

# Novena PVT2-A

A

A

B

B

C

C

D

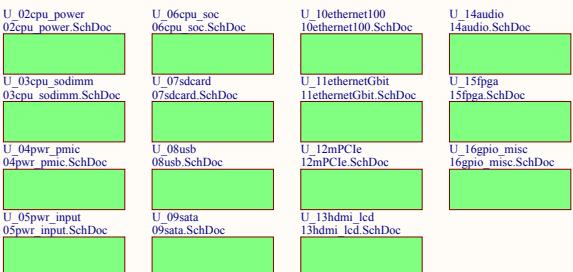
D

## I2C mappings:

addresses are already shifted left by one to accommodate r/w bit  
 i.e. address is expressed as the write address  
 I2C1: 10k pull-up  
 SMBus functions (optional)  
 MMA8452 (0x38) (optional)  
 SO-DIMM identification (0xA0)  
 FPGA (optional)  
 SO-DIMM temp sensor (0x30) (optional)  
 STMP6E10 (0x88) (optional)  
 Gas gauge and charger via SMB (on battery board)  
 PCF8523 RTC (0xD0)

I2C2: 1.8k pull-up  
 HDMI DDC (0xA0, 0x74)  
 expansion header  
 FPGA (optional)  
 PMIC (0x10)

I2C3: 2.2k pull-up  
 LCD EDID (0xA0)  
 ESS8283 (0x22)  
 FPGA (optional)  
 Utility EEPROM (0xAC)



P1.8V\_SW4 has option to power VTT  
 Use this option to lower VTT source to 1.0V to save power

changes on table:

P1.8V\_VGEN3 mictbias gen option  
 (reprogram to 3.0V before using)

## Power sequencing

cell name	voltage	dependent blocks	sheet	derived from	sequence	generated by	capacity	notes
Extr_Pwr	2V-17V	VTT master	05power	external	0	AC adapter	5A	when using only AC adapter, 12V nominal
BATT_PWR	0V-18V	DC master	05power	internal	0	AC adapter	3A - 6A	3- and 4-cell Li-Ion are preferred configuration
P5.0V	5V	3.3V master	05power	internal	0	AC adapter	5A	
P5.0V_DELAYED	5V	SATA controller USB USB hub (master & slave)* USB_01TO_VBUS heat sink Op-amp Power MOSFET (option) ADC 3.3V regulator Power regulator	05power	internal	4	KICP2020B	7A	
P3.3V	3.3V	SDR5 SDRAM PMIC_VNDR PMIC_SW ready Battery low voltage MCU Reset	05power	internal	5	KAM05540UIC	5A	
P3.3V_DELAYED	3.3V	NVCC_LDO NVCC_0.9V NVCC_1.2V, 2 and 3 NVCC_NAND NVCC_JTAG NVCC_1.1V, 1, and 2 PMIC_VNDR Boot config chips JTAG Internal MicroSD patch External SD card Utility EEPROM USB hub (master & slave)* SDR5 SDRAM 10Mbps ethernet PCIe patch LCD panel Digital video capture Parallel video patch FP04_VO FP04_expansion_VO Expansion header PMIC_VNDR PMIC_SW ready Memory Accelerometer Expansion header JTAG1.2V enabled via zifoffs	05power	internal	6	KAM05540UIC	5A	delay control is P2.8V_VOEN0
P2.8V	2.8V	Power LED P5.0V_DELAYED control RS232C IO NFC MCP2515 NVCC_CSI	05power	internal	7	KAM05540UIC	5A	
P2.8V_VIOEN0	2.8V	P5.0V_DELAYED control	05power	internal	8	KAM05540UIC	5A	
P3.0V_STBY	3.0V	CPU boot pin	05power	internal	9	KAM05540UIC	5A	
P3.0V_D0DR_VTT	3.0V	P3.0V_VDDHIGH_SINK	05power	internal	10	KAM05540UIC	5A	
P1.8V_D0DR_SW	1.8V	VDDI of PMIC	05power	internal	11	KAM05540UIC	5A	
P1.8V_VIOEN1	1.8V	SDR5 SDRAM	05power	internal	12	KAM05540UIC	5A	
P1.8V_VIOEN2	1.8V	VDDI of PMIC	05power	internal	13	KAM05540UIC	5A	
P1.8V_VIOEN3	1.8V	VDDI of PMIC	05power	internal	14	KAM05540UIC	5A	
P2.8V_VIOEN5	2.8V	P5.0V_DELAYED control	05power	internal	15	KAM05540UIC	5A	
P3.0V_LICELL	2.85-3.3V	Q10P1000 zap	05power	internal	16	KAM05540UIC	5A	
P3.0V_P3.2V	3.0V	P3.0V and P3.2V_LICELL	05power	internal	17	KAM05540UIC	5A	
P3.0V_REF00	0.75V	CPU boot pin	05power	internal	18	KAM05540UIC	5A	
P3.0V_D0DR_SW	0.75V	P3.0V_D0DR_SW	05power	internal	19	KAM05540UIC	5A	
P3.0V_D0DR_VTT	0.75V	P3.0V_D0DR_VTT	05power	internal	20	KAM05540UIC	5A	controlled by P3.0V_D0DR_VTT
P3.0V_VDDHIGH_SINK	0.75V	P3.0V_VDDHIGH_SINK	05power	internal	21	KAM05540UIC	5A	controlled by P3.0V_D0DR_VTT
E810_P1.8V	1.8V	Gigabit ethernet	11ethernet	internal	22	KAM10100ZD	5A	
E810_P1.2V	1.2V	Gigabit ethernet	11ethernet	internal	23	KAM10100ZD	5A	delay control is P2.8V_DELAYED
E810_P1.2V	1.2V	Gigabit ethernet	11ethernet	internal	24	KAM10100ZD	5A	delay control is P2.8V_DELAYED
E810_P1.2V	1.2V	Gigabit ethernet	11ethernet	internal	25	KAM10100ZD	5A	delay control is P2.8V_DELAYED
P3.0V_S4T4	3.0V	SATA controller	05data	internal	26	KAM05540UIC	2A	SATA_FIRWIN manual control
P3.0V_S4T4	3.0V	SATA controller	05data	internal	27	KAM05540UIC	2A	SATA_FIRWIN manual control
E810_D1.8V	1.8V	SDRAM	05data	internal	28	KAM05540UIC	5A	
E810_D1.8V	1.8V	SDRAM	05data	internal	29	KAM05540UIC	5A	
E810_A1.8V	1.8V	SDRAM	05data	internal	30	KAM05540UIC	5A	
MPCIE_3.3V	3.3V	PCI express	12PCIEXP	internal	31	KAM05540UIC	5A	
MPCIE_3.3V	3.3V	PCI express	12PCIEXP	internal	32	KAM05540UIC	5A	
T4_HDMI_AV	5V	HDMI	13hdmi	internal	33	KAM05540UIC	5A	
LED_VCC_3.9V	3.9V	LED panel	13hdmi	internal	34	KAM05540UIC	5A	LCD_PWR_TL note active pulldown during power-on
LDC_VDD_3.9V	3.9V	LDC backplane	13hdmi	internal	35	KAM05540UIC	5A	LCD_PWR_TL no master power control
AUD_P3.3V	3.3V	audio codes	14audio	internal	36	KAM05540UIC	5A	AUD_PWR_TL note active pulldown during power-on
P3.3V	3.3V	PI-POU core	14audio	internal	37	KAM05540UIC	5A	power on
VINM	3.9V	ADC	14audio	internal	38	KAM05540UIC	5A	power on
P5.0V_DELAYED	5V		05power	internal	39	KAM05540UIC	5A	
USB_VID_P5V	5V	video camera	13hdmi	internal	40	KAM05540UIC	5A	USB_PWRINH_N off of dave hub

cell name	voltage	dependent blocks	sheet	derived from	sequence	generated by	capacity	notes
P5.0V_WIFI	5V	USB wireless	05bus	internal	41	KAM05540UIC	5A	USB_PWRINH_N off of main hub
P5.0V_USBx11	5V	external USB	05bus	internal	42	KAM05540UIC	5A	USB_PWRINH_N off of main hub
P5.0V_USBx12	5V	internal USB	05bus	internal	43	KAM05540UIC	5A	USB_PWRINH_N off of main hub
P5.0V_MOUSE	5V	mouse	05bus	internal	44	KAM05540UIC	5A	USB_PWRINH_N off of dave hub
P5.0V_KEYBOARD	5V	keyboard	05bus	internal	45	KAM05540UIC	5A	USB_PWRINH_N off of dave hub
USB_VID_P5V	5V	video camera	13hdmi	internal	46	KAM05540UIC	5A	USB_PWRINH_N off of dave hub

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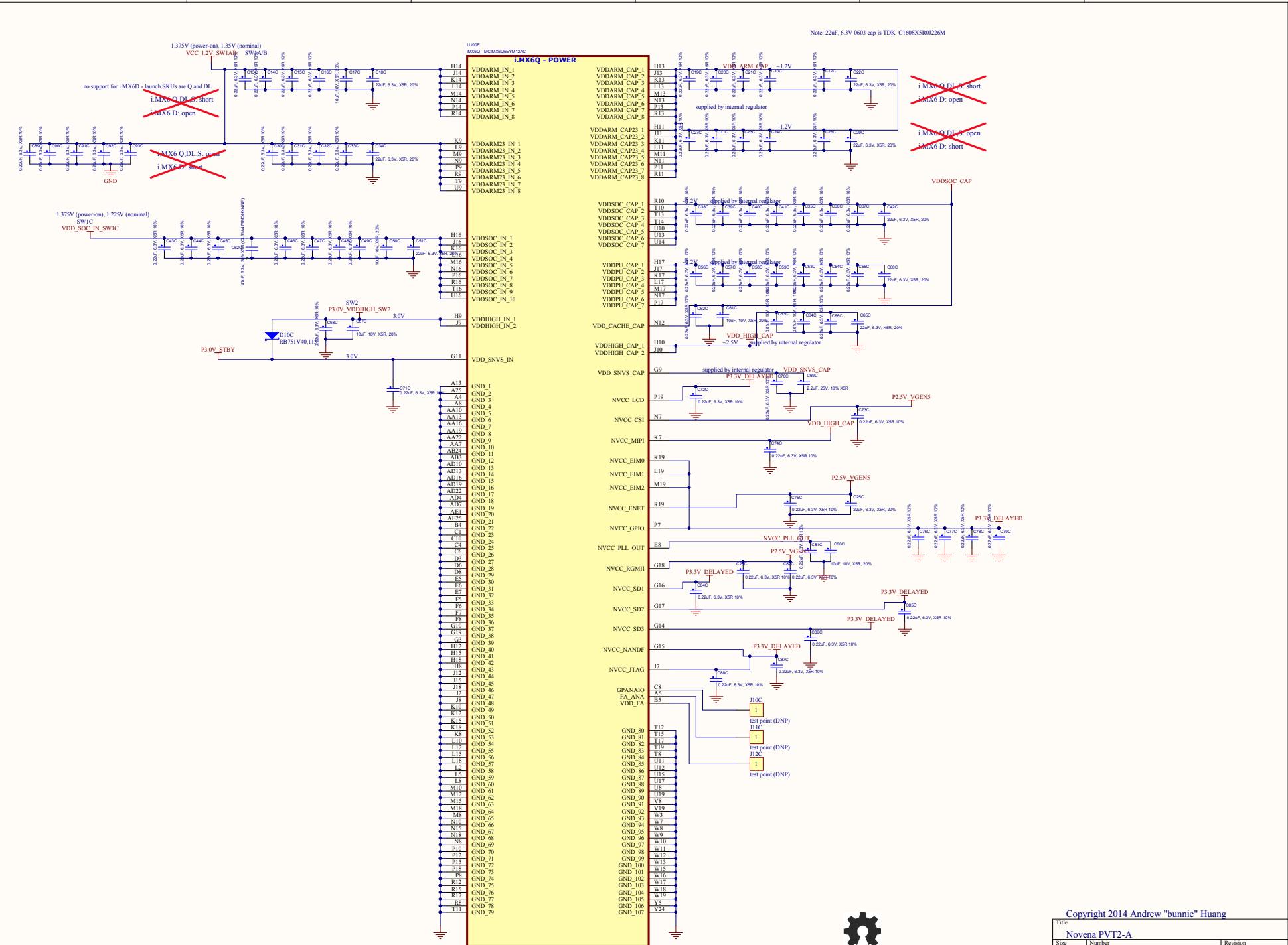
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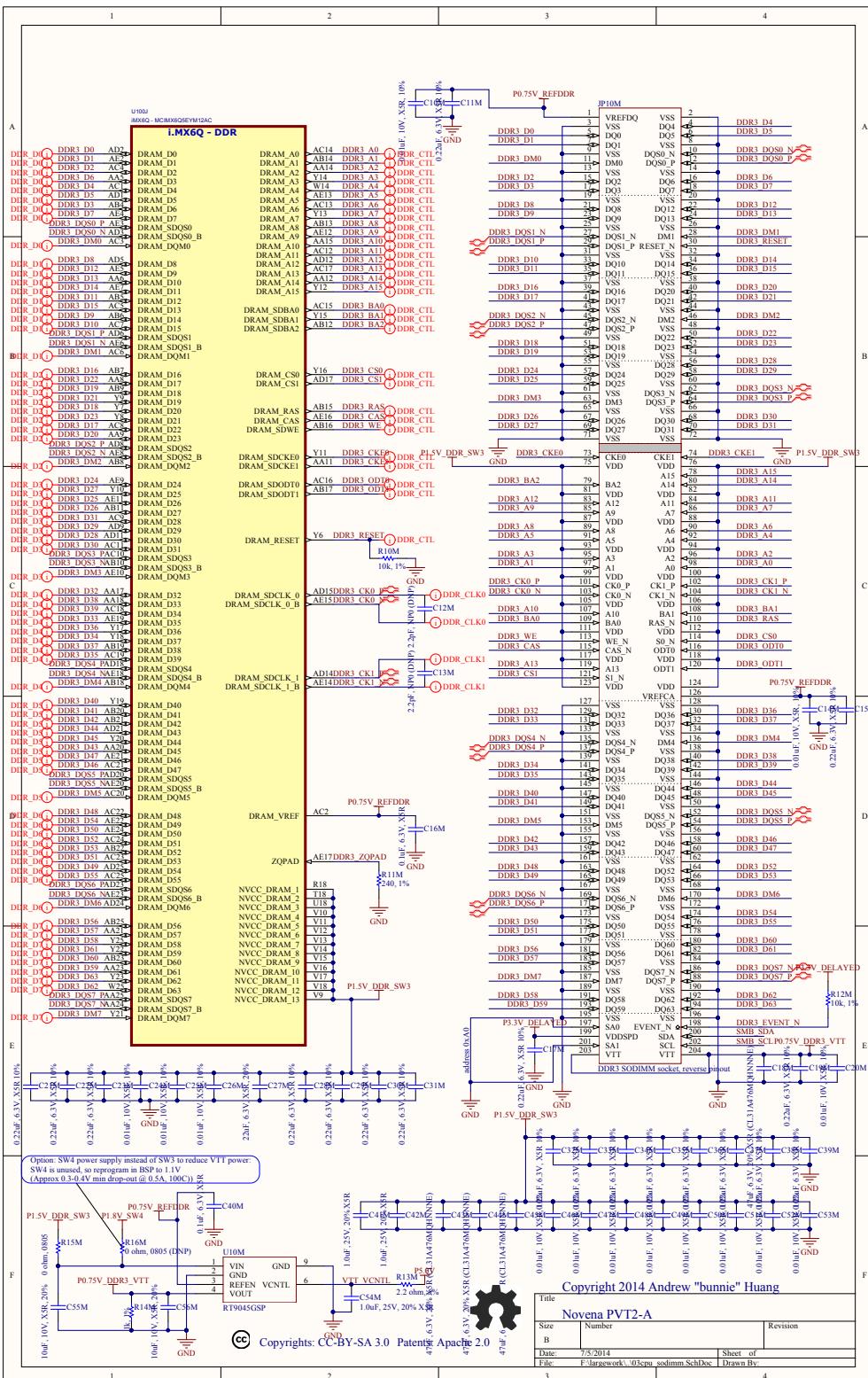


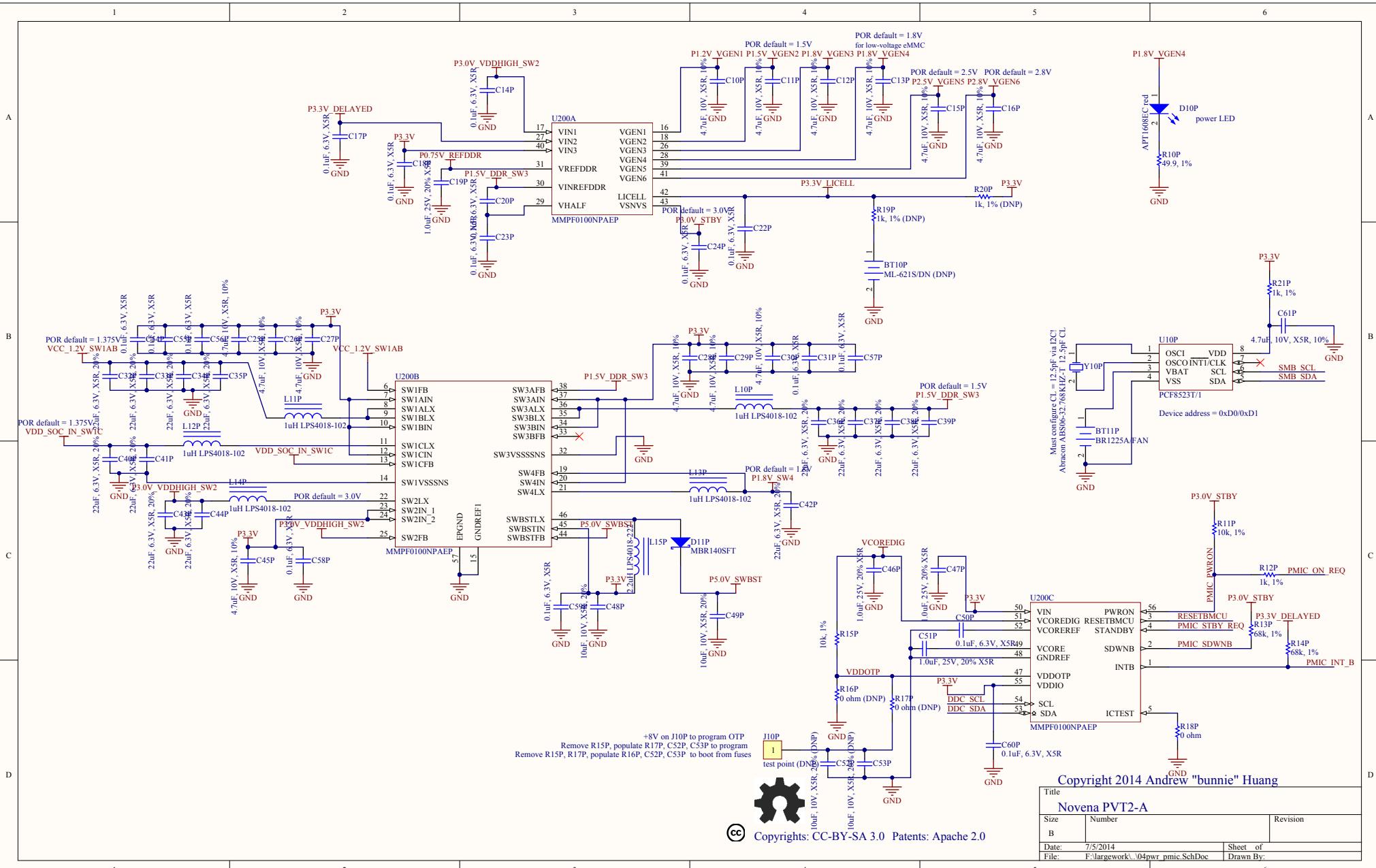
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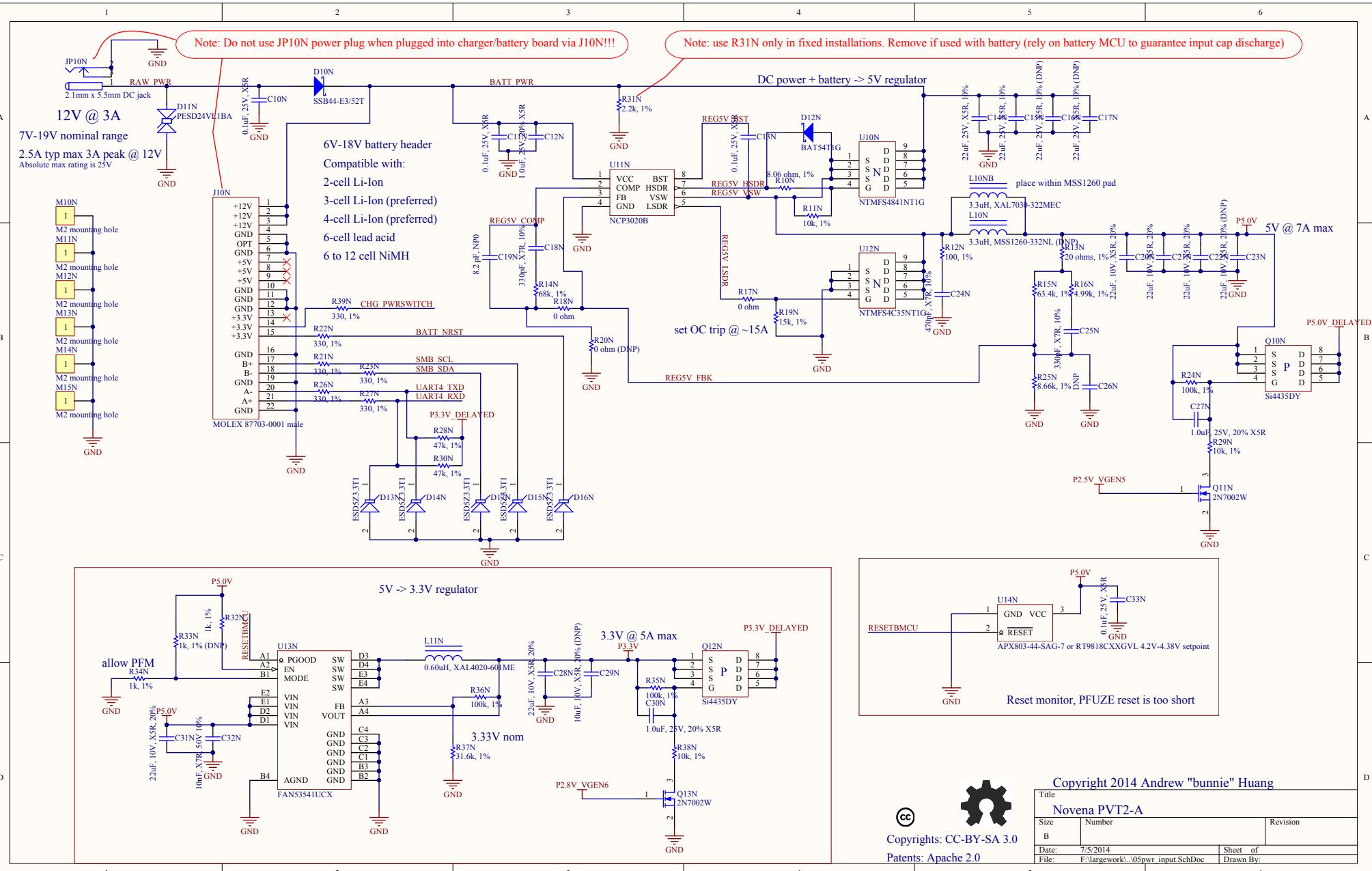
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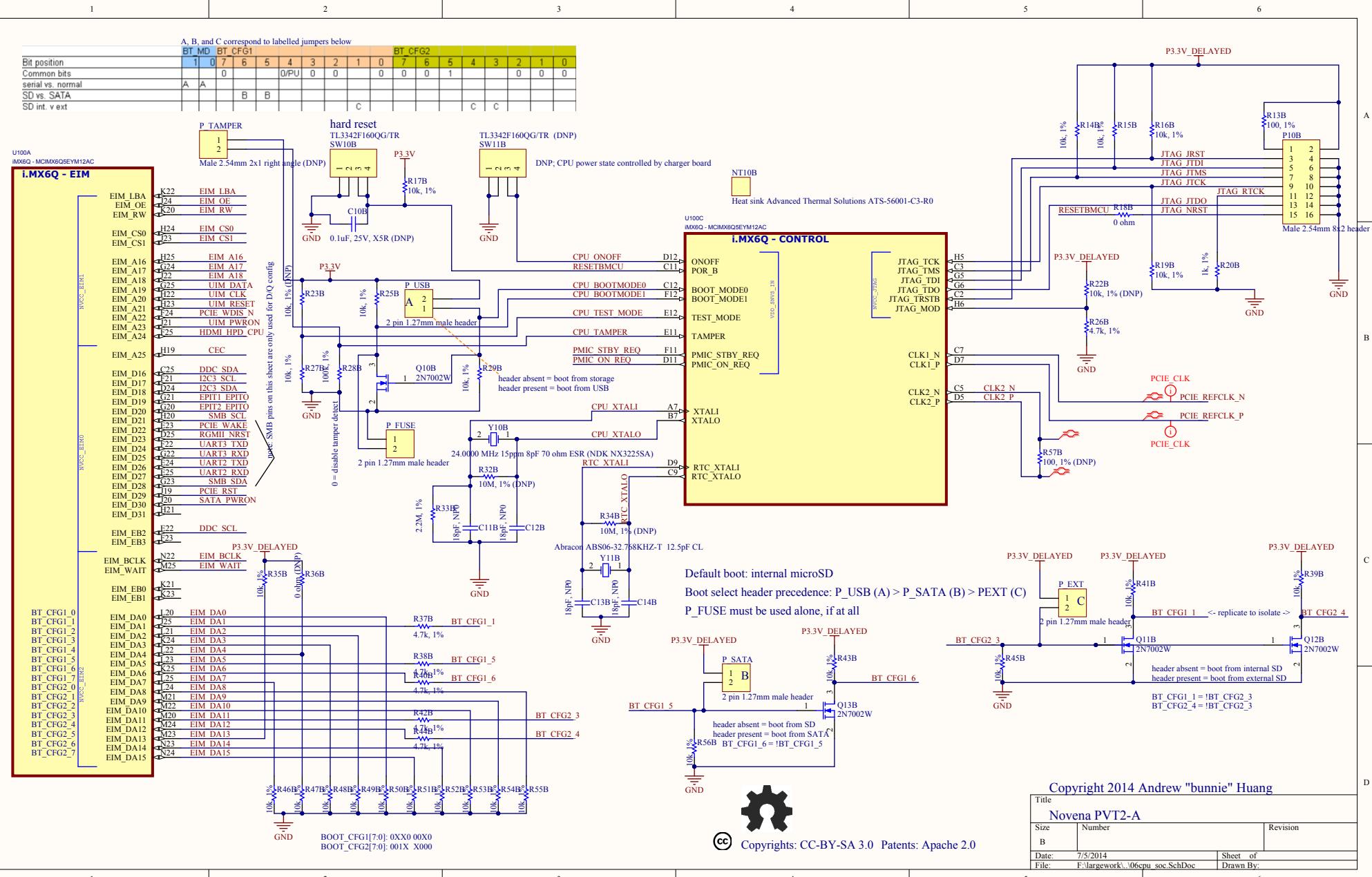


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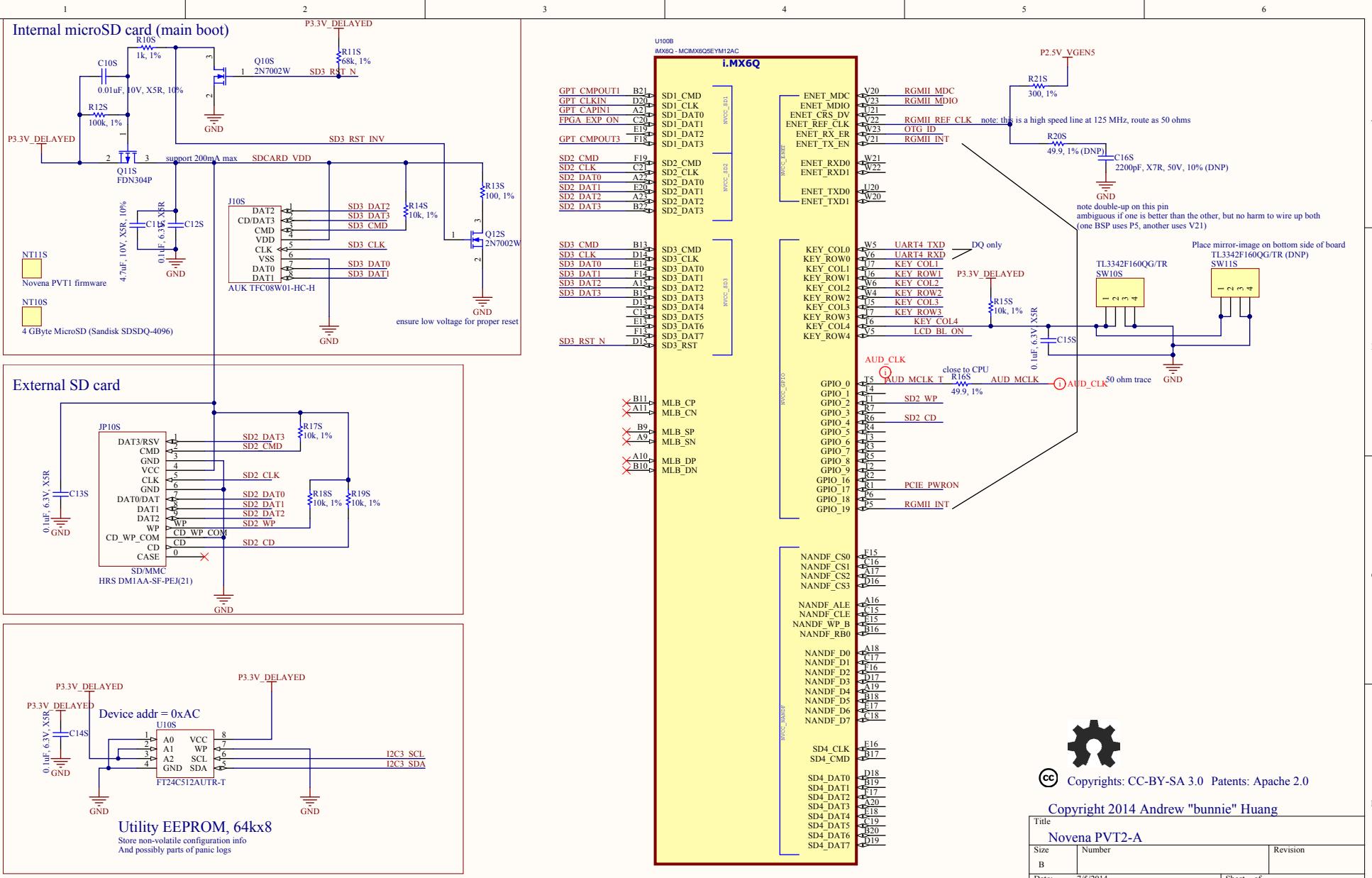






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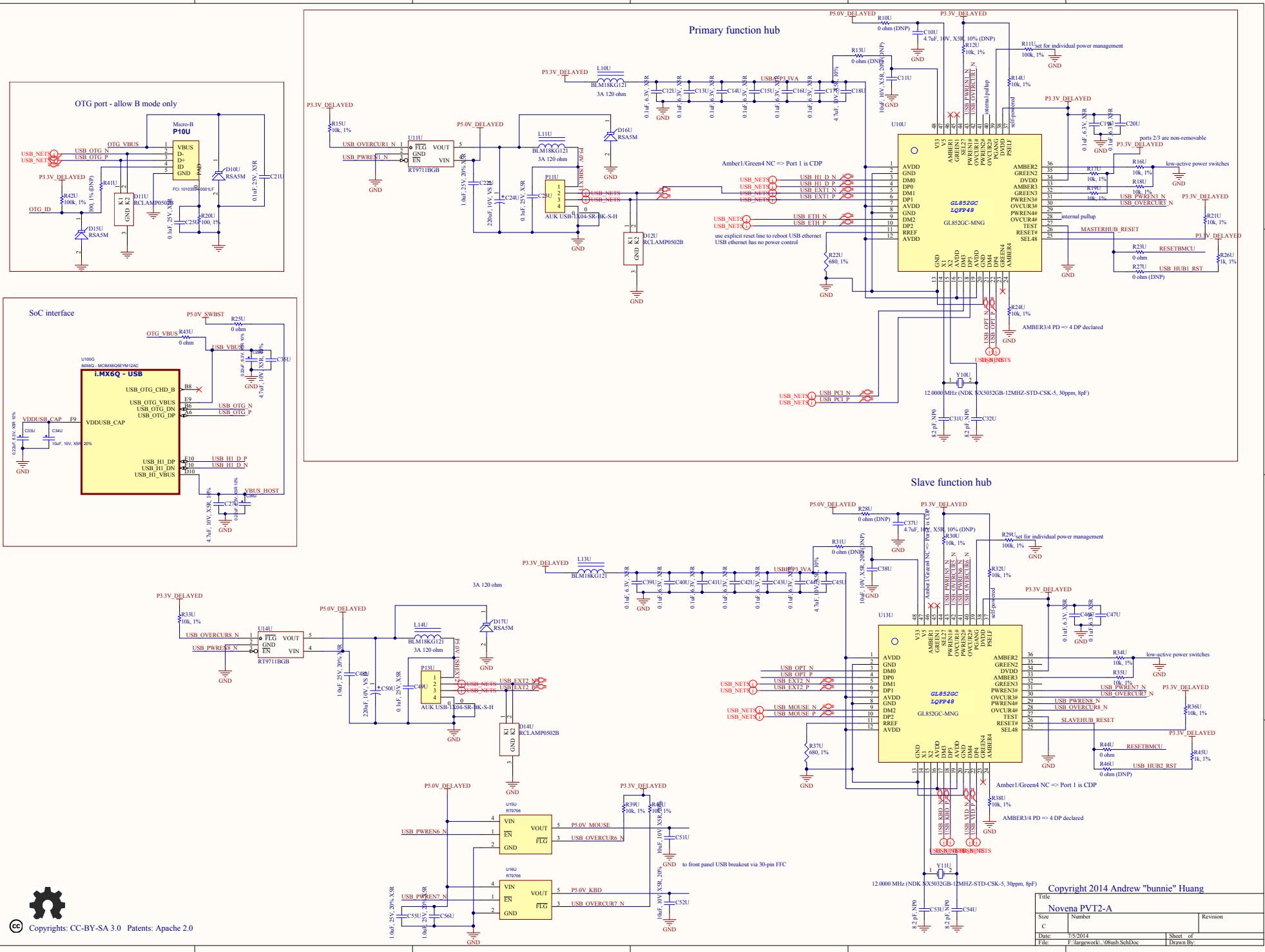
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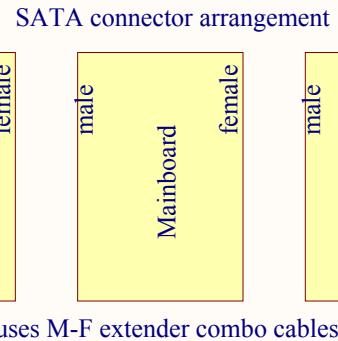


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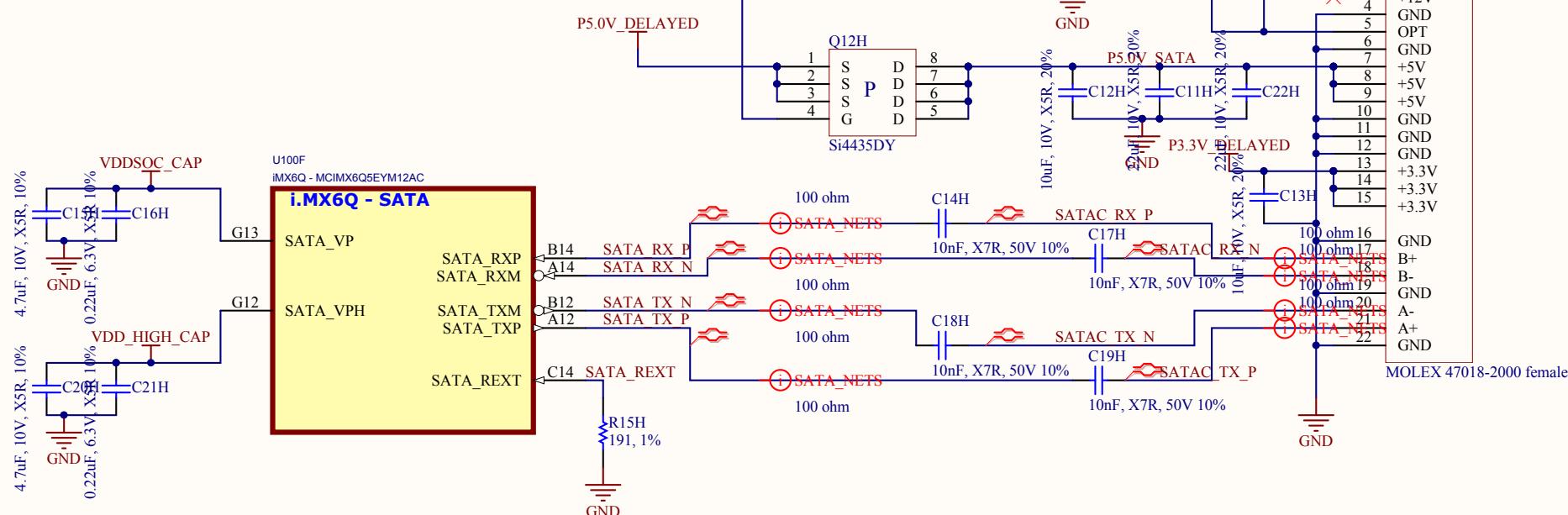
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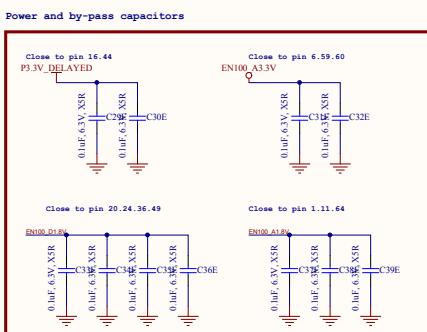
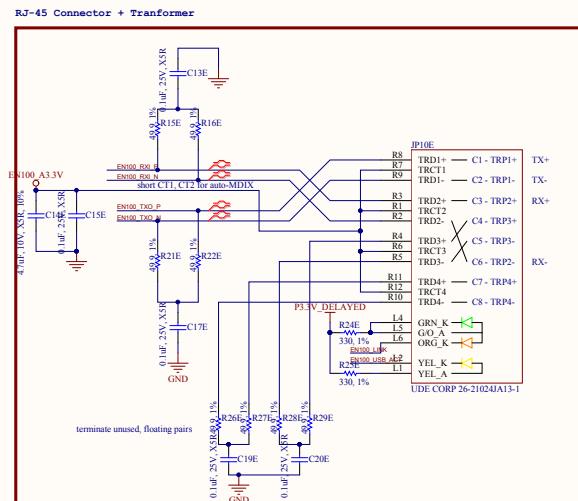
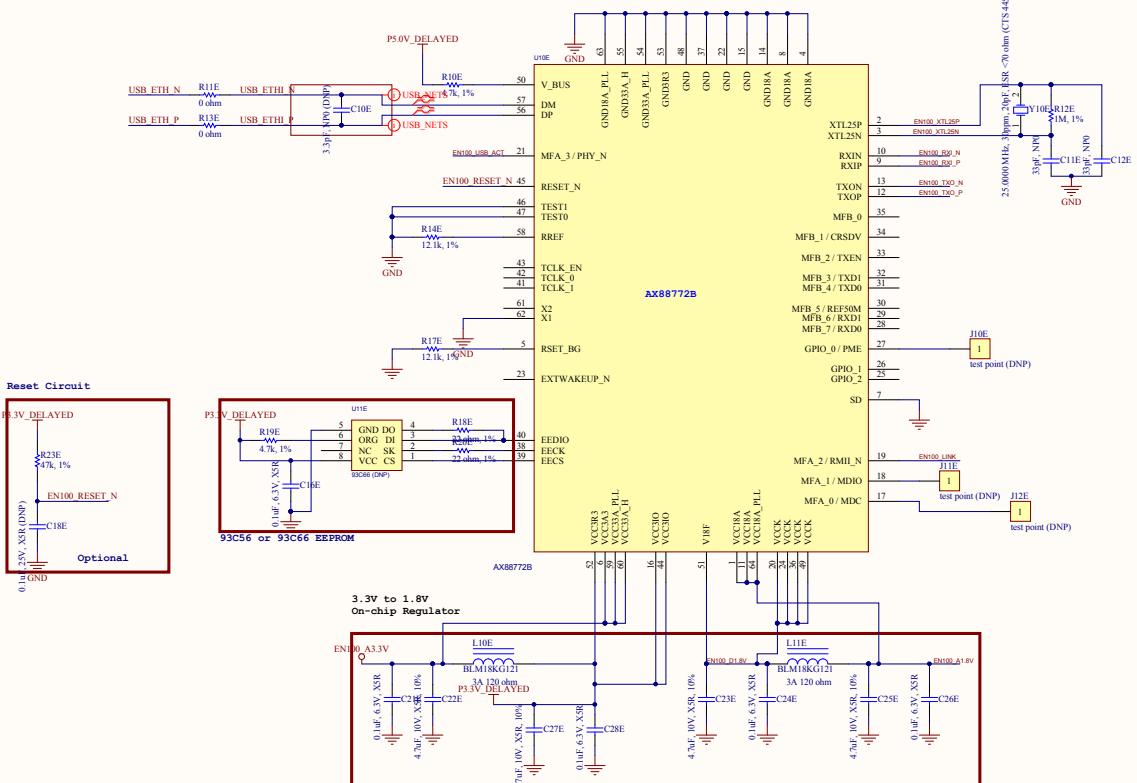
For boot: compatible ONLY with SATA-II (3Gbps) drives  
Optimized for use with SSDs

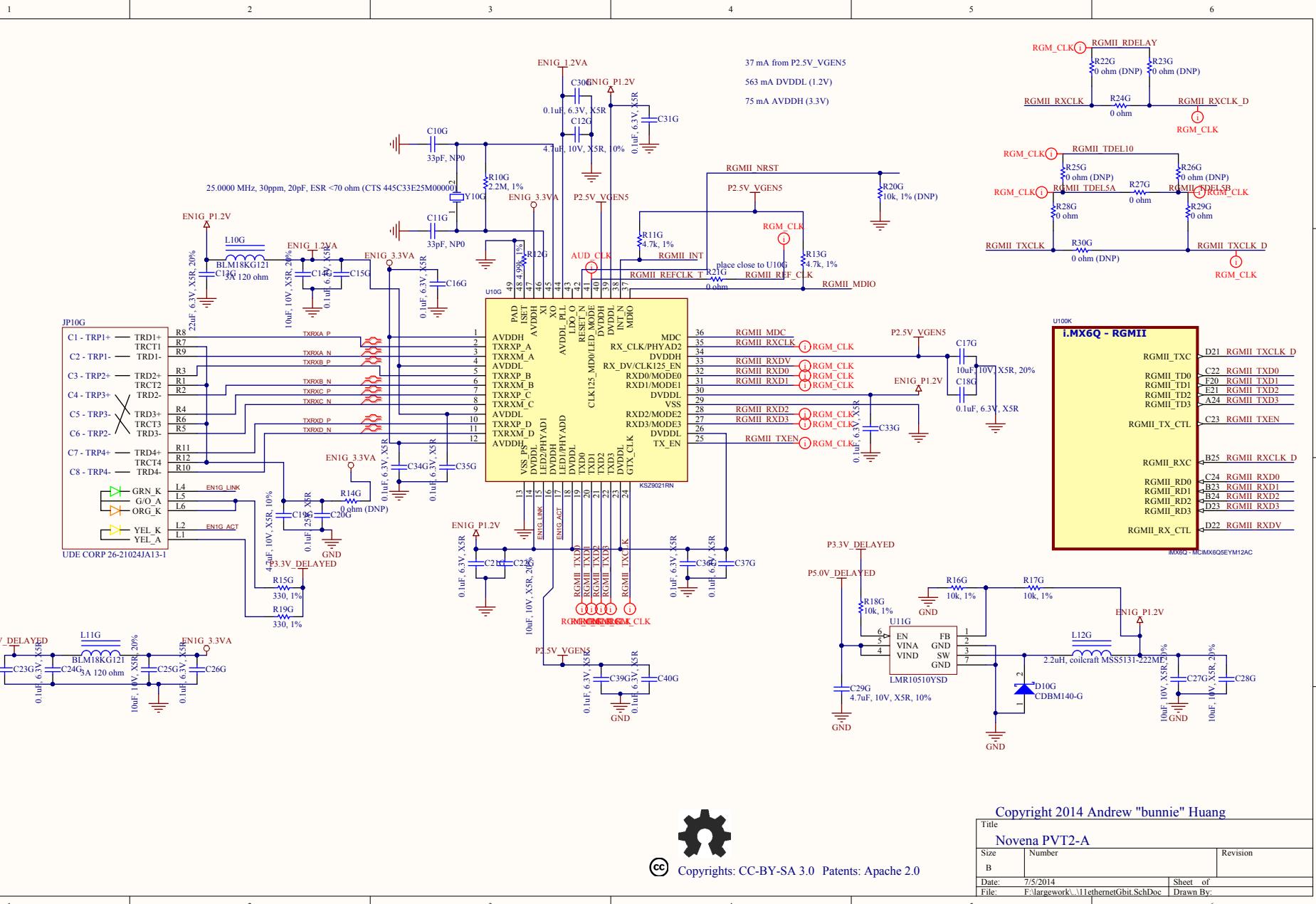


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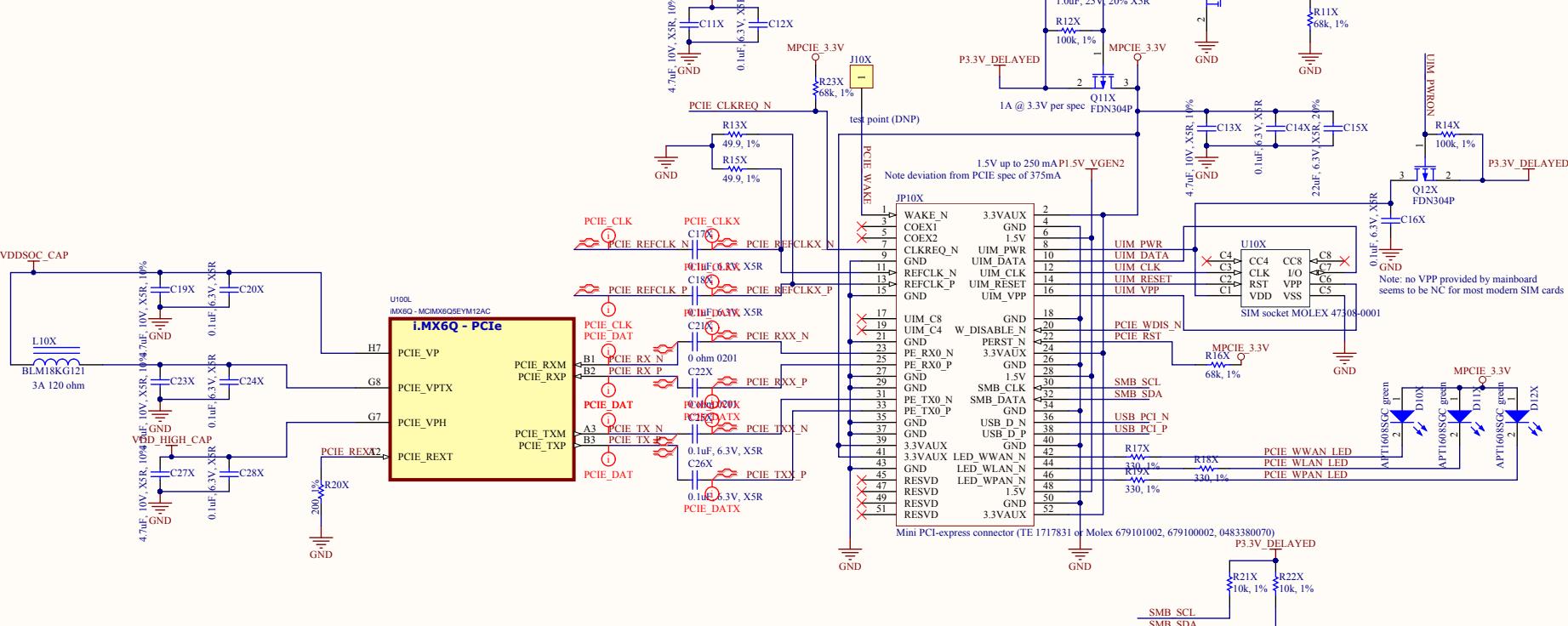
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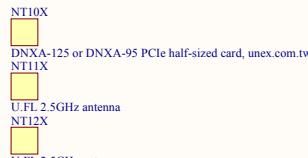


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### Wifi plug-in card symbol placeholders

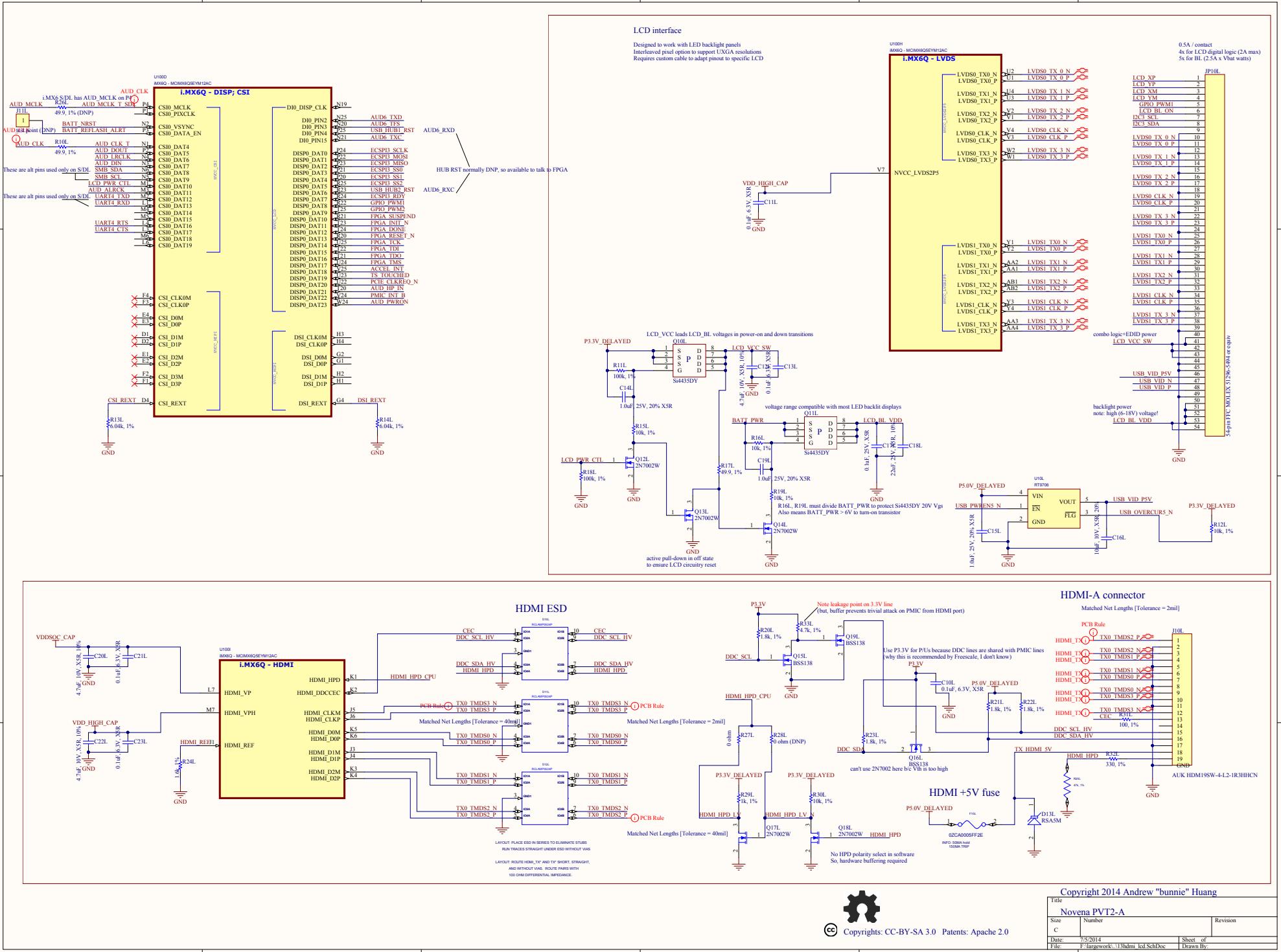
Use at9k-compatible PCIe card  
Suggestions at left are for b/g/n 1x1 low-cost solution  
Other options exist for a/b/g/n 2x2, 3x3 MIMO + BT combo  
(note BT combo is via mPCIe embedded USB interface)

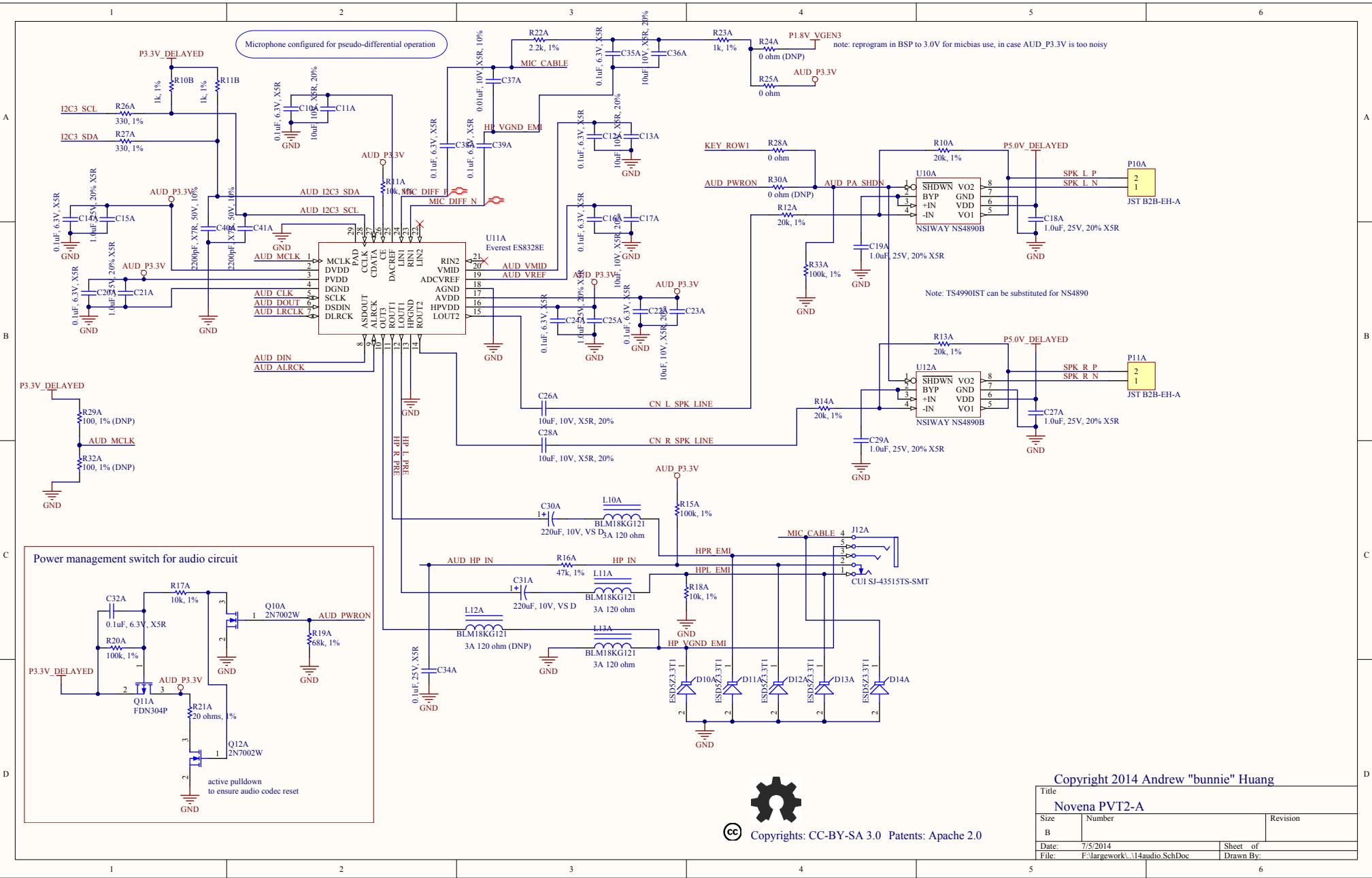


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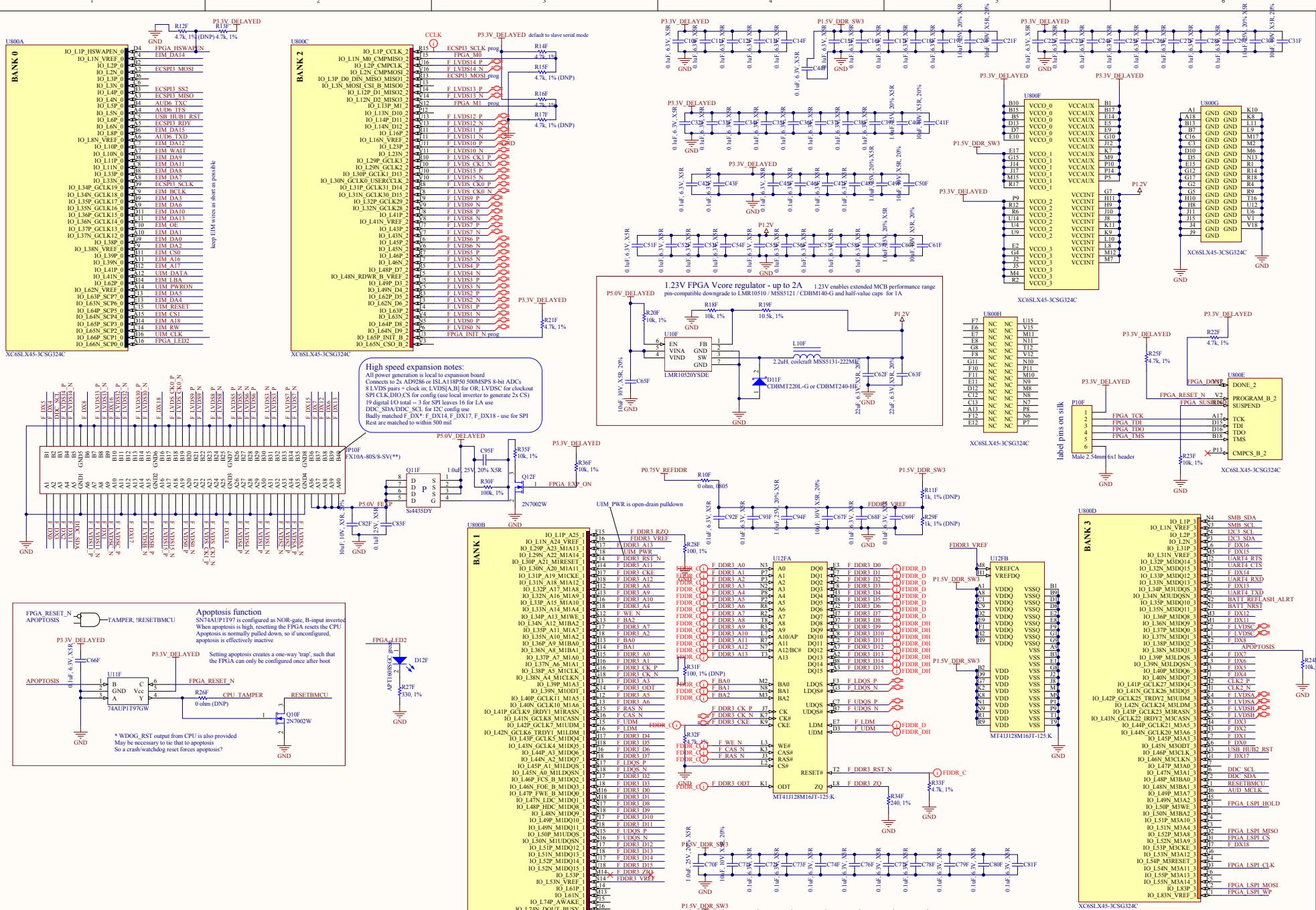




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