



Radxa E24C

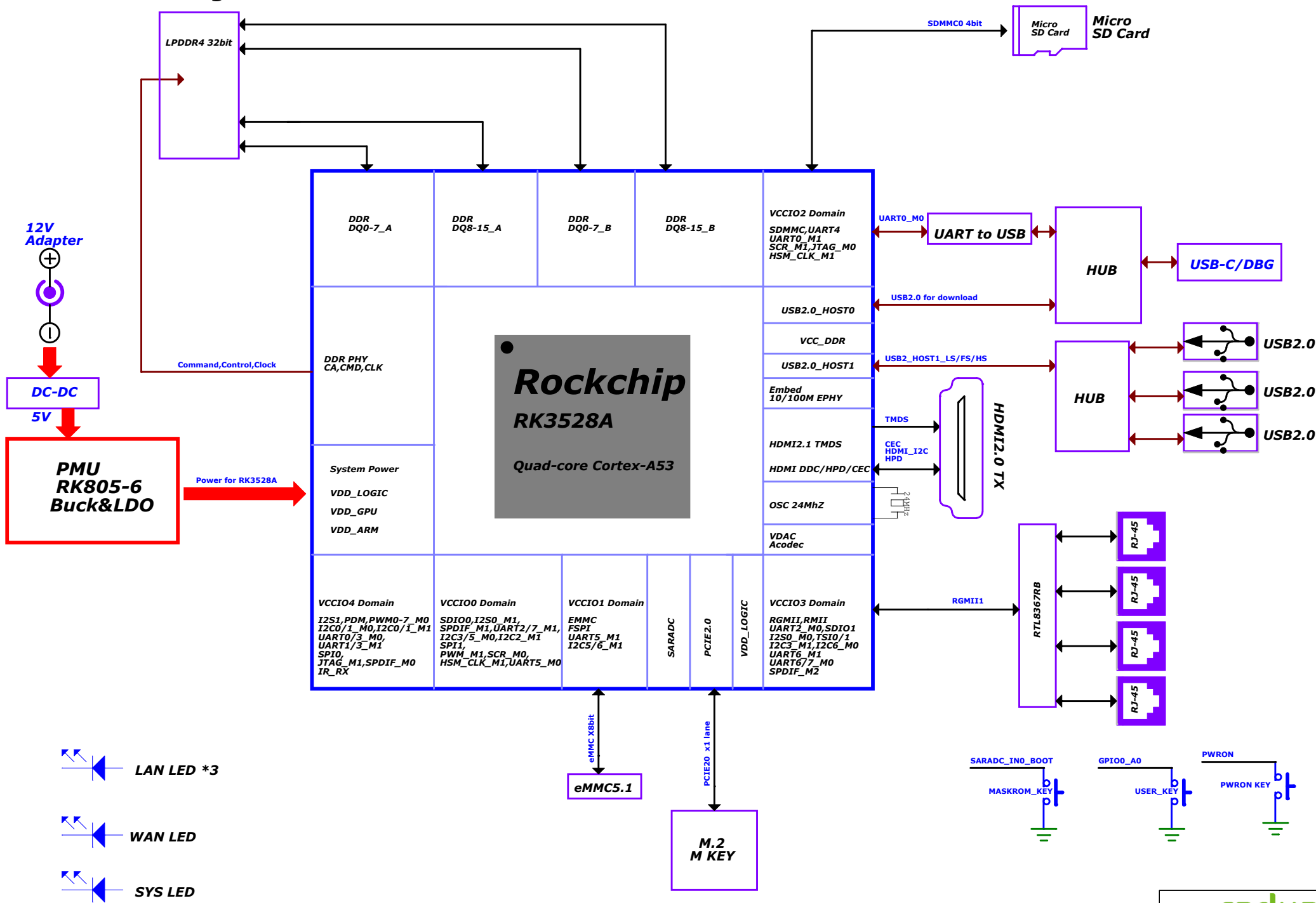
Schematic

V1.2

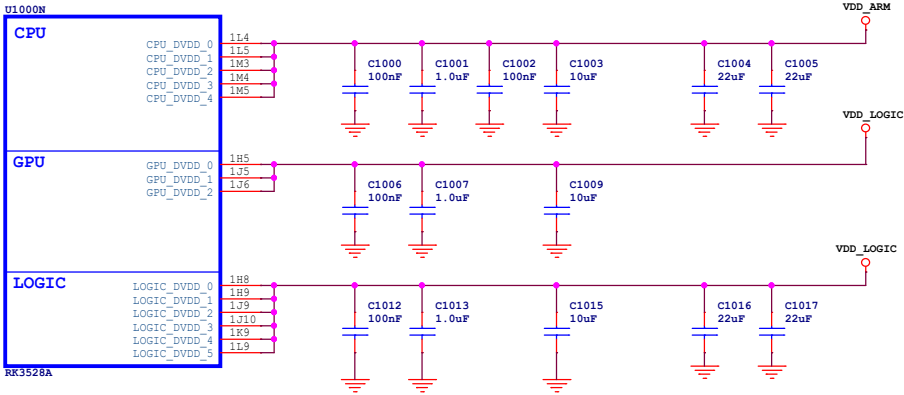
Index

Page 1	01.Cover
Page 2	02.Index
Page 3	03.Block
Page 4	04.RK3528A Power/GND
Page 5	05.RK3528A OSC/PLL/PMUIO
Page 6	06.RK3528A DDR Controller
Page 7	07.RK3528A FLASH/SD Controller
Page 8	08.RK3528A USB/PCIE Controller
Page 9	09.RK3528A SARADC/OTP
Page 10	10.RK3528A HDMI Interface
Page 11	11.RK3528A AV OUT
Page 12	12.RK3528A Embed FEPHY
Page 13	13.RK3528A_1.8V/3.3V GPIO
Page 14	14.Power-PMIC-RK805-6
Page 15	15.DRAM-LPDDR4_1X32bit_200P
Page 16	16.Flash-eMMC_Micro_SD
Page 17	17.M.2 M Key
Page 18	18.USB20_HUB
Page 19	19.RTL8367RB
Page 20	20.RJ45
Page 21	21.12V_Power_LCD
Page 22	22.Key_LED_RTC_FAN

