

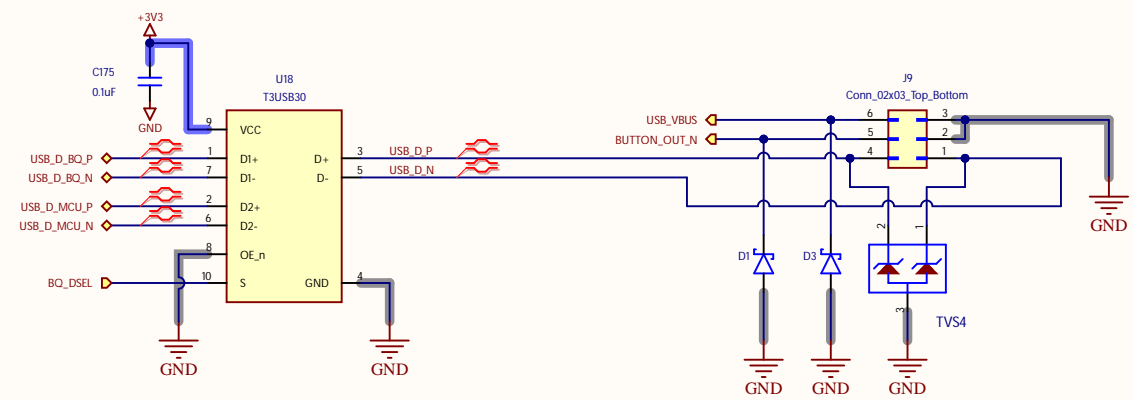
I2C

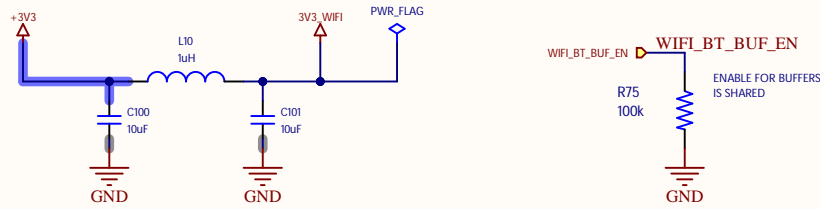
I2C0(SYS_I2C)	* PMIC = 0x24 (36)
	* CHARGER = 0x6A (106)
	* CURRENT = 0x40 (64)
	* CRYPTO = 0x35 (53)
I2C1(USER_I2C)	* TEMP = 0x44 (68)
	* RTC = 0x69 (105)
	* ACCEL = 0x68 (106)
I2C2(FAST_I2C)	* MATRIX1 = 0x50 (80)
	* MATRIX2 = 0x51 (81)
	* MATRIX3 = 0x52 (82)

KEEP.

Sheet: /
 File: elias.sch
 Title: elias

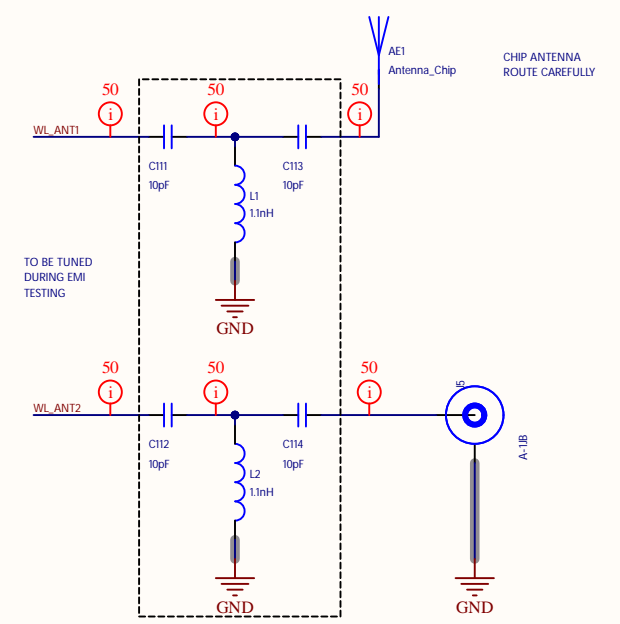
Size: A4	Date:	Rev: v1.0.0
KiCad E.D.A. kicad (5.1.4)-1		Id: 1/9



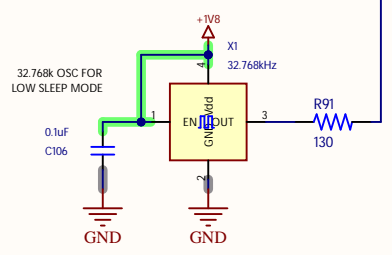
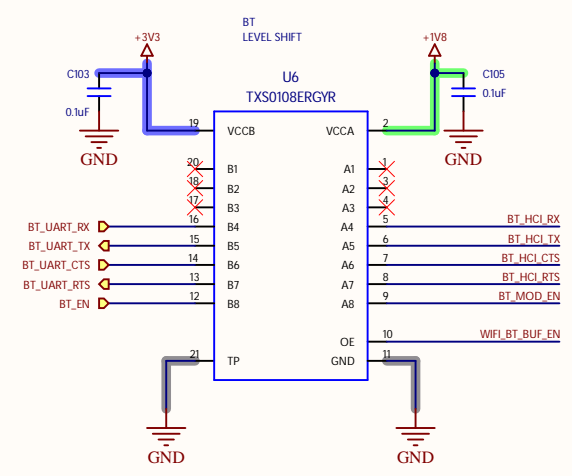
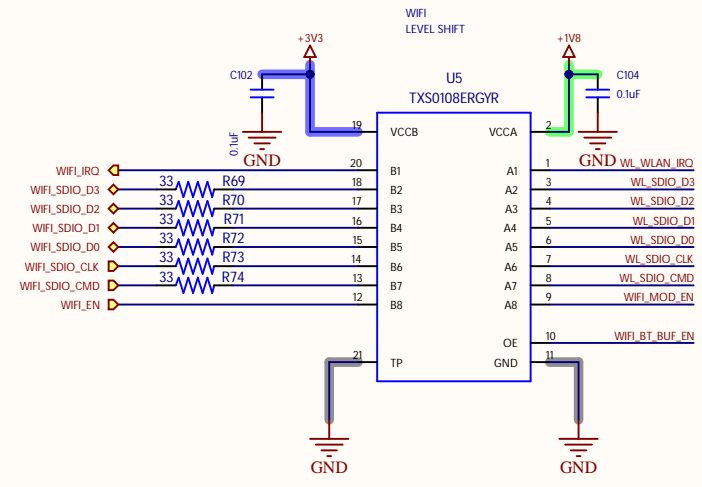
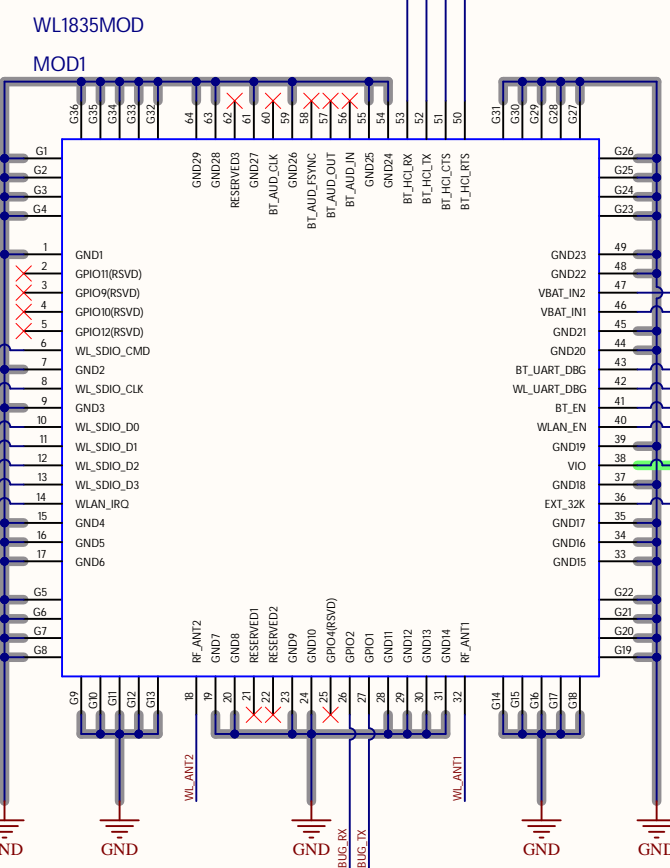


