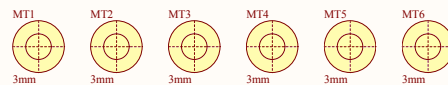
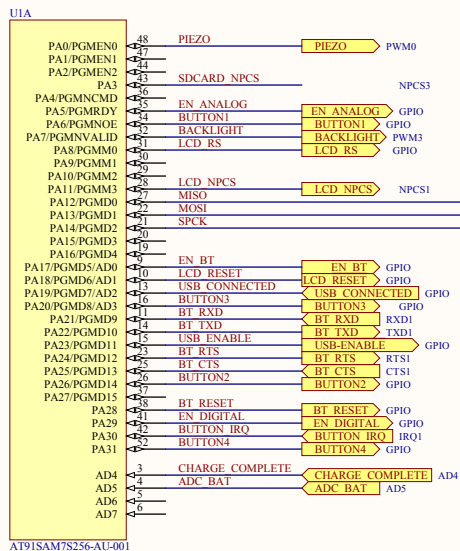


Mounting Holes

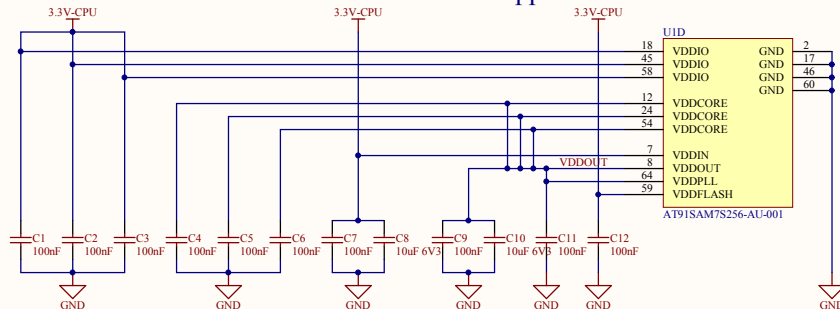


Title Treetap 7C - Top Level Schematic		
Size A3	Number	Revision 1
Date 4/1/2011	Sheet 1 of 7	
File J:\documents\...\TopLevel.SchDoc	Drawn By:BCB	

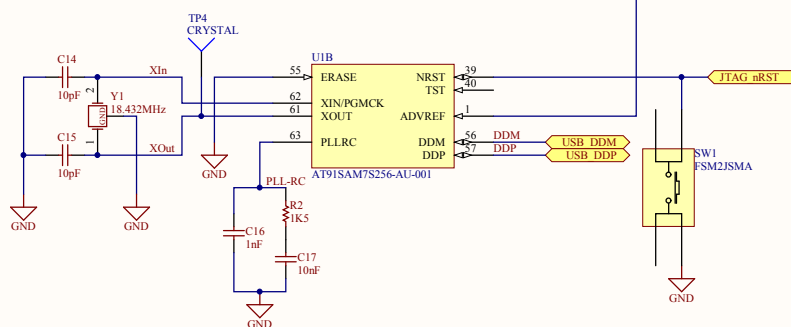
ARM7 I/O Pins



ARM7 Power Supplies



ARM7 Oscillator + USB

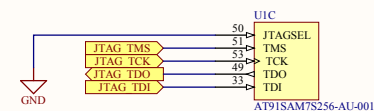


SPI Decoupling

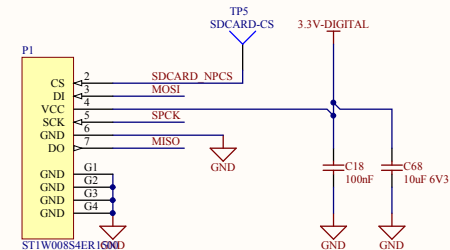


Place near where SPI bus changes layers (helps to reduce return current discontinuities).

JTAG Programming Interface

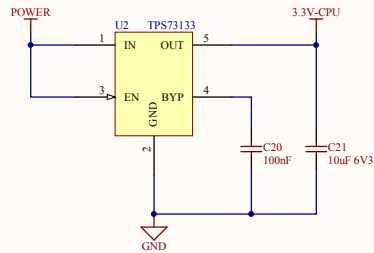


microSD Card Mount

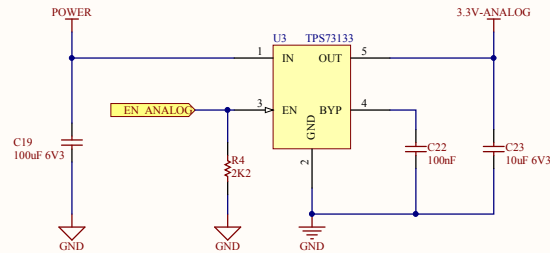


Title		
Treetap 7C - Microprocessor		
Size	Number	Revision
A3		1
Date:	4/1/2011	Sheet 2 of 7
File:	J:\documents\AT91 SchDoc	Drawn By: BCB, LLC

