

D

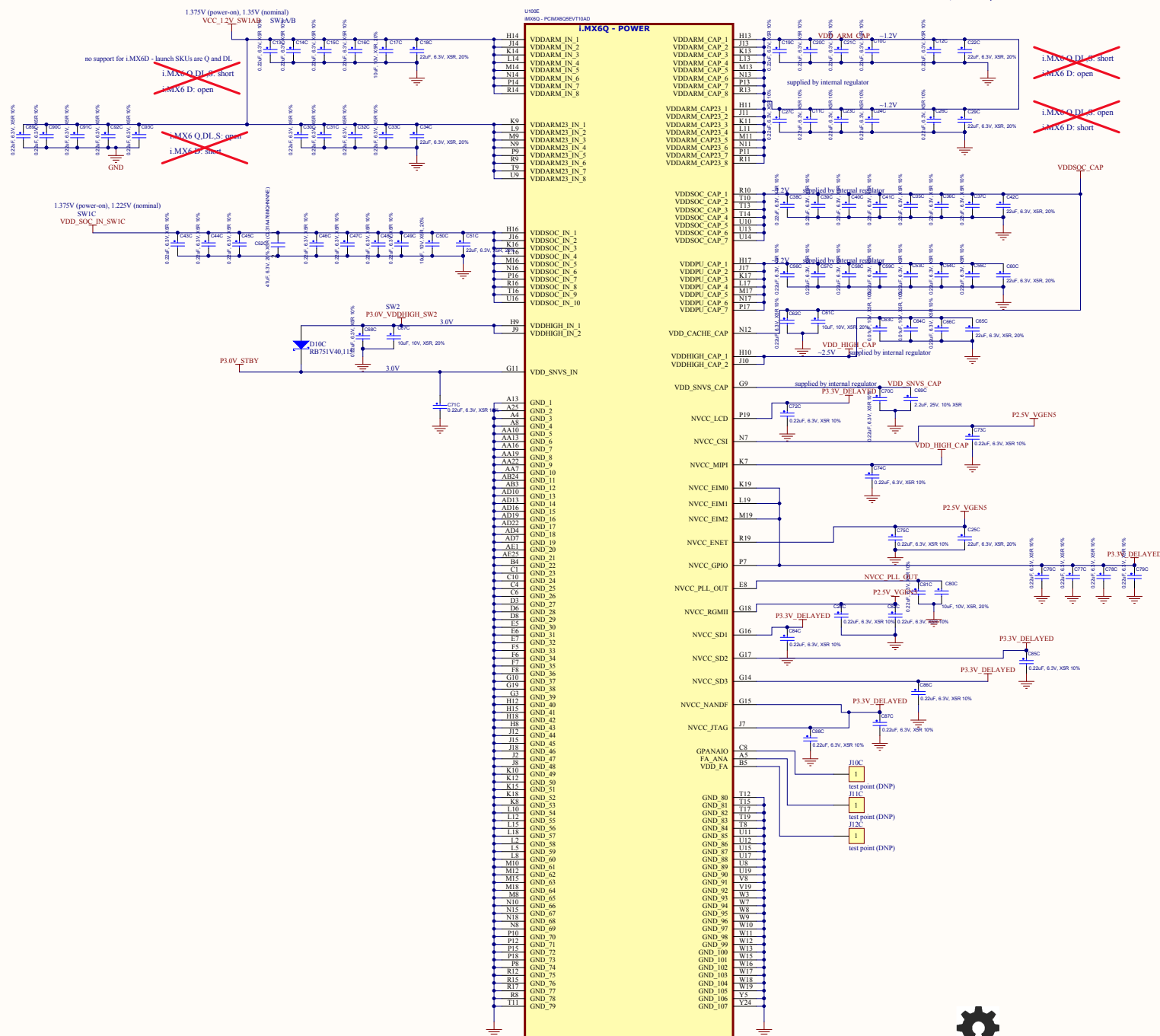
U_02cpu_power 02cpu_power.SchDoc 	U_06cpu_soc 06cpu_soc.SchDoc 	U_10ethernet100 10ethernet100.SchDoc 
U_03cpu_sodimm 03cpu_sodimm.SchDoc 	U_07sdcard 07sdcard.SchDoc 	U_11ethernetGbit 11ethernetGbit.SchDoc 
U_04pwr_pmic 04pwr_pmic.SchDoc 	U_08usb 08usb.SchDoc 	U_12mPCIe 12mPCIe.SchDoc 
U_05pwr_input 05pwr_input.SchDoc 	U_09sata 09sata.SchDoc 	U_13hdmi_lcd 13hdmi_lcd.SchDoc 

fall name	rttype	dependent blocks	sheet	derived from	sequence	generated by	capacity	notes
PSDV_WF01	0V	020W with option	050ub	PSDV_DELAYED	cut	RT10708	2.5A	USB_FIRMWARE_N off of main bus
PSDV_USBEX1T1	0V	external USB	050ub	PSDV_DELAYED	cut	RT107110D-0	1.5A	USB_FIRMWARE_N off of main bus
PSDV_USBEX1T2	0V	external USB	050ub	PSDV_DELAYED	cut	RT107110B-0	1.5A	USB_FIRMWARE_N off of slave bus
PSDV_P2V01	0V	main	050ub	PSDV_DELAYED	cut	RT10708	2.5A	USB_FIRMWARE_N off of slave bus
PSDV_USB1	0V	external	050ub	PSDV_DELAYED	cut	RT10708	2.5A	USB_FIRMWARE_N off of slave bus
USB_VDD_12V5	0V	video camera	030ub1-1a1	PSDV_DELAYED	cut	RT10708	2.5A	USB_FIRMWARE_N off of slave bus



Copyrights: CC-BY-SA 3.0 Patents: Apache 2.0

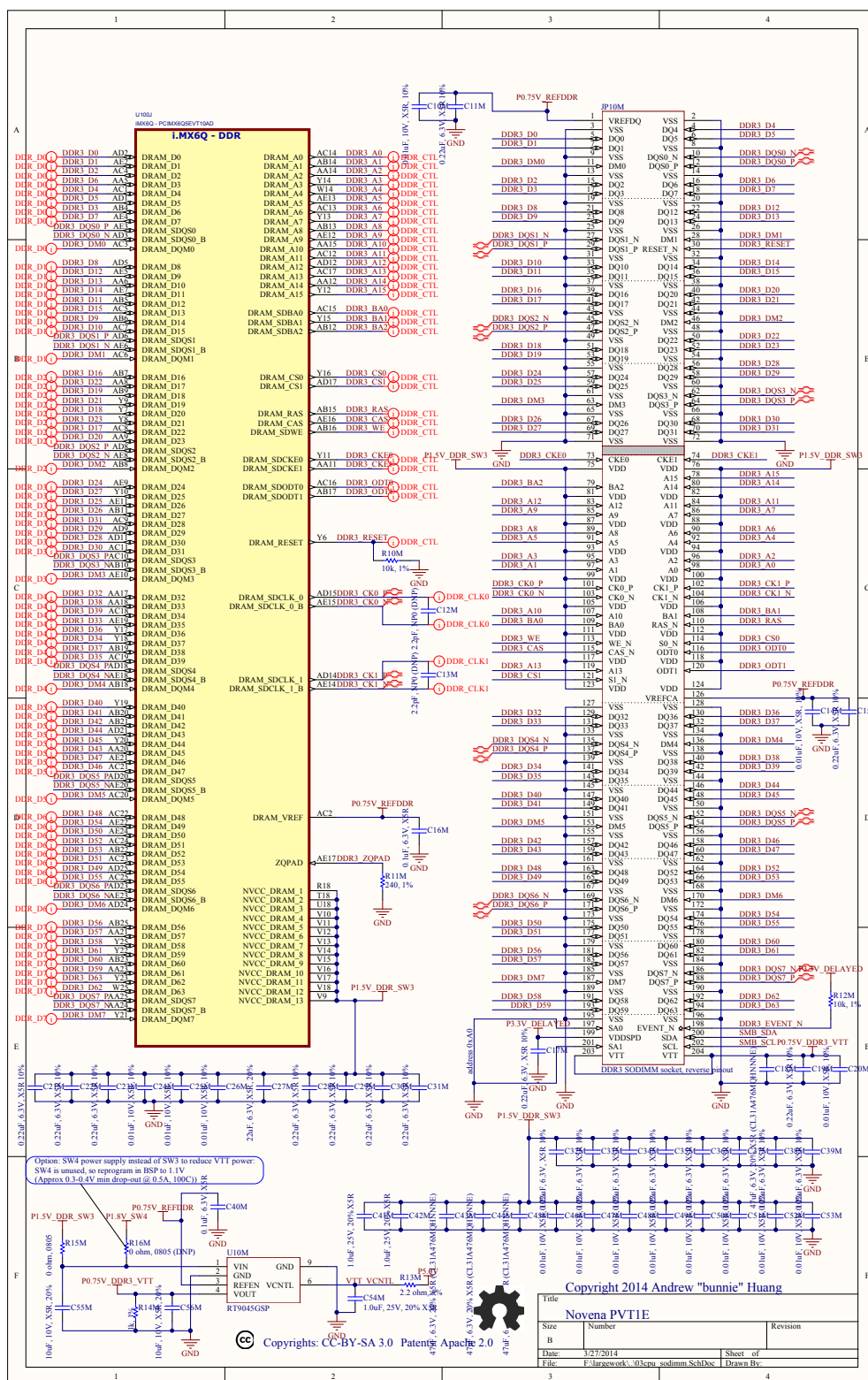
Title Novena PVT1-E			
Size B	Number	Revision	
Date: 3/27/2014	File: F:\largework\01docman_SchDoc		Sheet of Drawn By:

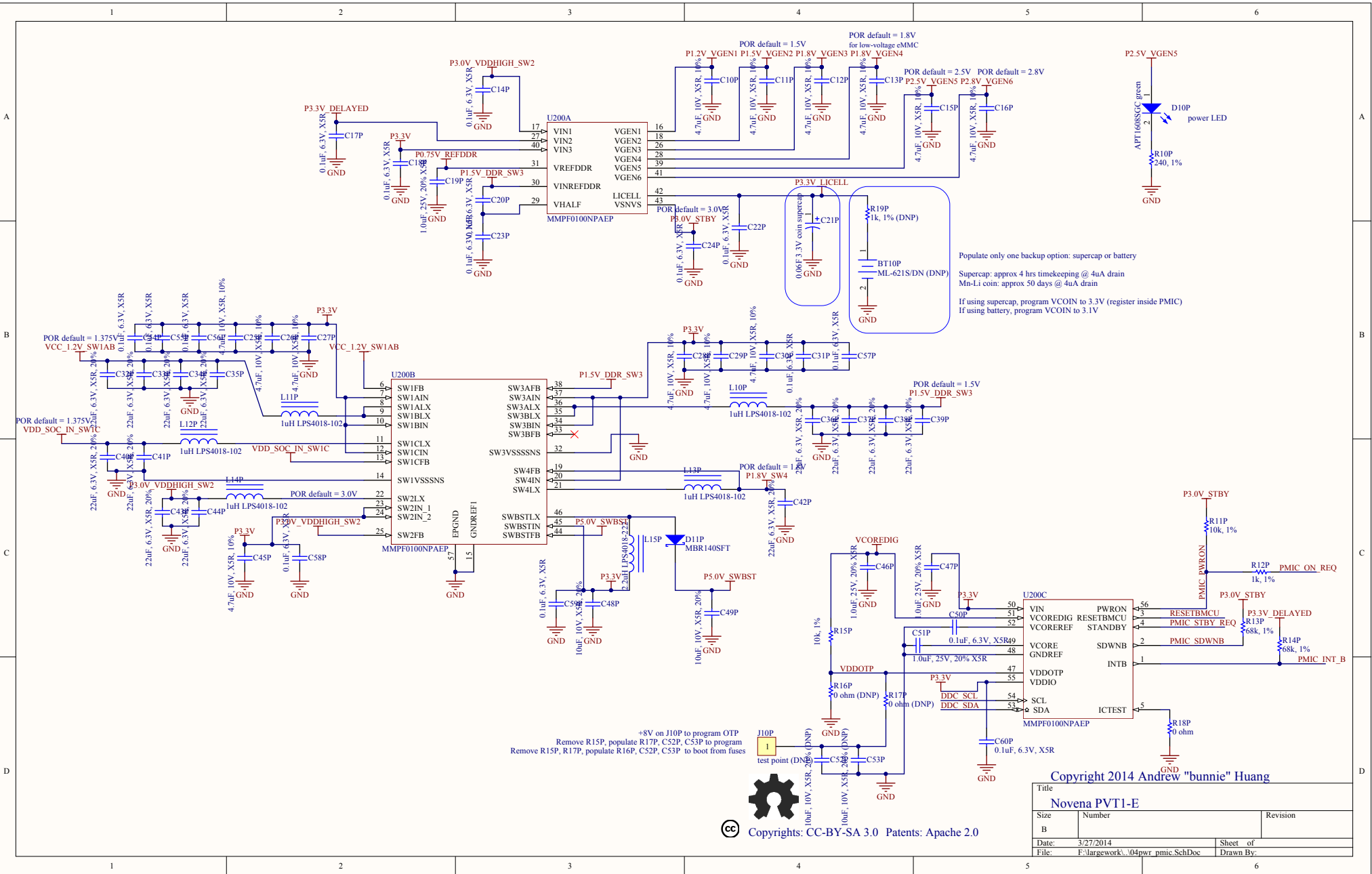


Note: 22uF, 6.3V 0603 cap is TDK C1608X5R0J226M

Copyright 2014 Andrew "bunnie" Huang

Title Novena PVT1-E			
Size C	Number		Revision
Date: 3/27/2014	File: F:\large\work\02cpu power\SchDoc		Sheet of: Drawn By:





