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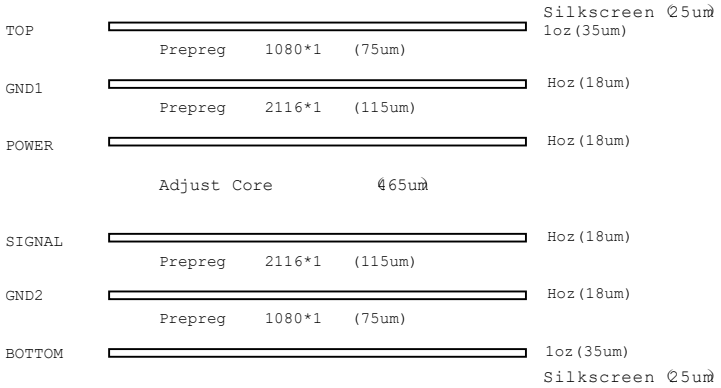
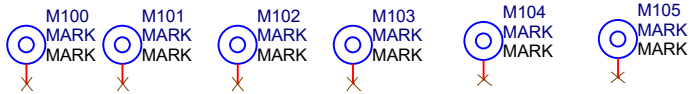
6 LAYERS PCB STACK (PCB=1.6mm)



Note:
器件参数说明
1:如果Value为DNP,说明暂时不贴。
2:如果Option有DNP,说明预留先不贴。



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Change List

Version	Date	Author	Change Note	Approved
V1.0	201708	Charlie	First edition	

Size	Title: ROCK Pi 4 Plus	REV
A4	Page Name: Change List	1.72
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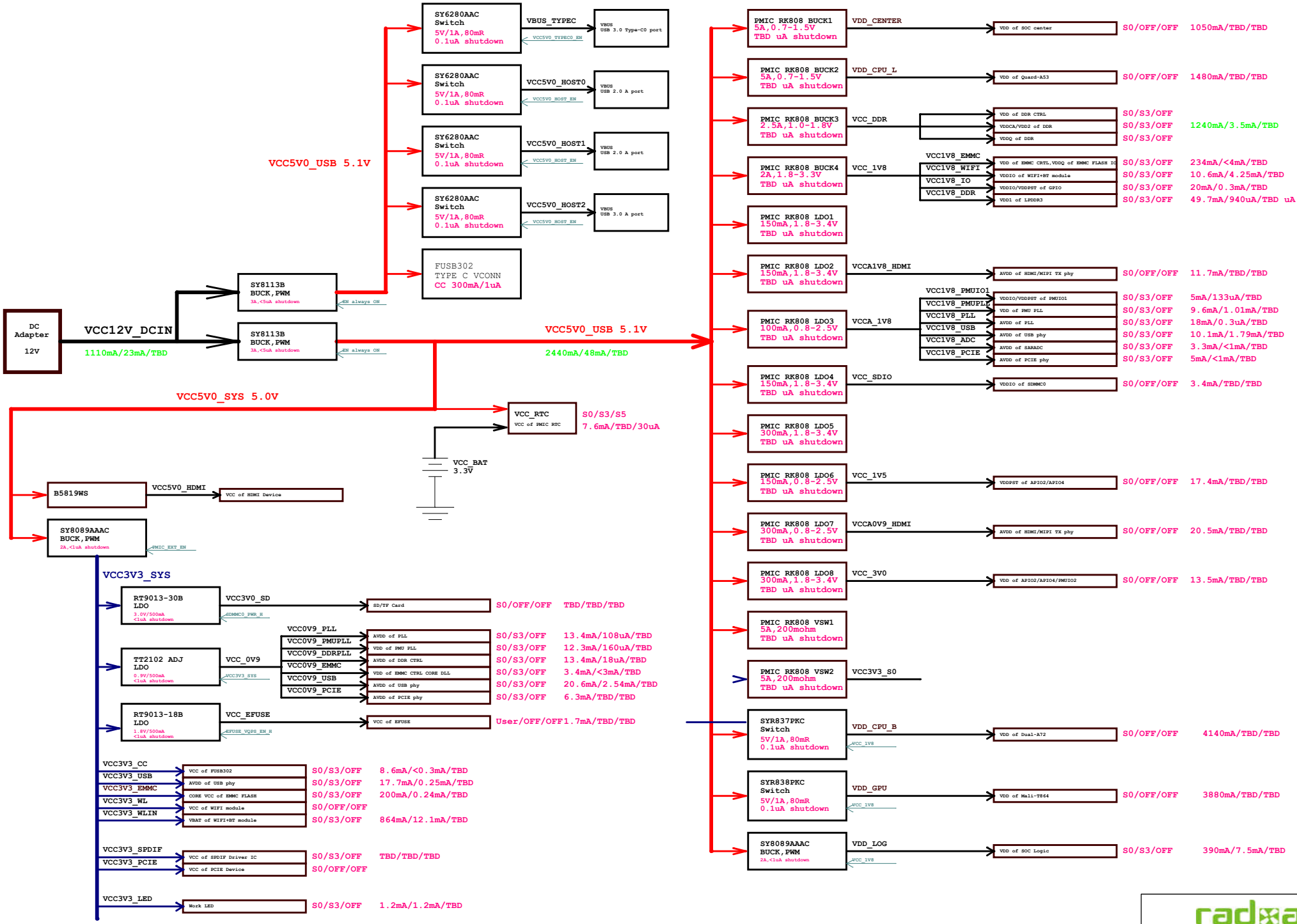
RK3399 POWER DIAGRAM



Size: A2	Title: ROCK Pi 4 Plus	REV: 1.72
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I2C MAP

Port	Pin name	Domain	Bus name	Pull-up voltage	Slave Device	Slave Addr (MS 7Bits)	Note	Slave Bus Capability
I2C0	GPIO1_B7/SPI3_RXD/I2C0_SDA GPIO1_C0/SPI3_TXD/I2C0_SCL	PMUIO2	I2C_SDA_PMIC I2C_SCL_PMIC	VCC_1V8	Rockchip RK808	0x1b	PMIC	100kHz,400KHz
					SYR837PKC	0x40	DC-DC BUCK	100kHz,400KHz,3.4MHz
					SYR838PKC	0x41	DC-DC BUCK	100kHz,400KHz,3.4MHz
I2C1	GPIO4_A1/I2C1_SDA GPIO4_A2/I2C1_SCL	APIO5		VCC_1V8			Low Speed CONNECTOR	
I2C2	GPIO2_A0/VOP_D0/CIF_D0/I2C2_SDA GPIO2_A1/VOP_D1/CIF_D1/I2C2_SCL	APIO2		VCC_1V8			High Speed CONNECTOR	
I2C3	GPIO4_C0/I2C3_SDA/UART2B_RX GPIO4_C1/I2C3_SCL/UART2B_TX	APIO4	I2C_SDA_HDMI I2C_SCL_HDMI	VCC_3V0				
I2C4	GPIO1_B3/I2C4_SDA GPIO1_B4/I2C4_SCL	PMUIO2	I2C_SDA_MEMS I2C_SCL_MEMS	VCC_1V8	Fairchild FUSB302B	0x44,0x46	USB-TypeC Mux	100kHz,400KHz,1MHz
I2C5	GPIO3_B2/MAC_RXER/I2C5_SDA GPIO3_B3/MAC_CLK/I2C5_SCL	APIO1	Other pin function					
I2C6	GPIO2_B1/SPI2_RXD/CIF_HREF/I2C6_SDA GPIO2_B2/SPI2_TXD/CIF_CLKIN/I2C6_SCL	APIO2		VCC_1V8			Low Speed CONNECTOR	
I2C7	GPIO2_A7/VOP_D7/CIF_D7/I2C7_SDA GPIO2_B0/VOP_CLK/CIF_VSYNC/I2C7_SCL	APIO2		VCC_1V8			High Speed CONNECTOR	

radxa

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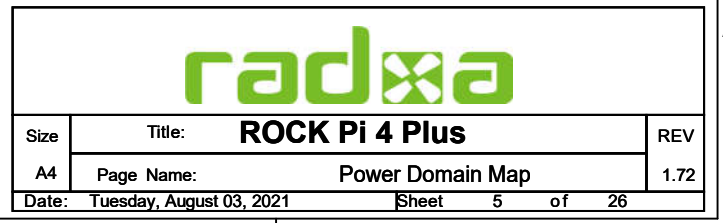
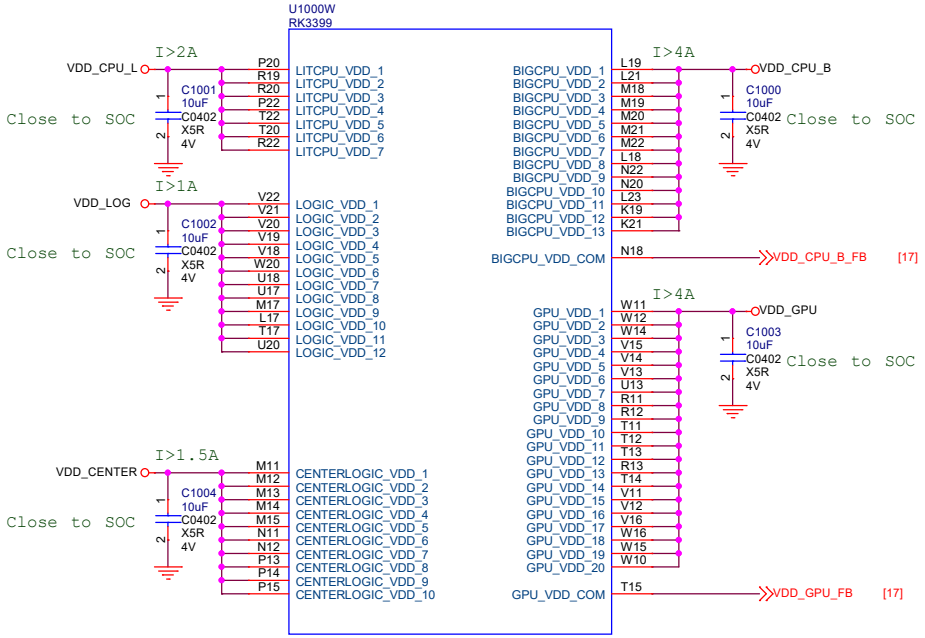
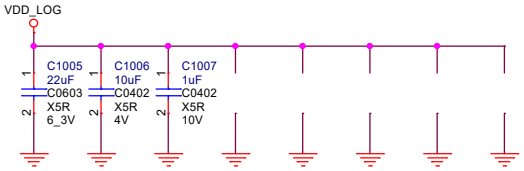
Power Domain Map

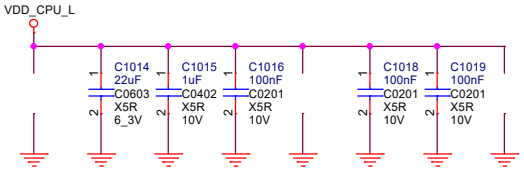
Part Port	Domain	Pin name in datasheet	I/O type	Power supply	Power source
Part C	PMUIO1	pmuio1_gpio0ab	1.8V only	VCCA_1V8	RK808-D VLDO3
Part E	PMUIO2	pmu1830_gpio1abcd	1.8V(Default) 3.0V	VCC_1V8	RK808-D Buck4
Part I	APIO1	gmac_gpio3abc	3.3V only	VCC_1V8 VCC3V3_SYS	RK808-D Buck4
Part L	APIO2	bt656_gpio2ab	1.8V(Default) 3.0V	VCC_1V8	RK808-D VLDO3
Part G	APIO3	wifi/bt_gpio2cd	1.8V only	VCC_1V8	RK808-D Buck4
Part K	APIO4	gpio1830_gpio4cd	1.8V 3.0V(Default)	VCC_1V5 VCC_3V0	RK808-D VLDO6 RK808-D VLDO8
Part J	APIO5	audio_gpio3d_gpio4a	1.8V(Default) 3.0V	VCC_1V8	RK808-D Buck4
Part F	SDMMC0	sdmmc_gpio4b	1.8V 3.0V(Default)	VCC_SDIO	RK808-D VLDO4

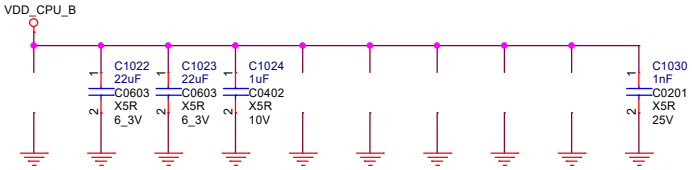


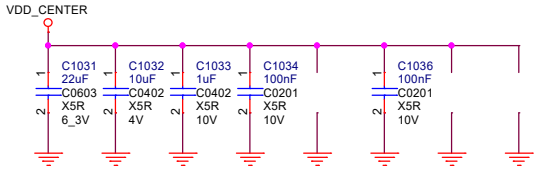


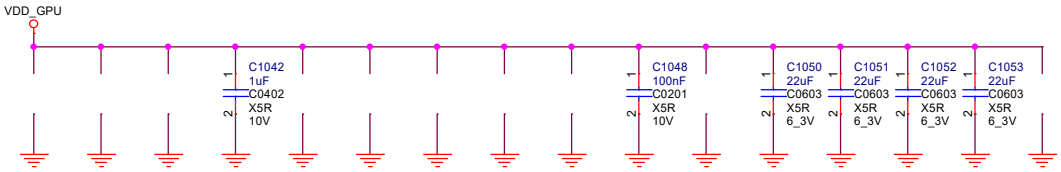
Note:Power filter CAP please place back of SOC or close to SOC

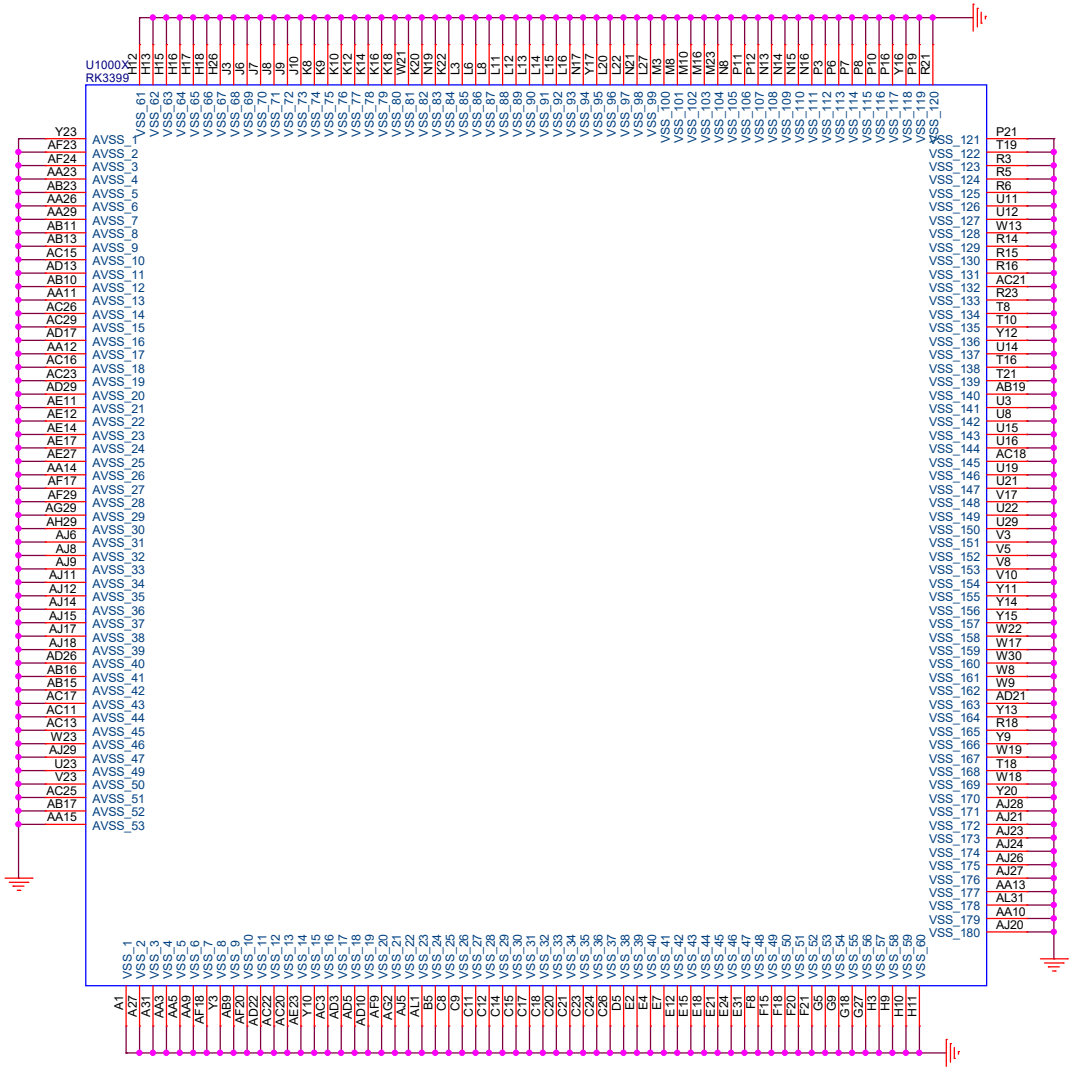












Size	Title: ROCK Pi 4 Plus		REV
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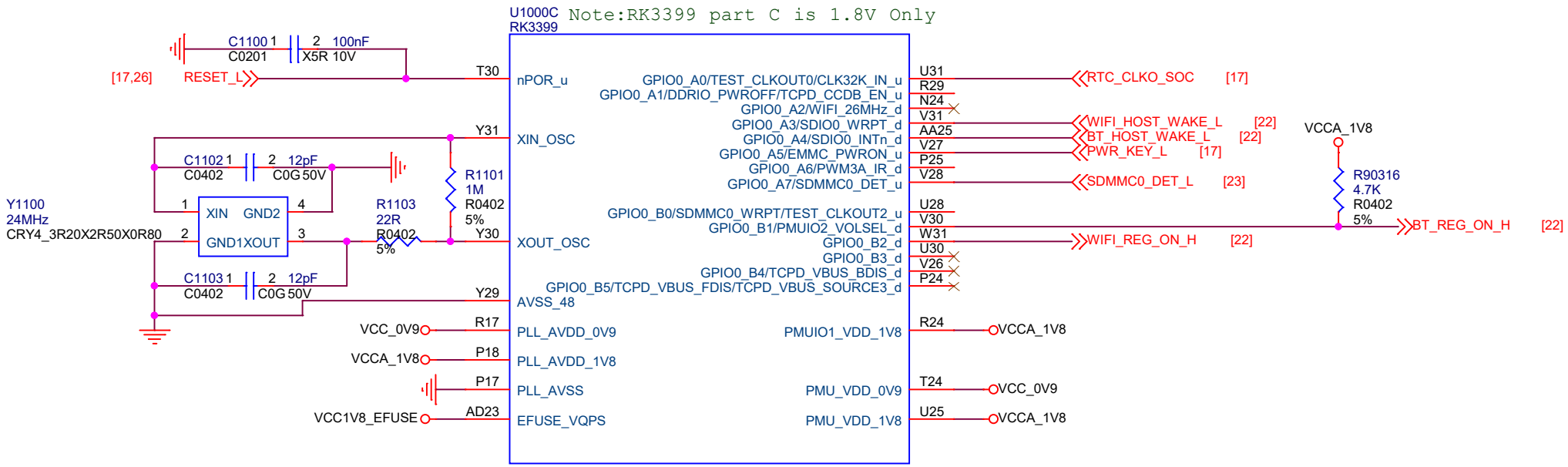

Size A4	Title: ROCK Pi 4 Plus	REV 1.72
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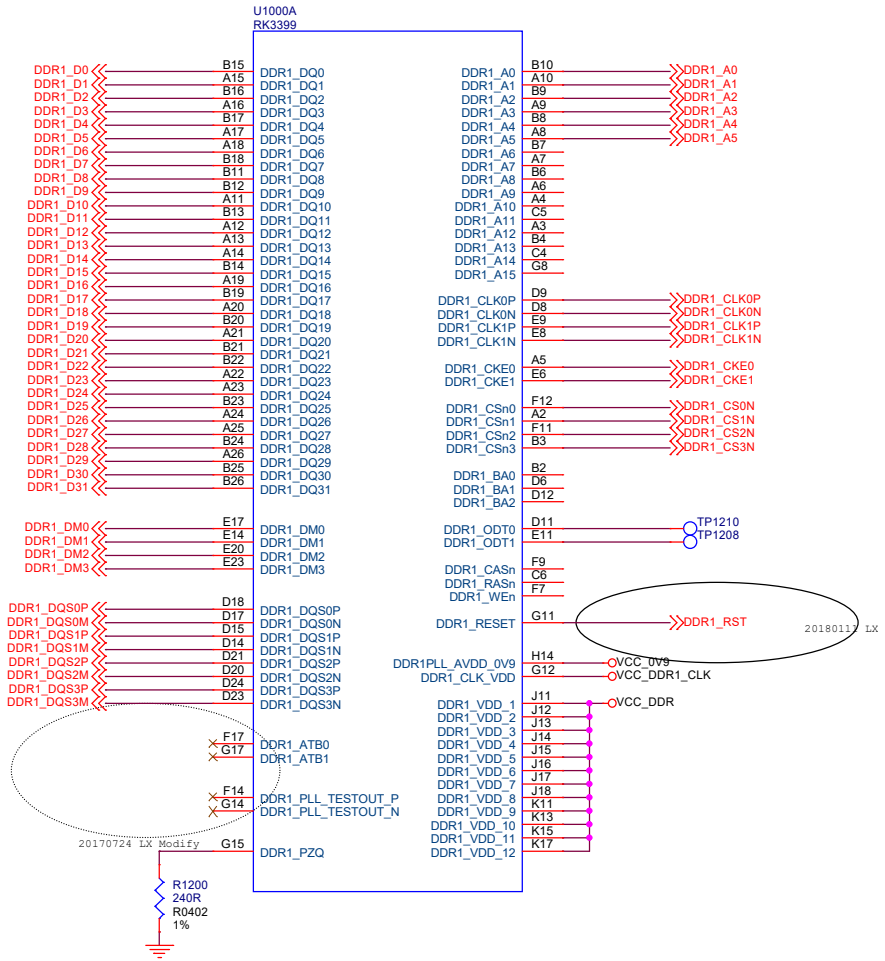
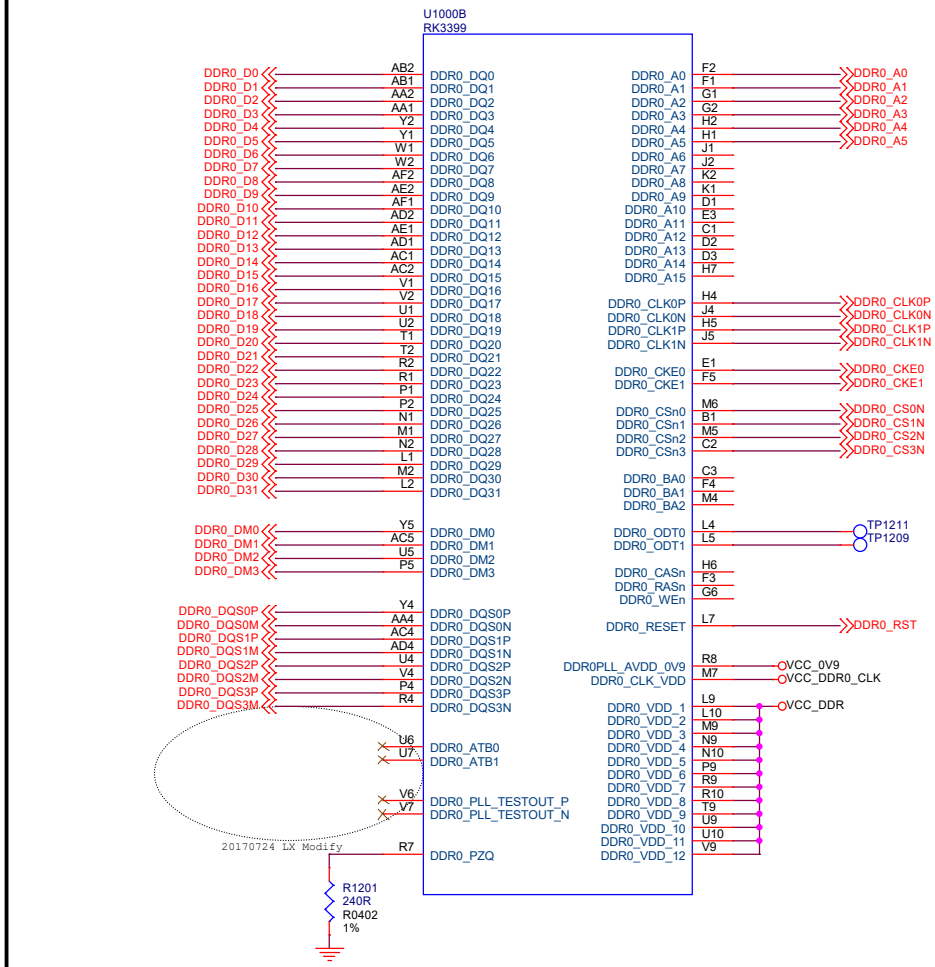
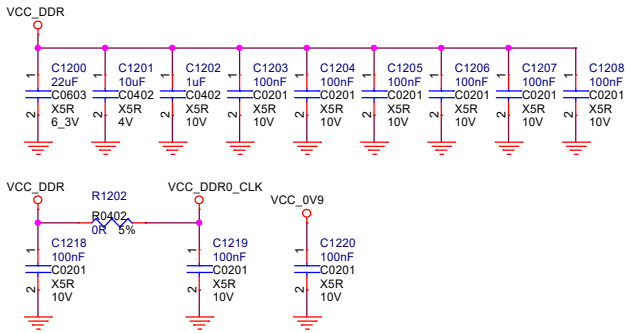




DDR FILTER Note:R1202 cannot be deleted



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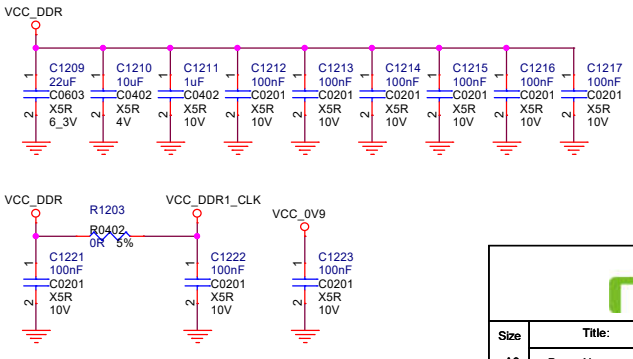

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A3	Page Name: RK3399 DDR Controler	1.72
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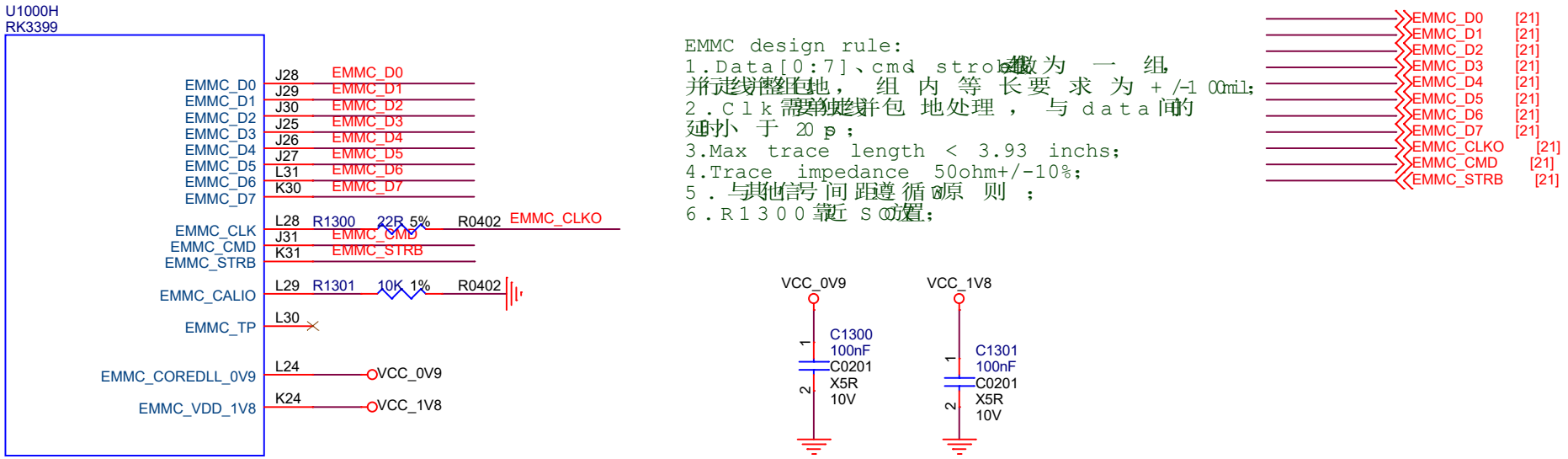