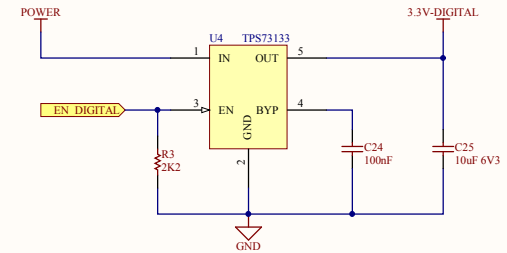
CPU Power (Always On)



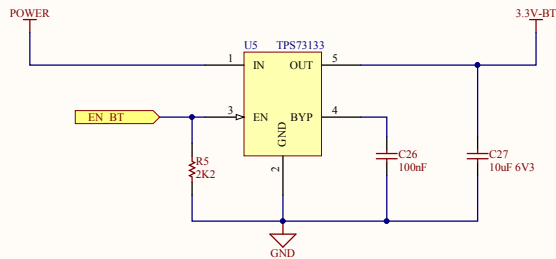
Analog Circuitry Power



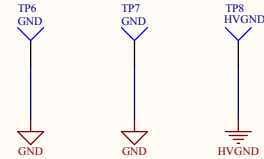
Digital Circuitry Power



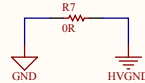
Bluetooth Module Power



Ground Testpoints

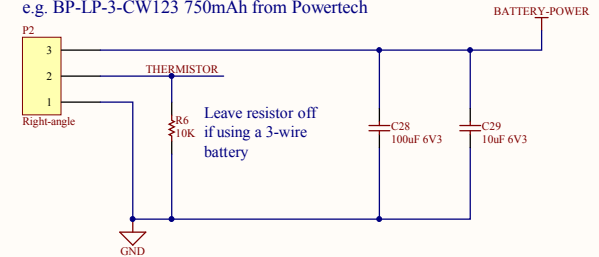


Ground Connection



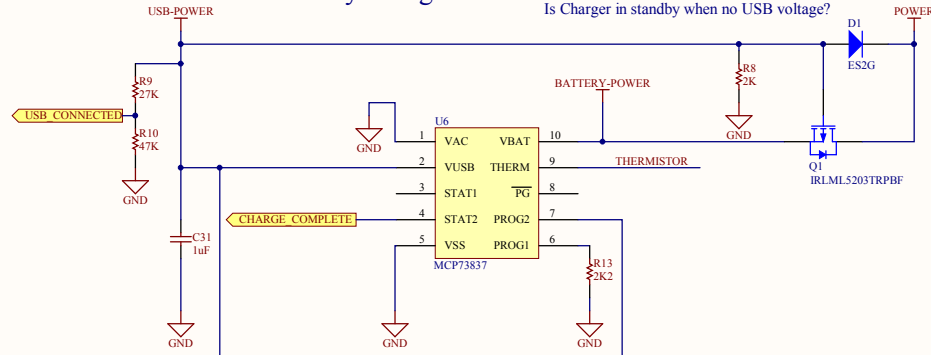
Battery Input

3.7V Lithium-Polymer battery
e.g. BP-LP-3-CW123 750mAh from Powertech

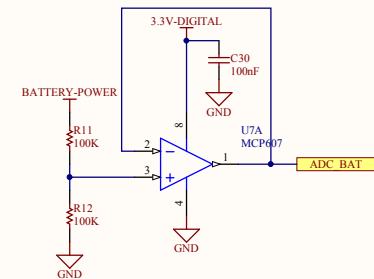


Battery Charger

Set to charge at high current (500mA).
Is Charger in standby when no USB voltage?



