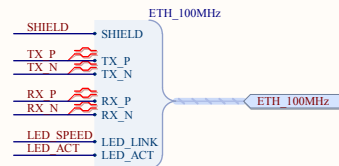
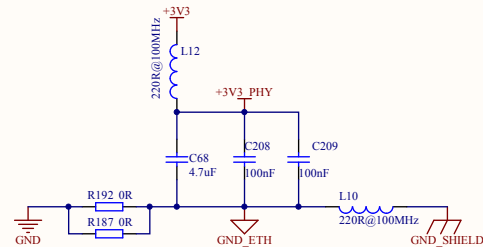
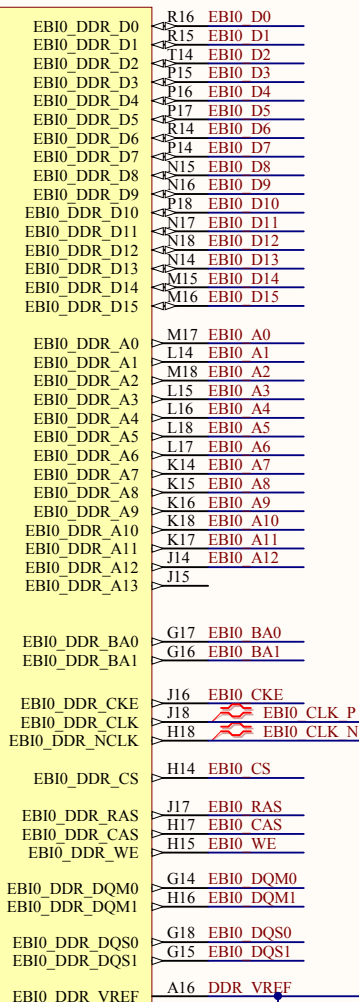


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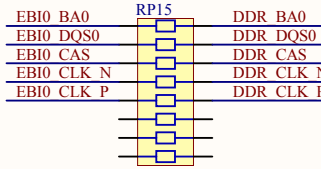
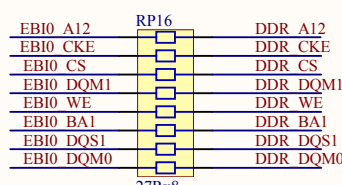
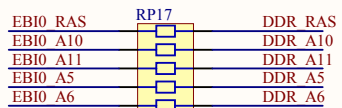
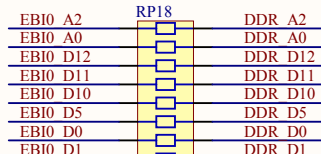
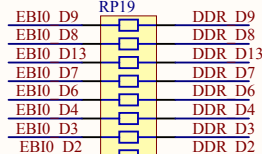
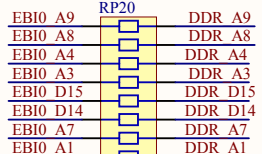


Project: White Rabbit Switch MCH - mainboard	
Sheet: External 100Mbps Ethernet PHY & magnetics	
Version: 1.1.0	Date: 2009/11/12
Author: Tomasz Wlosowski	License: Open Hardware License (OHL)
Company: CERN BE-CO-IT	

IC6F

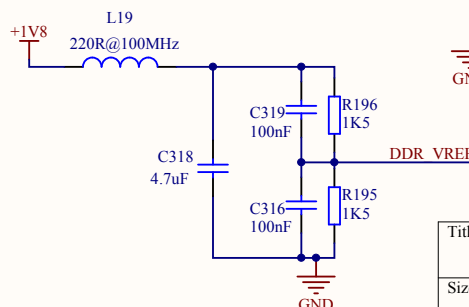
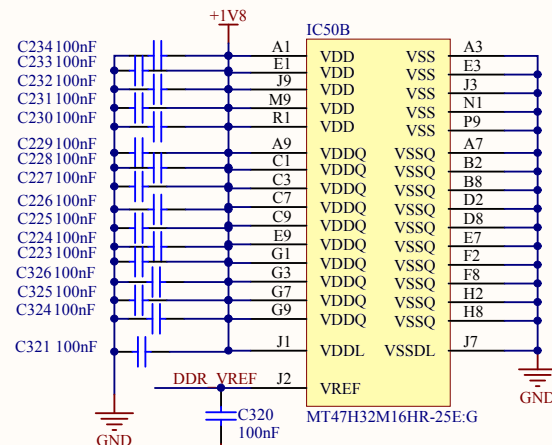
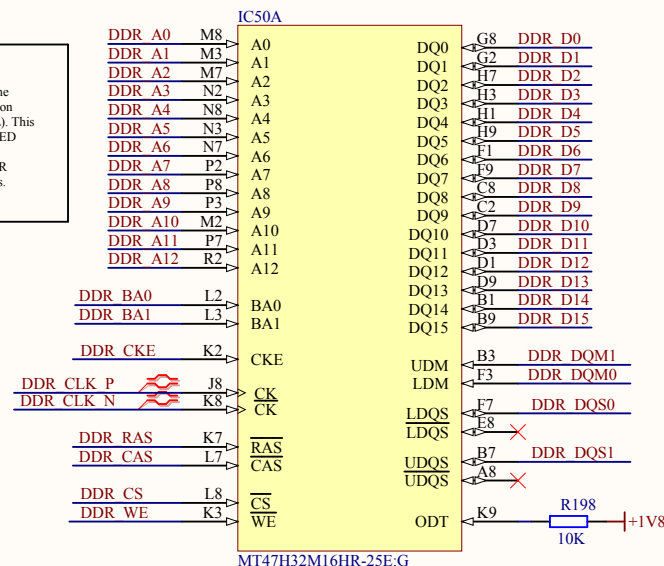


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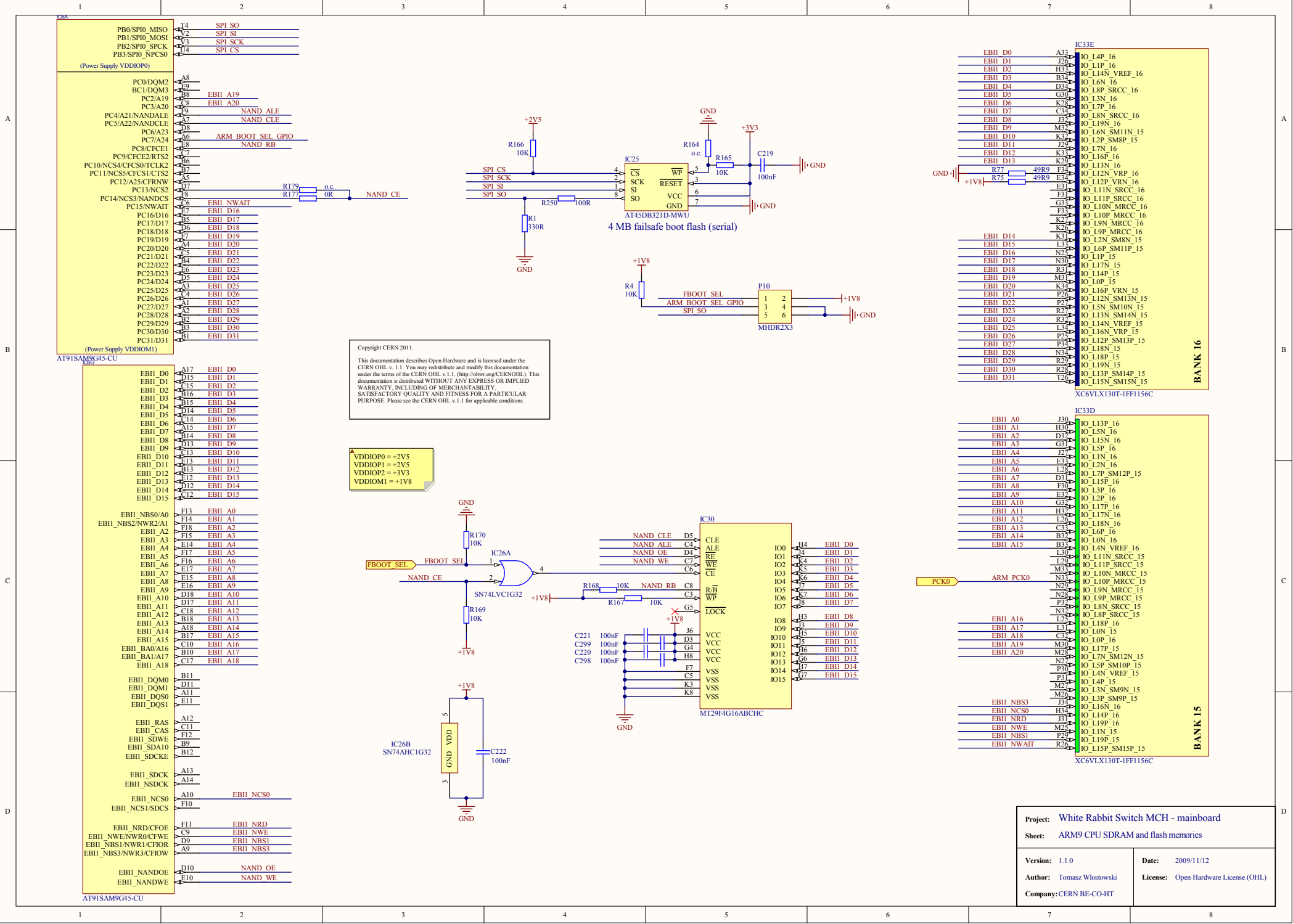


