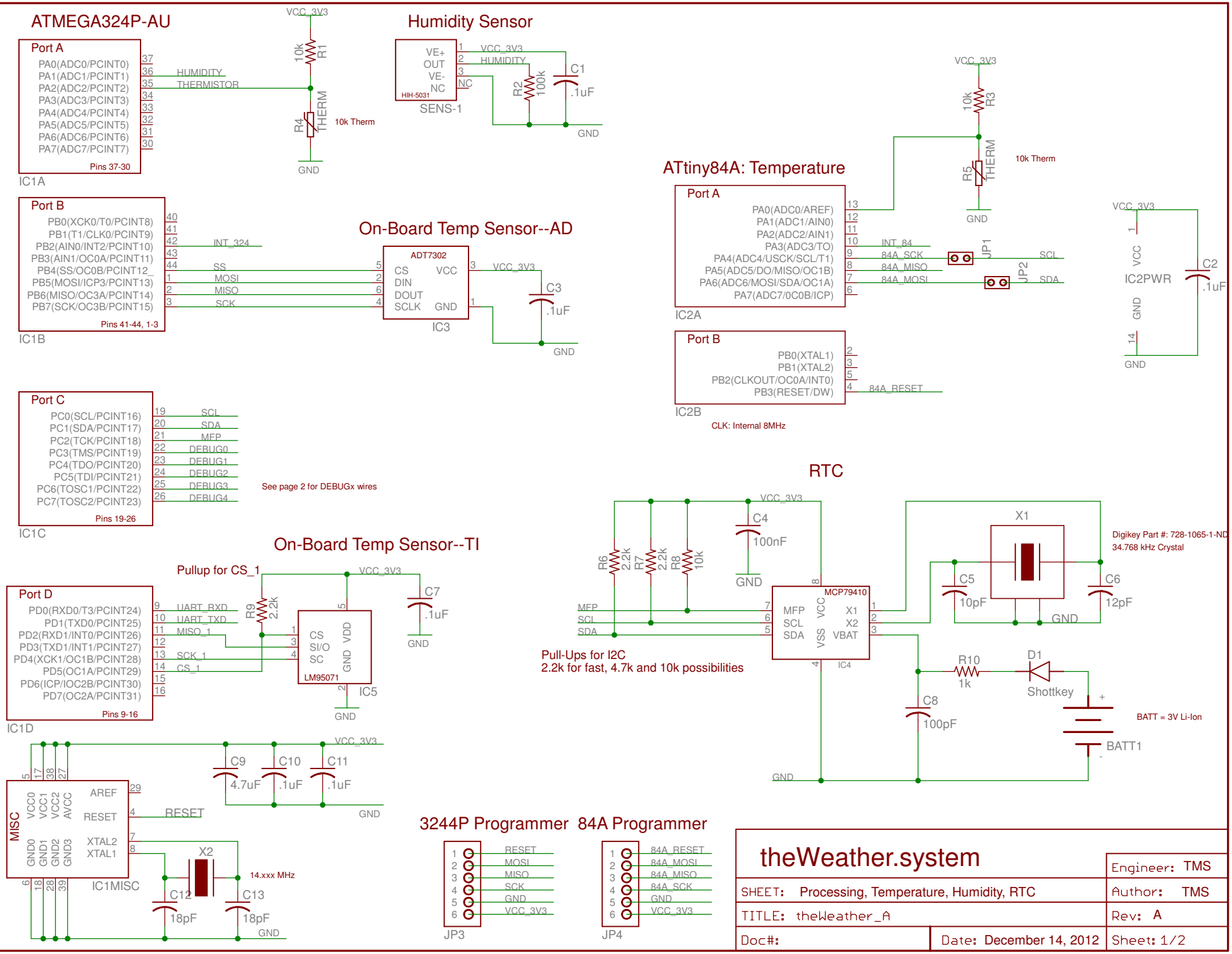
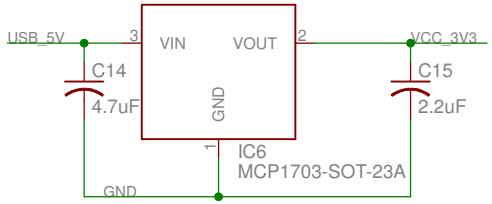
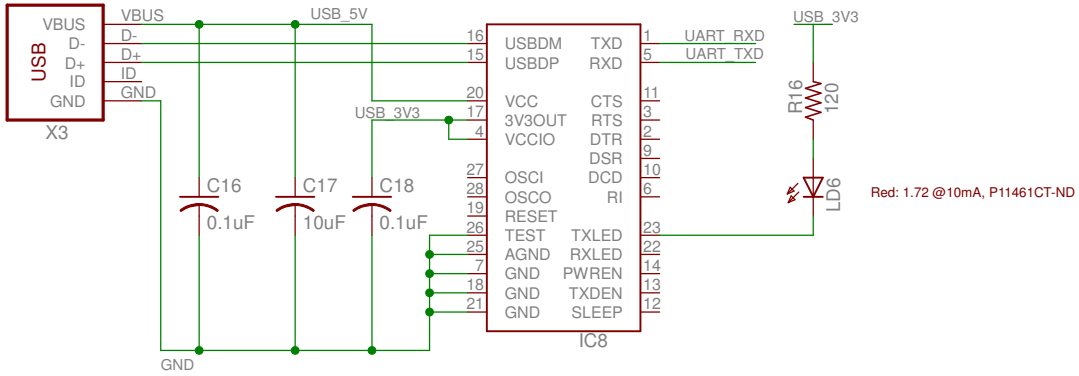

ATMEGA324P-AU
Port A
PA0(ADC0/PCINT0)
PA1(ADC1/PCINT1)
PA2(ADC2/PCINT2)
PA3(ADC3/PCINT3)
PA4(ADC4/PCINT4)
PA5(ADC5/PCINT5)
PA6(ADC6/PCINT6)
PA7(ADC7/PCINT7)
Pins 37-30
IC1A
HUMIDITY
THERMISTOR
VCC_3V3
10k
R1
R4
THERM
10k Therm
GND
Humidity Sensor
VE+
OUT
VE-
NC
HIH-5031
SENS-1
VCC_3V3
HUMIDITY
R2
100k
C1
.1uF
GND
Port B
PB0(XCK0/T0/PCINT8)
PB1(T1/CLK0/PCINT9)
PB2(AIN0/INT2/PCINT10)
PB3(AIN1/OC0A/PCINT11)
PB4(SS/OC0B/PCINT12_
PB5(MOSI/ICP3/PCINT13)
PB6(MISO/OC3A/PCINT14)
PB7(SCK/OC3B/PCINT15)
Pins 41-44, 1-3
IC1B
INT_324
SS
MOSI
MISO
SCK
On-Board Temp Sensor--AD
ADT7302
CS
DIN
DOUT
SCLK
VCC
GND
IC3
VCC_3V3
C3
.1uF
GND
ATtiny84A: Temperature
Port A
PA0(ADC0/AREF)
PA1(ADC1/AIN0)
PA2(ADC2/AIN1)
PA3(ADC3/TO)
PA4(ADC4/USCK/SCL/T1)
PA5(ADC5/DO/MISO/OC1B)
PA6(ADC6/MOSI/SDA/OC1A)
PA7(ADC7/0C0B/ICP)
IC2A
INT_84
84A_SCK
84A_MISO
84A_MOSI
JP1
JP2
SCL
SDA
VCC_3V3
10k
R3
R5
THERM
10k Therm
GND
Port B
PB0(XTAL1)
PB1(XTAL2)
PB2(CLKOUT/OC0A/INT0)
PB3(RESET/DW)
IC2B
84A_RESET
CLK: Internal 8MHz
VCC_3V3
VCC
IC2PWR
GND
C2
.1uF
Port C
PC0(SCL/PCINT16)
PC1(SDA/PCINT17)
PC2(TCK/PCINT18)
PC3(TMS/PCINT19)
PC4(TDO/PCINT20)
PC5(TDI/PCINT21)
PC6(TOSC1/PCINT22)
PC7(TOSC2/PCINT23)
Pins 19-26
IC1C
SCL
SDA
MFP
DEBUG0
DEBUG1
DEBUG2
DEBUG3
DEBUG4
See page 2 for DEBUGx wires
RTC
VCC_3V3
C4
100nF
GND
R6
2.2k
R7
2.2k
R8
2.2k
10k
MFP
SCL
SDA
MCP79410
VCC
VSS
X1
X2
VBAT
IC4
X1
Digikey Part #: 728-1065-1-ND
34.768 kHz Crystal
C5
10pF
C6
12pF
GND
Pull-Ups for I2C
2.2k for fast, 4.7k and 10k possibilities
R10
1k
D1
Shottkey
C8
100pF
BATT = 3V Li-Ion
BATT1
GND
On-Board Temp Sensor--TI
Pullup for CS_1
VCC_3V3
R9
2.2k
C7
.1uF
GND
Port D
PD0(RXD0/T3/PCINT24)
PD1(TXD0/PCINT25)
PD2(RXD1/INT0/PCINT26)
PD3(TXD1/INT1/PCINT27)
PD4(XCK1/OC1B/PCINT28)
PD5(OC1A/PCINT29)
PD6(ICP/IOC2B/PCINT30)
PD7(OC2A/PCINT31)
Pins 9-16
IC1D
UART_RXD
UART_TXD
MISO_1
SCK_1
CS_1
CS
SI/O
SC
VDD
GND
LM95071
IC5
GND
VCC_3V3
C9
4.7uF
C10
.1uF
C11
.1uF
GND
MISC
VCC0
VCC1
VCC2
AVCC
GND0
GND1
GND2
GND3
AREF
RESET
XTAL2
XTAL1
IC1MISC
RESET
X2
14.xxx MHz
C12
18pF
C13
18pF
GND
3244P Programmer
84A Programmer
JP3
JP4
RESET
MOSI
MISO
SCK
GND
VCC_3V3
84A_RESET
84A_MOSI
84A_MISO
84A_SCK
GND
VCC_3V3
theWeather.system
SHEET: Processing, Temperature, Humidity, RTC
TITLE: theWeather_A
Doc#:
Date: December 14, 2012
Engineer: TMS
Author: TMS
Rev: A
Sheet: 1/2

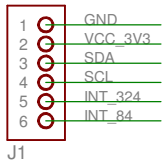
5V->3V3



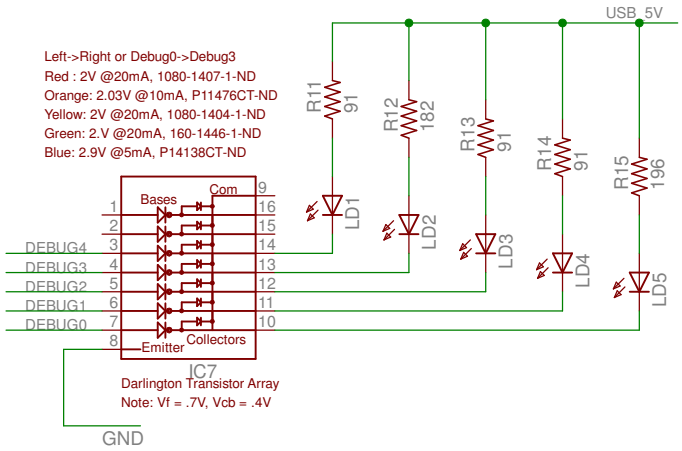
USB<->UART



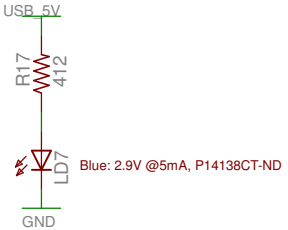
Header for BB



DEBUG LEDS



Power On LED



theWeather.system		Engineer: TMS
SHEET: UART/USB, Power Regulator, LED Arrays, Header to BB		Author: TMS
TITLE: theWeather_A		Rev: A
Doc#:	Date: December 14, 2012	Sheet: 2/2