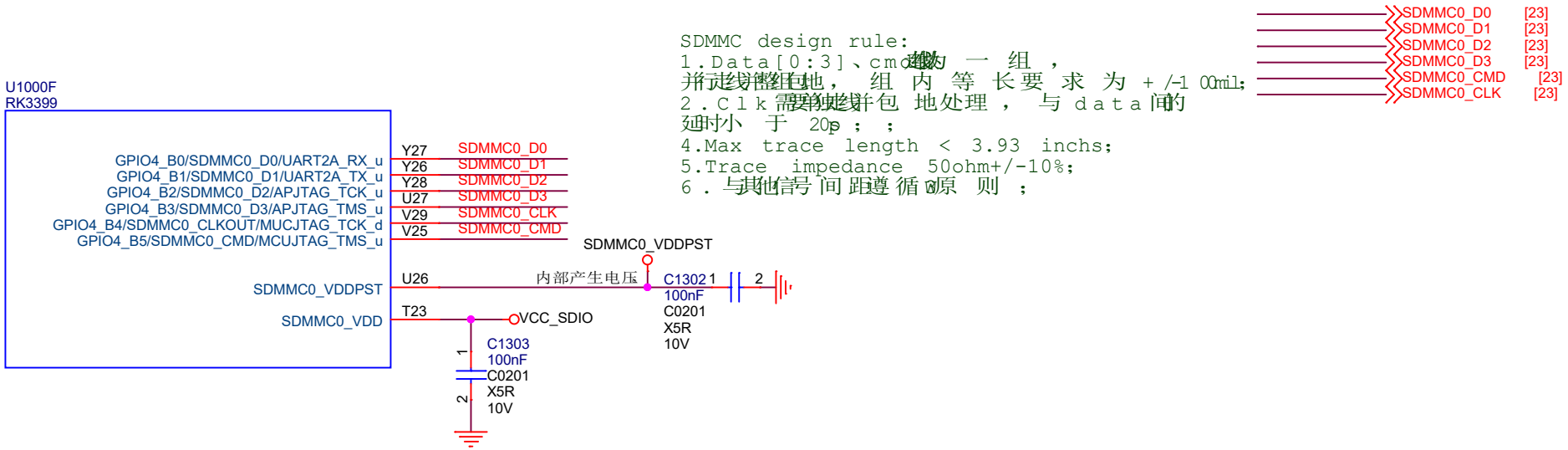

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A4	Page Name: RK3399 Flash&SDMMC Controler	1.72
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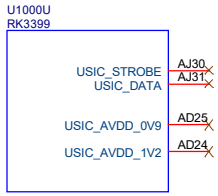
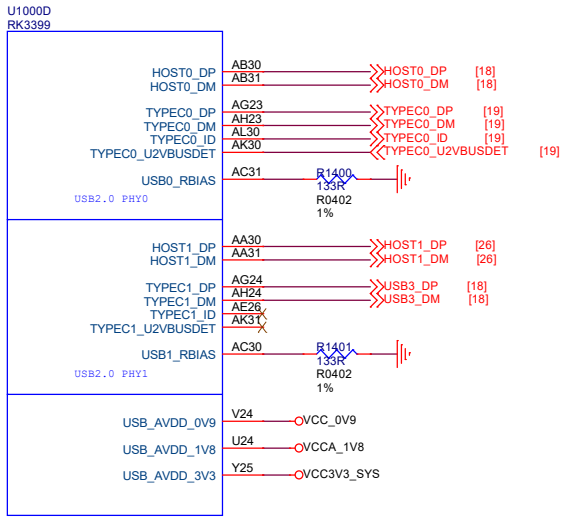
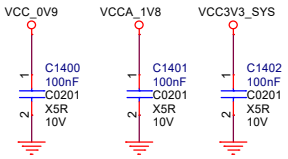


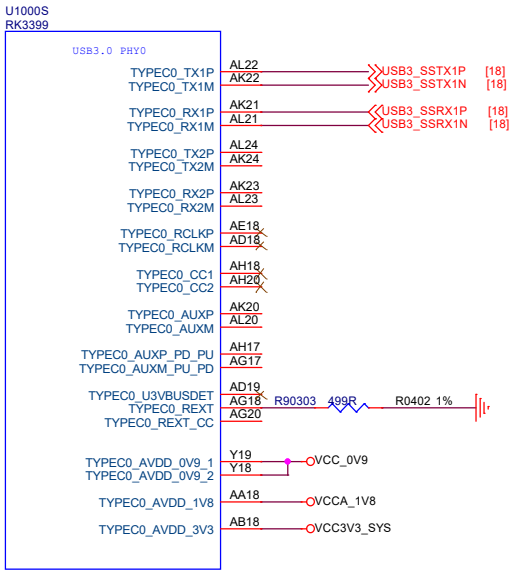
USB2.0

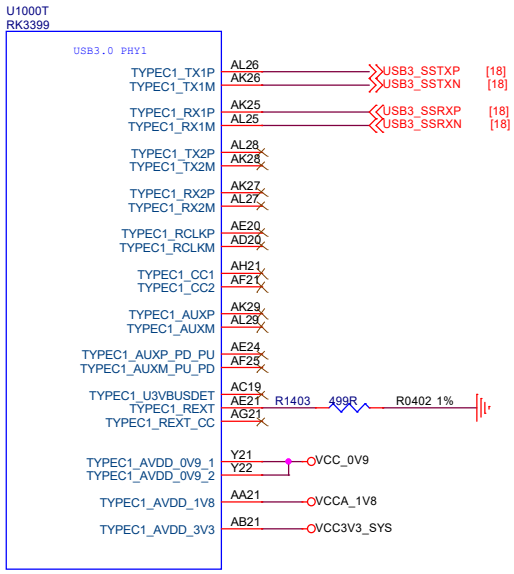


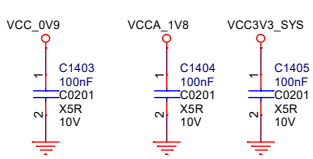


USB2.0 design rule:
1.Max intra-pair skew < 4 ps;
2.Max trace length < 6 inchs;
3.Max allowed via < 6;
4.Trace impedance 90ohm+/-10%;
5．与其他信号间距遵循3W原则；

USB3.0







USB3.0 design rule:
1.Max intra-pair skew < 4 ps;
2.Max length skew between TX and RX < 1.6 ns;
3.Max trace length < 6 inchs;
4.Max allowed via < 4;
5.Trace impedance 90ohm+/-10%;
6．与其他信号间距遵循3W原则；

DP design rule:
1.Max intra-pair skew < 4 ps;
2.Max trace length < 6 inchs;
3.Max allowed via < 4;
4.Trace impedance 90ohm+/-10%;
5．与其他信号间距遵循3W原则；

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A3	Page Name: RK3399 USB/USIC Controler	1.72
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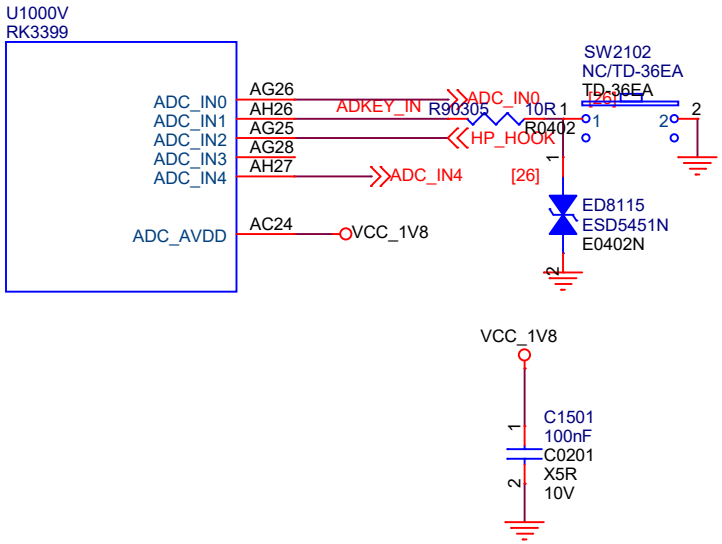
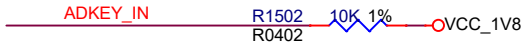


KEY BAORD

Note:
系统时，如果ADKEY_IN电平为0V，
则RK3399进入Recovery模式；
量时R1503,SW1500,ED1500可以不用贴片



Size	Title:	ROCK Pi 4 Plus	REV
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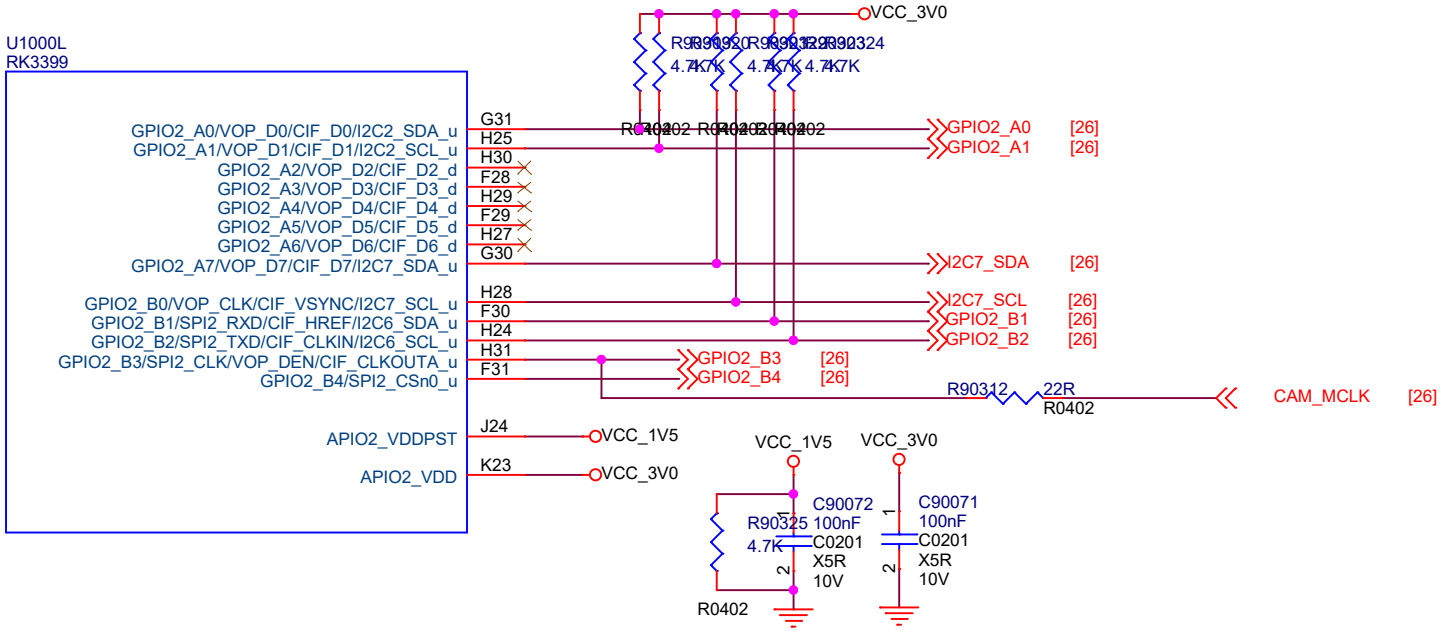

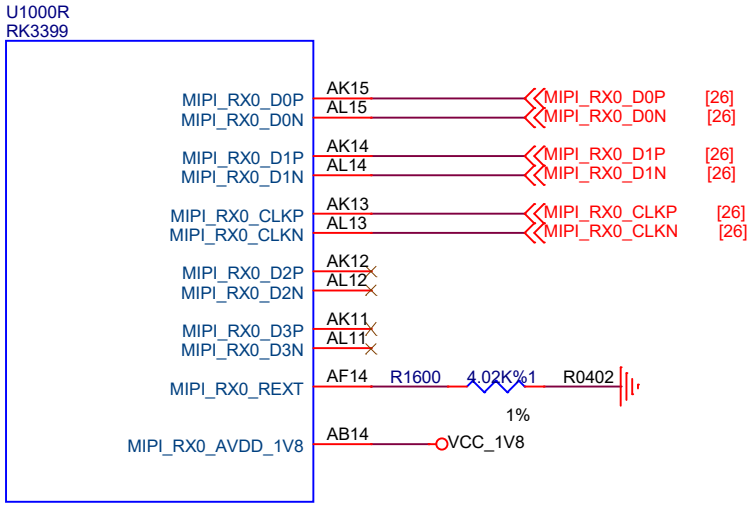

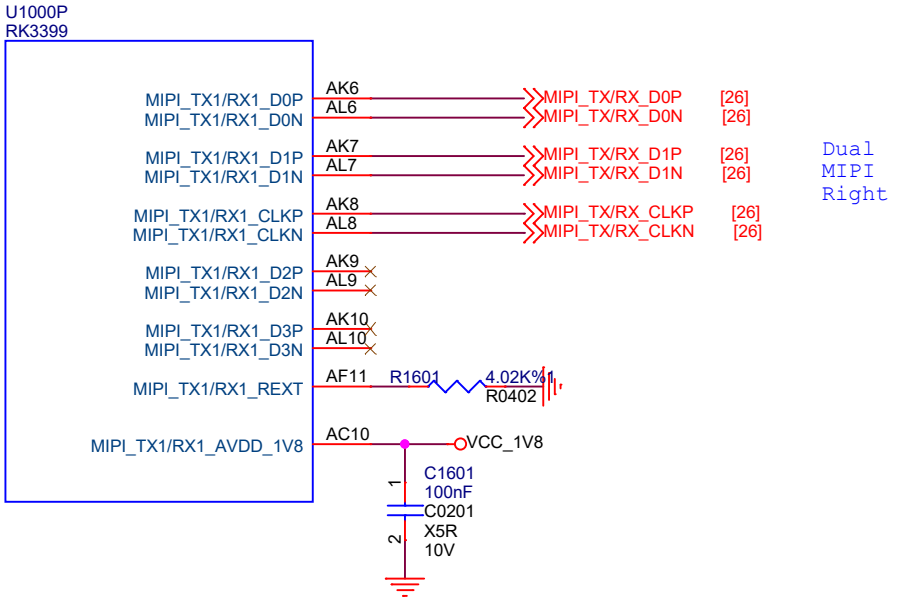

Size A4	Title: ROCK Pi 4 Plus	REV 1.72
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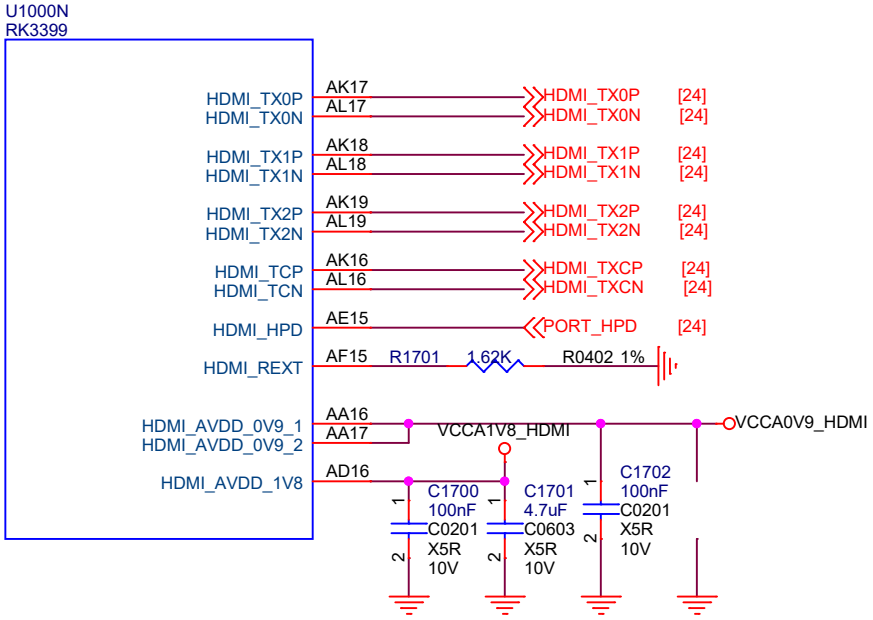
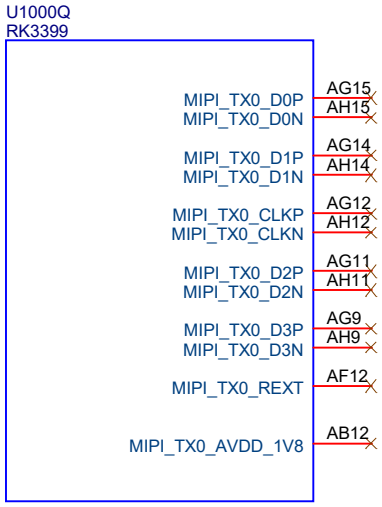
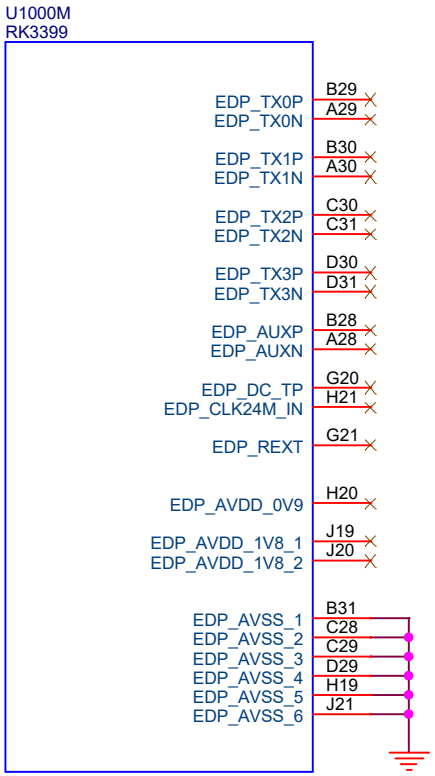


