

**NOTES:**

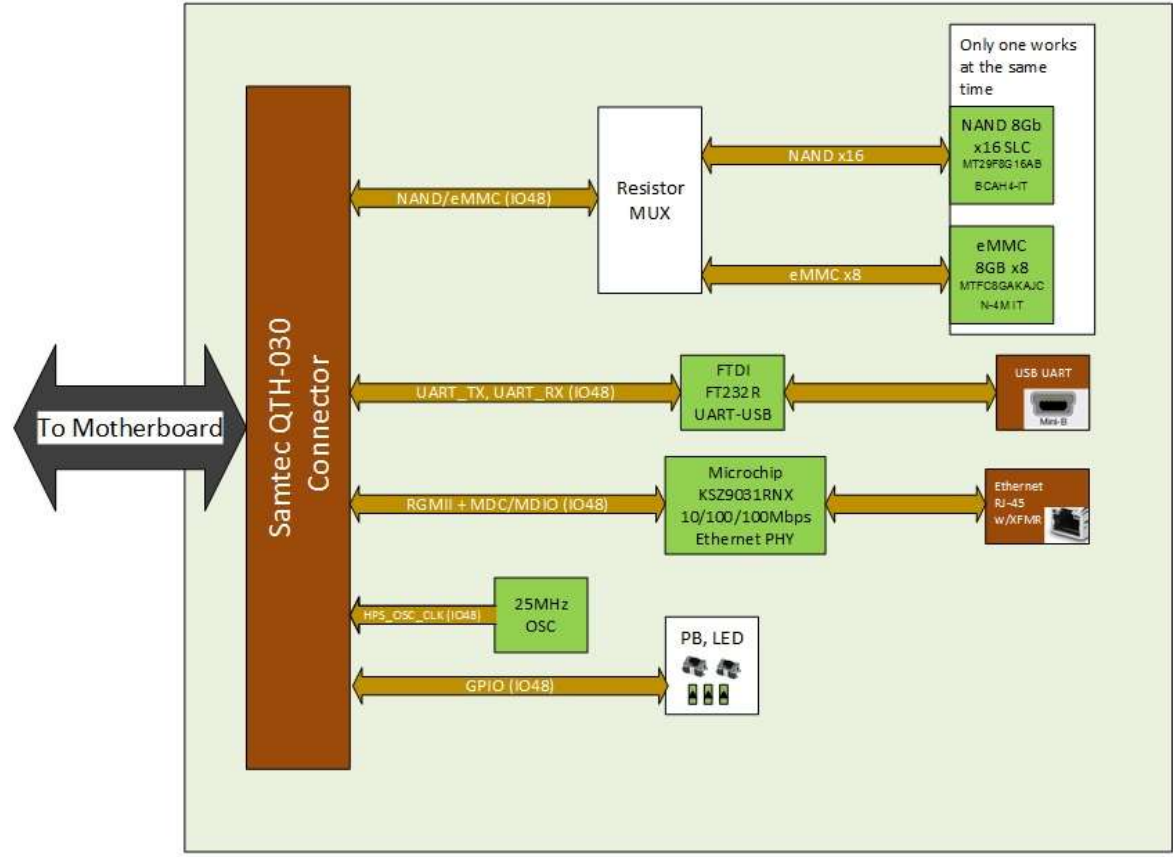
- 1. Project Drawing Numbers:
- Raw PCB 100-0330633-A1
- Gerber Files 110-0330633-A1
- PCB Design Files 120-0330633-A1
- Assembly Drawing 130-0330633-A1
- Fab Drawing 140-0330633-A1
- Schematic Drawing 150-0330633-A1
- PCB Film 160-0330633-A1
- Bill of Materials 170-0330633-A1
- Schematic Design Files 180-0330633-A1
- Functional Specification 210-0330633-A1
- PCB Layout Guidelines 220-0330633-A1
- Assembly Rework 320-0330633-A1

# Pre-Release Schematic

## DO NOT COPY

2. This board was designed for Stratix 10 SoC Development Kit.

REV	DATE	PAGE	DESCRIPTION
A			initial schematic release



PAGE	DESCRIPTION
1	Title
2	IO48 Connector
3	RGMII Ethernet
4	USB2UART
5	NAND/eMMC
6	PBs, LEDs
7	Power



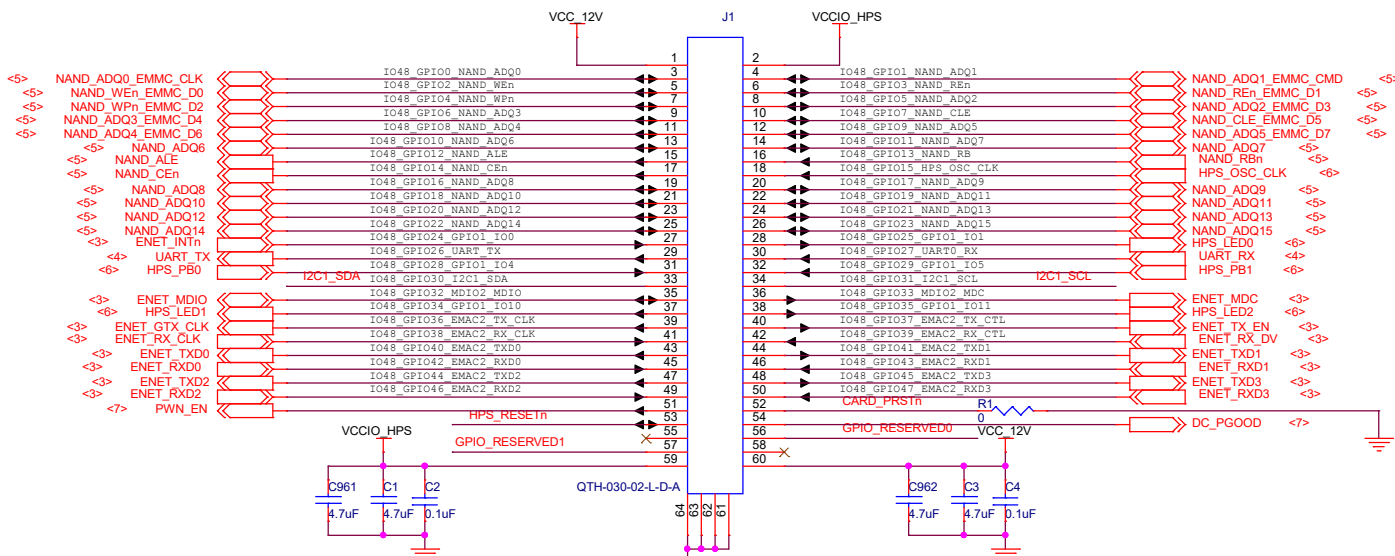
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Title: **HPS IO48 NAND Daughter Card**  
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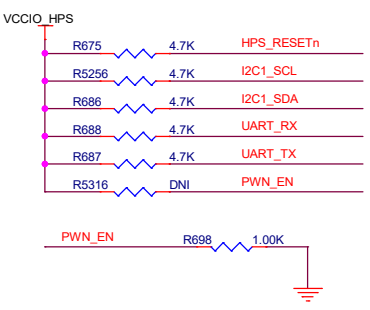
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	<b>150-0330633-A1 (6XX-44480R)</b>	<b>A1</b>

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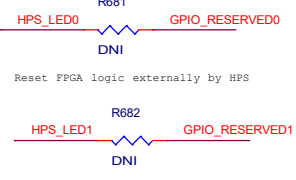
PAGE	DESCRIPTION
1	Page Description, revision history



MotherBoard: GSH-030-01-C-D-A  
 IO48 OOB# Card: QTH-030-02-L-D-A  
 Stack-up Height: 8mm

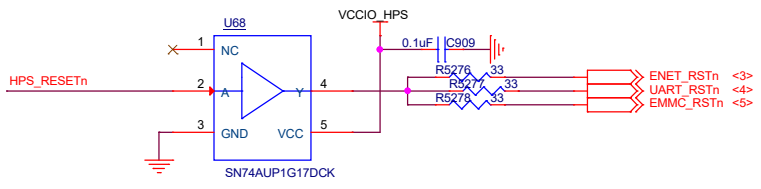
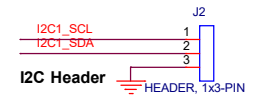


**Used in S10 Check out board**



Reset FPGA logic externally by HPS

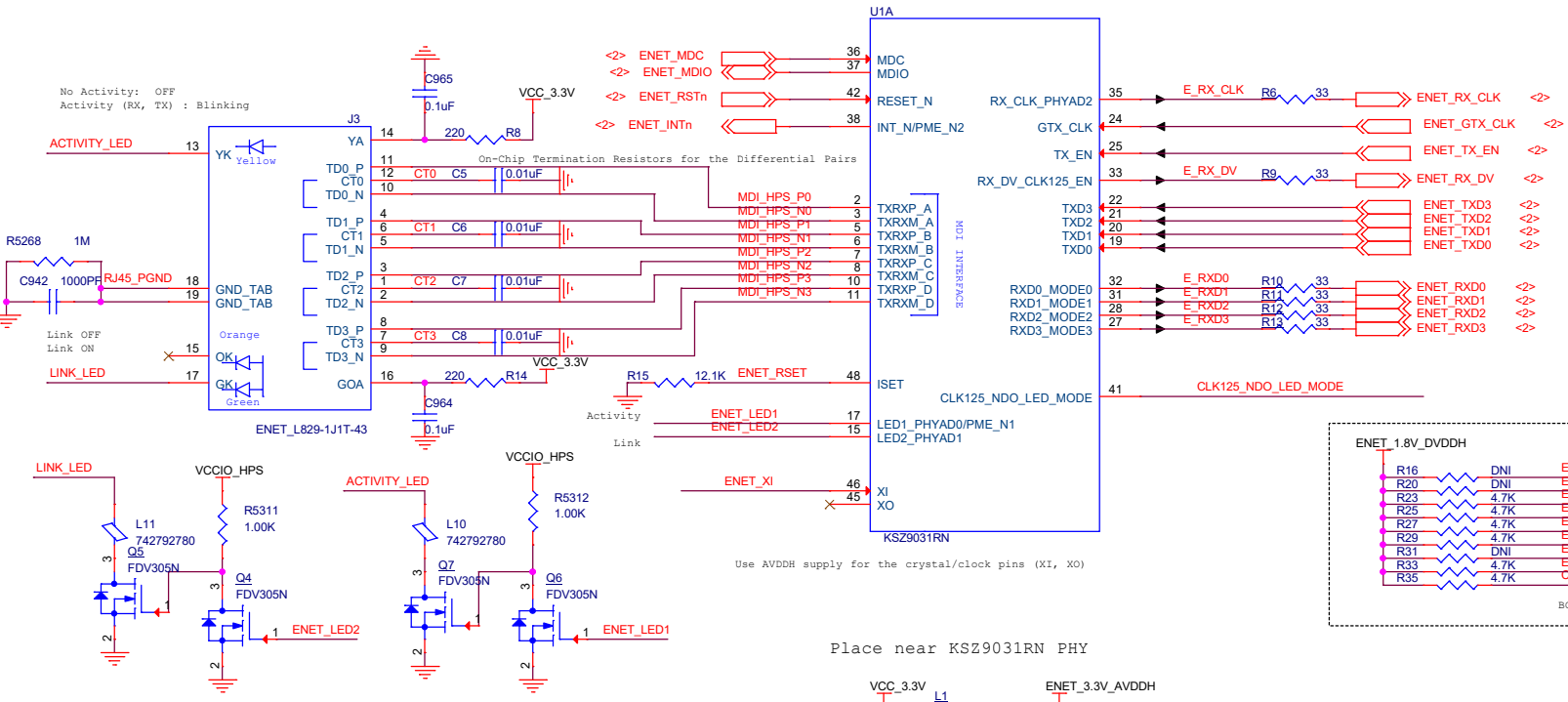
Update external watchdog for HP



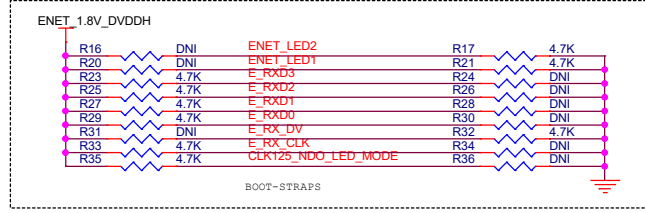
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# 10/100/1000 Ethernet - HPS

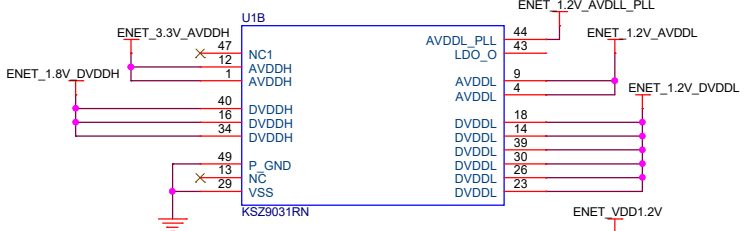
No Activity: OFF  
Activity (RX, TX) : Blinking



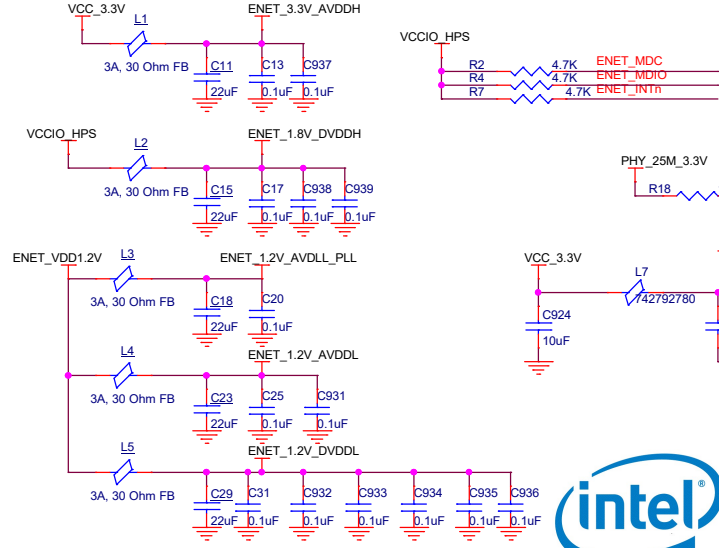
NAME	Pin	Value	Description
PHYAD2	35	1	ID = b"100"
PHYAD1	15	0	
PHYAD0	17	0	
MODE3	27	1	RGMII (10/100/1000 Half-/full-duplex)
MODE2	28	1	
MODE1	31	1	
MODE0	32	1	
CLK125_EN	33	0	No clockoutput from pin41 single led mode
LED_MODE	41	1	



Place near KSZ9031RN PHY

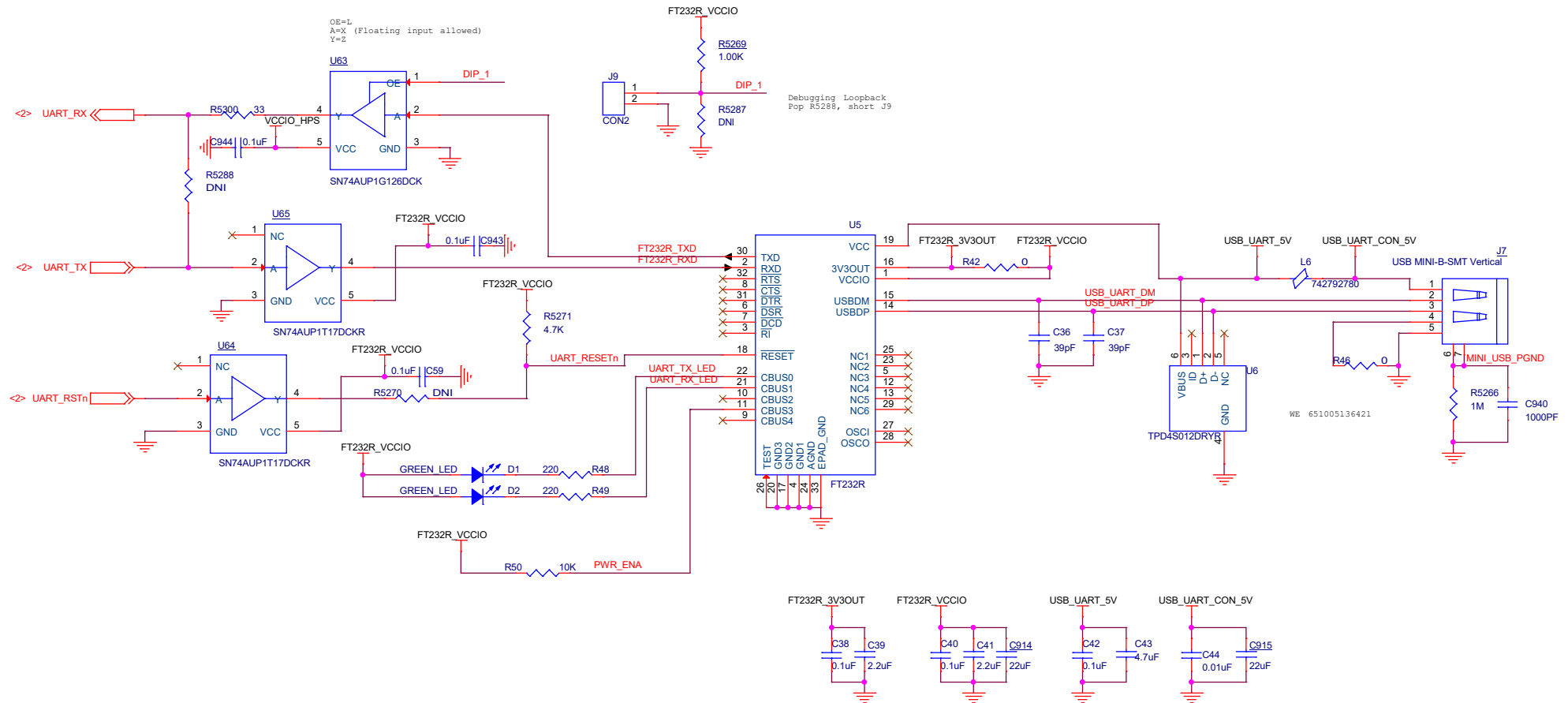


PUS: AVDDH/DVDDH before 1.2V core



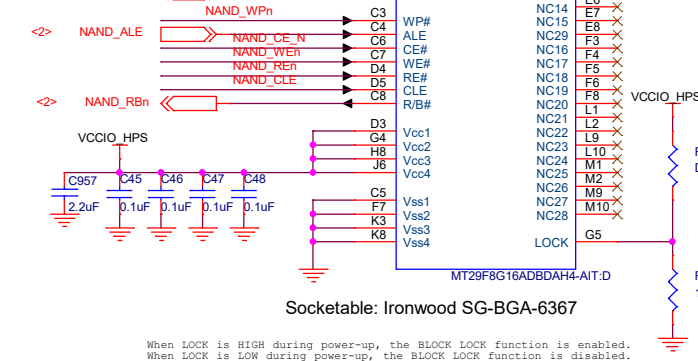
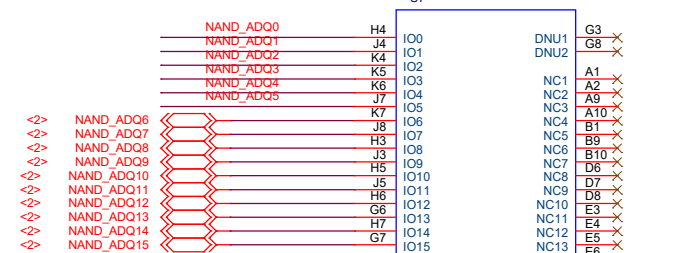
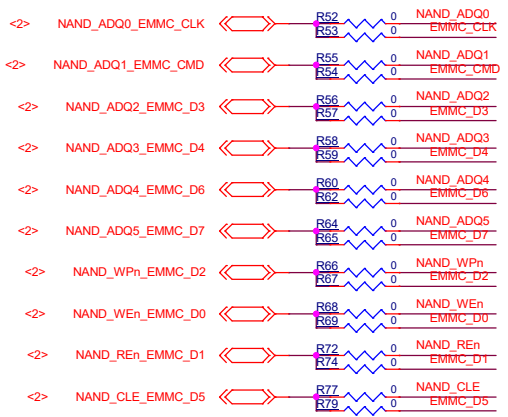
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# USB-UART Port



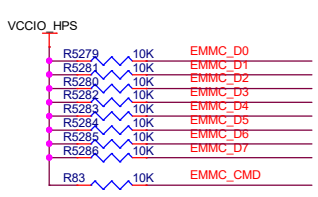
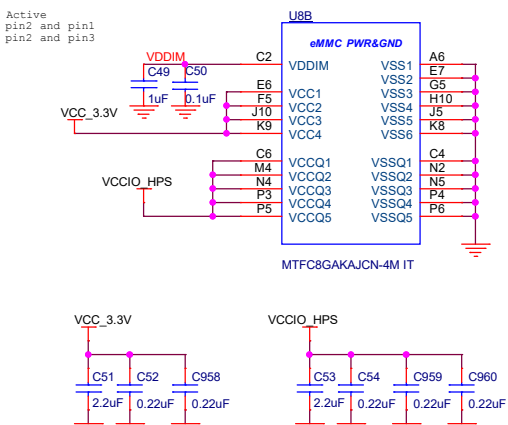
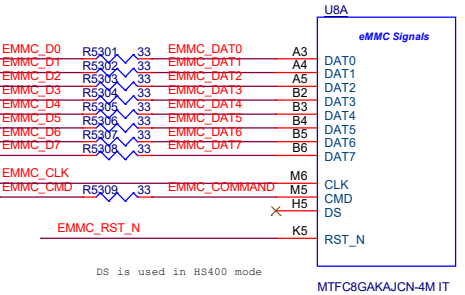
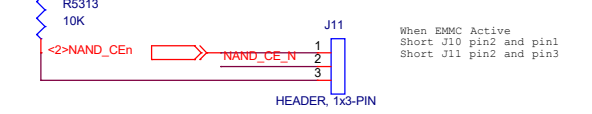
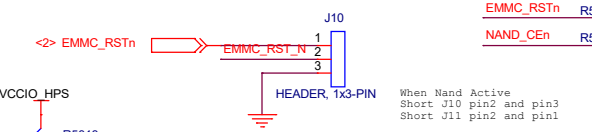
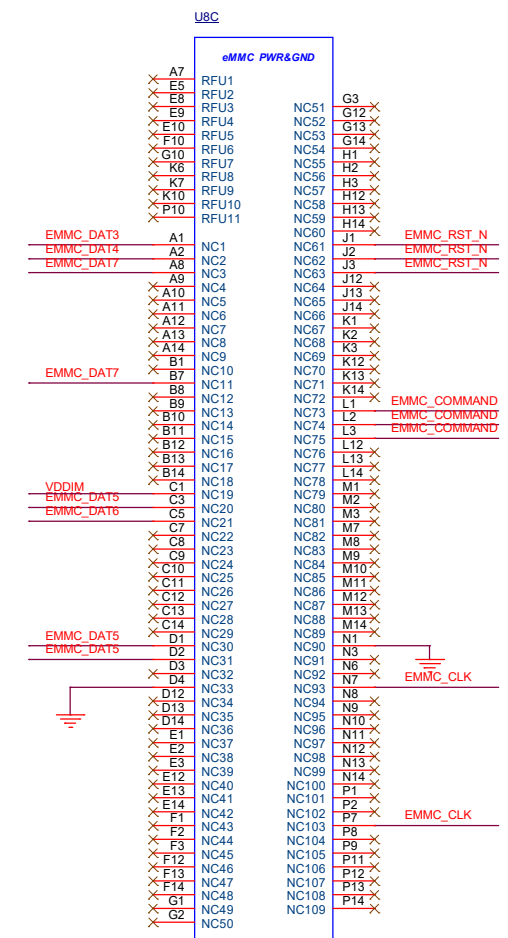
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# NAND/eMMC



Socketable: Ironwood SG-BGA-6367

When LOCK is HIGH during power-up, the BLOCK LOCK function is enabled.  
When LOCK is LOW during power-up, the BLOCK LOCK function is disabled.



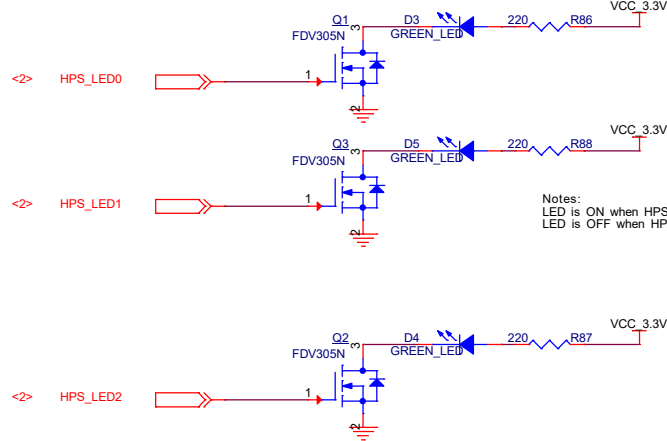
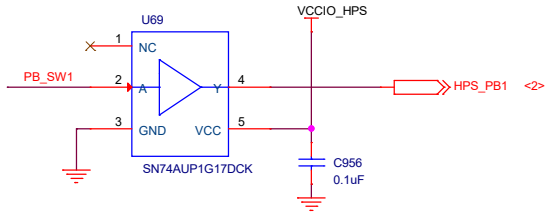
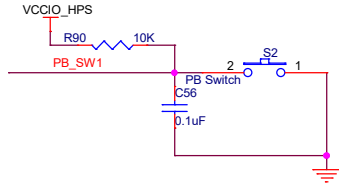
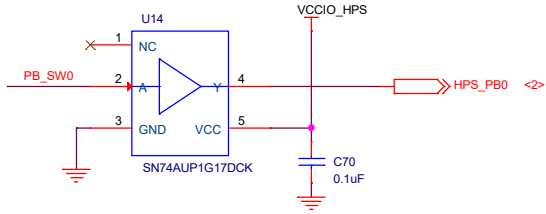
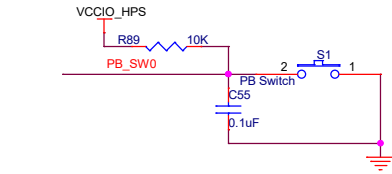
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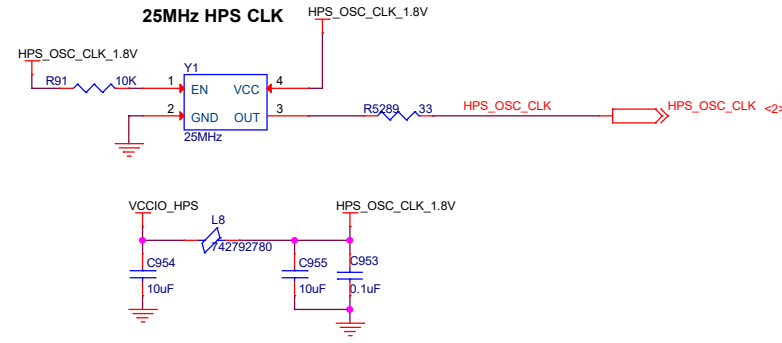
Size B Document Number **150-0330633-A1** (6XX-44480R) Rev **A1**

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# LED, PushButton, CLK

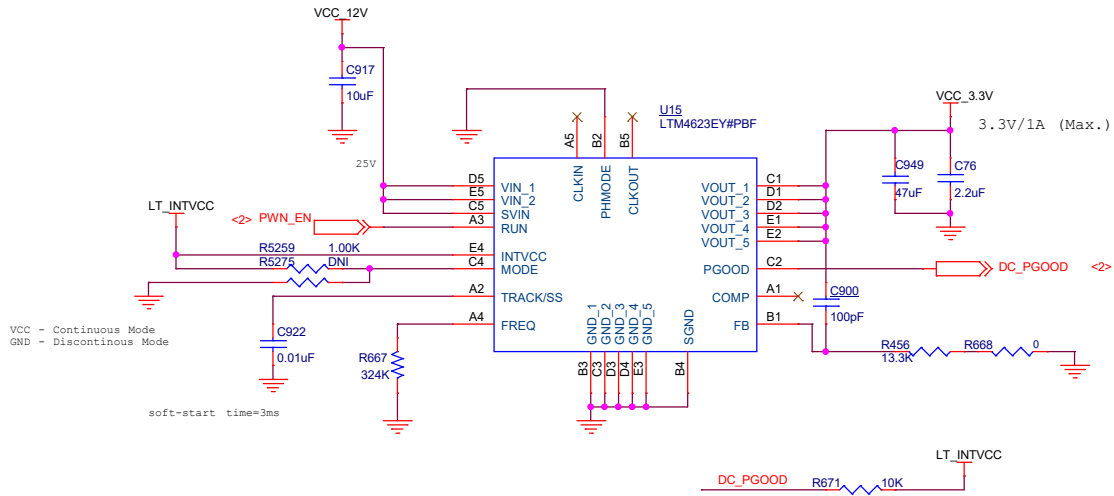


Notes:  
LED is ON when HPS\_LEDx is high  
LED is OFF when HPS\_LEDx is low



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# 12V -> 3.3V



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