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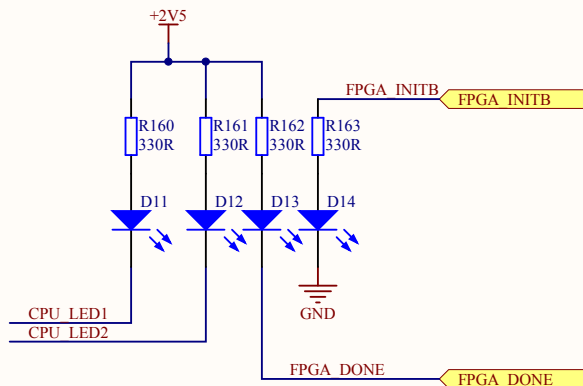
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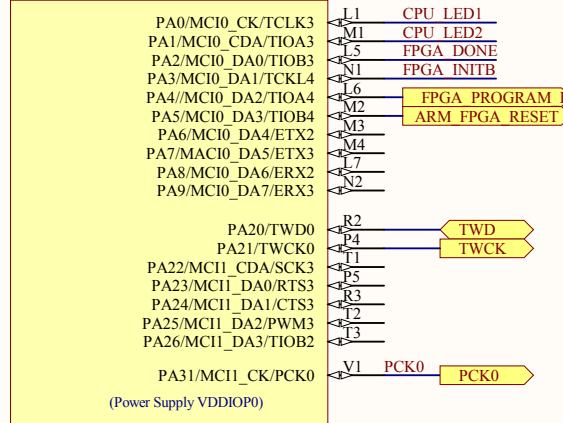
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Size	Number	Revision
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Date:	04/04/2012	Sheet of
File:	D:\White Rabbit\CPU_DDR2.SchDoc	Drawn By:



Project: White Rabbit Switch MCH - mainboard	
Sheet: ARM9 CPU SDRAM and flash memories	
Version: 1.1.0	Date: 2009/11/12
Author: Tomasz Wlostowski	License: Open Hardware License (OHL)
Company: CERN BE-CO-HIT	

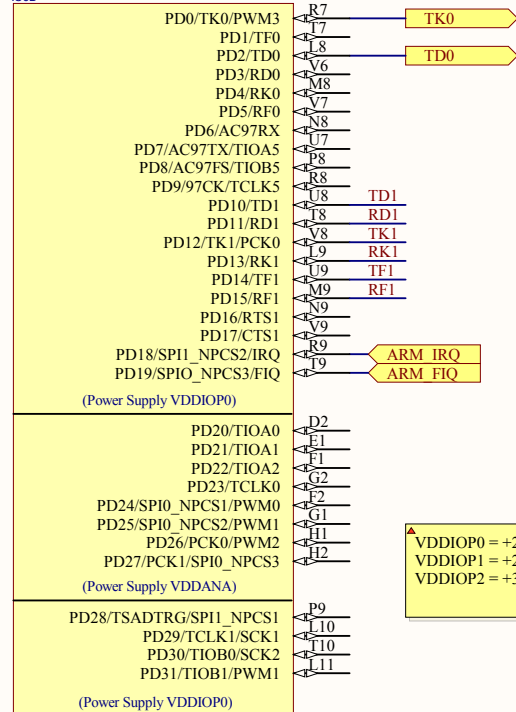


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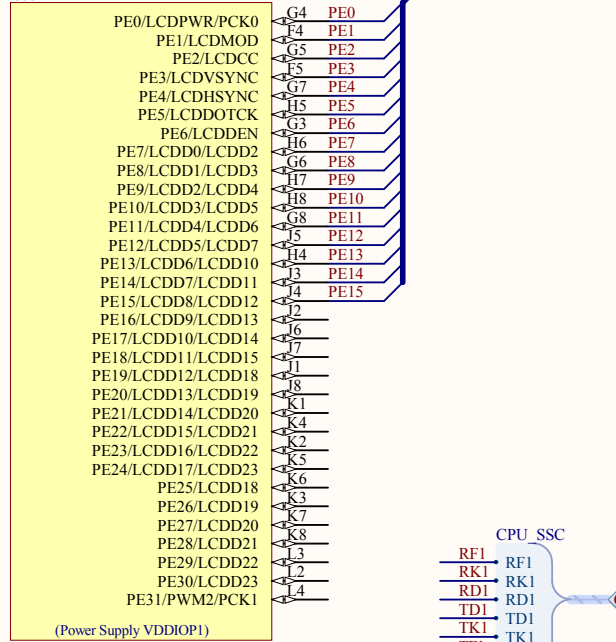
AT91SAM9G45-CU

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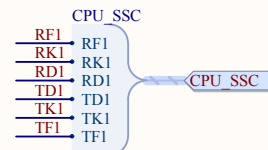


AT91SAM9G45-CU

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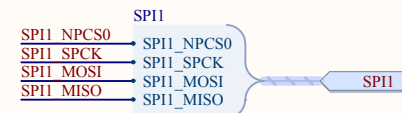


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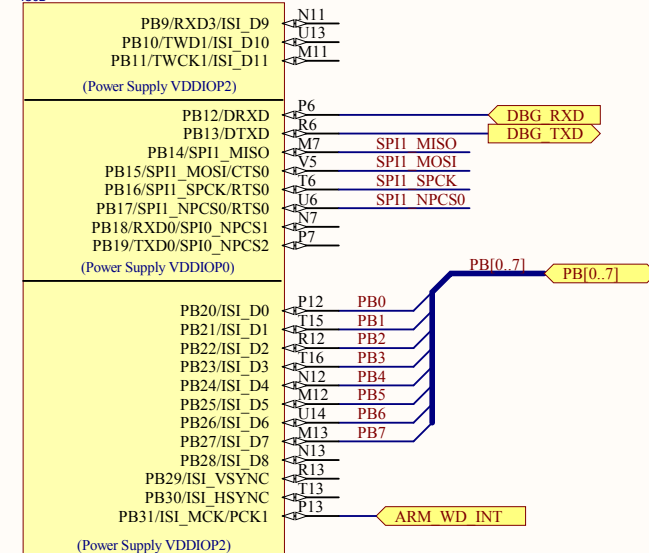


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IC6B



AT91SAM9G45-CU

White Rabbit Switch MCH - mainboard

ARM9 CPU I/O ports, busses and power

Project:

Sheet:

Tomasz Wlostowski

Version:

