

/// NUC501 DEV Board Ver1.2 ///

NUC501

NUC501AD
VPP CON.
SPI0M0 Boot Flash
CPU Board Interface

JTAG&RESET

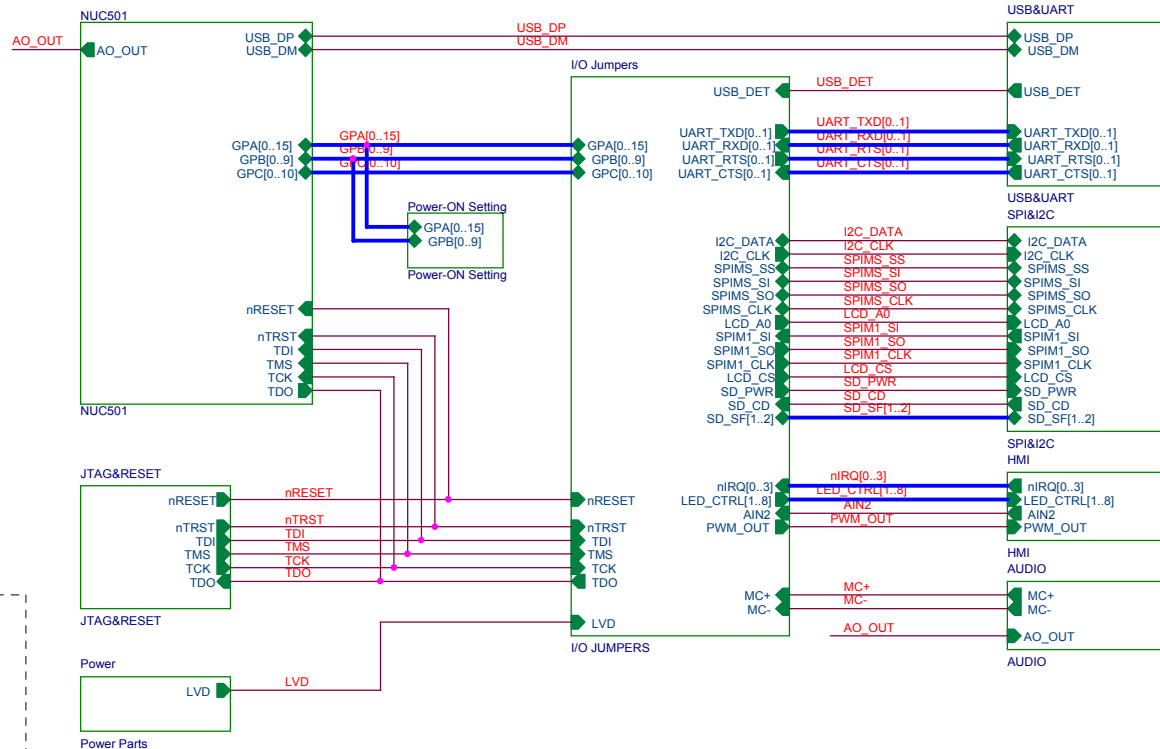
JTAG 20-Way CON.
RC Reset circuit

Power Parts

USB VBUS in
5V Power adapter in
3.3V/1A LDO
1.5V Battery(AG13)

Power-ON Settings

Booting Mode Select
LQFP48 ICE Mode Select
ICE Mode Select
SPIM0 Speed Select



USB&UART

USB MiniB CON.
UART Port 0/1

SPI&I2C

SPIMS/SPIM1
I2C
SD Card Slot

HMI

External INT
PWM Out
LED indicator
Analog input ch.2

AUDIO

MIC In
AUDIO out

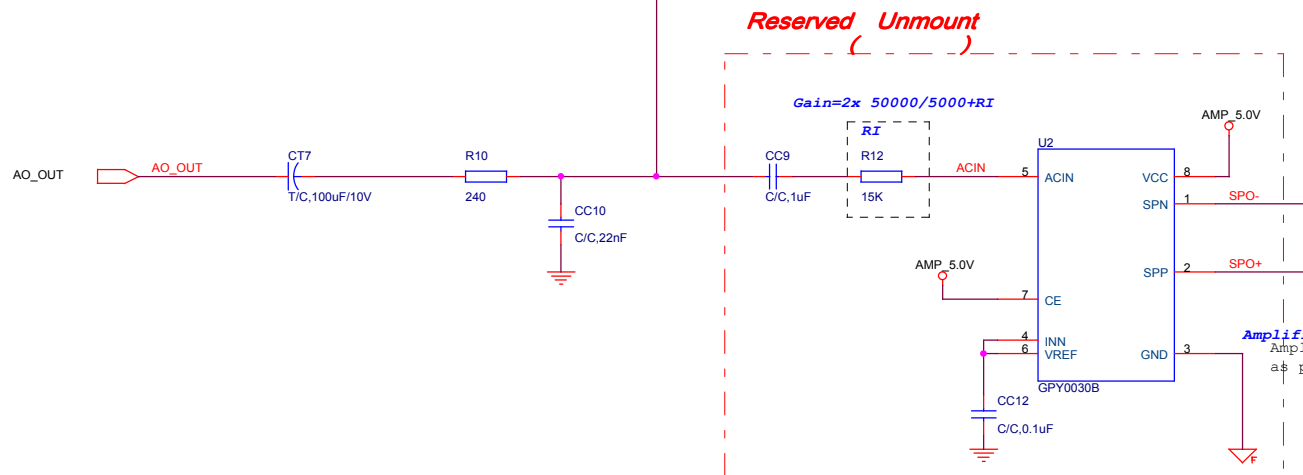
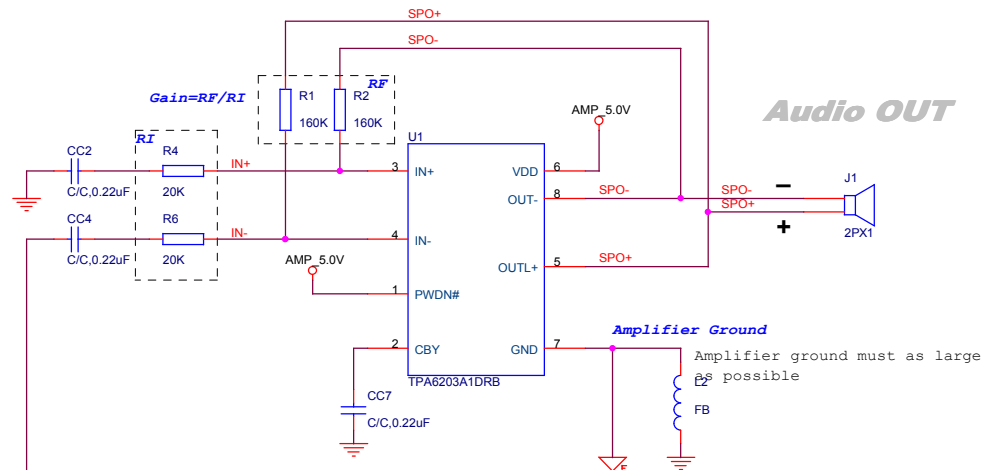
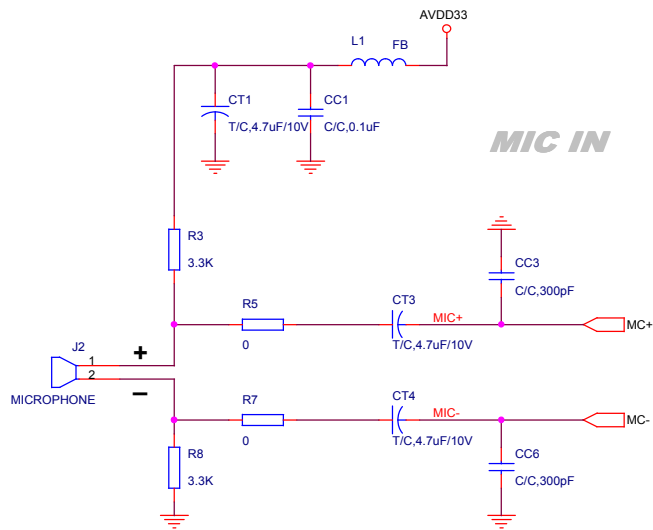
I/O Jumpers

GPIO Extension Slot
GPIO Jumpers

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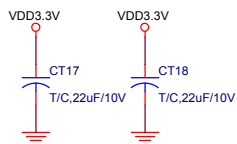
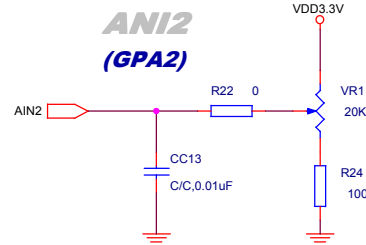
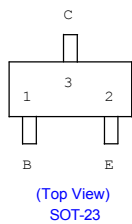
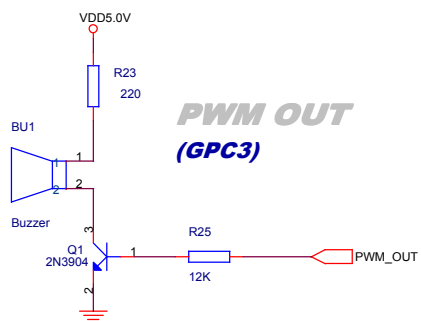
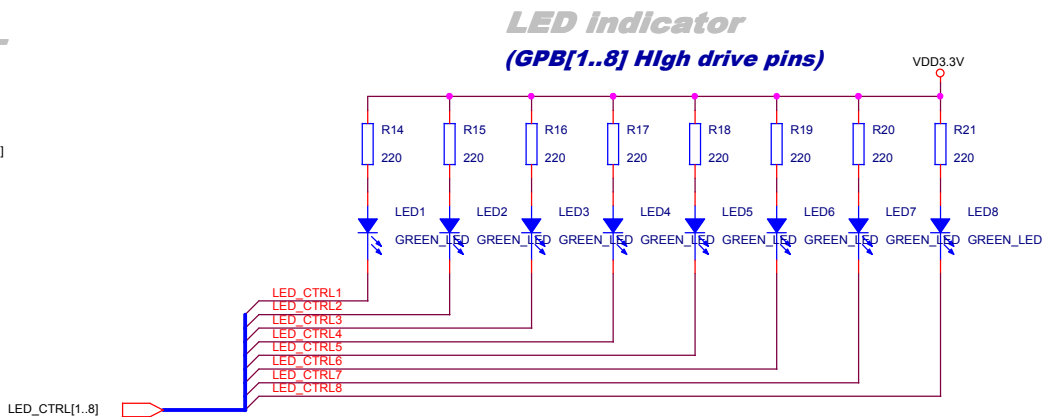
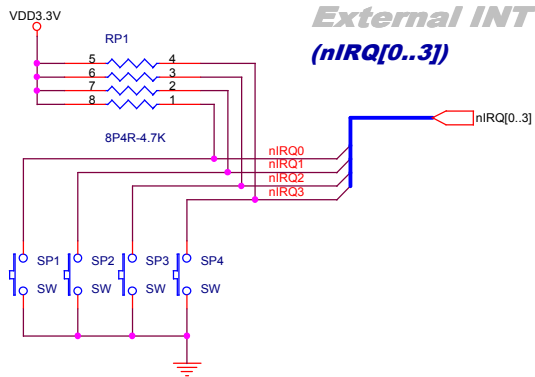
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/// Audio ///

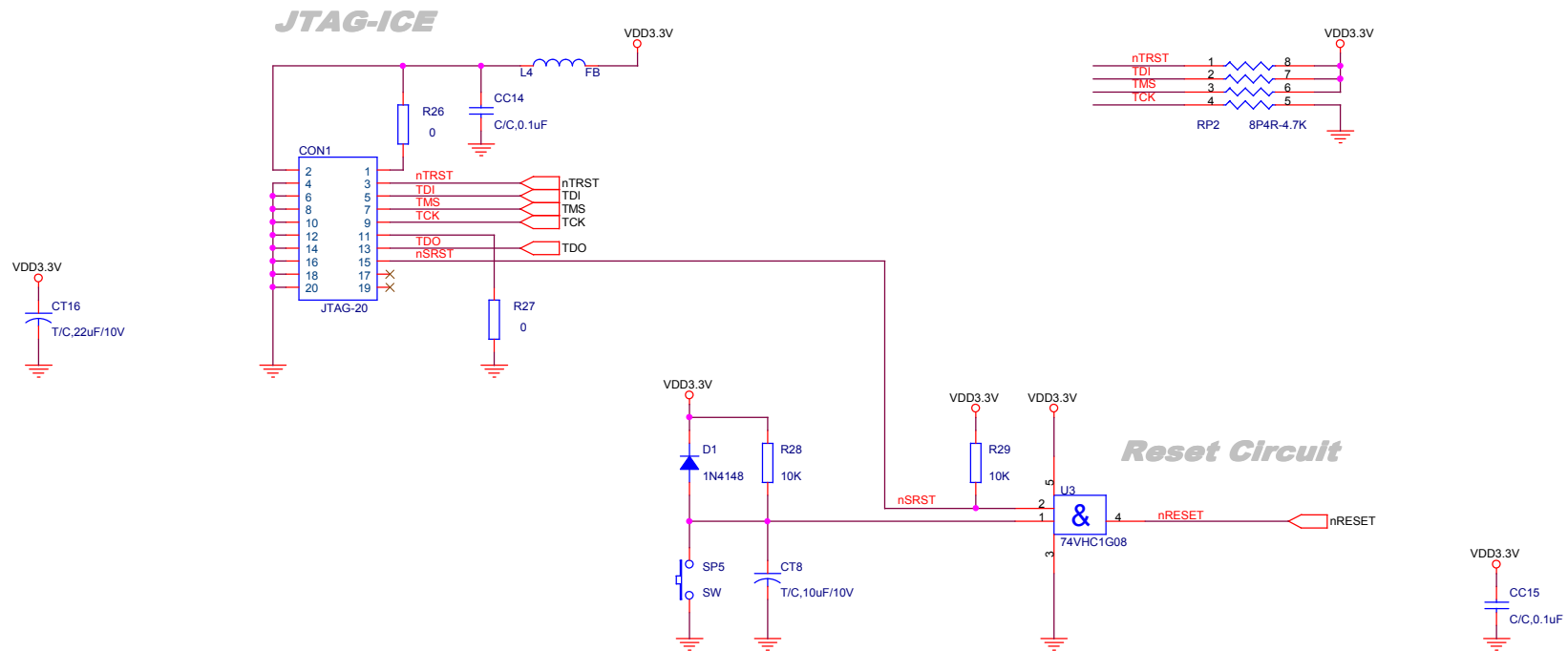


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/// JTAG&RESET ///



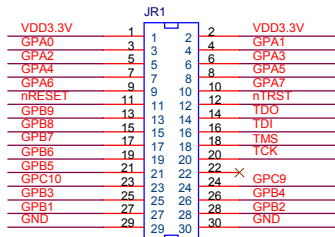
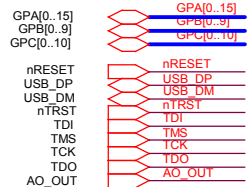
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Title
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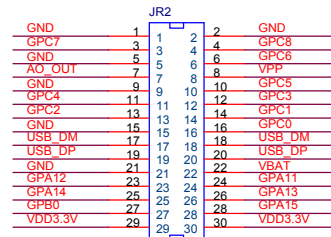
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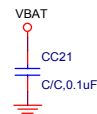
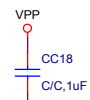
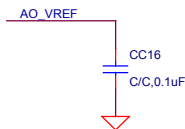
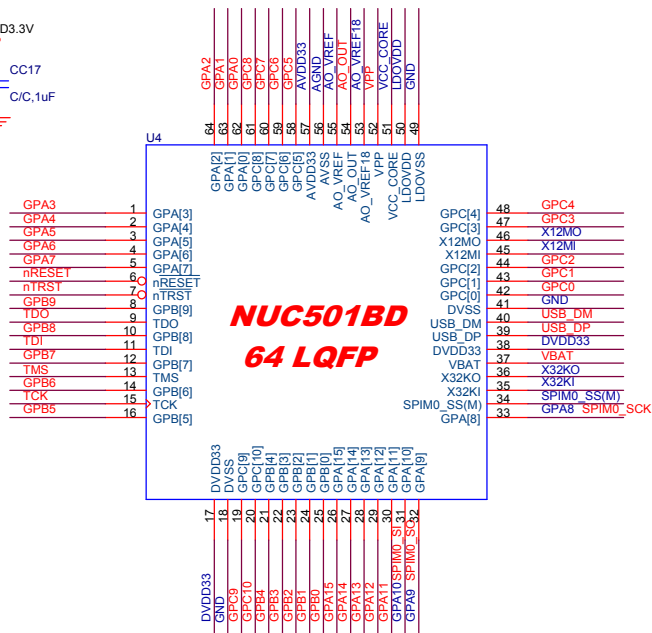
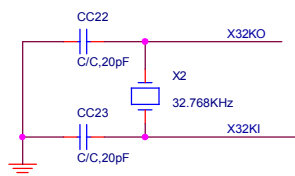
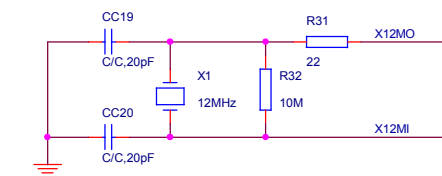
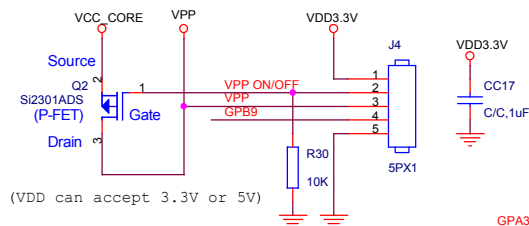
/// NUC501 ///



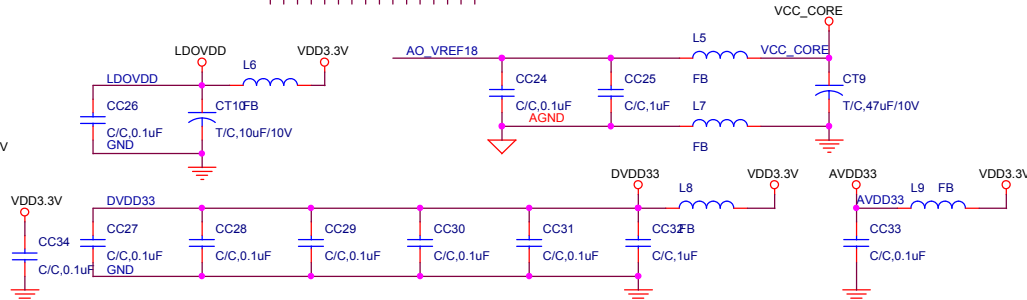
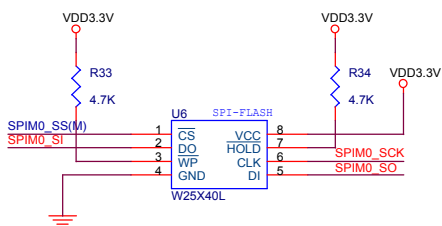
CONN RECT 15x2



CONN RECT 15x2



SPIM0(Boot)

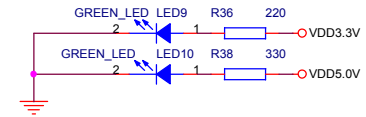


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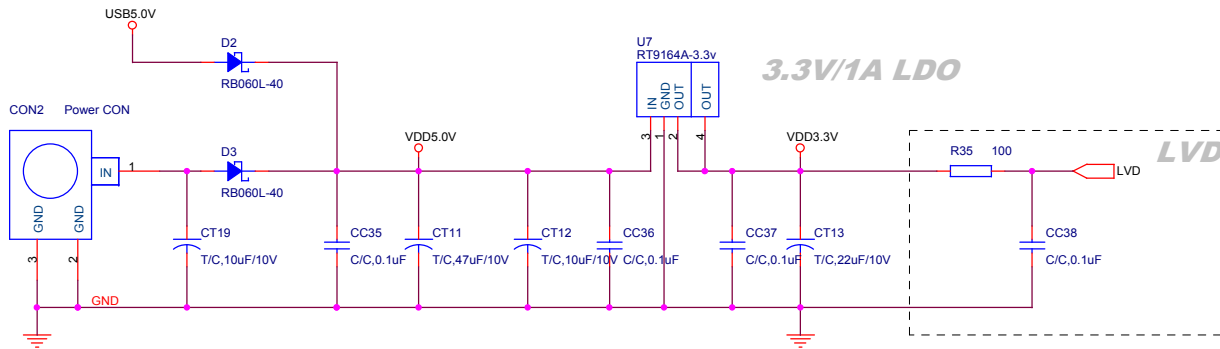
/// Power parts ///

Power Good indicator

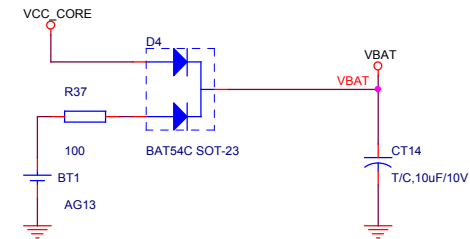


5V/500mA USB_BUS Power

5V Power Adapter

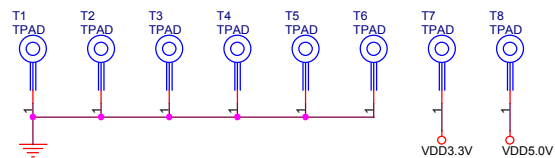


AG13 BATTERY for RTC



Switch power source from BATTERY to VCC_CORE (1.8V) when system power ON.



Testing Pad



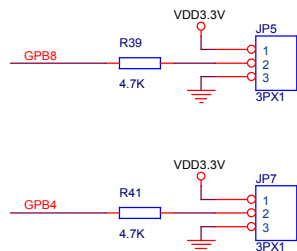
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NUC501/Power Parts		
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/// Power-ON Settings ///

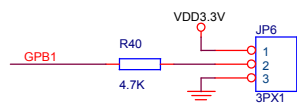
GPA[0..15]  GPA[0..15]
GPB[0..9]  GPB[0..9]

SPI0 Speed Configuration



GPB8/GPB4	SPI Speed
(0,0)	72MHz
(0,1)	36MHz
(1,0)	18MHz
(1,1)	50KHz

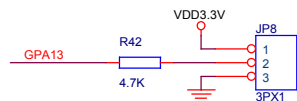
ICE Mode configuration setting



High:normal mode

Low:ICE mode enable and the disable the cipher function

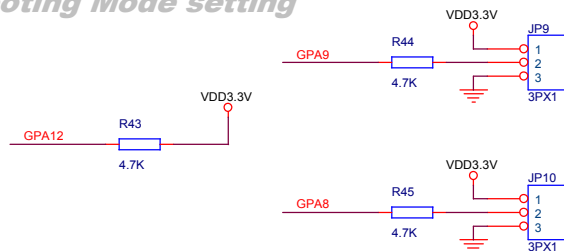
LQFP48 ICE mode configuration setting



High:48-pins package and GPB[9:5] use the normal function

Low:48-pins package and GPB[9:5] for ICE connection

Booting Mode setting



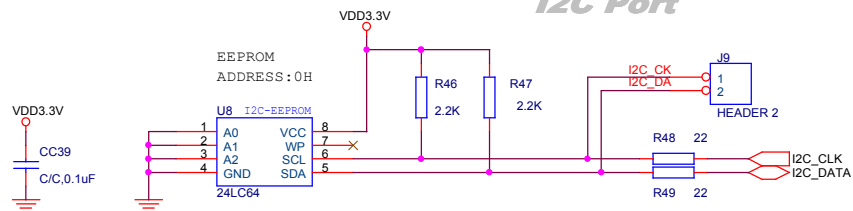
GPA12=1 GPA9/GPA8	Function
(0/0)	Boot from SRAM
(0/1)	Boot from USB
(1/0)	OTP program mode
(1/1)	Boot from SPI

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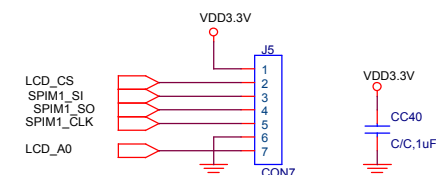
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/// SPI&I2C ///

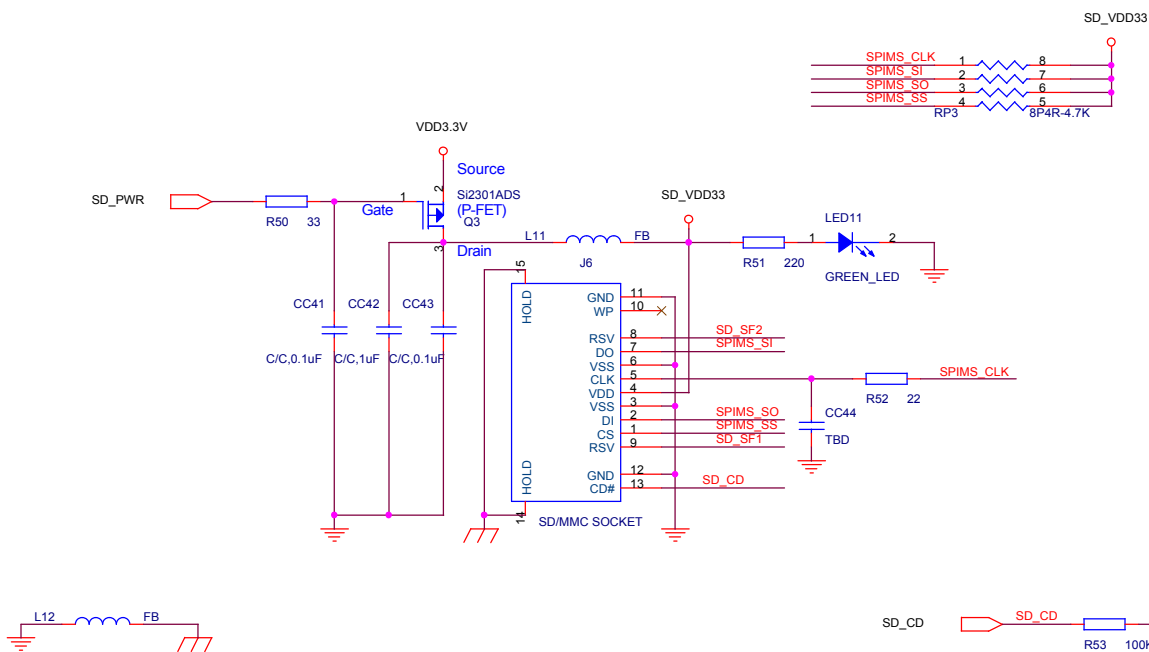
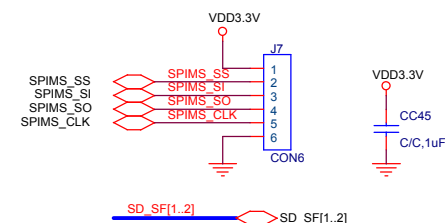
I2C Port



SPI Port 2

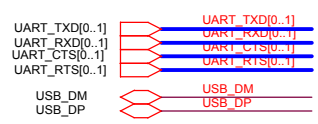


SPI Port 1

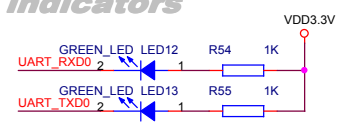


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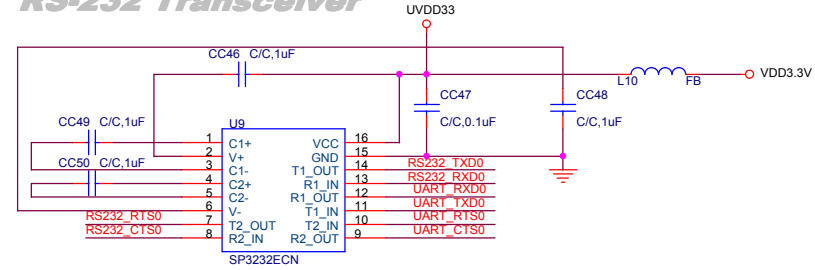
/// USB&UART ///



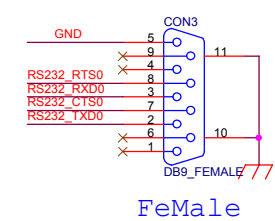
UART0 TX/RX Indicators



RS-232 Transceiver

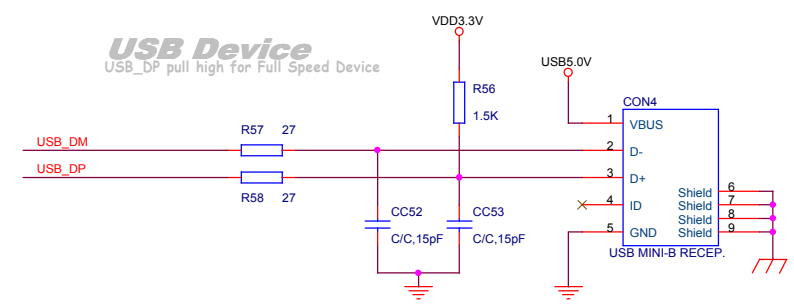


UART Port 0

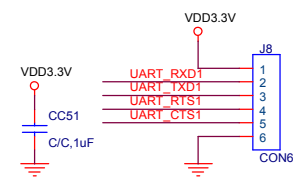


USB Device

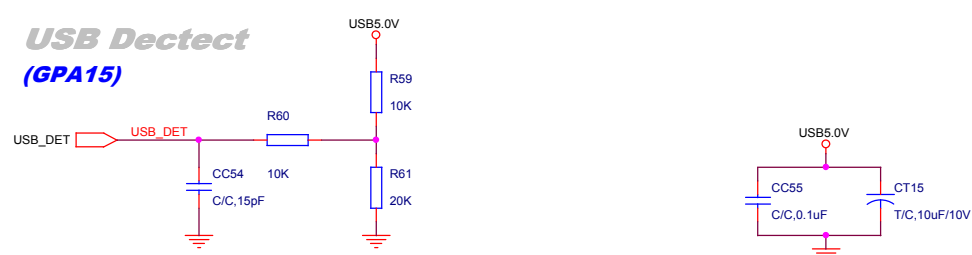
USB_DP pull high for Full Speed Device



UART Port 1



USB Detect (GPA15)



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