1000 package.
Other caps should be placed close to the U1000 package

RK3528_K(Embed FEPHY)

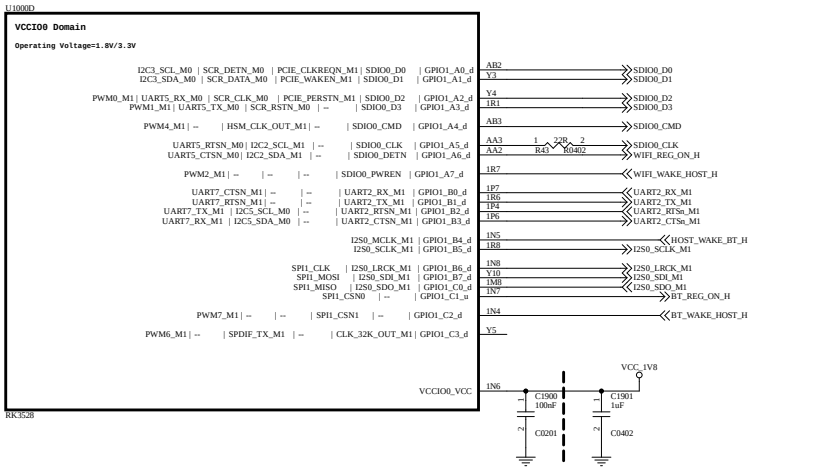


Note:

Caps of between dashed green lines and U1000
should be placed under the U1000 package.
Other caps should be placed close to the U1000 package

RK3528_D(VCCIO0 Domain)

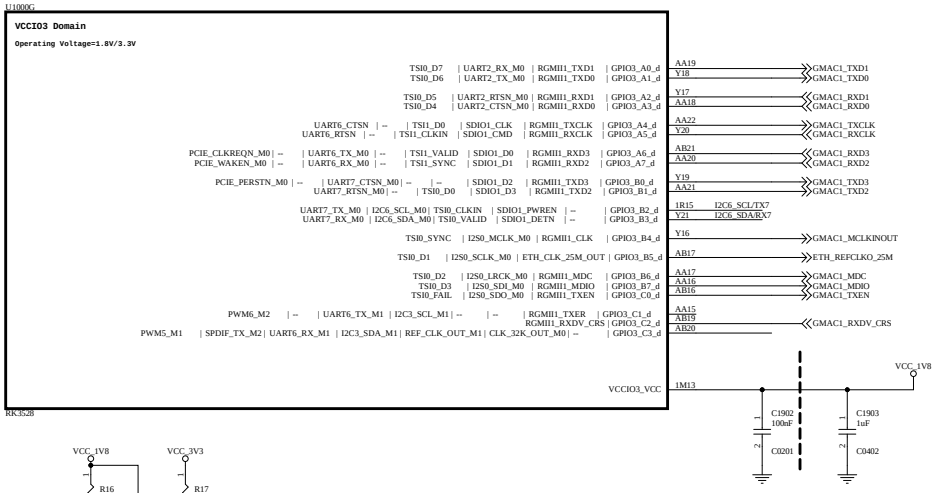
WIFI/BT

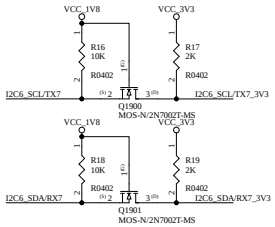


Note:
Caps of between dashed green lines and U1000
should be placed under the U1000 package.
Other caps should be placed close to the U1000 package

RK3528_G(VCCIO3 Domain)

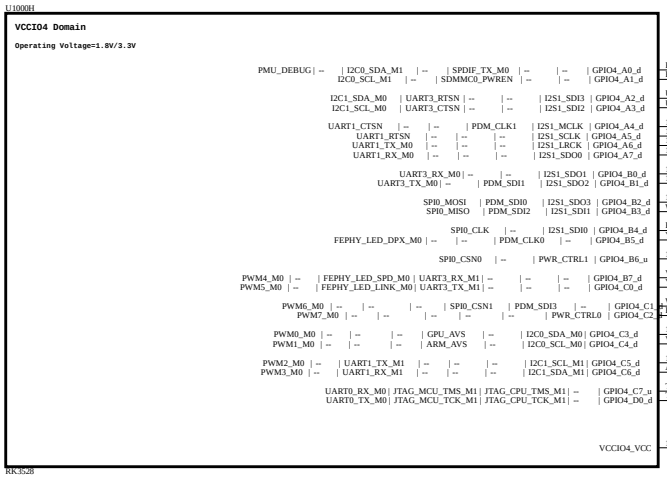
RGMII - 1.8V

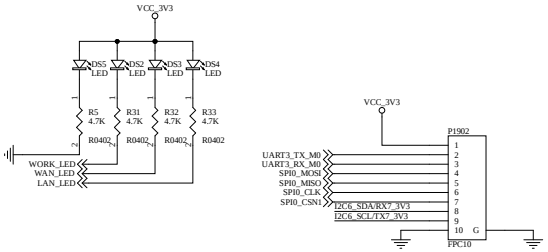


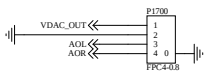


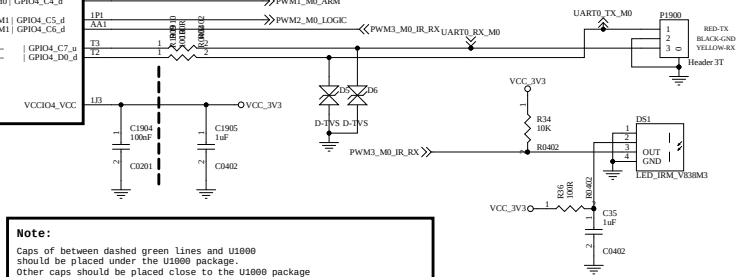
Note:
Caps of between dashed green lines and U1000
should be placed under the U1000 package.
Other caps should be placed close to the U1000 package

RK3528_H(VCCIO4 Domain)



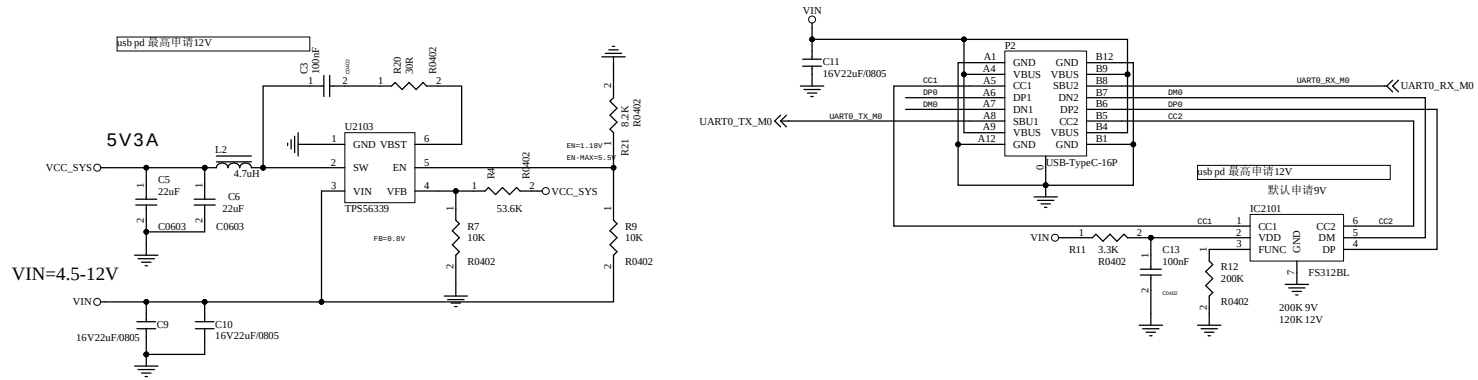




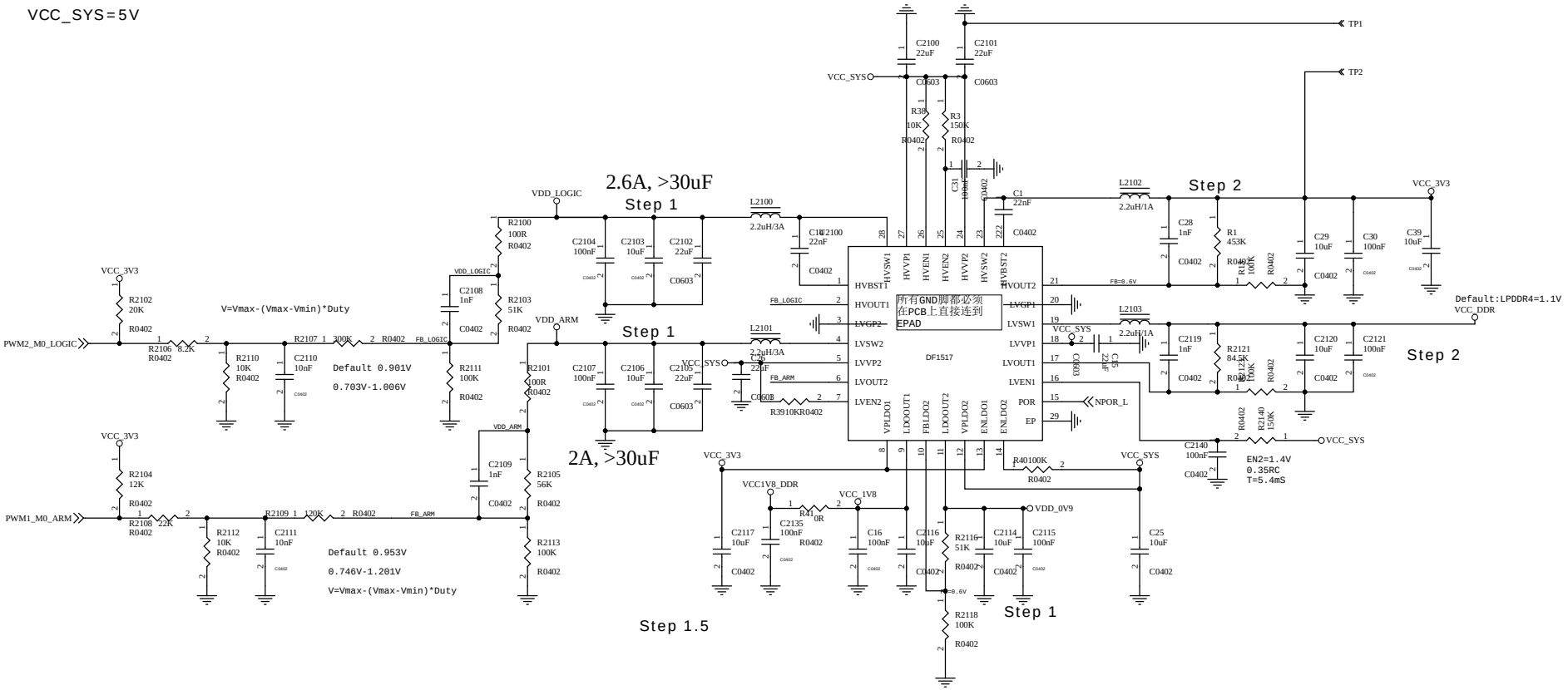


Note:
Caps of between dashed green lines and U1000
should be placed under the U1000 package.
Other caps should be placed close to the U1000 package

V_USB-->VCC_SYS (3.3V)

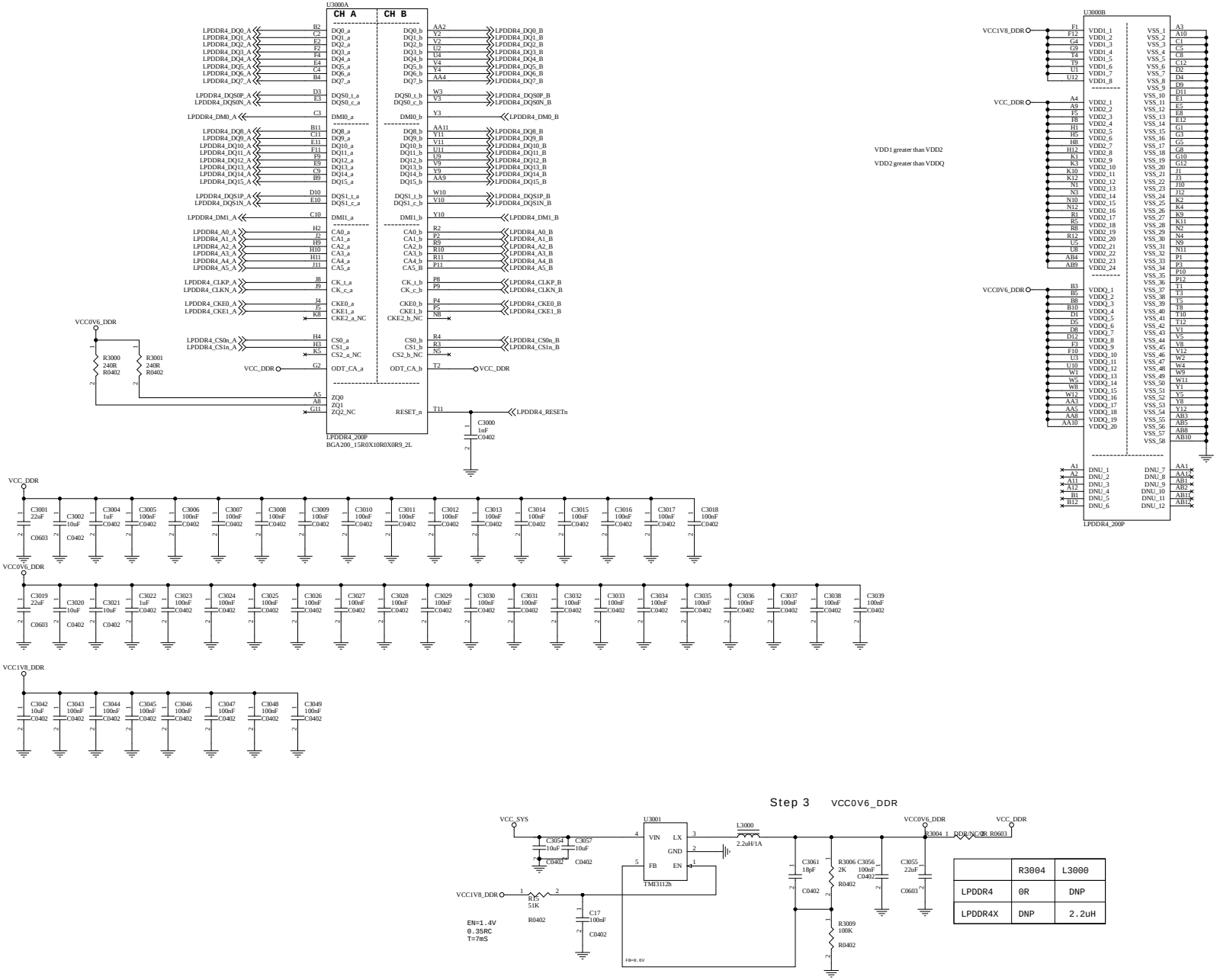


VCC_SYS=5V



MangoPi M28K V1.1

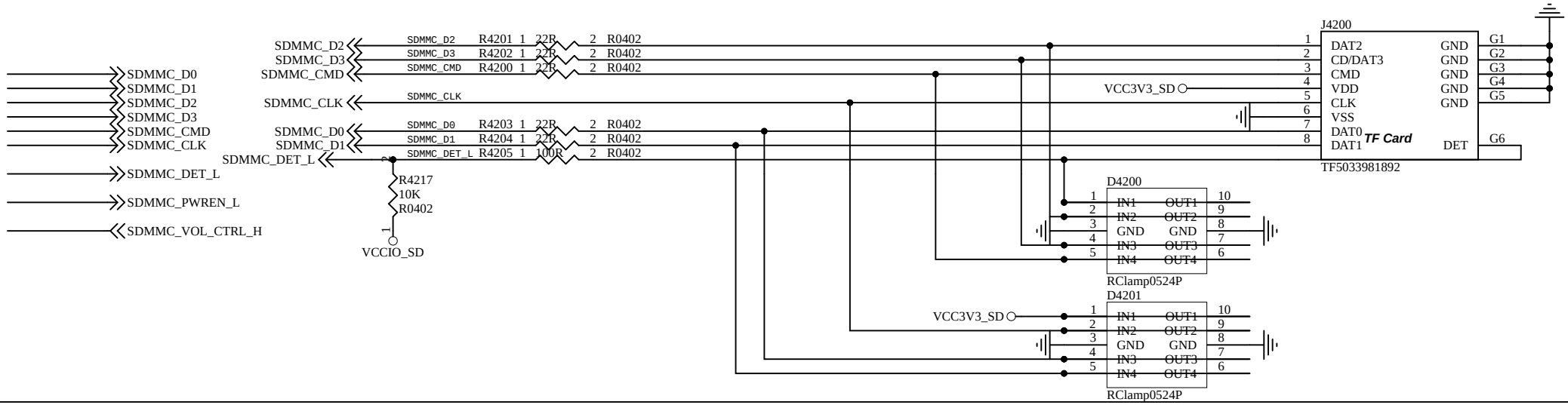
LPDDR4X 200Ball



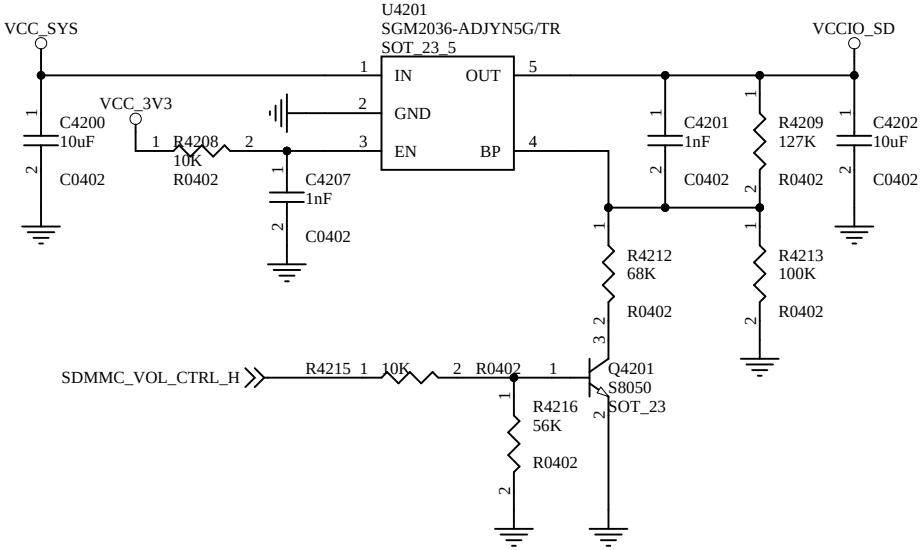
Step 3 VCC0V6_DDR

	R3004	L3000
LPDDR4	0R	DNP
LPDDR4X	DNP	2.2uH

TF Card

