PRO-A311D CORE BOARD
PRO-S905 CORE BOARD
BLOCK DIAGRAM

UART x5

UART_AO_A or DEBUG UART0
UART_AO_B x1 UART4
UART_EE_A or BLUETOOTH UART1
UART_EE_B or WIFI GPIO UART2
UART_EE_C or RS485 UART3

PWM x6

PWMA or WIFI GPIO
PWMB or WIFI GPIO
PWMC or WIFI GPIO
PWMD or WIFI GPIO
PWME or WIFI 32.768K
PWMF or LCD PWM

VIDEO OUTPUT

MIPI DSI LCD x1
HDMI x1
CVBS OUT x1
ISO7816 x1 or GPIO

VIDEO INPUT

MIPI CSI CAMERA x2
CAMERA DVP x1 or GPIO
TSIN x2 or GPIO

AUDIO

AUDIO SPK 0.8W x1
TDM/I2S x1 or GPIO
SPDIF OUT x1 or GPIO

PCIE / USB x3

HOST 2.0 x1
OTG 2.0 x1
HOST 3.0 x1 or PCIE

A311D
CPU AMLOGIC
Quad Core A73
Dual-Core A53
GPU G52 MP4
NPU 5.0Tops

S905
CPU AMLOGIC
Quad Core A55
GPU G31 MP2
NPU 1.2Tops

LPDD4
1GB/2GB/4GB

EMMC 5.1
8GB-128GB

SDIO x2

SDIO0 or TF Card
SDIO1 or WIFI

SPI x2

SPI_A or BT PCM
SPI_B or GPIO/UART

I2C x4

I2C_AO_M0 or RTC/CAMERA1
I2C_EE_M1 or BT PCM
I2C_EE_M2 or GPIO/CAMERA2
I2C_EE_M3 or TOUCH

ADC x4

ADC INPUT x4

IR RX x1

IR RX x1

GPIO x80

GPIO REPEAT x80

GMAC PHY

GMAC ETHERNET or GPIO

EMAC 10/100M

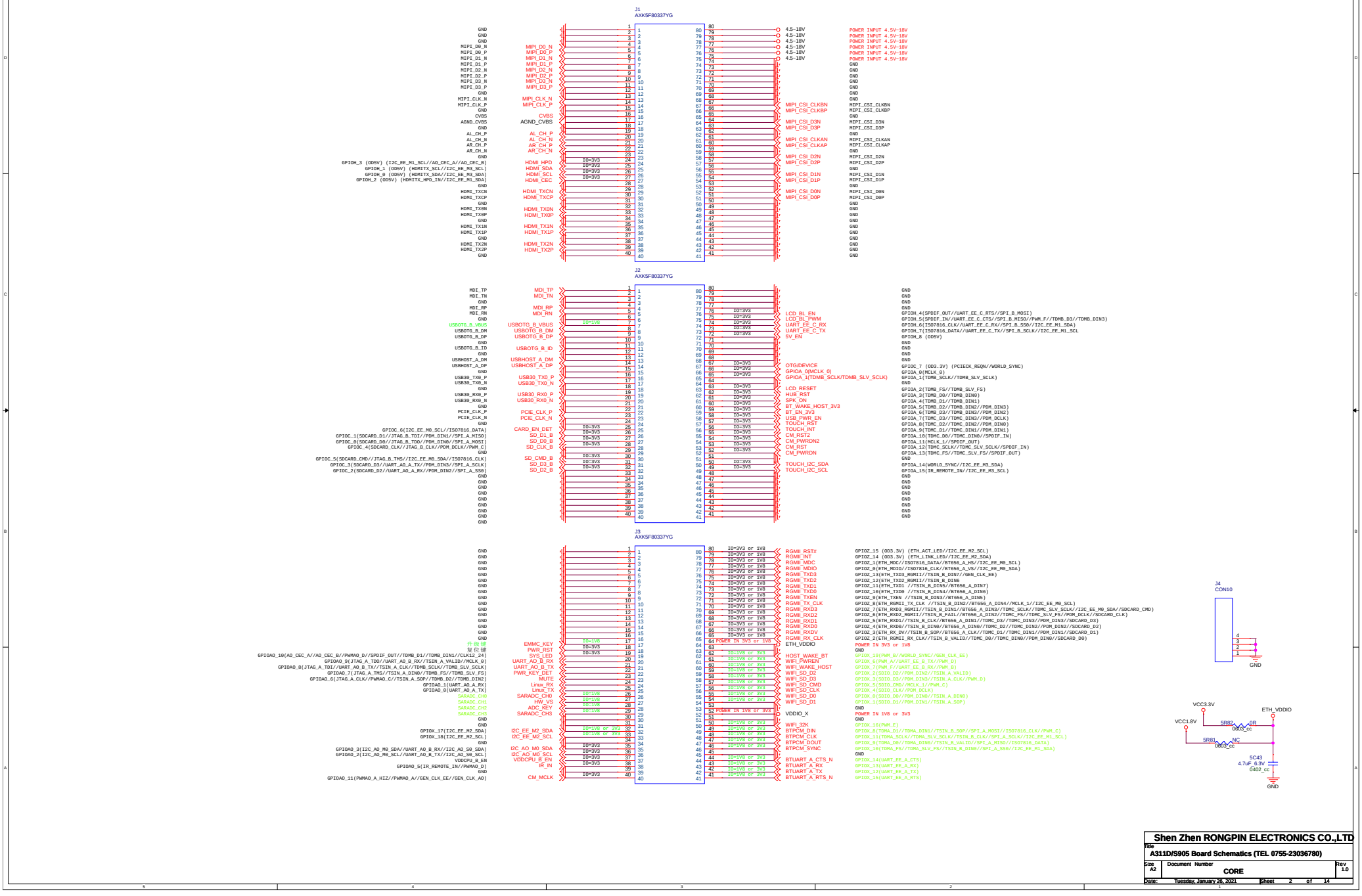
ETHNENET MAC x1

Shen Zhen RONGPIN ELECTRONICS CO.,LTD

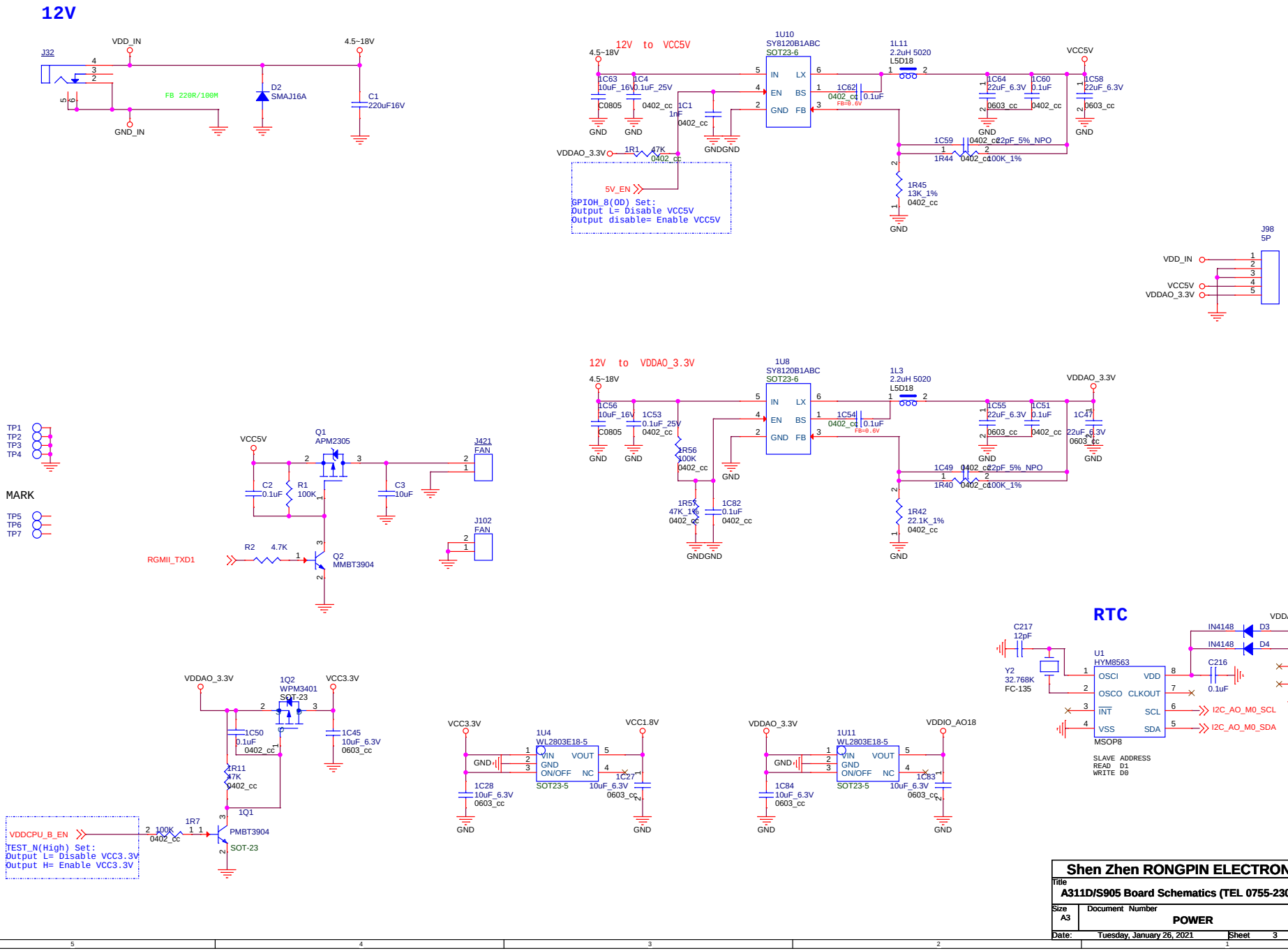
Title: **A311D/S905 Board Schematics (TEL 0755-23036780)**

Size	Document Number	Rev
B	BLOCK	1.0

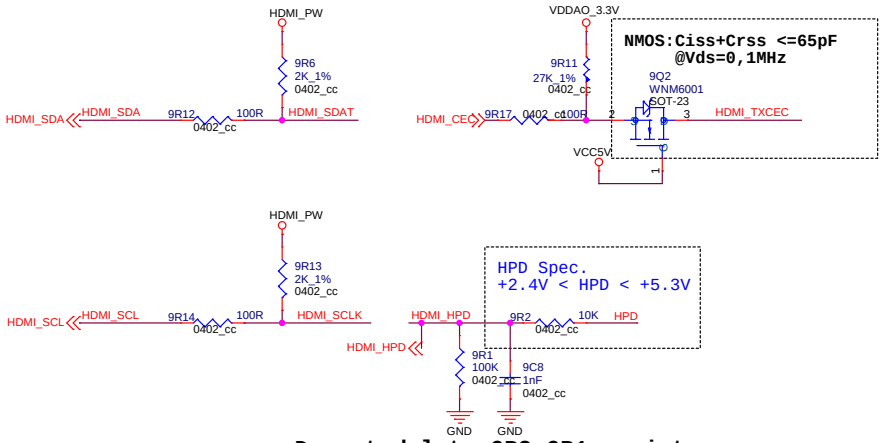
Date: Wednesday, January 27, 2021 Sheet 1 of 14



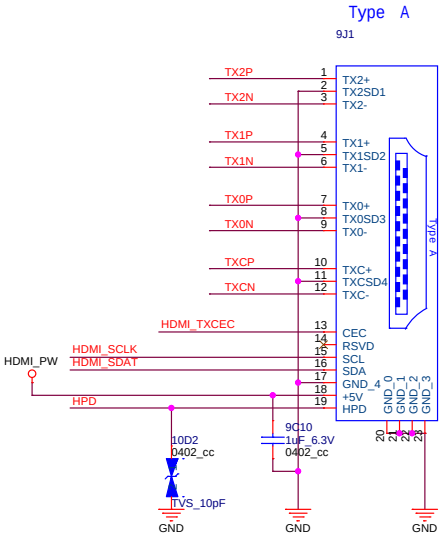
Shen Zhen RONGPIN ELECTRONICS CO.,LTD			
Title: A311D/S905 Board Schematics (TEL 0755-23036780)			
Size: A2	Document Number: CORE		Rev: 1.0
Date: Tuesday, January 26, 2021	Sheet 2 of 14		



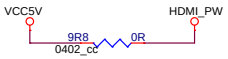
Shen Zhen RONGPIN ELECTRONICS CO.,LTD		
Title: **A311D/S905 Board Schematics (TEL 0755-23036780)**		
Size: A3	Document Number: **POWER**	Rev: 1.0
Date: Tuesday, January 26, 2021	Sheet 3 of 14	

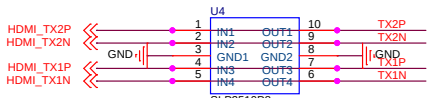


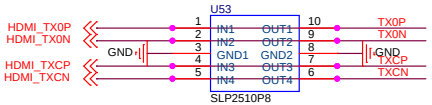
Do not delete 9R2 9R1 resistors

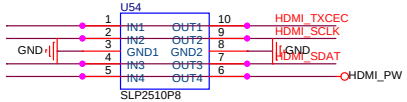


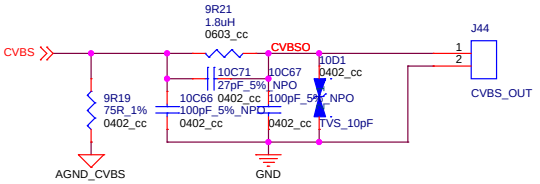
HDMI(power)Spec.
+4.8V < PVDD5 < +5.3V

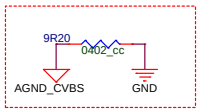












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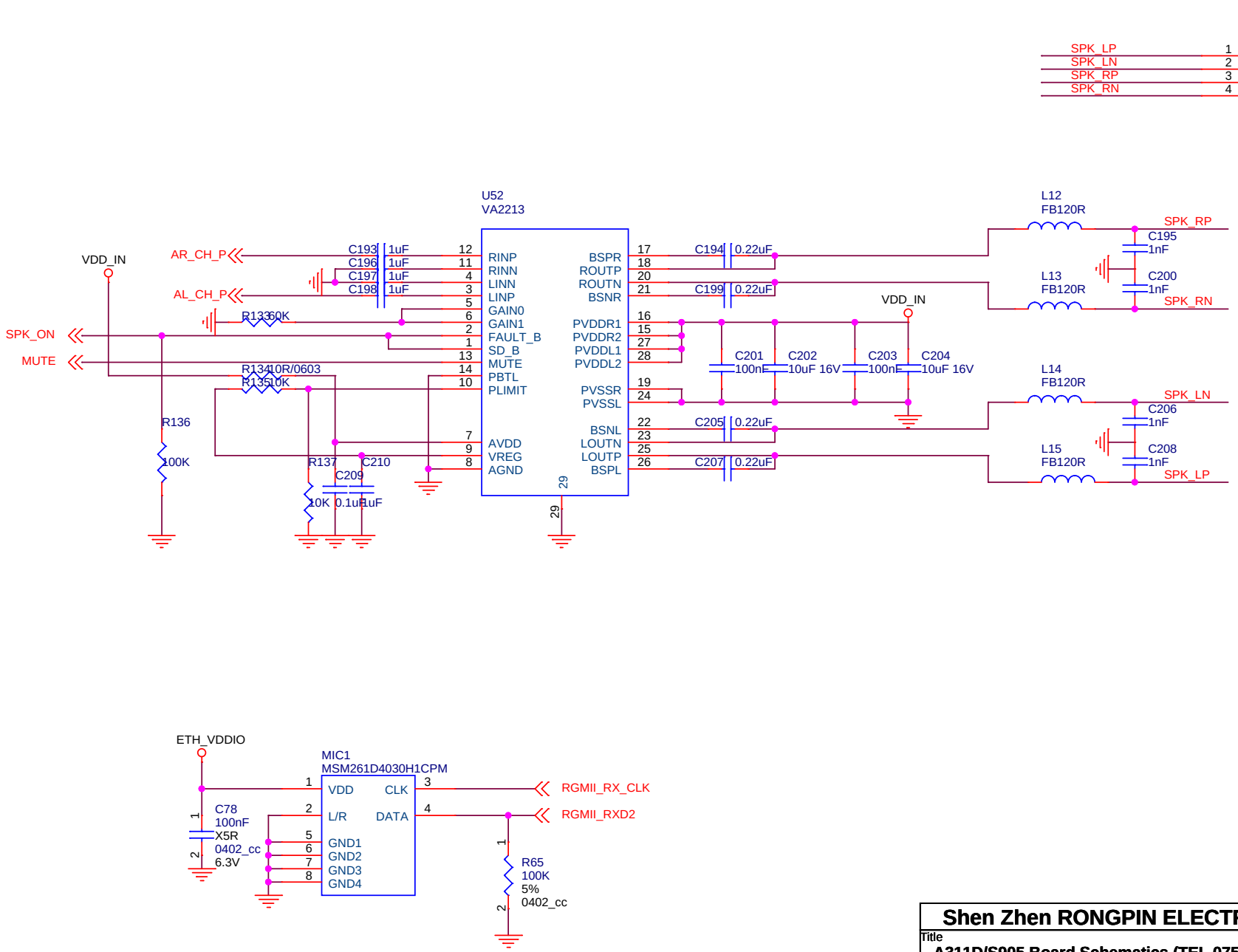
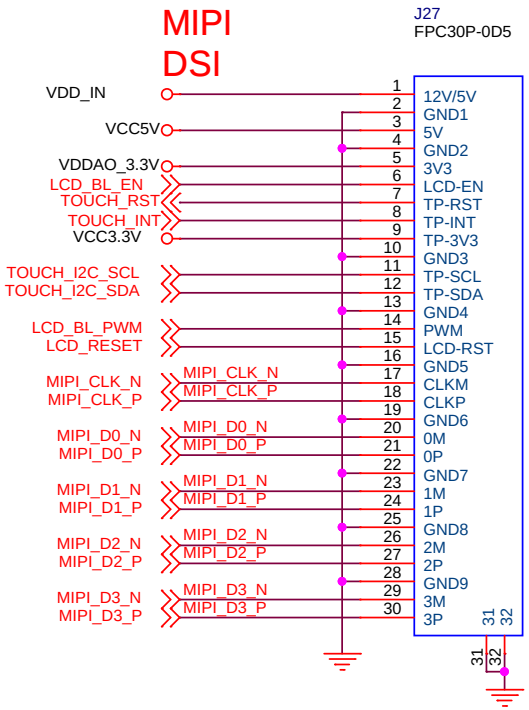
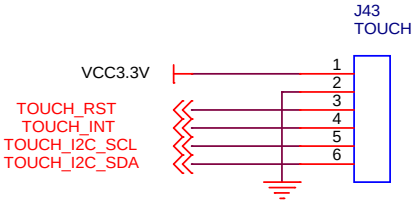
Title: **A311D/S905 Board Schematics (TEL 0755-23036780)**		
Size: A3	Document Number: **HDMI**	Rev: 1.0
Date: Tuesday, January 26, 2021	Sheet 4 of 14	



Shen Zhen RONGPIN ELECTRONICS CO.,LTD		
Title: **A311D/S905 Board Schematics (TEL 0755-23036780)**		
Size: A4	Document Number: **AUDIO**	Rev: 1.0
Date: Tuesday, January 26, 2021	Sheet 5 of 14	





Shen Zhen RONGPIN ELECTRONICS CO.,LTD

Title: **A311D/S905 Board Schematics (TEL 0755-23036780)**

Size	Document Number	Rev
A4	**MIPI DSI**	1.0

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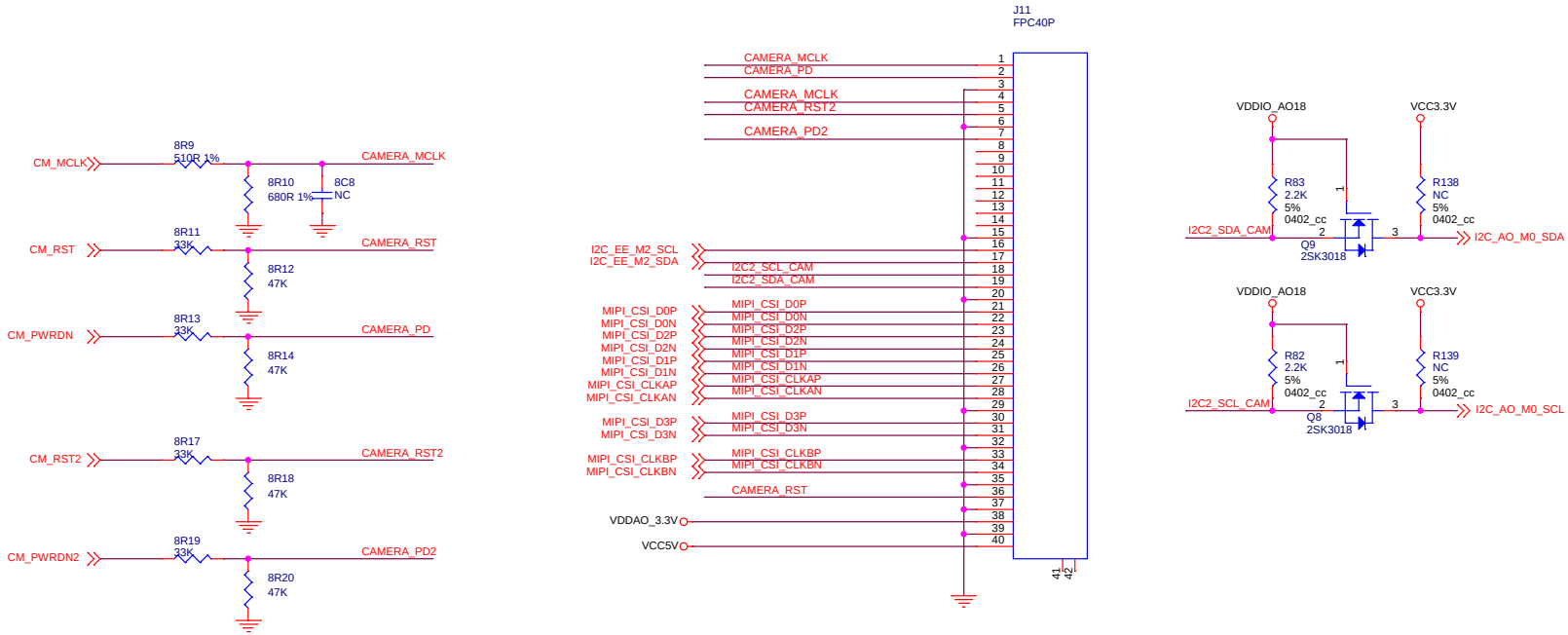
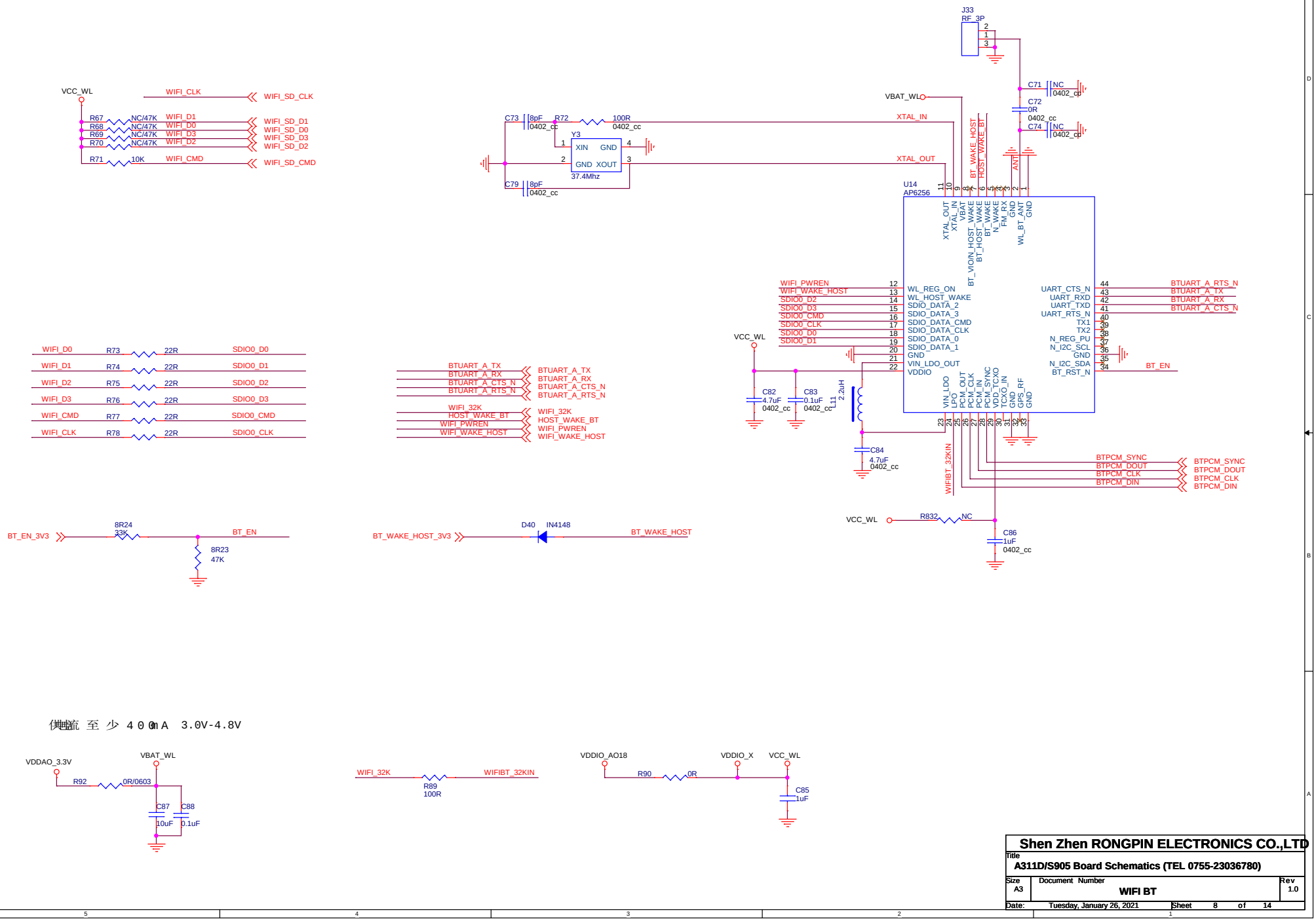
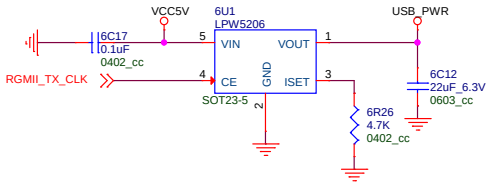
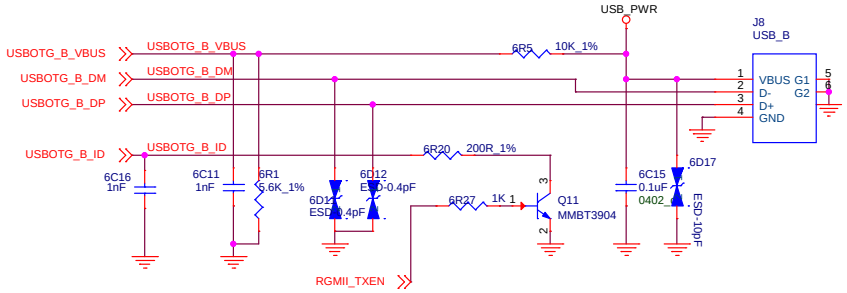


