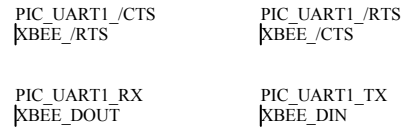
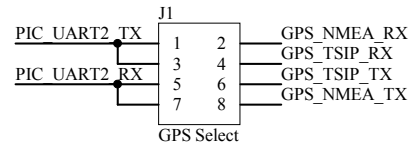


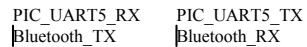
PIC UART-1 Interface (XBee Pro)



PIC UART-2 Interface (Trimble GPS Module)



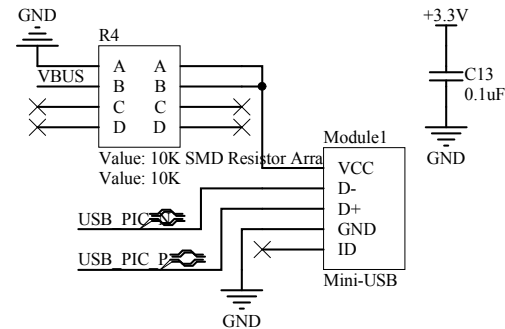
PIC UART-5 Interface (Bluetooth Module)



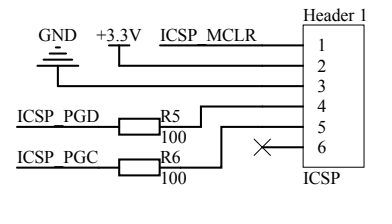
PIC Control Lines

XGPS_1PPS
 XXBEE_Associate
 XXBEE_/DTR
 XXBEE_/Reset
 XBarometer_/SHDN
 XBarometer_/CS
 XSD_/CS
 XPS2_ACK
 XPS2_ATT

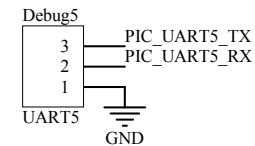
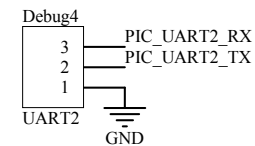
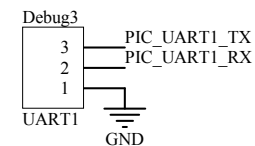
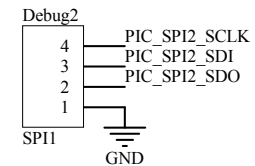
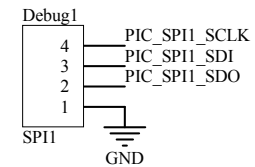
PIC32 USB Interface



In-Circuit Serial Programming Interface

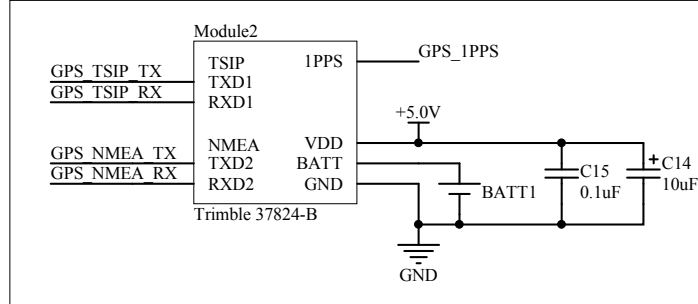


Communication Debug Headers

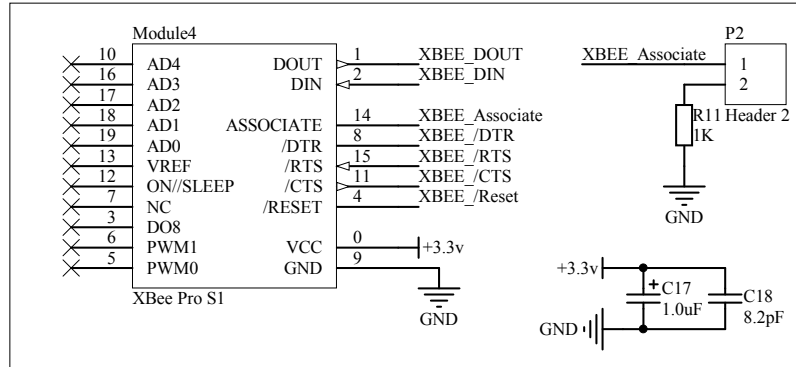


Title		
Size	Number	Revision
A		
Date:	4/3/2012	Sheet of
File:	C:\Users\...\Connectors.SchDoc	Drawn By:

Trimble GPS 9600bps TSIP / 4800bps NMEA

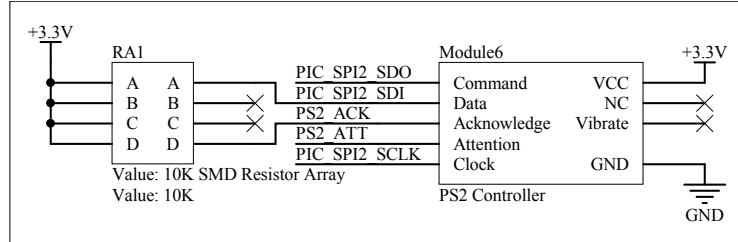


XBee Module



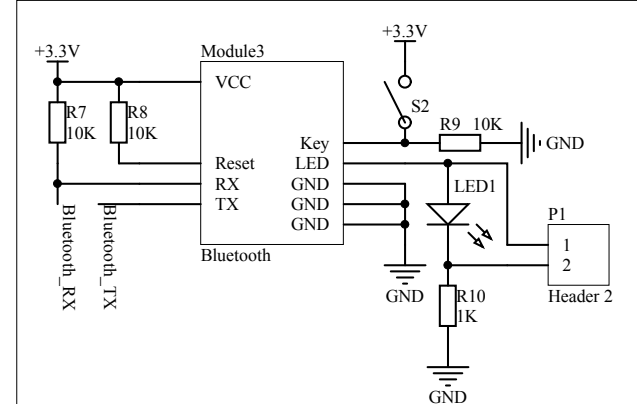
PS2 Wireless Controller Interface

250KHz SPI Interface



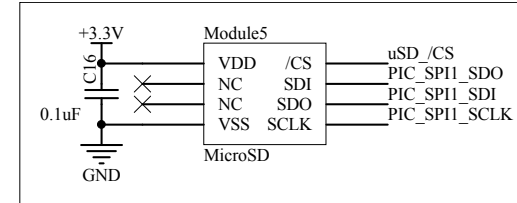
Bluetooth Serial Module

UART Interface (9600bps Default)



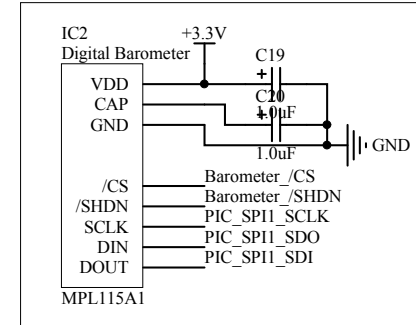
MicroSD Card

25MHz SPI Interface



Barometric Sensor

8MHz SPI Interface



Title			
Size	Number		Revision
A			
Date:	4/3/2012		Sheet of
File:	C:\Users\...\Modules.SchDoc		Drawn By:

A

A

B

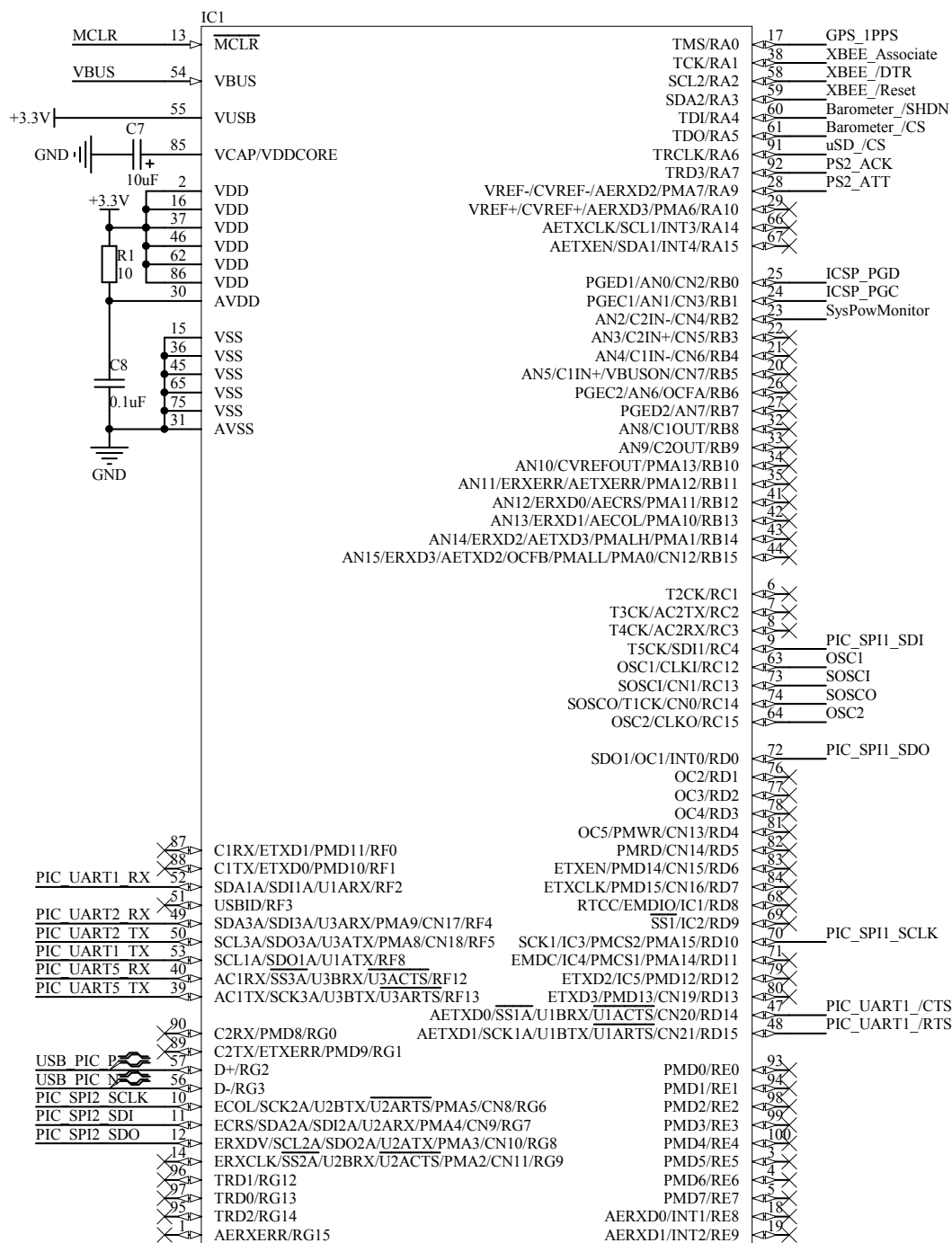
B

C

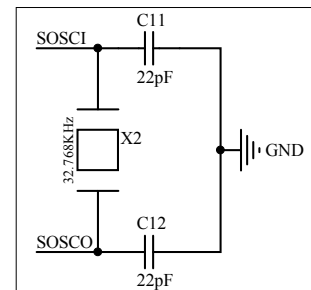
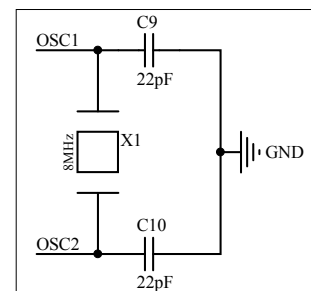
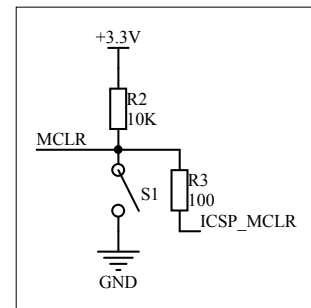
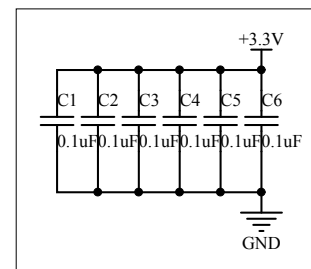
C

D

D



PIC32MX795F512L-80I/PT

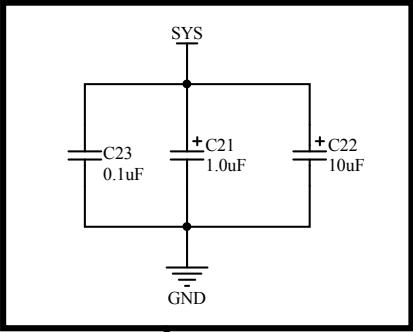


Notes:

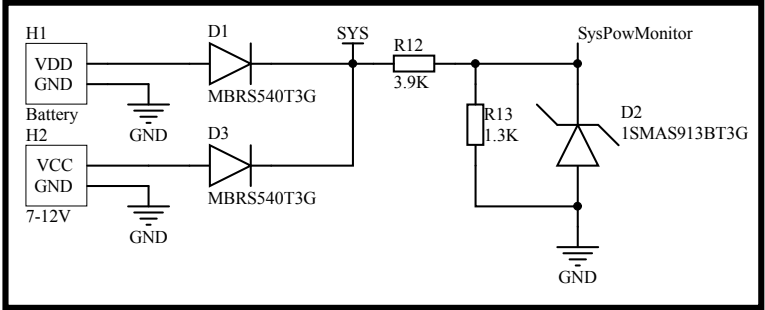
- VCAP is a 6V 1-Ohm Tantalum Capacitor

Title		
Size	Number	Revision
A		
Date:	4/3/2012	Sheet of
File:	C:\Users\...\PIC Processor.SchDoc	Drawn By:

3S Lipo Battery



Power Input, Selection, and Monitoring

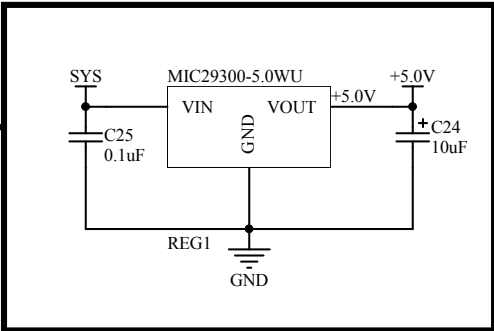


Power Rails:

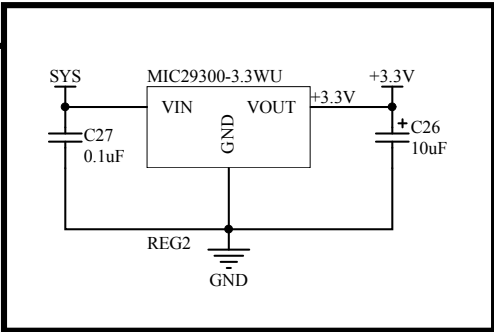
+5.0V Rated: 3000mA
+3.3V Rated: 3000mA

+ 6 to +11.7 VDC

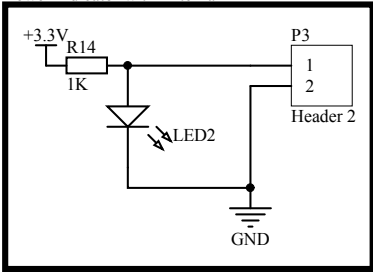
Battery -> 5.0 VDC



Battery -> 3.3 VDC



Power Indicator with External LED



Title		
Size A	Number	Revision
Date: 4/3/2012	Sheet 1 of 4	File: C:\Users\...\Power.SchDoc
Drawn By:		