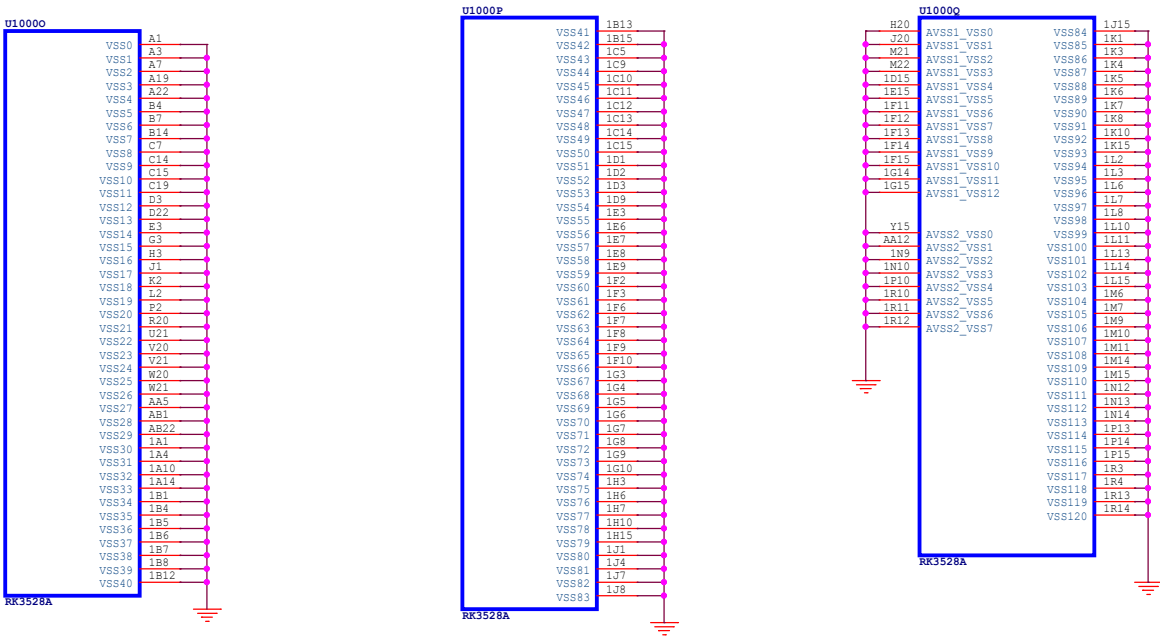
RK3528A Block Diagram



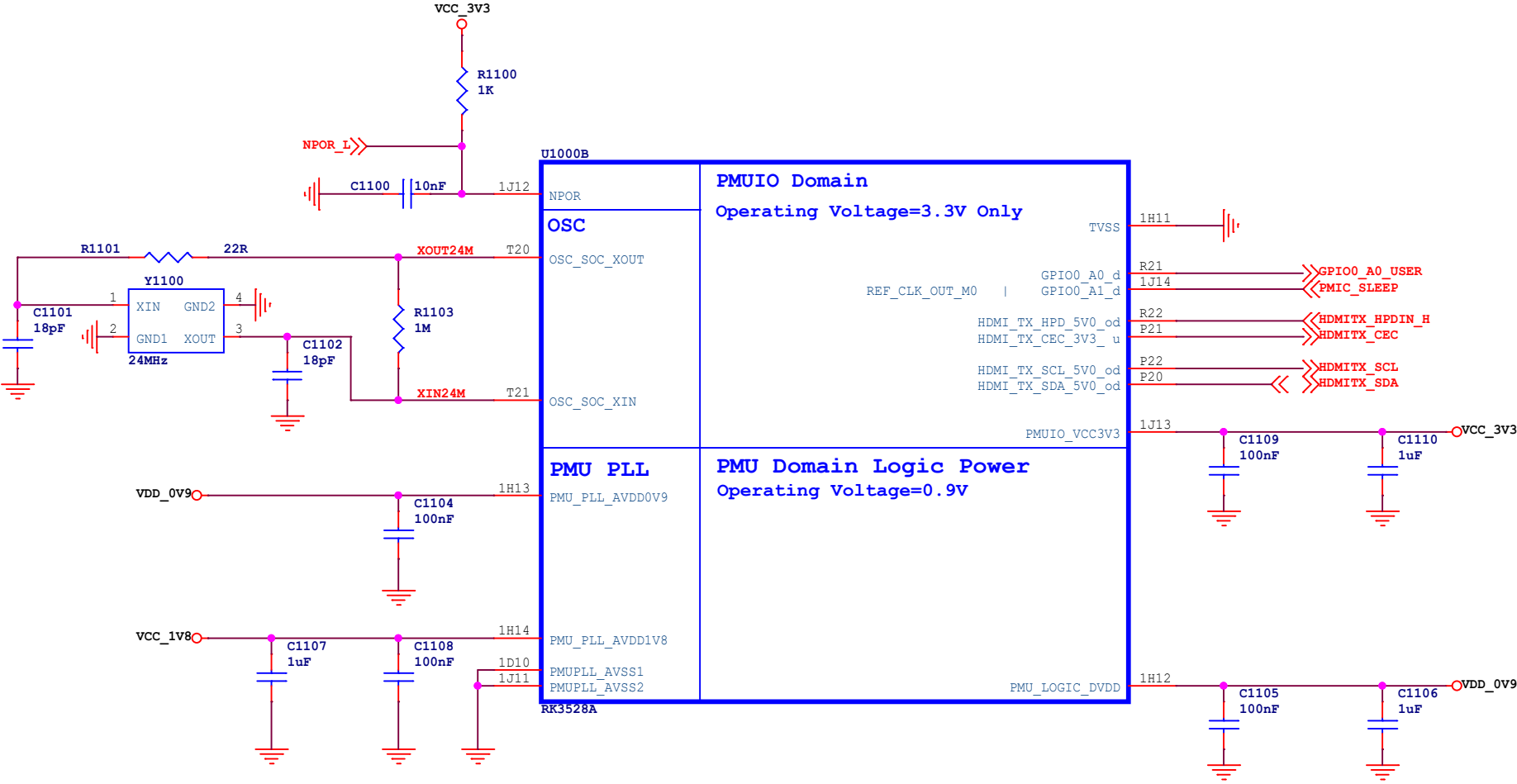
RK3528A_N (POWER)



RK3528A_O/P/Q (GND)

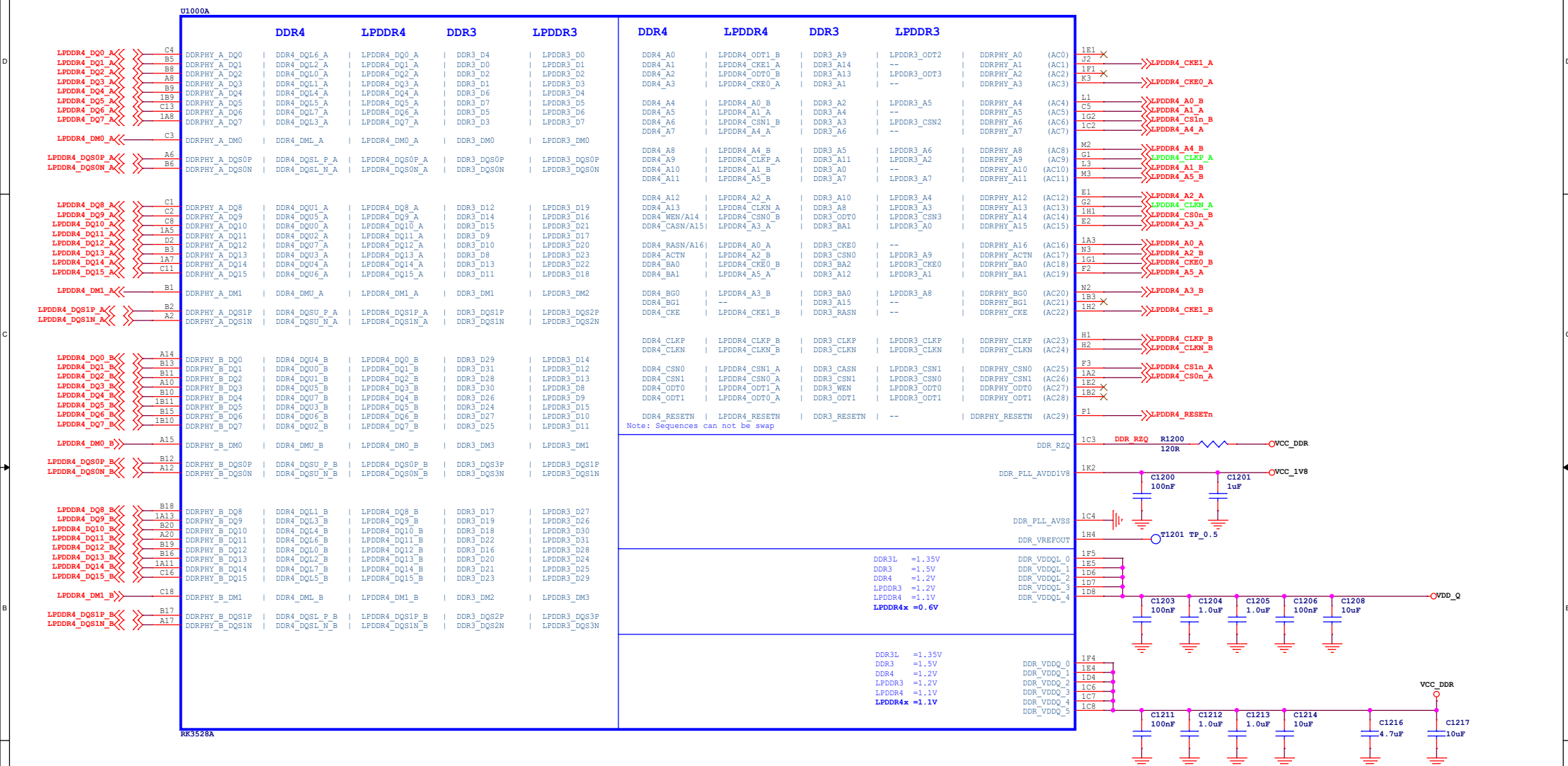


RK3528A_B (OSC/PLL/PMUIO Domain)

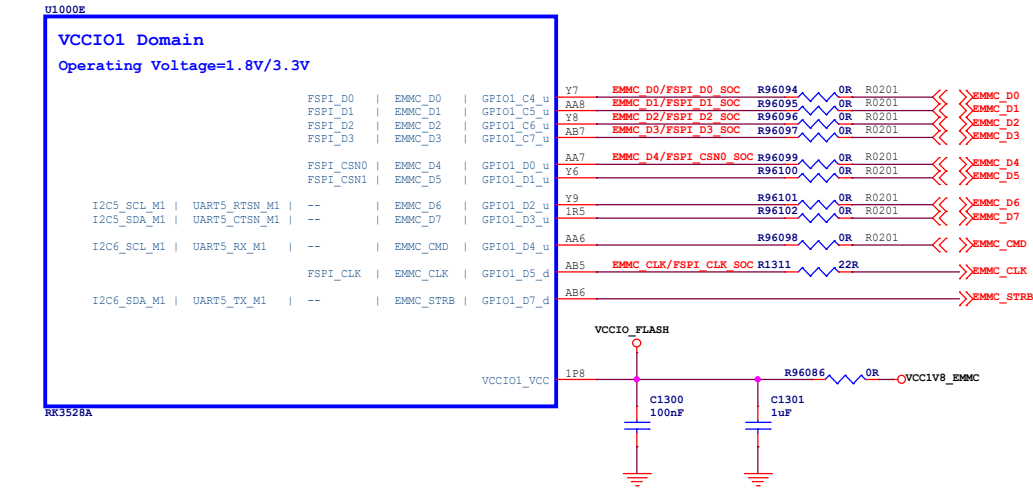


Size	Title: E24C	REV
A4	Page Name: 05.RK3528A OSC/PLL/PMUIO	V1.20
Date: Monday, May 19, 2025	Sheet 05 of 22	