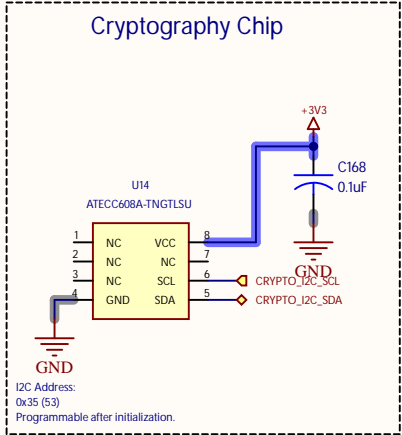
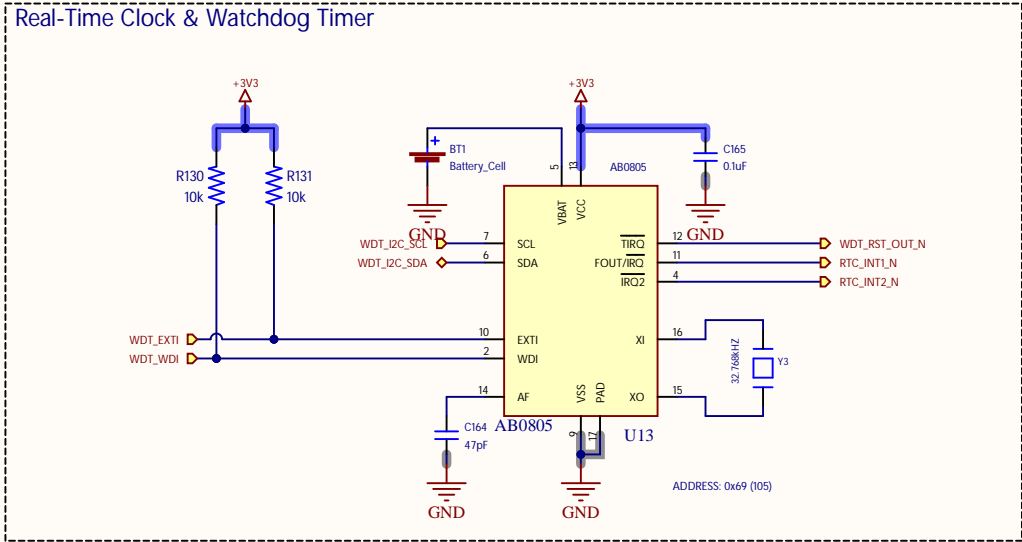
ANTENNAS

ANT1 IS SHARED BETWEEN WIFI & BT
ANT2 IS DEDICATED WIFI



WIFI & BT MODULE





Brain Board
Little Hippo

Sheet: /
File: WDT_RTC_CRYPT0.sch

Title: *elias*

Size: A4

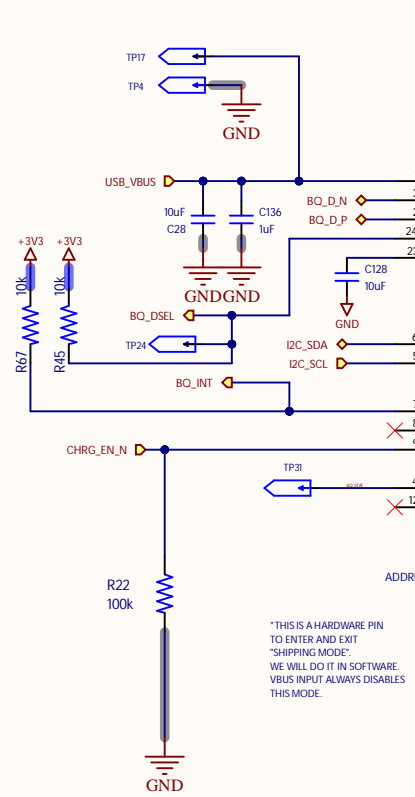
Date:

Rev: v1.0.0

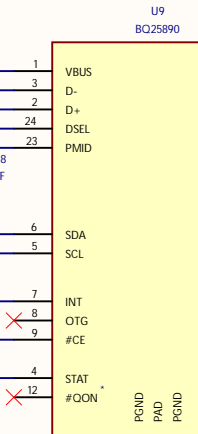
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Id: 4/9

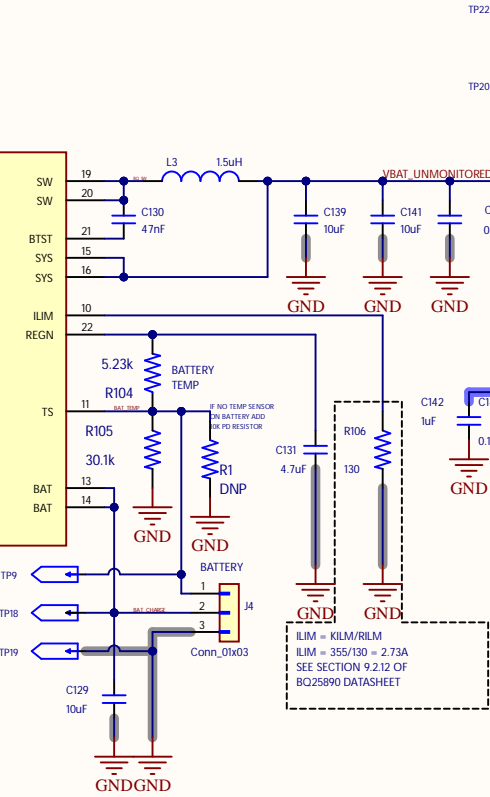
BATTERY CHARGER



*THIS IS A HARDWARE PIN TO ENTER AND EXIT "SHIPPING MODE" WE WILL DO IT IN SOFTWARE. VBUS INPUT ALWAYS DISABLES THIS MODE.