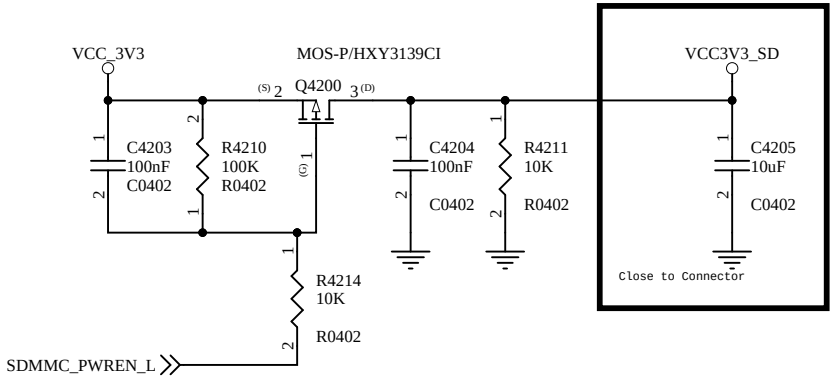


VCCIO_SD



SDIO2.0 SDMMC0_VOL_CTRL=H VCCIO_SD=3.34V(Default)
SDIO3.0 SDMMC0_VOL_CTRL=L VCCIO_SD=1.816V

VCC3V3_SD

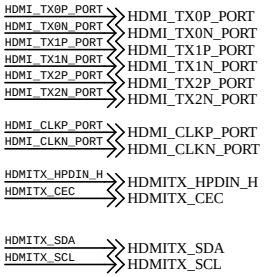


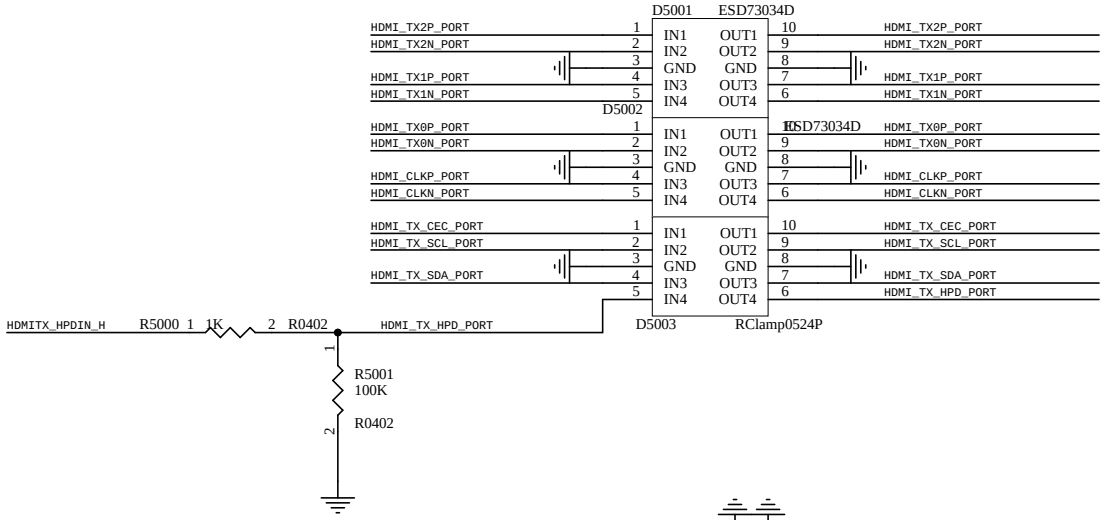
SDMMC_PWREN=L VCC_SD=3.3V(Default)
SDMMC_PWREN=H VCC_SD=0V