HDMI design rule:
1.Max intra-pair skew < 4 ps;
2.Max length skew between clk and data < 80 ps;
3.Max trace length < 9.8 inchs;
4.Max allowed via < 4;
5.Trace impedance 100ohm+/-10%;
6 . 与其他信号 间 距遵 循 d原 则 ;





eDP design rule:
1.Max intra-pair skew < 4 ps;
2.Max trace length < 6 inchs;
3.Max allowed via < 4;
4.Trace impedance 90ohm+/-10%;
5 . 与其他信号 间 距遵 循 d原 则 ;

MIPI design rule:
1.Max intra-pair skew < 4 ps;
2.Max length skew between clk and data < 7ps;
3.Max trace length < 7.2 inchs;
4.Max allowed via < 4;
5.Trace impedance 100ohm+/-10%;
6 . 与其他信号 间 距遵 循 d原 则 ;

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U1000I RK3399 Note:RK3399 part I is 3.3V only

GPIO3_A0/MAC_TXD2/SPI4_RXD_d F24 MAC_TXD2 PHY_TXD2
GPIO3_A1/MAC_TXD3/SPI4_TXD_d H23 MAC_TXD3 PHY_TXD3
GPIO3_A2/MAC_RXD2/SPI4_CLK_u E30 MAC_RXD2
GPIO3_A3/MAC_RXD3/SPI4_CSn0_u E25 MAC_RXD3
GPIO3_A4/MAC_TXD0/SPI0_RXD_d D26 MAC_TXD0 PHY_TXD0
GPIO3_A5/MAC_TXD1/SPI0_TXD_d G23 MAC_TXD1 PHY_TXD1
GPIO3_A6/MAC_RXD0/SPI0_CLK_u E26 MAC_RXD0
GPIO3_A7/MAC_RXD1/SPI0_CSn0_u F27 MAC_RXD1
GPIO3_B0/MAC_MDC/SPI0_CSn1_u E29 MAC_MDCLK
GPIO3_B1/MAC_RXDV_d C27 MAC_RXDV
GPIO3_B2/MAC_RXER/I2C5_SDA_u F23
GPIO3_B3/MAC_CLK/I2C5_SCL_u G24 R1806 22R 5% R0402 MAC_CLK
GPIO3_B4/MAC_TXEN/UART1_RX_u H22 MAC_TXEN PHY_TXEN
GPIO3_B5/MAC_MDIO/UART1_TX_u G26 MAC_MDIO
GPIO3_B6/MAC_RXCLK/UART3_RX_u F25 MAC_RXCLK
GPIO3_B7/MAC_CLKOUT/UART3_TX_u B27 PHY_RST
C1800 DNP C0402
GPIO3_C0/MAC_COL/UART3_CTSn/SPDIF_TX_u D27 GPIO3_C0 [26]
GPIO3_C1/MAC_TXCLK/UART3_RTSn_u E28 MAC_TXCLK R1807 22R 5% R0402 PHY_TXCLK
APIO1_VDDPST J22 VCC_1V8
APIO1_VDD J23 VCC3V3_LAN

VCC3V3_LAN C1801 100nF C0402 X5R 10V
VCC_1V8 C1802 100nF C0402 X5R 10V

PHY_TXD0 R1809 4.7K 5% R0402 VCC3V3_LAN
PHY_TXD1 R1810 4.7K 5% R0402
PHY_TXD2 R1811 4.7K 5% R0402
PHY_TXD3 R1812 4.7K 5% R0402
MAC_MDIO R1814 1.5K 5% R0402

U1000E RK3399 Note:RK3399 part E is 1.8V/3.0V mode

GPIO1_A0/ISP0_SHUTTER_EN/ISP1_SHUTTER_EN/TCPD_VBUS_SINK_EN_d R25 HP_DETECT
GPIO1_A1/ISP0_SHUTTER_TRIG/ISP1_SHUTTER_TRIG/TCPD_CC0_VCONN_EN_d T31 HP_INT
GPIO1_A2/ISP0_FLASHTRIGIN/ISP1_FLASHTRIGIN/TCPD_CC1_VCONN_EN_d R26 24C02_WP [6]
GPIO1_A3/ISP0_FLASHTRIGOUT/ISP1_FLASHTRIGOUT_d R27 VCC5V0_TYPEC0_EN [19]
GPIO1_A4/ISP0_PRELIGHT_TRIG/ISP1_PRELIGHT_TRIG_d R28
GPIO1_A5/AP_PWROFF_d R30 PMIC_SLEEP_H [17]
GPIO1_A6/TSADC_INT_z P26
GPIO1_A7/SPI1_RXD/UART4_RX_u P27 GPIO1_A7 [26]
GPIO1_B0/SPI1_TXD/UART4_TX_u R31 GPIO1_B0 [26]
GPIO1_B1/SPI1_CLK/PMCU_JTAG_TCK_u P28 GPIO1_B1 [26]
GPIO1_B2/SPI1_CSn0/PMCU_JTAG_TMS_u P29 GPIO1_B2 [26]
GPIO1_B3/I2C4_SDA_u P31 I2C4_SDA [26]
GPIO1_B4/I2C4_SCL_u P30 I2C4_SCL [26]
GPIO1_B5_d M24 CAM_GPIO1 [26]
GPIO1_B6/PWM3B_IR_d M25 GPU_SLEEP_H [17]
GPIO1_B7/SPI3_RXD/I2C0_SDA_u M26 I2C_SDA_PMIC [17]
GPIO1_C0/SPI3_TXD/I2C0_SCL_u N30 I2C_SCL_PMIC [17]
GPIO1_C1/SPI3_CLK_d M27 CPU_B_SLEEP_H [17]
GPIO1_C2/SPI3_CSn0_u N31
GPIO1_C3/PWM2_d M28 LOG_DVS_PWM [17]
GPIO1_C4/I2C8_SDA_u M29 PHY_PMEB
GPIO1_C5/I2C8_SCL_u M30 PMIC_INT_L [17]
GPIO1_C6/TCPD_VBUS_SOURCE0_d L25
GPIO1_C7/TCPD_VBUS_SOURCE1_d M31 PHY_INT
GPIO1_D0/TCPD_VBUS_SOURCE2_d L26
DFTJTAG_TMS_u AA24
DFTJTAG_TRSTn_d AB24
PMUIO2_VDDPST N23 VCC_1V5
PMUIO2_VDD P23 VCC_3V0

VCC_3V0 R9 R1818 4.7K R0402 5% R0402

1.8V Only	VDDPST=VDDIO=1.8V
3.3V Only	VDDPST=1.8V,VDDIO=3.3V
other	3.0V mode:VDDPST=1.5V,VDDIO=3.0V 1.8V mode:VDDPST=1.8V,VDDIO=1.8V

VCC_1V5 C1803 100nF C0201 X5R 10V
VCC_3V0 C90021 100nF C0201 X5R 10V

I2C_SDA_PMIC R1815 2.2K 5% R0402 VCC_3V0
I2C_SCL_PMIC R1816 2.2K 5% R0402

U1000G RK3399 Note:RK3399 part G is 1.8V only

GPIO2_C0/UART0_RX_u AE9 UART0_RXD [22]
GPIO2_C1/UART0_TX_u AH8 UART0_TXD [22]
GPIO2_C2/UART0_CTSn_u AG8 UART0_CTS [22]
GPIO2_C3/UART0_RTSn_u AL5 UART0_RTS [22]
GPIO2_C4/SDIO0_D0/SPI5_RXD_u AD8 SDIO0_D0 [22]
GPIO2_C5/SDIO0_D1/SPI5_TXD_u AK5 SDIO0_D1 [22]
GPIO2_C6/SDIO0_D2/SPI5_CLK_u AG7 SDIO0_D2 [22]
GPIO2_C7/SDIO0_D3/SPI5_CSn0_u AE8 SDIO0_D3 [22]
GPIO2_D0/SDIO0_CMD_u AH6 SDIO0_CMD [22]
GPIO2_D1/SDIO0_CLKOUT/TEST_CLKOUT1_u AF7 SDIO0_CLK [22]
GPIO2_D2/SDIO0_DETN/PCIE_CLKREQn_u AL4 PCIE_PWR [25]
GPIO2_D3/SDIO0_PWREN_d AD9 BT_WAKE_L [22]
GPIO2_D4/SDIO0_BKPWR_d AF8
APIO3_VDD_1V8 AB8 VCC_1V8

SDIO design rule:
1.Data[0:3]、cmd线为一组，并走包地处理，组内等长要求为+/-1 00mil;
2.Clk需要独立包地处理，与data间的间距小于20ps；
4.Max trace length < 3.93 inchs;
5.Trace impedance 50ohm+/-10%;
6.与其他信号间距遵循3W原则；

U1000J RK3399 Note:RK3399 part J is 1.8V/3.0V mode

GPIO3_D0/I2S0_SCLK_d AG3 I2S0_SCLK [26]
GPIO3_D1/I2S0_LRCK_RX_d AF4 I2S0_LRCK_RX [26]
GPIO3_D2/I2S0_LRCK_TX_d AJ2 I2S0_LRCK_TX [26]
GPIO3_D3/I2S0_SDIO0_d Y7 I2S0_SDI0 [26]
GPIO3_D4/I2S0_SDI1SDO3_d AE5 USER_LED1
GPIO3_D5/I2S0_SDI2SDO2_d AA6 USER_LED2
GPIO3_D6/I2S0_SDI3SDO1_d AH2
GPIO3_D7/I2S0_SDO0_d AH1 I2S0_SDO0 [26]
GPIO4_A0/I2S_CLK_d AC7 I2S_CLK [26]
GPIO4_A1/I2C1_SDA_u AG1 I2C_SDA_AUDIO [26]
GPIO4_A2/I2C1_SCL_u Y6 I2C_SCL_AUDIO [26]
GPIO4_A3/I2S1_SCLK_d AF3 GPIO4_A3 [26]
GPIO4_A4/I2S1_LRCK_RX_d AA7 GPIO4_A4 [26]
GPIO4_A5/I2S1_LRCK_TX_d AJ1 GPIO4_A5 [26]
GPIO4_A6/I2S1_SDI0_d AD6 GPIO4_A6 [26]
GPIO4_A7/I2S1_SDO0_d AC6 GPIO4_A7 [26]
APIO5_VDDPST AA8 VCC_1V5
APIO5_VDD Y8 VCC_3V0

VCC5V0_SYS R1823 1K 5% R0402
USER_LED1 R1821 NC 5% R0402 LED704 LED_GREEN LED0603
USER_LED2 R1822 1K 5% R0402 LED705 LED_GREEN LED0603

VCC_1V5 C90022 100nF C0201 X5R 10V
VCC_3V0 C90023 100nF C0201 X5R 10V

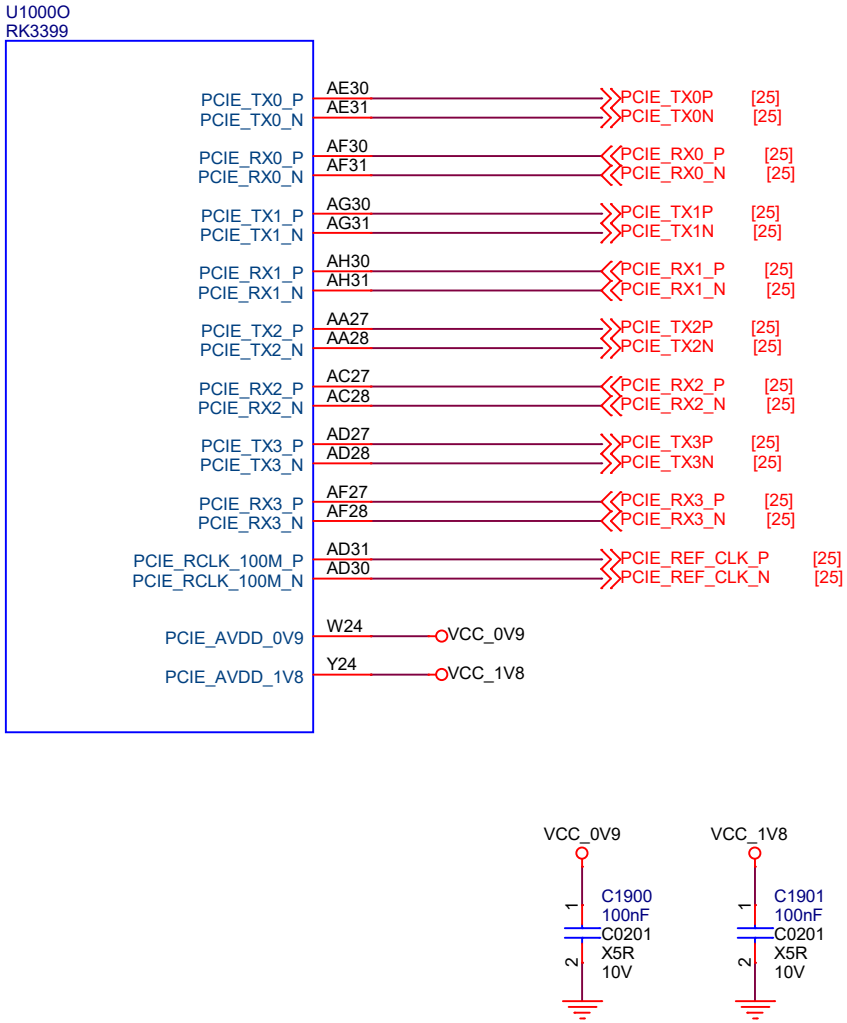
U1000K RK3399 Note:RK3399 part J is 1.8V/3.0V mode