CERN BE-CO-HT

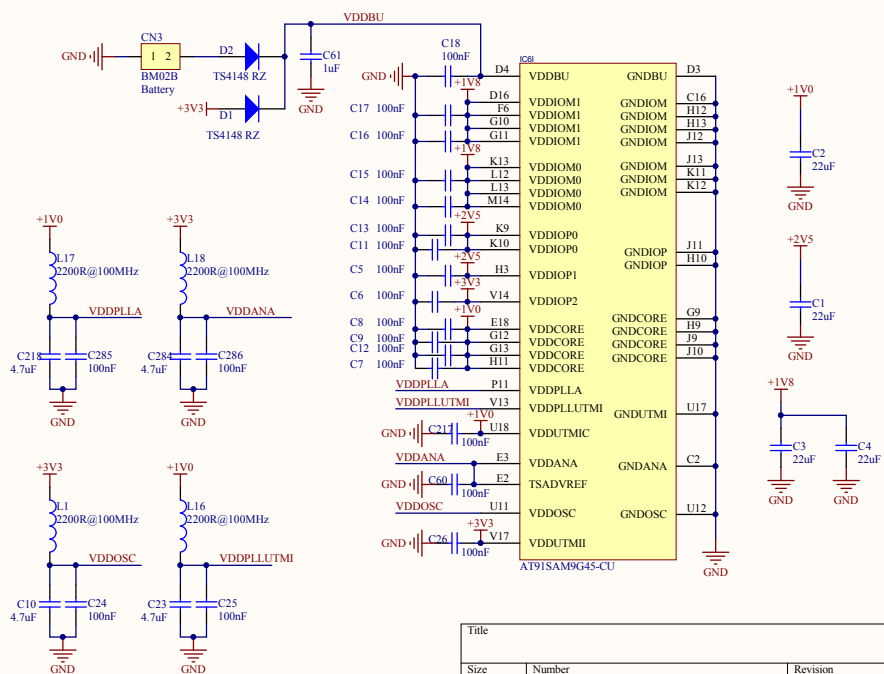
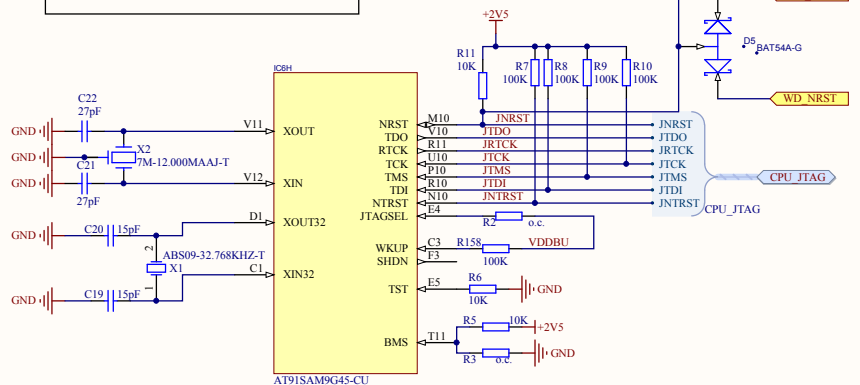
Author:

Date: 2009/11/12

License: Open Hardware License (OHL)

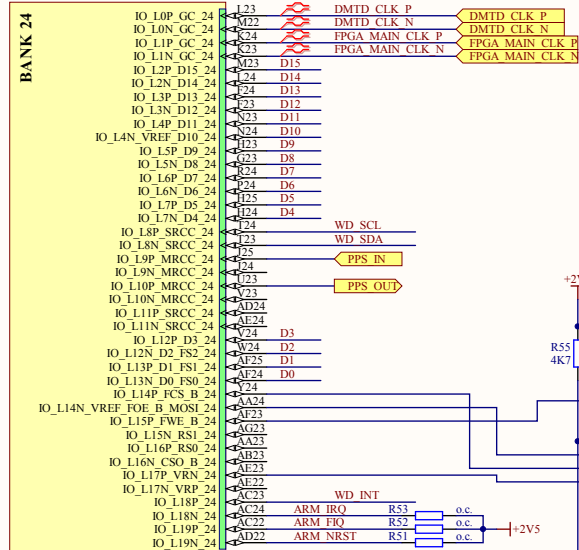
Company:

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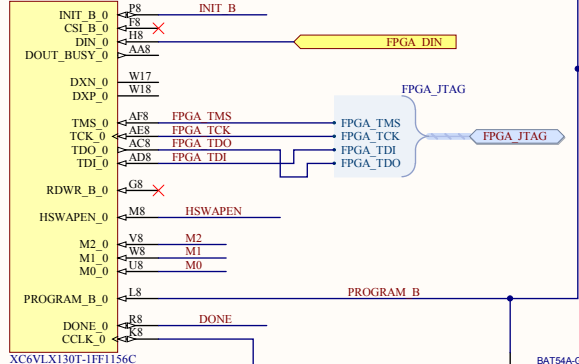
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Date: 04/04/2012	Sheet of	
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IC33H



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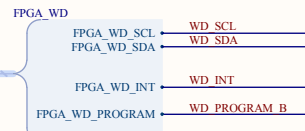
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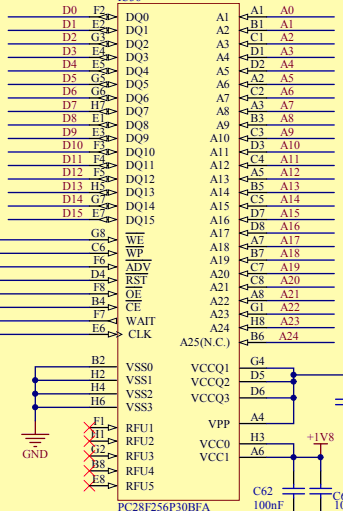
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FPGA WD

FPGA WD



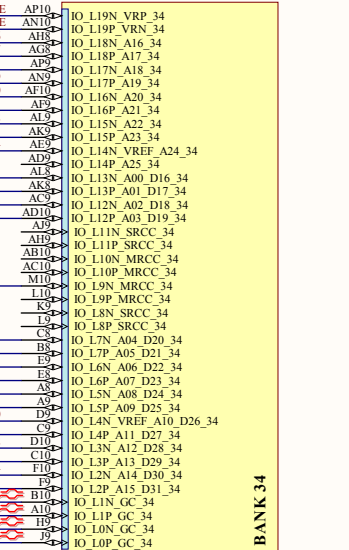
Not mounted in White Rabbit



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IC33M



FPGA_GPIO[0..39]

FPGA_GPIO[0..39]

FPGA_GPIO0

AF34

FPGA_GPIO1

AE33

FPGA_GPIO2

AE34

FPGA_GPIO3

AD32

FPGA_GPIO4

AD34

FPGA_GPIO5

AC33

FPGA_GPIO6

AC34

FPGA_GPIO7

AB33

FPGA_GPIO8

AB32

FPGA_GPIO9

AA34

FPGA_GPIO10

AA33

FPGA_GPIO11

AA31

FPGA_GPIO12

AB30

FPGA_GPIO13

AC30

FPGA_GPIO14

AA28

FPGA_GPIO15

AA26

FPGA_GPIO16

AA25

FPGA_GPIO17

AB25

FPGA_GPIO18

AB27

FPGA_GPIO19

AC27

FPGA_GPIO20

AB28

FPGA_GPIO21

AD29

FPGA_GPIO22

AE31

FPGA_GPIO23

Y26

FPGA_GPIO24

AA29

FPGA_GPIO25

AA30

FPGA_GPIO26

AB31

FPGA_GPIO27

AC29

FPGA_GPIO28

AC32

FPGA_GPIO29

AD30

FPGA_GPIO30

AD31

FPGA_GPIO31

AE32

FPGA_GPIO32

AF33

FPGA_GPIO33

AC28

FPGA_GPIO34

AG33

FPGA_GPIO35

AB26

FPGA_GPIO36

AG32

FPGA_GPIO37

AF31

FPGA_GPIO38

AG31

FPGA_GPIO39

AC25

IC33B

IO_L8N_SRCC_13

IO_L10P_MRCC_13

IO_L8P_SRCC_13

IO_L14P_13

IO_L2P_13

IO_L4P_13

IO_L2N_13

IO_L4N_VREF_13

IO_L12P_VRN_13

IO_L0P_13

IO_L0N_13

IO_L1N_13

IO_L3P_13

IO_L9N_MRCC_13

IO_L7P_13

IO_L17P_13

IO_L6P_13

IO_L19P_13

IO_L15P_13

IO_L15N_13

IO_L13P_13

IO_L11P_SRCC_13

IO_L5P_13

IO_L6N_13

IO_L7N_13

IO_L1P_13

IO_L3N_13

IO_L11N_SRCC_13

IO_L12N_VRP_13

IO_L9P_MRCC_13

IO_L5N_13

IO_L14N_VREF_13

IO_L10N_MRCC_13

IO_L13N_13

IO_L16P_13

IO_L17N_13

IO_L16N_13

IO_L18N_13

IO_L18P_13

IO_L19N_13

BANK 13

XC6VLX130T-1FF1156C

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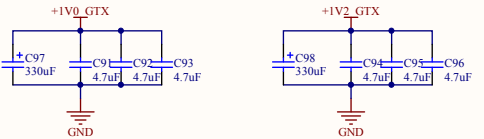
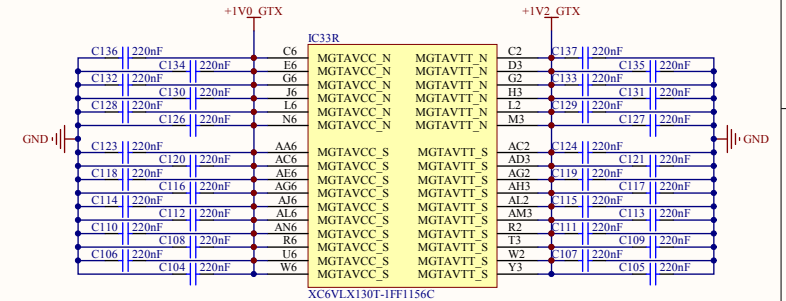
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Date:	04/04/2012	Sheet of
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Power Supply Decoupling Capacitors

According to Xilinx UG366 (v2.3), page 230, the suggested filtering for the MGTAVCC and MGTAVTT power supplies is:

- One 0.22uF, size 0402, ceramic capacitor per power supply pin
- One 4.7uF, size 0402, ceramic capacitor per two Quads
- One 330uF bulk capacitor for each power supply



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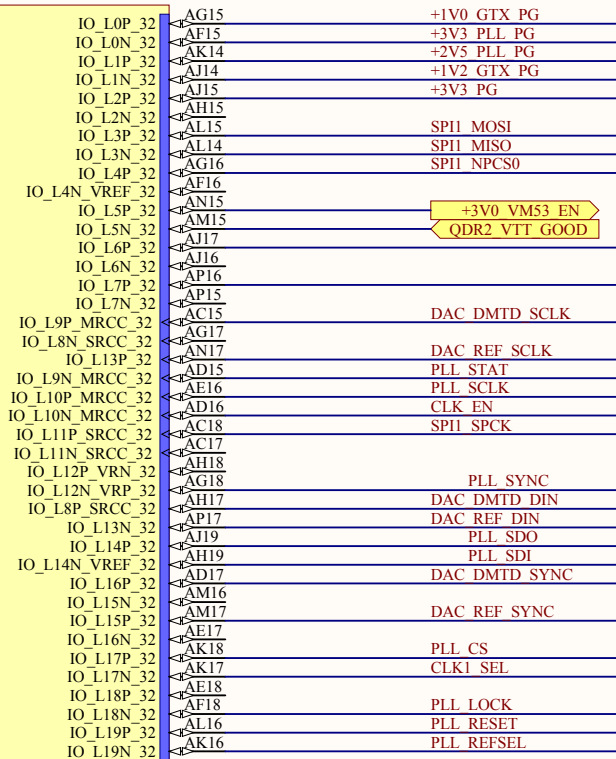
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IC33K

BANK 32



XC6VLX130T-1FF1156C

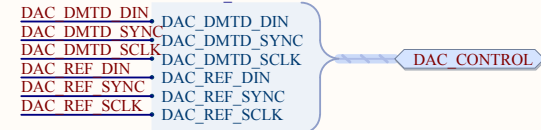
Power-Good



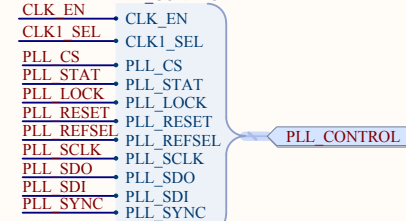
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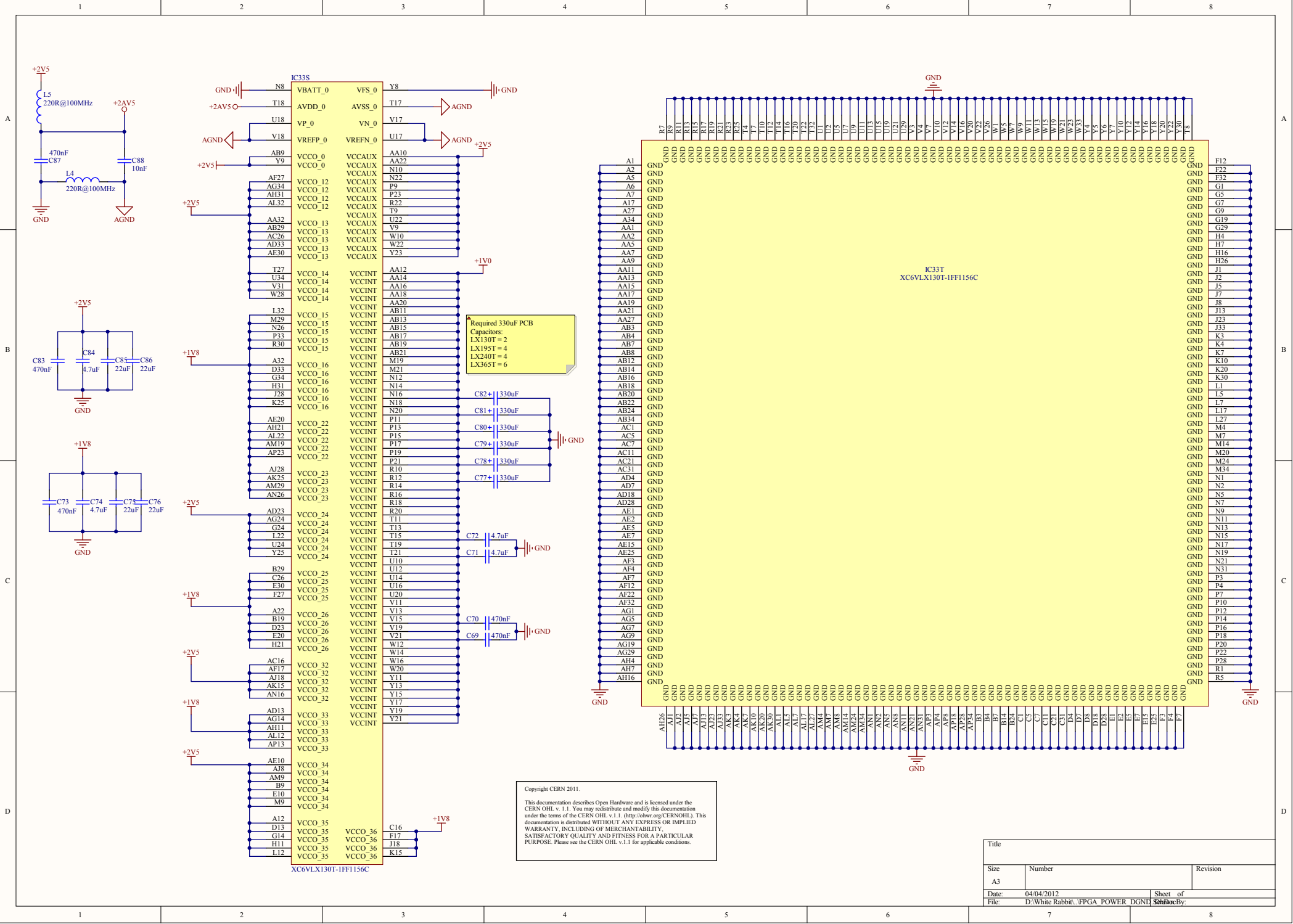
DAC_CONTROL



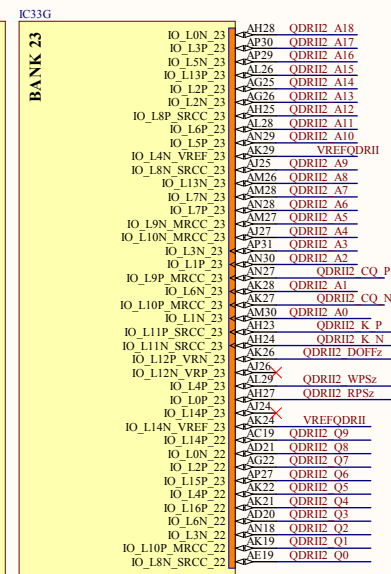
PLL_CONTROL



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IC33F

qdr2_1_bus

A[18..0] — QDR11_A[18..0]
D[35..0] — QDR11_D[35..0]
Q[35..0] — QDR11_Q[35..0]
BWS[3..0] — QDR11_BWS[3..0]
K — QDR11_K_P
CQ — QDR11_K_N
CQ — QDR11_CQ_P
CQ — QDR11_CQ_N
DOFF — QDR11_DOFFz
RPS — QDR11_RPSz
WPS — QDR11_WPSz

GND — R96 — 49R9 AH20 — QDR12_Q35
+V18 — R97 — 49R9 AJ20 — QDR12_Q34
— QDR12_Q33
VREF — QDR12_Q32
— QDR12_Q31
— QDR12_Q30
— QDR12_Q29
— QDR12_Q28
— QDR12_Q27
— QDR12_Q26
— QDR12_Q25
— QDR12_Q24
— QDR12_Q23
— QDR12_Q22
— QDR12_Q21
— QDR12_Q20
— QDR12_Q19
VREF — QDR12_Q18
— QDR12_Q17
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— QDR12_Q11
— QDR12_Q10

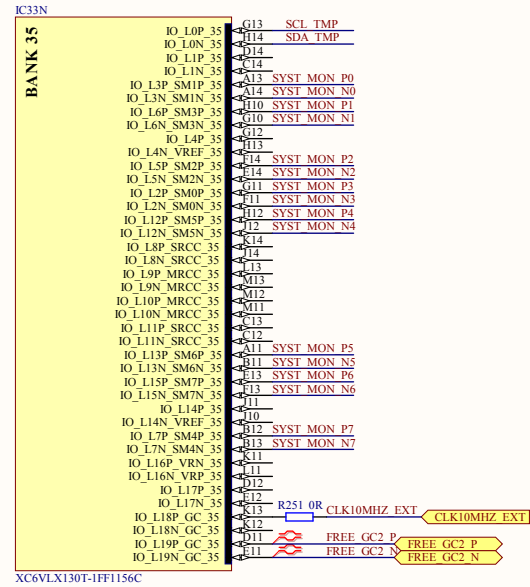
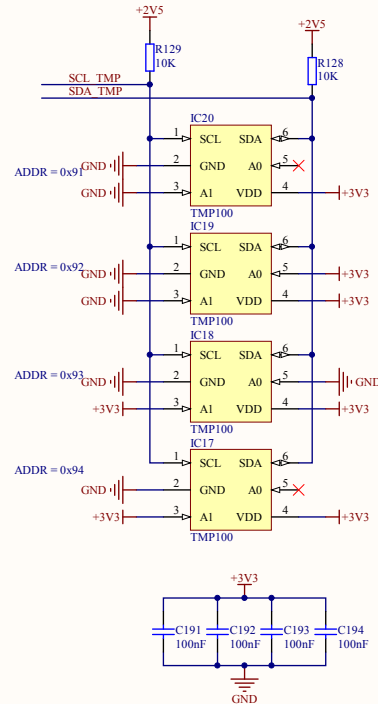
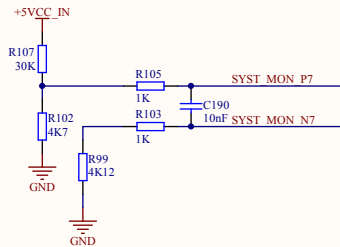
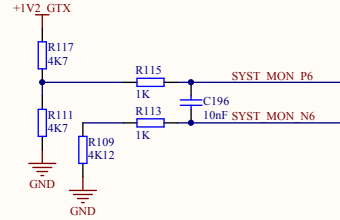
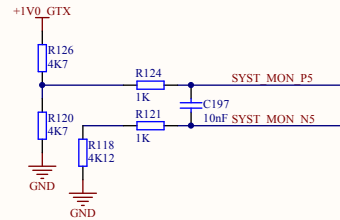
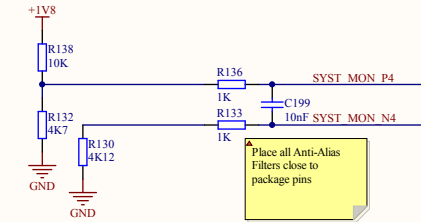
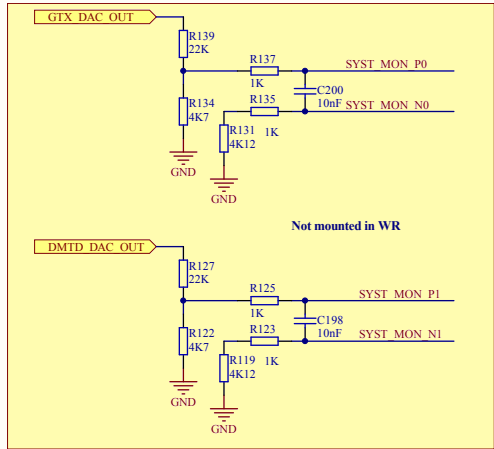
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AP23 — IO_L19P_22
AG23 — IO_L18N_22
AG23 — IO_L18P_22
AN23 — IO_L17N_22
AM23 — IO_L17P_22
AJ23 — IO_L16N_22
AP19 — IO_L3P_22
AP20 — IO_L19P_MRCC_22
AL19 — IO_L10N_MRCC_22
AP23 — IO_L14N_VREF_22
AP23 — IO_L19N_MRCC_22
AL21 — IO_L13N_22
AM23 — IO_L13P_22
AH20 — IO_L12N_VRP_22
AJ20 — IO_L12P_VRN_22
AL20 — IO_L11N_SRCC_22
AK23 — IO_L7N_22
AN23 — IO_L18P_23
AP23 — IO_L17N_23
AN23 — IO_L19P_23
AN23 — IO_L17P_23
AM18 — IO_L1P_22
AN19 — IO_L5P_22
AN20 — IO_L5N_22
AM20 — IO_L7P_22
AM23 — IO_L15P_22
AL24 — IO_L18N_23
AM23 — IO_L16P_23
AP26 — IO_L15N_23
AJ26 — IO_L4N_VREF_22
AL21 — IO_L0P_22
AC20 — IO_L6P_22
AH23 — IO_L2N_22
AL25 — IO_L16N_23
AP24 — IO_L19N_23
AL23 — IO_L15N_22
AL20 — IO_L11P_SRCC_22
AL19 — IO_L1N_22
AF19 — IO_L8P_SRCC_22

BANK 22

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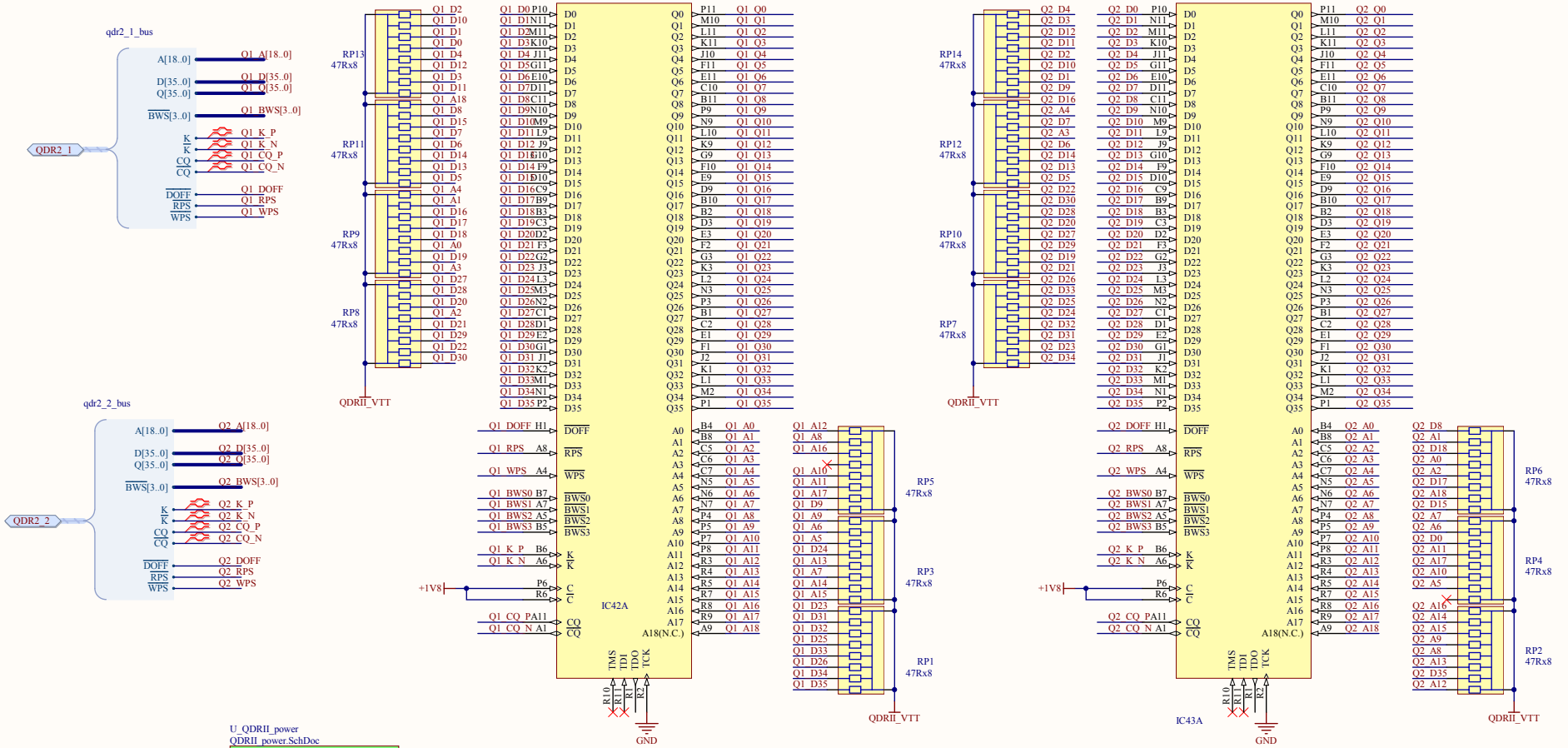
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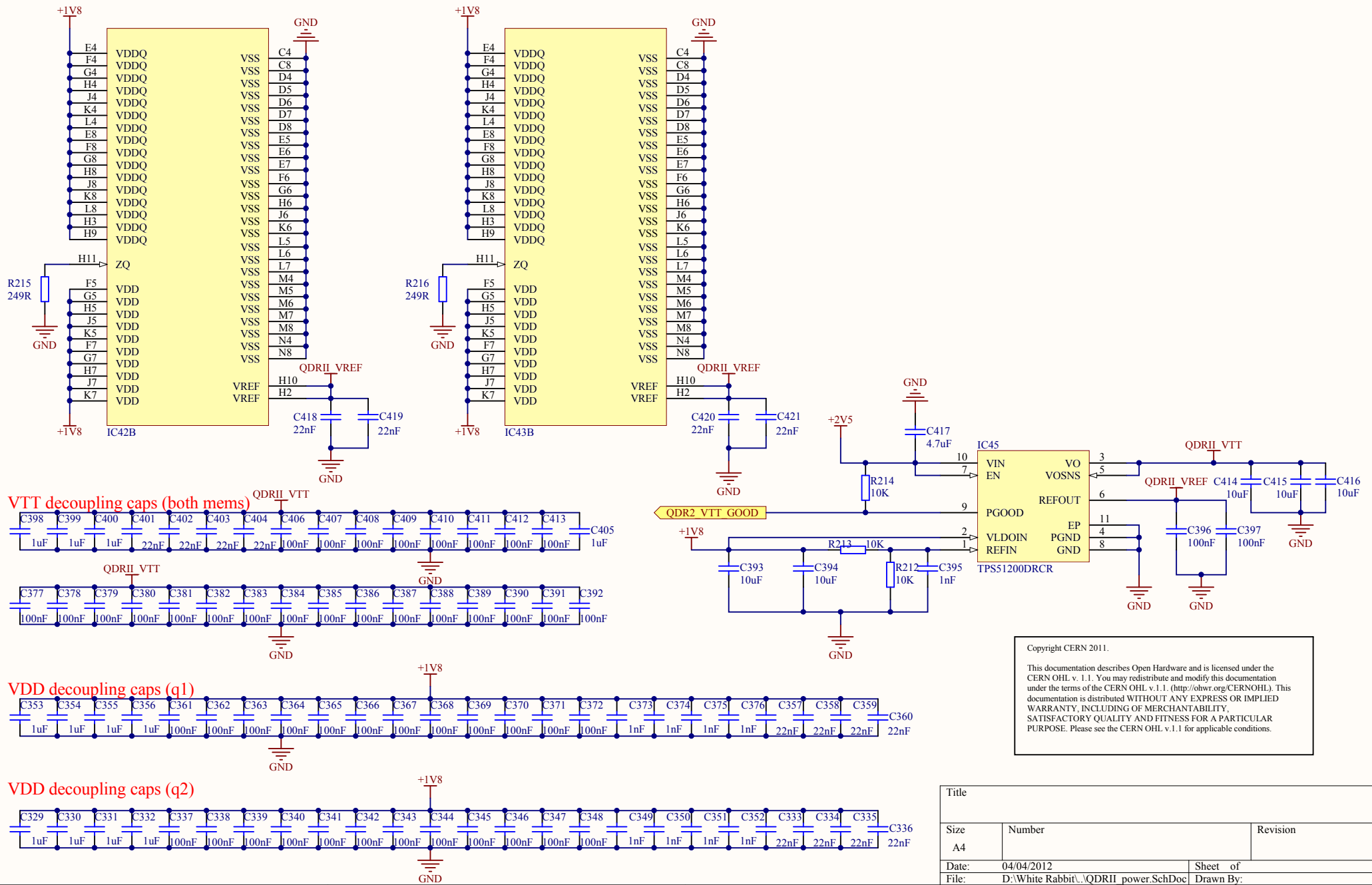
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Termination resistors must be placed close to CY7C1314CV18-250BZC.

Termination resistors must be placed close to CY7C1314CV18-250BZC.