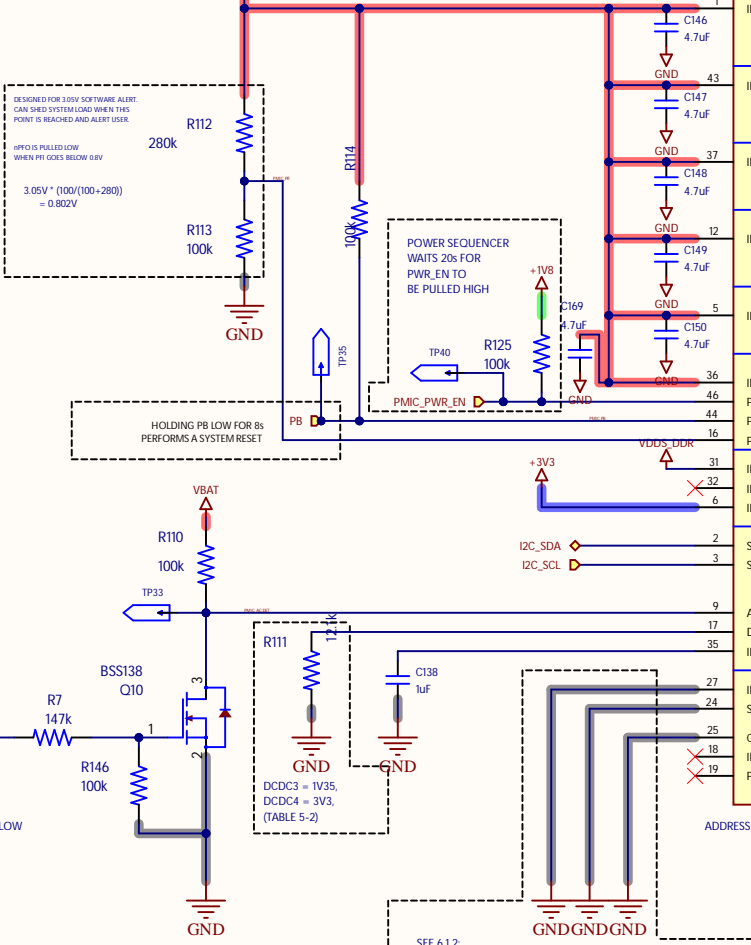


ADDRESS: 0x6A



ILIM = KILM/RLIM
ILIM = 355/130 = 2.73A
SEE SECTION 9.2.12 OF BQ25890 DATASHEET

MAIN PMIC



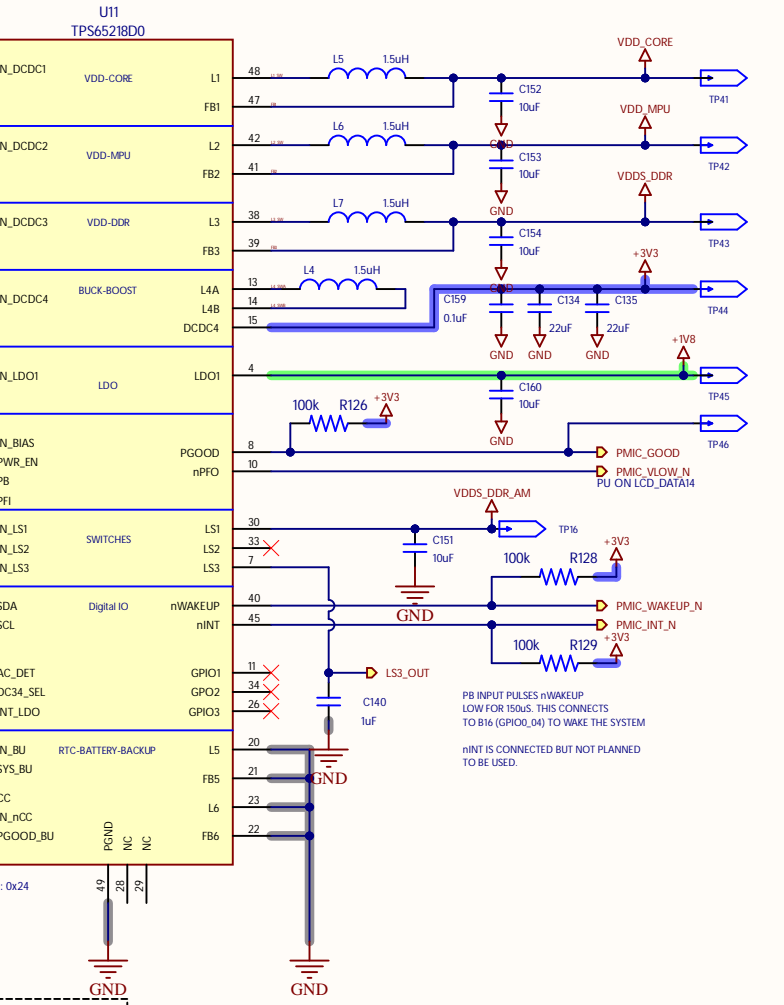
DESIGNED FOR 3.0V SOFTWARE ALERT. GAIN SPEED SYSTEM (AND WHEN THIS POINT IS REACHED AND ALERT USER)
nPFO IS PULLED LOW WHEN PFI GOES BELOW 0.8V
 $3.05V * (100 / (100 + 280)) = 0.802V$

POWER SEQUENCER WAITS 20s FOR PWR_EN TO BE PULLED HIGH
HOLDING PB LOW FOR 8s PERFORMS A SYSTEM RESET

DCDC3 = 1V35, DCDC4 = 3V3, (TABLE 5-2)

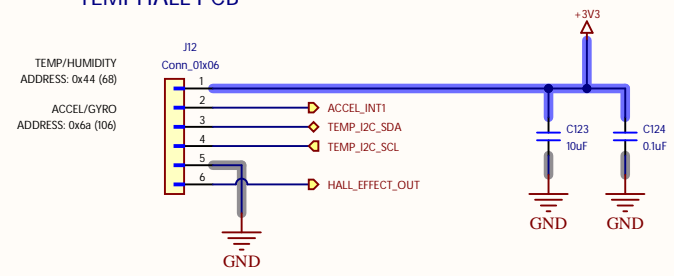
NEED 5-12V USB POWER TO TRIGGER THE GATE OF MOSFET THAT PULLS AC_DET LOW

SEE 6.1.2: "In applications that do not require always-on supplies, PGOOD_BU and IN_nCC can be kept floating. All other pins are tied to ground."
WE DO NOT RELY ON ALWAYS-ON SUPPLY SINCE WE HAVE AN EXTERNAL RTC WITH COINCELL

