

TS-7400-V2

Industrial Temp = Default

Changes Rev.A to Rev.B

Change USB TVS (old one EOL)

Change NAND to eMMC chip

Change Boot Straps for eMMC

5V Reg - add 100 uF at output

5V Reg - add catch diode

5V Reg - add 22uF on Input

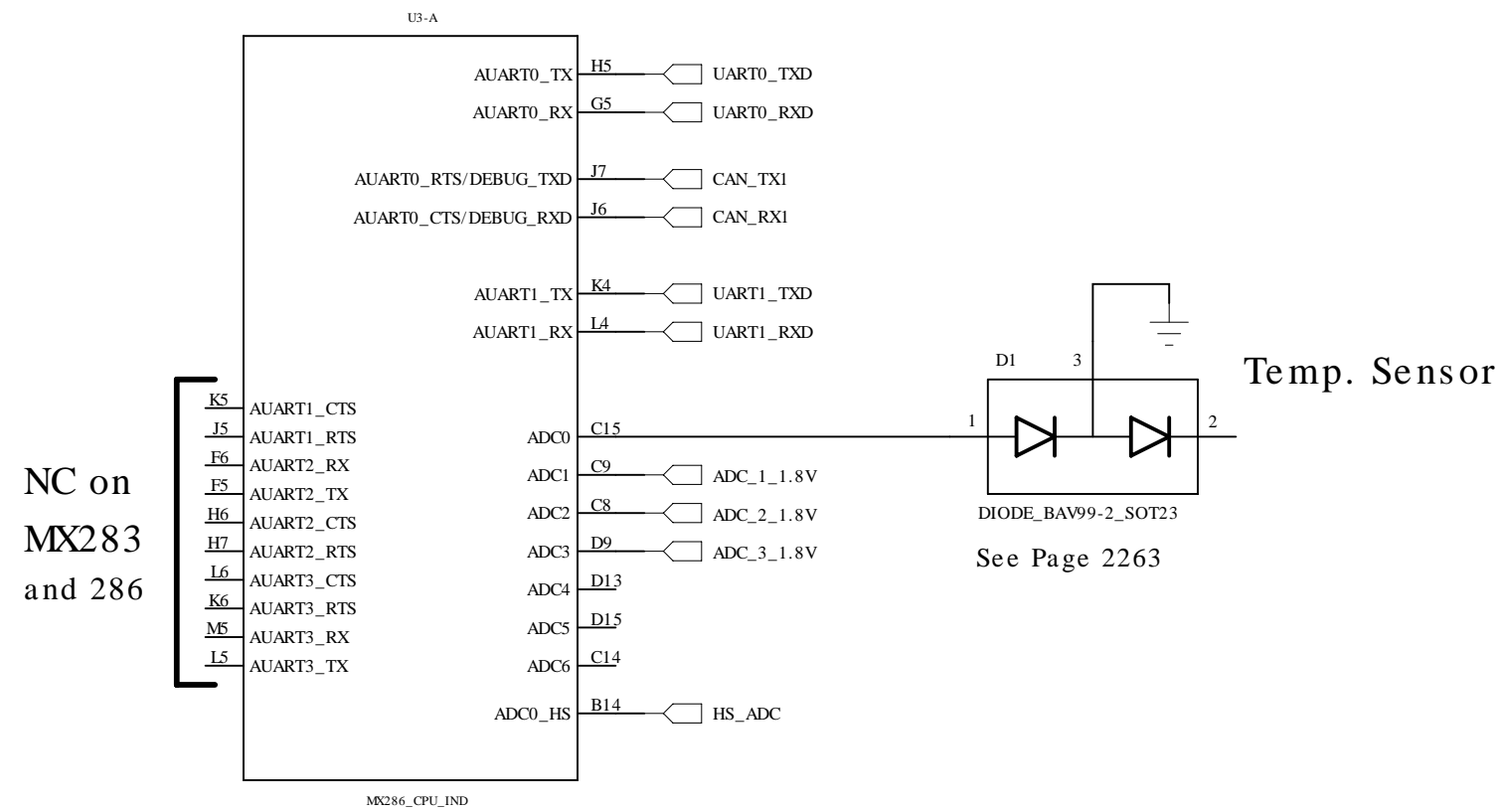
Change CPU and RAM to Ind. Temp

No Change in M0 code

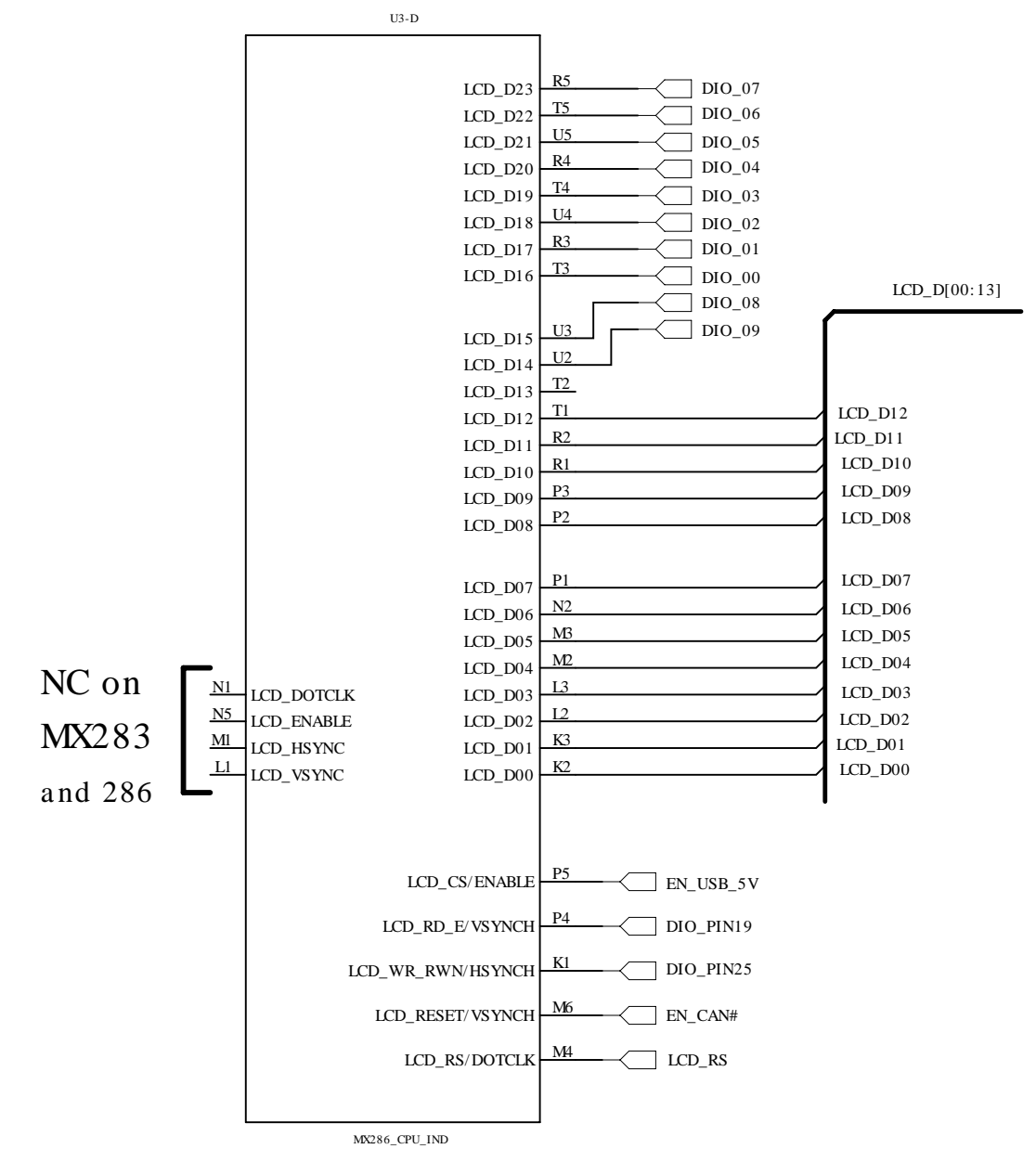
Technologic Systems	Date Feb. 27, 2015	
Title: TS-7400-V2 MX286 CPU		
Rev: B	Designer	Sheet 1 of 11

MX286 ARM9 CPU

UARTs, ADC

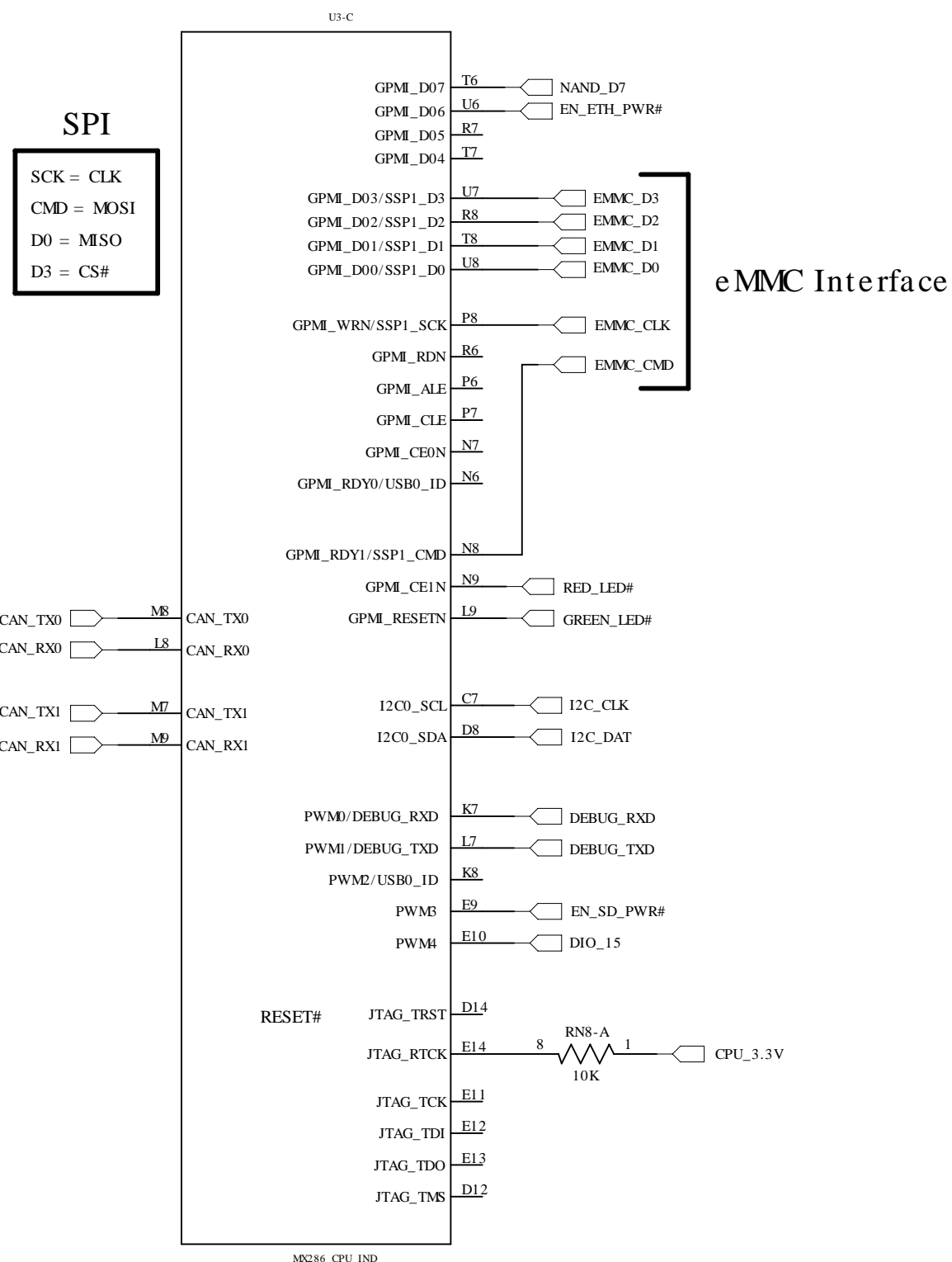


LCD

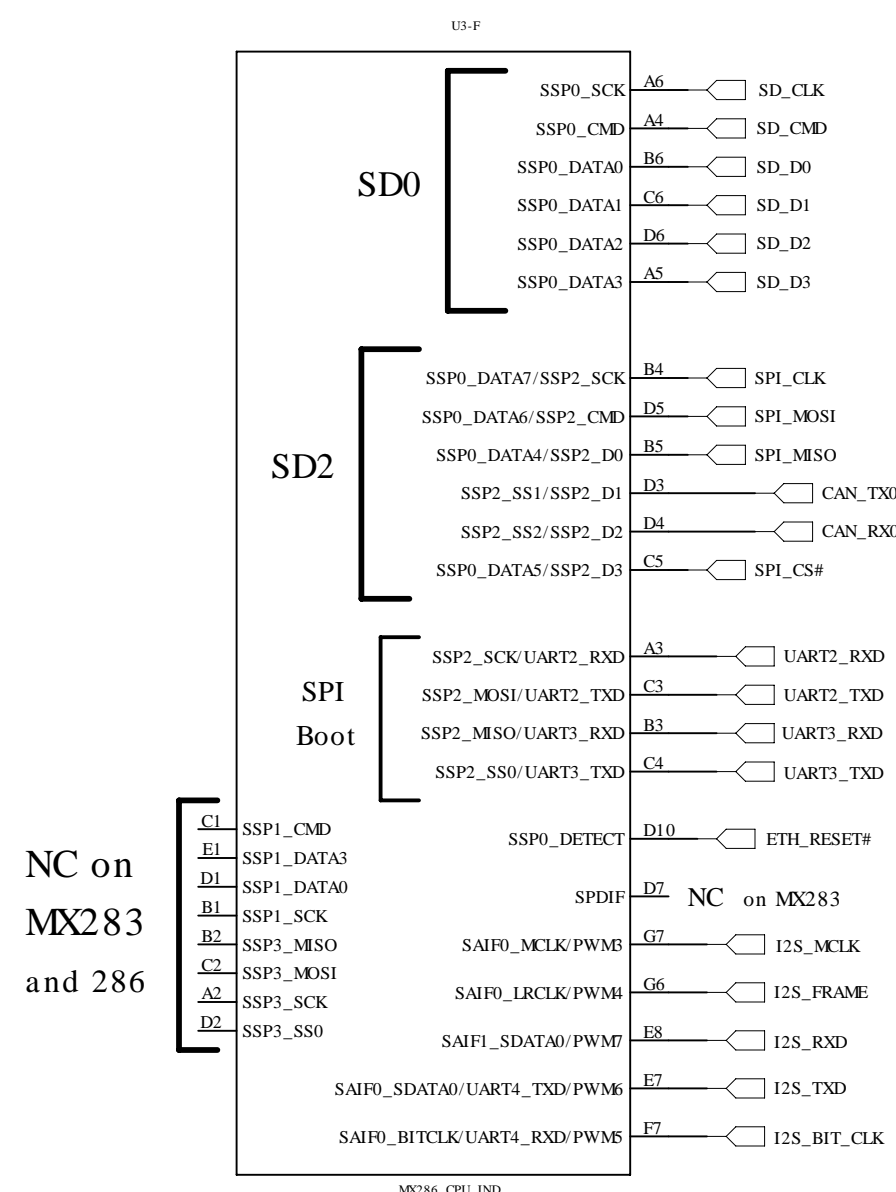


LCD_00 thru LCD_04
Control Boot Source

NAND, PWM JTAG, I2C

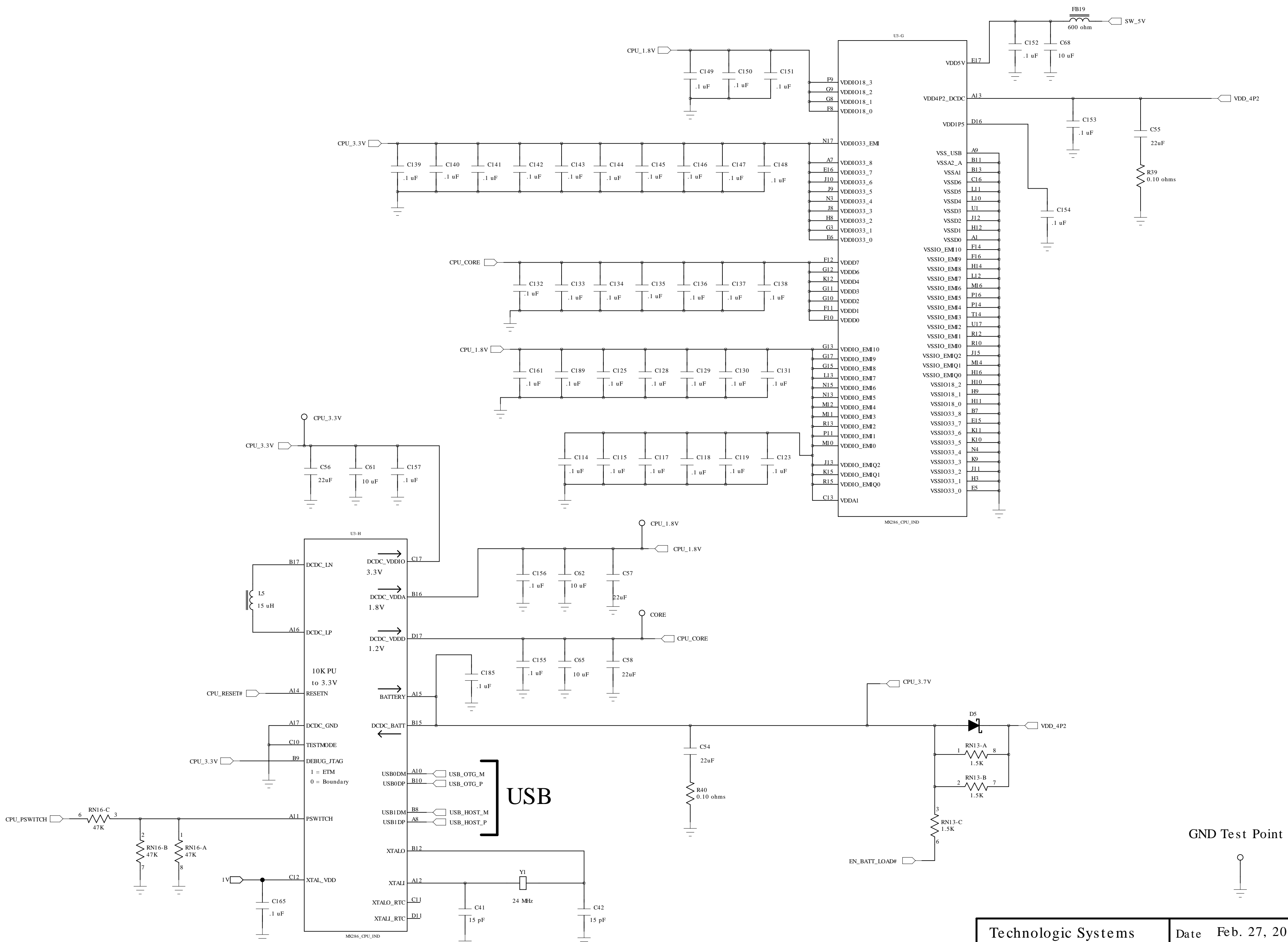


Audio SD Card SPI Boot

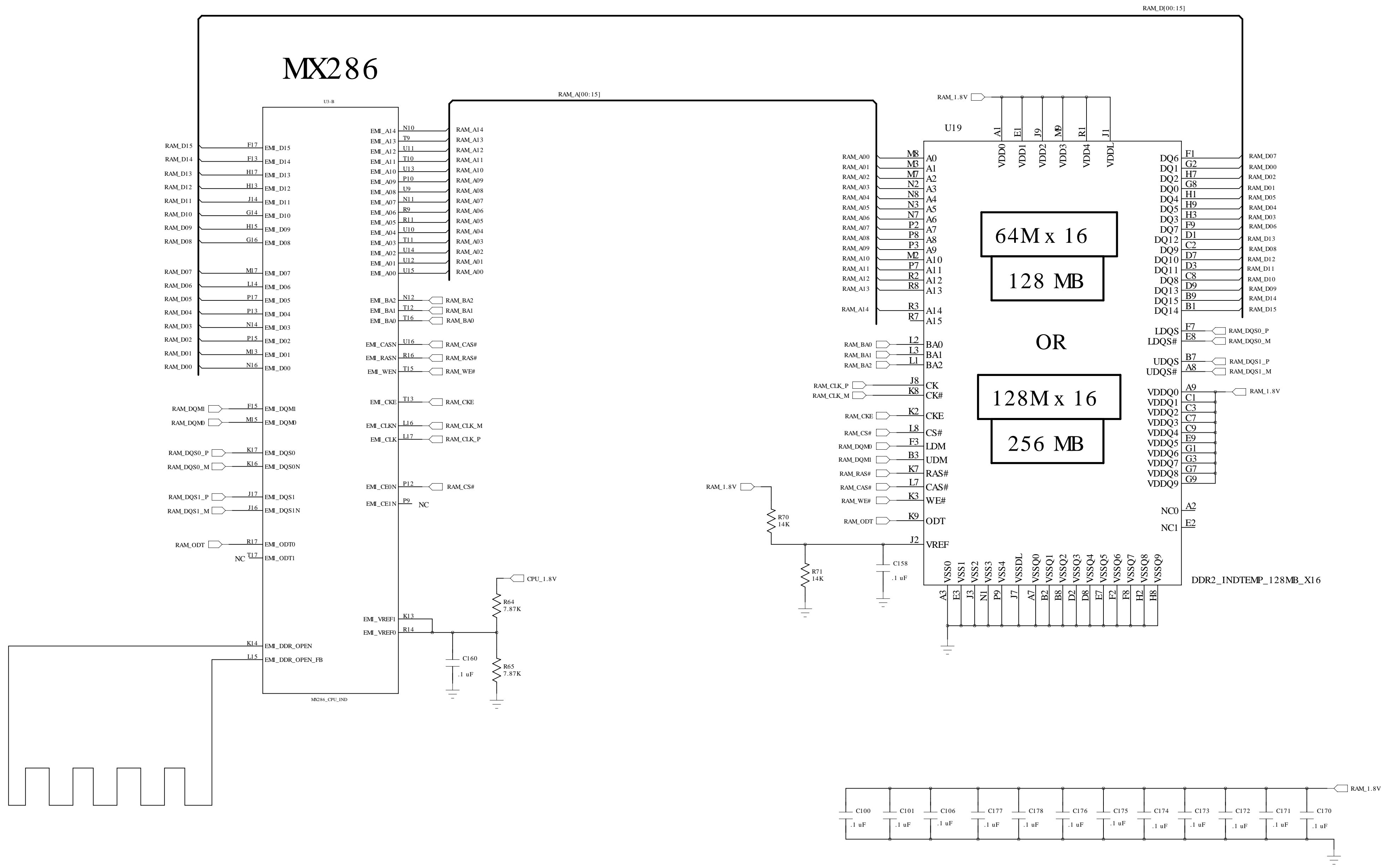


All JTAG have 47K internal PU except RTCK

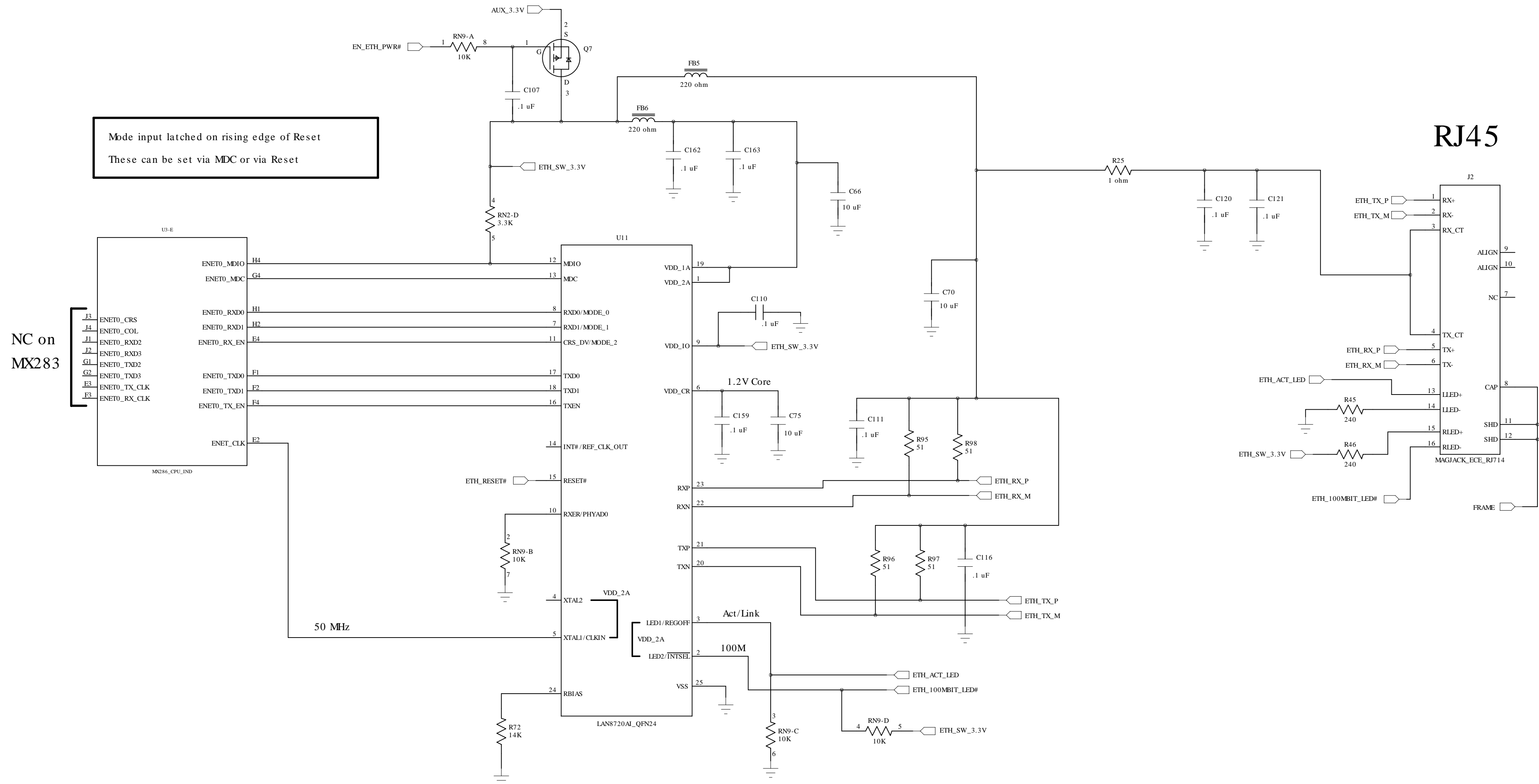
Technologic Systems	Date Feb. 27, 2015
Title: TS-7400_V2 MX286 CPU	
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DDR2 SDRAM (128 or 256 MByte)



10/100 Ethernet



Mode input latched on rising edge of Reset
These can be set via MDC or via Reset

NC on MX283

