


Reference Schematics For RK3588S

RK3588S_Tablet_Demo_SCH

Main Functions Introduction

- 1) Charger: 1Cell Battery_QC
- 2) PMIC: 1 x RK806-1+DiscretePower
- 3) RAM: 2 x 32bits LPDDR4/4x
- 4) ROM: eMMC5.1(Default)
- 5) Support: 1 x Type-C 3.0(with DP function)
- 6) Support: 1 x 4Lanes MIPI D/CPHY RX Camera
- 7) Support: 1 x 2Lanes MIPI DPHY RX Camera
- 8) Support: 1 x 4Lanes MIPI D/CPHY TX
- 9) Support: a/b/g/n/ac/ax 2T2R WIFI(PCIE) + BT5.0
- 11) Support: 1 x Headphone + 2 x Speaker out + 1 x Analog MIC
- 12) Support: 2 x PDM MIC Array
- 13) Support: Gyroscope+G-sensor+Ambient Light+Proximity

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Project:	RK3588S_Demo				
File:	00.Cover Page				
Date:	Friday, January 07, 2022			Rev:	V10
Designed by:	Joseph	Reviewed by:	<Checker>	Sheet:	1 of 32

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Note

The power suffix S0 or S3 means:

S3: Keep power On during sleeping

S0:Power off during sleeping

Generate Bill of Materials

Header:

Item\tPart\tDescription\tPCB Footprint\tReference\tQuantity\tOption

Combined property string:

{Item}\t{Value}\t{Description}\t{PCB Footprint}\t{Reference}\t{Quantity}\t{Option}

- Description
- Note
- Option

Notes


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

NOTE 2:
Please use our recommended components to avoid too many changes.
For more informations about the second source,please refer to our AVL.

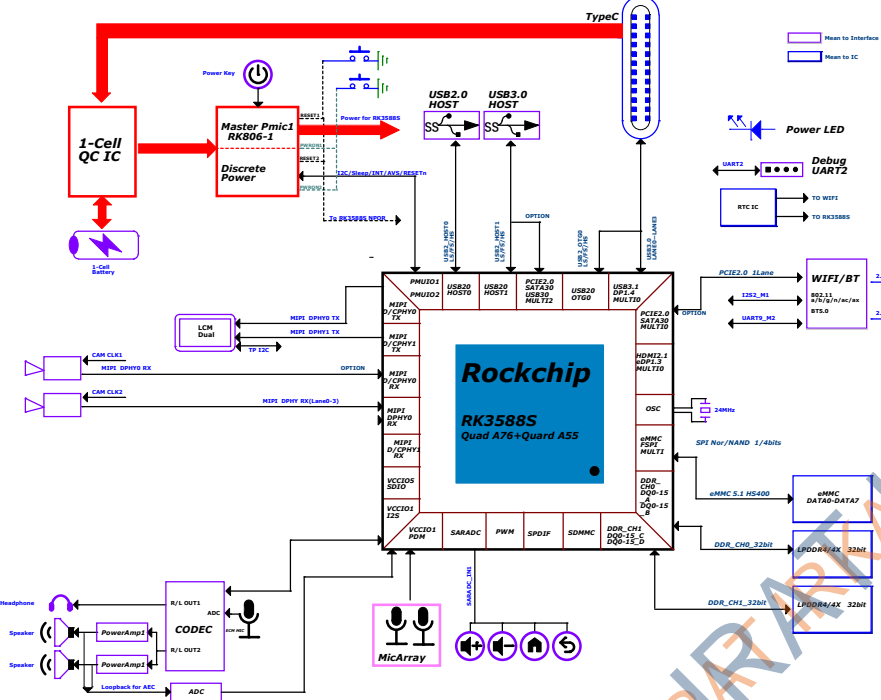
Revision History

Version	Date	By	Change Dscription	Approved
V1.0	2022-01-05	Joseph.Wei	1:Revision preliminary version	
V1.1	2022-02-18	Joseph.Wei	1.C1604,C1612的电容改成1uF/4V。 2.为了减少待机功耗，将PMUIO2电源域改成1.8V，此IO域对应外设IO电压相应修改 3.把L2203，L2205，L2207，L2300，L2301，L2302电感由0.22uH(TDK)改为0.24uH(Sunlord); L2201的电感由0.22uH(TDK)改为0.22uH (Sunlord)，封装IND_404020。	

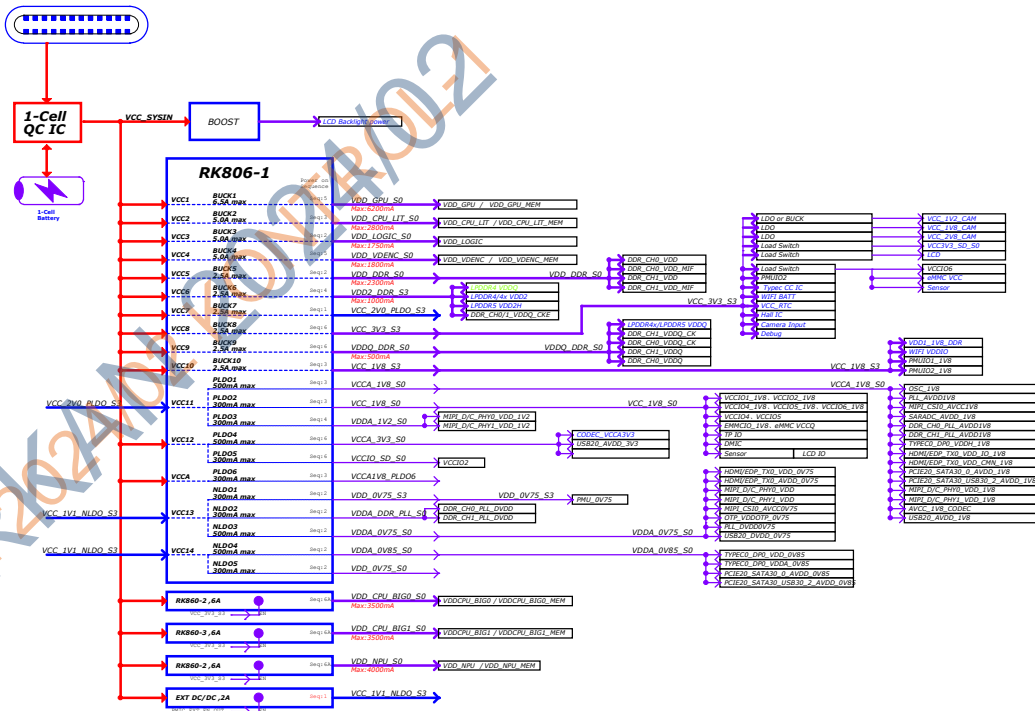
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Project:	RK3588S_Demo		
File:	02.Revision History		
Date:	Wednesday, February 23, 2022		Rev: V10
Designed by:	Joseph	Reviewed by:	<Checker> Sheet: 3 of 32

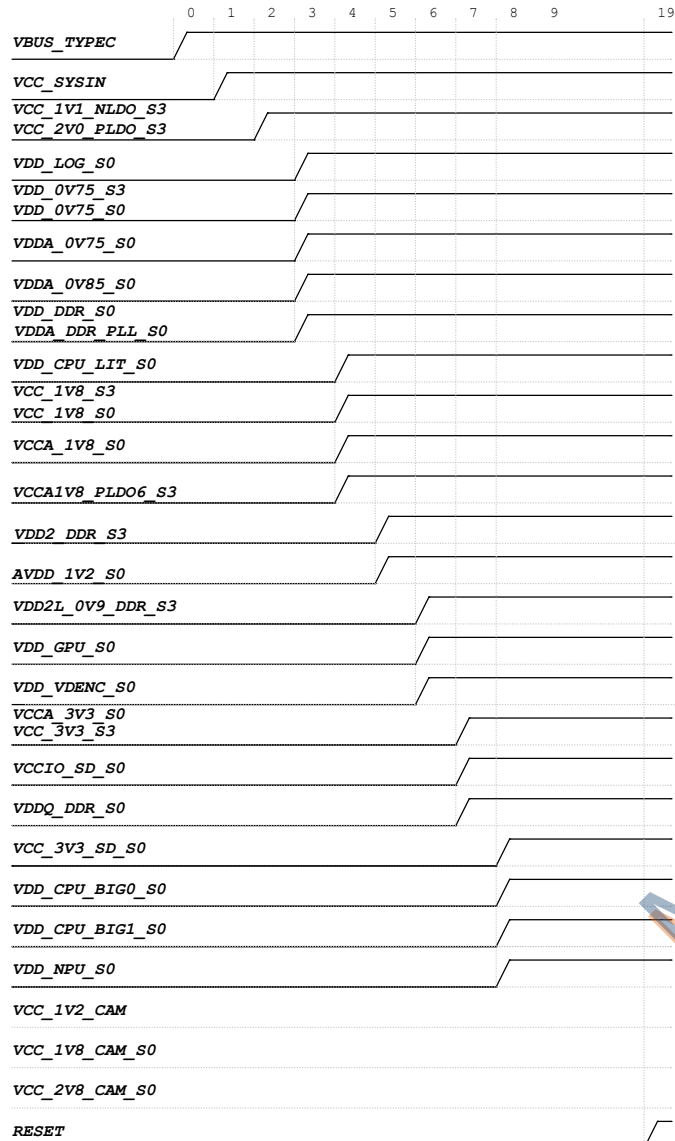
RK3588S Tablet Demo Block Diagram for 1-Cell Charger



Power tree for 1-Cell Charger



Power Sequence



Power Supply	PMIC Channel	Supply Limit	Power Name	Time Slot	Default Voltage	Default ON/OFF	Sleep ON/OFF	Peak Current	Sleep Current
VCC_SYSIN	RK806-1_BUCK1	6.5A	VDD_GPU_S0	Slot:5	0.75V	ON	OFF	TBD	TBD
VCC_SYSIN	RK806-1_BUCK2	5A	VDD_CPU_LIT_S0	Slot:3	0.75V	ON	OFF	TBD	TBD
VCC_SYSIN	RK806-1_BUCK3	5A	VDD_LOG_S0	Slot:2	0.75V	ON	OFF	TBD	TBD
VCC_SYSIN	RK806-1_BUCK4	3A	VDD_VDENC_S0	Slot:5	0.75V	ON	OFF	TBD	TBD
VCC_SYSIN	RK806-1_BUCK5	2.5A	VDD_DDR_S0	Slot:2	0.85V	ON	OFF	TBD	TBD
VCC_SYSIN	RK806-1_BUCK6	2.5A	VDD2_DDR_S3	Slot:4	ADJ FB=0.5V 2.0V	ON	ON	TBD	TBD
VCC_SYSIN	RK806-1_BUCK7	2.5A	VCC_2V0_PLDO_S3	Slot:1	2.0V	ON	ON	TBD	TBD
VCC_SYSIN	RK806-1_BUCK8	2.5A	VCC_3V3_S3	Slot:6	3.3V	ON	ON	TBD	TBD
VCC_SYSIN	RK806-1_BUCK9	2.5A	VDDQ_DDR_S0	Slot:6	ADJ FB=0.5V	ON	OFF	TBD	TBD
VCC_SYSIN	RK806-1_BUCK10	2.5A	VCC_1V8_S3	Slot:3	1.8V	ON	ON	TBD	TBD
VCC_2V0_PLDO_S3	RK806-1_PLDO1	0.5A	VCC_1V8_S0	Slot:3	1.8V	ON	OFF	TBD	TBD
	RK806-1_PLDO2	0.3A	VCCA_1V8_S0	Slot:3	1.8V	ON	OFF	TBD	TBD
	RK806-1_PLDO3	0.3A	VDDA_1V2_S0	Slot:4	1.2V	ON	OFF	TBD	TBD
VCC_SYSIN	RK806-1_PLDO4	0.5A	VCCA_3V3_S0	Slot:6	3.3V	ON	OFF	TBD	TBD
	RK806-1_PLDO5	0.3A	VCCIO_SD_S0	Slot:6	3.3V	ON	OFF	TBD	TBD
	RK806-1_PLDO6	0.3A	VCCA1V8_PLDO6_S3	Slot:3	1.8V	ON	ON	TBD	TBD
VCC_1V1_NLDO_S3	RK806-1_NLDO1	0.3A	VDD_0V75_S3	Slot:2	0.75V	ON	ON	TBD	TBD
	RK806-1_NLDO2	0.3A	VDDA_DDR_PLL_S0	Slot:2	0.85V	ON	OFF	TBD	TBD
	RK806-1_NLDO3	0.5A	VDDA_0V75_S0	Slot:2	0.75V	ON	OFF	TBD	TBD
VCC_1V1_NLDO_S3	RK806-1_NLDO4	0.5A	VDDA_0V85_S0	Slot:2	0.85V	ON	OFF	TBD	TBD
	RK806-1_NLDO5	0.3A	VDD_0V75_S0	Slot:2	0.75V	ON	OFF	TBD	TBD
VCC_SYSIN	BUCK_RK860-2	6A	VDD_CPU_BIG0_S0	Slot:6A	0.75V	ON	OFF	TBD	TBD
VCC_SYSIN	BUCK_RK860-3	6A	VDD_CPU_BIG1_S0	Slot:6A	0.75V	ON	OFF	TBD	TBD
VCC_SYSIN	BUCK_RK860-2	6A	VDD_NPU_S0	Slot:6A	0.75V	ON	OFF	TBD	TBD
VCC_SYSIN	EXT BUCK	2A	VCC_1V1_NLDO_S3	Slot:1	1.1V	ON	ON	TBD	TBD
VCC_SYSIN	EXT BUCK	2A	VDD2L_0V9_DDR_S3	Slot:5	0.9V	ON	ON	TBD	TBD
VCC_SYSIN	EXT BUCK	2.5A	VCC_3V3_SD_S0	Slot:6A	3.3V	ON	OFF	TBD	TBD
VCC_SYSIN	EXT_BUCK or LDO	2A	VCC_1V2_CAM_S0	OFF	1.2V	OFF	OFF	TBD	TBD
VCC_SYSIN	LDO	0.5A	VCC_1V8_CAM_S0	OFF	1.8V	OFF	OFF	TBD	TBD
VCC_SYSIN	LDO	0.5A	VCC_2V8_CAM_S0	OFF	2.8V	OFF	OFF	TBD	TBD