GPIO4_C0/I2C3_SDA/UART2B_RX_u AG6 I2C_SDA_HDMI [24]
GPIO4_C1/I2C3_SCL/UART2B_TX_u AL2 I2C_SCL_HDMI [24]
GPIO4_C2/PWM0/VOP0_PWM/VOP1_PWM_d AF5 GPIO4_C2 [26]
GPIO4_C3/UART2C_RX_u AK2 UART2DBG_RX GPIO4_C3 [26]
GPIO4_C4/UART2C_TX_u AJ4 UART2DBG_TX GPIO4_C4 [26]
GPIO4_C5/SPDIF_TX_d AK1 GPIO4_C5 [26]
GPIO4_C6/PWM1_d AL3 GPIO4_C6 [26]
GPIO4_C7/HDMI_CECINOUT/EDP_HOTPLUG_u AD7 HDMI_CEC [24]
GPIO4_D0/PCIE_CLKREQnB_u AE6 PCIE_CLKREQ_L [25]
GPIO4_D1/DP_HOTPLUG_d AK4 VCC5V0_HOST_EN [18]
GPIO4_D2_d AH3 GPIO4_D2 [26]
GPIO4_D3_d AK3 PCIE_PERST_L [25]
GPIO4_D4_d AH5 GPIO4_D4 [26]
GPIO4_D5_d AJ3 GPIO4_D5 [26]
GPIO4_D6_d AG4 GPIO4_D6 [26]
APIO4_VDDPST AC8 VCC_1V5
APIO4_VDD AC9 VCC_3V0

VCC_1V5 C1806 100nF C0201 X5R 10V
VCC_3V0 C1807 100nF C0201 X5R 10V

radxa

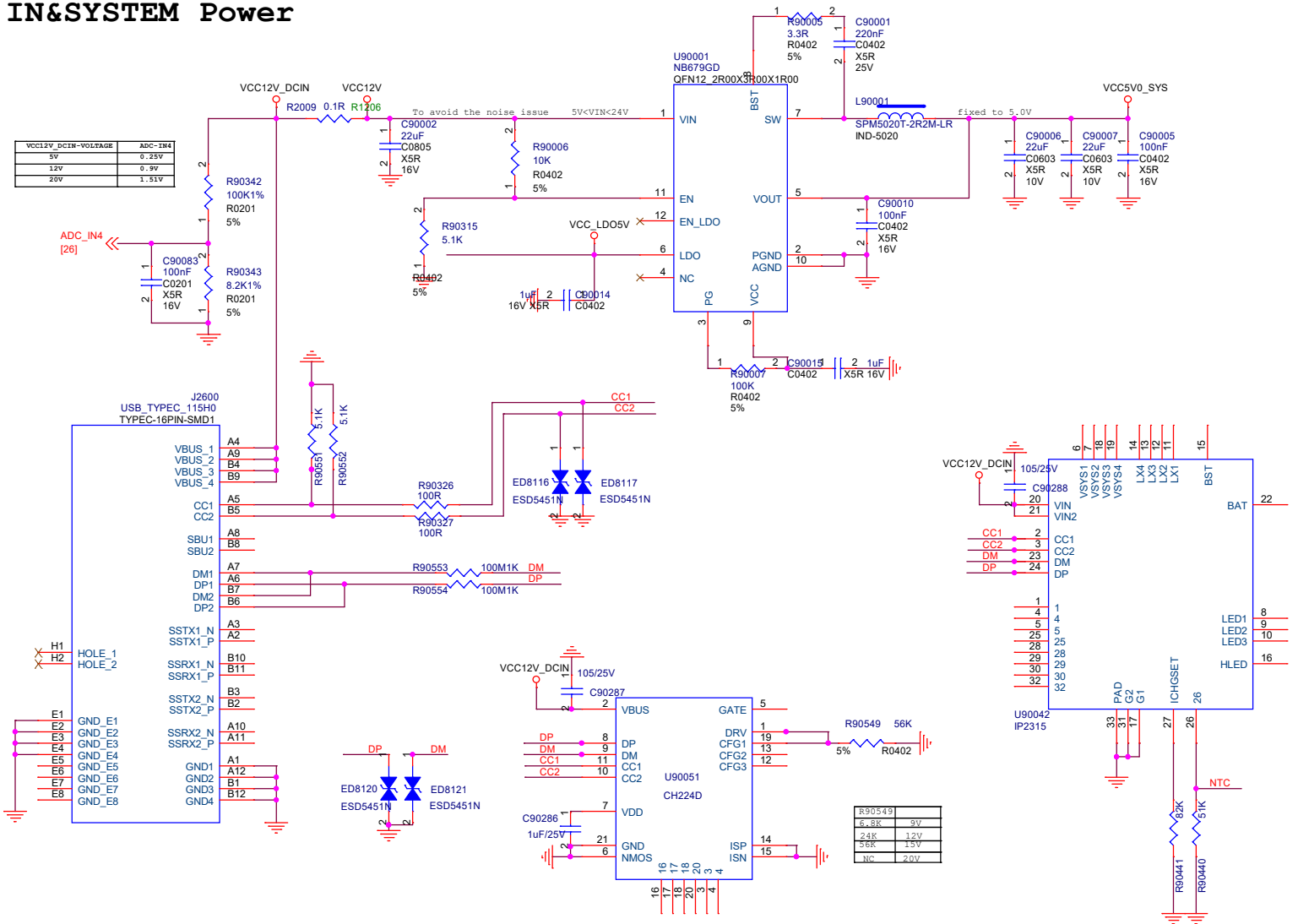
Size	Title: ROCK Pi 4 Plus	REV
Custom	Page Name: RK3399 GPIO	1.72
Date: Tuesday, August 03, 2021	Sheet 14 of 26	




```
PCIE design rule:
1.Max intra-pair skew < 4ps;
2.Max inter-pair skew < 1.6 ns;
3.Max trace length < 14 inchs;
4.Max allowed via < 4;
5.Trace impedance 100ohm+/-10%;
6 . 与其他信号 间 距遵 循 3W原 则 ;
```

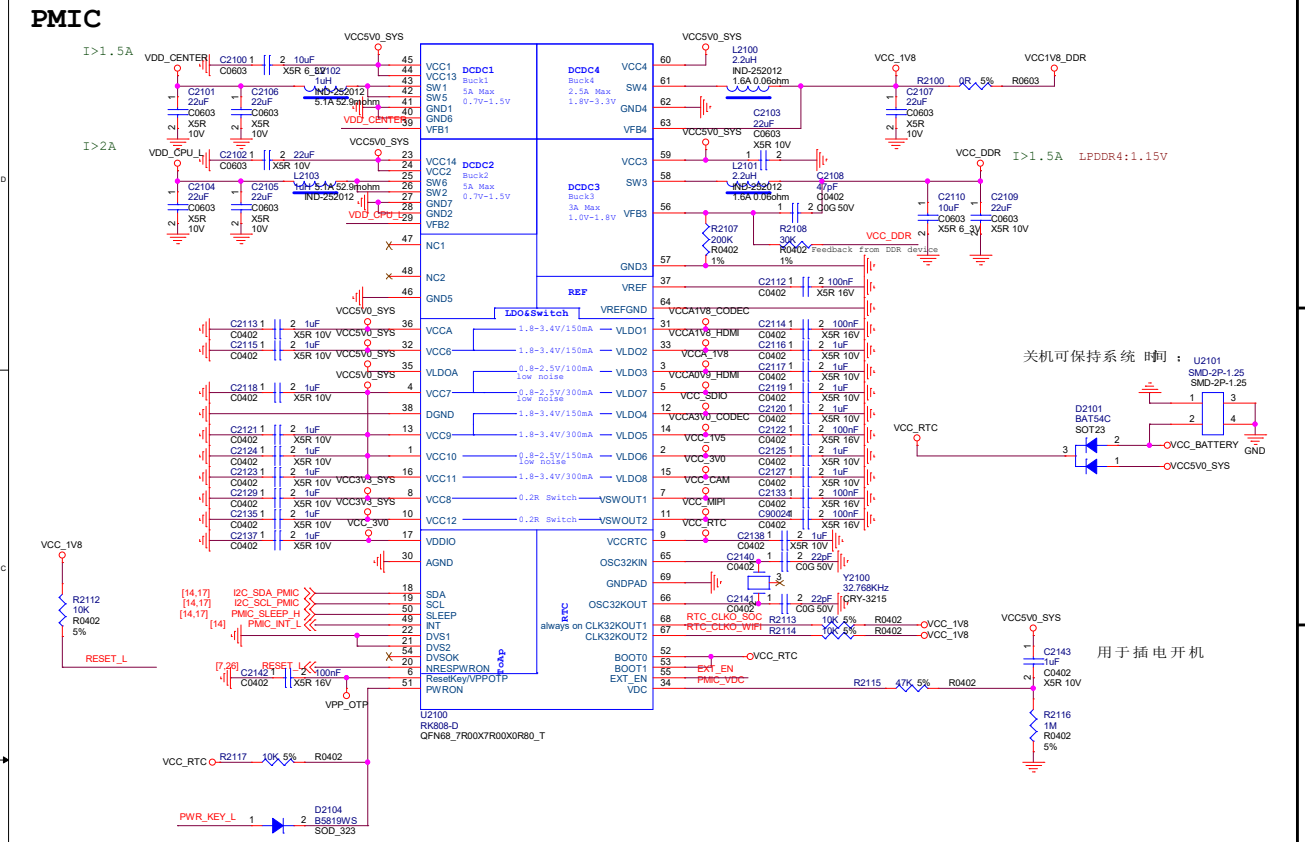

Size A4	Title: ROCK Pi 4 Plus	REV 1.72
	Page Name: RK3399 PCIE	
Date: Tuesday, August 03, 2021	Sheet 15 of 26	

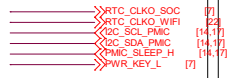
DC IN&SYSTEM Power



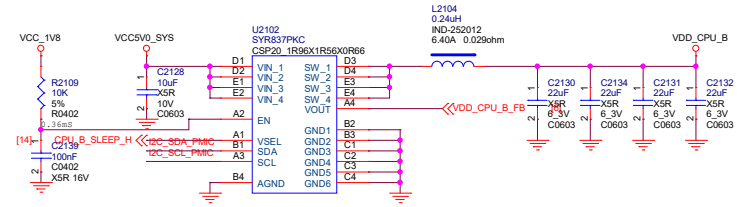
Size	Title: ROCK Pi 4 Plus	REV
A3	Page Name: Power-DC IN	1.72
Date: Tuesday, August 03, 2021	Sheet 16 of 26	

