


Demo Board For RV1106G

RV1106G_AOV_DEMO_V11

Reference Design Main Functions Introduction	
Power	Discrete
RAM	SPI FLASH
Interface	SDMMC/SDIO/MIPI_CSI/I2S/USB/ADC

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Project:	RV1106G_AOV_DEMO					
File:	00.Cover Page					
Date:	Friday, May 24, 2024				Rev:	V1.1
Designed by:	LinXu	Reviewed by:	Default	Sheet:	0 of 0	

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Index and Notes

Note

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.

Generate Bill of Materials

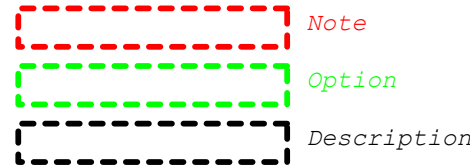
Header:

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}

Graphic Description




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Project:	RV1106G_AOV_DEMO		
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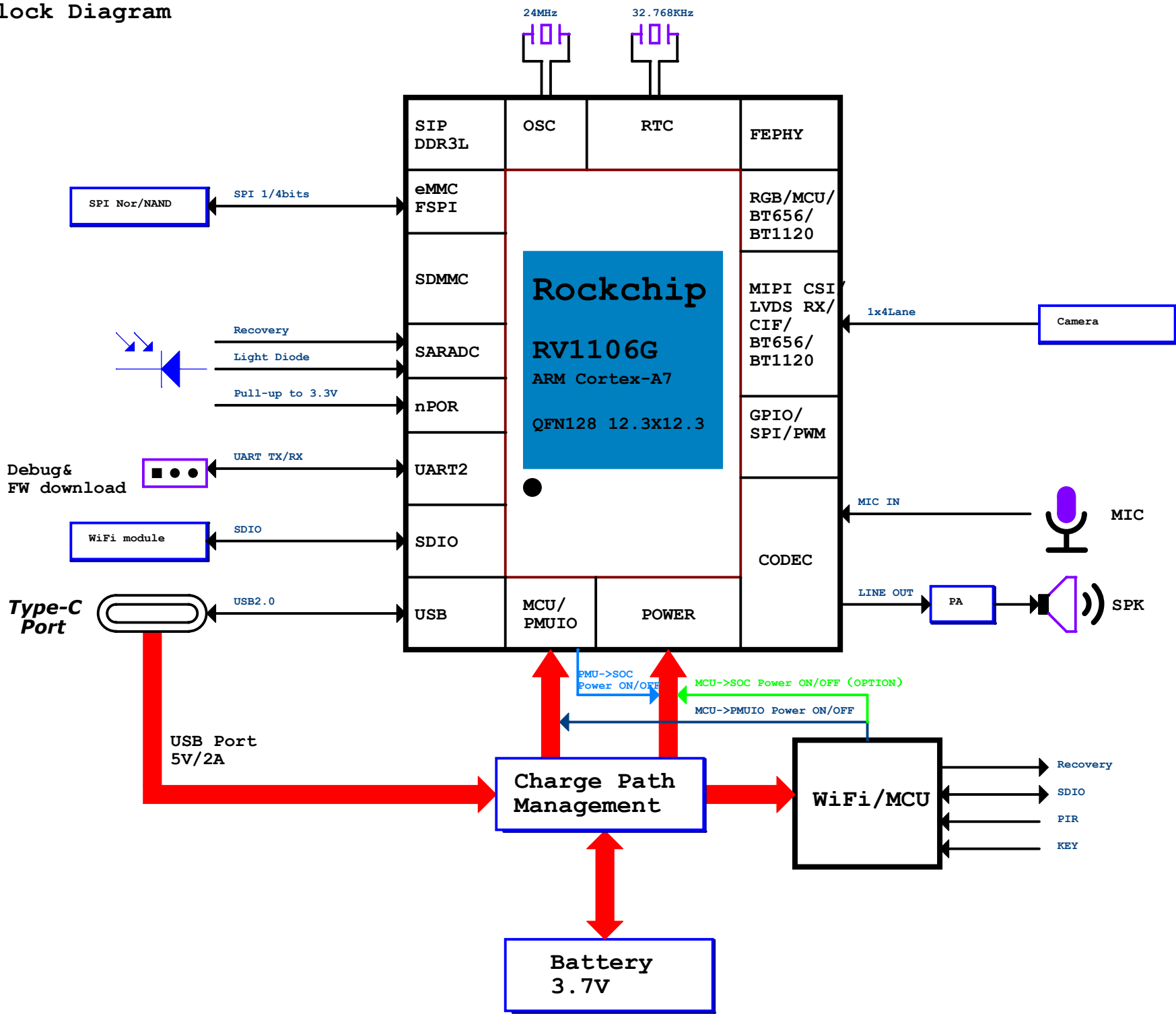
Revision History

Version	Date	Author	Change Note	Approved
V1.0	2024.03.05	whb	First edition	
V1.1	2024.05.21	LinXu	1.Modify power diagram and sequence 2.Add R2521/D2502 for RTC power mangerment 3.Change R2001/R2002 to 150K 4.Change R2007 to 100K 5.Change R2014/R2015 to 200K 6.Change C2019 to 47nF	

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Block Diagram



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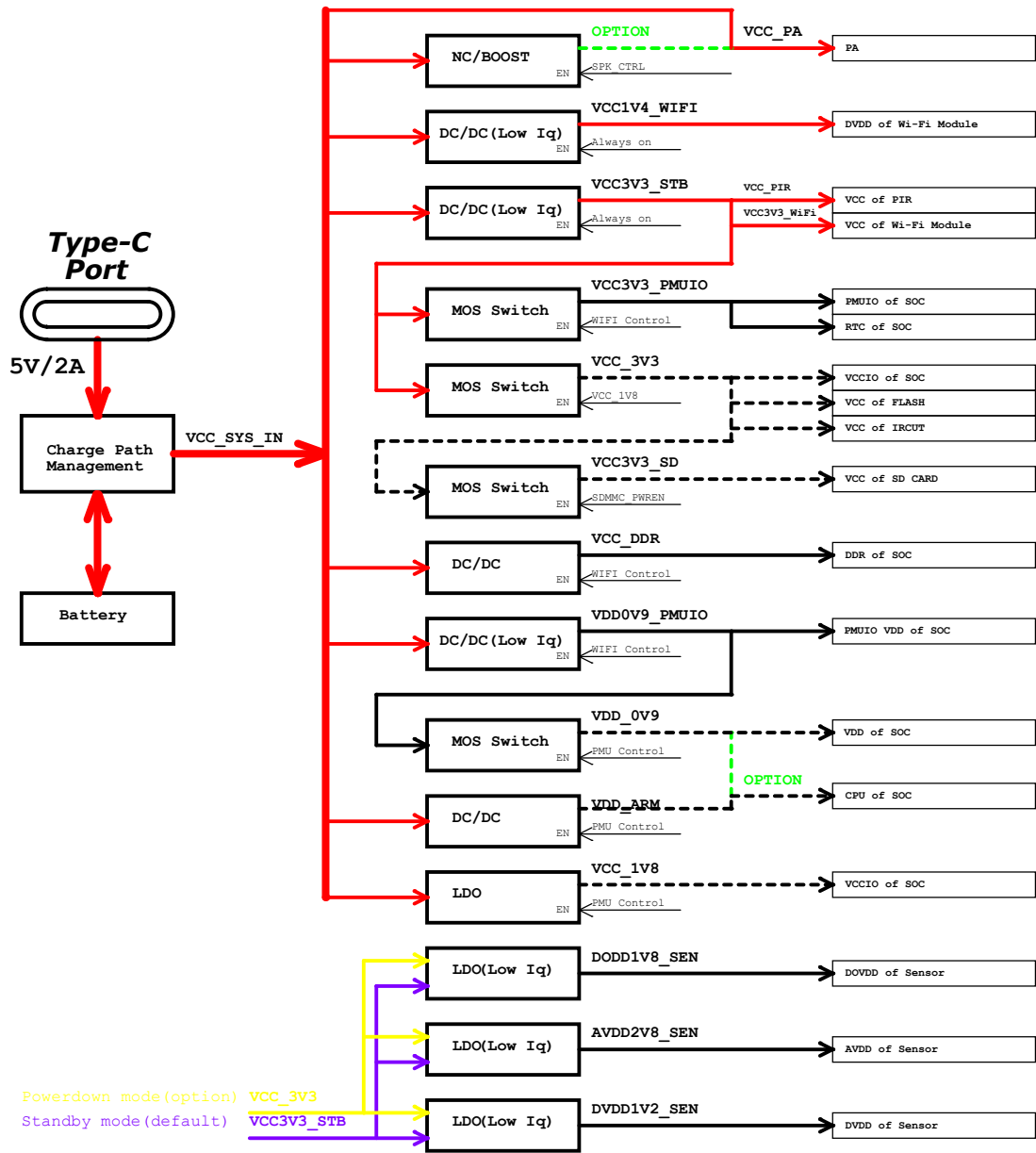
Project: RV1106G_AOV_DEMO

File: 03.Block Diagram

Date: Friday, May 24, 2024

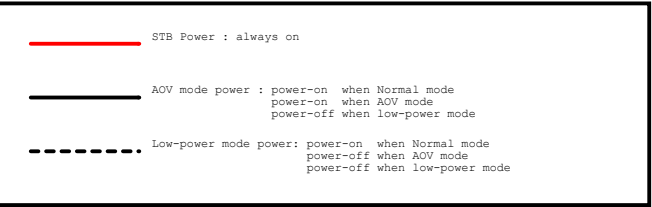
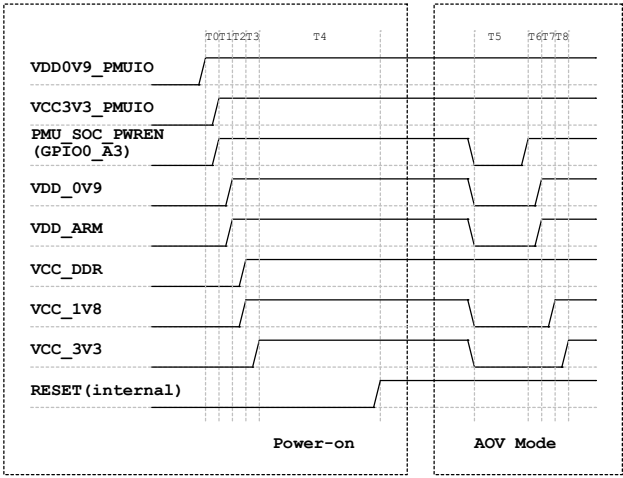
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Power Diagram and Sequence



Power-on Sequence				
Power Name	PMIC Channel	Time Slot	Default voltage	Peak Current
VCC3V3_STB	DC-DC BUCK	Slot: 1	3.3V	
VCC1V4_WIFI	DC-DC BUCK	Slot: 1A	1.4V	
VDD0V9_PMUIO	DC-DC BUCK	Slot: 1A	0.9V	
VCC3V3_PMUIO	Switch	Slot: 2	3.3V	
VCC_DDR	DC-DC BUCK	Slot: 4	1.35V	
VDD_0V9	Switch	Slot: 3	0.9V	
VDD_ARM	DC-DC BUCK	Slot: 3	0.9V	
VCC_1V8	LDO	Slot: 4	1.8V	
VCC_3V3	Switch	Slot: 5	3.3V	
RESET	Internal POR will reset SOC after nPOR(pin66) is ready			

- Note:
- T0、T1、T2、T3、T6、T7、T8>=1ms (不同时间间隔大于等于1ms)
 - T1+T2+T3<10ms (总上电时序小于10ms)
 - T4 is RESET output from internal POR (T4为内部POR输出复位)
 - T5>100ms (下电时间建议大于100ms以避免未完全放电)
 - Trise>100us (电压上升沿大于100us)
 - 相同时序内的电源，没有先后上电要求




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File: 04.Power Diagram and Sequence		Sheet: 0 of 0	
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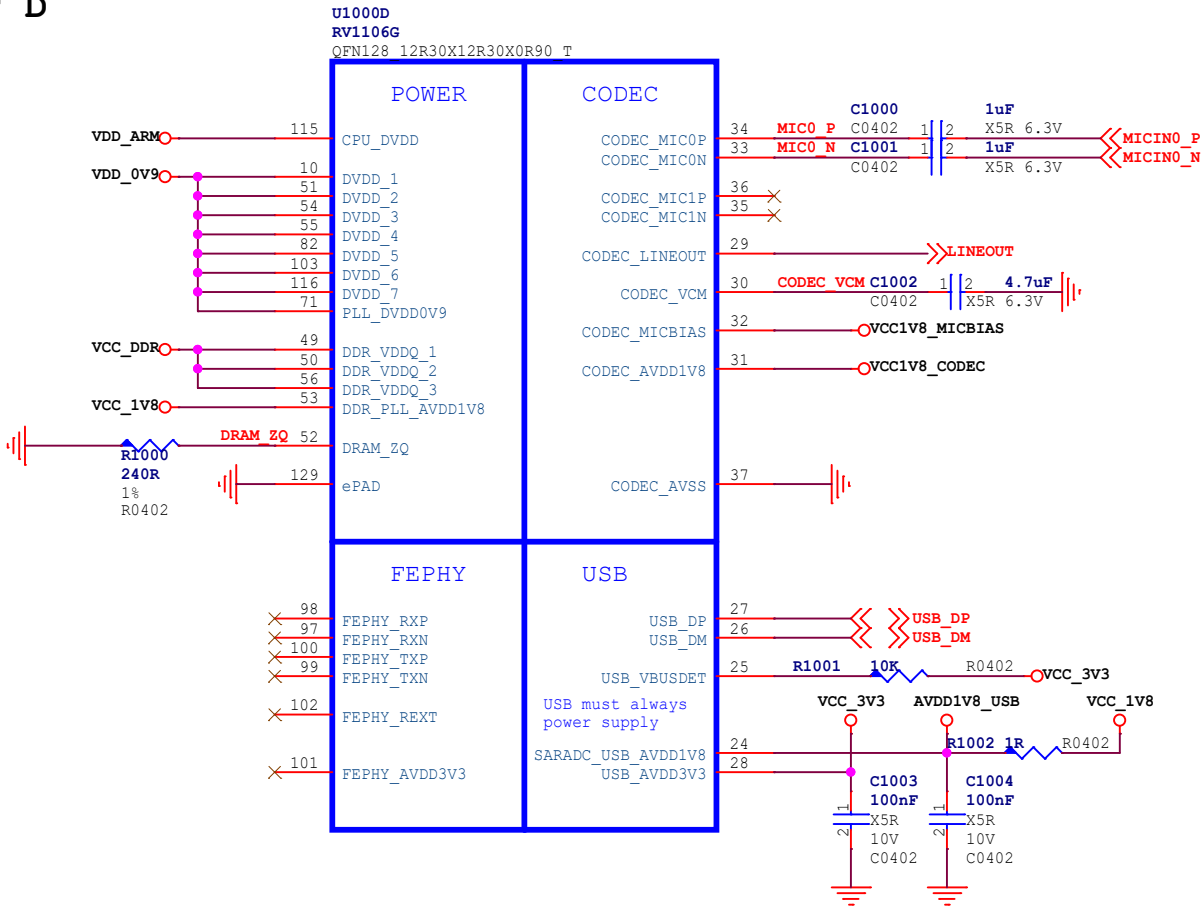
IO Power Domain Map

