


VERSION HISTORY

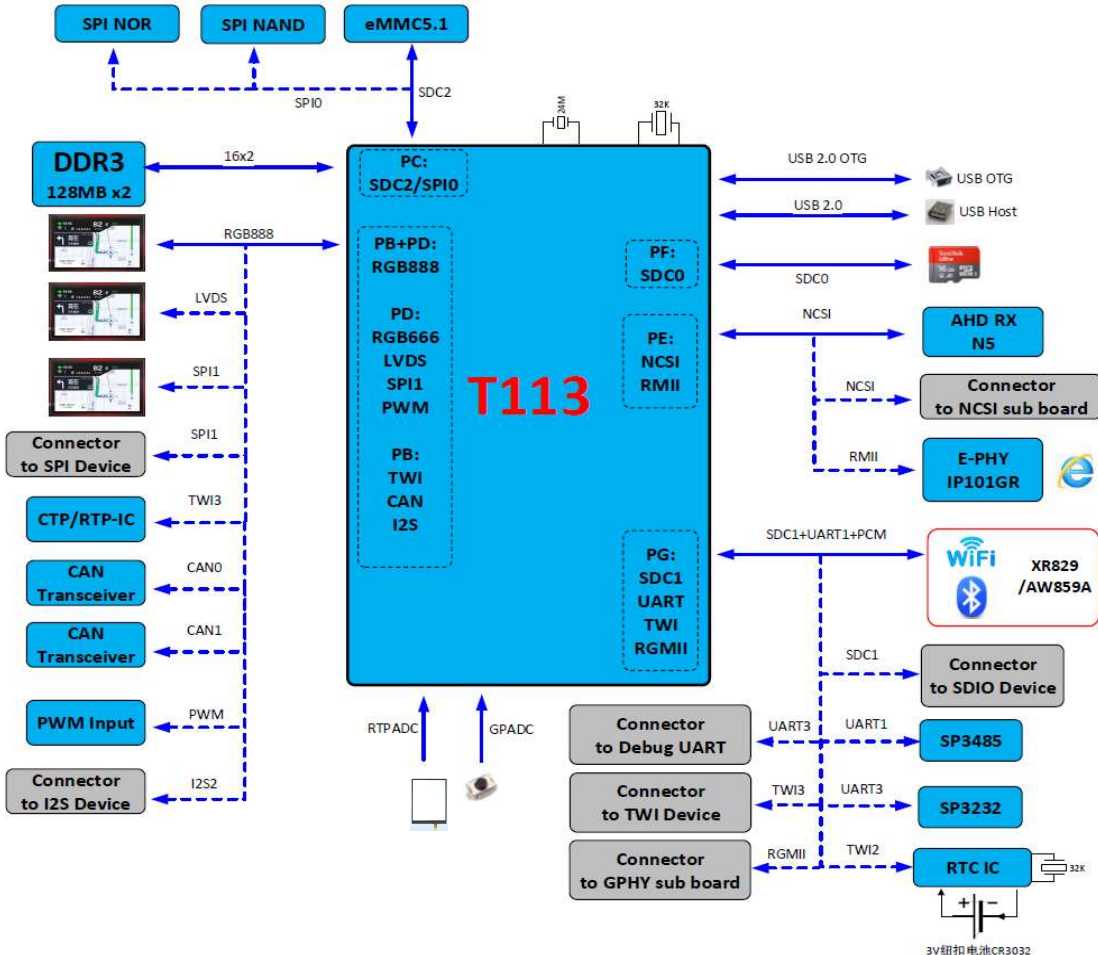
Index:

- 01 VERSION HISTORY
- 02 BLOCK DIAGRAM
- 03 POWER TREE
- 04 GPIO ASSIGNMENT
- 05 POWER
- 06 DDR3-16X2
- 07 SOC
- 08 FUNC SEL1
- 09 FUNC SEL2
- 10 FLASH
- 11 LCD
- 12 NCSI
- 13 RMII (IP101GR)
- 14 CARD USB
- 15 AUDIO
- 16 WIFI+BT
- 17 CAN RS232 RS485
- 18 USB KEY TWI UART CONNECT
- 19 TVIN TVOUT

Revision	Description	Date	Drawn	Checked	Approved
Ver 1.0	Release Version	2022-05-07	KPA0549	SVE	

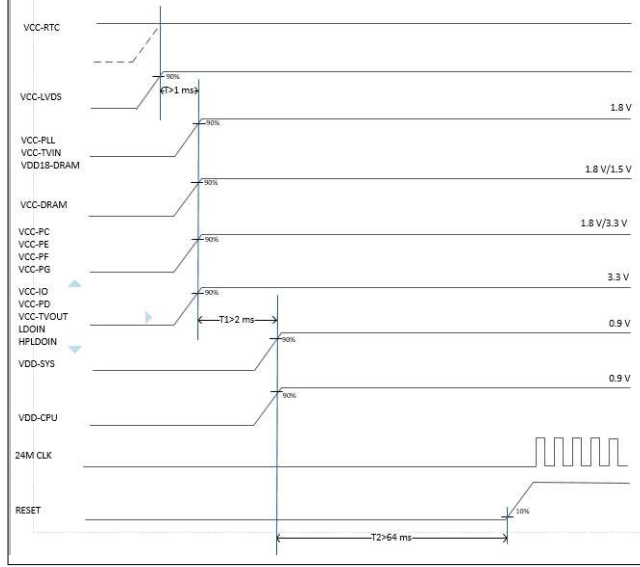
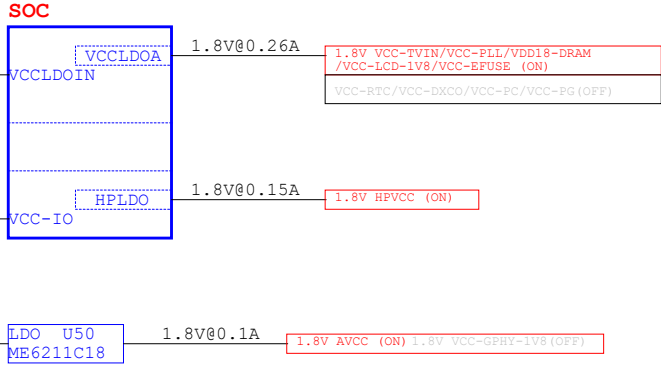
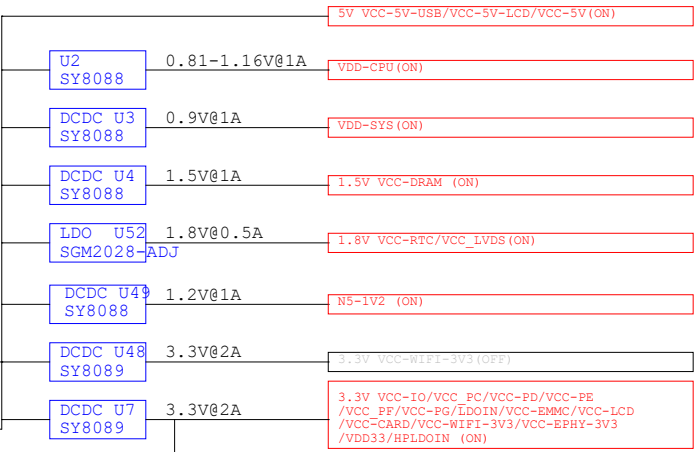
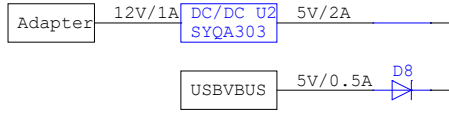
			
AllWinner Technology Co., Ltd			
Design Name: T113_EVB			
Size: A3	Page Name: 01 VERSION HISTORY	Rev: V1.0	
Date: Wednesday, May 18, 2022 Sheet 1 of 19			

BLOCK



AllWinner Technology Co., Ltd		
Design Name: T113_EVB		
Size: A3	Page Name: 02 BLOCK DIAGRAM	Rev: V1.0
Date: Wednesday, May 18, 2022	Sheet: 2	of: 19

DEFAULT POWER ON
 DEFAULT POWER OFF



GPIO ASSIGNMENT

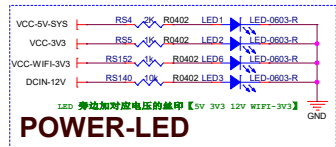
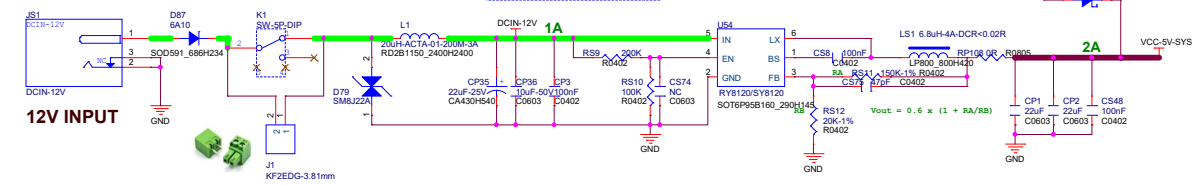
Name	Power	CFG	Function	Name	Power	CFG	Function	Name	Power	CFG	Function	Name	Power	CFG	Function
PB0	VCC-IO	I/O	0	PD0	VCC-PD	3	LVDS0-V0P	PE0	VCC-PE	2	CSI0-HSYNC	PG0	VCC-PG	2	WL-SDIO-CLK
PB1		I/O	0	PD1		3	LVDS0-V0N	PE1		2	CSI0-VSYNC	PG1		2	WL-SDIO-CMD
PB2		8	CAN0_TX0	PD2		3	LVDS0-V1P	PE2		2	CSI0-PCLK	PG2		2	WL-SDIO-D0
PB3		8	CAN0_RX0	PD3		3	LVDS0-V1N	PE3		2	CSI0-MCLK	PG3		2	WL-SDIO-D1
PB4		8	CAN1_TX0	PD4		3	LVDS0-V2P	PE4		2	CSI0-D0	PG4		2	WL-SDIO-D2
PB5		8	CAN1_RX0	PD5		3	LVDS0-V2N	PE5		2	CSI0-D1	PG5		2	WL-SDIO-D3
PB6		4	SCK	PD6		3	LVDS0-CKP	PE6		2	CSI0-D2	PG6		2	BT-UART-TX
PB7		4	SDA	PD7		3	LVDS0-CKN	PE7		2	CSI0-D3	PG7		2	BT-UART-RX
PB8		I/O	0	PD8		3	LVDS0-V3P	PE8		2	CSI0-D4	PG8		2	BT-UART-RTS
PB9		I/O	0	PD9		3	LVDS0-V3N	PE9		2	CSI0-D5	PG9		2	BT-UART-CTS
PB10		I/O	0	PD10		2	LCD-D14	PE10		2	CSI0-D6	PG10		2	WL-WAKE-AP
PB11		I/O	I	PD11		2	LCD-D15	PE11		2	CSI0-D7	PG11		2	AP-CK32K-OUT
PB12	I/O	0	PD12	2	LCD-D18	PE12	I/O	CSI0-FSIN		PG12	2	BT-PCM-SYNC			
PC0	VCC-PC	2	UART2-TX	PD13	2	LCD-D19	PE13	I/O		CSI0-RST	PG13	2		BT-PCM-CLK	
PC1		2	UART2-RX	PD14	2	LCD-D20	PE14	I/O		CTP-RST	PG14	2		BT-PCM-DIN	
PC2		3	SDC2-CLK	PD15	2	LCD-D21	PE15	14		CTP-INT	PG15	2		BT-PCM-DOUT	
PC3		3	SDC2-CMD	PD16	2	LCD-D22	PE16	2		CTP-SCK	PG16	I/O		0	
PC4		3	SDC2-D2	PD17	2	LCD-D23	PE17	2	CTP-SDA	PG17	2	UART0-TX			
PC5		3	SDC2-D1	PD18	2	LCD-CLK	PF0	2	SDC0-D1	PG18	2	UART0-RX			
PC6		3	SDC2-D0	PD19	2	LCD-DE	PF1	2	SDC0-D0						
PC7	3	SDC2-D3	PD20	2	LCD-HSYNC	PF2	2	SDC0-CLK							
			PD21	2	LCD-VSYNC	PF3	2	SDC0-CMD							
			PD22	I/O	0	PF4	2	SDC0-D3							
						PF5	2	SDC0-D2							
						PF6	2	SDC0-DET							

POWER

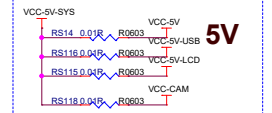
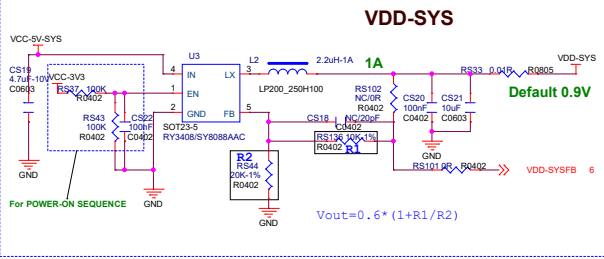
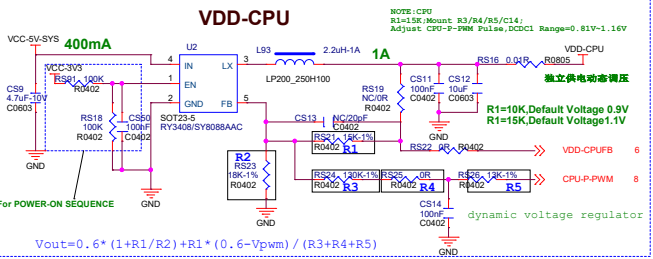
POWER-ON KEY



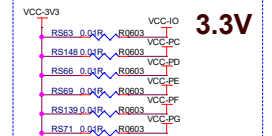
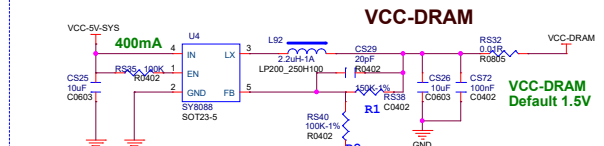
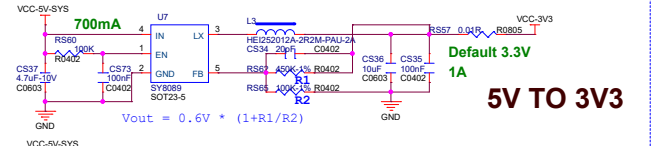
12V TO VCC-5V



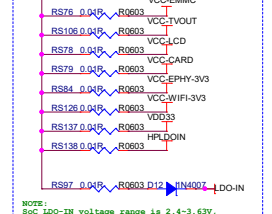
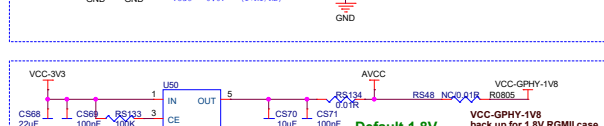
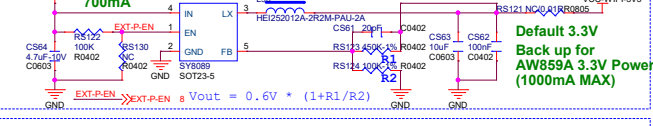
POWER-LED



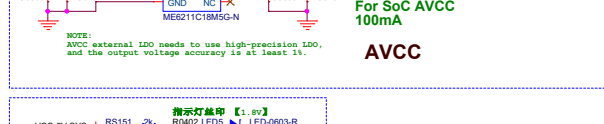
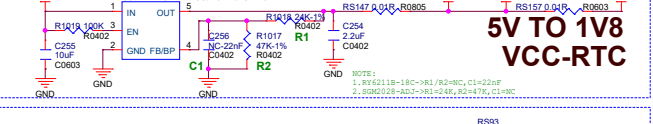
5V



3.3V



1.8V



Allwinner Technology Co., Ltd

Design Name: T1131_EVB

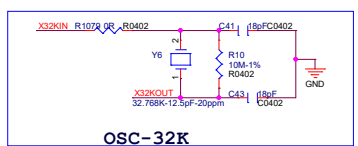
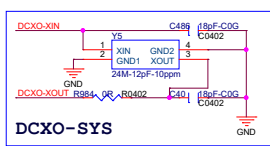
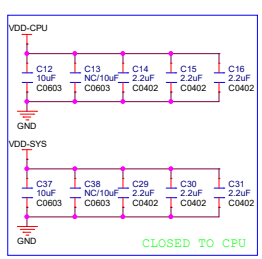
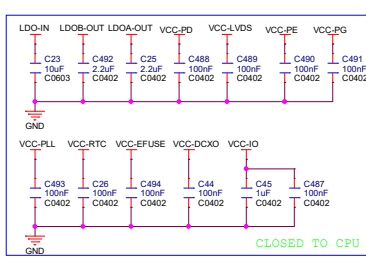
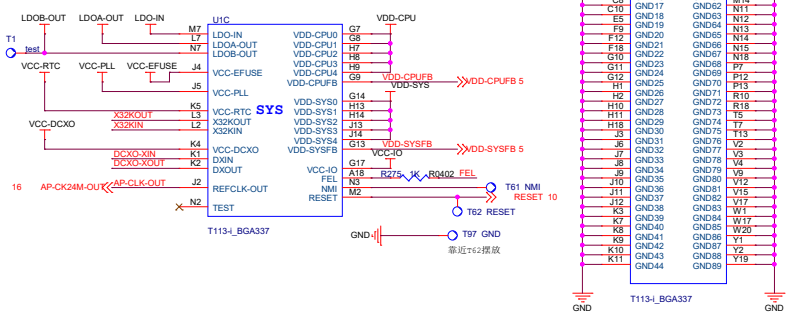
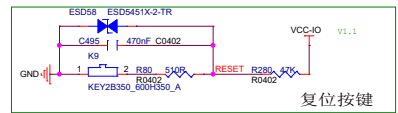
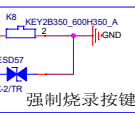
Size: A3 Page Name: 05 POWER Rev: V1.0

Date: Wednesday, May 18, 2022 Sheet: 5 of 19

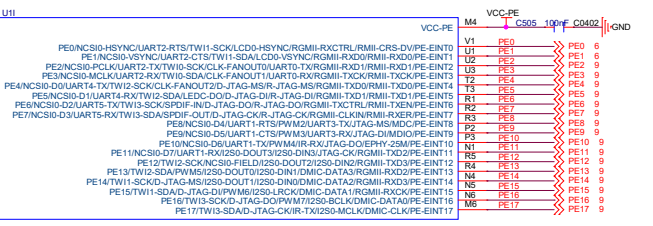
PB
PD



T1131_BGA337

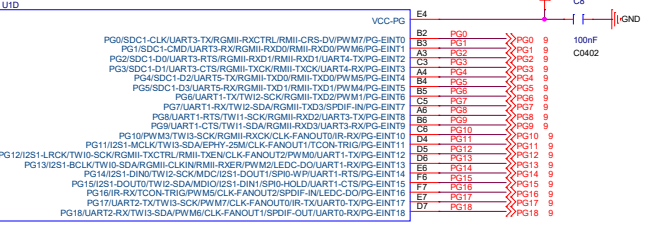


PE



T1131_BGA337

PG

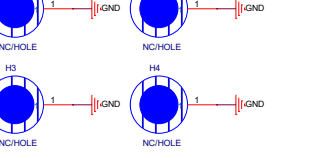
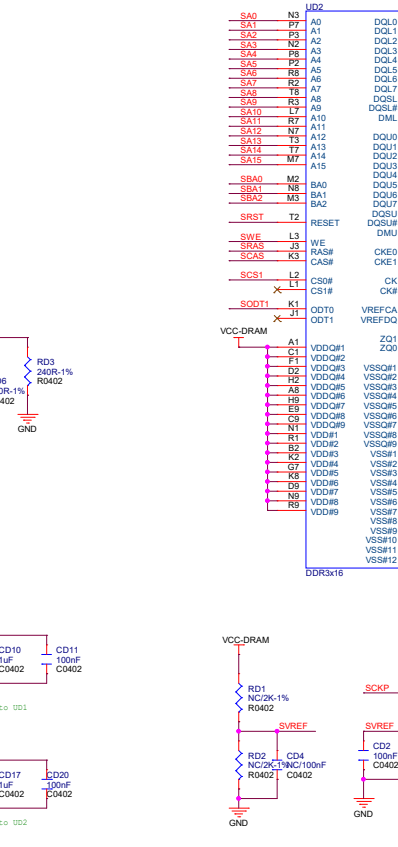
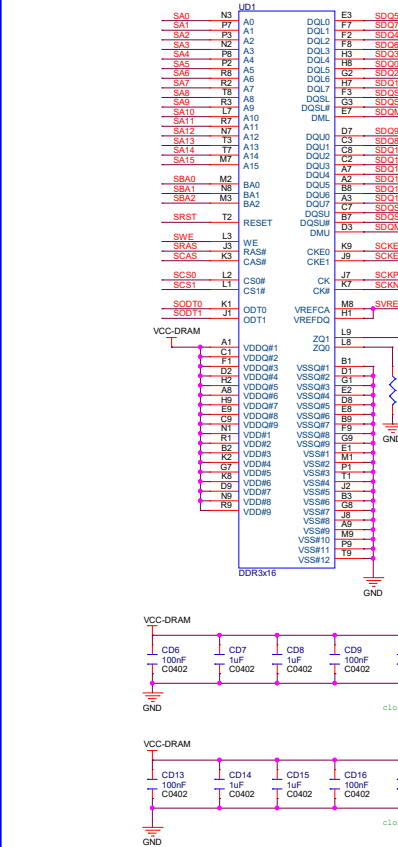
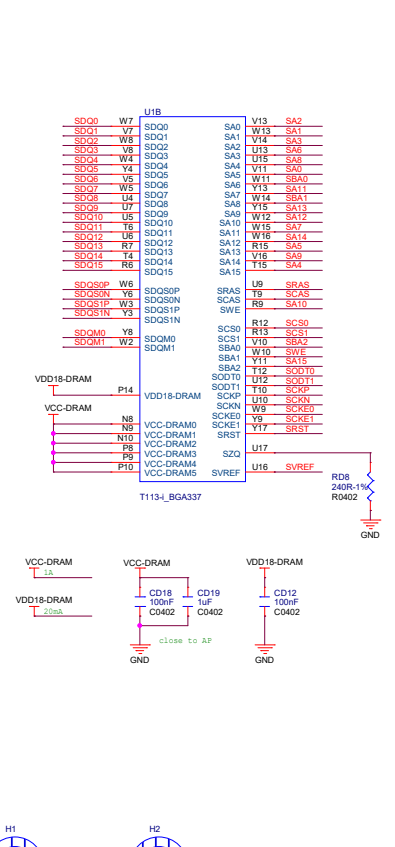


T1131_BGA337

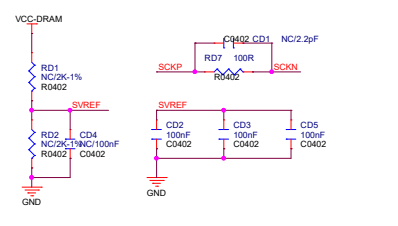
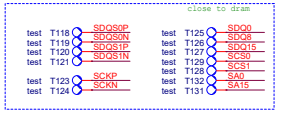
PC/PF See Page 10

Allwinner Technology Co., Ltd. Design Name: T1131_EVB. Size: A3. Page Name: 06 SOC. Date: Wednesday, May 18, 2022. Sheet: 8 of 19.

DDR3 16x2

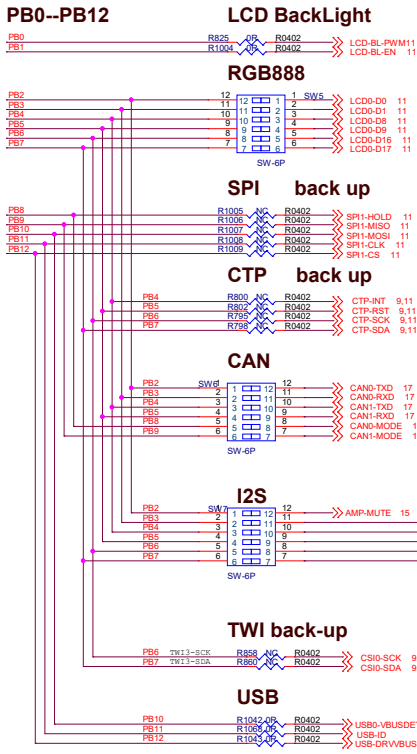


为了方便信号测试，请在过孔处露铜。

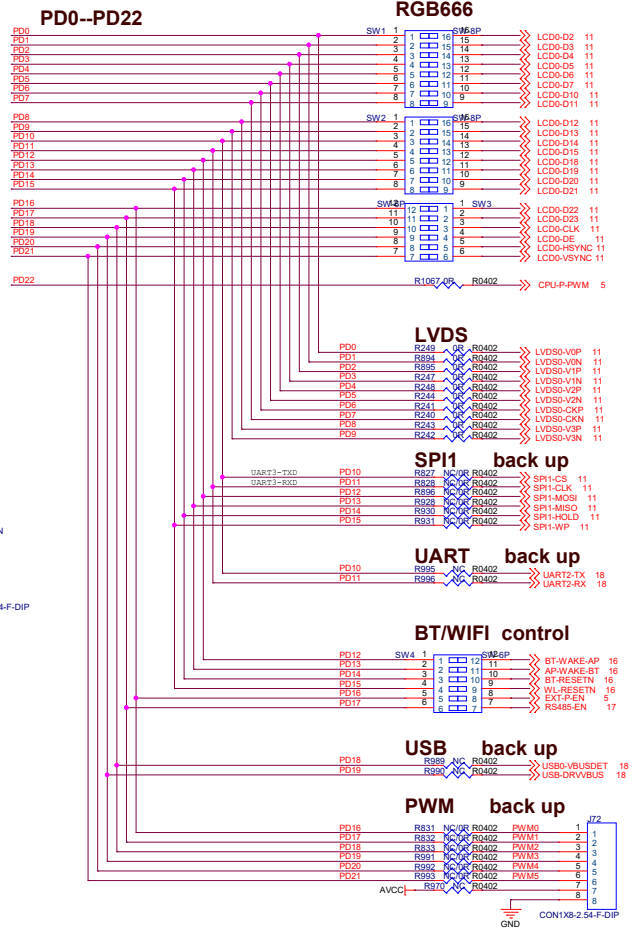


FUNCTION SELECT 1

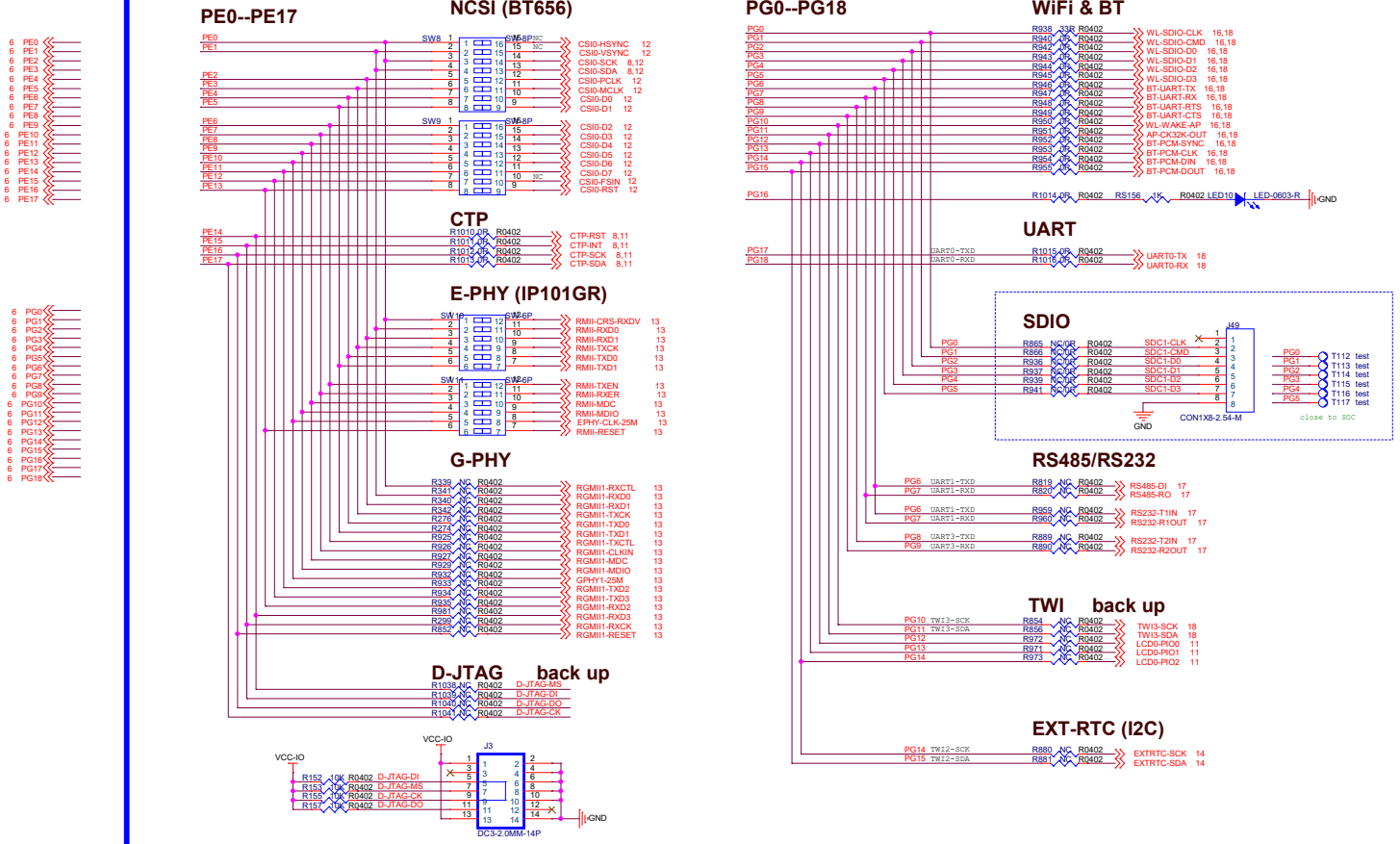
PB0--PB12



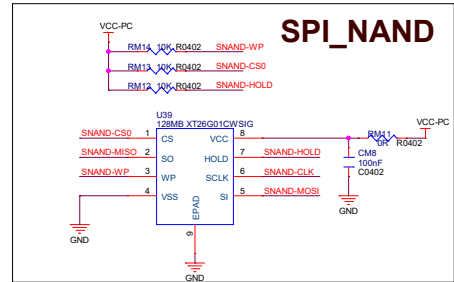
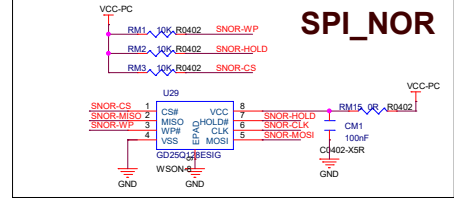
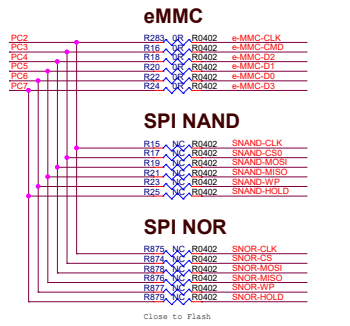
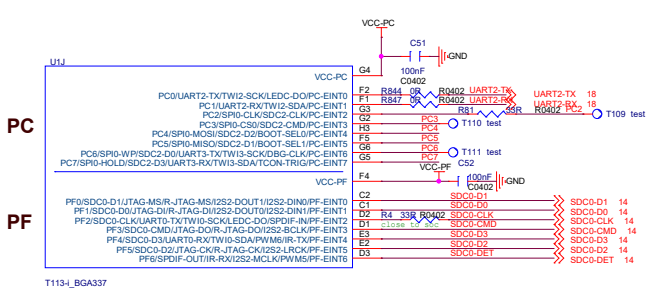
PD0--PD22



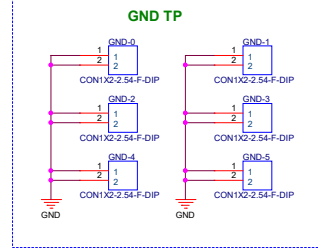
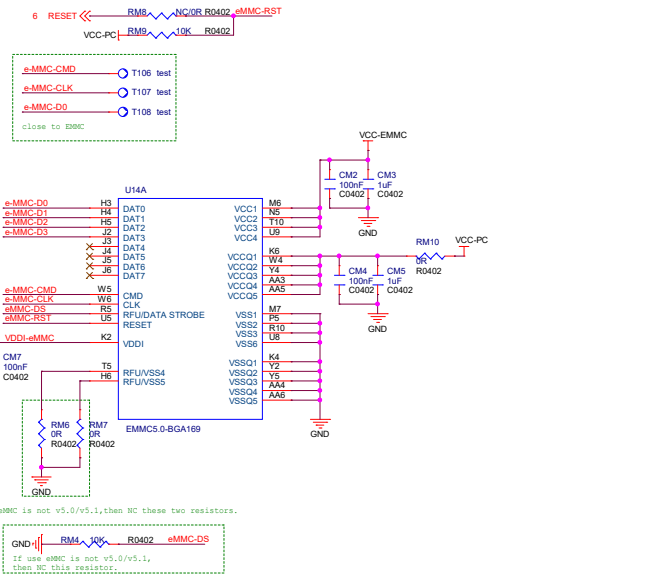
FUNCTION SELECT 2



SOC-FLASH



EMMC



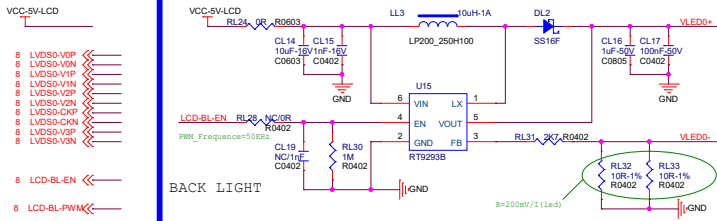
Allwinner Technology Co., Ltd

Design Name: **T1131_EVB**

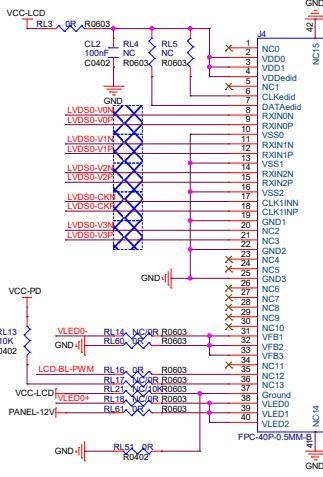
Size: AS Page Name: **10 SOC-FLASH** Rev: V1.0

Date: **Wednesday, May 18, 2022** Sheet: **10 of 19**

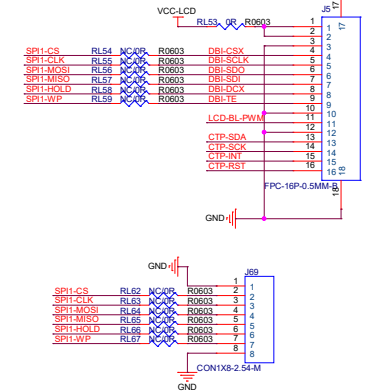
LVDS



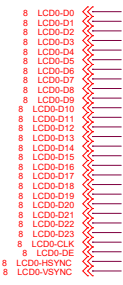
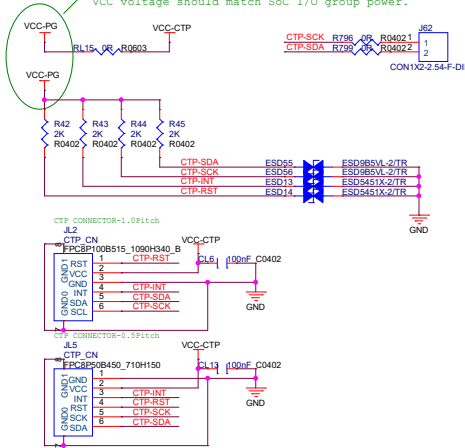
100% Differential pairs
20~100 ohm



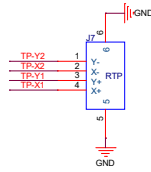
SPI PANEL



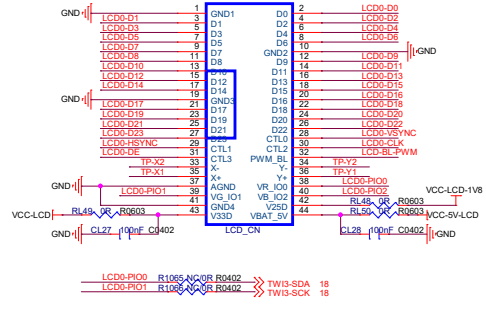
CTP



RTP



RGB LCD / MIPI DSI



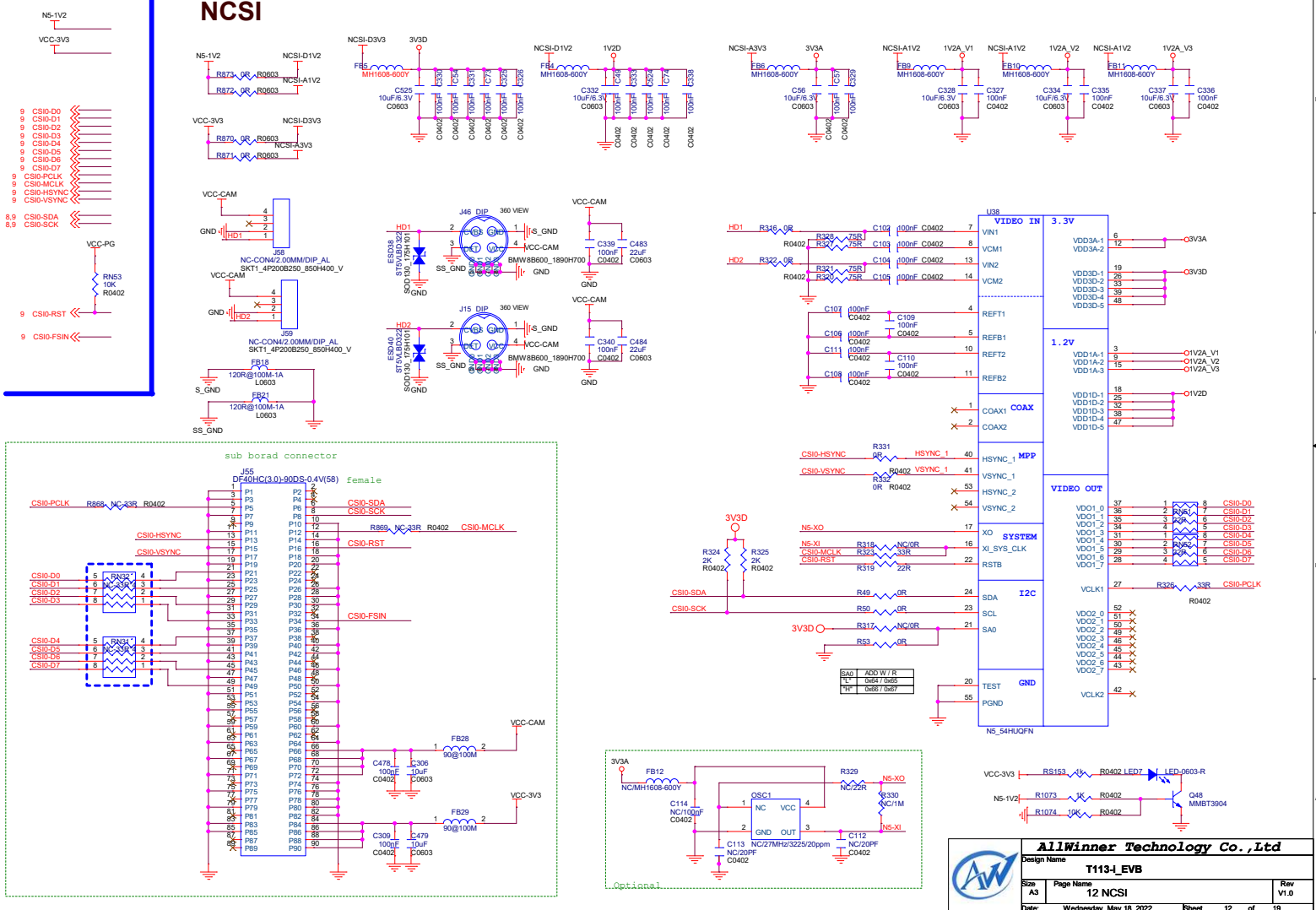
Allwinner Technology Co., Ltd

Design Name: T1131_EVB

Size: A3 Page Name: 11 LCD Rev: V1.0

Date: Wednesday, Mar 18, 2022 Sheet: 11 of 19

NCSI



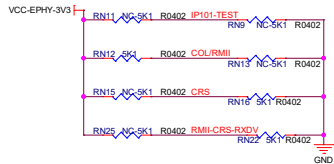
Allwinner Technology Co., Ltd

Design Name: T113_EVB

Size: AS Page Name: 12 NCSI Rev: V1.0

Date: Wednesday, May 18, 2022 Sheet: 12 of 19

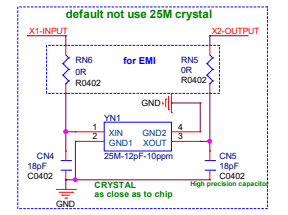
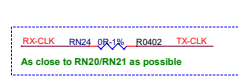
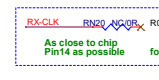
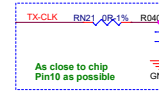
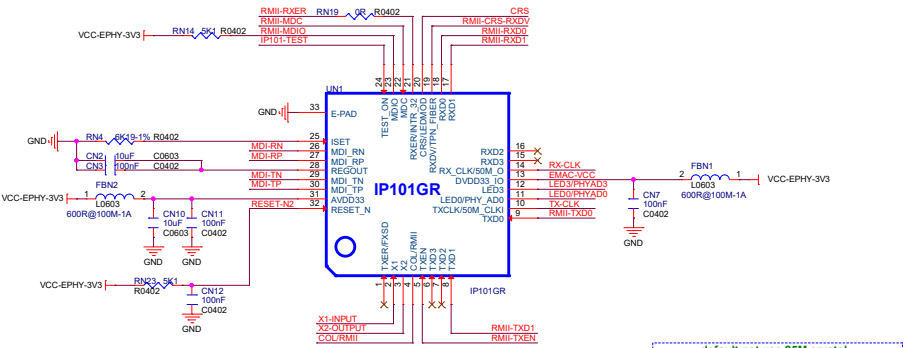
RMII (IP101GR)



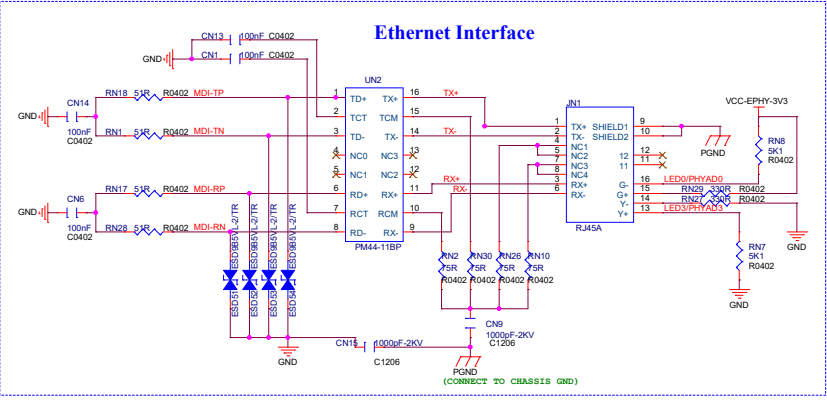
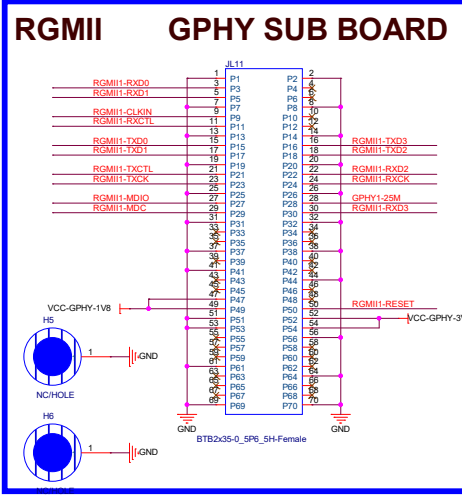
	Pull high	Pull down
COL/RMII(PD)	RMII mode	MI mode
CRS(PD)	LED mode2	LED mode1
TEST	TEST mode	Normal mode
RXDV/CRS_DV/ FX_HEN	TXER,FXSD as FXSD	TXER,FXSD as TXER

	RMII mode	MI mode
COL/RMII(PD)	Pull high	Pull down
RXDV(PD)	CRS&RS_DV	RX_DV

- 9 RMII-RXD1 RMII-RXD1
- 9 RMII-RXD0 RMII-RXD0
- 9 RMII-CRS-RXDV RMII-CRS-RXDV
- 9 RMII-RXER RMII-RXER
- 9 RMII-TXD1 RMII-TXD1
- 9 RMII-TXD0 RMII-TXD0
- 9 RMII-TXCK RMII-TXCK
- 9 RMII-TXEN RMII-TXEN
- 9 RMII-MDC RMII-MDC
- 9 RMII-MDIO RMII-MDIO
- 9,18 RMII-RESET RESET-N2
- 9 EPHY-CLK-25M



- 9 RGMII-RXD0 RGMII-RXD0
- 9 RGMII-RXD1 RGMII-RXD1
- 9 RGMII-TXCK RGMII-TXCK
- 9 RGMII-TXD0 RGMII-TXD0
- 9 RGMII-TXD1 RGMII-TXD1
- 9 RGMII-TXD2 RGMII-TXD2
- 9 RGMII-TXD3 RGMII-TXD3
- 9 RGMII-MDIO RGMII-MDIO
- 9 RGMII-RXCK RGMII-RXCK
- 9 RGMII-RESET RGMII-RESET



Allwinner Technology Co., Ltd

Design Name: T1131_EVB

Size: AS

Page Name: 13 RMII(IP101GR)

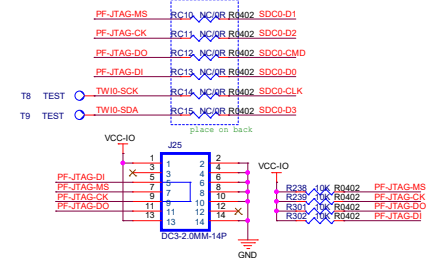
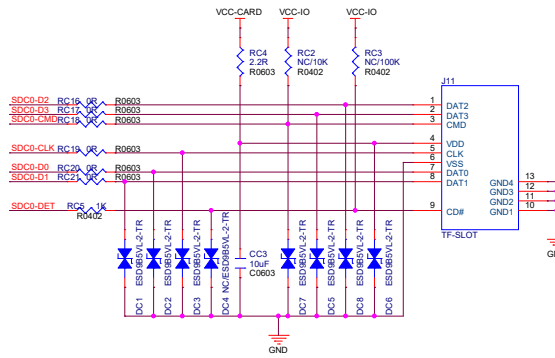
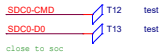
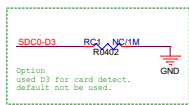
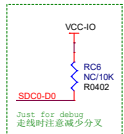
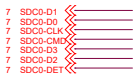
Date: Wednesday, May 18, 2022

Sheet: 18 of 19

Rev: V1.0

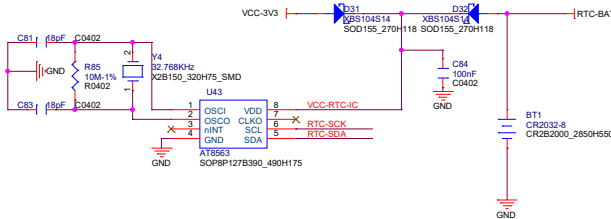
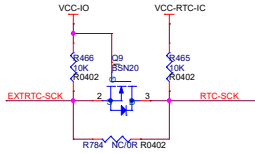
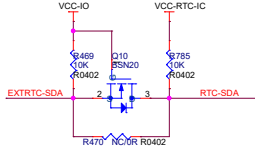
TF Card

VCC-CARD



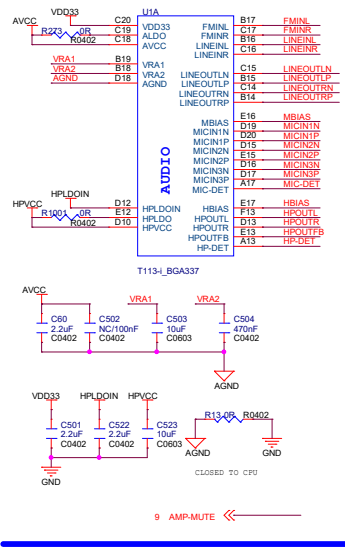
EXT-RTC

VCC-IO

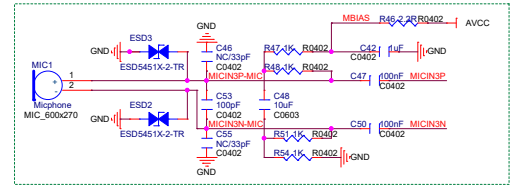
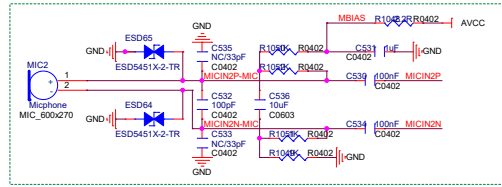


Allwinner Technology Co., Ltd			
Design Name			
T1131_EVB			
Size	Page Name	Rev	
A3	14 CARD USB	V1.0	
Date:	Wednesday, May 18, 2022	Sheet	14 of 19

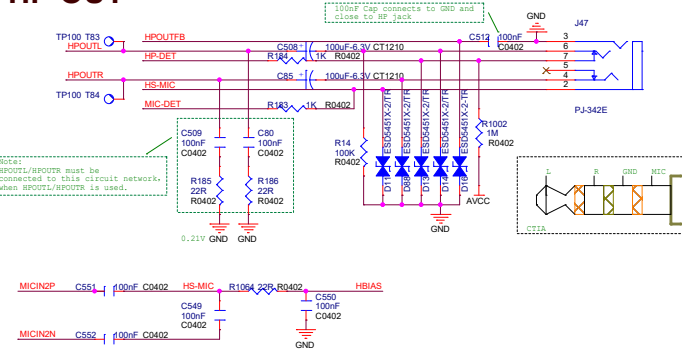
AUDIO



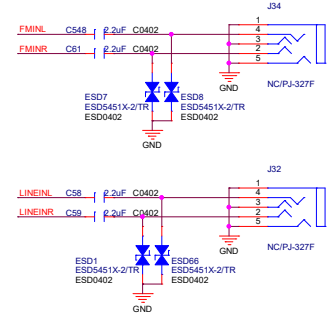
MIC IN



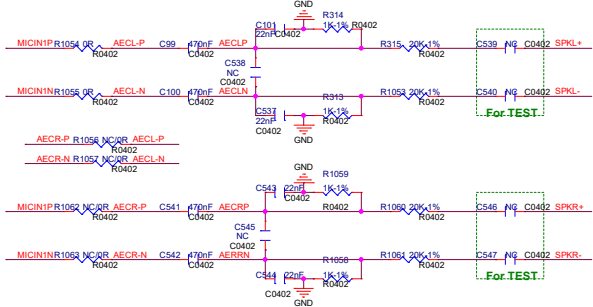
HP OUT



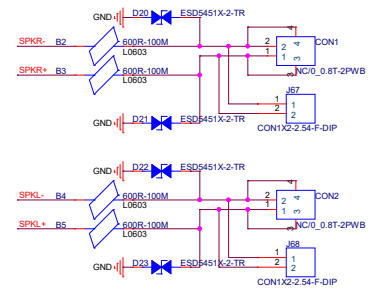
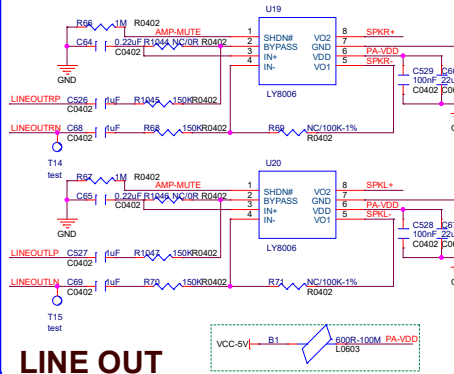
FMIN LINEIN



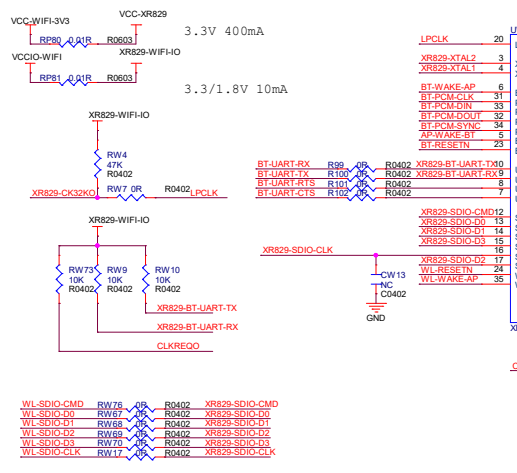
AEC



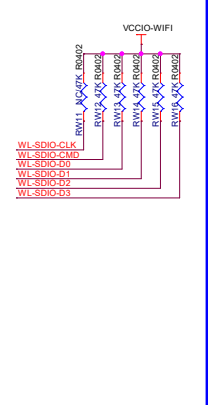
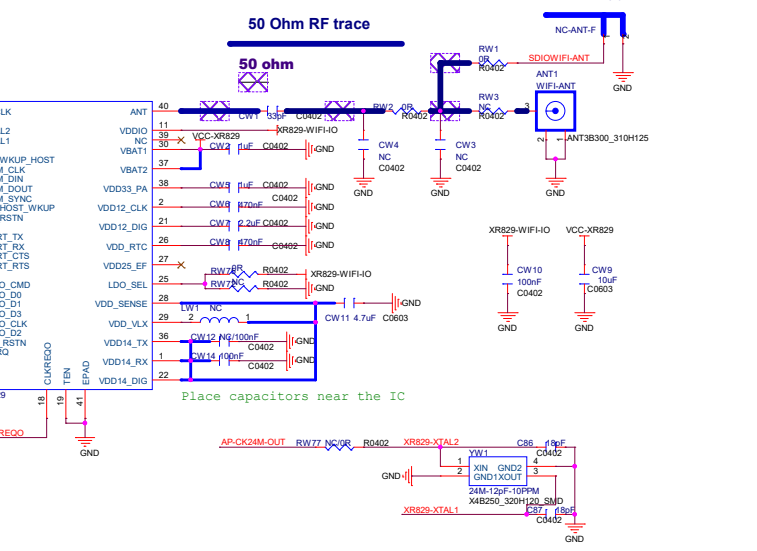
LINE OUT



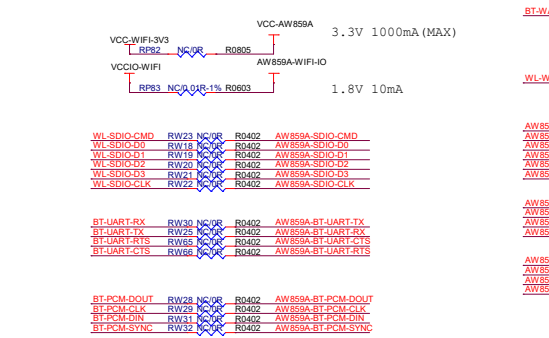
XR829 ON BOARD



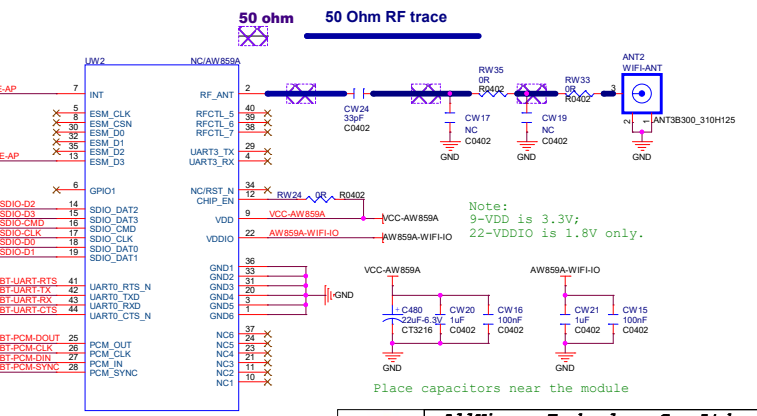
WL-SDIO-CMD	RW78	0R	R0402	XR829-SDIO-CMD
WL-SDIO-D0	RW67	0R	R0402	XR829-SDIO-D0
WL-SDIO-D1	RW68	0R	R0402	XR829-SDIO-D1
WL-SDIO-D2	RW69	0R	R0402	XR829-SDIO-D2
WL-SDIO-D3	RW70	0R	R0402	XR829-SDIO-D3
WL-SDIO-D4	RW71	0R	R0402	XR829-SDIO-D4
WL-SDIO-D5	RW72	0R	R0402	XR829-SDIO-D5
WL-SDIO-D6	RW73	0R	R0402	XR829-SDIO-D6
WL-SDIO-D7	RW74	0R	R0402	XR829-SDIO-D7
BT-UART-RX	RW30	0R	R0402	XR829-BT-UART-RX
BT-UART-TX	RW29	0R	R0402	XR829-BT-UART-TX
BT-UART-CTS	RW28	0R	R0402	XR829-BT-UART-CTS
BT-UART-RTS	RW27	0R	R0402	XR829-BT-UART-RTS
BT-PCM-DOUT	RW28	0R	R0402	XR829-BT-PCM-DOUT
BT-PCM-CLK	RW29	0R	R0402	XR829-BT-PCM-CLK
BT-PCM-DIN	RW30	0R	R0402	XR829-BT-PCM-DIN
BT-PCM-SYNC	RW31	0R	R0402	XR829-BT-PCM-SYNC



AW859A Module



WL-SDIO-CMD	RW23	NC/0R	R0402	AW859A-SDIO-CMD
WL-SDIO-D0	RW18	0R	R0402	AW859A-SDIO-D0
WL-SDIO-D1	RW19	0R	R0402	AW859A-SDIO-D1
WL-SDIO-D2	RW20	0R	R0402	AW859A-SDIO-D2
WL-SDIO-D3	RW21	0R	R0402	AW859A-SDIO-D3
WL-SDIO-D4	RW22	0R	R0402	AW859A-SDIO-D4
BT-UART-RX	RW30	0R	R0402	AW859A-BT-UART-RX
BT-UART-TX	RW29	0R	R0402	AW859A-BT-UART-TX
BT-UART-CTS	RW28	0R	R0402	AW859A-BT-UART-CTS
BT-UART-RTS	RW27	0R	R0402	AW859A-BT-UART-RTS
BT-PCM-DOUT	RW28	0R	R0402	AW859A-BT-PCM-DOUT
BT-PCM-CLK	RW29	0R	R0402	AW859A-BT-PCM-CLK
BT-PCM-DIN	RW30	0R	R0402	AW859A-BT-PCM-DIN
BT-PCM-SYNC	RW31	0R	R0402	AW859A-BT-PCM-SYNC



Allwinner Technology Co., Ltd

Design Name: T1131_EVB

Size: AS

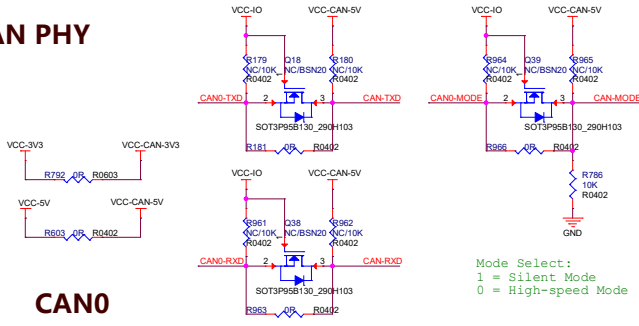
Page Name: 16 WIFI+BT

Date: Wednesday, May 18, 2022

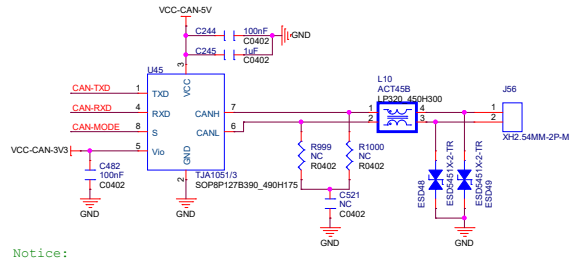
Sheet: 16 of 19

Rev: V1.0

CAN PHY



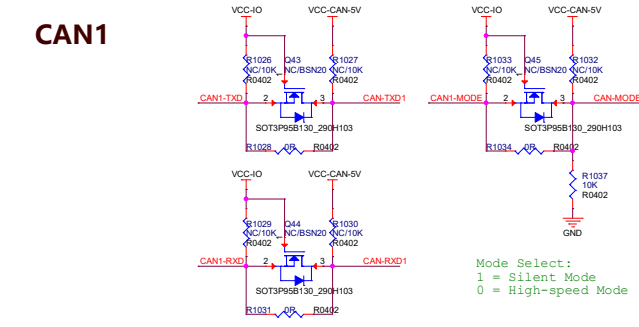
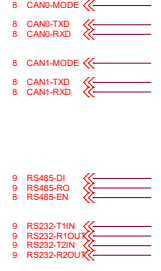
Mode Select:
1 = Silent Mode
0 = High-speed Mode



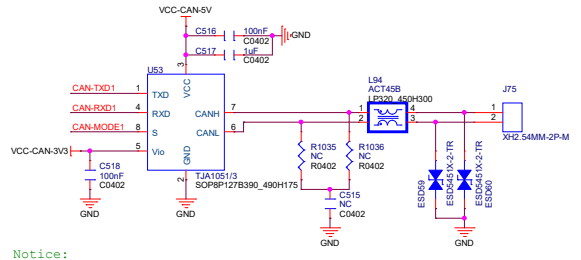
Notice:
If use 5V CAN Transceiver, must check I/O level and consider to use level shift circuit.
If CAN Transceiver support 3.3V I/O level, level shift circuit should not mounted.

CAN0

CAN1

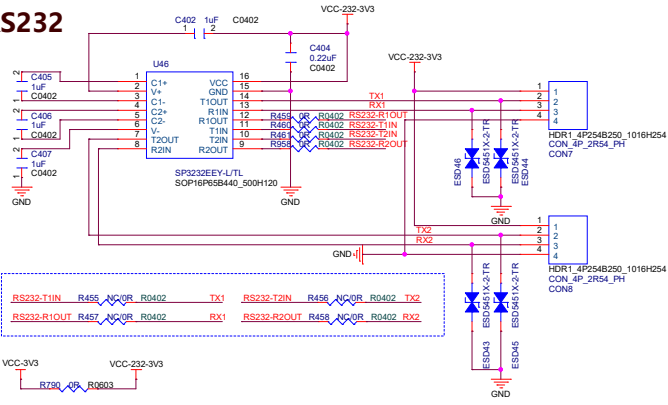


Mode Select:
1 = Silent Mode
0 = High-speed Mode

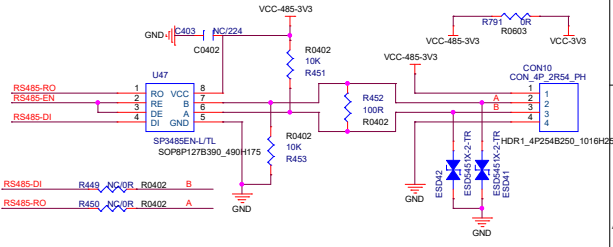


Notice:
If use 5V CAN Transceiver, must check I/O level and consider to use level shift circuit.
If CAN Transceiver support 3.3V I/O level, level shift circuit should not mounted.

RS232

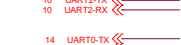
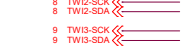
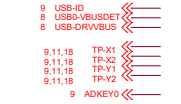
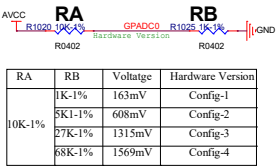
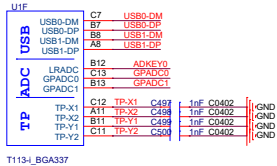


RS485

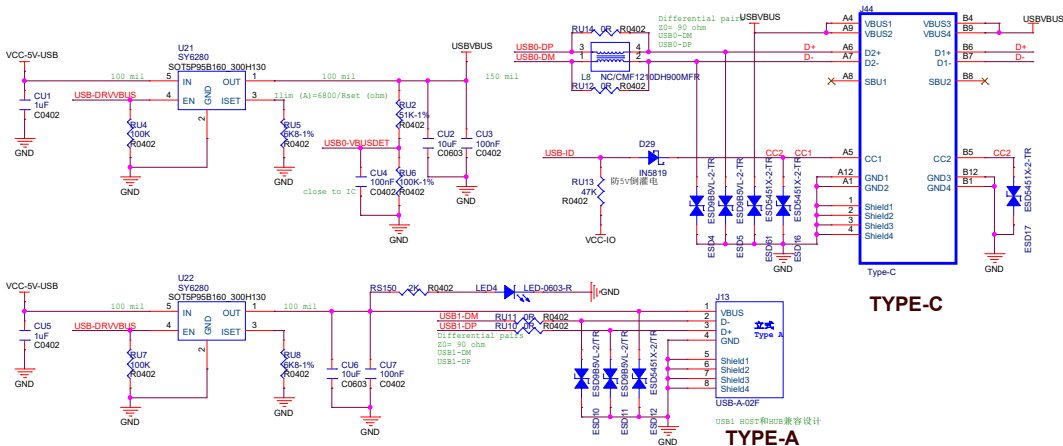


Allwinner Technology Co., Ltd			
Design Name			
T1131_EVB			
Size	Page Name	Rev	
A3	17 CAN RS232 RS485	V1.0	
Date	Wednesday, Mar 18, 2022	Sheet	17 of 19

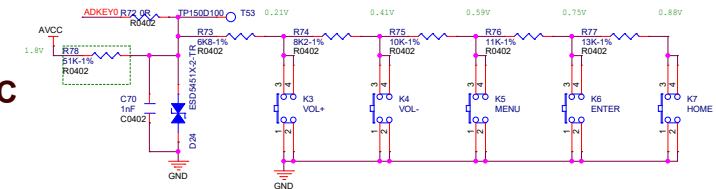
SOC-USB



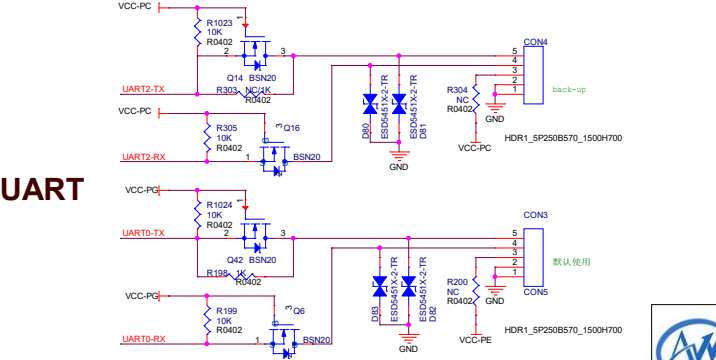
USB



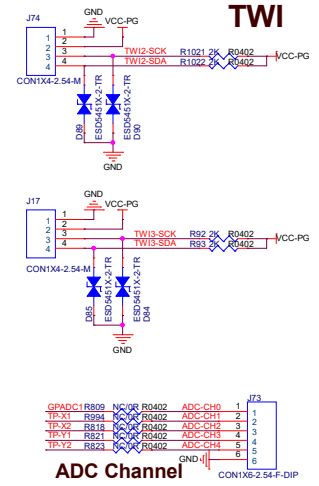
KEY ADC



DEBUG UART



TWI



Allwinner Technology Co., Ltd

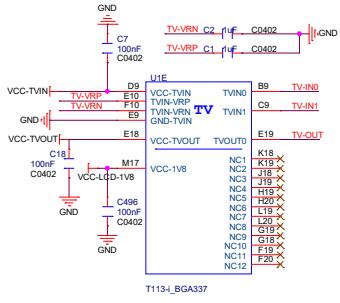
Design Name: T1131_EVB

Page Name: 18 USB KEY TWI URAT CON

Date: Wednesday, Mar 18, 2022

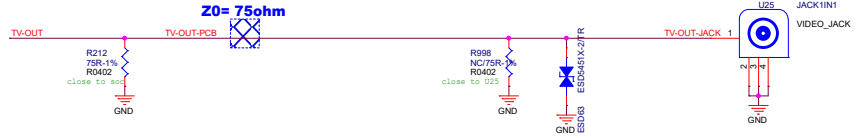
Sheet 18 of 19

SOC-TV

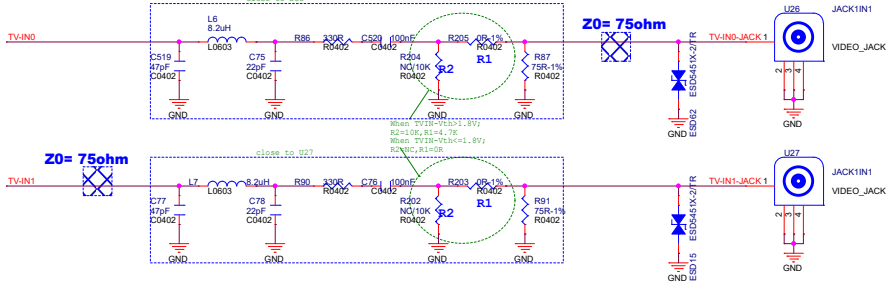


T1134_BGA337

TV OUT



TV IN



AllWinner Technology Co., Ltd		
Design Name T1134_EVB		
Size AS	Page Name 19 TVIN TVOUT	Rev V1.0
Date Wednesday, May 18, 2022	Sheet 19	of 19