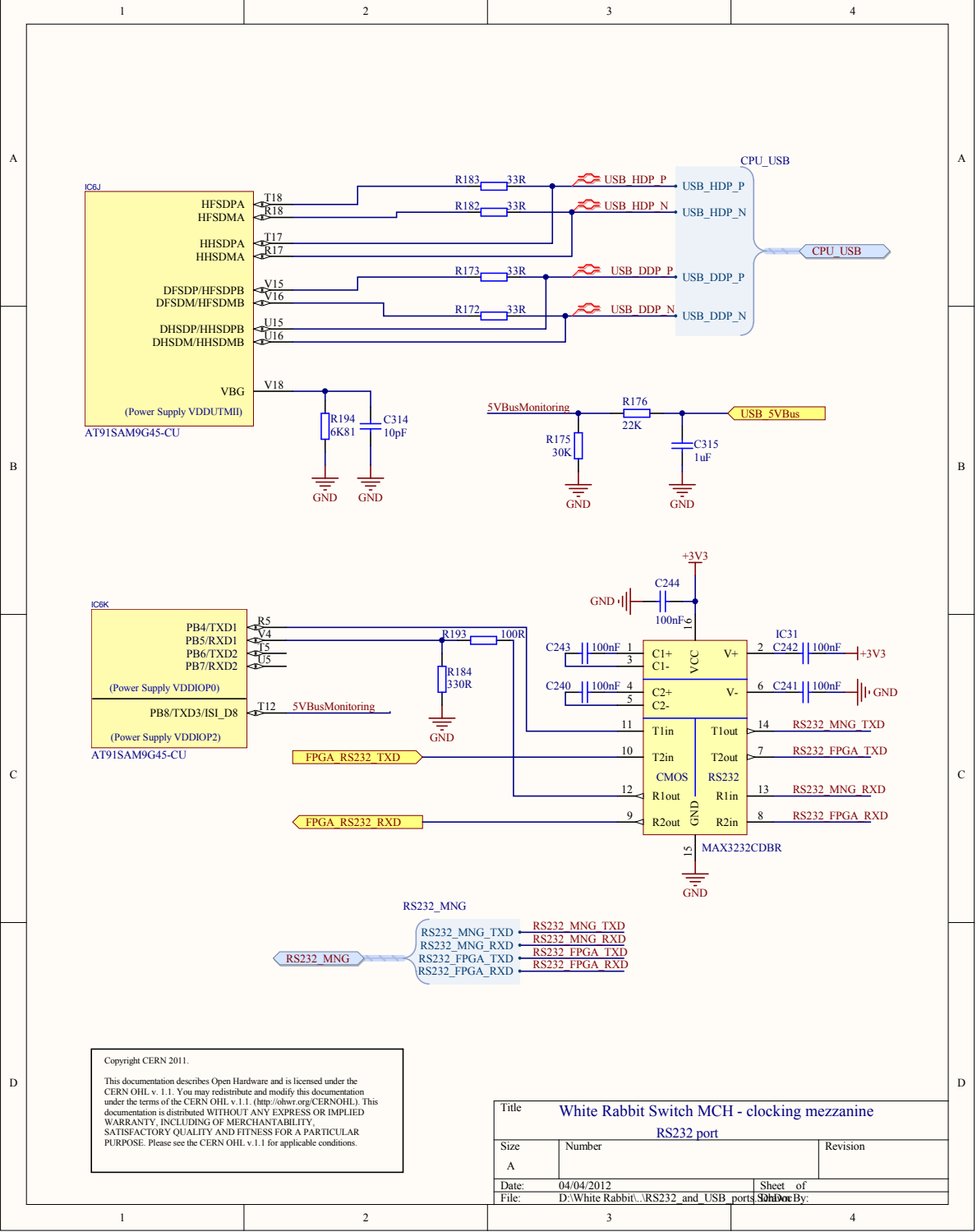
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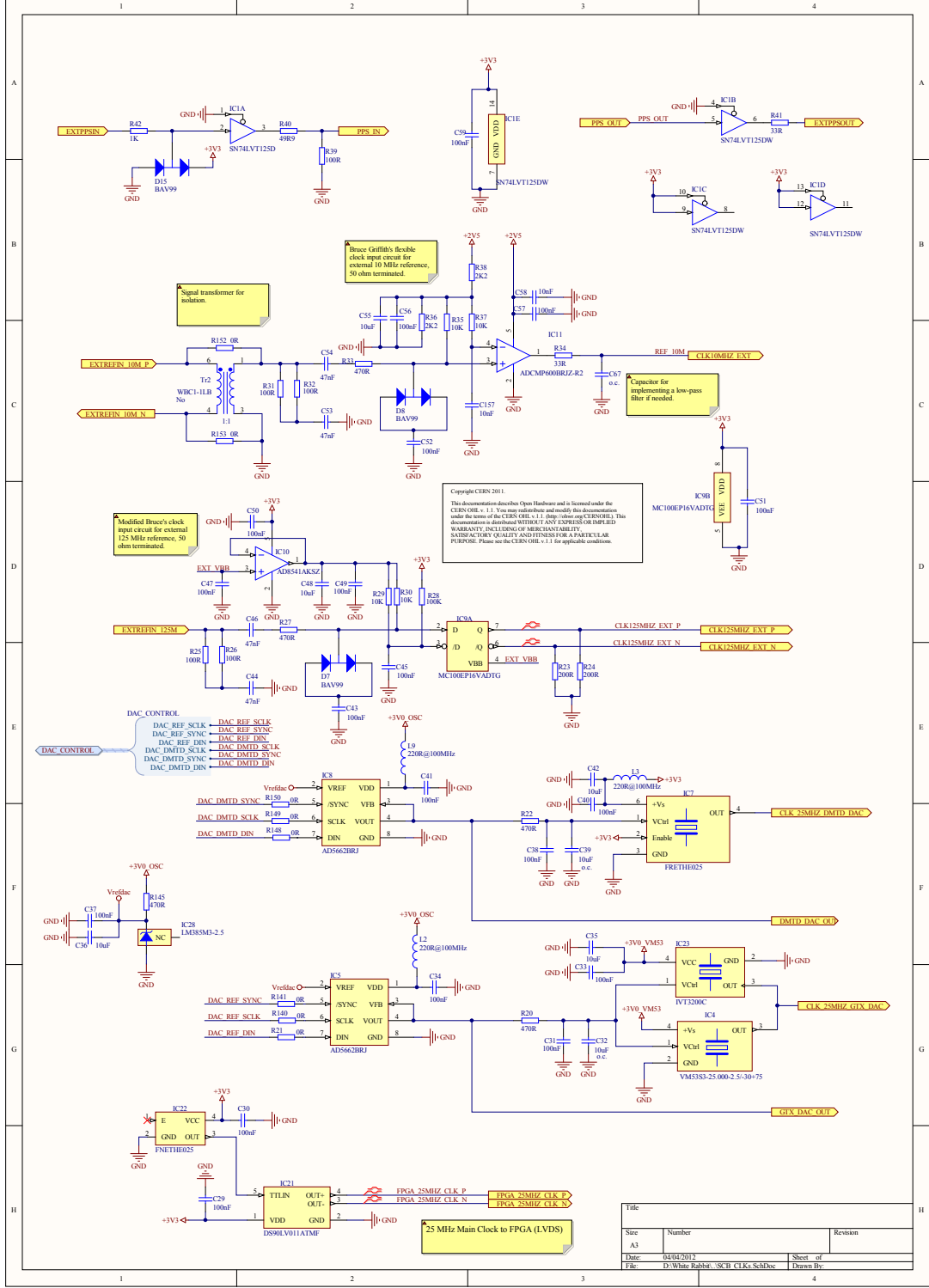


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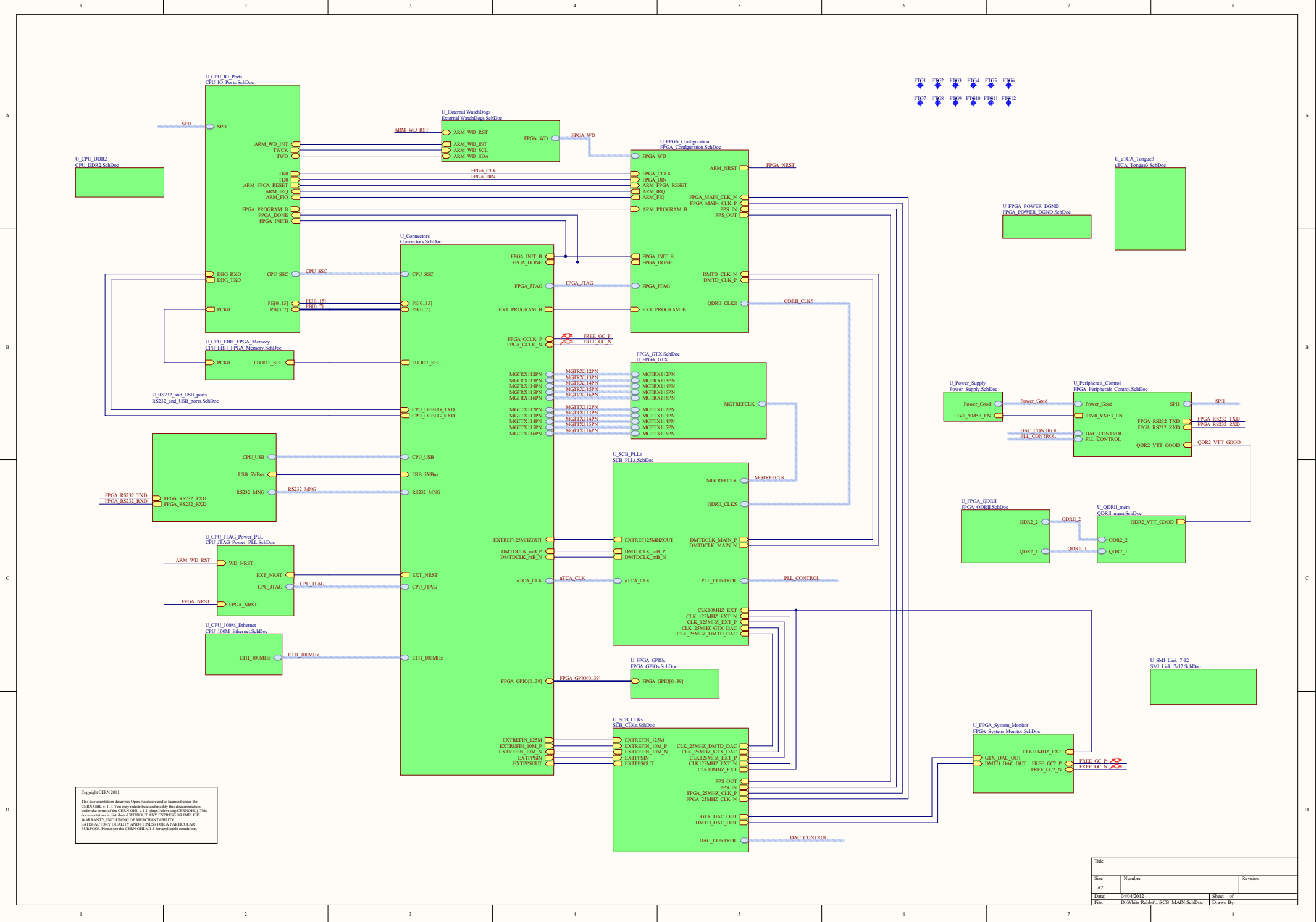
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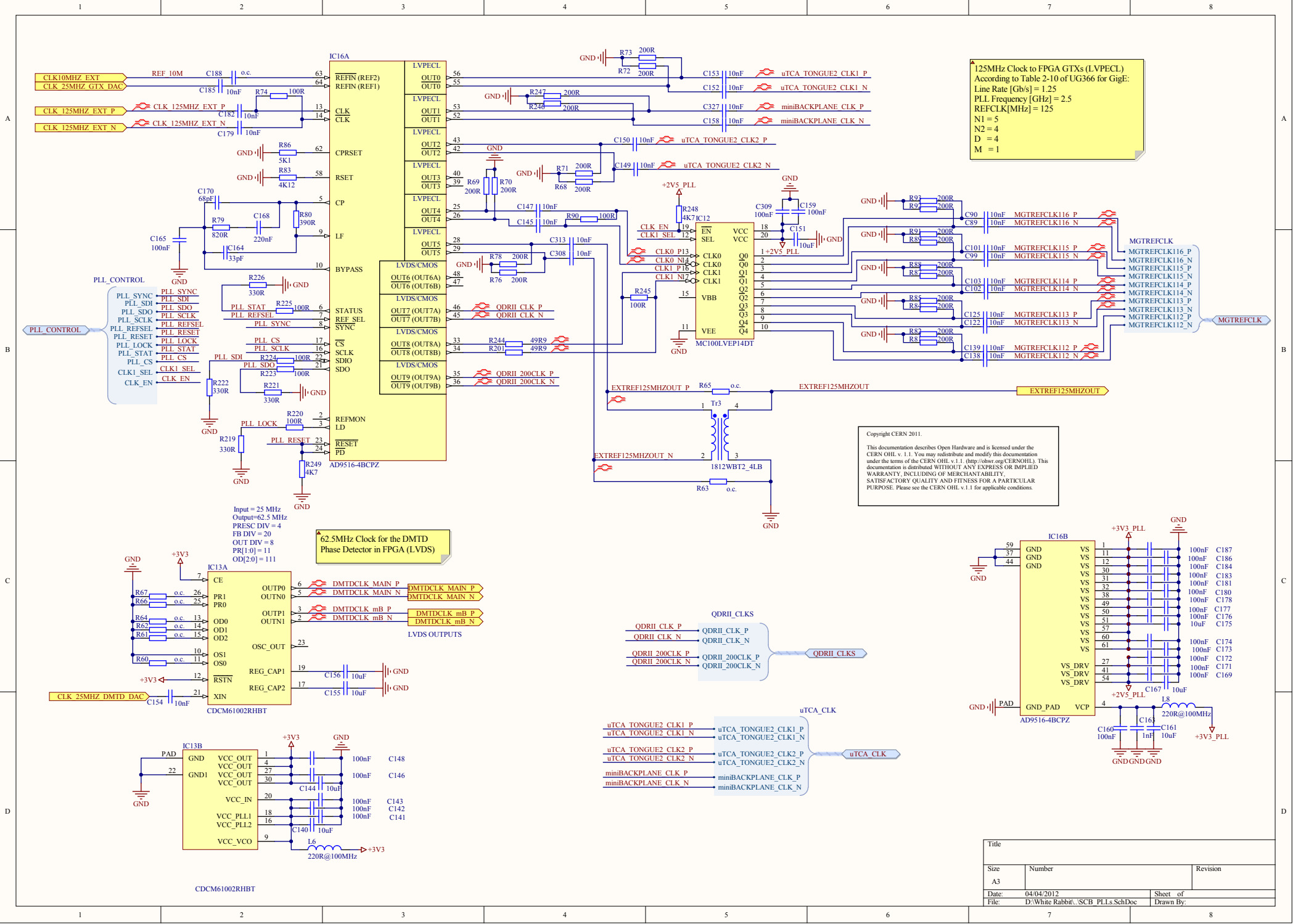
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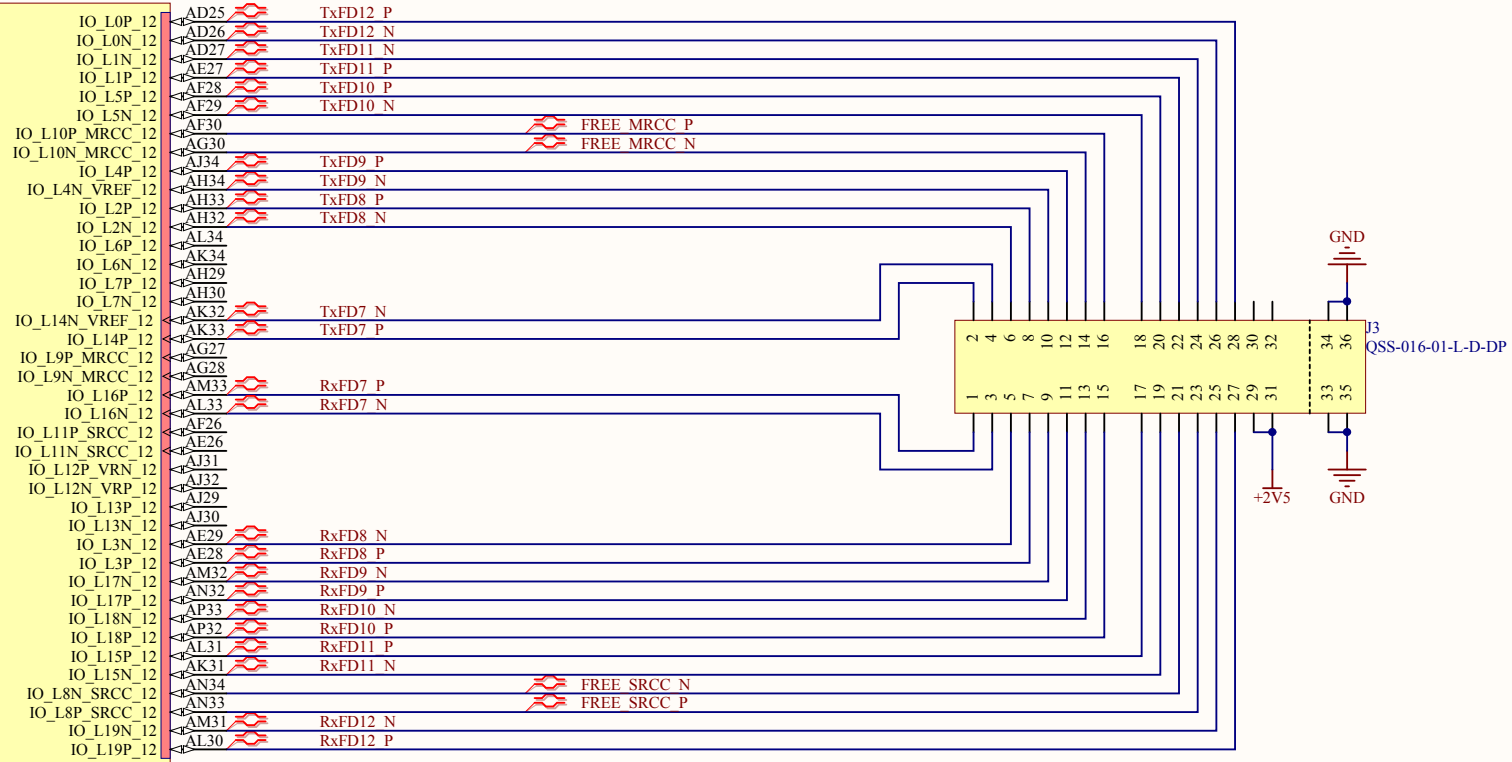
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Site	Number	Revision
A3		
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Title		
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