

MAIN
main.SchDoc

MECH
mechanical.SchDoc

A

A

B

B

C

C

D

D



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Title
Copper Suicide - Top

Engineer
J. Brinton

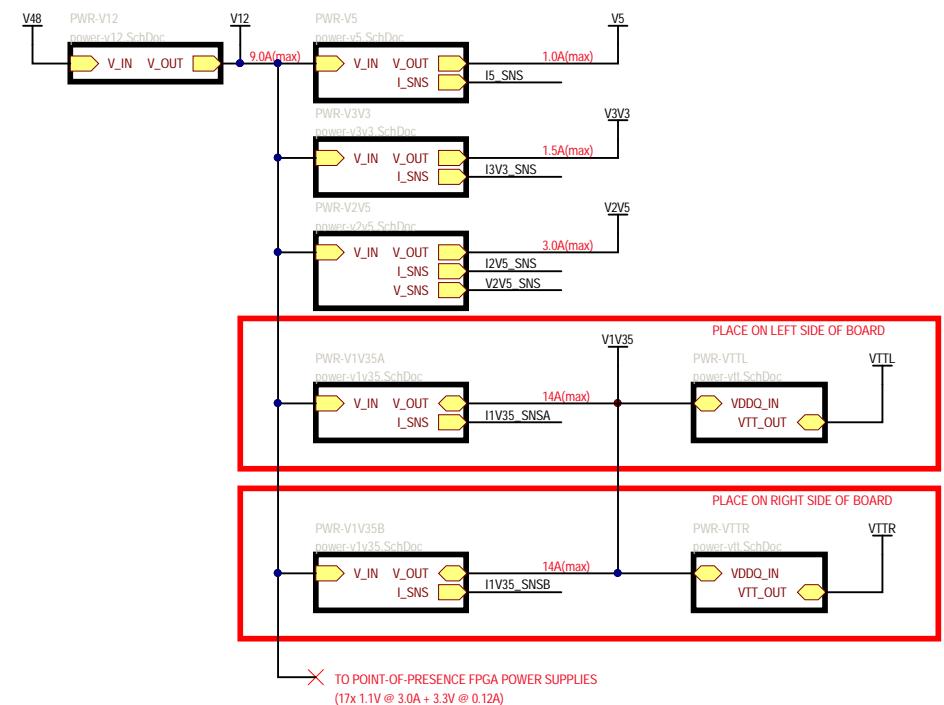
Drawn By
J. Brinton

Checked By
J. Brinton

Revision
2

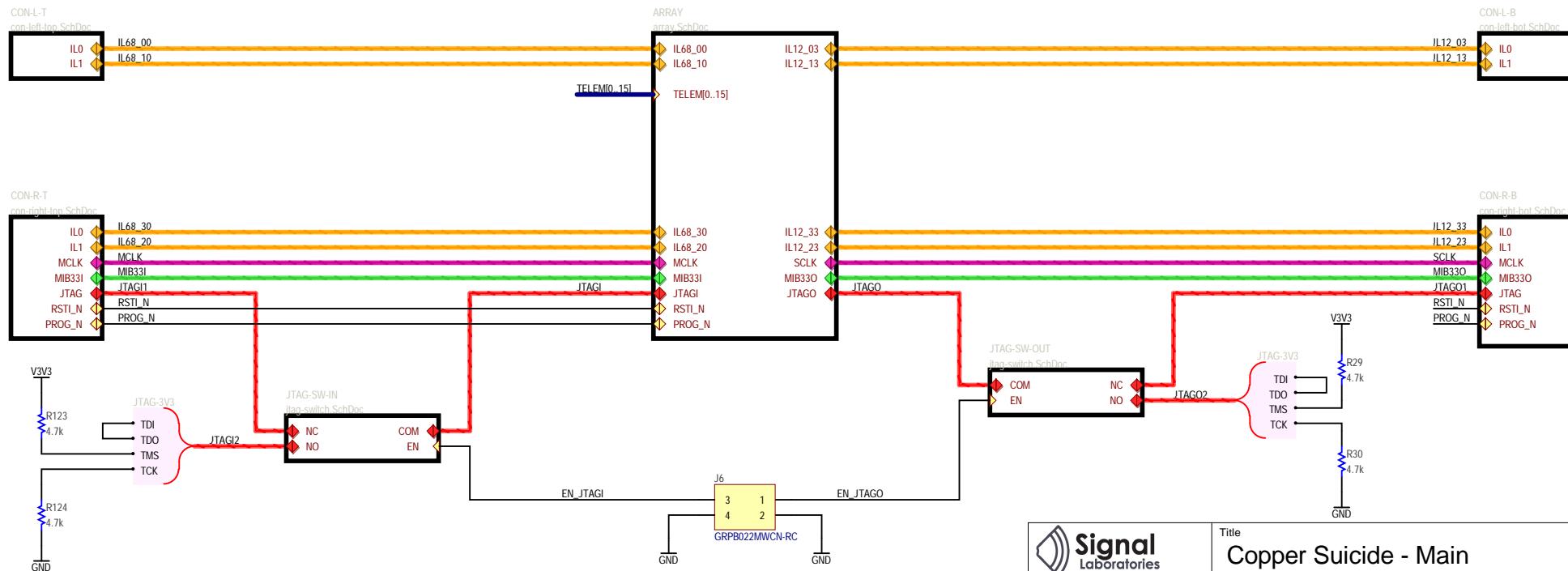
Sheet 1 of 44

Date
6/1/2017



A

I3V3_SNS	NT1	A B	TELEMO
I2V5_SNS	NT2	A B	TELEM1
V2V5_SNS	NT3	A B	TELEM2
I1V35_SNSA	NT4	A B	TELEM3
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
IL12_33.VIOLR	NT15	A B	TELEM14
I5_SNS	NT16	A B	TELEM15

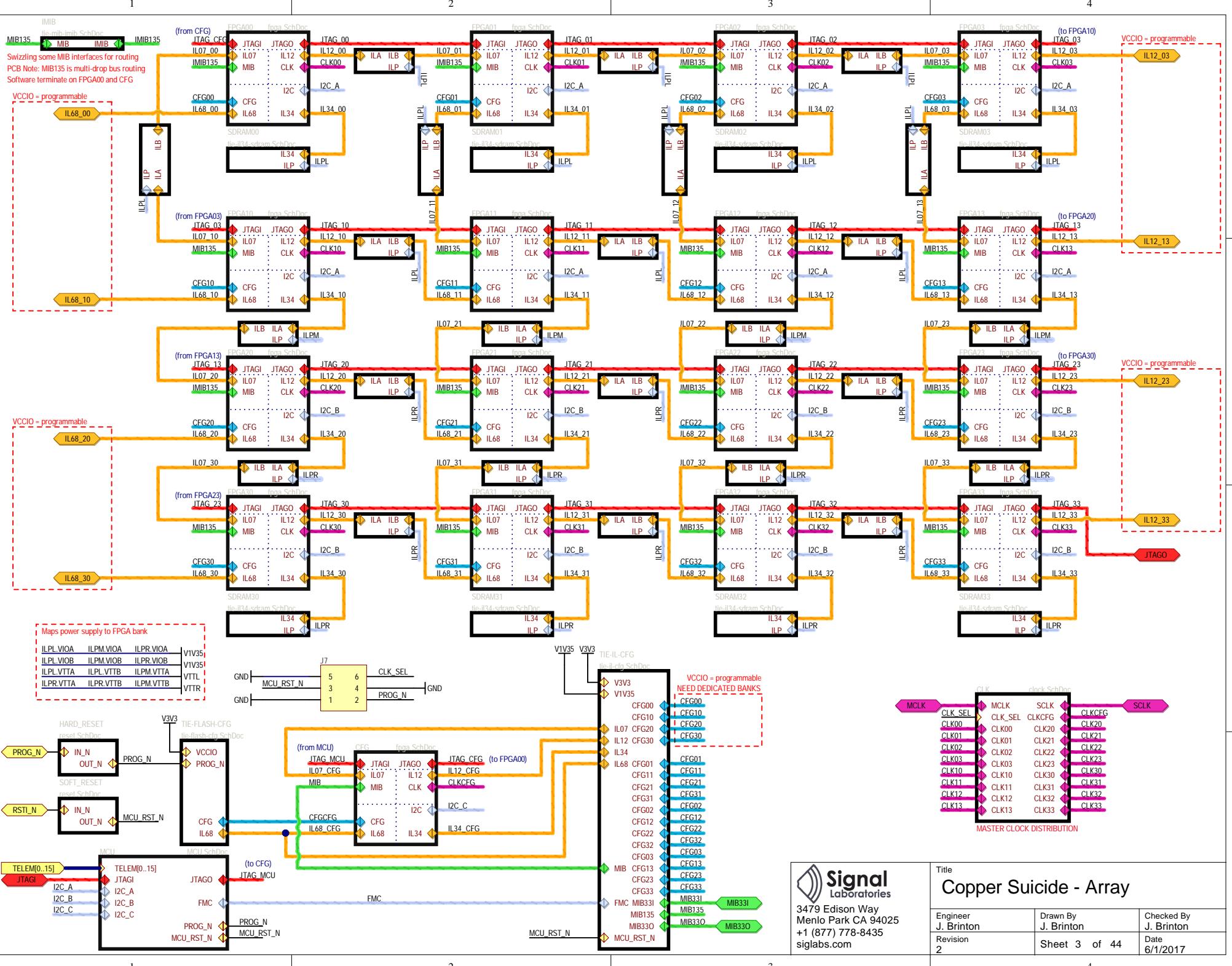


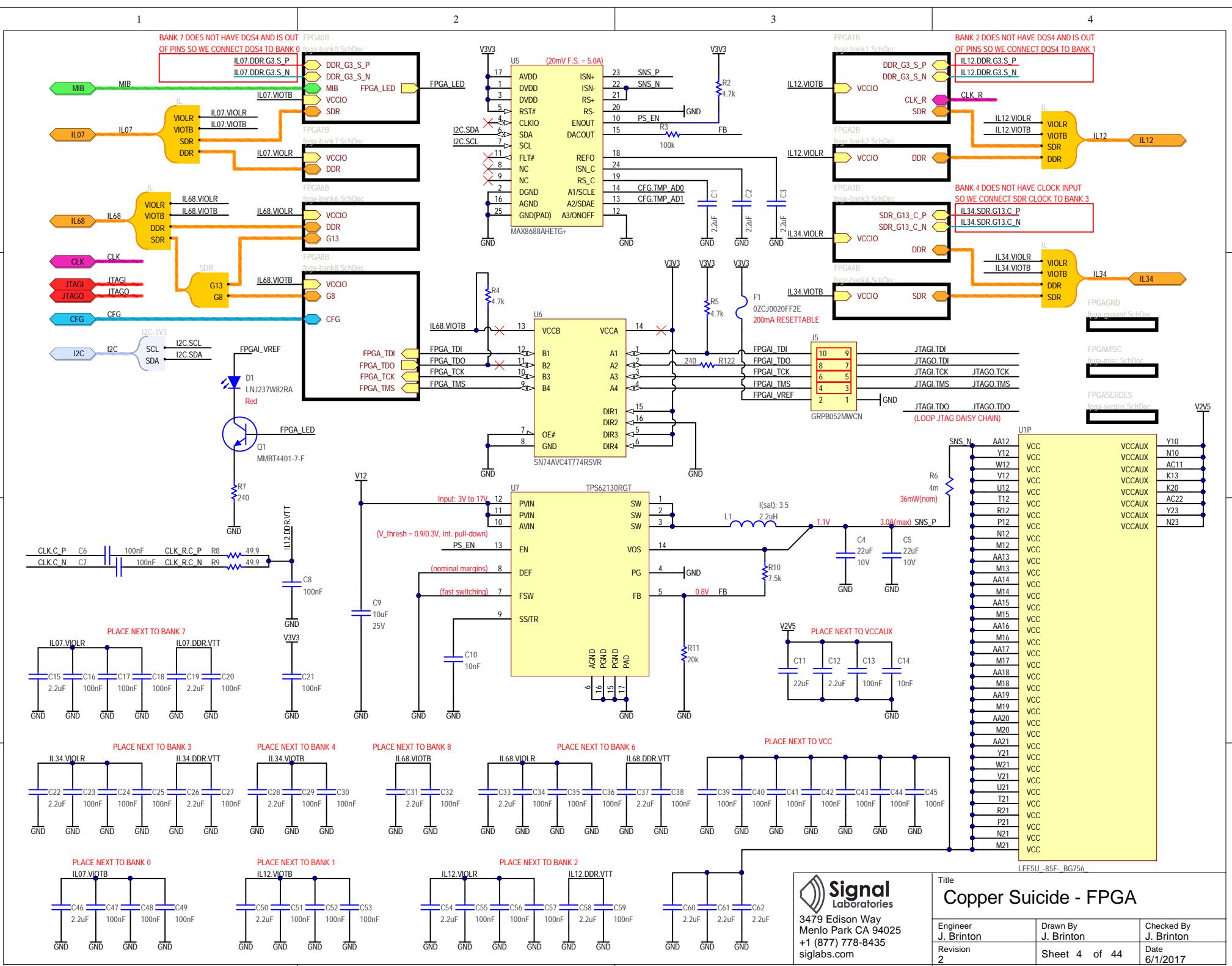
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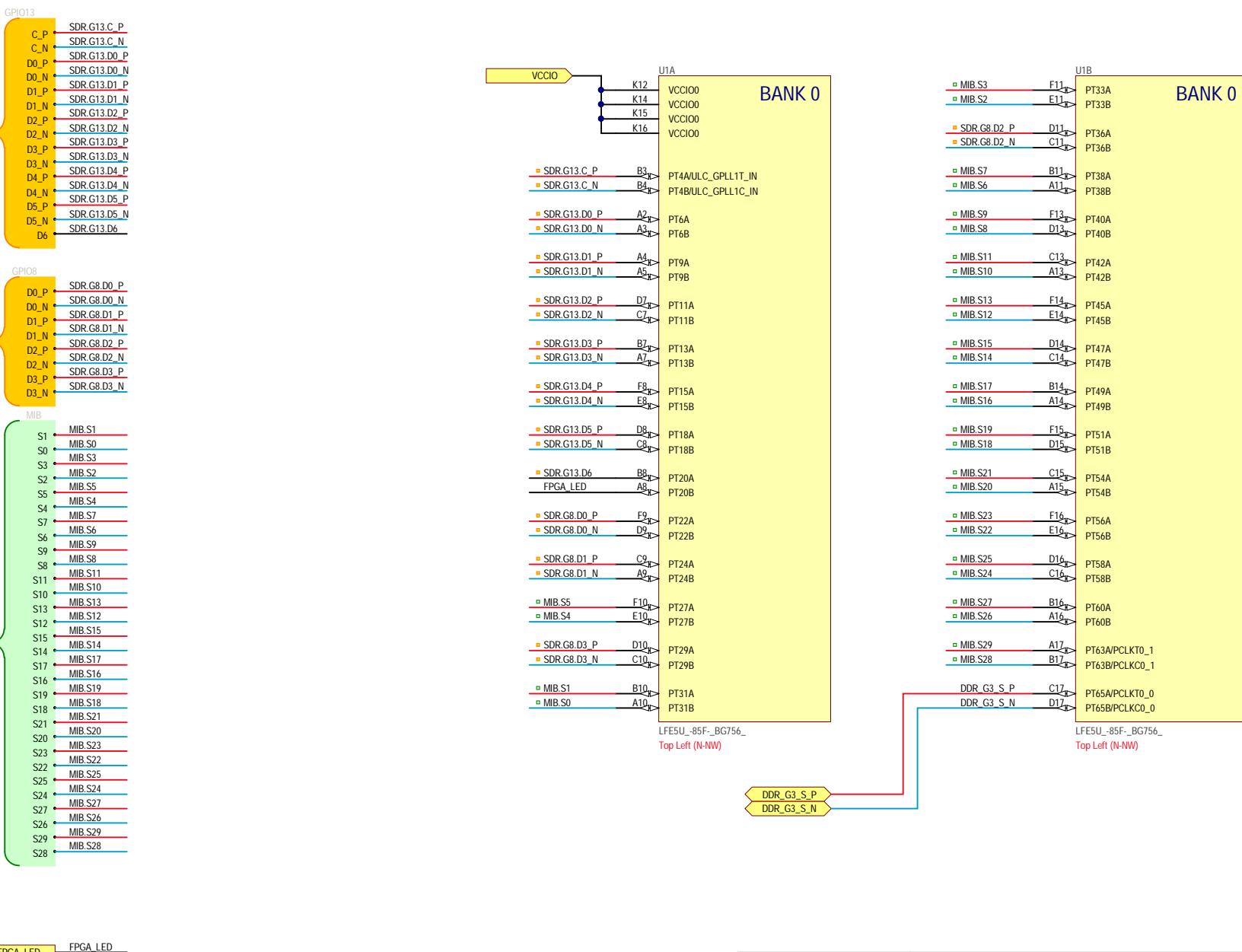
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Engineer J. Brinton Drawn By J. Brinton Checked By J. Brinton

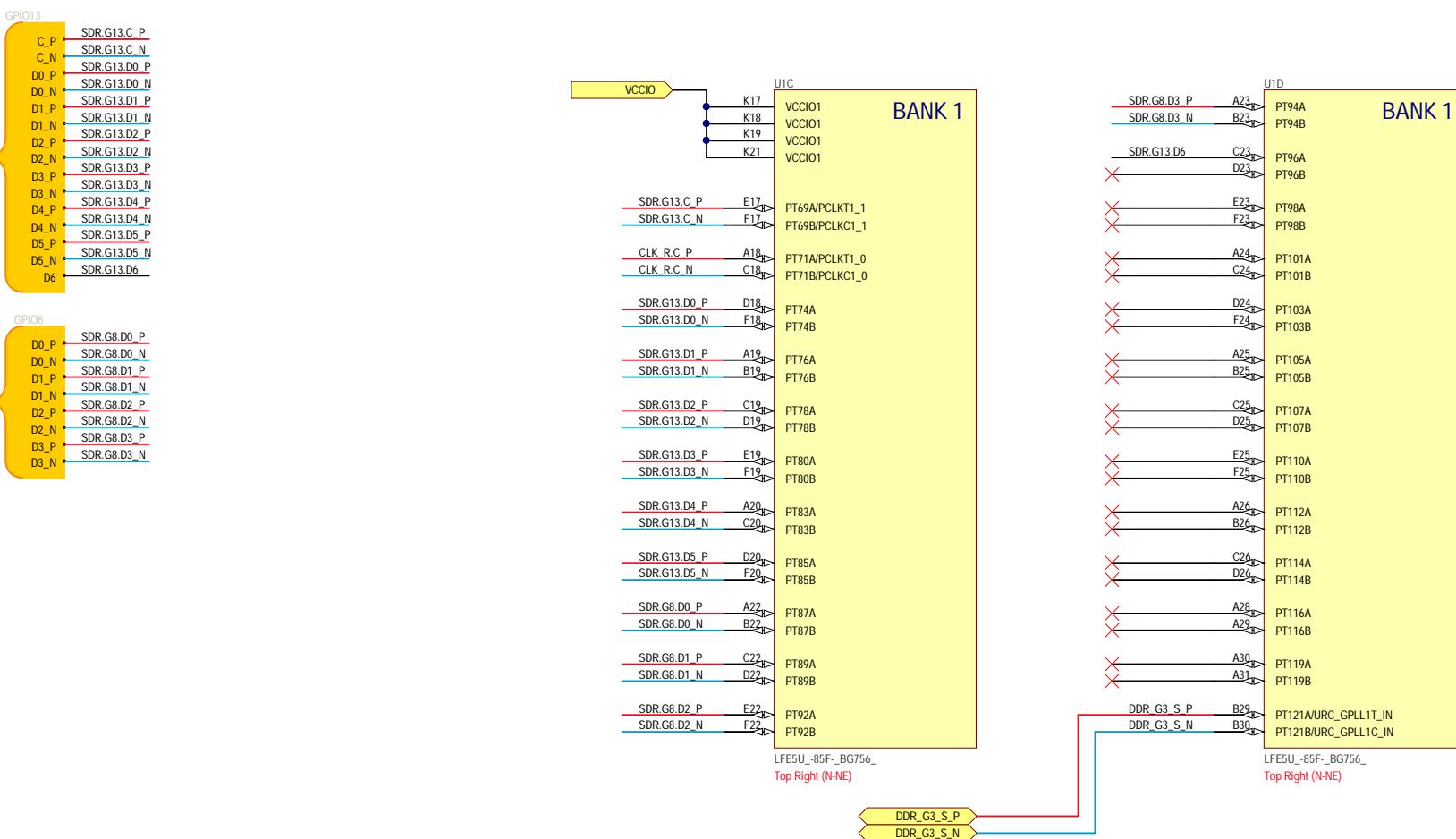
Revision 2 Sheet 2 of 44 Date 6/1/2017







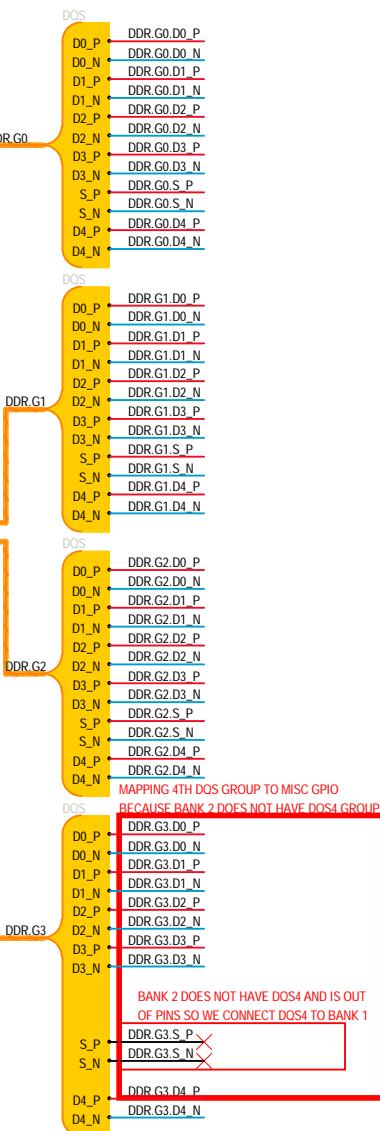
Title Copper Suicide - FPGA - Bank 0			
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton	Date 6/1/2017
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Title		
Copper Suicide - FPGA - Bank 1		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 6 of 44	Date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

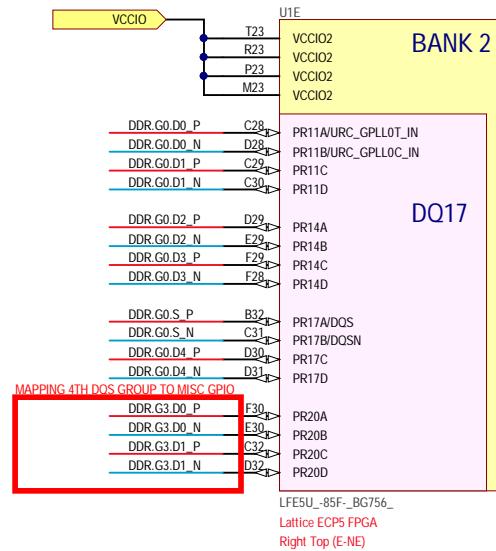
A

A



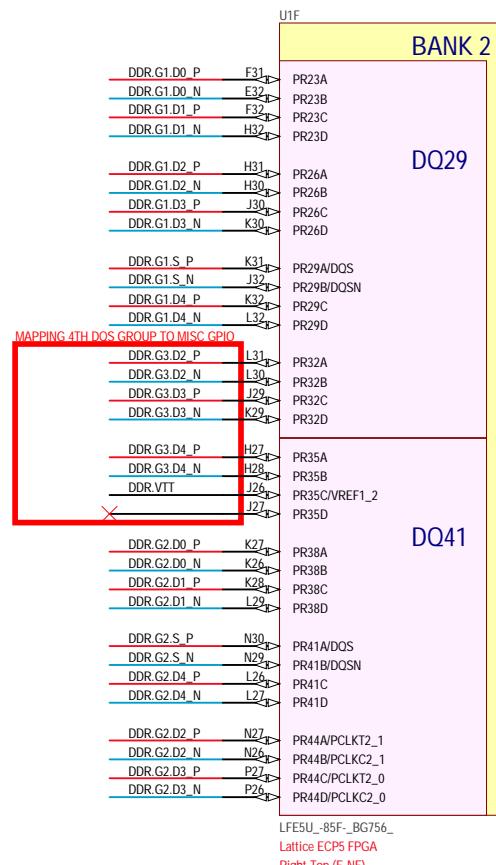
B

B



C

C

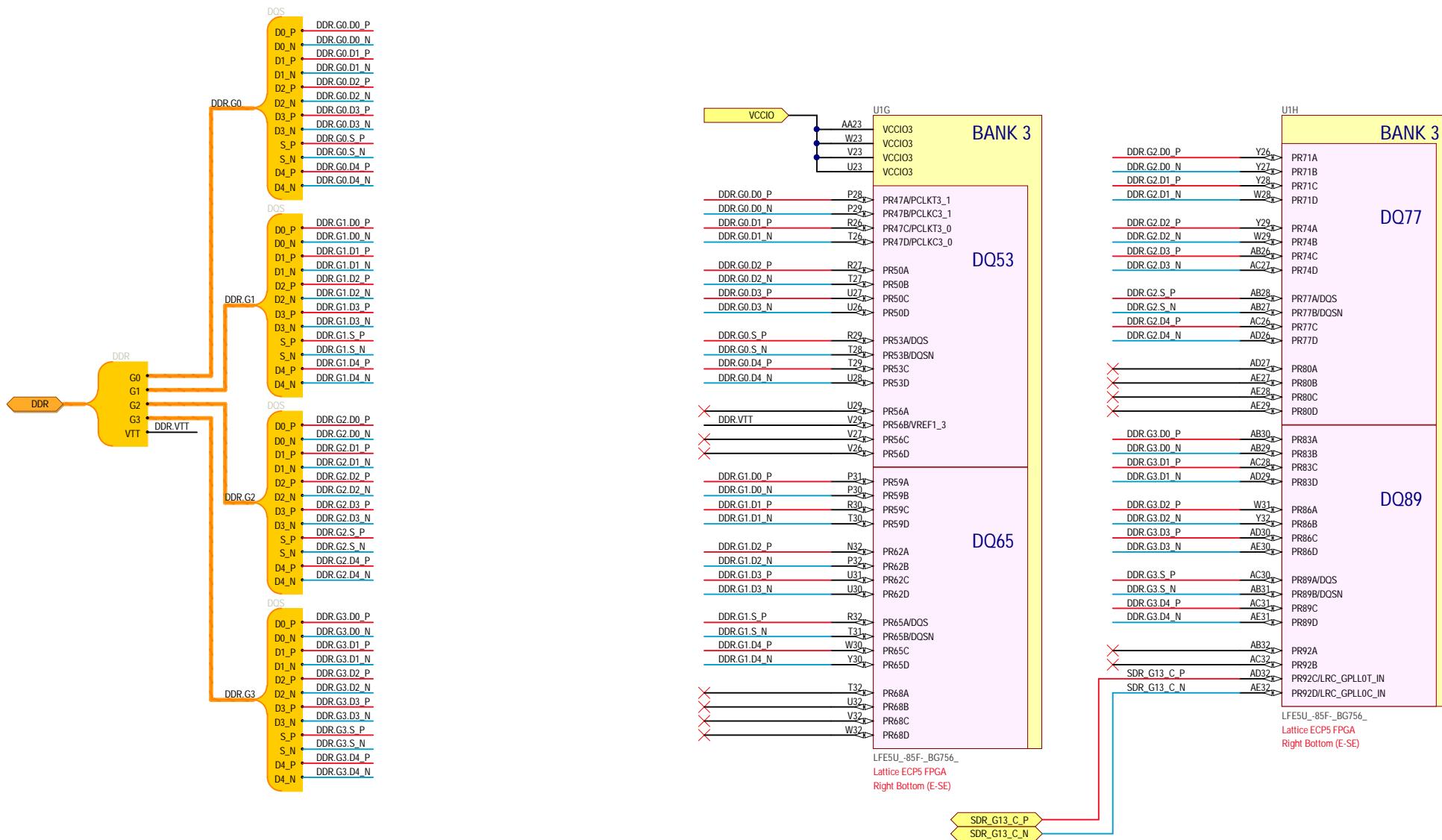


D

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

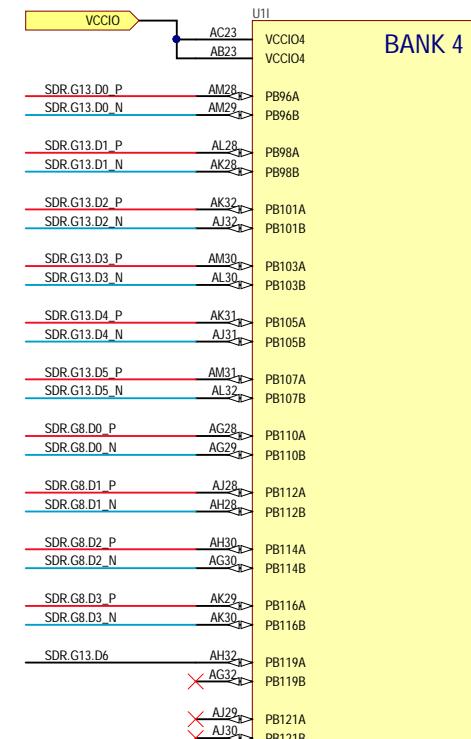
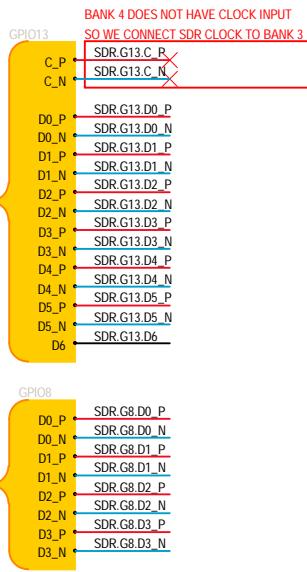


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Title

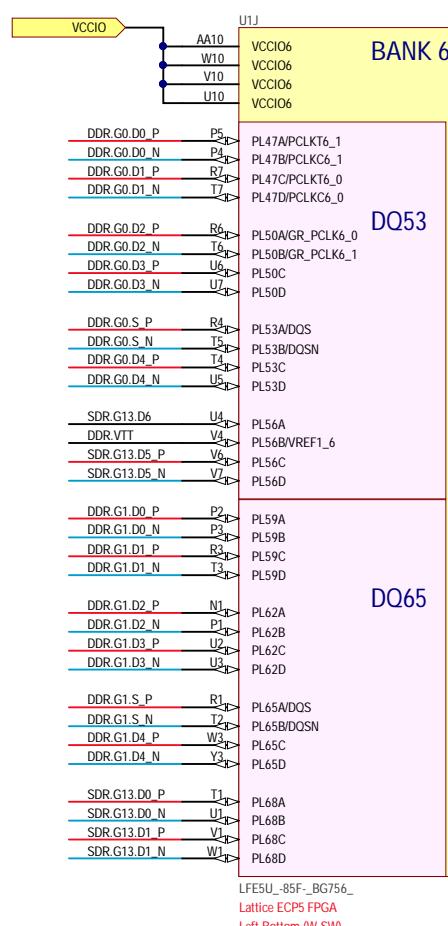
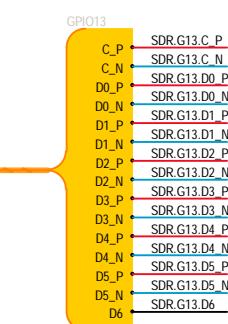
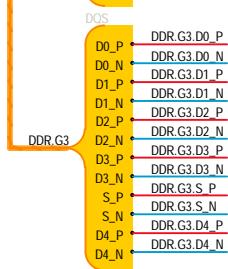
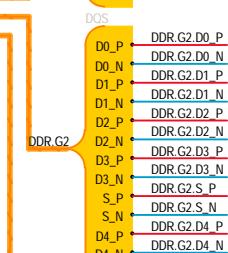
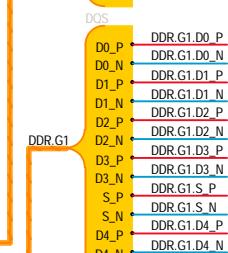
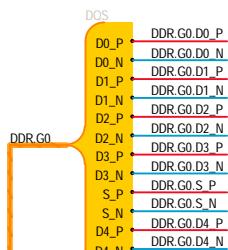
Copper Suicide - FPGA - Bank 3

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Revision 2	Sheet 8 of 44	Date 6/1/2017

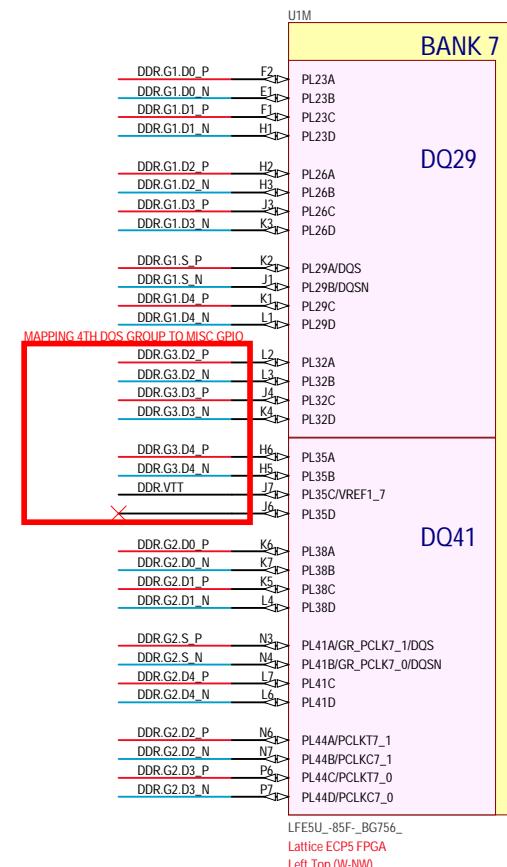
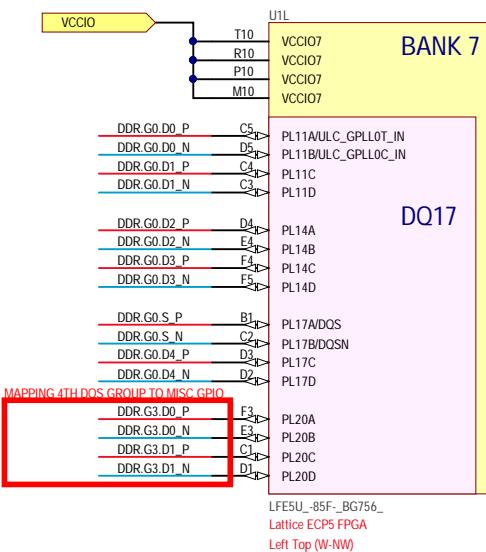
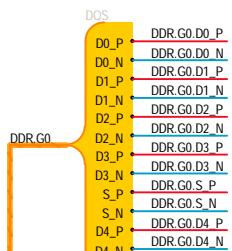


LFE5U-85F-BG756
Lattice ECP5 FPGA
Right Bottom (S-SE)

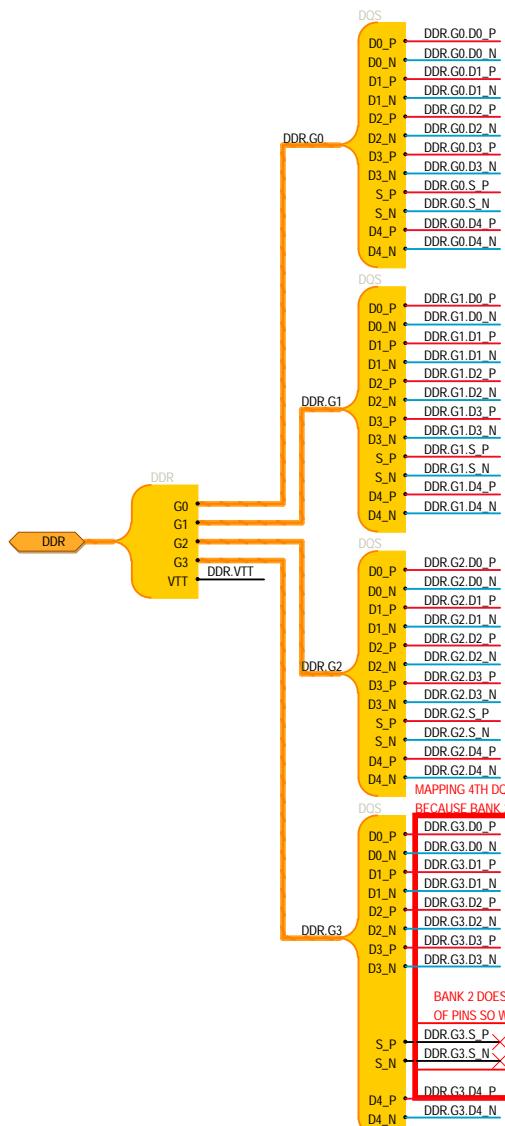
A



A



B

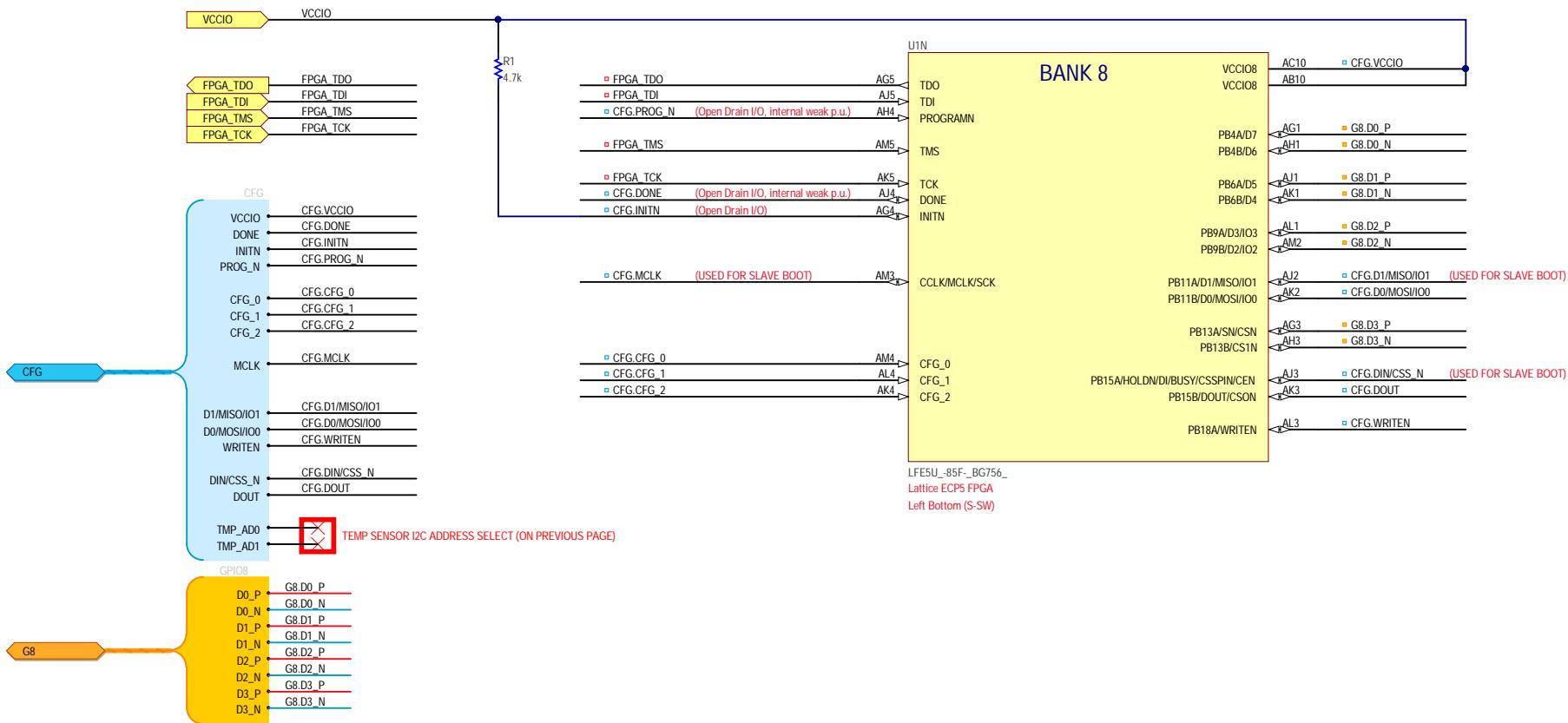


C

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A

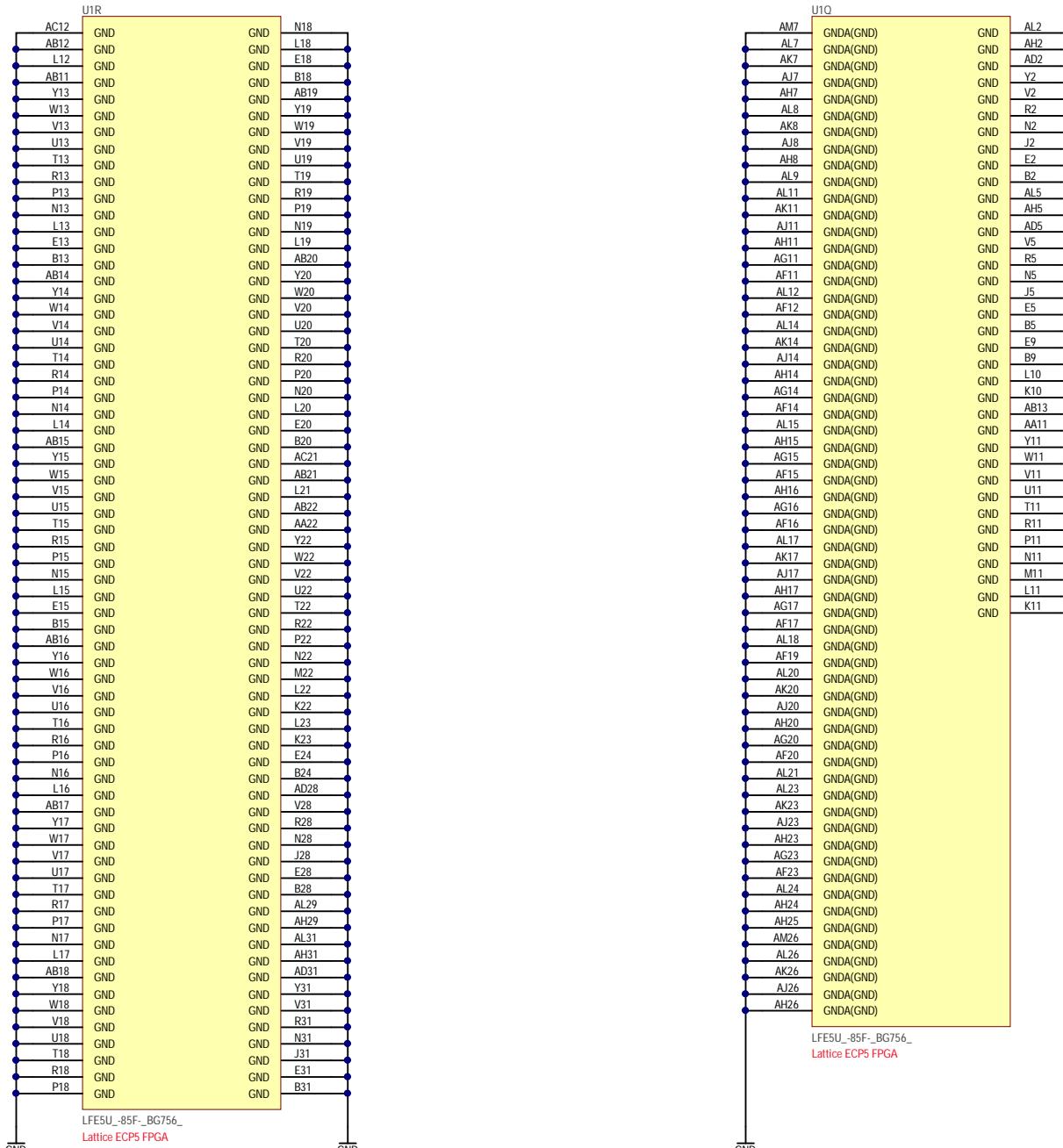
A



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Title Copper Suicide - FPGA - Bank 8

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



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Copper Suicide - FPGA - Ground

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

A

B

B

C

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D



Title		
Copper Suicide - FPGA - Misc		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 14 of 44	Date 6/1/2017

A

A

B

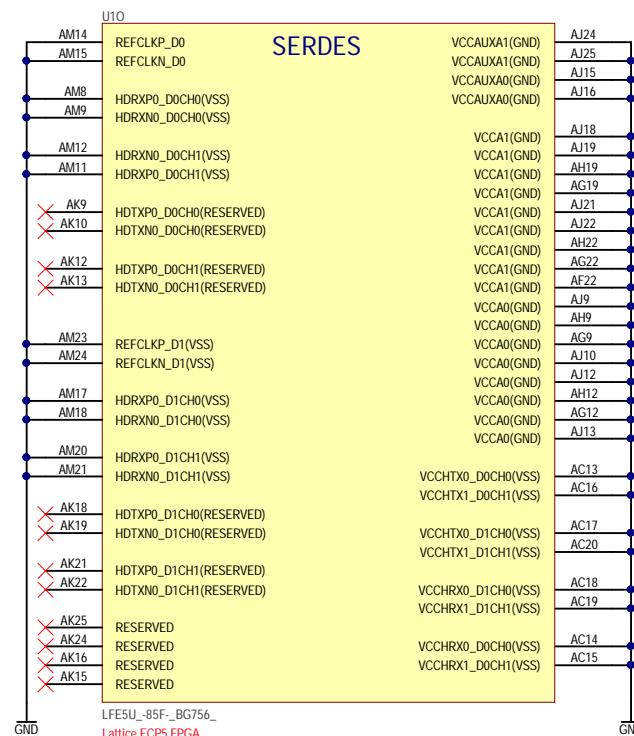
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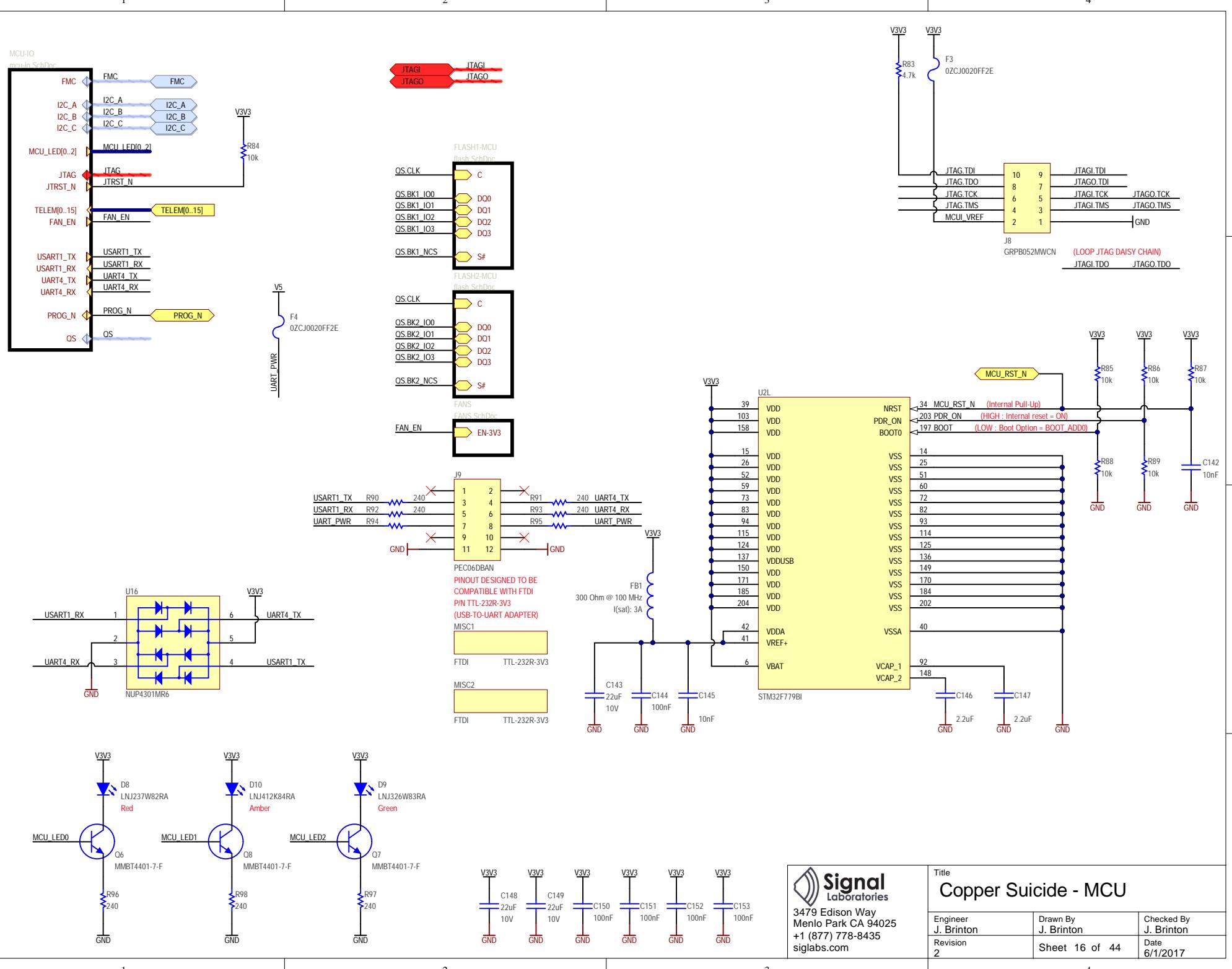
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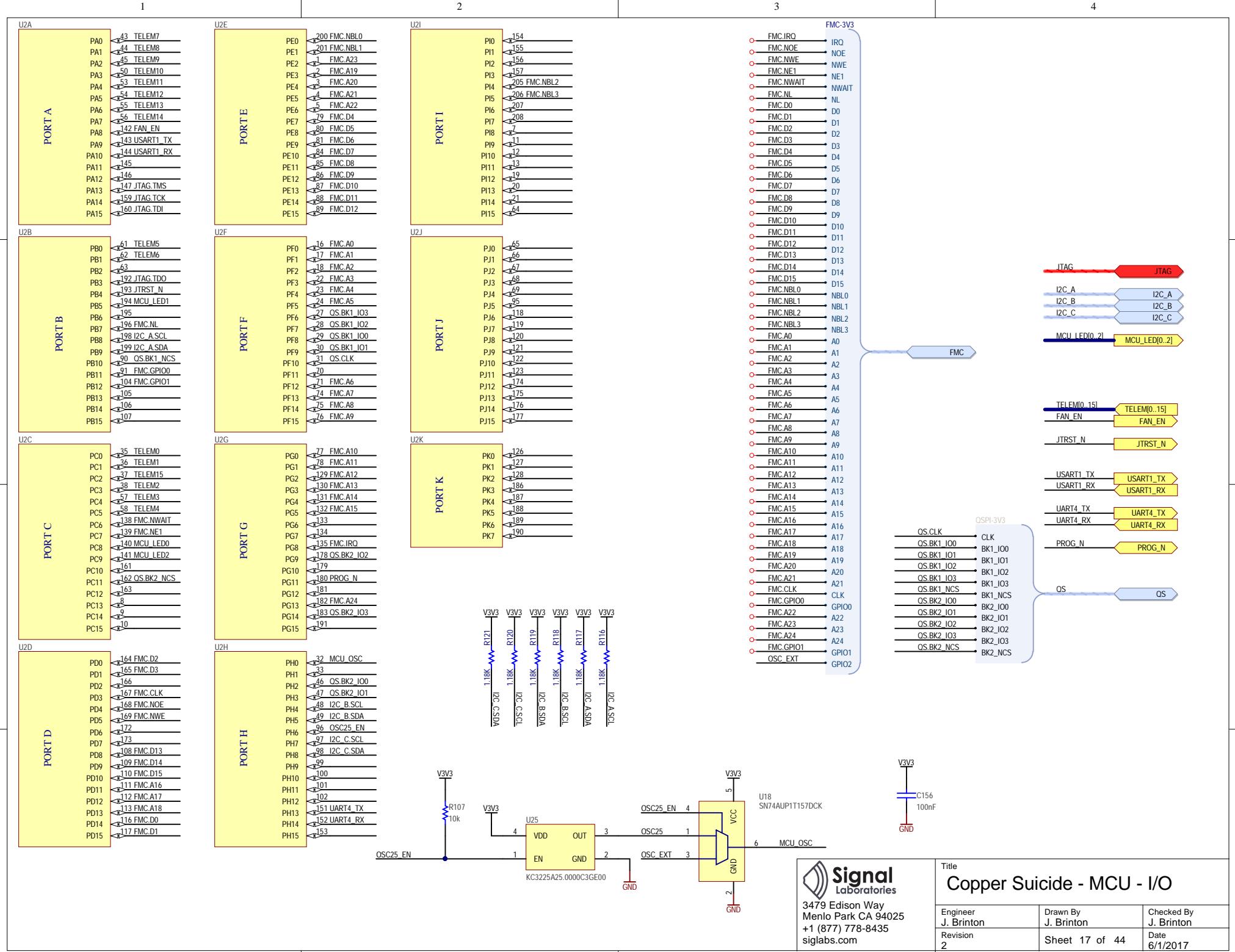
C

D

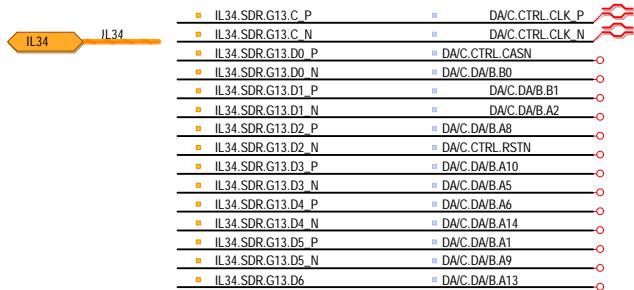
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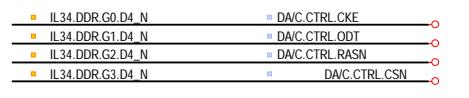




A



B



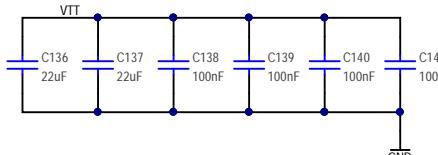
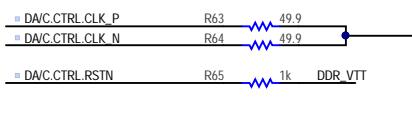
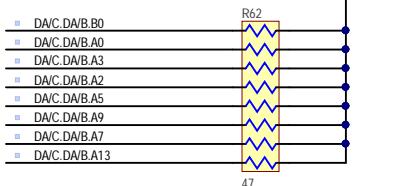
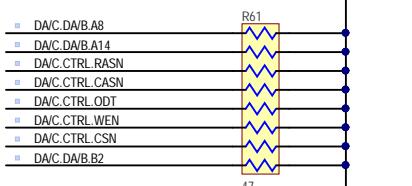
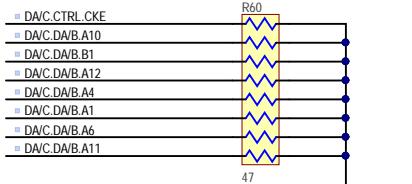
C



D



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.



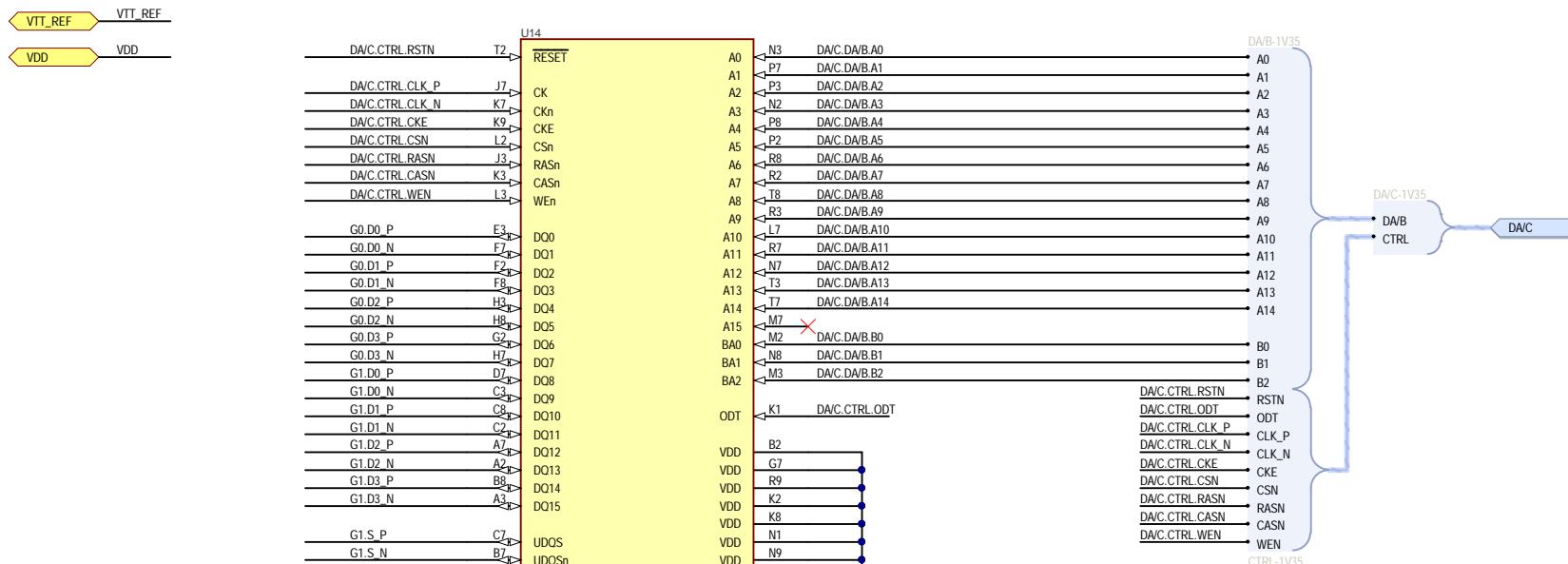
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Title
Copper Suicide - Net Tie SDRAM

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 18 of 44	Date 6/1/2017

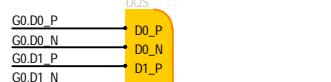
A

A



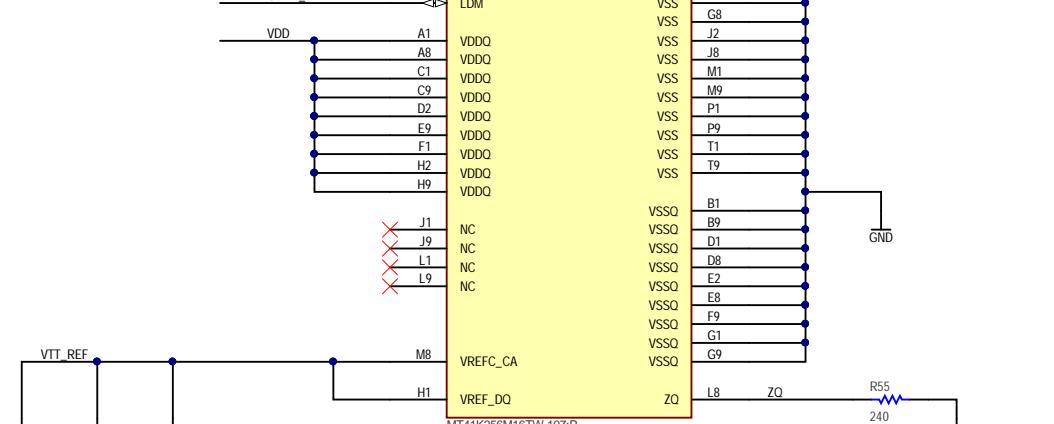
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B



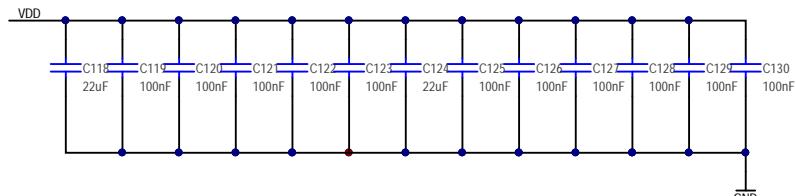
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C



D

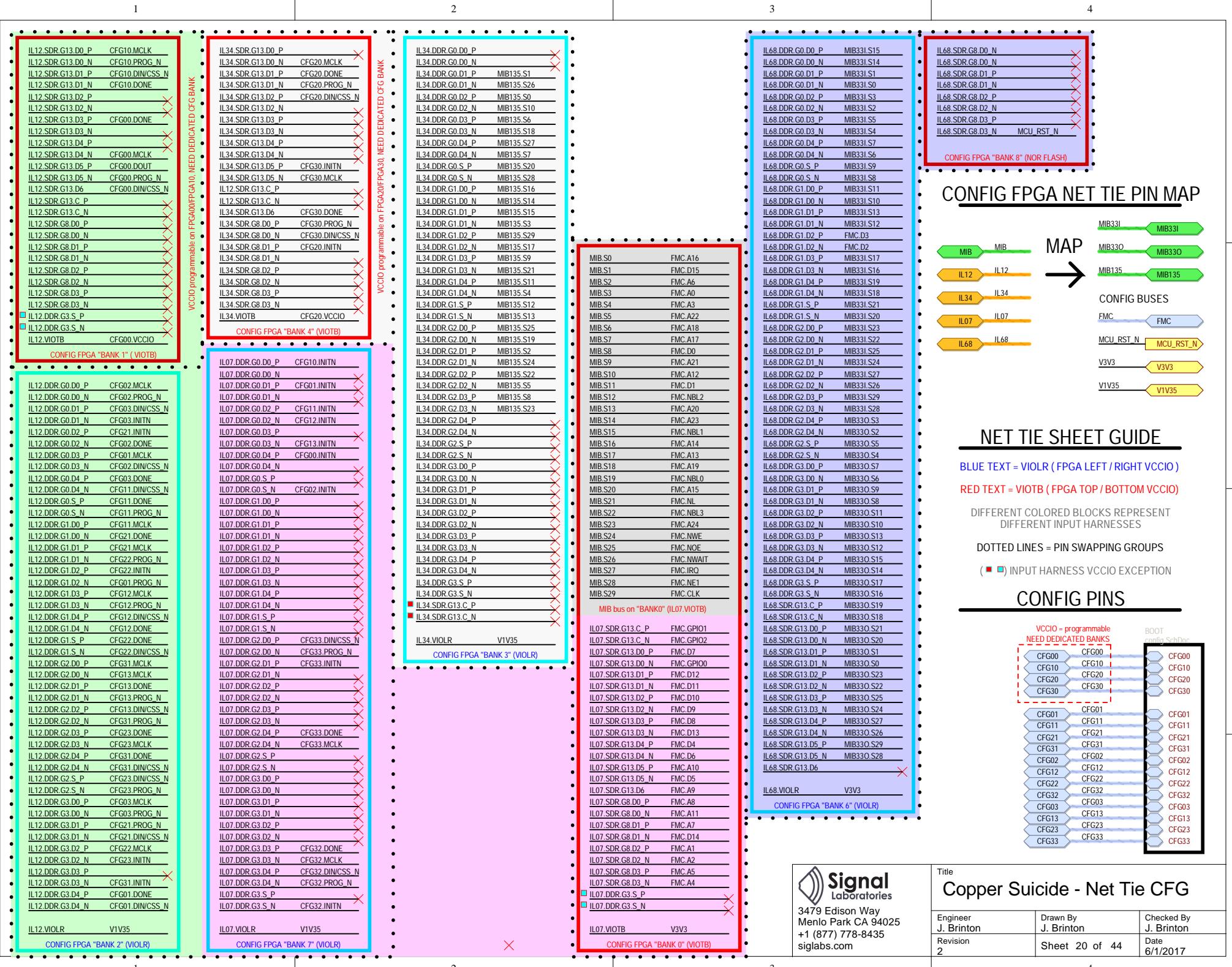
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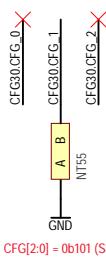
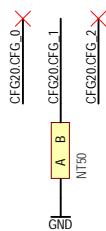
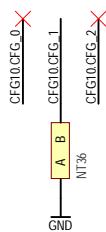
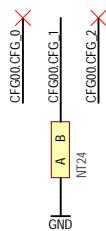
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Copper Suicide - SDRAM

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



A



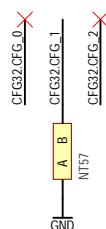
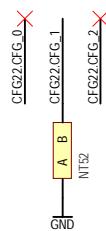
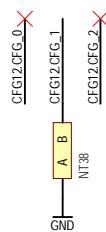
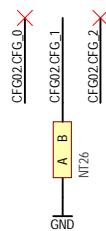
1

2

3

4

B



1

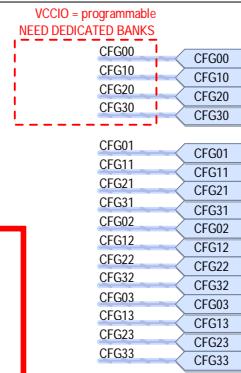
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3

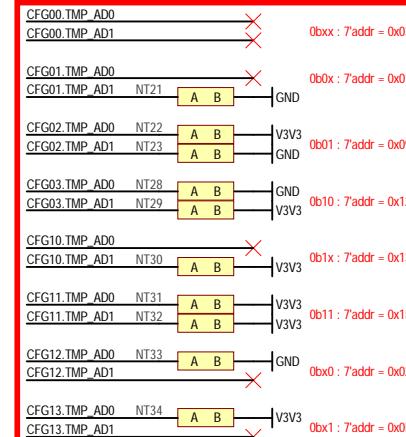
4

CFG00.MCLK
CFG00.DONE
CFG00.INTN
CFG00.PROG_N
CFG00.DIN/CSS_N
CFG00.D0/MOSI/I00
CFG00.D1/MISO/I01
CFG00.DOUT
CFG00.WRITEN

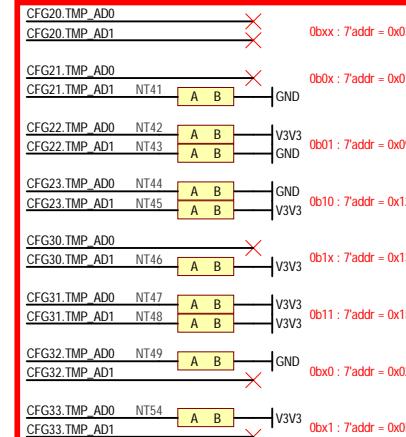
PCB NOTE: PLACE NEXT TO FPGA #00



TEMP SENSOR I2C ADDRESS SELECT - I2C BUS A



TEMP SENSOR I2C ADDRESS SELECT - I2C BUS B



Title Copper Suicide - Config Options

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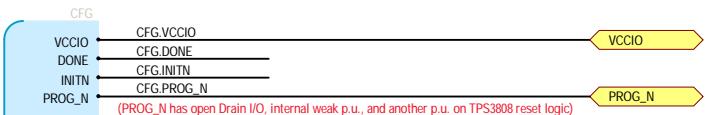
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 21 of 44	Date 6/1/2017

A



(need dedicated GPIO to signal MCLK during Flash reprogramming)

IL68.SDR.G8.D1_P NT17 B A



DOUT
(p.u. on TPS3808 reset logic)

CFG.MCLK

D0/MOSI/I00

D1/MISO/I01

IL68.SDR.G8.D2_N IO2

IL68.SDR.G8.D2_P IO3

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

DIN/CSS_N

CFG.DIN/CSS_N

WRITEN

CFG.WRITEN

TMP_AD0

TMP_AD1

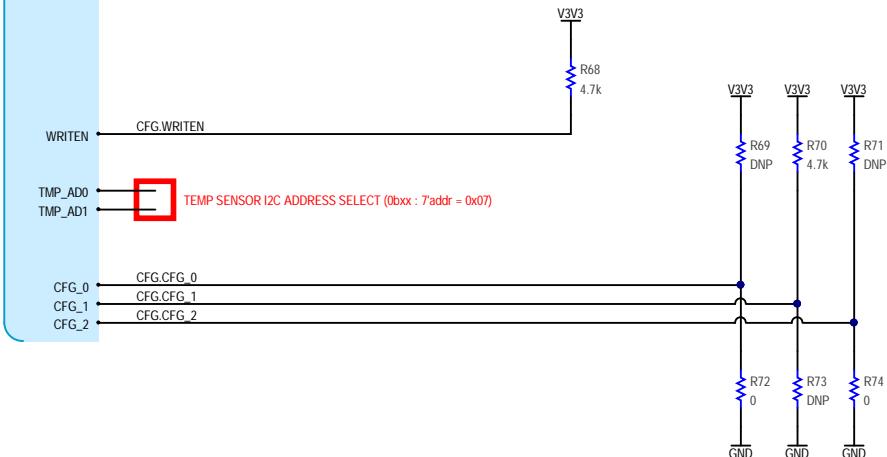
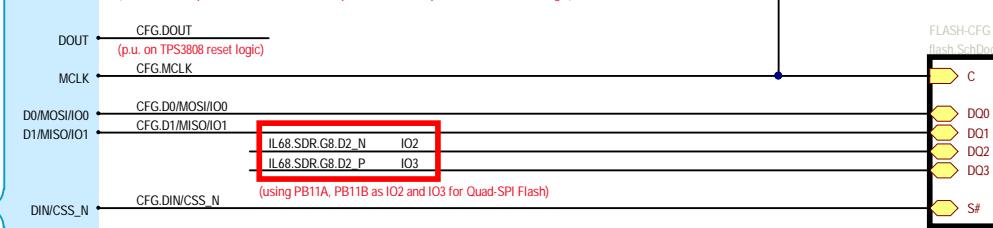
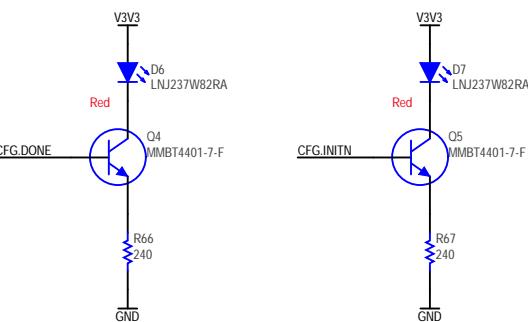
TEMP SENSOR I2C ADDRESS SELECT (0bxx : 7addr = 0x07)

CFG_0

CFG_1

CFG_2

IL68.SDR.G8.D1_P NT17 B A



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

B

A

C

B

D

C



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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

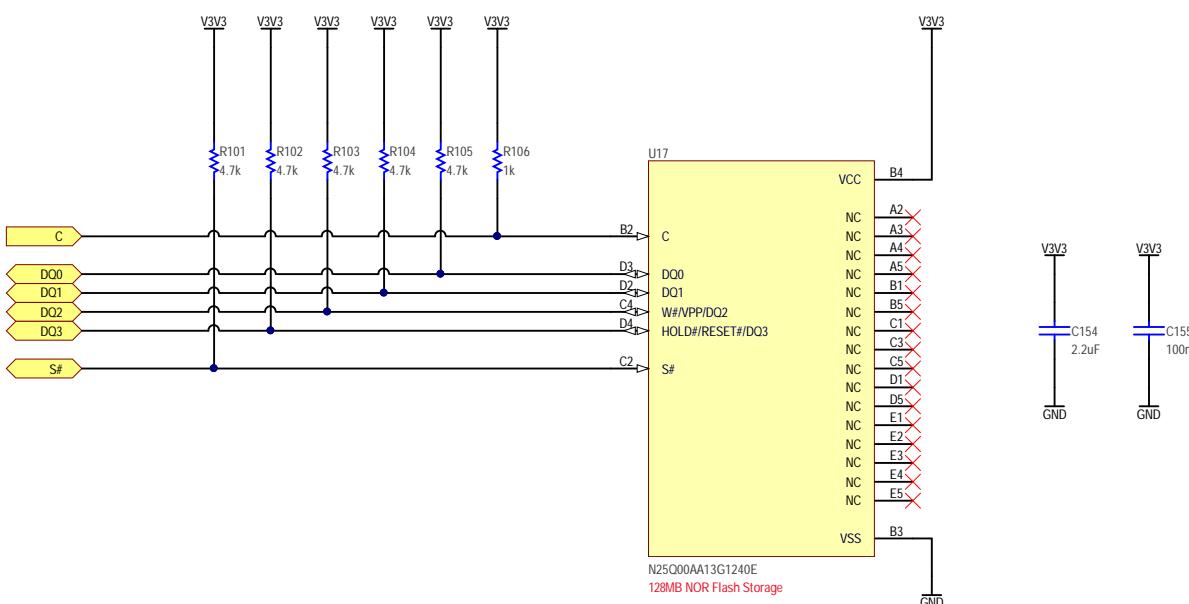
B

C

C

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D



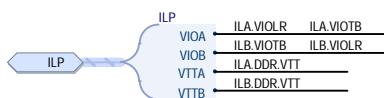
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Title
Copper Suicide - Flash

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



A



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

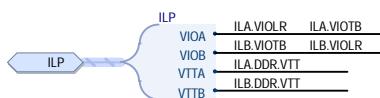


Copper Suicide - Net Tie 12:07

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



A



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

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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
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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.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_P	ILB.DDR.G2.D3_P
ILA.DDR.G2.D3_N	ILB.DDR.G2.D3_N
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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
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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

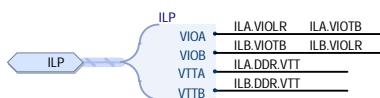


Title: Copper Suicide - Net Tie 12:68

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.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
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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
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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
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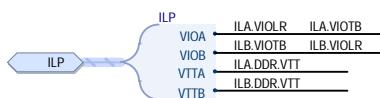
PIN SWAPPING TO REDUCE ROUTING COMPLEXITY



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
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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
ILA.SDR.G13.D4_N	ILB.SDR.G13.D4_N
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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
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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

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ILA.DDR.G0.D3_N	ILB.DDR.G0.D0_N
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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
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ILA.DDR.G0.S_N	ILB.DDR.G0.S_N
ILA.DDR.G1.D0_P	ILB.DDR.G1.D0_P
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PIN SWAPPING TO REDUCE ROUTING COMPLEXITY

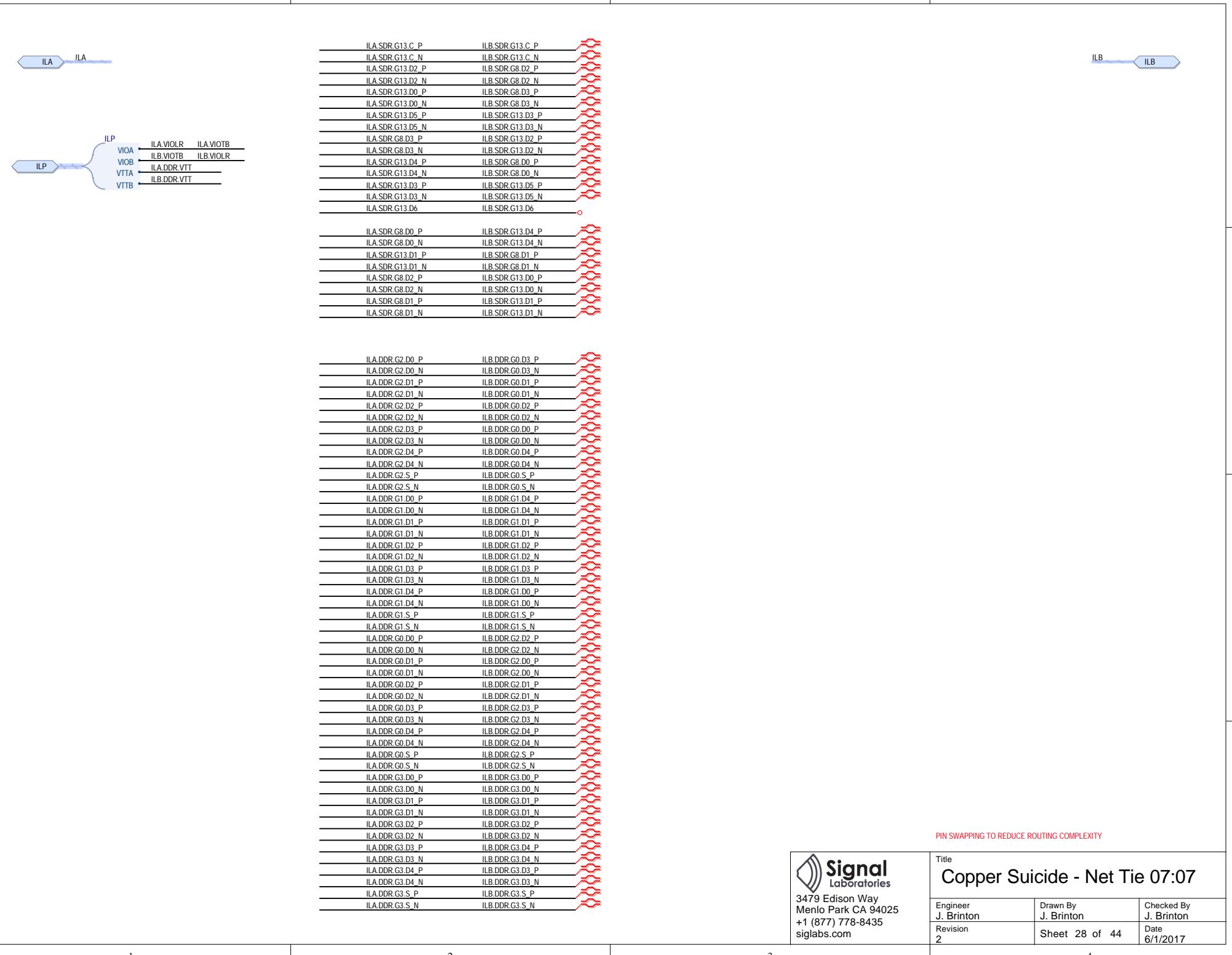


Title

Copper Suicide - Net Tie 34:07Engineer
J. BrintonDrawn By
J. BrintonChecked By
J. BrintonRevision
2

Sheet 27 of 44

Date
6/1/2017



A

A

B

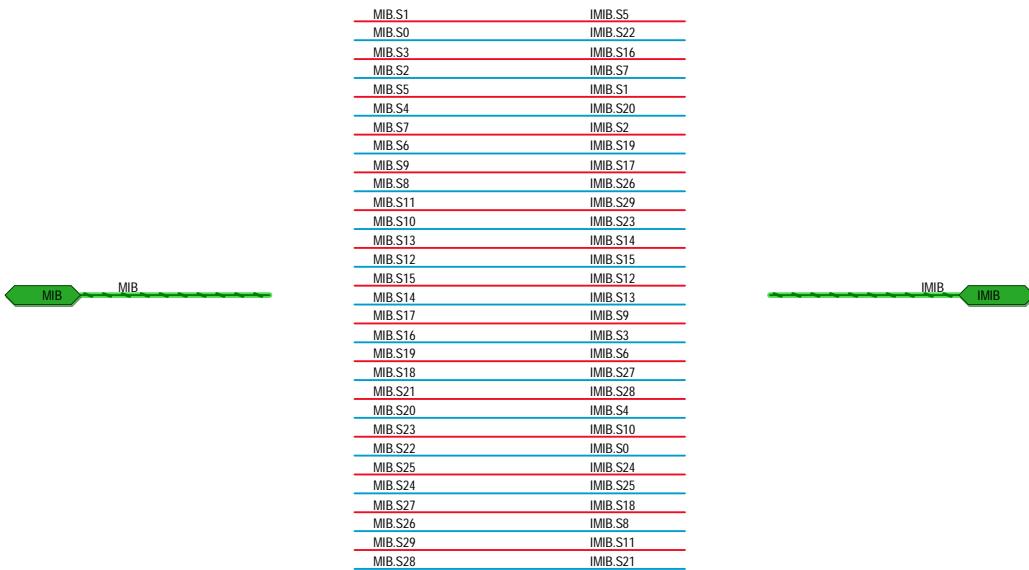
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C

C

D

D



PIN SWAPPING TO REDUCE ROUTING COMPLEXITY

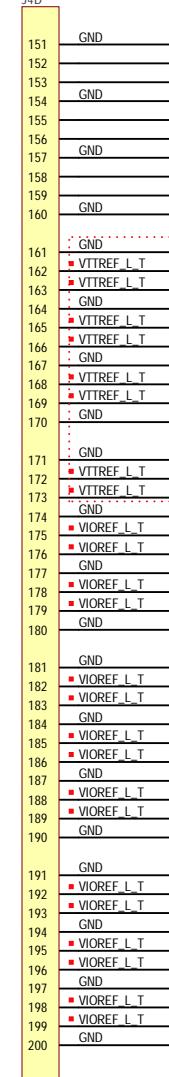
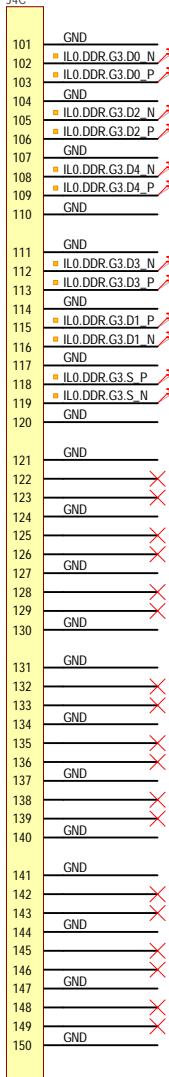
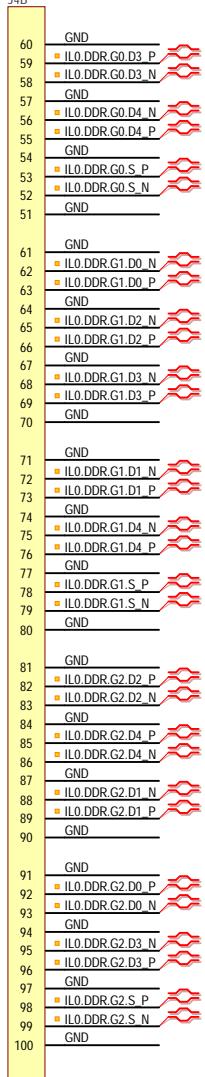


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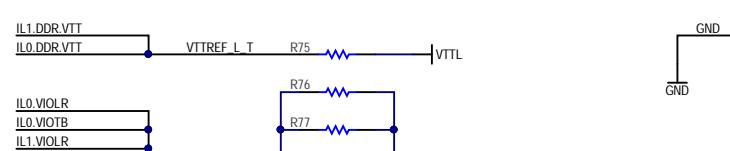
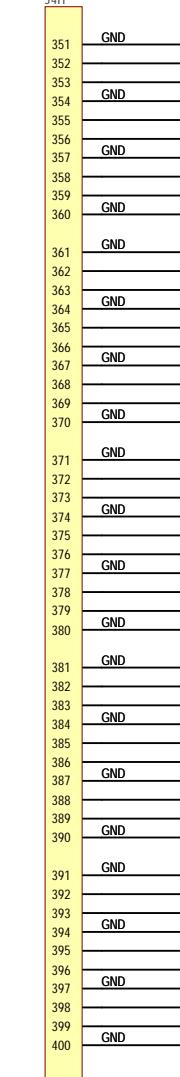
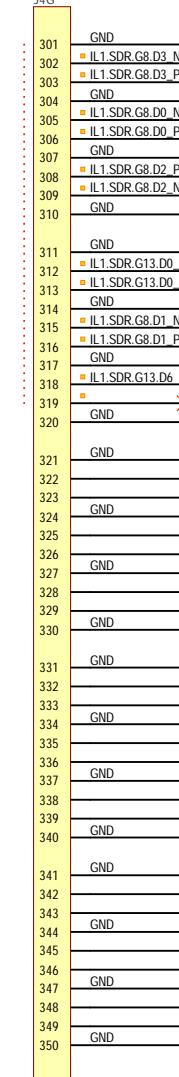
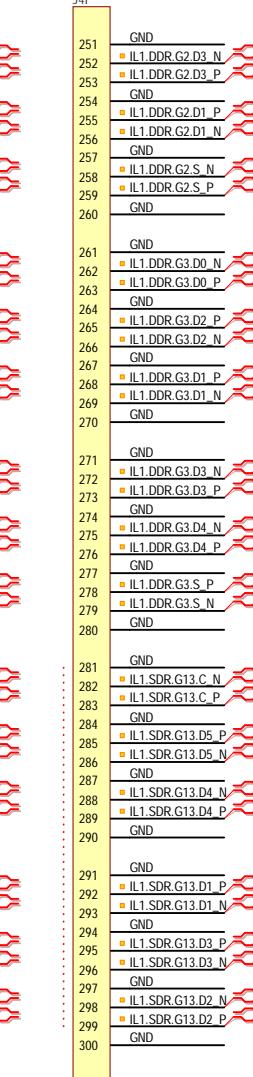
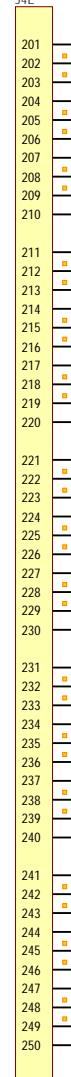
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 29 of 44	Date 6/1/2017

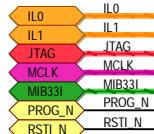
A

SEAM-40-11.0-S-10-2-A-K-TR



Référence Input Référence Voltage





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.S2
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.S2	203 ■ MIB33I.S2
154 ■ MIB33I.S28	204 ■ MIB33I.S24
155 ■ MIB33I.S27	205 ■ MIB33I.S25
156 ■ MIB33I.S25	206 ■ MIB33I.S27
157 ■ MIB33I.S18	207 ■ MIB33I.S17
158 ■ MIB33I.S26	208 ■ MIB33I.S6
159 ■ MIB33I.S19	209 ■ MIB33I.S9
160 ■ MIB33I.S1	210 ■ MIB33I.S2

J3E

201 ■ MIB33I.S23	251 ■ MIB33I.S4
202 ■ MIB33I.S22	252 ■ MIB33I.S29
203 ■ MIB33I.S2	253 ■ MIB33I.S2
204 ■ MIB33I.S24	254 ■ MIB33I.S16
205 ■ MIB33I.S25	255 ■ MIB33I.S7
206 ■ MIB33I.S27	256 ■ MIB33I.S25
207 ■ MIB33I.S17	257 ■ MIB33I.S6
208 ■ MIB33I.S19	258 ■ MIB33I.S9
209 ■ MIB33I.S1	259 ■ MIB33I.S2
210 ■ MIB33I.S2	260 ■ MIB33I.S2

J3F

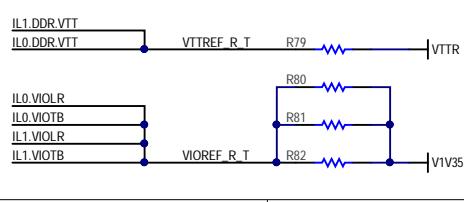
251 ■ MIB33I.S4	301 ■ IL1.SDR.G8.D2_P
252 ■ MIB33I.S29	302 ■ IL1.SDR.G8.D2_N
253 ■ MIB33I.S2	303 ■ MIB33I.S2
254 ■ MIB33I.S16	304 ■ IL1.SDR.G8.D1_P
255 ■ MIB33I.S7	305 ■ IL1.SDR.G8.D1_N
256 ■ MIB33I.S25	306 ■ MIB33I.S25
257 ■ MIB33I.S6	307 ■ IL1.SDR.G13.D1_P
258 ■ MIB33I.S9	308 ■ IL1.SDR.G13.D1_N
259 ■ MIB33I.S2	309 ■ MIB33I.S2
260 ■ MIB33I.S2	310 ■ MIB33I.S2

J3G

301 ■ IL1.SDR.G8.D2_P	351 ■ IL1.DDR.G1.D0_N
302 ■ IL1.SDR.G8.D2_N	352 ■ IL1.DDR.G1.D0_P
303 ■ MIB33I.S2	353 ■ GND
304 ■ IL1.SDR.G8.D1_P	354 ■ IL1.DDR.G1.D1_P
305 ■ IL1.SDR.G8.D1_N	355 ■ IL1.DDR.G1.D1_N
306 ■ MIB33I.S25	356 ■ GND
307 ■ IL1.SDR.G13.D1_P	357 ■ IL1.DDR.G1.S.P
308 ■ IL1.SDR.G13.D1_N	358 ■ IL1.DDR.G1.S.N
309 ■ MIB33I.S2	359 ■ GND
310 ■ MIB33I.S2	360 ■ GND

J3H

351 ■ IL1.DDR.G1.D0_N	401 ■ GND
352 ■ IL1.DDR.G1.D0_P	402 ■ GND
353 ■ GND	403 ■ GND
354 ■ IL1.DDR.G1.D1_P	404 ■ GND
355 ■ IL1.DDR.G1.D1_N	405 ■ GND
356 ■ GND	406 ■ GND
357 ■ IL1.DDR.G1.S.P	407 ■ GND
358 ■ IL1.DDR.G1.S.N	408 ■ GND
359 ■ GND	409 ■ GND
360 ■ GND	410 ■ GND



GND
GND



Title: Copper Suicide - Right Top

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

1	GND
2	■ IL0.SDR.G13.C.N
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	X
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

J2B

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
61	GND
62	■ IL0.DDR.G1.D2.P
63	■ IL0.DDR.G1.D2.N
64	GND
65	■ IL0.DDR.G1.D0.N
66	■ IL0.DDR.G1.D0.P
67	GND
68	■ IL0.DDR.G1.D4.N
69	■ IL0.DDR.G1.D4.P
70	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
81	GND
82	■ IL0.DDR.G2.D1.N
83	■ IL0.DDR.G2.D1.P
84	GND
85	■ IL0.DDR.G2.D0.P
86	GND
87	■ IL0.DDR.G2.D0.N
88	■ IL0.DDR.G2.D3.P
89	■ IL0.DDR.G2.D3.N
90	GND
91	GND
92	■ IL0.DDR.G2.D2.P
93	■ IL0.DDR.G2.D2.N
94	GND
95	■ IL0.DDR.G2.D4.P
96	■ IL0.DDR.G2.D4.N
97	GND
98	■ IL0.DDR.G2.S.P
99	■ IL0.DDR.G2.S.N
100	GND

J2C

101	GND
102	■ IL0.DDR.G3.D4.P
103	■ IL0.DDR.G3.D4.N
104	GND
105	■ IL0.DDR.G3.D0.N
106	■ IL0.DDR.G3.D0.P
107	GND
108	■ IL0.DDR.G3.D2.P
109	■ IL0.DDR.G3.D2.N
110	GND
111	GND
112	■ IL0.DDR.G3.D3.P
113	■ IL0.DDR.G3.D3.N
114	GND
115	■ IL0.DDR.G3.D1.P
116	■ IL0.DDR.G3.D1.N
117	GND
118	■ IL0.DDR.G3.S.P
119	■ IL0.DDR.G3.S.N
120	GND
121	GND
122	X
123	X
124	GND
125	X
126	GND
127	GND
128	X
129	GND
130	GND
131	GND
132	X
133	X
134	GND
135	X
136	GND
137	GND
138	X
139	GND
140	GND
141	GND
142	X
143	X
144	GND
145	X
146	GND
147	GND
148	X
149	GND
150	GND

J2D

151	GND
152	GND
153	GND
154	GND
155	GND
156	GND
157	GND
158	GND
159	GND
160	GND
161	GND
162	■ VTTREF_L_B
163	■ VTTREF_L_B
164	GND
165	■ VTTREF_L_B
166	GND
167	■ VTTREF_L_B
168	■ VTTREF_L_B
169	■ VTTREF_L_B
170	GND
171	GND
172	■ VTTREF_L_B
173	■ VTTREF_L_B
174	GND
175	■ VIOREF_L_B
176	■ VIOREF_L_B
177	GND
178	■ VIOREF_L_B
179	■ VIOREF_L_B
180	GND
181	GND
182	■ VIOREF_L_B
183	■ VIOREF_L_B
184	GND
185	■ VIOREF_L_B
186	GND
187	■ VIOREF_L_B
188	■ VIOREF_L_B
189	GND
190	GND
191	GND
192	■ VIOREF_L_B
193	■ VIOREF_L_B
194	GND
195	■ VIOREF_L_B
196	GND
197	■ VIOREF_L_B
198	■ VIOREF_L_B
199	GND
200	GND

Référence input Référence Voltage

J2E

201	GND
202	■ IL1.DDR.G0.D2.N
203	■ IL1.DDR.G0.D2.P
204	GND
205	■ IL1.DDR.G0.D0.N
206	■ IL1.DDR.G0.D0.P
207	GND
208	■ IL1.DDR.G0.D1.N
209	■ IL1.DDR.G0.D1.P
210	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
231	GND
232	■ IL1.DDR.G1.D2.N
233	■ IL1.DDR.G1.D2.P
234	GND
235	■ IL1.DDR.G1.D4.N
236	■ IL1.DDR.G1.D4.P
237	GND
238	■ IL1.DDR.G1.S.P
239	■ IL1.DDR.G1.S.N
240	GND
241	GND
242	■ IL1.DDR.G2.D0.N
243	■ IL1.DDR.G2.D0.P
244	GND
245	■ IL1.DDR.G2.D3.P
246	GND
247	■ IL1.DDR.G2.D3.N
248	■ IL1.DDR.G2.D2.P
249	■ IL1.DDR.G2.D2.N
250	GND
251	GND
252	■ IL1.SDR.G2.D1.N
253	■ IL1.SDR.G2.D1.P
254	GND
255	■ IL1.DDR.G2.D4.P
256	■ IL1.DDR.G2.D4.N
257	GND
258	■ IL1.DDR.G2.S.P
259	■ IL1.DDR.G2.S.N
260	GND
261	GND
262	■ IL1.SDR.G3.D3.N
263	■ IL1.SDR.G3.D3.P
264	GND
265	■ IL1.DDR.G3.D4.P
266	■ IL1.DDR.G3.D4.N
267	GND
268	■ IL1.DDR.G3.D1.N
269	■ IL1.DDR.G3.D1.P
270	GND
271	GND
272	■ IL1.DDR.G3.D2.N
273	■ IL1.DDR.G3.D2.P
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
281	GND
282	■ IL1.SDR.G13.C.P
283	■ IL1.SDR.G13.C.N
284	GND
285	■ IL1.SDR.G13.D5.P
286	■ IL1.SDR.G13.D5.N
287	GND
288	■ IL1.SDR.G13.D0.N
289	■ IL1.SDR.G13.D0.P
290	GND
291	GND
292	■ IL1.SDR.G13.D4.N
293	■ IL1.SDR.G13.D4.P
294	GND
295	■ IL1.SDR.G13.D3.P
296	■ IL1.SDR.G13.D3.N
297	GND
298	■ IL1.SDR.G13.D1.N
299	■ IL1.SDR.G13.D1.P
300	GND

J2F

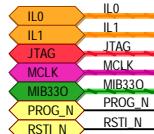
251	GND
252	■ IL1.SDR.G2.D1.N
253	■ IL1.SDR.G2.D1.P
254	GND
255	■ IL1.DDR.G2.D4.P
256	■ IL1.DDR.G2.D4.N
257	GND
258	■ IL1.DDR.G2.S.P
259	■ IL1.DDR.G2.S.N
260	GND
261	GND
262	■ IL1.SDR.G3.D3.N
263	■ IL1.SDR.G3.D3.P
264	GND
265	■ IL1.DDR.G3.D4.P
266	■ IL1.DDR.G3.D4.N
267	GND
268	■ IL1.DDR.G3.D1.N
269	■ IL1.DDR.G3.D1.P
270	GND
271	GND
272	■ IL1.SDR.G3.D2.N
273	■ IL1.SDR.G3.D2.P
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
281	GND
282	■ IL1.SDR.G13.D6.N
283	■ IL1.SDR.G13.D6.P
284	GND
285	■ IL1.SDR.G13.D5.P
286	■ IL1.SDR.G13.D5.N
287	GND
288	■ IL1.SDR.G13.D0.N
289	■ IL1.SDR.G13.D0.P
290	GND
291	GND
292	■ IL1.SDR.G13.D4.N
293	■ IL1.SDR.G13.D4.P
294	GND
295	■ IL1.SDR.G13.D3.P
296	■ IL1.SDR.G13.D3.N
297	GND
298	■ IL1.SDR.G13.D1.N
299	■ IL1.SDR.G13.D1.P
300	GND

J2G

301	GND
302	■ IL1.SDR.G8.D3.P
303	■ IL1.SDR.G8.D3.N
304	GND
305	■ IL1.SDR.G8.D2.N
306	■ IL1.SDR.G8.D2.P
307	GND
308	■ IL1.SDR.G8.D0.N
309	■ IL1.SDR.G8.D0.P
310	GND
311	GND
312	■ IL1.SDR.G13.D2.N
313	■ IL1.SDR.G13.D2.P
314	GND
315	■ IL1.SDR.G8.D1.N
316	■ IL1.SDR.G8.D1.P
317	GND
318	■ IL1.SDR.G13.D6.O
319	X
320	GND
321	GND
322	■ IL1.SDR.G3.D2.N
323	■ IL1.SDR.G3.D2.P
324	GND
325	GND
326	GND
327	GND
328	GND
329	GND
330	GND
331	GND
332	GND
333	GND
334	GND
335	GND
336	GND
337	GND
338	GND
339	GND
340	GND
341	GND
342	GND
343	GND
344	GND
345	GND
346	GND
347	GND
348	GND
349	GND
350	GND

J2H

351	GND
352	GND
353	GND
354	GND
355	GND
356	GND
357	GND
358	GND
359	GND
360	GND
361	GND
362	GND



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

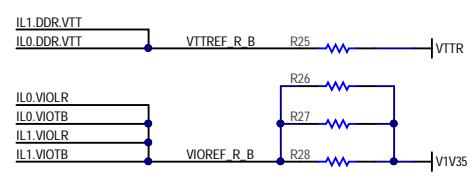
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303	■ IL1.SDR.G1.D5_N
304	GND
305	■ IL1.SDR.G8.D1_P
306	■ IL1.SDR.G8.D1_N
307	GND
308	■ IL1.SDR.G8.D3_P
309	■ IL1.SDR.G8.D3_N
310	GND

J1H

351	GND
352	■ IL1.DDR.G1.D3_P
353	■ IL1.DDR.G1.D3_N
354	GND
355	■ IL1.DDR.G1.D4_P
356	■ IL1.DDR.G1.D4_N
357	GND
358	■ IL1.DDR.G1.S.P
359	■ IL1.DDR.G1.S.N
360	GND

C



GND
GND

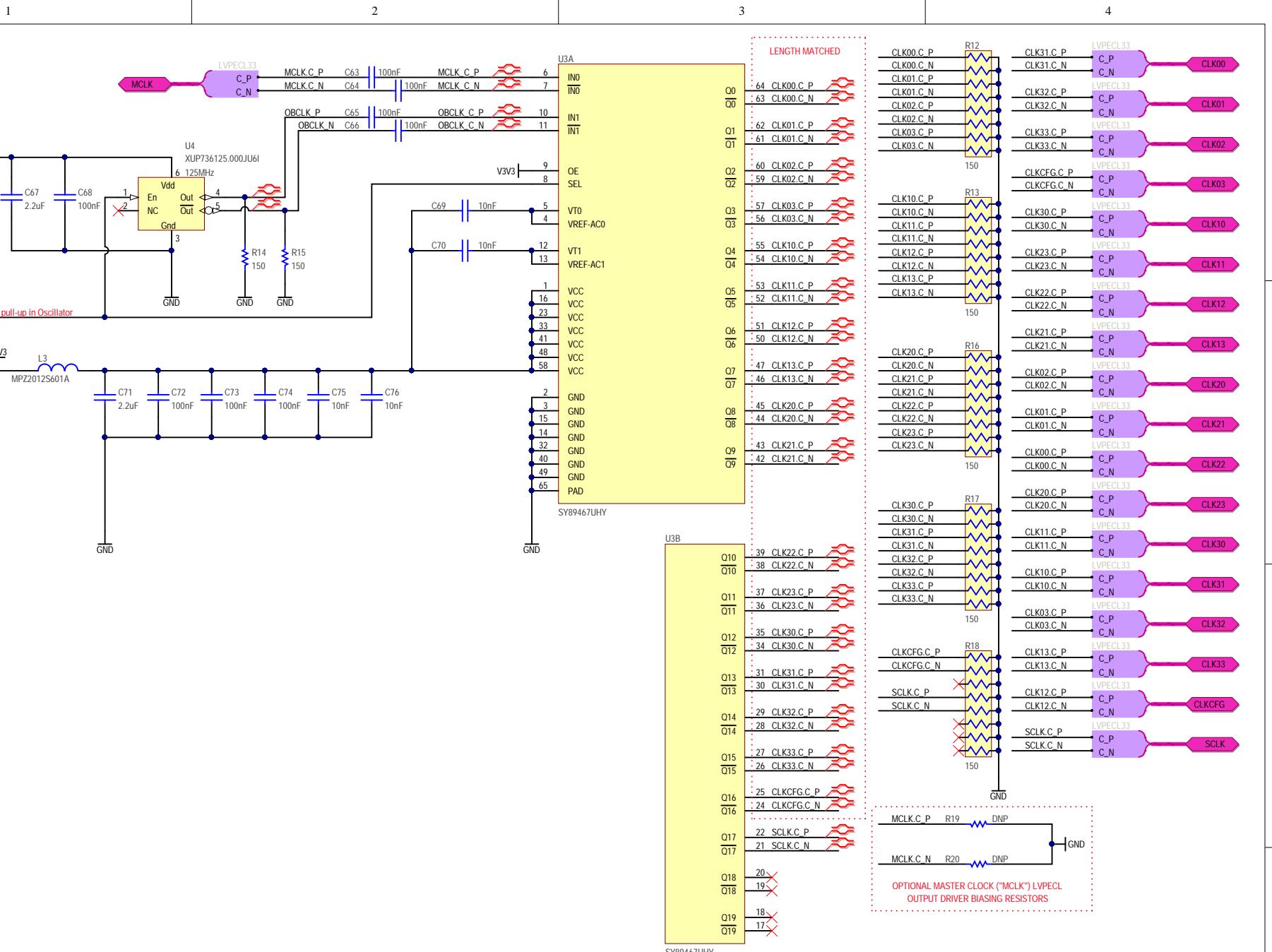
D

Signal
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Copper Suicide - Right Bottom

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

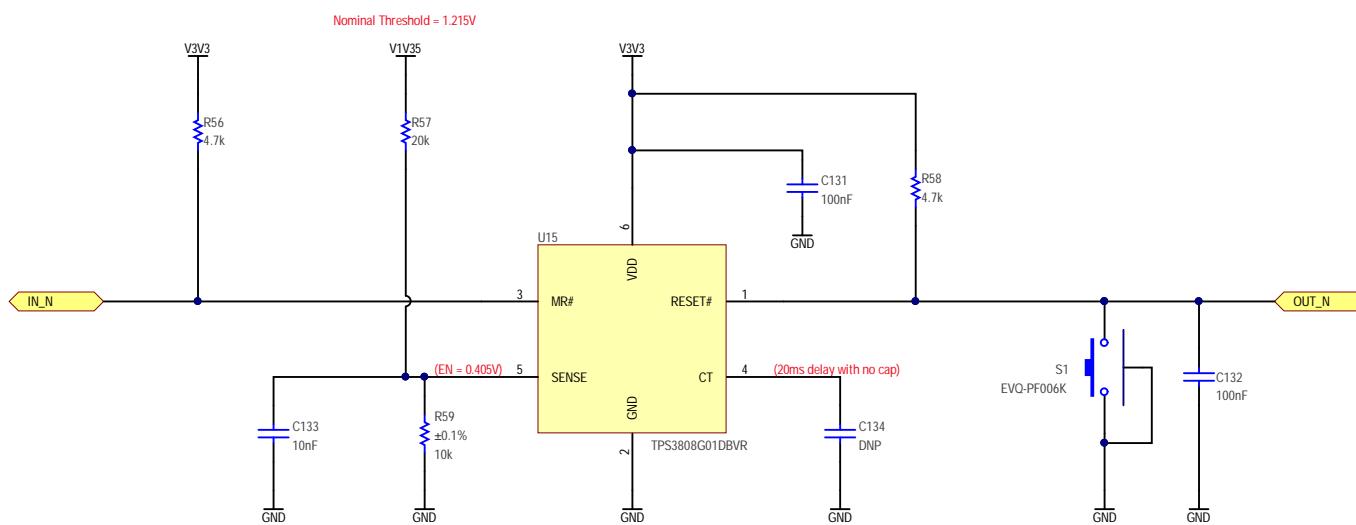
B

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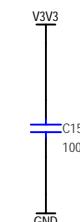
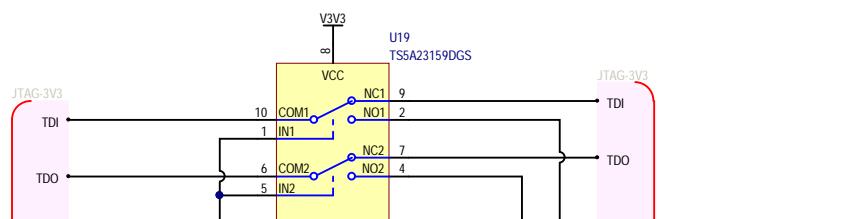


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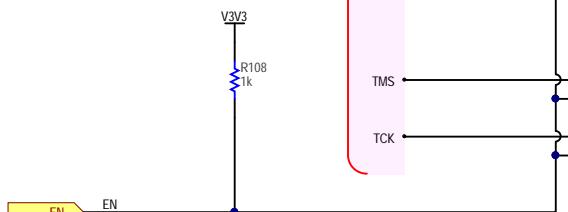
Title
Copper Suicide - Reset

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

A



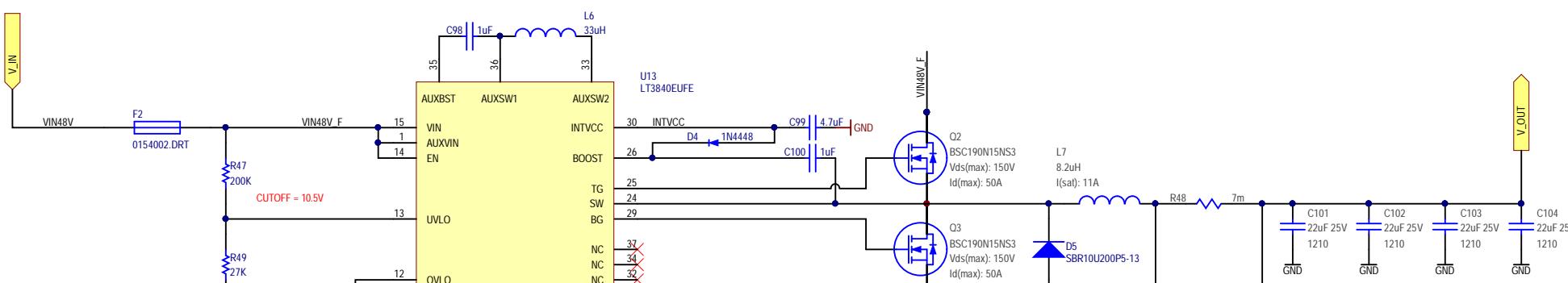
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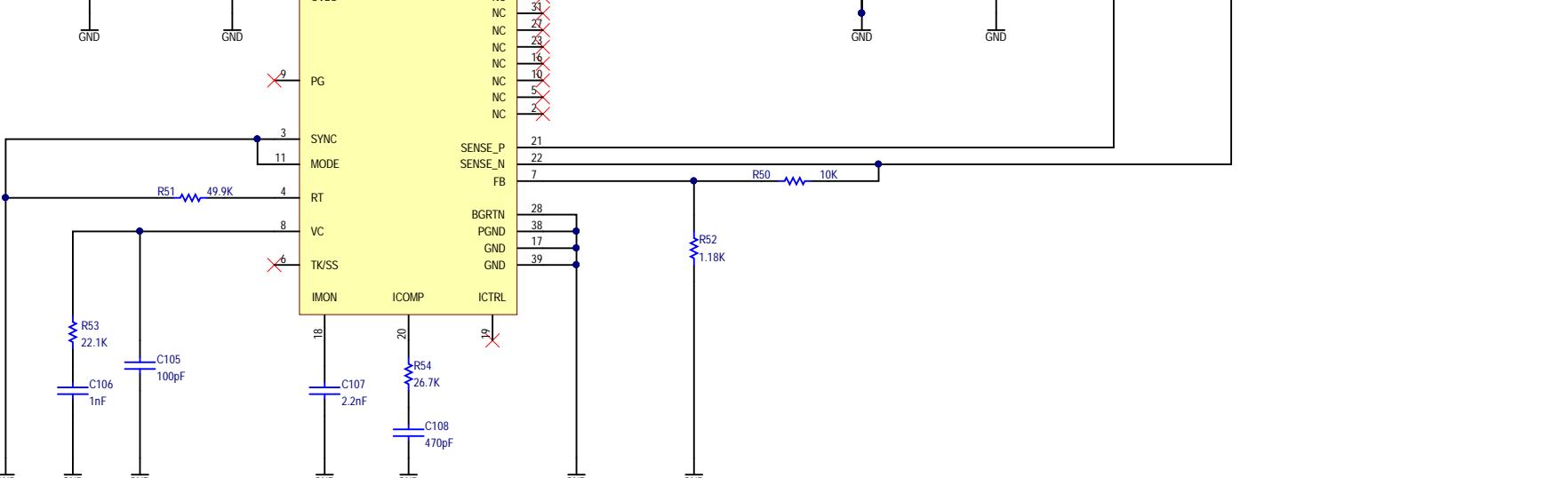
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D

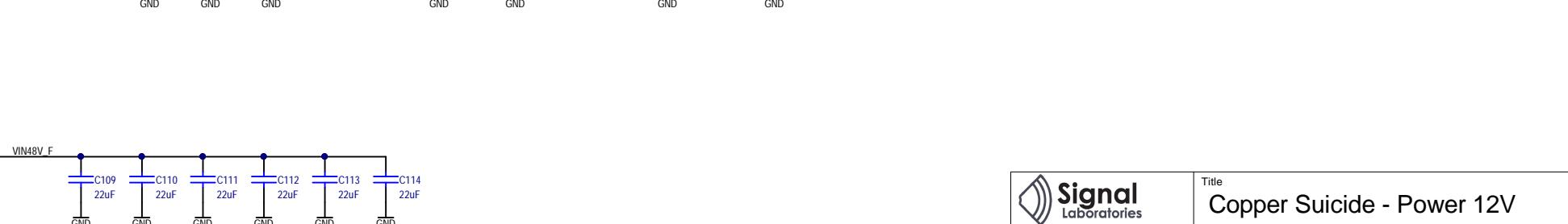
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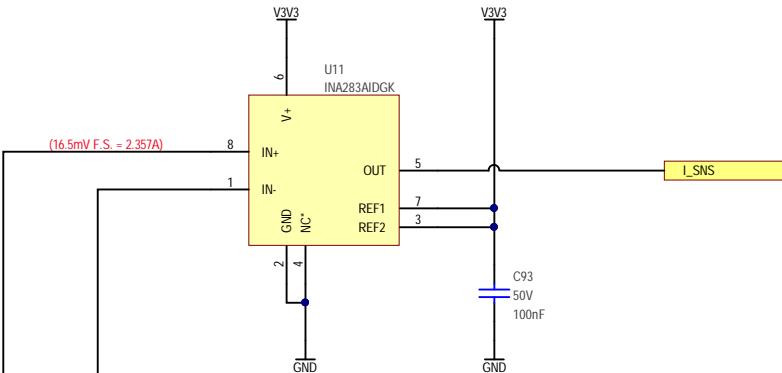


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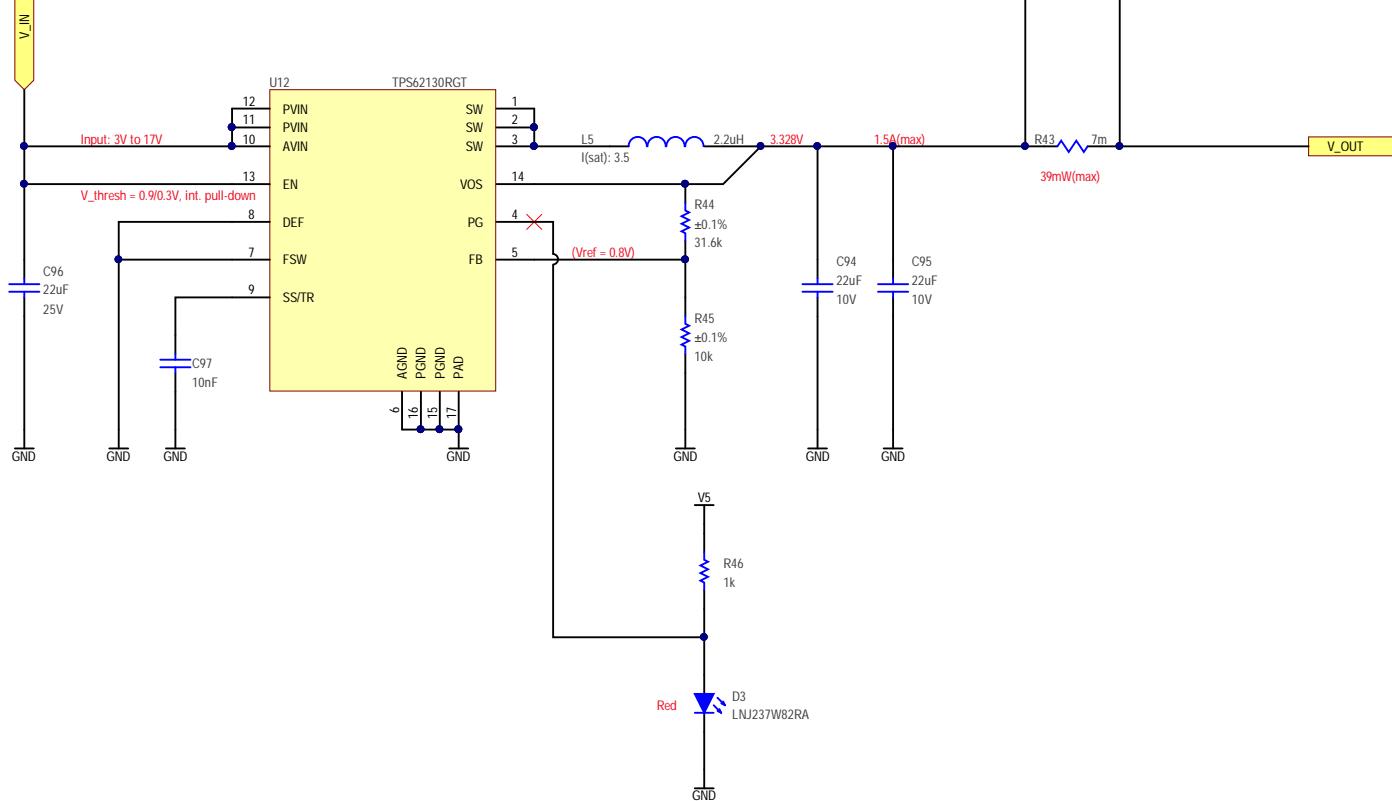


D

A



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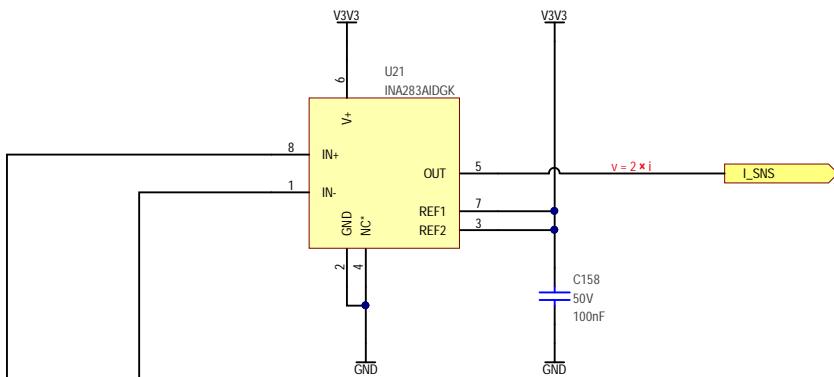


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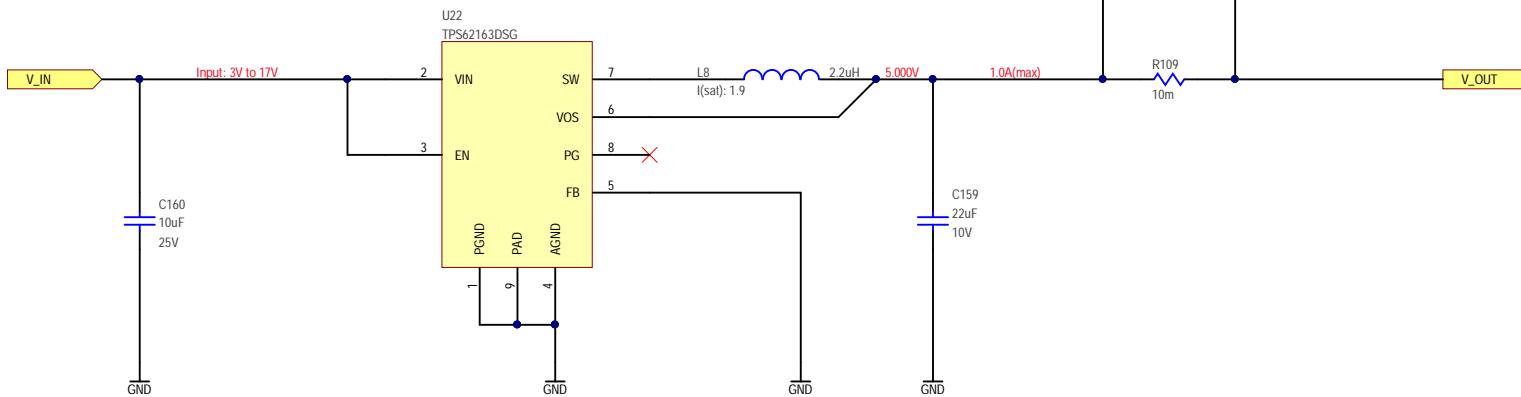


Title Copper Suicide - Power 3.3V		
Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
Revision 2	Sheet 38 of 44	Date 6/1/2017

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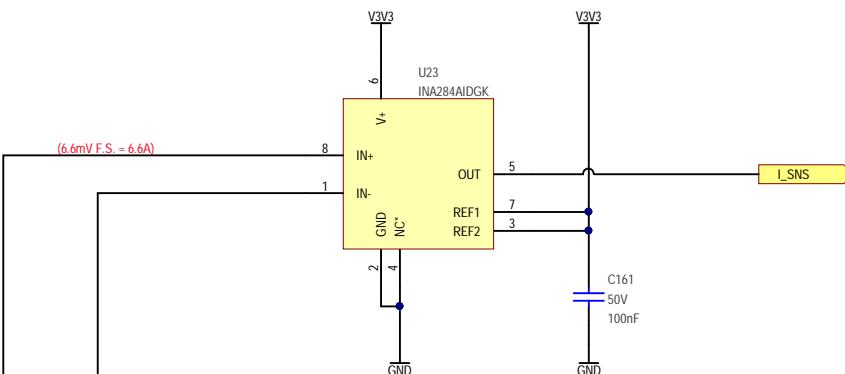


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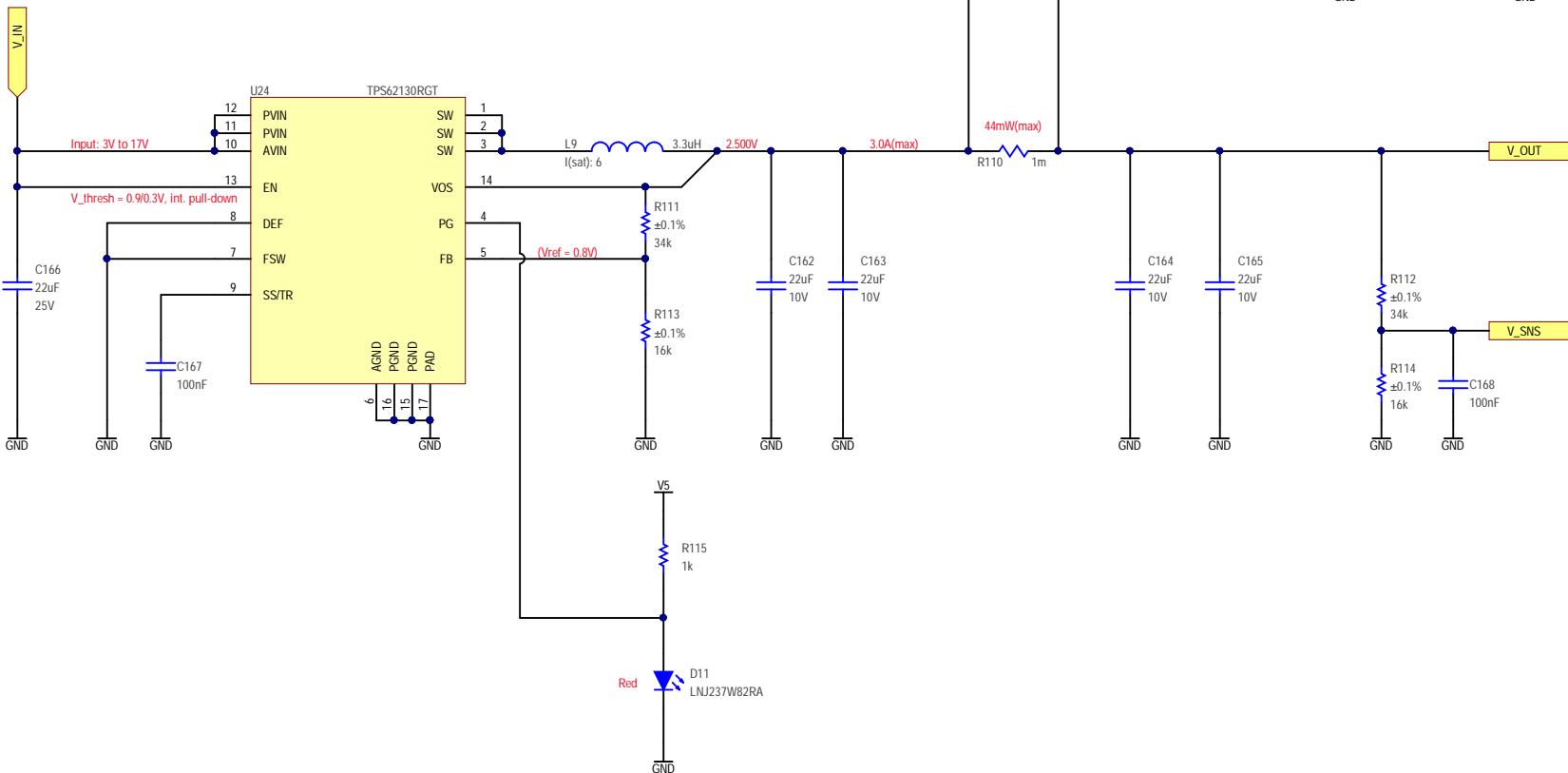
Title **Copper Suicide - Power 3.3V**

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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Title: Copper Suicide - Power 2.5V

Engineer J. Brinton	Drawn By J. Brinton	Checked By J. Brinton
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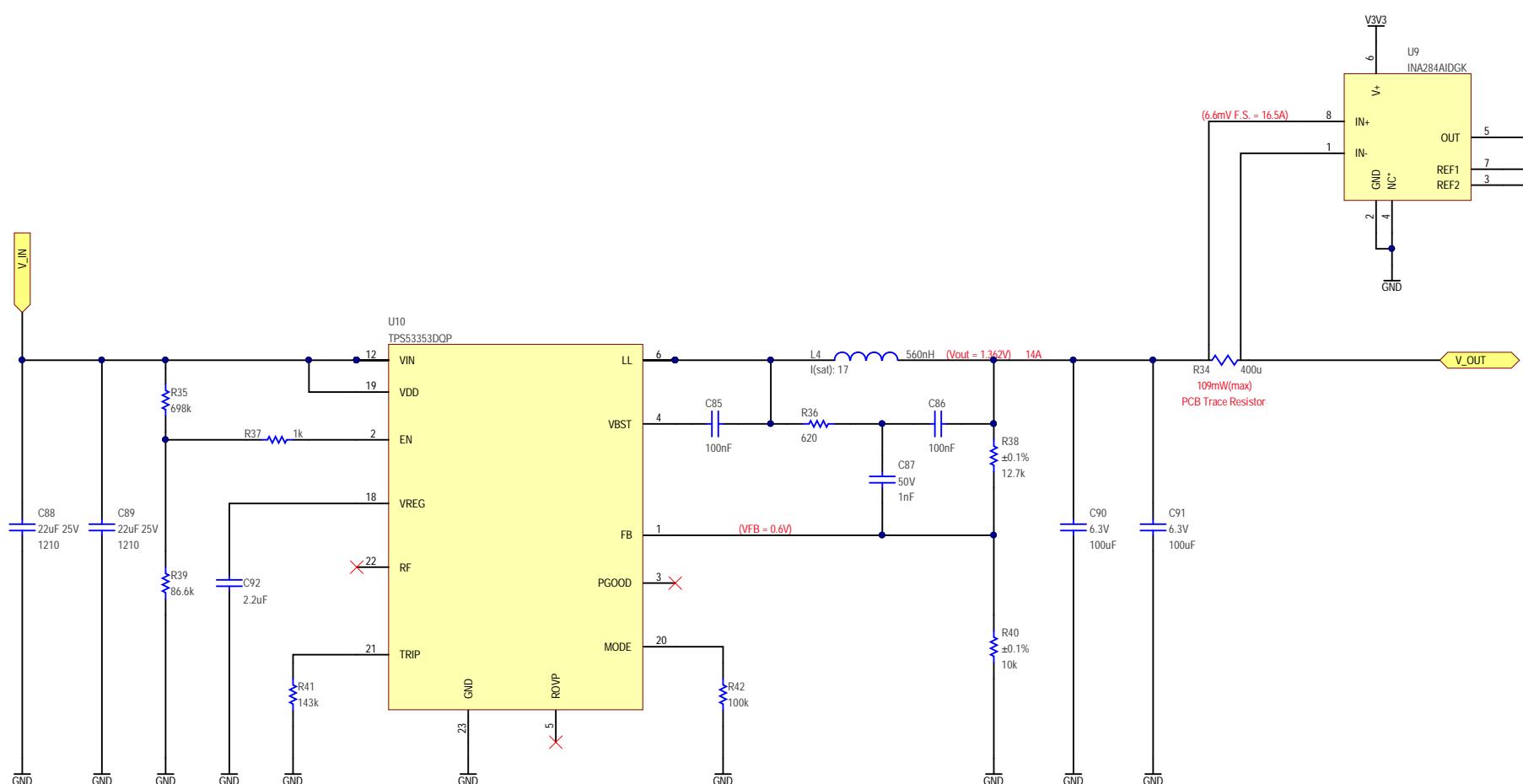
1

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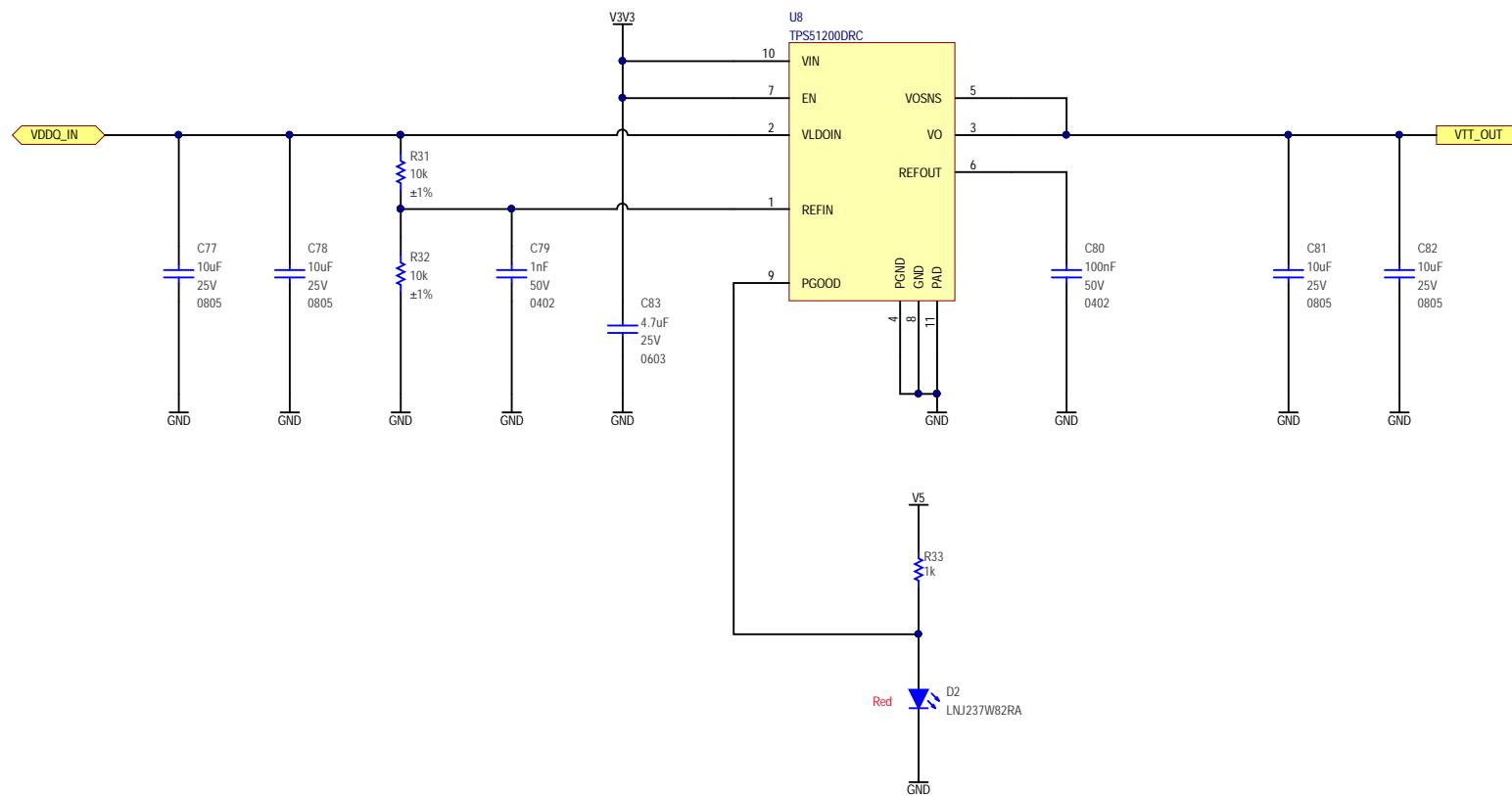
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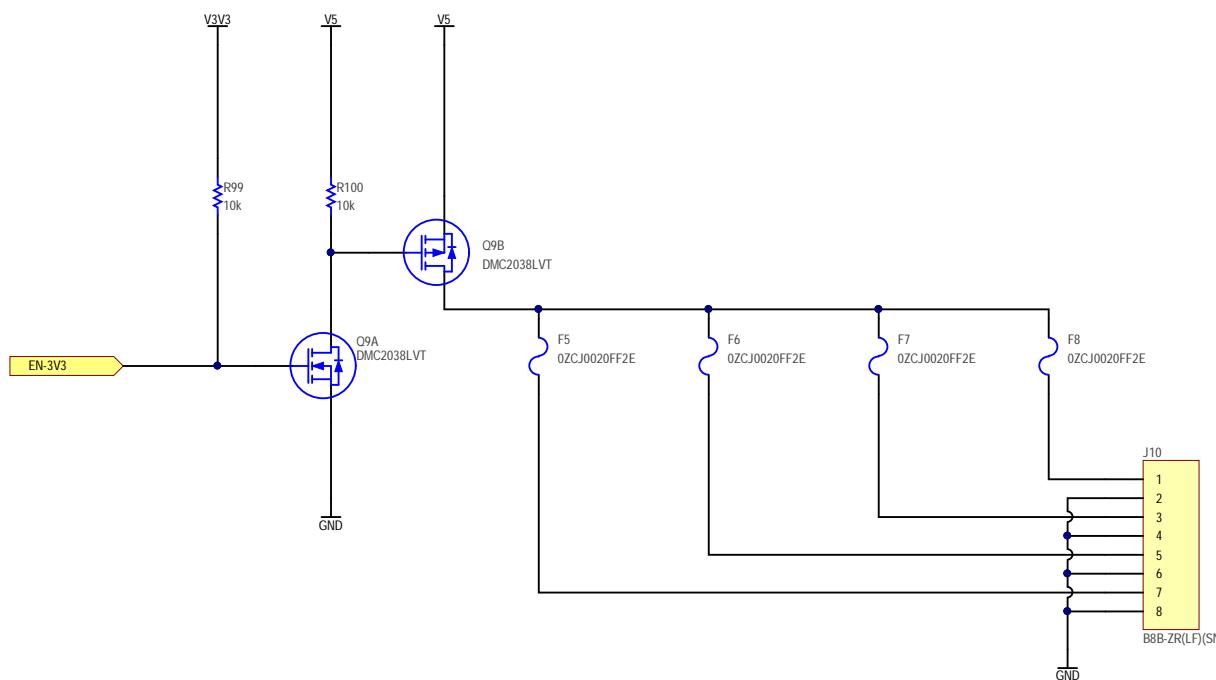
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Title Copper Suicide - VTT Power

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

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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

A

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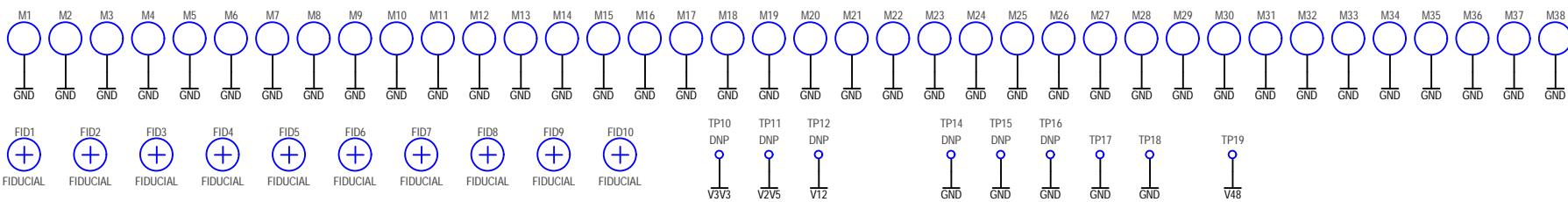
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D

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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
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MISC31 M50-2000005	MISC32 M50-2000005	MISC33 M50-2000005	MISC34 M50-2000005	MISC35 M50-2000005	MISC36 M50-2000005	MISC37 M50-2000005
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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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