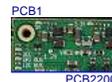


## EFM32 Giant Gecko STK

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EFM32 I/O	4
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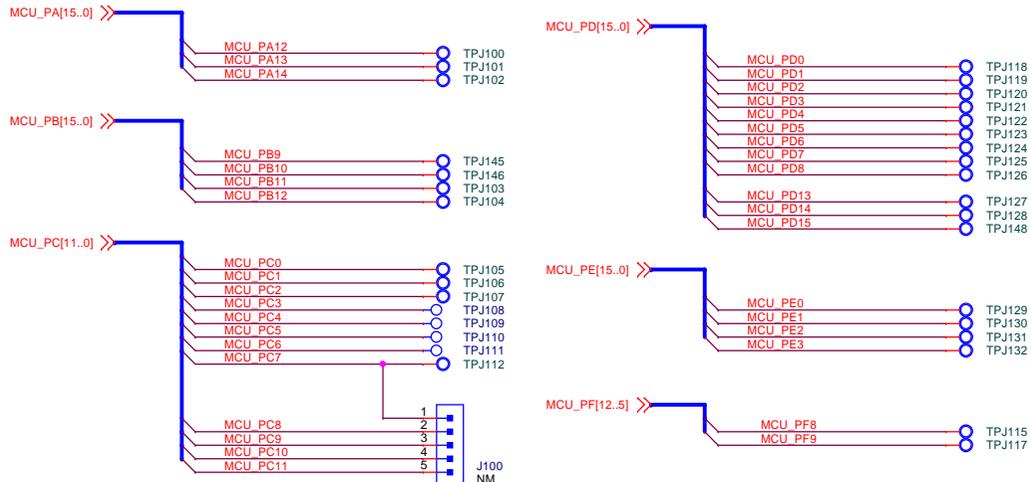
Revision History	
Rev.	Description
A00	Incorporated new AEM solution. Added capacitor for backup power domain.
A01	Cleanup of unused parts. Removed legacy AEM and sense range 3.
A02	Updated EFM32 to Giant Gecko Rev.D
A03	Fixed PCB error. Added test points for EFM32 USB.



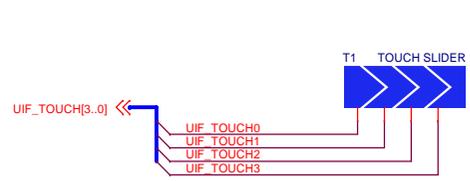
### STK

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		<b>EFM32 Giant Gecko Starter Kit</b>	
Designed: DDB		Page Title	
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Approved: JNO		Document number	
Size A3		<b>BRD2200A</b>	
Design Created Date: Wednesday, December 03, 2008		Sheet Created Date Saturday, March 21, 2009	Sheet Modified Date Friday, May 11, 2012
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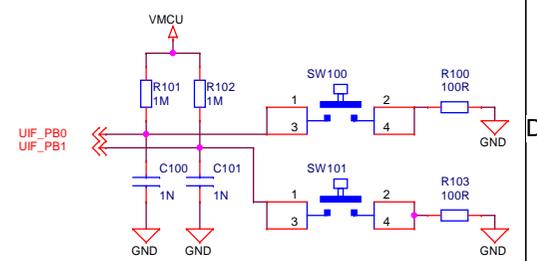
## Breakout Connections



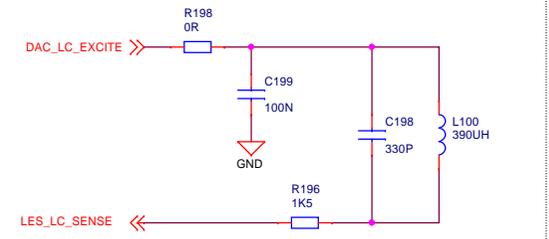
## Touch Slider



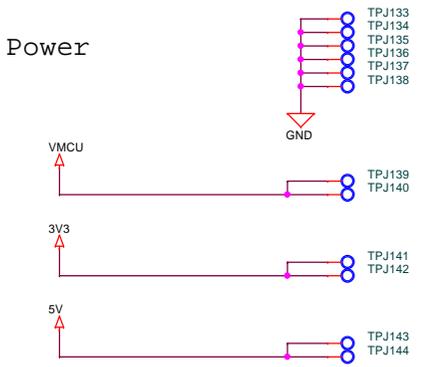
## User pushbuttons



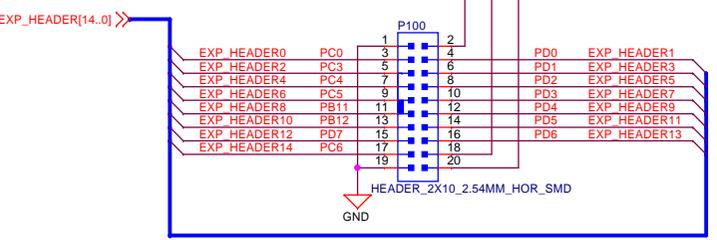
## LESENSE LC-Sensor



## Power



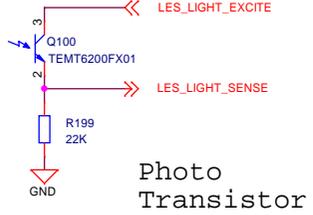
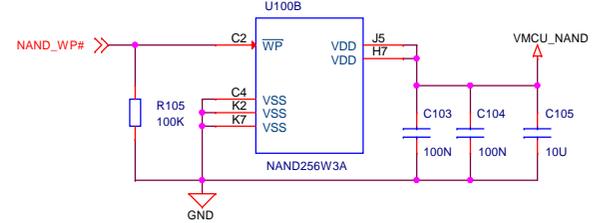
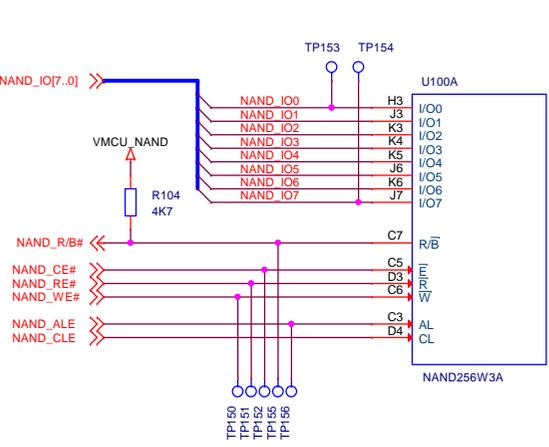
## EXP port



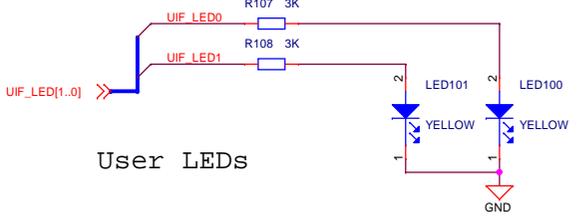
## EXP Communication

SPI	MOSI-PD0 MISO-PD1 CLK-PD2 CS-PD3
I2C1	SDA-PC4 SCL-PC5
UART	TX-PD0 RX-PD1
LEUART	TX-PD4 RX-PD5

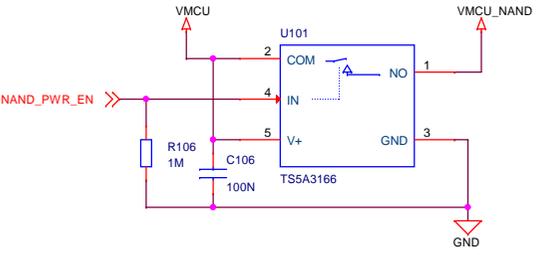
## 32MB NAND Flash



## User LEDs



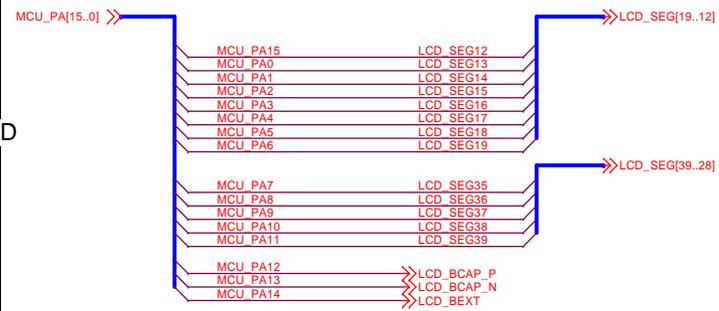
## NAND Power



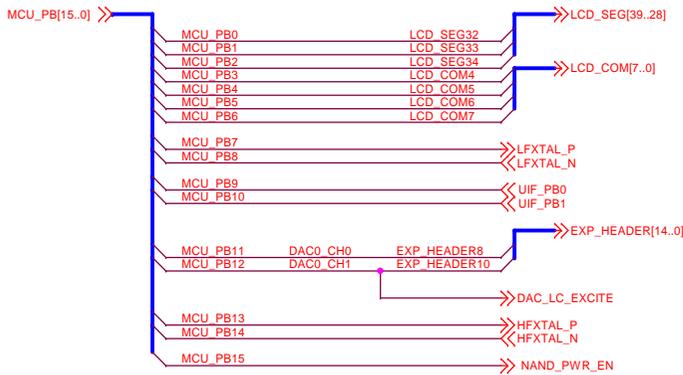
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Designed: DDB		Approved: JNO		Schematic Title	
Size A3		BOM Doc No:		EFM32 Giant Gecko Starter Kit	
Design Created Date: Wednesday, December 03, 2008		Sheet Created Date: Saturday, March 21, 2009		Page Title	
Document number		BRD2200A		User Interfaces	
Revision		A03		Document number	
Sheet		2 of 10		BRD2200A	
Sheet Modified Date: Friday, May 11, 2012		Sheet Modified Date: Friday, May 11, 2012		Revision	
2		1		A03	

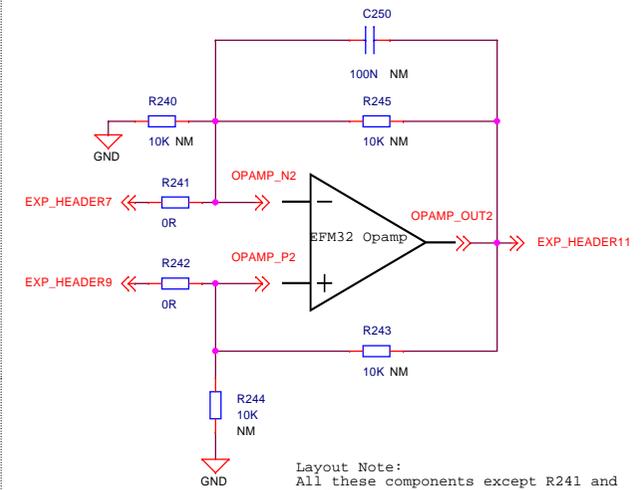
PA Connections



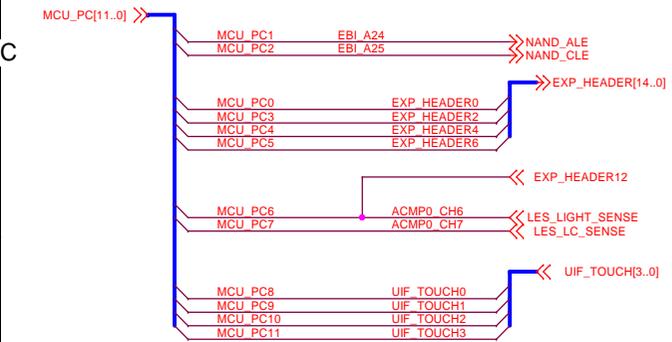
PB Connections



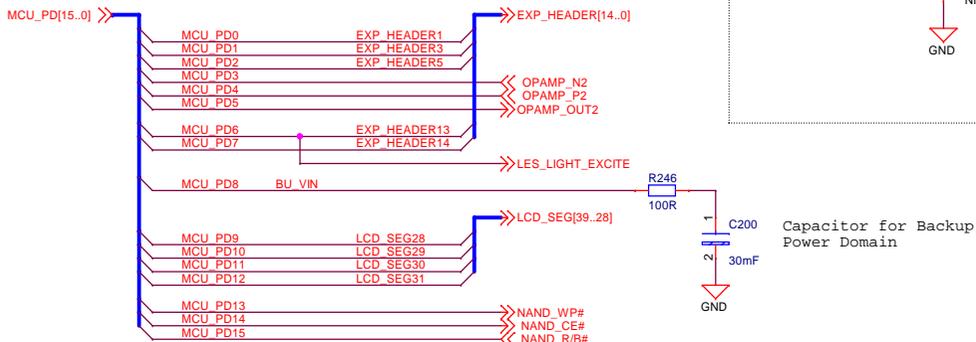
OPAMP Connection Footprint



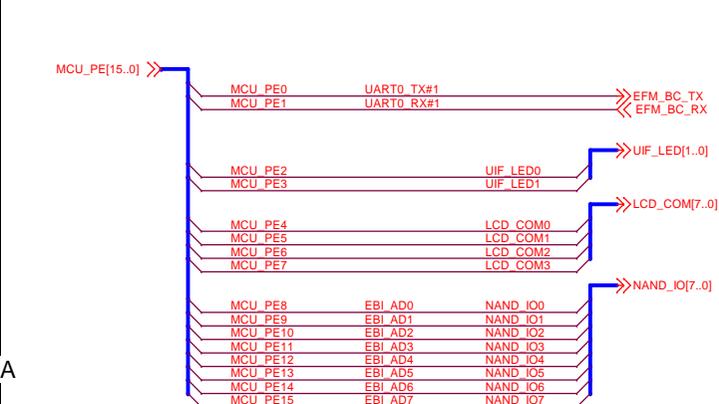
PC Connections



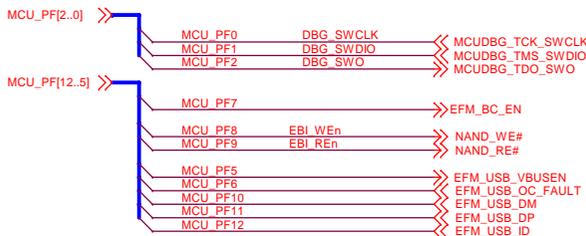
PD Connections



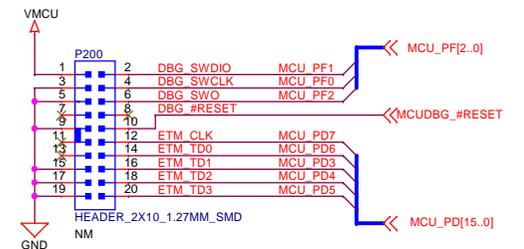
PE Connections



PF Connections

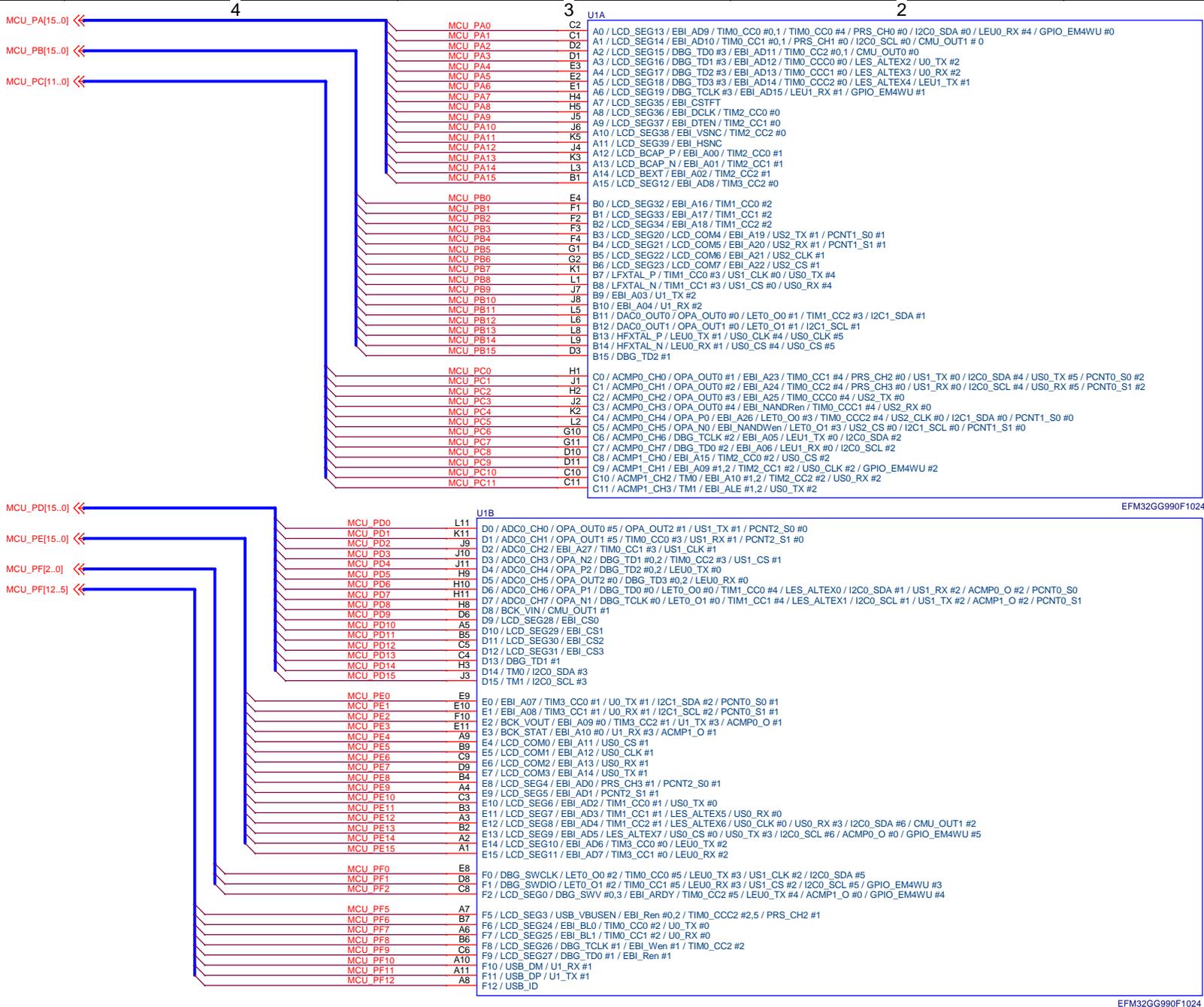


19-pin JTAG/SWD and Trace connector footprint (reverse side)



STK

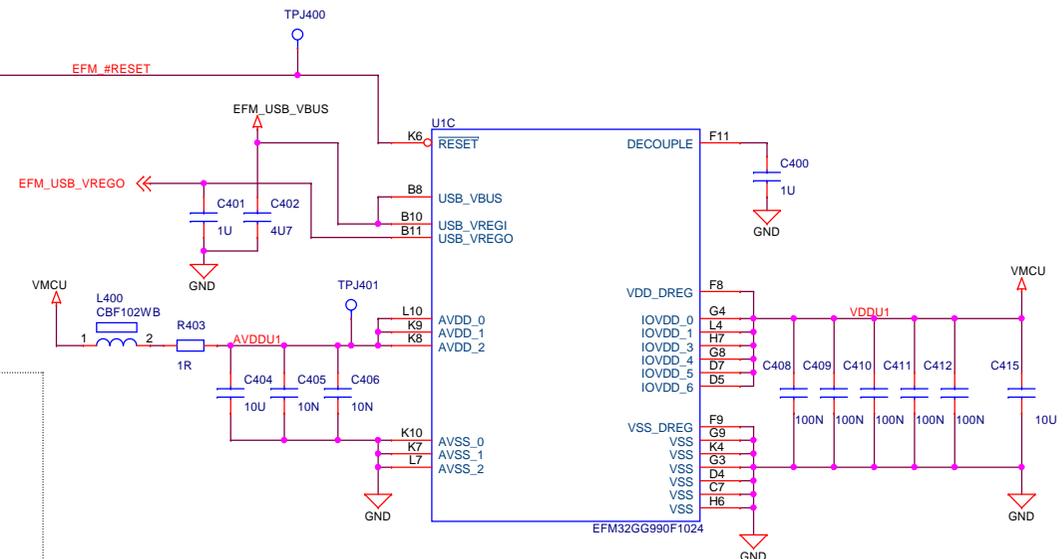
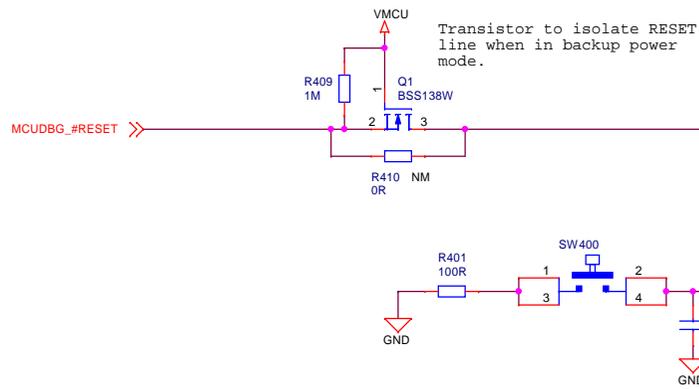
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Page Title		Signal Assignments	
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Sheet Modified Date: Monday, May 14, 2012		Revision A03	
Document number BRD2200A		Sheet 3 of 10	



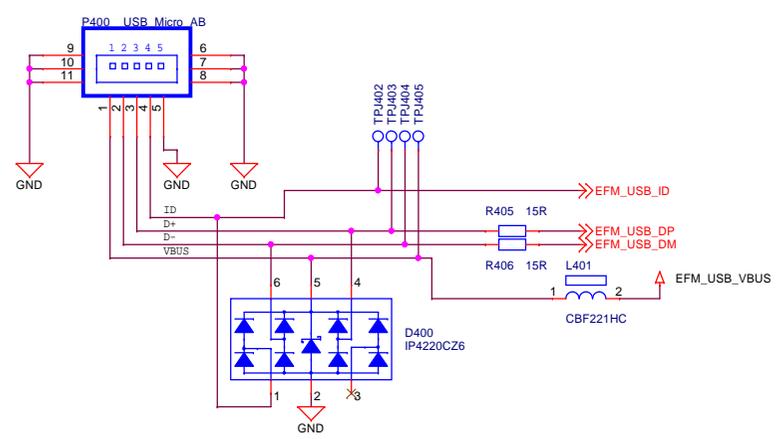
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EFM32GG990F1024

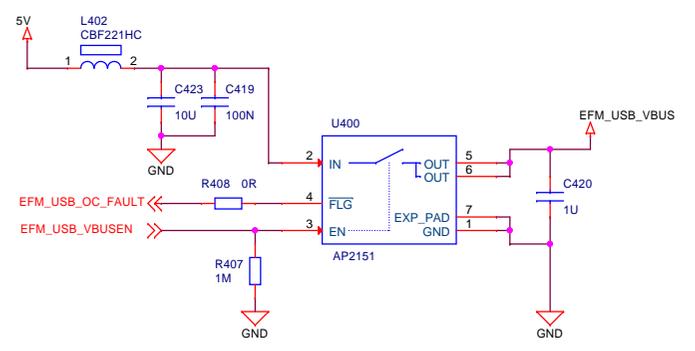
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		Page Title	
		<b>EFM32 I/O</b>	
Designed: DDB	Approved: JNO	Document number	
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Design Created Date: Wednesday, December 03, 2008	Sheet Created Date Tuesday, January 12, 2010	Sheet Modified Date Friday, May 11, 2012	Revision A03 Sheet 4 of 10



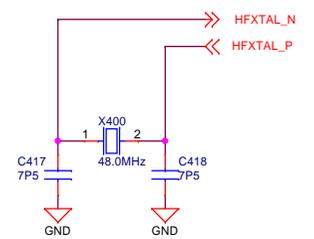
USB Connection and ESD protection



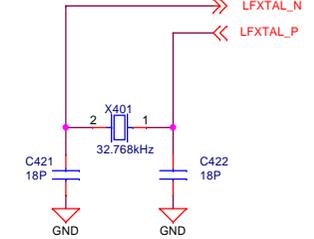
USB Host Power enable



High Frequency Clock

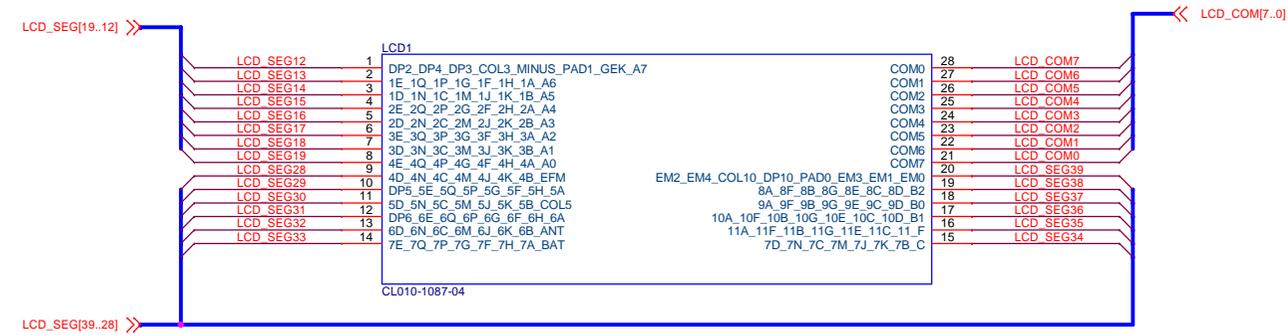


Low Frequency Clock

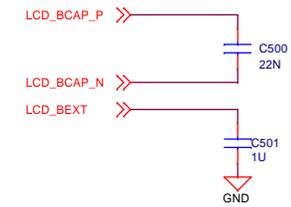


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Designed: DDB		Approved: JNO		Schematic Title	
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Design Created Date: Wednesday, December 03, 2008		Sheet Created Date: Tuesday, January 12, 2010		Page Title	
		Sheet Modified Date: Friday, May 11, 2012		EFM32 Power & USB	
Document number				Revision	
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LCD Boost

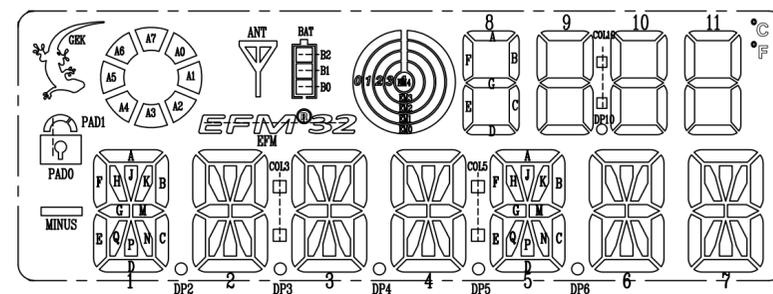


Segment names

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---	S0	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13
COM0	DP2	1 E	1 D	2 E	2 D	3 E	3 D	4 E	4 D	DP5	5 D	DP6	6 D	7 E
COM1	DP4	1 Q	1 N	2 Q	2 N	3 Q	3 N	4 Q	4 N	5 E	5 N	6 E	6 N	7 Q
COM2	DP3	1 P	1 C	2 P	2 C	3 P	3 C	4 P	4 C	5 Q	5 C	6 Q	6 C	7 P
COM3	COL3	1 G	1 M	2 G	2 M	3 G	3 M	4 G	4 M	5 P	5 M	6 P	6 M	7 G
COM4	MINUS	1 F	1 J	2 F	2 J	3 F	3 J	4 F	4 J	5 G	5 J	6 G	6 J	7 F
COM5	PAD1	1 H	1 K	2 H	2 K	3 H	3 K	4 H	4 K	5 F	5 K	6 F	6 K	7 H
COM6	GEK	1 A	1 B	2 A	2 B	3 A	3 B	4 A	4 B	5 H	5 B	6 H	6 B	7 A
COM7	A7	A6	A5	A4	A3	A2	A1	A0	EFM	5 A	COL5	6 A	ANT	BAT

PIN	15	16	17	18	19	20	21	22	23	24	25	26	27	28
---	S14	S15	S16	S17	S18	S19	COM7	COM6	COM5	COM4	COM3	COM2	COM1	COM0
COM0	7 D	11 A	10 A	9 A	8 A	EM2								COM0
COM1	7 N	11 F	10 F	9 F	8 F	EM4								COM1
COM2	7 C	11 B	10 B	9 B	8 B	COL10								
COM3	7 M	11 G	10 G	9 G	8 G	DP10								COM2
COM4	7 J	11 E	10 E	9 E	8 E	PAD0				COM4				
COM5	7 K	11 C	10 C	9 C	8 C	EM3			COM5					
COM6	7 B	11 D	10 D	9 D	8 D	EM1		COM6						
COM7	°C	*F	B1	B0	B2	EM0	COM7							

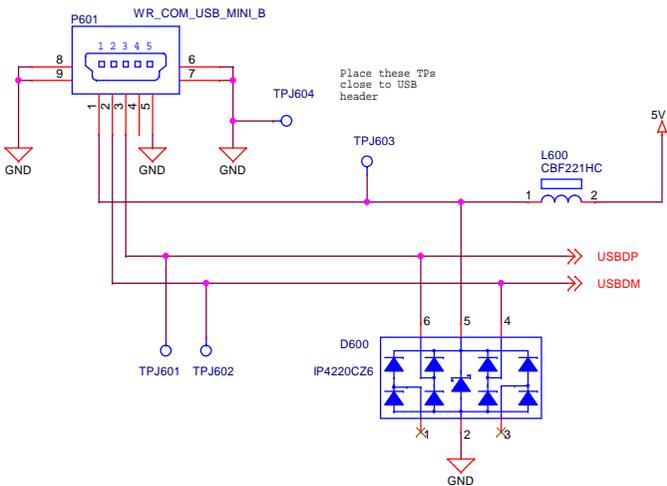
Segment placement



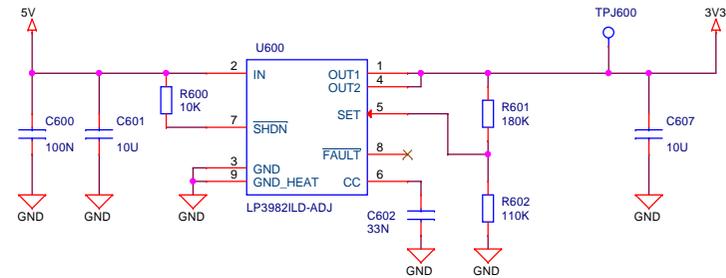
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Page Title		<b>LCD</b>	
Designed: DDB	Approved: JNO	Document number	Revision
Size A3	BOM Doc No: <Cage Code>	<b>BRD2200A</b>	A03
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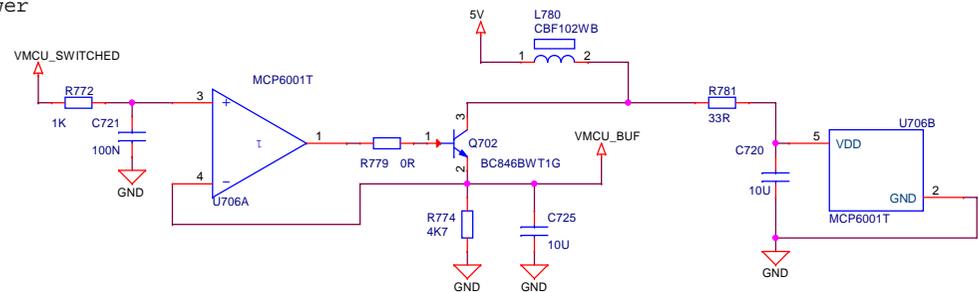
Power input



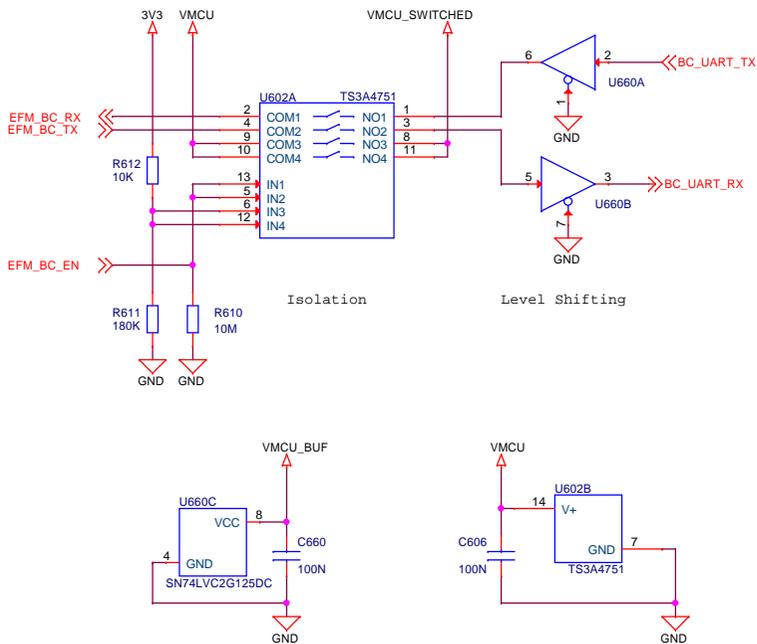
3V3 Regulator



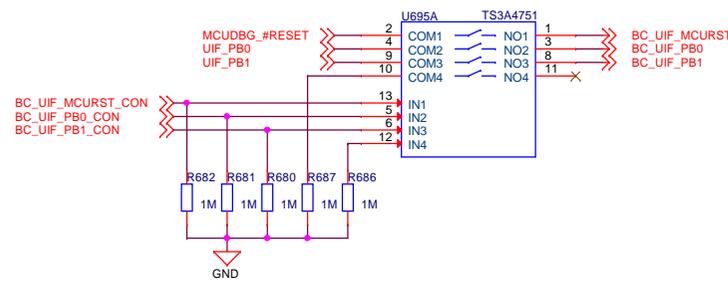
VMCU\_DBG power



VMCU Switch  
Board Controller communication switch

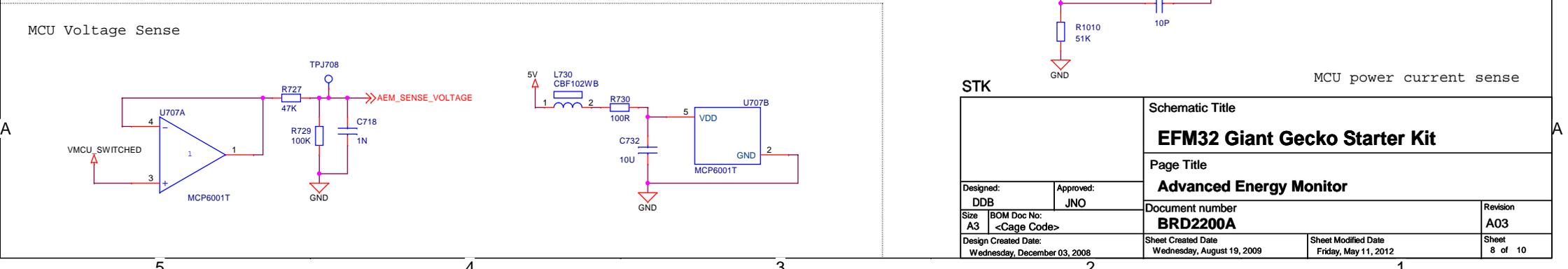
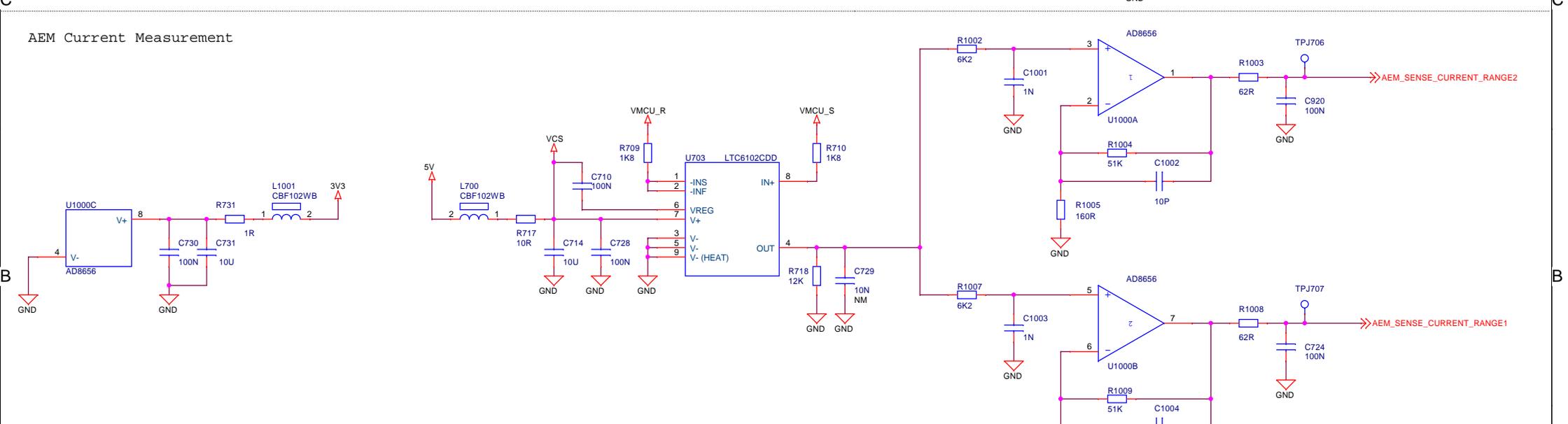
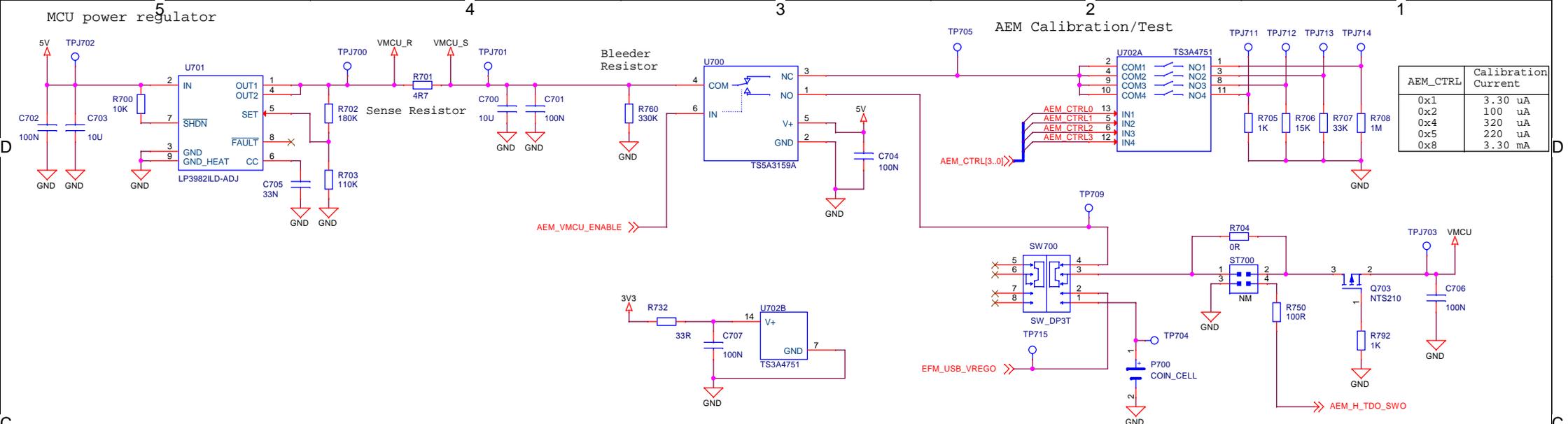


User input to board controller

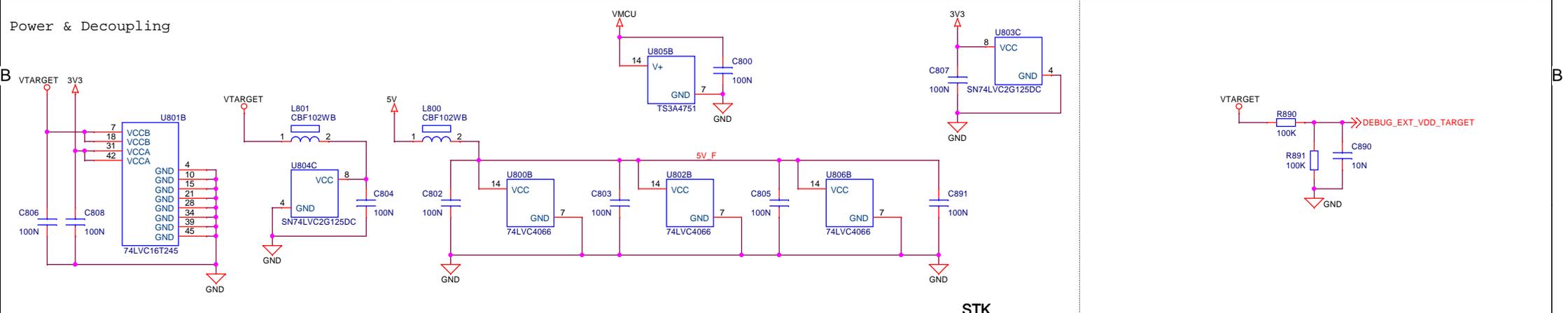
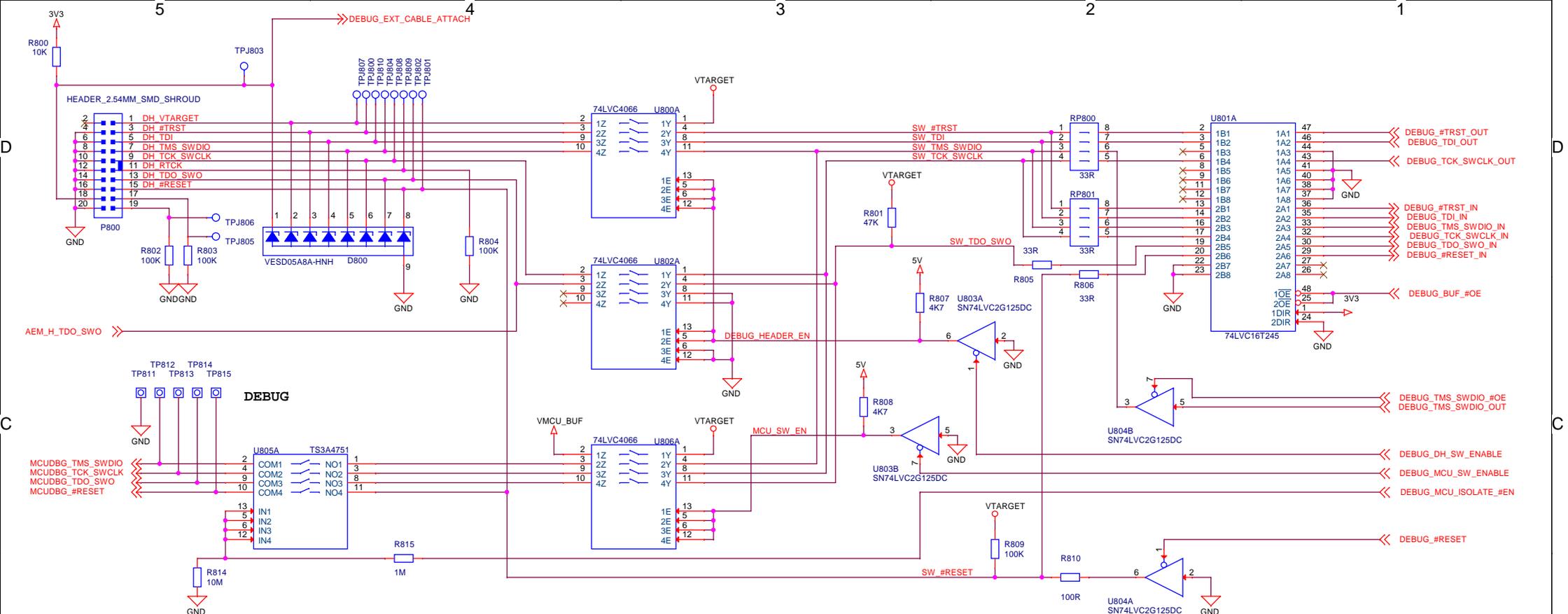


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Design Created Date: Wednesday, December 03, 2008		Sheet Created Date Saturday, March 21, 2009		Document number <b>BRD2200A</b>	
		Sheet Modified Date Friday, May 11, 2012		Revision A03	
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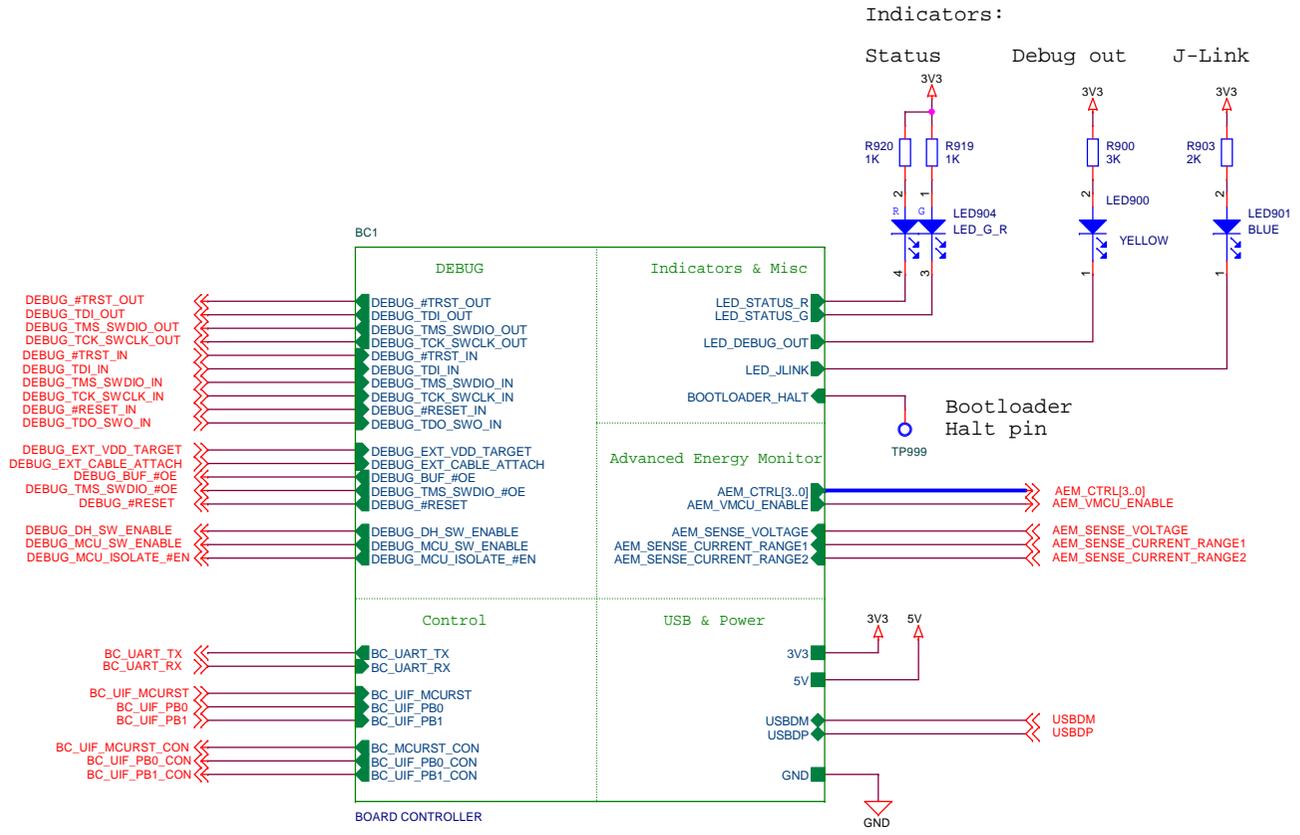
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		Page Title	
		<b>Advanced Energy Monitor</b>	
Designed: DDB		Approved: JNO	
Size A3	BOM Doc No: <Cage Code>	Document number	Revision A03
Design Created Date: Wednesday, December 03, 2008		BRD2200A	Sheet 8 of 10
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Mode	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	-	-

**STK**

Schematic Title		<b>EFM32 Giant Gecko Starter Kit</b>	
Page Title		<b>Debug Interface</b>	
Document number		<b>BRD2200A</b>	
Designed: DDB	Approved: JNO	Sheet Created Date Saturday, March 21, 2009	Sheet Modified Date Friday, May 11, 2012
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		Schematic Title	
		<b>EFM32 Giant Gecko Starter Kit</b>	
Designed: DDB		Page Title	
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Approved: JNO		Document number	
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Design Created Date: Wednesday, December 03, 2008		Sheet Created Date Saturday, March 21, 2009	Sheet Modified Date Friday, May 11, 2012
		Sheet 10 of 10	