IO Domain	IO Group	Support of IO Voltage		Default Actual assigned IO Domain Voltage			Remark
		1.8V	3.3V	Net Name of Power Supply	Power Source	Voltage	
PMU	Group GPIO0_A		✓	VCC_3V3		3.3V	
VCCIO1	Group GPIO1_AB		✓	VCC_3V3		3.3V	
VCCIO2	Group GPIO4_C	✓		VCC_1V8		1.8V	
VCCIO3	Group GPIO4_AB	✓	✓	VCCIO_FLASH		1.8/3.3V	
VCCIO4	Group GPIO3_A	✓	✓	VCC_3V3		3.3V	
VCCIO5	Group GPIO2_AB	✓	✓				
VCCIO6	Group GPIO1_CD	✓	✓	VCC_3V3		3.3V	
VCCIO7	Group GPIO3_BCD	✓		VCC_1V8		1.8V	

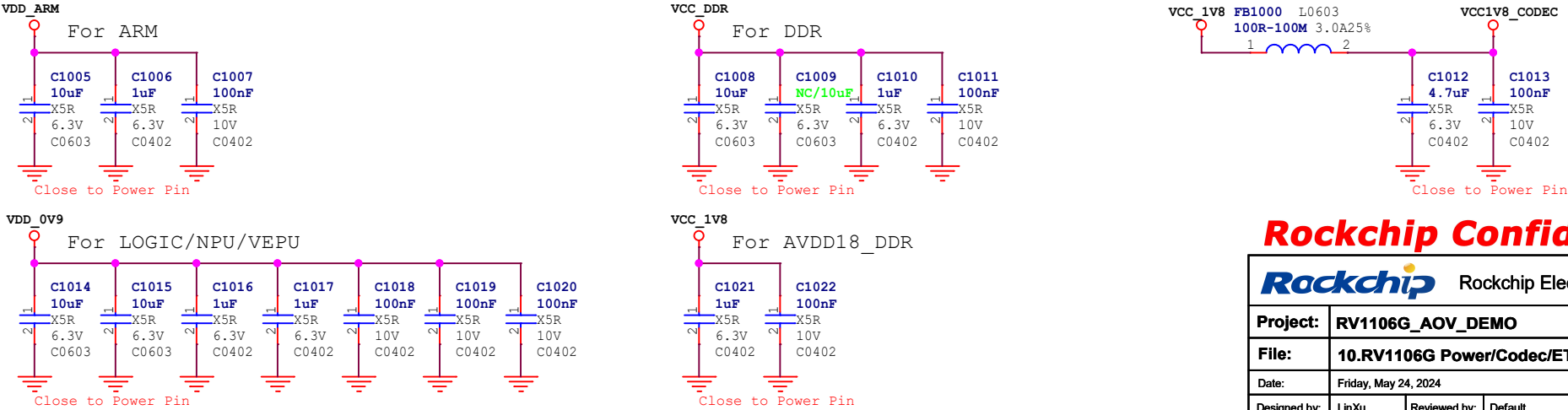
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File:	06.IO Power Domain Map		
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PART D

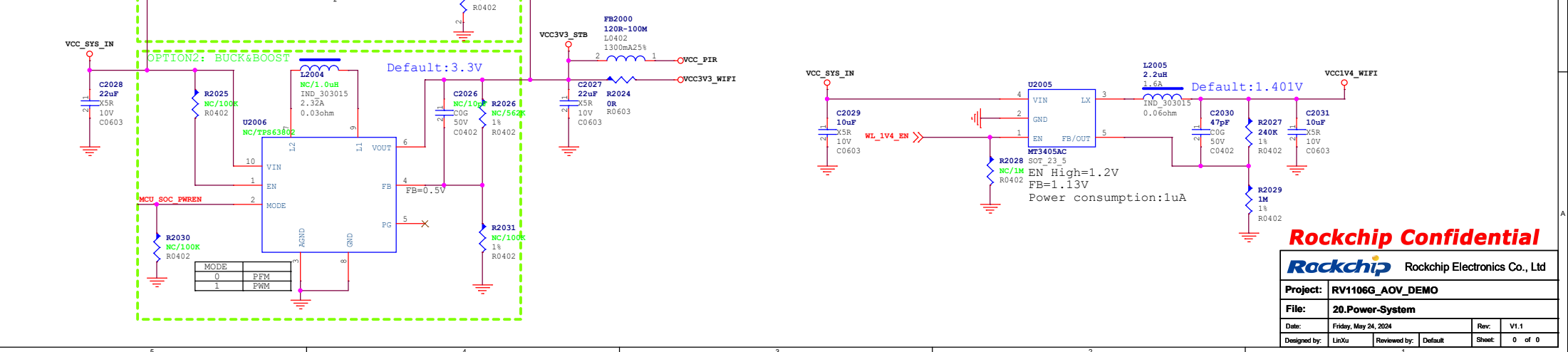
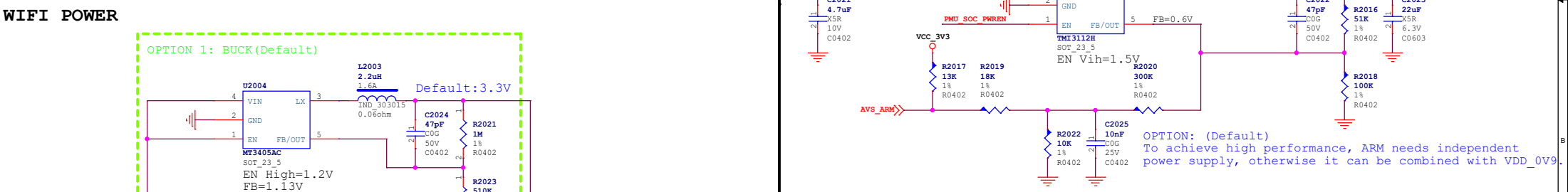
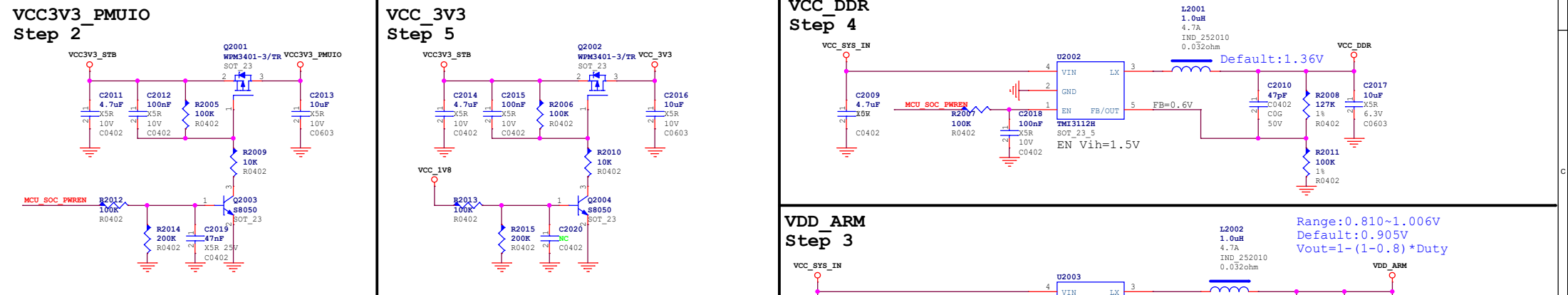
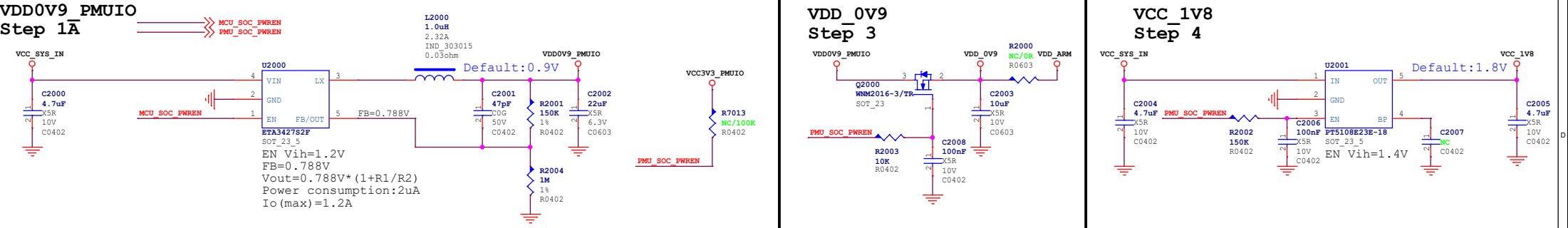