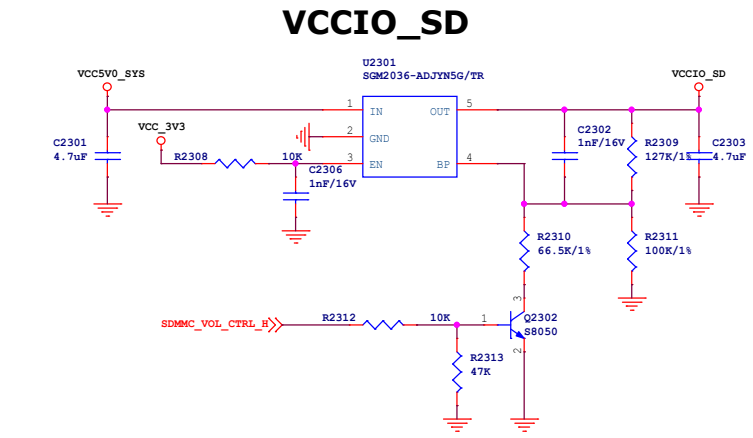
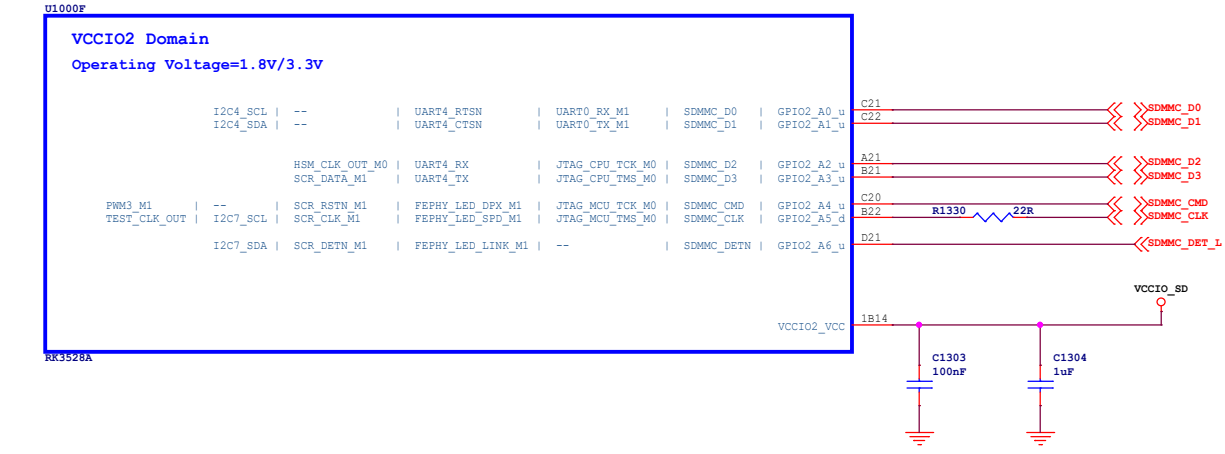
RK3528A A (DDR PHY)



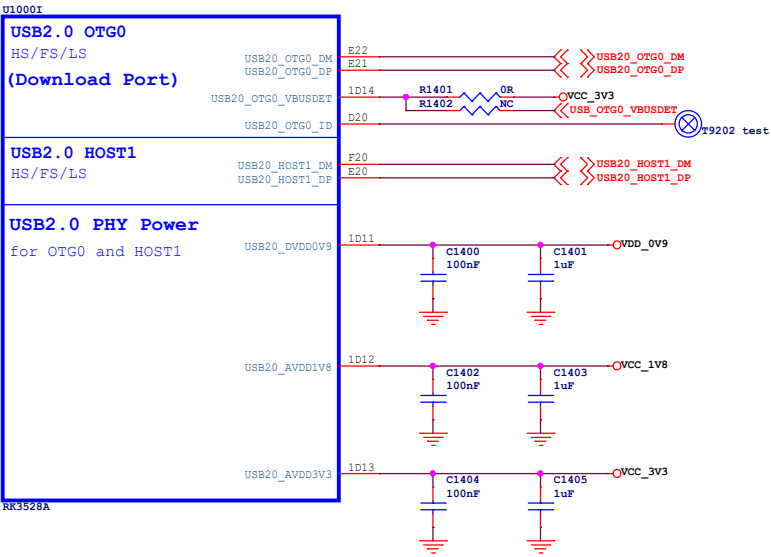
RK3528A_E (VCCIO1 Domain)



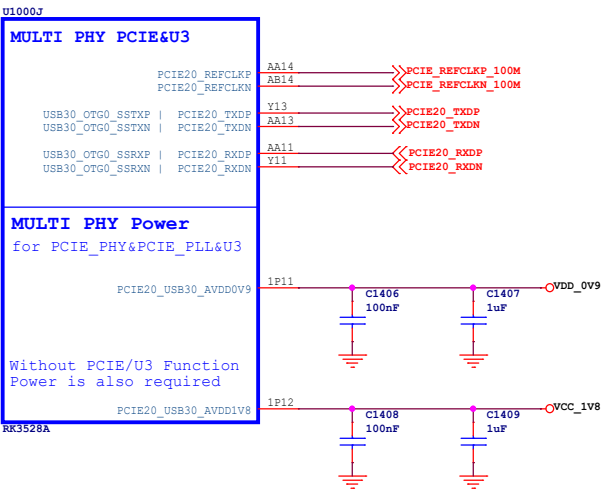
RK3528A_F (VCCIO2 Domain)



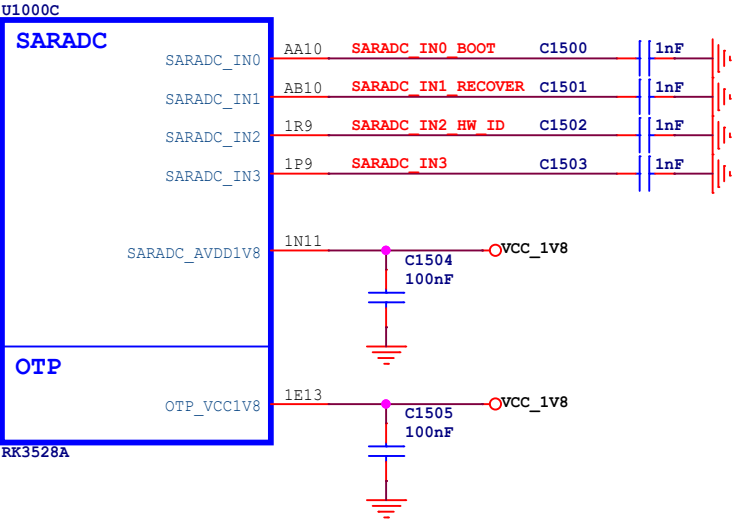
RK3528A_I (USB2.0 OTG/HOST)



RK3528A_J (PCIE2.0/U3 PHY)

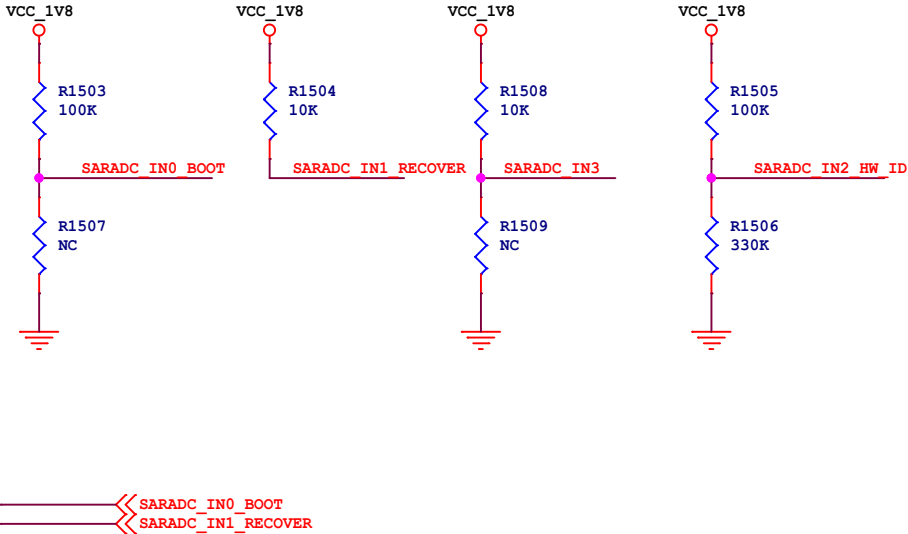


RK3528A_C (Saradc/OTP)



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



Size	Title: E24C	REV
A4	Page Name: 09.RK3528A SARADC/OTP	V1.20
Date: Monday, May 19, 2025	Sheet 09 of 22	

RK3528A_L (HDMI)

U1000L

HDMI2.1 TMDs

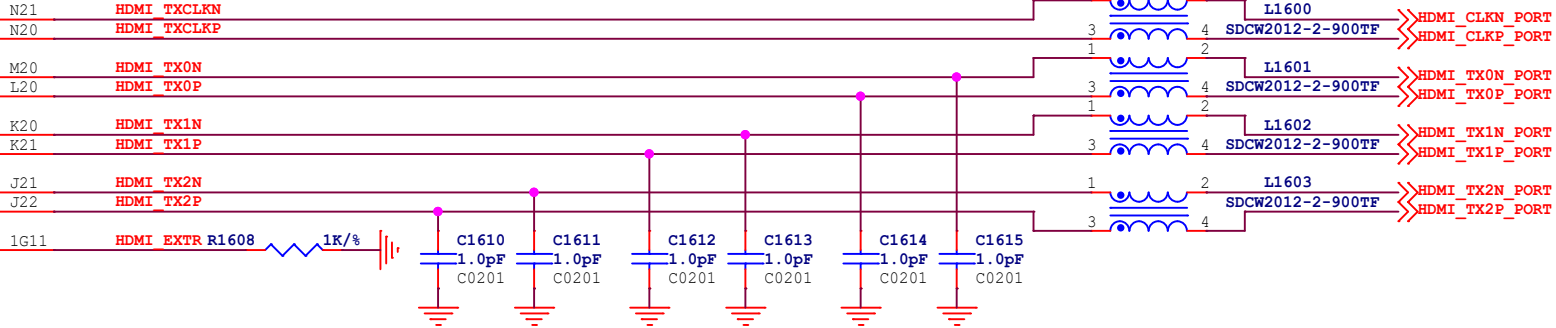
HDMI_TX_CLKN
HDMI_TX_CLKP

HDMI_TX_D0N
HDMI_TX_D0P

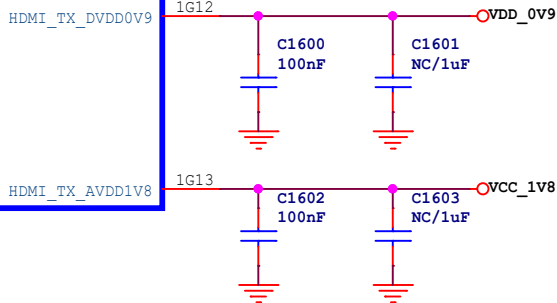
HDMI_TX_D1N
HDMI_TX_D1P

HDMI_TX_D2N
HDMI_TX_D2P

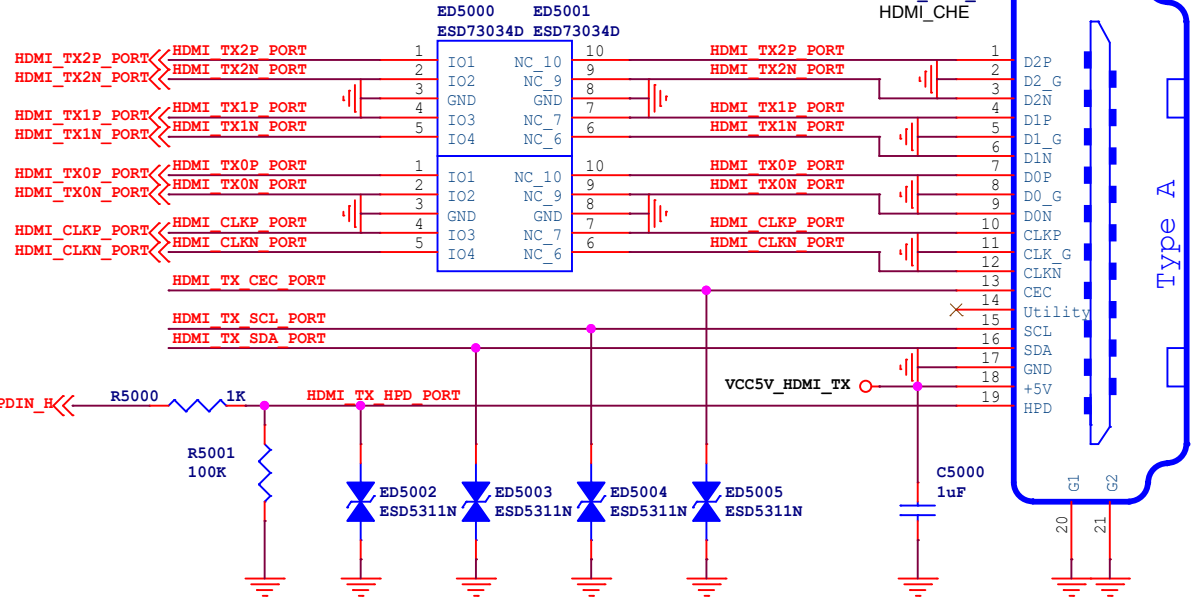
HDMI_REXT



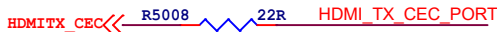
HDMI PHY Power



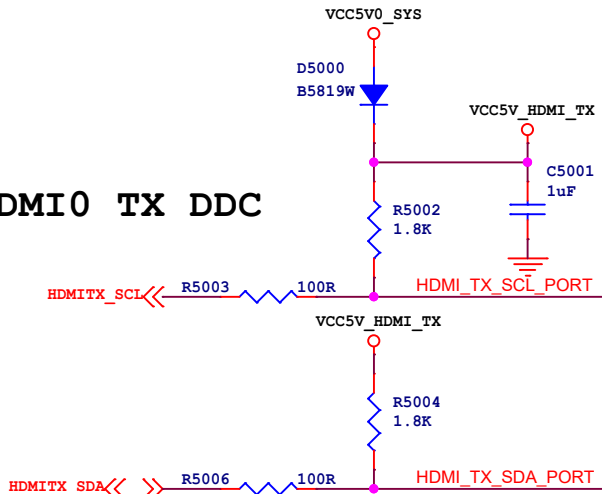
RK3528A



HDMI0 TX CEC

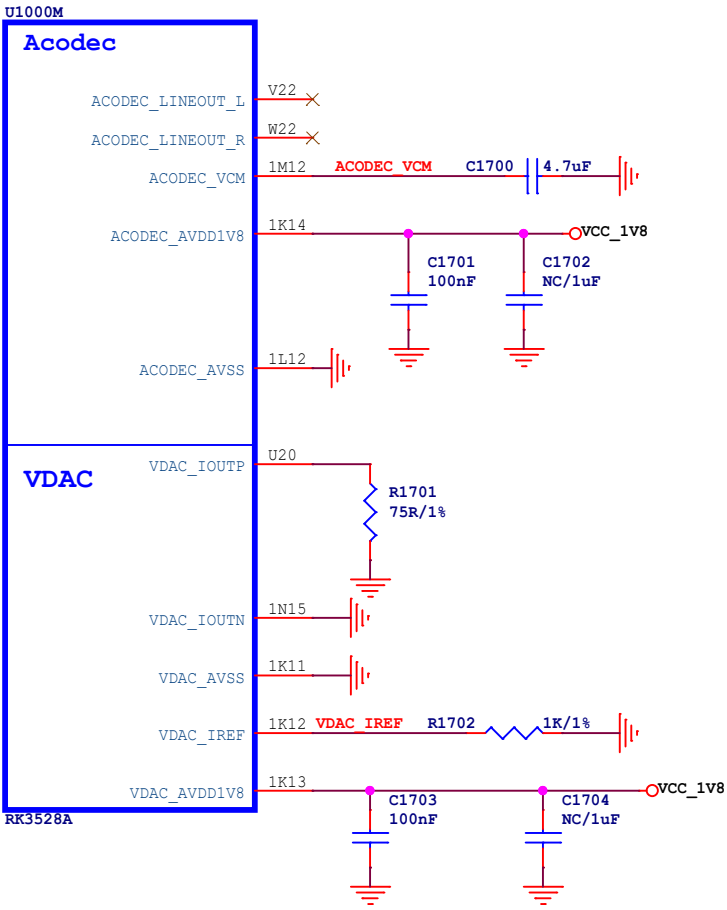


HDMI0 TX DDC



Size	Title: E24C	REV
A4	Page Name: 10.RK3528A HDMI Interface	V1.20
Date: Monday, May 19, 2025	Sheet 10 of 22	

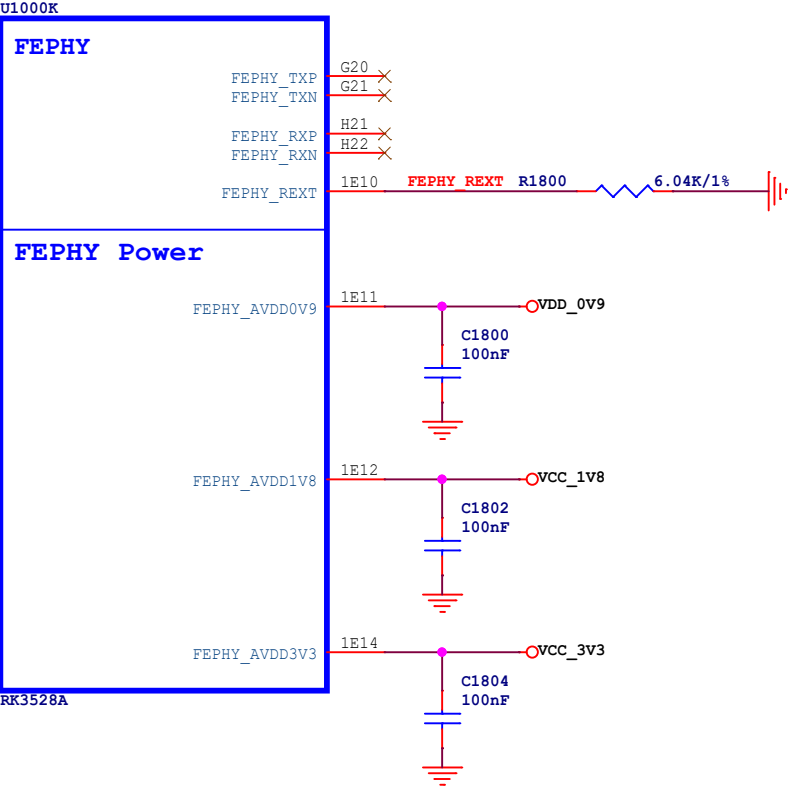
RK3528A_M (Acodec/VDAC)



radxa

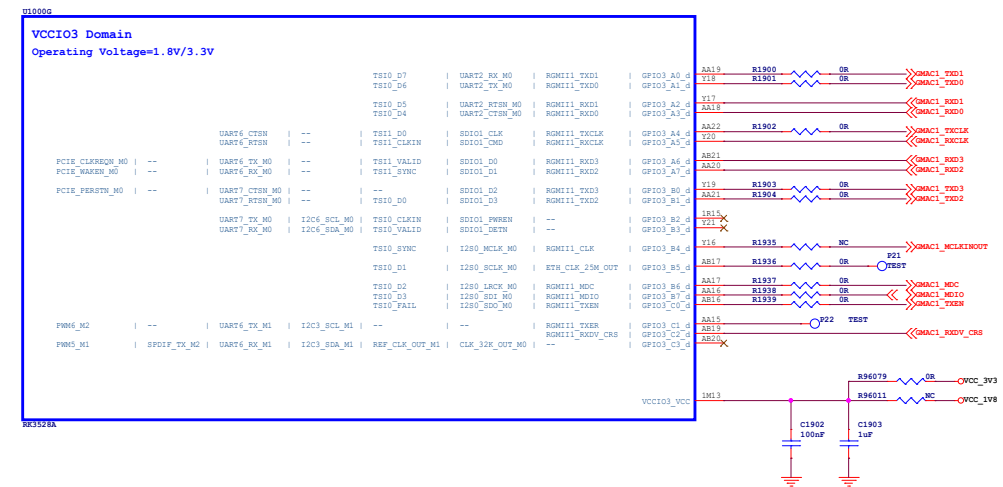
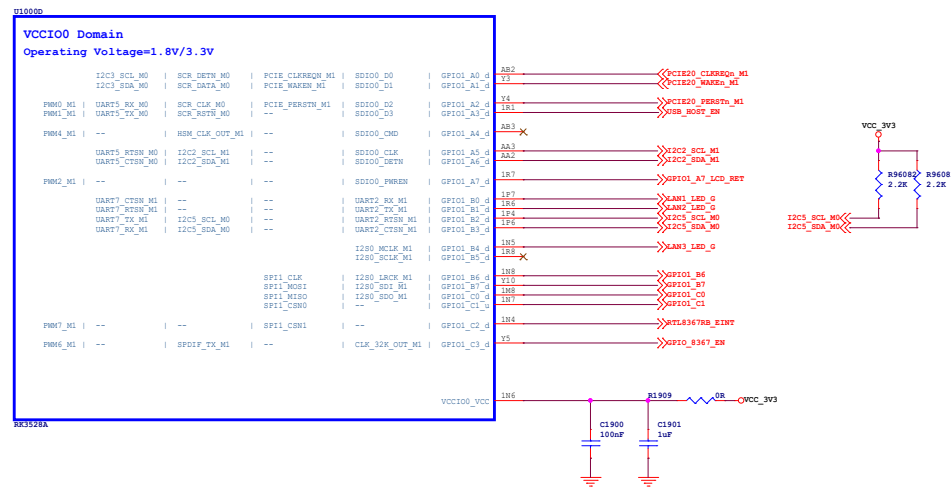
Size	Title: E24C	REV
A4	Page Name: 11.RK3528A AV OUT	V1.20
Date: Monday, May 19, 2025	Sheet 11 of 22	

RK3528A_K (Embed FEPHY)

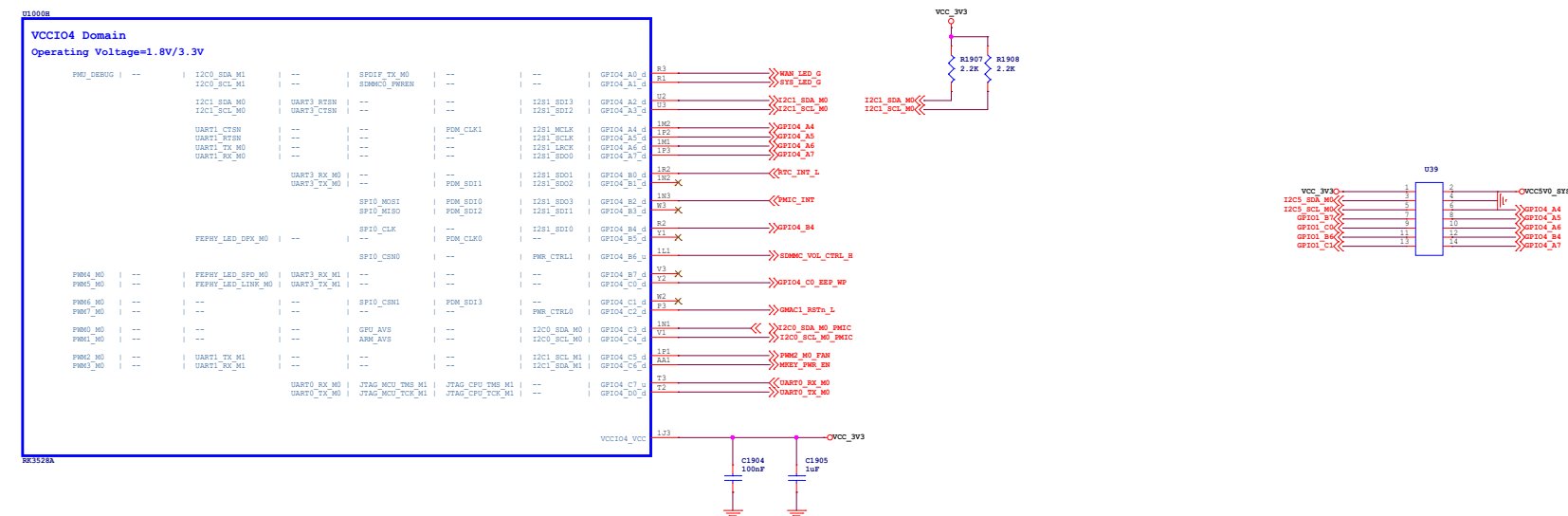


Size	Title: E24C	REV
A4	Page Name: 12.RK3528A Embed FEPHY	V1.20
Date: Monday, May 19, 2025	Sheet 12 of 22	

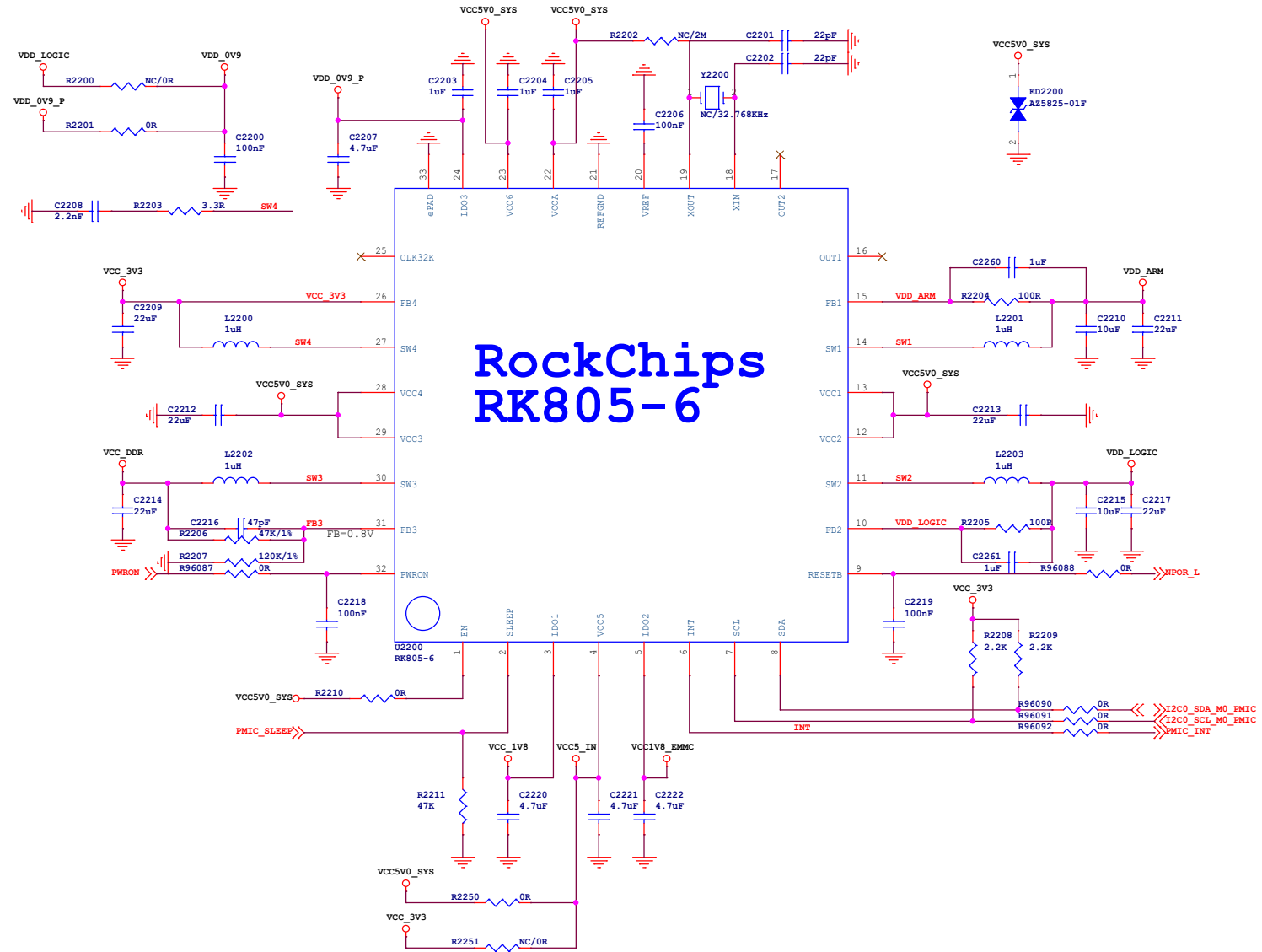
RK3528A G (VCCIO3 Domain)



RK3528A H (VCCI04 Domain)

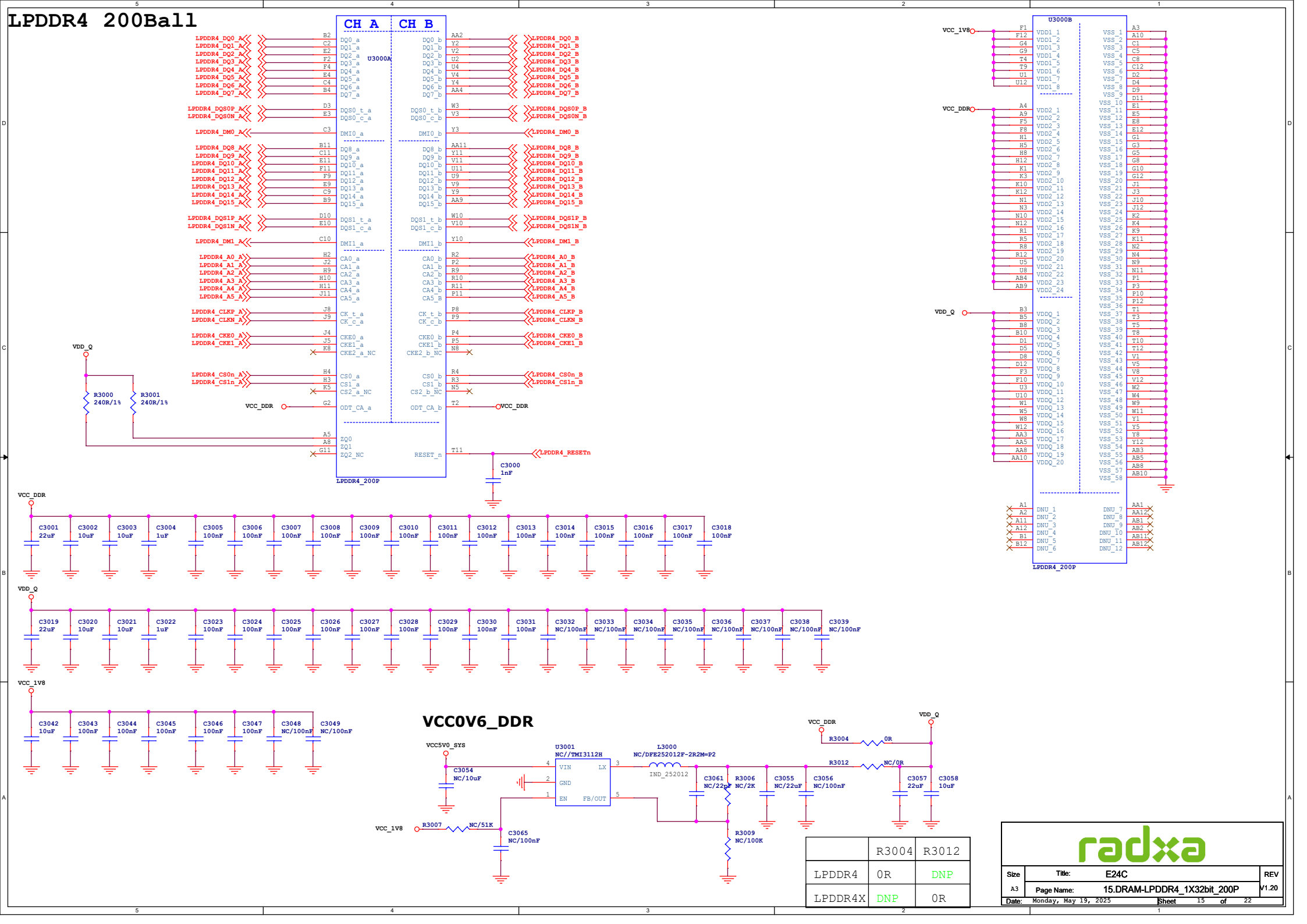


PMIC RK805-6

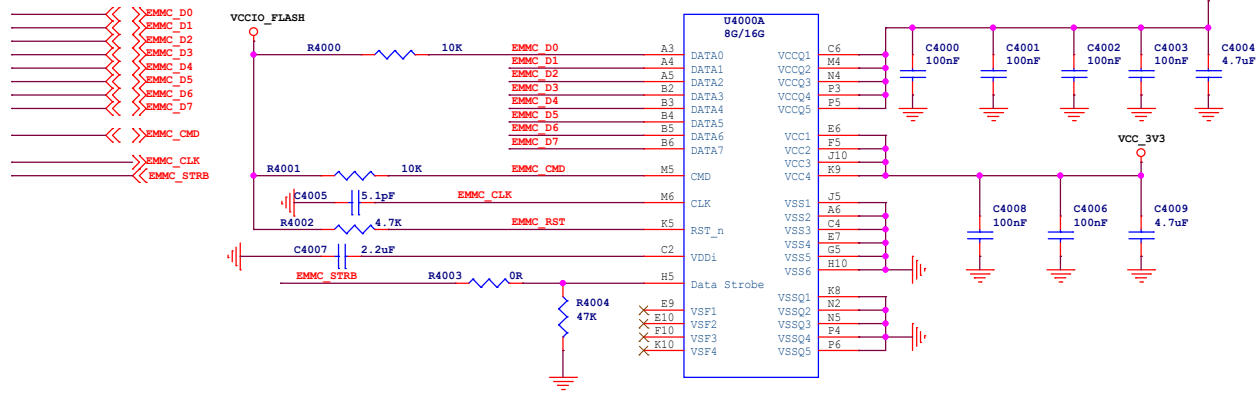


radxa

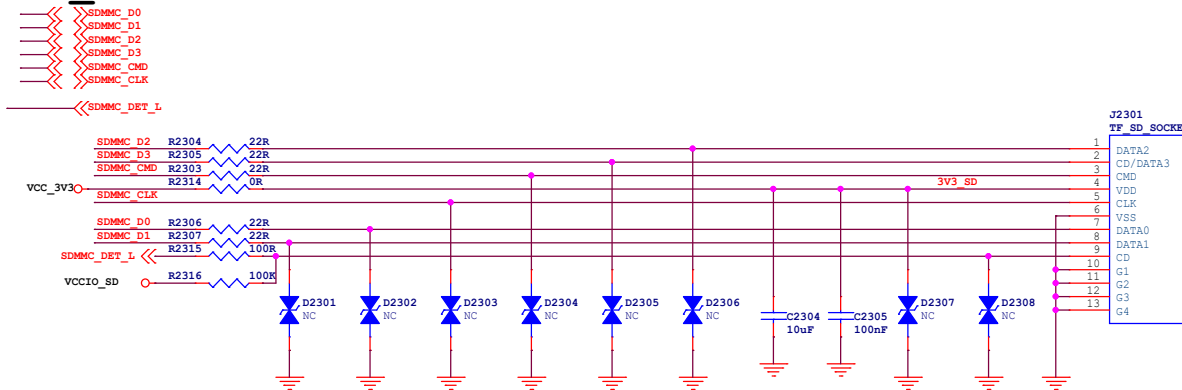
Size	Title: E24C	REV
A3	Page Name: 14.Power-PMIC-RK805-6	V1.20
Date: Monday, May 19, 2025	Sheet 14 of 22	



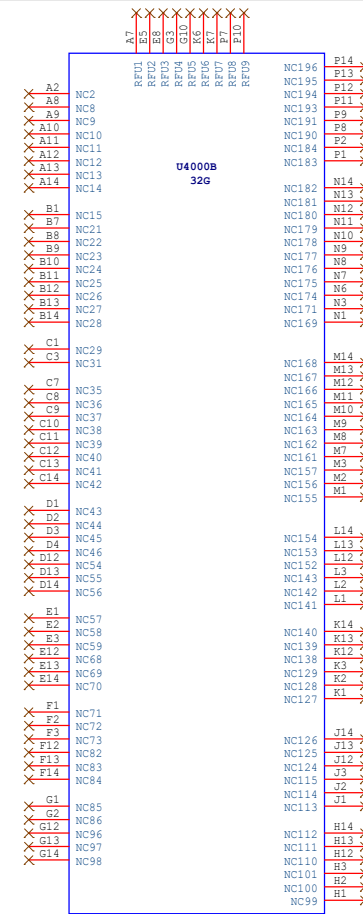
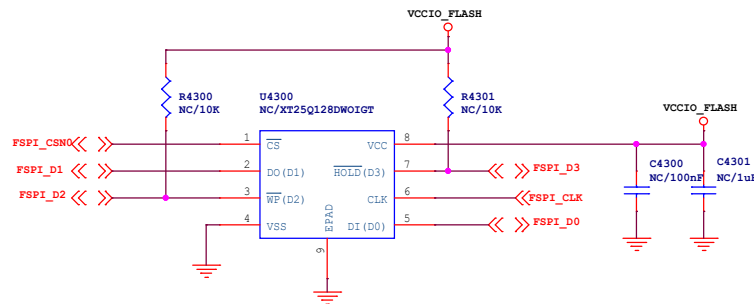
EMMC



