

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
A5A	1. Deleted R29-R44 from the LCD lines. 2. Added 47pf capacitors C156-C173 to LCD data lines to ground. 3. Changed schematic revision to A5A. 4. Changed a few footprints after PCB update for above changes. 5. Added access point for the battery function of the TPS65217C. 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. 7. Added power button to enable sleep, wakeup, power down and power up features on the system. 8. Added Modification to add 100K ohm resistor to ground to prevent crosstalk when serial cable is not plugged in.	4/1/2013	GC

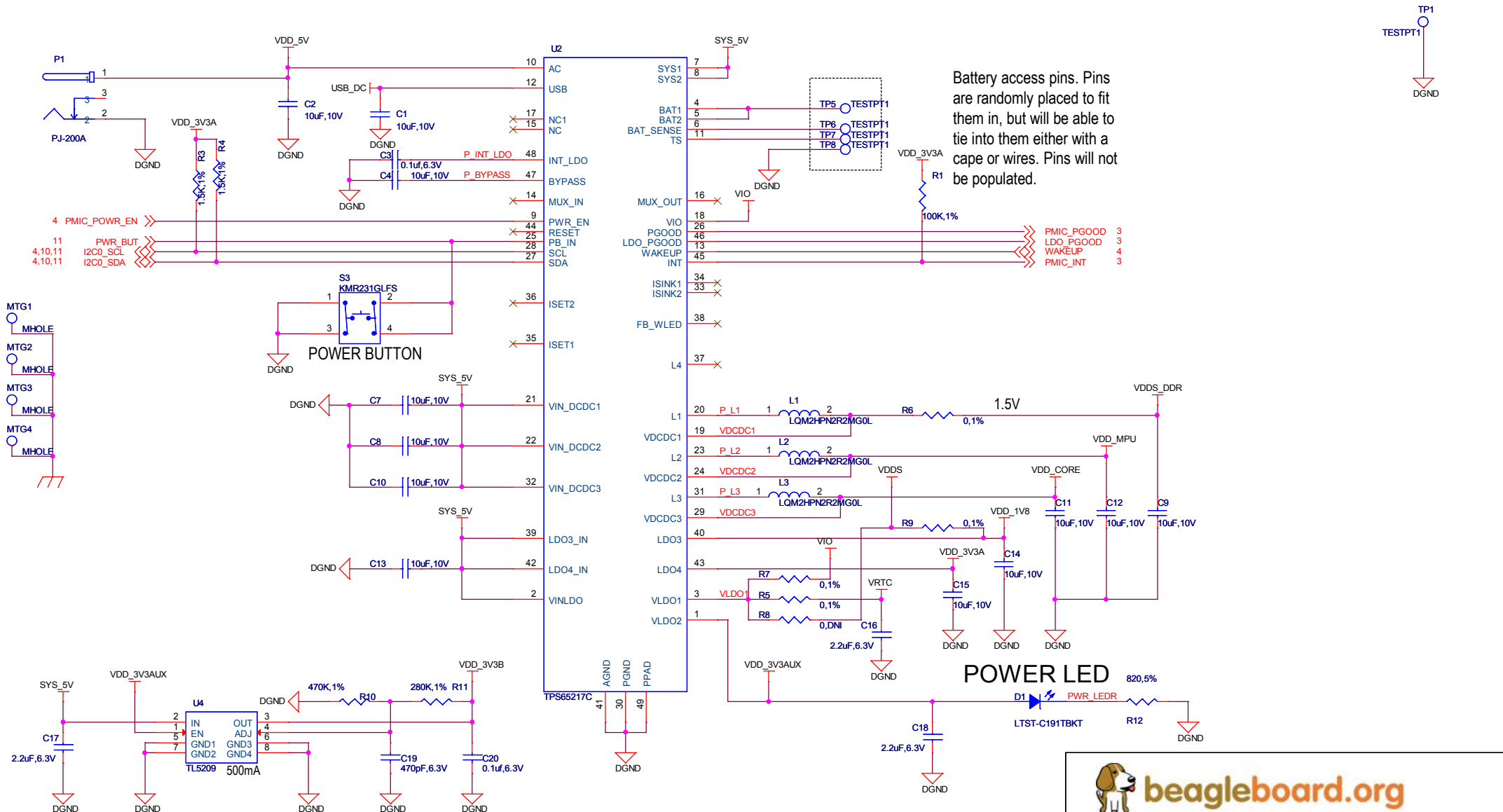
PAGE NO.	SCHEMATIC PAGE
1	COVER PAGE
2	POWER MANAGEMENT
3	PROCESSOR 1 OF 3, JTAG HEADER
4	PROCESSOR 2 OF 3, UAB PORTS
5	PROCESSOR 3 OF 3
6	LED, CONFIGURATION AND BUTTON
7	DDR3 MEMORY
8	eMMC FLASH
9	10/100 ETHERNET
10	HDMI FRAMER
11	EXP CONN, uSD

NOTE: PCB Revision for this board is Rev B3.

This schematic is ***NOT SUPPORTED*** and DOES NOT constitute a reference design. Only community support is allowed via resources at BeagleBoard.org/discuss.

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 Based on the design of the BeagleBone Black by Gerald Coley

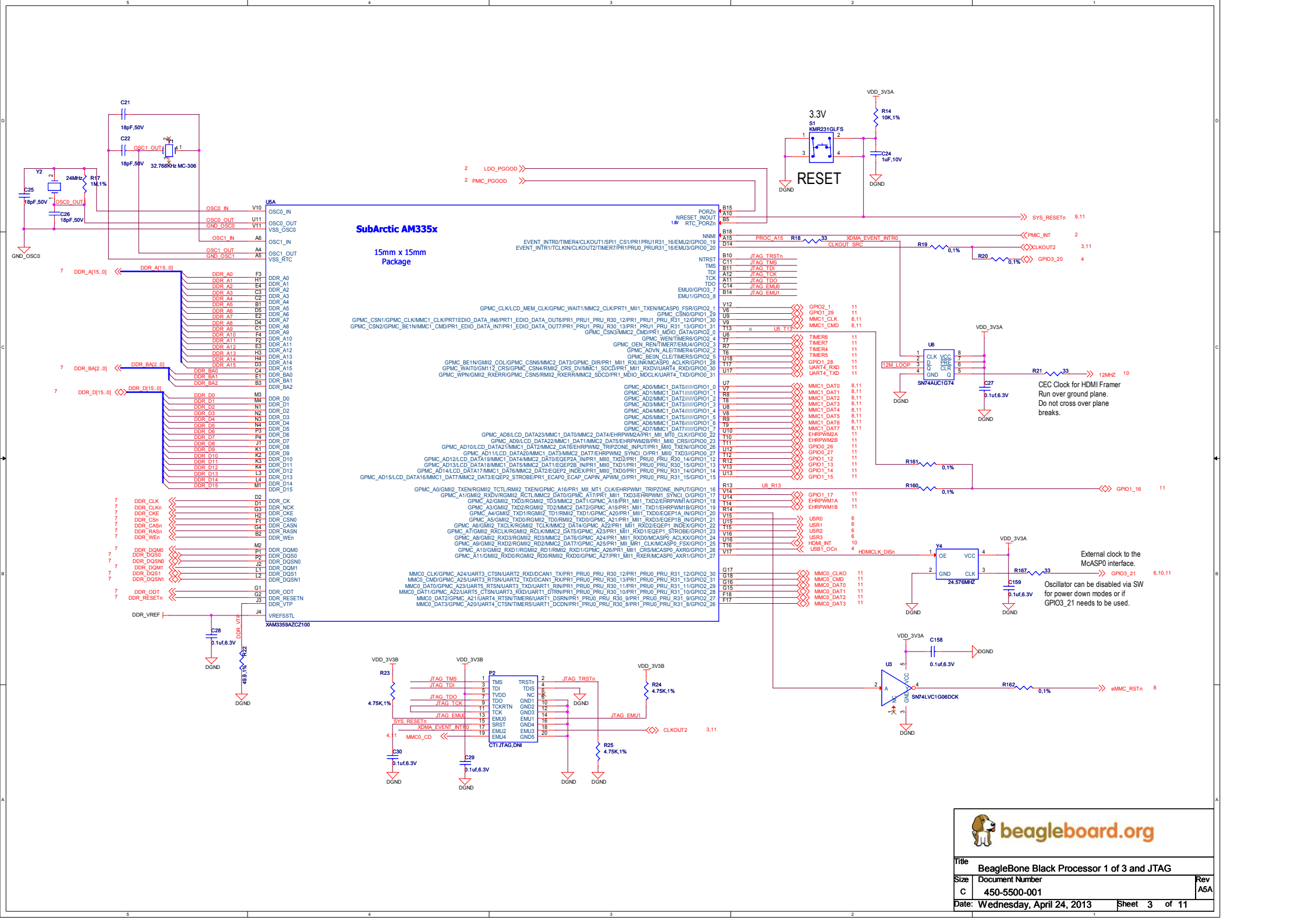
		
Title	BeagleBone Black Cover Page	
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Battery access pins. Pins are randomly placed to fit them in, but will be able to tie into them either with a cape or wires. Pins will not be populated.



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BeagleBone Black Power Management		
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UART0 Serial Port
USB to TTL Serial
Cable 3.3V

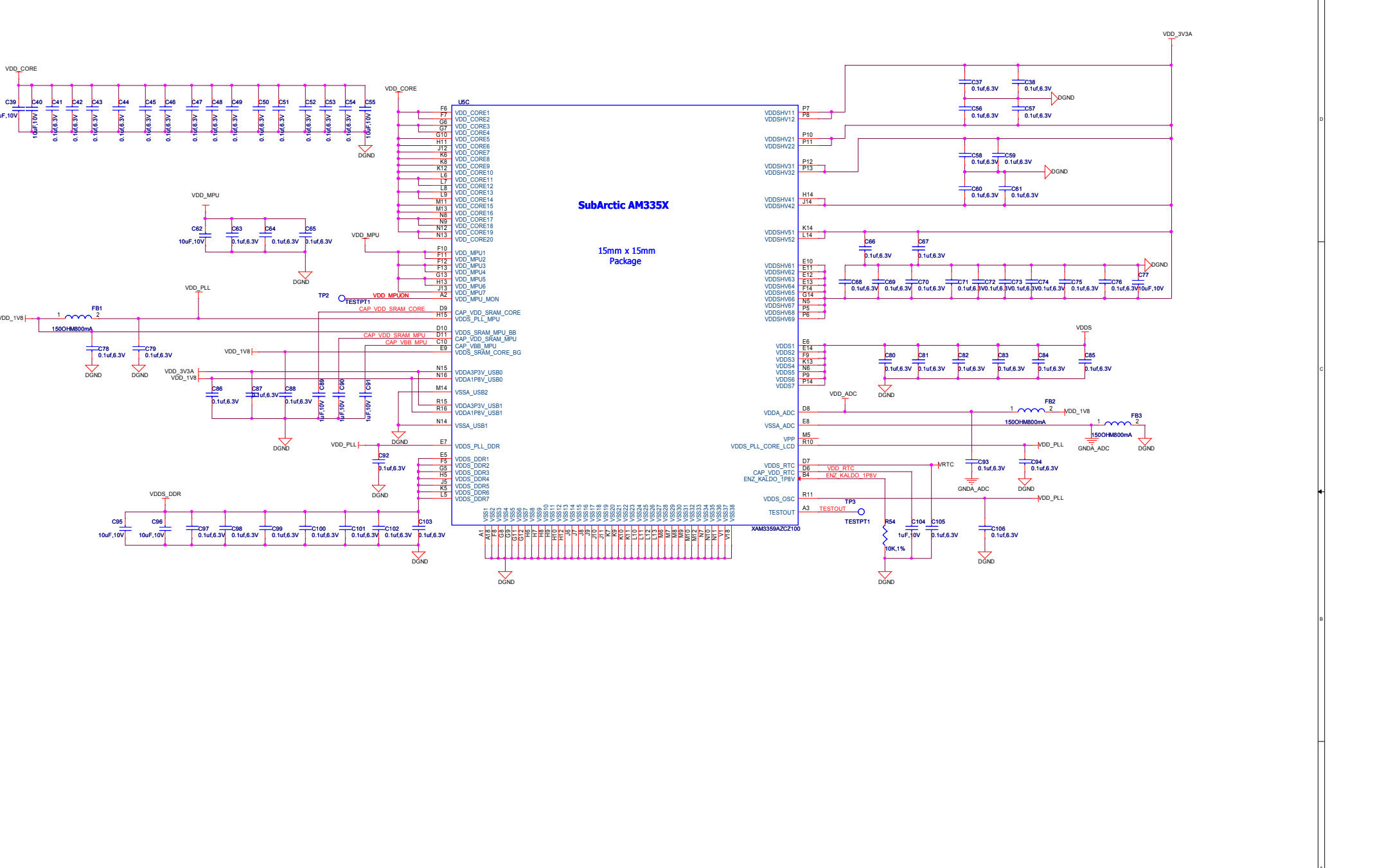
USB HOST

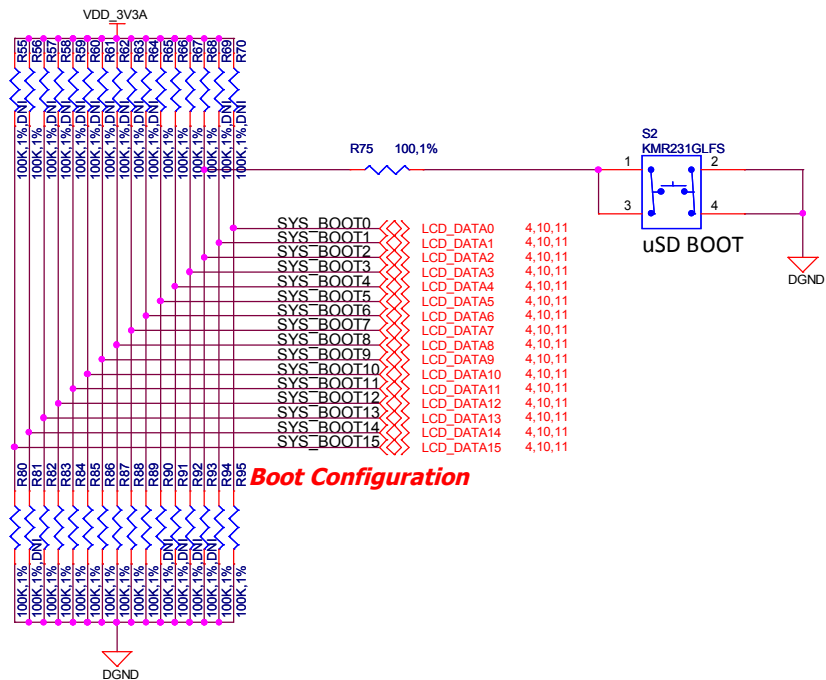
USB PC
CONNECTOR



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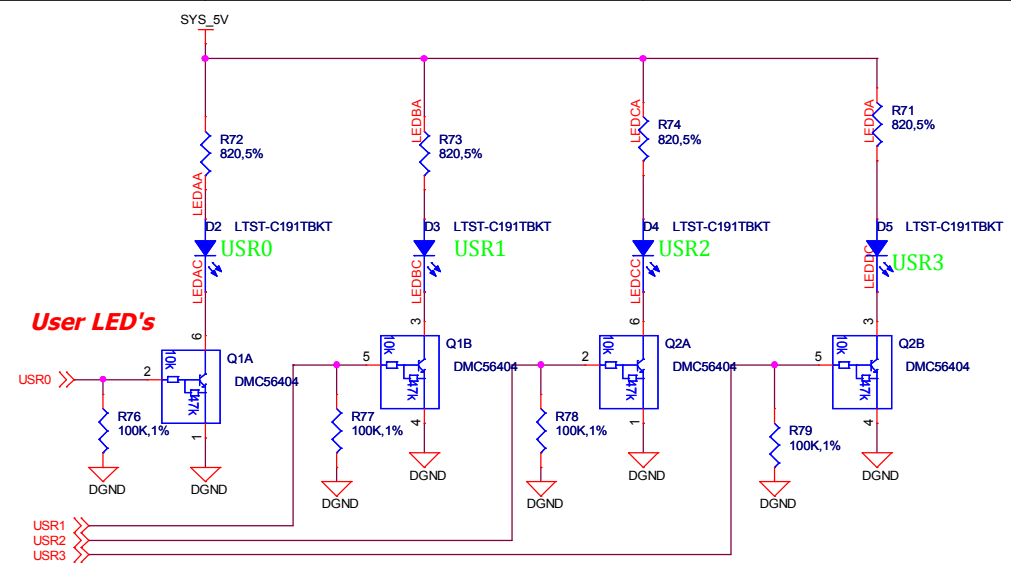
Title	BeagleBone Black Processor 2 of 3, USB, and Serial	
Size	Document Number	Rev
C	450-5500-001	ASA
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Boot Configuration

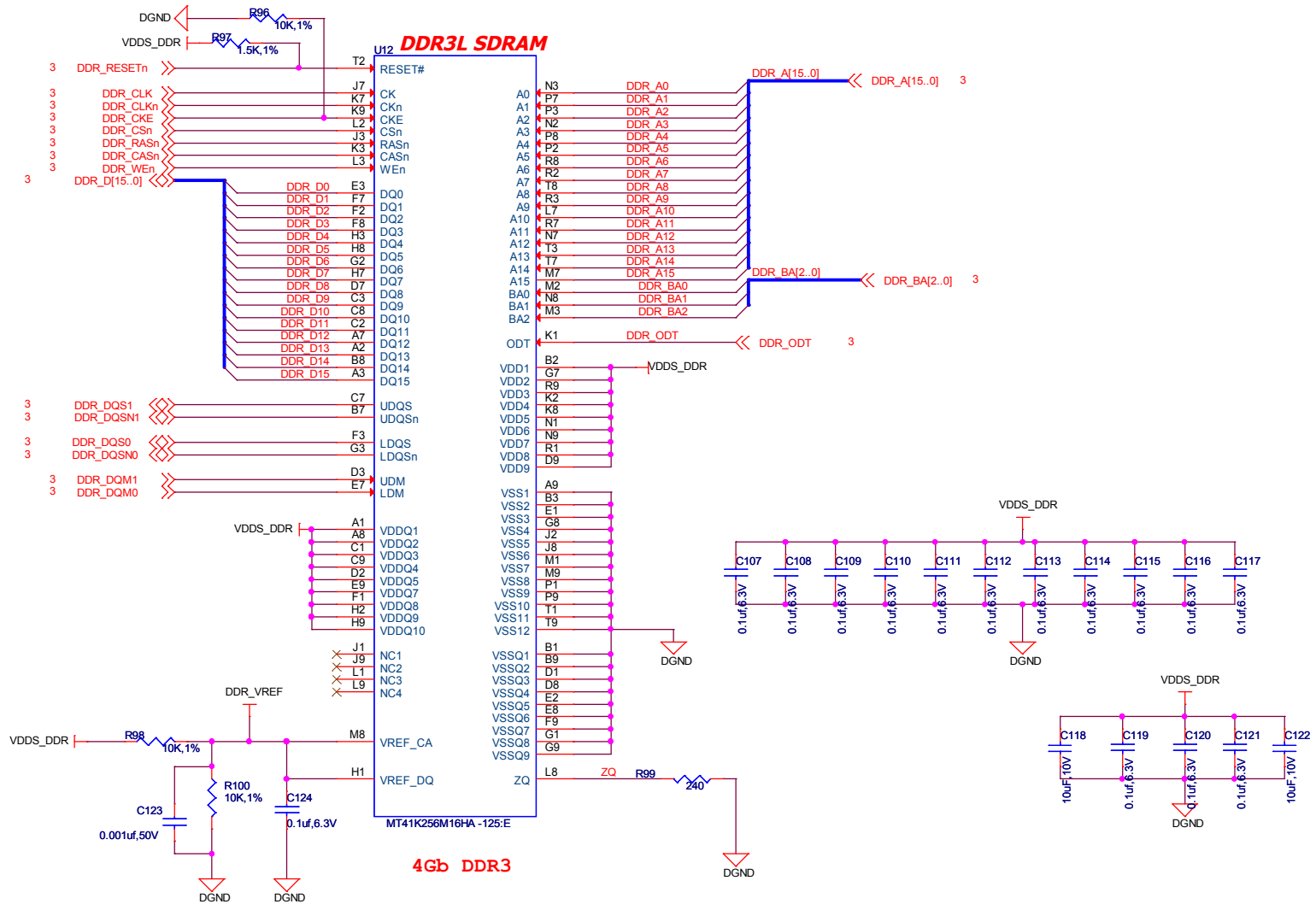
SYSBOOT[15:14]	SYSBOOT[13:12]	SYSBOOT[11:10]	SYSBOOT[9]	SYSBOOT[8]	SYSBOOT[7:6]	SYSBOOT[5]	SYSBOOT[4:0]	Boot Sequence			
00b = 19.2MHz 01b = 24MHz 10b = 25MHz 11b = 26MHz	00b (all other values reserved)	Don't care for ROM code	Don't care for ROM code	Don't care for ROM code	Don't care for ROM code	0 = CLKOUT1 disabled 1 = CLKOUT1 enabled	11100b	MMC1	MMC0	UART0	USB0[5]
00b = 19.2MHz 01b = 24MHz 10b = 25MHz 11b = 26MHz	00b (all other values reserved)	Don't care for ROM code	Don't care for ROM code	Don't care for ROM code	Don't care for ROM code	0 = CLKOUT1 disabled 1 = CLKOUT1 enabled	11000b	SPI0	MMC0	USB0[5] 1	UART0



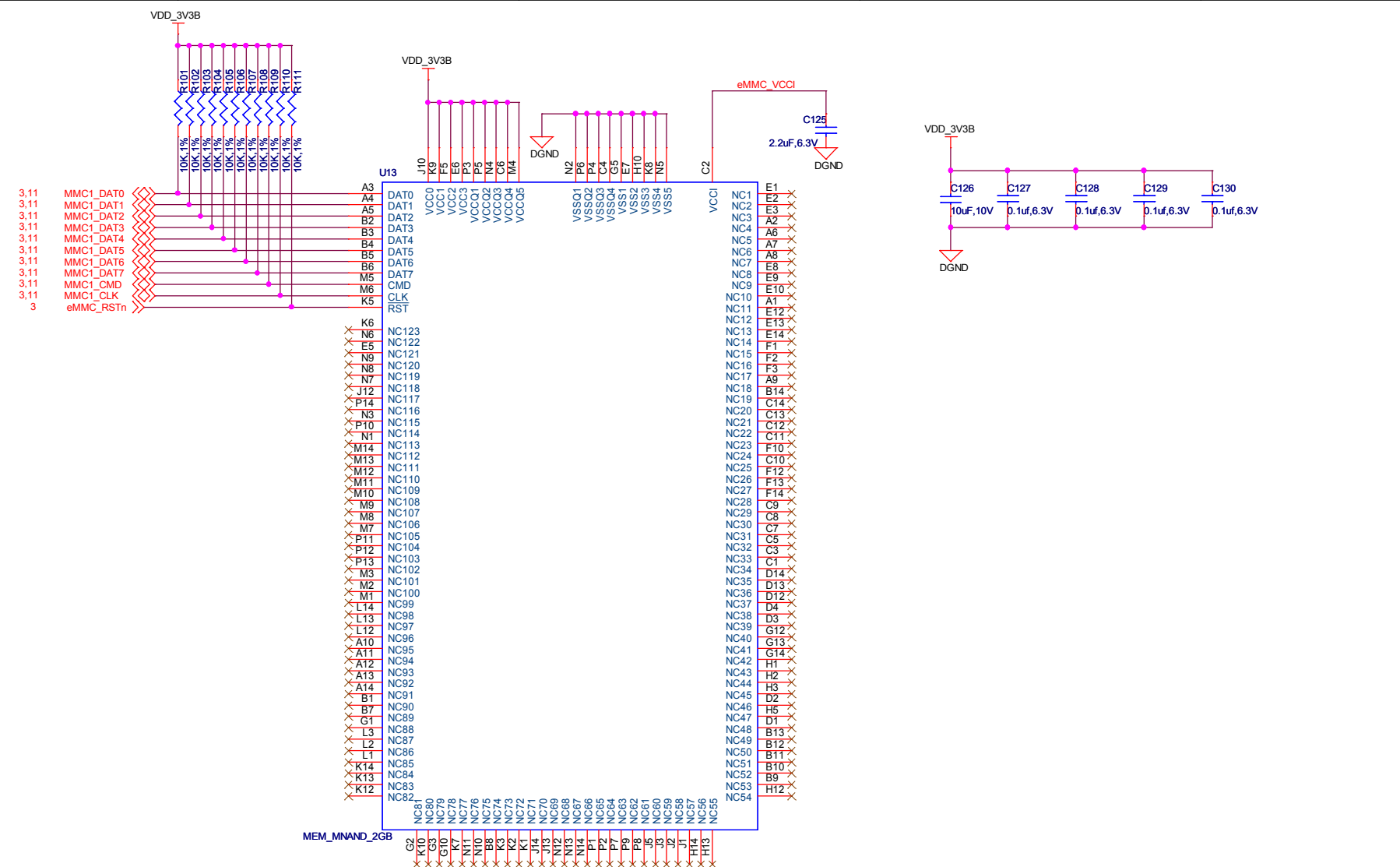
User LED's

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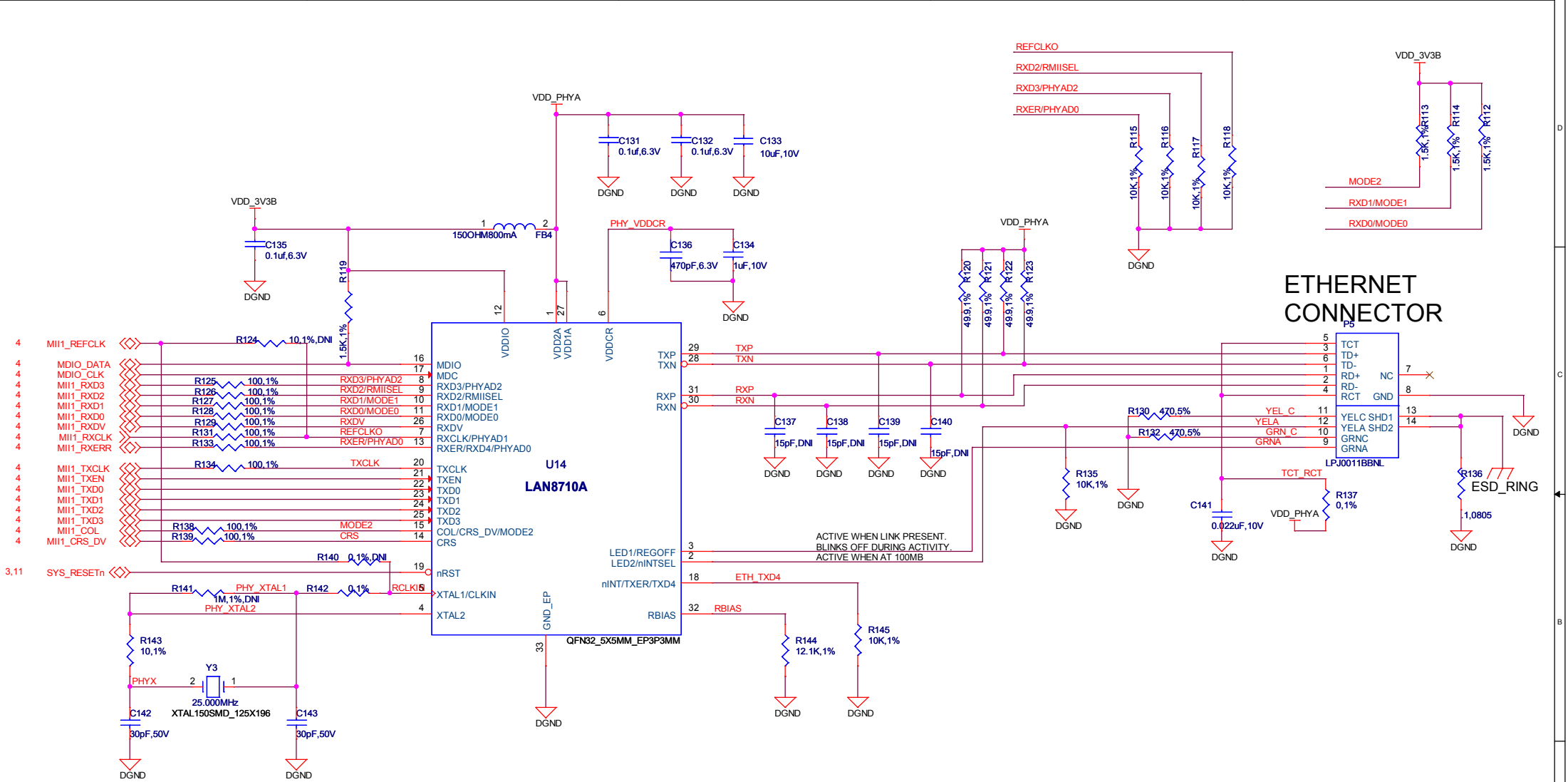
Title		
BeagleBone Black LED, Configuration, and Reset		
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Title		
BeagleBone Black DDR3 Memory		
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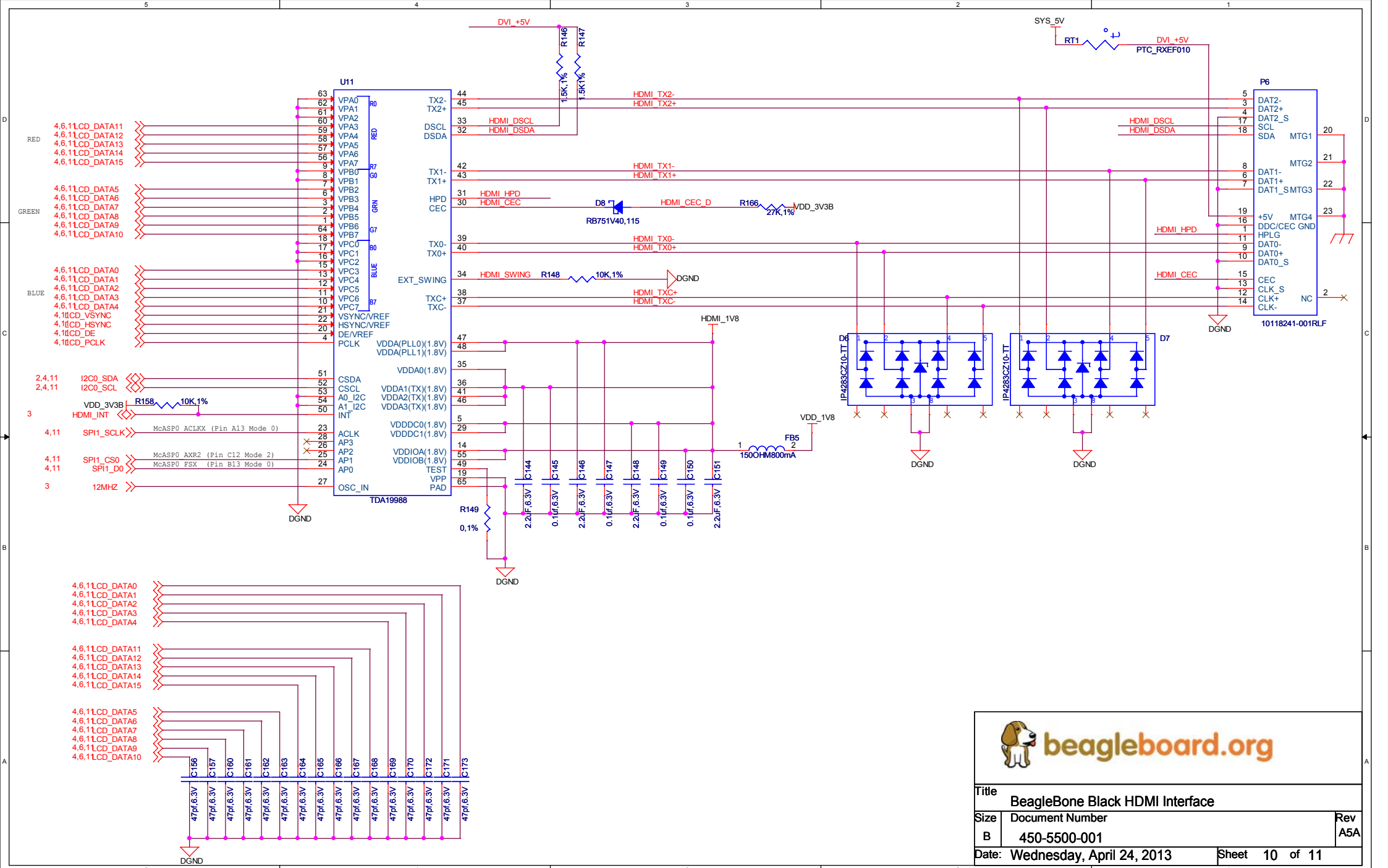
Title		
Beagle BoneBlack 2G eMMC		
Size	Document Number	Rev
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ETHERNET CONNECTOR

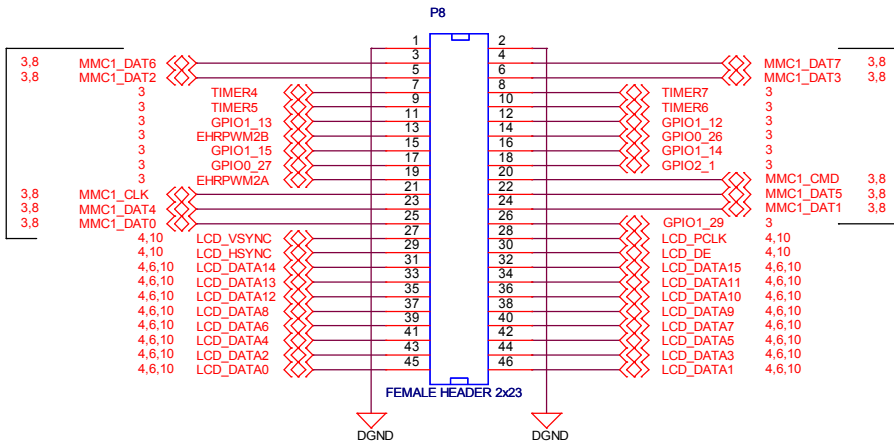
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Title		BeagleBone Black Ethernet	
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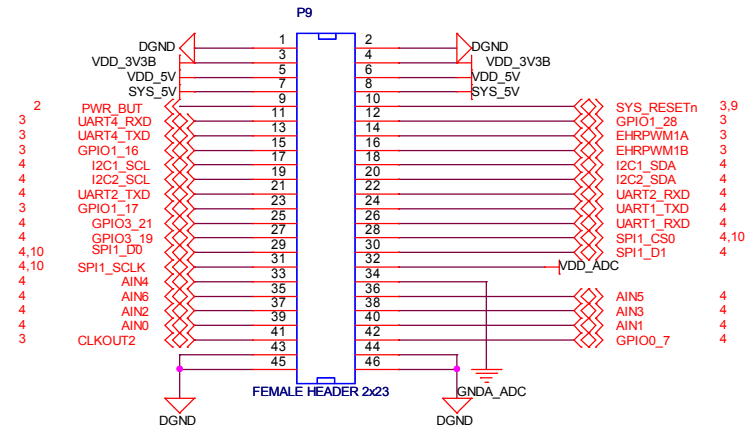
Title		
BeagleBone Black HDMI Interface		
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CAUTION: USED ON BOARD

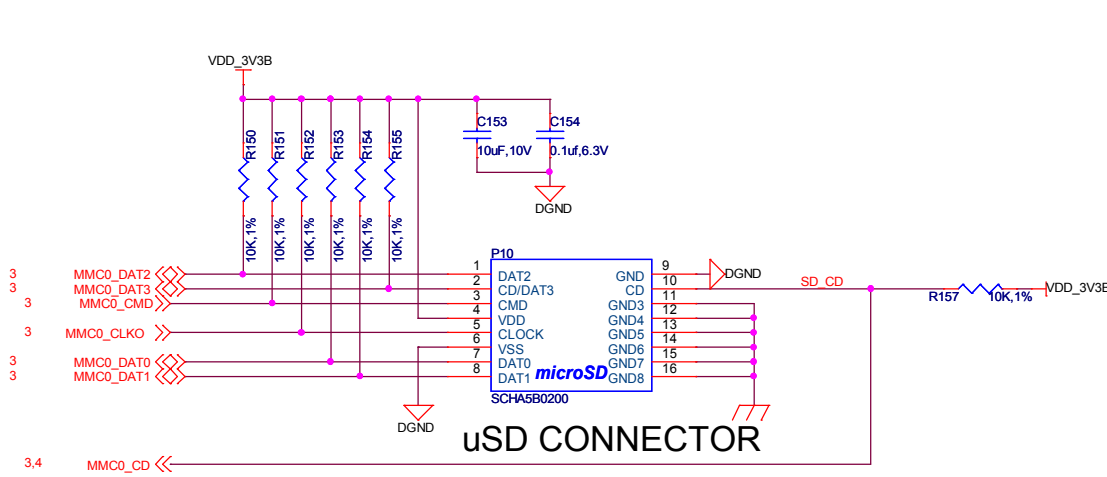


EXPANSION HEADER

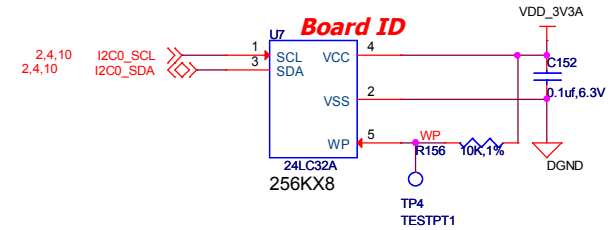
CAUTION: USED ON BOARD



EXPANSION HEADER



uSD CONNECTOR



Title BeagleBone Black Expansion Headers, uSD and EEPROM		
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