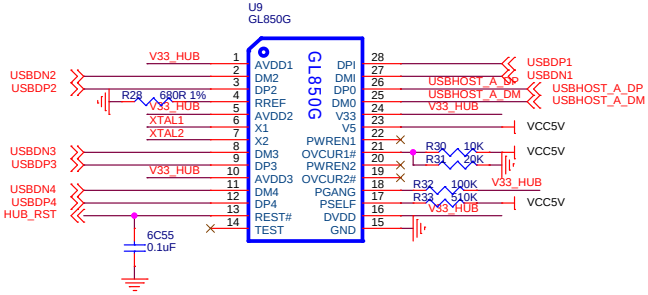
Shen Zhen RONGPIN ELECTRONICS CO.,LTD		
Title: **A311D/S905 Board Schematics (TEL 0755-23036780)**		
Size: A3	Document Number: **MIPI CSI**	Rev: 1.0
Date: Tuesday, January 26, 2021	Sheet 7 of 14	

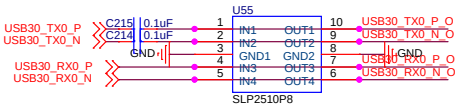


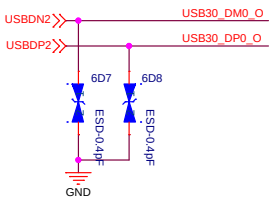
Shen Zhen RONGPIN ELECTRONICS CO.,LTD		
Title: A311D/S905 Board Schematics (TEL 0755-23036780)		
Size: A3	Document Number: WIFI BT	Rev: 1.0
Date: Tuesday, January 26, 2021	Sheet 8 of 14	

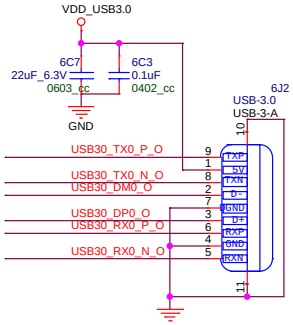


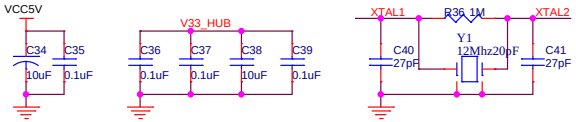


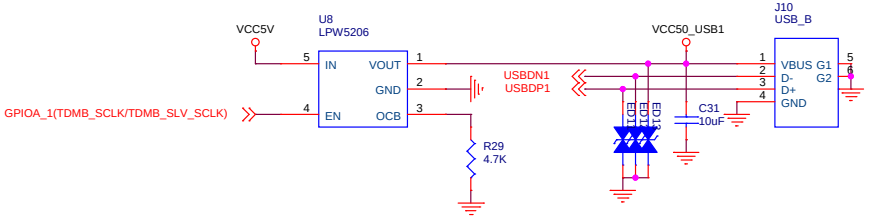


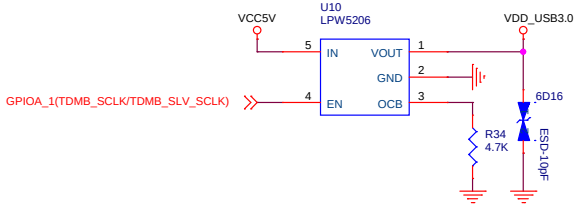


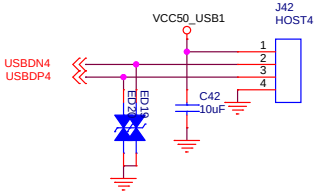












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Title: **A311D/S905 Board Schematics (TEL 0755-23036780)**

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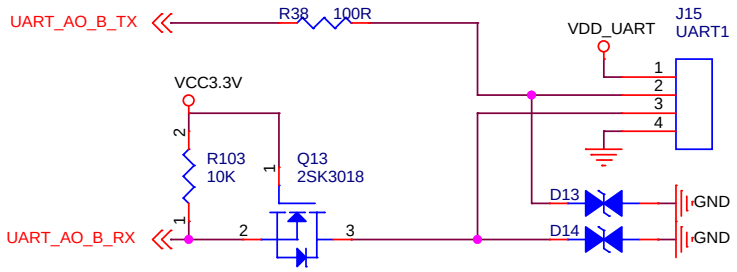
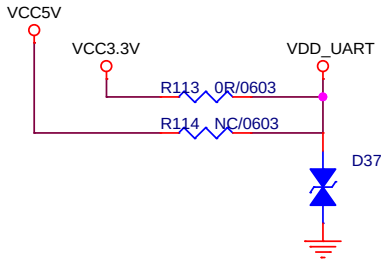
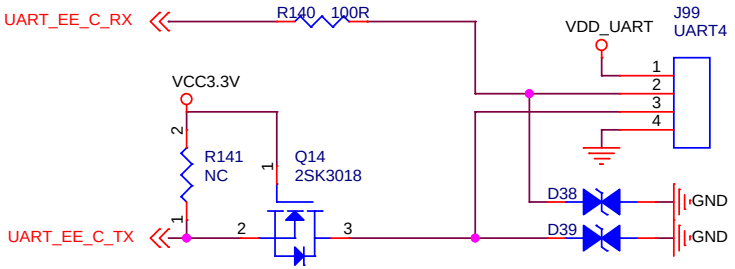
TTL UART4

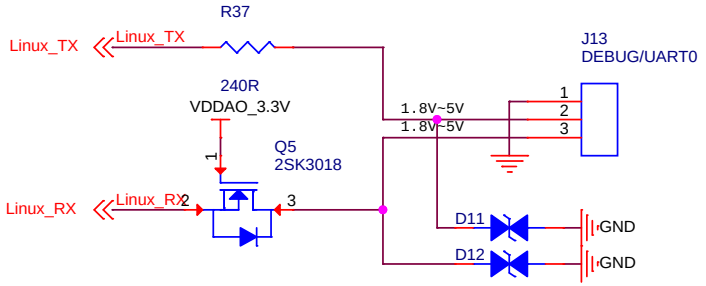




TTL UART3



For linux debug



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Size: A4	Document Number: UART RS485	Rev: 1.0
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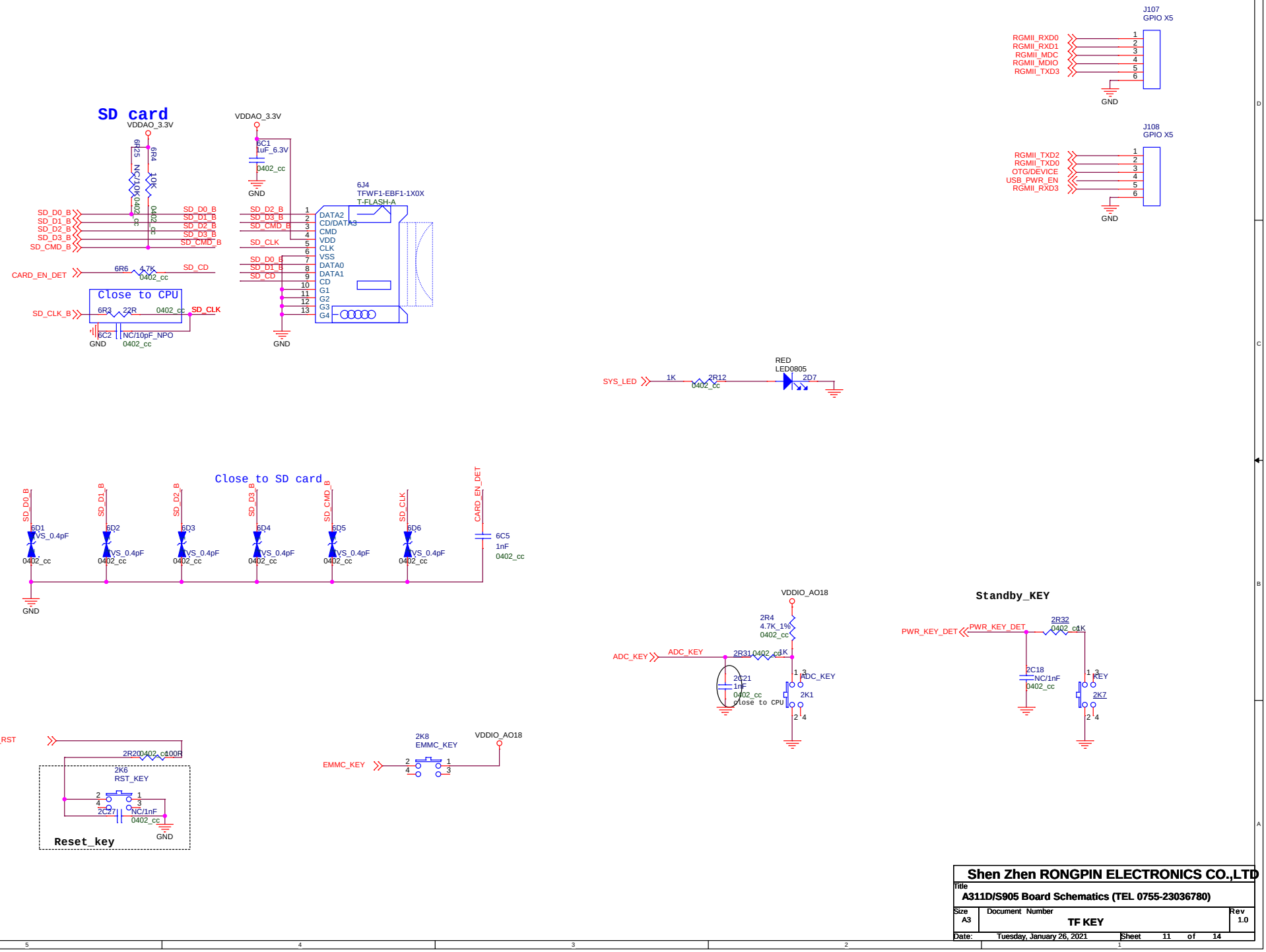
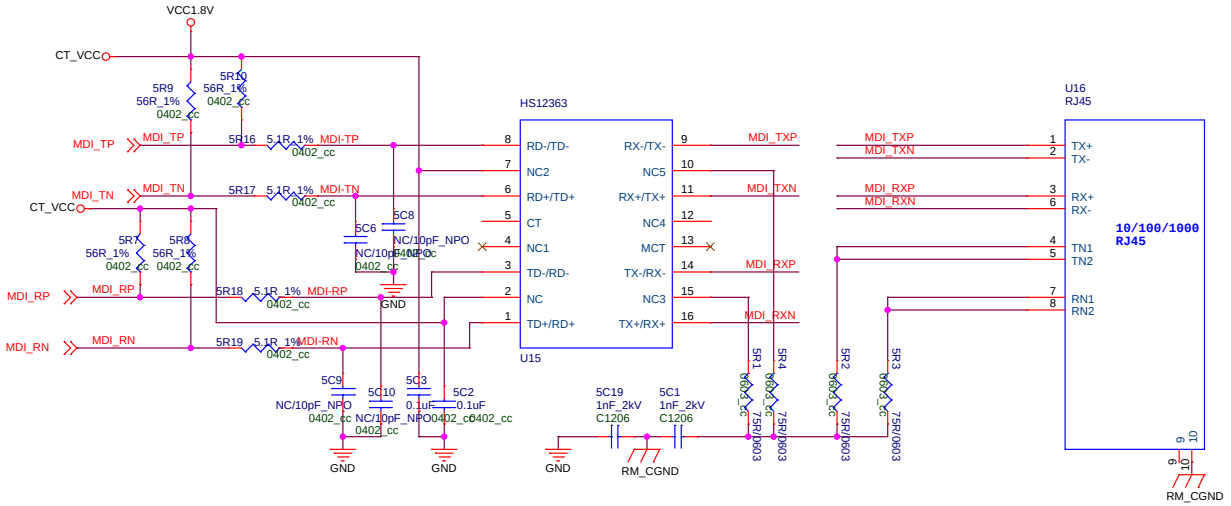
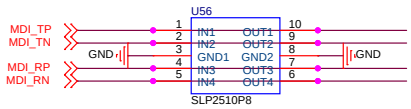
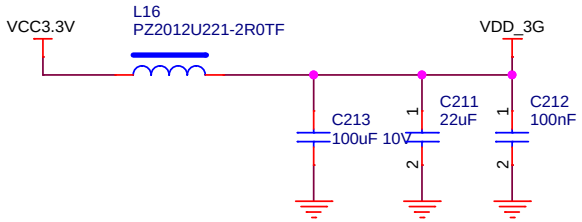


Shen Zhen RONGPIN ELECTRONICS CO.,LTD		
Title: **A311D/S905 Board Schematics (TEL 0755-23036780)**		
Size: A3	Document Number: **TF KEY**	Rev: 1.0
Date: Tuesday, January 26, 2021	Sheet 11 of 14	

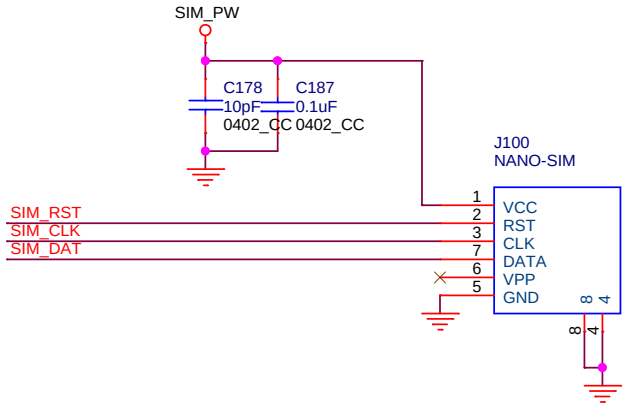


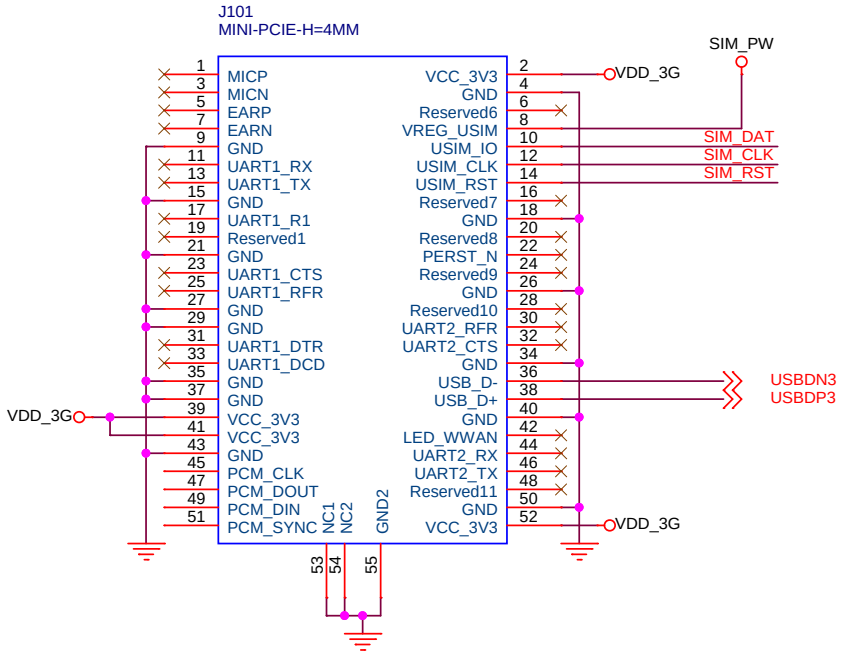


Shen Zhen RONGPIN ELECTRONICS CO.,LTD		
Title: A311D/S905 Board Schematics (TEL 0755-23036780)		
Size: A3	Document Number: ETHERNET 10/100	Rev: 1.0
Date: Tuesday, January 26, 2021	Sheet 13 of 14	



NANO-SIM





Shen Zhen RONGPIN ELECTRONICS CO.,LTD		
Title: **A311D/S905 Board Schematics (TEL 0755-23036780)**		
Size: A4	Document Number: **4G**	Rev: 1.0
Date: Tuesday, January 26, 2021	Sheet 14 of 14	