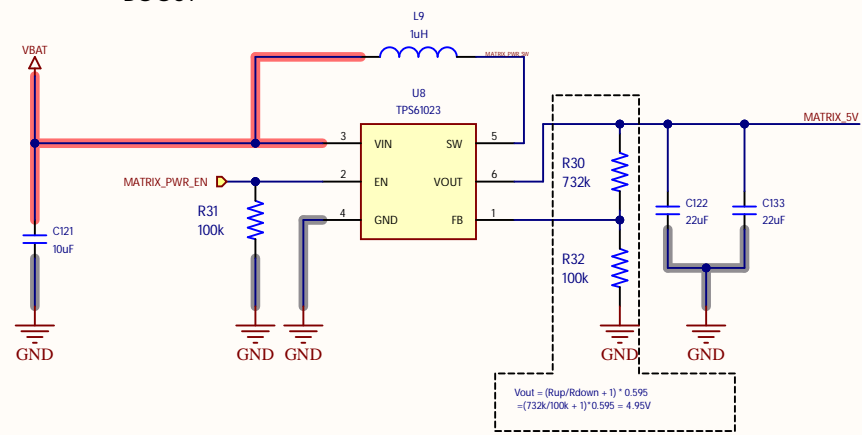


PB INPUT PULSES nWAKEUP LOW FOR 150s. THIS CONNECTS TO B16 (GPIO0_04) TO WAKE THE SYSTEM
nINT IS CONNECTED BUT NOT PLANNED TO BE USED.

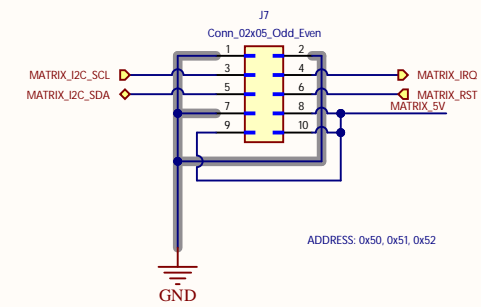
CONNECTOR TO:
TEMPHALL PCB



LED MATRIX
BOOST



LED MATRIX
CONNECTOR



Sheet: /
File: rgb_matrix_leds.sch

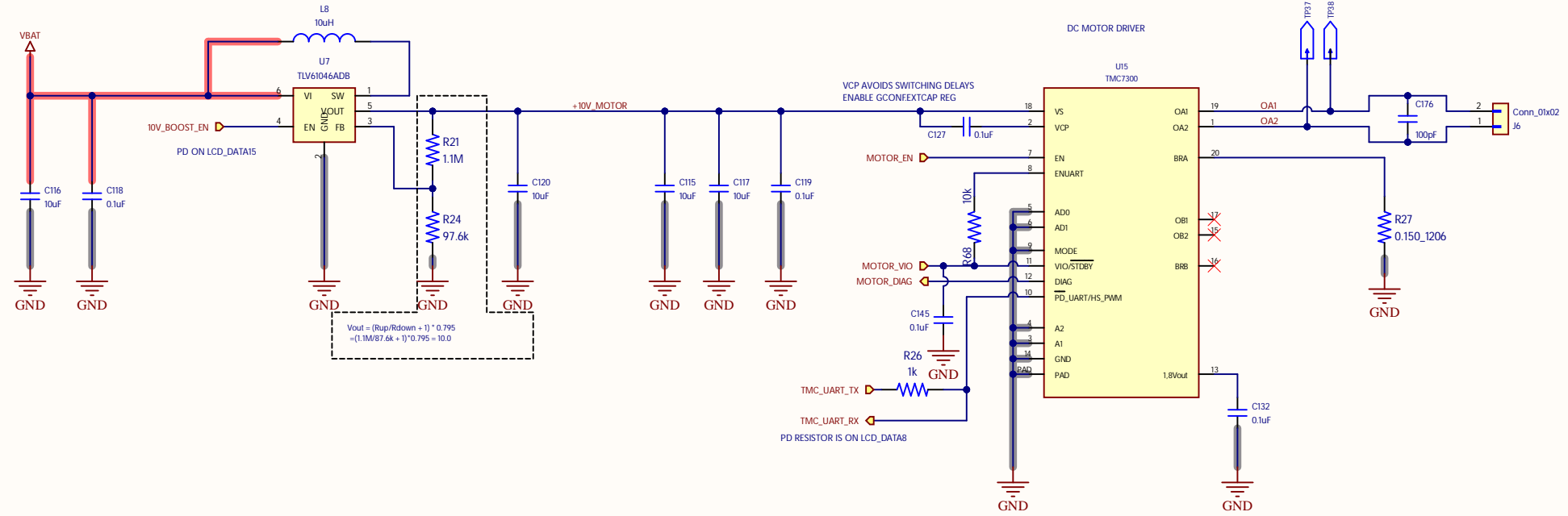
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Size: A4
KiCad E.D.A. kicad (5.1.4)-1

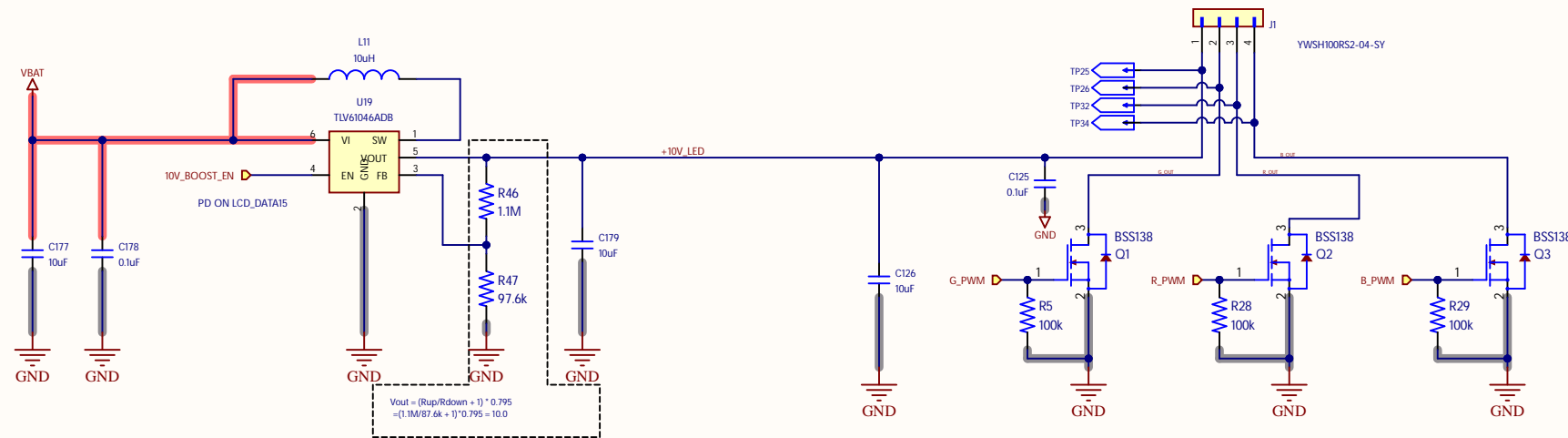
Date:

Rev: v1.0.0
Id: 6/9

RGB LED & MOTOR BOOST



RGB LED CONNECTOR



Sheet: /
 File: actuator_driversch

Title: elias

Size: A4

Date:

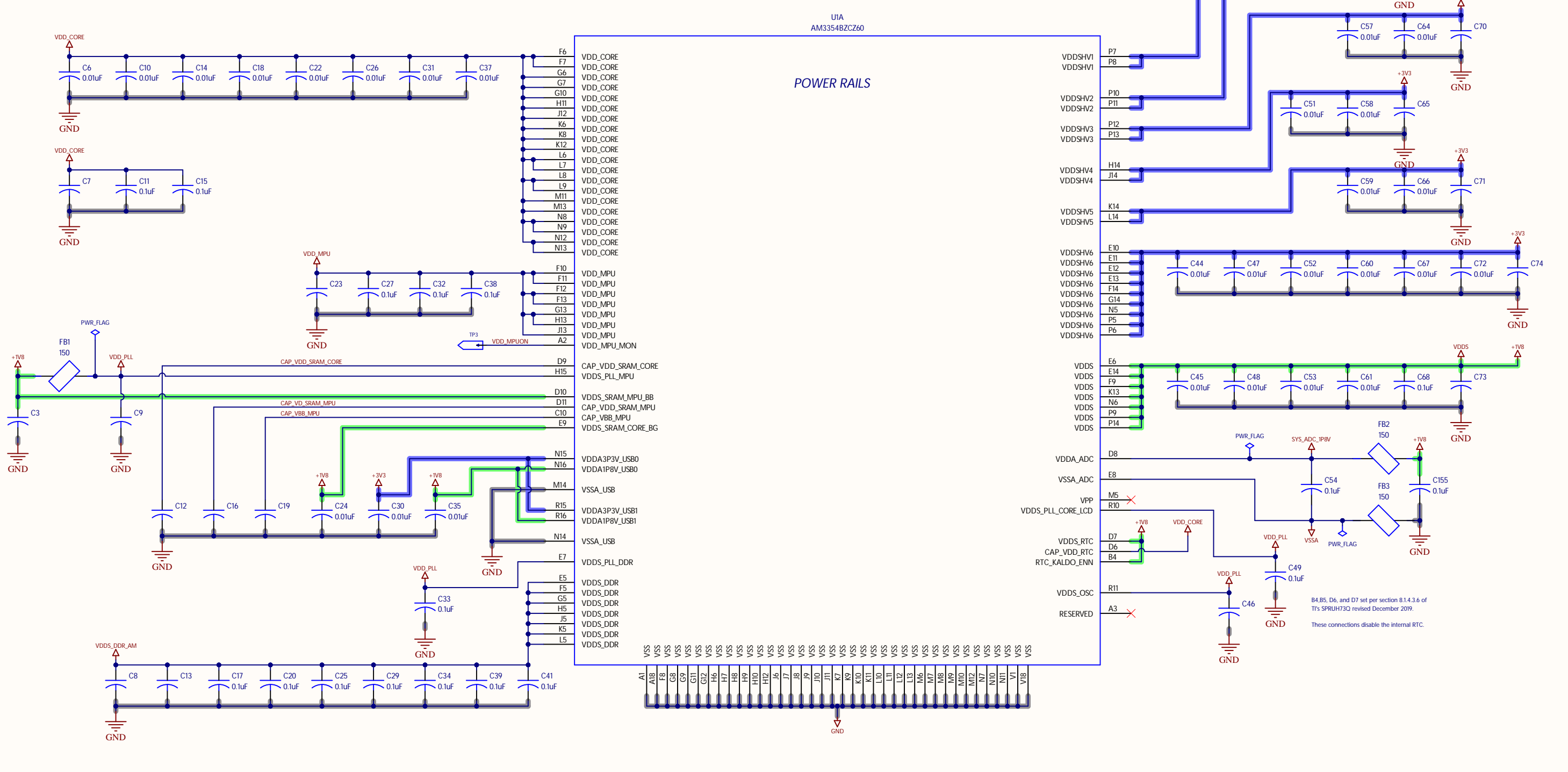
Rev: v1.0.0

KiCad E.D.A. kicad (5.1.4)-1

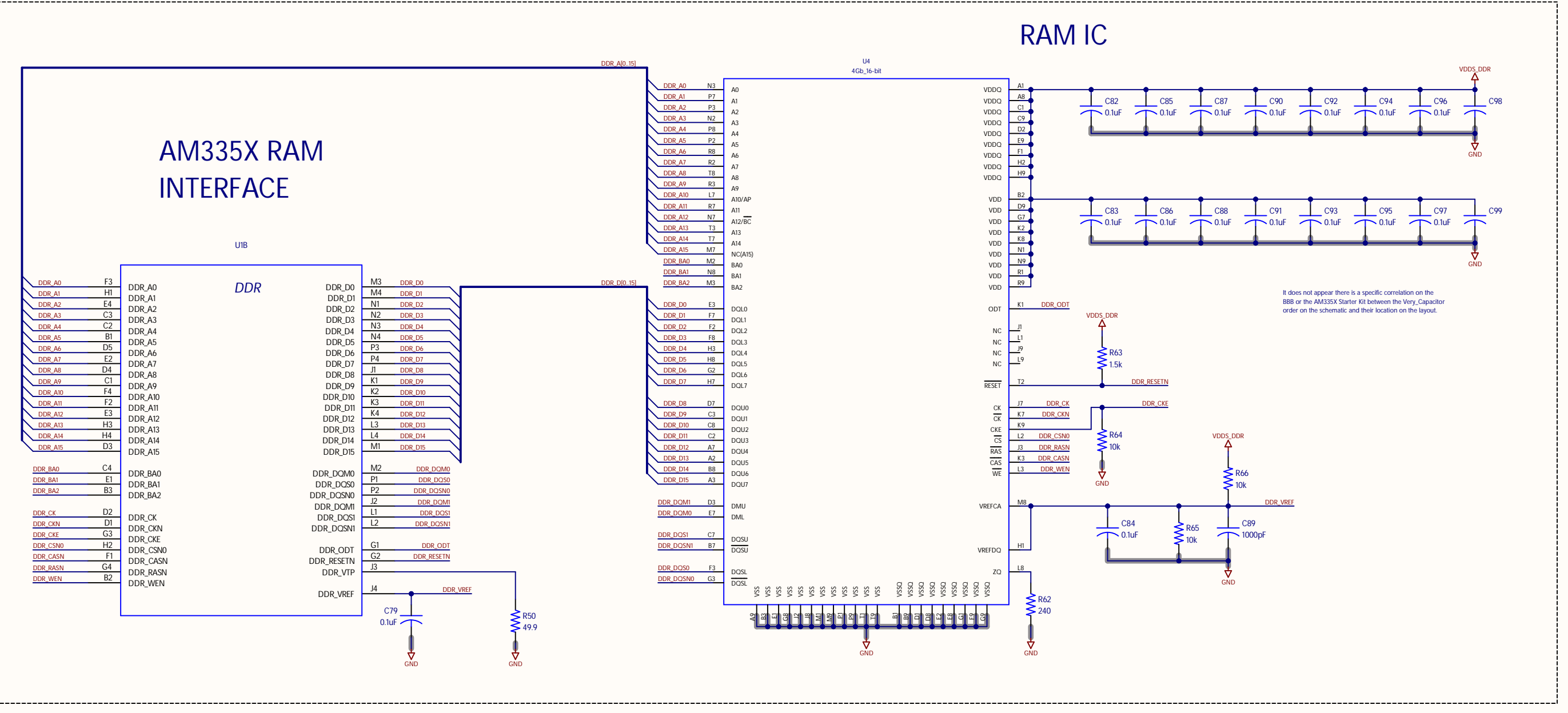
Id: 7/9

AM335X POWER INTERFACE

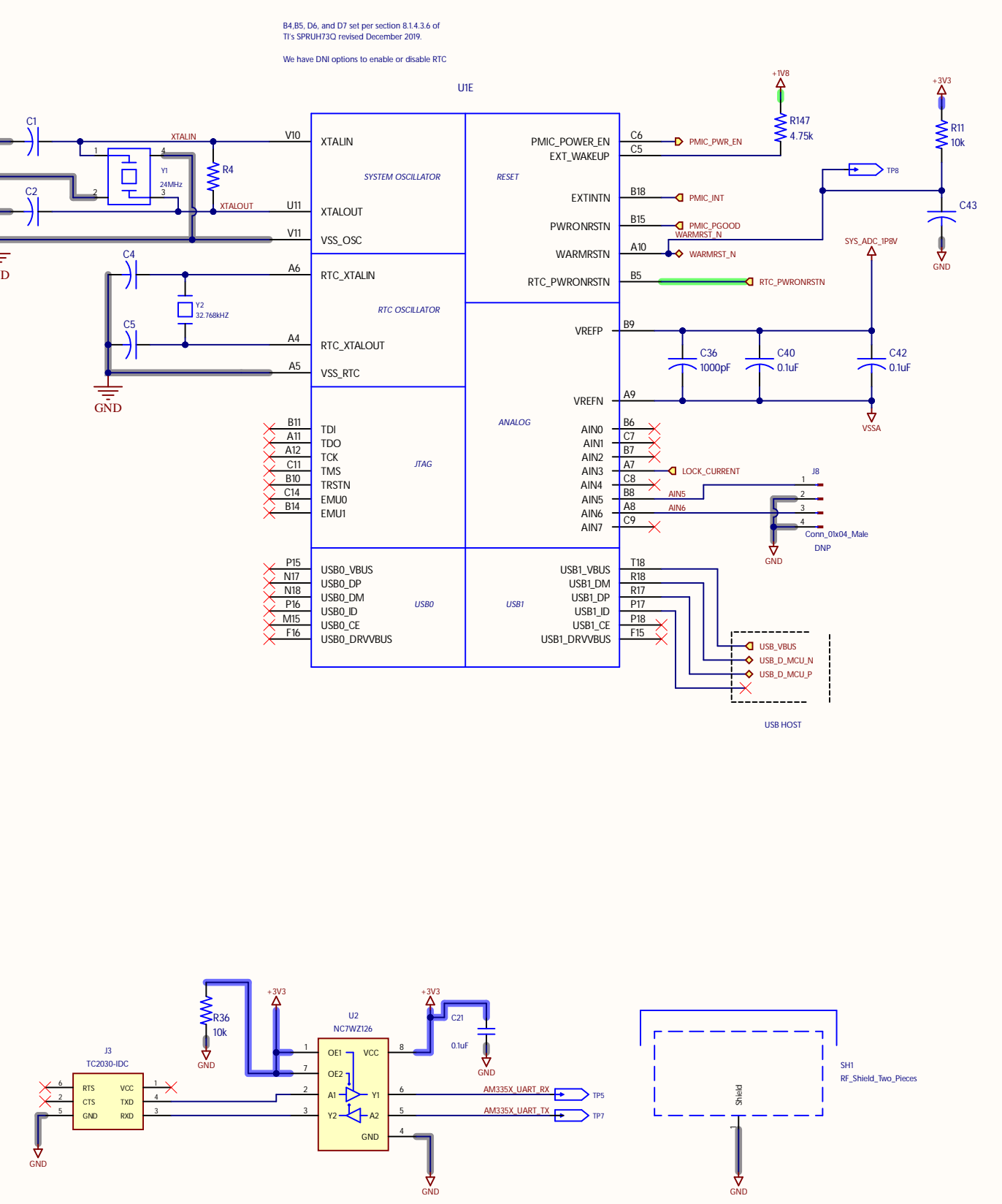
See section 1.1 of the AM335X Reference Manual for internal VDD/VSS Capacitors.
 Reference AM335X Starter Kit schematic, if available.
 Note: The Bangalore Block does not include the recommended VDD/VSS Capacitors.



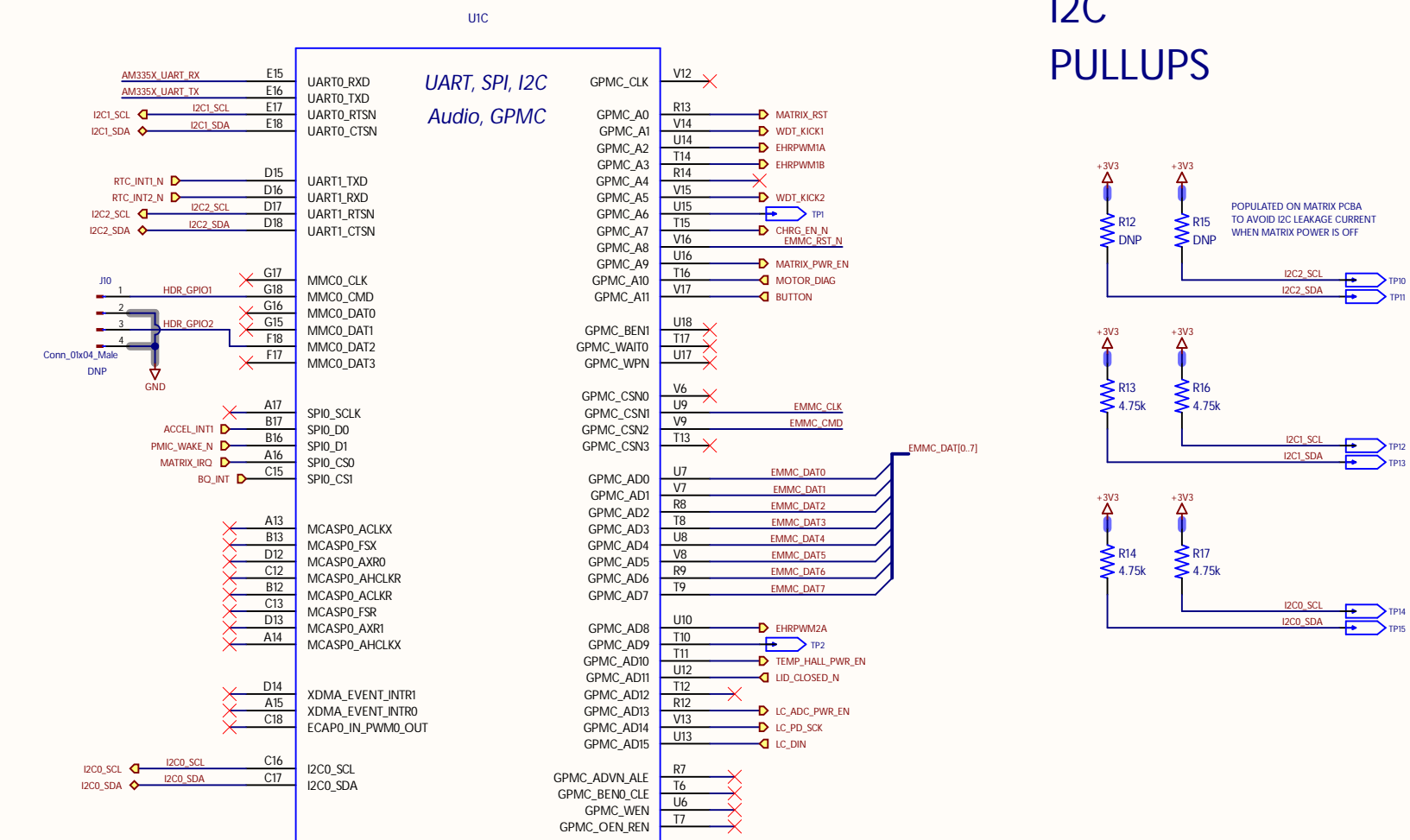
AM335X RAM INTERFACE



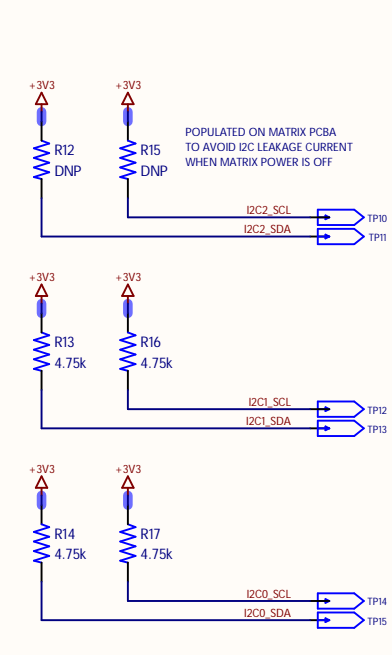
AM335X SYSTEM INTERFACE



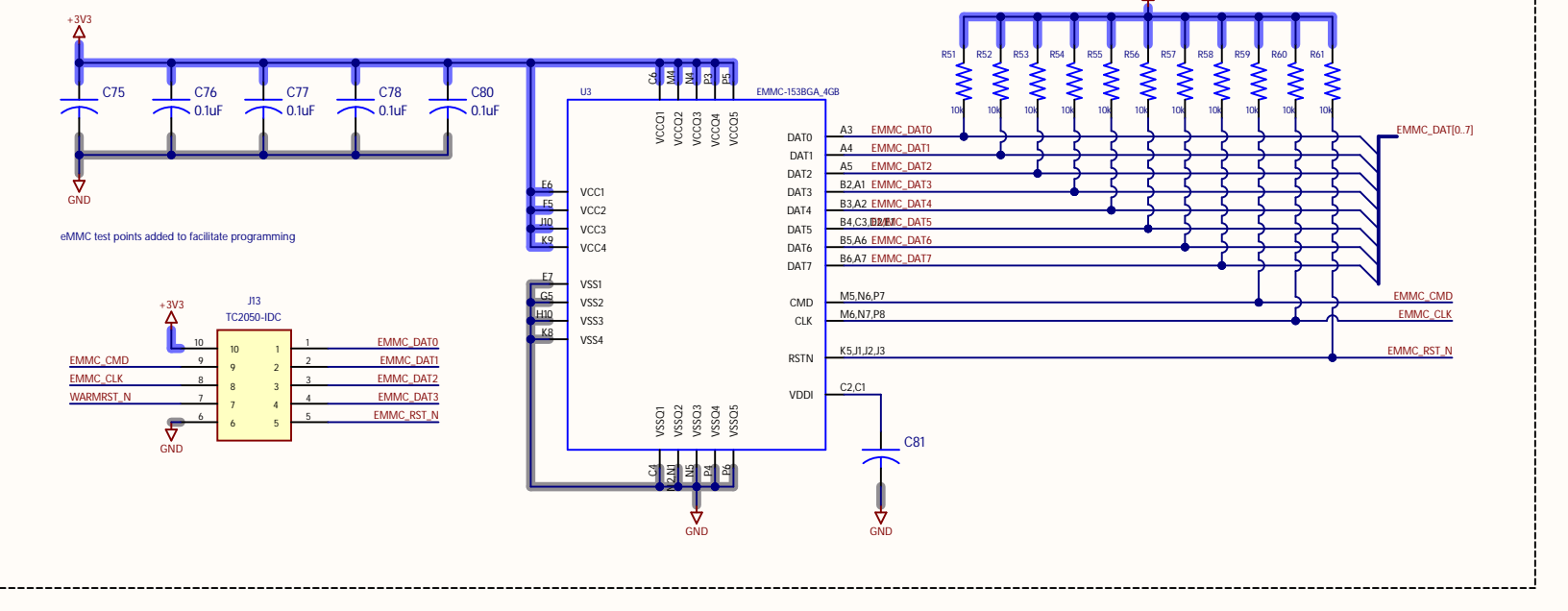
AM335X GPIO



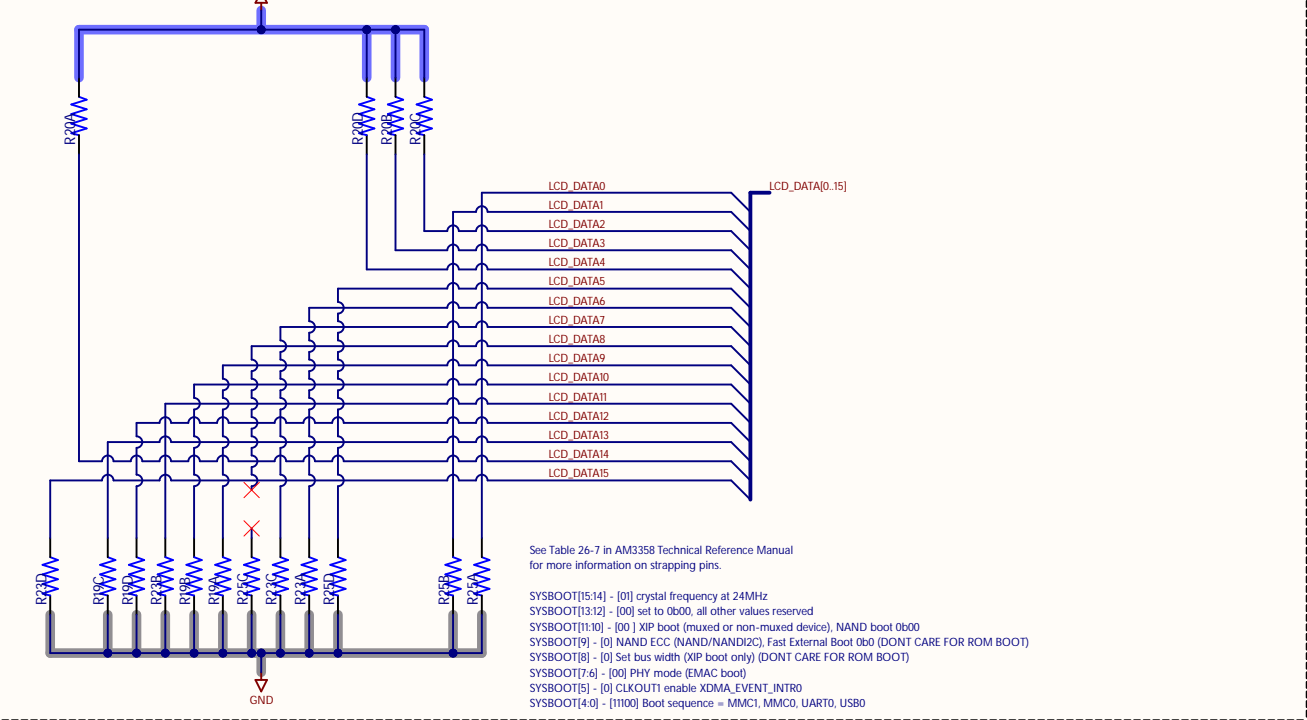
I2C PULLUPS

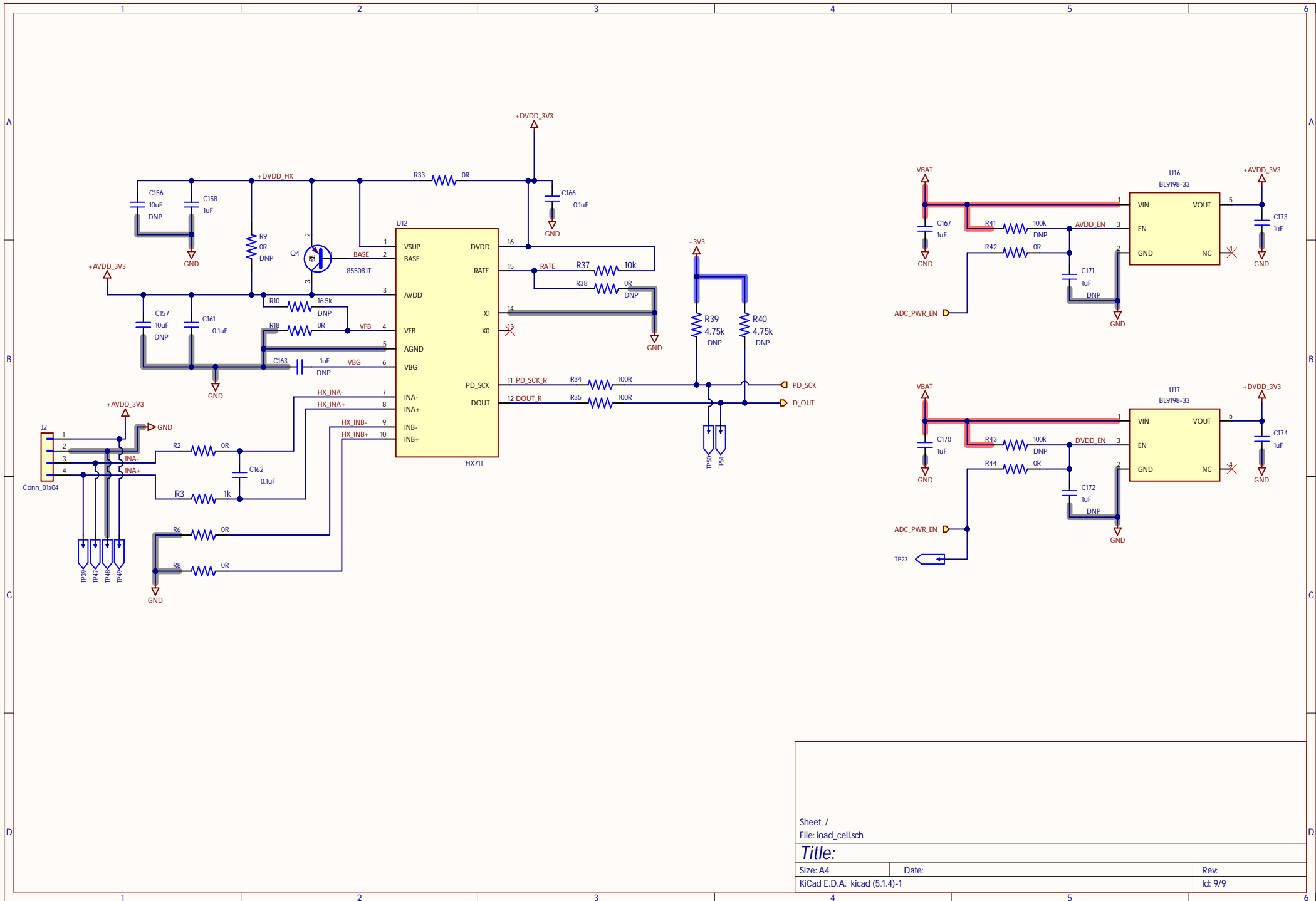


eMMC IC



AM335X Configuration Pins





Sheet: /		File: load_cell.sch	
Title:			
Size: A4	Date:		Rev:
KiCad E.D.A. kicad (5.1.4)-1			Id: 9/9