Micro_SD Card

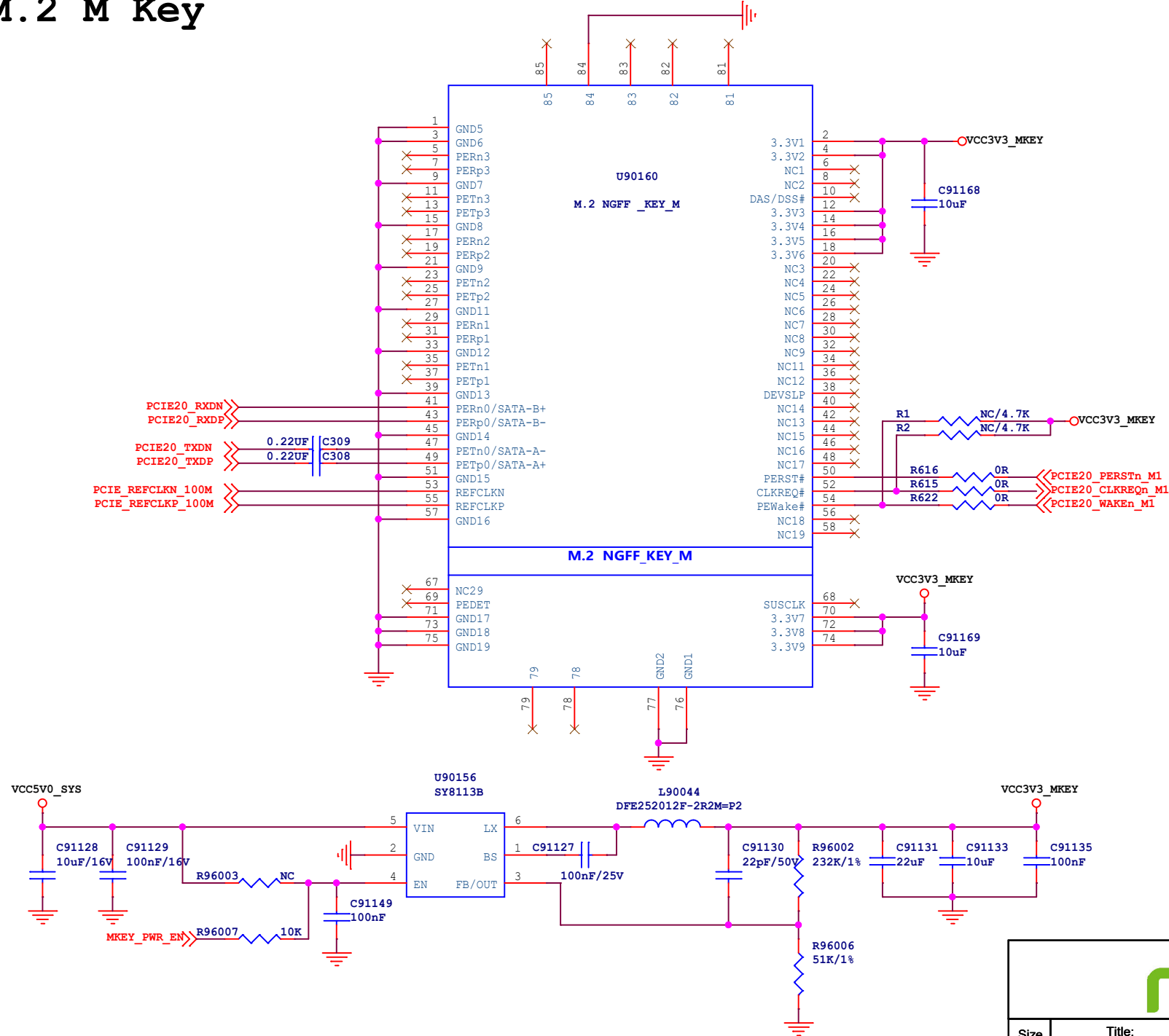


SPI FLASH (Option)



radxa

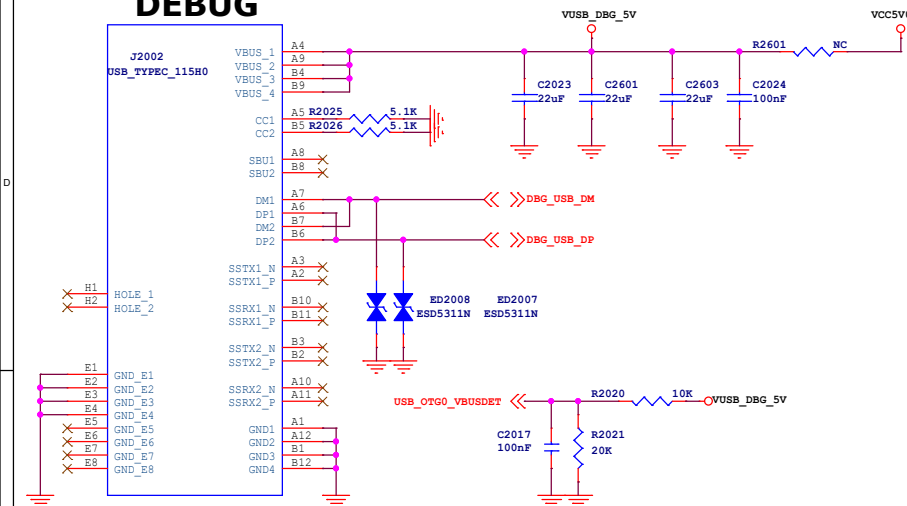
M.2 M Key



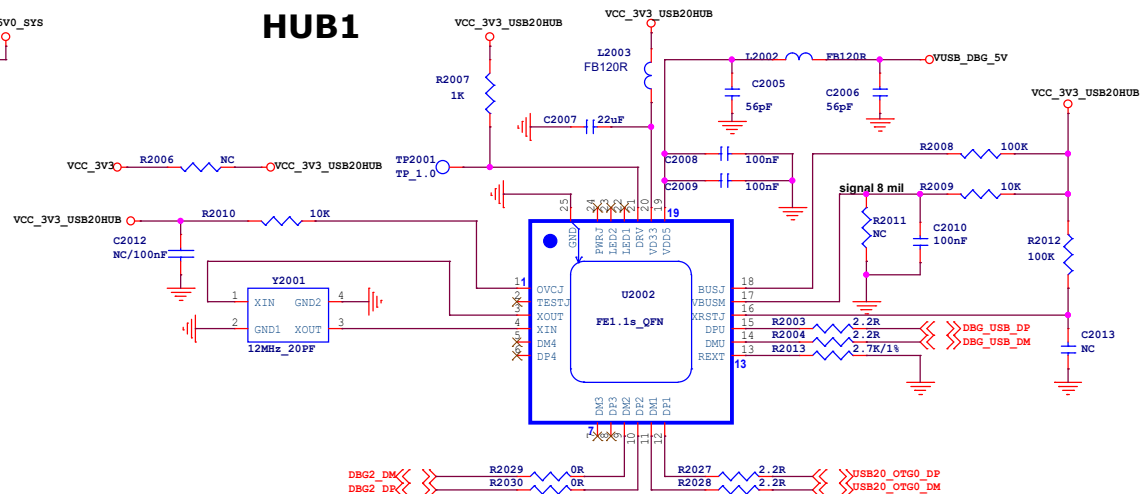
radxa

Size	Title: E24C	REV
A4	Page Name: 17.M.2 M Key	V1.20
Date: Monday, May 19, 2025	Sheet 17 of 22	

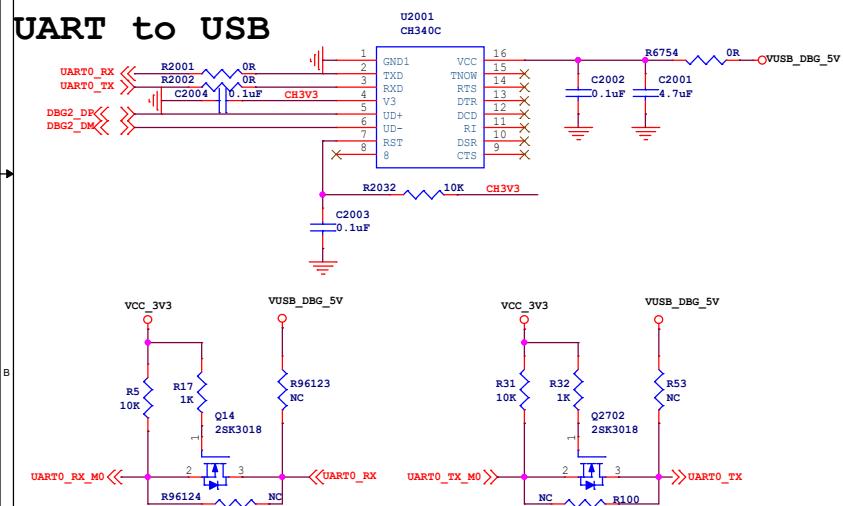
DEBUG



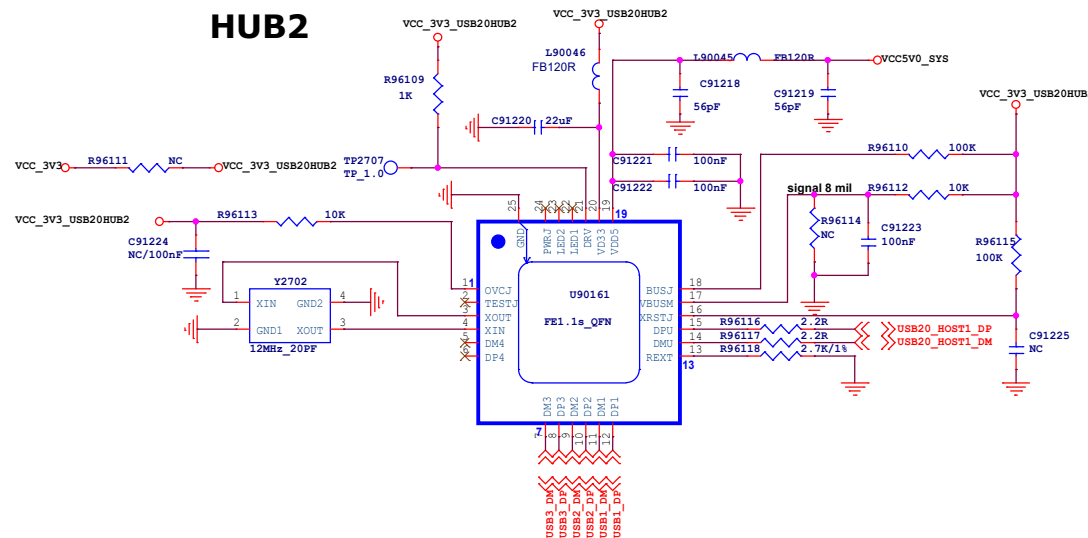
HUB1



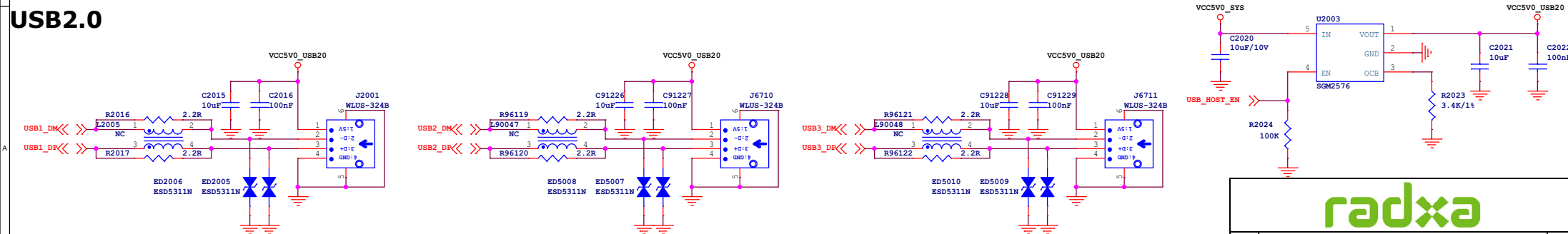
UART to USB



HUB2



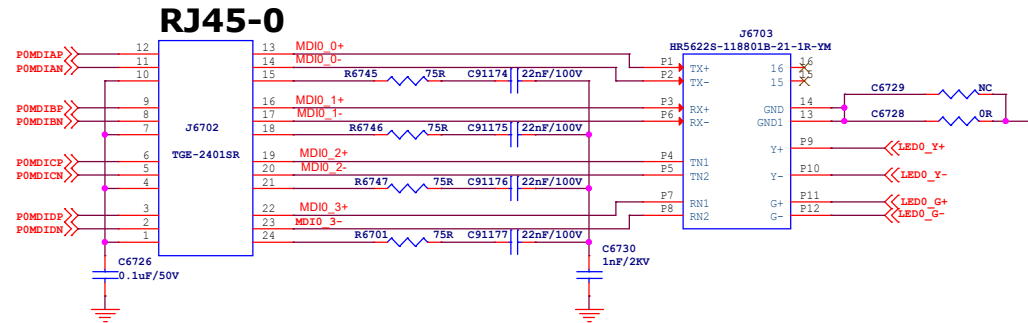
USB2.0



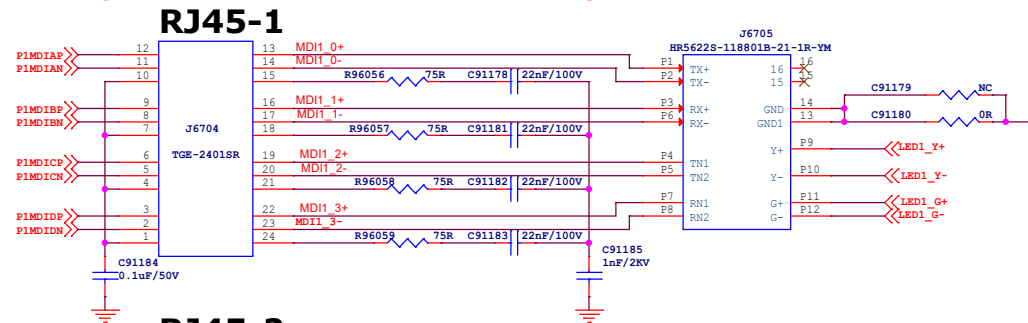
radxa

Size	Title: E24C	REV
A3	Page Name: 18.USB20_HUB	V1.20
Date:	Monday, May 19, 2025	Sheet 18 of 22

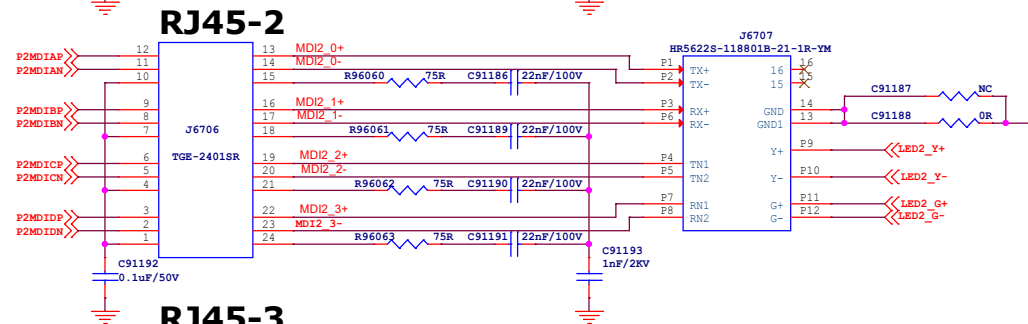
WAN



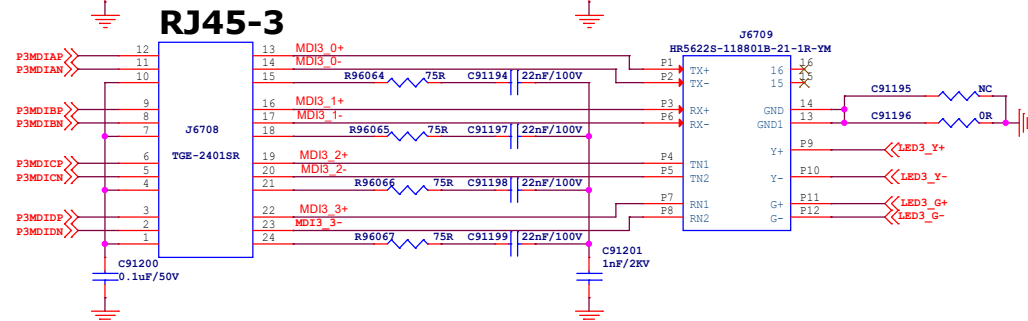
LAN1



LAN2



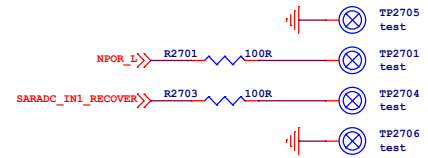
LAN3



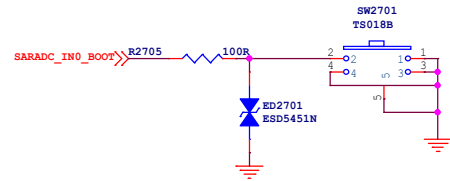
radxa

Size	Title: E24C	REV
A3	Page Name: 20.RJ45	V1.20
Date: Monday, May 19, 2025	Sheet 20 of 22	

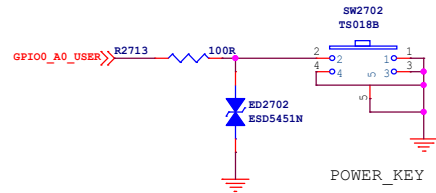
KEY



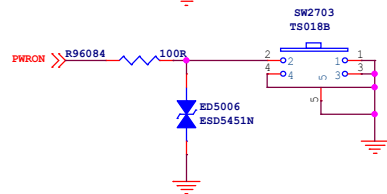
MASKROM_KEY



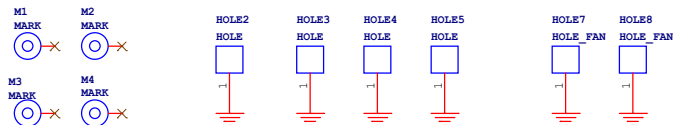
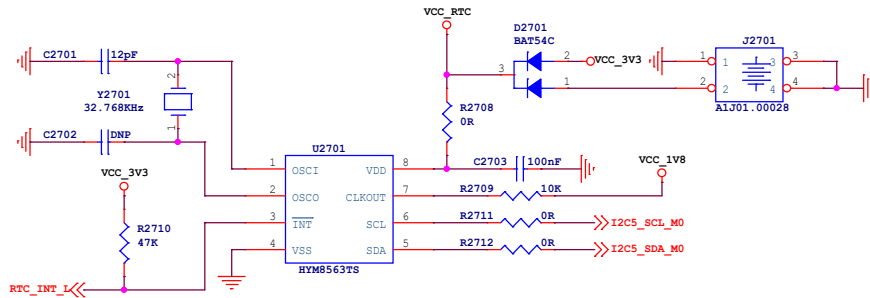
USER_KEY



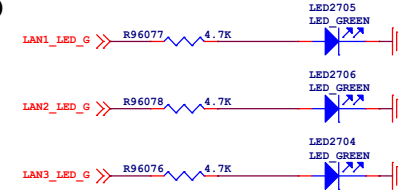
POWER_KEY



RTC



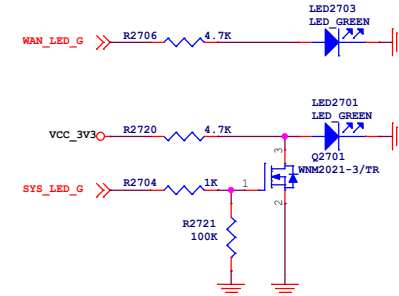
LED



LAN1 LED

LAN2 LED

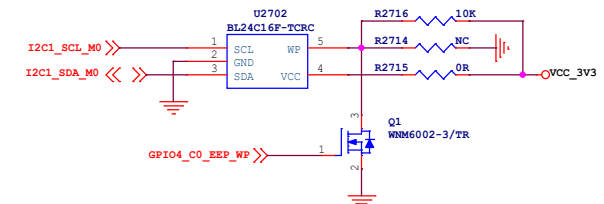
LAN3 LED



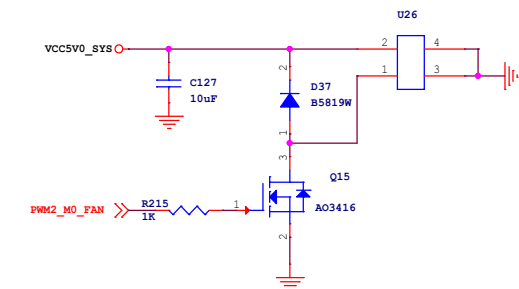
WAN LED

SYS LED

EEPROM



FAN



radxa

Size	Title: E24C	REV
A3	Page Name: 22.Key_LED_RTC_FAN	V1.20
Date: Monday, May 19, 2025	Sheet 22 of 22	