CoreSam3x

An Arduino® Due compatible SAM3X core board.

Design goals

- Board is 2 layer 50x50mm max dimension to take advantage of cheap PCB service.
- Components are DIY friendly 0603 or larger
- Self contained board, so can be programmed and run with just USB cable
- Compatible with "Due" board target in Arduino IDE, no extra support required
- Programmed via USB, JTAG pins or 6 pin serial programming header
- 0.1" pitch pin spacing

Features

- all Due pins available
- some extra GPIO extra pins available
- Ethernet pins available
- Battery backup pins available
- JTAG pins available
- EBI pins available
- on board USB (OTG, ie. device or host)
- can be powered from USB device or external 5V
- on board 3.3V regulator
- buttons for Reset, Erase
- LEDs for 3.3V power, D13
- RTC crystal
- two mounting lugs for M2.5
- dimensions : 2" by 1.6" (51x41mm) excluding mounting lugs

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Sheet: Power

File: Power.sch

Sheet: Processor

File: Processor.sch

H1

M2
OSHW_logo_2
LOGO_OSHW

M1
PCB_GREEN_RMC

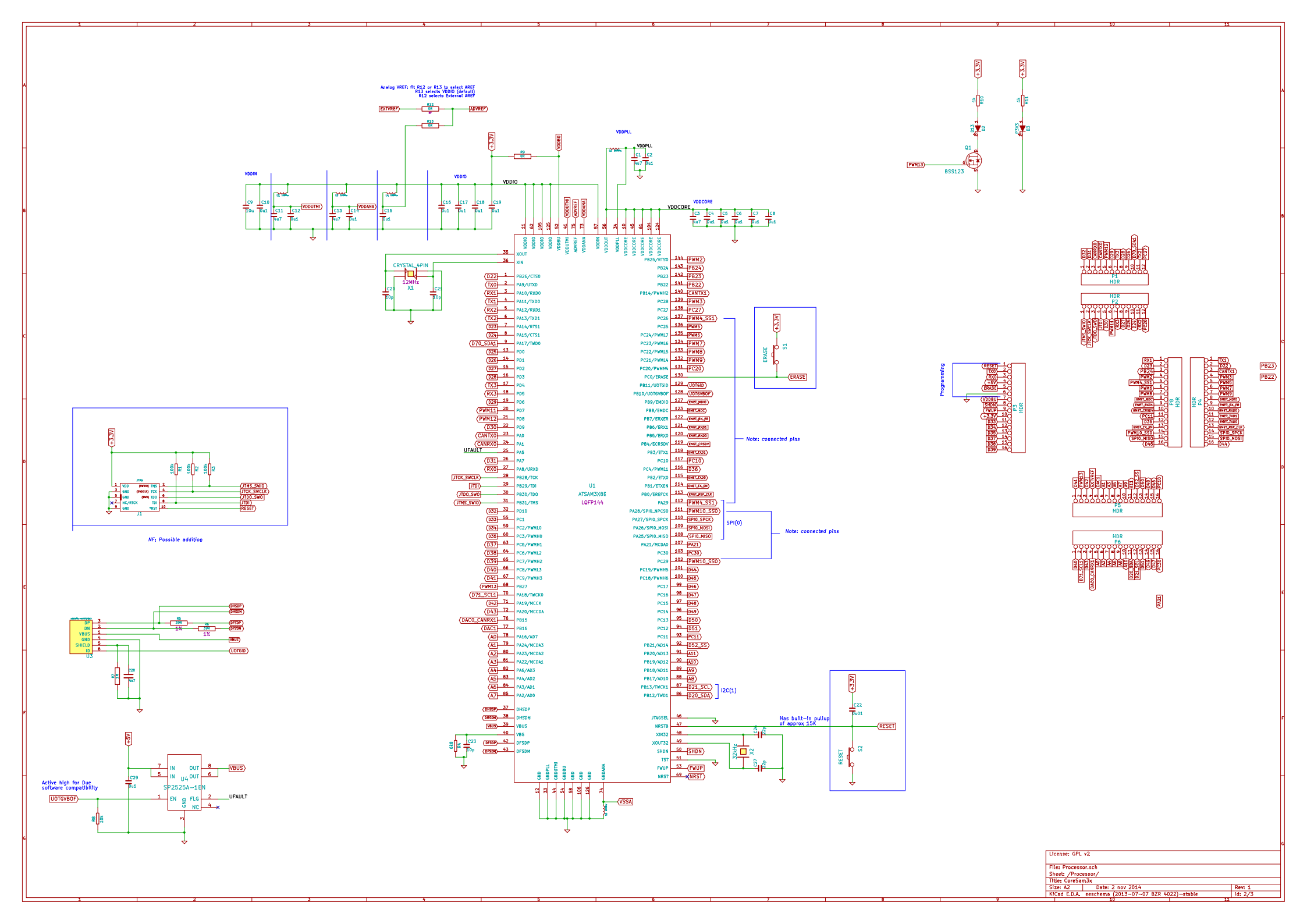
H2

Some schematics and library symbols derived from Duet project
https://github.com/T3P3/Duet licensed under the CERN OHW Licence v1.2

File: CoreSam3x.sch
Sheet: /

Title: CoreSam3x

Size: A4	Date: 2 nov 2014	**Rev: 1**
KiCad E.D.A.	eeschema (2013-07-07 BZR 4022)-stable	Id: 1/3


Analog VREF: fit R12 or R13 to select AREF
R13 selects VDDIO (default)
R12 selects External AREF
EXTVREF
ADVREF
VDDIN
VDDIO
VDDPLL
VDDCORE
CRYSTAL_4PIN
12MHz
X1
U1
ATSAM3X8E
LQFP144
Note: connected pins
SPI(0)
I2C(1)
ERASE
RESET
Has built-in pullup of approx 15K
Programming
NF: Possible addition
SP2525A-1BN
Active high for Due software compatibility
UOTGVBOF
UFAULT
VBUS
VSSA
PB23
PB22
License: GPL v2
File: Processor.sch
Sheet: /Processor/
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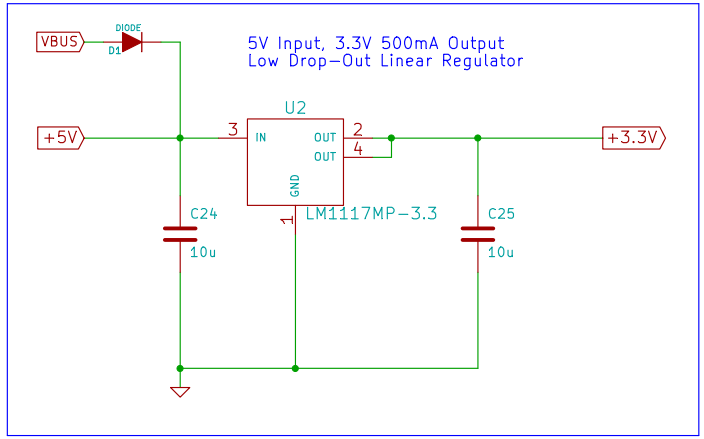

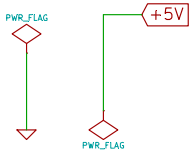

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