POWER

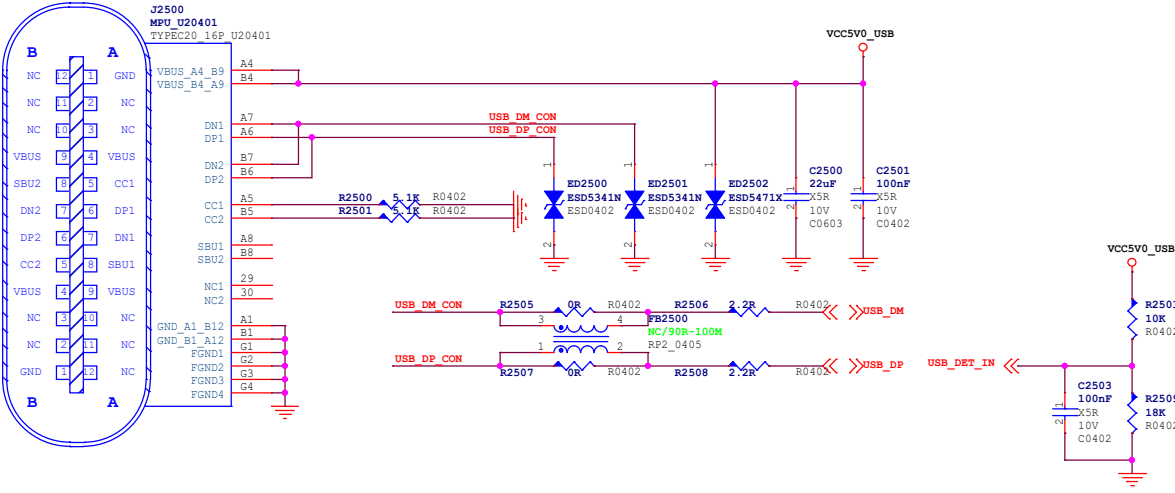


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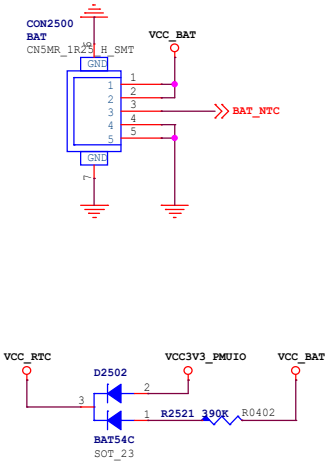
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Project:	RV1106G_AOV_DEMO		
File:	10.RV1106G Power/Codec/ETH/USB		
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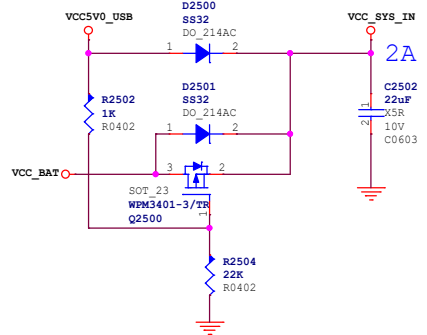
USB HOST



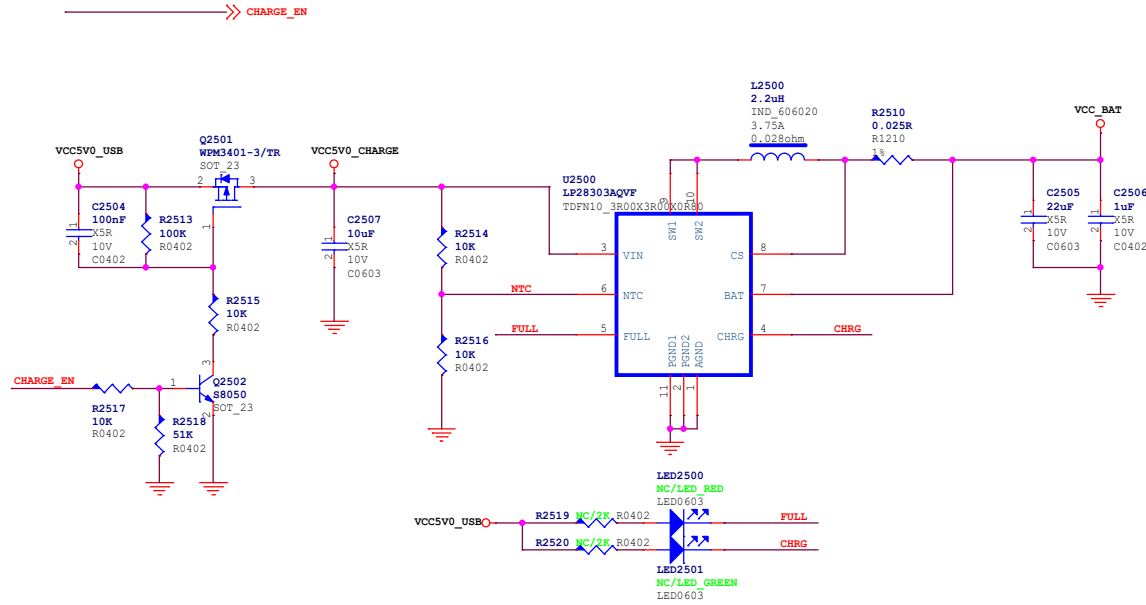
BATTERY



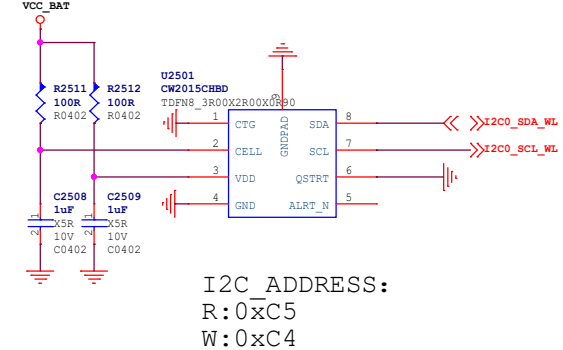
SYS_POWER



CHARGE



FUEL GAUGES

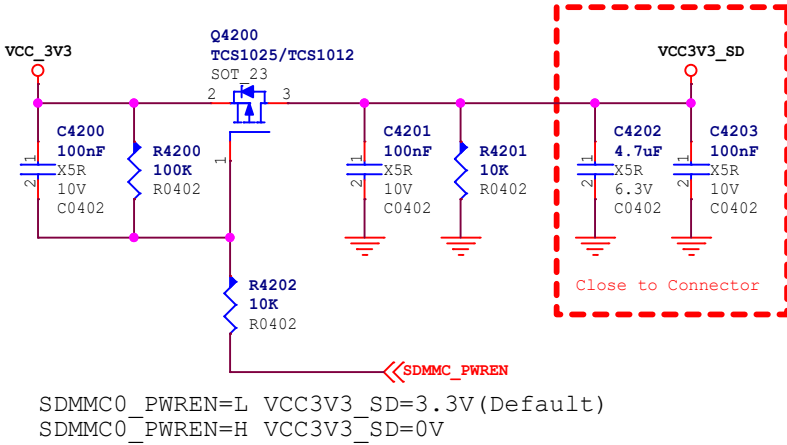


I2C ADDRESS:
R:0xC5
W:0xC4

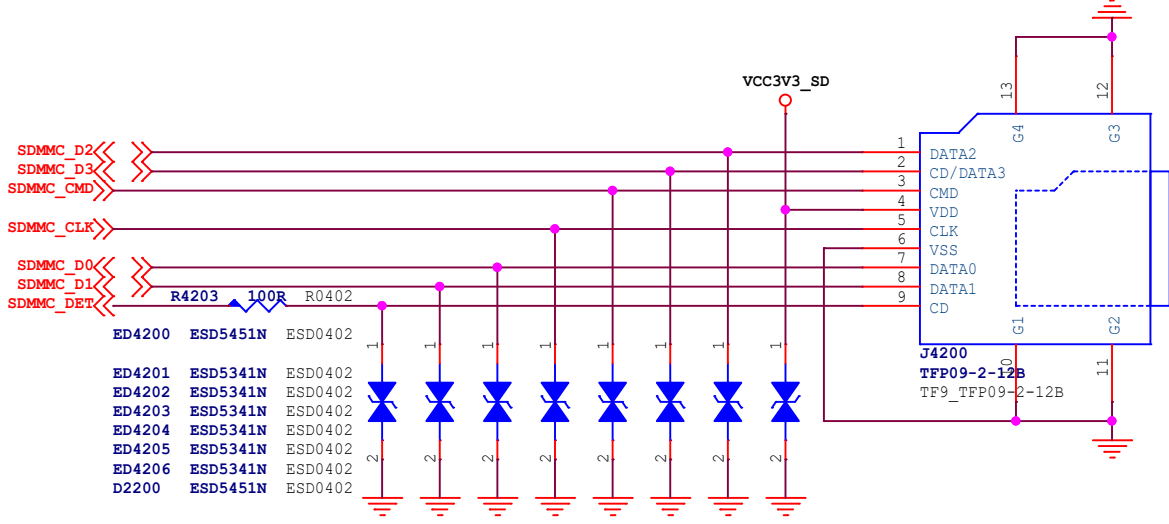
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Micro-SD Card Power



Micro-SD Card



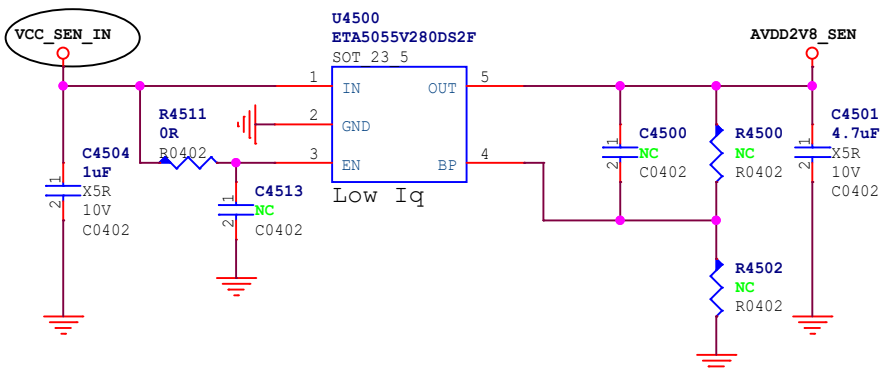
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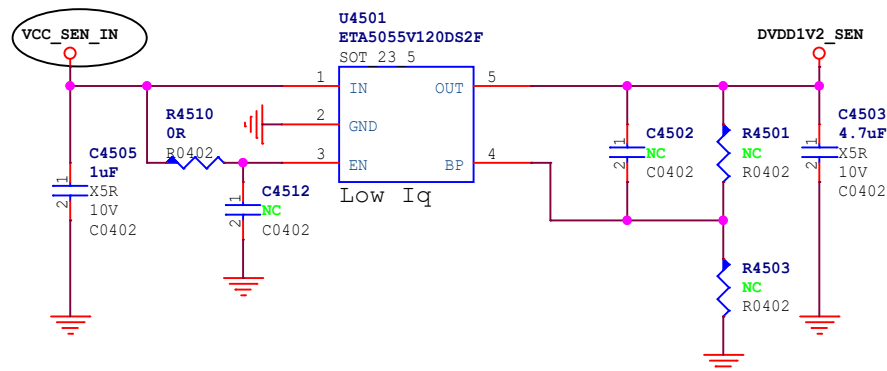
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File:	42.Flash-Micro-SD Card				
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AVDD2V8_SEN

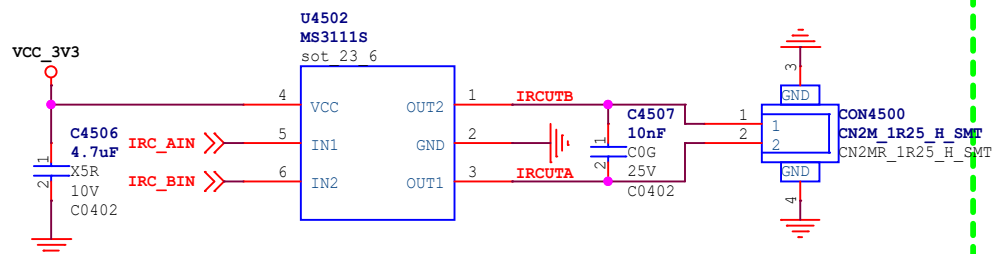


DVDD1V2_SEN

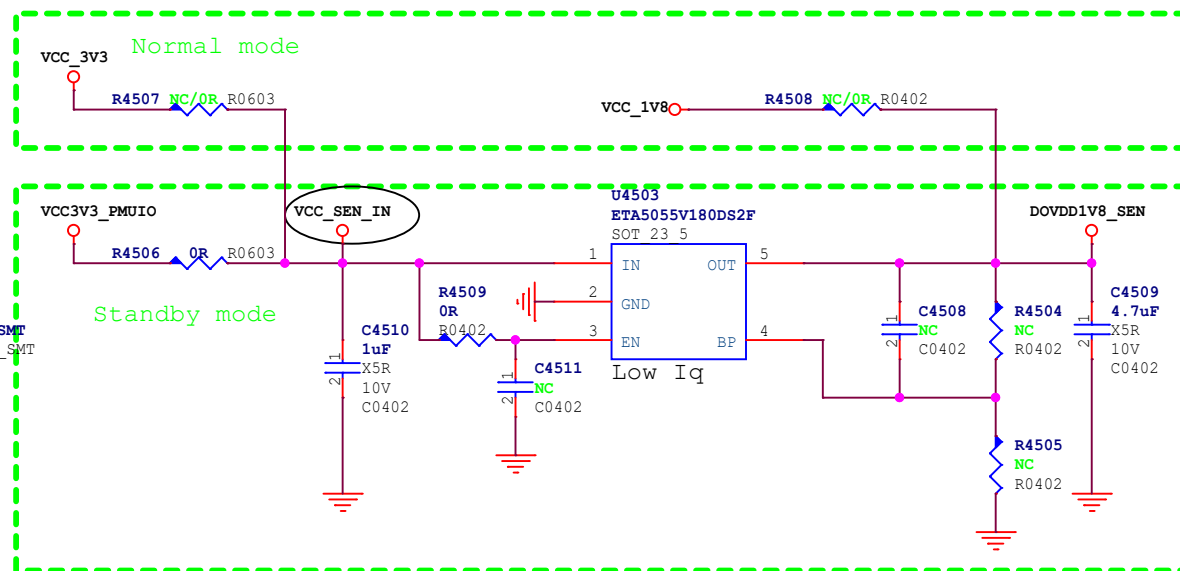


Note:
Default power-on timing:
All three power on at the same time.
Or DOVDD(1V8)-->DVDD(1V2)-->AVDD(2V8)


IR-CUT

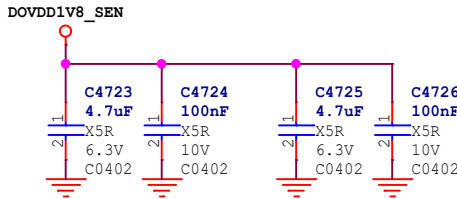
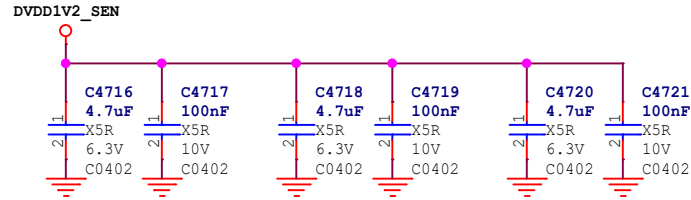
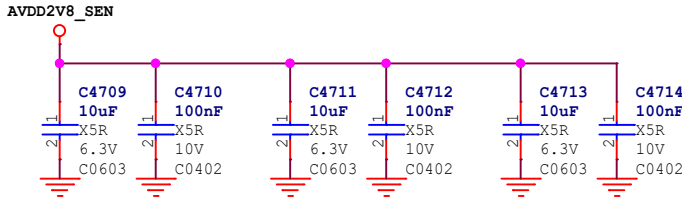
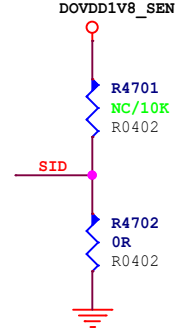
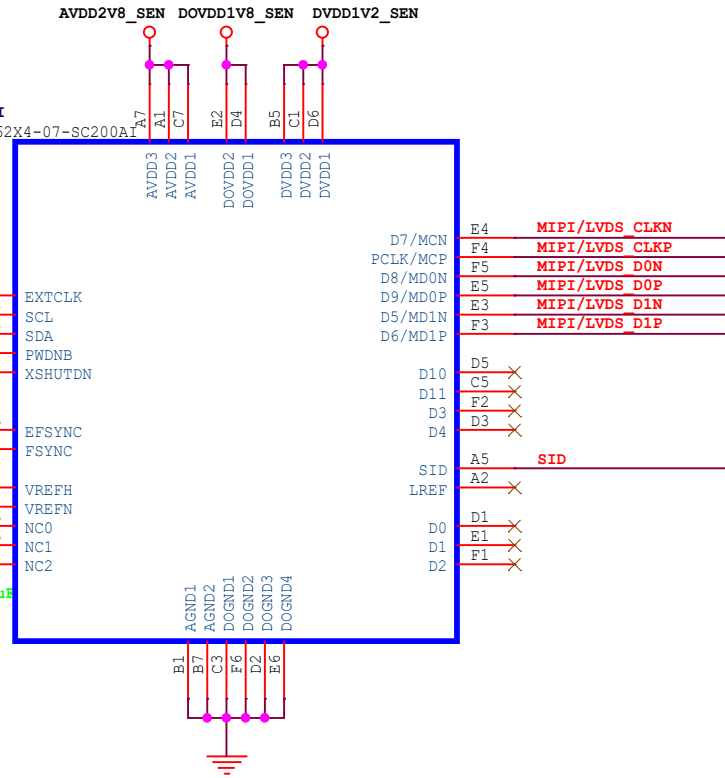
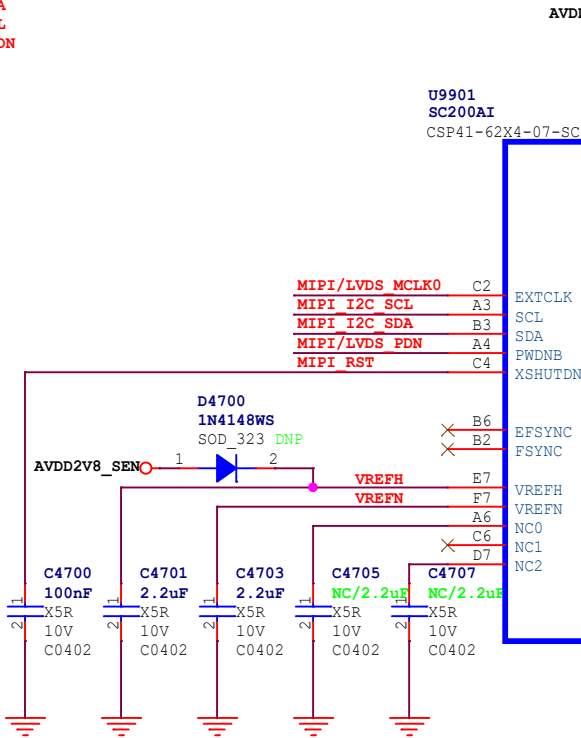
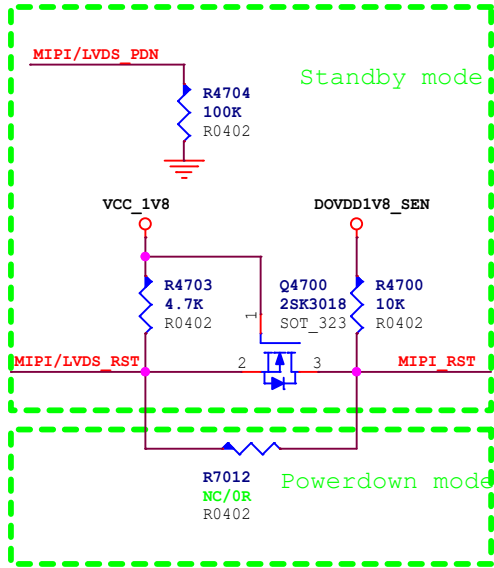
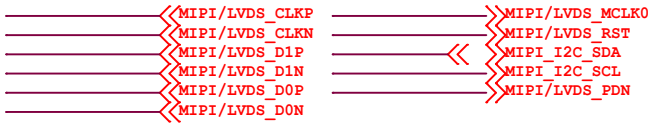


DOVDD1V8_SEN




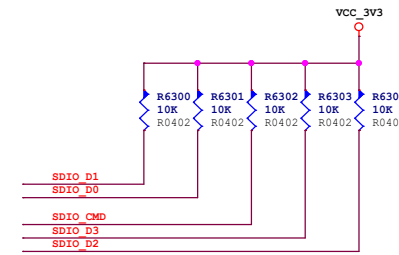
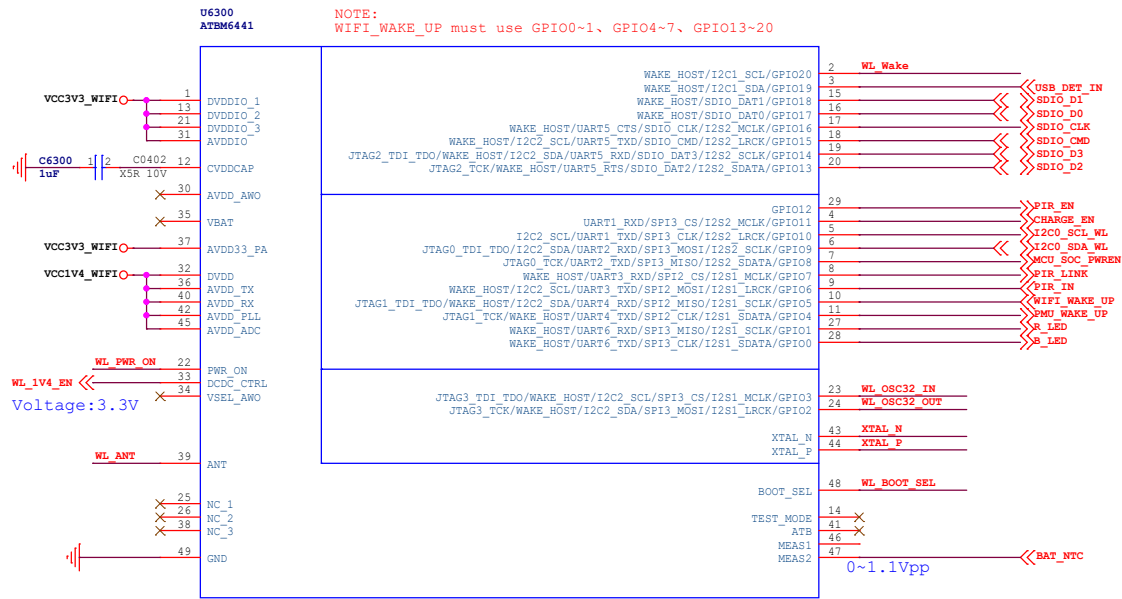
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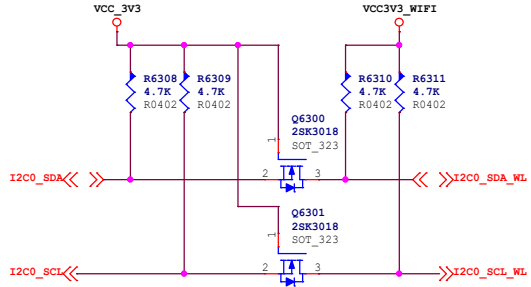
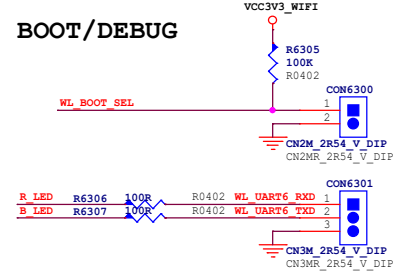


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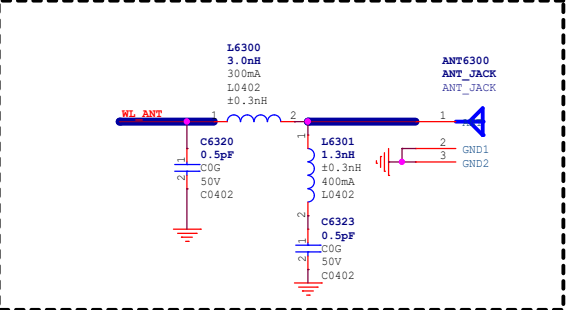
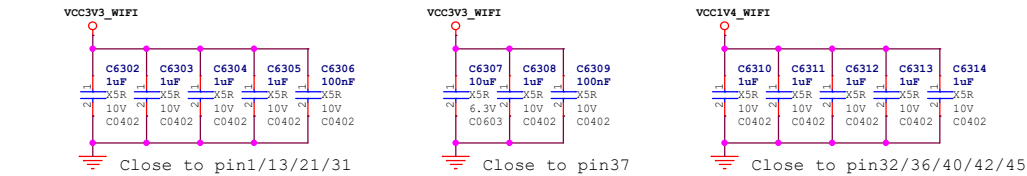
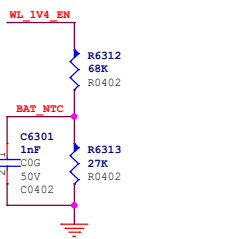
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Project:	RV1106G_AOV_DEMO		
File:	47.VI-Camera		
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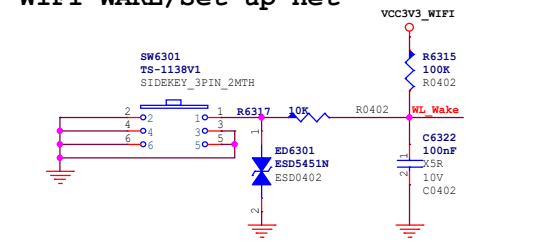
BOOT/DEBUG



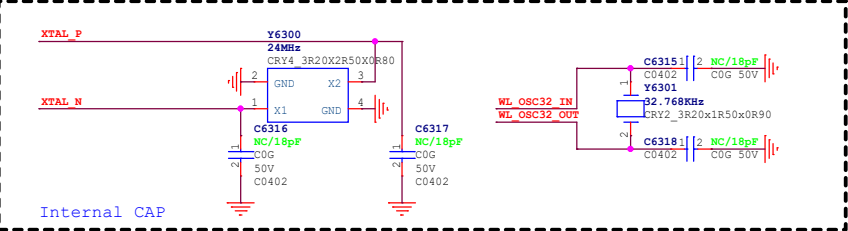
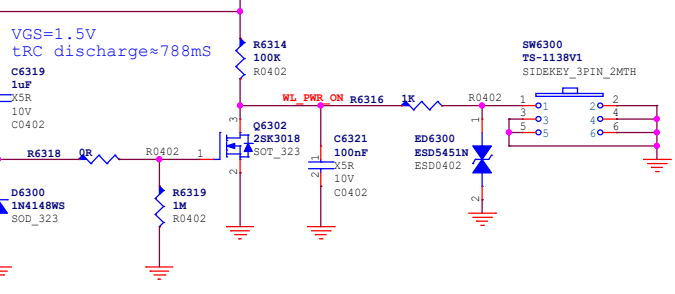
ADC



WIFI WAKE/Set-up net



WIFI RESET

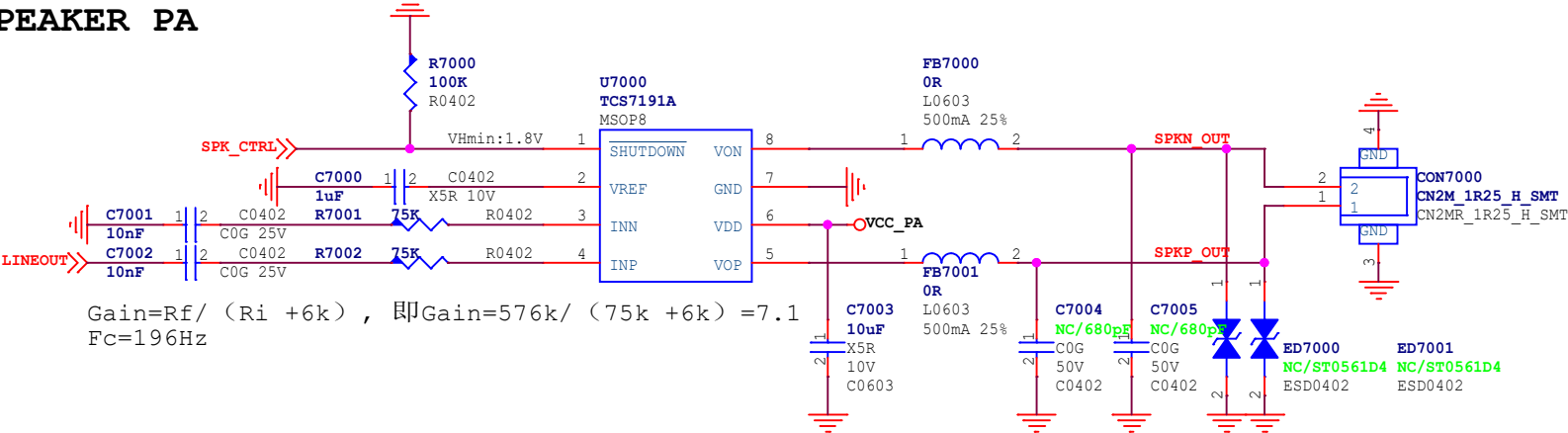


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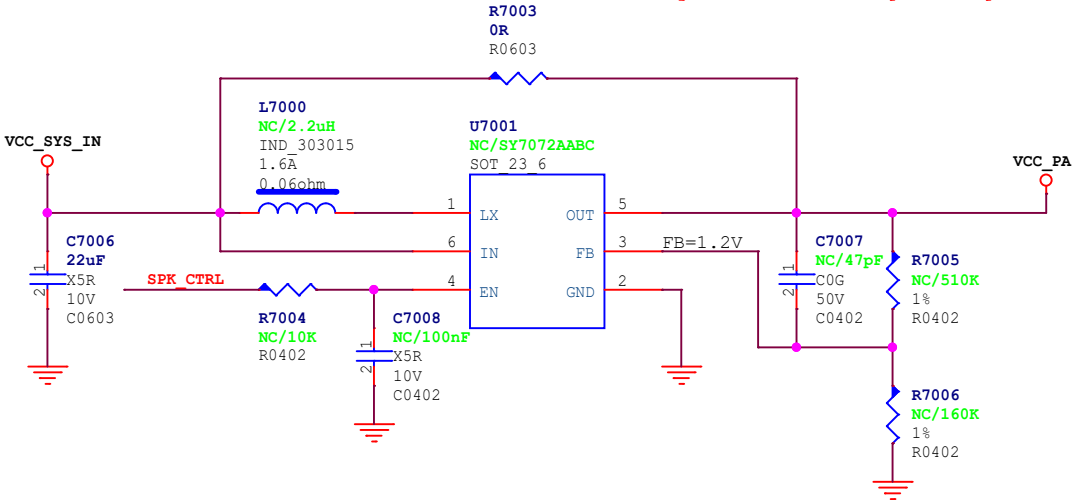
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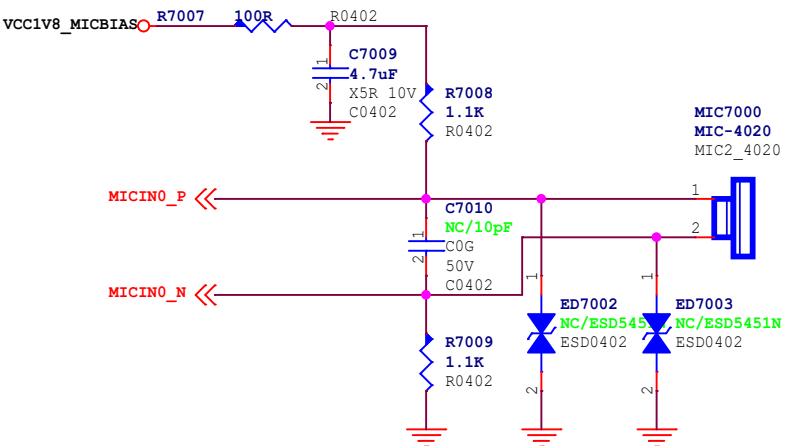
SPEAKER PA




Gain=Rf/ (Ri +6k) , 即Gain=576k/ (75k +6k) =7.1
Fc=196Hz

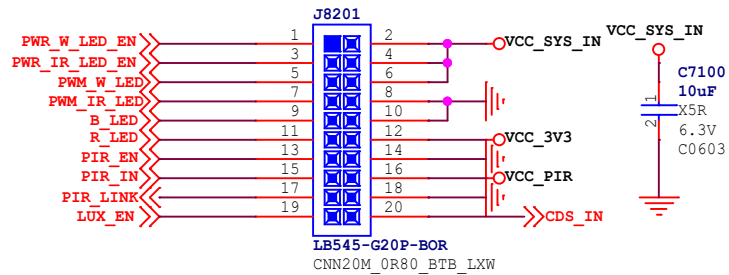


MIC




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