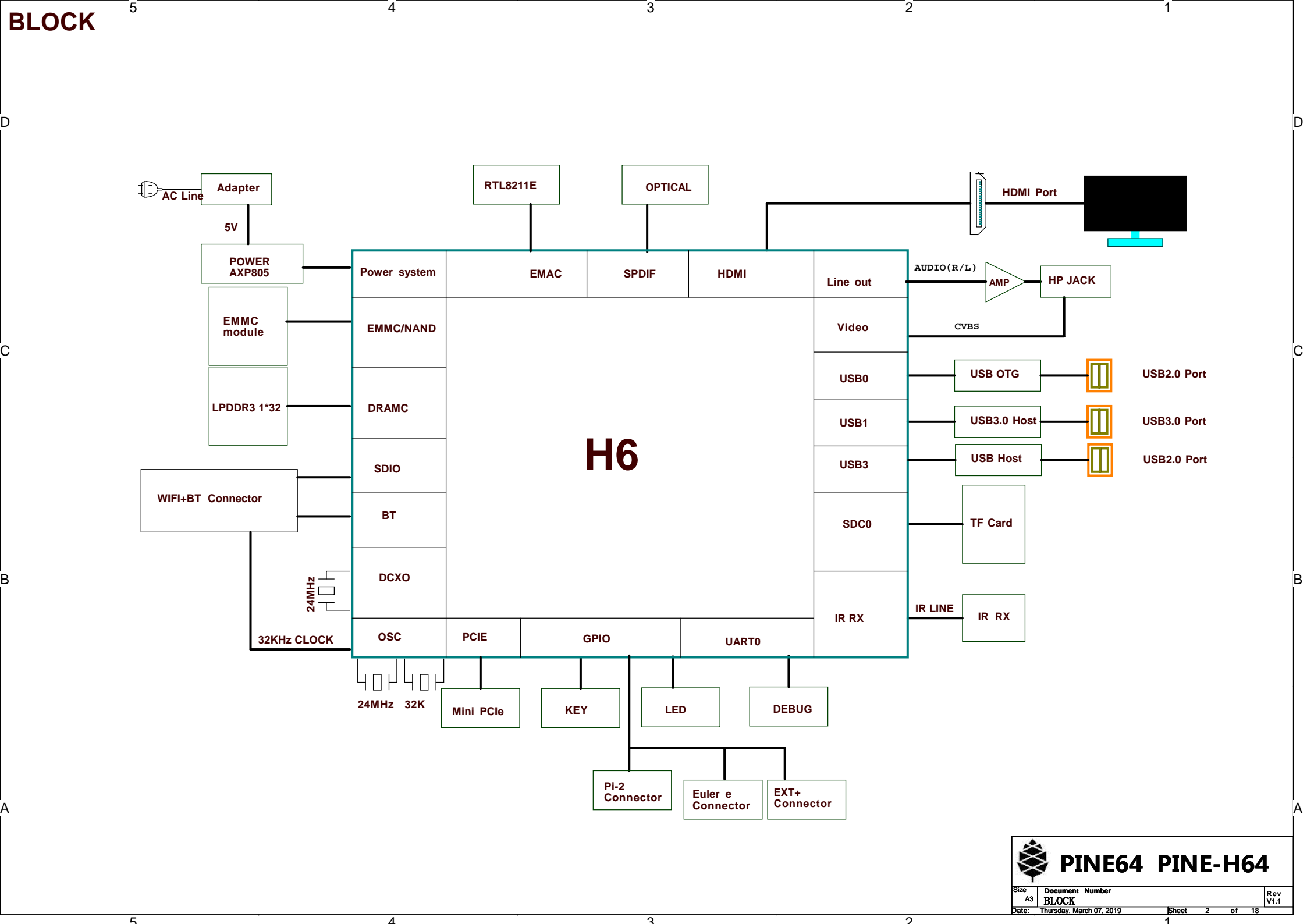


REVISION HISTORY

Schematics Index:

- P01: REVISION HISTORY
- P02: BLOCK
- P03: POWER TREE
- P04: GPIO ASSIGNMENT
- P05: SOC1
- P06: SOC2
- P07: DDR3 16X2
- P08: POWER
- P09: NAND-eMMC
- P10: CARD-USB-IR-SPDIF
- P11: KEY-LED-ETH-DEBUG
- P12: AV-HDMI
- P13: WIFI-BT 2T2R
- P14: WIFI-BT 1T1R

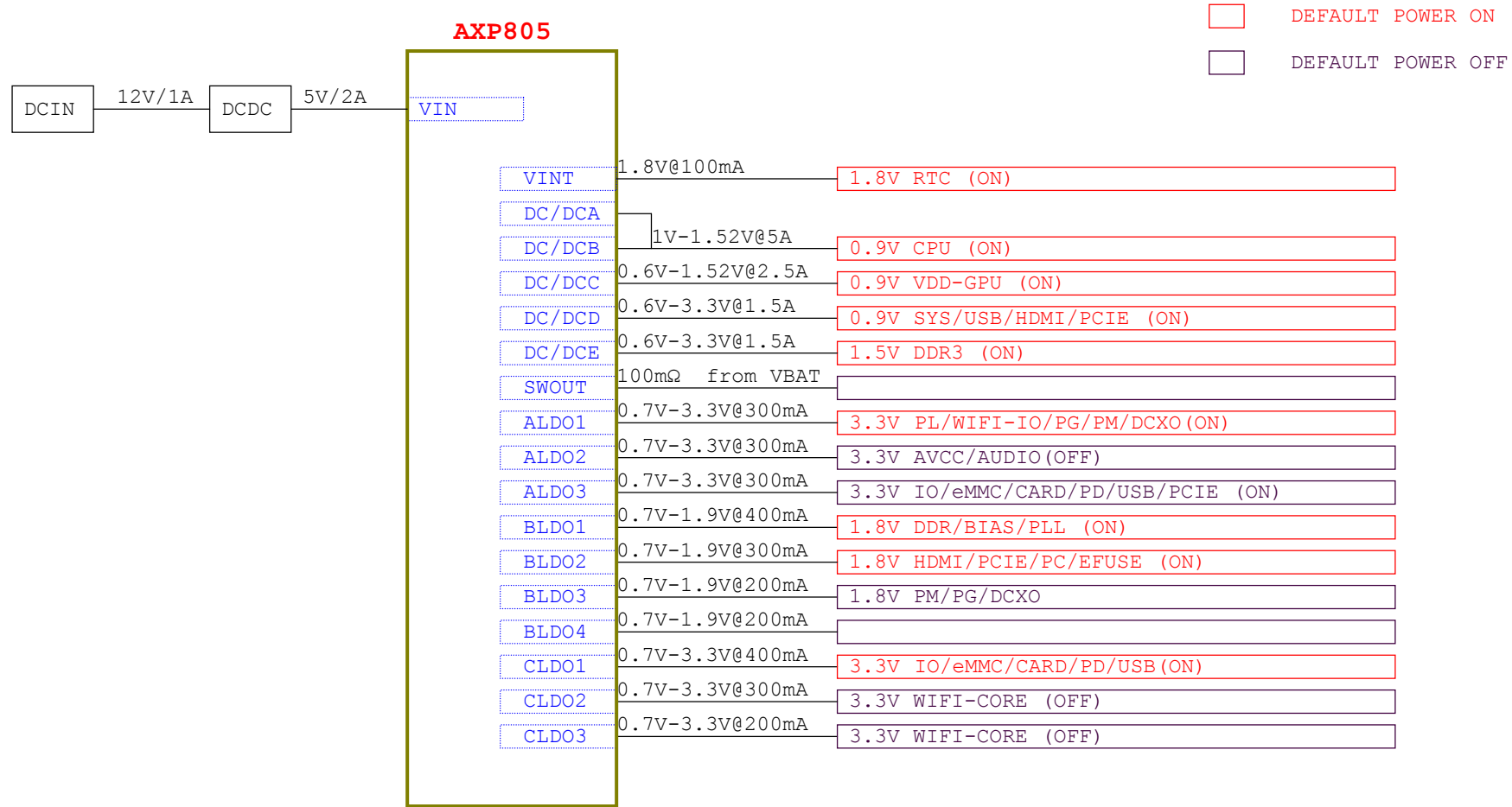
Revision	Description	Date	Drawn	Checked
Ver 0.5	Initial Version	2016-12-26	HJ	
Ver 0.8		2017-02-23	HJ	
Ver 1.0		2017-03-22	HJ	



BLOCK

H6

POWER TREE



GPIO ASSIGNMENT

PIN	Define	CFG	Function
PC0	NAND_WE	2	NAND/eMMC
PC1	NAND_ALE/SDC2_DS	2/3	
PC2	NAND_CLE	2	
PC3	NAND_CE0	2	
PC4	NAND_RE/SDC2_CLK	2/3	
PC5	NAND_RB0/SDC2_CMD	2/3	
PC6	NAND_DQ0/SDC2_D0	2/3	
PC7	NAND_DQ1/SDC2_D1	2/3	
PC8	NAND_DQ2/SDC2_D2	2/3	
PC9	NAND_DQ3/SDC2_D3	2/3	
PC10	NAND_DQ4/SDC2_D4	2/3	
PC11	NAND_DQ5/SDC2_D5	2/3	
PC12	NAND_DQ6/SDC2_D6	2/3	
PC13	NAND_DQ7/SDC2_D7	2/3	
PC14	NAND_DQS/SDC2_RST	2/3	
PC15	NAND_CE1	2	
PC16	NAND_RB1	2	

PIN	Define	CFG	Function
PD0			
PD1			
PD2			
PD3			
PD4			
PD5			
PD6			
PD7			
PD8			
PD9			
PD10			
PD11			
PD12			
PD13			
PD14			

PIN	Define	CFG	Function
PD15			
PD16			
PD17			
PD18			
PD19			
PD20			
PD21			
PD22			
PD23			
PD24			
PD25			
PD26			

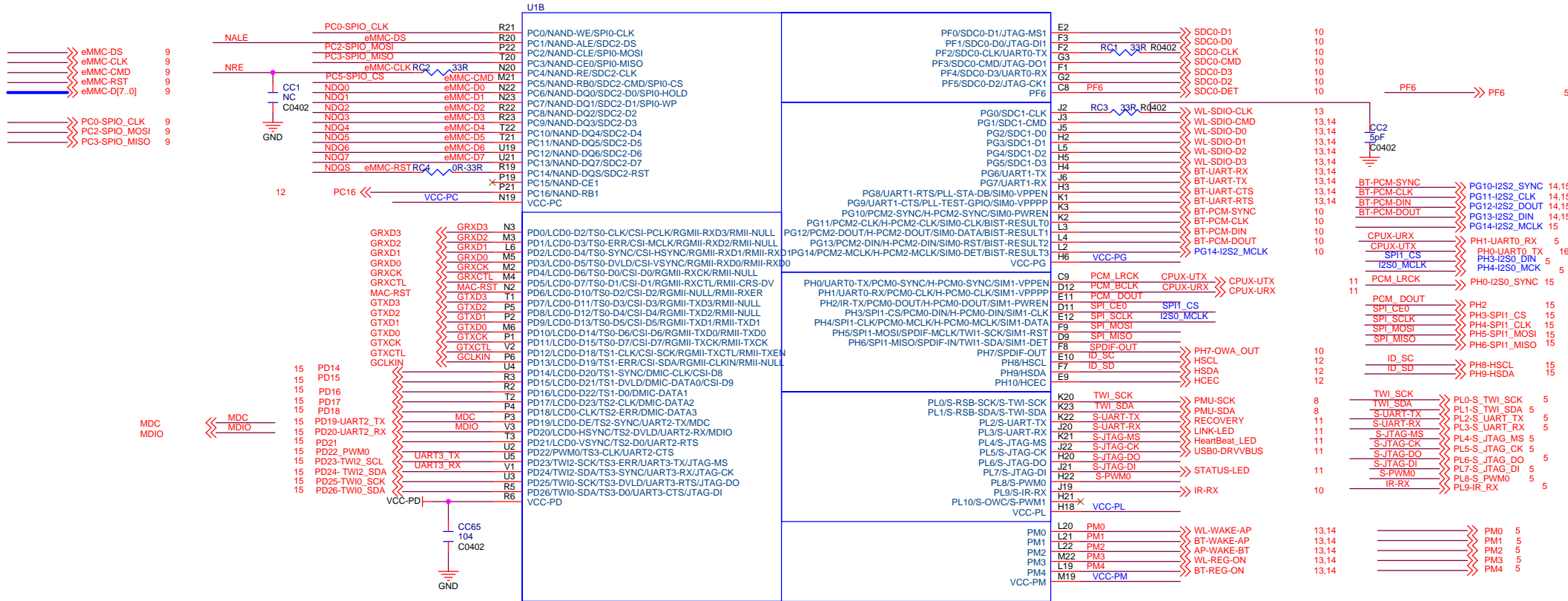
PIN	Define	CFG	Function
PG0	SDC1_CLK	2	WIFI+BT
PG1	SDC1_CMD	2	
PG2	SDC1_D0	2	
PG3	SDC1_D1	2	
PG4	SDC1_D2	2	
PG5	SDC1_D3	2	
PG6	UART1_TX	2	
PG7	UART1_RX	2	
PG8	UART1_RTS	2	
PG9	UART1_CTS	2	
PG10	PCM2_SYNC	2	
PG11	PCM2_CLK	2	
PG12	PCM2_DOUT	2	
PG13	PCM2_DIN	2	
PG14			

PIN	Define	CFG	Function
PF0	SDC0_D1	2	CARD0
PF1	SDC0_D0	2	
PF2	SDC0_CLK/UART0_TX	2/3	
PF3	SDC0_CMD	2	
PF4	SDC0_D3/UART0_RX	2/3	
PF5	SDC0_D2	2	
PF6	SDC0-DET	2	

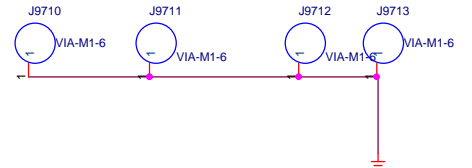
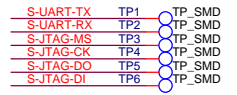
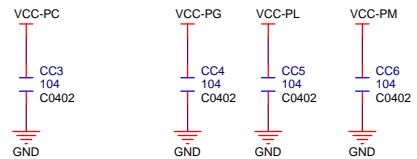
PIN	Define	CFG	Function
PH0	CPUX-UTX	2	HDMI
PH1	CPUX-URX	2	
PH2			
PH3			
PH4			
PH5			
PH6			
PH7	SPDIF_OUT	3	
PH8	HSCL	2	
PH9	HSDA	2	
PH10	HCEC	2	

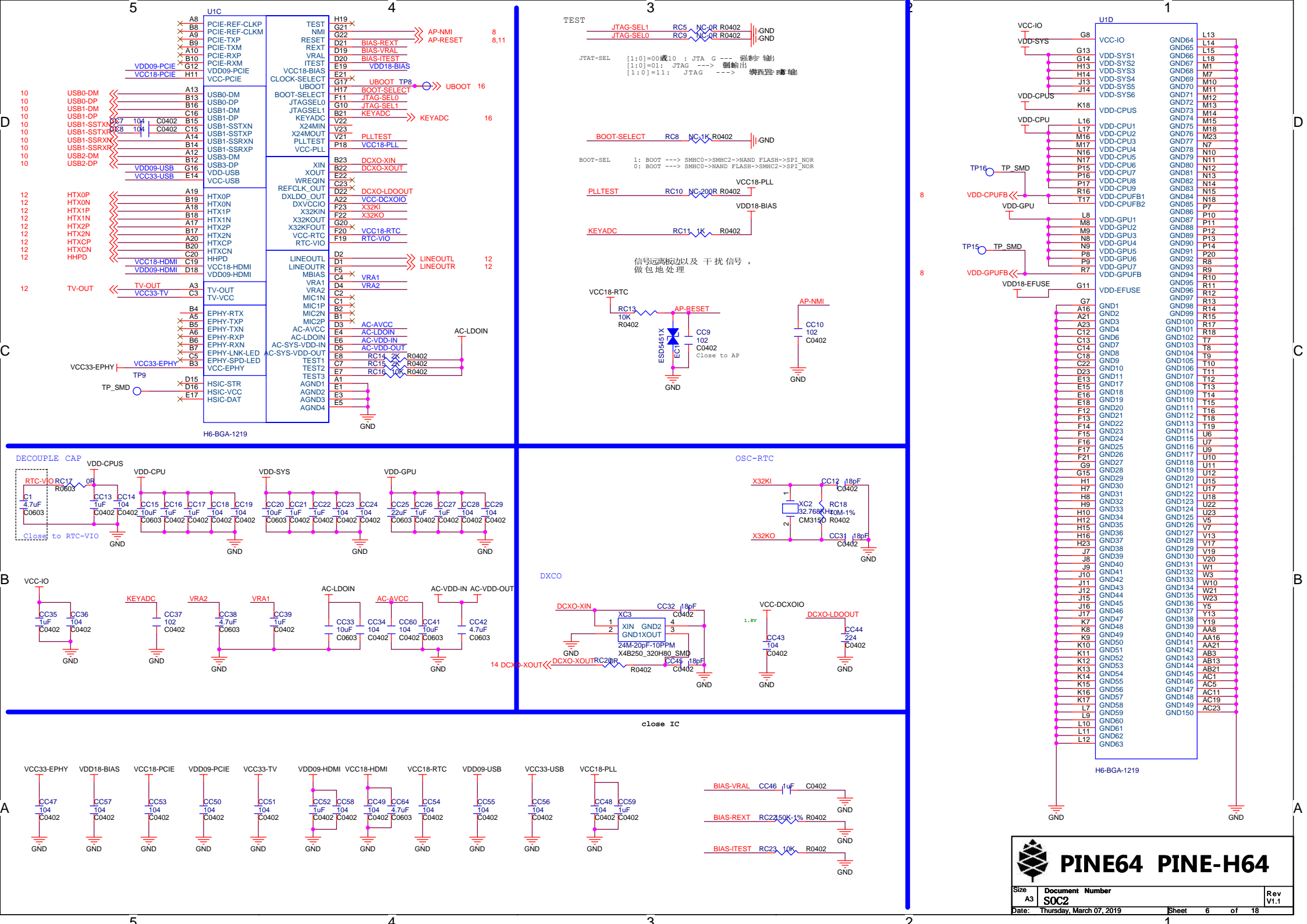
PIN	Define	CFG	Function
PL0	PMU-SCK	3	WIFI+BT
PL1	PMU-SDA	3	
PL2	RECOVERY	2	
PL3	LINK-LED	1	
PL4	PWR-LED	1	
PL5	USB0-DRVVBUS	1	
PL6	MUTE	1	
PL7	STATUS-LED	1	
PL8			
PL9	IR-RX	2	
PL10	BT-WIFI-ON	1	
PM0	WL-WAKE-AP	0	
PM1	BT-WAKE-AP	0	
PM2	AP-WAKE-BT	1	
PM3	WL-REG-ON	1	
PM4	BT-REG-ON	1	

PC,PD, 部分IO系统中断功能
PF,PG,PH,PL,PM 部分中断功能

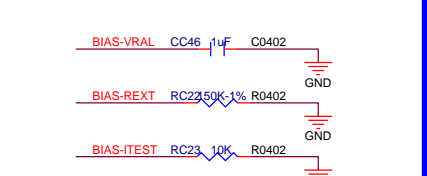
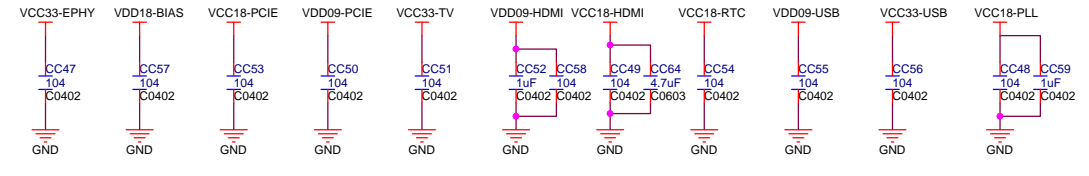
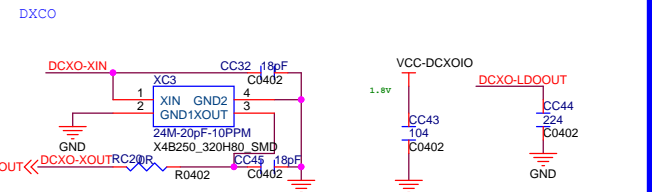
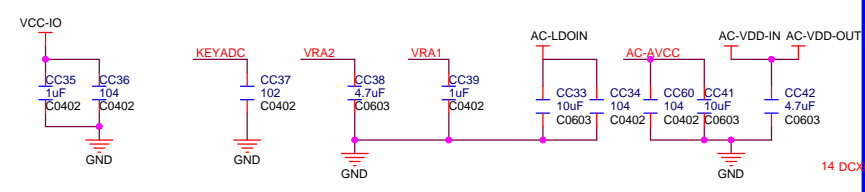
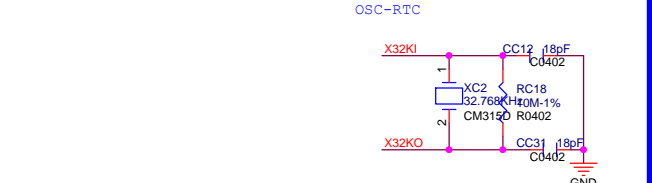
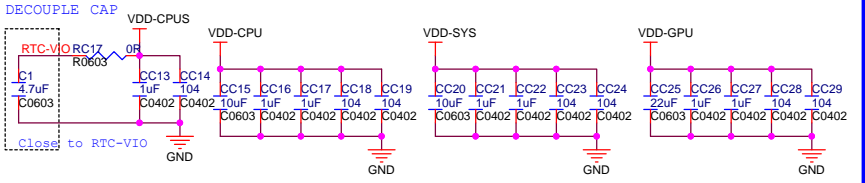
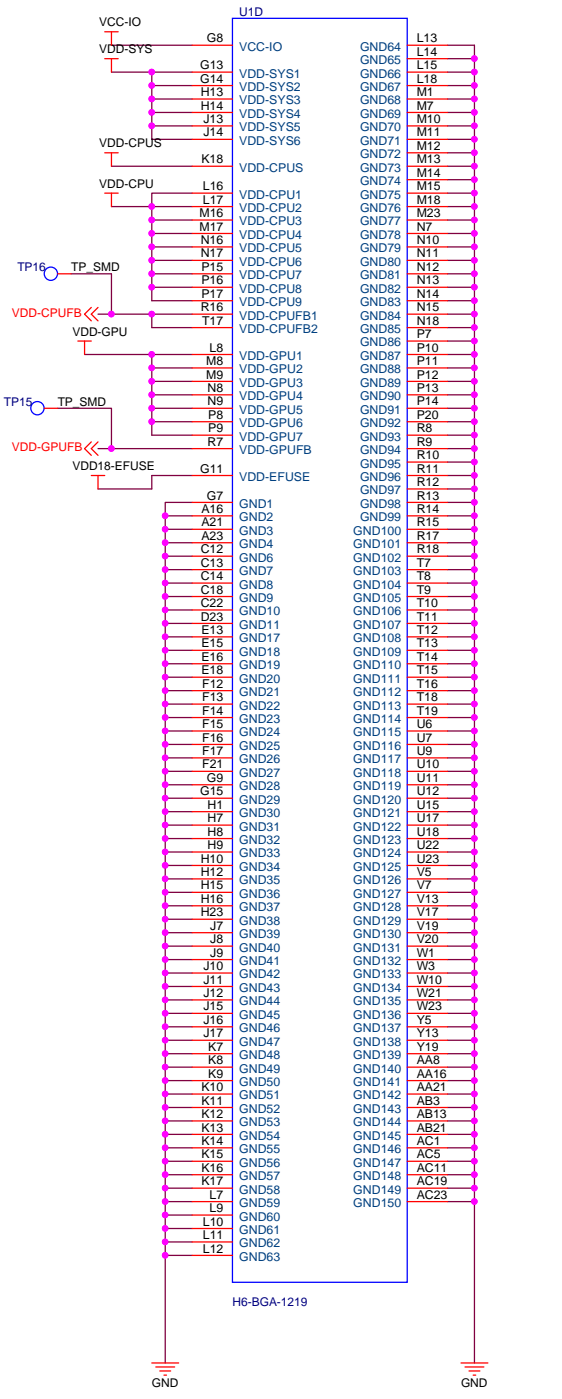
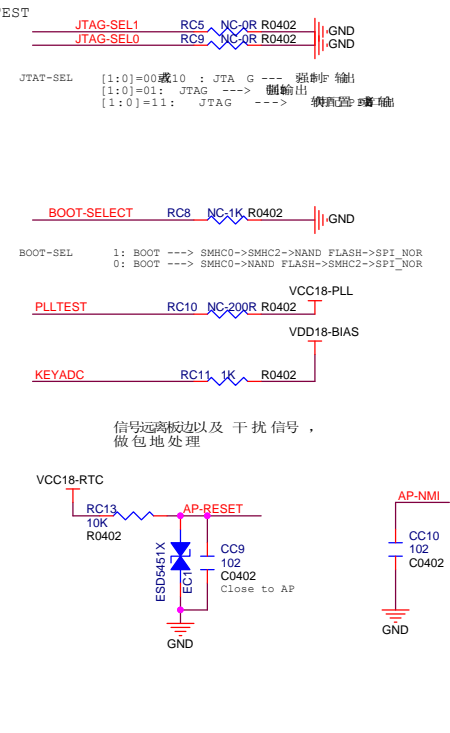


H6-BGA-1219

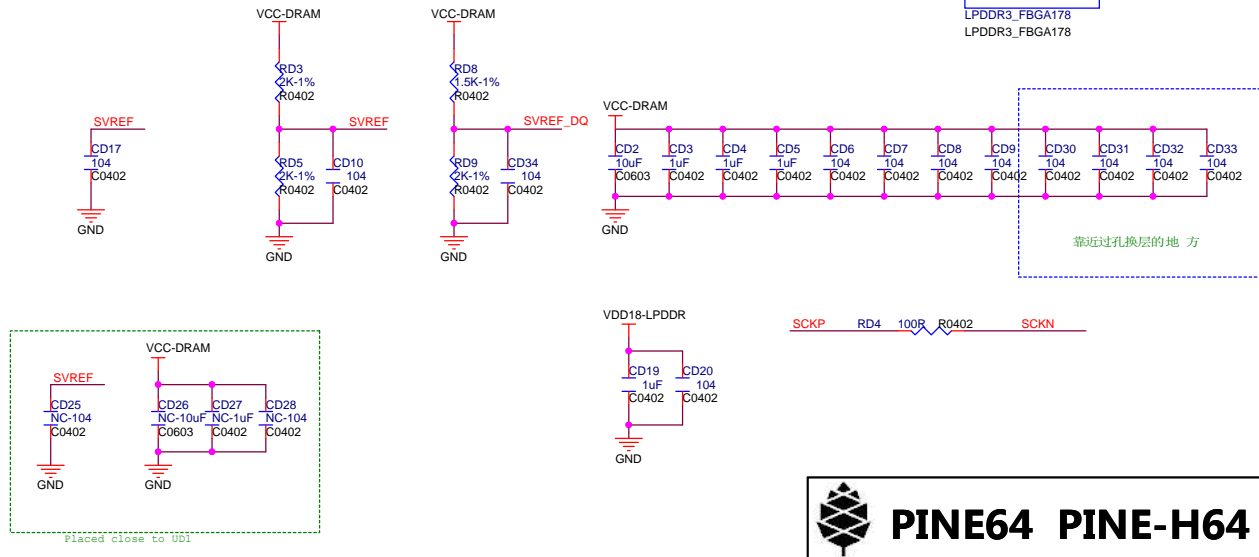
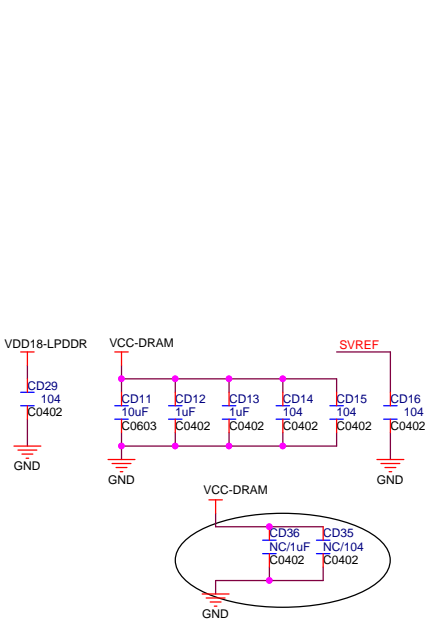
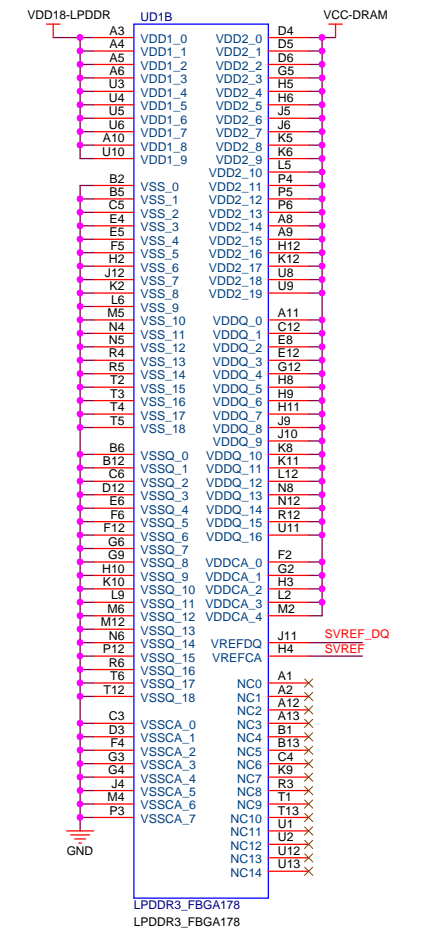
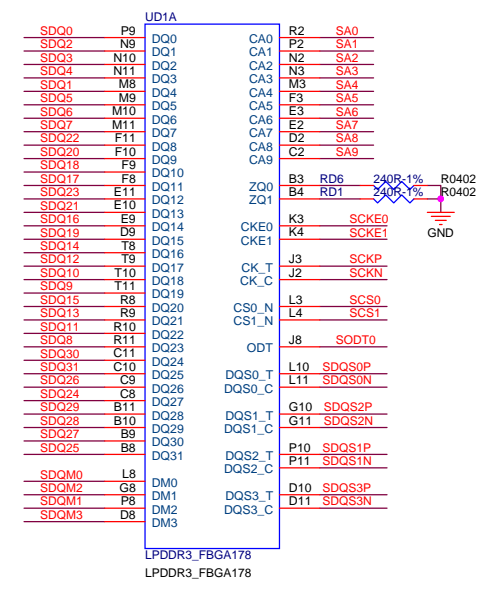
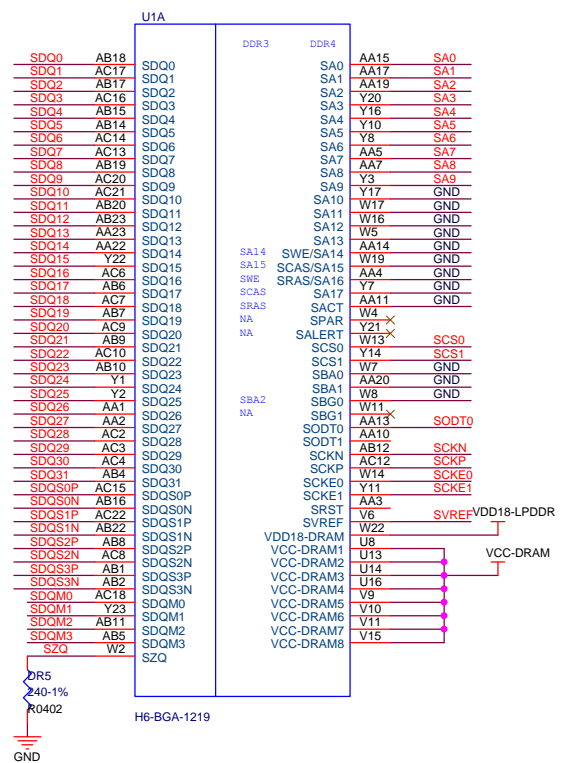




Pin	Signal	Pin	Signal	Pin	Signal
A8	PCIE-REF-CLKP	H19	TEST		
B8	PCIE-REF-CLKM	G22	NMI		
A9	PCIE-TXP	D21	BIAS-REXT		
B9	PCIE-TXM	D19	BIAS-VRAL		
A10	PCIE-RXP	D20	BIAS-ITEST		
B10	PCIE-RXM	E19	VDD18-BIAS		
G12	VDD09-PCIE	E21			
H11	VCC18-PCIE	G17	UBOOT TP8		
A13	USB0-DM	H17	BOOT-SELECT		
B13	USB0-DP	F11	JTAG-SEL0		
B16	USB1-DM	G10	JTAG-SEL1		
C16	USB1-DP	B21	KEYADC		
B7	USB1-SSTXN	V22			
B8	USB1-SSTXP	V23			
C15	USB1-SSTXN	V21	PLLTEST		
C14	USB1-SSTXP	P18	VCC18-PLL		
A14	USB1-SSRXN	B23	DCXO-XIN		
B14	USB1-SSRXP	B22	DCXO-XOUT		
A12	USB2-DP	E22	DCXO-LDOOUT		
B12	USB2-DP	D22	DCXO-LDOOUT		
G16	VDD09-USB	A22	VCC-DCXOIO		
E14	VCC33-USB	F23	X32KI		
A19	HTX0P	F22	X32KO		
B19	HTX0N	G20			
A18	HTX1P	F20	VCC18-RTC		
B18	HTX1N	F19	RTC-VIO		
A17	HTX2P	D2	LINEOUTL		
E17	HTX2N	D1	LINEOUTR		
A20	HTXCP	F5	VRA1		
B20	HTXCN	C4	VRA2		
HHPD	HHPD	C1	MIC1N		
C19	VCC18-HDMI	B2	MIC1P		
D18	VDD09-HDMI	B1	MIC2N		
A3	TV-OUT	B1	MIC2P		
C3	VCC33-TV	D3	AC-AVCC		
B4	EPHY-RTX	D5	AC-LDOIN		
A5	EPHY-TXP	E6	AC-VDD-IN		
A6	EPHY-TXN	D5	AC-VDD-OUT		
B6	EPHY-RXP	E8	AC-SYS-VDD-OUT		
B7	EPHY-RXN	E7	TEST1		
C5	EPHY-LNK-LED	E7	TEST2		
B3	EPHY-SPD-LED	A1	AGND1		
D15	VCC33-EPHY	E3	AGND2		
TP9	TP_SMD	E5	AGND3		
D18	HSIC-STR	E5	AGND4		
E17	HSIC-VCC				
E17	HSIC-DAT				



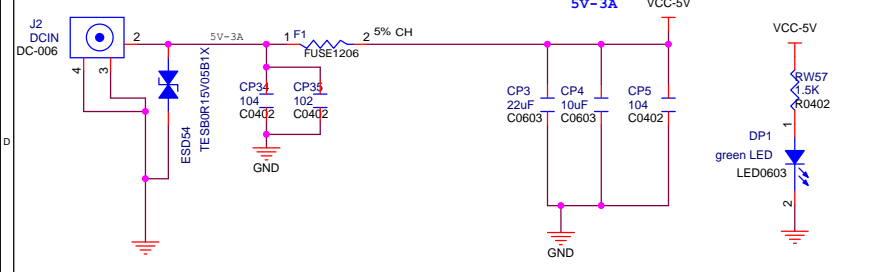
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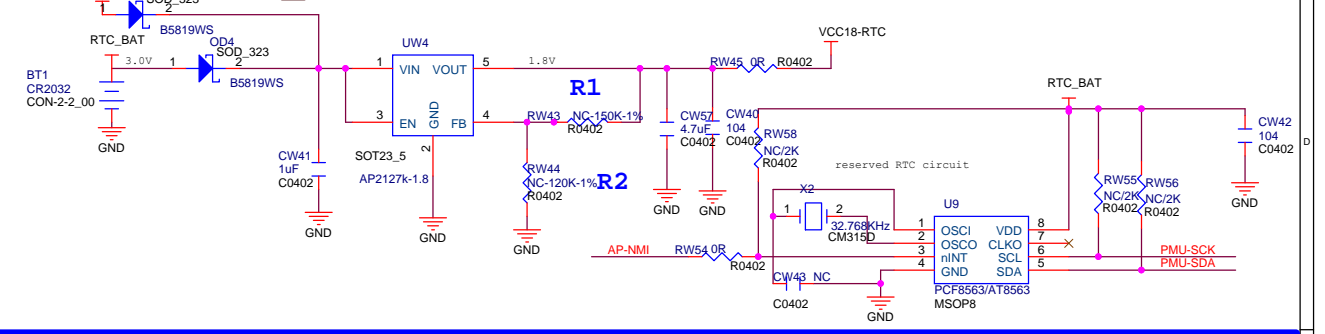
PINE64 PINE-H64
LPDDR3

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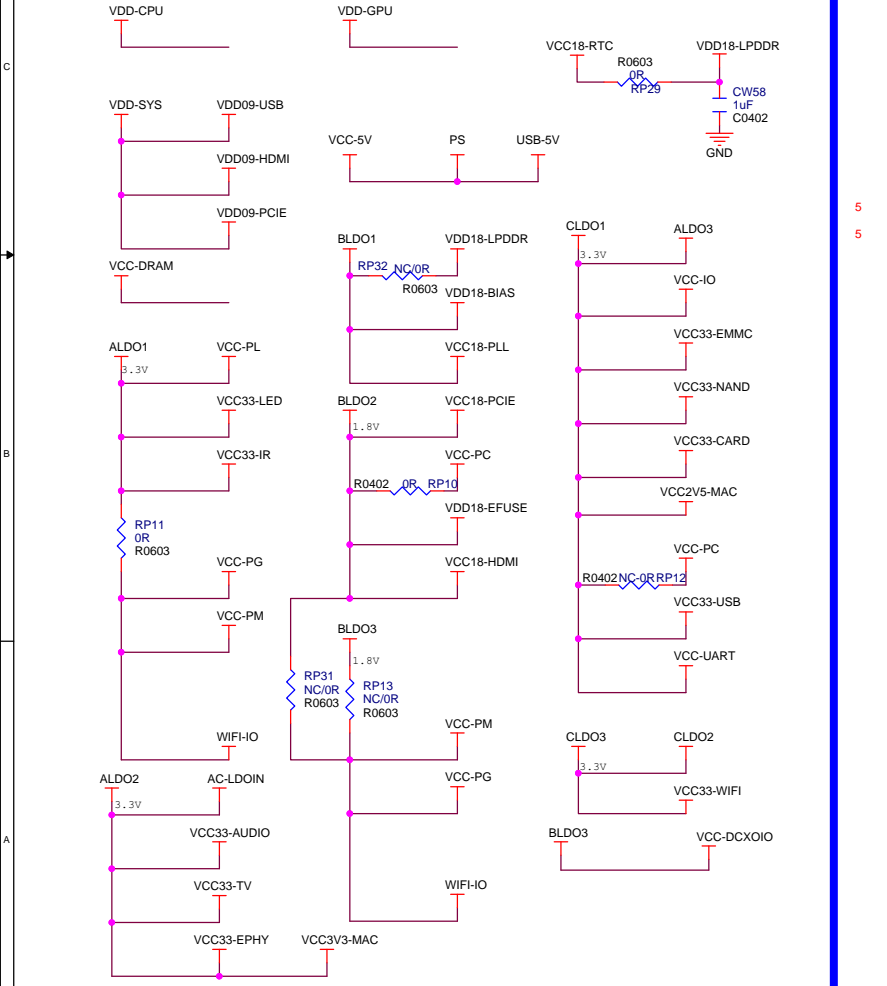
DCIN



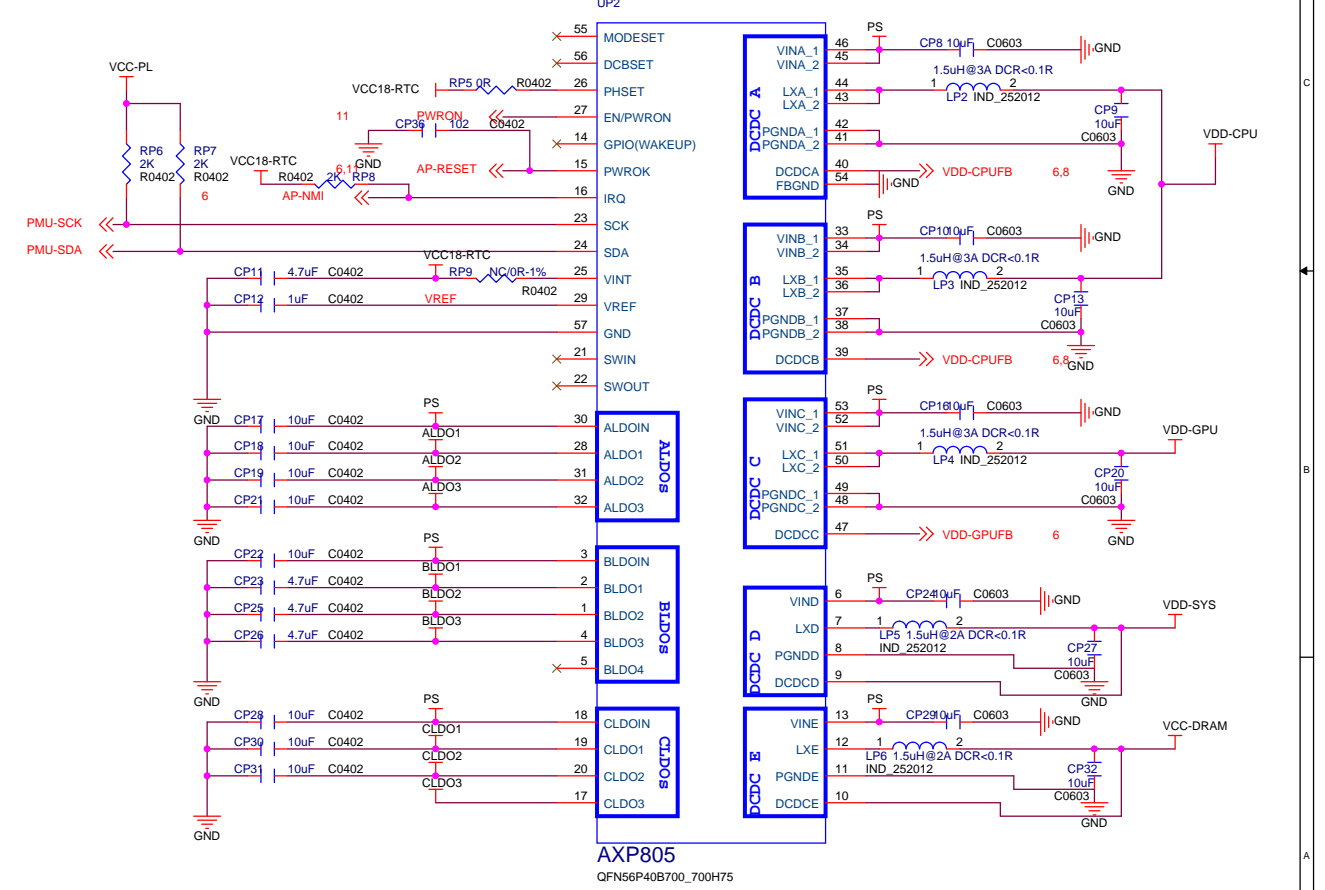
RTC_BAT



PMIC



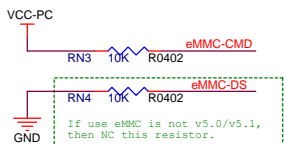
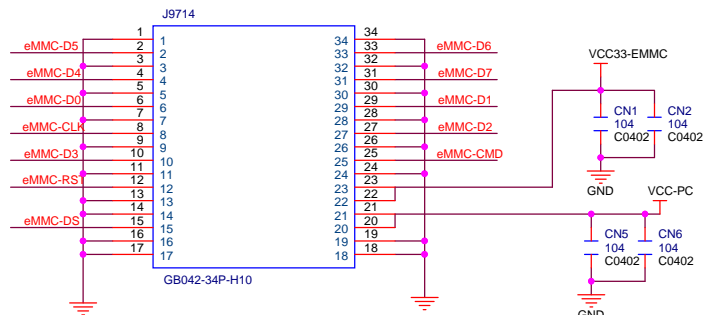
AXP805



PINE64 PINE-H64

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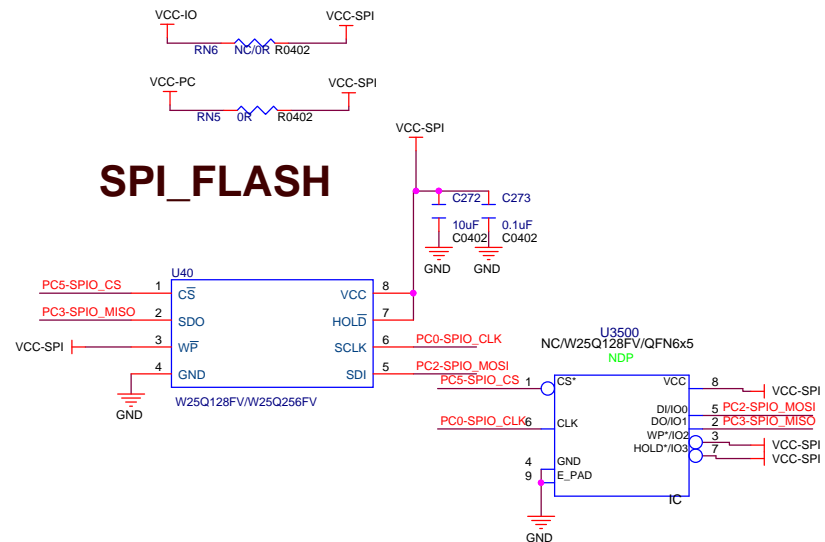
eMMC module/SIP Flash



Placed close to SOC

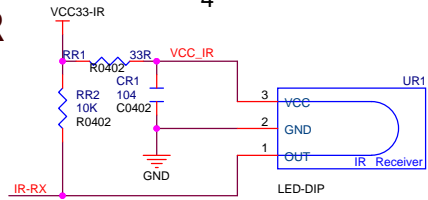
NOTE: Use spi IC voltage of 1V8 ADD RN5 00HM, NC RN6.
Use spi IC voltage of 3V3 ADD RN6 00HM, NC RN5.

SPI_FLASH

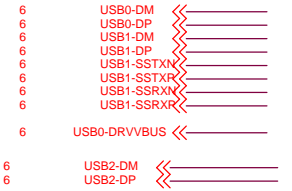
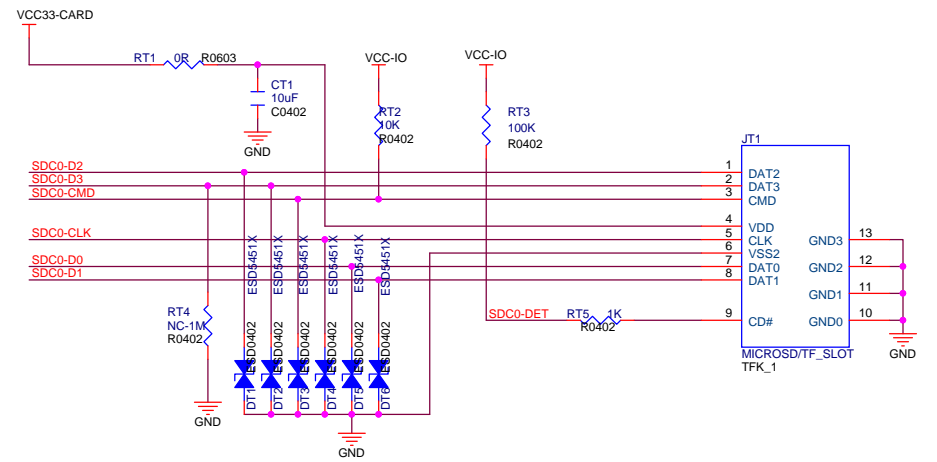




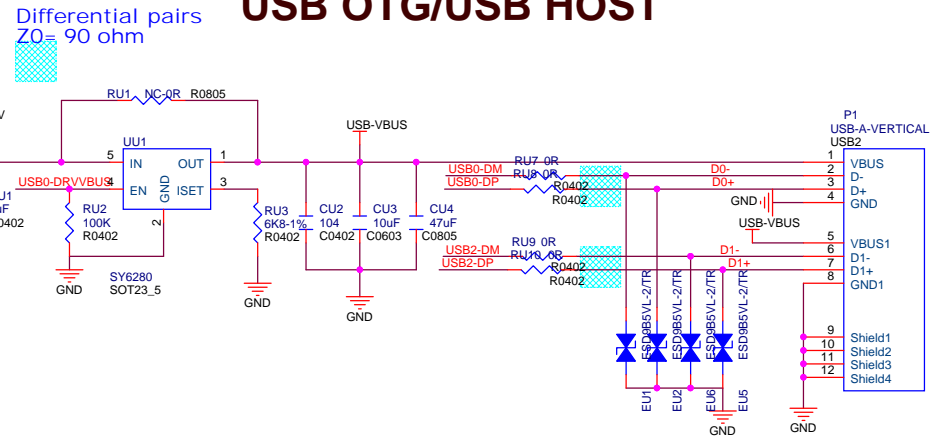
IR



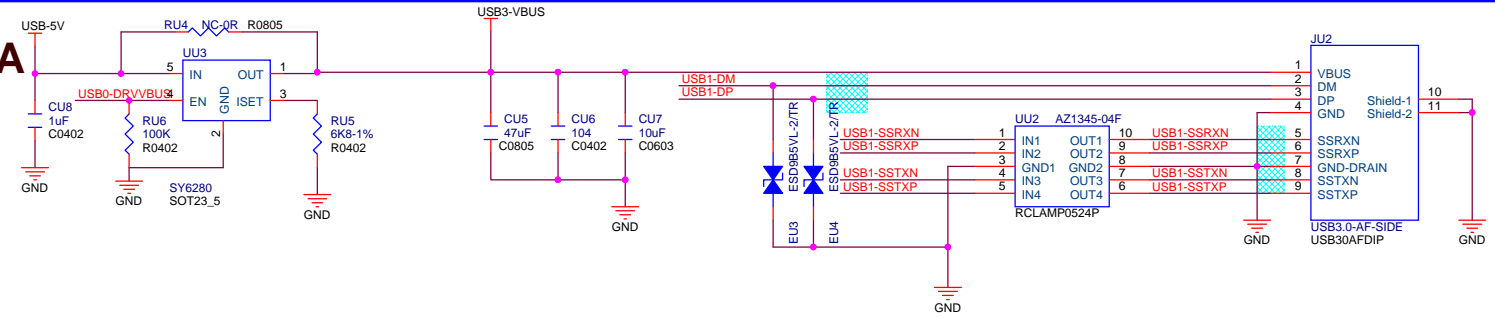
CARD



USB OTG/USB HOST

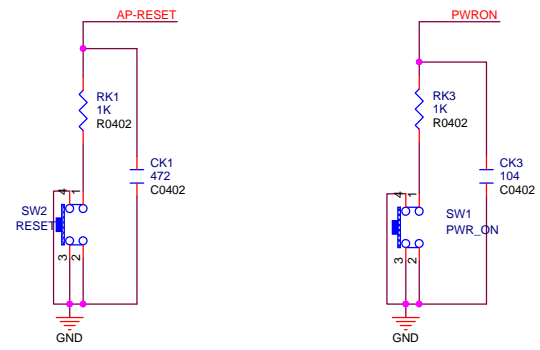


USB3.0 TYPE A

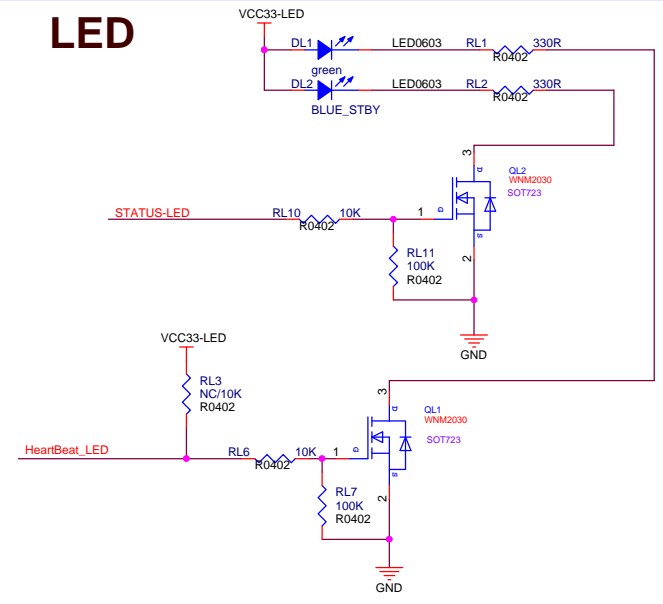




KEY



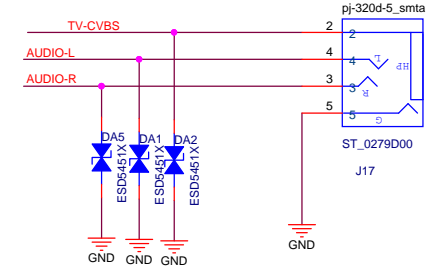
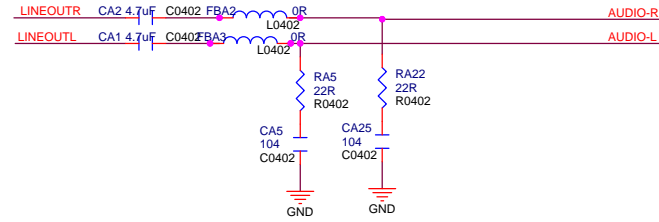
LED



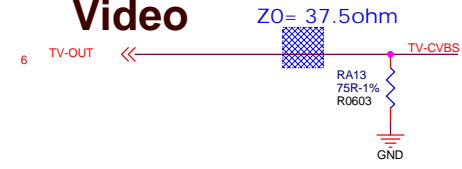
PINE64 PINE-H64

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Audio



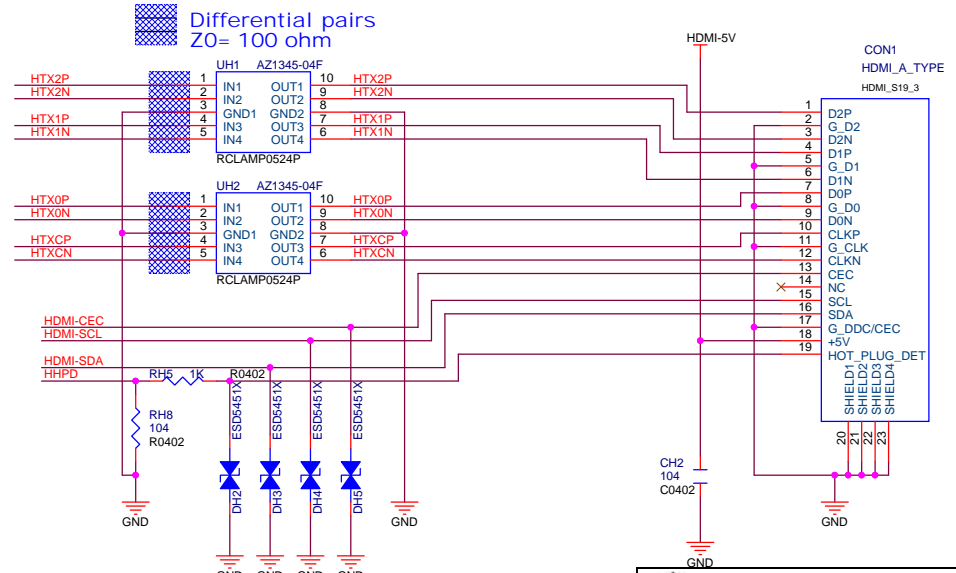
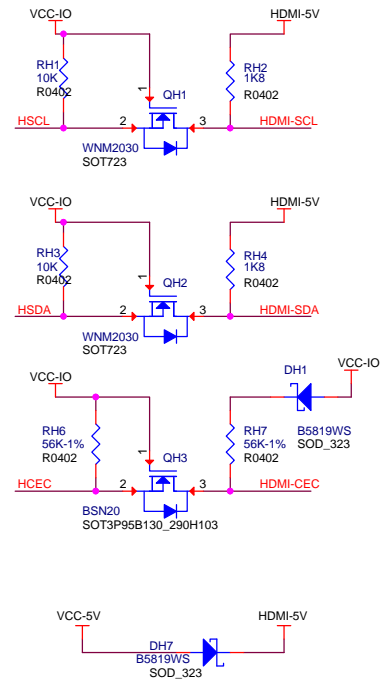
Video



6
6
LINEOUTL
LINEOUTR

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HTX0P
HTX0N
HTX1P
HTX1N
HTX2P
HTX2N
HTX3P
HTX3N
HSCL
HSDA
HHPD
HCEC

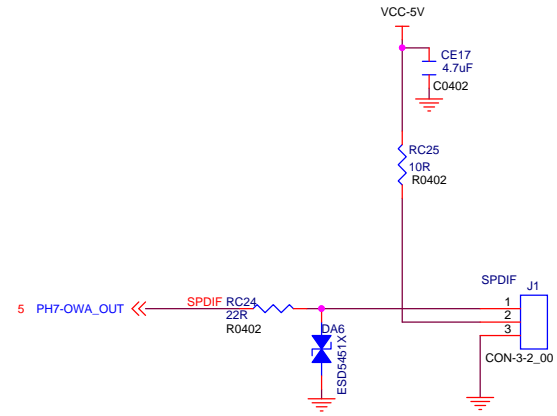
HDMI



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Size A3	Document Number AV/AUDIO-HDMI	Rev V1.1
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SPDIF

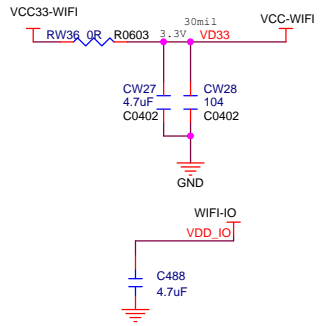


RTL8723CS

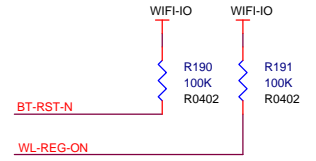
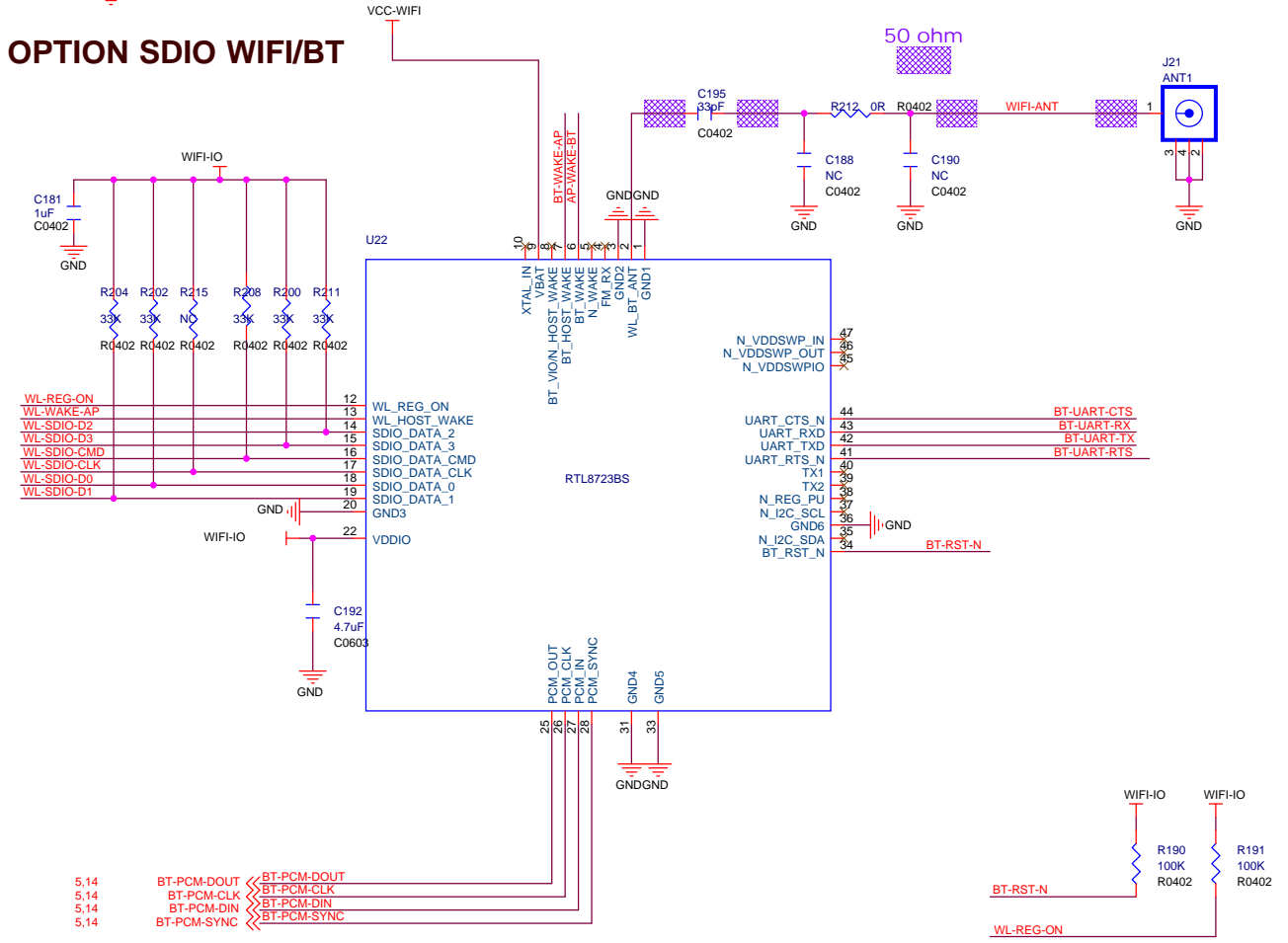
- 5,14 WL-SDIO-CMD <-> WL-SDIO-CMD
- 5,14 WL-SDIO-D0 <-> WL-SDIO-D0
- 5,14 WL-SDIO-D1 <-> WL-SDIO-D1
- 5,14 WL-SDIO-D2 <-> WL-SDIO-D2
- 5,14 WL-SDIO-D3 <-> WL-SDIO-D3
- 5,14 WL-SDIO-CLK <-> WL-SDIO-CLK

- 5,14 BT-UART-TX <->
- 5,14 BT-UART-RX <->
- 5,14 BT-UART-RTS <->
- 5,14 BT-UART-CTS <->

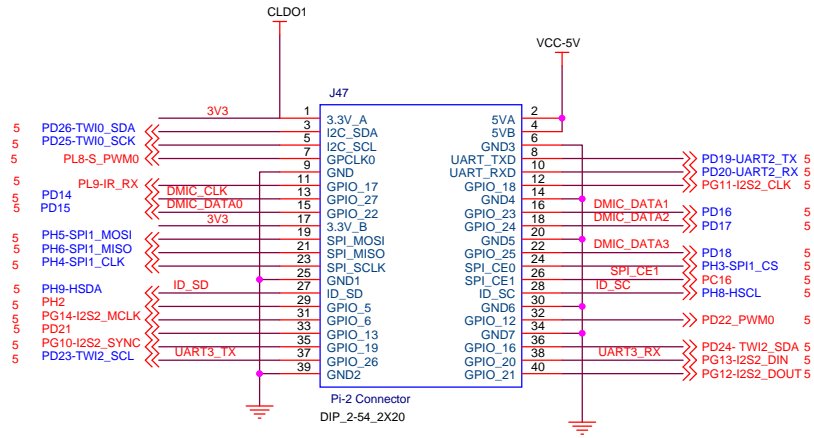
- 5,14 BT-REG-ON <-> BT-RST-N
- 5,14 WL-WAKE-AP <-> WL-WAKE-AP
- 5,14 BT-WAKE-AP <-> BT-WAKE-AP
- 5,14 AP-WAKE-BT <-> AP-WAKE-BT
- 5,14 WL-REG-ON <-> WL-REG-ON



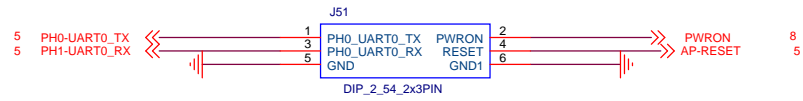
OPTION SDIO WIFI/BT



Pi-2 Connector



EXT+ Connector



5

4

3

2

1

D

D

C

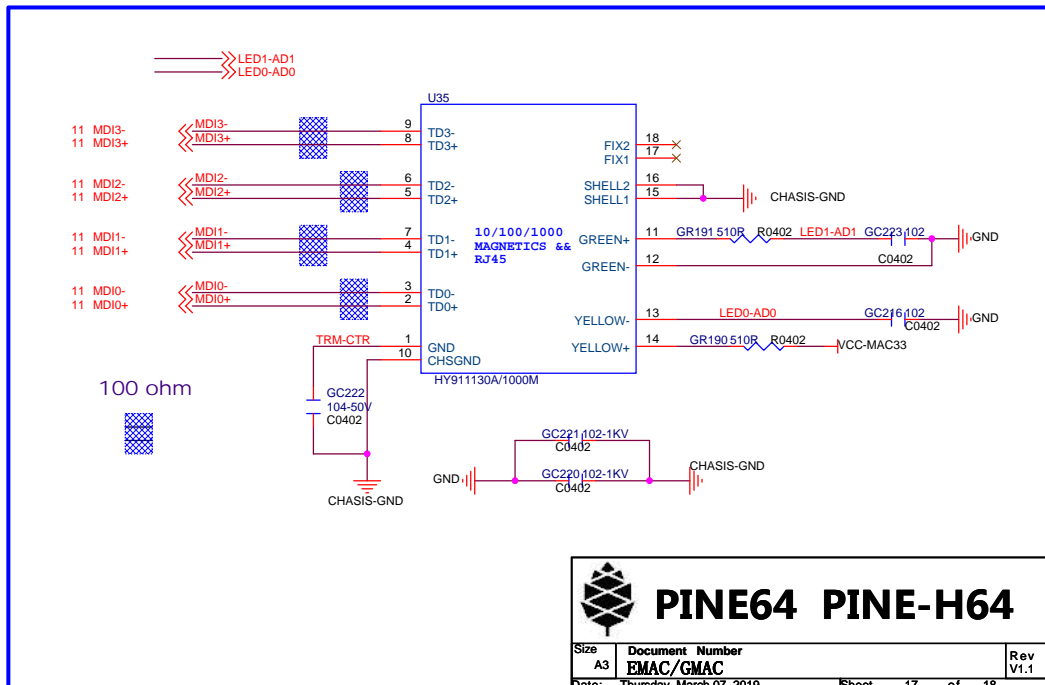
C

B

B

A

A

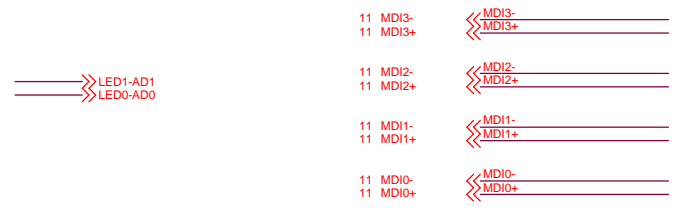
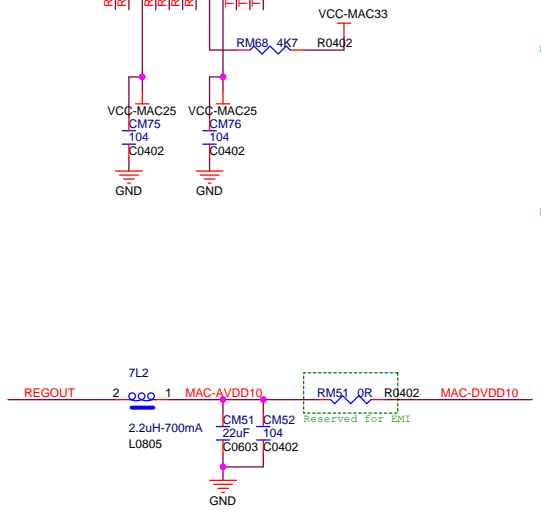
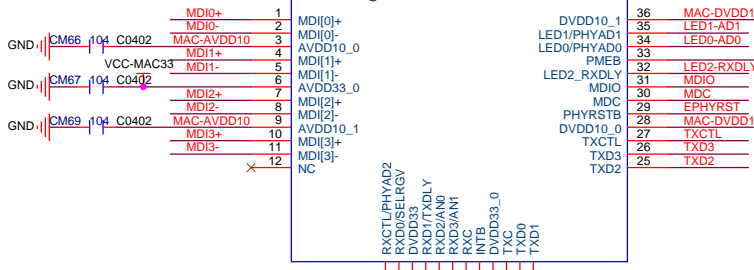
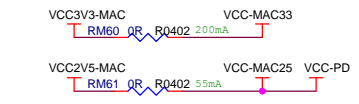
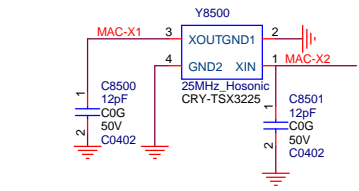
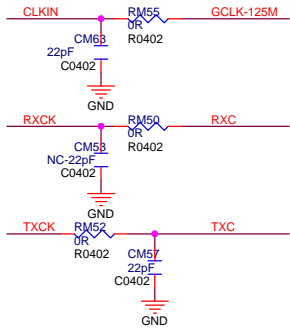


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RTL8211X

GRXD3	RXD3
GRXD2	RXD2
GRXD1	RXD1
GRXD0	RXD0
GRXCK	RXCK
GRXCTL	RXTCL
GTXD3	TXD3
GTXD2	TXD2
GTXD1	TXD1
GTXD0	TXD0
GTXCK	TXCK
GTXCTL	TXCTL
GCLKIN	CLKIN
MDC	
MDIO	
MAC-RST	EPHYRST



Close to transformer for EMI
Co-layout with common mode choke

LED0 blinking when transmitting or receiving
LED1 link up