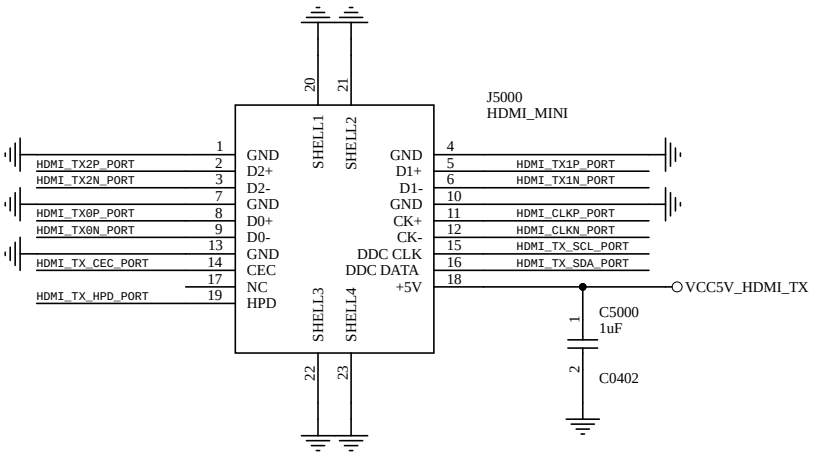
MangoPi M28K V1.1

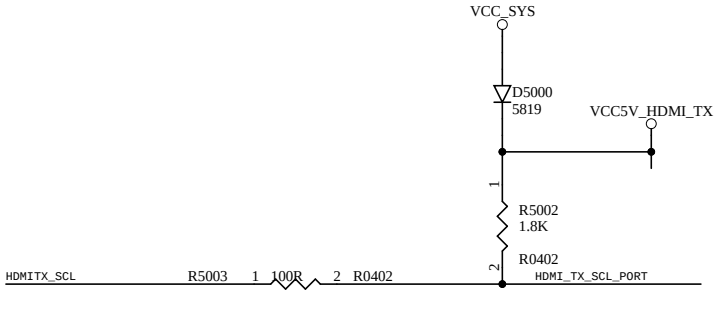
HDMI2.0 TX

Cj<=0.2pF

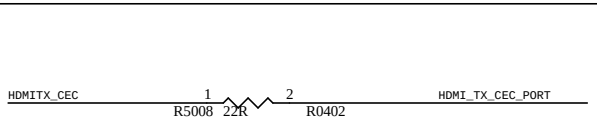








HDMI0 TX DDC



HDMI0 TX CEC

MangoPi M28K V1.1

RGMII

GMAC1_TXD0 ⟩⟩ GMAC1_TXD0
GMAC1_TXD1 ⟩⟩ GMAC1_TXD1
GMAC1_TXD2 ⟩⟩ GMAC1_TXD2
GMAC1_TXD3 ⟩⟩ GMAC1_TXD3
GMAC1_TXEN ⟩⟩ GMAC1_TXEN

GMAC1_TXCLK ⟩⟩ GMAC1_TXCLK

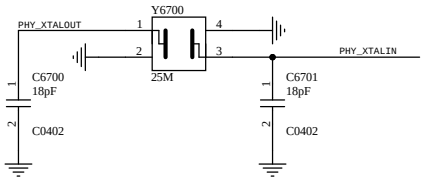
GMAC1_RXD0 ⟩⟩ GMAC1_RXD0
GMAC1_RXD1 ⟩⟩ GMAC1_RXD1
GMAC1_RXD2 ⟩⟩ GMAC1_RXD2
GMAC1_RXD3 ⟩⟩ GMAC1_RXD3
GMAC1_RXDV_CRS ⟩⟩ GMAC1_RXDV_CRS

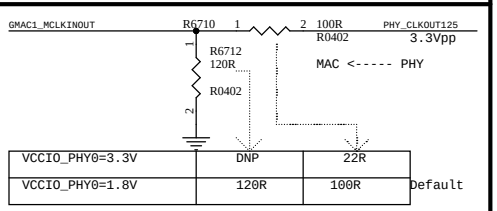
GMAC1_RXCLK ⟩⟩ GMAC1_RXCLK

GMAC1_MCLKINOUT ⟩⟩ GMAC1_MCLKINOUT

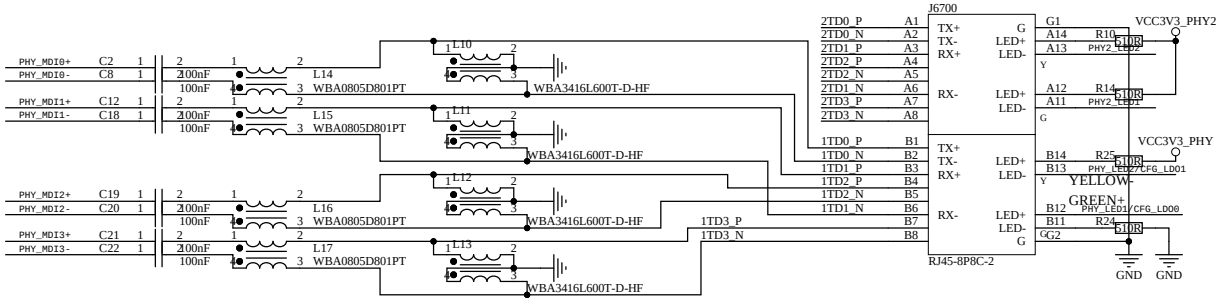
GMAC1_MDC ⟩⟩ GMAC1_MDC
GMAC1_MDIO ⟩⟩ GMAC1_MDIO

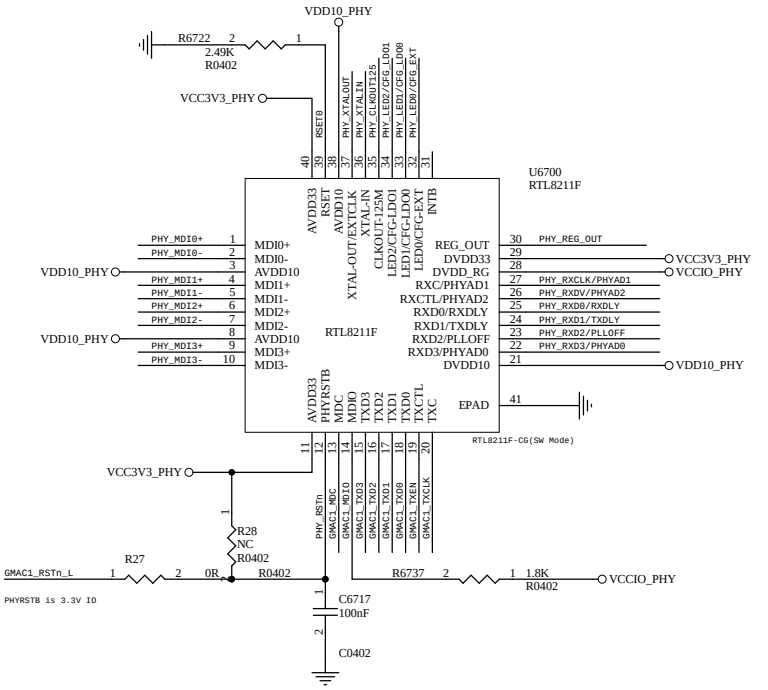
GMAC1_RSTn_L ⟩⟩ GMAC1_RSTn_L





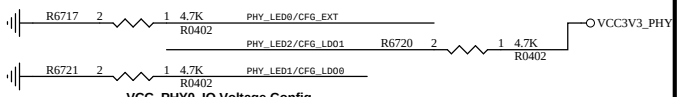
VCCIO_PHY0=3.3V	DNP	22R
VCCIO_PHY0=1.8V	120R	100R Default



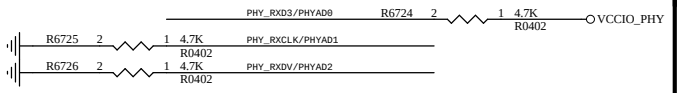


PHY_RXD0/RXDLY	GMAC1_RXD0
PHY_RXD1/TXDLY	GMAC1_RXD1
PHY_RXD2/PLLOFF	GMAC1_RXD2
PHY_RXD3/PHYAD0	GMAC1_RXD3
PHY_RXCLK/PHYAD1	GMAC1_RXCLK
PHY_RXDV/PHYAD2	GMAC1_RXDV_CRS

Close to PHY

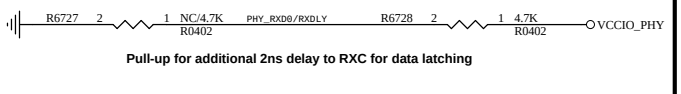


VCC_PHY0_IO Voltage Config



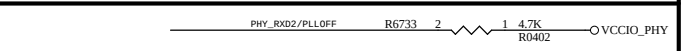
PHY Address Config

PHY Address	PHYAD[2:0]
1 (default)	3'b001

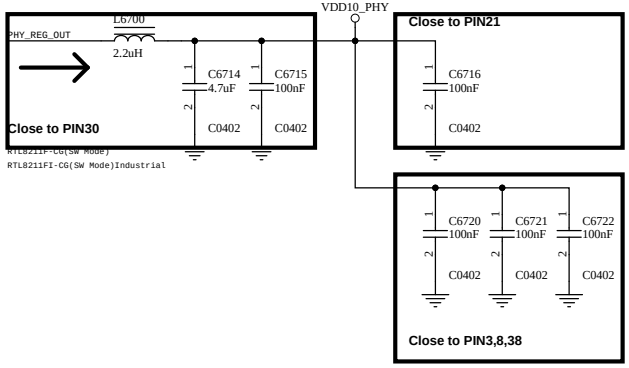


Pull-up for additional 2ns delay to RXC for data latching

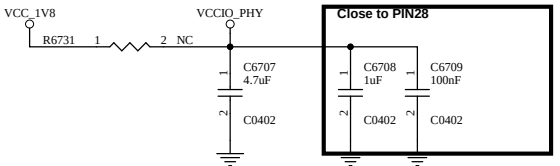
Pull-up for additional 2ns delay to TXC for data latching

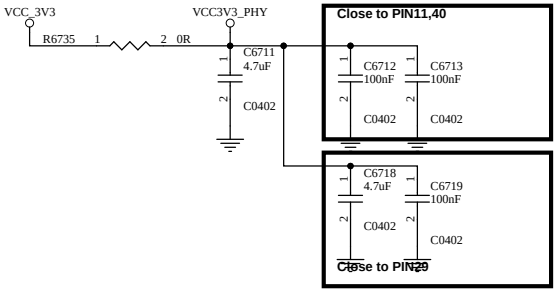


Pull-up to disable PLL @ ALDPS mode(Low power mode)



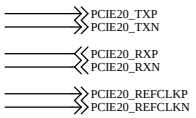
RGMII Power Source	CFG_EXT	CFG_LD0[1:0]	
External 3.3V	1'b1	2'b00	
External 1.8V	1'b1	2'b10	
Internal 1.8V(default)	1'b0	2'b10	

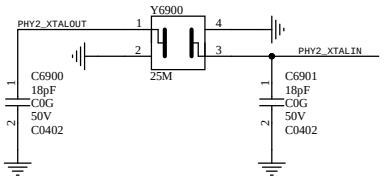


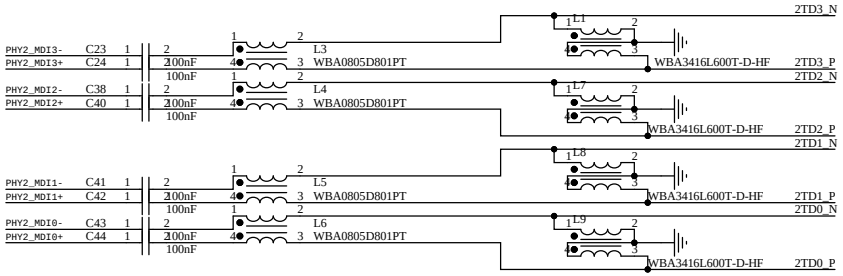


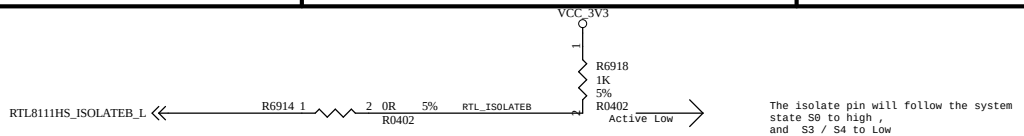
MangoPi M28K V1.1

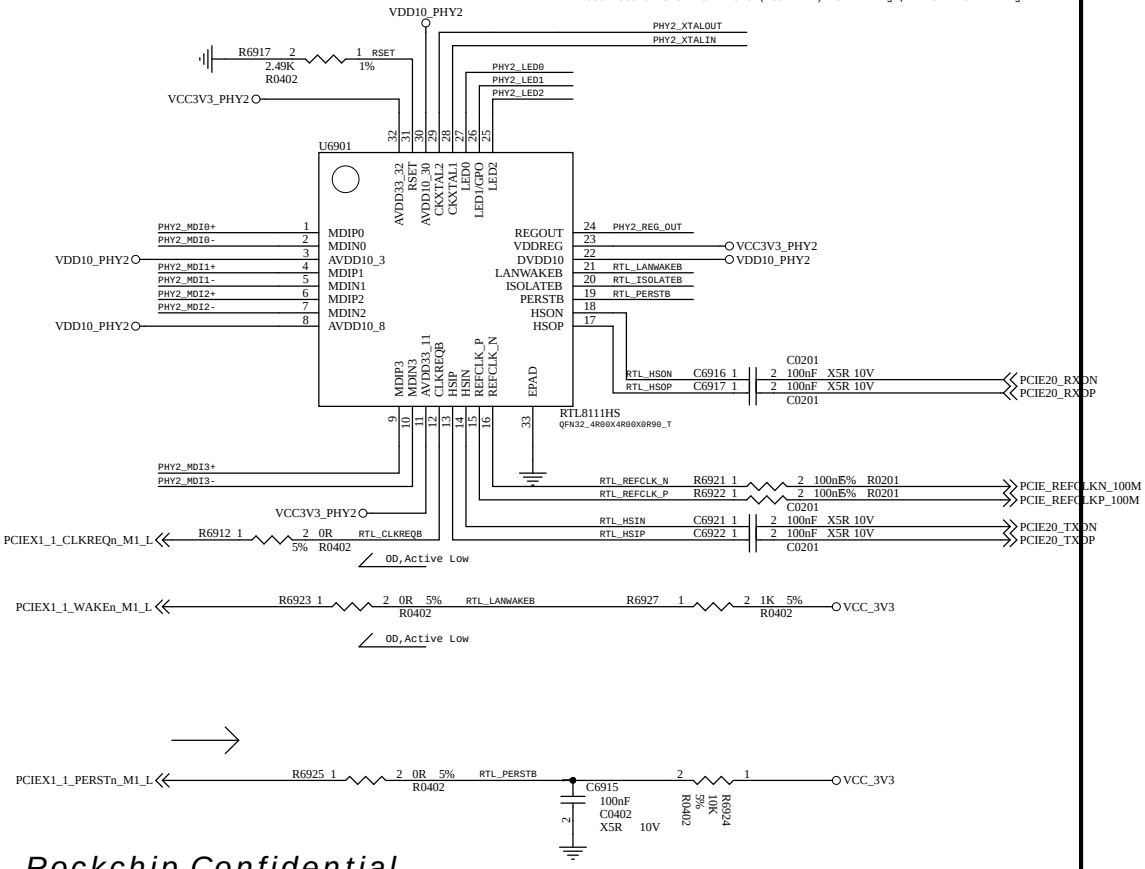
PCIE Ethernet

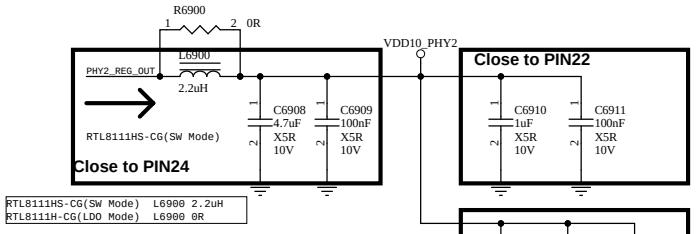


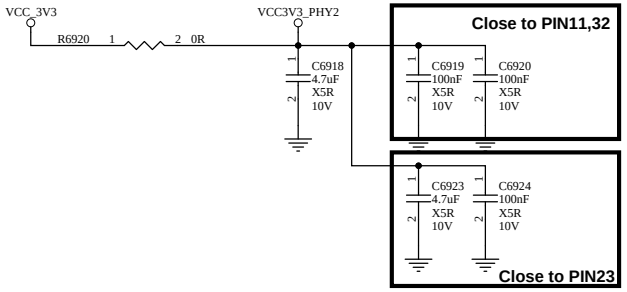












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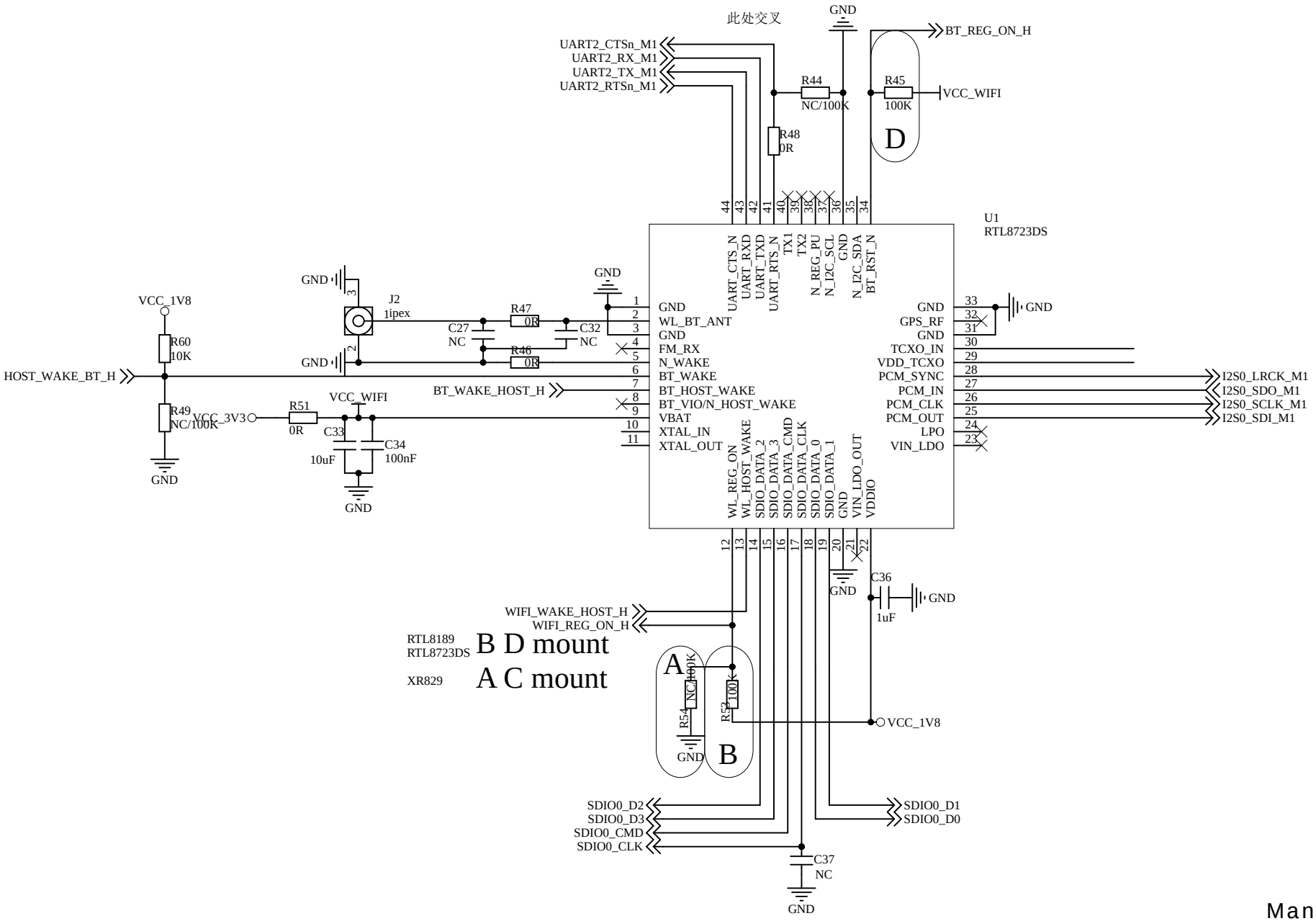
MangoPi M28K V1.1


此处交叉
UART2_CTSn_M1
UART2_RX_M1
UART2_TX_M1
UART2_RTSn_M1
R44
NC/100K
R45
100K
BT_REG_ON_H
VCC_WIFI
R48
0R
D
U1
RTL8723DS
UART_CTS_N
UART_RXD
UART_TXD
UART_RTS_N
TX1
TX2
N_REG_PU
N_I2C_SCL
GND
N_I2C_SDA
BT_RST_N
GND
WL_BT_ANT
GND
FM_RX
N_WAKE
BT_WAKE
BT_HOST_WAKE
BT_VIO/N_HOST_WAKE
VBAT
XTAL_IN
XTAL_OUT
GPS_RF
TCXO_IN
VDD_TCXO
PCM_SYNC
PCM_IN
PCM_CLK
PCM_OUT
LPO
VIN_LDO
I2S0_LRCK_M1
I2S0_SDO_M1
I2S0_SCLK_M1
I2S0_SDI_M1
WL_REG_ON
WL_HOST_WAKE
SDIO_DATA_2
SDIO_DATA_3
SDIO_DATA_CMD
SDIO_DATA_CLK
SDIO_DATA_0
SDIO_DATA_1
VIN_LDO_OUT
VDDIO
J2
1ipex
R47
0R
R46
0R
C27
NC
C32
NC
VCC_1V8
R60
10K
HOST_WAKE_BT_H
BT_WAKE_HOST_H
R49
NC/100K
VCC_3V3
R51
0R
C33
10uF
C34
100nF
C36
1uF
WIFI_WAKE_HOST_H
WIFI_REG_ON_H
RTL8189
RTL8723DS B D mount
XR829 A C mount
A
B
R54
NC/100K
R52
100K
SDIO0_D2
SDIO0_D3
SDIO0_CMD
SDIO0_CLK
SDIO0_D1
SDIO0_D0
C37
NC
GND
MangoPi M28K V1.1