

MAIN
main.SchDoc

MECH
mechanical.SchDoc

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Title
Copper Suicide - Top

Engineer
J. Brinton

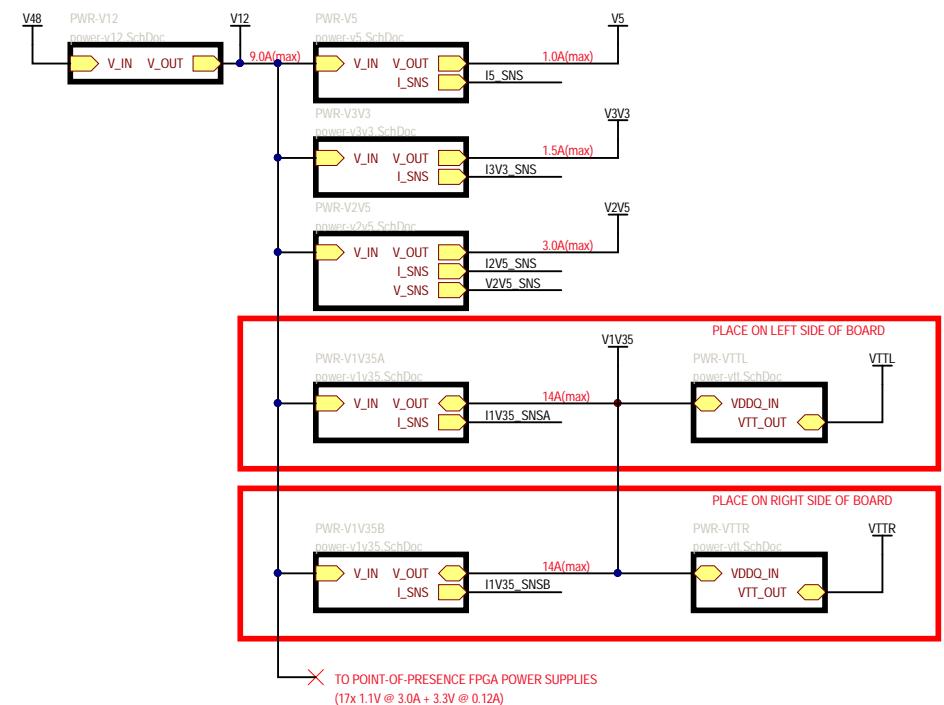
Drawn By
J. Brinton

Checked By
J. Brinton

Revision
2

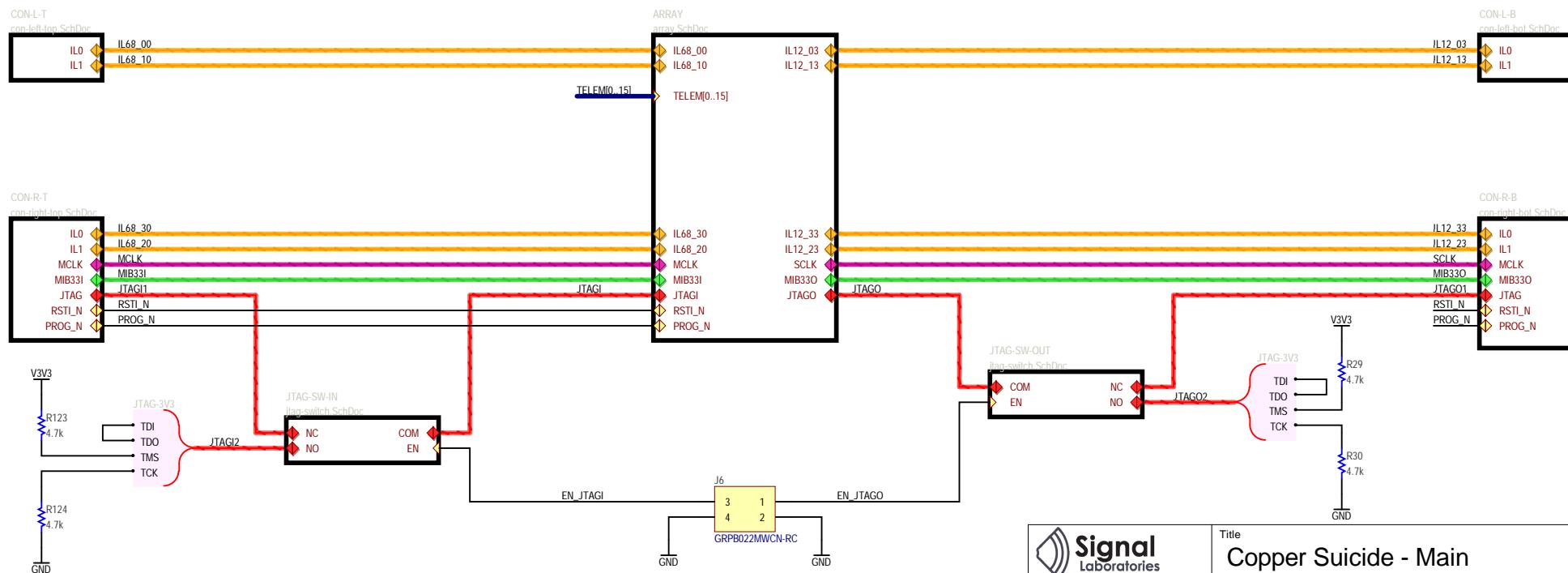
Sheet 1 of 44

Date
6/1/2017



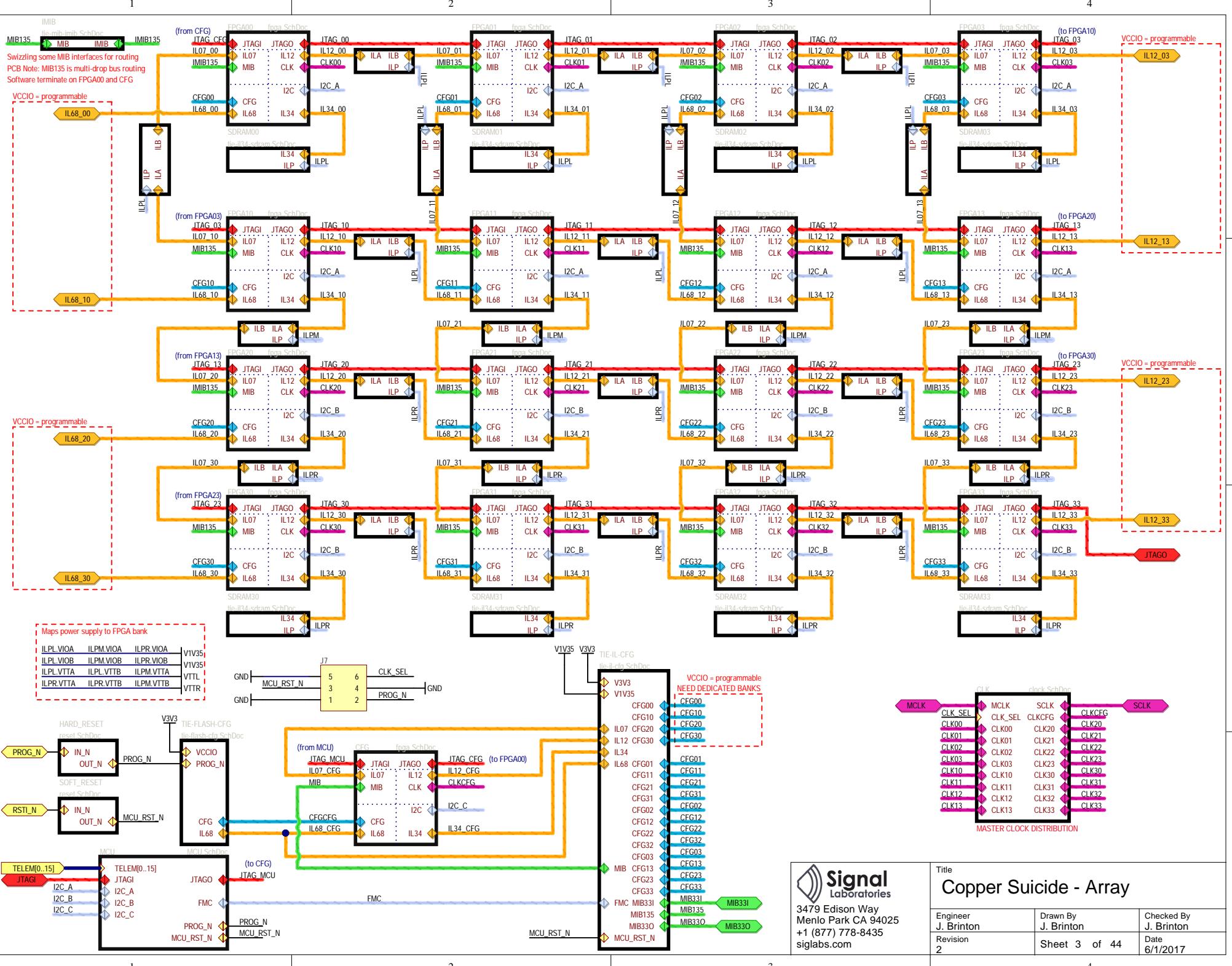
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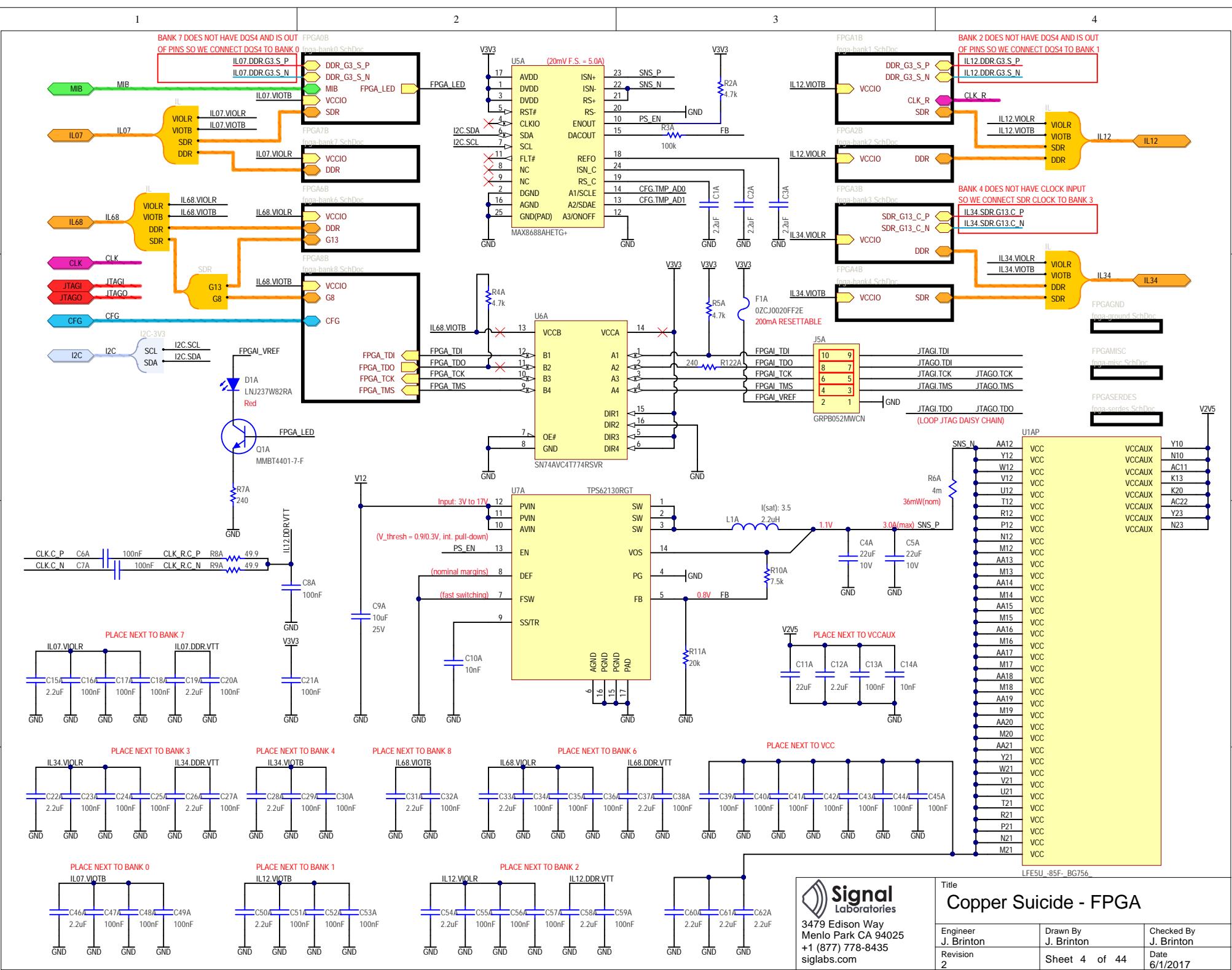
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I1V35_SNSB	NT5	A B	TELEM4
I1V35_SNSB	NT6	A B	TELEM5
	NT7	A B	TELEM6
IL68_30_DDR_VIT	NT8	A B	TELEM7
IL68_30_VIOLR	NT9	A B	TELEM8
IL68_10_DDR_VIT	NT10	A B	TELEM9
IL68_10_VIOLR	NT11	A B	TELEM10
IL12_13_DDR_VIT	NT12	A B	TELEM11
IL12_13.VIOLR	NT13	A B	TELEM12
IL12_33_DDR_VIT	NT14	A B	TELEM13
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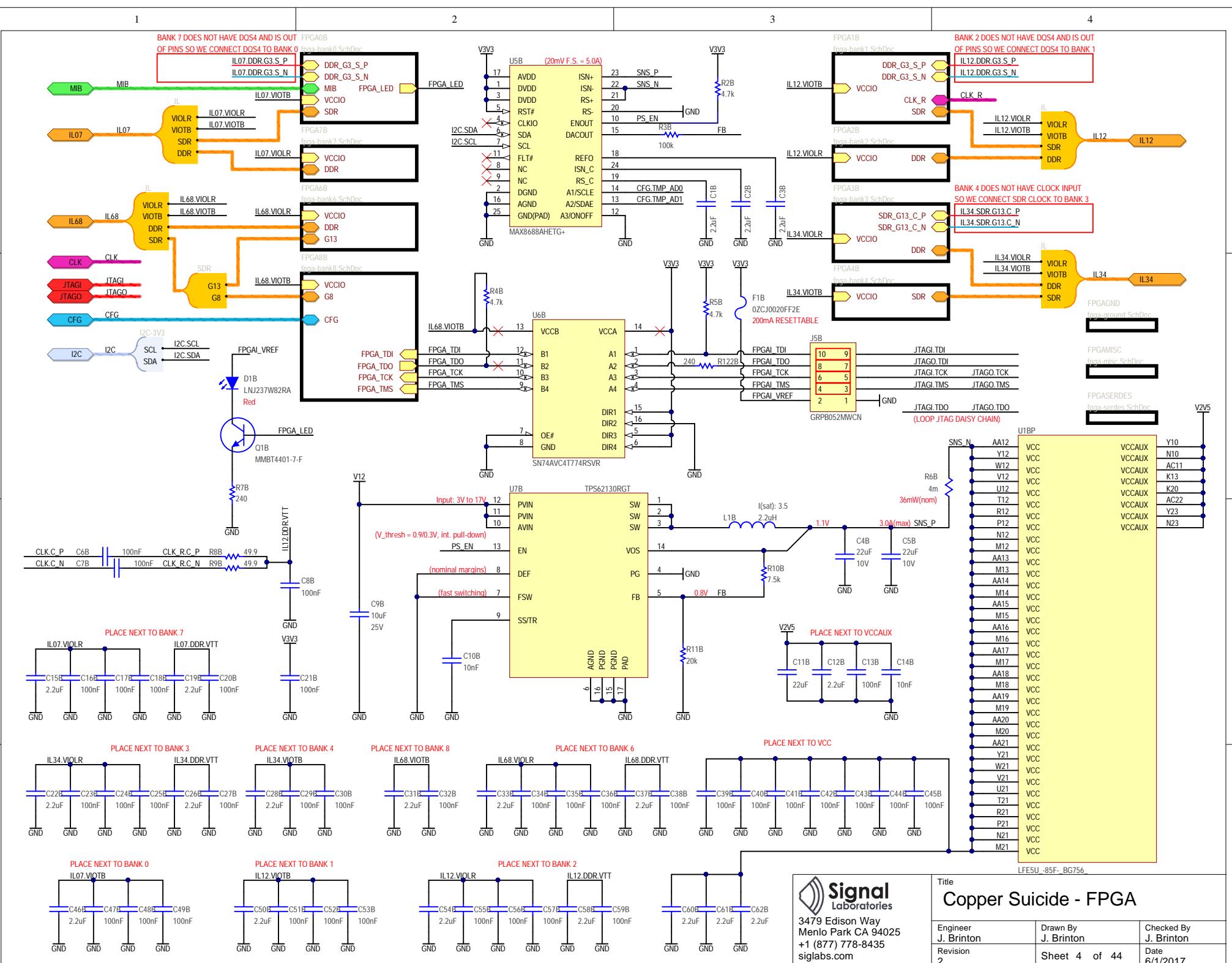


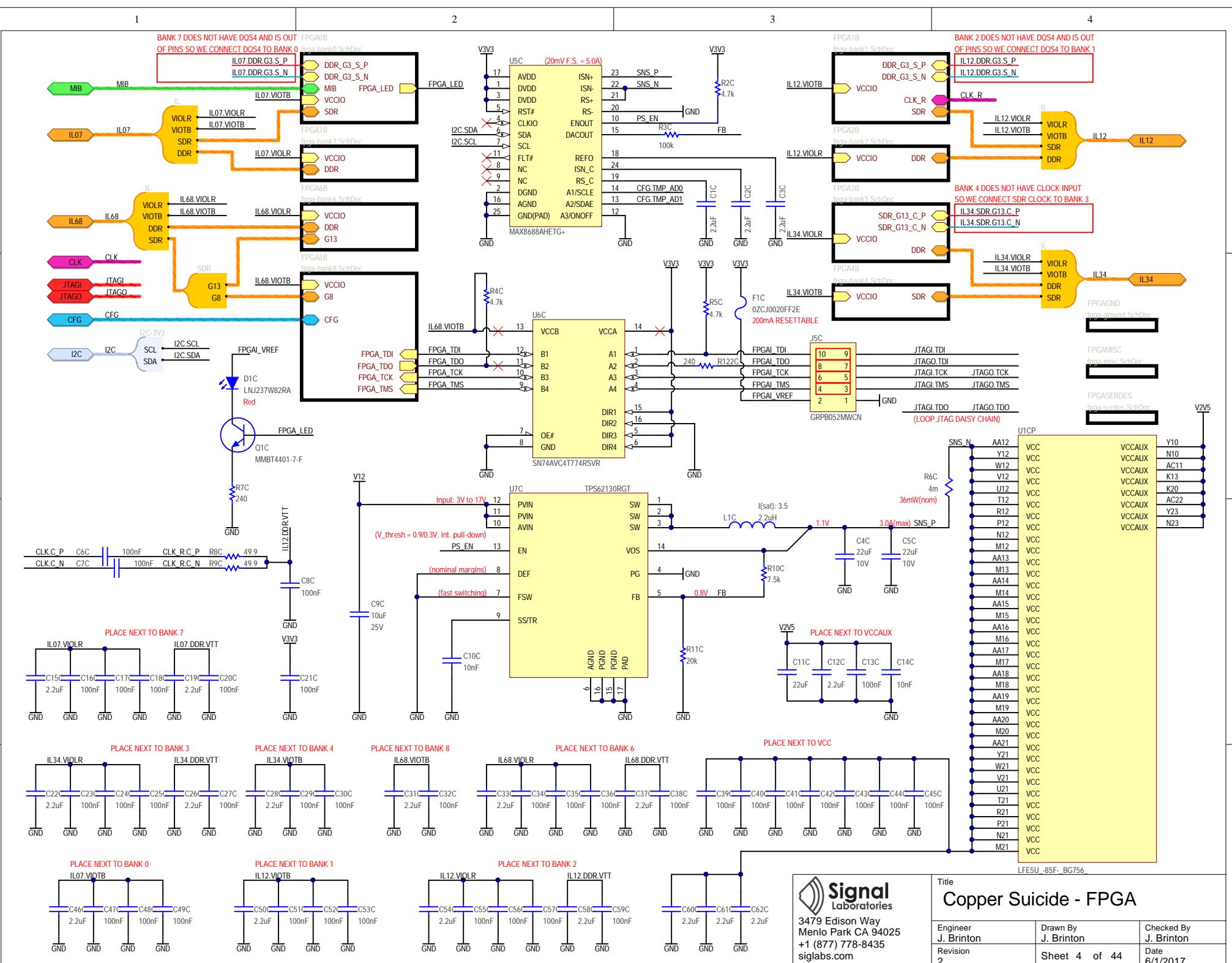
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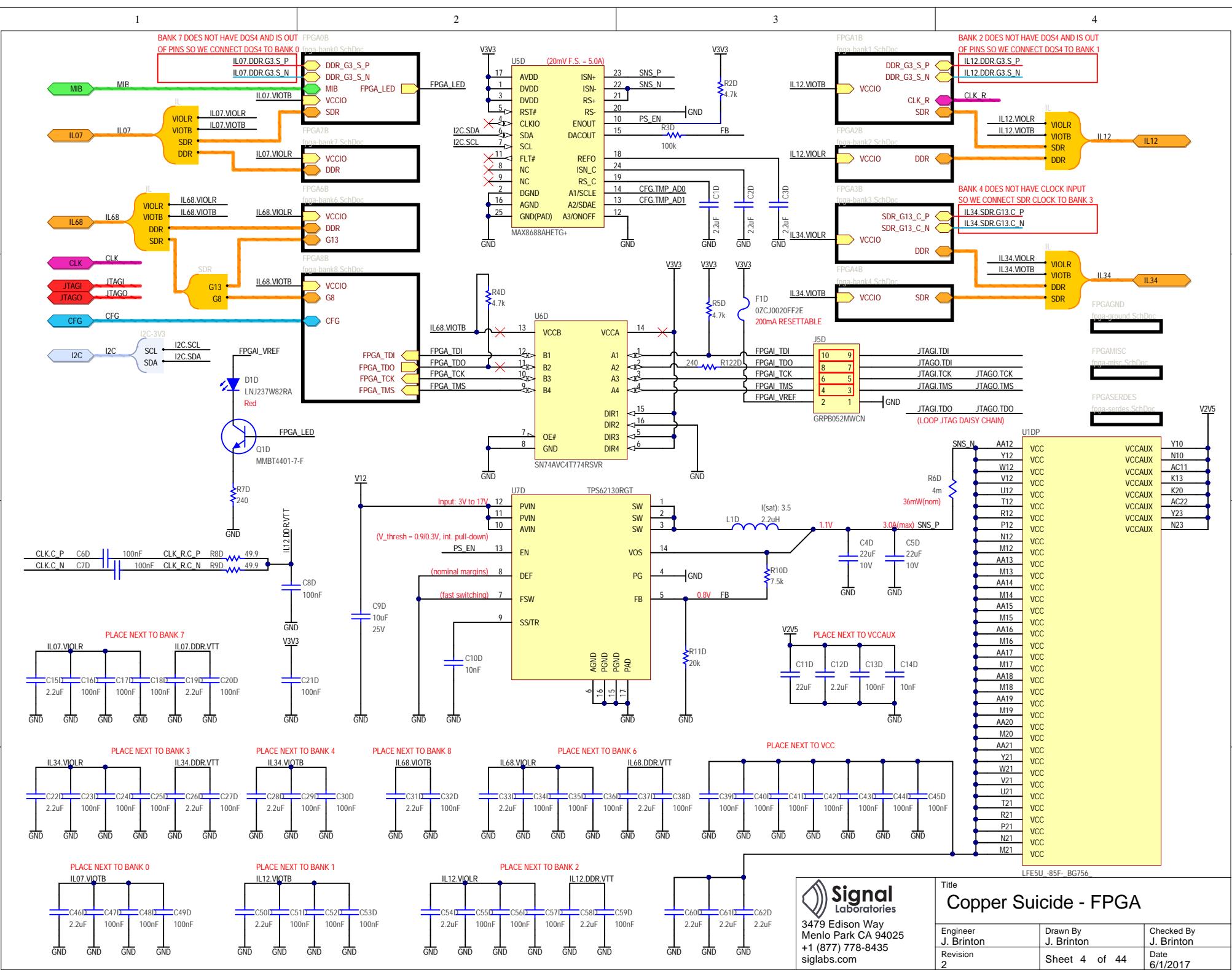
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 2 of 44	Date 6/1/2017

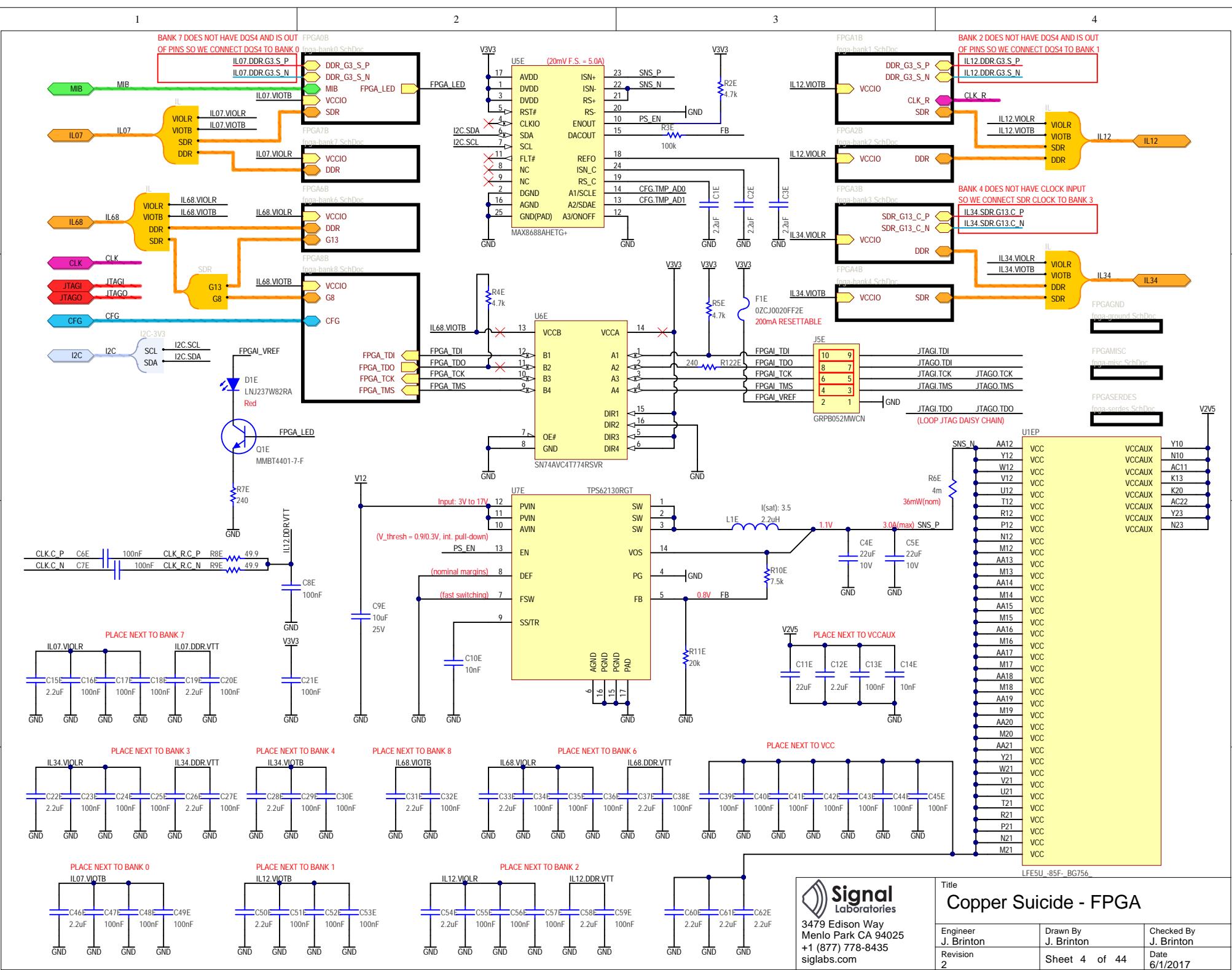


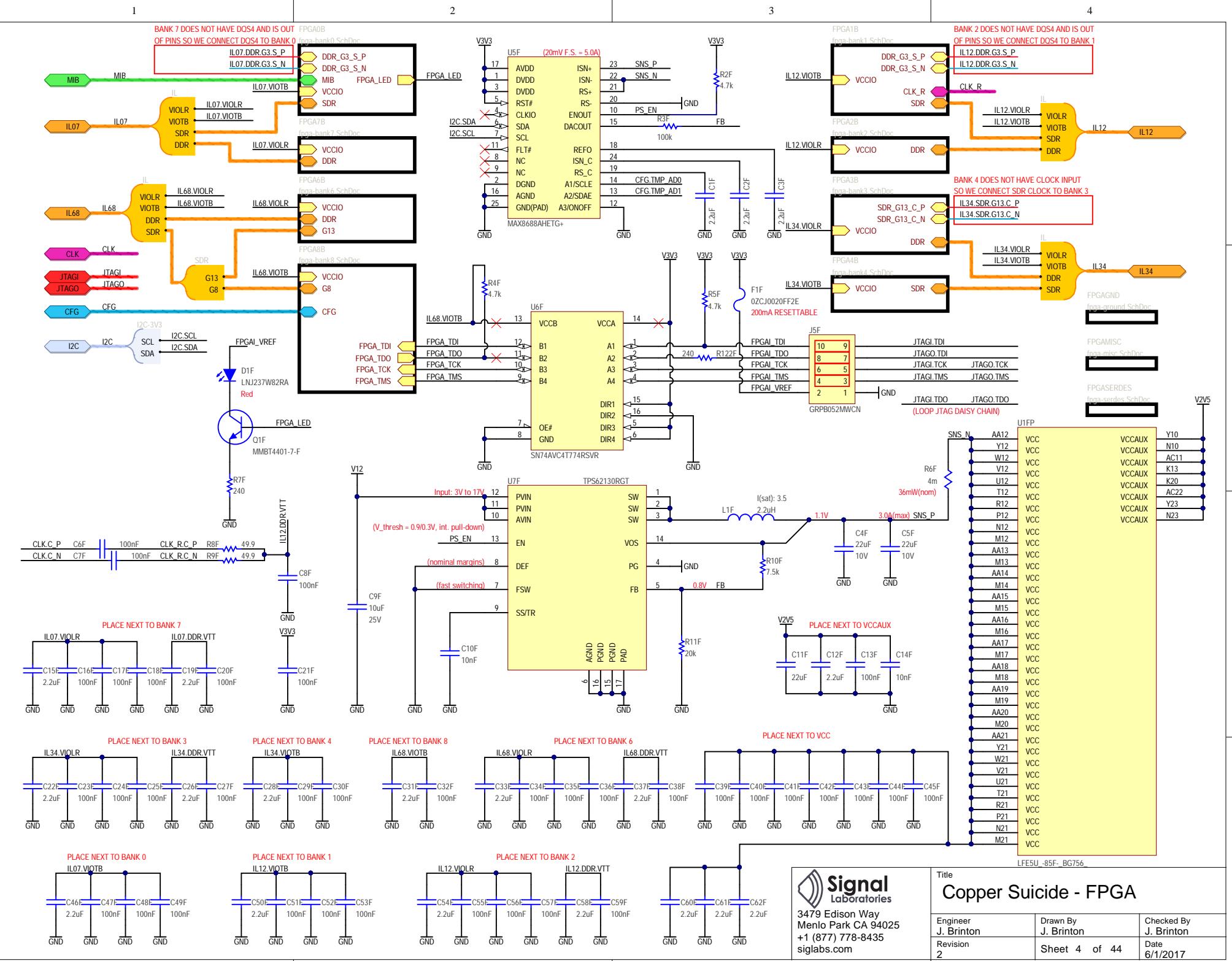


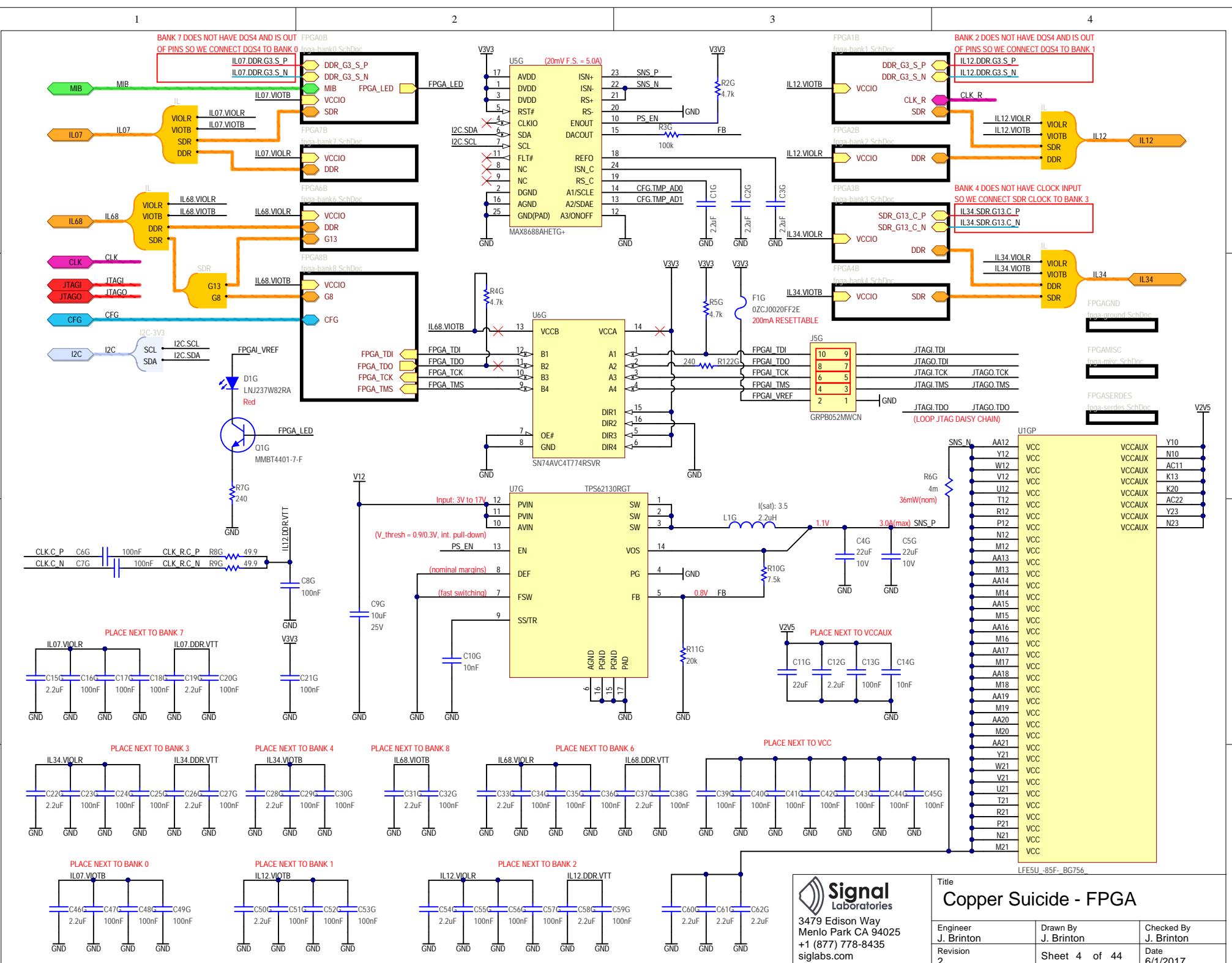


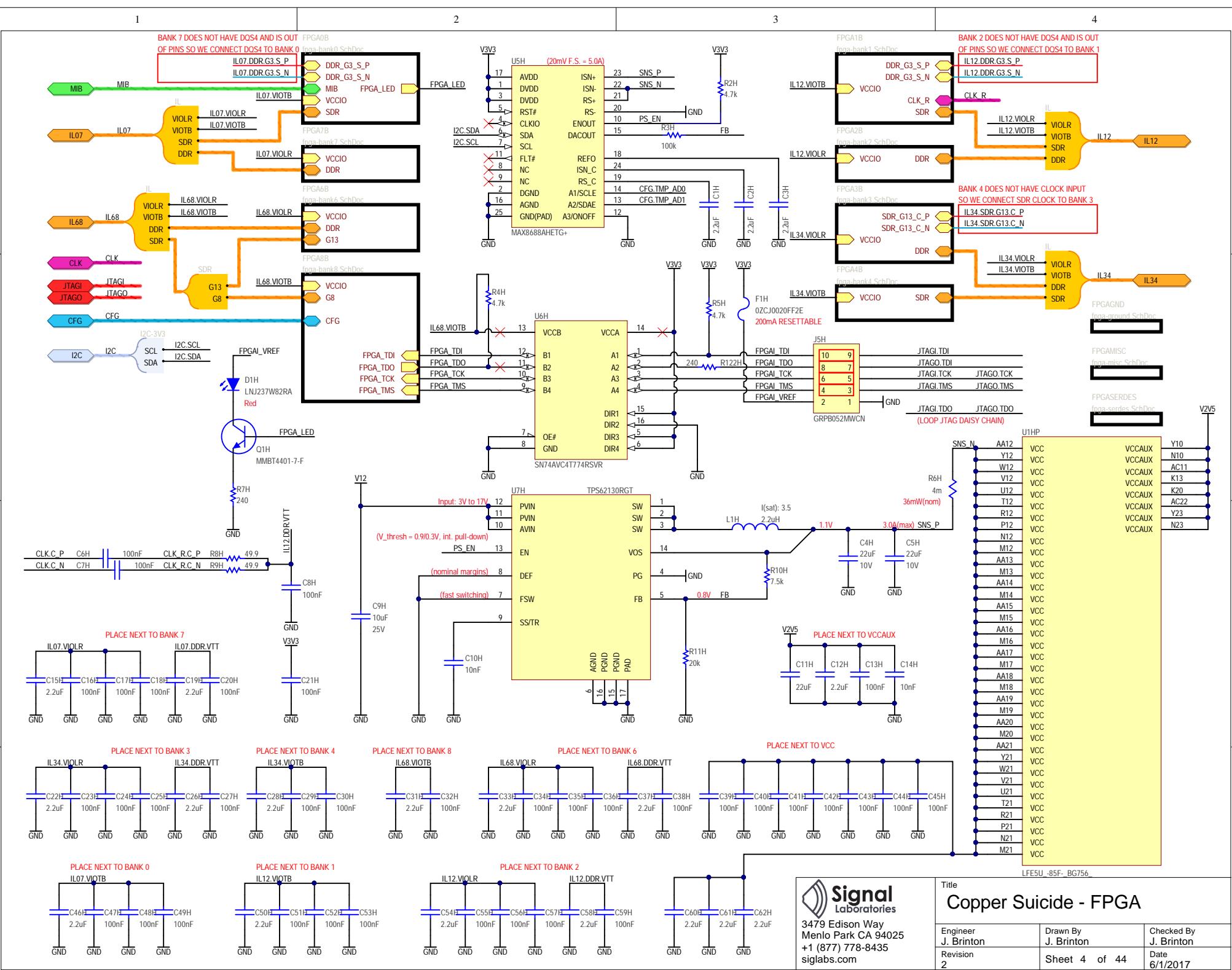


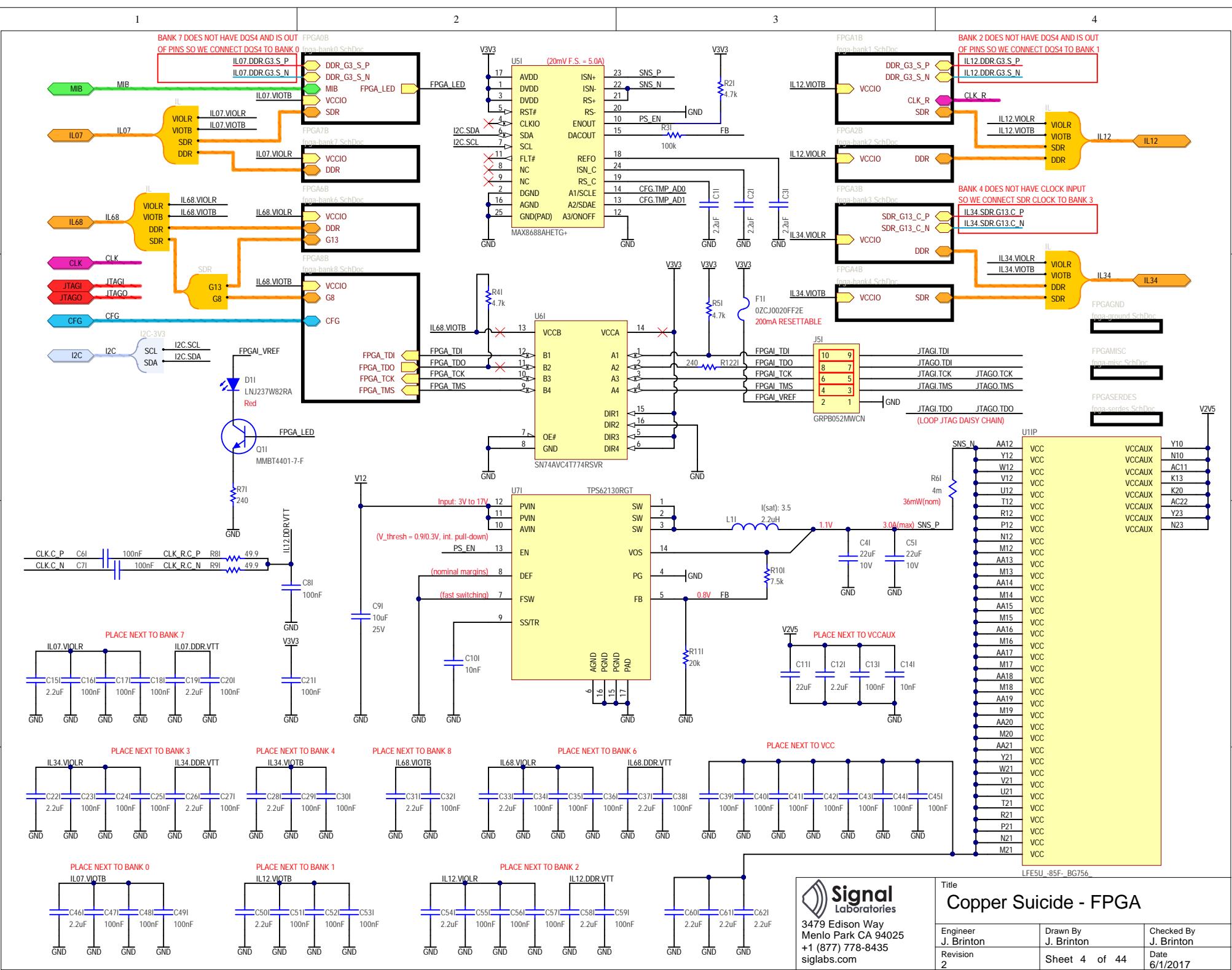


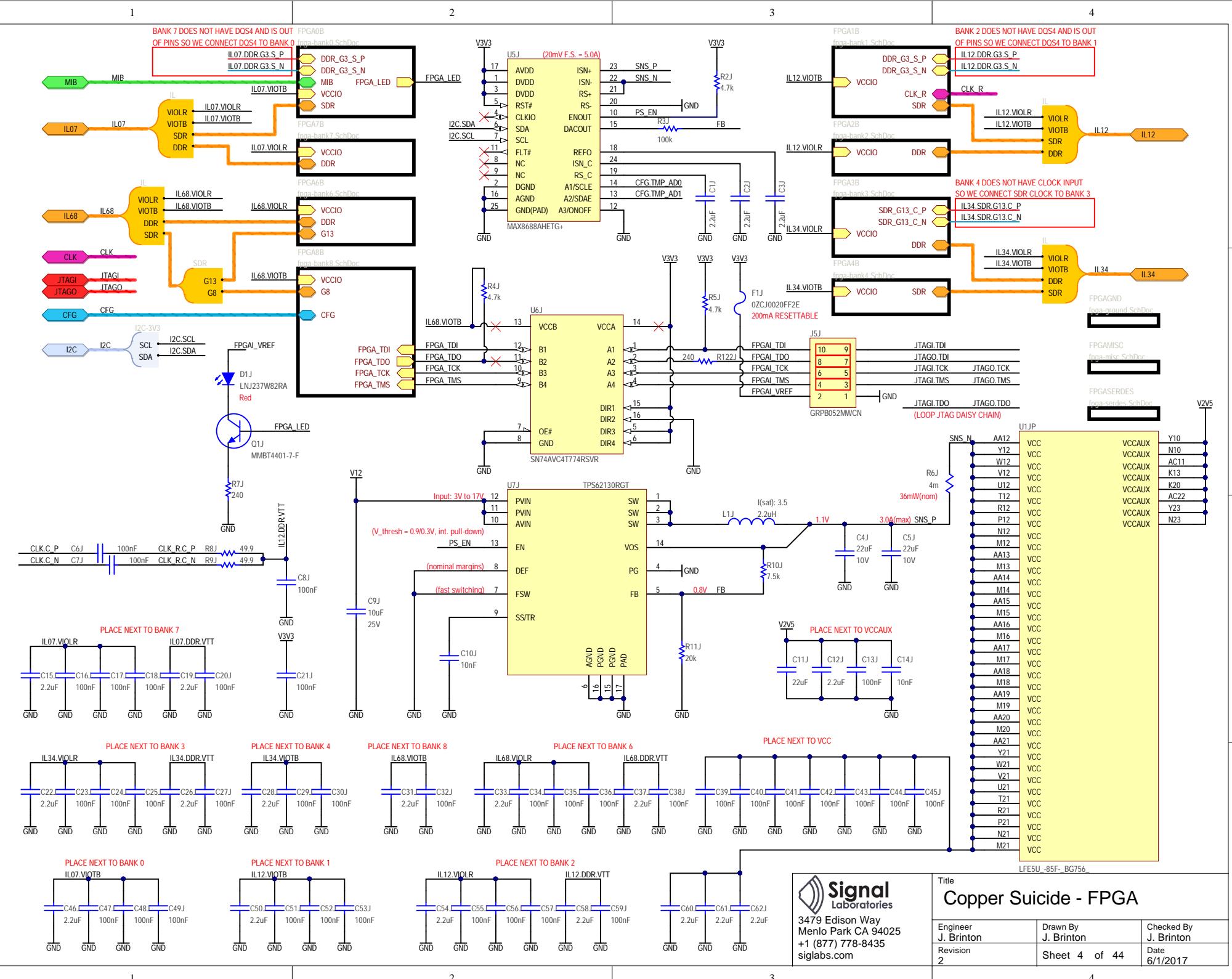


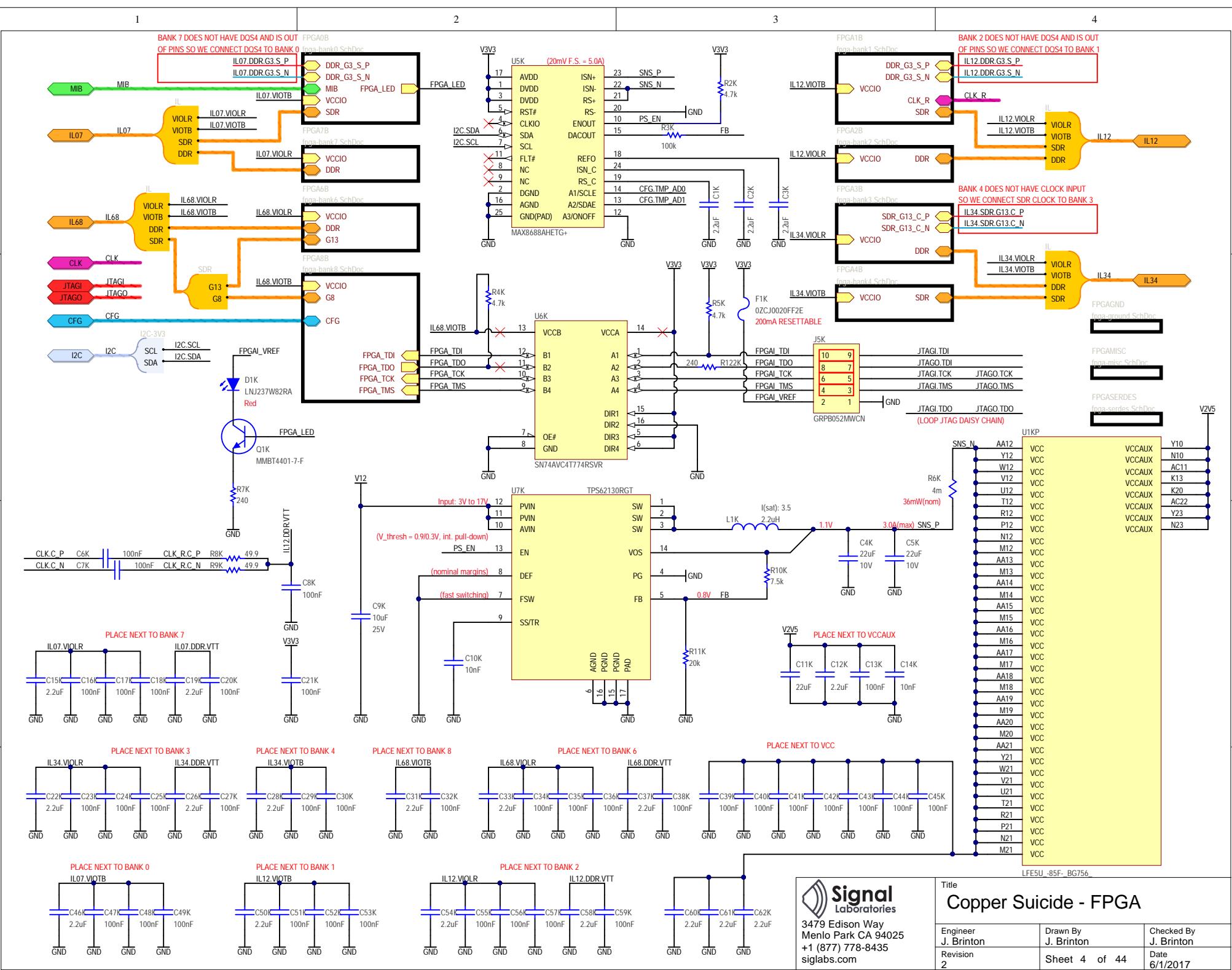


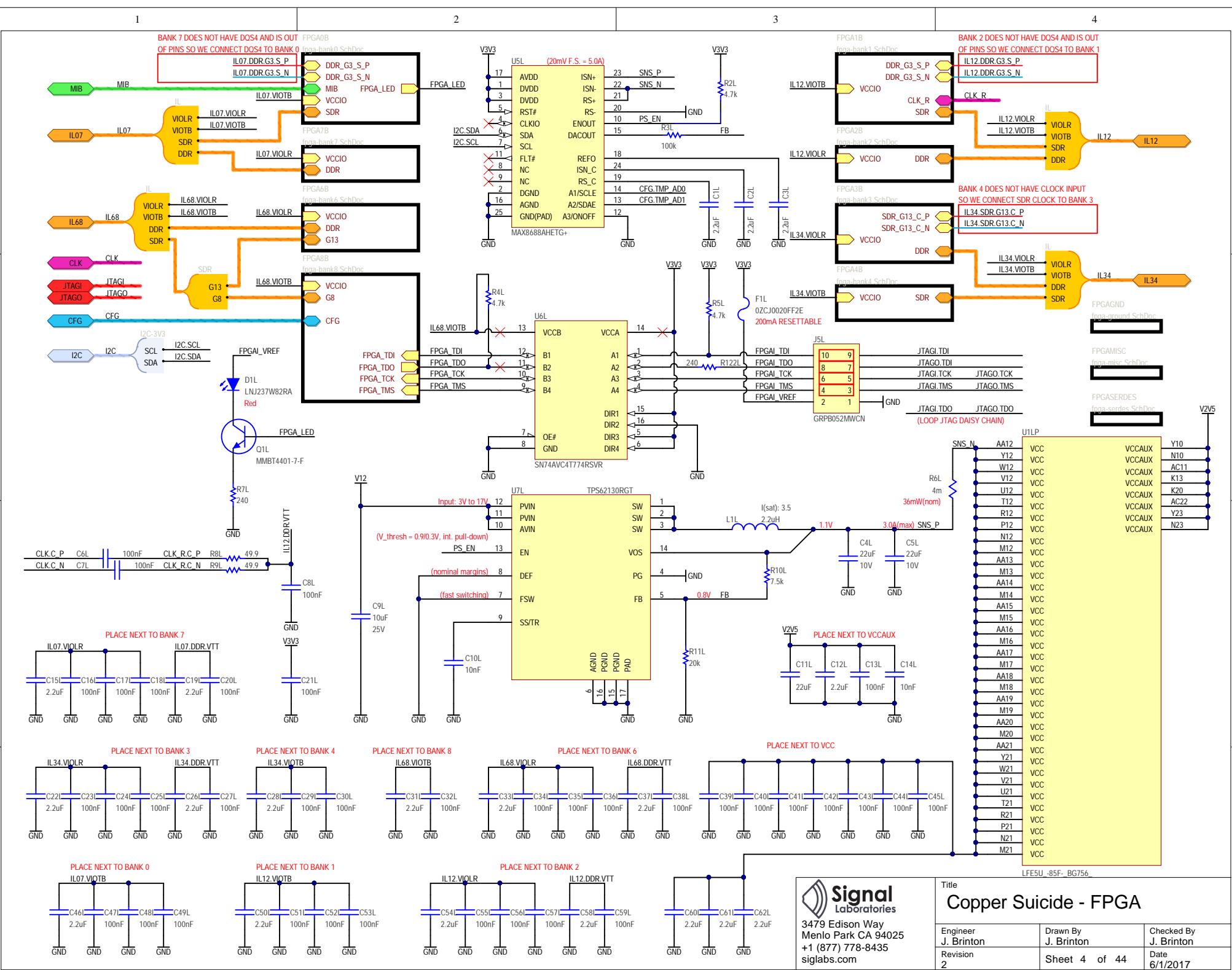


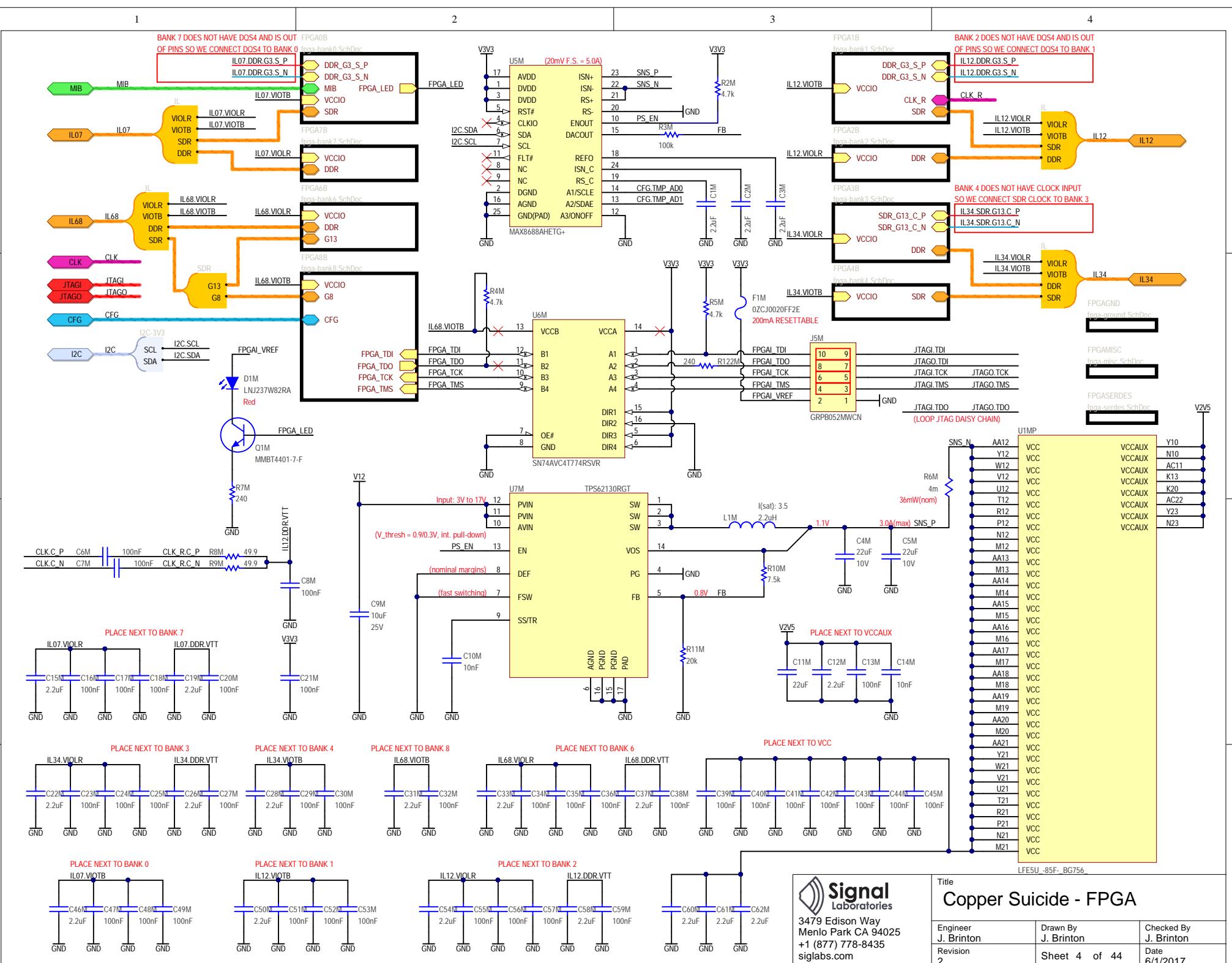


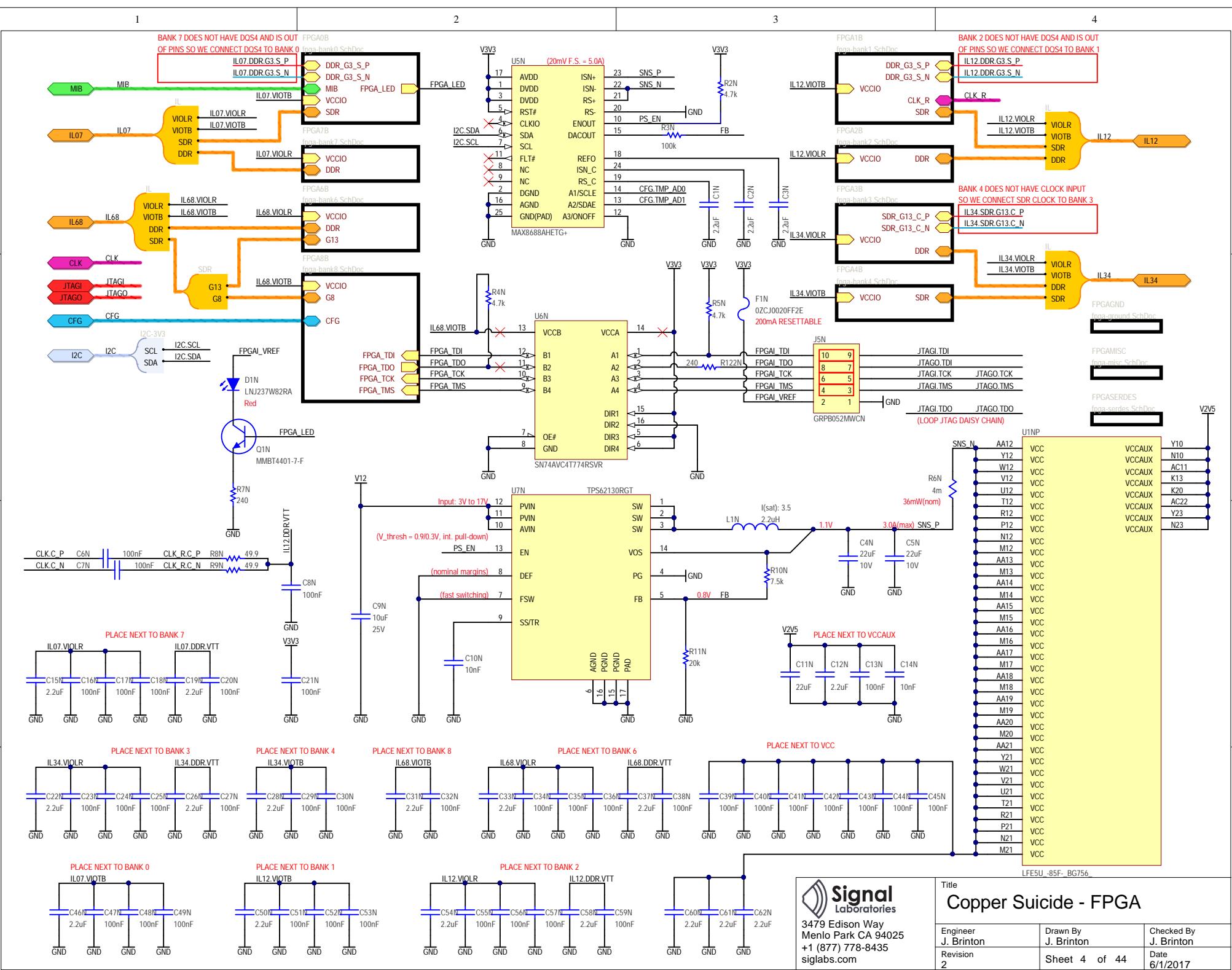


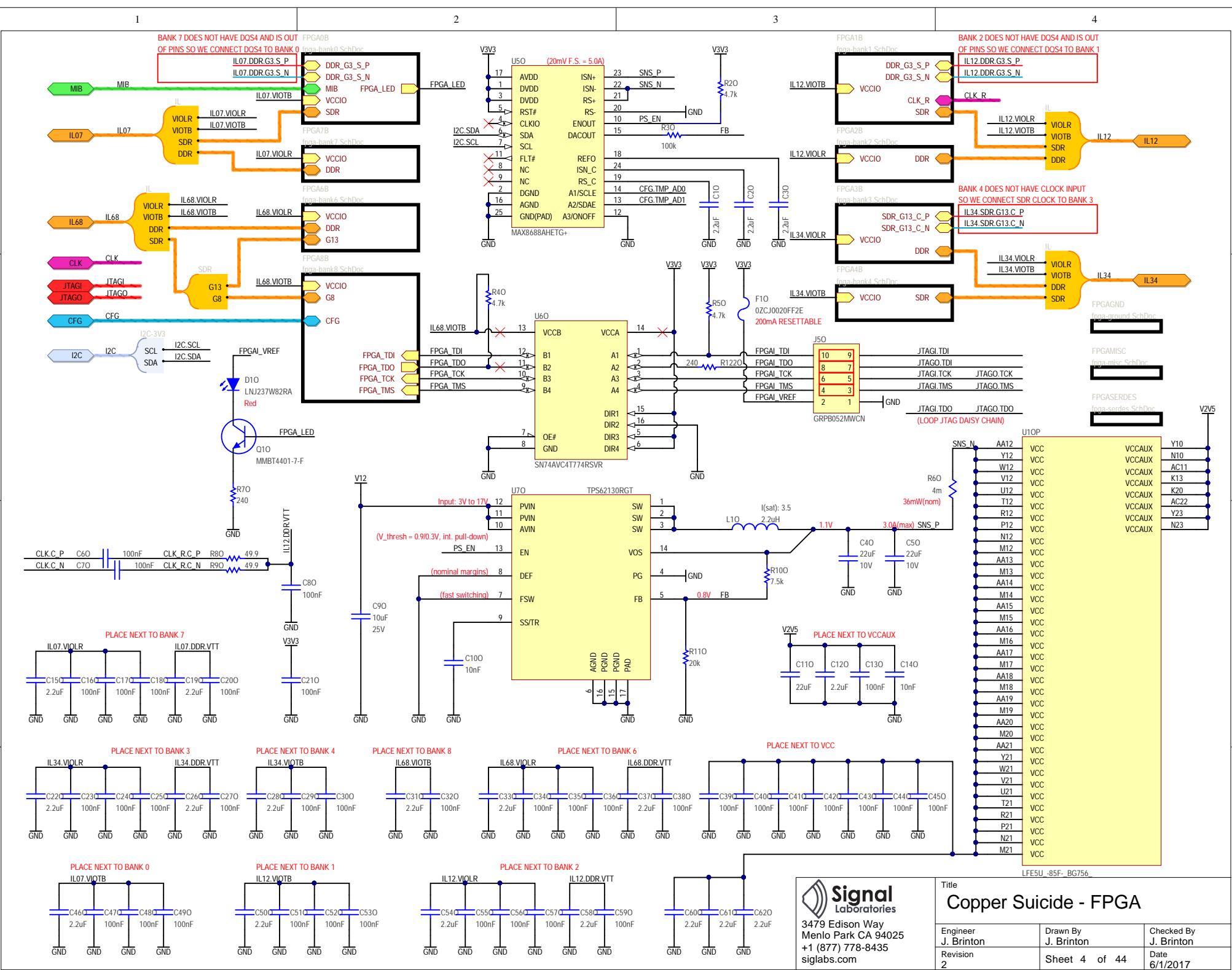


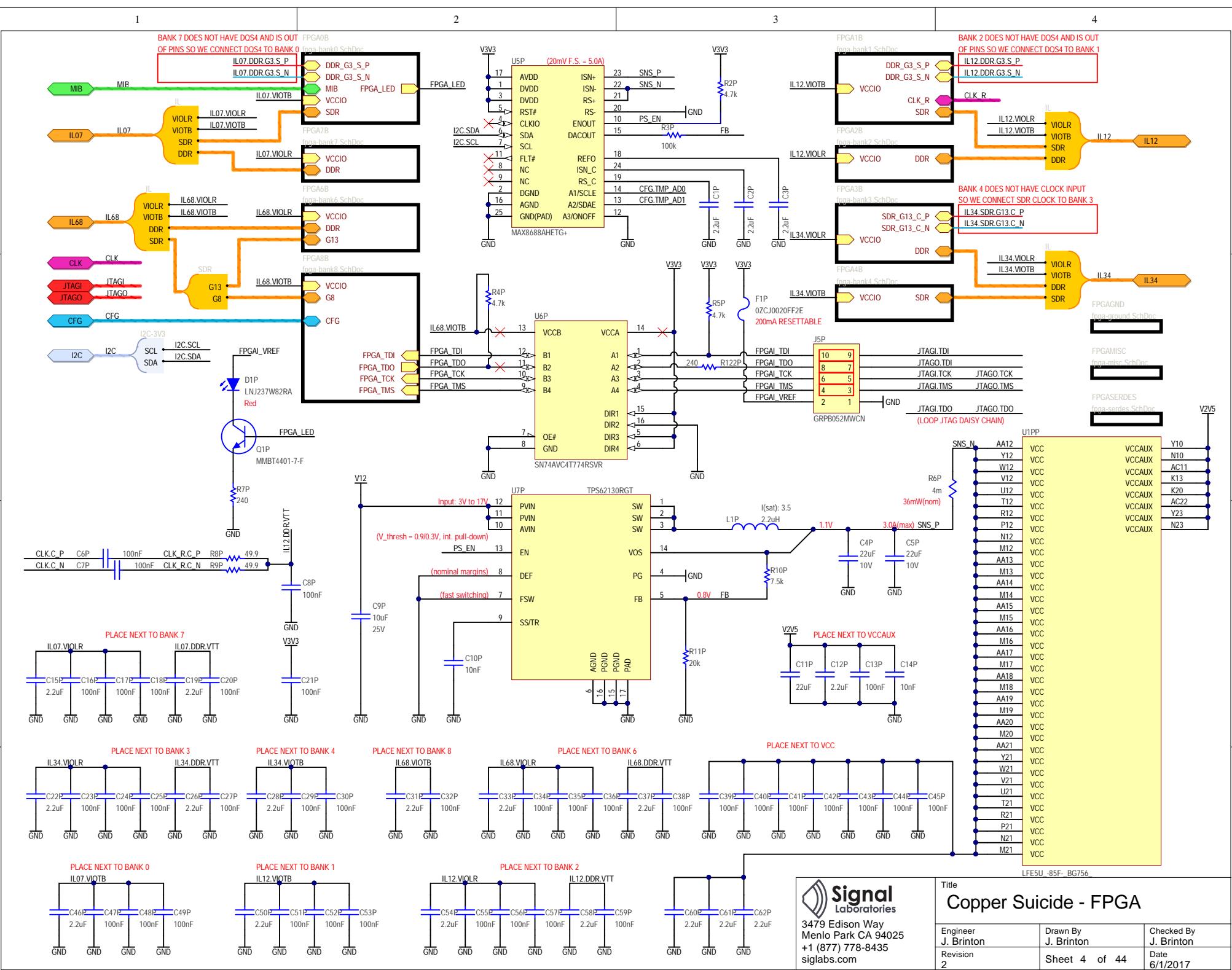


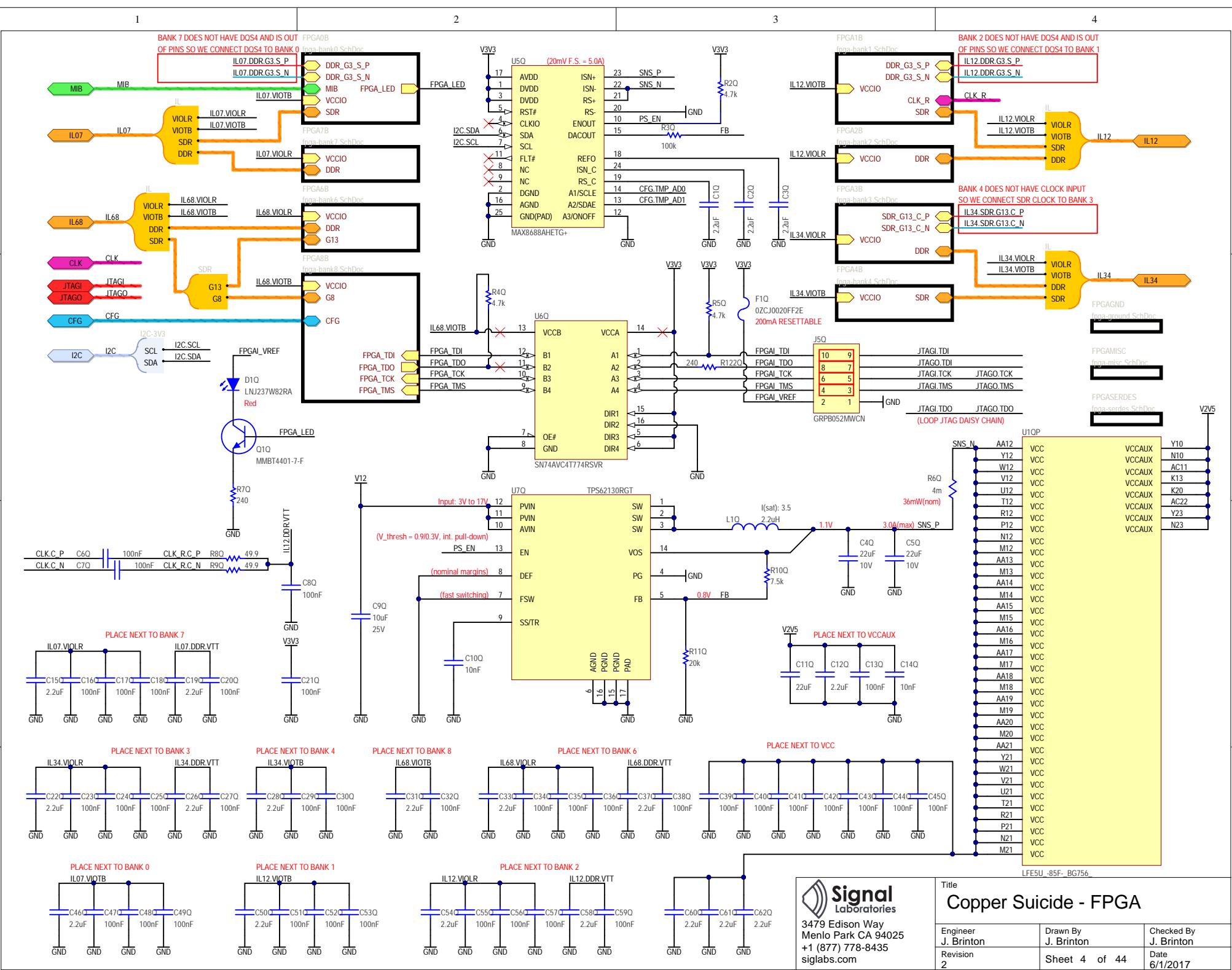


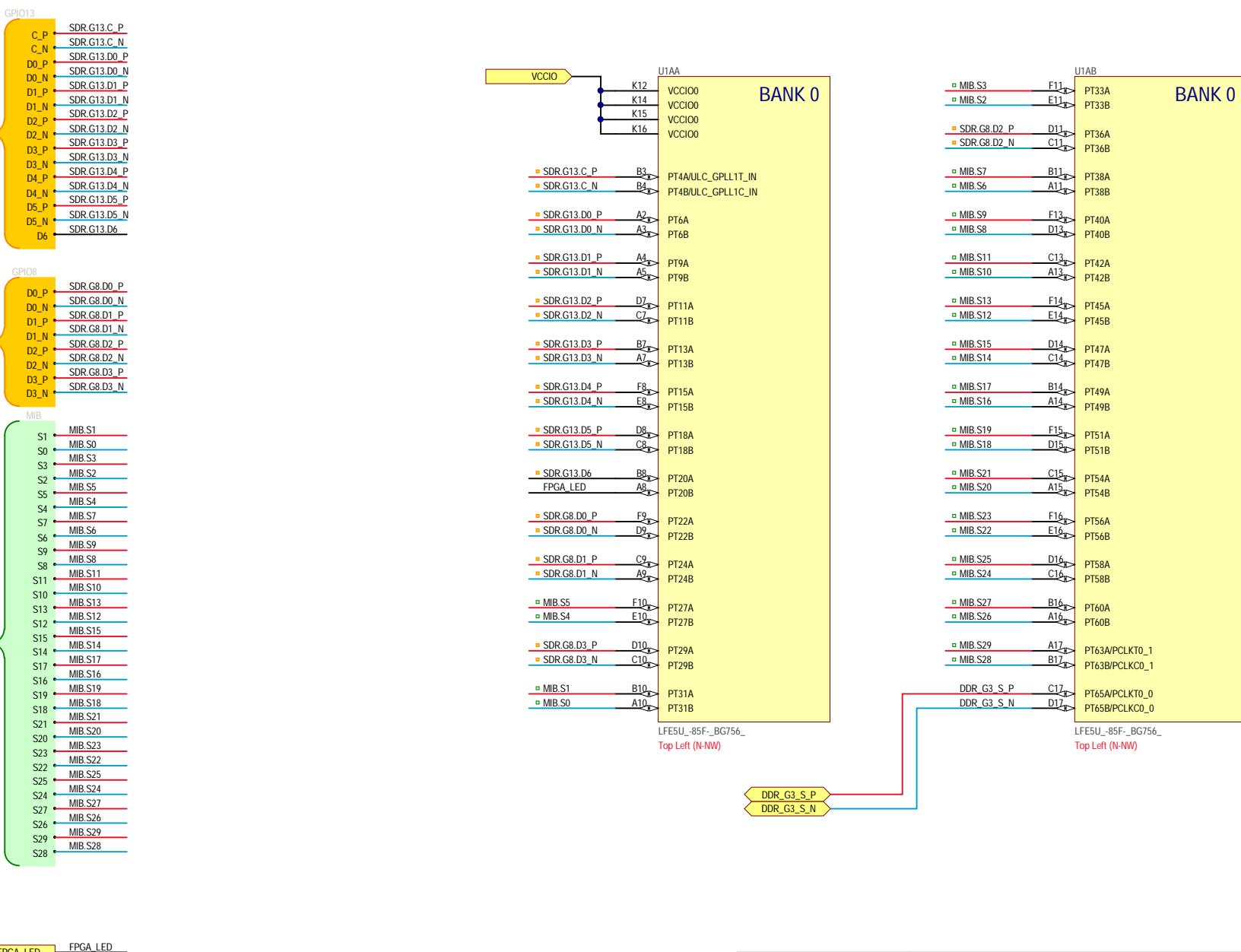






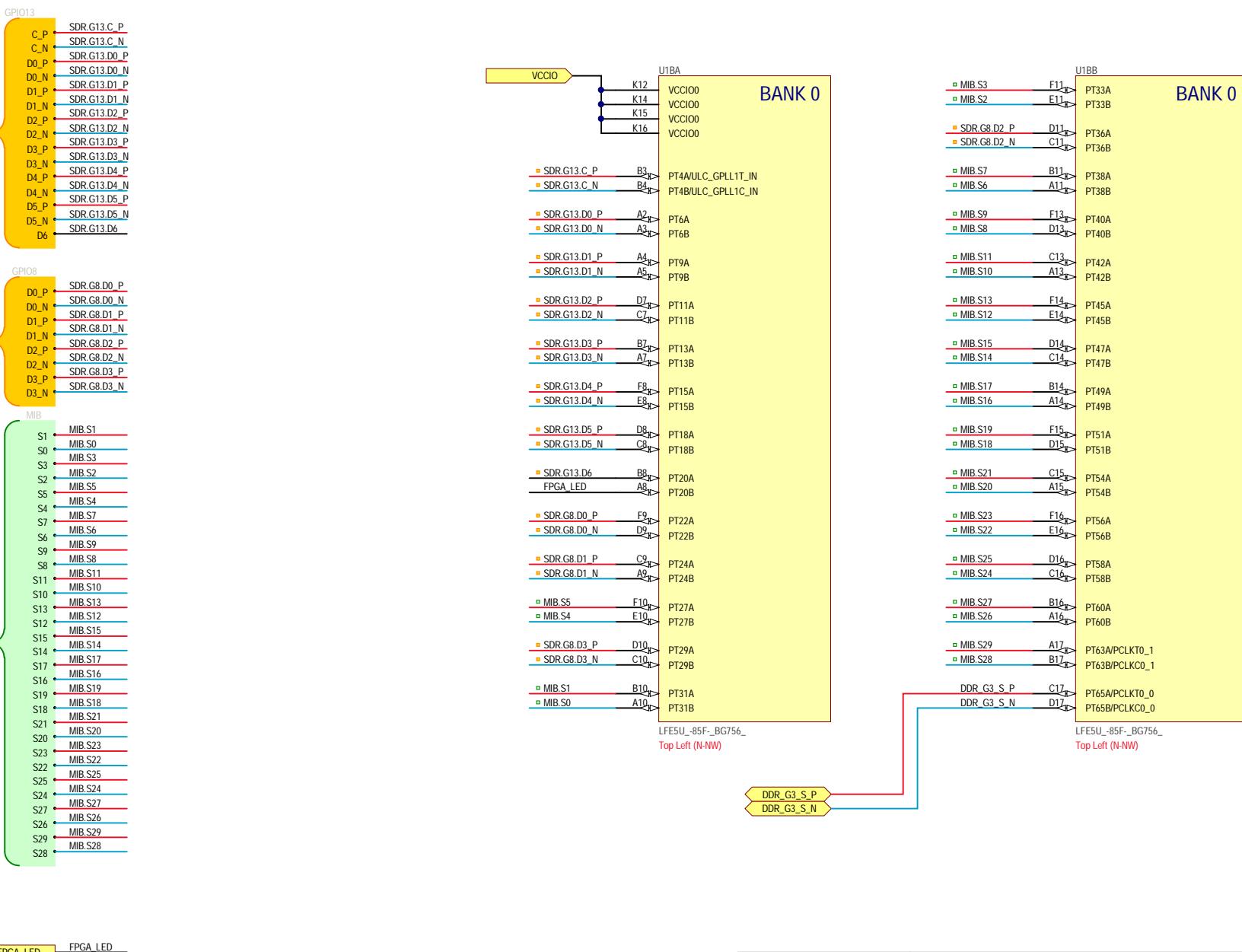


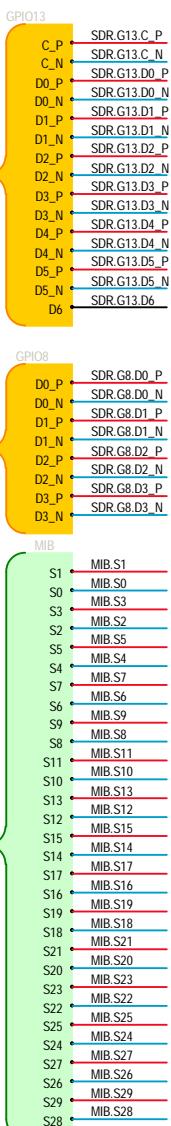




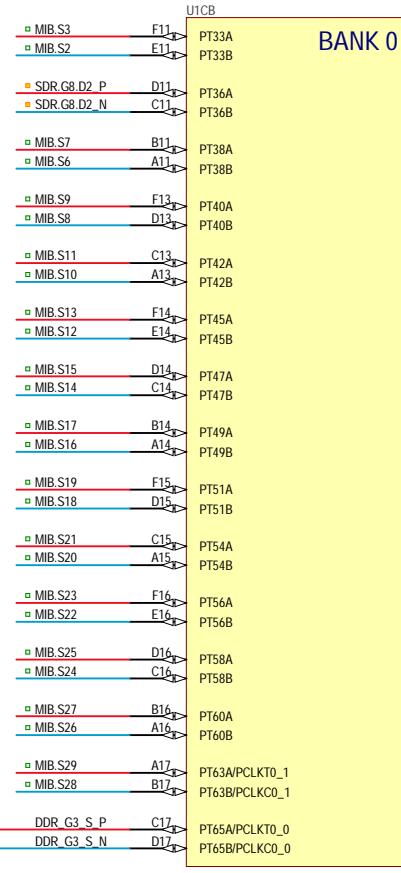
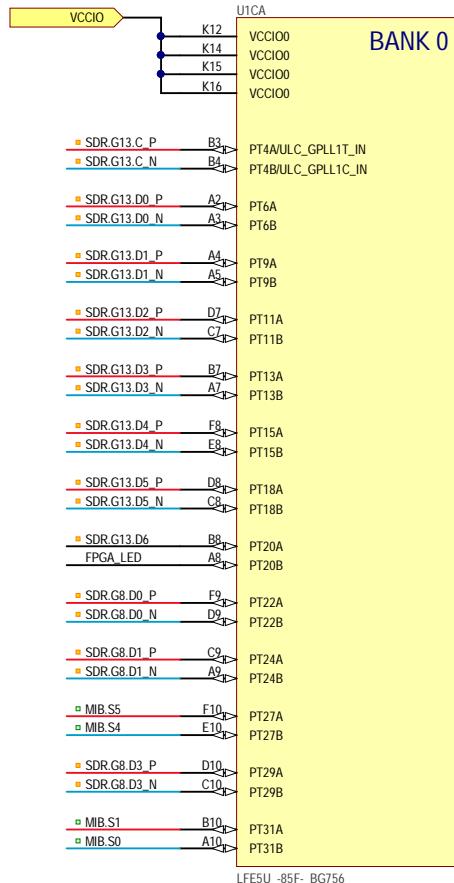
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Title		
Copper Suicide - FPGA - Bank 0		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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FPGA_LED → FPGA_LED



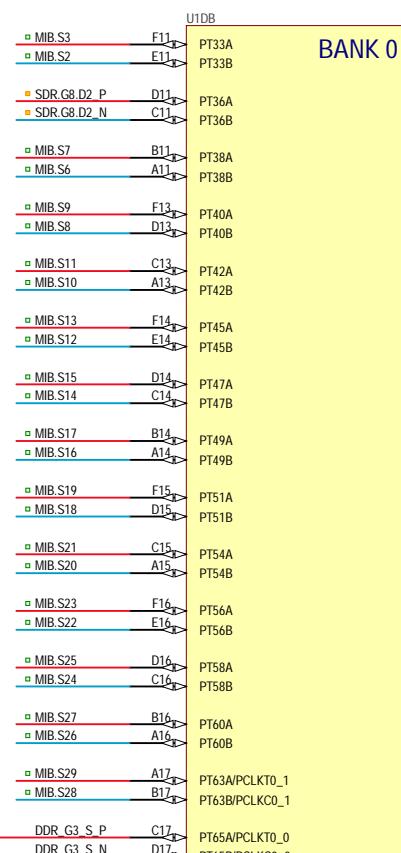
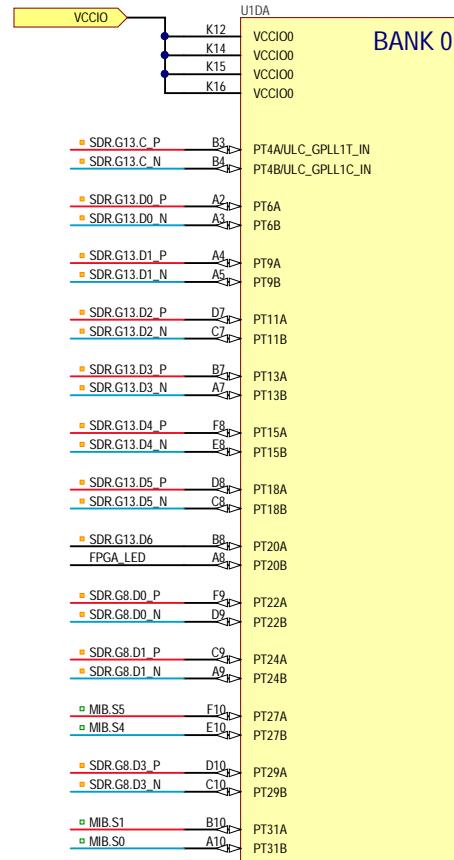
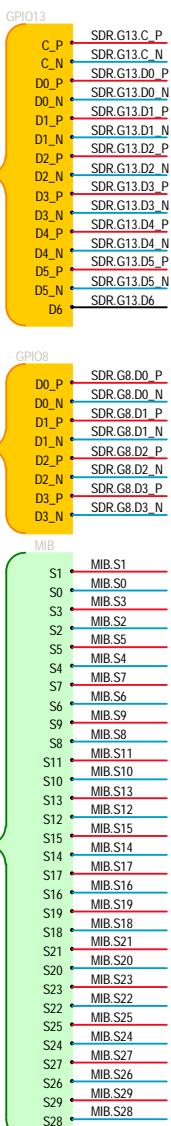
DDR_G3_S_P → DDR_G3_S_N



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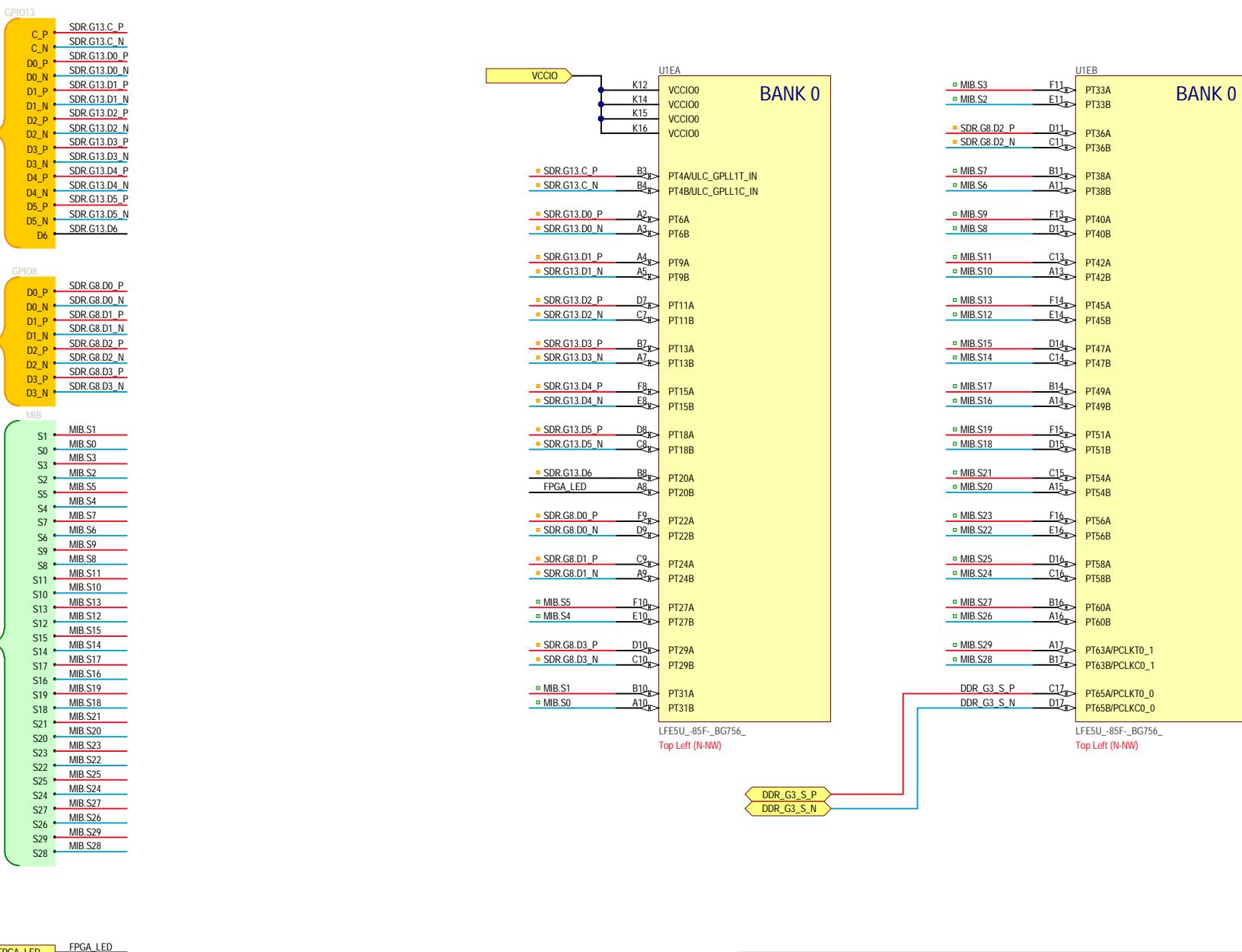
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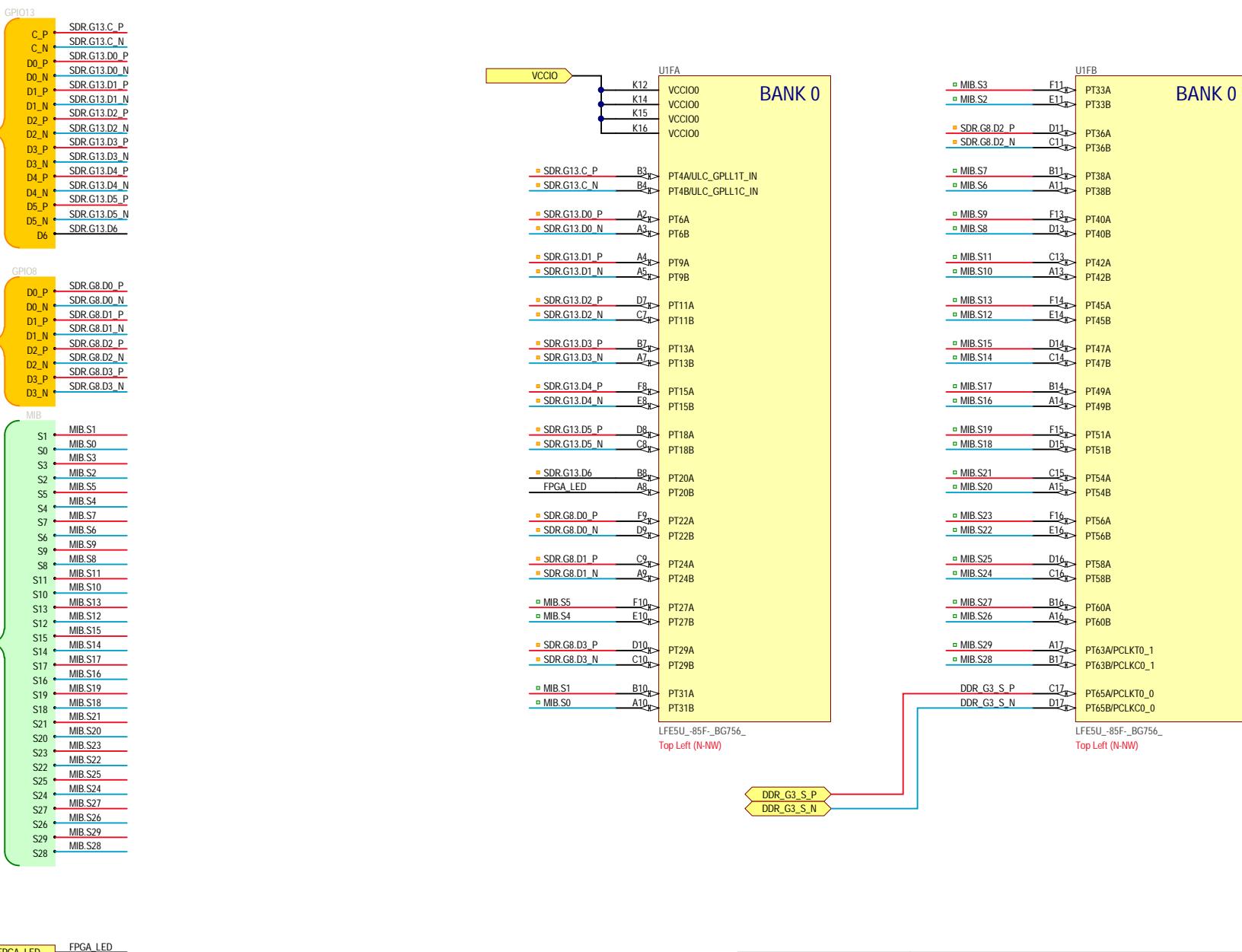
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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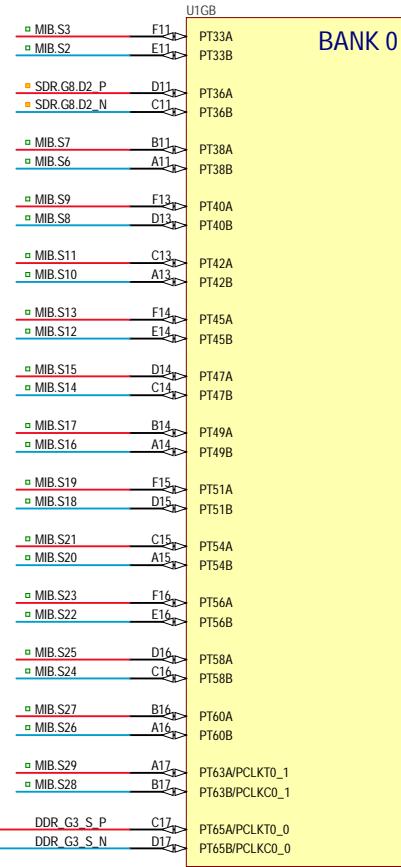
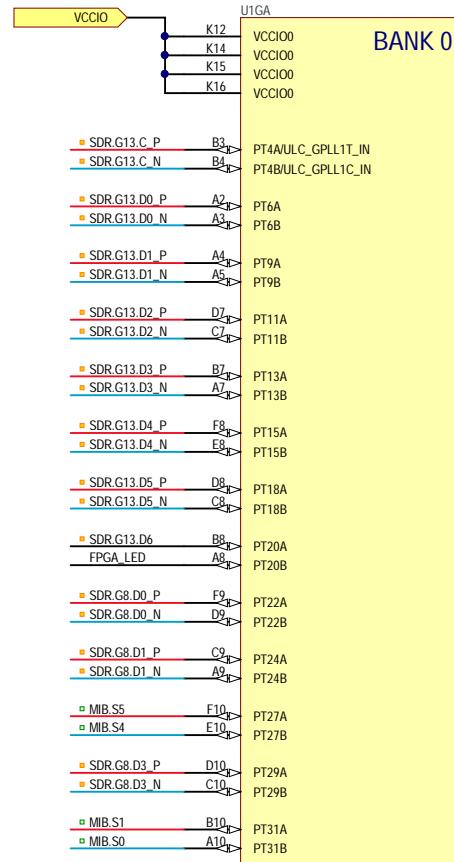
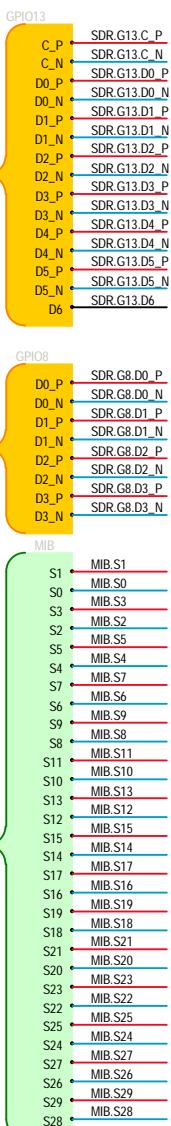


LFE5U-85F-BG756
Top Left (N-NW)

DDR_G3_S_P
DDR_G3_S_N





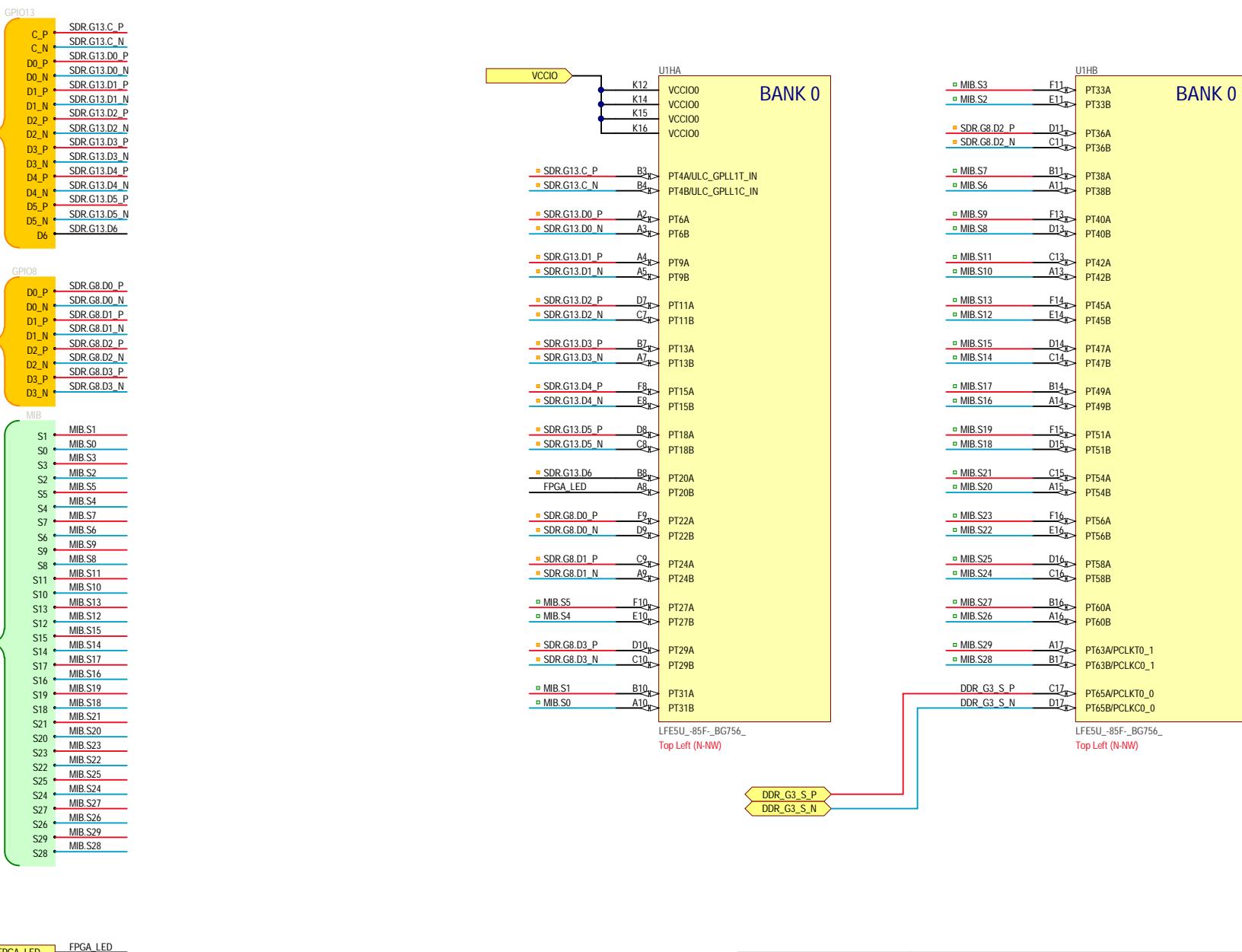


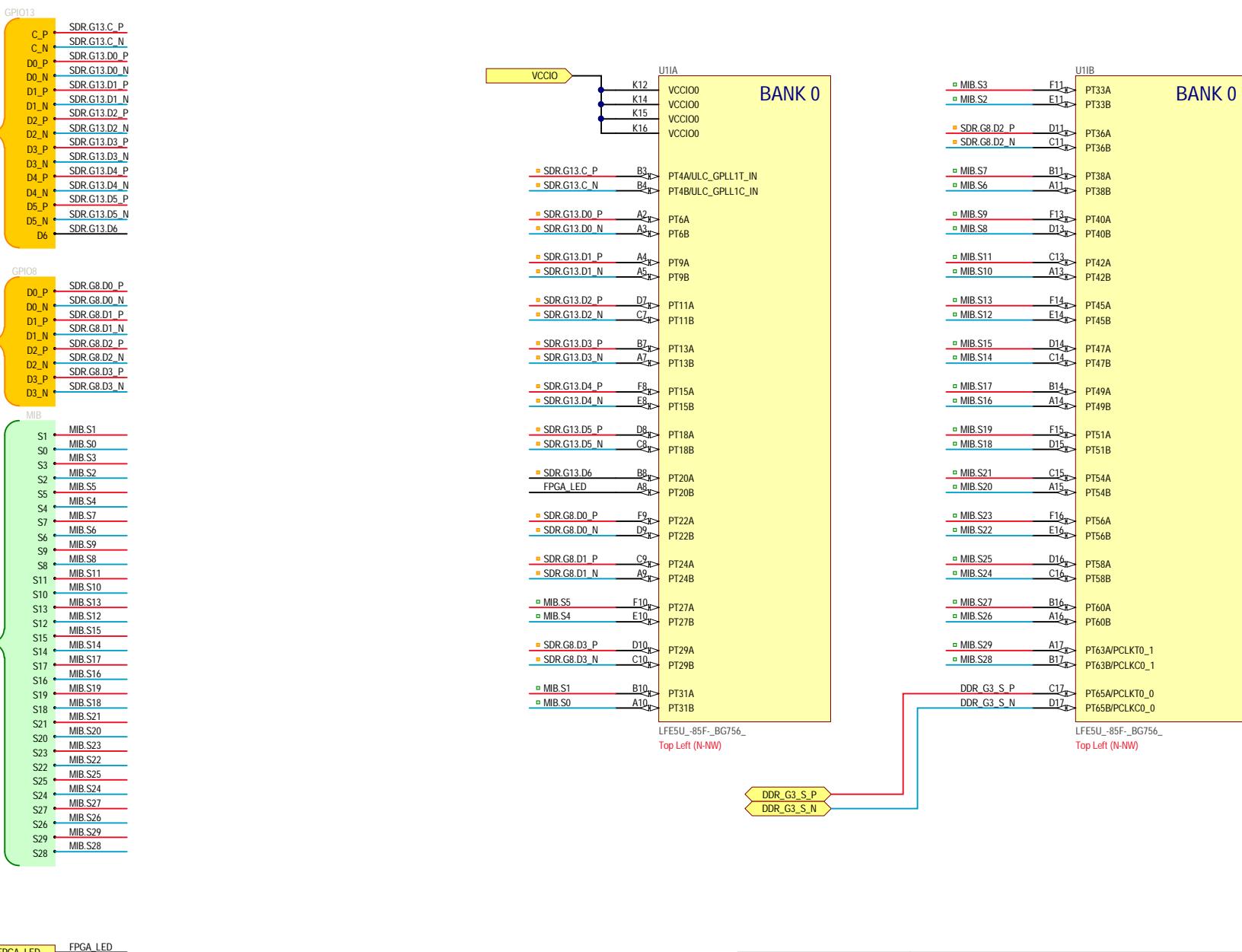
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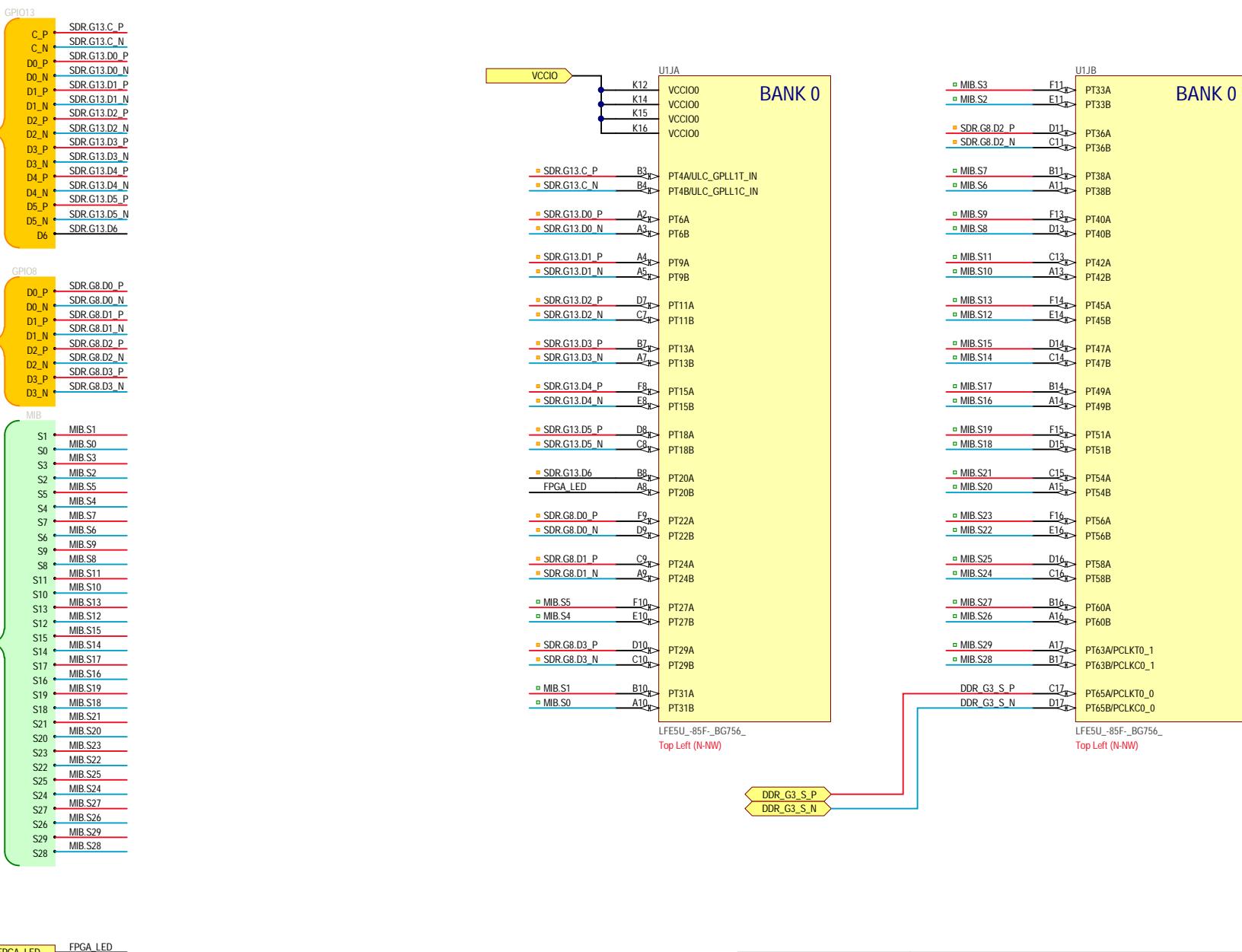
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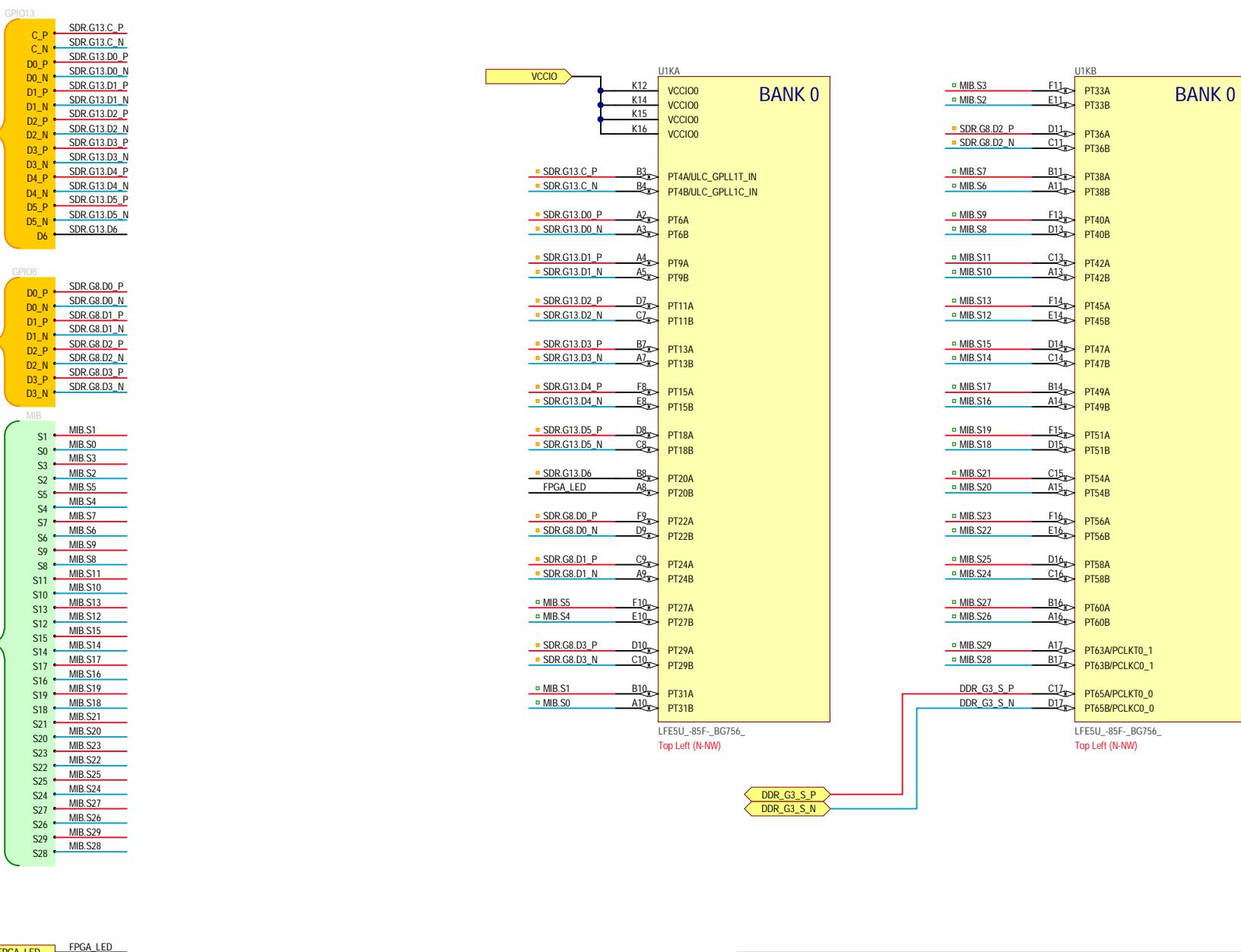
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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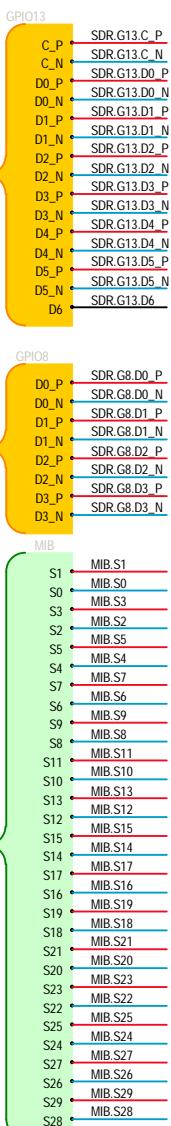


Title			
Copper Suicide - FPGA - Bank 0			
Engineer	Drawn By	Checked By	
J. Brinton	J. Brinton	J. Brinton	
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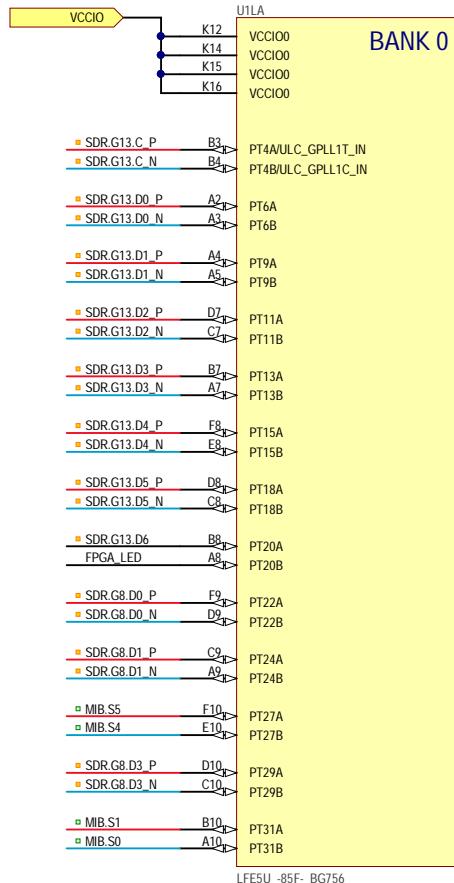




Title Copper Suicide - FPGA - Bank 0			
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton	Date 6/1/2017
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FPGA_LED → FPGA_LED

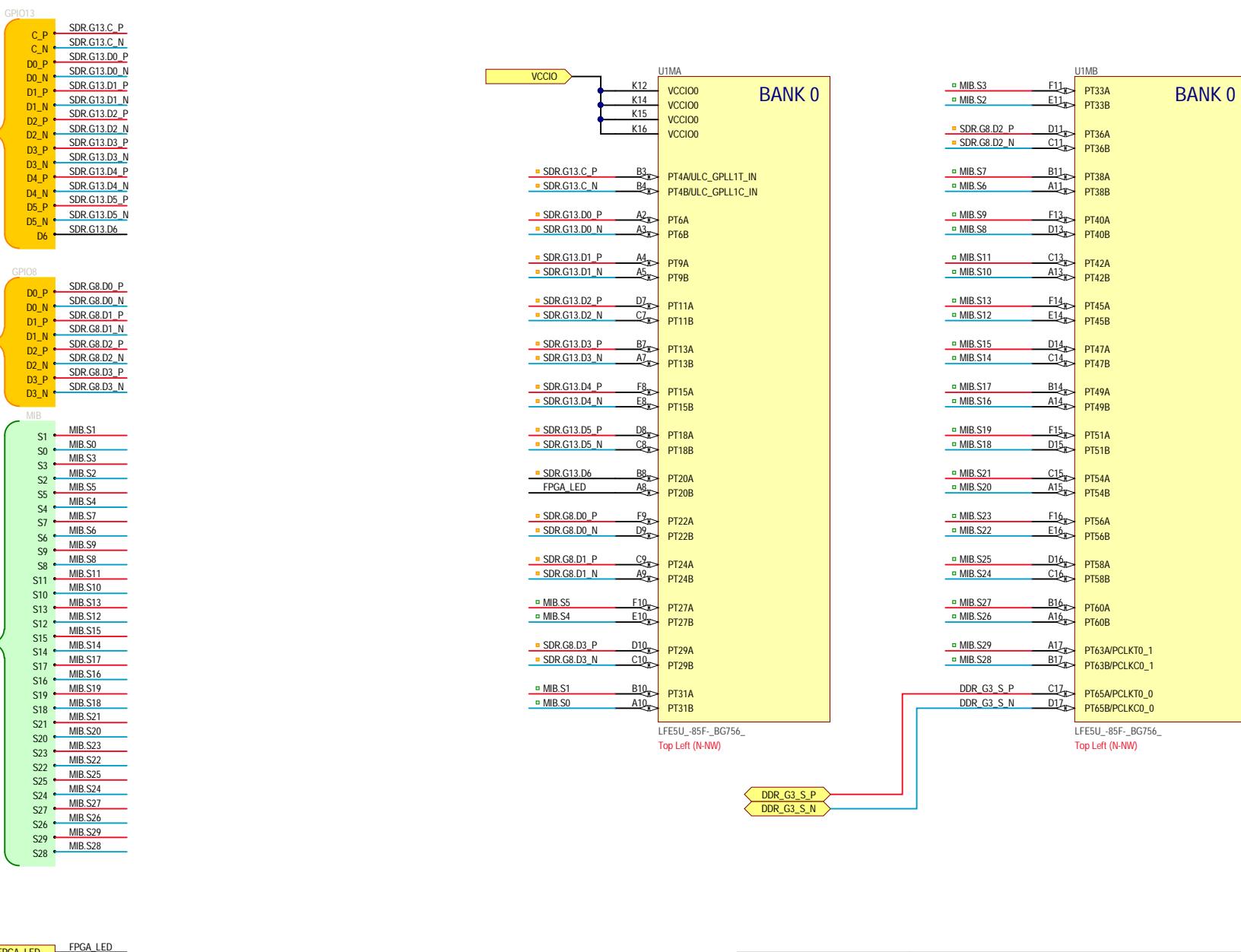


DDR_G3_S_P
DDR_G3_S_N

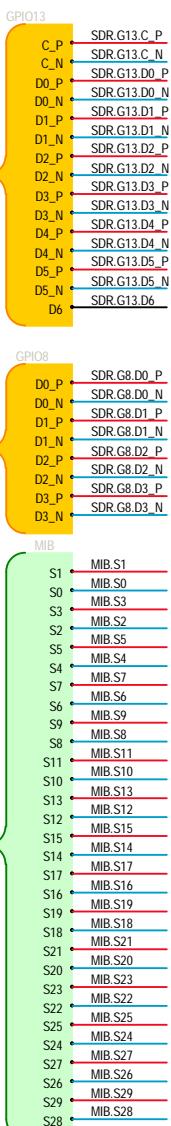


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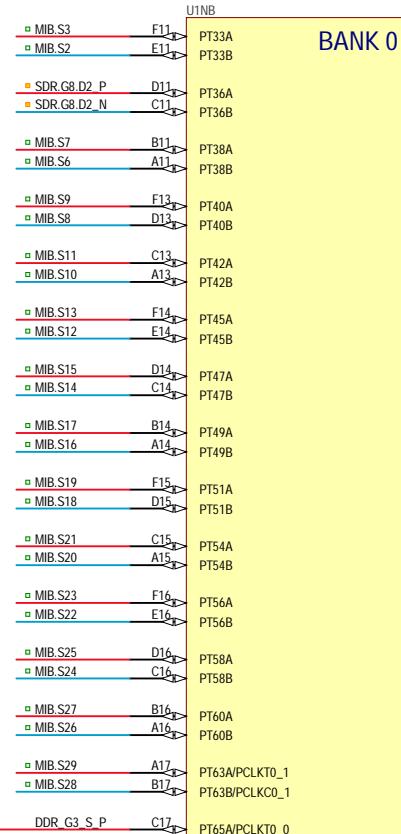
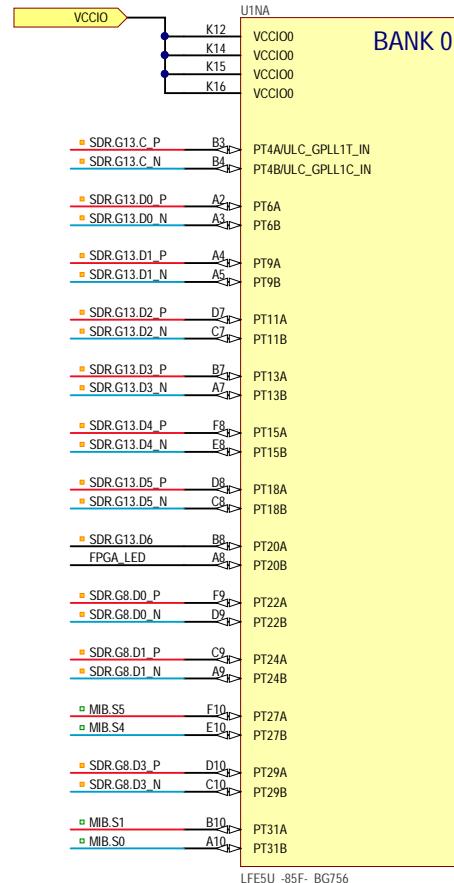
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Copper Suicide - FPGA - Bank 0		
Engineer	Drawn By	Checked By
J. Brinton	J. Brinton	J. Brinton
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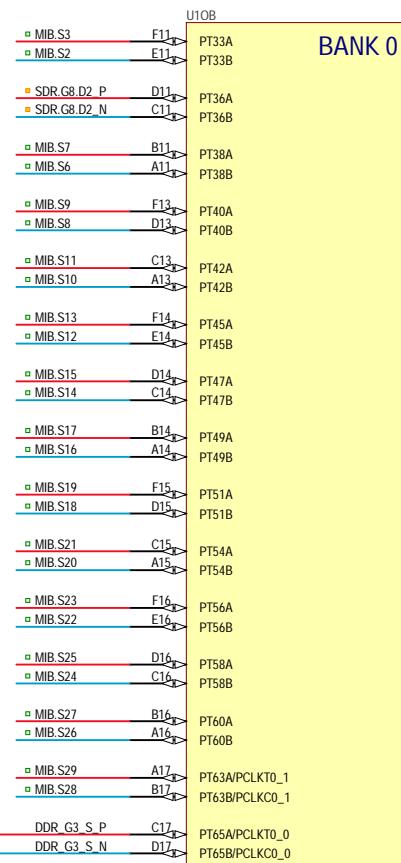
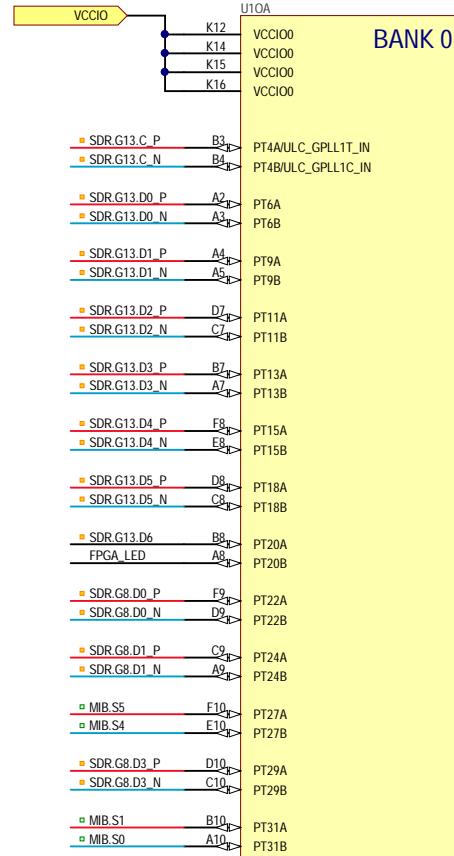
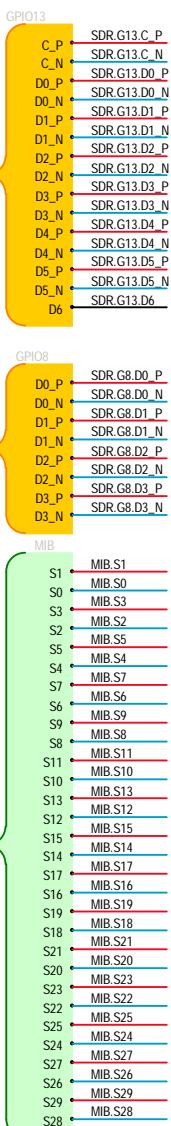
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Copper Suicide - FPGA - Bank 0			
Engineer	Drawn By	Checked By	
J. Brinton	J. Brinton	J. Brinton	
Revision 2	Sheet 5 of 44	Date 6/1/2017	



FPGA_LED → FPGA_LED



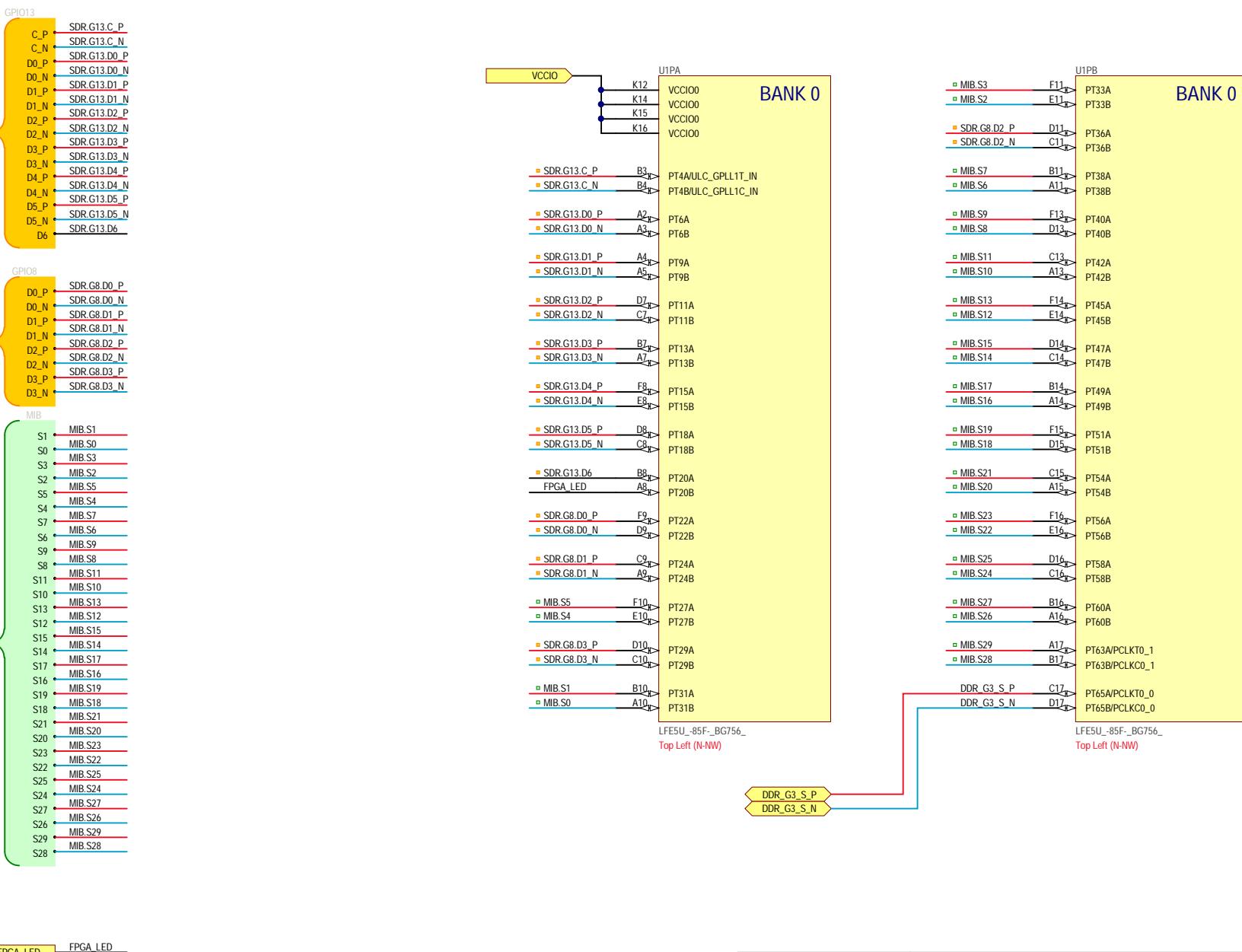
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 DDR_G3_S_N → DDR_G3_S_N

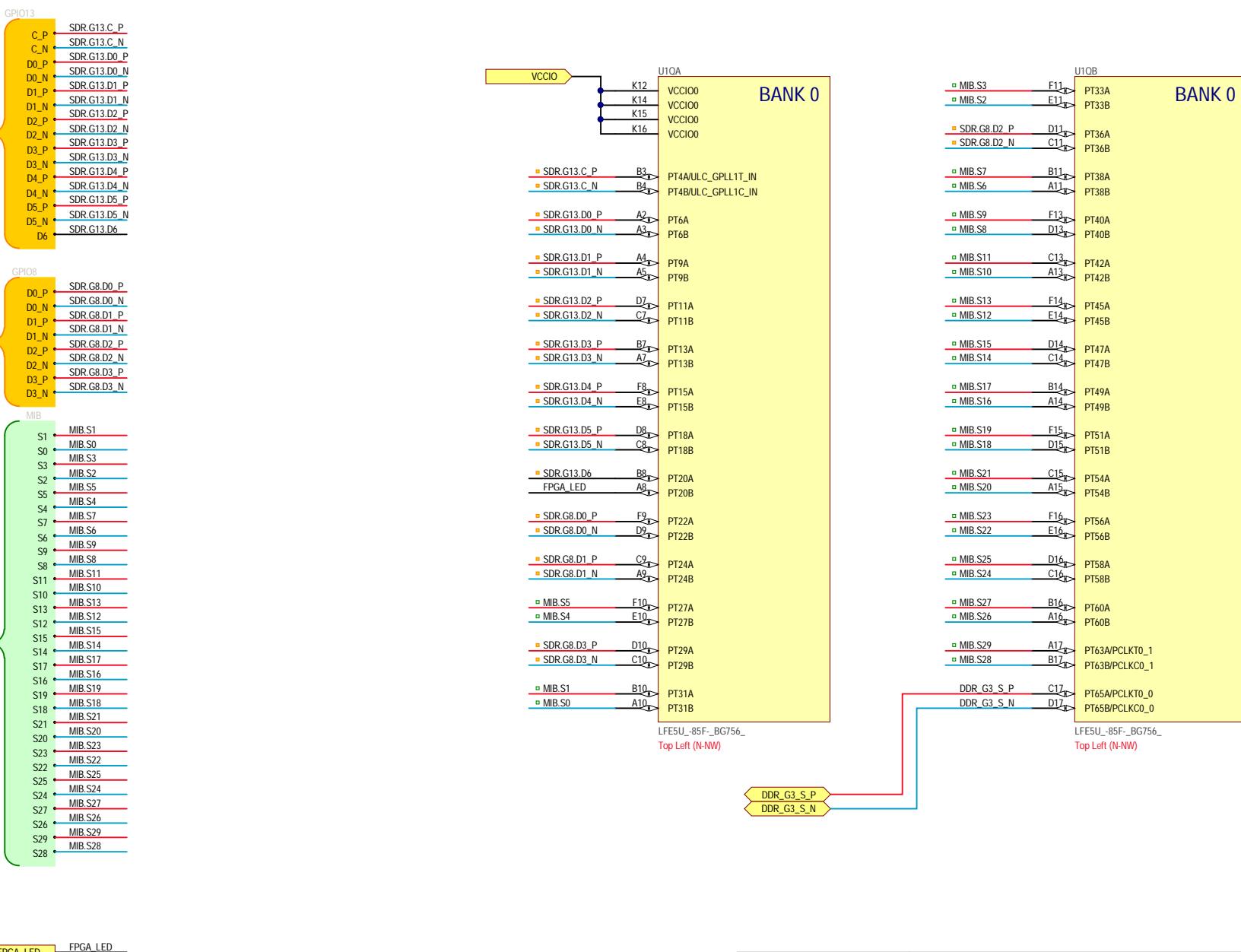


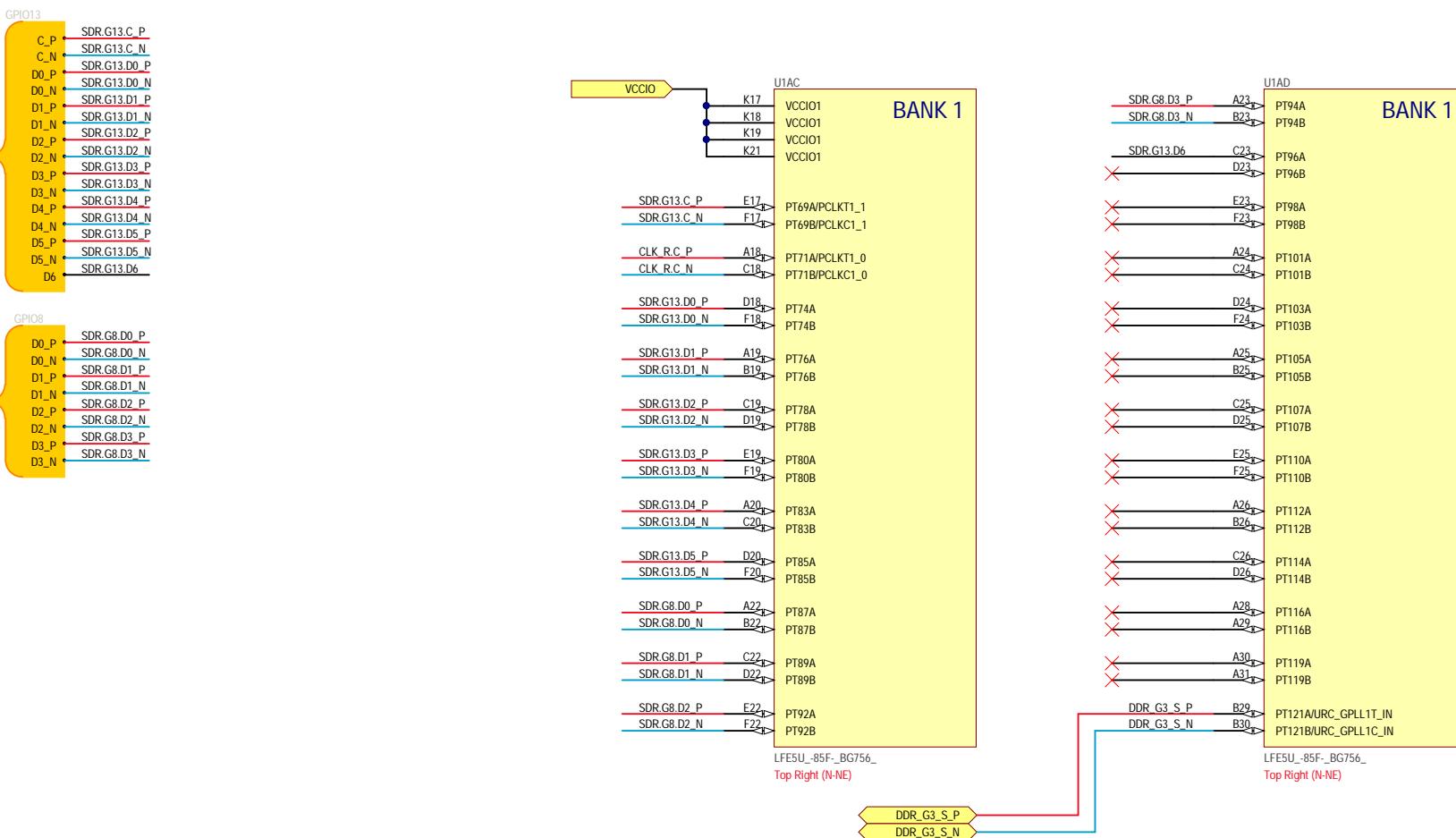
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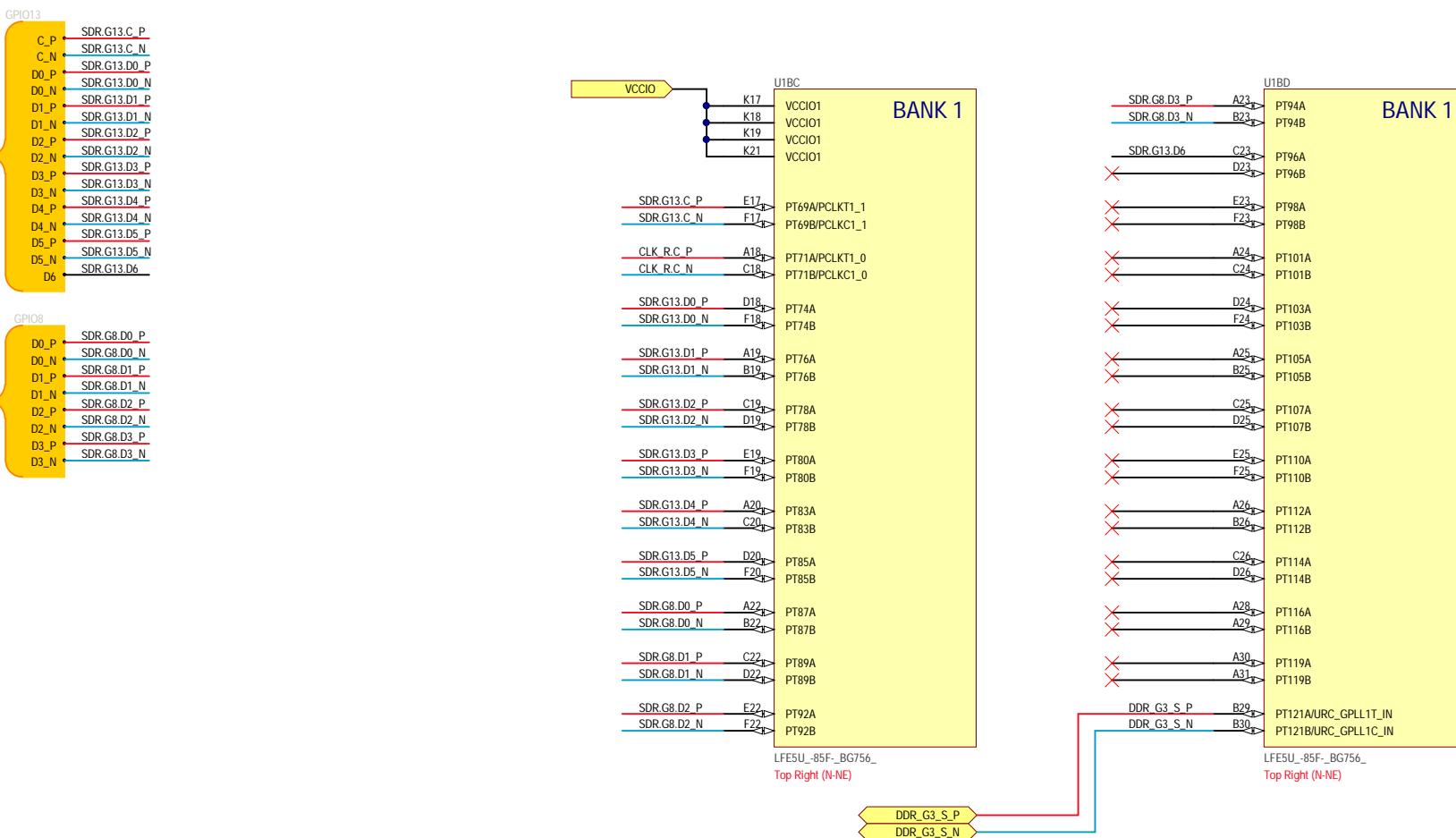
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Copper Suicide - FPGA - Bank 0		
Engineer	Drawn By	Checked By
J. Brinton	J. Brinton	J. Brinton
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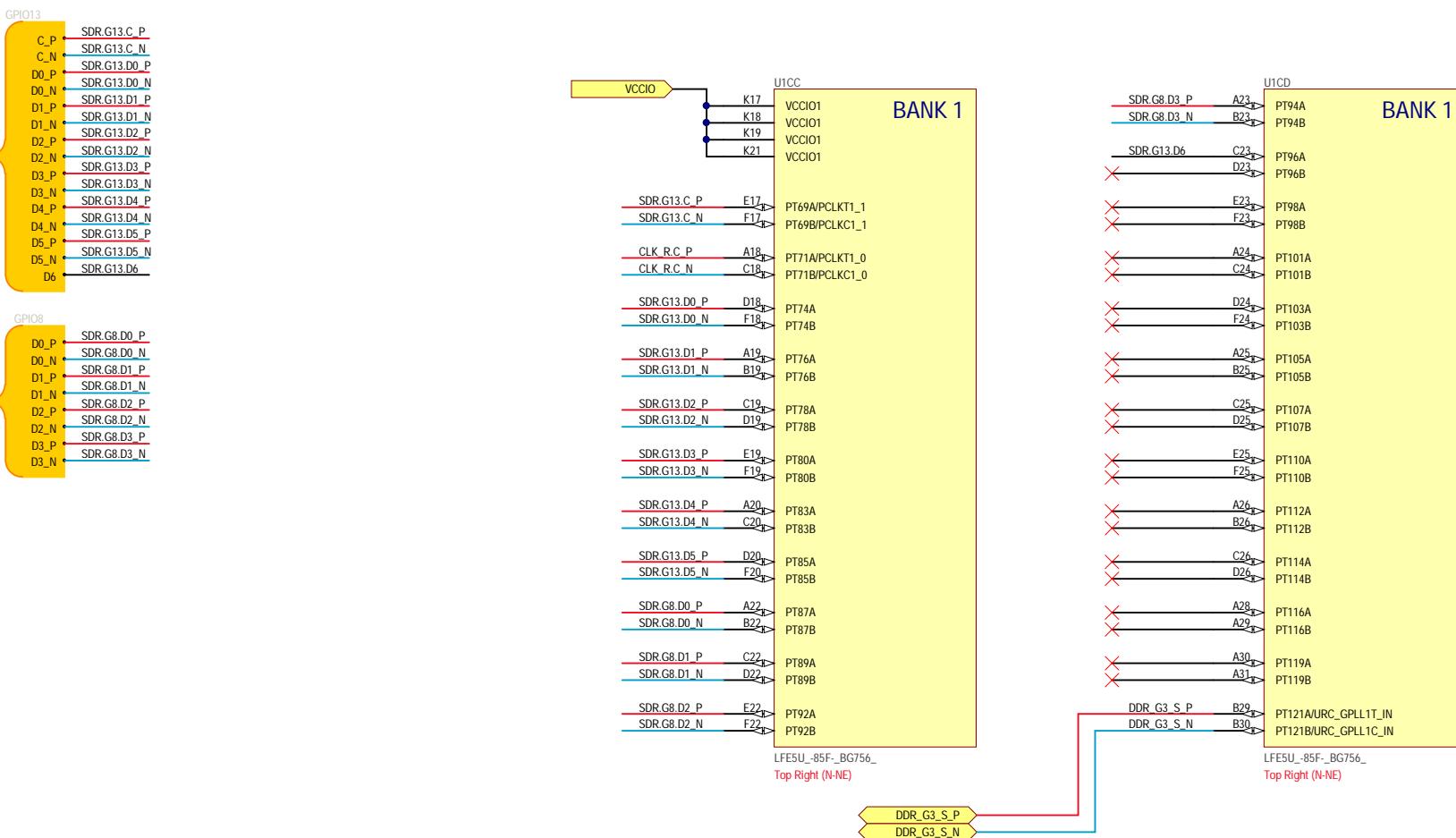




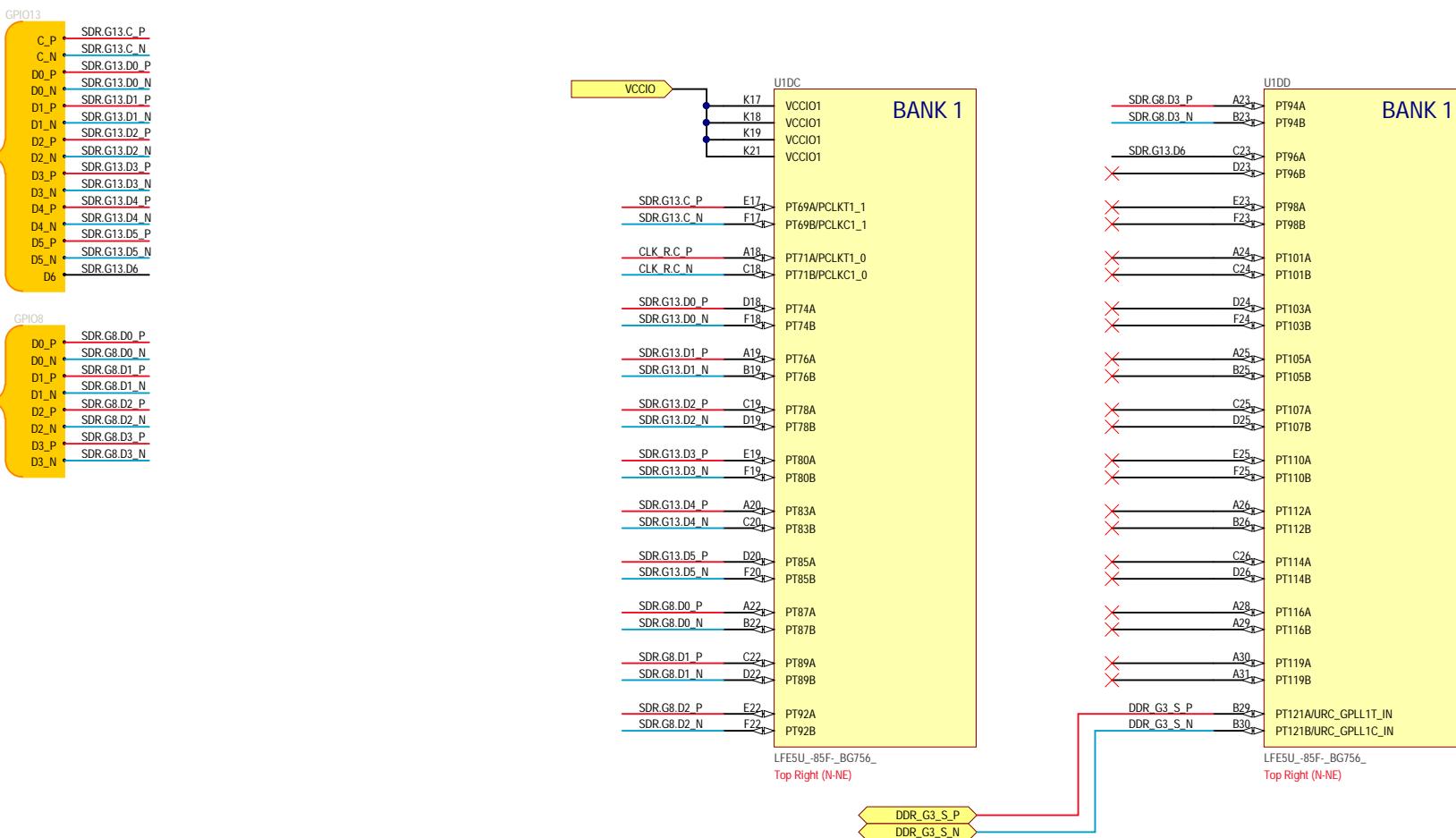
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Copper Suicide - FPGA - Bank 1		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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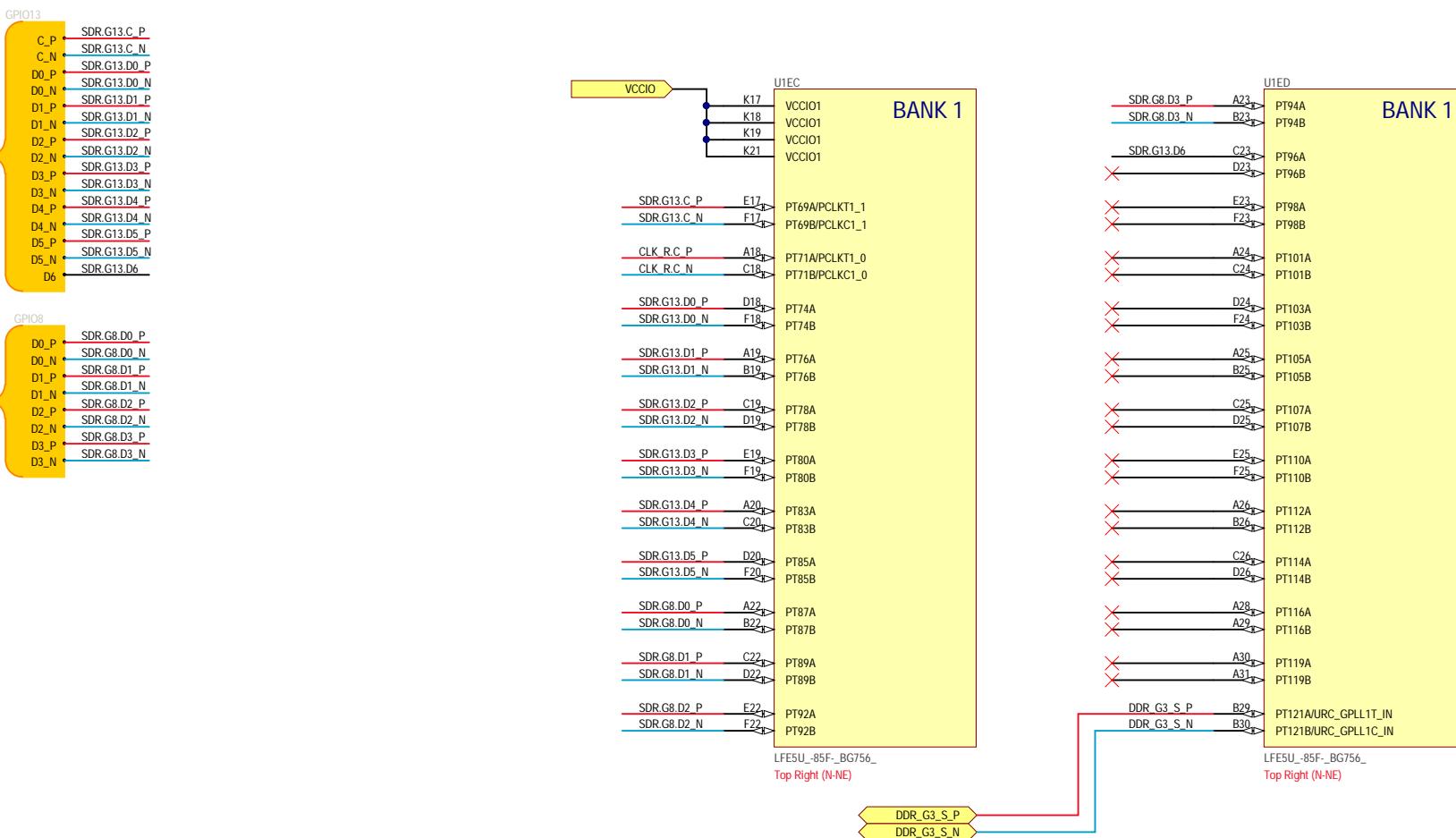
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Copper Suicide - FPGA - Bank 1		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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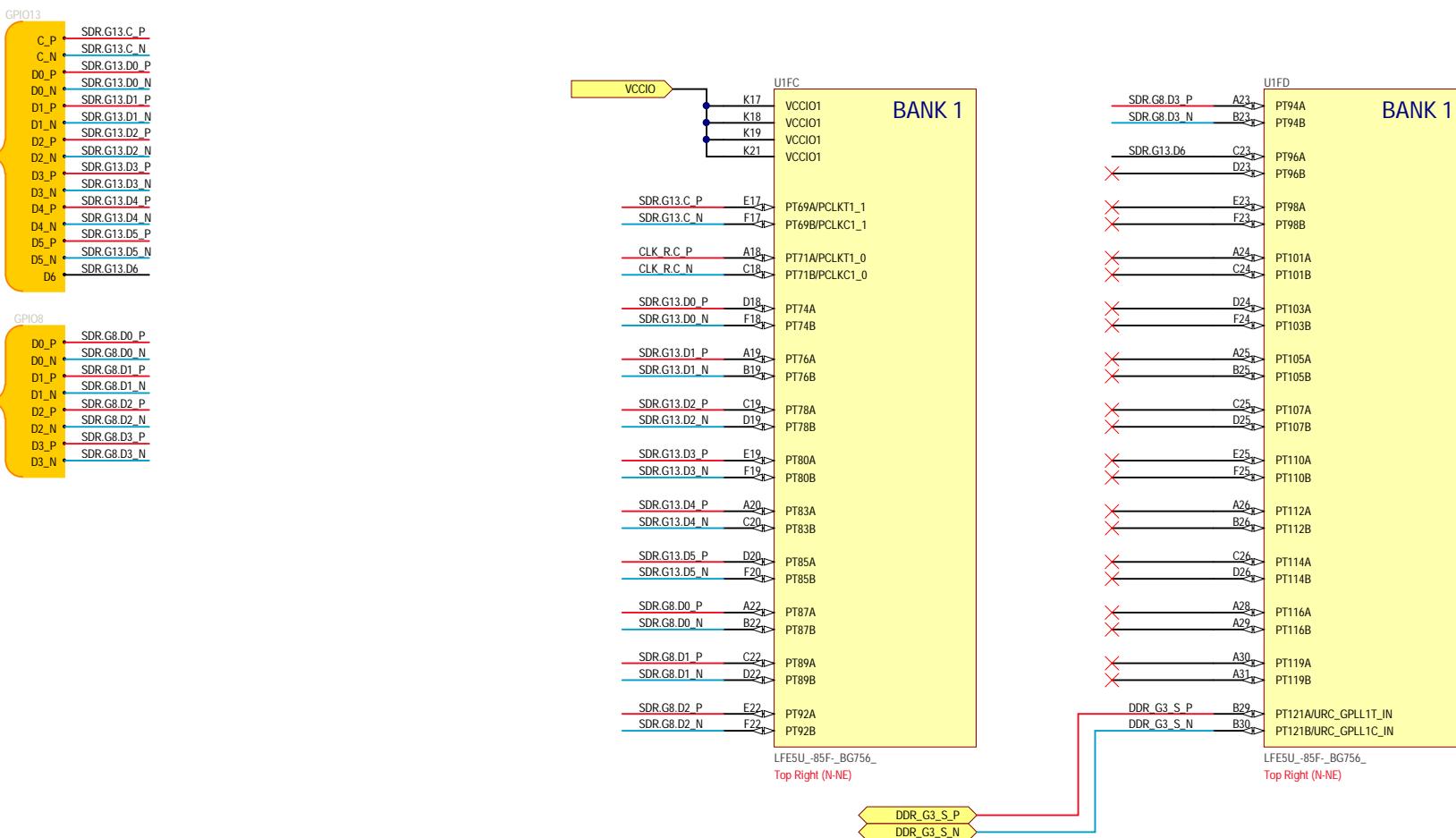
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Copper Suicide - FPGA - Bank 1		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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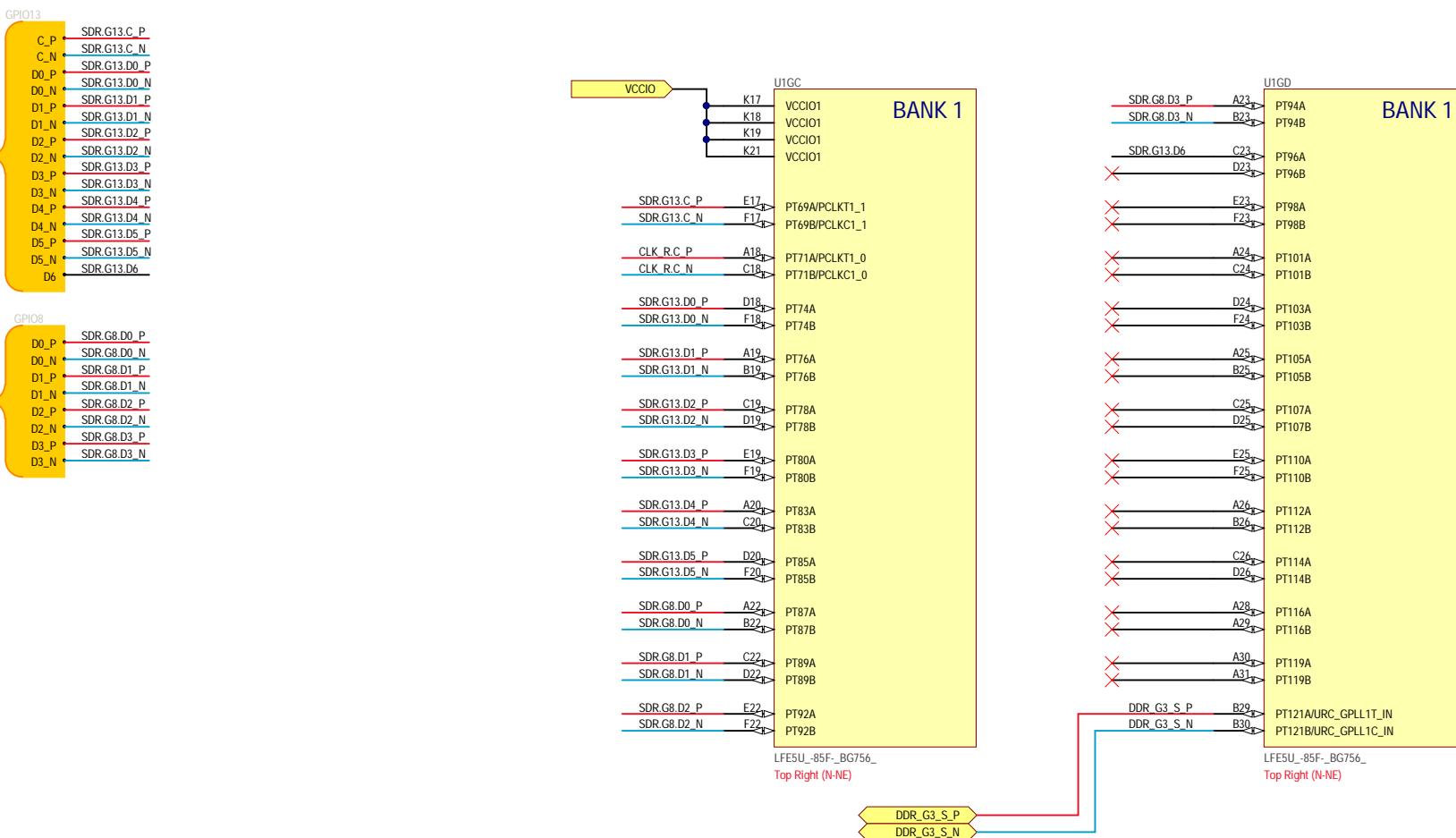
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Copper Suicide - FPGA - Bank 1		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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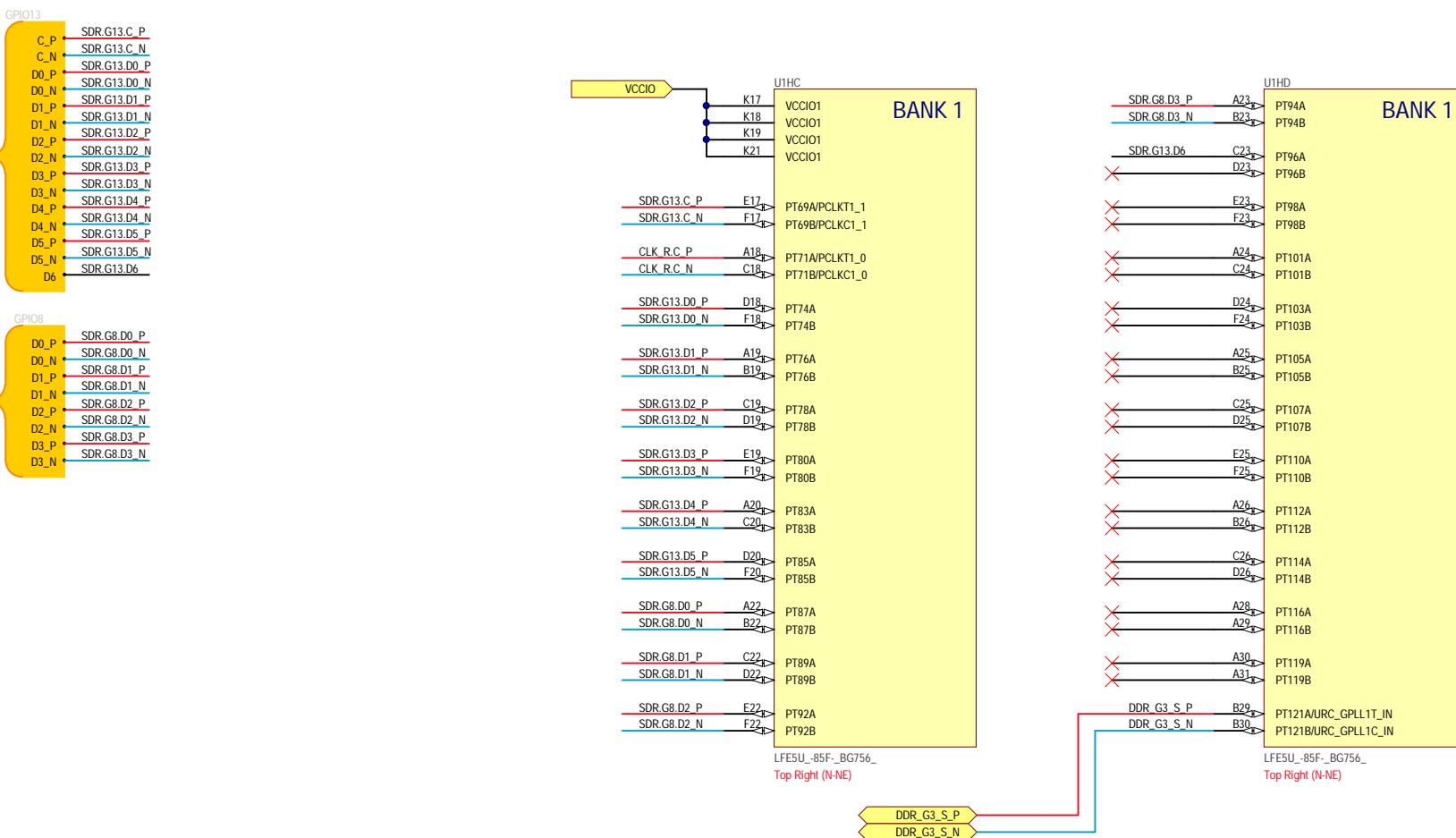
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Copper Suicide - FPGA - Bank 1		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 6 of 44	Date 6/1/2017



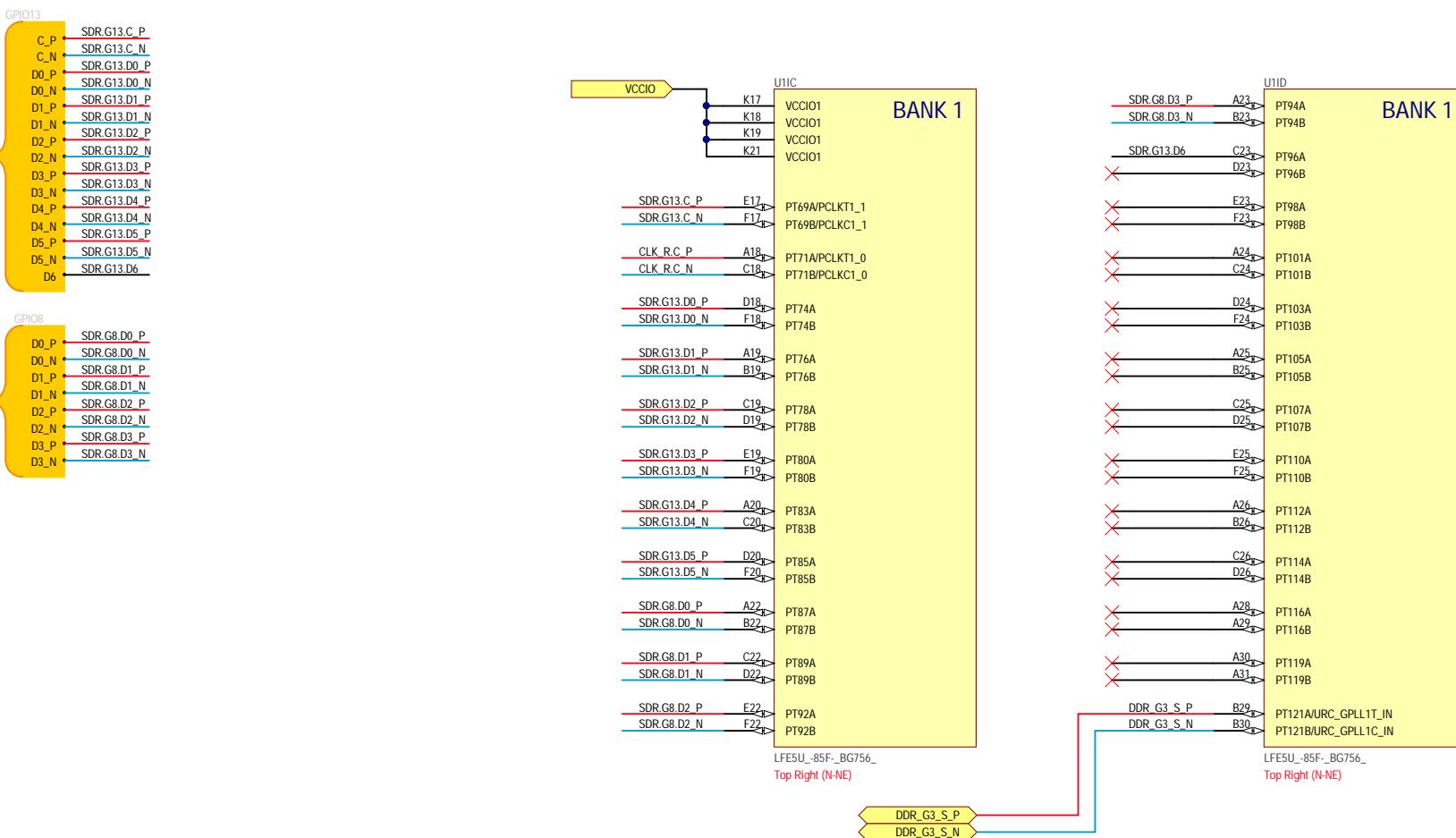
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Copper Suicide - FPGA - Bank 1		
Engineer	Drawn By	Checked By
J. Brinton	J. Brinton	J. Brinton
Revision 2	Sheet 6 of 44	Date 6/1/2017



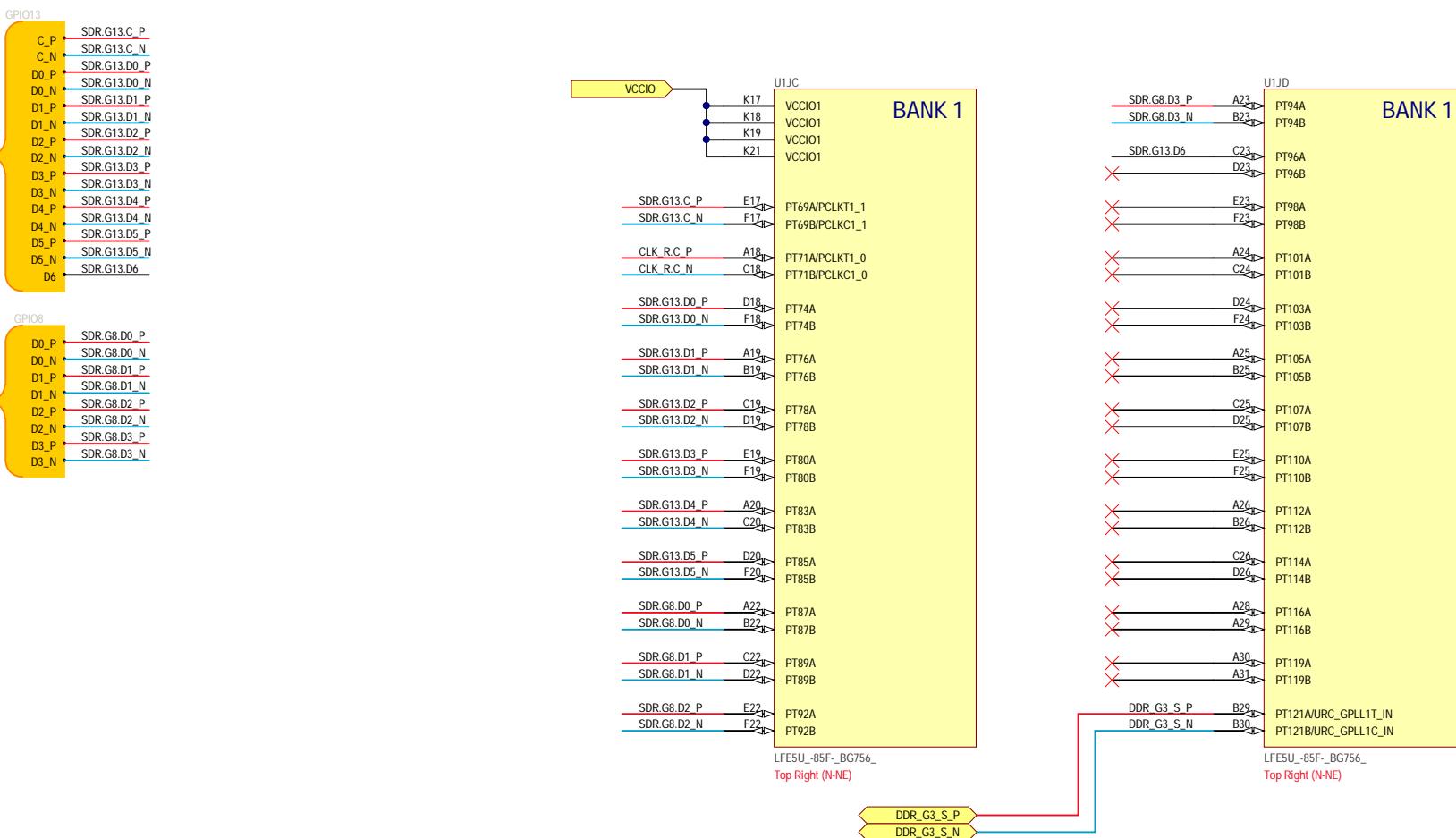
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Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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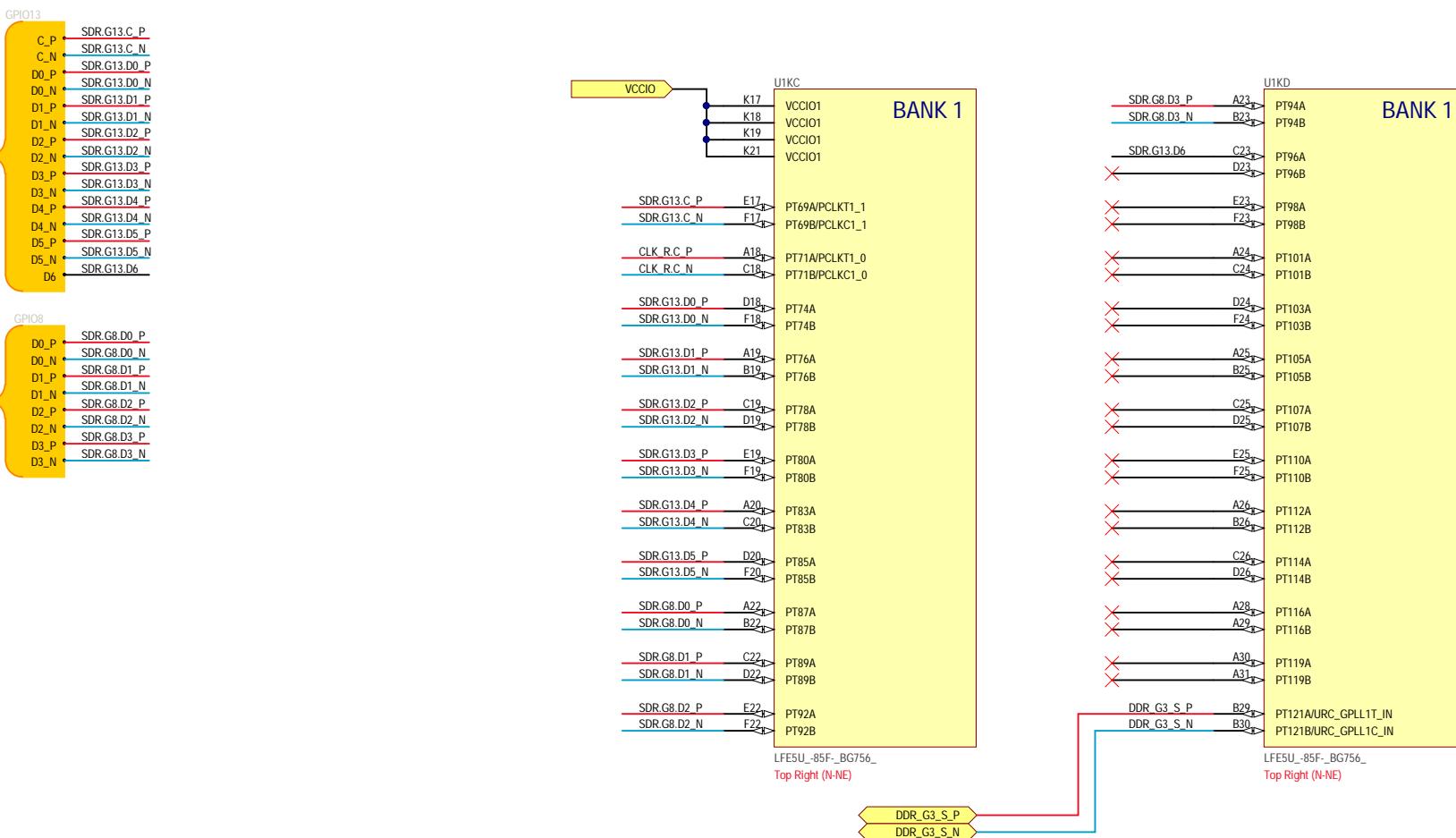
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Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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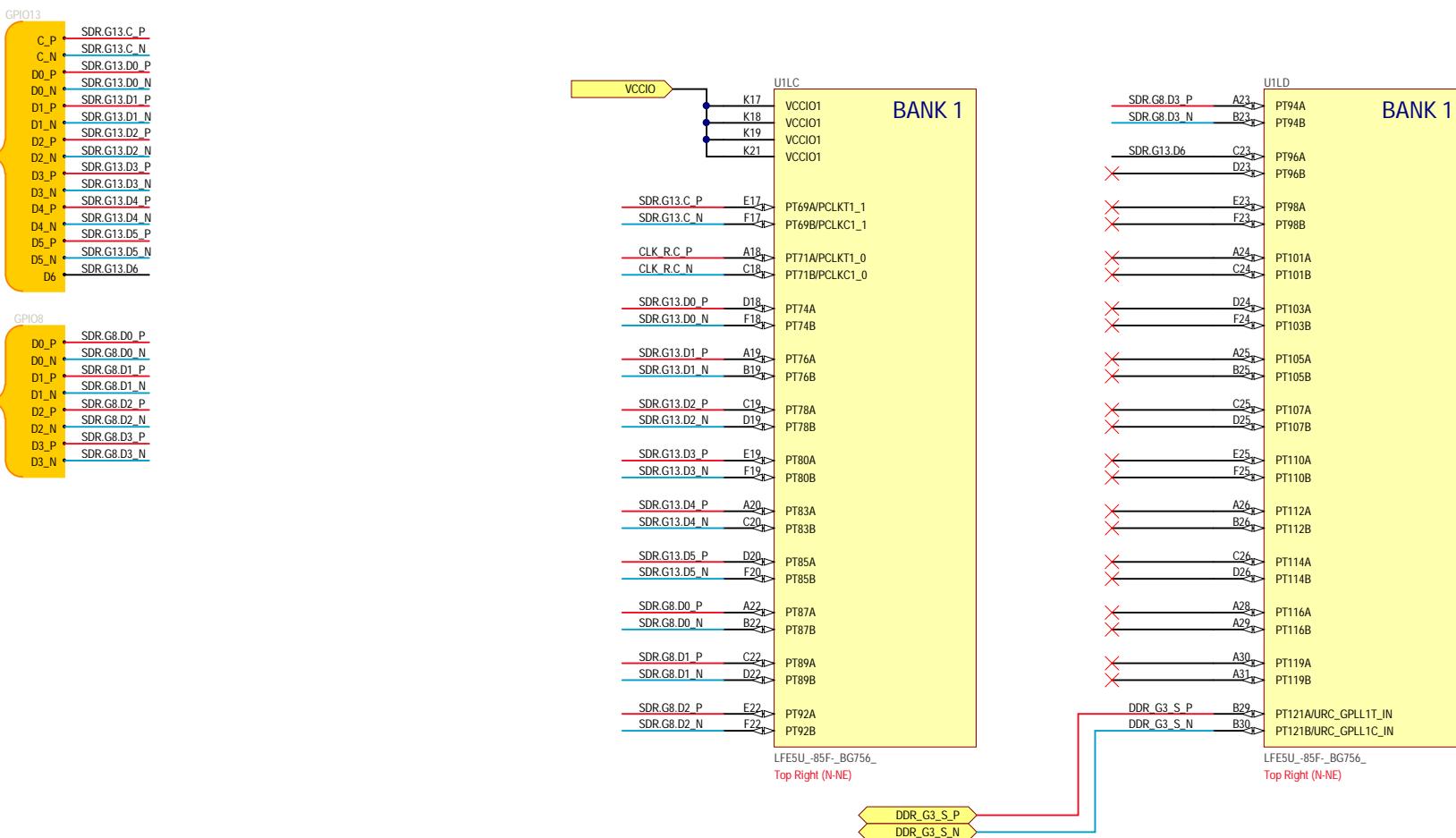
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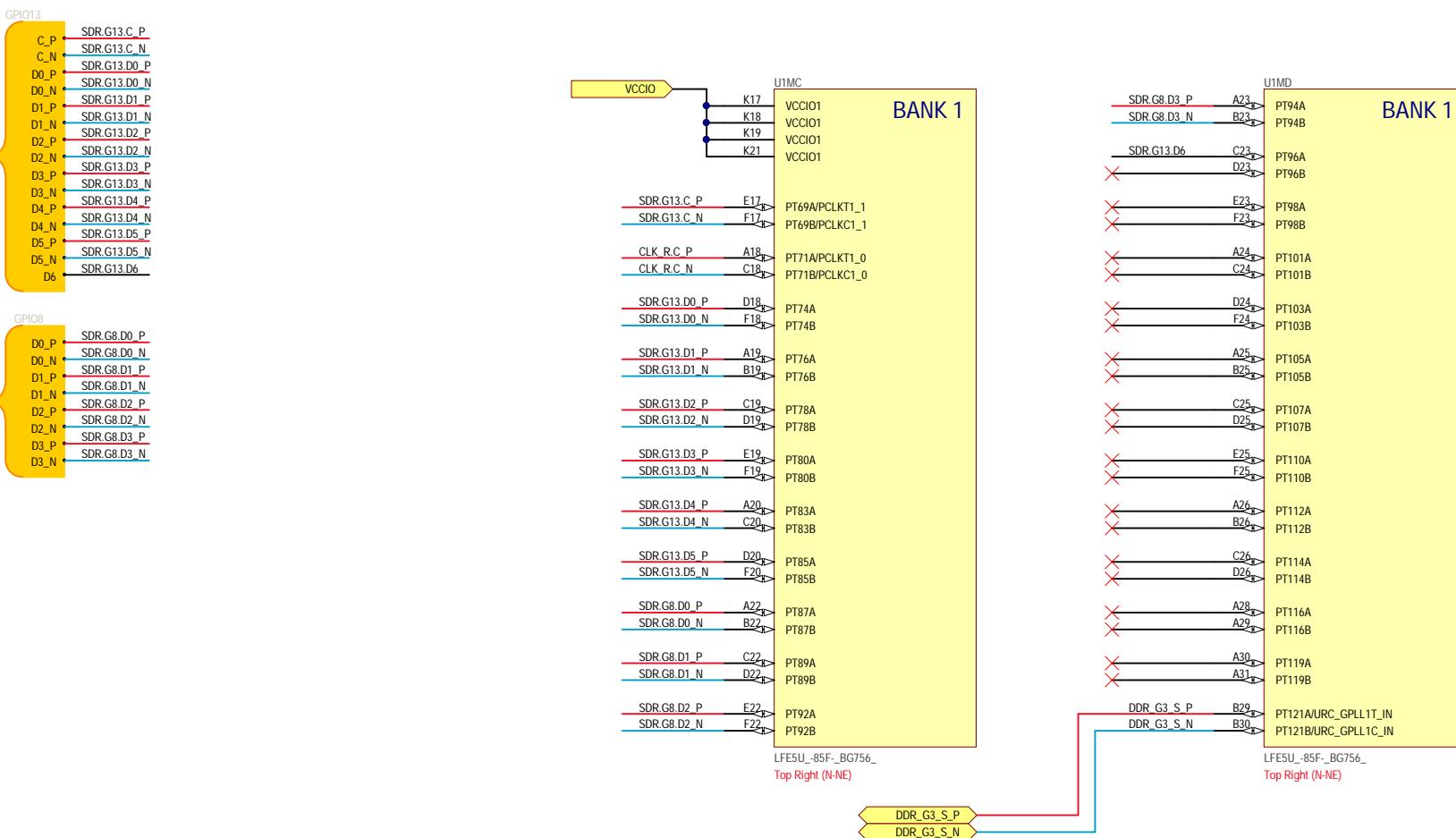
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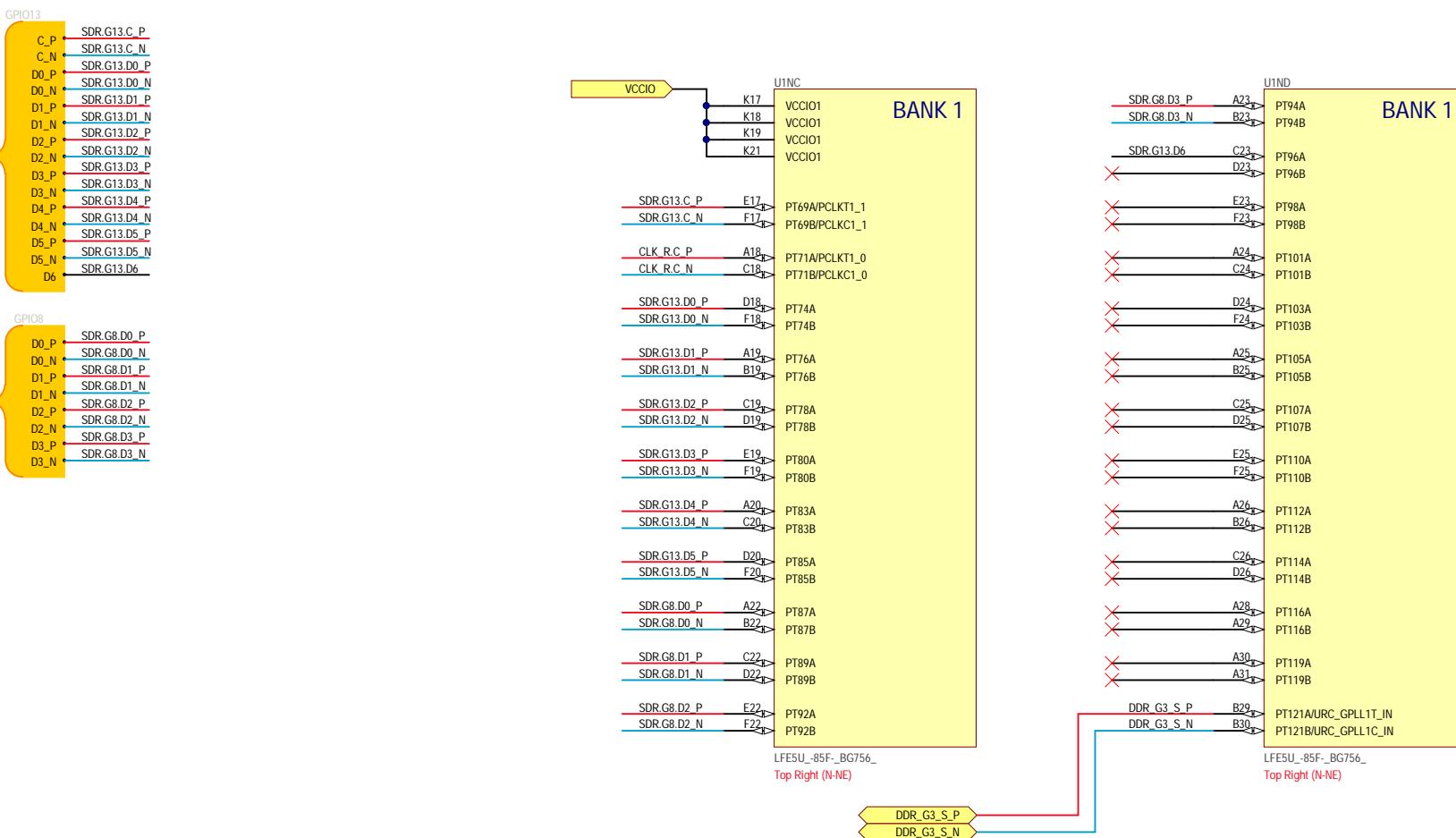
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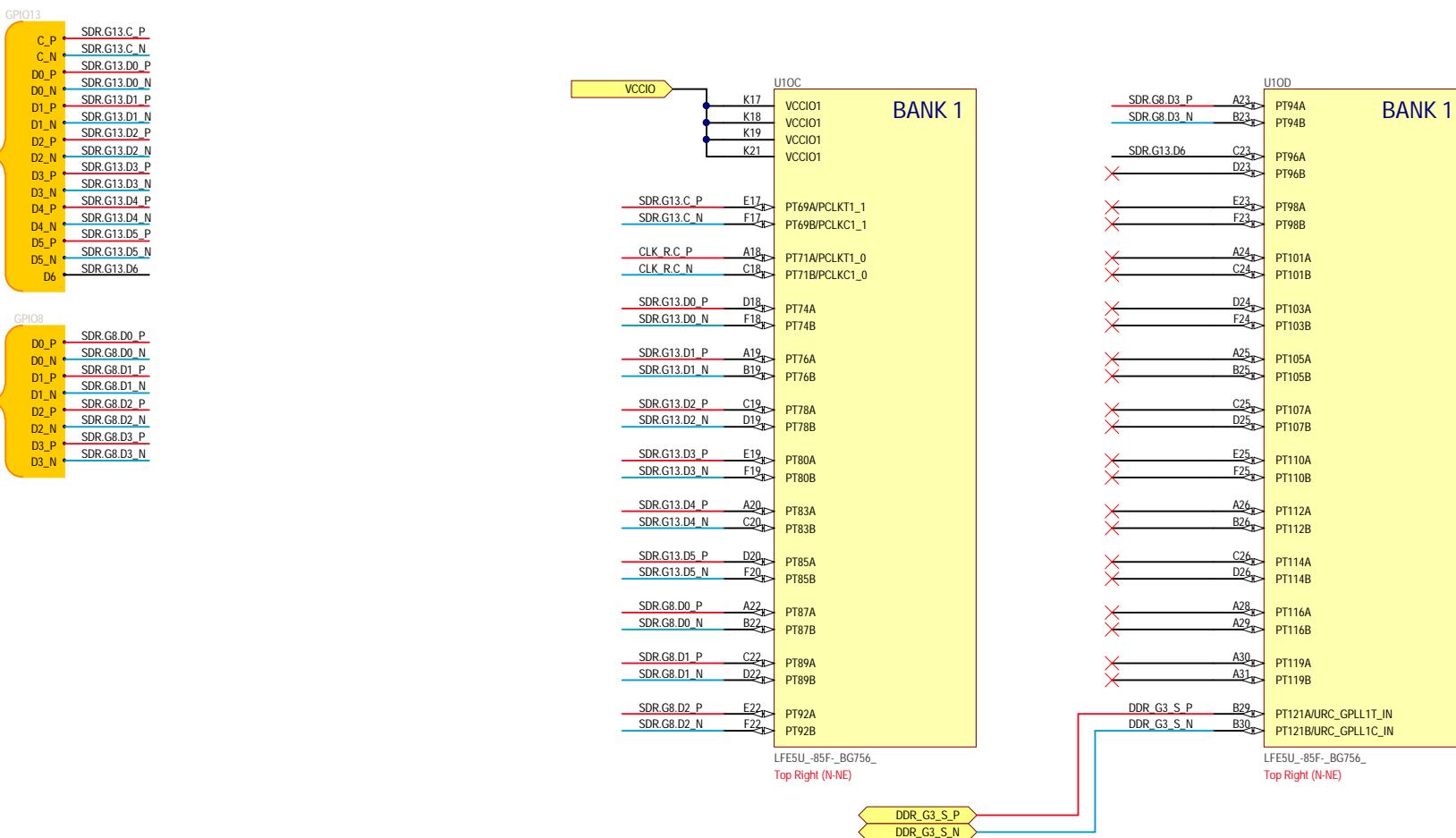
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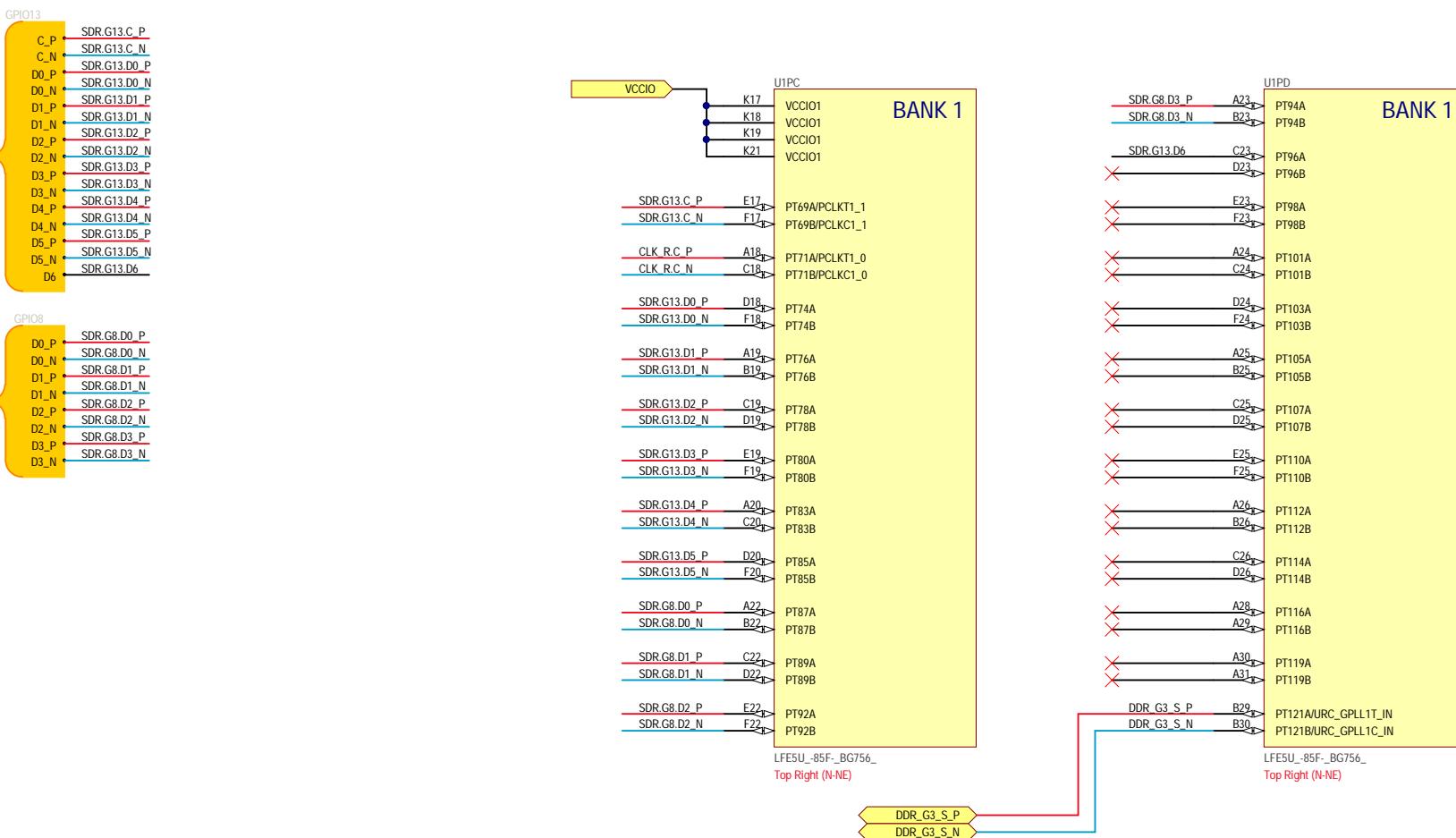
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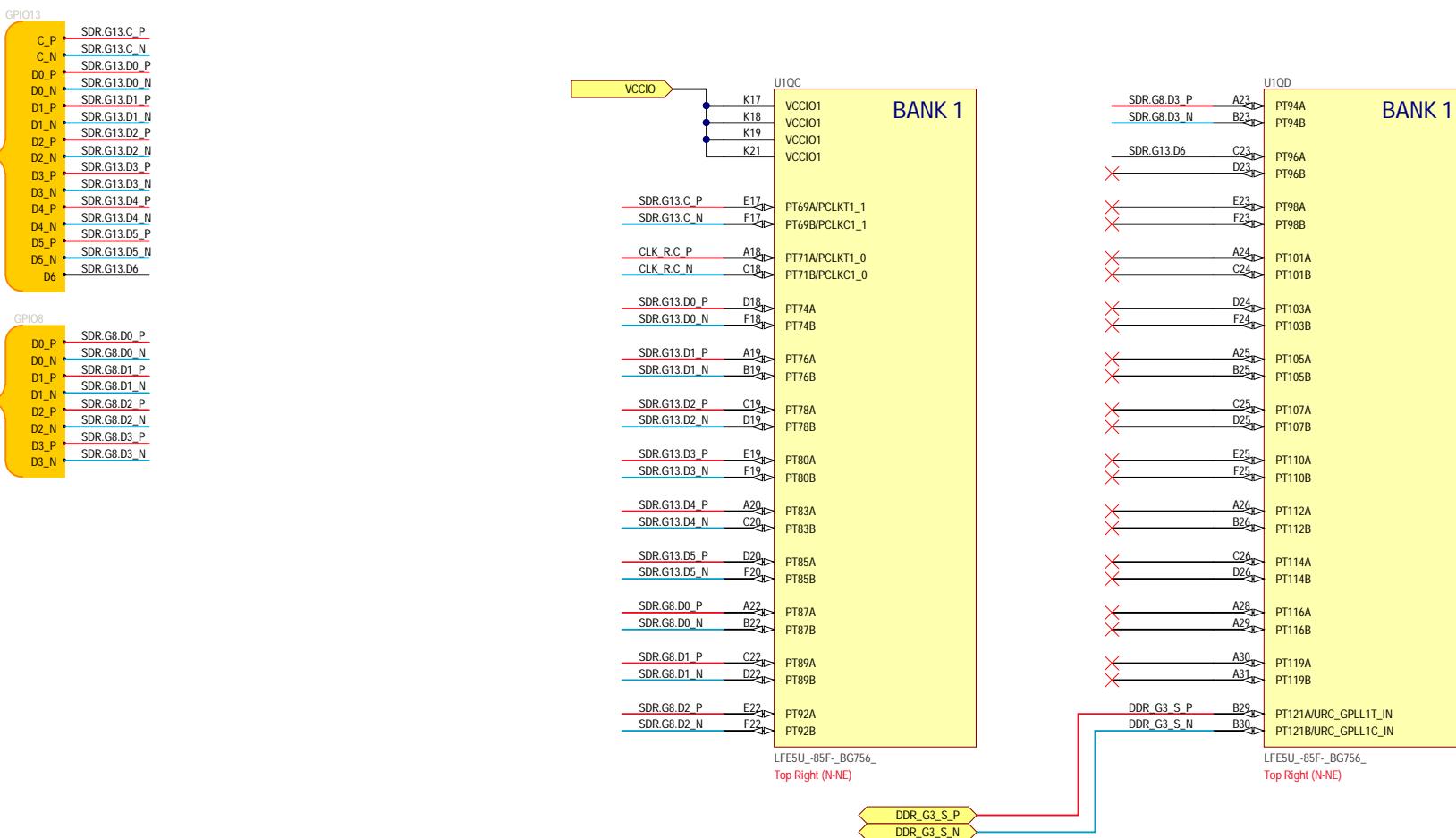
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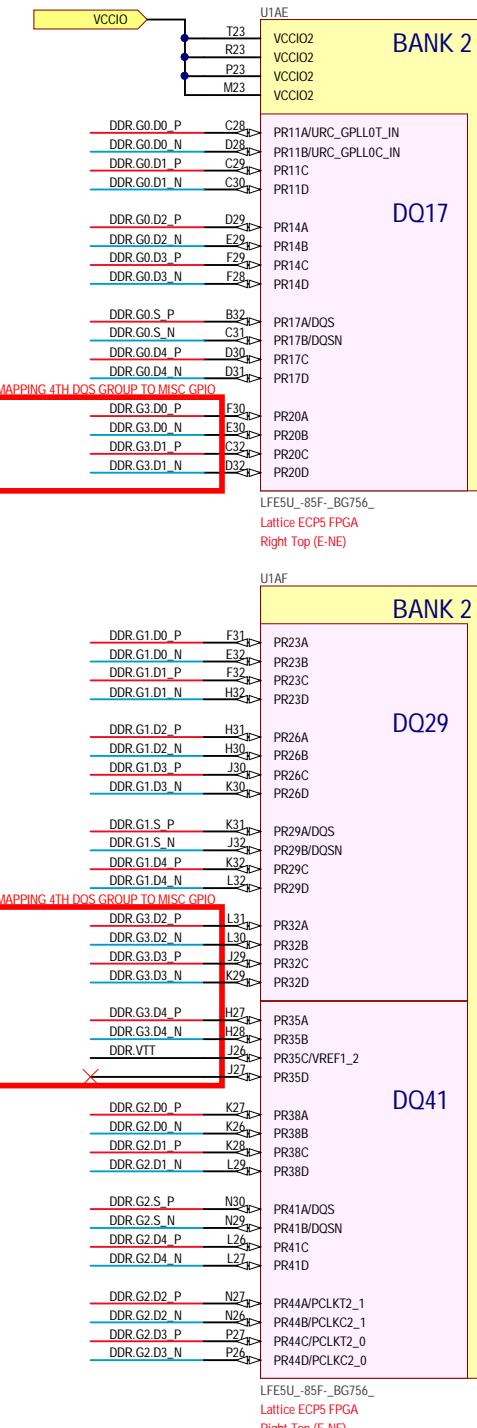
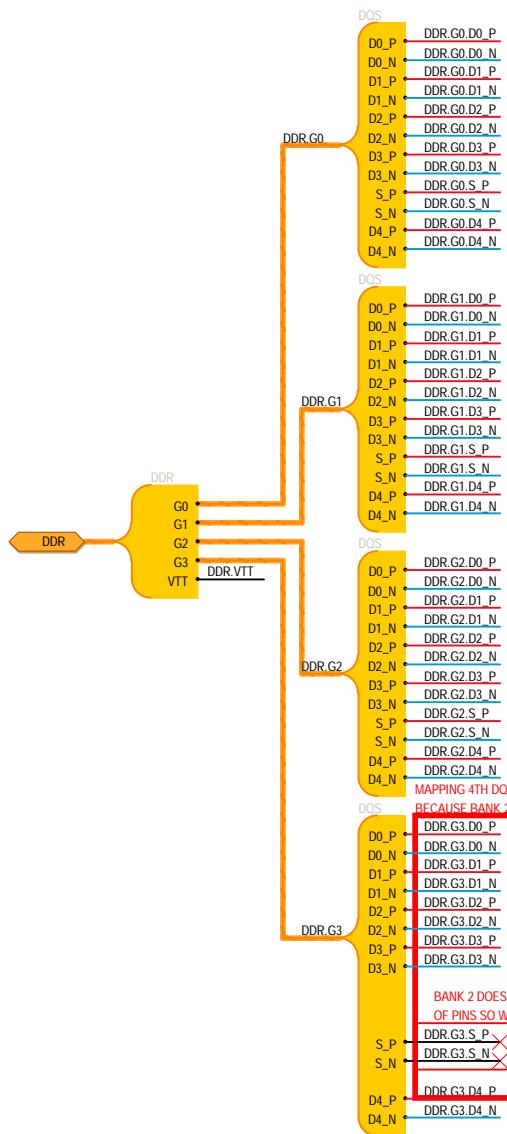
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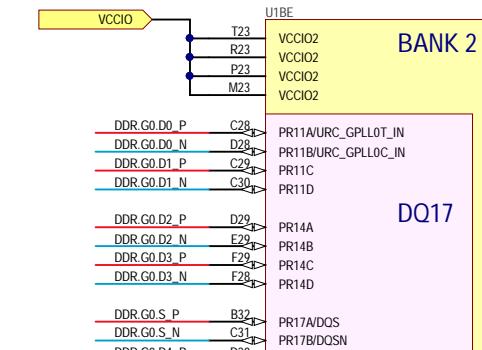
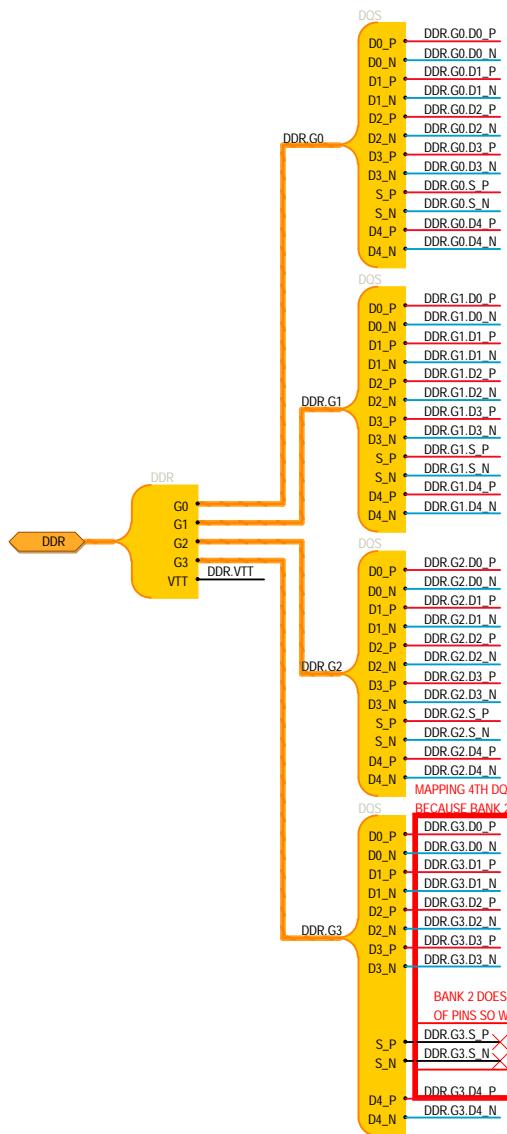
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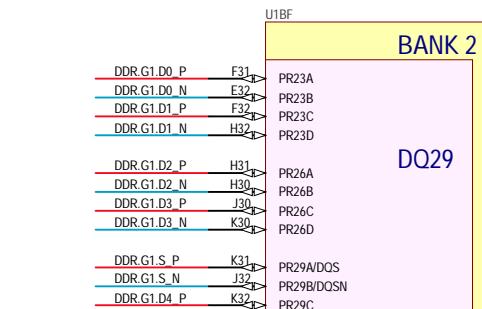
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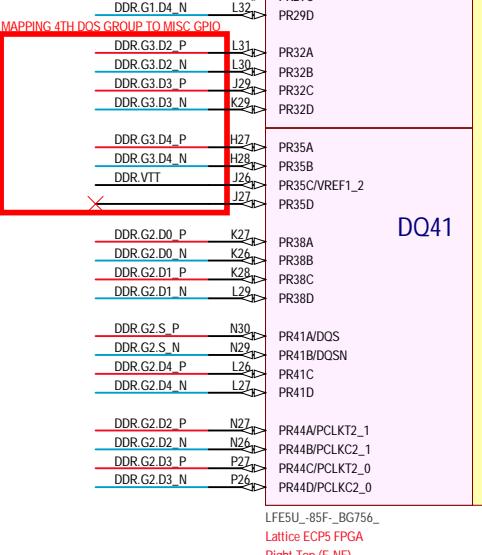
DQ17

LFE5U-85F-BG756-
Lattice ECP5 FPGA
Right Top (E-NE)



DQ29

PR29A/DOS
PR29B/DQSN
PR29C
PR29D



DQ41

LFE5U-85F-BG756-
Lattice ECP5 FPGA
Right Top (E-NE)



Copper Suicide - FPGA - Bank 2

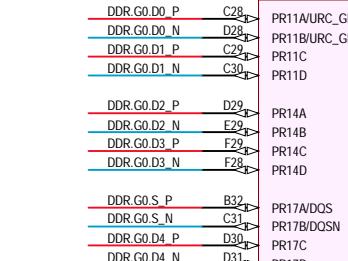
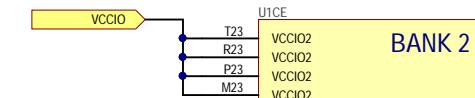
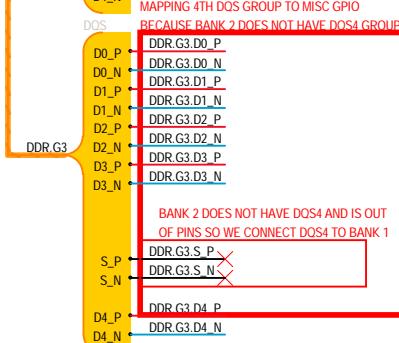
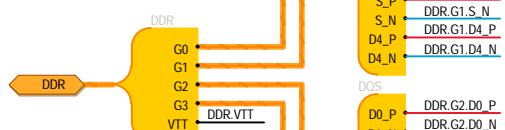
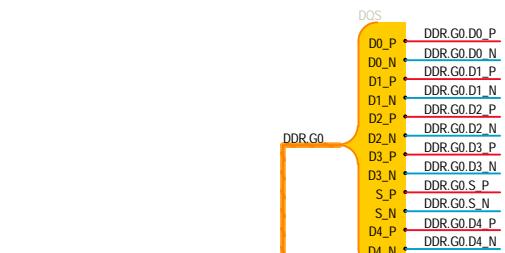
3479 Edison Way
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Engineer
J. Brinton
Revision
2

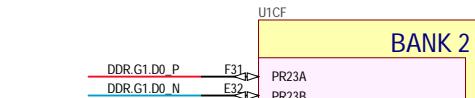
Drawn By
J. Brinton
Sheet 7 of 44

Checked By
J. Brinton
Date
6/1/2017

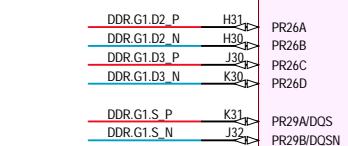
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LFE5U-85F-BG756-
Lattice ECP5 FPGA
Right Top (E-NE)



LFE5U-85F-BG756-
Lattice ECP5 FPGA
Right Top (E-NE)



DQ17

DQ29

DQ41



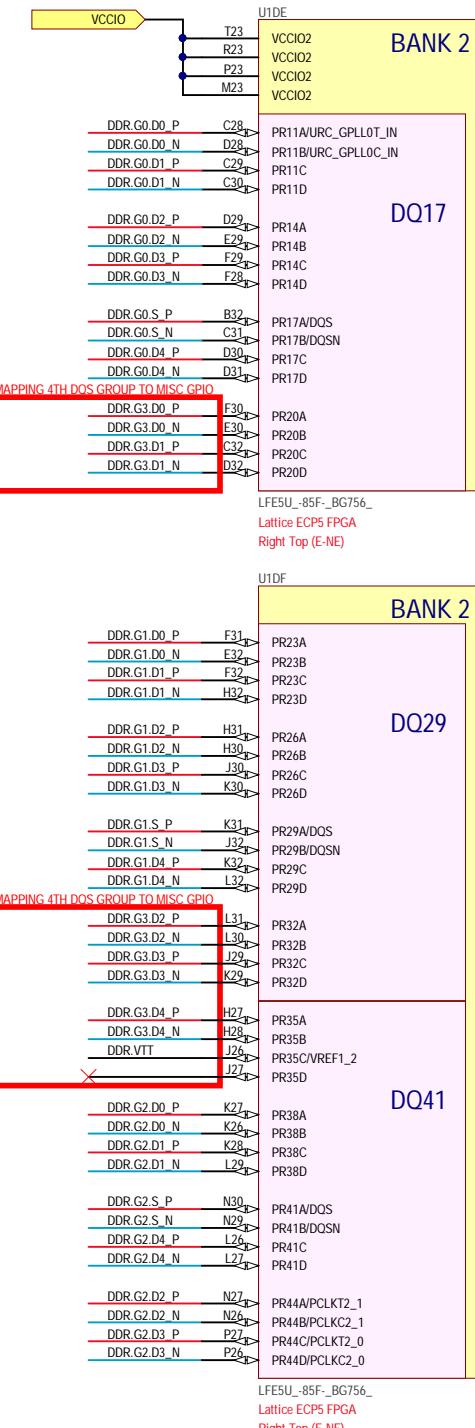
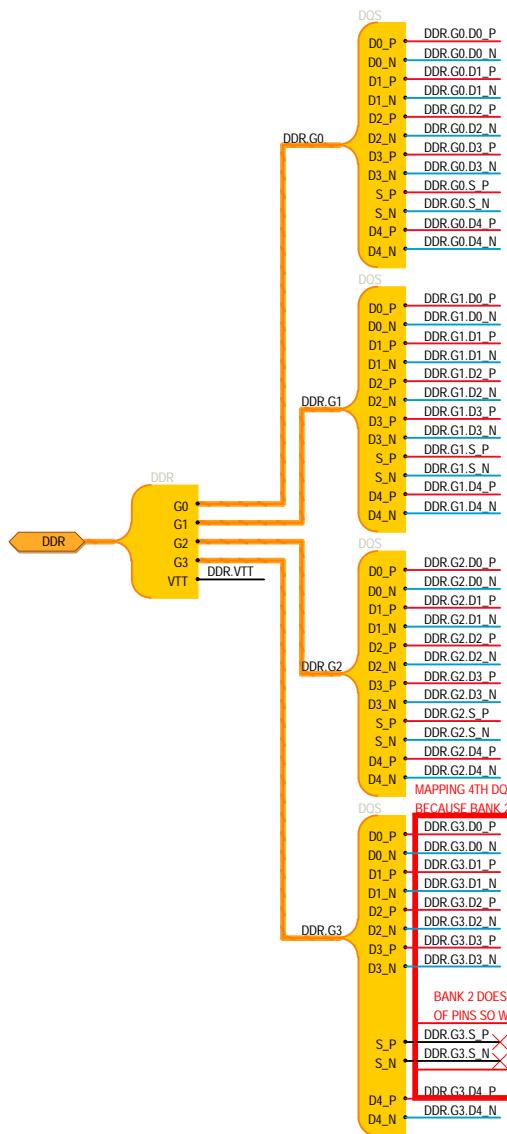
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Title: Copper Suicide - FPGA - Bank 2

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 7 of 44	Date 6/1/2017

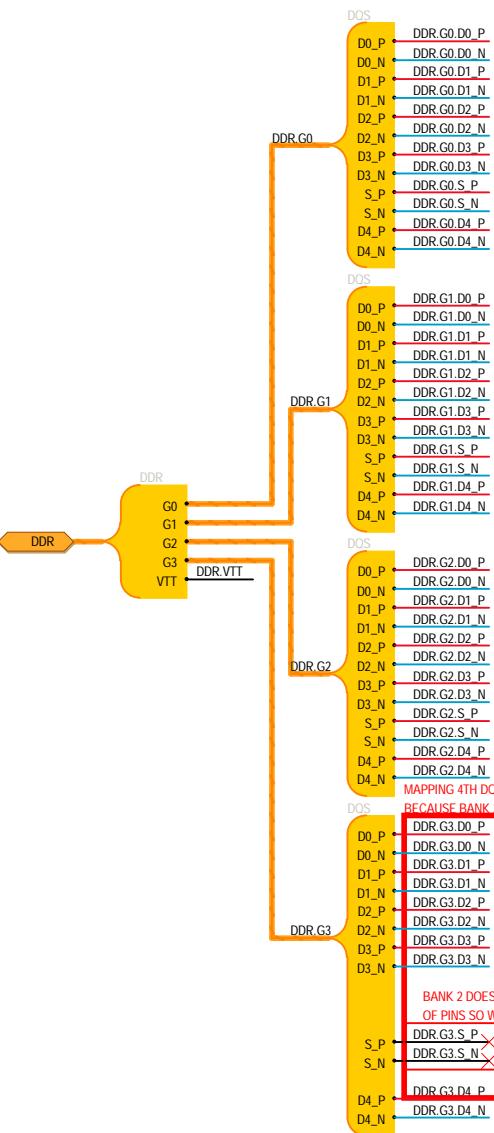
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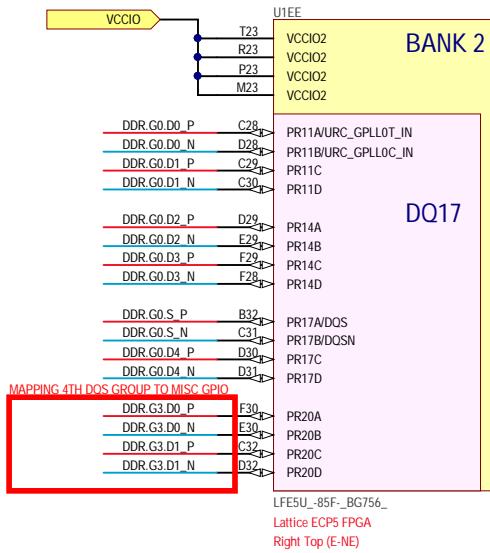


Title		
Copper Suicide - FPGA - Bank 2		
Engineer	Drawn By	Checked By
J. Brinton	J. Brinton	J. Brinton
Revision 2	Sheet 7 of 44	Date 6/1/2017

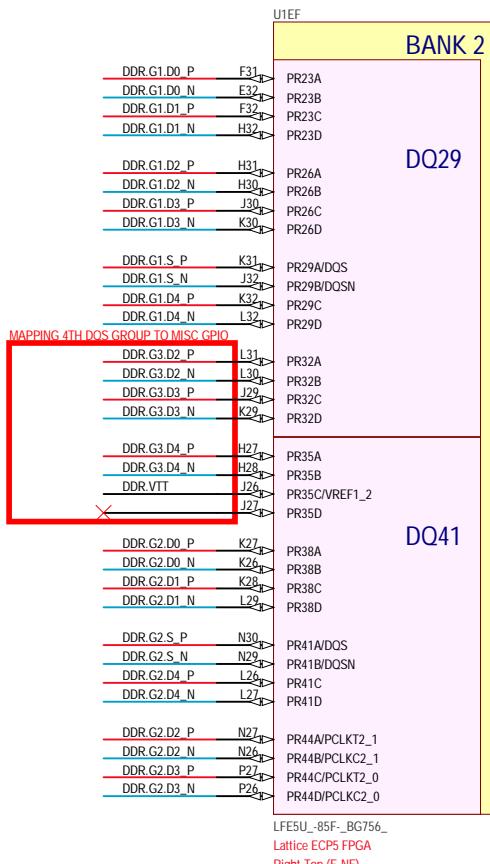
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B



C

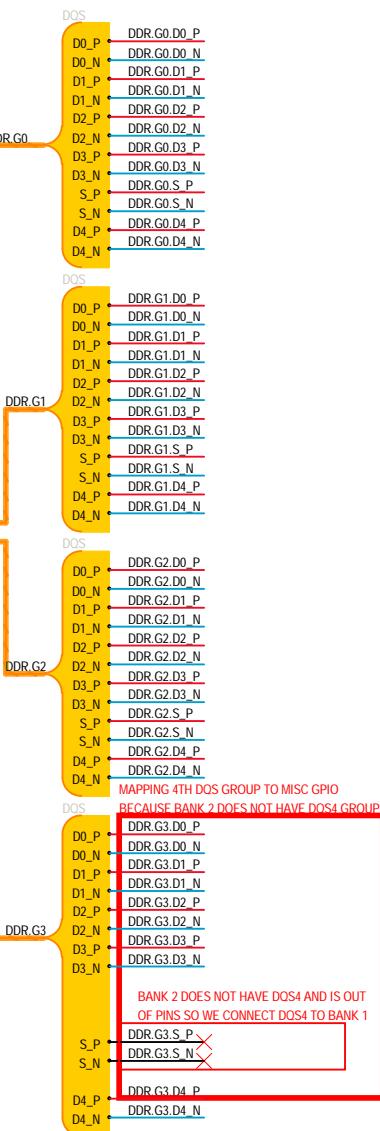


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Title		
Copper Suicide - FPGA - Bank 2		
Engineer	Drawn By	Checked By
J. Brinton	J. Brinton	J. Brinton
Revision 2	Sheet 7 of 44	Date 6/1/2017
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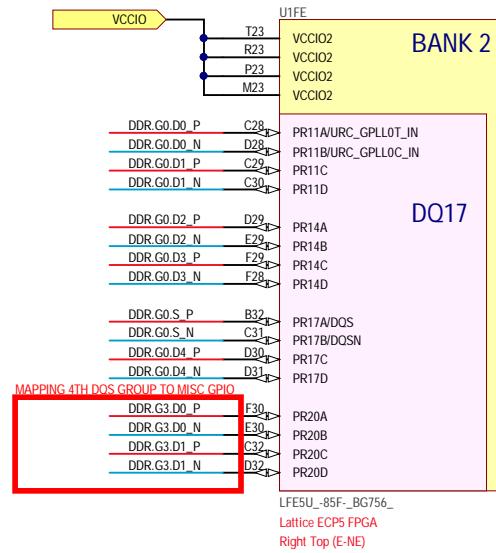
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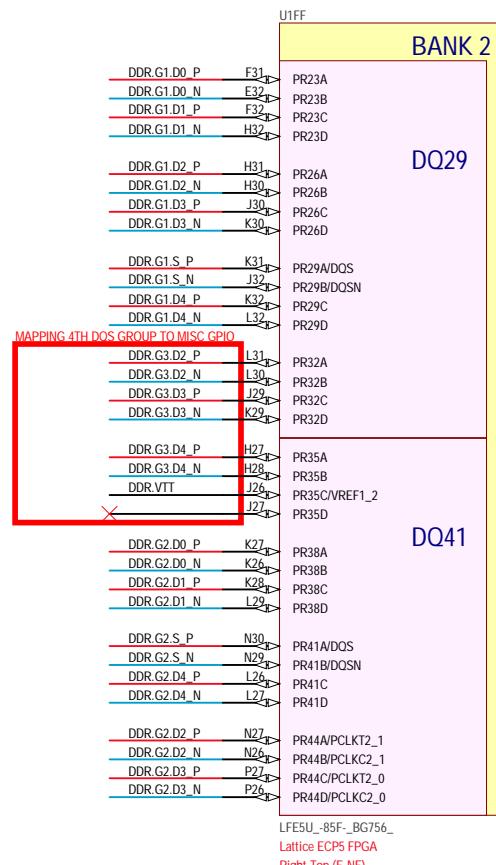
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C

C



D

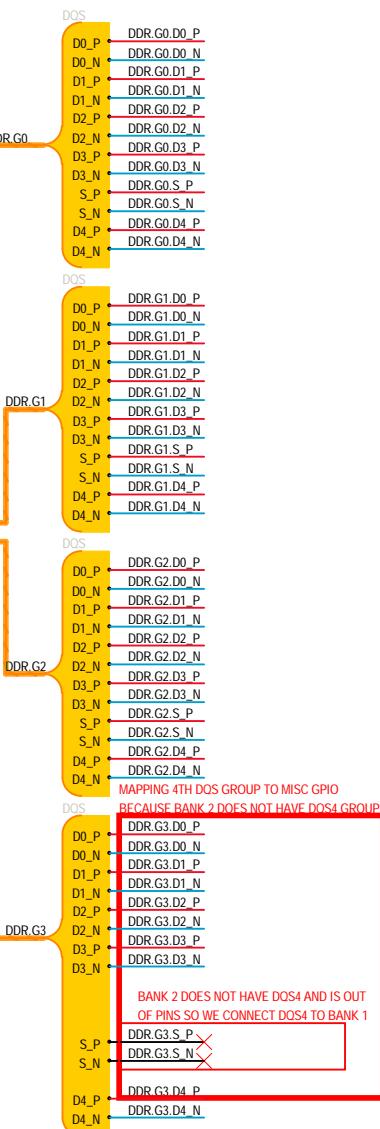
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Title Copper Suicide - FPGA - Bank 2		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 7 of 44	Date 6/1/2017

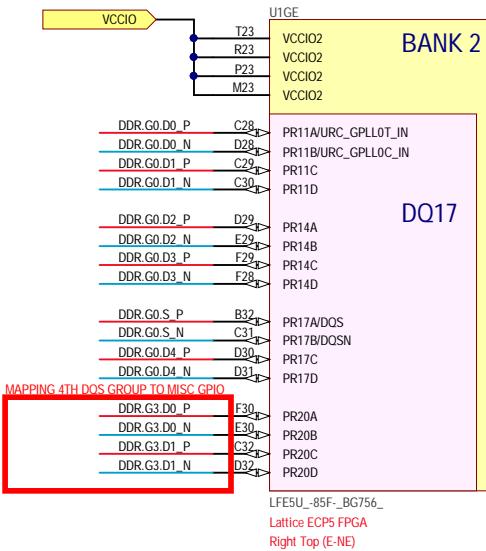
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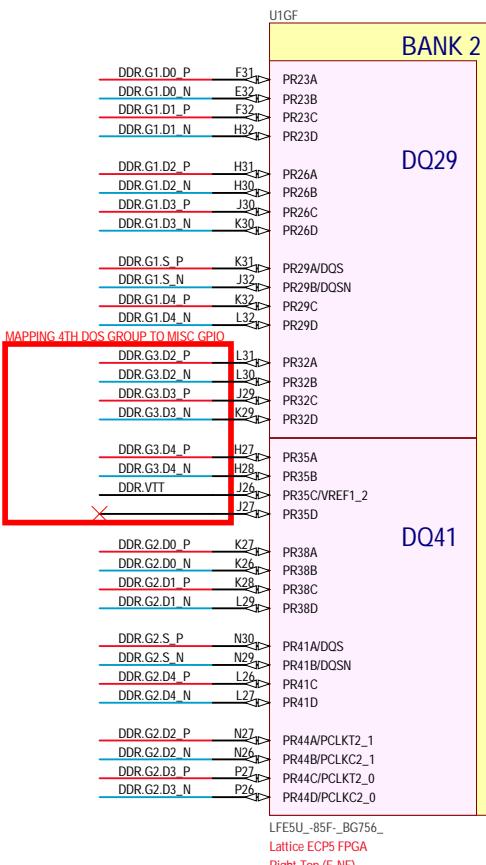
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B



C

C



D

D

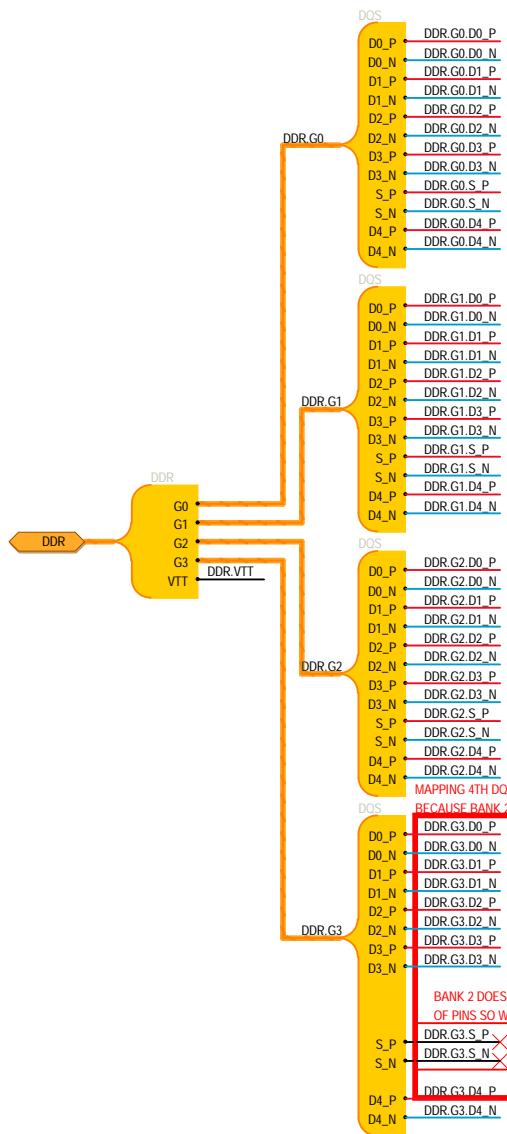


Title: Copper Suicide - FPGA - Bank 2

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 7 of 44	Date 6/1/2017

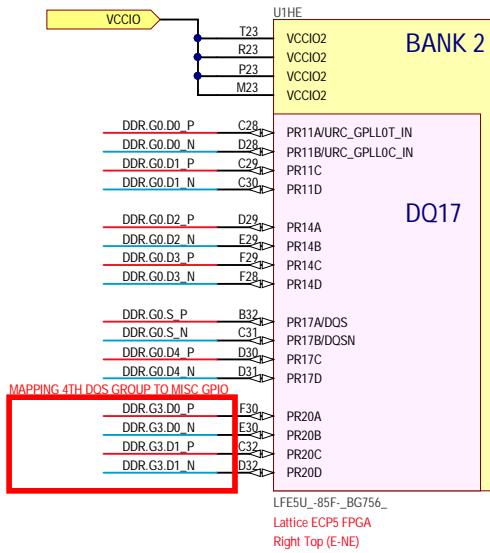
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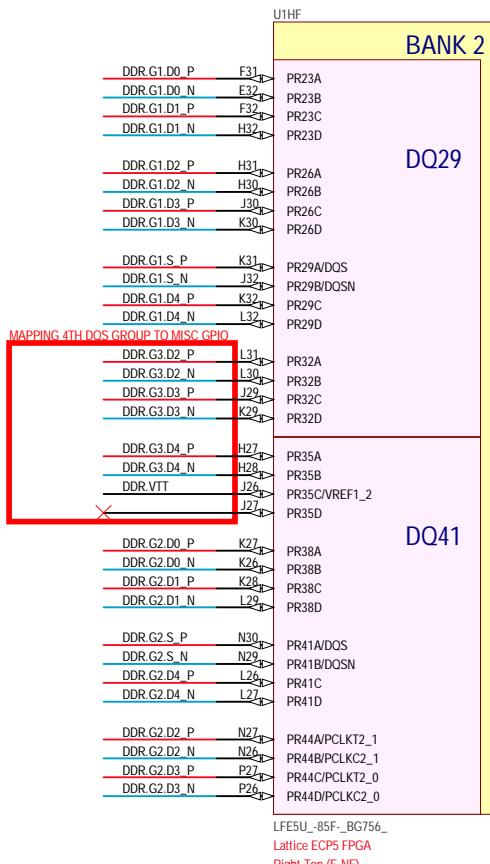
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B



C

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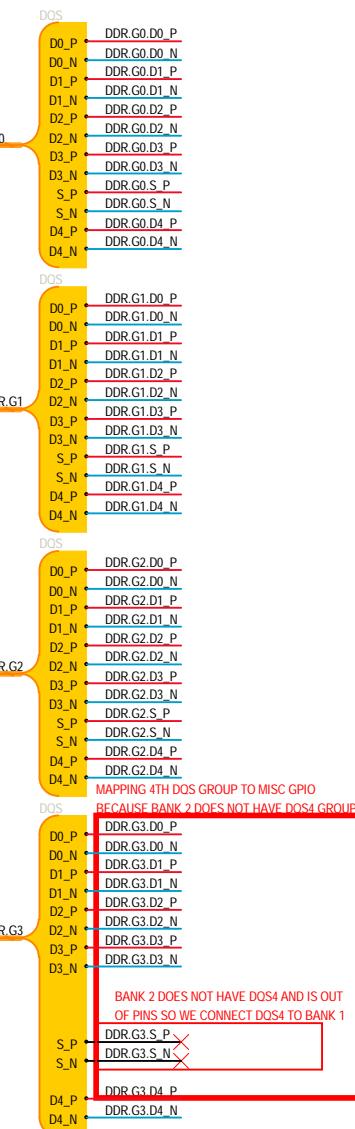
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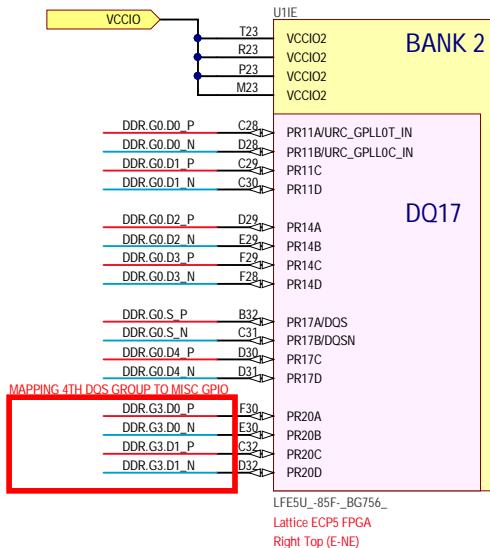


Title		
Copper Suicide - FPGA - Bank 2		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 7 of 44	Date 6/1/2017

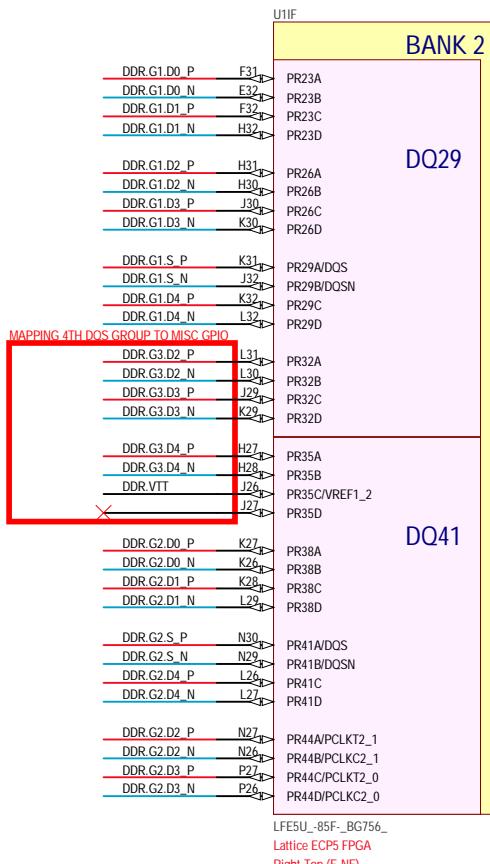
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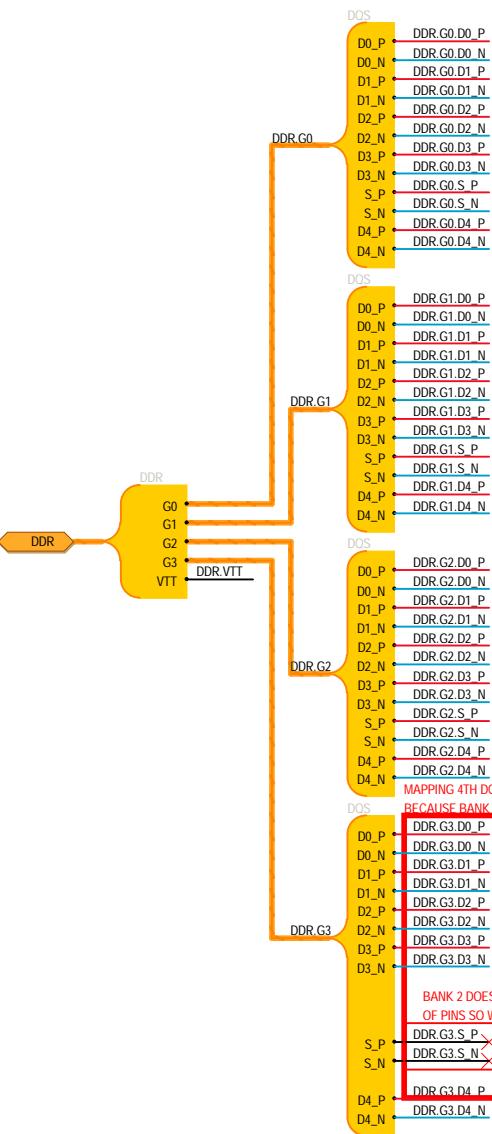
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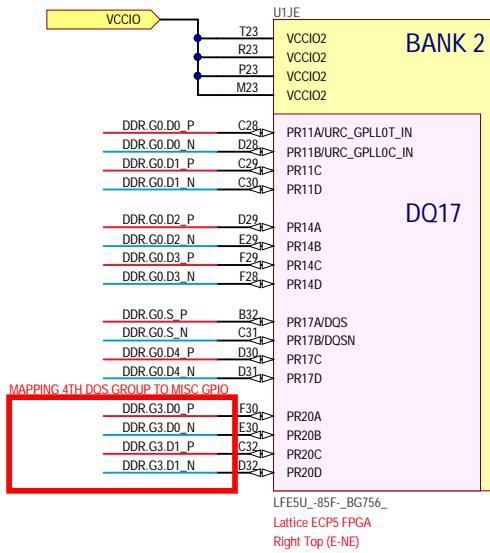
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Title: Copper Suicide - FPGA - Bank 2		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 7 of 44	Date 6/1/2017
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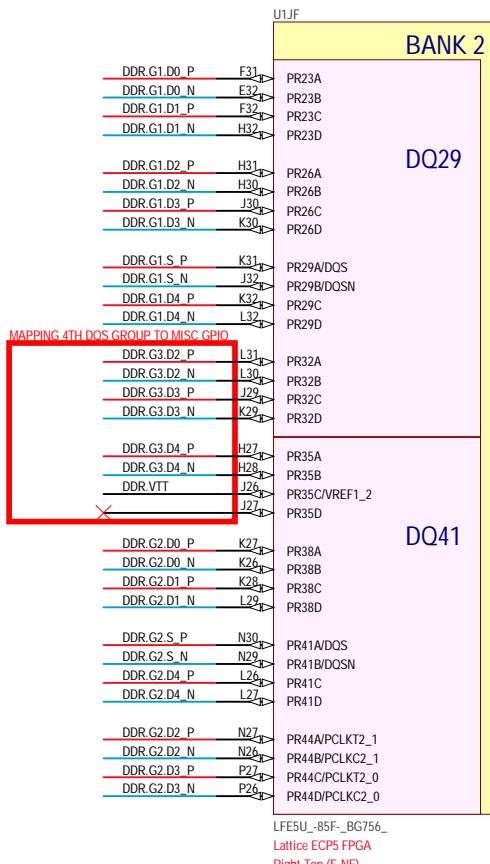
A



B



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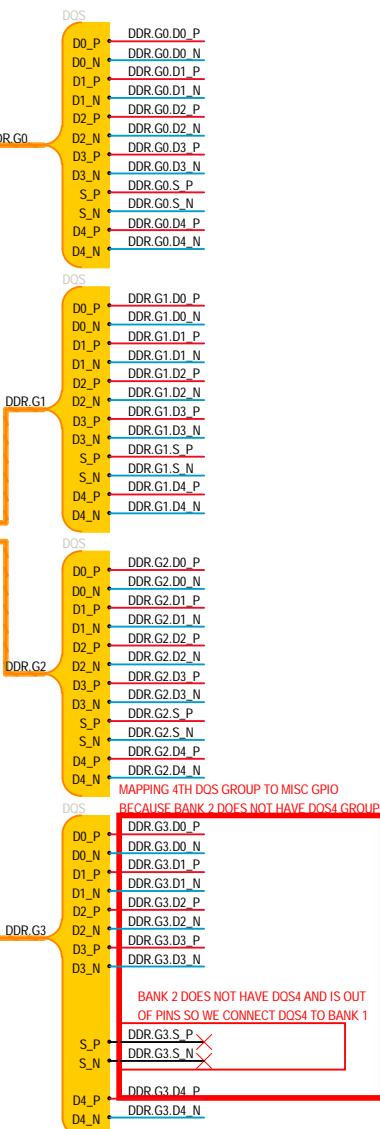


D

Title: Copper Suicide - FPGA - Bank 2		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 7 of 44	Date 6/1/2017
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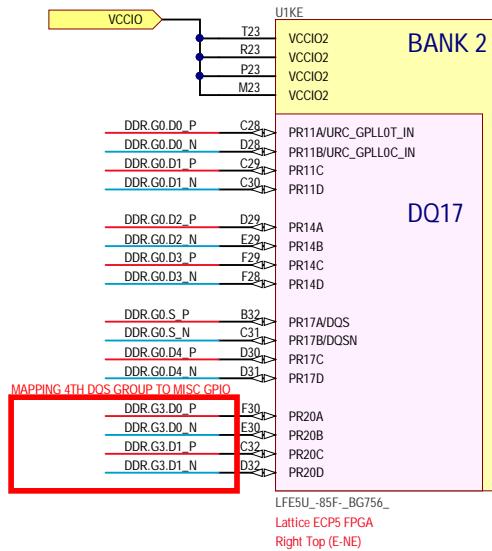
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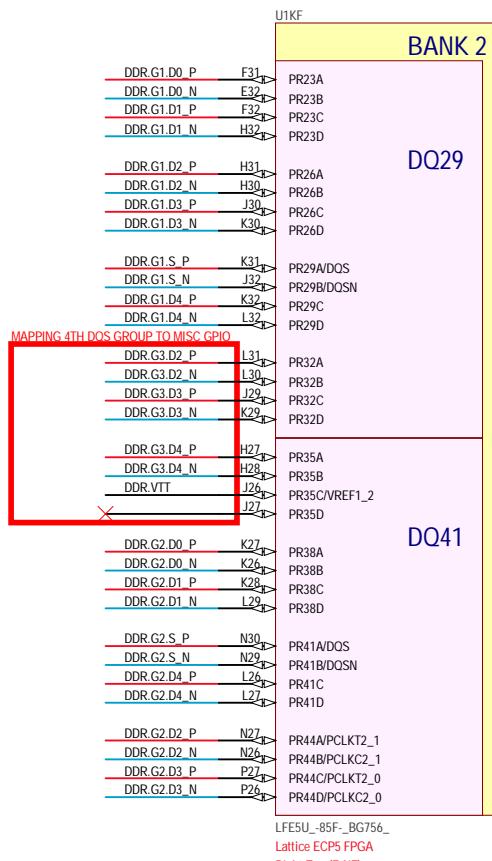
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B



C

C



D

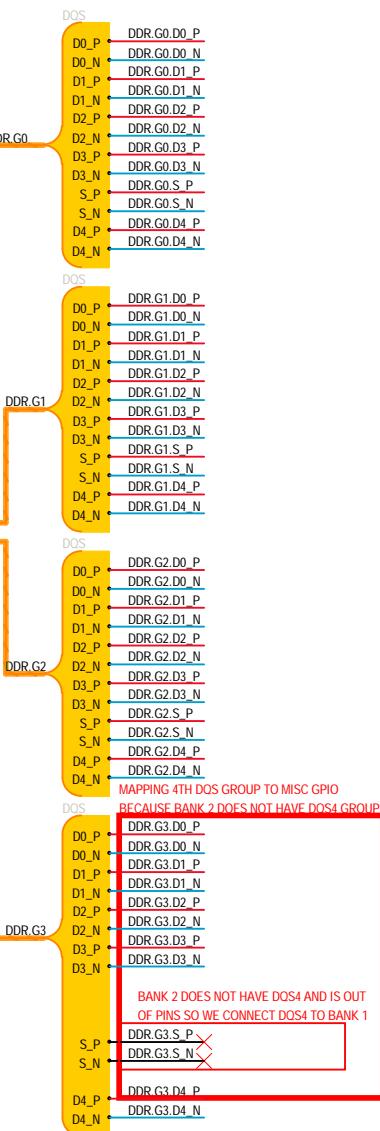
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Title		
Copper Suicide - FPGA - Bank 2		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 7 of 44	Date 6/1/2017

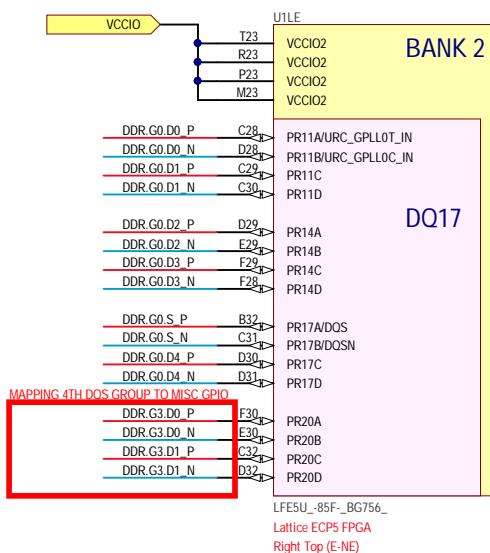
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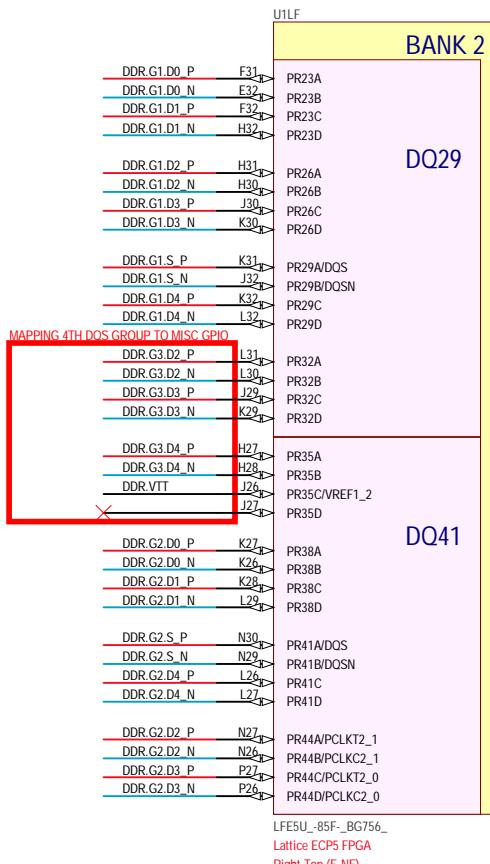
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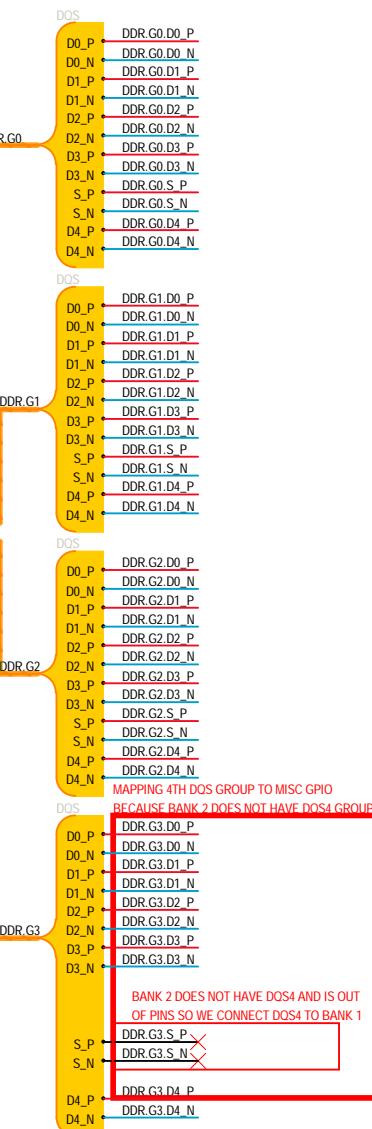
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Title		
Copper Suicide - FPGA - Bank 2		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 7 of 44	Date 6/1/2017

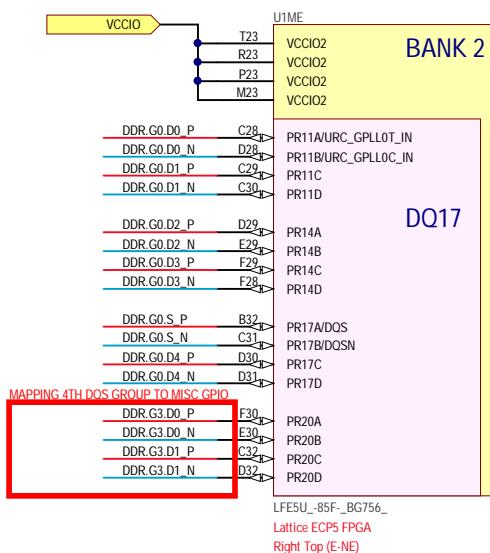
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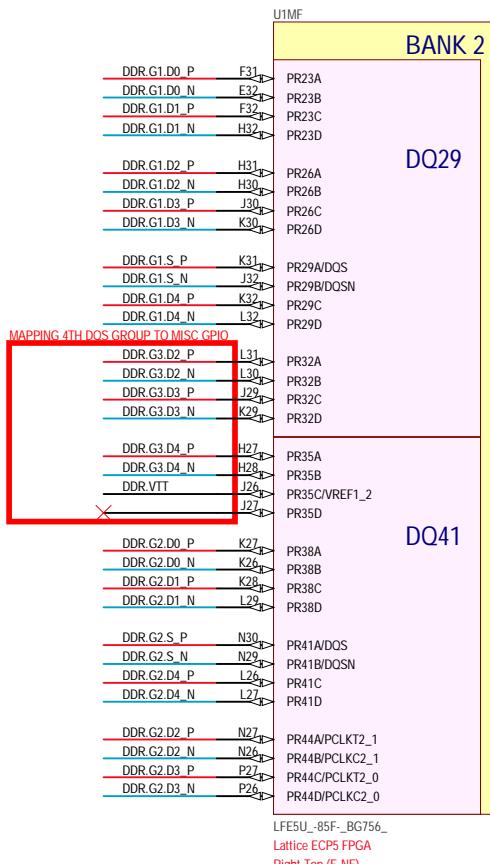
B

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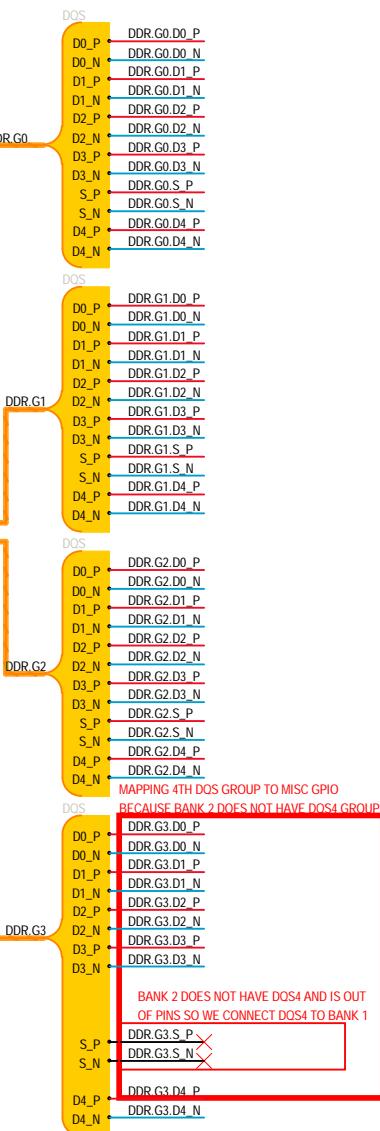
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Title		
Copper Suicide - FPGA - Bank 2		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 7 of 44	Date 6/1/2017

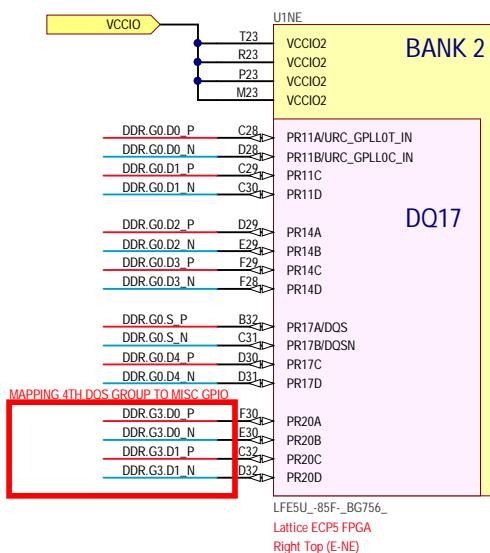
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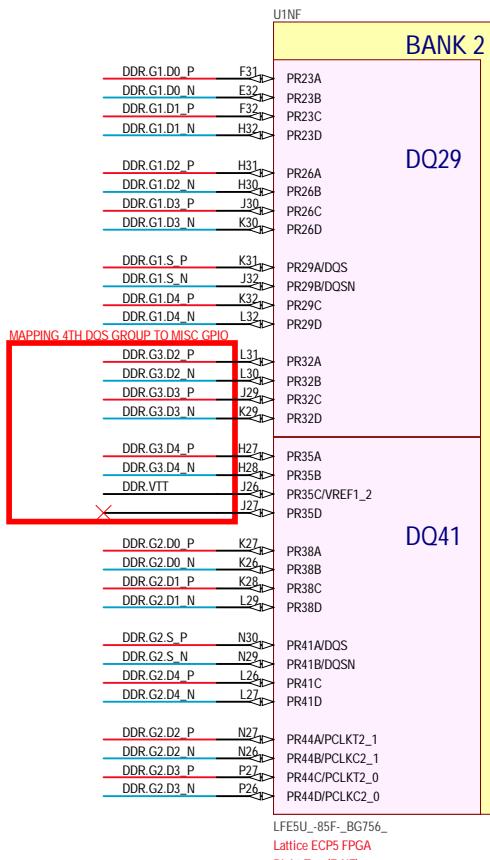
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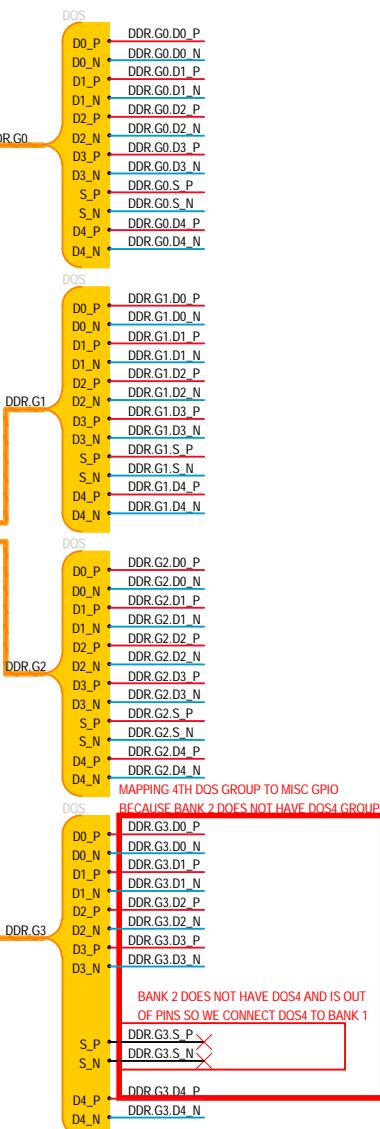
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Title		
Copper Suicide - FPGA - Bank 2		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 7 of 44	Date 6/1/2017

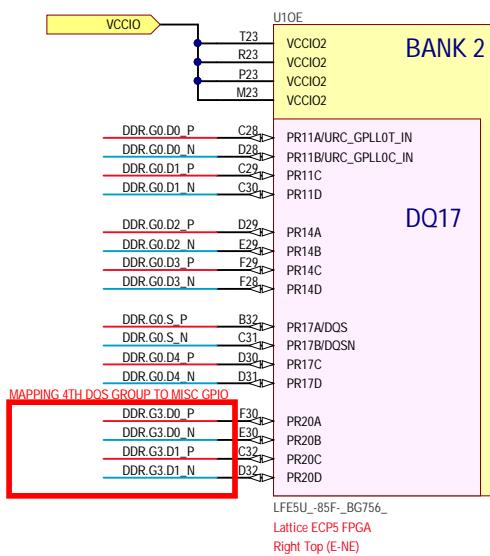
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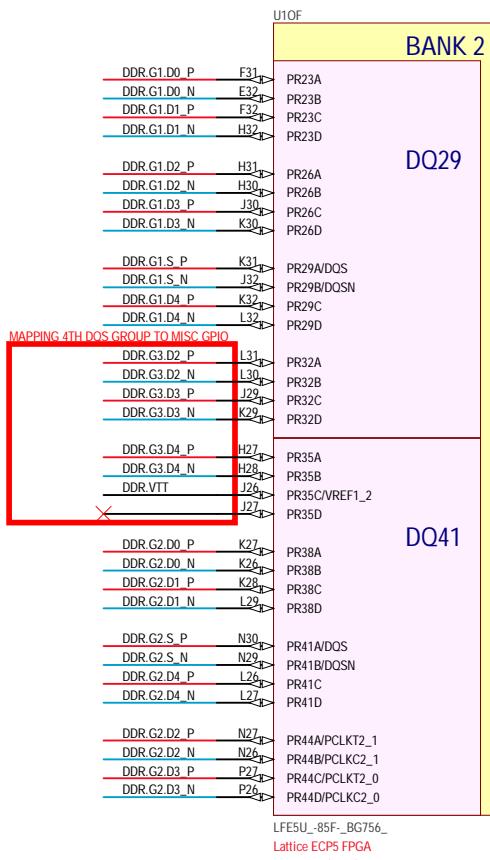
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B



C

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D

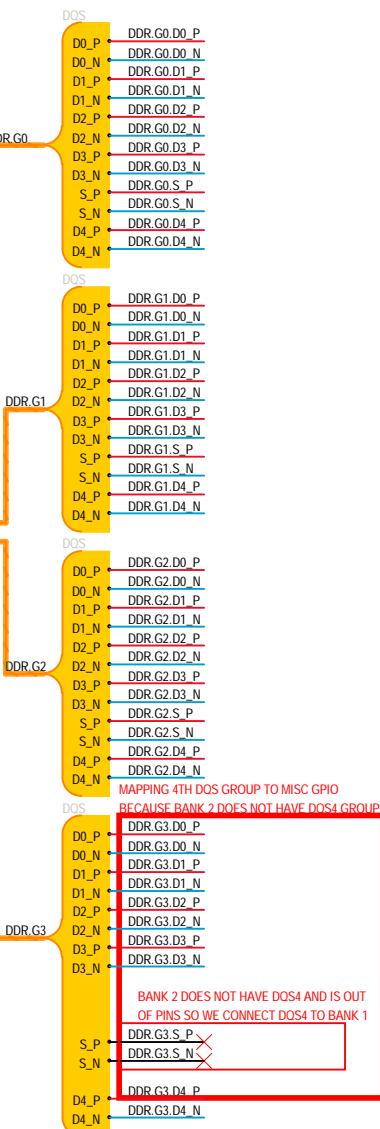
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Title		
Copper Suicide - FPGA - Bank 2		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 7 of 44	Date 6/1/2017

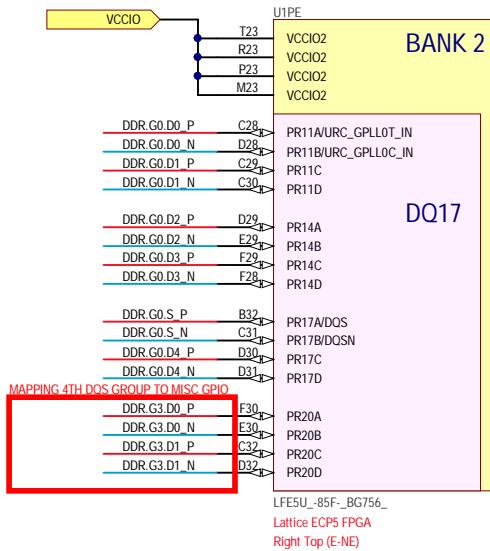
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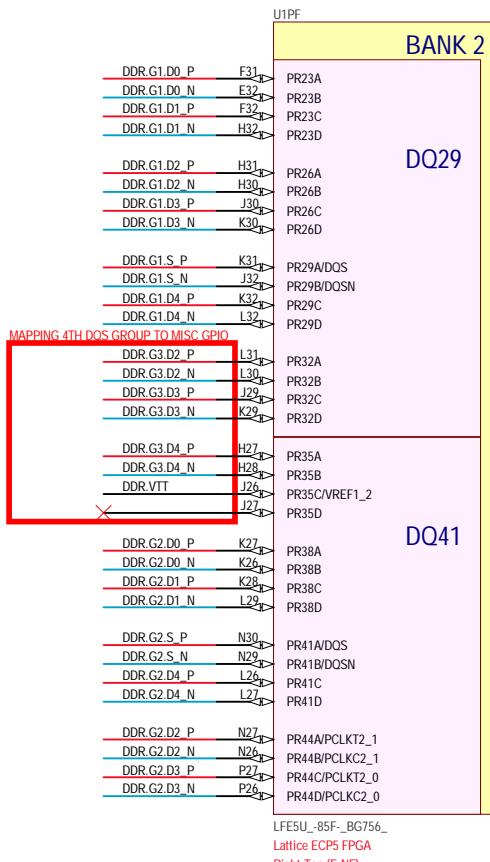
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C



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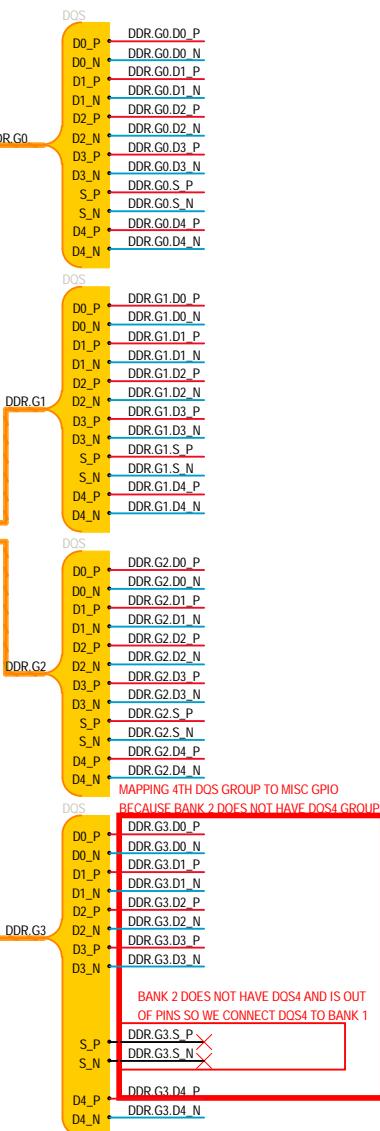
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Title		
Copper Suicide - FPGA - Bank 2		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 7 of 44	Date 6/1/2017

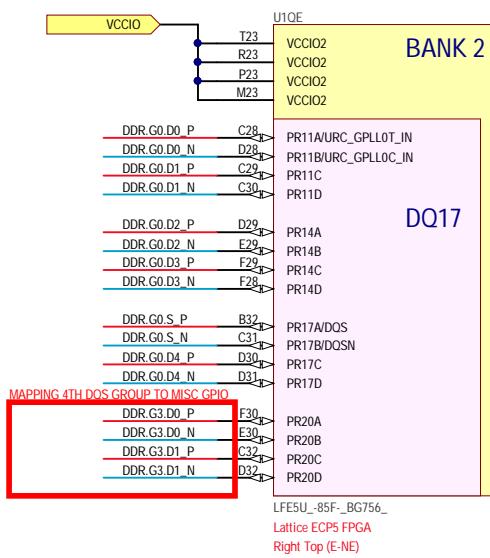
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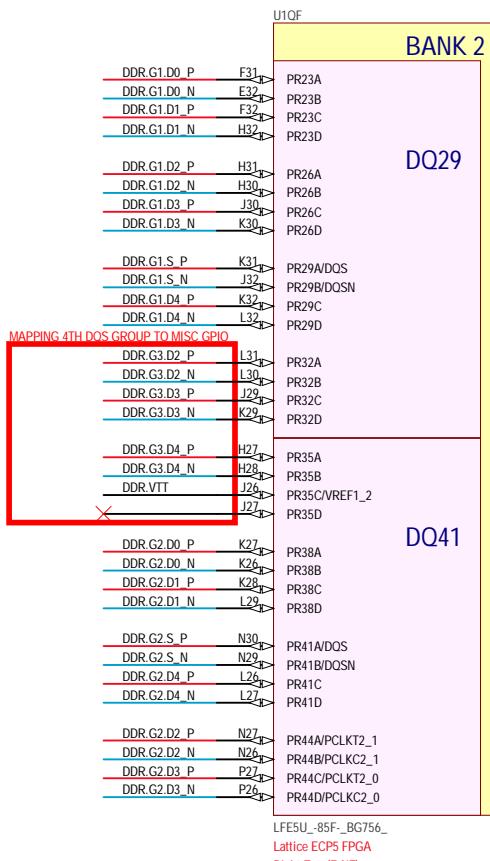
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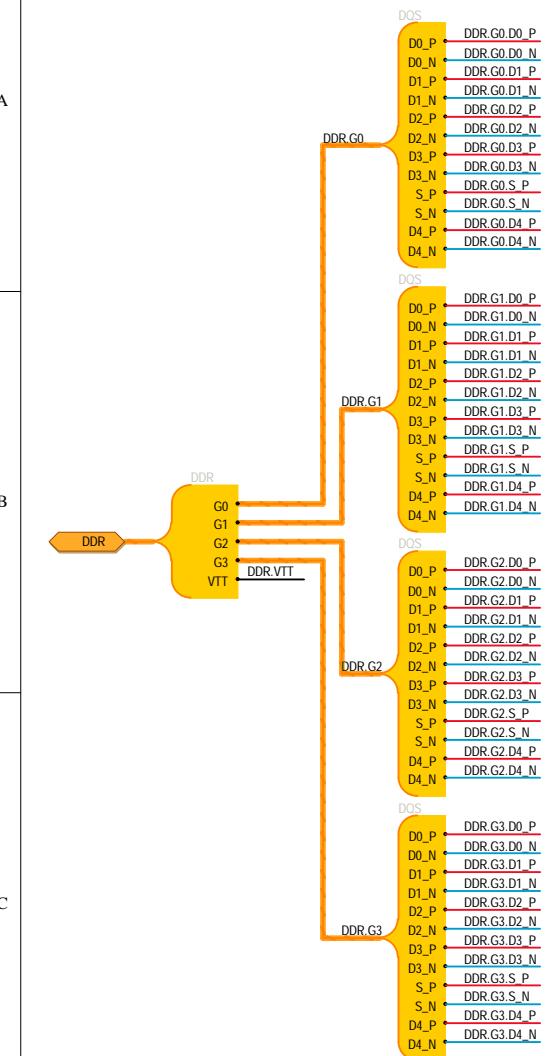
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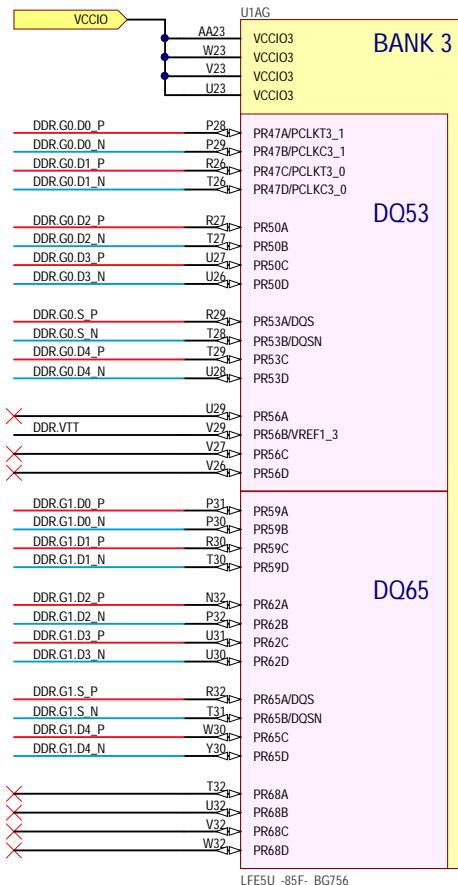


Title		
Copper Suicide - FPGA - Bank 2		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 7 of 44	Date 6/1/2017

A

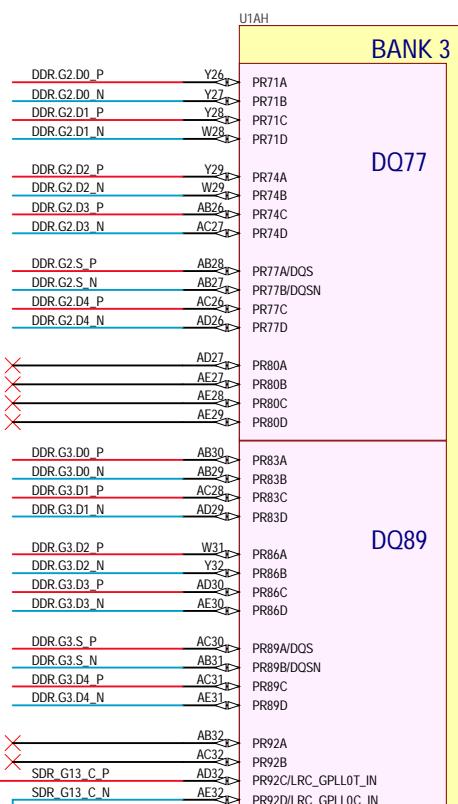


B



LFE5U-85F-BG756
Lattice ECP5 FPGA
Right Bottom (E-SE)

SDR_G13_C_P
SDR_G13_C_N



LFE5U-85F-BG756
Lattice ECP5 FPGA
Right Bottom (E-SE)

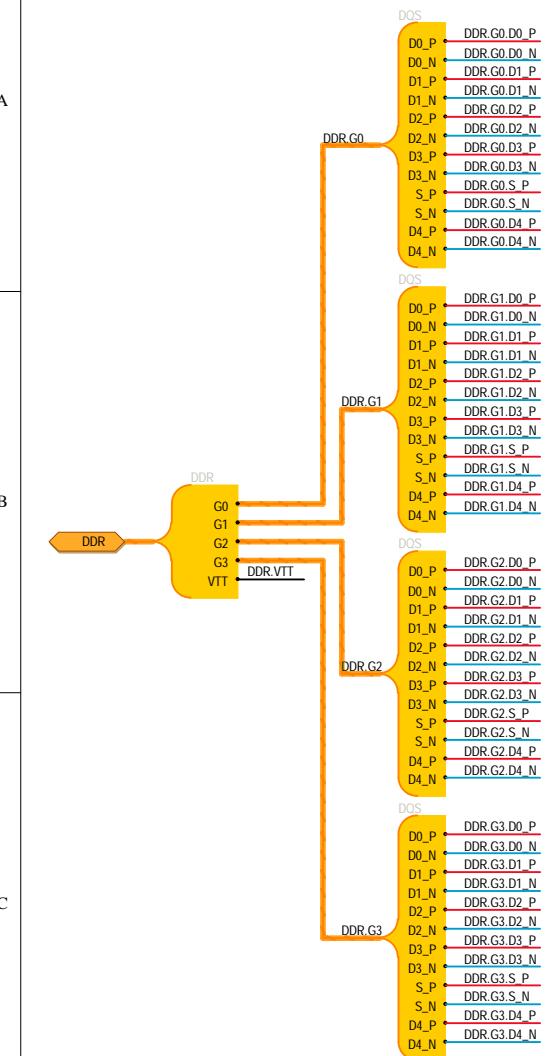


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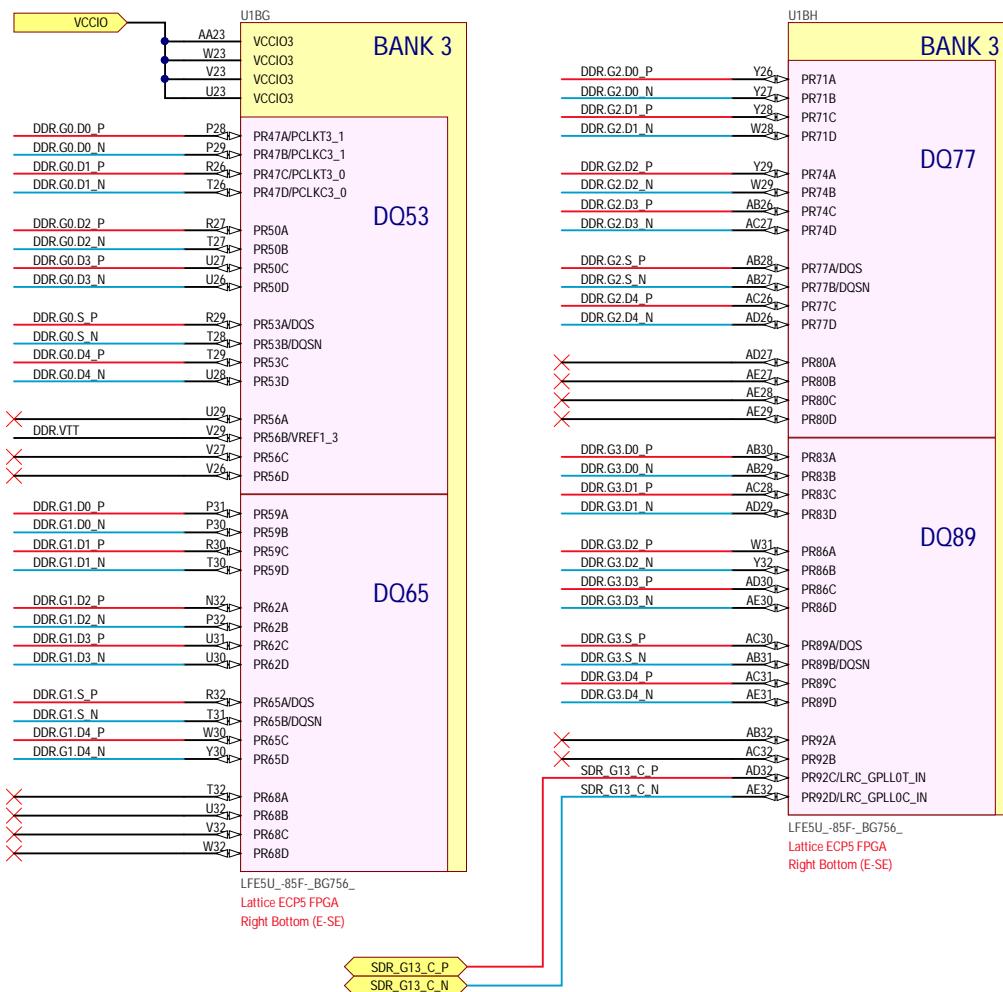
Title: Copper Suicide - FPGA - Bank 3

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 8 of 44	Date 6/1/2017

A



B



C

Title		
Copper Suicide - FPGA - Bank 3		
Engineer	Drawn By	Checked By
J. Brinton	J. Brinton	J. Brinton
Revision 2	Sheet 8 of 44	Date 6/1/2017

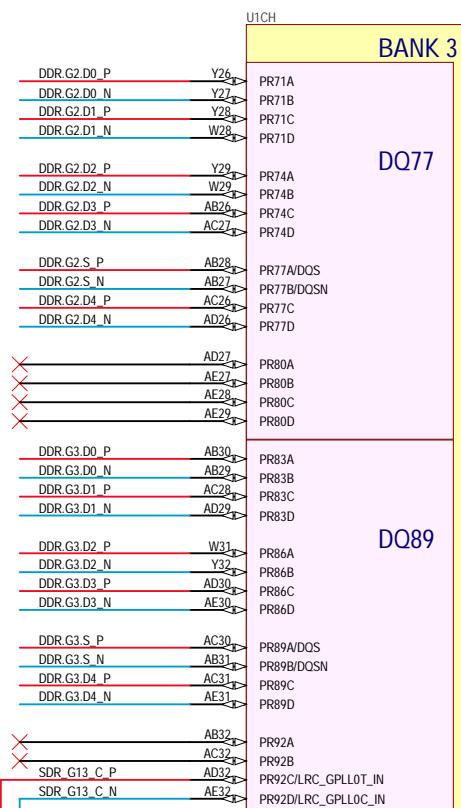
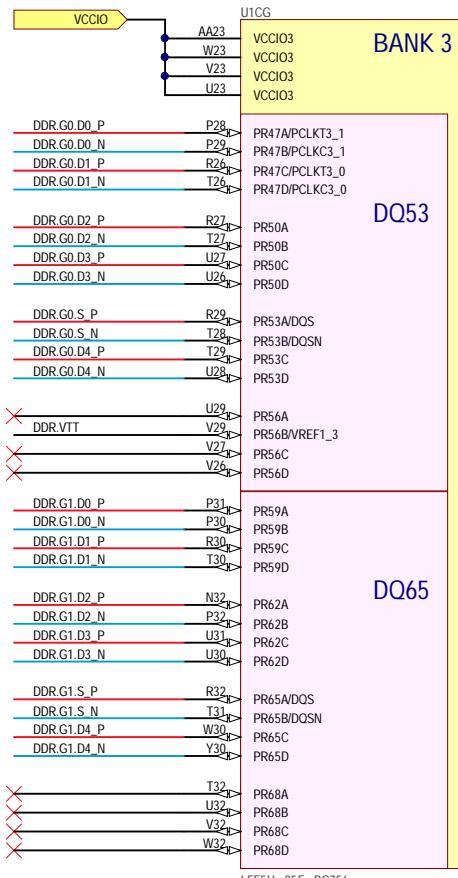
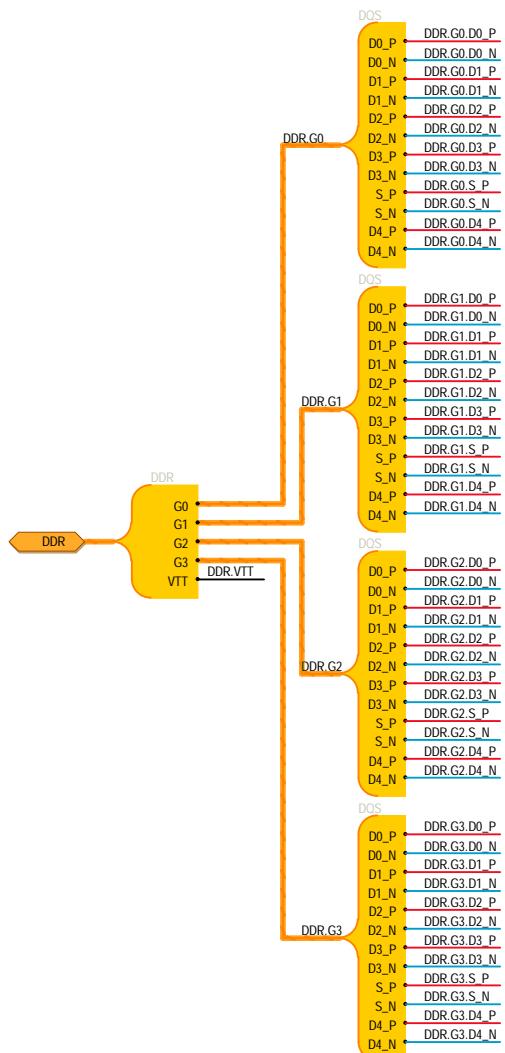
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D

A

C

D



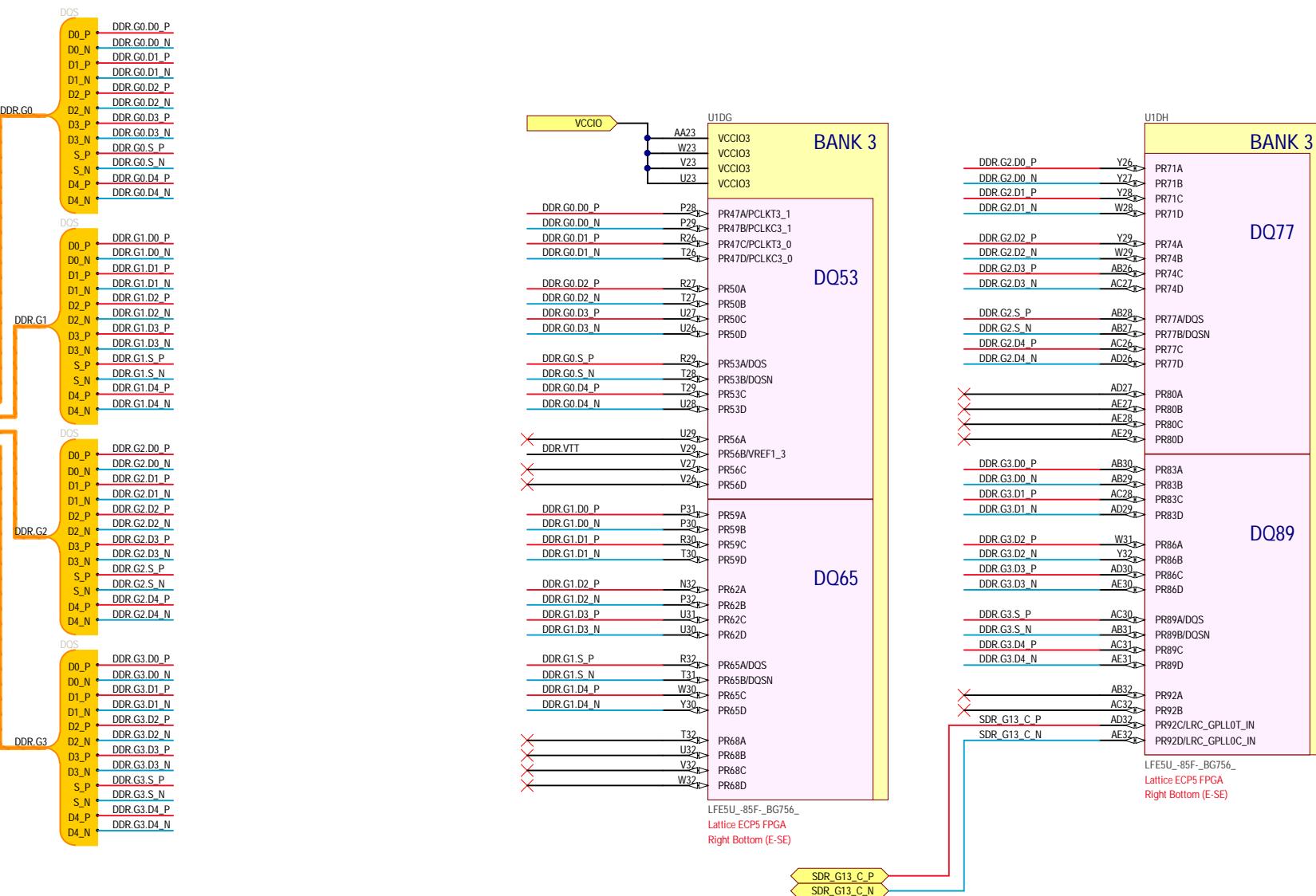
LFE5U-85F-BG756
Lattice ECP5 FPGA
Right Bottom (E-SE)



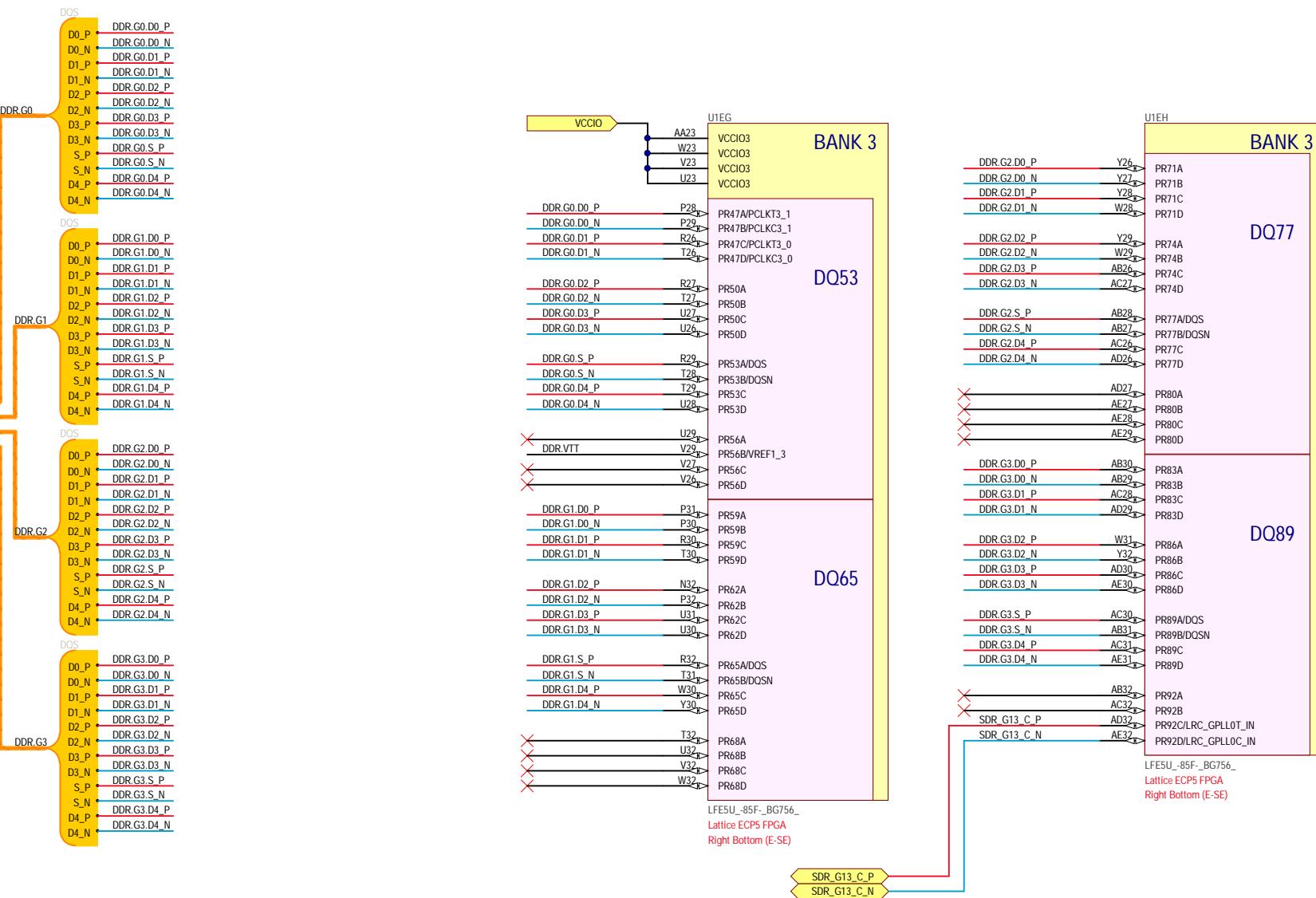
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Title Copper Suicide - FPGA - Bank 3

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 8 of 44	Date 6/1/2017

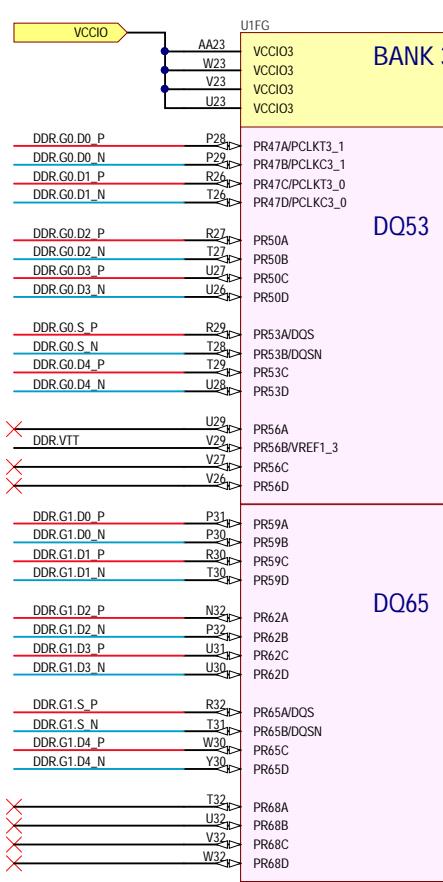
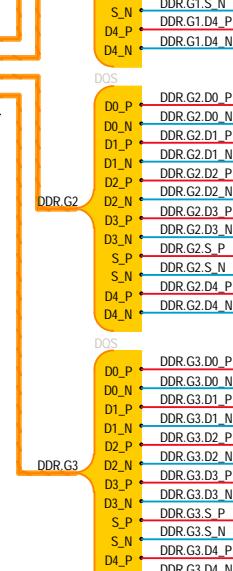
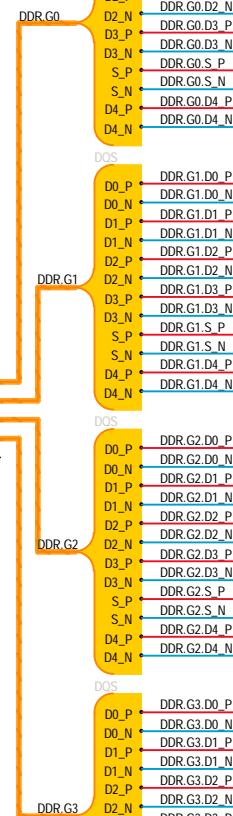
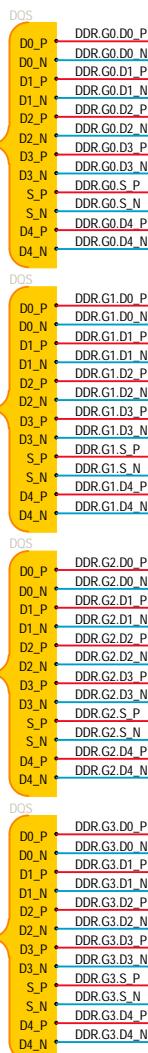


Title		
Copper Suicide - FPGA - Bank 3		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 8 of 44	Date 6/1/2017



Title		
Copper Suicide - FPGA - Bank 3		
Engineer	Drawn By	Checked By
J. Brinton	J. Brinton	J. Brinton
Revision 2	Sheet 8 of 44	Date 6/1/2017

A



BANK 3

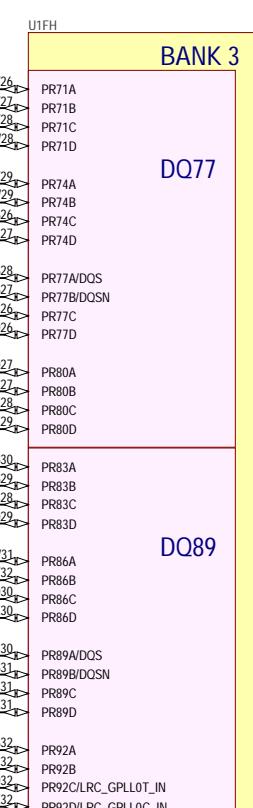
DQ53

DQ65

LFE5U-85F-BG756

Lattice ECP5 FPGA

Right Bottom (E-SE)



U1FH

BANK 3

DQ77

DQ89

LFE5U-85F-BG756

Lattice ECP5 FPGA

Right Bottom (E-SE)



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Title: Copper Suicide - FPGA - Bank 3

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 8 of 44	Date 6/1/2017

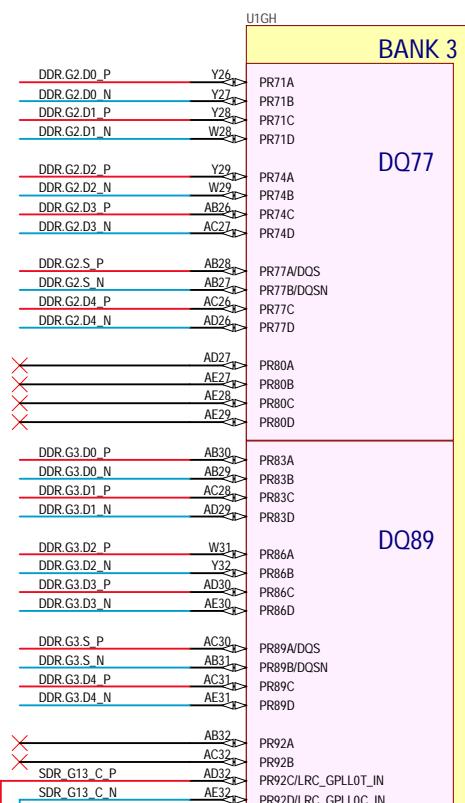
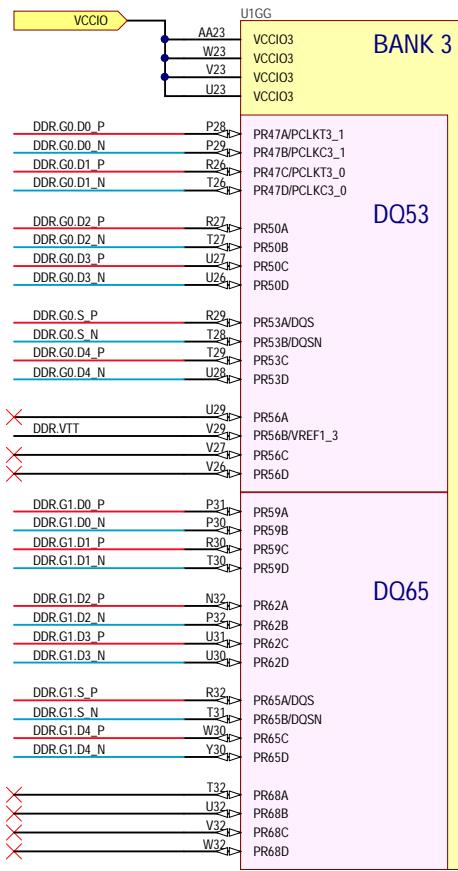
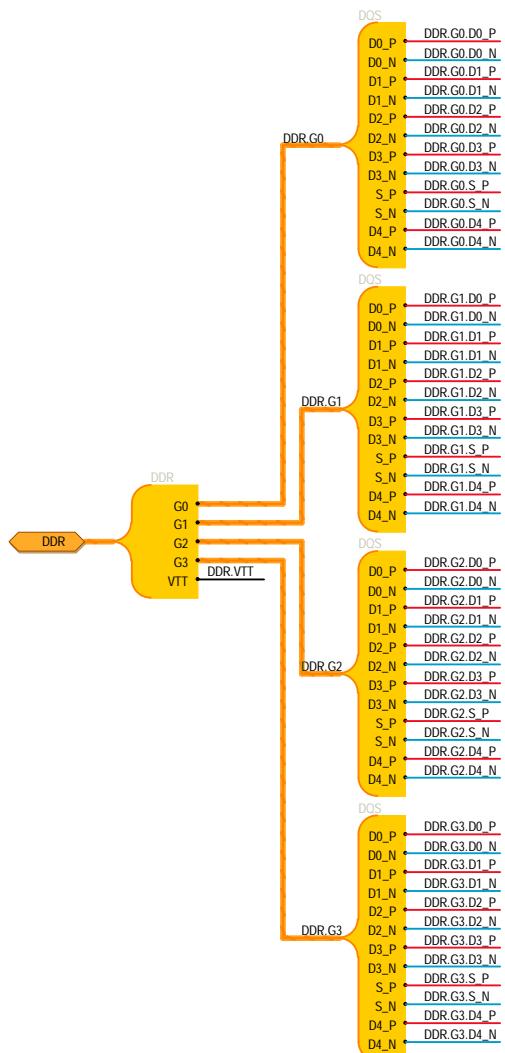
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D

A

C

D



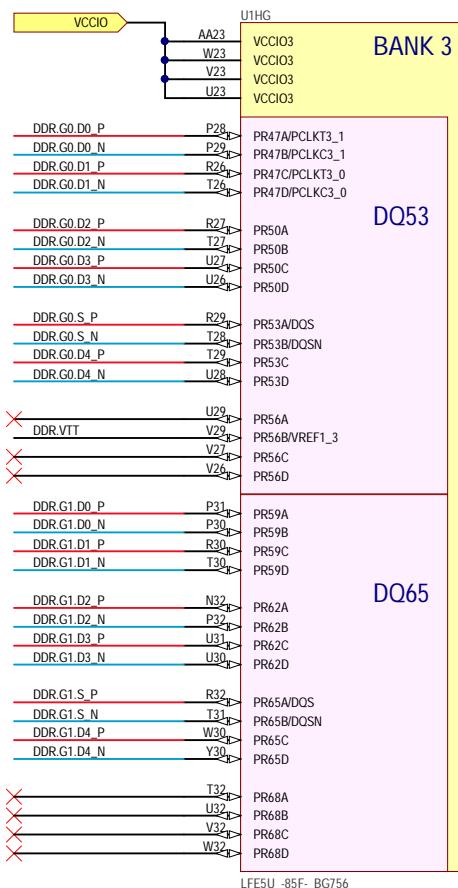
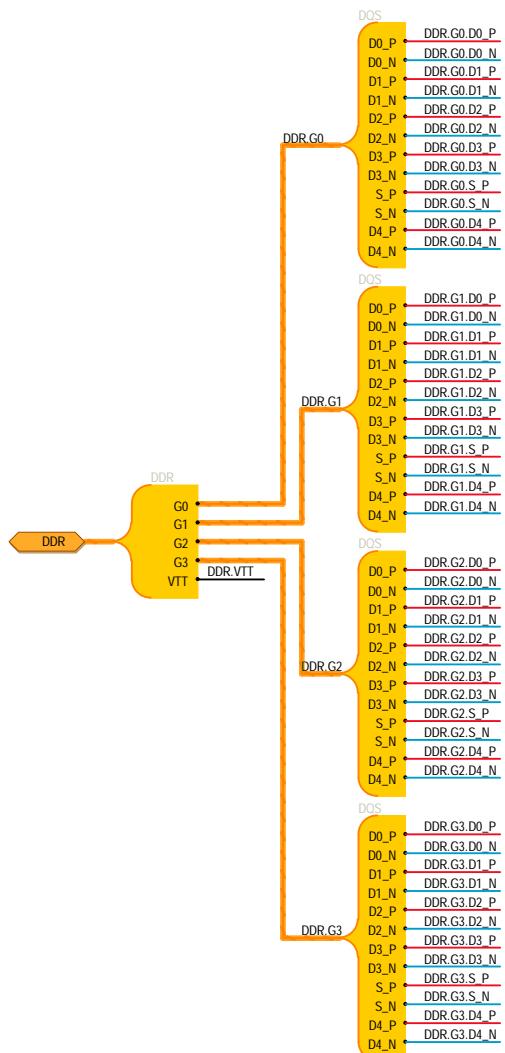
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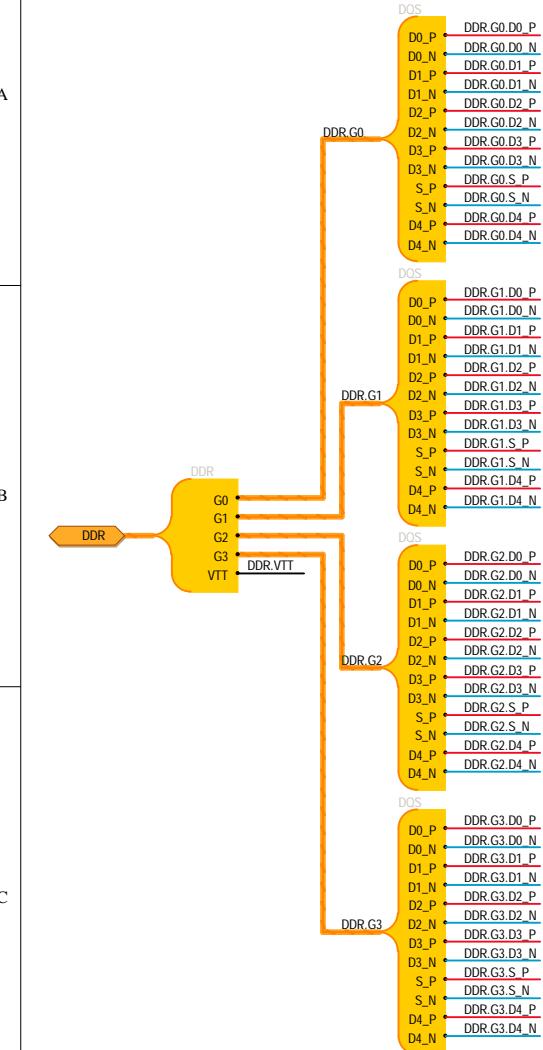
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D

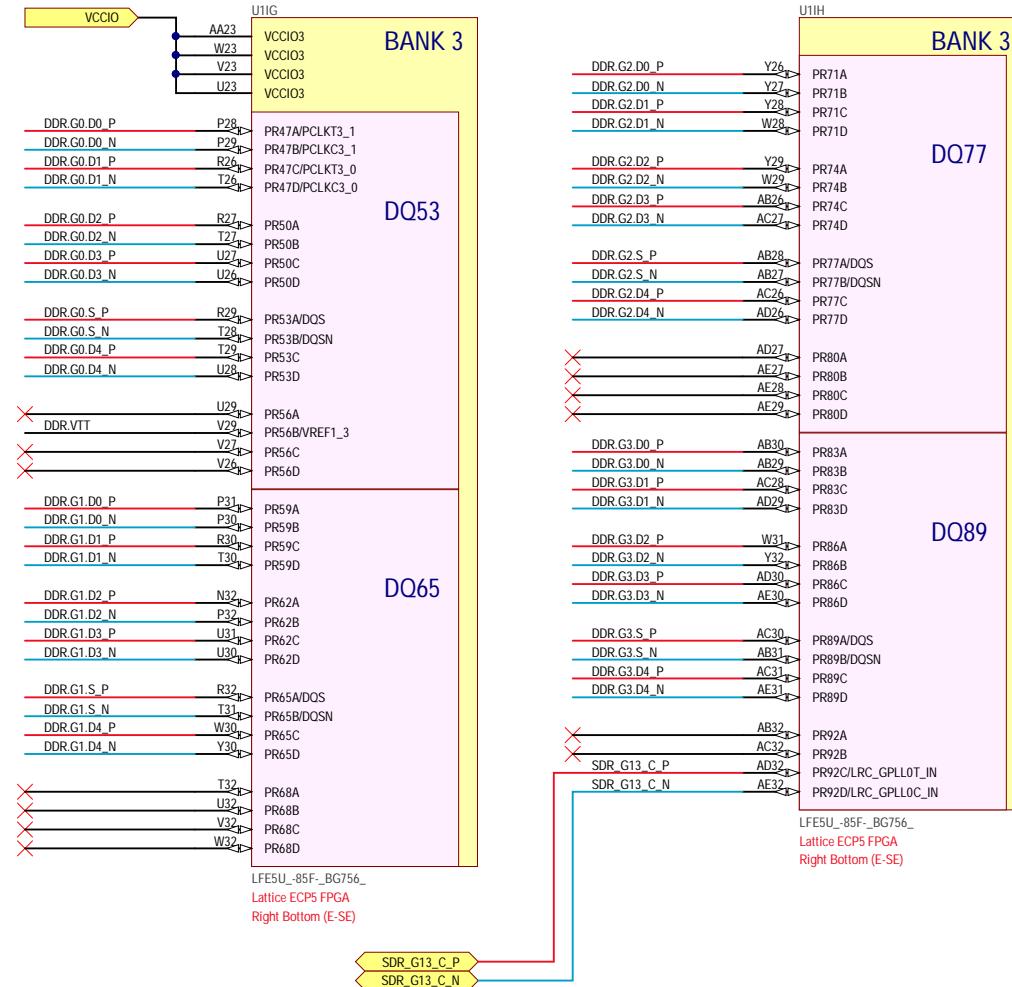


Title		
Copper Suicide - FPGA - Bank 3		
Engineer	Drawn By	Checked By
J. Brinton	J. Brinton	J. Brinton
Revision 2	Sheet 8 of 44	Date 6/1/2017

A



B



C

Title		
Copper Suicide - FPGA - Bank 3		
Engineer	Drawn By	Checked By
J. Brinton	J. Brinton	J. Brinton
Revision 2	Sheet 8 of 44	Date 6/1/2017

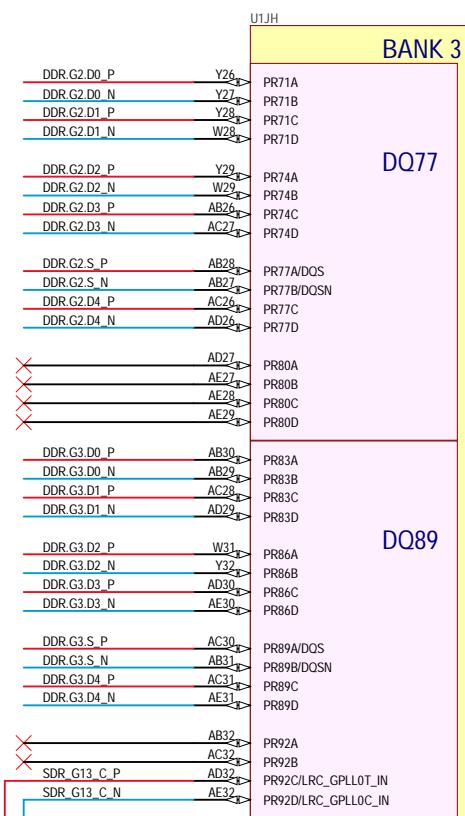
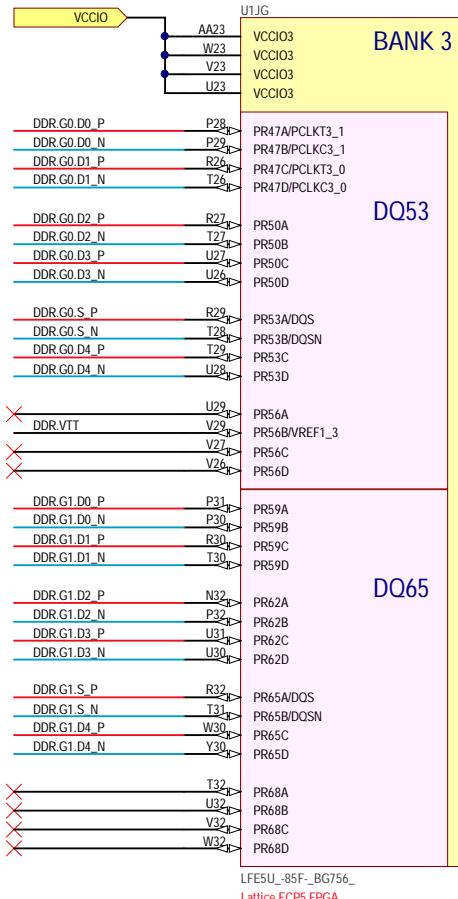
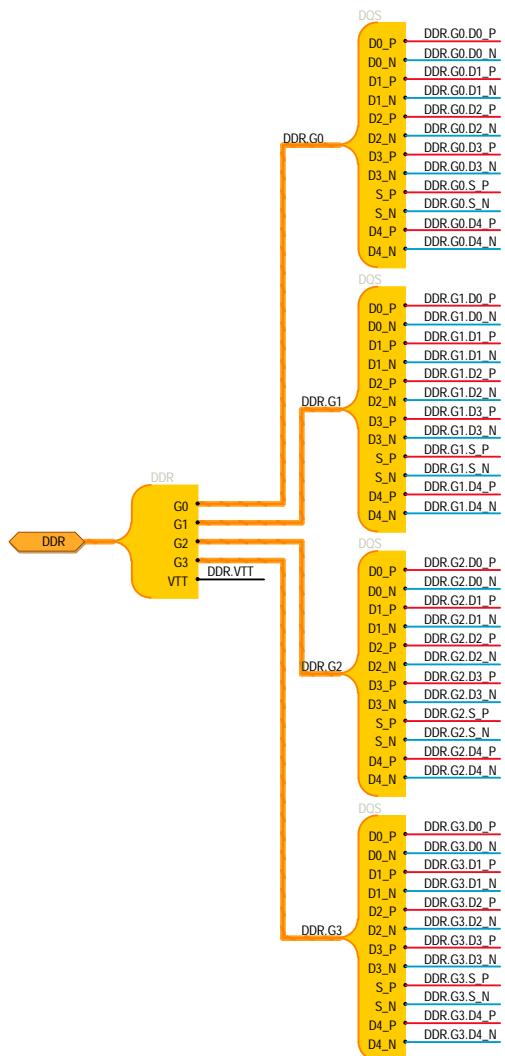
A

D

A

C

D

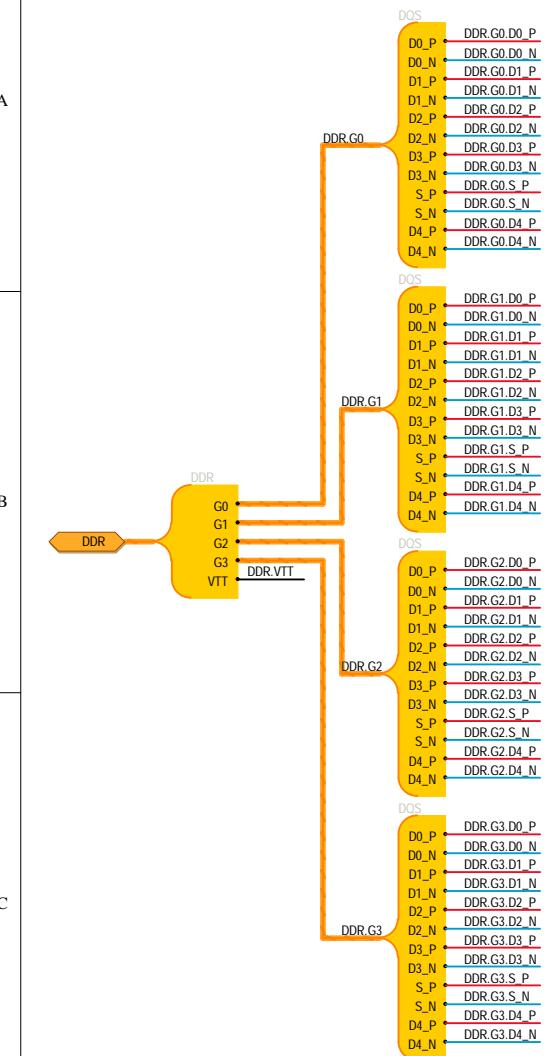


LFE5U-85F-BG756
Lattice ECP5 FPGA
Right Bottom (E-SE)

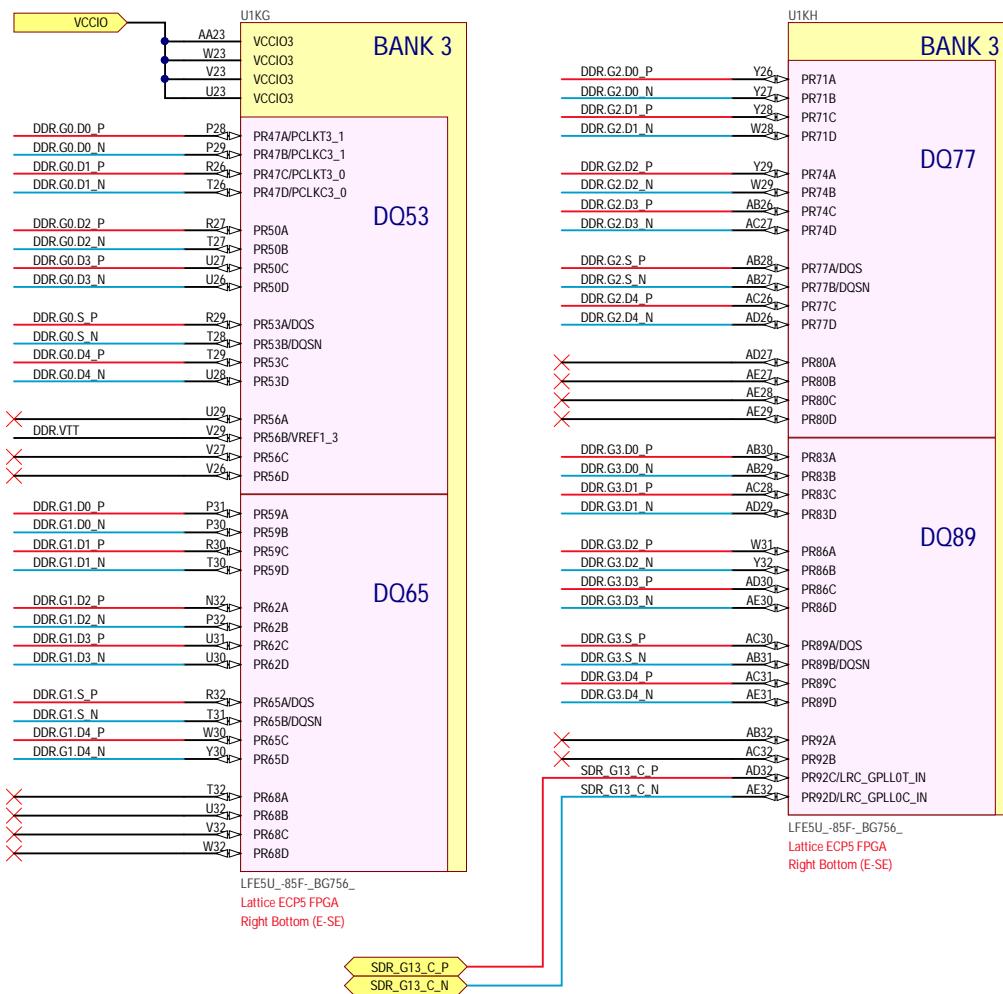


Title		
Copper Suicide - FPGA - Bank 3		
Engineer	Drawn By	Checked By
J. Brinton	J. Brinton	J. Brinton
Revision 2	Sheet 8 of 44	Date 6/1/2017

A



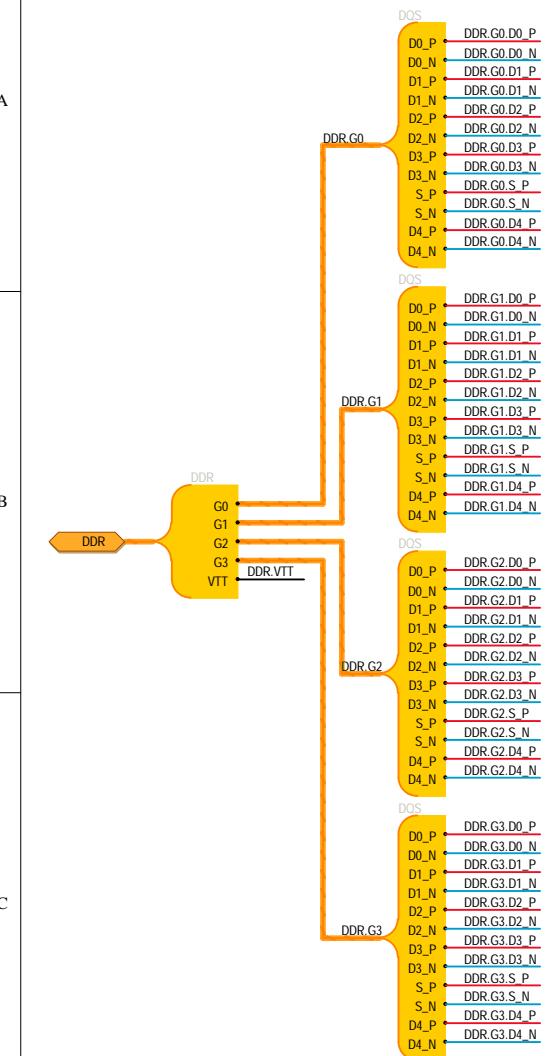
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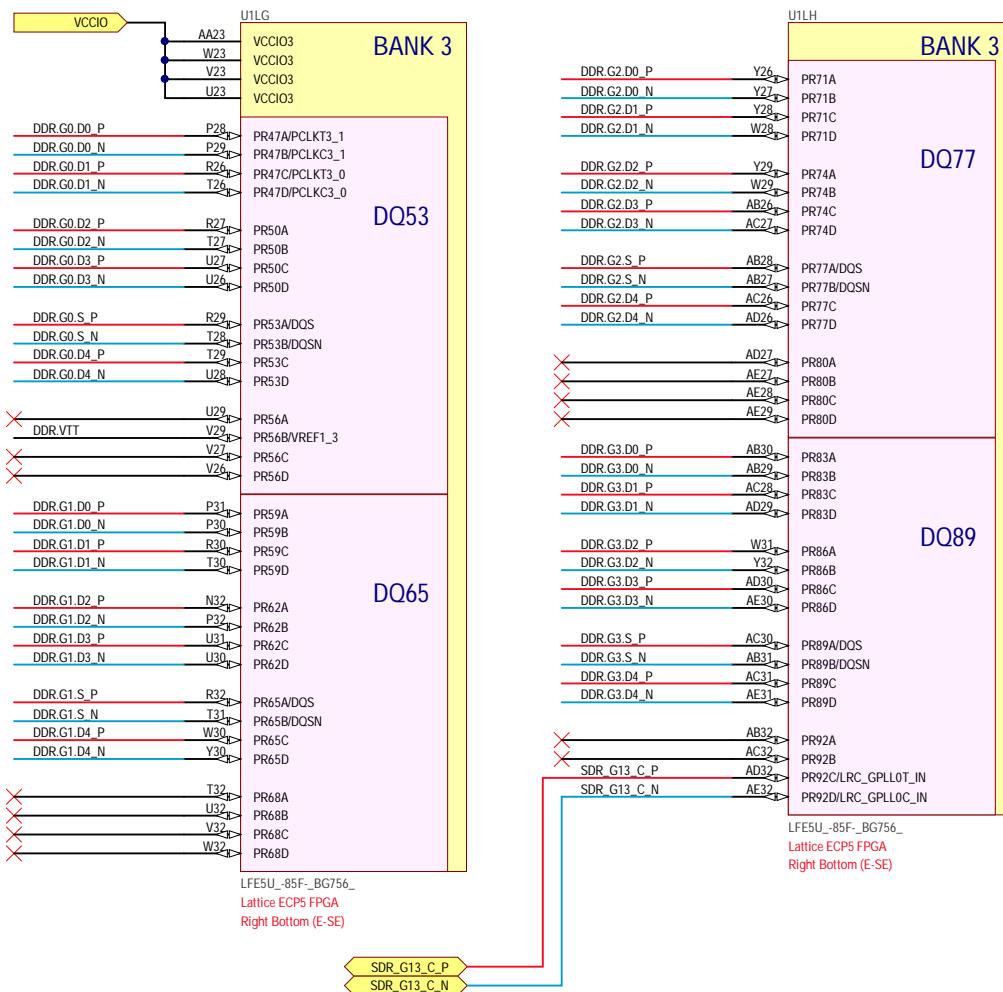
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Title		
Copper Suicide - FPGA - Bank 3		
Engineer	Drawn By	Checked By
J. Brinton	J. Brinton	J. Brinton
Revision 2	Sheet 8 of 44	Date 6/1/2017

A



B



C

Title		
Copper Suicide - FPGA - Bank 3		
Engineer	Drawn By	Checked By
J. Brinton	J. Brinton	J. Brinton
Revision 2	Sheet 8 of 44	Date 6/1/2017
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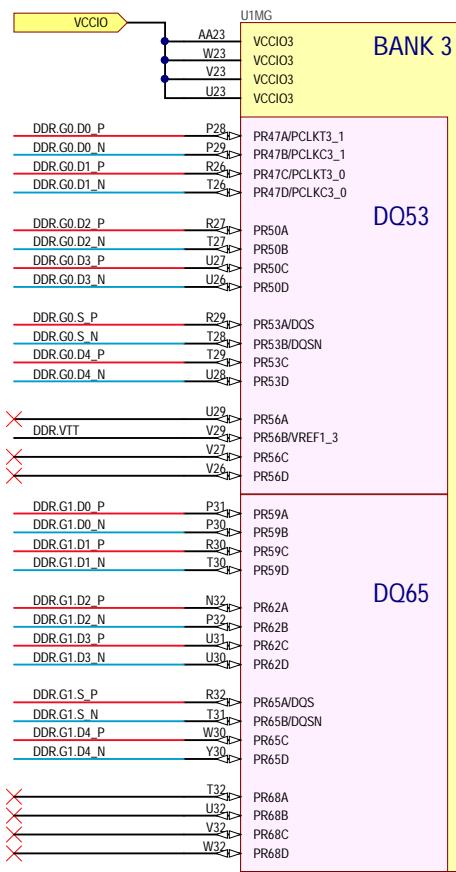
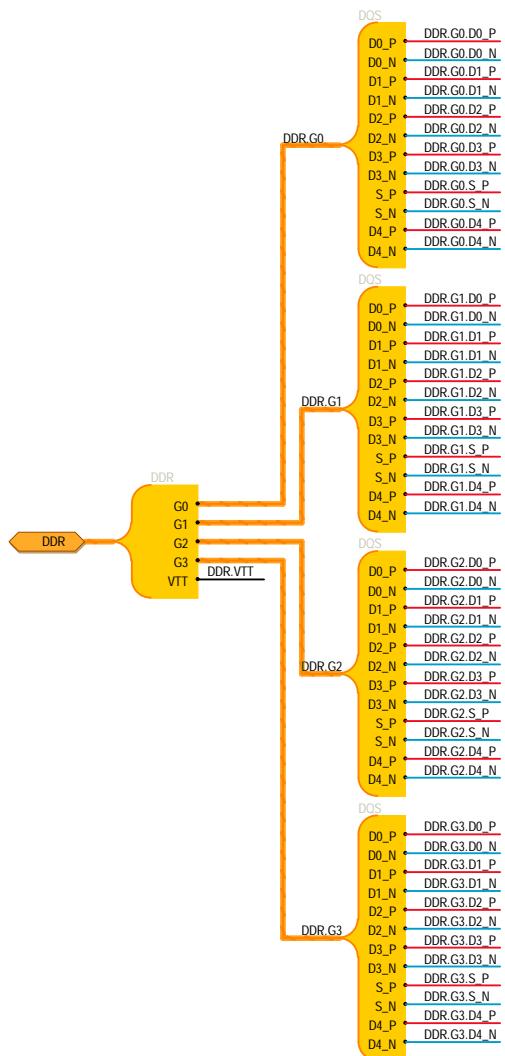
A

D

A

C

D



LFE5U-85F-BG756
Lattice ECP5 FPGA
Right Bottom (E-SE)

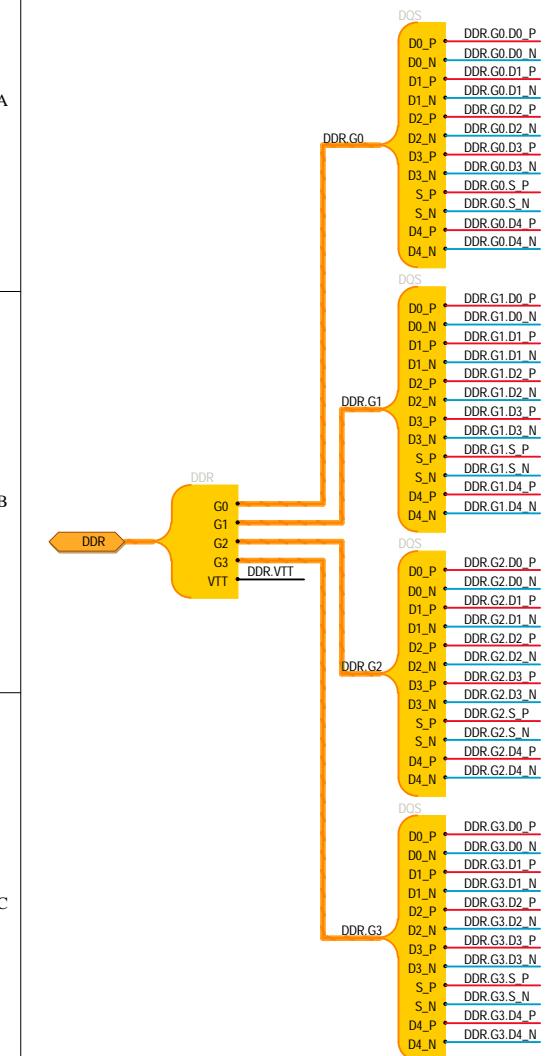


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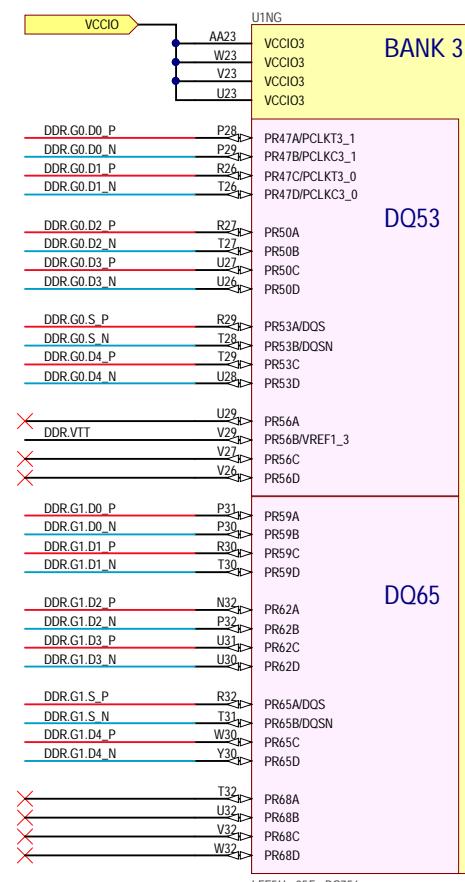
Title: Copper Suicide - FPGA - Bank 3

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 8 of 44	Date 6/1/2017

A

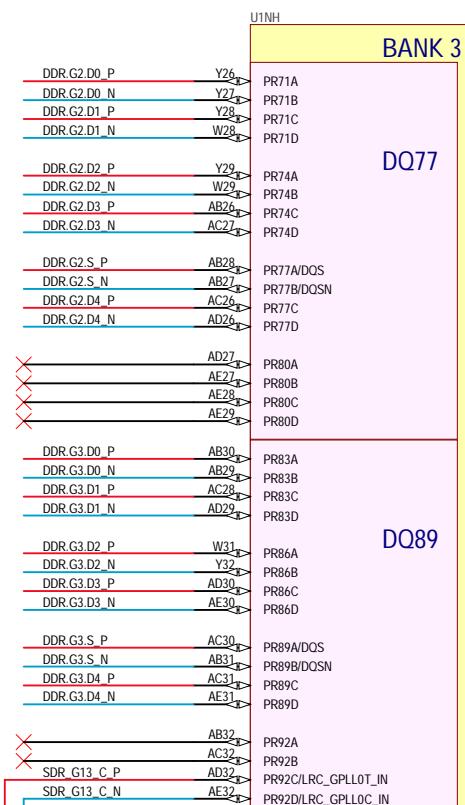


B

**BANK 3****DQ53****DQ65**

LFE5U-85F-BG756
Lattice ECP5 FPGA
Right Bottom (E-SE)

SDR_G13_C_P
SDR_G13_C_N

**BANK 3****DQ77****DQ89**

LFE5U-85F-BG756
Lattice ECP5 FPGA
Right Bottom (E-SE)



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Title: **Copper Suicide - FPGA - Bank 3**

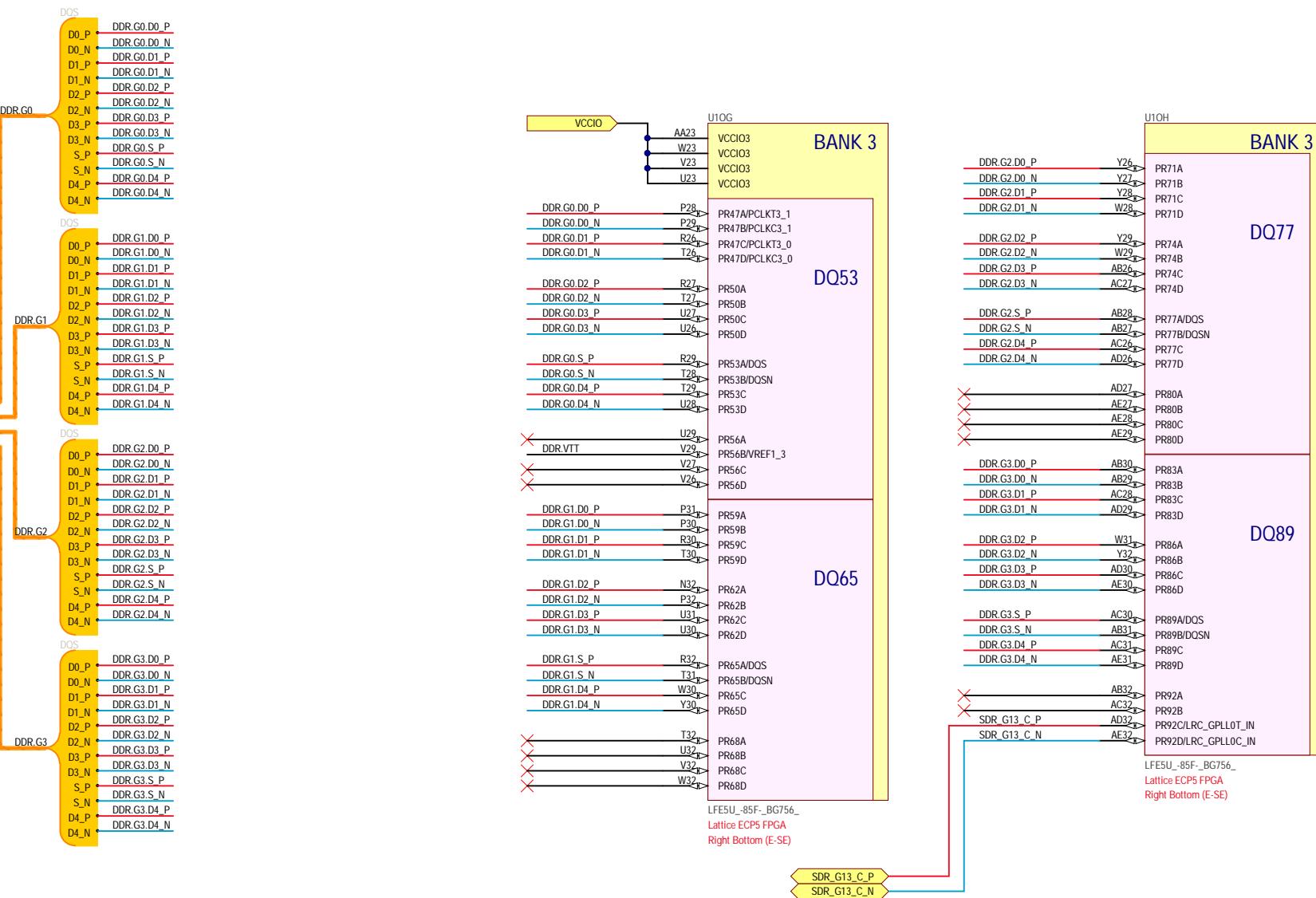
Engineer	Drawn By	Checked By
J. Brinton	J. Brinton	J. Brinton
Revision 2	Sheet 8 of 44	Date 6/1/2017

A

B

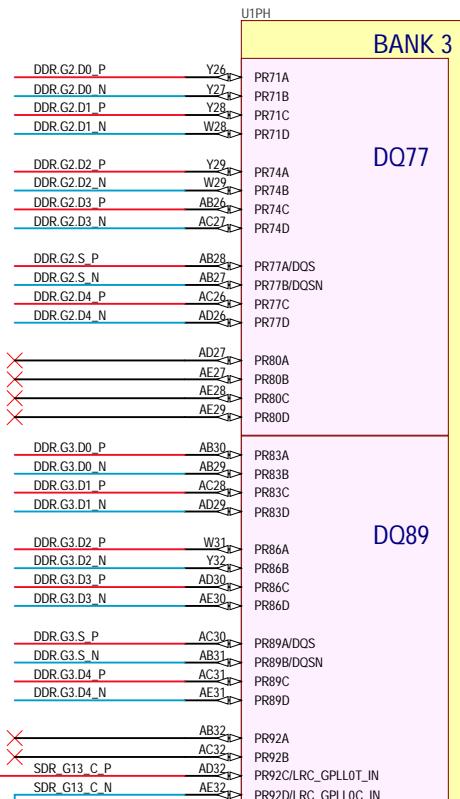
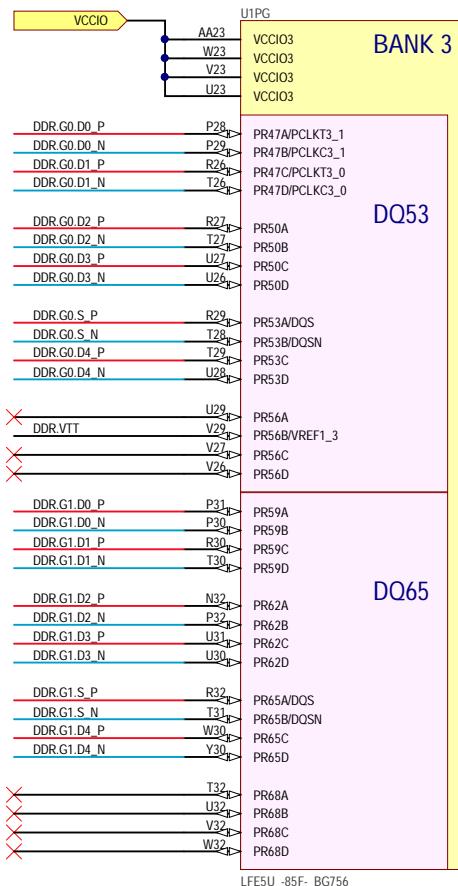
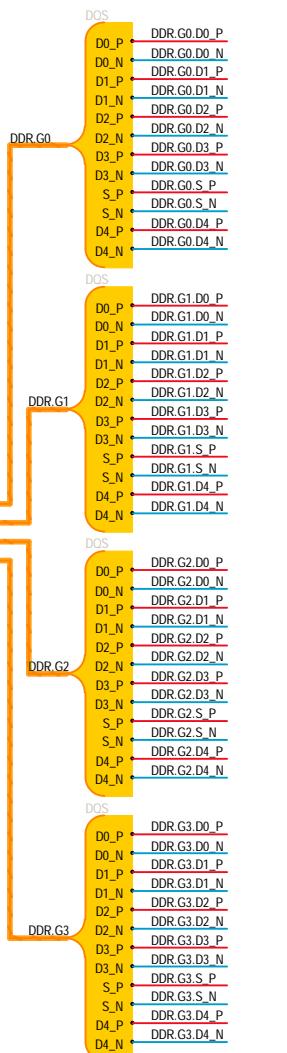
C

D



Title		
Copper Suicide - FPGA - Bank 3		
Engineer	Drawn By	Checked By
J. Brinton	J. Brinton	J. Brinton
Revision 2	Sheet 8 of 44	Date 6/1/2017

A



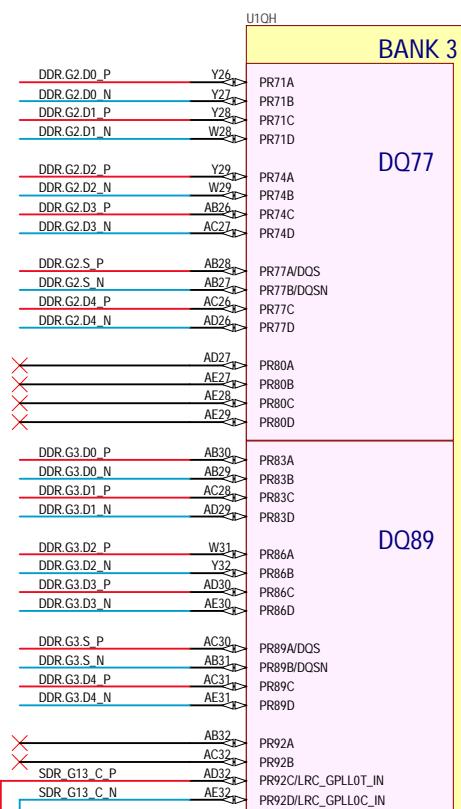
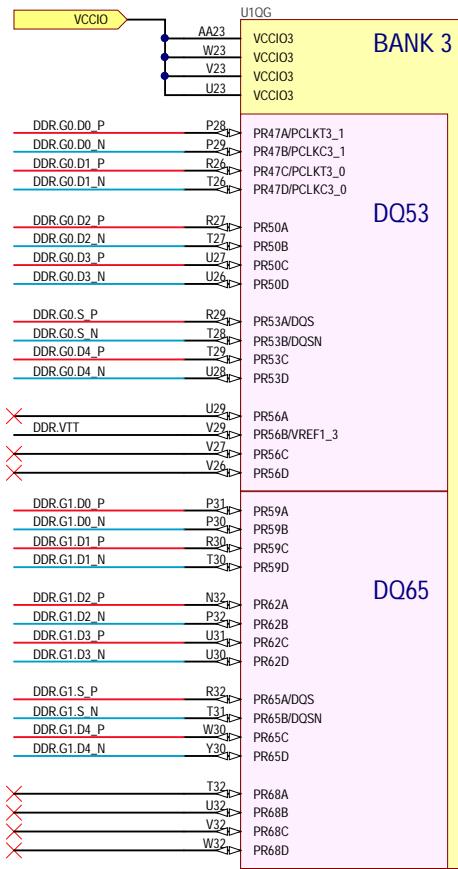
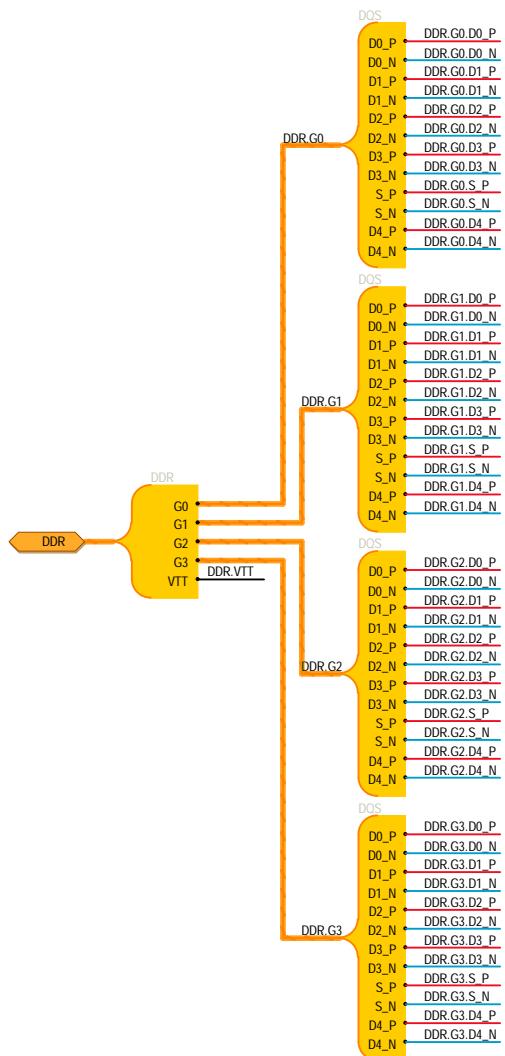
A

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A

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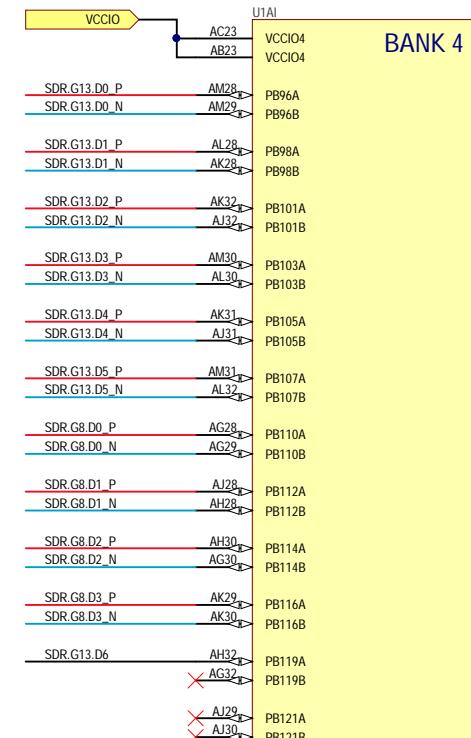
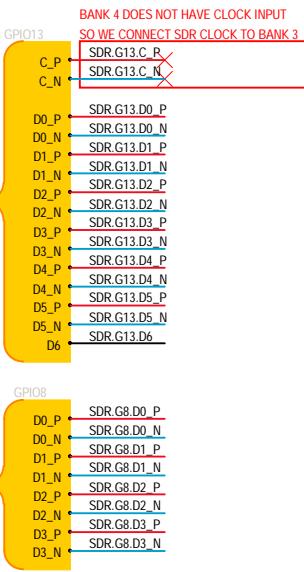
LFE5U-85F-BG756
Lattice ECP5 FPGA
Right Bottom (E-SE)



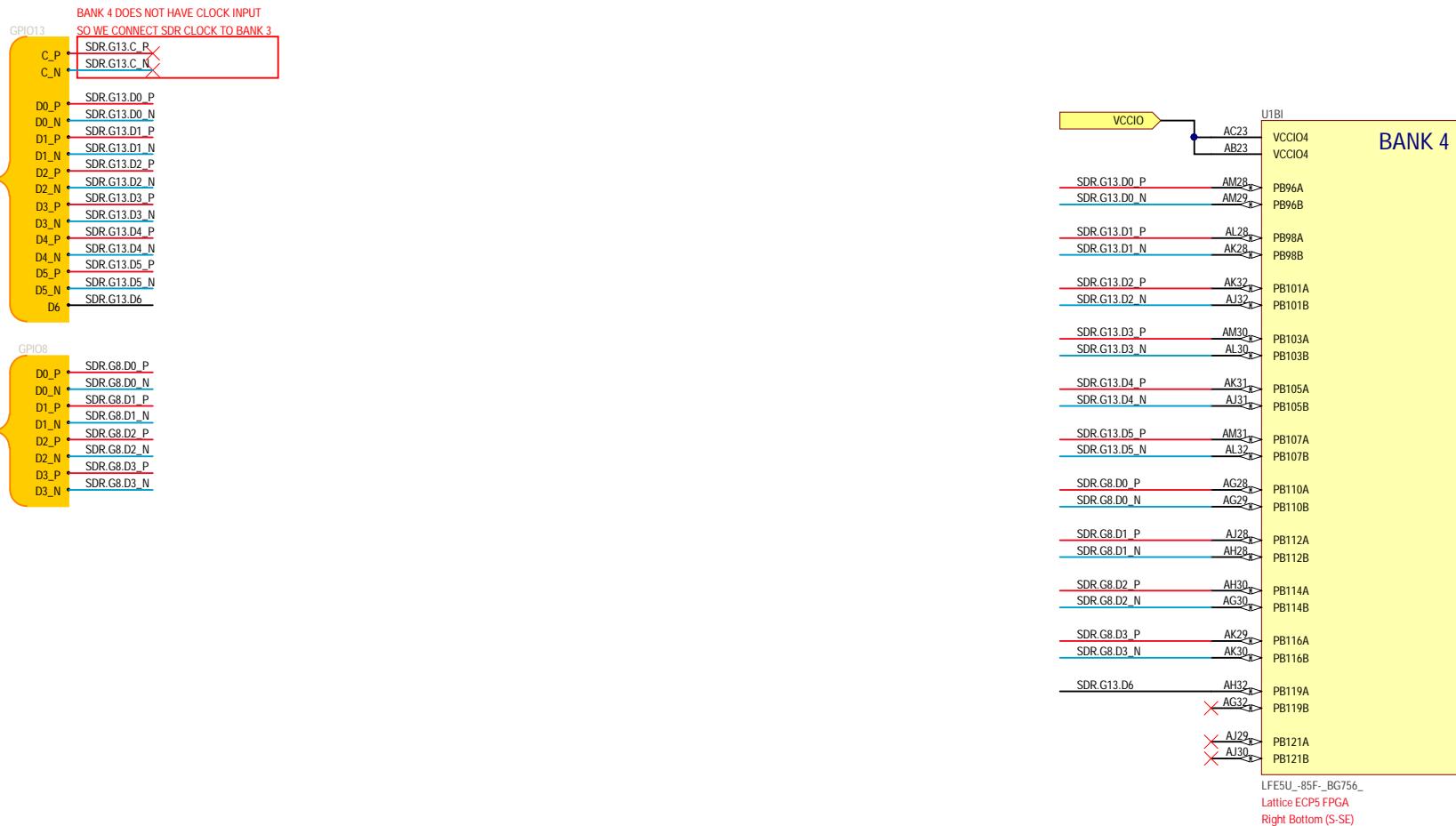
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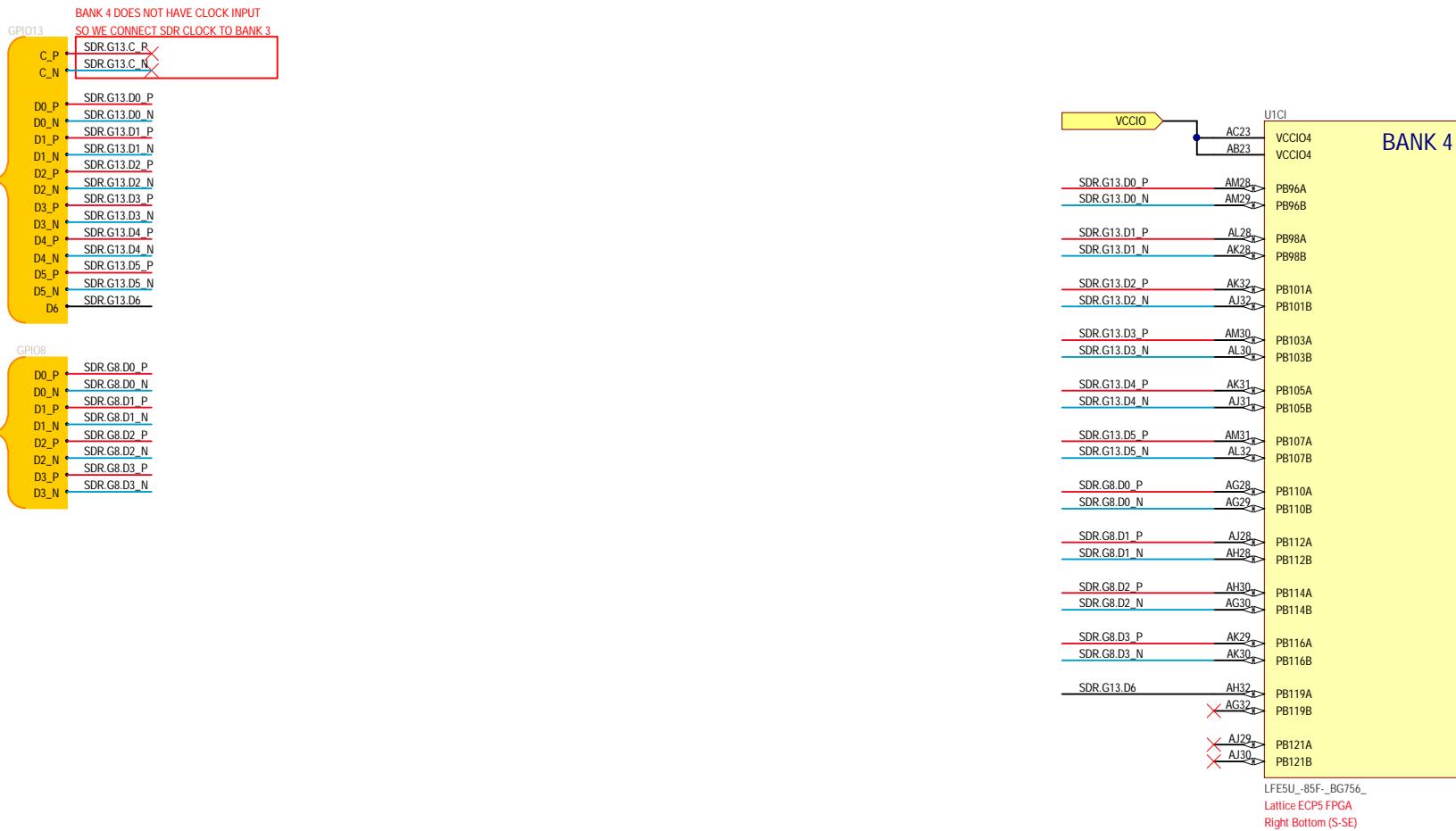
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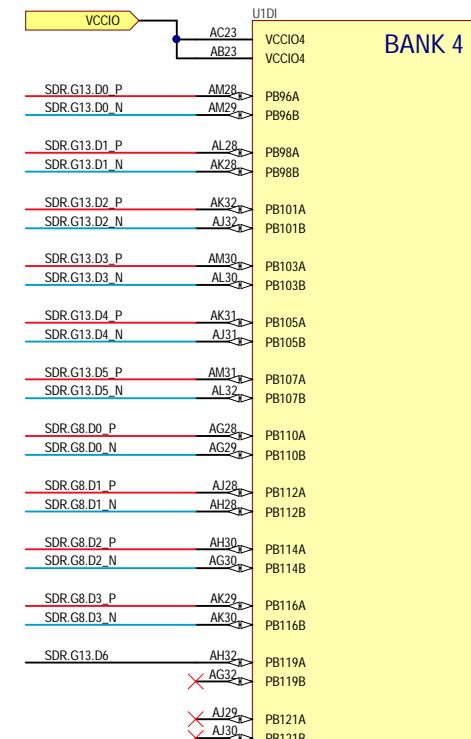
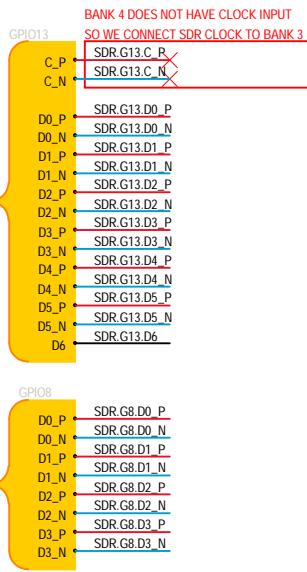
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 8 of 44	Date 6/1/2017



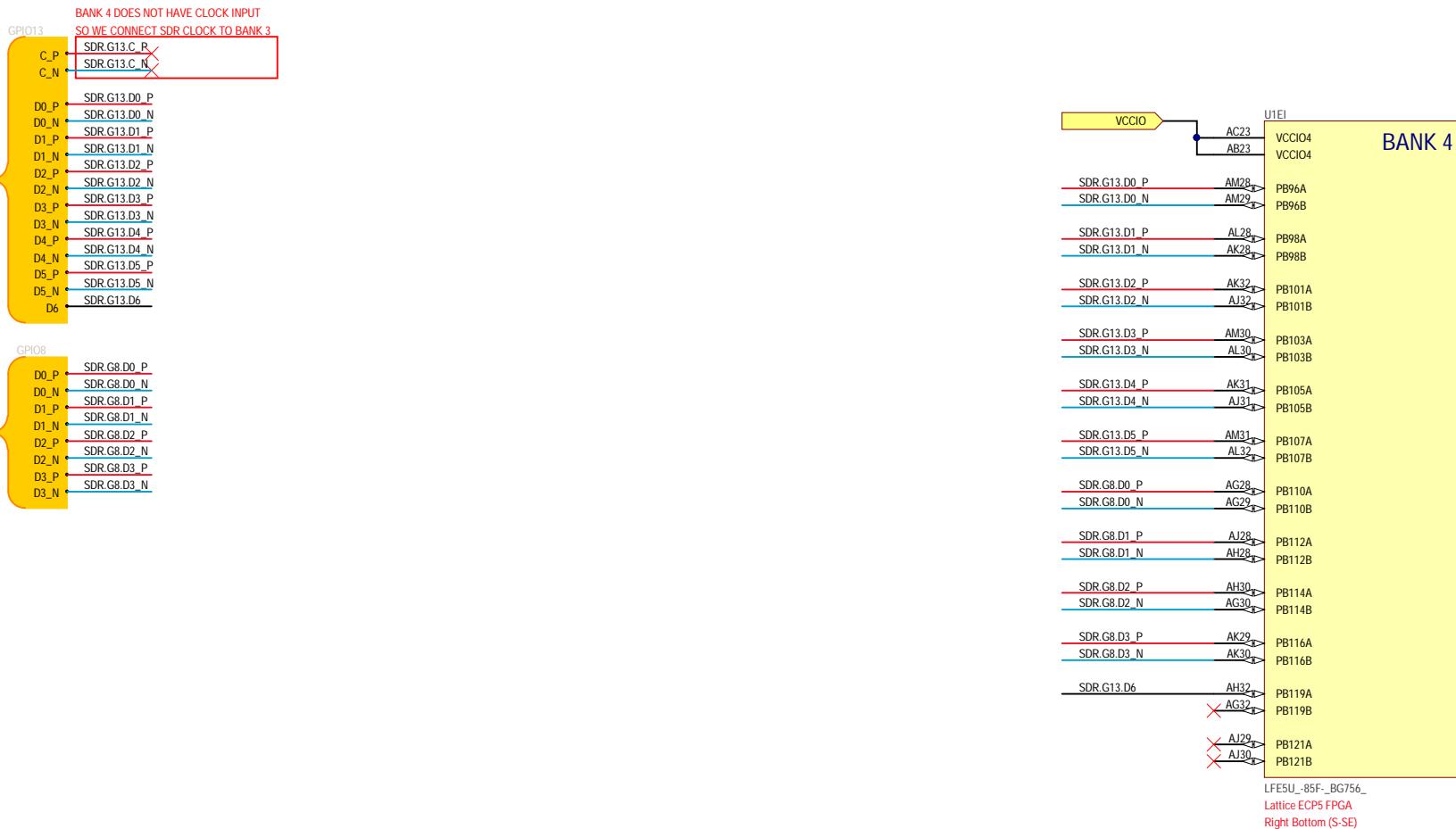
LFE5U-85F-BG756
Lattice ECP5 FPGA
Right Bottom (S-SE)

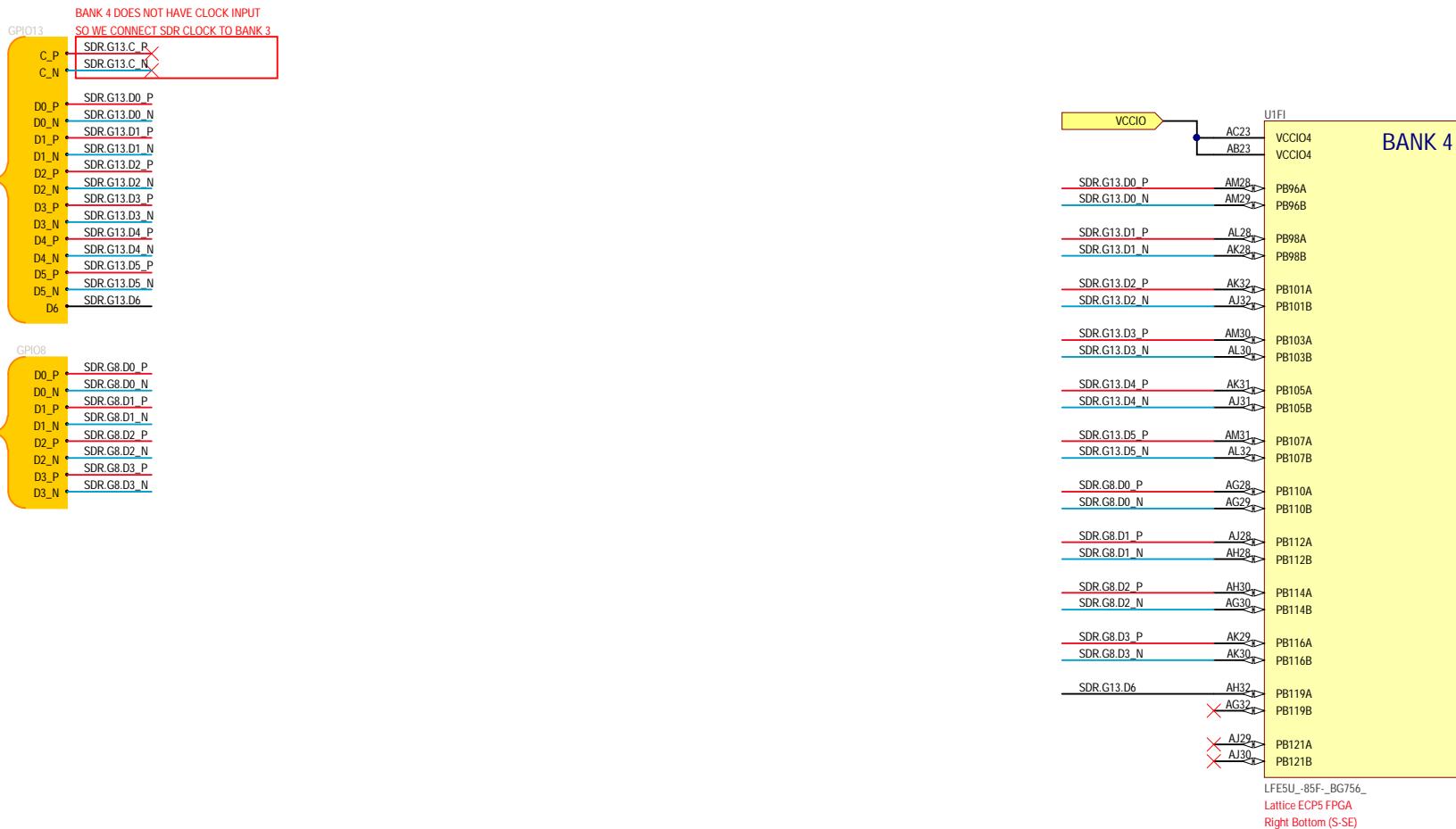


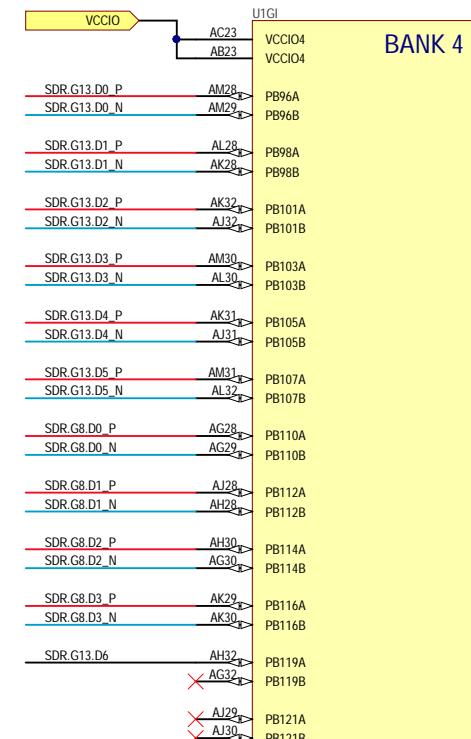
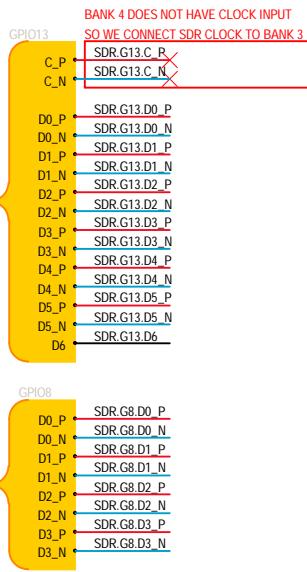




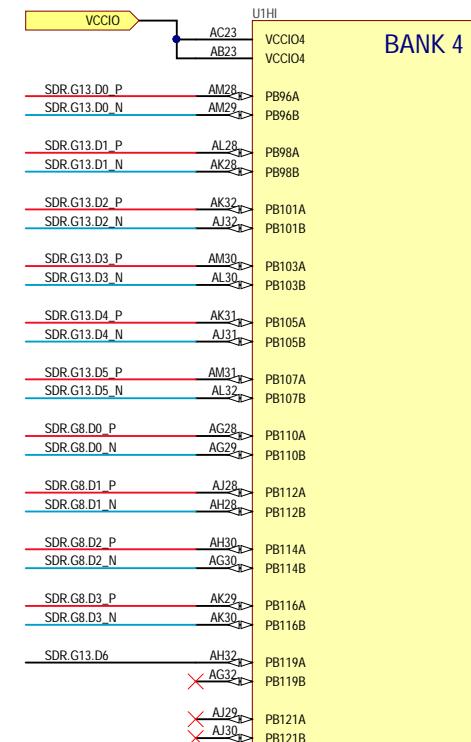
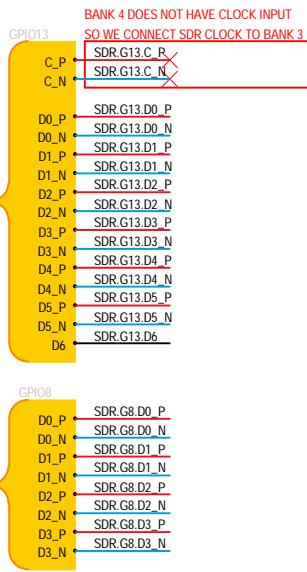
LFE5U-85F-BG756
Lattice ECP5 FPGA
Right Bottom (S-SE)



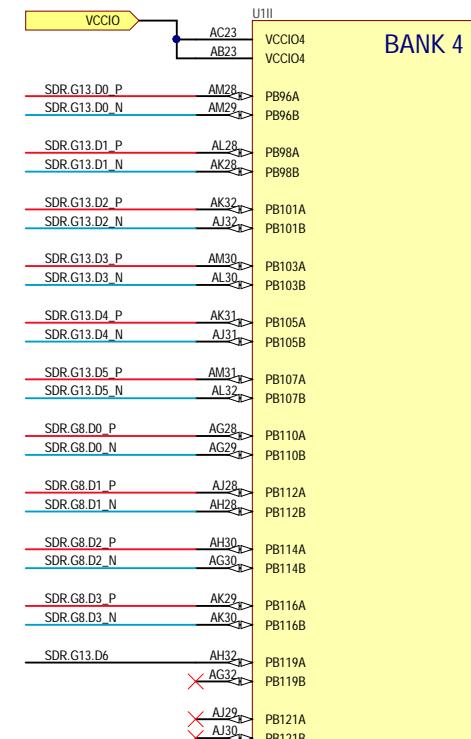
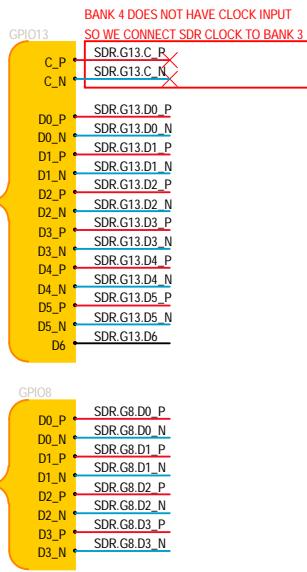




LFE5U-85F-BG756
Lattice ECP5 FPGA
Right Bottom (S-SE)

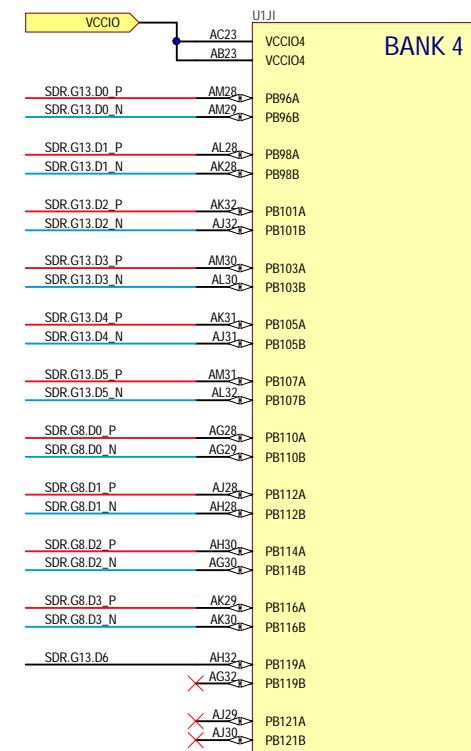
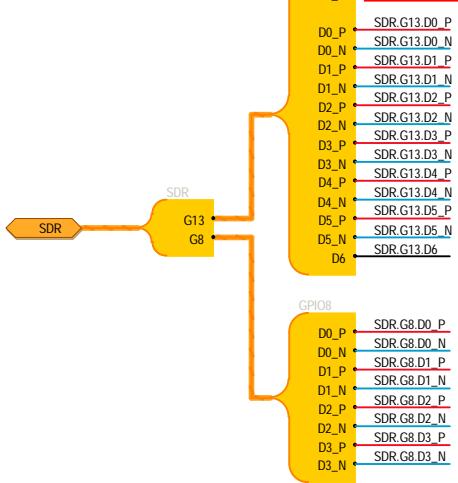


LFE5U-85F-BG756
Lattice ECP5 FPGA
Right Bottom (S-SE)

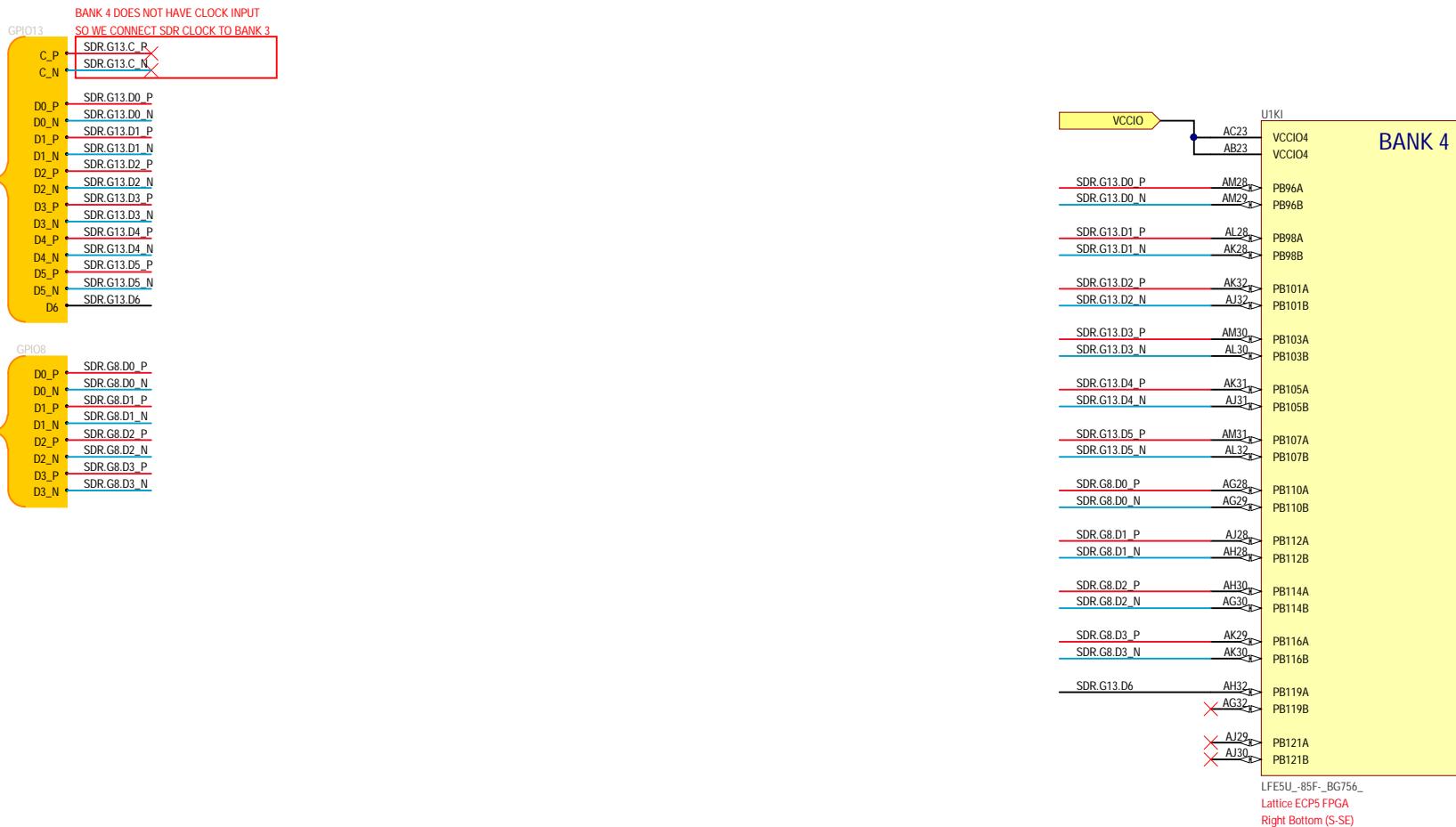


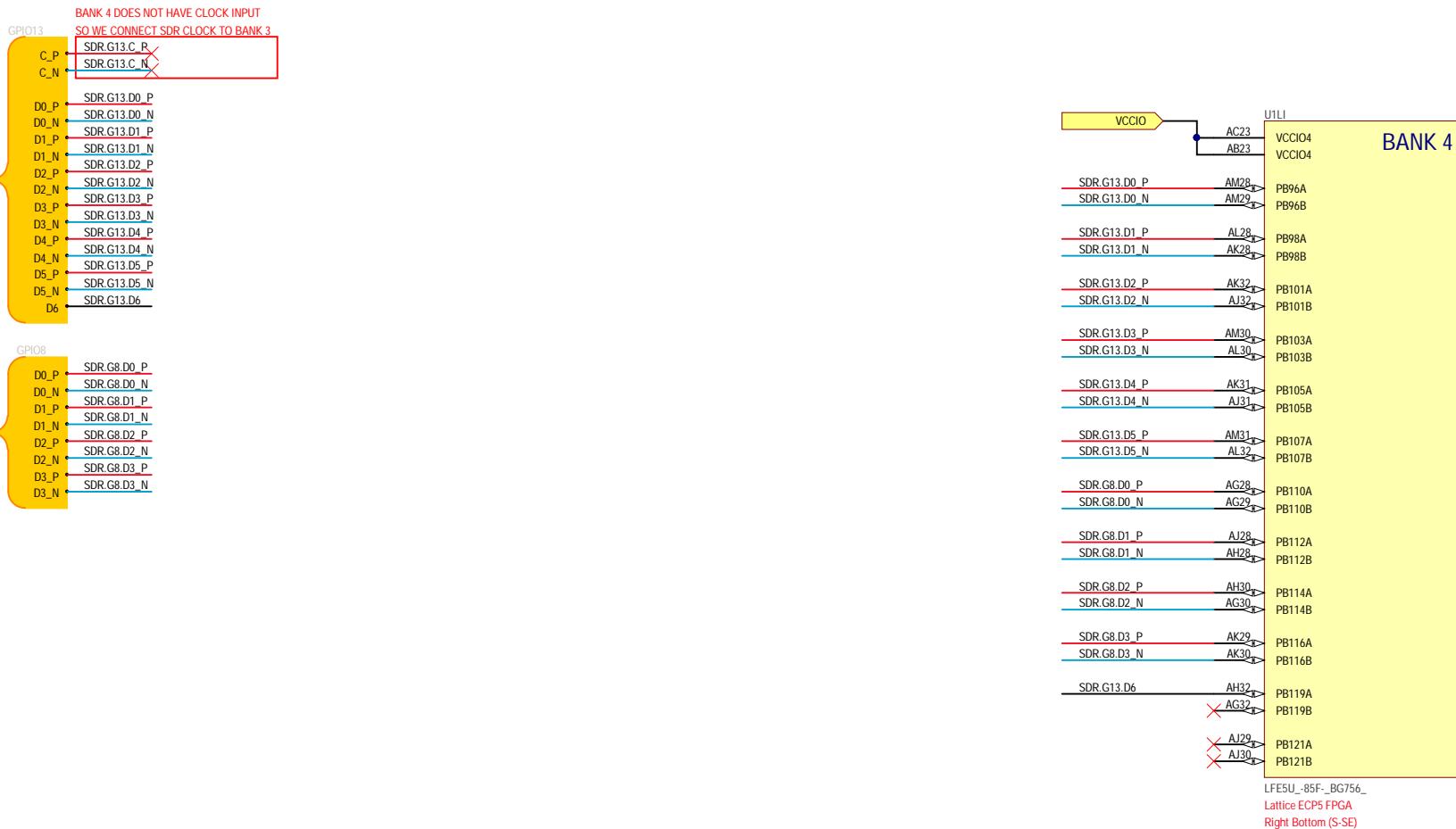
LFE5U-85F-BG756
Lattice ECP5 FPGA
Right Bottom (S-SE)

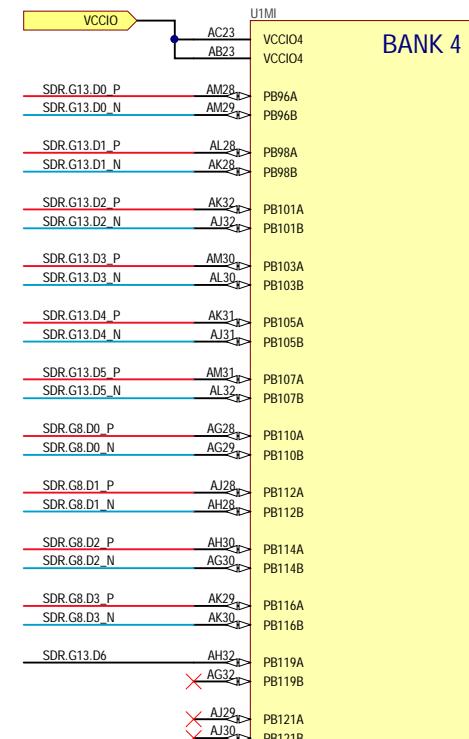
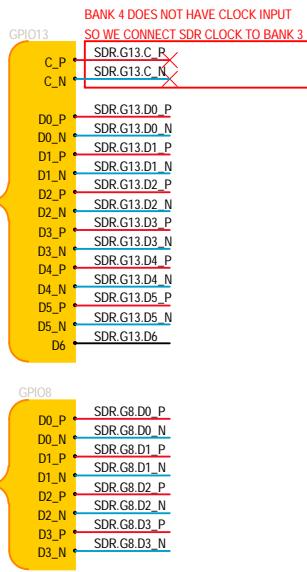
BANK 4 DOES NOT HAVE CLOCK INPUT
SO WE CONNECT SDR CLOCK TO BANK 3



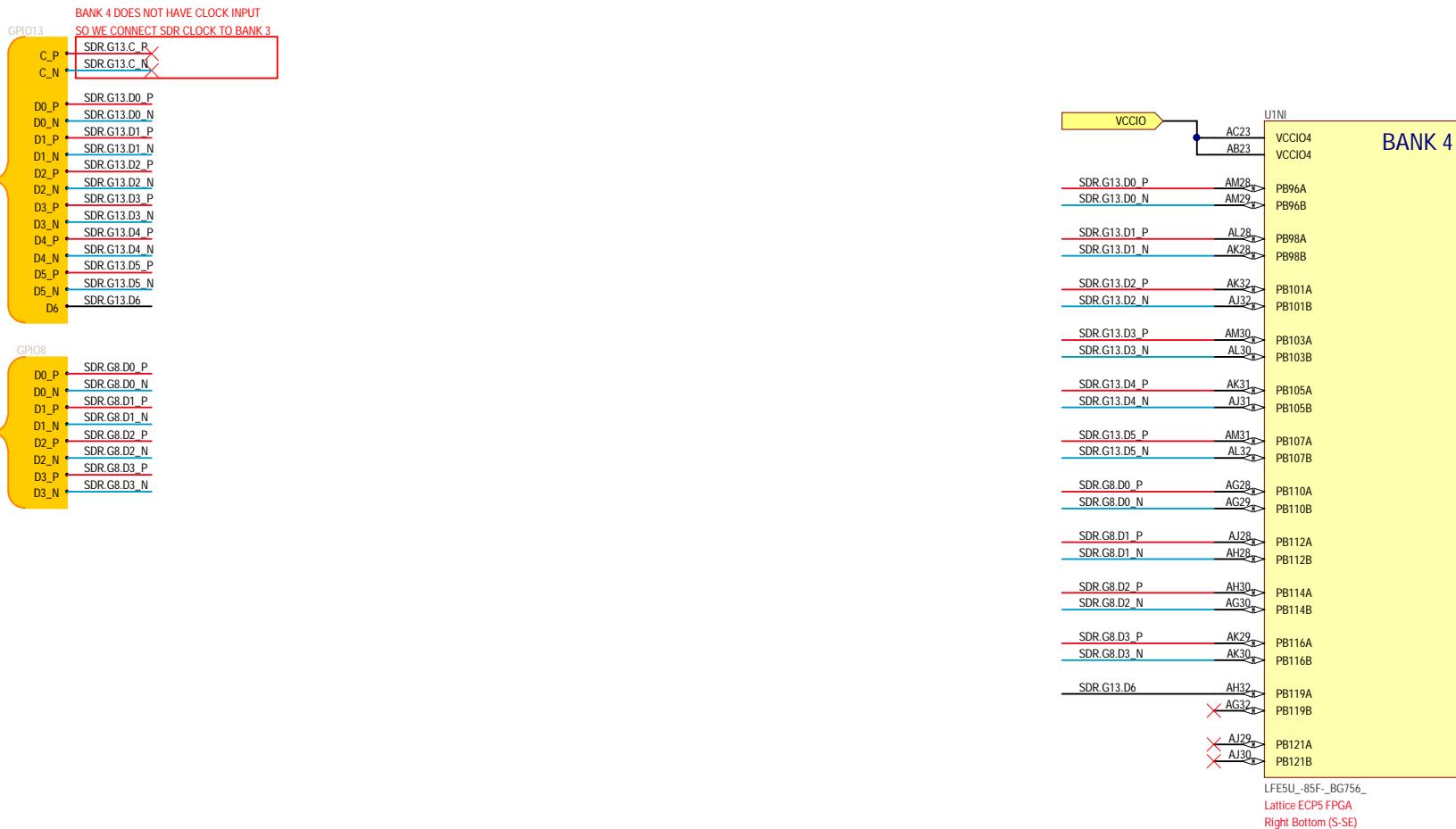
LFE5U-85F-BG756
Lattice ECP5 FPGA
Right Bottom (S-SE)

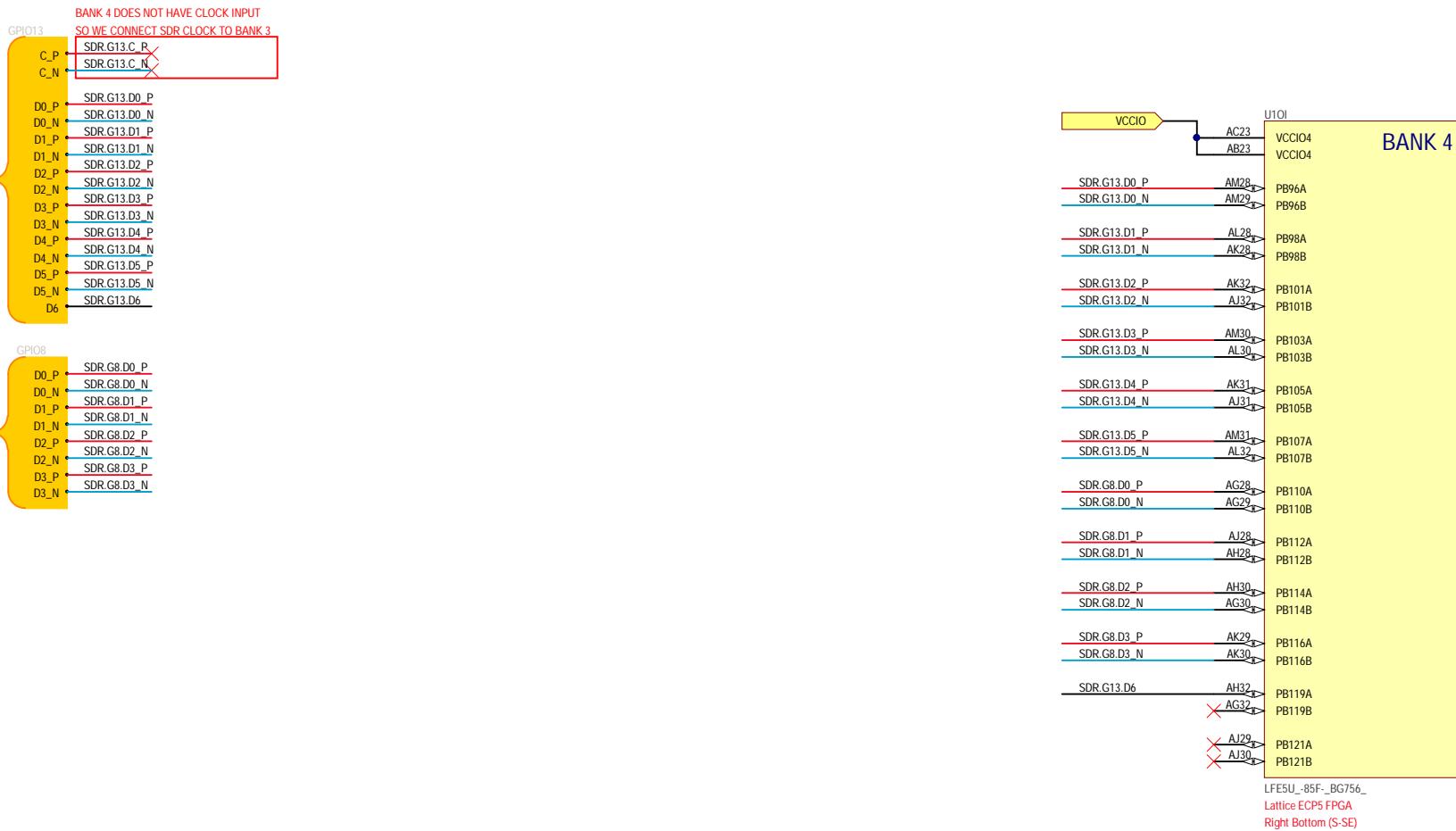


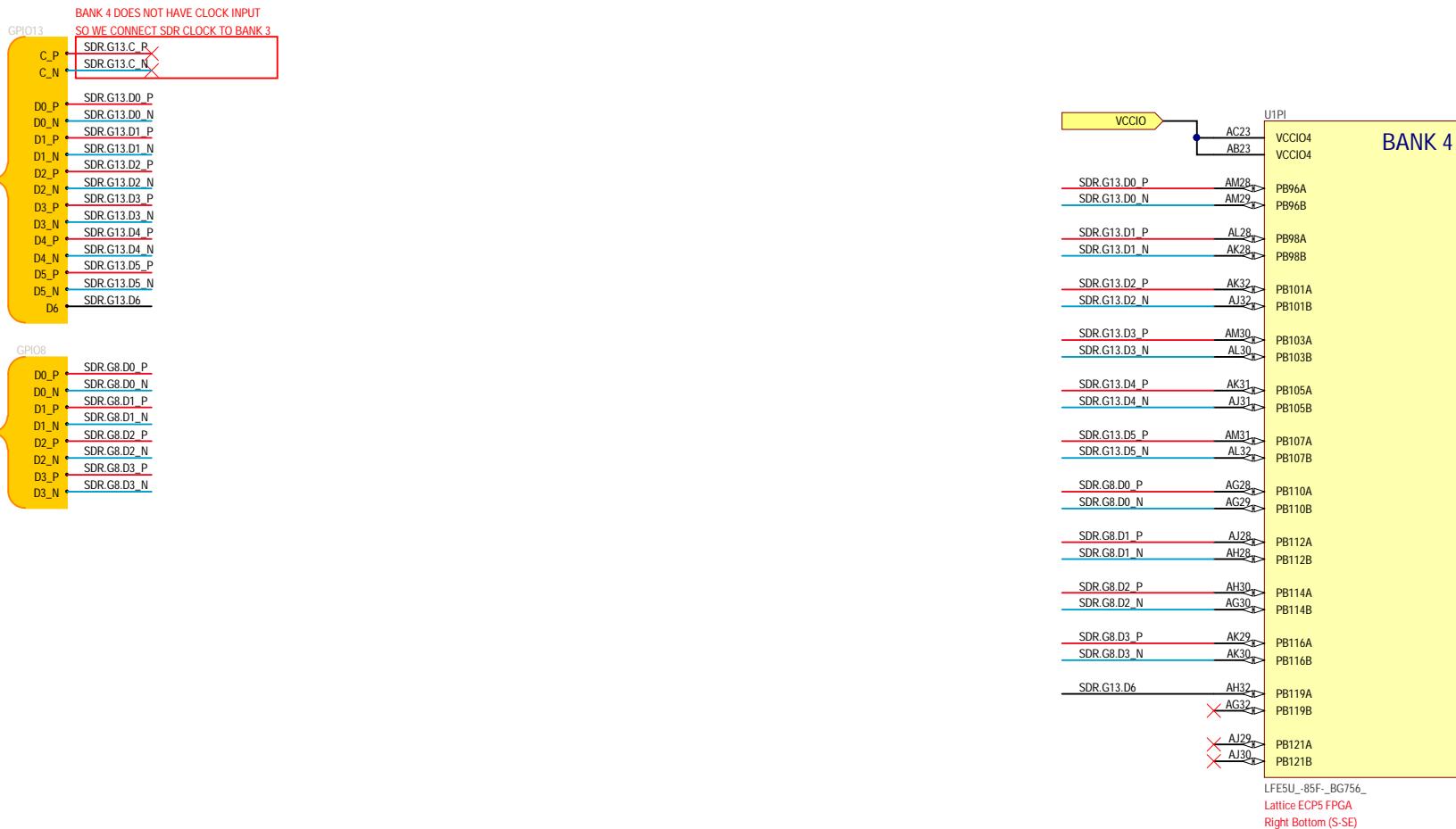


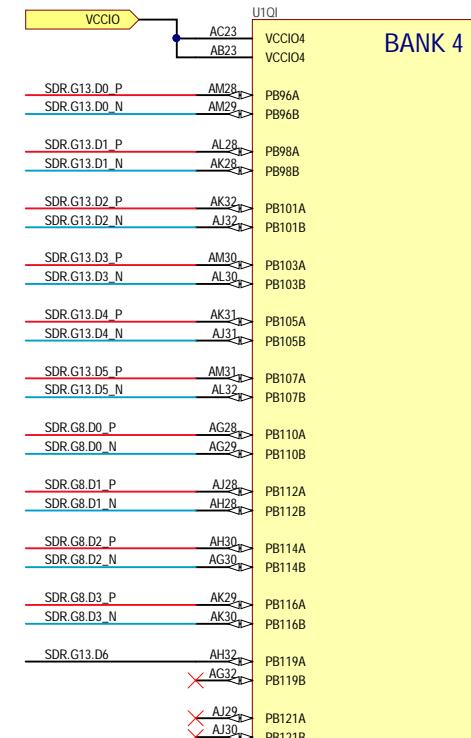
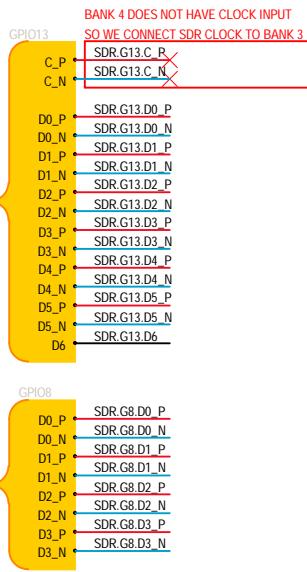


LFE5U-85F-BG756
Lattice ECP5 FPGA
Right Bottom (S-SE)



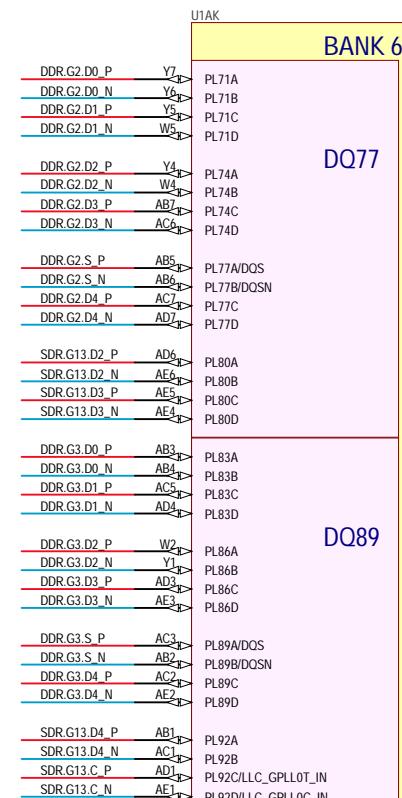
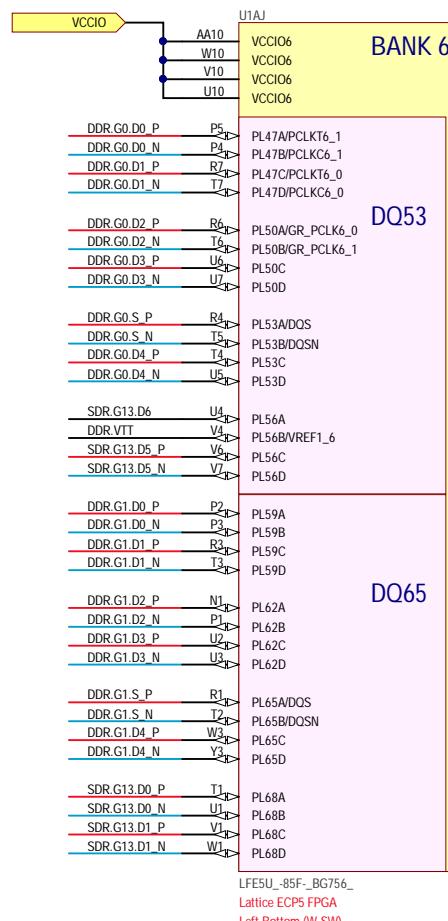
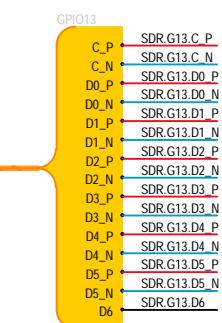
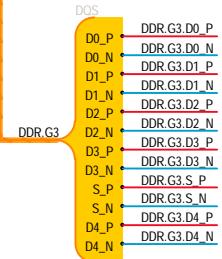
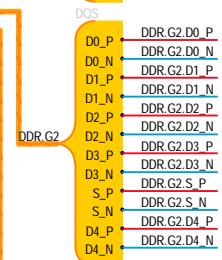
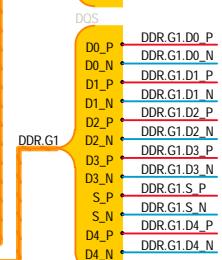
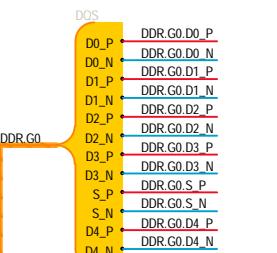




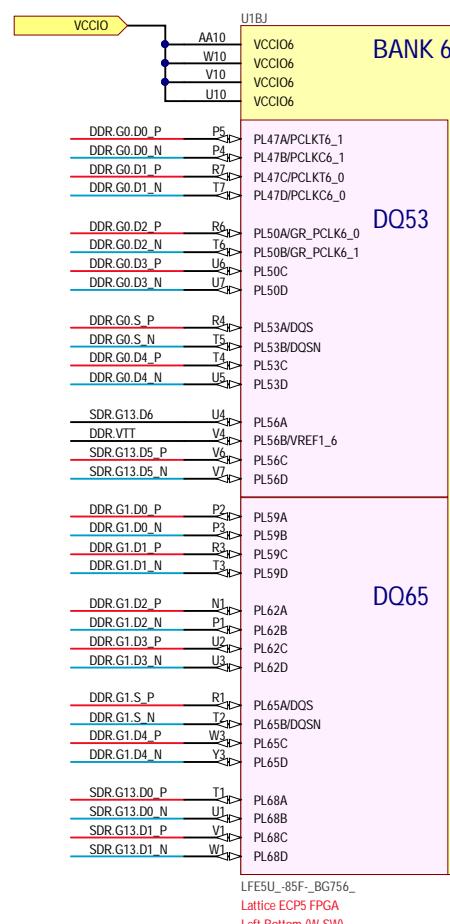
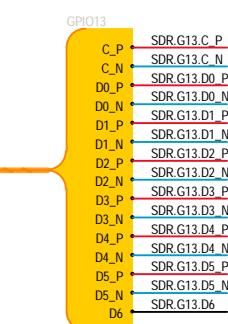
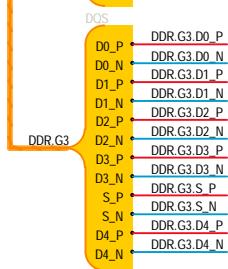
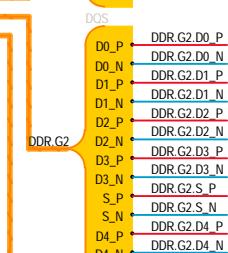
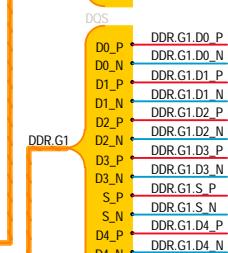
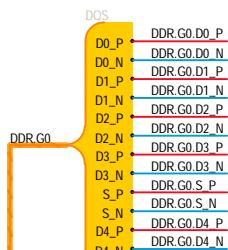


LFE5U-85F-BG756
Lattice ECP5 FPGA
Right Bottom (S-SE)

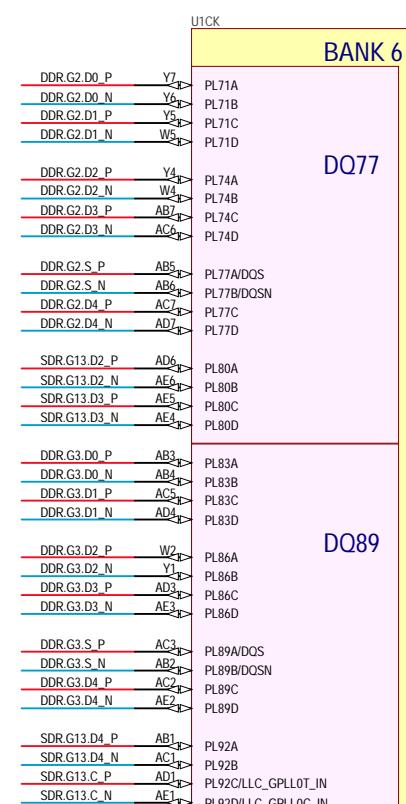
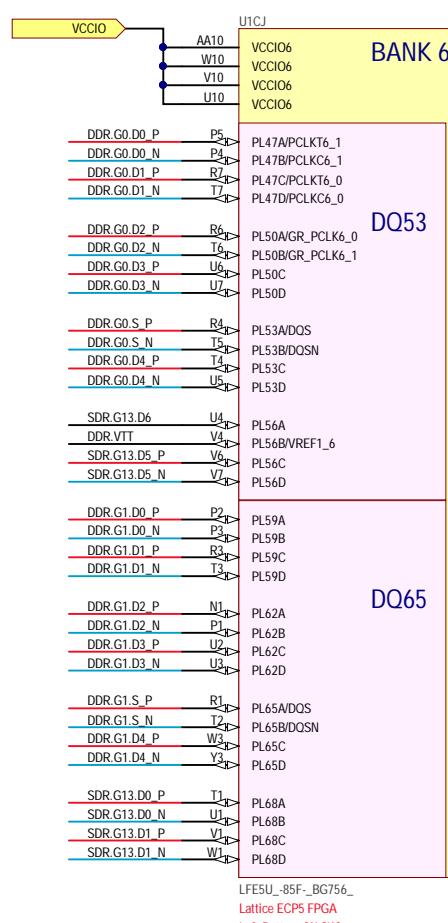
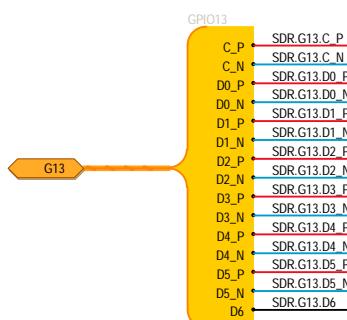
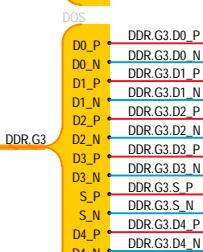
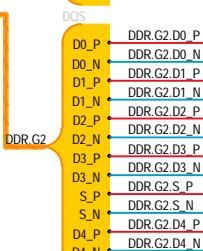
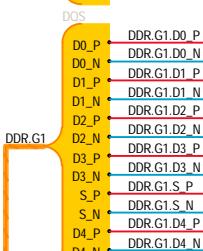
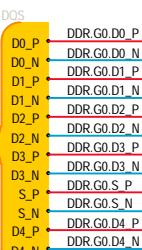
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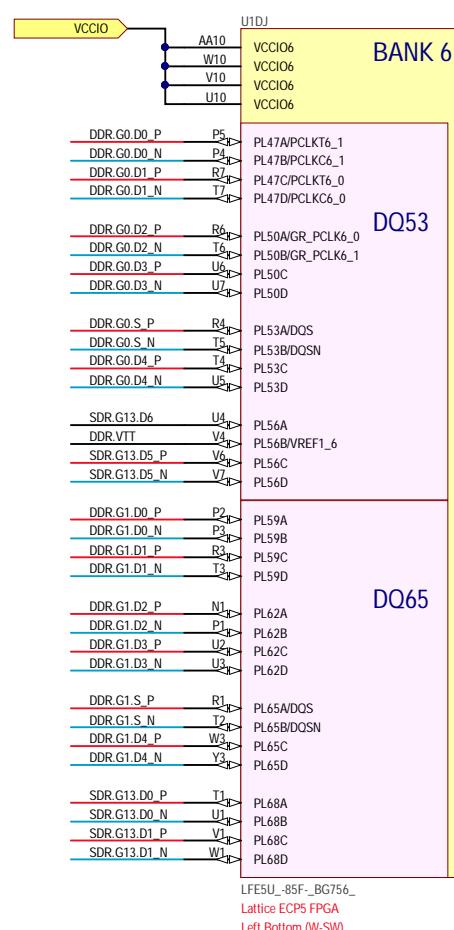
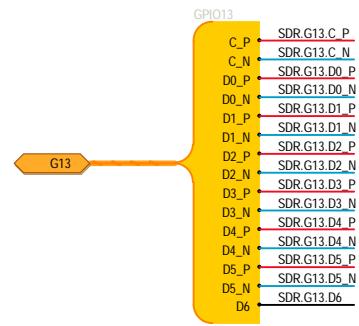
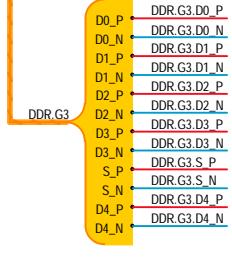
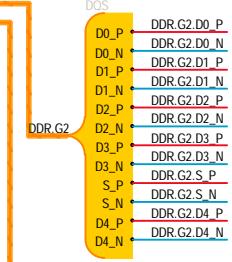
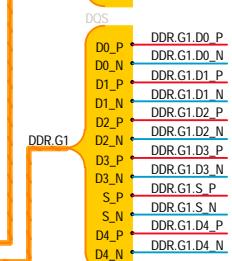
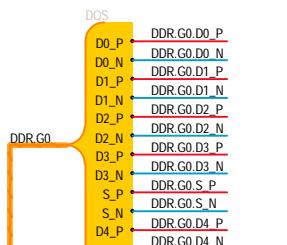
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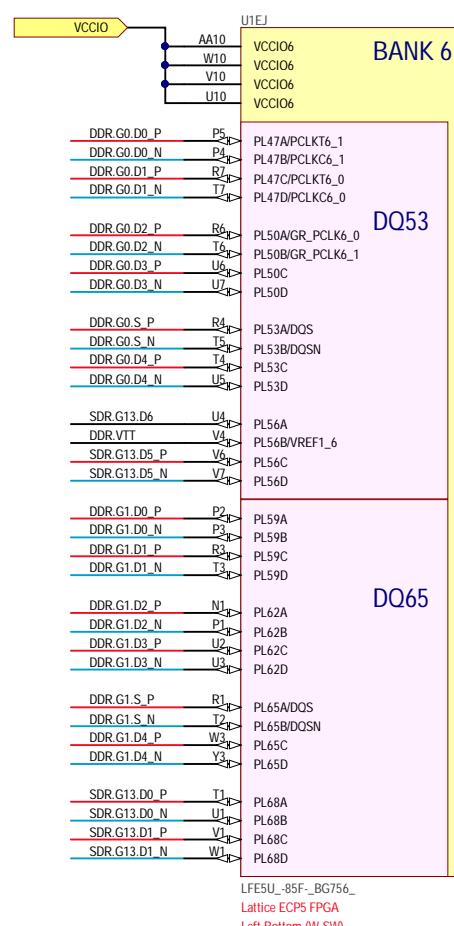
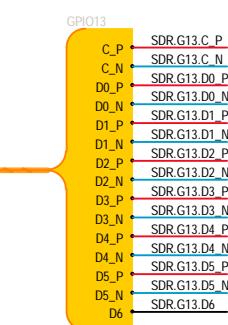
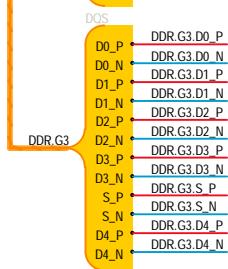
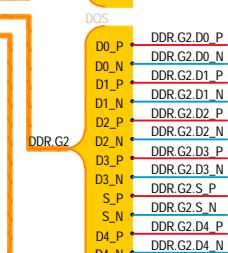
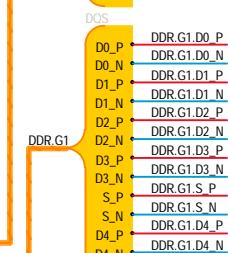
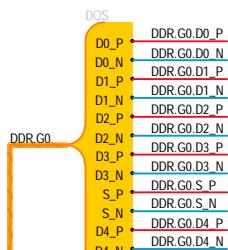
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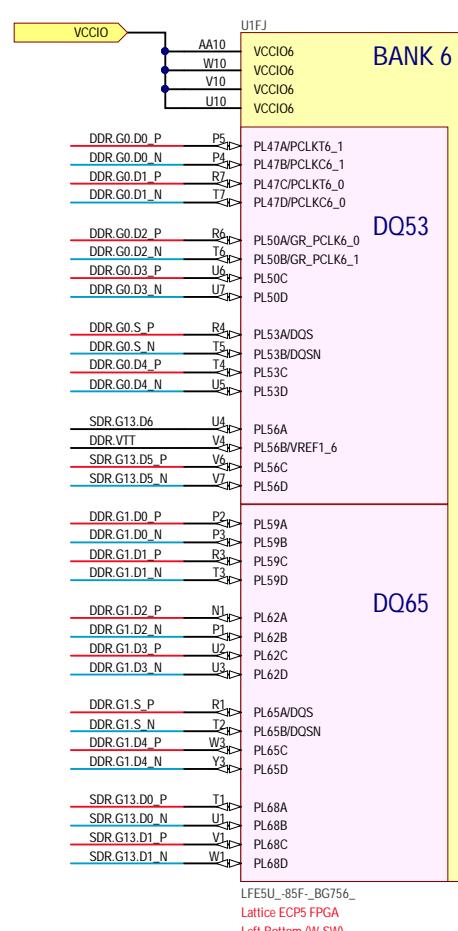
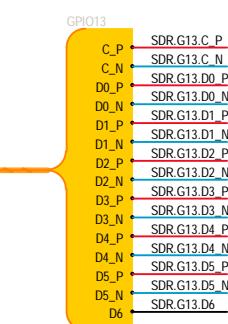
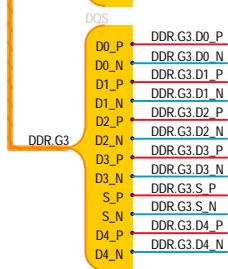
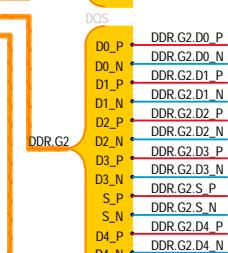
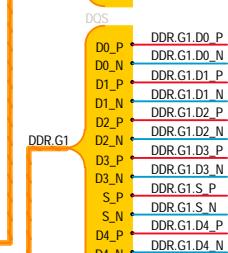
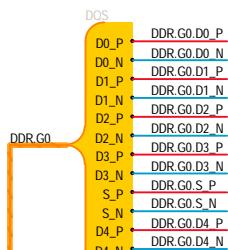
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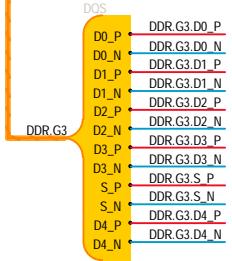
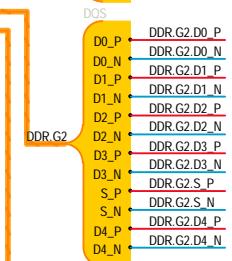
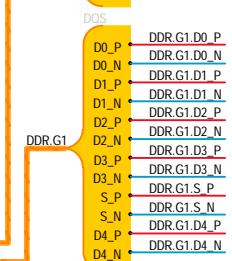
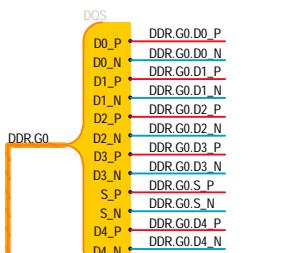
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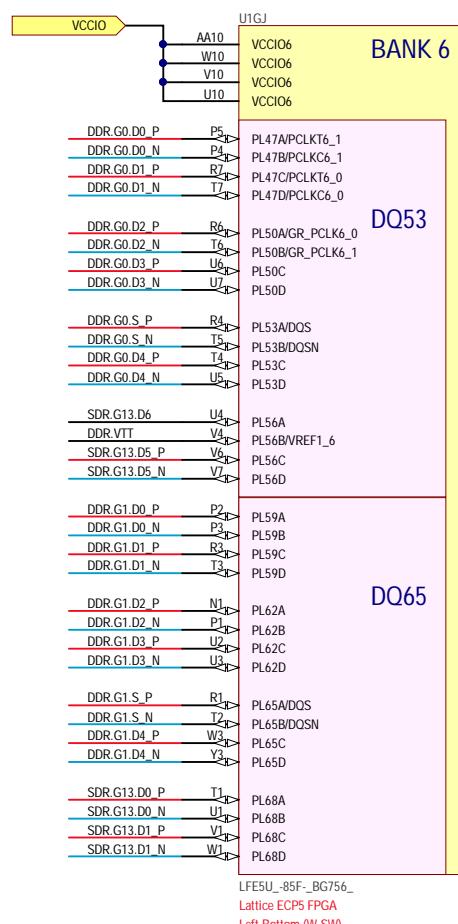
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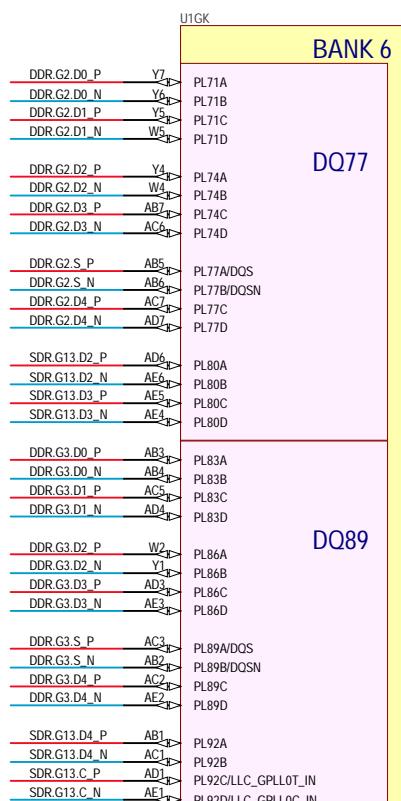
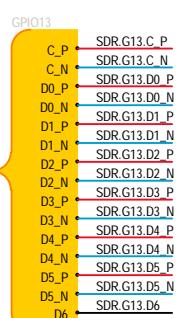
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D



DQ53

DQ65

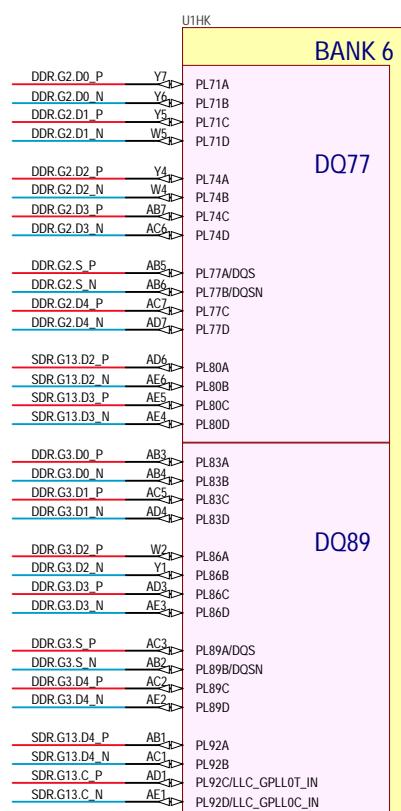
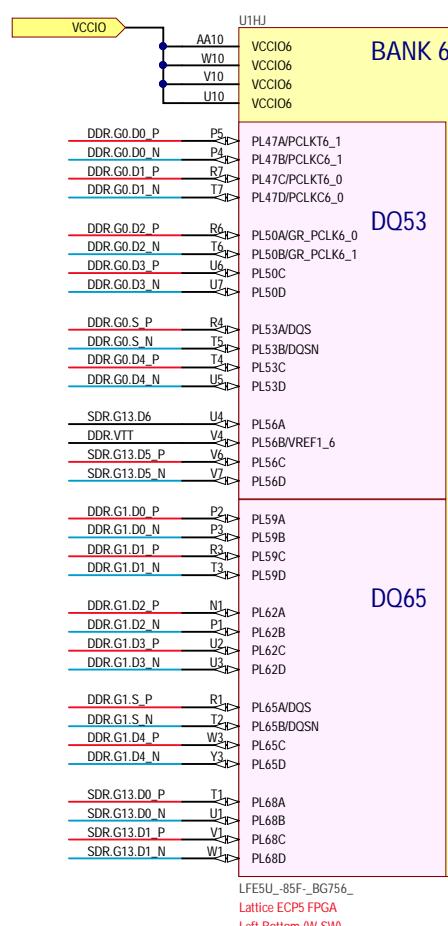
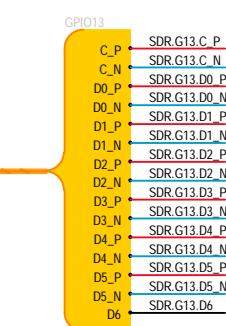
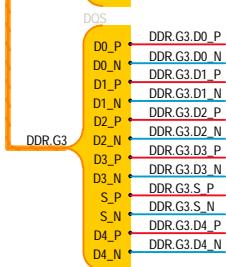
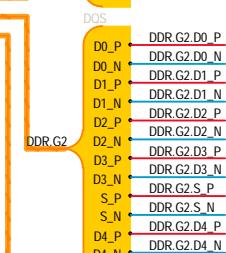
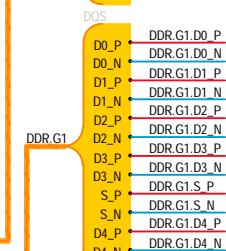
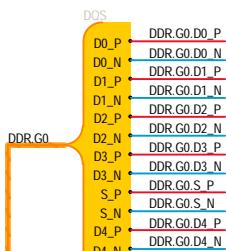


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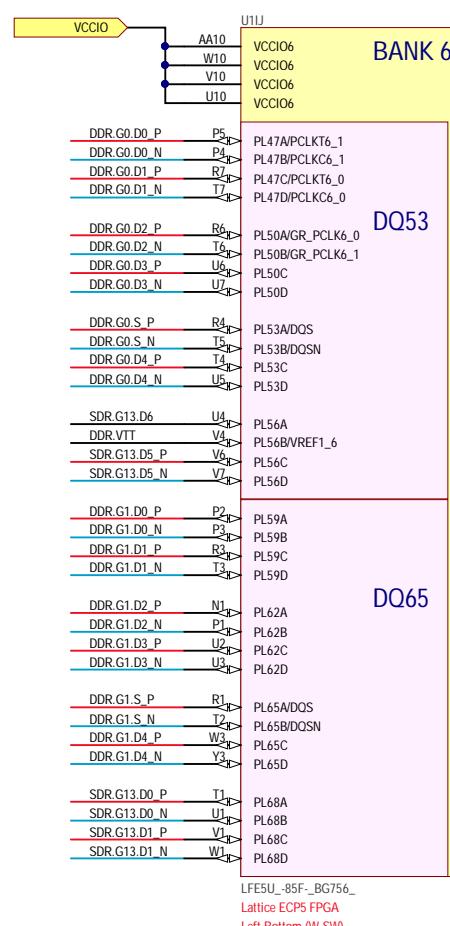
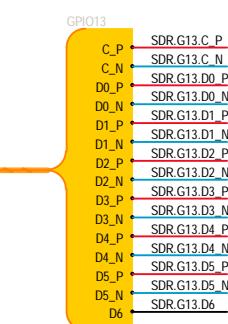
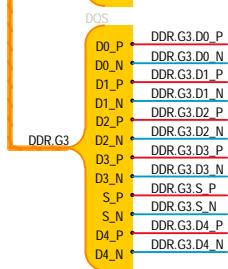
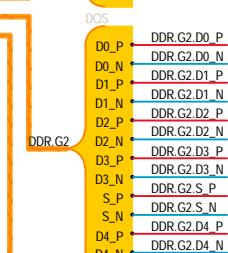
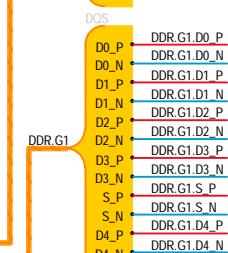
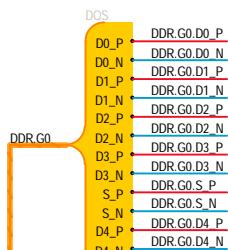
Title
Copper Suicide - FPGA - Bank 6

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 10 of 44	Date 6/1/2017

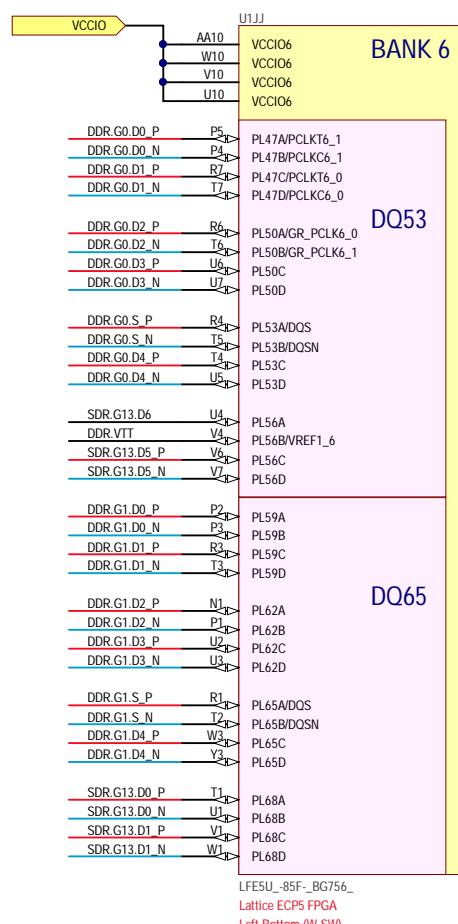
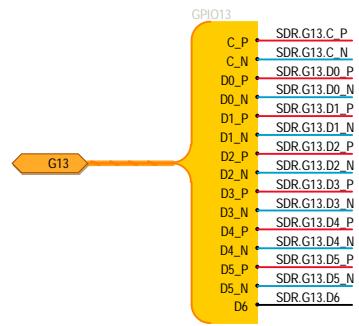
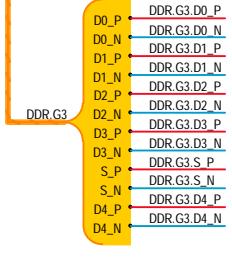
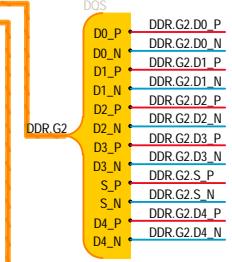
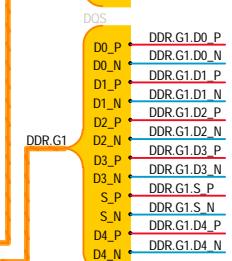
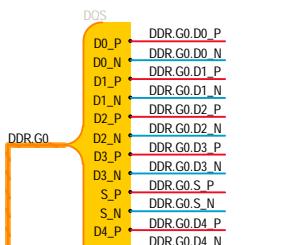
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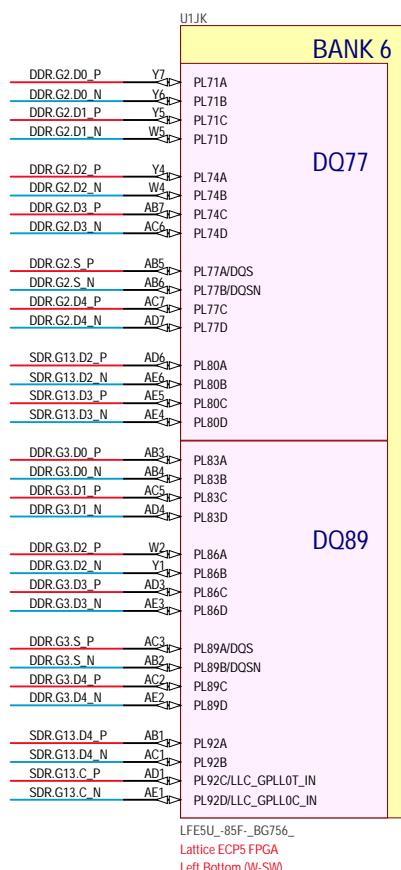


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DQ65

BANK 6

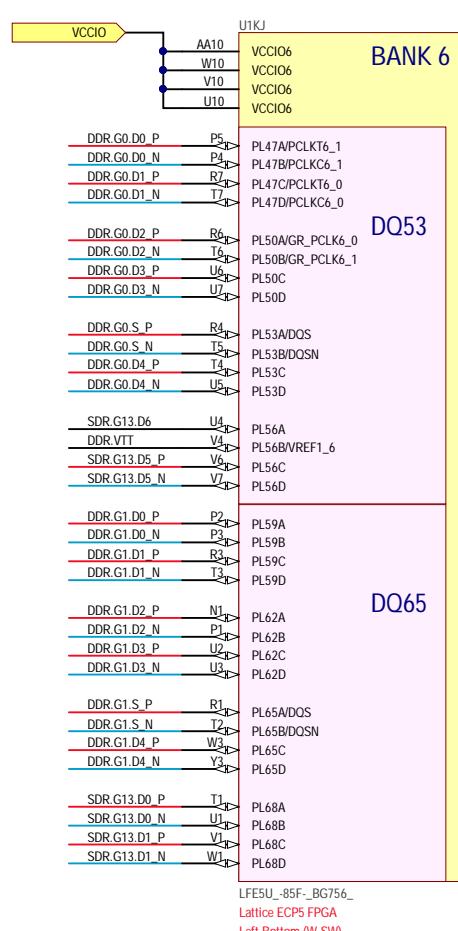
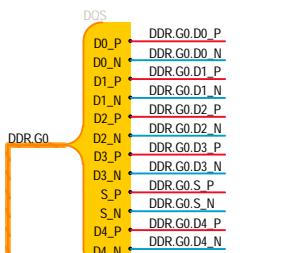


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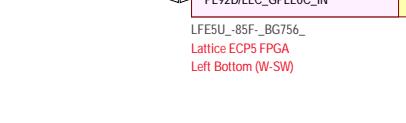
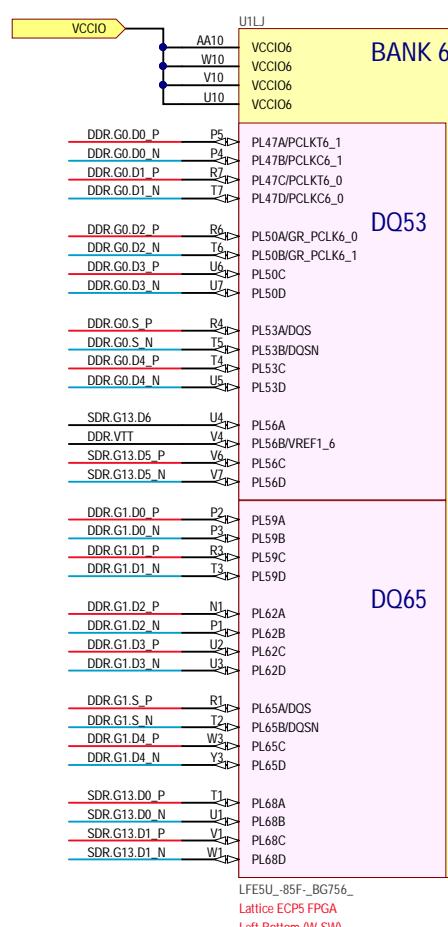
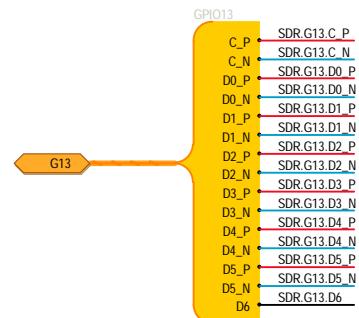
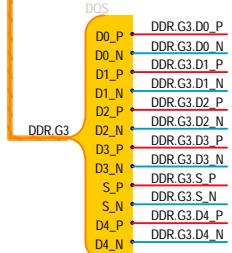
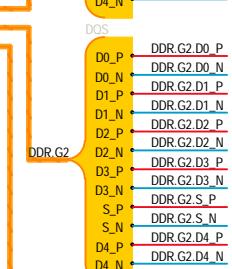
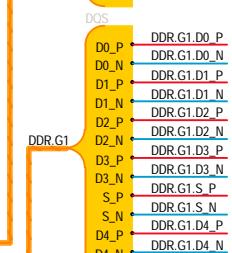
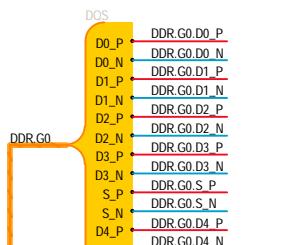
Title
Copper Suicide - FPGA - Bank 6

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 10 of 44	Date 6/1/2017

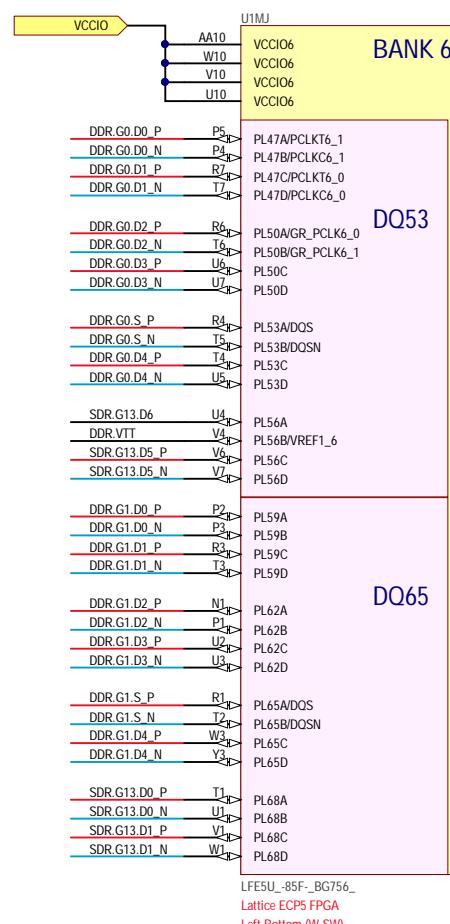
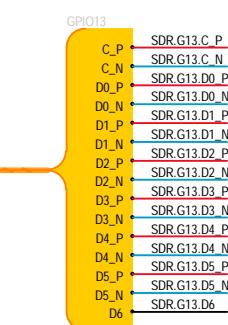
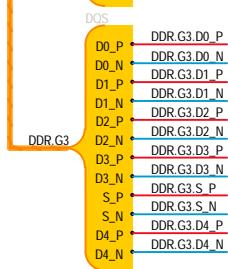
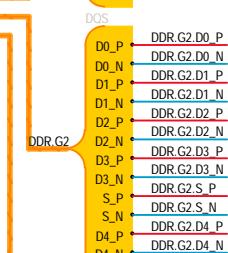
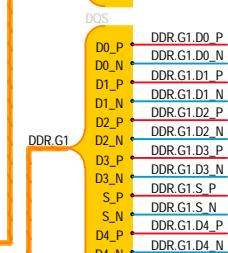
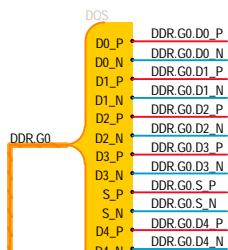
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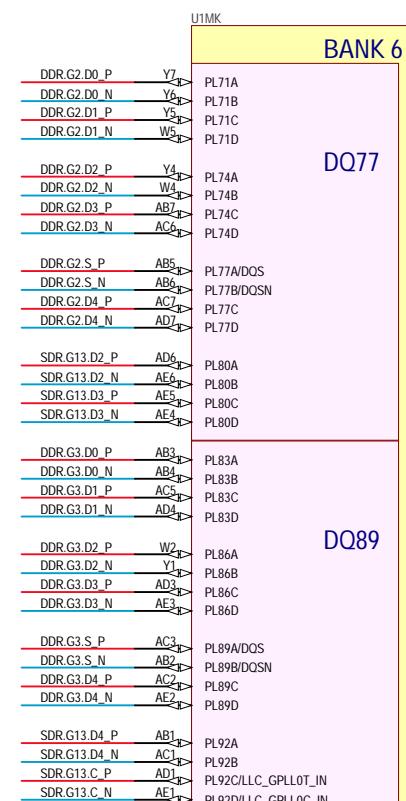
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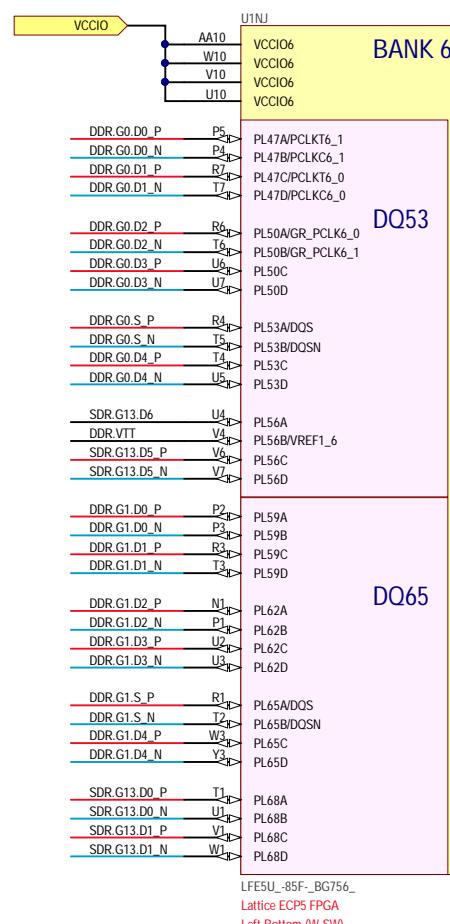
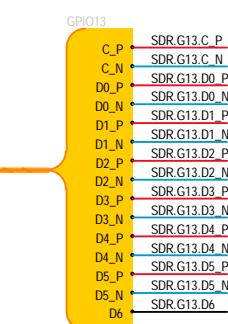
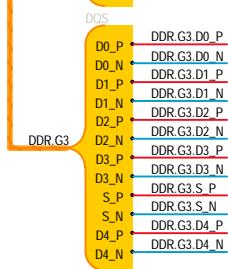
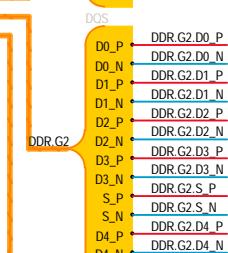
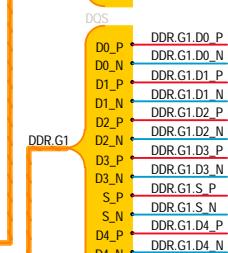
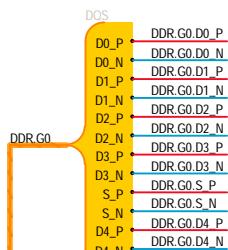


LFE5U-85F-BG756
Lattice ECP5 FPGA
Left Bottom (W-SW)

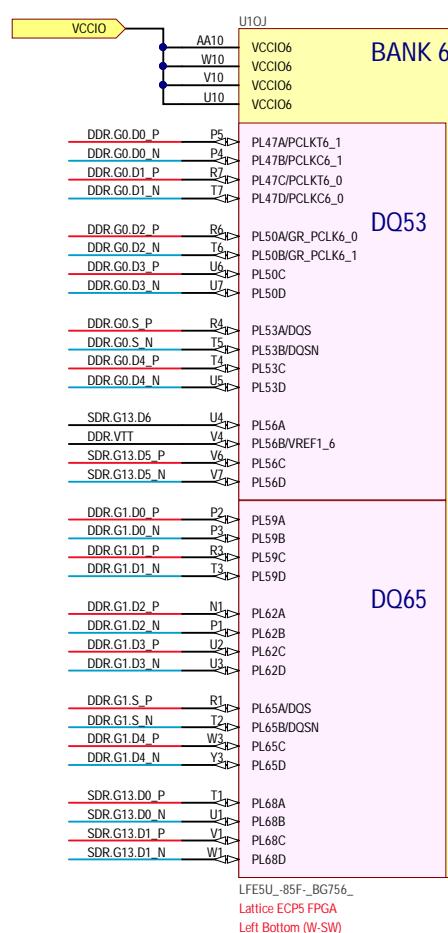
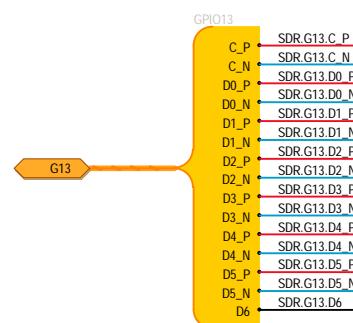
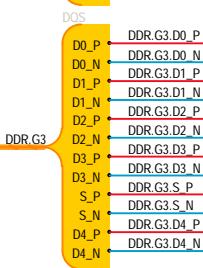
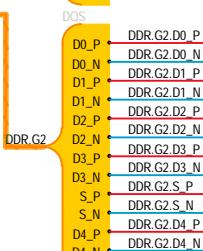
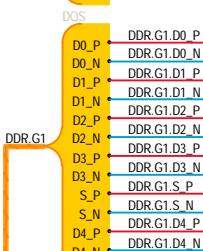
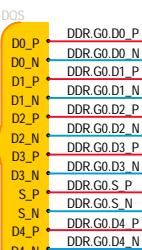


LFE5U-85F-BG756
Lattice ECP5 FPGA
Left Bottom (W-SW)

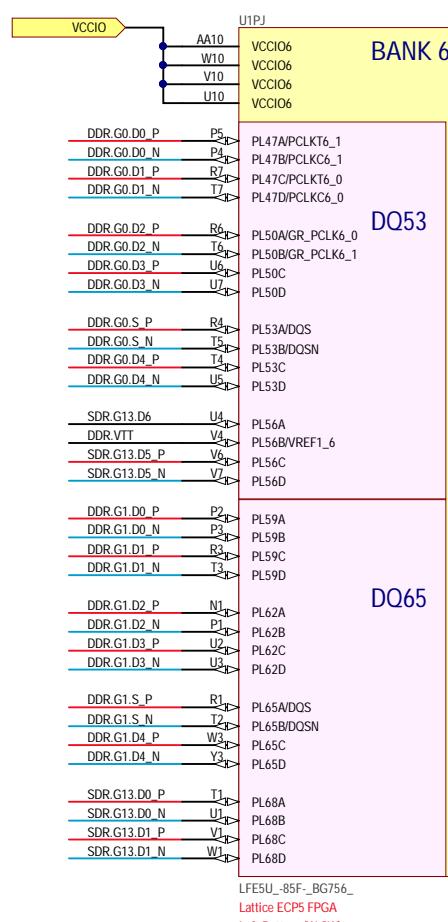
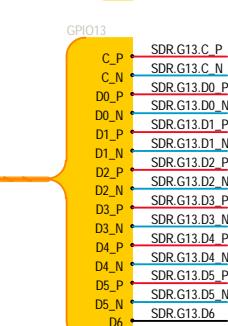
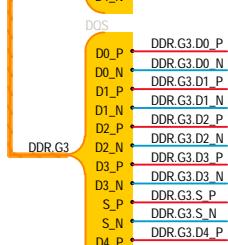
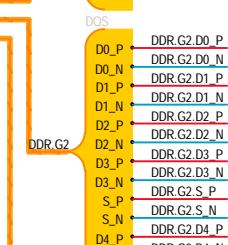
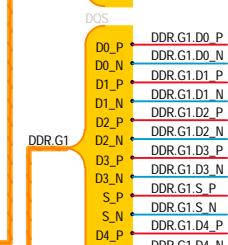
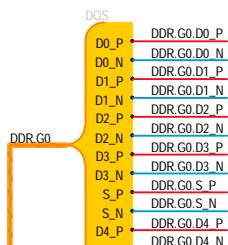
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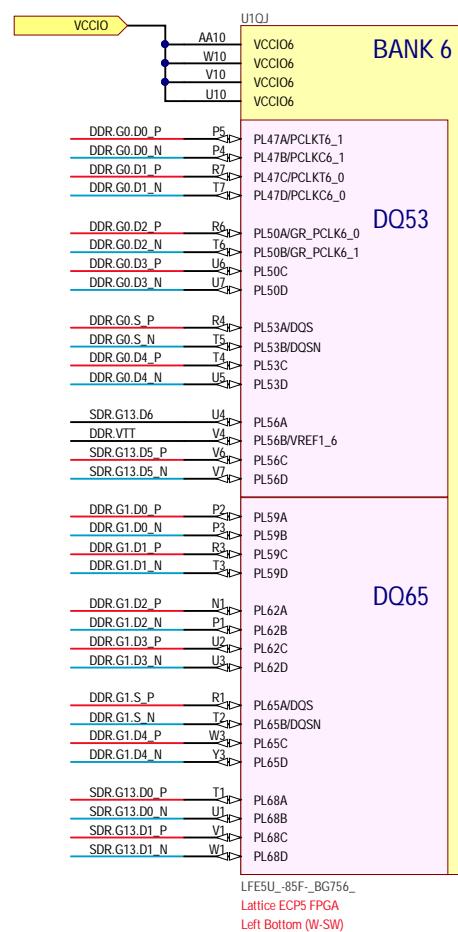
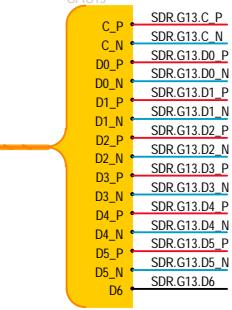
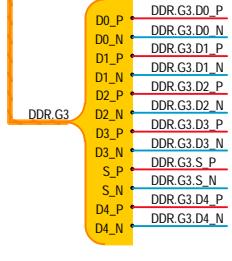
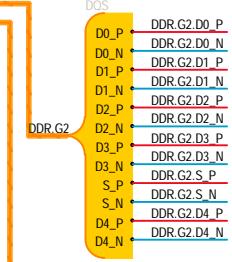
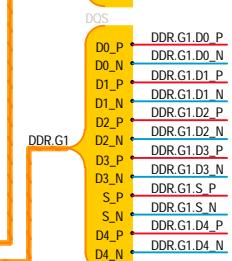
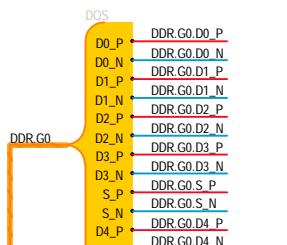
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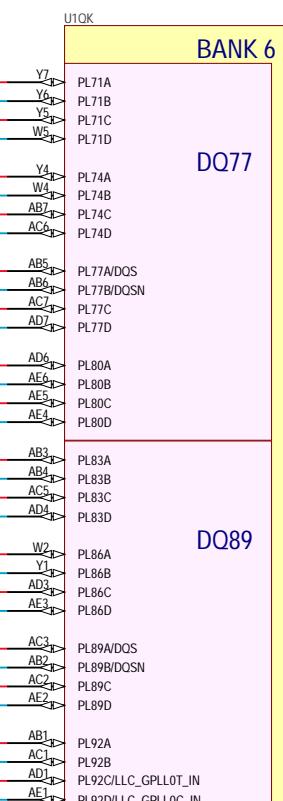
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A



LFE5U-85F-BG756-
Lattice ECP5 FPGA
Left Bottom (W-SW)



LFE5U-85F-BG756-
Lattice ECP5 FPGA
Left Bottom (W-SW)

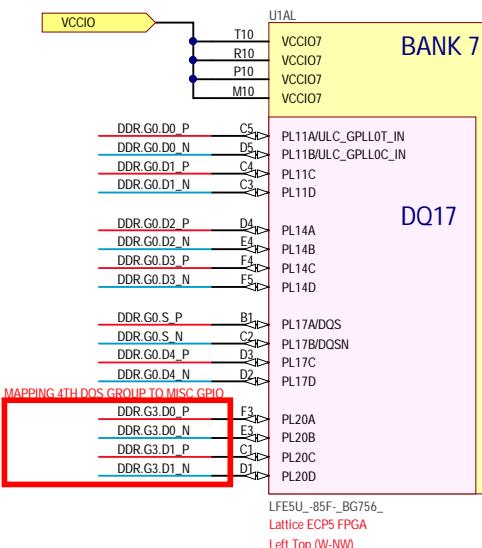
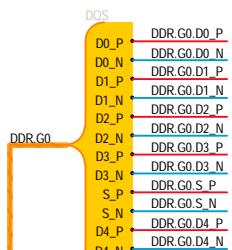
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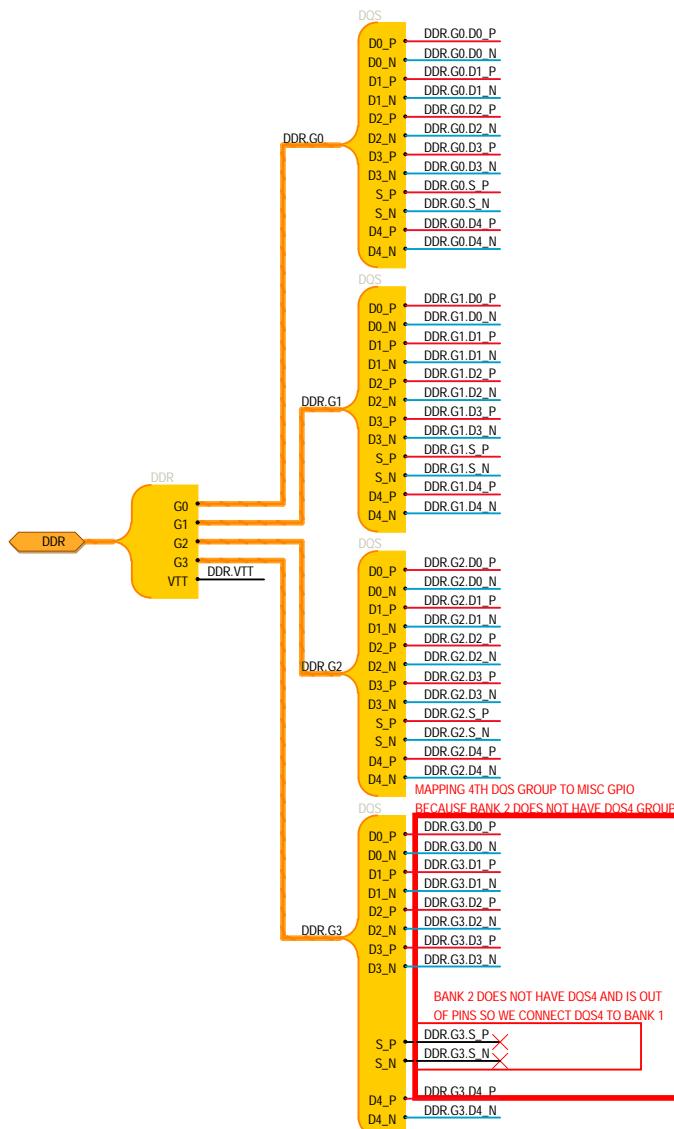
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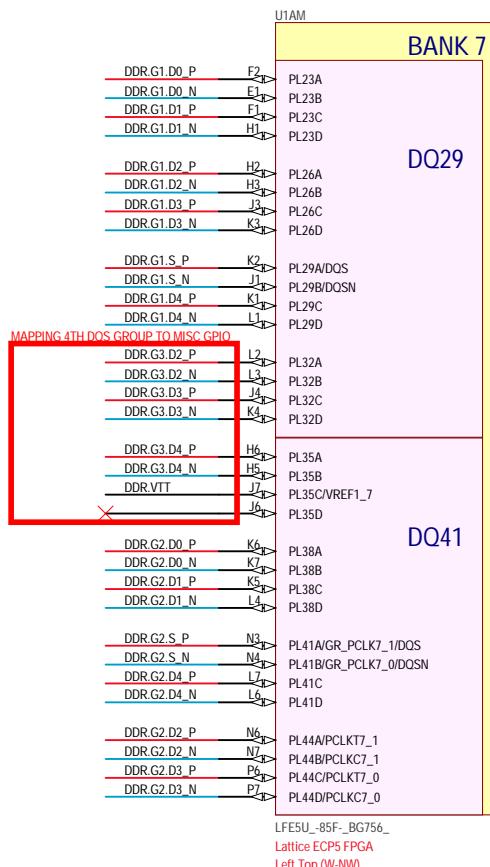
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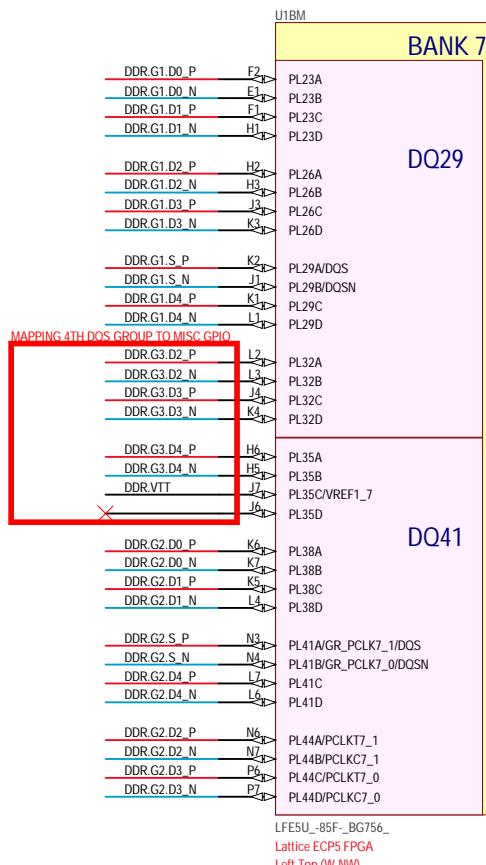
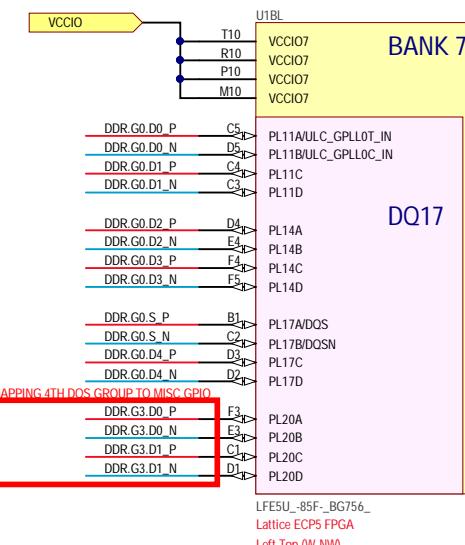
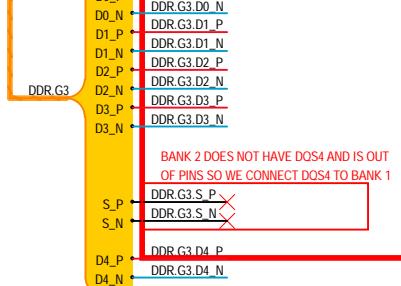
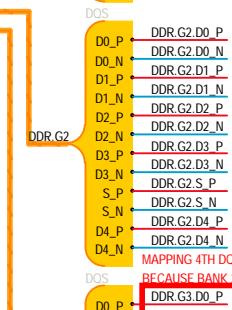
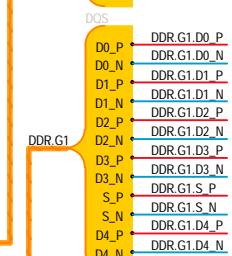
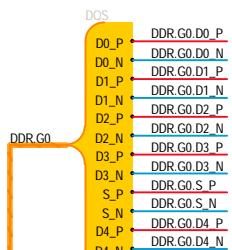
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D

Title		
Copper Suicide - FPGA - Bank 7		
Engineer	Drawn By	Checked By
J. Brinton	J. Brinton	J. Brinton
Revision 2	Sheet 11 of 44	Date 6/1/2017

A

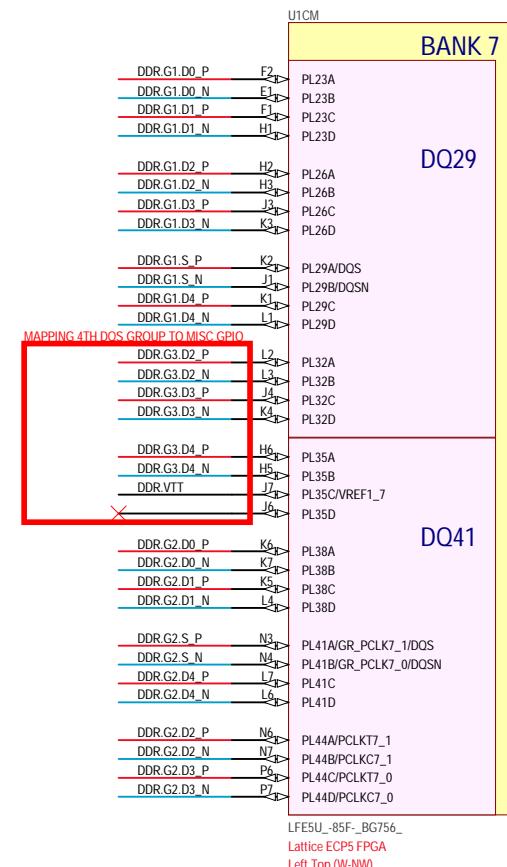
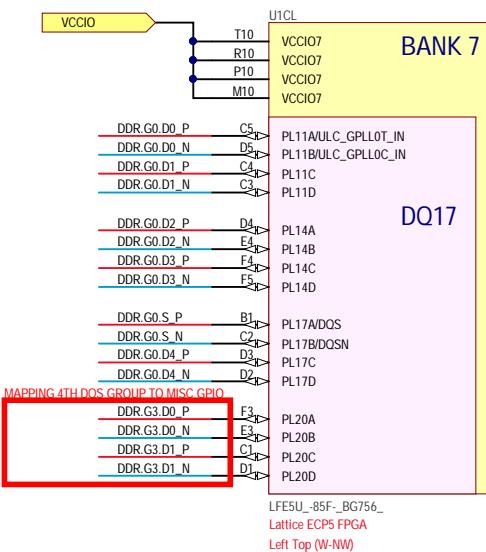
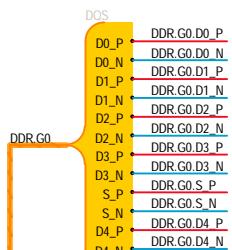


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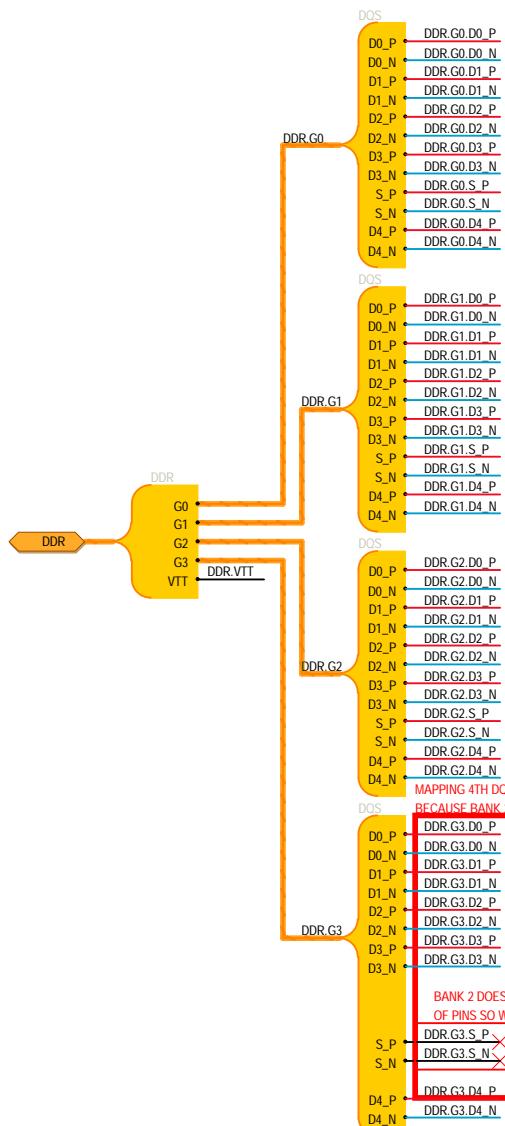
Title
Copper Suicide - FPGA - Bank 7

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 11 of 44	Date 6/1/2017

A



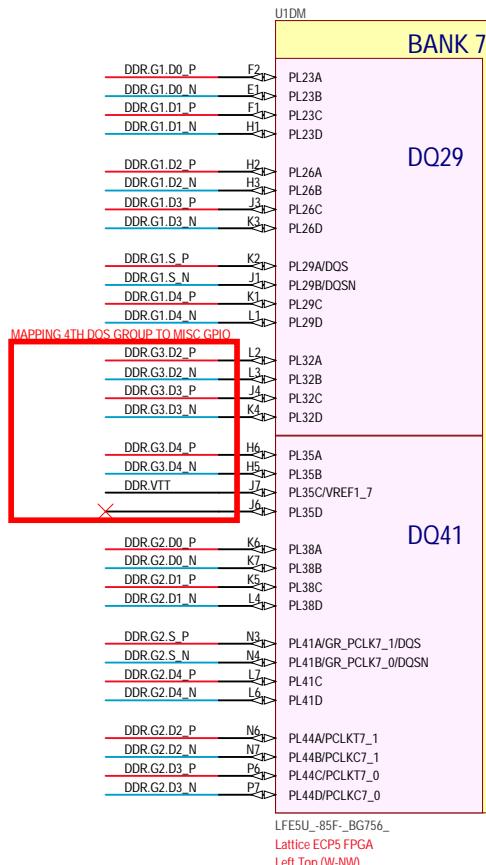
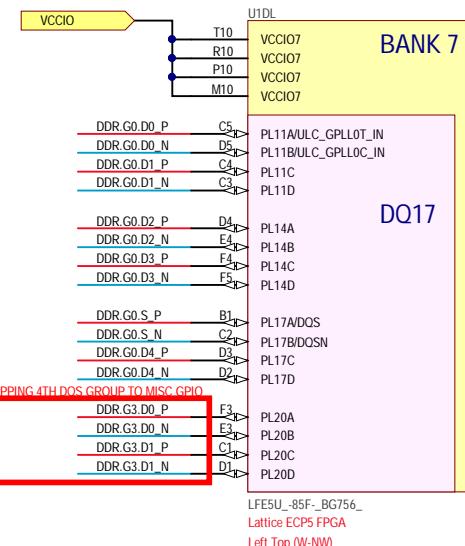
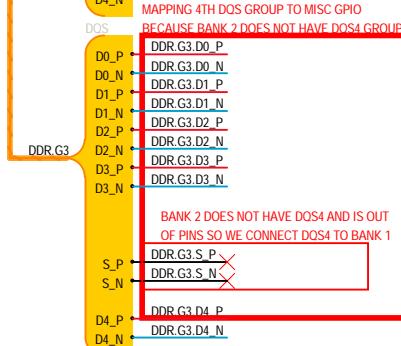
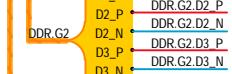
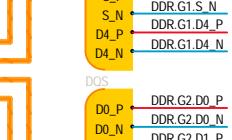
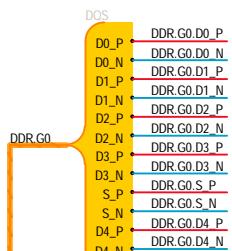
B



C

D

A

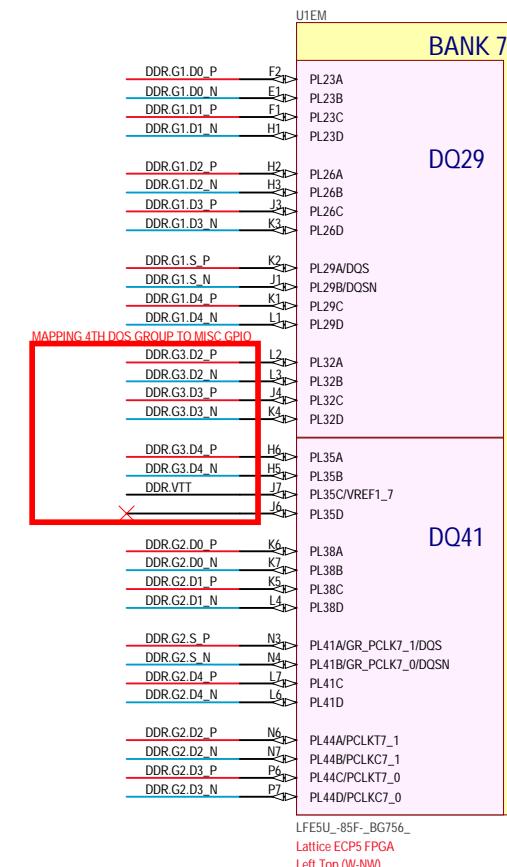
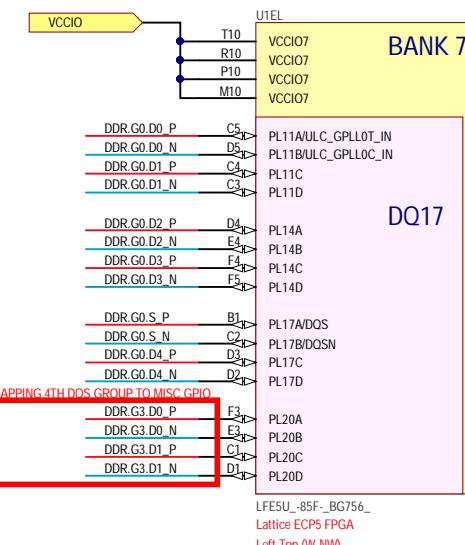
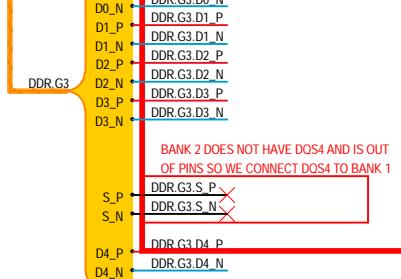
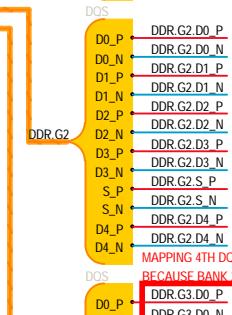
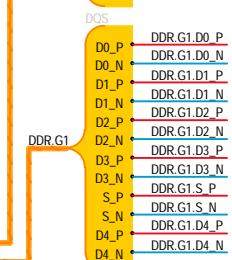
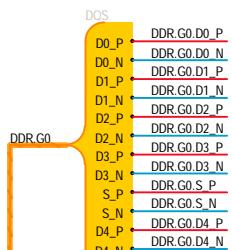


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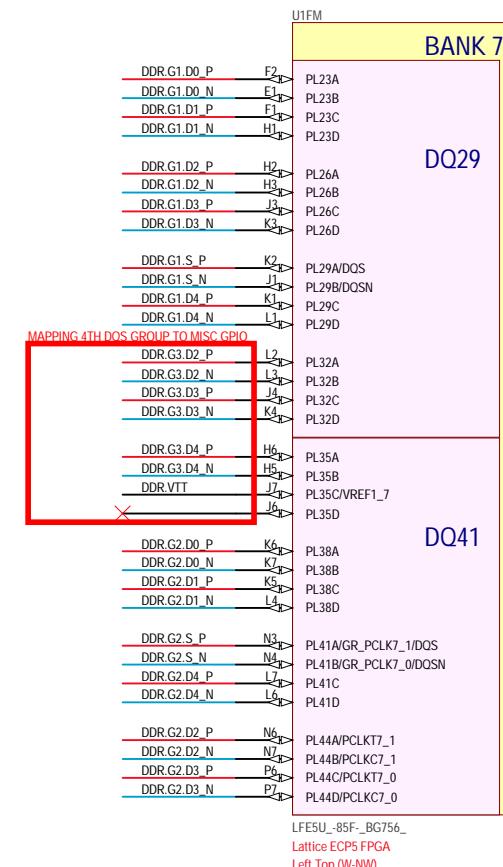
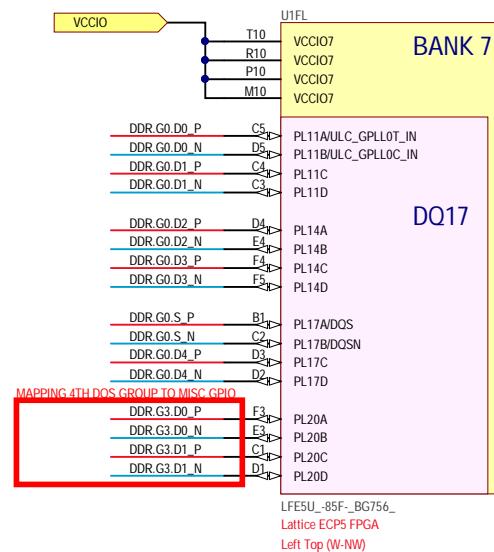
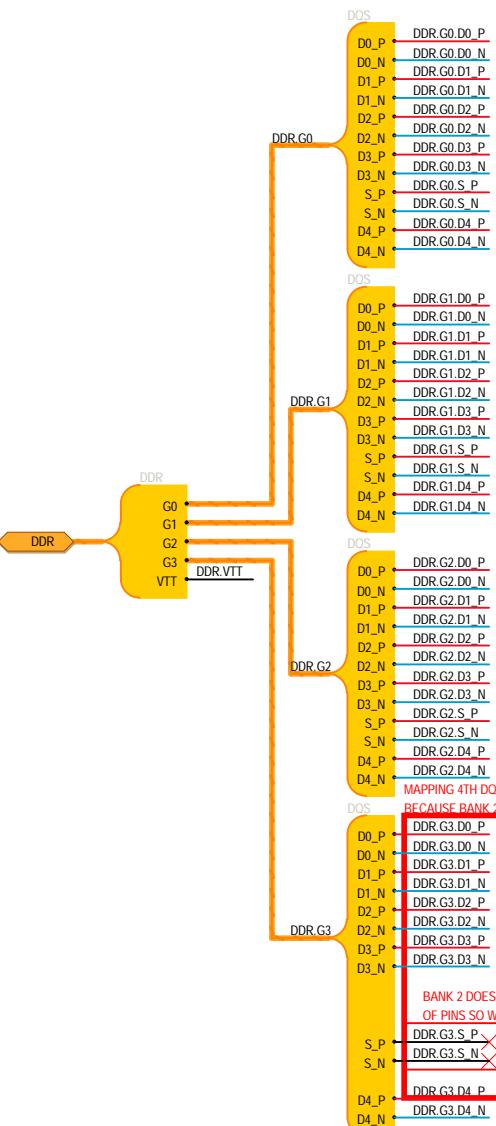
Title
Copper Suicide - FPGA - Bank 7

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 11 of 44	Date 6/1/2017

A



A



B

A

B

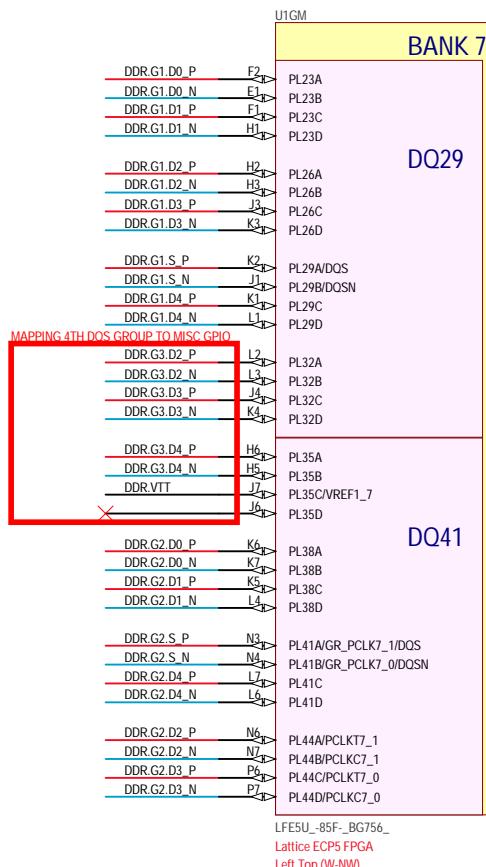
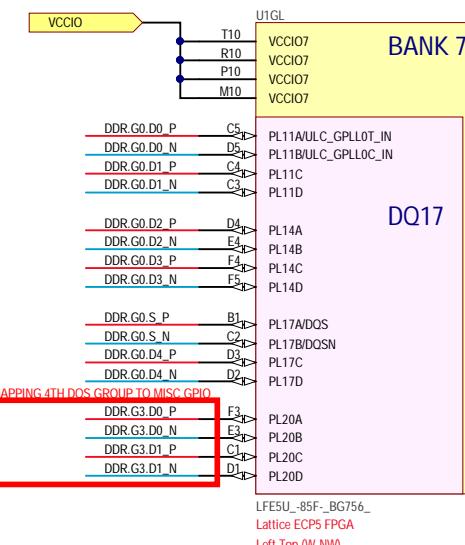
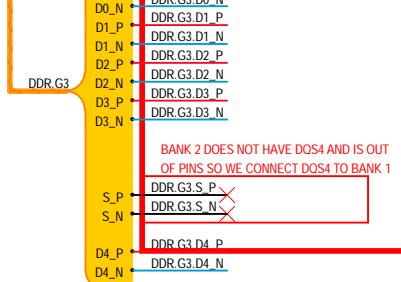
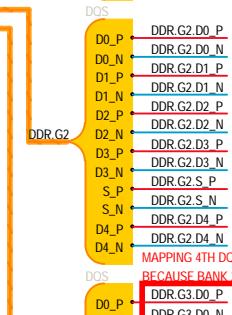
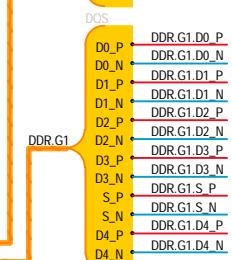
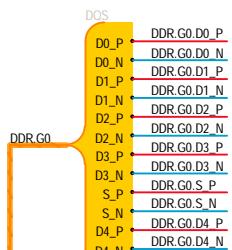
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C

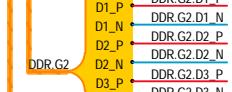
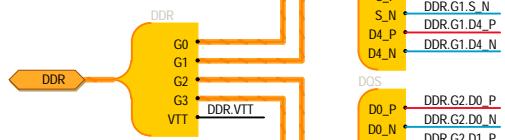
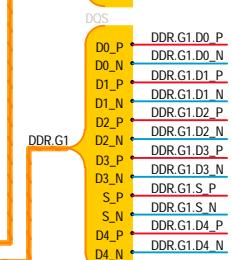
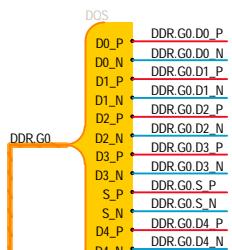
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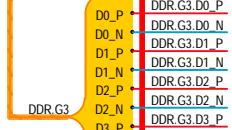
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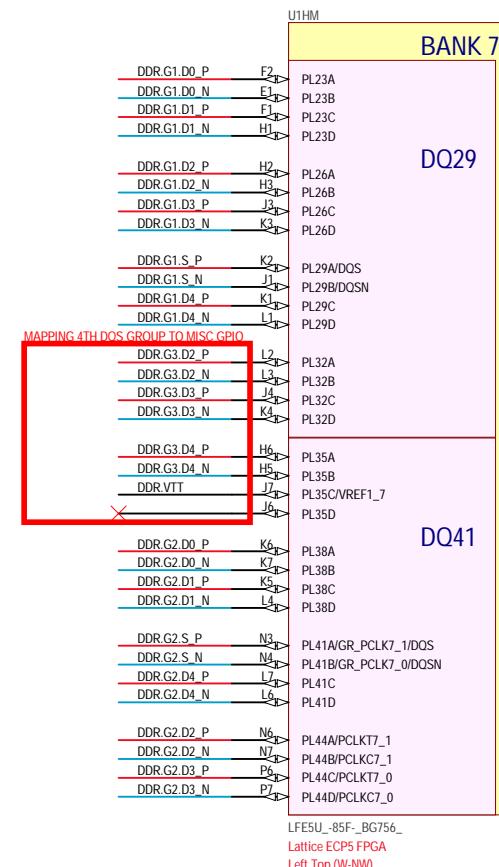
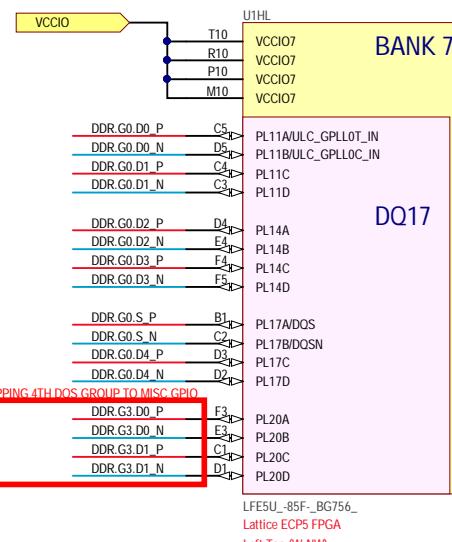
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MAPPING 4TH DOS GROUP TO MISC GPIO
BECAUSE BANK 2 DOES NOT HAVE DOS4 GROUP



BANK 2 DOES NOT HAVE DOS4 AND IS OUT OF PINS SO WE CONNECT DOS4 TO BANK 1



B

A

B

C

C

D

D

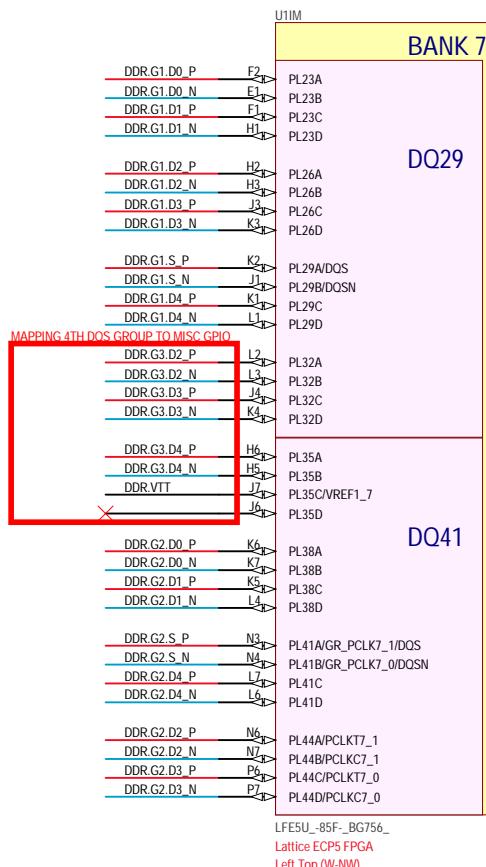
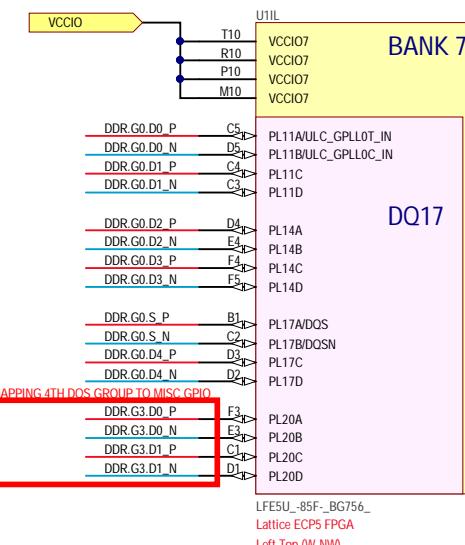
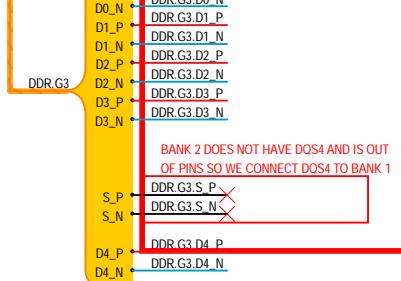
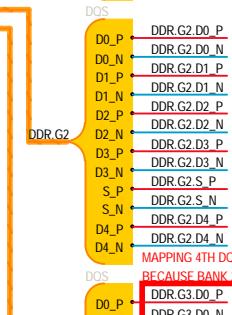
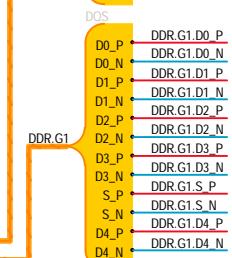
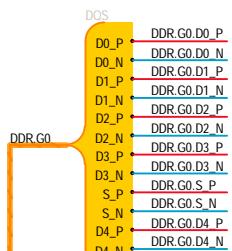


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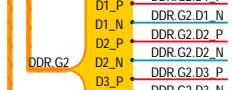
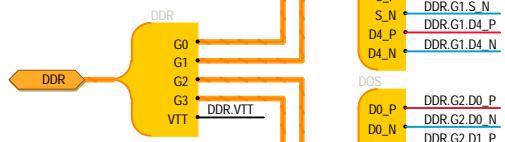
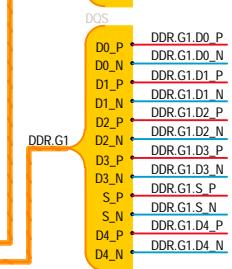
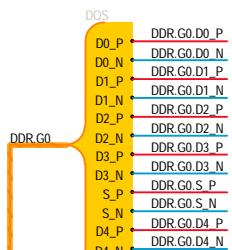
Title
Copper Suicide - FPGA - Bank 7

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 11 of 44	Date 6/1/2017

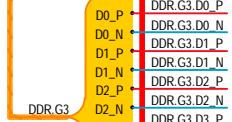
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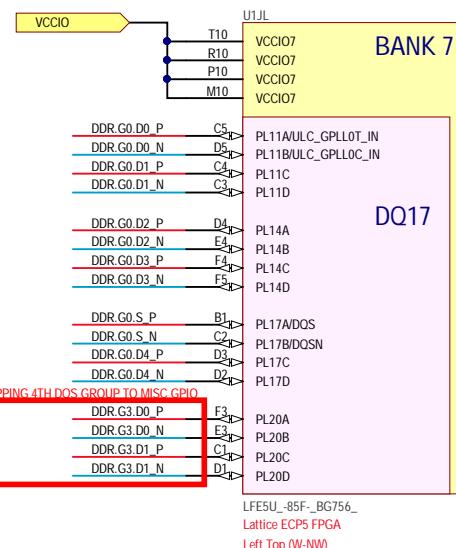
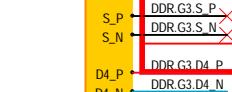
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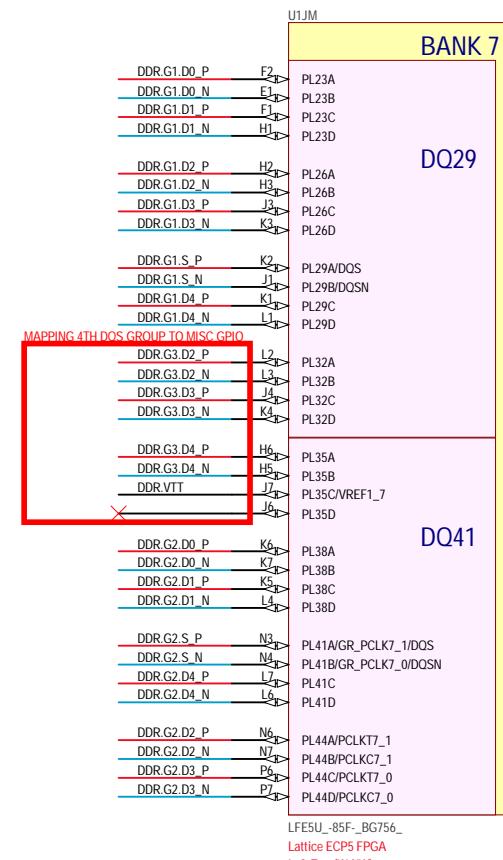
MAPPING 4TH DOS GROUP TO MISC GPIO
BECAUSE BANK 2 DOES NOT HAVE DOS4 GROUP



BANK 2 DOES NOT HAVE DOS4 AND IS OUT OF PINS SO WE CONNECT DOS4 TO BANK 1



LFE5U-85F-BG756-
Lattice ECP5 FPGA
Left Top (W-NW)

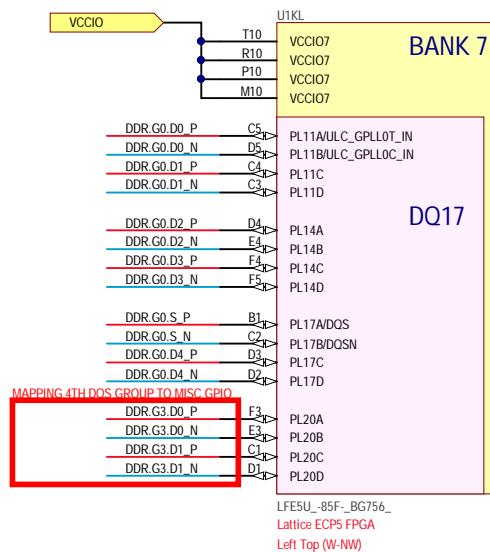
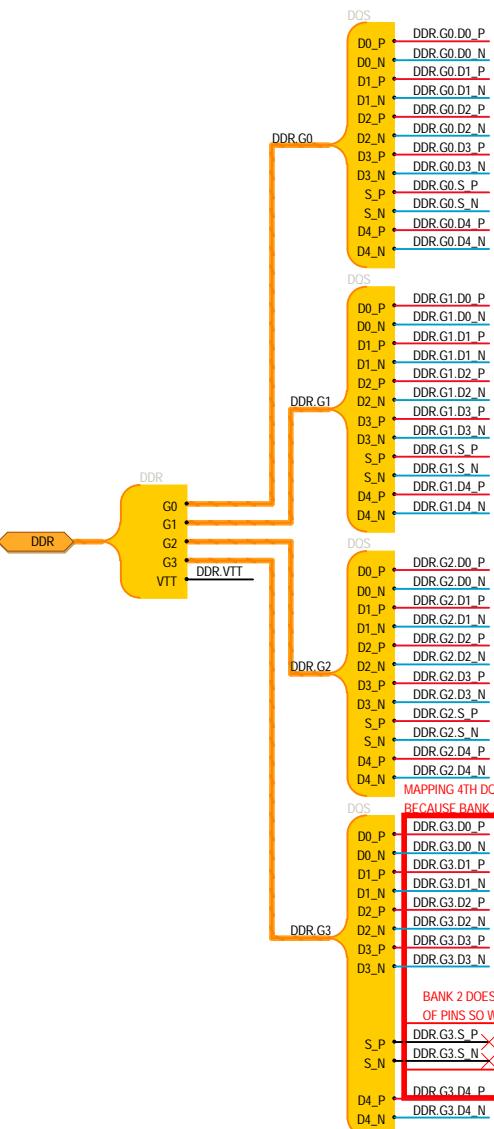


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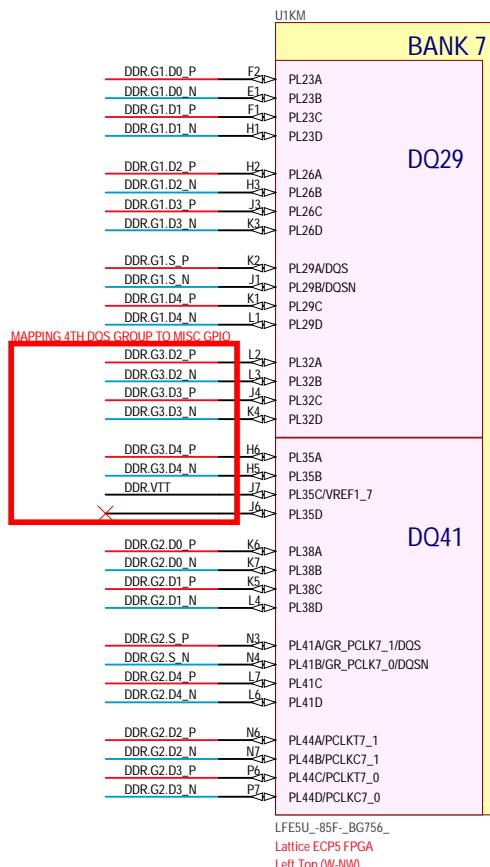
Title
Copper Suicide - FPGA - Bank 7

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 11 of 44	Date 6/1/2017

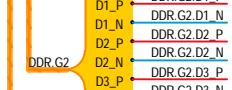
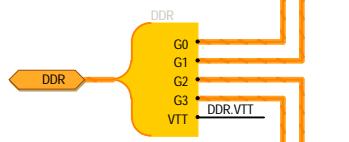
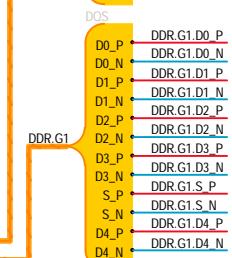
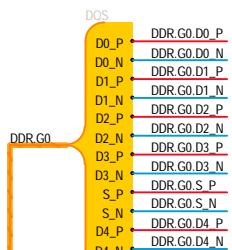
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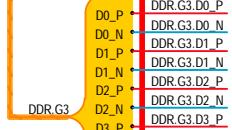
LFE5U-85F-BG756-
Lattice ECP5 FPGA
Left Top (W-NW)



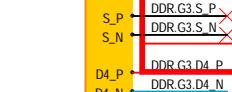
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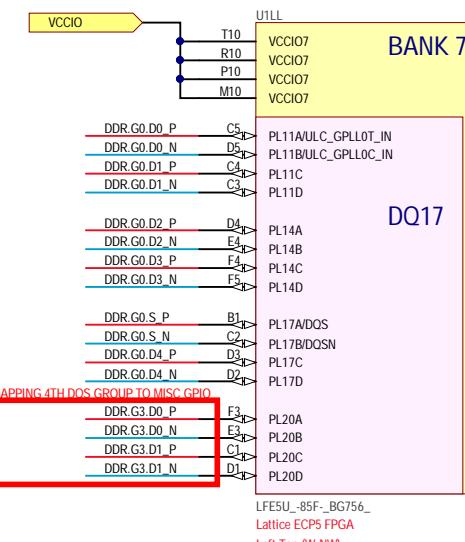
MAPPING 4TH DOS GROUP TO MISC GPIO
BECAUSE BANK 2 DOES NOT HAVE DOS4 GROUP



BANK 2 DOES NOT HAVE DOS4 AND IS OUT OF PINS SO WE CONNECT DOS4 TO BANK 1

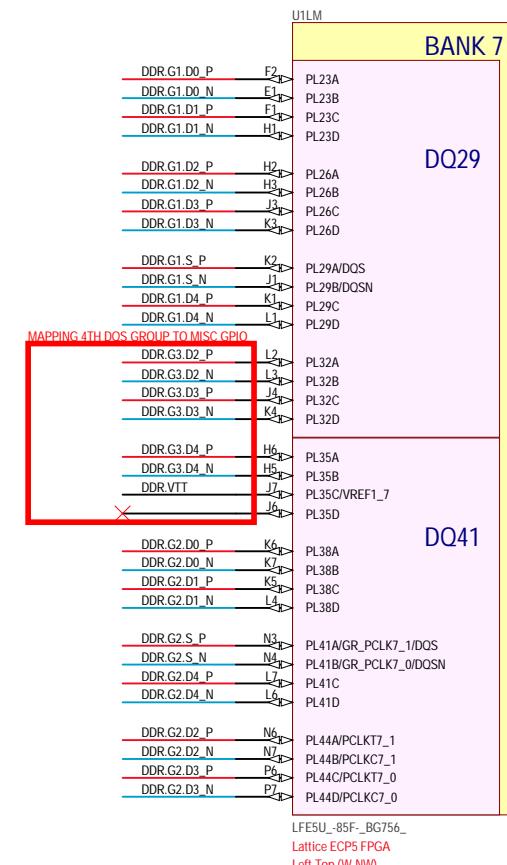


B



BANK 7

DQ17



BANK 7

DQ29

DO41

C

D

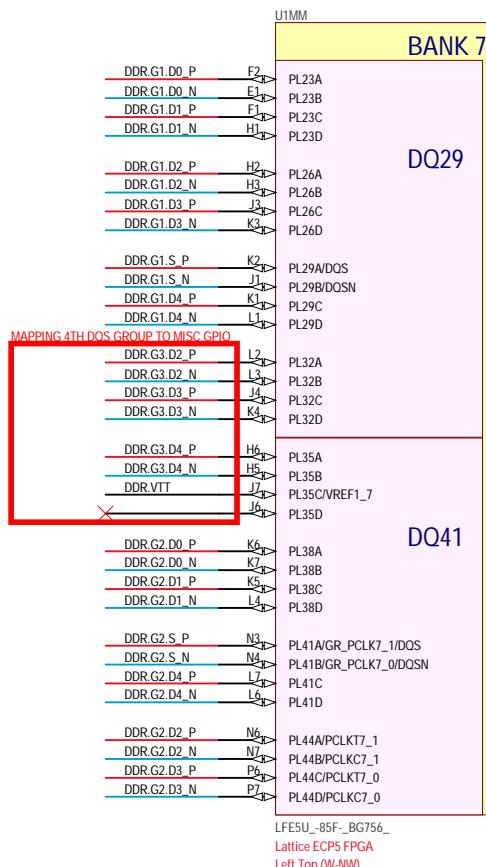
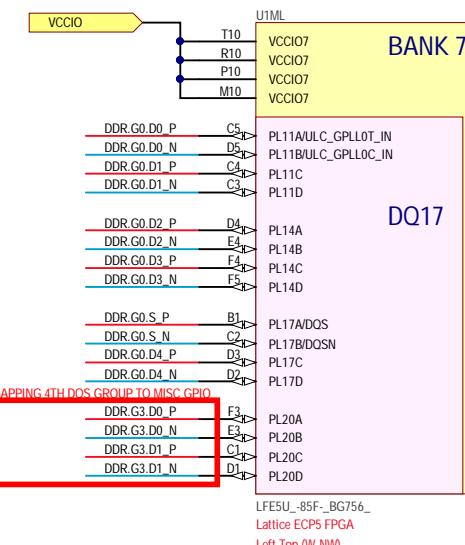
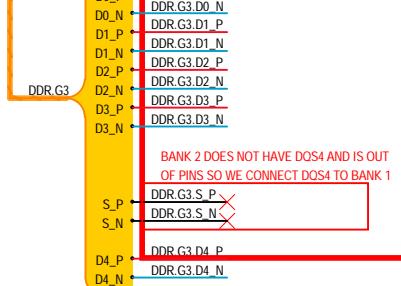
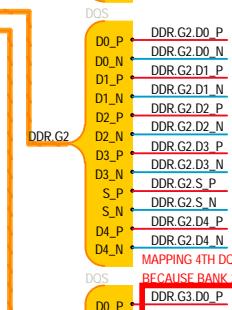
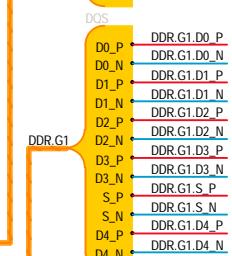
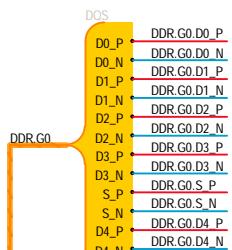


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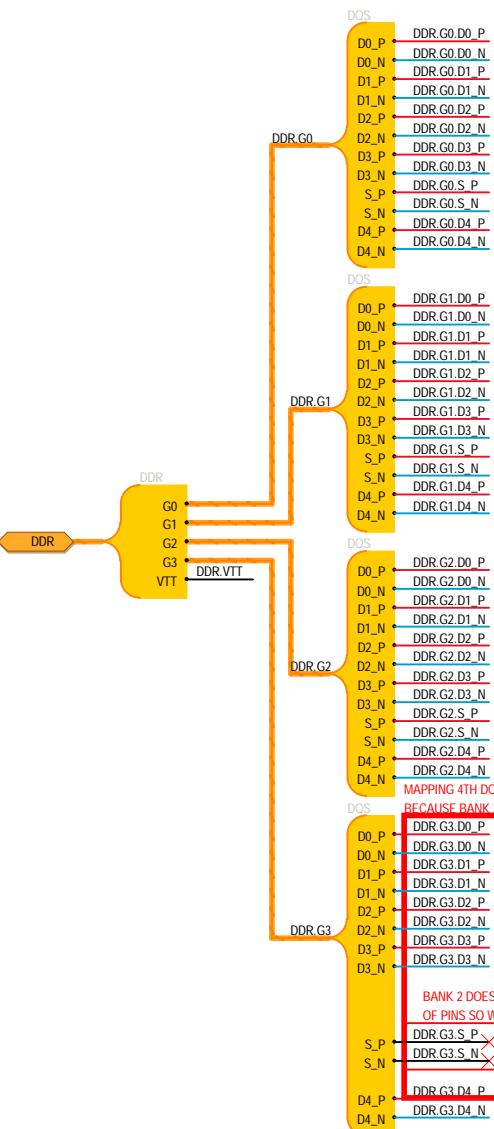
Title
Copper Suicide - FPGA - Bank 7

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 11 of 44	Date 6/1/2017

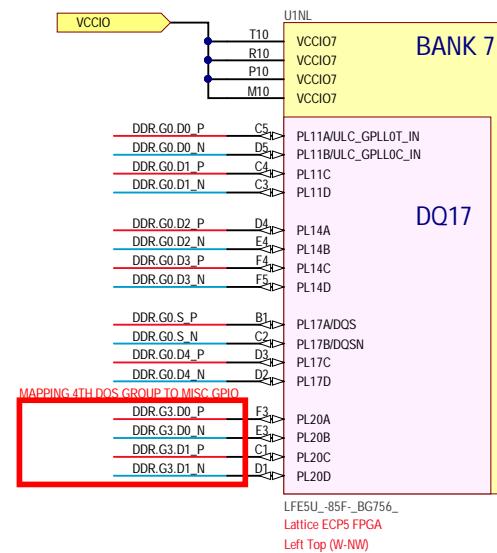
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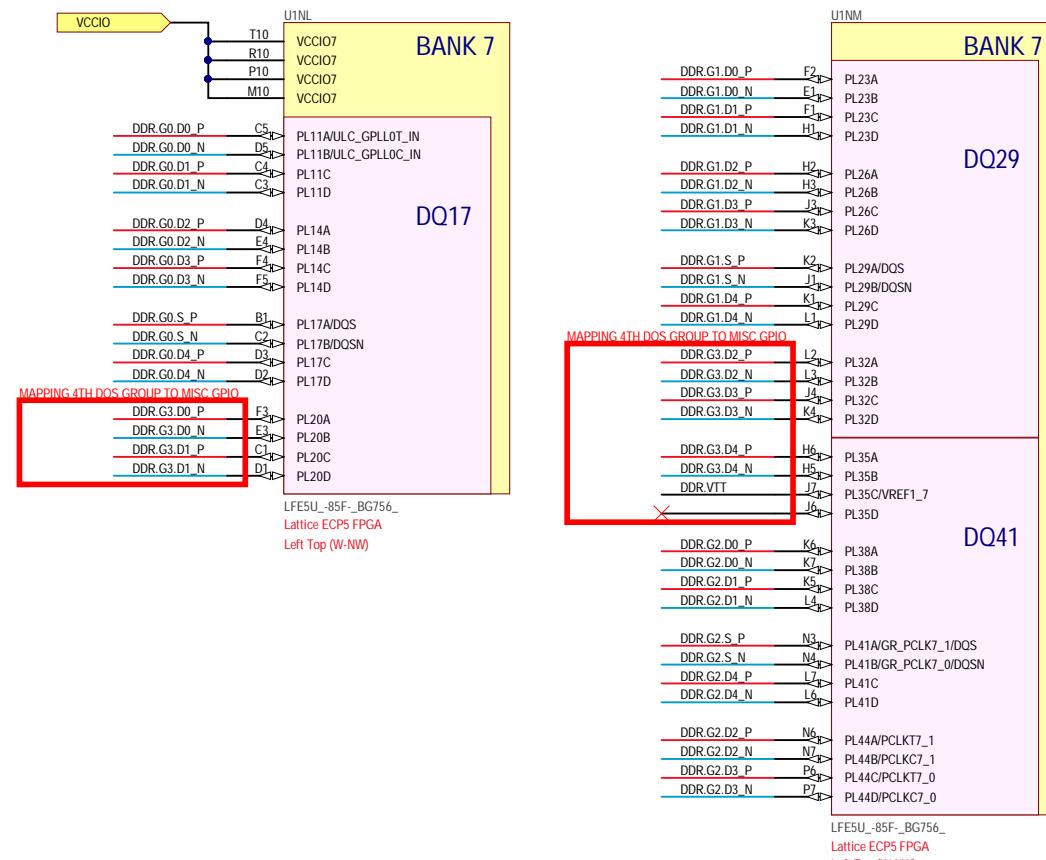
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B



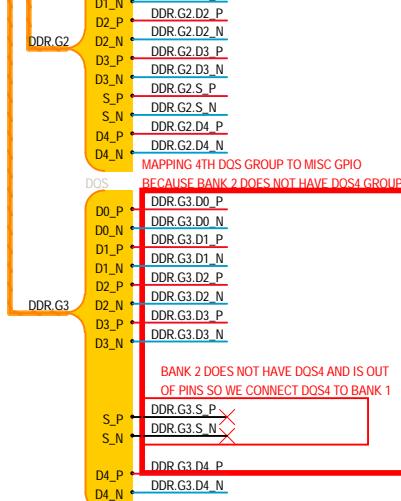
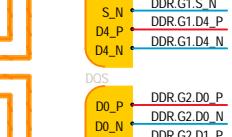
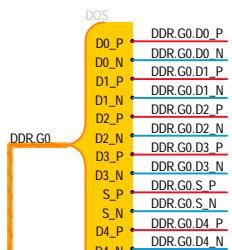
C



D

Title		
Copper Suicide - FPGA - Bank 7		
Engineer	Drawn By	Checked By
J. Brinton	J. Brinton	J. Brinton
Revision 2	Sheet 11 of 44	Date 6/1/2017

A



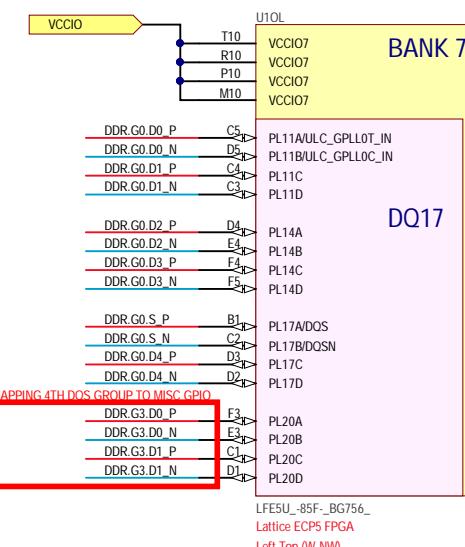
BANK 2 DOES NOT HAVE DOS4 AND IS OUT OF PINS SO WE CONNECT DOS4 TO BANK 1

~~S_P~~

~~S_N~~

D4_P

D4_N



MAPPING 4TH DOS GROUP TO MISC GPIO

DDR.G3.D0_P

DDR.G3.D0_N

DDR.G3.D1_P

DDR.G3.D1_N

DDR.G3.D2_P

DDR.G3.D2_N

DDR.G3.D3_P

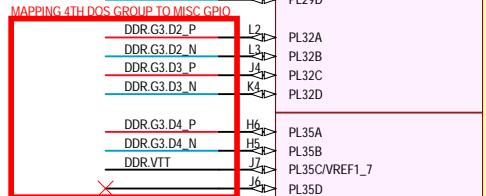
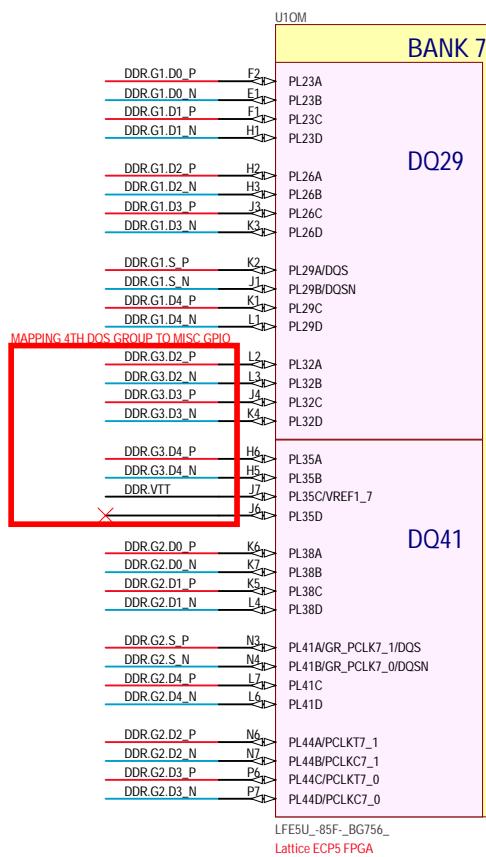
DDR.G3.D3_N

DDR.G3.D4_P

DDR.G3.D4_N

DDR.VTT

LFE5U_~85F_BG756_Lattice ECP5 FPGA Left Top (W-NW)

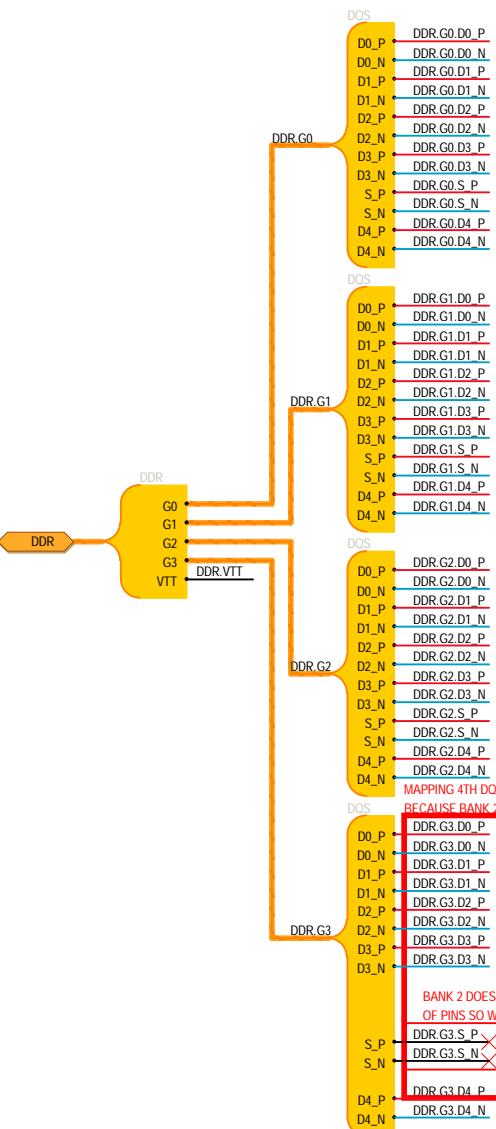


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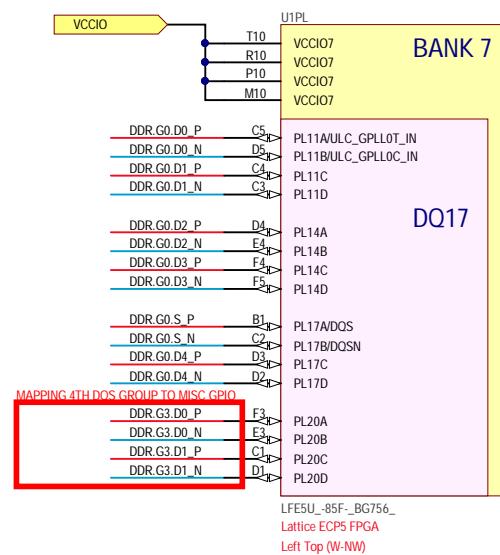
Title
Copper Suicide - FPGA - Bank 7

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 11 of 44	Date 6/1/2017

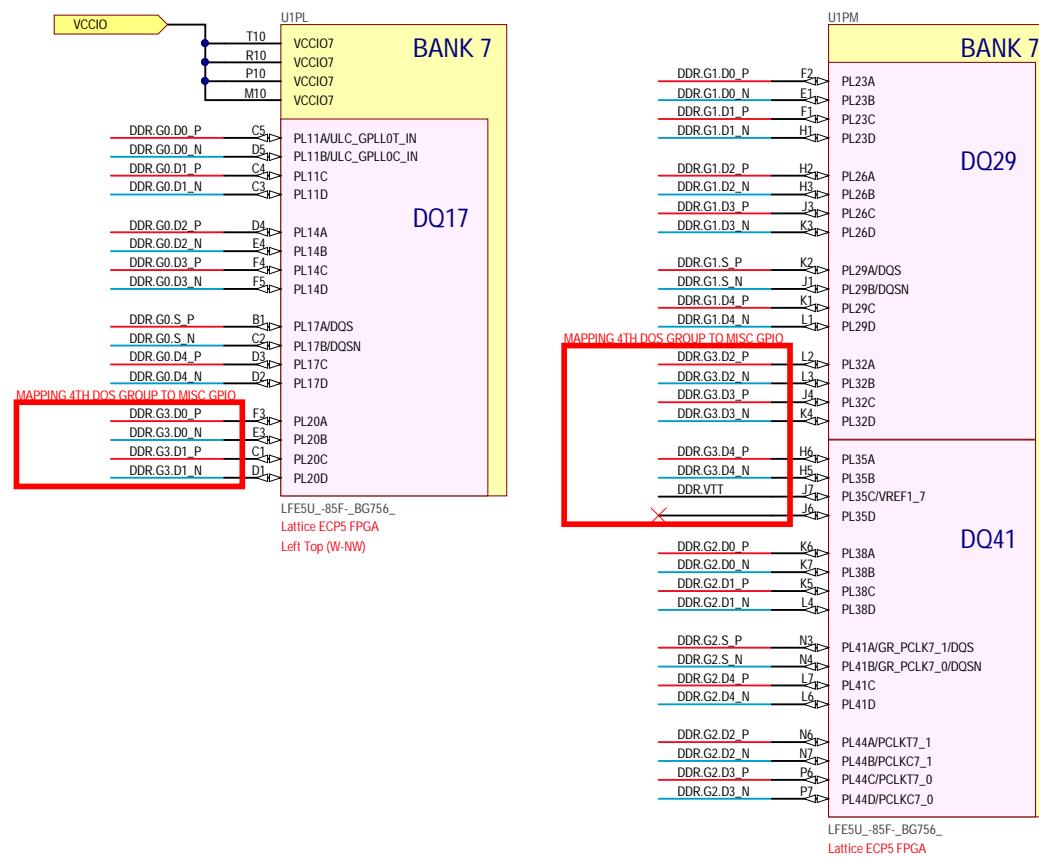
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B



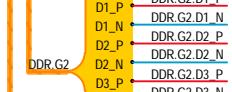
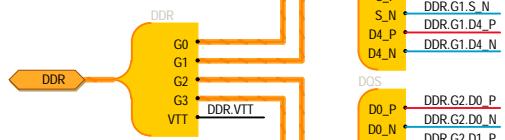
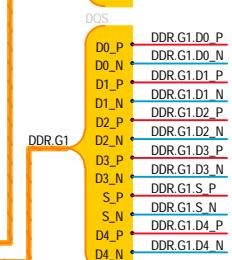
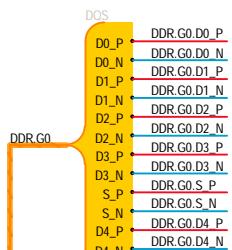
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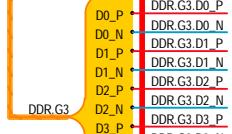
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Title Copper Suicide - FPGA - Bank 7			
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton	Date 6/1/2017
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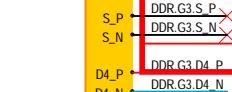
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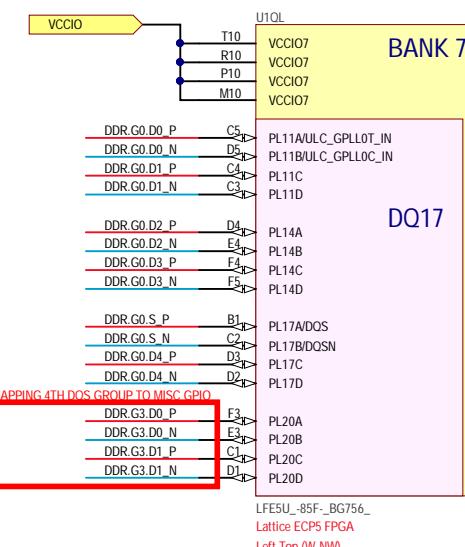
MAPPING 4TH DOS GROUP TO MISC GPIO
BECAUSE BANK 2 DOES NOT HAVE DOS4 GROUP



BANK 2 DOES NOT HAVE DOS4 AND IS OUT OF PINS SO WE CONNECT DOS4 TO BANK 1

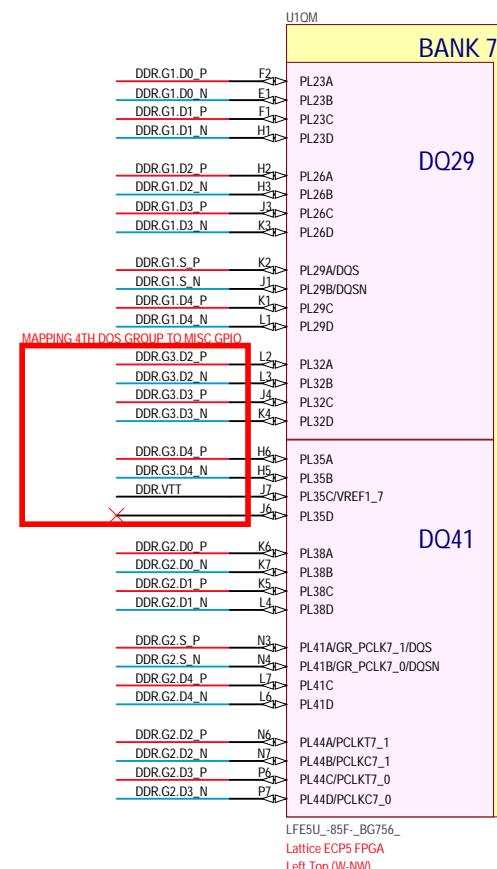


B



BANK 7

DQ17



BANK 7

DQ29

DO41

C

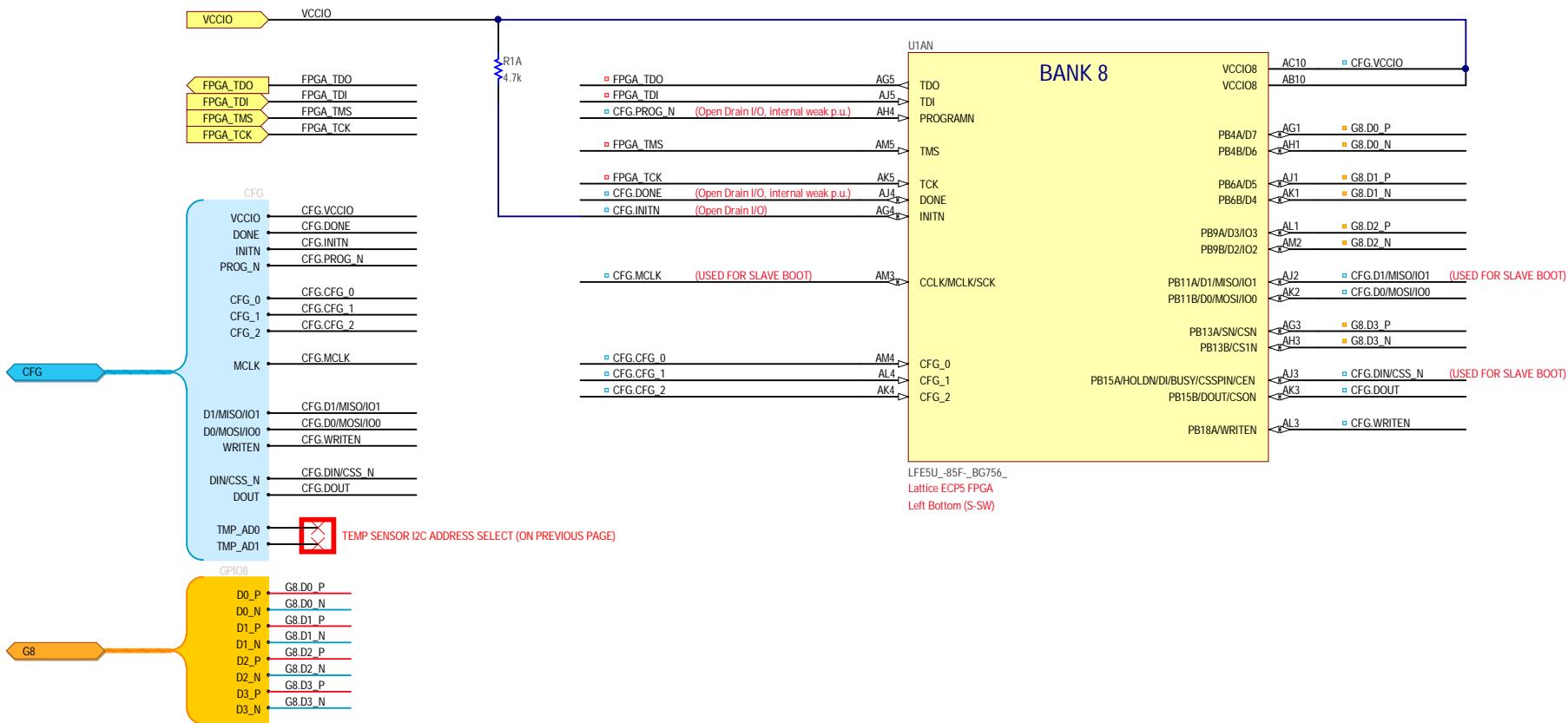
Title		
Copper Suicide - FPGA - Bank 7		
Engineer	Drawn By	Checked By
J. Brinton	J. Brinton	J. Brinton
Revision 2	Sheet 11 of 44	Date 6/1/2017



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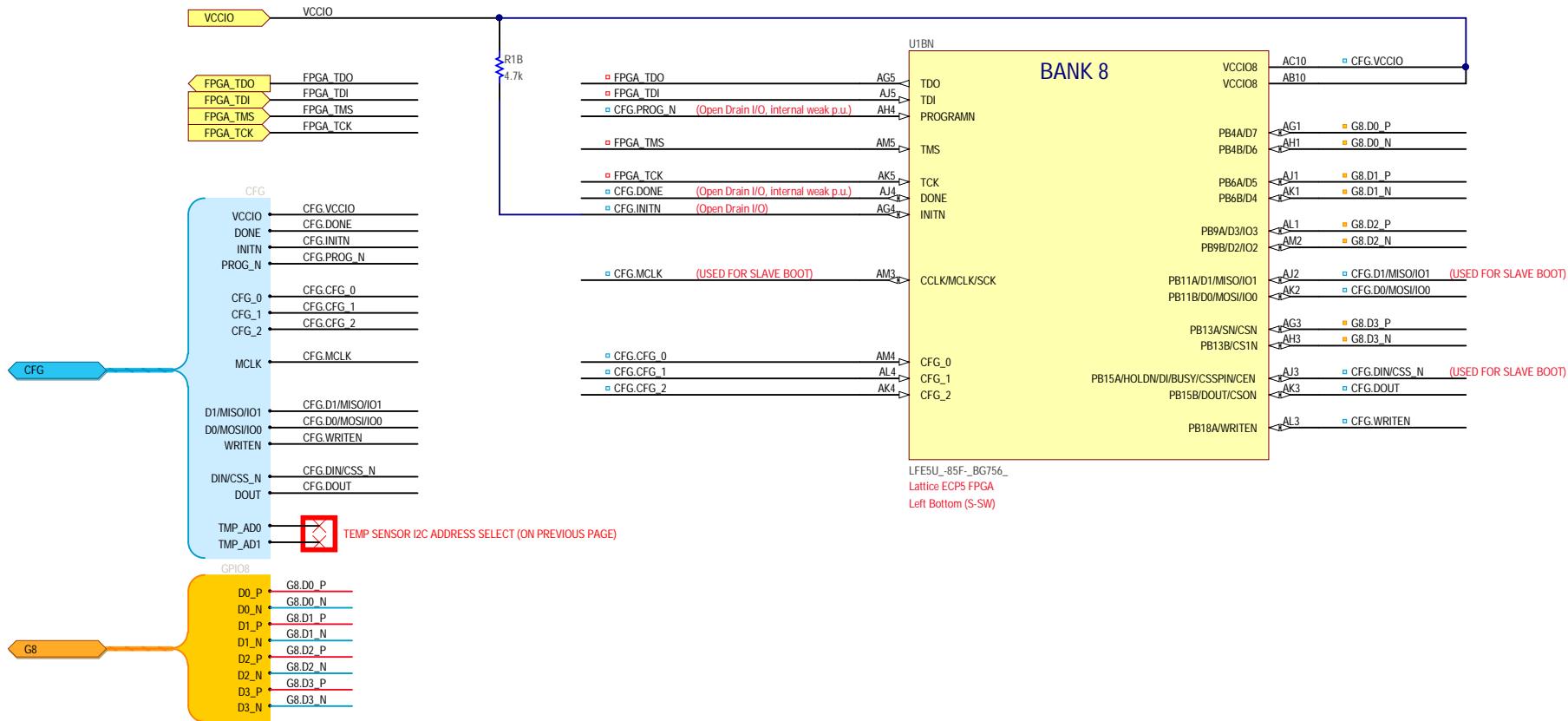
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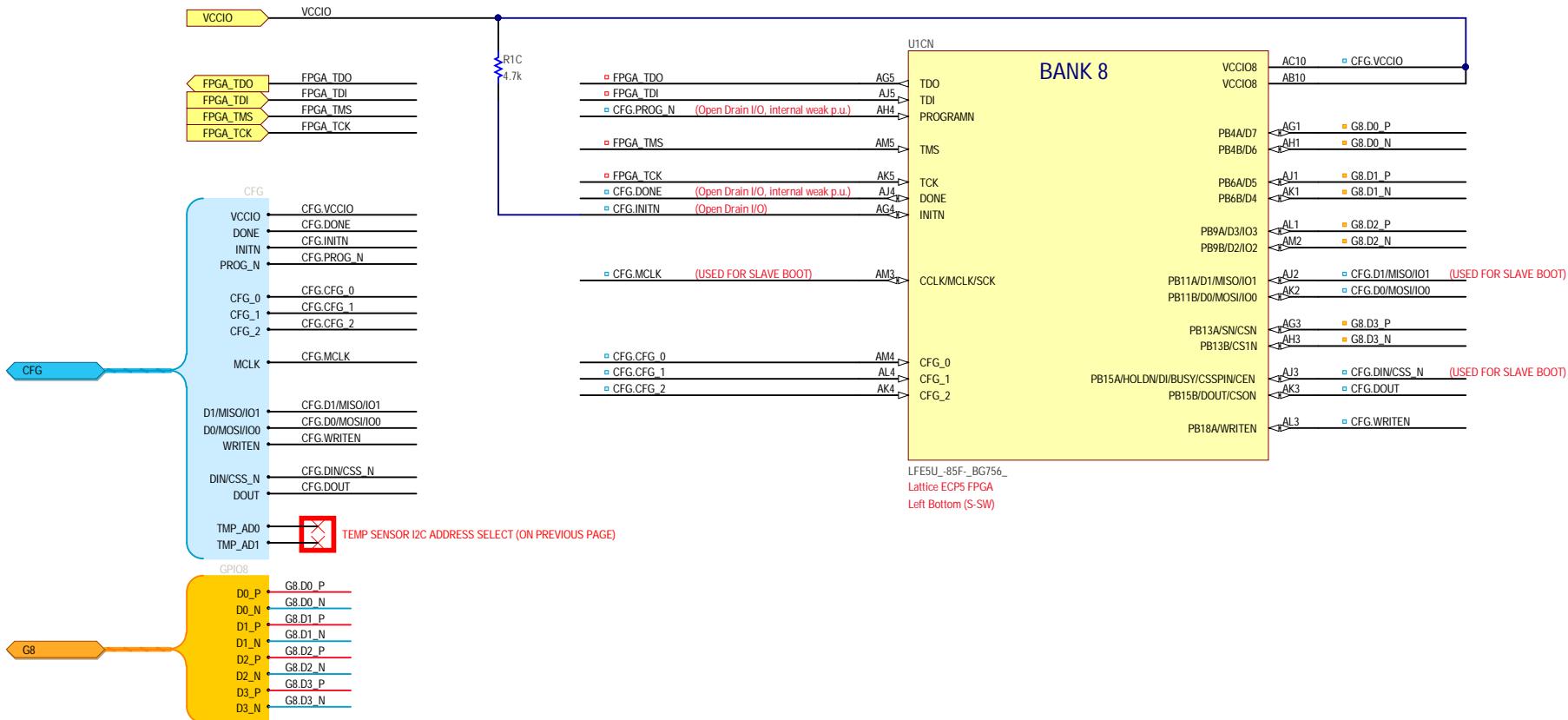
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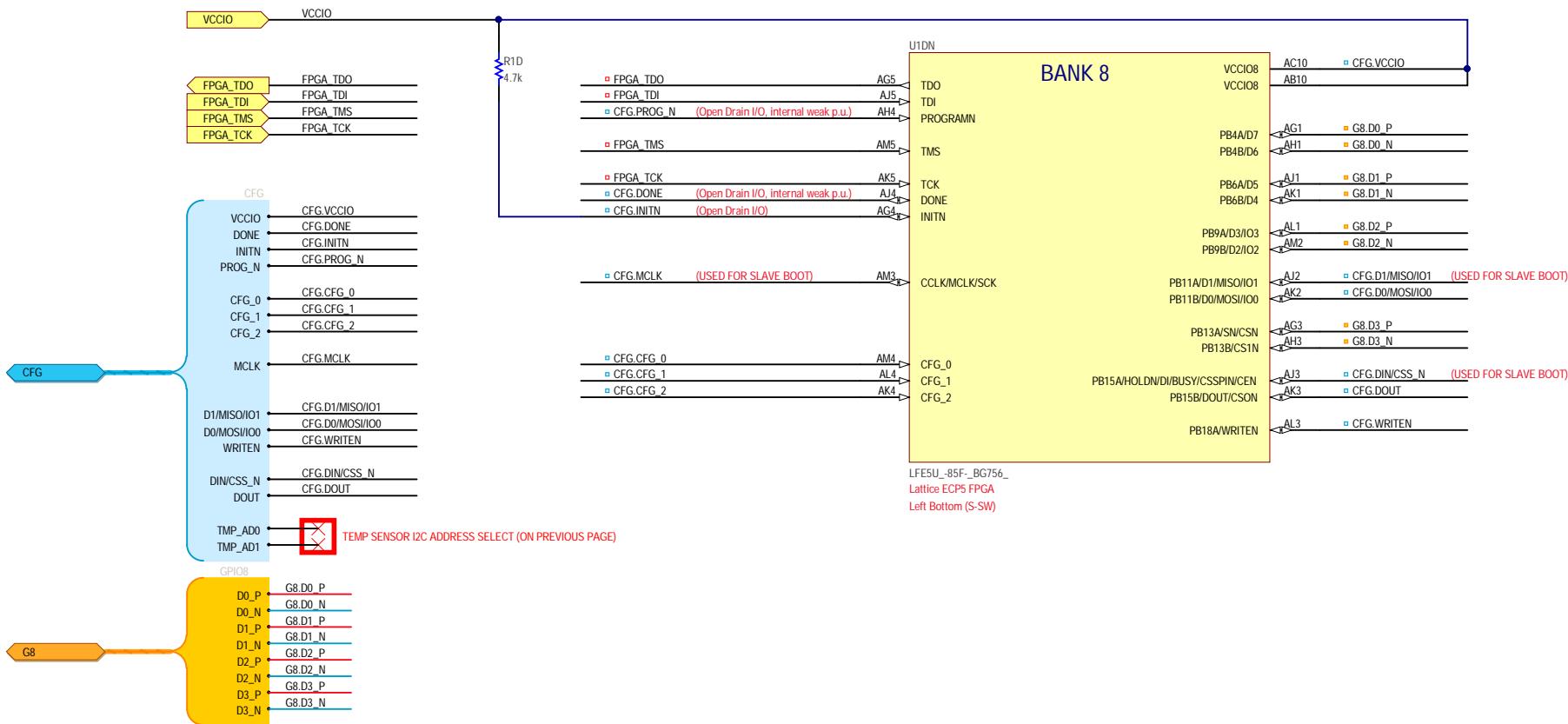
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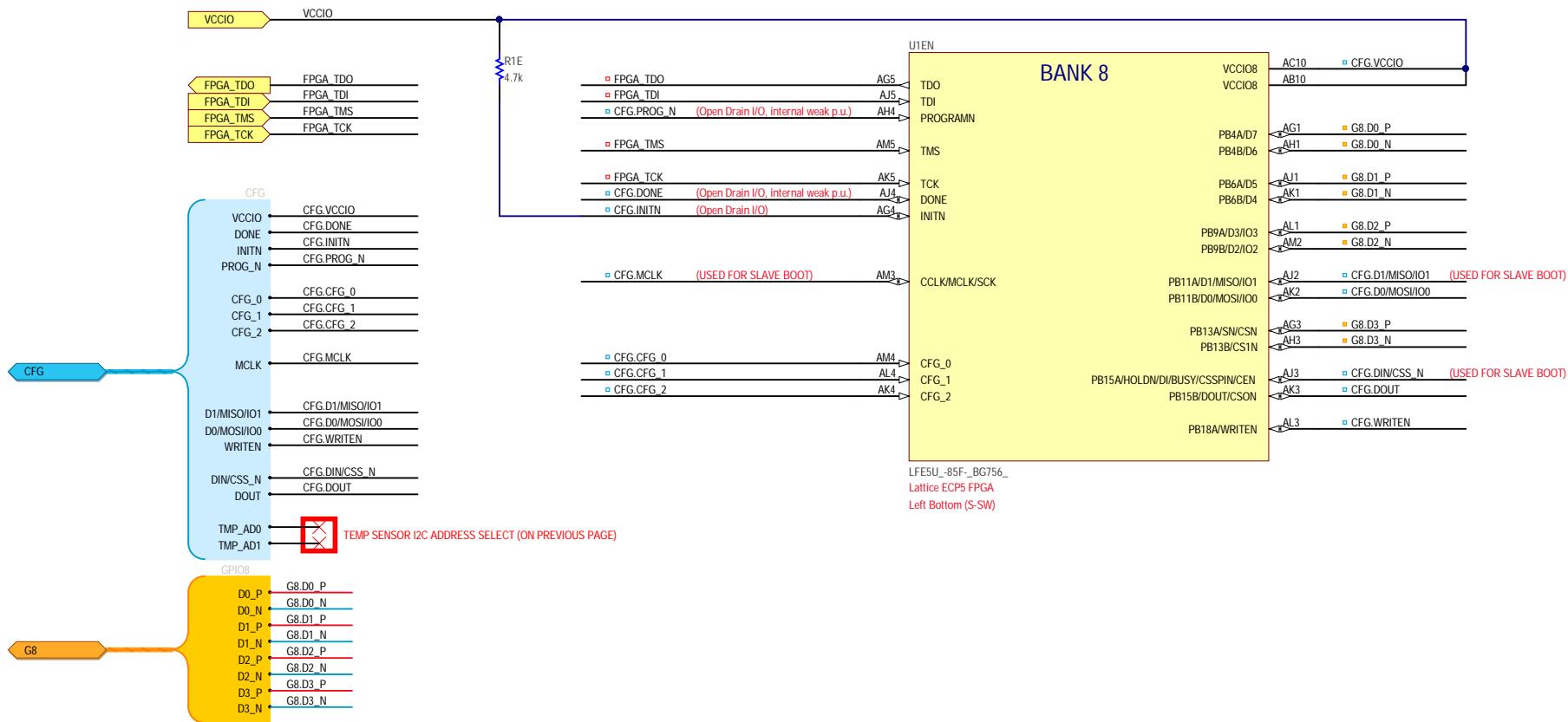
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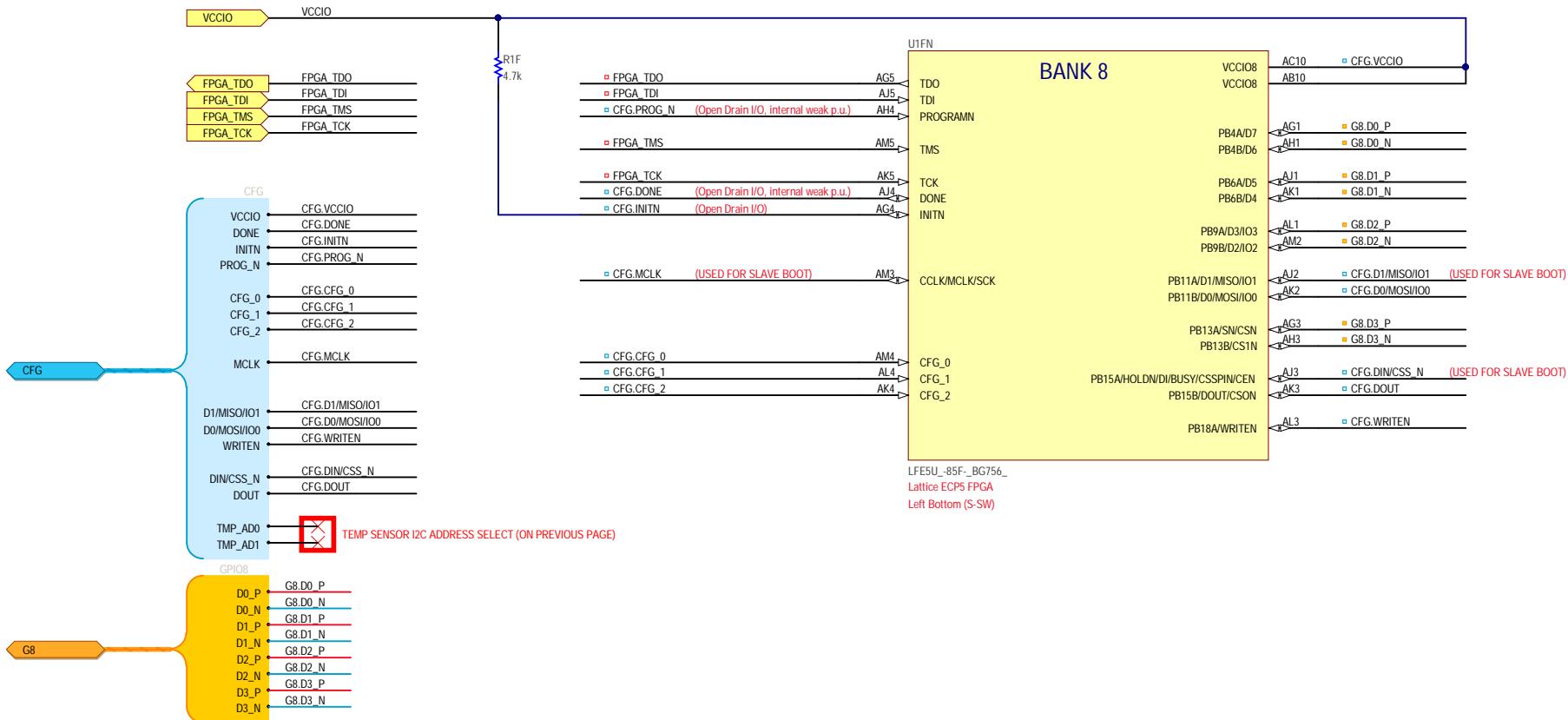
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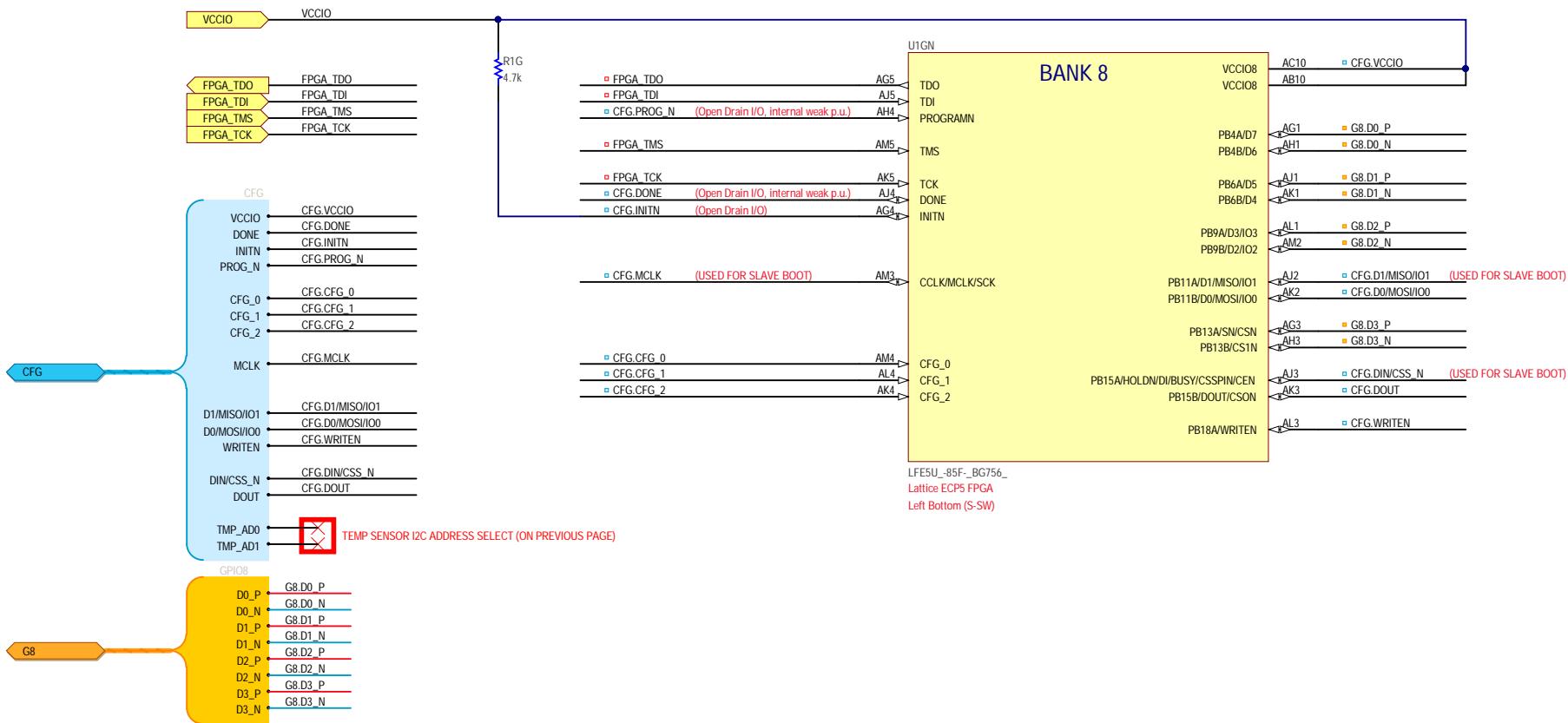
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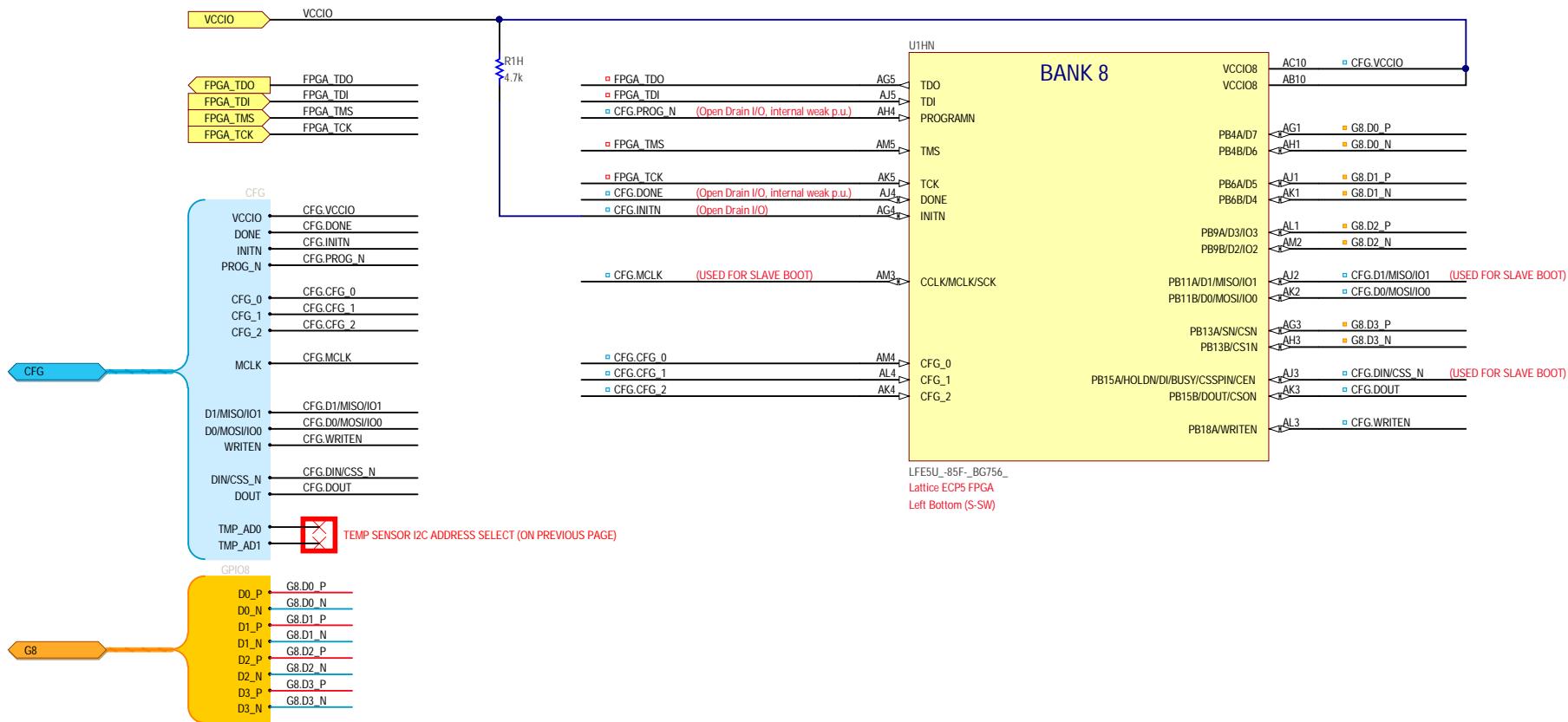
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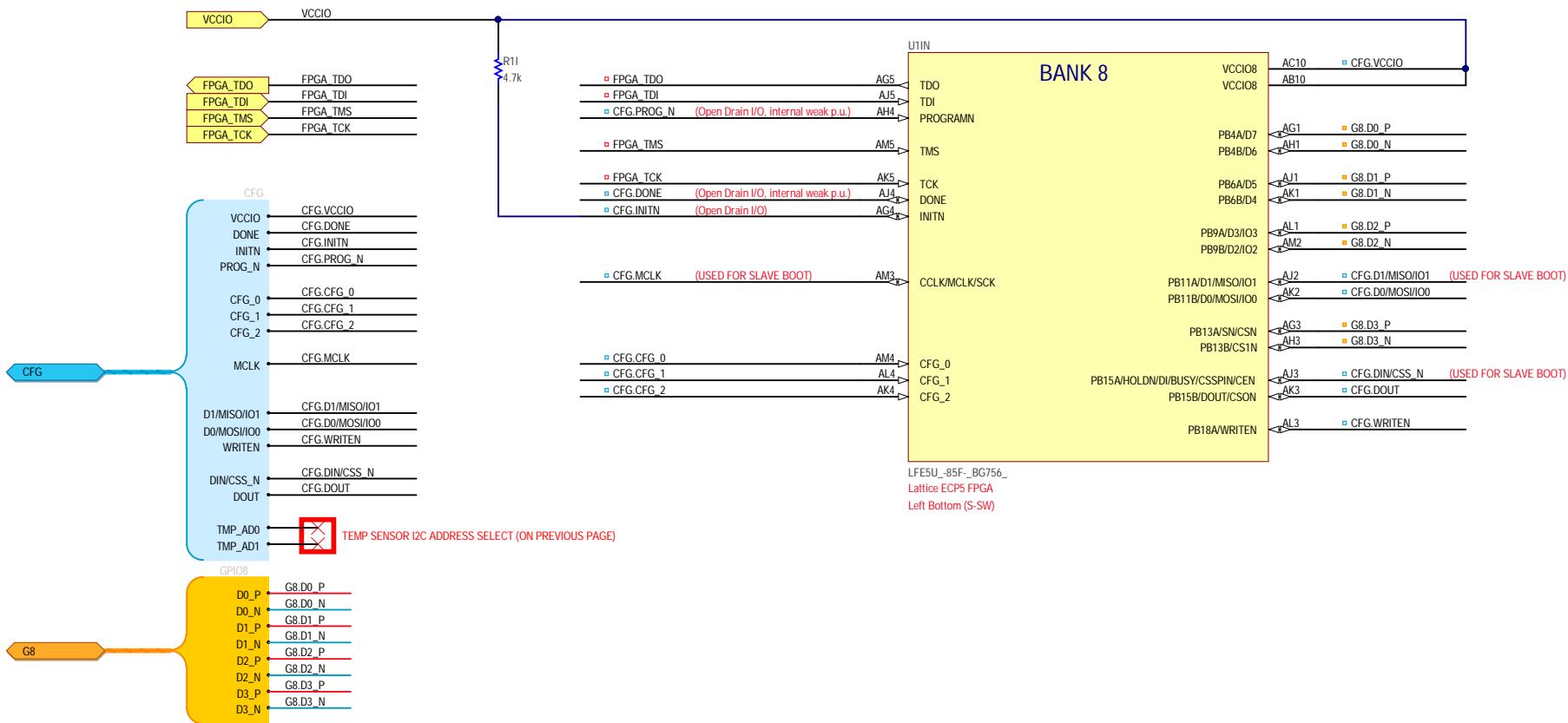
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Copper Suicide - FPGA - Bank 8			
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton	Date 6/1/2017
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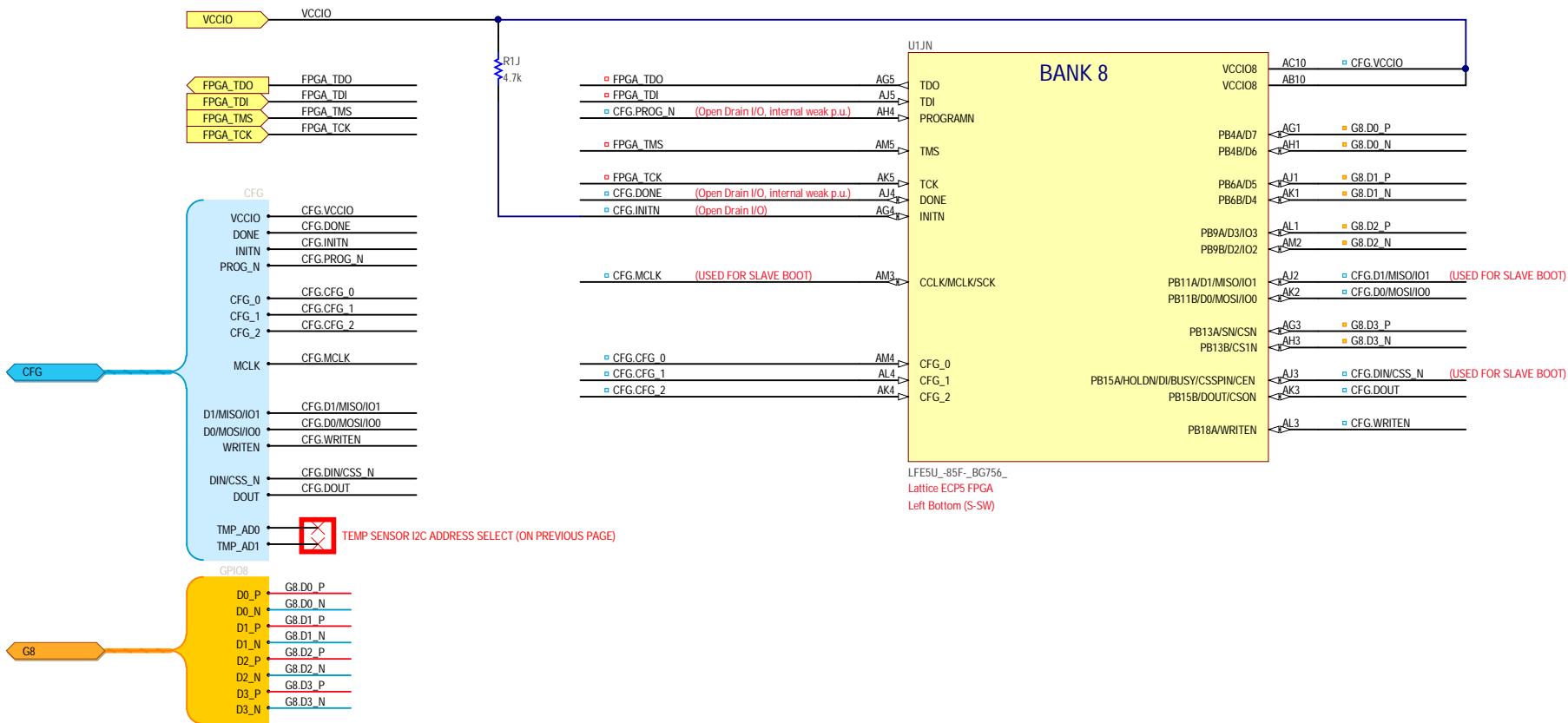
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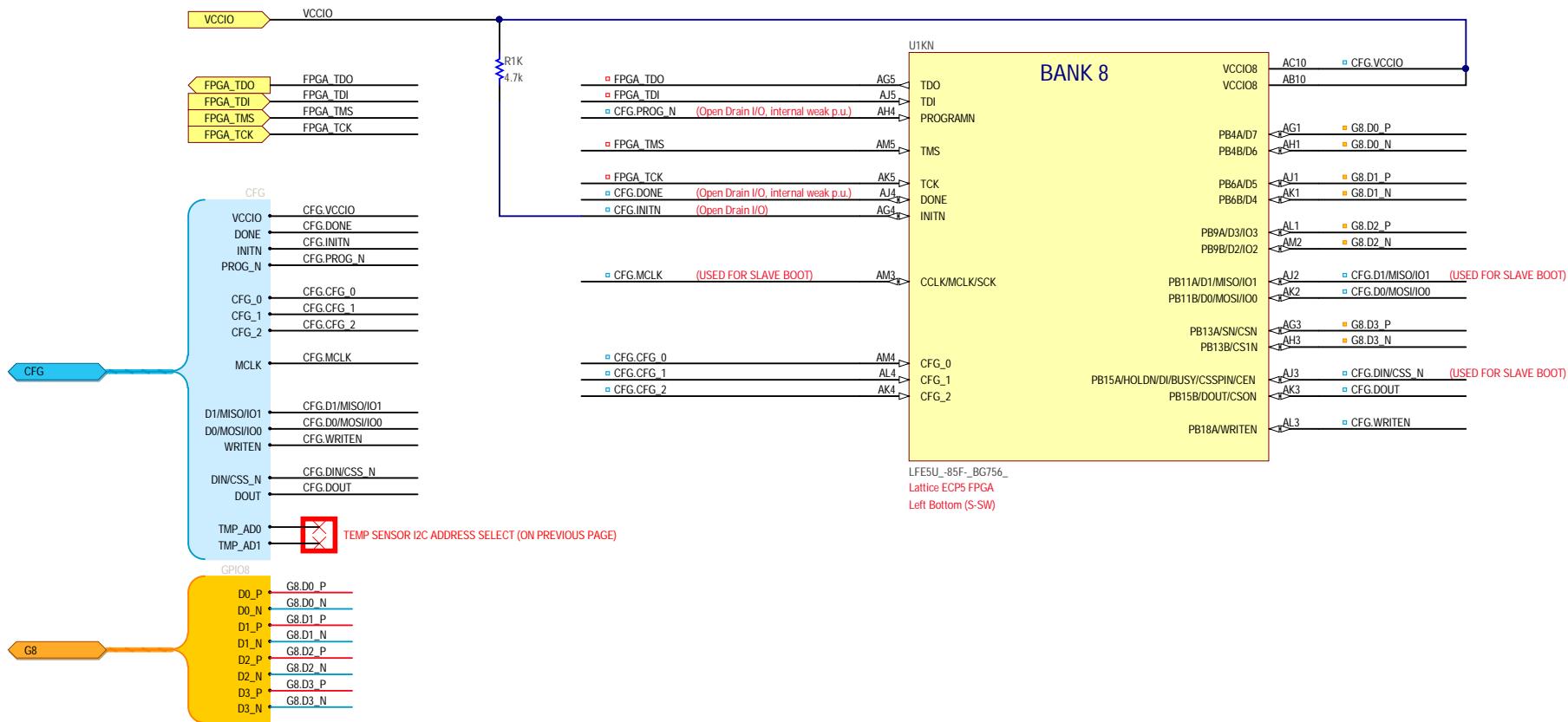
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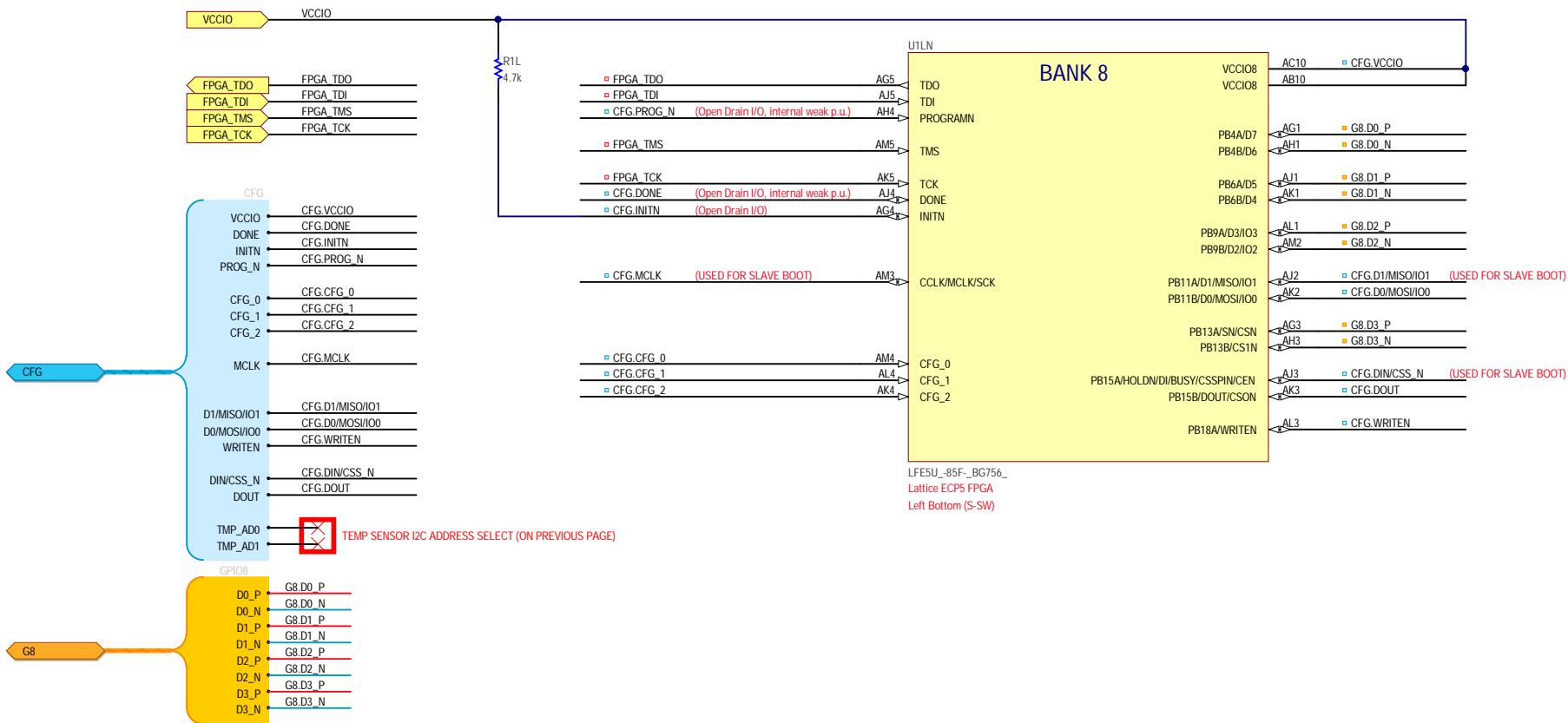
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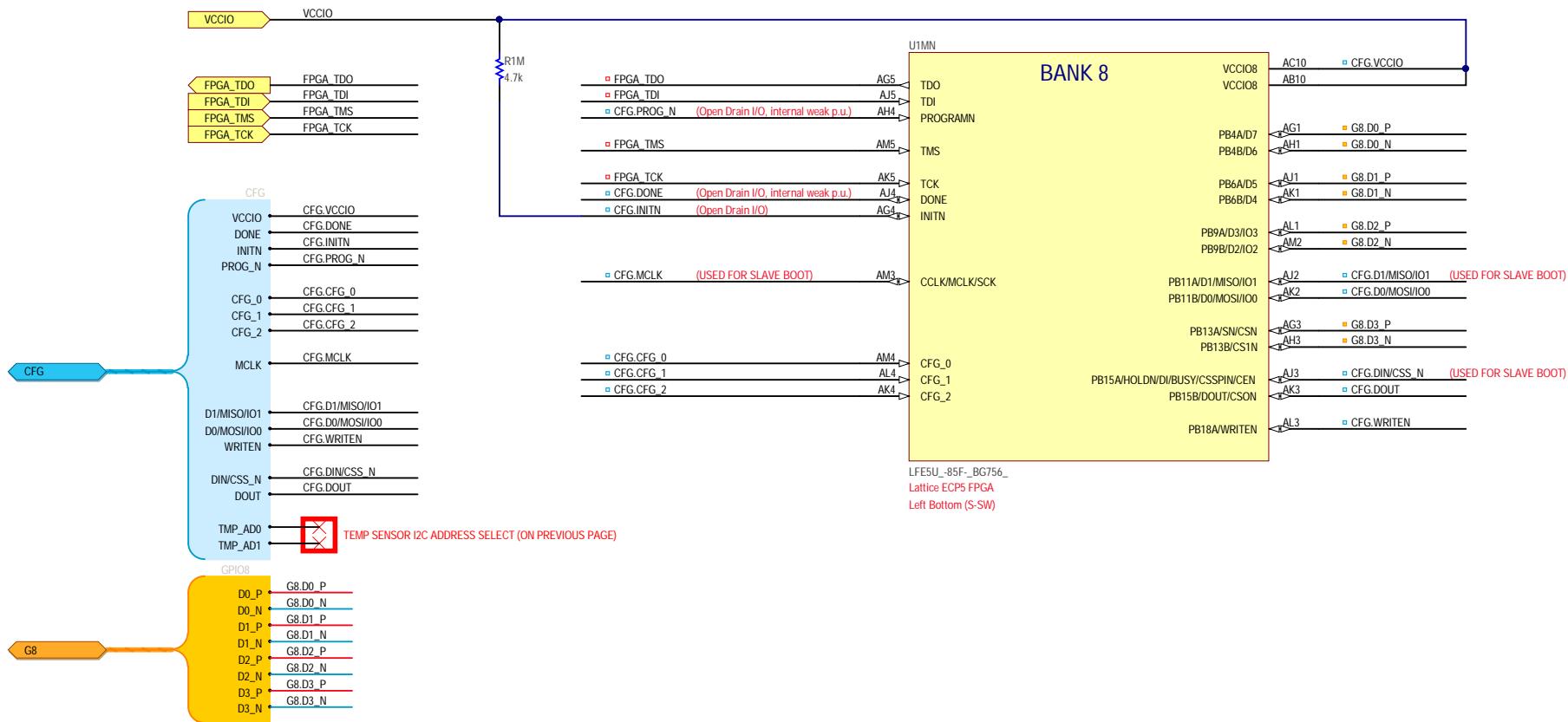
Title **Copper Suicide - FPGA - Bank 8**

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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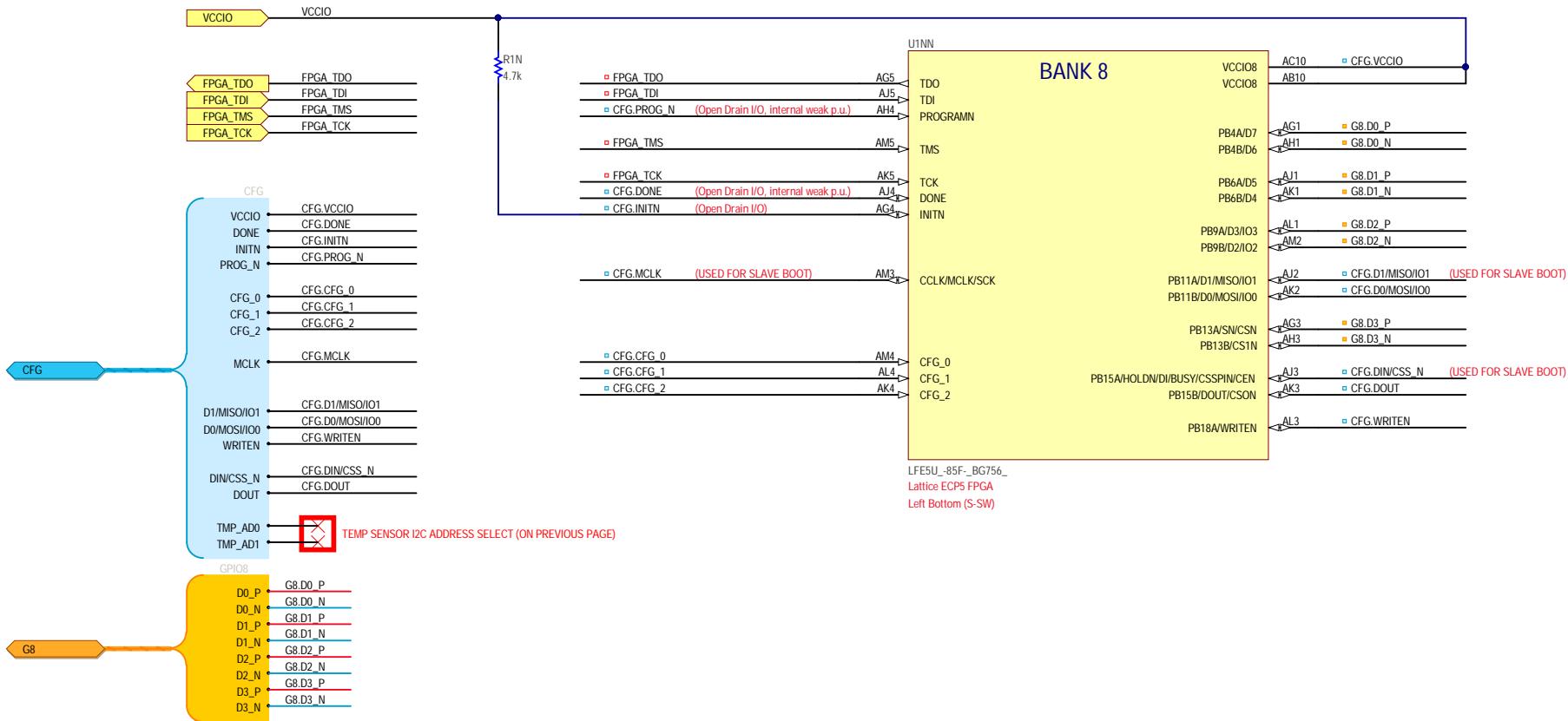
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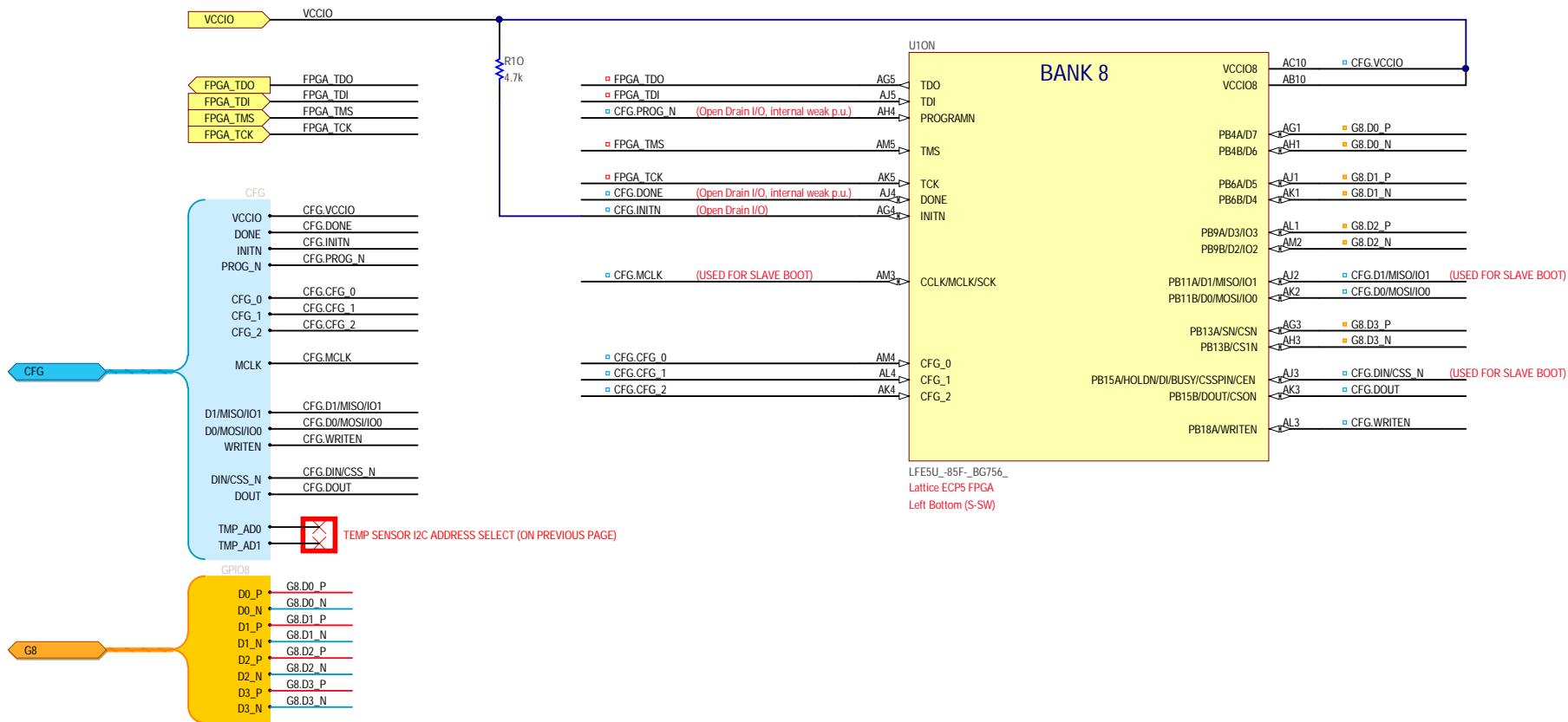
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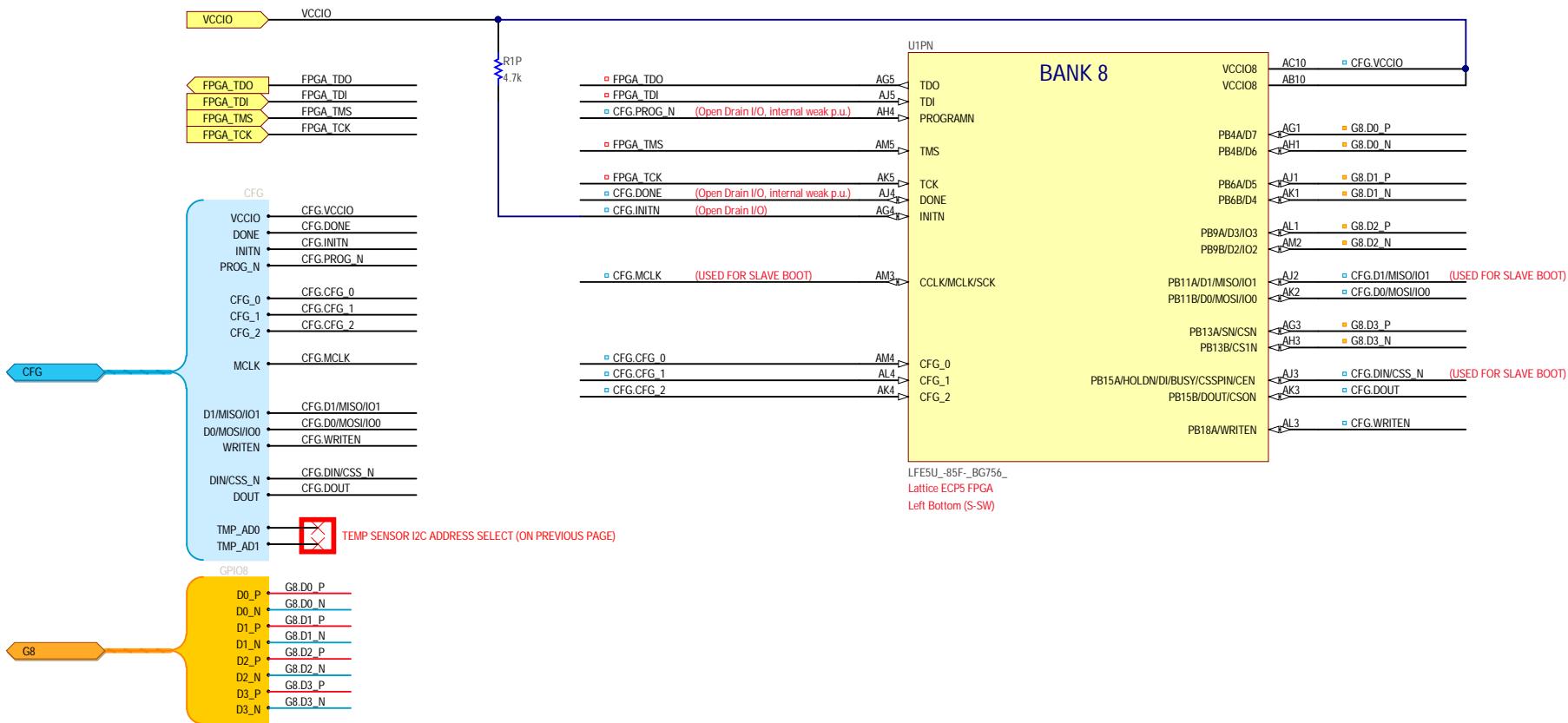
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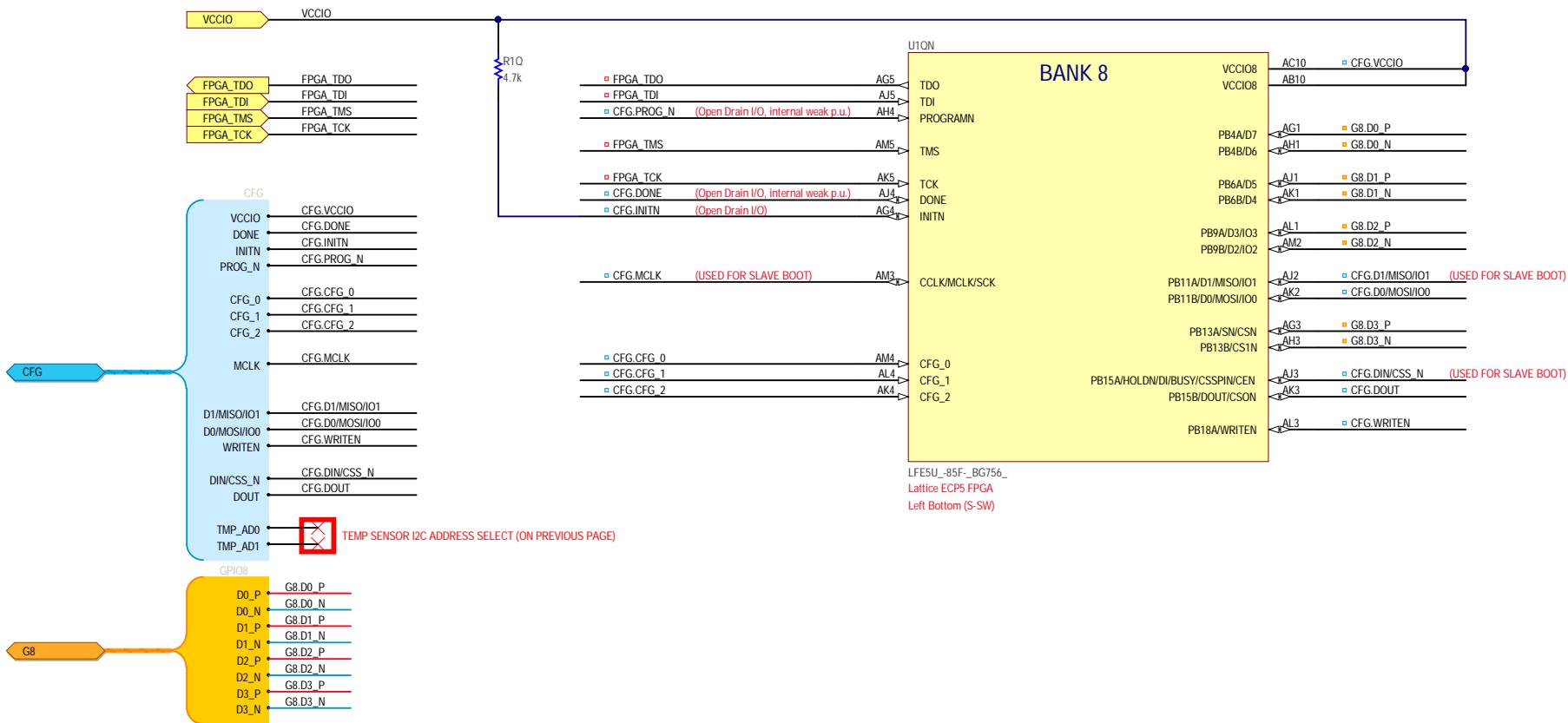
Title
Copper Suicide - FPGA - Bank 8

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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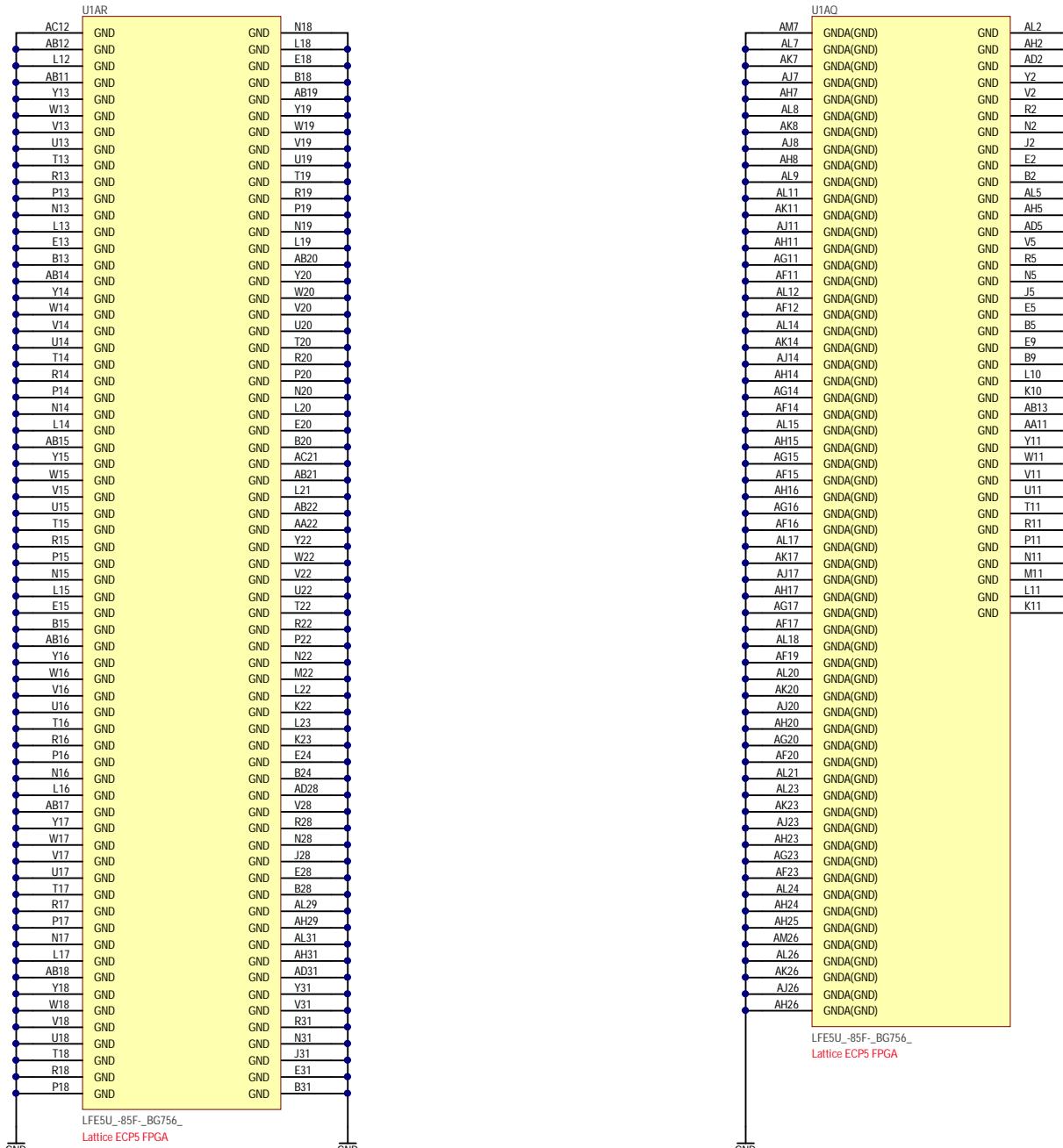
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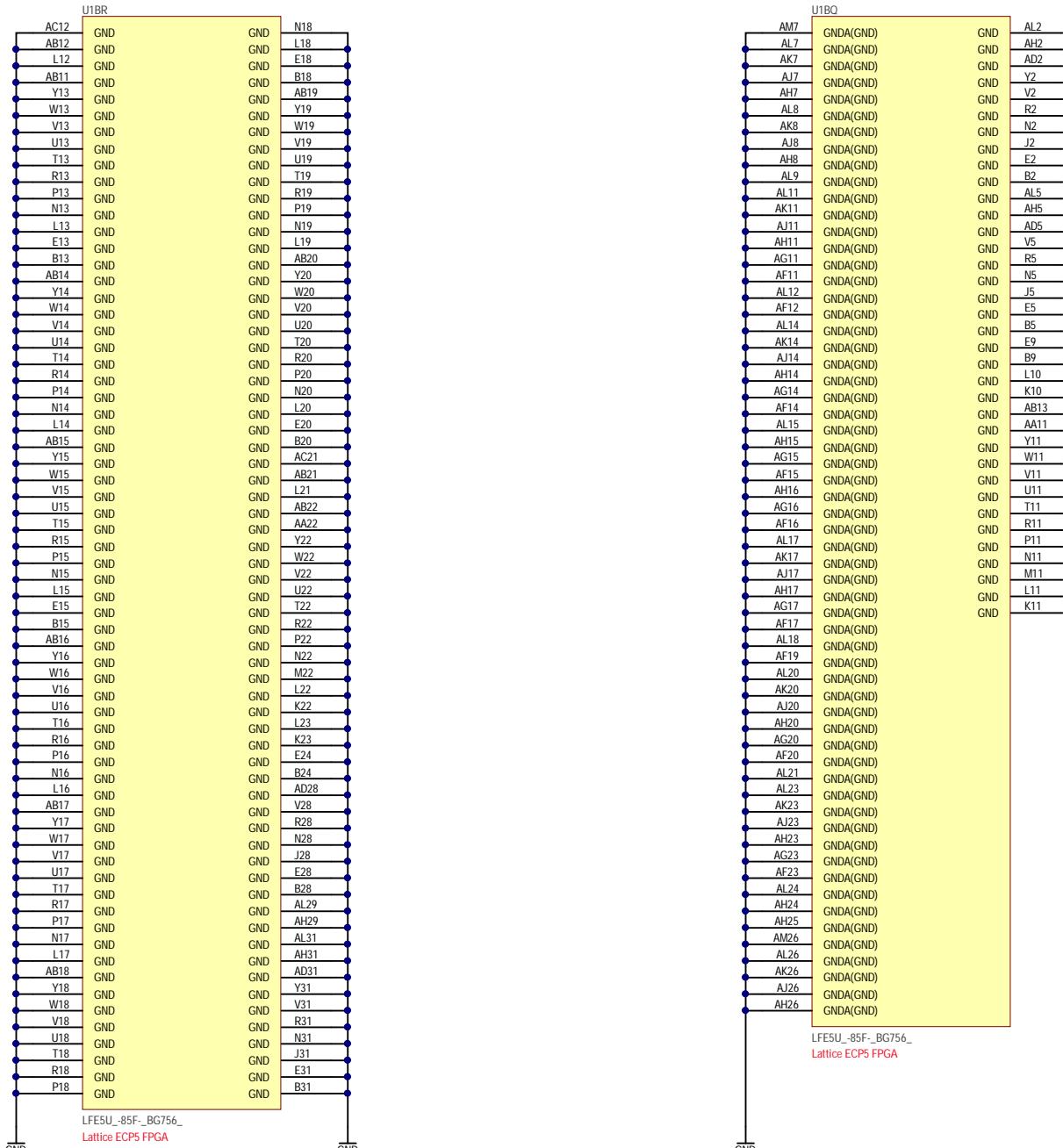
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Revision 2	Sheet 12 of 44	Date 6/1/2017

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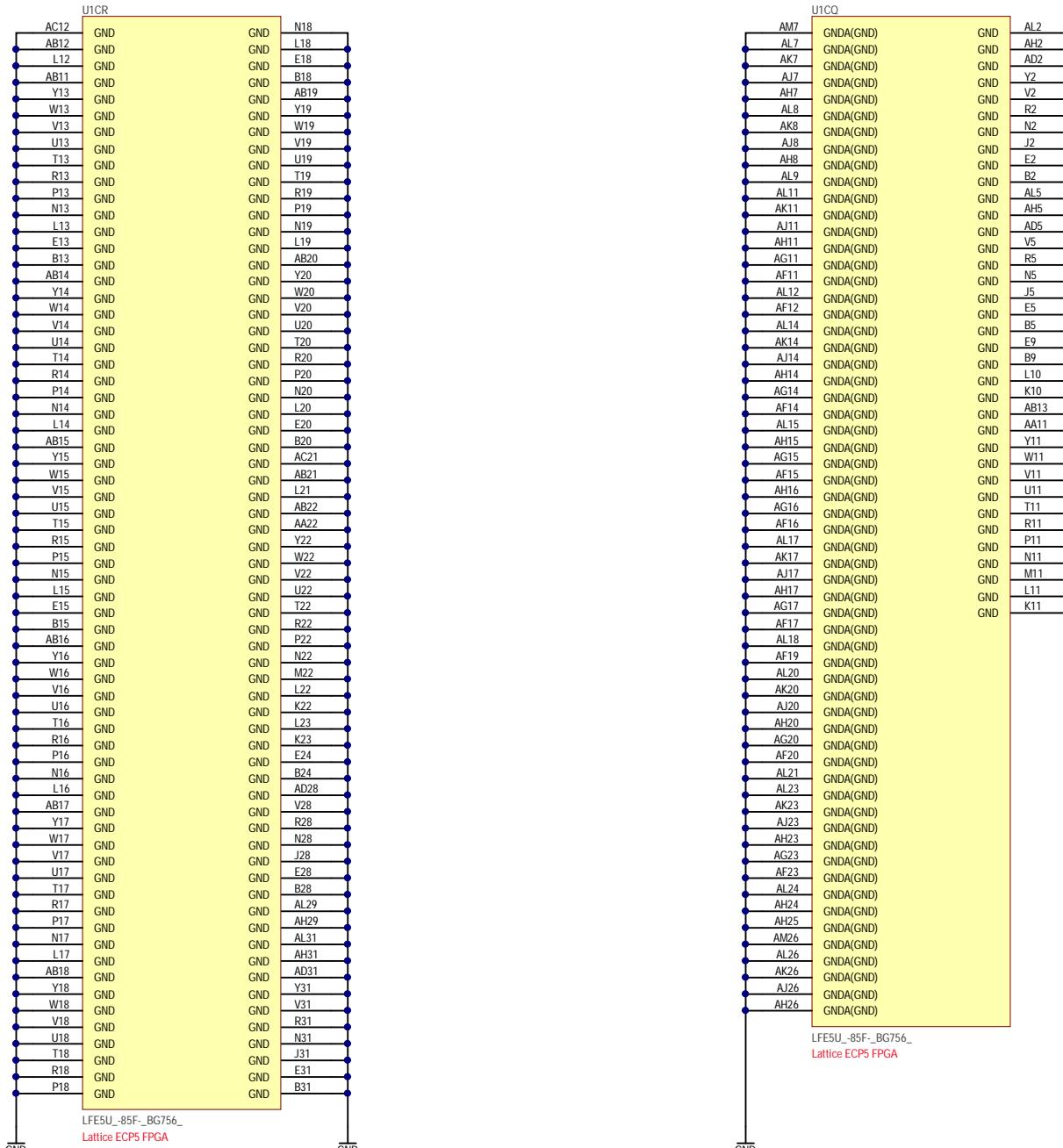


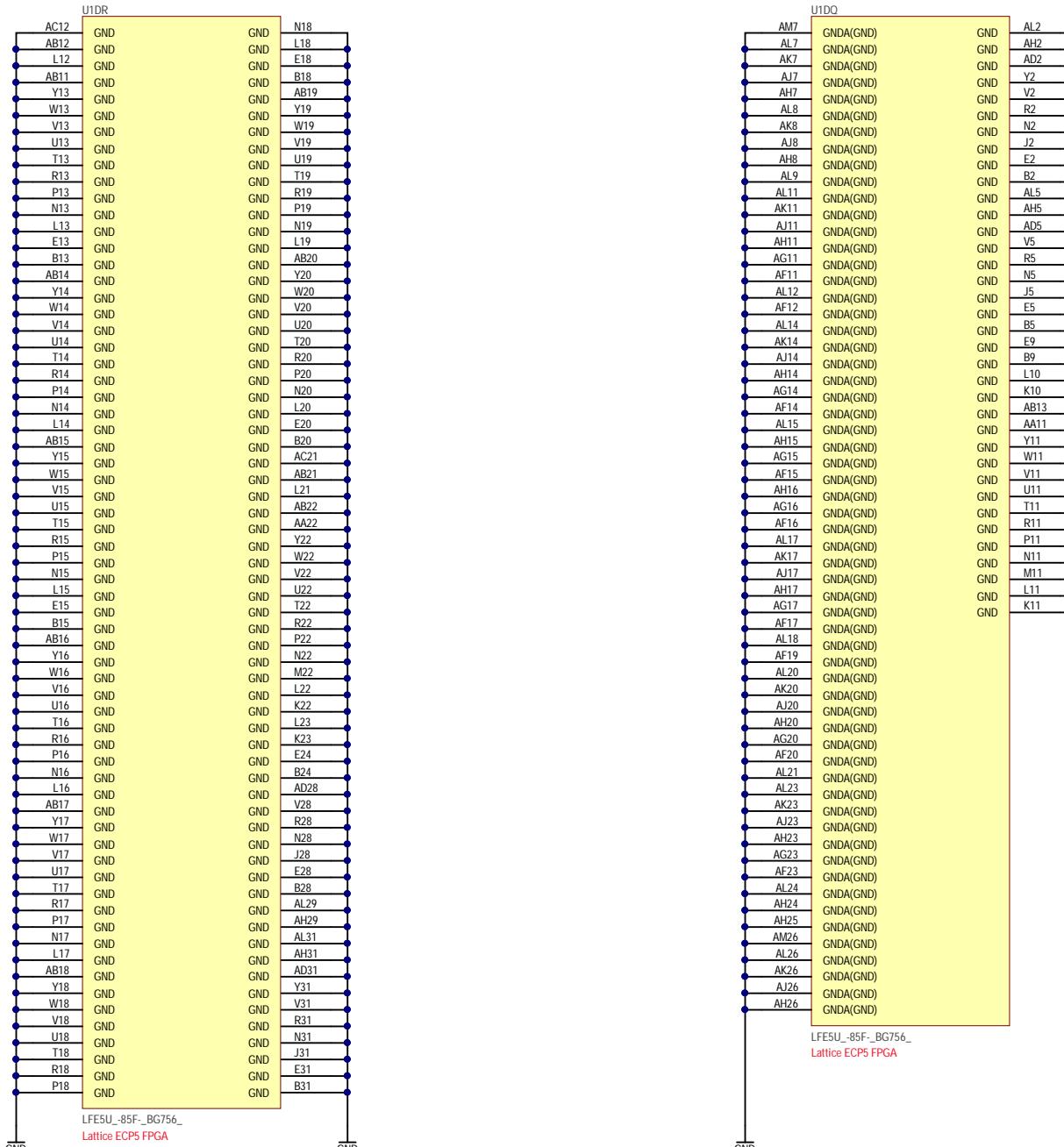


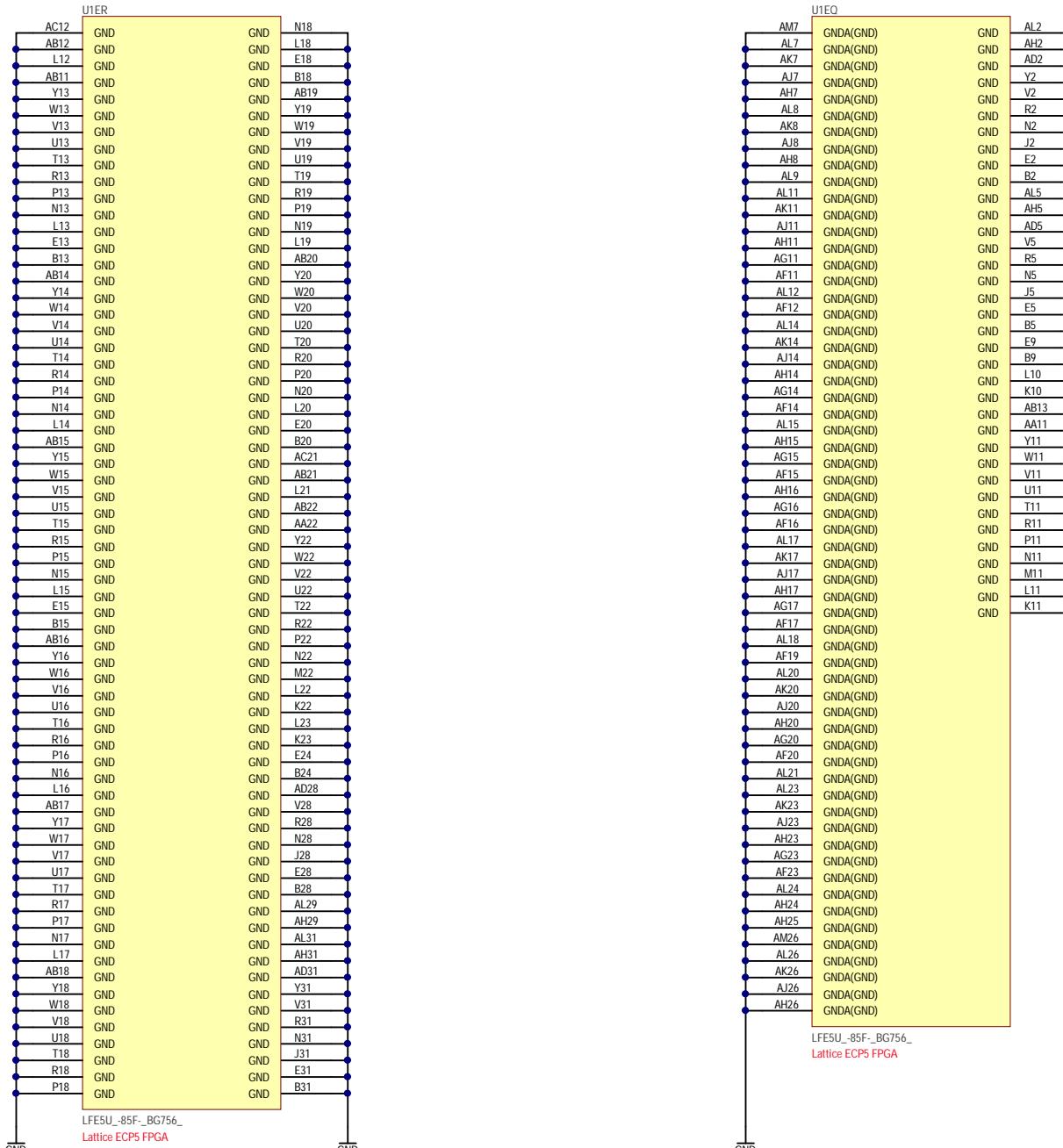
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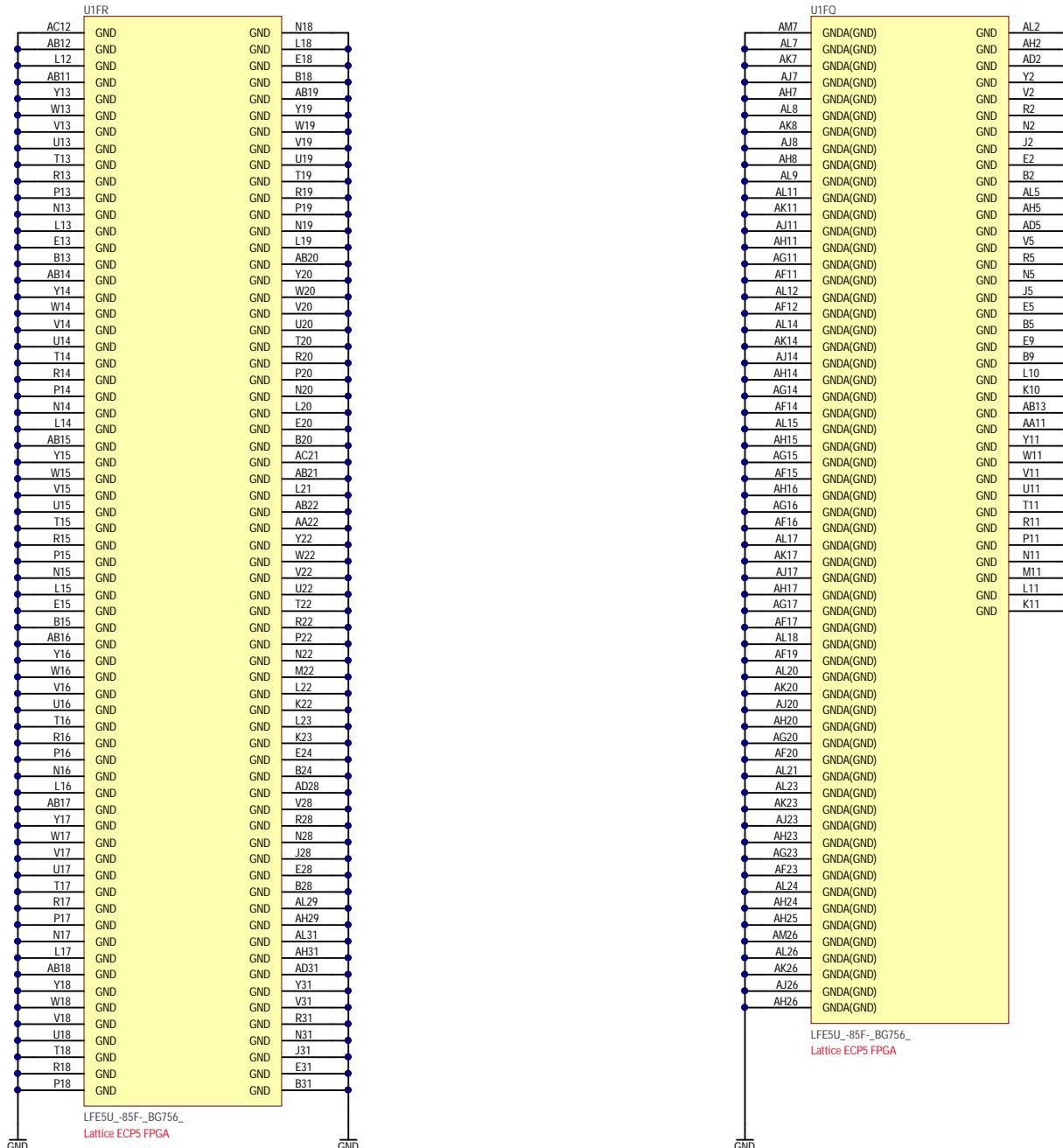
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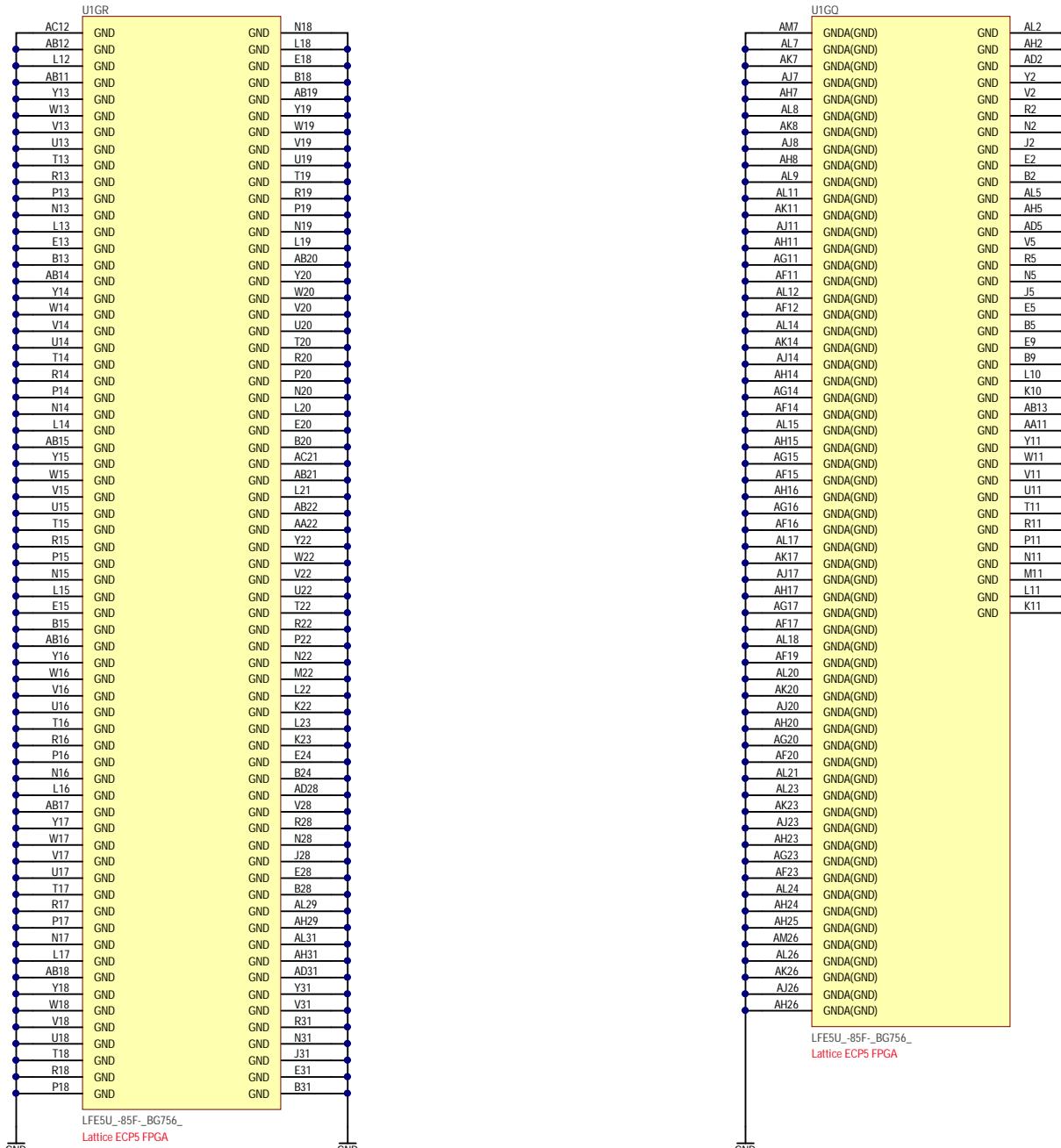
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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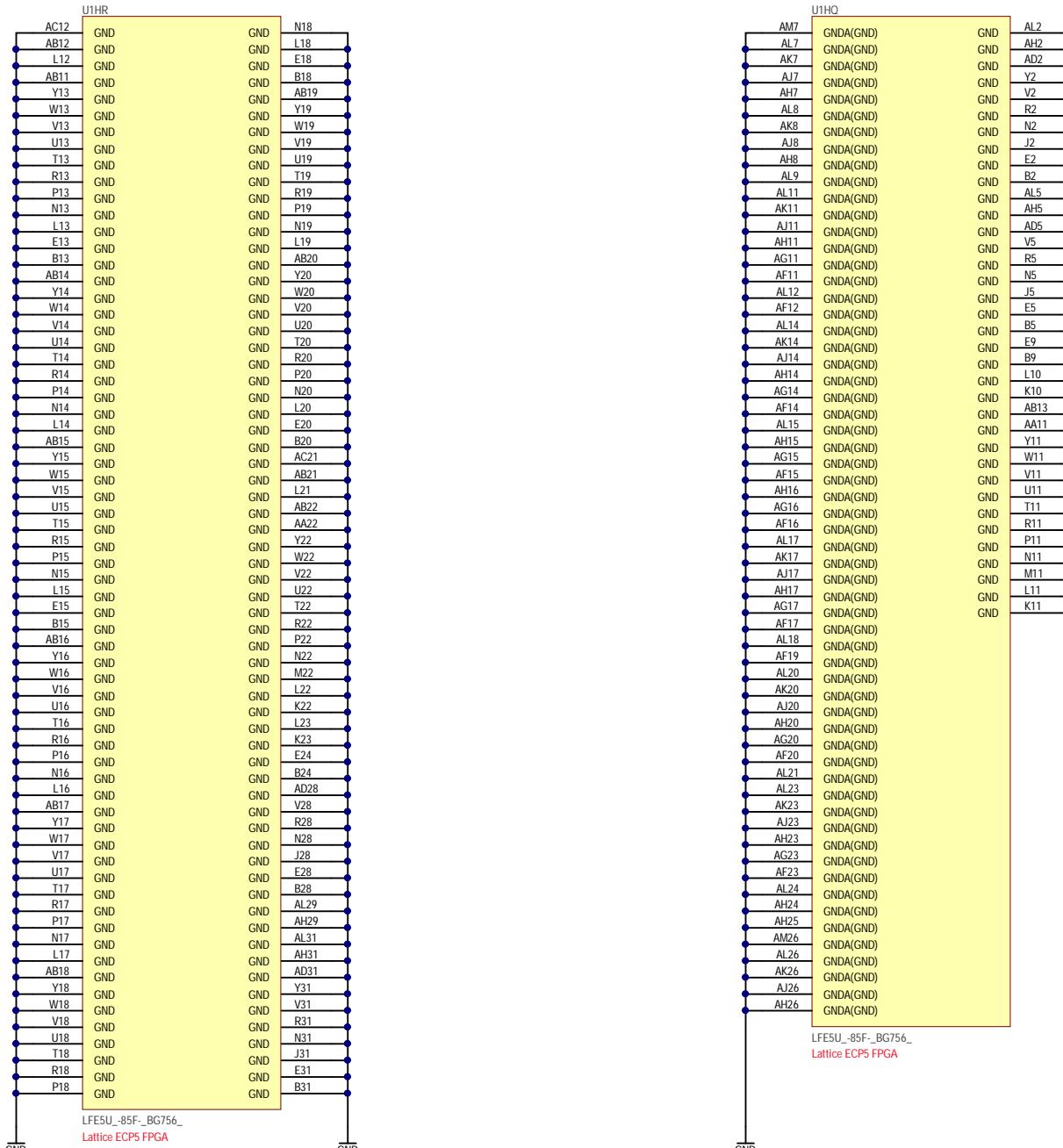








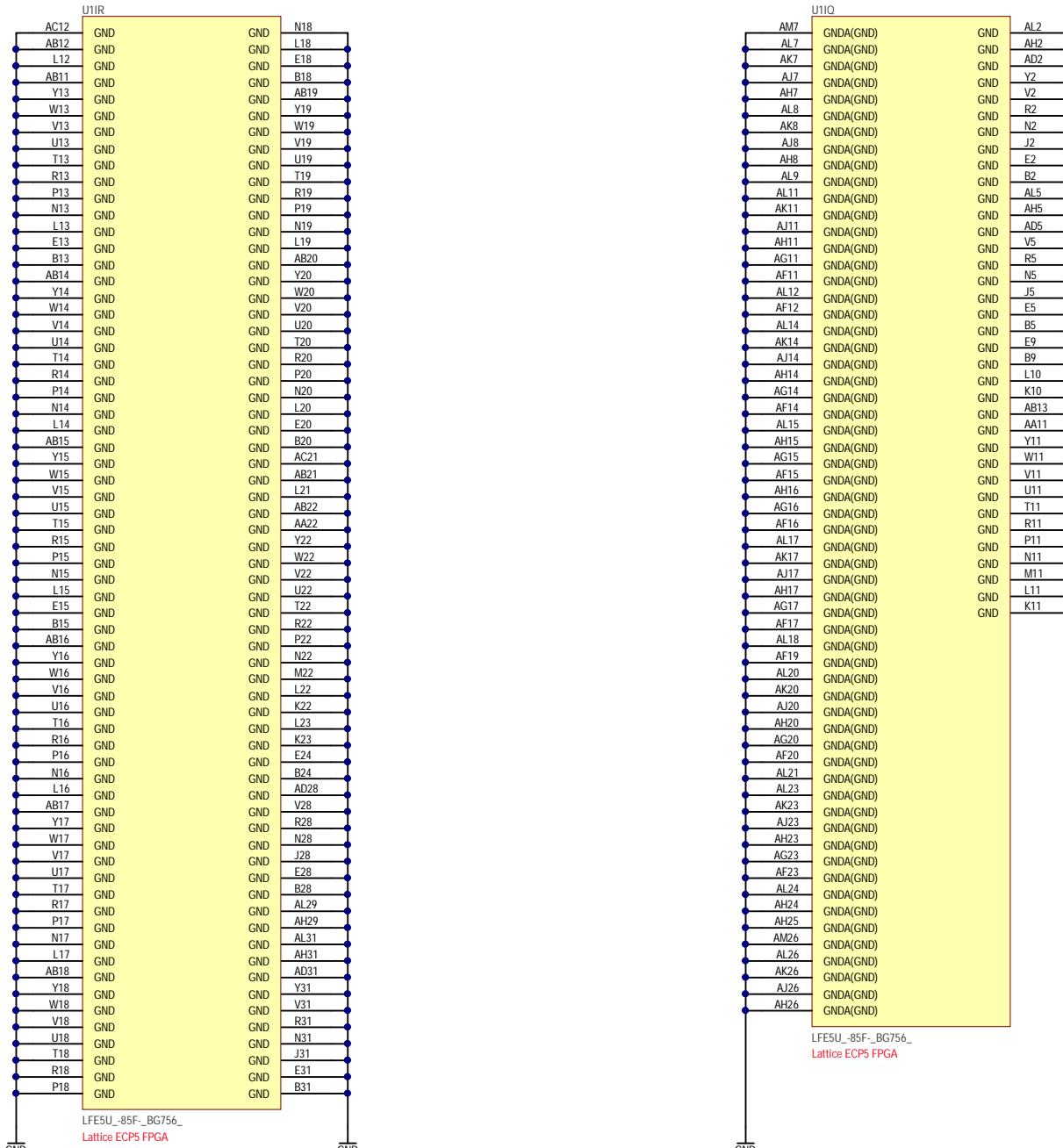




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Title: Copper Suicide - FPGA - Ground

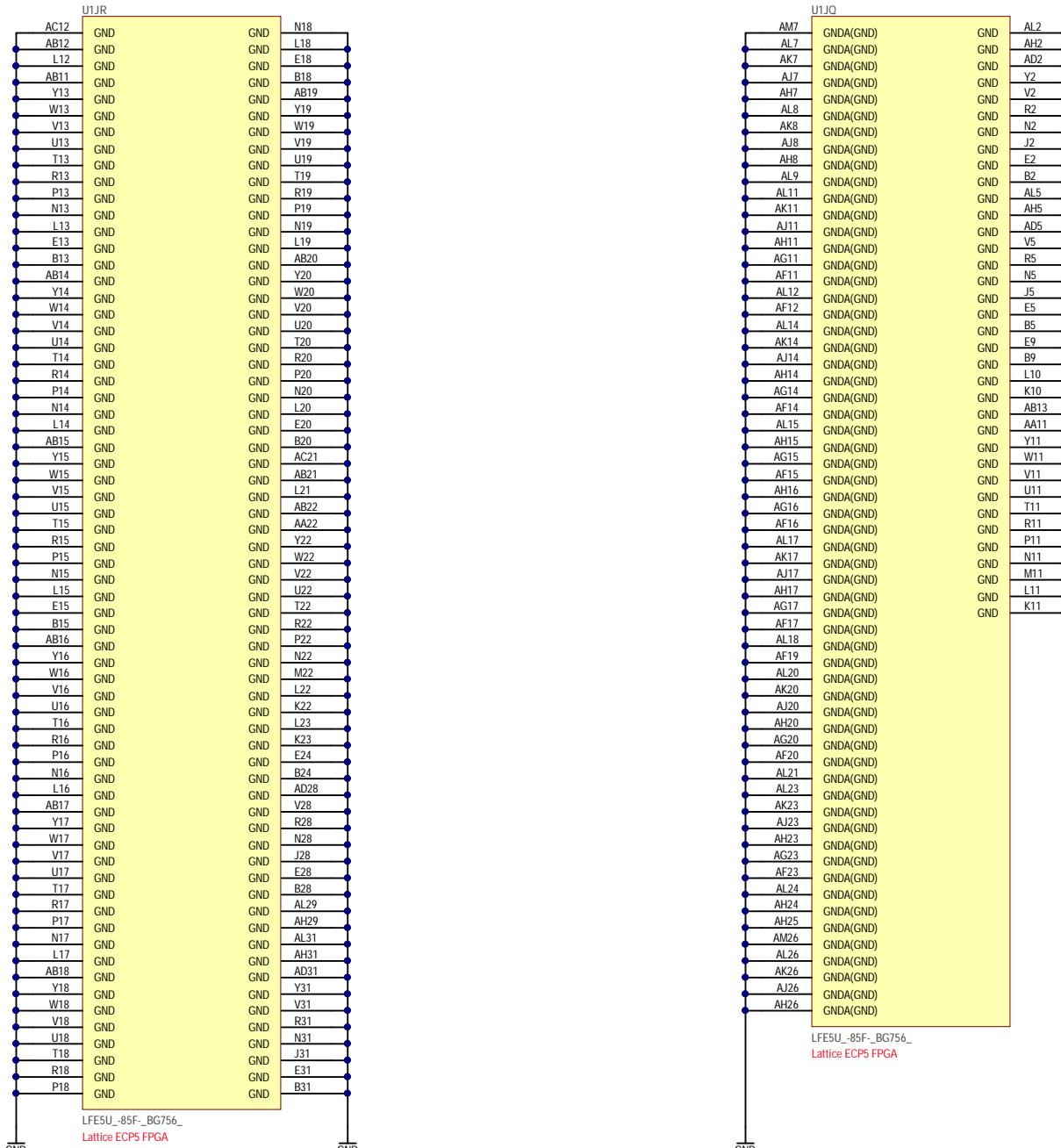
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Copper Suicide - FPGA - Ground

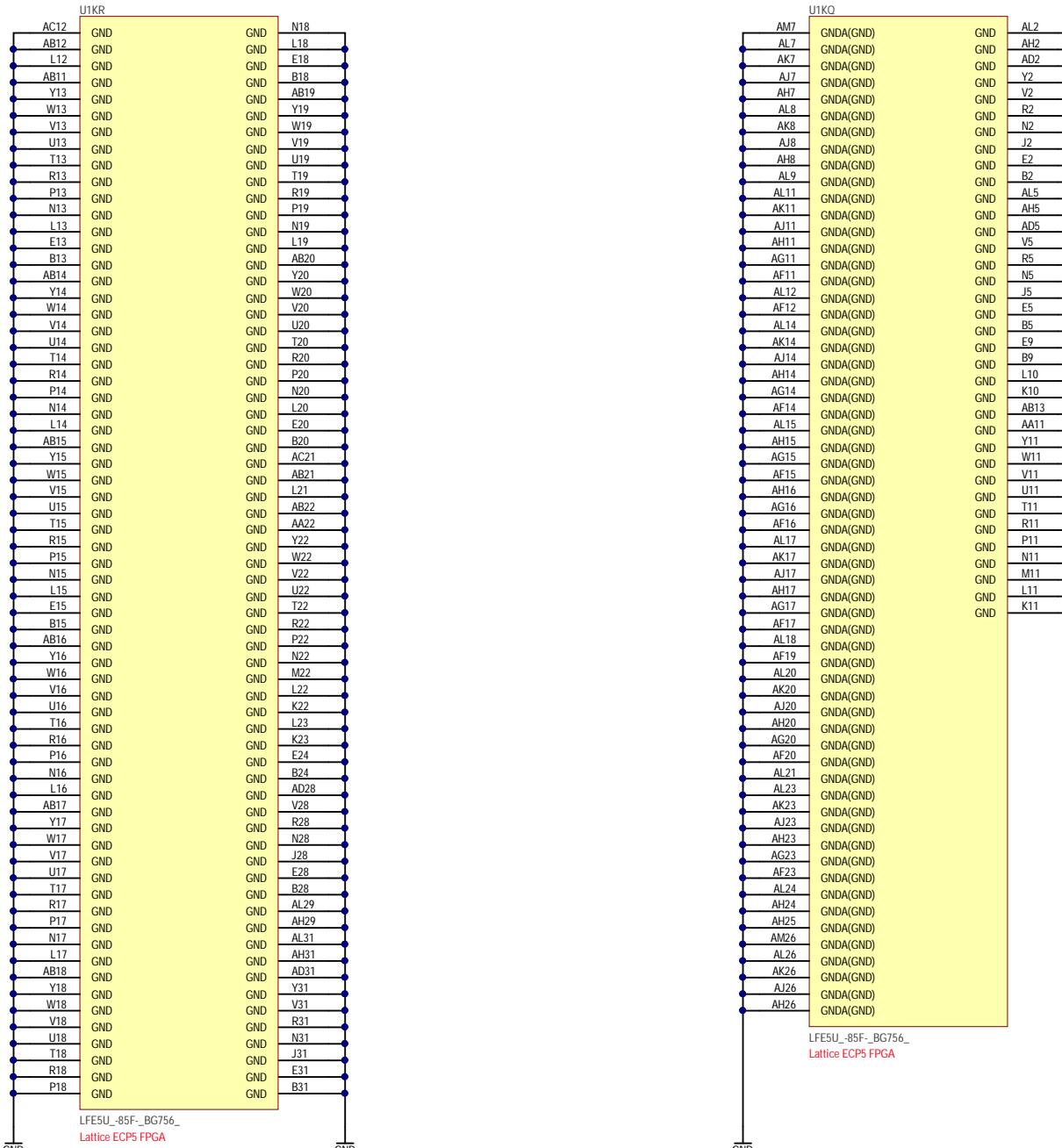
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Title: Copper Suicide - FPGA - Ground

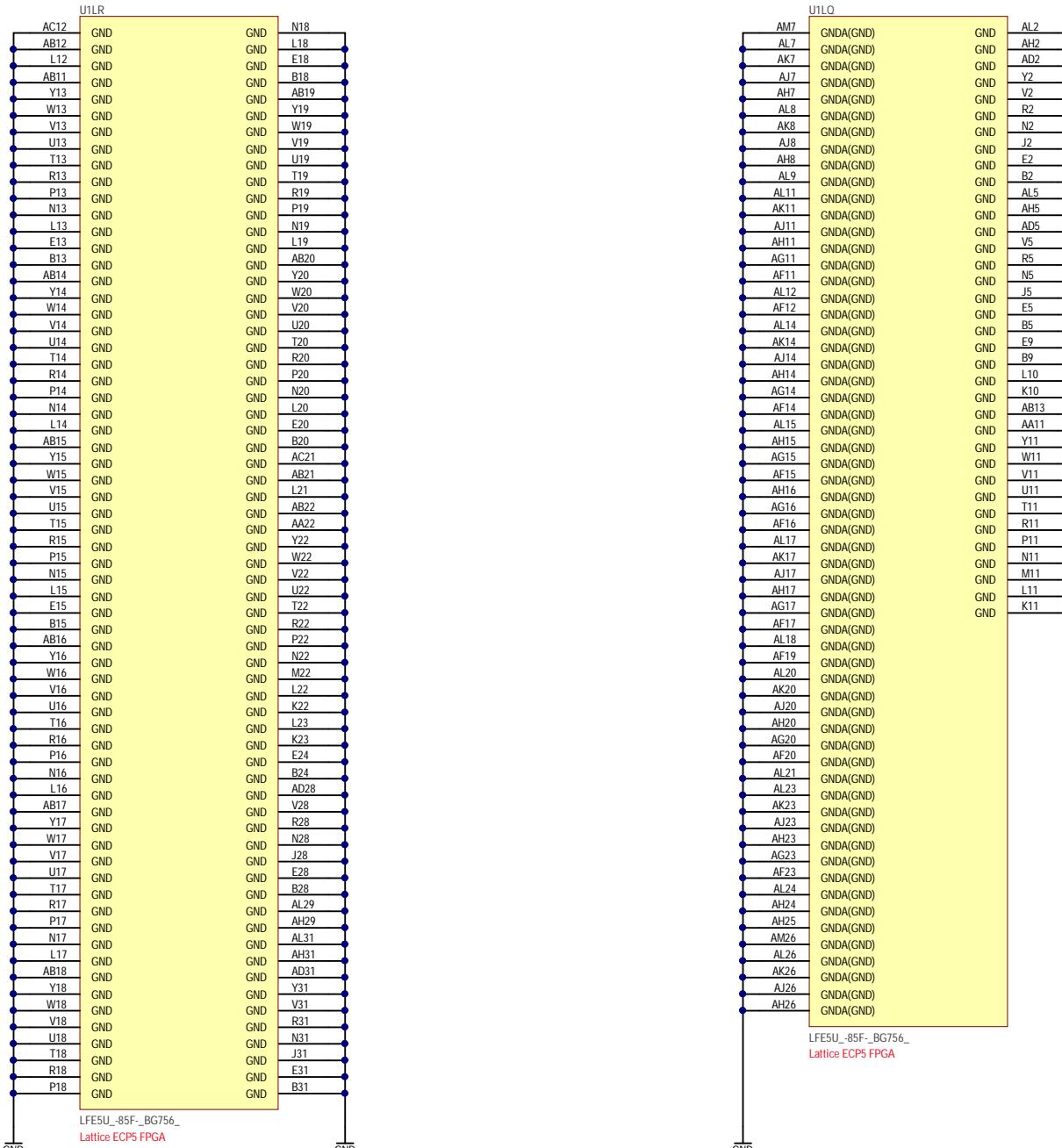
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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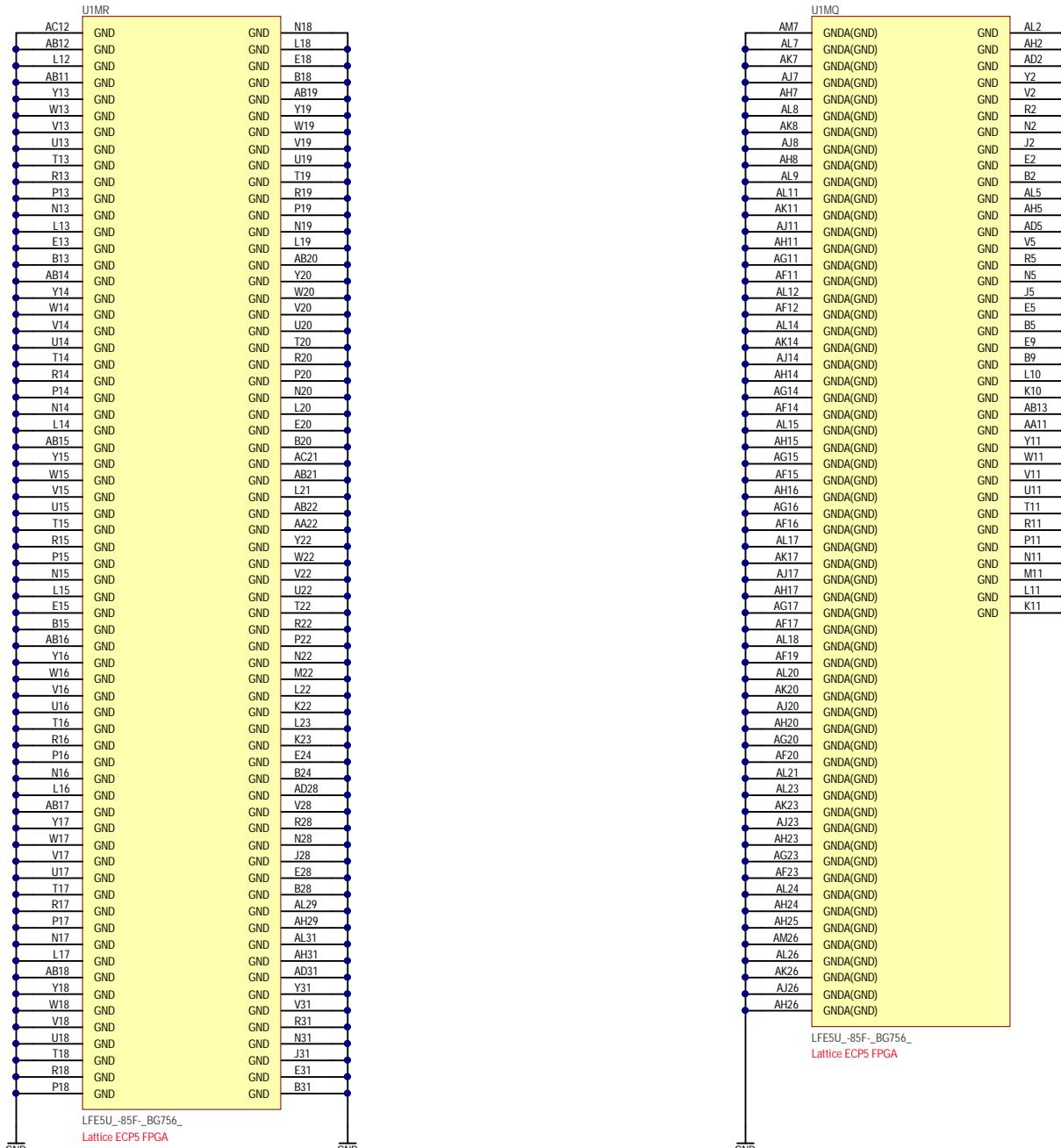


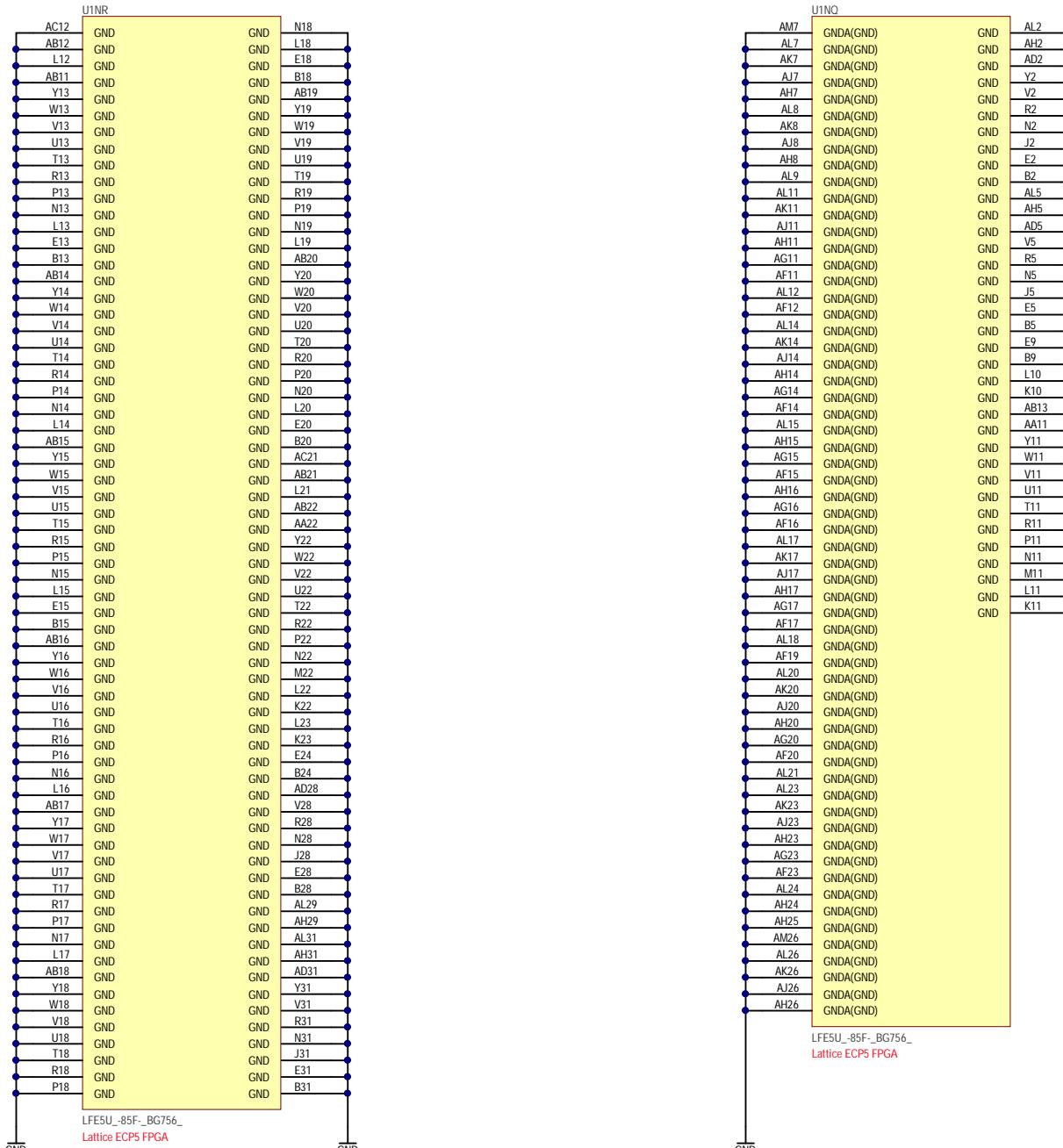
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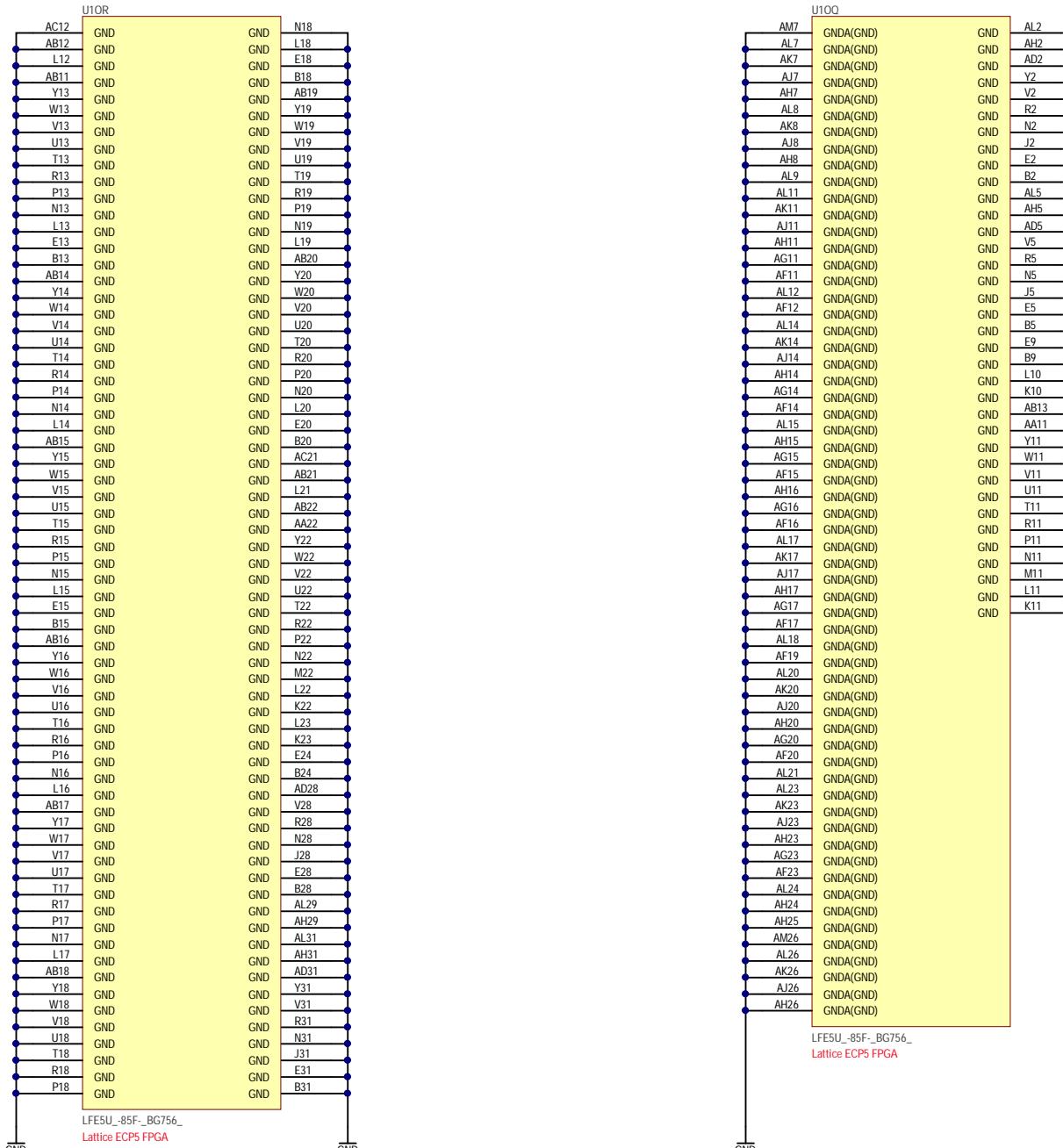
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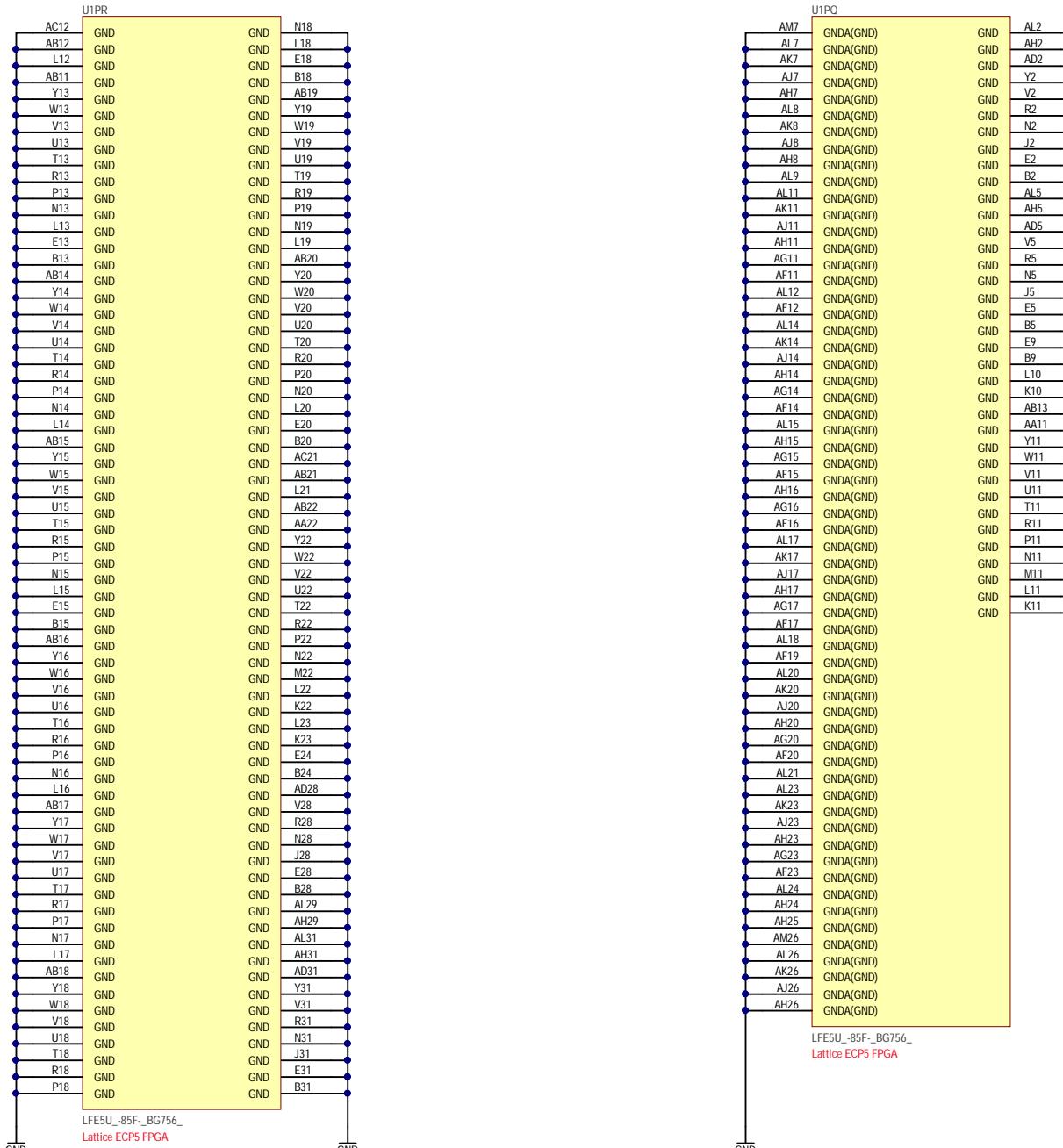


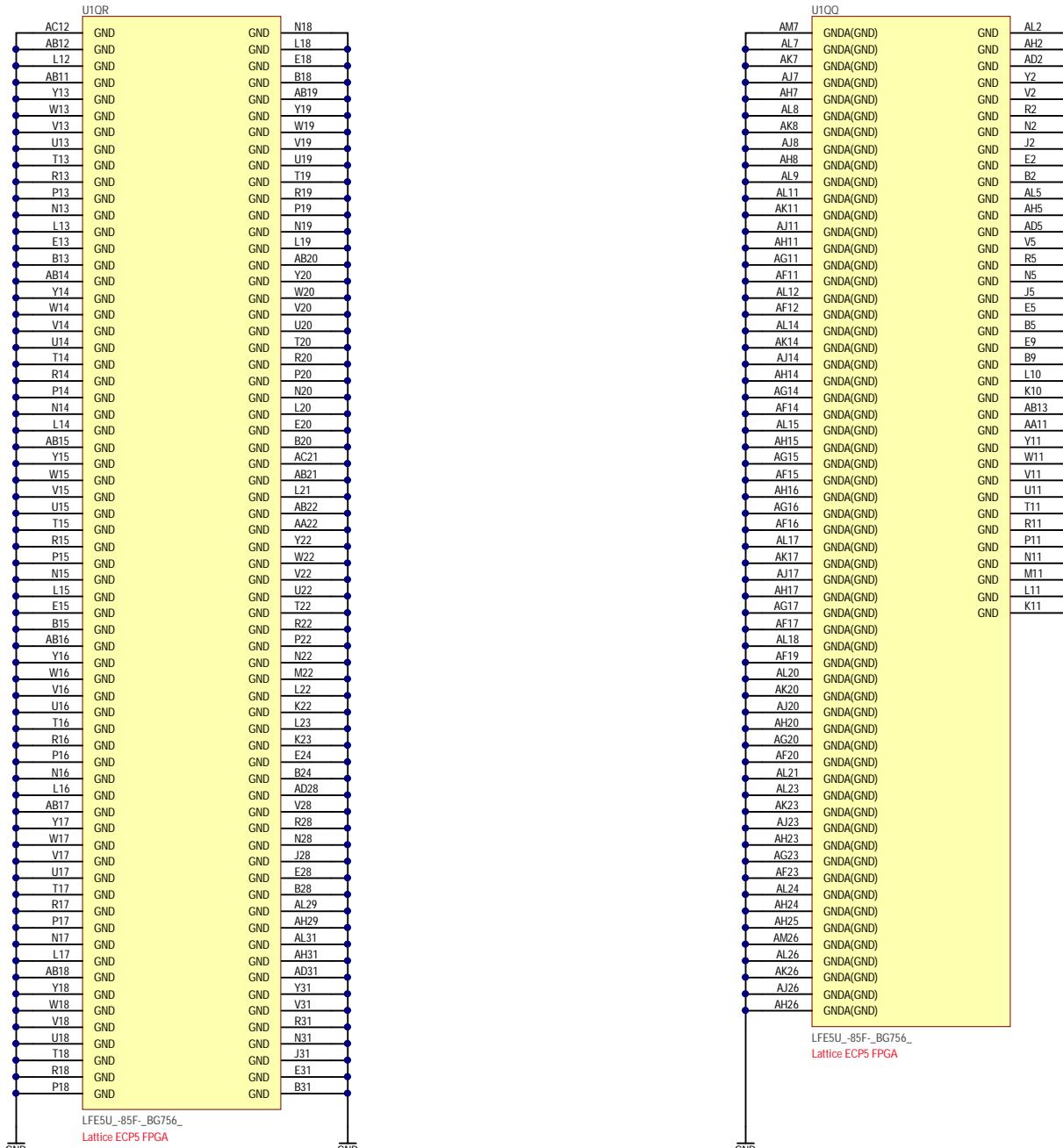


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Title Copper Suicide - FPGA - Ground

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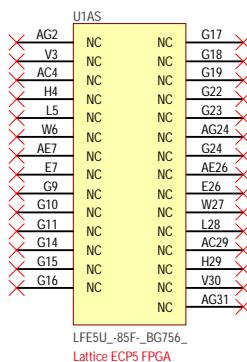
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Title		
Copper Suicide - FPGA - Misc		
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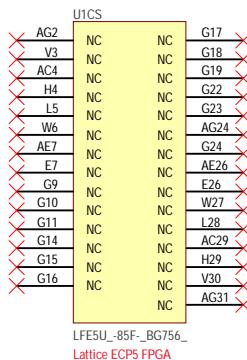
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Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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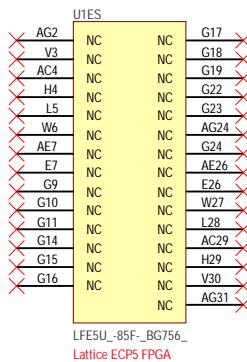
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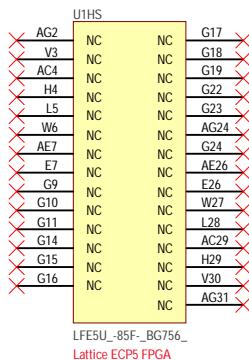
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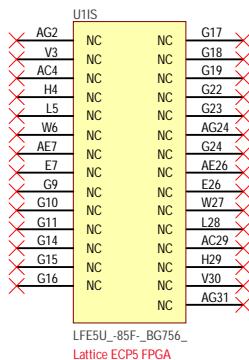
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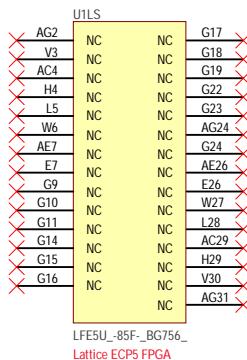
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Title		
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Checked By
J. Brinton

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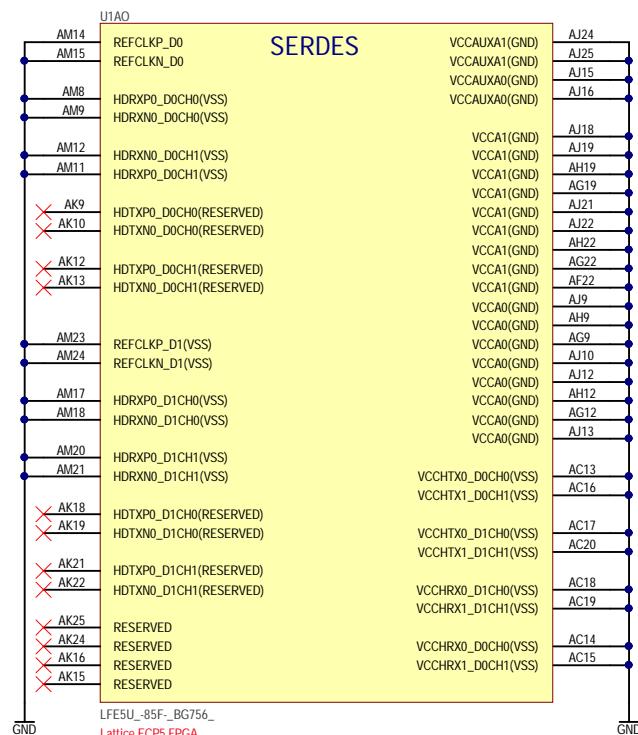
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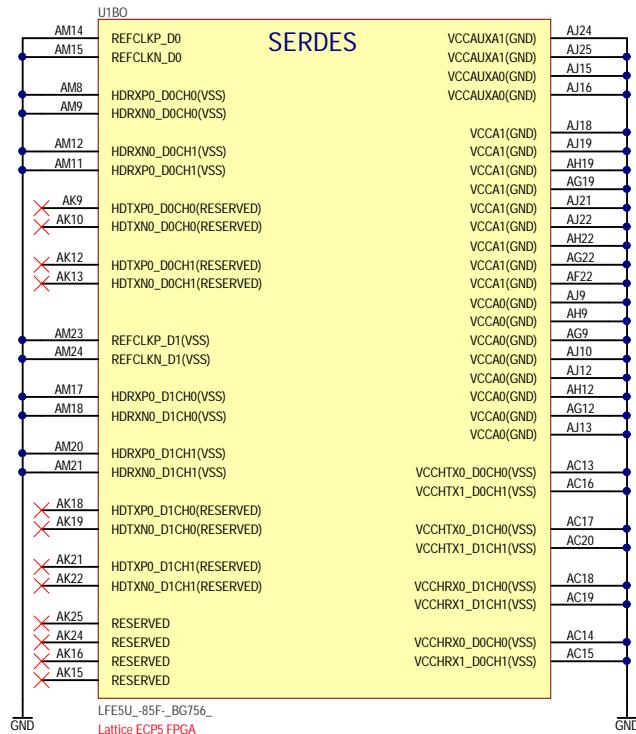
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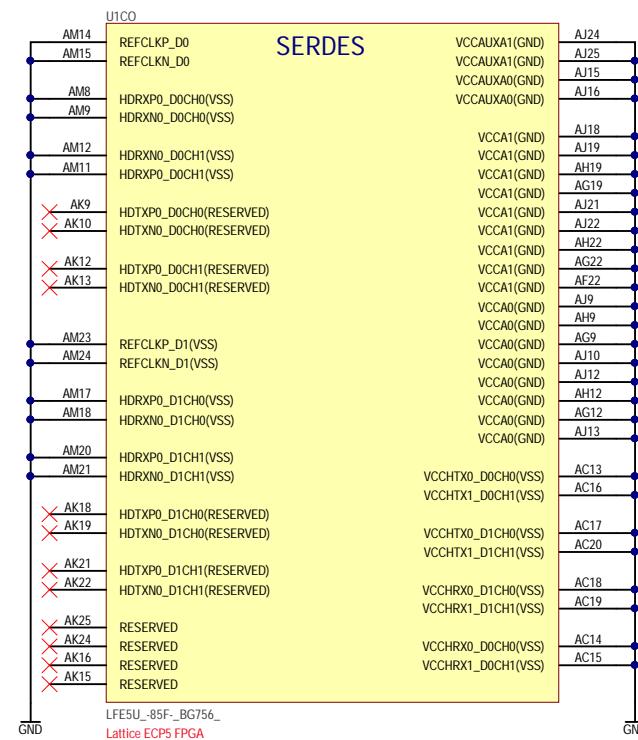
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Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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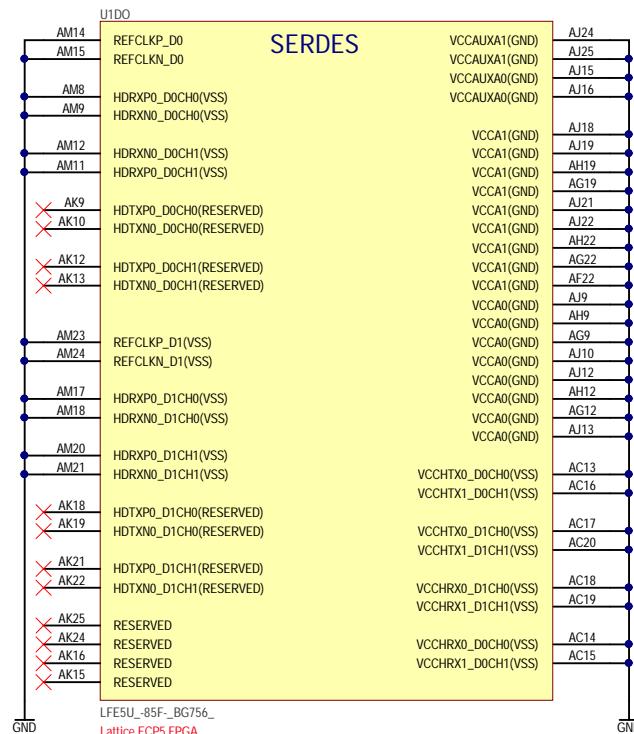
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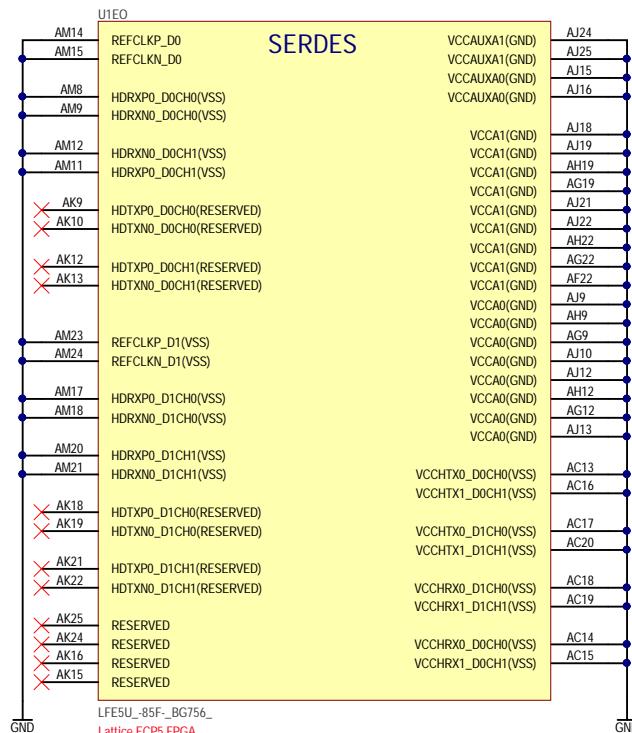
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Copper Suicide - FPGA - SERDES			
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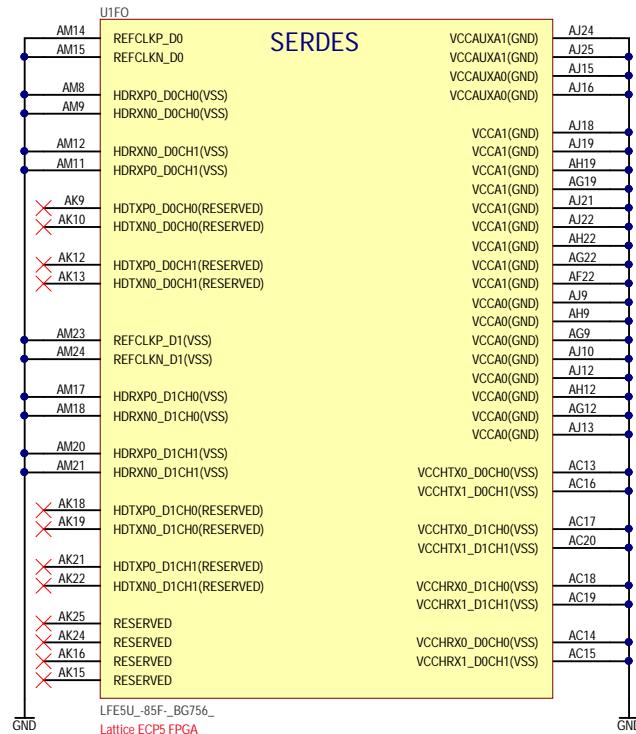
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Copper Suicide - FPGA - SERDES			
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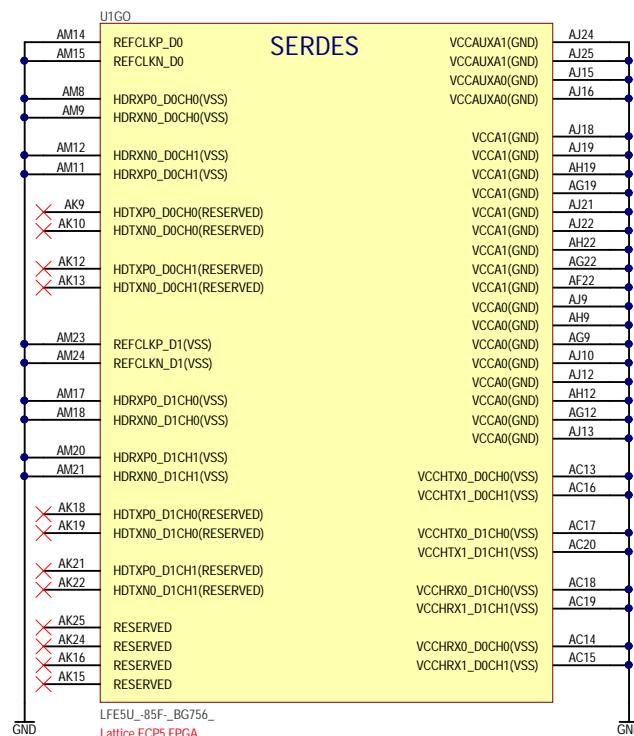
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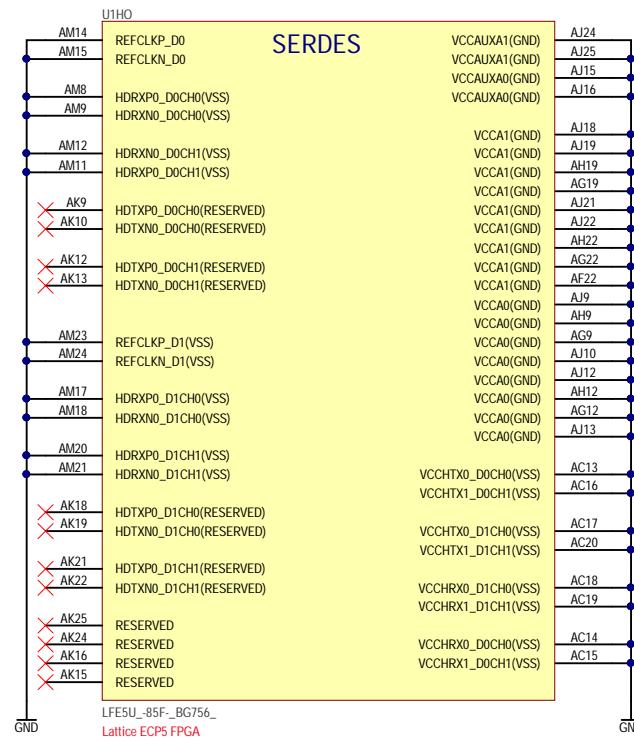
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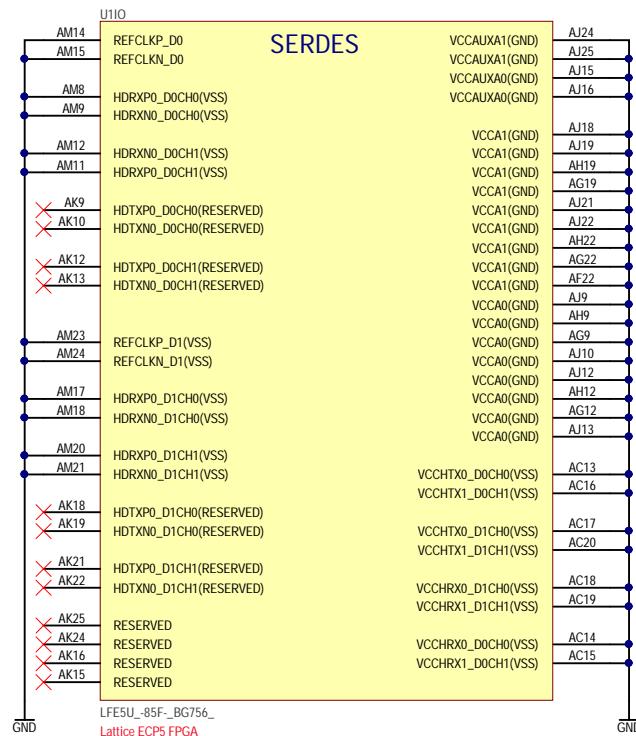


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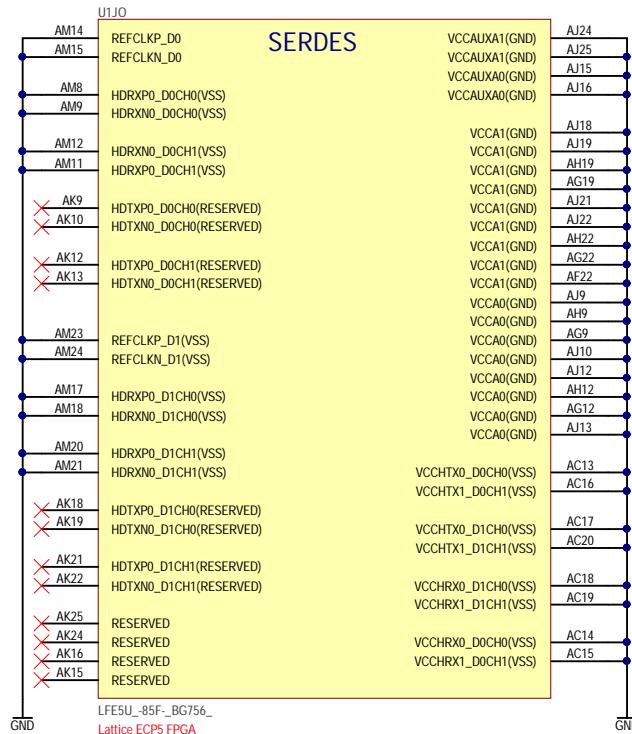
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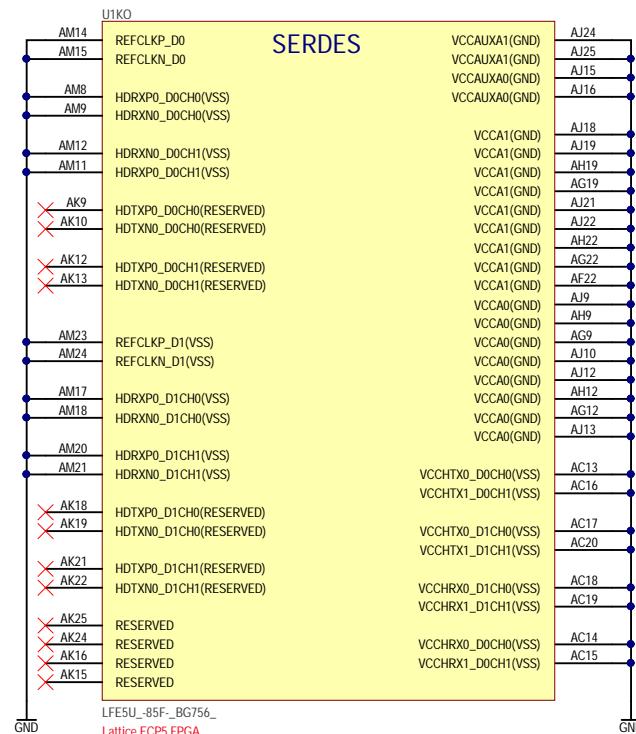
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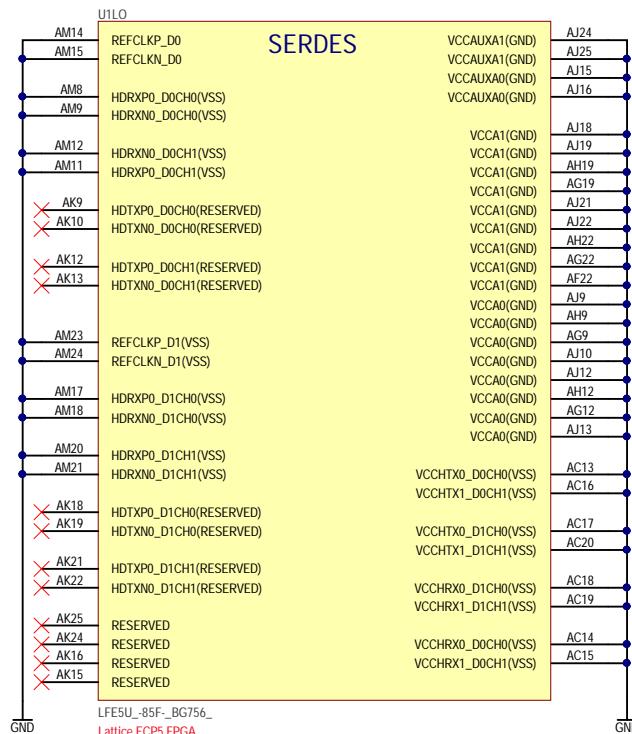
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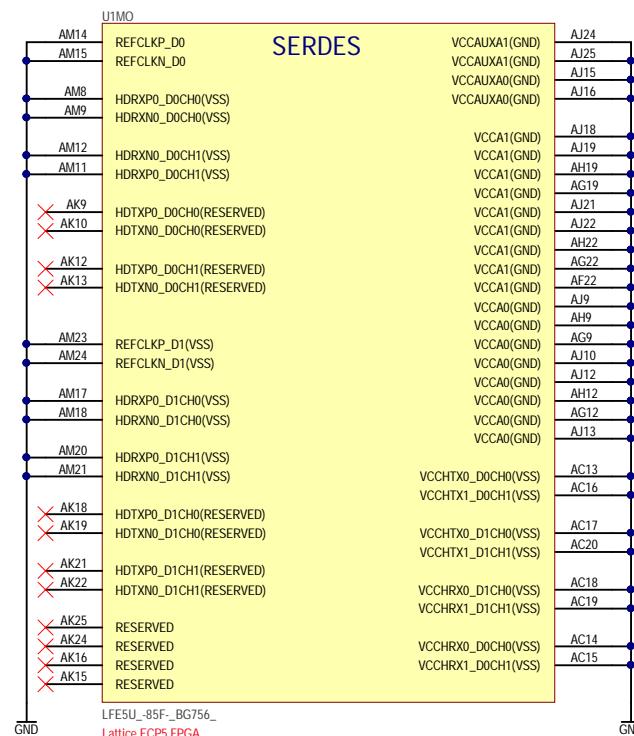
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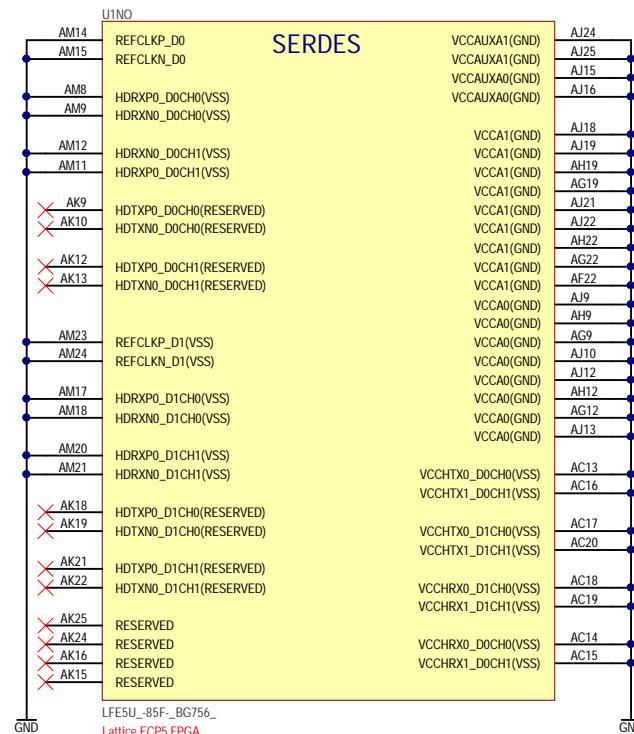
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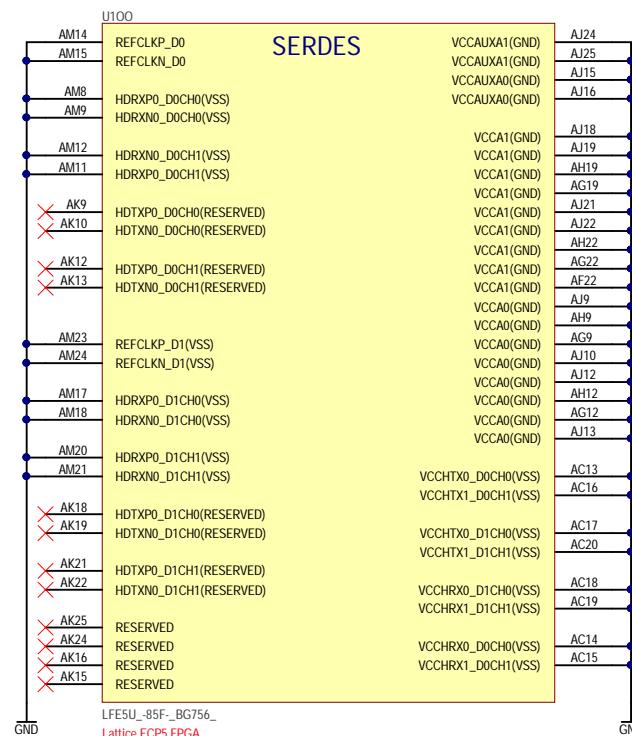
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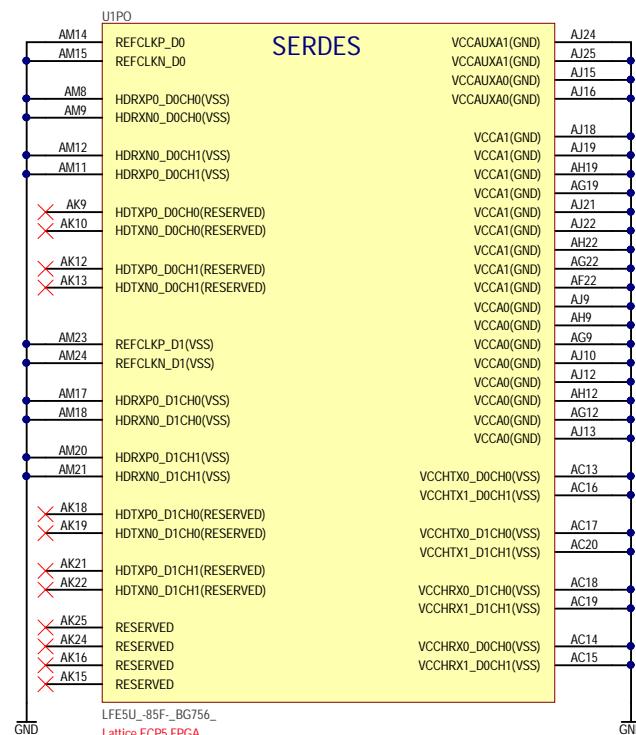
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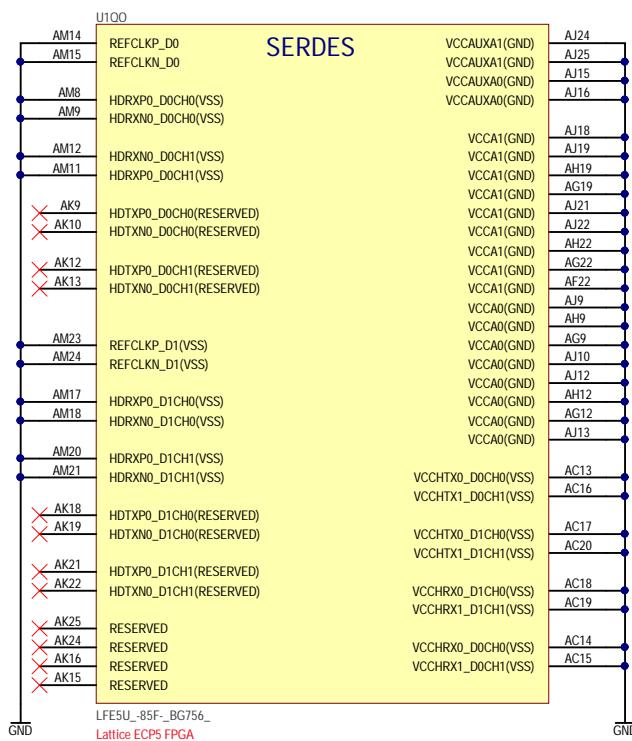
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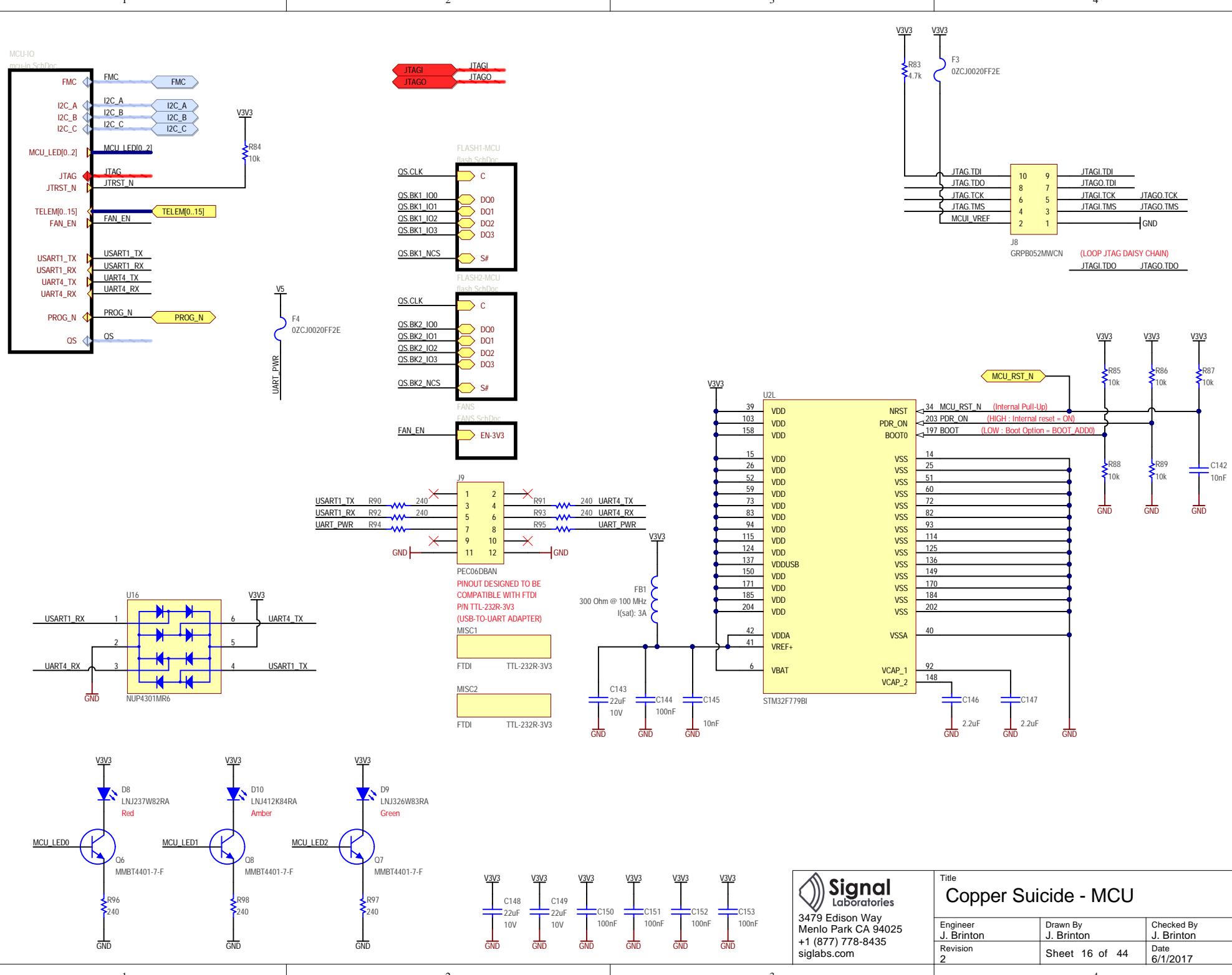
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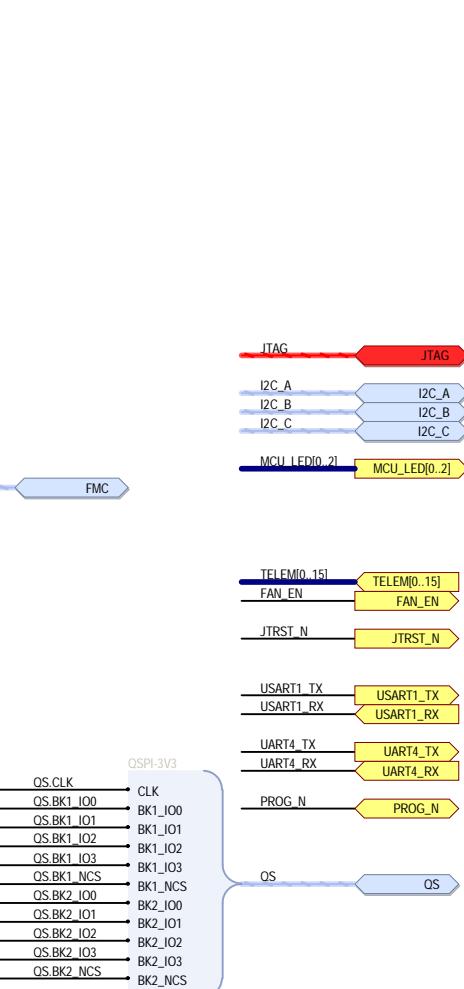
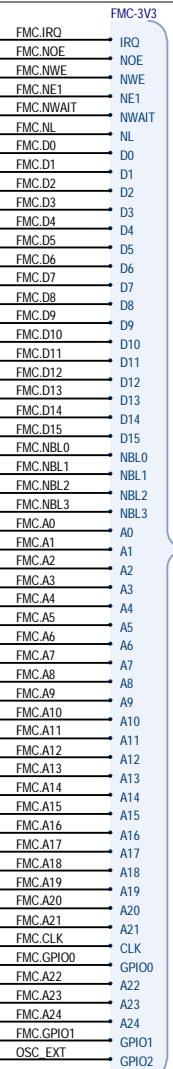
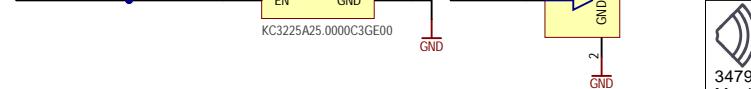
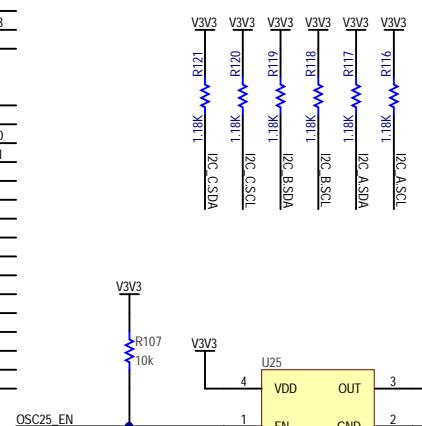
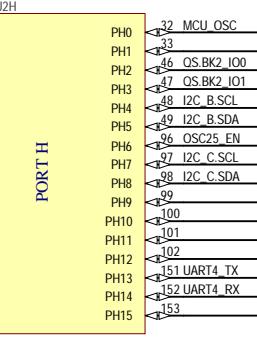
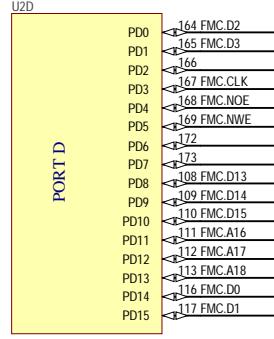
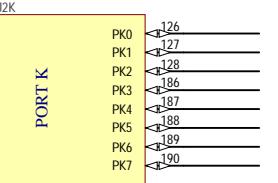
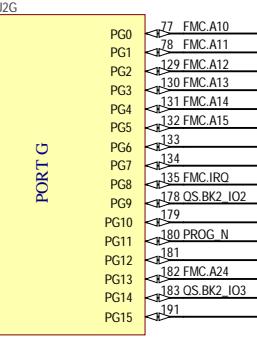
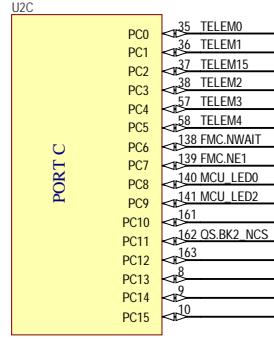
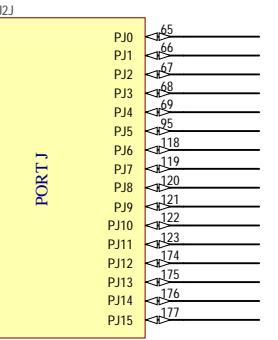
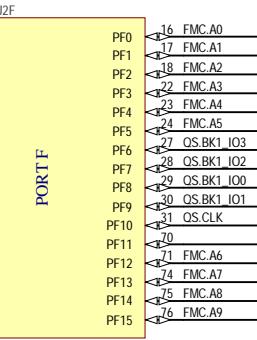
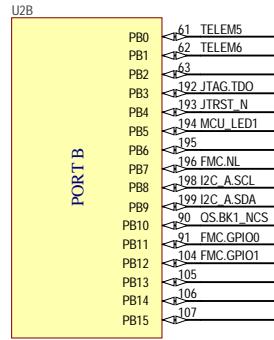
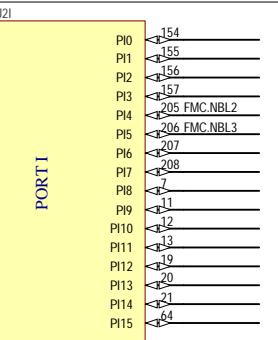
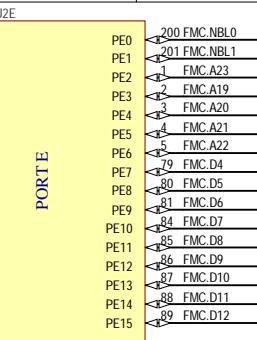
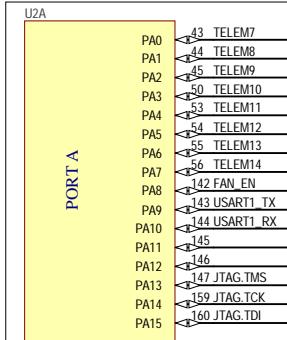


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Title **Copper Suicide - FPGA - SERDES**

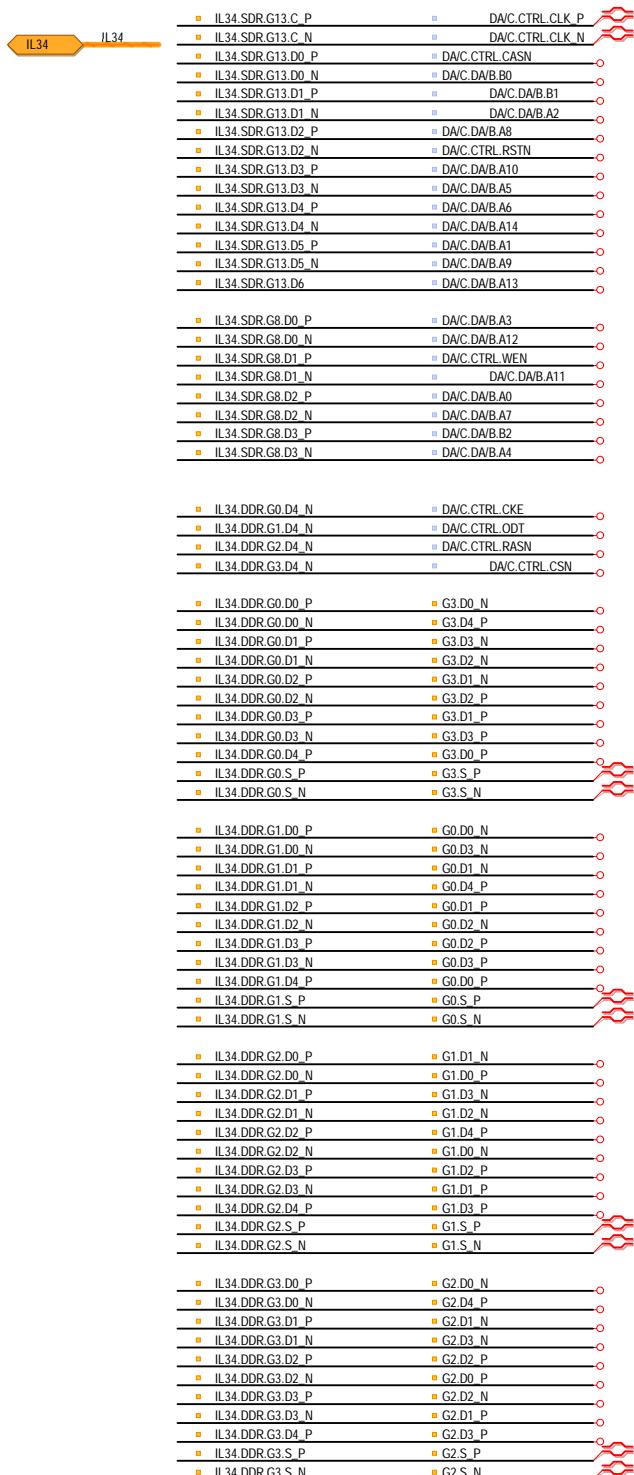
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 15 of 44	Date 6/1/2017



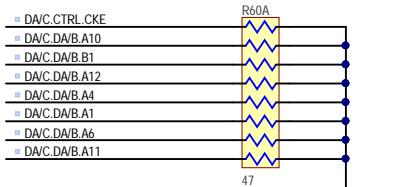


Title Copper Suicide - MCU - I/O		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 17 of 44	Date 6/1/2017

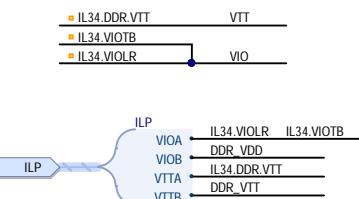
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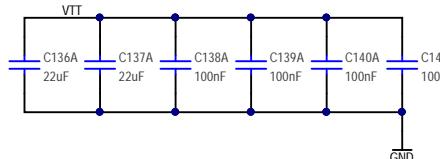
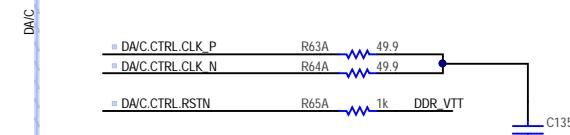
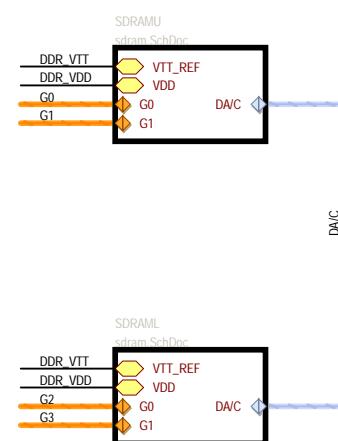
PCB Note: All signals are SSTL_135 (or SSTL_15).
 PCB Note: DQS/DQ signals have internal termination to Vtt.
 PCB Note: Net swapping done here for ease of routing.
 PCB Note: See FPGA data sheet for net swapping rules.



B

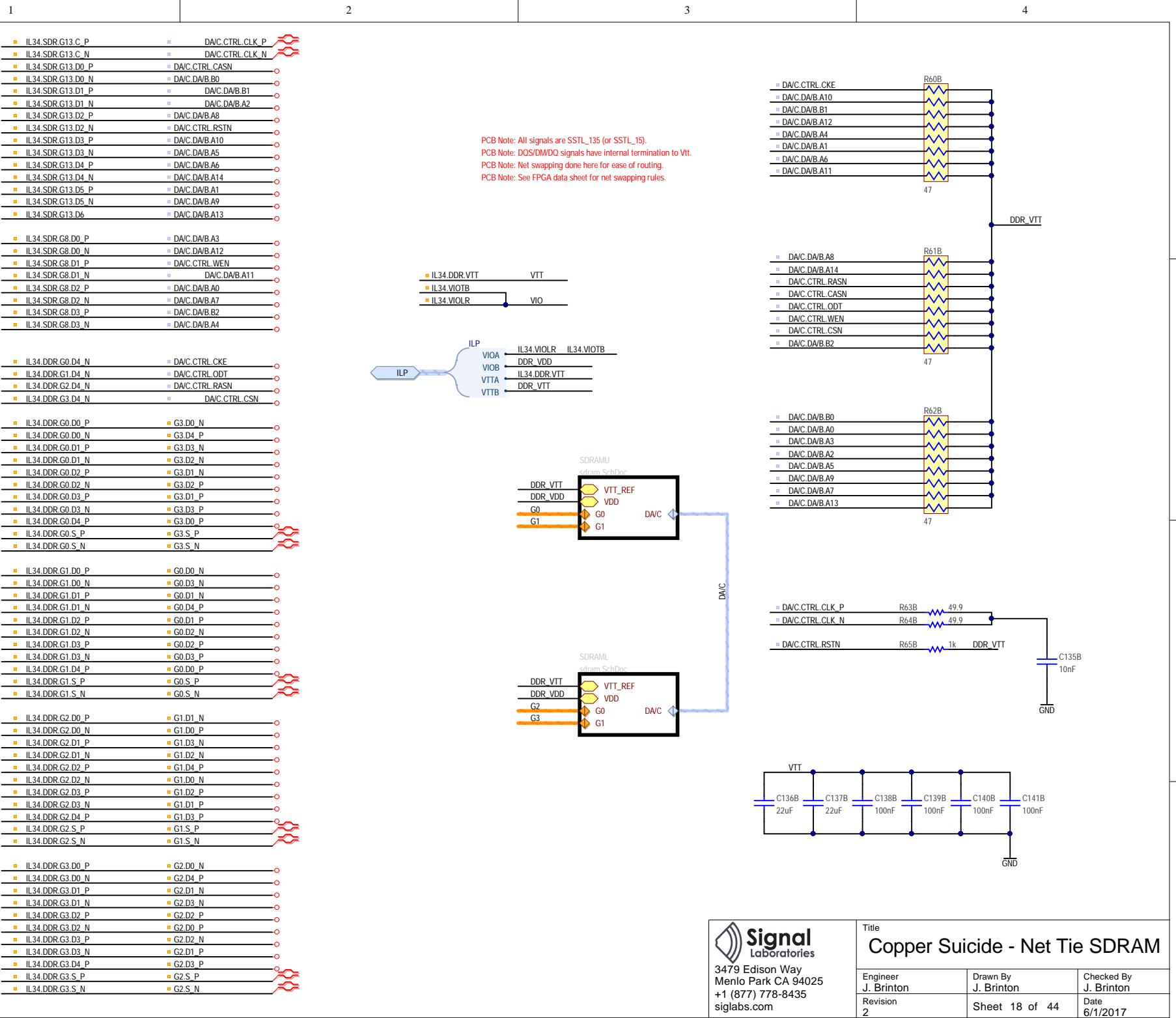


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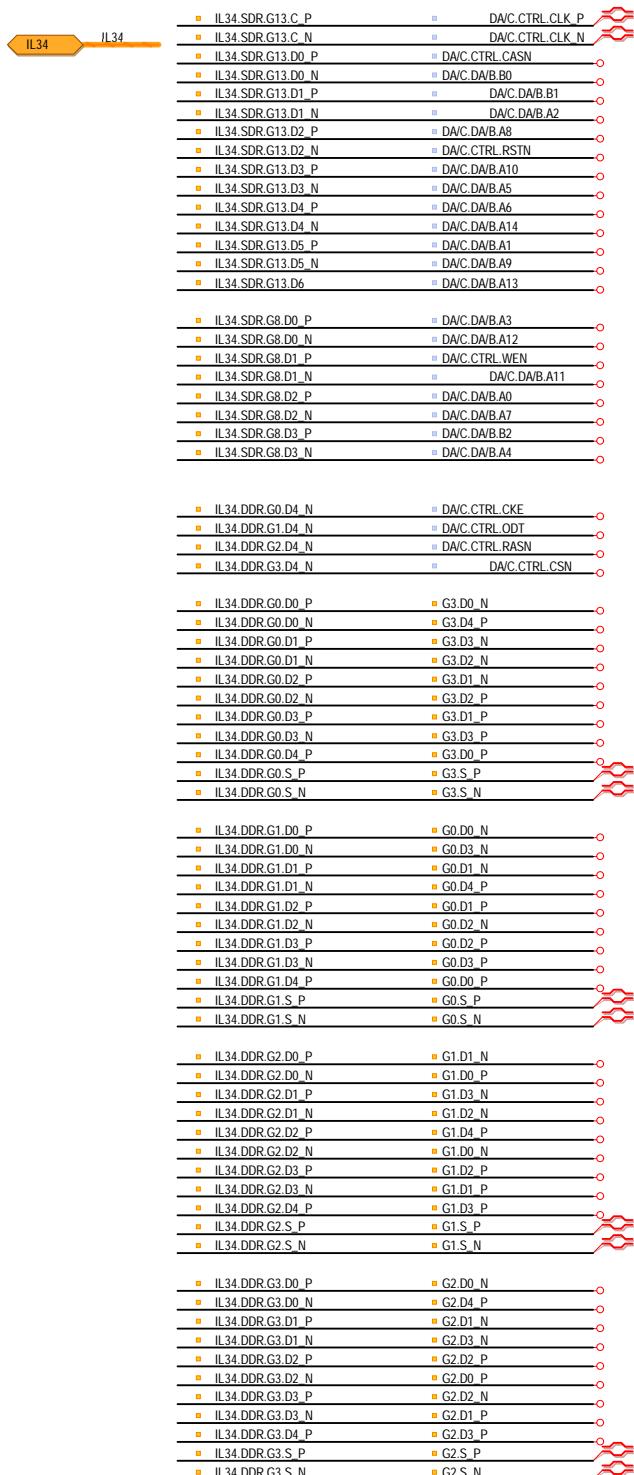


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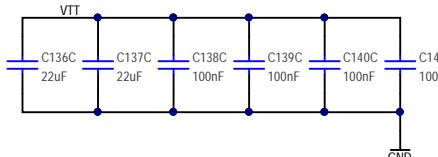
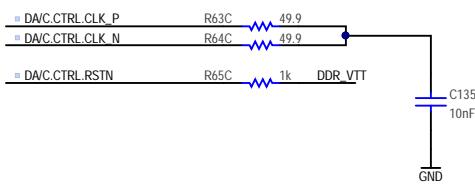
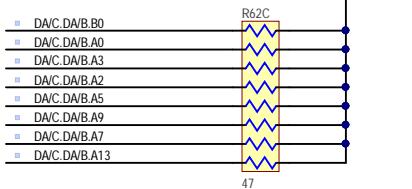
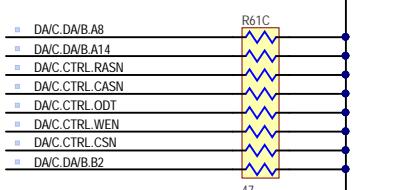
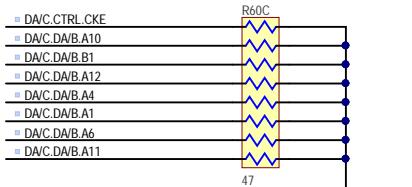
Title Copper Suicide - Net Tie SDRAM		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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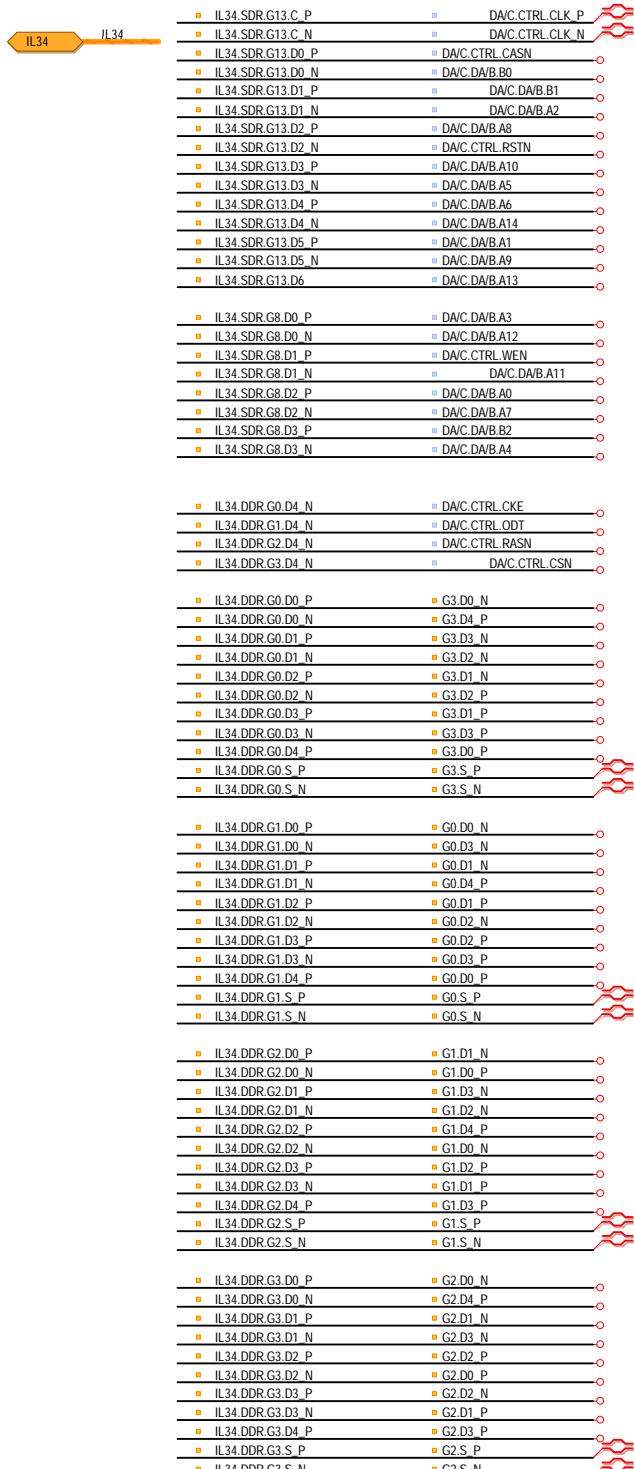
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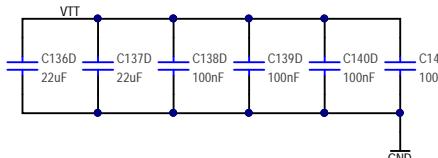
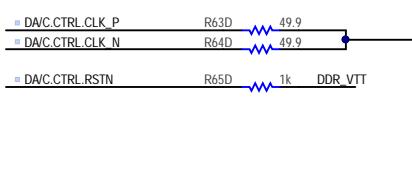
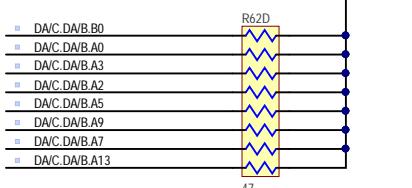
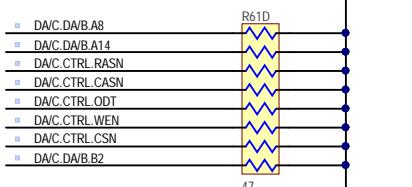
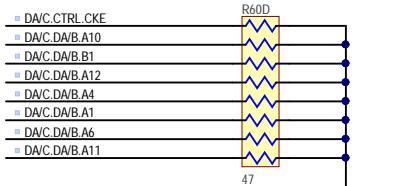
PCB Note: All signals are SSTL_135 (or SSTL_15).
 PCB Note: DOS/DQ signals have internal termination to Vtt.
 PCB Note: Net swapping done here for ease of routing.
 PCB Note: See FPGA data sheet for net swapping rules.



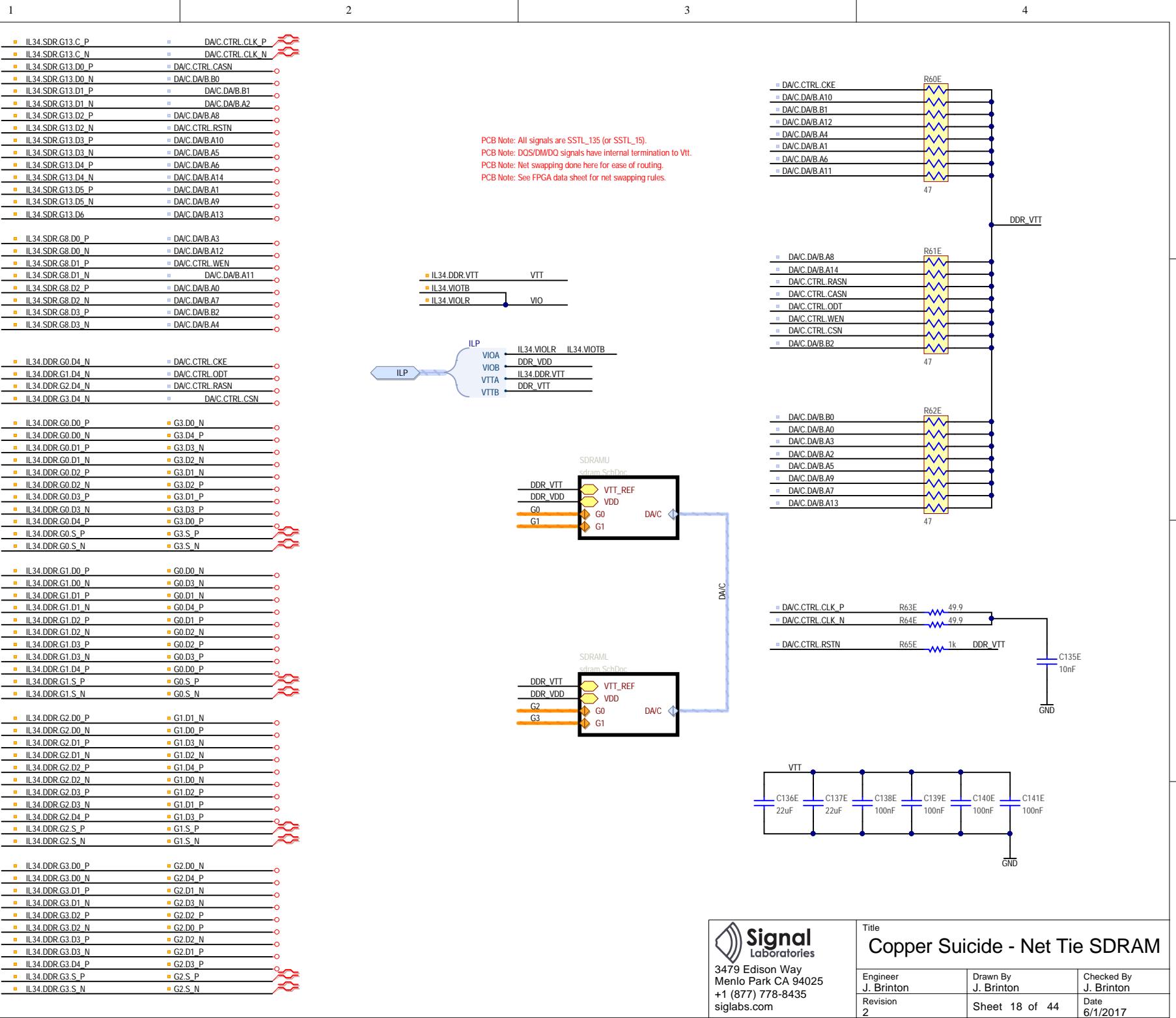
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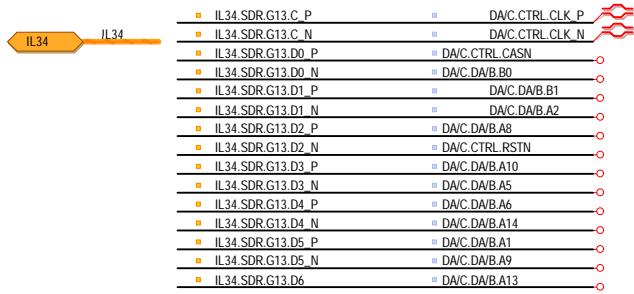
PCB Note: All signals are SSTL_135 (or SSTL_15).
 PCB Note: DOS/DQ signals have internal termination to VTT.
 PCB Note: Net swapping done here for ease of routing.
 PCB Note: See FPGA data sheet for net swapping rules.



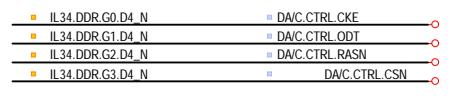
Title		
Copper Suicide - Net Tie SDRAM		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 18 of 44	Date 6/1/2017



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B



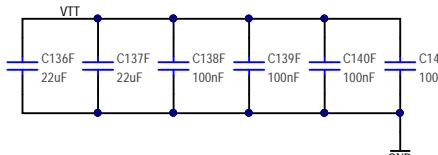
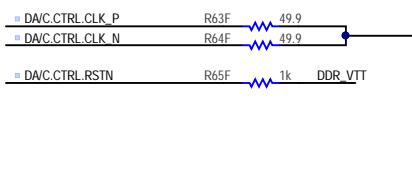
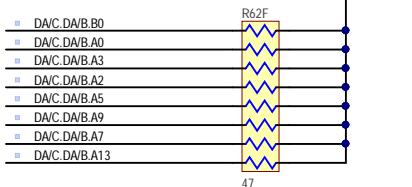
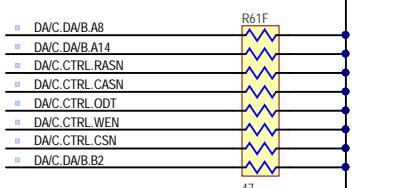
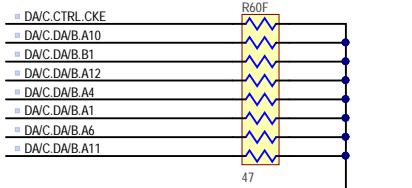
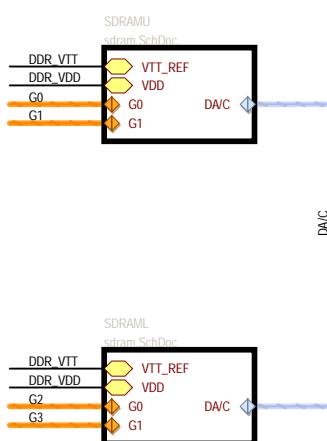
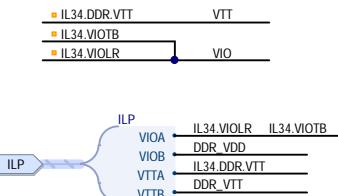
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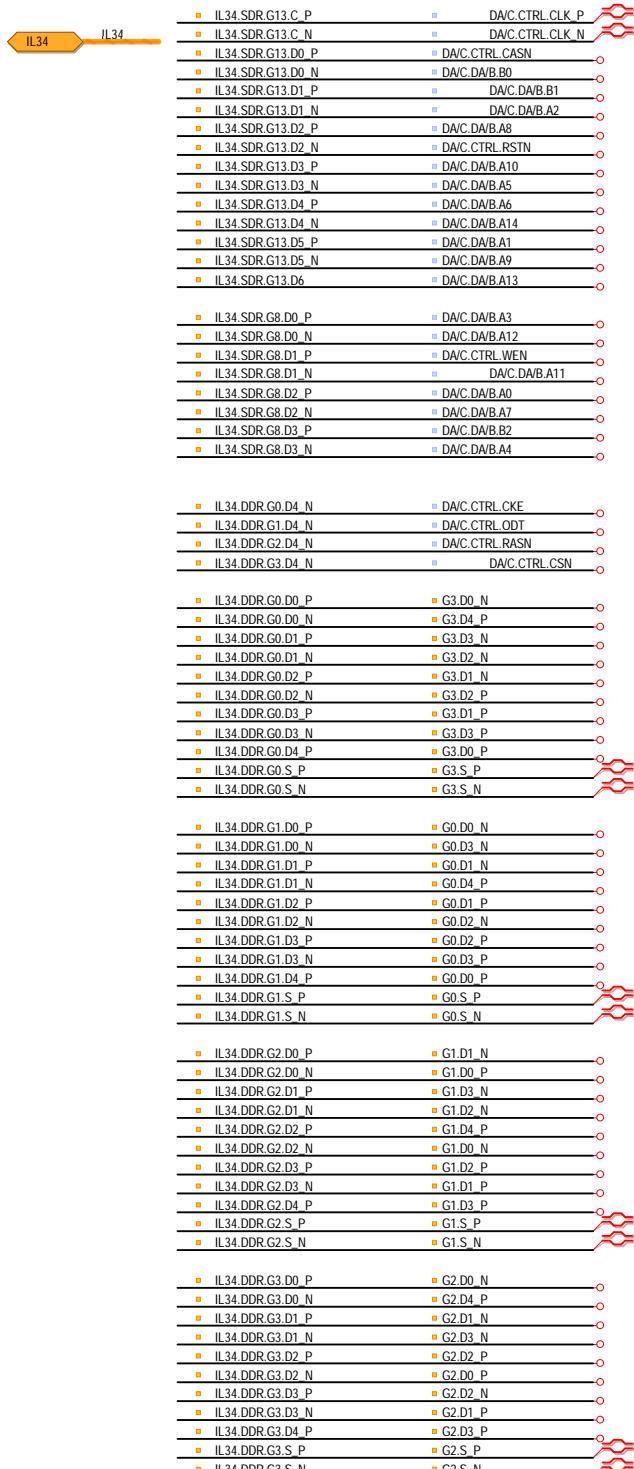
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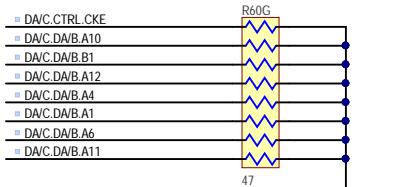
PCB Note: All signals are SSTL_135 (or SSTL_15).
 PCB Note: DQS/DQM/DQ signals have internal termination to VTT.
 PCB Note: Net swapping done here for ease of routing.
 PCB Note: See FPGA data sheet for net swapping rules.



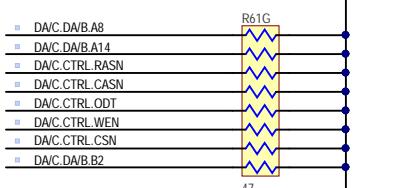
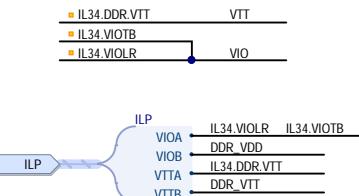
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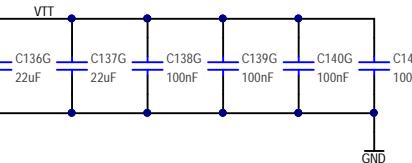
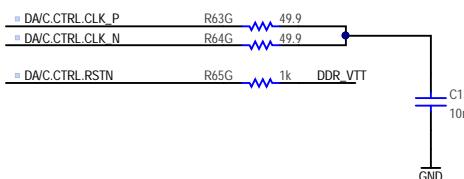
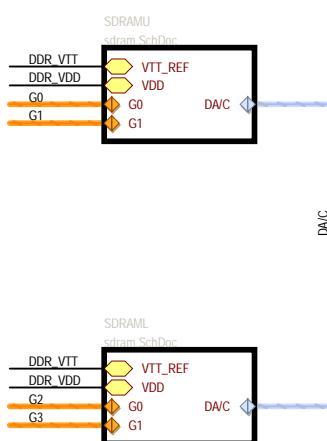
PCB Note: All signals are SSTL_135 (or SSTL_15).
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 PCB Note: See FPGA data sheet for net swapping rules.



B



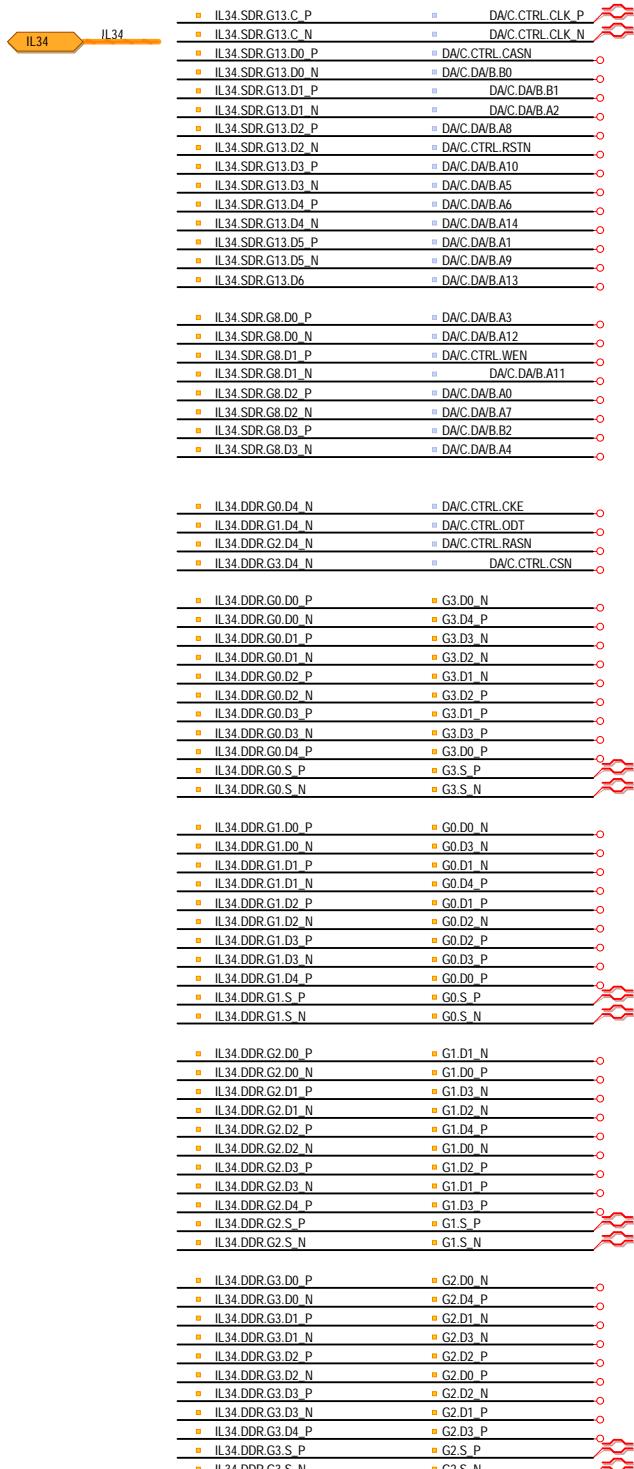
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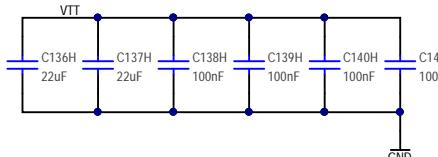
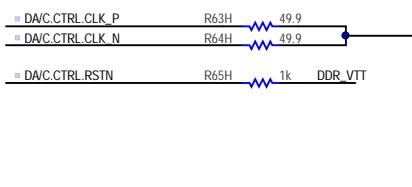
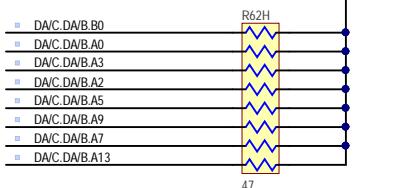
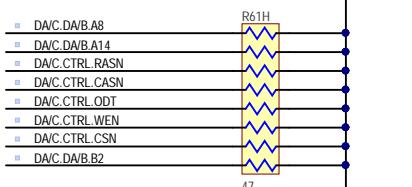
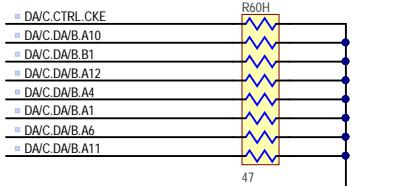
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Title: Copper Suicide - Net Tie SDRAM		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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A



PCB Note: All signals are SSTL_135 (or SSTL_15).
 PCB Note: DOS/DQ signals have internal termination to Vtt.
 PCB Note: Net swapping done here for ease of routing.
 PCB Note: See FPGA data sheet for net swapping rules.



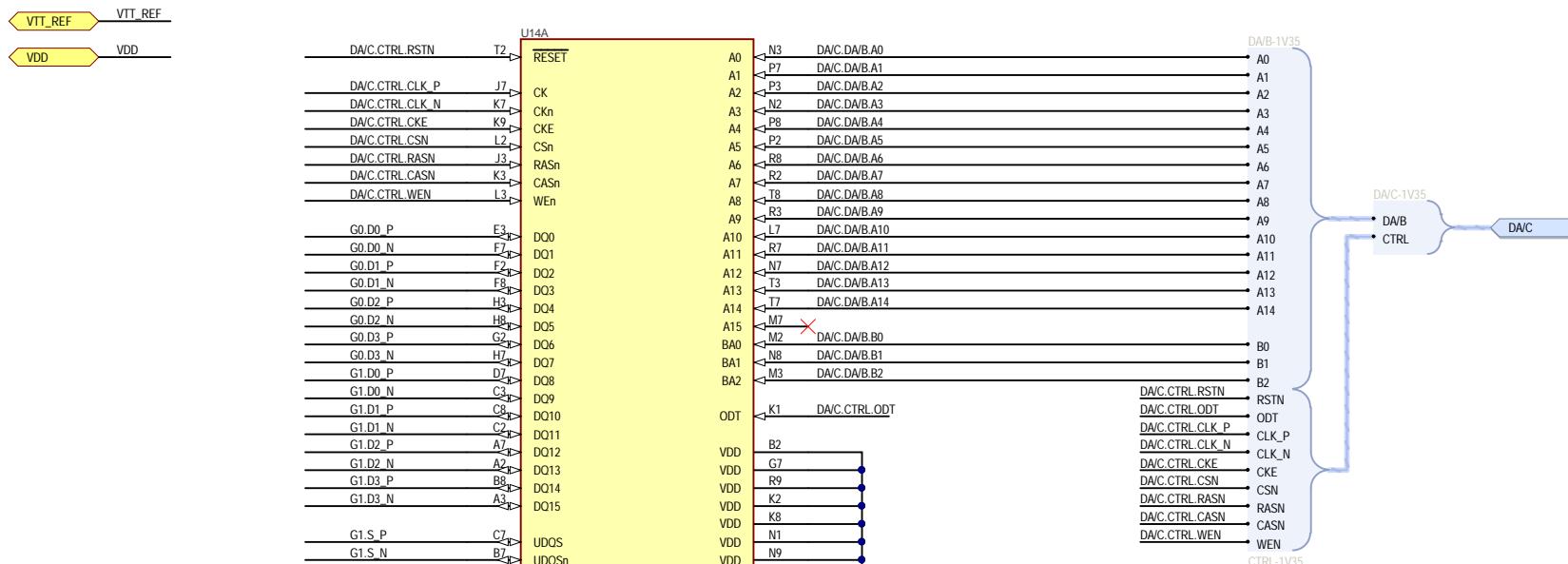
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Menlo Park CA 94025
+1 (877) 778-8435
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Title Copper Suicide - Net Tie SDRAM

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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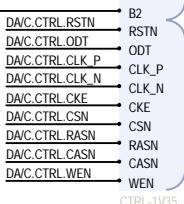
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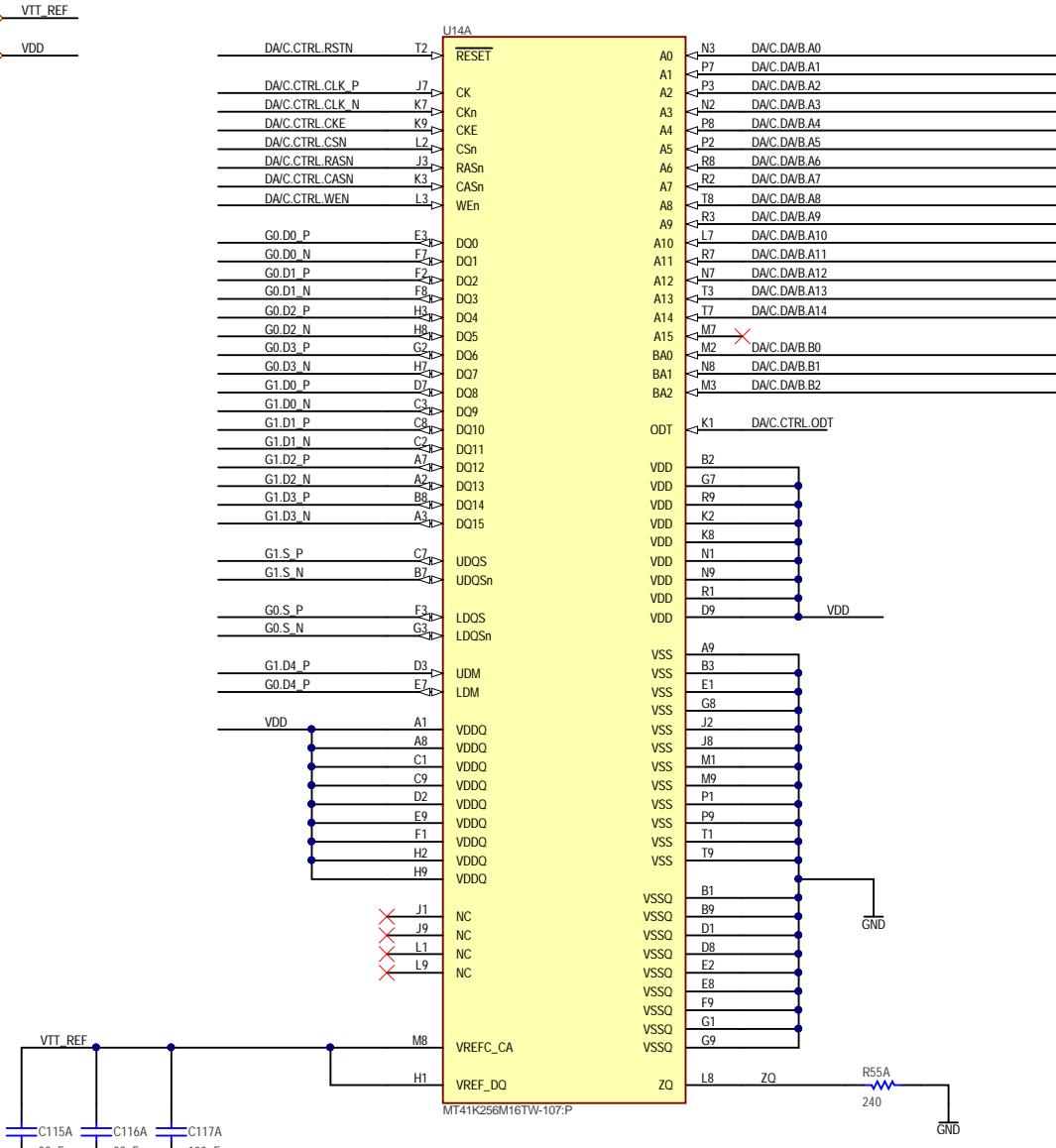
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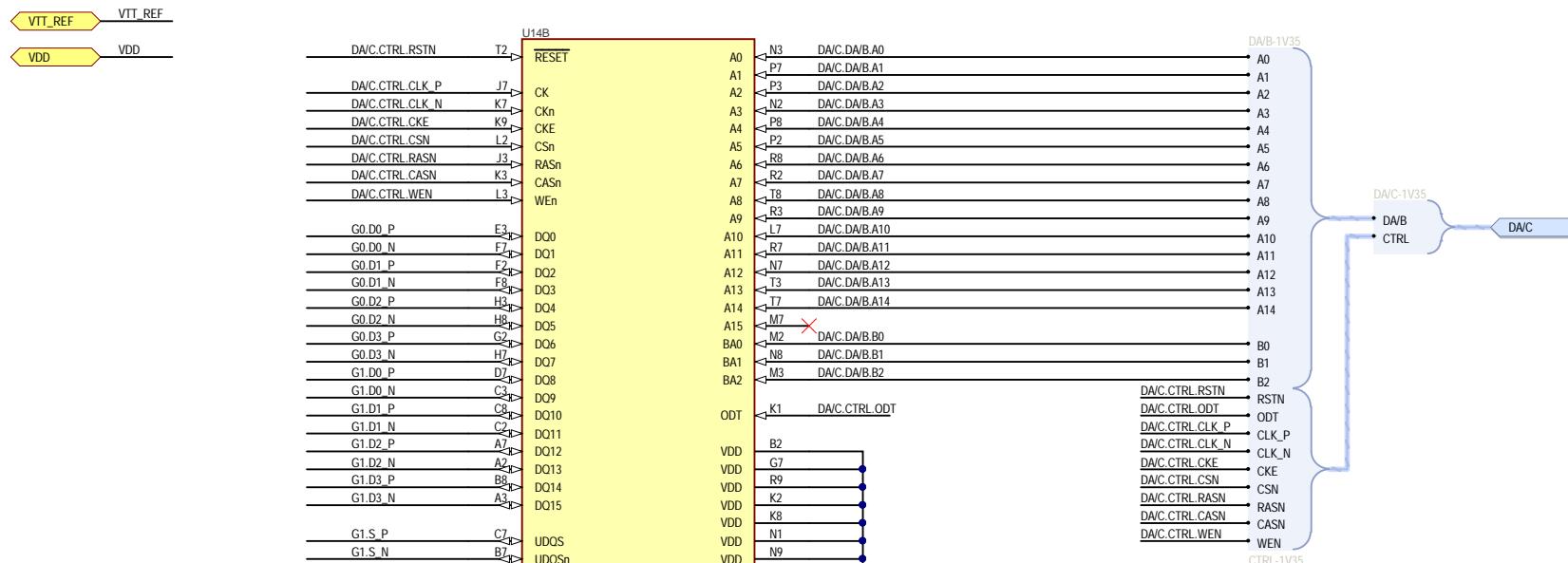


Title Copper Suicide - SDRAM

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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A

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B

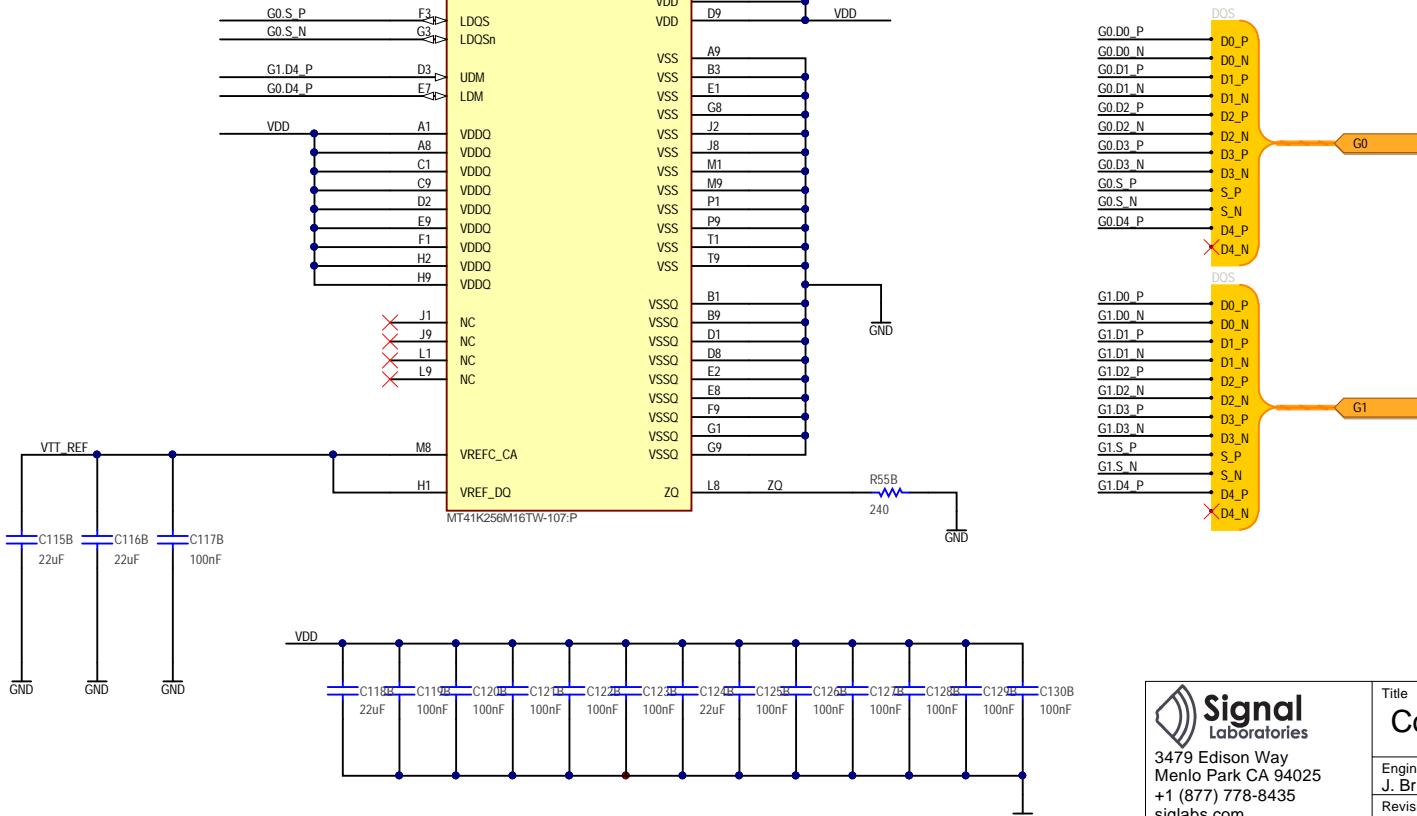
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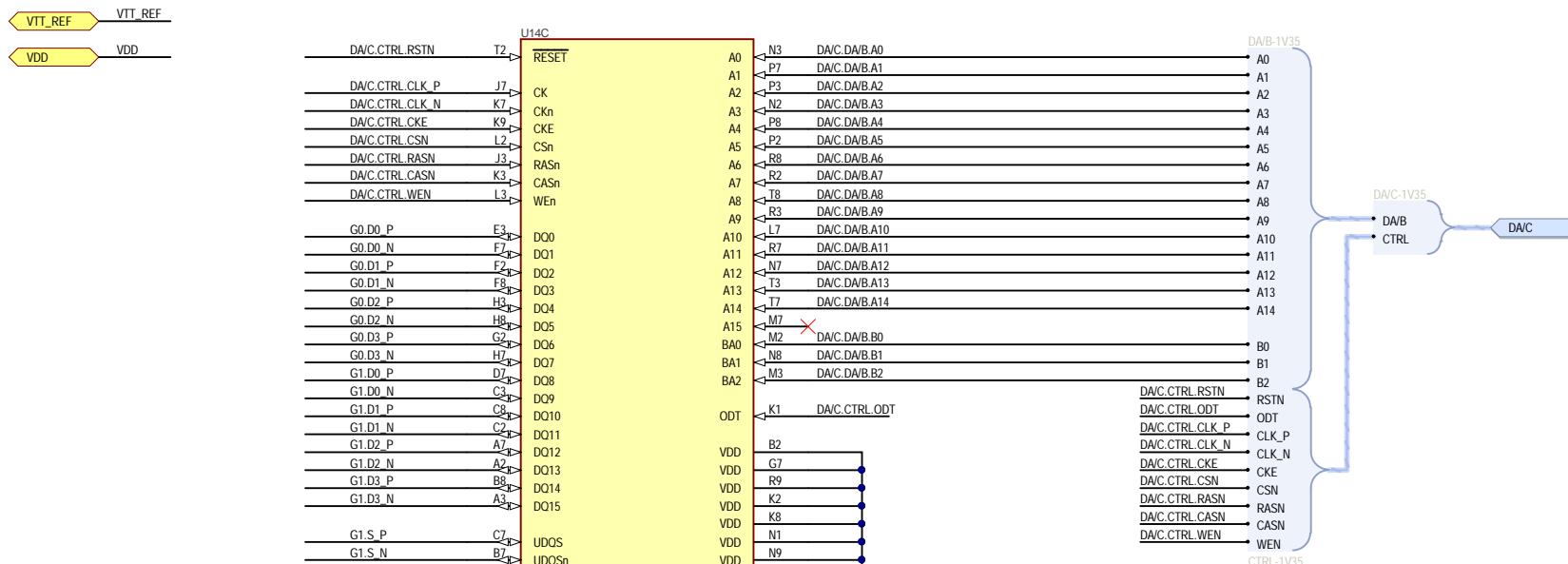
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Title		
Copper Suicide - SDRAM		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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A

A



B

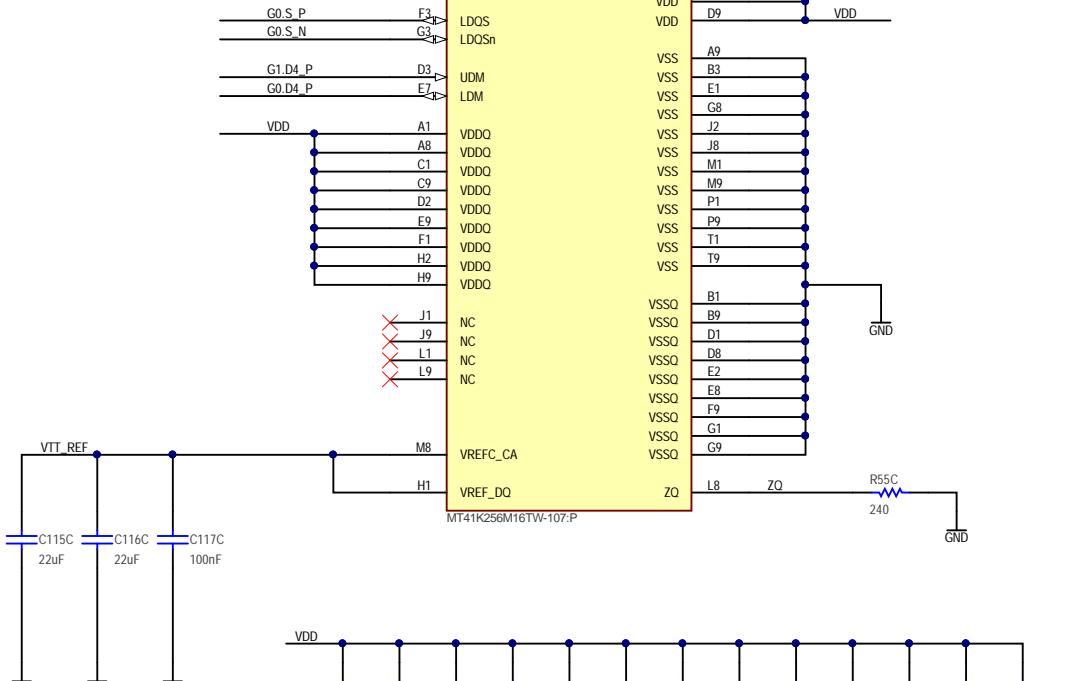
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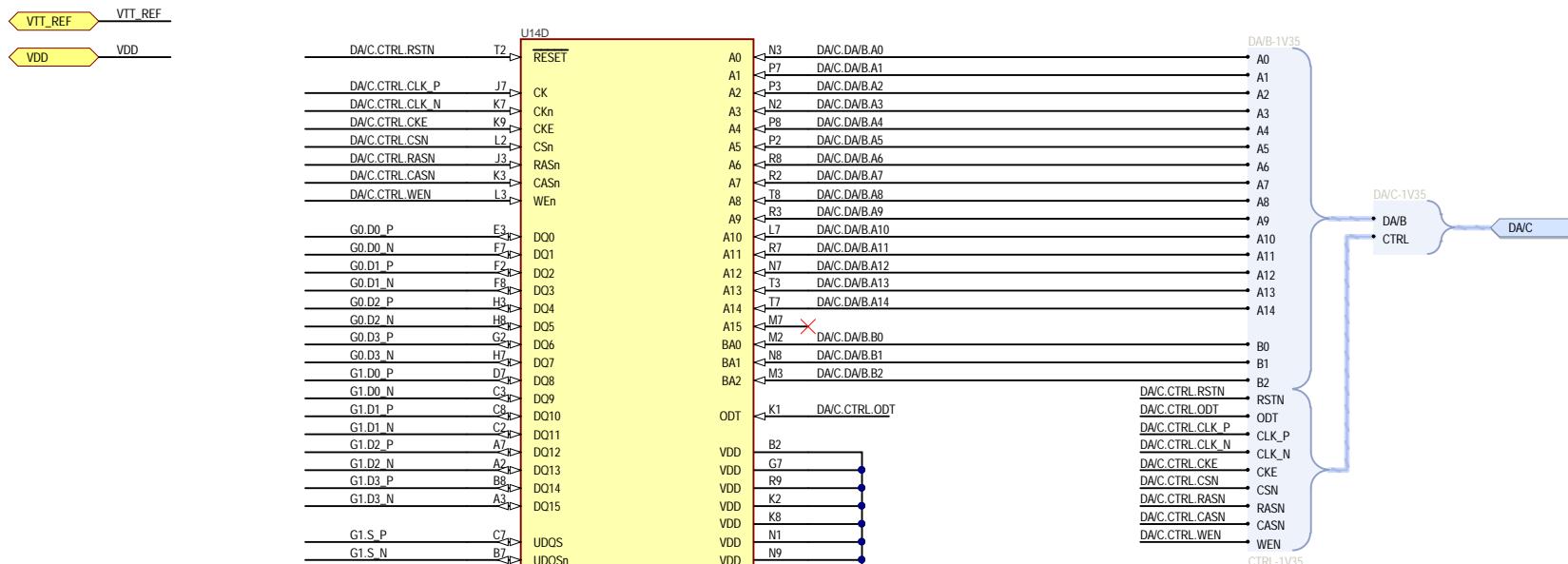


Title Copper Suicide - SDRAM

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A

A



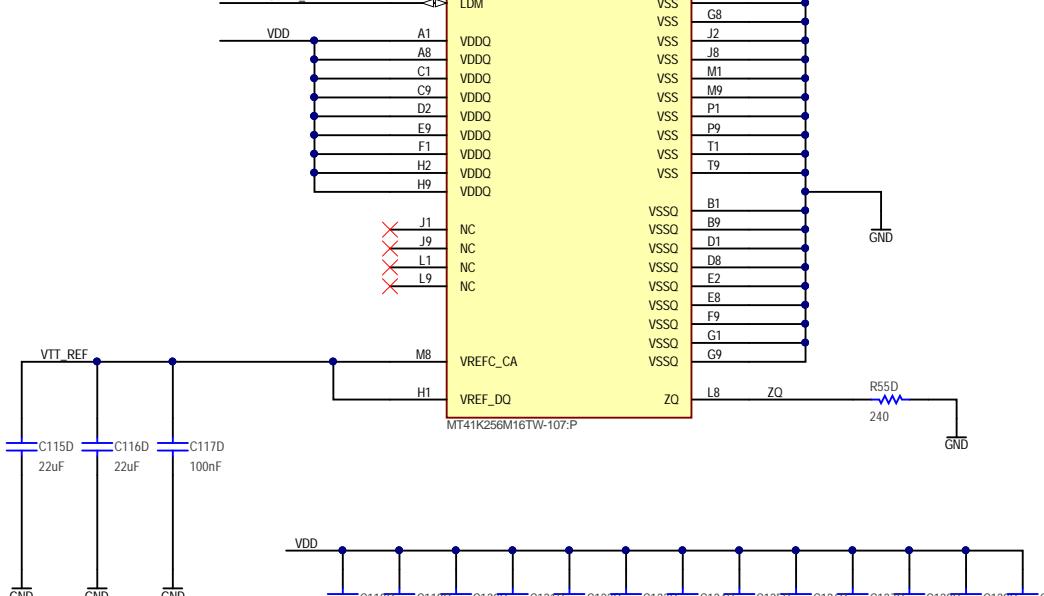
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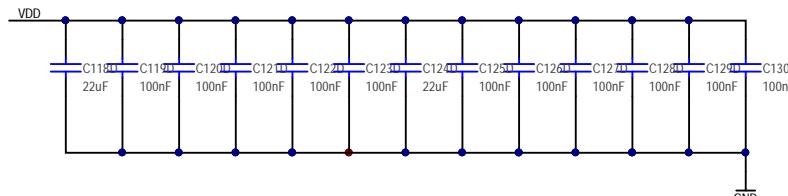
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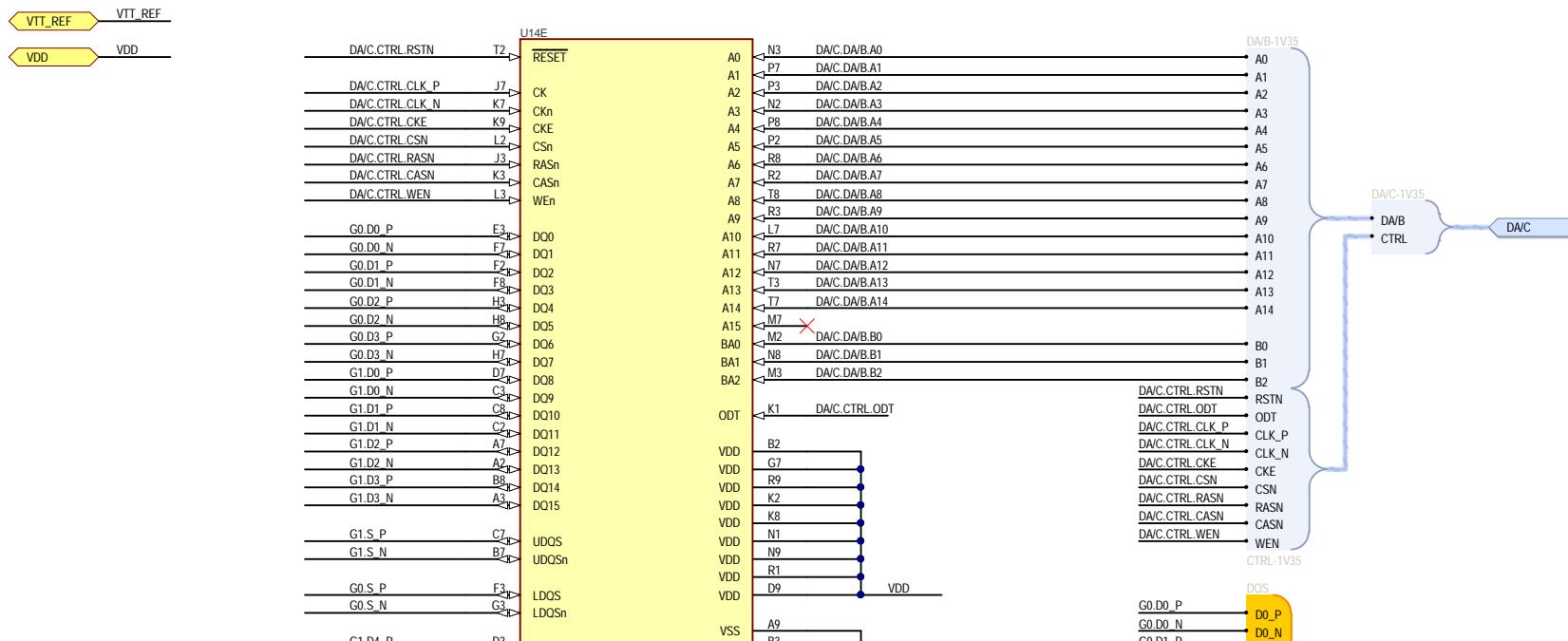
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Title		
Copper Suicide - SDRAM		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 19 of 44	Date 6/1/2017

A

A

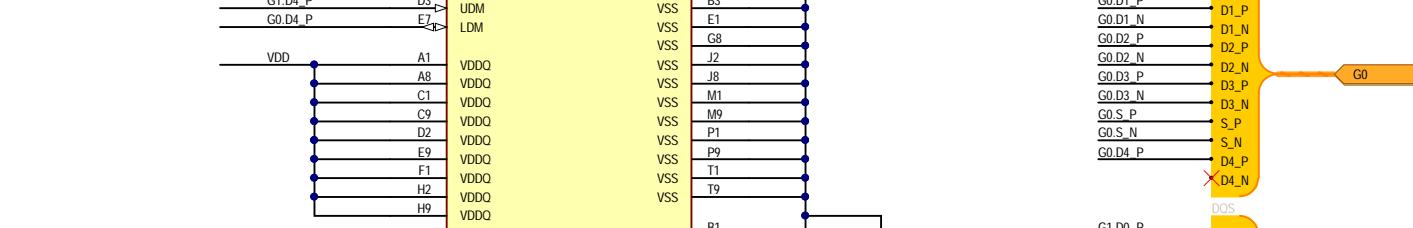


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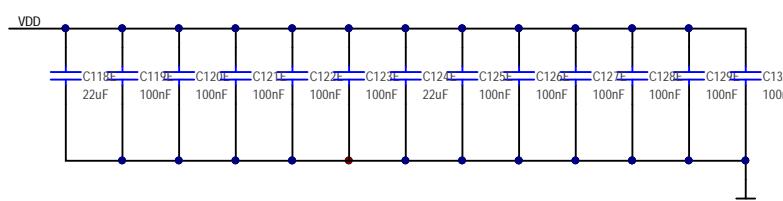
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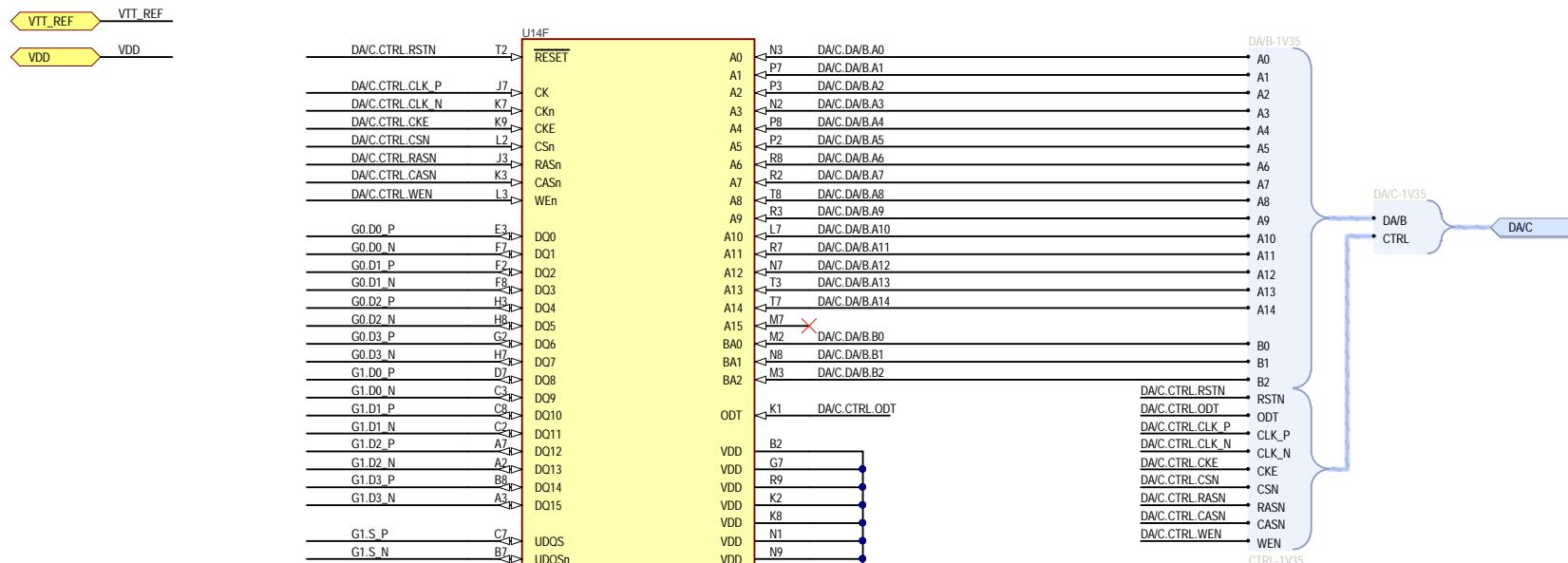
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Title Copper Suicide - SDRAM		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 19 of 44	Date 6/1/2017

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A



B

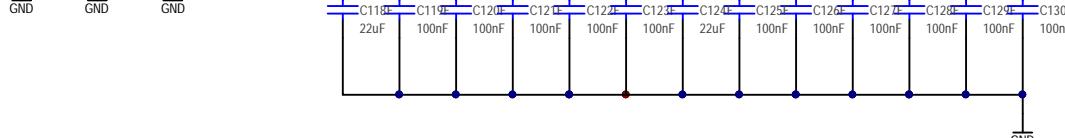
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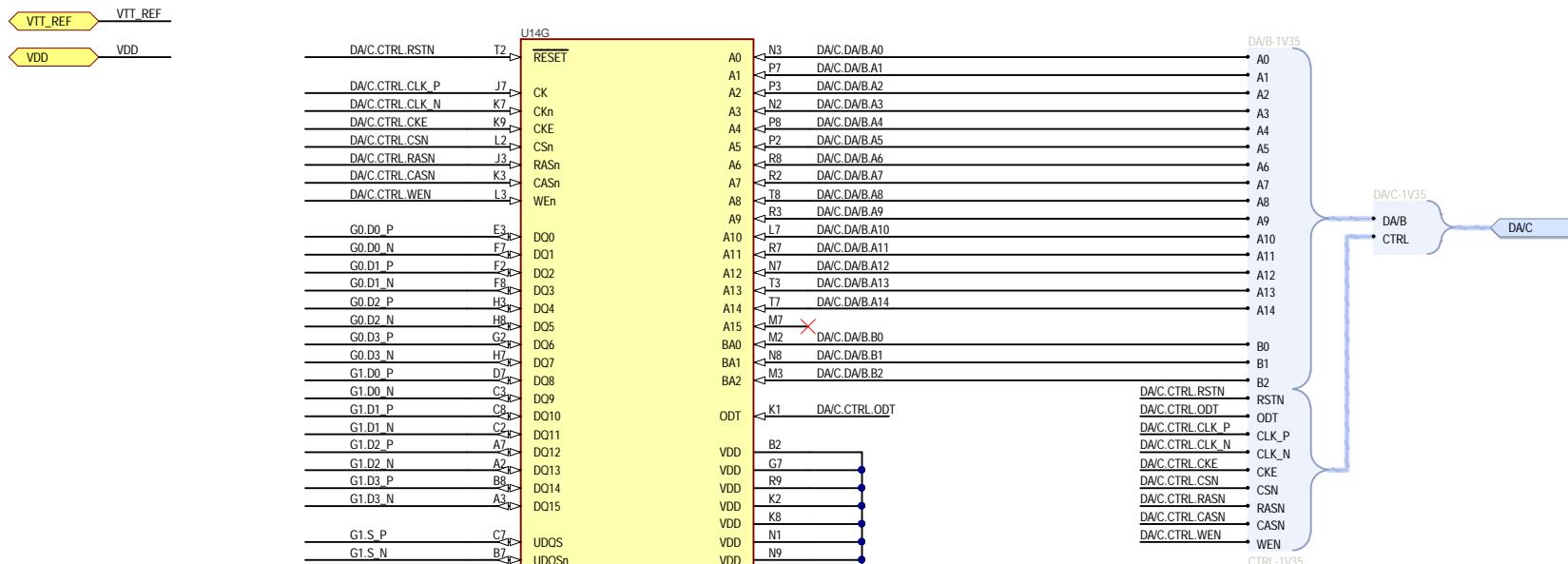
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Title Copper Suicide - SDRAM		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 19 of 44	Date 6/1/2017

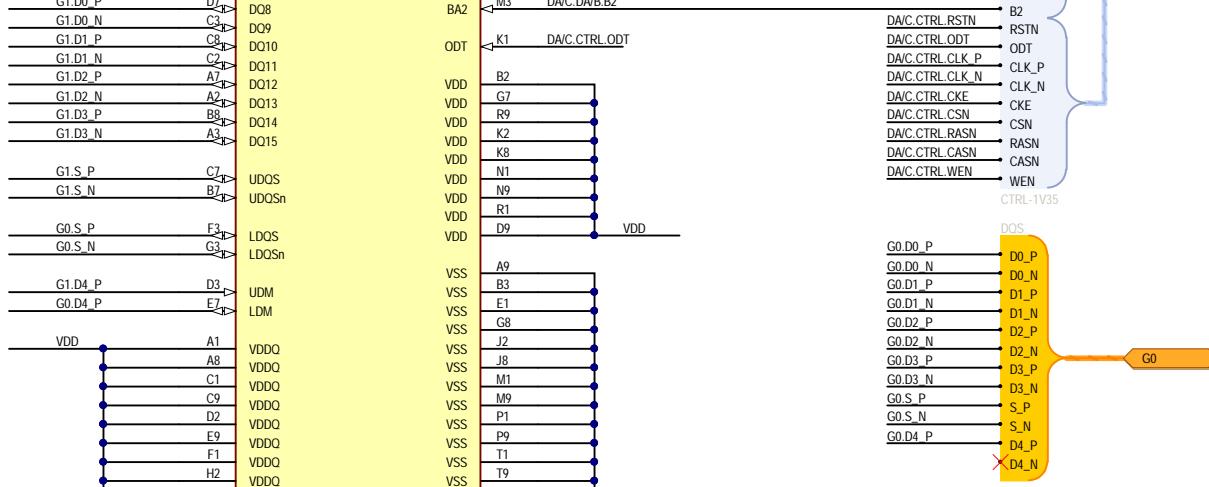
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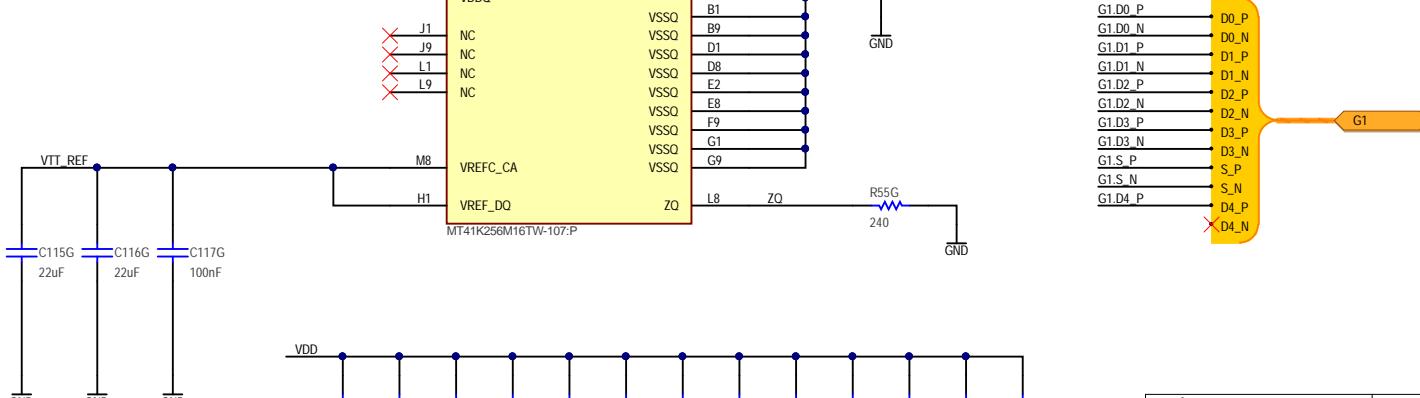
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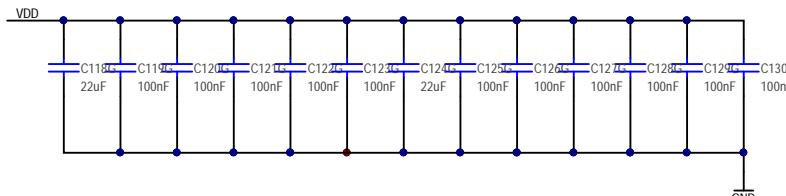
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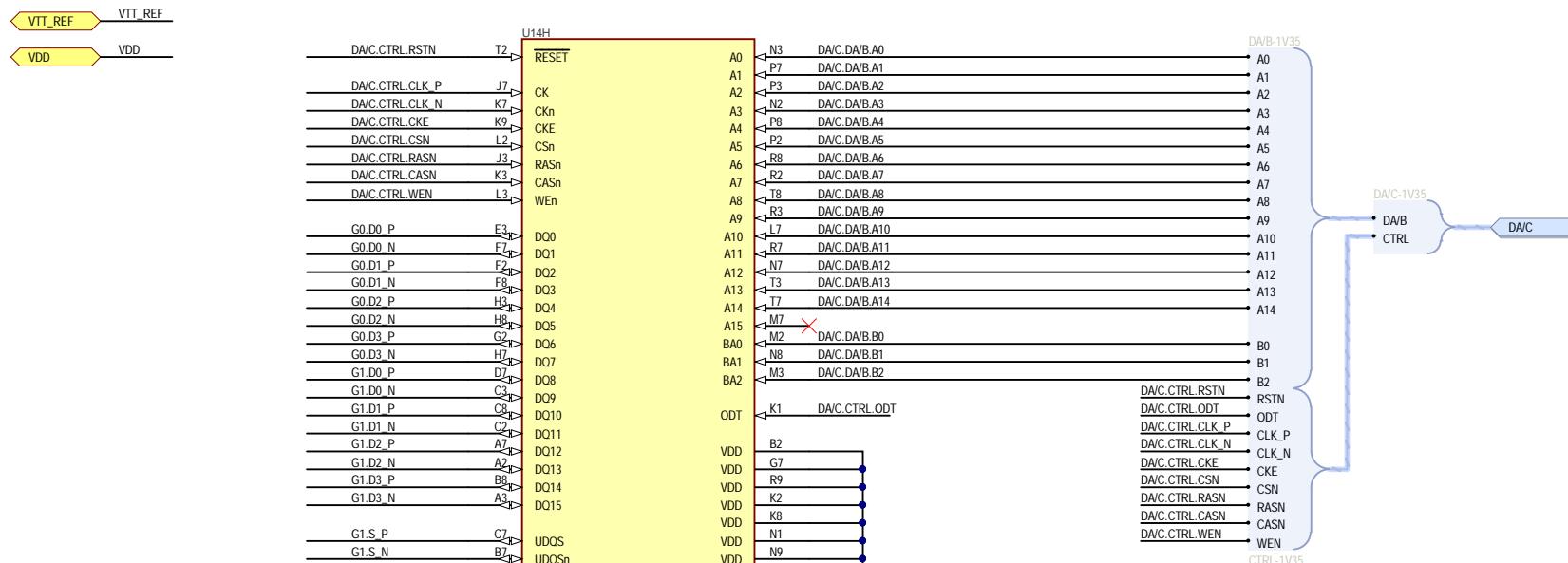


Title Copper Suicide - SDRAM

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 19 of 44	Date 6/1/2017

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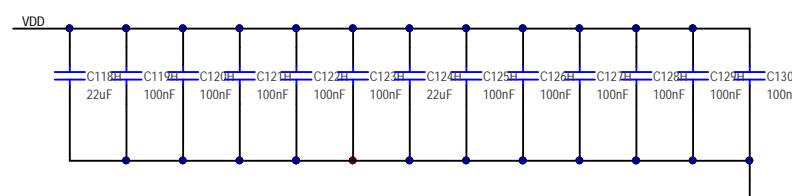
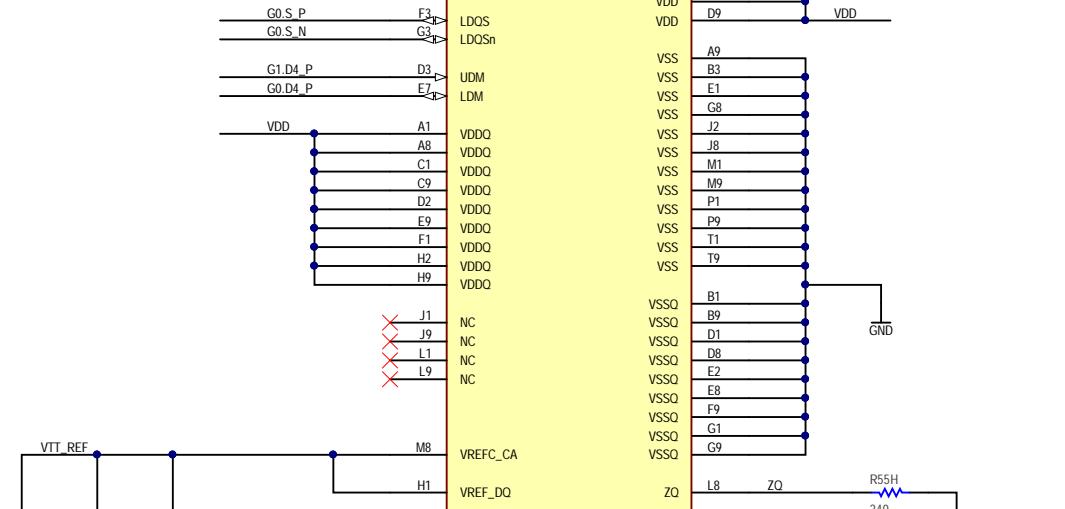
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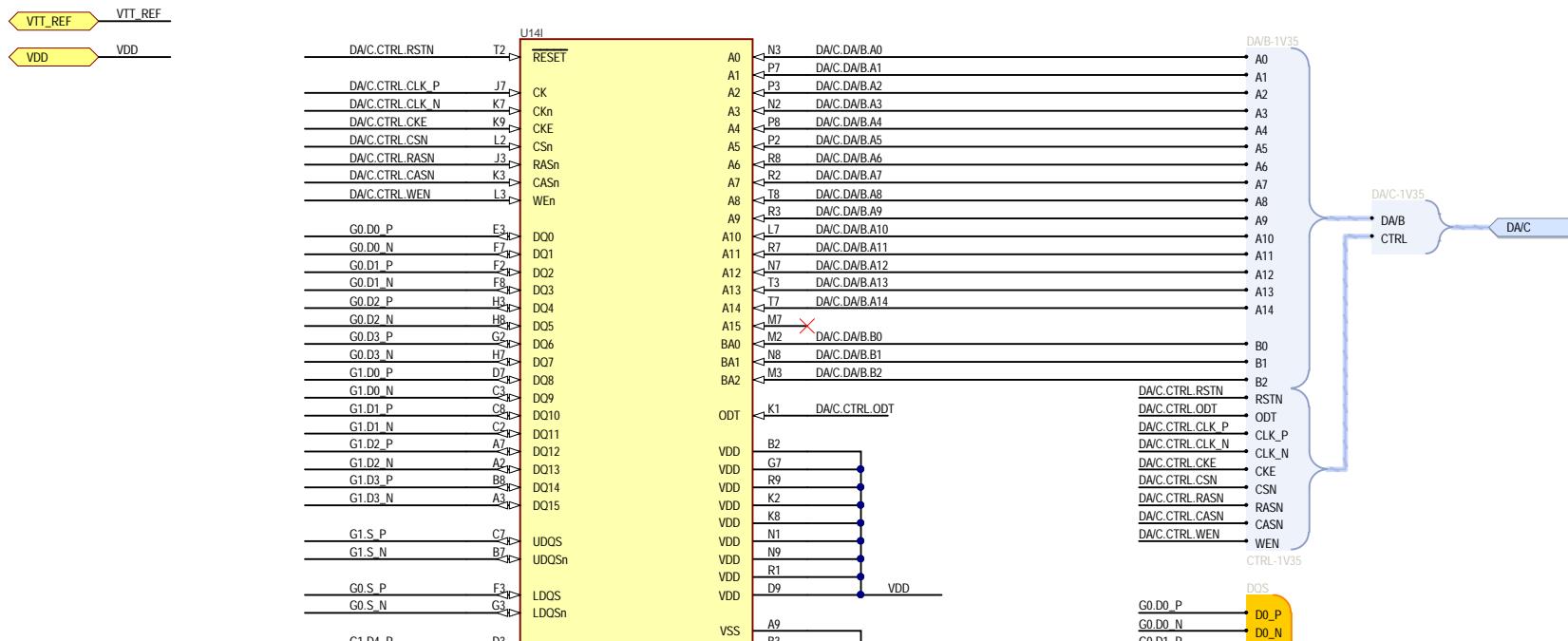


Title Copper Suicide - SDRAM

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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A

A



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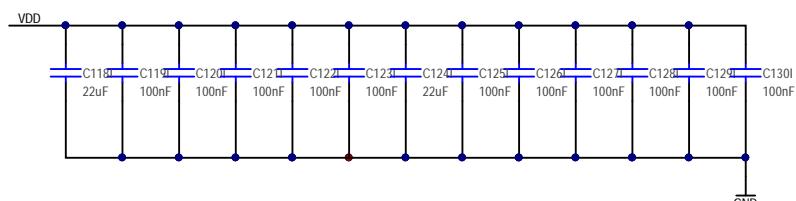
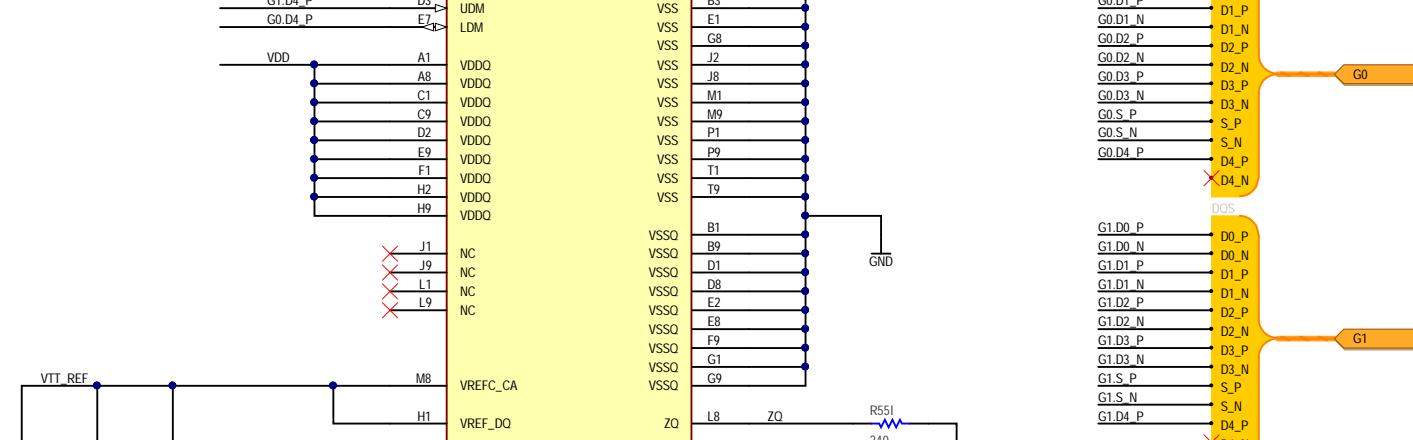
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D

D

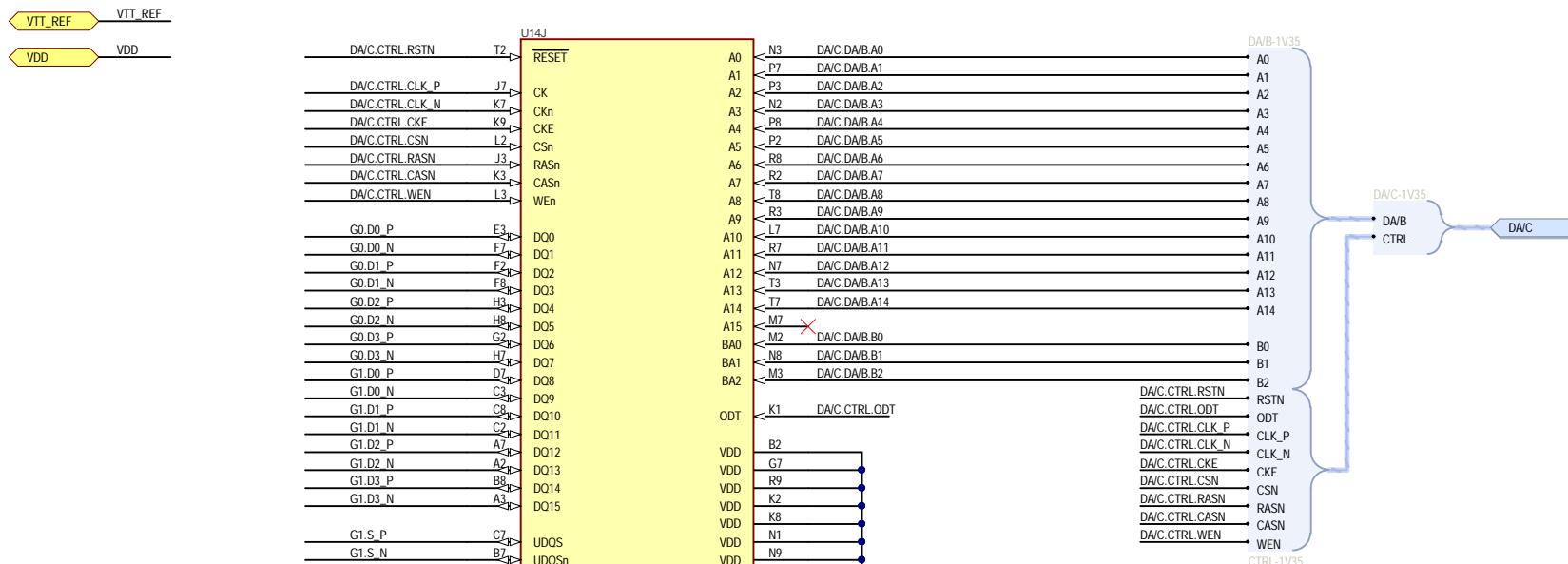


Copper Suicide - SDRAM

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 19 of 44	Date 6/1/2017

A

A



B

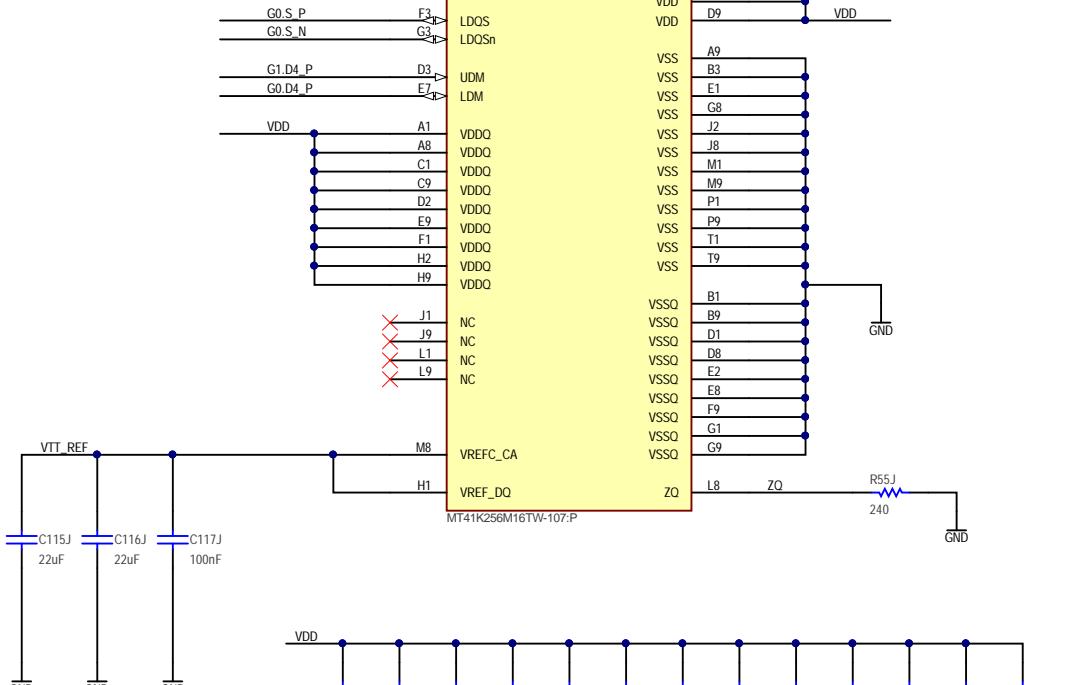
B

C

C

D

D

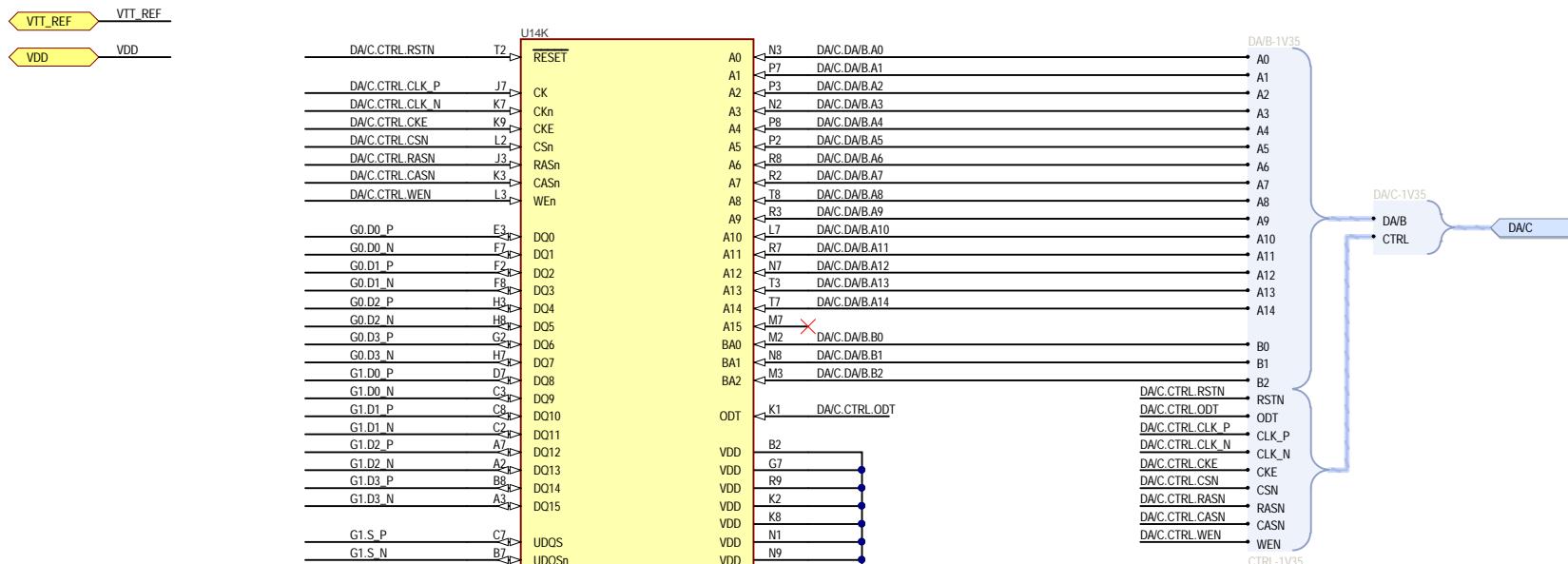


Copper Suicide - SDRAM

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 19 of 44	Date 6/1/2017

A

A



B

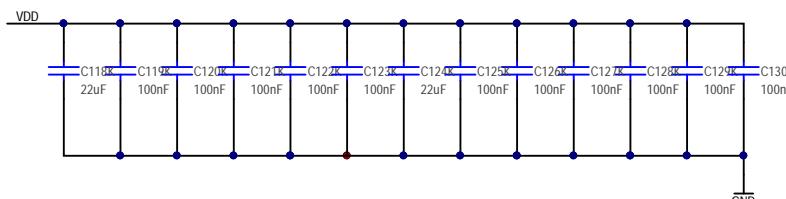
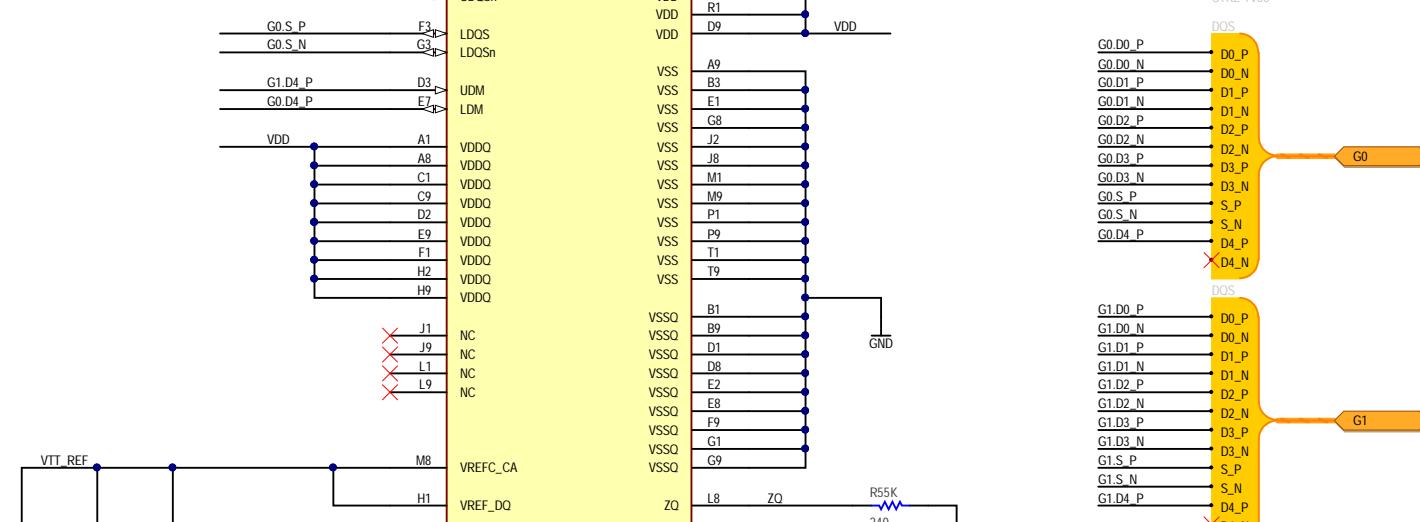
B

C

C

D

D

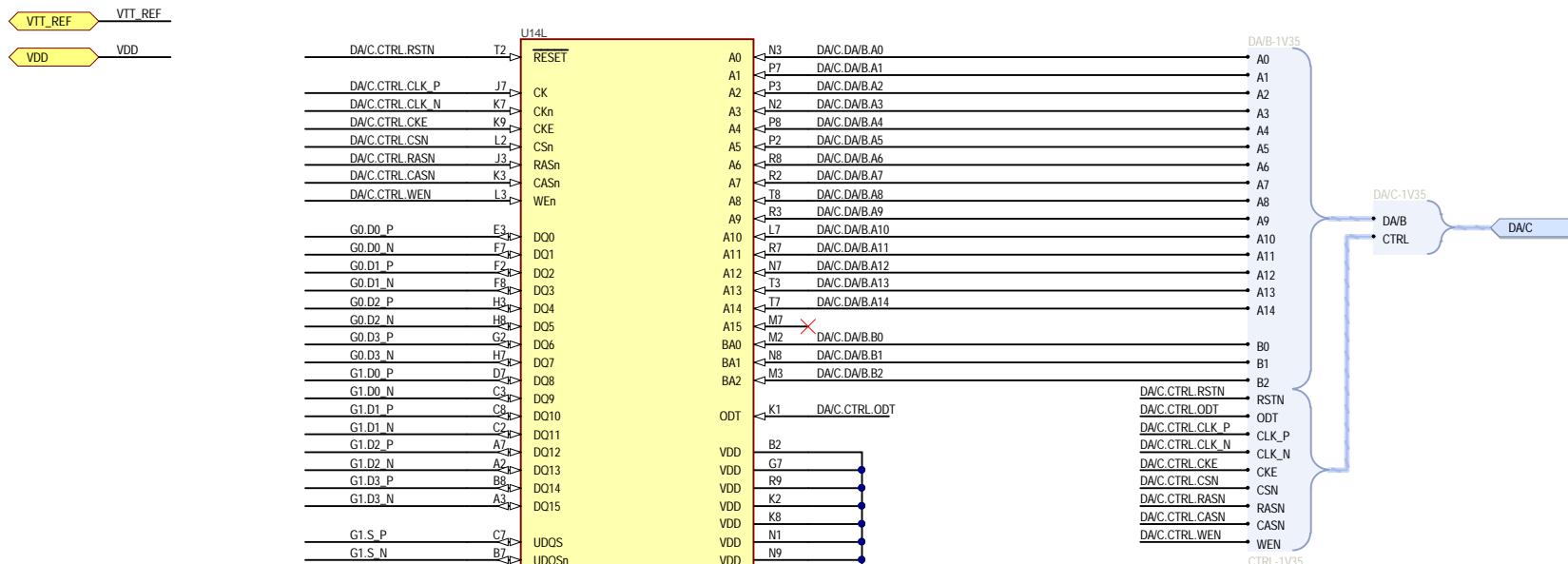


Title: Copper Suicide - SDRAM

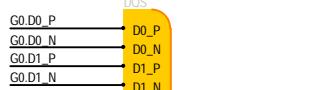
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 19 of 44	Date 6/1/2017

A

A

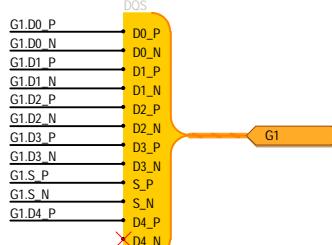


B



C

C



D

D

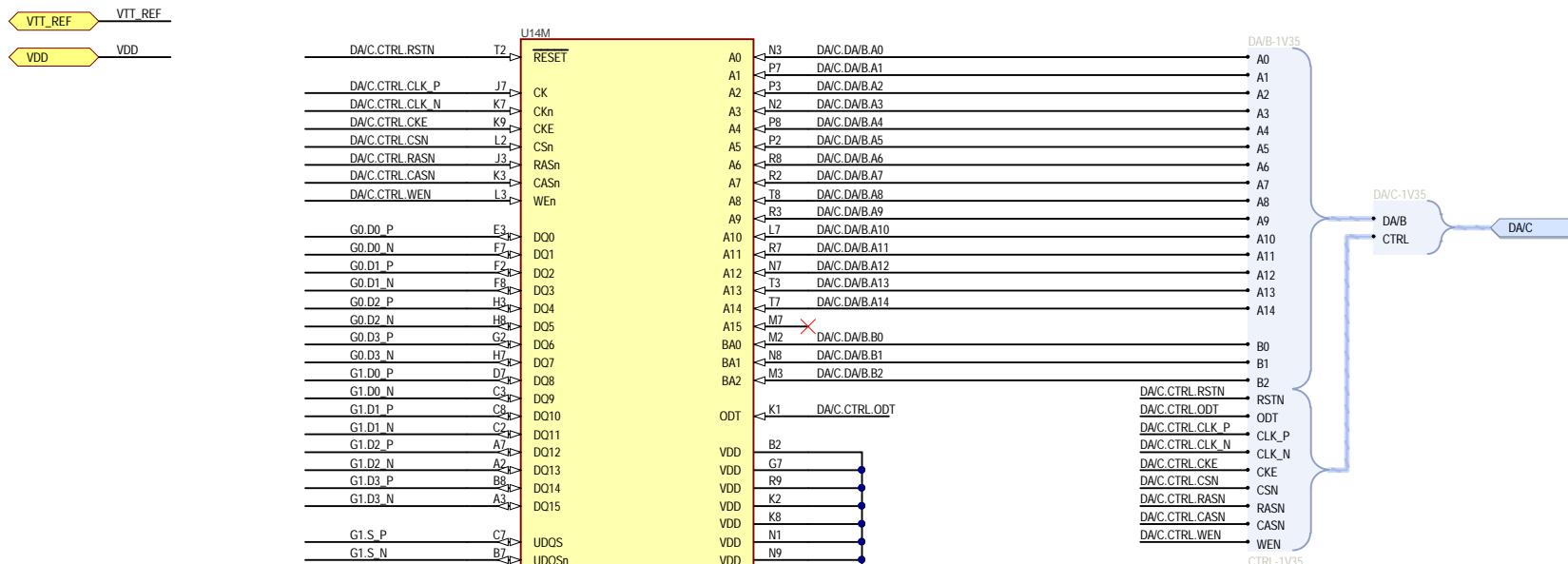


Title: Copper Suicide - SDRAM

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 19 of 44	Date 6/1/2017

A

A



B

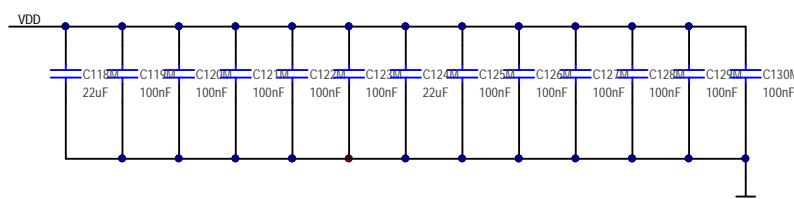
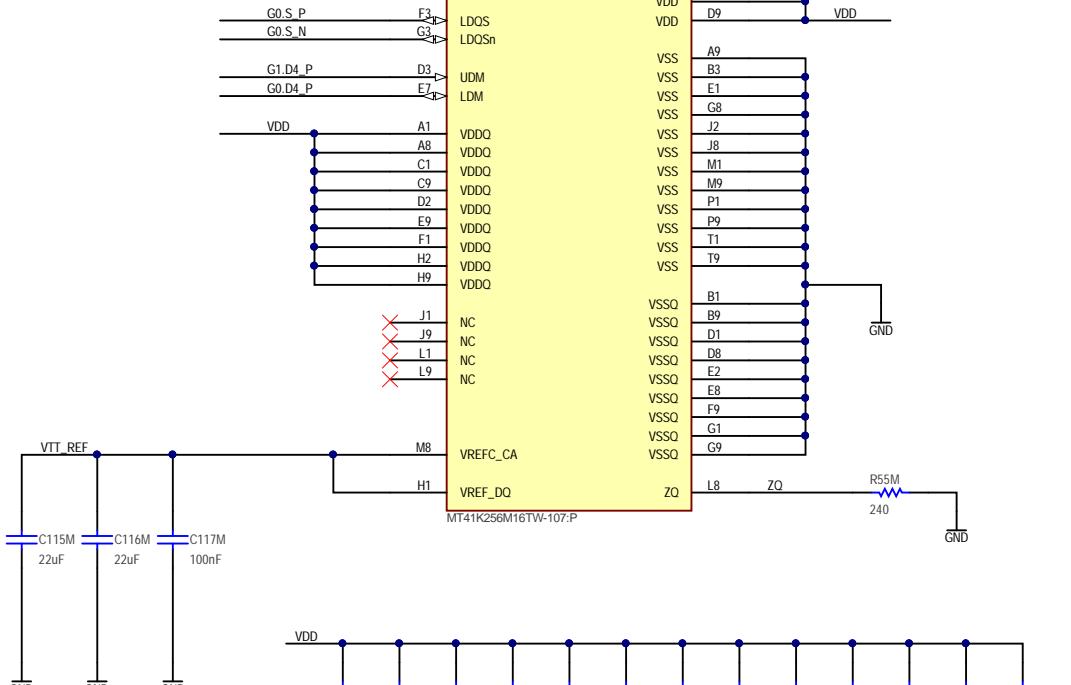
B

C

C

D

D

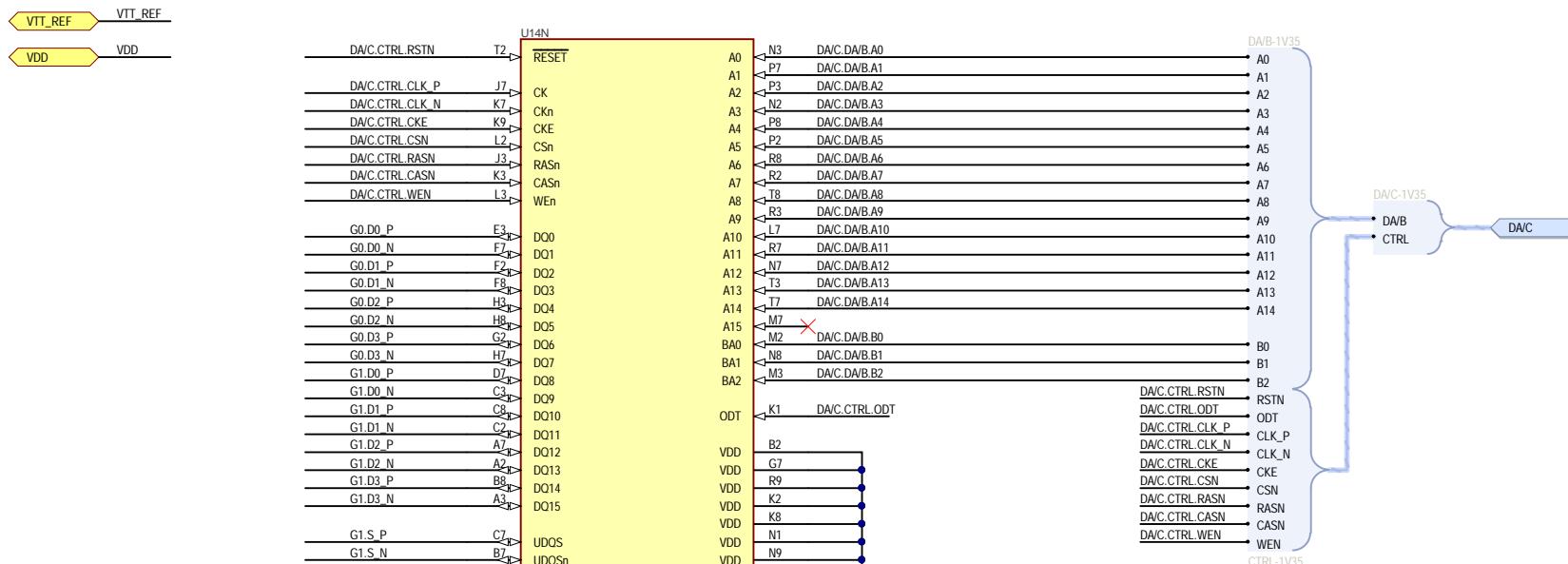


Copper Suicide - SDRAM

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 19 of 44	Date 6/1/2017

A

A



B

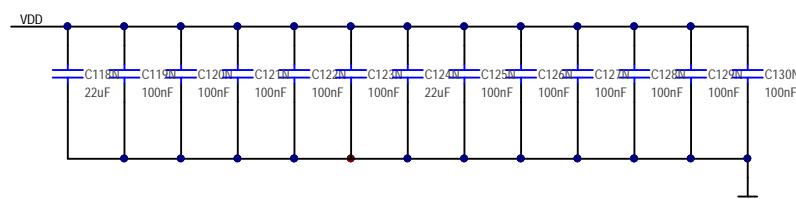
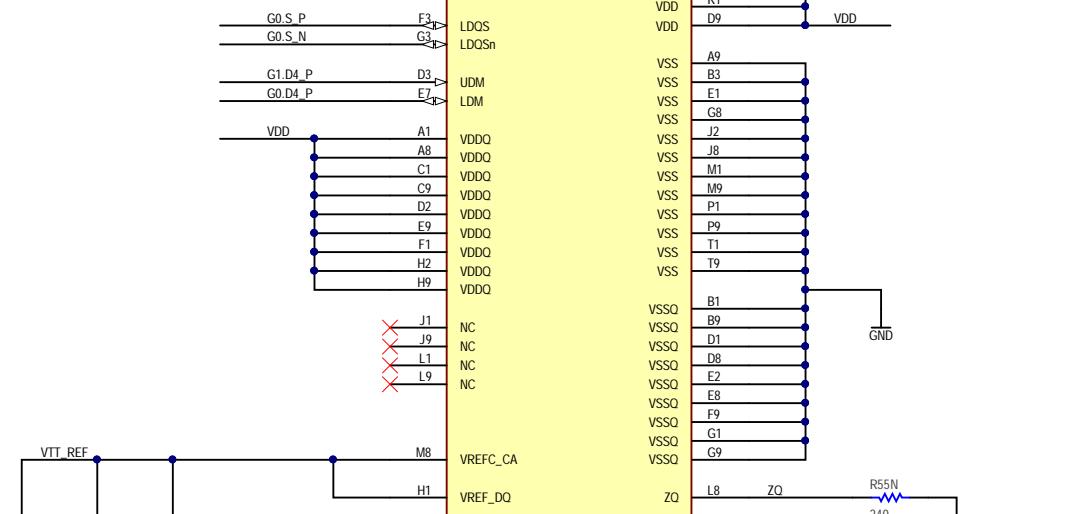
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C

C

D

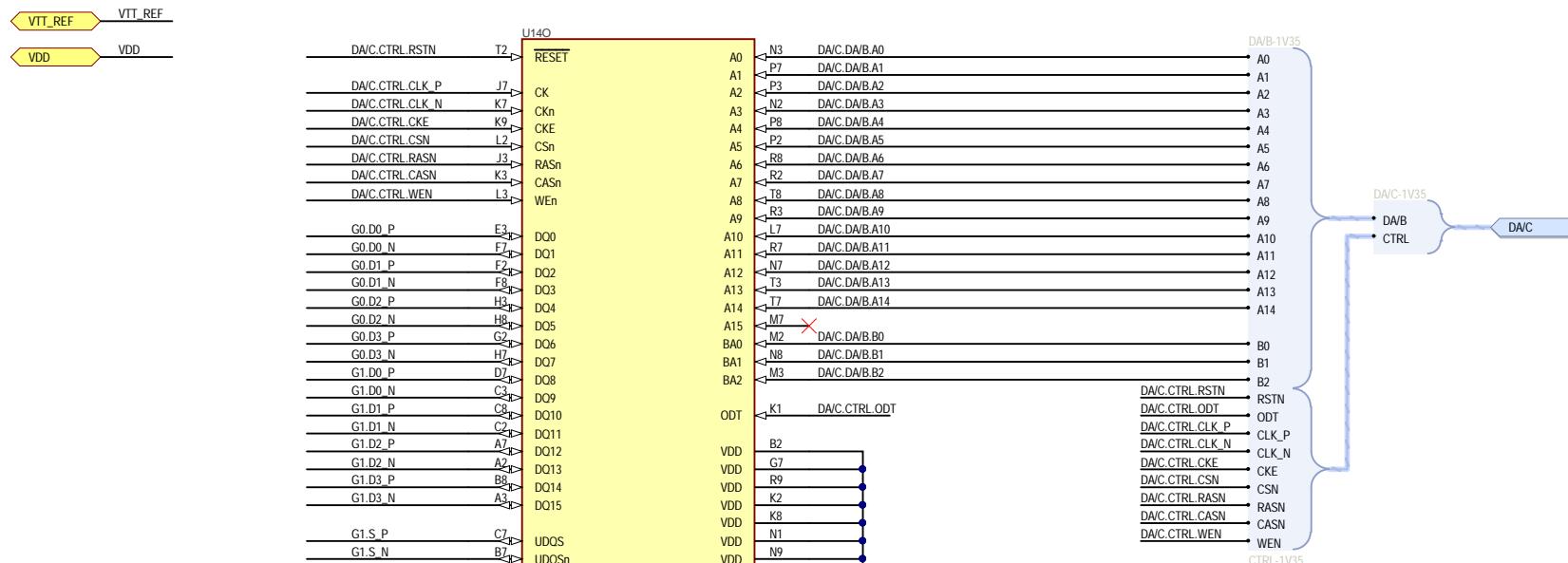
D



Title Copper Suicide - SDRAM		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 19 of 44	Date 6/1/2017

A

A



B

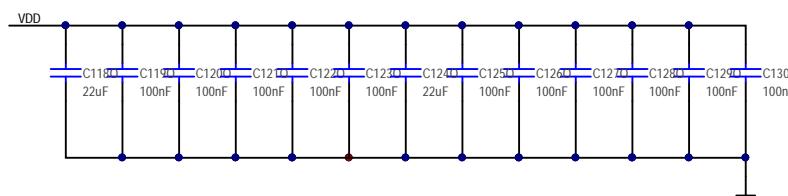
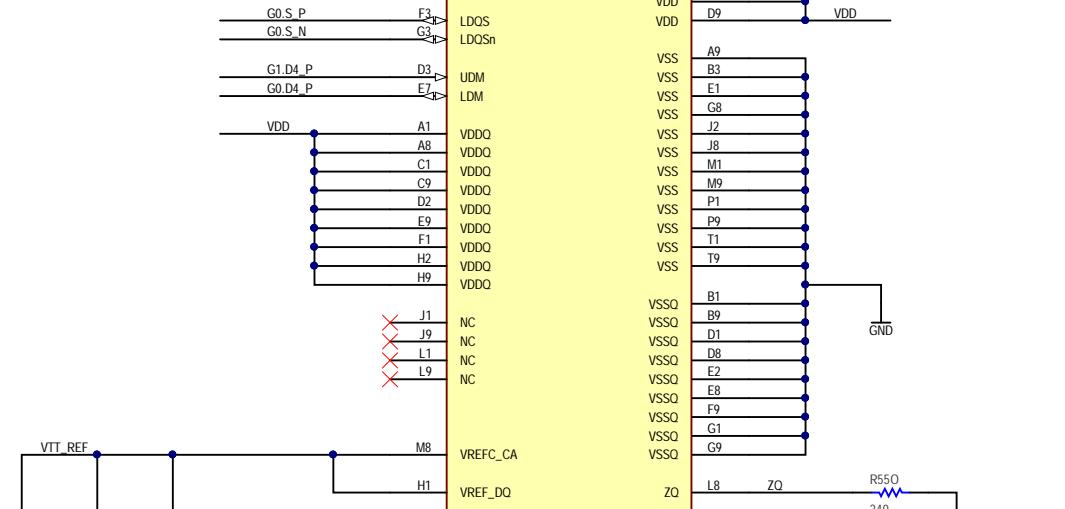
B

C

C

D

D

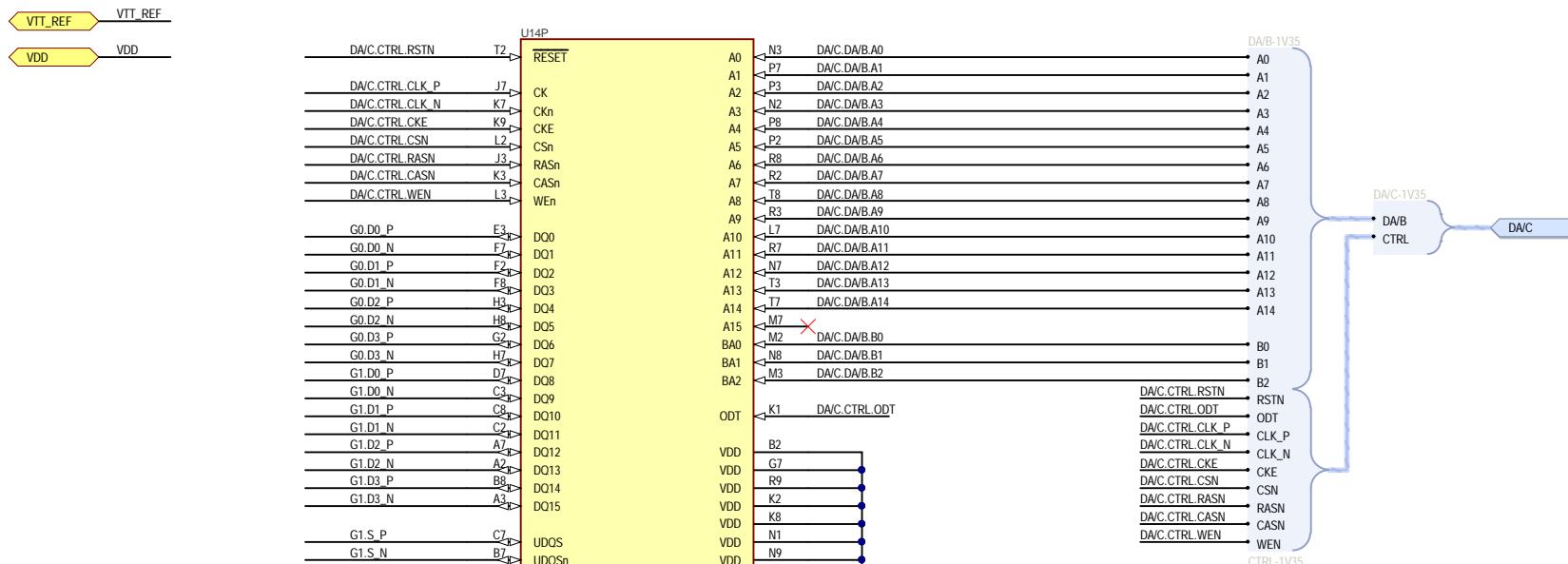


Title: Copper Suicide - SDRAM

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 19 of 44	Date 6/1/2017

A

A



B

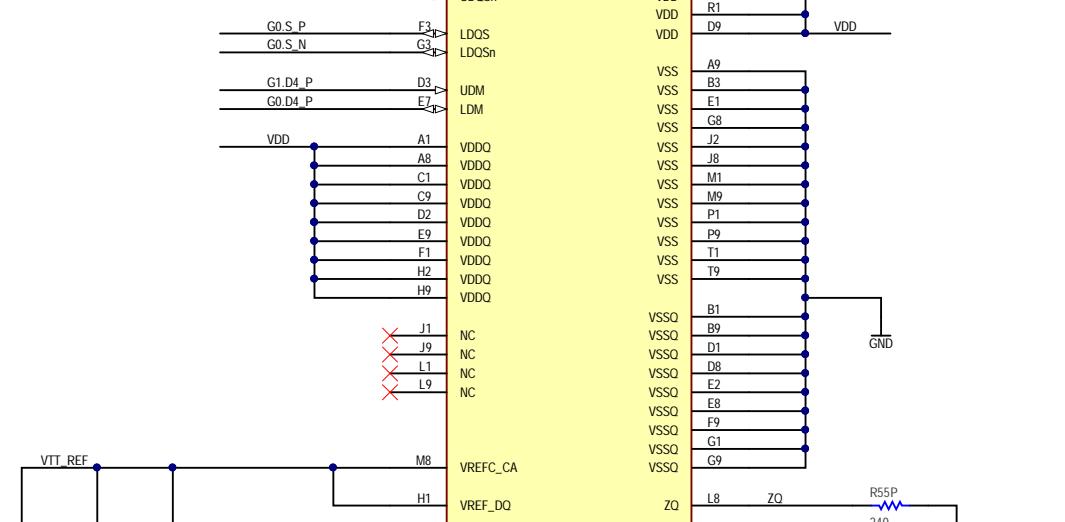
B

C

C

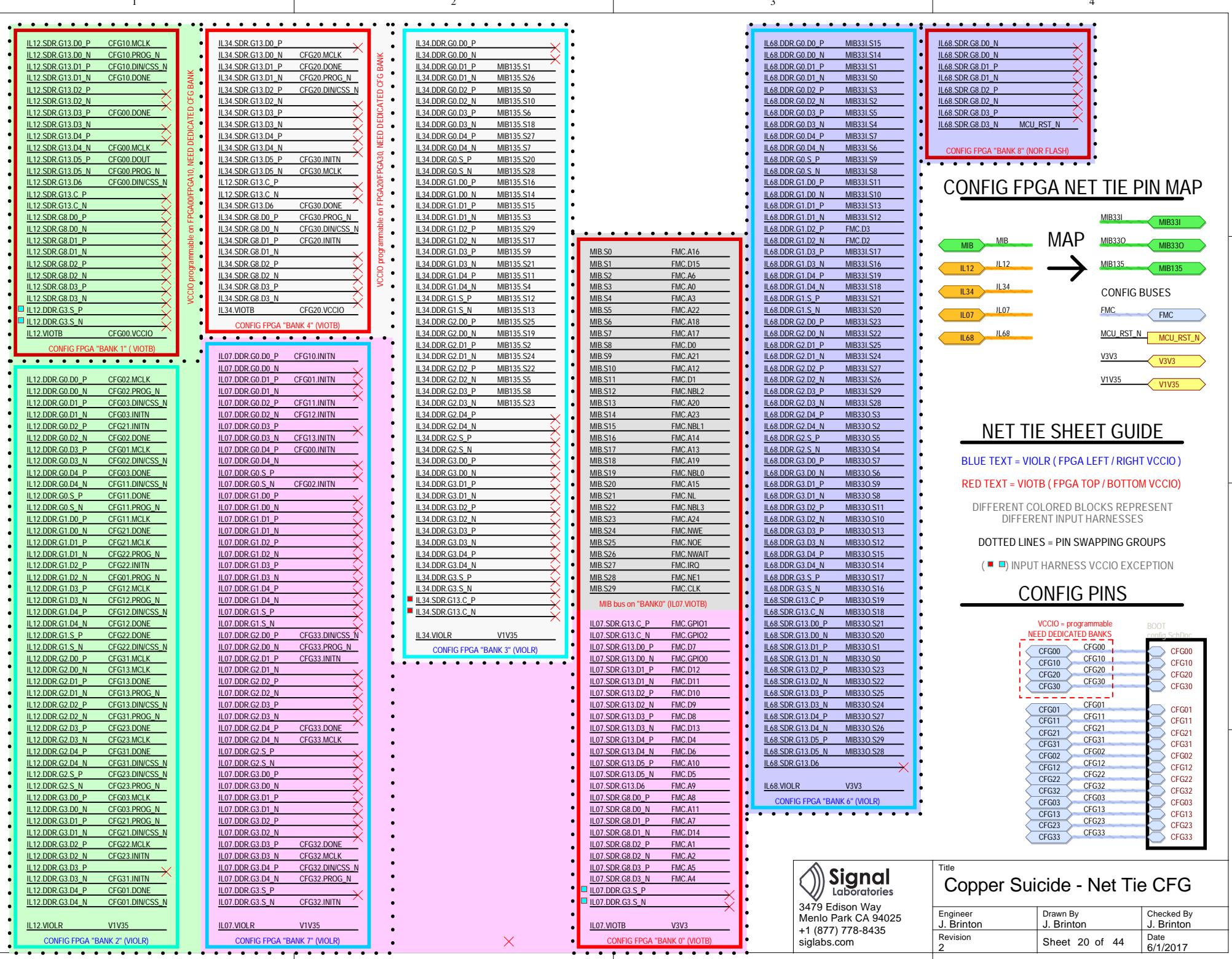
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D

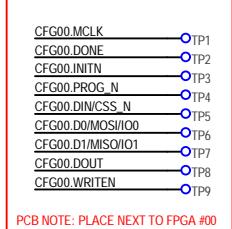
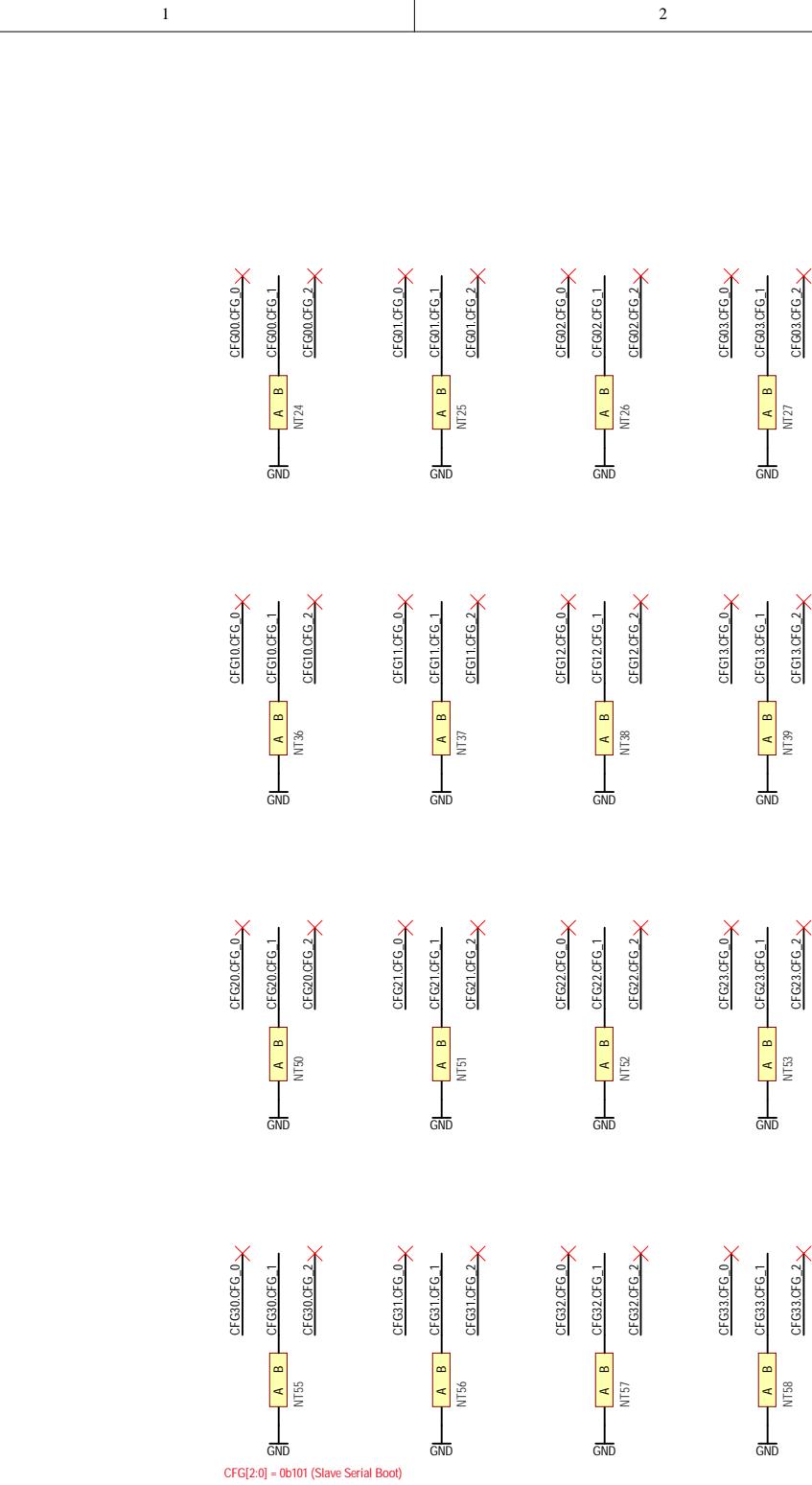
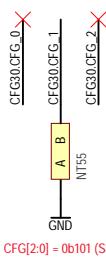
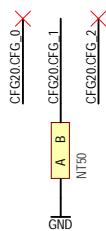
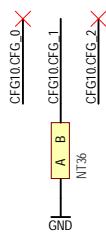
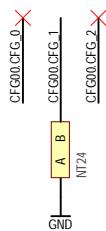


Copper Suicide - SDRAM

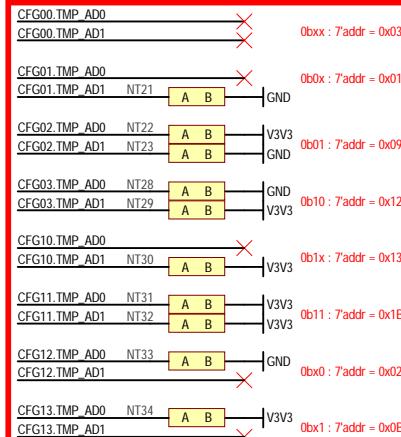
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 19 of 44	Date 6/1/2017



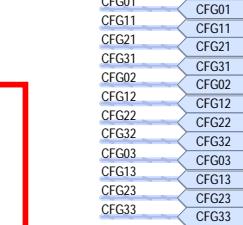
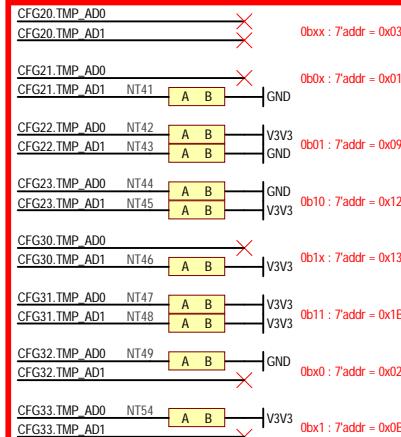
A



TEMP SENSOR I2C ADDRESS SELECT - I2C BUS A



TEMP SENSOR I2C ADDRESS SELECT - I2C BUS B



Copper Suicide - Config Options



Title
Copper Suicide - Config Options
3479 Edison Way
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siglabs.com

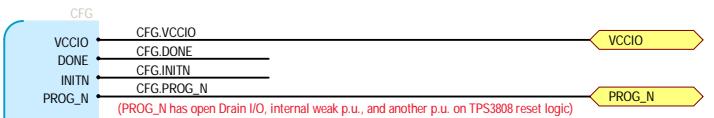
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 21 of 44	Date 6/1/2017

A



(need dedicated GPIO to signal MCLK during Flash reprogramming)

IL68.SDR.G8.D1_P NT17 B A



DOUT CFG.DOUT
(p.u. on TPS3808 reset logic)

MCLK CFG.MCLK

D0/MOSI/I00 CFG.D0/MOSI/I00

D1/MISO/I01 CFG.D1/MISO/I01

(using PB11A, PB11B as IO2 and IO3 for Quad-SPI Flash)

DIN/CSS_N CFG.DIN/CSS_N

WRITEN CFG.WRITEN

TMP_AD0 TEMP SENSOR I2C ADDRESS SELECT (0bxx : 7addr = 0x07)

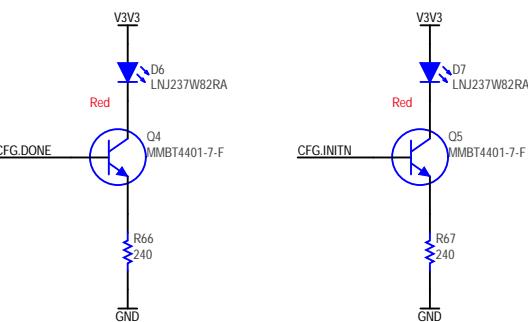
TMP_AD1

CFG_0 CFG.CFG_0

CFG_1 CFG.CFG_1

CFG_2 CFG.CFG_2

IL68.SDR.G8.D1_P NT17 B A



B

CFG

V3V3

R68

4.7k

V3V3

R69

DNP

V3V3

R70

4.7k

DNP

V3V3

R71

DNP

R72

0

GND

R73

DNP

GND

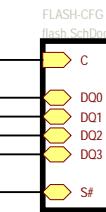
R74

0

GND

CFG[2:0] = 0b010 (Master SPI Boot)

C



D



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Title
Copper Suicide - Net Tie - Flash

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 22 of 44	Date 6/1/2017

A

A

B

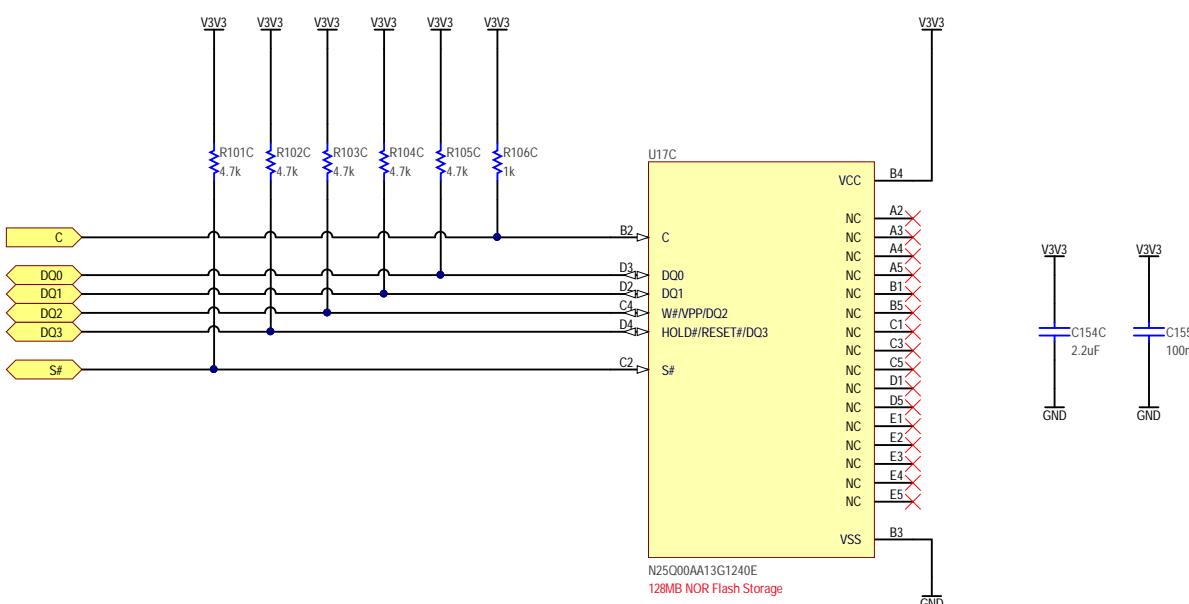
B

C

C

D

D



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Title
Copper Suicide - Flash

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 23 of 44	Date 6/1/2017

A

A

B

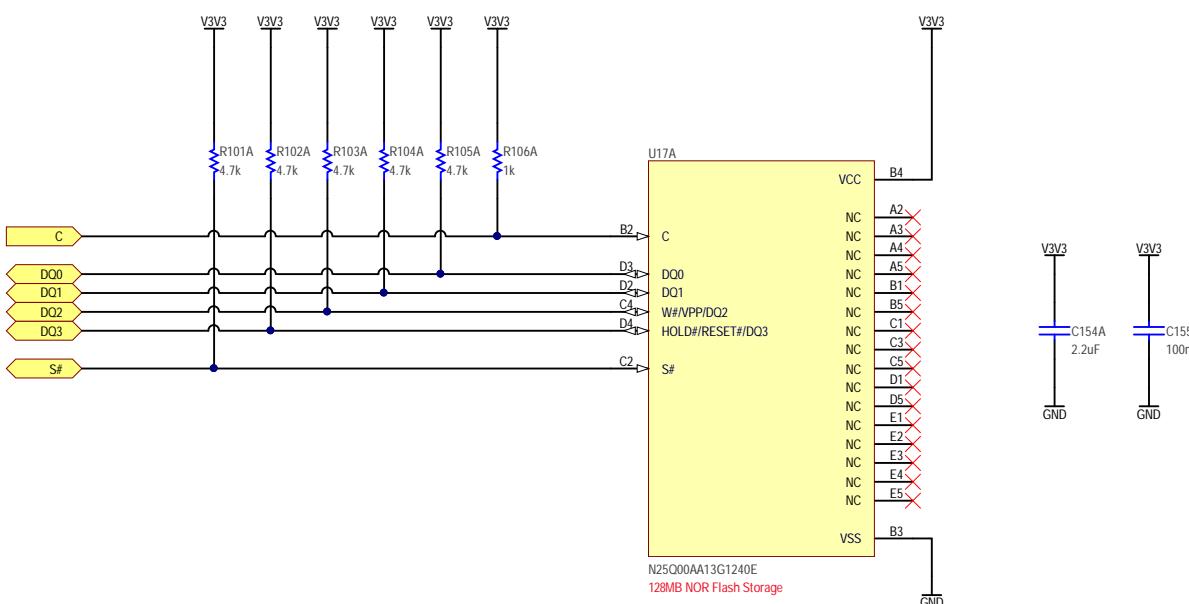
B

C

C

D

D



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Title
Copper Suicide - Flash

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 23 of 44	Date 6/1/2017

A

A

B

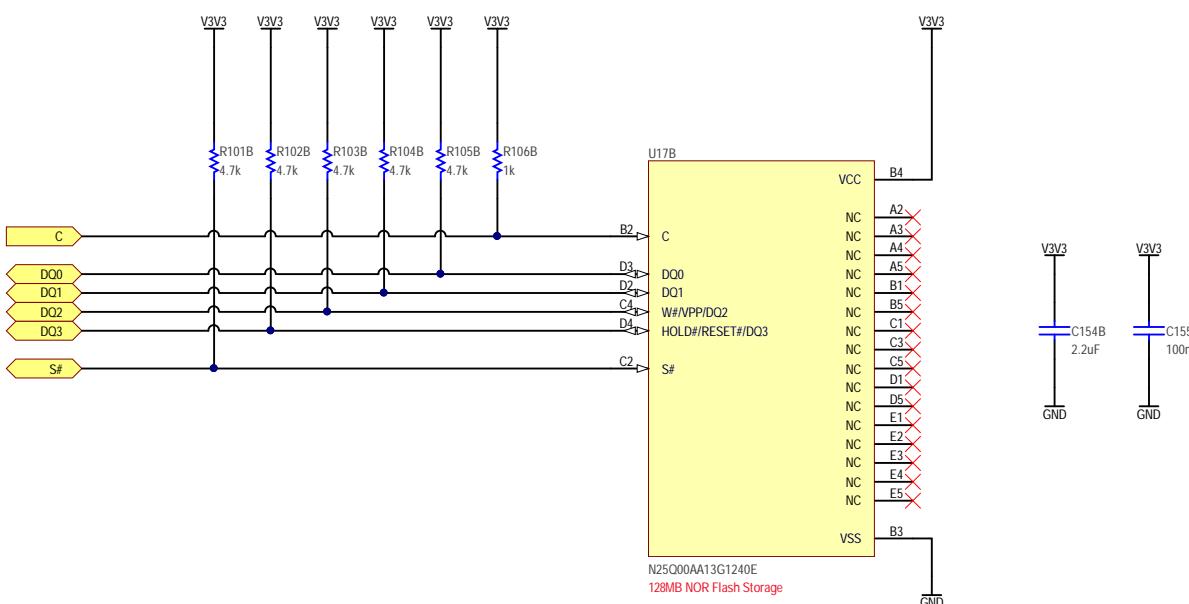
B

C

C

D

D



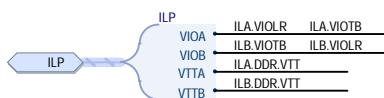
3479 Edison Way
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siglabs.com

Title
Copper Suicide - Flash

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 23 of 44	Date 6/1/2017



A



A

ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G8.D2_P
ILA.SDR.G13.D0_N	ILB.SDR.G8.D2_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D2_P
ILA.SDR.G13.D1_N	ILB.SDR.G13.D2_N
ILA.SDR.G13.D2_P	ILB.SDR.G8.D1_P
ILA.SDR.G13.D2_N	ILB.SDR.G8.D1_N
ILA.SDR.G13.D3_P	ILB.SDR.G13.D4_P
ILA.SDR.G13.D3_N	ILB.SDR.G13.D4_N
ILA.SDR.G13.D4_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D4_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D5_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G13.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G13.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D3_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D3_P	ILB.SDR.G13.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G13.D3_N

B

ILA.DDR.G0.D0_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D0_N
ILA.DDR.G0.D1_P	ILB.DDR.G0.D1_P
ILA.DDR.G0.D1_N	ILB.DDR.G0.D1_N
ILA.DDR.G0.D2_P	ILB.DDR.G0.D2_P
ILA.DDR.G0.D2_N	ILB.DDR.G0.D2_N
ILA.DDR.G0.D3_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D3_N
ILA.DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
ILA.DDR.G0.S_P	ILB.DDR.G0.S_P
ILA.DDR.G0.S_N	ILB.DDR.G0.S_N
ILA.DDR.G1.D0_P	ILB.DDR.G1.D0_P
ILA.DDR.G1.D0_N	ILB.DDR.G1.D0_N
ILA.DDR.G1.D1_P	ILB.DDR.G1.D1_P
ILA.DDR.G1.D1_N	ILB.DDR.G1.D1_N
ILA.DDR.G1.D2_P	ILB.DDR.G1.D2_P
ILA.DDR.G1.D2_N	ILB.DDR.G1.D2_N
ILA.DDR.G1.D3_P	ILB.DDR.G1.D3_P
ILA.DDR.G1.D3_N	ILB.DDR.G1.D3_N
ILA.DDR.G1.D4_P	ILB.DDR.G1.D4_P
ILA.DDR.G1.D4_N	ILB.DDR.G1.D4_N
ILA.DDR.G1.S_P	ILB.DDR.G1.S_P
ILA.DDR.G1.S_N	ILB.DDR.G1.S_N
ILA.DDR.G2.D0_P	ILB.DDR.G2.D0_P
ILA.DDR.G2.D0_N	ILB.DDR.G2.D0_N
ILA.DDR.G2.D1_P	ILB.DDR.G2.D1_P
ILA.DDR.G2.D1_N	ILB.DDR.G2.D1_N
ILA.DDR.G2.D2_P	ILB.DDR.G2.D2_P
ILA.DDR.G2.D2_N	ILB.DDR.G2.D2_N
ILA.DDR.G2.D3_P	ILB.DDR.G2.D3_P
ILA.DDR.G2.D3_N	ILB.DDR.G2.D3_N
ILA.DDR.G2.D4_P	ILB.DDR.G2.D4_P
ILA.DDR.G2.D4_N	ILB.DDR.G2.D4_N
ILA.DDR.G2.S_P	ILB.DDR.G2.S_P
ILA.DDR.G2.S_N	ILB.DDR.G2.S_N
ILA.DDR.G3.D0_P	ILB.DDR.G3.D0_P
ILA.DDR.G3.D0_N	ILB.DDR.G3.D0_N
ILA.DDR.G3.D1_P	ILB.DDR.G3.D1_P
ILA.DDR.G3.D1_N	ILB.DDR.G3.D1_N
ILA.DDR.G3.D2_P	ILB.DDR.G3.D2_P
ILA.DDR.G3.D2_N	ILB.DDR.G3.D2_N
ILA.DDR.G3.D3_P	ILB.DDR.G3.D3_P
ILA.DDR.G3.D3_N	ILB.DDR.G3.D3_N
ILA.DDR.G3.D4_P	ILB.DDR.G3.D4_P
ILA.DDR.G3.D4_N	ILB.DDR.G3.D4_N
ILA.DDR.G3.S_P	ILB.DDR.G3.S_P
ILA.DDR.G3.S_N	ILB.DDR.G3.S_N

PIN SWAPPING TO REDUCE ROUTING COMPLEXITY



Title

Copper Suicide - Net Tie 12:07

Engineer
J. BrintonDrawn By
J. BrintonChecked By
J. Brinton

Revision

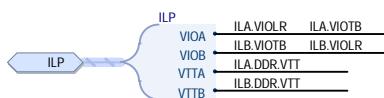
2

Sheet 24 of 44

Date
6/1/2017



A



ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G8.D2_P
ILA.SDR.G13.D0_N	ILB.SDR.G8.D2_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D2_P
ILA.SDR.G13.D1_N	ILB.SDR.G13.D2_N
ILA.SDR.G13.D2_P	ILB.SDR.G8.D1_P
ILA.SDR.G13.D2_N	ILB.SDR.G8.D1_N
ILA.SDR.G13.D3_P	ILB.SDR.G13.D4_P
ILA.SDR.G13.D3_N	ILB.SDR.G13.D4_N
ILA.SDR.G13.D4_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D4_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D5_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G13.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G13.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D3_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D3_P	ILB.SDR.G13.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G13.D3_N

B

ILA.DDR.G0.D0_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D0_N
ILA.DDR.G0.D1_P	ILB.DDR.G0.D1_P
ILA.DDR.G0.D1_N	ILB.DDR.G0.D1_N
ILA.DDR.G0.D2_P	ILB.DDR.G0.D2_P
ILA.DDR.G0.D2_N	ILB.DDR.G0.D2_N
ILA.DDR.G0.D3_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D3_N
ILA.DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
ILA.DDR.G0.S_P	ILB.DDR.G0.S_P
ILA.DDR.G0.S_N	ILB.DDR.G0.S_N
ILA.DDR.G1.D0_P	ILB.DDR.G1.D0_P
ILA.DDR.G1.D0_N	ILB.DDR.G1.D0_N
ILA.DDR.G1.D1_P	ILB.DDR.G1.D1_P
ILA.DDR.G1.D1_N	ILB.DDR.G1.D1_N
ILA.DDR.G1.D2_P	ILB.DDR.G1.D2_P
ILA.DDR.G1.D2_N	ILB.DDR.G1.D2_N
ILA.DDR.G1.D3_P	ILB.DDR.G1.D3_P
ILA.DDR.G1.D3_N	ILB.DDR.G1.D3_N
ILA.DDR.G1.D4_P	ILB.DDR.G1.D4_P
ILA.DDR.G1.D4_N	ILB.DDR.G1.D4_N
ILA.DDR.G1.S_P	ILB.DDR.G1.S_P
ILA.DDR.G1.S_N	ILB.DDR.G1.S_N
ILA.DDR.G2.D0_P	ILB.DDR.G2.D0_P
ILA.DDR.G2.D0_N	ILB.DDR.G2.D0_N
ILA.DDR.G2.D1_P	ILB.DDR.G2.D1_P
ILA.DDR.G2.D1_N	ILB.DDR.G2.D1_N
ILA.DDR.G2.D2_P	ILB.DDR.G2.D2_P
ILA.DDR.G2.D2_N	ILB.DDR.G2.D2_N
ILA.DDR.G2.D3_P	ILB.DDR.G2.D3_P
ILA.DDR.G2.D3_N	ILB.DDR.G2.D3_N
ILA.DDR.G2.D4_P	ILB.DDR.G2.D4_P
ILA.DDR.G2.D4_N	ILB.DDR.G2.D4_N
ILA.DDR.G2.S_P	ILB.DDR.G2.S_P
ILA.DDR.G2.S_N	ILB.DDR.G2.S_N
ILA.DDR.G3.D0_P	ILB.DDR.G3.D0_P
ILA.DDR.G3.D0_N	ILB.DDR.G3.D0_N
ILA.DDR.G3.D1_P	ILB.DDR.G3.D1_P
ILA.DDR.G3.D1_N	ILB.DDR.G3.D1_N
ILA.DDR.G3.D2_P	ILB.DDR.G3.D2_P
ILA.DDR.G3.D2_N	ILB.DDR.G3.D2_N
ILA.DDR.G3.D3_P	ILB.DDR.G3.D3_P
ILA.DDR.G3.D3_N	ILB.DDR.G3.D3_N
ILA.DDR.G3.D4_P	ILB.DDR.G3.D4_P
ILA.DDR.G3.D4_N	ILB.DDR.G3.D4_N
ILA.DDR.G3.S_P	ILB.DDR.G3.S_P
ILA.DDR.G3.S_N	ILB.DDR.G3.S_N

A

PIN SWAPPING TO REDUCE ROUTING COMPLEXITY

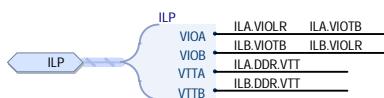


Copper Suicide - Net Tie 12:07

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 24 of 44	Date 6/1/2017



A



A

ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G8.D2_P
ILA.SDR.G13.D0_N	ILB.SDR.G8.D2_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D2_P
ILA.SDR.G13.D1_N	ILB.SDR.G13.D2_N
ILA.SDR.G13.D2_P	ILB.SDR.G8.D1_P
ILA.SDR.G13.D2_N	ILB.SDR.G8.D1_N
ILA.SDR.G13.D3_P	ILB.SDR.G13.D4_P
ILA.SDR.G13.D3_N	ILB.SDR.G13.D4_N
ILA.SDR.G13.D4_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D4_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D5_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G13.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G13.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D3_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D3_P	ILB.SDR.G13.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G13.D3_N

B

ILA.DDR.G0.D0_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D0_N
ILA.DDR.G0.D1_P	ILB.DDR.G0.D1_P
ILA.DDR.G0.D1_N	ILB.DDR.G0.D1_N
ILA.DDR.G0.D2_P	ILB.DDR.G0.D2_P
ILA.DDR.G0.D2_N	ILB.DDR.G0.D2_N
ILA.DDR.G0.D3_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D3_N
ILA.DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
ILA.DDR.G0.S_P	ILB.DDR.G0.S_P
ILA.DDR.G0.S_N	ILB.DDR.G0.S_N
ILA.DDR.G1.D0_P	ILB.DDR.G1.D0_P
ILA.DDR.G1.D0_N	ILB.DDR.G1.D0_N
ILA.DDR.G1.D1_P	ILB.DDR.G1.D1_P
ILA.DDR.G1.D1_N	ILB.DDR.G1.D1_N
ILA.DDR.G1.D2_P	ILB.DDR.G1.D2_P
ILA.DDR.G1.D2_N	ILB.DDR.G1.D2_N
ILA.DDR.G1.D3_P	ILB.DDR.G1.D3_P
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ILA.DDR.G1.S_N	ILB.DDR.G1.S_N
ILA.DDR.G2.D0_P	ILB.DDR.G2.D0_P
ILA.DDR.G2.D0_N	ILB.DDR.G2.D0_N
ILA.DDR.G2.D1_P	ILB.DDR.G2.D1_P
ILA.DDR.G2.D1_N	ILB.DDR.G2.D1_N
ILA.DDR.G2.D2_P	ILB.DDR.G2.D2_P
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ILA.DDR.G2.S_N	ILB.DDR.G2.S_N
ILA.DDR.G3.D0_P	ILB.DDR.G3.D0_P
ILA.DDR.G3.D0_N	ILB.DDR.G3.D0_N
ILA.DDR.G3.D1_P	ILB.DDR.G3.D1_P
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ILA.DDR.G3.D2_P	ILB.DDR.G3.D2_P
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ILA.DDR.G3.S_P	ILB.DDR.G3.S_P
ILA.DDR.G3.S_N	ILB.DDR.G3.S_N

PIN SWAPPING TO REDUCE ROUTING COMPLEXITY



Title

Copper Suicide - Net Tie 12:07

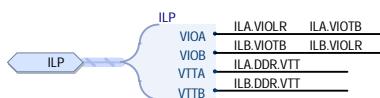
Engineer
J. BrintonDrawn By
J. BrintonChecked By
J. BrintonRevision
2

Sheet 24 of 44

Date
6/1/2017



A



ILA SDR.G13.C_P	ILB.SDR.G13.C_P
ILA SDR.G13.C_N	ILB.SDR.G13.C_N
ILA SDR.G13.D0_P	ILB.SDR.G13.D4_P
ILA SDR.G13.D0_N	ILB.SDR.G13.D4_N
ILA SDR.G13.D1_P	ILB.SDR.G13.D5_P
ILA SDR.G13.D1_N	ILB.SDR.G13.D5_N
ILA SDR.G13.D2_P	ILB.SDR.G13.D1_P
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ILA SDR.G13.D3_P	ILB.SDR.G13.D3_P
ILA SDR.G13.D3_N	ILB.SDR.G13.D3_N
ILA SDR.G13.D4_P	ILB.SDR.G13.D0_P
ILA SDR.G13.D4_N	ILB.SDR.G13.D0_N
ILA SDR.G13.D5_P	ILB.SDR.G13.D2_P
ILA SDR.G13.D5_N	ILB.SDR.G13.D2_N
ILA SDR.G13.D6	ILB.SDR.G13.D6

ILA SDR.G8.D0_P	ILB.SDR.G8.D0_P
ILA SDR.G8.D0_N	ILB.SDR.G8.D0_N
ILA SDR.G8.D1_P	ILB.SDR.G8.D2_P
ILA SDR.G8.D1_N	ILB.SDR.G8.D2_N
ILA SDR.G8.D2_P	ILB.SDR.G8.D1_P
ILA SDR.G8.D2_N	ILB.SDR.G8.D1_N
ILA SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA SDR.G8.D3_N	ILB.SDR.G8.D3_N

B

ILA DDR.G0.D0_P	ILB.DDR.G0.D1_P
ILA DDR.G0.D0_N	ILB.DDR.G0.D1_N
ILA DDR.G0.D1_P	ILB.DDR.G0.D0_P
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ILA DDR.G0.D2_P	ILB.DDR.G0.D2_P
ILA DDR.G0.D2_N	ILB.DDR.G0.D2_N
ILA DDR.G0.D3_P	ILB.DDR.G0.D3_P
ILA DDR.G0.D3_N	ILB.DDR.G0.D3_N
ILA DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA DDR.G0.D4_N	ILB.DDR.G0.D4_N
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ILA DDR.G2.D0_N	ILB.DDR.G2.D4_N
ILA DDR.G2.D1_P	ILB.DDR.G2.D1_P
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ILA DDR.G3.D1_N	ILB.DDR.G3.D1_N
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ILA DDR.G3.D2_P	ILB.DDR.G3.D2_P
ILA DDR.G3.D2_N	ILB.DDR.G3.D2_N
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ILA DDR.G3.D4_P	ILB.DDR.G3.D4_P
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ILA DDR.G3.S_P	ILB.DDR.G3.S_P
ILA DDR.G3.S_N	ILB.DDR.G3.S_N

B

C

PIN SWAPPING TO REDUCE ROUTING COMPLEXITY

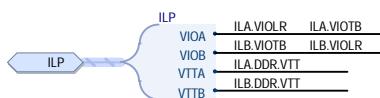


Copper Suicide - Net Tie 12:68

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 25 of 44	Date 6/1/2017



A



ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G13.D4_P
ILA.SDR.G13.D0_N	ILB.SDR.G13.D4_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D1_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D2_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D2_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D3_P	ILB.SDR.G13.D3_P
ILA.SDR.G13.D3_N	ILB.SDR.G13.D3_N
ILA.SDR.G13.D4_P	ILB.SDR.G13.D0_P
ILA.SDR.G13.D4_N	ILB.SDR.G13.D0_N
ILA.SDR.G13.D5_P	ILB.SDR.G13.D2_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D2_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D2_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D2_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D1_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D1_N
ILA.SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G8.D3_N

B

ILA.DDR.G0.D0_P	ILB.DDR.G0.D1_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D1_N
ILA.DDR.G0.D1_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D1_N	ILB.DDR.G0.D0_N
ILA.DDR.G0.D2_P	ILB.DDR.G0.D2_P
ILA.DDR.G0.D2_N	ILB.DDR.G0.D2_N
ILA.DDR.G0.D3_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D3_N
ILA.DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
ILA.DDR.G0.S_P	ILB.DDR.G0.S_P
ILA.DDR.G0.S_N	ILB.DDR.G0.S_N
ILA.DDR.G1.D0_P	ILB.DDR.G1.D0_P
ILA.DDR.G1.D0_N	ILB.DDR.G1.D0_N
ILA.DDR.G1.D1_P	ILB.DDR.G1.D2_P
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ILA.DDR.G1.D2_P	ILB.DDR.G1.D3_P
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ILA.DDR.G1.S_N	ILB.DDR.G1.S_N
ILA.DDR.G2.D0_P	ILB.DDR.G2.D4_P
ILA.DDR.G2.D0_N	ILB.DDR.G2.D4_N
ILA.DDR.G2.D1_P	ILB.DDR.G2.D1_P
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ILA.DDR.G3.D0_N	ILB.DDR.G3.D0_N
ILA.DDR.G3.D2_P	ILB.DDR.G3.D2_P
ILA.DDR.G3.D2_N	ILB.DDR.G3.D2_N
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ILA.DDR.G3.S_P	ILB.DDR.G3.S_P
ILA.DDR.G3.S_N	ILB.DDR.G3.S_N

A

PIN SWAPPING TO REDUCE ROUTING COMPLEXITY

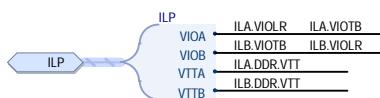


Title: Copper Suicide - Net Tie 12:68

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 25 of 44	Date 6/1/2017



A



ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G13.D4_P
ILA.SDR.G13.D0_N	ILB.SDR.G13.D4_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D1_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D2_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D2_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D3_P	ILB.SDR.G13.D3_P
ILA.SDR.G13.D3_N	ILB.SDR.G13.D3_N
ILA.SDR.G13.D4_P	ILB.SDR.G13.D0_P
ILA.SDR.G13.D4_N	ILB.SDR.G13.D0_N
ILA.SDR.G13.D5_P	ILB.SDR.G13.D2_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D2_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D2_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D2_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D1_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D1_N
ILA.SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G8.D3_N

B

ILA.DDR.G0.D0_P	ILB.DDR.G0.D1_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D1_N
ILA.DDR.G0.D1_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D1_N	ILB.DDR.G0.D0_N
ILA.DDR.G0.D2_P	ILB.DDR.G0.D2_P
ILA.DDR.G0.D2_N	ILB.DDR.G0.D2_N
ILA.DDR.G0.D3_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D3_N
ILA.DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
ILA.DDR.G0.S_P	ILB.DDR.G0.S_P
ILA.DDR.G0.S_N	ILB.DDR.G0.S_N
ILA.DDR.G1.D0_P	ILB.DDR.G1.D0_P
ILA.DDR.G1.D0_N	ILB.DDR.G1.D0_N
ILA.DDR.G1.D1_P	ILB.DDR.G1.D2_P
ILA.DDR.G1.D1_N	ILB.DDR.G1.D2_N
ILA.DDR.G1.D2_P	ILB.DDR.G1.D3_P
ILA.DDR.G1.D2_N	ILB.DDR.G1.D3_N
ILA.DDR.G1.D3_P	ILB.DDR.G1.D1_P
ILA.DDR.G1.D3_N	ILB.DDR.G1.D1_N
ILA.DDR.G1.D4_P	ILB.DDR.G1.D4_P
ILA.DDR.G1.D4_N	ILB.DDR.G1.D4_N
ILA.DDR.G1.S_P	ILB.DDR.G1.S_P
ILA.DDR.G1.S_N	ILB.DDR.G1.S_N
ILA.DDR.G2.D0_P	ILB.DDR.G2.D4_P
ILA.DDR.G2.D0_N	ILB.DDR.G2.D4_N
ILA.DDR.G2.D1_P	ILB.DDR.G2.D1_P
ILA.DDR.G2.D1_N	ILB.DDR.G2.D1_N
ILA.DDR.G2.D2_P	ILB.DDR.G2.D0_P
ILA.DDR.G2.D2_N	ILB.DDR.G2.D0_N
ILA.DDR.G2.D3_P	ILB.DDR.G2.D3_P
ILA.DDR.G2.D3_N	ILB.DDR.G2.D3_N
ILA.DDR.G2.D4_P	ILB.DDR.G2.D2_P
ILA.DDR.G2.D4_N	ILB.DDR.G2.D2_N
ILA.DDR.G2.S_P	ILB.DDR.G2.S_P
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ILA.DDR.G3.D1_N	ILB.DDR.G3.D1_N
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ILA.DDR.G3.D0_N	ILB.DDR.G3.D0_N
ILA.DDR.G3.D2_P	ILB.DDR.G3.D2_P
ILA.DDR.G3.D2_N	ILB.DDR.G3.D2_N
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ILA.DDR.G3.D3_N	ILB.DDR.G3.D3_N
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ILA.DDR.G3.D4_N	ILB.DDR.G3.D4_N
ILA.DDR.G3.S_P	ILB.DDR.G3.S_P
ILA.DDR.G3.S_N	ILB.DDR.G3.S_N

A

PIN SWAPPING TO REDUCE ROUTING COMPLEXITY

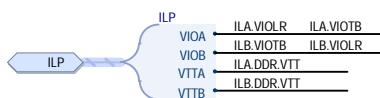


Title: Copper Suicide - Net Tie 12:68

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 25 of 44	Date 6/1/2017



A



ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G13.D4_P
ILA.SDR.G13.D0_N	ILB.SDR.G13.D4_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D1_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D2_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D2_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D3_P	ILB.SDR.G13.D3_P
ILA.SDR.G13.D3_N	ILB.SDR.G13.D3_N
ILA.SDR.G13.D4_P	ILB.SDR.G13.D0_P
ILA.SDR.G13.D4_N	ILB.SDR.G13.D0_N
ILA.SDR.G13.D5_P	ILB.SDR.G13.D2_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D2_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D2_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D2_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D1_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D1_N
ILA.SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G8.D3_N

B

ILA.DDR.G0.D0_P	ILB.DDR.G0.D1_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D1_N
ILA.DDR.G0.D1_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D1_N	ILB.DDR.G0.D0_N
ILA.DDR.G0.D2_P	ILB.DDR.G0.D2_P
ILA.DDR.G0.D2_N	ILB.DDR.G0.D2_N
ILA.DDR.G0.D3_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D3_N
ILA.DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
ILA.DDR.G0.S_P	ILB.DDR.G0.S_P
ILA.DDR.G0.S_N	ILB.DDR.G0.S_N
ILA.DDR.G1.D0_P	ILB.DDR.G1.D0_P
ILA.DDR.G1.D0_N	ILB.DDR.G1.D0_N
ILA.DDR.G1.D1_P	ILB.DDR.G1.D2_P
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ILA.DDR.G1.D3_N	ILB.DDR.G1.D1_N
ILA.DDR.G1.D4_P	ILB.DDR.G1.D4_P
ILA.DDR.G1.D4_N	ILB.DDR.G1.D4_N
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ILA.DDR.G3.D4_N	ILB.DDR.G3.D4_N
ILA.DDR.G3.S_P	ILB.DDR.G3.S_P
ILA.DDR.G3.S_N	ILB.DDR.G3.S_N

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PIN SWAPPING TO REDUCE ROUTING COMPLEXITY

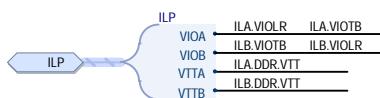


Title: Copper Suicide - Net Tie 12:68

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 25 of 44	Date 6/1/2017



A



ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G13.D4_P
ILA.SDR.G13.D0_N	ILB.SDR.G13.D4_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D1_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D2_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D2_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D3_P	ILB.SDR.G13.D3_P
ILA.SDR.G13.D3_N	ILB.SDR.G13.D3_N
ILA.SDR.G13.D4_P	ILB.SDR.G13.D0_P
ILA.SDR.G13.D4_N	ILB.SDR.G13.D0_N
ILA.SDR.G13.D5_P	ILB.SDR.G13.D2_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D2_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D2_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D2_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D1_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D1_N
ILA.SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G8.D3_N

B

ILA.DDR.G0.D0_P	ILB.DDR.G0.D1_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D1_N
ILA.DDR.G0.D1_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D1_N	ILB.DDR.G0.D0_N
ILA.DDR.G0.D2_P	ILB.DDR.G0.D2_P
ILA.DDR.G0.D2_N	ILB.DDR.G0.D2_N
ILA.DDR.G0.D3_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D3_N
ILA.DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
ILA.DDR.G0.S_P	ILB.DDR.G0.S_P
ILA.DDR.G0.S_N	ILB.DDR.G0.S_N
ILA.DDR.G1.D0_P	ILB.DDR.G1.D0_P
ILA.DDR.G1.D0_N	ILB.DDR.G1.D0_N
ILA.DDR.G1.D1_P	ILB.DDR.G1.D2_P
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ILA.DDR.G1.D3_N	ILB.DDR.G1.D1_N
ILA.DDR.G1.D4_P	ILB.DDR.G1.D4_P
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ILA.DDR.G1.S_P	ILB.DDR.G1.S_P
ILA.DDR.G1.S_N	ILB.DDR.G1.S_N
ILA.DDR.G2.D0_P	ILB.DDR.G2.D4_P
ILA.DDR.G2.D0_N	ILB.DDR.G2.D4_N
ILA.DDR.G2.D1_P	ILB.DDR.G2.D1_P
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ILA.DDR.G3.S_P	ILB.DDR.G3.S_P
ILA.DDR.G3.S_N	ILB.DDR.G3.S_N

A

PIN SWAPPING TO REDUCE ROUTING COMPLEXITY

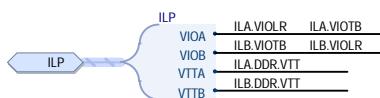


Title: Copper Suicide - Net Tie 12:68

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 25 of 44	Date 6/1/2017



A



ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G13.D4_P
ILA.SDR.G13.D0_N	ILB.SDR.G13.D4_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D1_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D2_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D2_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D3_P	ILB.SDR.G13.D3_P
ILA.SDR.G13.D3_N	ILB.SDR.G13.D3_N
ILA.SDR.G13.D4_P	ILB.SDR.G13.D0_P
ILA.SDR.G13.D4_N	ILB.SDR.G13.D0_N
ILA.SDR.G13.D5_P	ILB.SDR.G13.D2_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D2_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D2_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D2_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D1_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D1_N
ILA.SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G8.D3_N

B

ILA.DDR.G0.D0_P	ILB.DDR.G0.D1_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D1_N
ILA.DDR.G0.D1_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D1_N	ILB.DDR.G0.D0_N
ILA.DDR.G0.D2_P	ILB.DDR.G0.D2_P
ILA.DDR.G0.D2_N	ILB.DDR.G0.D2_N
ILA.DDR.G0.D3_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D3_N
ILA.DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
ILA.DDR.G0.S_P	ILB.DDR.G0.S_P
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ILA.DDR.G1.D0_P	ILB.DDR.G1.D0_P
ILA.DDR.G1.D0_N	ILB.DDR.G1.D0_N
ILA.DDR.G1.D1_P	ILB.DDR.G1.D2_P
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ILA.DDR.G1.D4_P	ILB.DDR.G1.D4_P
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ILA.DDR.G2.D1_P	ILB.DDR.G2.D1_P
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ILA.DDR.G3.S_N	ILB.DDR.G3.S_N

A

PIN SWAPPING TO REDUCE ROUTING COMPLEXITY

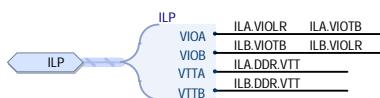


Title: Copper Suicide - Net Tie 12:68

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 25 of 44	Date 6/1/2017



A



ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G13.D4_P
ILA.SDR.G13.D0_N	ILB.SDR.G13.D4_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D1_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D2_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D2_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D3_P	ILB.SDR.G13.D3_P
ILA.SDR.G13.D3_N	ILB.SDR.G13.D3_N
ILA.SDR.G13.D4_P	ILB.SDR.G13.D0_P
ILA.SDR.G13.D4_N	ILB.SDR.G13.D0_N
ILA.SDR.G13.D5_P	ILB.SDR.G13.D2_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D2_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D2_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D2_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D1_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D1_N
ILA.SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G8.D3_N

B

ILA.DDR.G0.D0_P	ILB.DDR.G0.D1_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D1_N
ILA.DDR.G0.D1_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D1_N	ILB.DDR.G0.D0_N
ILA.DDR.G0.D2_P	ILB.DDR.G0.D2_P
ILA.DDR.G0.D2_N	ILB.DDR.G0.D2_N
ILA.DDR.G0.D3_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D3_N
ILA.DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
ILA.DDR.G0.S_P	ILB.DDR.G0.S_P
ILA.DDR.G0.S_N	ILB.DDR.G0.S_N
ILA.DDR.G1.D0_P	ILB.DDR.G1.D0_P
ILA.DDR.G1.D0_N	ILB.DDR.G1.D0_N
ILA.DDR.G1.D1_P	ILB.DDR.G1.D2_P
ILA.DDR.G1.D1_N	ILB.DDR.G1.D2_N
ILA.DDR.G1.D2_P	ILB.DDR.G1.D3_P
ILA.DDR.G1.D2_N	ILB.DDR.G1.D3_N
ILA.DDR.G1.D3_P	ILB.DDR.G1.D1_P
ILA.DDR.G1.D3_N	ILB.DDR.G1.D1_N
ILA.DDR.G1.D4_P	ILB.DDR.G1.D4_P
ILA.DDR.G1.D4_N	ILB.DDR.G1.D4_N
ILA.DDR.G1.S_P	ILB.DDR.G1.S_P
ILA.DDR.G1.S_N	ILB.DDR.G1.S_N
ILA.DDR.G2.D0_P	ILB.DDR.G2.D4_P
ILA.DDR.G2.D0_N	ILB.DDR.G2.D4_N
ILA.DDR.G2.D1_P	ILB.DDR.G2.D1_P
ILA.DDR.G2.D1_N	ILB.DDR.G2.D1_N
ILA.DDR.G2.D2_P	ILB.DDR.G2.D0_P
ILA.DDR.G2.D2_N	ILB.DDR.G2.D0_N
ILA.DDR.G2.D3_P	ILB.DDR.G2.D3_P
ILA.DDR.G2.D3_N	ILB.DDR.G2.D3_N
ILA.DDR.G2.D4_P	ILB.DDR.G2.D2_P
ILA.DDR.G2.D4_N	ILB.DDR.G2.D2_N
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ILA.DDR.G3.D1_N	ILB.DDR.G3.D1_N
ILA.DDR.G3.D0_P	ILB.DDR.G3.D0_P
ILA.DDR.G3.D0_N	ILB.DDR.G3.D0_N
ILA.DDR.G3.D2_P	ILB.DDR.G3.D2_P
ILA.DDR.G3.D2_N	ILB.DDR.G3.D2_N
ILA.DDR.G3.D3_P	ILB.DDR.G3.D3_P
ILA.DDR.G3.D3_N	ILB.DDR.G3.D3_N
ILA.DDR.G3.D4_P	ILB.DDR.G3.D4_P
ILA.DDR.G3.D4_N	ILB.DDR.G3.D4_N
ILA.DDR.G3.S_P	ILB.DDR.G3.S_P
ILA.DDR.G3.S_N	ILB.DDR.G3.S_N

A

PIN SWAPPING TO REDUCE ROUTING COMPLEXITY

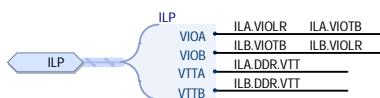


Title: Copper Suicide - Net Tie 12:68

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 25 of 44	Date 6/1/2017



A



ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G13.D4_P
ILA.SDR.G13.D0_N	ILB.SDR.G13.D4_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D1_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D2_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D2_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D3_P	ILB.SDR.G13.D3_P
ILA.SDR.G13.D3_N	ILB.SDR.G13.D3_N
ILA.SDR.G13.D4_P	ILB.SDR.G13.D0_P
ILA.SDR.G13.D4_N	ILB.SDR.G13.D0_N
ILA.SDR.G13.D5_P	ILB.SDR.G13.D2_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D2_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D2_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D2_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D1_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D1_N
ILA.SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G8.D3_N

B

ILA.DDR.G0.D0_P	ILB.DDR.G0.D1_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D1_N
ILA.DDR.G0.D1_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D1_N	ILB.DDR.G0.D0_N
ILA.DDR.G0.D2_P	ILB.DDR.G0.D2_P
ILA.DDR.G0.D2_N	ILB.DDR.G0.D2_N
ILA.DDR.G0.D3_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D3_N
ILA.DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
ILA.DDR.G0.S_P	ILB.DDR.G0.S_P
ILA.DDR.G0.S_N	ILB.DDR.G0.S_N
ILA.DDR.G1.D0_P	ILB.DDR.G1.D0_P
ILA.DDR.G1.D0_N	ILB.DDR.G1.D0_N
ILA.DDR.G1.D1_P	ILB.DDR.G1.D2_P
ILA.DDR.G1.D1_N	ILB.DDR.G1.D2_N
ILA.DDR.G1.D2_P	ILB.DDR.G1.D3_P
ILA.DDR.G1.D2_N	ILB.DDR.G1.D3_N
ILA.DDR.G1.D3_P	ILB.DDR.G1.D1_P
ILA.DDR.G1.D3_N	ILB.DDR.G1.D1_N
ILA.DDR.G1.D4_P	ILB.DDR.G1.D4_P
ILA.DDR.G1.D4_N	ILB.DDR.G1.D4_N
ILA.DDR.G1.S_P	ILB.DDR.G1.S_P
ILA.DDR.G1.S_N	ILB.DDR.G1.S_N
ILA.DDR.G2.D0_P	ILB.DDR.G2.D4_P
ILA.DDR.G2.D0_N	ILB.DDR.G2.D4_N
ILA.DDR.G2.D1_P	ILB.DDR.G2.D1_P
ILA.DDR.G2.D1_N	ILB.DDR.G2.D1_N
ILA.DDR.G2.D2_P	ILB.DDR.G2.D0_P
ILA.DDR.G2.D2_N	ILB.DDR.G2.D0_N
ILA.DDR.G2.D3_P	ILB.DDR.G2.D3_P
ILA.DDR.G2.D3_N	ILB.DDR.G2.D3_N
ILA.DDR.G2.D4_P	ILB.DDR.G2.D2_P
ILA.DDR.G2.D4_N	ILB.DDR.G2.D2_N
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ILA.DDR.G2.S_N	ILB.DDR.G2.S_N
ILA.DDR.G3.D1_P	ILB.DDR.G3.D1_P
ILA.DDR.G3.D1_N	ILB.DDR.G3.D1_N
ILA.DDR.G3.D0_P	ILB.DDR.G3.D0_P
ILA.DDR.G3.D0_N	ILB.DDR.G3.D0_N
ILA.DDR.G3.D2_P	ILB.DDR.G3.D2_P
ILA.DDR.G3.D2_N	ILB.DDR.G3.D2_N
ILA.DDR.G3.D3_P	ILB.DDR.G3.D3_P
ILA.DDR.G3.D3_N	ILB.DDR.G3.D3_N
ILA.DDR.G3.D4_P	ILB.DDR.G3.D4_P
ILA.DDR.G3.D4_N	ILB.DDR.G3.D4_N
ILA.DDR.G3.S_P	ILB.DDR.G3.S_P
ILA.DDR.G3.S_N	ILB.DDR.G3.S_N

A

PIN SWAPPING TO REDUCE ROUTING COMPLEXITY

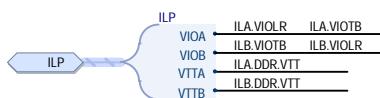


Title: Copper Suicide - Net Tie 12:68

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 25 of 44	Date 6/1/2017



A



ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G13.D4_P
ILA.SDR.G13.D0_N	ILB.SDR.G13.D4_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D1_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D2_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D2_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D3_P	ILB.SDR.G13.D3_P
ILA.SDR.G13.D3_N	ILB.SDR.G13.D3_N
ILA.SDR.G13.D4_P	ILB.SDR.G13.D0_P
ILA.SDR.G13.D4_N	ILB.SDR.G13.D0_N
ILA.SDR.G13.D5_P	ILB.SDR.G13.D2_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D2_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D2_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D2_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D1_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D1_N
ILA.SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G8.D3_N

B

ILA.DDR.G0.D0_P	ILB.DDR.G0.D1_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D1_N
ILA.DDR.G0.D1_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D1_N	ILB.DDR.G0.D0_N
ILA.DDR.G0.D2_P	ILB.DDR.G0.D2_P
ILA.DDR.G0.D2_N	ILB.DDR.G0.D2_N
ILA.DDR.G0.D3_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D3_N
ILA.DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
ILA.DDR.G0.S_P	ILB.DDR.G0.S_P
ILA.DDR.G0.S_N	ILB.DDR.G0.S_N
ILA.DDR.G1.D0_P	ILB.DDR.G1.D0_P
ILA.DDR.G1.D0_N	ILB.DDR.G1.D0_N
ILA.DDR.G1.D1_P	ILB.DDR.G1.D2_P
ILA.DDR.G1.D1_N	ILB.DDR.G1.D2_N
ILA.DDR.G1.D2_P	ILB.DDR.G1.D3_P
ILA.DDR.G1.D2_N	ILB.DDR.G1.D3_N
ILA.DDR.G1.D3_P	ILB.DDR.G1.D1_P
ILA.DDR.G1.D3_N	ILB.DDR.G1.D1_N
ILA.DDR.G1.D4_P	ILB.DDR.G1.D4_P
ILA.DDR.G1.D4_N	ILB.DDR.G1.D4_N
ILA.DDR.G1.S_P	ILB.DDR.G1.S_P
ILA.DDR.G1.S_N	ILB.DDR.G1.S_N
ILA.DDR.G2.D0_P	ILB.DDR.G2.D4_P
ILA.DDR.G2.D0_N	ILB.DDR.G2.D4_N
ILA.DDR.G2.D1_P	ILB.DDR.G2.D1_P
ILA.DDR.G2.D1_N	ILB.DDR.G2.D1_N
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ILA.DDR.G2.D3_N	ILB.DDR.G2.D3_N
ILA.DDR.G2.D4_P	ILB.DDR.G2.D2_P
ILA.DDR.G2.D4_N	ILB.DDR.G2.D2_N
ILA.DDR.G2.S_P	ILB.DDR.G2.S_P
ILA.DDR.G2.S_N	ILB.DDR.G2.S_N
ILA.DDR.G3.D1_P	ILB.DDR.G3.D1_P
ILA.DDR.G3.D1_N	ILB.DDR.G3.D1_N
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ILA.DDR.G3.D2_P	ILB.DDR.G3.D2_P
ILA.DDR.G3.D2_N	ILB.DDR.G3.D2_N
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ILA.DDR.G3.D3_N	ILB.DDR.G3.D3_N
ILA.DDR.G3.D4_P	ILB.DDR.G3.D4_P
ILA.DDR.G3.D4_N	ILB.DDR.G3.D4_N
ILA.DDR.G3.S_P	ILB.DDR.G3.S_P
ILA.DDR.G3.S_N	ILB.DDR.G3.S_N

A

PIN SWAPPING TO REDUCE ROUTING COMPLEXITY

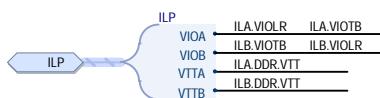


Title: Copper Suicide - Net Tie 12:68

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 25 of 44	Date 6/1/2017



A



ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G13.D0_P
ILA.SDR.G13.D0_N	ILB.SDR.G13.D0_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D1_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D2_P	ILB.SDR.G13.D2_P
ILA.SDR.G13.D2_N	ILB.SDR.G13.D2_N
ILA.SDR.G13.D3_P	ILB.SDR.G13.D3_P
ILA.SDR.G13.D3_N	ILB.SDR.G13.D3_N
ILA.SDR.G13.D4_P	ILB.SDR.G13.D4_P
ILA.SDR.G13.D4_N	ILB.SDR.G13.D4_N
ILA.SDR.G13.D5_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D1_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D1_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D2_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D2_N
ILA.SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G8.D3_N

ILA.DDR.G0.D0_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D0_N
ILA.DDR.G0.D1_P	ILB.DDR.G0.D1_P
ILA.DDR.G0.D1_N	ILB.DDR.G0.D1_N
ILA.DDR.G0.D2_P	ILB.DDR.G0.D2_P
ILA.DDR.G0.D2_N	ILB.DDR.G0.D2_N
ILA.DDR.G0.D3_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D3_N
ILA.DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
ILA.DDR.G0.S_P	ILB.DDR.G0.S_P
ILA.DDR.G0.S_N	ILB.DDR.G0.S_N

ILA.DDR.G1.D0_P	ILB.DDR.G1.D1_P
ILA.DDR.G1.D0_N	ILB.DDR.G1.D1_N
ILA.DDR.G1.D1_P	ILB.DDR.G1.D0_P
ILA.DDR.G1.D1_N	ILB.DDR.G1.D0_N
ILA.DDR.G1.D2_P	ILB.DDR.G1.D2_P
ILA.DDR.G1.D2_N	ILB.DDR.G1.D2_N
ILA.DDR.G1.D3_P	ILB.DDR.G1.D3_P
ILA.DDR.G1.D3_N	ILB.DDR.G1.D3_N
ILA.DDR.G1.D4_P	ILB.DDR.G1.D4_P
ILA.DDR.G1.D4_N	ILB.DDR.G1.D4_N
ILA.DDR.G1.S_P	ILB.DDR.G1.S_P
ILA.DDR.G1.S_N	ILB.DDR.G1.S_N

ILA.DDR.G2.D0_P	ILB.DDR.G2.D2_P
ILA.DDR.G2.D0_N	ILB.DDR.G2.D2_N
ILA.DDR.G2.D1_P	ILB.DDR.G2.D1_P
ILA.DDR.G2.D1_N	ILB.DDR.G2.D1_N
ILA.DDR.G2.D2_P	ILB.DDR.G2.D0_P
ILA.DDR.G2.D2_N	ILB.DDR.G2.D0_N
ILA.DDR.G2.D3_P	ILB.DDR.G2.D3_P
ILA.DDR.G2.D3_N	ILB.DDR.G2.D3_N
ILA.DDR.G2.D4_P	ILB.DDR.G2.D4_P
ILA.DDR.G2.D4_N	ILB.DDR.G2.D4_N
ILA.DDR.G2.S_P	ILB.DDR.G2.S_P
ILA.DDR.G2.S_N	ILB.DDR.G2.S_N

ILA.DDR.G3.D0_P	ILB.DDR.G3.D0_P
ILA.DDR.G3.D0_N	ILB.DDR.G3.D0_N
ILA.DDR.G3.D1_P	ILB.DDR.G3.D1_P
ILA.DDR.G3.D1_N	ILB.DDR.G3.D1_N
ILA.DDR.G3.D2_P	ILB.DDR.G3.D2_P
ILA.DDR.G3.D2_N	ILB.DDR.G3.D2_N
ILA.DDR.G3.D3_P	ILB.DDR.G3.D3_P
ILA.DDR.G3.D3_N	ILB.DDR.G3.D3_N
ILA.DDR.G3.D4_P	ILB.DDR.G3.D4_P
ILA.DDR.G3.D4_N	ILB.DDR.G3.D4_N
ILA.DDR.G3.S_P	ILB.DDR.G3.S_P
ILA.DDR.G3.S_N	ILB.DDR.G3.S_N

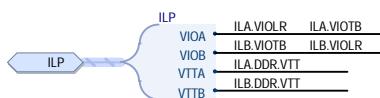
PIN SWAPPING TO REDUCE ROUTING COMPLEXITY



Title Copper Suicide - Net Tie 68:07		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 26 of 44	Date 6/1/2017



A



ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G13.D0_P
ILA.SDR.G13.D0_N	ILB.SDR.G13.D0_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D1_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D2_P	ILB.SDR.G13.D2_P
ILA.SDR.G13.D2_N	ILB.SDR.G13.D2_N
ILA.SDR.G13.D3_P	ILB.SDR.G13.D3_P
ILA.SDR.G13.D3_N	ILB.SDR.G13.D3_N
ILA.SDR.G13.D4_P	ILB.SDR.G13.D4_P
ILA.SDR.G13.D4_N	ILB.SDR.G13.D4_N
ILA.SDR.G13.D5_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D1_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D1_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D2_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D2_N
ILA.SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G8.D3_N

ILA.DDR.G0.D0_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D0_N
ILA.DDR.G0.D1_P	ILB.DDR.G0.D1_P
ILA.DDR.G0.D1_N	ILB.DDR.G0.D1_N
ILA.DDR.G0.D2_P	ILB.DDR.G0.D2_P
ILA.DDR.G0.D2_N	ILB.DDR.G0.D2_N
ILA.DDR.G0.D3_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D3_N
ILA.DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
ILA.DDR.G0.S_P	ILB.DDR.G0.S_P
ILA.DDR.G0.S_N	ILB.DDR.G0.S_N

ILA.DDR.G1.D0_P	ILB.DDR.G1.D1_P
ILA.DDR.G1.D0_N	ILB.DDR.G1.D1_N
ILA.DDR.G1.D1_P	ILB.DDR.G1.D0_P
ILA.DDR.G1.D1_N	ILB.DDR.G1.D0_N
ILA.DDR.G1.D2_P	ILB.DDR.G1.D2_P
ILA.DDR.G1.D2_N	ILB.DDR.G1.D2_N
ILA.DDR.G1.D3_P	ILB.DDR.G1.D3_P
ILA.DDR.G1.D3_N	ILB.DDR.G1.D3_N
ILA.DDR.G1.D4_P	ILB.DDR.G1.D4_P
ILA.DDR.G1.D4_N	ILB.DDR.G1.D4_N
ILA.DDR.G1.S_P	ILB.DDR.G1.S_P
ILA.DDR.G1.S_N	ILB.DDR.G1.S_N

ILA.DDR.G2.D0_P	ILB.DDR.G2.D2_P
ILA.DDR.G2.D0_N	ILB.DDR.G2.D2_N
ILA.DDR.G2.D1_P	ILB.DDR.G2.D1_P
ILA.DDR.G2.D1_N	ILB.DDR.G2.D1_N
ILA.DDR.G2.D2_P	ILB.DDR.G2.D0_P
ILA.DDR.G2.D2_N	ILB.DDR.G2.D0_N
ILA.DDR.G2.D3_P	ILB.DDR.G2.D3_P
ILA.DDR.G2.D3_N	ILB.DDR.G2.D3_N
ILA.DDR.G2.D4_P	ILB.DDR.G2.D4_P
ILA.DDR.G2.D4_N	ILB.DDR.G2.D4_N
ILA.DDR.G2.S_P	ILB.DDR.G2.S_P
ILA.DDR.G2.S_N	ILB.DDR.G2.S_N

ILA.DDR.G3.D0_P	ILB.DDR.G3.D0_P
ILA.DDR.G3.D0_N	ILB.DDR.G3.D0_N
ILA.DDR.G3.D1_P	ILB.DDR.G3.D1_P
ILA.DDR.G3.D1_N	ILB.DDR.G3.D1_N
ILA.DDR.G3.D2_P	ILB.DDR.G3.D2_P
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ILA.DDR.G3.D3_P	ILB.DDR.G3.D3_P
ILA.DDR.G3.D3_N	ILB.DDR.G3.D3_N
ILA.DDR.G3.D4_P	ILB.DDR.G3.D4_P
ILA.DDR.G3.D4_N	ILB.DDR.G3.D4_N
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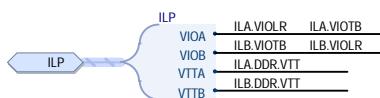
PIN SWAPPING TO REDUCE ROUTING COMPLEXITY



Title Copper Suicide - Net Tie 68:07		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 26 of 44	Date 6/1/2017



A



ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G13.D0_P
ILA.SDR.G13.D0_N	ILB.SDR.G13.D0_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D1_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D2_P	ILB.SDR.G13.D2_P
ILA.SDR.G13.D2_N	ILB.SDR.G13.D2_N
ILA.SDR.G13.D3_P	ILB.SDR.G13.D3_P
ILA.SDR.G13.D3_N	ILB.SDR.G13.D3_N
ILA.SDR.G13.D4_P	ILB.SDR.G13.D4_P
ILA.SDR.G13.D4_N	ILB.SDR.G13.D4_N
ILA.SDR.G13.D5_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D1_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D1_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D2_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D2_N
ILA.SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G8.D3_N

ILA.DDR.G0.D0_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D0_N
ILA.DDR.G0.D1_P	ILB.DDR.G0.D1_P
ILA.DDR.G0.D1_N	ILB.DDR.G0.D1_N
ILA.DDR.G0.D2_P	ILB.DDR.G0.D2_P
ILA.DDR.G0.D2_N	ILB.DDR.G0.D2_N
ILA.DDR.G0.D3_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D3_N
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ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
ILA.DDR.G0.S_P	ILB.DDR.G0.S_P
ILA.DDR.G0.S_N	ILB.DDR.G0.S_N

ILA.DDR.G1.D0_P	ILB.DDR.G1.D1_P
ILA.DDR.G1.D0_N	ILB.DDR.G1.D1_N
ILA.DDR.G1.D1_P	ILB.DDR.G1.D0_P
ILA.DDR.G1.D1_N	ILB.DDR.G1.D0_N
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ILA.DDR.G1.D2_N	ILB.DDR.G1.D2_N
ILA.DDR.G1.D3_P	ILB.DDR.G1.D3_P
ILA.DDR.G1.D3_N	ILB.DDR.G1.D3_N
ILA.DDR.G1.D4_P	ILB.DDR.G1.D4_P
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ILA.DDR.G1.S_P	ILB.DDR.G1.S_P
ILA.DDR.G1.S_N	ILB.DDR.G1.S_N

ILA.DDR.G2.D0_P	ILB.DDR.G2.D2_P
ILA.DDR.G2.D0_N	ILB.DDR.G2.D2_N
ILA.DDR.G2.D1_P	ILB.DDR.G2.D1_P
ILA.DDR.G2.D1_N	ILB.DDR.G2.D1_N
ILA.DDR.G2.D2_P	ILB.DDR.G2.D0_P
ILA.DDR.G2.D2_N	ILB.DDR.G2.D0_N
ILA.DDR.G2.D3_P	ILB.DDR.G2.D3_P
ILA.DDR.G2.D3_N	ILB.DDR.G2.D3_N
ILA.DDR.G2.D4_P	ILB.DDR.G2.D4_P
ILA.DDR.G2.D4_N	ILB.DDR.G2.D4_N
ILA.DDR.G2.S_P	ILB.DDR.G2.S_P
ILA.DDR.G2.S_N	ILB.DDR.G2.S_N

ILA.DDR.G3.D0_P	ILB.DDR.G3.D0_P
ILA.DDR.G3.D0_N	ILB.DDR.G3.D0_N
ILA.DDR.G3.D1_P	ILB.DDR.G3.D1_P
ILA.DDR.G3.D1_N	ILB.DDR.G3.D1_N
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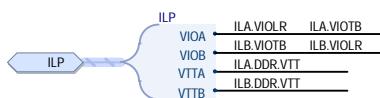
PIN SWAPPING TO REDUCE ROUTING COMPLEXITY



Title Copper Suicide - Net Tie 68:07		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 26 of 44	Date 6/1/2017



A



ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D0_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D0_P
ILA.SDR.G13.D1_N	ILB.SDR.G13.D0_N
ILA.SDR.G13.D2_P	ILB.SDR.G13.D3_P
ILA.SDR.G13.D2_N	ILB.SDR.G13.D3_N
ILA.SDR.G13.D3_P	ILB.SDR.G13.D2_P
ILA.SDR.G13.D3_N	ILB.SDR.G13.D2_N
ILA.SDR.G13.D4_P	ILB.SDR.G13.D4_P
ILA.SDR.G13.D4_N	ILB.SDR.G13.D4_N
ILA.SDR.G13.D5_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D1_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D1_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D2_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D2_N
ILA.SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G8.D3_N

B

ILA.DDR.G0.D3_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D0_N
ILA.DDR.G0.D2_P	ILB.DDR.G0.D1_P
ILA.DDR.G0.D2_N	ILB.DDR.G0.D1_N
ILA.DDR.G0.D1_P	ILB.DDR.G0.D2_P
ILA.DDR.G0.D1_N	ILB.DDR.G0.D2_N
ILA.DDR.G0.D0_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D3_N
ILA.DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
ILA.DDR.G0.S_P	ILB.DDR.G0.S_P
ILA.DDR.G0.S_N	ILB.DDR.G0.S_N
ILA.DDR.G1.D0_P	ILB.DDR.G1.D0_P
ILA.DDR.G1.D0_N	ILB.DDR.G1.D0_N
ILA.DDR.G1.D1_P	ILB.DDR.G1.D1_P
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ILA.DDR.G1.D4_P	ILB.DDR.G1.D3_P
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ILA.DDR.G3.D1_P	ILB.DDR.G3.D2_P
ILA.DDR.G3.D1_N	ILB.DDR.G3.D2_N
ILA.DDR.G3.D0_P	ILB.DDR.G3.D3_P
ILA.DDR.G3.D0_N	ILB.DDR.G3.D3_N
ILA.DDR.G3.D4_P	ILB.DDR.G3.D4_P
ILA.DDR.G3.D4_N	ILB.DDR.G3.D4_N
ILA.DDR.G3.S_P	ILB.DDR.G3.S_P
ILA.DDR.G3.S_N	ILB.DDR.G3.S_N

A

PIN SWAPPING TO REDUCE ROUTING COMPLEXITY

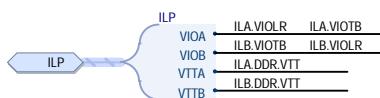


Title: Copper Suicide - Net Tie 34:07

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 27 of 44	Date 6/1/2017



A



ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D0_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D0_P
ILA.SDR.G13.D1_N	ILB.SDR.G13.D0_N
ILA.SDR.G13.D2_P	ILB.SDR.G13.D3_P
ILA.SDR.G13.D2_N	ILB.SDR.G13.D3_N
ILA.SDR.G13.D3_P	ILB.SDR.G13.D2_P
ILA.SDR.G13.D3_N	ILB.SDR.G13.D2_N
ILA.SDR.G13.D4_P	ILB.SDR.G13.D4_P
ILA.SDR.G13.D4_N	ILB.SDR.G13.D4_N
ILA.SDR.G13.D5_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D1_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D1_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D2_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D2_N
ILA.SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G8.D3_N

B

ILA.DDR.G0.D3_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D0_N
ILA.DDR.G0.D2_P	ILB.DDR.G0.D1_P
ILA.DDR.G0.D2_N	ILB.DDR.G0.D1_N
ILA.DDR.G0.D1_P	ILB.DDR.G0.D2_P
ILA.DDR.G0.D1_N	ILB.DDR.G0.D2_N
ILA.DDR.G0.D0_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D3_N
ILA.DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
ILA.DDR.G0.S_P	ILB.DDR.G0.S_P
ILA.DDR.G0.S_N	ILB.DDR.G0.S_N
ILA.DDR.G1.D0_P	ILB.DDR.G1.D0_P
ILA.DDR.G1.D0_N	ILB.DDR.G1.D0_N
ILA.DDR.G1.D1_P	ILB.DDR.G1.D1_P
ILA.DDR.G1.D1_N	ILB.DDR.G1.D1_N
ILA.DDR.G1.D2_P	ILB.DDR.G1.D2_P
ILA.DDR.G1.D2_N	ILB.DDR.G1.D2_N
ILA.DDR.G1.D4_P	ILB.DDR.G1.D3_P
ILA.DDR.G1.D4_N	ILB.DDR.G1.D3_N
ILA.DDR.G1.D3_P	ILB.DDR.G1.D4_P
ILA.DDR.G1.D3_N	ILB.DDR.G1.D4_N
ILA.DDR.G1.S_P	ILB.DDR.G1.S_P
ILA.DDR.G1.S_N	ILB.DDR.G1.S_N
ILA.DDR.G2.D0_P	ILB.DDR.G2.D0_P
ILA.DDR.G2.D0_N	ILB.DDR.G2.D0_N
ILA.DDR.G2.D1_P	ILB.DDR.G2.D1_P
ILA.DDR.G2.D1_N	ILB.DDR.G2.D1_N
ILA.DDR.G2.D2_P	ILB.DDR.G2.D2_P
ILA.DDR.G2.D2_N	ILB.DDR.G2.D2_N
ILA.DDR.G2.D3_P	ILB.DDR.G2.D3_P
ILA.DDR.G2.D3_N	ILB.DDR.G2.D3_N
ILA.DDR.G2.D4_P	ILB.DDR.G2.D4_P
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ILA.DDR.G3.D0_P	ILB.DDR.G3.D3_P
ILA.DDR.G3.D0_N	ILB.DDR.G3.D3_N
ILA.DDR.G3.D4_P	ILB.DDR.G3.D4_P
ILA.DDR.G3.D4_N	ILB.DDR.G3.D4_N
ILA.DDR.G3.S_P	ILB.DDR.G3.S_P
ILA.DDR.G3.S_N	ILB.DDR.G3.S_N

A

PIN SWAPPING TO REDUCE ROUTING COMPLEXITY

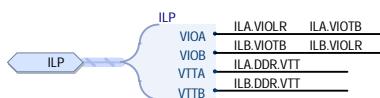


Title: Copper Suicide - Net Tie 34:07

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 27 of 44	Date 6/1/2017



A



ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G13.D1_P
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ILA.SDR.G13.D1_P	ILB.SDR.G13.D0_P
ILA.SDR.G13.D1_N	ILB.SDR.G13.D0_N
ILA.SDR.G13.D2_P	ILB.SDR.G13.D3_P
ILA.SDR.G13.D2_N	ILB.SDR.G13.D3_N
ILA.SDR.G13.D3_P	ILB.SDR.G13.D2_P
ILA.SDR.G13.D3_N	ILB.SDR.G13.D2_N
ILA.SDR.G13.D4_P	ILB.SDR.G13.D4_P
ILA.SDR.G13.D4_N	ILB.SDR.G13.D4_N
ILA.SDR.G13.D5_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D1_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D1_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D2_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D2_N
ILA.SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G8.D3_N

B

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ILA.DDR.G0.D3_N	ILB.DDR.G0.D0_N
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ILA.DDR.G0.S_P	ILB.DDR.G0.S_P
ILA.DDR.G0.S_N	ILB.DDR.G0.S_N
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ILA.DDR.G1.D0_N	ILB.DDR.G1.D0_N
ILA.DDR.G1.D1_P	ILB.DDR.G1.D1_P
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ILA.DDR.G1.D4_P	ILB.DDR.G1.D3_P
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ILA.DDR.G3.D4_N	ILB.DDR.G3.D4_N
ILA.DDR.G3.S_P	ILB.DDR.G3.S_P
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PIN SWAPPING TO REDUCE ROUTING COMPLEXITY



Title

Copper Suicide - Net Tie 34:07

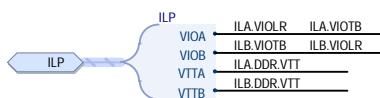
Engineer
J. BrintonDrawn By
J. BrintonChecked By
J. BrintonRevision
2

Sheet 27 of 44

Date
6/1/2017



A



ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D0_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D0_P
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ILA.SDR.G13.D2_P	ILB.SDR.G13.D3_P
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ILA.SDR.G13.D4_P	ILB.SDR.G13.D4_P
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ILA.SDR.G13.D5_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D1_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D1_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D2_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D2_N
ILA.SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G8.D3_N

B

ILA.DDR.G0.D3_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D0_N
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ILA.DDR.G3.D0_N	ILB.DDR.G3.D3_N
ILA.DDR.G3.D4_P	ILB.DDR.G3.D4_P
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ILA.DDR.G3.S_P	ILB.DDR.G3.S_P
ILA.DDR.G3.S_N	ILB.DDR.G3.S_N

PIN SWAPPING TO REDUCE ROUTING COMPLEXITY



Title

Copper Suicide - Net Tie 34:07

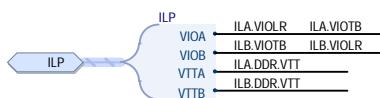
Engineer
J. BrintonDrawn By
J. BrintonChecked By
J. BrintonRevision
2

Sheet 27 of 44

Date
6/1/2017



A



ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D0_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D0_P
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ILA.SDR.G13.D4_P	ILB.SDR.G13.D4_P
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ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D1_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D1_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D2_P
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ILA.SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G8.D3_N

B

ILA.DDR.G0.D3_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D0_N
ILA.DDR.G0.D2_P	ILB.DDR.G0.D1_P
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ILA.DDR.G0.D1_N	ILB.DDR.G0.D2_N
ILA.DDR.G0.D0_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D3_N
ILA.DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
ILA.DDR.G0.S_P	ILB.DDR.G0.S_P
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ILA.DDR.G3.S_P	ILB.DDR.G3.S_P
ILA.DDR.G3.S_N	ILB.DDR.G3.S_N

PIN SWAPPING TO REDUCE ROUTING COMPLEXITY



Title

Copper Suicide - Net Tie 34:07Engineer
J. BrintonDrawn By
J. BrintonChecked By
J. Brinton

Revision

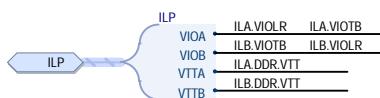
2

Sheet 27 of 44

Date
6/1/2017



A



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ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D0_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D0_P
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ILA.SDR.G13.D2_P	ILB.SDR.G13.D3_P
ILA.SDR.G13.D2_N	ILB.SDR.G13.D3_N
ILA.SDR.G13.D3_P	ILB.SDR.G13.D2_P
ILA.SDR.G13.D3_N	ILB.SDR.G13.D2_N
ILA.SDR.G13.D4_P	ILB.SDR.G13.D4_P
ILA.SDR.G13.D4_N	ILB.SDR.G13.D4_N
ILA.SDR.G13.D5_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D1_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D1_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D2_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D2_N
ILA.SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G8.D3_N

B

ILA.DDR.G0.D3_P	ILB.DDR.G0.D0_P
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ILA.DDR.G0.D0_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D3_N
ILA.DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
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ILA.DDR.G0.S_N	ILB.DDR.G0.S_N
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ILA.DDR.G1.D4_P	ILB.DDR.G1.D3_P
ILA.DDR.G1.D4_N	ILB.DDR.G1.D3_N
ILA.DDR.G1.D3_P	ILB.DDR.G1.D4_P
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ILA.DDR.G2.D0_N	ILB.DDR.G2.D0_N
ILA.DDR.G2.D1_P	ILB.DDR.G2.D1_P
ILA.DDR.G2.D1_N	ILB.DDR.G2.D1_N
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ILA.DDR.G2.D2_N	ILB.DDR.G2.D2_N
ILA.DDR.G2.D3_P	ILB.DDR.G2.D3_P
ILA.DDR.G2.D3_N	ILB.DDR.G2.D3_N
ILA.DDR.G2.D4_P	ILB.DDR.G2.D4_P
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ILA.DDR.G3.D2_N	ILB.DDR.G3.D1_N
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ILA.DDR.G3.D0_N	ILB.DDR.G3.D3_N
ILA.DDR.G3.D4_P	ILB.DDR.G3.D4_P
ILA.DDR.G3.D4_N	ILB.DDR.G3.D4_N
ILA.DDR.G3.S_P	ILB.DDR.G3.S_P
ILA.DDR.G3.S_N	ILB.DDR.G3.S_N

A

PIN SWAPPING TO REDUCE ROUTING COMPLEXITY

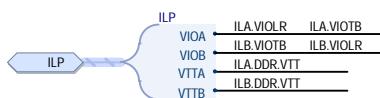


Title: Copper Suicide - Net Tie 34:07

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 27 of 44	Date 6/1/2017



A



ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D0_N	ILB.SDR.G13.D1_N
ILA.SDR.G13.D1_P	ILB.SDR.G13.D0_P
ILA.SDR.G13.D1_N	ILB.SDR.G13.D0_N
ILA.SDR.G13.D2_P	ILB.SDR.G13.D3_P
ILA.SDR.G13.D2_N	ILB.SDR.G13.D3_N
ILA.SDR.G13.D3_P	ILB.SDR.G13.D2_P
ILA.SDR.G13.D3_N	ILB.SDR.G13.D2_N
ILA.SDR.G13.D4_P	ILB.SDR.G13.D4_P
ILA.SDR.G13.D4_N	ILB.SDR.G13.D4_N
ILA.SDR.G13.D5_P	ILB.SDR.G13.D5_P
ILA.SDR.G13.D5_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G8.D0_P
ILA.SDR.G8.D0_N	ILB.SDR.G8.D0_N
ILA.SDR.G8.D1_P	ILB.SDR.G8.D1_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D1_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D2_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D2_N
ILA.SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G8.D3_N

B

ILA.DDR.G0.D3_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D0_N
ILA.DDR.G0.D2_P	ILB.DDR.G0.D1_P
ILA.DDR.G0.D2_N	ILB.DDR.G0.D1_N
ILA.DDR.G0.D1_P	ILB.DDR.G0.D2_P
ILA.DDR.G0.D1_N	ILB.DDR.G0.D2_N
ILA.DDR.G0.D0_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D3_N
ILA.DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
ILA.DDR.G0.S_P	ILB.DDR.G0.S_P
ILA.DDR.G0.S_N	ILB.DDR.G0.S_N
ILA.DDR.G1.D0_P	ILB.DDR.G1.D0_P
ILA.DDR.G1.D0_N	ILB.DDR.G1.D0_N
ILA.DDR.G1.D1_P	ILB.DDR.G1.D1_P
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ILA.DDR.G1.S_N	ILB.DDR.G1.S_N
ILA.DDR.G2.D0_P	ILB.DDR.G2.D0_P
ILA.DDR.G2.D0_N	ILB.DDR.G2.D0_N
ILA.DDR.G2.D1_P	ILB.DDR.G2.D1_P
ILA.DDR.G2.D1_N	ILB.DDR.G2.D1_N
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B

PIN SWAPPING TO REDUCE ROUTING COMPLEXITY



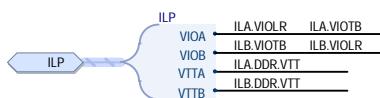
Copper Suicide - Net Tie 34:07

3479 Edison Way
Menlo Park CA 94025
+1 (877) 778-8435
siglabs.com

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 27 of 44	Date 6/1/2017



A



ILA.SDR.G13.C_P	ILB.SDR.G13.C_P
ILA.SDR.G13.C_N	ILB.SDR.G13.C_N
ILA.SDR.G13.D0_P	ILB.SDR.G13.D1_P
ILA.SDR.G13.D0_N	ILB.SDR.G13.D1_N
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ILA.SDR.G13.D1_N	ILB.SDR.G13.D0_N
ILA.SDR.G13.D2_P	ILB.SDR.G13.D3_P
ILA.SDR.G13.D2_N	ILB.SDR.G13.D3_N
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ILA.SDR.G13.D5_N	ILB.SDR.G13.D5_N
ILA.SDR.G13.D6	ILB.SDR.G13.D6

ILA.SDR.G8.D0_P	ILB.SDR.G8.D0_P
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ILA.SDR.G8.D1_P	ILB.SDR.G8.D1_P
ILA.SDR.G8.D1_N	ILB.SDR.G8.D1_N
ILA.SDR.G8.D2_P	ILB.SDR.G8.D2_P
ILA.SDR.G8.D2_N	ILB.SDR.G8.D2_N
ILA.SDR.G8.D3_P	ILB.SDR.G8.D3_P
ILA.SDR.G8.D3_N	ILB.SDR.G8.D3_N

B

ILA.DDR.G0.D3_P	ILB.DDR.G0.D0_P
ILA.DDR.G0.D3_N	ILB.DDR.G0.D0_N
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ILA.DDR.G0.D1_P	ILB.DDR.G0.D2_P
ILA.DDR.G0.D1_N	ILB.DDR.G0.D2_N
ILA.DDR.G0.D0_P	ILB.DDR.G0.D3_P
ILA.DDR.G0.D0_N	ILB.DDR.G0.D3_N
ILA.DDR.G0.D4_P	ILB.DDR.G0.D4_P
ILA.DDR.G0.D4_N	ILB.DDR.G0.D4_N
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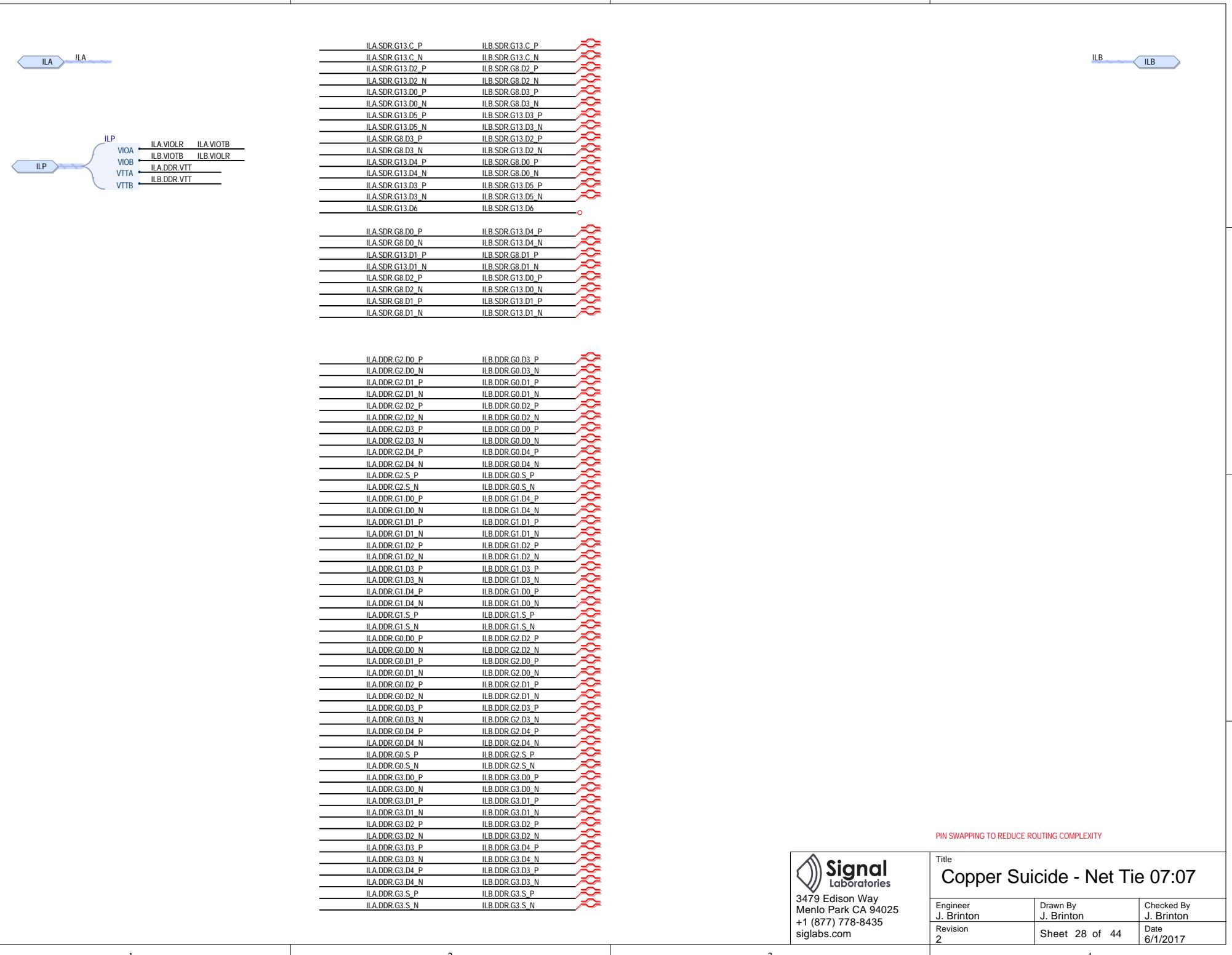
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PIN SWAPPING TO REDUCE ROUTING COMPLEXITY



Title: Copper Suicide - Net Tie 34:07

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 27 of 44	Date 6/1/2017



A

A

B

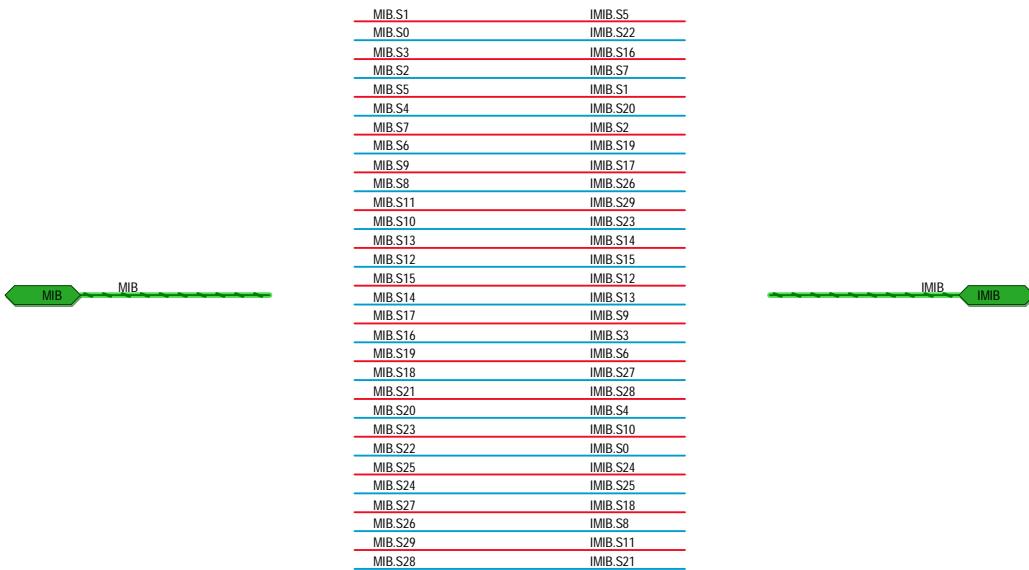
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C

C

D

D

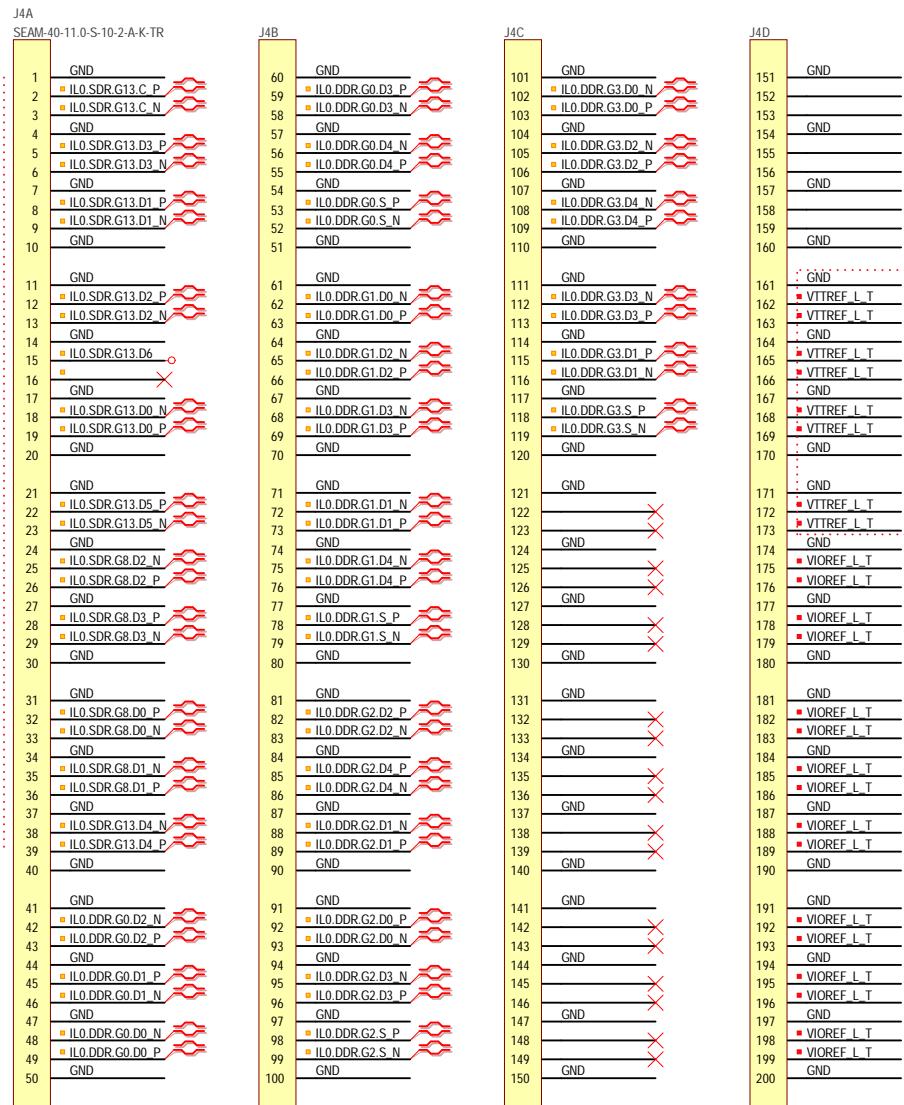


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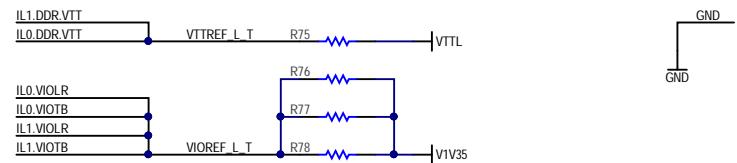
 Signal Labs	Title		
	Copper Suicide - Net Tie MIB		
	Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
	Revision 2	Sheet 29 of 44	Date 6/1/2017



A



Reference Input Reference Voltage



D



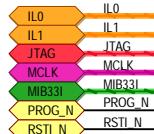
Title		
Copper Suicide - Left Top		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 30 of 44	Date 6/1/2017

A

B

C

D



V48
V48

A

J3A

SEAM-40-11.0-S-10-2-A-K-TR	
1 GND	51 GND
2 ■ IL0.DDR.G0.D0_N	59 ■ IL0.DDR.G3.D2_N
3 ■ IL0.DDR.G0.D0_P	58 ■ IL0.DDR.G3.D2_P
4 GND	57 GND
5 ■ IL0.DDR.G0.D1_P	56 ■ IL0.DDR.G3.D4_P
6 ■ IL0.DDR.G0.D1_N	55 ■ IL0.DDR.G3.D4_N
7 GND	54 ■ IL0.DDR.G3.D1_N
8 ■ IL0.DDR.G0.S_P	53 ■ IL0.DDR.G3.D1_P
9 ■ IL0.DDR.G0.S_N	52 ■ IL0.DDR.G3.D0_P
10 GND	51 GND
11 GND	61 GND
12 ■ IL0.DDR.G1.D3_N	62 ■ IL0.DDR.G1.D3_P
13 ■ IL0.DDR.G1.D3_P	63 ■ IL0.DDR.G3.D0_P
14 GND	64 GND
15 ■ IL0.DDR.G1.D1_P	65 ■ IL0.DDR.G3.D3_N
16 ■ IL0.DDR.G1.D1_N	66 ■ IL0.DDR.G3.D3_P
17 GND	67 GND
18 ■ IL0.DDR.G1.D2_P	68 ■ IL0.DDR.G0.D3_N
19 ■ IL0.DDR.G1.D2_N	69 ■ IL0.DDR.G0.D3_P
20 GND	70 GND
21 GND	71 GND
22 ■ IL0.DDR.G1.D4_N	72 ■ IL0.DDR.G0.D4_P
23 ■ IL0.DDR.G1.D4_P	73 ■ IL0.DDR.G0.D4_N
24 GND	74 GND
25 ■ IL0.DDR.G1.D0_P	75 ■ IL0.DDR.G0.D2_P
26 ■ IL0.DDR.G1.D0_N	76 ■ IL0.DDR.G0.D2_N
27 GND	77 GND
28 ■ IL0.DDR.G1.S_P	78 ■ IL0.DDR.G3.S_P
29 ■ IL0.DDR.G1.S_N	79 ■ IL0.DDR.G3.S_N
30 GND	80 GND
31 GND	81 GND
32 ■ IL0.DDR.G2.D0_P	82 ■ IL0.SDR.G13.C_P
33 ■ IL0.DDR.G2.D0_N	83 ■ IL0.SDR.G13.C_N
34 GND	84 GND
35 ■ IL0.DDR.G2.D4_P	85 ■ IL0.SDR.G13.D1_P
36 ■ IL0.DDR.G2.D4_N	86 ■ IL0.SDR.G13.D1_N
37 GND	87 GND
38 ■ IL0.DDR.G2.D3_P	88 ■ IL0.SDR.G13.D4_N
39 ■ IL0.DDR.G2.D3_N	89 ■ IL0.SDR.G13.D4_P
40 GND	90 GND
41 GND	91 GND
42 ■ IL0.DDR.G2.D2_P	92 ■ IL0.SDR.G13.D0_N
43 ■ IL0.DDR.G2.D2_N	93 ■ IL0.SDR.G13.D0_P
44 GND	94 GND
45 ■ IL0.DDR.G2.D1_N	95 ■ IL0.SDR.G13.D3_P
46 ■ IL0.DDR.G2.D1_P	96 ■ IL0.SDR.G13.D3_N
47 GND	97 GND
48 ■ IL0.DDR.G2.S_P	98 ■ IL0.SDR.G13.D2_N
49 ■ IL0.DDR.G2.S_N	99 ■ IL0.SDR.G13.D2_P
50 GND	100 GND

J3B

60 GND	101 ■ IL0.SDR.G8.D2_N
59 ■ IL0.DDR.G3.D2_N	102 ■ IL0.SDR.G8.D2_P
58 ■ IL0.DDR.G3.D2_P	103 GND
57 GND	104 ■ IL0.SDR.G8.D1_N
56 ■ IL0.DDR.G3.D4_P	105 ■ IL0.SDR.G8.D1_P
55 ■ IL0.DDR.G3.D4_N	106 ■ IL0.SDR.G8.D0_N
54 ■ IL0.DDR.G3.D1_N	107 ■ IL0.SDR.G8.D0_P
53 ■ IL0.DDR.G3.D1_P	108 ■ IL0.SDR.G8.D1_S
52 ■ IL0.DDR.G3.D0_P	109 ■ IL0.SDR.G8.D2_S
51 GND	110 ■ IL0.SDR.G13.D5_P

J3C

101 ■ IL0.SDR.G8.D2_N	151 ■ MIB33I.S1
102 ■ IL0.SDR.G8.D2_P	152 ■ MIB33I.S20
103 GND	153 ■ MIB33I.S22
104 ■ IL0.SDR.G8.D1_N	154 ■ MIB33I.S28
105 ■ IL0.SDR.G8.D1_P	155 ■ MIB33I.S27
106 ■ IL0.SDR.G8.D0_N	156 ■ MIB33I.S25
107 ■ IL0.SDR.G8.D0_P	157 ■ MIB33I.S18
108 ■ IL0.SDR.G8.D1_S	158 ■ MIB33I.S26
109 ■ IL0.SDR.G8.D2_S	159 ■ MIB33I.S19
110 ■ IL0.SDR.G13.D5_P	160 ■ MIB33I.S1

J3D

151 ■ MIB33I.S1	201 ■ MIB33I.S23
152 ■ MIB33I.S20	202 ■ MIB33I.S22
153 ■ MIB33I.S22	203 ■ MIB33I.S23
154 ■ MIB33I.S28	204 ■ MIB33I.S24
155 ■ MIB33I.S27	205 ■ MIB33I.S25
156 ■ MIB33I.S25	206 ■ MIB33I.S26
157 ■ MIB33I.S18	207 ■ MIB33I.S17
158 ■ MIB33I.S26	208 ■ MIB33I.S19
159 ■ MIB33I.S19	209 ■ MIB33I.S20
160 ■ MIB33I.S1	210 ■ MIB33I.S21

J3E

201 ■ MIB33I.S23	251 ■ MIB33I.S4
202 ■ MIB33I.S22	252 ■ MIB33I.S29
203 ■ MIB33I.S23	253 ■ MIB33I.S29
204 ■ MIB33I.S24	254 ■ MIB33I.S16
205 ■ MIB33I.S25	255 ■ MIB33I.S7
206 ■ MIB33I.S26	256 ■ MIB33I.S7
207 ■ MIB33I.S17	257 ■ MIB33I.S6
208 ■ MIB33I.S19	258 ■ MIB33I.S9
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J3F

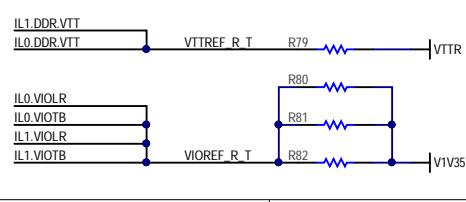
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259 ■ MIB33I.S20	309 ■ MIB33I.S29
260 ■ MIB33I.S21	310 ■ MIB33I.S29

J3G

301 ■ MIB33I.S3	351 ■ IL1.DDR.G1.D0_N
302 ■ MIB33I.S29	352 ■ IL1.DDR.G1.D0_P
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306 ■ MIB33I.S29	356 ■ MIB33I.S29
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310 ■ MIB33I.S29	360 ■ MIB33I.S29

J3H

351 ■ IL1.DDR.G1.D0_N	401 ■ MIB33I.S29
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353 ■ MIB33I.S29	403 ■ MIB33I.S29
354 ■ IL1.DDR.G1.D1_P	404 ■ IL1.DDR.G2.D4_N
355 ■ IL1.DDR.G1.D1_N	405 ■ IL1.DDR.G2.D4_P
356 ■ MIB33I.S29	406 ■ MIB33I.S29
357 ■ IL1.DDR.G1.S.P	407 ■ IL1.DDR.G2.D2_N
358 ■ IL1.DDR.G1.S.N	408 ■ IL1.DDR.G2.D2_P
359 ■ MIB33I.S29	409 ■ MIB33I.S29
360 ■ MIB33I.S29	410 ■ MIB33I.S29



GND
GND



Title

Copper Suicide - Right TopEngineer
J. BrintonDrawn By
J. BrintonChecked By
J. BrintonRevision
2

Sheet 31 of 44

Date
6/1/2017

D

A

B

C

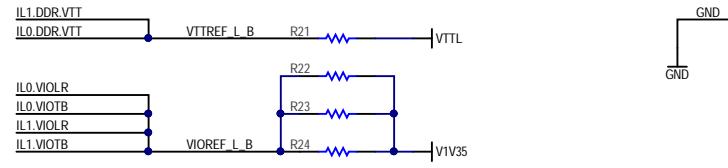
D

J2A
SEAF-40-06.5-S-10-2-A-K-TR

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3	■ IL0.SDR.G13.C.P
4	GND
5	■ IL0.SDR.G13.D5.N
6	■ IL0.SDR.G13.D5.P
7	GND
8	■ IL0.SDR.G13.D1.P
9	■ IL0.SDR.G13.D1.N
10	GND
11	GND
12	■ IL0.SDR.G13.D0.N
13	■ IL0.SDR.G13.D0.P
14	GND
15	■ IL0.SDR.G13.D2.N
16	■ IL0.SDR.G13.D2.P
17	GND
18	■ IL0.SDR.G13.D4.P
19	■ IL0.SDR.G13.D4.N
20	GND
21	GND
22	■ IL0.SDR.G13.D3.N
23	■ IL0.SDR.G13.D3.P
24	GND
25	■ IL0.SDR.G8.D1.P
26	■ IL0.SDR.G8.D1.N
27	GND
28	■ IL0.SDR.G8.D3.N
29	■ IL0.SDR.G8.D3.P
30	GND
31	GND
32	■ IL0.SDR.G8.D2.N
33	■ IL0.SDR.G8.D2.P
34	GND
35	■ IL0.SDR.G8.D0.P
36	GND
37	■ IL0.SDR.G8.D0.N
38	■ IL0.SDR.G13.D6.
39	■ GND
40	GND
41	GND
42	■ IL0.DDR.G0.D3.P
43	■ IL0.DDR.G0.D3.N
44	GND
45	■ IL0.DDR.G0.D2.N
46	■ IL0.DDR.G0.D2.P
47	GND
48	■ IL0.DDR.G0.D4.P
49	■ IL0.DDR.G0.D4.N
50	GND

60	GND
59	■ IL0.DDR.G0.D0.P
58	■ IL0.DDR.G0.D0.N
57	GND
56	■ IL0.DDR.G0.D1.P
55	■ IL0.DDR.G0.D1.N
54	GND
53	■ IL0.DDR.G0.S.P
52	■ IL0.DDR.G0.S.N
51	GND
110	GND
111	GND
112	■ IL0.DDR.G1.D2.P
113	■ IL0.DDR.G1.D2.N
114	GND
115	■ IL0.DDR.G1.D0.P
116	■ IL0.DDR.G1.D0.N
117	GND
118	■ IL0.DDR.G1.D4.P
119	■ IL0.DDR.G1.D4.N
120	GND
71	GND
72	■ IL0.DDR.G1.D3.P
73	■ IL0.DDR.G1.D3.N
74	GND
75	■ IL0.DDR.G1.D1.N
76	■ IL0.DDR.G1.D1.P
77	GND
78	■ IL0.DDR.G1.S.P
79	■ IL0.DDR.G1.S.N
80	GND
121	GND
122	■ VITREF_L_B
123	■ VITREF_L_B
124	GND
125	■ VIOREF_L_B
126	GND
127	GND
128	■ VIOREF_L_B
129	■ VIOREF_L_B
130	GND
171	GND
172	■ VITREF_L_B
173	■ VITREF_L_B
174	GND
175	■ VIOREF_L_B
176	■ VIOREF_L_B
177	GND
178	■ VIOREF_L_B
179	■ VIOREF_L_B
180	GND
211	GND
212	■ IL1.DDR.G0.D3.N
213	■ IL1.DDR.G0.D3.P
214	GND
215	■ IL1.DDR.G0.D4.P
216	■ IL1.DDR.G0.D4.N
217	GND
218	■ IL1.DDR.G0.S.N
219	■ IL1.DDR.G0.S.P
220	GND
221	GND
222	■ IL1.DDR.G1.D1.N
223	■ IL1.DDR.G1.D1.P
224	GND
225	■ IL1.DDR.G1.D3.N
226	■ IL1.DDR.G1.D3.P
227	GND
228	■ IL1.DDR.G1.D0.P
229	■ IL1.DDR.G1.D0.N
230	GND
271	GND
272	■ IL1.DDR.G3.D2.P
273	■ IL1.DDR.G3.D2.N
274	GND
275	■ IL1.DDR.G3.D0.P
276	■ IL1.DDR.G3.D0.N
277	GND
278	■ IL1.DDR.G3.S.P
279	■ IL1.DDR.G3.S.N
280	GND
321	GND
322	■ IL1.DDR.G3.D2.N
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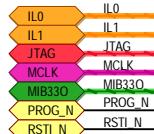
Référence Input Référence Voltage



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Title
Copper Suicide - Left Bottom

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 32 of 44	Date 6/1/2017



V48
V48

A

J1A

	SEAF-40-06.5-S-10-2-A-K-TR
1	GND
2	■ IL0.DDR.G0.D3_P
3	■ IL0.DDR.G0.D3_N
4	GND
5	■ IL0.DDR.G0.D2_N
6	■ IL0.DDR.G0.D2_P
7	GND
8	■ IL0.DDR.G0.S_P
9	■ IL0.DDR.G0.S_N
10	GND
11	GND
12	■ IL0.DDR.G1.D2_P
13	■ IL0.DDR.G1.D2_N
14	GND
15	■ IL0.DDR.G1.D1_P
16	■ IL0.DDR.G1.D1_N
17	GND
18	■ IL0.DDR.G1.D4_P
19	■ IL0.DDR.G1.D4_N
20	GND
21	GND
22	■ IL0.DDR.G1.D3_P
23	■ IL0.DDR.G1.D3_N
24	GND
25	■ IL0.DDR.G1.D0_P
26	■ IL0.DDR.G1.D0_N
27	GND
28	■ IL0.DDR.G1.S_P
29	■ IL0.DDR.G1.S_N
30	GND
31	GND
32	■ IL0.DDR.G2.D1_P
33	■ IL0.DDR.G2.D1_N
34	GND
35	■ IL0.DDR.G2.D2_N
36	■ IL0.DDR.G2.D2_P
37	GND
38	■ IL0.DDR.G2.D0_P
39	■ IL0.DDR.G2.D0_N
40	GND
41	GND
42	■ IL0.DDR.G2.D3_N
43	■ IL0.DDR.G2.D3_P
44	GND
45	■ IL0.DDR.G2.D4_P
46	■ IL0.DDR.G2.D4_N
47	GND
48	■ IL0.DDR.G2.S_P
49	■ IL0.DDR.G2.S_N
50	GND
100	GND

J1B

60	GND
59	■ IL0.DDR.G3.D0_P
58	■ IL0.DDR.G3.D0_N
57	GND
56	■ IL0.DDR.G3.D2_P
55	■ IL0.DDR.G3.D2_N
54	GND
53	■ IL0.DDR.G3.D1_N
52	■ IL0.DDR.G3.D1_P
51	GND
110	GND

J1C

101	GND
102	■ IL0.SDR.G8.D1_P
103	■ IL0.SDR.G8.D1_N
104	GND
105	■ IL0.SDR.G8.D2_P
106	■ IL0.SDR.G8.D2_N
107	GND
108	■ IL0.SDR.G8.D3_P
109	■ IL0.SDR.G8.D3_N
110	GND
151	GND

J1D

151	GND
152	■ MIB330.S2
153	■ MIB330.S5
154	■ MIB330.S19
155	■ MIB330.S16
156	GND
157	■ MIB330.S27
158	■ MIB330.S7
159	GND
160	GND

J1E

201	GND
202	■ MIB330.S4
203	■ MIB330.S25
204	■ MIB330.S14
205	■ MIB330.S26
206	GND
207	■ MIB330.S0
208	■ MIB330.S10
209	■ MIB330.S20
210	GND

J1F

251	GND
252	■ MIB330.S9
253	■ MIB330.S5
254	■ MIB330.S12
255	■ MIB330.S15
256	GND
257	■ MIB330.S0
258	■ MIB330.S2
259	GND
260	GND

J1G

301	GND
302	■ IL1.SDR.G1.D5_P
303	■ IL1.SDR.G1.D5_N
304	GND
305	■ IL1.SDR.G8.D1_P
306	■ IL1.SDR.G8.D1_N
307	GND
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309	■ IL1.SDR.G8.D3_N
310	GND

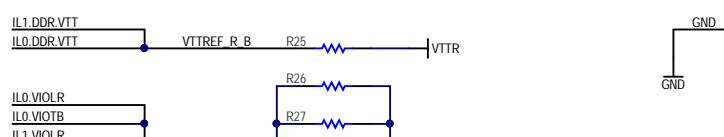
J1H

351	GND
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354	GND
355	■ IL1.DDR.G1.D4_P
356	■ IL1.DDR.G1.D4_N
357	GND
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359	■ IL1.DDR.G1.S.N
360	GND

C

D

Référence Input Référence Voltage



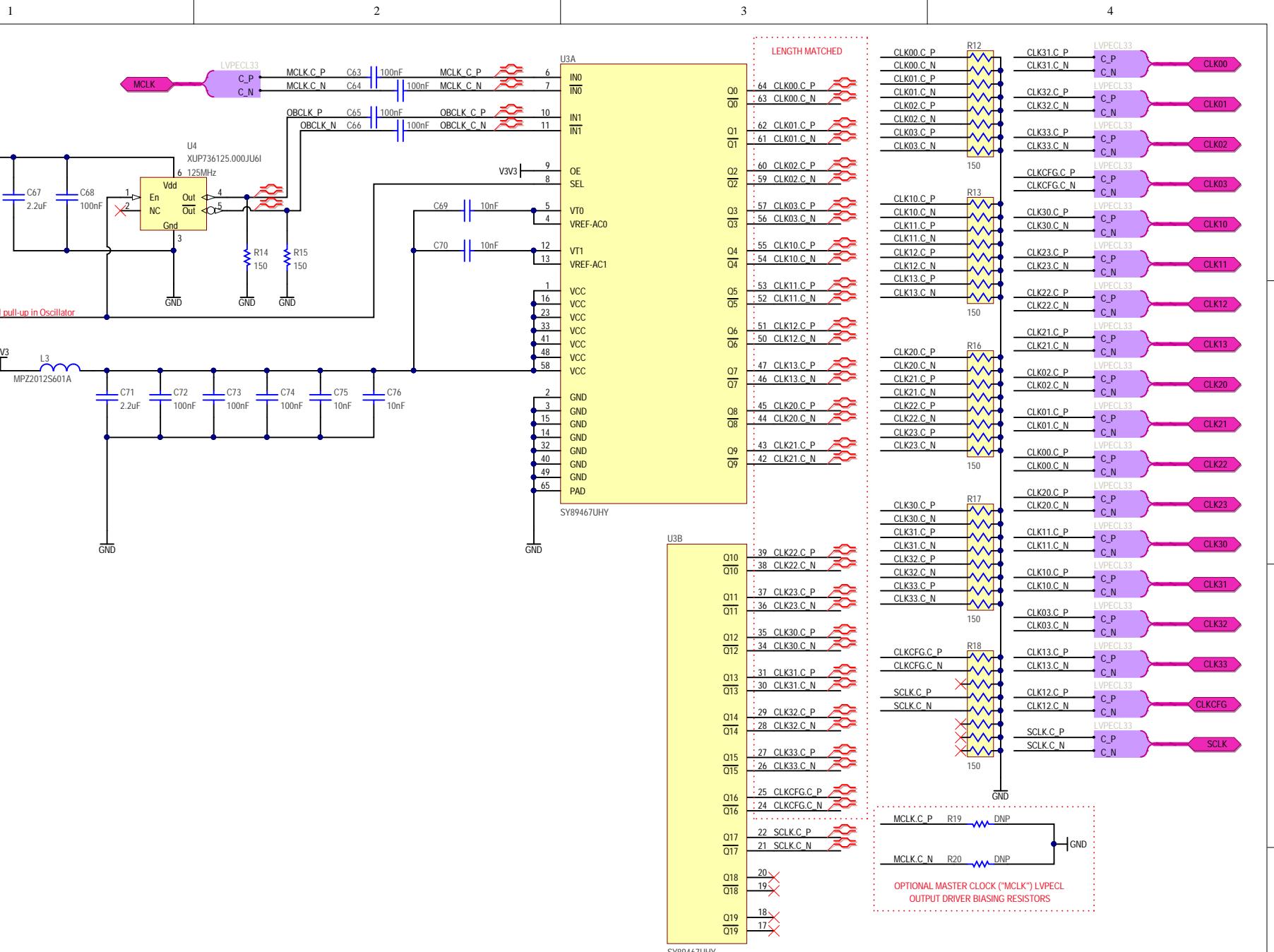
Copper Suicide - Right Bottom

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Engineer
J. Brinton
Revision
2

Drawn By
J. Brinton
Sheet 33 of 44

Checked By
J. Brinton
Date
6/1/2017



REVIEW COMPLETE: JDB 10/7/2016



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Title Copper Suicide - Clock Fanout

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 34 of 44	Date 6/1/2017

A

A

B

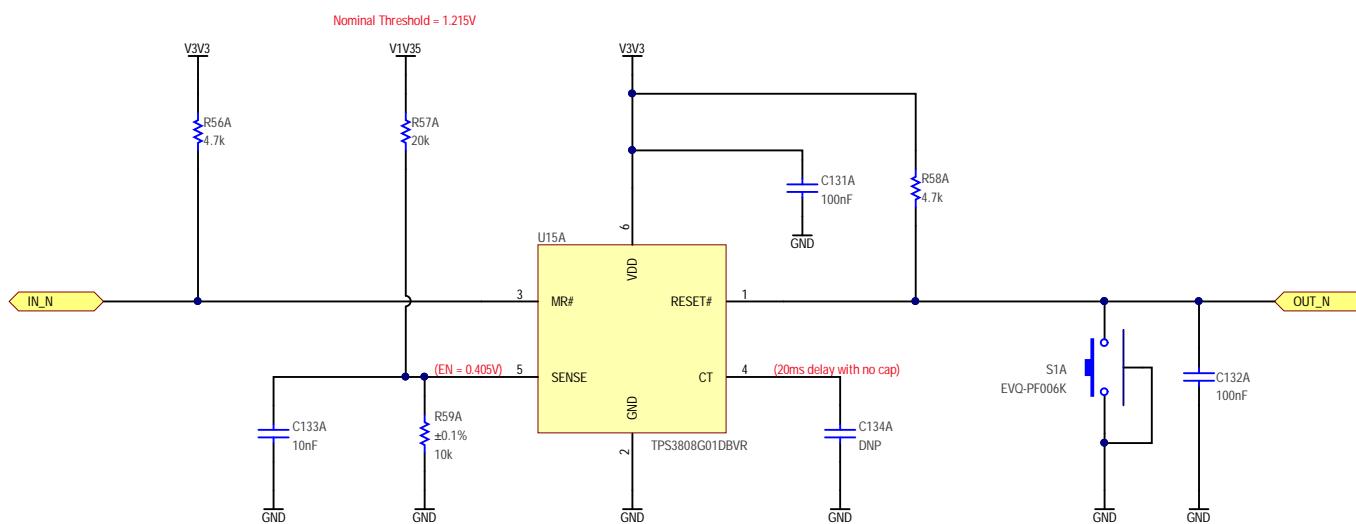
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C

C

D

D



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Title
Copper Suicide - Reset

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 35 of 44	Date 6/1/2017

A

A

B

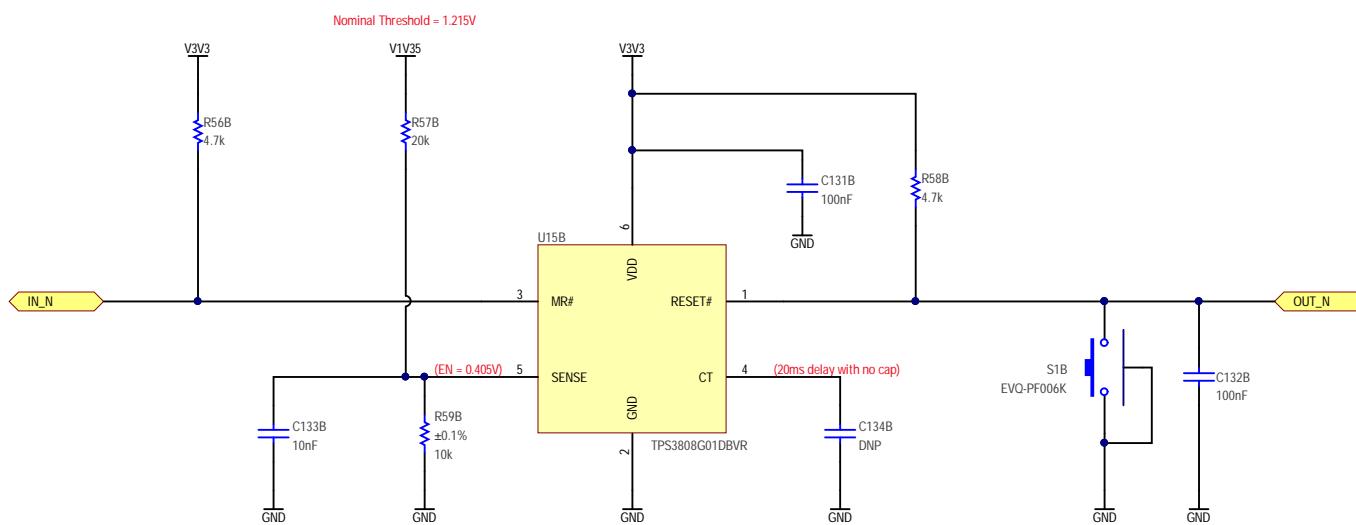
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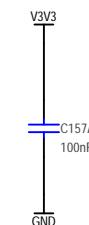
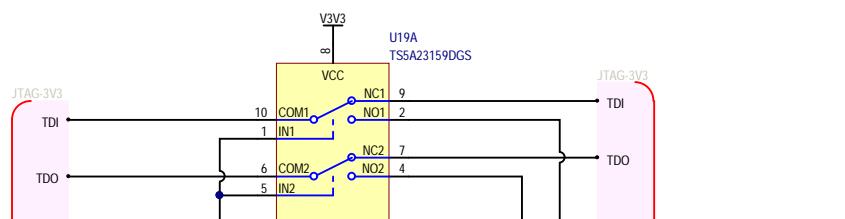


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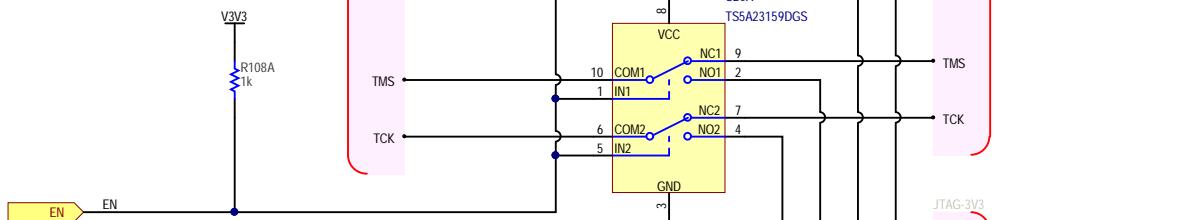
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Copper Suicide - Reset

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 35 of 44	Date 6/1/2017

A

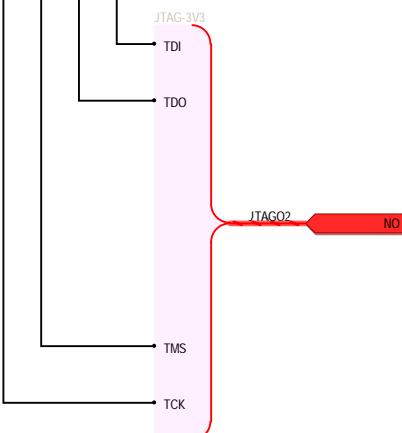


B



GND

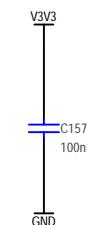
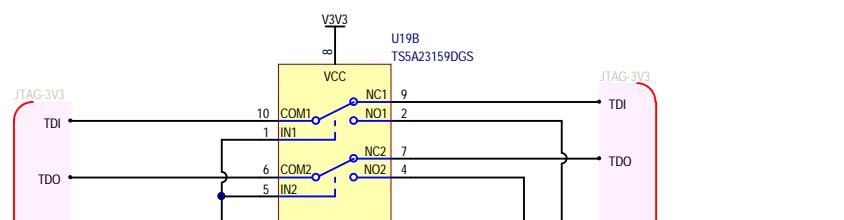
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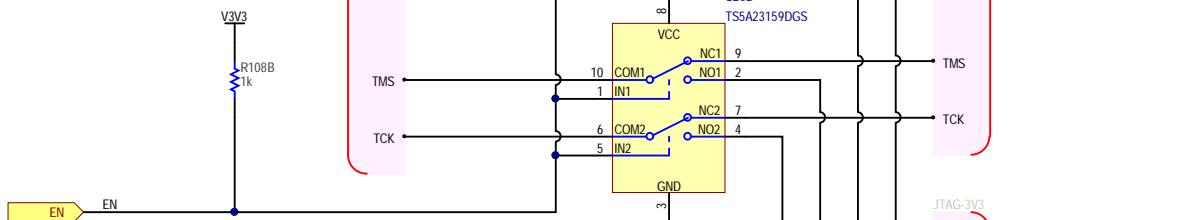
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D

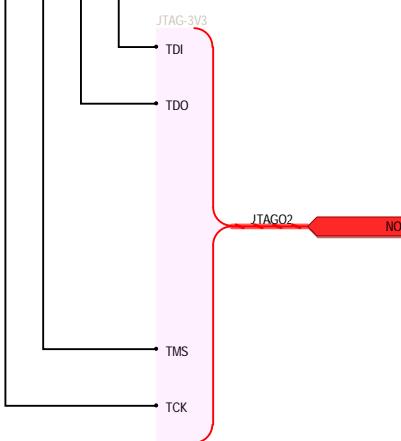
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B



C



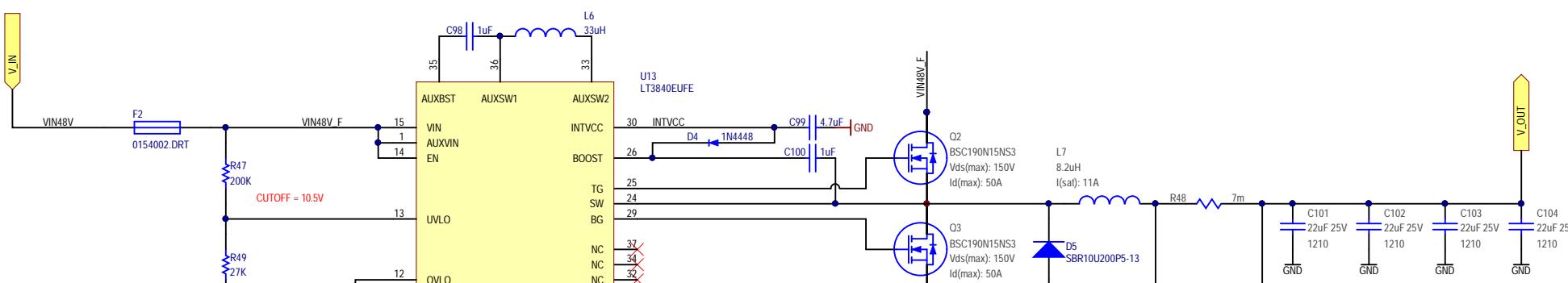
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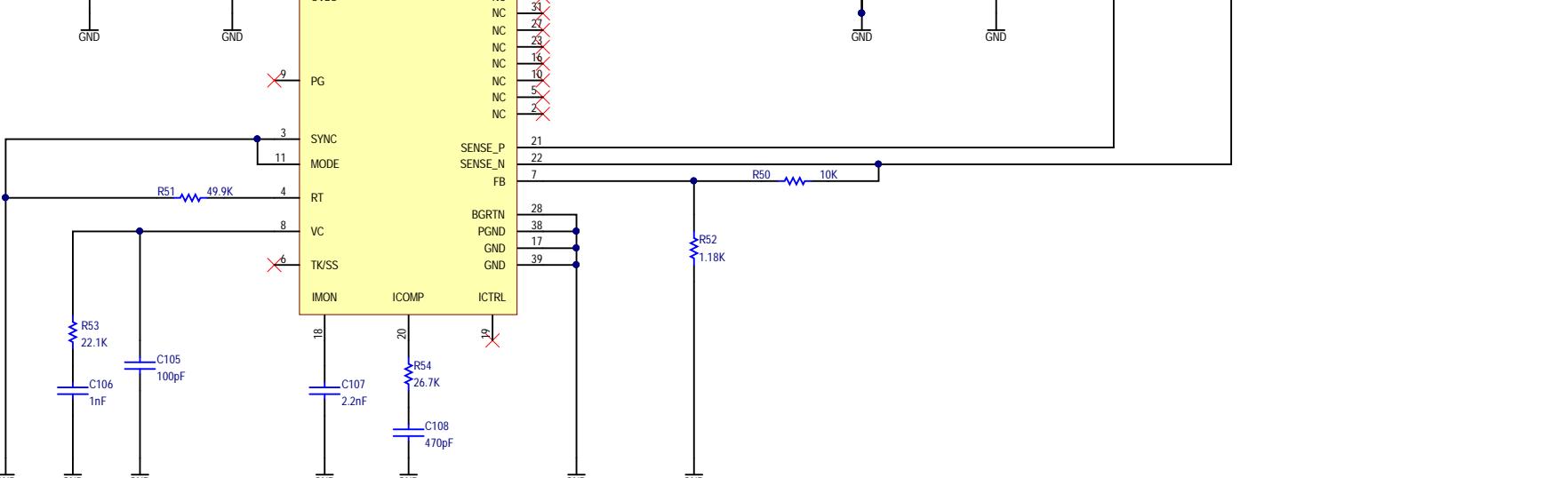
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Title		
Copper Suicide - JTAG Switch		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 36 of 44	Date 6/1/2017

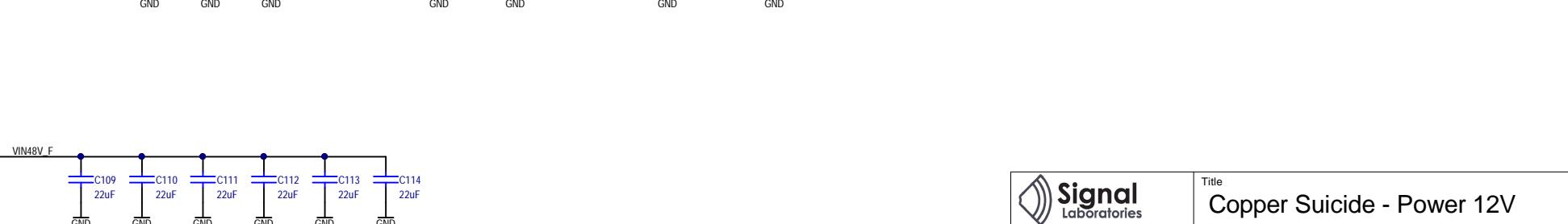
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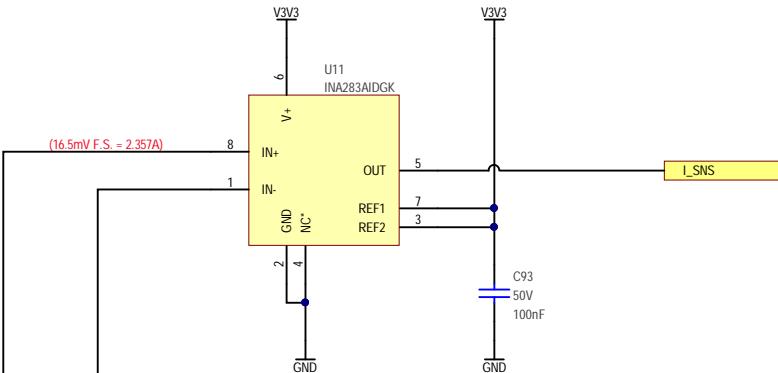


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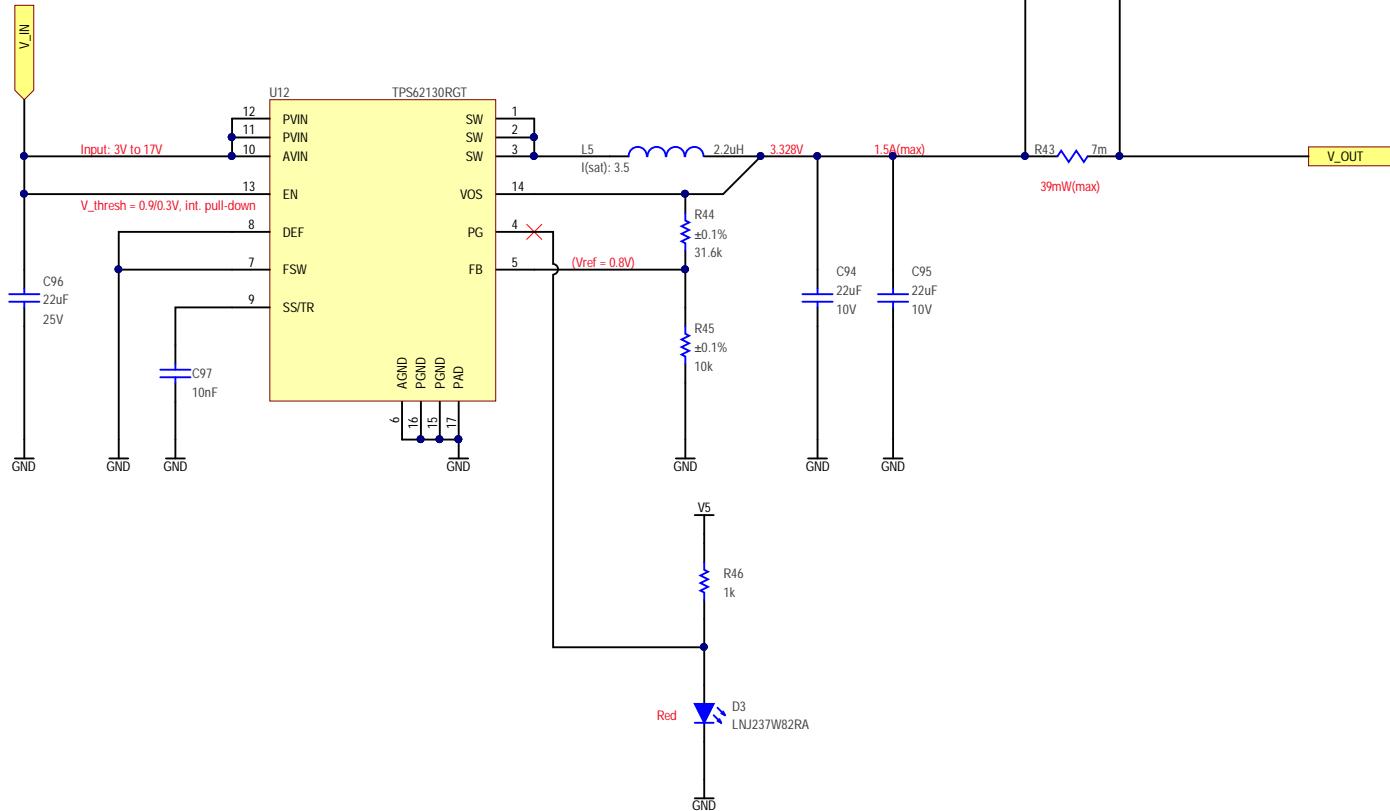


D

A



B

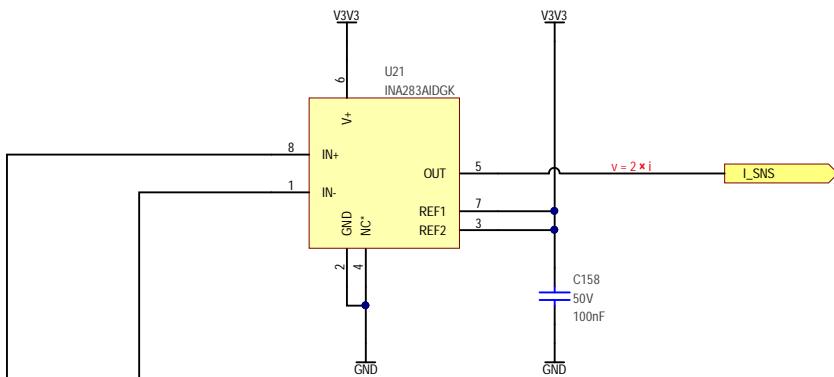


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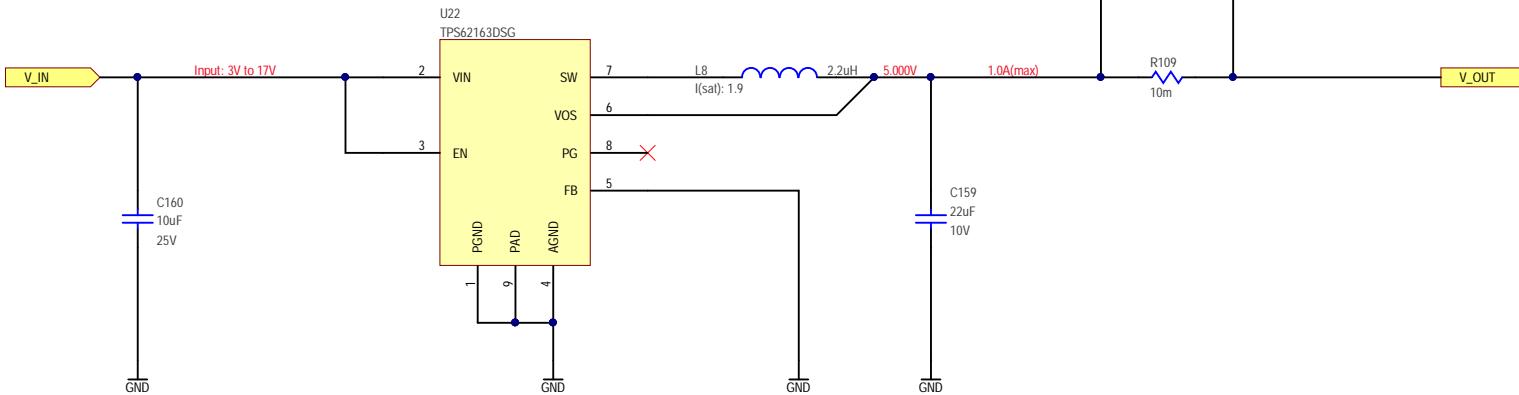


Title		
Copper Suicide - Power 3.3V		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 38 of 44	Date 6/1/2017

A



B



C

D

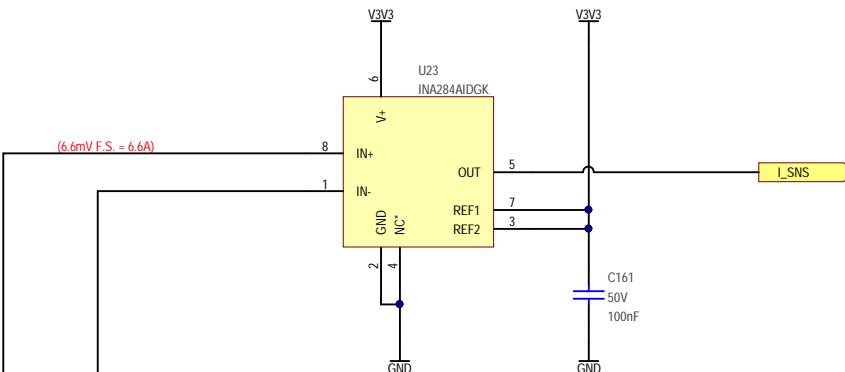


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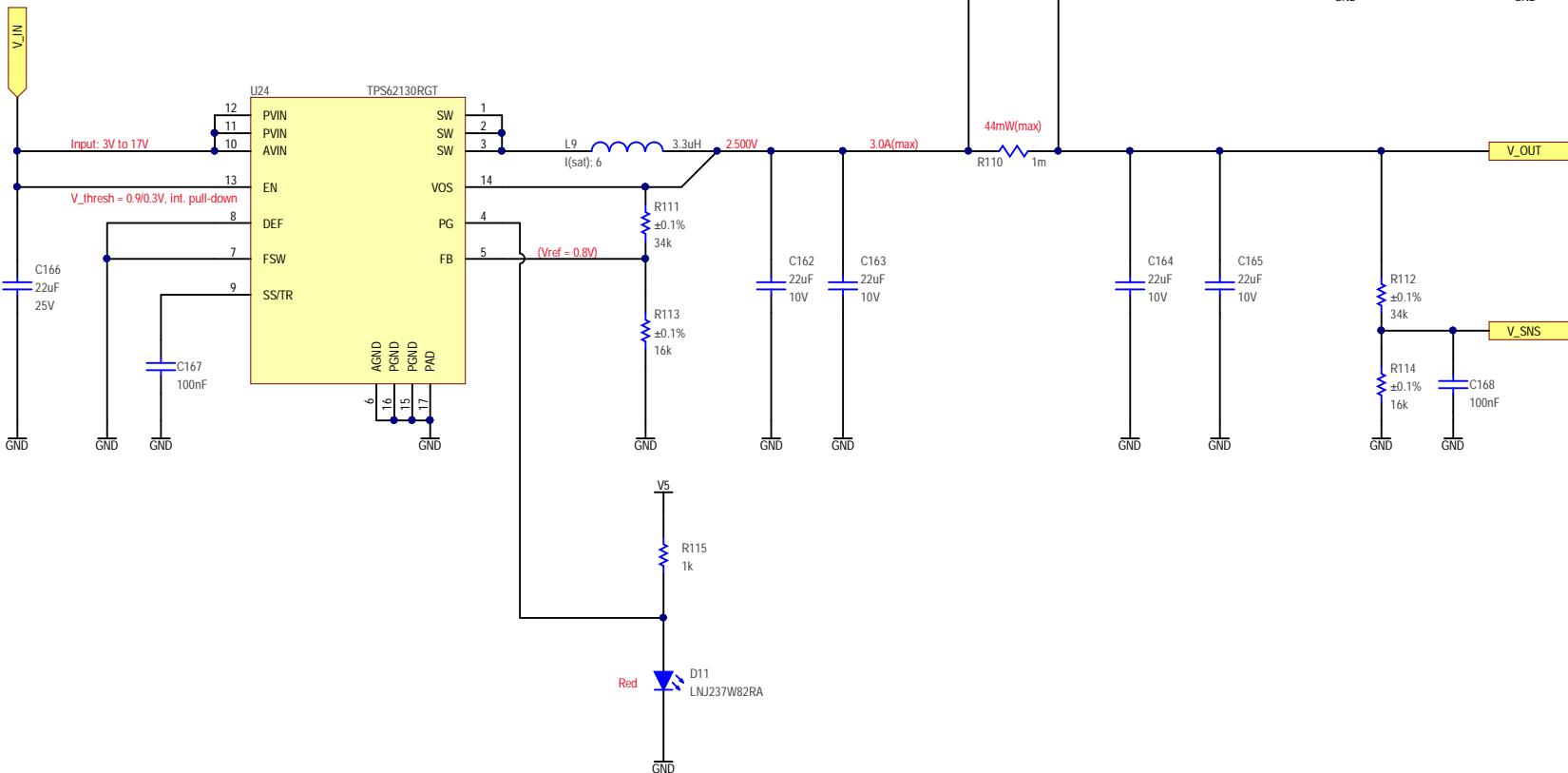
Title Copper Suicide - Power 3.3V

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 39 of 44	Date 6/1/2017

A



B

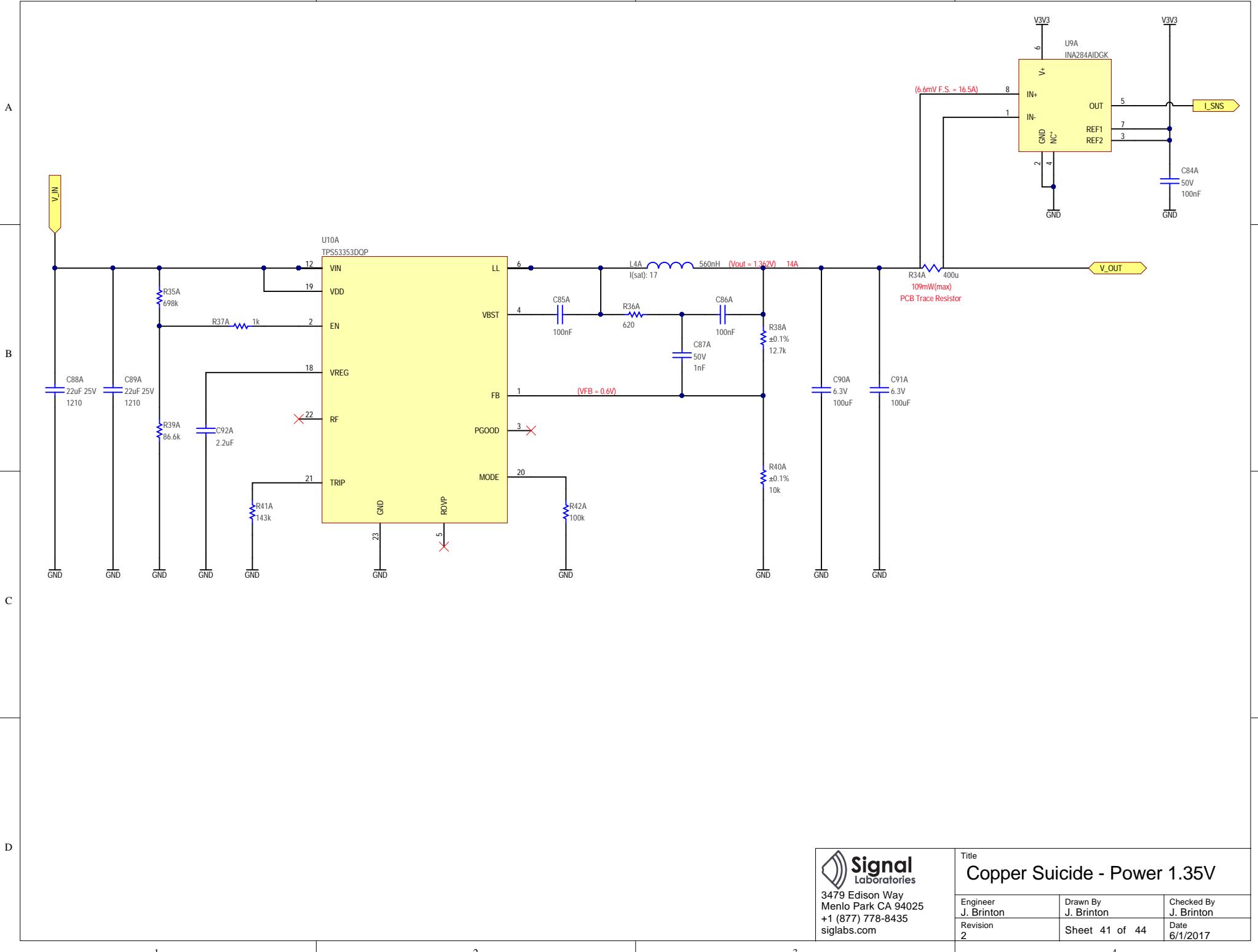


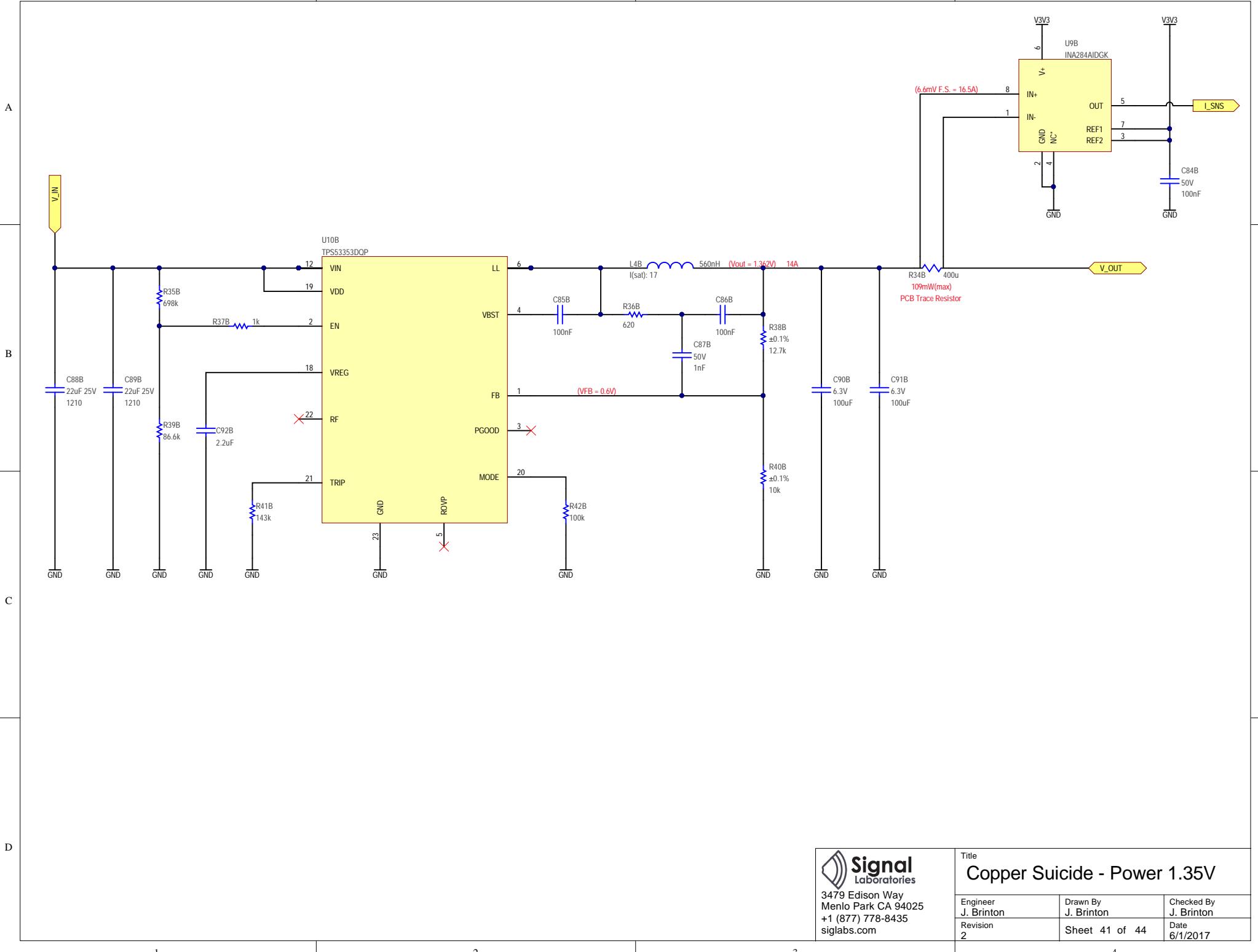
C



Title: **Copper Suicide - Power 2.5V**

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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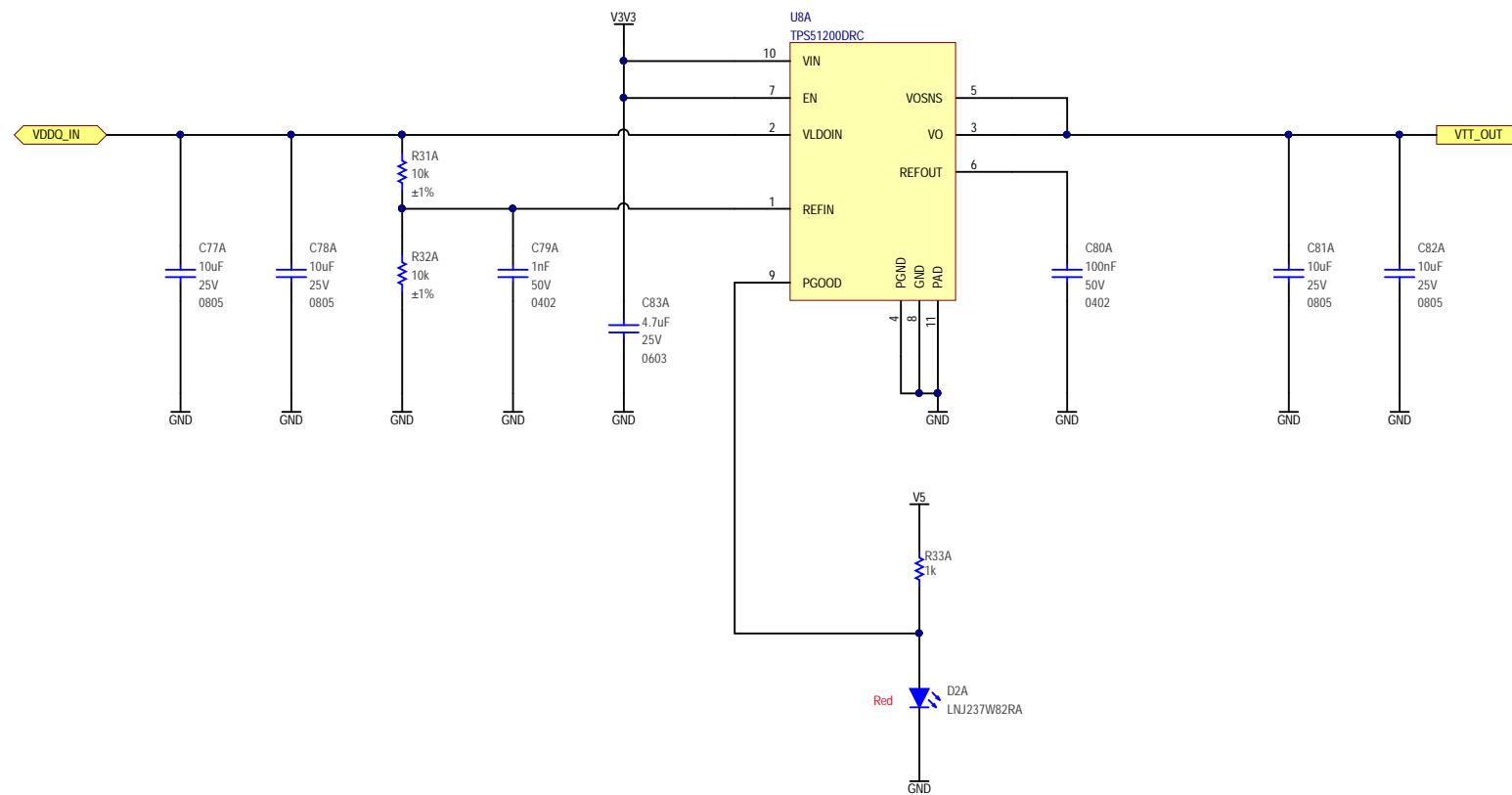
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Title
Copper Suicide - VTT Power

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 42 of 44	Date 6/1/2017

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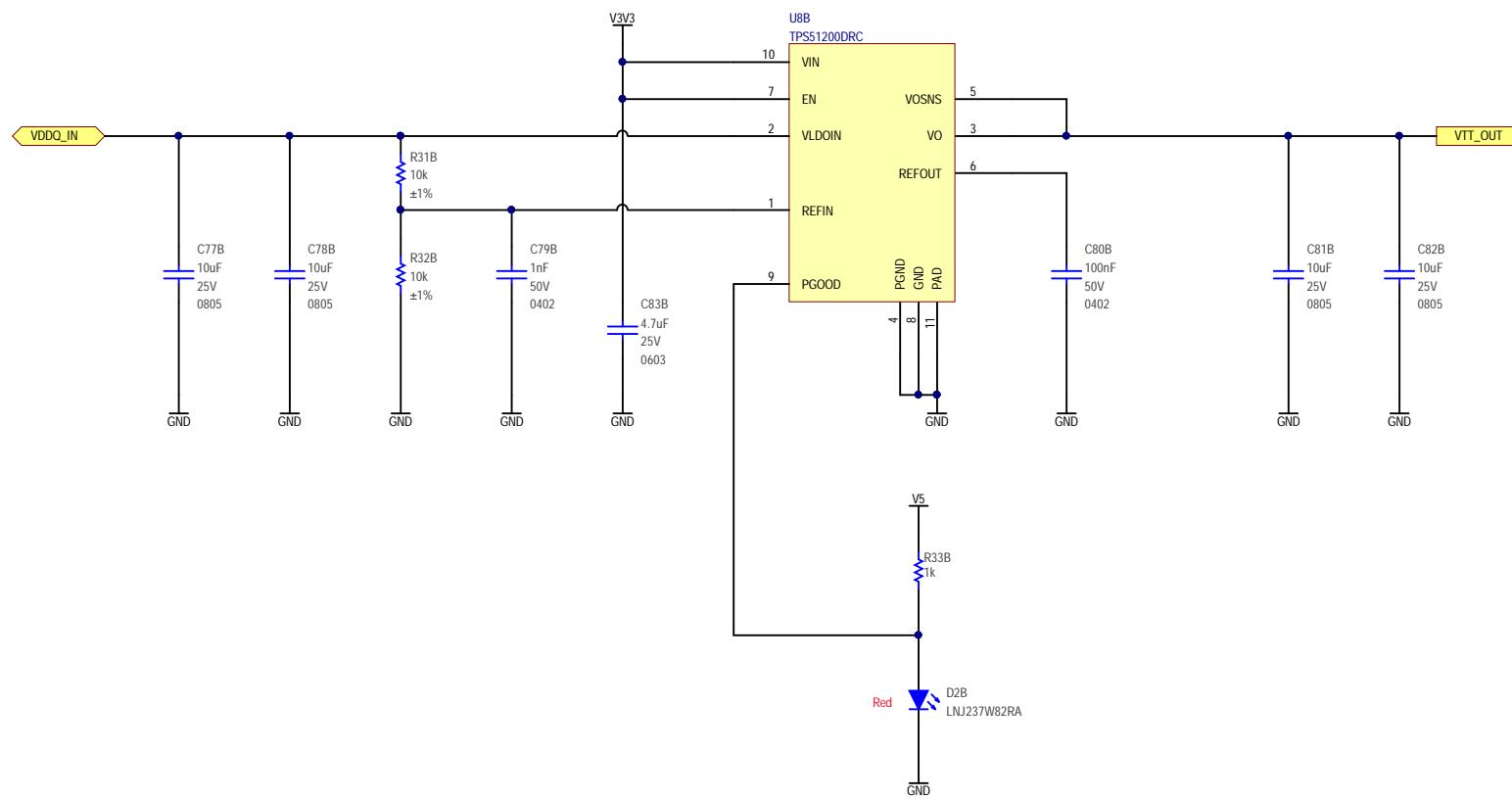
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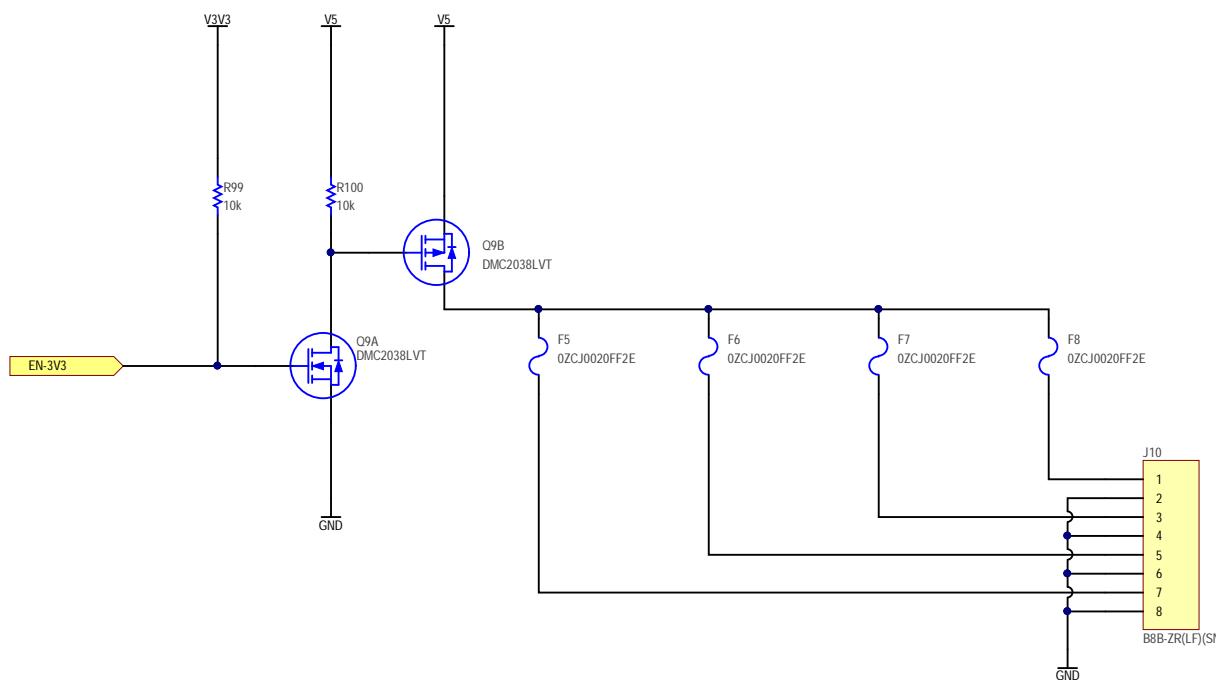
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Title
Copper Suicide - VTT Power

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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Title
Copper Suicide - Fan Switch

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 43 of 44	Date 6/1/2017

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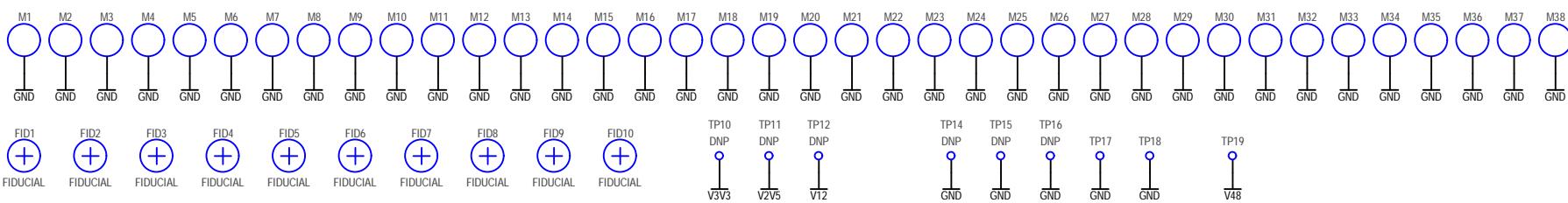
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MISC10 M50-2000005	MISC11 M50-2000005	MISC12 M50-2000005	MISC13 M50-2000005	MISC14 M50-2000005	MISC15 M50-2000005	MISC16 M50-2000005
MISC17 M50-2000005	MISC18 M50-2000005	MISC19 M50-2000005	MISC20 M50-2000005	MISC21 M50-2000005	MISC22 M50-2000005	MISC23 M50-2000005
MISC24 M50-2000005	MISC25 M50-2000005	MISC26 M50-2000005	MISC27 M50-2000005	MISC28 M50-2000005	MISC29 M50-2000005	MISC30 M50-2000005
MISC31 M50-2000005	MISC32 M50-2000005	MISC33 M50-2000005	MISC34 M50-2000005	MISC35 M50-2000005	MISC36 M50-2000005	MISC37 M50-2000005
MISC38 M50-2000005	MISC39 M50-2000005	MISC40 M50-2000005	MISC41 M50-2000005	MISC42 M50-2000005	MISC43 M50-2000005	MISC44 M50-2000005
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MISC59 M50-2000005	MISC60 M50-2000005	MISC61 M50-2000005	MISC62 M50-2000005	MISC63 M50-2000005	MISC64 M50-2000005	MISC65 M50-2000005
MISC66 M50-2000005	MISC67 M50-2000005	MISC68 M50-2000005	MISC69 M50-2000005	MISC70 M50-2000005		
M50-2000005	M50-2000005	M50-2000005	M50-2000005	M50-2000005		

MISC71
CS_PCB_REV1



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Title
Copper Suicide - Mechanical

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