- J3 ENETO_CRS
- J4 ENETO_COL
- J1 ENETO_RXD2
- J2 ENETO_RXD3
- G1 ENETO_TXD2
- G2 ENETO_TXD3
- E3 ENETO_TX_CLK
- E3 ENETO_RX_CLK

PHY address and modes latched on rising edge of Reset#

LED high voltage is VDD_2A = 3.3V

LED active state is always the opposite as the strap state

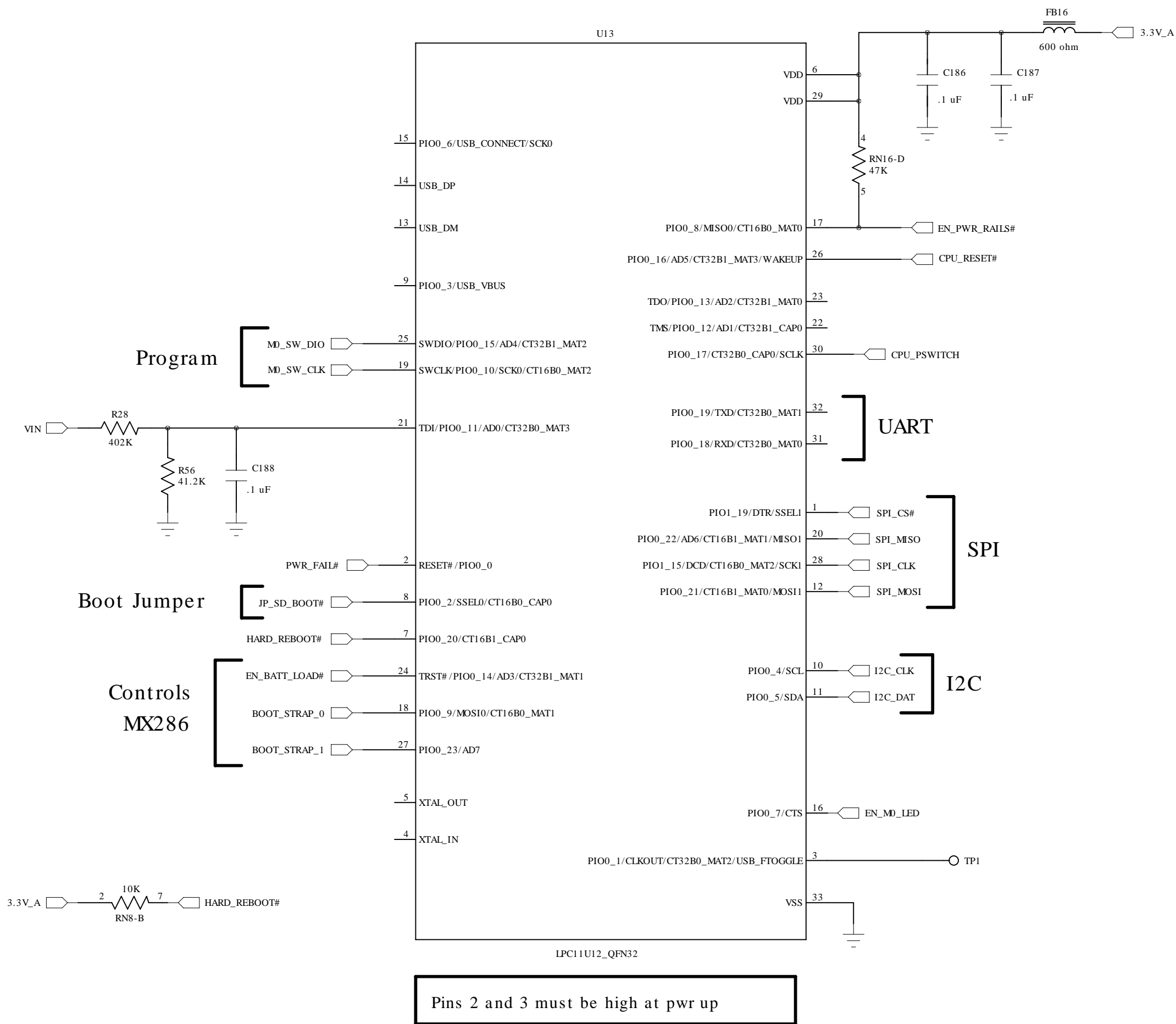
MDIO bus can not be used until 100 uS after Reset# is deasserted
MDCLK max is 2.5 MHz

Auto MDIX is supported and
Polarity Correction supported

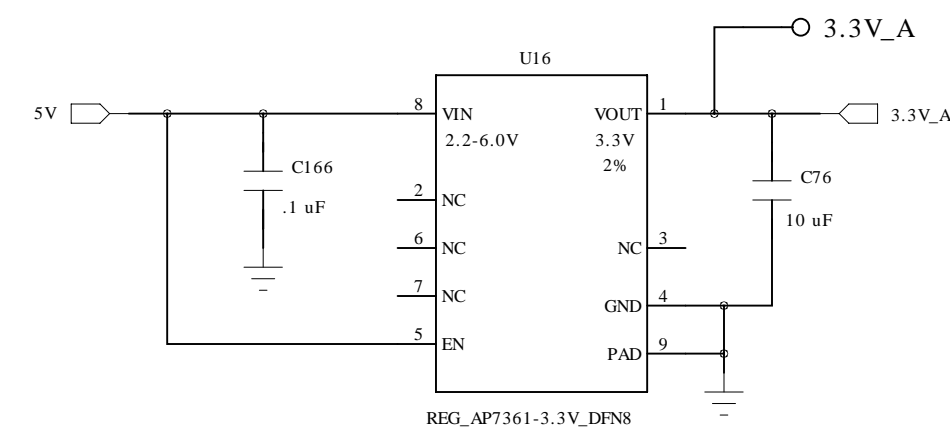
Technologic Systems	Date Feb. 27, 2015
Title: TS-7400_V2 Ethernet Port	
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Cortex M0

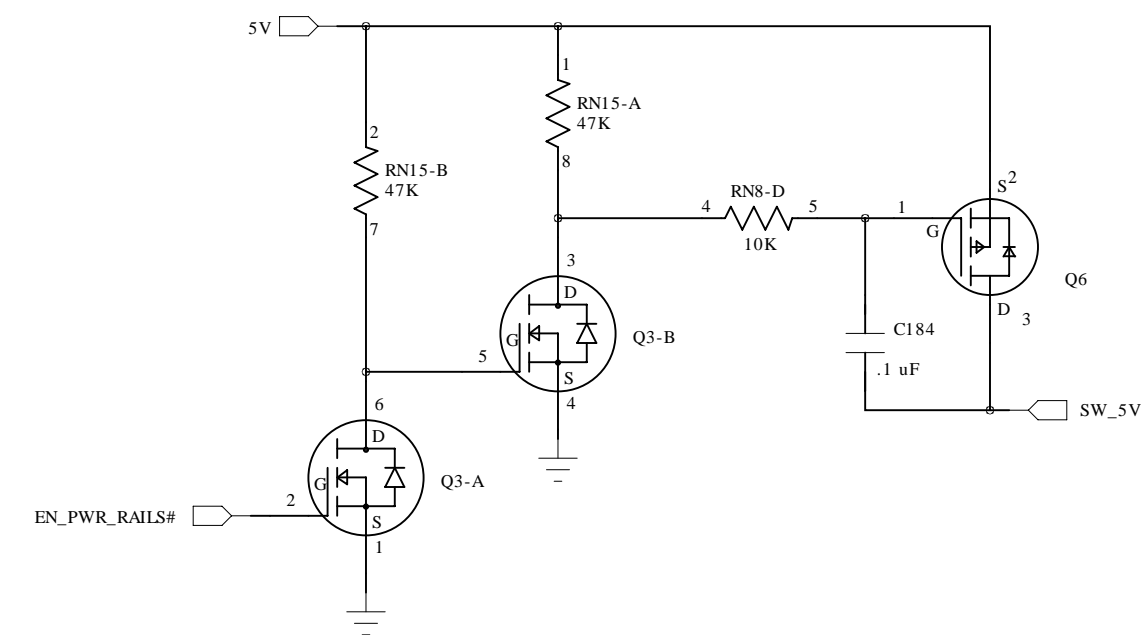
Cortex M0



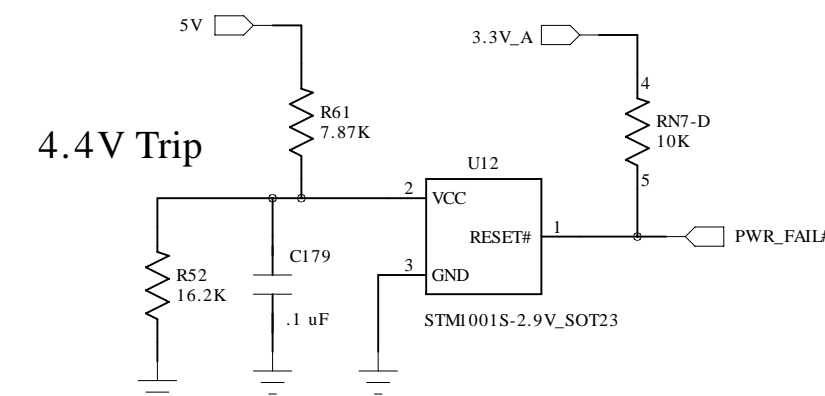
3.3V Reg. for M0



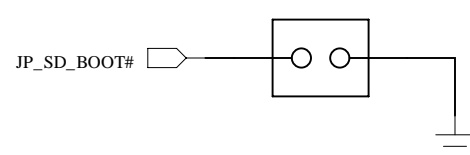
Switched 5V



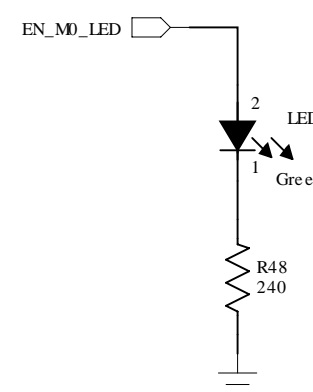
Brown out Detect



SD Jumper

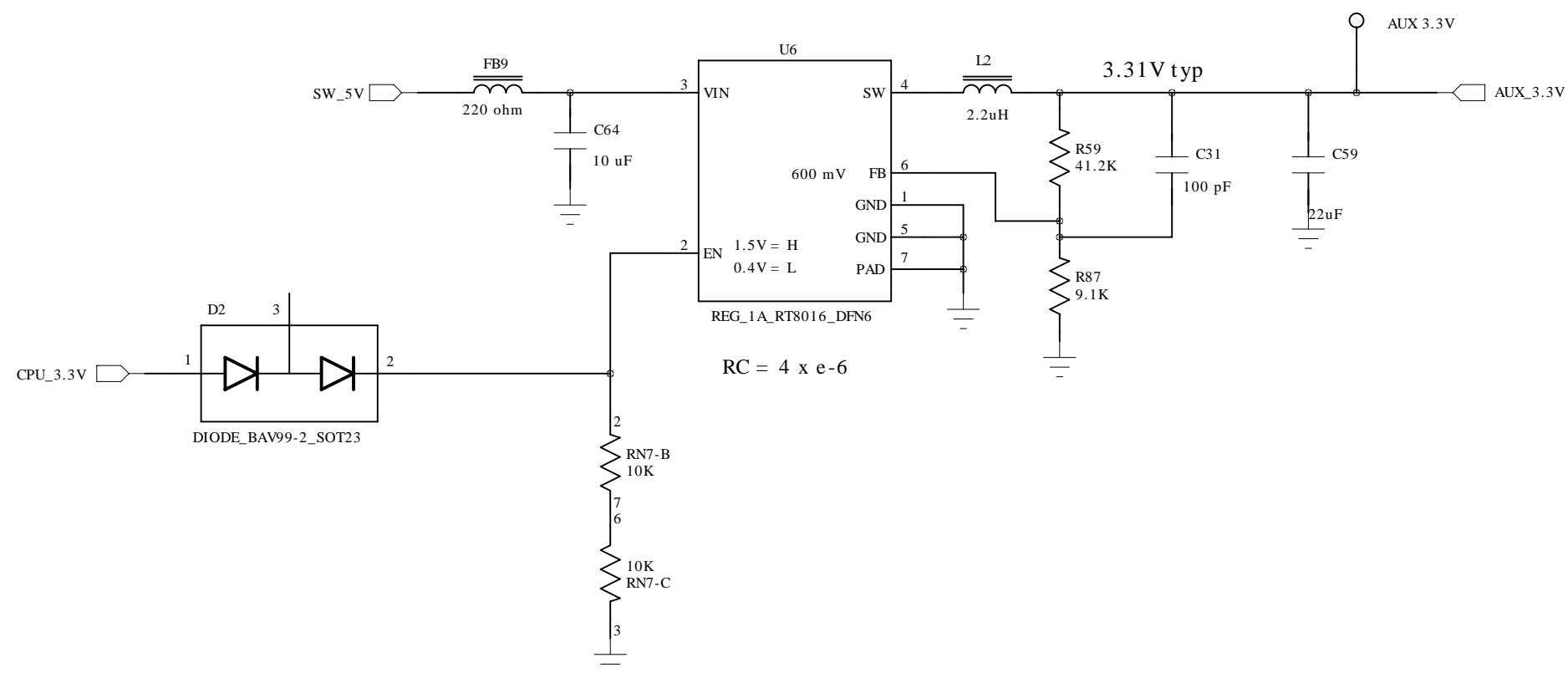


M0 LED



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Aux. 3.3V Reg



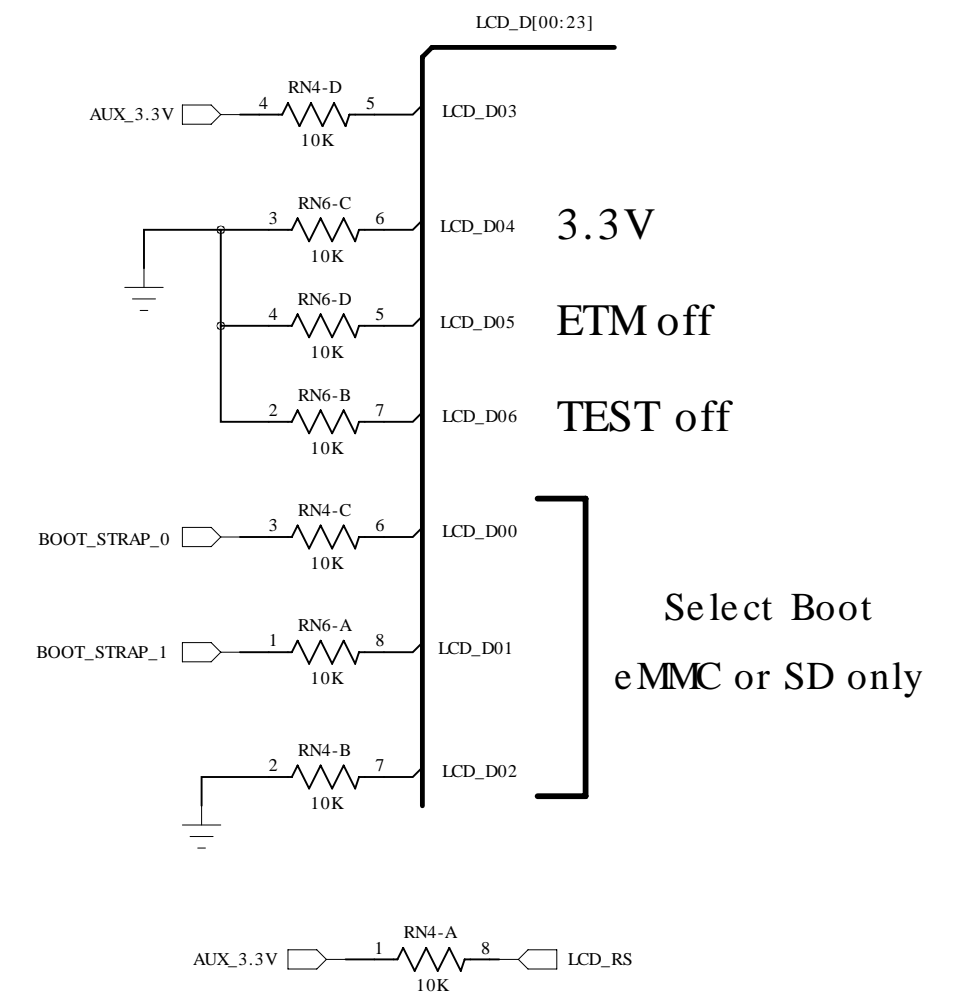
Defaults
to eMMC

Boot Source

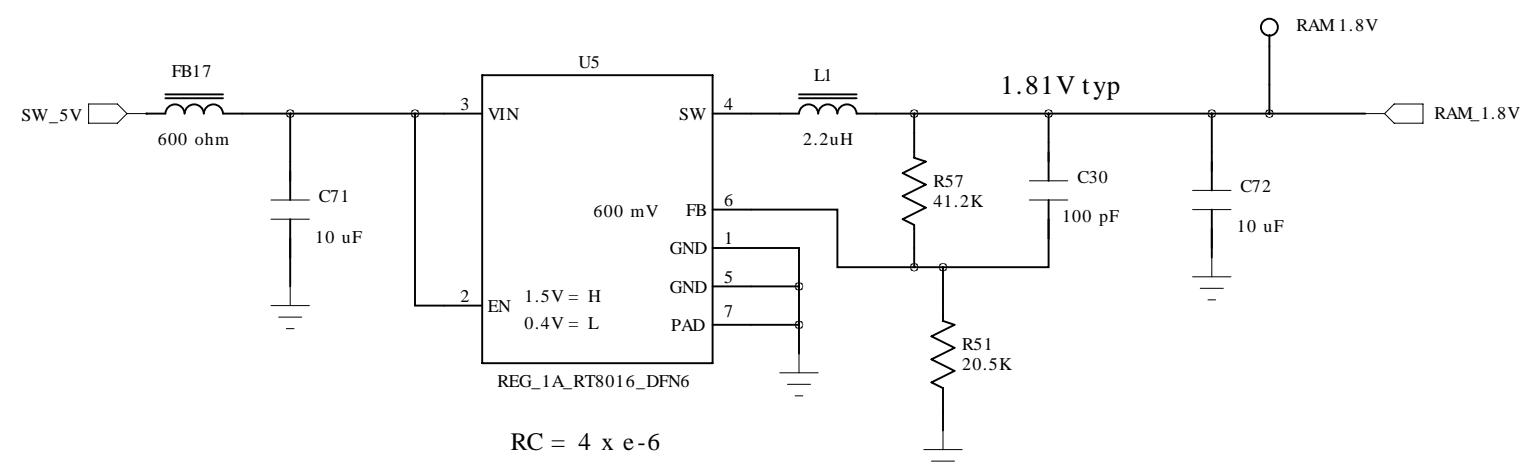
LCD_3	LCD_0	
0 0 1 0		SPI
1 0 0 1		SD0 Card
1 0 1 0		eMMC
0 0 0 0		USB
0 1 0 0		NAND

Jumper forces SD Boot

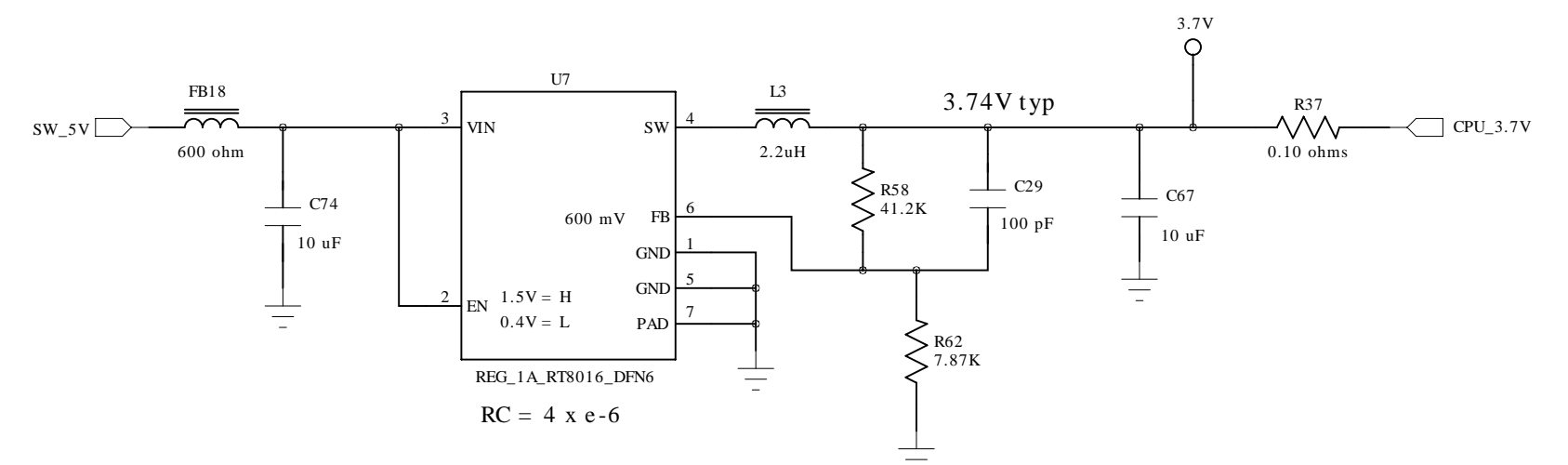
Boot Strap Bias Res.



RAM 1.8V Reg



Optional CPU BATT 3.7V

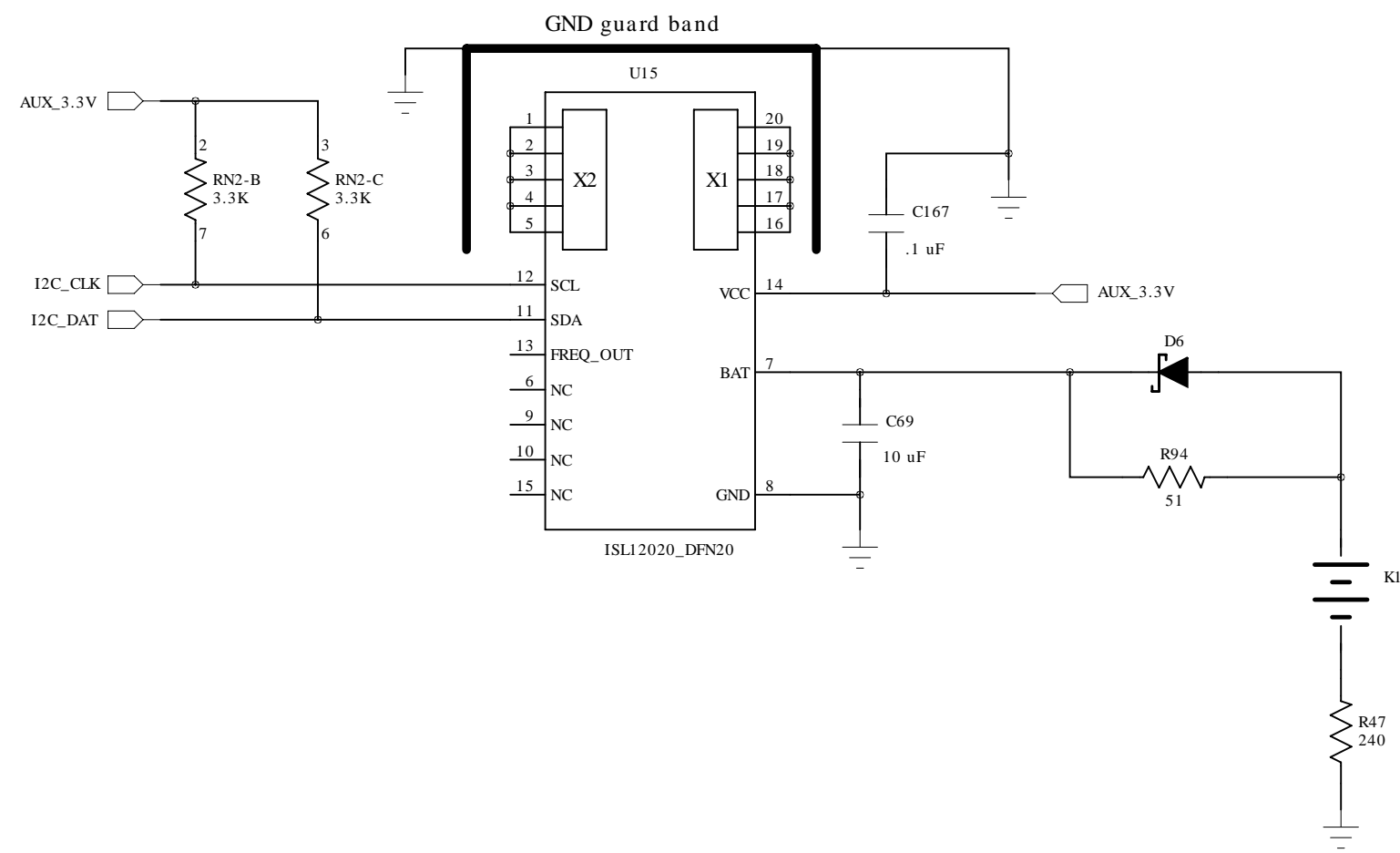


This Reg only required for
extra low power mode

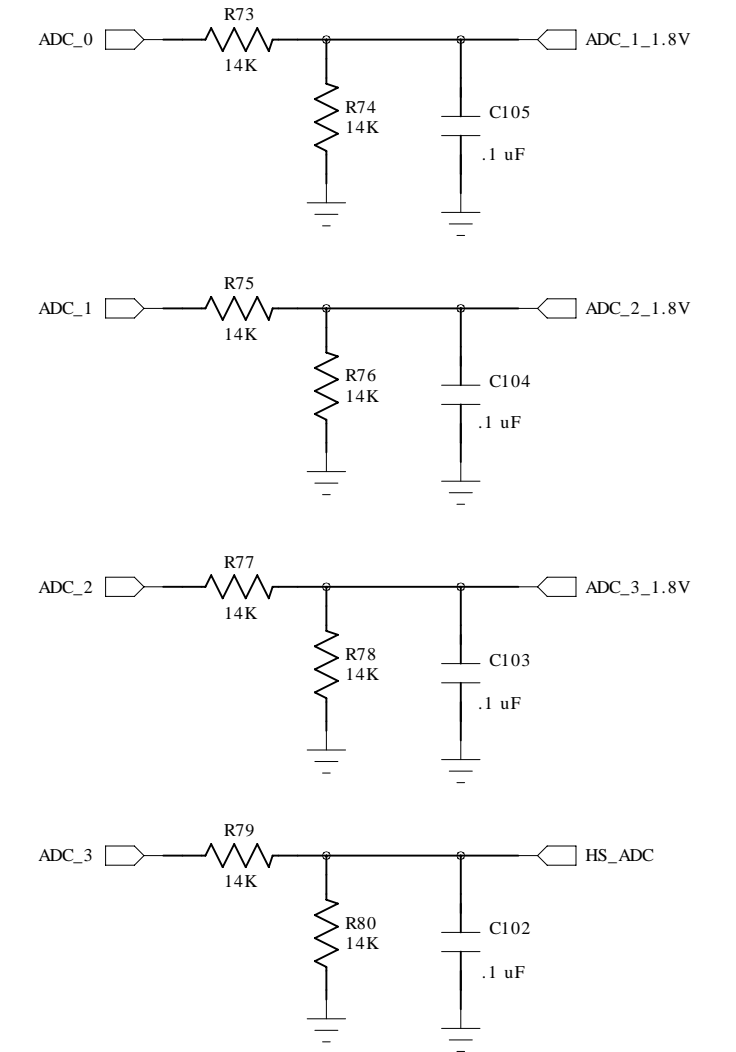
MX286 will not work below
-20 Celsius with this Reg.

RTC, RS-232 and Analog

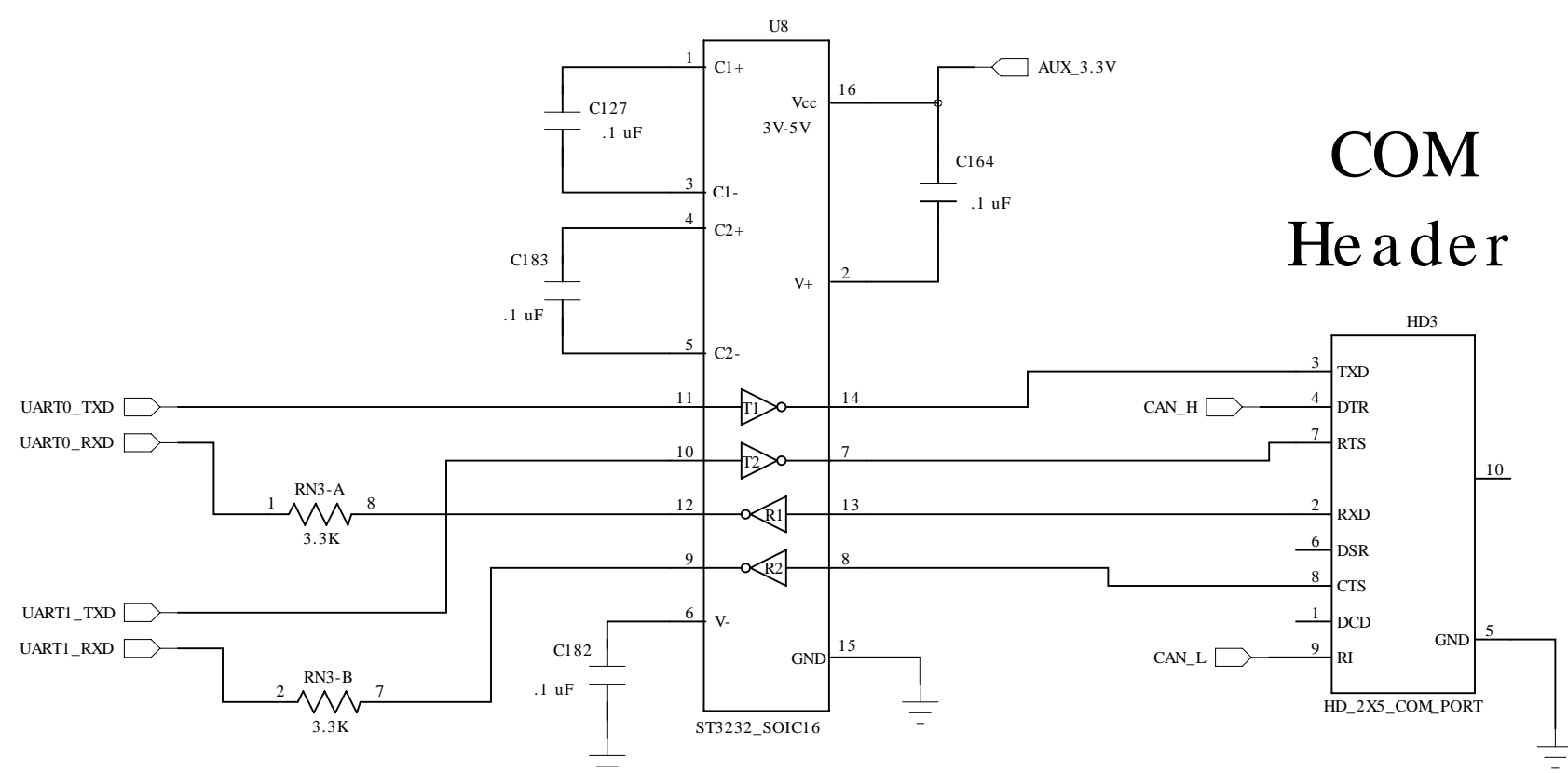
RTC and Temp. Sensor



Analog Inputs

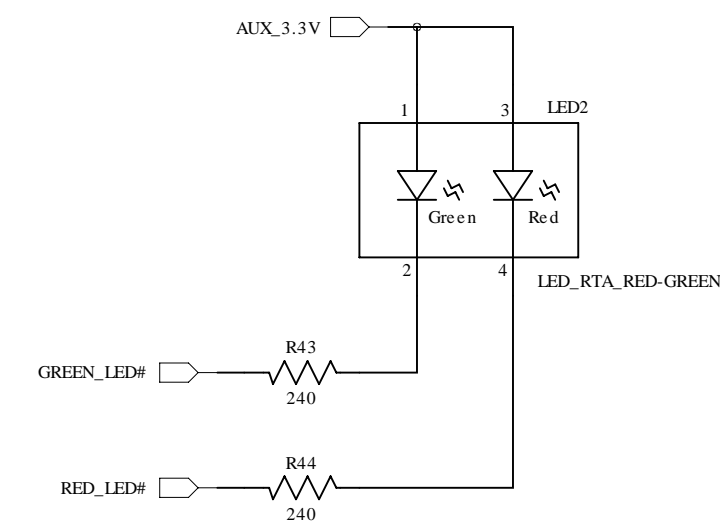


RS-232 Tran.



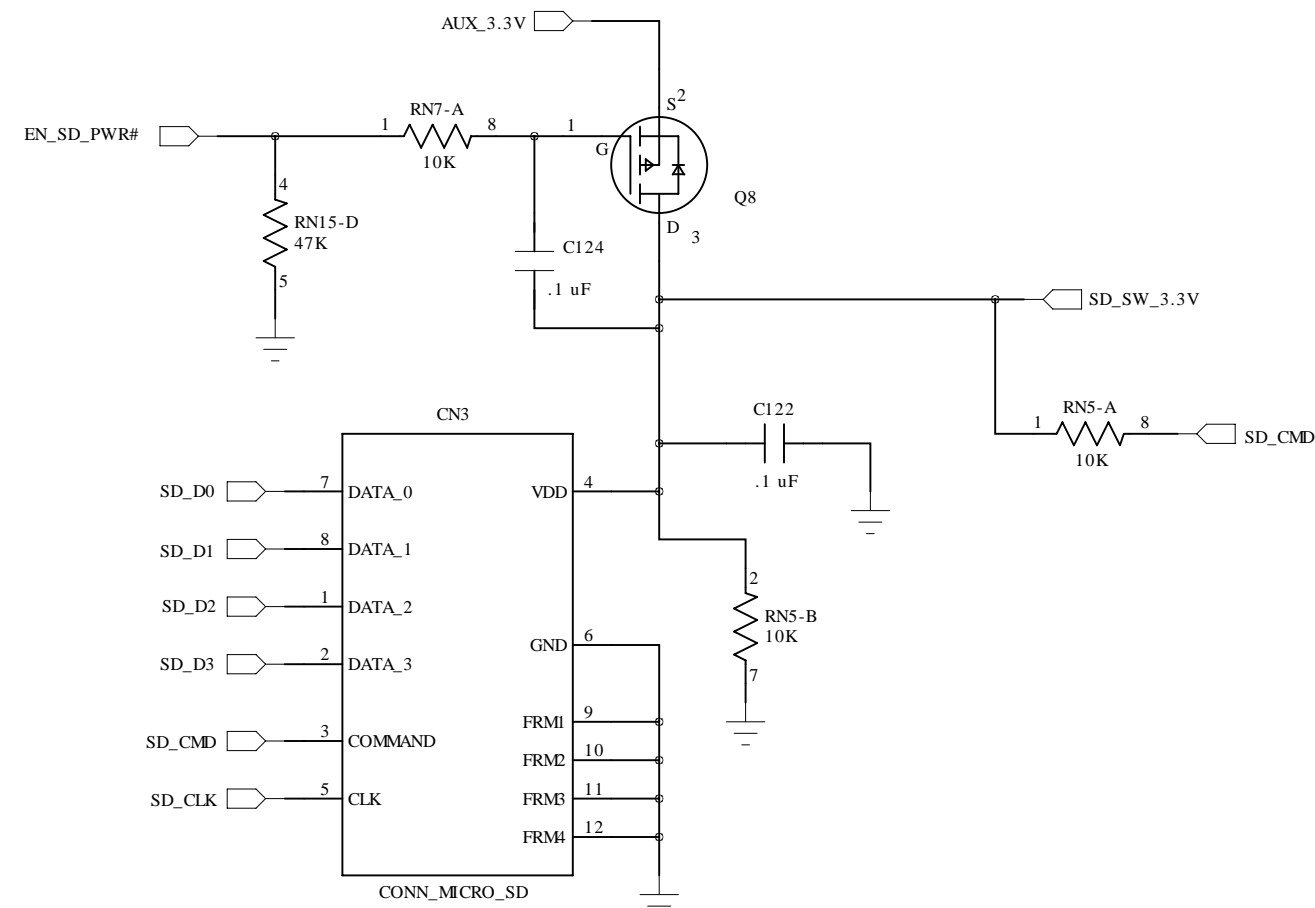
COM
Header

Red/Green LEDs



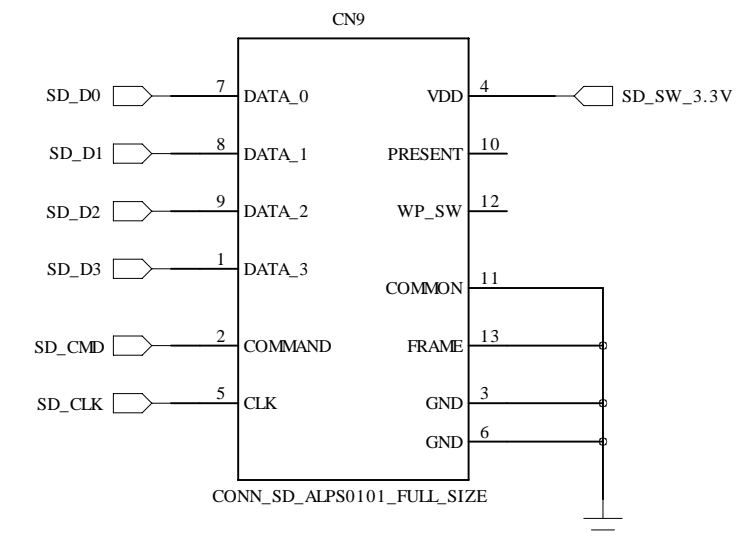
Flash Memory

Micro SD Card Socket

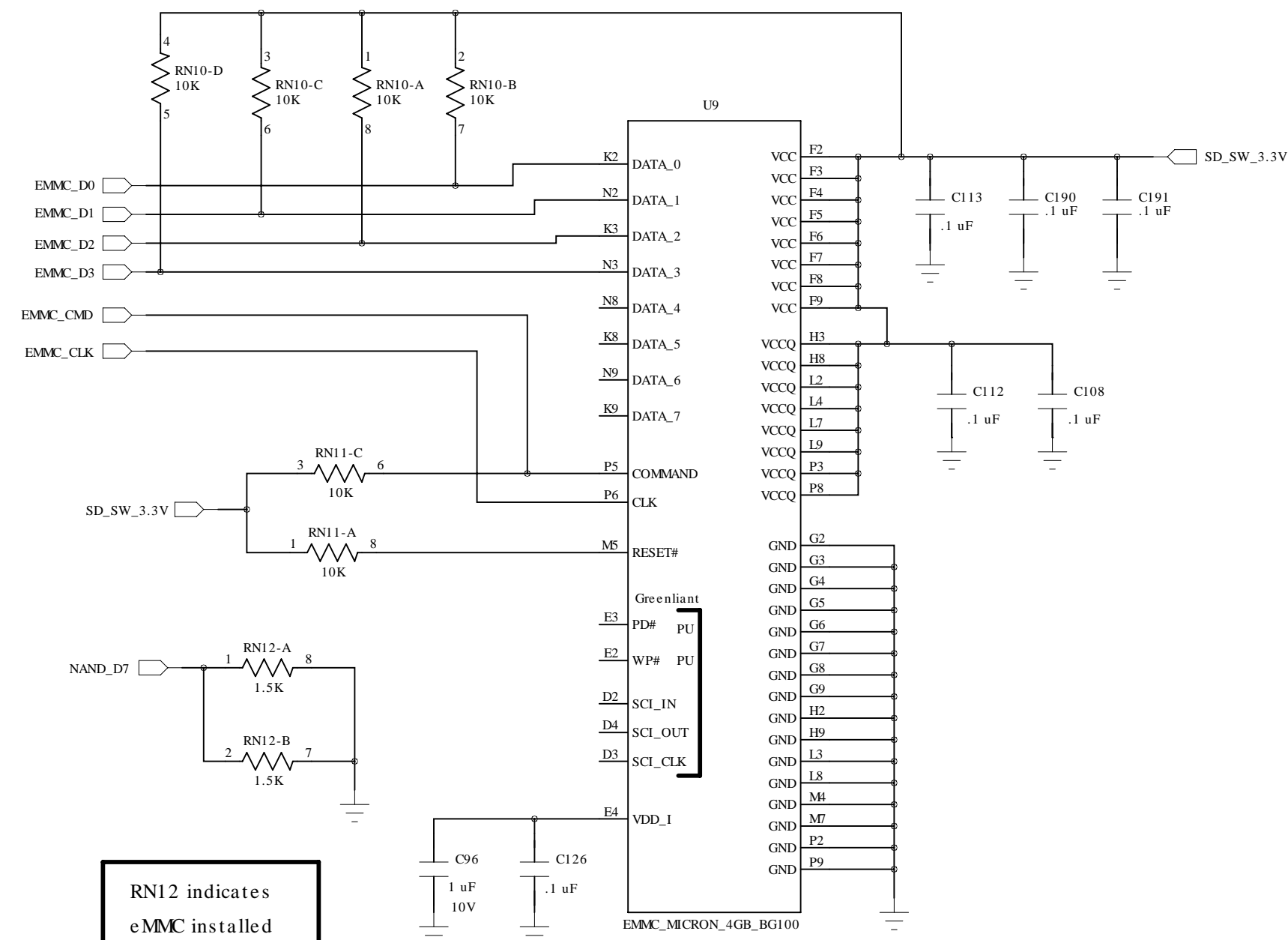


Only one SD card
can be installed !

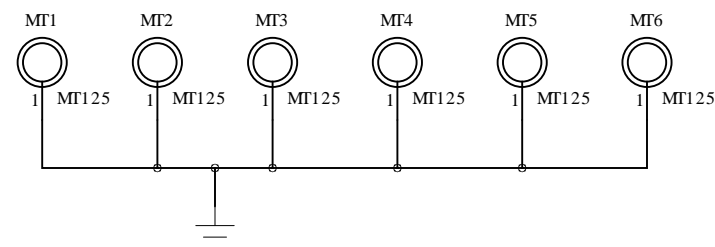
Optional Full Size SD Socket



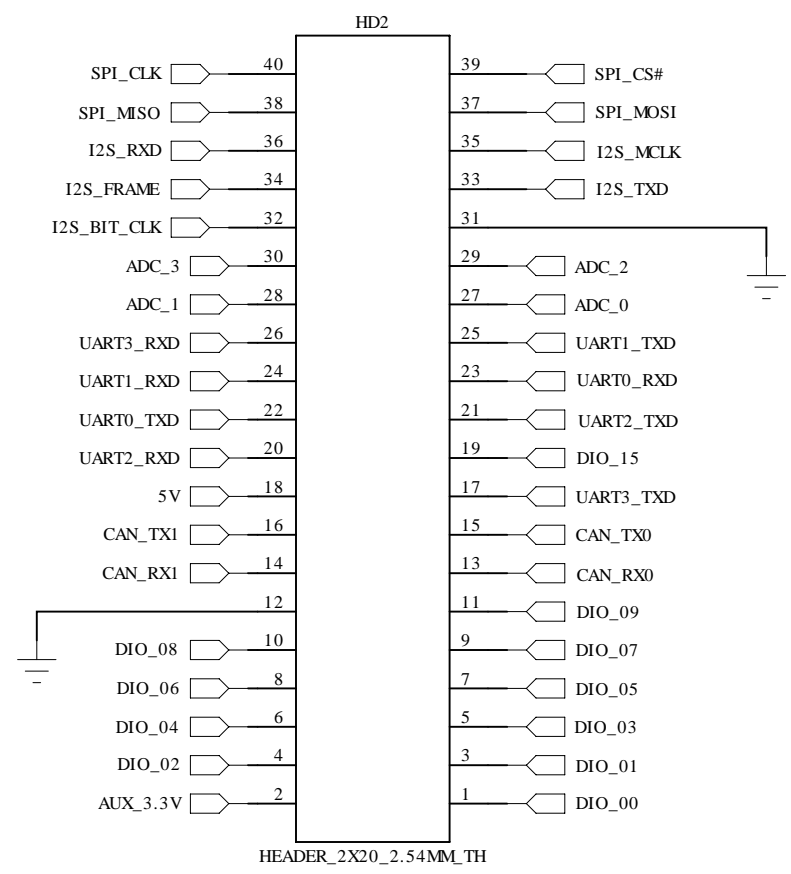
eMMC 4GB



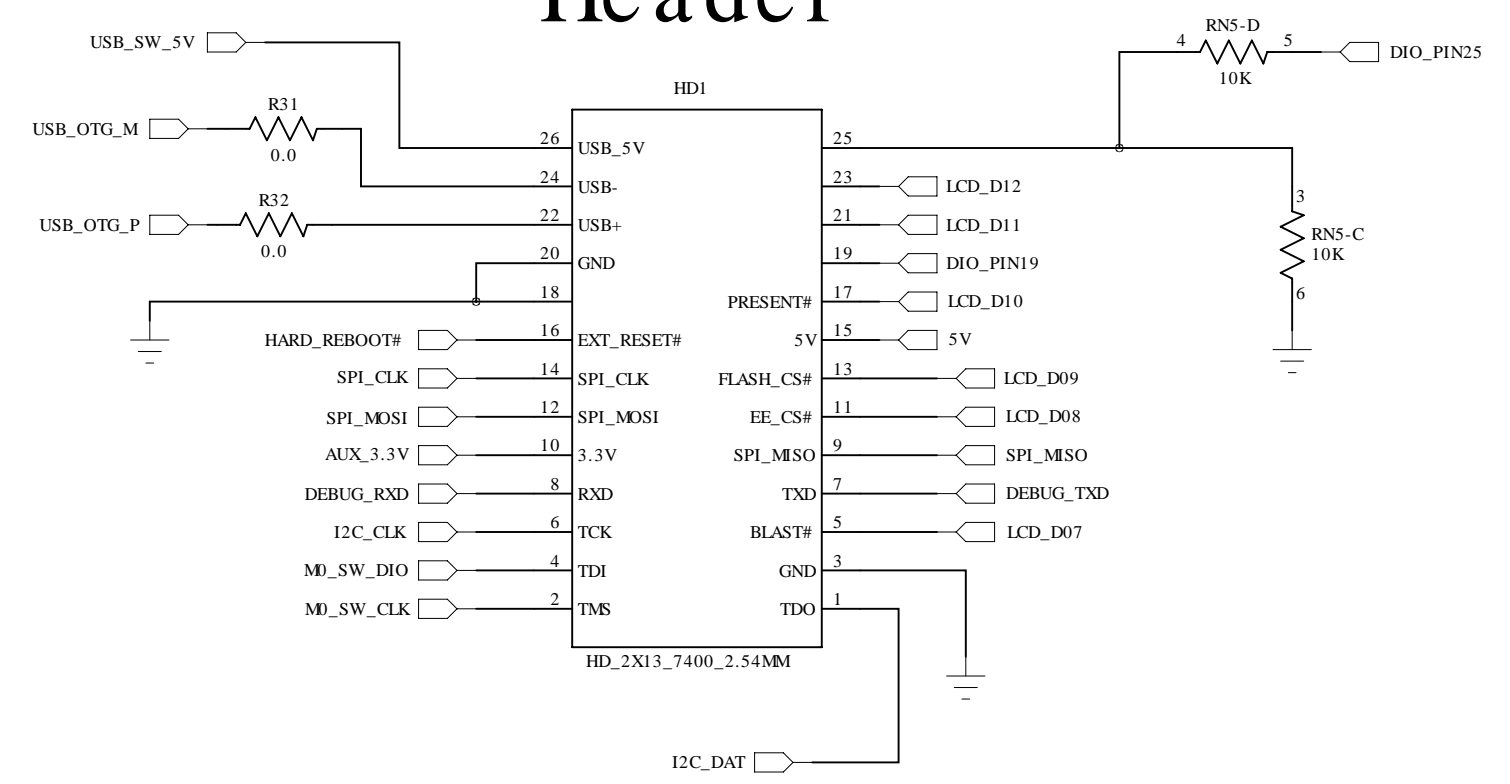
RN12 indicates
eMMC installed



40-Pin DIO Header

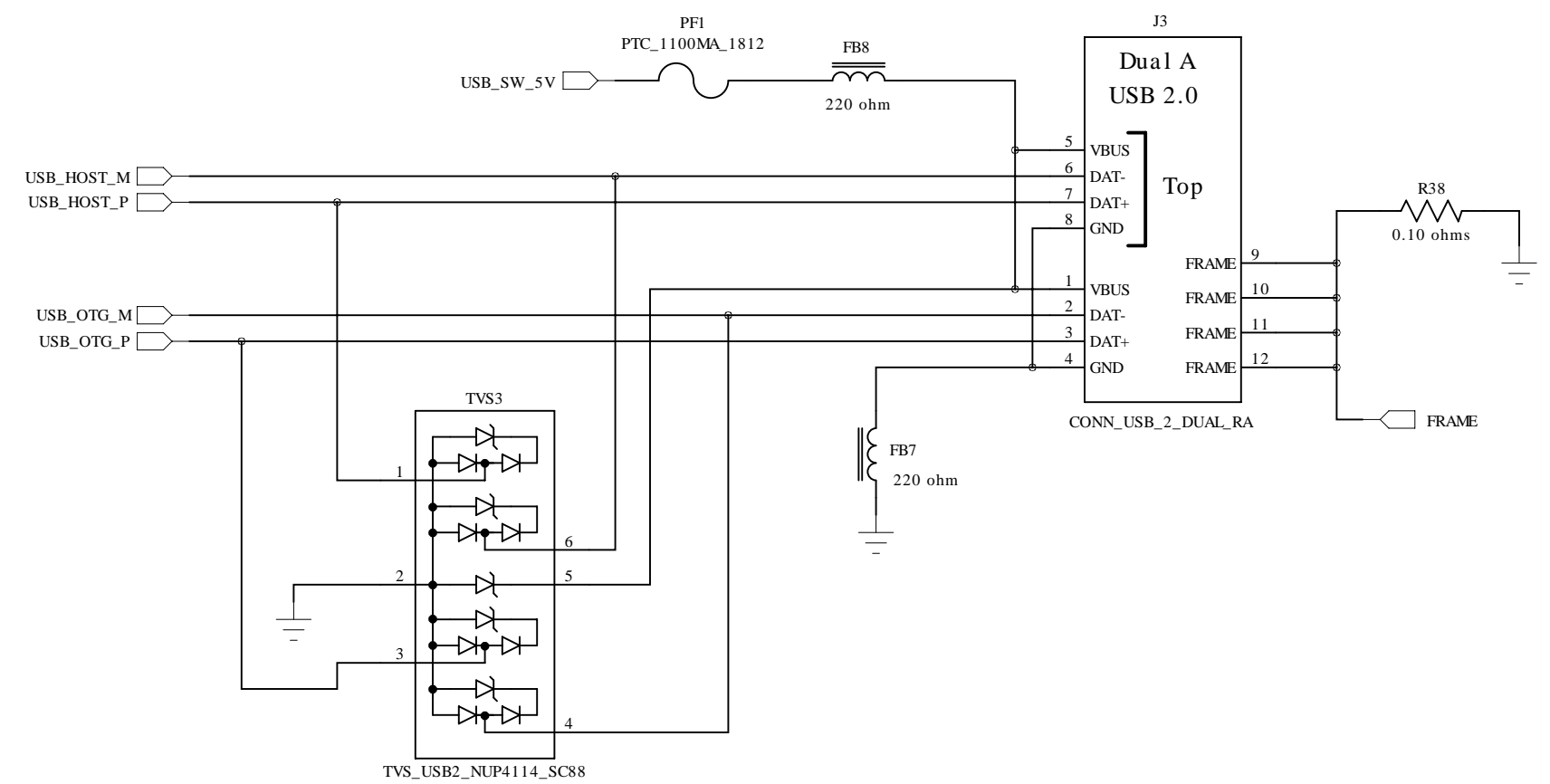
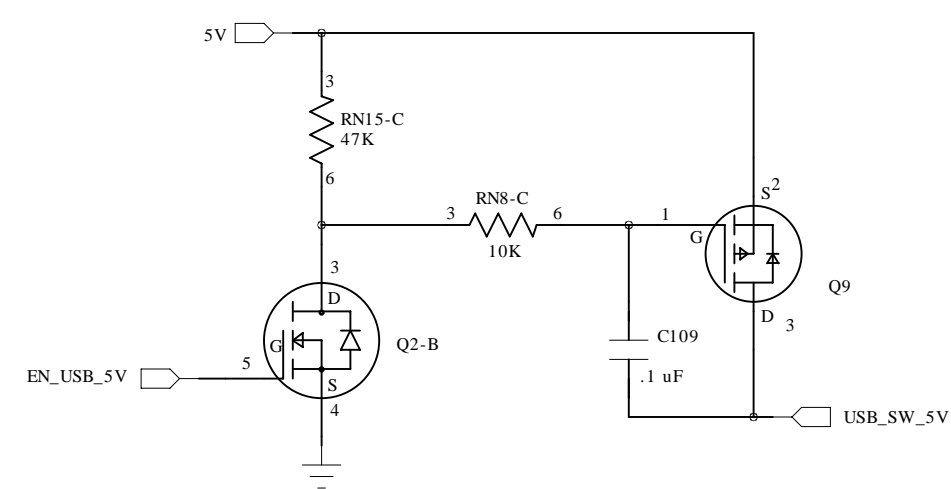


26-Pin DIO Header



USB Host Ports

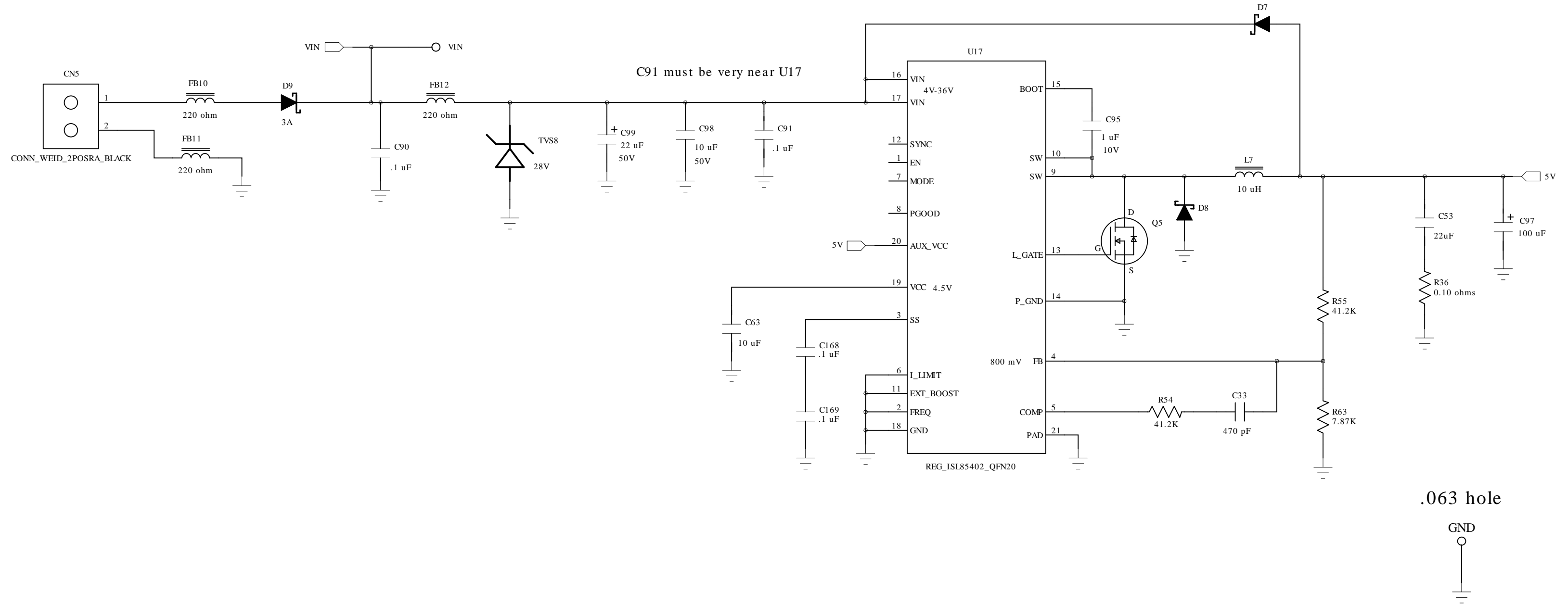
USB 5V



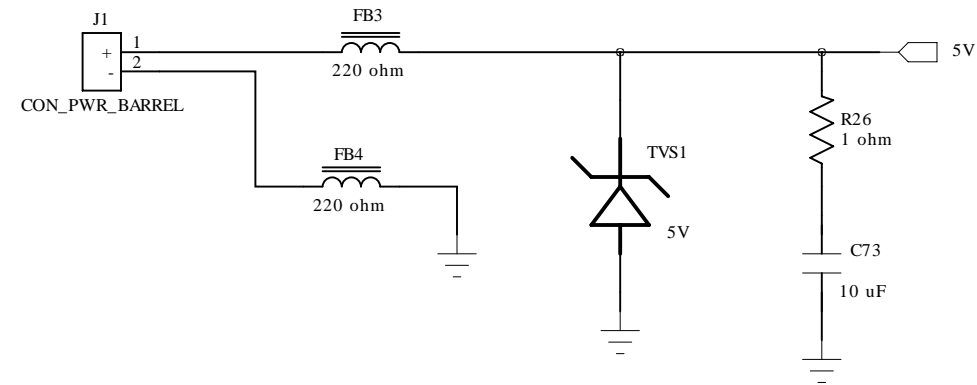
Technologic Systems	Date Feb. 27, 2015
Title: TS-7400_V2 44-pin, 26-pin DIO, USB	
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Optional 5V Power Supply (2000 mA)

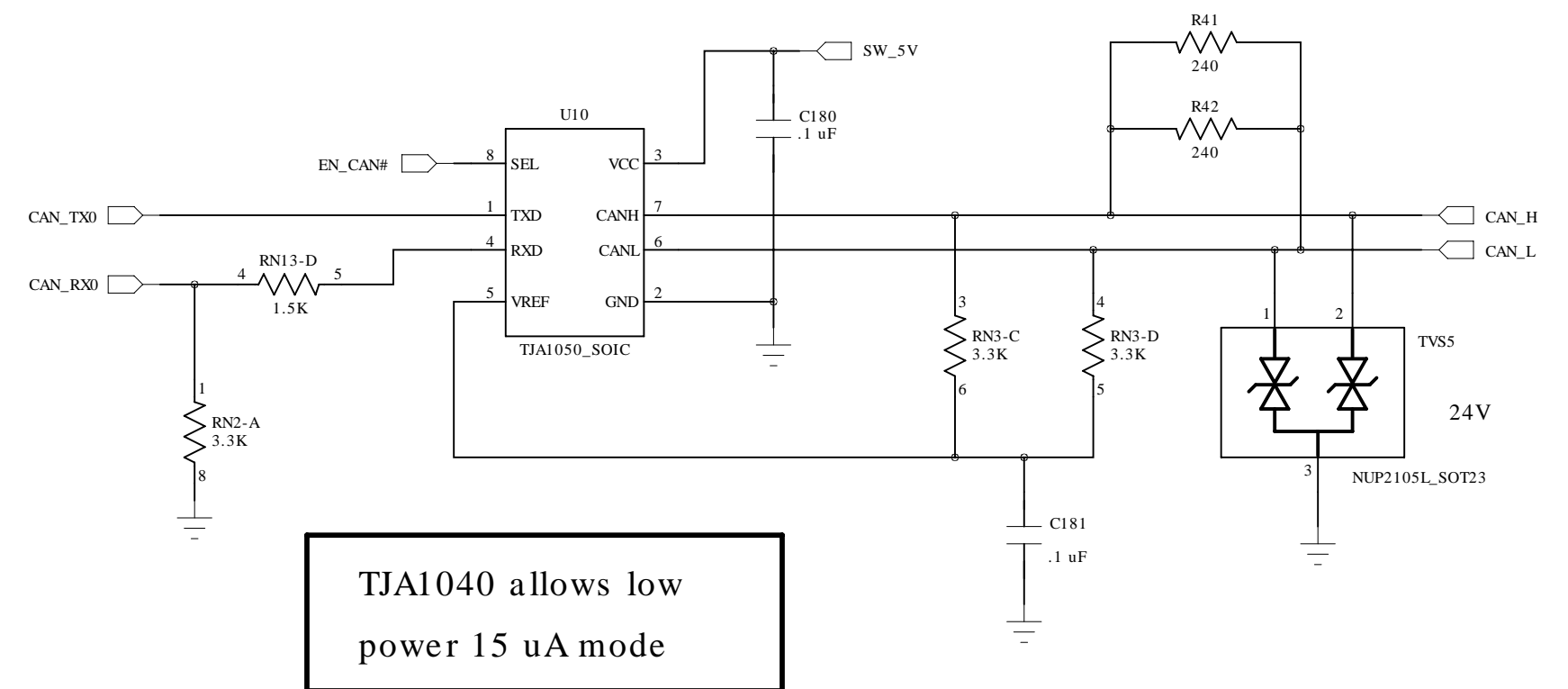
8-28 VDC
Power Input



5V Power Barrel Conn.



CAN Transceiver



TJA1040 allows low power 15 uA mode