IO Power Domain Map

IO Domain	Pin Num	Support IO Voltage	Supply Power Pin Name	Power Source	Operating Voltage
PMUIO1	Pin N36 N37	1.8V Only	PMUIO1_1V8	VCC_1V8_S3	1.8V
PMUIO2	Pin V37 Y37	1.8V or 3.3V	PMUIO2_1V8	VCC_1V8_S3	1.8V
EMMCIO	Pin V35 V36	1.8V Only	PMUIO2	VCC_1V8_S3	1.8V
	Pin AC35		EMMCIO_1V8	VCC_1V8_S0	1.8V
VCCIO1	Pin AC36				
	Pin H31	1.8V Only	VCCIO1_1V8	VCC_1V8_S0	1.8V
VCCIO2	Pin AK11	1.8V or 3.3V	VCCIO2_1V8	VCC_1V8_S0	1.8V
	Pin AK10		VCCIO2	VCC_1V8_S0	1.8V
VCCIO4	Pin G27 G28	1.8V or 3.3V	VCCIO4_1V8	VCC_1V8_S0	1.8V
	Pin G31		VCCIO4	VCC_1V8_S0	1.8V
VCCIO5	Pin AF35 AF36	1.8V or 3.3V	VCCIO5_1V8	VCC_1V8_S0	1.8V
	Pin AC33 AC34		VCCIO5	VCC_1V8_S0	1.8V
VCCIO6	Pin A134	1.8V or 3.3V	VCCIO6_1V8	VCC_1V8_S0	1.8V
	Pin A133 AM33		VCCIO6	VCC_3V3_S0	3.3V

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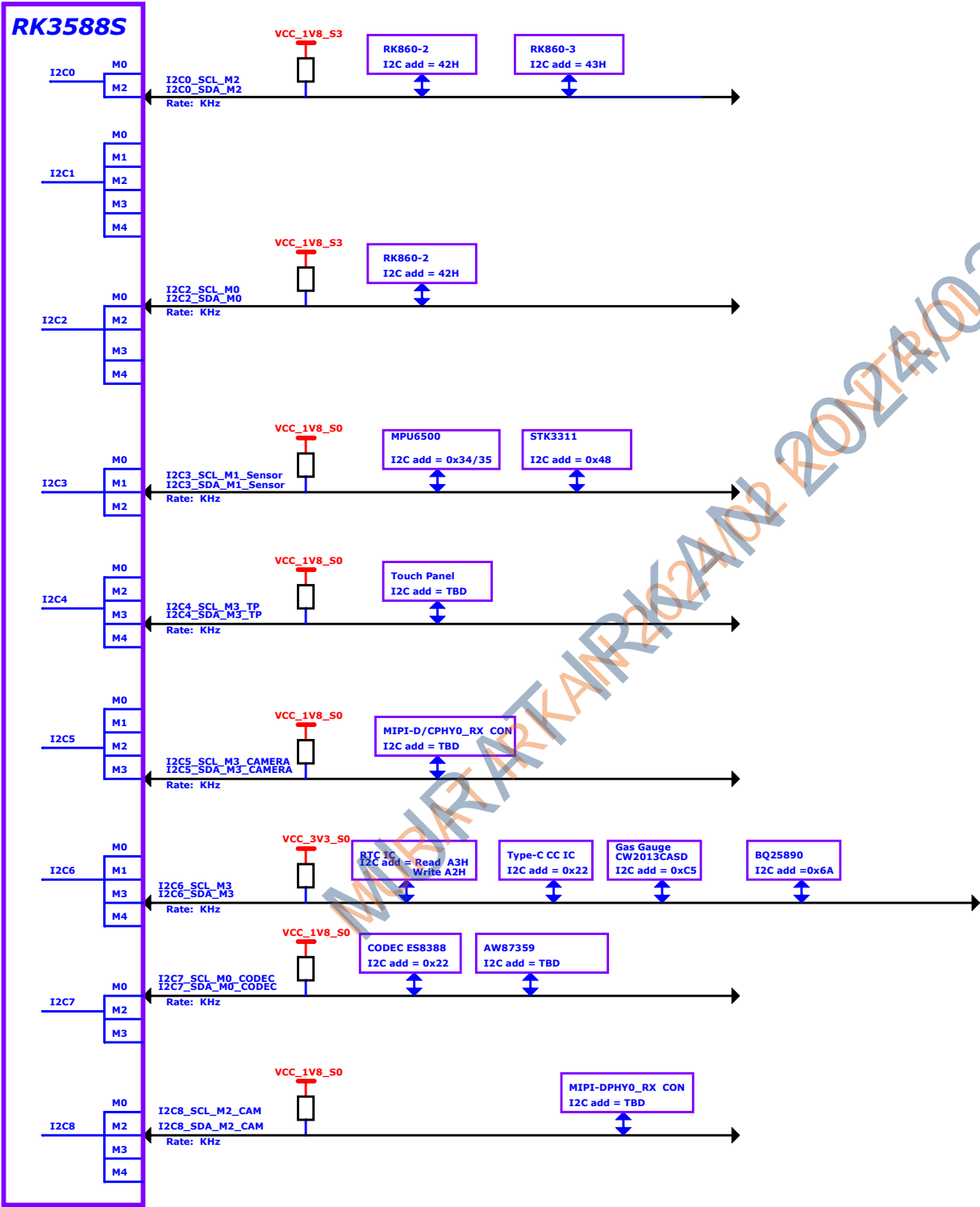
Project: RK3588S_Demo

File: 05.System Power Sequence

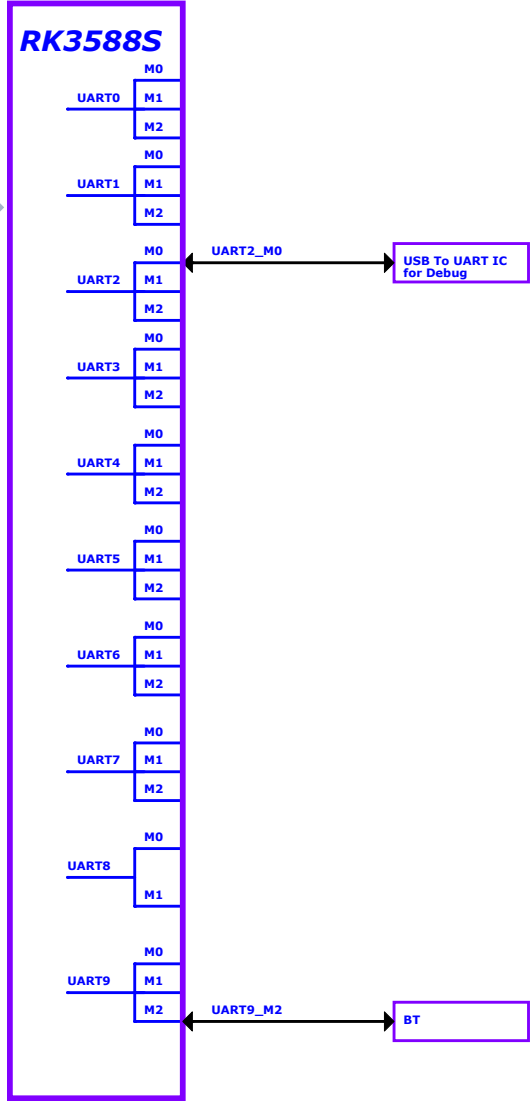
Date: Monday, January 24, 2022 Rev: V10

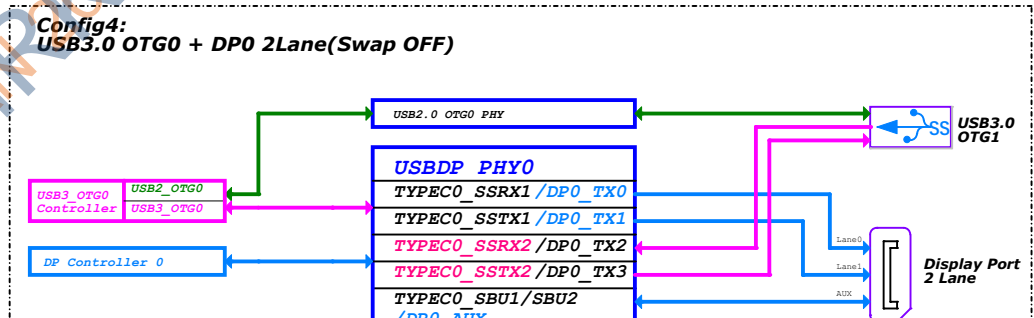
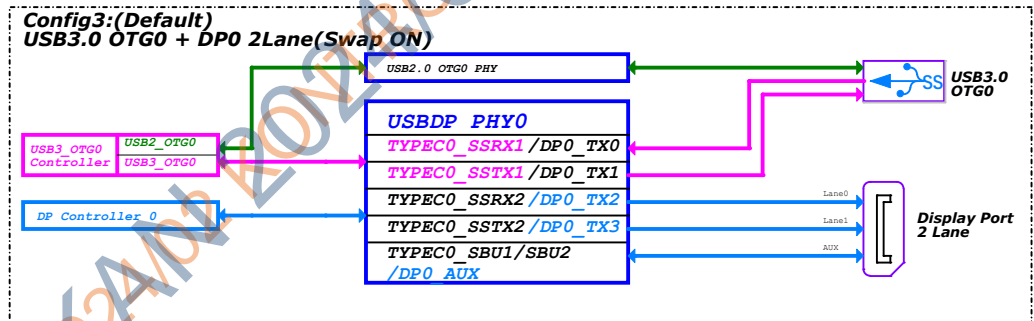
Designed by: Joseph Reviewed by: <Checker> Sheet: 5 of 32

I2C MAP

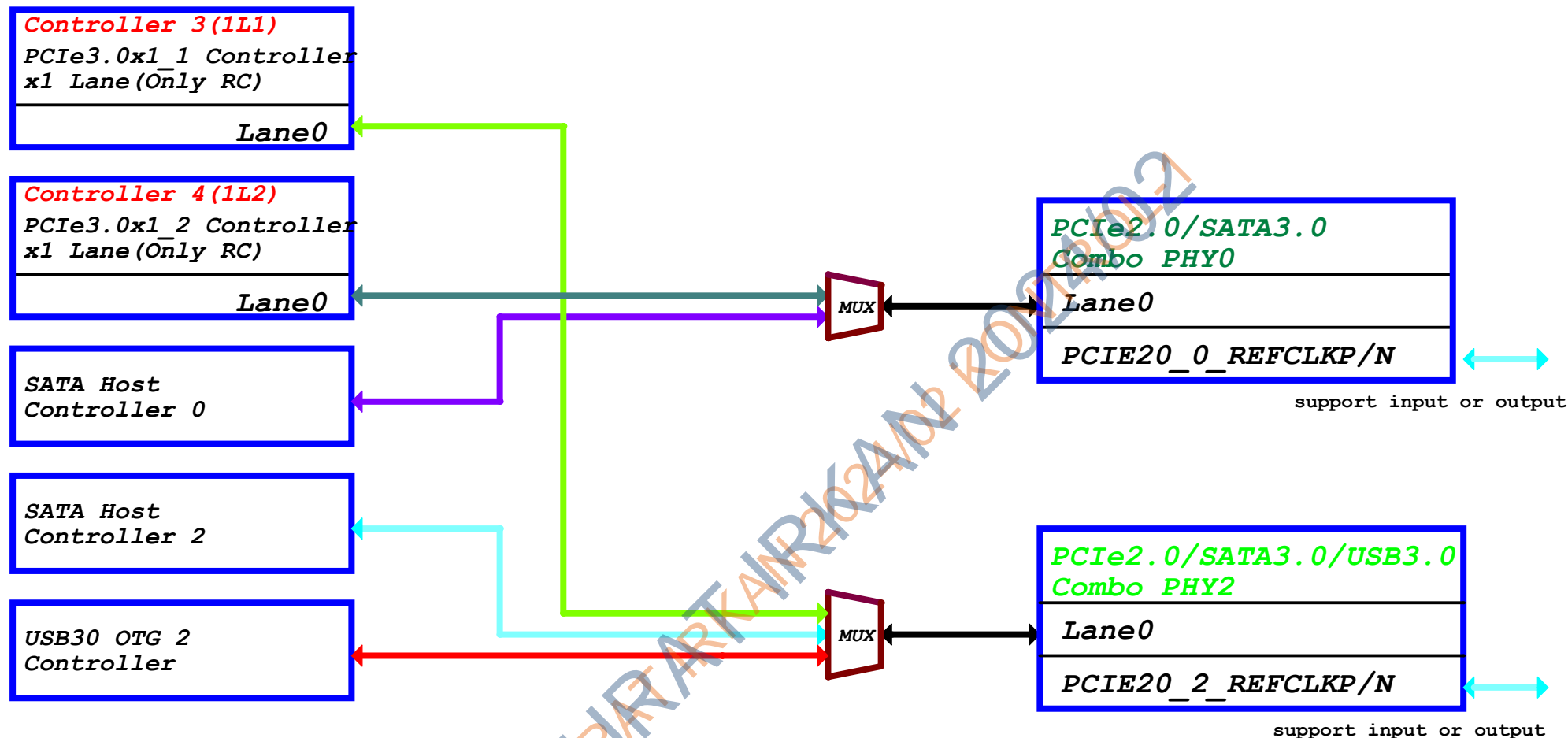


UART MAP



[illegible]

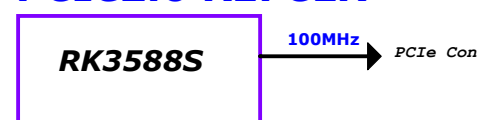
PCIe/SATA Connector Diagram



PCIe Controller Configure Table

Controller Name	Data & Clk Lane Configure		Control GPIO
	CLK LANE	DATA LANE	
PCIE20X1_1 RC	PCIE20_2_REFCLKP PCIE20_2_REFCLKN	PCIE20_2_TX PCIE20_2_RX	PCIE20X1_1_CLKREQ M* PCIE20X1_1_WAKEN M* PCIE20X1_1_PERSTN M* PCIE20X1_1_BUTTON_RSTN
PCIE20X1_2 RC	PCIE20_0_REFCLKP PCIE20_0_REFCLKN	PCIE20_0_TX PCIE20_0_RX	PCIE20X1_2_CLKREQ M* PCIE20X1_2_WAKEN M* PCIE20X1_2_PERSTN M* PCIE20X1_2_BUTTON_RSTN

PCIe2.0 REFCLK



Note:

PCIE20_*_REFCLKP/N is output or input gpio
M*=Mean to M0 or M1 or M2, It's the same source, Just multiplex to M0 or M1 or M2, Only use one at the same time.

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Project: RK3588S_Demo

File: 08.PCIE Fun Map

Date: Friday, January 07, 2022 Rev: V10

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RK3588S (Power&Gnd)

lokum notebook

LPDDR4 DEBIAN LINUX

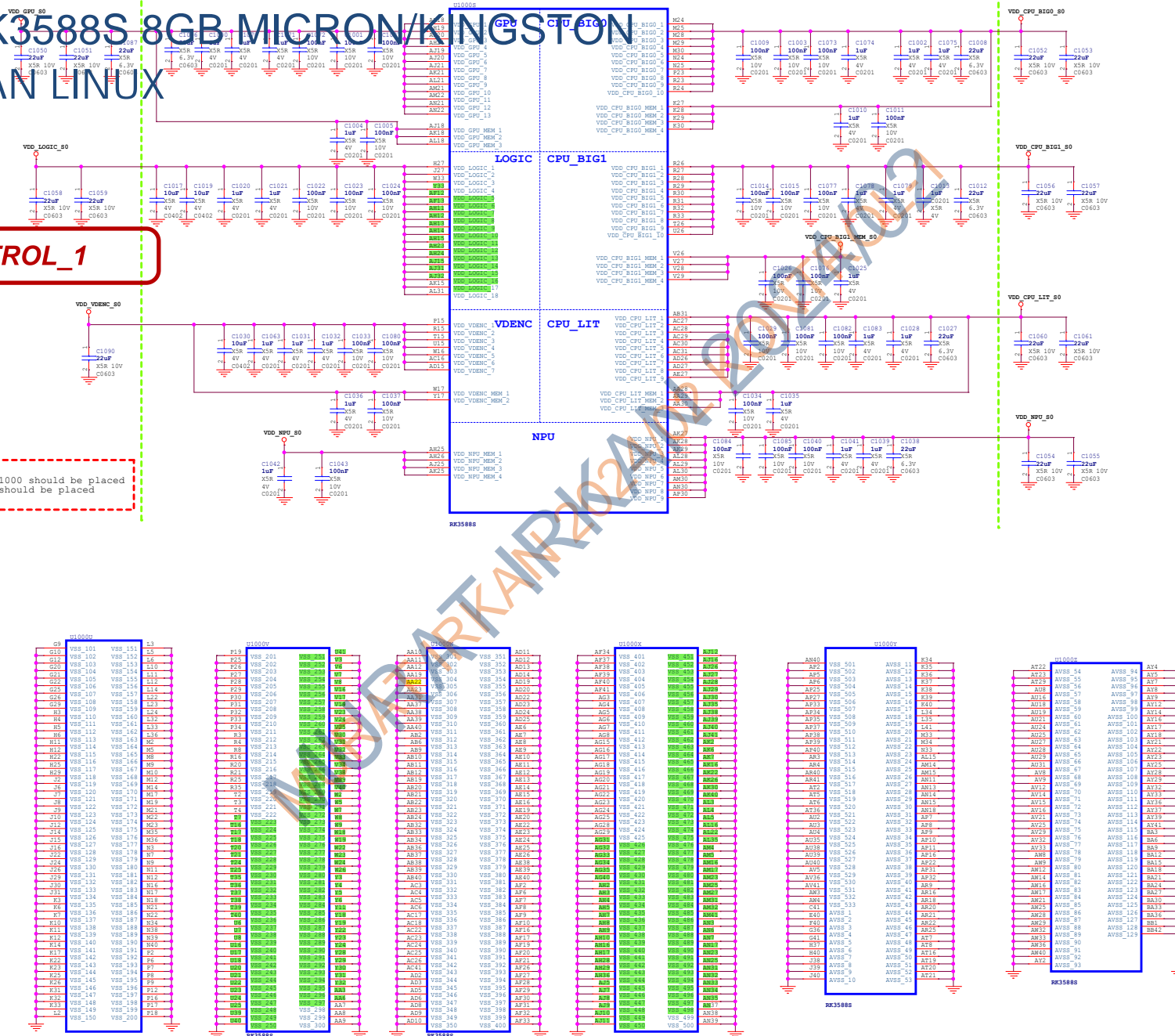
ANDROID 12

SISTEM KONTROL 1

kapasitörler ye il çizgi yi
gecmeden yerle tirilmeli u1000
altına do ru.diger cap lar u1000
yakın olmalı.

Note:

The Caps between green line and U1000 should be placed under the U1000 package. Other caps should be placed close to the U1000 package



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Project:	DK25856_Demo
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Project:	RA3568S_Demo
File:	10_RK3568S_Demo/GND

Date:	Friday, January 07, 2022	Rev:	V10
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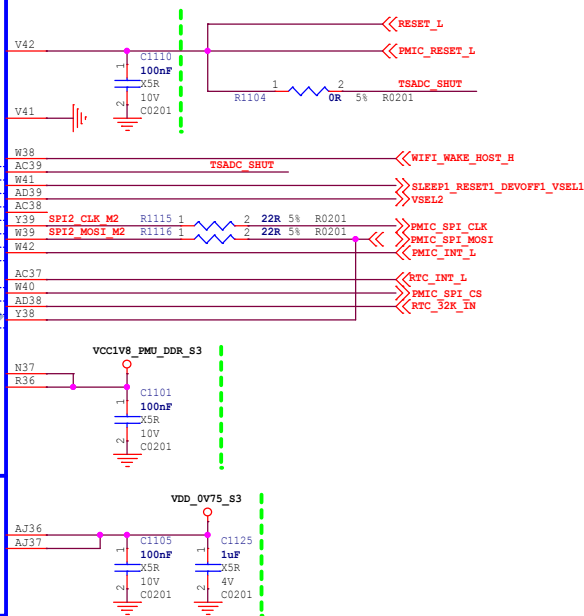
Note:
Adjusted the load capacitance according to the crystal specification

The CL is the load capacitance of the crystal that is recommended by the crystal vendors to obtain target clock frequency.

$$CL = \{CL1 * CL2 / (CL1 + CL2)\} + PCB \text{ strays}$$
$$Total \text{ } CL \leq 12pF$$



Note:
The Caps between green line and U1000 should be placed under the U1000 package. Other caps should be placed close to the U1000 package



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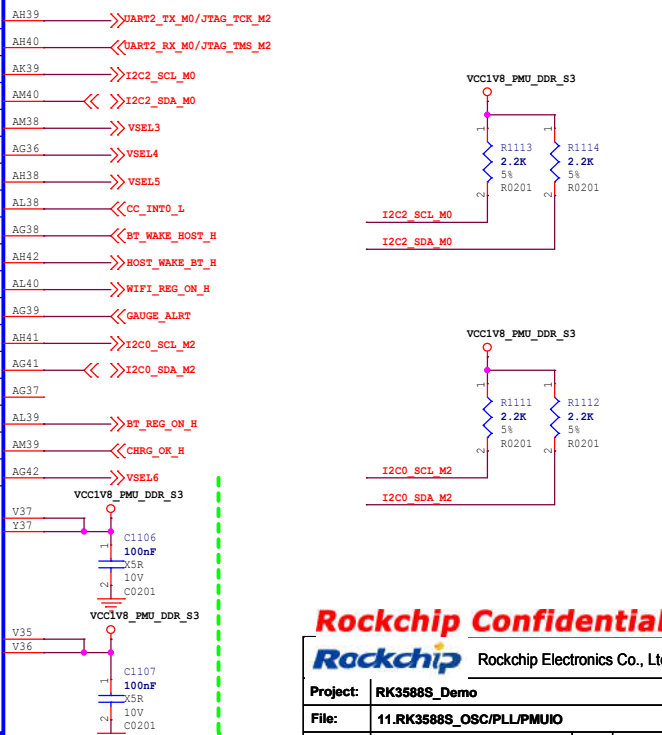
U1000F RK3588S
PMUIO2 Domain
Operating Voltage=1.8V/3.3V

/ PCIE20X1_1_CLKREQON M0 / I2S1_MCLK M1 / I2C1_SCL M0 / UART2_TX M0 / JTAG_TCK M2 / GPIO0_B5_d
/ PCIE20X1_1_WAKEN M0 / I2S1_SCLK M1 / I2C1_SDA M0 / UART2_RX M0 / JTAG_TMS M2 / GPIO0_B6_d
/ PCIE20X1_1_PERSTN M0 / SPI0_CS1 M0 / I2S1_LRCK M1 / I2C2_SCL M0 / CAN0_TX M0 / PWM0_M0 / GPIO0_B7_d
/ / SPI0_MOSI M0 / I2C2_SDA M0 / PDM0_CLK0 M1 / CAN0_RX M0 / PWM1_M0 / GPIO0_C0_d
/ / / / / / / / PMIC_SLEEP3 / GPIO0_C1_d
/ / / / / / / / PMIC_SLEEP4 / GPIO0_C2_d
/ / / / / / / / PMIC_SLEEP5 / GPIO0_C3_d
DPO_HPDIN_M1 / / / I2C4_SDA M2 / PDM0_CLK1 M1 / UART0_RX M0 / PWM2_M0 / GPIO0_C4_d
/ / / I2S1_SDIO M1 / I2C4_SCL M2 / PWM4_M0 / UART0_TX M0 / GPU_AVS / GPIO0_C5_u
SATA_CP_FOD / / SPI0_CLK M0 / I2S1_SDI1 M1 / / PWM5_M1 / UART0_RTSN / NPU_AVS / GPIO0_C6_u
/ / SPI0_MISO M1 / I2S1_SDI2 M1 / I2C6_SDA M0 / PDM0_SDIO M1 / UART1_RTSN M2 / PWM6_M0 / GPIO0_C7_d
/ / SPI3_MISO M2 / I2S1_SDI3 M1 / I2C6_SCL M0 / PDM0_SDI1 M1 / UART1_CTSN M2 / PWM7_IR M0 / GPIO0_D0_d
/ HDMI_TX0_CRC M1 / SPI0_CS0 M0 / I2S1_SDO0 M1 / I2C0_SCL M2 / UART0_CTSN / UART1_TX M2 / CPU_BIG0_AVS / GPIO0_D1_u
/ / SPI0_MOSI M2 / I2S1_SDO1 M1 / I2C0_SDA M2 / / / UART1_RX M2 / / GPIO0_D2_u
/ / SPI3_CLK M2 / / / / / / / LITCPU_AVS / GPIO0_D3_u
SATA_CPDET / HDMI_TX0_SDA M1 / SPI3_CS0 M2 / I2S1_SDO2 M1 / I2C1_SCL M2 / PDM0_SDI2 M1 / CAN2_FX M1 / PWM3_IR M0 / GPIO0_D4_u
SATA_MP_SWITCH / HDMI_TX0_SCL M1 / SPI3_CS1 M2 / I2S1_SDO3 M1 / I2C1_SDA M2 / / CAN2_TX M1 / CPU_BIG1_AVS / GPIO0_D5_u
/ / / / / PDM0_SDI3 M1 / / PMIC_SLEEP6 / GPIO0_D6_d

PMUIO2_1V8_1
PMUIO2_1V8_2

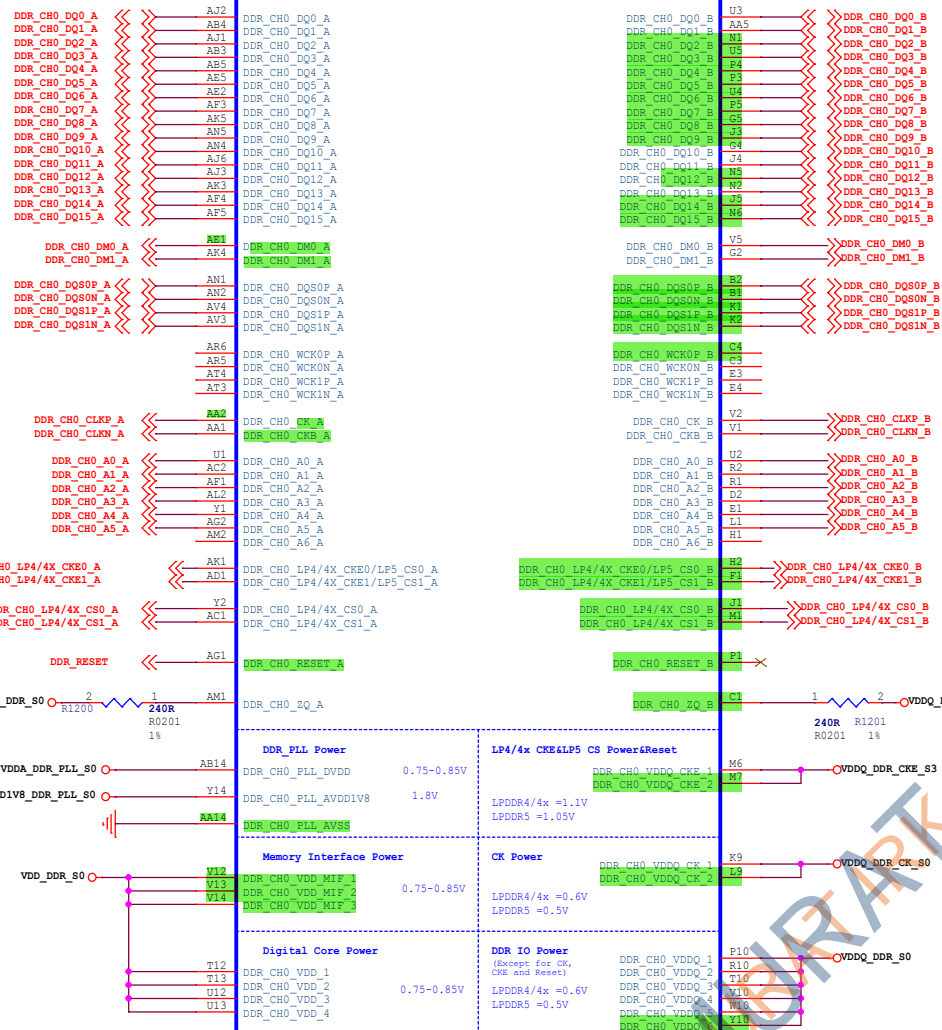
PMUIO2_1
PMUIO2_2

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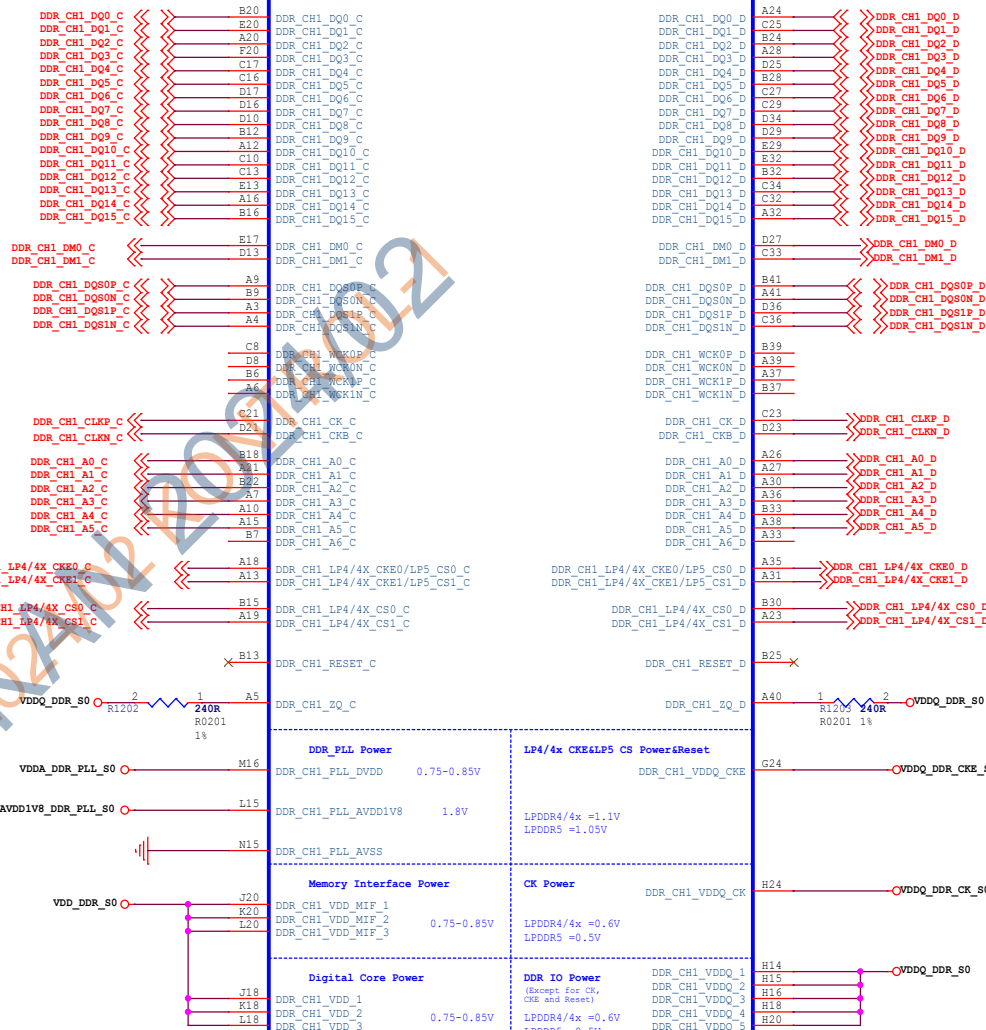


RK3588S (DDR PHY) LPDDR4 MICRON-SAMSUNG VEYA KINGSTON

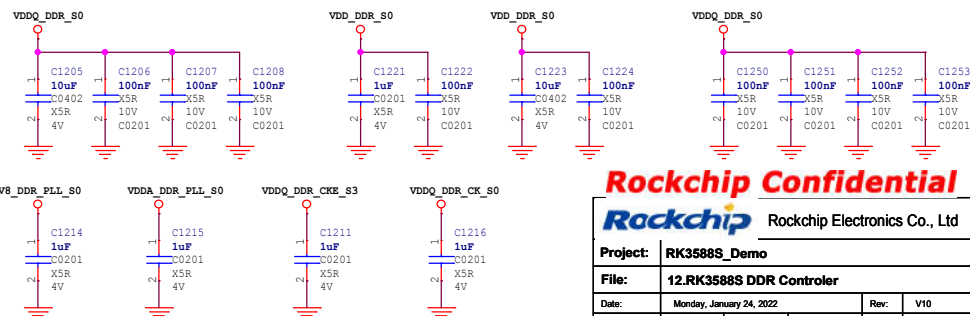
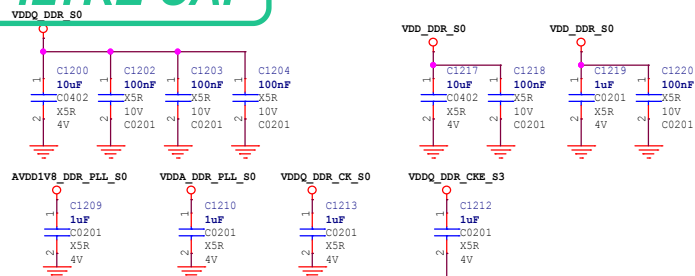
U1000A RK3588S



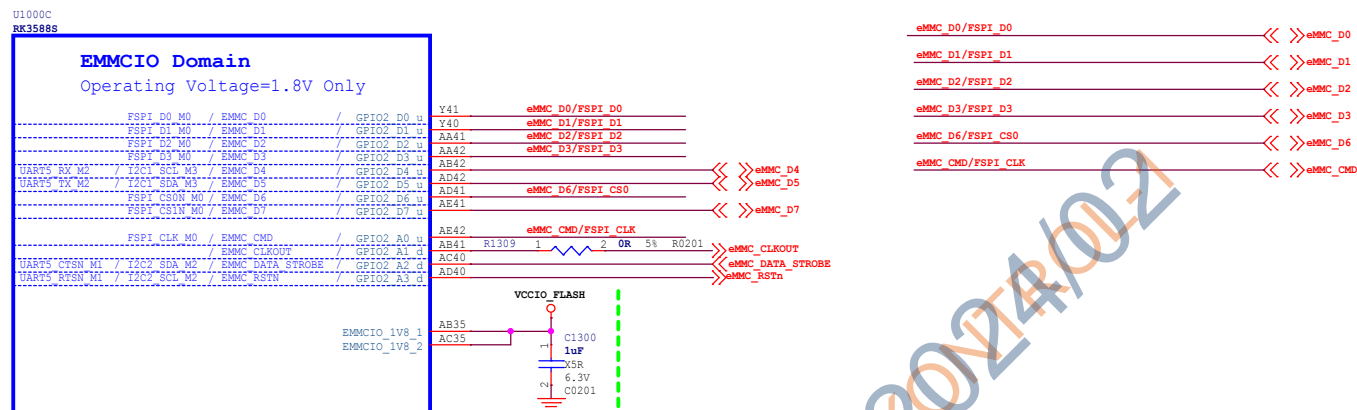
U1000B RK3588S



LPDDR4 FILTRE CAP



RK3588S (EMMCIO Domain)



RK3588S (VCCI02 Domain)



Note:

Caps of between dashed green lines and U1000 should be placed under the U1000 package

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Project: RK3588S_Demo

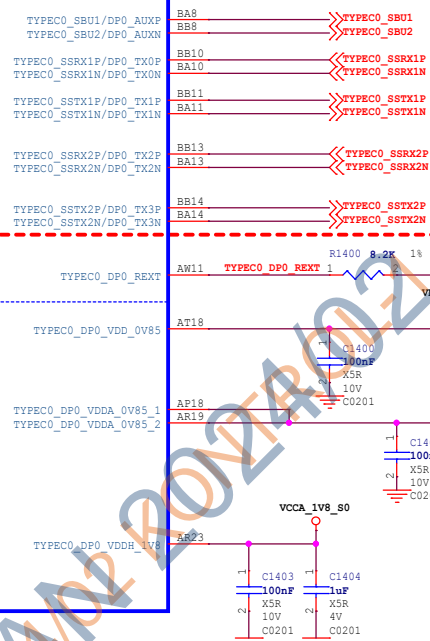
File:	13.RK3588S Flash/SD Controller
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Date:	Wednesday, January 12, 2022			Rev:	V10
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USB 3.0 PORTLAR

Option1	DP x4Lane	DP_TX_Lane0~3
Option2	TYPEC x4Lane	SSTX 1P/1N SSTX 2P/2N SSRX 1P/1N SSRX 2P/2N
Option3	USB30X2Lane+DPX2Lane	USB30:SSTX 1P/1N SSRX 1P/1N DP:Lane2 Lane3
Option4	USB30X2Lane+DPX2Lane	USB30:SSTX 2P/2N SSRX 2P/2N DP:Lane0 Lane1

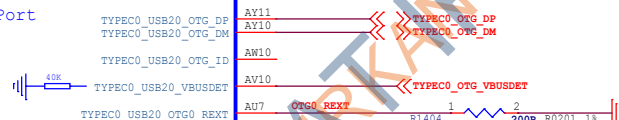
1000L	RK3588S
USB 3.0 OTG of TYPEC0 /DP1.4 ALT	TYPEC0_SBU1/DP0_AUXP TYPEC0_SBU2/DP0_AUXN
USB:U3/Gen1	TYPEC0_SSRX1P/DP0_TXM TYPEC0_SSRX1N/DP0_TX0N
DP:HBR/HBR/HBR2/HBR3	TYPEC0_SSTX1P/DP0_TX1P TYPEC0_SSTX1N/DP0_TX1N
	TYPEC0_SSRX2P/DP0_TX2P TYPEC0_SSRX2N/DP0_TX2N
	TYPEC0_SSTX2P/DP0_TX3P TYPEC0_SSTX2N/DP0_TX3N
	TYPEC0_DP0_REXT
POWER	TYPEC0_DP0_VDD_OV85
	TYPEC0_DP0_VDDA_OV85_1 TYPEC0_DP0_VDDA_OV85_2
	TYPEC0_DP0_VDDH_OV85



USB30 Differential Pair: DP Differential Pair:
DATE:90 Ohm +-10% DATE:100 Ohm +-10%
For USB30 For DP

RK3588S (USB2.0)

USB2.0 OTG of TYPEC0
HS/FS/LS
Download Port



USB20_HOST0_DP	AW6
USB20_HOST0_DM	AV6
USB20_HOST0_REXT	AW5

USB20_HOST1_DP	AV7
USB20_HOST1_DM	AW7
USB20_HOST1_REXT	AU6

USB20_DVDD_0V75_1	AT11
USB20_DVDD_0V75_2	AT12
USB20_AVDD_1V8_1	AT13
USB20_AVDD_1V8_2	AT14
USB20_AVDD_3V3	AT10

The USB20_VBUSDET pin internal has a pull-down resistance(40K ohm) to ground,The resistance creates a voltage with the external series 24K ohm resistor.The VBUSDETpin voltage range $\leq 3.3V$.

```
DP/DM:Must used for download
ID:According to demand,if not used,Leave floating
VBUSDET:Must provide
REXT:200ohm 1% resistor must be connected externally
Power: Must supply power
```

```

If not used:
DP/DM:Leave floating
REXT:Leave floating

```

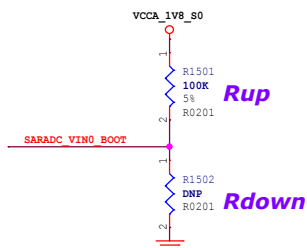
! Caps of between dashed green lines and U1000
! should be placed under the U1000 package

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 SARADC_VIN1_KEY/RECOVERY
 SARADC_VIN2_LCD_ID

 SARADC_VIN4_BATT_TC_L

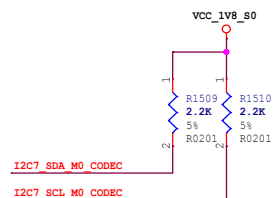


Item	Rup	Rdown	ADC	BOOT MODE(saradc_in5)
LEVEL1	DNP	100K	0	USB (Maskrom mode)
LEVEL2	100K	20K	682	SD Card-USB
LEVEL3	100K	51K	1365	EMMC-USB
LEVEL4	100K	100K	2047	FSPI M0-USB
LEVEL5	100K	200K	2730	FSPI M1-USB
LEVEL6	100K	499K	3412	FSPI M2-USB
LEVEL7	100K	DNP	4095	FSPI_M2-FSPI_M0-EMMC -SD Card-USB

VCCIO1 Domain
Operating Voltage=1.8V Only

SPI4 MISO M0 / UART3 RX M0 / I2C3 SDA M0 / SPI0 CS 2
 SPI4 MOSI M0 / UART3 TX M0 / I2C3 SCL M0 / GPIO1 C1.2
 SPI4 CLK M0 / UART3 CTSN / PWM0 IR M2 / I2C4 SDA M4 / I2S0 MCLK / GPIO1 C1.3
 SPI4 CS0 M0 / UART3 CS0N / PWM0 TR M2 / I2C4 SCL M4 / I2S0 SCLK / GPIO1 C1.4
 SPI4 CSI M0 / UART4 CTSN / PWM11 TR M2 / I2C3 SDA M3 / PDM0 CLK0 M0 / GPIO1 C1.5
 / UART4 RPSN / I2C3 SCL M3 / I2S0 LRCK / GPIO1 C1.6
 / PWM15 TR M2 / I2C4 SDA M4 / PDM0 CLK0 M0 / GPIO1 C6.3
 / UART4 CTSN / I2C4 SCL M4 / I2S0 SDO0 / GPIO1 C7.4
 SPI1 MISO M2 / UART6 TX M2 / I2C7 SCL M0 / I2S0 SDO1 / GPIO1 D0.4
 SPI1 MOSI M2 / UART6 RX M2 / I2C7 SCL M0 / PDM0 SD11 M0 / I2S0 SDO0/I2S0 SD11 / GPIO1 D1.4
 SPI1 CLK M2 / UART6 TX M0 / PDM0 M1 / I2C1 SCL M4 / PDM0 SD14 M0 / I2S0 SDO0/I2S0 SD14 / GPIO1 D1.3
 SPI1 CS0 M2 / UART4 RX M0 / PDM0 M1 / I2C1 SDA M4 / PDM0 SD11 M0 / I2S0 SD11 / GPIO1 D1.4
 SPI1 CSI M2 / / PDM0 SD10 M0 / I2S0 SD10 / GPIO1 D1.3

R38
 N41 << ALPS INT 1
 U36 << I2S0 MCLK
 M42 << I2S0 SCLK_TX
 U35 << I2S0 LRCK_TX
 P39
 M41 << I2S0 LRCK_TX
 P41 << I2S0 SDO0
 U37 << I2C7 SCL M0_CODEC
 U38 << I2C7 SDA M0_CODEC
 P40
 R39
 N42 << I2S0 SD10
 P38
 VCCIO1_1V8
 H31
 C1508
 100nF
 X5R
 10V
 C0201

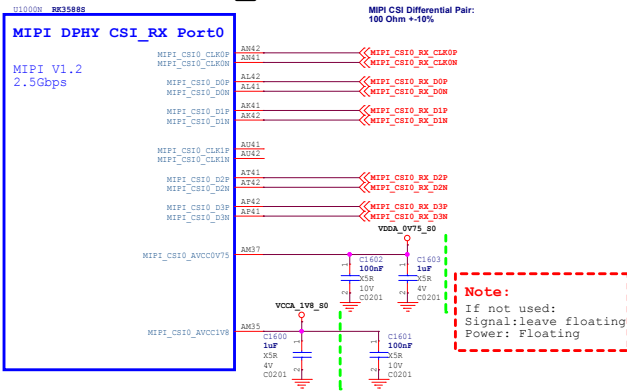


Caps of between dashed green lines and U1000
should be placed under the U1000 package

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Project:	RK3588S_Demo				
File:	15.RK3588S_SARADC/1.8V GPIO				
Date:	Friday, January 14, 2022			Rev:	V10
Designed by:	Joseph	Reviewed by:	<Checker>	Sheet:	14 of 32

RK3588S(MIPI_DPHY CSI0 RX)

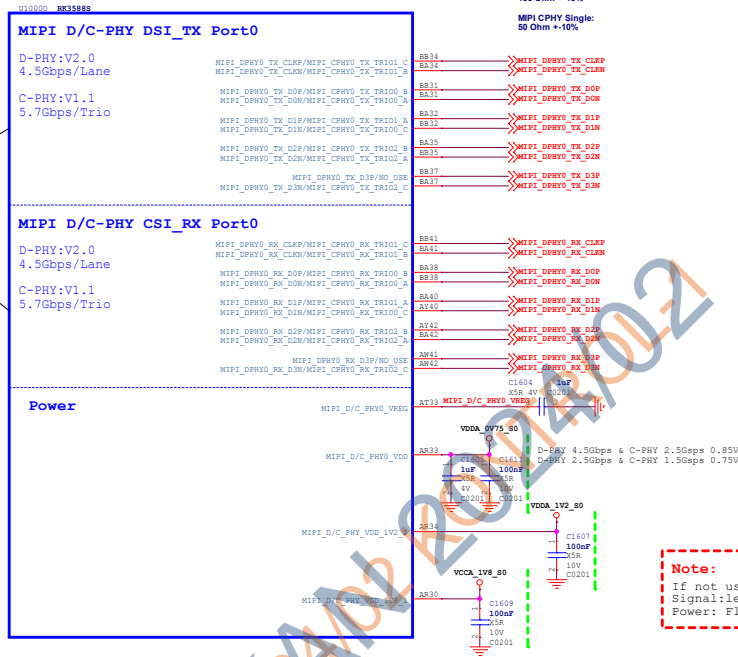


Option1	Sensor1 x4Lane	MIPI_CSI_RX_D0-3 MIPI_CSI_RX_CLK0
Option2	Sensor1 x2Lane + Sensor2 x2Lane	MIPI_CSI_RX_D0-1 MIPI_CSI_RX_CLK0 MIPI_CSI_RX_D2-3 MIPI_CSI_RX_CLK1

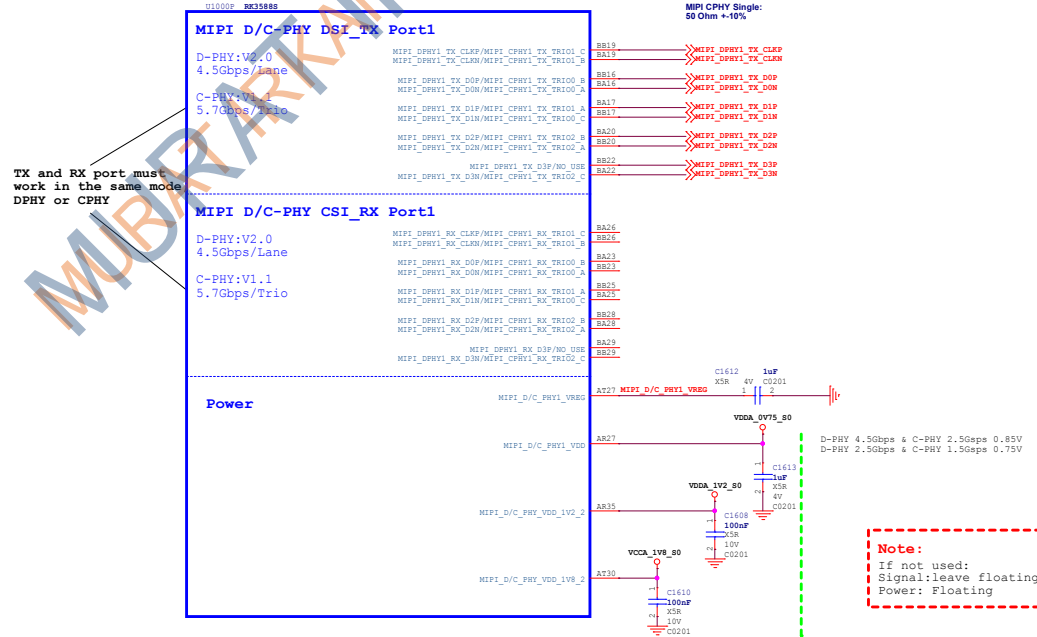
Note:
When in single clock lane mode, CLK0P/0N is the clock lane from Data lane0 to Data lane3, but clock lane1 is invalid; In dual clock lanes mode, CLK0P/0N is the clock lane of Data lane0 and Data lane1, while CLK1P/1N is the clock lane of Data lane2 and Data lane3.

Note:
Caps of between dashed green lines and U1000 should be placed under the U1000 package

RK3588S(MIPI_D/C PHY0)



RK3588S(MIPI_D/C PHY1)



RK3588S (HDMI2.1 TX/eDP1.3 TX)

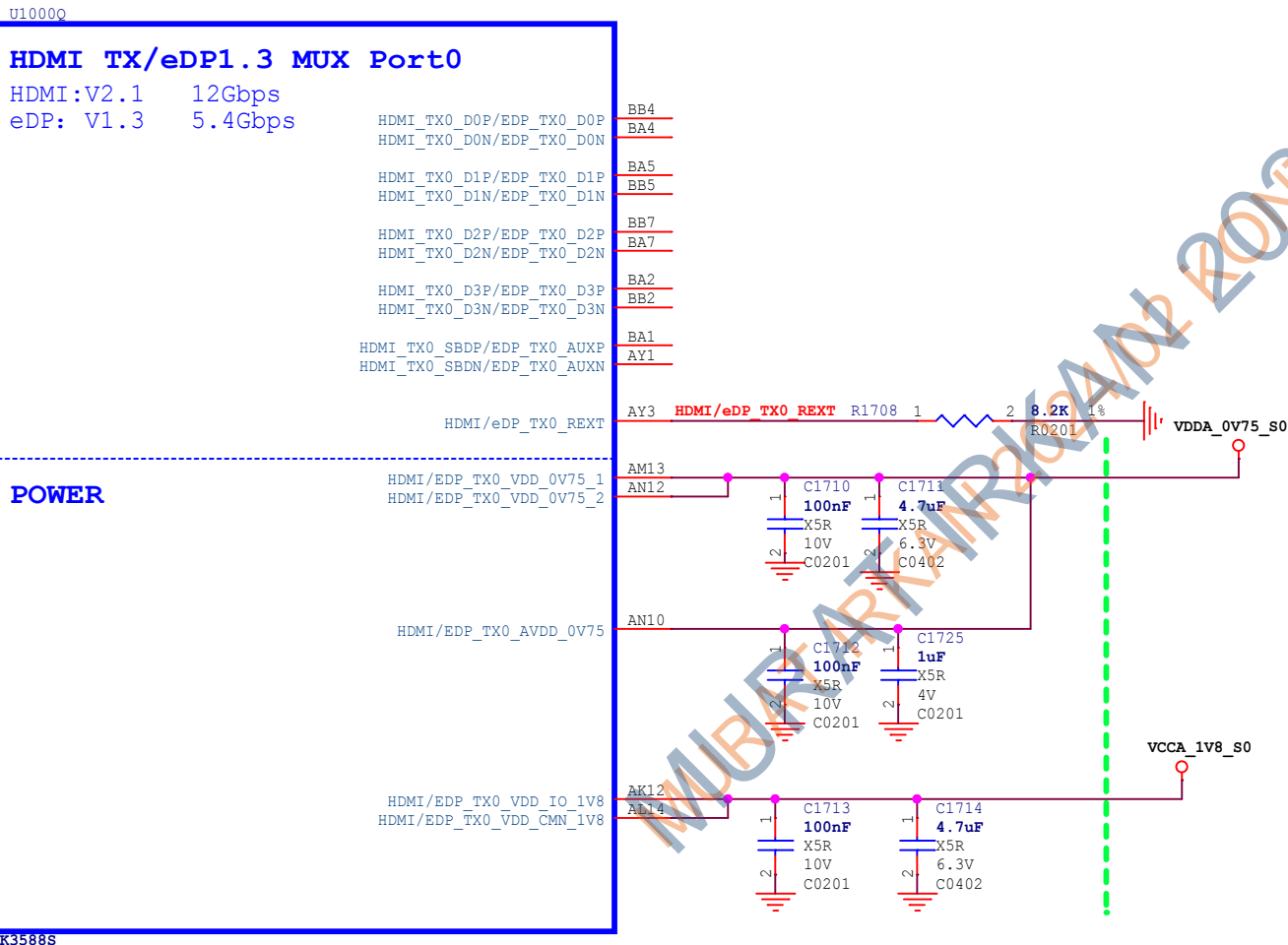
HDMI VERSIYON 2.1

Note:

The HDMI2.1 trace length is less than 100mm.
The HDMI2.1 differential trace impedance is 100 OHM.

eDP TX
100 Ohm $\pm 10\%$

HDMI TX
100 Ohm $\pm 10\%$




Note:

If not used:
Signal: leave floating
Power: Floating or tie to VSS

Note:

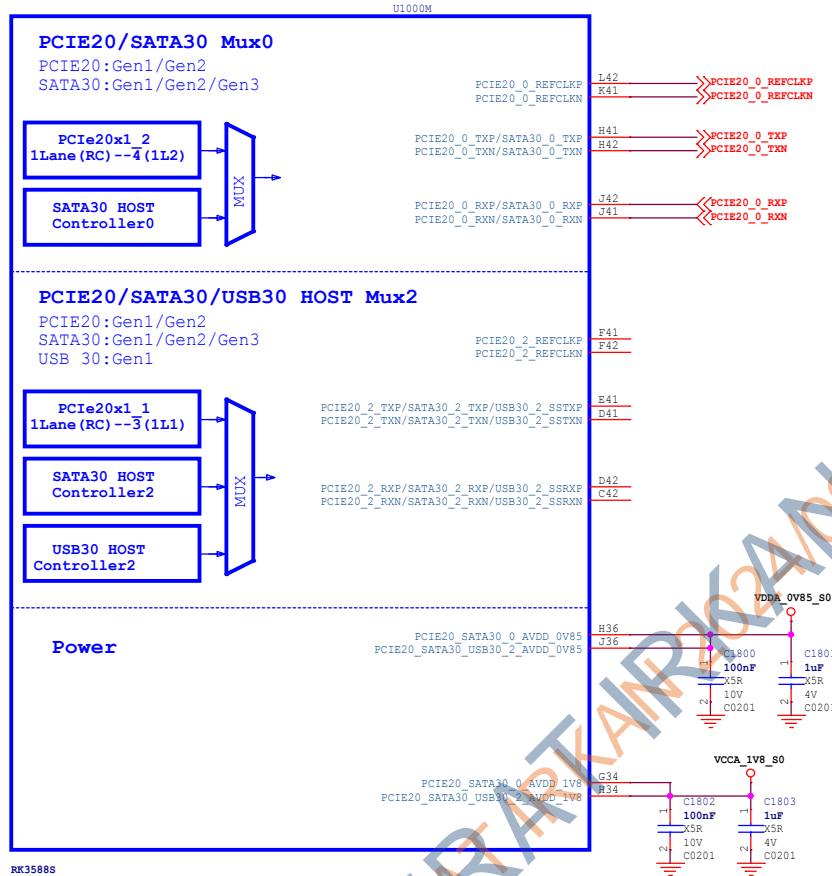
Caps of between dashed green lines and U1000 should be placed under the U1000 package

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		Rockchip Electronics Co., Ltd	
Project:	RK3588S_Demo		
File:	17.RK3588S_HDMI/eDP Interface		
Date:	Friday, January 07, 2022		Rev: V10
Designed by:	Joseph	Reviewed by:	<Checker>
		Sheet:	16 of 32

RK3588S (PCIE20/SATA30/USB30)

PCIE20 VE SATA PORT USB 3.0



CLK Differential Pair:
100 Ohm±10%
DATA Differential Pair:
PCIE20: 85 Ohm±10%
SATA30: 100 Ohm±10%
USB30: 90ohm±10%

Note:
If not used:
Signal:leave floating
Power: Tie to VSS

Note:
Caps of between dashed green lines and U1000
should be placed under the U1000 package

PCIE2.0 PHY

Controller Name	Data & Clk Lane Configure		Control GPIO
	CLK LANE	DATA LANE	
PCIE20X1_1 RC	PCIE20_2_REFCLKP PCIE20_2_REFCLKN	PCIE20_2_TX PCIE20_2_RX	PCIE20X1_1_CLKREQ_M* PCIE20X1_1_WAKEN_M* PCIE20X1_1_PERSTN_M* PCIE20X1_1_BUTTON_RSTN
PCIE20X1_2 RC	PCIE20_0_REFCLKP PCIE20_0_REFCLKN	PCIE20_0_TX PCIE20_0_RX	PCIE20X1_2_CLKREQ_M* PCIE20X1_2_WAKEN_M* PCIE20X1_2_PERSTN_M* PCIE20X1_2_BUTTON_RSTN

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Project: RK3588S_Demo

File: 18.RK3588S_PCIE2/SATA3/USB3_PHY

Date: Friday, January 07, 2022 Rev: V10

Designed by: Joseph Reviewed by: <Checker> Sheet: 17 of 32

RK3588S (VCCIO4 Domain)



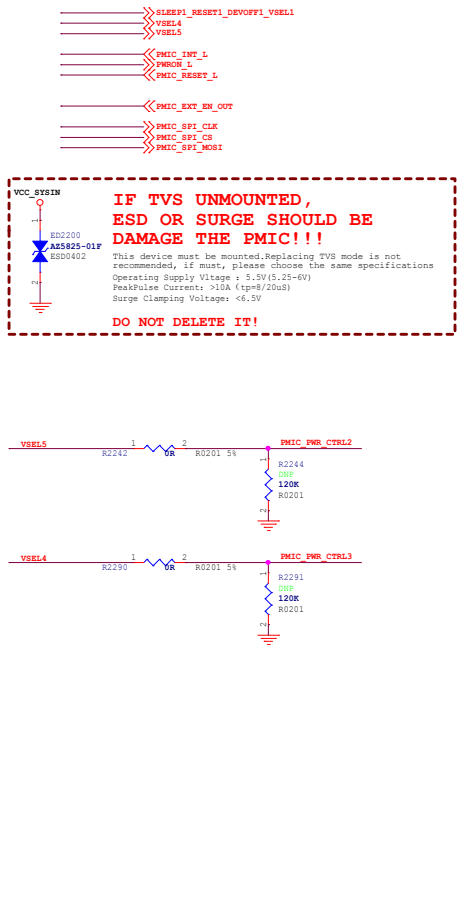
PK2588a (HGGT06, Dexamethasone)



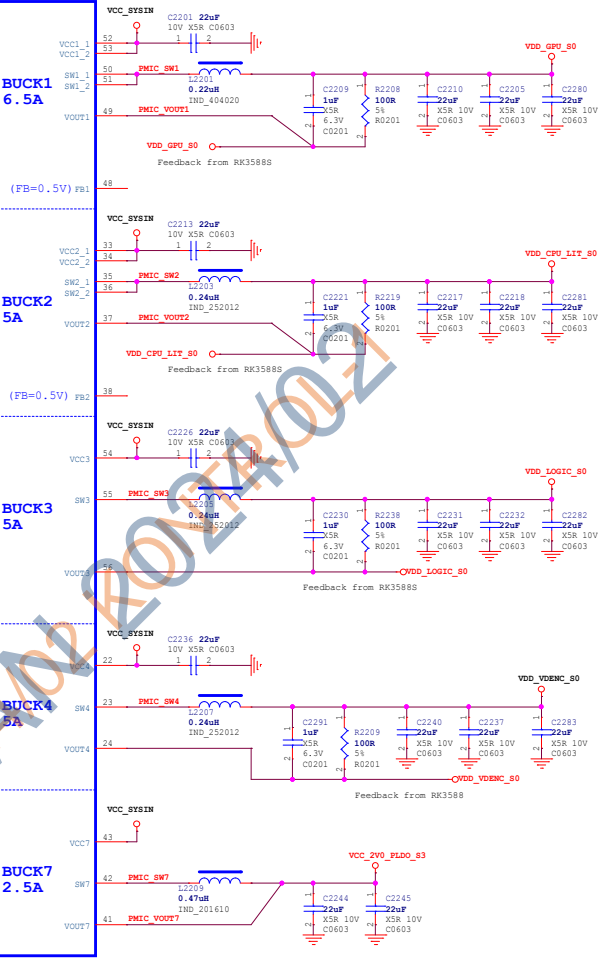
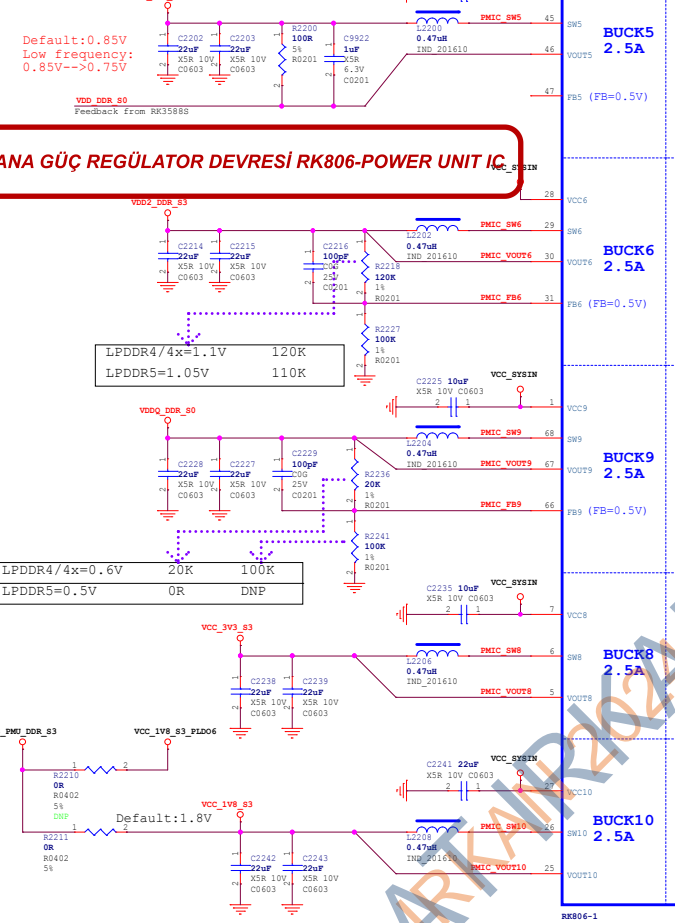
RK3588S (VCCIO5 Domain)



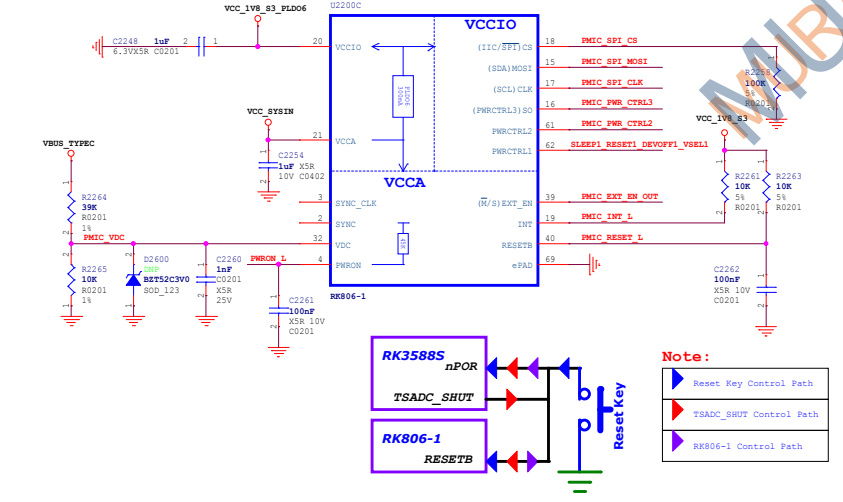
PMIC1 RK806-1



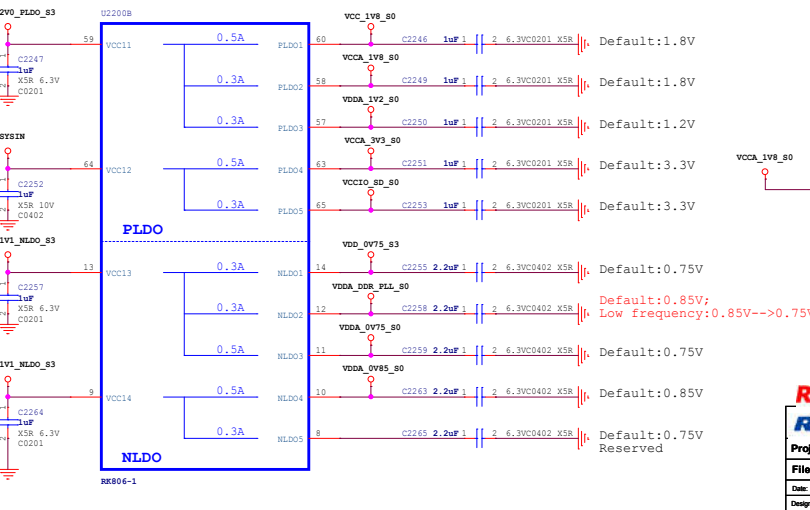
PMIC RK806-1 BUCK



PMIC RK806-1 Management

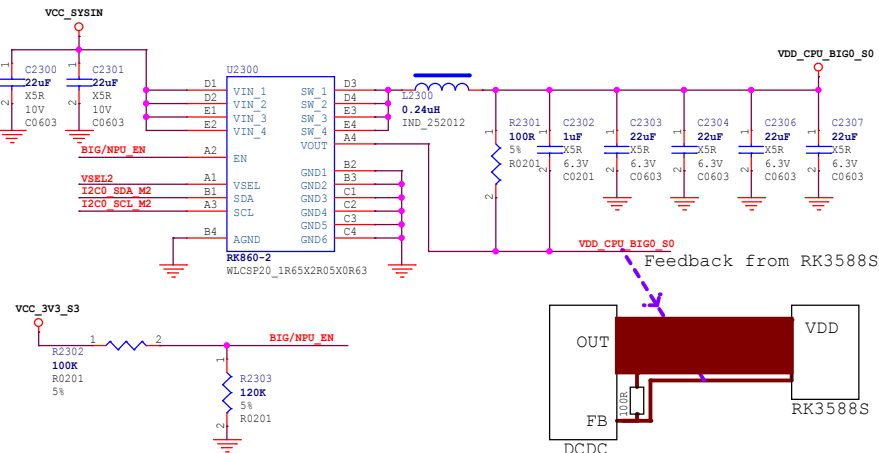


PMIC RK806-1 LDO

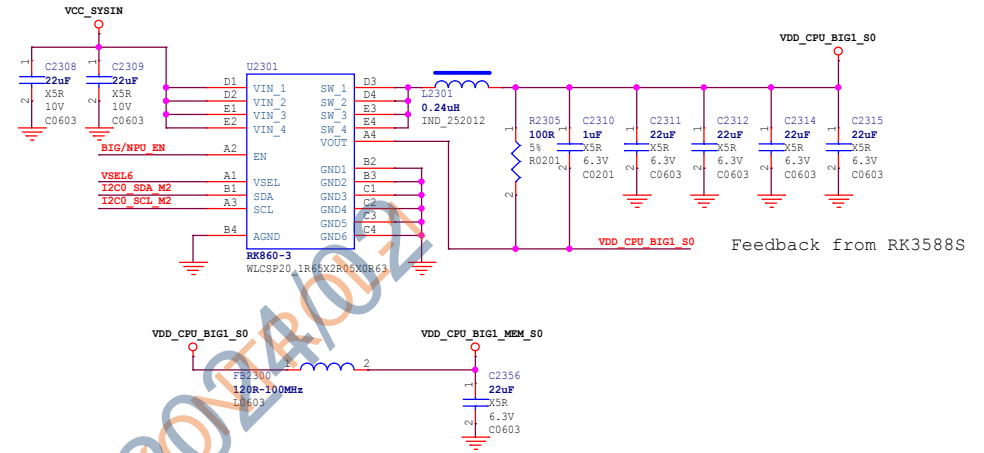


VDD_CPU_BIG0

ARM CPU BESLEME CPU-BIG

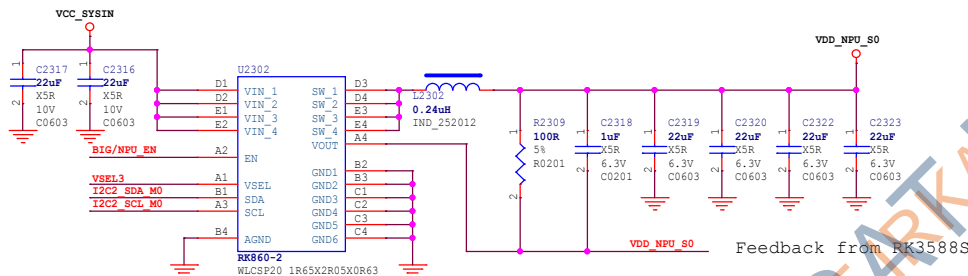


VDD_CPU_BIG1

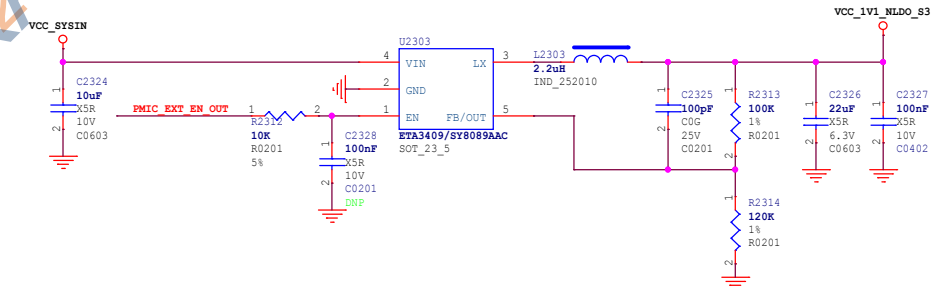


VDD_NPU

YAPAY ZEKA ÇEKİRDEK BESLEME

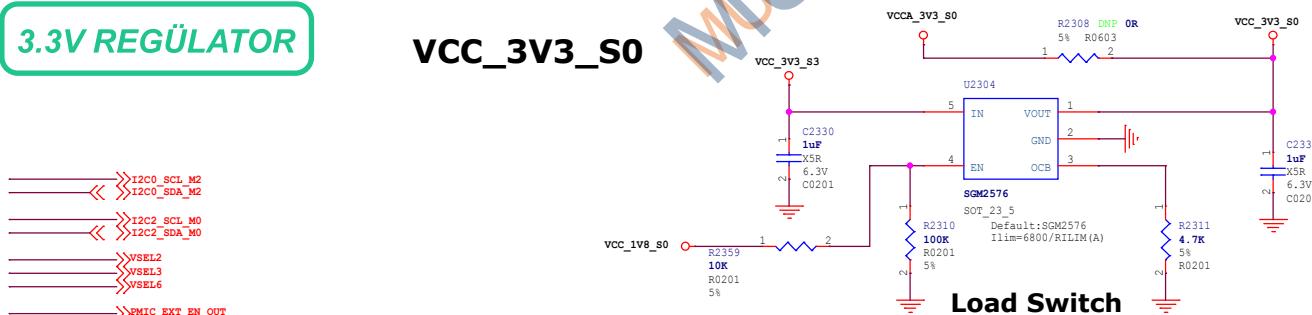


VCC_1V1_NLDO



3.3V REGÜLATOR

VCC_3V3_S0

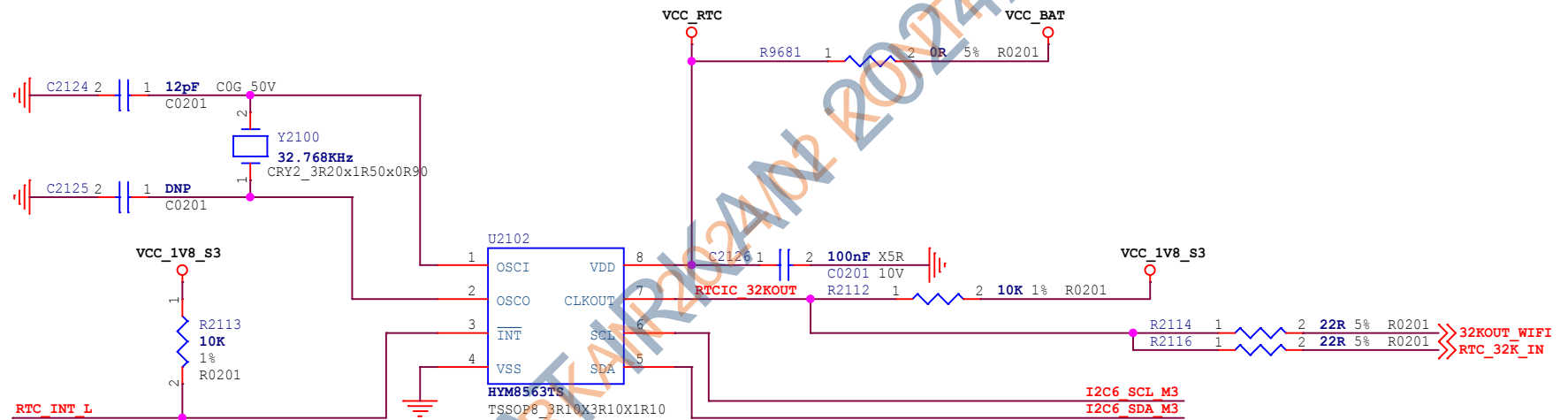


Load Switch

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Rockchip Electronics Co., Ltd

Project:	RK3588S_Demo			
File:	23.Power_Ext Discrete			
Date:	Wednesday, February 23, 2022	Rev:	V10	
Designed by:	Joseph	Reviewed by:	<Checker>	Sheet: 21 of 32

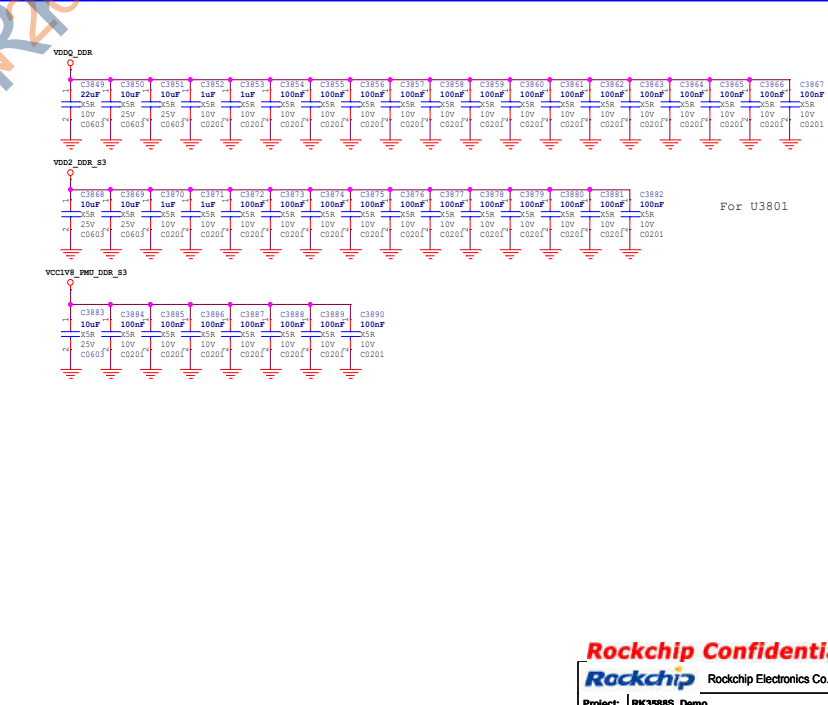
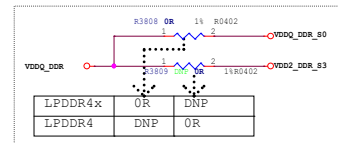
RTC IC



Address: Read A3H, Write A2H

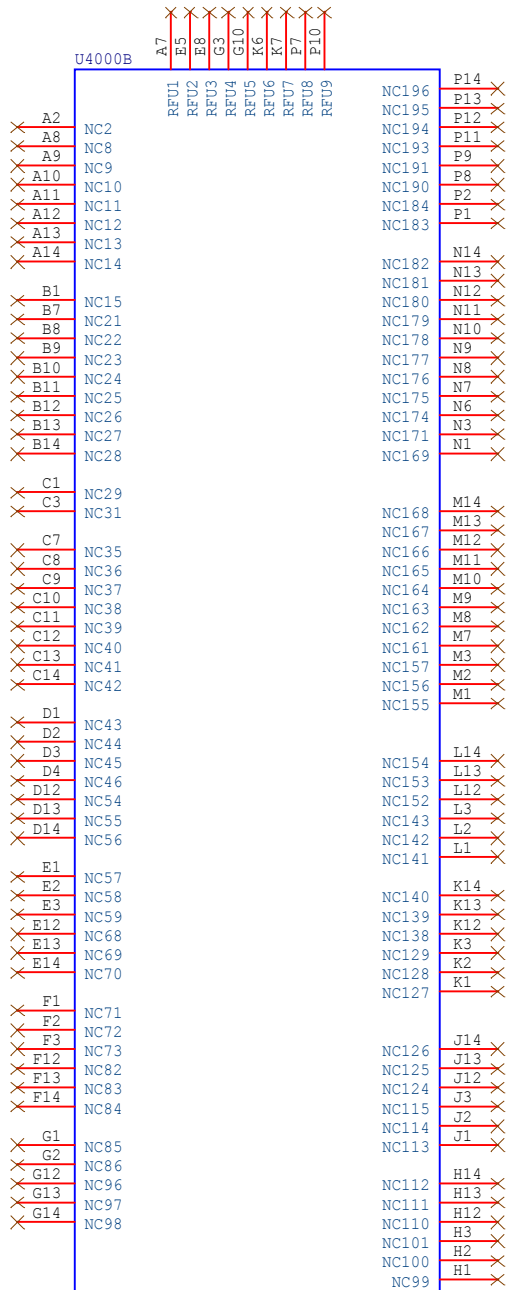
Rockchip Rockchip Electronics Co., Ltd

Project:	RK3588S_Demo				
File:	24.RTC				
Date:	Friday, January 07, 2022			Rev:	V10
Designed by:	Joseph	Reviewed by:	<Checker>	Sheet:	22 of 32



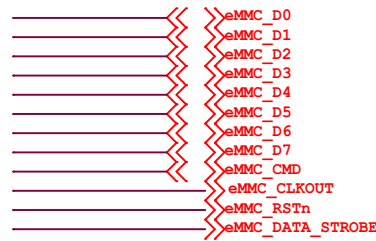
eMMC Flash

MULTI MEDYA KART GİRİŞLER

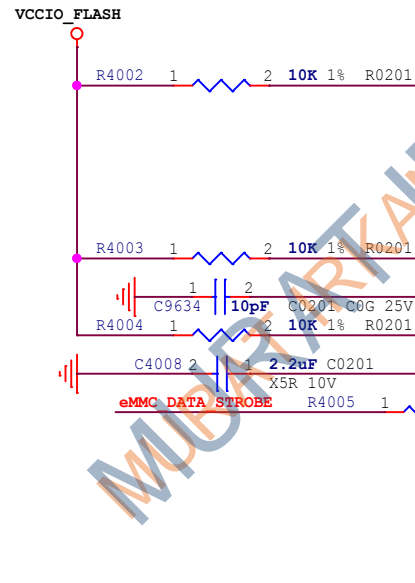


EMMC B153_2L

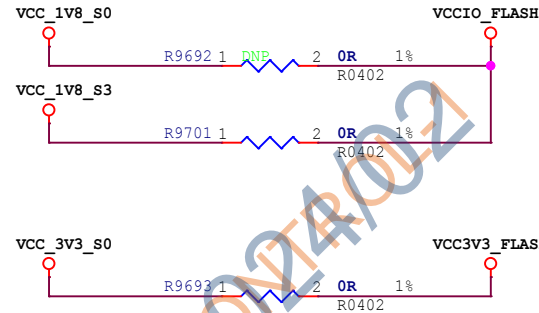
BGA153_13R00X11R50X0R90_2L



VCCIO_FLASH



VCC_1V8_S0

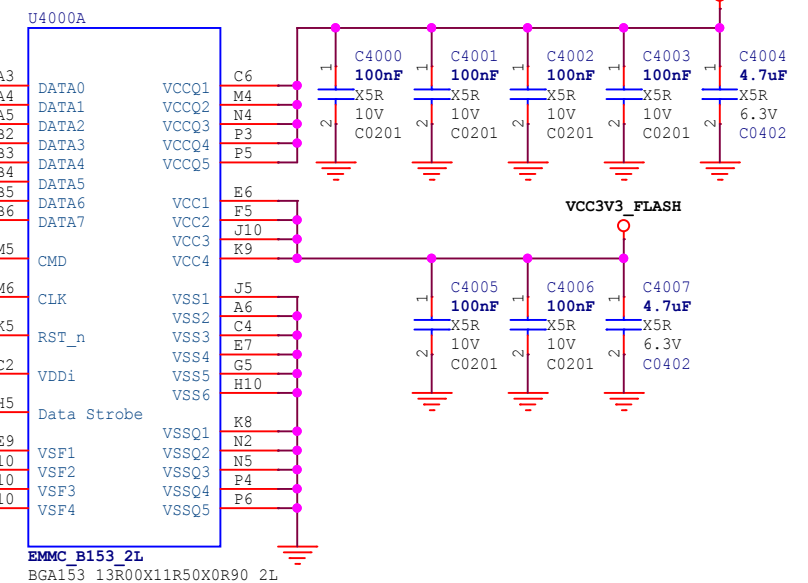


VCC_3V3_S0

VCCIO_FLASH

VCC3V3_FLASH

U4000A



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Project: RK3588S_Demo

File: 40.eMMC Flash

Date: Friday, January 07, 2022

Designed by: Joseph

Reviewed by: <Checker>

Sheet: 24 of 32

KAMERA

BM28B0 6-30DS/2-0.35V
COM SMD BM28B0 6 30DS_2_0_35V_30

MIPI CS10 RX D3P
MIPI CS10 RX D3N
MIPI CS10 RX D2P
MIPI CS10 RX D2N
MIPI CS10 RX CLK0P
MIPI CS10 RX CLK0N
MIPI CS10 RX D1P
MIPI CS10 RX D1N
MIPI CS10 RX D0P
MIPI CS10 RX D0N

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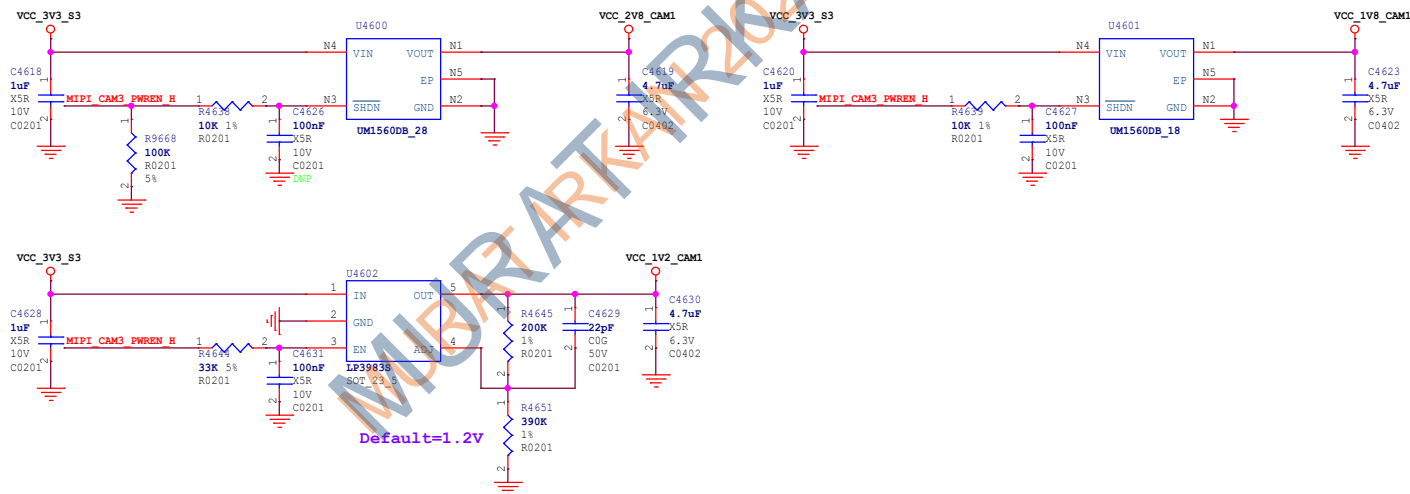
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VCC_2V8_CAM1
I2C8_SCL_M2_CAM
I2C8_SDA_M2_CAM
VCC_1V2_CAM1
VCC_1V2_CAM1
MIPI_CAM3_RST_L
MIPI_CAM3_PFN_L
MIPI_CAM3_CLKOUT
VCC_1V2_CAM1
VCC_1V8_CAM1

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GND
GND
GND
GND
GND
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GND
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GND
GND
GND
GND

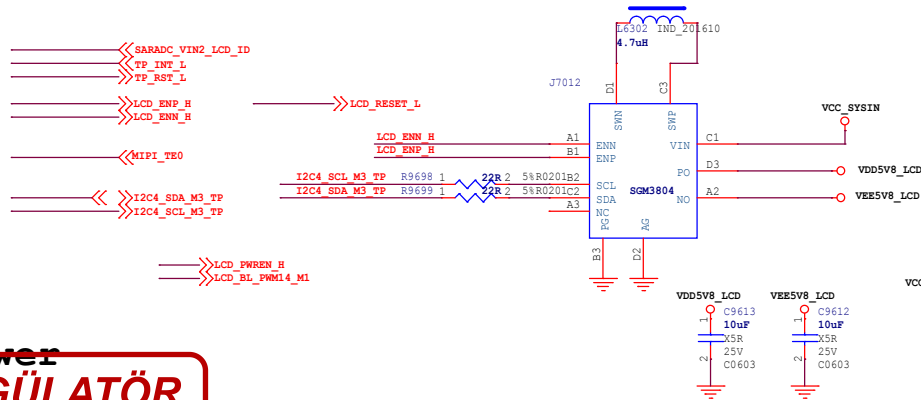
VCC_1V2_CAM1
VCC_1V8_CAM1
C4600
10uF
C4601
100nF



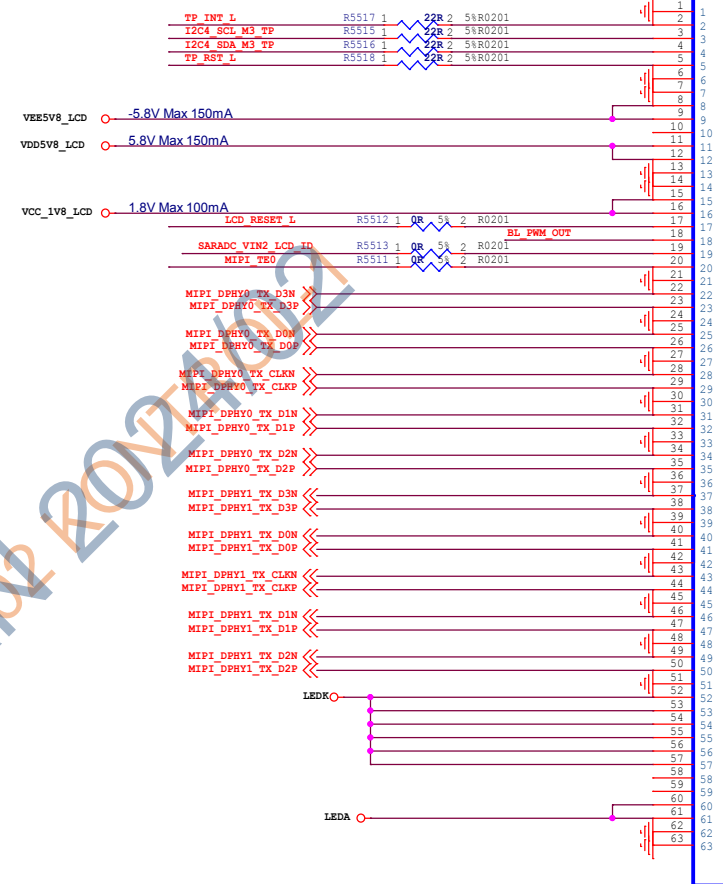
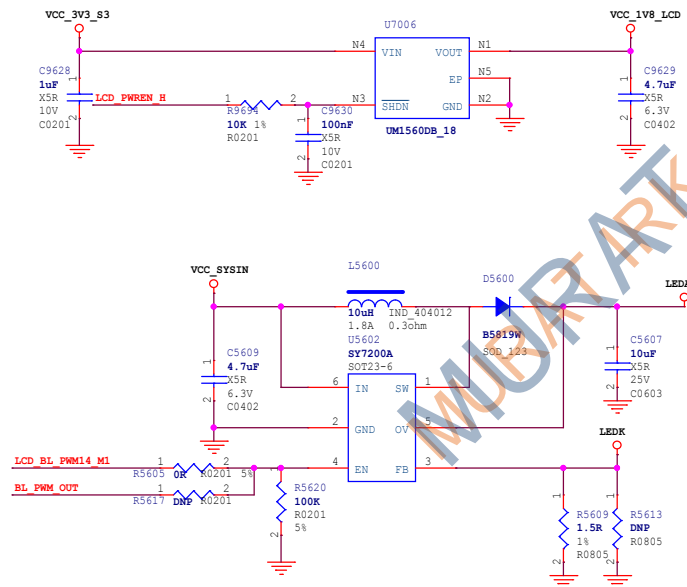
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Project:	RK3588S_Demo				
File:	46.VI-Camera MIPI CSI0-RX				
Date:	Friday, January 07, 2022			Rev:	V10
Designed by:	Joseph	Reviewed by:	<Checker>	Sheet:	25 of 32

MIPI DPHY TX



~~Power~~ **REGÜLATÖR**

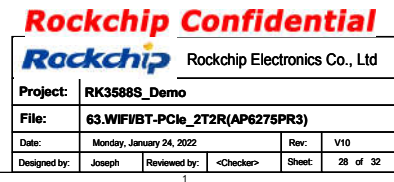


J5500
FH35C-61S-0.3SHW
CON SMD FH35C-61S-0.3SHW

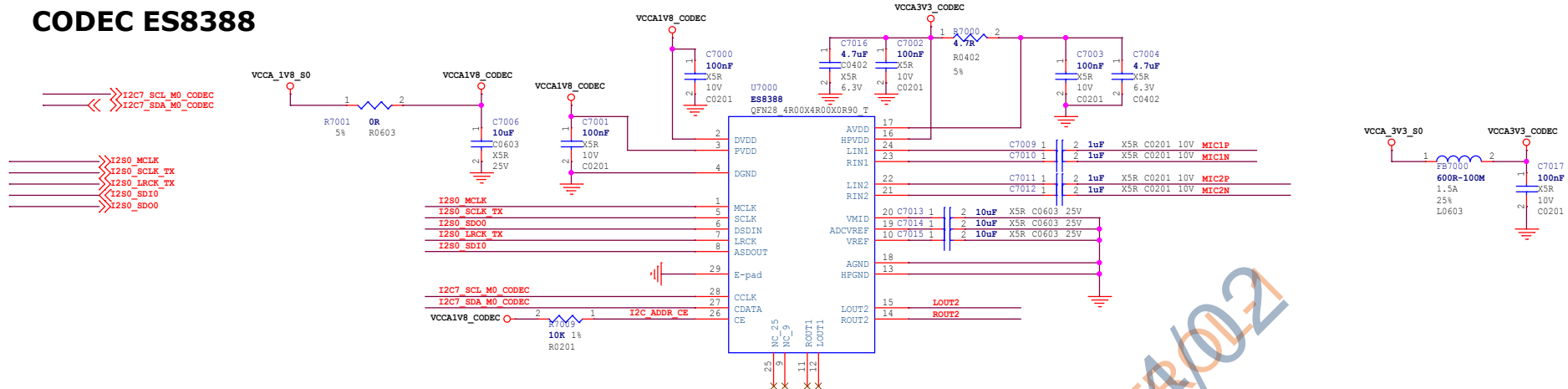
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Project:	RK3588S_Demo				
File:	55.VO-MIPHY-DPHY-TX				
Date:	Friday, January 07, 2022			Rev:	V10
Designed by:	Joseph	Reviewed by:	<Checker>	Sheet:	27 of 32

WIFI-6 VE BLUETOOTH MODÜLLERİ VE BAĞLANTILAR

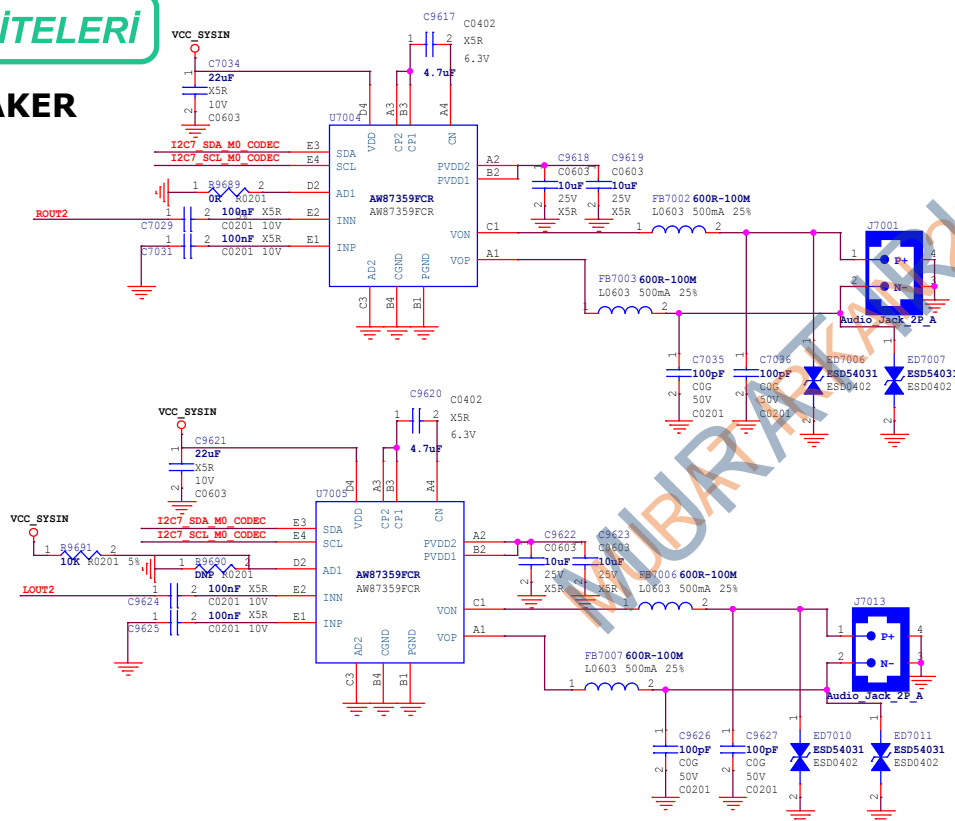


CODEC ES8388

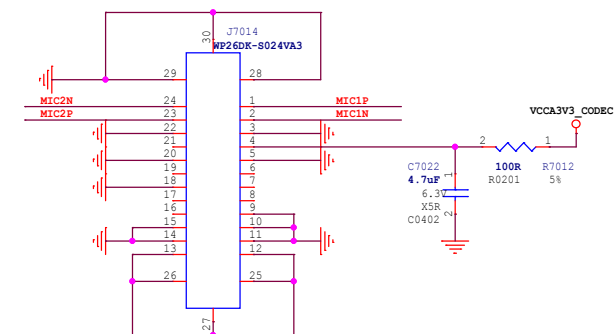


SES ÜNİTELERİ

SPEAKER



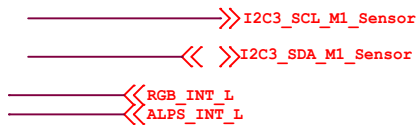
Analog MIC



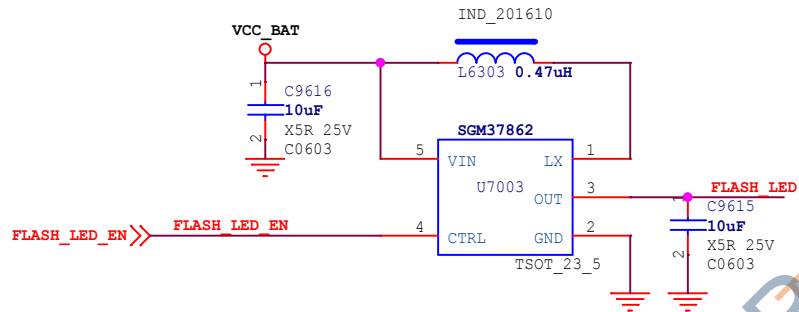
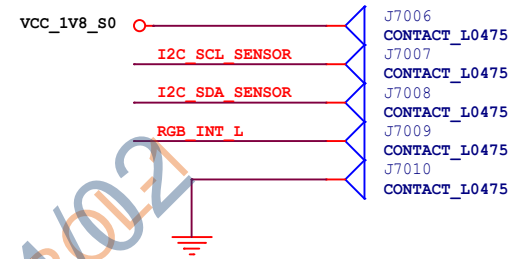
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Project:	RK3588S_Demo				
File:	70.Audio Codec-ES8388				
Date:	Friday, January 07, 2022			Rev:	V10
Designed by:	Joseph	Reviewed by:	<Checker>	Sheet:	29 of 32



Sensor

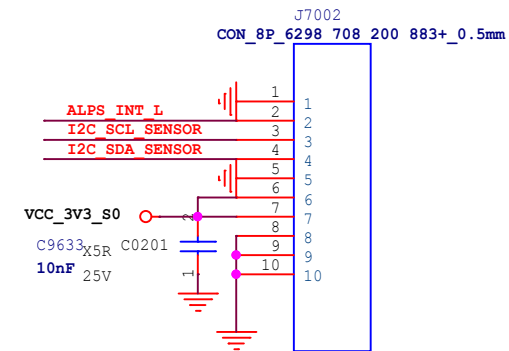


MAX: 1.5A



Flashlight

PLS+ALS

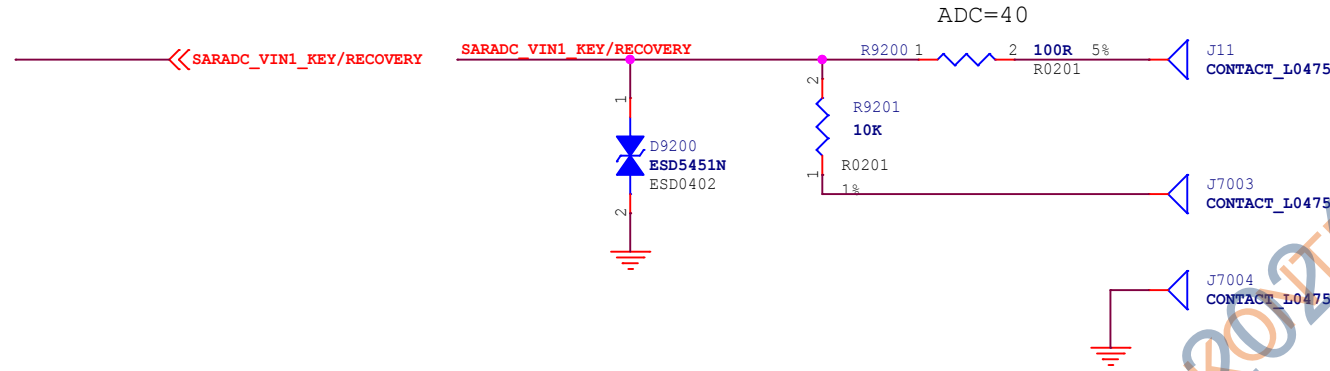


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Project:	RK3588S_Demo			
File:	90.Sensor			
Date:	Friday, January 07, 2022		Rev:	V10
Designed by:	Joseph	Reviewed by:	<Checker>	Sheet: 30 of 32

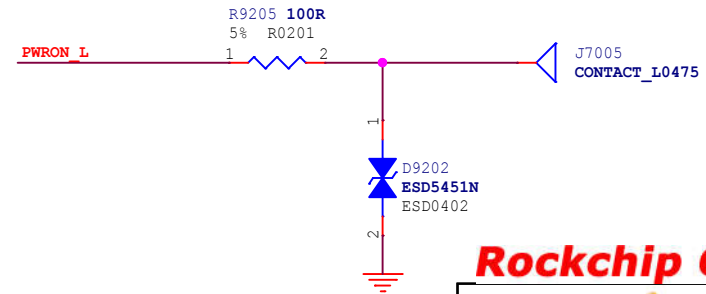
KEY Array



Reset_Key

RESET_L
PWRON_L

PWR_Key



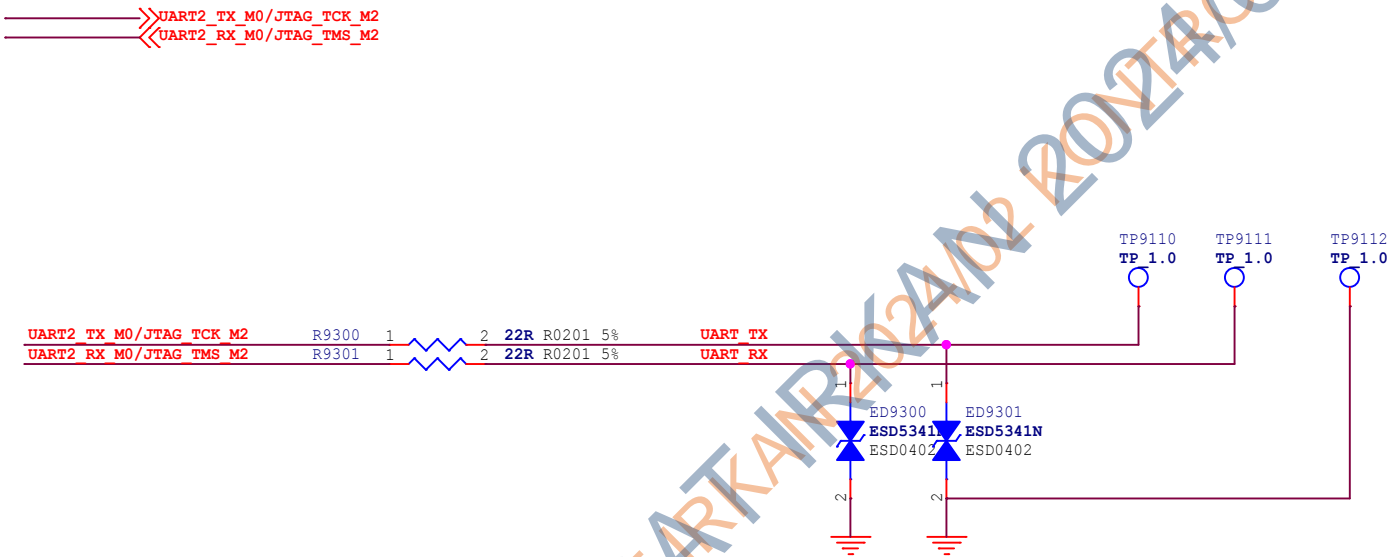
Rockchip Confidential

Rockchip Rockchip Electronics Co., Ltd

Project:	RK3588S_Demo		
File:	92.KEY Array		
Date:	Friday, January 07, 2022	Rev:	V10
Designed by:	Joseph	Reviewed by:	<Checker>
Sheet:	31	of	32

UART Debug

JTAG Debug



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Rockchip Rockchip Electronics Co., Ltd

Project: RK3588S_Demo

File: 93.Debug UART/JTAG Port

Date: Friday, January 07, 2022 Rev: V10

Designed by: Joseph Reviewed by: <Checker> Sheet: 32 of 32