
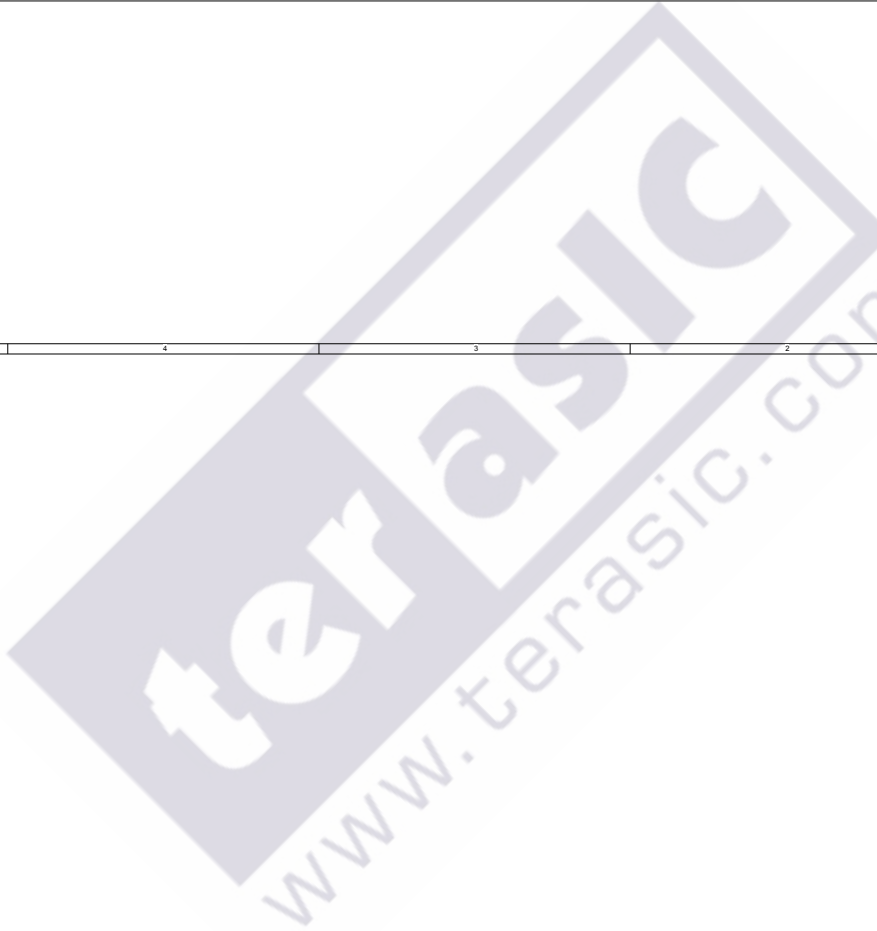
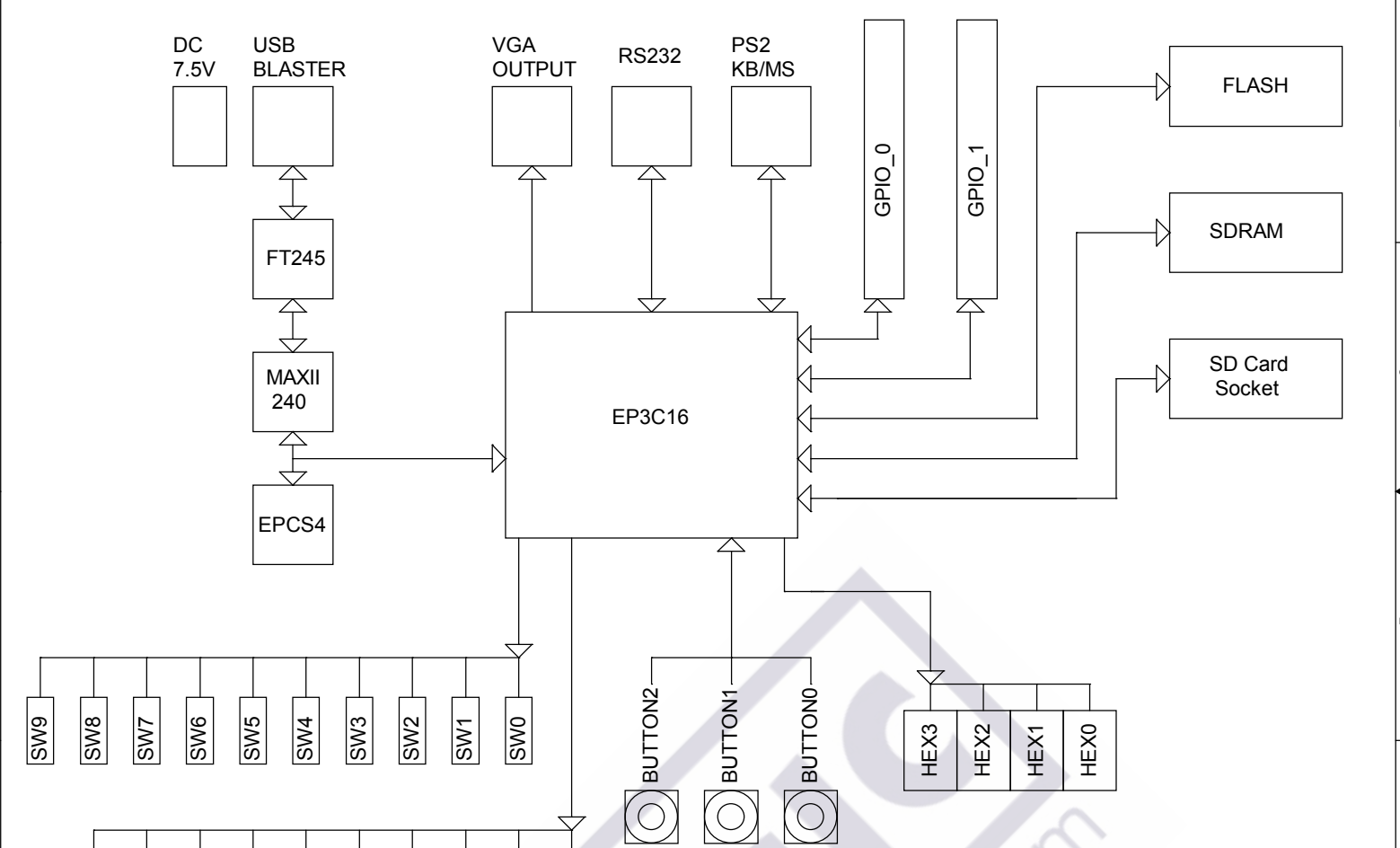


# ALTERA CYCLONE III EP3C16 Development & Education BOARD

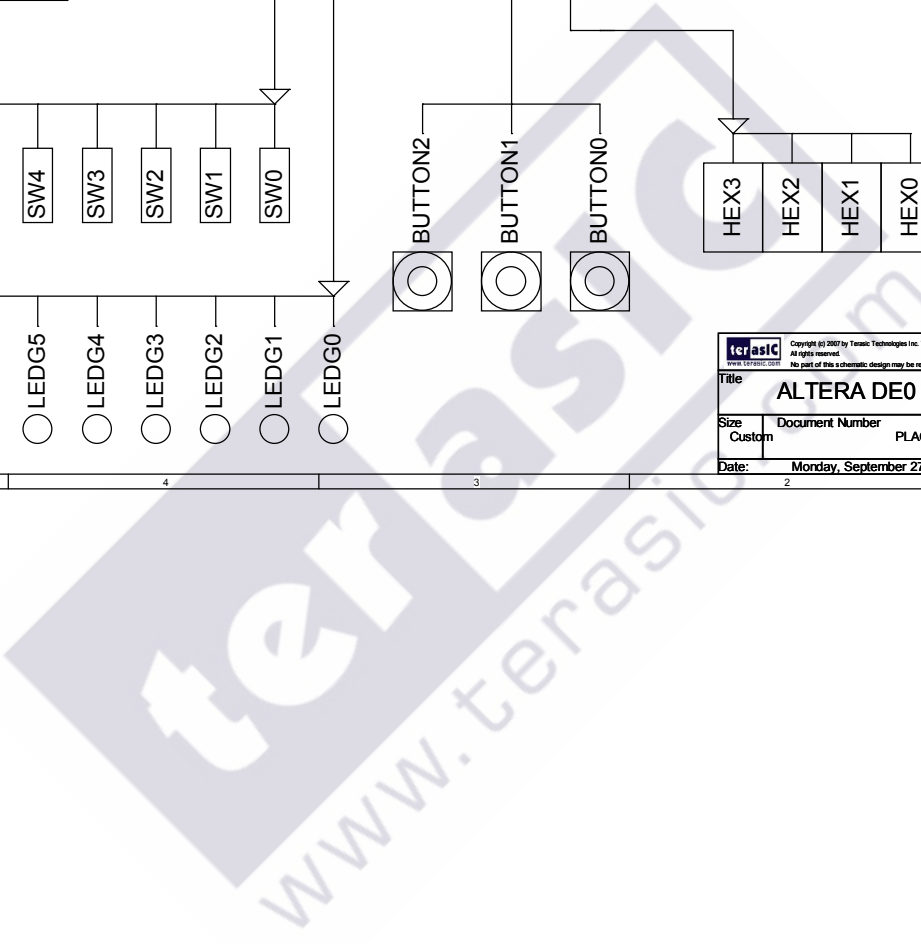
SCHEMATIC	CONTENT	PAGE
TOP	COVER PAGE, TOP	01 ~ 03
MEMORY	SDRAM,FLASH	04 ~ 05
DISPLAY	VGA, LED, 7SEGMENT	06 ~ 07
IN/OUT	CLOCK, PS2, RS232, BUTTON, SWITCH, CONNECTOR,SD CARD	08 ~ 12
FPGA	Cyclone II EP3C16 BANK1..BANK8 , POWER , CONFIG	13 ~ 17
POWER	POWER 1.2V,2.5V, 3.3V, 5V	18 ~ 18
USB BLASTER	USB BLASTER	19 ~ 19

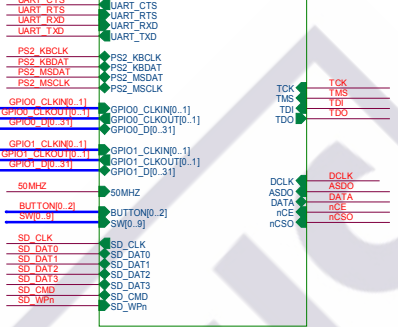
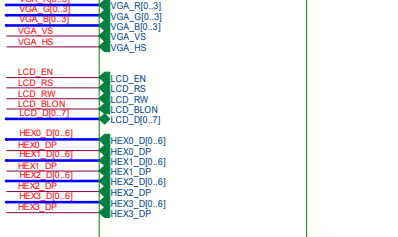
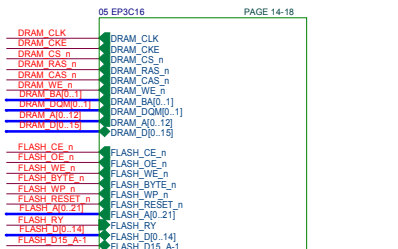
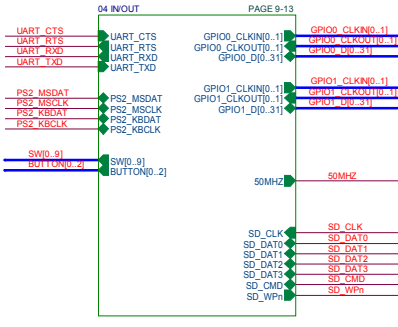
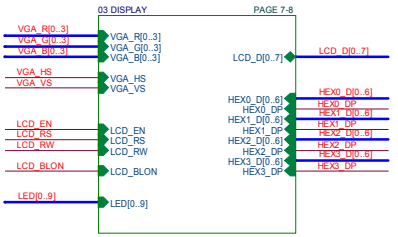
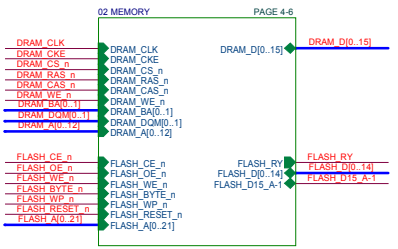
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<b>ALTERA DE0</b>		
Size B	Document Number COVER PAGE	Rev 0A
Date: Monday, September 27, 2010 Sheet 1 of 19		





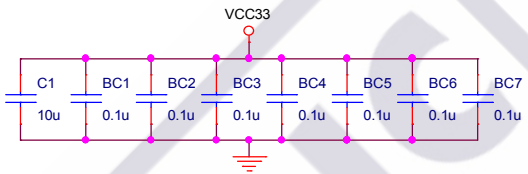
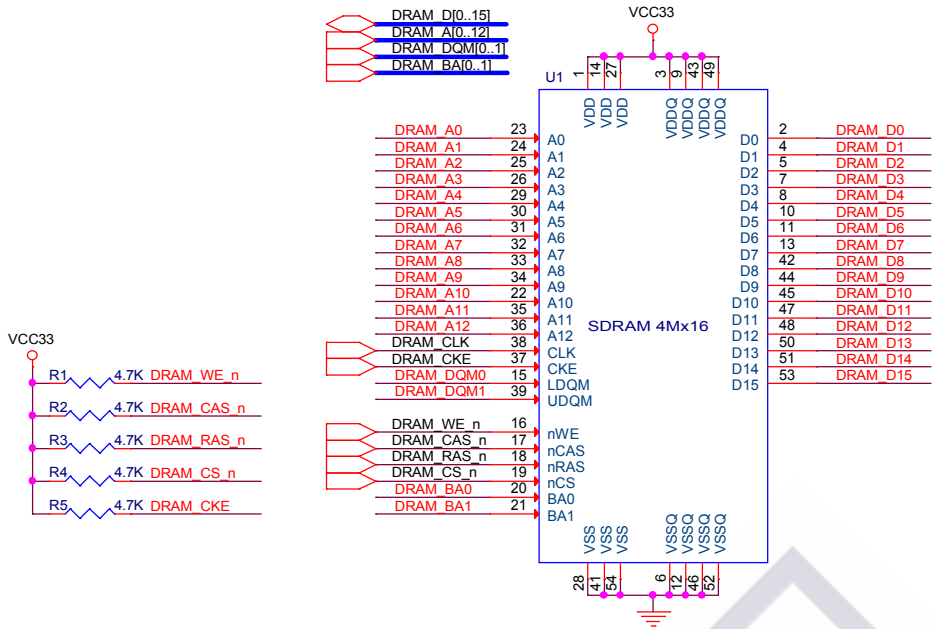
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<b>Title</b>			
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<b>Size</b>	<b>Document Number</b>		<b>Rev</b>
Custom	PLACEMENT		0A
<b>Date:</b>	Monday, September 27, 2010	<b>Sheet</b>	2 of 19





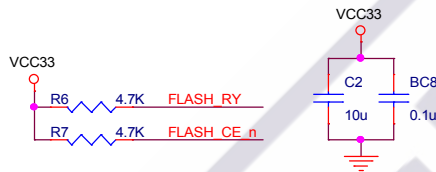
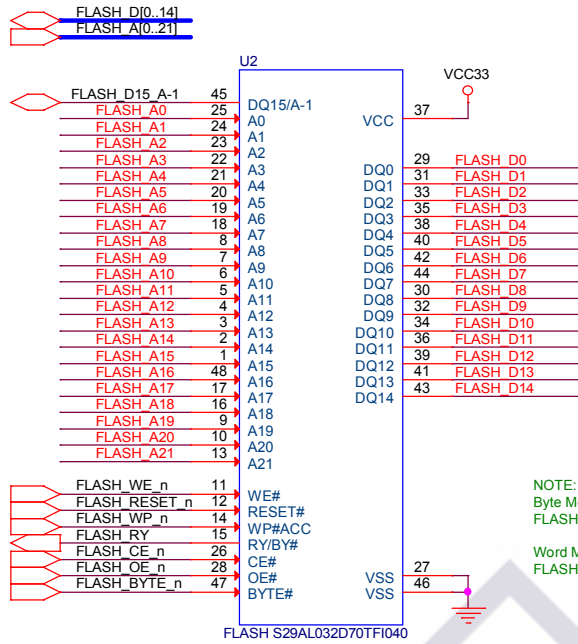
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File:	ALTERA DE0	
Size:	Document Number:	Rev:
B	TOP LEVEL	0A
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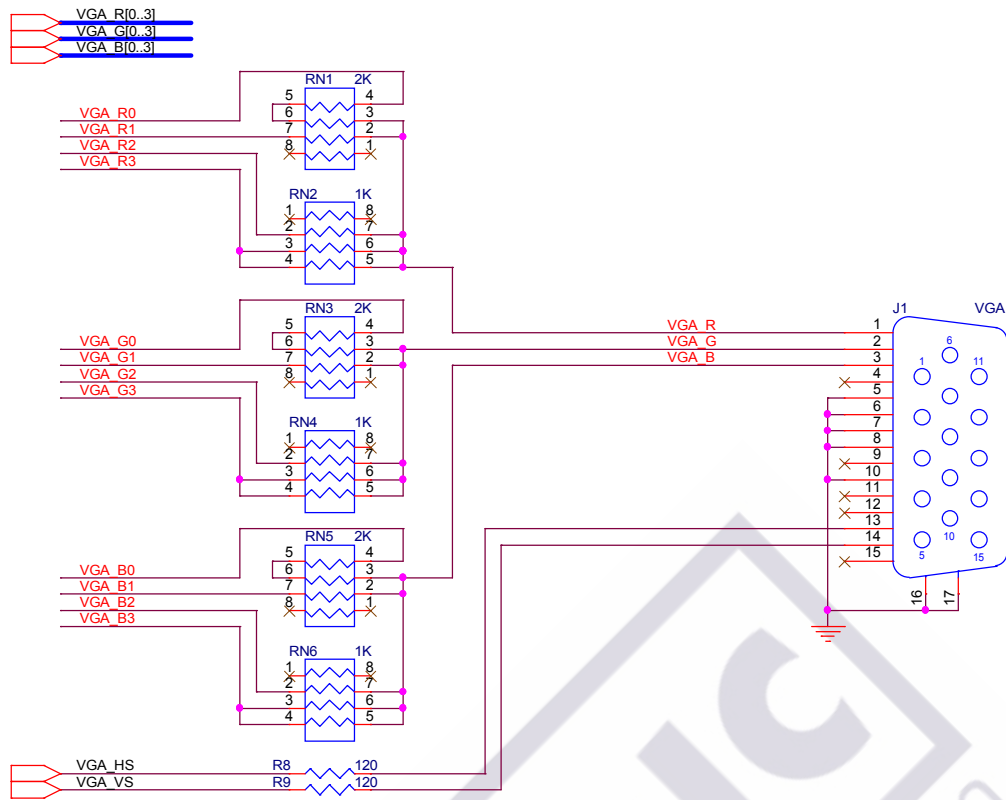



NOTE:  
 SDRAM 4Mx16 (Default)  
 SDRAM 8Mx16  
 SDRAM 16Mx16  
 SDRAM 32Mx16

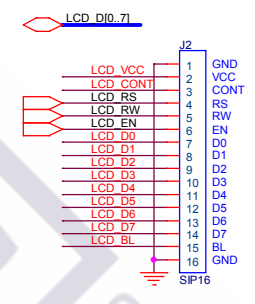
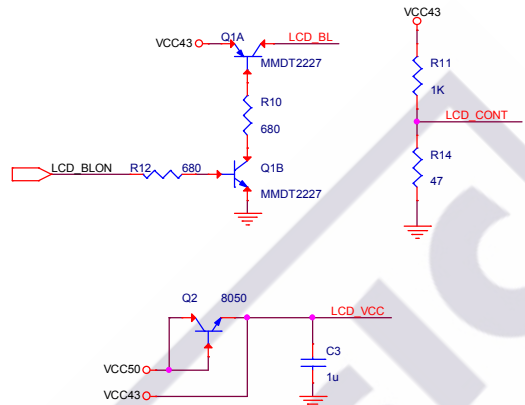
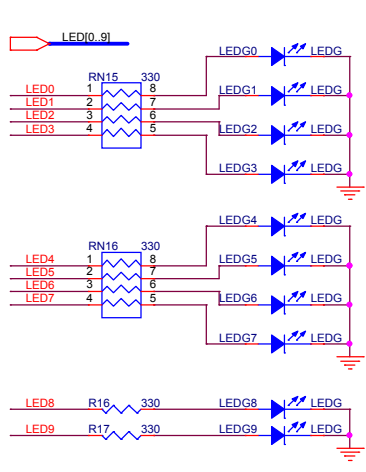
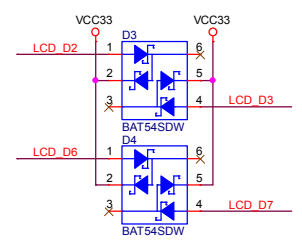
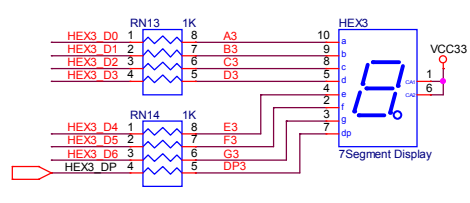
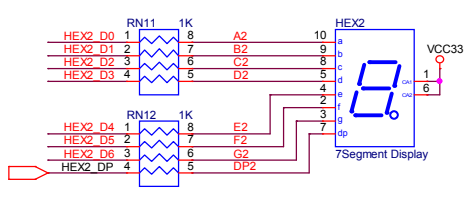
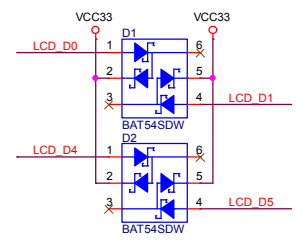
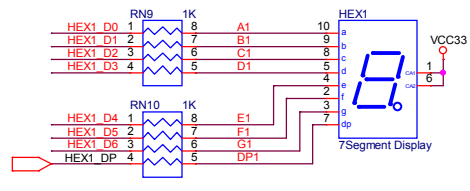
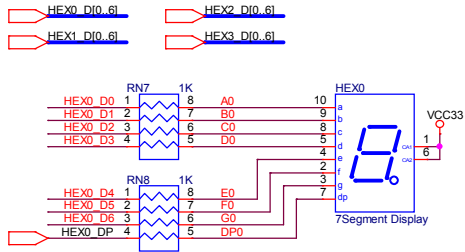
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<b>Title</b> ALTERA DE0	
<b>Size</b> A	<b>Document Number</b> SDRAM
<b>Date:</b> Monday, September 27, 2010	<b>Rev</b> 0A
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3	2
1	1



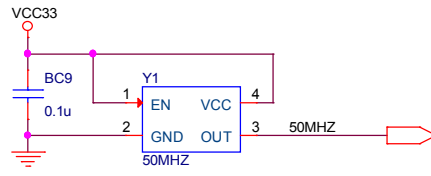
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Title	
ALTEA DEO	
Size	Document Number
A	FLASH
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<b>Title</b> ALTERA DE0	
<b>Size</b> A	<b>Document Number</b> 4 bit VGA Output
<b>Date:</b> Monday, September 27, 2010	
<b>Rev</b> 0A	
<b>Sheet</b> 6 <b>of</b> 19	



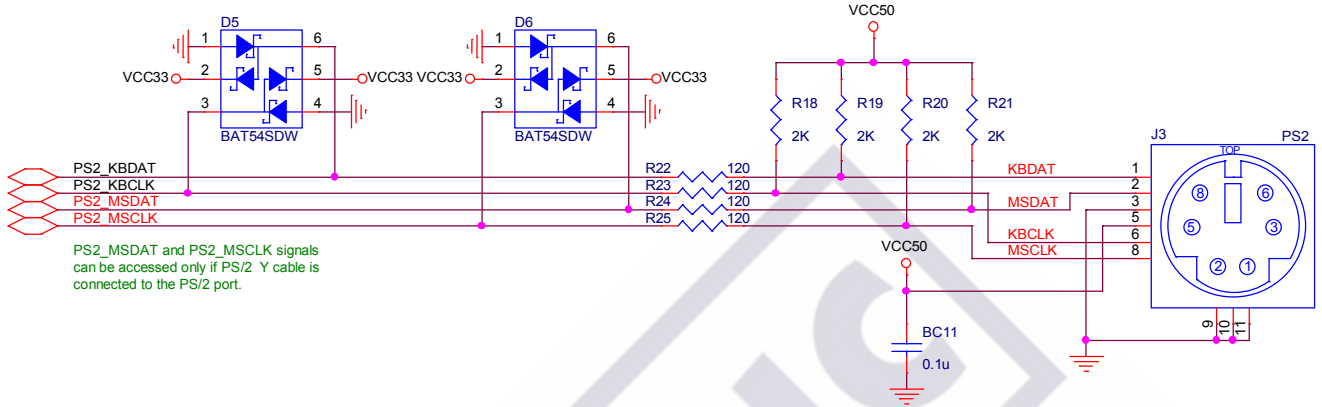
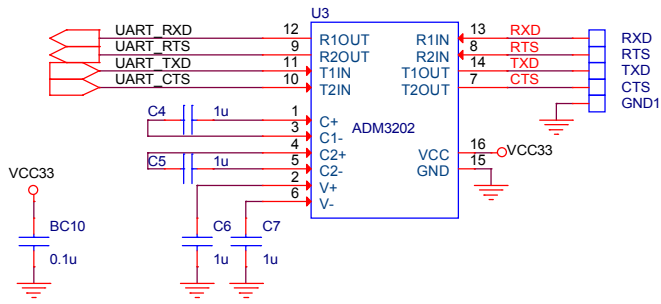
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<b>Title</b> ALTERA DEO	
<b>Size</b> Custom	<b>Document Number</b> 7 SEGMENT, LED and LCD Connector
<b>Date</b> Monday, September 27, 2010	<b>Sheet</b> 7 of 19
<b>Rev</b> 0A	



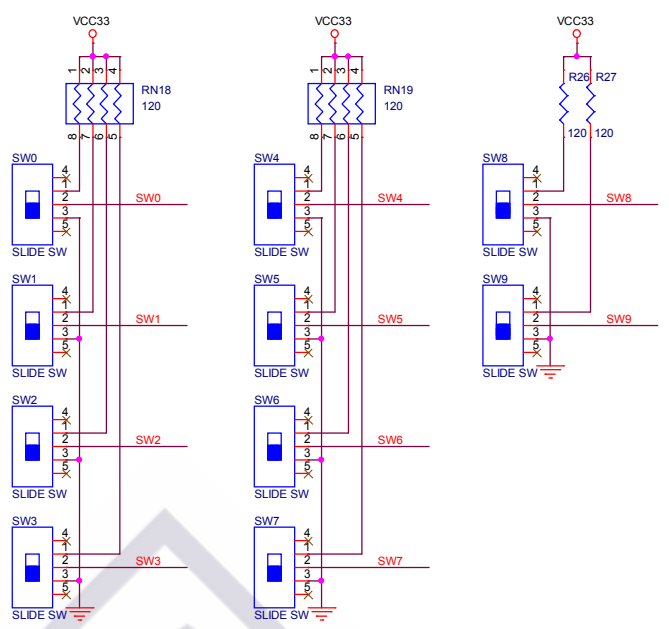
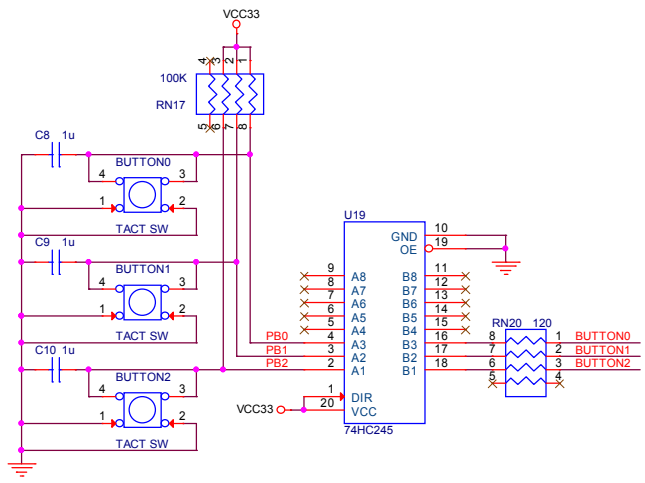
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<b>Title</b> ALTERA DE0	
<b>Size</b> A	<b>Document Number</b> CLOCK
<b>Date:</b> Monday, September 27, 2010	
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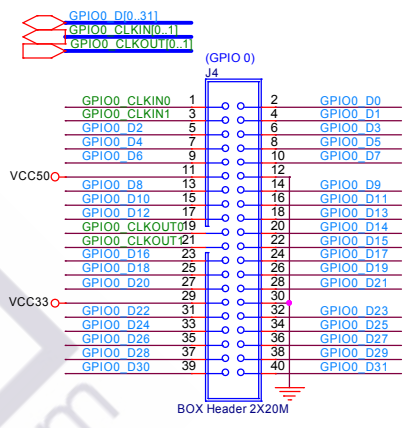
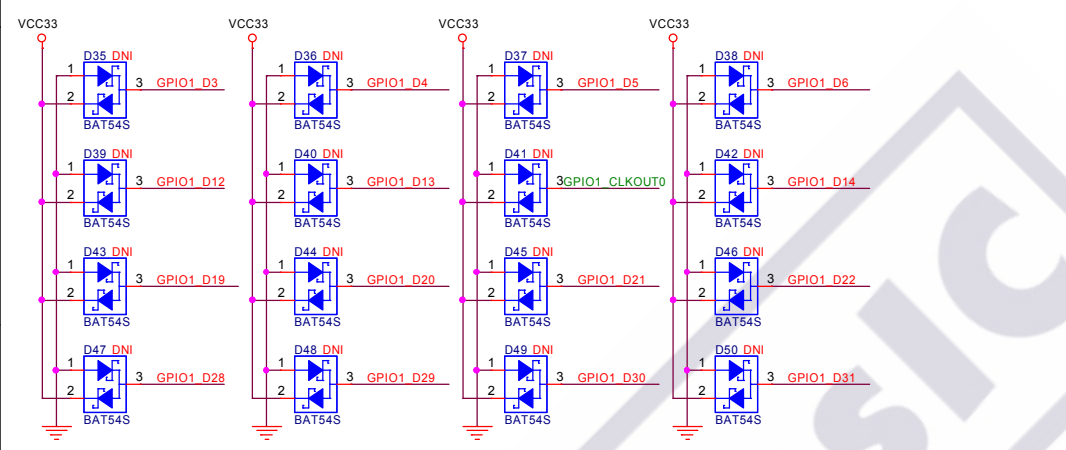
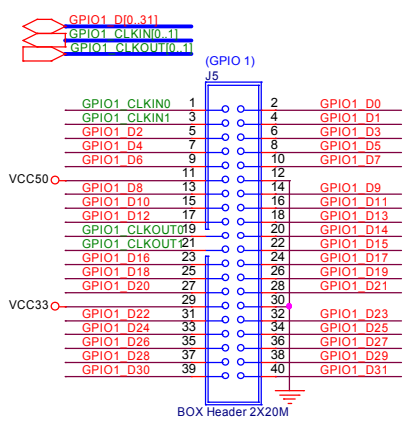
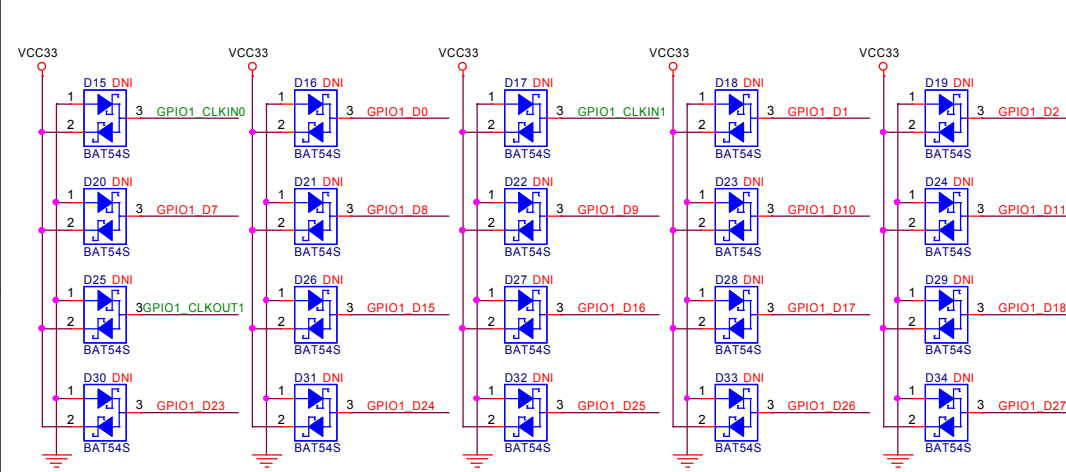
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<b>Title</b> ALTERA DEO		
<b>Size</b> A	<b>Document Number</b> PS2 AND RS232	<b>Rev</b> 0A
<b>Date:</b> Monday, September 27, 2010		<b>Sheet</b> 9 of 19



BUTTON0\_21  
SW0\_91

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Title: <b>ALTERA DEO</b>	
Size: Custom	Document Number: Button and Switch
Date: Monday, September 27, 2010	Sheet 10 of 19
	Rev 0A

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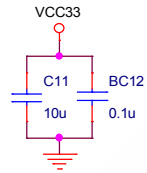
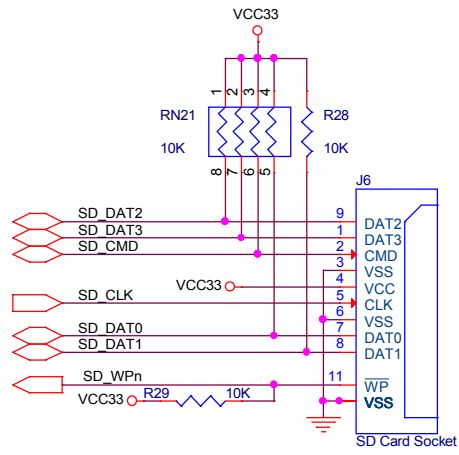
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Size: Document Number  
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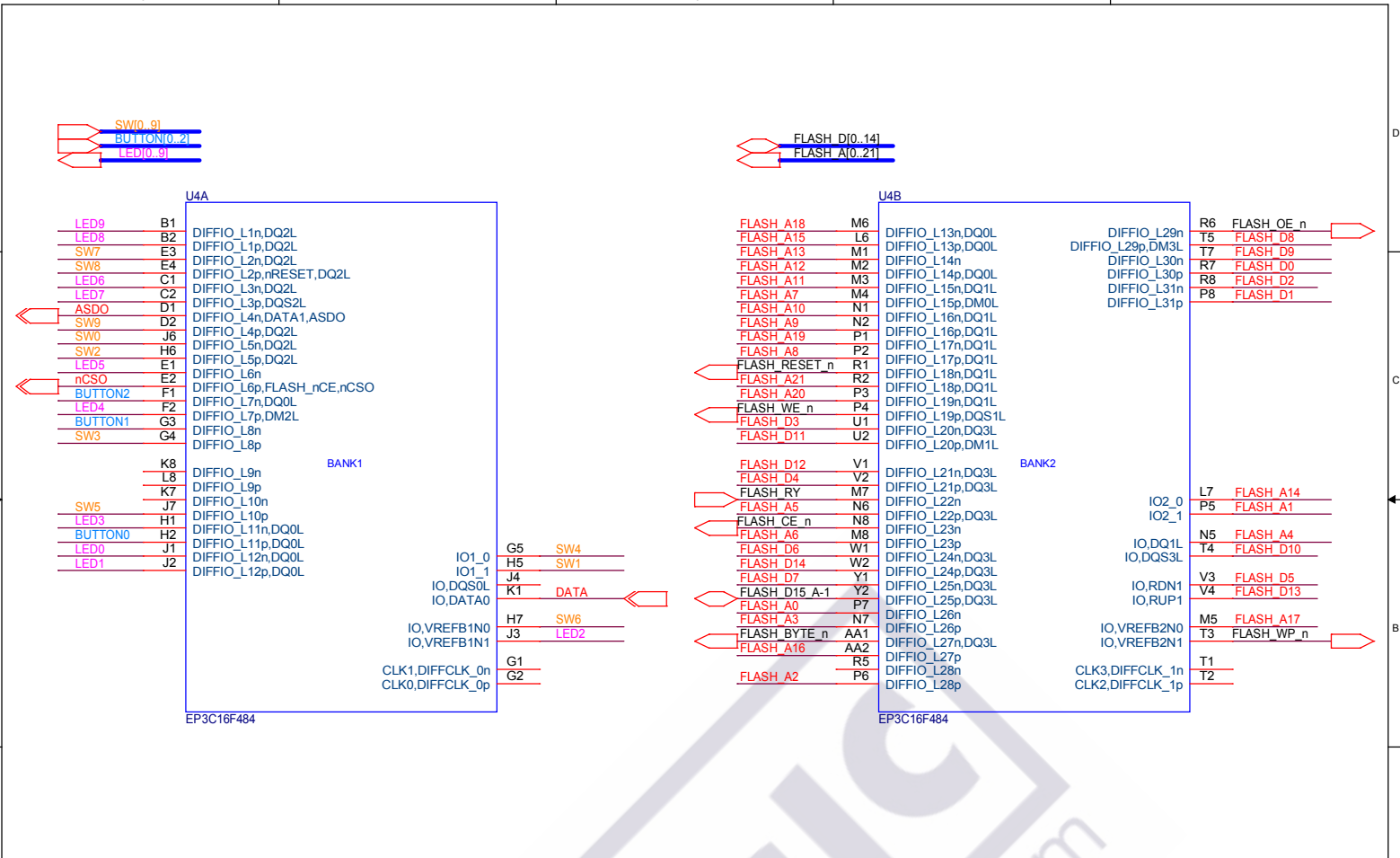
Date: Thursday, March 17, 2011

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<b>Title</b> ALTERA DE0	
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<b>Date:</b> Monday, September 27, 2010	
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Rev 0A	

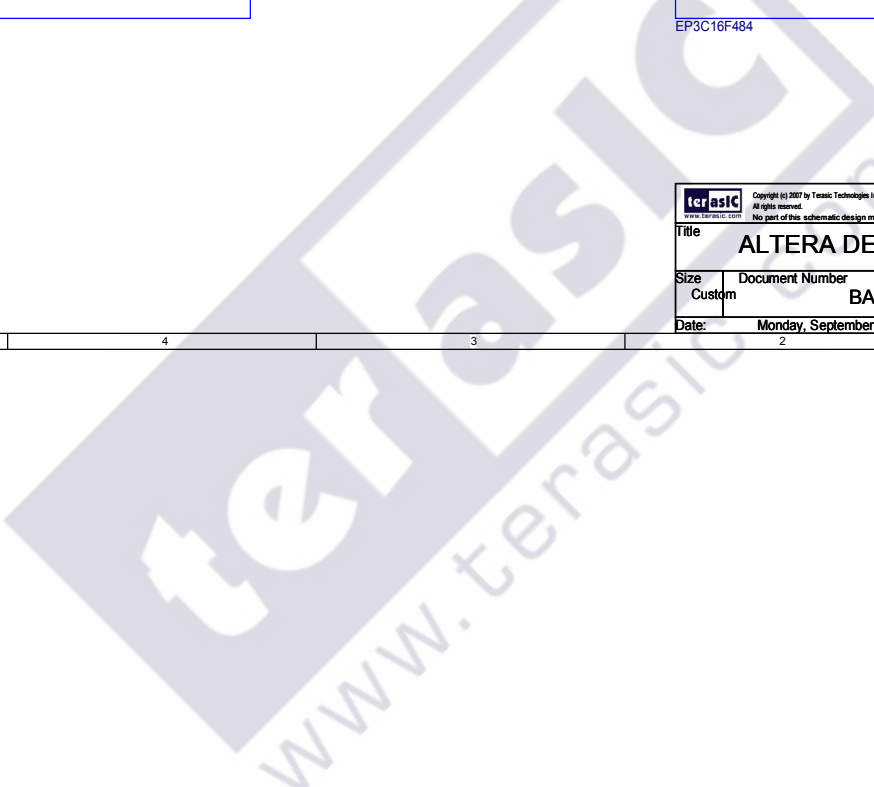


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**ALTERA DE0**

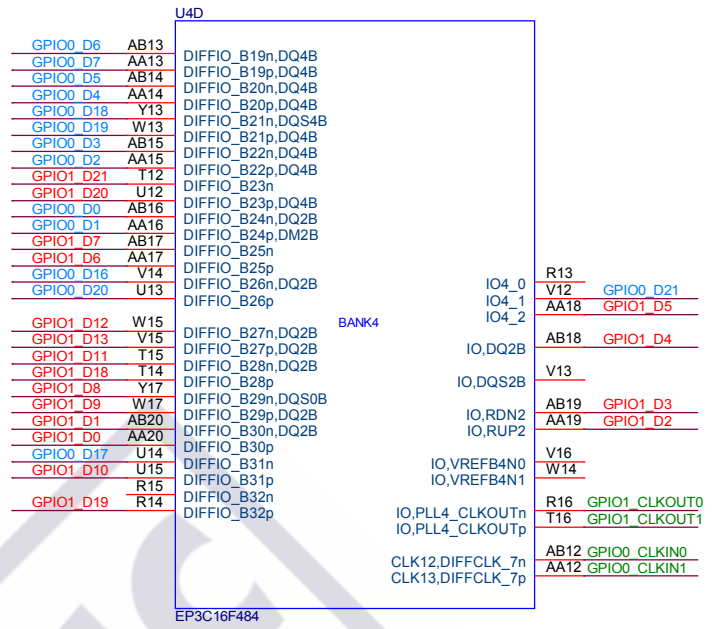
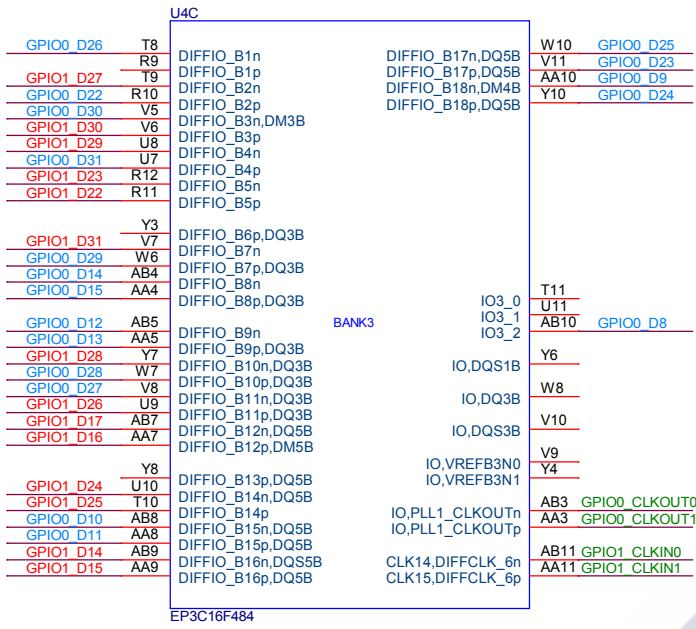
Size: Custom Document Number: BANK1, BANK2 Rev: 0A

Date: Monday, September 27, 2010 Sheet: 13 of 19



GPIO0\_DIO\_311  
 GPIO0\_CLKIN0\_11  
 GPIO0\_CLKOUT0\_11

GPIO1\_DIO\_311  
 GPIO1\_CLKIN0\_11  
 GPIO1\_CLKOUT0\_11

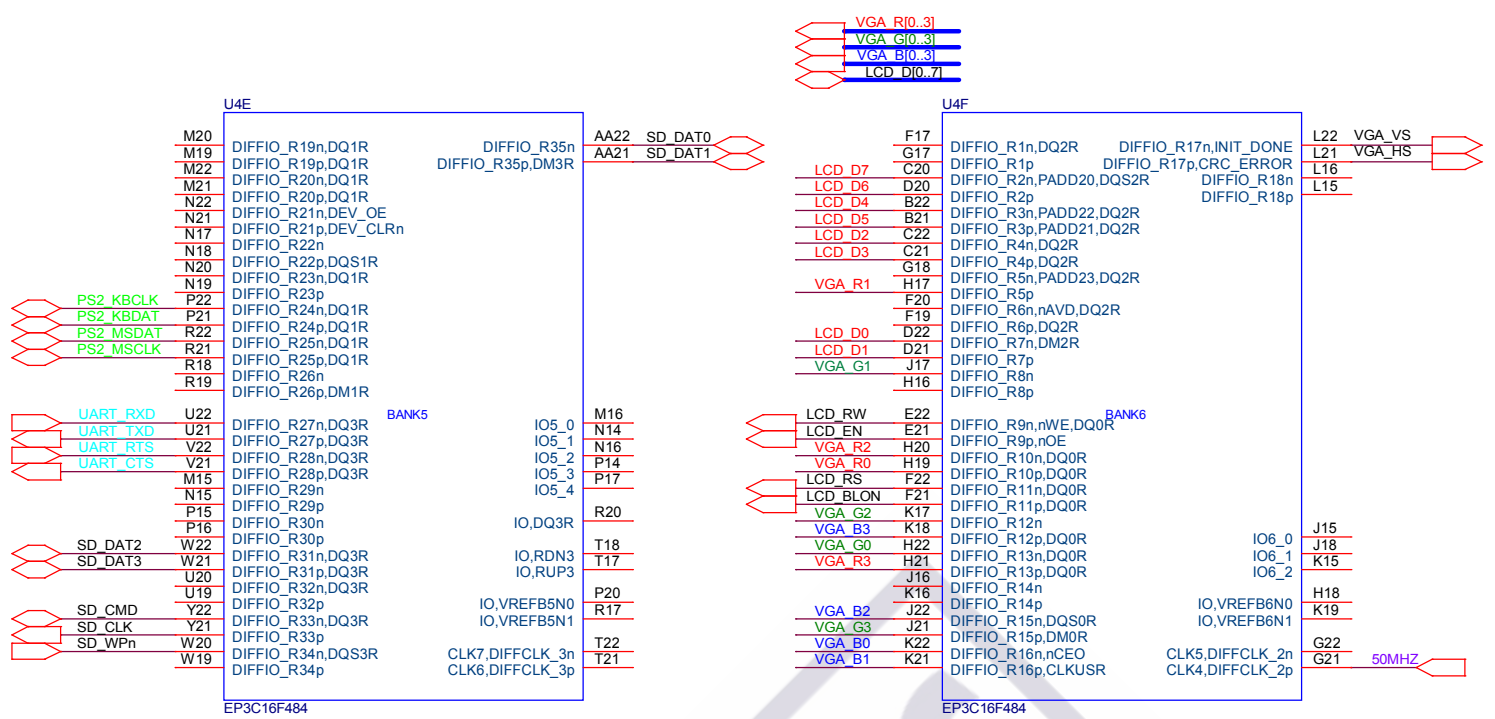


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Title: **ALTERA DE0**

Size A: Document Number: **BANK3, BANK4** Rev 0A

Date: Monday, September 27, 2010 Sheet 14 of 19



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**Title** ALTERA DEO

**Size A** Document Number **BANK5, BANK6** **Rev 0A**

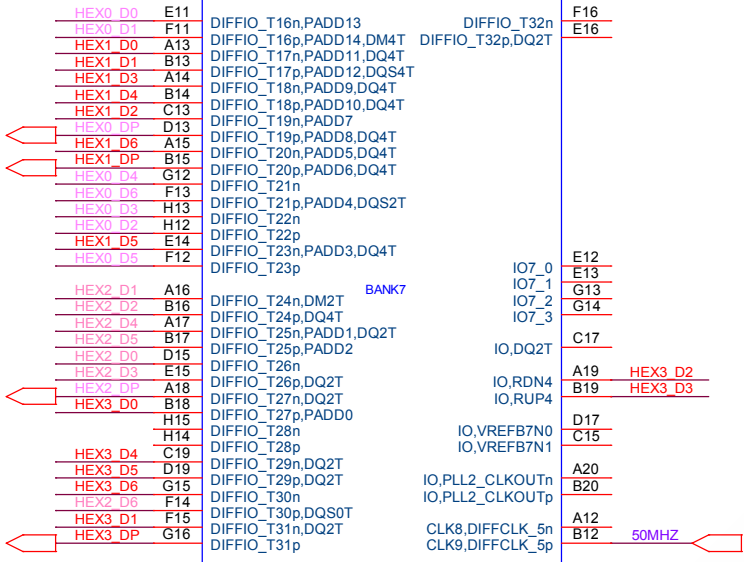
**Date:** Monday, September 27, 2010 **Sheet** 15 **of** 19

HEX0\_D10\_6I  
 HEX1\_D10\_6I  
 HEX2\_D10\_6I  
 HEX3\_D10\_6I

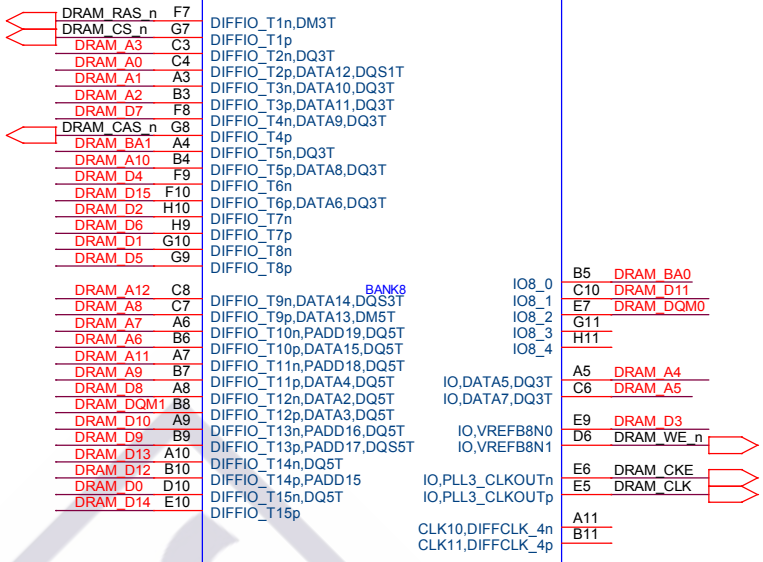
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 DRAM\_A10\_12I  
 DRAM\_DQM0\_1I  
 DRAM\_BA10\_1I

U4G

U4H



EP3C16F484



EP3C16F484

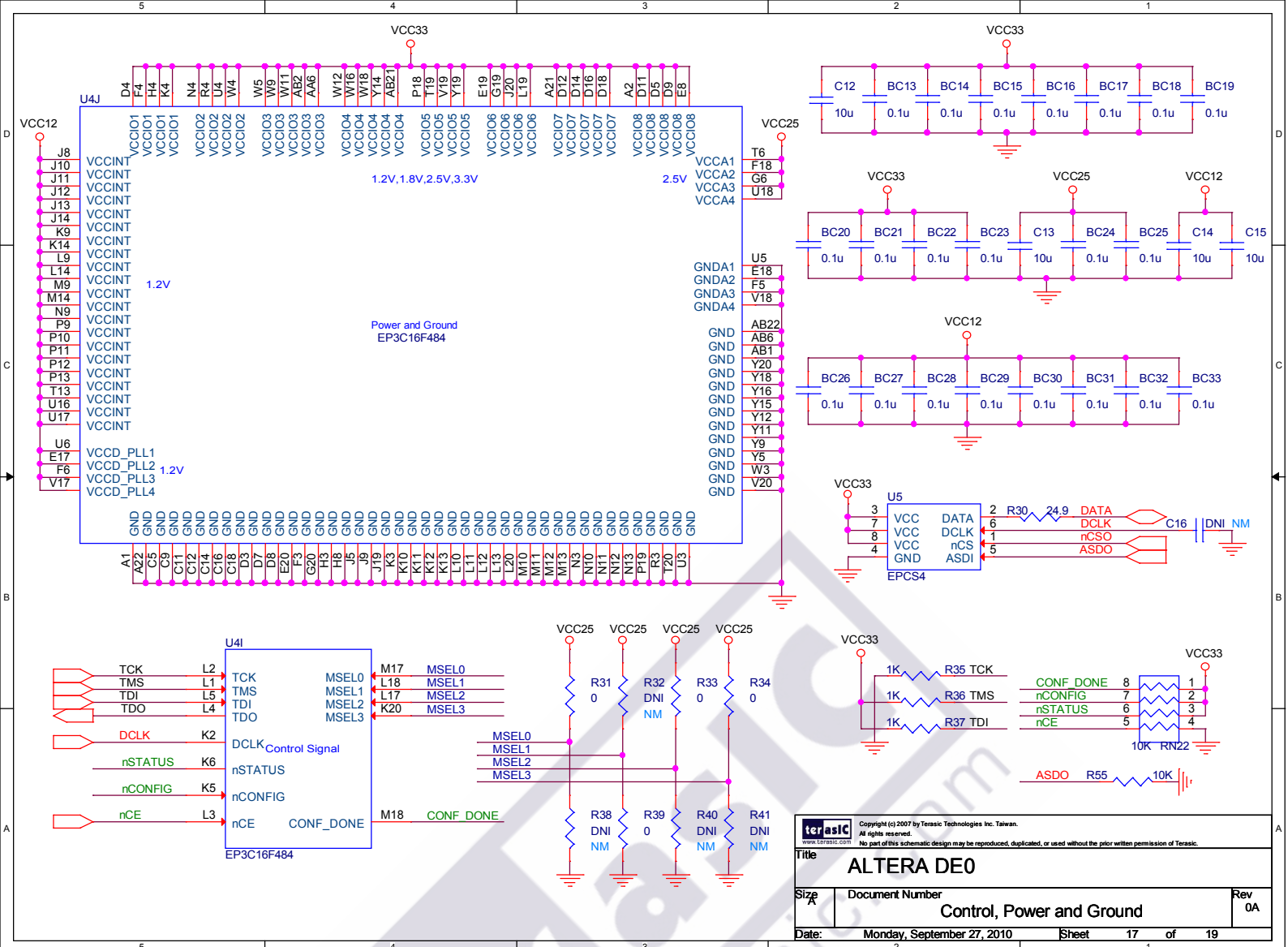
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**Title** ALTERA DEO

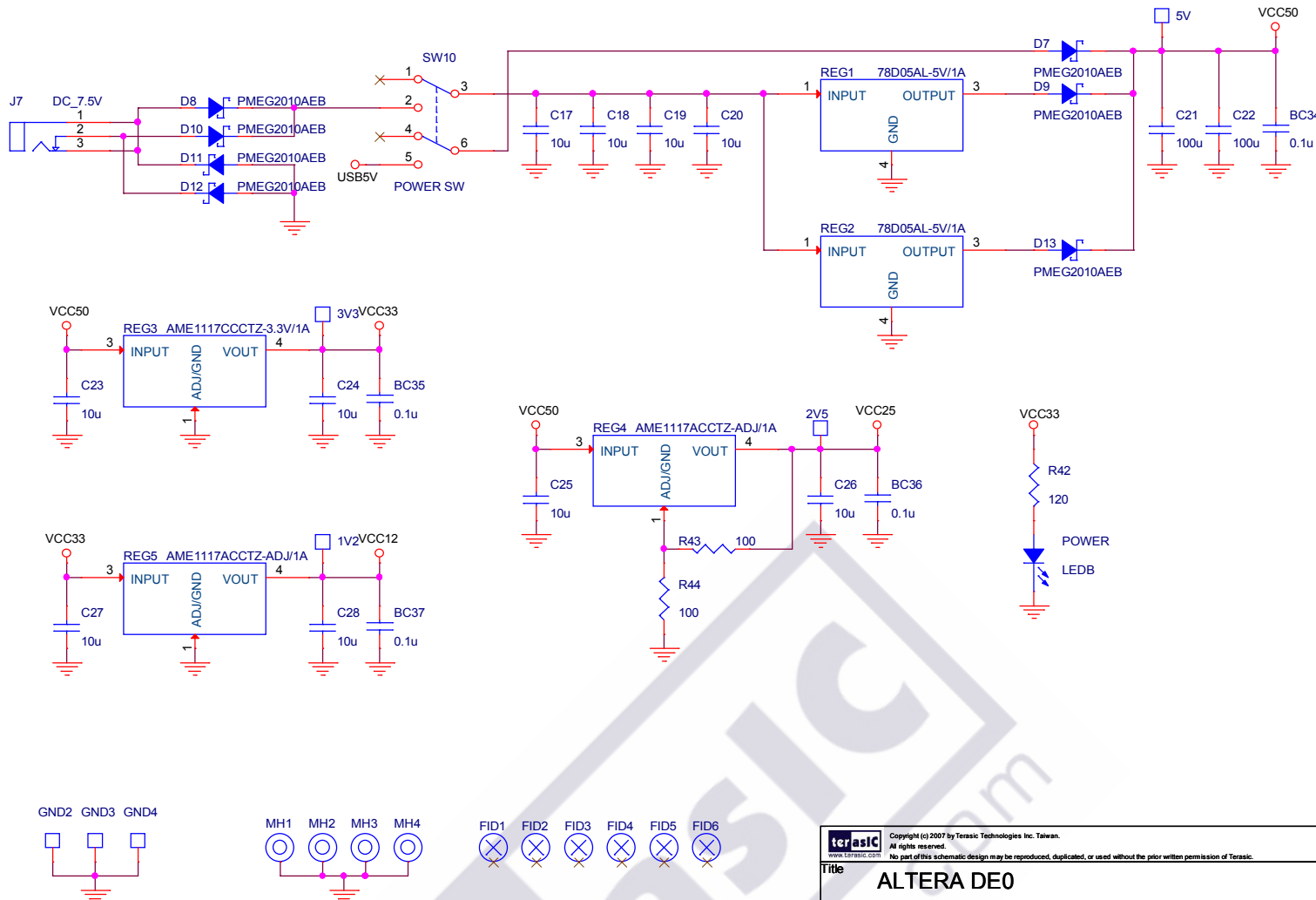
Size A	Document Number	Rev 0A
	<b>BANK7, BANK8</b>	

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<b>Title</b> ALTERA DE0	
<b>Size</b> A	<b>Document Number</b>
<b>Control, Power and Ground</b>	
<b>Date:</b> Monday, September 27, 2010	<b>Sheet</b> 17 of 19
	<b>Rev</b> 0A



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<b>Title</b> ALTERA DE0	
<b>Size</b> A	<b>Document Number</b> POWER
<b>Date:</b> Monday, September 27, 2010	
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