[illegible]

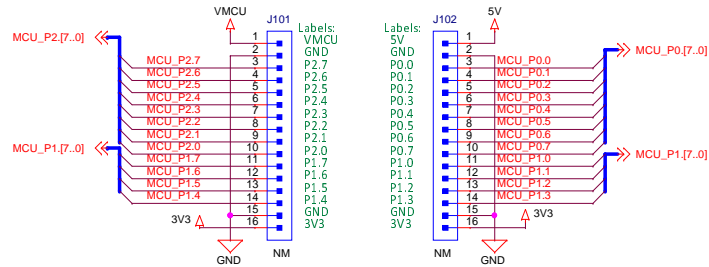
EFM8SB2 Sleepy Bee STK	
Board Function	Page
Title Page	1
User Interface	2
EFM8 signal Assignments	3
EFM8	4
STK Common Interface	5
STK Common/AEM	6
STK Board Controller/Control MCU	7
STK Board Controller/Misc	8
STK Common/Debug Interface	9
STK Common/Power & Misc	10

Revision History	
Rev.	Description
A00	Initial release for production.

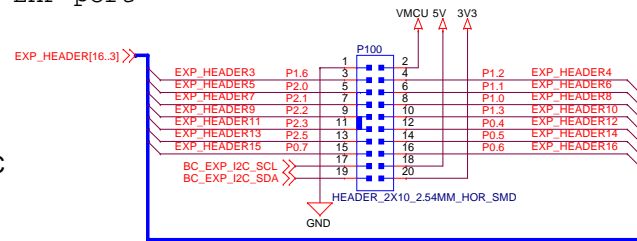
EFM8SB2 Sleepy Bee STK	
Board Function	Page
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Revision History	
Rev.	Description
A00	Initial release for production.

## Breakout Connections



## EXP port

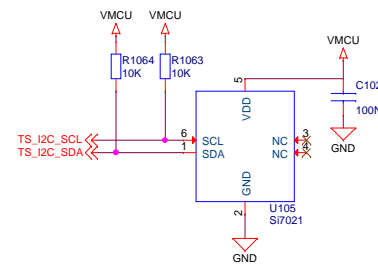


### EXP-Header Functionality

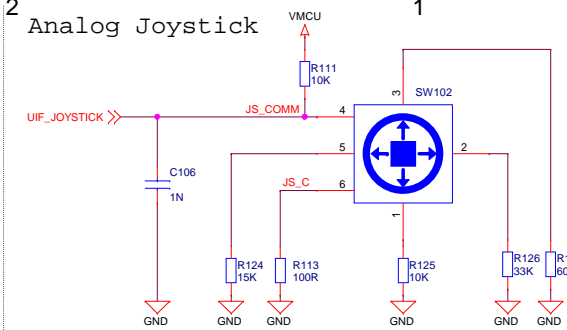
\*\* Indicates potential STK hardware conflicts

1	GND				
3	P1.6				STK LED0
5	P2.0				STK LED1
7	P2.1				STK LED2
9	P2.2				
11	P2.3				
13	P2.5				
15	P0.7	I2C0_SCL	CMPN.3/ADC0.7		
17					
19					
2	VMCU				
4	P1.2	SPI0_MOSI	CMPN.5/ADC0.10		
6	P1.1	SPI0_MISO	CMPN.4/ADC0.9		
8	P1.0	SPI0_SCK	CMPN.4/ADC0.8		
10	P1.3	SPI0_NSS	CMPN.5/ADC0.11		
12	P0.4	UART0_TX	CMPN.2/ADC0.4		
14	P0.5	UART0_RX	CMPN.2/ADC0.5		
16	P0.6	I2C0_SDA	CMPN.3/ADC0.6		
18	5V				
20	3V3				

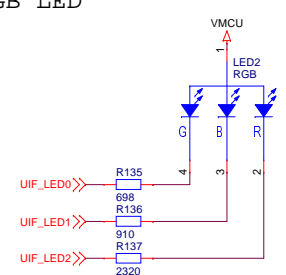
## Temperature & Relative Humidity Sensor



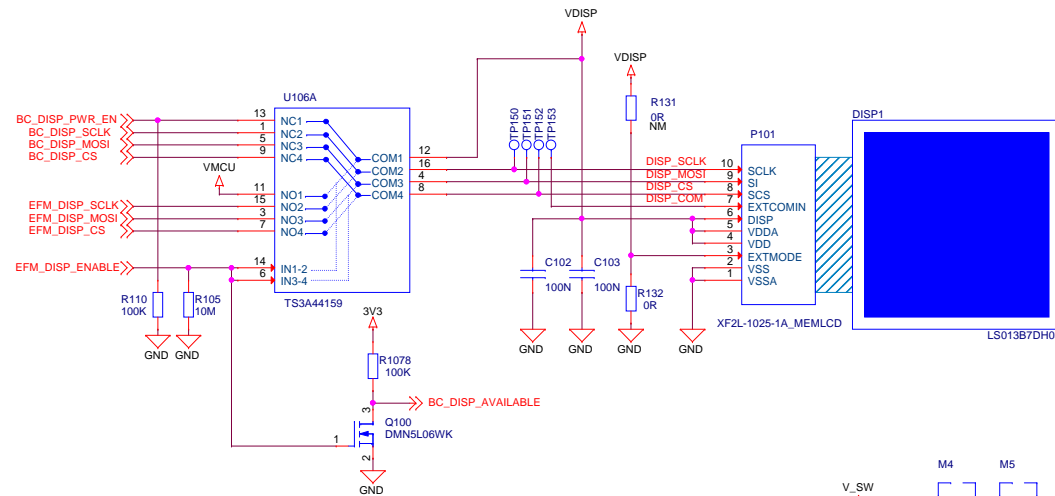
## Analog Joystick



## RGB LED



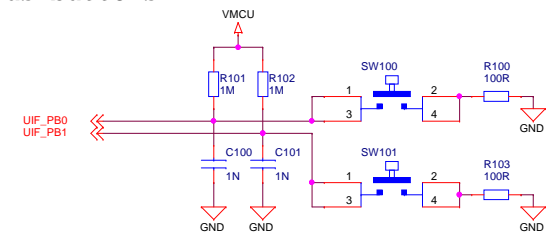
## Memory LCD-TFT Display & Multiplexer



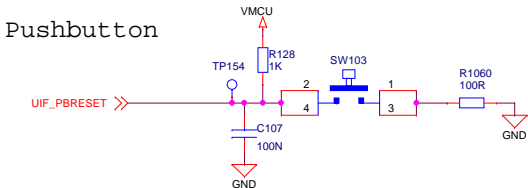
The EFM8 always controls ownership of the display using the EFM\_DISP\_ENABLE signal.

EFM_DISP_ENABLE	DISP_CTRL	VDISP
0	BC	BC_DISP_PWR_EN
1	EFM	VMCU

## User pushbuttons

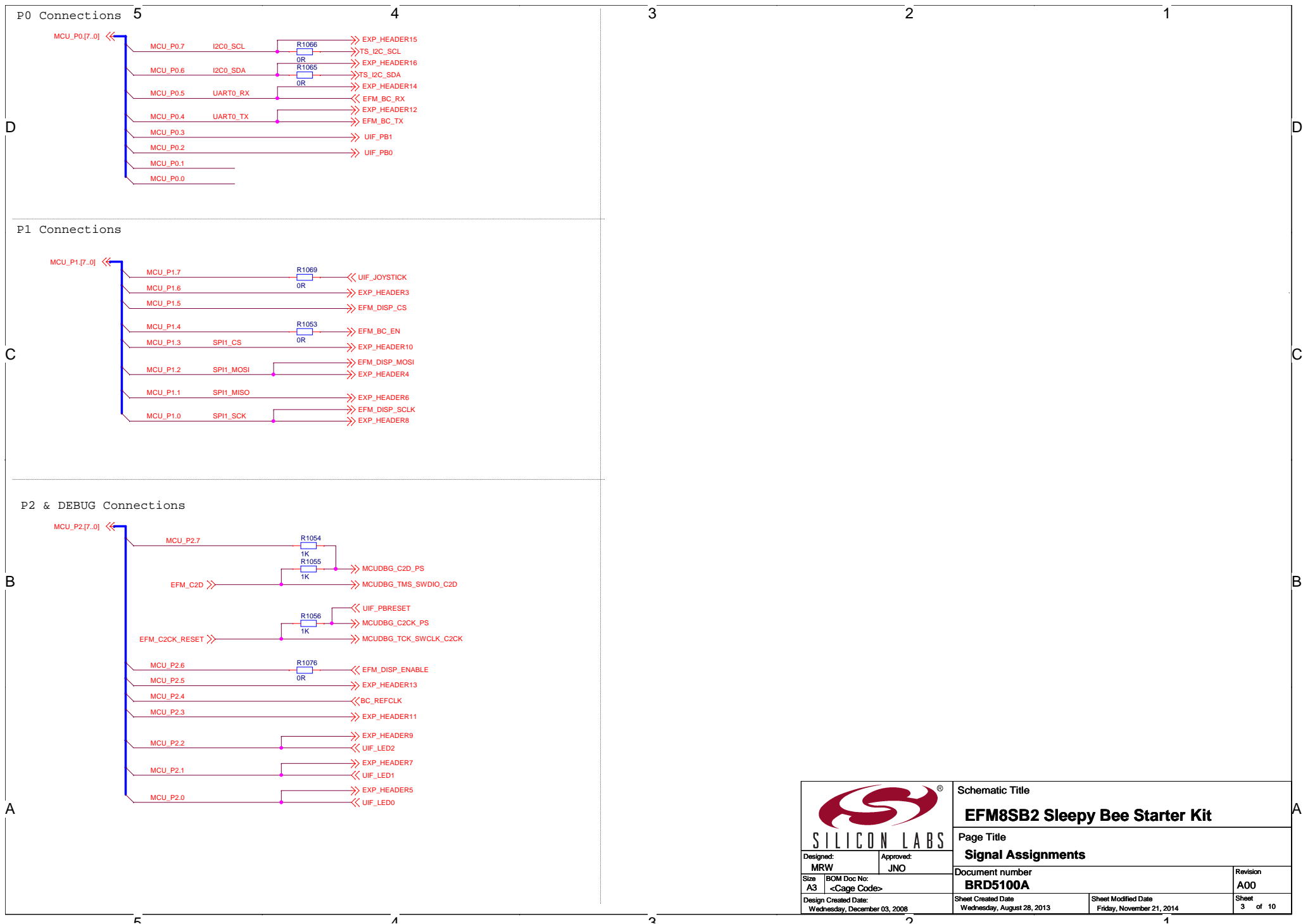


## RESET Pushbutton



## STK

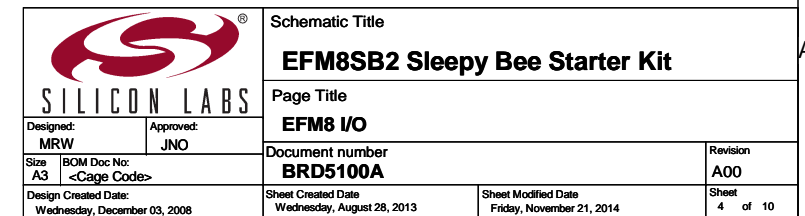
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		EFM8SB2 Sleepy Bee Starter Kit	
Designed: MRW		Page Title	
Size A3		User Interfaces	
BOM Doc No:		Document number	
Design Created Date: Wednesday, December 03, 2008		BRD5100A	
Approved: JNO		Revision	
Sheet Created Date: Wednesday, August 28, 2013		A00	
Sheet Modified Date: Friday, November 21, 2014		Sheet 2 of 10	

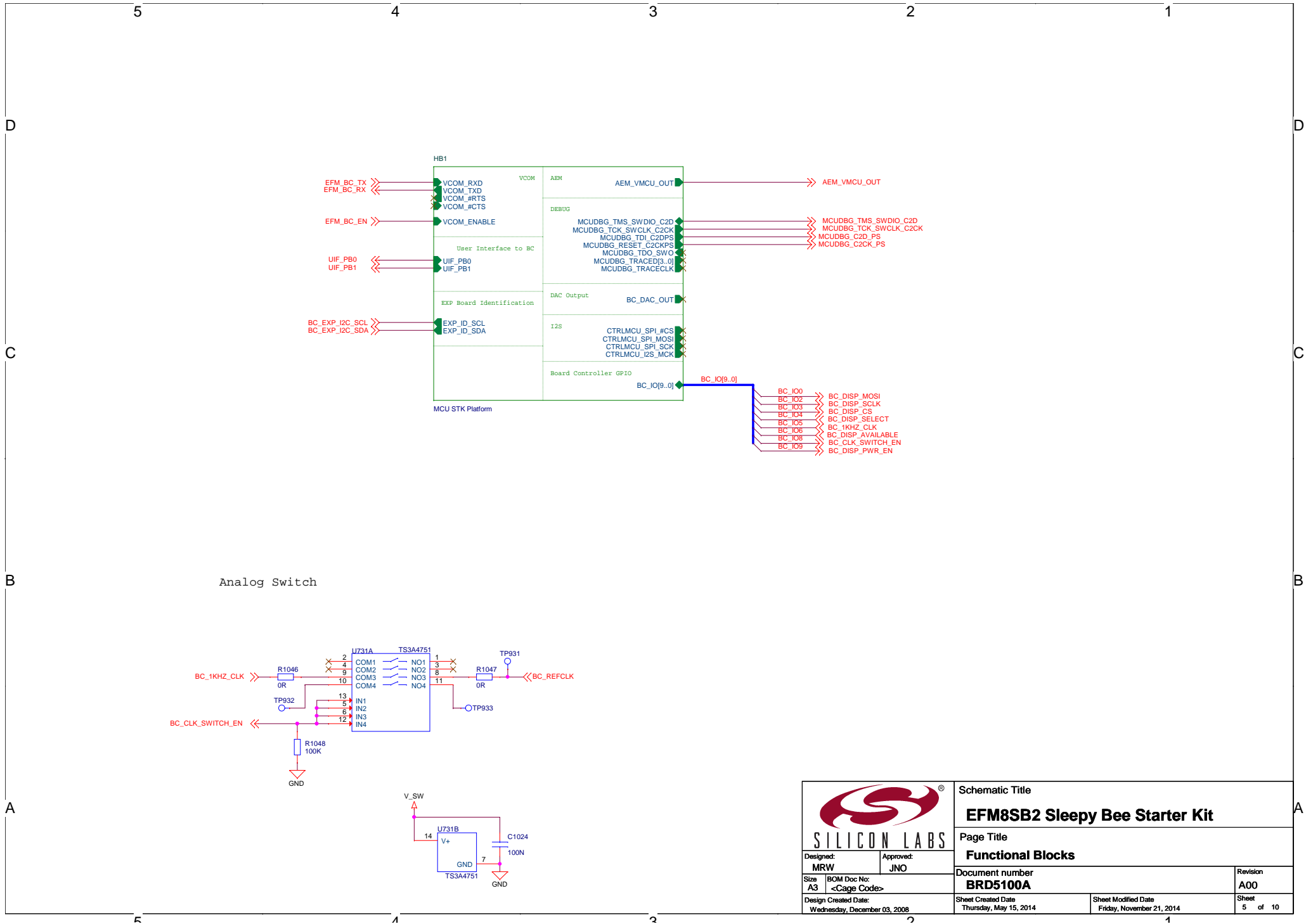


## D

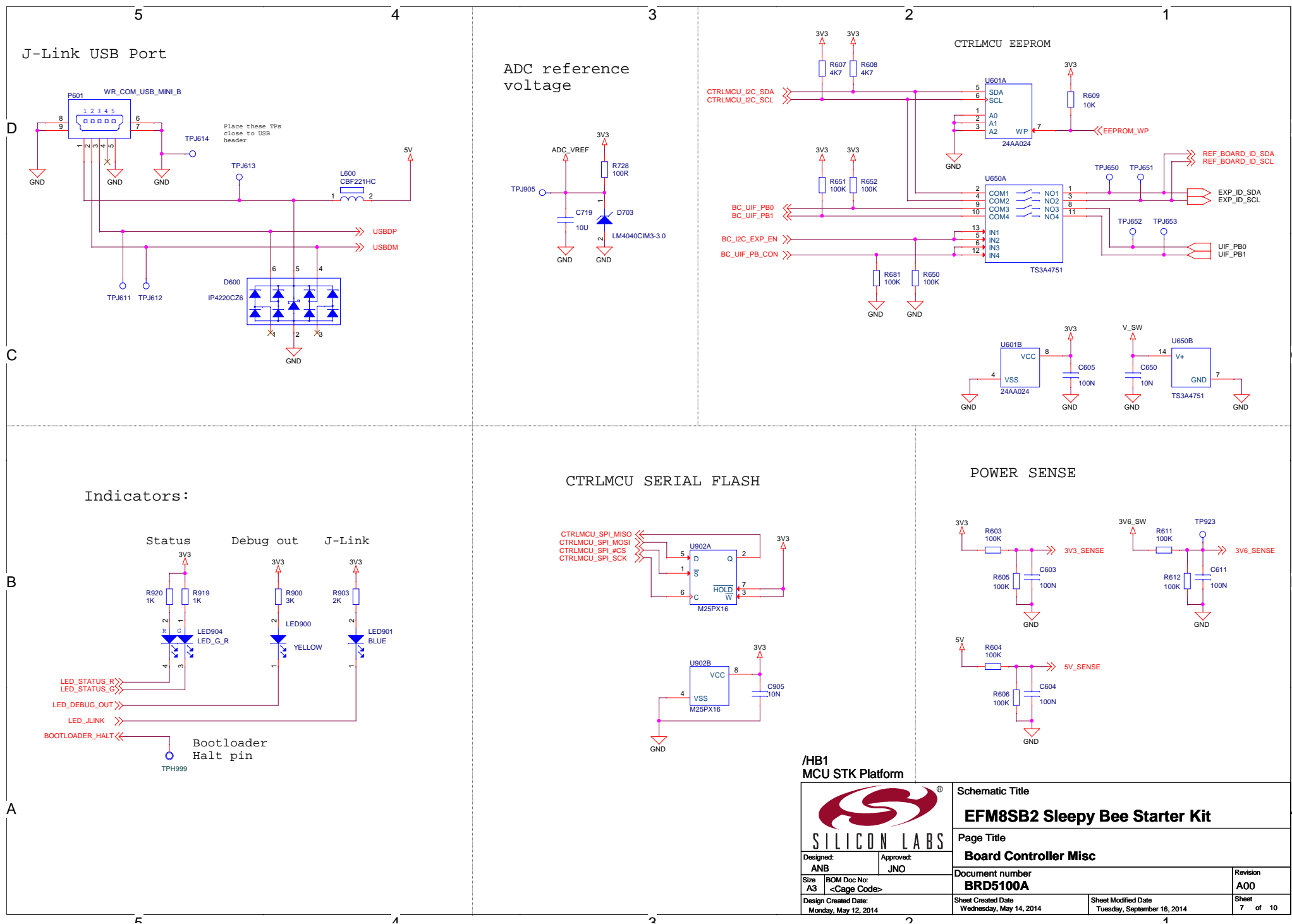
C

A




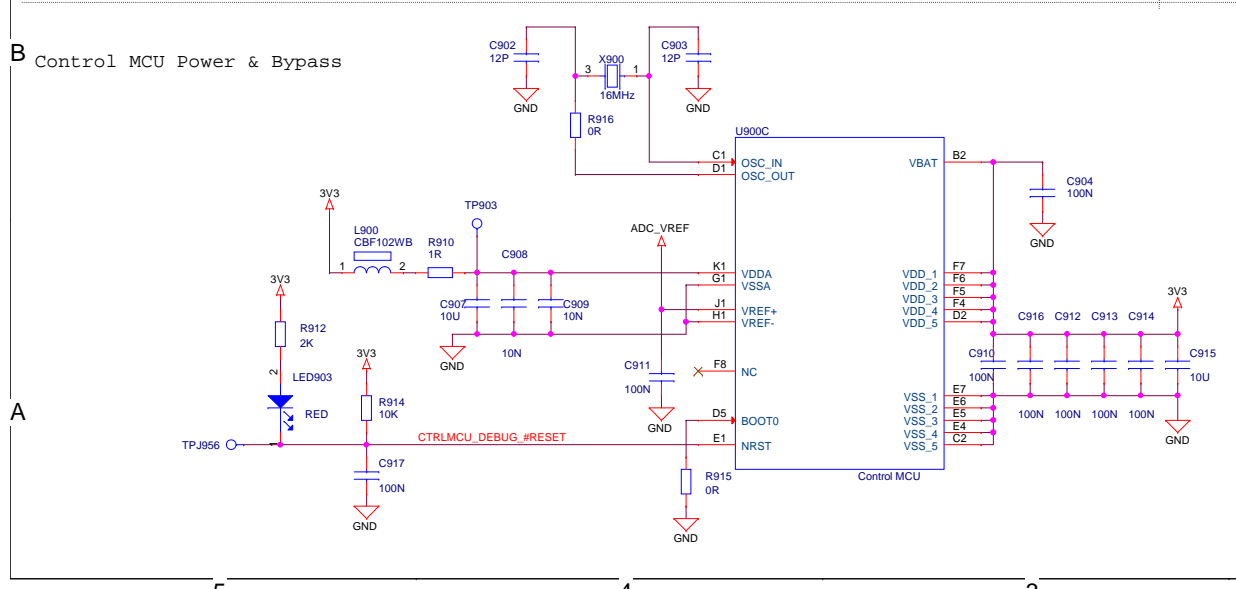
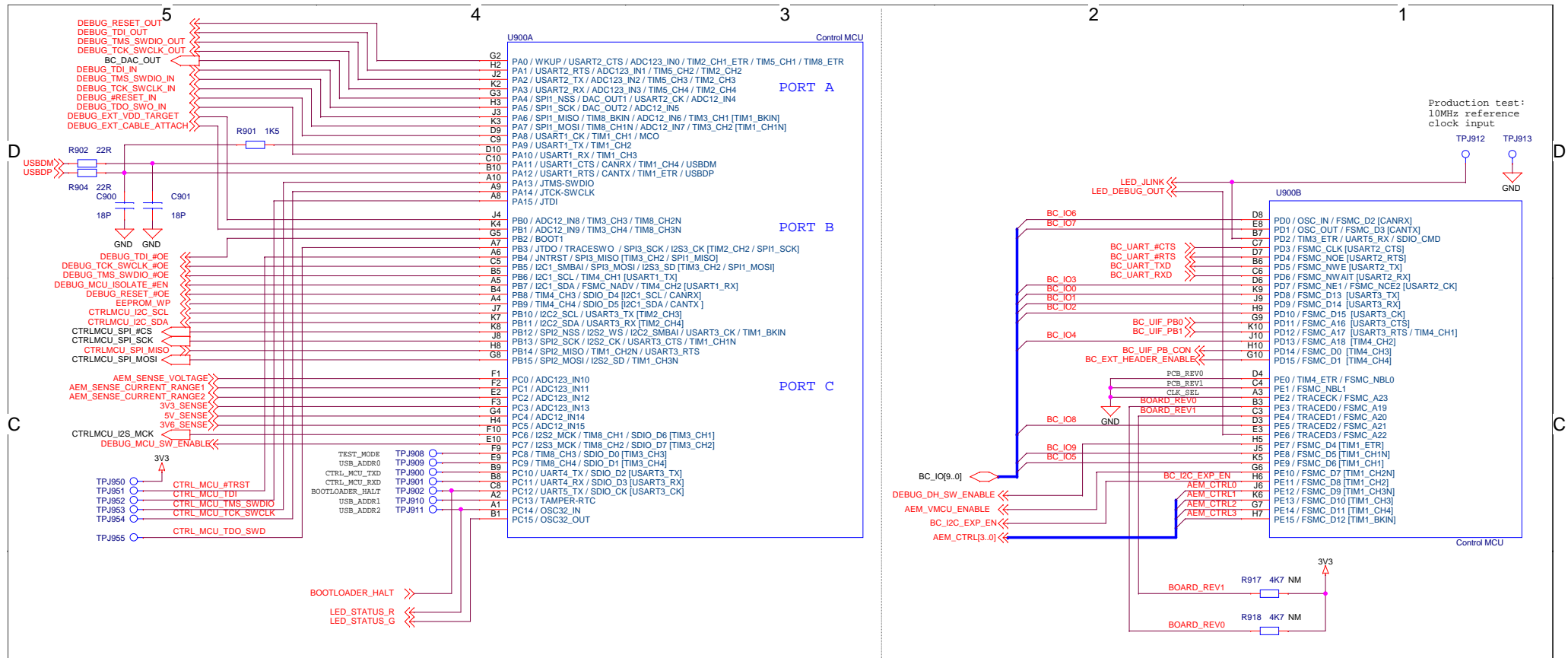






/HB1  
MCU STK Platform

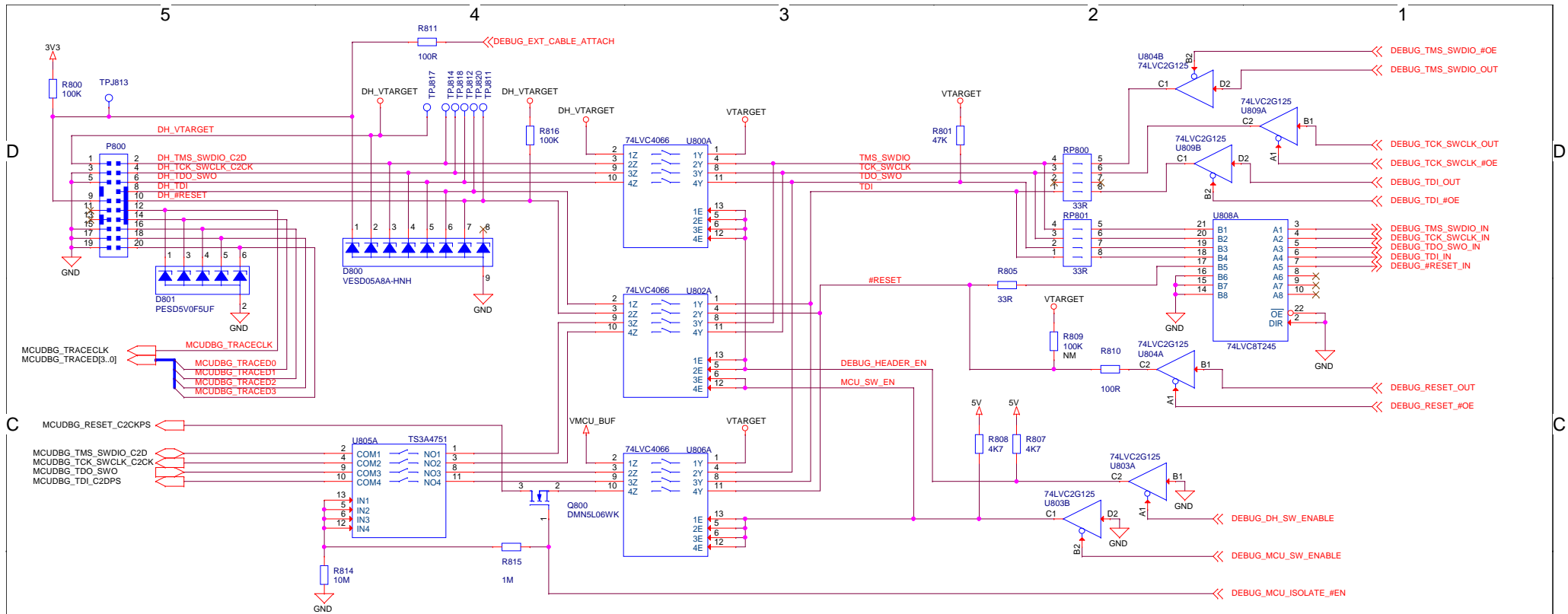
 SILICON LABS®		Schematic Title	
		EFM8SB2 Sleepy Bee Starter Kit	
Designed: ANB		Page Title	
Size A3		Board Controller Misc	
BOM Doc No: <Cage Code>		Document number	
Design Created Date: Monday, May 12, 2014		BRD5100A	
Approved: JNO		Revision	
Sheet Created Date Wednesday, May 14, 2014		A00	
Sheet Modified Date Tuesday, September 16, 2014		Sheet 7 of 10	



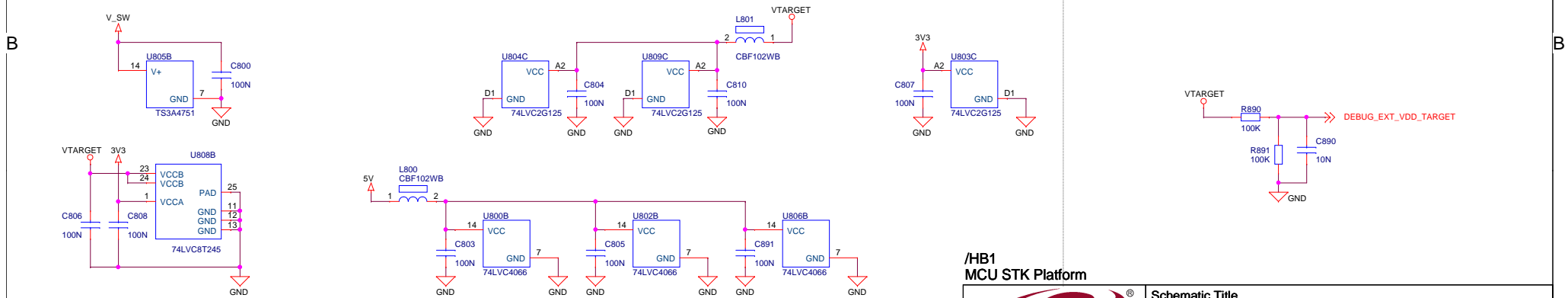
/HB1  
MCU STK Platform

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Designed: ANB Size: A3 Design Created Date: Monday, May 12, 2014		Page Title	
		<b>Control MCU</b>	
Approved: JNO BOM Doc No: <Cage Code>		Document number	
		<b>BRD5100A</b>	
Sheet Created Date: Wednesday, May 14, 2014		Sheet Modified Date: Monday, October 20, 2014	
Revision: A00		Sheet 8 of 10	





## Power & Decoupling



Mode	DEBUG_MCU_SW_ENABLE	DEBUG_DH_SW_ENABLE	DEBUG_BUF_#OE	ISOLATE_#EN	DH_VTARGET	VTARGET
Debug Out	0	1	0	0	External voltage	External voltage
MCU Debug	1	0	0	1	Disconnected	VMCU
Debug In	1	1	1	1	VMCU	VMCU
Debug Off	1	1	1	0	-	-

/HB1  
MCU STK Platform

		Schematic Title	
		EFM8SB2 Sleepy Bee Starter Kit	
Designed: DDB Approved: JNO		Page Title	
		Debug Interface	
Size: A3 BOM Doc No: <Cage Code>		Document number	
Design Created Date: Monday, May 12, 2014		BRD5100A	
Sheet Created Date: Monday, May 12, 2014		Sheet Modified Date: Wednesday, October 22, 2014	
Revision: A00		Sheet 9 of 10	

