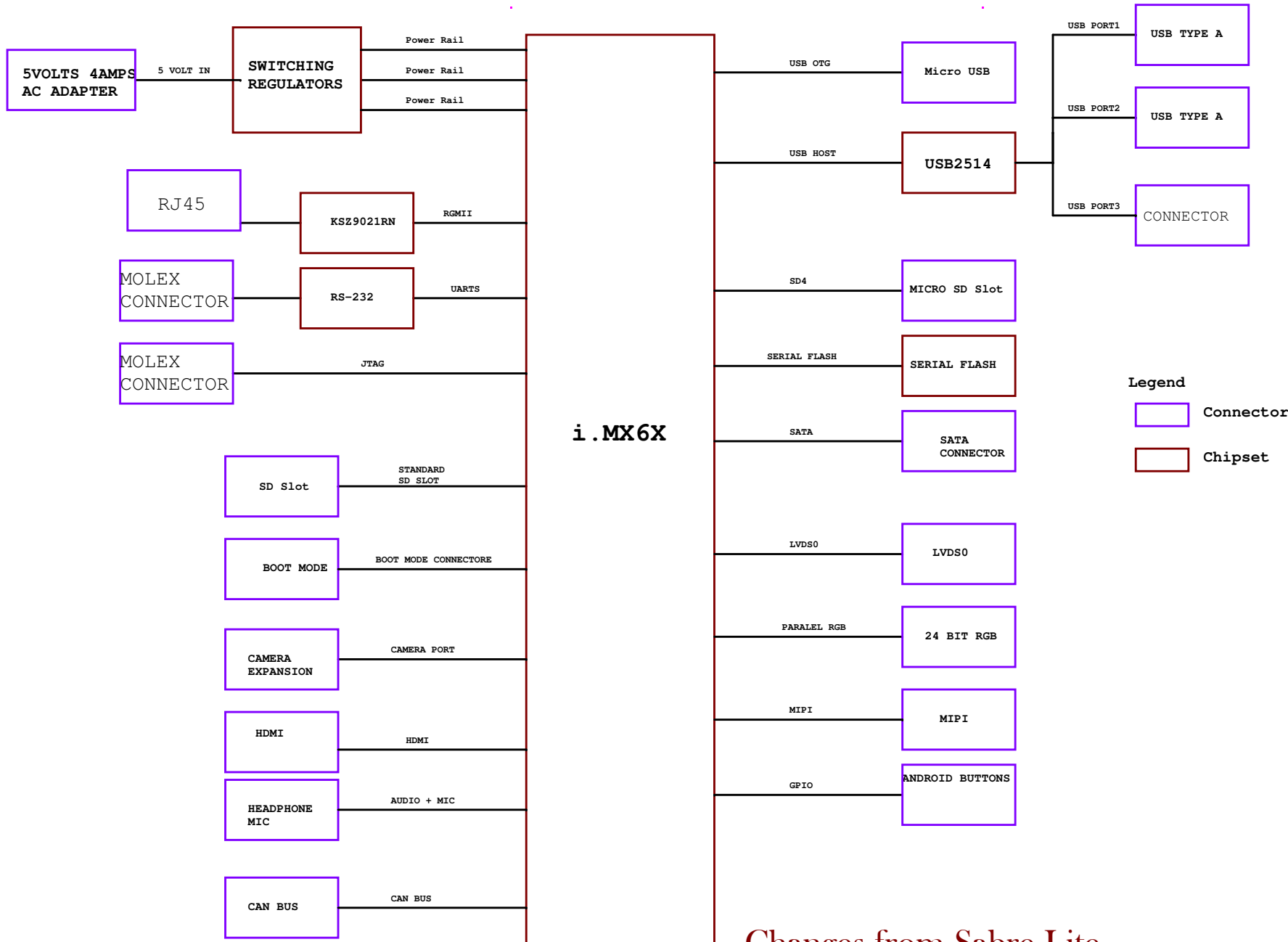


SABER LITE REV-D

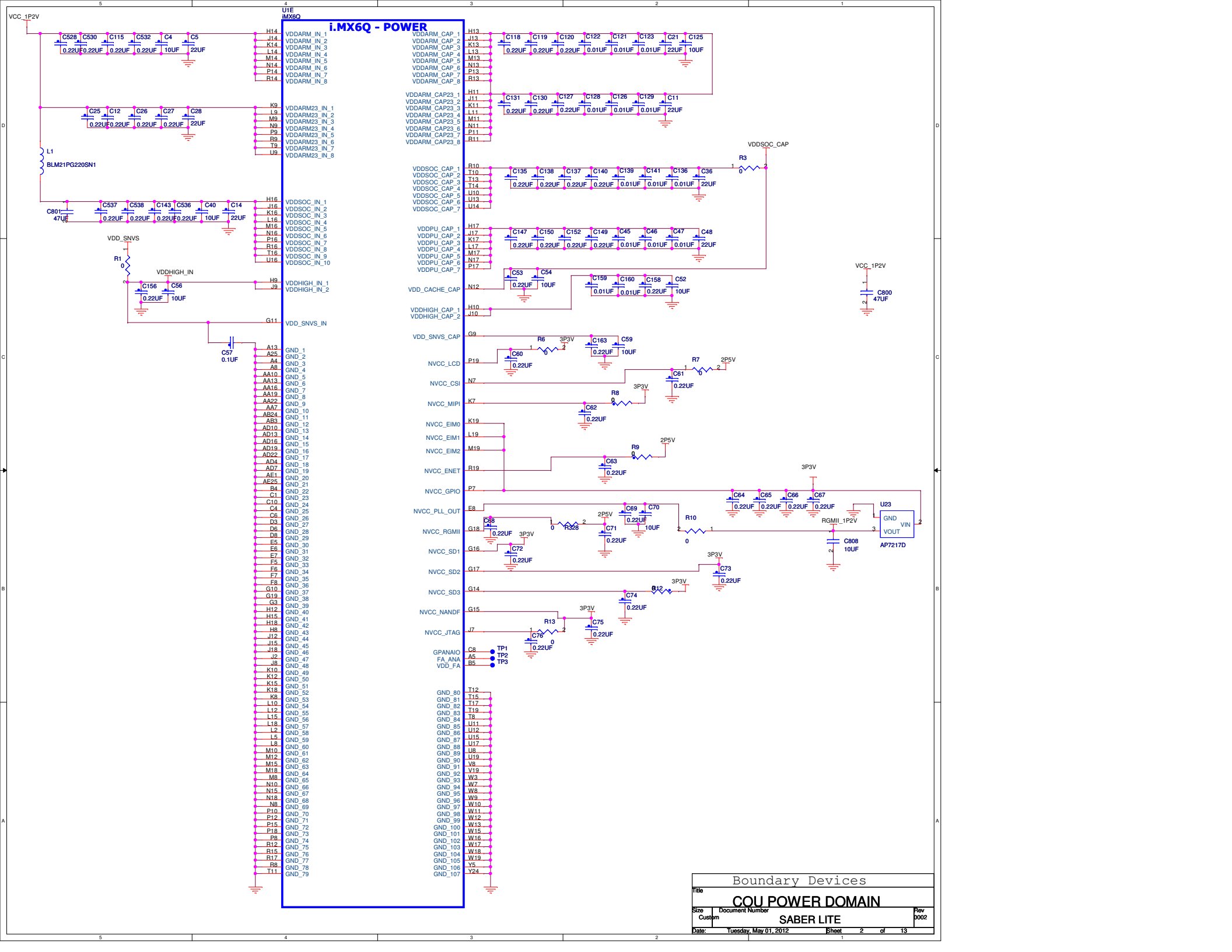


Legend
 Connector
 Chipset

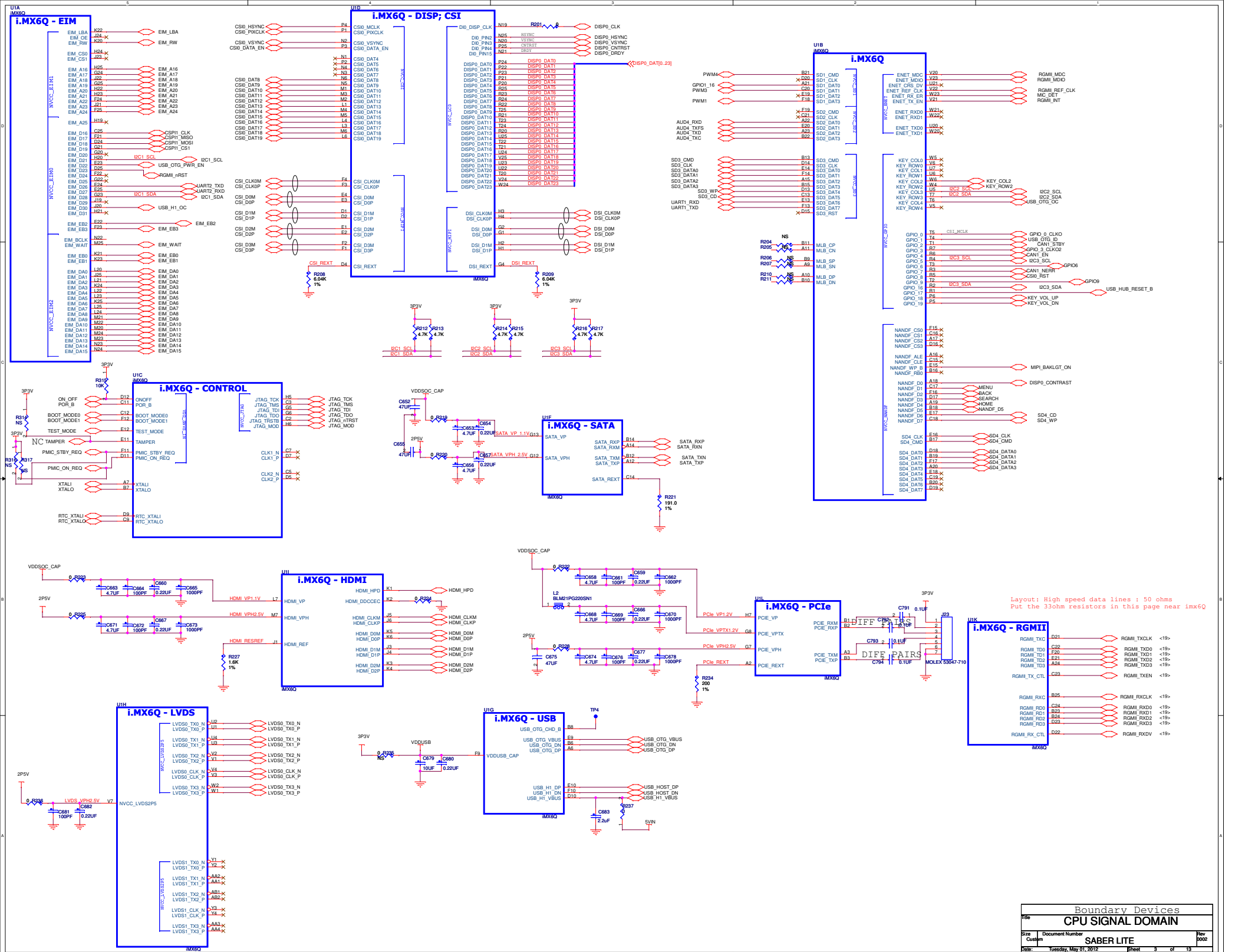
Changes from Sabre Lite

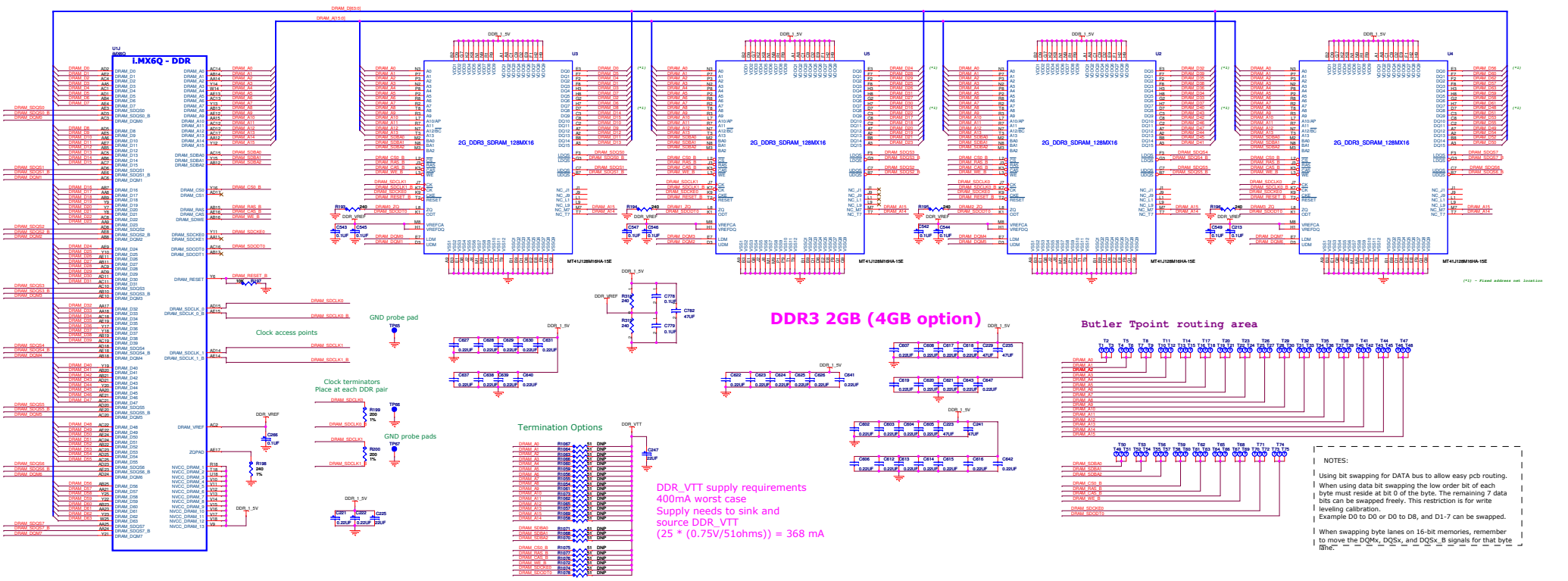
- 1)REPLACED THE 1.2 VOLT POWER FOR "NVCC_PLL_OUT" WITH LINEAR REGULATOR U23
- 2)REPLACED THE CAN CONTRROLER WITH NXP TJA1040T U18
- 3)MODIFIED J24A TO SUPPORT GIGA BIT ETHERNET

Boundary Devices		
Title	EVK BLOCK DIAGRAM	
Size	Document Number	Rev
C	SABER LITE REV2	0001
Date:	Wednesday, May 02, 2012	Sheet 1 of 13



Boundary Devices		
COU POWER DOMAIN		
Size	Document Number	Rev
Custom	SABER LITE	0002
Date:	Tuesday, May 01, 2012	Sheet 2 of 13





DDR3 2GB (4GB option)

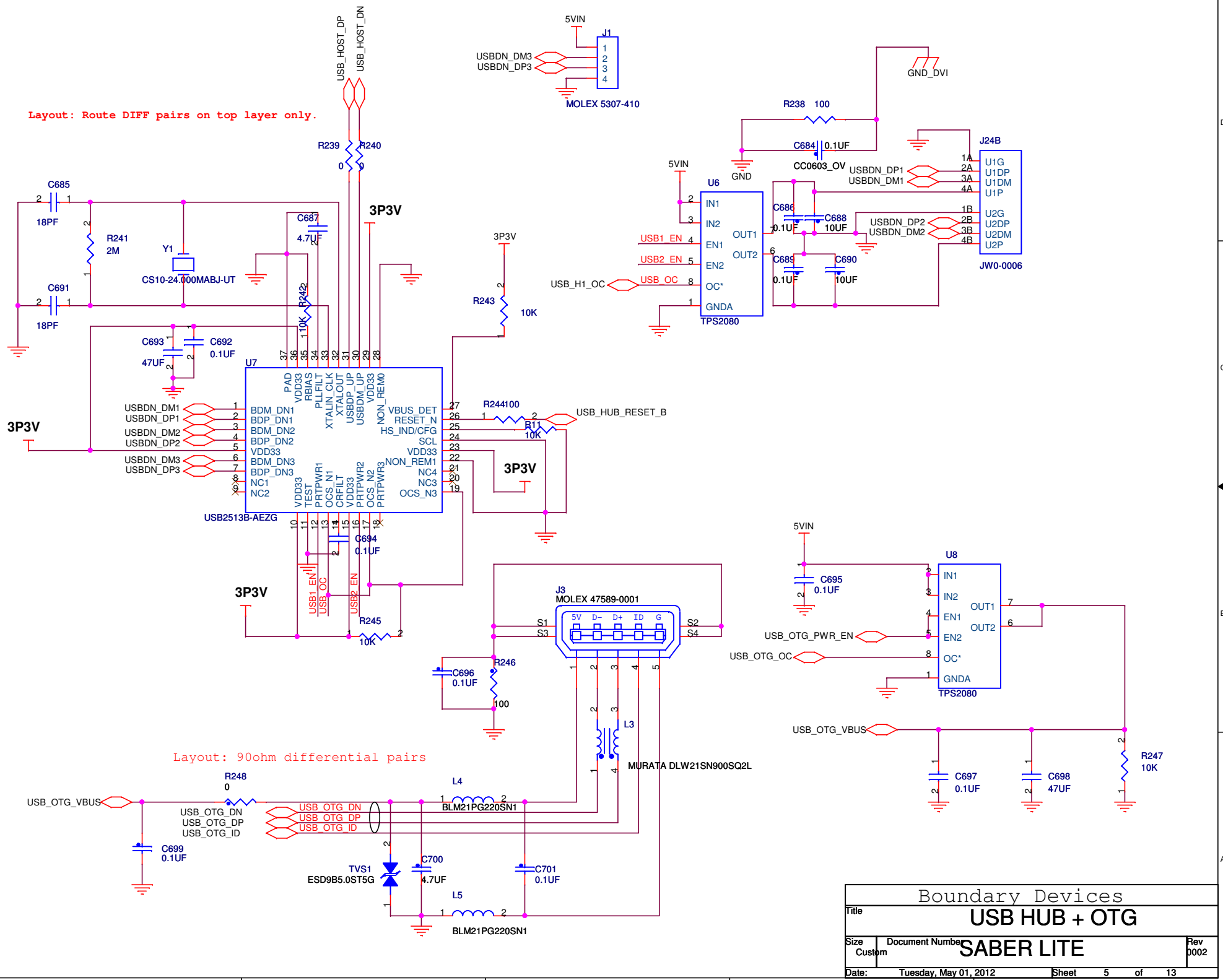
Butler Tpoint routing area

DDR_VTT supply requirements
 400mA worst case
 Supply needs to sink and source DDR_VTT
 $(25 * (0.75V/51ohms)) = 368 \text{ mA}$

- NOTES:
- Using bit swapping for DATA bus to allow easy pcb routing.
 - When using data bit swapping the low order bit of each byte must reside at bit 0 of the byte. The remaining 7 data bits can be swapped freely. This restriction is for write leveling calibration.
 - Example D0 to D0 or D0 to D8, and D1-7 can be swapped.
 - When swapping byte lanes on 16-bit memories, remember to move the DQm, DQSx, and DQSx_B signals for that byte lane.

Layout: Route DIFF pairs on top layer only.

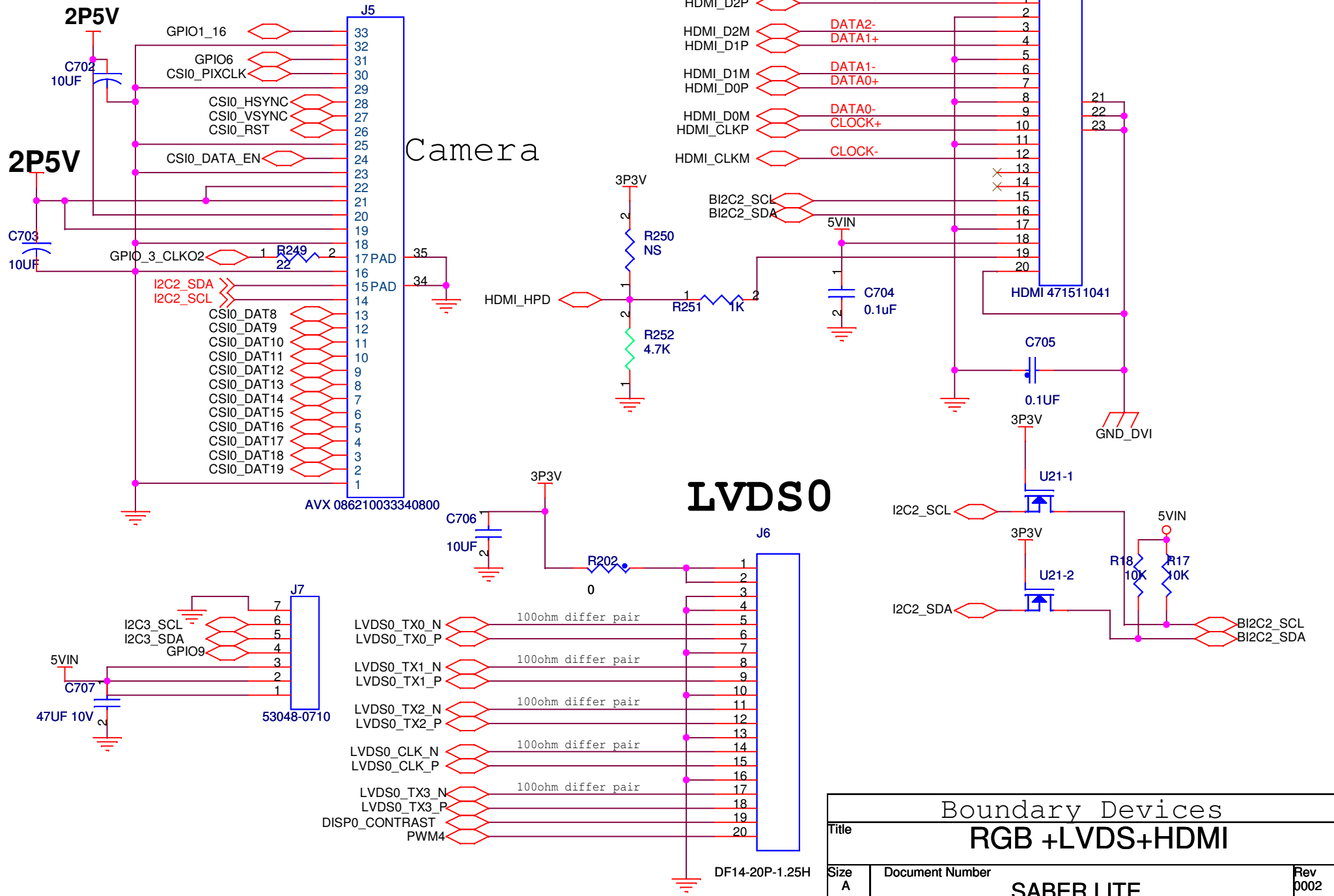
Layout: 90ohm differential pairs



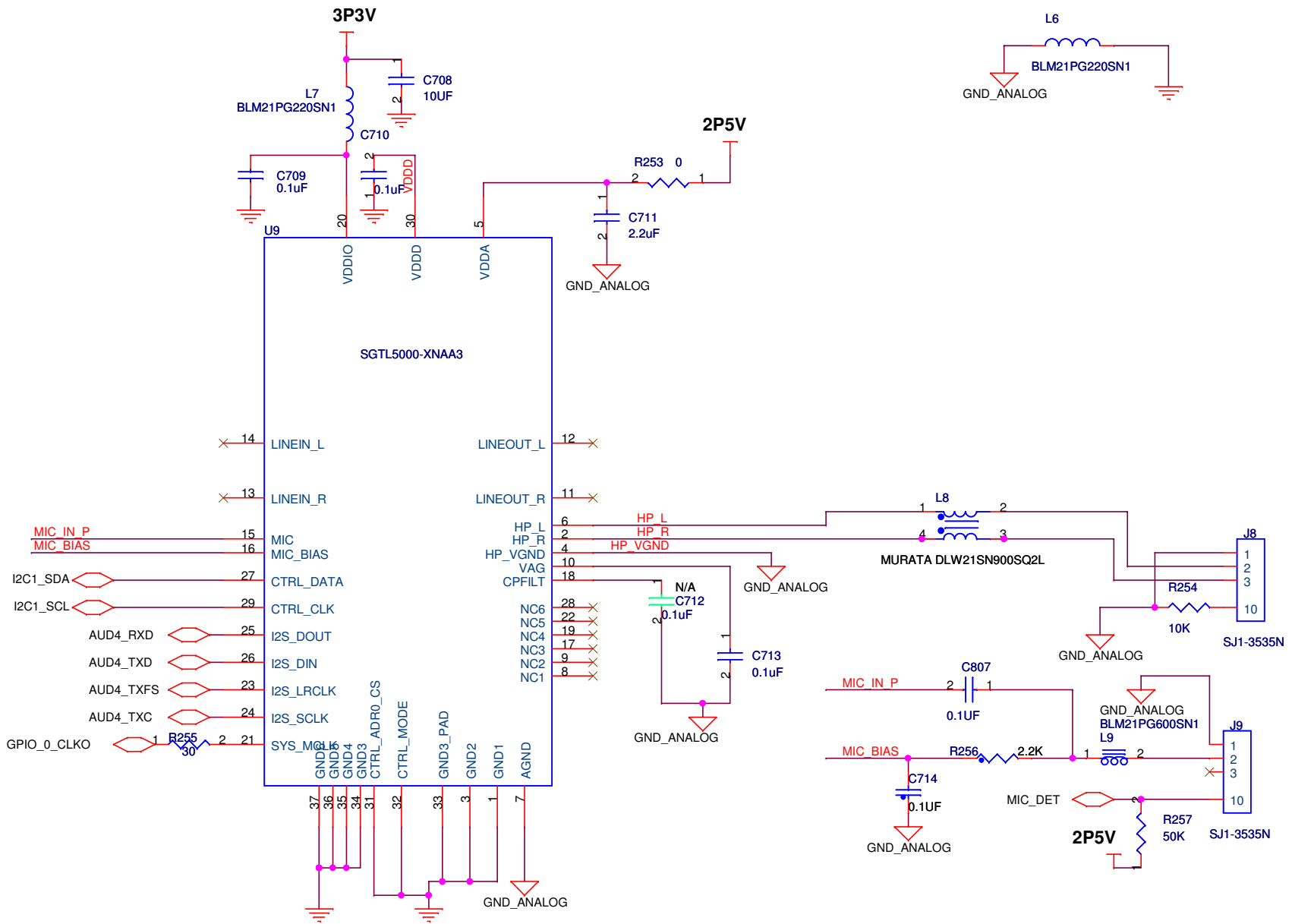
Boundary Devices			
Title USB HUB + OTG			
Size Custom	Document Number SABER LITE	Rev 0002	
Date: Tuesday, May 01, 2012	Sheet 5	of 13	

CMOS Sensor

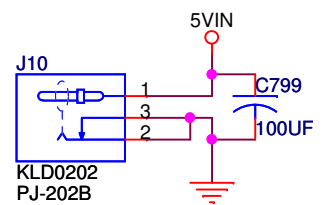
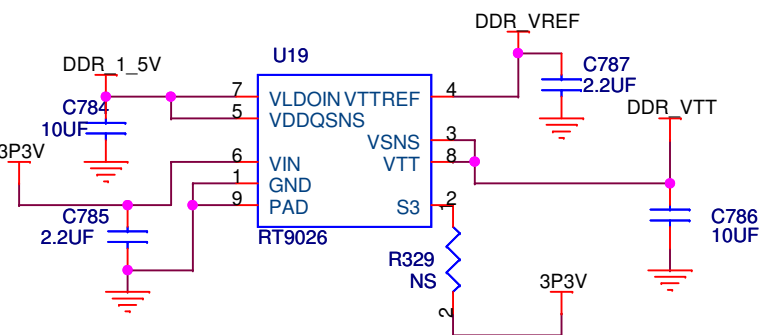
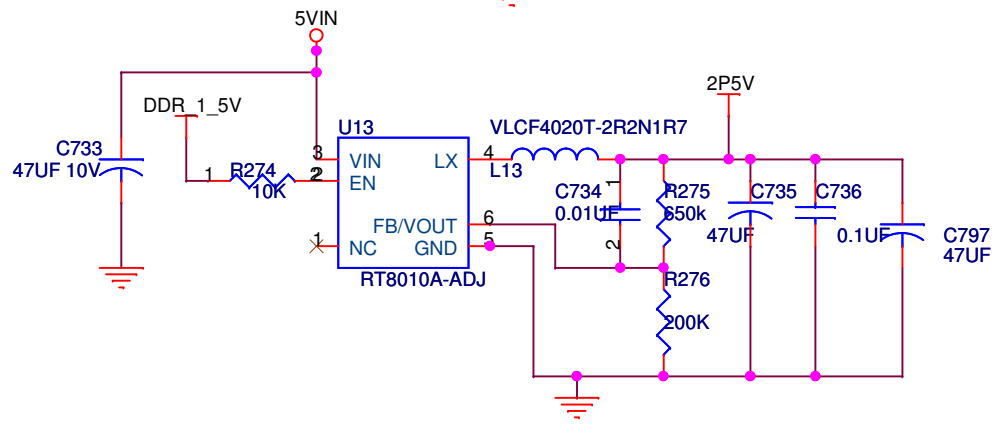
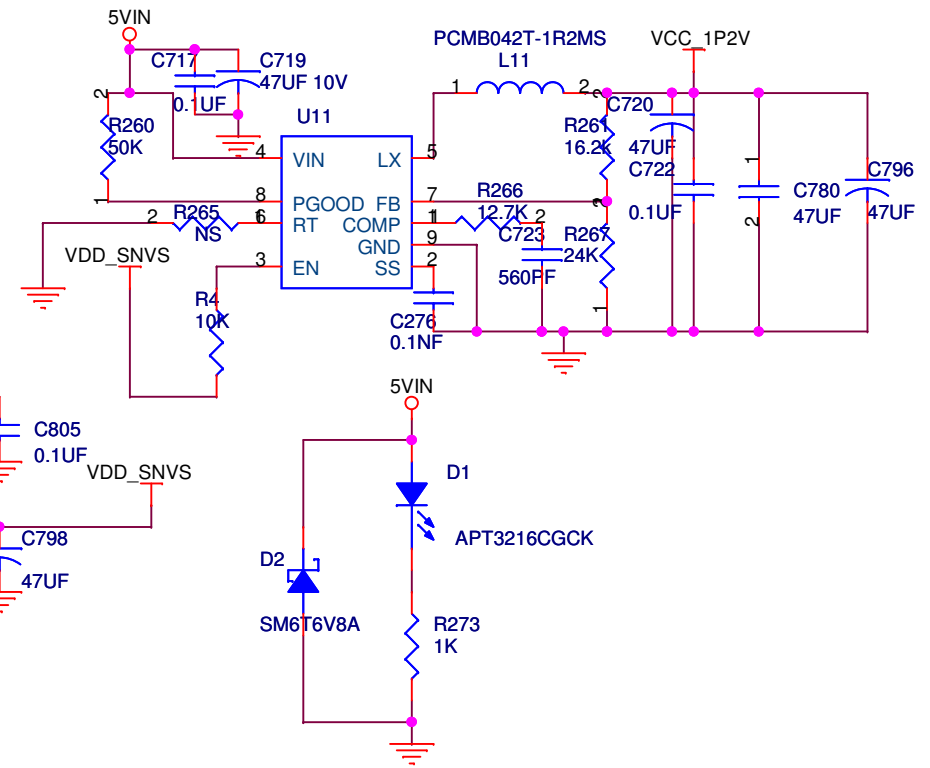
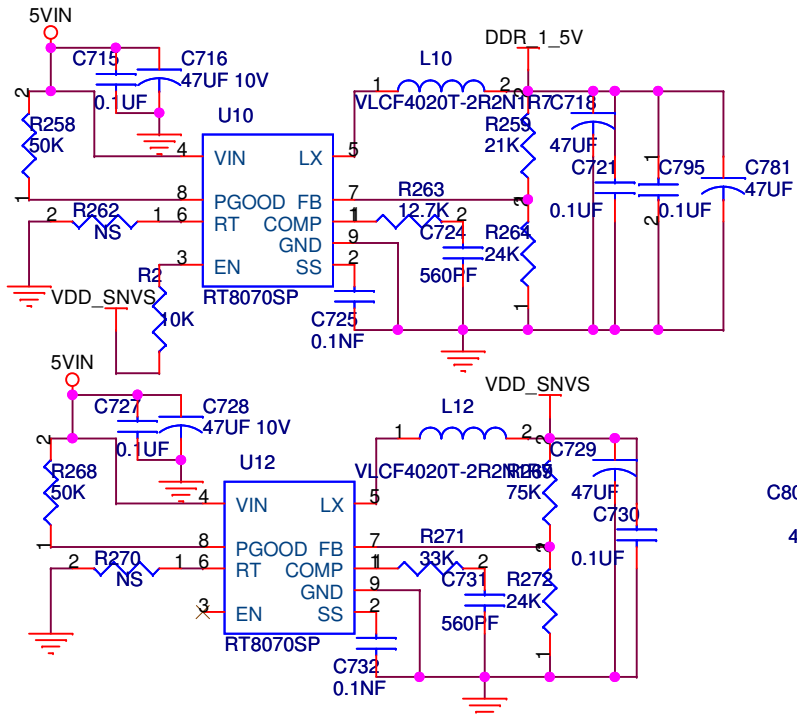
Layout: HDMI 100 ohm differential pairs



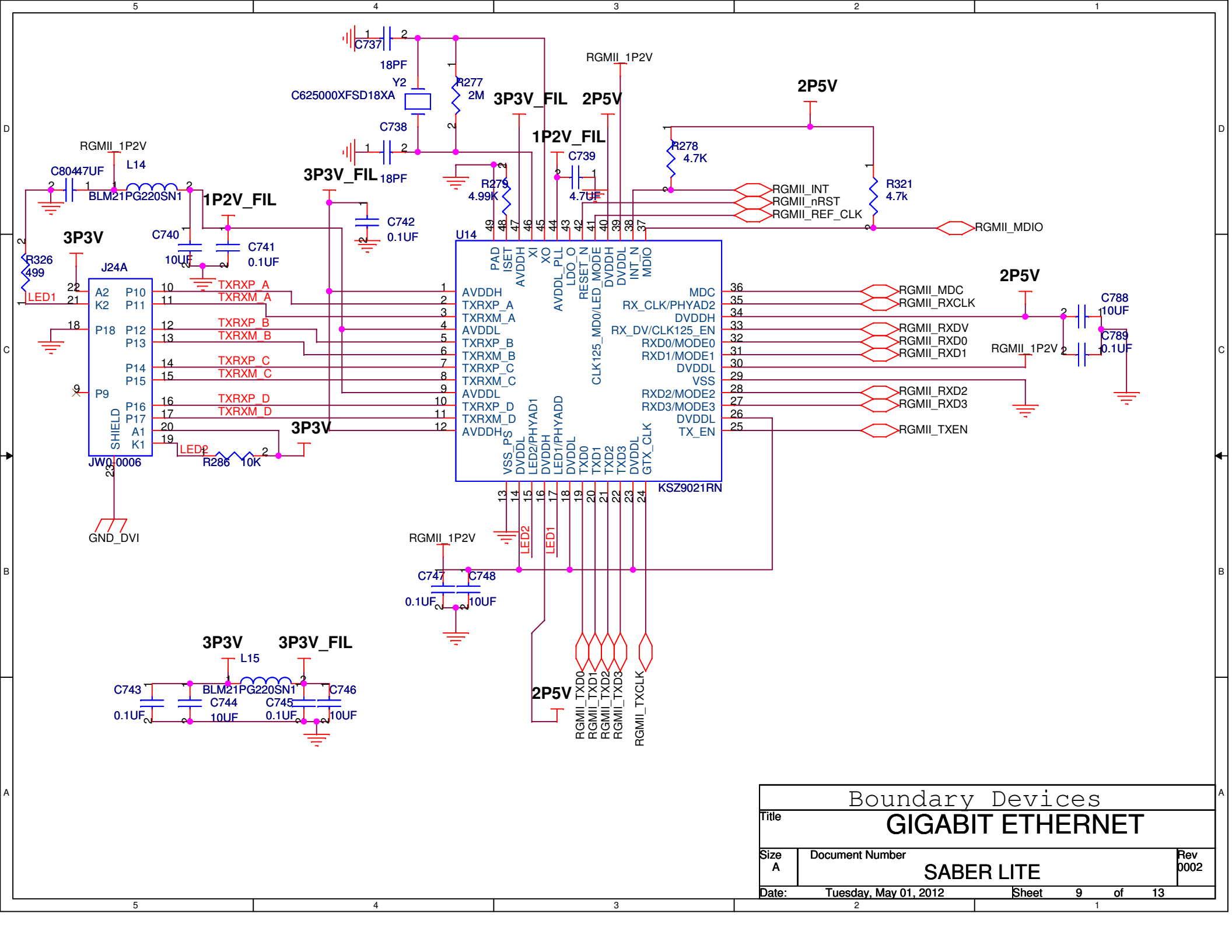
Boundary Devices		
Title		
RGB +LVDS+HDMI		
Size	Document Number	Rev
A	SABER LITE	0002
Date:	Tuesday, May 01, 2012	Sheet 6 of 13



Boundary Devices			
Title			
AUDIO			
Size	Document Number		Rev
Custom	SABER LITE		0002
Date:	Tuesday, May 01, 2012	Sheet	7 of 13

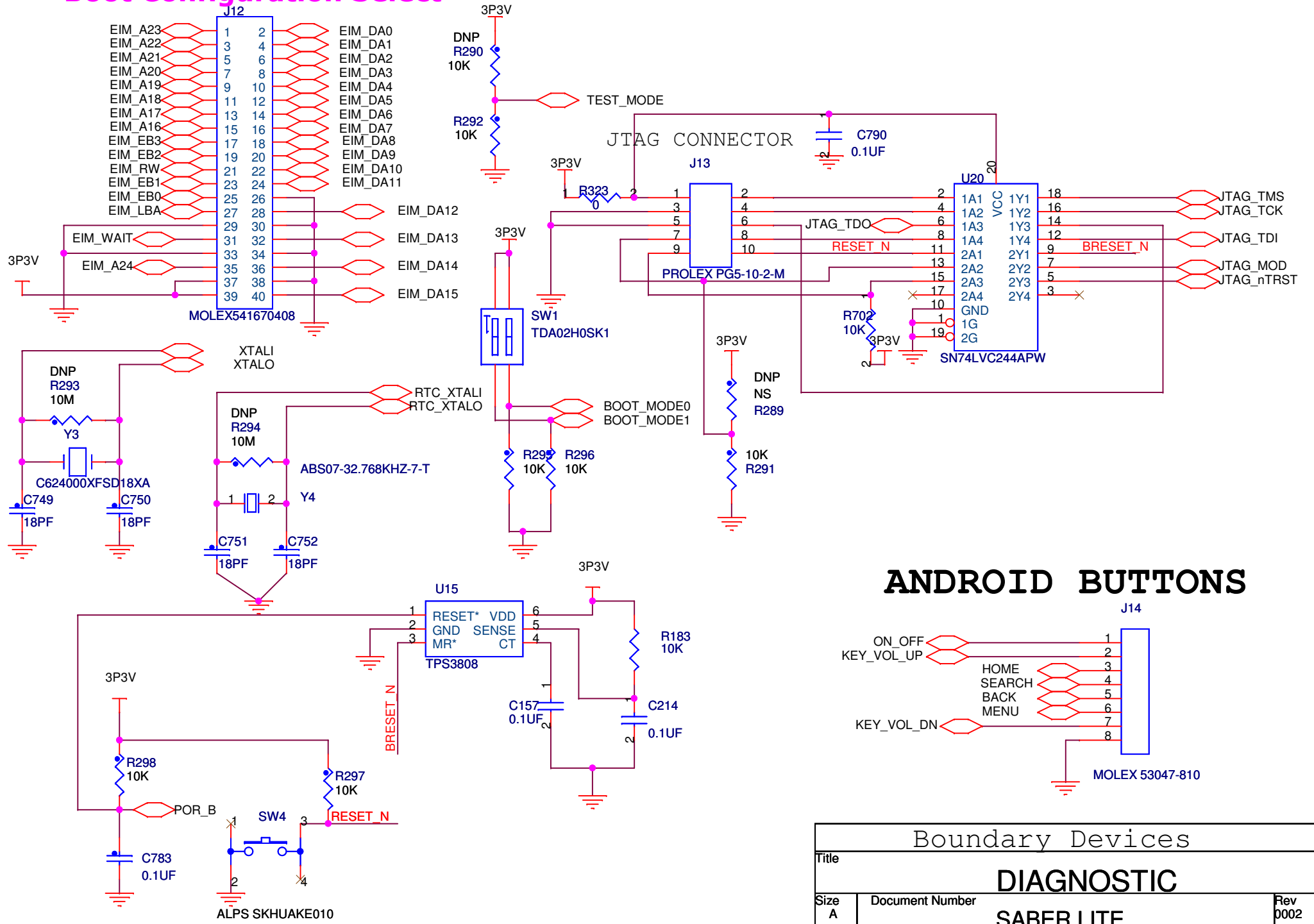


Boundary Devices		
Title		
SYSTEM POWER		
Size A	Document Number	Rev 0002
Date: Tuesday, May 01, 2012		Sheet 8 of 13

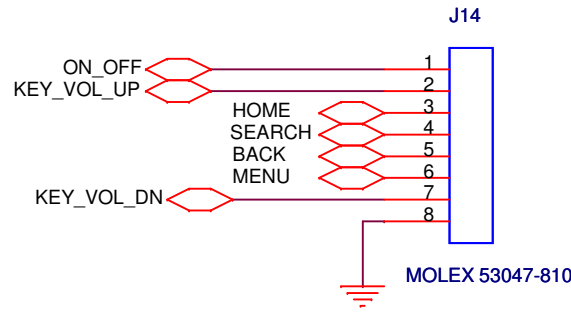


Boundary Devices		
Title		
GIGABIT ETHERNET		
Size	Document Number	Rev
A	SABER LITE	0002
Date:	Tuesday, May 01, 2012	Sheet 9 of 13

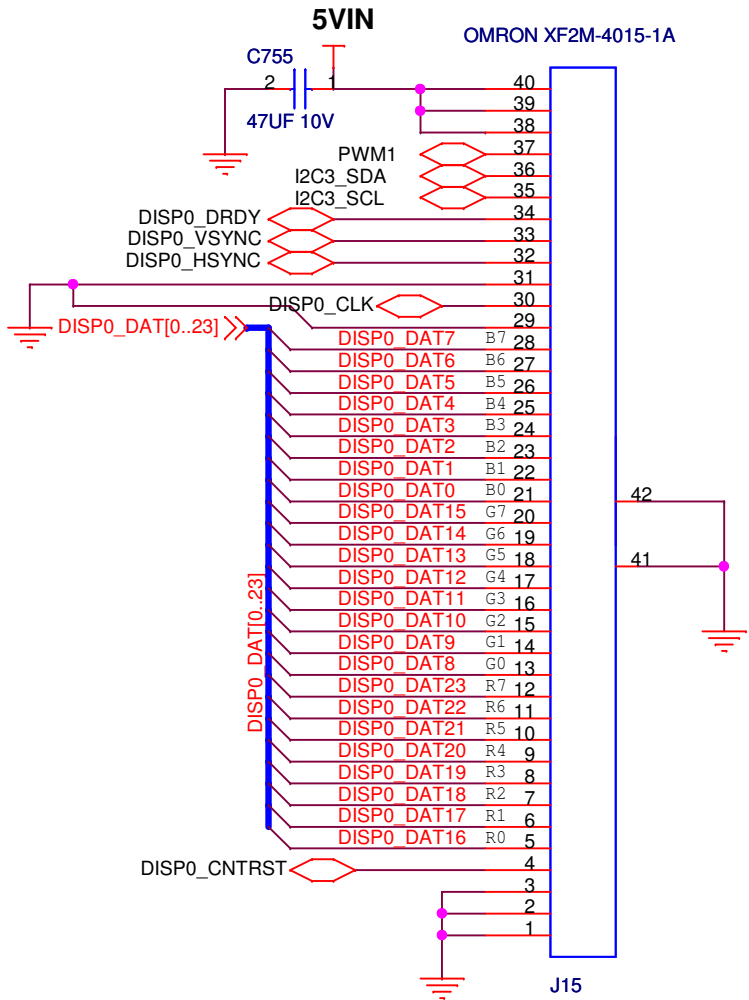
Boot Configuration Select



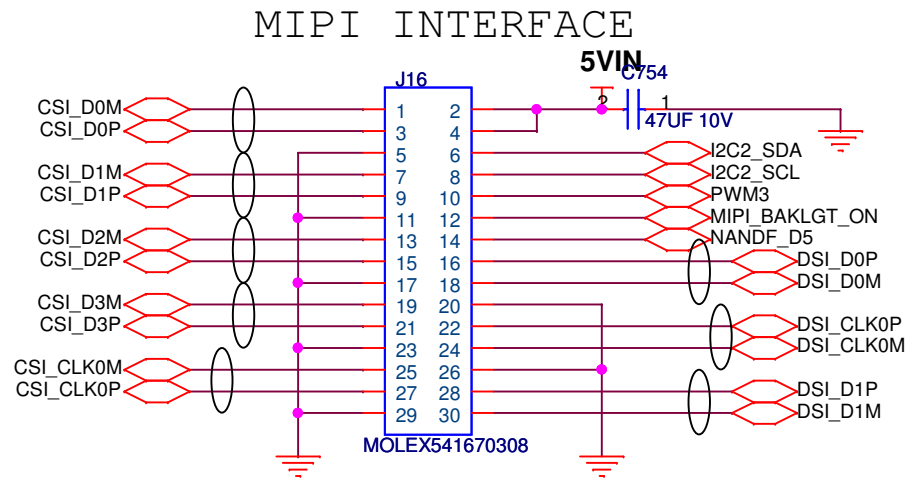
ANDROID BUTTONS



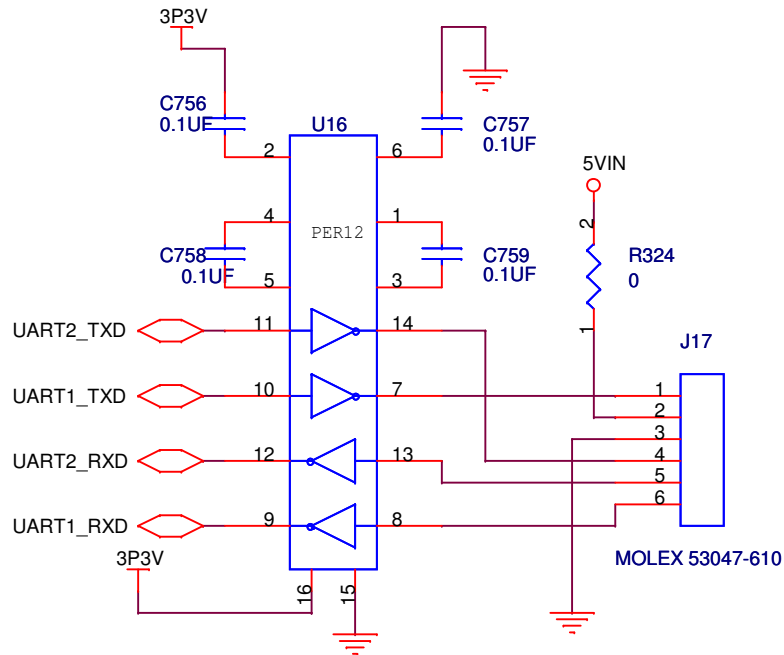
Boundary Devices		
Title		
DIAGNOSTIC		
Size A	Document Number	Rev 0002
Date:	Tuesday, May 01, 2012	Sheet 10 of 13



PARALEL RGB INTERFACE



Layout: 100 ohm differential pairs

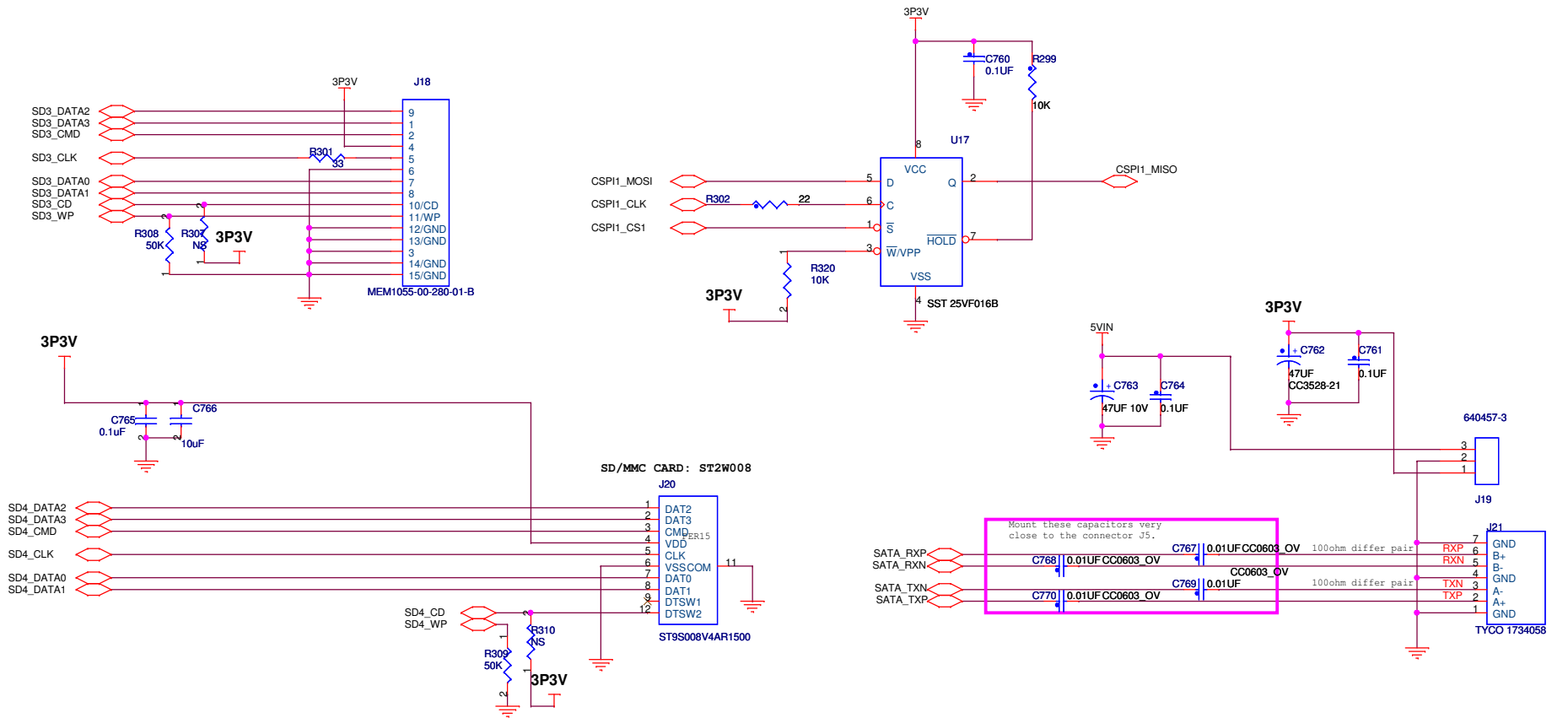


RS232 INTERFACE

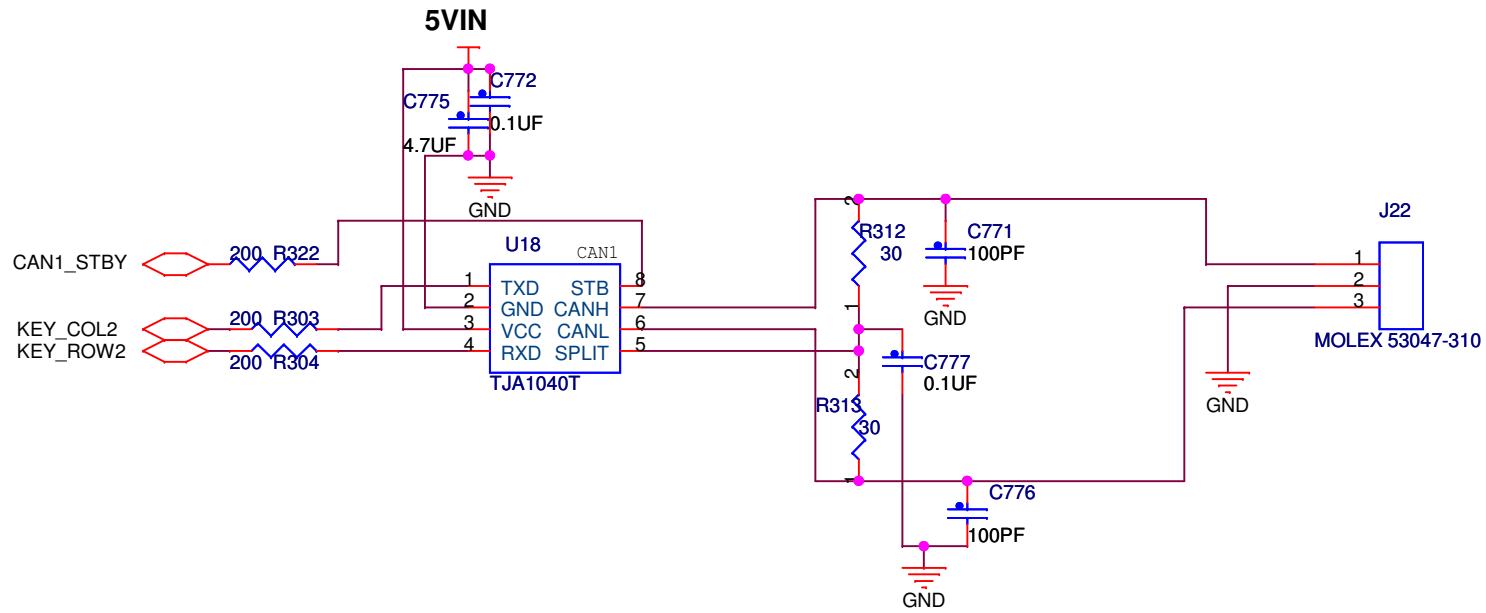
Boundary Devices		
Title RGB +MIPI + UART		
Size A	Document Number SABER LITE	Rev 0002
Date:	Tuesday, May 01, 2012	Sheet 11 of 13

Layout:

1. 50ohm, SD singals(SD_DATAx, SD_CMD, SD_CLK) length equal
2. R274 be placed near MX6Q chip



Boundary Devices	
SD + SATA	
Size B	Document Number
SABER LITE	
Date: Tuesday, May 01, 2012	Rev 0002
Sheet 12	of 13



Boundary Devices		
Title		
CAN BUS		
Size A	Document Number	Rev 0002
Date: Tuesday, May 01, 2012		Sheet 13 of 13