Copyright 2014 Andrew "bunnie" Huang

Title

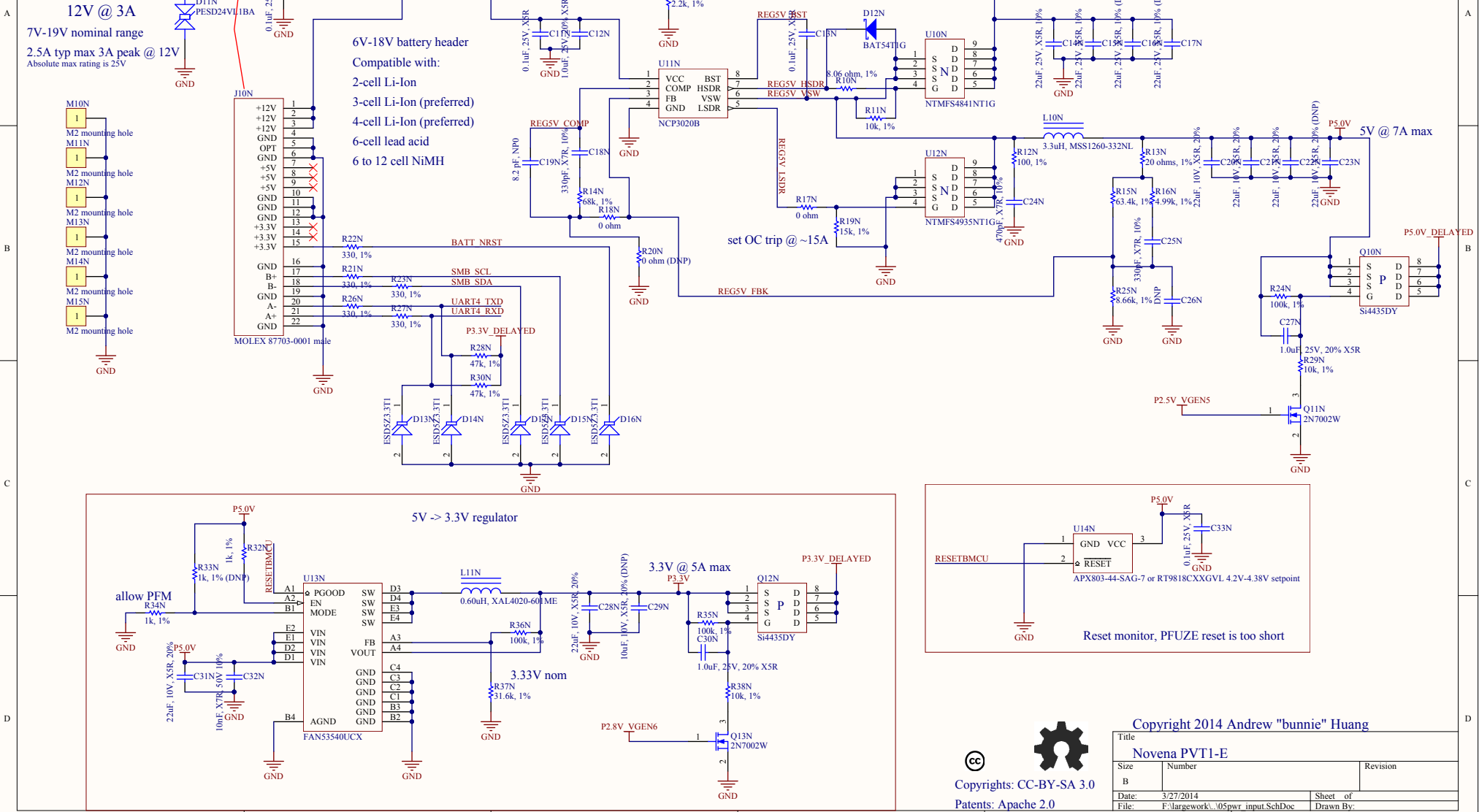
Novena PVT1-E

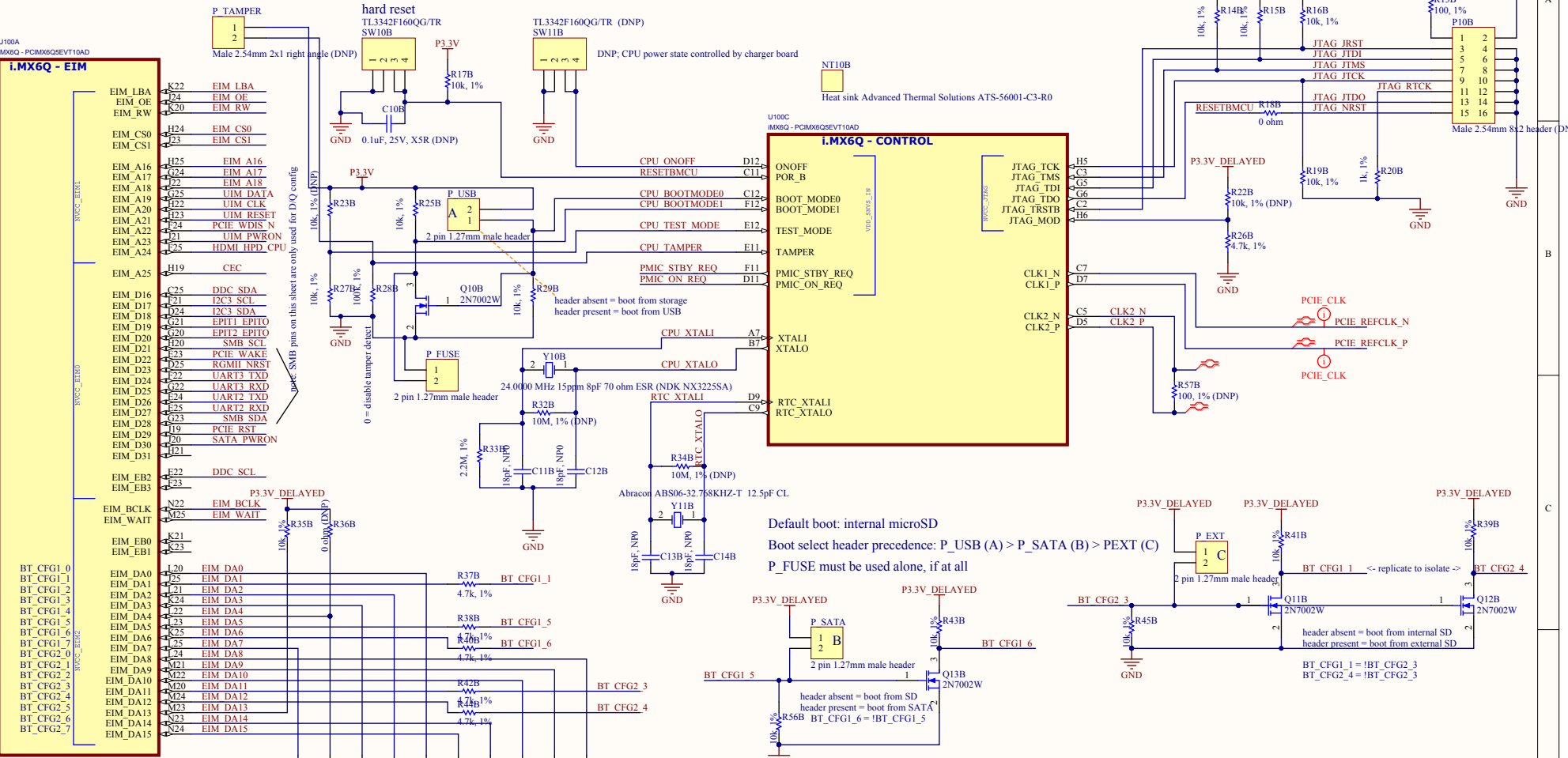
Size	Number	Revision
B		
Date:	3/27/2014	Sheet of
File:	F:\largework\04pwr_pmic.SchDoc	Drawn By:

Copyrights: CC-BY-SA 3.0 Patents: Apache 2.0

Note: Do not use JP10N power plug when plugged into charger/battery board via J10N!!!

Note: use R31N only in fixed installations. Remove if used with battery (rely on battery MCU to guarantee input cap discharge)



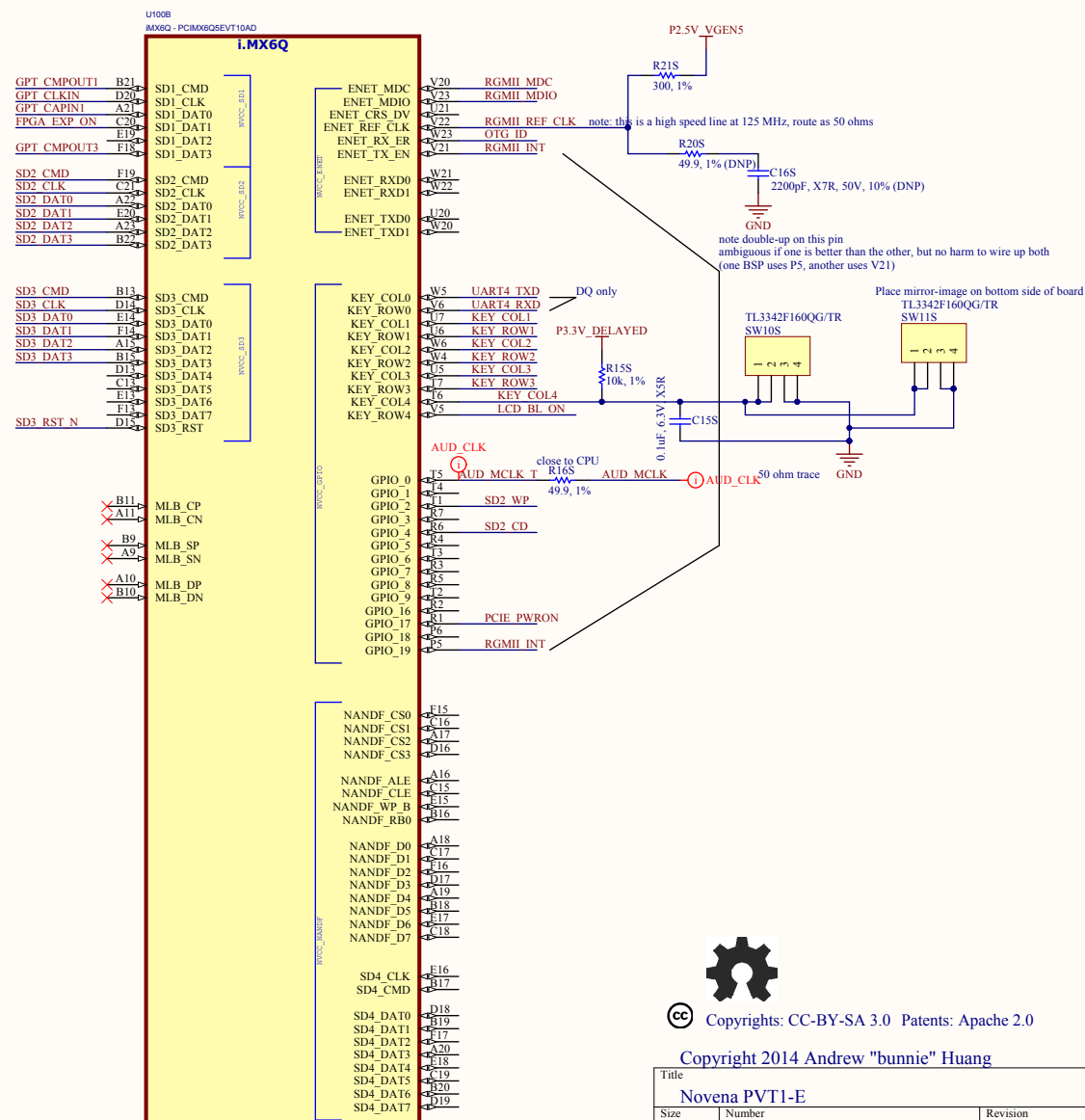
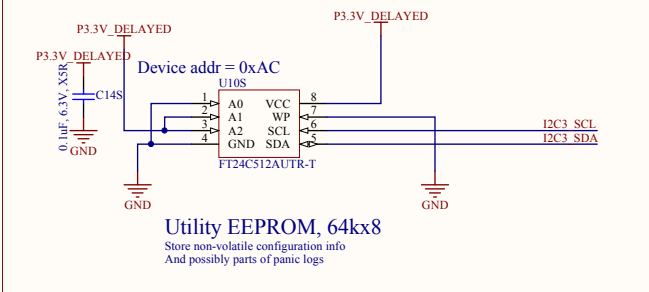
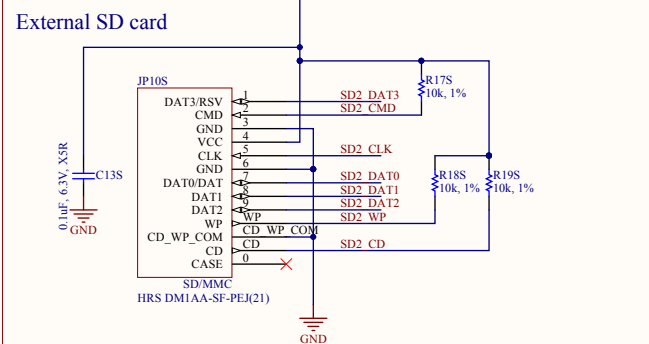
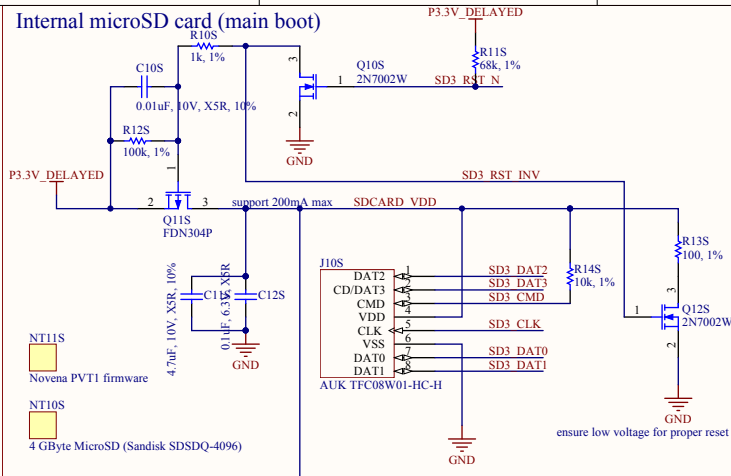


GND



 Copyrights: CC-BY-SA 3.0 Patents: Apache 2.0

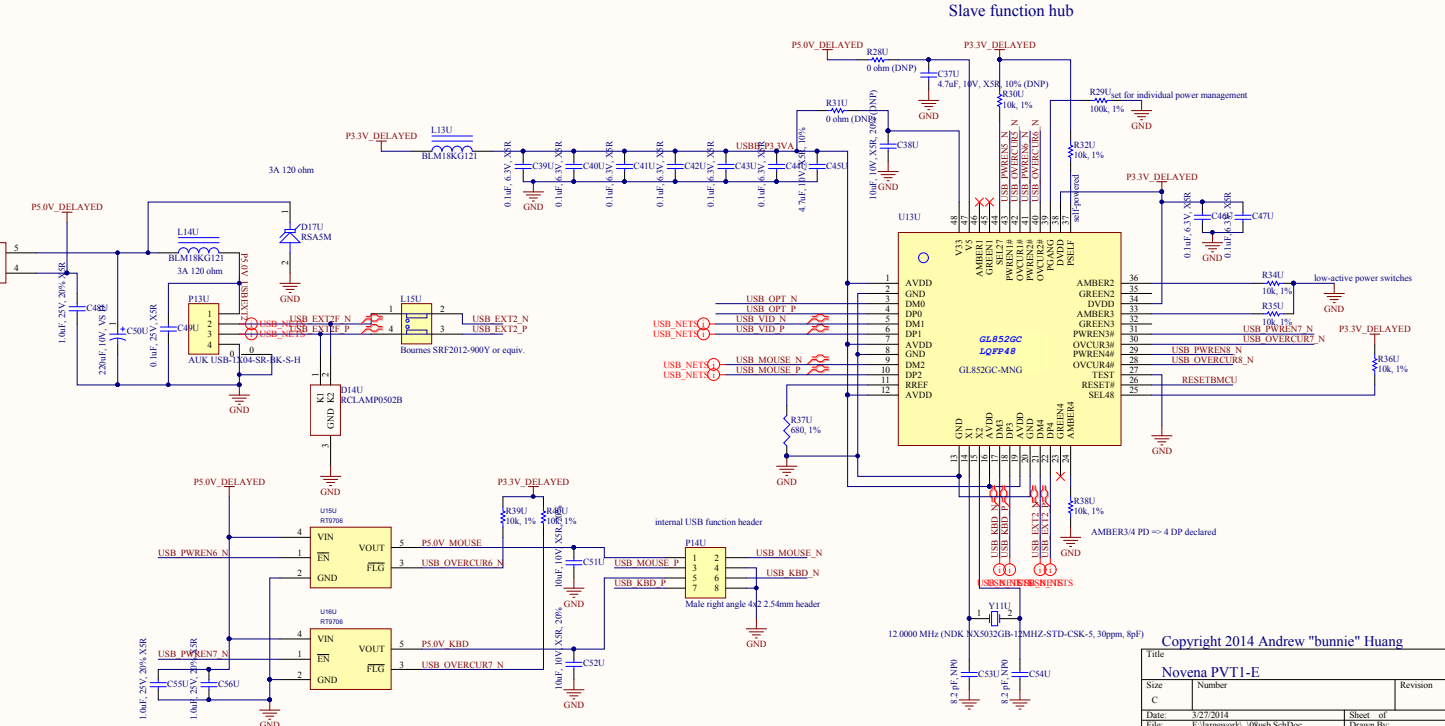
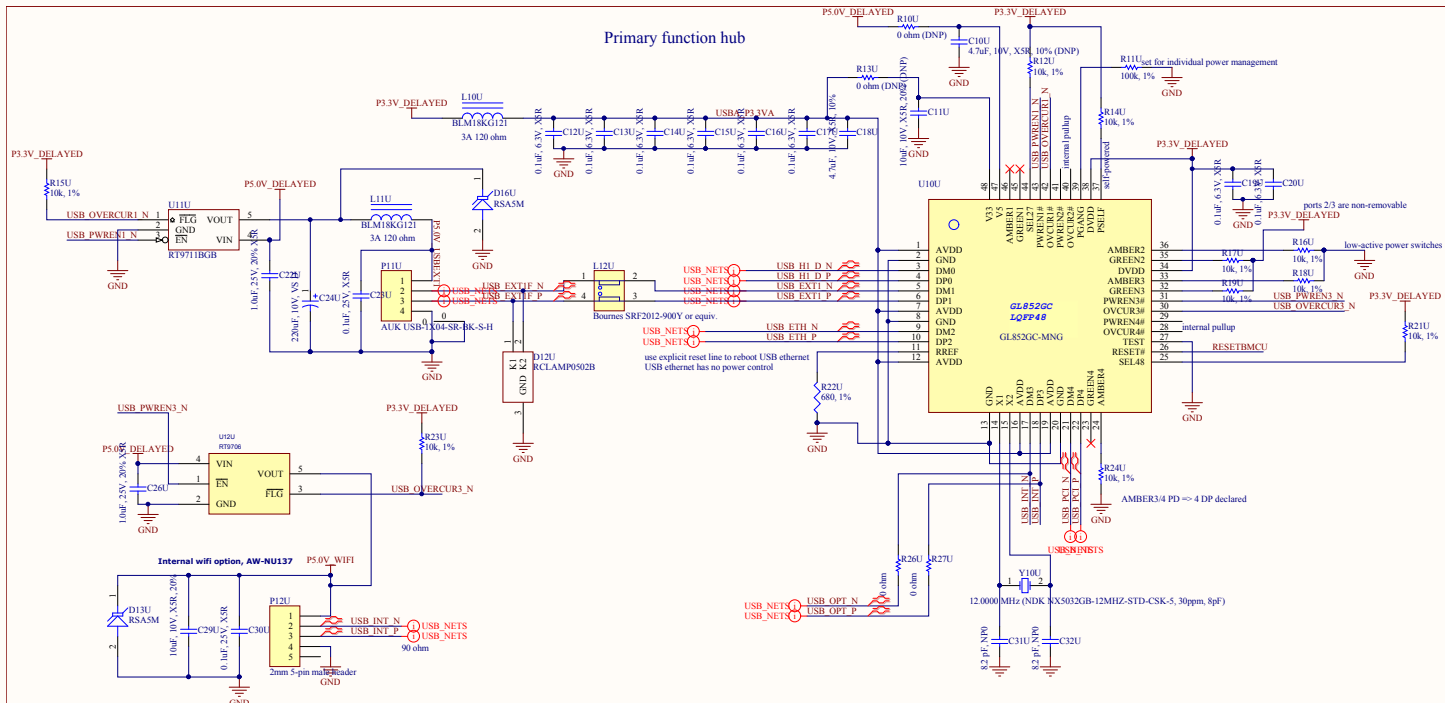
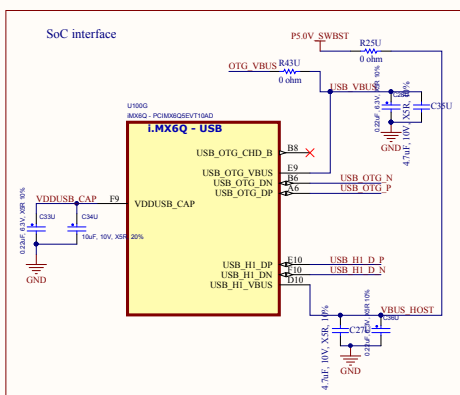
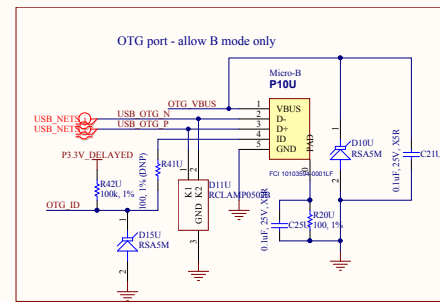
Copyright 2014 Andrew "bunnie" Huang			
Title Novena PVT1-E			
Size B	Number	Revision	
Date: 3/27/2014	Drawn of		Sheet
File: F:\largework\006cpu_soc\SchDoc	Drawn By:		Sheet



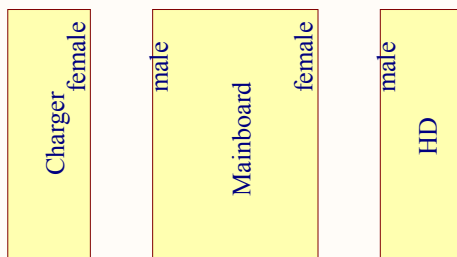
Copyrights: CC-BY-SA 3.0 Patents: Apache 2.0

Copyright 2014 Andrew "bunnie" Huang

Title Novena PVT1-E		
Size B	Number	Revision
Date: 3/27/2014	Sheet of	
File: F:\argework\07\07sclcard SchDoc	Drawn By:	

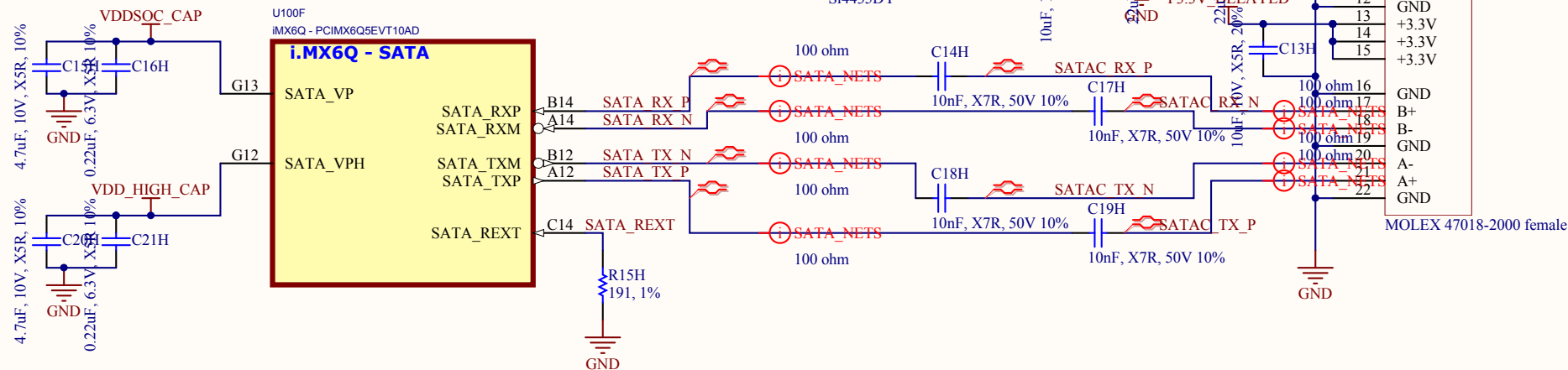


SATA connector arrangement



uses M-F extender combo cables

For boot: compatible ONLY with SATA-II (3Gbps) drives
Optimized for use with SSDs

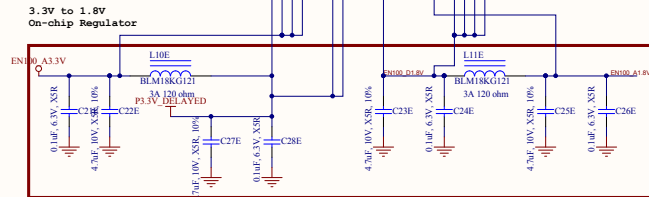
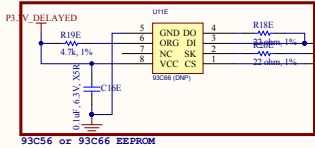
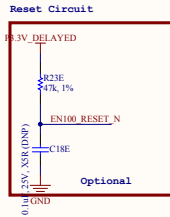
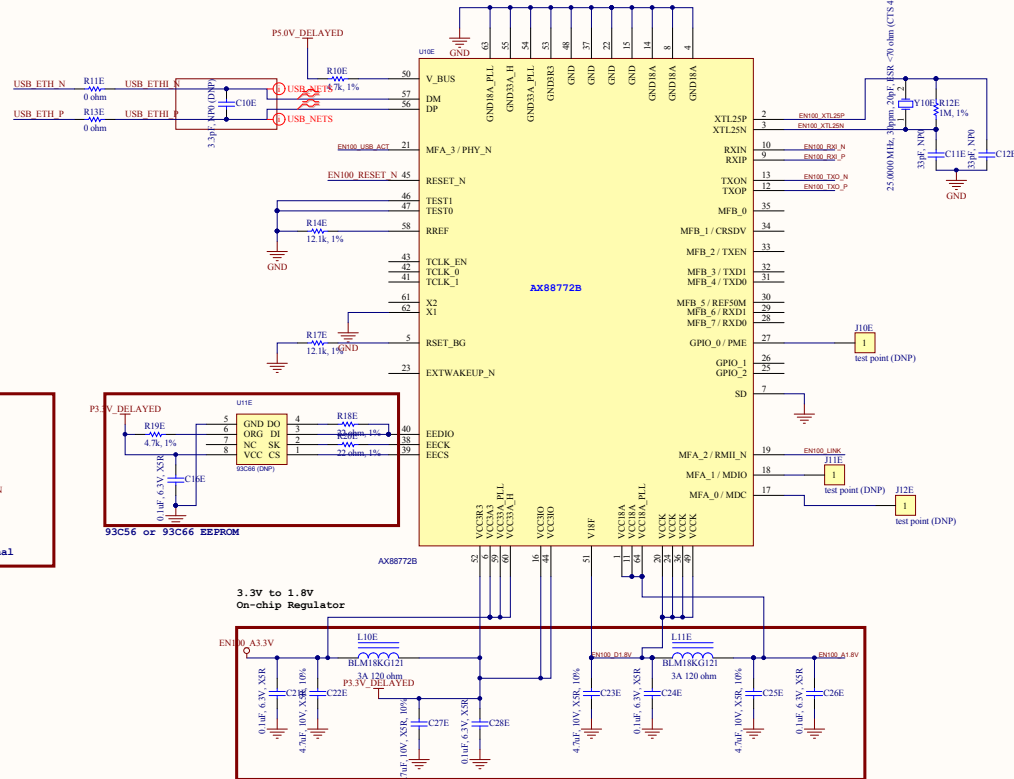


Copyrights: CC-BY-SA 3.0 Patents: Apache 2.0

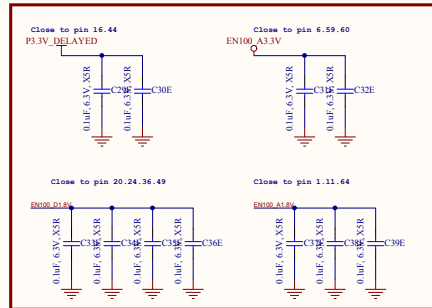
Copyright 2014 Andrew "bunnie" Huang

Novena PVT1-E

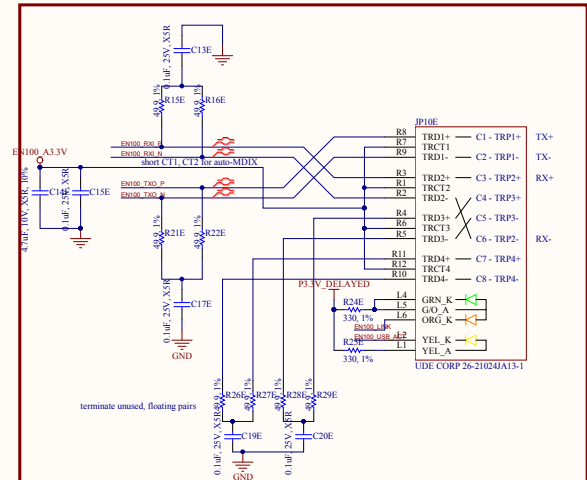
Size	Number	Revision
A		
Date:	3/27/2014	Sheet of
File:	F:\largework\...\09sata.SchDoc	Drawn By:



Power and by-pass capacitors



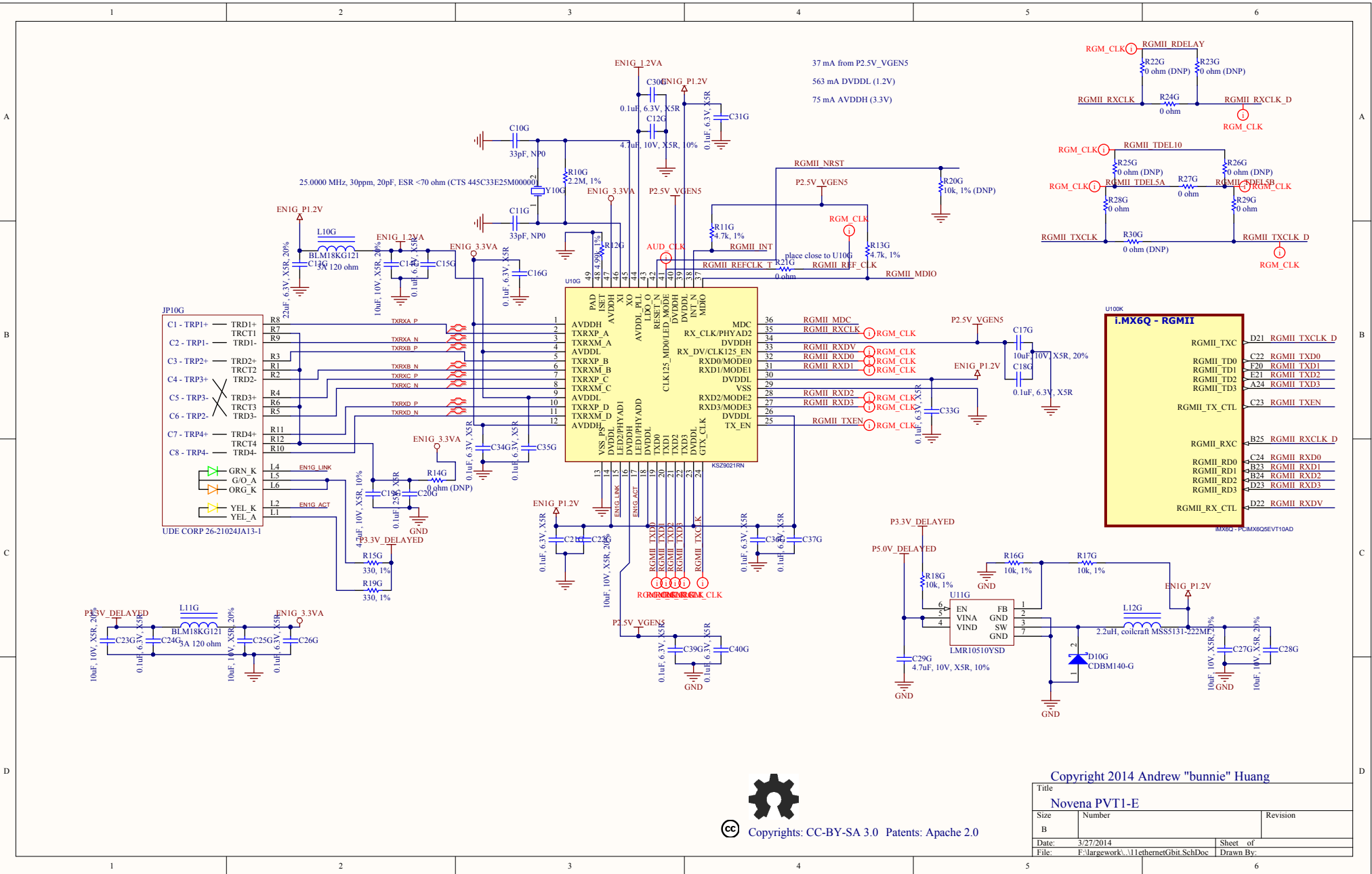
RJ-45 Connector + Transformer

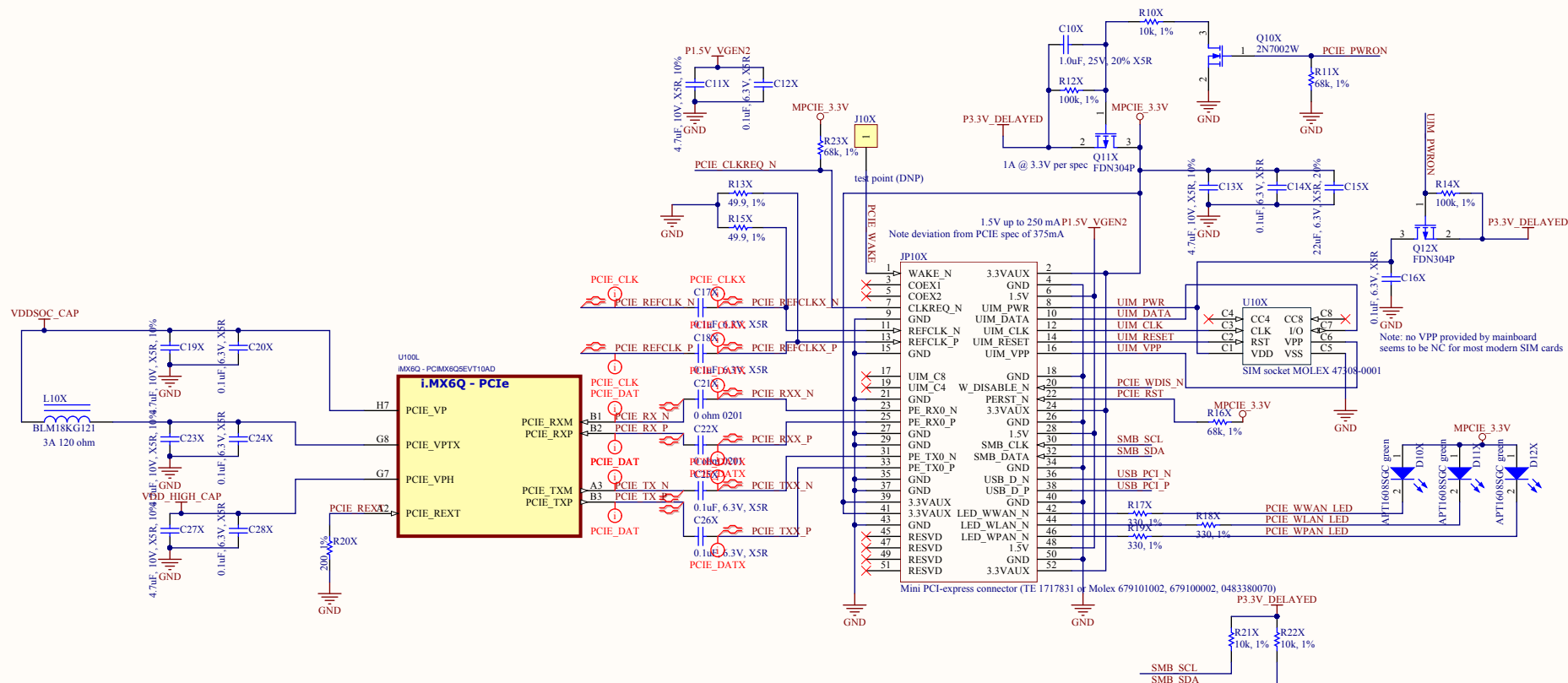


Copyrights: CC-BY-SA 3.0 Patents: Apache 2.0

Copyright 2014 Andrew "bunnie" Huang

Title: Novena PVT1-E		
Size: C	Number:	Revision:
Date: 3/27/2014	Sheet of 1	
File: F:\jagwork\110ethernet100SCHDoc	Drawn By:	





Wifi plug-in card symbol placeholders

NT10X

DNXA-125 or DNXA-95 PCIe half-sized card, unex.com.tw

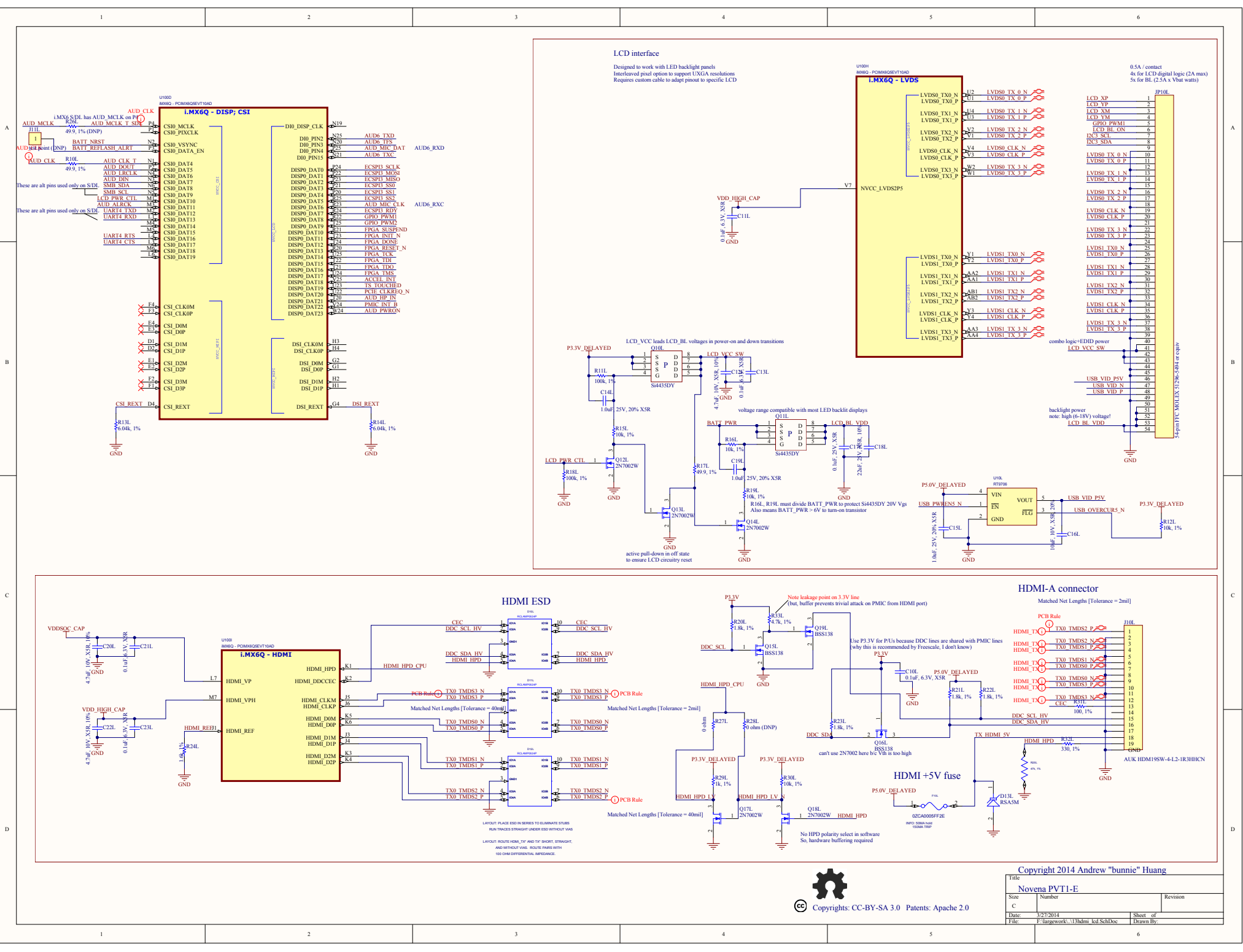
NT11X

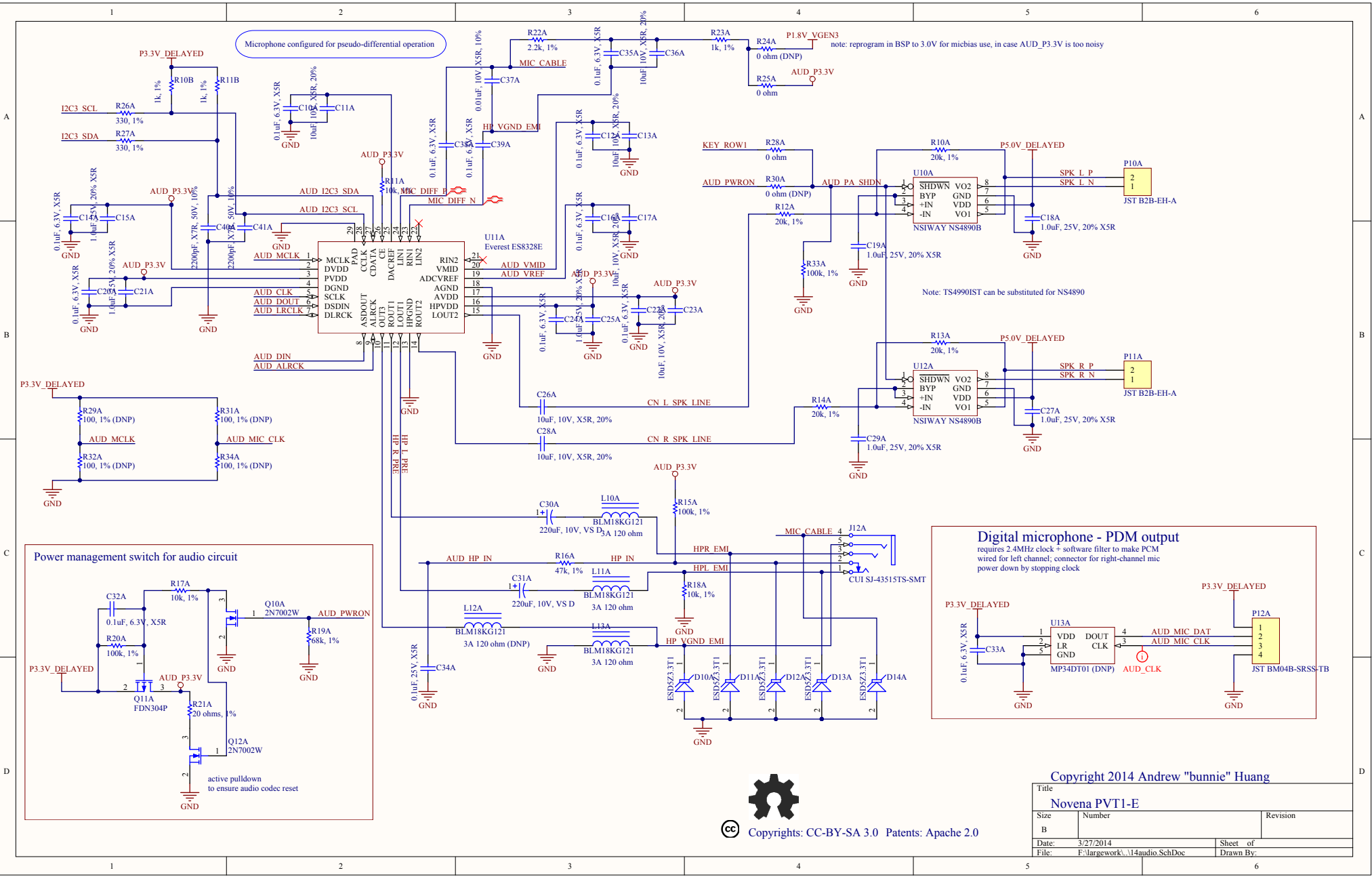
U.FL 2.5GHz antenna

NT12X

U.FL 2.5GHz antenna

Use ath9k-compatible PCIe card
Suggestions at left are for b/g/n 1x1 low-cost solution
Other options exist for a/b/g/n 2x2, 3x3 MIMO + BT combo
(note BT combo is via mPCIe embedded USB interface)





Microphone configured for pseudo-differential operation

note: reprogram in BSP to 3.0V for micbias use, in case AUD_P3.3V is too noisy

Note: TS4990IST can be substituted for NS4890

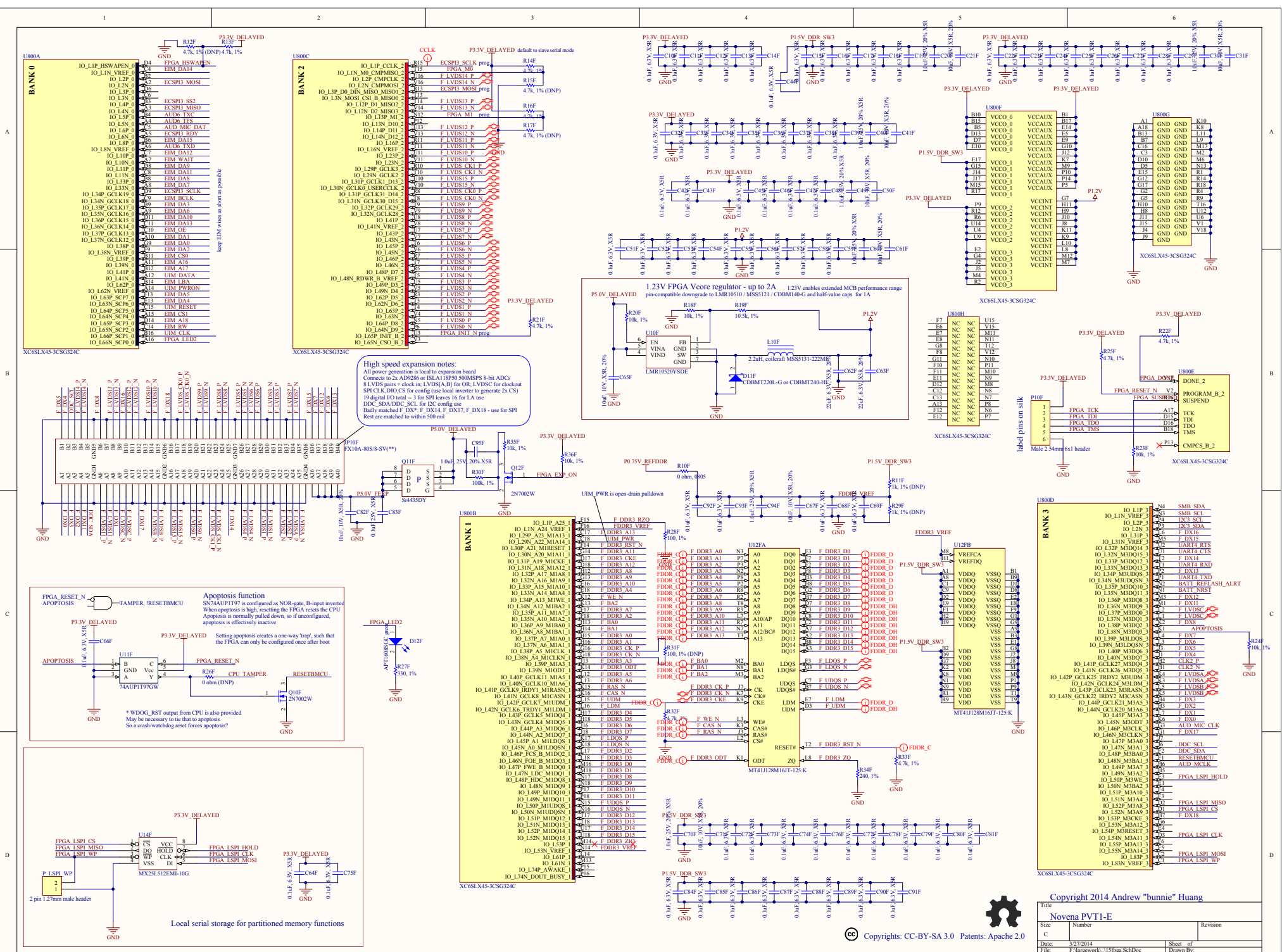
Power management switch for audio circuit

Digital microphone - PDM output
requires 2.4MHz clock + software filter to make PCM
wired for left channel; connector for right-channel mic
power down by stopping clock

Copyright 2014 Andrew "bunnie" Huang

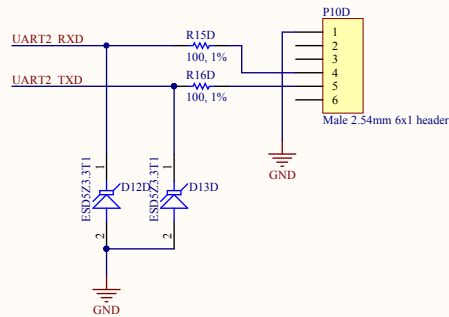
Novena PVT1-E

Size	Number	Revision
B		
Date:	3/27/2014	Sheet of
File:	F:\largework\14audio SchDoc	Drawn By:



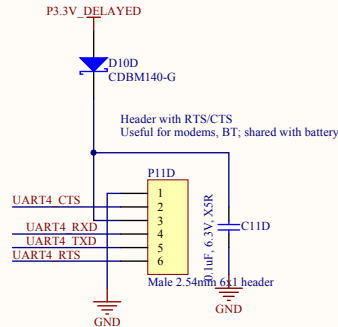
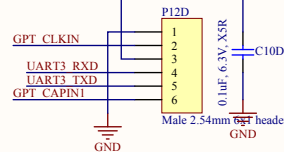
Intended for external access

Console/debug UART
FTDI TTL-232R-3V3 cable pinout
Put in a convenient location



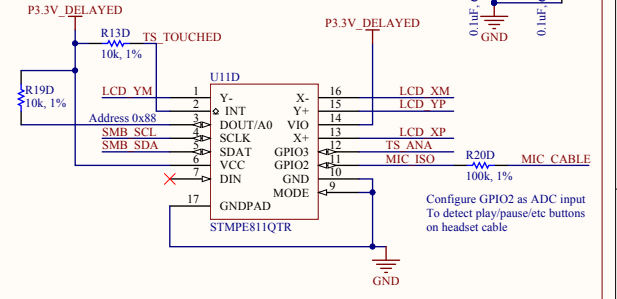
Intended for internal module expansion

Serial + high resolution timer input
Useful for high precision GPS

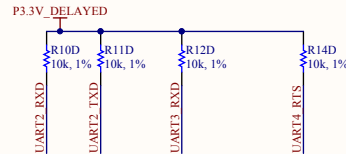


Optional resistive touchscreen

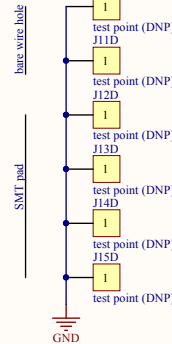
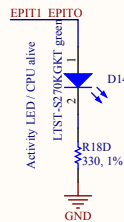
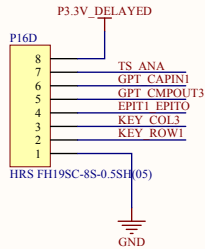
Note: STMPE811 is mandatory for microphone jack play/pause button detection



pull-ups on UART inputs to prevent spurious console events

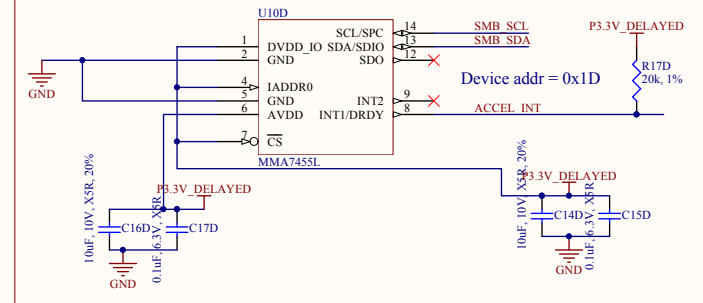


General purpose expansion header - mostly for blinkenlights and switches



accelerometer (optional)

not really SMB device -- but mPCI-e is only SMB user
useful for tamper/movement detection



Copyrights: CC-BY-SA 3.0 Patents: Apache 2.0

Copyright 2014 Andrew "bunnie" Huang

Title		
Novena PVT1-E		
Size	Number	Revision
B		
Date:	3/27/2014	Sheet of
File:	F:\largework\16gpio_misc.SchDoc	Drawn By: