




## EFM32 Pearl Gecko STK

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## Revision History

Rev.	Description
A00	Initial release.

EFM32PG STK

 <b>SILICON LABS</b>		Schematic Title <b>EFM32 Pearl Gecko Starter Kit</b>	
Designed: JSH		Page Title <b>Title Page</b>	
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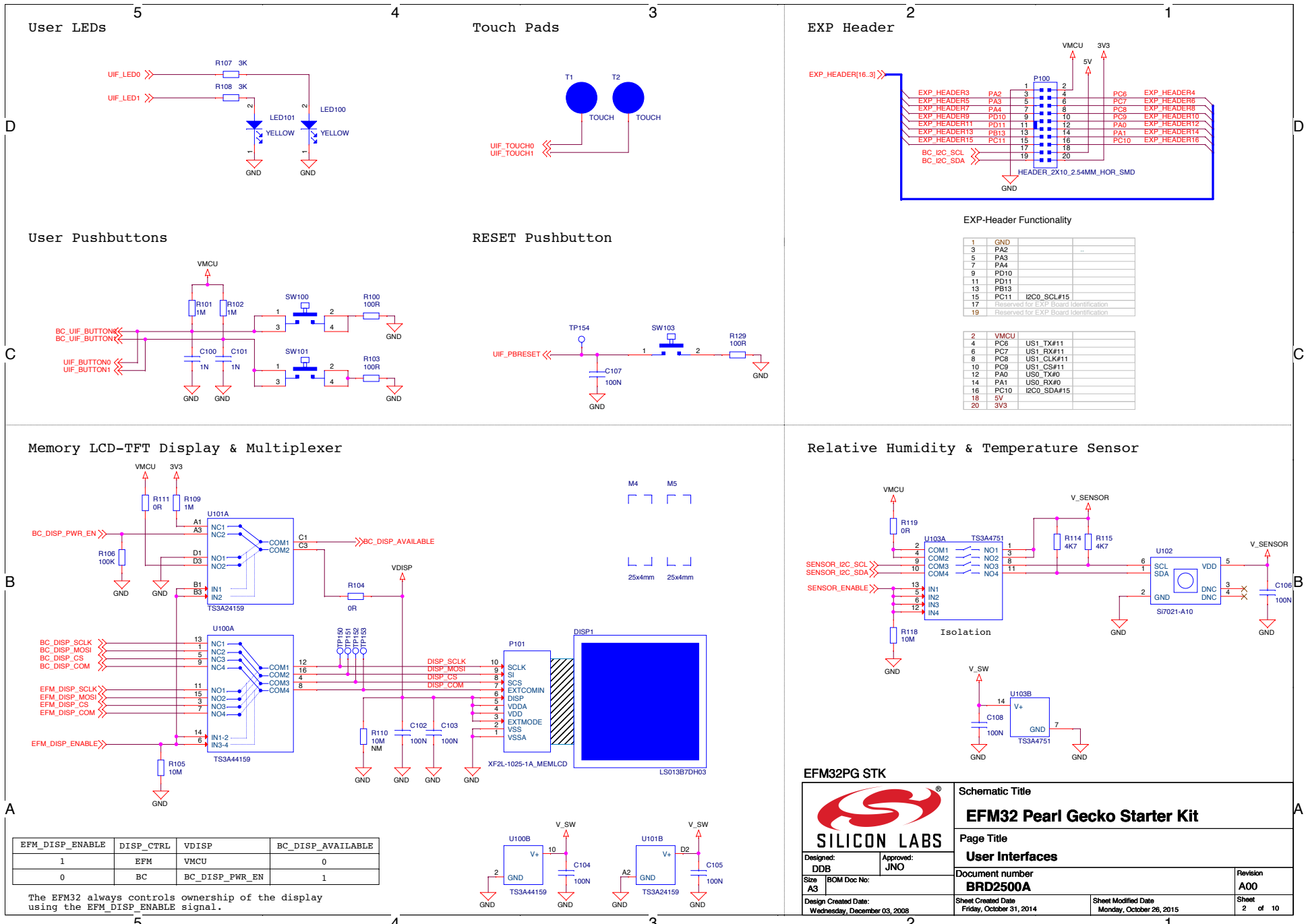


Diagram illustrating the PA Connections. The MCU\_PA[5:0] signal is connected to the EXP\_HEADER[16:3] signal. The connections are as follows:

- MCU\_PA0 connects to EXP\_HEADER12
- MCU\_PA1 connects to EXP\_HEADER15
- MCU\_PA2 connects to EXP\_HEADER3
- MCU\_PA3 connects to EXP\_HEADER5
- MCU\_PA4 connects to EXP\_HEADER7
- MCU\_PA5 connects to EFM\_BC\_EN
- EFM\_BC\_TX\_MOSI
- EFM\_BC\_RX\_MISO
- EFM\_BC\_CTS\_SCLK
- EFM\_BC\_RTS\_CS



### PB Connections

The diagram illustrates the connection between the MCU\_PB15[15..11] pin and the EXP\_HEADER[16..3] pin. The MCU\_PB15[15..11] pin is connected to a bus that branches into five parallel lines, each connected to a specific peripheral: MCU\_PB11, MCU\_PB12, MCU\_PB13, MCU\_PB14, and MCU\_PB15. These peripherals are then connected to the EXP\_HEADER[16..3] pin via a common bus structure. The connections are as follows:

- MCU\_PB11 is connected to UIF\_TOUCH0.
- MCU\_PB12 is connected to UIF\_TOUCH1.
- MCU\_PB13 is connected to LFX TAL\_N.
- MCU\_PB14 is connected to LFX TAL\_P.
- MCU\_PB15 is connected to LFX TAL\_P.

The EXP\_HEADER[16..3] pin is connected to the EXP\_HEADER13 pin.



### PC Connections

MCU\_PC[11..6] >>> MCU\_PC6 >>> EFM\_DISP\_MOSI  
 MCU\_PC6 >>> EFM\_DISP\_SCLK  
 MCU\_PC7 >>> EXP\_HEADER4  
 MCU\_PC8 >>> EXP\_HEADER6  
 MCU\_PC9 >>> EXP\_HEADER8  
 MCU\_PC10 >>> EXP\_HEADER10  
 MCU\_PC11 >>> EXP\_HEADER12  
 MCU\_PC[11..6] >>> EXP\_HEADER[16..3]  
 MCU\_PC[11..6] >>> SENSOR\_I2C\_SDA  
 MCU\_PC[11..6] >>> SENSOR\_I2C\_SCL



### PD Connections

MCU\_PD[15..9] connects to:

- MCU\_PD9: EXP\_HEADER[16..3]
- MCU\_PD10: SENSOR\_ENABLE, EXP\_HEADER9
- MCU\_PD11: EXP\_HEADER11
- MCU\_PD13: EFM\_DISP\_COM
- MCU\_PD14: EFM\_DISP\_CS
- MCU\_PD15: EFM\_DISP\_ENABLE



PF Connections

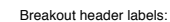
MCU\_PF[7:0]

MCU PF0  
MCU PF1  
MCU PF2  
MCU PF3  
MCU PF4  
MCU PF5  
MCU PF6  
MCU PF7

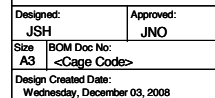
MCUDBG\_TCK\_SWCLK  
MCUDBG\_TMS\_SWDO  
MCUDBG\_TDO\_SWO  
MCUDBG\_TDI  
UIF\_LED0  
UIF\_LED1  
UIF\_BUTTON0  
UIF\_BUTTON1



## Breakout Connections



5V	5V
GND	GND
PF0	PD9
PF1	PD10
PF2	PD11
PF3	PD12
PF4	PD13
PF5	PD14
PF6	PD15
PF7	NC
NC	NC
NC	NC
NC	NC
NC	NC
NC	NC
GND	GND
3V3	3V3



## EFM32 Pearl Gecko Starter Kit

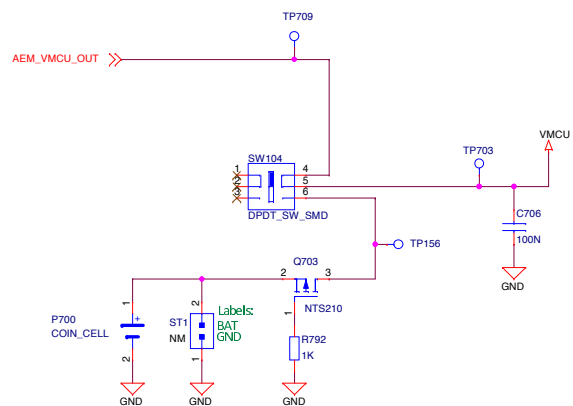
### EFM32 Signal Assignments

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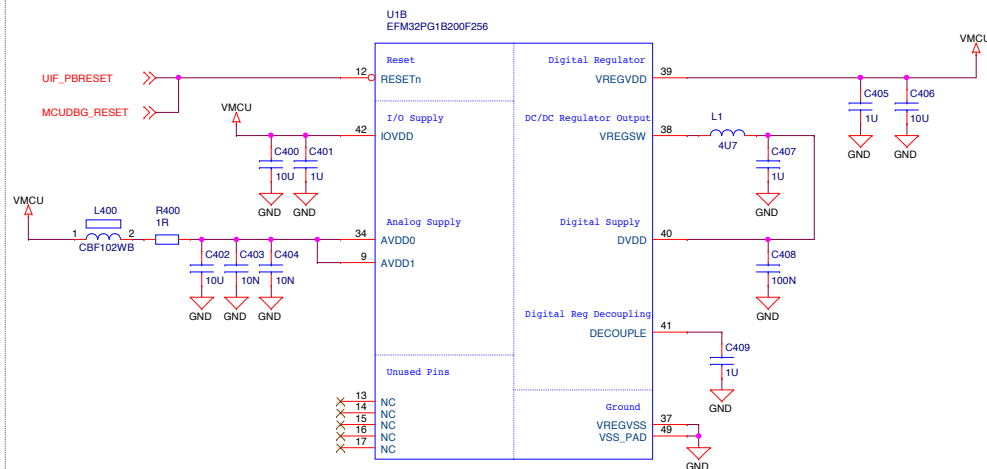
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## Power Select Switch: AEM/BAT

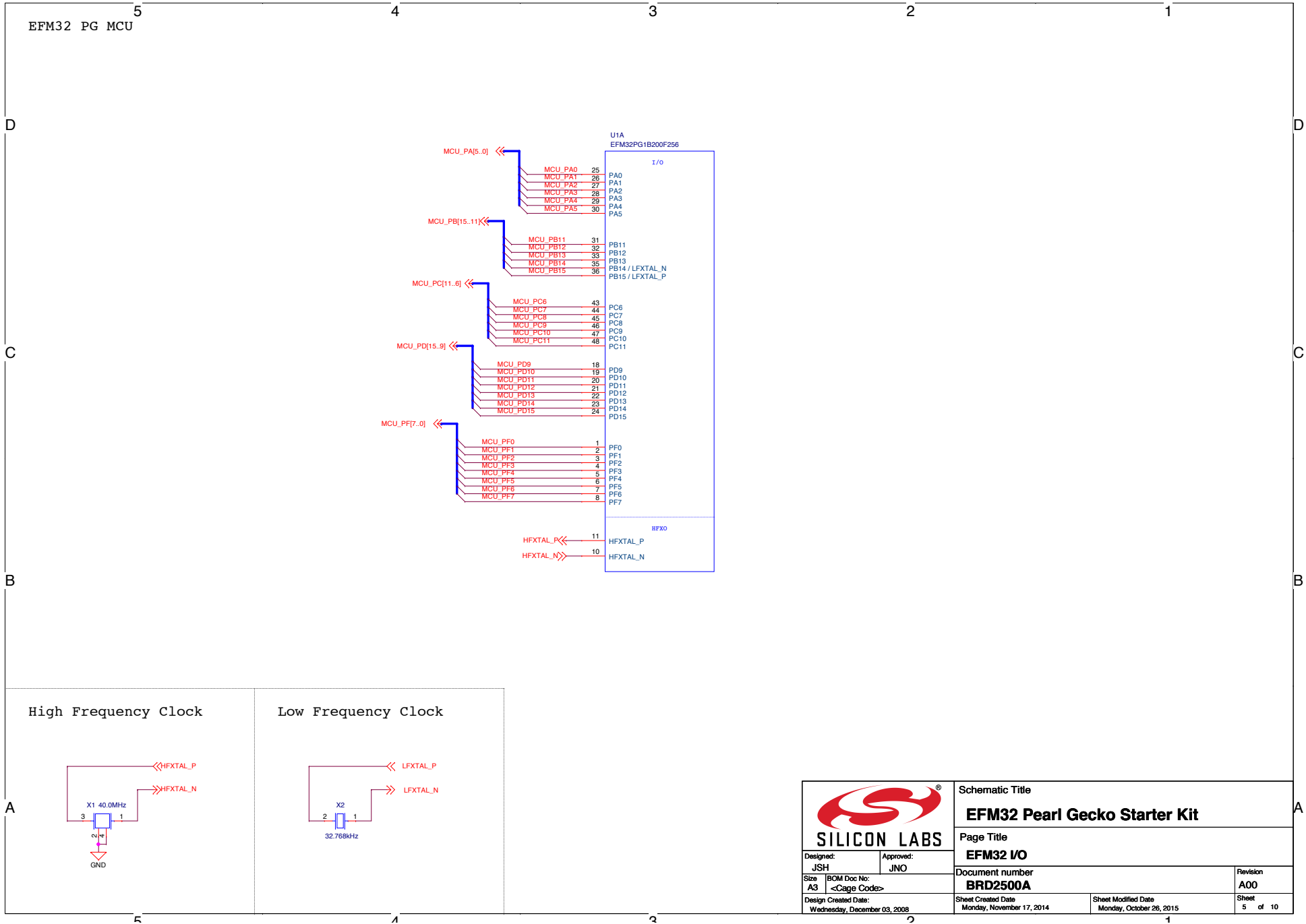


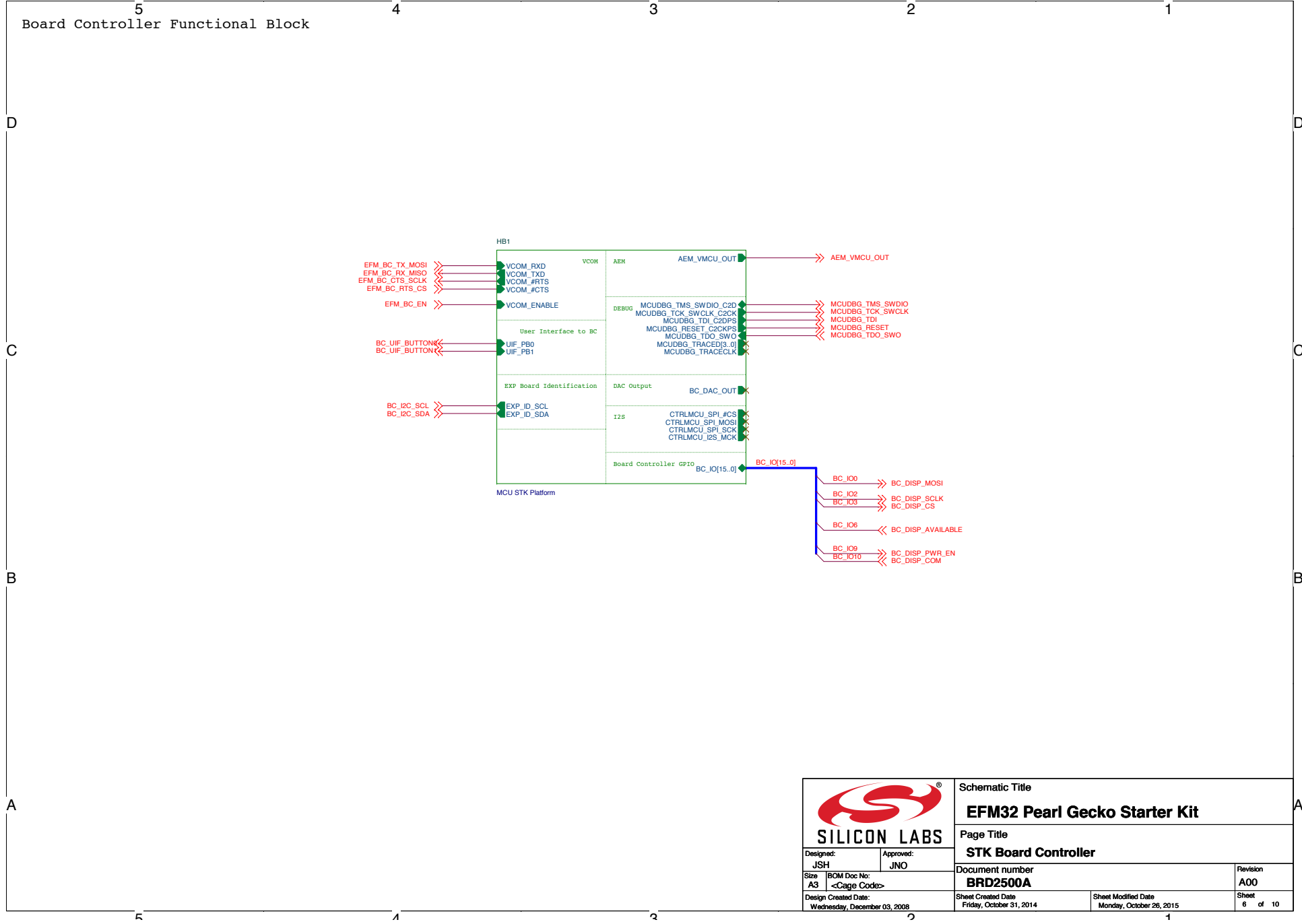
SWITCH POS	MODE DESCRIPTION
AEM	AEM Enabled, VMCU sourced from external 3.3V LDO powered by BC USB 5V supply
BAT	AEM Disabled, VMCU sourced from coin-cell battery or external power supply

## EFM32 Power and Decoupling

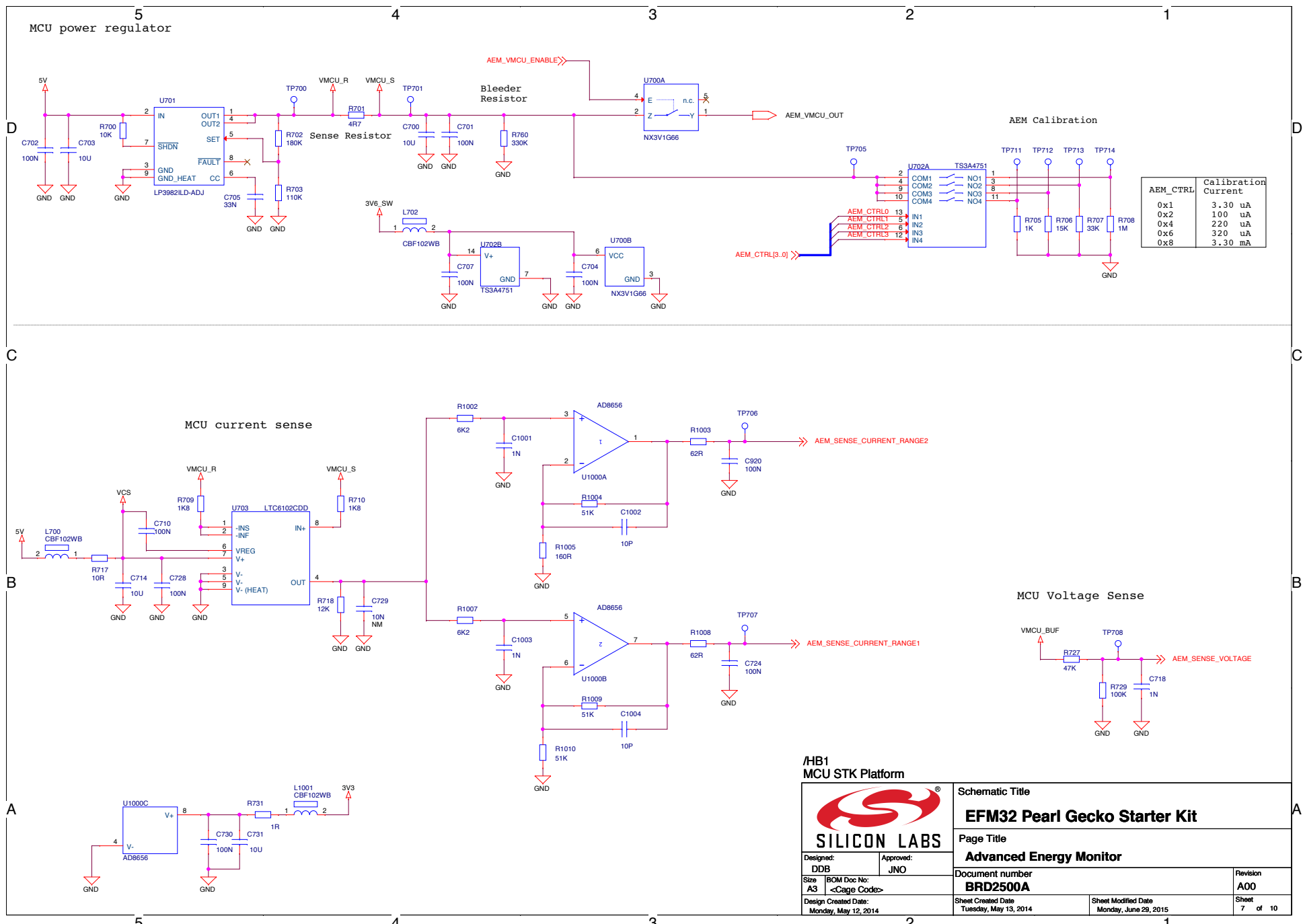


 <b>SILICON LABS</b>		Schematic Title	
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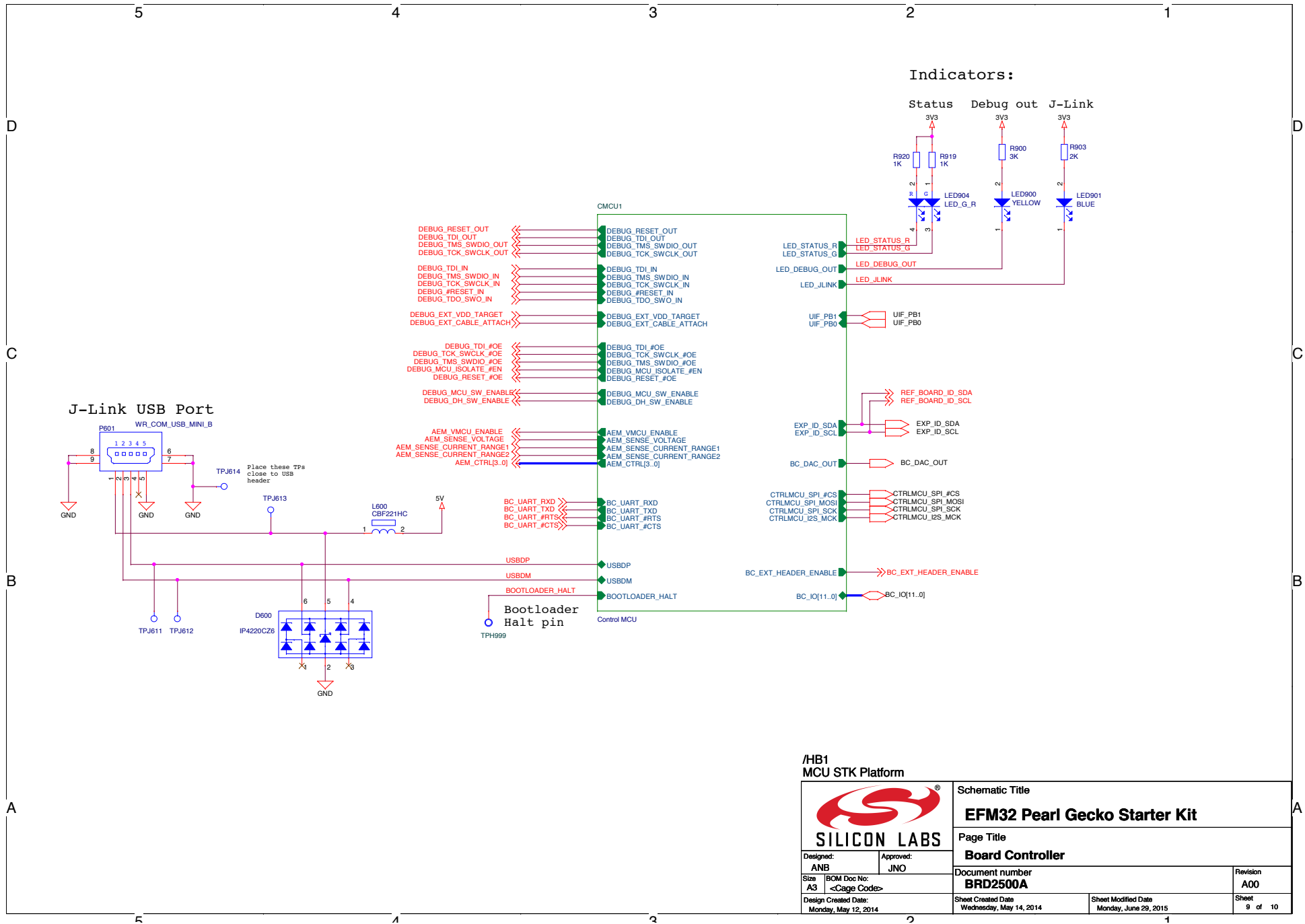


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/HB1  
MCU STK Platform

 <b>SILICON LABS</b>		Schematic Title	
		<b>EFM32 Pearl Gecko Starter Kit</b>	
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