PMIC

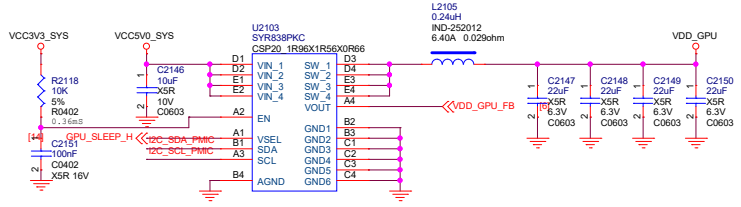




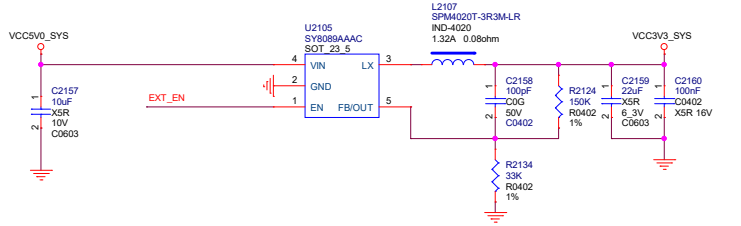
VDD_CPU_B power



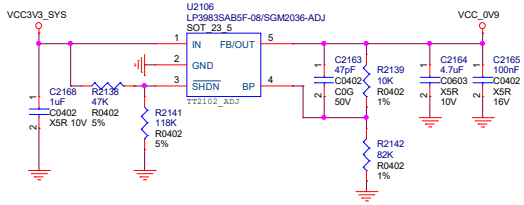
VDD_GPU power



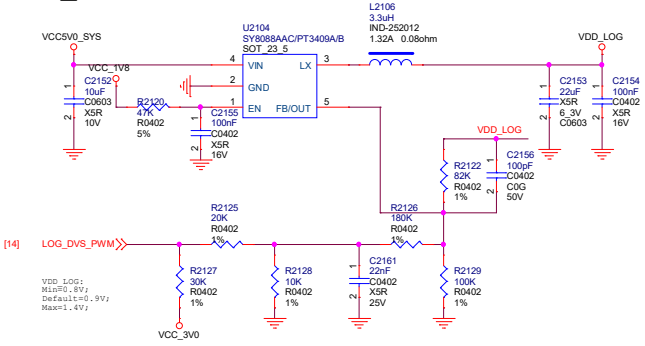
VCC3V3_SYS power

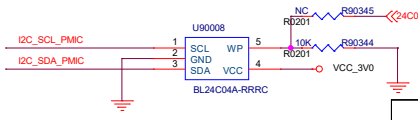


VCC_0V9 power



VDD_LOG power





Size	Title: ROCK Pi 4 Plus		REV
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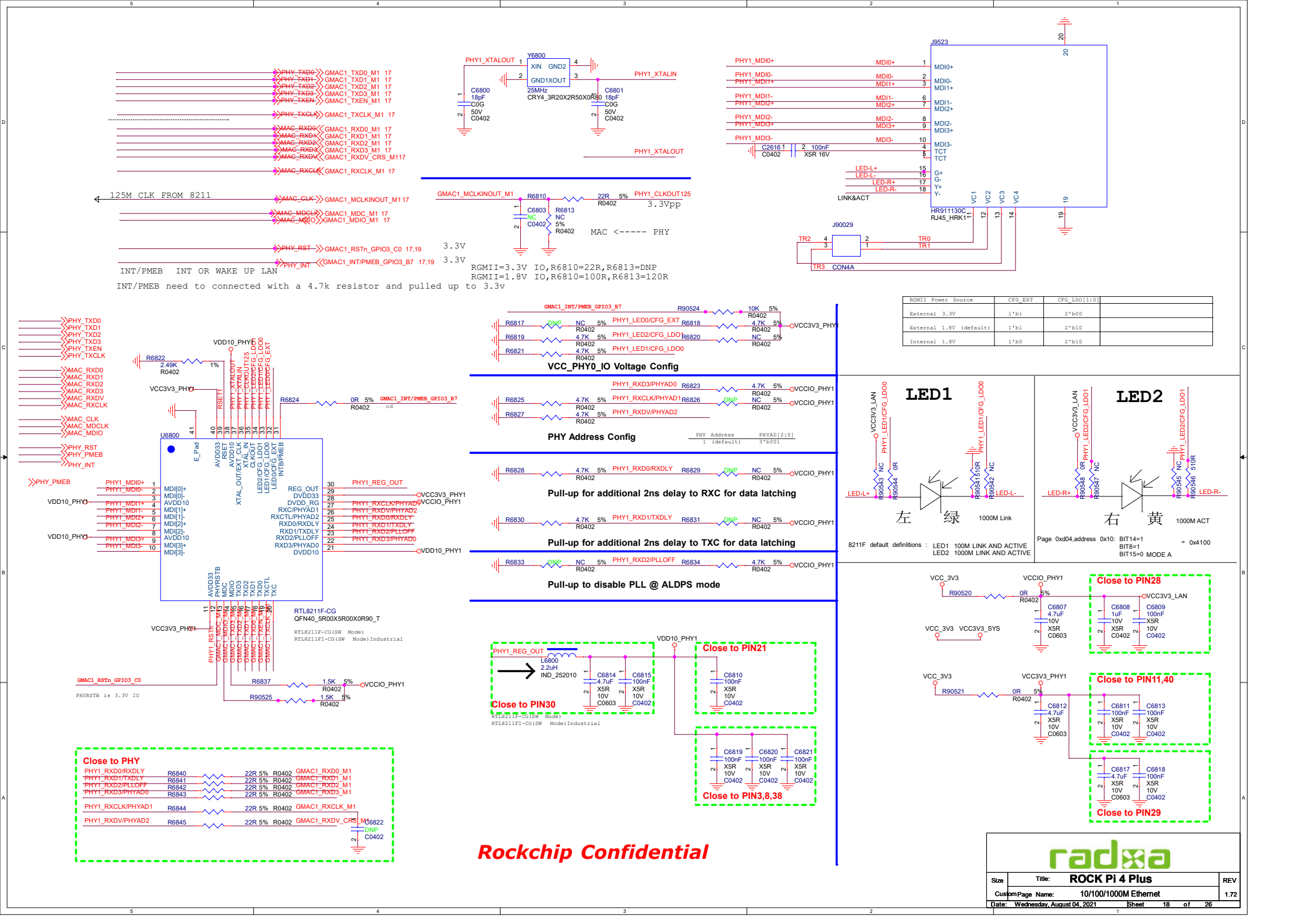
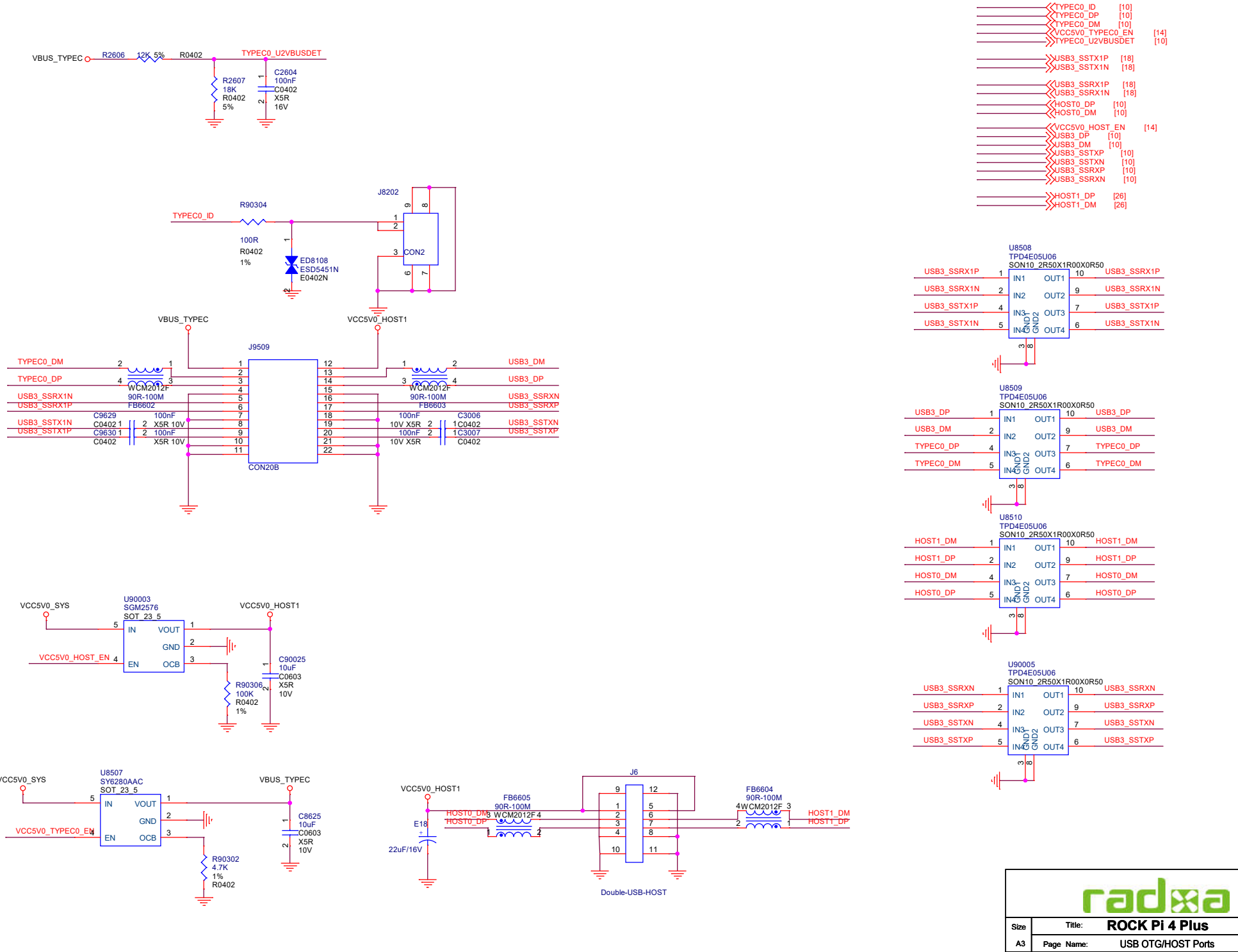
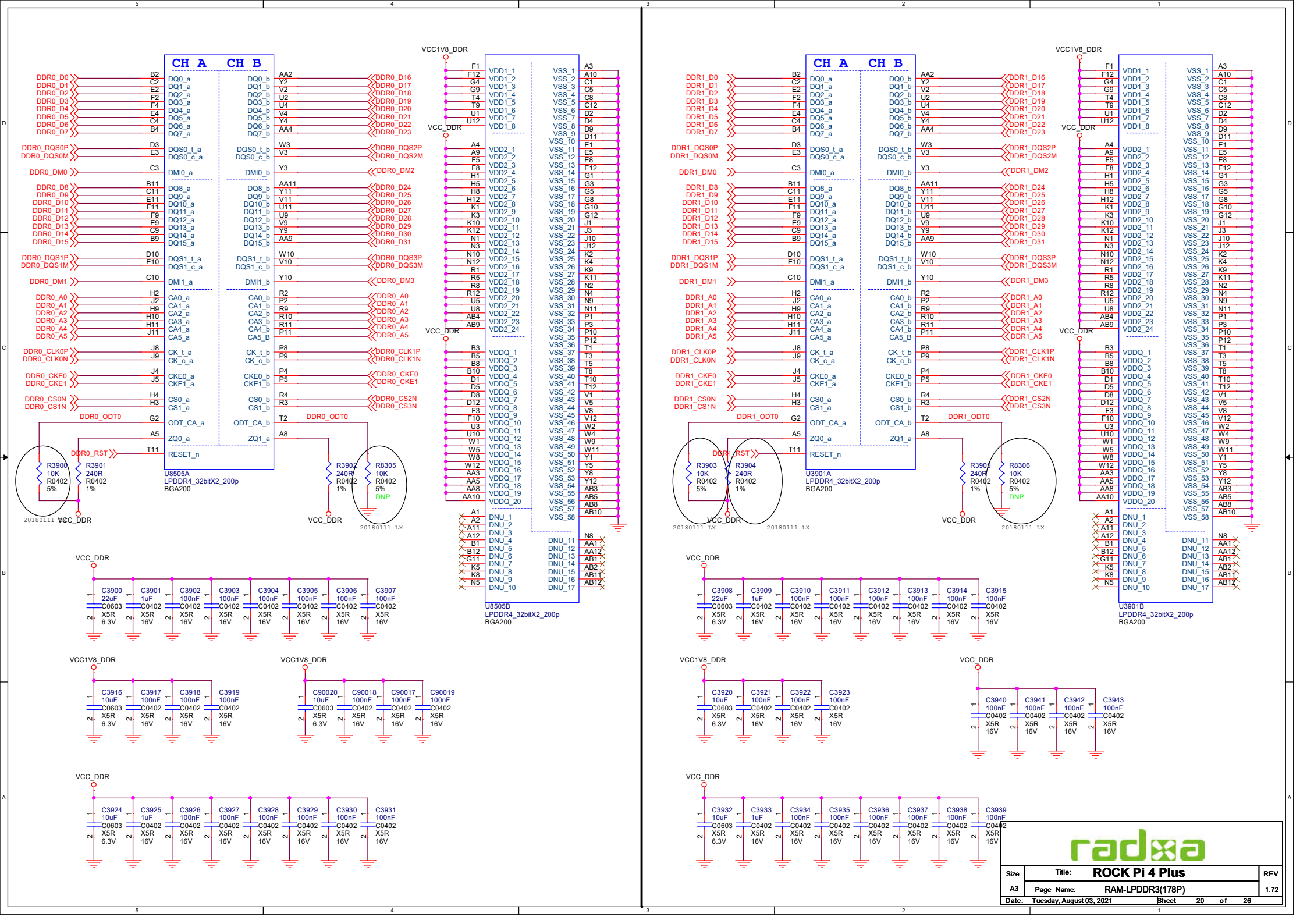
Date: Tuesday, August 03, 2021	Sheet 17	of 26	


PHY_TXD0 GMAC1_TXD0_M1 17
PHY_TXD1 GMAC1_TXD1_M1 17
PHY_TXD2 GMAC1_TXD2_M1 17
PHY_TXD3 GMAC1_TXD3_M1 17
PHY_TXEN GMAC1_TXEN_M1 17
PHY_TXCLK GMAC1_TXCLK_M1 17
MAC_RXD0 GMAC1_RXD0_M1 17
MAC_RXD1 GMAC1_RXD1_M1 17
MAC_RXD2 GMAC1_RXD2_M1 17
MAC_RXD3 GMAC1_RXD3_M1 17
MAC_RXDV GMAC1_RXDV_CRS_M1 17
MAC_RXCLK GMAC1_RXCLK_M1 17
125M CLK FROM 8211
MAC_CLK GMAC1_MCLKINOUT_M1 17
MAC_MDCLK GMAC1_MDC_M1 17
MAC_MDIO GMAC1_MDIO_M1 17
PHY_RST GMAC1_RSTn_GPIO3_C0 17,19
PHY_INT GMAC1_INT/PMEB_GPIO3_B7 17,19
INT/PMEB INT OR WAKE UP LAN
INT/PMEB need to connected with a 4.7k resistor and pulled up to 3.3v
Y6800
XIN GND2
GND1XOUT
25MHz
CRY4_3R20X2R50X0R80
PHY1_XTALOUT
PHY1_XTALIN
C6800 18pF C0G 50V C0402
C6801 18pF C0G 50V C0402
GMAC1_MCLKINOUT_M1
R6810 22R 5% R0402
PHY1_CLKOUT125
3.3Vpp
C6803 NC C0402
R6813 NC 5% R0402
MAC <----- PHY
3.3V
3.3V
RGMII=3.3V IO,R6810=22R,R6813=DNP
RGMII=1.8V IO,R6810=100R,R6813=120R
J9523
MDI0+ MDI0- MDI1+ MDI1- MDI2+ MDI2- MDI3+ MDI3-
C2616 100nF X5R 16V C0402
LED-L+ LED-L- LED-R+ LED-R-
LINK&ACT
HR911130C
RJ45_HRK1
J90029
TR2 TR0 TR1 TR3
CON4A
U6800
RTL8211F-CG
QFN40_5R00X5R00X0R90_T
RTL8211F-CG(SW Mode)
RTL8211FI-CG(SW Mode)Industrial
R6822 2.49K 1% R0402
VDD10_PHY1
VCC3V3_PHY1
R6824 0R 5% R0402 GMAC1_INT/PMEB_GPIO3_B7
GMAC1_RSTn_GPIO3_C0
PHYRSTB is 3.3V IO
R6837 1.5K 5% R0402 VCCIO_PHY1
R90525 1.5K 5% R0402
R90524 10K 5% R0402
R6817 DNP NC 5% R0402 PHY1_LED0/CFG_EXT
R6818 4.7K 5% R0402 VCC3V3_PHY1
R6819 4.7K 5% R0402 PHY1_LED2/CFG_LDO
R6820 NC 5% R0402
R6821 4.7K 5% R0402 PHY1_LED1/CFG_LDO0
VCC_PHY0_IO Voltage Config
R6823 4.7K 5% R0402 VCCIO_PHY1
R6825 4.7K 5% R0402 PHY1_RXCLK/PHYAD1
R6826 DNP NC 5% R0402 VCCIO_PHY1
R6827 4.7K 5% R0402 PHY1_RXDV/PHYAD2
PHY Address Config
PHY Address PHYAD[2:0]
1 (default) 3'b001
R6828 4.7K 5% R0402 PHY1_RXD0/RXDLY R6829 DNP NC 5% R0402 VCCIO_PHY1
Pull-up for additional 2ns delay to RXC for data latching
R6830 4.7K 5% R0402 PHY1_RXD1/TXDLY R6831 DNP NC 5% R0402 VCCIO_PHY1
Pull-up for additional 2ns delay to TXC for data latching
R6833 DNP NC 5% R0402 PHY1_RXD2/PLLOFF R6834 4.7K 5% R0402 VCCIO_PHY1
Pull-up to disable PLL @ ALDPS mode
L6800 2.2uH IND_252010
C6814 4.7uF X5R 10V C0603
C6815 100nF X5R 10V C0402
Close to PIN30
Close to PIN21
C6810 100nF X5R 10V C0402
C6819 100nF X5R 10V C0402
C6820 100nF X5R 10V C0402
C6821 100nF X5R 10V C0402
Close to PIN3,8,38
Close to PHY
R6840 22R 5% R0402 GMAC1_RXD0_M1
R6841 22R 5% R0402 GMAC1_RXD1_M1
R6842 22R 5% R0402 GMAC1_RXD2_M1
R6843 22R 5% R0402 GMAC1_RXD3_M1
R6844 22R 5% R0402 GMAC1_RXCLK_M1
R6845 22R 5% R0402 GMAC1_RXDV_CRS_M1
C6822 DNP C0402
Rockchip Confidential
RGMII Power Source | CFG_EXT | CFG_LDO[1:0]
External 3.3V | 1'b1 | 2'b00
External 1.8V (default) | 1'b1 | 2'b10
Internal 1.8V | 1'b0 | 2'b10
LED1
VCC3V3_LAN PHY1_LED1/CFG_LDO0
R90543 NC R90544 0R
R90541 510R R90542 NC
LED-L+ LED-L-
左 绿 1000M Link
8211F default definlitions : LED1 100M LINK AND ACTIVE
LED2 1000M LINK AND ACTIVE
LED2
VCC3V3_LAN PHY1_LED2/CFG_LDO1
R90548 0R R90547 NC
R90545 NC R90546 510R
LED-R+ LED-R-
右 黄 1000M ACT
Page 0xd04,address 0x10: BIT14=1 = 0x4100
BIT8=1
BIT15=0 MODE A
VCC_3V3 R90520 0R 5% R0402 VCCIO_PHY1
VCC_3V3 VCC3V3_SYS
C6807 4.7uF X5R 10V C0603
Close to PIN28
C6808 1uF X5R 10V C0402
C6809 100nF X5R 10V C0402
VCC_3V3 R90521 0R 5% R0402 VCC3V3_PHY1
C6812 4.7uF X5R 10V C0603
Close to PIN11,40
C6811 100nF X5R 10V C0402
C6813 100nF X5R 10V C0402
C6817 4.7uF X5R 10V C0603
C6818 100nF X5R 10V C0402
Close to PIN29
radxa
Size
Title: ROCK Pi 4 Plus
REV 1.72
Custom Page Name: 10/100/1000M Ethernet
Date: Wednesday, August 04, 2021 Sheet 18 of 26



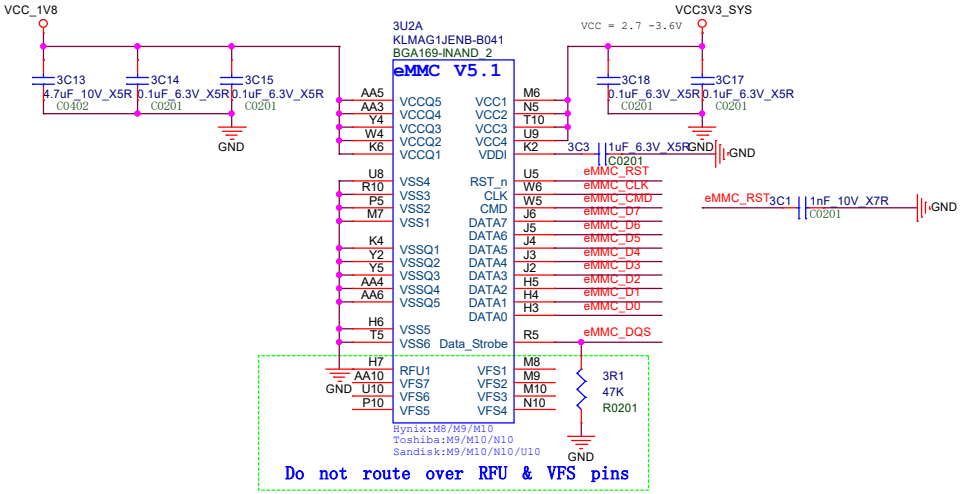
Size A3	Title: ROCK Pi 4 Plus	REV 1.72
	Page Name: USB OTG/HOST Ports	
Date: Wednesday, August 04, 2021	Sheet 19 of 26	

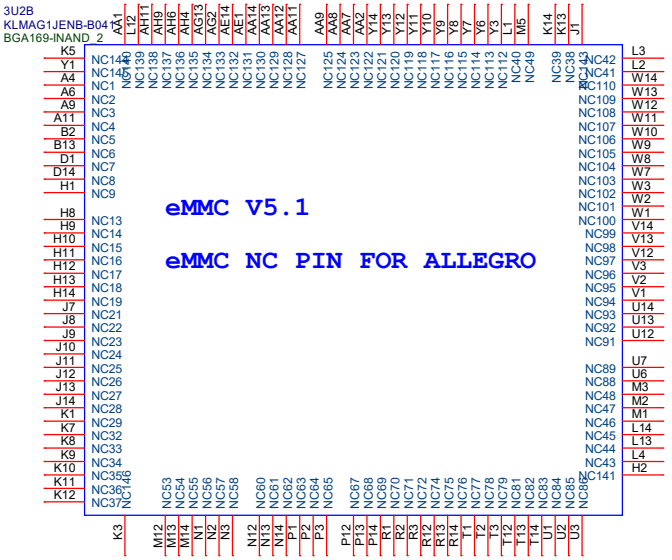

CH A
CH B
U8505A
LPDDR4_32bitX2_200p
BGA200
U8505B
LPDDR4_32bitX2_200p
BGA200
U3901A
LPDDR4_32bitX2_200p
BGA200
U3901B
LPDDR4_32bitX2_200p
BGA200
VCC1V8_DDR
VCC_DDR
DDR0_ODT0
DDR0_RST
DDR1_ODT0
DDR1_RST
R3900 10K R0402 5%
R3901 240R R0402 1%
R3902 240R R0402 1%
R8305 10K R0402 5% DNP
R3903 10K R0402 5%
R3904 240R R0402 1%
R3905 240R R0402 1%
R8306 10K R0402 5% DNP
20180111 LX
C3900 22uF C0603 X5R 6.3V
C3901 1uF C0402 X5R 16V
C3902 100nF C0402 X5R 16V
C3903 100nF C0402 X5R 16V
C3904 100nF C0402 X5R 16V
C3905 100nF C0402 X5R 16V
C3906 100nF C0402 X5R 16V
C3907 100nF C0402 X5R 16V
C3908 22uF C0603 X5R 6.3V
C3909 1uF C0402 X5R 16V
C3910 100nF C0402 X5R 16V
C3911 100nF C0402 X5R 16V
C3912 100nF C0402 X5R 16V
C3913 100nF C0402 X5R 16V
C3914 100nF C0402 X5R 16V
C3915 100nF C0402 X5R 16V
C3916 10uF C0603 X5R 6.3V
C3917 100nF C0402 X5R 16V
C3918 100nF C0402 X5R 16V
C3919 100nF C0402 X5R 16V
C90020 10uF C0603 X5R 6.3V
C90018 100nF C0402 X5R 16V
C90017 100nF C0402 X5R 16V
C90019 100nF C0402 X5R 16V
C3920 10uF C0603 X5R 6.3V
C3921 100nF C0402 X5R 16V
C3922 100nF C0402 X5R 16V
C3923 100nF C0402 X5R 16V
C3940 100nF C0402 X5R 16V
C3941 100nF C0402 X5R 16V
C3942 100nF C0402 X5R 16V
C3943 100nF C0402 X5R 16V
C3924 10uF C0603 X5R 6.3V
C3925 1uF C0402 X5R 16V
C3926 100nF C0402 X5R 16V
C3927 100nF C0402 X5R 16V
C3928 100nF C0402 X5R 16V
C3929 100nF C0402 X5R 16V
C3930 100nF C0402 X5R 16V
C3931 100nF C0402 X5R 16V
C3932 10uF C0603 X5R 6.3V
C3933 1uF C0402 X5R 16V
C3934 100nF C0402 X5R 16V
C3935 100nF C0402 X5R 16V
C3936 100nF C0402 X5R 16V
C3937 100nF C0402 X5R 16V
C3938 100nF C0402 X5R 16V
C3939 100nF C0402 X5R 16V
radxa
Size A3
Title: ROCK Pi 4 Plus
REV 1.72
Page Name: RAM-LPDDR3(178P)
Date: Tuesday, August 03, 2021
Sheet 20 of 26

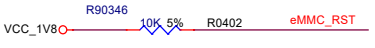
eMMC FLASH

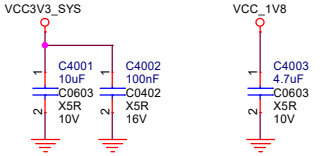
eMMC

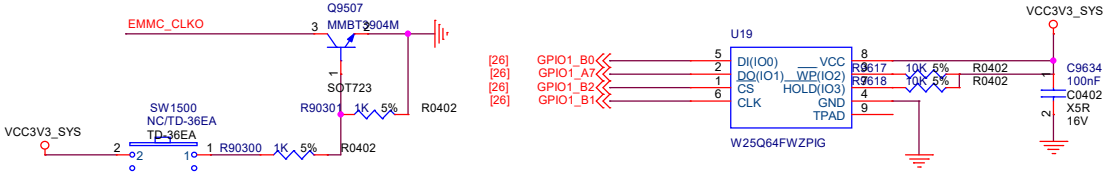
PCB Decal:169pin balls Type(BGA)











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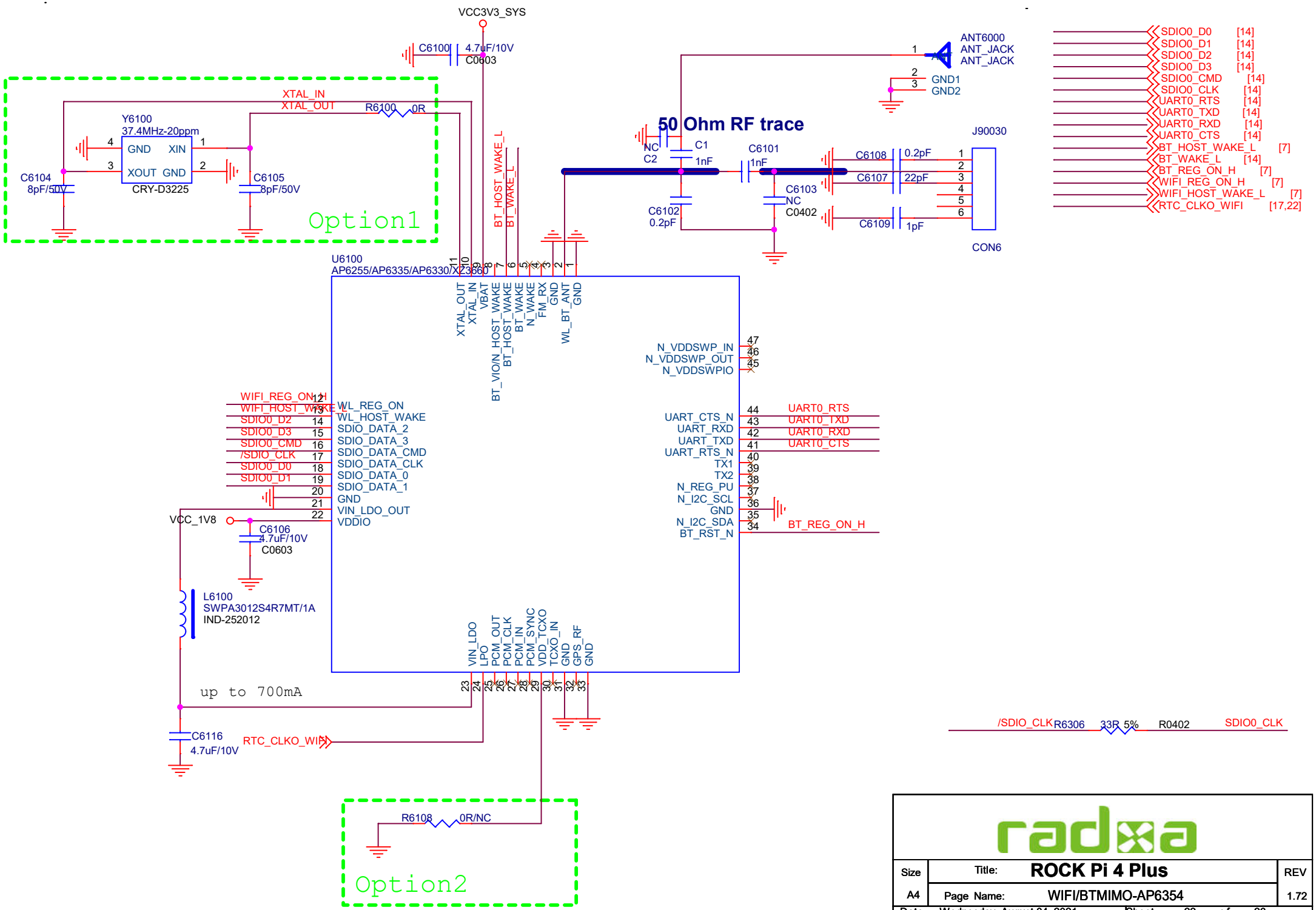

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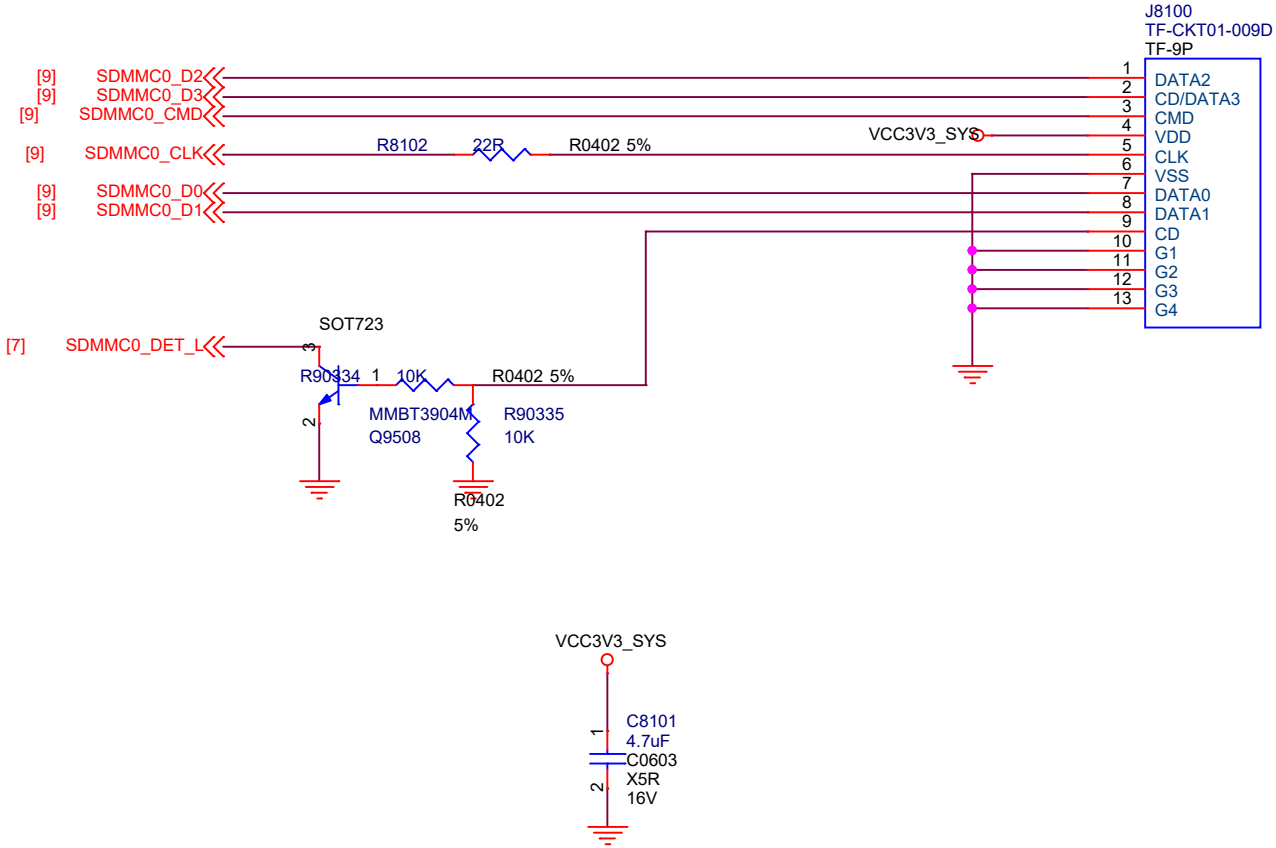
TF CARD



