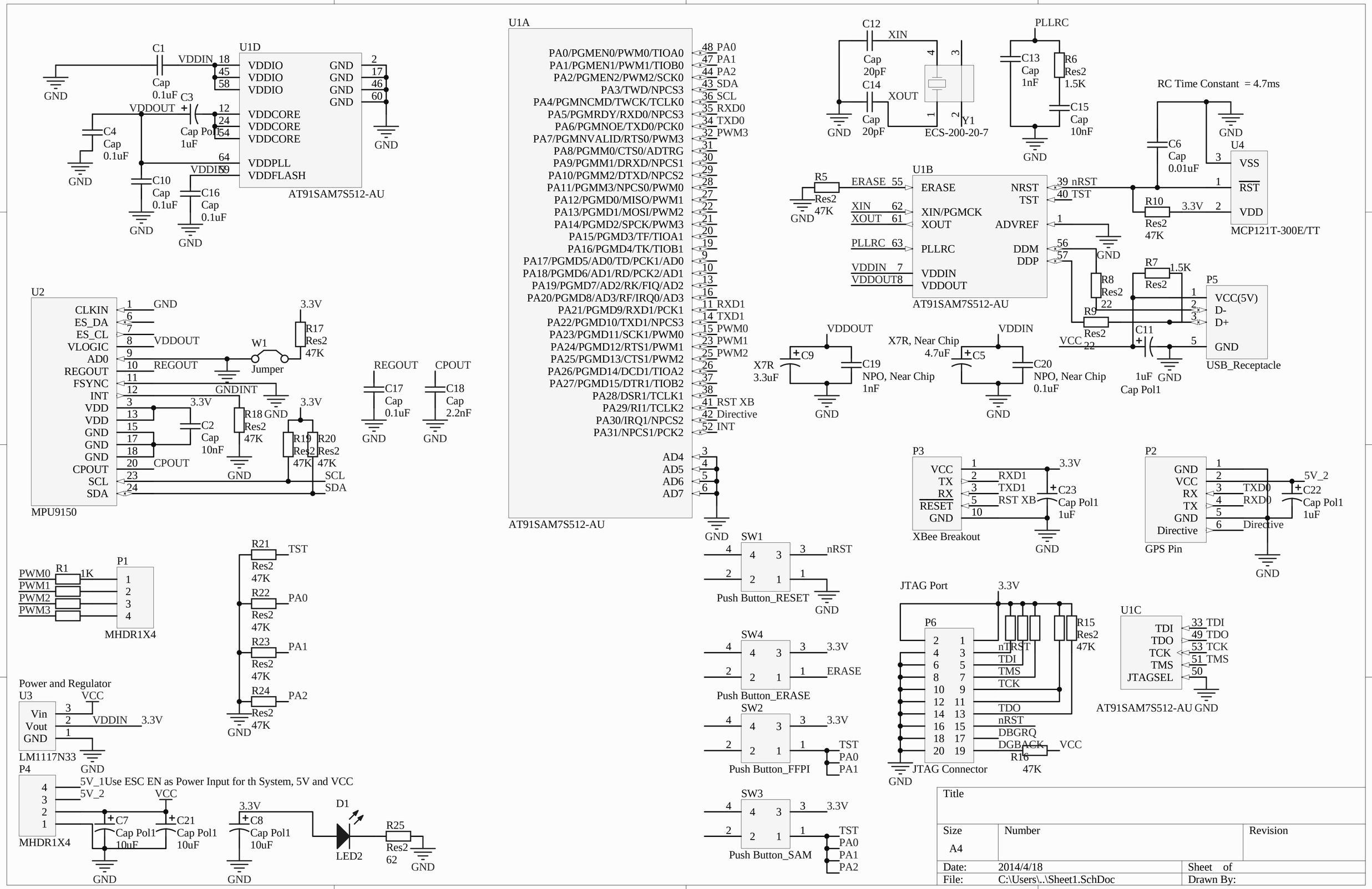
U1D
AT91SAM7S512-AU
VDDIO
VDDCORE
VDDPLL
VDDFLASH
GND
VDDIN
VDDOUT
C1 Cap 0.1uF
C3 Cap Pol1 1uF
C4 Cap 0.1uF
C10 Cap 0.1uF
C16 Cap 0.1uF
U1A
AT91SAM7S512-AU
PA0/PGMEN0/PWM0/TIOA0
PA1/PGMEN1/PWM1/TIOB0
PA2/PGMEN2/PWM2/SCK0
PA3/TWD/NPCS3
PA4/PGMNCMD/TWCK/TCLK0
PA5/PGMRDY/RXD0/NPCS3
PA6/PGMNOE/TXD0/PCK0
PA7/PGMNVALID/RTS0/PWM3
PA8/PGMM0/CTS0/ADTRG
PA9/PGMM1/DRXD/NPCS1
PA10/PGMM2/DTXD/NPCS2
PA11/PGMM3/NPCS0/PWM0
PA12/PGMD0/MISO/PWM1
PA13/PGMD1/MOSI/PWM2
PA14/PGMD2/SPCK/PWM3
PA15/PGMD3/TF/TIOA1
PA16/PGMD4/TK/TIOB1
PA17/PGMD5/AD0/TD/PCK1/AD0
PA18/PGMD6/AD1/RD/PCK2/AD1
PA19/PGMD7/AD2/RK/FIQ/AD2
PA20/PGMD8/AD3/RF/IRQ0/AD3
PA21/PGMD9/RXD1/PCK1
PA22/PGMD10/TXD1/NPCS3
PA23/PGMD11/SCK1/PWM0
PA24/PGMD12/RTS1/PWM1
PA25/PGMD13/CTS1/PWM2
PA26/PGMD14/DCD1/TIOA2
PA27/PGMD15/DTR1/TIOB2
PA28/DSR1/TCLK1
PA29/RI1/TCLK2
PA30/IRQ1/NPCS2
PA31/NPCS1/PCK2
AD4
AD5
AD6
AD7
PA0 PA1 PA2 SDA SCL RXD0 TXD0 PWM3 RXD1 TXD1 PWM0 PWM1 PWM2 RST XB Directive INT
C12 Cap 20pF
C14 Cap 20pF
Y1 ECS-200-20-7
PLLRC
C13 Cap 1nF
R6 Res2 1.5K
C15 Cap 10nF
RC Time Constant = 4.7ms
C6 Cap 0.01uF
U4
MCP121T-300E/TT
VSS
RST
VDD
R10 Res2 47K
