



ENERGY[®]
micro

EFM32 Zero Gecko STK


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Revision History

Rev.	Description
PB10	Added 3V6_SENSE. Added TPJ608. Changed TP703 to TPJ703.
PB11	Swapped BC_DISP_COM from BC_IO1 to BC_IO4.
PB12	Swapped EXP Header pins 15 and 17. Moved TPJ606 and TPJ607.
PB13	Extended CTRLMCU_I2C bus to EXP Header. Added EFM_DISP_PWR_EN signal.
B00	Initial release for series production.



STK

 Designed: ANB Size A3 Design Created Date: Wednesday, December 03, 2008		Schematic Title EFM32 Zero Gecko Starter Kit	
		Page Title Title Page	
BOM Doc No: JNO		Document number BRD2010A	Revision B00
Sheet Created Date Saturday, March 21, 2009		Sheet Modified Date Monday, August 05, 2013	Sheet 1 of 12

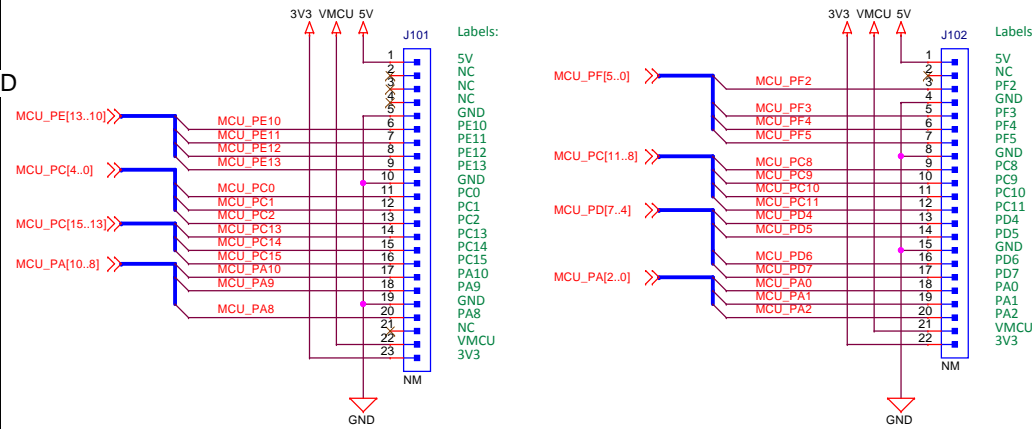
Breakout Connections

D

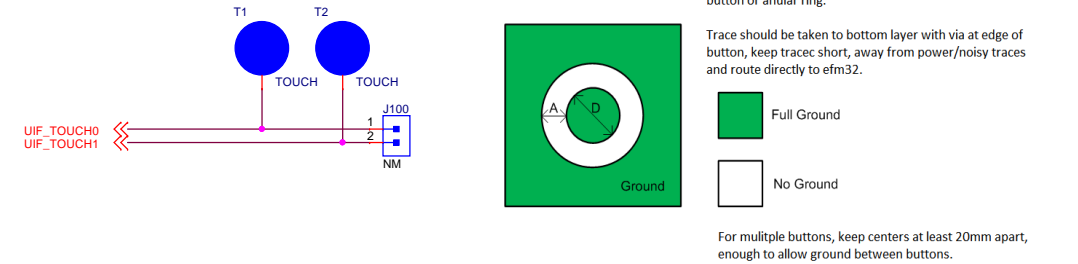
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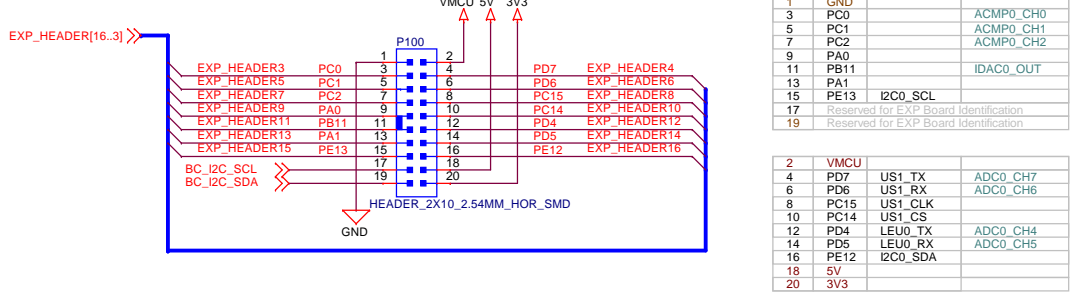
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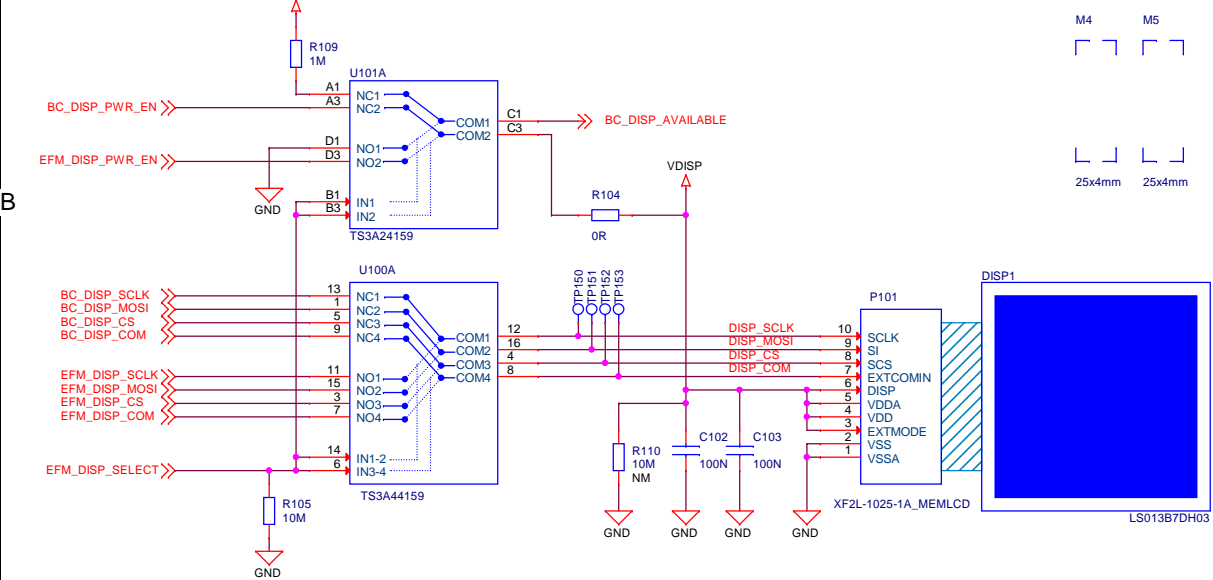
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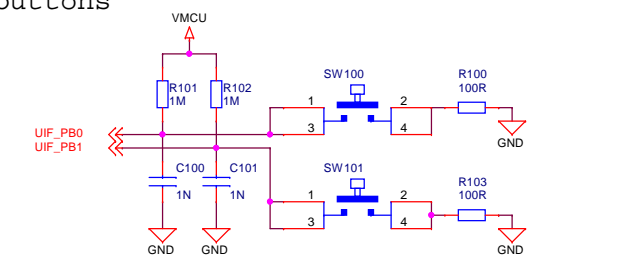
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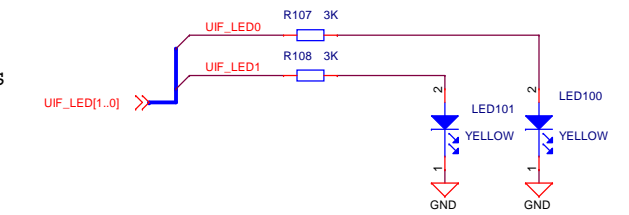
Memory LCD-TFT Display & Multiplexer




User pushbuttons



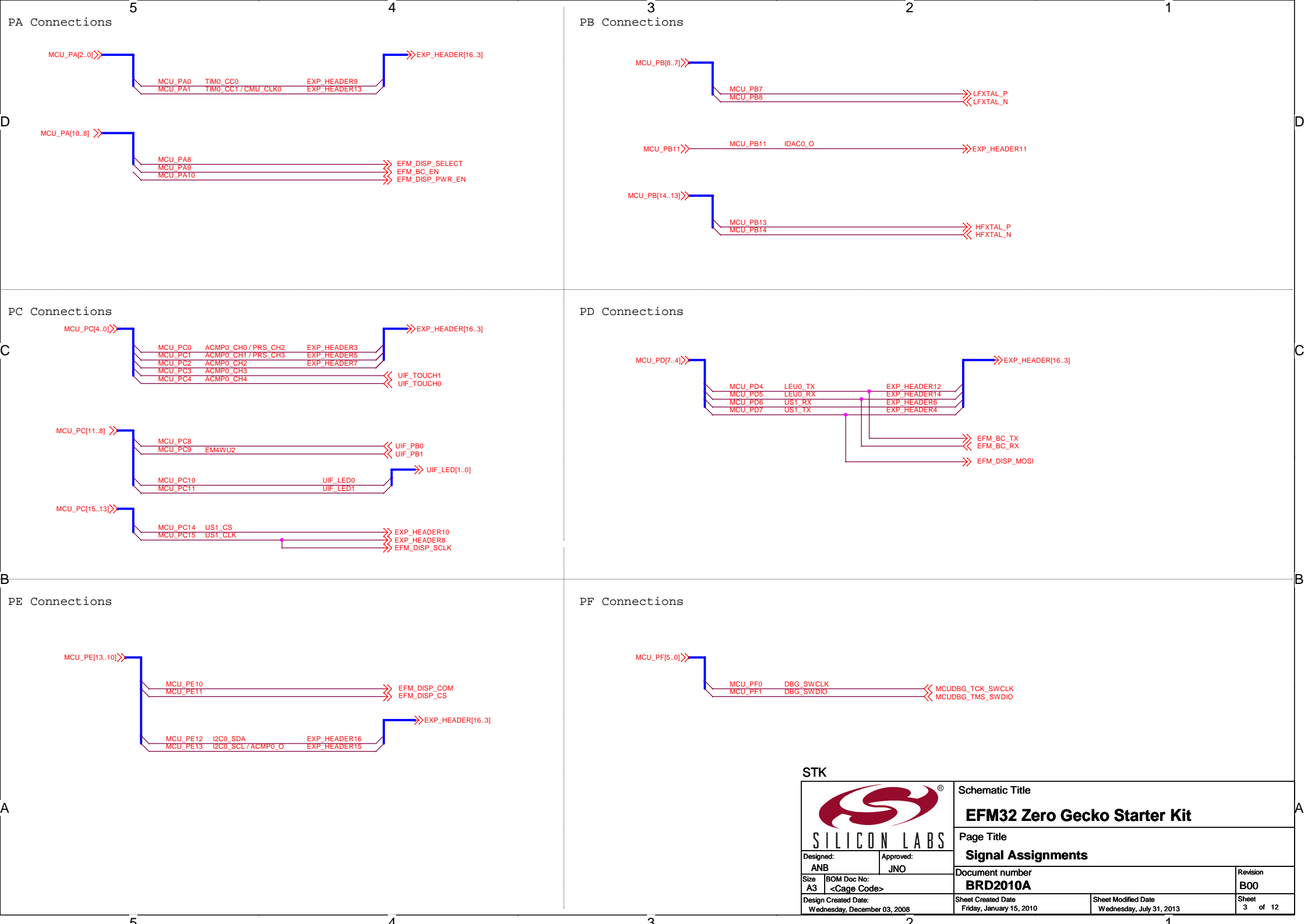
User LEDs

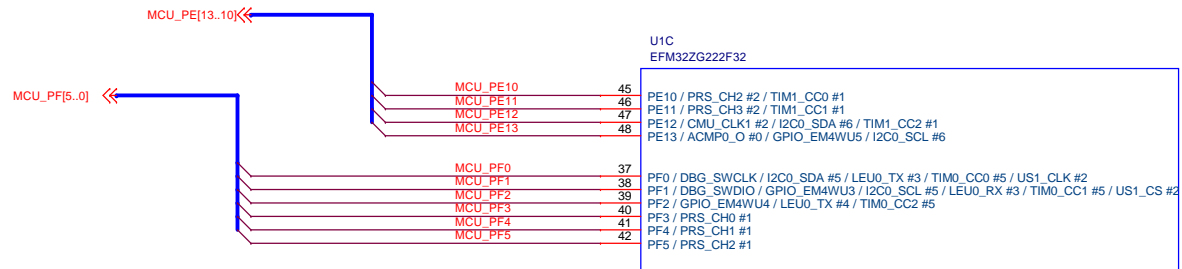
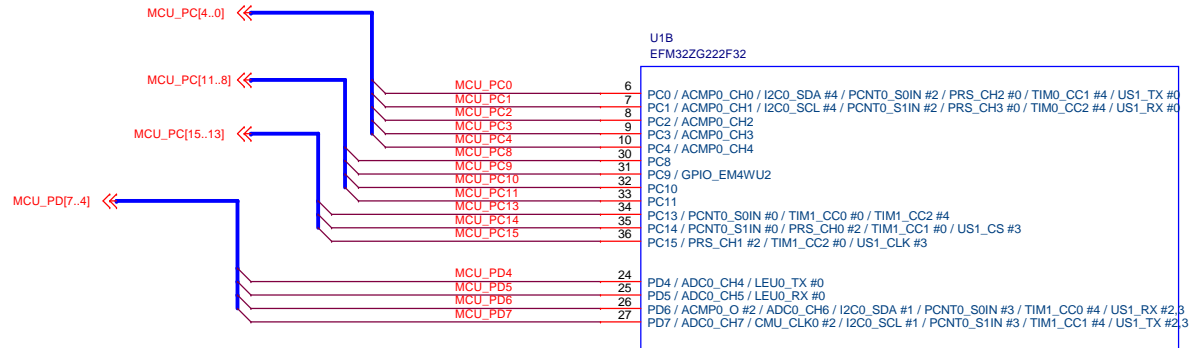
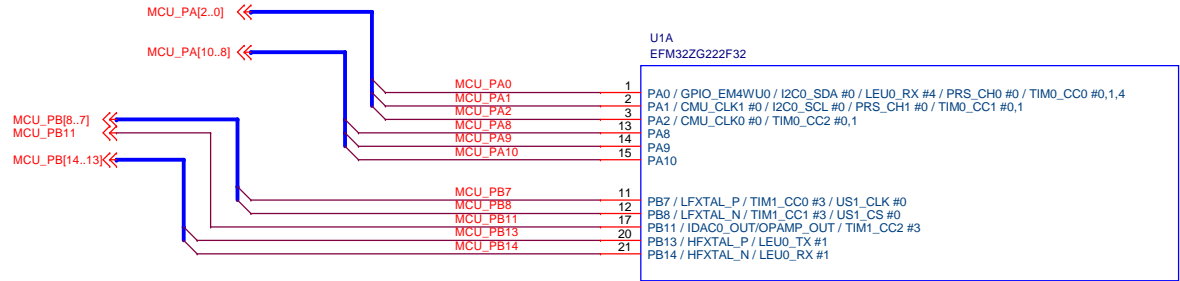



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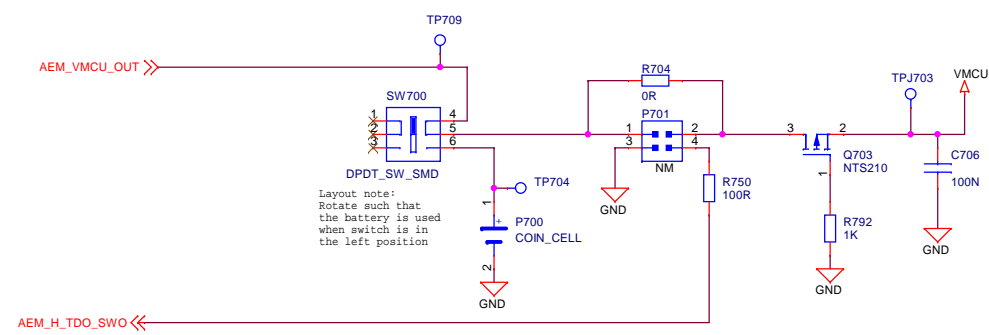
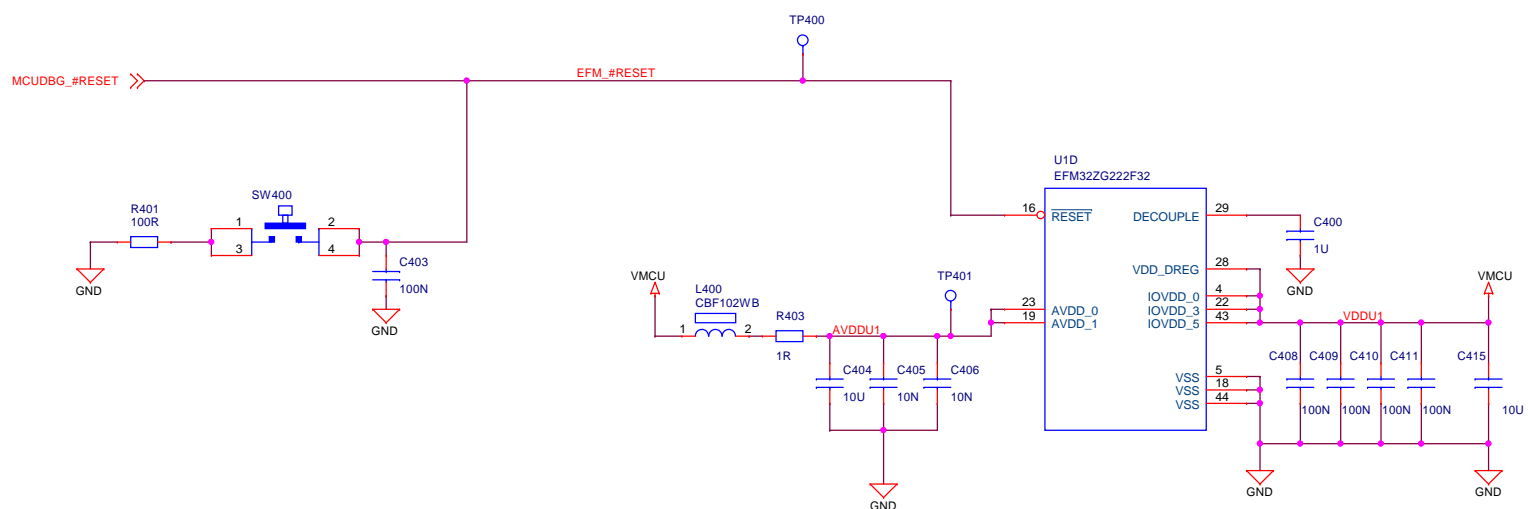
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The EFM32 always controls ownership of the display using the EFM_DISP_SELECT signal.

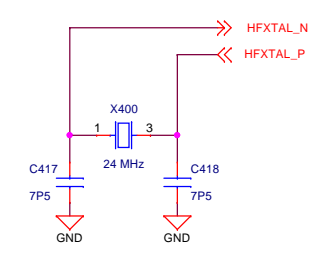




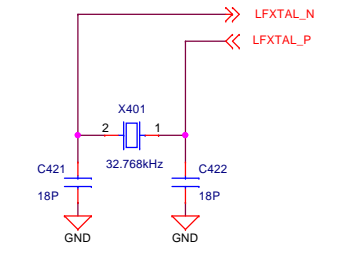
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High Frequency Clock

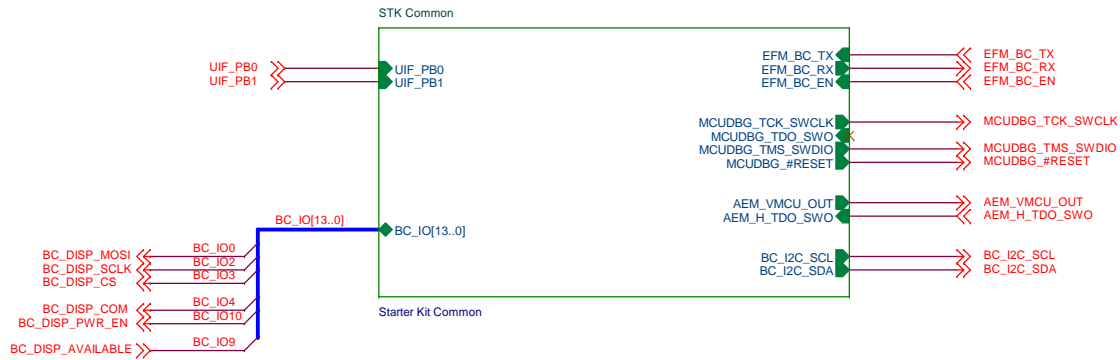


Low Frequency Clock




STK

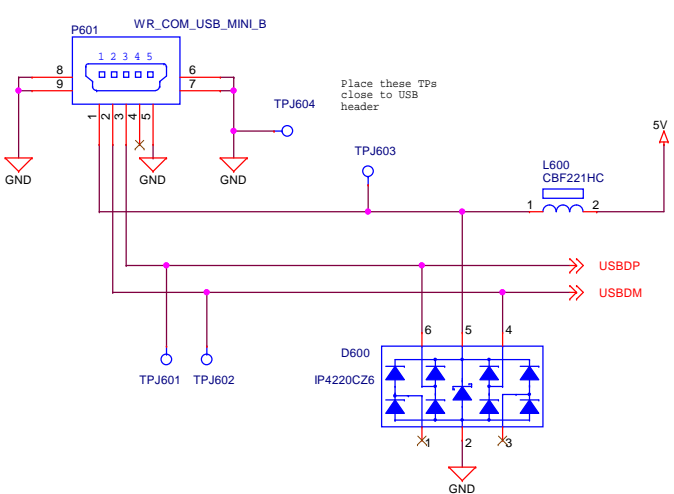
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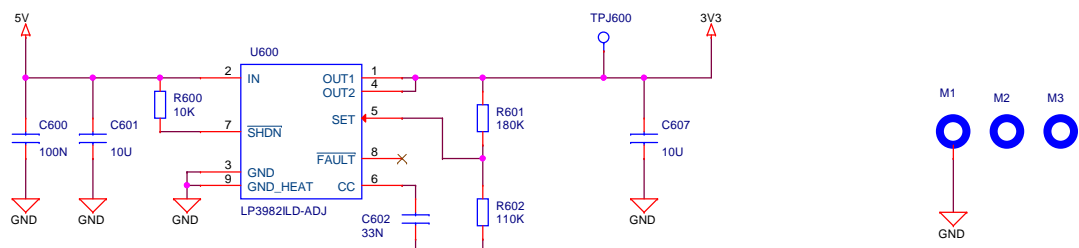
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STK

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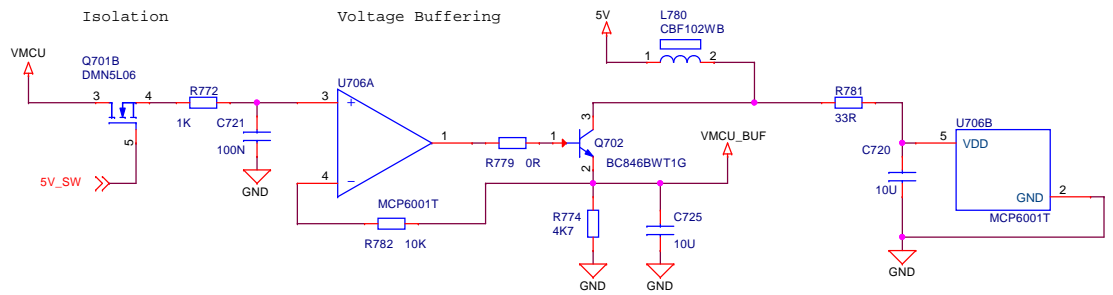
Power input



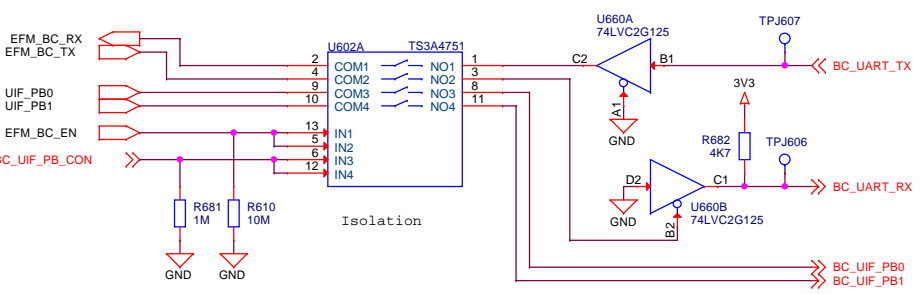
3V3 Regulator



VMCU_DBG power



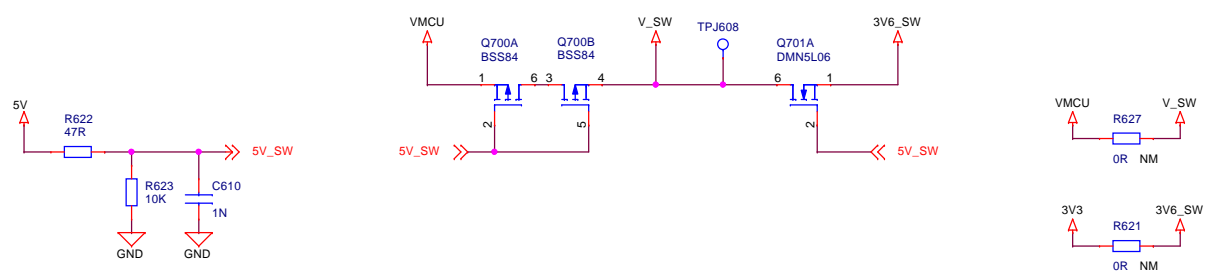
Board Controller Communication
User input to board controller




Power Supply for Analog Switches

The USB VBUS voltage is used to bias these transistors, turning the P-Channel MOSFETs (Q700) off, and the N-Channel MOSFETs (Q701) on.

J-Link USB Cable	PMOS State	NMOS State	V_SW	VMCU_SENSE
Connected	Off	ON	3.6V VMCU	VMCU
Disconnected	ON	OFF	VMCU	Isolated



Starter Kit Common



Designed: DDB
Size A3
BOM Doc No: <Cage Code>
Design Created Date: Wednesday, June 12, 2013

Approved: JNO

Document number
BRD2010A

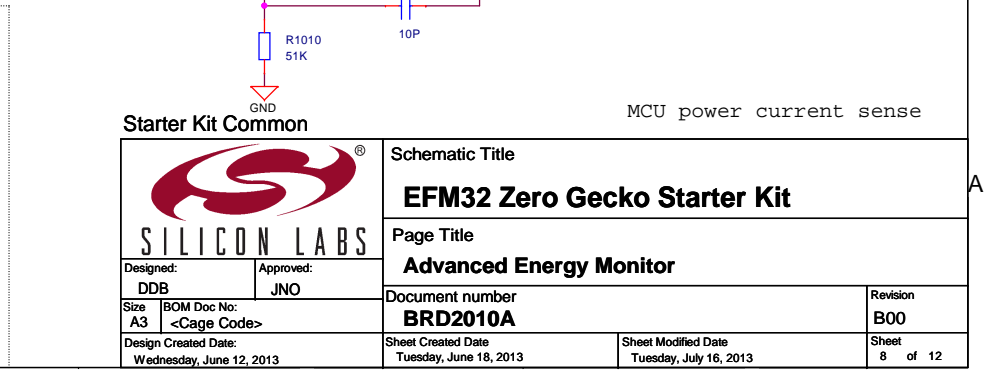
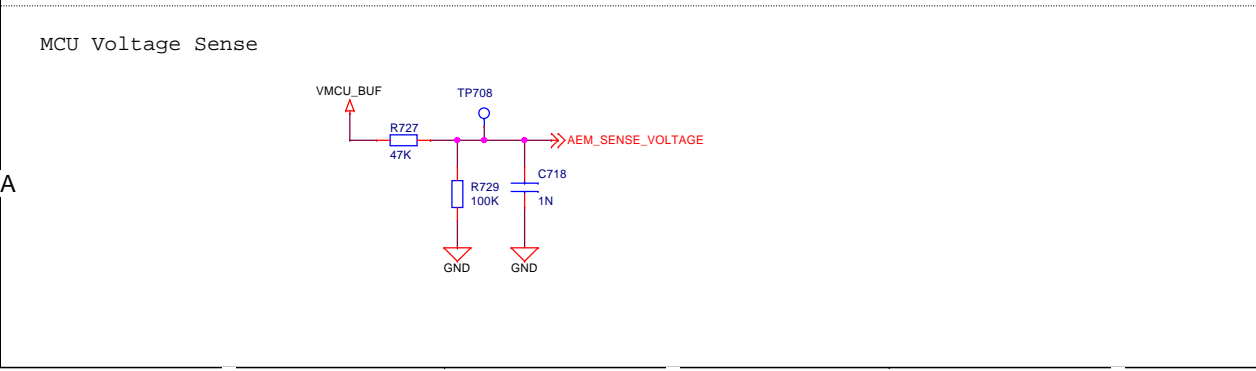
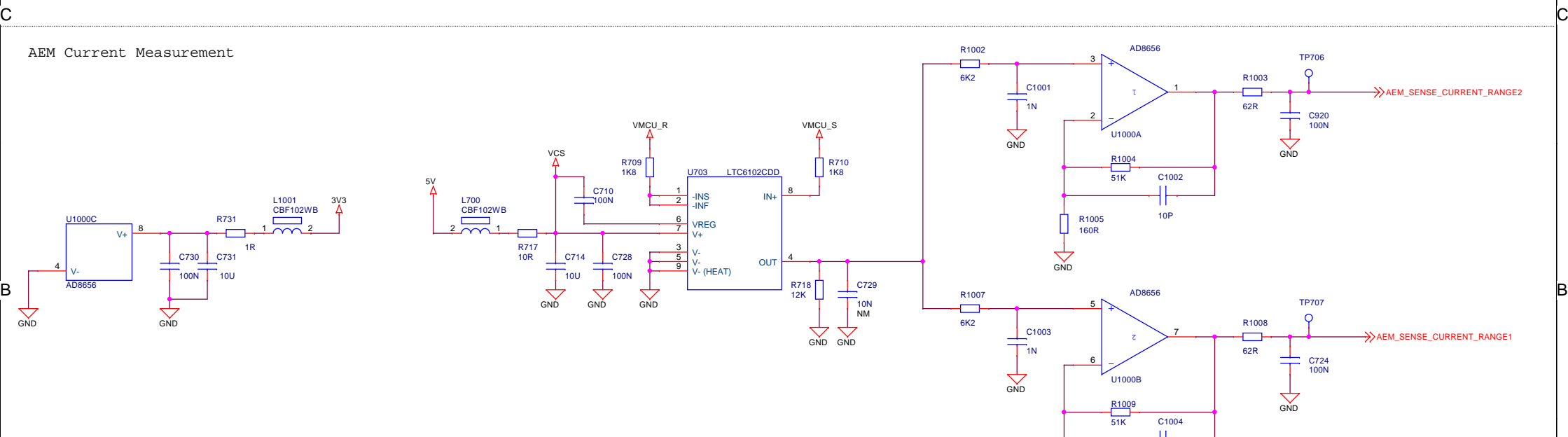
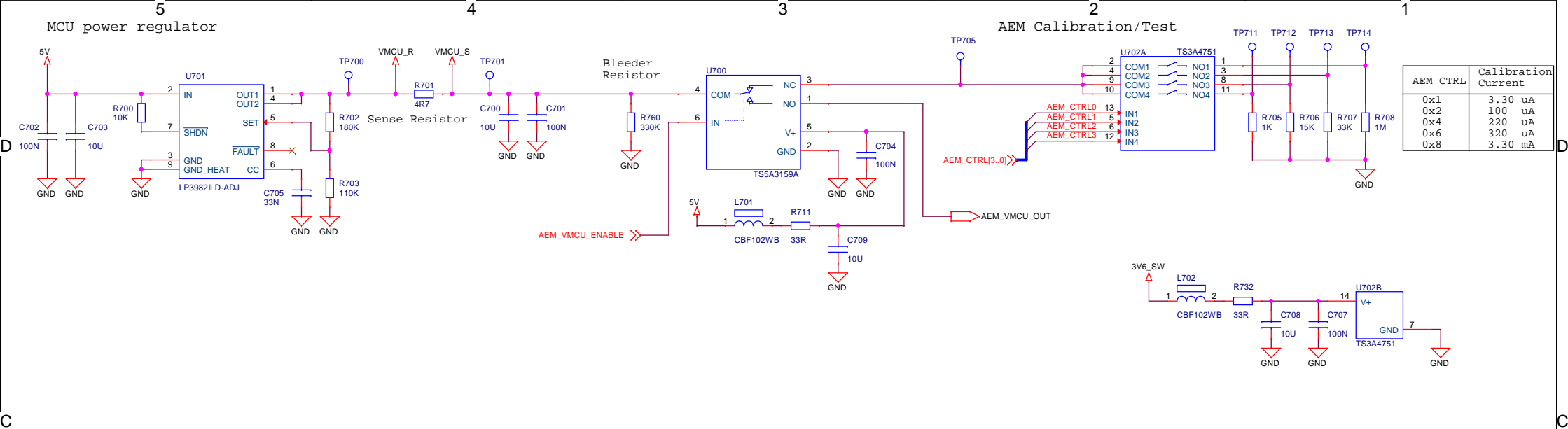
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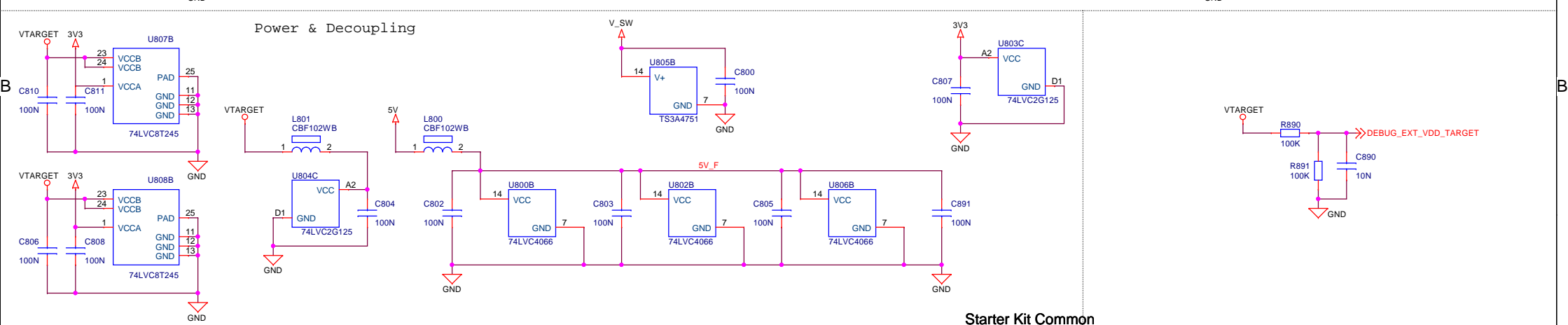
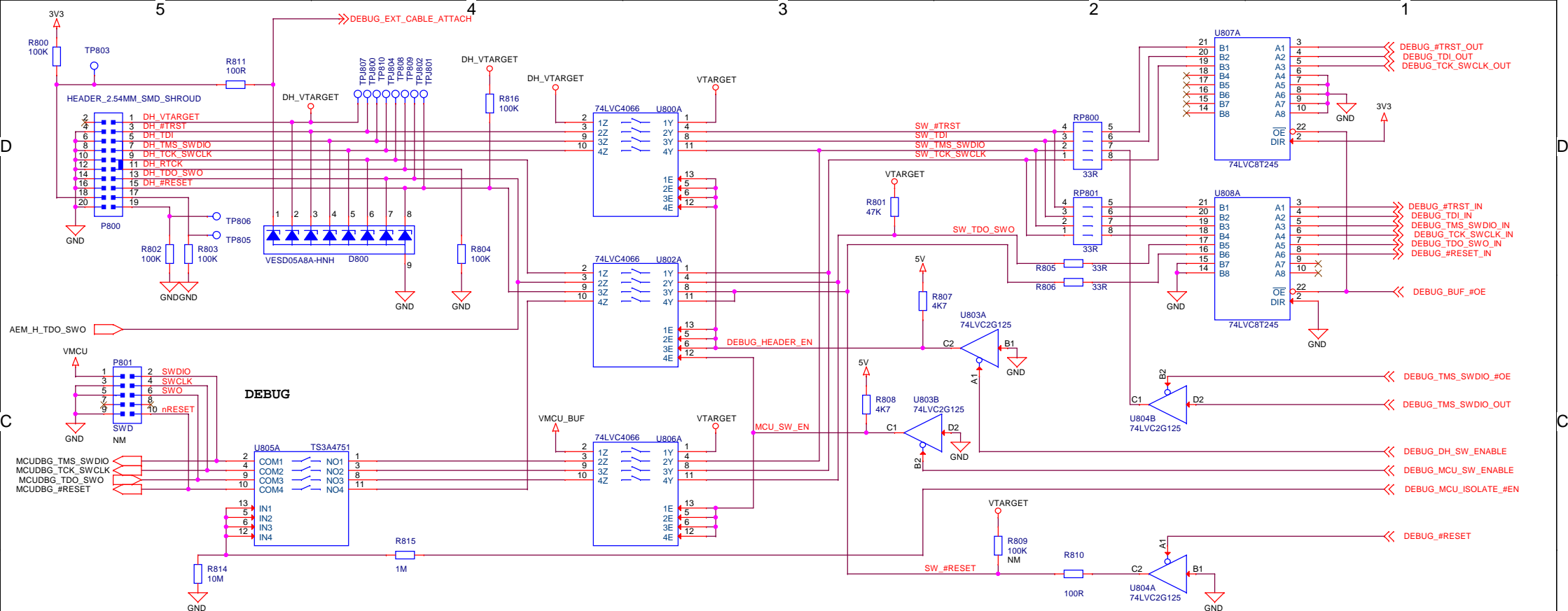
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EFM32 Zero Gecko Starter Kit

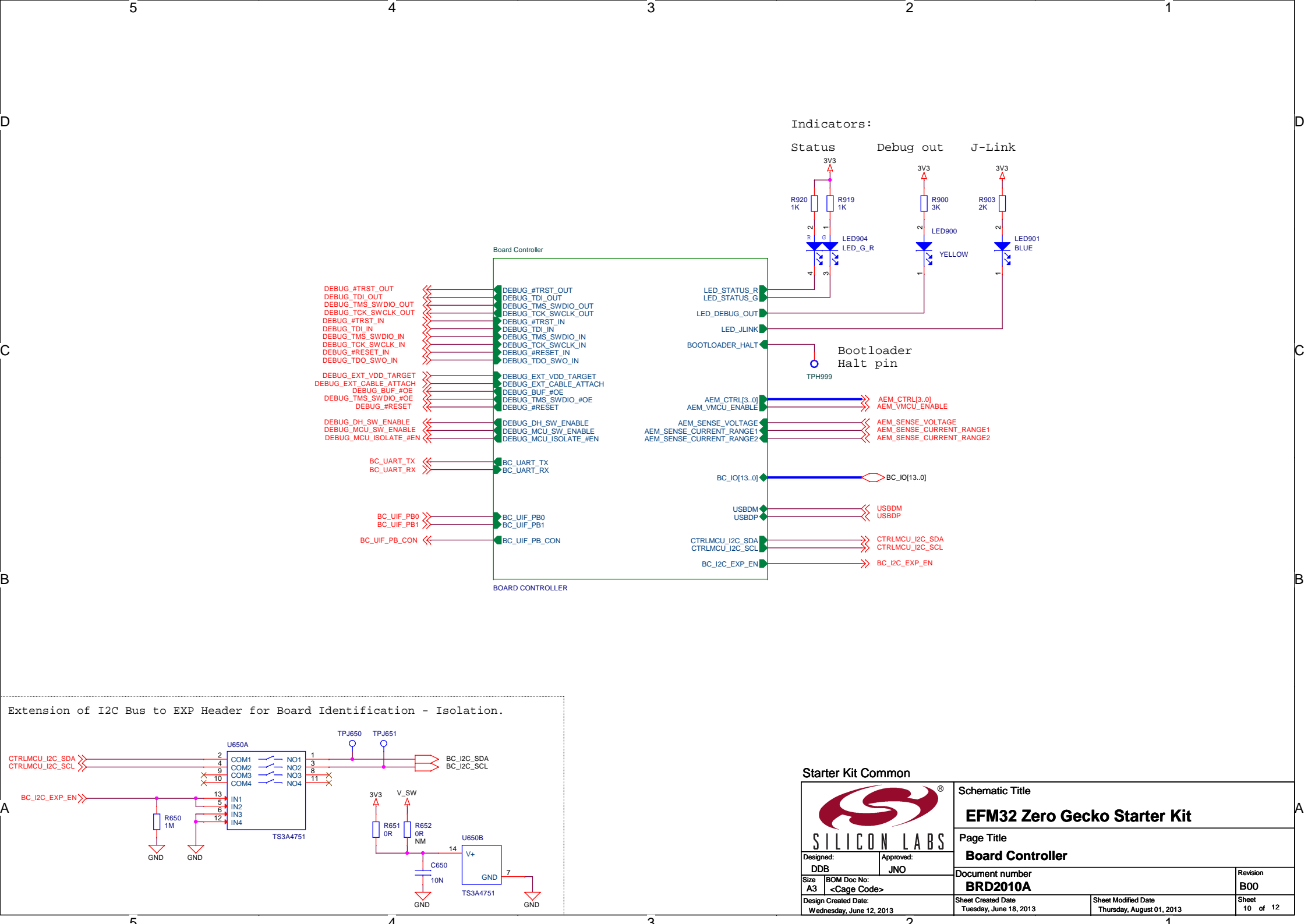
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Power & Misc

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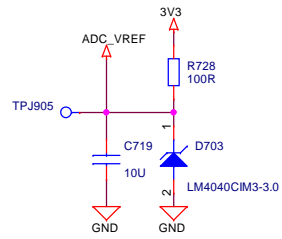




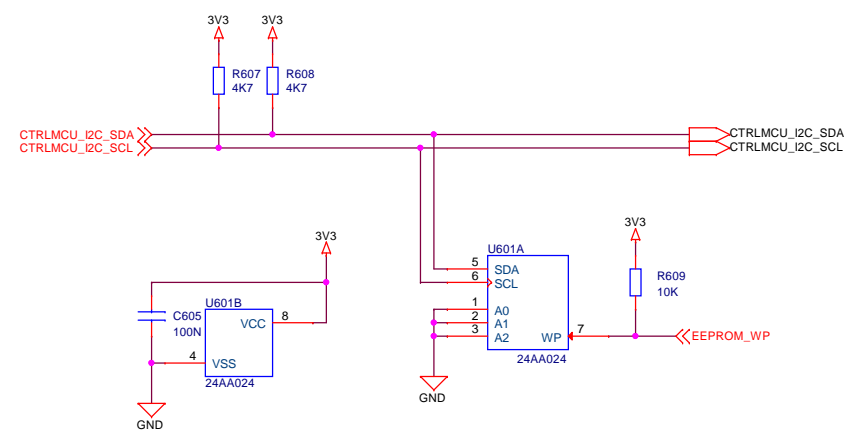
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	Debug Out	0	1	0	0	External voltage	External voltage	
	MCU Debug	1	0	0	1	Disconnected	VMCU	
	Debug In	1	1	1	1	VMCU	VMCU	
	Debug Off	1	1	1	0	-	-	
								<div> <div>Designed:</div> <div>DDB</div> <div>Approved:</div> <div>JNO</div> <div>Size</div> <div>A3</div> <div>BOM Doc No:</div> <div><Cage Code></div> <div>Design Created Date:</div> <div>Wednesday, June 12, 2013</div> </div>
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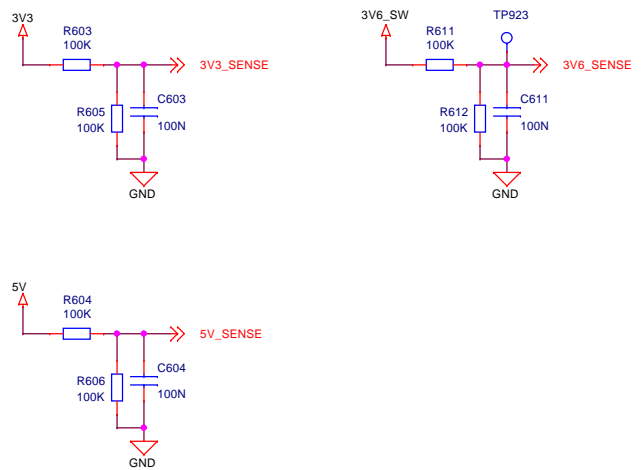
ADC reference voltage



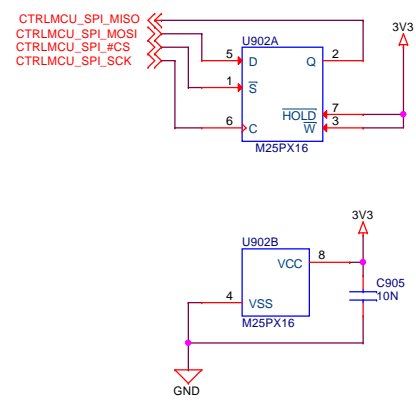
CTRLMCU EEPROM



POWER SENSE



CTRLMCU SERIAL FLASH



/STK Common/Board Controller
BOARD CONTROLLER

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		EFM32 Zero Gecko Starter Kit	
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Approved: JNO		Board Controller Misc	
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