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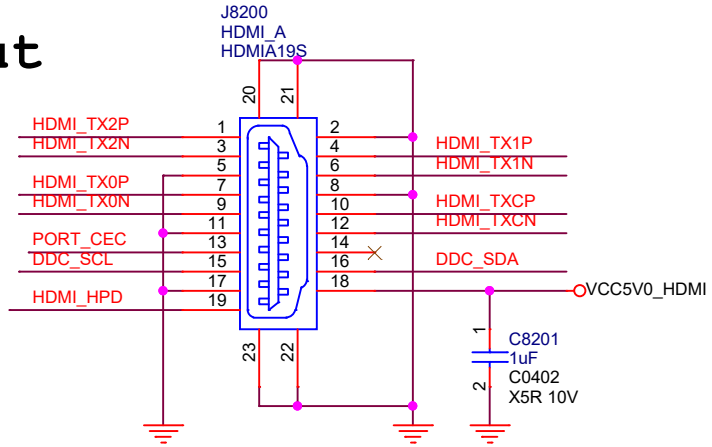
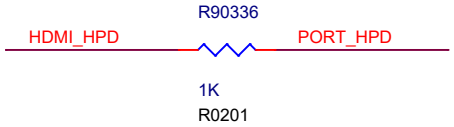
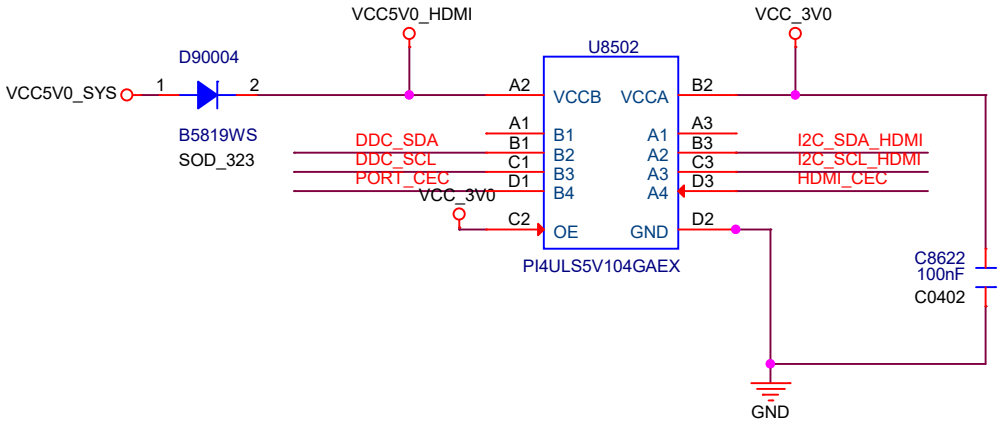
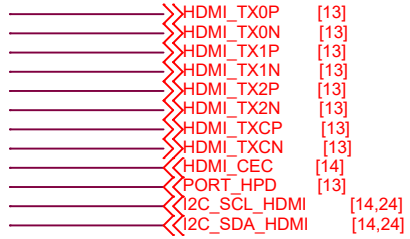
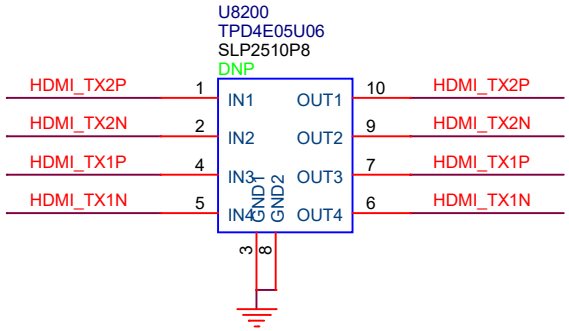
HDMI Output

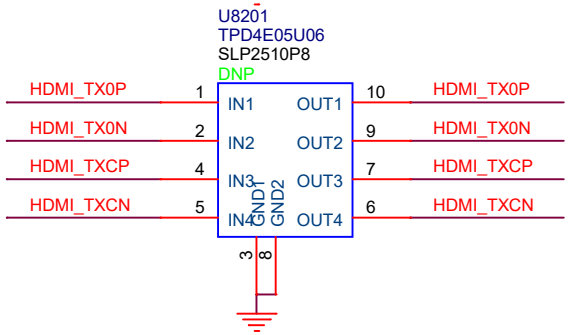












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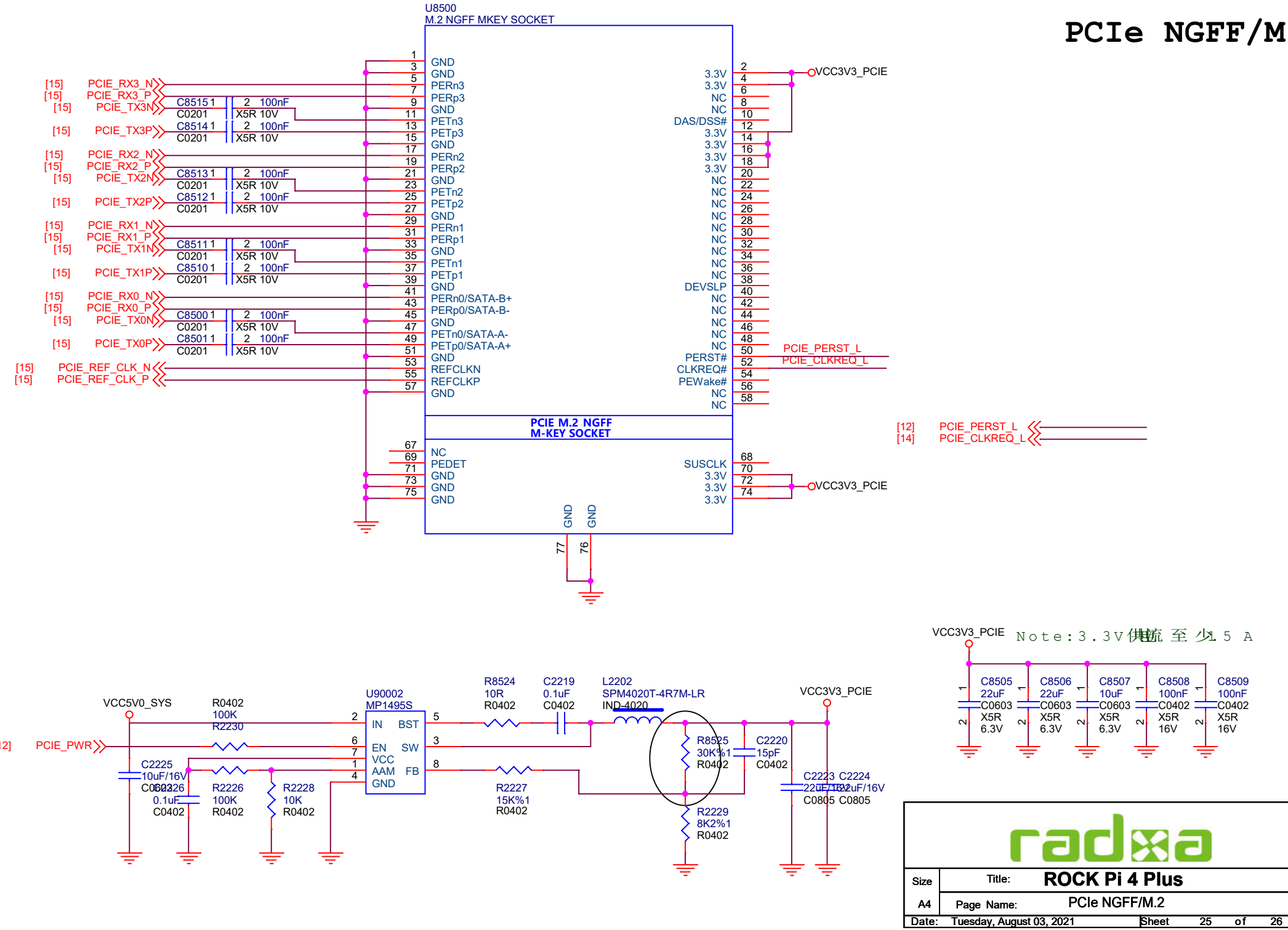
PCIe NGFF/M.2



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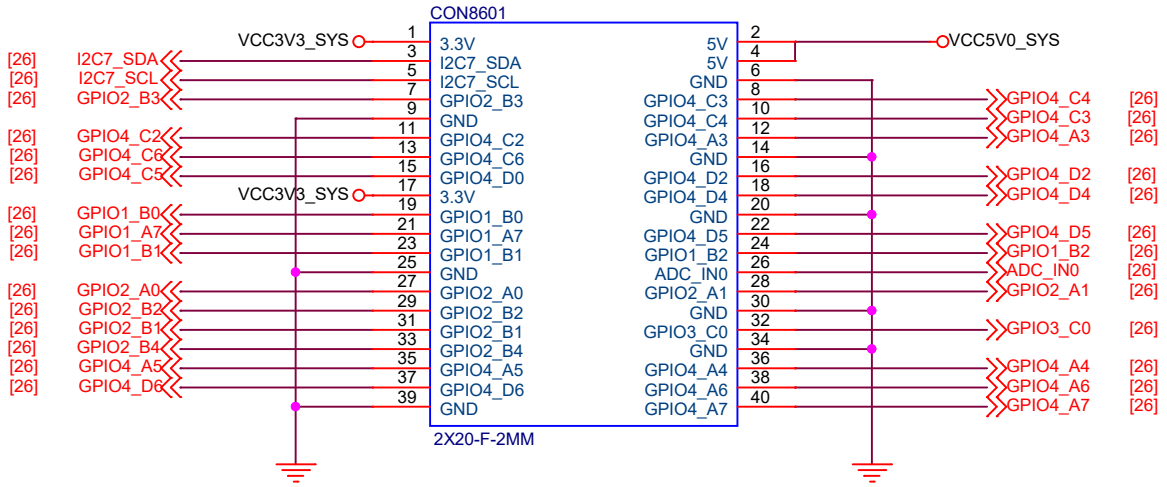

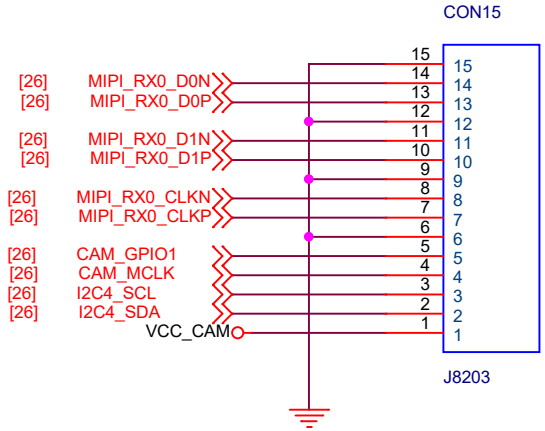

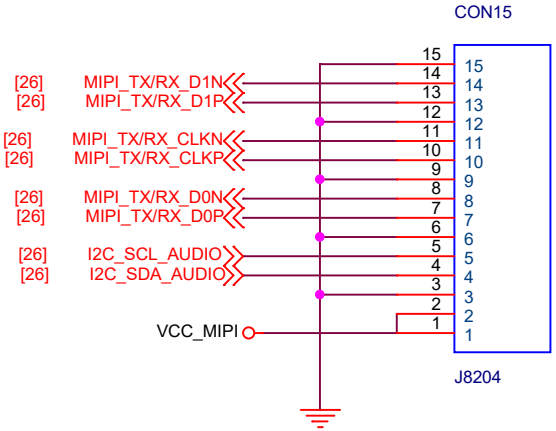

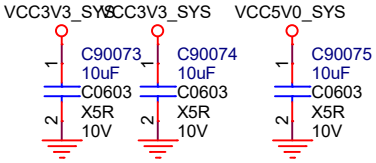

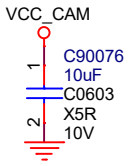

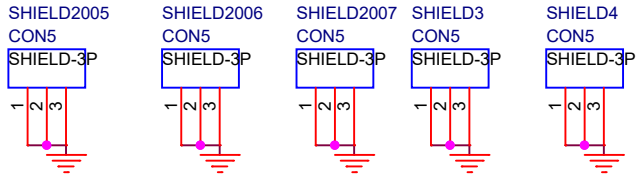

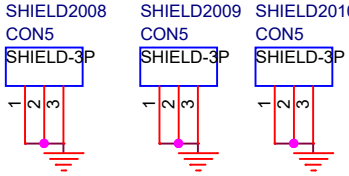

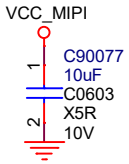

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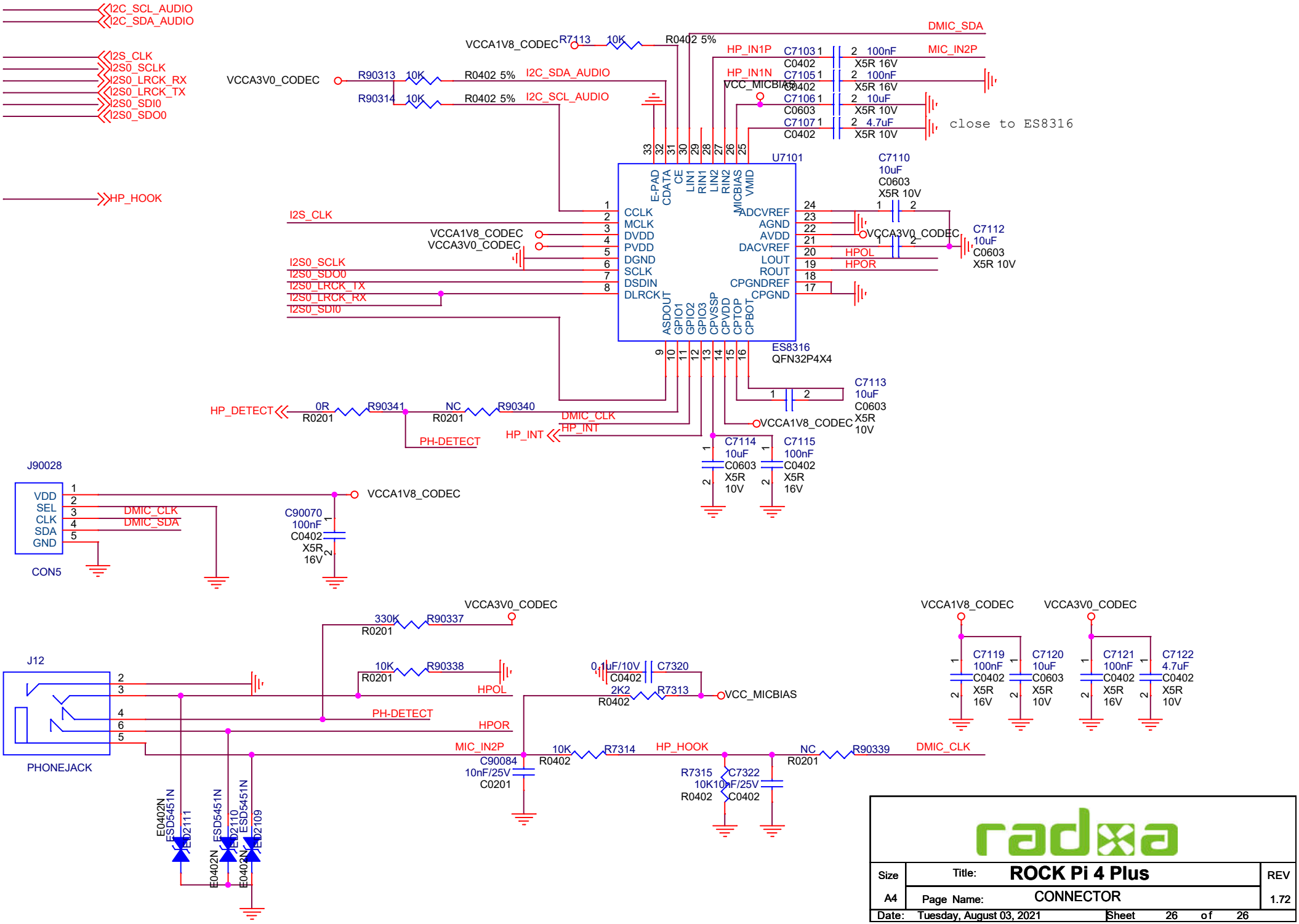

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