3.3V
U1B
ERASE
XIN/PGMCK
XOUT
PLLRC
VDDIN
VDDOUT
NRST
TST
ADVREF
DDM
DDP
R5 Res2 47K
R7 Res2 1.5K
R8 Res2 22
R9 Res2 22
P5
VCC(5V)
D-
D+
USB_Receptacle
C11 1uF Cap Pol1
C9 X7R 3.3uF
C19 NPO, Near Chip 1nF
C5 X7R, Near Chip 4.7uF
C20 NPO, Near Chip 0.1uF
U2
MPU9150
CLKIN
ES_DA
ES_CL
VLOGIC
AD0
REGOUT
FSYNC
INT
CPOUT
SCL
SDA
W1 Jumper
R17 Res2 47K
R18 Res2 47K
C2 Cap 10nF
R19 Res2 47K
R20 Res2 47K
C17 Cap 0.1uF
C18 Cap 2.2nF
P3
XBee Breakout
RXD1
TXD1
RST XB
C23 Cap Pol1 1uF
P2
GPS Pin
TXD0
RXD0
Directive
5V_2
C22 Cap Pol1 1uF
SW1
Push Button_RESET
nRST
SW4
Push Button_ERASE
ERASE
SW2
Push Button_FFPI
TST
PA0
PA1
SW3
Push Button_SAM
PA2
JTAG Port
P6
JTAG Connector
nTRST
TDI
TMS
TCK
TDO
nRST
DBGRQ
DGBACK
R16 47K
R15 Res2 47K
U1C
AT91SAM7S512-AU
TDI
TDO
TCK
TMS
JTAGSEL
PWM0
PWM1
PWM2
PWM3
R1 1K
P1
MHDR1X4
R21 Res2 47K
R22 Res2 47K
R23 Res2 47K
R24 Res2 47K
Power and Regulator
U3
Vin
Vout
LM1117N33
P4
MHDR1X4
5V_1Use ESC EN as Power Input for th System, 5V and VCC
C7 Cap Pol1 10uF
C21 Cap Pol1 10uF
C8 Cap Pol1 10uF
D1
LED2
R25 Res2 62
Title
Size A4
Number
Revision
Date: 2014/4/18
Sheet of
File: C:\Users\..\Sheet1.SchDoc
Drawn By: