

# APOLLO1 APOLLO512-KBR BOARD

## REVISION HISTORY


REV. 1.0.0 ("REV. A")

-- Initial Release

FID1  
PCB-FIDUCIAL

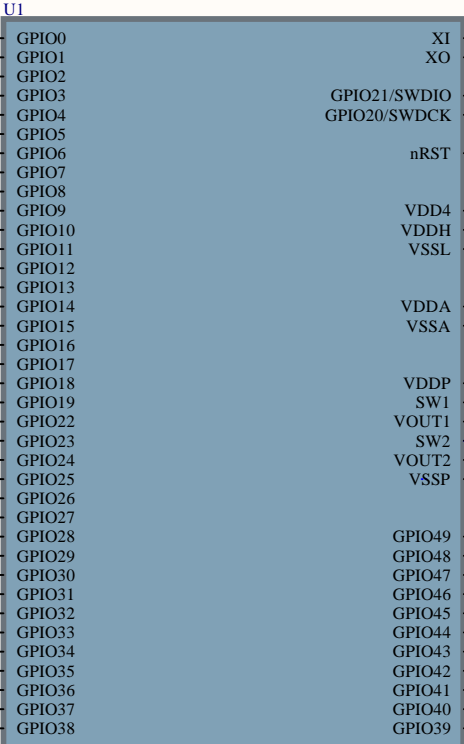
FID2  
PCB-FIDUCIAL

FID3  
PCB-FIDUCIAL

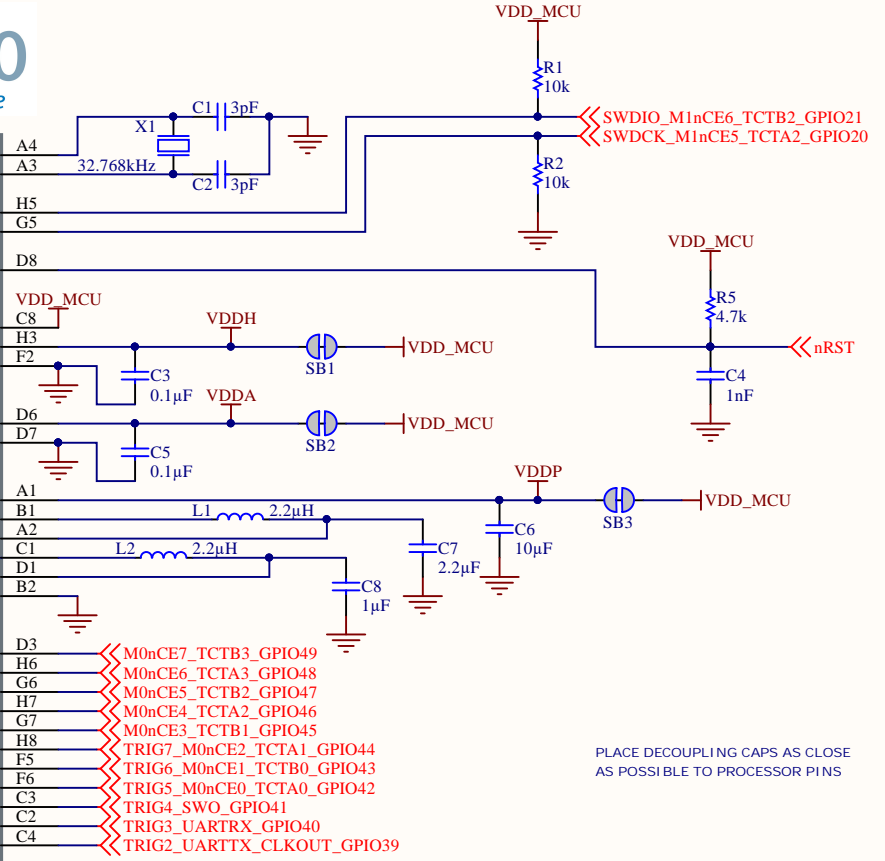
Title <b>APOLLO1 APOLLO512-KBR BRD</b>		Ambiq Micro 6500 River Place Blvd Building 7, Suite 200 Austin, TX 78730 USA	
Size: <b>A4</b>	Number:	Revision:	
Date: 6/1/17	Time: 8:36:29 AM	Sheet 1 of 9	
File: Y:\ambiq\repositories\pcbdev\apollo1-blackout-board\cover-page.SchDoc			



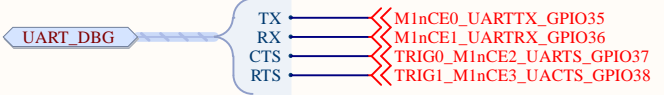
- SLSCL\_SLSCK\_UARTTX\_GPIO0
- SLSDA\_SLMISO\_UARTRX\_GPIO1
- SLWIR3\_SLMOSI\_CLKOUT\_GPIO2
- TRIG0\_SLnCE\_M1nCE4\_GPIO3
- TRIG1\_SLINT\_M0nCE5\_GPIO4
- M0SCL\_M0SCK\_UARTS\_GPIO5
- M0SDA\_M0MISO\_UACTS\_GPIO6
- M0WIR3\_M0MOSI\_CLKOUT\_GPIO7
- M1SCL\_M1SCK\_M0nCE4\_GPIO8
- M1SDA\_M1MISO\_M0nCE5\_GPIO9
- M1WIR3\_M1MOSI\_M0nCE6\_GPIO10
- ANATST\_M0nCE0\_CLKOUT\_GPIO11
- ADC0\_M1nCE0\_TCTA0\_GPIO12
- ADC1\_M1nCE1\_TCTB0\_GPIO13
- ADC2\_M1nCE2\_UARTTX\_GPIO14
- ADC3\_M1nCE3\_UARTRX\_GPIO15
- ADCREf\_M0nCE4\_TRIG2\_GPIO16
- CMPIN0\_M0nCE1\_TRIG3\_GPIO17
- CMPIN1\_M0nCE2\_TCTA1\_GPIO18
- CMPRF0\_M0nCE3\_TCTB1\_GPIO19
- UARTTX\_M1nCE7\_TCTA3\_GPIO22
- UARTRX\_M0nCE0\_TCTB3\_GPIO23
- M0nCE1\_CLKOUT\_GPIO24
- EXTXT\_M0nCE2\_TCTA0\_GPIO25
- EXTLF\_M0nCE3\_TCTB0\_GPIO26
- EXTHF\_M1nCE4\_TCTA1\_GPIO27
- M1nCE5\_TCTB1\_GPIO28
- ADC4\_M1nCE6\_TCTA2\_GPIO29
- ADC5\_M1nCE7\_TCTB2\_GPIO30
- ADC6\_M0nCE4\_TCTA3\_GPIO31
- ADC7\_M0nCE5\_TCTB3\_GPIO32
- CMPRF1\_M0nCE6\_GPIO33
- CMPRF2\_M0nCE7\_GPIO34
- M1nCE0\_UARTTX\_GPIO35
- M1nCE1\_UARTRX\_GPIO36
- TRIG0\_M1nCE2\_UARTS\_GPIO37
- TRIG1\_M1nCE3\_UACTS\_GPIO38



APOLLO512-KBR



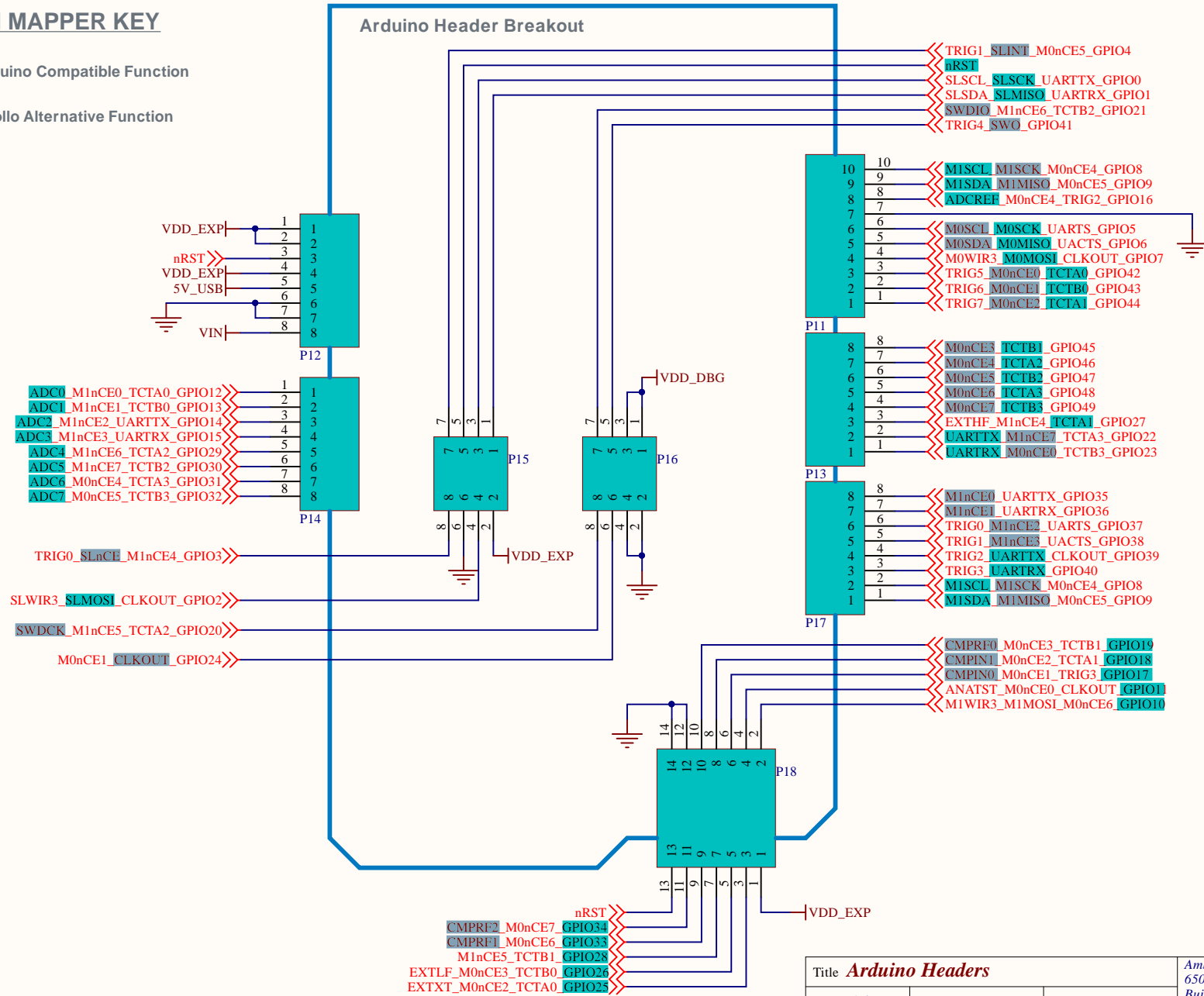
PLACE DECOUPLING CAPS AS CLOSE AS POSSIBLE TO PROCESSOR PINS




Title <b>Apollo1 BGA</b>		Ambiq Micro 6500 River Place Blvd Building 7, Suite 200 Austin, TX 78730 USA	
Size: <b>A4</b>	Number:	Revision:	
Date: 6/1/17	Time: 8:36:29 AM	Sheet 2 of 9	
File: Y:\ambiq\repositories\pcbdev\apollo1-blackout-board\apollo-bga.SchDoc			

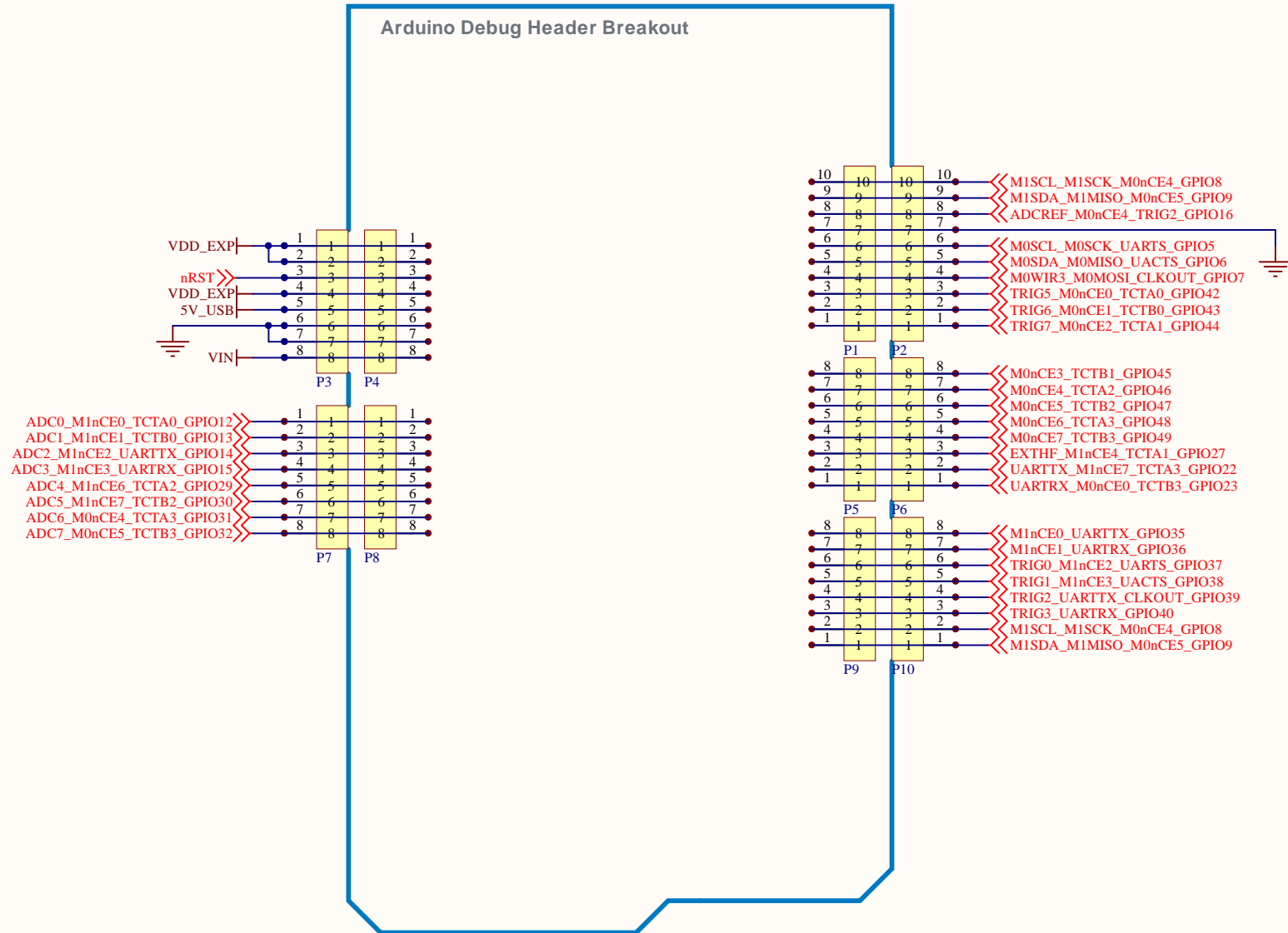
# FUNCTION MAPPER KEY

- Arduino Compatible Function
- Apollo Alternative Function



Title <b>Arduino Headers</b>		Ambiq Micro 6500 River Place Blvd Building 7, Suite 200 Austin, TX 78730 USA	
Size: <b>A4</b>	Number:	Revision:	
Date: 6/1/17	Time: 8:36:29 AM	Sheet 3 of 9	
File: Y:\ambiq\repositories\pcbdev\apollo1-blackout-board\arduino-breakout.SchDoc			

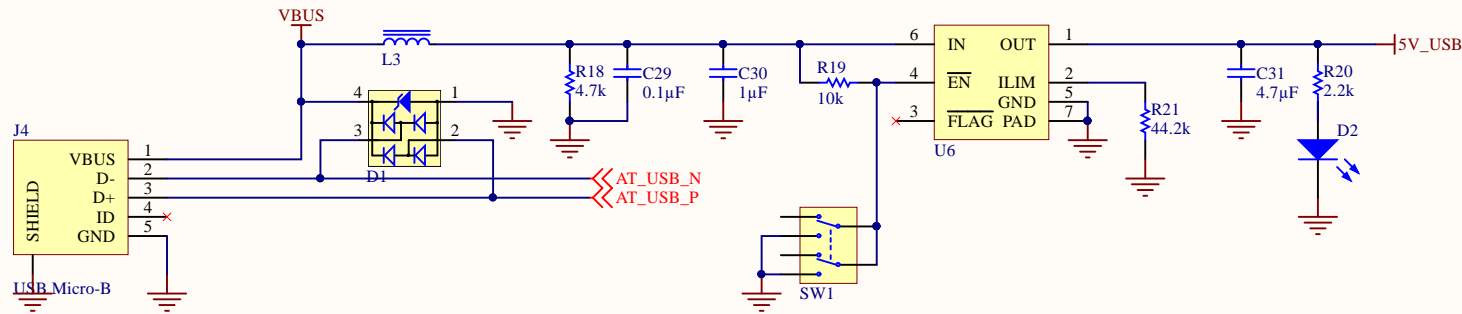
### Arduino Debug Header Breakout



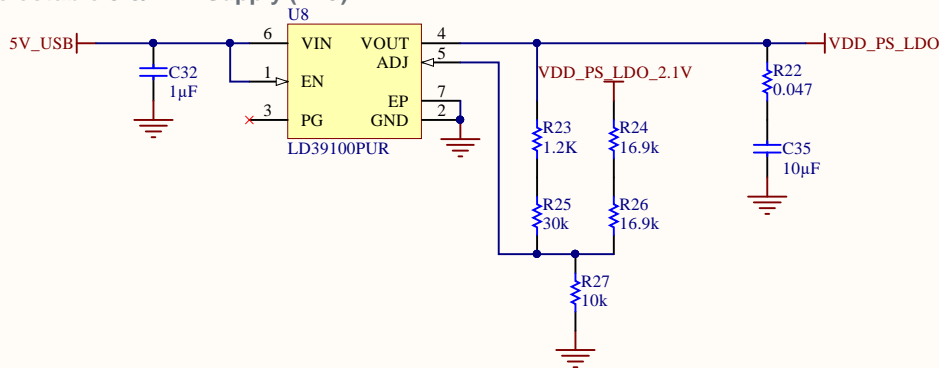
Title <b>Arduino Headers Debug</b>		Ambiq Micro 6500 River Place Blvd Building 7, Suite 200 Austin, TX 78730 USA	
Size: <b>A4</b>	Number:	Revision:	
Date: 6/1/17	Time: 8:36:29 AM	Sheet 4 of 9	
File: Y:\ambiq\repositories\pcbdev\apollo1-blackout-board\arduino-breakout-dbg.SchDoc			



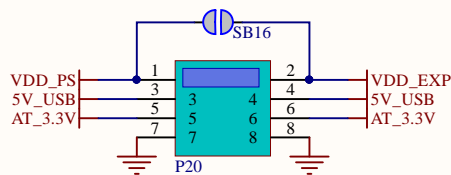
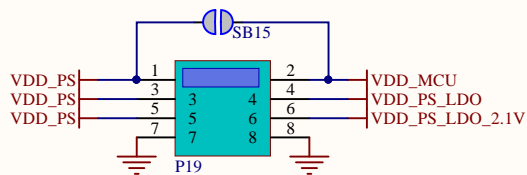
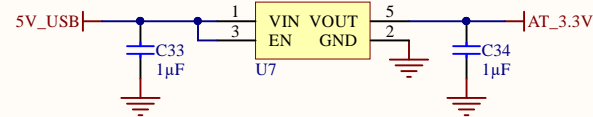
### USB Power



### Selectable 3.3/2.1V Supply (P19)



### On-board Debugger Supply



### Title **Power Supplies**

Ambiq Micro  
6500 River Place Blvd  
Building 7, Suite 200  
Austin, TX 78730  
USA



Size: **A4**

Number:

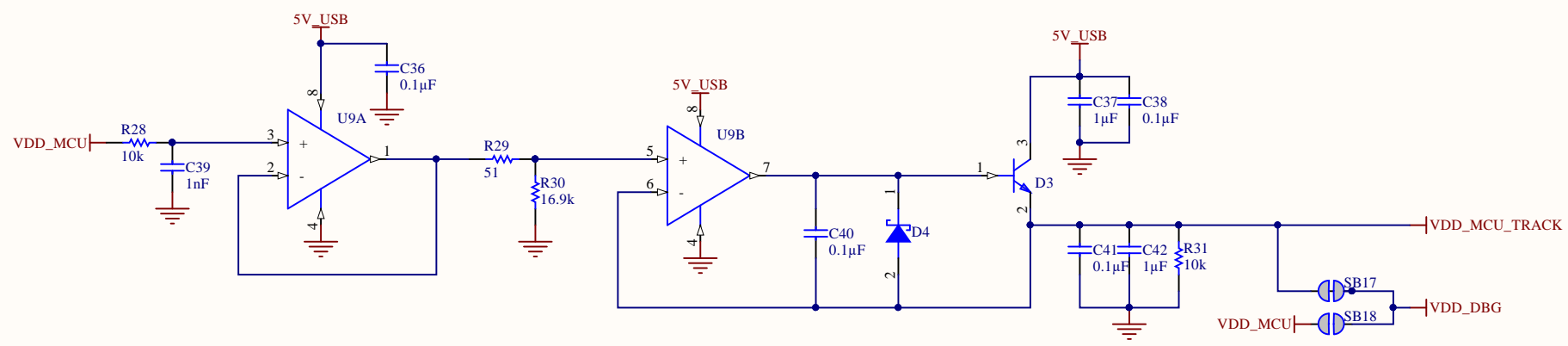
Revision:


Date: 6/1/17

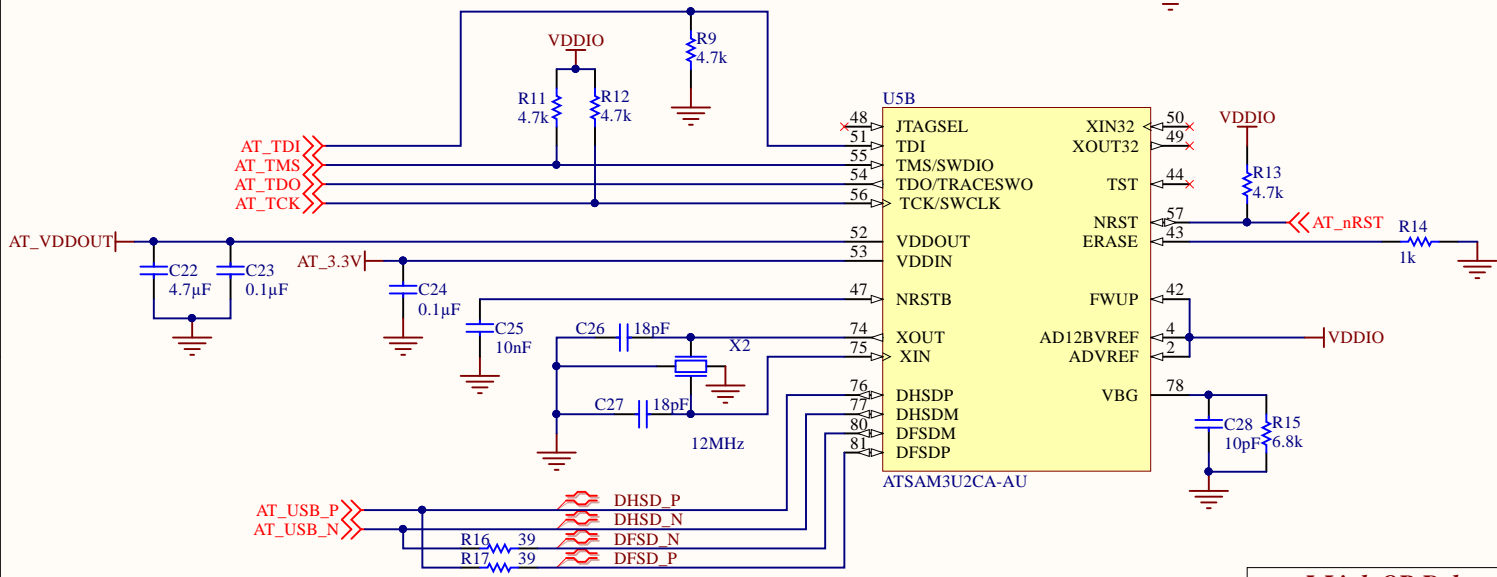
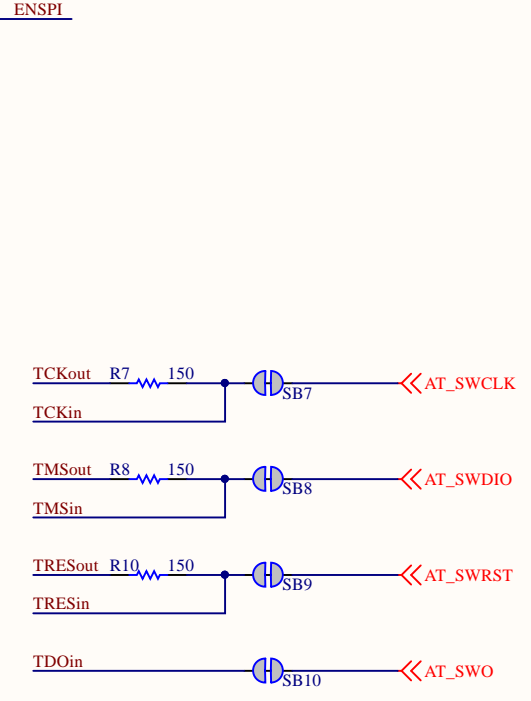
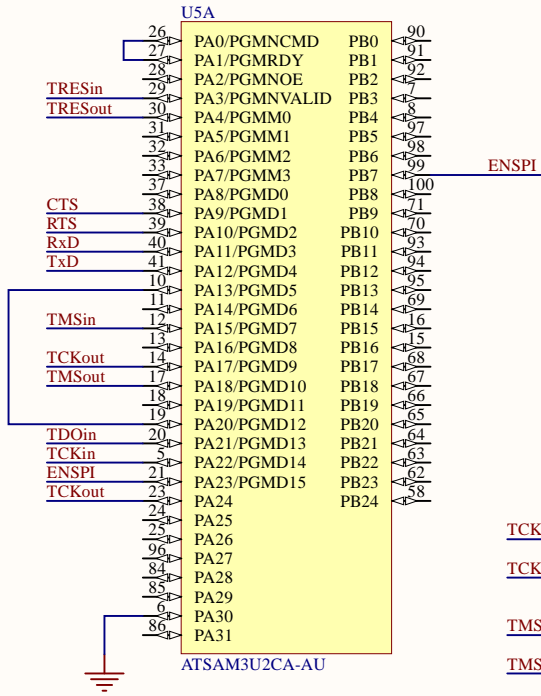
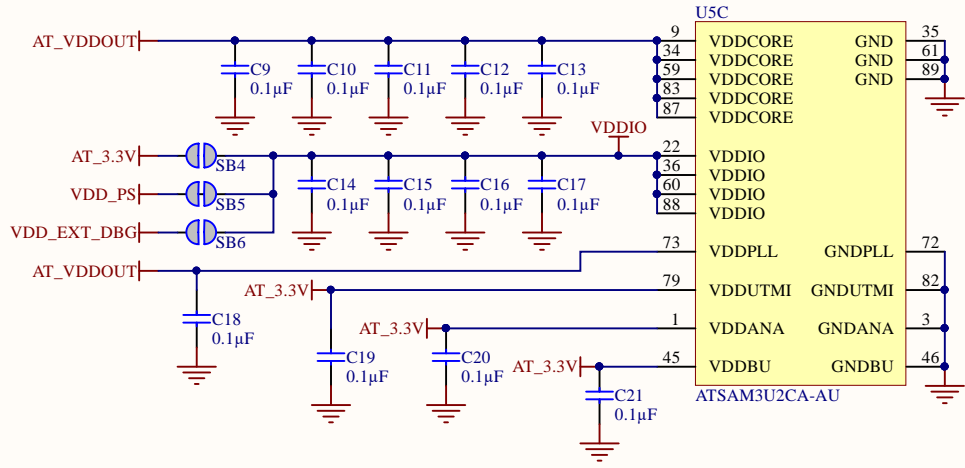
Time: 8:36:29 AM Sheet 5 of 9

File: Y:\ambiq\repositories\pcbdev\apollo1-blackout-board\power-supplies.SchDoc

### VDD\_MCU Supply Tracker



Title <b>Power Supply Tracker</b>		Ambiq Micro 6500 River Place Blvd Building 7, Suite 200 Austin, TX 78730 USA	
Size: <b>A4</b>	Number:	Revision:	
Date: 6/1/17	Time: 8:36:29 AM	Sheet 6 of 9	
File: Y:\ambiq\repositories\pcbdev\apollo1-blackout-board\power-supply-tracker.SchDoc			



Title **J-Link OB Debugger**

Ambiq Micro  
6500 River Place Blvd  
Building 7, Suite 200  
Austin, TX 78730  
USA

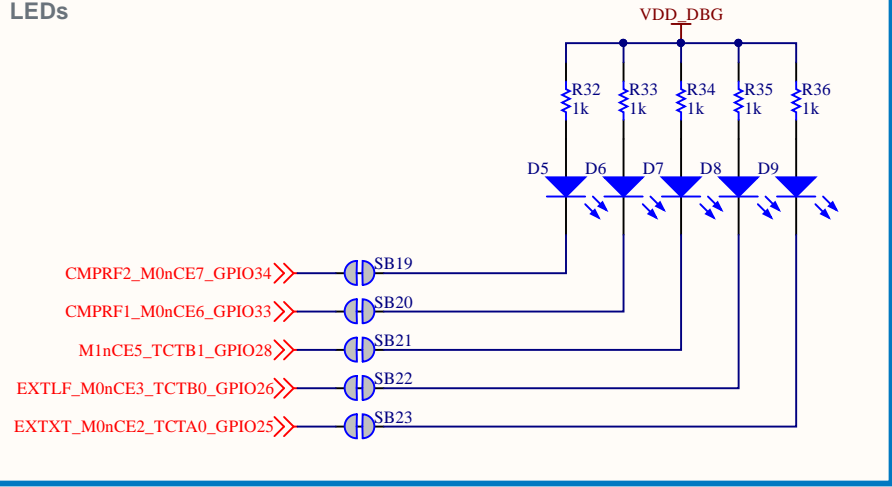


Size: A4 Number: Revision:

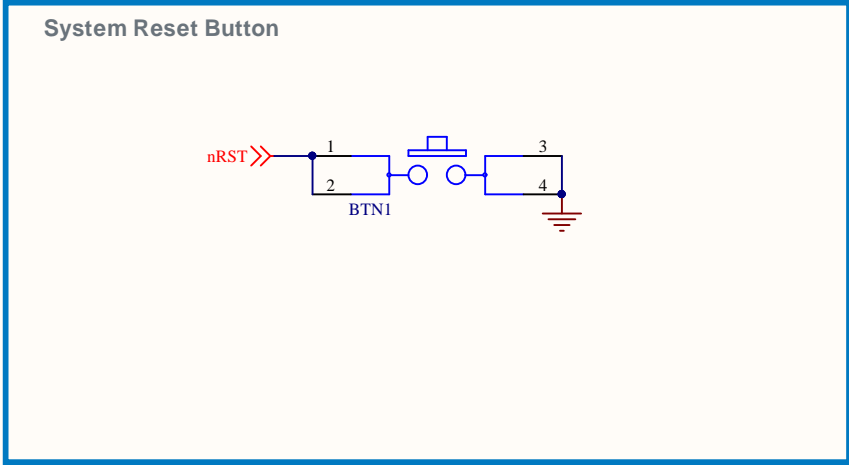
Date: 6/1/17 Time: 8:36:29 AM Sheet 7 of 9

File: Y:\ambiq\repositories\pcbdev\apollo1-blackout-board\j-link-ob-dbg.SchDoc

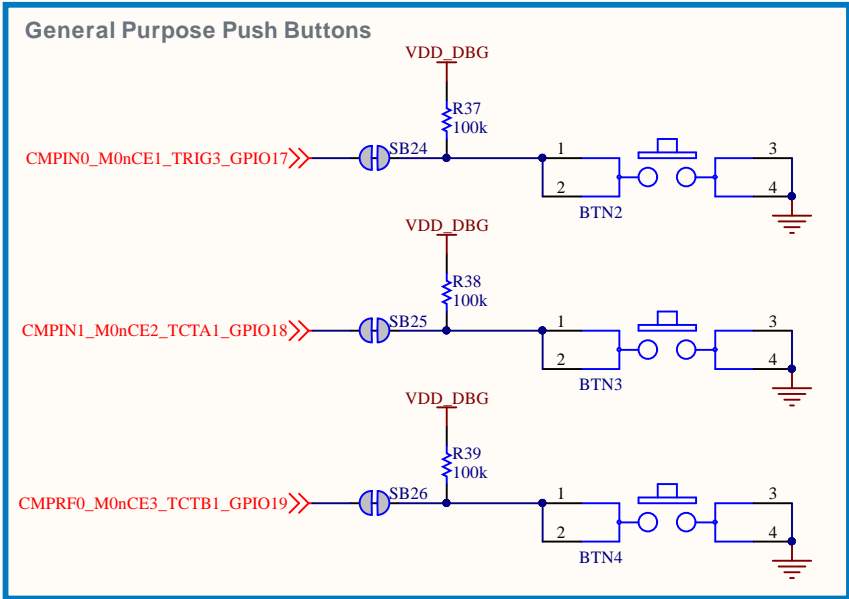
### LEDs



### System Reset Button



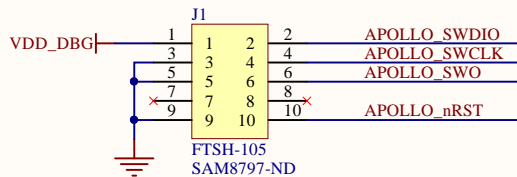
### General Purpose Push Buttons



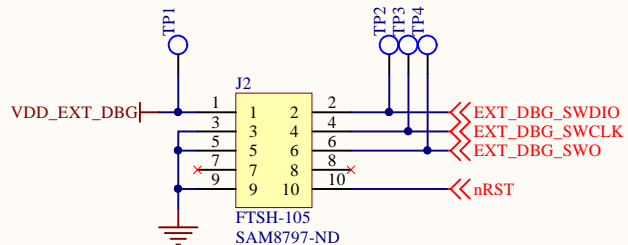
Title <b>User Interface</b>		Ambiq Micro 6500 River Place Blvd Building 7, Suite 200 Austin, TX 78730 USA
Size: <b>A4</b>	Number:	
Date: 6/1/17	Time: 8:36:30 AM	Revision: Sheet 8 of 9
File: Y:\ambiq\repositories\pcbdev\apollo1-blackout-board\user-interface.SchDoc		



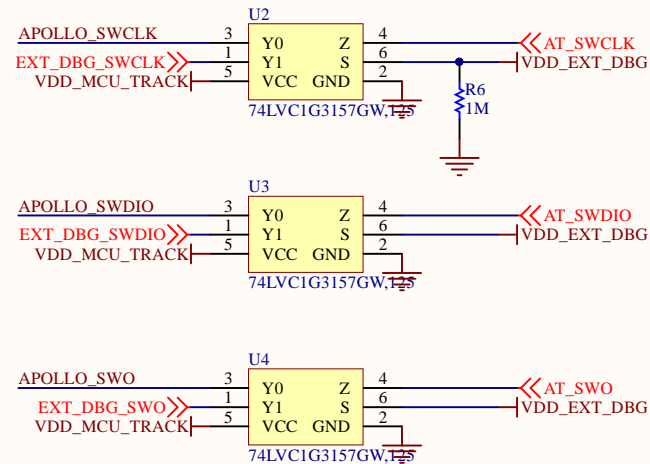
### External Debug In



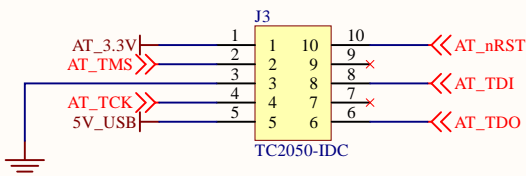
### External Debug Out

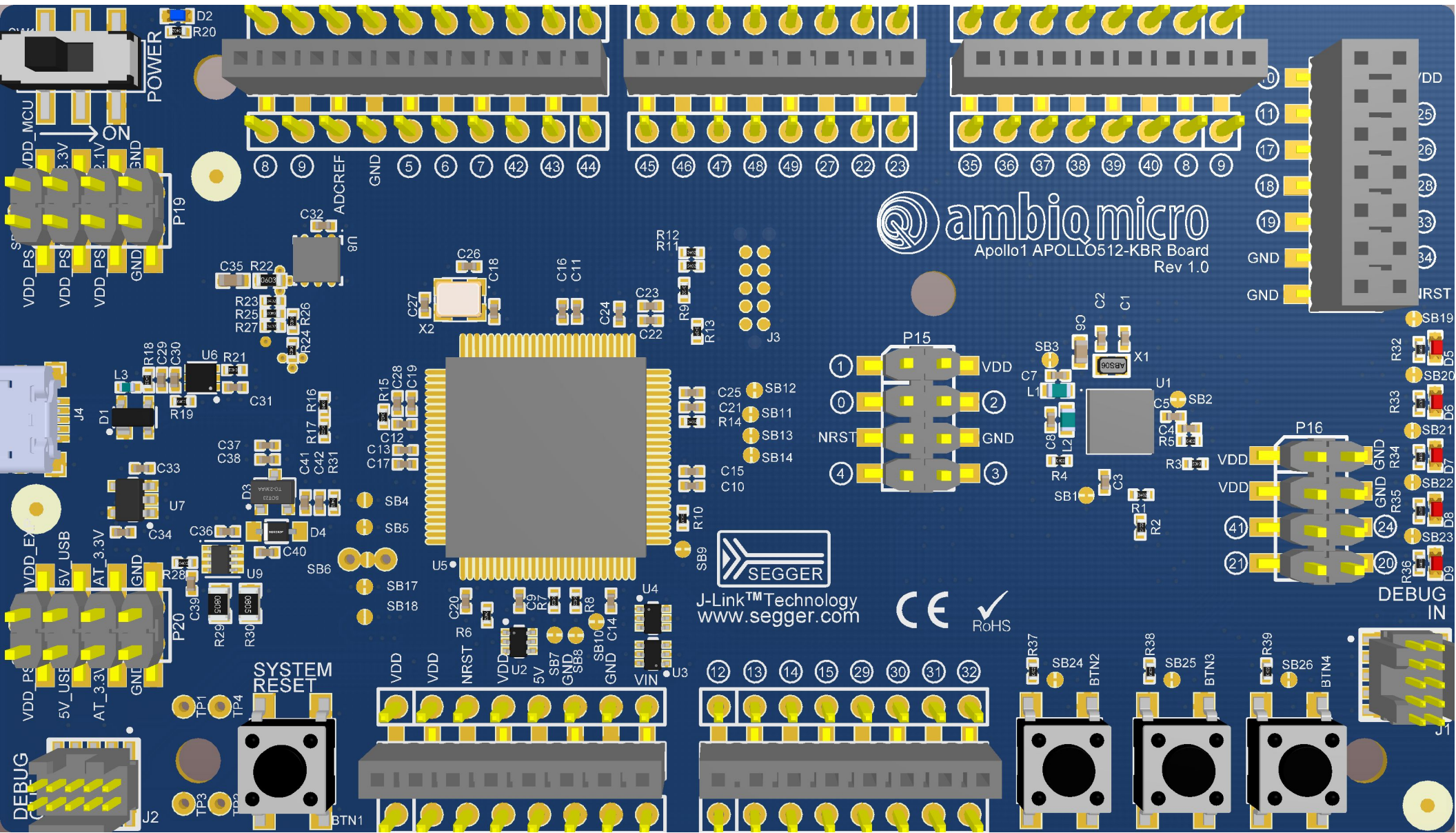


### External Debug Out Switch



### J-Link OB Programmer





ambiq micro  
Apollo1 APOLLO512-KBR Board  
Rev 1.0

SEGGER  
J-Link™ Technology  
www.segger.com  
CE RoHS



