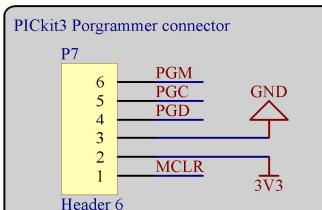
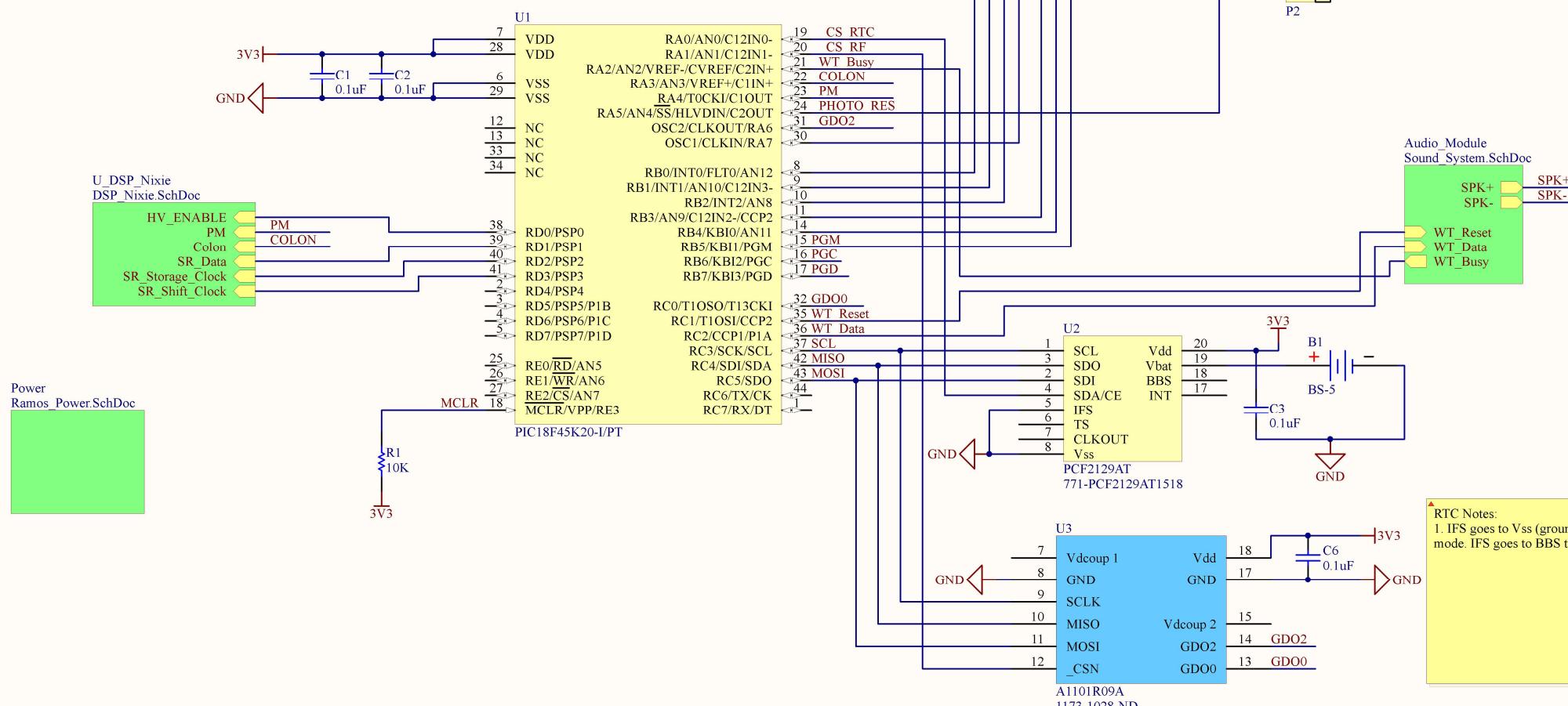


Revision 1:

1. Changed the net name of AMPM to PM for a consistent and more meaningful netlabel.



► PICkit3 programmer circuit, as per the PICkit3 poster schematic. Will want to make a staggered pin system as per Kon's recommendation.



Title: Nixie Ramos	*
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Notes -- Ramos Power

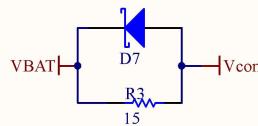
Revision 1 -- Paul Sammut

Sent out 10 boards to be made at ITEAD studio with this design. 6/1/12

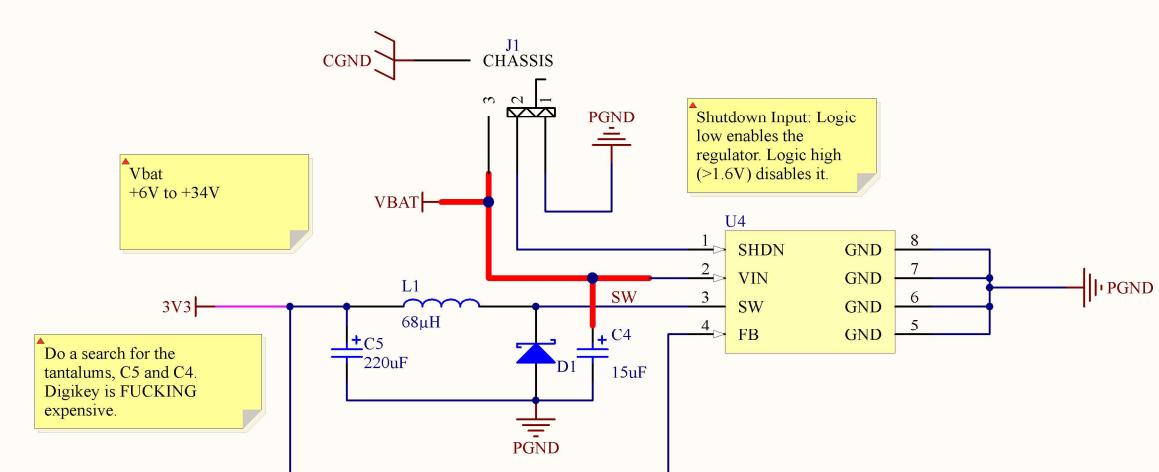
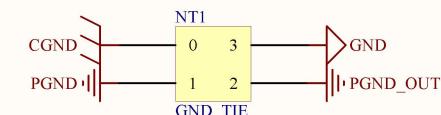
A Revision 2 -- Paul Sammut

1. Removed the pull up on the shut down switch and configured it differently after I found out that the J1 switch is in fact a SPDT. One throw on gnd and one throw on VBat

B



Added this on 11.18.12
This is to limit the charging current that sometimes starts as high as an amp. This would over load the 880mA wallwart i got. It is also no good for the battery.



Layout directives:

- Keep D1 close to pin 3 and pins 5 through 8.
- Keep L1 from sensitive FB, Z
- Keep C1 close pins 2 and 5 through 8
- Keep FB far away from switching components C1 and L1

A

B

C

D

Title *		
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Altium

Notes:

Revision 1 -- Paul Sammut

Sent out 10 boards to be made at ITEAD studio. 6/1/12

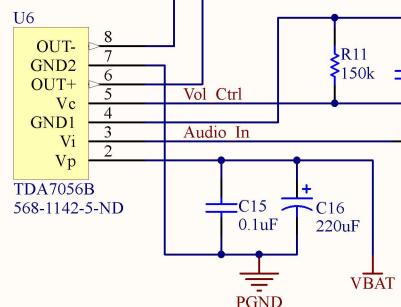
Revision 3

Connected volume to PGND. Added two possible caps to the speaker lines, for a possible filter.
Added 0 ohm resistors for ferrite bead placeholders 0805.

▲ Volume control R11. A high R on here lets sound through (tested 1M). 10k kills it. 56k makes it audible. 150k makes it too much. 120's kinda much. I'll have to experiment with this.

11.8 Edit
120 is a little weak. I've been using

▲ This device uses lots of power, so we need to treat it with respect!
Max repetitive I_a is 1.25A therefore i'm gonna give it a trace width of 0.65mm. We're never gonna pump out more than 250mA from it though i don't think.

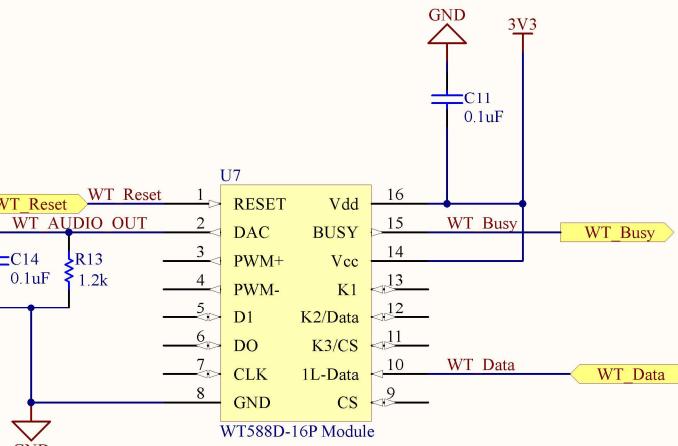


▲ A note on grounds:
GND1 is signal gnd and GND2 is power ground.

From the datasheet: "To avoid instabilities and too high distortion, the input- and power ground must be separated as long as possible and connected together as close as possible to the IC."

▲ Not a 100% on whether the volume control should be connected to PGND or GND.

▲ WT588D-16P audio module
1. Pre program in dedicated programmer
2. Control via 1 line PWM protocol tied to P1A pwm line on PIC
3. Issue with high-freq click. Will toggle the mute on the amp. Hope this works
3.

Title **Ramos Sound System**

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