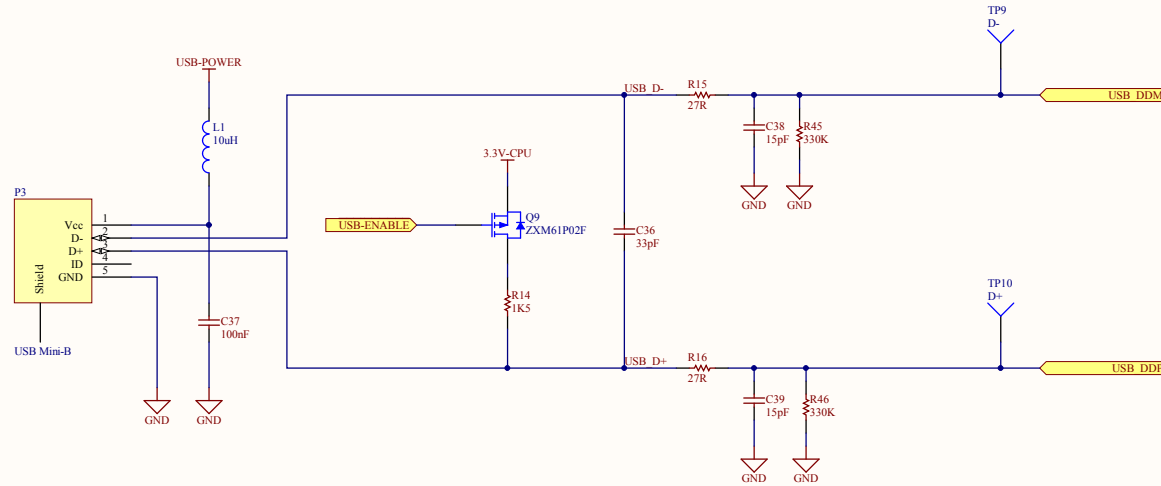
Battery Voltage



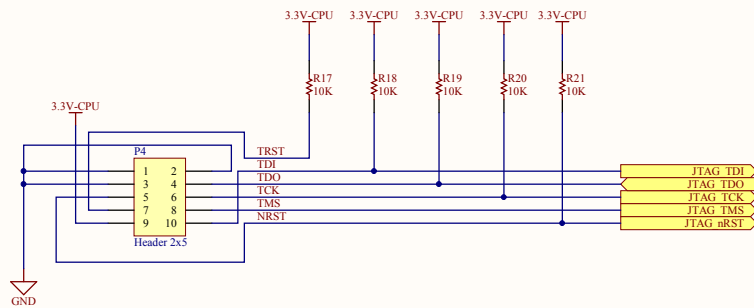
NB. When laying out the PCB, place the inputs to the regulators as close to the input capacitor as possible.

Title Treetap 7C - Power Supply		
Size A3	Number	Revision 1
Date 4/1/2011	Sheet 3 of 7	
File J:\documents\Power SchDoc	Drawn By: BCB, IJC	

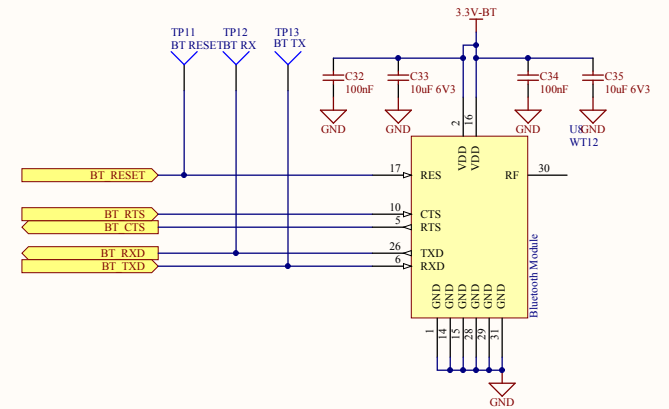
USB Mini-B Connector



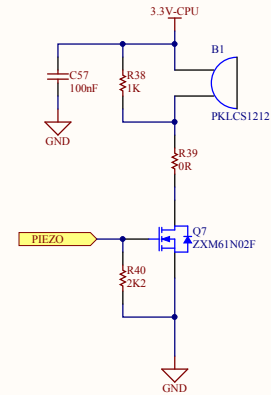
JTAG Connector



Bluetooth Module



- * In serial mode, data can't be read from the LCD.
- * The voltage boost circuit is configured for a three times boost ($V_{out} = \sim 9.9V$).
- * The LCD_RS (register select) line sets whether the incoming data is a command or display data. If RS is high, it is display data; if RS is low, it is a command.



SW2

BUTTON1

FSM8/SMA
OK/Select = BUTTON1

SW3

BUTTON2

FSM8/SMA
Cancel/Back = BUTTON2

SW4

BUTTON3

FSM8/SMA
Up = BUTTON3

SW5

BUTTON4

FSM8/SMA
Down = BUTTON4

BUTTON I/O

Title Treetap 7C - User Interface		
Size A3	Number	Revision 1
Date: 4/1/2011	Sheet 7 of 7	
File: J:\documents\...\UserInterface.SchDoc	Drawn By: BCB, HJC	