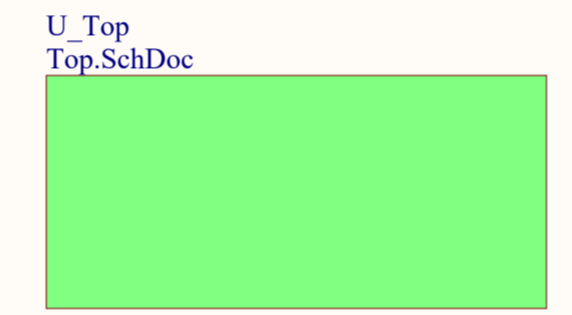


REV	Description	DATE	BY
A4A	Initial Production Release.	11/19/2012	GC
A5	On the initial production release the processors were to be found incorrect as supplied by TI. Parts while marked AM3359 were actually AM3352. This revision uses the correct parts.	1/2/2013	GC
	<ul style="list-style-type: none"> <li>1. Deleted R29-R44 from the LCD lines.</li> <li>2. Added 47pf capacitors C156-C173 to LCD data lines to ground.</li> <li>3. Changed schematic revision to A5A.</li> <li>4. Changed a few footprints after PCB update for above changes.</li> <li>5. Added access point for the battery function of the TPS65217C.</li> <li>6. Added Ferrite beads in series with LED power and 5V power rail of the USB host connector. Required to pass FCC/CE testing due to noise emissions on that pin.</li> <li>7. Added power button to enable sleep, wakeup, power down and power up features on the system.</li> <li>8. Added Modification to add 100K ohm resistor to ground to prevent crosstalk when serial cable is not plugged in.</li> </ul>	2/8/2013	GC
A5B	1. Added 100K pulldown on J1 pin 4 to prevent crosstalk when serial cable is not connected into PCB layout.	4/1/2013	
A5C	<ul style="list-style-type: none"> <li>1. Changed R46, R47, R48 to 0 ohms.</li> <li>2. Changed R45 to 22 Ohms.</li> </ul> Change was made due to production failures on some boards due to differences in impedances.		
A5C	<ul style="list-style-type: none"> <li>1. Moved the enable for the VDD_3V3B regulator to VDD_3V3A rail. Change was made to reduce the delay between the ramp up of the 3.3V rails.</li> <li>2. Added a AND gate to the SYS_RESETh circuitry. There is a small chance that on power up the nRESETOUT signal on the processor may go high, causing the SYS_RESETh signal to go HI before it should. This change reinforces the reset with the PORZn reset signal.</li> <li>3. Added optional zero ohm resistor to tie GND_OSC0 to system ground.ances.</li> </ul>		
A6	<ul style="list-style-type: none"> <li>1. Added optional zero ohm resistor to tie GND_OSC1 to system ground.</li> <li>2. Changed C106 to a 1uF capacitor.</li> <li>3. Changed C24 to a 2.2uF capacitor.</li> <li>4. Made R8 installed and R9 not installed.</li> </ul>		
B	1. Changed the processor to the AM3358BZCZ100.		
C	1. Increased the eMMC from 2GB to 4GB.		
D1	1. PHY can be also reset now by setting GPIO2_5 high.	Not yet released	

PAGE NO.	SCHEMATIC PAGE
1	COVER PAGE
2	POWER MANAGEMENT
3	PROCESSOR 1 OF 3, JTAG HEADER
4	PROCESSOR 2 OF 3, USB PORTS
5	PROCESSOR 3 OF 3
6	LED, CONFIGURATION AND BUTTON
7	DDR3 MEMORY
8	eMMC FLASH
9	10/100 ETHERNET
10	HDMI FRAMER
11	EXP CONN, uSD

NOTE: PCB Revision for this board is Rev B4.

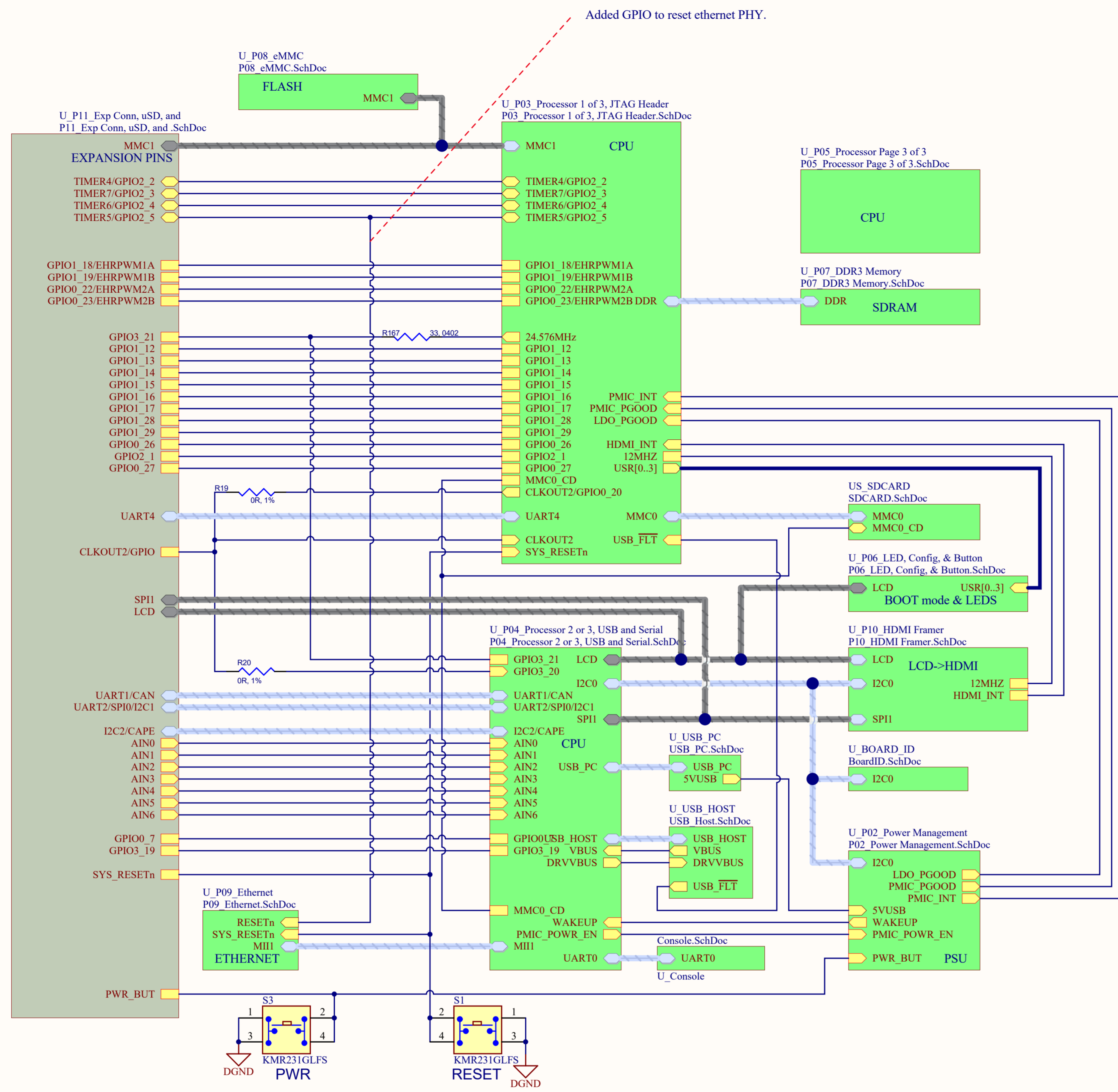


This schematic is **\*NOT SUPPORTED\*** and DOES NOT constitute a reference design. Only "community" support is allowed via resources at [BeagleBoard.org/discuss](http://BeagleBoard.org/discuss).

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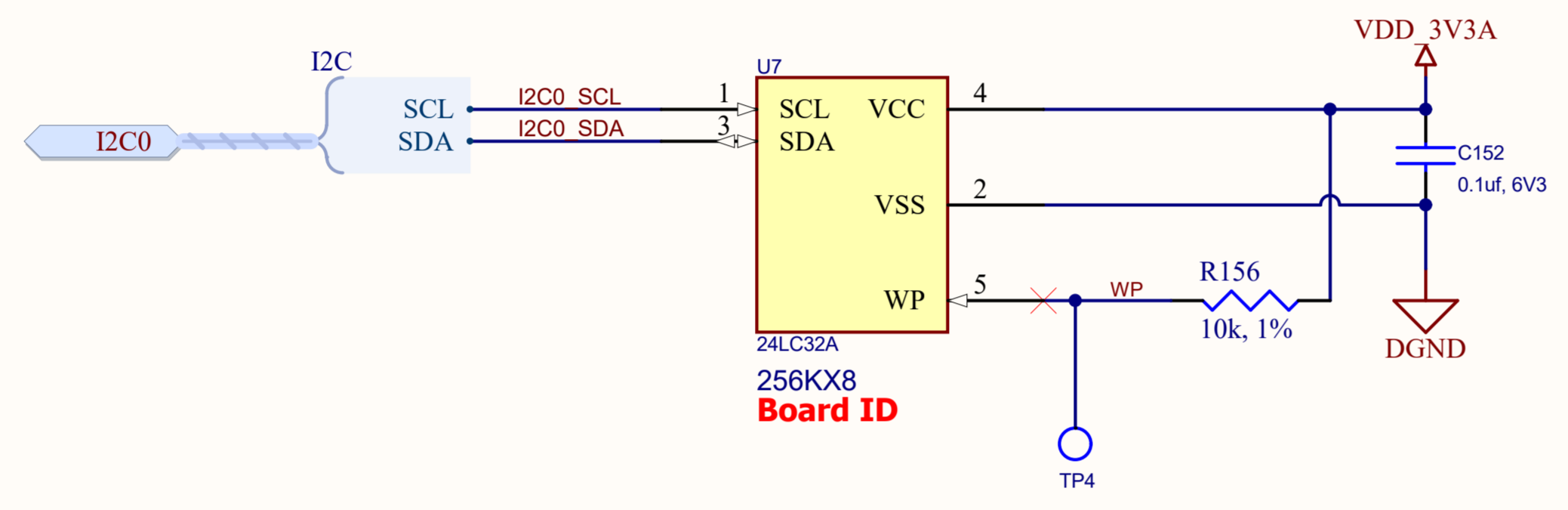

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Title		
BeagleBoneBlack Cover Page		
Size	Document Number	Rev
A	450-5500-001	A5B
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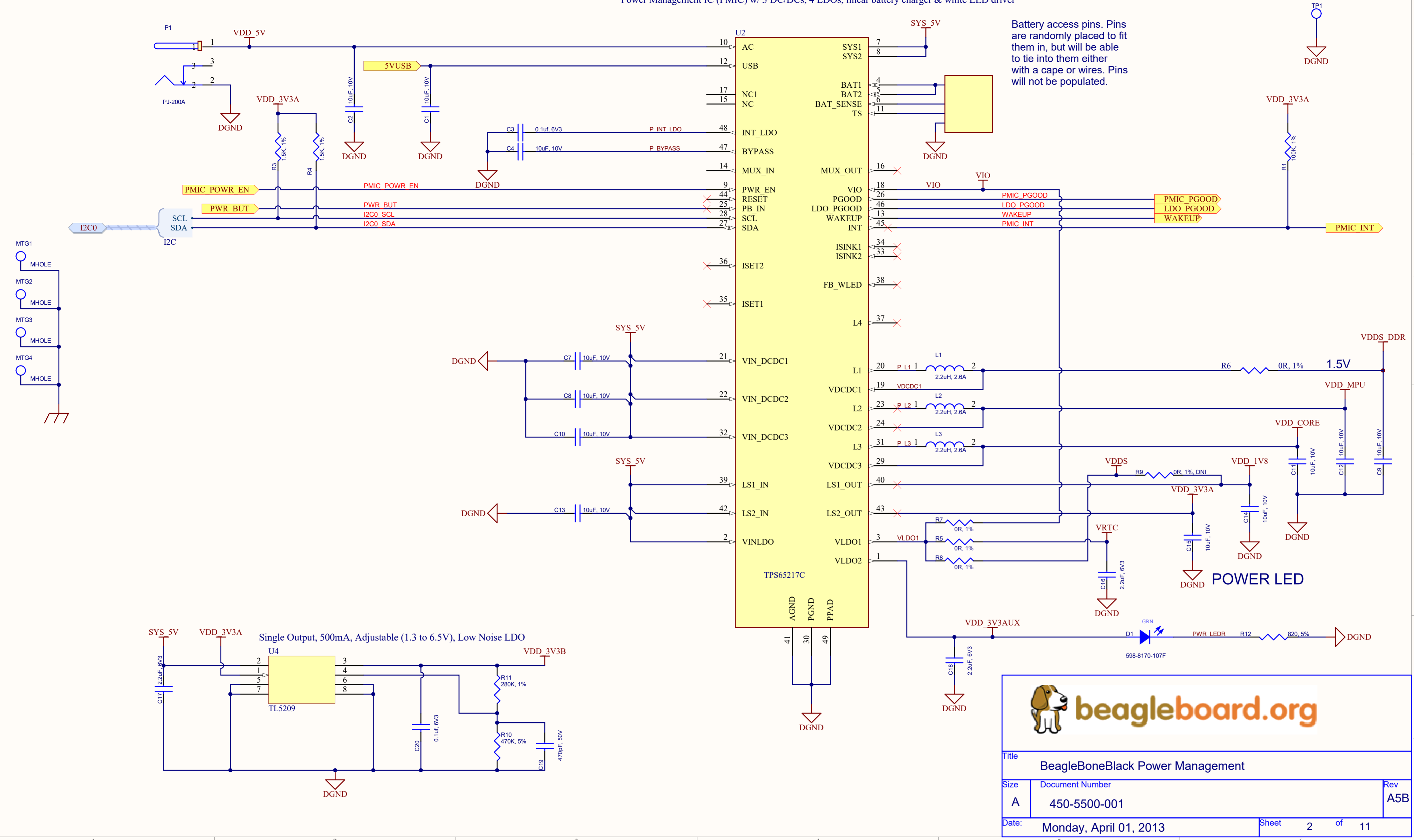
Added GPIO to reset ethernet PHY.

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Power Management IC (PMIC) w/ 3 DC/DCs, 4 LDOs, linear battery charger & white LED driver




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BeagleBoneBlack Power Management		
Size	Document Number	Rev
A	450-5500-001	A5B
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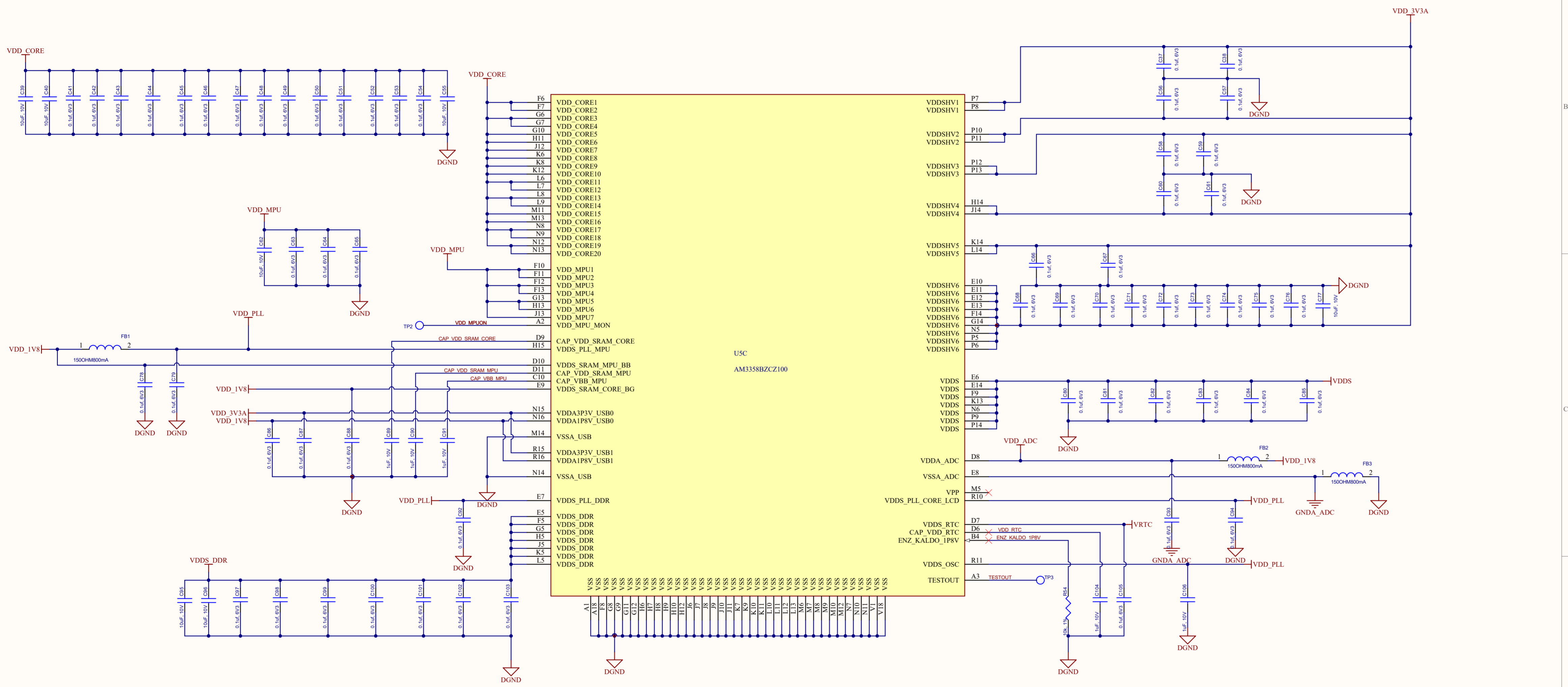






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Size	Document Number	Rev	
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Date:	Monday, April 01, 2013	Sheet	4 of 11



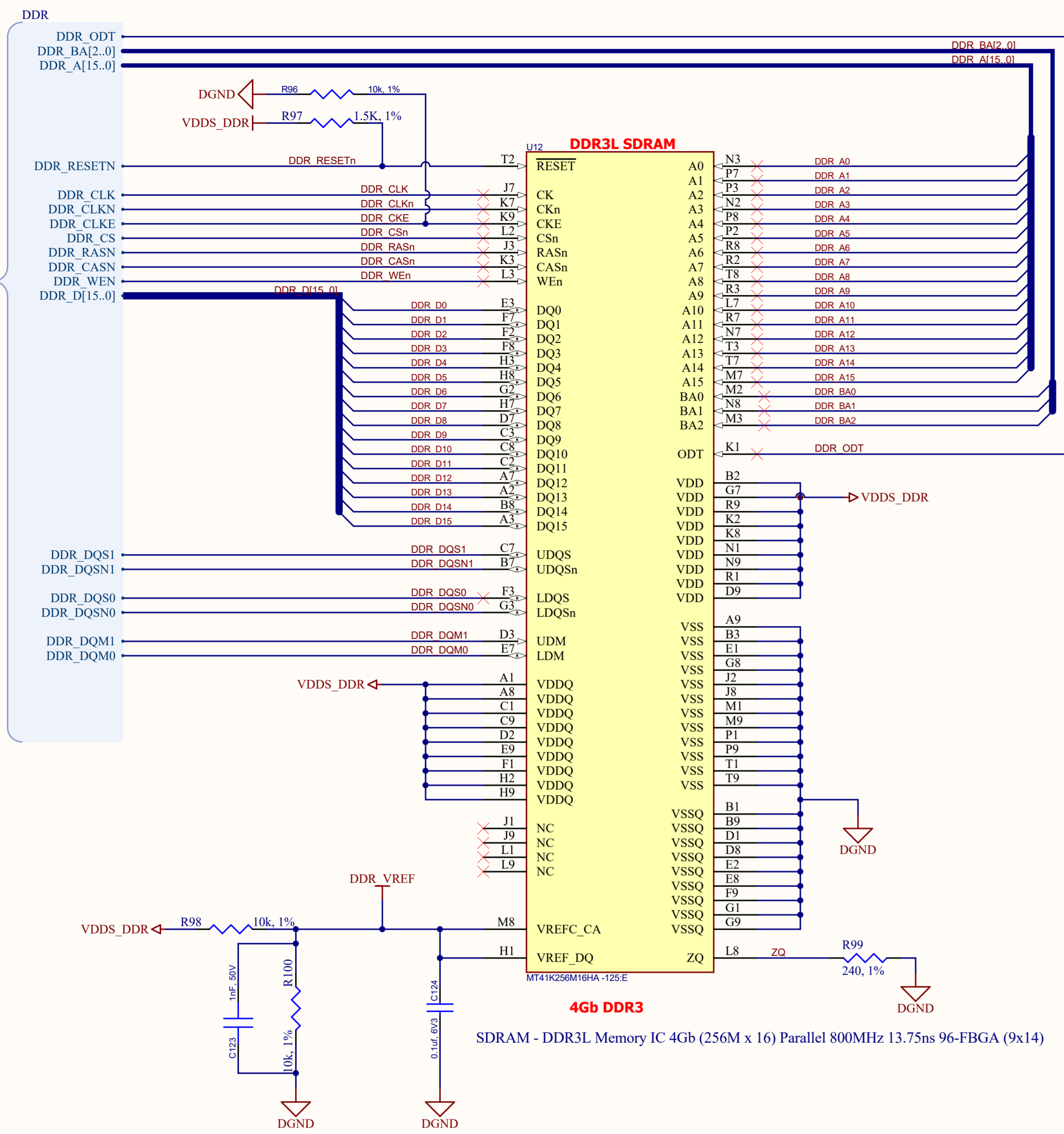




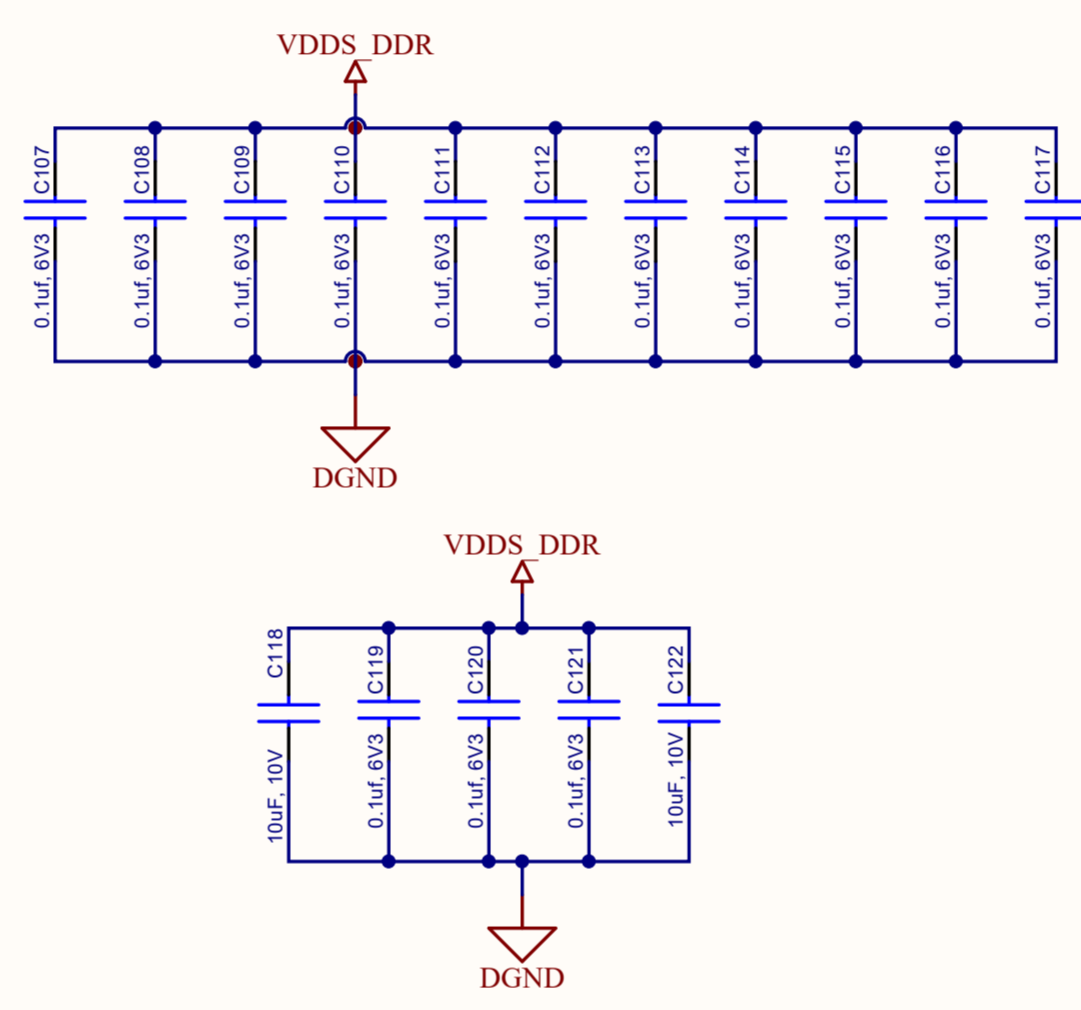
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BeagleBoneBlack Processr 3 of 3		
Size	Document Number	Rev
A	450-5500-001	A5B
Date: Monday, April 01, 2013		Sheet 5 of 11






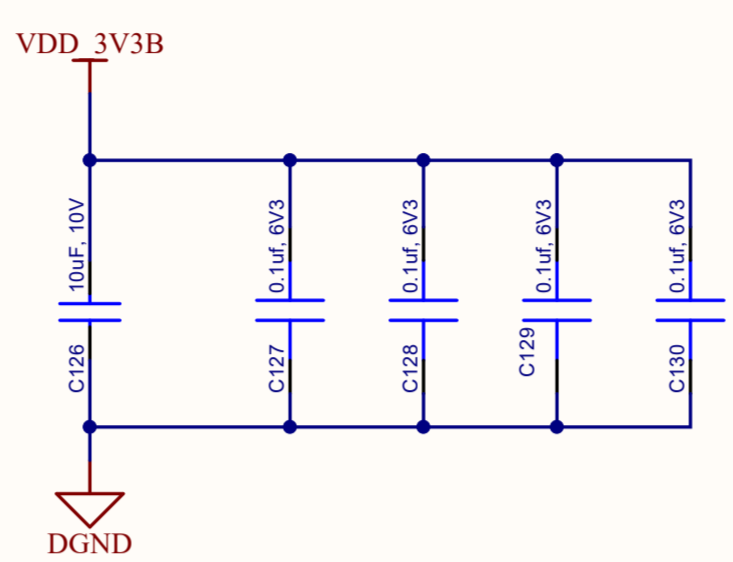
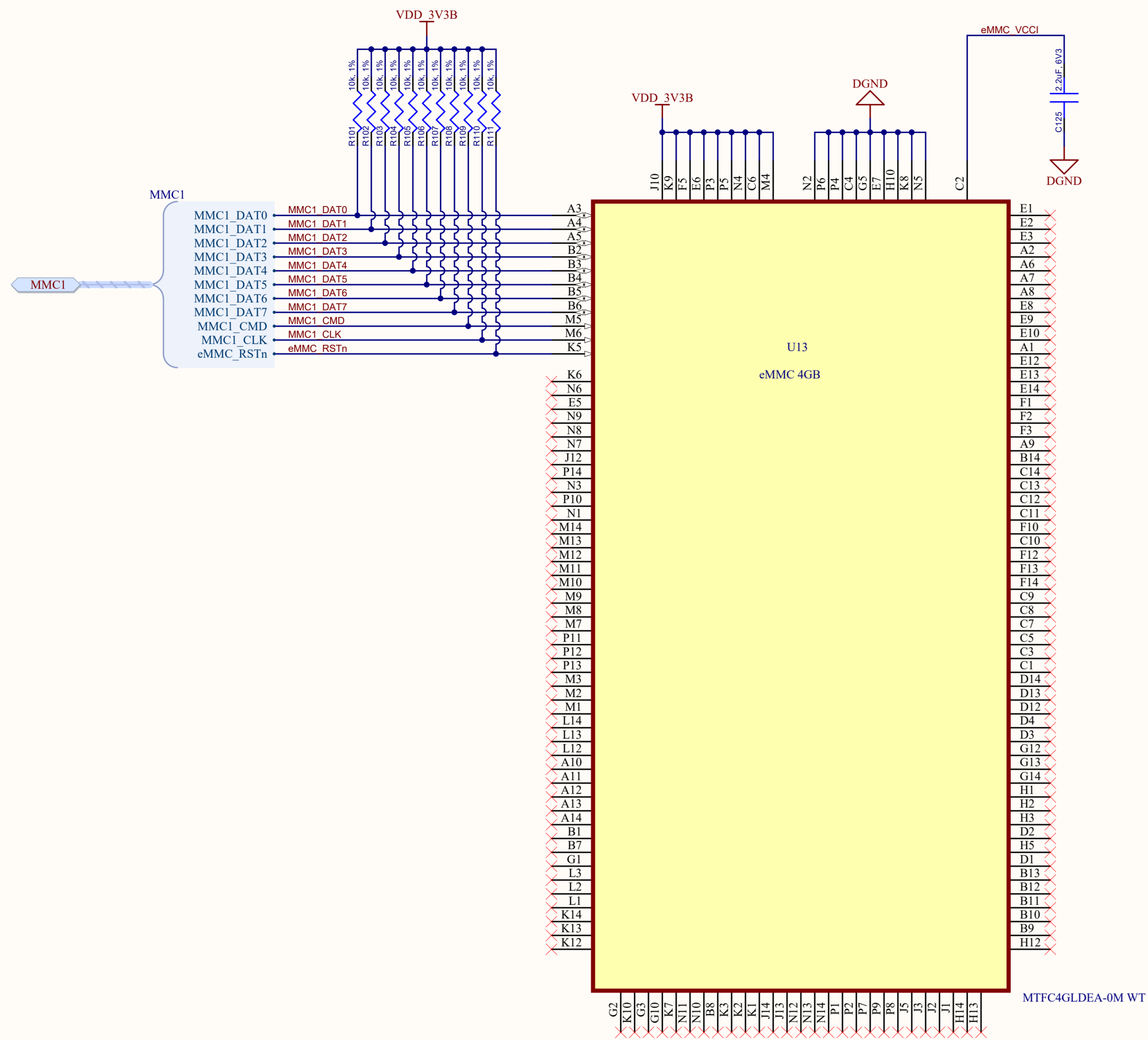


**4Gb DDR3**  
SDRAM - DDR3L Memory IC 4Gb (256M x 16) Parallel 800MHz 13.75ns 96-FBGA (9x14)



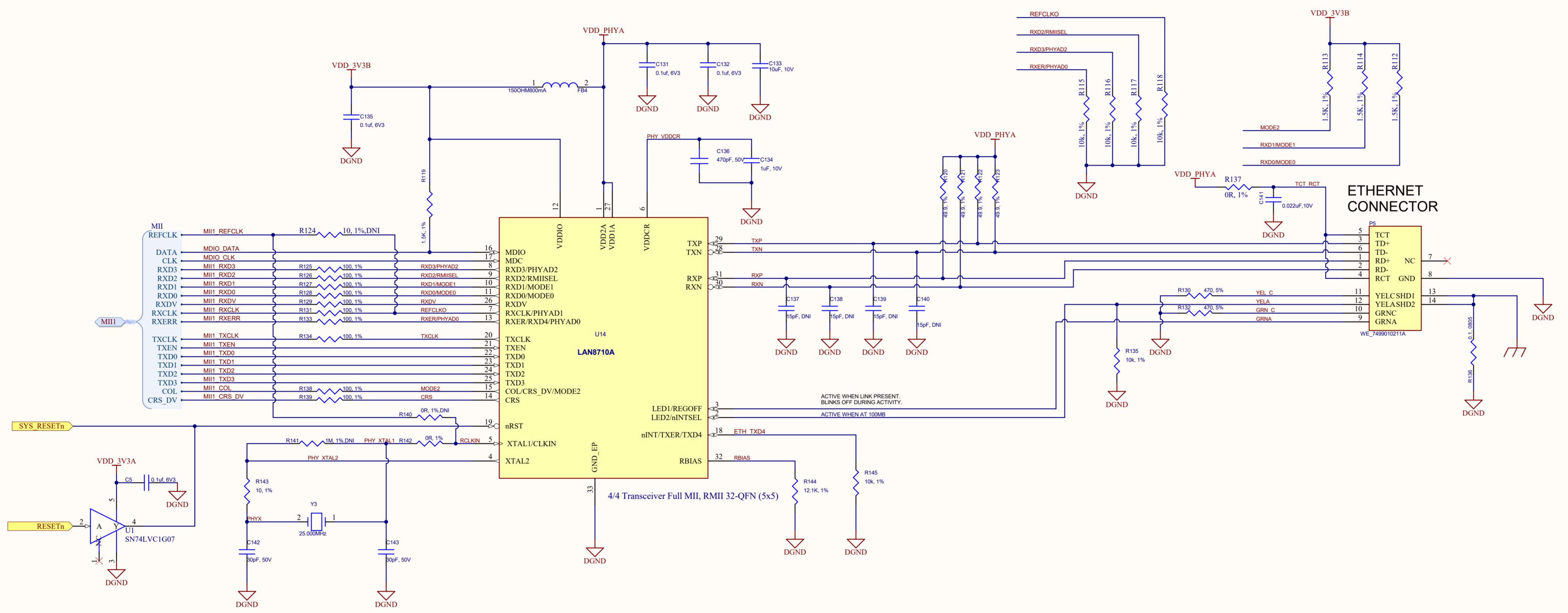

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Size	Document Number	Rev
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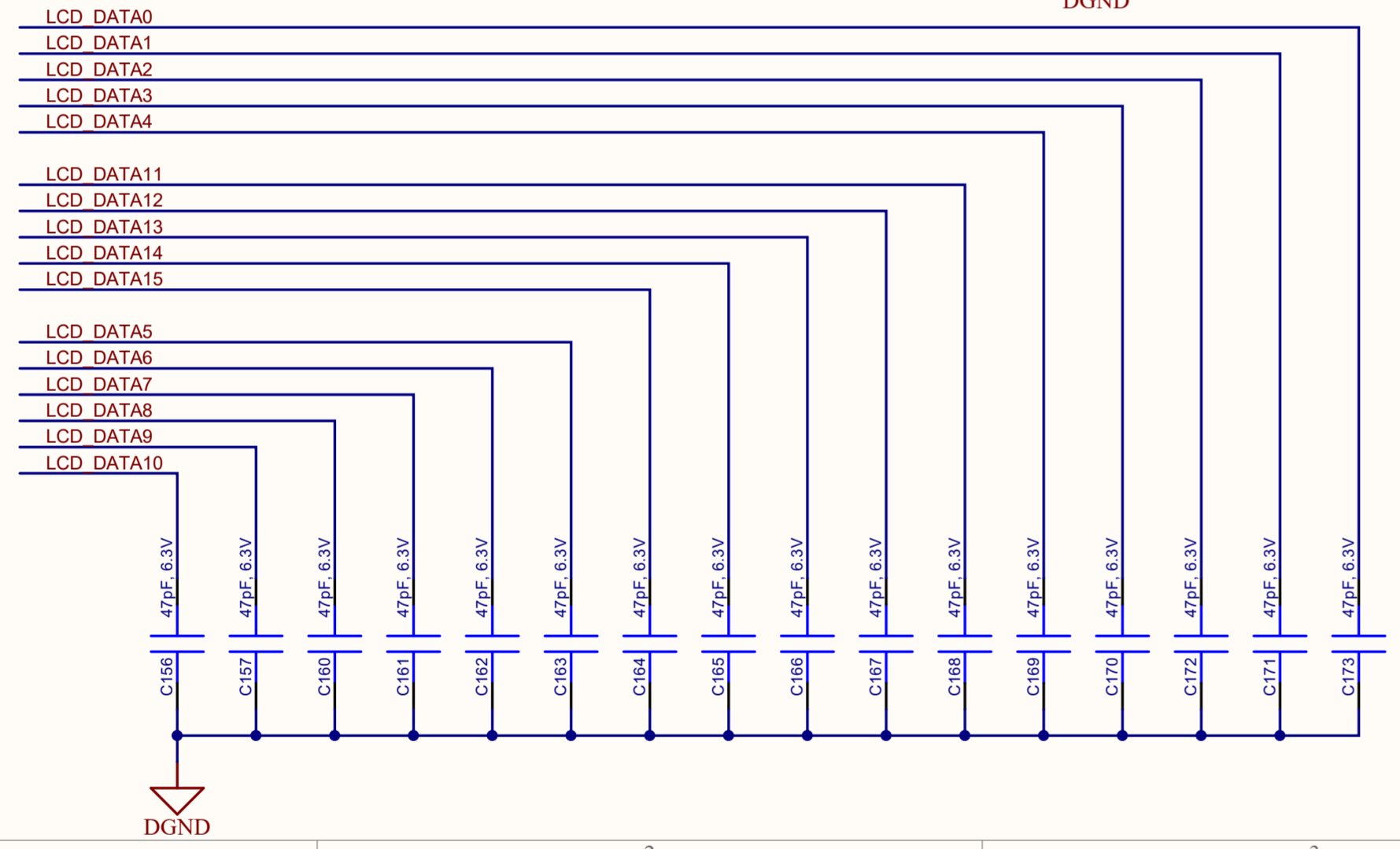
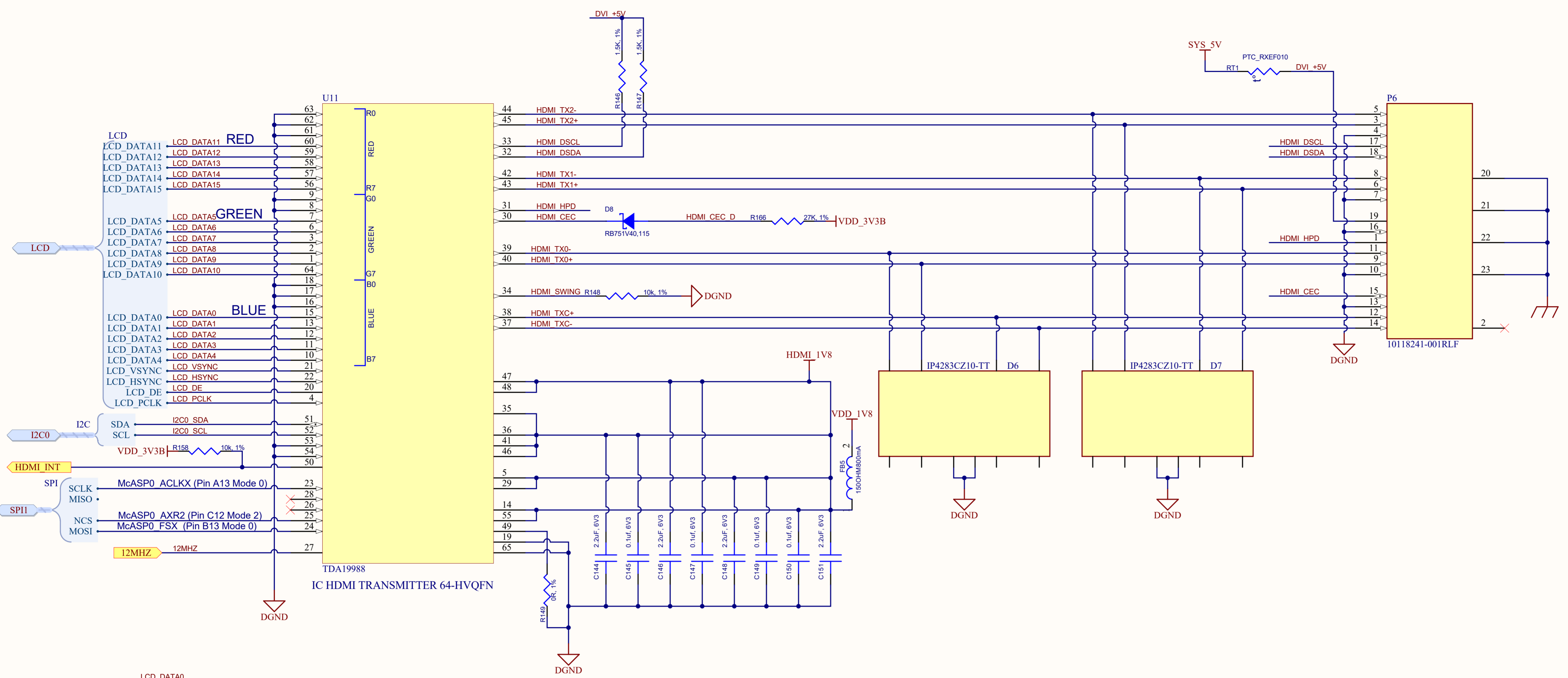


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Size	Document Number	Rev
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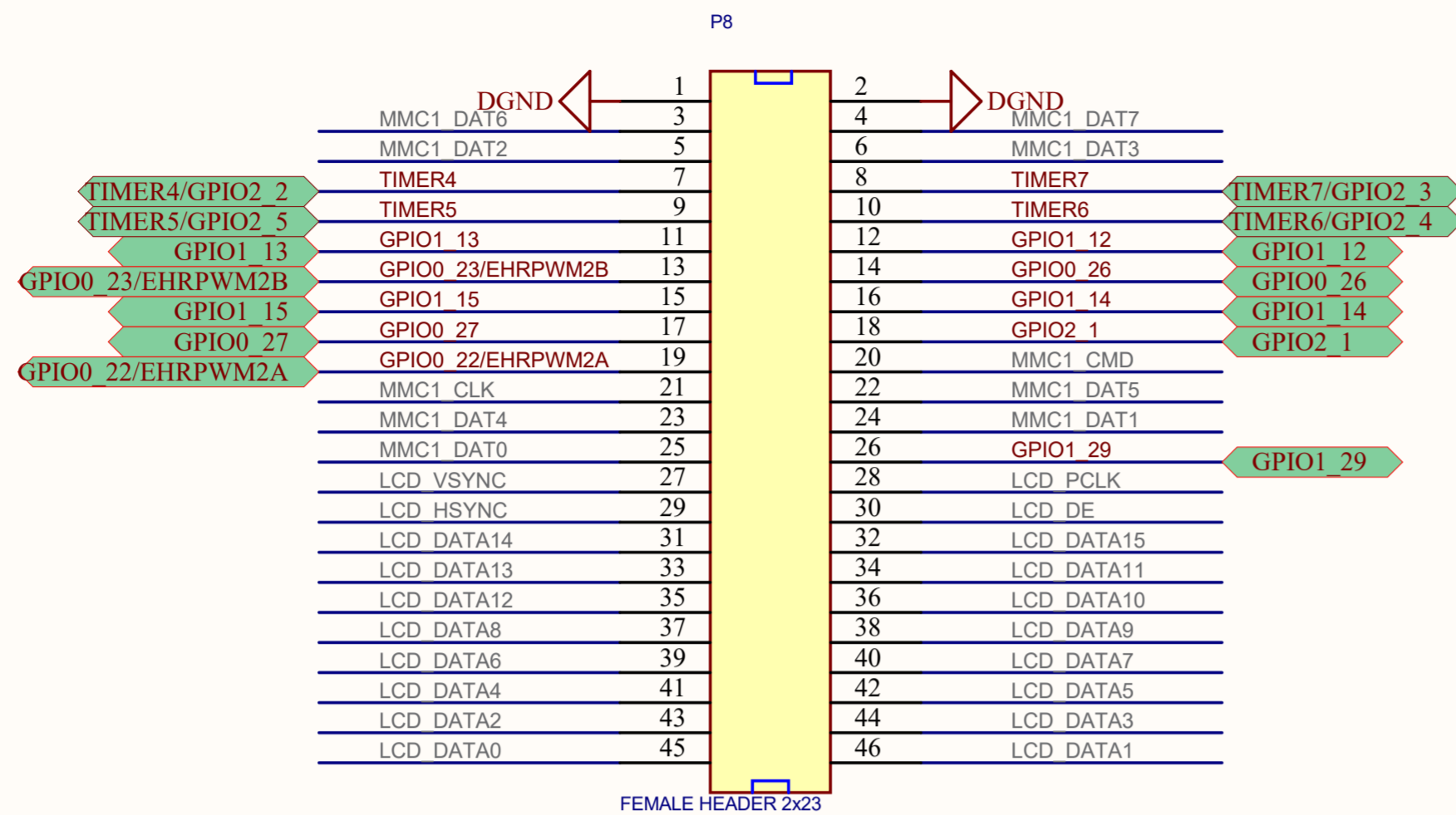




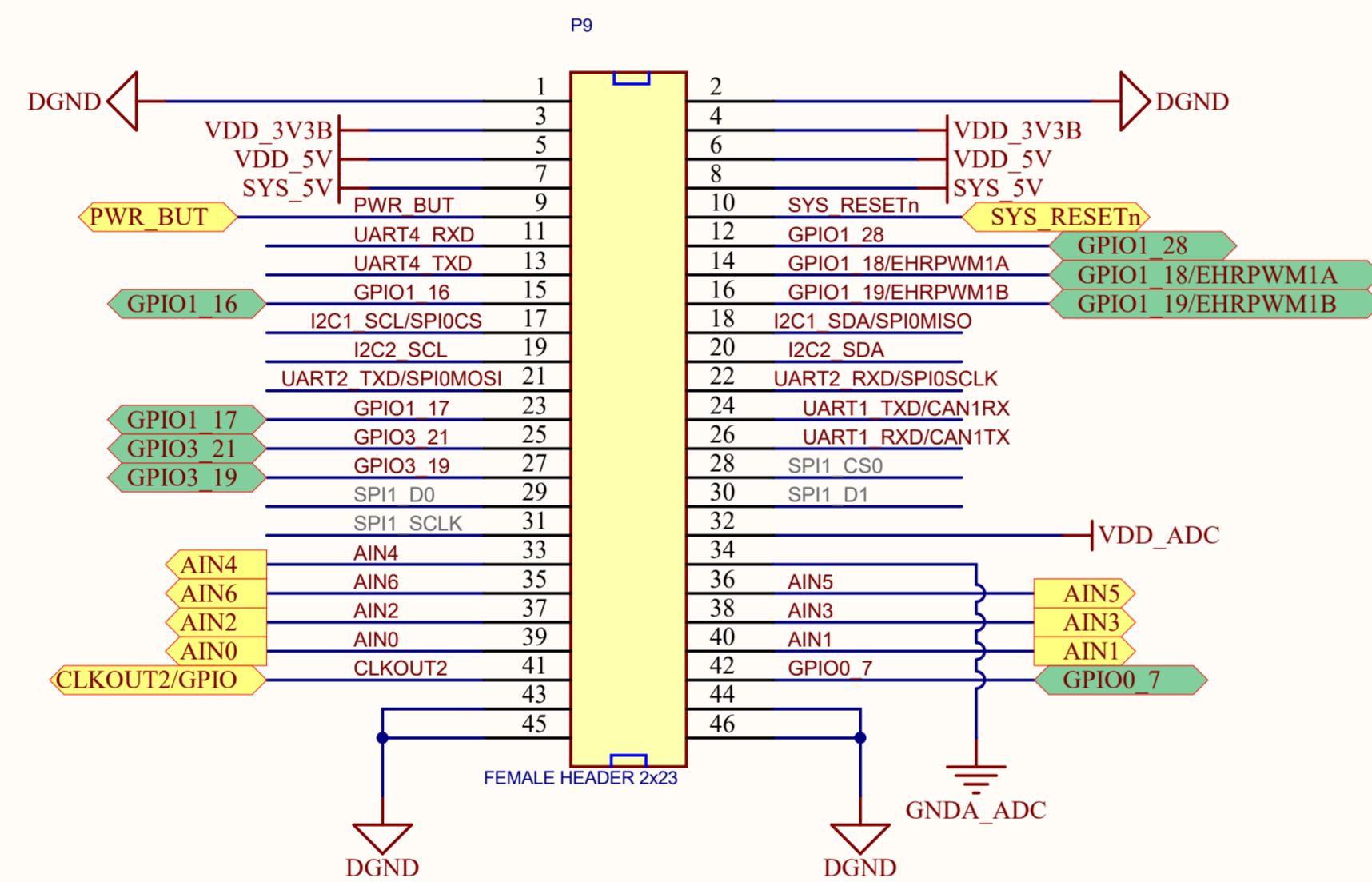
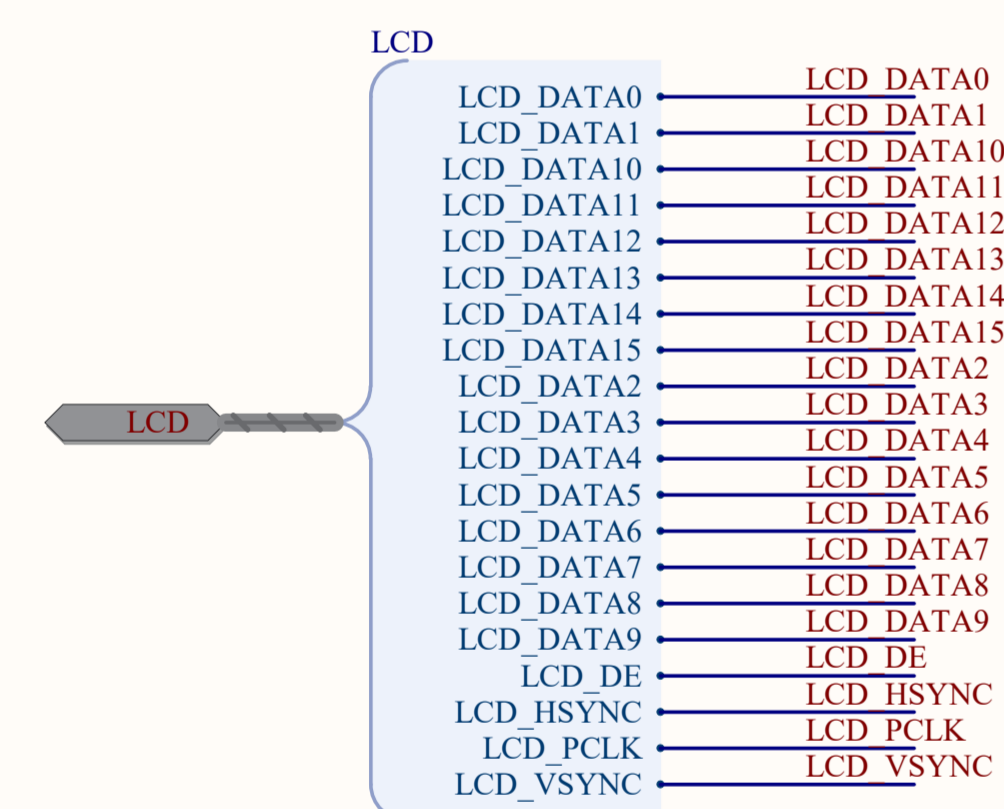
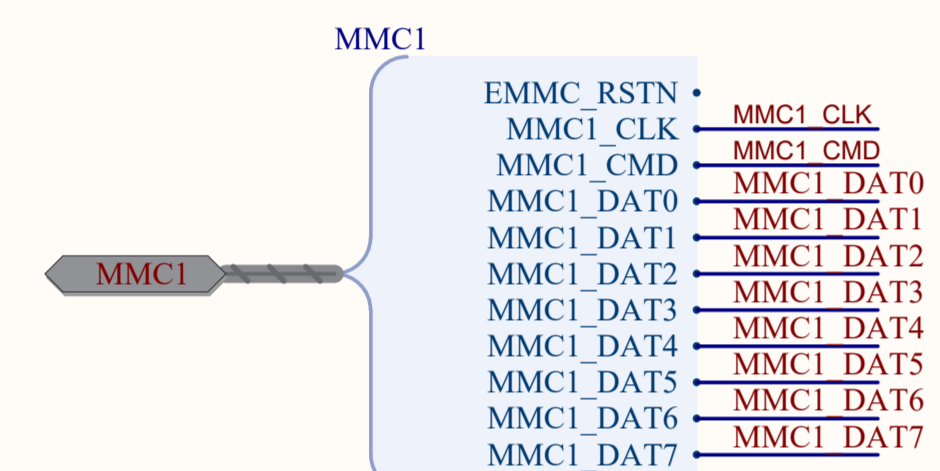
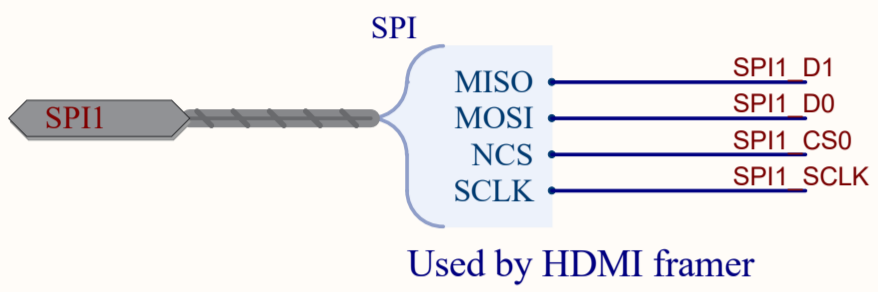



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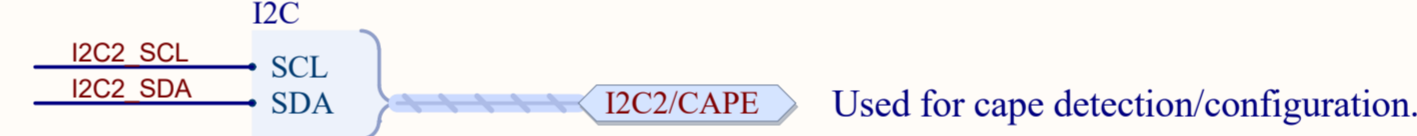
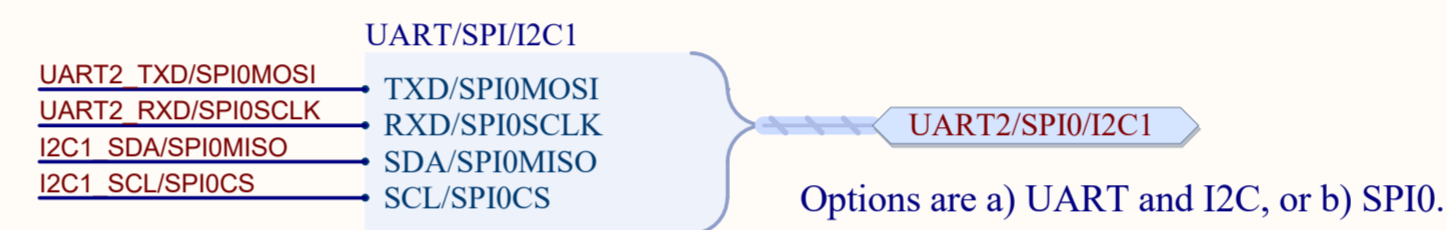
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Size: B	Document Number: 450-5500-001	Rev: A5B
Date: Monday, April 01, 2013	Sheet: 10	of 11



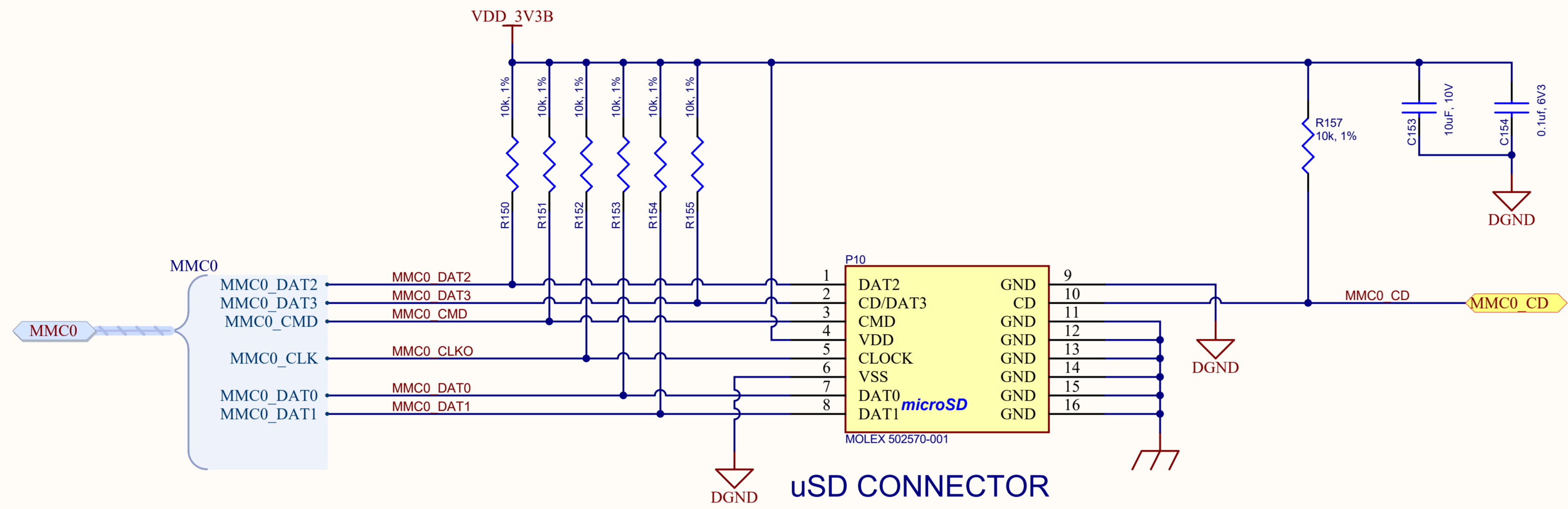
**EXPANSION HEADER**



**EXPANSION HEADER**

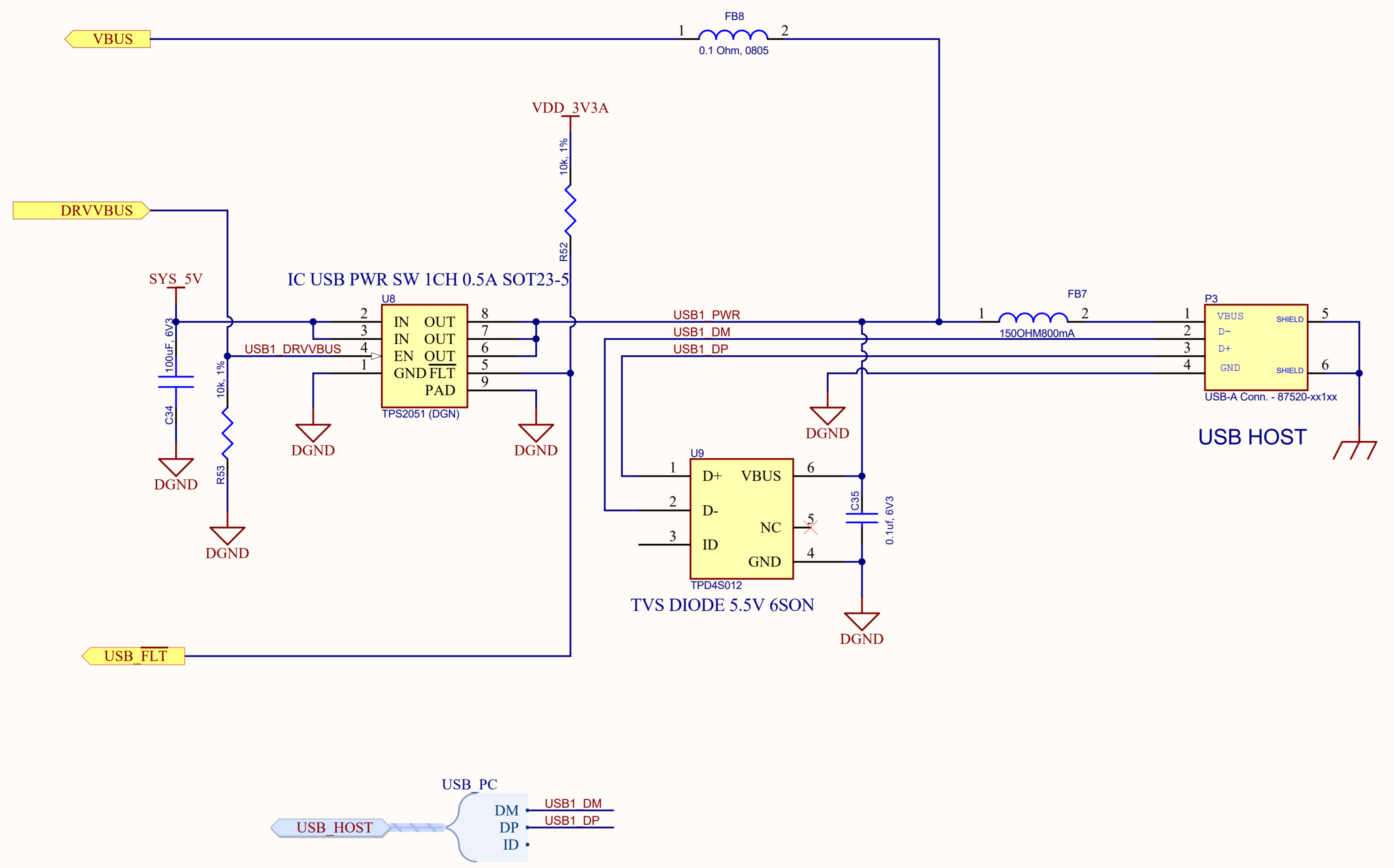


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BeagleBoneBlack Expansion Headers, uSD and EEPROM		
Size	Document Number	Rev
A	450-5500-001	A5B
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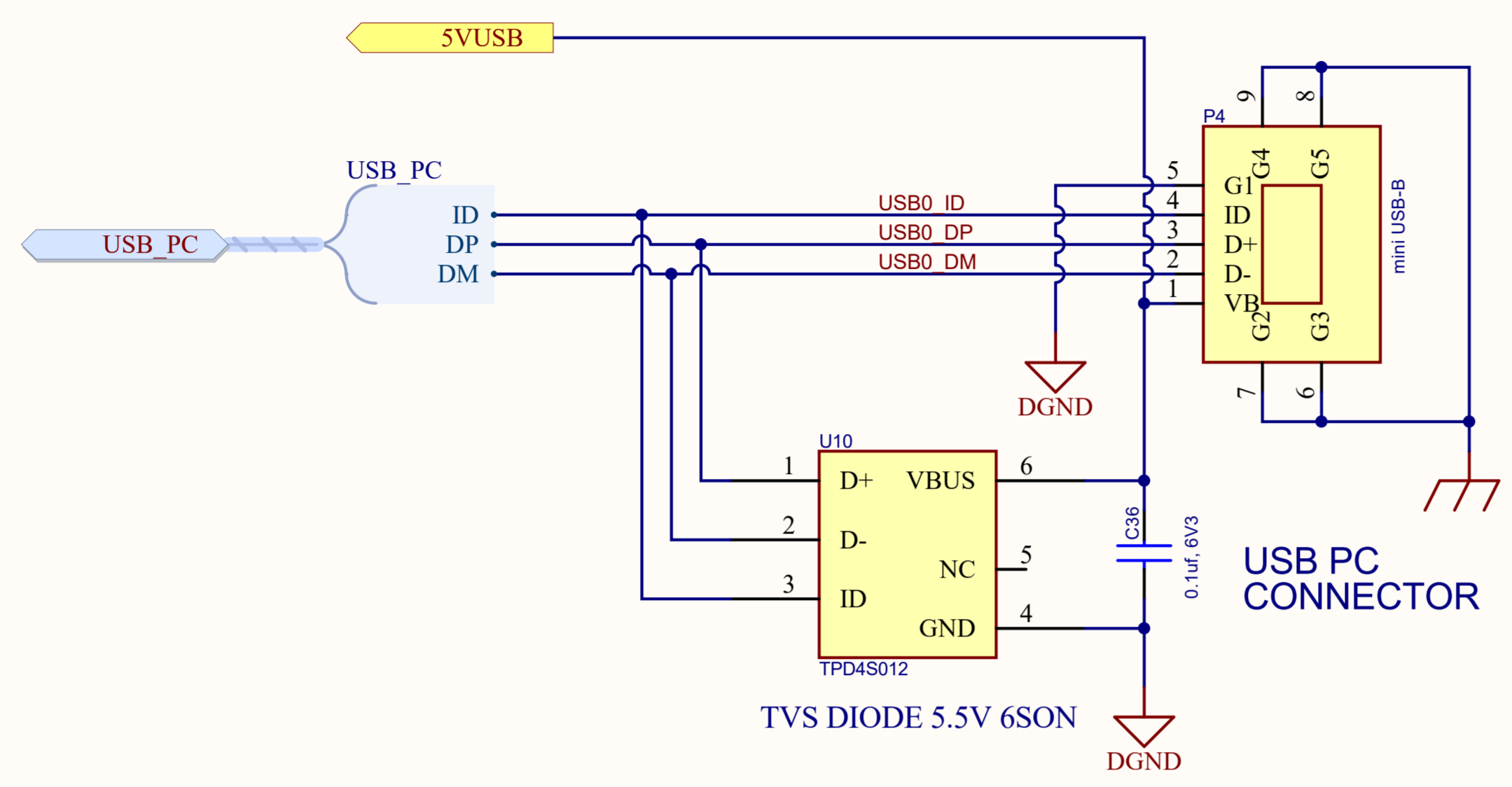


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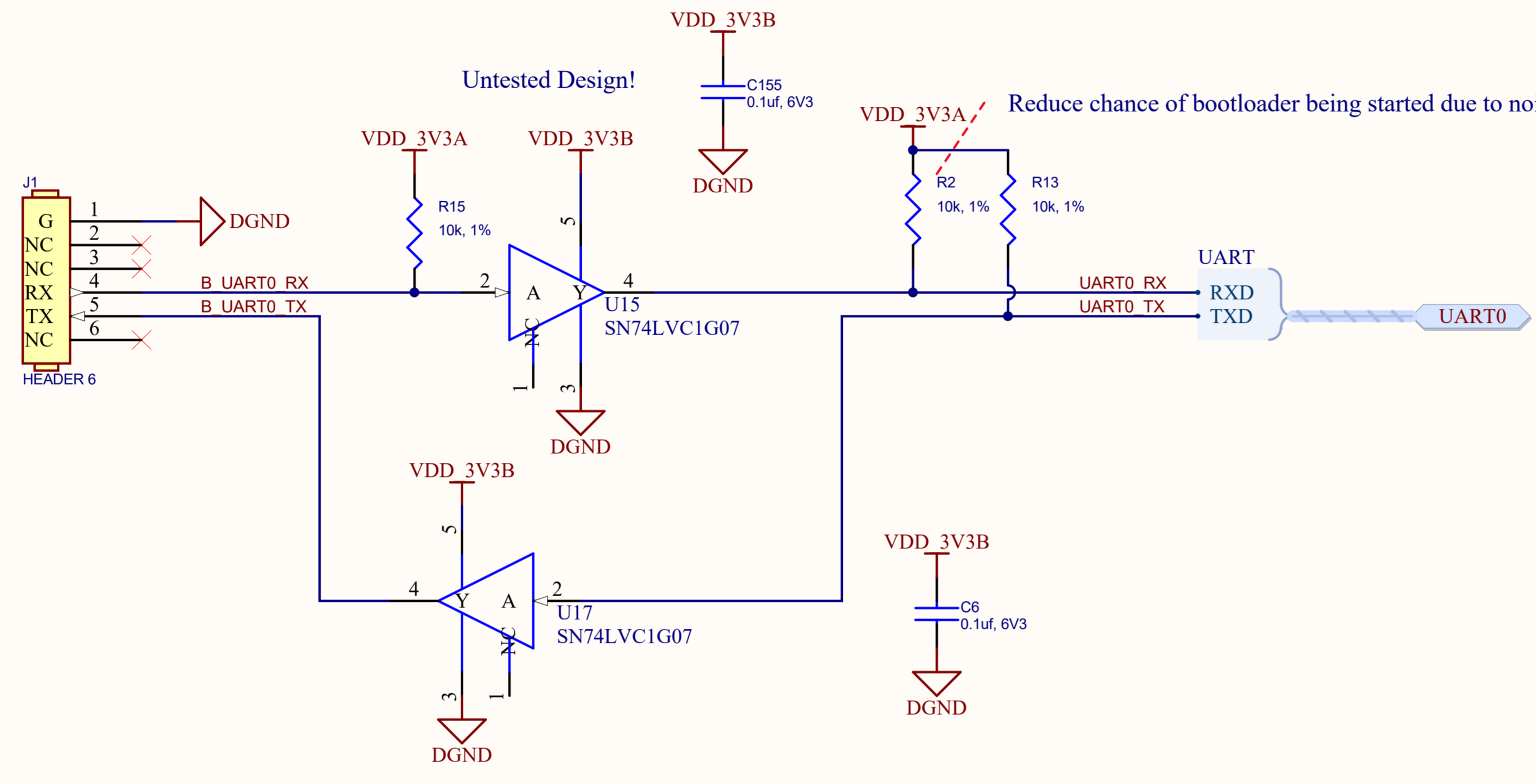




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File:	C:\svn\...\USB_PC.SchDoc	Drawn By:



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File:	C:\svn\...U_Console.SchDoc	Drawn By: